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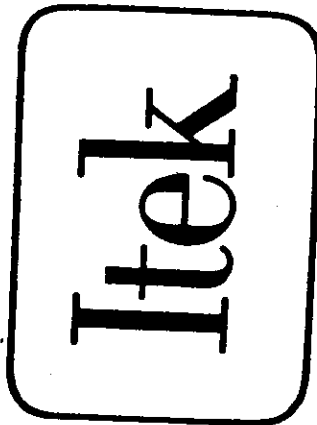
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# SYSTEM HISTORY REPORT

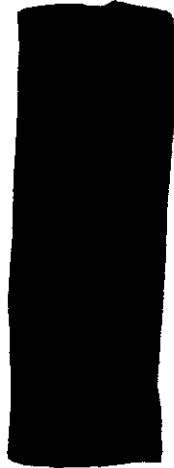


**CORPORATION**  
PALO ALTO DIVISION

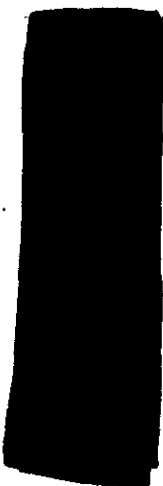
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In Accordance with E. O. 12958

on NOV 26 1997



DATE March 1, 1963  
PREPARED BY [Redacted]  
APPROVED BY [Redacted]  
**AFG**



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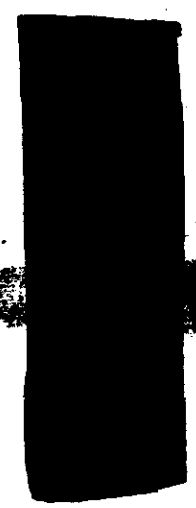
INTRODUCTION

PALO ALTO SPECIAL PROJECTS FLOW OF ROLES AND FUNCTIONS

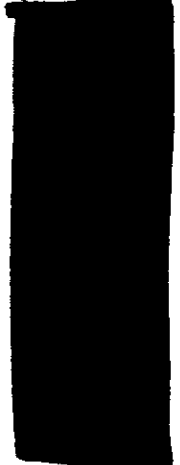
- Field Engineering - A/P Facility
- Field Engineering - VAFB
- System Engineering
- Support Engineering

SYSTEMS TESTS AND OBJECTIVES

SPECIFIC SYSTEMS RECORDS AND MILESTONES (M-1 through M-22)

- Pre-Flight Tests and Analyses
  - Modifications
  - Instrumentation
  - Post-Flight Analyses and Summary
- 

CONFIDENTIAL




This document represents the complete history of the Corona/M Program, series M-1 through M-22. It shows chronologically and graphically the development, operation, and analyses of the system from the time it is received at the A/P facility to the completion of the operation.

Data contained herein is extracted from daily operation books maintained by Field Engineering, Support and System Engineering, and the records of the Associate Contractor.

This record will become a permanent, historical document for the archives of the sponsor and the Contractor. It will serve as an aid in evaluating tests and operations to satisfy immediate contractual requirements and objectives and will provide a study in advancing the state-of-the-art for future program planning.

Distribution will be limited to the sponsor, Palo Alto Division Special Projects and the Special Projects Division of the Itek Corporate Offices.

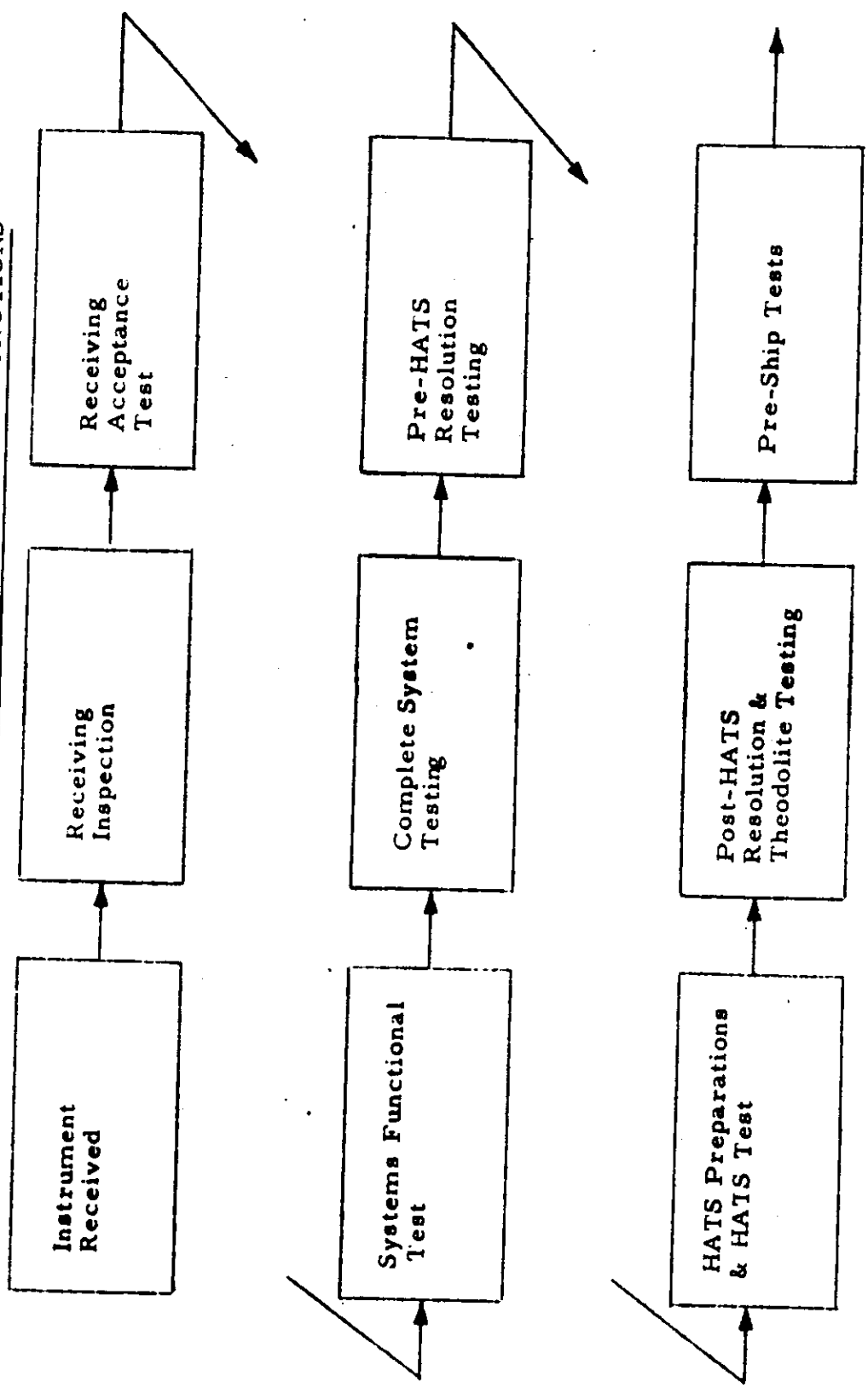


## INTRODUCTION

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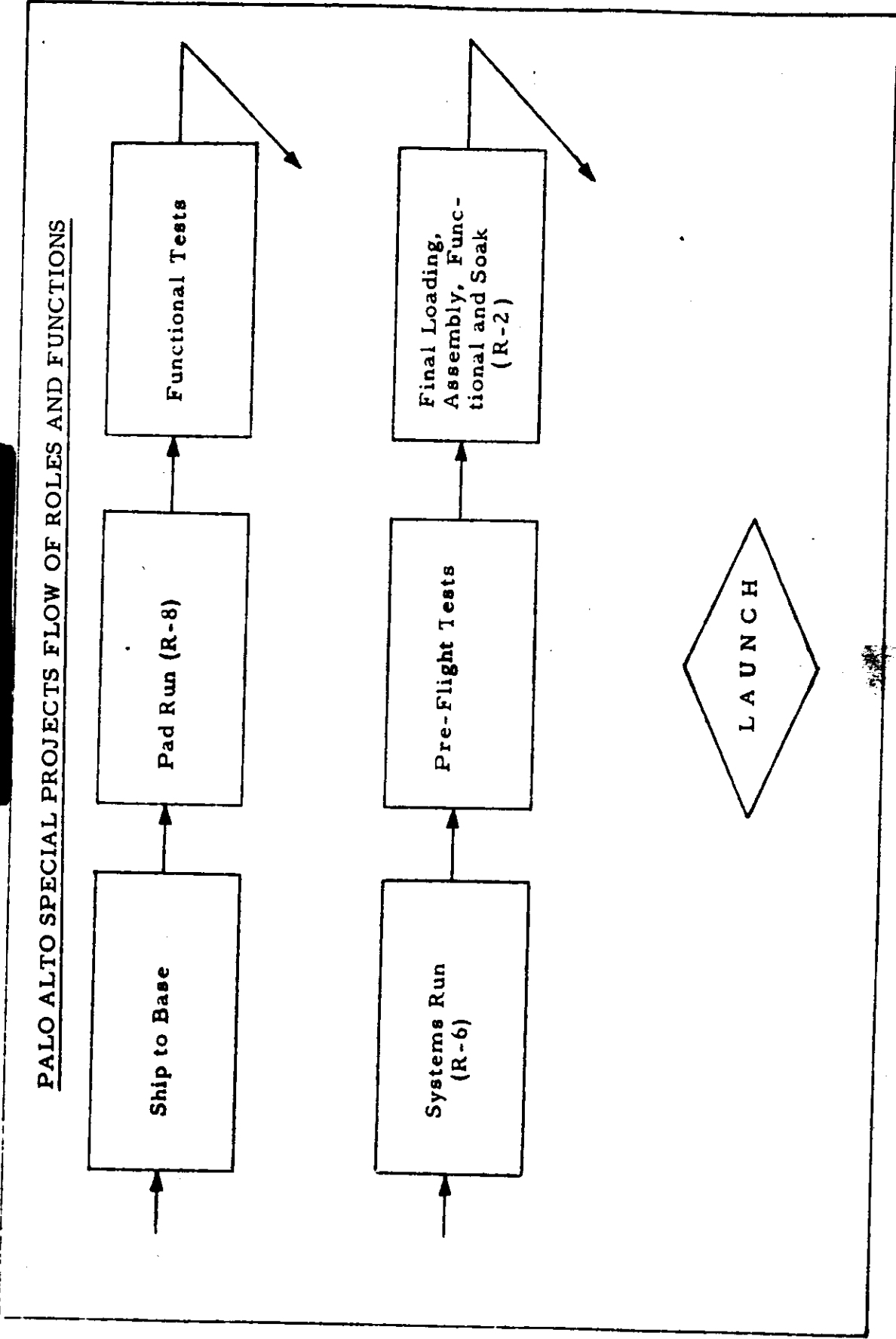
PALO ALTO SPECIAL PROJECTS FLOW OF ROLES AND FUNCTIONS



FIELD ENGINEERING - A/P FACILITY

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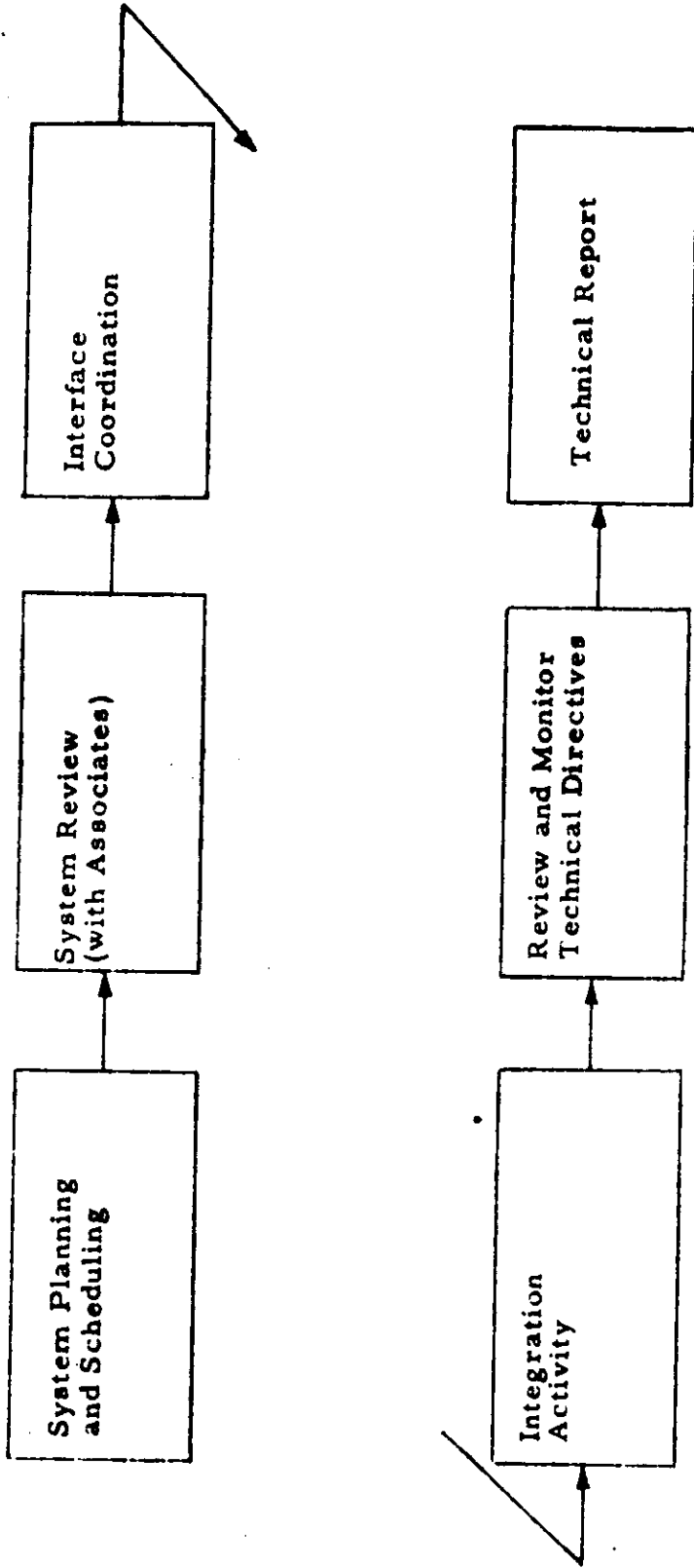
FIELD ENGINEERING - VAFB



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PALO ALTO SPECIAL PROJECTS FLOW OF ROLES AND FUNCTIONS

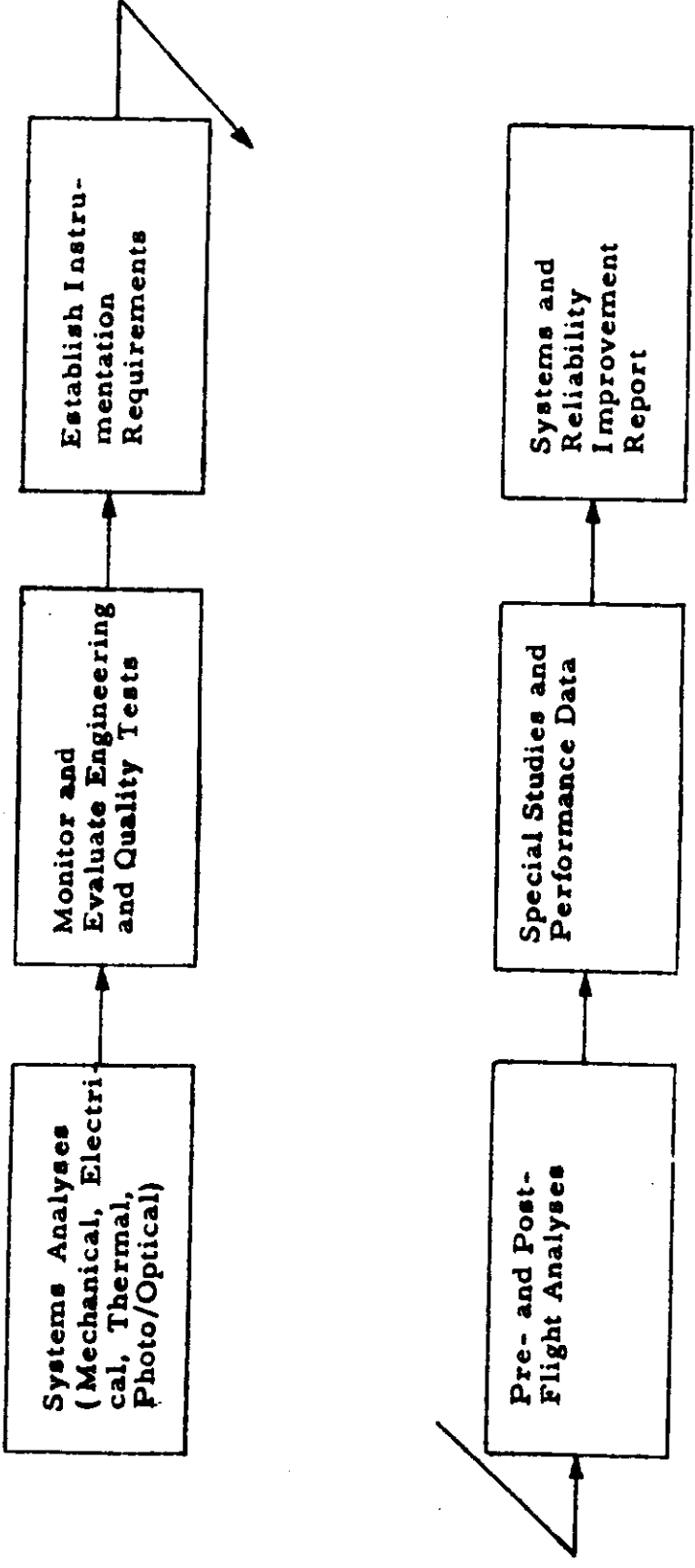


**SYSTEM ENGINEERING**

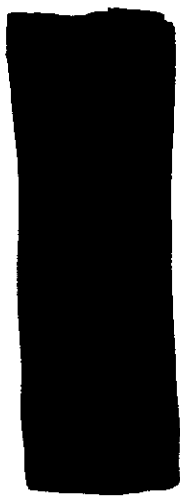
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PALO ALTO SPECIAL PROJECTS FLOW OF ROLES AND FUNCTIONS



SUPPORT ENGINEERING



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SYSTEMS TESTS AND OBJECTIVES (continued)

Post-HATS Test

After completing normally a four-day simulated orbit operation the system is returned to the dynamic resolution testing facility and the same type of optical performance test is made as in the Pre-HATS optical performance test.

Pre-Ship Test

Confidence runs are executed on the total system prior to preparing it for transportation to the launch site. A total check-off is made from the acceptance procedure and an acceptance certificate is acknowledged by official representatives of the associate contractors.

Pre-Pad Test

A complete functional test is made after receipt of the system at the launch site and an evaluation completed on its performance.

Pad Run

The total system is tested mechanically and electrically after integration with the booster vehicle.

Pre-Flight Test

A final confidence test is made while in its mated condition. Several cycles of film are transported to assure satisfactory operation.



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SYSTEMS PREPARATION OBJECTIVES

Receiving Inspection

On receipt of the camera system, the instruments are uncrated and a thorough quality assurance inspection is made. At this time, all shipping damages are recorded and corrected.

Acceptance Test

The camera system is operated in accord with acceptance test specifications and procedures. During this operational phase simulated cycling rates are imposed and the results are recorded. The system is completely and favorably operational prior to its integration into the structures.

System Functional Test

The camera system is put through a complete electrical checkout. All of the monitoring events are recorded and evaluated. If any of these events are out of specification these must be corrected prior to systems integration.

Complete Functional System Test

After integrating the camera system into the structural subsystem another series of electrical and mechanical operational checks are made. All of these operational events are recorded and evaluated. Compliance to the System Acceptance Test Procedures must be adhered to.

Pre-HATS Test

The total system is placed on the dynamic resolution test and a prescribed series of optical performance checks are made. The results of these performance tests which are made on operational film are evaluated and the figure of merit of the camera system is established.

HATS Preparation and HATS Test

The total system is prepared for environmental testing by subjecting the system through a series of various cycle speeds. During this time, the events are recorded. After monitoring and evaluating their accuracies, the system is then subjected to vibration and high altitude thermo simulation tests.

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**STUNTI**

**SYSTEM HISTORY REPORT**

**SYSTEM UNDER TEST**



**CORPORATION**

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PRE-FLIGHT TESTS AND ANALYSES

Date	Test	Result	Corrective Action	Remarks
1961 12/20	Receiving Inspection			
12/26	Receiving/Acceptance Test	Main Motor #1 Plug faulty	Repaired	#1 - 117# - #2 - 110.5#
1962 1/2	Systems Functional	Double Interrogate	Lamp Sync Unit modified	
1/29	Complete System Test	Satisfactory		Mated
1/29	Pre-HATS	Good		
1/29	HATS Preparations & Test	Lamp problem	Lamp Sync Unit modification	Post-HATS installed new LSU boards, installed shuttle guides
2/11	Post-HATS Resolution & Theodolite Testing	faulty	#1 - Ran resolution-replaced frequency lamp amplifier replaced shafts & pins in #70; installed LSU moded boards; replaced frequency lamp	Faults corrected
2/16	Pre-Ship	checked pins - OK Mis-timed	Torn down	OK
2/19	Pad Run	weak T/M electrical ground; problems mechanical bind in third unit	Corrected	

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Date	Test	Result	Corrective Action	Remarks
1962 2/24	Pre-Flight	Steller Calibration - cannot hand wind - shutter not good	Removed cassette idler wipers	Trimmed lamps

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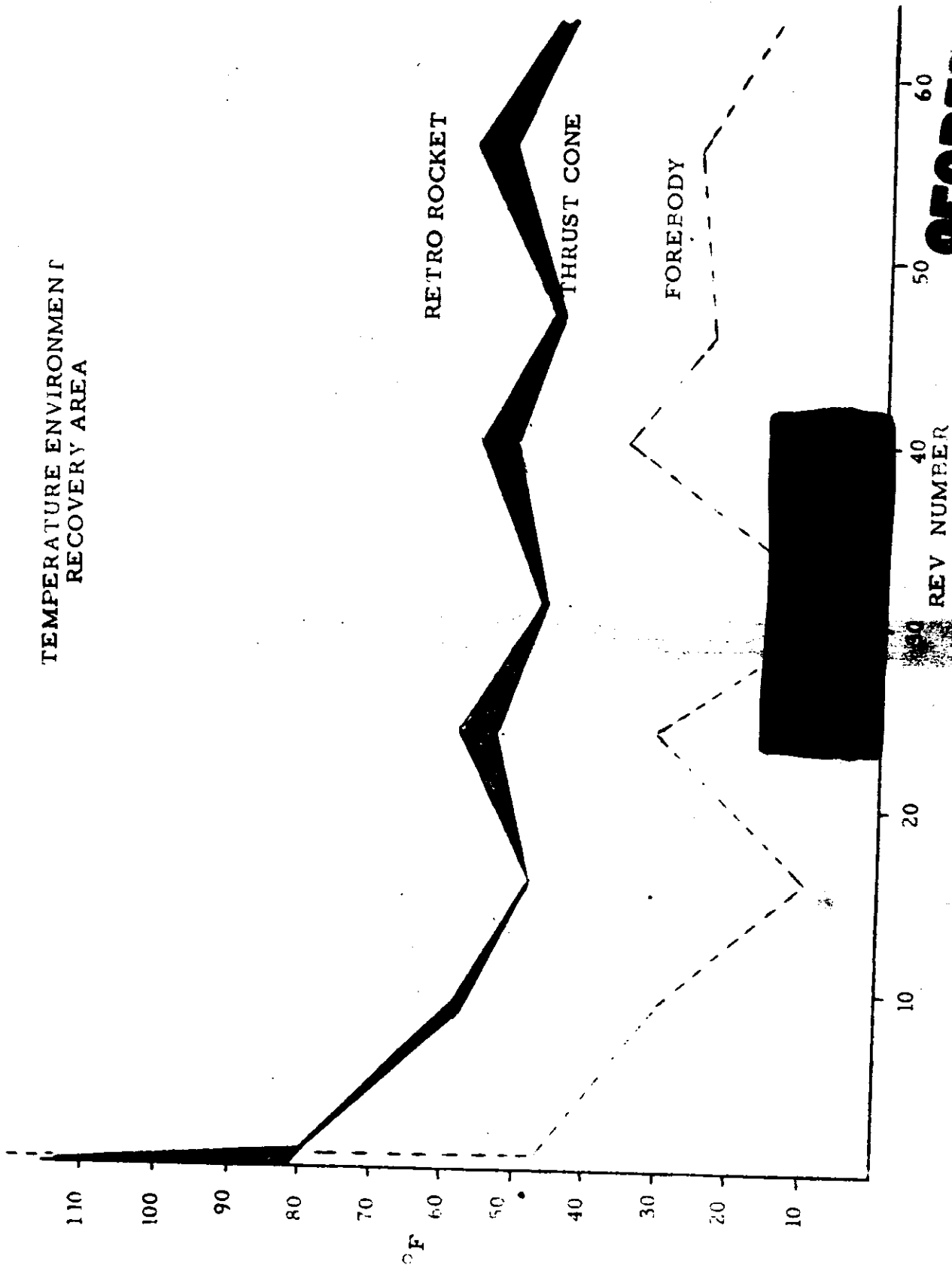
Engineering Order	Description	Remarks
07317	<p>Modified magnetic amplifier assembly</p> <p>Added + 28V DC unreg for magnetic amplifier circuit</p> <p>Added wires for cassette anti-backup</p> <p>Changed #3 Programmer to unreg</p> <p>Added cassette idler guide</p> <p>Removed cassette idler wipers</p> <p>Shortened #3 program to 7 pulses</p>	<p>These modifications made at A/P facility</p>
07318		
07320		
07322		
07333		
07343		
07553		



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CM # 1

TEMPERATURE ENVIRONMENT  
RECOVERY AREA



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REV NUMBER

POST FLIGHT SYSTEM DATA

System Number CM-1 Payload Transferred 75.1 lbs.  
Instrument Numbers 70/71 Film Type SO132  
Recovery System No. 581 Filter Type WR-21  
Vehicle Number 1123 Slit Width .200  
Thor Number 241 S J Number 74  
Launch Date 2-27-62 Recovery Date 3-3-62

SUMMARY OF SYSTEM EVENTS

Successful orbit.  
Air recovery on 65th revolution.  
Ablative shield recovered intact.  
Instrument operation satisfactory.  
Framing camera failed.  
Full spools of main payload recovered.

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**SYSTEM HISTORY REPORT**

**SYSTEM NUMBER *11-2***



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PRE-FLIGHT

Date	Test	Result	Corrective Action	Remarks
1962				
1/6	Receiving	Console Problem Double Pulse Interrogate	Correction continuing	#1 44105 - #2 44286
1/10	Acceptance	Interrogate Ground Loop in regulated and unregulated power	Lamp Sync Unit Modified Magnetic amplifier modified	none and double
1/27	System Functional		Shuttle modifications #40 shutter repaired	
1/31	Complete System Testing	Satisfactory	Lamp Sync Unit modification for lights	
2/12	Pre-HATS	Satisfactory	Lamp Synch Unit modification for lights	Delayed due vibration equipment
2/12	HATS Preparations & HATS	Satisfactory	Lamp Sync Modifications	
2/12	Field Flatener Test (Dr. A. check)	Double Pulsing Problems		
2/14	Post-HATS & Theodolite	Ran Dr. A. check Cassette Binding Shuttle Guides Modified	Reworked	Shipped to San Diego for centrifuge test
4/4	Pre-Ship Tests	Satisfactory	Replaced Motor #73	Lamp Sync Unit qualified
4/10	Pad Run	Burned out #3 (S. I.)		No #3 (S. I.)
4/14	Pre-Flight			No #3 (burn out)

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M-2

MODIFICATIONS

Engineering Order	Description	Remarks
07304	Added 3 fuses to capacitor circuit	
07306	Added T/M wiring	
07307	Added resistor	
07309	Reversed cassette T/M pots	
07313	Added jumper in #3 programmer	
07315	Added jumper per schematic	
07317	Modified magnetic amplifier assembly	
07318	Added + 28V DC unreg for magnetic amplifier	
07319	Added jumper in cycle counter circuit	
07320	Added wires for cassette anti-backup	
07321	Cassette motor changed to unreg	
07322	Changed #3 programmer to unreg	
07330	Separated #1 and #2 operate functions	
07333	Added cassette idler guide	
07552A	Changed functions to + 28V DC unreg	
07553	Shortened #3 program to 7 pulses	

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SUMMARY TEMPERATURE INSTRUMENTATION

CM# 2

INSTRUMENT NO. 2

Pass Number

Temp. Sensor	LAUNCH	1	2	7	9	15	22	25
8-33	82.7	90.5	90.7	91.3	91.6	93.8	93.0	90.5
7-35	80.7	96.8	101.7	101.9	102.5	105.0	104.8	101.5
6-42	84.8	93.2	92.5	90.3	91.9	93.8	93.0	92.6
5-44	84.0	90.0	91.3	94.7	95.3	98.7	98.0	96.6
4-53	86.6	88.2	105.3	103.6	104.8	107.7	105.6	105.3

FAIRING

1-43	out of band	-----	-----	-----	-----	-----	-----	-----
2-49	"	89.2	87.0	71.0	72.0	95.0	57.0	78.0
3-54	"	86.8	75.5	51.0	48.0	75.0	55.2	50.0
4-56	"	143.4	137.0	120.0	115.6	132.2	118.0	110.0
5-57	"	-----	-----	174.0	180.0	-----	180.0	164.0

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POST FLIGHT SYSTEM DATA

System Number	CM-2	Payload Transferred	45 lbs.
Instrument Number	72/73	Film Type	SO 132
Recovery System No.	584	Filter Type	WR-21
Vehicle Number	1124	Shit Width	.200
Thor Number	331	S. I. Number	None
Launch Date	4-17-62	Recovery Date	4-20-62

SUMMARY OF SYSTEM EVENTS

- Successful orbit.
- Air recovery on 33rd revolution.
- Instrument operation satisfactory.
- Framing camera was not flown.
- 60 Percent of payload on spools.



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# SYSTEM HISTORY REPORT

SYSTEM NUMBER 723



OFFICIAL FROM

DATE

PRE-PROGRAMMING TESTS AND ANALYSES

Date	Test	Result	Corrective Action	Remarks
1962				
1/27	Receiving	Satisfactory		#1 113# - #2 107.5#
1/27	Acceptance	Satisfactory		Installed Lamp Sync Unit (Modified type)
2/5	System Functional	(mated)	Changed lamp sync unit	#75 motor hot
2/5	Complete System		Replaced Main Motor on #75	
2/27	Pre-HATS Resolution	Satisfactory	Replaced geneva pins due to waivering	
2/27	HATS	Satisfactory	Replaced frequency lamps	Modified #3 Programmer
3/7	Post-HATS Resolution	Satisfactory		
4/10	Pre-Ship	Satisfactory as modified	Repaired stove damage #75	
4/15	Pre-Pad	Satisfactory	Replaced pins (74 bent)	
4/16	Pad Run	#2 Cassette didn't read out	Repaired #3 Programmer (Mechanical bind)	
4/25	Pre-Flight	Interference of #1 Cassette spool to cable	Replaced #3 Programmer 72-73 Cassette damaged	
			Replaced with 90/91	
			Repaired lamps in binaries	
			corrected	
			corrected	

Engineering Order	Description	Remarks
07304	Added 3 fuses to capacitor circuit	These modifications made at A/P facility
07306	Added T/M wiring	
07307	Added resistor	
07309	Reversed cassette T/M pots	
07313	Added jumper in #3 programmer	
07315	Added jumper per schematic	
07317	Modified magnetic amplifier assembly	
07318	Added + 28V DC unreg for magnetic amplifier	
07319	Added jumper in cycle counter circuit	
07320	Added wires for cassette anti-backup	
07321	Cassette motor changed to unreg	
07322	Changed #3 programmer to unreg	
07327B	Added #3 fuse protection	
07328	Added V/H transducer T/M	
07330	Separated #1 and #2 operate function	
07333	Added cassette idler guide	
07552A	Changed functions to + 28V DC unreg	
07553	Shortened #3 program to 7 pulses	

SUMMARY TEMPERATURE INSTRUMENTATION

CM# 3

INSTRUMENT NO. 1

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Temp. Sensor	LAUNCH	1	2	9	14	15	16	17	Pass Number
1-11	108.4	106.0	97.6	82.6	82.3	84.9	85.0	85.6	
13-22	68.9	85.9	85.8	74.9	78.3	81.0	80.7	82.2	
12-24	96.8	84.9	80.3	65.7	68.2	72.4	84.0	74.9	
11-27	107.0	88.5	85.8	72.8	76.8	80.7	80.7	80.8	
10-29	71.2	86.3	92.8	83.4	86.1	89.3	89.3	90.3	
9-30	74.9	85.5	91.9	74.2	78.8	83.1	83.5	83.9	
8-33	81.1	83.3	81.7	71.1	74.7	78.3	78.3	79.4	
7-35	68.7	85.1	91.2	84.0	85.5	89.0	89.2	90.3	
6-42	68.7	85.1	92.8	85.4	85.7	90.1	89.3	90.9	
5-44	78.0	82.6	82.2	74.9	76.2	80.7	80.7	82.2	
4-53	89.8	86.0	82.2	66.4	69.6	73.7	74.7	76.0	

INSTRUMENT NO. 2

2-38	118.0	107.4	---	---	90.2	91.3	91.6	---
13-22	60.0	74.2	---	---	82.1	83.1	82.0	---
12-24	65.8	78.3	---	---	81.0	84.9	85.5	---
11-27	70.4	86.6	---	---	92.4	93.8	95.2	---
10-29	66.3	82.6	---	---	86.7	88.0	89.9	---
9-30	65.0	69.6	---	---	62.3	63.8	63.8	---
8-33	65.0	75.4	---	---	74.4	76.2	76.7	---
7-35	76.7	103.7	---	---	120.2	123.4	123.0	---
6-42	66.6	76.3	---	---	75.8	75.8	76.0	---
5-44	63.8	70.5	---	---	73.7	74.5	74.8	---
4-53	62.7	78.3	---	---	80.7	83.3	83.3	---

FAIRING

1-43	out band	---	---	---	---	---	---	---
2-49	" "	65.6	---	---	61.2	67.0	66.0	---
3-54	" "	---	---	---	---	---	---	---
4-56	" "	113.3	---	---	---	---	---	---
5-57	" "	138.8	---	---	99.0	102.5	102.4	---
			---	---	122.8	128.5	128.0	---

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SUMMARY OF TEMPERATURE INSTRUMENTATION (Continued)

CM# 3

INSTRUMENT NO. 1

Temp. Sensor	25	31	40	47	56	63	64
--------------	----	----	----	----	----	----	----

1	84.5	84.0	83.1	82.6	81.8	83.0	81.6
13	79.2	80.6	78.6	77.0	76.0	76.7	75.8
12	71.2	71.2	71.0	67.8	68.9	68.6	67.5
11	76.0	80.0	76.0	76.0	73.5	77.0	75.4
10	85.5	89.3	86.4	85.5	83.9	85.6	84.4
9	80.3	81.2	79.2	77.6	77.2	77.6	76.0
8	77.6	77.7	77.8	74.0	76.0	73.9	73.7
7	88.0	88.3	85.9	85.7	86.4	85.6	84.4
6	90.0	90.0	90.0	86.8	86.7	86.2	86.3
5	81.2	80.6	80.7	77.6	78.9	77.0	76.5
4	73.0	73.0	72.0	69.7	70.4	69.7	68.5

INSTRUMENT NO. 2

2	90.3	92.4	89.8	90.6	89.3	91.6	91.2
13	80.6	81.0	80.3	79.4	78.3	79.0	77.0
12	79.8	83.0	79.2	79.4	77.4	79.8	77.2
11	87.0	92.8	87.0	91.3	84.8	90.2	86.3
10	84.3	86.3	84.4	85.0	81.8	84.5	82.7
9	64.2	61.9	63.8	61.2	62.8	61.1	60.2
8	76.0	75.4	76.0	73.7	75.6	73.7	73.2
7	123.8	124.3	126.4	124.7	126.9	126.7	124.0
6	76.6	74.9	76.2	72.7	74.6	73.9	74.1
5	75.7	73.7	76.0	73.3	75.2	72.7	71.3
4	81.2	81.2	80.5	79.7	78.7	80.0	76.7

FAIRING

1	Out band	-----	-----	-----	-----	-----	-----
2	54.0	66.8	54.0	65.4	55.2	69.0	62.0
3	Out band	-----	-----	-----	-----	-----	-----
4	83.0	99.0	82.0	94.0	79.2	94.0	89.3
5	74.0	121.0	82.0	103.9	74.7	111.0	99.0



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POFT FLIGHT SYSTEM DATA

System Number	CM-3	Payload Transferred	68.8 lbs.
Instrument Numbers	74/75	Film Type	SO 132
Recovery System No.	586	Filter Type	WR-21
Vehicle Number	1125	Slit Width	.200
Thor Number	333	S I Number	70
		(Frame)	
Launch Date	4-28-62	Recovery Date	Not Recovered.

SUMMARY OF SYSTEM EVENTS

Successful orbit.

Recovery attempted on 64th revolution failed - parachute did not eject.

Instrumentation Data revealed:

- a. 80 percent payload transferred to cassettes.
- b. Instruments apparently performed satisfactorily.

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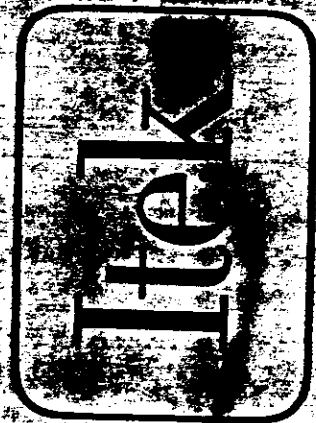
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# SYSTEM HISTORY REPORT

SYSTEM NUMBER ~~1234~~



COMMUNICATION  
PAO ALTO DIVISION

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PRE-FLIGHT

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Date	Test	Result	Corrective Action	Remarks
1962				
2/16	Receiving Inspection	Satisfactory		Lamp Sync Unit modified
2/28	Acceptance Test	Satisfactory		Sheared pin #77
3/7	System Drive (Elect)	Mated		Lamp Sync Unit modified
3/7	Complete System Test	Satisfactory		
3/16	Pre-HATS Resolution	Satisfactory		
3/17	HATS Preparations & HATS Test	Satisfactory		
3/21	Post-HATS Resolution and Theodolite Testing	Satisfactory		
5/13	Pre-Ship Tests	Satisfactory as modified	Cleaned HO's V/H Transducer Mods Replaced pins #77 Replaced burned Binaries	
5/21	Pad Run	Burned framing camera motor due fairing wiring		
5/26	Pre-Flight	Satisfactory		
		Satisfactory		



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[REDACTED]

REVISIONS

[REDACTED]

Engineering Order	Description	Remarks
07304	Added 3 fuses to capacitor circuit	These modifications made at A/P facility
07307	Added resistor	
07313	Added jumper in #3 programmer	
07314	Retrofitted frequency lamp amplifier	
07315	Added jumper per schematic	
07316	Tuned frequency lamp circuit	
07319	Added jumper in cycle counter circuit	
07320	Added wires for cassette anti-backup	
07321	Cassette motor changed to unreg	
07322	Changed #3 programmer to unreg	
07327B	Added #3 fuse protection	
07330	Separated #1 and #2 operate functions	
07332C	Added #3 unreg monitor	
07333	Added cassette idler guide	
07334C	Retrofitted V/H transducer	
07338	Reset H. O. aperature settings	
07341A	Anchored H. O. shutter screws	
07343	Removed cassette idler wipers	
07344	Enlarged cassette cam torque holes	

**MODIFICATIONS**

Engineering Order	Description	Remarks
07551 07552A 07553	Modified LSU terminal boards Changed functions to +28V DC unreg Shortened #3 program to 7 pulses	

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SUMMARY OF TEMPERATURE INSTRUMENTATION

CM# 4

INSTRUMENT NO. 1

Pass Number

Temp. Sensor	LAUNCH	1	9	16	25	31	40	49
11-22	92.7	77.8	63.2	65.0	63.0	61.8	61.8	60.0
7-29	71.0	84.3	80.1	81.0	79.5	79.5	77.5	77.4
2-34	66.5	77.2	72.3	71.2	70.9	68.9	69.1	68.8
5-49	76.0	79.8	71.0	69.1	69.0	67.8	68.9	66.6
1-35	85.0	82.6	61.9	61.7	59.4	59.4	59.4	58.7

INSTRUMENT NO. 2

2-41	89.0	77.2	56.0	56.0	54.8	55.0	53.8	52.9
4-47	62.0	71.0	67.0	69.0	64.5	64.1	64.1	62.0
6-51	66.5	73.6	65.2	64.0	63.0	63.0	63.4	63.7
2-55	64.2	73.6	72.3	72.3	71.0	71.0	71.1	69.7

FAIRING

3-32	-----	-----	-----	-----	-----	-----	-----	-----
1-39	-----	-----	-----	-----	-----	-----	-----	-----
4-43	-----	95.6	48.0	54.1	54.0	79.0	44.0	77.8

[REDACTED]

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[REDACTED]

POST FLIGHT SYSTEM DATA

System Number CM-4 Payload Transferred 79.2 lbs.  
Instrument Numbers 76/77 Film Type SO 132  
Recovery System No. 585 Filter Type WR-21  
Vehicle Number 1128 Slit Width .200  
Thor Number 336 S I Number 82  
(Frame)  
Launch Date 5-29-62 Recovery Date 6-1-62

SUMMARY OF SYSTEM EVENTS

- Successful orbit.
- Air recovery on 49th revolution.
- Instrument operation satisfactory.
- Framing camera did not function.
- Full transfer of payload from main instruments.

[REDACTED]

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# SYSTEM HISTORY REPORT

SYSTEM NUMBER 72-5



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DO NOT ALTER OR DESTROY

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M-5

PRE-FLIGHT ANALYSES

Date	Test	Result	Corrective Action	Remarks
1962	Receiving Inspection			Weight #1 115.5# #2 108.5#
2/28	Acceptance Test	V/H Programmer Intermittent	Replaced	Lamp Sync Unit Modified
3/14	System Functional Test	Grease deposits on HO's		Instrument #3 Programmer Modified
3/28	Complete System Test	Satisfactory		Used break-out for ohm checks
3/28	Pre-HATS Resolution	mated Inspect Geneva	Replaced pins	LSU modification
4/1	HATS Preparations & HATS Test	Collimation certification		Replaced pins
4/2	Post-HATS Resolution & Theodolite Testing	Frequency lamp under rails on #78 at times during HATS		Removed, repaired #40
4/18	Pre-Ship Tests	Horizon Optical Shutter defective	repaired	Agena compatability all lamps satisfactory
5/20	Pre-Pad Check	MM Tach #79 defective Faulty #3 T/M Rubber cam, off Flattener Roller	replaced	V/H Programmer for Zener modified Ran'Dr. A" Test



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PRE-FLIGHT TESTS AND ANALYSES



Date	Test	Result	Corrective Action	Remarks
1962	Pad Run	Satisfactory		
5/26	Pre-Flight Tests	Missing Fiducials on #78	flown without removed filters in horizon optics	
5/28				



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M-5

Engineering Order	Description	Remarks
07304	Added 3 fuses to capacitor circuit	These modifications made at A/P facility
07307	Added resistor	
07313	Added jumper in #3 programmer	
07315	Added jumper per schematic	
07316	Tuned frequency lamp circuit	
07319	Added jumper in cycle counter circuit	
07320	Added wires for cassette anti-backup	
07321	Cassette motor changed to unreg	
07322	Changed #3 programmer to unreg	
07327B	Added #3 fuse protection	
07330	Separated #1 and #2 operate functions	
07332C	Added #3 unreg monitor	
07333	Added cassette idler guide	
07334C	Retrofited V/H transducer	
07338	Removed epoxy from H. O. settings	
07342	Anchored H. O. shutter screws	
07343	Removed cassette idler wipers	
07551	Modified LSU terminal boards	

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M-5 (continued)



DESCRIPTIONS

Engineering Order	Description	Remarks
07552A 07553	Changed functions to + 28V DC unreg Shortened #3 program to 7 pulses	

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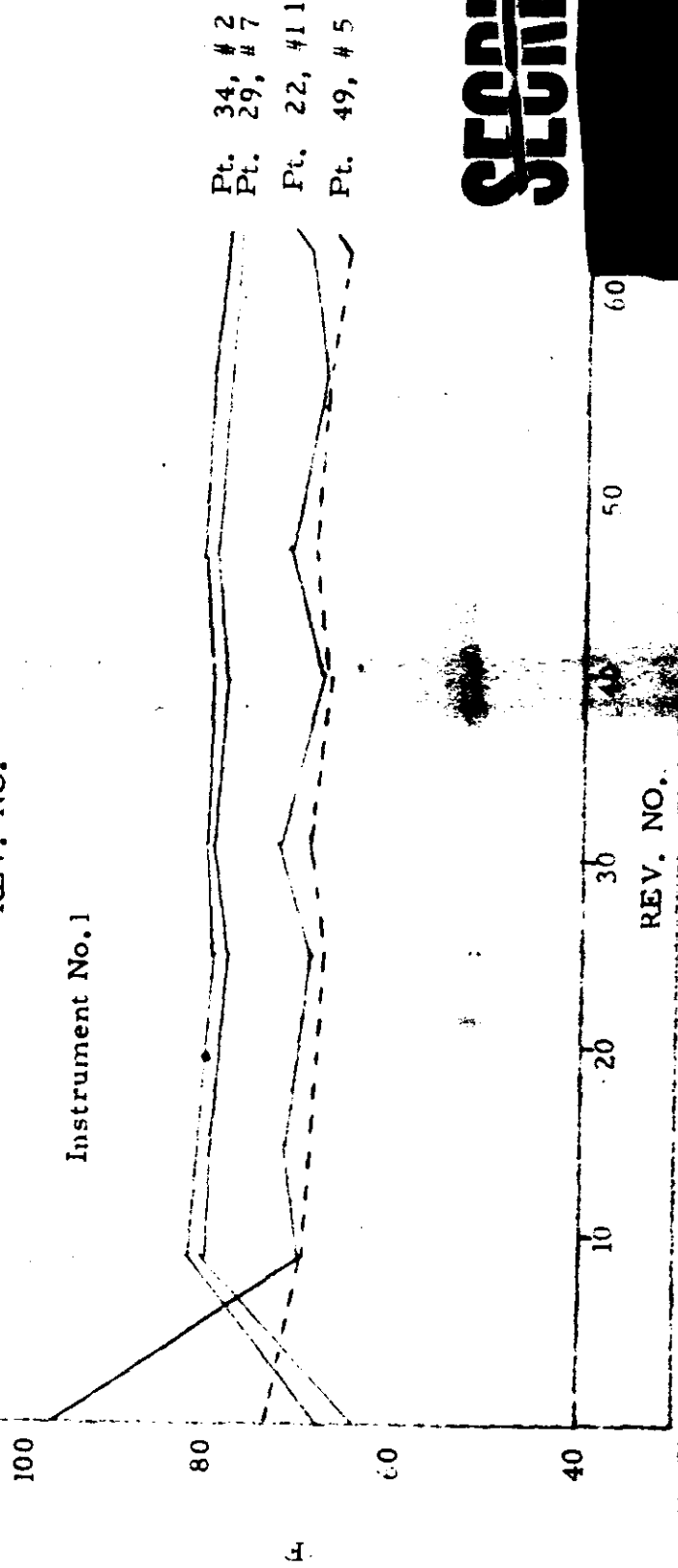
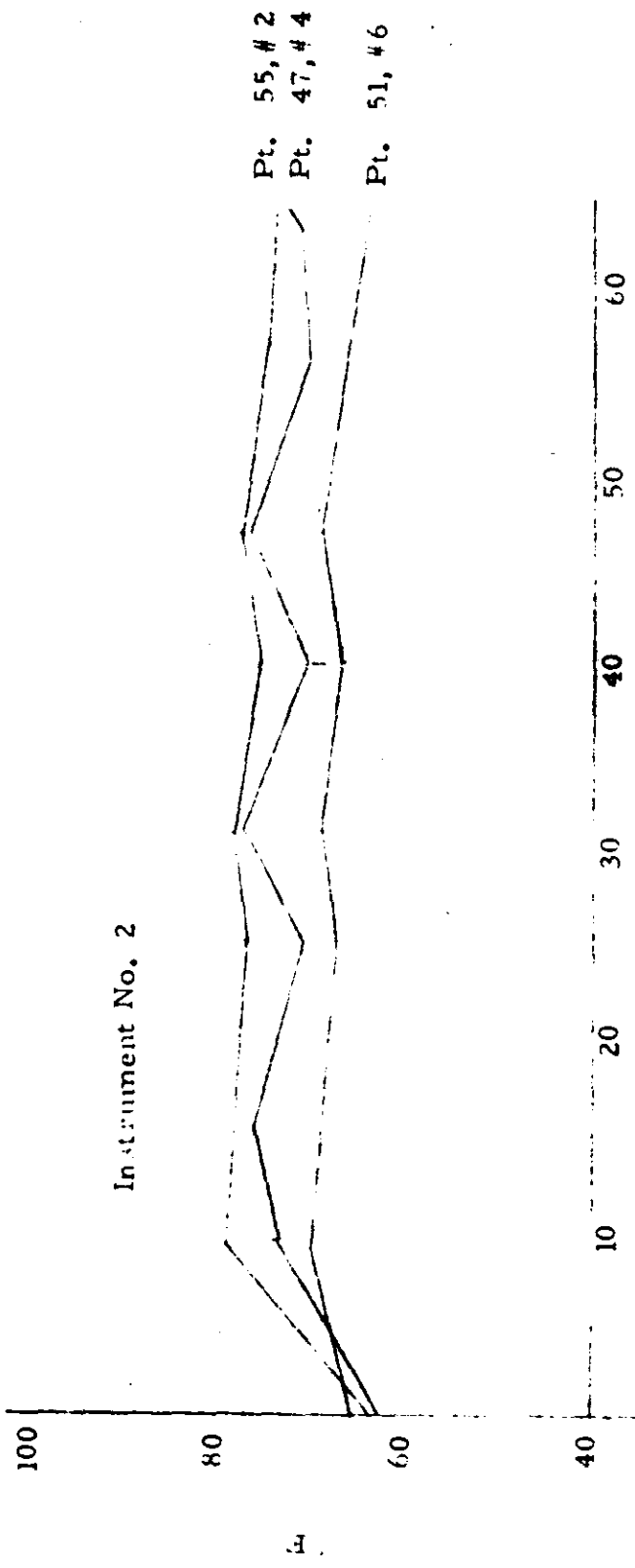
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CM# 5

BY \_\_\_\_\_ DATE \_\_\_\_\_ SUBJECT \_\_\_\_\_  
CHKD. BY \_\_\_\_\_ DATE \_\_\_\_\_

SHEET NO. \_\_\_\_\_ OF \_\_\_\_\_  
JOB NO. \_\_\_\_\_



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POST FLIGHT SYSTEM DATA

System Number CM-5 Payload Transferred 81.1 lbs.  
Instrument Numbers 78/79 Film Type SO 132  
Recovery System No. 583 Filter Type WR-21  
Vehicle Number 1127 Slit Width .200  
Thor Number 335 S.I. Number 76  
(Frame)  
Launch Date 6-1-62 Recovery Date Not recovered.

SUMMARY OF SYSTEM EVENTS

Successful orbit.

Air recovery attempted on 4th day - chute was ripped and capsule sank.

Telemetry data indicated:

Instrument operation satisfactory.  
No data available on frame camera.  
All payload was transferred to cassettes.

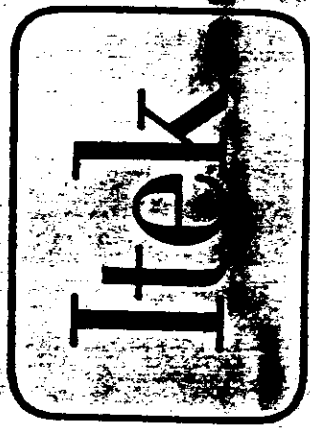


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# SYSTEM HISTORY REPORT

SYSTEM NUMBER *M-6*



CORPORATION  
PALO ALTO DIVISION

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PRE-FLIGHT

Date	Test	Result	Corrective Action	Remarks
1962	Receiving Inspection			
3/22	Acceptance Test		replaced pins (taper)	Weight #80 - 114.5#
3/31			replaced pins (taper)	#81 - 109.5#
3/31	System Functional Test	Electrical - Satisfactory	replaced bad fiducial	
4/2	Complete System Testing	mated	repaired #3 stepping switch (hanging up)	
			repaired #3 stepping switch (hanging up)	
			replaced bind brake #80	
4/20	Pre-HATS Resolution		#3 programmer modified	
4/20	HATS Preparations & HATS Test	Framing Camera 76 burned motor	Adjusted #81 cycle rates	Special Test on transducer
4/25	Post-HATS Test	Satisfactory	repaired lamps	
5/25	Pre-Ship Tests	Bad pin in #81	#3 Programmer modified	
			V/H Transducer modified	
5/28	Pre-Pad checkout	Satisfactory	Repaired shutter (HO) #81	
6/20	Pre-Flight checkout	Satisfactory	repaired damage to cassette idler damaged during balance	No filters on slave

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M-6

MODIFICATIONS

Engineering Order	Description	Remarks
07305	Machined star-wheel coupling	These modifications made at A/P facility
07307	Added resistor	
07313	Added jumper in #3 programmer	
07315	Added jumper per schematic	
07316	Tuned frequency lamp circuit	
07319	Added jumper in cycle counter circuit	
07332	Changed #3 programmer to unreg	
07327B	Added #3 fuse protection	
07329	Added + 28V DC redundancy	
07332C	Added #3 unreg monitor	
07333	Added cassette idler guide	
07334C	Retrofited V/H transducer	
07339	Removed epoxy from H. O. settings	
07342	Anchored H. O. shutter screws	
07343	Removed cassette idler wipers	
07344	Enlarged cassette cam torque holes	
07553	Shortened #3 program to 7 pulses	

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SUMMARY

INSTRUMENTATION

CM# 6

INSTRUMENT NO. 1

Pass Number

Temp. Sensor	LAUNCH	9	16	25	32	41	48
11 *	78.2	57.5	57.3	57.3	57.3	57.3	57.3
7	58.6	72.8	72.5	71.0	72.5	72.5	71.2
2	63.2	74.1	72.5	72.5	71.6	73.5	71.1
5	73.2	69.6	69.0	67.8	67.8	68.5	67.0

INSTRUMENT NO. 2

11	71.4	75.1	82.0	73.5	76.0	72.5	79.5
6	68.7	76.0	74.0	75.0	73.5	74.0	73.5
2	61.8	76.0	74.0	75.0	73.5	74.0	73.5

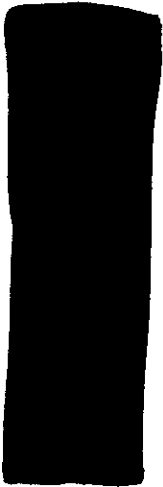
\* FAIRING

3	-----	27.5	48.0	25.8	49.0	32.0	48.0
1	-----	-----	-----	-----	-----	-----	-----
4	-----	55.8	87.0	52.8	84.0	50.8	79.5

\* Note: Temp. Sensor No. 11, all readings should be increased 14 degrees fahrenheit based on ground test data.

Note: Accuracy of temperatures to ± 5.7 degrees fahrenheit.

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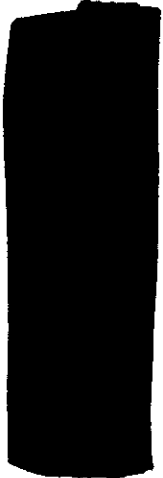


POST FLIGHT SYSTEM DATA

System Number	CM-6	Payload Transferred	80.3 lbs.
Instrument Numbers	80/81	Film Type	SO 132
Recovery System No.	591	Filter Type	WR-21
Vehicle Number	1129	Slit Width	.200
Thor Number	339	S.I. Number (Frame)	88
Launch Date	6-22-62	Recovery Date	6-25-62

SUMMARY OF SYSTEM EVENTS

- Successful orbit.
- Air recovery on 50th revolution.
- Instrument operation satisfactory.
- Frame camera operation satisfactory.
- Full spools of payload recovered.



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**SYSTEM HISTORY REPORT**

SYSTEM NUMBER *34-7*



**CORPORATION**  
PALO ALTO DIVISION

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PRE-

[REDACTED]

M-7

Date	Test	Result	Corrective Action	Remarks
1962	Receiving Inspection		Pins changed #84	Weight #1 114.5# #2 109.5#
4/4	Receiving Acceptance Test	Satisfactory	Pin changed #85	
4/6	System Functional Test	Mated	Repaired V/H Programmer Reworked HO's	
5/4	Complete System Test	Satisfactory	Modified V/H Transducer Adjusted cycle rates	Returned to HATS - OK
5/27	Pre-HATS Resolution	Satisfactory	Recommended: Sheared Geneva pins of #2. Cassette sensor arm pot open. Pins replaced. Replaced sheared pin in output metering roller	
5/29	HATS Preparations & HATS Test	Corrections required #3 full cassette battered by main spools. Bent pin in mating plug had given slow command before HATS test. #3 unit motor burn-out. Pins broken in #84		
6/4	Post-HATS Resolution & Theodolite Testing	Satisfactory		
6/19	Pre-Ship Tests	Satisfactory		
6/20	Pre-Pad Tests	Satisfactory		Replaced pins in #85
6/21	Pad Run	Satisfactory		
6/21	Pre-Flight Test	Satisfactory		

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**SECRET**

M-7

Engineering  
Order

Description

Remarks

07307

Added resistor

07313

Added jumper in #3 programmer

07315

Added jumper per schematic

07316

Tuned frequency lamp circuit

07327B

Added #3 fuse protection

07329

Added + 28V DC redundancy

07331

Added vinyl sleeves to data lamp leads

07332C

Added #3 unreg monitor

07333

Added cassette idler guide

07334C

Retrofitted V/H transducer

07339

Removed epoxy from H. O. settings

07340

Temporarily stowed H. O. leads

07341A

Anchored H. O. shutter screws

07343

Removed cassette idler wipers

07346

Replaced star-wheel pins

07553

Shortened #3 program to 7 pulses

These modifications made at  
A/P facility

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POST FLIGHT SYSTEM DATA

System Number	CM-7	Payload Transferred	80 Lbs.
Instrument Numbers	84/85	Film Type	SO 132
Recovery System No.	592	Filter Type	WR-21
Vehicle Number	1151	Slit Width	.200
Thor Number	340	S. I. Number (Frame)	80
Launch Date	6-28-62	Recovery Date	7-1-62

SUMMARY OF SYSTEM EVENTS

Successful orbit.

Air recovery on 63rd revolution.

Instrument operation satisfactory.

Frame camera did not function.

Full spools of main payload recovered.



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**SUMMARY**

**DOCUMENTATION**

CM# 7

INSTRUMENT NO. 1

Pass Number

Temp. Sensor	9	15	25	31	40	46	55
11	78.1	78.5	78.3	78.3	79.8	78.5	79.5
7	85.5	88.0	87.5	89.2	88.0	88.0	86.6
2	85.0	85.5	85.5	87.5	86.9	86.6	86.6
5	75.8	76.0	76.4	77.6	77.4	76.0	76.0

INSTRUMENT NO. 2

11	83.0	95.0	85.2	97.5	85.5	100.0	84.4
4	97.5	102.5	100.0	102.6	101.2	105.0	102.5
6	75.8	76.0	77.0	77.3	78.5	76.0	77.2
7	89.2	92.8	90.7	92.8	92.8	92.7	92.7
2	88.4	92.8	90.8	92.8	92.9	92.7	92.7

FAIRING

3	-----	-----	-----	-----	-----	-----	-----
1	-----	-----	-----	-----	-----	-----	-----
4	64.8	94.0	82.0	67.5	82.2	96.1	82.0

Note: Accuracy of temperatures to ±5.7 degrees Fahrenheit

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# SYSTEM HISTORY REPORT

SYSTEM NUMBER *M-P*



**CORPORATION**

PALO ALTO DIVISION



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PRE-F [REDACTED] DIVISIONS

M-8

Date	Test	Result	Corrective Action	Remarks
1962				
4/12	Receiving Inspection	Satisfactory		Weight #1 - 114.5# #2 - 108.5#
4/13	Receiving Acceptance	Satisfactory		
4/25	System Functional	Mated		
6/12	Complete System Testing	Satisfactory		
6/22	Pre-HATS Resolution	#90 Lamp problem	Replaced LSU	
6/26	Simulated HATS Test		Enlarged frequency lamp aperture	
7/1	Pre-Ship Tests		Rotated frequency lamp	
7/9	Pre-Pad checkout	Satisfactory		
7/10	Pad Run	#3 slew failure		
		#3 cassette overloaded	corrected	
7/12	Pad Re-run	Satisfactory		
7/13	Pre-Flight	Satisfactory		

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MODIFICATIONS

Engineering Order	Description	Remarks
07307	Added resistor	These modifications made at A/P facility
07313	Added jumper in #3 programmer	
07315	Added jumper per schematic	
07316	Tuned frequency lamp circuit	
07327B	Added #3 fuse protection	
07329	Added + 28V DC redundancy	
07331	Added vinyl sleeves to Data lamp leads	
07332C	Added #3 unreg monitor	
07333	Added cassette idler guide	
07334C	Retrofited V/H transducer	
07339	Removed epoxy from H. O. settings	
07340	Temporarily stowed H. O. leads	
07341A	Anchored H. O. shutter screws	
07343	Removed cassette idler wipers	
07344	Enlarged cassette cam torque holes	
07346	Replaced star-wheel pins	
07553	Shortened #3 program to 7 pulses	

**SECRET**

SUMMARY OF INSTRUMENTATION

CM# 8

INSTRUMENT NO. 1

Pass Number

Temp. Sensor	LAUNCH	9	15	25	26	31
11	98.3	85.0	73.2	78.5	70.0	73.7
7	69.0	86.0	80.7	82.8	79.0	82.0
2	70.2	84.5	78.5	79.0	76.0	79.6
5	73.0	78.0	66.8	65.5	64.0	67.7

INSTRUMENT NO. 2

11	61.5	70.0	60.7	60.8	55.5	59.5	60.0
4	63.9	74.2	68.1	71.0	63.5	68.4	69.5
6	63.0	72.5	63.0	60.0	57.4	60.8	59.0
7	62.2	77.0	71.4	72.0	67.8	72.8	71.0
2	61.8	72.5	71.1	71.0	68.4	71.0	69.5

FAIRING

F# 3	O. B.	-----	-----	-----	-----	-----	-----
F# 1	O. B.	-----	-----	-----	-----	-----	-----
F# 4	225.0	100.0	64.5	85.0	61.5	71.8	83.0

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POST FLIGHT SYSTEM DATA

System Number	CM-8	Payload Transferred	19.7 lbs.
Instrument Numbers	90/91	Film Type	SO-132
Recovery System No.	593	Filter Type	WR-21
Vehicle Number	1130	Slit Width	.200
Thor Number	342	S. I. Number	90

Launch Date 7-20-62 Recovery Date 7-22-62

SUMMARY OF SYSTEM EVENTS

Successful orbit.

Air recovery on 33rd revolution.

Instrument operation to pass 9 normal - orbital programmer failure effected the planned operational times - this precluded all operations after pass 9.

Framing camera functioned favorably - full transfer of film executed.

Approximately 25 percent of main payload recovered.



**ITTEK**



# SYSTEM HISTORY REPORT

SYSTEM NUMBER M-9



ASSTANT DIVISION

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PRE-FLIGHT

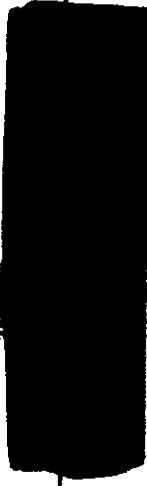
M-9

Date	Test	Result	Corrective Action	Remarks
1962 4/21	Receiving Inspection			
4/24	Receiving Acceptance Test	Satisfactory	Moved Aperture plate #83	Weight #1 - 114# #2 - 108#
4/25	System Functional Test	Mated	Adjusted frequency lamp #83	
6/12	Complete System Testing	#2 frame metering roller pins sheared - repaired	Replaced Pins #1 per E. O. Reoriented V/H Programmer pot	
6/26	HATS Preparations & HATS Test	Satisfactory	Adjusted tach motor pot Revised ground loop	
6/27	Post-HATS Resolution & Theodolite Testing	Erratic H. O. shutter on #83	Replaced magazine amplifier assembly Repaired	Ran additional simulated HATS run - satisfactory. "E" ring loose on horizon shutter plunger pin. Re-ran theodolite - OK
7/16	Pre-Pad Tests	Satisfactory	Modified V/H transducer	
7/17	Pad Run	Satisfactory		
7/20	Pre-Flight	Satisfactory	Minor #3 T/M problems (would not repeat.)	No filters on #2

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Engineering Order	Description	Remarks
07313	Added jumper in #3 programmer	These modifications made at A/P facility
07315	Added jumper per schematic	
07316	Tuned frequency lamp circuit	
07327B	Added #3 fuse protection	
07329	Added + 28V DC redundancy	
07331	Added visual sleeves to data lamp leads	
07332C	Added #3 unreg monitor	
07333	Added cassette idler guide	
07334C	Retrofitted V/H transducer	
07339	Removed epoxy from H. O. settings	
07340	Temporarily stowed H. O. leads	
07341A	Anchored H. O. shutter screws	
07343	Removed cassette idler wipers	
07344	Enlarged cassette cam torque holes	
07346	Replaced star-wheel pins	
07553	Shortened #3 program to 7 pulses	
07554B	Added V/H link 2 T/M board	
07555B	Added V/H link 2 T/M wire	
07558	Changed H. O. plunger pins	
07561	Added temperature T/M	





SUMMARY OF DOCUMENTATION

CM# 9

INSTRUMENT NO. 1

Temp. Sensor	LAUNCH	15	24	31	40	47	56	63
11	93.3	63.6	61.5	59.1	55.8	54.9	59.1	55.3
7	63.0	73.8	68.2	74.9	67.8	68.4	71.1	66.5
2	64.1	70.6	65.2	64.9	64.1	65.0	68.9	63.0
5	73.5	61.0	58.3	60.9	58.3	59.0	62.5	57.2

INSTRUMENT NO. 2

11	57.6	65.5	62.3	61.9	68.9	64.3	70.0	68.5	65.2
4	64.0	70.9	67.8	67.8	66.7	63.8	71.1	68.5	64.6
6	65.9	68.0	61.5	64.6	62.2	61.5	64.1	64.5	60.7
7	63.2	72.9	67.8	68.9	67.3	66.5	70.0	68.9	66.0
2	60.2	71.1	64.4	67.1	64.8	64.1	66.9	67.8	63.8

FAIRING

F# 3	----	----	----	----	----	----	----	----	----
F# 1	----	36.5	55.0	31.8	54.9	38.0	68.3	40.6	53.0
F# 4	----	61.0	72.8	49.0	65.5	43.0	74.2	43.5	65.2





POST FLIGHT SYSTEM DATA

System Number	CM-9	Payload Transferred	78.7 lbs.
Instrument Numbers	82/83	Film Type	SO-132
Recovery System No.	594	Filter Type	WR-21
Vehicle Number	1131	Slit Width	.200
Thor Number	347	S. I. Number	86
Launch Date	7-27-62	Recovery Date	7-31-62

SUMMARY OF SYSTEM EVENTS

- Successful orbit.
- Air recovery on 65th revolution.
- Instrument operation favorable.
- Framing camera failed - (metering switch and solenoid)
- Full transfer of main instruments payload recovered.



**SYSTEM HISTORY REPORT**

SYSTEM NUMBER *M-10*

**CORPORATION**

1110 DIVISION



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PRE- [REDACTED] ES

M-10

Date	Test	Result	Corrective Action	Remarks
1962				
5/1	Receiving Inspection	V/H Transducer Test Satisfactory	Adjusted Cycle Rates	Weight #1 - 113# #2 - 107#
5/11	Receiving Acceptance	Satisfactory	Replaced LSU boards	
5/15	System Functional	Satisfactory		
5/17	Complete System Testing	Mated		
6/27	Pre-HATS Resolution	(this test deleted)		
6/28	HATS Preparations & HATS Test	Satisfactory		Ran vibration and simulated HATS
7/1	Post-HATS Resolution & Theodolite Testing	Satisfactory		
7/14	Pre-Ship Tests	Lamp Problems	Corrected	
		Clock problems	Replaced Geneva Pins	
		Payload slipped off cassette spool #1 and pins sheared	Repaired	Modified transducer
7/21	Pre-Pad Tests	Sticking transducer	replaced	
7/21	Pad Run	No 3 slew due poor interface connection	Repaired	
7/24	Pre-Flight		Installed yellow HO filter in #2 unit	

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M-10

**MODIFICATIONS**

Engineering Order	Description	Remarks
07327B	Added #3 fuse protection	These modifications made at A/P facility
07331	Added vinyl sleeves to data lamp leads	
07332C	Added #3 unreg monitor	
07333	Added cassette idler guide	
07334C	Retrofited V/H transducer	
07340	Temporarily stowed H. O. leads	
07343	Removed cassette idler wipers	
07346	Replaced star-wheel pins	
07553	Shortened #3 program to 7 pulses	
07554B	Added V/H link 2 T/M board	
07555B	Added V/H link 2 T/M wire	
07558	Changed H. O. plunger pins	

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SUMMARY OF TEMPERATURE INSTRUMENTATION

CM# 10

INSTRUMENT NO. 1

Pass Number

Temp. Sensor	LAUNCH	9	15	24	31	40	47	56	63
--------------	--------	---	----	----	----	----	----	----	----

100.7	80.5	76.0	76.0	77.8	77.8	77.8	79.6	76.0	76.0
68.5	84.9	83.1	82.0	83.3	83.3	85.5	84.2	83.1	83.1
64.3	77.1	74.7	73.1	76.0	76.0	76.9	76.0	74.5	74.2
76.0	74.4	72.4	72.4	71.7	71.7	73.6	72.4	71.1	71.1

INSTRUMENT NO. 2

77.1	82.0	92.8	82.6	92.8	83.3	83.3	80.7	78.3	91.7
69.6	84.0	83.1	84.8	83.3	83.5	83.5	83.3	----	80.7
63.4	68.9	66.5	68.9	70.0	70.0	70.0	70.0	68.7	67.8
68.8	83.3	83.1	81.0	83.1	83.1	83.1	82.0	80.5	82.0
64.7	81.4	79.6	80.4	80.7	81.6	81.6	80.7	79.2	79.6

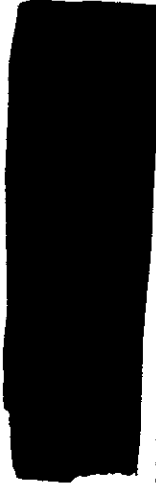
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-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
-----	12.0	38.0	17.8	-----	22.3	22.3	22.3	22.3	38.8
-----	76.8	84.0	69.2	82.4	71.8	71.8	71.8	58.5	84.0



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POST FLIGHT SYSTEM DATA

System Number	CM-10	Payload Transferred	78.9 lbs.
Instrument Numbers	88/89	Film Type	SO 132
Recovery System No.	595	Filter Type	WR-21
Vehicle Number	1152 D	Slit Width	.200
Thor Number	344	S. I. Number	94
Launch Date	8-1-62	Recovery Date	8-5-62

SUMMARY OF SYSTEM EVENTS

- Successful orbit.
- Air recovery on 65th revolution.
- Instrument operation satisfactory.
- Frame camera operation satisfactory.
- Full spools of film (main and frame) recovered.



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**SECURITY**

# SYSTEM HISTORY REPORT

SYSTEM NUMBER 1111

**Itok**

NO. 1111-1111

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PRE-F

M-11

PRELIMINARY TESTS

Date	Test	Result	Corrective Action	Remarks
1962				
5/12	Receiving Inspection	Satisfactory		Weight #1 - 114.5# #2 - 105.5#
5/12	Receiving Acceptance	Satisfactory		
6/7	System Functional Test	Mated	replaced supply spool brake #93	
6/16	Complete System Testing	Satisfactory		
7/14	Vibration Test	Satisfactory		
7/28	Simulated HATS test	Satisfactory		
8/13	Post-HATS Resolution Testing & Theodolite	Loose IMC cam	re-ran Resolution - OK	
8/16	Pre-Ship Tests		Installed hardened Geneva Pins	
8/18	Pre-Pad	Satisfactory		Changed metering rollers
8/19	Pad Run	Satisfactory		Changed #2 roller material
	Unit returned to A/P for review			
	HATS			
	HATS			
	Returned to VAFB			
8/26	Pre-Flight Tests	Sheared pins during clock checks #2	repaired shaft	

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M-11

MODIFICATIONS

Engineering Order	Description	Remarks
07327B	Added #3 fuse protection	These modifications made at A/P facility
07331	Added vinyl sleeves to data lamp leads	
07332C	Added #3 unreg monitor	
07333	Added cassette idler guide	
07334C	Retrofited V/H transducer	
07340	Temporarily stowed H. O. leads	
07343	Removed cassette idler wipers	
07346	Replaced star-wheel pins	
07553	Shortened #3 program to 7 pulses	
07554B	Added V/H link 2 T/M board	
07555B	Added V/H link 2 T/M wire	
07558	Changed H. O. plunger pins	

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SUMMARY OF TEMPERATURE INSTRUMENTATION

CM# 11

INSTRUMENT NO. 1

Pass Number

Temp. Sensor	LAUNCH	15	25	31	41	47	57
11	94.4	71.1	70.4	72.8	71.1	72.4	75.5
7	68.5	80.5	81.2	80.9	83.1	80.7	84.5
8	76.0	65.7	67.2	65.9	68.9	67.8	70.4
2	64.1	72.1	71.9	72.6	73.4	73.6	76.2
5	73.6	67.8	68.2	68.5	70.0	69.8	72.9

INSTRUMENT NO. 2

4	67.2	78.3	83.3	82.7	86.8	82.7	82.4	75.8
11	73.6	81.5	92.3	80.9	93.2	83.1	92.8	87.9
6	66.3	68.0	68.4	68.9	70.2	70.0	68.2	74.1
-8	69.3	70.9	73.8	73.6	76.4	74.9	73.6	78.5
7	67.2	77.5	78.7	79.1	80.7	79.6	78.3	71.1
2	68.9	80.5	81.2	83.1	84.0	83.1	81.8	87.9

FAIRING

3	-----	-----	-----	-----	-----	-----	-----	-----
1	-----	-----	-----	-----	-----	-----	-----	-----
4	-----	74.2	88.8	71.3	87.0	74.2	80.5	81.9





POST FLIGHT SYSTEM DATA

System Number	CM-11	Payload Transferred	78.7 lbs.
Instrument Numbers	92/93	Film Type	SO 132
Recovery System No.	596	Filter Type	WR-21
Vehicle Number	1153	Slit Width	.200
Thor Number	348	S I Number	84

Launch Date 8-28-62 Recovery Date 9-1-62

SUMMARY OF SYSTEM EVENTS

- Successful orbit.
- Air recovery on 65th revolution.
- Instrument operation satisfactory.
- Frame camera did not function.
- Full spools of main payload recovered.



**CLC  
SUNIL**

# SYSTEM HISTORY REPORT

SYSTEM UNDER



CONFIDENTIAL

Date	Test	Result	Corrective Action	Remarks
1962 5/26	Receiving Inspection			Weight #1 - 114# #2 109#
5/4	Receiving Acceptance		Re-oriented V/H Programmer pot	
5/18	System Functional Testing	Satisfactory		
7/10	Vibration Test	Satisfactory		
	Unique palin test on vertical system	Satisfactory		
7/12	Simulated HATS	Satisfactory		
7/25	Post-HATS Resolution & Theodolite Testing		Installed hardened pins in Geneva cleaned	
8/30	Pre-Ship Tests		Replaced	
9/4	Pre-Pad Tests	#3 payload stuck in platten area		
9/4	Pad Run	#2 Geneva shaft sheared		
	Pad Re-run	#3 no slew		
	This system returned to A/P for investigation			Replaced metering rollers
	HATS re-run	satisfactory		
	Pre-Ship tests	#3 unit not metering properly	removed	
9/15	Pre-Flight tests	Satisfactory		

**SECRET**

M-12

**SECRET**

Engineering Order	Description	Remarks
07327B	Added #3 fuse protection	These modifications were made at the A/P facility
07332C	Added #3 unreg monitor	
07333	Added cassette idler guide	
07334C	Retrofitted V/H transducer	
07340	Temporarily stowed H. O. leads	
07343	Removed cassette idler wipers	
07346	Replaced star-wheel pins	
07553	Shortened #3 program to 7 pulses	
07554B	Added V/H link 2 T/M board	
07555B	Added V/H link 2 T/M wire	
07558	Changed H. O. plunger pins	
07566	Added temp sensors to H. O. 's	
07571	Added #3 fuse protection	



**SECRET**

SUMMARY OF TEST RESULTS AND INSTRUMENTATION

CM# 12

INSTRUMENT NO. 1

Temp. Sensor	Launch (sec)							Rev.		
	-18	26	128	184	226	394	462	Fade	9	15
11	63.7	76.9	71.1	----	91.0	101.2	103.9	111.0	96.3	92.8
7	62.4	71.6	71.2	71.4	71.4	72.2	72.5	73.6	97.9	93.9
8	74.2	73.7	72.2	76.0	77.0	80.7	81.9	84.2	85.3	80.8
2	72.5	71.1	71.1	71.1	----	71.1	71.1	71.8	90.4	86.8
5	76.0	74.8	73.3	74.8	74.8	77.1	78.2	80.0	85.3	81.9

INSTRUMENT NO. 2

4	71.0	70.0	68.8	69.2	70.0	72.0	73.2	74.3	97.7	92.8
11	63.7	72.4	71.1	76.0	80.4	84.1	85.3	77.3	106.5	107.4
6	68.8	68.8	66.5	67.8	68.8	70.0	70.0	71.1	80.7	79.5
8	68.8	68.8	66.5	67.8	68.8	70.3	71.1	72.6	83.5	79.9
7	71.1	70.4	68.8	70.0	70.0	70.9	71.9	72.6	93.8	92.8
2	68.8	68.8	68.8	68.8	70.0	70.9	71.9	72.6	95.2	92.8

FAIRING

3	72.5	76.3	----	----	----	----	----	----	69.2	70.0
1	71.1	74.0	----	----	----	----	----	----	----	----
4	71.3	74.8	----	----	----	----	----	----	112.4	84.2

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POST FLIGHT SYSTEM DATA

System Number	CM-12	Payload Transferred	44.2 lbs.
Instrument Numbers	94195	Film Type	
Recovery System No.	597	Filter Type	
Vehicle Number	1133	Slit Width	
Thor Number	350	S. I. Number	100
Launch Date	9-17-62	Recovery Date	9-18-62

SUMMARY OF SYSTEM EVENTS

Successful orbit.

Air recovery on 17th revolution.

Instrument operation normal.

Frame camera - no material transferred.

Approximately 50 percent of main payload recovered.

Note: Commanded recovery after one day's operation due to low perigee and radiation interferences.



**SECRET**

**SYSTEM HISTORY REPORT**

SYSTEM NUMBER *M-13*

**ITELCORPORATION**

TELEVISION



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M-13

PRE-FLIGHT TESTS

Date	Test	Result	Corrective Action	Remarks
1962	Receiving Inspection	Satisfactory		Weight #1 - 114# #2 - 108#
6/20	Acceptance Testing	Satisfactory	Adjusted cycle rates #97	
6/27	System Functional Tests	Mated	Adjusted film tracking #96	
6/30	Complete System Testing	Lamp problem	Replaced cassette T/U pot on #2	
8/14	HATS Preparations & HATS Test		corrected	
9/5	Post-HATS Resolution & Theodolite Testing		Replaced intermittent #3 programmer	
9/10	HATS (re-run) (test cancelled due to sheared Geneva shaft. Readjusted timing)		Modified metering rollers	
9/12	HATS re-run	Satisfactory		
9/12	Pre-Ship Tests	Satisfactory		
9/21	Pre-Pad Tests	Satisfactory		
9/21	Pad Run	no slew on SI		
9/26	Pre-Flight	SI returned to A/P for steller shots		

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Engineering Order'	Description	Remarks
07327B	Added #3 fuse protection	These modifications made at the A/P facility
07333	Added cassette idler guide	
07334C	Retrofitted V/H transducer	
07340	Temporarily stowed H. O. leads	
07343	Removed cassette idler wipers	
07346	Replaced star-wheel pins	
07349	Added operate functions for S. I.	
07553	Shortened #3 program to 7 pulses	
07554B	Added V/H link 2 T/M board	
07555B	Added V/H link 2 T/M wire	
07558	Changed H. O. plunger pins	
07563	Changed S. I. operate sequence	
07566	Added temp sensors to H. O.'s	
07572	Added S. I. fuse protection	
07574	Adapted cassette for S. I. takeup unit	
07467	Added S. I. light baffle	



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SUMMARY OF TEMPERATURE INSTRUMENTATION

CM#13

INSTRUMENT NO. 1

Temp. Sensor	LAUNCH	9	15	25	31	41	47
2	73.5	83.0	79.8	80.8	85.5	85.5	85.1
5	80.8	77.0	73.8	74.9	78.3	79.6	76.6
7	73.5	88.0	85.5	88.0	90.2	90.2	88.5
11	102.5	76.0	77.1	73.7	78.3	77.9	75.8
12*	95.0	64.5	59.3	59.4	66.5	64.5	63.9

INSTRUMENT NO. 2

2	74.9	90.2	88.0	90.3	94.0	94.4	92.5
4	73.5	90.2	89.0	92.8	97.7	95.2	94.2
6	73.5	78.3	76.0	76.0	82.0	83.1	89.5
7	73.5	95.4	84.2	96.7	90.2	90.0	79.8
11	83.0	85.5	78.1	83.0	98.9	87.4	97.1
12*	79.5	107.0	105.0	112.5	128.0	112.0	114.2

\*Horizon Cameras Data in °F (±5.7° accuracy)

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POST FLIGHT SYSTEM DATA

System Number	CM-13	Payload Transferred	66 lbs.
Instrument Numbers	96/97	Film Type	SO 132
Recovery System No.	598	Filter Type	WR-21
Vehicle Number	1154D	Slit Width	.200
Thor Number	351	S. I. Number	D-3

Launch Date 9-29-62 Recovery Date 10-2-62

SUMMARY OF SYSTEM EVENTS

Successful orbit.

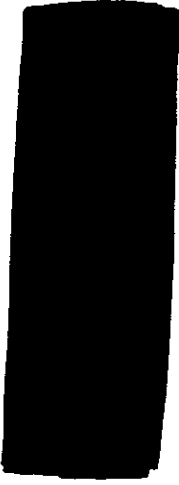
Air recovery on 49th revolution.

Instrument operation satisfactory.

Stellar-Index camera operated favorably on first nine revolutions.

Approximately 80 percent of main payload recovered.

All Stellar-Index film recovered.



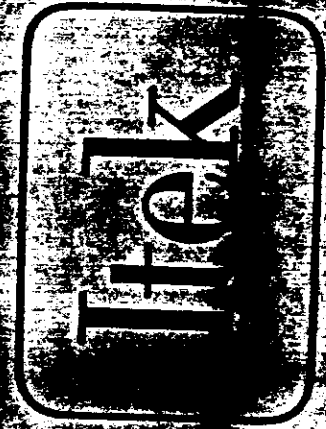
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# SYSTEM HISTORY REPORT

SYSTEM NUMBER 773



GROUP OF  
INDICATED



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PRE-FLIGHT

M-14

Date	Test	Result	Corrective Action	Remarks
1962				
6/24	Receiving inspection	Satisfactory		Weight - #1 114.5# #2 108.5
6/30	Acceptance Testing	Satisfactory		
8/27	System Functional Test	Mated	Checked and repaired ground loop	
9/11	Complete System Test	Satisfactory		
10/14	HATS Preparations and HATS Test	Sticky shutter	realigned shuttle rod Installed hardened pins	Returned to HATS during Corona investigation
10/22	Pre-Ship Tests	Lamp problems	Modified metering rollers Modified metering rollers	
10/17	Post-HATS Resolution and Theodolite Testing	Bird T/M problems		
10/27	Pre-Pad Tests	S. I. - no slew	Corrected	
10/27	Pad Run	Plug problems		
11/3	Pre-Flight	Satisfactory		

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M-14

Engineering Order	Description	Remarks
07327B	Added #3 fuse protection	These modifications made at the A/P facility
07334C	Retrofitted V/H transducer	
07340	Temporarily stowed H. O. leads	
07343	Removed cassette idler wipers	
07346	Replaced star-wheel pins	
07349	Added operate functions for S. I.	
07553	Shortened #3 program to 7 pulses	
07554B	Added V/H link 2 T/M Board	
07555B	Added V/H link 2 T/M wire	
07558	Changed H. O. plunger pins	
07563	Changed S. I. operate sequence	
07566	Added Temp sensors to H. O.'s	
07572	Added S. I. fuse protection	
07574	Adapted cassette for S. I. takeup unit	
07576	Separated reg & unreg returns	
07577	Separated reg & unreg returns	
07581	Replaced capping shutter actuator	
07582	Modified temp sensor T/M	
07585C	Added RFI suppression	

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Engineering Order	Description	Remarks
07586B	Added RFI suppression	These modifications made at A/P facility
07587C	Added RFI suppression	
07588C	Added RFI suppression	
07590	Added RFI suppression	
07592	Coated rollers with M. E. K.	
07596	Added supply spool shielding	
07467	Added S. I. light Baffle	

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SUMMARY OF TEMPERATURE REPRESENTATION

CM# 14

INSTRUMENT NO. 1

Temp. Sensor	LAUNCH	+475 Sec.	1	9	15	25	31	41	47	57	63
7	68.9	68.9	85.5	78.3	72.4	76.2	71.9	74.9	71.9	72.8	71.1
12	68.9	83.2	80.0	54.9	48.3	51.8	46.2	50.2	46.2	49.3	46.1
2	71.1	71.1	85.0	78.3	70.0	74.4	70.6	72.4	70.6	70.4	70.0
11	68.9	95.2	81.5	70.0	63.0	67.0	60.7	66.5	61.1	64.7	59.5
13	68.9	70.0	85.7	71.1	65.0	67.5	63.4	66.5	63.0	64.1	60.7
5	76.0	77.1	83.1	71.1	66.0	68.7	63.7	66.5	63.6	64.5	63.0

INSTRUMENT NO. 2

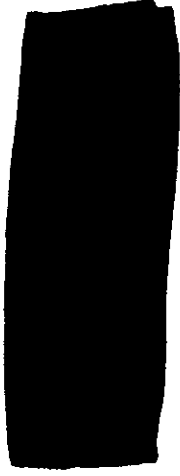
5	68.9	68.9	75.8	73.6	69.0	70.4	66.7	68.9	66.7	67.3	65.2
12	65.2	68.9	78.1	80.7	70.0	78.3	69.3	76.0	70.6	74.0	64.1
11	----	66.4	77.1	71.1	69.0	70.9	67.8	68.9	66.9	66.3	61.9
13	----	59.5	76.0	73.6	69.0	71.9	69.1	70.0	67.2	67.6	64.1
7	66.5	66.5	78.3	76.0	70.0	73.6	69.8	72.4	69.5	69.8	68.9
2	65.2	64.1	75.5	73.6	69.0	72.6	69.3	71.1	68.7	69.3	66.5

FAIRING

1	69.2	----	----	----	----	----	----	----	----	----	----
4	71.8	----	73.2	58.5	51.0	51.1	46.5	53.8	53.8	59.5	40.2

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NOVA PROJECT

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POST FLIGHT SYSTEM DATA

System Number	CM-14	Payload Transferred	79.4 lbs.
Instrument Numbers	98/99	Film Type	SO 132
Recovery System No.	599	Filter Type	WR-21
Vehicle Number	1136	Slit Width	.200
Thor Number	367	S. I. Number	D-5

Launch Date 11-5-62 Recovery Date 11-9-62

SUMMARY OF SYSTEM EVENTS

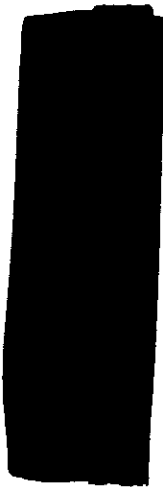
Successful orbit.

Air recovery on 65th revolution.

Instrument operation satisfactory.

Stellar-Index Camera operation satisfactory.

Total transfer of film (main and auxiliary) recovered.



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# SYSTEM HISTORY REPORT

SYSTEM UNDER TEST



CORPORATION

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PRE-FLI

M-15

Date	Test	Result	Corrective Action	Remarks
1962	Receiving Inspection	Satisfactory		Weight #1 - 115# #2 - 108#
7/6	Acceptance Testing	Satisfactory		Adjusted cycle rates after transducer modifications
8/28	System Functional Test	Satisfactory		Adjusted V/H programmer timing
10/29	Complete System Test	Mated	Modified metering rollers	Exchanged instrument 100 for 98 from M-14 for special HATS
11/7	HATS Preparations and HATS Test	No S. I. operation faulty fairing wiring	Corrected	On return from HATS dis-covered approximately 100 cycles of payload from #101 in between barrels. Geneva sheared.
	Second HATS	Cassette pot found open in HATS	Modified metering rollers	Exchanged #98 for #100
	Third HATS		Installed hardened pins	
11/9	Post-HATS Resolution and Theodolite Testing		Modified metering rollers	

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PRE-FL

M-15 (continued)

Date	Test	Result	Corrective Action	Remarks
11/11	Pre-Ship Tests	S. I. blew fuses Lamp problems	RF modification reworked Corrected	
11/16	Pre-Pad tests	No T/U on cassettes	Replaced relay in #101 Replaced sheared drum shaft in #100	
11/16	Pad Run	Satisfactory		
11/21	Pre-Flight Tests	Satisfactory		

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M-15

Engineering Order	Description	Remarks
07327B	Added #3 fuse protection	These modifications made at the A/P facility
07334C	Retrofitted V/H transducer	
07340	Temporarily stowed H. O. leads	
07343	Removed cassette idler wipers	
07346	Replaced star-wheel pins	
07349	Added operate functions for S. I.	
07553	Shortened #3 program to 7 pulses	
07554B	Added V/H link 2 T/M Board	
07555B	Added V/H link 2 T/M wire	
07558	Changed H. O. plunger pins	
07563	Changed S. I. operate sequence	
07566	Added temp sensors to H. O. 's	
07572	Added S. I. fuse protection	
07574	Adapted cassette for S. I. takeup unit	
07576	Separated reg & unreg returns	
07577	Separated reg and unreg returns	
07579	Modified temp sensor T/M	
07581	Replaced capping shutter actuator	
07585C	Added RFI suppression	
07586B	Added RFI suppression	

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[REDACTED]

Engineering Order	Description	Remarks
07587C	Added RFI suppression	These modifications made at the A/P facility
07588C	Added RFI suppression	
07589B	Added RFI suppression	
07590	Added RFI suppression	
07592	Coated Rollers with M. E. K.	
07594	Increased blanking pulse	
07596	Added supply spool shielding	
07456C	Added RFI suppression	
07457A	Added RFI suppression	
07458A	Added RFI suppression	
07467	Added S. I. light baffle	

[REDACTED]

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**SUMMARY OF TEMPERATURE INSTRUMENTATION**

CM# 15

INSTRUMENT NO. 1

Temp. Sensor	LAUNCH Sec.	1	9	15	25	31	41	47	57	63	73	79
2	66.5	69	82.0	76	77.1	71	74	73.6	74.9	71.1	71.1	71.1
5	64.1	75	82.0	69	68.9	66.5	69	66.5	66.5	64.1	66.5	63
7	65.2	70	98.9	83	84.2	77	81	78.3	80.7	78.3	77.1	76
11	65.2	103	86.8	75	73.6	70	71	70.0	71.1	64.1	70.0	65.2
12	66.5	83.1	82.0	57	54.9	52	55	52.6	54.9	50.2	55	50.2
13	68.9	66.5	83.1	69	67.8	63	67	63.0	66.5	60.7	64.1	59.5

INSTRUMENT NO. 2

2	68.9	70	78.3	78	79.6	75	76	76.0	76.0	73.6	74	72.4
5	68.9	69	74.9	71	73.6	70	70	71.1	70.0	67.8	69	66.5
7	67.8	70	83.1	81	82.0	76	78	78.3	78.3	76.0	75	74.9
11	70.0	71	77.1	69	68.9	65	66	65.2	67.8	70.0	66.5	63
12	----	70	89.1	93	87.9	81	83	79.6	83.1	76.0	78	72.4
13	68.9	65	77.1	72	73.6	69	70	68.9	70.1	68.9	68.9	66.5

FAIRING

4	68.9	200	84.0	69	69.2	60	54	56.0	56	53.8	48	53.8
---	------	-----	------	----	------	----	----	------	----	------	----	------

ROCKET FLIGHT SYSTEM DATA

System Number	GM-15	Payload Transferred	78.8 lbs.
Instrument Numbers	100/101	Film Type	SO 132
Recovery System No.	601	Filter Type	WR-21
Vehicle Number	1135	Slit Width	.200
Thor Number	----	S I Number	D-7

Launch Date 11-24-62 Recovery Date 11-29-62

SUMMARY OF SYSTEM EVENTS

- Successful orbit.
- Air recovery on 81st revolution.
- Instrument operation satisfactory.
- Stellar-Index camera did not function.
- Full transfer of main payload recovered.

**SLUG**



# SYSTEM HISTORY REPORT

SYSTEM ID: 11111111



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PRE-FL

M-16

Date	Test	Result	Corrective Action	Remarks
1962 9/10	Receiving Inspection			Weight - #1 115# - #2 112#  Note: These units (86/87) were originally M-8 systems however they were removed from M-8 barrels following damage to #87
10/9	Acceptance Test		Replaced LSU in #1 Adjusted cycle rates Modified metering rollers	
10/17	System Functional Test	Satisfactory		
10/24	Complete System Test	Mated		
11/13	HATS Preparations and HATS Test		Replaced film flattener roller and bearing Frequency lamps replaced	
11/15	Post-HATS Resolution and Theodolite Testing	Satisfactory	Installed hardened pins Increased frequency lamp intensity - opened apertures	
11/20	Pre-Ship Tests			
11/21	Special RF Interference Test	Satisfactory		
11/22	Pre-Pad Test Pad Run	Satisfactory		

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M-16

Engineering Order	Description	Remarks
07327B	Added #3 fuse protection	These modifications made at the A/P facility.
07334C	Retrofitted V/H transducer	
07340	Temporarily stowed H. O. leads	
07343	Removed cassette idler wipers	
07346	Replaced star-wheel pins	
07349	Added operate functions for S. I.	
07553	Shortened #3 program to 7 pulses	
07554B	Added V/H link 2 T/M board	
07555B	Added V/H link 2 T/M wire	
07558	Changed H. O. plunger pins	
07563	Changed S. I. operate sequence	
07566	Added temp sensors to H. O.'s	
07572	Added S. I. fuse protection	
07574	Adapted cassette for S. I. takeup unit	
07576	Separated reg and unreg returns	
07577	Separated reg and unreg returns	
07581	Replaced capping shutter actuator	
07583	Modified temp sensor T/M	
07585C	Added RFI suppression	

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M-16 (continued)

MODIFICATIONS

Engineering Order	Description	Remarks
07586B	Added RFI suppression	These modifications made at the A/P facility
07587C	Added RFI suppression	
07588C	Added RFI suppression	
07589B	Added RFI suppression	
07590	Added RFI suppression	
07592	Coated rollers with M. E. K.	
07594	Increased Blanking pulse	
07596	Added supply spool shielding	
07456C	Added RFI suppression	
07457A	Added RFI suppression	
07458A	Added RFI suppression	
07467	Added S. I. light baffle	

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SUMMARY OF T

TATION

CM# 16

INSTRUMENT NO. 1

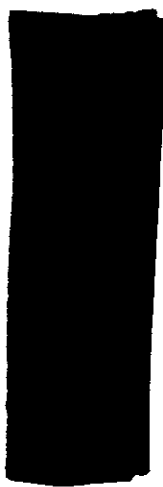
Temp. Sensor	1	2	8	40
2	84.4	83.1	80.7	88.9
5	89.7	83.1	82.0	82.2
7	87.9	89.1	87.9	98.1
11	89.5	80.7	80.7	----
12	92.3	73.6	70.0	----
13	92.0	85.5	82.0	71.1

INSTRUMENT NO. 2

2	84.6	85.5	87.9	102.4
5	85.0	80.7	84.2	107.4
7	82.6	80.7	82.0	97.5
11	88.3	85.5	83.1	100.1
12	93.2	92.8	102.6	113.5
13	83.3	80.7	82.0	91.5

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POCKET FLIGHT SYSTEM DATA

System Number	GM-16	Payload Transferred	67 lbs.
Instrument Number	86/87	Filter Type	SO 132
Recovery System No.	606	Filter Type	WR-21
Vehicle Number	1155	Slit Width	.250
Thor Number	361	S I Number	D-2

Launch Date 12-4-62      Recovery Date Air catch failure.

SUMMARY OF SYSTEM EVENTS

- Successful orbit (very low perigee).
- Air recovery attempt failed - sky hook ripped parachute.
- Instrument operation satisfactory per telemetry.
- Stellar-Index camera satisfactory per telemetry.
- Telemetry denoted approximately 80 percent transfer of payload.



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**SECURITY**



# SYSTEM HISTORY REPORT

SYSTEM NUMBER



CORPORATION

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PRE-FLIGHT

M-17

Date	Test	Result	Corrective Action	Remarks
1962				
8/13	Receiving Inspection			Weight #1 - 114.5# #2 - 109.5#
8/21	Acceptance Test	Satisfactory		
9/18	System Functional Test	Satisfactory		
11/25	Complete System Test	Double interrogate problems. Traced to console	Adjusted H. O. solenoid travel. Corrected T/U flange interference in cassette.	
11/28	HATS Preparations and HATS Test		Adjusted cycle rates	
12/1	Post-HATS Resolution and Theodolite Testing	1st block test - missing fiducial	Replaced LSU boards	
12/5	Pre-Ship Tests	Distortion in #2 output HO	Replaced S. I. T/U	
12/7	Pre-Ship Tests	2nd block test - satisfactory	Replaced	
12/7	Pre-Ship Tests	Cassette T/U problems	Corrected	
12/7	Pre-Ship Tests	Satisfactory	Corrected	
12/7	Pre-Ship Tests	Satisfactory	Installed hardened pins;	
12/12	Pre-Flight tests	Satisfactory	Lamp checks; reworked belt strips at sides of stove	

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Engineering Order	Description	Remarks
07334C	Retrofited V/H transducer	These modifications made at the A/P facility
07340	Temporarily stowed H. O. leads	
07343	Removed cassette idler wipers	
07346	Replaced star-wheel pins	
07553	Shortened #3 program to 7 pulses	
07554B	Added V/H link 2 T/M board	
07555B	Added V/H link 2 T/M wire	
07572	Added S. I. fuse protection	
07576	Separated reg and unreg returns	
07577	Separated reg and unreg returns	
07581	Replaced capping shutter actuator	
07584A	Modified temp sensor T/M	
07586B	Added RFI suppression	
07587C	Added RFI suppression	
07588C	Added RFI suppression	
07588B	Added RFI suppression	
07590	Added RFI suppression	
07592	Coated rollers with M. E. K.	
07595A	Modified V/H transducer	

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M-17 (continued)

Engineering Order	Description	Remarks
07596	Added supply spool shielding	These modifications made at the A/P facility
07456C	Added RFI suppression	
07457A	Added RFI suppression	
07458A	Added RFI suppression	
07466	Repositioned cassette TB	
07467	Added S. I. light baffle	
07469	Added grommets to H. O. solenoids	

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SUMMARY

MENTATION

CM# 17

INSTRUMENT NO. 1

Temp. Sensor	LAUNCH +490	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
2	69.0	89.3	90.2	87.9	87.9	87.9	82.0	82.0	86.0	83.1	86.8	81.1	83.1	86.0	81.1	83.1	86.8	81.1	83.1	86.8	81.1
5	73.5	87.7	83.1	80.7	80.7	80.7	75.5	80.7	80.7	76.0	80.7	74.9	76.0	80.7	76.0	80.7	80.7	80.7	80.7	80.7	74.9
7	66.5	89.5	91.5	90.2	90.2	90.2	83.5	90.2	88.0	83.1	87.9	82.0	83.1	88.0	83.1	87.9	87.9	87.9	87.9	87.9	82.0
11	93.0	89.3	80.7	80.7	85.5	85.5	76.4	85.5	82.0	74.9	80.7	82.0	74.9	82.0	74.9	80.7	80.7	80.7	80.7	80.7	72.6
12	88.0	89.3	76.0	68.9	74.9	74.9	77.7	74.9	74.0	67.8	74.9	74.0	67.8	74.0	67.8	74.9	74.9	74.9	74.9	74.9	66.0
13	57.2	87.0	82.6	76.0	79.6	79.6	75.5	79.6	77.0	72.4	76.0	77.0	72.4	77.0	72.4	76.0	76.0	76.0	76.0	76.0	69.5

INSTRUMENT NO. 2

2	62.0	80.5	83.1	85.5	85.5	81.1	84.0	80.7	84.0	80.7	83.1	79.6	80.7	84.0	80.7	83.1	83.1	83.1	83.1	83.1	79.6
4	63.0	83.1	81.6	84.2	92.8	78.9	90.0	78.3	90.0	78.3	87.9	76.2	78.3	90.0	78.3	87.9	87.9	87.9	87.9	87.9	76.2
6	64.0	80.7	78.5	78.3	78.3	73.6	77.0	73.6	77.0	73.6	76.4	73.6	73.6	77.0	73.6	76.4	76.4	76.4	76.4	76.4	73.6
7	62.0	81.5	83.5	83.1	84.2	78.3	83.0	80.7	83.0	80.7	83.1	78.3	80.7	83.0	80.7	83.1	83.1	83.1	83.1	83.1	78.3
11	66.5	81.7	85.7	78.3	78.3	71.3	78.0	79.6	78.0	79.6	78.3	73.6	79.6	78.0	79.6	78.3	78.3	78.3	78.3	78.3	73.6
12	70.0	82.9	83.8	83.1	92.8	78.1	88.0	77.1	88.0	77.1	87.9	76.0	77.1	88.0	77.1	87.9	87.9	87.9	87.9	87.9	76.0
13	57.2	76.9	79.2	78.3	78.3	75.1	77.0	76.0	77.0	76.0	76.0	73.6	76.0	77.0	76.0	76.0	76.0	76.0	76.0	76.0	73.6

FAIRING

1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
3	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
4	-----	81.9	82.9	76.8	53.8	72.0	55.6	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

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POST FLIGHT SYSTEM DATA

System Number	CM-17	Payload Transferred	79.3 lbs.
Instrument Numbers	102/103	Film Type	SO 132
Recovery System No.	607	Filter Type	WR-21
Vehicle Number	1156	Slit Width	.250
Thor Number	368	S. I. Number	D-4

Launch Date 12-14-62 Recovery Date 12-18-62

SUMMARY OF SYSTEM EVENTS

- Successful orbit.
- Air recovery on 64th revolution.
- Instrument operation satisfactory.
- Stellar-Index camera operation satisfactory.
- Full transfer of film (main and auxiliary) recovered.





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# SYSTEM HISTORY REPORT

SYSTEM NUMBER 22



CORPORATION

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Engineering Order	Description	Remarks
07334C	Retrofitted V/H transducer	These modifications made at the A/P facility
07340	Temporarily stowed H. O. leads	
07343	Removed cassette idler wipers	
07346	Replaced star-wheel pins	
07553	Shortened #3 program to 7 pulses	
07572	Added S. I. fuse protection	
07576	Separated reg and unreg returns	
07577	Separated reg and unreg returns	
07581	Replaced capping shutter actuator	
07586B	Added RFI suppression	
07587C	Added RFI suppression	
07588C	Added RFI suppression	
07588B	Added RFI suppression	
07590	Added RFI suppression	
07592	Coated rollers with M. E. K.	
07593	Removed redundant S. I. fusing	
07595A	Modified V/H transducer	
07456C	Added RFI suppression	
07457A	Added RFI suppression	

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Engineering Order	Description	Remarks
07458A	Added RFI suppression	These modifications made at the A/P facility
07460	Modified temp sensor T/M	
07466	Repositioned cassette TB	
07467	Added S. I. light baffle	
07468	Modified LSU board	
07469	Added grommets to H. O. solenoids	
07470	Lengthened S. I. programmer pulse	
07471	Modified S. I. programming	

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POST FLIGHT SYSTEM DATA

System Number	M-18	Payload Transferred	78.1 lbs.
Instrument Numbers	104/105	Film Type	SO 132
Recovery System No.	608	Filter Type	Wratten 21
Vehicle Number	1157	Slit Width	.250
Thor Number	369	S.I. Number	D-8

Launch Date 1/7/63 Recovery Date 1/11/63

SUMMARY OF SYSTEM EVENTS

Poor vehicle attitude throughout mission negated useable results. All instrument systems performed properly.

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**SYSTEMS HISTORY REPORT**

SYSTEM UNDER



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PRE-FLIGHT TESTS AND ANALYSES

M-19

Date	Test	Result	Corrective Action	Remarks
1962	Receiving Inspection			
10/30	Acceptance Test			
11/21				
1963				
1/3	Installed in barrels	Problem with T/U installation in bucket.	Realignment	
1/21	Systems Functional Complete			
1/22	Vibration Complete	Satisfactory		
1/24	HATS Test Complete	Satisfactory		
1/28	Special Binary Tests	Satisfactory		
2/4	Post-HATS Resolution Test	Satisfactory		
2/11	Light Leak Test	Satisfactory		
2/18	Final Pre-Ship Preparations	Satisfactory		
3/17	Pad Run	Satisfactory		

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M-19

Engineering Order	Description	Remarks
07334C	Retrofited V/H transducer	These modifications made at the A/P facility
07340	Temporarily stowed H. O. leads	
07343	Removed cassette idler wipers	
07346	Replaced star-wheel pins	
07553	Shortened #3 program to 7 pulses	
07572	Added S. I. fuse protection	
07576	Separated reg and unreg returns	
07577	Separated reg and unreg returns	
07581	Replaced capping shutter actuator	
07586B	Added RFI suppression	
07587C	Added RFI suppression	
07588C	Added RFI suppression	
07589B	Added RFI suppression	
07590	Added RFI suppression	
07592	Coated rollers with M. E. K.	
07593	Removed redundant S. I. fusing	
07595A	Modified V/H transducer	
07456C	Added RFI suppression	
07457A	Added RFI suppression	

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M-19 (continued)

**MODIFICATIONS**

Engineering Order	Description	Remarks
07458A 07461 07466 07467 07468 07469 07471	Added RFI suppression Modified temp sensor T/M Repositioned cassette TB Added S. I. light baffle Modified LSU board Added grommets to H. O. solenoids Modified S. I. programming	These modifications made at the A/P facility

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POST FLIGHT SYSTEM DATA

System Number	CM-19	Payload Transferred	78.9
Instrument Numbers	106/107	Film Type	SO 132
Recovery System No.		Filter Type	WR-21
Vehicle Number	1160	Slit Width	.200
Thor Number		S. I. Number	D-10

Launch Date April 1, 1963 Recovery Date April 4, 1963

SUMMARY OF SYSTEM EVENTS

Successful orbit.  
Air recovery on 49th revolution.  
Vehicle suffered 400 cycle problem near end of mission.  
Stellar-Index camera operated satisfactorily.

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# SYSTEMS SECURITY REPORT

SYSTEM NUMBER 100-10



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M-20

Engineering Order	Description	Remarks
07334C	Retrofited V/H transducer	These modifications made at the A/P facility
07340	Temporarily stowed H. O. leads	
07343	Removed cassette idler wipers	
07346	Replaced star-wheel pins	
07553	Shortened #3 program to 7 pulses	
07572	Added S. I. fuse protection	
07576	Separated reg and unreg returns	
07577	Separated reg and unreg returns	
07581	Replaced capping shutter actuator	
07584A	Modified temp sensor T/M	
07586B	Added RFI suppression	
07587C	Added RFI suppression	
07588C	Added RFI suppression	
07589B	Added RFI suppression	
07590	Added RFI suppression	
07592	Coated rollers with M. E. K.	
07593	Removed redundant S. I. fusing	
07595A	Modified V/H transducer	
07456C	Added RFI suppression	

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M-20 (continued)

MODIFICATIONS

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Engineering Order	Description	Remarks
07457A	Added RFI suppression	These modifications made at the A/P facility
07458A	Added RFI suppression	
07466	Repositioned cassette TB	
07467	Added S. I. light baffle	
07468	Modified LSU board	
07469	Added grommets to H. O. solenoids	
07471	Modified S. I. programming	

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POST FLIGHT SYSTEM DATA

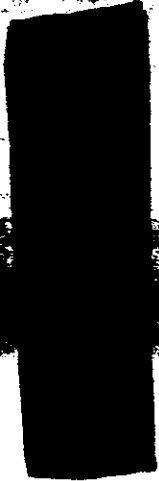
System Number	M-20	Payload Transferred	0
Instrument Numbers	108/109	Film Type	SO 132
Recovery System No.	610	Filter Type	Wratten 21
Vehicle Number	1159	Slit Width	.250
Thor Number	----	S. I. Number	D-6
Launch Date	2/28/63	Recovery Date	Not recovered.

SUMMARY OF SYSTEM EVENTS

Failure of TAT booster prevented orbital insertion.

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# SYSTEM HISTORY REPORT

SYSTEM



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M-21

Engineering Order	Description	Remarks
074334C	Retrofitted V/H transducer	These modifications made at the A/P facility
07340	Temporarily stowed H. O. leads	
07343	Removed cassette idler wipers	
07346	Replaced star-wheel pins	
07553	Shortened #3 program to 7 pulses	
07572	Added S. I. fuse protection	
07576	Separated reg and unreg returns	
07584A	Modified temp sensor T/M	
07586B	Added RFI suppression	
07587C	Added RFI suppression	
07588C	Added RFI suppression	
07589B	Added RFI suppression	
07590	Added RFI suppression	
07592	Coated rollers with M. E. K.	
07593	Removed redundant S. I. fusing	
07595A	Modified V/H transducer	
07456C	Added RFI suppression	
07457A	Added RFI suppression	
07458A	Added RFI suppression	

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M-22 (cont.)

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Engineering Order	Description	Remarks
07466	Repositioned cassette TB	These modifications made at the A/P facility
07467	Added S. I. light baffle	
07468	Modified LSU board	
07469	Added grommets to H. O. solenoids	
07471	Modified S. I. programming	



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**SYSTEM HISTORY REPORT**

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M-22

Engineering Order	Description	Remarks
07334C	Retrofitted V/H transducer	These modifications were made at the A/P facility
07340	Temporarily stowed H. O. leads	
07343	Removed cassette idler wipers	
07346	Replaced star-wheel pins	
07553	Shortened #3 program to 7 pulses	
07572	Added S. I. fuse protection	
07576	Separated reg and unreg returns	
07586B	Added RFI suppression	
07587C	Added RFI suppression	
07588C	Added RFI suppression	
07589B	Added RFI suppression	
07590	Added RFI suppression	
07592	• Coated Rollers with M. E. K.	
07593	Removed redundant S. I. fusing	
07595A	Modified V/H transducer	
07456C	Added RFI suppression	
07457A	Added RFI suppression	
07458A	Added RFI suppression	
07460	Modified temp sensor T/M	

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Engineering Order	Description	Remarks
07462 07466 07467 07468 07469 07471	Modified temp sensor T/M Repositioned cassette TB Added S. I. light baffle Modified LSU Board Added Grommets to H. O. solenoids Modified S. I. programming	These modifications made at the A/P facility

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