C05098941
Approved for Release: 2024/01/30 C05098941

206

PROGRAM REPORT

VOLUME 5

APPENDIX 5

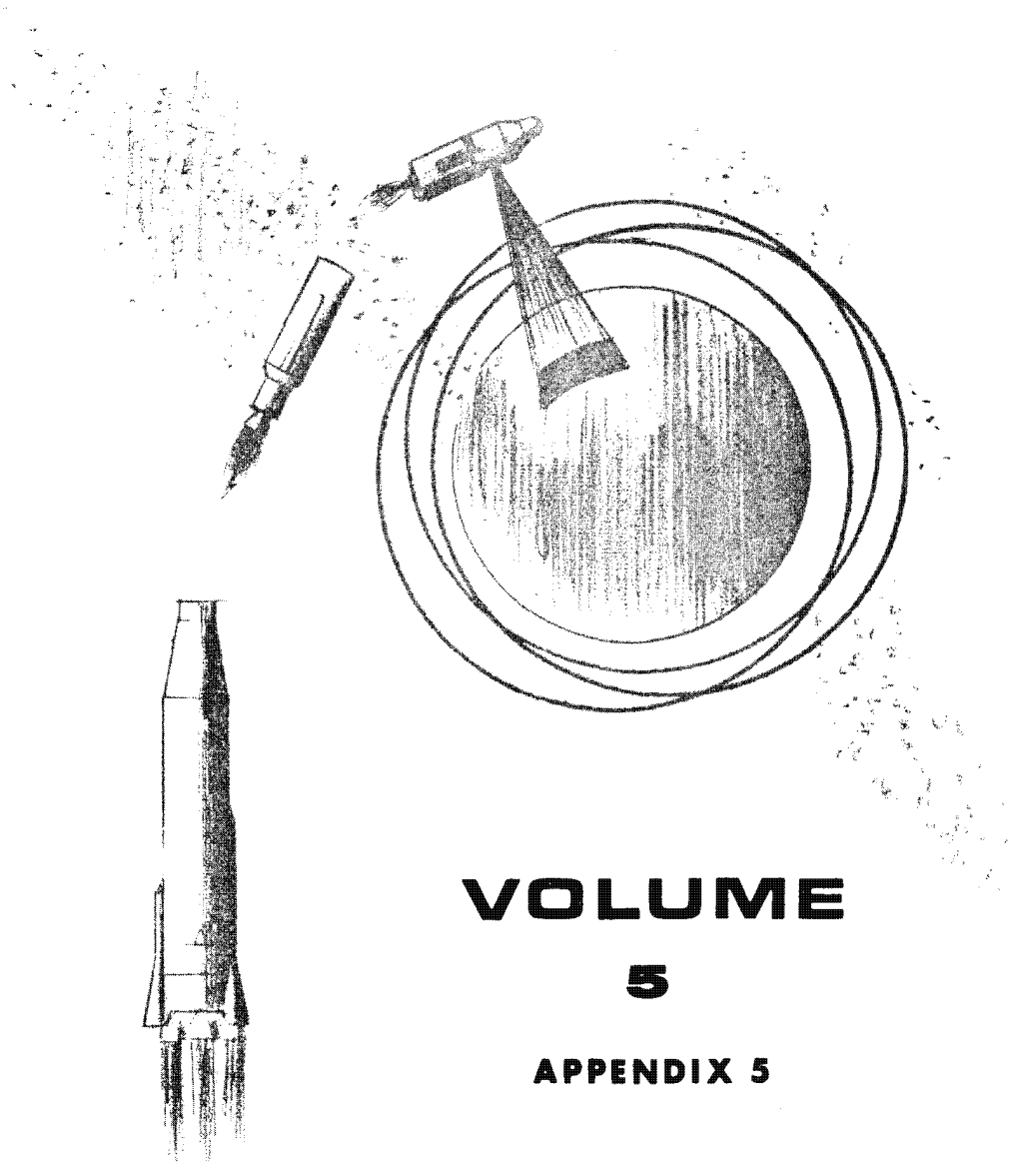
Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

THIS DOCUMENT CONTAINS 390 PAGES
NOVEMBER 1967

206

PROGRAM REPORT



VOLUME 5

APPENDIX 5

Approved for Release: 2024/01/30 C05098941

C05098941

Approved for Release: 2024/01/30 C05098941

CONTENTS

APPENDIX 5

PAYLOAD SUBSYSTEM LOG

Approved for Release: 2024/01/30 C05098941

C05098941

Approved for Release: 2024/01/30 C05098941

Copy #1 R. Smith
#2 R. Corrigan
#3 J.D. Sorrels

R-008170-OH

Sheets 388

VOLUME I

PAYLOAD LOG

FOR

CAMERA PAYLOAD SUBSYSTEM

Serial No. FM-39

Tested in Accordance with
Acceptance Test Procedure
804-104 Rev. L

by

Eastman Kodak Company
Apparatus & Optical Division
Rochester, New York

Reviewed by J.K. Mongeau

Approved by W.W. Essner

L.I. Parsons

Date 2/7/67

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

TABLE OF CONTENTS

VOLUME	SECTION	
I	I	Payload Status
		A. Acceptance Letter
		B. Interface Compliance
		C. Qualification Status
I	2	Component Drawing, Test Procedure, and Serial Number List.
I	3	Non-Conformance Report
		A. Variations from Specification 802-153
		B. Variations from Procedure 804-104
I	4	Running Time Record
		A. Components
		B. Payload
I	5	Payload Calibration Data
		A. Instrumentation Calibration
		B. Environmental Control Operating Temperatures
		C. Operating Current Profile
I & II	6	Acceptance Test Report
		A. Operational Test Data Sheets
		B. Film Evaluation Data
		C. Vibration Test Data
		D. Weight and Center of Gravity Data
II	7	Rubber Cure Dates
II	8	Graphic Summary of Acceptance Test

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Sheets _____

To: R. Smith/H. Orthman

Subject: Contract AF33(616)-7704, Serial No. FM-39 Acceptance Test Summary

Enclosures: Waivers R09030 and R09081-1 thru R09081-12

A. Acceptance testing of Flight Model Payload Serial No. FM-39 began 1 December 1966 and was completed on 19 January 1967. Final Acceptance occurred on 25 January 1967. Testing was conducted in accordance with Procedure 804-104, Revision L, with the following exceptions:

1. The Crab and Stereo Servo Checkouts, Paragraphs 5.5.2.1, 5.5.2.2, 5.10.2.1 and 5.10.2.2 were abbreviated and the Servo Steady State and Surge Currents were measured during these checkouts. This was done to limit the number of Servo actuations during the test cycle. The consequence is that the average mirror position is determined from only two (2) readings, but experience has shown little variation for additional readings. Refer to Waiver R09081-1

2. The test was interrupted at paragraph 5.5.2.2 Stereo (Elevation) Servo Checkout, to investigate an apparently excessive operating current. The extra current was being drawn by a relay which was energized because of an abnormal test condition (slack film in the system). Film tension was restored and the test was resumed at paragraph 5.5.2.2 Refer to Waiver R09081-2.

3. The test was interrupted at paragraph 5.5.5 Photographic Focus Run, to investigate an apparent operating power overload. The circuit breaker was being actuated as a result of a malfunction in the Test Console Regulation Circuit. The power supply was replaced and the test resumed at paragraph 5.5.5. Refer to Waiver R09081-3.

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

4. The test was interrupted a second time at paragraph 5.5.5, Photographic Focus Run, to investigate low resolution results. A series of static and dynamic tests were performed, culminating in a final test on the East Collimator. It was concluded that the resolution results were being influenced by some unfavorable, temporary environmental factor and the test was resumed at paragraph 5.5.5 using the East Collimator and Console. Refer to Waiver R09031-4.

5. During Pre-vibration Record Evaluation, an abnormal temperature telemetry output was investigated. The faulty Distribution Box responsible for this condition was replaced and appropriate retests were performed, before proceding to the problem investigation described in the next paragraph. Refer to Waiver R09031-5.

6. An erratic "fine" record quantity sensor (CPL-16) signal was investigated. The cause was attributed to a malfunction of the potentiometer drive gear reducer. The gear reducer and the potentiometer were replaced. Appropriate retests were performed after the problem investigation described in the next paragraph. Refer to Waiver R09031-6

7. A deformation in the Brake Band was corrected by replacing the deformed Brake Band. The tensions were readjusted to the proper levels and appropriate retests were performed before proceding to the special engineering test described in the next paragraph. Refer to Waiver R09031-7.

8. A special test was performed for Project Engineering to study the return lines' isolation resistance characteristics. No retest was necessary and following completion of the Record Evaluation activity, testing was resumed at paragraph 5.6. Refer to Waiver R09031-8.

9. The test was interrupted at paragraph 5.8.2, Post Vibration Inspection, to add shims between the bearings of four (4) Air Supply Rollers and their respective pivot studs. This was accomplished to reduce end-play to within the 0.001 to 0.005 inch allowable range. Inspection was completed and testing was resumed at Paragraph 5.9, Preliminary Electrical Checkout.

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

10. The test was interrupted at paragraph 5.10.7, Film Drive Smoothness, to investigate a recurrence of erratic telemetry indication from the "fine" record quantity sensor (CPL-16). The problem was the same as described in paragraph (6) above. All gear reducers of this type (from stock and removed from hardware) were returned to the manufacturer. The reducers were inspected and reworked as necessary. One of these reworked reducers was installed in the Air Supply and appropriate retests performed. Refer to Waiver R09081-10.

11. The test was interrupted following the Film Drive Smoothness Run, paragraph 5.10.7, to remove the servos for updating and use on Space Chamber FM-37. The servos originally shipped with FM-37 were also updated, acceptance tested, installed on Space Chamber FM-39 and the appropriate retests were performed. Refer to Waiver R09081-11.

12. During the retests performed after installation of the updated servos, suspiciously high Crab Servo drive current and long repositioning transition time resulted in an investigation of the +Y bearing clamp (Dwg. No. 813-255) for possible interference problems. The problem was traced to a .015 inch (maximum) thick Delrin chip from the bearing (Dwg. No. 813-254) wedged between the bearing itself and the related truss sliding surface. After the chip was removed and the assembly wiped clean, the servo current and transition times were rechecked. Refer to Waiver R09081-12.

B. Compliance of FM-39 to Specification

The FM-39 Payload produced an overall GM Resolution of 156 lines/mm and meets all Photographic, Electrical and Mechanical performance requirements with the following exception:

The Steady-State Operating Current is 4 milliamperes (ma) in excess of the maximum allowed under existing specifications. Several design changes have occurred since the specification was last revised and the circuitry is being re-evaluated to establish a maximum reflecting the effect of these changes. A final figure has not yet been established, but it will be in the order of 450 ma. The observed current drain of 390 ma is well below the estimated maximum and is indicative of normal system performance.

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

C. Retrofits

It is planned to retrofit Payload FM-39 in the field if delivery of servos updated to the latest design and launching dates do not conflict.

D. Certification of Parts and Assembly Inspection.

Parts and assembly inspection and test operations have been conducted in accordance with applicable documents except as described by waivers on file at EK Company.

GMongeau/hep

Original Signed by
G. Mongeau

Original Signed by
L. K. Parsons

Distribution:

Copy #1. R. Smith, w/encs.
#2. H. Orthman, w/encs.
#3. B. Quinn, w/encs.
#4. J. D. Sorrels/A. G. Nash, w/encs.

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

To: L. K. Parsons

Attention: G. W. Mongeau

Subject: Compliance of FM 39 (S/N 239) to the Interface Requirement

Electrical Interface

All electrical interface requirements are met.

Mechanical Interface

All mechanical interface requirements are met.

Thermal Interface

All thermal interface requirements are met.

DHW:ss

D. H. Williams

P. E. Murfin

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

To: H. Ratliff

From: M. Flannery

Subject: Qualificatinn Status of Contract AF 33(616)-7704 for Payload 39

The FM 39 Paylead is of a design which meets the qualification requirements of Flight Model Paylead Specification 802-153 as demonstrated by Eastman Kodak Company Drawing 802-148.

The following list indicates the differences which exist between FM 38 and FM 39.

Components:	A) Looper Assembly, 711-184 B) MSD Assembly, 709-200
Differences:	A) Reduction of tolerance of the looper switch setting to increase reliability. B) Additional supports were made and added to the Relay Support Bracket.
Status:	The tolerance of the looper switch was reduced to insure proper switching of the take-up motor. The supports were added to prȯvide the necessary rigidity of the Relay Support Bracket.
Qualification:	Flight Payload qualified in R.C.

8

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Please transmit the above information to the resident at ACO.

MFlannery:bgb

M. Flannery

Approved by:

for J.P. Zigadlo

J.H. Stevens

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

PART NUMBER AND SERIAL NUMBER LIST

FOR SPACE CHAMBER S/N F-39

Schematic Number	Part Number	Rev. Seq.		Serial Number	QC-4 Test Procedures
510-106	510-105	T	Gain Control Assy	N-634	325
	518-200	F	Cable W-1	603054	254
	518-201	F	Cable W-2	603054	"
	518-202	F	Cable W-3	603054	"
	518-203	C	Cable W-4	603054	"
	518-204	D-1	Cable W-5	603054	"
	518-205	L	Cable W-6	603053	"
	518-207	C	Cable W-7	603054	"
614-189	614-100	Purch	Elevation Servo	605053	282
614-199	614-101	Purch	Azimuth Servo	612061	252
	614-501	Purch	Filter Box As.	606054	284
	614-551	Purch	Filter Box Kl.	605053	285
617-101	617-106	F-1	Junction Box Assy	N-419	306
617-108	617-114	B-1	Distribution Box Assy	N-832	304
617-109	617-151	Y-1	Test Box Assy	N-657	305
-	648-100	L	Cradle Assy	12	267
709-203	709-200	P	MSD Assy	N-844	307
711-102	711-185	W	Air Supply Assy	N-646	308
	711-194	G	Rear Chute Assy	L-703	313
	712-479	M	Fwd. Record Stream Assy	N-648	337
	805-101	AE	Space Chamber Assy	F-39	
	805-102	Y	Primary Structure Assy	N-895	324
516-125	805-104	N	Upper Tube and Heater Assy	N-744	329
	807-550	B-1	Air Heater Assy	N-339	321
	856-100	H	Camera Assy S/N N-641	505	250
516-125	805-105	M-2	Lower Tube and Heater Assy	N-745	329
	813-425	C	Door Telltale Assy	N-659	354
	805-159	A	Air Heater & Structure	N-952	

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

SUPPORT TUBE & HEATER ASS'Y, UPPER 805-104

S/N N-744 QC-A-329

Part No.	Name	Ckt. Pt.	S/N	Procedure Number
400-1429-101	Thermostat Ass'y.	RT-907	718	
"	" "	RT-908	150	
"	" "	RT-909	721	
"	" "	RT-913	722	
"	" "	RT-914	720	
"	" "	RT-915	719	
516-199	Heater Tape Ass'y.	HR912	25	
516-128	" " "	HR904	32	
516-168	" " "	HR908	31	
516-169	" " "	HR907	34	
516-170	" " "	HR906	32	
516-235	Heater Control Ass'y.	A914	N-494	QC-A-351
516-235	" " "	A918	N-216	"
516-235	" " "	A919	N-221	"
516-235	" " "	A923	N-502	"
516-235	" " "	A924	L-164	"
516-235	" " "	A925	N-496	"
516-206	Heater Ass'y	HR 914	43	

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

SUPPORT TUBE & HEATER ASS'Y, LOWER 805-105

S/N N-745 QC-A-329

Part No.	Name	Ckt. Pt.	S/N	Procedure Number
516-100	Thermistor Probe Ass'y.	A-905	9146	QC-A-302
"	" " "	A-906	8511	"
"	" " "	A-907	9123	"
"	" " "	A-909	9132	"
"	" " "	A-916	9147	"
516-235	Control Ass'y. Heater	A-922	N-109	QC-A-351
"	" " "	A-913	N-500	"
"	" " "	A-921	N-105	"
"	" " "	A-920	L-149	"
400-1429-101	Thermostat Ass'y.			
"	" "	RT912	151	
"	" "	RT906	845	
"	" "	RT911	152	
"	" "	RT910	149	
516-170	Heater Tape Ass'y.	HR909	150	"
"	" " "	HR910	145	"
"	" " "	HR911	144	"
516-200	" " "	HR913	46	"
516-129	" " "	HR905	105	"
516-246	Resistor Ass'y.	R906	E-952	QC-A-344

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

SERIAL NUMBER LIST

Part No.	Name	Check Point	Serial No.	Procedure No.
805-102	PRIMARY STRUCTURE & ELEVATION PLATE - 805-102 S/N N 895			QC-A-324
516-243	Heater Ass'ys	HR902	N 137	
516-243	" "	HR903	N 138	
"	" "	HR901	N 139	
516-235	Heater Control	A-910	N 227	QC-A-351
"	" "	A-911	N 503	"
"	" "	A-912	N 499	"
400-1429-101	Thermostat Assy			
516-144	" "	RT903	841	
516-145	" "	RT904	850	
516-146	" "	RT905	843	
516-100	Thermistor Probe	A-904	K 223	QC-A-302
"	" "	A-915	K 224	"
807-550	AIR HEATER ASSY		S/N N-640	QC-A-321
516-100	Thermistor Probe (45°)	A-901	L-814	QC-A-302
516-100-1	" " (cover)	A-902	L-815	QC-A-302
516-246	" "	A-903		QC-A-344
	33" MIRROR ASSY		S/N N-825	QC-A-303
516-224	Thermistor Probe	RT901	58 A	QC-A-303
"	" "	RT902	58 B	"
712-479	FORWARD RECORD STORAGE ASSY		S/N N 648	QC-A-337
516-100	Thermistor Probe	A-603	B 634-2	QC-A-302

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

NONCONFORMANCE ITEMS FOR PAYLOAD ACCEPTANCE

Item No.	Variations from Specification 802-153	Description of Nonconformance	Disposition	
			E.K. Co.	Gov't. Rep.
	RO 9080	Steady State Operating Current		
		exceeds specified limits	OK	OK

Approved for Release: 2024/01/30 C05098941

C05098941

Approved for Release: 2024/01/30 C05098941

VARIATION ☐
DEVIATION ☒

SHEET 1 OF 1
SERIAL NO. RO-9080
MRB NO.
DATE 1/20/67

ITEM NAME Space Chamber Assembly S/N FM-39 DWG. NO. & REV. 805-101
DATE REC'D LOT # QTY QTY DEF. P. O. # JOB #
SOURCE (MFG. OR DEPT) INSPECTION UNIT
INSPECTION REPORT NO. ORIGINATOR

ITEM	DESCRIPTION OF NON-CONFORMANCE	WAIVE YES	WAIVE NO
	The Steady-State Operating Current exceeds the specified maximum of 386 milliamperes (ma) by 4 ma.	X	

	WAIVER APPROVAL	DATE	AS APPLICABLE	REVIEWED BY	DATE
QUALITY CONTROL:	[signature]	1-20-67	☐ PRODUCTION ENG.		
PROJECT:	[signature]	1/25/67	☐ RELIABILITY		
CUSTOMER:	P. Bruno for R George	1/25/67	☐		

JUSTIFICATION, RECOMMENDATION AND/OR CORRECTIVE ACTION:

The maximum Steady-State Operating Current specified is being re-evaluated to reflect several design changes incorporated since the last time this specification was revised. A maximum has not yet been established, but it will be in the order of 450 ma. Therefore, 390 ma. is indicative of normal operation and the condition is perfectly acceptable.

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

NONCONFORMANCE ITEMS FOR PAYLOAD ACCEPTANCE

Item No.	Variations from Procedure 804-104	Description of Nonconformance	Disposition	
			E.K. Co.	Gov't. Rep.
	RO 9081-1	Crab and Stereo Servo checkout abbre-		
		viated to minimize total actuation	OK	OK
	RO 9081-2	Test interrupted to investigate		
		apparently excessive operating current	OK	OK
	RO 9081-3	Test interrupted to replace Test		
		Console Overload Regulator	OK	OK
	RO 9081-4	Test interrupted to determine cause		
		for low resolution results	OK	OK
	RO 9081-5	Test interrupted to replace		
		Distribution Box	OK	OK
	RO 9081-6	Test interrupted to replace CPL-16		
		gear reducer and potentiometer	OK	OK
	RO 9081-7	Test interrupted to replace		
		Brake Band	OK	OK
	RO 9081-8	Test interrupted to perform		
		Special Engineering Test	OK	OK
	RO 9081-9	Test interrupted to reduce		
		Roller end-play in Air Supply	OK	OK
	RO 9081-10	Test interrupted to replace		
		CPL-16 Gear Reducer	OK	OK
	RO 9081-11	Test interrupted to install		
		updated Crab and Stereo Servos	OK	OK
	RO 9081-12	Test interrupted to investigate		
		suspiciously high current & long		
		repositioning times for Crab Servo	OK	OK

Approved for Release: 2024/01/30 C05098941

C05098941

Approved for Release: 2024/01/30 C05098941

VARIATION [A]

DEVIATION [ ]

MARTIN

AL DIVISION

SHEET ____ OF ____

SERIAL NO. RD 2050-1

MRB NO. ____

DATE 1/20/67

NAME Acceptance Test Procedure S/N PM-39 DWG. NO. & REV. 804-104-1

DATE REC'D ____ LOT # ____ QTY ____ QTY DEF. ____ P. O. # ____ JOB # ____

SOURCE (MFG. OR DEPT) ____ INSPECTION UNIT Q.C. Engineering

INSPECTION REPORT NO. ____ ORIGINATOR E. R. Parent

ITEM	DESCRIPTION OF NON-CONFORMANCE	WAIVE YES	WAIVE NO
	The Crab and Stereo Servo Checkouts, Paragraphs 5.5.2.1, 5.5.2.2, 5.10.2.1 and 5.10.2.2 were abbreviated to minimize the total number of Servo actuations. The mirror position was determined from the average of two readings instead of the usual four readings. Servo steady state and surge currents were measured during the Crab and Stereo Servo Checkouts.	X	

	WAIVER APPROVAL	DATE	AS APPLICABLE	REVIEWED BY	DATE
QUALITY CONTROL:	[illegible]	1-20-67	[ ] PRODUCTION ENG.		
PROJECT:	[illegible]	1/20/67	[✓] RELIABILITY	Jos G. Zigadlo	1/20/67
CUSTOMER:	[illegible]	20 Jan '67	[ ]		

JUSTIFICATION, RECOMMENDATION AND/OR CORRECTIVE ACTION:

Previous data indicates that the mirror position readings are repeatable and that there will result no significant difference, averaging only two readings.

AO 1249A 11/64

17

Approved for Release: 2024/01/30 C05098941

C05098941

Approved for Release: 2024/01/30 C05098941

VARIATION [X]
DEVIATION [ ]

SHEET 1 OF 1
SERIAL NO. RO 9081-2
MRB NO.
DATE 1/20/67

ITEM NAME Acceptance Test Procedure S/N FM-39 DWG. NO. & REV. 804-104-L
DATE REC'D LOT # QTY QTY DEF. P. O. # JOB #
SOURCE (MFG. OR DEPT) Quality Control Engineering INSPECTION UNIT
INSPECTION REPORT NO. ORIGINATOR E. R. Parent

ITEM	DESCRIPTION OF NON-CONFORMANCE	WAIVE YES	WAIVE NO
	The test was interrupted at Paragraph 5.5.2.2, pre-vibration Stereo Servo Checkout (Elevation), to investigate an apparently excessive operating current.	X	

	WAIVER APPROVAL	DATE	AS APPLICABLE	REVIEWED BY	DATE
QUALITY CONTROL:	[signature]	1-20-67	[ ] PRODUCTION ENG.		
PROJECT:	[signature]	1/20/67	[x] RELIABILITY	Jos. P. Zigadlo	1/20/67
CUSTOMER	[signature]	20 Jan '67	[ ]		

JUSTIFICATION, RECOMMENDATION AND/OR CORRECTIVE ACTION: The problem resulted from out-of-sequence testing to measure Servo currents. Slack record during the Line of Sight test introduces a current drain by one additional relay. The test forward record storage was connected mechanically and electrically to the space chamber, record tension was restored and the test was resumed at paragraph 5.5.2.2.

AO 1249A 11/64

Approved for Release: 2024/01/30 C05098941

C05098941

Approved for Release: 2024/01/30 C05098941

VARIATION [X]
DEVIATION [ ]

SHEET ____ OF ____
SERIAL NO. RO 9081-3
MRB NO. ____
DATE 1/20/67

ITEM NAME Acceptance Test Procedure S/N FM-39 DWG. NO. & REV. 804-104-L
DATE REC'D ____ LOT # ____ QTY ____ QTY DEF. ____ P. O. # ____ JOB # ____
SOURCE (MFG. OR DEPT) ____ INSPECTION UNIT Q.C. Engineering
INSPECTION REPORT NO. ____ ORIGINATOR E. R. Parent

ITEM	DESCRIPTION OF NON-CONFORMANCE	WAIVE YES	WAIVE NO
	The test was interrupted at paragraph 5.5.5, Pre-Vibration Photographic Focus Run, to investigate an apparent operating power overload.	X	

	WAIVER APPROVAL	DATE	AS APPLICABLE	REVIEWED BY	DATE
QUALITY CONTROL:	[signature]	1-20-67	[ ] PRODUCTION ENG.		
PROJECT:	[signature]	1/20/67	[x] RELIABILITY	Jos. P. Zigadlo	1/20/67
CUSTOMER:	[signature]	20 Jan 67	[ ]		

JUSTIFICATION, RECOMMENDATION AND/OR CORRECTIVE ACTION:

The problem was traced to a malfunction of the Test Console Overload Regulation Circuit. The Circuit was replaced and testing was resumed at paragraph 5.5.5.

AO 1249A (1/64)

Approved for Release: 2024/01/30 C05098941

C05098941

Approved for Release: 2024/01/30 C05098941

VARIATION [X]
DEVIATION [ ]

SHEET ___ OF ___
SERIAL NO. RO 9031-4
MRB NO. ___
DATE 1/20/67

ITEM NAME Acceptance Test Procedure S/N FM-39 DWG. NO. & REV. 804-104-L
DATE REC'D ___ LOT # ___ QTY ___ QTY DEF. ___ P. O. # ___ JOB # ___
SOURCE (MFG. OR DEPT) ___ INSPECTION UNIT Q. C. Engineering
INSPECTION REPORT NO. ___ ORIGINATOR E. R. Parent

ITEM	DESCRIPTION OF NON-CONFORMANCE	WAIVE YES	WAIVE NO
	The test was interrupted at paragraph 5.5.5, Pre-Vibration Photographic Focus Run, to determine the cause for low resolution results. A series of static & dynamic photographic tests and record velocity smoothness tests were performed as a part of the ensuing investigation. The Space Chamber was tested on the East Collimator to determine whether the suspect WEST Collimator environmental conditions affecting system performance were also present in the EAST Collimator environment. Test conditions in this new environment proved more favorable and resolution could then be measured more accurately.	X	

	WAIVER APPROVAL	DATE	AS APPLICABLE	REVIEWED BY	DATE
QUALITY CONTROL:	[signature]	1-20-67	[ ] PRODUCTION ENG.		
PROJECT:	[signature]	1/20/67	[X] RELIABILITY	Jos P. Zygadlo	1/20/67
CUSTOMER:	[signature]	20 Jan '67	[ ]		

JUSTIFICATION, RECOMMENDATION AND/OR CORRECTIVE ACTION:

It is concluded that an unknown environmental factor was temporarily affecting system performance. Testing was resumed at paragraph 5.5.5, Photographic Focus Run, using the East Collimator and Console.

Approved for Release: 2024/01/30 C05098941

C05098941

Approved for Release: 2024/01/30 C05098941

DEVIATION ☐

SERIAL NO. RO 9031-5

DATE 1/20/67

ITEM NAME Acceptance Test Procedure S/N rr-39 DWG. NO. & REV. 304-104-L

DATE REC'D LOT # QTY QTY DEF. P. O. # JOB #

SOURCE (MFG. OR DEPT) INSPECTION UNIT Q.C. Engineering

INSPECTION REPORT NO. ORIGINATOR E. R. Parent

ITEM	DESCRIPTION OF NON-CONFORMANCE	WAIVE YES / NO
	The test was interrupted at paragraph 5.5.8, Pre-Vibration Evaluation to investigate a faulty temperature telemetry signal.	X

	WAIVER APPROVAL	DATE	AS APPLICABLE	REVIEWED BY	DATE
QUALITY CONTROL:	A Mongeau	1-20-67	☐ PRODUCTION ENG.		
PROJECT:	M Calkins	1/20/67	☑ RELIABILITY	Jos. S Zygallo	1/20/67
CUSTOMER:	R Bourque	20 Jan '67	☐		

JUSTIFICATION, RECOMMENDATION AND/OR CORRECTIVE ACTION:

The problem was traced to the amplifier in the Distribution Box. The Distribution Box (S/N N656) was replaced (with S/N N332) and the following retests were performed:

a) Preliminary Electrical Checkout, paragraph 5.4

b) Power Control Check, paragraph 5.5.2.4

c) Temperature Probe Instrumentation Calibration, paragraph 5.5.3.1

AC 1245A (1-66)

Approved for Release: 2024/01/30 C05098941

C05098941

Approved for Release: 2024/01/30 C05098941

VARIATION X

DEVIATION ☐

MANCE

AL DIVISION

SHEET OF

SERIAL NO. R 09081-6

MRB NO.

DATE 1-20-67

M NAME ACCEPTANCE TEST PROCEDURE S/N FM 39 DWG. NO. & REV. 804-104 L

DATE REC'D LOT # QTY QTY DEF. P. O. # JOB #

SOURCE (MFG. OR DEPT) INSPECTION UNIT Q.C. Engineering

INSPECTION REPORT NO. ORIGINATOR E.R. Parent

ITEM	DESCRIPTION OF NON-CONFORMANCE	WAIVE YES	NO
	The test was interrupted at paragraph 5.5.8, Pre-Vibration Record Evaluation to investigate an erratic telemetry, signal from the "fine" record quantity sensor, CPL - 16.	X	

	WAIVER APPROVAL	DATE	AS APPLICABLE	REVIEWED BY	DATE
QUALITY CONTROL:	[signature]	1-20-67	☐ PRODUCTION ENG.		
PROJECT:	[signature]	1/20/67	☑ RELIABILITY	Jos P. Zigalli	1/20/67
CUSTOMER:	[signature]	20 Jan '67	☐		

JUSTIFICATION, RECOMMENDATION AND OR CORRECTIVE ACTION:

The erratic signal was caused by a malfunction of a gear reducer in the Air Supply. The gear reducer and the CPL - 16 potentiometer were both replaced and the following retests were performed.

a) Preliminary Electrical Checkout, paragraph 5.4.

b) CPL - 16 Calibration, paragraph 5.5.1.1.3.

22

Approved for Release: 2024/01/30 C05098941

C05098941

Approved for Release: 2024/01/30 C05098941

VARIATION [X]
DEVIATION [ ]

MANCE
AL DIVISION

SHEET ___ OF ___
SERIAL NO. R 09081 - 7
MRB NO. ___
DATE 1-20-67

ITEM NAME ACCEPTANCE TEST PROCEDURE S/N FM-39 DWG. NO. & REV. 804-104 L
DATE REC'D ___ LOT # ___ QTY ___ QTY DEF. ___ P. O. # ___ JOB # ___
SOURCE (MFG. OR DEPT.) ___ INSPECTION UNIT Q.C. Engineering
INSPECTION REPORT NO. ___ ORIGINATOR E.R. Parent

ITEM	DESCRIPTION OF NON-CONFORMANCE	WAIVE YES	WAIVE NO
	The test was interrupted at paragraph 5.5.8, Pre-Vibration Record Evaluation, to investigate a deformed Brake Band.		X

	WAIVER APPROVAL	DATE	AS APPLICABLE	REVIEWED BY	DATE
QUALITY CONTROL:	[illegible]	1-20-67	[ ] PRODUCTION ENG.		
PROJECT:	[illegible]	1/20/67	[✓] RELIABILITY	Jos B. Zigadlo	1/20/67
CUSTOMER:	[illegible]	20 Jan '67	[ ]		

JUSTIFICATION, RECOMMENDATION AND/OR CORRECTIVE ACTION.

The Brake Band was replaced and tensions were properly adjusted.

The subsequent retest consisted of a Looper Logic Check, Paragraph 5.5.2.7.3

23

AC 1249A (1-64)

Approved for Release: 2024/01/30 C05098941

C05098941

Approved for Release: 2024/01/30 C05098941.

VARIATION [X]
DEVIATION [ ]

TANCE
DIVISION

SHEET ... OF
SERIAL NO. R 09081-8
MRB NO.
DATE 1-20-67

NAME ACCEPTANCE TEST PROCEDURE S/N FM-39 DWG. NO. & REV. 804-104 L
DATE REC'D LOT # QTY QTY DEF. P. O. # JOB #
SOURCE (MFG. OR DEPT) INSPECTION UNIT Q.C. Engineering
INSPECTION REPORT NO. ORIGINATOR E.R. Parent

ITEM	DESCRIPTION OF NON-CONFORMANCE	WAIVE YES	WAIVE NO
	The test was interrupted a paragraph 5.5.8, Pre-Vibration Record Evaluation, to perform a Special Engineering Test.	X	

	WAIVER APPROVAL	DATE	AS APPLICABLE	REVIEWED BY	DATE
QUALITY CONTROL	[signature]	1-20-67	[ ] PRODUCTION ENG.		
PROJECT	[signature]	1/21/67	[✓] RELIABILITY	Jos. S. Zigadlo	1/20/67
CUSTOMER	[signature]	20 Jan '67	[ ]		

JUSTIFICATION, RECOMMENDATION AND OR CORRECTIVE ACTION:

This test was required by Project Engineering in a special study of the isolation resistance characteristics of the various power return lines in the system. No retest was necessary and the space chamber was prepared for vibration in accordance with the applicable portions of paragraph 5.6.

Approved for Release: 2024/01/30 C05098941

C05098941

Approved for Release: 2024/01/30 C05098941

VARIATION [X]
DEVIATION [ ]

SHEET ___ OF ___
SERIAL NO. R 09081-9
MRB NO. ___
DATE 1-20-67

ITEM NAME ACCEPTANCE TEST PROCEDURE S/N FM-39 DWG. NO. & REV. 804-104 L
DATE REC'D ___ LOT # ___ QTY ___ QTY DEF. ___ P. O. # ___ JOB # ___
SOURCE (MFG. OR DEPT) ___ INSPECTION UNIT Q.C. Engineering
INSPECTION REPORT NO. ___ ORIGINATOR E.R. Parent

ITEM	DESCRIPTION OF NON-CONFORMANCE	WAIVE YES	WAIVE NO
	The test was interrupted at paragraph 5.8.2, Post Vibration Inspection, to correct an excessive end-play condition in four Air Supply rollers.		X

	WAIVER APPROVAL	DATE	AS APPLICABLE	REVIEWED BY	DATE
QUALITY CONTROL:	[signature]	1-20-67	[ ] PRODUCTION ENG.		
PROJECT:	[signature]	1/20/67	[X] RELIABILITY	Jos. C. Zujadlo	1/20/67
CUSTOMER:	[signature]	1/20/67	[ ]		

JUSTIFICATION, RECOMMENDATION AND/OR CORRECTIVE ACTION:

The necessary shims were added between the roller bearings and their respective pivot studs to reduce the end-play within the 0.001 to 0.005 inch range. Testing was resumed at Paragraph 5.9, Preliminary Electrical Checkout.

AO 1249A 11/64

Approved for Release: 2024/01/30 C05098941

C05098941

Approved for Release: 2024/01/30 C05098941

VARIATION [X]
DEVIATION [ ]

MANCE
AL DIVISION

SHEET ___ OF ___
SERIAL NO. R 09081 -10
MRB NO.
DATE 1-20-67

M NAME ACCEPTANCE TEST PROCEDURE S/N FM-39 DWG. NO. & REV. 804-104 L
DATE REC'D ___ LOT # ___ QTY ___ QTY DEF. ___ P. O. # ___ JOB #
SOURCE (MFG. OR DEPT) ___ INSPECTION UNIT Q.C. Engineering
INSPECTION REPORT NO. ___ ORIGINATOR E. R. Parent

ITEM	DESCRIPTION OF NON-CONFORMANCE	WAIVER YES	WAIVER NO
	The test was interrupted at 5.10.7 Film Drive Smoothness, to investigate an erratic telemetry signal from the "fine" film quantity sensor, CPL - 16	X	

	WAIVER APPROVAL	DATE	AS APPLICABLE	REVIEWED BY	DATE
UALITY CONTROL:	[signature]	1-20-67	[ ] PRODUCTION ENG.		
PROJECT:	[signature]	1/24/67	[X] RELIABILITY	[signature]	1/20/67
CUSTOMER:	[signature]	20 Jan 67	[ ]		

JUSTIFICATION, RECOMMENDATION AND/OR CORRECTIVE ACTION:

The problem was traced to the gear reducer in the Air Supply that had previously been replaced, (see Waiver R09081-6). All reducers of this type were returned to the manufacturer. The reducers were inspected and if necessary, reworked to meet the requirements of this application. One of these reworked reducers was installed in the Air Supply and the following retests performed.

a) Preliminary Electrical Checkout, Paragraph 5.9.
b) CPL-16 Calibration, Paragraph 5.10.1.1.3
c) CPL-28 Calibration, Paragraph 5.10.1.14
d) Logic Check, Paragraph 5.10.2.7.2

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

DEVIATION

DATE 1/20/67

NAME Acceptance Test Procedure S/N FM-39 DWG. NO. & REV. 804-104 L

DATE REC'D LOT # # JOB #

SOURCE (MFG. OR DEPT.)

INSPECTION REPORT NO.

UNIT Q.C. Engineering
E. R. Parent

ITEM		WAIVE YES	WAIVE NO
	The test was interrupted at paragraph 5.10.7 Film Drive Smoothness, to remove the Crab and Stereo Servos for updating.		

	WAIVER APPROVAL	DATE	AS APPLICABLE	REVIEWED BY	DATE
QUALITY CONTROL:	[signature]	1-20-67	☐ PRODUCTION ENG.		
PROJECT:	[signature]	1/20/67	☑ RELIABILITY	Jos P. Zgadlo	1/20/67
CUSTOMER:	P Burns for R. Deering	1/20/67	☐		

JUSTIFICATION, RECOMMENDATION AND/OR CORRECTIVE ACTION:

The servos were removed, updated, component level tested, and shipped for field retrofit of Space Chamber FM-37. The servos removed from FM-37 were received from the field, updated, component-level tested and installed on Space Chamber FM-39. The following ~~kmx~~ retests were then accomplished:

a) Preliminary Electrical Checkout, Paragraph 5.9

b) Crab Servo Checkout (Abbreviated per Waiver RO-9081-1)

c) Stereo Servo Checkout (Abbreviated per Waiver RO-9081-1)

d) Servo Steady-State & Surge Currents (see Waiver RO-9081-1)

27

AC 1249A 11/64

Approved for Release: 2024/01/30 C05098941

C05098941

VARIATION [A]

DEVIATION [ ]

Approved for Release: 2024/01/30 C05098941.

MANCE

AL DIVISION

SHEET ____ OF ____

SERIAL NO. RO-9081-12

MRB NO. ____

DATE 1/20/67

ITEM NAME Acceptance Test Procedure S/N FM-39 DWG. NO. & REV. 804-104-L

DATE REC'D ____ LOT # ____ QTY ____ QTY DEF. ____ P. O. # ____ JOB # ____

SOURCE (MFG. OR DEPT) ____ INSPECTION UNIT Q.C. Engineering

INSPECTION REPORT NO. ____ ORIGINATOR E. R. Parent

ITEM	DESCRIPTION OF NON-CONFORMANCE	WAIVE YES / NO
	Suspiciously high Azimuth Servo Drive Current and long repositioning transition times resulted in an interference investigation in the area of the bearing clamp in the +Y direction, at the end of the Acceptance Test. The ~~maximum~~ actual readings of current and time, however, were within specified limits.	

WAIVER APPROVAL		DATE	AS APPLICABLE	REVIEWED BY	DATE
QUALITY CONTROL:	[signature]	1-20-67	☐ PRODUCTION ENG.		
PROJECT:	[signature]	1/25/67	☐ RELIABILITY		
CUSTOMER:	[signature]	1/25/67	☐		

JUSTIFICATION, RECOMMENDATION AND/OR CORRECTIVE ACTION:

The problem was caused by a chip (up to .015" thick) from the Delrin bearing (Dwg. No. 813-254) wedged between the bearing surface and the related truss sliding surface. The chip was removed and the clamp assembly was wiped clean. The servo current and transition times were rechecked after final assembly of the clamp had been accomplished. The condition observed had improved measurably.

28

AO 1249A (1-64)

Approved for Release: 2024/01/30 C05098941

IN-PROCESS TEST

- COMPONENT RUNNING TIME - F - 39

PART NUMBER	SERIAL NUMBER	COMPONENT	POWER ON TIME (Hrs)	FEET OF RECORD	NUMBER OF ACTUATIONS	RECORD TRANSPT. CONTROL ACTUATIONS	DRIVE MOTOR ON TIME (Hrs)	PLATEN MOTOR ON TIME (Hrs)	LIMIT SWITCH ACTUATIONS	SS/D ON TIME (Hrs)	LOOPER CYCLES	BRAKE ACTUATIONS
510-105	N - 634	Gain Control Assembly	4.58									
614-100	605053	Elevation Servo	.090									
614-101	612066	Azimuth Servo	.168									
617-114	N - 832	Distribution Box Assy	2.0		14							
709-200	N - 844	MSD Assembly	4.3									
808-1075	505	Camera Assembly	4.5									
711-185	N - 646	Air Supply Assy	33 mins.		2000							
712-479	N - 648	Record Storage Assembly	2.0	8500								
516-235	N - 494	Heater Control Assy	0.5		21							
516-235	N - 216	Heater Control Assy	0.4		12							
516-235	N - 221	Heater Control Assy	0.4		12							
516-235	N - 502	Heater Control Assy	0.2		14							
516-235	L - 164	Heater Control Assy	0.4		12							
516-235	N - 496	Heater Control Assy	0.3		18							
516-235	N - 109	Heater Control Assy	0.5		10							
516-235	N - 500	Heater Control Assy	0.3		18							
516-235	N - 105	Heater Control Assy	0.5		11							
516-235	L - 149	Heater Control Assy	0.2		6							
516-235	N - 227	Heater Control Assy	0.4		14							
516-235	N - 503	Heater Control Assy	0.2		10							
516-235	N - 498	Heater Control Assy	0.4		20							

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941
C05098941

C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 80h-10h

Operation Record for SPACE CHAMBER ASSY

Drawing 805-101 Revision _____ Unit Serial No. FM-39

	Operator	Test Type	Operating Power On		Heater Power On		Data Gain Control Power On		Azimuth Servo Actuations		Elevat Servo Actuat	
			Hrs.	Cum. Total	Hrs.	Cum. Total	Hrs.	Cum. Total	No.	Cum. Total	No.	Total
12-1-66	JE	A.T.P.	.83	.83	.04	.04	0	0	6	6	5	5
12-1-66	RLK	A.T.P.	1.94	2.77	.03	.07	0.02	0.02	0	6	0	5
12-2-66	JE	A.T.P.	3.20	5.97	.05	.12	0.01	0.03	27	33	5	10
12-2-66	RLK	A.T.P	0.30	6.27	0	.12	0	0.03	0	33	0	10
12-3-66	JHE	ATP	2.38	8.65	0	.12	0	0.03	0	33	8	18
12-3-66	RLK	ATP	2.24	10.89	0	.12	0	0.03	0	33	0	18
12-5-66	RK	ATP	2.11	13.00	0	.12	0.32	0.35	0	33	0	18
12-6-66	JHE	PROBLEM ANALYSIS	0.82	13.82	0	.12	0	0.35	0	33	0	18
12-6-66	JHE	PROBLEM ANALYSIS	1.64	15.46	0	.12	0	0.35	0	33	0	18
12-7-66	JHE	PROBLEM ANALYSIS	3.19	18.65	0	.12	0	0.35	0	33	0	18
12-8-66	RLK	PROBLEM ANALYSIS	1.60	20.25	0.26	0.38	0	0.35	0	33	0	18
12-8-66	JHE	PROBLEM ANALYSIS	1.74	21.99	0.0	0.38	0	0.35	0	33	0	18
12-9-66	JHE	PROBLEM ANALYSIS	2.84	24.83	0.23	0.61	0	0.35	0	33	0	18

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. SOL-101

Operation Record for SPACE CHAMBER ASSY

Drawing 805-101 Revision _____ Unit Serial No. FM-39

Date	Operator	Test Type	Operating Power On		Heater Power On		Data Gain Control Power On		Azimuth Servo Actuations		Elevation Servo Actuations	
			Hrs.	Cum. Total	Hrs.	Cum. Total	Hrs.	Cum. Total	No.	Cum. Total	No.	Cum. Total
12-10-66	JHE	ATP	1.03	25.86	0.47	1.08	0	0.35	0	33	0	18
12-11-66	E.L.	A.T.P.	1.30	27.16	0.0	1.08	0	0.35	0	33	0	18
12-11-66	RLK	ATP	3.51	30.67	0.0	1.08	2.01	2.36	0	33	0	18
12-11-66	[illegible]	ATP	4.28	34.95	0.0	1.08	3.85	6.21	0	33	0	18
12-12-66	E.L.	A.T.P.	0.23	35.18	0.0	1.08	0.0	6.21	0	33	0	18
12-15-66	RLK	A.T.P	2.55	37.73	0.05	1.13	.16	6.37	0	33	0	18
12-16-66	RLK	A.T.P.	1.77	39.50	1.41	2.54	0	6.37	0	33	0	18
12-16-66	JHE	ATP	3.14	42.64	.05	2.59	0	6.37	21	54	16	34
12-17-66	JHE	ATP	4.01	46.65	0.50	3.09	0	6.37	0	54	0	34
12-18-66	[illegible]	ATP	6.22	52.87	0	3.09	2.89	9.26	0	54	0	34
12-18-66	E.L.	A.T.P	3.64	56.51	0	3.09	4.81	14.07	0	54	0	34
12-19-66	JHE	ATP	2.30	58.81	0	3.09	0.72	14.79	0	54	0	34
12-19-66	RLK	A.T.P	2.57	61.38	0	3.09	0.01	14.80	0	54	0	34

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104

Operation Record for SPACE CHAMBER ASSY

Drawing 805-101 Revision _____ Unit Serial No. _____

Date	Operator	Test Type	Operating Power On		Heater Power On		Data Gain Control Power On		Azimuth Servo Actuations		Elevation Servo Actuations	
			Hrs.	Cum. Total	Hrs.	Cum. Total	Hrs.	Cum. Total	No.	Cum. Total	No.	Cum. Total
1-18-67	E.K.	A.T.P	2.02	65.40	0	3.09	0	14.80	36	90	37	71
1-18-67	REK	ATP	0.52	65.92	0	3.09	0	14.80	0	90	0	71
1-19-67	REK	ATP	0.62	66.54	0	3.09	0	14.80	42	132	5	76

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941
C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104

Operation Record for SPACE CHAMBER ASSY

Drawing 805-101 Revision _____ Unit Serial No. FM-39

	Operator	Test Type	Focus Adjust Motor On Time		Platen Position Changes		Data Forward Focus Limit Sw. Actuations		Reverse Focus Limit Sw. Actuations			
			Min.	Cum. Total	No.	Cum. Total	No.	Cum. Total	No.	Cum. Total		Cum. Total
12-1-66	JE	ATP	0	0	0	0	0	0	0	0		
12-1-66	RLK	A.T.P.	9	9.0	140	140	4	4	4	4		
12-2-66	JE	A.T.P.	2	11.0	4	180	0	4	0	4		
12-2-66	RLK	A.T.P	0	11.0	0	180	0	4	0	4		
12-3-66	JHE	ATP	1	12.0	2	182	0	4	0	4		
12-3-66	RLK	ATP	18	30.0	420	602	0	4	0	4		
12-5-66	RLK	ATP	6	36.0	112	714	1	5	2	6		
12-5-66	JHE	PROBLEM ANALYSIS	3	39.0	24	738	0	5	0	6		
12-6-66	JHE	PROBLEM ANALYSIS	3	42.0	32	770	0	5	0	6		
12-7-66	JHE	PROBLEM ANALYSIS	12	54.0	176	946	0	5	0	6		
12-8-66	RLK	PROBLEM ANALYSIS	30	84.0	168	1114	0	5	1	7		
12-8-66	JHE	PROBLEM ANALYSIS	24	108.0	174	1288	0	5	0	7		
12-9-66	JHE	PROBLEM ANALYSIS	8	116.0	264	1552	0	5	0	7		

C05098941
Approved for Release: 2024/01/30 C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104

Operation Record for SPACE CHAMBER ASSY

Drawing 805-101 Revision _____ Unit Serial No. FM-39

	Operator	Test Type	Focus Adjust Motor On Time		Platen Position Changes		Data Forward Focus Limit Sw. Actuations		Reverse Focus Limit Sw. Actuations			
			Min.	Cum. Total	No.	Cum. Total	No.	Cum. Total	No.	Cum. Total		Cum. Total
12-10-66	JHE	ATP	8	124	128	1680	0	5	0	7		
12-11-66	E.R.	ATP	9	133	137	1817	0	5	0	7		
12-11-66	RLK	ATP	26	159	130	1947	10	15	10	17		
12-11-66	[illegible]	ATP	51	210	290	2237	20	35	20	37		
12-12-66	E.R.	ATP	0	210	0	2237	0	35	0	37		
12-15-66	RLK	ATP	10	220	4	2241	1	36	0	37		
12-16-66	RLK	ATP	0	220	0	2241	0	36	0	37		
12-16-66	JHE	ATP	10	230	56	2297	4	40	5	42		
12-17-66	JHE	ATP	6	236	106	2403	0	40	0	42		
12-18-66	[illegible]	ATP	45	281	264	2667	13	53	14	56		
12-18-66	E.R.	ATP	44	325	276	2943	23	76	26	82		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	8	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		

C05098941
Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104

Operation Record for SPACE CHAMBER ASSY

Drawing 805-101 Revision _____ Unit Serial No. FM-39

Date	Operator	Test Type	Focus Adjust Motor On Time		Platen Position Changes		Data Forward Focus Limit Sw. Actuations		Reverse Focus Limit Sw. Actuations			
			Min.	Cum. Total	No.	Cum. Total	No.	Cum. Total	No.	Cum. Total		Cum. Total
1-18-67	E.K.	A.T.P.	0	350	0	3007	0	78	0	84		
1-18-67	RLK	A.T.P	1	351	2	3009	1	79	0	84		
1-19-67	RLK	A.T.P	0	351	0	3009	0	79	0	84		

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941
C05098941

C05098941

Approved for Release: 2024/01/30 C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104

Operation Record for SPACE CHAMBER ASSY

Drawing 805-101 Revision _____ Unit Serial No. FM-39

	Operator	Test Type	MSD Actuations		MSD/Data Lamp On Time		Data Record Length Calculation		Looper Cycles			
			No.	Cum. Total	Hrs.	Cum. Total	Feet	Cum. Total	No.	Cum. Total		Cum. Total
12-1-66	JE	ATP	2	2	.38	.38	405	405	212	212		
12-1-66	Rek	A.T.P.	74	76	.45	0.83	315	720	101	313		
12-2-66	JE	A.T.P	7	83	.02	0.85	20	740	15	328		
12-2-66	Rek	A.T.P	0	83	0	0.85	0	740	0	328		
12-3-66	JHE	ATP	62	145	0.26	1.11	360	1100	112	440		
12-3-66	RDK	ATP	205	350	.57	1.68	585	1685	239	679		
12-5-66	RDK	ATP	137	487	.41	2.09	427	2112	170	849		
12-5-66	JHE	PROBLEM ANALYSIS	94	581	.19	2.28	160	2272	112	961		
12-6-66	JHE	PROBLEM ANALYSIS	87	668	.26	2.54	285	2557	186	1147		
12-7-66	JHE	PROBLEM ANALYSIS	183	851	.51	3.05	560	3117	283	1430		
12-8-66	RDK	PROBLEM ANALYSIS	149	1000	.38	3.43	435	3552	189	1619		
								252				

Approved for Release: 2024/01/30 C05098941

C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104

Operation Record for SPACE CHAMBER ASSY

Drawing 805-101 Revision _____ Unit Serial No. FM-39

	Operator	Test Type	MSD Actuations		MSD/Data Lamp On Time		Data Record Length Calculation		Looper Cycles			
			No.	Cum. Total	Hrs.	Cum. Total	Feet	Cum. Total	No.	Cum. Total		Cum. Total
12-10-66	JHC	A.T.P.	102	1379	0.26	4.29	305	4463	142	2232		
12-11-66	E.L.	A.T.P	132	1511	0.42	4.71	405	4868	170	2402		
12-11-66	RLK	ATP	66	1577	0.24	4.95	260	5128	125	2527		
12-11-66	[illegible]	ATP	0	1577	0.0	4.95	0	5128	0	2527		
12-12-66	E.L.		3	1580	0.15	5.10	140	5268	48	2575		
12-15-66	RLK	ATP	43	1623	.29	5.39	360	5628	110	2685		
12-16-66	RLK	ATP	29	1652	.67	6.06	900	6528	240	2925		
12-16-66	JHC	ATP	21	1673	.19	6.25	145	6673	62	2987		
12-17-66	JHC	ATP	118	1791	.70	6.95	585	7258	264	3251		
12-17-66	[illegible]	ATP	200	[illegible]	.74	7.69	705	7963	298	[illegible]		
[illegible]	E.L.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0	7963	0	[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 50L-10L

Operation Record for SPACE CHAMBER ASSY

Drawing 805-101 Revision _____ Unit Serial No. FM-39

Date	Operator	Test Type	MSD Actuations		MSD/Data Lamp On Time		Data Record Length Calculation		Looper Cycles			
			No.	Cum. Total	Hrs.	Cum. Total	Feet	Cum. Total	No.	Cum. Total		Cum. Total
1-18-67	E.L.	A.T.P.	0	2056	0	8.54	0	8793	0	3760		
1-18-67	RLK	ATP	20	2076	.20	8.74	270	9063	87	3847		
1-19-67	RLK	ATP	0	2076	0	8.74	0	9063	0	3847		

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941
C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

INSTRUMENTATION CALIBRATION DATA

CPL-1	Command Monitor (CB12)
CPL-2	Record, Storage, Record Path Temperature
CPL-3	Elevation Mirror Differential Temperature
CPL-4	Elevation Mirror Temperature
CPL-5	Air Heater Temperature
CPL-6	Air Heater 45° Mirror Temperature
CPL-7	Component Support Tube, Y Station 140 Temperature
CPL-8	Component Support Tube, Y Station 179 Temperature
CPL-9	Component Support Tube, Y Station 198 Temperature
CPL-10	Temperature Instrumentation Reference Voltage
CPL-11	Component Support Tube, Z Station 179 Temperature
CPL-12	Slit Position
CPL-13	Elevation Position
CPL-14	Azimuth Position
CPL-15	Record Storage Quantity, Coarse No. 1/Reel Rotation
CPL-16	Record Storage Quantity, Fine
CPL-17	Looper Position/Record Tension
CPL-18	Motor Speed Drive Output
CPL-19	Take-Up Motor Current, Torque Motor Current
CPL-20	Platen Position (coarse)
CPL-21	Gain Sensor Output
CPL-22	Gain Forward Channel Output
CPL-23	Gain Reverse Channel Output
CPL-21/22/23	Gain Control Performance
CPL-24	Command Monitor (CB10)
CPL-25	Port Open Telltale
CPL-26	Environmental Supply Output
CPL-27	Platen Position (fine)
CPL-28	Record Storage Quantity, Coarse No. 2
CPL-29	Data Signal Amplifier Operation
CPL-30	Command Monitor (CB8)
CPL-31	Command Monitor (CB9)
CPL-32	Command Monitor (CB11)
CPL-33	Power Control Monitor, Elevation Servo
CPL-34	Power Control Monitor, Azimuth Servo
CPL-35	Operational Supply Output
BBT-1	Looper Position
BBT-2	Motor Speed Drive Output Frequency
BBT-3	Elevation Mirror Temperature
BBT-4	Component Support Tube, Station 177 Temperature
BBT-5	Supply Torque Motor, Command Indicator
BBT-6	Gain Control Command Indicator

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

CPL-1

COMMAND MONITOR (CB12)

Binary	CPL-1 Volts dc
0	2.98
1	4.41

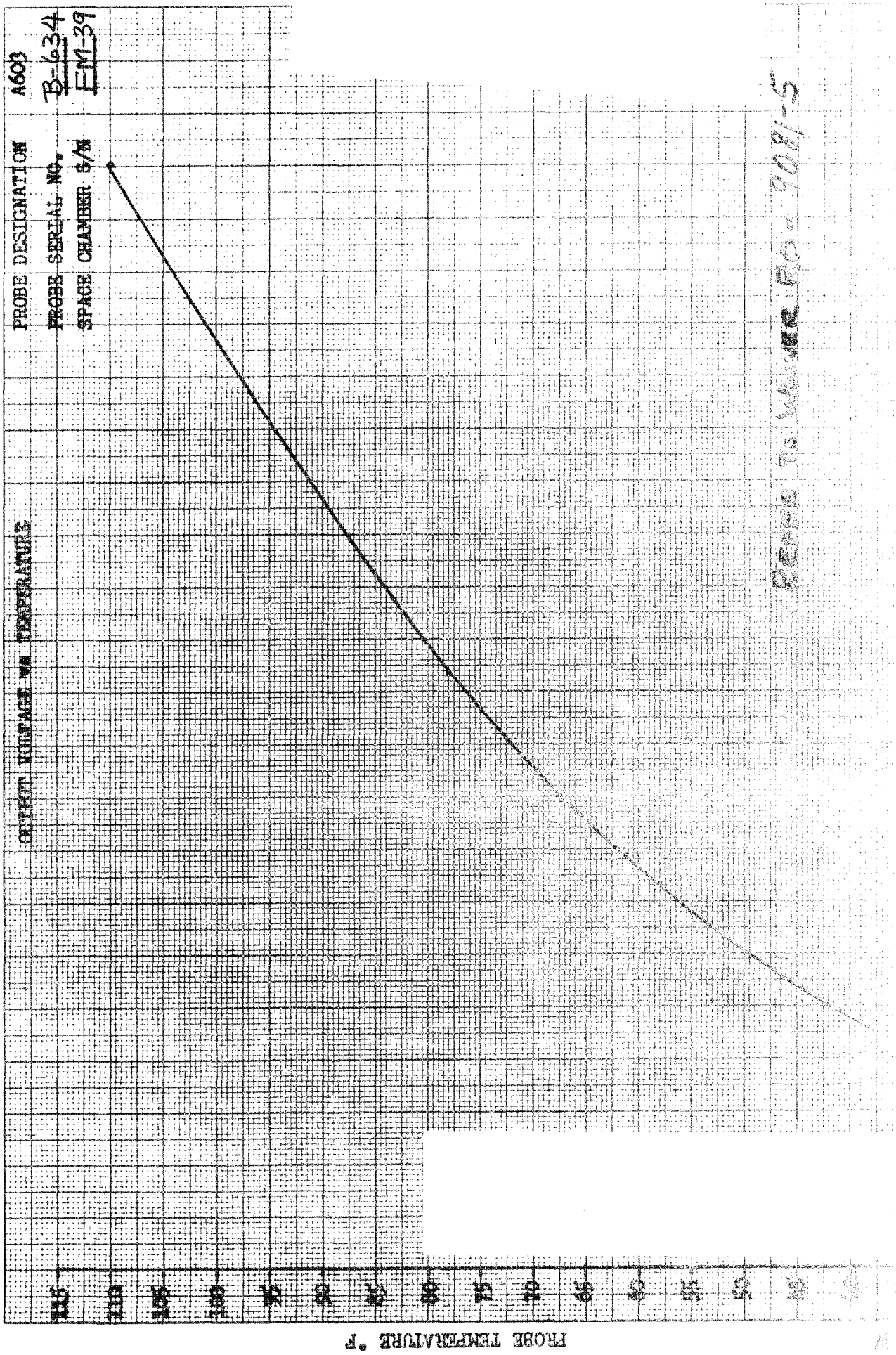
REFER TO WAIVER RO-9081-H

40

Space Chamber S/N EM-2

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

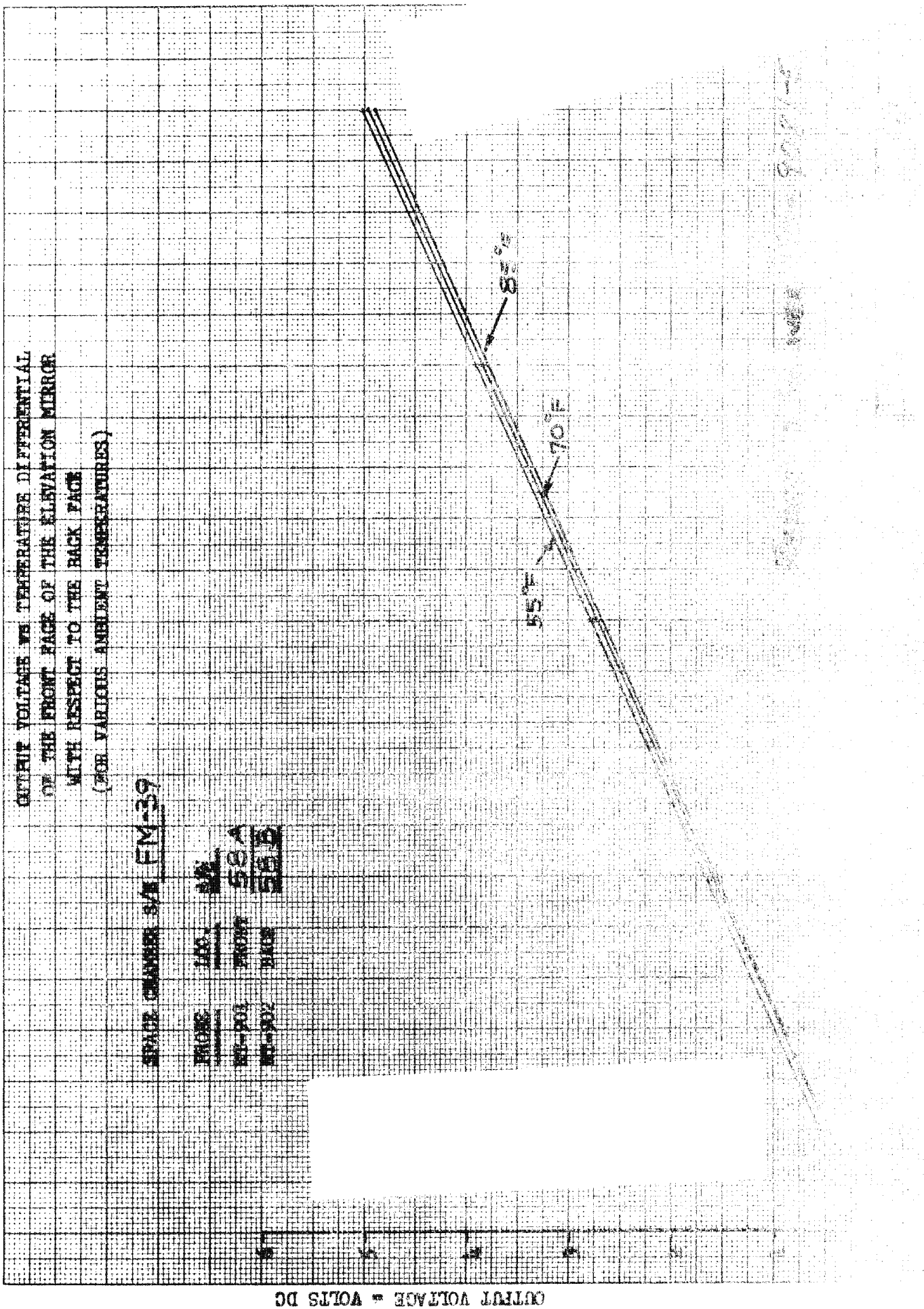


CPL-2

10 X 10 TO THE CM. 359-14
KEUFFEL & ESSER CO.

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

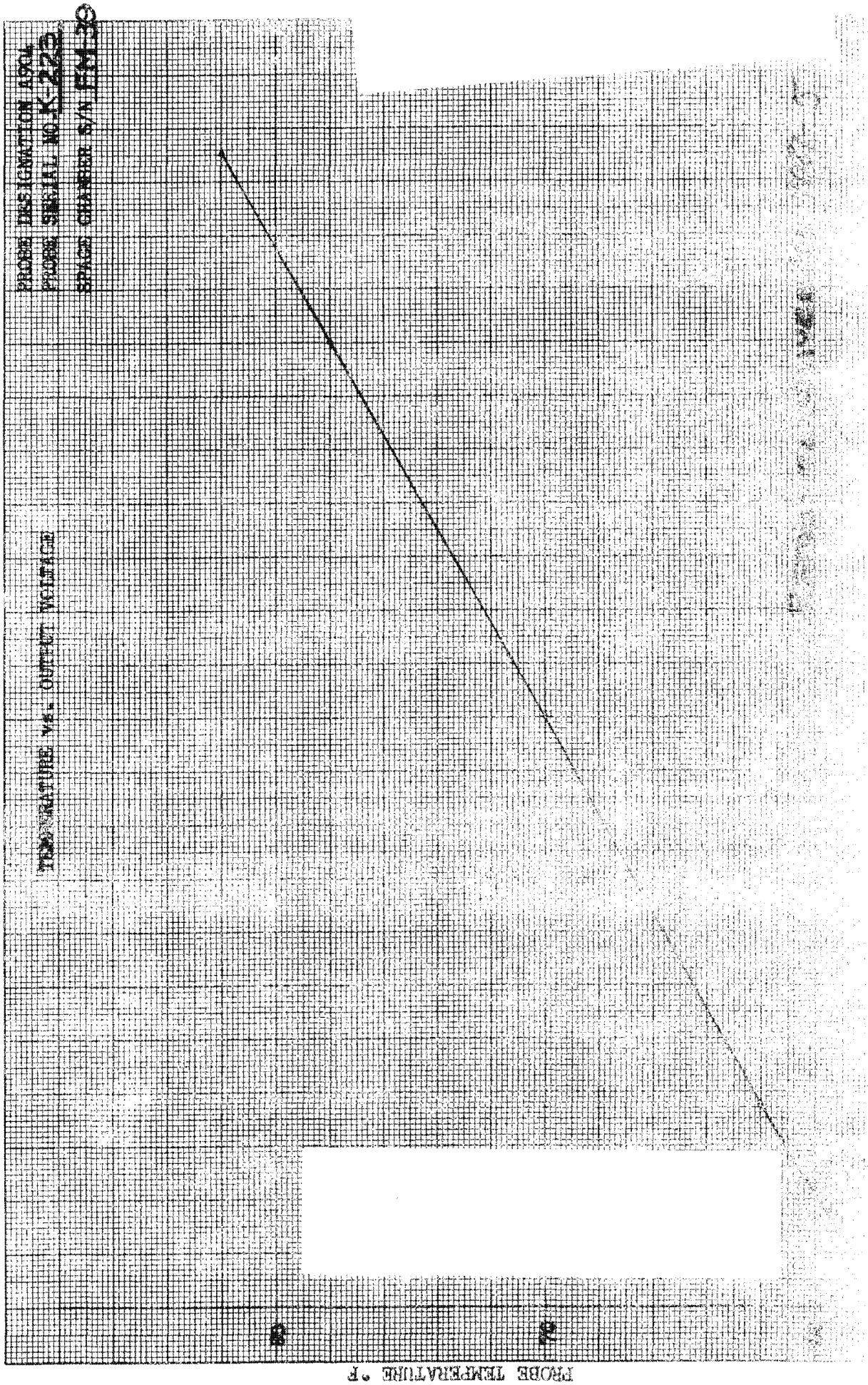


CPL-3

K&E 10 X 10 TO THE CM. 359.14
KEUFFEL & ESSER CO.

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

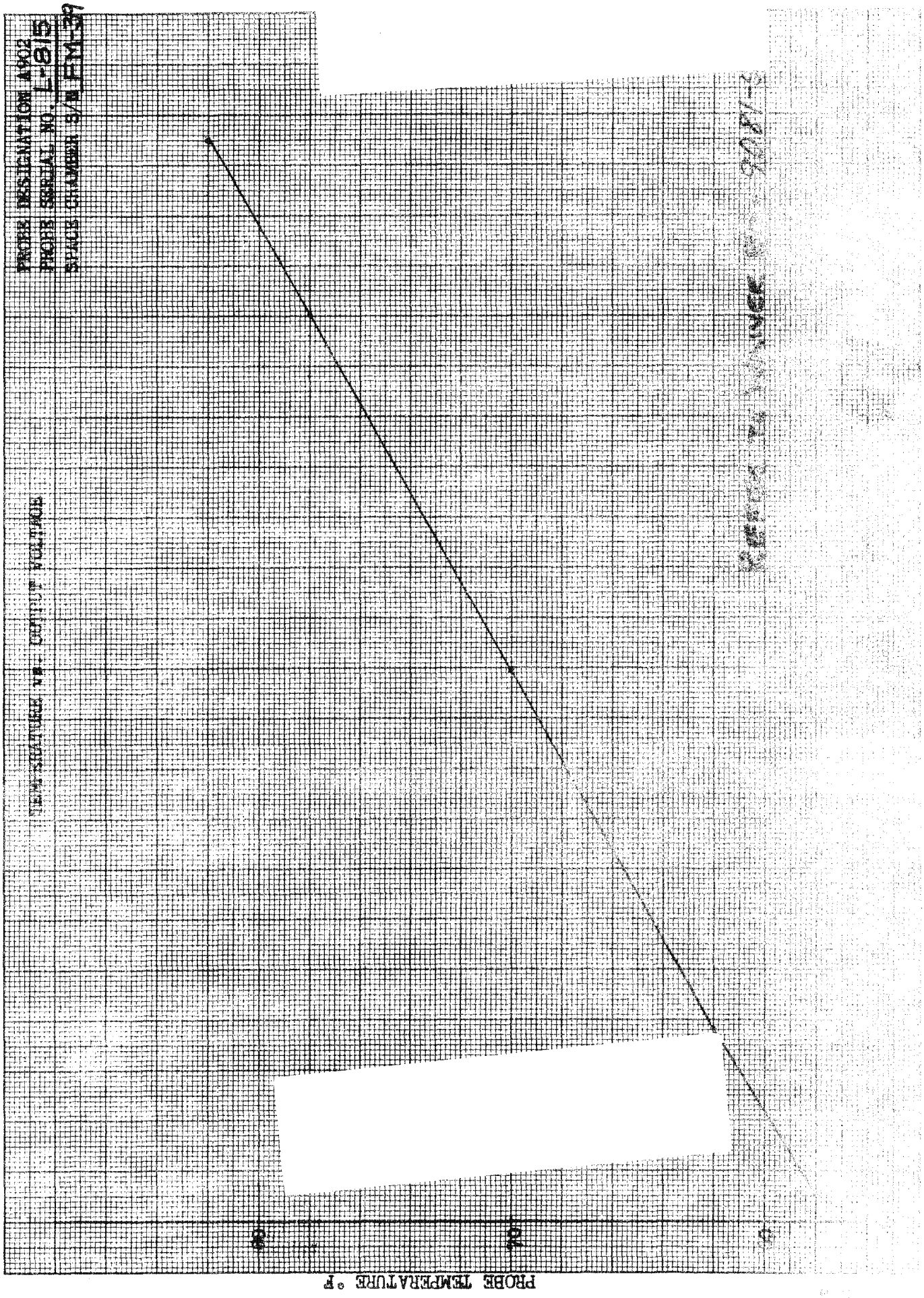


CPL-4

K+E 10 X 10 TO THE CENTIMETER 46 1513
19 X 25 CM. MADE IN U.S.A.
KEUFFEL & ESSER CO.

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

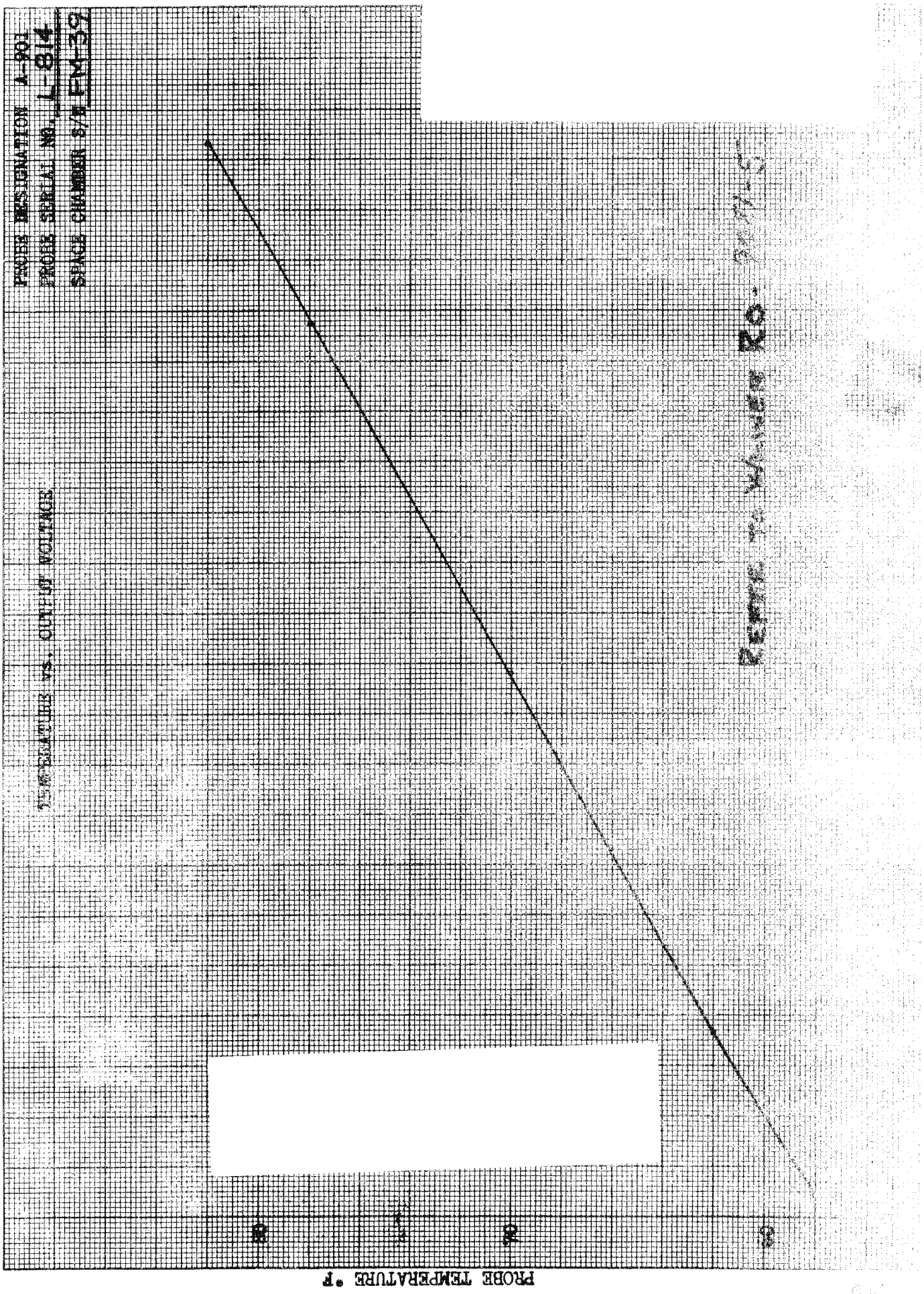


CPL-5

K+E 10 X 10 TO THE CENTIMETER 46 1513
18 X 25 CM. MADE IN U.S.A.
KEUFFEL & ESSER CO.

Approved for Release: 2024/01/30 C05098941

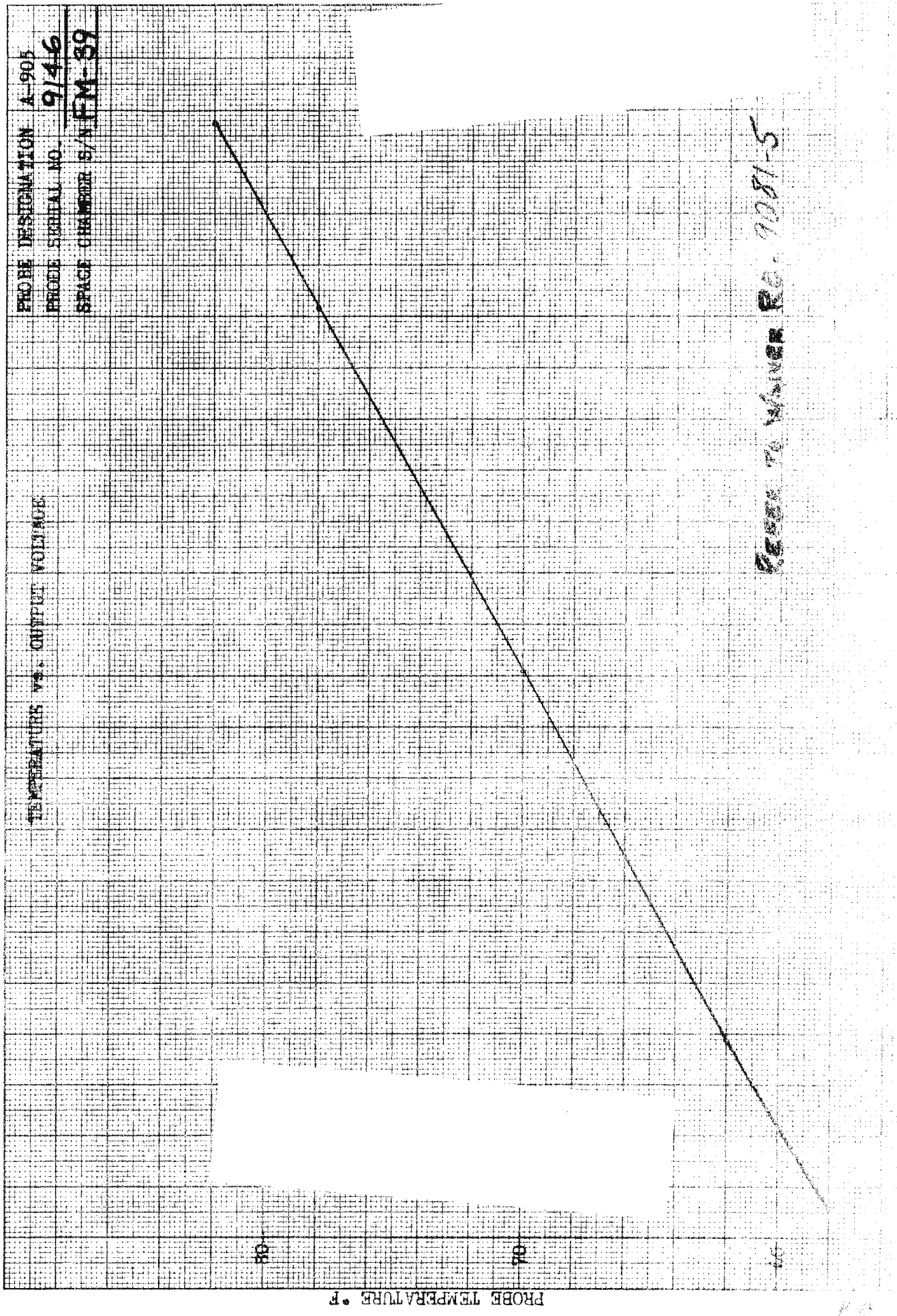
C05098941
Approved for Release: 2024/01/30 C05098941



CPL-6

Approved for Release: 2024/01/30 C05098941

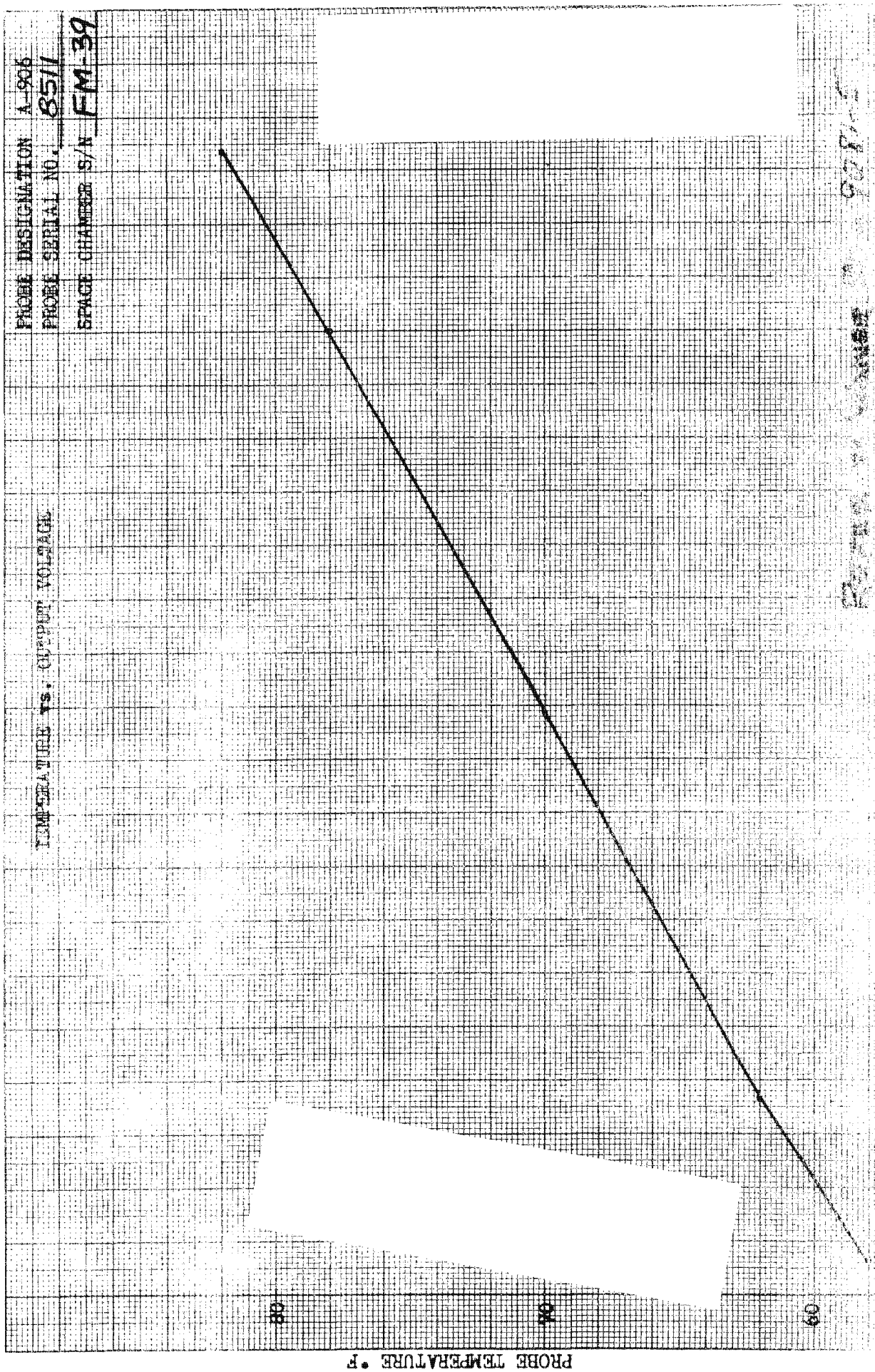
C05098941
Approved for Release: 2024/01/30 C05098941



K+E 10 X 10 TO THE CENTIMETER 46 1513
18 X 25 CM. MADE IN U.S.A.
KEUFFEL & ESSER CO.

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

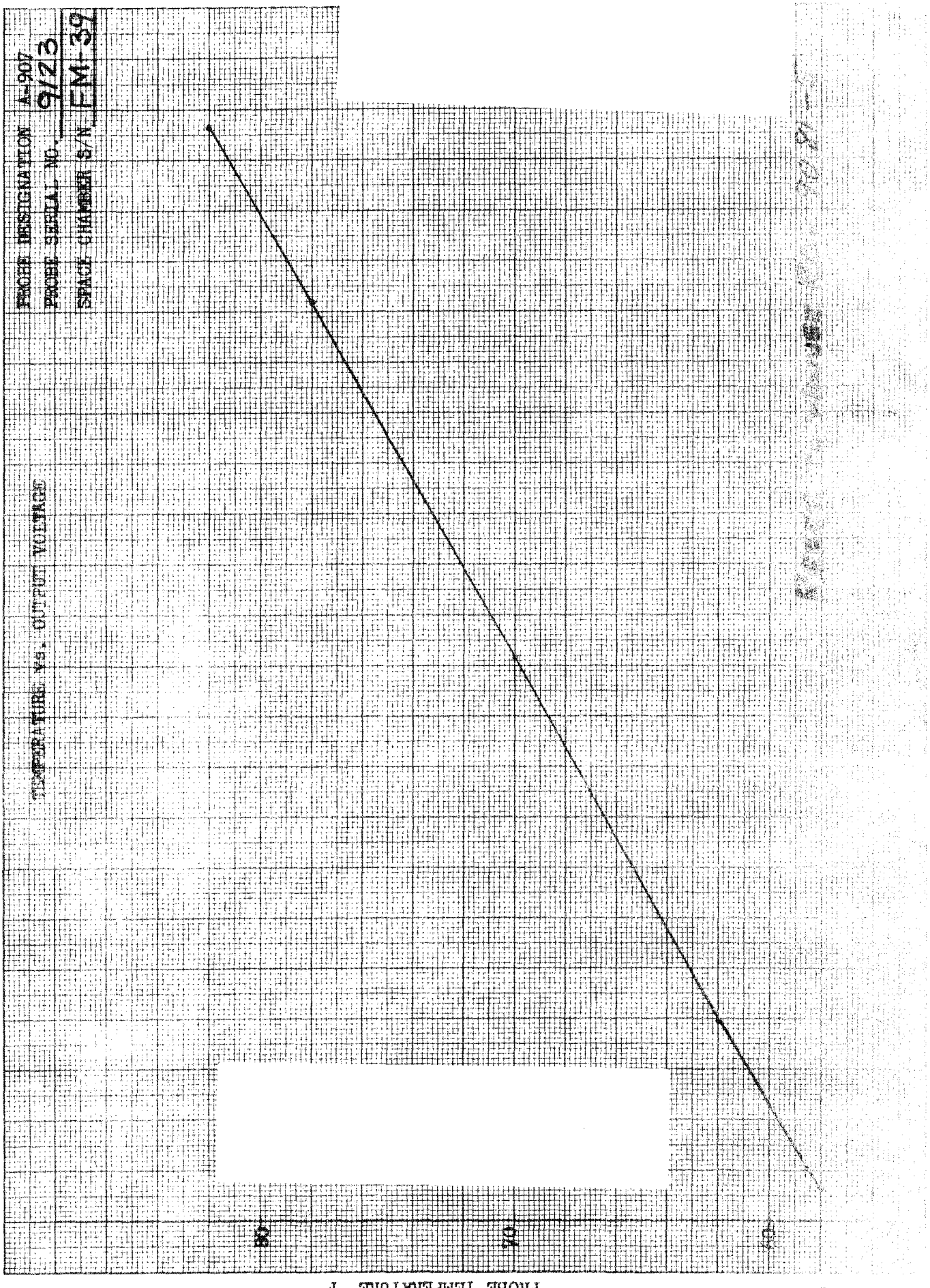


CPL-8

K&E 10 X 10 TO THE CENTIMETER 46 1513
18 X 25 CM
KEUFFEL & ESSER CO.
MADE IN U.S.A.

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941



CPL-9

K+E 10 X 10 TO THE CENTIMETER 46 1513
18 X 25 CM. MADE IN U.S.A.
KEUFFEL & ESSER CO.

Approved for Release: 2024/01/30 C05098941

C05098941

Approved for Release: 2024/01/30 C05098941

CPL-10

TEMPERATURE INSTRUMENTATION REFERENCE VOLTAGE

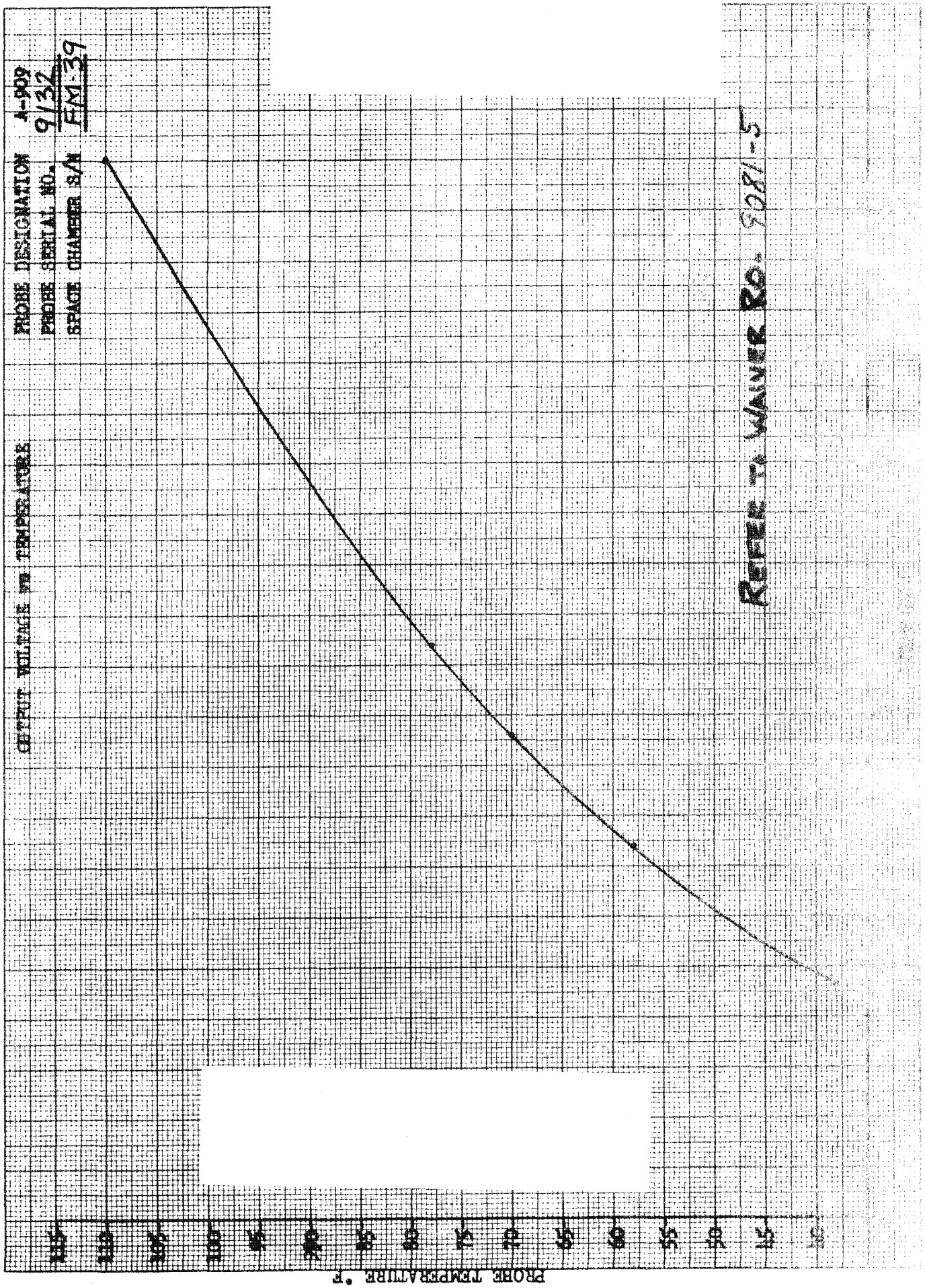
CPL-10 2.46 vdc

REFER TO WAIVER RO-9081-5

Space Chamber S/N FM-39

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941



CPL-11

10 X 10 TO THE CM. 359-14
KEUFFEL & ESSER CO.

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

CPL-12

SLIT POSITION

POSITION	CPL-12 VOLTS dc
1	0.58
2	1.62
3	2.62
4	3.65
5	4.71

Space Chamber S/N FM-39

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

CPL - 1

OUTPUT VOLTAGE VS. MIRROR ELEVATION POSITION

POSITION	CPL-13 VOLTS dc
1	0.51
2	2.45
3	4.41

REFER TO WAIVER RO-9081-11

Space Chamber S/N FM-39

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

CPL - 14

OUTPUT VOLTAGE VS. MIRROR AZIMUTH POSITION

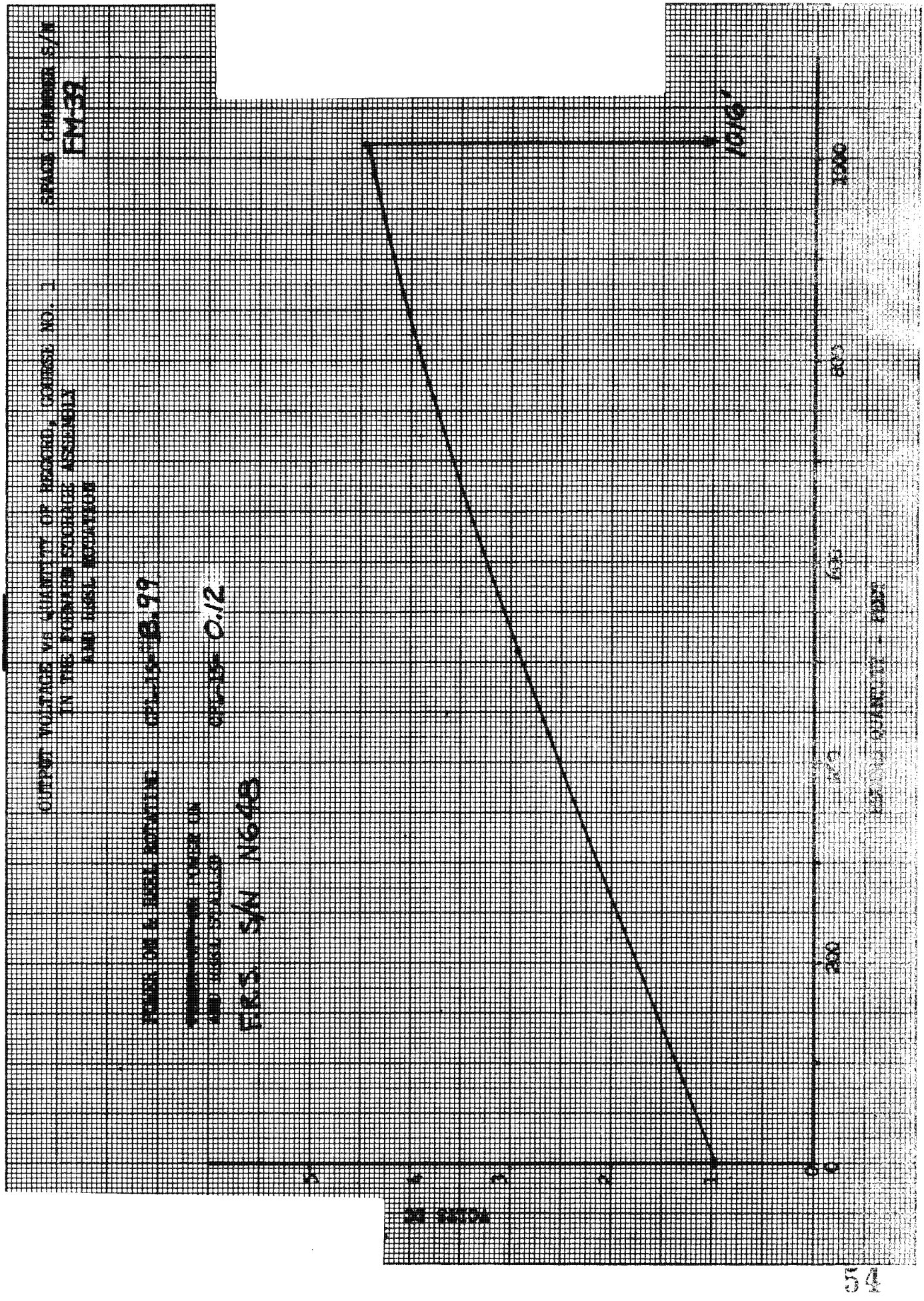
POSITION	CPL - 14 VDC
1	0.52
2	1.04
3	1.62
4	2.18
5	2.74
6	3.30
7	3.87
8	4.46

REFER TO WAIVER RO-9081-11

Space Chamber S/N FM-39

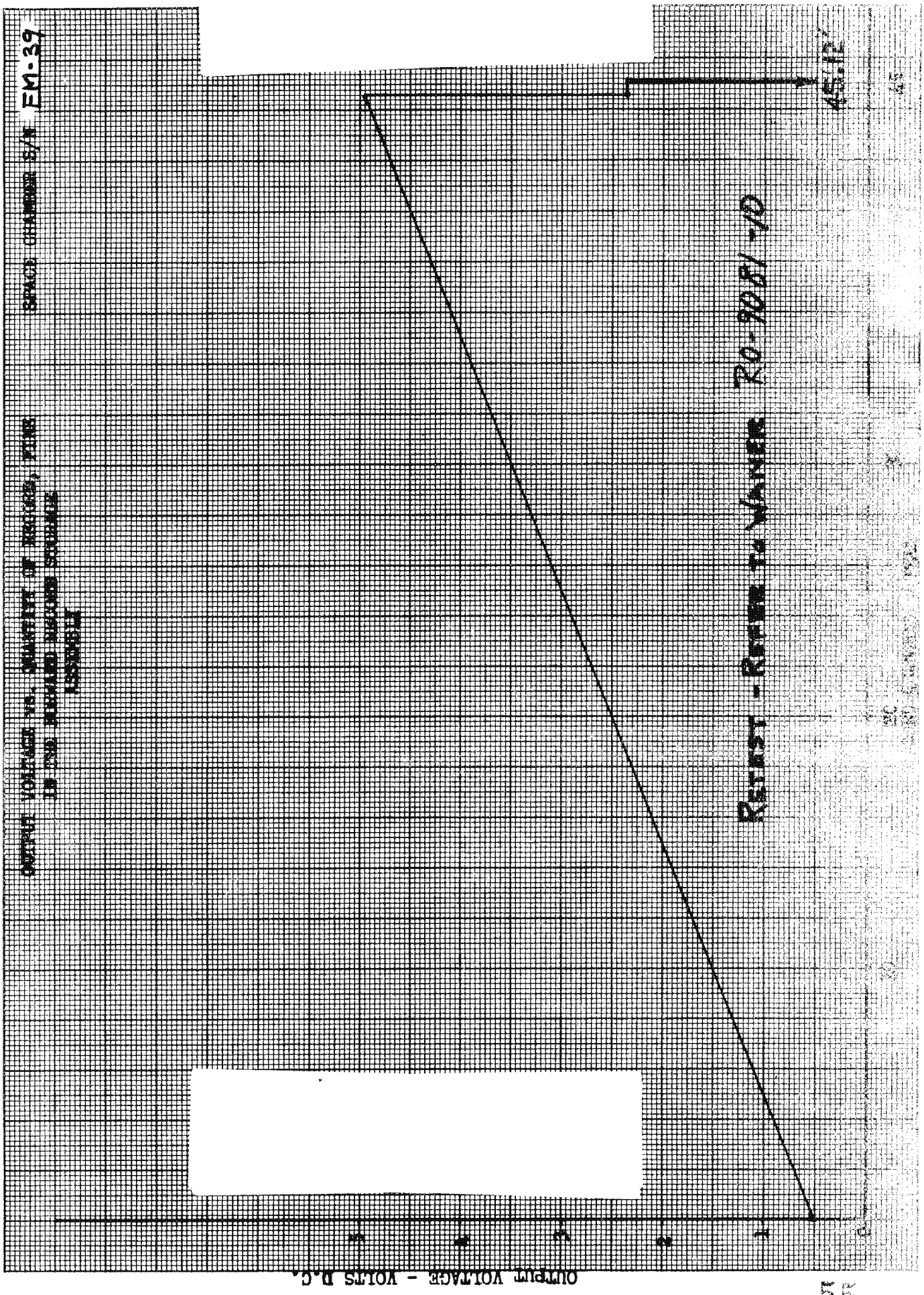
Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941



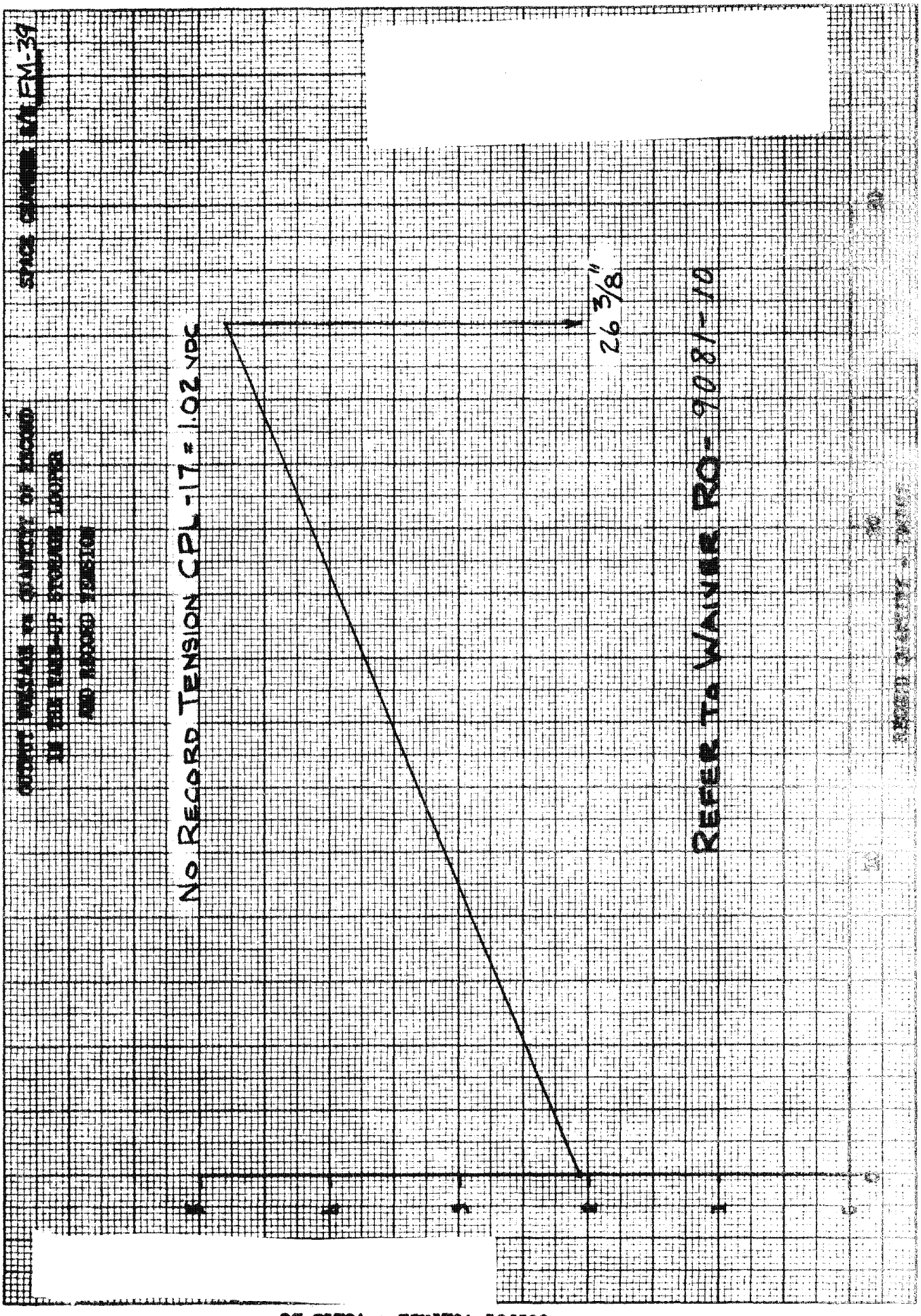
Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941



Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

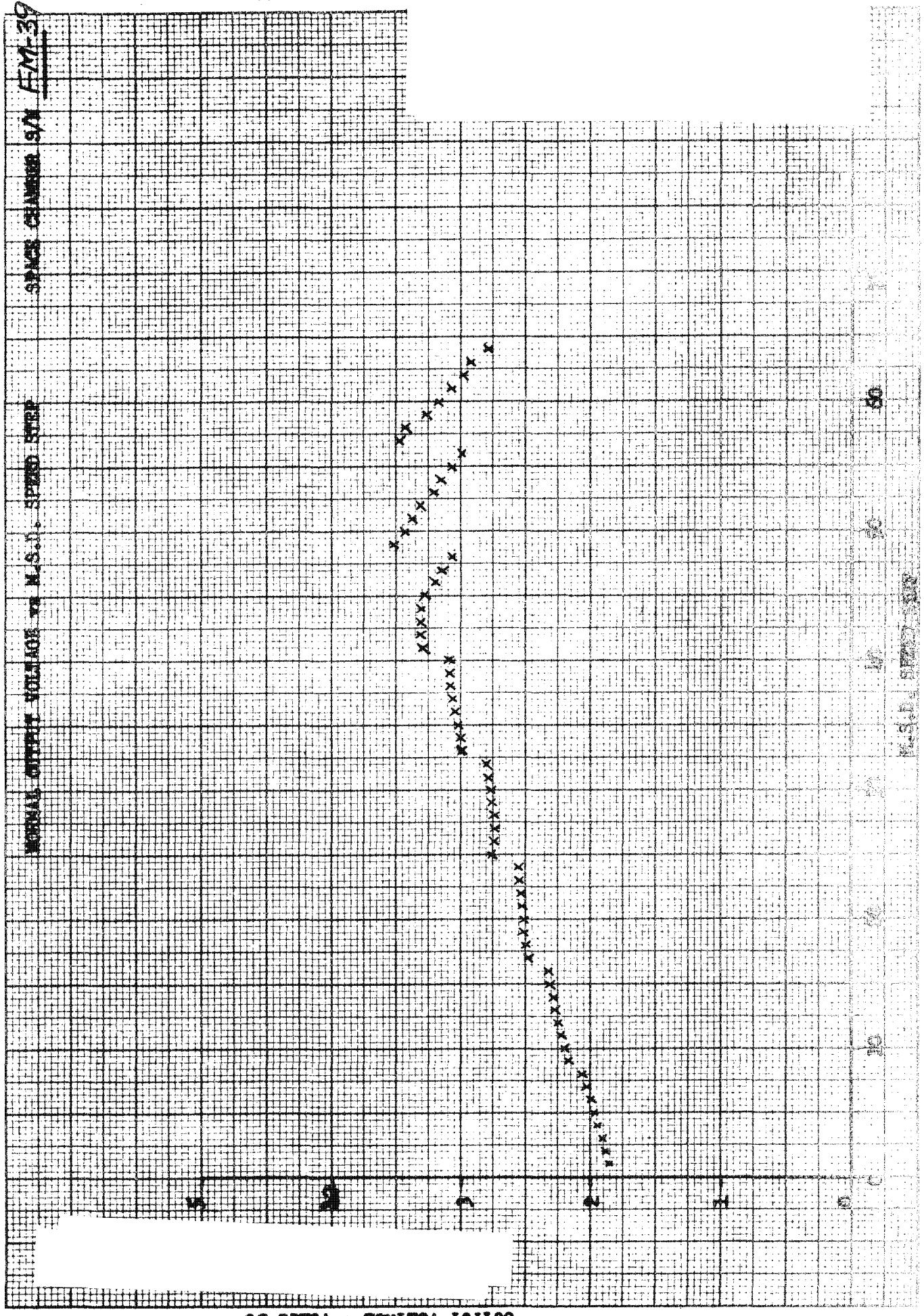


CPL-17

10 X 10 TO THE ½ INCH 359-11G
KEUFFEL & ESSER CO.

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941



Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

NO. 15TR - MP GRAPH PAPER MILLIMETER

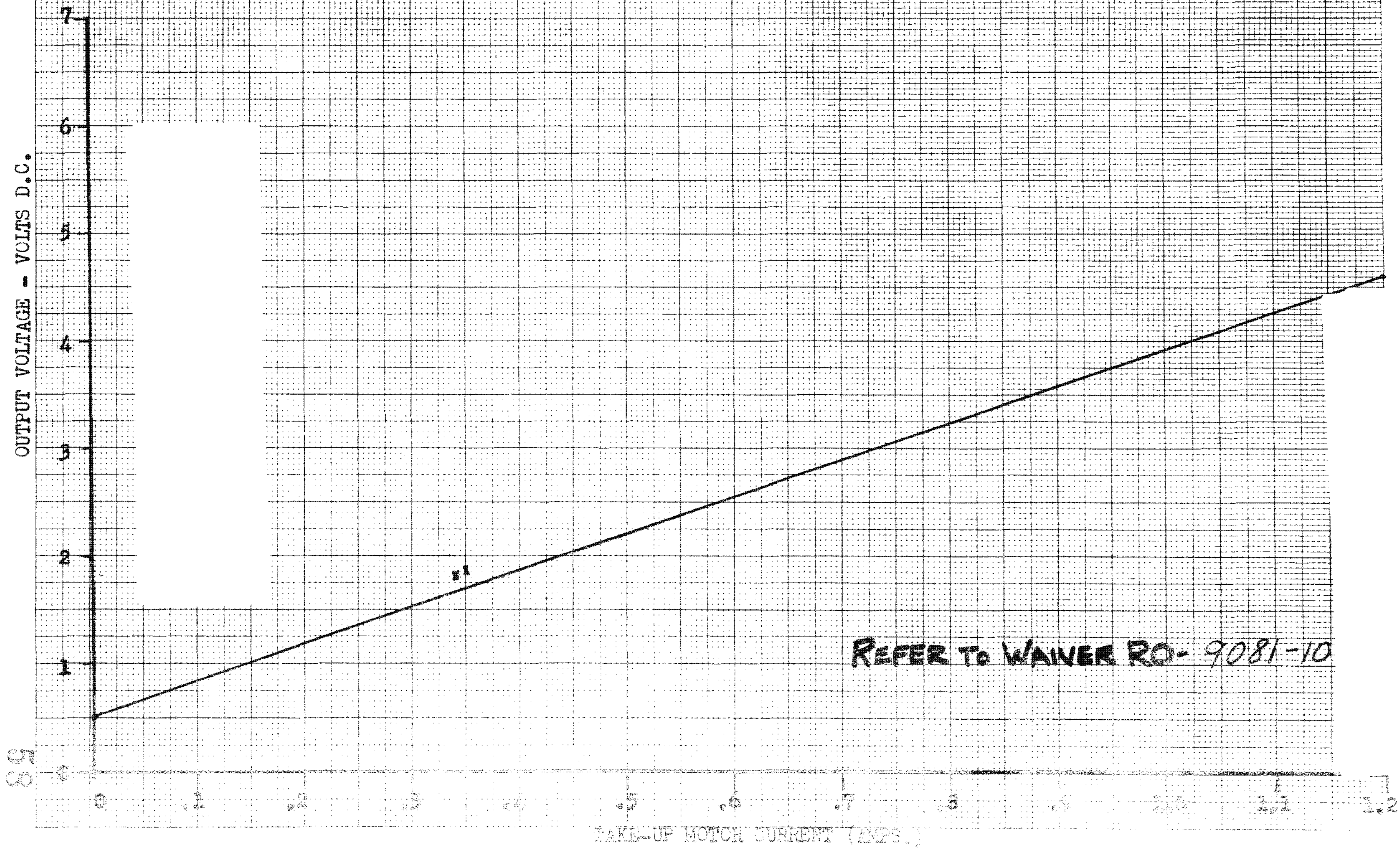
VISIGRAPH MADE IN U S A

CPL-19

OUTPUT VOLTAGE vs TAKE-UP MOTOR CURRENT (GRAPH)

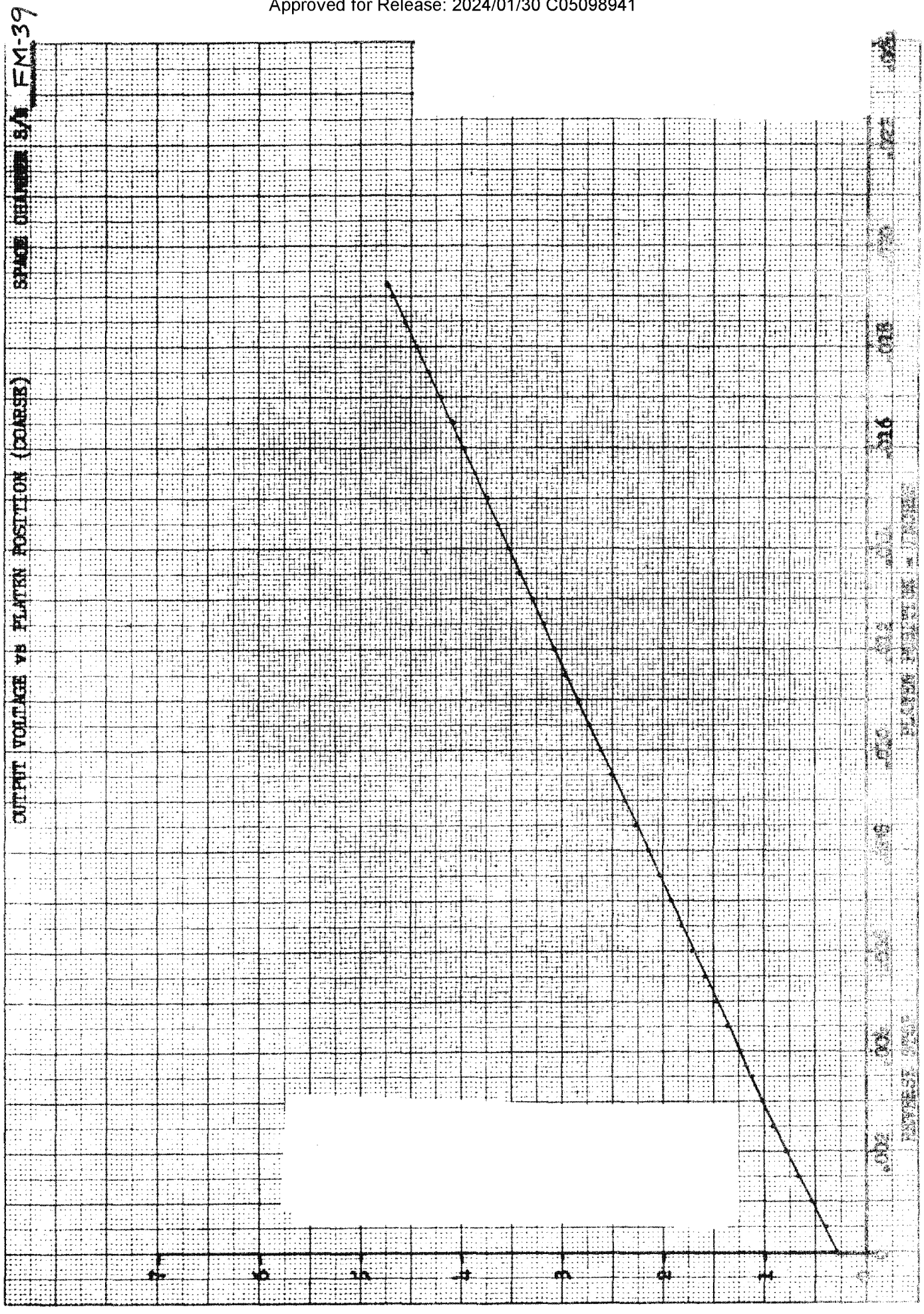
Space Chamber S/N FM-39

SUPPLY BRAKE STEADY STATE VOLTAGE= 1.98 vdc



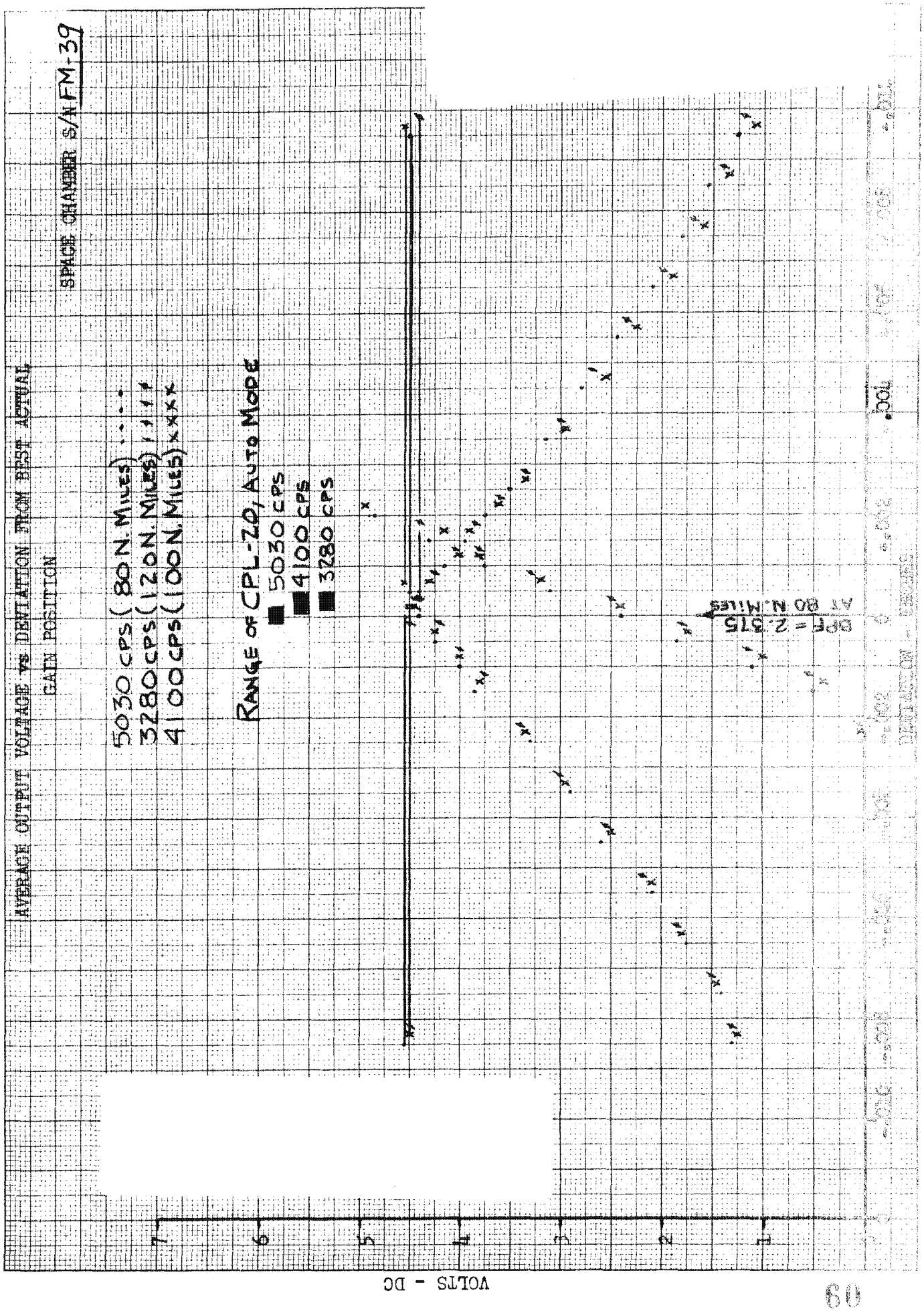
Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941



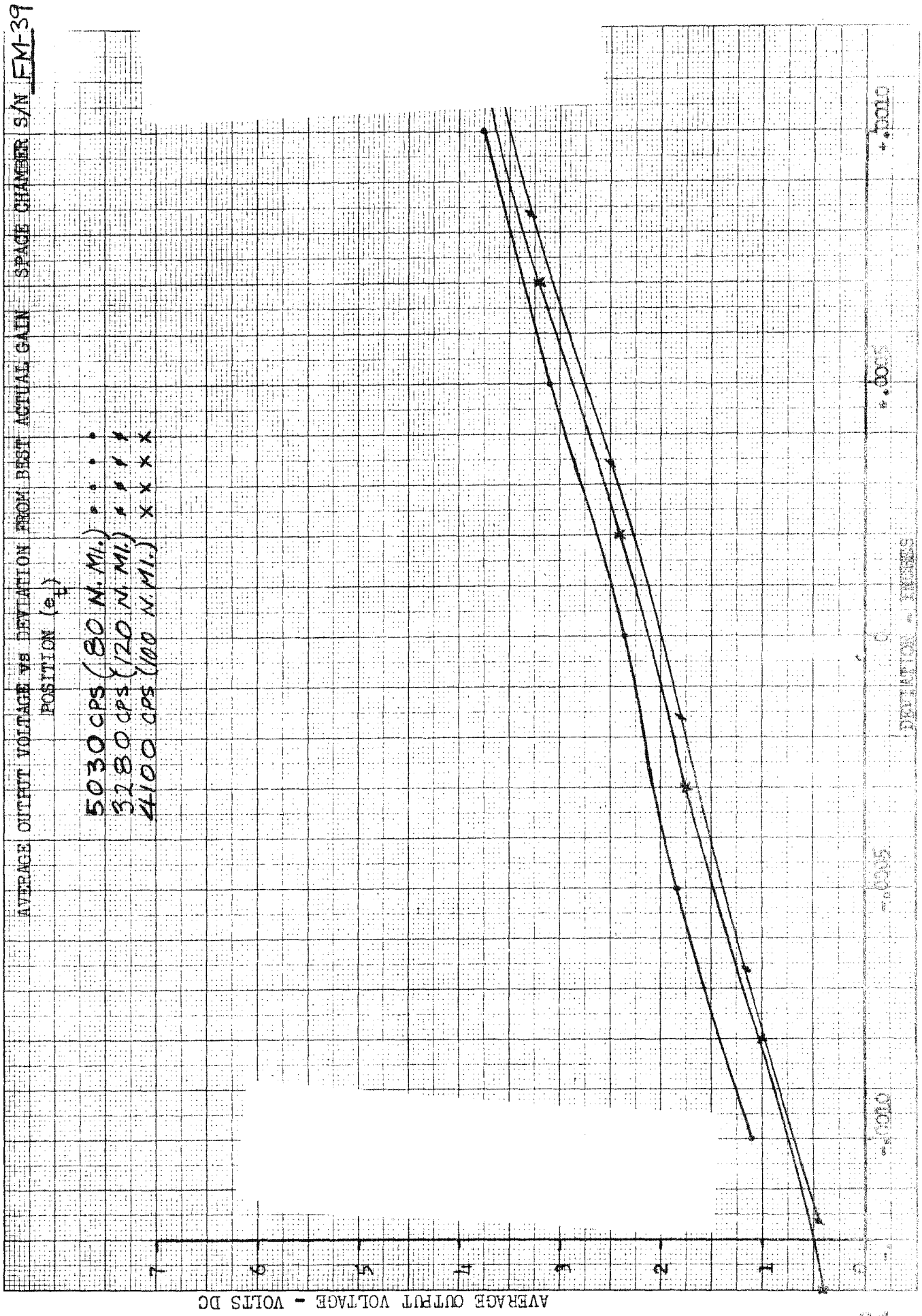
Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941



K&E 10 X 10 TO THE CM. 359-14
KEUFFEL & ESSER CO. MADE IN U.S.A.
Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

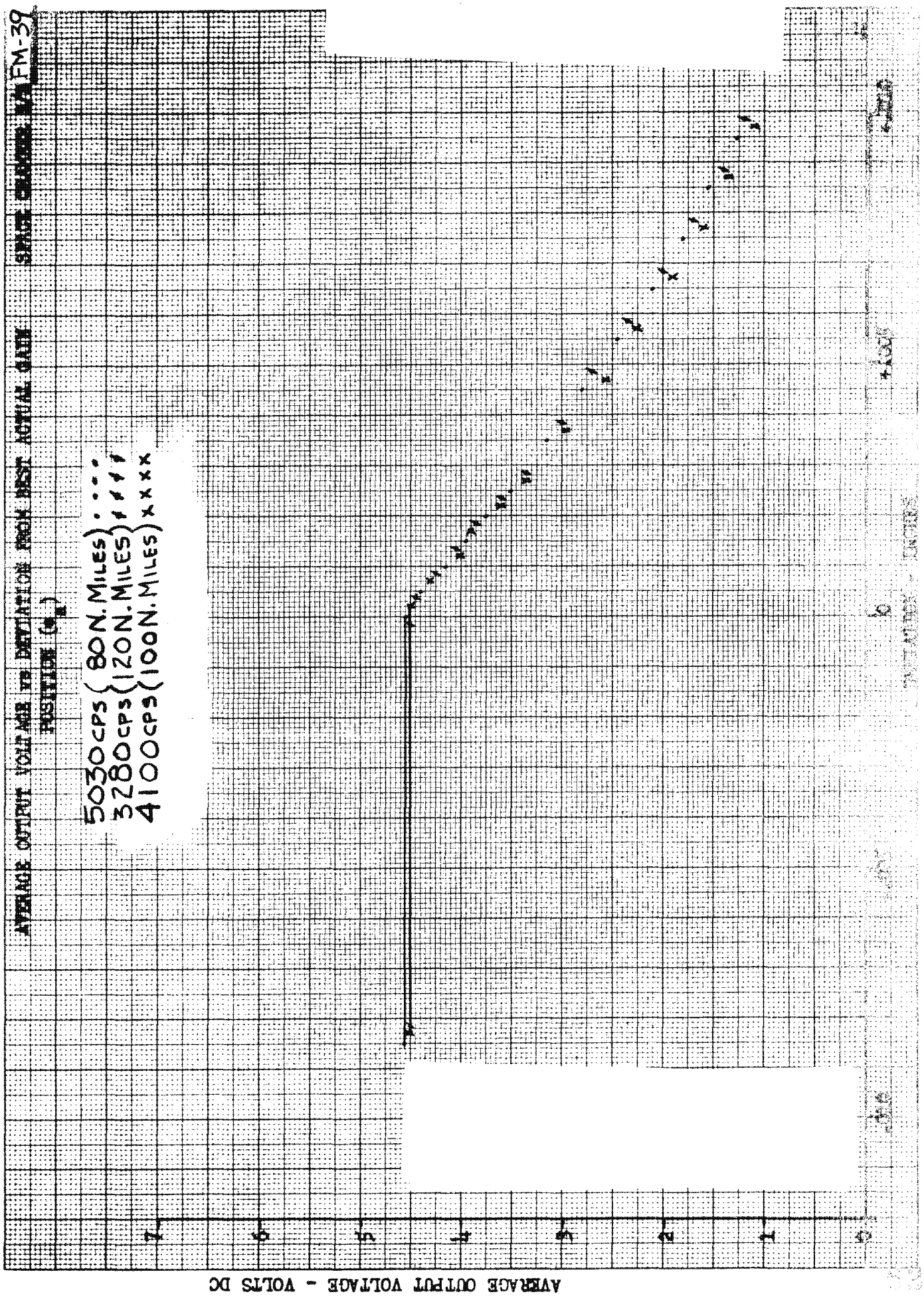


CPL-21

10 X 10 TO THE CM. 359-14
KEUFFEL & ESSER CO. MADE IN U.S.A.

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941



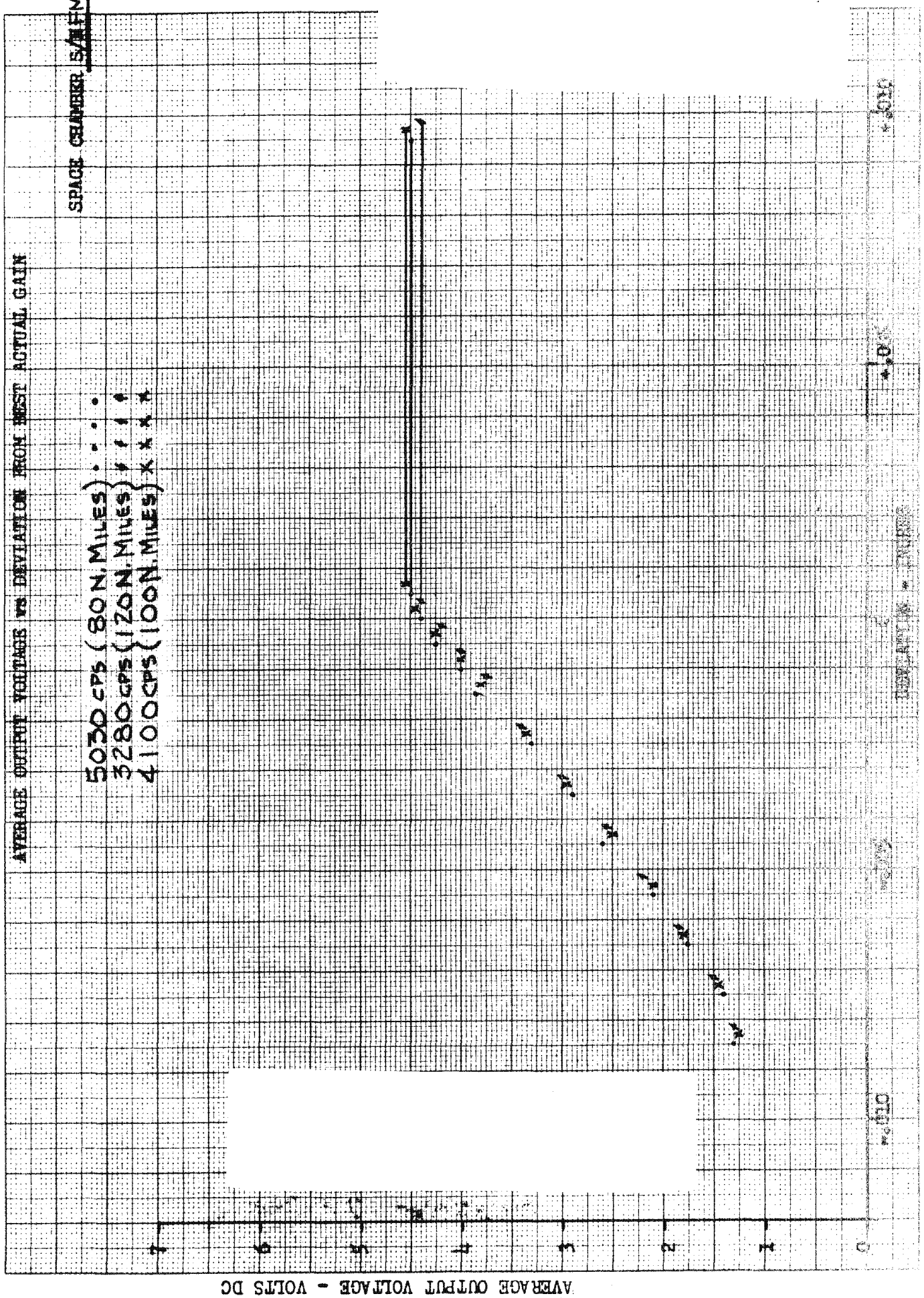
CPL-22

K&E 10 X 10 TO THE CM. 359-14
KEUFFEL & ESSER CO.

Approved for Release: 2024/01/30 C05098941

C05098941

Approved for Release: 2024/01/30 C05098941



CPL-23

10 X 10 TO THE CM. 359-14
KEUFFEL & ESSER CO.

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

CPL-84

COMBINED INJECTION (CI120)

Binary	CPL-84 White de
0	3.06
1	4.28

REFER TO WAIVER RO-9081-11

Chamber S/N FM-39

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

CPL-25

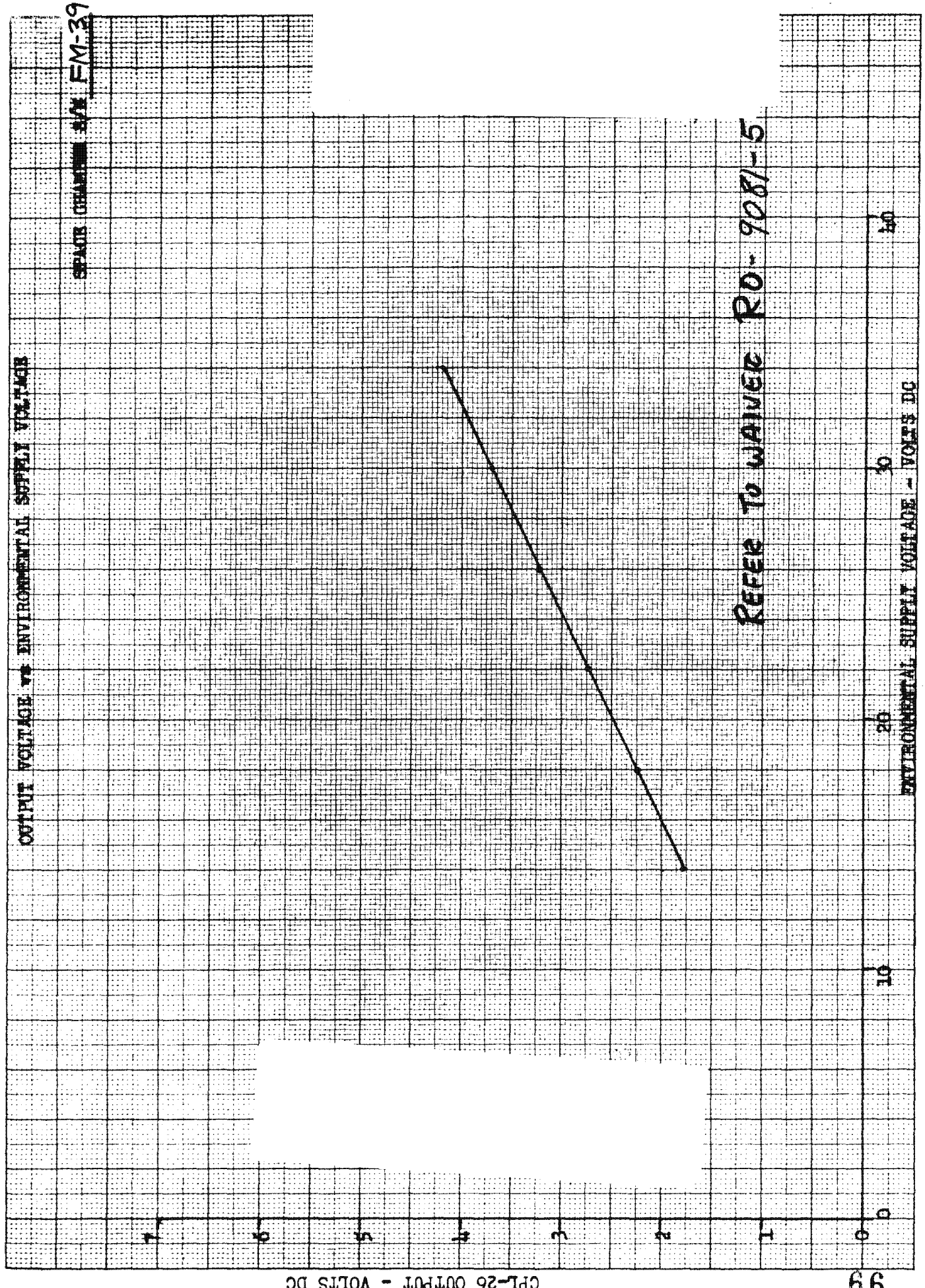
OUTPUT VOLTAGE VS. PORT OPEN TELLTALE STATE

Door Position	Volts dc
Reset	0.99
Door Closed Cycle 1	2.00
Door Closed Cycle 2	2.93
Door Closed Cycle 3	3.95
DOOR OPEN	5.44

Space Chamber S/N FM-39

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941



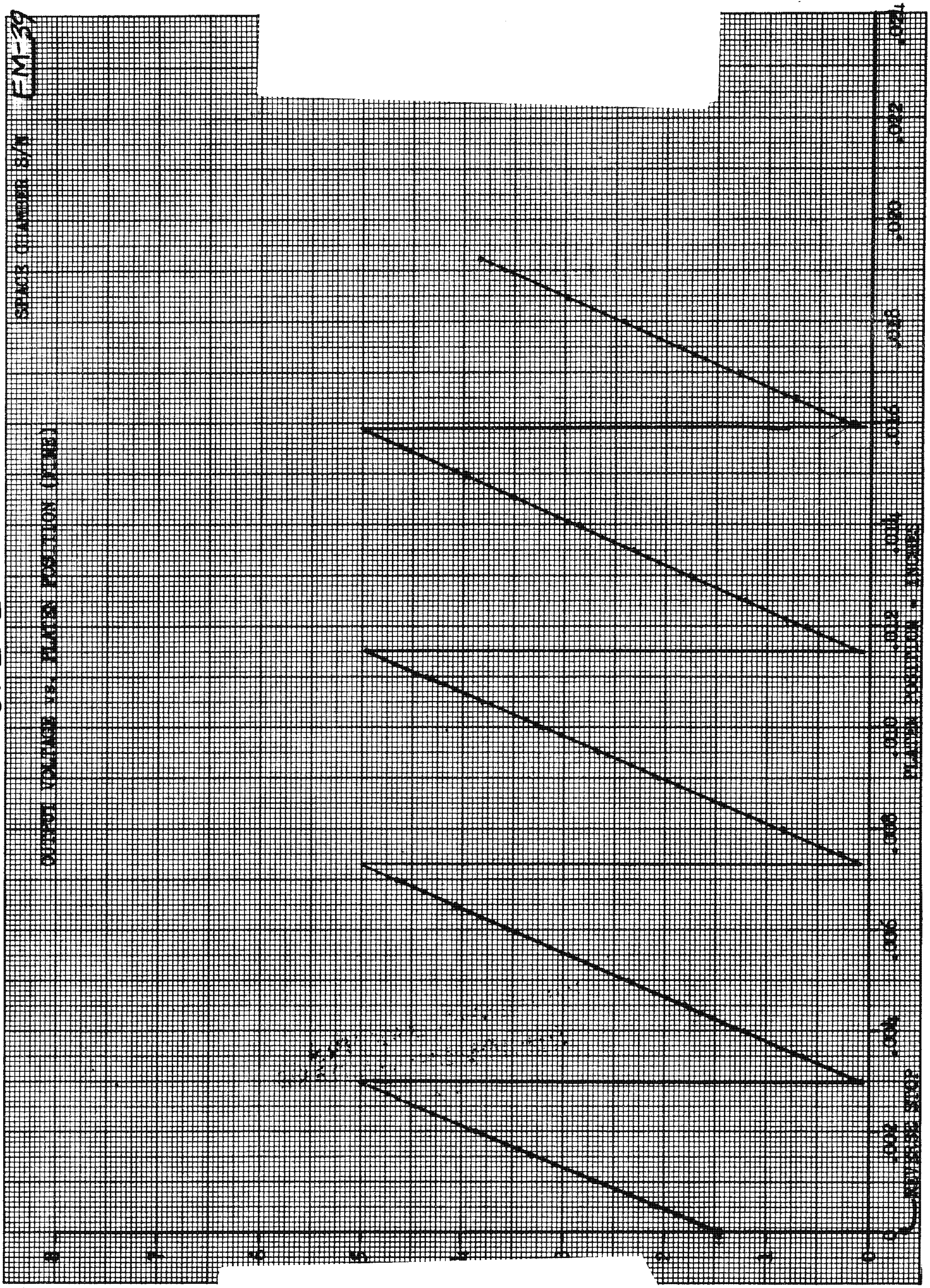
K+E 10 X 10 TO THE CM. 359-14
KEUFFEL & ESSER CO.

Approved for Release: 2024/01/30 C05098941

Approved for Release: 2024/01/30 C05098941

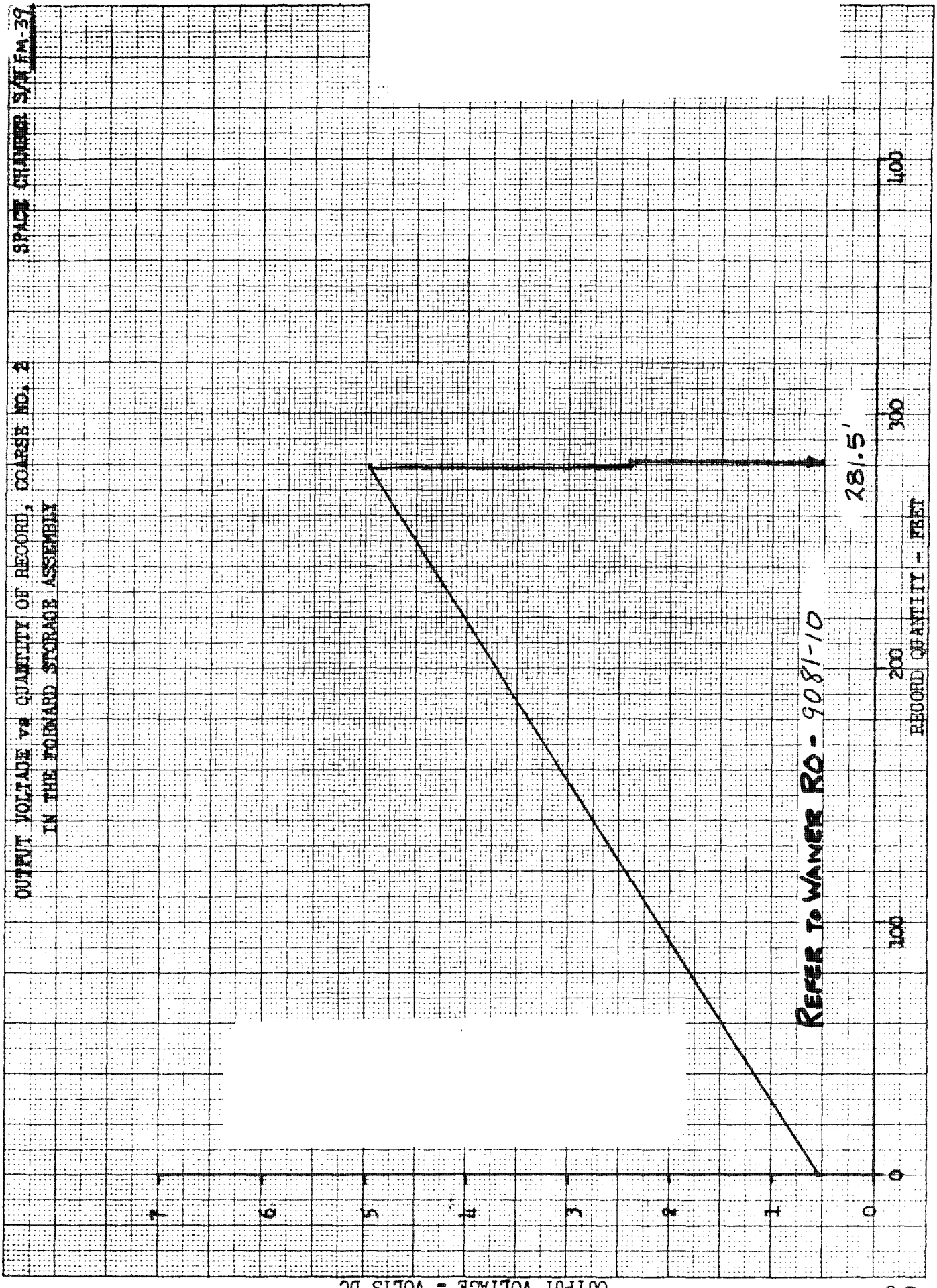
K+E 10 X 10 TO THE CM. 359-14
KEUFFEL & ESSER CO. MADE IN U.S.A.

CPL-27



Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941



K&E 10 X 10 TO THE CM. 359 14

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

CPL - 29

OUTPUT VOLTAGE VS. DATA SIGNAL AMPLIFIER OPERATION

AMPLIFIER CONDITION		CPL - 29
A	B	Volts dc
OFF	OFF	1.36
OFF	ON	2.80
ON	OFF	3.67
ON	ON	4.66

Space Chamber S/N FM-39

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

CPL

COMMAND MONITOR (CBS)

Binary	CPL-30 Volts dc
0	2.98
1	4.22

REFER TO WAIVER RO-9081-11

Space Chamber S/N FM-39

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

CPL-31

COMMAND MONITOR (CM9)

Binary	CPL-31 Volts dc
0	2.93
1	4.14

REFER TO WAIVER RO-9081-11

Space Chamber S/N FM-39

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

COMMAND MONITOR (CB11)

Binary	[redacted]-J2 Volts dc
0	3.09
1	4.40

REFER TO WAIVER RO-9081-11

Space Chamber S/N FM-39

72

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

CPL-33

POWER CONTROL MONITOR, ELEVATION SERVO

Level 1	CPL-33 Volts dc
+28 on STATIC NORMAL	0.51

REFER TO WAIVER RO-9081-11

Space Chamber S/N FM-39

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

CPL-34

POWER CONTROL MONITOR, AZIMUTH SERVO

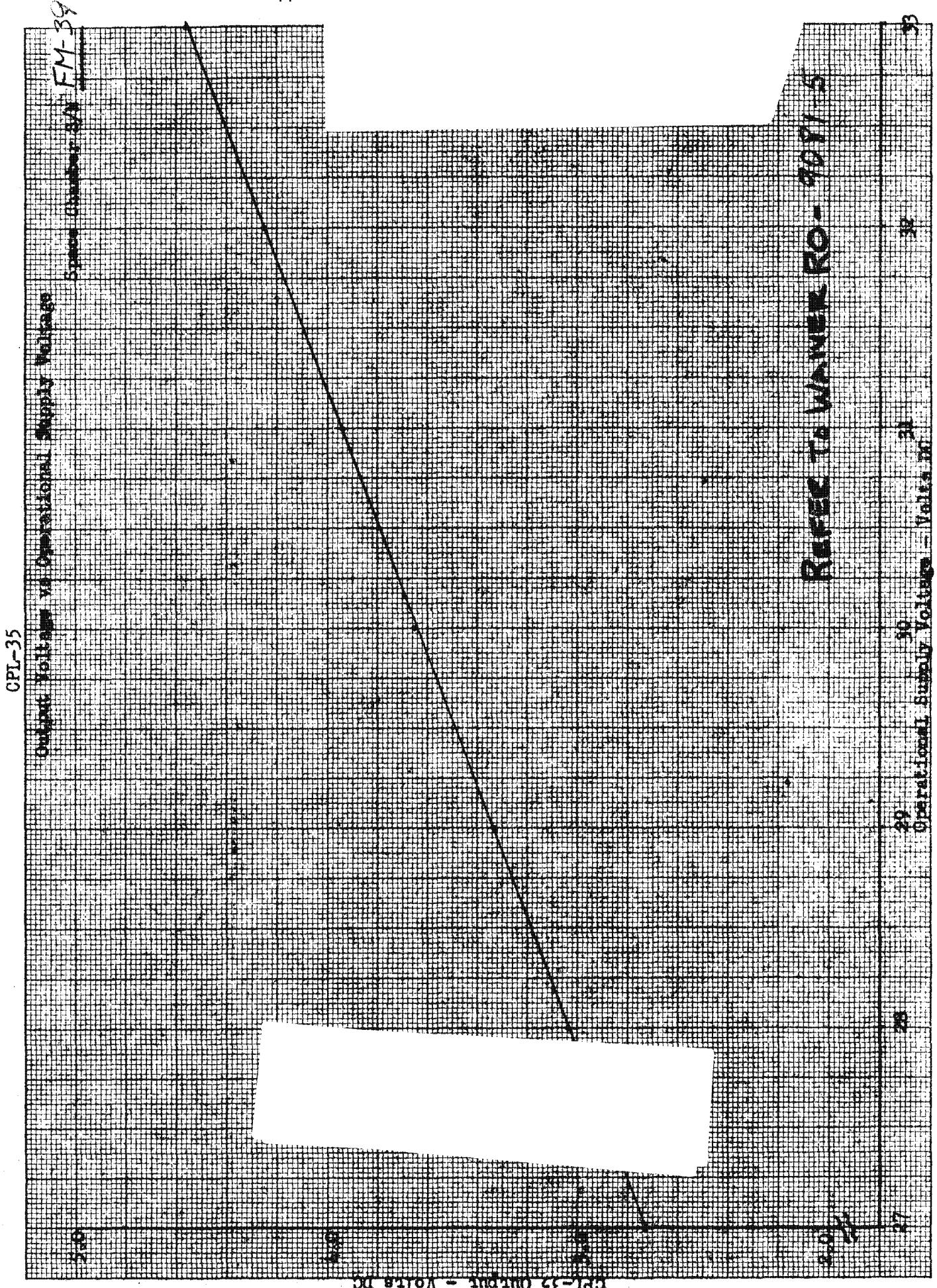
Level 1	CPL-34 Volts dc
+28 on STATIC NORMAL	0.50

REFER TO WAIVER RO-9081-11

Space Chamber S/N FM-39-74

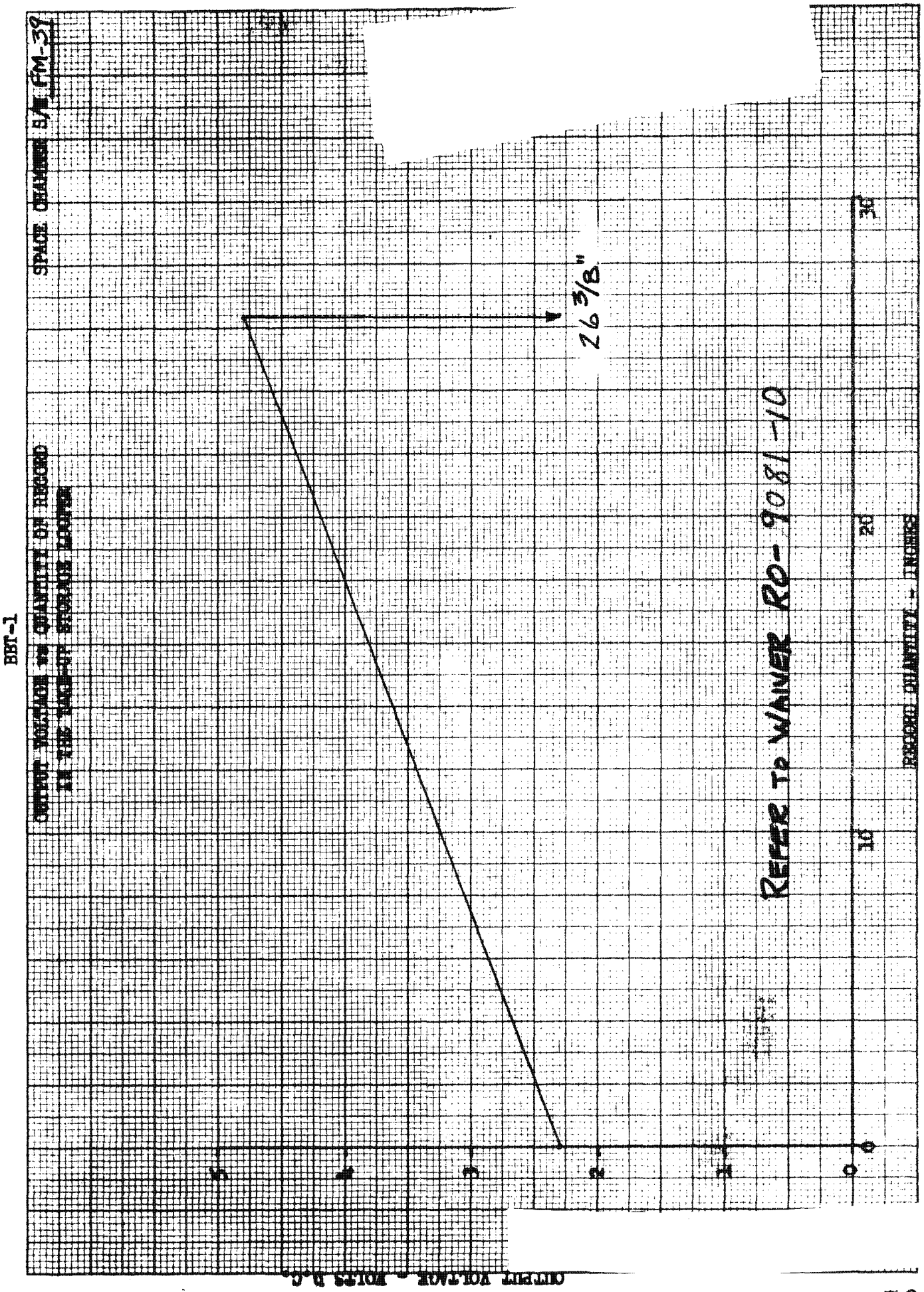
Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941



Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941



10 X 10 TO THE ½ INCH 359-11G
KEUFFEL & ESSER CO

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Space Chamber S/N FM-39

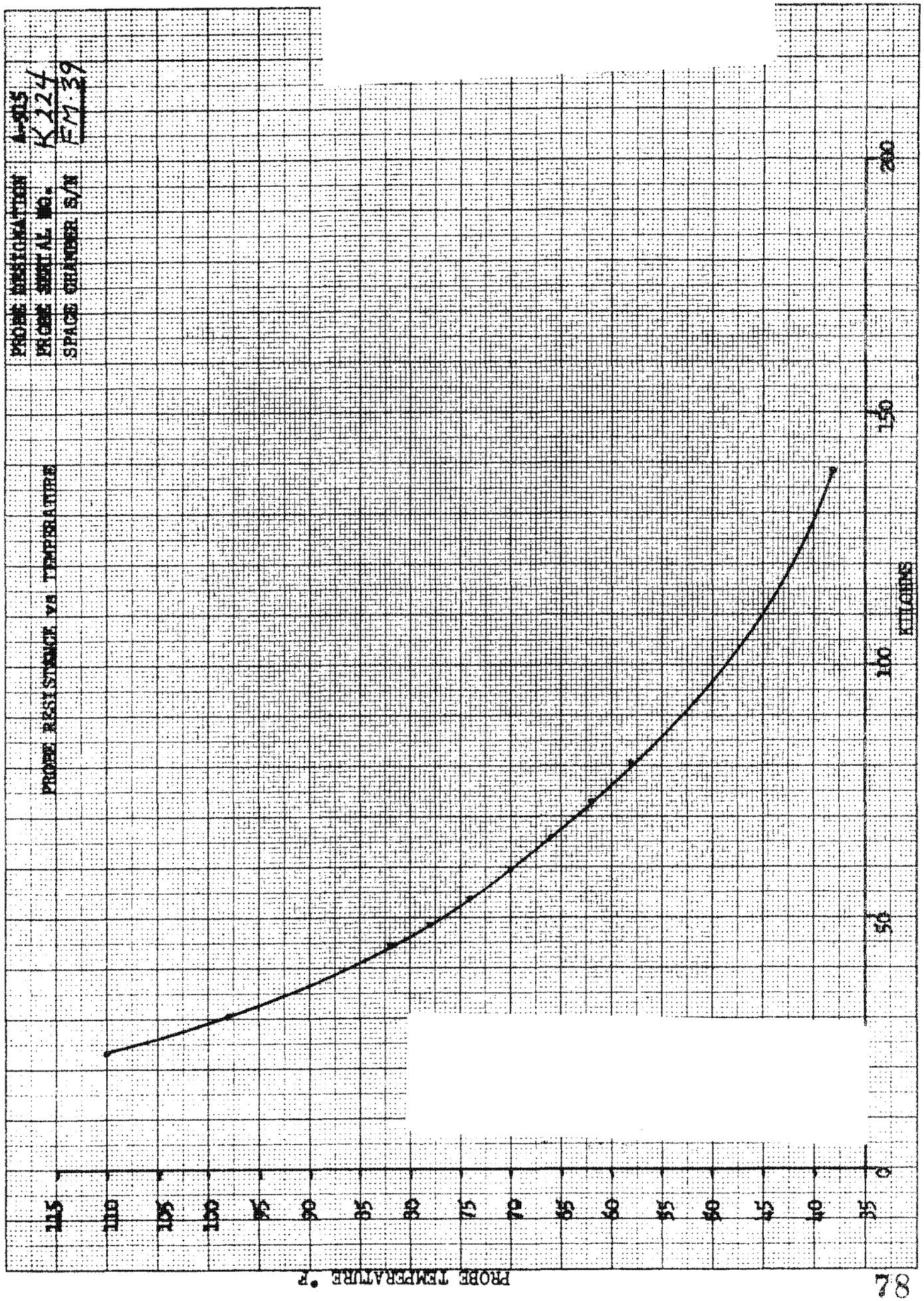
BBT - 2

OUTPUT VOLTAGE FREQUENCY VS. MSD SPEED STEP

MSD STEP	BBT - 2 CPS	MSD STEP	BBT - 2 CPS	MSD STEP	BBT - 2 CPS
1	291.0	23	362.1	45	450.9
2	293.9	24	365.7	46	455.5
3	296.8	25	369.5	47	460.0
4	299.8	26	373.1	48	464.7
5	302.7	27	376.9	49	469.2
6	305.7	28	380.7	50	474.1
7	308.8	29	384.7	51	478.8
8	312.0	30	388.3	52	483.6
9	315.0	31	392.3	53	488.4
10	318.2	32	396.0	54	493.4
11	321.4	33	400.1	55	498.3
12	324.7	34	404.1	56	503.3
13	327.8	35	408.1	57	508.2
14	331.0	36	412.2	58	513.4
15	334.4	37	416.5	59	518.5
16	337.7	38	420.5	60	523.4
17	341.2	39	424.7	61	529.1
18	344.7	40	428.9	62	534.3
19	348.0	41	433.3	63	539.7
20	351.5	42	437.7	64	545.1
21	355.0	43	441.9		
22	358.7	44	446.5		

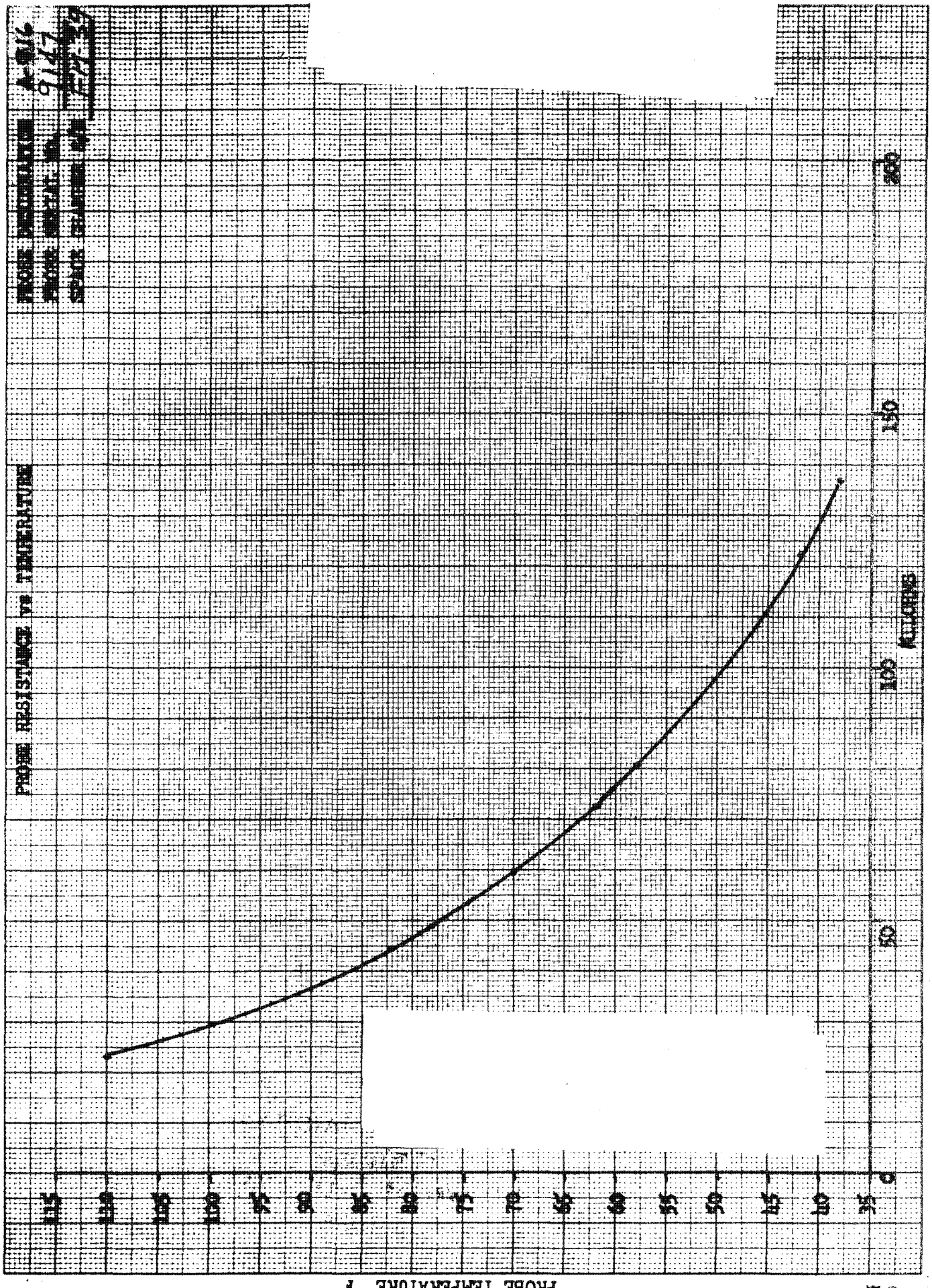
Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941



Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941



K&E 10 X 10 TO THE CM. 359-14
KEUFFEL & ESSER CO

Approved for Release: 2024/01/30 C05098941

C05098941

Approved for Release: 2024/01/30 C05098941

BBT-5

SUPPLY TORQUE MOTOR COMMAND RETURN

CB-24 Supply Brake Command State	BBT-5 volts dc
OFF	0.0
ON	26.4

REFER TO WAIVER RO-9081-10

Space Chamber S/N FM-39

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

BBT-6

GAIN CONTROL COMMAND RETURN

CB17 Command State	CB18 Command State	BBT-6 volts dc
OFF	OFF	0.0
ON	OFF	16.6
OFF	ON	16.5

Space Chamber S/N FM-39

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Space Chamber S/N FM-39

ENVIRONMENTAL CONTROL OPERATING TEMPERATURES

HEATER SYSTEM	THERMOSTATS			
	DWG. DESIG.	SERIAL NO.	TURN ON °F	TURN OFF °F
3	RT903	841	69.5	69.8
4	RT904	850	69.8	70.2
5	RT905	843	69.8	70.0
6	RT906	845	69.9	70.2
10	RT907	718	70.0	69.6
11	RT908	150	69.9	70.2
12	RT909	721	70.3	71.0
13	RT910	149	69.8	70.2
14	RT911	152	69.9	70.5
15	RT912	151	69.9	70.3
16	RT913	722	69.8	70.2
17	RT914	720	70.0	70.6
18	RT915	719	70.0	70.7

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Space Chamber S/N FM-39

OPERATING CURRENT PROFILE

OPERATING SUPPLY		CURRENT AMPS
1.	Operating Power (standby)	0.390
2.	Gain Control Power	0.330
3.	Gain Adjust Motor	0.051
4.	Supply Torque Motor	0.380
5.	Motor Speed Drive	1.060
6.	Forward Record Storage Motor	0.340
7.	Elevation Servo	0.710
8.	Azimuth Servo	0.610
9.	Slit Positioner	0.140
INSTRUMENTATION SUPPLY		0.003
ENVIRONMENTAL SUPPLY (all heaters on)		2.218

NOTE: The total operating current for any mode of operation may be calculated by adding the desired combination of individual function currents which are listed above.

Refer to Waiver #RO-9080 & #RO-9081-5

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

ACCEPTANCE TEST PROCEDURE NO. 804-104 E

Prof. Ref. 5.2
Test Equipment Calibration Record

Assy Dwg. No 805-101
Assy Ser. No. FM-31

ITEM	IDENTIFICATION	Date Calib.	Re-Calib. Due Date
Test Console	100-A-420 S/N-152	11-17-66 9-21-66	2-17-67 12-21-66
Portable Test Set	100-A-378 S/N-2	11-10-66	2-10-67
Breakout Box	100-A-631	11-29-66	2-29-67
Weight & Balance T.S.	100-A-498	11-29-66	2-29-67
Record Viewer	100-A-424 S/N-2	7-19-66	7-19-67
Collimator	EAST & WEST	11-23-66 12-7-66	2-23-67 3-7-67
Moving Target	S/N-C833 & 208001	12-27-66 11-30-66	3-27-67 3-2-67
Gain Target	S/N-1154	12-29-66	3-29-67
Line of Sight T.S.	100-A-815	11-20-66	AS REQ'D
Leak Rate T.S.	100-A-864	10-27-66	1-27-67
Oscilloscope	79241	11-4-66	2-4-67
Current shunt	SPECIAL	10-1-65	AS REQ'D
Multimeter	SIMPSON 260 S/N-111	10-1266	7-12-67
Dial Indicator	181-40	11-11-66	2-11-67
Dial Indicator	181-36	11-11-66	2-11-67
Megohm Bridge	S.L. # 2002	11-22-66	5-22-67
Resistance Bridge	TYPE 1652-A S/N-1133	10-27-66	1-27-67
Resistance Decade	65933	10-4-66	7-4-67
Resistance Decade	65931	11-4-66	8-4-67
Vibration Fixture	208-609	6-25-66	AS REQ'D
Interface Gages	SPECIAL	6-25-66	AS REQ'D
Depth Micrometer	181-25	11-17-66	1-17-67
Parallel Bar	1" x 3/4"	—	AS REQ'D
Footage Counter	S/N-1	10-1-65	AS REQ'D

Approved for Release: 2024/01/30 C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104 E
Inspection Verification

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.3	Inspection Verification	-	List A0996 number		D92223		12-1-66
			QC-A-515	OK			
	Space Chamber Record Supply and Record		QC-A-509	OK			
	Storage Alignment						

C05098941
Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104

REFER TO WAIVER RO-9081-5

Assy. Dwg. No. 805-101
Assy. Ser. No. EM-39

Preliminary Electrical Checkout

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
~~5.4.2.3~~ 5.9.2.3	Set leakage resistance test voltage	volts d.c.	9	11	10		12-16
5.4.2.4 5.9.2.4	Leakage resistance - each test	megohms	10	—	>10		
5.4.4.1 5.9.4.1	Set Operating Power	volts d.c.	27.9	28.1	28.0		
5.4.4.3 5.9.4.3	Operating Power Current	amps d.c.	—	0.383	0.350		
5.4.4.4 5.9.4.4	Set Heater Power	volts d.c.	27.9	28.1	28.0		
5.4.4.5 5.9.4.5	Heater Power Current	amps d.c.	—	3.7	2.4		
5.4.4.6 5.9.4.6	Instrumentation Measurements						
	CPL-26 (environmental supply)	volts d.c.	3.37	3.67	3.46		
	VP-13 (+5 volt inst. supply)	volts d.c.	4.9	5.1	5.0		
	VP-44 (-22 volt supply)	volts d.c.	-21.0	-23.0	-22.0		
	VP-45 (+22 volts supply)	volts d.c.	+21.0	+23.0	+22.0		
	VP-46 (+28 volts supply)	volts d.c.	27.9	28.1	28.0		
	VP-50 (environmental supply)	volts d.c.	2.50	3.64	3.46		
	CPL-35 (+ 28 volts supply)	volts d.c.	2.93	3.33	3.04		
	VTP-35 (+28 volts supply)	volts d.c.	2.93	3.33	3.04		
5.5.1.1.2 5.10.1.1.2	Set Operating Power	volts d.c.	27.9	28.1	28.0		

86

Approved for Release: 2024/01/30 C05098941

Approved for Release: 2024/01/30 C05098941

C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104 G

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Procedure Reference	Test		Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.1.1.5.1	CPL - 15 Calibration							12-15-6
	Point 1	CPL - 15	volts dc	0.78	1.10	0.98		
		footage	feet	set	to 0.0	0.0		
	Point 2	CPL - 15	volts dc	2.85	3.17	2.94	Actual	
		footage	feet	read	at 510 ft.	510	Calibration	
	Point 3	CPL - 15	volts dc	4.34	4.66	4.44	Values	
		footage	feet	as	read	1014	From	
	Point 4	CPL - 15	volts dc	4.34	4.66	4.44	804-106	
		footage	feet	1007	1027	1016	Report	
	Point 5	CPL- 15	volts dc	0.78	1.10	0.98		
		feetage	feet	1007	1027	1016		

F.R.S. S/N N648

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

DATA SHEET
FOR
REFER TO WAIVER RO-9081-6 ACCEPTANCE TEST PROCEDURE NO. 804-104
FILM TRACKING TEST

Assy. Dwg. No. 805-101
Assy. Ser. No. EM-39

Procedure Reference	Test		Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.1.1.3 5.10.1.1.3	CPL-16 Calibration							12-1-66
	POINT 1	CPL-16	volts d.c.	set to min.		0.512		
		VTP-16	volts d.c.	set to min.		0.509		
		footage	feet	set to 0		0		
	POINT 2	CPL-16	volts d.c.	4.8	5.2	4.944		
		VTP-16	volts d.c.	4.8	5.2	4.943		
		footage	feet	44	46	44.42		
	POINT 3	CPL-16	volts d.c.	2.0	3.0	2.344		
		VTP-16	volts d.c.	2.0	3.0	2.343		
		footage	feet	44	46	44.42		
	POINT 4	CPL-16	volts d.c.	2.0	3.0	2.344		
		VTP-16	volts d.c.	2.0	3.0	2.343		
		footage	feet	no more than 2 feet past point 3		44.78		
	POINT 5	CPL-16	volts d.c.	0.3	0.7	0.512		
		VTP-16	volts d.c.	0.3	0.7	0.509		
		footage	feet	no more than 2 feet past point 3		44.78		

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941
C05098941

C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104
FILM TRACKING TEST

REF. TO WAIVER RO-9081-6

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Procedure Reference	Test		Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.1.1.5 5.10.1.1.4	CPL-28 Calibration							12-1-66
	POINT 1	CPL-28	volts dc	set to min.		0.514		
		VTP-28	volts dc	set to min.		0.513		
		footage	feet	set to 0		0		
	POINT 2	CPL-28	volts dc	4.82	5.18	4.94		
		VTP-28	volts dc	4.82	5.18	4.93		
		footage	feet	276	288	279		
	POINT 3	CPL-28	volts dc	2.0	3.0	2.43		
		VTP-28	volts dc	2.0	3.0	2.42		
		footage	feet	276	288	279		
	POINT 4	CPL-28	volts dc	2.0	3.0	2.43		
		VTP-28	volts dc	2.0	3.0	4.24		
		footage	feet	no more than 5 feet past point 3		282		
	POINT 5	CPL-28	volts dc	0.32	0.68	.512		
		VTP-28	volts dc	0.32	0.68	.510		
		footage	feet	no more than 5 feet past point 3		282		

6

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941
C05098941

C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Record Tracking Test

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.1.1.6 5.10.1.1.5	record tracking at 28v, speed 1	-	no slack record, or record damage		OK	OK	12-1-66
5.5.1.1.7 5.10.1.1.6	record tracking at 28v, speed 33	-	no slack record, or record damage		OK	OK	12-16-66
5.5.1.1.8 5.10.1.1.7	record tracking at 28v, speed 64	-	no slack record, or record damage		OK	OK	
5.5.1.1.9 5.10.1.1.8	set Operating Power	volts dc	32.4	32.6	32.5	32.5	
5.5.1.1.10 5.10.1.1.9	record tracking at 32.5v, speed 1	-	no slack record, or record damage		OK	OK	
	record tracking at 32.5v, speed 33	-	no slack record, or record damage		OK	OK	
	record tracking at 32.5v, speed 64	-	no slack record, or record damage		OK	OK	
5.5.1.1.11 5.10.1.1.10	set operating power	volts d.c.	27.9	28.1	28.0	28.0	
5.5.1.1.12.2 5.10.1.1.11.2	CPL-15 take-up ON & rotating	volts d.c.	4.84	-	8.82	8.99	
	CPL-15 take-up ON & stalled	volts d.c.	-	0.66	0.19	0.12	
5.5.1.2.1 5.10.1.2.1	forward storage alignment angular about Z axis	degrees	- set to	- 0.52	0.52	0.52	
	angular about X axis	degrees	set to	0.58	0.58	0.58	
	translational along Y axis	inches	set to	-0.425	-0.425	-0.425	
5.5 5.1	record tracking with misalignment	—	—				
	28v, speed 1	-	no slack record, or record damage		OK	OK	
	28v, speed 33	-	no slack record, or record damage		OK	OK	
	28v, speed 64	-	no slack record, or record damage		OK	OK	

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104 E
FILM TRACKING TEST

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
~~5.5.1.2.3~~ 5.10.1.2.3	forward storage alignment	- - - -	- - - -	- - - -			12-1-66
	angular about Z axis	degrees	set to	-0.52	-0.52	-0.52	12-16-66
	angular about X axis	degrees	set to	-0.58	-0.58	-0.58	
	translational along Y axis	inches	set to	+0.425	+.425	+.425	
5.5.1.2.4 5.10.1.2.4	record tracking with misalignment	- - - -	- - - -	- - - -			
	28v, speed 1	- - - -	no slack film or record damage		ok	OK	
	28v, speed 33	- - - -	no slack film or record damage		ok	OK	
	28v, speed 64	- - - -	no slack film or record damage		ok	OK	
5.5.1.2.6	realign forward storage	- - - -	- - - -	- - - -			
5.10.1.2.6	angular about Z axis	degrees	0.0	0.0	0.0	0.0	
	angular about X axis	degrees	0.0	0.0	0.0	0.0	
	translational about Y axis	inches	0.0	0.0	0.0	0.0	

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941
C05098941

C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104 E

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

REFER TO WAIVER RO 9081-4

Power, Command, Control & Response

Procedure Reference	Test		Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.1.1	Azimuth Servo mounting position		-	+Y side		+Y	+Y	12-2-66
5.5.2.1.8 5.10.2.1.7	Set zenith circle		degrees	90°0'0"	90°0'0"	96°00'00"	90°00'00"	12-16-66
5.5.2.1.13 5.10.2.1.12	set zenith circle		degrees	0°0'0"	0°0'0"	0°0'00"	0°0'00"	
5.5.2.1.15 5.10.2.1.14	set operating power		volts d.c.	27.9	28.1	28.0	28.0	
5.5.2.1.16 5.10.2.1.15	Crab Lead screw locking nuts pinned		-	OK		OK	OK	
	step 1B	zenith	degrees	as read		89°59'48"	90°00'20"	
		azimuth	degrees	as read		315°03'08"	315°02'47"	
	step 1C	CPL-13	volts d.c.	2.40	2.66	2.47	2.47	
		CPL-14	volts d.c.	0.37	0.63	0.50	0.50	
		VTP-13	volts d.c.	2.40	2.66	2.46	2.47	
		VTP-14	volts d.c.	0.37	0.63	0.50	0.50	
		VP-6	volts d.c.	0.4	0.6	0.51	0.50	
		VP-7	volts d.c.	27	29	27.9	27.4	
		VP-8	volts d.c.	27	29	27.9	27.4	
		VP-9	volts d.c.	27	29	27.3	27.0	
		VP-10	volts d.c.	0.4	0.6	0.49	0.49	
		VP-11	volts d.c.	27	29	27.3	27.0	

Approved for Release: 2024/01/30 C05098941

Approved for Release: 2024/01/30 C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

REFER TO WAIVER RO 9081-1

Power, Command, Control & Repsonse

Procedure Reference	Test	Units	Test Requirement		Test Data		Date
			Min.	Max.	Pre.	Post	
5.5.2.1.16	VP-18	volts d.c.	0.0	0.2	0.04	0.02	12-2-66
.10.2.1.15	VP-19	volts d.c.	27	29	27.8	27.4	12-11-66
	VP-20	volts d.c.	27	29	27.9	27.5	
	VP-21	volts d.c.	0.0	0.2	0.01	0.02	
	VP-22	volts d.c.	9.0	11.0	9.53	9.51	
	VP-23	volts d.c.	9.0	11.0	9.53	9.52	
	VP-24	volts d.c.	0.0	0.2	0.04	0.02	
	VP-25	volts d.c.	8.5	10.5	9.01	9.00	
	VP-26	volts d.c.	8.5	10.5	9.01	9.00	
	CPL-1	volts d.c.	2.80	3.18	2.95	2.94	
	VTP-1	volts d.c.	2.80	3.18	2.95	2.94	
	CPL-24	volts d.c.	2.88	3.30	3.05	3.01	
	VTP-24	volts d.c.	2.88	3.30	3.05	3.01	
	CPL-30	volts d.c.	2.78	3.08	2.97	2.94	
	VTP-30	volts d.c.	2.78	3.08	2.97	2.93	
	CPL-31	volts d.c.	3.92	4.32	4.13	4.08	
	VTP-31	volts d.c.	3.92	4.32	4.13	4.08	

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941
C05098941

C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

REFER TO WAIVER RO-9081-1

Power, Command, Control & Response

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.1.16	CPL-32	volts d.c.	2.73	3.35	2.90	2.89	12-2-66
5.10.2.1.15	VTP-32	volts d.c.	2.73	3.35	2.89	2.89	12-16-66
	CPL-33	volts d.c.	0.30	0.68	0.51	0.50	
	VTP-33	volts d.c.	0.30	0.68	0.50	0.50	
	CPL-34	volts d.c.	0.28	0.66	0.51	0.50	
	VTP-34	volts d.c.	0.28	0.66	0.50	0.50	
	Step 1D		no observable hunting		NO	NO	
	Step 2A transition time	seconds	-	1	0.70	0.70	
	Step 2B zenith	degrees	as	read	90°19'39"	90°20'06"	
	azimuth	degrees	as	read	315°02'42"	315°02'18"	
	Step 2C CPL-14	volts d.c.	0.99	1.25	1.06	1.06	
	VTP-14	volts d.c.	0.99	1.25	1.05	1.05	
	VP-18	volts d.c.	0.0	0.2	0.01	0.02	
	VP-19	volts d.c.	27	29	27.4	27.4	
	VP-20	volts d.c.	27	29	27.5	27.5	
	VP-21	volts d.c.	0.0	0.2	0.06	0.01	
	VP-22	volts d.c.	9.0	11.0	9.52	9.51	

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

REFER TO WAIVER RO-9081-1 Power, Command, Control & Response

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.1.16	VP-23	volts d.c.	9.0	11.0	9.53	9.52	12-2-66
5.10.21.15	VP-24	volts d.c.	8.5	10.5	8.98	9.00	12-16-66
	VP-25	volts d.c.	0.0	0.2	0.01	0.01	
	VP-26	volts d.c.	8.5	10.5	8.99	8.97	
	CPL-1	volts d.c.	3.90	4.70	4.08	4.08	
	VTP-1	volts d.c.	3.90	4.70	4.08	4.07	
	CPL-24	volts d.c.	2.88	3.30	3.01	3.01	
	VTP-24	volts d.c.	2.88	3.30	3.00	3.01	
	CPL-32	volts d.c.	2.73	3.35	2.89	2.89	
	VTP-32	volts d.c.	2.73	3.35	2.89	2.89	
	CPL-34	volts d.c.	0.28	0.66	0.50	0.50	
	VTP-34	volts d.c.	0.28	0.66	0.50	0.50	
	Step 2D	no	observable	hunting	NO	NO	
5.5.2.1.16	step 3A transition time	seconds	0	1	0.7	0.7	
5.10.2.1.15	step 3B zenith	degrees	as	read	89°59'48"	90°00'20"	
	azimuth	degrees	as	read	315°03'19"	315°02'45"	
	step 3D	no	observable	hunting	NO	NO	

12

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941
C05098941

C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104

REFER TO WAIVER RO-9081-1

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Power, Command, Control & Balance

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.1.16	step 4B zenith	degrees	as	read			12-7-66
5.10.2.1.15	azimuth	degrees	as	read			12-16-66
	step 5 zenith	degrees	as	read			
	azimuth	degrees	as	read			
	step 6 zenith	degrees	as	read	90° 40' 43"	90° 41' 03"	
	azimuth	degrees	as	read	315° 02' 32"	315° 02' 16"	
	step 6C CPL-14	volts d.c.	1.55	1.81	1.62	1.62	
	VTP-14	volts d.c.	1.55	1.81	1.61	1.61	
	VP-18	volts d.c.	0.0	0.2	0.01	0.01	
	VP-19	volts d.c.	27	29	27.4	27.4	
	VP-20	volts d.c.	27	29	27.5	27.5	
	VP-21	volts d.c.	9.0	11.0	9.53	9.52	
	VP-22	volts d.c.	0.0	0.2	0.01	0.01	
	VP-23	volts d.c.	9.0	11.0	9.53	9.52	
	VP-24	volts d.c.	0.0	0.2	0.07	0.05	
	VP-25	volts d.c.	8.5	10.5	9.06	9.00	
	VP-26	volts d.c.	8.5	10.5	9.00	9.00	

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

C05098941

Approved for Release: 2024/01/30 C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

REFER TO WAIVER RO-9081-1

Power, Command, control & Response

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.1.16	CPL-1	volts d.c.	2.80	3.18	2.95	2.94	12-2-66
5.10.2.1.15	VTP-1	volts d.c.	2.80	3.18	2.94	2.94	12-16-66
	CPL-24	volts d.c.	2.88	3.30	3.01	3.01	
	VTP-24	volts d.c.	2.88	3.30	3.00	3.01	
	CPL-32	volts d.c.	3.93	4.69	4.10	4.09	
	VTP-32	volts d.c.	3.93	4.69	4.09	4.09	
	CPL-34	volts d.c.	0.28	0.66	0.50	0.50	
	VTP-34	volts d.c.	0.28	0.66	0.50	0.50	
	step 7b zenith	degrees	as	read			
	azimuth	degrees	as	read			
	step 7D	no observable hunting					
	step 8A transition time	seconds	0	1	0.7	0.7	
	step 8B zenith	degrees	as	read			
	azimuth	degrees	as	read			
	step 8D	no observable hunting			No	No	
	step 9A Transition time	seconds	0	1	0.7	0.7	
	step 9B zenith	degrees	as	read	90°21'18"	90°21'45"	

Approved for Release: 2024/01/30 C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

RO-9081-1 Power, Command, Control & Response

Procedure Reference	Test		Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.1.16	azimuth		degrees	as	read	315° 03' 30"	315° 02' 37"	12-7-66
5.10.2.1.15	step 10B zenith		degrees	as	read	91° 01' 40"	91° 02' 05"	12-16-66
	azimuth		degrees	as	read	315° 02' 10"	315° 01' 58"	
	step 10C	CPL-14	volts d.c.	2.10	2.36	2.17	2.17	
		VTP-14	volts d.c.	2.10	2.36	2.17	2.17	
		VP-18	volts d.c.	0.0	0.2	0.01	0.01	
		VP-19	volts d.c.	27	29	27.4	27.4	
		VP-20	volts d.c.	27	29	27.5	27.5	
		VP-21	volts d.c.	9.0	11.0	9.52	9.51	
		VP-22	volts d.c.	0.0	0.2	0.01	0.02	
		VP-23	volts d.c.	9.0	11.0	9.53	9.52	
		VP-24	volts d.c.	8.5	10.5	8.98	8.97	
		VP-25	volts d.c.	0.0	0.2	0.04	0.05	
		VP-26	volts d.c.	8.5	10.5	8.92	8.97	
		CPL-1	volts d.c.	3.90	4.70	4.08	4.08	
		VTP-1	volts d.c.	3.90	4.70	4.08	4.07	
		CPL-24	volts d.c.	2.88	3.30	3.01	3.01	

Approved for Release: 2024/01/30 C05098941
C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104

Assy. Dwg. No. 805-101
Assy. Ser. No. EM-39

REFER TO WAIVER RO-9081-1

Power, Command, Control & Response

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.1.16	VTP-24	volts d.c.	2.88	3.30	3.00	3.01	12-2-66
5.10.2.1.15	CPL-32	volts d.c.	3.93	4.69	4.09	4.09	12-16-66
	VTP-32	volts d.c.	3.93	4.69	4.09	4.09	
	CPL-34	volts d.c.	0.28	0.66	0.50	0.50	
	VTP-34	volts d.c.	0.28	0.66	0.50	0.50	
	step 11B zenith	degrees	as	read			
	azimuth	degrees	as	read			
	step 11D	no observable hunting			NO	No	
	step ~~12A~~ 10 transition time	seconds	as	read	0.7	0.7	
	step 12B zenith	degrees	as	read	-		
	azimuth	degrees	as	read			
	step 12D	no observable hunting					
	step 13A transition time	seconds	0	1	0.7	0.7	
	step 13B zenith	degrees	as	read	90°42' 33"	90°42'57"	
	azimuth	degrees	as	read	315°03'27"	315°02'29"	
	step 14B zenith	degrees	as	read	91°22' 38"	91°23'08"	
	azimuth	degrees	as	read	315°01'48"	315°01'39"	

C05098941
Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

REFER TO WAIVER RO-9081-1

Power, Command, Control & Response

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.1.16	step 14C CPL-14	volts d.c.	2.66	2.92	2.73	2.73	12-2-66
5.10.2.1.15	VTP-14	volts d.c.	2.66	2.92	2.72	2.73	12-16-66
	VP-18	volts d.c.	27	29	27.4	27.5	
	VP-19	volts d.c.	0.0	0.2	0.01	0.05	
	VP-20	volts d.c.	27	29	27.5	27.5	
	VP-21	volts d.c.	0.0	0.2	0.01	0.02	
	VP-22	volts d.c.	9.0	11.0	9.54	9.54	
	VP-23	volts d.c.	9.0	11.0	9.55	9.54	
	VP-24	volts d.c.	0.0	0.2	0.01	0.02	
	VP-25	volts d.c.	8.5	10.5	9.02	9.01	
	VP-26	volts d.c.	8.5	10.5	9.02	9.01	
	CPL-1	volts d.c.	2.80	3.18	2.95	2.95	
	VTP-1	volts d.c.	2.80	3.18	2.95	2.95	
	CPL-24	volts d.c.	4.05	4.53	4.21	4.21	
	VTP-24	volts d.c.	4.05	4.53	4.21	4.22	
	CPL-32	volts d.c.	2.73	3.35	2.90	2.90	
	VTP-32	volts d.c.	2.73	3.35	2.89	2.89	

100

Approved for Release: 2024/01/30 C05098941

Approved for Release: 2024/01/30 C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

REFER TO WAIVER RO-9081-1

Power, Command, Control & Response

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.1.16	CPL-34	volts d.c.	0.28	0.66	0.50	0.50	12-2-66
5.10.2.1.15	VTP-34	volts d.c.	0.28	0.66	0.50	0.50	12-16-66
	step 15B zenith	degrees	as	read			
	azimuth	degrees	as	read			
	step 15D	no	observable	hunting			
	step 16A transition time	seconds	0	1	0.7	0.7	
	step 16B zenith	degrees	as	read			
	azimuth	degrees	as	read			
	step 16D	no	observable	hunting	NO	No	
	step 17A transition time	seconds	0	1	0.7	0.7	
	Step 17B zenith	degrees	as	read	91°03'30"	91°04'04"	
	azimuth	degrees	as	read	315°02'53"	315°02'28"	
	step 18B zenith	degrees	as	read	91°43'33"	91°44'06"	
	azimuth	degrees	as	read	315°01'17"	315°01'05"	
	step 18C CPL-14	volts d.c.	3.24	3.50	3.29	3.29	
	VTP-14	volts d.c.	3.24	3.50	3.29	3.29	
	VP-18	volts d.c.	27	29	27.5	27.5	

101

18

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941
C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

REFER TO WAIVER RO-9081-1

Power, Command, Control & Response

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
~~5.5.2.1.16~~		~~volts d.c.~~					12-2-66
5.10.2.1.16	VP-19	volts d.c.	0.0	0.2	0.01	0.04	12-6-66
	VP-20	volts d.c.	27	29	27.5	27.5	
	VP-21	volts d.c.	0.0	0.2	0.01	0.03	
	VP-22	volts d.c.	9.0	11.0	9.54	9.53	
	VP-23	volts d.c.	9.0	11.0	9.54	9.54	
	VP-24	volts d.c.	8.5	10.5	9.00	8.99	
	VP-25	volts d.c.	0.0	0.2	0.01	0.01	
	VP-26	volts d.c.	8.5	10.5	9.00	8.99	
	CPL-1	volts d.c.	3.90	4.70	4.09	4.09	
	VTP-1	volts d.c.	3.90	4.70	4.09	4.08	
	CPL-24	volts d.c.	4.05	4.53	4.21	4.22	
	VTP-24	volts d.c.	4.05	4.53	4.21	4.22	
	CPL-32	volts d.c.	2.73	3.35	2.90	2.90	
	VTP-32	volts d.c.	2.73	3.35	2.89	2.89	
	CPL-34	volts d.c.	0.28	0.66	0.50	0.50	
	VTP-34	volts d.c.	0.28	0.66	0.50	0.50	

102

19

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941
C05098941

C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

REFER TO WAIVER RO-9081-1

Power, Command, Control & Response

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.1.16	step 19B zenith	degrees	as	read			12-2-66
5.10.2.1.16	azimuth	degrees	as	read			12-16-66
	step 19D	no	observable	hunting			
	step 20A transition time	seconds	0	1	0.7	0.7	
	step 20B zenith	degrees	as	read			
	azimuth	degrees	as	read			
	step 20D	no	observable	hunting	NO	NO	
	step 21A transition time	seconds	0	1	0.7	0.7	
	step 21B zenith	degrees	as	read	91°24'27"	91°25'04"	
	azimuth	degrees	as	read	315°02'39"	315°02'45"	
	step 22B zenith	degrees	as	read	92°04'14"	92°04'44"	
	azimuth	degrees	as	read	315°00'50"	315°00'52"	
	step 22C CPL-14	volts d.c.	3.81	4.07	3.86	3.86	
	VTP-14	volts d.c.	3.81	4.07	3.85	3.86	
	VP-18	volts d.c.	27	29	27.5	27.5	
	VP-19	volts d.c.	0.0	0.2	0.01	0.05	
	VP-20	volts d.c.	27	29	27.5	27.5	

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104
Power, Command, Control & Response

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

REFER TO WAIVER RO-9081-1

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.1.16	VP-21	volts d.c.	9.0	11.0	9.55	9.54	12-2-66
5.10.2.1.16	VP-22	volts d.c.	0.0	0.2	0.01	0.06	12-16-66
	VP-23	volts d.c.	9.0	11.0	9.55	9.55	
	VP-24	volts d.c.	0.0	0.2	0.01	0.05	
	VP-25	volts d.c.	8.5	10.5	9.03	9.02	
	VP-26	volts d.c.	8.5	10.5	9.03	9.02	
	CPL-1	volts d.c.	2.80	3.18	2.95	2.95	
	VTP-1	volts d.c.	2.80	3.18	2.95	2.95	
	CPL-24	volts d.c.	4.05	4.53	4.21	4.22	
	VTP-24	volts d.c.	4.05	4.53	4.21	4.22	
	CPL-32	volts d.c.	3.93	4.69	4.10	4.10	
	VTP-32	volts d.c.	3.93	4.69	4.10	4.10	
	CPL-34	volts d.c.	0.28	0.66	0.50	0.50	
	VTP-34	volts d.c.	0.28	0.66	0.50	0.50	
	step 23B zenith	degrees	as read				
	azimuth	degrees	as read				
	step 23D	no	observable	hunting			

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

REFER TO WAIVER RO-9081-1

Power, Command, Control & Response

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.1.16	step 24A transition time	seconds	0	1	0.7	0.7	12-2-66
5.10.2.1.15	step 24B zenith	degrees	as	read			12-12-66
	azimuth	degrees	as	read			
	step 24D	no	observable	hunting	NO	NO	
	step 25A transition time	seconds	0	1	0.7	0.7	
	step 25B zenith	degrees	as	read	91°45'36"	91°46'08"	
	azimuth	degrees	as	read	315°09'02"	315°01'57"	
	step 26B zenith	degrees	as	read	92°24'59"	92°25'27"	
	azimuth	degrees	as	read	315°00'02"	315°00'15"	
	step 26C CPL-14	volts d.c.	4.39	4.65	4.45	4.45	
	VTP-14	volts d.c.	4.39	4.65	4.44	4.44	
	VP-18	volts d.c.	27	29	27.5	27.5	
	VP-19	volts d.c.	0.0	0.2	0.01	0.05	
	VP-20	volts d.c.	27	29	27.5	27.5	
	VP-21	volts d.c.	9.0	11.0	9.54	9.54	
	VP-22	volts d.c.	0.0	0.2	0.01	0.06	
	VP-23	volts d.c.	9.0	11.0	9.55	9.54	

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941
C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

REFER TO WAIVER RO-9081-1

Power, Command, Control & Response

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.1.16	VP-24	volts d.c.	8.5	10.5	9.00	9.00	12-2-66
5.10.2.1.15	VP-25	volts d.c.	0.0	0.2	0.01	0.04	12-16-66
	VP-26	volts d.c.	8.5	10.5	9.00	9.00	
	CPL-1	volts d.c.	3.90	4.70	4.09	4.09	
	VTP-1	volts d.c.	3.90	4.70	4.09	4.08	
	CPL-24	volts d.c.	4.05	4.53	4.21	4.22	
	VTP-24	volts d.c.	4.05	4.53	4.21	4.22	
	CPL-32	volts d.c.	3.93	4.69	4.10	4.10	
	VTP-32	volts d.c.	3.93	4.69	4.10	4.10	
	CPL-34	volts d.c.	0.28	0.66	0.50	0.50	
	VTP-34	volts d.c.	0.28	0.66	0.50	0.50	
	step 27B zenith	degrees	as	read			
	azimuth	degrees	as	read			
	step 27D	no	observable	hunting			
	step 28A transition time	seconds	0	1	0.7	0.7	
	step 28B zenith	degrees	as	read			
	azimuth	degrees	as	read			

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941
C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-59

REFER TO WAIVER RO-9081-1

Power, Command, Control & Response

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.1.16	step 28D		no observable hunting		NO	NO	12-2-66
5.10.2.1.15	step 29A transition time	seconds	0	1	0.7	0.7	12-6-66
	step 29B zenith	degrees	as	read	92° 06' 15"	92°06'56"	
	azimuth	degrees	as	read	315° 01' 25"	315°01'33"	
	step 30B zenith	degrees	as	read	92° 24' 58"	92°25'28"	
	azimuth	degrees	as	read	315° 00' 02"	315°00'19"	
5.5.2.1.17	average of steps 1B, 3B, and 5B	-	-	-			
5.10.2.1.16	zenith	degrees	plot must lie inside limit band		89° 57' 48"	90°00'20"	
	azimuth		on curve for E=0°	A=0°	315° 03' 13"	315°02'46"	
	average of steps 2B, 4B, 7B and 9B	-	-	-			
	zenith	degrees	plot must lie inside limit band		90° 20' 28"	90°20'54"	
	azimuth	degrees	on curve for E=0°	A=½°	315° 03' 06"	315°02'27"	
	average of steps 6B, 8B, 11B, and 13B	-	-	-			
	zenith	degrees	plot must lie inside limit bank		90° 40' 38"	90°42'00"	
	azimuth	degrees	on curve for E=0°	A=1°	315° 03' 00"	315°02'22"	
	average of steps 10B, 12B, 15B and 17B	-	-	-			
	zenith	degrees	plot must lie inside limit band		91° 02' 35"	91°03'04"	

24

C05098941
Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104
Power, Command, Control & Response

REFER TO WAIVER RO-9081-1

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.1.17	azimuth		on curve for E=0°	A=1 1/2°	315°02'31"	315°01'57"	12-3-66
5.10.2.1.16	average of steps 14B, 16B, 19B and 21B	-	-	-			12-3-66
	zenith	degrees	plot must lie inside limit band		91°23'32"	91°24'03"	
	azimuth	degrees	on curve for E=0°	A=2°	315°02'14"	315°01'57"	
	average steps of 18B, 20B, 23B and 25B	-	-	-			
	zenith	degrees	plot must lie inside limit band		91°44'30"	91°45'07"	
	azimuth		on curve for E=0°	A=2 1/2°	315°01'40"	315°01'31"	
	average of steps 22B, 24B, 27B and 29B	-	-	-			
	zenith	degrees	plot must lie inside limit band		92°05'14"	92°05'50"	
	azimuth	degrees	on curve for E=0°	A=3°	315°01'07"	315°01'13"	
5.5.2.1.17	average of steps 26B, 28B and 30B	-	-	-			
5.10.2.1.16	zenith	degrees	plot must lie inside limit band		92°24'58"	92°25'27"	
	azimuth		on curve for E=0°	A=3 1/2°	315°00'02"	315°00'17"	
	Interference Check Pos. 1 (E), 8(A)		NONE		None	NONE	
	Pos. 2 (E), 8(A)		NONE		None	NONE	
	Pos. 3 (E), 8(A)		NONE		None	NONE	
	Pos. 4 (E), 8(A)		NONE		None	NONE	

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE: 804-104
LINE OF SIGHT POSITIONS

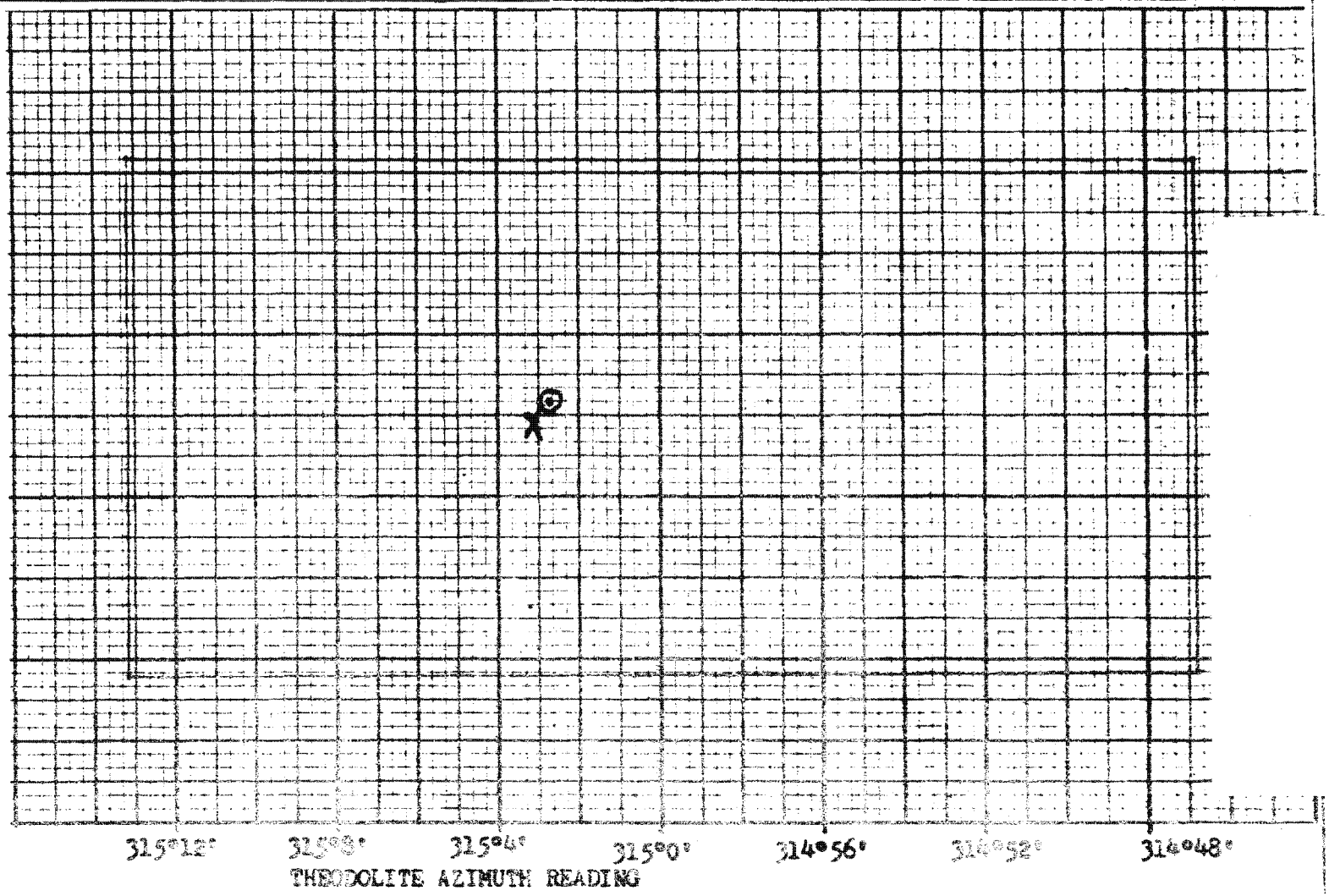
Assy Dwg. No. 805-101
Assy Ser.No. FM-39
Date _____

Elevation Servo at 0 °

Azimuth Servo at +0 °

REFER TO WAIVER RO-9081-L

12-3-66
12-16-66



X PRE-VIBRATION

O POST-VIBRATION

C05098941
Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

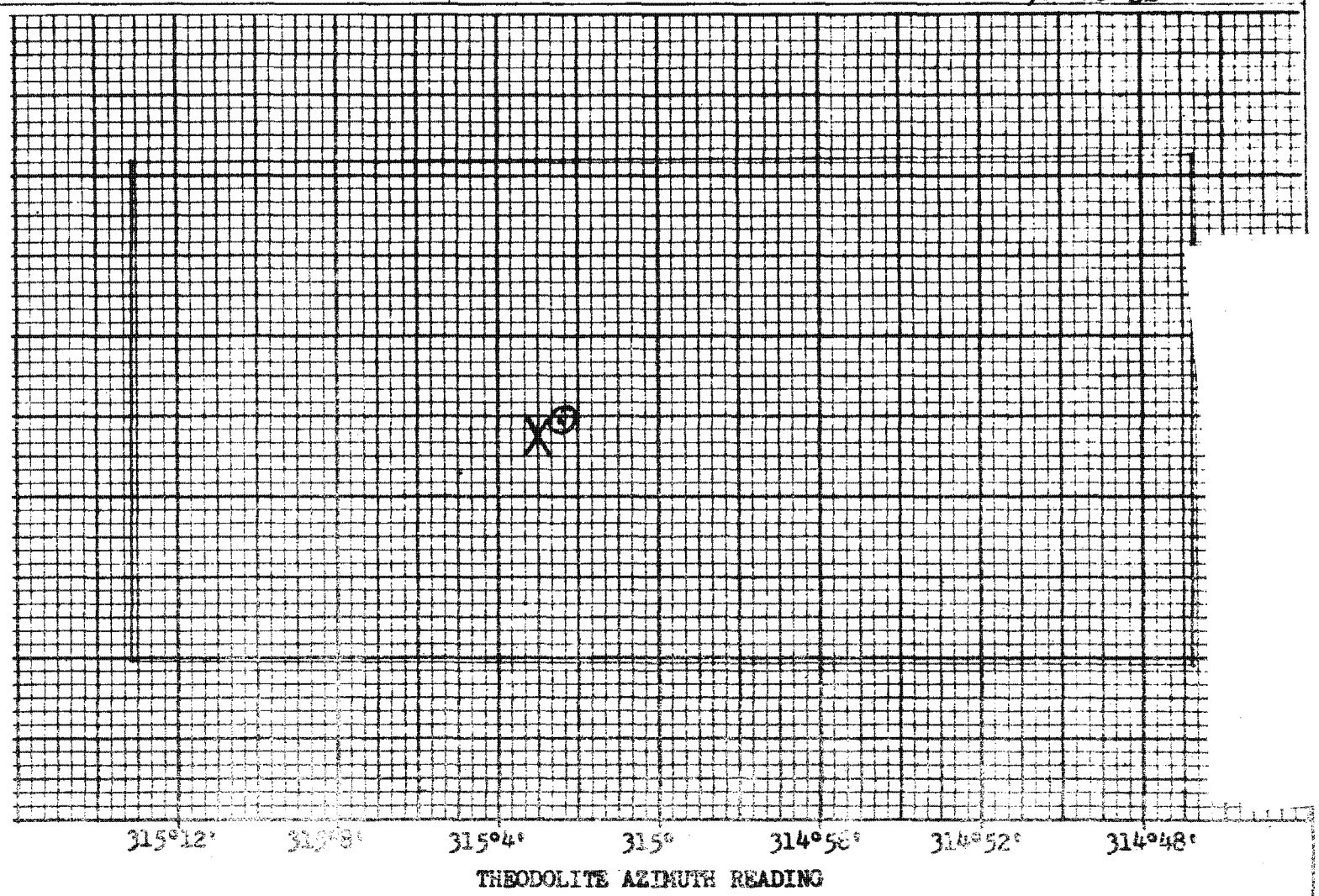
DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE: 804-104
LINE OF SIGHT POSITIONS

Assy Dwg. No. 805-101
Assy Ser. No. FM-39
Date _____

Elevation Servo at 0 ° Azimuth Servo at ½ °

REFER TO WAIVER RO-9081-1

12-3-66
12-16-66



X PRE-VIBRATION 0 POST-VIBRATION

C05098941
Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

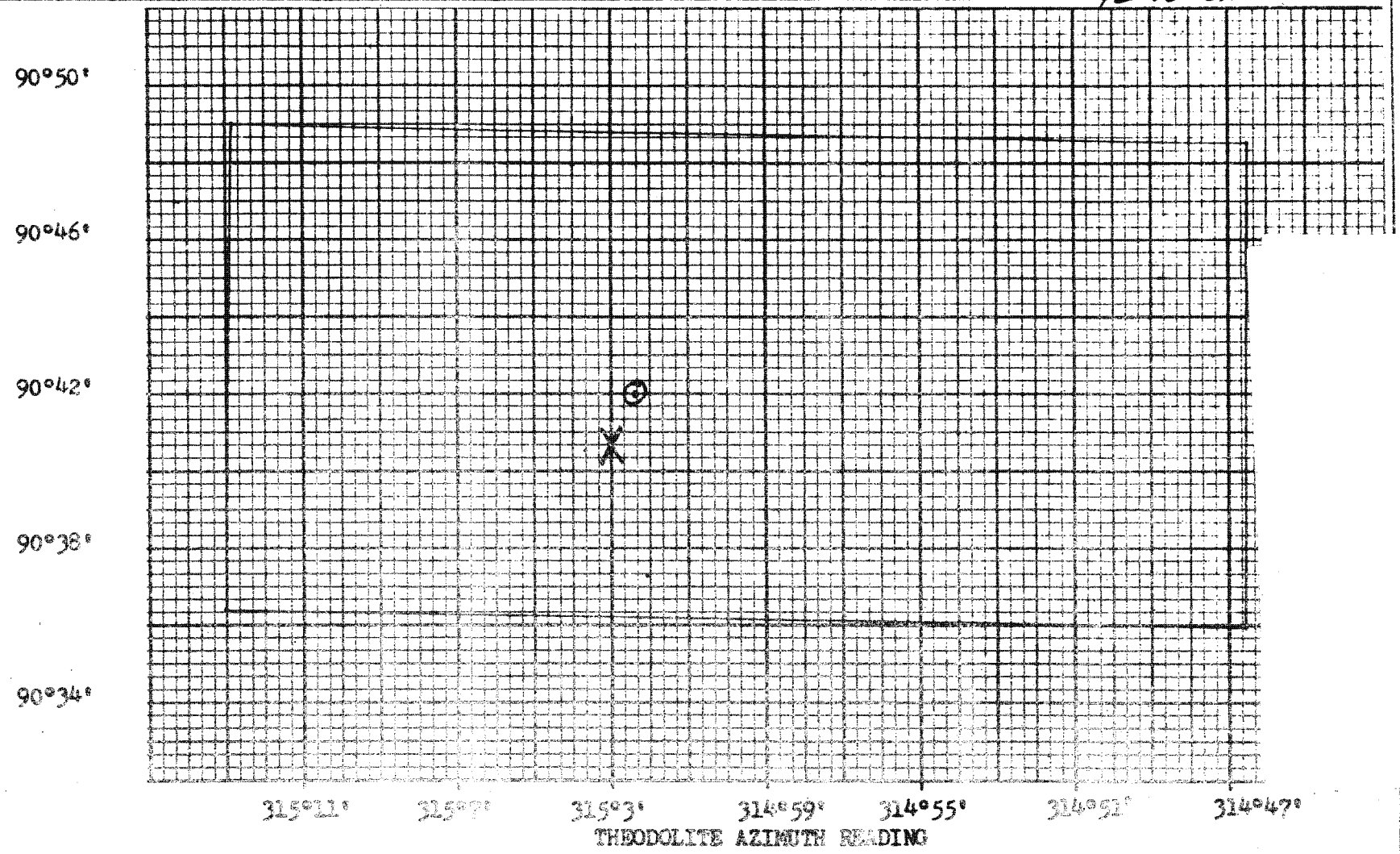
DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE: 804-104
LINE OF SIGHT POSITIONS

Assy Dwg. No. 805-101
Assy Ser. No. FM-39
Date _____

Elevation Servo at 0 ° Azimuth Servo at 1 °

REFER TO WAIVER RO-9081-1

12-3-66
12-16-66



X PRE-VIBRATION O POST-VIBRATION

C05098941
Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

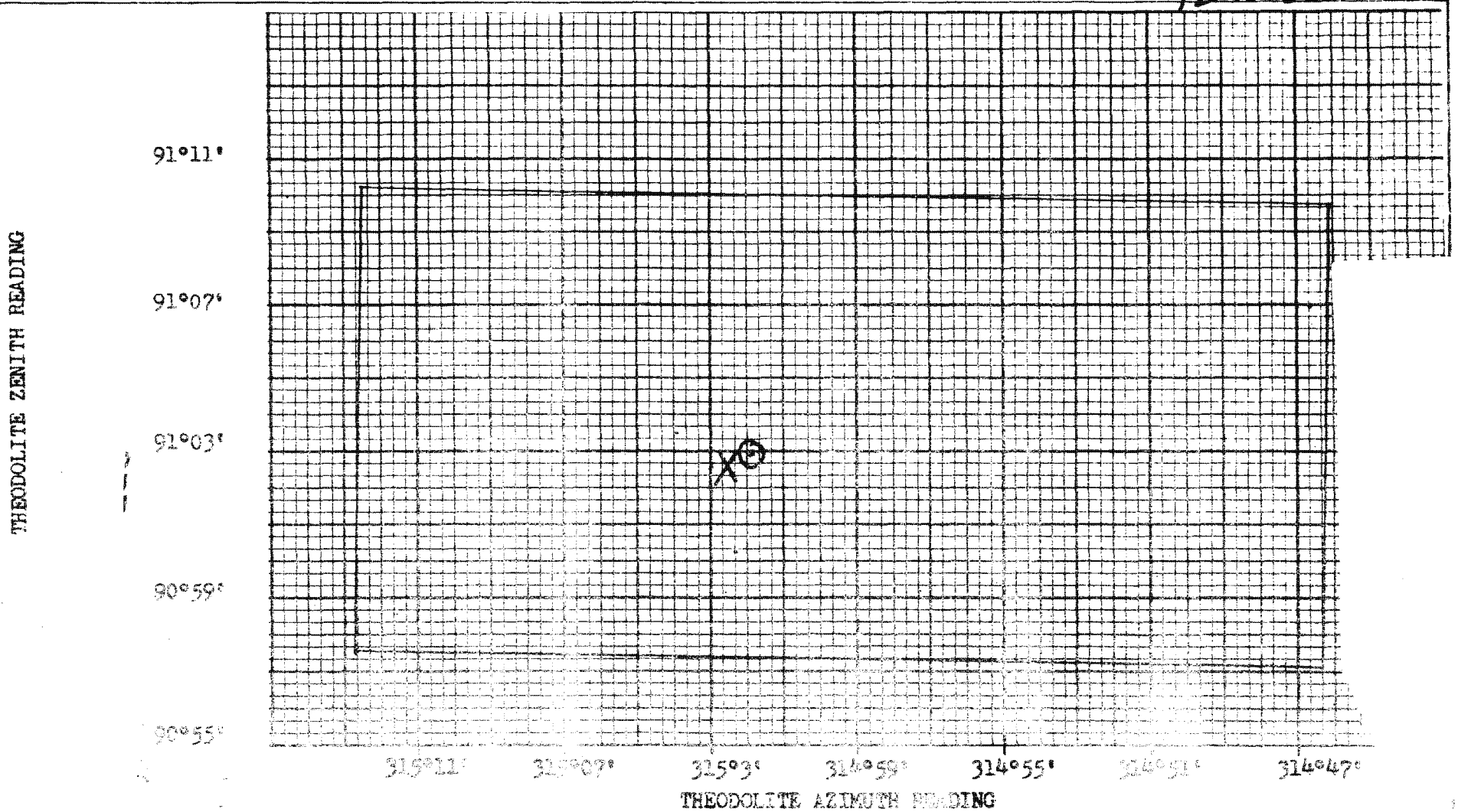
DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE: 804-104
LINE OF SIGHT POSITIONS

Assy Dwg. No. 805-101
Assy Ser. No. FM-39
Date _____

Elevation Servo at 0 ° Azimuth Servo at 1½°

REFER TO WAIVER RO-9081-1

12-3-66
12-14-66



X PRE-VIBRATION O POST-VIBRATION

29

C05098941
Approved for Release: 2024/01/30 C05098941

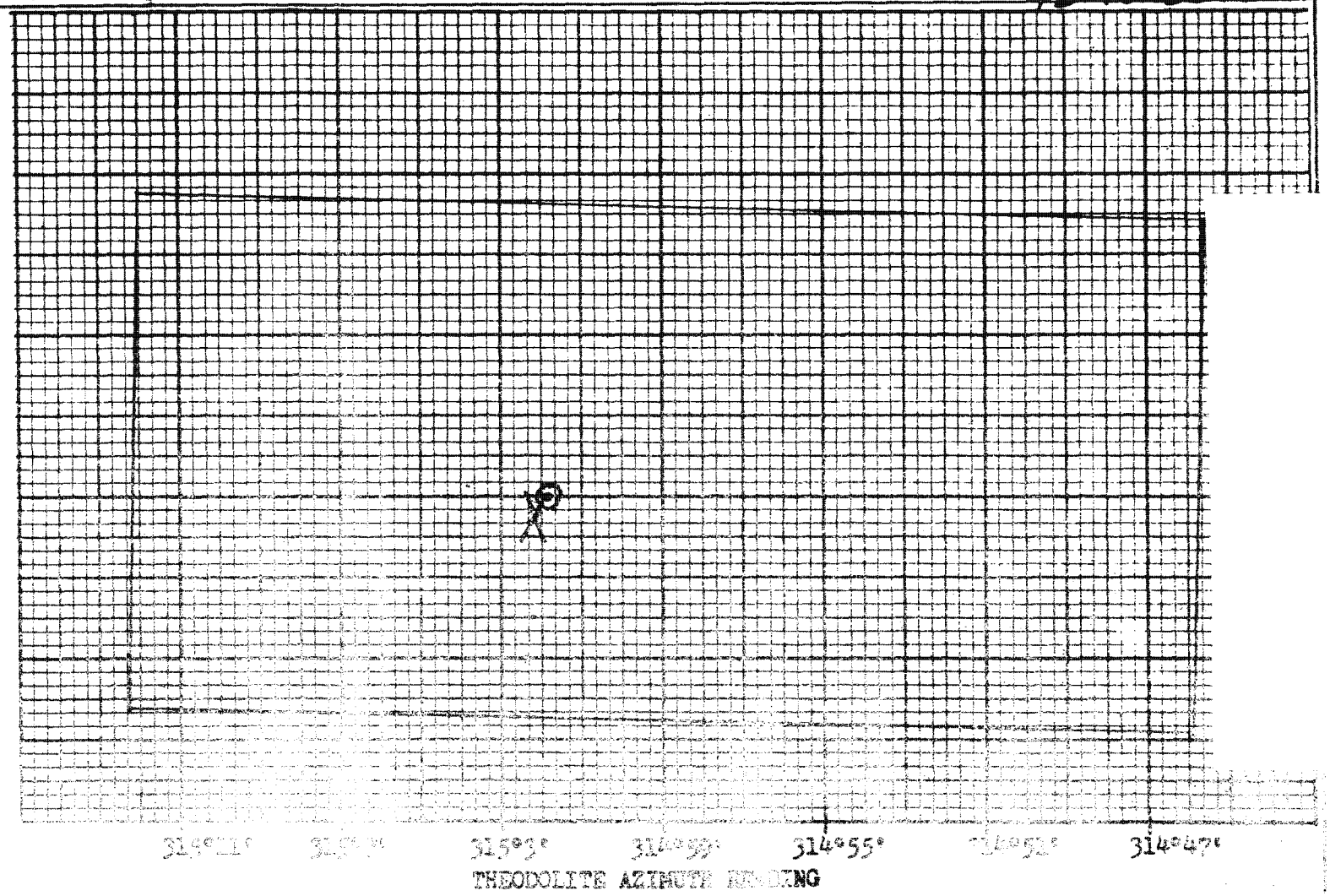
DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE: 804-104
LINE OF SIGHT POSITIONS

Assy Dwg. No. 805-101
Assy Ser. No. FM-39
Date _____

Elevation Servo at 0° Azimuth Servo at 2°

REFER TO WAIVER EO-9081-1

12-3-66
12-16-66



A PRE-VIBRATION O POST-VIBRATION

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941
C05098941

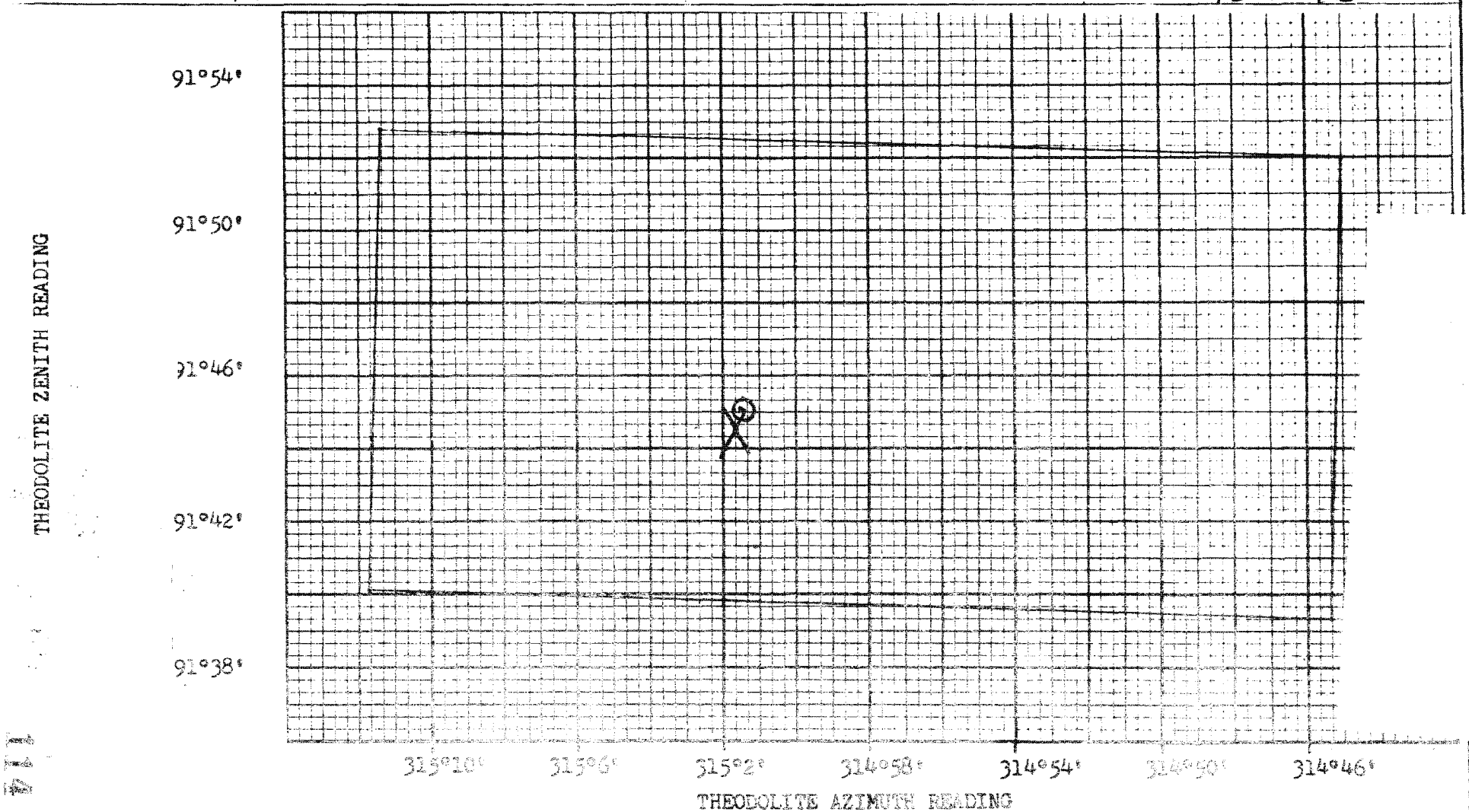
DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE: 804-104
LINE OF SIGHT POSITIONS

Assy Dwg. No. 805-101
Assy Ser. No. FM-39
Date _____

Elevation Servo at 0° Azimuth Servo at 2⅓°

REFER TO WAIVER R0-9081-1

12-3-66
12-16-66



X PRE-VIBRATION O POST-VIBRATION

C05098941
Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

C05098941

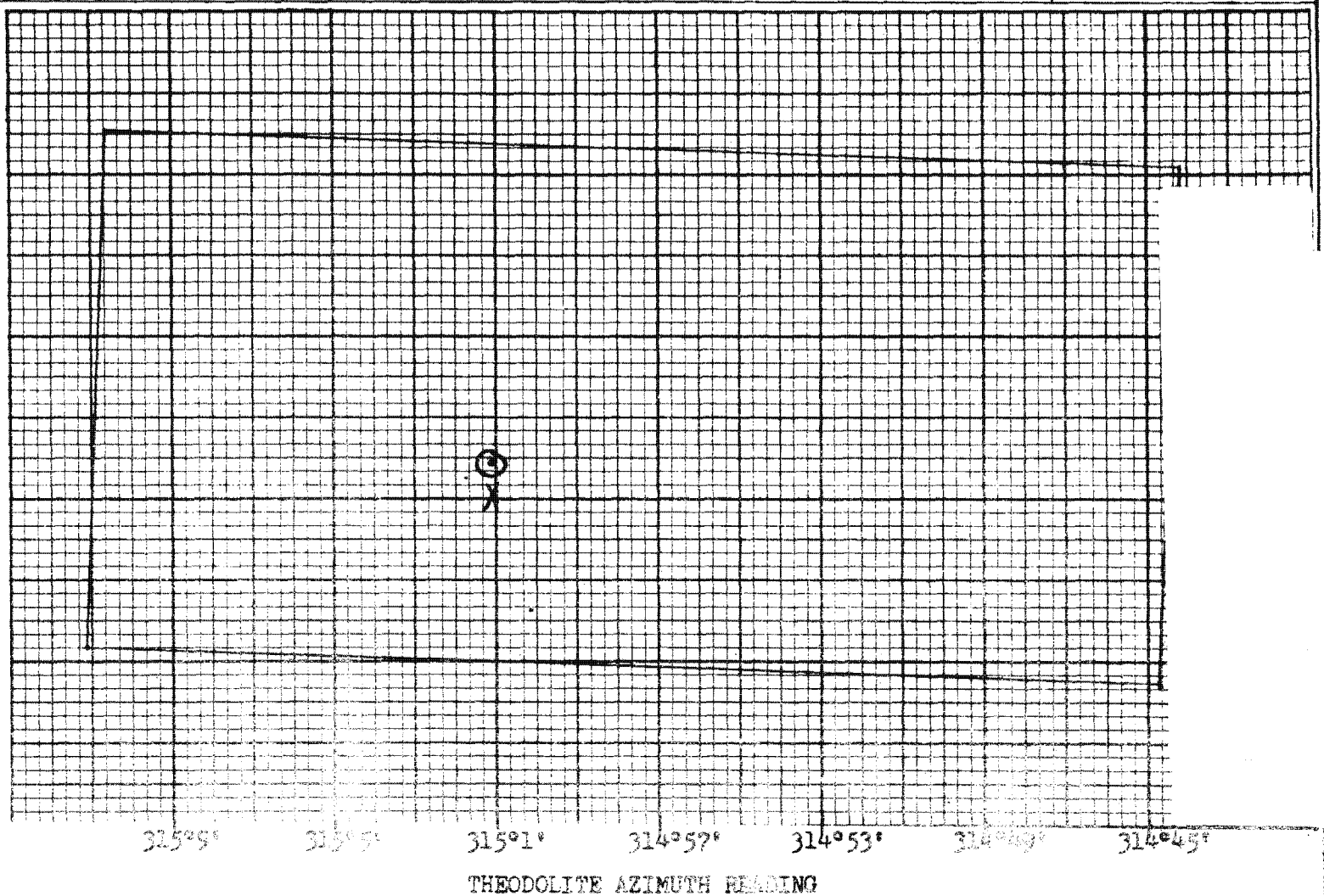
DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE: 804-104
LINE OF SIGHT POSITIONS

Assy Dwg. No. 805-101
Assy Ser. No. FM-39
Date _____

Elevation Servo at 0° Azimuth Servo at 3°

12-3-66
12-16-66

REFER TO WAIVER RO-9081-1



CW

X PRE-VIBRATION ○ POST-VIBRATION

32

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

C05098941

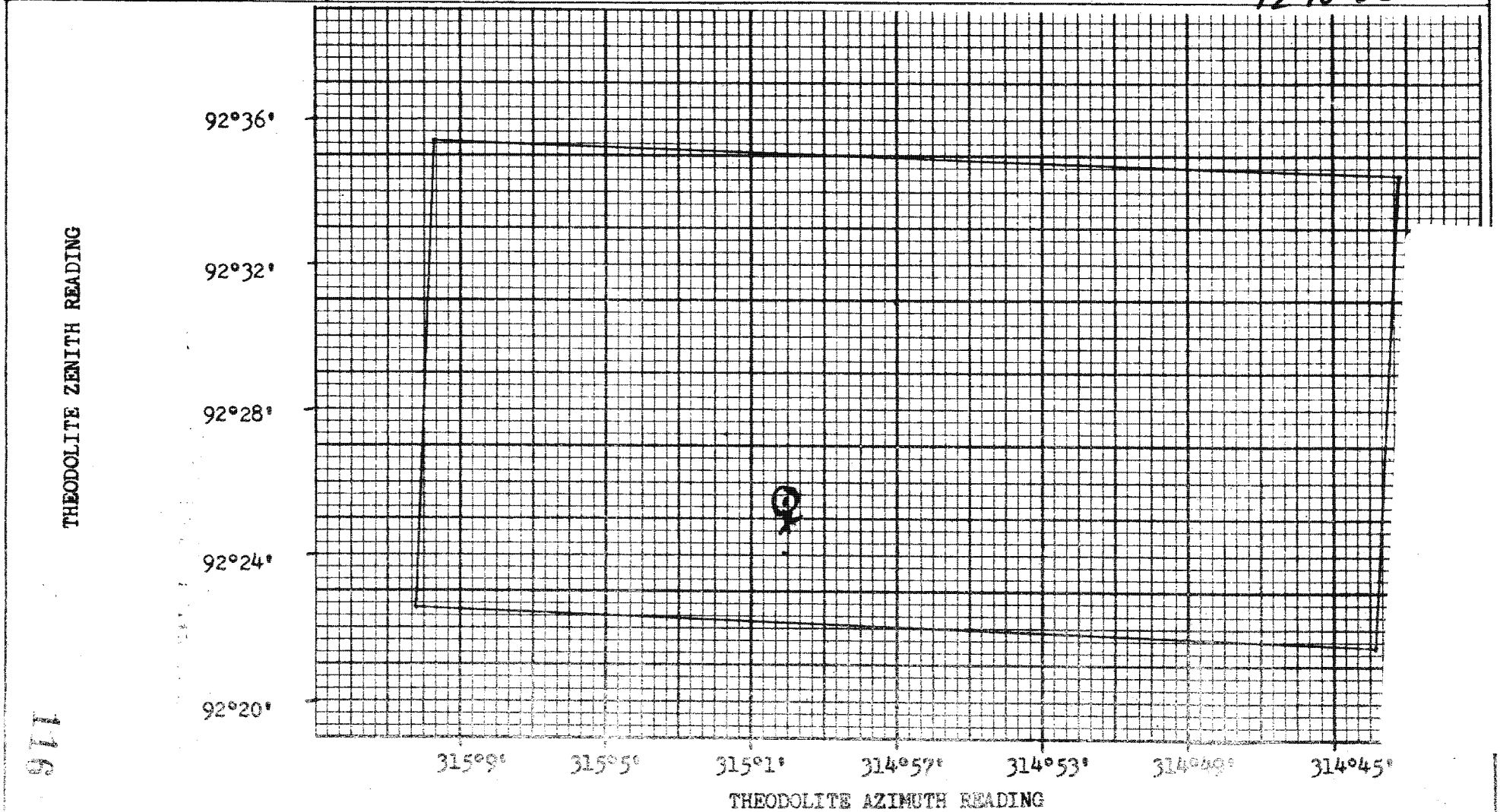
DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE: 804-104
LINE OF SIGHT POSITIONS

Assy Dwg. No. 805-101
Assy Ser. No. FM-39
Date _____

Elevation Servo at 0° Azimuth Servo at 3½°

REFER TO WAIVER RO-9081-1

12-3-66
12-16-66



X PRE-VIBRATION O POST-VIBRATION

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

C05098941

Approved for Release: 2024/01/30 C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104 E

Assy. Dwg. No. [illegible]
Assy. Ser. No. FM-39

REFER TO WAIVER RO-9081-1

Power, Command, Control and Response

Procedure Reference	Test	Units	Test Requirement		Test Data		Date
			Min.	Max.	Pre.	Post	
5.5.2.1.18 5.10.2.1.17	verify repositioning CPL-14	volts dc	4.63	4.69	4.49	4.49	12-2-66
5.5.2.1.19 5.10.2.1.18	transition time	seconds	0	8	5.6	5.4	12-16-66
5.5.2.1.20 5.10.2.1.19	verify repositioning CPL-14	volts dc	0.38	0.64	0.47	0.47	
117							

34

Approved for Release: 2024/01/30 C05098941

C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

REFER TO WAIVER RO-9081-7

Power, Command, Control & Response

Procedure Reference	Test		Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.2.2	Elevation Position Changes							12-3-66
5.10.2.2.2	Step 1-B	Zenith	degrees	as	read	89°59'56"	90°00'23"	12-4-66
		Azimuth	degrees	as	read	307°39'45"	307°40'00"	
	Step 1-C	CPL-13	volts d.c.	0.37	0.63	0.52	0.52	
		VTP-13	volts d.c.	0.37	0.63	0.52	0.52	
		VP-6	volts d.c.	0.4	0.6	0.55	0.55	
		VP-7	volts d.c.	27	29	27.5	27.8	
		VP-8	volts d.c.	27	29	27.5	27.8	
		VP-9	volts d.c.	0.4	0.6	0.56	0.55	
		VP-10	volts d.c.	27	29	27.0	27.3	
		VP-11	volts d.c.	27	29	27.0	27.3	
		CPL-30	volts d.c.	2.78	3.08	2.94	2.97	
		VTP-30	volts d.c.	2.78	3.08	2.93	2.97	
		CPL-31	volts d.c.	2.50	3.05	2.89	2.92	
		VTP-31	volts d.c.	2.50	3.05	2.89	2.92	
		CPL-33	volts d.c.	0.30	0.68	0.50	0.50	
		VTP-33	volts d.c.	0.30	0.68	0.50	0.50	

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

REFER TO WAIVER RO-9081-1

Power, Command, Control & Response

Procedure Reference	Test		Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.2.2	Step 2-A Transition Time		seconds	0	2	1.5	1.4	12-3-66
5.10.2.2.2	Step 2-B	zenith	degrees	as	read	89°54'41"	90°00'20"	12-16-66
		azimuth	degrees	as	read	314°57'03"	314°58'20"	
	Step 2-D		no	observable	hunting	None	NONE	
	Step 3-A Transition time		seconds	0	2	1.5	1.4	
	Step 3-B	zenith	degrees	as	read	89°54'55"	90°00'20"	
		azimuth	degrees	as	read	302°39'49"	302°39'2	
	Step 3-D		no	observable	hunting	None	NONE	
	Step 4-B	zenith	degrees	as	read			
		azimuth	degrees	as	read			
	Step 4-C	CPL-13	volts d.c.	2.40	2.66	2.44	2.45	
		VTP-13	volts d.c.	2.40	2.66	2.44	2.45	
		VP-6	volts d.c.	0.4	0.6	0.51	0.50	
		VP-7	volts d.c.	27	29	27.5	27.8	
		VP-8	volts d.c.	27	29	27.5	27.8	
		VP-9	volts d.c.	27	29	27.0	27.2	
		VP-10	volts d.c.	0.4	0.6	0.52	0.50	

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

REFER TO WAIVER RO-9081-1

Power, Command, Control & Response

Procedure Reference	Test		Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.2.2		VP-11	volts d.c.	27	29	27.0	27.2	12-3-66
5.10.2.2.2		CPL-30	volts d.c.	2.78	3.08	2.93	2.96	12-16-66
		VTP-30	volts d.c.	2.78	3.08	2.93	2.97	
		CPL-31	volts d.c.	3.92	4.32	4.08	4.12	
		VTP-31	volts d.c.	3.92	4.32	4.07	4.12	
		CPL-33	volts d.c.	0.30	0.68	0.50	0.50	
		VTP-33	volts d.c.	0.30	0.68	0.50	0.50	
	step 5B	zenith	degrees	as	read			
		azimuth	degrees	as	read			
	step 6B	zenith	degrees	as	read			
		azimuth	degrees	as	read			
	step 6D		no	observable	hunting	None.	NONE	
	step 7B	zenith	degrees	as	read			
		azimuth	degrees	as	read			
	step 8A Transition Time		seconds	0	2	1.4	1.4	
	step 8B	zenith	degrees	as	read	89°5'29"	90°00'18"	
		azimuth	degrees	as	read	322°29'22"	322°30'27"	

Approved for Release: 2024/01/30 C05098941

Approved for Release: 2024/01/30 C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

REFER TO WAIVER RO-9081-1

POWER, COMMAND, CONTROL & RESPONSE

Procedure Reference	Test		Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.2.2	step 8C	CPL-13	volts d.c.	4.32	4.58	4.40	4.40	12-3-66
5.10.2.2.2		VTP-13	volts d.c.	4.32	4.58	4.40	4.40	12-16-66
		VP-6	volts d.c.	27	29	27.7	27.7	
		VP-7	volts d.c.	0.7	1.0	0.87	0.86	
		VP-8	volts d.c.	27	29	27.8	27.8	
		VP-9	volts d.c.	0.4	0.6	0.47	0.46	
		VP-10	volts d.c	0.2	0.5	0.36	0.35	
		VP-11	volts d.c.	0.4	0.6	0.47	0.46	
		CPL-30	volts d.c.	4.02	4.38	4.20	4.20	
		VTP-30	volts d.c.	4.02	4.38	4.20	4.20	
		CPL-31	volts d.c.	0.47	0.70	0.52	0.53	
		VTP-31	volts d.c.	0.47	0.70	0.52	0.52	
		CPL-33	volts d.c.	0.30	0.68	0.57	0.57	
		VTP-33	volts d.c.	0.30	0.68	0.50	0.50	
	step 9 A Transition Time		seconds	0	2	1.5	1.4	
	step 9 B	zenith	degrees	as	read	89° 59' 46"	90° 00' 12"	
		azimuth	degrees	as	read	315° 03' 08"	315° 02' 05"	

Approved for Release: 2024/01/30 C05098941

Approved for Release: 2024/01/30 C05098941

C05098941

C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

REFER TO WAIVER RO-9081-1

Power, Command, Control & Response

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.2.2	step 9 D	no	observable	hunting			12-3-66
5.10. 2.2.2	step 10 B zenith	degrees	as	read	89° 59'28"	90° 00'15"	12-16-66
	azimuth	degrees	as	read	322° 29' 25"	322° 30' 23"	
	step 10 D	no	observable	hunting	None	None	
5.5.2.2.3	average of steps 1B, 3B, and 5B	-	-	-			
5.10.2.2.3	zenith	degrees	plot must limit	lie within band	89° 59' 56"	90° 00' 22"	
	azimuth	degrees	E=-7 1/2°	A=0°	307° 39' 47"	307° 39' 41"	
	average of steps 2B, 4B, 7B, and 9B	-	-	-			
	zenith	degrees	plot must limit	lie inside band	89° 59' 43"	90° 00' 19"	
	azimuth	degrees	on curve E=0°	for A=0°	315° 00' 02"	315° 00' 13"	
	average of steps 6B, 8B, and 10B	-	-	-			
	zenith	degrees	plot must inside limit	lie t band	89° 59' 29"	90° 00' 18"	
	azimuth	degrees	on curve E= +7 1/2°	for A=0°	322° 29' 23"	322° 30' 23"	

Approved for Release: 2024/01/30 C05098941

Approved for Release: 2024/01/30 C05098941

C05098941

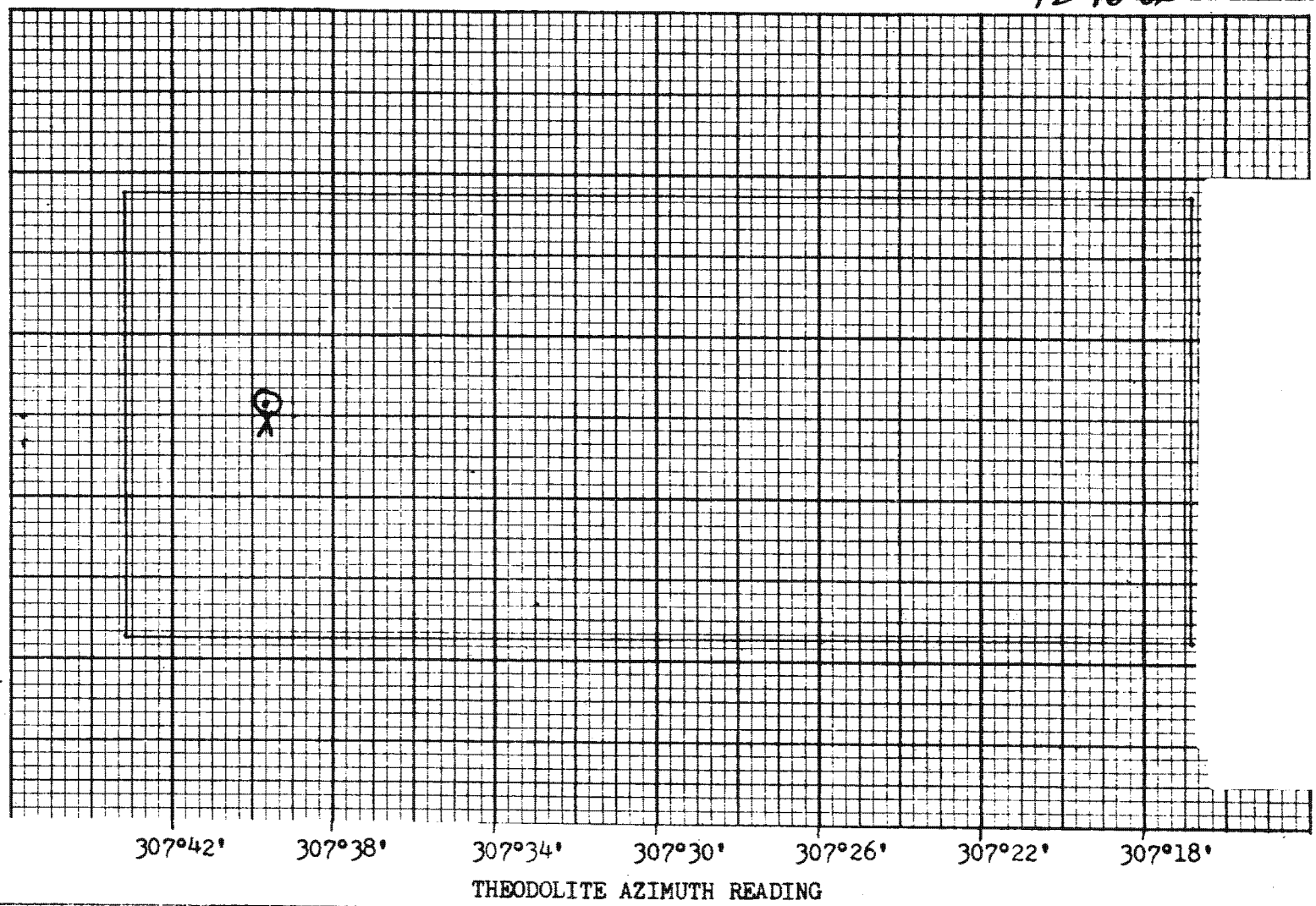
DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE: 804-104
LINE OF SIGHT POSITIONS

Assy Dwg. No. 805-101
Assy Ser. No. FM-39
Date _____

Elevation Servo at -7½° Azimuth Servo at +0°

REFER TO WAIVER RO-9081-1

12-3-66
12-16-66



123

X PRE-VIBRATION 0 POST-VIBRATION

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

C05098941

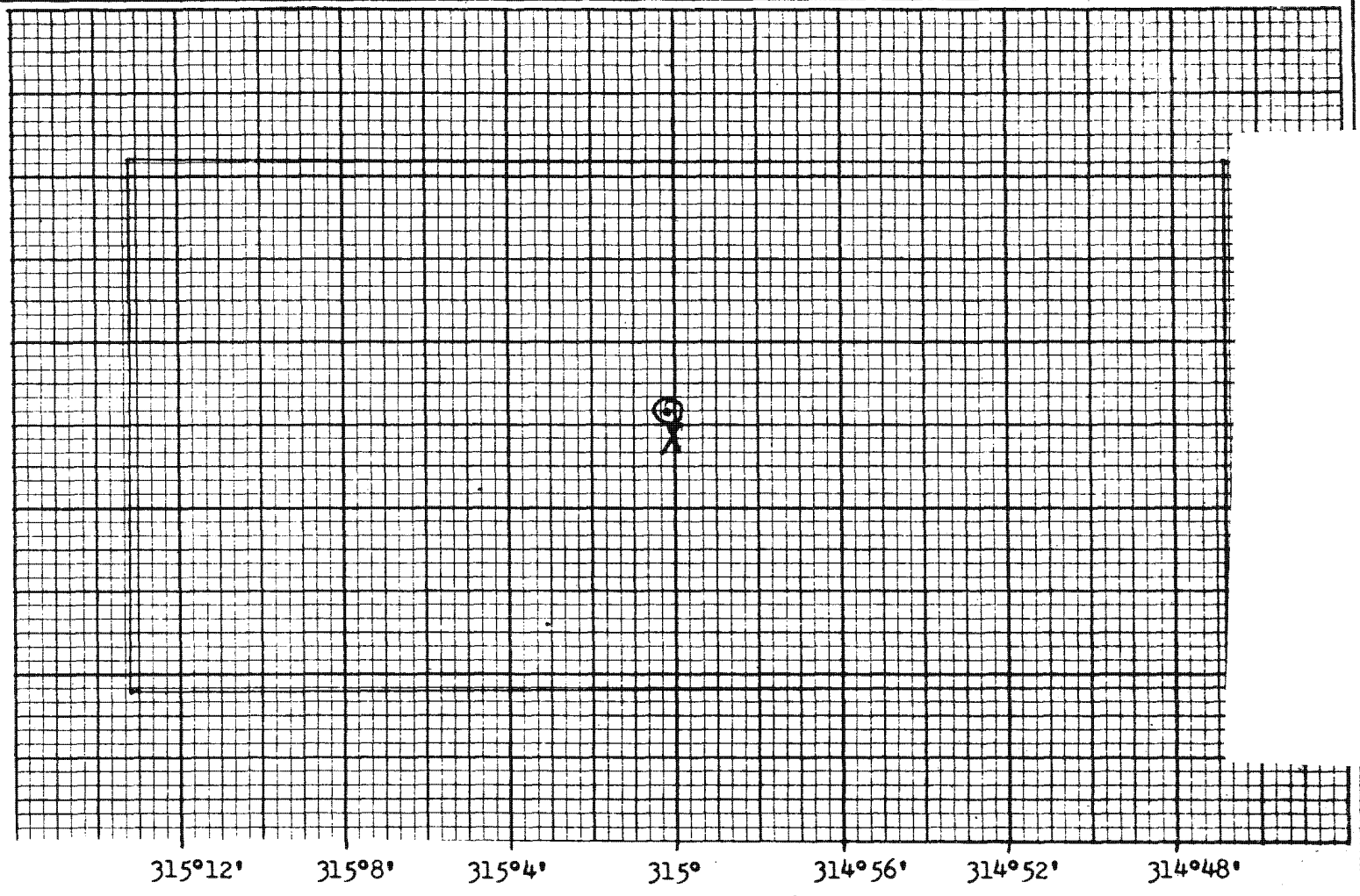
DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE: 804-104
LINE OF SIGHT POSITIONS

Assy Dwg. No. 805-101
Assy Ser. No. FM-39
Date _____

Elevation Servo at 0° Azimuth Servo at -0°

12-3-66
12-16-66

REFER TO WAIVER RO-9081-1



X PRE-VIBRATION 0 POST-VIBRATION

124

42

Approved for Release: 2024/01/30 C05098941

Approved for Release: 2024/01/30 C05098941

C05098941

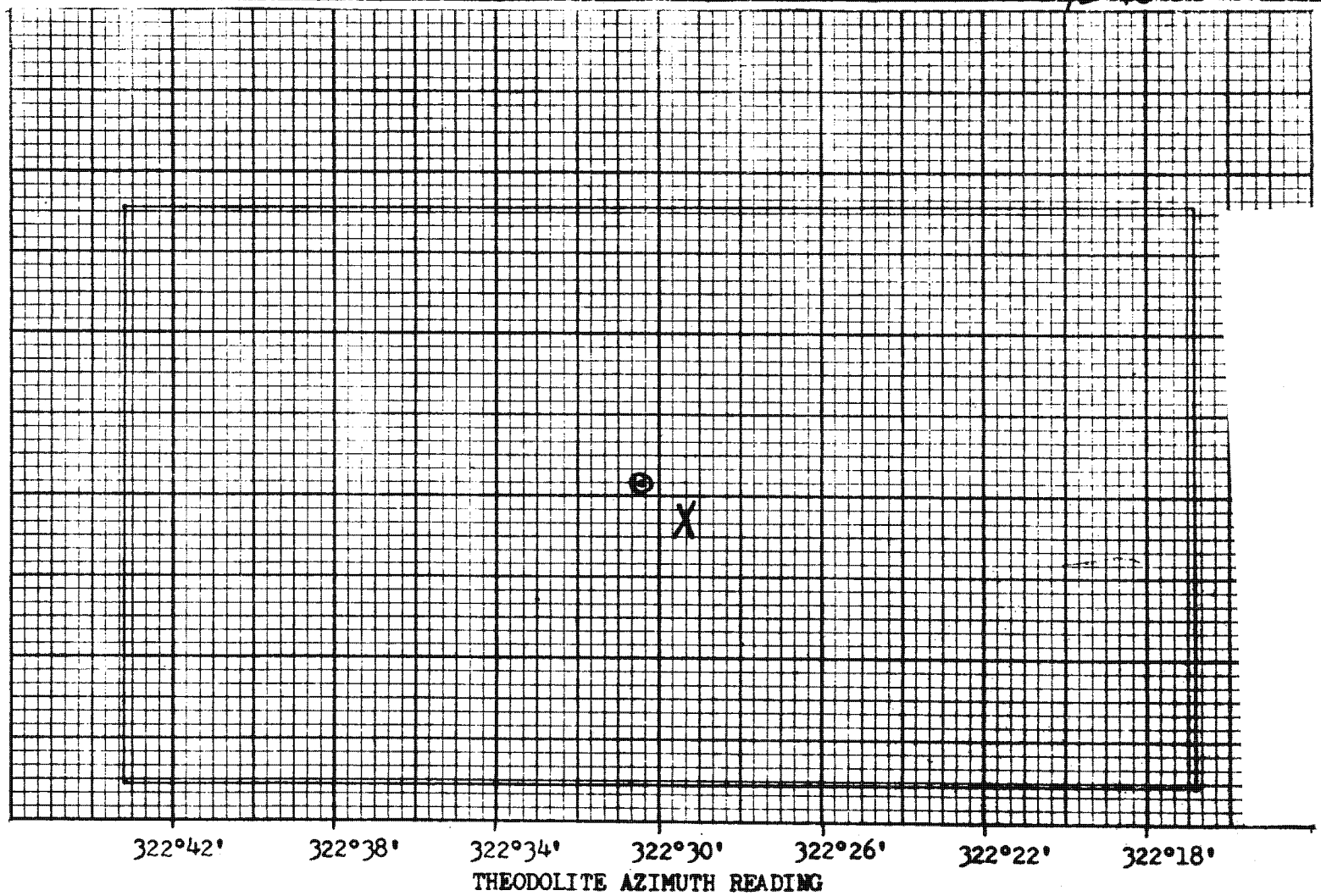
DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE: 804-104
LINE OF SIGHT POSITIONS

Assy Dwg. No. 805-101
Assy Ser. No. FM-39
Date _____

Elevation Servo at +7½° Azimuth Servo at -0°

REFER TO WAIVER R0-9081-1

12-3-66
12-16-66



X PRE-VIBRATION 0 POST-VIBRATION

125

43

Approved for Release: 2024/01/30 C05098941

Approved for Release: 2024/01/30 C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104 E

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

REFER TO WAIVER RO-9081-1

Power, Command, Control & Response

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.2.4 5.10.2.2.4	Repositioning Check CPL-13	volts d.c.	4.38	4.64	4.42	4.43	12-3-66
5.5.2.2.5 5.10.2.2.5	Transition Time	seconds	0	4	2.8	2.8	12-16-66
5.5.2.2.6 5.10.2.2.6	Repositioning check CPL-13	volts d.c.	0.42	0.68	0.50	0.50	
5.10.2.2.3	Reference mirror Alignment	-	-	-			
	zenith	degrees	89° 59' 30"	90° 0' 30"		90° 0' 00"	
	azimuth	degrees	44° 59' 30"	45° 0' 30"		45° 0' 00"	

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941
C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104 F-1

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.3.3	Data Signal Instrumentation	-	-	-			12-1-66
	Channels A & B off	-	-	-			12-16-66
	CPL-29	volts	1.0	1.6	1.35	1.36	
	VTP-29	volts	1.0	1.6	1.36	1.36	
	Channel A ON	-	-	-			
	Channel B OFF	-	-	-			
	CPL-29	volts	3.3	3.9	3.66	3.67	
	VTP-29	volts	3.3	3.9	3.66	3.67	
	Channel A OFF	-	-	-			
	Channel B ON	-	-	-			
	CPL-29	volts	2.4	3.0	2.78	2.80	
	VTP-29	volts	2.4	3.0	2.78	2.80	
	Channel A&B ON	-	-	-			
	CPL-29	volts	4.4	5.0	4.64	4.66	
	VTP-29	volts	4.4	5.0	4.64	4.66	

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941
C05098941

C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104 E

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Power, Command, Control & Response

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.3.6 5.10.2.3.6	Amplified Data Signal A	—	—	—			12-1-66
	ON Amplitude	Volts p-p	180	200	188	185	12-16-66
	OFF Amplitude	Volts p-p	-	50	10	20	
	Rise Time	Microsecs.	As read		15	40	
	Decay Time	"	"	"	2000	2000	
5.5.2.3.8 5.10.2.3.8	Amplified Data Signal B	—	—	—			
	ON Amplitude	Volts p-p	180	200	185	185	
	OFF Amplitude	Volts p-p	—	50	20	20	
	Rise Time	Microsecs.	As read		20	20	
	Decay Time	Microsecs.	As read		1000	1500	

Approved for Release: 2024/01/30 C05098941

Approved for Release: 2024/01/30 C05098941

C05098941

DATA SHEET
FOR
REFER TO WAIVER RO-9081-5 ACCEPTANCE TEST PROCEDURE NO. 804-104E

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Power, Command, Control and Response

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.4.1.4 5.10.2.4.1.4	Operating Function Current Transients	---	--	--			12-2-66
	Operating Power Turn-On PP Current	amps	—	14.0	2.1		
	recovery time	seconds	--	0.20	0.02		
	Gain Power Turn-On P-P Current	amps	—	0.8	0.78		
	recovery time	seconds	—	0.10	0.08		
	Gain Adjust Motor Turn-On P-P Current	amps	--	0.60	0.21		
	recovery time	seconds	--	0.05	0.02		
	Supply Brake Turn-On P-P Current	amps	—	.75	0.400		
	recovery time	seconds	--	0.05	0.02		
	Motor Speed 48 Turn-On P-P Current	amps	—	1.4	1.0		
	recovery time	seconds	--	0.50	0.10		
	Stereo Servo Turn-On P-P Current	amps	—	3.0	.6		
	recovery time	seconds	--	0.40	0.03		
	Crab Servo Turn-On P-P Current	amps	--	3.0	0.70		
	recovery time	seconds	—	0.40	0.04		
	T/U Motor Turn-On P-P Current	amps	--	1.8	1.0		
	recovery time	seconds	--	0.20	0.15		

129

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104 F-1

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.4.11 5.10.2.4.14	continued						12-2-66
	Slit Positioner turn-on P-P current	amps	-	1.5	0.20	0.15	
	recovery time	seconds	-	0.05	0.025	0.020	12-16-66

C05098941
Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104

REFER TO WAIVER RO-9081-5

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.4.1.8 5.10.2.4.1.8	STeady State Power Consumption	-	-	-			12-2-66
	Operating power current	amps dc	-	0.386	0.370		
	Gain power current *	amps dc	-	0.790	0.720		
	Gain adjust motor current	amps dc	-	0.088	0.046		
	Supply brake current	amps dc	-	0.500	0.360		
	Motor Speed Drive current *	amps dc	-	1.386	1.30		
	Elevation Servo current *	amps dc	-	1.566	0.860		
	Azimuth Servo Current *	amps dc	-	1.386	0.810		
	Slit positioner current *	amps dc	-	0.553	0.570		
	T/U motor current	amps dc	0	0.850	0.69		
	CPL-19	vdc	must be within ±0.1v of spec curve at measured current		2.87		
5.10.2.4.1.9	T/U motor current at 27v	amps dc	-	0.850			
	CPL-19	vdc	must be within ±0.1v of spec curve at measured current				
	T/U Motor current at 32.5v	amps dc	-	0.850			
	CPL-19	vdc	must be within ±0.1v of spec at measured current				
5.5.2.4.1.12 5.10.2.4.1.13	Instrumentation supply current	milliamps	-	10.0	2.8		
5.5.2.4.1.4.1 5.10.2.4.1.4.1	Supply Brake Steady State Voltage	vdc			1.76		

*includes operating power current (ref.CPL-19)

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104
Power, Command, Control & Response

REFER TO WAIVER RO-9081-5

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.4.2.2 5.10.2.4.2.2	Power Instrumentation Calibration						12-1-66
	Operating Power at 27.0 Volts						
	VP-13	volts d.c.	4.8	5.2	5.00		
	VP-44	volts d.c.	-21.8	-22.2	-22.0		
	VP-45	volts d.c.	21.8	22.2	22.0		
	VP-46	volts d.c.	26.9	27.1	27.0		
	CPL-35	volts d.c.	2.60	3.00	2.73		
	VTP-35	volts d.c.	2.60	3.00	2.73		
5.2.4.2 10.2.4	Operating Power at 28.0 Volts						
	VP-13	volts d.c.	4.8	5.2	5.00		
	VP-44	volts d.c.	-21.8	-22.2	-22.0		
	VP-45	volts d.c.	21.8	22.2	22.0		
	VP-46	volts d.c.	27.9	28.1	28.0		
	CPL-35	volts d.c.	2.93	3.33	3.04		
	VTP-35	volts d.c.	2.93	3.33	3.04		
	Operating Power at 29.0 Volts						
	VP-13	volts d.c.	4.8	5.2	5.00		

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104

REFER TO WAIVER RO-9081-5

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Power, Command, Control & Response

Procedure Reference	Test		Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.4.2.3 5.10.2.4.2.3	continued	VP-44	volts d.c.	-21.8	-22.2	-22.0		12-1-66
		VP-45	volts d.c.	21.8	22.2	22.0		
		VP-46	volts d.c.	28.9	29.1	29.0		
		CPL-35	volts d.c.	3.22	3.62	3.35		
		VTP-35	volts d.c.	3.22	3.62	3.35		
	Operating Power at 30.0 volts		---	---	---			
		VP-13	volts d.c.	4.8	5.2	5.00		
		VP-44	volts d.c.	-21.8	-22.2	-22.0		
		VP-45	volts d.c.	21.8	22.2	22.0		
		VP-46	volts d.c.	29.9	30.1	30.0		
		CPL-35	volts d.c.	3.53	3.93	3.64		
		VTP-35	volts d.c.	3.53	3.93	3.64		
	Operating Power at 31.0 volts		---	---	---			
		VP-13	volts d.c.	4.8	5.2	5.0		
		VP-44	volts d.c.	-21.8	-22.2	-22.0		
		VP-45	volts d.c.	21.8	22.2	22.0		
		VP-46	volts d.c.	30.9	31.1	31.0		

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

DATA SHEET
FOR
REFER TO WAIVER RO-9081-5 ACCEPTANCE TEST PROCEDURE NO. 804-104
Power, Command, Control & Response

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.42.3 5.10.2.4.2.3	(continued)						
	CPL-35	volts d.c.	3.85	4.25	3.95		12-1-6
	VTP-35	volts d.c.	3.85	4.25	3.94		
	Operating Power at 32.0 volts	----	----	---			
	VP-13	volts d.c.	4.8	5.2	5,00		
	VP-44	volts d.c.	-21.8	-22.2	-22.0		
	VP-45	volts d.c.	21.8	22.2	22.0		
	VP-46	volts d.c.	31.9	32.1	32,0		
	CPL-35	volts d.c.	4.17	4.57	4.25		
	VTP-35	volts d.c.	4.17	4.57	4.25		
	Operating Power at 33.0 volts	----	----	----			
	VP-13	volts d.c.	4.8	5.2	5,00		
	VP-44	volts d.c.	-21.8	-22.2	-22.0		
	VP-45	volts d.c.	21.8	22.2	22.0		
	VP-46	volts d.c.	32.9	33.1	33,0		
	CPL-35	volts d.c.	4.48	4.88	4.57		
	VTP-35	volts d.c.	4.48	4.88	4.57		

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941
C05098941

C05098941

Approved for Release: 2024/01/30 C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104

REFER TO WAIVER RO-9081-5

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.4.2.6 5.10.2.4.2.6	Heater Power at 14.0 volts	----	----	---			
	CPL-26	volts d.c.	1.65	1.95	1.77		12-1-66
	VP-50	volts d.c.	1.65	1.95	1.76		
5.5.2.4.2.7 5.10.2.4.2.7	Heater Power at 18.0 volts	----	----	----			
	CPL-26	volts d.c.	2.15	2.45	2.25		
	VP-50	volts d.c.	2.15	2.45	2.24		
	Heater Power at 22.0 volts	-----	-----	-----			
	CPL-26	volts d.c.	2.65	2.95	2.73		
	VP-50	volts d.c.	2.65	2.95	2.72		

51a

Approved for Release: 2024/01/30 C05098941

C05098941

DATA SHEET
FOR
REFER TO WAIVER RO-9081-5 ACCEPTANCE TEST PROCEDURE NO. 804-104

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.4.2.7 5.10.2.4.2.7	Continued						
	Heater Power at 26.0 volts	———	———	———			12-1-66
	CPL-26	volts d.c.	3.12	3.42	3.22		
	VP-50	volts d.c.	3.12	3.42	3.21		
	Heater Power at 30.0 volts	———	———	———			
	CPL-26	volts d.c.	3.60	3.90	3.71		
	VP-50	volts d.c.	3.60	3.90	3.70		
	Heater Power at 34.0 volts	———	———	———			
	CPL-26	volts d.c.	4.10	4.40	4.19		
	VP-50	volts d.c.	4.10	4.40	4.18		

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104 E
"POWER, COMMAND, CONTROL & RESPONSE"

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.5.4 5.10.2.5.4	Gain Mode Operation, Manual	--	--	--			12-1-66
	No Gain Command	--	--	--			
	Meter 1	Volts	0.0	0.2	0.0	0.0	12-16-66
	Meter 2	Volts	0.0	0.2	0.0	0.0	
.5.2.5.5. .10.2.5.5.	FORWARD Command Executed	--	--	--			
	Meter 1	Volts	0.0	0.2	0.05	0.0	
	Meter 2	Volts	25.4	28.1	27.92	27.9	
.5.2.5.6. .10.2.5.6	REVERSE Command Executed	--	--	--			
	Meter 1	Volts	25.4	28.1	27.95	27.9	
	Meter 2	Volts	0.0	0.2	0.07	0.0	
5.5.2.5.7 5.10.2.5.	ain Mode Operation, Auto.	--	--	--			
	ORWARD Command Executed	--	--	--			
	Meter 1	Volts	0.0	0.2	0.0	0.0	
	Meter 2	Volts	0.0	0.2	0.0	0.0	
	REVERSE Command Executed	--	--	--			
	Meter 1	Volts	0.0	0.2	0.0	0.0	
	Meter 2	Volts	0.0	0.2	0.0	0.0	

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104 E
"POWER, COMMAND, CONTROL & RESPONSE"

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.		Test Data Pre.	Test Data Post	Date
5.5.2.6.1.1 5.10.2.6.1.1	Set Operating Power	volts dc	26.9	27.1		27.0	27.0	12-1-66
5.5.2.6.1.3 5.10.2.6.1.3	Forward Platen Travel Time	seconds	as read			78	78	
5.5.2.6.1.4 5.10.2.6.1.4	Reverse Platen Travel Time	seconds	as read			78	79	12-16-66
5.5.2.6.1.5 5.10.2.6.1.5	Set Operating Power	volts dc	32.4	32.6		32.5	32.5	
5.5.2.6.1.6 5.10.2.6.1.6	Forward Platen Travel Time	seconds	as read			64	62	
	Reverse Platen Travel Time	seconds	as read			63	63	
5.5.2.6.1.7 5.10.2.6.1.7	Set Operating Power	volts dc	27.9	28.1		28.0	28.0	
5.5.2.6.2.2 5.10.2.6.2.2	Reverse Platen Stop Position	inches	as read		-Y +Y	2.493 2.492	2.494 2.493	
5.5.2.6.2.3 5.10.2.6.2.3	Bar Thickness	inches	as read			1.000	1.000	
	Reverse Sop Reference Dimension	inches	calculated		-Y +Y	1.493 1.492	1.493 1.492	
5.5.2.6.2.6 5.10.2.6.2.6	Lower Indicator Reading	inches	as read			0.0000	0.0000	
	Upper Indicator Reading	inches	as read			0.0000	0.0000	
	CPL-20	volts dc	as read			0.264	0.269	
	VTP-20	volts dc	as read			0.262	0.264	
	CPL-27	volts dc	as read			1.440	1.440	
	VP-51	volts dc	as read			1.440	1.440	

C05098941
Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

NT

PRE 12-1-66
POST 12-16-66

dure No. 804-104 E

Ref. Para 5.10.2.6.2.7 "Gain Position Calibration"

Assy Dwg. No. 805-101
Assy Ser. No. FM-39

Lower Indicator Reading	Upper Indicator Reading PRE	Upper Indicator Reading POST	PRE-VIBRATION CPL-20 vdc	PRE-VIBRATION CPL-27 vdc	POST VIBRATION CPL-20 vdc	POST VIBRATION CPL-27 vdc
0.0000	0.0000	0.0000	0.264	1.440	0.269	1.449
0.0005	0.0005	0.0005	0.442	2.265	0.407	2.071
0.0010	0.0010	0.0010	0.552	2.772	0.533	2.669
0.0015	0.0015	0.0015	0.679	3.399	0.664	3.300
0.0020	0.0021	0.0020	0.809	4.039	0.779	3.849
0.0025	0.0024	0.0025	0.911	4.549	0.899	4.459
0.0030	0.0030	0.0030	1.030	0.174	1.019	0.069
0.0035	0.0035	0.0035	1.146	0.763	1.127	0.649
0.0040	0.0040	0.0040	1.270	1.369	1.242	1.219
0.0045	0.0045	0.0045	1.380	1.910	1.360	1.789
0.0050	0.0050	0.0050	1.489	2.475	1.474	2.359
0.0055	0.0055	0.0055	1.599	2.989	1.593	2.944
0.0060	0.0060	0.0060	1.700	3.509	1.710	3.533
0.0065	0.0065	0.0064	1.812	4.081	1.812	4.060
0.0070	0.0070	0.0069	1.925	4.690	1.922	4.659
0.0075	0.0075	0.0074	2.044	0.333	2.039	0.279
0.0080	0.0080	0.0079	2.158	0.925	2.149	0.844
0.0085	0.0085	0.0084	2.278	1.539	2.269	1.473
0.0090	0.0091	0.0089	2.404	2.185	2.389	2.071
0.0095	0.0096	0.0094	2.523	2.773	2.503	2.659
0.0100	0.0101	0.0099	2.639	3.360	2.619	3.209
0.0105	0.0106	0.0104	2.749	3.932	2.730	3.799
0.0110	0.0110	0.0109	2.857	4.501	2.839	4.359
0.0115	0.0115	0.0115	2.969	0.089	2.970	0.070
0.0120	0.0120	0.0120	3.086	0.711	3.079	0.622

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

SHEET
r

PRE 12-1-60
POST 12-16-66

Acceptance Test Procedure No. 804-104 E

Ref. Para. 5.5.2.6.2.7
5.10.2.6.2.7 "Gain Position Calibration"

Assy Dwg. No. 805-101
Assy Ser. No. FM-39

Lower Indicator Reading	Upper Indicator Reading PRE	Upper Indicator Reading POST	PRE-VIBRATION CPL-20 vdc	PRE-VIBRATION CPL-27 vdc	POST-VIBRATION CPL-20 vdc	POST-VIBRATION CPL-27 vdc
0.0125	0.0125	0.0125	3.184	1.204	3.188	1.209
0.0130	0.0130	0.130	3.299	1.789	3.296	1.752
0.0135	0.0135	0.0135	3.416	2.374	3.412	2.331
0.0140	0.0140	0.0140	3.519	2.882	3.522	2.879
0.0145	0.0145	0.0145	3.632	3.441	3.644	3.489
0.0150	0.0150	0.0150	3.745	4.019	3.741	3.973
0.0155	0.0155	0.0155	3.860	4.614	3.858	4.579
0.0160	0.0161	0.0160	3.987	0.253	3.979	0.170
0.0165	0.0168	0.0165	4.105	0.854	4.082	0.729
0.0170	0.0172	0.0170	4.219	1.389	4.199	1.281
0.0175	0.0177	0.0175	4.339	1.959	4.322	1.873
0.0180	0.0182	0.0180	4.455	2.513	4.438	2.414
0.0185	0.0187	0.0185	4.581	3.112	4.560	2.980
0.0190	0.0192	0.0190	4.703	3.691	4.685	3.589
~~0.0195~~ 0.0192	0.0193	0.0192	4.737	3.849	4.741	3.849
0.0200						
0.0205						
0.0210						
0.0215						
0.0220						
0.0225						
0.0230						
0.0235						
0.0240						

Approved for Release: 2024/01/30 C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104
"Power, Command, Control & Response"

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.6.2.8 5.10.2.6.2.8	Total Platen Travel	inches	0.016	0.024	0.0192	0.0192	12-1-66
5.5.2.6.2.10 5.10.2.6.2.10	Reverse Platen Travel Time	seconds	as read		74	76.0	
	BBT-6 Reverse	volts	0.0	26.0	16.60	16.6	12-16-66
	Forward Platen Travel Time	seconds	as read		73	77.0	
	BBT-6 Forward	volts	0.0	26.0	16.52	16.5	
5.5.2.6.2.11 5.10.2.6.2.11	Rate of Gain Adjustment 27v input	Inches/Sec.	0.00015	0.00036	0.00025	0.00024	
	28v input	Inches/Sec.	0.00015	0.00030	0.00026	0.00025	
	32.5v input	Inches/Sec.	0.00015	0.00036	0.00030	0.00030	

141

C05098941
Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

PRE Vib 12-1-66
Post vib 12-16-66

A SHEET
for
Test Procedure
304-104 E
"Speed Check"

Ref. Para. 5.5.2.7.1.4 & 5
5.10.2.7.1.4 & 5

Assy. Dwg. # 305-101
Assy. Ser. No. FM-39

Motor Speed No.	BBT-2 Test Requirement		BBT-2 Result CPS		CPL-18 Test Requirement		CPL-18 Result Volts DC	
	Min.	Max.	Pre.	Post.	Min.	Max.	Pre.	Post
1	290.6	291.2	290.9	291.0	1.49	5.00	1.84	1.86
2	293.5	294.1	293.8	293.9	1.52		1.87	1.89
3	296.5	297.1	297.0	296.8	1.56		1.90	1.92
4	299.4	300.0	299.8	299.8	1.59		1.99	1.96
5	302.4	303.0	302.7	302.7	1.62		1.97	1.98
6	305.4	306.1	305.6	305.7	1.65		2.00	2.00
7	308.5	309.1	308.8	308.8	1.68		2.03	2.03
8	311.6	312.2	311.9	312.0	1.71		2.05	2.08
9	314.7	315.4	315.0	315.0	1.74		2.17	2.17
10	317.9	318.5	318.2	318.2	1.77		2.20	2.20
11	321.0	321.7	321.3	321.4	1.80		2.23	2.23
12	324.2	324.9	324.5	324.7	1.82		2.26	2.25
13	327.5	328.2	327.8	327.8	1.84		2.28	2.27
14	330.8	331.4	331.1	331.0	1.86		2.31	2.29
15	334.1	334.7	334.4	334.4	1.88		2.33	2.32
16	337.4	338.1	337.6	337.7	1.90		2.35	2.34
17	340.8	341.5	341.1	341.2	1.92		2.50	2.49
18	344.2	344.9	344.5	344.7	1.94		2.52	2.50
19	347.6	348.3	348.0	348.0	1.95		2.55	2.52
20	351.1	351.8	351.5	351.5	1.96		2.56	2.52
21	354.6	355.3	355.0	355.0	1.97		2.58	2.53
22	358.2	358.9	358.5	358.7	1.98		2.58	2.54
23	361.7	362.5	362.0	362.1	1.98		2.59	2.56
24	365.4	366.1	365.6	365.7	1.99		2.60	2.56
								142

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

PRE V.b 12-1-66
Post V.b 12-16-66

Assy. Dwg. # 805-101
Assy. Ser. No. FM-39

Ref. Para. 5.5.2.7.1.4 & 5 "Speed Check" 5.10.2.7.1.4 & 5

Motor Speed No.	BBT-2 Test Requirement		BBT-2 Result CPS		CPL-18 Test Requirement		CPL-18 Result Volts DC	
	Min.	Max.	Pre.	Post.	Min.	Max.	Pre.	Post
25	369.0	369.8	369.4	369.5	2.00	5.00	2.77	2.75
26	372.7	373.5	373.2	373.1	2.00		2.78	2.74
27	376.4	377.2	376.8	376.9	2.00		2.79	2.74
28	380.2	381.0	380.6	380.7	2.00		2.81	2.75
29	384.0	384.8	384.5	384.7	2.00		2.82	2.76
30	387.8	388.6	388.3	388.3	2.00		2.83	2.78
31	391.7	392.5	392.1	392.3	2.00		2.85	2.79
32	395.6	396.4	396.0	396.6	2.00		2.86	2.81
33	399.6	400.4	400.3	400.1	2.00		3.04	2.99
34	403.6	404.4	404.0	404.1	2.00		3.06	3.00
35	407.6	408.5	408.1	408.1	2.00		3.08	3.02
36	411.7	412.5	412.1	412.2	2.00		3.10	3.05
37	415.8	416.7	416.4	416.5	2.00		3.12	3.07
38	420.0	420.8	420.5	420.5	2.00		3.14	3.09
39	424.2	425.0	424.6	424.7	1.99		3.15	3.09
40	428.4	429.3	428.9	428.9	1.98		3.16	3.10
41	432.7	433.6	433.2	433.3	1.98		3.27	3.30
42	437.0	437.9	437.6	437.7	1.97		3.30	3.32
43	441.4	442.3	441.9	441.9	1.97		3.31	3.33
44	445.8	446.7	446.3	446.5	1.96		3.31	3.33
45	450.3	451.2	450.8	450.9	1.96		3.27	3.27
46	454.8	455.7	455.3	455.5	1.95		3.22	3.20
47	459.3	460.3	459.8	460.0	1.94		3.19	3.13
48	463.9	464.9	464.5	464.7	1.92		3.14	3.09
								143

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

PRE V.I.B 12-1-66
Post V.I.B 12-16-66

SHEET
r
est Procedure
804-104 E
"Speed Check"

Assy. Dwg. # 805-101
Assy. Ser. No. EM-39

Ref. Para. 5.5.2.7.1.4 & 5
5.10.2.7.1.4 & 5

Motor Speed No.	BBT-2				CPL-18			
	Test Requirement		Result CPS		Test Requirement		Result Volts DC	
	Min.	Max.	Pre.	Post.	Min.	Max.	Pre.	Post
49	468.6	469.5	469.3	469.2	1.90	5.00	3.55	3.52
50	473.2	474.2	474.0	474.1	1.89		3.49	3.44
51	478.0	478.9	478.6	478.8	1.87		3.45	3.38
52	482.8	483.7	483.5	483.6	1.85		3.40	3.31
53	487.6	488.6	488.4	488.4	1.82		3.32	3.22
54	492.5	493.5	493.2	493.4	1.79		3.24	3.16
55	497.4	498.4	498.2	498.3	1.75		3.16	3.08
56	502.4	503.4	503.2	503.3	1.71		3.06	2.99
57	507.4	508.4	508.2	508.2	1.67		3.10	3.48
58	512.5	513.5	513.2	513.4	1.63		3.50	3.37
59	517.6	518.6	518.4	518.5	1.57		3.39	3.26
60	522.8	523.8	523.7	523.4	1.52		3.29	3.18
61	528.0	529.1	528.8	529.1	1.45		3.18	3.08
62	533.3	534.3	534.2	534.3	1.38		3.07	2.98
63	538.5	539.7	539.5	539.7	1.30		2.96	2.93
64	544.0	545.1	545.0	545.1	1.22	↓	2.83	2.79

Approved for Release: 2024/01/30 C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104 E

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Power, Command, Control & Response

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.7.1.12 5.10.2.7.1.12	BBT-2 dc component of signal	volts dc	2.0	3.0	2.8	2.4	12-1-6
	P-P ac component of signal	volts ac	1.0	4.0	2.4	2.0	12-16-
5.5.2.7.1.13 5.10.2.7.1.13	MSD Leading Phase peak output voltage	volts ac			36	34	
5.5.2.7.1.14 5.10.2.7.1.14	MSD Lagging Phase peak output voltage	volts ac			36	34	

Approved for Release: 2024/01/30 C05098941

Approved for Release: 2024/01/30 C05098941

C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104 E

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Power, Command, Control & Response

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.7.2.1 5.10.2.7.2.1	No loss of record tension		Verify		ok	OK	12-1-66
	Forward Record Storage operates		Verify		ok	OK	12-1-66
	until T-U looper empty switch		---				
	actuates.						
5.5.2.7.2.2 5.10.2.7.2.2	Set OPERATING POWER	Volts dc	26.9	27.1	27.0	27.0	
	No loss of record tension		Verify		ok	OK	
	Forward Record Storage		Verify		ok	OK	
	operates until T-U looper		---				
	empty switch actuates		---				
	Set OPERATING POWER	Volts dc	32.4	32.6	32.5	32.5	
	No loss of record tension		Verify		ok	OK	
	Forward Record Storage		Verify		ok	OK	
	operates until T-U looper		---				
	empty switch actuates.		---				

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941
C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

DATA SHEET
FOR
REFER TO WAIVER RO-9081-6 ACCEPTANCE TEST PROCEDURE NO. 804-104

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Power, Command, Control & Response

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.7.2.3 5.10.2.7.2.3	Reset Operating Power						12-2-66
5.5.2.7.2.6 5.10.2.7.2.6	CPL-17 Voltage	volts d.c.	1.9	2.4	2.05		
5.5.2.7.2.7 5.10.2.7.2.7	CPL-17 Voltage	volts d.c.	4.5	5.0	4.89		
5.5.2.7.2.10 5.10.2.7.2.10	BBT-1 Voltage	volts d.c.	1.9	-------	2.31		
	CPL-17 "	volts d.c.	1.9	--------	2.31		
	VTP-17	volts d.c.	1.9	--------	2.31		
5.5.2.7.2.11 5.10.2.7.2.11	Voltage Measurement		--------	---------			
	BBT-1	volts d.c.	4.5	5.0	4.79		
	CPL-17	volts d.c.	4.5	5.0	4.80		
	VTP-17	volts d.c.	4.5	5.0	4.80		
5.2.7.2.13 5.10.2.7.2.13	Capacity of looper	inches	24 5/8	27 5/8	27 1/8		
5.5.2.7.2.17 5.10.2.7.2.17	CPL-17 (record slack)	volts d.c.	0.90	1.10	1.02		
5.5.2.7.2.19 5.10.2.7.2.19	BBT-5 Voltage	volts d.c.	0.0	33.4	26.4		
	Slack record taken up		Verify		OK		
5.5.2.7.2.24 5.10.2.7.2.24	Distance mark on record moved	inches	- - -	.25	0.18		
5.5.2.7.2.31 5.10.2.7.2.31	Supply Brake Delay	milliseconds	- - -	10.0	3.0		
	Channel B Pulse Width	seconds	0.75	1.25	1.0		

Approved for Release: 2024/01/30 C05098941

C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104 E

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Power, Command, Control & Response

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.8.2 5.10.2.8.2	Set illuminator current	amps dc	set to ~~2~~	2.58	2.58	2.58	12-2-66
5.5.2.8.4 5.10.2.8.4	Set operating power	volts dc	27.9	28.1	28.0	28.0	
	set heater power	volts dc	27.9	28.1	28.0	28.0	12-1-66
5.5.2.8.5 5.10.2.8.5	CPL-25 output						
	door intensity LOW	volts dc	0.9	1.1	0.99	0.99	
	HIGH	volts dc	5.0	5.5	5.39	5.39	
	LOW	volts dc	1.9	2.1	2.00	2.00	
	HIGH	volts dc	5.0	5.5	5.43	5.44	
	LOW	volts dc	2.9	3.1	2.92	2.93	
	HIGH	volts dc	5.0	5.5	5.49	5.49	
	LOW	volts dc	3.9	4.1	3.94	3.95	
	HIGH	volts dc	5.0	5.5	5.35	5.36	
	LOW	volts dc	0.9	1.1	0.99	0.99	

148

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104
"POWER, COMMAND, CONTROL, RESPONSE"

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Procedure Reference	Test		Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.9.3 5.10.2.9.3	Slit Position Operation							12-2-66
	STEP 1 (POS 2) (B)	CPL-12	vdc	1.50	1.86	1.62	1.62	
		VP-2	vdc	0.0	0.2	0.03	0.01	12-16-66
		VP-3	vdc	3.0	4.0	3.88	3.86	
		VP-4	vdc	3.0	4.0	3.88	3.86	
		VP-48	vdc	0.0	0.2	0.03	0.01	
	STEP 2 (POS 1) (A)	CPL-12	vdc	0.40	0.76	0.58	0.58	
		VP-2	vdc	0.0	0.2	0.03	0.01	
		VP-3	vdc	3.0	4.0	3.88	3.86	
		VP-4	vdc	0.0	0.2	0.03	0.01	
		VP-48	vdc	3.0	4.0	3.88	3.86	
	STEP 3 (POS 3) (C)	CPL-12	vdc	2.51	2.87	2.62	2.62	
		VP-2	vdc	3.0	4.0	3.88	3.86	
		VP-3	vdc	0.0	0.2	0.03	0.01	
		VP-4	vdc	0.0	0.2	0.03	0.01	
		VP-48	vdc	3.0	4.0	3.88	3.86	
	STEP 4 (POS 2) (B)	CPL-12	vdc	1.50	1.86	1.62	1.62	

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Procedure Reference	Test		Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.9.3 5.10.2.9.3	STEP 5 (POS 4) (D)	CPL-12	vdc	3.53	3.89	3.65	3.65	12-2-66
		VP-2	vdc	3.0	4.0	3.88	3.86	
		VP-3	vdc	0.0	0.2	0.03	0.01	
		VP-4	vdc	3.0	4.0	3.88	3.86	
		VP-48	vdc	0.0	0.2	0.03	0.01	
	STEP 6 (POS 3) (C)	CPL-12	vdc	2.51	2.87	2.63	2.63	
	STEP 7 (POS 5) (TEST)	CPL-12	vdc	4.57	4.93	4.71	4.71	
		VP-2	vdc	0.0	0.2	0.03	0.01	
		VP-3	vdc	0.0	0.2	0.03	0.01	
		VP-4	vdc	0.0	0.2	0.03	0.01	
		VP-48	vdc	0.0	0.2	0.03	0.01	
	STEP 8 (POS 4) (D)	CPL-12	vdc	3.53	3.89	3.65	3.66	

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104
"POWER, COMMAND, CONTROL, RESPONSE"

Assy. Dwg. No. 805-101
Assy. Ser. No. EM-39

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.9.3 5.10.2.9.3	Slit Position Transition Time						12-2-66
	From To						12-16-66
	Position Position						
	1 2	seconds		4	1.9	1.9	
	2 3			4	2.1	2.1	
	3 4			4	2.1	2.1	
	4 3			4	2.0	2.1	
	3 2			4	2.1	2.2	
	2 1			4	2.1	2.1	
	1 3			As Read	4.2	4.2	
	3 1			As Read	4.0	4.0	
	1 4			As Read	6.2	6.2	
	4 1			As Read	6.2	6.2	
							64c

151

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941
C05098941

C05098941

Approved for Release: 2024/01/30 C05098941

DATA SHEET FOR ACCEPTANCE TEST PROCEDURE NO. 804-104

B-027

RE CALIBRATION

TO WAIVER RO-9081-5

Pre-Vib. 12-2-66

Post-Vib.

Assy. Dwg. No. 805-101

Assy. Ser. No. FM-39

Ref. Para. 5.5.3.1.11,13 and 14
5.10.3.1.11,13 and 14

DECADE/A603		UNITS	TEST REQUIREMENT		PRE-VIB. DATA		POST-VIB. DATA	
°F	OHMS		MIN.	MAX.	CPL-2	VTP-2	CPL-2	VTP-2
38	139,230	Volts DC	0.77	1.07	0.93	0.93		
58	81,400		1.30	1.60	1.49	1.48		
70	60,140		1.78	2.08	1.93	1.93		
78	49,220		2.15	2.45	2.30	2.30		
110	23,440		4.05	4.35	4.26	4.25		

K 223

DECADE/A904		UNITS	TEST REQUIREMENT		PRE-VIB. DATA		POST-VIB. DATA	
°F	OHMS		MIN.	MAX.	CPL-4	VTP-4	CPL-4	VTP-4
58	80,675	Volts DC	AS	READ	0.12	0.12		
62	72,915		0.80	1.10	0.91	0.91		
70	59,455		2.60	2.90	2.70	2.70		
78	48,910		4.38	4.68	4.45	4.45		
82	44,385		AS	READ	5.31	5.31		

L-815

DECADE/A902		UNITS	TEST REQUIREMENT		PRE-VIB. DATA		POST-VIB. DATA	
°F	OHMS		MIN.	MAX.	CPL-5	VTP-5	CPL-5	VTP-5
58	80,760	Volts DC	AS	READ	0.14	0.13		
62	72,930		0.80	1.10	0.95	0.94		
70	59,530		2.60	2.90	2.74	2.74		
78	48,845		4.38	4.68	4.51	4.51		
82	44,390		AS	READ	5.36	5.36		

L-814

DECADE/A901		UNITS	TEST REQUIREMENT		PRE.-VIB. DATA		POST-VIB. DATA	
°F	OHMS		MIN.	MAX.	CPL-6	VTP-6	CPL-6	VTP-6
58	80,980	Volts DC	AS	READ	0.12	0.12		
62	73,095		0.80	1.10	0.91	0.91		
70	59,665		2.60	2.90	2.70	2.70		
78	48,915		4.38	4.68	4.48	4.48		
82	44450		AS	READ	5.34	5.33		

152

Approved for Release: 2024/01/30 C05098941

54-1

C05098941

Approved for Release: 2024/01/30 C05098941

TEMPERATURE CALIBRATION

REFER TO WAIVER RO-9081-5

Pre-Vib. 12-2-66
Post-Vib.
Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Ref. Para. 5.5.3.1.11,13 and 14
9146 5.10.3.1.11,13 and 14

DECADE/A905 °F	DECADE/A905 OHMS	UNITS	TEST REQUIREMENT MIN.	TEST REQUIREMENT MAX.	PRE-VIB. DATA CPL-7	PRE-VIB. DATA VTP-7	POST-VIB. DATA CPL-7	POST-VIB. DATA VTP-7
58	80,740	Volts DC	AS	READ	0.13	0.12		
62	72,780		0.80	1.10	0.95	0.95		
70	59,320		2.60	2.90	2.75	2.75		
78	48,680		4.38	4.68	4.53	4.53		
82	44,050		AS	READ	5.42	5.42		

8511

DECADE/A906 °F	DECADE/A906 OHMS	UNITS	TEST REQUIREMENT MIN.	TEST REQUIREMENT MAX.	PRE-VIB. DATA CPL-8	PRE-VIB. DATA VTP-8	POST-VIB. DATA CPL-8	POST-VIB. DATA VTP-8
58	80,980	Volts DC	AS	READ	0.11	0.11		
62	73,130		0.80	1.10	0.90	0.89		
70	59,680		2.60	2.90	2.69	2.69		
78	49,000		4.38	4.68	4.46	4.46		
82	44,570		AS	READ	5.31	5.30		

9123

DECADE/A907 °F	DECADE/A907 OHMS	UNITS	TEST REQUIREMENT MIN.	TEST REQUIREMENT MAX.	PRE-VIB. DATA CPL-9	PRE-VIB. DATA VTP-9	POST-VIB. DATA CPL-9	POST-VIB. DATA VTP-9
58	80,360	Volts DC	AS	READ	0.13	0.13		
62	72,620		0.80	1.10	0.94	0.94		
70	59,300		2.60	2.90	2.72	2.72		
78	48,720		4.38	4.68	4.49	4.48		
82	44,230		AS	READ	5.35	5.34		

9132

DECADE/A909 °F	DECADE/A909 OHMS	UNITS	TEST REQUIREMENT MIN.	TEST REQUIREMENT MAX.	PRE-VIB. DATA CPL-11	PRE-VIB. DATA VTP-11	POST-VIB. DATA CPL-11	POST-VIB. DATA VTP-11
38	137,200	Volts DC	0.77	1.07	0.93	0.93		
58	80,520		1.30	1.60	1.48	1.47		
70	59,560		1.78	2.08	1.92	1.92		
78	48,830		2.15	2.45	2.28	2.28		
110	23,430		4.05	4.35	4.20	4.20		

153

Approved for Release: 2024/01/30 C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.3.1.5 5.10.3.1.5	Thermistor Probe Resistance	--	--	--			12-2-66
	BBT-3 probe A-915	Ohms	52,000	67,000	58,000	62,300	12-16-66
	BBT-4 probe A-916	Ohms	52,000	67,000	57,000	62,600	
5.5.3.1.8 5.10.3.1.8	Temperature Inst. Outputs	--	--	--			
	CPL-2	Volts dc	1.75	2.15	1.86	1.98	
	VTP-2		1.75	2.15	1.86	1.98	
	CPL-3		1.35	1.95	1.56	1.86	
	VTP-3		1.35	1.95	1.56	1.86	
	CPL-4		2.50	3.23	2.50	2.89	
	VTP-4				2.50	2.89	
	CPL-5				2.61	2.88	
	VTP-5				2.61	2.88	
	CPL-6				2.60	2.80	
	VTP-6				2.60	2.80	
	CPL-7				2.76	3.09	
	VTP-7				2.76	3.09	

C05098941
Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.3.1.8 5.10.3.1.8	CPL-8	volts dc	2.50	3.23	2.77	3.15	12-2-66
	VTP-8				2.77	3.15	12-15-66
	CPL-9				2.70	3.10	
	VTP-9				2.70	3.10	
	CPL-10		2.33	2.63	2.45	2.46	
	VTP-10		2.33	2.63	2.45	2.46	
	CPL-11		1.75	2.15	1.89	1.97	
	VTP-11		1.75	2.15	1.89	1.97	
	Heater Turn-On and Current	—	—	—			
	Heater 3 turn-on	—	OK		OK	OK	
	current	amps dc	as read		0.175	0.175	
	Heater 4 turn-on		OK		OK	OK	
	current		as read		0.178	0.175	

C05098941
Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104 E
"ENVIRONMENTAL CONTROL C.O."

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Procedure Reference	Test		Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.3.2.3 5.10.3.2.3	Heater 5	Turn-on	—	OK		OK	OK	12-15
		current	amps dc	as read		0.175	0.175	
	Heater 6	turn-on	—	OK		OK	OK	
		current	amps dc	as read		0.180	0.180	
	Heater 10	turn-on	—	OK		OK	OK	
		current	amps dc	as read		0.180	0.180	
	Heater 11	turn-on	—	OK		OK	OK	
		current	amps dc	as read		0.185	0.185	
	Heater 12	turn-on	—	OK		OK	OK	
		current	amps dc	as read		0.175	0.175	
	Heater 13	turn-on	—	OK		OK	OK	
		current	amps dc	as read		0.180	0.180	
	Heater 14	turn-on	—	OK		OK	OK	
		current	amps dc	as read		0.185	0.185	
	Heater 15	turn-on	—	OK		OK	OK	
		current	amps dc	as read		0.180	0.180	

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104 E
"ENVIRONMENTAL CONTROL C.O."

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Procedure Reference	Test		Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.3.2.3								
5.10.3.2.3	Heater 16	turn on	---	OK		OK	OK	12-15
		current	amps dc	as read		0.185	0.183	
	Heater 17	turn-on	---	OK		OK	OK	
		current	amps dc	as read		0.175	0.175	
	Heater 18	turn-on	---	OK		OK	OK	
		current	amps dc	as read		.070	.070	
5.5.3.2.4								
5.10.3.2.4	Heater 3	turn-off	---	OK		OK	OK	
	4					OK	OK	
	5					OK	OK	
	6					OK	OK	
	10					OK	OK	
	11					OK	OK	
	12					OK	OK	
	13					OK	OK	
	14					OK	OK	
	15					OK	OK	
	16					OK	OK	

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104 E
"ENVIRONMENTAL CONTROL C.O."

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.3.2.4 5.10.3.2.4	Heater 17 turn-off	---	OK		ok	OK	12-15-6
	18 "	---	OK		ok	OK	12-15-6
5.5.3.2.5	Total Heater Current	amps dc	--	3.7	2.223	2.222	
5.5.3.2.6	Heater 3 Turn-on temp.	°F	69.5	71.5		69.5	
	4					69.8	
	5					69.8	
	6					69.9	
	10					70.0	
	11					69.9	
	12					70.3	
	13					69.8	
	14					69.9	
	15					69.9	
	16					69.8	
	17					70.0	
	18					70.0	

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104 E
"ENVIRONMENTAL CONTROL C.C."

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.3.2.6	Heater Switching Temperatures	---	---	---			12-15-66
	3 turn-off	°F	69.5	71.5		69.8	
	4					70.2	
	5					70.0	
	6					70.2	
	10					69.6	
	11					70.2	
	12					71.0	
	13					70.2	
	14					70.5	
	15					70.3	
	16					70.2	
	17					70.6	
	18					70.	

Approved for Release: 2024/01/30 C05098941

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

See Retest

REFER TO WAIVER RO-9081-5

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104E
PRE-VIBRATION

12-2-66

58A 5.5.3.4.3
5.5.3.4.4
Ref. Para. 5.5.3.4.6 58B "CPL-3/VTP-3 CALIBRATION"

Assembly Dwg. No. 805-101
Assembly Ser. No. FM-39

DECADE A/RT901		DECADE B/RT902			TEST REQUIREMENT		TEST DATA	
°F	OHMS	°F	OHMS	UNITS	MIN.	MAX.	CPL-3	VTP-3
54	181,707	55	176,100	Volts DC	0.30	0.70	0.53	0.53
55	176,700	55			1.43	1.83	1.65	1.65
56	171,840	55			2.57	2.97	2.77	2.77
57	167,123	55			3.69	4.09	3.90	3.90
58	162,564	55			4.80	5.20	5.02	5.02
69	121,850	70	118,500	Volts DC	0.28	0.68	0.45	0.45
70	118,670	70			1.41	1.81	1.58	1.58
71	115,585	70			2.54	2.94	2.71	2.71
72	112,593	70			3.66	4.06	3.83	3.83
73	109,687	70			4.77	5.17	4.95	4.95
84	83,172	85	81,140	Volts DC	0.28	0.68	0.53	0.52
85	81,120	85			1.39	1.79	1.63	1.63
86	79,124	85			2.50	2.90	2.72	2.72
87	77,186	85			3.60	4.00	3.82	3.82
88	75,296	85			4.69	5.09	4.91	4.91

160

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

REFER TO WAIVER RO-9081-5 DATA

FOR

12-16-66

ACCEPTANCE TEST PROCEDURE NO. 804-104 E
POST-VIBRATION

58A 5.10.3.4.3
5.10.3.4.4
Ref. Para. 5.10.3.4.6 58B "CPL-3/VTP-3 CALIBRATION"

Assembly Dwg. No. 805-101
Assembly Ser. No. FM-39

DECADE A/RT901		DECADE B/RT902			TEST REQUIREMENT		TEST DATA	
°F	OHMS	°F	OHMS	UNITS	MIN.	MAX.	CPL-3	VTP-3
54	181,707	55	176,100	Volts DC	0.30	0.70	0.559	0.559
55	176,700	55			1.43	1.83	1.448	1.450
56	171,840	55			2.57	2.97	2.792	2.792
57	167,123	55			3.69	4.09	3.913	3.915
58	162,564	55			4.80	5.20	5.034	5.033
69	121,850	70	118,500	Volts DC	0.28	0.68	0.487	0.488
70	118,670	70			1.41	1.81	1.612	1.610
71	115,585	70			2.54	2.94	2.734	2.735
72	112,593	70			3.66	4.06	3.853	3.852
73	109,687	70			4.77	5.17	5.004	5.002
84	83,172	85	81,140	Volts DC	0.28	0.68	0.480	0.480
85	81,120	85			1.39	1.79	1.589	1.589
86	79,124	85			2.50	2.90	2.693	2.692
87	77,186	85			3.60	4.00	3.792	3.792
88	75,296	85			4.69	5.09	4.898	4.895

161

Approved for Release: 2024/01/30 C05098941

C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104E
COLLIMATOR SETUP

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Procedure Reference	Test	Units	Test Requirement		Test Data		Date
			Min.	Max.	Pre.	Post	
5.5.4.1.15 5.10.4.1.16	Positioning of .0083 inch slit		Verify		OK	OK	12-3-6
	at Camera Aperture						
5.5.4.1.18 5.10.4.1.19	POSITIONER INDICATOR Adjust	degrees	set to 0°		0.0°	0.0°	

Approved for Release: 2024/01/30 C05098941

Approved for Release: 2024/01/30 C05098941

DATA SH
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104E
"Photo Test Parameters"

Ref. Para. 5.5.4.2
5.10.4.2

Assy Dwg. No. 805-101
Assy Ser. No. FM-39

East Collimator Focal Length = 299.8 inches
West Collimator Focal Length = 301.8 inches
Camera Ser. No. 505
MTA Ser. No. 208001
MTA Target Ser. No. —
Air Heater Ser. No. N339
Air Heater Focal Length 76.905 inches

AVERAGE CAMERA FILM SPEED RATIO (CFSR) = 0.008532

FILM SPEED (S_F) = CFSR $\frac{\text{inches/sec}}{\text{cps}}$ x MSD FREQUENCY cps

COUNTERBALANCE = 250 lbs. UPWARD
FORCE ON LOWER TRUNNION

SPEED	SLIT	MSD FREQUENCY cps	FILM SPEED S_F inches/sec	DRUM SPEED S_D inches/sec	TARGET DRUM OSC. FREQ F_D cps	ILLUMINATOR CURRENT amps dc
1		291.0	2.4828	9.6787	3100	2.76
9	0.0083" yellc	315.0	2.6876	10.4771	3360	2.78
17	or 0.0063" clear	341.2	2.9111	11.3483	3635	2.80
25		369.5	3.1525	12.2894	3940	2.82
33	0.0083" yellc or 0.0063 clear	400.1	3.4136	13.3072	4264	2.85
41		433.3	3.6969	14.4116	4615	2.88
49		469.2	4.0032	15.6057	5000	2.90
31		392.3	3.3471	13.0480	4172	2.85
31	0.0166 yellow 0.0126 clear	392.3	3.3471	13.0480	4172	2.70
57	0.0083" yellow	508.2	4.3349	16.8987	5412	2.92
64	or 0.0063" clear	545.1	4.6507	18.1298	5805	2.95

C0509894 1
Approved for Release: 2024/01/30 C0509894 1
Approved for Release: 2024/01/30 C0509894 1

C05098941
Approved for Release: 2024/01/30 C05098941

PHOTOGRAPHIC FOCUS RUNS

For results of these tests refer to section 6B

Test	Process Ticket No.
PRE-VIB.	3649, 3650, 3652
POST-VIB.	3672, 3673, 3670

FM-39

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

GAIN CONTROL CALIBRATION

Target Frequency 5030 cps

80 Nautical Miles

Approved for Release: 2024/01/30 C05098941

5030 ~

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104
GAIN CONTROL CALIBRATION

Assy. Dwg. No. 805-101
Assy. Ser. No. EM-39

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.6.2 5.10.6.2	Illumination Level	amps dc	set to 3.10		3.10	3.10	12-11-66
5.5.6.3 5.10.6.3	Drum Rotating		Verify		ok	ok	12/17/66
.5.6.8 .10.6.8	Voltage Meas. - REVERSE pos.						
	CPL-20	volts dc	as read		0.260	0.265	
	CPL-21	volts dc	as read		0.03	0.03	
	CPL-22	volts dc	as read		4.55	4.55	
	CPL-23	volts dc	as read		1.35	1.30	
	CPL-27	volts dc	as read		1.429	1.434	
	VTP-20	volts dc	as read		0.259	0.264	
	VP-1	volts dc	as read		4.55	4.55	
	VP-5	volts dc	as read		0.029	0.029	
	VP-12	volts dc	as read		1.36	1.30	
	VP-51	volts dc	as read		1.429	1.439	

166

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941
C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

30 ~

A SHEET
FOR
ACCEPTANCE TEST PROCEDURE 804-104

Pre Vib. 12-11-66
Post Vib. 12-18-66

Ref. Para. 5.5.6.9 & 10 GAIN CONTROL CALIBRATION
5.10.6.9.10.20 & 21

Assy. Dwg. No. 805-101
Assy. Ser. No. EM-39

CPL-20 Volts dc	CPL-21 Volts dc		CPL-22 Volts dc		CPL-23 Volts dc	
	Pre-Vib.	Post-Vib.	Pre-Vib.	Post-Vib.	Pre-Vib.	Post-Vib.
[redacted] 0.260	0.03	0.03	4.55	4.53	1.35	1.30
0.500	↑	↑	↑	↑	1.50	1.40
0.750					1.85	1.75
1.000					2.10	2.10
1.250					2.50	2.60
1.500	↓	↓			2.85	2.90
1.750	0.03	0.03			3.25	3.30
2.000	0.50	0.50			3.65	3.85
2.125	0.70	1.10			3.90	4.00
2.250	1.30	1.85	↓	↓	4.10	4.25
2.375	2.10	2.35	4.55	4.53	4.35	4.40
2.500	2.75	3.10	4.45	4.40	4.50	4.50
2.625	3.50	3.75	4.20	4.15	↑	↑
2.750	4.10	4.30	3.95	3.95		
2.875	4.65	4.55	3.80	3.75		
3.000	>5.00	>5.00	3.55	3.50		
3.250	↑	↑	3.20	3.15		
3.500			2.80	2.80		
3.750			2.50	2.45		
4.000			2.15	2.10		
4.250			1.85	1.80		
4.500			1.55	1.53	↓	↓
[redacted] 4.735	>5.00	>5.00	1.30	←	4.50	4.5

167

79,80,81,82

Approved for Release: 2024/01/30 C05098941

C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104
5030~

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.6.10 5.10.6.10	Gain Control Readout-reverse						12-11-66
	CPL-20	volts dc	set	to BPF	2.500	2.375	12-13-66
	CPL-21	volts dc	as	read	2.60	2.40	
5.5.6.11 5.10.6.11	Gain Control Readout-forward						
	CPL-20	volts dc	set	to BPF	2.500	2.375	
	CPL-21	volts dc	as	read	2.65	2.50	
5.5.6.12 5.10.6.12	Gain Control Readout-reverse						
	CPL-20	volts dc	set to BPF		2.500	2.375	
	CPL-21	volts dc	as	read	2.55	2.45	
5.5.6.13 5.10.6.13	Gain Control Readout-forward						
	CPL-20	volts dc	set to	BPF	2.500	2.375	
	CPL-21	volts dc	as	read	2.60	2.40	
	Range of CPL-21 readings at BPF	volts dc	—	0.5	0.1	0.1	
5.5.6.14 5.10.6.14	Manual Gain Readout-forward						
	CPL-20	volts dc		*	2.459	2.385	
	CPL-21	volts dc	set	to 2.5	2.50	2.50	
* within ±	0.125 of BPF or provide a GM resolution ≥ 130	l/mm.					

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

C05098941

5030 J

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104 G
GAIN CONTROL C. O.

Assy. Dwg. No. 805-101
Assy. Ser. No. EM-39

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.6.16 5.10.6.16	Manual Gain Readout - reverse						12-11-66
	CPL-20	volts dc		*	2.500	2.382	12-12-66
	CPL-21	volts dc	set to	2.5	2.50	2.50	
5.5.6.17&18 5.10.6.17&18	Automatic Gain Adjust - forward						
	1. CPL-20	volts dc		*	2.472	2.373	
	CPL-21	volts dc	2.0	3.0	2.45	2.55	
	2. CPL-20	volts dc		*	2.419	2.359	
	CPL-21	volts dc	2.0	3.0	2.25	2.50	
	3. CPL-20	volts dc		*	2.519	2.365	
	CPL-21	volts dc	2.0	3.0	2.75	2.50	
	4. CPL-20	volts dc		*	2.451	2.404	
	CPL-21	volts dc	2.0	3.0	2.45	2.80	
	5. CPL-20	volts dc		*	2.472	2.383	
	CPL-21	volts dc	2.0	3.0	2.50	2.60	
	6. CPL-20	volts dc		*	2.473	2.354	
	CPL-21	volts dc	2.0	3.0	2.60	2.50	
* within ±	.125 of BPF or provide a GM resolution ≥ 130	l/mm.					

Approved for Release: 2024/01/30 C05098941

Approved for Release: 2024/01/30 C05098941

C05098941

5030~

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104 G
GAIN CONTROL C. O.

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.6.19&20 5.10.6.19&20	Automatic Gain Adjust - Reverse						12-11-66
	1. CPL-20	volts dc		*	2.483	2.363	12-18 C.
	CPL-21	volts dc	2.0	3.0	2.60	2.55	
	2. CPL-20	volts dc		*	2.450	2.418	
	CPL-21	volts dc	2.0	3.0	2.30	2.85	
	3. CPL-20	volts dc		*	2.439	2.362	
	CPL-21	volts dc	2.0	3.0	2.45	2.50	
	4. CPL-20	volts dc		*	2.480	2.409	
	CPL-21	volts dc	2.0	3.0	2.65	2.75	
	5. CPL-20	volts dc		*	2.447	2.350	
	CPL-21	volts dc	2.0	3.0	2.40	2.30	
	6. CPL-20	volts dc		*	2.469	2.375	
	CPL-21	volts dc	2.0	3.0	2.60	2.55	
70							
* within ± 0.125v of BPF or provide a GM resolution ≥ 130 l/mm							

85

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104
5030 ~

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.6.20 5.10.6.20	Inhibit Check - Forward Stop						12-11-66
	CPL-20	volts dc	as	read	4.735	4.744	
	CPL-21	volts dc	as	read	3.08	2.94	12-18-66
	CPL-22	volts dc	0.75	1.25	1.02	1.02	
	CPL-23	volts dc	0.75	1.25	1.02	1.02	
	Platen Drive Remains Stationary	-----	YES		YES	Yes	
5.5.6.21 5.10.6.21	Inhibit Check - Reverse Stop						
	CPL-20	volts dc	as	read	0.263	.264	
	CPL-21	volts dc	as	read	2.90	2.89	
	CPL-22	volts dc	0.75	1.25	1.02	1.02	
	CPL-23	volts dc	0.75	1.25	1.02	1.02	
	Platen Drive Remains Stationary	------	YES		YES	Yes	

85 F

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

130 V 12-18-66

SHEET
FOR
ACCEPTANCE TEST PROCEDURE 804-104 Pre Vib. _____ Post Vib. ✓

Ref. Para. 5.5.6.9 & 10 GAIN CONTROL CALIBRATION Assy. Dwg. No. 805-101
5.10.6.9.10.20 & 21 1/4 ILL. Assy. Ser. No. FM-39

CPL-20 Volts dc	CPL-21 Volts dc		CPL-22 Volts dc		CPL-23 Volts dc	
	Pre-Vib.	Post-Vib.	Pre-Vib.	Post-Vib.	Pre-Vib.	Post-Vib.
~~0.250~~ .264		.029		1.02		1.02
0.500				4.55		1.63
0.750				4.50		1.80
1.000				4.50		
1.250				4.50		2.30 OK
1.500						2.70
1.750						3.10
2.000		.029				
2.125		.50				3.75
2.250		1.20				3.90
2.375		1.95				4.15
2.500		2.60				4.35
2.625		3.25		4.25		4.35
2.750		3.80		4.10		
2.875		4.45		3.85		
3.000		5.00		3.60		
3.250		>5.00		3.25		
3.500				2.85		
3.750				2.50		
4.000				2.20		
4.250				1.90		
4.500				1.65		
~~4.750~~ 4.743		>5.00		1.50		4.35

172

79,80,81,82

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

12-18-66

030 V

A SHEET
FOR
ACCEPTANCE TEST PROCEDURE 804-104

Pre Vib. _____
Post Vib. ✓

Ref. Para. 5.5.6.9 & 10 GAIN CONTROL CALIBRATION Assy. Dwg. No. 805-101
5.10.6.9.10.20 & 21 1/16 ILL. Assy. Ser. No. FM-39

CPL-20 Volts dc	CPL-21 Volts dc		CPL-22 Volts dc		CPL-23 Volts dc	
	Pre-Vib.	Post-Vib.	Pre-Vib.	Post-Vib.	Pre-Vib.	Post-Vib.
0.250		1.60		1.02		1.02
0.500						
0.750						
1.000		1.50		1.02		1.02
1.250						
1.500		1.65				
1.750		1.80				
2.000		2.10		1.02		1.02
2.125		2.20				
2.250		2.40				
2.375		2.50				
2.500		2.70		1.02		1.02
2.625		2.85				
2.750		3.00				
2.875		3.15				
3.000		3.30		1.02		1.02
3.250		3.60				
3.500		3.90				
3.750		4.05				
4.000		4.20		1.02		1.02
4.250		4.35				
4.500						
4.75		4.45		1.02		1.02

173

79,80,81,82

Approved for Release: 2024/01/30 C05098941

C05098941

Approved for Release: 2024/01/30 C05098941

GAIN CONTROL CALIBRATION

Target Frequency 4100 cps

100 Nautical Miles

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

DOW

ATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE 804-104

Pre Vib. 12-11-66
Post Vib. 12-18-66

Ref. Para. 5.5.6.9 & 10 GAIN CONTROL CALIBRATION
5.10.6.9.10.20 & 21

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

CPL-20 Volts dc	CPL-21 Volts dc		CPL-22 Volts dc		CPL-23 Volts dc	
	Pre-Vib.	Post-Vib.	Pre-Vib.	Post-Vib.	Pre-Vib.	Post-Vib.
~~8.263~~ ~~6.250~~	0.03	0.03	4.55	4.50	1.20	1.25
0.500	↑	↑	↑	↑	1.40	1.45
0.750					1.65	1.80
1.000					2.05	2.10
1.250					2.40	2.50
1.500	↓	↓			2.85	2.95
1.750	0.03	0.03			3.35	3.35
2.000	0.20	0.40			3.80	3.80
2.125	0.85	1.00			4.00	4.00
2.250	1.60	1.75	↓	↓	4.20	4.25
2.375	2.40	2.40	4.55	4.50	4.45	4.45
2.500	2.90	3.20	4.40	4.30	4.50	4.55
2.625	3.70	3.80	4.20	4.00	↓	↓
2.750	4.20	4.15	4.00	3.90		
2.875	4.90	4.95	3.75	3.60		
3.000	>5.0	>5.0	3.55	3.35		
3.250	↓	↓	3.20	2.95		
3.500			2.80	2.55		
3.750			2.40	2.25		
4.000			2.05	1.90		
4.250			1.80	1.60		
4.500			1.45	1.35		
~~4.737~~ 4.75			↓	1.10		

79,80,81,82

Approved for Release: 2024/01/30 C05098941

4100 CPS ✓

3280 CPS ____

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.6.10 5.10.6.10	Gain Control Readout-reverse						12-11-66
	CPL-20	volts dc	set	to BPF	2.450	2.325	12-18-66
	CPL-21	volts dc	as	read	3.00	2.10	
5.5.6.11 5.10.6.11	Gain Control Readout-forward						
	CPL-20	volts dc	set	to BPF	2.450	2.325	
	CPL-21	volts dc	as	read	2.85	2.10	
5.5.6.12 5.10.6.1	n Control Readout-reverse						
	CPL-20	volts dc	set to BPF		2.450	2.325	
	CPL-21	volts dc	as	read	2.90	2.25	
5.5.6.1 5.10.6.	n Control Readout-forward						
	CPL-20	volts dc	set to	BPF	2.450	2.325	
	CPL-21	volts dc	as	read	2.80	2.15	
	ıge of CPL-21 readings at BPF	volts dc	—	0.5	0.20	0.15	
5.5.6.1 5.10.6.	ıual Gain Readout-forward						
	CPL-20	volts dc			2.383	2.411	
	CPL-21	volts dc	set	to 2.5	2.5	2.5	

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941
C05098941

4100 CPS ✓

3280 CPS ____

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104 G
GAIN CONTROL C. O.

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.6,16 5.10.6.16	Manual Gain Readout - reverse						12-11-66
	CPL-20	volts dc			2,400	2.706	12-18-66
	CPL-21	volts dc	set to	2.5	2.5	2.5	
5.5.6.17&18 5.10.6.17&18	Automatic Gain Adjust - forward						
	1. CPL-20	volts dc			2.391	2.389	
	CPL-21	volts dc	2.0	3.0	2.55	2.55	
	2. CPL-20	volts dc			2.376	2.383	
	CPL-21	volts dc	2.0	3.0	2.50	2.40	
	3. CPL-20	volts dc			2.383	2.394	
	CPL-21	volts dc	2.0	3.0	2.55	2.50	
	4. CPL-20	volts dc			2.386	2.339	
	CPL-21	volts dc	2.0	3.0	2.65	2.20	
	5. CPL-20	volts dc			2.413	2.401	
	CPL-21	volts dc	2.0	3.0	2.65	2.50	
	6. CPL-20	volts dc			2.380	2.429	
	CPL-21	volts dc	2.0	3.0	2.40	2.60	

177

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941
C05098941

4100 CPS ✓
3280 CPS ____

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104 G
GAIN CONTROL C. O.

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.6.19&20 5.10.6.19&20	Automatic Gain Adjust - Reverse						12-11-66
	1. CPL-20	volts dc			2.416	2.391	12-18-66
	CPL-21	volts dc	2.0	3.0	2.750	2.50	
	2. CPL-20	volts dc			2.404	2.424	
	CPL-21	volts dc	2.0	3.0	2.700	2.70	
	3. CPL-20	volts dc			2.391	2.399	
	CPL-21	volts dc	2.0	3.0	2.600	2.50	
	4. CPL-20	volts dc			2.389	2.441	
	CPL-21	volts dc	2.0	3.0	2.400	2.75	
	5. CPL-20	volts dc			2.363	2.445	
	CPL-21	volts dc	2.0	3.0	2.450	2.75	
	6. CPL-20	volts dc			2.395	2.403	
	CPL-21	volts dc	2.0	3.0	2.500	2.60	

827

8.

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941
C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104

4100N

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Procedure Reference	Test	Units	Test Requirement		Test Data		Date
			Min.	Max.	Pre.	Post	
5.5.6.20 5.10.6.20	Inhibit Check - Forward Stop						12-11-66
	CPL-20	volts dc	as	read	4.734	4.7-1	12-18-66
	CPL-21	volts dc	as	read	2.95	2.95	
	CPL-22	volts dc	0.75	1.25	1.023	1.023	
	CPL-23	volts dc	0.75	1.25	1.023	1.023	
	Platen Drive Remains Stationary	------	YES		YES	Yes	
5.5.6.21 5.10.6.21	Inhibit Check - Reverse Stop						
	CPL-20	volts dc	as	read	0.265	0.265	
	CPL-21	volts dc	as	read	3.00	2.90	
	CPL-22	volts dc	0.75	1.25	1.024	1.023	
	CPL-23	volts dc	0.75	1.25	1.023	1.022	
	Platen Drive Remains Stationary	-------	YES		YES	Yes	

85A

C05098941
Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

20 V 12-18-64

A SHEET
FOR
ACCEPTANCE TEST PROCEDURE 804-104 Post Vib. ✓

Ref. Para. 5.5.6.9 & 10 GAIN CONTROL CALIBRATION Assy. Dwg. No. 805-101
5.10.6.9.10.20 & 21 1/4 ILL. Assy. Ser. No. FM-39

CPL-20 Volts dc	CPL-21 Volts dc		CPL-22 Volts dc		CPL-23 Volts dc	
	Pre-Vib.	Post-Vib.	Pre-Vib.	Post-Vib.	Pre-Vib.	Post-Vib.
~~0.250~~ 0.266		0.03		4.50		1.10
0.500		↑		↑		1.45
0.750						1.75
1.000						2.05
1.250						2.35
1.500		↓				2.70
1.750		0.03				3.10
2.000		0.05				3.45
2.125		0.60				3.70
2.250		1.30		↓		3.95
2.375		1.95		4.50		4.15
2.500		2.60		4.40		4.20
2.625		3.20		4.20		4.30
2.750		3.80		3.95		↓
2.875		4.55		3.70		
3.000		4.95		3.50		
3.250		>5.00		3.15		
3.500		↓		2.75		
3.750				2.35		
4.000				2.00		
4.250				1.75		
4.500				1.50		
~~4.750~~ 4.747				↓		↓

80

79,80,81,82

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

100 ~ 12-18-6-

TA SHEET
FOR
ACCEPTANCE TEST PROCEDURE 804-104 Post Vib. ✓

Ref. Para. 5.5.6.9 & 10 GAIN CONTROL CALIBRATION Assy. Dwg. No. 805-101
5.10.6.9.10.20 & 21 1/16 ILL. Assy. Ser. No. FM-39

CPL-20 Volts dc	CPL-21 Volts dc		CPL-22 Volts dc		CPL-23 Volts dc	
	Pre-Vib.	Post-Vib.	Pre-Vib.	Post-Vib.	Pre-Vib.	Post-Vib.
~~0.250~~ 0.265		1.70		1.02		1.02
0.500		1.60				
0.750		1.60				
1.000		1.60				
1.250		1.70				
1.500		1.80				
1.750		2.00				
2.000		2.20				
2.125		2.30				
2.250		2.50				
2.375		2.60				
2.500		2.70				
2.625		2.85				
2.750		3.00				
2.875		3.20				
3.000		3.30				
3.250		3.55				
3.500		3.85				
3.750		4.00				
4.000		4.10				
4.250		4.20				
4.500		4.35				
~~4.750~~ 4.744		4.25				

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

GAIN CONTROL CALIBRATION

Target Frequency 3280 cps

120 Nautical Miles

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

ON

SHEET
OR

Pre Vib. 12-11-66

ACCEPTANCE TEST PROCEDURE 804-104 Post Vib. 12-18-66

Ref. Para. 5.5.6.9 & 10 GAIN CONTROL CALIBRATION Assy. Dwg. No. 805-101
5.10.6.9.10.20 & 21 Assy. Ser. No. FM-39

CPL-20 Volts dc	CPL-21 Volts dc		CPL-22 Volts dc		CPL-23 Volts dc	
	Pre-Vib.	Post-Vib.	Pre-Vib.	Post-Vib.	Pre-Vib.	Post-Vib.
~~0.250~~ 0.266	.03	0.03	4.50	4.50	1.20	1.30
0.500	↓		↓	↑	1.45	1.50
0.750					1.75	1.85
1.000					2.10	2.20
1.250					2.60	2.55
1.500	↓				2.95	3.00
1.750	.03	0.03			3.40	3.40
2.000	.35	0.45			3.85	3.75
2.125	1.00	1.15		↓	4.05	4.00
2.250	1.75	1.80	↓	4.50	4.25	4.20
2.375	2.45	2.50	4.50	4.45	4.50	4.40
2.500	3.10	3.30	4.35	4.25	↑	
2.625	3.65	3.80	4.15	4.05		
2.750	4.40	4.40	3.90	3.85		
2.875	4.90	>5.00	3.80	3.60		
3.000	>5.0		3.50	3.35		
3.250			3.20	3.00		
3.500			2.75	2.70		
3.750			2.40	2.35		
4.000			2.00	2.00		
4.250			1.75	1.70		
4.500	↓	↓	1.50	1.40	↓	↓
4.750 [illegible]			5	1.20	4.50	

183

79,80,81,82

Approved for Release: 2024/01/30 C05098941

4100 CPS ____

3280 CPS ✓

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.6.10 5.10.6.10	Gain Control Readout-reverse						12-11-66
	CPL-20	volts dc	set	to BPF	2.415	2.290	"
	CPL-21	volts dc	as	read	2.85	2.15	12-18-66
5.5.6.11 5.10.6.11	Gain Control Readout-forward						
	CPL-20	volts dc	set	to BPF	2.415	2.290	
	CPL-21	volts dc	as	read	2.85	2.25	
5.5.6.12 5.10.6.12	Control Readout-reverse						
	'L-20	volts dc	set to BPF		2.415	2.290	
	'L-21	volts dc	as	read	2.80	2.20	
5.5.6.13 5.10.6.1	Control Readout-forward						
	PL-20	volts dc	set to	BPF	2.415	2.290	
	PL-21	volts dc	as	read	2.90	2.05	
	e of CPL-21 readings at BPF	volts dc	—	0.5	0.10	0.20	
5.5.6.14 5.10.6.1	al Gain Readout-forward						
	CPL-20	volts dc			2.38	2.375	
	CPL-21	volts dc	set	to 2.5	2.5	2.5	

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941
C05098941

4100 CPS ___

3280 CPS ✓

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104 G
GAIN CONTROL C. O.

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.6.16 5.10.6.16	Manual Gain Readout - reverse						12-1-66
	CPL-20	volts dc			2.39	2.382	
	CPL-21	volts dc	set to	2.5	2.5	2.5	12-18-66
5.5.6.17&18 5.10.6.17&18	Automatic Gain Adjust - forward						
	1. CPL-20	volts dc			2.329	2.320	
	CPL-21	volts dc	2.0	3.0	2.55	2.45	
	2. CPL-20	volts dc			2.411	2.339	
	CPL-21	volts dc	2.0	3.0	2.75	2.45	
	3. CPL-20	volts dc			2.291	2.314	
	CPL-21	volts dc	2.0	3.0	2.40	2.30	
	4. CPL-20	volts dc			2.357	2.368	
	CPL-21	volts dc	2.0	3.0	2.45	2.45	
	5. CPL-20	volts dc			2.554	2.359	
	CPL-21	volts dc	2.0	3.0	2.40	2.55	
	6. CPL-20	volts dc			2.339	2.351	
	CPL-21	volts dc	2.0	3.0	2.35	2.30	

8.

Approved for Release: 2024/01/30 C05098941

Approved for Release: 2024/01/30 C05098941

C05098941

4100 CPS ___
3280 CPS ✓ DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104 G
GAIN CONTROL C. O.

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.6.19&20 5.10.6.19&20	Automatic Gain Adjust - Reverse						12-11-66
	1. CPL-20	volts dc			2.350	2.351	
	CPL-21	volts dc	2.0	3.0	2.45	2.45	12-12-66
	2. CPL-20	volts dc			2.343	2.365	
	CPL-21	volts dc	2.0	3.0	2.50	2.50	
	3. CPL-20	volts dc			2.335	2.405	
	CPL-21	volts dc	2.0	3.0	2.55	2.75	
	4. CPL-20	volts dc			2.406	2.386	
	CPL-21	volts dc	2.0	3.0	2.65	2.70	
	5. CPL-20	volts dc			2.378	2.362	
	CPL-21	volts dc	2.0	3.0	2.50	2.35	
	6. CPL-20	volts dc			2.411	2.372	
	CPL-21	volts dc	2.0	3.0	2.75	2.50	

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941
C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104

3280 ~

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.6.20 5.10.6.20	Inhibit Check - Forward Stop						12-11-66
	CPL-20	volts dc	as	read	4.736	4.746	
	CPL-21	volts dc	as	read	2.95	2.95	12-18-66
	CPL-22	volts dc	0.75	1.25	1.024	1.023	
	CPL-23	volts dc	0.75	1.25	1.023	1.022	
	Platen Drive Remains Stationary	------	YES		YES	Yes	
.5.6.21 .10.6.21	Inhibit Check - Reverse Stop						
	CPL-20	volts dc	as	read	0.265	0.264	
	CPL-21	volts dc	as	read	2.95	2.90	
	CPL-22	volts dc	0.75	1.25	1.024	1.023	
	CPL-23	volts dc	0.75	1.25	1.023	1.023	
	Platen Drive Remains Stationary	-------	YES		YES	Yes	

A

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941
C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

30 ~

SHEET
FOR
ACCEPTANCE TEST PROCEDURE 804-104

Pre Vib. _____
Post Vib. ✓ 12-18-64

Ref. Para. 5.5.6.9 & 10
5.10.6.9.10.20 & 21

GAIN CONTROL CALIBRATION 1/4 ILL

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

CPL-20 Volts dc	CPL-21 Volts dc		CPL-22 Volts dc		CPL-23 Volts dc	
	Pre-Vib.	Post-Vib.	Pre-Vib.	Post-Vib.	Pre-Vib.	Post-Vib.
0.269		0.0		1.02		1.02
0.500						
0.750						
1.000						
1.250						
1.500						
1.750		0.0				
2.000		0.40				
2.125		1.00				
2.250		1.55				
2.375		2.10				
2.500		2.60				
2.625		3.25				
2.750		3.70				
2.875		4.45				
3.000		4.90				
3.250		>5.00				
3.500						
3.750						
4.000						
4.250						
4.500						
4.750						1.02

188

79,80,81,82

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

30~

HEET
R

Pre Vib. _____

ACCEPTANCE TEST PROCEDURE 804-104 Post Vib. ~12-18-64

Ref. Para. 5.5.6.9 & 10 GAIN CONTROL CALIBRATION Assy. Dwg. No. 805-101
5.10.6.9.10.20 & 21 1/16 ILL Assy. Ser. No. FM-39

CPL-20 Volts dc	CPL-21 Volts dc		CPL-22 Volts dc		CPL-23 Volts dc	
	Pre-Vib.	Post-Vib.	Pre-Vib.	Post-Vib.	Pre-Vib.	Post-Vib.
~~0.250~~ 0.267		2.20		1.02		1.02
0.500						
0.750						
1.000		2.15				
1.250						
1.500		2.25				
1.750						
2.000		2.40				
2.125						
2.250		2.60				
2.375						
2.500		2.80				
2.625						
2.750		2.95				
2.875						
3.000		3.10				
3.250						
3.500		3.40				
3.750						
4.000		3.60				
4.250						
4.500		3.70				
4.750		3.70		1.02		1.02

189

79,80,81,82

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

DATA SHEET
for
ACCEPTANCE TEST PROCEDURE NO. 804-104 12-18-66
"SS/D Tests"

Ref. Para. 5.10.6.33
through 5.10.6.41

Ass'y Dwg. No. 805-101
Ass'y Ser. No. FM-39
Date _____

	CONDITION	CPL-20	CPL-21	CPL-22	CPL-23
No Illumination	Camera OFF	2.50	2.80	1.02	1.02
	Camera Sp. 1 (DURING TAKEUP)	2.50	3.50	1.02	1.02
	Camera Sp. 32	2.50	3.80	1.02	1.02
	Camera Sp. 64	2.50	3.80	1.02	1.02
D. C. Illumination	OPTICAL NOISE				
	I (10K Ft.-lamberts) 0° Field Angle	2.50	2.20	4.40	4.40
	-0.4° Field Angle	2.50	0.0	4.40	3.40
	1/4 I 0° Field Angle	2.50	2.40	1.02	1.02
	-0.4° Field Angle	2.50	2.20	1.02	1.02
	1/16 I 0° Field Angle	2.50	2.80	1.02	1.02
	-0.4° Field Angle	2.50	2.80	1.02	1.02

190

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

NOTICE

OF

MODIFICATION OR REPAIR

The Acceptance Test was interrupted at paragraph 5.5.6.21 to perform the repairs and or modifications as described on test waiver number TO-9081-5.

Approved for Release: 2024/01/30 C05098941

RETEST

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104 E
Inspection Verification

REFER TO WAIVER RO-9081-5

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.3	Inspection Verification	-	List A0996 number		D86440		12-14-66
			QC-A-515	OK			
	Space Chamber Record Supply and Record		QC-A-509	OK			
	Storage Alignment						

1962

C05098941
Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

C05098941

RETEST

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104

REFER TO WAIVER RO-9081-5

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Preliminary Electrical Checkout

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.4.2.3 ~~5.9.2.3~~	Set leakage resistance test voltage	volts d.c.	9	11	10.0	10.0	12-13-66
5.4.2.4 5.9.2.4	Leakage resistance - each test	megohms	10	—	>10	>10	12-16-66
5.4.4.1 5.9.4.1	Set Operating Power	volts d.c.	27.9	28.1		28.0	
5.4.4.3 5.9.4.3	Operating Power Current	amps d.c.	—	0.383		0.388	
5.4.4.4 5.9.4.4	Set Heater Power	volts d.c.	27.9	28.1		28.0	
5.4.4.5 5.9.4.5	Heater Power Current	amps d.c.	—	3.7		2.2	
5.4.4.6 5.9.4.6	Instrumentation Measurements						
	CPL-26 (environmental supply)	volts d.c.	3.37	3.67		3.46	
	VP-13 (+5 volt inst. supply)	volts d.c.	4.9	5.1		5.0	
	VP-44 (-22 volt supply)	volts d.c.	-21.0	-23.0		-22.0	
	VP-45 (+22 volts supply)	volts d.c.	+21.0	+23.0		+22.0	
	VP-46 (+28 volts supply)	volts d.c.	27.9	28.1		28.0	
	VP-50 (environmental supply)	volts d.c.	2.50	3.64		3.45	
	CPL-35 (+ 28 volts supply)	volts d.c.	2.93	3.33		3.03	
	VTP-35 (+28 volts supply)	volts d.c.	2.93	3.33		3.03	
	Set Operating Power	volts d.c.	27.9	28.1		28.0	

3

Approved for Release: 2024/01/30 C05098941

Approved for Release: 2024/01/30 C05098941

C05098941

Approved for Release: 2024/01/30 C05098941

RETEST

DATA SHEET
FOR

REFER TO WAIVER R.O-9081-5 ACCEPTANCE TEST PROCEDURE NO. 804-104

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Power, Command, Control & Response

Procedure Reference	Test		Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.1.16		CPL-32	volts d.c.	2.73	3.35	X		12-13-66
5.10.2.1.15		VTP-32	volts d.c.	2.73	3.35	X		
		CPL-33	volts d.c.	0.30	0.68	0.51		
		VTP-33	volts d.c.	0.30	0.68	0.51		
		CPL-34	volts d.c.	0.28	0.66	0.51		
		VTP-34	volts d.c.	0.28	0.66	0.50		
	Step 1D			no observable hunting				
	Step 2A transition time		seconds	-	1			
	Step 2B zenith		degrees	as	read			
	azimuth		degrees	as	read			
	Step 2C	CPL-14	volts d.c.	0.99	1.25			
		VTP-14	volts d.c.	0.99	1.25			
		VP-18	volts d.c.	0.0	0.2			
		VP-19	volts d.c.	27	29			
		VP-20	volts d.c.	27	29			
		VP-21	volts d.c.	0.0	0.2			
		VP-22	volts d.c.	9.0	11.0			

Approved for Release: 2024/01/30 C05098941

C05098941

Approved for Release: 2024/01/30 C05098941

Approved for Release: 2024/01/30 C05098941

REFER TO WAIVER RO 9081-5

RETEST

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104E

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Power, Command, Control and Response

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.4.1.4 5.10.2.4.1.	Operating Function Current Transients	---	--	--			12-13-66
	Operating Power Turn-On PP Current	amps	—	14.0	2.1	2.1	
	recovery time	seconds	--	0.20	0.02	0.02	12-16-66
	Gain Power Turn-On P-P Current	amps	—	0.8		0.75	
	recovery time	seconds	—	0.10		0.03	
	Gain Adjust Motor Turn-On P-P Current	amps	--	0.60		0.22	
	recovery time	seconds	--	0.05		0.03	
	Supply Brake Turn-On P-P Current	amps	—	.75	0.40	0.40	
	recovery time	seconds	--	0.05	0.02	0.02	
	Motor Speed 48 Turn-On P-P Current	amps	—	1.4		1.0	
	recovery time	seconds	--	0.50		0.10	
	Stereo Servo Turn-On P-P Current	amps	—	3.0		1.2	
	recovery time	seconds	--	0.40		0.04	
	Crab Servo Turn-On P-P Current	amps	--	3.0		1.2	
	recovery time	seconds	—	0.40		0.04	
	T/U Motor Turn-On P-P Current	amps	--	1.8		1.2	
	recovery time	seconds	--	0.20		0.12	

C05098941

RETEST

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104

REFER TO WAIVER RO-9081-5

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.4.1.8 5.10.2.4.1.8	STeady State Power Consumption	-	-	-			12-13-66
	Operating power current	amps dc	-	0.386	0.385	0.386	12-16-66
	Gain power current *	amps dc	-	0.790	X	0.740	
	Gain adjust motor current	amps dc	-	0.088	X	0.048	
	Supply brake current	amps dc	-	0.500	0.355	0.380	
	Motor Speed Drive current *	amps dc	-	1.996	X	1.20	
	Elevation Servo current *	amps dc	-	1.966	X	0.890	
	Azimuth Servo Current *	amps dc	-	1.386	X	0.860	
	Slit positioner current *	amps dc	-	0.553	X	0.530	
	T/U motor current	amps dc	0	0.850	0.370	0.395	
	CPL-19	vdc	must be within ±0.1v of spec curve at measured current		1.90	2.08	
5.10.2.4.1.9	T/U motor current at 27v	amps dc	-	0.850	X	0.390	
	CPL-19	vdc	must be within ±0.1v of spec curve at measured current		X	2.03	
	T/U Motor current at 32.5v	amps dc	-	0.850	X	0.406	
1968	CPL-19	vdc	must be within ±0.1v of spec at measured current		X	2.10	
5.5.2.4.1.12 5.10.2.4.1.13	Instrumentation supply current	milliamps	-	10.0	2.8	2.8	
5.5.2.4.1.4.1 5.10.2.4.1.4.1	Supply Brake Steady State Voltage	vdc			1.85	1.92	

*includes operating power current (ref. CPL-19)

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

REFER TO WAIVER RO-9081-5

RETEST

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104
Power, Command, Control & Response

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.2	Power Instrumentation Calibration						12-13-66
	Operating Power at 27.0 Volts				27.0	27.0	12-16-66
	VP-13	volts d.c.	4.8	5.2	5.00	5.00	
	VP-44	volts d.c.	-21.8	-22.2	-22.00	-22.0	
	VP-45	volts d.c.	21.8	22.2	22.00	22.0	
	VP-46	volts d.c.	26.9	27.1	27.0	27.0	
	CPL-35	volts d.c.	2.60	3.00	2.73	2.73	
	VTP-35	volts d.c.	2.60	3.00	2.73	2.73	
5.2	Operating Power at 28.0 Volts				28.0	28.0	
	VP-13	volts d.c.	4.8	5.2	5.00	5.00	
	VP-44	volts d.c.	-21.8	-22.2	-22.0	-22.0	
	VP-45	volts d.c.	21.8	22.2	22.0	22.0	
	VP-46	volts d.c.	27.9	28.1	28.0	28.0	
	CPL-35	volts d.c.	2.93	3.33	3.04	3.04	
	VTP-35	volts d.c.	2.93	3.33	3.04	3.04	
	Operating Power at 29.0 Volts				29.0	29.0	
	VP-13	volts d.c.	4.8	5.2	5.00	5.00	

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941
C05098941

C05098941

RETEST

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104

REFER TO WAIVER RO-9081-5

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Power, Command, Control & Response

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.4.2.3 5.10.2.4.2.3	continued VP-44	volts d.c.	-21.8	-22.2	-22.0	-22.0	12-13-66
	VP-45	volts d.c.	21.8	22.2	22.0	22.0	12-16-66
	VP-46	volts d.c.	28.9	29.1	29.0	29.0	
	CPL-35	volts d.c.	3.22	3.62	3.34	3.33	
	VTP-35	volts d.c.	3.22	3.62	3.34	3.33	
	Operating Power at 30.0 volts	---	---	---	30.0	30.0	
	VP-13	volts d.c.	4.8	5.2	5.00	5.00	
	VP-44	volts d.c.	-21.8	-22.2	-22.0	-22.0	
	VP-45	volts d.c.	21.8	22.2	22.0	22.0	
	VP-46	volts d.c.	29.9	30.1	30.0	30.0	
	CPL-35	volts d.c.	3.53	3.93	3.64	3.65	
	VTP-35	volts d.c.	3.53	3.93	3.64	3.65	
	Operating Power at 31.0 volts	---	---	---	31.0	31.0	
	VP-13	volts d.c.	4.8	5.2	5.00	5.00	
	VP-44	volts d.c.	-21.8	-22.2	-22.0	-22.0	
	VP-45	volts d.c.	21.8	22.2	22.0	22.0	
	VP-46	volts d.c.	30.9	31.1	31.0	31.0	

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

C05098941

RETEST
DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104

REFER TO WAIVER RO-9081-5

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Power, Command, Control & Response

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.42.3 5.10.2.4.2.3	(continued)						12-13-66
	CPL-35	volts d.c.	3.85	4.25	3.95	3.94	12-16-66
	VTP-35	volts d.c.	3.85	4.25	3.95	3.94	
	Operating Power at 32.0 volts	----	----	---	32.0	32.0	
	VP-13	volts d.c.	4.8	5.2	5.00	5.00	
	VP-44	volts d.c.	-21.8	-22.2	-22.0	-22.0	
	VP-45	volts d.c.	21.8	22.2	22.0	+22.0	
	VP-46	volts d.c.	31.9	32.1	32.0	32.0	
	CPL-35	volts d.c.	4.17	4.57	4.25	4.25	
	VTP-35	volts d.c.	4.17	4.57	4.25	4.25	
	Operating Power at 33.0 volts	----	----	----	33.0	33.0	
	VP-13	volts d.c.	4.8	5.2	5.0	5.00	
	VP-44	volts d.c.	-21.8	-22.2	-22.0	-22.0	
	VP-45	volts d.c.	21.8	22.2	22.0	22.0	
	VP-46	volts d.c.	32.9	33.1	33.0	33.0	
	CPL-35	volts d.c.	4.48	4.88	4.56	4.56	
	VTP-35	volts d.c.	4.48	4.88	4.55	4.56	

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

REFER TO WAIVER RO 9081-5

RETEST
DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104

Assy. Dwg. No. 805-101
Assy. Ser. No. MM-39

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.4.2.6 5.10.2.4.2.6	Heater Power at 14.0 volts	----	----	----	14.0	14.0	12-13-66
	CPL-26	volts d.c.	1.65	1.95	1.77	1.77	12-16-66
	VP-50	volts d.c.	1.65	1.95	1.76	1.77	
5.5.2.4.2.7 5.10.2.4.2.7	Heater Power at 18.0 volts	----	----	----	18.0	18.0	
	CPL-26	volts d.c.	2.15	2.45	2.25	2.24	
	VP-50	volts d.c.	2.15	2.45	2.25	2.24	
	Heater Power at 22.0 volts	-----	-----	-----	22.0	22.0	
	CPL-26	volts d.c.	2.65	2.95	2.73	2.73	
	VP-50	volts d.c.	2.65	2.95	2.73	2.73	

51a

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941
C05098941

C05098941

RETEST

REFER TO WAIVER R09081-5

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-37

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.4.2.7 5.10.2.4.2.7	Continued						12-13-66
	Heater Power at 26.0 volts	———	———	———	26.0	26.0	12-16-66
	CPL-26	volts d.c.	3.12	3.42	3.22	3.21	
	VP-50	volts d.c.	3.12	3.42	3.22	3.21	
	Heater Power at 30.0 volts	———	———	———	30.0	30.0	
	CPL-26	volts d.c.	3.60	3.90	3.71	3.70	
	VP-50	volts d.c.	3.60	3.90	3.70	3.69	
	Heater Power at 34.0 volts	———	———	———	34.0	34.0	
	CPL-26	volts d.c.	4.10	4.40	4.20	4.19	
	VP-50	volts d.c.	4.10	4.40	4.19	4.19	

201

Approved for Release: 2024/01/30 C05098941

Approved for Release: 2024/01/30 C05098941

C05098941

Approved for Release: 2024/01/30 C05098941

DATA SHEET FOR ACCEPTANCE TEST PROCEDURE NO. 804-104

REFER TO WAIVER RD-9081-52

B-634

TEMPERATU

Date Tested 12-13-66

-66

5-101

A-39

Ref. Para. 5.5.3.1.11,13 and 14
5.10.3.1.11,13 and 14

R

DECADE/A603		UNITS	TEST REQUIREM					TA
°F	OHMS		MIN.	MAX.	CPL-2	VTP-2	CPL-2	VTP-2
38	139,230	Volts DC	0.77	1.07	0.914	0.913	0.913	0.914
58	81,400		1.30	1.60	1.459	1.460	1.461	1.463
70	69,140		1.78	2.08	1.875	1.873	1.902	1.903
78	49,220		2.15	2.45	2.262	2.261	2.262	2.264
110	23,440	↓	4.05	4.35	4.203	4.199	4.203	4.200

K-223

DECADE/A904		UNITS	TEST REQUIREMENT		PRE-VIB. DATA		POST-VIB. DATA	
°F	OHMS		MIN.	MAX.	CPL-4	VTP-4	CPL-4	VTP-4
58	89,675	Volts DC	AS	READ	0.130	0.130	0.132	0.131
62	72,915		0.80	1.10	0.949	0.951	0.944	0.943
70	59,455		2.60	2.90	2.760	2.759	2.753	2.752
78	48,910		4.38	4.68	4.515	4.516	4.509	4.508
82	44,385	↓	AS	READ	5.385	5.384	5.380	5.379

L-815

DECADE/A902		UNITS	TEST REQUIREMENT		PRE-VIB. DATA		POST-VIB. DATA	
°F	OHMS		MIN.	MAX.	CPL-5	VTP-5	CPL-5	VTP-5
58	80,760	Volts DC	AS	READ	0.142	0.142	0.140	0.139
62	72,930		0.80	1.10	0.959	0.959	0.954	0.953
70	59,530		2.60	2.90	2.749	2.749	2.744	2.743
78	48,845		4.38	4.68	4.524	4.523	4.518	4.517
82	44,390	↓	AS	READ				

370

L-814

2

DECADE/A901		UNITS	TEST REQUIREMENT					DATA
°F	OHMS		MIN.	MAX.	CPL-6	VTP-6	CPL-6	VTP-6
58	80,980	Volts DC	AS	READ	0.119	0.116	0.115	0.115
62	73,095		0.80	1.10	0.918	0.919	0.914	0.913
70	59,665		2.60	2.90	2.699	2.700	2.699	2.699
78	48,915		4.38	4.68	4.475	4.475	4.475	4.475
82	44,450	↓	AS	READ	5.329	5.329	5.330	5.329

64 d

Approved for Release: 2024/01/30 C05098941

C05098941

Approved for Release: 2024/01/30 C05098941

DATA SHEET FOR ACCEPTANCE TEST PROCEDURE NO. P

REFER [illegible] R0-9081-5 TEMPERATURE CALIBRATION

12-13-66
12-16-66

9146

Ref. Para. 5.5.3.1.11,13 and 14
5.10.3.1.11,13 and 14

RETE[illegible]

Dwg. No. 805-101
Dev. Ser. No. EM-39

DECADE/A905 °F	DECADE/A905 OHMS	UNITS	TEST REQUIREMENT MIN.	TEST REQUIREMENT	PRE-VIB. DATA CPL-7	PRE-VIB. DATA VTP-7	POST-VIB. DATA CPL-7	POST-VIB. DATA VTP-7
58	80,740	Volts DC	AS		0.142	0.140	0.139	0.139
62	72,780		0.80	1.10	0.975	0.974	0.970	0.970
70	59,320		2.60	2.90	2.776	2.779	2.770	2.770
78	48,680		4.38	4.68	4.549	4.549	4.540	4.540
82	44,050	↓	AS	READ	5.437	5.439	5.430	5.430

8511

DECADE/A906 °F	DECADE/A906 OHMS	UNITS	TEST REQUIREMENT MIN.	TEST REQUIREMENT MAX.	PRE-VIB. DATA CPL-8	PRE-VIB. DATA VTP-8	POST-VIB. DATA CPL-8	POST-VIB. DATA VTP-8
58	80,980	Volts DC	AS	READ	0.119	0.119	0.154	0.154
62	73,130		0.80	1.10	0.925	0.923	0.917	0.918
70	59,680		2.60	2.90	2.829	2.826	2.719	2.719
78	49,000		4.38	4.68	4.500	4.500	4.494	4.494
82	44,570	↓	AS	READ	5.349	5.349	5.343	5.343

9123

DECADE/A907 °F	DECADE/A907 OHMS	UNITS	TEST REQUIREMENT MIN.	TEST REQUIREMENT MAX.	PRE-VIB. DATA CPL-9	PRE-VIB. DATA VTP-9	POST-VIB. DATA CPL-9	POST-VIB. DATA VTP-9
58	80,360	Volts DC	AS	READ	0.169	0.169	0.164	0.164
62	72,620		0.80	1.10	0.994	0.993	0.993	0.993
70	59,300		2.60	2.90	2.789	2.789	2.790	2.790
78	48,720		4.38	4.68	4.554	4.554	4.552	4.551
82	44,230	↓	AS	READ	[illegible]	[illegible]	5.410	5.412

9132

DECADE/A909 °F	DECADE/A909 OHMS	UNITS	TEST REQUIREMENT MIN.	TEST REQUIREMENT MAX.	CPL-11	VTP-11	CPL-11	VTP-11
38	137,200	Volts DC	0.77	1.07	0.929	0.929	0.929	0.927
58	80,520		1.30	1.60	1.474	1.473	1.476	1.476
70	59,560		1.78	2.08	1.919	1.919	1.918	1.919
78	48,830		2.15	2.45	2.279	2.280	2.281	2.283
110	23,430	↓	4.05	4.35	4.202	4.202	4.204	4.203

64

Approved for Release: 2024/01/30 C05098941

C05098941

REFER TO WAIVER RO-9081-5

RETEST

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
8	CPL-8	volts dc	2.50	3.23			12-13-66
	VTP-8						
	CPL-9						
	VTP-9						
	CPL-10		2.33	2.63	2.459		
	VTP-10		2.33	2.63	2.456		
	CPL-11		1.75	2.15			
	VTP-11		1.75	2.15			
	Heater Turn-On and Current	—	—	—			
	Heater 3 turn-on	—	OK				
	current	amps dc	as read				
	Heater 4 turn-on		OK				
	current		as read				

204

66

Approved for Release: 2024/01/30 C05098941

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

RETEST

REFER TO WAIVER RO-9081-5 DATA SHEET FOR ACCEPTANCE TEST PROCEDURE NO. 804-104E PRE-VIBRATION

DATE 12-13-66

58A 5.5.3.4.3 5.5.3.4.4 58B

Assembly Dwg. No. 805-101

Ref. Para. 5.5.3.4.6 "CPL-3/VTP-3 CALIBRATION"

Assembly Ser. No FM-39

DECADE A/RT901		DECADE B/RT902			TEST REQUIREMENT		TEST DATA	
°F	OHMS	°F	OHMS	UNITS	MIN.	MAX.	CPL-3	VTP-3
54	181,707	55	176,100	Volts DC	0.30	0.70	0.544	0.543
55	176,700	55			1.43	1.83	1.663	1.663
56	171,840	55			2.57	2.97	2.787	2.785
57	167,123	55			3.69	4.09	3.912	3.911
58	162,564	55			4.80	5.20	5.034	5.034
69	121,850	70	118,500	Volts DC	0.28	0.68	0.474	0.473
70	118,670	70			1.41	1.81	1.600	1.600
71	115,585	70			2.54	2.94	2.723	2.723
72	112,593	70			3.66	4.06	3.847	3.847
73	109,687	70			4.77	5.17	4.969	4.969
84	83,172	85	81,140	Volts DC	0.28	0.68	0.469	0.466
85	81,120	85			1.39	1.79	1.575	1.574
86	79,124	85			2.50	2.90	2.684	2.682
87	77,186	85			3.60	4.00	3.786	3.784
88	75,296	85			4.69	5.09	4.892	4.889

205

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

END OF RETEST

Resume Acceptance Test at Paragraph 5.5.8

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

NOTICE

OF

MODIFICATION OR REPAIR

The Acceptance Test was interrupted at paragraph 5.5.8 to perform the repairs and or modifications as described on test waiver number TRO 9081-6. Results of the retest operations required by this waiver follow.

Approved for Release: 2024/01/30 C05098941

C05098941

RETEST

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104
FILM TRACKING TEST

REFER TO WAIVER RO-9081-6

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Procedure Reference	Test		Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.1.1.3 5.10.1.1.3	CPL-16 Calibration							12-14-66
	POINT 1	CPL-16	volts d.c.	set to min.		0.512	0.514	12-16-66
		VTP-16	volts d.c.	set to min.		0.512	0.514	
		footage	feet	set to 0		0	0	
	POINT 2	CPL-16	volts d.c.	4.8	5.2	4.948	4.949	
		VTP-16	volts d.c.	4.8	5.2	4.948	4.949	
		footage	feet	44	46	44.67	44.58	
	POINT 3	CPL-16	volts d.c.	2.0	3.0	2.359	2.359	
		VTP-16	volts d.c.	2.0	3.0	2.358	2.359	
		footage	feet	44	46	44.67	44.58	
	POINT 4	CPL-16	volts d.c.	2.0	3.0	2.359	2.359	
		VTP-16	volts d.c.	2.0	3.0	2.359	2.359	
		footage	feet	no more than 2 feet past point 3		45.48	45.12	
	POINT 5	CPL-16	volts d.c.	0.3	0.7	0.519	0.519	
		VTP-16	volts d.c.	0.3	0.7	0.519	0.519	
		footage	feet	no more than 2 feet past point 3		45.48	45.12	

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

C05098941

RETEST

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104
FILM TRACKING TEST

REFER TO WAIVER R.O. 9081-6

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Procedure Reference	Test		Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.1.1.5 5.10.1.1.4	CPL-28 Calibration							12-14-66
	POINT 1	CPL-28	volts dc	set to min.		0.509	0.511	12-16-66
		VTP-28	volts dc	set to min.		0.509	0.510	
		footage	feet	set to 0		X	0	
	POINT 2	CPL-28	volts dc	4.82	5.18	4.949	4.948	
		VTP-28	volts dc	4.82	5.18	4.949	4.948	
		footage	feet	276	288	X	279.5	
	POINT 3	CPL-28	volts dc	2.0	3.0	2.394	2.363	
		VTP-28	volts dc	2.0	3.0	2.394	2.363	
		footage	feet	276	288	X	279.5	
	POINT 4	CPL-28	volts dc	2.0	3.0	X	2.363	
		VTP-28	volts dc	2.0	3.0	X	2.363	
		footage	feet	no more than 5 feet past point 3		X	282.0	
	POINT 5	CPL-28	volts dc	0.32	0.68	0.509	.511	
		VTP-28	volts dc	0.32	0.68	0.509	.510	
		footage	feet	no more than 5 feet past point 3		X	282.0	

209

6

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

C05098941

RETEST

REFER TO WAIVER R0 9081-6

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Power, Command, Control & Response

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.7.2.3 5.10.2.7.2.3	Reset Operating Power						12-14-66
5.5.2.7.2.6 5.10.2.7.2.6	CPL-17 Voltage	volts d.c.	1.9	2.4	2.05	2.06	12-16-66
5.5.2.7.2. 5.10.2.7.2.	-17 Voltage	volts d.c.	4.5	5.0	4.90	4.90	
5.5.2.7.2.10 5.10.2.7.2.1	-1 Voltage	volts d.c.	1.9	------	2.31	2.31	
	-17 "	volts d.c.	1.9	-------	2.31	2.32	
	-17	volts d.c.	1.9	-------	2.31	2.32	
5.5.2.7.2.1 5.10.2.7.2.1	Measurement		-------	--------			
	-1	volts d.c.	4.5	5.0	4.80	4.80	
	-17	volts d.c.	4.5	5.0	4.81	4.80	
	-17	volts d.c.	4.5	5.0	4.81	4.80	
5.2.7.2.13 5.10.2.7.2.	of logger	inches	24 5/8	27 5/8	26 1/4	26 1/2	
5.5.2.7.2.1 5.10.2.7.2.1	L-17 (record slack)	volts d.c.	0.90	1.10	1.02	1.02	
5.5.2.7.2.19 5.10.2.7.2.19	BBT-5 Voltage	volts d.c.	0.0	33.4	26.4	26.4	
	Slack record taken up		Verify		YES	YES	
5.5.2.7.2.24 5.10.2.7.2.24	Distance mark on record moved	inches	- - -	.25	0	0.010	
5.5.2.7.2.31 5.10.2.7.2.31	Supply Brake Delay	milliseconds	- - -	10.0	2.0	2.0	
	Channel B Pulse Width	seconds	0.75	1.25	1.20	1.00	

Approved for Release: 2024/01/30 C05098941

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

END OF RETEST

Resume Acceptance Test at Paragraph 5.6.7

Approved for Release: 2024/01/30 C05098941

C05098941

Approved for Release: 2024/01/30 C05098941

DYNAMIC PHOTO TESTS

For results of these tests refer to section 6B

Test	Process Ticket No.
PRE-VIB.	3620
POST VIB.	3672
POST VIB SMOOTHNESS	3675
POST VIB SLIT EVAL.	3720

FM-39 212

Approved for Release: 2024/01/30 C05098941

C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104
"C/P Condition Checklist"

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data	Date
5.6.7	Mirror Position	---	Elevation Azimuth	Pos. 2 Pos. 1	ok	12-15-6
5.6.7.1	Aperture set to Slide E	---	OK		ok	
5.6.7.2	Platen at forward stop	---	OK		ok	
5.6.	pprove QC-A-541 Inspection Report		Test Eng.	Signature	RLK	
5.7.	pprove QC-A-513 Inspection Report					
5.7.	P condition checklist					
	1. Record Supply	feet	1500	---	Dummy Load	
	2. Assembly Complete	OK			ok	
	3. Record Threading	OK			ok	
	4. Take-up Looper Empty	OK			ok	
	5. Torque Motor Energized	OK			ok	
5.8.	Approve QC-A-514 Inspection Report		Test Eng.	Signature	RLK	
5.8.	Approve QC-A-531 Inspection Report		" "	"	RLK	
	Approved AO 996		" "	"	D86223	

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

C05098941

Approved for Release: 2024/01/30 C05098941

VIBRATION TEST DATA

Refer to section 6C for vibration summary

FM-39

214

Approved for Release: 2024/01/30 C05098941

C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104
APPENDIX F, INTERFACE GAGING

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data	Test Data Post	Date
4.1	Test Equipment Calibration Certification	Record S/ N	Record	Calibration	Date		12-15-6
	Interface Gages						
	208-1280-1					10-4-65	
	208-1280-2					10-4-65	
	208-1280-3					10-4-65	
	208-1280-4					10-4-65	
	208-1734					—	
	Gage Blocks						
	Adjustable Parallels	181-13				7-22-66	
	Feeler Gages	181				—	
	Micrometer, 0-1 inch	C-333M				11-1-66	
	Vernier Caliper, 6 inch					—	
5.2	Length AFT of Station 125.25						
5.2.1	Measurement	inches	as	read		1.495	
	210.550 - Measurement	inches	---------	209.25		209.055	

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104
APPENDIX F, INTERFACE GAGING

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data		Test Data Post	Date
5.2.2	Measurement	inches	as read				0.240	12-15-66
	209.300 - Measurement	inches	--------	209.12			209.060	
	Result of Para. 5.2.2 + 1.375	inches	--------	210.50			210.430	
	Length Forward of Station 125.25							
	Measurement	inches	as read			+Y	0.450	
						-Y	0.419	
	Measurement - 0.187	inches	as calculated			+Y	0.263	
						-Y	0.232	
	42.900 - Result of Para. 5.3.5	inches	as calculated			+Y	42.699	
						-Y	42.668	
	125.25-Result of Para. 5.3.6	inches	82.52	82.75		+Y	82.651	
			82.52	82.75		-Y	82.682	

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941
C05098941

C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

APPENDIX F, INTERFACE GAGING

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data	Test Data Post	Date
5.4	Support Tube Flanges						12-15-66
5.4.1	Gage #2 +Y flange clearance	inches	0.0	--	X	0.030	
	-Y flange clearance	inches	0.0	--	X	0.075	
5.4.2	Gage #1 +Y flange clearance	inches	0.0	--	X	0.020	
	-Y flange clearance	inches	0.0	--	X	0.093	
5.4.3	Gage #3 +Y flange clearance	inches	0.0	--	X	0.019	
	-Y flange clearance	inches	0.0	--	X	0.091	
5.4.4	#4 +Y flange clearance	inches	0.0	--	X	0.043	
	-Y flange clearance	inches	0.0	--	X	0.063	

214

90a

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

NOTICE

OF

MODIFICATION OR REPAIR

The Acceptance Test was interrupted at paragraph 5.10.7 to perform the repairs and or modifications as described on test waiver number RO-9081-10 & RO-9081-11.

Approved for Release: 2024/01/30 C05098941

RETEST

REFER TO WAIVER R0-9081-11

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Preliminary Electrical Checkout

Procedure Reference	Test	Units	Test Requirement		Test Data		Date
			Min.	Max.	Pre.	Post	
5.4.2.3 5.9.2.3	Set leakage resistance test voltage	volts d.c.	9	11		10.0	1-17-67
5.4.2.4 5.9.2.4	Leakage resistance - each test	megohms	10	—		>10	"
5.4.4.1 5.9.4.1	Set Operating Power	volts d.c.	27.9	28.1		28.0	
5.4.4.3 5.9.4.3	Operating Power Current	amps d.c.	---	0.383			
5.4.4.4 5.9.4.4	Set Heater Power	volts d.c.	27.9	28.1			
5.4.4.5 5.9.4.5	Heater Power Current	amps d.c.	---	3.7			
5.4.4.6 5.9.4.6	Instrumentation Measurements						
	CPL-26 (environmental supply)	volts d.c.	3.37	3.67			
	VP-13 (+5 volt inst. supply)	volts d.c.	4.9	5.1			
	VP-44 (-22 volt supply)	volts d.c.	-21.0	-23.0			
	VP-45 (+22 volts supply)	volts d.c.	+21.0	+23.0			
	VP-46 (+28 volts supply)	volts d.c.	27.9	28.1			
	VP-50 (environmental supply)	volts d.c.	2.50	3.64			
	CPL-35 (+ 28 volts supply)	volts d.c.	2.93	3.33			
	VTP-35 (+28 volts supply)	volts d.c.	2.93	3.33			
	Set Operating Power	volts d.c.	27.9	28.1			

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941
C05098941

RETEST

REFER TO WAIVER R.O. 9081-10

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104
FILM TRACKING TEST

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Procedure Reference	Test		Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.1.1.3 5.10.1.1.3	CPL-16 Calibration							1/17/69
	POINT 1	CPL-16	volts d.c.	set to min.			0.515	
		VTP-16	volts d.c.	set to min.			0.510	
		footage	feet	set to 0			0	
	POINT 2	CPL-16	volts d.c.	4.8	5.2		4.967	
		VTP-16	volts d.c.	4.8	5.2		4.969	
		footage	feet	44	46		44.58	
	POINT 3	CPL-16	volts d.c.	2.0	3.0		2.359	
		VTP-16	volts d.c.	2.0	3.0		2.359	
		footage	feet	44	46		44.58	
	POINT 4	CPL-16	volts d.c.	2.0	3.0		2.359	
		VTP-16	volts d.c.	2.0	3.0		2.359	
		footage	feet	no more than 2 feet past point 3			45.12	
	POINT 5	CPL-16	volts d.c.	0.3	0.7		0.515	
		VTP-16	volts d.c.	0.3	0.7		0.510	
		footage	feet	no more than 2 feet past point 3			45.12	

C05098941
Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

RETEST

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104
FILM TRACKING TEST

REFER TO WAIVER RO 9081-10

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Procedure Reference	Test		Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.1.1.5 5.10.1.1.4	CPL-28 Calibration							1/17/67
	POINT 1	CPL-28	volts dc	set to min.			0.522	
		VTP-28	volts dc	set to min.			0.519	
		footage	feet	set to 0			0	
	POINT 2	CPL-28	volts dc	4.82	5.18		4.960	
		VTP-28	volts dc	4.82	5.18		4.959	
		footage	feet	276	288		279'	
	POINT 3	CPL-28	volts dc	2.0	3.0		2.394	
		VTP-28	volts dc	2.0	3.0		2.391	
		footage	feet	276	288		279'	
	POINT 4	CPL-28	volts dc	2.0	3.0		2.394	
		VTP-28	volts dc	2.0	3.0		2.391	
		footage	feet	no more than 5 feet past point 3			281.5	
	POINT 5	CPL-28	volts dc	0.32	0.68		0.522	
		VTP-28	volts dc	0.32	0.68		0.519	
		footage	feet	no more than 5 feet past point 3			281.5	

C05098941
Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

RETEST

REFER TO WAIVER RO-9081-1
RO-9081-11

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104 E
Power, Command, Control & Response

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Procedure Reference	Test		Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.1.1	Azimuth Servo mounting position		-	+Y side			+Y	1-18-67
5.5.2.1.8 5.10.2.1.7	Set zenith circle		degrees	90°0'0"	90°0'0"		90°0'0"	
5.5.2.1.13 5.10.2.1.12	set zenith circle		degrees	0°0'0"	0°0'0"		0°0'0"	
5.5.2.1.15 5.10.2.1.14	set operating power		volts d.c.	27.9	28.1		28.0	
5.5.2.1.16 5.10.2.1.15	Crab Lead screw locking nuts pinned		-	OK			OK	
	step 1B	zenith	degrees	as read			90°00'35"	
		azimuth	degrees	as read			315°01'0"	
	step 1C	CPL-13	volts d.c.	2.40	2.66		2.46	
		CPL-14	volts d.c.	0.37	0.63		0.52	
		VTP-13	volts d.c.	2.40	2.66		2.46	
		VTP-14	volts d.c.	0.37	0.63		0.51	
		VP-6	volts d.c.	0.4	0.6		0.51	
		VP-7	volts d.c.	27	29		27.9	
		VP-8	volts d.c.	27	29		27.9	
		VP-9	volts d.c.	27	29		27.4	
		VP-10	volts d.c.	0.4	0.6		0.50	
		VP-11	volts d.c.	27	29		27.4	

C05098941
Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

RETEST

REFER TO WAIVER RO-9081-1
RO-9081-11

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104

Power, Command, Control & Repsonse

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-37

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.1.16	VP-18	volts d.c.	0.0	0.2		0.02	1-18-67
5.10.2.1.15	VP-19	volts d.c.	27	29		27.9	
	VP-20	volts d.c.	27	29		27.9	
	VP-21	volts d.c.	0.0	0.2		0.10	
	VP-22	volts d.c.	9.0	11.0		9.62	
	VP-23	volts d.c.	9.0	11.0		9.61	
	VP-24	volts d.c.	0.0	0.2		0.06	
	VP-25	volts d.c.	8.5	10.5		9.08	
	VP-26	volts d.c.	8.5	10.5		9.08	
	CPL-1	volts d.c.	2.80	3.18		2.98	
	VTP-1	volts d.c.	2.80	3.18		2.92	
	CPL-24	volts d.c.	2.68	3.30		3.06	
	VTP-24	volts d.c.	2.68	3.30		3.05	
	CPL-30	volts d.c.	2.78	3.08		2.98	
	VTP-30	volts d.c.	2.78	3.08		2.92	
	CPL-31	volts d.c.	3.92	4.32		4.14	
	VTP-31	volts d.c.	3.92	4.32		4.13	

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941
C05098941

RETEST

REFER TO WAIVER R.O. 9081-1
R.O. 9081-11

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104

Power, Command, Control & Response

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.1.16	CPL-32	volts d.c.	2.73	3.35		2.92	1-18-67
5.10.2.1.15	VTP-32	volts d.c.	2.73	3.35		2.91	
	CPL-33	volts d.c.	0.30	0.68		0.51	
	VTP-33	volts d.c.	0.30	0.68		0.50	
	CPL-34	volts d.c.	0.28	0.66		0.57	
	VTP-34	volts d.c.	0.28	0.66		0.50	
	Step 1D		no observable hunting			NONE	
	Step 2A transition time	seconds	-	1		0.8	
	Step 2B zenith	degrees	as	read		90°19'31"	
	azimuth	degrees	as	read		315°00'10"	
	Step 2C CPL-14	volts d.c.	0.99	1.25		1.04	
	VTP-14	volts d.c.	0.99	1.25		1.04	
	VP-18	volts d.c.	0.0	0.2		0.05	
	VP-19	volts d.c.	27	29		27.9	
	VP-20	volts d.c.	27	29		27.9	
	VP-21	volts d.c.	0.0	0.2		0.01	
	VP-22	volts d.c.	9.0	11.0		9.61	

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941
C05098941

RETEST

REFER TO WAIVER RO-9081-1 RO-9081-11

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104

Power, Command, Control & Response

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-37

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.1.16	VP-23	volts d.c.	9.0	11.0		9.60	1-18-67
5.10.21.15	VP-24	volts d.c.	8.5	10.5		9.06	
	VP-25	volts d.c.	0.0	0.2		.07	
	VP-26	volts d.c.	8.5	10.5		9.06	
	CPL-1	volts d.c.	3.90	4.70		4.12	
	VTP-1	volts d.c.	3.90	4.70		4.12	
	CPL-24	volts d.c.	2.88	3.30		3.06	
	VTP-24	volts d.c.	2.88	3.30		3.05	
	CPL-32	volts d.c.	2.73	3.35		2.92	
	VTP-32	volts d.c.	2.73	3.35		2.91	
	CPL-34	volts d.c.	0.28	0.66		0.57	
	VTP-34	volts d.c.	0.28	0.66		0.50	
	Step 2D	no	observable	hunting		none	
5	step 3A transition time	seconds	0	1		0.8	
5.10.2.1.15	step 3B zenith	degrees	as	read		90° 00' 29"	
	azimuth	degrees	as	read		215° 01' 02"	
	step 3D	no	observable	hunting		none	

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941
C05098941

RETEST

REFER TO WAIVER RO-9081-1 RO-9081-11

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104

Power, Command, Control & Balance

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Procedure Reference	Test		Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.1.16	step 4B zenith		degrees	as	read			1-18-67
5.10.2.1.15	azimuth		degrees	as	read			
	step 5 zenith		degrees	as	read			
	azimuth		degrees	as	read			
	step 6 zenith		degrees	as	read		90°40'40"	
	azimuth		degrees	as	read		315°00'02"	
	step 6C	CPL-14	volts d.c.	1.55	1.81		1.62	
		VTP-14	volts d.c.	1.55	1.81		1.62	
		VP-18	volts d.c.	0.0	0.2		0.04	
		VP-19	volts d.c.	27	29		28	
		VP-20	volts d.c.	27	29		28.9	
		VP-21	volts d.c.	9.0	11.0		9.62	
		VP-22	volts d.c.	0.0	0.2		0.05	
		VP-23	volts d.c.	9.0	11.0		9.61	
		VP-24	volts d.c.	0.0	0.2		0.04	
		VP-25	volts d.c.	8.5	10.5		9.68	
		VP-26	volts d.c.	8.5	10.5		9.67	

C05098941
Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

RETEST

REFER TO WAIVER RO-9081-1 RO-9081-11

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104

Power, Command, control & Response

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.1.16	CPL-1	volts d.c.	2.80	3.18		2.98	1-18-67
5.10.2.1.15	VTP-1	volts d.c.	2.80	3.18		2.97	"
	CPL-24	volts d.c.	2.88	3.30		3.06	
	VTP-24	volts d.c.	2.88	3.30		3.05	
	CPL-32	volts d.c.	3.93	4.69		4.13	
	VTP-32	volts d.c.	3.93	4.69		4.13	
	CPL-34	volts d.c.	0.28	0.66		.57	
	VTP-34	volts d.c.	0.28	0.66		.57	
	step 7b zenith	degrees	as	read			
	azimuth	degrees	as	read			
	step 7D	no observable hunting					
	step 8A transition time	seconds	0	1		0.8	
	step 8B zenith	degrees	as	read			
	azimuth	degrees	as	read			
	step 8D	no observable hunting					
	step 9A Transition time	seconds	0	1		0.8	
	step 9B zenith	degrees	as	read		2.48	

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941
C05098941

RETEST

REFER TO WAIVER RO-9081-1 RO-9081-11

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104

Power, Command, Control & Response

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.1.16	azimuth	degrees	as	read		315°01'02"	1-18-66
5.10.2.1.15	step 10B zenith	degrees	as	read		91°01'29"	
	azimuth	degrees	as	read		314°59'49"	
	step 10C CPL-14	volts d.c.	2.10	2.36		2.18	
	VTP-14	volts d.c.	2.10	2.36		2.17	
	VP-18	volts d.c.	0.0	0.2		0.01	
	VP-19	volts d.c.	27	29		27.8	
	VP-20	volts d.c.	27	29		27.9	
	VP-21	volts d.c.	9.0	11.0		9.62	
	VP-22	volts d.c.	0.0	0.2		0.1	
	VP-23	volts d.c.	9.0	11.0		9.61	
	VP-24	volts d.c.	8.5	10.5		9.06	
	VP-25	volts d.c.	0.0	0.2		0.05	
	VP-26	volts d.c.	8.5	10.5		9.06	
	CPL-1	volts d.c.	3.90	4.70		4.12	
	VTP-1	volts d.c.	3.90	4.70		4.12	
	CPL-2	volts d.c.	2.88	3.30		3.06	

C05098941
Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

RETEST

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104

Power, Command, Control & Response

REFER TO WAIVER R.O-9081-1 RO-9081-11

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.1.16	VTP-24	volts d.c.	2.88	3.30		3.05	1-18-67
.10.2.1.15	CPL-32	volts d.c.	3.93	4.69		4.13	
	VTP-32	volts d.c.	3.93	4.69		4.13	
	CPL-34	volts d.c.	0.28	0.66		.57	
	VTP-34	volts d.c.	0.28	0.66		.58	
	11B zenith	degrees	as	read			
	azimuth	degrees	as	read			
	11D	no observable hunting				None	
	12A transition time	seconds	as	read		0.7	
	12B zenith	degrees	as	read			
	azimuth	degrees	as	read			
	step 12D	no observable hunting					
	step 13A transition time	seconds	0	1		0.7	
	step 13B zenith	degrees	as	read		90°43'11"	
	azimuth	degrees	as	read		315°00'57"	
	step 14B zenith	degrees	as	read		91°22'46"	
	azimuth	degrees	as	read		314°59'30"	

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941
C05098941

C05098941

RETEST

REFER TO WAIVER RO-9081-1
EO-9081-11

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104

Power, Command, Control & Response

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Procedure Reference	Test	Units	Test Requirement		Test Data		Date
			Min.	Max.	Pre.	Post	
5.5.2.1.16	step 14C CPL-14	volts d.c.	2.66	2.92		2.74	1-18-67
5.10.2.1.15	VTP-14	volts d.c.	2.66	2.92		2.74	
	VP-18	volts d.c.	27	29		27.9	
	VP-19	volts d.c.	0.0	0.2		0.10	
	VP-20	volts d.c.	27	29		27.9	
	VP-21	volts d.c.	0.0	0.2		0.10	
	VP-22	volts d.c.	9.0	11.0		10.20	
	VP-23	volts d.c.	9.0	11.0		10.20	
	VP-24	volts d.c.	0.0	0.2		0.0	
	VP-25	volts d.c.	8.5	10.5		9.69	
	VP-26	volts d.c.	8.5	10.5		9.69	
	CPL-1	volts d.c.	2.80	3.18		3.16	
	VTP-1	volts d.c.	2.80	3.18		3.16	
	CPL-24	volts d.c.	4.05	4.53		4.28	
	VTP-24	volts d.c.	4.05	4.53		4.28	
	CPL-32	volts d.c.	2.73	3.35		3.09	
	VTP-32	volts d.c.	2.73	3.35		3.09	

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

RETEST

REFER TO WAIVER RO-9081-1
RO-9081-11

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104

Power, Command, Control & Response

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.1.16	CPL-34	volts d.c.	0.28	0.66		0.51	1-18-67
5.10.2.1.15	VTP-34	volts d.c.	0.28	0.66		0.50	
	step 15B zenith	degrees	as	read			
	azimuth	degrees	as	read			
	step 15D	no	observable	hunting			
	step 16A transition time	seconds	0	1		0.8	
	step 16B zenith	degrees	as	read			
	azimuth	degrees	as	read			
		no	observable	hunting		NONE	
	transition time	seconds	0	1		0.8	
	zenith	degrees	as	read		91°04'18"	
	azimuth	degrees	as	read		315°00'55"	
	zenith	degrees	as	read		91°43'26"	
	azimuth	degrees	as	read		314°59'02"	
	CPL-14	volts d.c.	3.24	3.50		3.30	
	VTP-14	volts d.c.	3.24	3.50		3.30	
	VP-18	volts d.c.	27	29		27.9	

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941
C05098941

C05098941

RETEST

REFER TO WAIVER RO-9081-1 RO-9081-11

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104
Power, Command, Control & Response

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.1.16		volts d.c.					1-18-67
5.10.2.1.16	VP-19	volts d.c.	0.0	0.2		0.15	
	VP-20	volts d.c.	27	29		27.9	
	VP-21	volts d.c.	0.0	0.2		.10	
	VP-22	volts d.c.	9.0	11.0		10.20	
	VP-23	volts d.c.	9.0	11.0		10.20	
	VP-24	volts d.c.	8.5	10.5		9.67	
	VP-25	volts d.c.	0.0	0.2		.05	
	VP-26	volts d.c.	8.5	10.5		9.67	
	CPL-1	volts d.c.	3.90	4.70		4.41	
	VTP-1	volts d.c.	3.90	4.70		4.40	
	CPL-24	volts d.c.	4.05	4.53		4.28	
	VTP-24	volts d.c.	4.05	4.53		4.28	
	CPL-32	volts d.c.	2.73	3.35		3.09	
	VTP-32	volts d.c.	2.73	3.35		3.08	
	CPL-34	volts d.c.	0.28	0.66		.57	
	VTP-34	volts d.c.	0.28	0.66		.57	

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

C05098941

Retest

REFER TO WAIVER RO-9081-1
RO-9081-11

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104

Power, Command, Control & Response

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.1.16	step 19B zenith	degrees	as	read			1-18-67
5.10.2.1.16	azimuth	degrees	as	read			
	step 19D	no	observable	hunting			
	step 20A transition time	seconds	0	1		.8	
	step 20B zenith	degrees	as	read			
	azimuth	degrees	as	read			
	step 20D	no	observable	hunting		NONE	
	step 21A transition time	seconds	0	1		0.8	
	step 21B zenith	degrees	as	read		91° 23' 19"	
	azimuth	degrees	as	read		315° 00' 33"	
	step 22B zenith	degrees	as	read		92° 04' 14"	
	azimuth	degrees	as	read		314° 58' 35"	
	step 22C CPT-14	volts d.c.	3.81	4.07		3.87	
	VTP-14	volts d.c.	3.81	4.07		3.91	
	VT-15	volts d.c.	27	29		28.9	
	VT-17	volts d.c.	0.0	0.2		0.04	
	VT-2	volts d.c.	27	29		28.9	

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

RETEST

REFER TO WAIVER RO-9081-1
RO-9081-11

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104
Power, Command, Control & Response

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Procedure Reference	Test	Units	Test Requirement		Test Data		Date
			Min.	Max.	Pre.	Post	
5.5.2.1.16	VP-21	volts d.c.	9.0	11.0		10.20	1-18-6
5.10.2.1.16	VP-22	volts d.c.	0.0	0.2		0.04	
	VP-23	volts d.c.	9.0	11.0		10.21	
	VP-24	volts d.c.	0.0	0.2		.07	
	VP-25	volts d.c.	8.5	10.5		9.70	
	VP-26	volts d.c.	8.5	10.5		9.70	
	CPL-1	volts d.c.	2.80	3.18		3.16	
	VTP-1	volts d.c.	2.80	3.18		3.16	
	CPL-24	volts d.c.	4.05	4.53		4.28	
	VTP-24	volts d.c.	4.05	4.53		4.28	
	CPL-32	volts d.c.	3.93	4.69		4.40	
	VTP-32	volts d.c.	3.93	4.69		4.46	
	CPL-34	volts d.c.	0.28	0.66		.51	
	VTP-34	volts d.c.	0.28	0.66		.52	
step 235 section		degrees	as read				
section		degrees	as read				
step 235			as [illegible]				

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941
C05098941

RETEST

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104
Power, Command, Control & Response

REFER TO WAIVER RO-9081-1 RO-9081-11

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.1.16	step 24A transition time	seconds	0	1		0.8	1-18-6
5.10.2.1.15	step 24B zenith	degrees	as	read			
	azimuth	degrees	as	read			
	step 24D	no	observable	hunting		NONE	
	step 25A transition time	seconds	0	1		.8	
	step 25B zenith	degrees	as	read		91°46'08"	
	azimuth	degrees	as	read		315°00'07"	
	step 26B zenith	degrees	as	read		92°24'39"	
	azimuth	degrees	as	read		314°57'58"	
	step 26C CPL-14	volts d.c.	4.39	4.65		4.46	
	VTP-14	volts d.c.	4.39	4.65		4.46	
	VP-28	volts d.c.	27	29		27.9	
	VP-29	volts d.c.	0.0	0.2		.09	
	VP-28	volts d.c.	27	29		27.9	
	VP-30	volts d.c.	9.0	11.0		10.26	
	VP-29	volts d.c.	0.0	0.2		0.1	
	VP-30	volts d.c.	9.0	11.0		10.26	

C05098941
Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

RETEST

REFER TO WAIVER RO-9081-1 RO-9081-11

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104
Power, Command, Control & Response

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.1.16	VP-24	volts d.c.	8.5	10.5		9.67	1-18-67
5.10.2.1.15	VP-25	volts d.c.	0.0	0.2		0.10	"
	VP-26	volts d.c.	8.5	10.5		9.67	
	CPL-1	volts d.c.	3.90	4.70		4.41	
	VTP-1	volts d.c.	3.90	4.70		4.40	
	CPL-24	volts d.c.	4.05	4.53		4.28	
	VTP-24	volts d.c.	4.05	4.53		4.28	
	CPL-32	volts d.c.	3.93	4.69		4.40	
	VTP-32	volts d.c.	3.93	4.69		4.39	
	CPL-34	volts d.c.	0.28	0.66		0.50	
	VTP-34	volts d.c.	0.28	0.66		0.55	
step 27B zenith		degrees	as	read			
azimuth		degrees	as	read			
step 27D		no	observable	hunting			
step 28A	transition time	seconds	0	1			
step 28B	zenith	degrees		read			
		degrees					

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941
C05098941

RETEST

REFER TO WAIVER RO-9081-1
RO-9081-11

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104
Power, Command, Control & Response

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.1.16	step 28B		no observable hunting				1-18-67
5.10.2.1.15	step 29A transition time	seconds	0	1		.8	←
	step 29B zenith	degrees	as	read		92°06'58"	
	azimuth	degrees	as	read		34°59'43	
	step 30B zenith	degrees	as	read		92°24'43"	
	azimuth	degrees	as	read		314°57'58"	
5.5.2.1.17	average of steps 1B, 3B, and 5B	-	-	-			
5.10.2.1.16	zenith	degrees	plot must lie inside limit band			90°00'29"	
	azimuth		on curve for E=0°	A=0°		315°01'01"	
	average of steps 2B, 4B, 7B and 9B	-	-	-			
	zenith	degrees	plot must lie inside limit band			90°20'40"	
	azimuth	degrees	on curve for E=0°	A=1/2°		315°00'36"	
	average of steps 6B, 8B, 11B, and 13B	-	-	-			
	zenith	degrees	plot must lie inside limit band			90°41'56"	
	azimuth	degrees	on curve for E=0°	A=1°		315°01'30"	
	average of steps 10B, 12B, 14B and 15B	-	-	-			
	zenith	degrees	plot must lie			89°59'[illegible]	

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941
C05098941

RETEST

REFER TO WAIVER RO-9081-1 RO-9081-11

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104

Power, Command, Control & Response

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-37

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.1.17	azimuth		on curve for E=0°	A=1 1/2°		315°00'22"	1-18-67
5.10.2.1.16	average of steps 14B, 16B, 19B and 21B	-	-	-			"
	zenith	degrees	plot must lie inside limit band			91°24'03"	
	azimuth	degrees	on curve for E=0°	A=2°		315°00'02"	
	average steps of 18B, 20B, 23B and 25B	-	-	-			
	zenith	degrees	plot must lie inside limit band			91°44'47"	
	azimuth		on curve for E=0°	A=2 1/2°		314°59'35"	
	average of steps 22B, 24B, 27B and 29B	-	-	-			
	zenith	degrees	plot must lie inside limit band			92°05'36"	
	azimuth	degrees	on curve for E=0°	A=3°		314°59'09"	
	average of steps 26B, 28B and 30B	-	-	-			
	zenith	degrees	plot must lie inside limit band			92°24'42"	
	azimuth		on curve for E=0°	A=3 1/2°		314°57'58"	
	Interference Check Pos. 1 (P), (A)		NONE				
	Pos. 1 (S), (A)		NONE				
	Pos. 2 (S), (A)		NONE				

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941
C05098941

RETEST

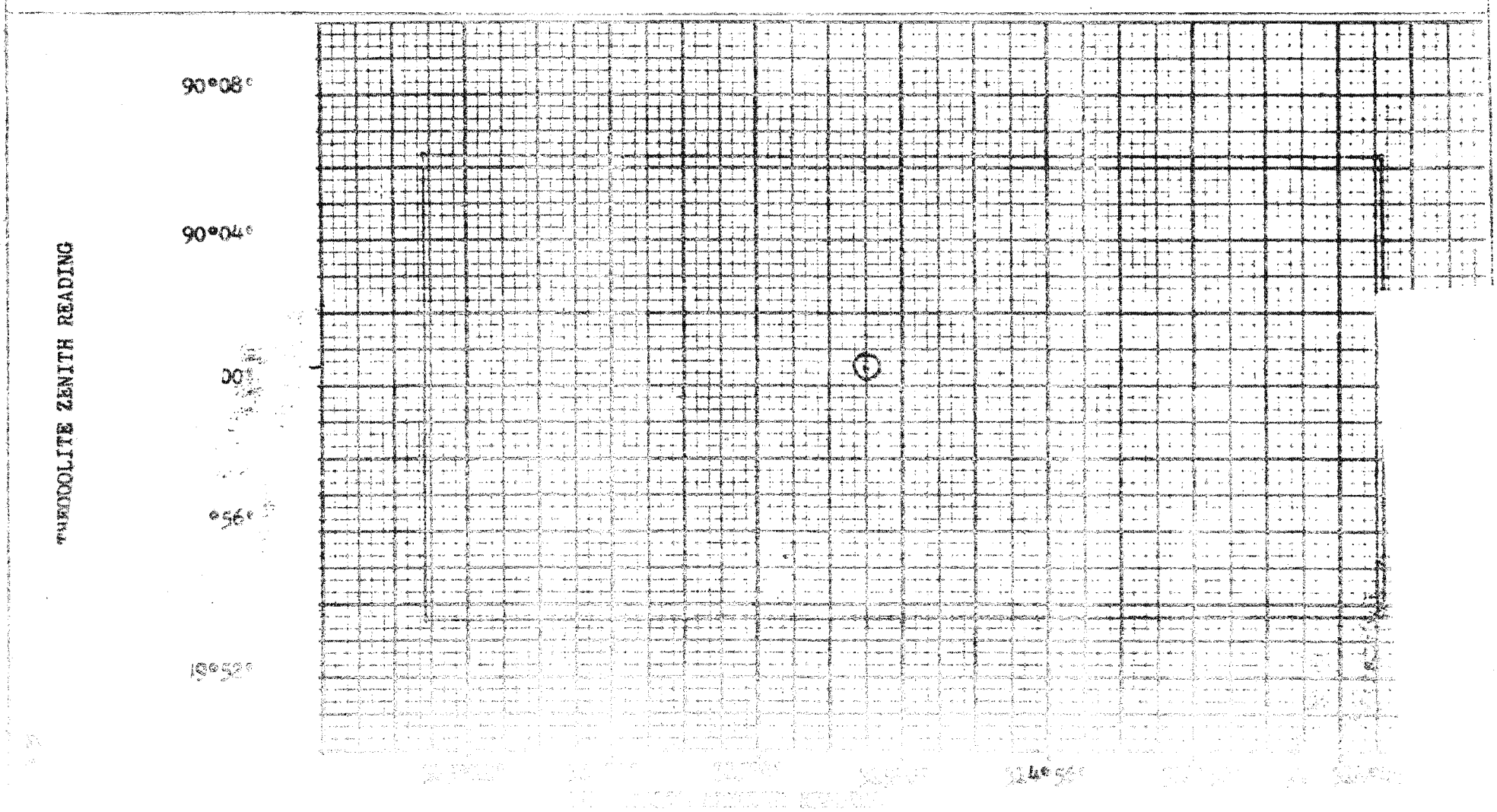
REFER TO WAIVER RO-9081-I
RO-9081-II

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE: 804-104
LINE OF SIGHT POSITIONS

Assy Dwg. No. 805-101
Assy Ser.No. FM-39
Date 1-18-67

Elevation Servo at 0 °

Azimuth Servo at +0 °



Approved for Release: 2024/01/30 C05098941

C05098941

Approved for Release: 2024/01/30 C05098941

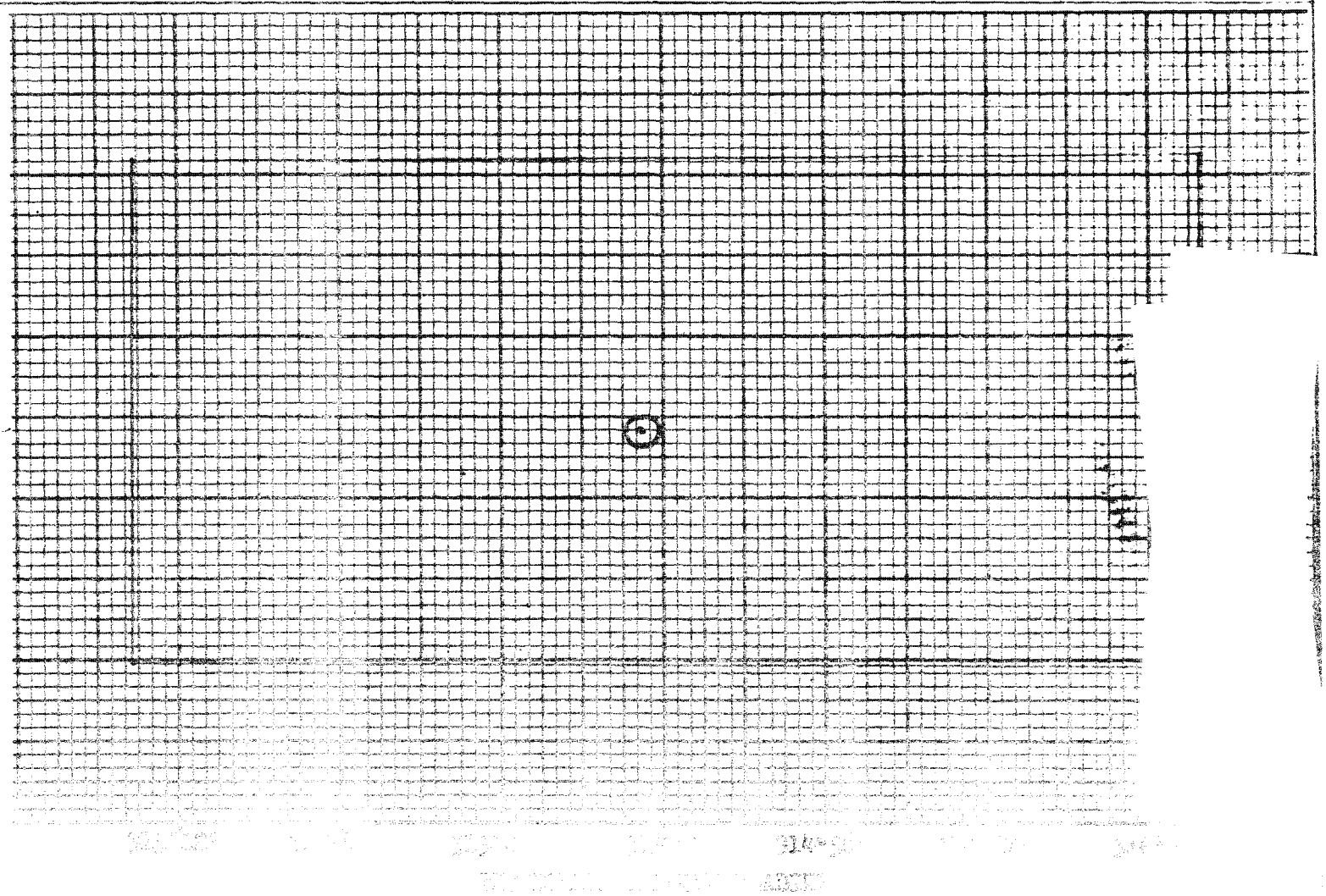
RETEST

REFER TO WAIVER RO-9081-1
RO-9081-11

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE: 804-104
LINE OF SIGHT POSITIONS

Assy Dwg. No. 805-101
Assy Ser. No. FM-39
Date 1-18-67

Elevation Servo at 0 ° Azimuth Servo at ± °



C05098941
Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

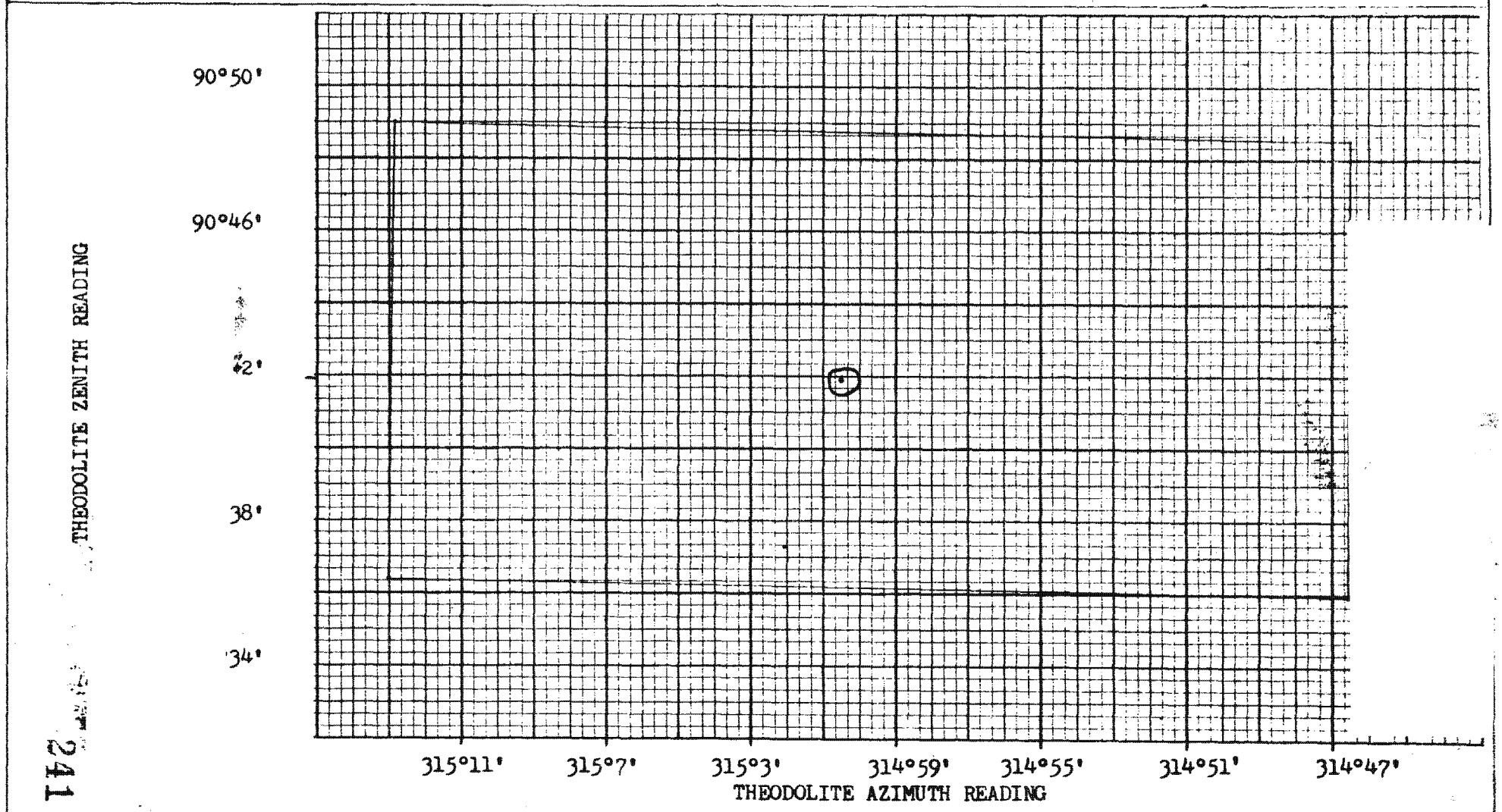
RETEST

REFER TO WAIVER RO-9081-1
RO-9081-11

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE: 804-104
LINE OF SIGHT POSITIONS

Assy Dwg. No. 805-101
Assy Ser. No. FM-39
Date 1-18-67

Elevation Servo at 0 ° Azimuth Servo at 1 °



X PRE-VIBRATION 0 POST-VIBRATION

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941
C05098941

RETEST

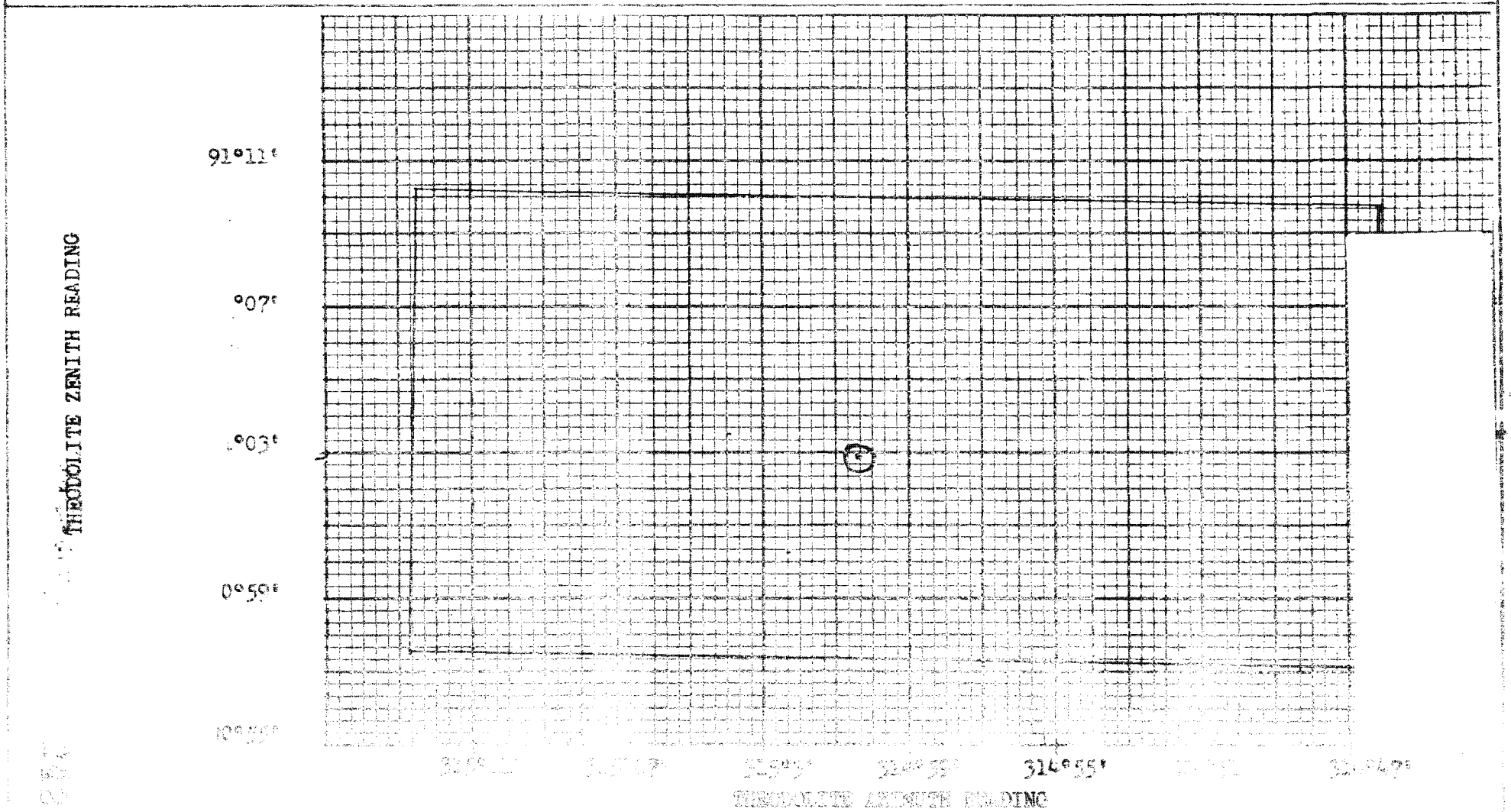
REFER TO WAIVER RO-9081-1
RO-9081-1

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE: 804-104
LINE OF SIGHT POSITIONS

Assy Dwg. No. 805-101
Assy Ser. No. FM-39
Date 1-18-67

Elevation Servo at 0 °

Azimuth Servo at 1½°



C05098941
Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

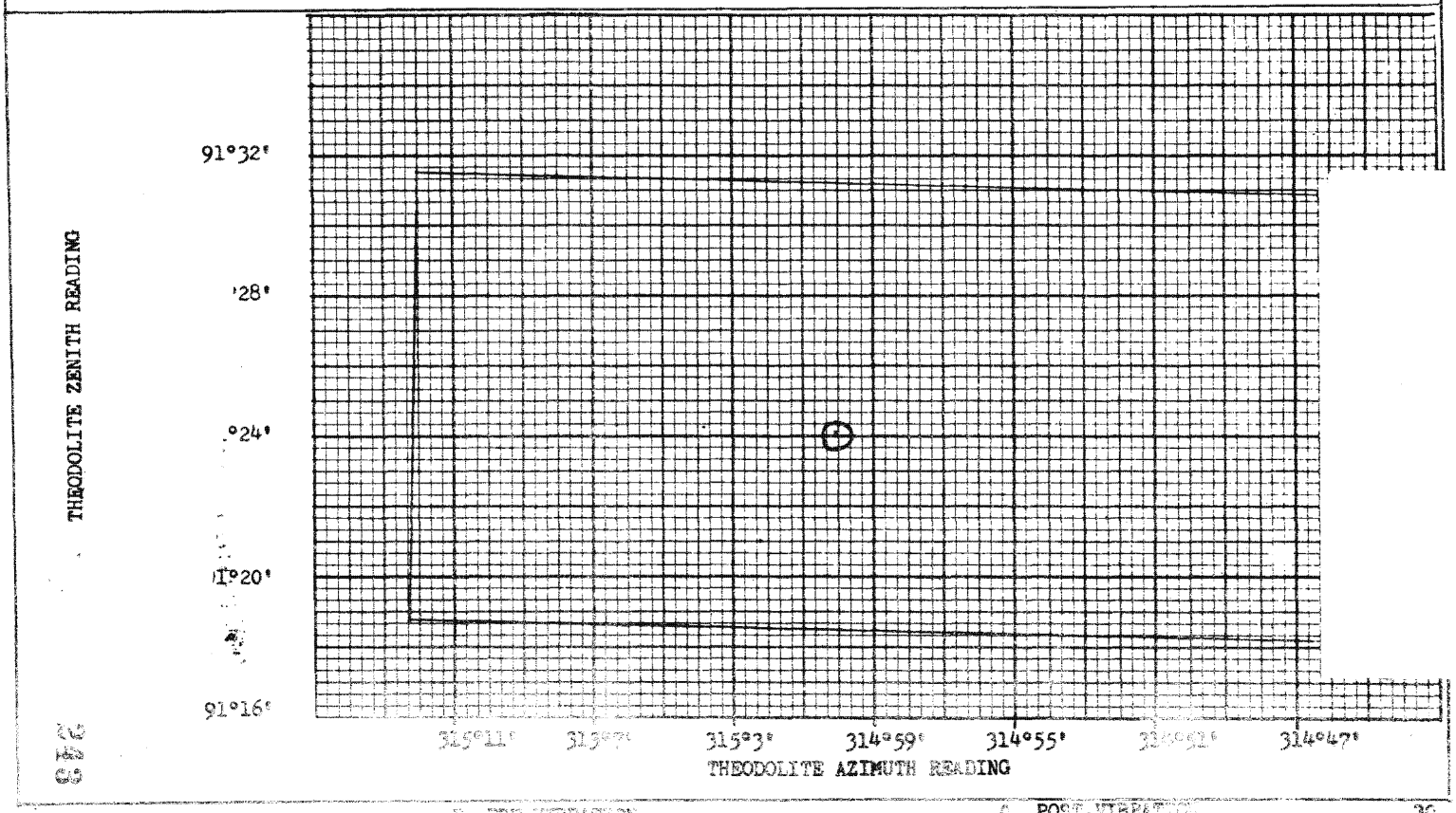
RETEST

REFER TO WAIVER RO-9081-I
RO-9081-II

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE: 804-104
LINE OF SIGHT POSITIONS

Assy Dwg. No. 805-101
Assy Ser. No. FM-39
Date 1-18-67

Elevation Servo at 0° Azimuth Servo at 2 °



6 POST-VIBRATION

30

Approved for Release: 2024/01/30 C05098941

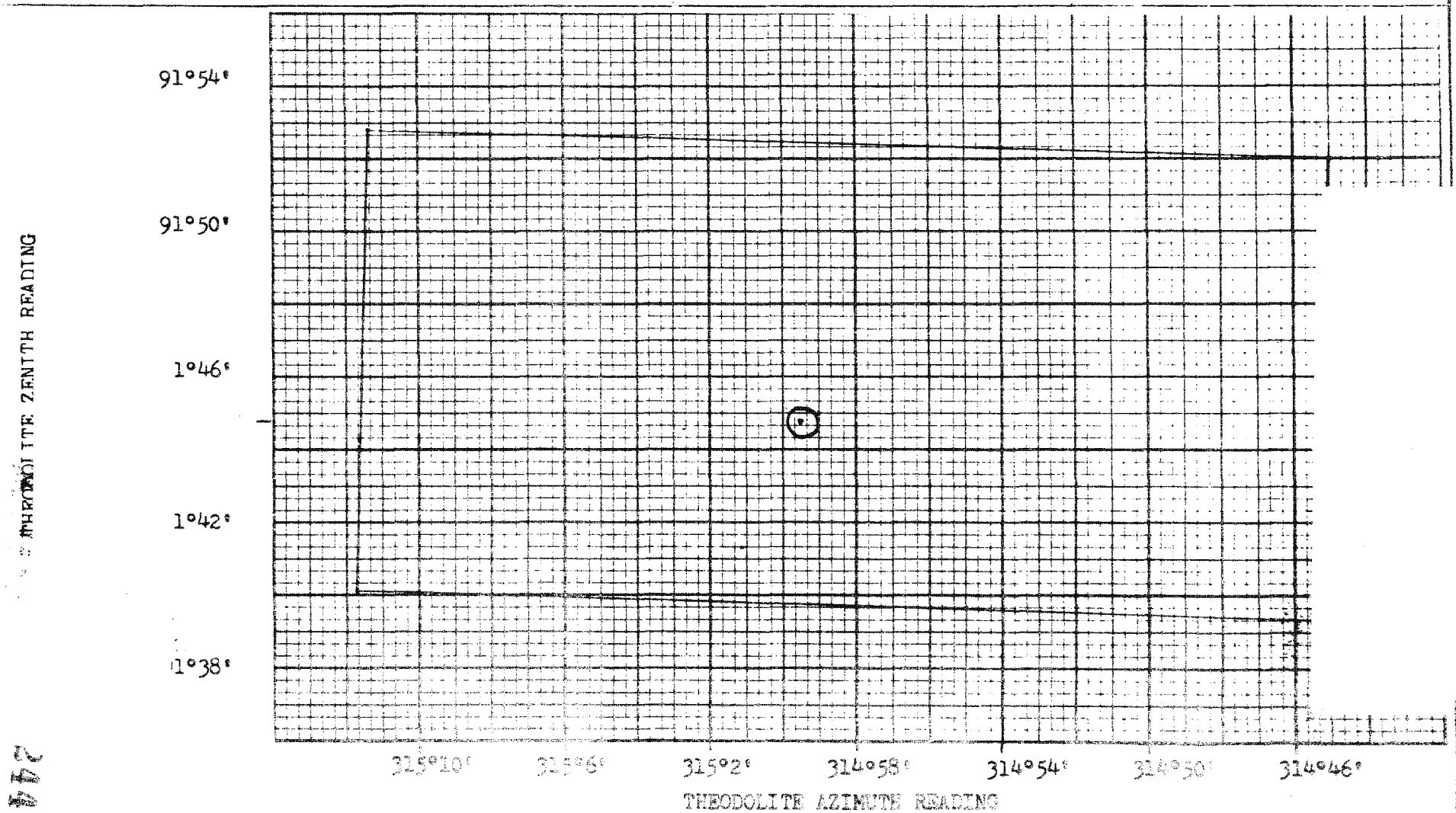
RETEST

REFER TO WAIVER RO-9081-1
RO-9081-11

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE: 804-104
LINE OF SIGHT POSITIONS

Assy Dwg. No. 805-101
Assy Ser. No. FM-39
Date 1-18-67

Elevation Servo at 0° Azimuth Servo at 2⅓°



X PRE-VIBRATION O POST-VIBRATION

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941
C05098941

RETEST

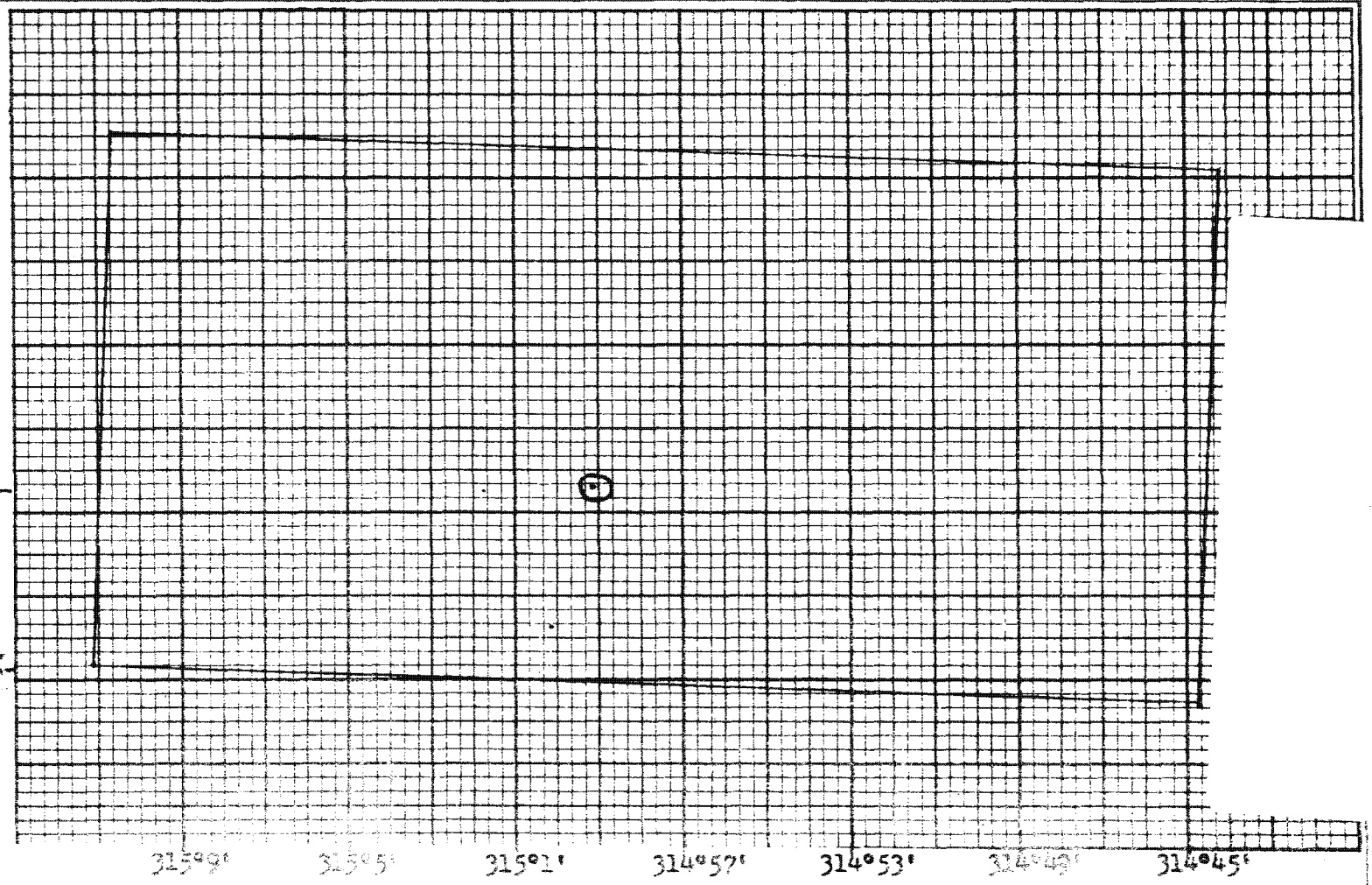
DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE: 804-104
LINE OF SIGHT POSITIONS

Assy Dwg. No. 805-101
Assy Ser. No. FM-39
Date 1-18-67

REFER TO WAIVER RO-9081-1
RO-9081-11

Elevation Servo at 0°

Azimuth Servo at 3°



242

C05098941
Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

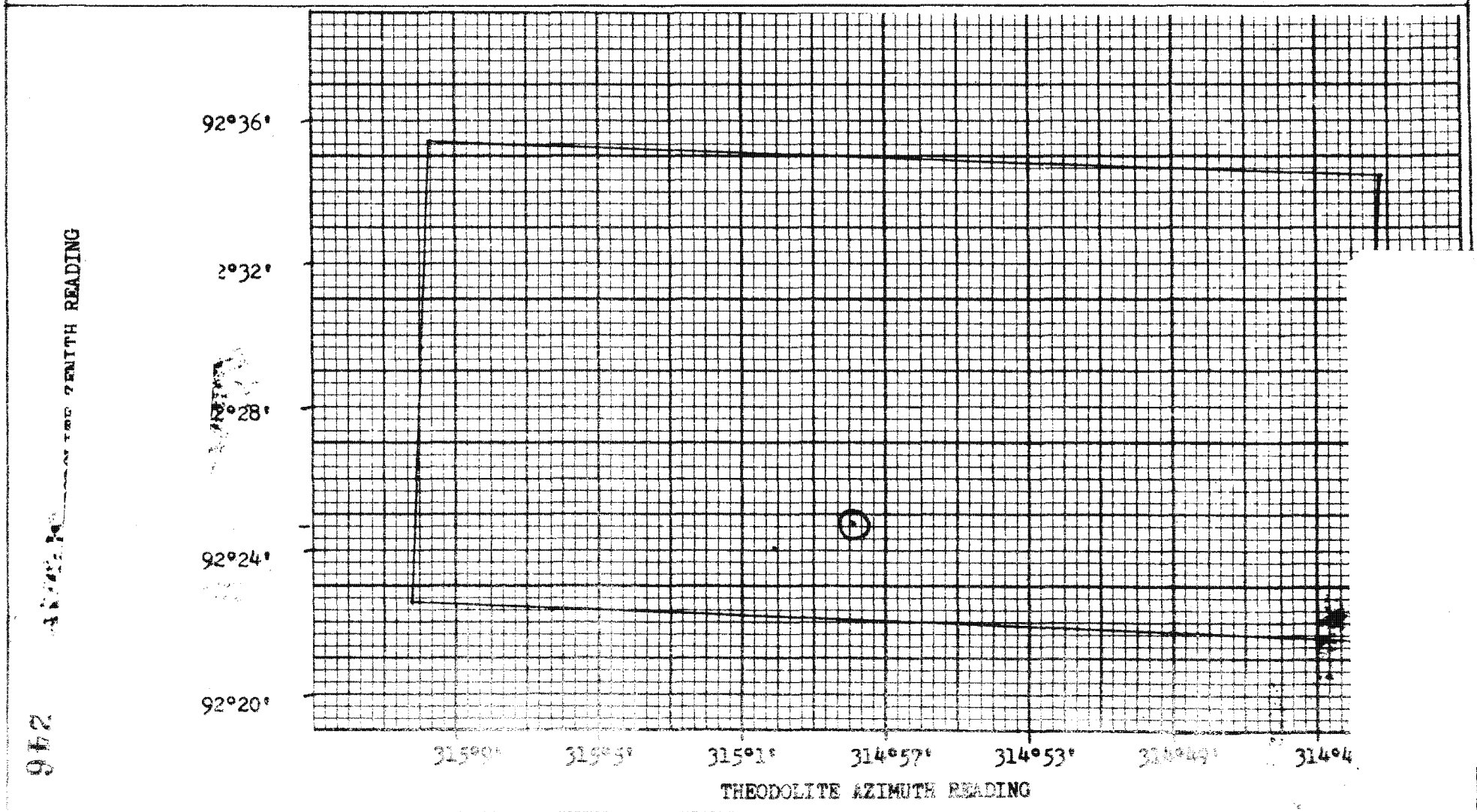
RETEST

REFER TO WAIVER R.O. 9081-1 R.O. 9081-11

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE: 804-104
LINE OF SIGHT POSITIONS

Assy Dwg. No. 805-101
Assy Ser. No. FM-37
Date 1-18-67

Elevation Servo at 0° Azimuth Servo at 3½°



X PRE-VIBRATION O POST-VIBRATION

C05098941
Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

C05098941

RETEST

REFER TO WAIVER RO 9081-1 RO 9081-11

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104 E
Power, Command, Control and Response

Assy. Dwg. No. [illegible]
Assy. Ser. No. FM-39

Procedure Reference	Test	Units	Test Requirement		Test Data		Date
			Min.	Max.	Pre.	Post	
5.5.2.1.18 5.10.2.1.17	verify repositioning CPL-14	volts dc	4.63	4.69		4.52	1-18-69
5.5.2.1.19 5.10.2.1.18	transition time	seconds	0	8		6.5	
5.5.2.1.20 5.10.2.1.19	verify repositioning CPL-14	volts dc	0.38	0.64		0.47	

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

C05098941

Retest

REFER TO WAIVER RO 9081-1
RO 9081-11

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104

Power, Command, Control & Response

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Procedure Reference	Test		Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.2.2	Elevation Position Changes							1-18-6
5.10.2.2.2	Step 1-B	Zenith	degrees	as	read		90° 00' 21"	
		Azimuth	degrees	as	read		309° 37' 32"	
	Step 1-C	CPL-13	volts d.c.	0.37	0.63		0.57	
		VTP-13	volts d.c.	0.37	0.63		0.57	
		VP-6	volts d.c.	0.4	0.6		0.53	
		VP-7	volts d.c.	27	29		27.9	
		VP-8	volts d.c.	27	29		27.9	
		VP-9	volts d.c.	0.4	0.6		0.56	
		VP-10	volts d.c.	27	29		27.4	
		VP-11	volts d.c.	27	29		27.4	
		CPL-30	volts d.c.	2.78	3.08		2.98	
		VTP-30	volts d.c.	2.78	3.08		2.98	
		CPL-31	volts d.c.	2.50	3.05		2.93	
		VTP-31	volts d.c.	2.50	3.05		2.93	
		CPL-13	volts d.c.	0.30	0.68		0.51	
		VTP-13	volts d.c.	0.30	0.68		0.50	

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

C05098941

RETEST

REFER TO WAIVER RO 9081-1
RO 9081-11

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104

Power, Command, Control & Response

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-37

Procedure Reference	Test		Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.2.2	Step 2-A Transition Time		seconds	0	2		1.4	1-18-69
5.10.2.2.2	Step 2-B	zenith	degrees	as	read		90° 00' 18"	
		azimuth	degrees	as	read		314° 56' 47"	
	Step 2-D		no	observable	hunting		NONE	
	Step 3-A Transition time		seconds	0	2		1.4	
	Step 3-B	zenith	degrees	as	read		90° 00' 23"	
		azimuth	degrees	as	read		307° 37' 33"	
	Step 3-D		no	observable	hunting		NONE	
	Step 4-B	zenith	degrees	as	read			
		azimuth	degrees	as	read			
	Step 4-C	CPL-13	volts d.c.	2.40	2.66		2.45	
		VTP-13	volts d.c.	2.40	2.66		2.45	
		VP-6	volts d.c.	0.4	0.6		0.57	
		VP-7	volts d.c.	27	29		27.9	
		VP-8	volts d.c.	27	29		27.9	
		VP-9	volts d.c.	27	29		27.4	
		VP-10	volts d.c.	0.4	0.6		0.50	

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

C05098941

RETEST

REFER TO WAIVER RO 9081-1 RO 9081-11

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104
Power, Command, Control & Response

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Procedure Reference	Test		Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.2.2		VP-11	volts d.c.	27	29		27.4	1-18-67
5.10.2.2.2		CPL-30	volts d.c.	2.78	3.08		2.98	
		VTP-30	volts d.c.	2.78	3.08		2.97	
		CPL-31	volts d.c.	3.92	4.32		4.14	
		VTP-31	volts d.c.	3.92	4.32		4.13	
		CPL-33	volts d.c.	0.30	0.68		0.57	
		VTP-33	volts d.c.	0.30	0.68		0.50	
	step 5B	zenith	degrees	as	read			
		azimuth	degrees	as	read			
	step 6B	zenith	degrees	as	read			
		azimuth	degrees	as	read			
	step 6D		no	observable	hunting		NONE	
	step 7B	zenith	degrees	as	read			
		azimuth	degrees	as	read			
	step 8A Transition Time		seconds	0	2		1.4	
	step 8B	zenith	degrees	as	read		90° 00' 11"	
		azimuth	degrees	as	read		322° 27' 32"	

Approved for Release: 2024/01/30 C05098941

Approved for Release: 2024/01/30 C05098941

C05098941

Retest

REFER TO WAIVER RO 9081-1
RO 9081-11

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104

POWER, COMMAND, CONTROL & RESPONSE

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Procedure Reference	Test		Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.2.2	step 8C	CPL-13	volts d.c.	4.32	4.58		4.41	1-18-67
5.10.2.2.2		VTP-13	volts d.c.	4.32	4.58		4.41	
		VP-6	volts d.c.	27	29		27.9	
		VP-7	volts d.c.	0.7	1.0		.87	
		VP-8	volts d.c.	27	29		27.9	
		VP-9	volts d.c.	0.4	0.6		.47	
		VP-10	volts d.c	0.2	0.5		0.37	
		VP-11	volts d.c.	0.4	0.6		0.47	
		CPL-30	volts d.c.	4.02	4.38		4.22	
		VTP-30	volts d.c.	4.02	4.38		4.22	
		CPL-31	volts d.c.	0.47	0.70		0.53	
		VTP-31	volts d.c.	0.47	0.70		0.53	
		CPL-33	volts d.c.	0.30	0.68		0.57	
		VTP-33	volts d.c.	0.30	0.68		0.50	
	step 9 A Transition Time		seconds	0	2		1.4	
	step 9 B	zenith	degrees	as	read		90° 00' 16"	
		azimuth	degrees	as	read		89° 00' 42"	

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

RETEST

REFER TO WAIVER RO-9081-1
RO-9081-11

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104
Power, Command, Control & Response

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.2.2	step 9 D	no	observable	hunting		NONE	1-18-67
5.10.2.2.2	step 10 B zenith	degrees	as	read		90° 00' 15"	
	azimuth	degrees	as	read		322° 27' 38"	
	step 10 D	no	observable	hunting		NONE	
5.5.2.2.3	average of steps 1B, 3B, and 5B	-	-	-			
5.10.2.2.3	zenith	degrees	plot must limit	lie within band		90° 00' 22"	
	azimuth	degrees	E=-7 1/2°	A=0°		307° 37' 33"	
	average of steps 2B, 4B, 7B, and 9B	-	-	-			
	zenith	degrees	plot must limit	lie inside band		90° 00' 17"	
	azimuth	degrees	on curve E=0°	for A=0°		314° 58' 50"	
	average of steps 6B, 8B, and 10B	-	-	-			
	zenith	degrees	plot must inside limit	lie t band		90° 00' 13"	
	azimuth	degrees	on curve E= +7 1/2°	for A=0°		322° 27' 3	

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941
C05098941

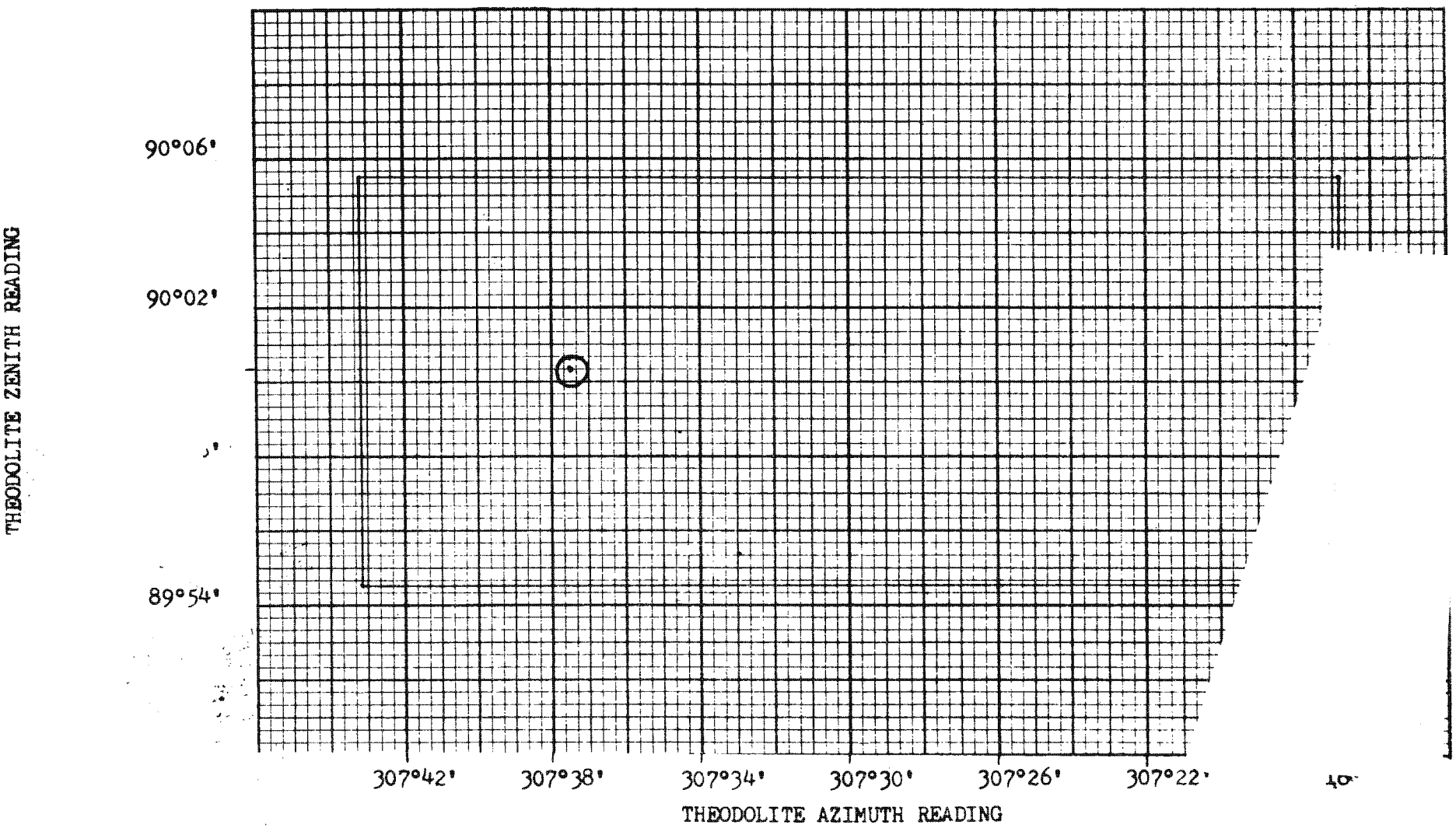
RETEST

REFER TO WAIVER RO-9081-1
RO-9081-11

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE: 804-104
LINE OF SIGHT POSITIONS

Assy Dwg. No. 805-101
Assy Ser. No. FM-39
Date 1-18-67

Elevation Servo at -7½° Azimuth Servo at +0°



X PRE-VIBRATION 0 POST-VIBRATION

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941
C05098941

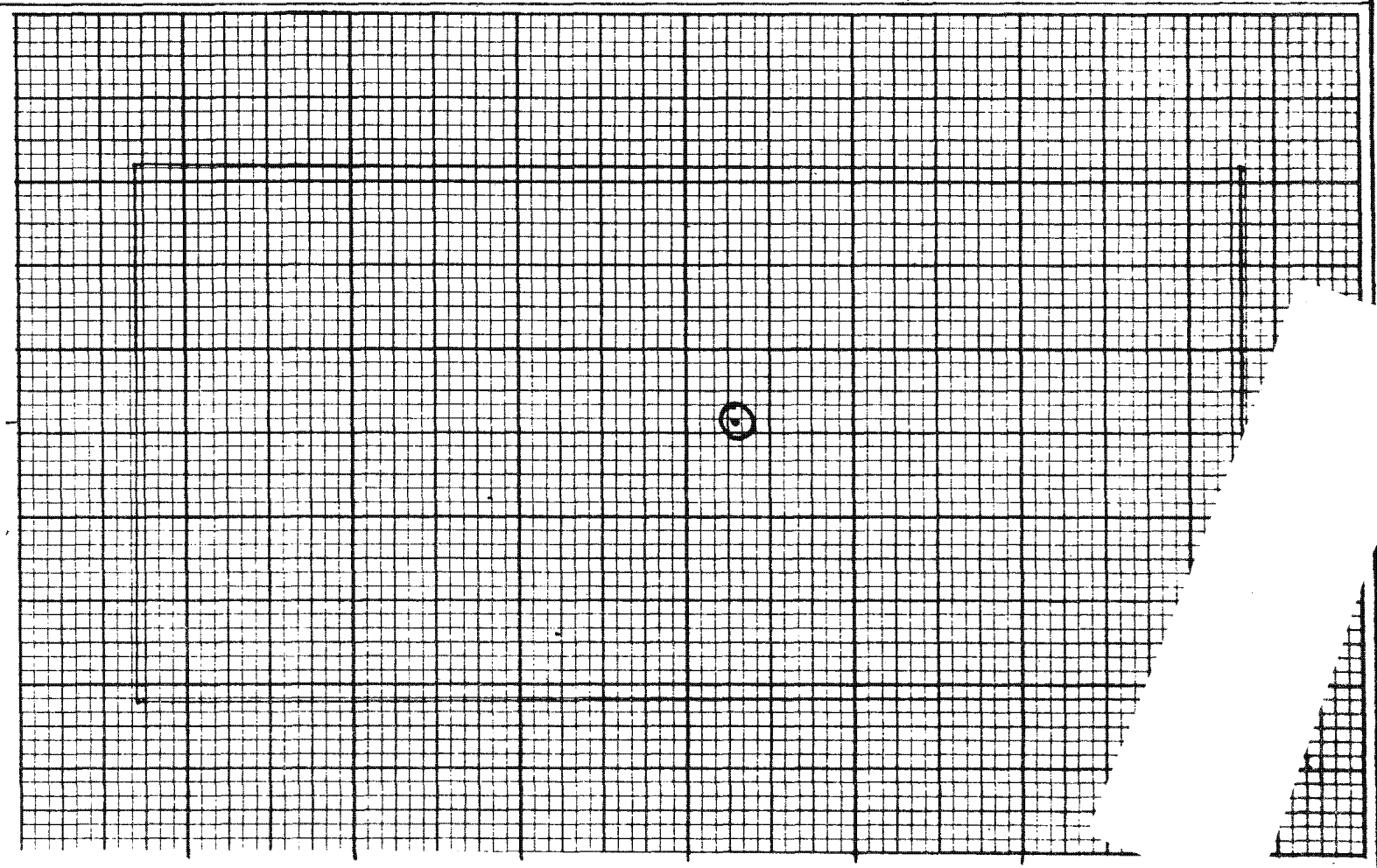
RETEST

REFER TO WAIVER RO 9081-1
RO 9081-11

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE: 804-104
LINE OF SIGHT POSITIONS

Assy Dwg. No. 805-101
Assy Ser. No. FM-39
Date 1-18-67

Elevation Servo at 0° Azimuth Servo at -0°



X PRE-VIBRATION O POST-VIBRATION

254

42

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941
C05098941

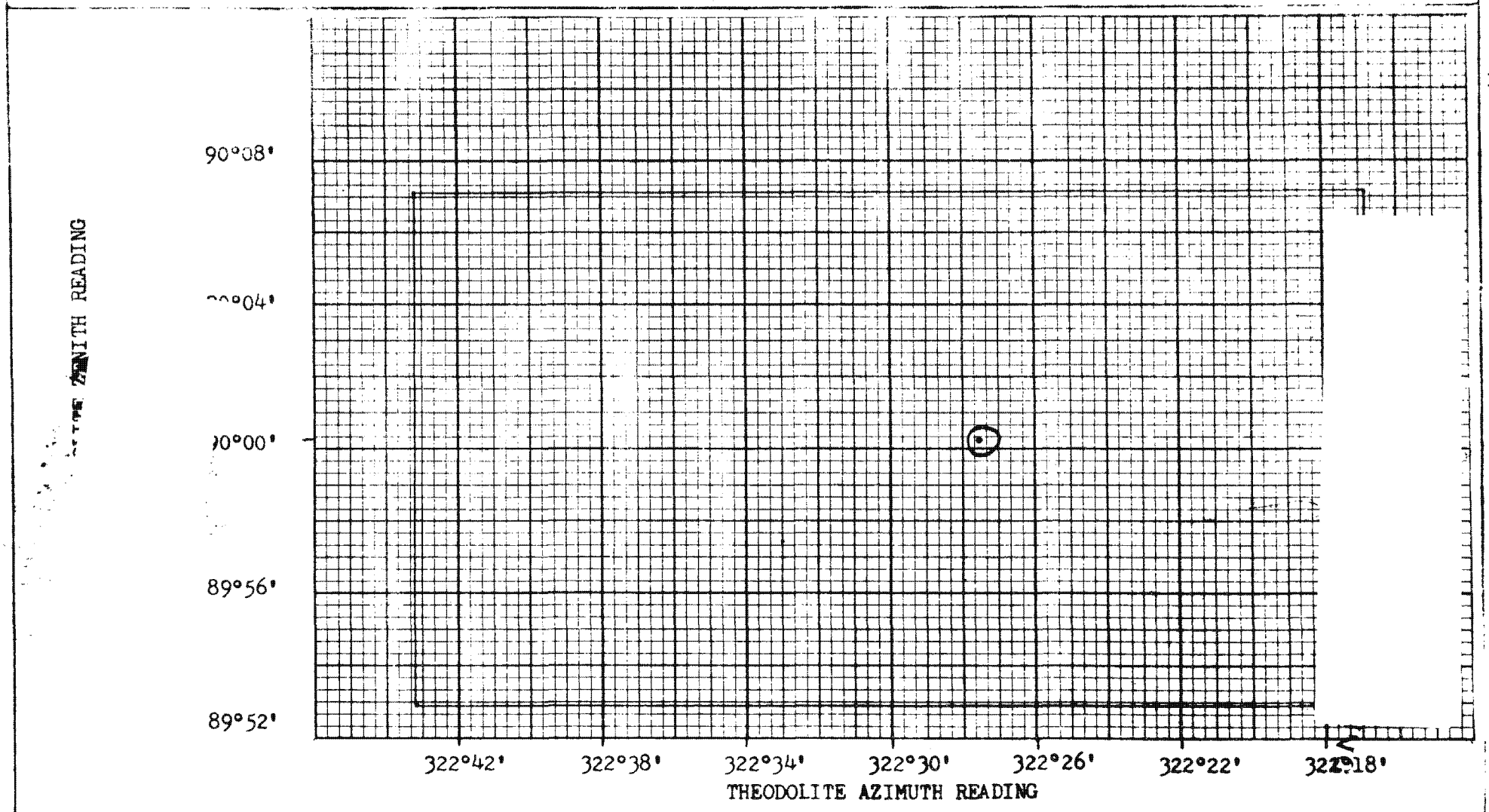
RETEST

REFER TO WAIVER RO 9081-1
RO 9081-11

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE: 804-104
LINE OF SIGHT POSITIONS

Assy Dwg. No. 805 [illegible]
Assy Ser. No. FM-39
Date 1-18-67

Elevation Servo at +7½° Azimuth Servo at -0°



X PRE-VIBRATION 0 POST-VIBRATION

43

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941
C05098941

RETEST

REFER TO WAIVER RO-9081-1 RO-9081-11

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104 E

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Power, Command, Control & Response

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.2.4 5.10.2.2.4	Repositioning Check CPI-13	volts d.c.	4.38	4.64	X	4.43	1-18-67
5.5.2.2.5 5.10.2.2.5	Transition Time	seconds	0	4	X	2.8	
5.5.2.2.6 5.10.2.2.6	Repositioning check CPI-13	volts d.c.	0.42	0.68	X	0.48	
5.10.2.2.8	Reference mirror Alignment	-	-	-			
	zenith	degrees	89° 59' 30"	90° 0' 30"	X	90° 00' 06"	
	azimuth	degrees	44° 59' 30"	45° 0' 30"	X	114° 59' 52"	

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941
C05098941

RETEST

REFER TO WAIVER RO 9081-10
RO 9081-11

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104E
Power, Command, Control and Response

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-37

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.4.1.4 5.10.2.4.1.4	Operating Function Current Transients	---	--	--			1-17-67
	Operating Power Turn-On PP Current	amps	—	14.0		1.5	
	recovery time	seconds	--	0.20		0.02	
	Gain Power Turn-On P-P Current	amps	--	0.8		0.7	
	recovery time	seconds	—	0.10		0.05	
	Gain Adjust Motor Turn-On P-P Current	amps	--	0.60		0.22	
	recovery time	seconds	--	0.05		0.02	
	Supply Brake Turn-On P-P Current	amps	—	.75		0.4	
	recovery time	seconds	—	0.05		0.02	
	Motor Speed 48 Turn-On P-P Current	amps	—	1.4		1.0	
	recovery time	seconds	--	0.50		0.10	
	Stereo Servo Turn-On P-P Current	amps	—	3.0		1.8	
	recovery time	seconds	--	0.40		.0	
	Crab Servo Turn-On P-P Current	amps	--	3.0		1.	
	recovery time	seconds	—	0.40			
	T/U Motor Turn-On P-P Current	amps	--	1.8		1.0	
	recovery time	seconds	--	0.20		0.15	

47

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941
C05098941

C05098941

RETEST

REFER TO WAIVER RO 9081-10
RO 9081-11

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104

Assy. Dwg. No. 805-131
Assy. Ser. No. FM-37

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.4.1.8 5.10.2.4.1.8	STeady State Power Consumption	-	-	-			1-17-67
	Operating power current	amps dc	-	0.386		0.378	
	Gain power current *	amps dc	-	0.790		0.720	
	Gain adjust motor current	amps dc	-	0.088		0.051	
	Supply brake current	amps dc	-	0.500		0.380	
	Motor Speed Drive current *	amps dc	-	1.886		1.450	
	Elevation Servo current *	amps dc	-	1.569		0.97	
	Azimuth Servo Current *	amps dc	-	1.386		1.20	
	Slit positioner current *	amps dc	-	0.663		0.530	
	T/U motor current	amps dc	0	0.850		0.340	
	CPL-19	vdc	must be within ±0.1v of spec curve at measured current			1.82	
.9	T/U motor current at 27v	amps dc	-	0.850		0.340	
	CPL-19	vdc	must be within ±0.1v of spec curve at measured current			1.82	
	T/U Motor current at 32.5v	amps dc	-	0.850		0.350	
∞	CPL-19	vdc	must be within ±0.1v of spec at measured current			1.87	
5.5.2.4.1.12 5.10.2.4.1.13	Instrumentation supply current	milliamps	-	10.0		2.7	
5.5.2.4.1.4.1 5.10.2.4.1.4.1	Supply Brake Steady State Voltage	vdc				1.98	

*includes operating power current (ref. CPL-19)

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

RETEST

REFER TO WAIVER RO 9081-10

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104

Power, Command, Control & Response

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.7.2.3 5.10.2.7.2.3	Reset Operating Power					OK	1-17-67
5.5.2.7.2.6 5.10.2.7.2.6	CPL-17 Voltage	volts d.c.	1.9	2.4		2.06	
5.5.2.7.2.7 5.10.2.7.2.7	CPL-17 Voltage	volts d.c.	4.5	5.0		4.90	
5.5.2.7.2.10 5.10.2.7.2.10	BBT-1 Voltage	volts d.c.	1.9	-------		2.30.	
	CPL-17 "	volts d.c.	1.9	-------		2.32	
	VTP-17	volts d.c.	1.9	-------		2.32	
5.5.2.7.2.11 5.10.2.7.2.11	Voltage Measurement		-------	-------			
	BBT-1	volts d.c.	4.5	5.0		4.79	
	CPL-17	volts d.c.	4.5	5.0		4.81	
	VTP-17	volts d.c.	4.5	5.0		4.80	
5.2.7.2.13 5.10.2.7.2.13	Capacity of looper	inches	24 5/8	27 5/8		26 3/8"	
5.5.2.7.2.17 5.10.2.7.2.17	CPL-17 (record slack	volts d.c.	0.90	1.10		1.02	
5.5.2.72.19 5.10.2.7.2.19	BBT-5 Voltage	volts d.c.	0.0	33.4		26.4	
2.13	Slack record taken up		Verify			OK	
5.5.2.7.2.24 5.10.2.7.2.24	Distance mark on record moved	inches	- - -	.25		0.030	
5.5.2.7.2.31 5.10.2.7.2.31	Supply Brake Delay	milliseconds	- - -	10.0		2.5	
	Channel B Pulse Width	seconds	0.75	1.25		.95	

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941
C05098941

C05098941

RETEST

REFER TO WAIVER R0-9081-11
R0-9080

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.2.4.1.8 5.10.2.4.1.8	STeady State Power Consumption	-	-	-			1-19-67
	Operating power current	amps dc	-	0.386		0.390	
	Gain power current *	amps dc	-	0.790			
	Gain adjust motor current	amps dc	-	0.038			
	Supply brake current	amps dc	-	0.500			
	Motor Speed Drive current	amps dc	-	1.286			
	Elevation Servo current	amps dc	-	1.266		1.100	
	Azimuth Servo Current	amps dc	-	1.386		1.000	
	Slit positioner current	amps dc	-	0.663			
	T/U motor current	amps dc	0	0.850			
	CPL-19	vdc	must be within ±0.1v of spec curve at measured current				
5.10.2.4.1.9	T/U motor current at 27v	amps dc	-	0.850			
	CPL-19	vdc	must be within ±0.1v of spec curve at measured current				
	T/U Motor current at 32.5v	amps dc	-	0.850			
	CPL-19	vdc	must be within ±0.1v of spec at measured current				
5.5.2.4.1.12 5.10.2.4.1.13	Instrumentation supply current	milliamps	-	10.0			
5.5.2.4.1.4.1 5.10.2.4.1.4.1	Supply Brake Steady State Voltage	vdc					

*includes operating power current (ref.CPL-19)

260

Approved for Release: 2024/01/30 C05098941

Approved for Release: 2024/01/30 C05098941

C05098941 Approved for Release: 2024/01/30 C05098941

END OF RETEST

Resume Acceptance Test at Paragraph 5.10.7.11

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Procedure Reference	Test	Units	Test Requirement		Test Data		Date
			Min.	Max.	Pre.	Post	
5.10.7.13.1	Mirror Position	—	Elevation Azimuth	Pos. 2 Pos. I	X	OK	1/18/67
5.10.7.13.2	Aperture set to Slide E	—	0	K	X	OK	
5.10.7.13.3	Platen at forward stop	—	0	K	X	OK	
5.10.7.13.4	Motor Speed and Gain Control OFF	—	0	K	X	OK	

232

906

Approved for Release: 2024/01/30 C05098941

C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104 E

"Leak Rate Test"

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.11.10	Proof pressure	psig	3.5	4.5		3.5	12-15-66
	Time at proof pressure	minutes	10	12		10	
	Mechanical Failures	---	NONE			OK	
5.11.16	Set leak rate pressure	inches H_2O	7	10		10	
5.11.17	start pressure	"	set to 6.93			6.93	
5.11.18	stop pressure	"	0.69	---		0.69	
	elapsed time	seconds	20 sec min for drop to 0.69 in. H_2O			90 sec	

91

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104
"Weight and Balance"

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Procedure Reference	Test	Units	Test Requirement		Test Data		Date
			Min.	Max.	Pre.	Post	
5.1	test equipment certified	-	0 K				12-15-6
5.2	approve QC-A-534 Inspection report	-	test eng. sig.		RDK		
5.4.10	adjust x zero	inches	set to	4.966	4.966		
5.4.11	POLARITY check	-	-0.014	~~-0.035~~ -0.030	-0.029		
5.4.14	adjust y zero	inches	set to	-0.141	-0.141		
5.4.17	adjust w span	lbs.	set to specimen calibration value		987.9		
5.4.18	ADD 1000 lb. check	lbs.	5.4.17 plus 1000 lbs.		- 8.7		
5.4.21	adjust x span	-	set to specimen calibration value		4.378		
5.4.23	adjust y span	-	set to specimen calibration value		4.271		
5.4.34	adjust zero	inches	set to 4.516		4.516		
5.4.35	POLARITY check	-	+0.011	+0.031	+0.031		
5.6.2	measured weight	lbs.	as	read	1173.2		
	measured weight of S/C						
	less stow pins, ref. min. -0.7%	lbs.	1087.3	1131.7	1115.6		
5.6.3	$\bar{x}$ reading	inches	as	read	14.26		
	calculated $\bar{x}$ station location	inches	-	140.00	139.51		

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104
"Weight and Balance"

Assy. Dwg. No. 805-101
Assy. Ser. No. FM-39

Procedure Reference	Test	Units	Test Requirement Min.	Test Requirement Max.	Test Data Pre.	Test Data Post	Date
5.5.4	$\bar{y}$ reading	inches	-0.500	+0.500	-0.265		12-15-66
5.6.7	$\bar{z}$ reading	inches	as read		+4.562		
	corrected (reading -4.500)	inches	-0.500	+0.500	+0.062		
5.7.19	FRS data from 804-106 Ser. No. N648						
	FRS weight	lbs.	25.0	26.0		25.51	
	$\bar{x}$ reading	inches	as read			0.445	
	$\bar{x}$ corrected ($\bar{x}$ reading +28.544)	inches	28.70	29.20		28.90	
	$\bar{y}$ reading	inches	-0.40	-0.10		-0.17	
	$\bar{z}$ reading	inches	1.95	2.25		2.15	

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

DATA SHEET
FOR
ACCEPTANCE TEST PROCEDURE NO. 804-104 E
"Final Inspection and Packing"

Assy. Dwg. No. 205-101
Assy. Ser. No. FM-39

Procedure Reference	Test	Units	Test Requirement		Test Data		Date
			Min.	Max.	Pre.	Post	
5.12	Approve QC-A-534 Inspection Report	---	Test Eng	Signature			1-26-67
5.13	Approve QC-A-518 Inspection Report	---	"	"			
5.14	Approve QC-A-516 Packing Report	---	Test Eng	Signature			
	Approve QC-A-526 Packing Report	---	"	"			

C05098941
Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

C05098941

Approved for Release: 2024/01/30 C05098941

R-006170-011

Sheets 122

VOLUME II

PAYLOAD LOG

FOR

CAMERA PAYLOAD SUBSYSTEM

Serial No. FM -32

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

PHOTO TEST TEMPERATURE DATA SHEET

Process Ticket No.		3621			3622			3623			3624					
Test Type		3L PHOTO			5L Photo			3L Photo			3L Photo			5030 SS/D		
Date		12	3	66	12	3	66	12	5	66	12	5	66	12	5	66
Time		1600	1810	1840	2115	2230	2310	0700	0800	0815	1015	1115	1135	1340	1405	
Cycle		Init	St	End	Init	St	End	Init	St	End	Init	St	End	Init	St	End
CPL-2 (1.82-1.96 vdc)		1.91	1.90	1.91	1.93	1.92	1.92	1.88	1.88	1.89	1.91	1.90	1.91	1.92	1.92	
CPL-3 (1.45-1.75vdc)		1.60	1.61	1.60	1.58	1.58	1.58	1.55	1.57	1.57	1.58	1.58	1.58	1.57	1.57	
CPL-4* 2.60/2.80		2.55	2.64	2.67	2.71	2.71	2.73	2.63	2.63	2.64	2.66	2.66	2.68	2.69	2.69	
CPL-5* 2.64/2.84		2.72	2.74	2.76	2.80	2.80	2.82	2.71	2.71	2.72	2.74	2.75	2.76	2.77	2.78	
CPL-6* 2.60/2.80		2.73	2.72	2.73	2.77	2.78	2.80	2.67	2.66	2.67	2.69	2.71	2.72	2.74	2.75	
CPL-7 (2.52-2.88)vdc		2.60	2.72	2.77	2.81	2.78	2.82	2.63	2.63	2.66	2.73	2.72	2.73	2.75	2.75	
CPL-8 (2.52-2.88)vdc		2.61	2.75	2.79	2.83	2.81	2.82	2.66	2.67	2.68	2.75	2.75	2.75	2.78	2.78	
CPL-9 (2.52-2.88)vdc		2.59	2.72	2.76	2.79	2.77	2.79	2.64	2.65	2.66	2.71	2.72	2.72	2.74	2.75	
CPL-11 (1.82-1.96)vdc		1.89	1.92	1.93	1.93	1.93	1.93	1.90	1.91	1.91	1.92	1.92	1.92	1.93	1.93	
COLLIMATOR APERTURE	13	71.0	71.2	71.3	70.6	70.5	70.5	70.1	70.0	70.2	70.3	70.3	70.4	70.5	70.5	
	15	70.0	70.5	70.5	70.4	70.4	70.4	69.9	70.1	70.1	70.1	70.1	70.3	70.4	70.4	
COLLIMATOR TUNNEL	1	70.0	70.1	70.3	69.8	69.8	70.4	69.4	69.7	69.8	69.7	69.9	70.0	70.0	70.0	
	8	70.1	70.5	70.6	70.2	70.5	70.5	69.7	69.8	70.4	69.9	70.4	70.4	70.2	70.2	
	9	70.0	70.0	70.0	69.9	69.9	69.9	69.2	69.3	69.4	69.5	69.5	69.6	69.6	69.6	
	20	70.1	70.4	70.5	70.1	70.1	70.1	69.6	70.0	70.1	70.2	70.1	70.3	70.2	70.2	
S/C ENVIRONMENT	16	70.0	70.5	70.6	70.5	70.5	70.5	69.9	70.2	70.1	70.2	70.3	70.4	70.4	70.4	
	17	70.0	70.6	70.6	70.8	70.5	70.5	69.9	70.2	70.2	70.4	70.4	70.6	70.4	70.4	
	18	70.1	71.0	71.0	70.7	70.4	70.3	70.0	70.3	70.2	69.9	69.9	70.4	70.1	70.1	
	19	70.2	71.0	71.0	70.9	71.0	71.1	70.0	70.4	70.5	70.4	70.7	71.2	71.0	71.0	
STATIONS *Spec Limits CPL-4,5 & 6 ±0.10 vdc of Actual Calib. at 70°F From Pages 64d & 64e	~~6~~															
	8	70.0	70.0	70.1	70.0	70.0	70.0	69.5	70.0	70.0	69.8	68.9	68.9	70.0	70.0	

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

								SHEET										
Process Ticket nos.								672			3673			3674				
Test Type								Run +3L			52 PHOTO			53 C				
Date		12	17	66				12	17	66	12	17	66	12	17	66		
Time		0850	915	945	1140			1240	1415	1515	1715	1835	1945	2145	2245			
Cycle		Init	St	End	Init	St	End	Init	St	End	Init	St	End	Init	St	End		
CPL-2 (1.82-1.96 vdc)		1.88	1.89	1.89	1.89			1.90	1.90	1.91	1.92	1.91	1.91	1.92	1.90	1.91		
CPL-3 (1.45-1.75vdc)		1.57	1.57	1.57	1.57			1.58	1.57	1.58	1.57	1.57	1.56	1.56	1.56	1.57		
CPL-4* 2.65/2.85		2.61	2.62	2.62	2.64			2.65	2.66	2.67	2.69	2.68	2.68	2.67	2.67	2.67		
CPL-5* 2.64/2.84		2.63	2.64	2.64	2.66			2.67	2.68	2.70	2.72	2.72	2.73	2.72	2.73	2.72		
CPL-6* 2.60/2.80		2.62	2.62	2.62	2.63			2.63	2.65	2.66	2.69	2.70	2.72	2.72	2.71	2.71		
CPL-7 (2.52-2.88)vdc		2.57	2.58	2.61	2.66			2.67	2.67	2.74	2.76	2.70	2.72	2.69	2.66	2.66		
CPL-8 (2.52-2.88)vdc		2.61	2.62	2.64	2.69			2.70	2.71	2.75	2.79	2.73	2.73	2.72	2.69	2.69		
CPL-9 (2.52-2.88)vdc		2.62	2.63	2.63	2.69			2.70	2.70	2.73	2.76	2.72	2.70	2.71	2.68	2.67		
CPL-11 (1.82-1.96)vdc		1.89	1.90	1.90	1.90			1.91	1.91	1.91	1.92	1.91	1.91	1.91	1.91	1.91		
COLLIMATOR APERTURE	13							69.3	69.1	69.2	69.2	69.0	68.9	69.0	68.8	68.9		
14	14							69.5	69.3	70.2	69.5	69.5	69.5	69.3	69.3	69.5		
COLLIMATOR TUNNEL	1							68.5	68.5	68.7	69.3	68.6	68.6	68.7	68.4	68.6		
	8							69.2	69.8	70.0	69.5	69.6	69.4	68.7	69.4	69.4		
10	10							68.5	68.5	68.5	68.5	68.5	68.6	68.2	68.3	69.4		
	20							68.5	68.3	68.5	68.3	68.3	68.3	68.1	68.1	68.2		
S/C ENVIRONMENT	16							68.8	68.6	68.6	68.5	68.5	68.6	68.6	68.6	68.6		
	17							68.2	68.0	68.0	68.0	68.0	67.9	68.0	68.0	68.0		
	18							68.3	68.4	68.5	68.3	68.3	68.1	68.3	68.2	68.3		
	19							68.3	68.3	68.3	68.3	68.3	68.1	68.3	68.1	68.2		
STATIONS *Spec Limits CPL-4,5 & 6 - ±0.10 vdc pf Actual Calib. at 70°F From Pages 64d & 64e	W Cal	70.1		70.0					71.0	70.0	70.0	69.8	69.0	69.5	69.5	69.5		
	E Cal	69.6	69.6	69.6				69.7	69.6	69.6	69.4	69.4	69.4	69.0	69.0	69.0		
	THEM	69.1	69.2	69.1				69.0	69.2	69.4	69.4	68.9			269			
	NORTH	68.7	68.9	68.6				68.5	68.8	69.0	69.1	68.9	69.0	69.6	69.0	69.7		

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

PHOTO TEST TEMPERATURE DATA SHEET

Process Ticket No.		5030			5030			5030				SS ID			Auto SS ID		
Test Type		SSD 3			SSD 3			SSD 3				SS ID			Auto SS ID		
Date		12	18	66								"			"		
Time		0115	0153		0345	0430		0600	0715			0845	1000		1100	1200	
Cycle		Init	St	End	Init	End St		Init St	End St			Init	St	End	Init	St	End
CPL-2 (1.82-1.96 vdc)		1.91	1.92	1.91	1.90	1.91		1.90	1.91			1.90	1.90		1.89	1.90	
CPL-3 (1.45-1.75vdc)		1.57	1.57	1.58	1.58	1.58		1.57	1.58			1.57	1.58		1.56	1.58	
CPL-4*		2.69	2.69	2.69	2.69	2.69		2.68	2.69			2.68	2.69		2.67	2.68	
CPL-5*		2.72	2.73	2.74	2.74	2.75		2.75	2.75			2.74	2.75		2.74	2.75	
CPL-6*		2.72	2.71	2.72	2.72	2.73		2.74	2.74			2.73	2.74		2.73	2.74	
CPL-7 (2.52-2.88)vdc		2.79	2.79	2.80	2.80	2.80		2.73	2.79			2.73	2.79		2.73	2.76	
CPL-8 (2.52-2.88)vdc		2.72	2.71	2.77	2.79	2.78		2.75	2.76			2.75	2.76		2.74	2.75	
CPL-9 (2.52-2.88)vdc		2.71	2.71	2.73	2.74	2.74		2.73	2.73			2.73	2.73		2.71	2.72	
CPL-11 (1.82-1.96)vdc		1.91	1.91	1.92	1.92	1.92		1.91	1.92			1.91	1.92		1.91	1.91	
COLLIMATOR APERTURE	13	69.2	69.2	69.2	69.2	69.3		68.2	67.3			69.0			69.0	69.0	
	15	67.9	68.0	67.8	67.9	67.7		67.8	67.8			68.3			68.2	68.2	
COLLIMATOR TUNNEL	1	68.6	69.1	68.8	68.8	69.0		68.2	69.1			68.6			68.4	68.8	
	8	69.2	70.2	69.4	69.7	70.0		69.2	70.0			69.1			69.0	69.8	
10	9	68.6	68.8	68.7	68.6	68.9		68.7	68.9			68.7			69.0	68.8	
	20	67.9	68.6	68.6	68.6	69.6		68.5	68.7			68.5			68.4	68.6	
S/C ENVIRONMENT	16	67.9	68.6	68.6	68.6	68.7		68.7	68.7			68.5			68.6	68.6	
	17	67.9	68.1	68.1	68.1	68.1		68.2	68.3			68.2			68.0	68.3	
	18	67.9	68.4	68.4	68.7	68.4		68.5	68.6			68.5			68.4	68.5	
	19	67.9	68.4	68.4	68.7	68.4		68.3	68.4			68.4			68.4	68.4	
STATIONS *Spec Limits CPL-4,5 & 6 - ±0,10 vdc of Actual Calib. at 70°F From Pages 64d & 64e	6																
	EAST 4	69.6	69.6	69.6	69.6	69.1		69.2	69.0			69.2			69.2	69.1	

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

PHOTO TEST TEMPERATURE

Process Ticket No.		4100 ¼ 1/16T			3280 Hz			3280 Hz			3280 Hz					
Test Type		SS/D			SS/D			Auto SS/D			¼ + ½ Ill. SS/D					
Date		12	18	66	12	18	66	12	18	66	12	18	66			
Time			1300	1415		1515	1625		1740	1840		1950	2050			
Cycle		Init	St	End	Init	St	End	Init	St	End	Init	St	End	Init	St	End
CPL-2 (1.82-1.96 vdc)			1.89	1.90		1.90	1.91		1.90	1.91		1.90	1.91			
CPL-3 (1.45-1.75vdc)			1.58	1.59		1.59	1.59		1.58	1.58		1.57	1.58			
CPL-4* 2.65-2.85			2.69	2.69		2.69	2.70		2.70	2.70		2.70	2.71			
CPL-5* 2.64-2.84			2.74	2.76		2.76	2.77		2.77	2.78		2.77	2.78			
CPL-6* 2.60-2.80			2.73	2.74		2.74	2.76		2.76	2.76		2.76	2.76			
CPL-7 (2.52-2.88)vdc			2.75	2.81		2.80	2.84		2.78	2.78		2.77	2.81			
CPL-8 (2.52-2.88)vdc			2.76	2.78		2.80	2.81		2.79	2.78		2.79	2.79			
CPL-9 (2.52-2.88)vdc			2.73	2.75		2.77	2.77		2.77	2.76		2.76	2.77			
CPL-11 (1.82-1.96)vdc			1.91	1.92		1.92	1.92		1.92	1.92		1.92	1.92			
COLLIMATOR APERTURE	13		69.3	69.2		69.4	69.5		69.5	69.5		69.5	69.4			
	15		68.3	68.0		67.9	67.6		68.1	67.6		67.3	67.6			
COLLIMATOR TUNNEL	1		68.7	69.1		69.0	69.3		69.1	69.1		69.1	69.1			
	8		69.2	70.1		69.7	70.3		69.5	70.0		69.4	70.0			
	10		68.8	69.0		69.1	69.2		69.1	69.1		69.0	69.0			
	20		68.6	68.6		68.6	68.9		68.9	68.6		68.8	68.8			
S/C ENVIRONMENT	16		68.7	68.7		68.8	68.9		69.0	69.0		68.9	68.8			
	17		68.3	68.3		68.4	68.5		68.5	68.4		68.5	68.4			
	18		68.4	68.6		68.6	68.6		68.7	68.6		68.7	68.6			
	19		68.3	68.5		68.5	68.6		68.4	68.6		68.6	68.5			
STATIONS *Spec Limits CPL-4,5 & 6 ±0.10 vdc of Actual Calib. at 70°F From Pages 64d & 64e	ENVST #		69.1	69.1		69.4	69.4		69.4	69.2		69.5	69.5			
	#															

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

PHOTO TEST TEMPERATURE DATA SHEET

Process Ticket No.		East			3647			3648			3647			3650			
Test Type		Cell.			3 angle			3 angle			5 ANGLE			3 L			
Date		12	10	66	12	10	66	12	10	66	12	11	66	12	11	66	
Time		1400	1430	1540	17.20	18.30	1905	2230	2230	2300	0130	0230	0325	0530	0630	0700	
Cycle		Init	St	End	Init	St	End	Init	St	End	Init	St	End	Init	St	End	
CPL-2 (1.82-1.96 vdc)		1.89	1.89	1.89	1.89	1.89	1.90	1.94	1.93	1.93	1.92	1.91	1.92	1.93	1.92	1.93	1.95
CPL-3 (1.45-1.75vdc)		1.73	1.62	1.56	1.56	1.57	1.57	1.59	1.55	1.55	1.52	1.57	1.57	1.56	1.56	1.58	1.59
CPL-4* 2.60/2.80		2.59	2.59	2.58	2.58	2.60	2.61	2.66	2.66	2.66	2.68	2.68	2.70	2.71	2.71	2.72	2.75
CPL-5* 2.64/2.84		2.67	2.70	2.70	2.69	2.69	2.70	2.74	2.74	2.74	2.75	2.75	2.77	2.78	2.78	2.79	2.81
CPL-6* 2.60/2.80		2.57	2.60	2.65	2.66	2.66	2.67	2.70	2.71	2.72	2.73	2.73	2.74	2.76	2.77	2.78	2.78
CPL-7 (2.52-2.88)vdc		0.099	—														
CPL-8 (2.52-2.88)vdc		2.98	2.85	2.71	2.66	2.68	2.69	2.79	2.72	2.72	2.74	2.78	2.76	2.79	2.78	2.79	2.87
CPL-9 (2.52-2.88)vdc		2.91	2.78	2.66	2.63	2.66	2.66	2.75	2.69	2.69	2.71	2.71	2.73	2.75	2.74	2.76	2.83
CPL-11 (1.82-1.96)vdc		1.96	1.93	1.91	1.91	1.91	1.91	1.93	1.92	1.92	1.92	1.92	1.92	1.93	1.92	1.93	1.94
COLLIMATOR APERTURE	13			69.0	69.0	69.3	69.3	69.7	69.2	69.2	69.3	69.5	69.7	69.7	69.9	69.9	
14	14			69.0	69.0	69.7	69.8	69.7	69.5	69.7	69.3	69.9	70.4	69.8	70.2	70.3	
COLLIMATOR TUNNEL	1			69.5	68.5	69.4	69.0	68.9	68.8	69.0	69.0	69.2	69.1	69.2	69.4	69.4	
	8			69.5	69.0	70.1	70.1	69.5	69.9	70.0	69.5	70.4	70.2	69.7	70.5	70.5	
11	11				68.5	69.2	69.4	69.0	69.3	69.4	68.9	69.5	70.0	69.5	69.9	70.0	
	20				68.3	68.6	68.6	68.8	68.7	68.8	68.6	68.8	69.0	68.8	69.0	69.2	
S/C ENVIRONMENT	16			68.0	68.3	69.5	69.5	69.8	69.5	69.5	69.5	69.7	69.9	69.8	70.0	70.0	
	17			68.8	68.9	69.2	69.2	69.5	69.0	69.0	69.2	69.3	69.6	69.6	69.6	69.6	
	18			68.8	68.8	68.9	68.8	69.2	68.9	68.9	69.0	69.2	69.2	69.3	69.3	69.3	
	19			68.8	69.1	69.3	69.3	69.5	69.2	69.2	69.3	69.3	69.9	69.7	69.7	69.7	
STATIONS *Spec Limits CPL-4,5 & 6 - ±0.10 vdc of Actual Calib. at 70°F From Pages 64d & 64e	6																
	8																

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

PHOTO TEST TEMPERATURE DATA SHEET

Process Ticket No.					3652			55/D			[illegible]						
Test Type					3L photo			5030 ~			5030 N			4100 ~			
Date	12	11	66	12	11	66	12	11	66	12	11	66	12	11	66		
Time	0900			0930	1020	1045	1115	1240	1310	1405		1505		1800			
Cycle	Init	St	End	Init	St	End	Init	St	End	Init	St	End	Init	St	End		
CPL-2 (1.82-1.96 vdc)	1.95			1.93	1.92	1.92	—	—	—								
CPL-3 (1.45-1.75vdc)	1.56			1.53	1.53	1.53	1.55	1.55	1.56	1.56		1.56		1.55	1.52		
CPL-4* 260/280	2.75			2.73	2.71	2.72	2.73	2.72	2.72	2.70		2.71		2.67	2.67		
CPL-5* 264/284	2.83			2.81	2.80	2.80	2.79	2.79	2.80	2.79		2.80		2.77	2.77		
CPL-6* 2.60/2.80	2.80			2.80	2.80	2.80	2.79	2.79	2.80	2.79		2.81		2.77	2.76		
CPL-7 (2.52-2.88)vdc	out	→	→	→			→	→		→		→		→			
CPL-8 (2.52-2.88)vdc	2.86			2.76	2.72	2.72	2.74	2.75	2.78	2.77		2.77		2.67	2.73		
CPL-9 (2.52-2.88)vdc	2.82			2.72	2.69	2.69	2.71	2.71	2.72	2.71		2.72		2.65	2.67		
CPL-11 (1.82-1.96)vdc	1.94			1.92	1.92	1.92	1.92	1.92	1.92	1.92		1.92		1.91	1.91		
COLLIMATOR APERTURE	13																
	15																
COLLIMATOR TUNNEL	1																
	8																
	9																
	20																
S/C ENVIRONMENT	16																
	17																
	18																
	19																
STATIONS *Spec Limits CPL-4,5 & 6 - ±0.10 vdc of Actual Calib. at 70°F From Pages 64d & 64e	6																
	8																

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

IN PROCESS PHOTO TEST TEMPERATURE DATA SHEET

PROCEDURE #		SSID AUTO SSID															
RUN #		4100 ft			3280 ft												
PT #																	
DATE		12 11 66			12-11-66												
TIME		2030	2145		2300	0010											
CYCLE		Init	St.	End	Init	St.	End	Init	St.	End	Init	St.	End	Init	St.	End	
CPL COLLIMATOR TUNNEL	2		out →														
	3		1.56	1.56		1.57	1.57										
	4		2.66	2.66		2.65	2.66										
	5		2.76	2.76		2.75	2.77										
AIR HEATER ENVIRONMENT	6		2.75	2.76		2.75	2.76										
	7		out →			2.7											
	8		2.71	2.73		2.74	2.76										
	9		2.67	2.67		2.68	2.69										
	11		1.91	1.91		1.91	1.92										
	19																
AIR HEATER THERMISTORS	A902																
	A902																
	A903																
CLEAN ROOM THERMISTORS																	

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

NOTICE

OF

MODIFICATION OR REPAIR

The Acceptance Test was interrupted at paragraph 5.5.5. to perform the repairs and or modifications as described on test waiver number RO. 9081-4.

FM-39

Approved for Release: 2024/01/30 C05098941

FM - 39

REFER TO WAIVER R.O.— 9081-4

DATA SHEET FOR
ACCEPTANCE TEST PROCEDURE 804-104

BEST PHOTOGRAPHIC FOCUS POSITION COMPUTATION SHEET

G.M. AT B.P.F. 118 (≥130 l/mm)

Run No.	Field Angle	G.M. IN LINES/MM FOR CPL-20 VOLTAGES											
				2.000	2.125	2.250	2.375	2.500	2.625	2.750	2.875	3.000	
1 P.T. 362	+.5						114	111					
	0					111	120	116					
	-.5						116	116					
2 P.T. 362	+.5												
	0					106	124	118					
	-.5												
3 P.T. 362	+.5												
	0						113	120					
	-.5												
4 P.T. 362	+.5												
	0					115	122	119					
	-.5												
5	+.5												
	0												
	-.5												
6	+.5												
	0												
	-.5												
7	+.5												
	0												
	-.5												
TOTAL						332	709	700					
AVERAGE						111	118	117					

E-3

Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941
C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

END OF RETEST

Resume Acceptance Test at Paragraph 5.5.5.

Approved for Release: 2024/01/30 C05098941

C05098941

Pre-Vib.

FM 39

DATA SHEET FOR
ACCEPTANCE TEST PROCEDURE 804-104

BEST PHOTOGRAPHIC FOCUS POSITION COMPUTATION SHEET

G.M. AT B.P.F. 131 (≥ 136 l/mm)

Run No.	Field Angle	G.M. IN LINES/MM FOR CPL-20 VOLTAGES									
				2.000	2.125	2.250	2.375	2.500	2.625	2.750	2.875	3.000	
P.2 3649	+.5			72	94	104	119	125	120	110	81	68	
1	0			96	113	139	144	153	132	110	80	62	
	-.5			85	100	112	116	115	112	100	81	67	
P.2 3650	+.5			74	95	106	122	127	114	94	78	61	
2	0			82	104	136	140	146	134	101	86	66	
	-.5			88	101	110	117	117	101	92	81	68	
P.2 3651	+.5			81	101	121	123	133	114	97	77	61	
3	0			89	118	134	139	145	116	90	80	62	
	-.5			88	109	111	121	116	101	97	86	65	
4	+.5												
	0												
	-.5												
5	+.5												
	0												
	-.5												
6	+.5												
	0												
	-.5												
3 7	+.5												
	0												
	-.5												
TOTAL				735	935	1074	1141	1177	1044	891	730	580	
AVERAGE				82	104	119	127	131	116	99	81	64	

Approved for Release: 2024/01/30 C05098941

Approved for Release: 2024/01/30 C05098941

C05098941

Approved for Release: 2024/01/30 C05098941

Process Ticket No.	3649
Evaluator	TP
Date of Evaluation	1/18/67

of

f Test 12-11-66

Item & S/N	FM 39
Procedure No.	804-104
Vibration:	Pre L Post
Collimator No.	EAST
Target Drum No.	208001

Control Data	
Step #	D
1	2.50
2	2.48
3	2.44
4	2.36
5	2.24
6	2.06
7	1.84
8	1.58
9	1.26
10	.94
11	.66
12	.46
13	.34
14	.26
15	.22
16	.20
17	.19
18	.18
19	.18
20	.18
21	.18
Gamma	2.10
Speed Pt	1.14

2nd Complete Frame where CPL-20 = 2.5v

Film Speed	31	31	31	
Field Angle	-2.7°	0°	+2.7°	
Input Voltage	28v	28v	28v	Spec.
Step 7	.80	.88	.69	~~1.1 ± 0.3~~
Step 9	.43	.44	.40	*

* The density of step 9 shall be equal to or greater than the density of the H and D curve at the speed point.

Spec.	
1.9 - 2.3	
1.08 - 1.18	

IDENTIFICATION OF RAW FILM STOCK

Film Can No. 287

Film Type	Total feet
3404	2985

Emulsion No.	Master Roll No.	Date mo/yr
265	21	10/66

Film + spool wt.	spool wt.
54.5	4.1

Splice location from head of roll

1665 / 1320 /

279

G-ATR- 1

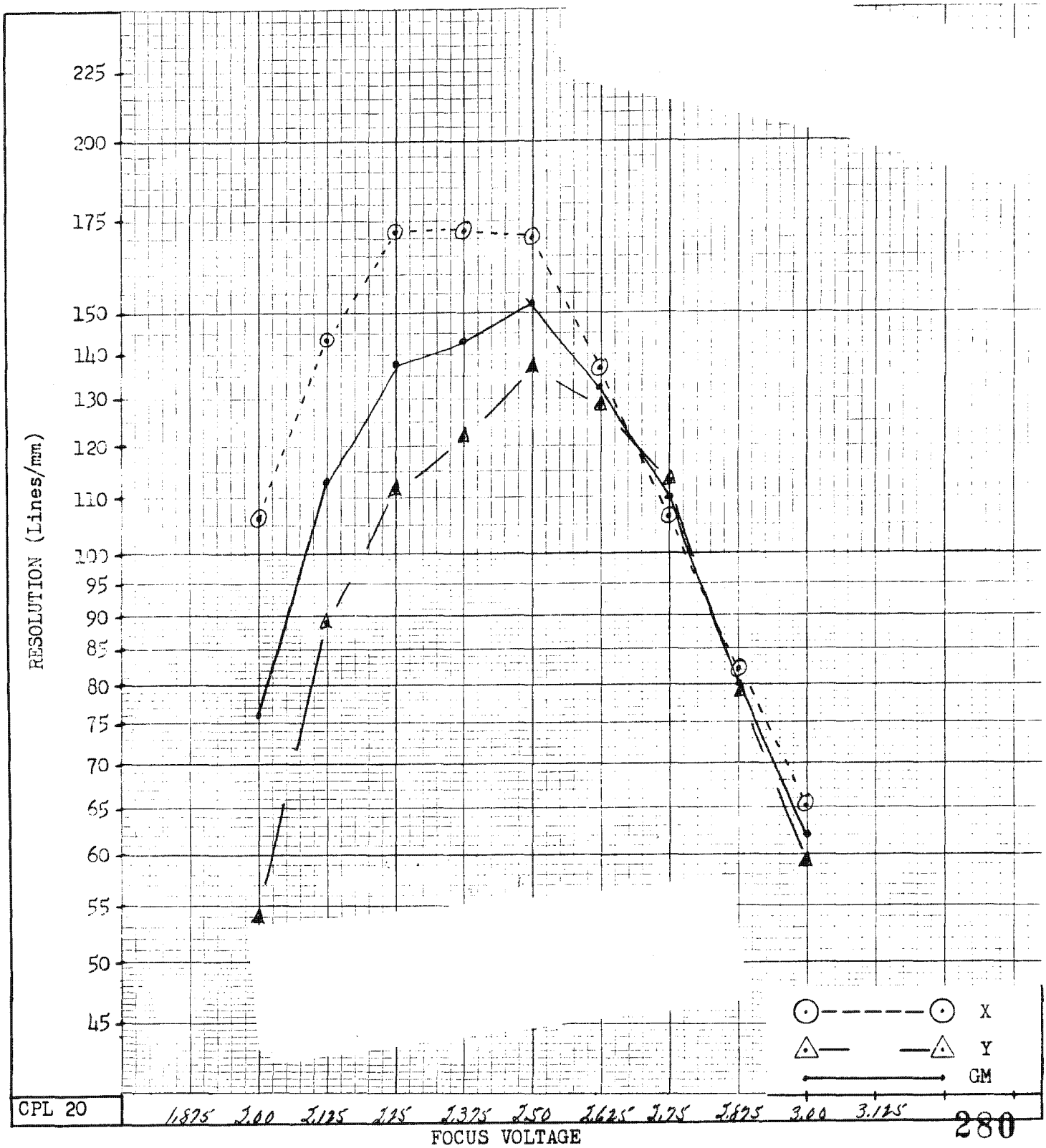
Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Process Ticket No. 3647	EKCo. SPO QUALITY CONTROL
Plotted By: Z.E.	FOCUS ANALYSIS
Evaluator: F.P. Z.E.	

Sheet	of
Date of Test	12/11/66

Item & S/N	FM 39	Collimator	EAST
Procedure No.	804-104	Target Drum	208001
Vibration	Pre ✓ Post	Fi[illegible]	0.0 Deg.



Approved for Release: 2024/01/30 C05098941

C05098941

Approved for Release: 2024/01/30 C05098941

Process Ticket No. 364

of

t 12/11/66

Item & S/N	FM 39	Collimator No.	EAST
Procedure No.	804-104	Target Drum No.	208001
Field Angle	0.0 Deg.	Vibration	✓ Pre Post

CPL 20	1.500	1.625	1.750	1.875	2.000	2.125	2.250	2.375
CPL 27	2.512	3.139	3.749	4.422	0.092	0.753	1.409	2.039
Evaluator								
IMC Circle								
Dim. Along (A)						.512	.513	.511
Dim. Across (B)						.513	.513	.513
Diff. (A-B)						-.001	.000	-.002
(Diff. x 100)/B						-.195	.000	-.390
Evaluator T.P.								
Date 12-11-66								

Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1									101	53	142	84	178	113	178	113
5									101	56	150	90	178	107	168	113
9									107	53	142	90	159	107	168	107
13									101	53	142	90	168	107	159	119
17									113	53	142	90	159	107	168	126
21									113	56	142	90	188	107	188	119
Evaluator H.E.																
Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1											142	80	178	119	178	126
5											150	90	178	113	168	126
9											142	90	159	113	168	119
13											142	90	168	119	159	119
17											142	90	159	107	168	119
21											150	90	188	119	178	126
Totals									636	324	1728	1064	2060	1344	2058	1447
No. of Rdgs.									6	6	12	12	12	12	12	12
Averages									106	54	144	89	172	112	172	121
Geom. Mean									76		113		139		144	

Code: "D" Physical Defect
"R" Vibration
"S" Spurions
"_" Smeared

281

H = x
V = y

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Process Ticket No. 3649 of 12/11/66

Item & S/N FM-39 Collimator No. EAST

Procedure No. 804-104 Target Drum No. 208001

Field Angle 0,0 Deg. Vibration ✓ Pre Post

CPL 20	2.500	2.625	2.750	2.875	3.000	3.125	3.250	3.375
CPL 27	2.669	3.235	3.933	4.603	0.255	0.924	1.546	2.160
Evaluator								
IMC Circle								
Dim. Along (A)	.513	.513	.512	.513				
Dim. Across (B)	.513	.513	.513	.513				
Diff. (A-B)	.000	.000	-.001	.000				
(Diff. x 100)/B	.000	.000	-.195	.000				
Evaluator T.P.								
Date 12-11-66								

Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1	159	134	134	134	95	126	71	71	63	56						
5	168	126	142	134	101	113	84	80	60	60						
9	188	119	150	126	101	113	84	76	67	43						
13	178	126	150	119	113	95	84	84	76	60						
17	150	150	113	119	113	113	80	84	63	60						
21	168	134	113	113	113	113	90	76	63	56						
Evaluator H.E.																
Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1	168	142	134	142	95	126										
5	178	134	150	142	101	113										
9	188	134	150	134	107	113										
13	168	142	159	134	113	101										
17	159	159	113	126	113	113										
21	168	142	119	119	113	119										
Totals	2040	1642	1427	1542	1278	1358	493	471	392	355						
No. of Rdgs.	12	12	12	12	12	12	6	6	4	6						
Averages	170	137	134	129	107	113	82	79	45	59						
Geom. Mean	153		132		110		80		62							

Code: "D" Physical
"R" Vibratio
"S" Spurions
"_" Smeared

282

H = x
V = y

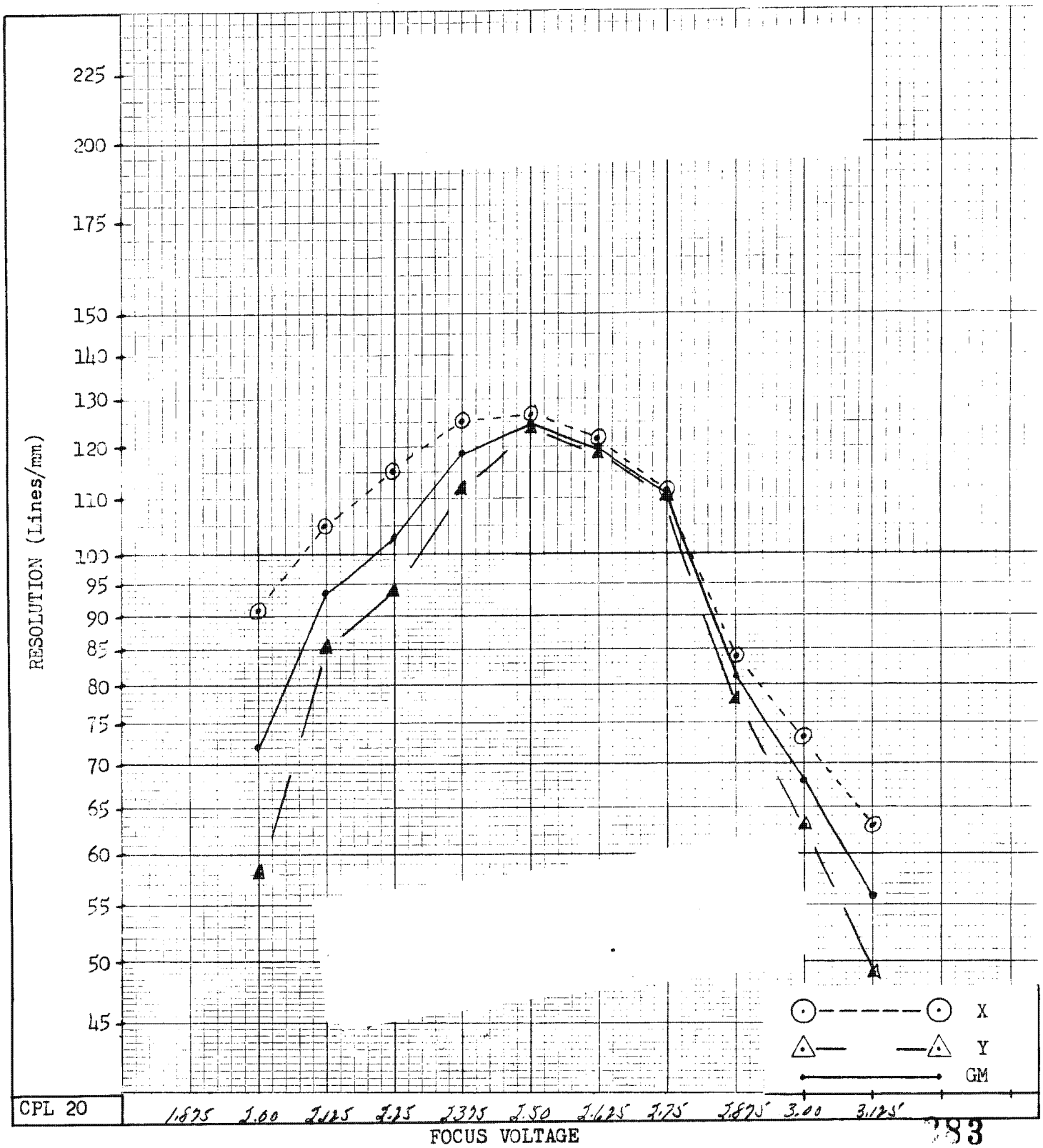
Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Process Ticket No. 3647	EKCo. SPO QUALITY CONTROL
Plotted By: Z.E.	FOCUS ANALYSIS
Evaluator: J.P. Z.E.	

Sheet	of
Date of Test	12/11/66

Item & S/N	FM 39	Collimator	East
Procedure No.	804-104	Target Drum	208001
Vibration	Pre ✓ Post ____	Field Angle	+0.5 Deg.



Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Process Ticket No. 3649

FOCUS RUN
FOCUS ANALYSIS
DATA SHEET

Sheet of
Date of Test 12/11/66

Item & S/N	FM 39	Collimator No.	EAST
Procedure No.	804-104	Target Drum No.	208001
Field Angle	±0.5° Deg.	Vibration	✓ Pre Post

CPL 20	1.500	1.625	1.750	1.875	2.000	2.125	2.250	2.375
CPL 27	2.513	3.139	3.751	4.424	0.092	0.753	1.394	2.042
Evaluator								
IMC Circle								
Dim. Along (A)								
Dim. Across (B)								
Diff. (A-B)								
(Diff. x 100)/B								

Evaluator T. P
Date 12-11-66

Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1									84	60	95	80	113	84	134	107
5									90	56	95	80	113	90	126	119
9									95	53	119	80	119	90	113	101
13									95	60	119	90	119	101	134	113
17									90	56	101	95	113	90	126	113
21									90	60	107	84	113	95	119	119

Evaluator N. E.

Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1											95	80	113	90	134	113
5											90	80	113	90	126	134
9											119	80	119	95	113	113
13											119	90	119	101	134	119
17											101	95	113	95	126	126
21											107	90	113	101	134	134
Totals									544	345	1242	1024	1380	1127	752	672
No. of Rdgs.									6	6	12	12	12	12	6	6
Averages									91	58	105	85	115	94	125	112
Geom. Mean									72		94		104		119	

Code: "D" Physical Defect
"R" Vibration
"S" Spurions
"_" Smeared

284

H = x
V = y

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Process Ticket No. 3649

FOCUS RUN
FOCUS ANALYSIS
DATA SHEET

Sheet of

Date of Test 12/11/66

Item & S/N FM 39 | Collimator No. EAST

Procedure No. 804-104 | Target Drum No. 208001

Field Angle ±0.5 Deg. | Vibration ✓ Pre Post

CPL 20	2.500	2.625	2.750	2.875	3.000	3.125	3.250	3.375
CPL 27	2.661	3.784	3933	4.609	0.279	0.905	1.539	2.171
Evaluator								
IMC Circle								
Dim. Along (A)								
Dim. Across (B)								
Diff. (A-B)								
(Diff. x 100)/B								
Evaluator T.P.								
Date 12-11-66								

Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1	119	126	113	119	113	95	84	76	67	63	60	53				
5	126	119	126	107	107	113	84	84	71	63	71	50				
9	119	126	119	101	107	113	80	76	63	63	63	48				
13	126	134	126	126	107	113	84	76	80	67	56	48				
17	134	119	119	119	113	107	90	84	80	63	67	48				
21	126	113	119	113	107	107	84	76	76	63	63	45				
Evaluator M.L.																

Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1	119	126	119	126	113	101										
5	126	126	134	119	113	113										
9	119	134	119	113	119	119										
13	126	134	126	126	113	119										
17	134	119	119	134	113	113										
21	134	113	119	126	107	107										
Totals	1508	1489	1458	1429	1332	1320	506	469	437	379	380	292				
No. of Rdgs.	12	12	12	12	12	12	6	6	6	6	6	6				
Averages	126	124	122	119	111	110	84	78	73	63	63	49				
Geom. Mean	125		120		110		81		68		56					

Code: "D" Physical Defect
"R" Vibrati
"S" Spurion
"_" Smeared

285

H = x
V = y

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

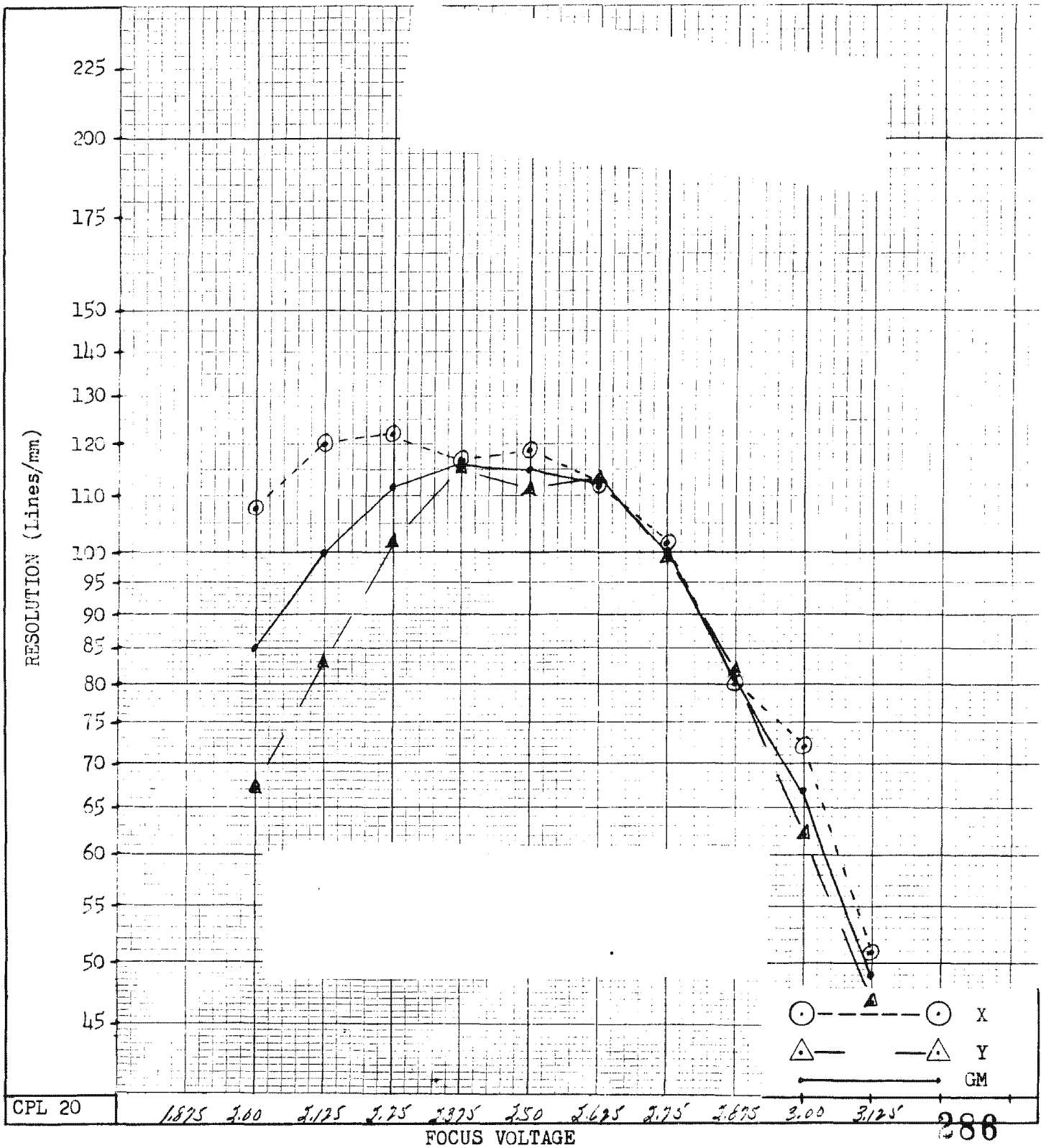
Process Ticket No. 3647	
Plotted By: Z.C.	
Evaluator: J.P. Z.C.	

EXCO. SPO QUALITY CONTROL

FOCUS ANALYSIS

Sheet	of
Date of Test	12/11/66

Item & S/N	FM 39	Collimator	EAST
Procedure No.	804-104	Target Drum	208001
Vibration	Pre ✓ Post	Field Angle	-0.5 Deg.



Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Process Ticket No. 3649 of

t 12/11/66

Item & S/N FM-3, [illegible] No. EAST

Procedure No. 804-104 Target Drum No. 208001

Field Angle −0,5 Deg. Vibration ↙ Pre Post

CPL 20	1,500	1,625	1,750	1,875	2,000	2,125	2,250	2,375
CPL 27	2,520	3,133	3,753	4,420	0,102	0,749	1,392	2,050
Evaluator								
IMC Circle								
Dim. Along (A)								
Dim. Across (B)								
Diff. (A-B)								
(Diff. x 100)/B								
Evaluator T.P.								
Date 12-11-66								

Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1									113	67	119	84	119	90	113	119
5									101	67	113	80	119	113	113	107
9									101	60	126	80	126	101	113	113
13									107	71	119	84	119	95	126	107
17									113	67	119	84	126	95	119	119
21									113	71	119	76	113	95	119	101
Evaluator K.L.																
Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1											119	90	119	95	[illegible]	119
5											113	80	119	119	113	107
9											126	84	134	113	[illegible]	119
13											126	84	119	95	126	119
17											119	84	126	107	119	134
21											119	80	126	107	119	113
Totals									648	403	1437	990	1465	1225	1406	1377
No. of Rdgs.									6	6	12	12	12	12	12	12
Averages									108	67	120	83	122	102	117	115
Geom. Mean									85		100		112		116	

Code: "D" Physical Defect
"R" Vibratic
"S" Spurions
"_" Smeared

287

H = x
V = y

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Process Ticket No. 3649

of 12/11/66

Item & S/N FM 34 | Collimator No. EAST

Procedure No. 804-104 | Target Drum No. 208001

Field Angle - 0,5 Deg. | Vibration ✓ Pre Post

CPL 20	2,500	2,625	2,750	2,875	3,000	3,125	3,250	3,375
CPL 27	2,652	3,379	3,945	4,603	0,262	0,899	1,559	2,159
Evaluator								
IMC Circle								
Dim. Along (A)								
Dim. Across (B)								
Diff. (A-B)								
(Diff. x 100)/B								
Evaluator T.P.								
Date 12-1-66								

Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1	113	101	113	113	90	95	71	84	76	60	53	48				
5	119	107	126	107	113	90	76	76	60	60	48	48				
9	107	113	119	113	90	101	90	84	80	63	50	45				
13	119	113	107	113	95	101	80	76	76	63	48	48				
17	119	113	101	113	90	95	71	90	71	63	53	45				
21	107	113	107	107	119	101	90	80	71	71	56	48				
Evaluator T.E.	684 9/4	660 #10	673	666												

Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1	126	101	113	119	90	95										
5	134	113	126	107	113	95										
9	119	113	119	113	101	107										
13	126	113	107	119	101	107										
17	126	113	101	119	95	95										
21	107	119	107	107	119	101										
Totals	1422	1332	1346	1350	1216	1183	478	490	434	380	308	282				
No. of Rdgs.	12	12	12	12	12	12	6	6	6	6	6	6				
Averages	119	111	112	113	101	99	80	82	72	62	51	47				
Geom. Mean	115		112		100		81		67		49					

Code: "D" Physical Defect
"R" Vibration
"S" Spurio
"_" Smeare

288

H = x
V = y

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

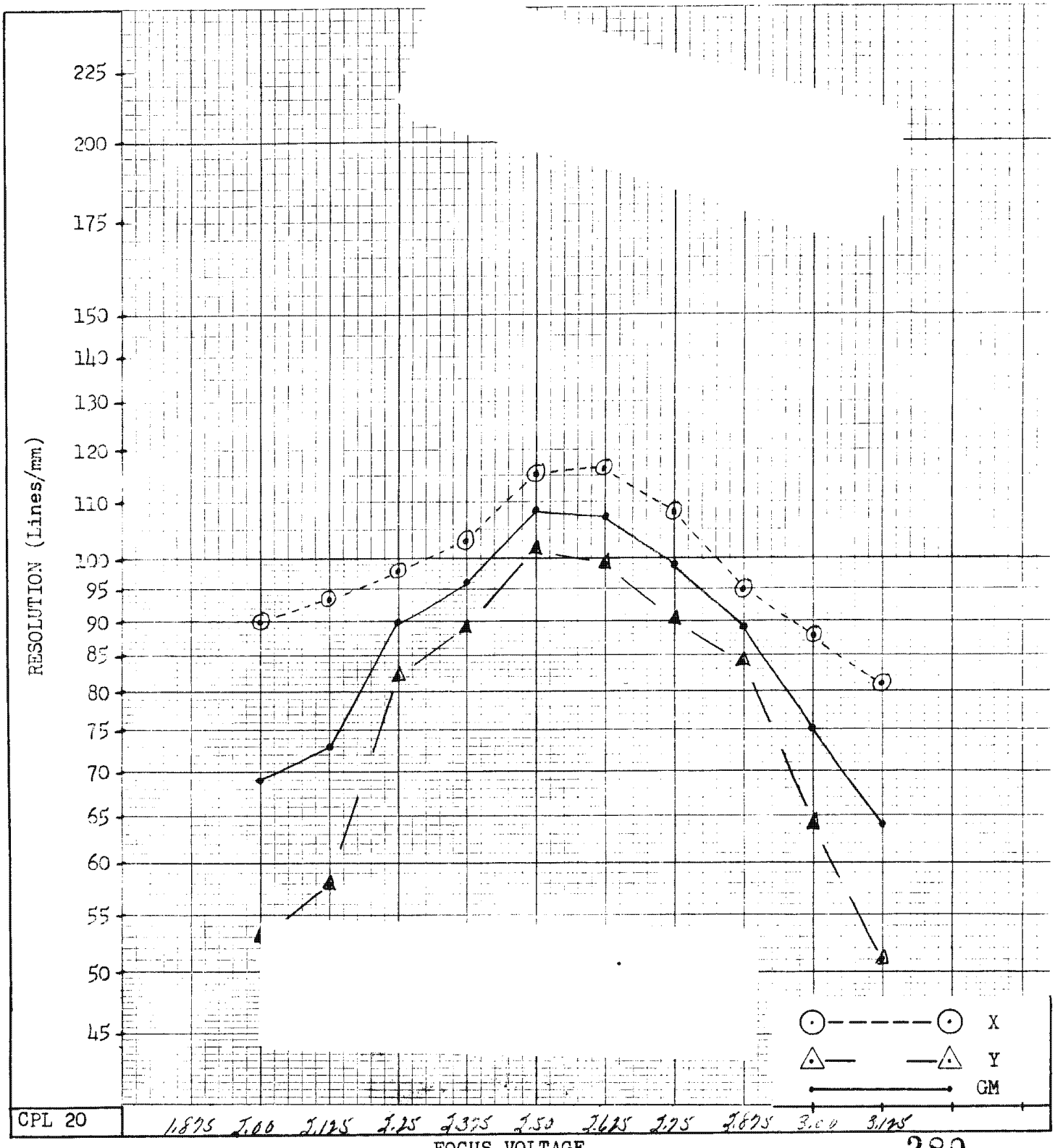
Process Ticket No. 3647	
Plotted By: Z.E.	
Evaluator: Z.E. E.C.	

ERCO. SPO QUALITY CONTROL

FOCUS ANALYSIS

Sheet	of
Date of Test	12/11/66

Item & S/N	FM 39	Collimator	EAST
Procedure No.	804-104	Target Drum	208001
Vibration	Pre ✓ Post ____	Field Angle	+2.8 Deg.



Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Process Ticket No. 3649

of 12/11/66

Item & S/N FM 39 | Collimator No. EAST

Procedure No. 804-104 | Target Drum No. 208001

Field Angle ±2.8 Deg. | Vibration ✓ Pre Post

CPL 20	1.500	1.625	1.750	1.875	2.000	2.125	2.250	2.375
CPL 27	2.523	3.122	3.764	4.419	5.101	0.774	1.389	2.046
Evaluator								
IMC Circle								
Dim. Along (A)								
Dim. Across (B)								
Diff. (A-B)								
(Diff. x 100)/B								
Evaluator N.-E.								
Date 12-12-66								

Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1									90	63	90	56	95	76	107	95
5									80	53	95	60	101	84	101	80
9									95	50	95	56	101	84	101	84
13									101	56	95	53	101	80	95	95
17									80	53	90	63	90	80	113	95
21									95	53	95	60	95	90	90	84
Evaluator E.C.																
Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1											95	56	95	76	107	95
5											95	60	101	84	107	80
9											90	56	101	84	101	84
13											95	53	101	80	101	95
17											90	63	95	80	113	95
21											95	63	95	90	90	84
Totals									541	318	1121	699	1171	988	1232	1066
No. of Rdgs.									6	6	12	12	12	12	12	12
Averages									90	53	93	58	98	82	103	89
Geom. Mean									69		73		90		96	

Code: "D" Physical Defect
"R" Vibration
"S" Spurions
"_" Smeared

H = x
V = y

290

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Process Ticket No. 364 of

Date 12/11/66

Item & S/N FM139 Collimator No. EAST

Procedure No. 804-104 Target Drum No. 208001

Field Angle ±2.8 Deg. Vibration ✓ Pre Post

CPL 20	2.500	2.625	2.750	2.875	3.000	3.125	3.250	3.375
CPL 27	2.659	3.280	3.899	4.632	0.252	0.903	1.549	2.179
Evaluator								
IMC Circle								
Dim. Along (A)								
Dim. Across (B)								
Diff. (A-B)								
(Diff. x 100)/B								
Evaluator R.E.								
Date 12-12-66								

Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1	119	95	113	90	101	90	90	80	80	63	80	56				
5	101	113	119	90	101	95	90	80	84	60	71	50				
9	[illegible]	[illegible]	119	95	119	90	107	84	95	67	84	48				
13	113	95	134	95	101	80	90	76	84	60	84	53				
17	113	95	101	113	101	90	101	84	95	60	80	50				
21	126	113	107	107	119	84	90	85	90	71	84	48				
Evaluator R.E.																
Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1	119	95	113	90	101	95	90	80								
5	113	113	119	90	107	95	90	80								
9	113	107	119	95	119	95	107	84								
13	113	95	134	101	101	80	90	80								
17	113	95	101	119	101	95	101	84								
21	126	113	107	107	119	90	95	95								
Totals	1382	1274	1386	1192	1290	1079	1141	1002	529	381	483	305				
No. of Rdgs.	12	12	12	12	12	12	12	12	6	6	6	6				
Averages	115	102	116	99	108	90	95	84	88	64	81	51				
Geom. Mean	108		107		99		89		75		64					

Code: "D" Physical Defect
"R" Vibration
"S" Spurions
"_" Smeared

291

H = x
V = y

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

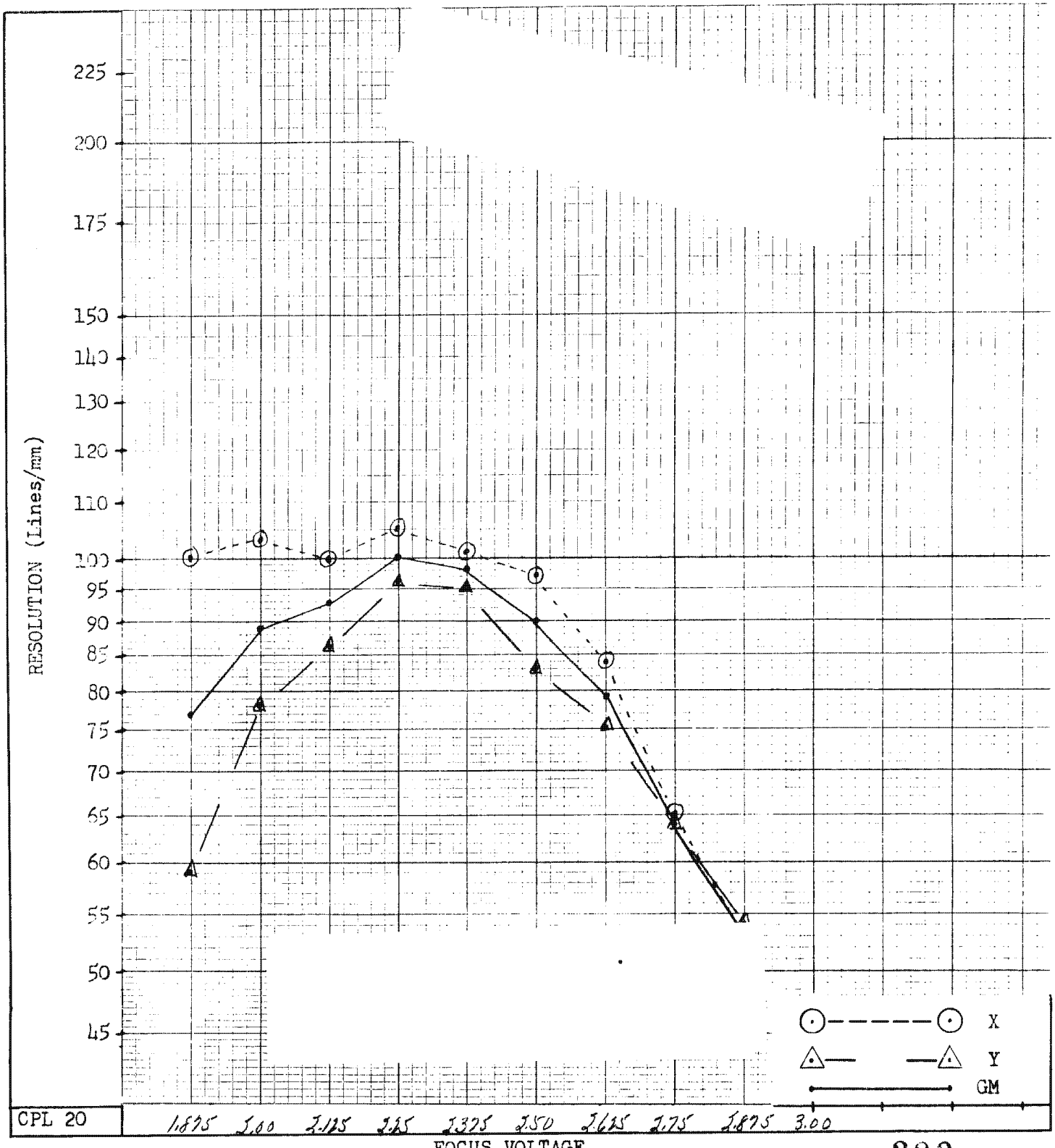
Process Ticket No. 3647	
Plotted By: Z.C.	
Evaluator: Z.C. C.C.	

ERCO. SPO QUALITY CONTROL

FOCUS ANALYSIS

Sheet	of
Date of Test	12/11/66

Item & S/N	FM 39	Collimator	EAST
Procedure No.	804-104	Target Drum	208001
Vibration	Pre ✓ Post	Field Angle	-28 Deg.



Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Process Ticket No. 3649 FOCUS RUN of 12/11/66

Item & S/N FM 39 EAST

Procedure No. 804-104 Datum No. 208001

Field Angle -2.8 Deg. | Vibration ✓ Pre Post

CPL 20	1.500	1.625	1.750	1.875	2.000	2.125	2.250	2.375
CPL 27	.525	3.139	3.759	4.414	0.102	0.759	1.371	2.039
Evaluator								
IMC Circle								
Dim. Along (A)								
Dim. Across (B)								
Diff. (A-B)								
(Diff. x 100)/B								
Evaluator M.L.								
Date 12-12-66								

Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1							95	53	95	76	95	80	101	90	107	95
5							107	53	95	76	95	80	95	84	101	90
9							101	80	113	71	95	80	95	107	101	101
13							95	80	107	76	101	90	107	95	101	107
17							101	80	101	76	101	90	113	101	95	90
21							101	84	101	84	101	95	107	101	95	90

Evaluator M.L.

Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1									101	76	101	80	113	90	107	95
5									95	80	95	80	95	84	101	90
9									95	80	101	80	95	107	101	101
13									107	76	101	90	107	95	107	107
17									101	76	107	90	119	101	95	90
21									101	84	101	95	107	101	95	90
Totals							609	355	1230	931	1304	1230	1260	1150	1216	1134
No. of Rdgs.							6	6	12	12	12	12	12	12	12	12
Averages							102	59	103	78	100	86	105	96	101	95
Geom. Mean							77		89		93		100		98	

Code: "D" Physical Defect
"R" Vibration
"S" Spurions
"_" Smeared

293

H = x
V = y

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Process Ticket No. 3649

of 12/11/66

Item & S/N FM 39 EAST

Procedure No. 804-104

Target Drum No. 208001

Field Angle -2.8 Deg.

Vibration ✓ Pre Post

CPL 20	2.500	2.625	2.750	2.875	3.000	3.125	3.250	3.375
CPL 27	2.684	3.300	3.929	4603	6.264	6.919	1.549	2.169
Evaluator								
IMC Circle								
Dim. Along (A)								
Dim. Across (B)								
Diff. (A-B)								
(Diff. x 100)/B								
Evaluator R.E.								
Date 12-12-66								

Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1	95	76	80	67	67	67	53	50								
5	107	80	84	71	67	63	56	56								
9	95	84	84	76	63	67	50	56								
13	95	84	90	76	60	60	50	56								
17	95	84	80	76	67	63	56	56								
21	84	90	90	76	63	63	56	56								

Evaluator E.C.

Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1	101	84	80	71												
5	107	80	90	76												
9	101	84	84	80												
13	95	84	90	76												
17	95	84	80	80												
21	95	90	80	80												
Totals	1165	996	1002	905	387	383	315	322								
No. of Rdgs.	12	12	12	12	6	6	6	6								
Averages	97	83	84	75	65	64	53	54								
Geom. Mean	90		79		64		53									

Code: "D" Physical Defect
"R" Vibration
"S" Spurions
"_" Smeared

294

H = x
V = y

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

FOCUS RUN
DENSITY DATA SHEET

Process Ticket No. 3650	of
Evaluator TP	12-14-66
Date of Evaluation 1/18 k	

Item & S/N FM 39	Collimator No. EAST
Procedure No. 804-104	Target Drum No. 208001
Vibration: Pre ✓ Post	

Control Data	
Step #	D
1	2.51
2	2.48
3	2.43
4	2.34
5	2.22
6	2.05
7	1.82
8	1.55
9	1.24
10	.91
11	.64
12	.45
13	.32
14	.25
15	.23
16	.21
17	.20
18	.19
19	.19
20	.19
21	.19
Gamma	2.16
Speed Pt	1.15

2nd Complete Frame where CPL-20 = 2.5v

Film Speed	31	31	31	
Field Angle	-2.7°	0°	+2.7°	
Input Voltage	28v	28v	28v	Spec.
Step 7	[redacted]	.81	[redacted]	~~1.1 ±0.2~~
Step 9	[redacted]	.44	[redacted]	*

* The density of step 9 shall be equal to or greater than the density of the H and D curve at the speed point.

Spec.
1.9 - 2.3
1.08 - 1.18

IDENTIFICATION OF RAW FILM STOCK

Film Can No. 287

Film Type: 3404		Total feet: 2985
Emulsion No.: 265	Master Roll No.: 21	Date mo/yr: 10 66
Film + spool wt.: 54.5		spool wt.: 4.1
Splice location from head of roll: 1665 / 1320 /		

295

G-ATR- 1

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

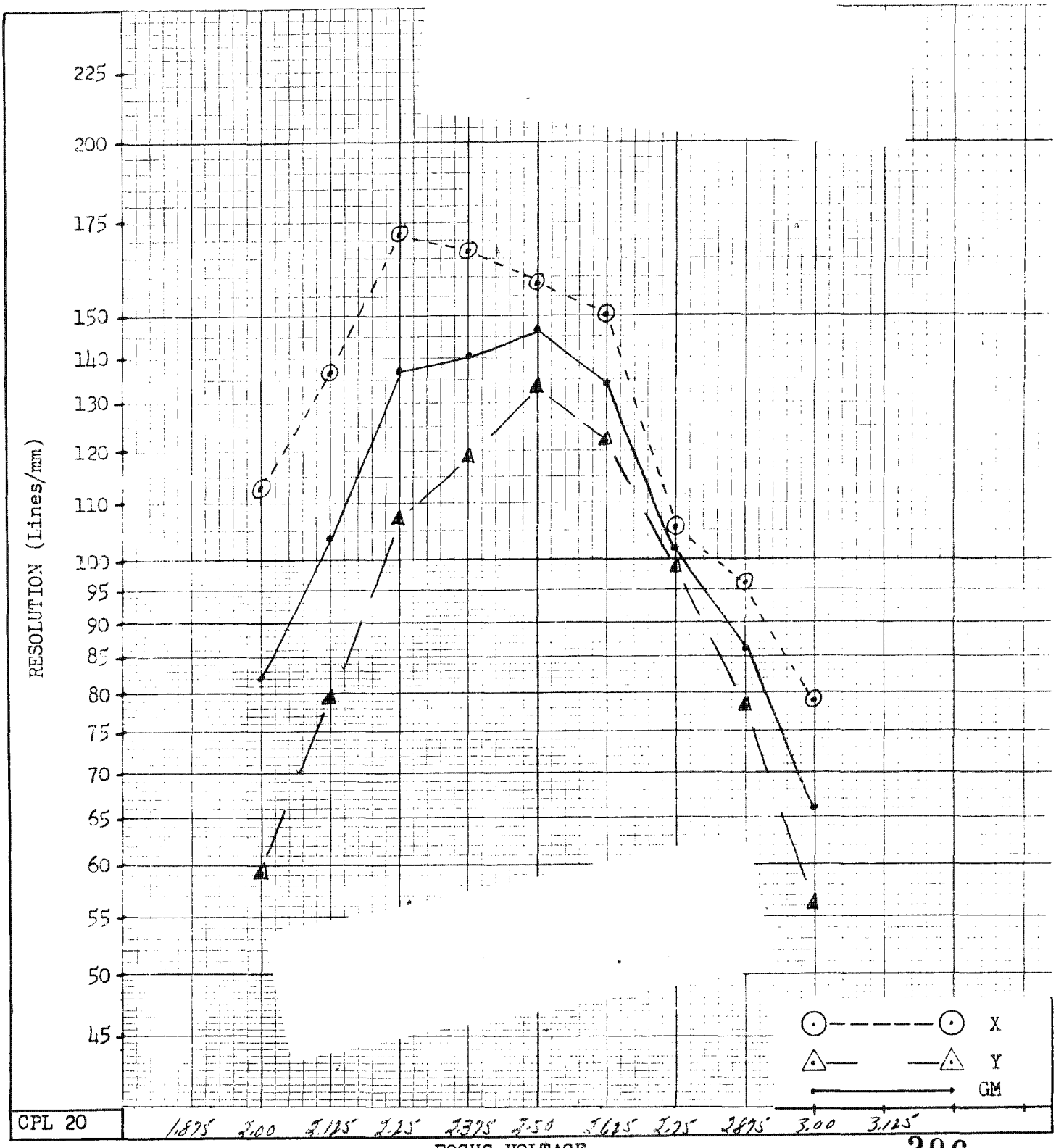
Process Ticket No. 3650	
Plotted By: [illegible]	
Evaluator: E.C. [illegible]	

EKCO. SPD QUALITY CONTROL

FOCUS ANALYSIS

Sheet	of
Date of Test	12/11/66

Item & S/N S/L F 71-39	Collimator East
Procedure No. 804-104	Target Drum 108001
Vibration Pre ✓ Post	Field Angle 0 Deg.



Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Process Ticket No. 3650

of 12/11/66

Item & S/N SIC FM- - , Collimator No. EAST

Procedure No. 804-104 Target Drum No. 208001

Field Angle 0 Deg. Vibration Pre ✓ Post

CPL 20	1.500	1.625	1.750	1.875	2.000	2.125	2.250	2.375
CPL 27	2.501	3.123	3.764	4.422	0.095	0.752	1.399	2.042
Evaluator								
IMC Circle								
Dim. Along (A)						.512	.511	.5
Dim. Across (B)						.513	.513	.513
Diff. (A-B)						-.001	-.002	-.002
(Diff. x 100)/B						-.195	-.390	-.390
Evaluator								
Date								

Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1									113	60	134	76	[illegible]	[illegible]	[illegible]	[illegible]
5									113	60	126	76	[illegible]	[illegible]	126	[illegible]
9									[illegible]	[illegible]	134	90	168	107	168	113
13									119	60	142	76	159	101	[illegible]	[illegible]
17									113	60	134	80	[illegible]	[illegible]	159	113
21									[illegible]	56	134	80	168	[illegible]	159	119
Evaluator																

Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1											134	76	168	101	168	134
5											134	71	188	[illegible]	128	126
9											134	90	168	[illegible]	178	126
13											150	71	[illegible]	[illegible]	168	[illegible]
17											134	80	[illegible]	[illegible]	159	[illegible]
21											150	80	168	[illegible]	[illegible]	[illegible]
Totals									678	356	1610	946	2058	1278	2001	1421
No. of Rdgs.									6	6	12	12	12	12	12	12
Averages									113	59	137	79	172	107	167	118
Geom. Mean									82		104		136		140	

Code: "D" Physical Defect
"R" Vibration
"S" Spurions
"_" Smeared

297

≡ H = x
||| V = y

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Process Ticket No. 3650 FOCUS PIN: of 12/11/66

Item & S/N S/C FM-3

Procedure No. 804-104 Target Drum No. 208001

Field Angle 0 Deg. Vibration Pre ✓ Post

CPL 20	2.500	2.625	2.750	2.875	3.000	3.125	3.250	3.375
CPL 27	2.670	3.290	3.939	4.615	0.252	0.911	1.551	2.169
Evaluator								
IMC Circle								
Dim. Along (A)	.511	.513	.512	.513				
Dim. Across (B)	.513	.513	.513	.513				
Diff. (A-B)	-.002	.000	-.001	.000				
(Diff. x 100)/B	-.390	.000	-.195	.000				
Evaluator	[illegible]							
Date	12-2-66							

Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1	159	134	150	113	95	101	84	80	76	53						
5	159	126	159	119	101	101	95	76	80	56						
9	153	126	134	134	107	95	95	80	76	53						
13	178	126	142	113	107	95	101	80	80	76						
17	159	142	159	113	101	101	101	76	80	50						
21	150	142	159	126	119	101	101	76	80	50						
Evaluator																

Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1	168	142	150	113	[illegible]	[illegible]	84	80								
5	159	126	150	126	101	101	95	76								
9	153	126	134	134	107	95	95	80								
13	178	134	[illegible]	[illegible]	107	95	101	80								
17	159	142	159	[illegible]	101	101	101	76								
21	150	142	[illegible]	26	119	101	[illegible]	76								
Totals	1910	1608	1797	1449	1260	1178	1154	936	472	338						
No. of Rdgs.	12	12	12	12	12	12	12	12	6	6						
Averages	159	134	150	121	105	98	96	78	79	56						
Geom. Mean	146		134		101		86		66							

Code: "D" Physical Defect
"R" Vibration
"S" Spurions
"_" Smeared

298

H = x
V = y

III

Approved for Release: 2024/01/30 C05098941

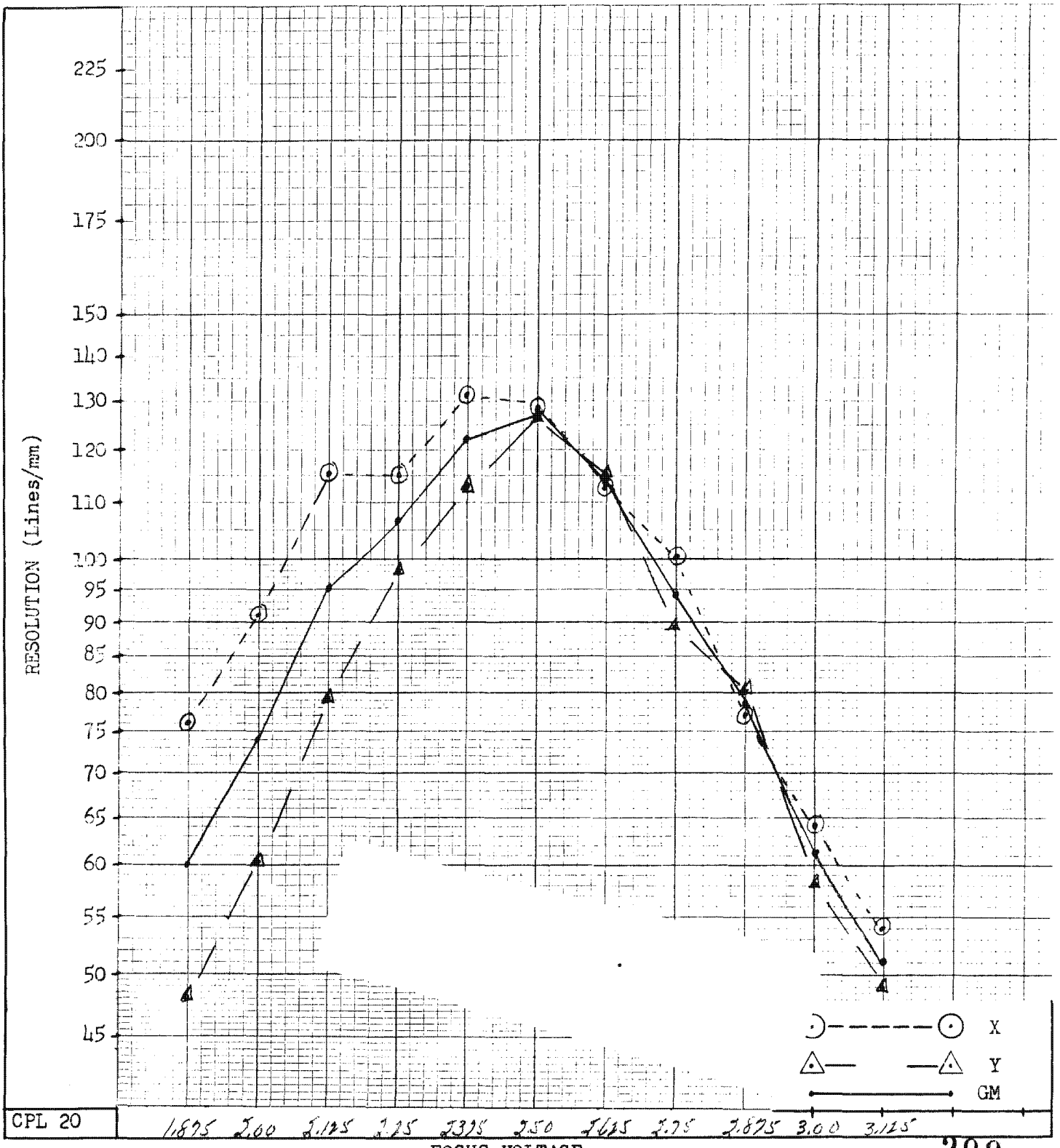
C05098941
Approved for Release: 2024/01/30 C05098941

Process Ticket No. 3650	
Plotted By: H.E.	
Evaluator: E.C. H.E.	

of

12/1/66

Item & S/N S/C FM-39	Collimator LASZ
Procedure No. 804-104	Target Drum 308001
Vibration Pre ✓ Post ____	Field Angle +0.5° Deg.



Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Process Ticket No. 3650 | of 12/11/66

Item & S/N SIC FM-.. | Collimator No. EAST
Procedure No. 804-104 | Target Drum No. 208001
Field Angle +0.5 Deg. | Vibration Pre ✓ Post

CPL 20	1.500	1.625	1.750	1.875	2.000	2.125	2.250	2.375
CPL 27	2.495	3.139	3.769	4422	0.104	0.749	1.391	2.039
Evaluator								
IMC Circle								
Dim. Along (A)								
Dim. Across (B)								
Diff. (A-B)								
(Diff. x 100)/B								
Evaluator E.G.								
Date 12-12-66								

Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1							80	48	84	56	113	80	113	101	142	107
5							76	48	84	60	119	76	113	95	126	113
9							71	48	90	60	119	80	107	90	134	107
13							76	48	90	63	119	76	113	95	134	113
17							71	48	95	60	107	80	113	101	134	107
21							80	48	101	60	113	80	113	101	134	107
Evaluator																
Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1											113	80	113	101	142	107
5											113	76	113	101	126	113
9											113	80	113	101	134	107
13											119	76	119	95	134	113
17											107	80	113	101	119	124
21											113	84	113	101	134	107
Totals							454	288	544	359	1380	948	1374	1172	1578	1357
No. of Rdgs.							6	6	6	6	12	12	12	12	12	12
Averages							76	48	91	60	115	79	115	98	132	113
Geom. Mean							60		74		95		106		122	

Code: "D" Physical Defect
"R" Vibration
"S" Spurions
"_" Smeared

300

H = x
V = y

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Process Ticket No. 3650

of 12/11/66

Item & S/N SIC F111-3 No. EAST

Procedure No. 804-104 Target Drum No. 208001

Field Angle +0.5 Deg. Vibration Pre ✓ Post

CPL 20	2.500	2.675	2.750	2.875	3.000	3.125	3.250	3.375
CPL 27	2.659	3.292	3.931	4.609	0.259	0.910	1.553	2.172
Evaluator								
IMC Circle								
Dim. Along (A)								
Dim. Across (B)								
Diff. (A-B)								
(Diff. x 100)/B								
Evaluator ed.								
Date 12-12-66								

Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1	113	134	107	119	95	90	80	84	69	63	50	48				
5	134	134	113	107	95	84	71	80	63	60	56	50				
9	134	134	113	113	101	95	80	84	67	60	56	50				
13	126	119	113	113	101	90	71	84	63	60	53	48				
17	134	119	113	113	107	90	76	71	63	53	50	48				
21	126	119	113	113	95	84	84	76	60	56	56	50				
Evaluator																
Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1	113	134	107	119	95	90	80	84								
5	134	134	113	107	95	84	71	76								
9	134	134	113	113	107	95	80	84								
13	126	126	113	119	101	90	71	84								
17	134	119	119	113	107	95	76	71								
21	126	119	113	113	95	84	84	76								
Totals	1534	1525	1350	1324	1194	1071	924	954	383	349	321	294				
No. of Rdgs.	12	12	12	12	12	12	12	12	6	6	6	6				
Averages	128	127	113	115	100	89	77	80	64	58	54	49				
Geom. Mean	127		114		94		78		61		51					

Code: "D" Physical Defect
"R" Vibration
"S" Spurions
"_" Smeared

301

H = x
V = y

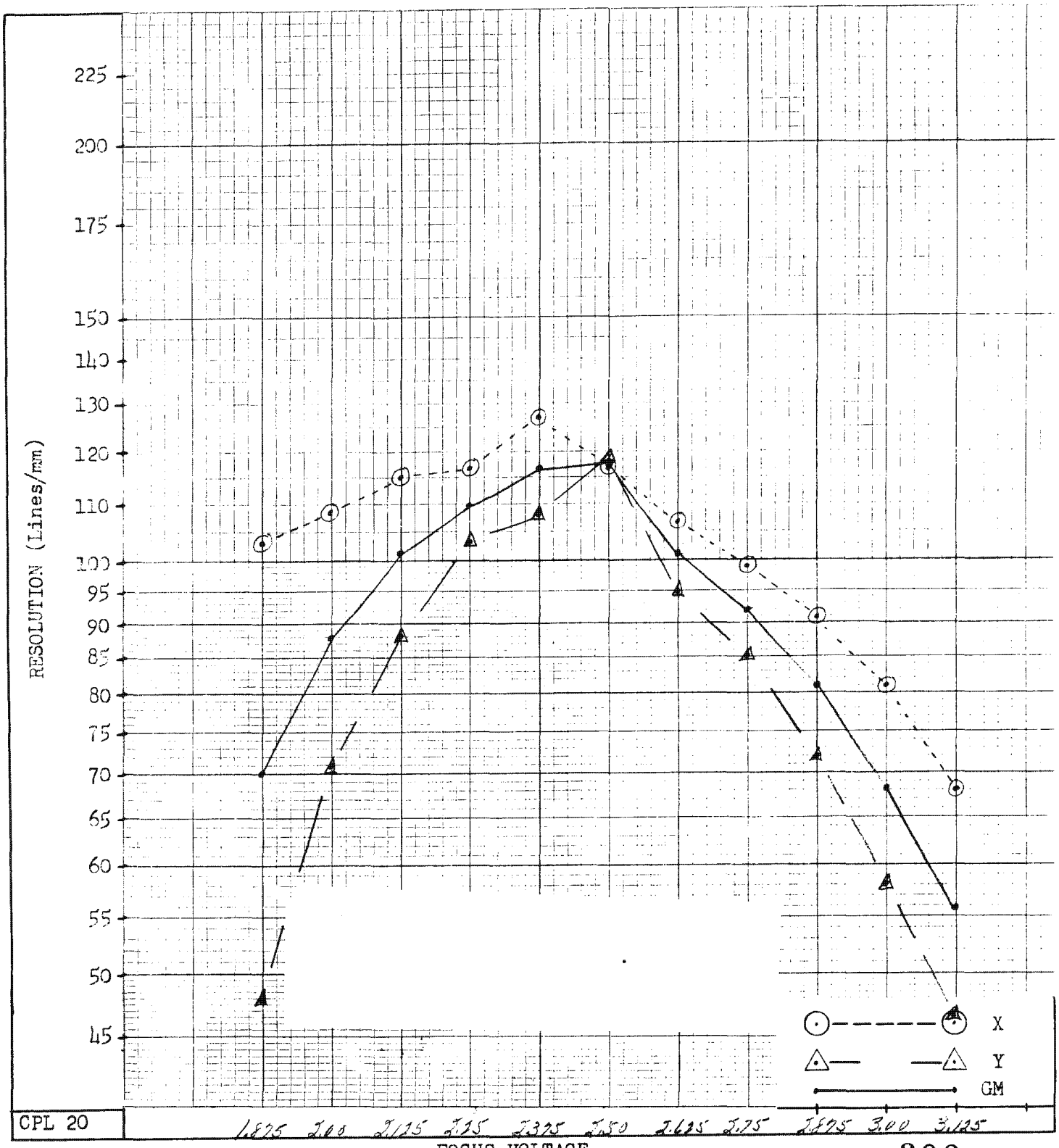
III

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Process Ticket No. 3650	EKCo. SPO QUALITY CONTROL
Plotted By: [illegible]	of
Evaluator: [illegible]	st 12/11/66

Item & S/N S/C [illegible]	Collimator East
Procedure No. [illegible]	Target Drum 208-01
Vibration Pre ✓ Post	Field Angle −0.5 Deg.



Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Process Ticket No. 3650 | of | st 12 11 66

Item & S/N SIC FM- | Collimator No. EAST
Procedure No. 804-104 | Target Drum No. 208001
Field Angle -0.5 Deg. | Vibration Pre ✓ Post

CPL 20	1.500	1.625	1.750	1.875	2.000	2.125	2.250	2.375
CPL 27	2.544	3.134	3.784	4.422	0.094	0.749	1.369	2.033
Evaluator								
IMC Circle								
Dim. Along (A)								
Dim. Across (B)								
Diff. (A-B)								
(Diff. x 100)/B								
Evaluator [illegible]								
Date 12-12-66								

Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1							113	48	113	71	113	90	113	107	126	107
5							107	48	101	71	113	90	113	113	142	107
9							95	48	119	76	113	80	113	95	132	101
13							101	48	107	67	119	84	113	101	132	113
17							101	48	113	71	113	84	119	101	126	113
21							101	48	107	67	119	95	126	101	132	107

Evaluator [illegible]

Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1									113	71	113	95	113	107	126	107
5									101	71	113	90	113	113	142	107
9									113	76	113	85	113	95	132	101
13									107	71	113	84	113	101	119	113
17									107	71	113	95	113	[illegible]	132	113
21									107	71	119	95	126	107	132	107

Totals							418	288	1308	854	1380	1052	1400	1242	1526	1290
No. of Rdgs.							6	6	12	12	12	12	12	12	12	12
Averages							103	48	109	71	115	88	117	104	127	108
Geom. Mean							70		88		101		110		117	

Code: "D" Physical Defect
"R" Vibration
"S" Spurions
"_" Smeared

303

H = x
V = y

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Process Ticket No. 3650

of

12/11/66

Item & S/N SIC FM-34 | Collimator No. EAST

Procedure No. 804-104 | Target Drum No. 208001

Field Angle −0.5 Deg. | Vibration Pre ✓ Post

CPL 20	2.500	2.625	2.750	2.875	3.077	3.125	3.250	3.375
CPL 27	2.665	3.301	3.940	4.606	0.755	0.913	1.531	2.179
Evaluator								
IMC Circle								
Dim. Along (A)								
Dim. Across (B)								
Diff. (A-B)								
(Diff. x 100)/B								
Evaluator								
Date								

Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1	113	119	101	95	95	90	84	76	80	60	67	45				
5	113	113	119	95	113	90	84	71	80	63	76	48				
9	119	126	107	101	101	95	101	76	80	56	67	48				
13	126	119	101	95	107	76	95	71	80	60	67	45				
17	113	113	107	95	90	90	84	67	80	53	67	45				
21	113	119	107	90	90	80	95	71	84	60	63	45				
Evaluator																

Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1	113	119	101	95	95	90	84	76								
5	113	107	119	90	113	84	84	71								
9	119	126	107	101	101	95	101	76								
13	126	119	101	95	107	76	95	71								
17	119	113	107	95	95	84	84	67								
21	113	119	107	95	90	80	95	71								
Totals	1400	1412	1284	1142	1192	1025	1084	864	484	349	407	276				
No. of Rdgs.	12	12	12	12	12	12	12	12	6	6	6	6				
Averages	117	118	107	95	99	85	91	72	81	58	68	46				
Geom. Mean	117		101		92		81		48		56					

Code: "D" Physical Defect
"R" Vibration
"S" Spurions
"_" Smeared

304

H = x
V = y

Approved for Release: 2024/01/30 C05098941

C05098941

Approved for Release: 2024/01/30 C05098941

Process Ticket No.	3652
Evaluator	TP
Date of Evaluation	1/18/67

of

Date of Test 12-11-66

Item & S/N	S/C FM-39
Procedure No.	804-104
Vibration:	Pre ✓ Post
Collimator No.	West
Target Drum No.	208001

Control Data		2nd Complete Frame where CPL-20 = 2.5v				
Step #	D	Film Speed	31	31	31	
1	2.50	Field Angle	-2.7°	0°	+2.7°	
2	2.48	Input Voltage	28v	28v	28v	Spec.
3	2.43	Step 7	[redacted]	.85	[redacted]	~~1.1 ± 0.2~~
4	2.36	Step 9	[redacted]	.46	[redacted]	*
5	2.23					
6	2.05					
7	1.83					
8	1.57					
9	1.23					
10	.93					
11	.65					
12	.45					
13	.32					
14	.25					
15	.22					
16	.21					
17	.20					
18	.19					
19	.19					
20	.19					
21	.19	Spec.				
Gamma	2.15	1.9 - 2.3				
Speed Pt	1.15	1.08 - 1.18				

* The density of step 9 shall be equal to or greater than the density of the H and D curve at the speed point.

IDENTIFICATION OF RAW FILM STOCK

Film Can No. 287

Film Type	Total feet	
3404	2985	
Emulsion No.	Master Roll No.	Date mo/yr
265	21	10 66
Film + spool wt.	spool wt.	
54.5	4.1	
Splice location from head of roll		
1665 / 3320 /		

Approved for Release: 2024/01/30 C05098941

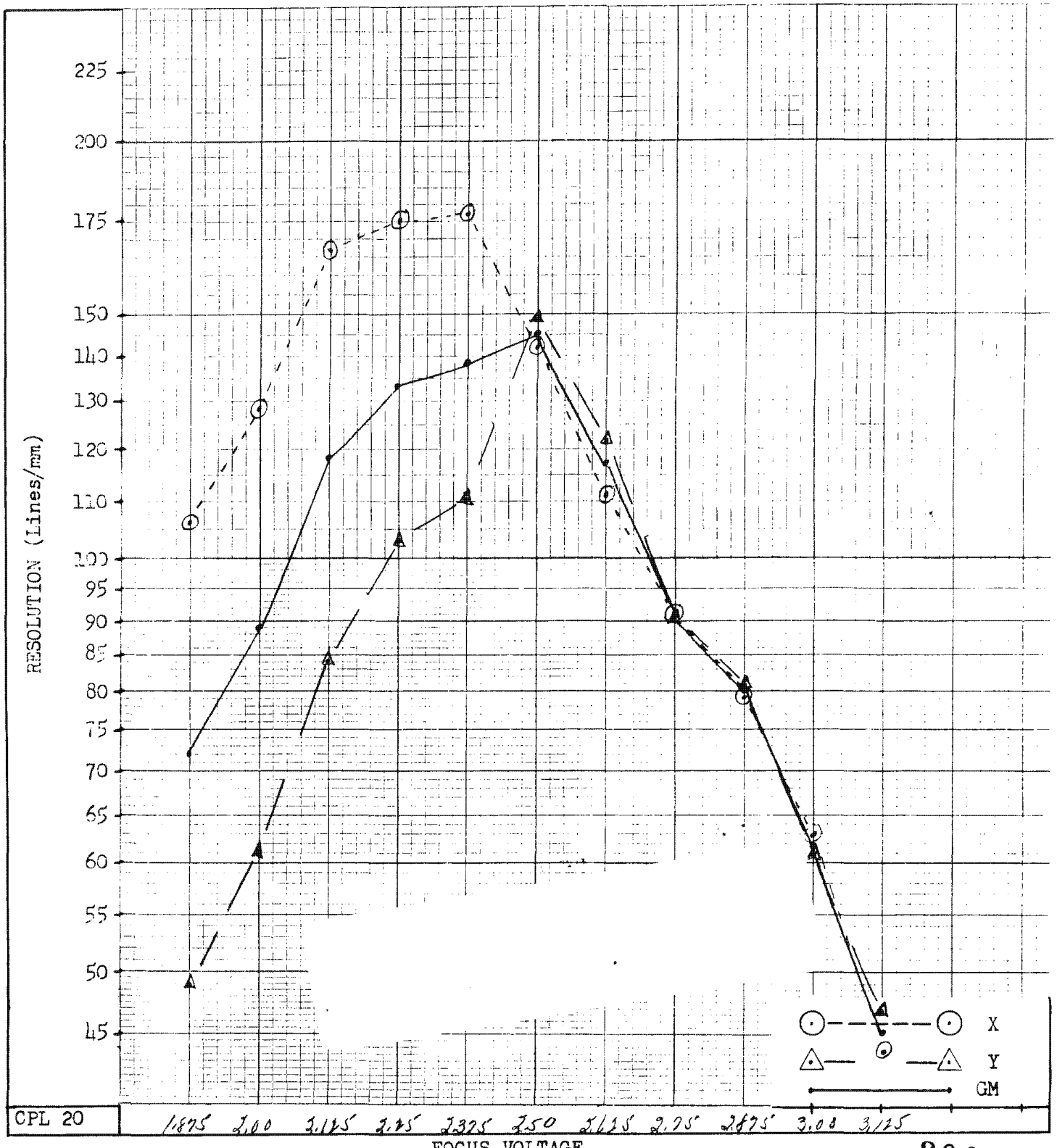
C05098941
Approved for Release: 2024/01/30 C05098941

Process Ticket No.	365
Plotted By:	H.E.
Evaluator:	E.C. H.E.

EXCO. SPO QUALITY CONTROL

of 12 11166

Item & S/N	S/C FM-39	Collimator	EAST
Procedure No.	804-104	Target Drum	208011
Vibration	Pre — Post	Field Angle	0 Deg.



Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Process Ticket No. 3652

of 12/11/66

Item & S/N S/C FM-39 | Collimator No. EAST

Procedure No. 804-104 | Target Drum No. 208001

Field Angle 0 Deg. | Vibration (Pre) Post

CPL 20	1.250	1.375	1.500	1.625	1.750	1.875	2.000	2.125
CPL 27	1.271	1.869	2.509	3.129	3.754	4.399	0.099	0.744
Evaluator								
IMC Circle								
Dim. Along (A)								.512
Dim. Across (B)								.513
Diff. (A-B)								-.001
(Diff. x 100)/B								-.195
Evaluator E.C.								
Date 12-12-66								

Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1											107	48	126	60	134	90
5											107	48	134	63	178	80
9											101	48	134	63	178	84
13											101	50	119	63	168	84
17											101	48	126	60	178	80
21											107	50	134	60	168	84
Evaluator M.C.																
Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1													126	60	134	90
5													126	63	168	80
9													134	60	178	84
13													119	43	168	84
17													126	60	178	80
21													134	60	168	84
Totals											434	292	1538	735	1998	1004
No. of Rdgs.											6	6	12	12	12	12
Averages											106	49	128	61	147	84
Geom. Mean											72		89		118	

Code: "D" Physical Defect
"R" Vibration
"S" Spurions
"_" Smeared

307

H = x
V = y

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Process Ticket No. 3652

of 12/11/66

Item & S/N S/C FM-3, Collimator No. EAST

Procedure No. 804-104 Target Drum No. 208001

Field Angle 0 Deg. Vibration (Pre) Post

CPL 20	2.250	2.375	2.500	2.625	2.750	2.875	3.000	3.125
CPL 27	1.385	2.042	2.665	3.299	3.949	4.590	0.254	0.940
Evaluator								
IMC Circle								
Dim. Along (A)	.512	.513	.512	.513	.513	.513		
Dim. Across (B)	.513	.513	.513	.513	.513	.513		
Diff. (A-B)	-.001	.000	-.001	.000	.000	.000		
(Diff. x 100)/B	-.195	.000	-.195	.000	.000	.000		
Evaluator T.L.								
Date 12-11-64								

Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1	159	95	168	113	150	150	107	119	101	90	76	80	63	60	48	48
5	178	101	178	95	142	142	113	126	101	90	76	80	67	60	48	50
9	178	95	188	113	142	159	113	107	84	90	76	84	60	63	42	45
13	188	101	178	113	150	142	113	119	80	84	80	84	63	63	40	45
17	168	107	188	107	134	142	113	126	90	95	84	84	63	60	45	45
21	178	113	168	107	142	168	113	126	90	95	80	80	63	60	42	42
Evaluator																
Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1	159	95	168	113	134	134	107	119	101	90	76	80				
5	178	101	178	101	142	142	113	126	101	90	76	80				
9	178	95	178	113	142	159	113	107	84	90	76	80				
13	188	107	178	113	150	142	113	119	84	84	80	84				
17	168	107	188	113	134	142	113	126	90	95	84	84				
21	178	113	168	113	142	168	113	126	90	90	80	76				
Totals	2098	1230	2124	1314	1704	1790	1344	1446	1096	1083	944	976	376	346	265	275
No. of Rdgs.	12	12	12	12	12	12	12	12	12	12	12	12	6	6	6	6
Averages	175	103	177	110	142	149	112	121	91	90	79	81	63	61	44	46
Geom. Mean	134		139		145		116		90		80		62		45	

Code: "D" Physical Defect
"R" Vibration
"S" Spurions
"_" Smeared

308

H = x
V = y

Approved for Release: 2024/01/30 C05098941

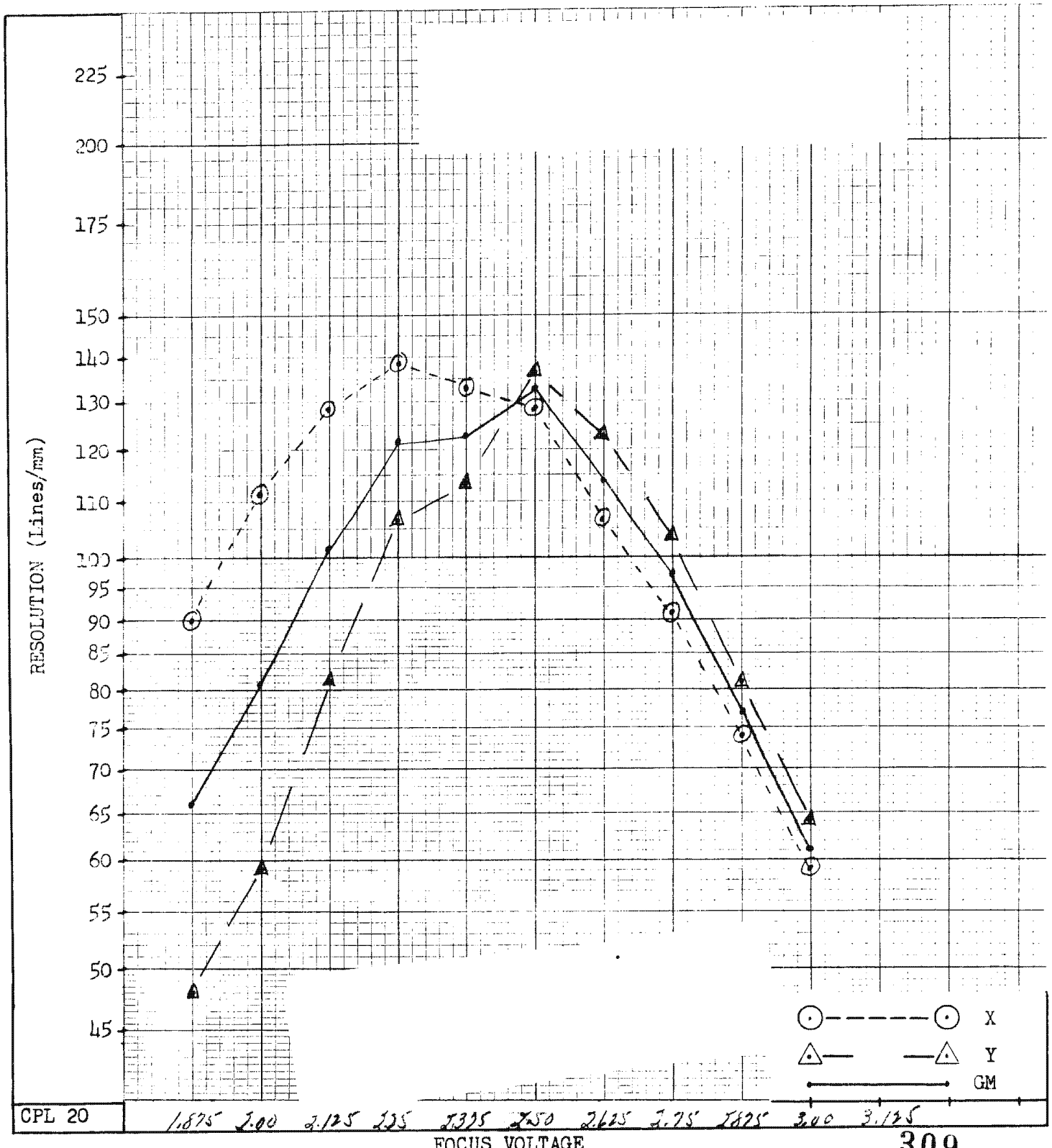
C05098941
Approved for Release: 2024/01/30 C05098941

Process Ticket No. 365	
Plotted By: H.E.	
Evaluator: E.C. H.E.	

FOCUS ANALYSIS

Sheet	of
Date of Test	12/11/66

Item & S/N	S/C FM-39	Collimator	EAST
Procedure No.	804-104	Target Drum	20800
Vibration	Pre F Post	Field Angle	+0.5 Deg.



Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Process Ticket No. 3652

of 12/1/66

Item & S/N S/C FM-39 | Collimator No. EAST

Procedure No. 804-104 | Target Drum No. 208001

Field Angle +0.5 Deg. | Vibration (Pre) Post

CPL 20	1.250	1.375	1.500	1.625	1.750	1.875	2.000	2.125
CPL 27	1.273	1.870	2.493	3.135	3.762	4.429	0.101	0.739
Evaluator								
IMC Circle								
Dim. Along (A)								
Dim. Across (B)								
Diff. (A-B)								
(Diff. x 100)/B								
Evaluator E.C.								
Date 12-12-66								

Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1											84	48	113	56	134	71
5											84	48	119	60	129	80
9											70	48	113	60	134	84
13											95	50	107	60	126	80
17											95	45	113	60	126	80
21											90	48	107	60	126	90
Evaluator A.T.																
Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1															134	71
5															126	80
9															134	84
13															126	80
17															126	80
21															126	90
Totals											538	287	472	296	1537	966
No. of Rdgs.											6	4	4	4	12	12
Averages											90	48	112	59	128	81
Geom. Mean											66		81		101	

Code: "D" Physical Defect
"R" Vibration
"S" Spurions
"_" Smeared

310

H = x
V = y

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Process Ticket No. 3652 of 12/11/66

Item & S/N S/C FM-39 Loop No. EAST

Procedure No. 804-104 Target Drum No. 208001

Field Angle +0.5 Deg. Vibration Pre Post

CPL 20	2.250	2.375	2.500	2.625	2.750	2.875	3.000	3.125
CPL 27	1.369	2.039	2.659	3.290	3.922	4.615	0.245	0.901
Evaluator								
IMC Circle								
Dim. Along (A)								
Dim. Across (B)								
Diff. (A-B)								
(Diff. x 100)/B								
Evaluator L.C.								
Date 12-11-66								

Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1	134	119	126	119	126	134	107	126	90	101	76	76	53	67		
5	142	101	150	113	126	150	119	142	90	107	80	90	67	60		
9	142	113	134	119	134	126	101	113	90	101	76	80	63	67		
13	134	95	126	107	134	134	101	119	84	107	80	80	60	63		
17	142	101	134	119	126	134	107	119	95	107	67	80	56	63		
21	134	101	126	119	126	142	101	119	95	101	71	80	56	63		
Evaluator H.E.																
Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1	134	119	126	119	126	126	107	126	90	101	71	76				
5	142	107	150	113	126	150	119	142	90	107	71	90				
9	142	113	134	113	134	126	101	113	90	101	76	80				
13	134	95	126	95	134	142	101	119	90	107	76	80				
17	142	101	134	113	126	134	113	119	95	107	67	80				
21	134	101	126	119	126	150	101	119	95	101	71	80				
Totals	1656	1246	1592	1368	1544	1648	1278	1476	1094	1248	882	972	355	383		
No. of Rdgs.	12	12	12	12	12	12	12	12	12	12	12	12	6	6		
Averages	138	106	133	114	129	137	107	123	91	104	74	81	59	64		
Geom. Mean	121		123		133		114		97		77		61			

Code: "D" Physical Defect
"R" Vibration
"S" Spurions
"_" Smeared

311

H = x
V = y

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

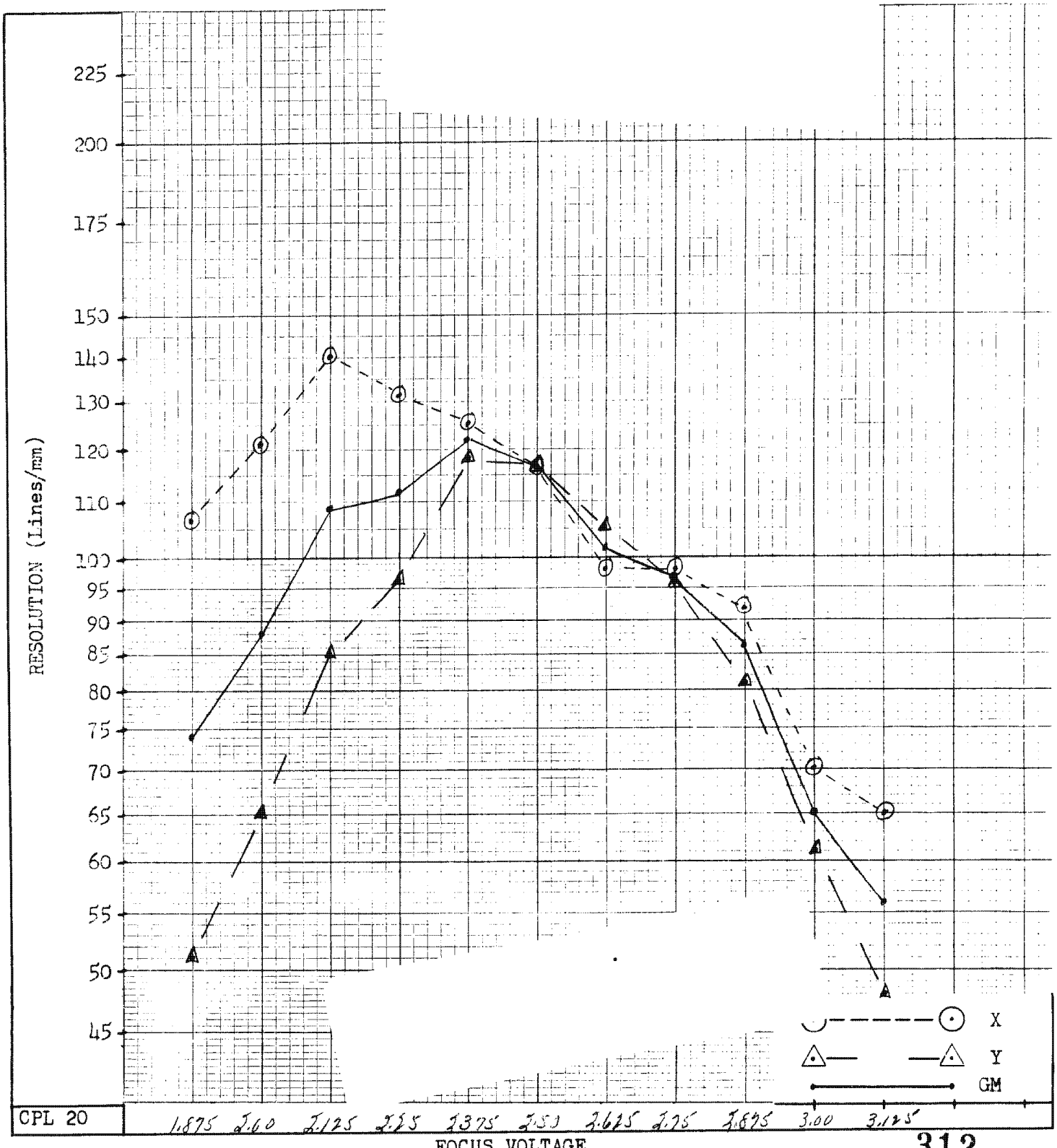
Process Ticket No. 365C	
Plotted By: T.C.	
Evaluator: E.C. T.C.	

ERCO. SPO QUALITY CONTROL

FOCUS ANALYSIS

Sheet	of
Date of Test	12/11/66

Item & S/N	S/C FM-39	Collimator	EAST
Procedure No.	804-104	Target Drum	208081
Vibration	Pre ____ Post ____	Field Angle	−0.5 Deg.



Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Process Ticket No. 3652 FOCUS DIM

of

st 12/11/66

Item & S/N S/C FM-3 EAST

Procedure No. 804-1

Target Drum No. 206021

Field Angle −0.5 Deg. Vibration (Pre) Post

CPL 20	1.250	1.375	1.500	1.625	1.750	1.875	2.000	2.125
CPL 27	1.293	1.907	2.504	3.119	3.759	4.420	0.089	0.743
Evaluator								
IMC Circle								
Dim. Along (A)								
Dim. Across (B)								
Diff. (A-B)								
(Diff. x 100)/B								
Evaluator C.C.								
Date 12-12-66								

Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1											107	50	109	63	134	90		
5											107	50	113	71	126	80		
9											107	50	119	60	134	90		
13											107	50	134	67	142	90		
17											101	53	119	63	142	96		
21											113	50	134	67	159	90		
Evaluator J.L.																		
Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1															134	84		
5															126	80		
9															134	84		
13															142	90		
17															142	96		
21															159	90		
Totals											642	303	726	391	1674	1020		
No. of Rdgs.											6	6	6	6	12	12		
Averages											107	51	121	65	140	85		
Geom. Mean											74		88		109			

Code: "D" Physical Defect
"R" Vibration
"S" Spurions
"_" Smeared

313

H = x
V = y

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Process Ticket No. 3652 | of 12/11/66

Item & S/N S/C FM-39 | Evaluator No. EAST

Procedure No. 804-104 | Target Drum No. 208001

Field Angle −0.5 Deg. | Vibration (Pre) Post

CPL 20	2.250	2.375	2.500	2.625	2.750	2.875	3.000	3.125
CPL 27	2643	3.269	3.942	4.619	0264	0.930	1.559	2.169
Evaluator								
IMC Circle								
Dim. Along (A)								
Dim. Across (B)								
Diff. (A-B)								
(Diff. x 100)/B								
Evaluator E.G.								
Date 12-11-66								

Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1	150	90	119	113	107	134	84	101	84	95	90	90	63	63	60	45
5	126	107	134	113	119	119	101	101	84	90	101	84	71	63	63	48
9	126	84	134	126	119	107	101	107	101	95	95	80	67	56	71	48
13	126	95	113	119	113	107	107	107	95	101	90	76	67	60	63	48
17	126	101	119	113	126	107	95	107	113	90	95	80	71	63	63	50
21	126	101	126	119	113	119	101	107	113	107	84	80	80	60	67	48
Evaluator K.E.																
Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1	150	90	126	113	107	134	84	101	84	95	90	90				
5	126	107	134	113	119	119	101	101	84	90	101	84				
9	126	84	134	126	119	107	101	107	101	90	90	71				
13	126	95	113	126	113	107	107	107	95	101	90	76				
17	134	101	119	119	126	107	95	107	107	90	95	80				
21	126	101	126	119	113	119	101	107	113	107	84	80				
Totals	1568	1156	1497	1419	1394	1386	1178	1260	1174	1151	1105	971	419	345	387	287
No. of Rdgs.	12	12	12	12	12	12	12	12	12	12	12	12	6	6	6	6
Averages	131	96	125	118	116	114	98	105	98	96	92	81	70	61	65	48
Geom. Mean	112		121		114		101		97		84		65		56	

Code: "D" Physical Defect
"R" Vibration
"S" Spurions
"_" Smeared

314

H = x
V = y

III

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

DYNAMIC RUN
DENSITY DATA SHEET

Process Ticket No.: 3620
Evaluator: TP
Date of Evaluation 1-18-67

of
st: 12-3-66

Item & S/N S/C FM-
No. West
Procedure No. 804-104
Target Drum No. 208061
Vibration Pre. ✓ Post

Control Data		Film Speed	1		64		31	31	31	31	31	
Step #	D	Field Angle	0°		0°		0°	+0.5°	-0.5°	0°	0°	
1	2.47	Input Voltage	28		28	Spec	28v	28v	28v	27v	32.5v	Spec
2	2.44	Step 7					[redacted]					~~1.1-1.3~~
3	2.39	Step 9										
4	2.31	D. Min.	.21		.21							
5	2.19	TTA	1.20		1.67							
6	2.02	TTB	1.16		1.61							
7	1.80	Visual Observation			No Fog				Fogged			
8	1.52	if fogged	D min of Fogged Area		NONE							
9	1.21		D min. Random									
10	.89											
11	.62											
12	.42											
13	.31											
14	.25											
15	.23											
16	.21											
17	.20											
18	.19											
19	.19											
20	.19											
21	.19											

		Spec
Gamma	2.10	1.9-2.3
Speed Pt.	1.15	1.08 - 1.18
Log E	1.49	
TTA	1.89 / 1.65	1.36 min.
TTB	1.87 / 1.63	1.36 min.

IDENTIFICATION OF RAW FILM STOCK

Film Can No. 307

Film type	Total feet
3404	2985

Emulsion No.	Master Roll No.	Date mo/yr
265	1 /	8-66

Film+ spool wt.	spool wt.
54.1	4.0

Splice location from head of roll
1855 / 1127 /

315

G-ATR- 4 E-3

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Process Ticket No. 362 | t of | of Test 12-3-66

Item & S/N FM -	Collimator No. W
Procedure No. 804-104	Target Drum No.
Evaluators E.C.	Vibration: Pre ✓ Post
Date of Evaluation 12-5-66	Focus Voltage: CPL 20

Film Defects (Describe)	Location
NONE	
Spurious Interframe Marks	NONE

IMC Circle: speed 31,0°	Frame 2,27v	Frame 2,28v	Frame2,32.5v
Dim. Along (A)			
Dim. Across (B)			
Difference:(A-B)			
(Difference x 100)/B			

Speed	1	9	17	25	33	41	49	57	64
Film Speed (in/sec) min.	2.479	2.685	2.907	3.148	3.409	3.692	3.997	4.328	4.641
Specifications max.	2.489	2.695	2.919	3.160	3.423	3.706	4.013	4.346	4.659
Film Speed, 27 volts									
Bit 1 Ref. Dim. (inches)	1.448	0.979	1.316	1.172	1.100	1.850	0.996	1.099	1.895
Bit 21 Ref. Dim. (inches)	3.928	3.665	4.224	4.323	4.511	5.544	4.996	5.432	6.541
Film Speed (Diff. in/sec)	2.480	2.686	2.908	3.151	3.411	3.694	4.000	4.333	4.646
Film Speed, 28 volts									
Bit 1 Ref. Dim. (inches)	4.979	1.510	0.945	1.083	1.050	1.113	0.947	1.110	1.577
Bit 21 Ref. Dim. (inches)	3.449	4.197	3.856	4.233	4.459	4.809	4.949	5.442	6.123
Film Speed (Diff, in/sec)	2.479	2.687	2.911	3.160	3.409	3.696	4.002	4.332	4.646
Film Speed, 32.5 volts									
Bit 1 Ref. Dim. (inches)	1.030	0.983	1.120	1.006	1.044	1.096	1.004	1.769	1.156
Bit 21 Ref. Dim. (inches)	3.510	3.668	4.030	4.157	4.455	4.991	5.005	6.102	6.806
Film Speed (Diff. in/sec)	2.480	2.685	2.910	3.151	3.411	3.695	4.001	4.333	4.650

Dist. Btwn. TTA and TTB	2nd Target Frame of Speed 1 at 0° and 28 volts
TTA Reading (inches)	16.331
TTB Reading (inches)	16.368
Difference (inches)	.037 Spec. 0.035-0.045"

316

Approved for Release: 2024/01/30 C05098941

Process Ticket No. 3620	DATA SHEET FOR RECORD EVALUATION	Sheet of
Camma Spec. 1.9-2.3		Date of Test 12-3-66
Item - Space Chamber FM-39		Procedure No. 804-104
		Vibration Pre ✓ Post

Evaluator E.E. Date of Evaluation 12-5-66

Test	Test Requirement Units	Min.	Max.	Test Da
SLIT No. 1, TT bit from slit	inches	-	0.005	.001
SLIT No. 2, TT bit from slit	inches	-	0.005	.0015
SLIT No. 3, TT bit from slit	inches	-	0.005	.001
SLIT No. 4, TT bit from slit	inches	-	0.005	—
SLIT No. 5, TT bit from slit	inches	-	0.005	—

Appendix C Ref. Para. START-STOP TRANSIENTS

FILM SPEED STEP	START TRANSIENT Film travel from turn-on to start of TTA bits -Inches as read-	Min	Distance between first two TTA after turn-on Max. Spec. Inches	Test Data	STOP TRANSIENT Distance from turn-off to film stop Min. Spec. Inches	Max. Spec. Inches	Test
1	2.778	0.1232	0.1252	.1233	-	6	.519
9	3.037	0.1334	0.1356	.1343	-	6	.698
17	3.294	0.1445	0.1468	.1453	-	6	.850
25	3.548	0.1565	0.1590	.1581	-	6	1.131
33	3.854	0.1695	0.1722	.1700	-	6	1.403
41	4.017	0.1835	0.1865	.1848	-	6	1.822
49	4.492	0.1987	0.2019	.2008	-	6	2.358
57	4.806	0.2151	0.2186	.2161	-	6	2.656
64	4.953	0.2307	0.2344	.2326	-	6	3.018

C05098941
Approved for Release: 2024/01/30 C05098941
Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Process Ticket No. 3629	RMS RECORD DRIVE VELOCITY VARIATION	Sheet of
Space Chamber Test		Date of Test 12-6-66
Space Chamber S/N FPI-39		Evaluator C.C. [illegible]
Vibration Pre Post		Date of Evaluation 12-7-66
Camera Speed Step 1		

CALCULATION STEPS

1. Reference reading 10.053
2. $X_{avg.} = \frac{\Sigma X}{100} = 3.433$
3. $\Delta X = X - X_{avg.}$
4. $\Sigma \Delta X^2 = .021094$
5. $RMS = \sqrt{\frac{\Sigma \Delta X^2}{100}} = .0145$
6. $X_{avg.\ corr.}$ = Ref. Reading - $X_{avg.}$ = 6.657

$V = \frac{RMS \times 100}{X_{avg.\ corr.}} = .218$

Reading No.	X	ΔX	ΔX²	Reading No.		ΔX	ΔX²
1	3.437	.034	1156	26	90	.013	.000169
	38	.35	1225		70	13	169
	25	22	484		401	2	4
	18	15	225		05	2	4
	05	2	4		56	23	529
	08	5	25		24	21	441
	19	16	256		06	3	9
	31	28	784		399	4	16
	12	9	81		82	11	121
	397	6	36		425	22	484
	406	3	9		33	30	900
	06	3	9		05	2	4
	399	4	16		399	4	16
	401	2	4		86	17	289
	03	0	0		406	3	9
	395	8	64		397	6	36
	97	6	36		85	18	324
	92	11	121		404	1	1
	90	13	169		04	1	1
	89	14	196		395	8	64
	408	5	25		406	3	9
	21	18	324		396	7	49
	01	2	4		99	4	16
	384	19	361		93	10	100
25	84	19	361	50	400	3	9

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Process Ticket No. 3629	RMS RECORD DRIVE VELOCITY VARIATION	Sheet of
Space Chamber Test		Date of Test 12-6-66
Space Chamber S/N FM-39		Evaluator E.C. H.C.
Vibration Pre Post		Date of Evaluation 12-7-66
Camera Speed Step 1		

CALCULATION STEPS

1. Reference reading 10.053
2. $X_{avg.} = \frac{\Sigma X}{100} = 3.403$
3. $\Delta X = X - X_{avg.}$
4. $\Sigma \Delta X^2 = .021094$
5. $RMS = \sqrt{\frac{\Sigma \Delta X^2}{100}} = .0145$

rr. = Ref. Reading - $X_{avg.}$ = 6.650

$= \frac{RMS \times 100}{X_{avg.\ corr.}} = .218$

Reading No.	X	ΔX	ΔX²	Reading No.	X	ΔX	ΔX²
51	3.402	001	.000001	76	18	.015	.000225
	397	6	36		395	8	64
	401	2	4		95	8	64
	385	18	324		414	11	121
	92	11	121		34	21	441
	92	11	121		14	11	121
	403	0	0		02	1	1
	06	3	9		329	24	576
	08	5	25		402	1	1
	10	7	49		14	11	121
	15	12	144		14	11	121
	390	13	169		383	20	400
	25	28	784		27	26	676
	401	2	4		424	21	441
	24	21	441		27	24	576
	13	10	100		16	13	169
	395	8	64		14	11	121
	82	21	441		386	17	289
	72	31	961		86	17	289
	86	17	289		86	17	289
	412	9	81		91	12	144
	11	8	64		88	15	225
	06	3	9		99	6	36
	28	25	625		425	22	484
75	20	17	289	100	17	14	196

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Process Ticket No. 3629	RMS RECORD DRIVE VELOCITY VARIATION	Sheet of
Space Chamber Test		Date of Test 12-6-66
Space Chamber S/N FM-34		Evaluator E.C. Z.E.
Vibration Pre Post		Date of Evaluation 12-7-66
Camera Speed Step 33		

CALCULATION STEPS

1. Reference reading 10.057
2. $X_{avg.} = \frac{\Sigma X}{100} = 3.351$
3. $\Delta X = X - X_{avg.}$
4. $\Sigma \Delta X^2 = .012399$
5. RMS $= \sqrt{\frac{\Sigma \Delta X^2}{100}} = .0111$

Corr. = Ref. Reading - $X_{avg.}$ = 6.706

$= \frac{\text{RMS} \times 100}{X_{avg.\ corr.}} = .166$

Reading No.	X	ΔX	ΔX^2	Reading No.	X	ΔX	ΔX^2
1	3.360	.009	.000081	26	38	.013	.000169
	60	9	81		36	15	225
	51	0	0		44	7	49
	52	1	1		53	2	4
	53	2	4		65	14	196
	51	0	0		66	15	225
	56	5	25		63	12	144
	56	5	25		67	16	256
	49	2	4		64	13	169
	37	14	196		44	7	49
	31	20	400		41	10	100
	23	28	784		41	10	100
	27	24	576		43	4	16
	33	18	324		51	10	100
	46	5	25		56	5	25
	44	7	49		56	5	25
	44	7	49		53	2	4
	61	10	100		44	7	49
	75	24	576		50	1	1
	73	22	484		50	1	1
	58	7	49		50	1	1
	54	3	9		50	1	1
	76	25	625		64	13	169
	71	20	400		53	2	4
25	54	1	1	50	38	13	169

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Process Ticket No. 3629	RMS RECORD DRIVE VELOCITY VARIATION	Sheet of
Space Chamber Test		Date of Test 12-6-66
Space Chamber S/N FM-39		Evaluator E.C. W.E.
Vibration Pre Post		Date of Evaluation 12-7-66
Camera Speed Step 33		

CALCULATION STEPS

1. Reference reading 10.057
2. $X_{avg.} = \frac{\Sigma X}{100} = 3.351$
3. $\Delta X = X - X_{avg.}$
4. $\Sigma \Delta X^2 = .012399$
5. $RMS = \sqrt{\frac{\Sigma \Delta X^2}{100}} = .0111$
6. $X_{avg.\ corr.}$ = Ref. Reading - $X_{avg.}$ = 6.706

$V = \frac{RMS \times 100}{X_{avg.\ corr.}} = .166$

Reading No.	X	ΔX	ΔX²	Reading No.	X	ΔX	ΔX²
51	3.346	005	.000025	76	49	.002	.000004
	56	5	25		53	2	4
	49	2	4		58	7	49
	34	17	289		51	0	0
	42	9	81		45	6	36
	45	6	36		45	6	36
	47	4	16		32	19	361
	47	4	16		30	21	441
	45	6	36		33	18	324
	54	3	9		33	18	324
	53	2	4		31	20	400
	59	8	64		45	6	36
	62	11	121		45	6	36
	52	1	1		48	3	9
	47	4	16		54	3	9
	45	6	36		65	14	196
	43	8	64		65	14	196
	43	8	64		52	1	1
	46	5	25		45	6	36
	50	1	1		49	2	4
	60	9	81		53	2	4
	78	27	729		53	2	4
	75	24	576		53	2	4
	70	19	361		46	5	25
75	57	6	36	100	46	5	25

G-ATR-11

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Process Ticket No. 3629	RMS RECORD DRIVE VELOCITY VARIATION	Sheet of
Space Chamber Test		Date of Test 12-6-66
Space Chamber S/N FM 39		Evaluator E.C. R.C.
Vibration Pre Post		Date of Evaluation 12-7-66
Camera Speed Step 64		

CALCULATION STEPS

1. Reference reading 16.059
2. $X_{avg.} = \frac{\Sigma X}{100} = 3.246$
3. $\Delta X = X - X_{avg.}$
4. $\Sigma \Delta X^2 = .011898$
5. $RMS = \sqrt{\frac{\Sigma \Delta X^2}{100}} = .0109$
6. $X_{avg.\ corr.}$ = Ref. Reading - $X_{avg.}$ = 6.813

$\frac{RMS \times 100}{X_{avg.\ corr.}} = .160$

Reading No.	X	ΔX	ΔX²	Reading No.	X	ΔX	ΔX²
1	3.235	011	121	26	33	.013	000169
	44	2	4		25	21	441
	50	4	16		34	22	484
	52	6	36		36	20	400
	56	10	100		32	14	196
	62	16	256		40	6	36
	66	20	400		42	4	16
	63	17	289		44	2	4
	52	6	36		54	8	64
	40	6	36		70	24	576
	44	2	4		70	24	576
	44	2	4		68	22	484
	39	7	49		64	28	784
	29	17	289		61	15	225
	33	13	169		55	11	121
	40	6	36		46	0	0
	44	2	4		43	3	9
	46	0	0		38	8	64
	42	4	16		38	8	64
	46	0	0		49	3	9
	51	5	25		57	5	25
	51	6	25		45	1	1
	44	2	4		36	10	100
	36	10	100		41	5	25
25	34	12	144	50	41	5	25

322 G-ATR-11

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Process Ticket No. 3629	RMS RECORD DRIVE VELOCITY VARIATION	Sheet of
Space Chamber Test		Date of Test 12-6-66
Space Chamber S/N FM 39		Evaluator E.C. T.C.
Vibration Pre Post		Date of Evaluation 12-7-66
Camera Speed Step 64		

CALCULATION STEPS

1. Reference reading 10.059
2. $X_{avg.} = \frac{\Sigma X}{100} = 3.246$
3. $\Delta X = X - X_{avg.}$
4. $\Sigma \Delta X^2 = .011898$
5. $RMS = \sqrt{\frac{\Sigma \Delta X^2}{100}} = .0109$

Ref. Reading - $X_{avg.}$ = 6813

$\frac{RMS \times 100}{X_{avg.\ corr.}} = .160$

Reading No.	X	ΔX	ΔX²	Reading No.	X	ΔX	ΔX²
51	3.235	.011	.000121	76	35	.011	.000121
	33	13	169		41	5	25
	33	13	169		45	1	1
	33	13	169		47	1	1
	35	11	121		43	3	9
	36	10	100		40	6	36
	41	5	25		43	3	9
	50	4	16		47	1	1
	57	11	121		49	3	9
	61	15	225		49	3	9
	56	10	100		52	6	36
	51	5	25		62	16	256
	55	9	81		68	22	484
	53	7	49		60	14	196
	41	5	25		49	3	9
	35	11	121		49	3	9
	35	11	121		49	3	9
	42	4	16		42	4	16
	52	6	36		32	14	196
	56	10	100		29	17	289
	55	9	81		37	19	361
	55	9	81		42	4	16
	57	11	121		38	8	64
	57	11	121		36	10	100
25	40	6	36	100	41	5	25

323 G-ATR-11

Approved for Release: 2024/01/30 C05098941

C05098941

Approved for Release: 2024/01/30 C05098941

Approved for Release: 2024/01/30 C05098941

Post - Vib.

FM 39

DATA SHEET FOR
ACCEPTANCE TEST PROCEDURE 804-104

BEST PHOTOGRAPHIC FOCUS POSITION COMPUTATION SHEET

G.M. AT B.P.F. 145 (≥130 l/mm)

Run No.	Field Angle	G.M. IN LINES/MM FOR CPL-20 VOLTAGES								
		2.000	2.125	2.250	2.375	2.500	2.625	2.750	2.875	3.000
3672	+.5	89	103	124	142	128	105	85	70	55
1	0	94	119	147	155	147	124	101	80	60
	-.5	97	110	117	134	120	106	93	76	63
3673	+.5	80	104	118	138	133	120	94	76	54
2	0	86	103	144	161	151	127	101	95	65
	-.5	93	107	133	133	127	107	89	73	63
3674	+.5	90	113	136	151	134	108	79	70	53
3	0	96	130	143	160	148	125	96	67	53
	-.5	97	103	118	127	111	103	82	68	56
4	+.5									
	0									
	-.5									
5	+.5									
	0									
	-.5									
6	+.5									
	0									
	-.5									
7	+.5									
	0									
	-.5									
TOTAL		822	992	1170	1301	1199	1025	820	655	522
AVERAGE		91	110	130	145	133	114	91	73	58

C05098941

Approved for Release: 2024/01/30 C05098941

FOCUS RUN
DENSITY DATA SHEET

of

st 12-17-66

Process Ticket No.	3672
Evaluator	TP
Date of Evaluation	1/18

Item & S/N S/C FM-2 — Lens No. Wollensak

Procedure No. 804-104 — Target Drum No. 208001

Vibration: Pre Post ✓

Control Data		2nd Complete Frame where CPL-20 = 2.5v				
Step #	D	Film Speed	31	31	31	
1	2.43	Field Angle	-2.7°	0°	+2.7°	
2	2.41	Input Voltage	28v	28v	28v	Spec.
3	2.36	Step 7	[redacted]	.83	[redacted]	~~1.1 ±0.3~~
4	2.29	Step 9	[redacted]	.42	[redacted]	*
5	2.18					
6	2.01					
7	1.81					
8	1.55					
9	1.23					
10	.93					
11	.64					
12	.45					
13	.32					
14	.26					
15	.22					
16	.20					
17	.19					
18	.18					
19	.18					
20	.18					
21	.18	Spec.				
Gamma	2.16	1.9 - 2.3				
Speed Pt	1.14	1.08 - 1.18				

* The density of step 9 shall be equal to or greater than the density of the H and D curve at the speed point.

IDENTIFICATION OF RAW FILM STOCK

Film Can No. 281

Film Type: 3404		Total feet: 2985
Emulsion No.: 265	Master Roll No.: 21	Date mo/yr: 10 66
Film + spool wt.: 54.7		spool wt.: 4.1
Splice location from head of roll: 1720 / 1265 /		

325

G-ATR- 1

Approved for Release: 2024/01/30 C05098941

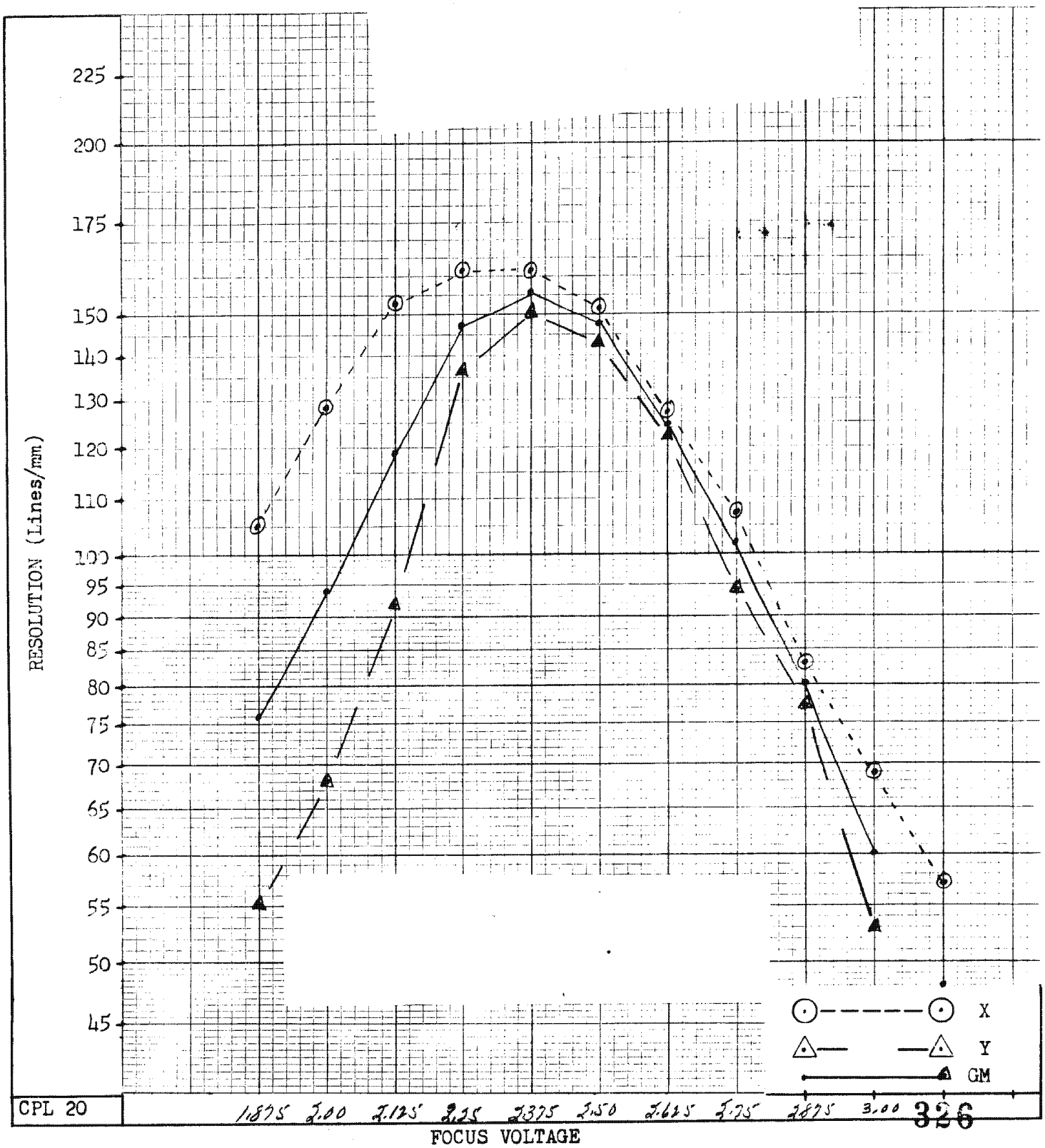
C05098941
Approved for Release: 2024/01/30 C05098941

Process Ticket No. 3672	
Plotted By: Y.E.	
Evaluator: J.P. E.C.	

FOCUS ANALYSIS

Sheet	of
Date of Test	12/17/66

Item & S/N S/C FM-39	Collimator FAST
Procedure No. 804-104	Target Drum 208001
Vibration Pre ____ Post ✓	Field Angle 0 Deg.



Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Process Ticket No. 3672

of 12/17/66

Item & S/N S/C FM-39 | Collimator No. EAST

Procedure No. 804-104 | Target Drum No. 208001

Field Angle 0 Deg. | Vibration Pre Post ✓

CPL 20	1.250	1.375	1.500	1.625	1.750	1.875	2.000	2.125
CPL 27	1.287	1.869	2.502	3.143	3.749	4.419	0.065	0.733
Evaluator								
IMC Circle								
Dim. Along (A)							.513	.513
Dim. Across (B)							.514	.511
Diff. (A-B)							-.001	-.001
(Diff. x 100)/B							-.195	-.195
Evaluator +P								
Date 12-18-66								

Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1											101	53	119	63	142	84		
5											95	53	126	67	159	90		
9											107	56	126	67	150	76		
13											107	56	119	67	142	101		
17											101	53	119	71	159	95		
21											101	56	134	71	150	101		
Evaluator L.G.																		
Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1											101	56	126	67	150	84		
5											95	53	142	67	159	90		
9											113	56	134	67	159	80		
13											107	56	134	71	150	107		
17											113	63	126	71	159	95		
21											113	56	134	71	159	101		
Totals											1354	664	1539	840	1838	1104		
No. of Rdgs.											12	12	12	12	12	12		
Averages											105	55	128	68	153	92		
Geom. Mean											76		94		119			

Code: "D" Physical Defect
"R" Vibration
"S" Spurions
"_" Smeared

327

H = x
V = y

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Process Ticket No. 3672

of 12/17/66

Item & S/N S/C FM-39 | Collimator No. FAST

Procedure No. 804-104 | Target Drum No. 208001

Field Angle 0 Deg. | Vibration Pre Post ✓

CPL 20	2.250	2.375	2.500	2.625	2.750	2.875	3.000	3.125
CPL 27	1.366	2.011	2.651	3.292	3.909	4.575	0.230	0.899
Evaluator								
IMC Circle								
Dim. Along (A)	.512	.512	.513	.513	.512			
Dim. Across (B)	.514	.514	.514	.514	.514			
Diff. (A-B)	-.002	-.002	-.001	-.001	-.002			
(Diff. x 100)/B	-.390	-.390	-.195	-.195	-.390			
Evaluator TP								
Date 12-18-66								

Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1	159	119	168	142	134	142	119	107	101	90	80	76	67	53	50	40
5	159	126	168	142	150	142	113	107	113	90	80	76	71	50	53	40
9	159	126	150	142	168	159	126	113	107	90	90	71	67	56	63	42
13	168	134	168	142	142	113	113	126	107	95	80	76	67	53	56	42
17	159	134	150	150	168	142	150	119	113	95	84	76	63	50	63	40
21	150	150	150	159	142	142	126	126	95	95	84	80	76	53	56	40
Evaluator L.G.																
Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1	159	126	168	159	134	142	126	119	107	95	80	76				
5	168	126	168	159	150	150	119	119	113	95	80	84				
9	168	134	150	142	168	159	134	126	107	95	90	71				
13	168	142	178	159	142	126	119	126	107	95	80	80				
17	159	150	150	150	168	150	150	134	119	95	84	76				
21	150	159	168	159	142	159	126	126	95	101	84	80				
Totals	1926	1626	1936	1805	1808	1726	1521	1448	1284	1131	996	922	411	315	341	344
No. of Rdgs.	12	12	12	12	12	12	12	12	12	12	12	12	6	6	6	6
Averages	161	136	161	150	151	144	127	121	107	94	83	77	69	53	57	41
Geom. Mean	147		155		147		124		101		80		60		48	

Code: "D" Physical Defect
"R" Vibration
"S" Spurions
"_" Smeared

328

H = x
V = y

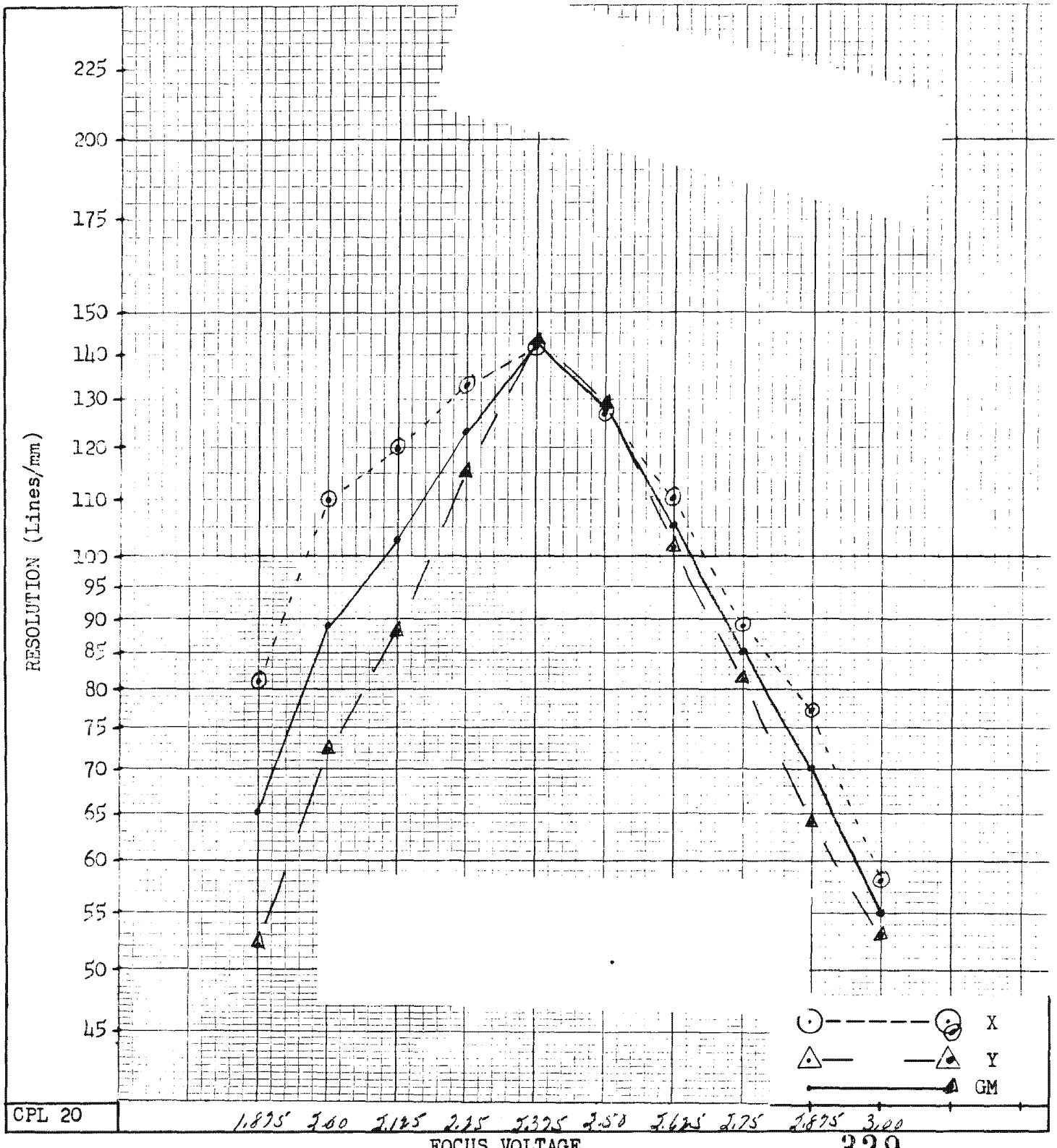
Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Process Ticket No. 367	
Plotted By: Z.C.	FOCUS ANALYSIS
Evaluator: J.P. E.C.	

Sheet	of
Date of Test	12/12/66

Item & S/N S/C FM-39	Collimator FAST
Procedure No. 804-104	Target Drum 208001
Vibration Pre ____ Post ✓	Field Angle +0.5 Deg.



Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Process Ticket No. 3672

FOCUS RUN
FOCUS ANALYSIS
DATA SHEET

Sheet of

Date of Test 12/17/66

Item & S/N S/C FM-39

Collimator No. FMST

Procedure No. 804-104

Target Drum No. 208001

Field Angle ±0.5 Deg.

Vibration Pre Post ✓

CPL 20	1.250	1.375	1.500	1.625	1.750	1.875	2.000	2.125
CPL 27	1.269	1.870	2.499	3.122	3.769	4.402	0.080	0.730
Evaluator								
IMC Circle								
Dim. Along (A)								
Dim. Across (B)								
Diff. (A-B)								
(Diff. x 100)/B								
Evaluator TP								
Date 12-18-66								

Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1											76	50	101	71	113	80
5											80	50	113	71	107	84
9											80	50	119	67	119	95
13											84	53	113	76	119	95
17											84	50	107	71	126	90
21											84	50	107	71	126	84
Evaluator LL																
Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1											76	50	101	76	126	80
5											80	56	113	74	107	84
9											80	50	119	67	119	95
13											84	53	113	76	119	95
17											84	53	107	71	134	90
21											84	53	107	71	126	84
Totals											936	618	1330	864	1441	1056
No. of Rdgs.											12	12	12	12	12	12
Averages											81	52	110	72	120	88
Geom. Mean											65		89		103	

Code: "D" Physical Defect
"R" Vibration
"S" Spurions
"_" Smeared

930

H = x
V = y

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Process Ticket No. 3672

FOCUS RUN
FOCUS ANALYSIS
DATA SHEET

Sheet of

Date of Test 12/17/64

Item & S/N S/C FM-39

Collimator No. FAST

Procedure No. 804-104

Target Drum No. 208001

Field Angle +0.5 Deg.

Vibration Pre Post ✓

CPL 20	2.250	2.375	2.500	2.625	2.750	2.875	3.000	3.125
CPL 27	1.371	2.025	2.661	3.275	3.944	4.589	0.250	0.892
Evaluator								
IMC Circle								
Dim. Along (A)								
Dim. Across (B)								
Diff. (A-B)								
(Diff. x 100)/B								
Evaluator T.P.								
Date 12-17-64								

Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1	142	107	134	134	134	126	107	95	90	71	71	63	60	53	45	40
5	126	119	142	142	134	134	107	101	95	84	76	60	60	50	45	40
9	134	107	150	126	126	134	107	90	90	84	80	60	56	53	48	42
13	126	119	142	150	119	126	107	95	84	76	80	67	56	53	42	40
17	134	113	134	134	126	119	113	107	84	76	80	63	56	50	48	40
21	134	119	126	142	119	126	119	101	90	84	71	63	60	56	42	40
Evaluator T.P.																
Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1	142	113	150	150	134	134	107	101	90	76	76	67				
5	126	119	150	142	134	134	107	101	95	90	76	60				
9	142	113	159	142	126	134	107	101	90	84	80	60				
13	126	119	142	150	126	134	107	101	84	84	80	67				
17	134	113	142	150	126	119	113	113	84	76	80	67				
21	142	119	126	150	119	126	119	101	90	84	76	67				
Totals	1608	1380	1697	1714	1523	1546	1320	1207	1066	969	926	764	348	315	270	242
No. of Rdgs.	12	12	12	12	12	12	12	12	12	12	12	12	6	6	6	6
Averages	134	115	141	143	127	129	110	101	89	81	77	64	58	53	45	41
Geom. Mean	124		142		128		105		85		71		55		43	

Code: "D" Physical Defect
"R" Vibration
"S" Spurions
"_" Smeared

331

H = x
V = y

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

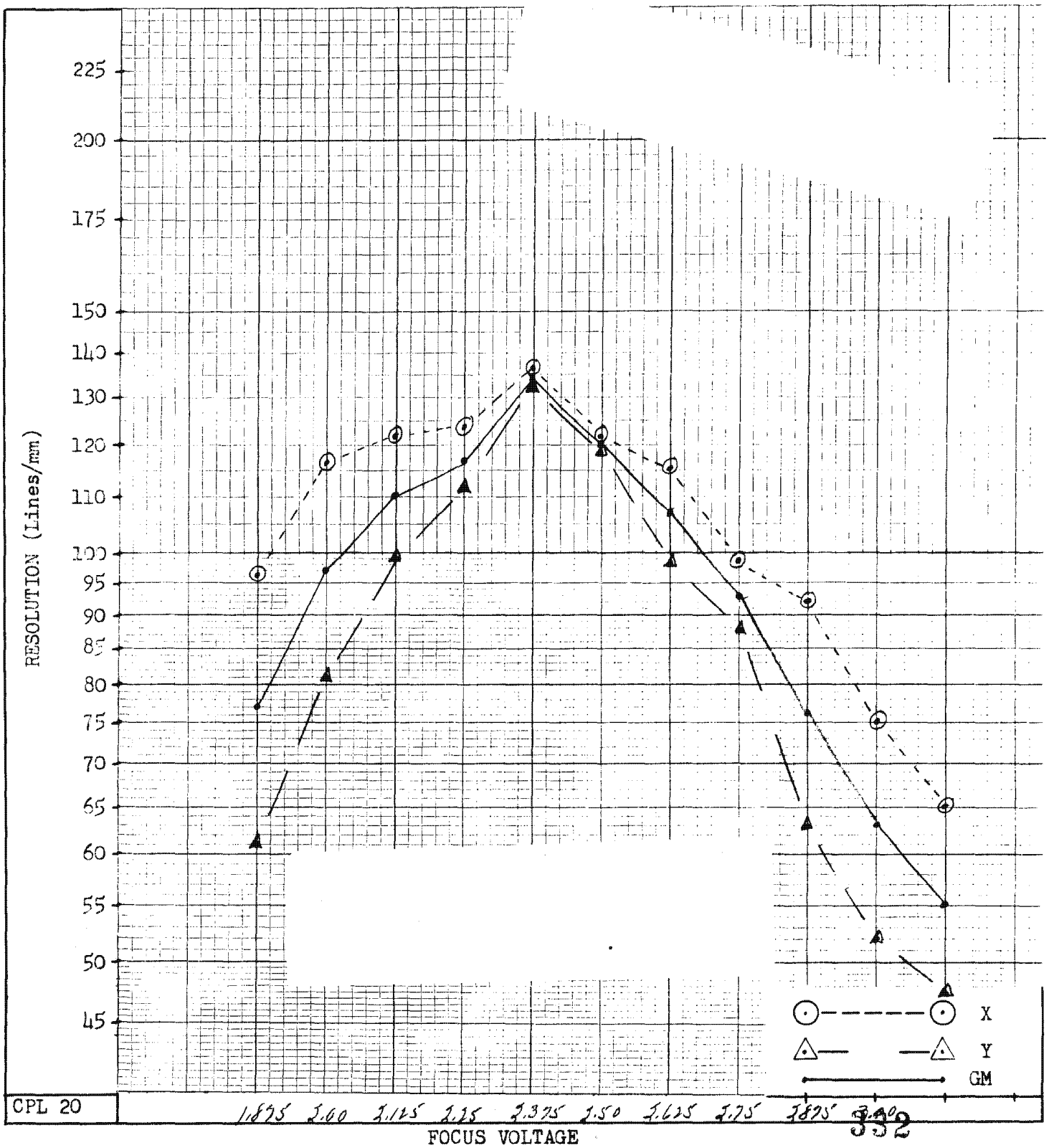
Process Ticket No. 3672
Plotted By: Z.C.
Evaluator: T.P. E.C.

EKCo. SPO QUALITY CONTROL

FOCUS ANALYSIS

Sheet of
Date of Test 12/17/66

Item & S/N S/C FM-39	Collimator EAST
Procedure No. 708001	Target Drum 708001
Vibration Pre ____ Post ✓	Field Angle −0,5 Deg.



Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Process Ticket No. 3672

FOCUS RUN
FOCUS ANALYSIS
DATA SHEET

Sheet of

Date of Test 12/17/66

Item & S/N S/C FM-39 | Collimator No. EAST

Procedure No. 804-104 | Target Drum No. 208001

Field Angle −0.5 Deg. | Vibration Pre Post ✓

CPL 20	1.250	1.325	1.500	1.625	1.750	1.875	2.000	2.125
CPL 27	1.265	1.859	2.533	3.134	3.749	4.411	0.080	0.733
Evaluator								
IMC Circle								
Dim. Along (A)								
Dim. Across (B)								
Diff. (A-B)								
(Diff. x 100)/B								
Evaluator TP								
Date 12-18-66								

Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1											95	56	119	80	119	95		
5											107	56	119	84	126	101		
9											95	63	113	76	113	95		
13											95	60	113	76	119	96		
17											95	60	113	84	126	101		
21											90	60	119	80	119	101		
Evaluator T.G.																		
Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1											95	56	119	84	126	101		
5											107	60	126	84	126	101		
9											95	63	113	76	126	107		
13											95	63	113	76	119	90		
17											95	67	113	93	126	101		
21											90	63	119	80	119	101		
Totals											1154	727	1398	920	1464	1184		
No. of Rdgs.											12	12	12	12	12	12		
Averages											96	61	117	81	122	99		
Geom. Mean											77		97		110			

Code: "D" Physical Defect
"R" Vibration
"S" Spurions
"_" Smeared

333

H = x
V = y

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Process Ticket No. 3672

FOCUS RUN
FOCUS ANALYSIS
DATA SHEET

Sheet of

Date of Test 12/17/66

Item & S/N S/C FM-39

Collimator No. EAST

Procedure No. 804-104

Target Drum No. 708001

Field Angle −0.5 Deg.

Vibration Pre Post ✓

CPL 20	2.250	2.375	2.500	2.625	2.750	2.875	3.000	3.125
CPL 27	1.399	2.010	2.636	3.276	3.929	4.603	0.222	0.881
Evaluator								
IMC Circle								
Dim. Along (A)								
Dim. Across (B)								
Diff. (A-B)								
(Diff. x 100)/B								
Evaluator TP								
Date 12-18-66								

Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1	119	101	119	134	119	113	107	90	95	90	84	56	76	53	60	48
5	113	107	126	126	113	107	119	90	95	80	95	60	80	56	60	48
9	119	107	134	134	134	126	134	113	95	84	95	67	67	50	67	48
13	134	113	142	142	119	119	107	107	113	84	90	63	71	50	71	50
17	126	107	126	119	126	119	101	95	101	90	90	67	80	50	67	42
21	126	119	150	126	119	126	119	90	95	84	90	63	76	53	63	45
Evaluator GL																
Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1	126	113	119	134	119	119	107	90	95	95	95	56				
5	113	107	134	134	113	113	126	95	95	90	95	60				
9	126	107	150	142	134	126	134	113	95	90	95	67				
13	134	119	142	142	119	119	113	107	113	90	90	63				
17	126	107	134	119	126	119	95	95	101	90	90	67				
21	126	119	150	126	119	126	119	90	95	84	90	63				
Totals	1488	1326	1626	1578	1451	1431	1381	1175	1188	1051	1099	757	450	317	388	281
No. of Rdgs.	12	12	12	12	12	12	12	12	12	12	12	12	6	6	6	6
Averages	124	111	136	132	121	119	115	98	99	88	92	63	75	52	65	47
Geom. Mean	117		134		120		106		93		76		63		55	

Code: "D" Physical Defect
"R" Vibration
"S" Spurions
"_" Smeared

334

H = x
V = y

Approved for Release: 2024/01/30 C05098941

C05098941

Approved for Release: 2024/01/30 C05098941

Process Ticket No. 3673	of 2-17-66
Evaluator TP	
Date of Evaluation 1/18/67	

Item & S/N S/C FM-39	Collimator No. EAST
Procedure No. 804-104	Target Drum No. 208001
Vibration: Pre ~~Post~~	

Control Data		2nd Complete Frame where CPL-20 = 2.5v				
Step #	D	Film Speed	31	31	31	
1	2.50	Field Angle	-2.7°	0°	+2.7°	
2	2.48	Input Voltage	28v	28v	28v	Spec.
3	2.43	Step 7	.73	.81	.73	~~1.1 ±0.3~~
4	2.35	Step 9	.39	.42	.41	*
5	2.24					
6	2.07					
7	1.86					
8	1.60					
9	1.28					
10	.95					
11	.66					
12	.46					
13	.33					
14	.26					
15	.23					
16	.20					
17	.19					
18	.18					
19	.18					
20	.18					
21	.18	Spec.				
Gamma	2.20	1.9 - 2.3				
Speed Pt	1.16	1.08 - 1.18				

* The density of step 9 shall be equal to or greater than the density of the H and D curve at the speed point.

IDENTIFICATION OF RAW FILM STOCK

Film Can No. 281

Film Type	Total feet	
3404	2985	
Emulsion No.	Master Roll No.	Date mo/yr
265	21	10 66
Film + spool wt.	spool wt.	
54.7	4.1	
Splice location from head of roll		
1720 / 1265 /		

335

G-ATR- 1

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Process Ticket No. 3673

12/17/66

Item & S/N S/C Fm-39	Collimator No. EAST
Procedure No. 804-104	Target Drum No. 208001
Field Angle 0 Deg.	Vibration Pre Post ✓

CPL 20	1.250	1.375	1.500	1.625	1.750	1.875	2.000	2.125
CPL 27	1.277	1.874	2.485	3.123	3.766	4.402	0.089	0.730
Evaluator								
IMC Circle								
Dim. Along (A)							.514	.513
Dim. Across (B)							.514	.514
Diff. (A-B)							.000	-.001
(Diff. x 100)/B							.000	-.194
Evaluator T.P.								
Date 12-18-66								

Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1													95	48	119	63	159	67
5													101	48	113	63	142	80
9													95	50	119	56	126	71
13													95	50	113	60	126	80
17													107	48	119	63	126	80
21													90	45	136	63	142	80
Evaluator E.C.																		
Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1													95	48	119	63	159	71
5													107	50	113	63	142	80
9													95	50	126	56	134	71
13													95	50	113	60	126	80
17													107	50	119	67	134	80
21													90	50	134	67	142	80
Totals													1170	587	1433	744	1458	920
No. of Rdgs.													12	12	12	12	12	12
Averages													98	49	119	62	138	77
Geom. Mean													69		86		103	

Code: "D" Physical Defect
"R" Vibration
"S" Spurions
"_" Smeared

336

H = x
V = y

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Process Ticket No. 3673

FOCUS RUN
FOCUS ANALYSIS
DATA SHEET

Sheet of

Date of Test 12/17/66

Item & S/N S/C FM-39 | Collimator No. FAST

Procedure No. 804-104 | Target Drum No. 208001

Field Angle 0 Deg. | Vibration Pre Post ✓

CPL 20	2.250	2.375	2.500	2.625	2.750	2.875	3.000	3.125
CPL 27	1.374	2.009	2.660	3.284	3.913	4.570	0.252	0.881
Evaluator								
IMC Circle								
Dim. Along (A)	.512	.512	.512	.512	.512			
Dim. Across (B)	.514	.514	.514	.514	.514			
Diff. (A-B)	-.002	-.002	-.002	-.002	-.002			
(Diff. x 100)/B	-.390	-.390	-.390	-.390	-.390			
Evaluator TP								
Date 12-18-66								

Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1	142	119	168	134	142	134	134	119	101	101	80	71	71	50	63	42
5	159	113	168	150	168	142	142	134	101	84	84	63	80	50	67	45
9	159	126	178	150	159	134	134	113	101	101	76	71	80	53	63	48
13	188	142	168	142	159	134	126	119	107	107	84	67	84	53	60	45
17	159	134	168	168	168	142	134	113	107	95	90	67	80	53	56	40
21	168	119	178	150	159	150	119	113	101	84	84	60	84	53	56	42
Evaluator Ed																
Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1	142	119	178	142	150	134	150	126	113	107	80	71				
5	159	113	168	158	168	159	142	134	101	90	84	67				
9	159	126	178	150	168	134	142	119	101	101	76	71				
13	188	142	178	142	159	134	126	119	107	107	84	67				
17	178	134	168	168	168	142	142	113	113	101	90	67				
21	168	126	188	150	159	150	119	119	101	95	90	60				
Totals	1969	1513	2086	1796	1927	1689	1610	1441	1254	1173	1002	802	479	312	342	262
No. of Rdgs.	12	12	12	12	12	12	12	12	12	12	12	12	6	6	6	6
Averages	164	126	174	150	161	141	134	120	105	98	84	67	80	52	60	44
Geom. Mean	144		161		151		127		101		75		65		51	

Code: "D" Physical Defect
"R" Vibration
"S" Spurior
"_" Smearec

337

H = x
V = y

Approved for Release: 2024/01/30 C05098941

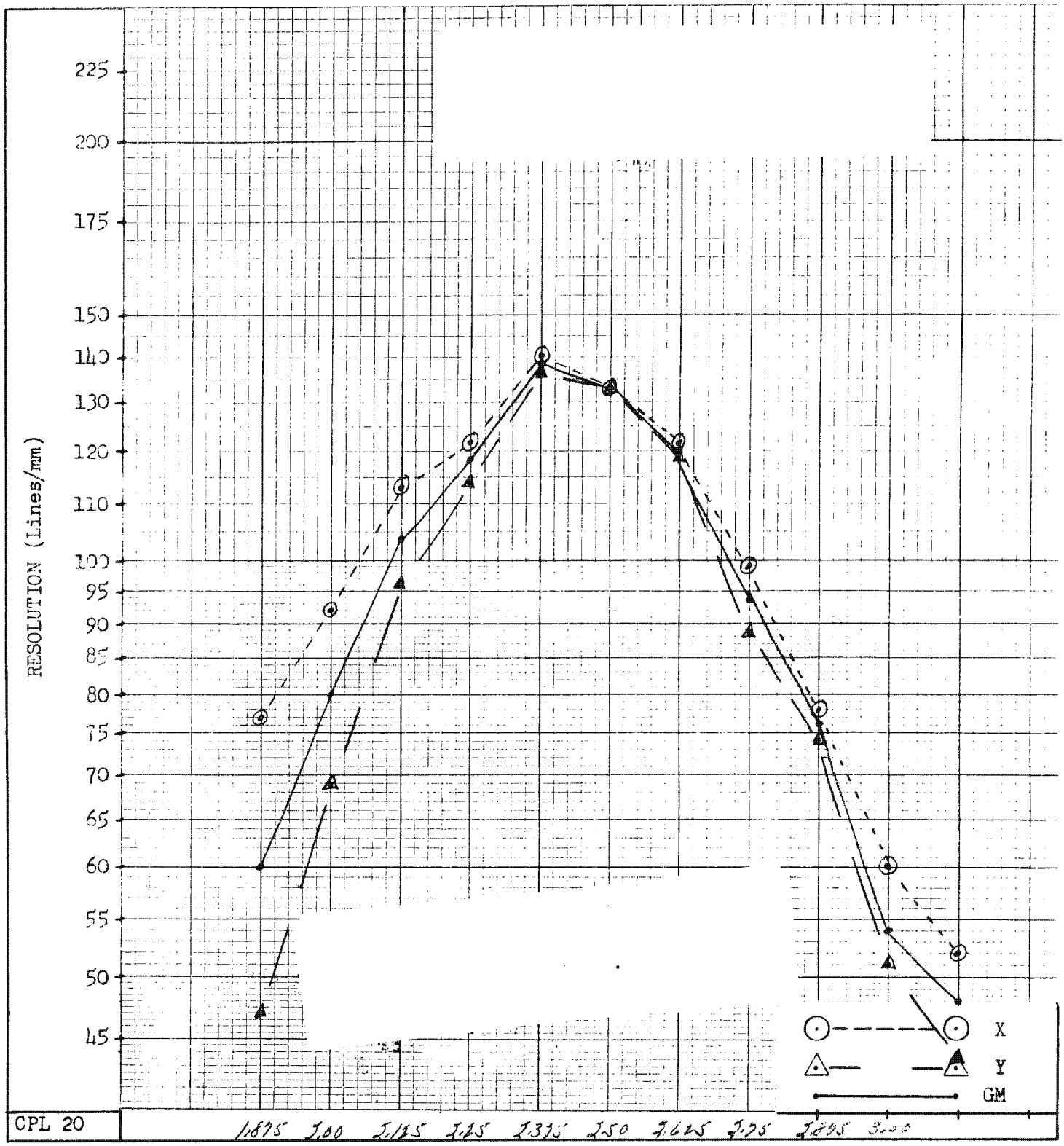
C05098941
Approved for Release: 2024/01/30 C05098941

Process Ticket No. 3673	
Plotted By: H.E.	
Evaluator: J.P. E.C.	

FOCUS ANALYSIS

Sheet	of
Date of Test	12/17/66

Item & S/N S/C FM-39	Collimator FAST
Procedure No. 804-104	Target Drum 208001
Vibration Pre ____ Post ✓	Field Angle +0.5 Deg.



Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Process Ticket No. 3673

FOCUS RUN
FOCUS ANALYSIS
DATA SHEET

Sheet of

Date of Test 12/17/66

Item & S/N S/C FM-39 | Collimator No. FAST

Procedure No. 804-104 | Target Drum No. 208001

Field Angle + 0.5 Deg. | Vibration Pre Post ✓

CPL 20	1.250	1.375	1.500	1.625	1.750	1.875	2.000	2.125
CPL 27	1.759	1.909	2.531	3.119	3.756	4.417	0.066	0.710
Evaluator								
IMC Circle								
Dim. Along (A)								
Dim. Across (B)								
Diff. (A-B)								
(Diff. x 100)/B								
Evaluator TP								
Date 12-18-66								

Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1											76	42	84	63	107	90		
5											80	50	101	67	113	80		
9											80	48	84	63	113	95		
13											80	48	90	67	113	107		
17											76	45	101	71	107	101		
21											71	48	90	76	119	95		
Evaluator L.G.																		
Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1											76	42	90	67	107	90		
5											80	50	95	71	113	80		
9											80	48	84	67	119	95		
13											80	48	90	67	113	107		
17											76	48	101	76	113	107		
21											71	50	90	76	119	101		
Totals											926	567	1100	831	1356	1148		
No. of Rdgs.											12	12	12	12	12	12		
Averages											77	47	92	69	113	96		
Geom. Mean											60		80		104			

Code: "D" Physical Defect
"R" Vibration
"S" Spurions
"_" Smeared

339

H = x
V = y

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Process Ticket No. 3673

FOCUS RUN
FOCUS ANALYSIS
DATA SHEET

Sheet of

Date of Test 12/17/66

Item & S/N S/C FM-39 | Collimator No. E

Procedure No. 804-104 | Target Drum No. 208001

Field Angle ± 0.5 Deg. | Vibration Pre Post ✓

CPL 20	2.250	2.375	2.500	2.625	2.750	2.875	3.000	3.125
CPL 27	1.374	2.037	2.650	3.280	3.920	4.584	0.236	0.892
Evaluator								
IMC Circle								
Dim. Along (A)								
Dim. Across (B)								
Diff. (A-B)								
(Diff. x 100)/B								
Evaluator TP								
Date 12-18-66								

Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1	113	107	134	119	126	126	119	119	101	95	80	76	60	56	56	45
5	119	113	126	126	134	126	107	101	107	90	76	71	63	50	56	45
9	119	113	142	134	126	126	119	119	107	95	71	71	60	48	53	42
13	126	107	150	142	126	134	134	126	95	80	76	67	56	50	48	42
17	126	119	150	150	134	134	126	119	95	84	80	76	60	50	50	45
21	126	107	134	134	142	142	119	113	90	80	84	76	60	53	50	42
Evaluator L.L.																
Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1	119	113	134	126	126	126	119	126	101	95	80	80				
5	119	113	126	134	150	142	113	107	107	95	76	80				
9	113	113	150	142	134	134	189	126	107	101	71	71				
13	126	119	150	142	126	134	134	126	95	84	76	71				
17	126	126	150	150	134	134	126	126	95	84	80	76				
21	126	113	134	142	142	142	119	119	90	84	84	76				
Totals	1458	1363	1680	1631	1600	1600	1454	1427	1190	1067	934	891	359	307	313	261
No. of Rdgs.	12	12	12	12	12	12	12	12	12	12	12	12	6	6	4	6
Averages	122	114	140	136	133	133	121	119	99	89	78	74	60	51	52	44
Geom. Mean	118		138		133		120		94		76		54		48	

Code: "D" Physical Defect
"R" Vibration
"S" Spurions
"_" Smeared

240

H = x
V = y

III

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

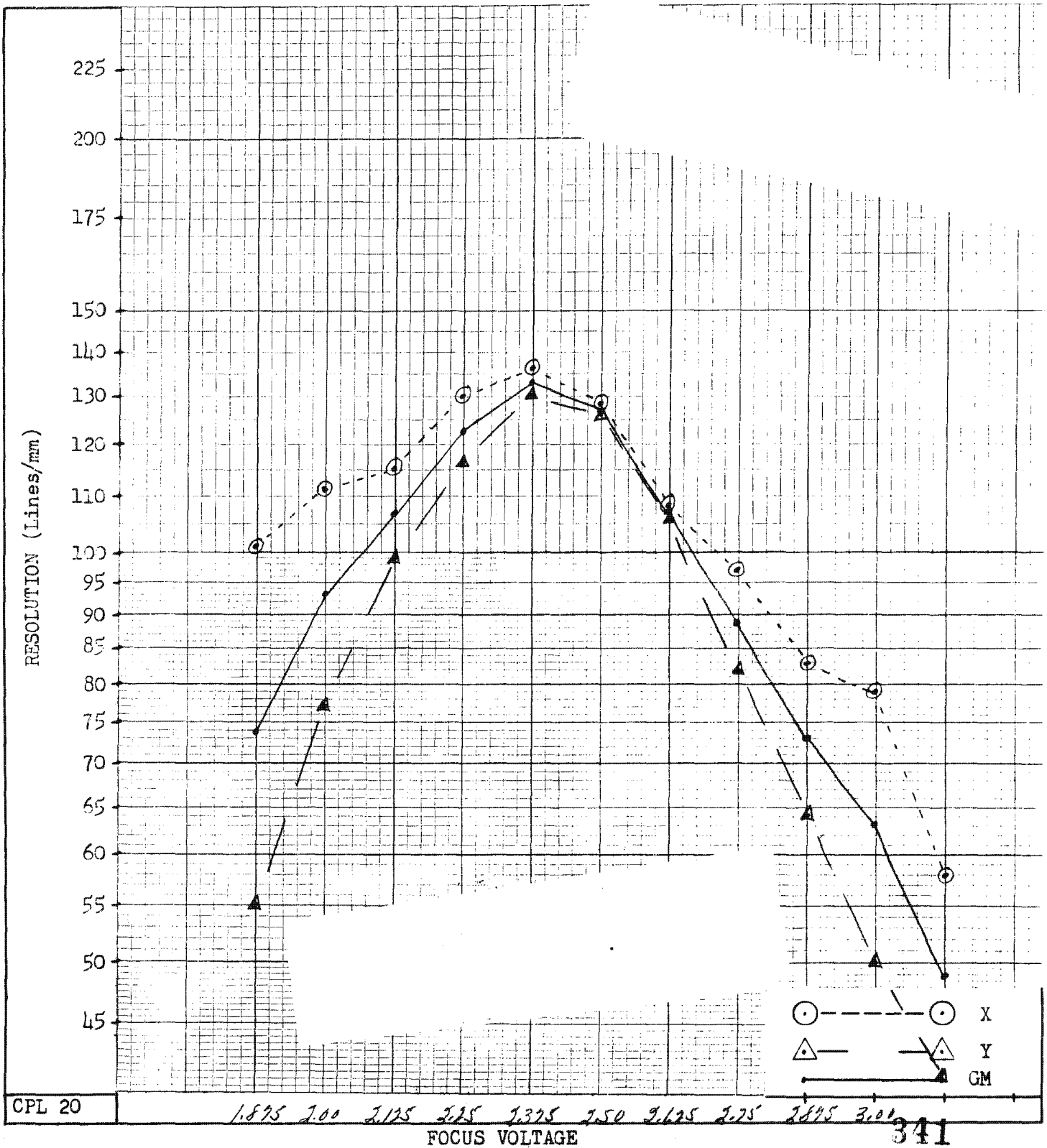
Process Ticket No. 3673
Plotted By: Y.C.
Evaluator: I.P. E.C.

EKCo. SPO QUALITY CONTROL

FOCUS ANALYSIS

Sheet of
Date of Test 12/17/66

Item & S/N S/C FM-39	Collimator FAST
Procedure No. 804-104	Target Drum 208001
Vibration Pre ____ Post ✓	Field Angle −0.5 Deg.



Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Process Ticket No. 3673

FOCUS RUN
FOCUS ANALYSIS
DATA SHEET

Sheet of

Date of Test 12/17/66

Item & S/N S/C FM-39 | Collimator No. E

Procedure No. 804-104 | Target Drum No. 208001

Field Angle — 0.5 Deg. | Vibration Pre Post ✓

CPL 20	1.250	1.375	1.500	1.625	1.750	1.875	2.000	2.125
CPL 27	1.276	1.999	2.494	3.140	3.779	4.414	0.089	0.734
Evaluator								
IMC Circle								
Dim. Along (A)								
Dim. Across (B)								
Diff. (A-B)								
(Diff. x 100)/B								
Evaluator TP								
Date 12-18-66								

Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1											90	50	113	71	119	107		
5											95	56	113	76	113	90		
9											90	56	113	84	113	95		
13											107	53	107	67	119	101		
17											95	53	107	76	107	95		
21											113	50	113	76	107	90		
Evaluator E.G.																		
Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1											101	53	113	76	119	113		
5											101	56	113	76	113	95		
9											95	60	113	84	119	107		
13											113	60	107	76	119	101		
17											95	60	113	86	113	95		
21											113	56	113	76	119	95		
Totals											1208	663	1338	918	1380	1184		
No. of Rdgs.											12	12	12	12	12	12		
Averages											101	55	112	77	115	99		
Geom. Mean											74		93		107			

Code: "D" Physical Defect
"R" Vibration
"S" Spurions
"_" Smeared

342

H = x
V = y

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Process Ticket No. 3673

FOCUS RUN
FOCUS ANALYSIS
DATA SHEET

Sheet of

Date of Test 12/17/66

Item & S/N S/C FM-39 | Collimator No. E

Procedure No. 804-104 | Target Drum No. 208001

Field Angle — 0.5 Deg. | Vibration Pre Post ✓

CPL 20	2.250	2.375	2.500	2.625	2.750	2.875	3.000	3.125
CPL 27	1.393	2.013	2.650	3.270	3.922	4.579	0.290	0.982
Evaluator								
IMC Circle								
Dim. Along (A)								
Dim. Across (B)								
Diff. (A-B)								
(Diff. x 100)/B								
Evaluator TP								
Date 12-18-66								

Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1	142	126	126	119	142	134	113	101	80	80	84	60	76	50	53	40
5	126	113	150	134	126	119	107	101	95	80	84	63	80	50	56	42
9	119	113	126	119	142	126	113	107	107	84	80	60	80	50	63	40
13	126	113	126	119	119	126	107	107	95	80	84	71	80	50	60	42
17	134	113	142	134	126	119	107	113	101	84	80	63	80	50	60	42
21	134	113	142	142	119	119	101	101	101	80	84	63	80	50	56	42
Evaluator E.C.																
Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1	142	134	134	126	142	134	113	101	80	84	84	63				
5	126	113	150	134	126	134	107	107	95	80	90	67				
9	119	119	126	134	142	126	113	107	107	84	80	63				
13	126	113	126	119	119	126	107	107	95	80	84	71				
17	134	119	142	134	126	119	107	119	101	84	80	63				
21	134	113	142	150	119	126	101	101	101	80	84	63				
Totals	1562	1392	1632	1564	1548	1508	1296	1272	1158	980	998	770	476	300	348	248
No. of Rdgs.	12	12	12	12	12	12	12	12	12	12	12	12	6	6	6	6
Averages	130	116	136	130	129	126	108	106	97	82	83	64	79	50	58	41
Geom. Mean	123		133		127		107		89		73		63		49	

Code: "D" Physical Defect
"R" Vibration
"S" Spurions
"_" Smeared

343

H = x
V = y

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

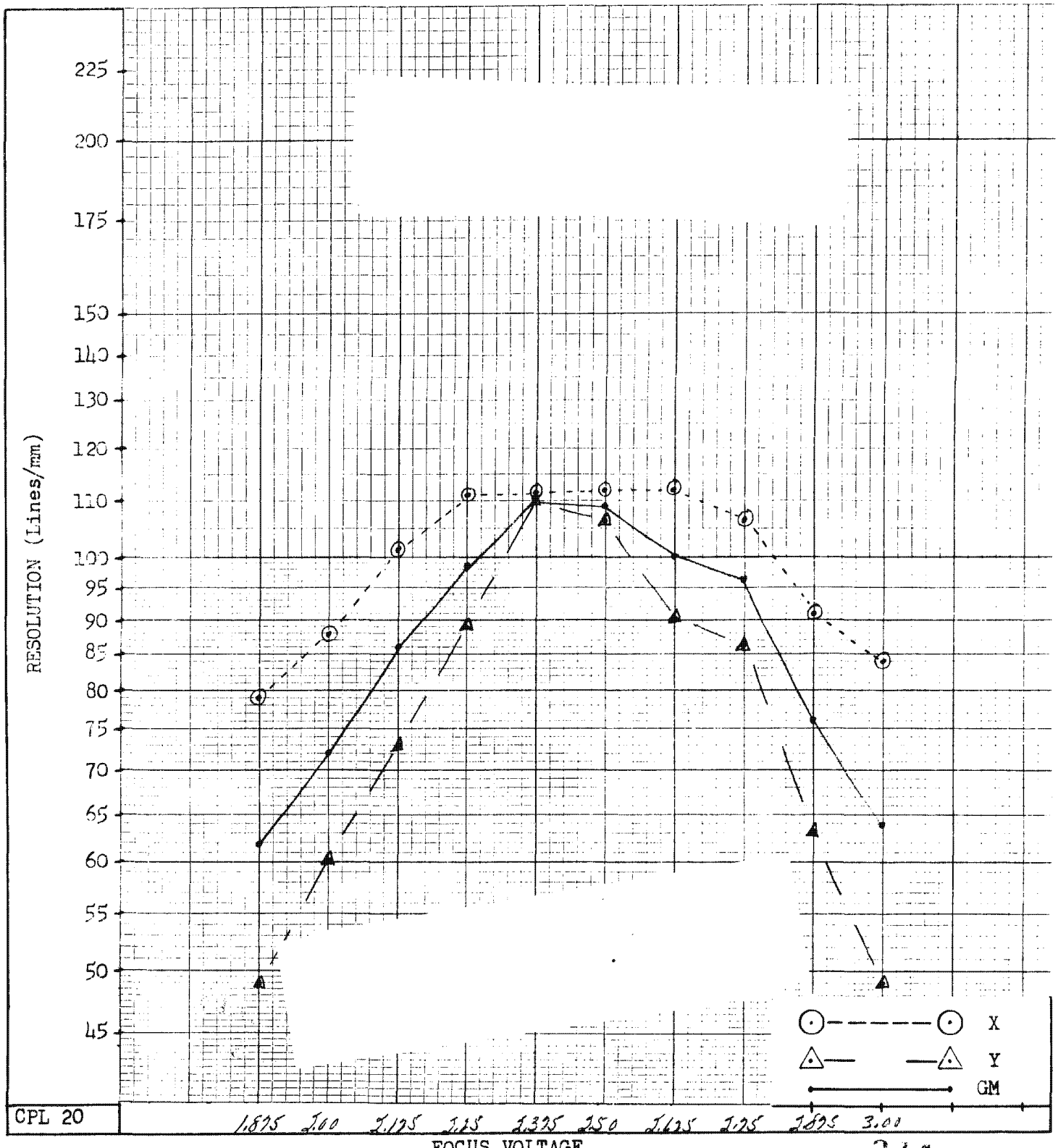
Process Ticket No. 3673	
Plotted By: W.E.	
Evaluator: K.P. E.C.	

ERCO. SPO QUALITY CONTROL

FOCUS ANALYSIS

Sheet	of
Date of Test	12/17/66

Item & S/N S/C FM-39	Collimator FAST
Procedure No. 804-104	Target Drum 208001
Vibration Pre ____ Post ✓	Field Angle +2.8 Deg.



Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Process Ticket No. 3673

FOCUS RUN
FOCUS ANALYSIS
DATA SHEET

Sheet of

Date of Test 12/17/66

Item & S/N S/C FM-39 | Collimator No. E

Procedure No. 804-104 | Target Drum No. 208001

Field Angle +2.8 Deg. | Vibration Pre Post ✓

CPL 20	1.250	1.375	1.500	1.625	1.750	1.875	2.000	2.125
CPL 27	1.283	1.881	2.489	3.150	3.769	4.425	0.063	0.748
Evaluator								
IMC Circle								
Dim. Along (A)								
Dim. Across (B)								
Diff. (A-B)								
(Diff. x 100)/B								
Evaluator TP								
Date 12-18-66								

Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1											80	45	84	60	101	63
5											80	50	84	56	95	71
9											76	48	90	60	95	71
13											71	48	90	60	101	76
17											80	48	95	60	101	76
21											80	48	84	60	101	76
Evaluator L.L.																
Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1											80	48	90	43	107	63
5											80	50	84	56	113	76
9											80	50	90	60	101	71
13											71	56	90	63	107	76
17											84	48	95	60	101	76
21											80	48	84	60	101	76
Totals											942	587	1060	718	1224	871
No. of Rdgs.											12	12	12	12	12	12
Averages											79	49	88	60	102	73
Geom. Mean											62		72		86	

Code: "D" Physical Defe
"R" Vibration
"S" Spurions
"_" Smeared

345

H = x
V = y

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Process Ticket No. 3673

FOCUS RUN
FOCUS ANALYSIS
DATA SHEET

Sheet of

Date of Test 12/17/66

Item & S/N S/C FM-39 | Collimator No. E

Procedure No. 804-104 | Target Drum No. 208001

Field Angle + 2.8 Deg. | Vibration Pre Post ✓

CPL 20	2.250	2.375	2.500	2.625	2.750	2.875	3.000	3.125
CPL 27	1.364	2.029	2.650	3.279	3.935	4.605	0.230	0.892
Evaluator								
IMC Circle								
Dim. Along (A)								
Dim. Across (B)								
Diff. (A-B)								
(Diff. x 100)/B								
Evaluator TP								
Date 12-18-66								

Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1	101	80	113	95	107	101	113	84	107	80	95	63	80	48		
5	113	84	107	113	101	101	107	90	101	90	90	63	80	50		
9	113	95	101	113	119	107	113	84	101	84	90	60	90	48		
13	107	84	113	107	101	101	107	107	113	90	84	63	84	50		
17	113	90	107	107	119	107	119	80	101	80	90	63	84	50		
21	113	95	119	113	119	107	101	90	113	84	90	63	84	50		
Evaluator L.L.																
Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1	101	80	119	95	107	101	113	90	107	84	95	67				
5	113	84	107	113	101	107	107	90	101	90	90	63				
9	113	101	113	126	119	107	113	84	101	90	95	60				
13	107	84	119	107	107	107	119	107	113	90	84	63				
17	119	95	107	119	119	113	119	80	113	80	95	67				
21	113	95	119	113	119	107	113	90	113	84	95	63				
Totals	1326	1067	1344	1321	1338	1266	1344	1076	1284	1026	1093	758	502	296		
No. of Rdgs.	12	12	12	12	12	12	12	12	12	12	12	12	6	6		
Averages	111	89	112	110	112	106	112	90	107	86	91	63	84	49		
Geom. Mean	99		111		109		100		96		76		64			

Code: "D" Physical Defect
"R" Vibration
"S" Spurions
"_" Smeared

346

H = x
V = y

III

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

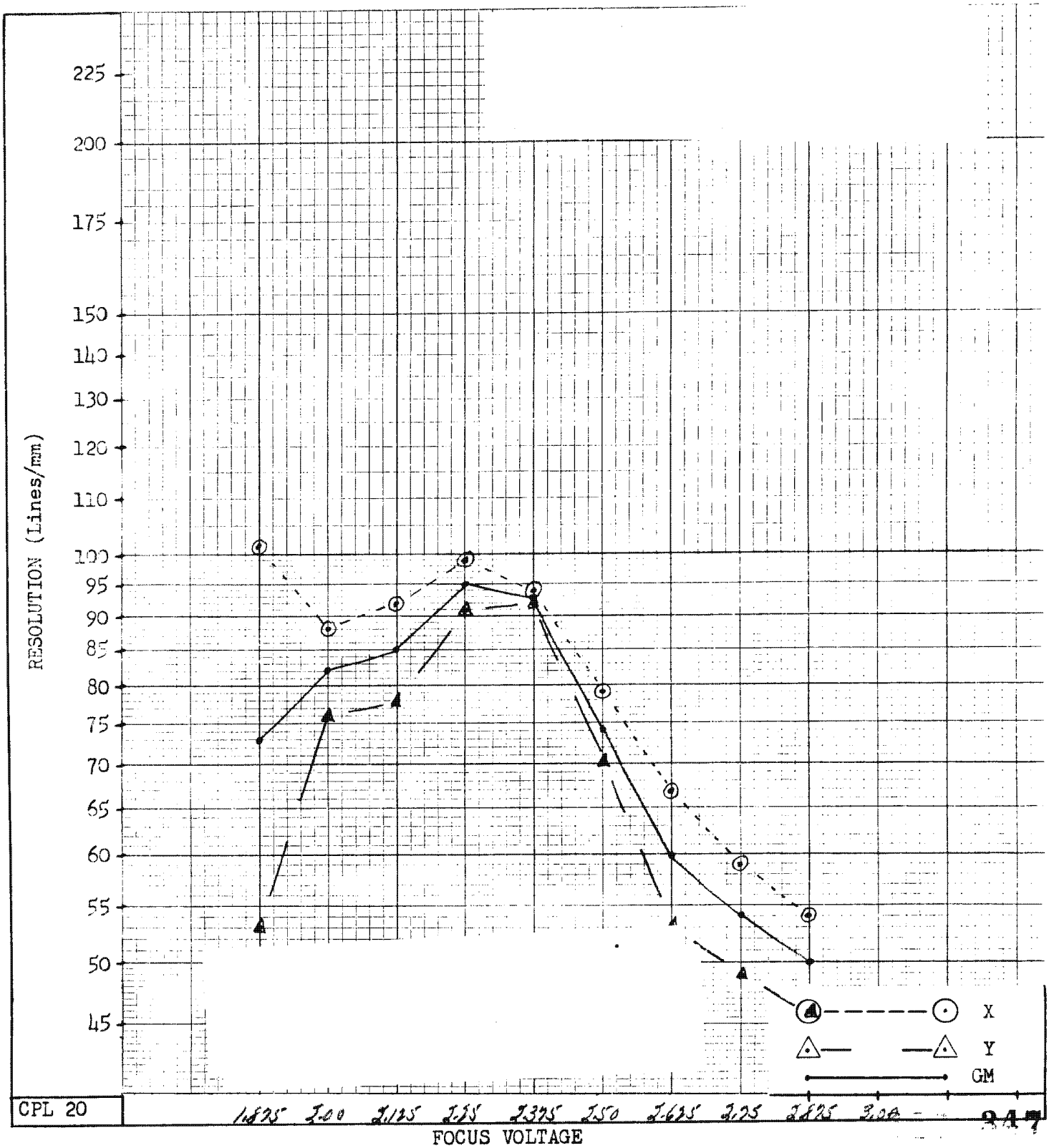
Process Ticket No. 3673
Plotted By:
Evaluator:

EKCo. SPO QUALITY CONTROL

FOCUS ANALYSIS

Sheet	of
Date of Test	12/17/66

Item & S/N S/C FM-39	Collimator EAST
Procedure No. 804-104	Target Drum 208001
Vibration Pre ____ Post ✓	Field Angle −2.8 Deg.



947

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Process Ticket No. 3673

FOCUS RUN
FOCUS ANALYSIS
DATA SHEET

Sheet of

Date of Test 12/17/66

Item & S/N S/C FM-39

Collimator No. E

Procedure No. 804-104

Target Drum No. 208001

Field Angle −2.8 Deg.

Vibration Pre Post ✓

CPL 20	1.250	1.375	1.500	1.625	1.750	1.875	2.000	2.125
CPL 27	1.288	1.880	2.526	3.133	3.742	4.445	5.098	6.726
Evaluator								
IMC Circle								
Dim. Along (A)								
Dim. Across (B)								
Diff. (A-B)								
(Diff. x 100)/B								
Evaluator TP								
Date 12-18-66								

Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1											101	50	80	67	90	80
5											95	48	84	76	90	76
9											107	50	95	76	90	71
13											101	53	84	80	90	80
17											101	53	84	67	90	80
21											101	53	90	71	95	76
Evaluator [illegible]																
Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1											101	50	84	71	101	80
5											101	56	95	84	90	74
9											107	56	107	76	95	80
13											101	56	84	84	90	80
17											101	56	84	76	90	80
21											101	60	90	80	95	74
Totals											1218	641	1061	908	1106	935
No. of Rdgs.											12	12	12	12	12	12
Averages											102	53	88	76	92	78
Geom. Mean											73		82		85	

Code: "D" Physical D[illegible]
"R" Vibration
"S" Spurions
"_" Smeared

348

H = x
V = y

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Process Ticket No. 3673

FOCUS RUN
FOCUS ANALYSIS
DATA SHEET

Sheet of

Date of Test 12/17/66

Item & S/N S/C FM-39 | Collimator No. E

Procedure No. 804-104 | Target Drum No. 208001

Field Angle — 2.8 Deg. | Vibration Pre Post ✓

CPL 20	2.250	2.375	2.500	2.625	2.750	2.875	3.000	3.125
CPL 27	1.372	2.026	2.657	3.309	3.932	4.586	0.223	0.885
Evaluator								
IMC Circle								
Dim. Along (A)								
Dim. Across (B)								
Diff. (A-B)								
(Diff. x 100)/B								
Evaluator TP								
Date 12-18-66								

Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1	95	95	80	76	80	71	71	56	56	50	56	45				
5	95	90	95	90	76	67	67	53	60	50	53	42				
9	95	95	95	95	84	67	71	53	60	45	53	45				
13	95	90	95	95	84	76	60	48	60	50	53	45				
17	101	95	95	95	76	67	67	56	60	48	50	50				
21	107	84	95	90	71	63	63	50	60	50	56	48				
Evaluator L.G.																
Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1	101	95	90	84	80	76	71	56	56	50	56	45				
5	95	95	95	95	76	71	67	53	60	50	53	42				
9	95	95	101	95	84	67	71	56	60	48	53	45				
13	95	84	95	101	84	76	60	50	60	50	53	45				
17	101	84	95	95	76	76	67	56	60	50	50	50				
21	107	84	95	95	71	63	63	50	60	50	56	50				
Totals	1182	1086	1126	1106	942	840	798	637	712	591	642	552				
No. of Rdgs.	12	12	12	12	12	12	12	12	12	12	12	12				
Averages	99	91	94	92	79	70	67	53	59	49	54	46				
Geom. Mean	95		93		74		60		54		50					

Code: "D" Physical Defect
"R" Vibration
"S" Spurior
"_" Smeared

349

H = x
V = y

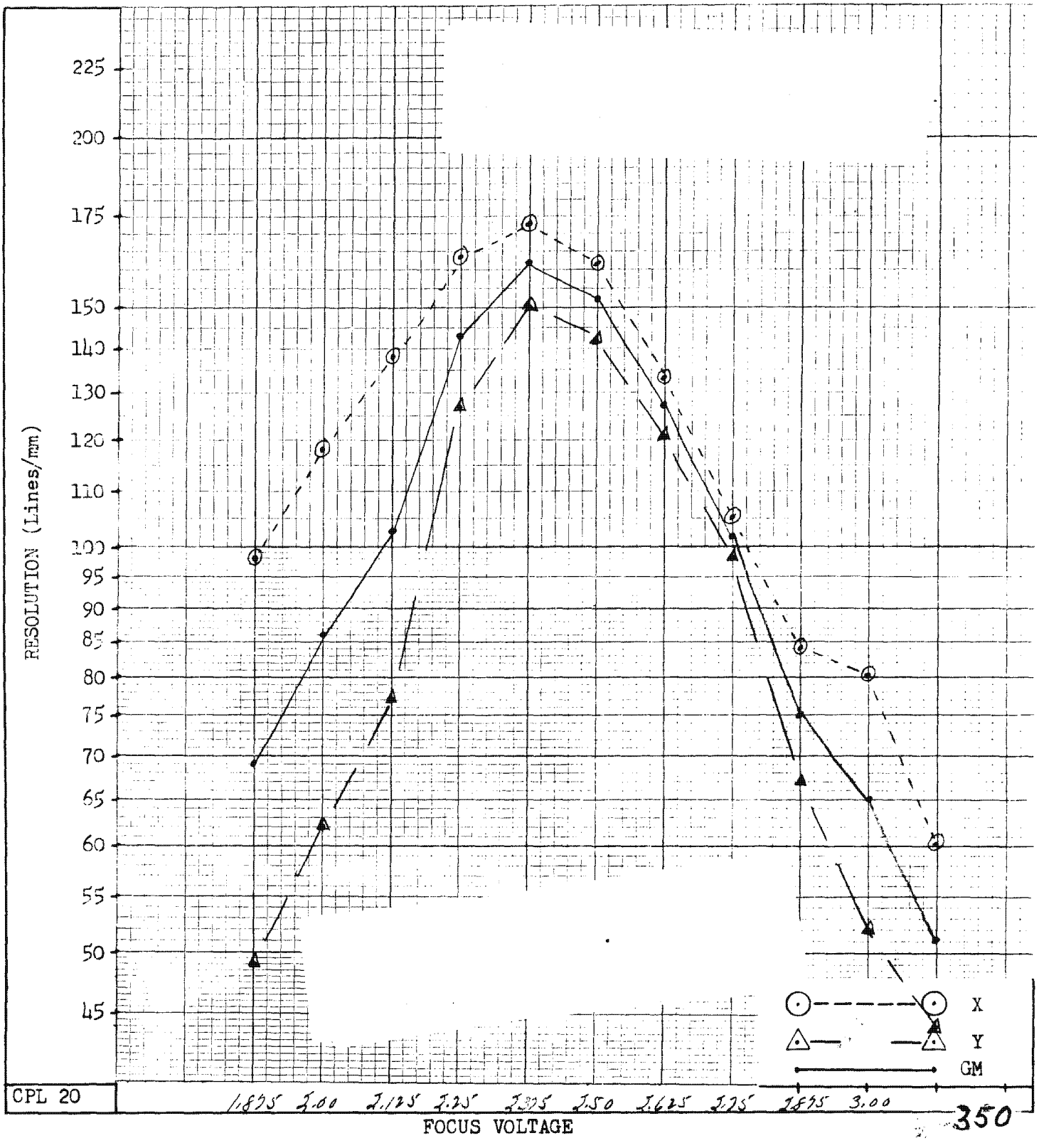
Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Process Ticket No. 3673	EKCo. SPO QUALITY CONTROL
Plotted By: T.C.	FOCUS ANALYSIS
Evaluator: T.P. E.C.	

Sheet	of
Date of Test	12/17/66

Item & S/N S/C FM-39	Collimator EAST
Procedure No. 804-104	Target Drum 20800 1
Vibration Pre ____ Post ✓	Field Angle 0 Deg.



350

Approved for Release: 2024/01/30 C05098941

C05098941

Approved for Release: 2024/01/30 C05098941

FOCUS RUN
DENSITY DATA SHEET

Process Ticket No. 3634	Sheet of
Evaluator TP	12-12-66
Date of Evaluation 1/18/6	

Item & S/N FM-39	Collimator No. East
Procedure No. 804-104	Target Drum No. 26F001
Vibration: Pre Post ✓	

Control Data		2nd Complete Frame where CPL-20 = 2.5v				
Step #	D	Film Speed	31	31	31	
1	2.50	Field Angle	-2.7°	0°	+2.7°	
2	2.48	Input Voltage	28v	28v	28v	Spec.
3	2.43	Step 7		.84		~~1.1 ±0.3~~
4	2.35	Step 9		.42		*
5	2.24					
6	2.08					
7	1.86					
8	1.59					
9	1.27					
10	.95					
11	.67					
12	.46					
13	.33					
14	.27					
15	.23					
16	.21					
17	.20					
18	.19					
19	.19					
20	.19					
21	.19	Spec.				
Gamma	2.16	1.9 - 2.3				
Speed Pt	T.15	$\bar{1}$.08 - $\bar{1}$.18				

* The density of step 9 shall be equal to or greater than the density of the H and D curve at the speed point.

IDENTIFICATION OF RAW FILM STOCK

Film Can No. 281

Film Type	Total feet	
3404	2985	
Emulsion No.	Master Roll No.	Date mo/yr
265	21	10 66
Film + spool wt.	spool wt.	
54.7	4.1	
Splice location from head of roll		
1720 / 1265 /		

351

G-ATR- 1

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Process Ticket No. 3674

FOCUS RUN
FOCUS ANALYSIS
DATA SHEET

Sheet of

Date of Test 12/17/66

Item & S/N	FM-39	Collimator No.	EAST
Procedure No.	804-104	Target Drum No.	208 001
Field Angle	0° Deg.	Vibration	Pre Post ✓

CPL 20	1.250	1.375	1.500	1.625	1.750	1.875	2.000	2.125
CPL 27	1.245	1.879	2.509	3.139	3.739	4.415	6.115	6.779
Evaluator								
IMC Circle								
Dim. Along (A)							.513	.512
Dim. Across (B)							.514	.514
Diff. (A-B)							-.001	-.002
(Diff. x 100)/B							-.195	-.390
Evaluator TP								
Date 12-18-66								

Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1											84	48	119	60	150	101		
5											90	50	142	63	159	90		
9											90	50	142	71	178	107		
13											101	48	142	67	178	101		
17											95	53	134	67	150	113		
21											107	50	134	71	159	101		
Evaluator GG																		
Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1											90	50	119	60	150	107		
5											95	50	142	67	168	90		
9											90	53	142	67	178	119		
13											107	50	142	71	178	107		
17											101	53	150	71	150	113		
21											113	50	142	71	159	107		
Totals											1163	605	1650	806	1957	1256		
No. of Rdgs.											12	12	12	12	12	12		
Averages											97	50	138	67	163	105		
Geom. Mean											70		96		130			

Code: "D" Physical Defect
"R" Vibration
"S" Spurions
"_" Smeared

352

H = x
V = y

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Process Ticket No. 3678

FOCUS RUN
FOCUS ANALYSIS
DATA SHEET

Sheet of

Date of Test 12 Jan 66

Item & S/N	FN-39	Collimator No.	E95T
Procedure No.	804-104	Target Drum No.	208 001
Field Angle	6° Deg.	Vibration	Pre Post ✓

CPL 20	2.250	2.375	2.500	2.625	2.750	2.875	3.000	3.125
CPL 27	1.362	2.376	2.662	3.266	3.915	4.579	0.220	0.868
Evaluator								
IMC Circle								
Dim. Along (A)	.512	.511	.511	.511	.511			
Dim. Across (B)	.514	.514	.514	.514	.514			
Diff. (A-B)	-.002	-.003	-.003	-.003	-.003			
(Diff. x 100)/B	-.390	-.584	-.584	-.584	-.584			
Evaluator TP								
Date 10-18-66								

Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1	159	119	168	150	126	134	119	134	95	90	71	60	60	53		
5	178	119	159	159	134	142	126	119	101	96	76	63	56	50		
9	142	119	178	159	159	142	126	126	101	90	76	63	56	53		
13	159	126	159	142	150	142	126	119	95	90	60	60	56	48		
17	168	134	178	134	159	159	119	119	101	95	71	60	53	50		
21	168	126	159	150	159	134	119	119	107	90	67	67	53	48		
Evaluator T.C																
Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1	168	126	178	150	142	134	119	134	95	95	71	60				
5	178	126	168	159	142	142	126	126	101	95	76	67				
9	142	126	178	159	159	159	134	134	101	90	76	63				
13	159	126	168	159	150	150	126	119	101	95	60	60				
17	168	134	188	142	168	159	134	126	101	95	76	66				
21	168	126	168	150	159	150	126	126	107	90	71	67				
Totals	1957	1507	2049	1813	1807	1747	1500	1501	1306	1105	851	756	334	301		
No. of Rdgs.	12	12	12	12	12	12	12	12	12	12	12	12	6	6		
Averages	163	126	171	151	151	146	125	125	101	92	71	63	56	50		
Geom. Mean	143		160		148		125		96		67		53			

Code: "D" Physical Defect
"R" Vibration
"S" Spurions
"_" Smeared

353

H = x
V = y

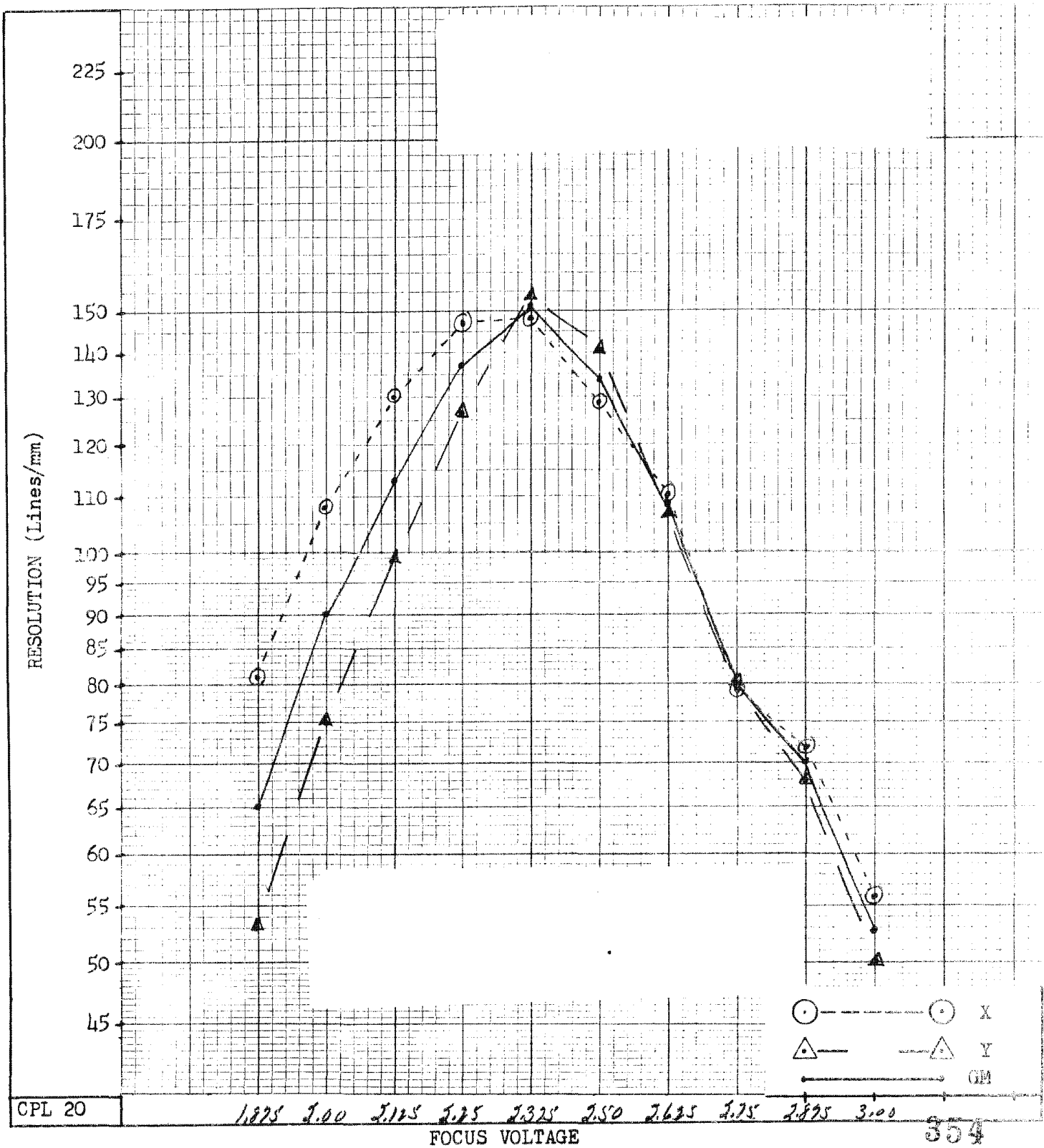
Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Process Ticket No. 3694	EKCO. SPO QUALITY CONTROL
Plotted By: E.C.	FOCUS ANALYSIS
Evaluator: T.P. E.C.	

Sheet	of
Date of Test	12/18/66

Item & S/N F11-39	Collimator East
Procedure No. 804-104	Target Drum 708001
Vibration Pre ____ Post ✓	Field Angle ± 0.5 Deg.



Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Process Ticket No. 3674

FOCUS RUN
FOCUS ANALYSIS
DATA SHEET

Sheet of

Date of Test 12 6 66

Item & S/N FM-29

Collimator No. F-95

Procedure No. 804-104

Target Drum No. 203 80

Field Angle ±0.5° Deg.

Vibration Pre Post

CPL 20	1.250	1.375	1.500	1.625	1.750	1.875	2.000	2.125
CPL 27	1.274	1.899	2.492	3.119	3.754	4.409	0.114	0.426
Evaluator								
IMC Circle								
Dim. Along (A)								
Dim. Across (B)								
Diff. (A-B)								
(Diff. x 100)/B								
Evaluator TP								
Date 12-18-66								

Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1											80	50	113	76	119	95		
5											84	53	101	71	119	80		
9											80	50	107	76	113	101		
13											84	53	107	67	142	75		
17											80	50	113	76	142	101		
21											76	48	101	76	126	101		
Evaluator A.G.																		
Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1											80	53	119	80	126	95		
5											84	56	107	76	126	95		
9											80	53	107	76	119	113		
13											84	56	107	71	150	101		
17											80	56	113	76	142	101		
21											76	53	101	76	126	101		
Totals											968	631	1296	897	1556	1159		
No. of Rdgs.											12	12	12	12	12	12		
Averages											81	53	108	75	130	99		
Geom. Mean											65		90		113			

Code: "D" Physical Defect
"R" Vibration
"S" Spurions
"_" Smeared

355

H = x
V = y

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Process Ticket No. 3674

FOCUS RUN
FOCUS ANALYSIS
DATA SHEET

Sheet of

Date of Test 12/13/66

Item & S/N	EM-39	Collimator No.	EMST
Procedure No.	804-104	Target Drum No.	208 001
Field Angle	±0.5 Deg.	Vibration	Pre Post

CPL 20	2.250	2.375	2.500	2.625	2.750	2.875		
CPL 27	1.382	2.024	2.624	3.268	3.912	4.589		
Evaluator								
IMC Circle								
Dim. Along (A)								
Dim. Across (B)								
Diff. (A-B)								
(Diff. x 100)/B								
Evaluator TP								
Date 12-18-66								

Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1	142	119	142	159	126	150	101	101	71	76	71	63	53	50		
5	150	134	159	150	126	134	101	107	80	76	76	67	56	50		
9	150	134	150	150	126	134	107	101	76	76	71	71	60	50		
13	142	119	142	150	134	142	113	101	84	84	71	63	56	50		
17	142	119	134	142	126	126	107	107	80	76	71	71	50	50		
21	150	126	150	150	134	126	119	113	80	80	67	67	60	50		
Evaluator L.C.																
Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1	142	126	142	168	126	150	101	101	71	84	71	63				
5	150	134	159	159	126	150	113	107	80	80	76	71				
9	150	134	159	150	134	142	107	101	76	80	71	71				
13	150	119	150	159	134	142	119	107	84	84	71	67				
17	150	119	142	159	126	142	119	119	80	80	71	71				
21	150	126	150	150	134	142	119	113	80	84	71	67				
Totals	1768	1509	1779	1846	1552	1680	1326	1278	942	960	858	812	335	300		
No. of Rdgs.	12	12	12	12	12	12	12	12	12	12	12	12	6	6		
Averages	147	126	148	154	129	140	110	107	79	80	72	68	56	50		
Geom. Mean	136		151		134		108		79		70		53			

Code: "D" Physical Defect
"R" Vibration
"S" Spurions
"_" Smeared

356

H = x
V = y

III

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

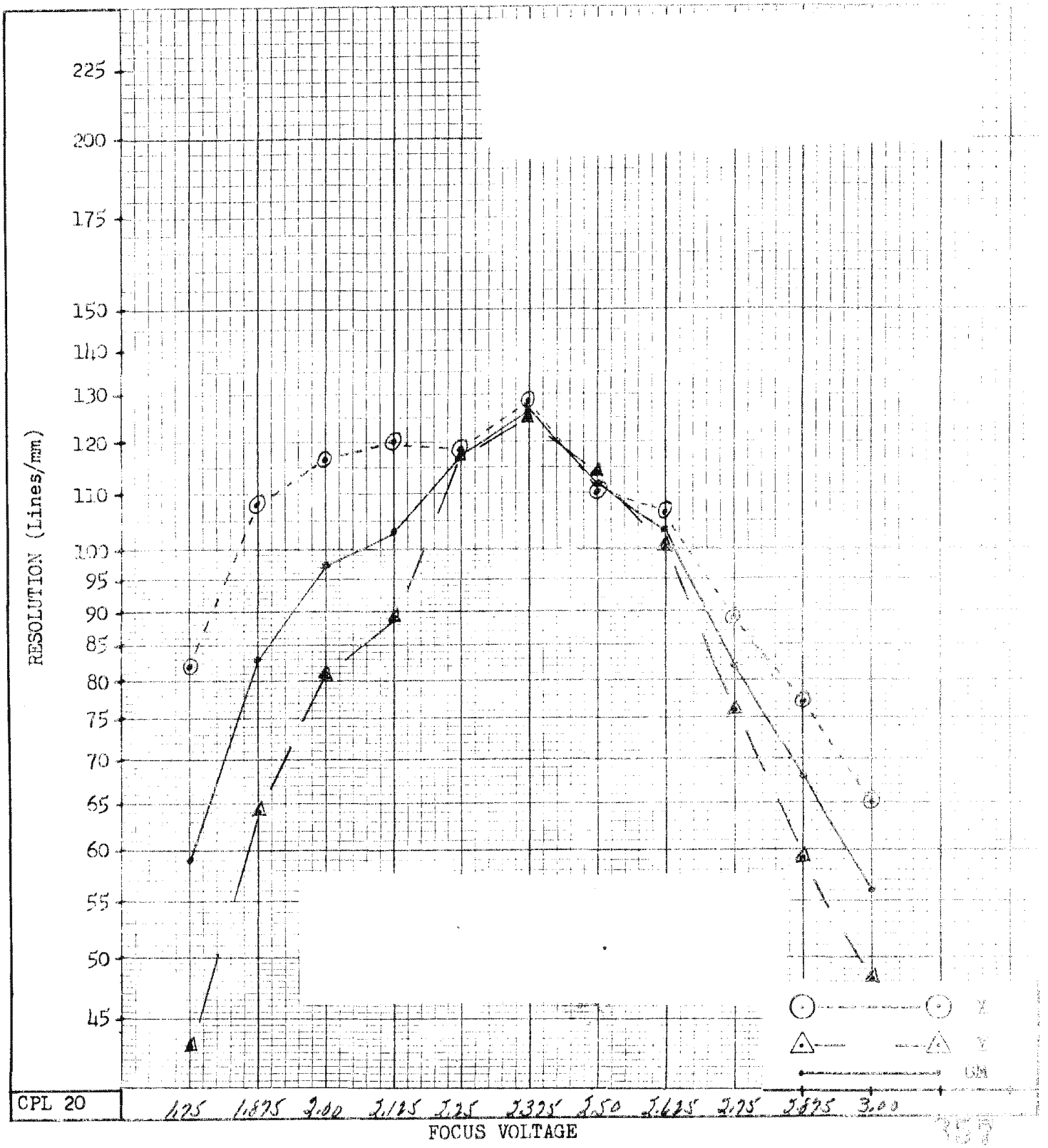
Process Ticket No. 3634	
Plotted By: T.C.	
Evaluator: J.P. E.C.	

EMCO. SFU QUALITY CONTROL

FOCUS ANALYSIS

Sheet	of
Date of Test	11/21/62

Item & S/N	FM. 39	Collimator	East
Procedure No.	804-104	Target Drum	108001
Vibration	Pre ___ Post ✓	Field Angle	— 0.5° Deg.



Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Process Ticket No. 3674

FOCUS RUN
FOCUS ANALYSIS
DATA SHEET

Sheet of

Date of Test 12 1/31/66

Item & S/N FM-3P

Collimator No. F-157

Procedure No. 804-104

Target Drum No. 208 209

Field Angle −0.5° Deg.

Vibration Pre Post

CPL 20	1.250	1.375	1.500	1.625	1.750	1.875	2.000	
CPL 27	1.282	1.880	2.519	3.139	3.746	4.426	0.085	
Evaluator								
IMC Circle								
Dim. Along (A)								
Dim. Across (B)								
Diff. (A-B)								
(Diff. x 100)/B								
Evaluator TP								
Date 10-18-66								

Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1									76	38	107	60	113	84	113	84
5									80	42	107	67	119	80	119	80
9									90	42	101	63	119	80	119	80
13									84	45	113	67	119	84	119	80
17									84	45	107	63	119	84	107	80
21									80	45	107	63	101	76	101	75
Evaluator L.L.																
Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1											107	60	113	84	113	84
5											107	67	119	80	119	80
9											101	63	119	80	119	80
13											113	71	119	84	119	80
17											113	63	119	84	119	80
21											113	63	113	76	113	75
Totals									454	259	1295	770	1398	996	1436	1048
No. of Rdgs.									6	6	12	12	12	12	12	12
Averages									84	43	108	64	117	81	120	89
Geom. Mean									59		83		97		103	

Code: "D" Physical Defect
"R" Vibration
"S" Spurions
"_" Smeared

358

H = x
V = y

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Process Ticket No. 3674

FOCUS RUN
FOCUS ANALYSIS
DATA SHEET

Sheet of

Date of Test 12 Dec

Item & S/N	FM-36	Collimator No.	FMST
Procedure No.	804-104	Target Drum No.	208 001
Field Angle	−0.5 Deg.	Vibration	Pre / Post

CPL 20	2.250	2.375	2.500	2.625	2.750	2.875	3.000
CPL 27	1.369	2.029	2.662	3.262	3.945	4.599	0.256
Evaluator							
IMC Circle							
Dim. Along (A)							
Dim. Across (B)							
Diff. (A-B)							
(Diff. x 100)/B							
Evaluator TP							
Date 12-18-66							

Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1	107	101	126	119	113	113	101	101	95	80	71	53	63	48		
5	119	126	126	126	119	113	107	90	95	80	80	56	71	50		
9	119	126	119	126	101	113	101	95	90	76	80	63	67	48		
13	119	107	126	126	107	113	107	113	90	60	80	60	63	45		
17	126	113	126	126	107	107	113	107	80	71	71	60	63	48		
21	119	126	142	126	107	113	101	90	84	67	80	56	63	48		
Evaluator A.G.																
Chart No.	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y	H x	V y
1	113	113	134	119	113	113	101	101	95	80	71	53				
5	119	134	134	126	119	113	113	95	95	80	80	56				
9	119	119	119	126	101	113	101	95	90	80	80	63				
13	119	107	126	126	113	113	107	113	95	80	80	63				
17	126	113	126	126	107	107	113	107	80	71	71	60				
21	126	126	142	126	113	119	113	95	84	67	80	60				
Totals	1431	1411	1546	1498	1320	1350	1278	1202	1073	912	924	703	390	287		
No. of Rdgs.	12	12	12	12	12	12	12	12	12	12	12	12	6	6		
Averages	119	118	129	125	110	113	107	100	89	76	77	59	65	48		
Geom. Mean	118		127		111		103		82		68		56			

Code: "D" Physical Defect
"R" Vibration
"S" Spurions
"_" Smeared

359

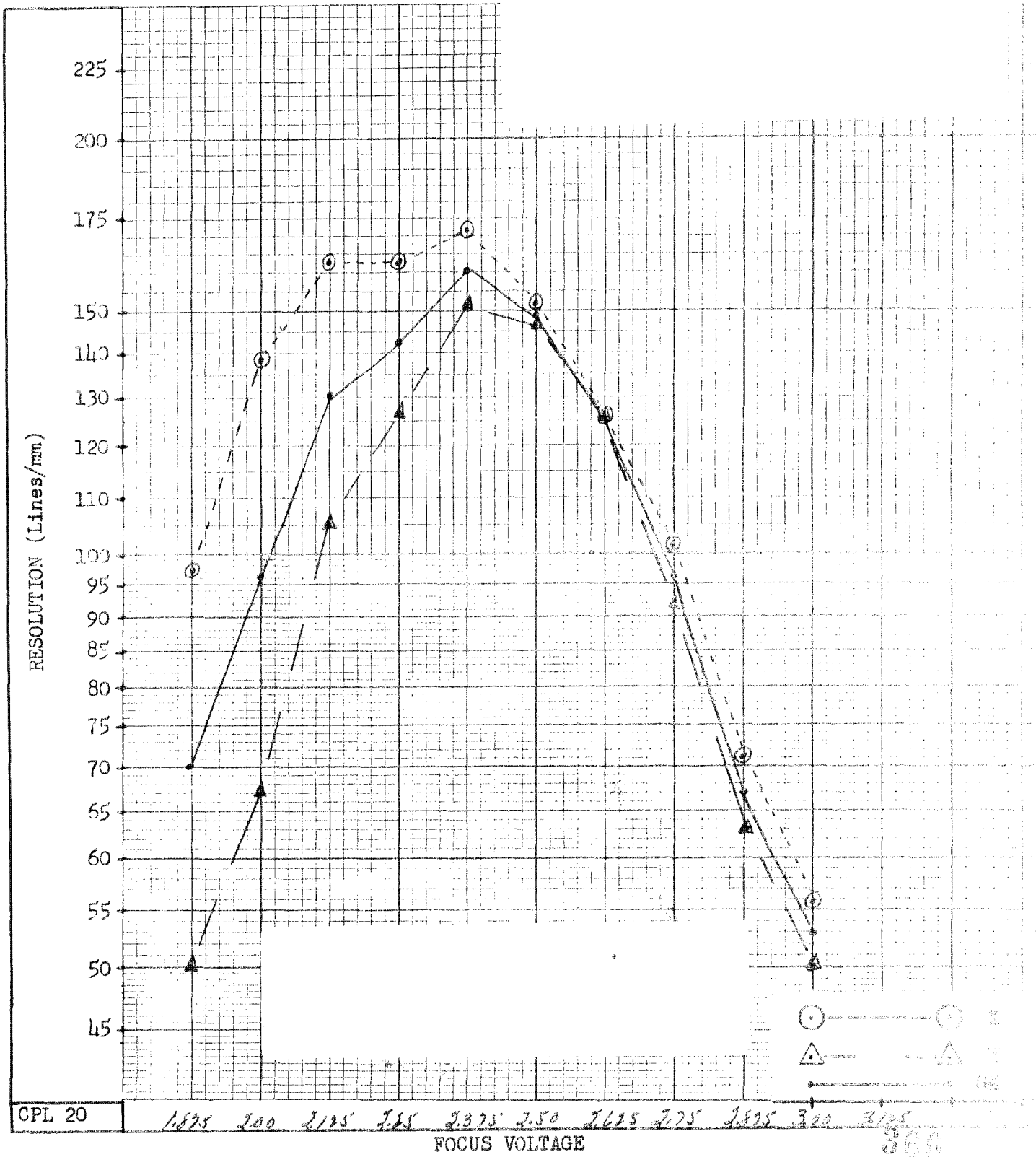
H = x
V = y

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Process Ticket No. 3634	EKCo. SPO QUALITY CONTROL
Plotted By: T.C.	FOCUS ANALYSIS
Evaluator: T.P. E.C.	Sheet of
	Date of Test 12 Oct 66

Item & S/N EM-39	Collimator East
Procedure No. 804-704	Target Drum 30001
Vibration Pre ___ Post ✓	Field Angle 0° Deg.



Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Process Ticket No. 3475	RMS RECORD DRIVE VELOCITY VARIATION	Sheet of
Space Chamber Test		Date of Test 12-19-66
Space Chamber S/N FM-39		Evaluator [illegible]
Vibration Pre Post ✓		Date of Evaluation 12-20-66
Camera Speed Step 1		

CALCULATION STEPS

1. Reference reading 10,072
2. $X_{avg.} = \frac{\Sigma X}{100} = 3.456$
3. $\Delta X = X - X_{avg.}$
4. $\Sigma \Delta X^2 = .015316$
5. RMS $= \sqrt{\frac{\Sigma \Delta X^2}{100}} = .0124$
6. $X_{avg.\ corr.}$ = Ref. Reading − $X_{avg.}$ = [illegible]
7. % RMS V $= \frac{\text{RMS} \times 100}{X_{avg.\ corr.}} = .187$

Reading No.	X	ΔX	ΔX²	Reading No.	X	ΔX	ΔX²
1	3459	.003	.000009	26	3458	002	.000004
	71	15	225		43	13	169
	68	12	144		35	21	441
	40	16	256		48	18	324
	25	31	961		49	17	289
	45	11	121		61	5	25
	54	2	4		58	2	4
	49	7	49		55	1	1
	32	24	576		46	10	100
	37	19	361		54	2	4
	36	20	400		20	14	196
	78	22	484		20	14	196
	56	0	0		45	11	121
	50	6	36		33	23	529
	40	4	16		51	5	25
	60	4	16		73	17	289
	70	14	196		92	36	1296
	60	4	16		71	14	196
	50	6	36		58	2	4
	52	4	16		42	14	196
	73	7	49		47	9	81
	55	1	1		61	5	25
	39	17	289		60	4	16
	44	12	144		56	0	0
25	51	5	25	50	56	0	0

361 G-ATR-[illegible]

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Process Ticket No. 3675	RECORD DRIVE VELOCITY VARIATION	Sheet of
Space Chamber Test		Date of Test 12-19-66
Space Chamber S/N FM-39		Evaluator E.C.
Vibration Pre Post ✓		Date of Evaluation 12-20-66
Camera Speed Step 1		

CALCULATION STEPS

1. Reference reading 10.092
2. $X_{avg.} = \frac{\Sigma X}{100} = 3.456$
3. $\Delta X = X - X_{avg.}$
4. $\Sigma \Delta X^2 = .015316$
5. RMS $= \sqrt{\frac{\Sigma \Delta X^2}{100}}$ = .1237
6. $X_{avg.\ corr.}$ = Ref. Reading − $X_{avg.}$ = 10.092 − 3.456 = 6.636
7. % RMS V $= \frac{\text{RMS} \times 100}{X_{avg.\ corr.}} = 1.87$

Reading No.	X	ΔX	ΔX^2	Reading No.	X	ΔX	ΔX^2
51	3.465	.009	.000081	26	3.456	.000	.000000
	53	3	9		37	11	121
	51	5	25		34	22	484
	57	1	1		34	22	484
	69	13	169		56	0	0
	47	9	81		51	5	25
	57	1	1		60	4	16
	48	8	64		52	4	16
	48	8	64		58	2	4
	64	8	64		65	11	121
	59	3	9		65	11	121
	43	13	169		65	11	121
	49	7	49		59	3	9
	63	7	49		62	6	36
	80	24	576		76	20	400
	80	24	576		75	19	361
	66	10	100		67	9	81
	45	11	121		77	21	441
	56	0	0		59	3	9
	56	0	0		59	3	9
	56	0	0		59	3	9
	53	3	9		44	12	144
	42	14	196		48	8	64
	47	9	81		46	10	100
75	77	31	441	107	58	2	4

3 - G-ATR

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Process Ticket No. 3675	RMS RECORD DRIVE VELOCITY VARIATION	Sheet of
Space Chamber Test		Date of Test 11-19-66
Space Chamber S/N FM-3		Evaluator E.G.
Vibration Pre Post ✓		Date of Evaluation 11-20-66
Camera Speed Step 33		

CALCULATION STEPS

1. Reference reading 10,059
2. $X_{avg.} = \frac{\Sigma X}{100} = 3.709$
3. $\Delta X = X - X_{avg.}$
4. $\Sigma \Delta X^2 = .007822$
5. RMS $= \sqrt{\frac{\Sigma \Delta X^2}{100}} = .0884$
6. $X_{avg.\ corr.}$ = Ref. Reading $- X_{avg.}$
7. % RMS V $= \frac{\text{RMS} \times 100}{X_{avg.\ corr.}} = .138$

Reading No.	X	ΔX	ΔX²	Reading No.	X	ΔX
1	3.718	.015	.000225	26	3.699	.004
	14	11	121		99	4
	14	11	121		96	7
	14	11	121		94	9
	17	14	196		700	3
	10	7	49		07	4
	15	12	144		15	12
	13	10	100		19	16
	10	7	49		21	18
	07	4	16		26	23
	13	10	100		18	15
	01	2	4		09	6
	686	17	289		12	9
	92	11	121		06	3
	92	11	121		02	1
	92	11	121		02	1
	89	14	196		08	5
	92	11	121		705	2
	703	0	0		00	3
	80	3	9		04	1
	00	3	9		14	11
	695	8	64		14	11
	88	15	225		00	0
	93	10	100		697	6
25	91	12	144	50	93	10

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Process Ticket No. 3675	RECORD DRIVE VELOCITY VARIATION	Sheet of
Space Chamber Test		Date of Test 12-19-66
Space Chamber S/N FM-39		Evaluator E.C.
Vibration Pre Post ✓		Date of Evaluation 12-20-66
Camera Speed Step 33		

CALCULATION STEPS

1. Reference reading 10.059
2. $X_{avg.} = \frac{\Sigma X}{100} = 3.203$
3. $\Delta X = X - X_{avg.}$
4. $\Sigma \Delta X^2 = .002822$
5. $RMS = \sqrt{\frac{\Sigma \Delta X^2}{100}} = .0531$
6. $X_{avg.\ corr.} = \text{Ref. Reading} - X_{avg.} = 6.856$
7. $\%\ RMS\ V = \frac{RMS \times 100}{X_{avg.\ corr.}} = .775$

Reading No.	X	ΔX	ΔX²	Reading No.	X	ΔX	ΔX²
51	3,691	.012	.000144	76	3.694	.009	.000081
	86	17	289		708	5	25
	87	16	256		10	7	49
	87	16	256		06	3	9
	85	18	324		08	5	25
	98	5	25		04	1	1
	701	2	4		01	2	4
	698	5	25		04	1	1
	98	5	25		16	12	144
	98	5	25		12	8	64
	701	2	4		09	6	36
	08	6	36		12	9	81
	08	6	36		12	9	81
	04	2	4		04	1	1
	698	5	25		02	1	1
	703	0	0		01	2	4
	09	6	36		699	4	16
	05	2	4		99	4	16
	697	6	36		99	4	16
	88	15	225		93	10	100
	702	1	1		93	10	100
	07	4	16		96	7	49
	00	3	9		96	7	49
	00	3	9		702	1	1
75	698	5	25	100	697	6	36

364 G-ATR-

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Process Ticket No. 3675	RMS RECORD DRIVE VELOCITY VARIATION	Sheet of
Space Chamber Test		Date of Test 12-12-66
Space Chamber S/N EM-39		Evaluator E.G.
Vibration Pre Post ✓		Date of Evaluation 12-20-66
Camera Speed Step 64		

CALCULATION STEPS

1. Reference reading 10.068
2. $X_{avg.} = \frac{\Sigma X}{100} = 3.225$
3. $\Delta X = X - X_{avg.}$
4. $\Sigma \Delta X^2 = .010899$
5. $RMS = \sqrt{\frac{\Sigma \Delta X^2}{100}} = .1044$
6. $X_{avg.\ corr.} = \text{Ref. Reading} - X_{avg.} = 6.843$
7. $\% \text{ RMS } V = \frac{RMS \times 100}{X_{avg.\ corr.}} = .166$

Reading No.	X	ΔX	ΔX²	Reading No.	X	ΔX	ΔX²
1	3.698	.033	.001089	26	.211	014	.000196
	.210	15	225		09	16	256
	.222	3	9		19	6	36
	.227	2	4		26	1	1
	.231	6	36		23	2	4
	.233	8	64		25	0	0
	.37	12	144		27	2	4
	.40	15	225		24	1	1
	.31	6	36		31	6	36
	.39	4	16		31	6	36
	.34	1	1		31	6	36
	.17	8	64		31	6	36
	.21	4	16		29	4	16
	.19	6	36		29	4	16
	.15	10	100		26	1	1
	.15	10	100		36	9	81
	.17	8	64		29	4	16
	.31	6	36		23	2	4
	.30	5	25		23	2	4
	.28	3	9		21	4	16
	.31	6	36		10	5	25
	.25	0	0		15	10	100
	.22	3	9		05	20	401
	.22	3	9		11	14	196
25	.17	8	64	50	26	1	1

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Process Ticket No. 3675	[redacted] RECORD DRIVE VELOCITY VARIATION	Sheet of
Space Chamber Test		Date of Test 12-18-64
Space Chamber S/N FM-39		Evaluator [redacted]
Vibration Pre Post ✓		Date of Evaluation 12-20-64
Camera Speed Step 64		

CALCULATION STEPS

1. Reference reading 10,068
2. $X_{avg.} = \frac{\Sigma X}{100} = 3.235$
3. $\Delta X = X - X_{avg.}$
4. $\Sigma \Delta X^2 =$ _____
5. RMS $= \sqrt{\frac{\Sigma \Delta X^2}{100}} =$ .0225
6. $X_{avg.\ corr.}$ = Ref. Reading − $X_{avg.}$ =
7. % RMS V $= \frac{\text{RMS} \times 100}{X_{avg.\ corr.}}$ =

Reading No.	X	ΔX	ΔX²	Reading No.	X	ΔX	ΔX²
57	3.733	008	.000064	26	215	.010	.000100
	33	2	4		15	10	100
	18	7	49		13	12	144
	18	7	49		17	8	64
	18	7	49		19	6	36
	28	3	9		23	2	4
	26	1	1		26	1	1
	24	1	1		23	2	4
	26	1	1		36	11	121
	37	12	144		36	11	121
	43	18	324		43	18	324
	42	17	289		52	27	729
	38	13	169		52	27	729
	32	7	49		50	25	625
	32	7	49		43	18	324
	32	7	49		37	12	144
	25	0	0		33	8	64
	16	9	81		33	8	64
	08	17	289		31	6	36
	1698	27	729		26	1	1
	306	19	361		22	3	9
	18	7	49		22	3	9
	14	11	121		24	1	1
	08	17	289		24	1	1
75	06	19	361	100	24	1	1

366 G-ATR-11

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

DYNAMIC RUN
DENSITY DATA SHEET

Process Ticket No.: 3672	Sheet of
Evaluator: TP	Date of Test: 12-17-66
Date of Evaluation 1-18-67	

Item & S/N S/C FM-39	Collimator No. FAST
Procedure No. 804-104	Target Drum No. 208001
Vibration Pre. Post ✓	

Control Data		Film Speed	1		64		31	31	31	31	31	
Step #	D	Field Angle	0°		0°		0°	+0.5°	-0.5°	0°	0°	
1	2.43	Input Voltage	28		28	Spec	28v	28v	28v	27v	32.5v	Spec
2	2.41	Step 7					.76	.76	.76	.76	.77	~~1.11.3~~
3	2.36	Step 9					.42					
4	2.29	D. Min.	.21		.21							
5	2.18	TTA	2.36		1.83							
6	2.01	TTB	2.32		1.80							
7	1.81	Visual Observation			No Fog			Fogged				
8	1.55	if fogged	D min of Fogged Area									
9	1.23		D min. Random									
10	.93											
11	.64											
12	.45											
13	.32											
14	.26											
15	.22											
16	.20											
17	.19											
18	.18											
19	.18											
20	.18											
21	.18											

		Spec
Gamma	2.16	1.9-2.3
Speed Pt.	1.14	1.08 - 1.18
Log E 4p1 / 4p64		
TTA	1.97 / 1.72	1.36 min.
TTB	1.95 / 1.71	1.36 min.

IDENTIFICATION OF RAW FILM STOCK

Film Can No. 281

Film type	Total feet	
3404	2985	
Emulsion No.	Master Roll No.	Date mo/yr
265	21	10 66
Film+ spool wt.	spool wt.	
54.7	4.1	
Splice location from head of roll		
1720 / 1265 /		

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Process Ticket No. 3672 | Sheet of | Date of Test 12-

Item & S/N SICFM-39	Collimator No. EAST
Procedure No. 804-104	Target Drum No. 208001
Evaluators	Vibration: Pre Post
Date of Evaluation	Focus Voltage: CPL 20

Film Defects (Describe)	Location
Spurious Interframe Marks	NONE

IMC Circle: speed 31.0°	Frame 2,27v	Frame 2,28v	Frame 2,32.5v
Dim. Along (A)			
Dim. Across (B)			
Difference: (A-B)			
(Difference x 100)/B			

Speed		1	9	17	25	33	41	49	57	64
Film Speed (in/sec)	min.	2.479	2.685	2.907	3.148	3.409	3.692	3.997	4.328	4.681
Specifications	max.	2.489	2.695	2.919	3.160	3.423	3.706	4.013	4.346	4.659
Film Speed, 27 volts										
Bit 1 Ref. Dim. (inches)		1.050	1.007	0.955	0.994	1.100	1.127	1.037	1.144	0.978
Bit 21 Ref. Dim. (inches)		3.531	3.693	3.863	4.142	4.511	4.831	5.038	5.482	5.819
Film Speed (Diff. in/sec)		2.481	2.686	2.908	3.148	3.411	3.694	4.001	4.337	4.661
Film Speed, 28 volts										
Bit 1 Ref. Dim. (inches)		1.060	0.953	1.053	0.965	1.074	1.042	1.096	1.024	0.922
Bit 21 Ref. Dim. (inches)		3.541	3.640	3.920	4.116	4.486	4.736	5.098	5.353	5.695
Film Speed (Diff. in/sec)		2.481	2.687	2.907	3.151	3.412	3.694	4.002	4.331	4.664
Film Speed, 32.5 volts										
Bit 1 Ref. Dim. (inches)		1.032	1.006	1.021	1.048	0.982	0.968	0.998	1.121	1.054
Bit 21 Ref. Dim. (inches)		3.571	3.692	3.929	4.200	4.397	4.661	4.999	5.453	5.802
Film Speed (Diff. in/sec)		2.479	2.686	2.908	3.152	3.410	3.693	4.001	4.332	4.664

Dist. Btwn. TTA and TTB	2nd Target Frame of Speed 1 at 0° and 28 volts
TTA Reading (inches)	10.344
TTB Reading (inches)	10.381
Difference (inches)	.037 Spec. 0.035-0.045"

365

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Process Ticket No.	DATA SHEET FOR RECORD EVALUATION	Sheet of
		Date of Test 12-17-66
Item - Space Chamber FM 32		Procedure No. 8[illegible]-10h
		Vibration Pre Post ✓

Evaluator L.L. Date of Evaluation 12-18-66

Test	Test Requirement			P.T. 3678
	Units	Min.	Max.	Test Data
SLIT No. 1, TT bit from slit	inches	-	0.005	.001
SLIT No. 2, TT bit from slit	inches	-	0.005	.001
SLIT No. 3, TT bit from slit	inches	-	0.005	.001
SLIT No. 4, TT bit from slit	inches	-	0.005	
Occluded Yaw Slits NONE	-	-	NONE	

Appendix C Ref. Para. START-STOP TRANSIENTS

FILM SPEED STEP	START TRANSIENT P.T. 3675				STOP T		T
	Film travel from turn-on to start of TTA bits -Inches as read-	Distance between first two TTA bits after turn-on			Distance from turn-off		lm stop
		Min. Spec. Inches	Max. Spec. Inches	Test Data	Min. Spec. Inches	Max. Sp Inch	Test Data
1	2.768	0.1232	0.1252	.1239	-	6	.634
9	3.007	0.1331	0.1356	.1337	-	6	.698
17	3.283	0.1445	0.1468	.1457	-	6	.843
25	3.520	0.1565	0.1590	.1575	-	6	.928
33	3.865	0.1695	0.1722	.1700	-	6	1.220
41	4.130	0.1835	0.1865	.1847	-	6	1.559
49	4.477	0.1985	0.2020	.2002	-	6	1.[illegible]
57	4.[illegible]	0.[illegible]	0.2246	.2[illegible]	-	6	2.[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-	6	2.[illegible]

Approved for Release: 2024/01/30 C05098941

C05098941

Approved for Release: 2024/01/30 C05098941

Sheet	of
Date of Test	
Process Ticket No.	

Item & S/N S/C FM-39	Collimator No. EAST
Procedure No. 804-104	Target Drum No. 208031
Focus Voltage: CPL 20 2.500	Vibration Pre Post

Evaluators														
Input Voltage		28V				28V				28V				
Field Angle		0°				+0.5°								
Element No.	Res.	X Freq.	X Cum.	Y Freq.	Y Cum.	X Freq.	X Cum.	Y Freq.	Y Cum.	X Freq.	X Cum.	Y Freq.	Y Cum.	
30	235/241													
29	222/211													
28	210/200													
27	198/188	10	10											
26	187/178	35	45	2	2									
25	177/168	17	62	4	6									
24	166/159	20	82	14	20	2	2	4	4					
23	157/150	1	83	22	42	28	30	21	25	1	1	1	1	
22	148/142	1	84	26	68	37	67	32	57	9	10	2	3	
21	140/134			11	79	14	81	18	83	27	37	4	7	
20	132/126			4	83	3	84	1	84	30	67	3	10	
19	125/119			1	84			1	85	18	85	2	12	
18	118/113									1	86	1	13	
17	111/107													
16	105/101													
15	99/95													
14	94/90													
13	88/85													
12	83/80													
11	79/76													
10	75/71													
9	70/67													
8	66/63													
7	62/60													
6	56/56													
5	50/53													
Not Readable														
Phy. Defect														
Total Freq./2		42	X	42	X	42	X	42	X	42	X			
Median Value		X	179	X	150	X	147	X	147	X	132	X		
Geom. Mean		164				147				370				

Approved for Release: 2024/01/30 C05098941

C05098941

Approved for Release: 2024/01/30 C05098941

RESOLUTION CONFIRMATION SHEET

Sheet 68

Date of Test 12/17/68

Process Ticket No. 3422

Item & S/N S/C FM-39 | Collimator No. FAST

Procedure No. 804-104 | Target Drum No. 208001

Focus Voltages: CPL 20 2.500 | Vibration Pre ___ Post ___

Evaluators | Tester

	Input Volts	27V				32.5V					
	Field Angle	0°				0°					
Element No	Res.	X Freq.	X Cum	Y Freq.	Y Cum	X Freq.	X Cum	Y Freq.	Y Cum	Condition	Medi. FM
										28V, 0°	
30	224										
29	211	1	1							28V, +0.5°	
28	200	6	7			3	3				
27	188	29	36			22	25				
26	178	30	66			44	69	2	2	28V, -0.5°	
25	168	12	78	5	5	13	82	6	13		
24	159	6	84	18	23	1	83	22	35	27V -0°	
23	150			22	45	1	84	26	61		
22	142			14	59			21	82		
21	134			17	76			2	84	32.5V -0°	
20	126			7	83						
19	119			1	84						
18	113									Sum of 5 Medians	
17	107										
16	101										
15	95										
14	90										
13	84									Arithmetic Mean of the 5 Median G.M's	
12	80										
11	76										
10	71										
9	67										
8	63										
7	60										
6	56										
5	53										
Not Readable											
Phy. Defects											
Total Freq./2		42	X	42	X	42	X	42	X		
Median Value		X	186	X	157	X	184	X	157		171
Geom. Mean		168				170					

Approved for Release: 2024/01/30 C05098941

G-ATR-5

C05098941

Approved for Release: 2024/01/30 C05098941

RESOLUTION ANALYSIS

Sheet ___ of ___

Date of Test 6/[illegible]

Process Ticket No. 56[illegible]

Film & S/N SC FM-39 | Collimator No. EAST

Procedure No. 804-104 | Target Drum No. 208001

Field Angle 0.0 Degree | Vibration Pre ___ Post ✓

Density by Step 7 | Focus Voltage: CPL 20 2.502

Input Voltage 28.0 | SLIT WIDTH 0.0161

Evaluator	C.C.				M.E.			
Date Eval.	12-19-66				12-19-66			
Chart No.	Frame 2		Frame 3		Frame 2		Frame 3	
	X H	Y V	X H	Y V	X H	Y V	X H	Y V
1	11-2	11-2	11-2	10-5	11-2	11-2	11-2	10-5
2	11-2	10-5	11-2	10-5	11-2	10-5	11-1	10-5
3	11-2	10-6	11-2	10-5	11-1	10-6	11-2	10-5
4	11-2	11-2	11-1	10-6	11-2	11-2	11-1	11-1
5	11-2	10-4	11-1	10-5	11-1	10-4	11-1	10-5
6	11-2	10-6	11-2	10-5	11-2	10-6	11-2	10-5
7	11-2	10-6	11-1	10-6	11-1	10-6	11-1	10-6
8	11-2	10-6	11-2	10-4	11-2	10-5	11-3	10-4
9	11-1	10-4	11-2	10-6	11-1	10-3	11-2	10-6
10	11-1	10-6	11-2	10-6	11-1	11-1	11-2	10-6
11	11-3	10-6	11-3	10-6	11-3	10-6	11-2	10-6
12	11-3	10-4	11-2	10-6	11-3	10-4	11-2	10-6
13	11-1	10-4	11-2	10-6	11-1	10-4	11-2	10-6
14	11-2	10-6	11-2	10-4	11-1	10-6	11-2	10-4
15	11-1	11-1	11-2	11-1	11-2	11-1	11-2	11-1
16	11-3	10-5	11-2	10-4	11-3	10-4	11-3	10-4
17	11-2	10-5	11-1	10-5	11-2	10-5	11-1	10-5
18	11-3	10-5	11-1	10-5	11-3	10-5	11-1	10-5
19	11-3	10-5	11-2	10-4	11-2	10-6	11-2	10-5
20	11-2	10-5	11-2	10-4	11-2	10-4	11-2	10-4
21	11-2	10-5	11-3	10-6	11-2	10-5	11-3	11-1

Code: "D" Physical Defect
"O" Out of Focus
"R" Vibration
"S" Spurious
"_" Smeared

Element No.	Res.	X - Tally ≡ H = X	Y - Tally ≡ V = Y
11-5	235 211		
11-4	222 200		
11-3	210 189	[illegible]	
11-2	198 178	[illegible]	[illegible]
11-1	187 168	[illegible]	[illegible]
10-6	177 159		[illegible]
10-5	166 150		[illegible]
10-4	157 142		[illegible]
10-3	148 134		
10-2	140 126		
10-1	132 119		
9-6	125 113		
9-5	118 107		
9-4	111 101		
9-3	105 95		
9-2	99 90		
9-1	94 84		
8-6	88 80		
8-5	83 76		
8-4	79 71		
8-3	75 67		
8-2	70 63		
8-1	66 60		
7-6	62 56		
7-5	56 53		
Not Readable			
Phy. Defects			

Approved for Release: 2024/01/30 C05098941

GATE 7

C05098941

Approved for Release: 2024/01/30 C05098941

RESOLUTION ANALYSIS

Sheet of

Date of Test 12/12/66

Process Ticket No. 3672

Film S/N S/C FM-39 | Collimator No. EAST

Aperture No. 804-104 | Target Drum No. 208001

Field Angle +0.5 Degree | Vibration Pre Post ✓

Density Step 7 | Focus Voltages: CPI 20 2.500

Limit Voltage 28.0 | SLIT WIDTH 0.008

Evaluator	C.C.				N.C.			
Date Eval.	12-19-66				12-19-66			
Chart No.	Frame 2		Frame 3		Frame 2		Frame 3	
	H X	V Y	H X	V Y	H X	V Y	H X	V Y
1	10-4	10-5	10-3	10-3	10-4	10-5	10-3	10-1
2	10-4	10-4	10-4	10-3	10-4	10-4	10-4	10-3
3	10-4	10-5	10-6	10-4	10-4	10-5	10-6	10-4
4	10-5	10-4	10-4	10-4	10-4	10-4	10-4	10-4
5	10-6	10-4	10-3	10-4	10-5	10-4	10-3	10-4
6	10-3	10-4	10-4	10-3	10-3	10-5	10-4	10-3
7	10-4	10-6	10-2	10-3	10-5	10-6	10-2	10-4
8	10-5	10-5	10-4	10-4	10-5	10-5	10-4	10-4
9	10-5	10-4	10-5	10-4	10-5	10-4	10-5	10-5
10	10-5	10-5	10-4	10-4	10-3	10-5	10-4	10-5
11	10-5	10-5	10-5	10-4	10-5	10-5	10-5	10-4
12	10-6	10-4	10-3	10-5	10-6	10-4	10-3	10-5
13	10-4	10-3	10-4	10-3	10-4	10-3	10-4	10-3
14	10-4	10-4	10-4	10-3	10-3	10-4	10-3	10-3
15	10-6	10-4	10-4	10-4	10-6	10-4	10-4	10-5
16	10-4	10-3	10-5	10-5	10-4	10-3	10-4	10-4
17	10-5	10-4	10-5	10-6	10-5	10-4	10-5	10-6
18	10-4	10-4	10-3	10-3	10-4	10-4	10-3	10-4
19	10-4	10-4	10-4	10-5	10-4	10-4	10-4	10-5
20	10-5	10-4	10-4	10-5	10-5	10-4	10-4	10-5
21	10-4	10-3	10-5	10-3	10-3	10-3	10-5	10-3

Element No.	Res.	X - Tally ⟹ H = X	Y - Tally ⫼ V = Y
11-5	235 211		
11-4	222 200		
11-3	210 188		
11-2	198 178		
11-1	187 168		
10-6	177 159	////	////
10-5	166 150	//// //// //// ////	//// //// //// ////
10-4	157 142	//// //// //// //// ////	//// //// //// //// ////
10-3	148 134	//// //// ////	//// //// ////
10-2	140 126	///	/
10-1	132 119		/
9-6	125 113		
9-5	118 107		
9-4	111 101		
9-3	105 95		
9-2	99 90		
9-1	94 84		
8-6	88 80		
8-5	83 76		
8-4	79 71		
8-3	75 67		
8-2	70 63		
8-1	66 60		
7-6	62 56		
7-5	56 53		
Not Readable			373
Phy. Defects			

Code: "D" Physical Defect
"O" Out of Focus
"R" Vibration
"S" Spurious
"_" Smeared

Approved for Release: 2024/01/30 C05098941

G-ATR-7

C05098941
Approved for Release: 2024/01/30 C05098941

RESOLUTION ANALYSIS

Sheet ___ of ___
Date of Test 12/12/66
Process Ticket No. 3672

Item & S/N S/C FM-39 | Collimator No. EASST
Procedure No. 804-104 | Target Drum No. 208001
Field Angle — 0.5 Degree | Vibration Pre ___ Post 1
Density Step 7 | Focus Voltages: CPL 20 2.500
Input Voltage 28.0 | SLIT WIDTH 0.008

Evaluator	E.C.				H.E.			
Date Eval.	12-19-66				12-19-66			
Chart No.	Frame 2		Frame 3		Frame 2		Frame 3	
	H X	V Y	H X	V Y	H X	V Y	H X	V Y
1	10-1	9-6	10-4	10-2	10-1	96	10-4	10-2
2	10-2	10-1	10-5	10-2	10-2	10-1	10-4	10-2
3	10-1	10-1	10-1	10-2	10-1	10-2	10-1	10-2
4	10-1	10-2	10-4	10-3	10-1	10-2	10-4	10-4
5	10-2	10-1	10-3	10-2	10-3	10-1	10-3	10-3
6	10-3	10-1	10-1	10-2	10-3	10-1	10-4	10-2
7	10-2	10-2	10-3	10-2	10-2	10-3	10-3	10-2
8	10-2	10-2	10-3	10-2	10-2	10-2	10-3	10-2
9	10-1	10-1	10-4	10-4	10-1	10-1	10-4	10-3
10	10-2	10-1	10-2	10-3	10-2	10-1	10-2	10-2
11	10-2	10-1	10-3	10-1	10-2	10-1	10-3	10-1
12	10-1	10-3	10-2	10-3	10-1	10-3	10-2	10-4
13	9-6	10-1	10-4	9-6	96	10-1	10-4	9-5
14	10-3	10-2	10-2	10-3	10-3	10-2	10-2	10-3
15	10-3	10-4	10-2	10-2	10-3	10-4	10-2	10-2
16	10-2	10-2	10-2	10-3	10-2	10-2	10-3	10-2
17	10-3	10-3	10-2	10-2	10-3	10-3	10-2	10-2
18	10-3	10-4	10-2	10-3	10-3	10-4	10-2	10-3
19	10-1	10-2	10-1	10-2	10-1	10-3	10-1	10-2
20	10-3	10-3	10-2	10-2	10-3	10-3	10-2	10-2
21	10-2	10-3	10-3	10-2	10-2	10-3	10-3	10-2

Code: "D" Physical Defect
"O" Out of Focus
"R" Vibration
"S" Spurious
"_" Smeared

Element No.	Res.	X - Tally (≡} H = X)	Y - Tally (III} V = Y)
11-5	235 211		
11-4	222 200		
11-3	210 188		
11-2	198 178		
11-1	187 168		
10-6	177 159		
10-5	166 150	1	1
10-4	157 142	9	
10-3	148 134	24	
10-2	140 126	33	1
10-1	132 119	19	
9-6	125 113	1	
9-5	118 107		1
9-4	111 101		
9-3	105 95		
9-2	99 90		
9-1	94 84		
8-6	88 80		
8-5	83 76		
8-4	78 71		
8-3	75 67		
8-2	70 63		
8-1	66 60		
7-6	62 56		
7-5	56 53		
Not Readable			
Phy. Defects			

Approved for Release: 2024/01/30 C05098941

C05098941

Approved for Release: 2024/01/30 C05098941

RESOLUTION ANALYSIS

Sheet of

Date of Test 12/12/66

Process Ticket No. 3672

Item & S/N S/C FM-39 | Collimator No. EAST

Procedure No. 804-104 | Target Drum No. 208001

Field Angle 0.0 Degree | Vibration Pre Post ✓

Density Step 7 | Focus Voltages: CPL 20 2.500

Input Voltage 27.0 | SLIT WIDTH 0.008

Evaluator	C.C.				H.E.			
Date Eval.	12-19-66				12-19-66			
Chart No.	Frame 2		Frame 3		Frame 2		Frame 3	
	H X	V Y	H X	V Y	H X	V Y	H X	V Y
1	11-2	10-2	11-2	10-3	11-2	10-3	11-2	10-3
2	11-2	11-1	11-3	10-6	11-2	11-1	11-3	10-6
3	11-3	10-5	11-2	10-3	11-3	10-5	11-2	10-4
4	11-1	10-5	11-4	10-3	11-1	10-5	11-4	10-4
5	11-2	10-5	11-4	10-5	11-2	10-6	11-3	10-6
6	11-3	10-4	11-2	10-6	11-3	10-4	11-2	10-4
7	11-2	10-3	11-2	10-5	11-2	10-3	11-2	10-5
8	10-6	10-6	11-2	10-5	10-6	10-6	11-2	10-5
9	11-3	10-5	11-3	10-4	11-2	10-5	11-2	10-3
10	11-3	11-1	11-3	10-3	11-3	11-1	11-3	10-3
11	11-3	10-6	11-3	10-4	11-3	10-6	11-3	10-5
12	11-3	10-6	11-1	10-3	11-3	10-5	11-1	10-3
13	11-1	10-6	10-6	10-3	11-1	10-6	10-6	10-3
14	11-3	10-6	11-1	10-1	11-3	11-1	11-1	10-2
15	11-4	10-5	11-2	10-3	11-4	10-5	11-2	10-4
16	11-3	10-4	11-2	10-4	11-3	10-4	11-2	10-4
17	11-3	10-3	11-2	10-4	11-3	10-5	11-2	10-4
18	11-3	10-2	11-3	10-3	11-3	10-3	11-3	10-3
19	11-2	10-6	10-6	10-2	11-2	10-6	10-6	10-2
20	11-2	10-3	11-1	10-3	11-2	10-3	11-1	10-5
21	11-5	10-2	11-2	10-6	11-4	10-2	11-1	10-6

Code: "D" Physical Defect
"O" Out of Focus
"R" Vibration
"S" Spurious
"—" Smeared

Element No.	Res.	X - Tally H = X	Y - Tally V = Y
1	11-5	256 211	/
2	11-4	228 208	
3	11-3	210 188	
4	11-2	198 178	
5	11-1	184 168	
6	10-6	177 159	
7	10-5	166 150	
8	10-4	157 142	
9	10-3	148 134	
10	10-2	140 126	
11	10-1	132 119	/
12	9-6	126 113	
13	9-5	118 107	
14	9-4	112 101	
15	9-3	105 95	
16	9-2	99 90	
17	9-1	94 84	
18	8-6	88 80	
19	8-5	83 76	
20	8-4	79 71	
21	8-3	75 67	
22	8-2	70 63	
23	8-1	66 60	
24	7-6	62 56	
25	7-5	56 53	
Not Readable			375
Phy. Defects			

Approved for Release: 2024/01/30 C05098941

G-ATR-7

C05098941
Approved for Release: 2024/01/30 C05098941

RESOLUTION ANALYSIS

Sheet of
Date of Test 12/17/66
Process Ticket No. 3622

Item & S/N S/C FM-39
Procedure No. 804-104
Field Angle 0.0 Degree
Density Step 7
Input Voltage 32.5

Collimator No. EAST
Target Drum No. 208001
Vibration Pre Post ✓
Focus Voltages: CPL 20 3.500
SLIT WIDTH 0.008

Evaluator	E.C.				K.E.			
Date Eval.	12-19-66				12-19-66			
Chart No.	Frame 2		Frame 3		Frame 2		Frame 3	
	H X	V Y	H X	V Y	H X	V Y	H X	V Y
1	11-3	10-6	11-2	11-2	11-3	10-6	11-2	11-2
2	11-2	11-1	11-1	10-6	11-2	11-2	11-1	10-6
3	11-2	10-4	11-3	10-6	11-2	10-4	11-3	10-6
4	11-3	10-5	11-3	10-4	11-3	10-5	11-3	10-4
5	11-2	10-6	11-2	10-5	11-2	11-1	11-2	10-5
6	11-2	10-6	11-3	10-4	11-2	10-5	11-2	10-4
7	11-3	10-5	11-3	10-5	11-3	10-5	11-3	10-5
8	11-2	10-4	11-2	10-5	11-2	10-5	11-2	10-4
9	11-1	10-4	11-3	10-4	11-1	10-4	11-3	10-4
10	11-2	10-4	10-6	10-6	11-2	10-4	10-5	10-6
11	11-2	10-3	11-3	10-5	11-2	10-3	11-3	10-5
12	11-3	10-4	11-2	10-6	11-2	10-4	11-2	11-1
13	11-2	10-6	11-4	11-1	11-2	10-6	11-3	11-2
14	11-2	10-6	11-3	10-5	11-2	10-6	11-3	10-5
15	11-1	11-2	11-2	10-5	11-1	11-2	11-2	10-5
16	11-1	10-6	11-4	10-5	11-1	11-1	11-4	10-6
17	11-2	11-1	11-3	10-6	11-2	11-2	11-2	10-6
18	11-2	10-5	11-2	10-4	11-1	10-5	11-2	10-4
19	11-1	10-6	11-2	10-5	11-1	10-6	11-2	10-5
20	11-1	10-4	11-2	10-4	11-1	10-4	11-2	10-4
21	11-2	10-5	11-2	10-5	11-2	10-5	11-2	10-5

Code: "D" Physical Defect
"O" Out of Focus
"R" Vibration
"S" Spurious
"_" Smeared

Element No.	Res.	X - Tally ≡} H = X	Y - Tally ≡} V = Y
11-5	235 211		
11-4	222 209	111	
11-3	210 188		
11-2	198 178		
11-1	187 168		
10-6	177 159	1	
10-5	166 150	1	
10-4	157 142		
10-3	148 134		
10-2	140 126		
10-1	132 119		
9-6	125 113		
9-5	118 107		
9-4	111 101		
9-3	105 95		
9-2	99 90		
9-1	94 84		
8-6	88 80		
8-5	83 76		
8-4	79 71		
8-3	75 67		
8-2	70 63		
8-1	66 60		
7-6	62 56		
7-5	56 53		
Not Readable			376
Phy. Defects			

Approved for Release: 2024/01/30 C05098941

C05098941

Approved for Release: 2024/01/30 C05098941

RESOLUTION ANALYSIS

Sheet	of
Date of Test	12/17/66
Process Ticket No.	3672

Item & S/N	S/C FM-39
Procedure No.	804-104
Field Angle	0.0 Degree
Density Step	7
Input Voltage	28.0
Collimator No.	EAST
Target Drum No.	208001
Vibration	Pre ____ Post ✓
Focus Voltages:	CPL 20 2.500
SLIT WIDTH	0.008

Evaluator	E.C.				N.E.			
Date Eval	12-19-66				12-19-66			
Chart No.	Frame 2		Frame 3		Frame 2		Frame 3	
	H X	V Y	H X	V Y	H X	V Y	H X	V Y
1	11-2	10-4	11-2	11-1	11-3	10-4	11-2	11-1
2	11-3	11-4	11-2	10-5	11-3	10-4	11-2	10-6
3	11-1	10-5	10-6	10-5	11-1	10-5	10-6	10-6
4	11-2	10-5	11-2	10-4	11-2	10-3	11-2	10-3
5	10-6	10-5	11-2	10-2	10-6	10-5	11-2	10-3
6	10-5	10-5	11-1	10-5	10-4	10-4	10-6	10-5
7	11-3	10-4	10-6	10-1	11-2	10-4	10-6	10-3
8	11-1	10-3	10-6	10-3	10-6	10-3	10-6	10-3
9	11-2	10-4	11-2	10-4	11-2	10-4	11-2	10-4
10	11-1	10-6	11-2	10-3	11-1	10-4	11-2	10-3
11	11-3	10-5	10-6	10-6	11-3	10-5	10-6	10-6
12	11-1	10-6	11-2	10-5	11-1	10-5	11-2	10-4
13	10-6	11-1	11-3	10-2	10-6	11-2	11-3	10-2
14	11-3	10-5	11-2	10-4	11-3	10-5	11-1	10-4
15	11-2	10-4	11-2	10-5	11-2	10-4	11-2	10-5
16	11-1	10-6	11-2	10-2	10-6	10-4	11-2	10-2
17	11-2	10-4	11-1	10-4	11-1	10-4	10-6	10-4
18	10-6	10-5	11-1	10-4	10-6	10-5	11-1	10-4
19	11-2	10-6	11-1	10-6	11-2	11-1	11-1	10-6
20	11-2	10-6	10-6	10-4	11-2	10-5	10-6	10-4
21	11-2	10-4	11-2	10-3	11-2	10-5	11-1	10-4

Code:
- "D" Physical Defect
- "O" Out of Focus
- "R" Vibration
- "S" Spurious
- "–" Smeared

Element No.	Res.	X - Tally ≡} H = X	Y - Tally ≡} V = Y
30	11-5	235 211	
29	11-4	222 200	
28	11-3	210 188	
27	11-2	198 178	
26	11-1	187 168	
25	10-6	177 159	
24	10-5	166 150	
23	10-4	157 142	
22	10-3	148 134	
21	10-2	140 126	
20	10-1	132 119	
19	9-6	125 113	
18	9-5	118 107	
17	9-4	111 101	
16	9-3	105 95	
15	9-2	99 90	
14	9-1	94 84	
13	8-6	88 80	
12	8-5	83 76	
11	8-4	79 71	
10	8-3	75 67	
9	8-2	70 63	
8	8-1	66 60	
7	7-6	62 56	
6	7-5	56 53	
Not Readable			
Phy. Defects			

377

Approved for Release: 2024/01/30 C05098941

G-ATH-7

C05098941

Approved for Release: 2024/01/30 C05098941

Sheet	of
Date of Test	12/12/66
Process Ticket No.	3672

Item & S/N	S/C FM-39				Collimator No.	EAST					
Procedure No.	804-104				Target Drum No.	208001					
Focus Voltages:	CPL 20	2.500			Vibration	Pre		Post			
SLIT	0.0166Y/0.0126C				0.0332Y/0.0252C						
Input Volts	28.0V				28.0V						
Field Angle	0.0°										

Element No.	Res.	X Freq	X Cum	Y Freq	Y Cum	X Freq	X Cum	Y Freq	Y Cum
30	[illegible]								
29	[illegible]								
28	[illegible]								
27	[illegible]	14	14						
26	[illegible]	49	63	4	4				
25	[illegible]	21	84	7	11				
24	[illegible]			27	38				
23	[illegible]			28	66				
22	[illegible]			17	83				
21	[illegible]			1	84				
20	[illegible]								
19	[illegible]								
18	[illegible]								
17	[illegible]								
16	[illegible]								
15	[illegible]								
14	[illegible]								
13	[illegible]								
12	[illegible]								
11	[illegible]								
10	[illegible]								
9	[illegible]								
8	[illegible]								
7	[illegible]								
6	[illegible]								
5	[illegible]								
Not Readable									
Phy. Defects									
Total Freq./2		42	X	42	X	X	X	X	X
Median Value		X	182	X	158	X	X	X	X
Geom. Mean			169						

Totals

Condition	Median CM
SLIT	
0.0083Y/ 0.0063C	
0.0156Y/ 0.0126C	169
0.0332Y/ 0.0252C	

Total System Transmittance

39.9%

378

G-ATR-10

Approved for Release: 2024/01/30 C05098941

C05098941

Approved for Release: 2024/01/30 C05098941

Process Ticket No. 3720

FOR
SLIT EVALUATION
SLIT A

of

Date of Test 1-18-62

Item: Space Chamber

Space Chamber S/N EM-32

Test Procedure 804-104E

Date of Evaluation 1-18-62

Evaluation Procedure 804-104 Appen C

Evaluator E. E.

Density Difference/Chart Line Calculated from Calibration Curve

Location of Defect			Width of Defect		D = .51 - 24.5 (W)	
1 Ref. Mark	2 To Defect On Chart	3 To Defect On Record	4 Inches On Chart	5 Inches on Record	6 Scale Difference from Avg on Chart	7
1		NONE				
2		NONE				
3		NONE				
4		NONE				
5		NONE				

G-ATR-12

3759

Approved for Release: 2024/01/30 C05098941

C05098941

Approved for Release: 2024/01/30 C05098941

Process Ticket No. 3720 | FOR SLIT EVALUATION SLIT 2 | Sheet of | Date of Test 1-18-67

Item: Space Chamber | Space Chamber S/N FM-39

Test Procedure 804-104E | Date of Evaluation 1-18-67

Evaluation Procedure 804-104 Appen C | Evaluator E. E.

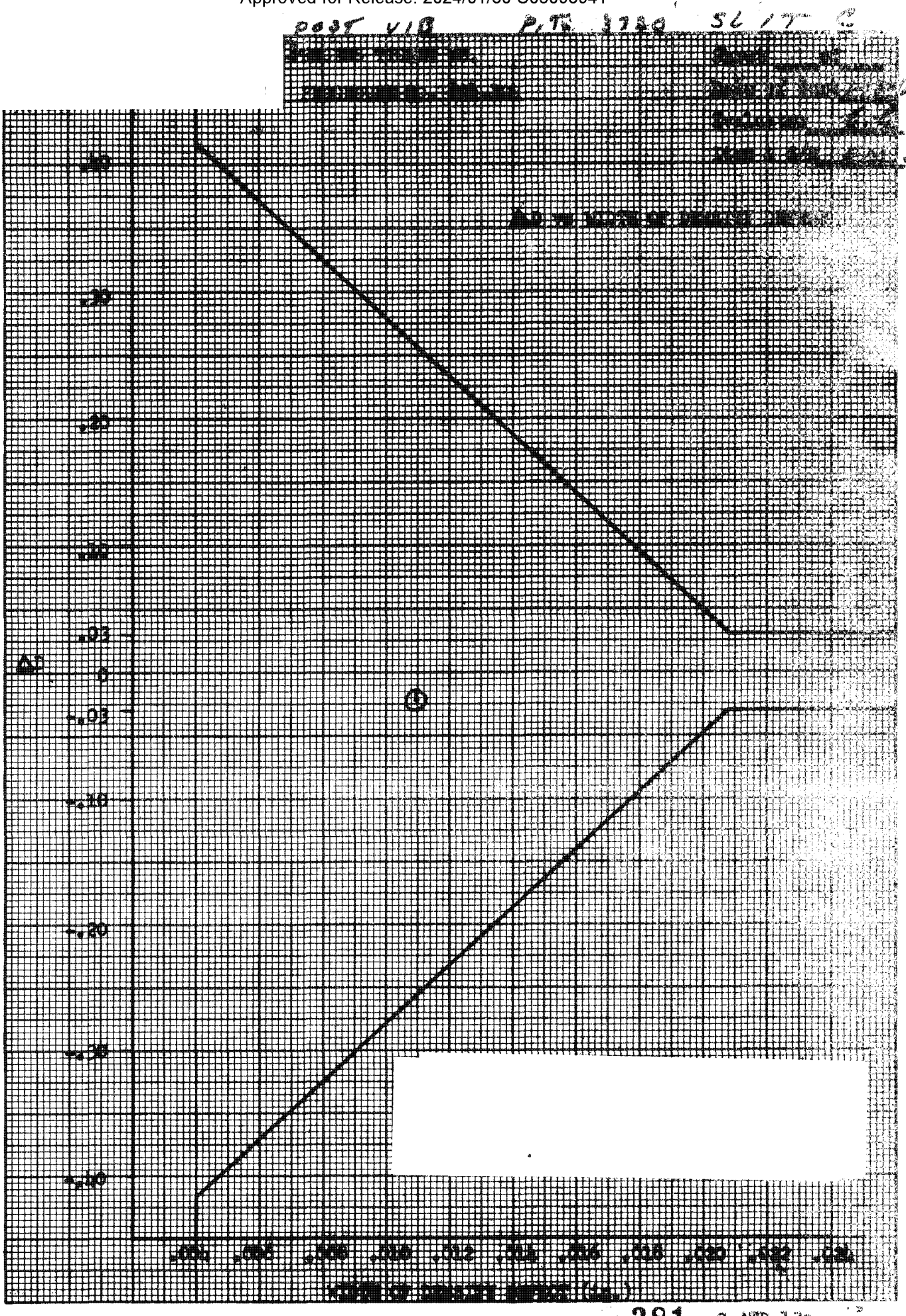
Density Difference/Chart Line Calculated from Calibration Curve

	Location of Defect		Width of Defect		D = .51 - 24.5 (W)	
1 Ref. Mark	2 To Defect On Chart	3 To Defect On Record	4 Inches On Chart	5 Inches on Record	6 Scale Difference from Avg on Chart	7 D
1	3.765	.231	.129	.011	-1	-023
2		NONE				
3		NONE				
4		NONE				
5		NONE				

G-ATR-12 380

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941



K&E 10 X 10 TO THE ½ INCH 359-11 KEUFFEL & ESSER CO. MADE IN U.S.A.

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Process Ticket No. 3720	FOR SLIT EVALUATION SLIT P	Date of Test 1-18-67
Item: Space Chamber		Space Chamber S/N FM-39
Test Procedure 804-104E		Date of Evaluation 1-18-67
Evaluation Procedure 804-104 Appen C		Evaluator C.C.
Density Difference/Chart Line Calculated from Calibration Curve		

Location of Defect			Width of Defect		D = .51 - 24.5 (W)	
1 Ref. Mark	2 To Defect On Chart	3 To Defect On Record	4 Inches On Chart	5 Inches on Record	6 Scale Difference from Avg on Chart	7 D
1		NONE				
2		NONE				
3		NONE				
4		NONE				
5		NONE				

Approved for Release: 2024/01/30 C05098941

C05098941

INTERFRAME MARKER DEFINITION

Process Ticket Nos. 3620 & 3672

Sheet 1 of 1

Space Chamber S/N- 39

Evaluator E.C.

Dates of Test 12-3-66 & 12-18-66

Dates of Evaluation 12-3-66 & 12-18-66

TEST	Test Requirement		Test Data		UNIT
	Min.	Max.	Pre. Vib.	Post Vib.	
Marker Distance from Slit Centerline	2.219	2.281	2.258	2.258	inches
Marker Center-to-Center Distance	0.245	0.255	0.255	0.255	inch
Marker Width (at a density level 0.8 above fog level)	0.105	-----	0.127 0.123	0.127 0.123	inch
Marker Width (at fog level)	-----	0.145	0.129 0.128	0.129 0.130	inch
Space Between Markers (at fog level)	0.105	-----	0.129	0.127	inch
Marker Density (Log E. Value)	1.72	-----	0.38	0.42	-----

Approved for Release: 2024/01/30 C05098941

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

VIBRATION TEST DATA

SPECIMENT: SPACE CHAMBER TEST NO.: 4A 1451

MODEL OR S/N: FM-39 TEST DATE: 12-15-66

DWG. NO.: 805-101 TESTED BY: RSK/TWK/JE

VIBRATION LEVELS

As DEFINED IN PARA. 5.1 OF ENVIRONMENTAL DESIGN CRITERIA, SPEC. 502-118

EQUIPMENT EQUALIZATION RUNS

AUTOMATIC EQUALIZATION

COMMENTS

THERE WERE NO SYSTEM DUMPS.

Approved for Release: 2024/01/30 C05098941

C05098941
Approved for Release: 2024/01/30 C05098941

Space Chamber S/N FM-39

WEIGHT & BALANCE SUMMARY

I Completely assembled S/V components of the Space Chamber Assembly including a supply reel and simulated record load having a combined weight of 56.89 pounds.

MEASURED WEIGHT 1172.48 POUNDS

CENTER OF GRAVITY

$\bar{X}$ = 139.51

$\bar{Y}$ = −0.265

$\bar{Z}$ = 0.062

II Completely assembled Forward Record Storage Assembly (with no record)

MEASURED WEIGHT 25.51 POUNDS

$\bar{X}$ = 28.90

$\bar{Y}$ = −0.170

$\bar{Z}$ = 2.150

Approved for Release: 2024/01/30 C05098941

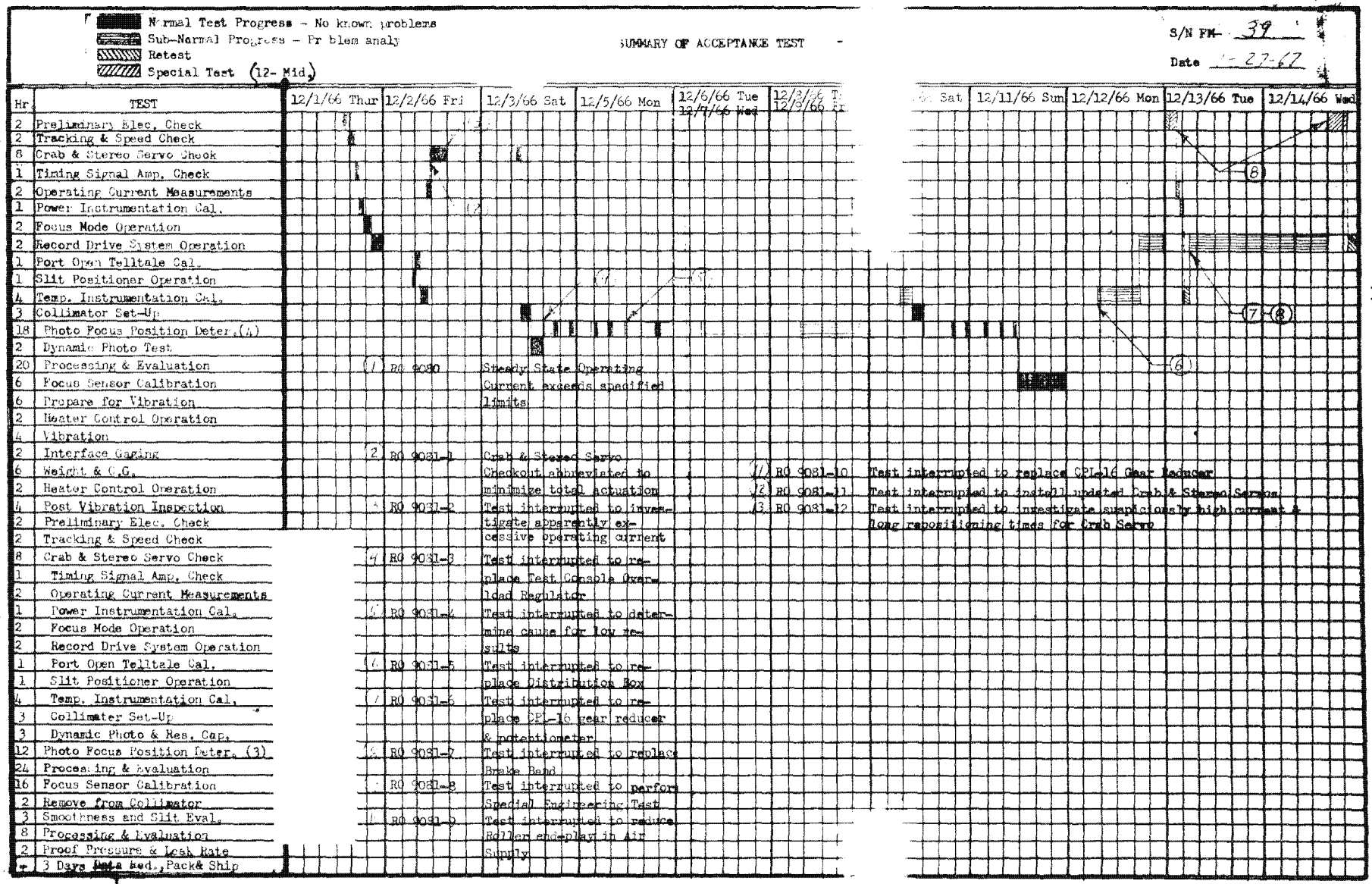
C05098941
Approved for Release: 2024/01/30 C05098941

RUBBER CURE DATE CHECK LIST FM F-39

ASSEMBLY	ASS'Y NO.	PART	PART NO.	CURE	DATE EXPIRATION
Gain Control	510-105	Seal	510-117	2Q66	2Q68
Distribution Box	617-114	Seal	617-111	2Q66	2Q68
Air Supply	711-185	Small Cover Gasket	711-148	3Q65	3Q67
		Large Housing Gasket	711-150	2Q65	2Q67
		Housing Cover Gasket	711-155	3Q65	3Q67
Rear Flexible Chute	711-194	Rear Bellows	711-191	4Q65	4Q67
Space Chamber	805-101	Front Gasket	711-238	2Q65	2Q67

Approved for Release: 2024/01/30 C05098941

C05098941



Approved for Release: 2024/01/30 C05098941

Approved for Release: 2024/01/30 C05098941

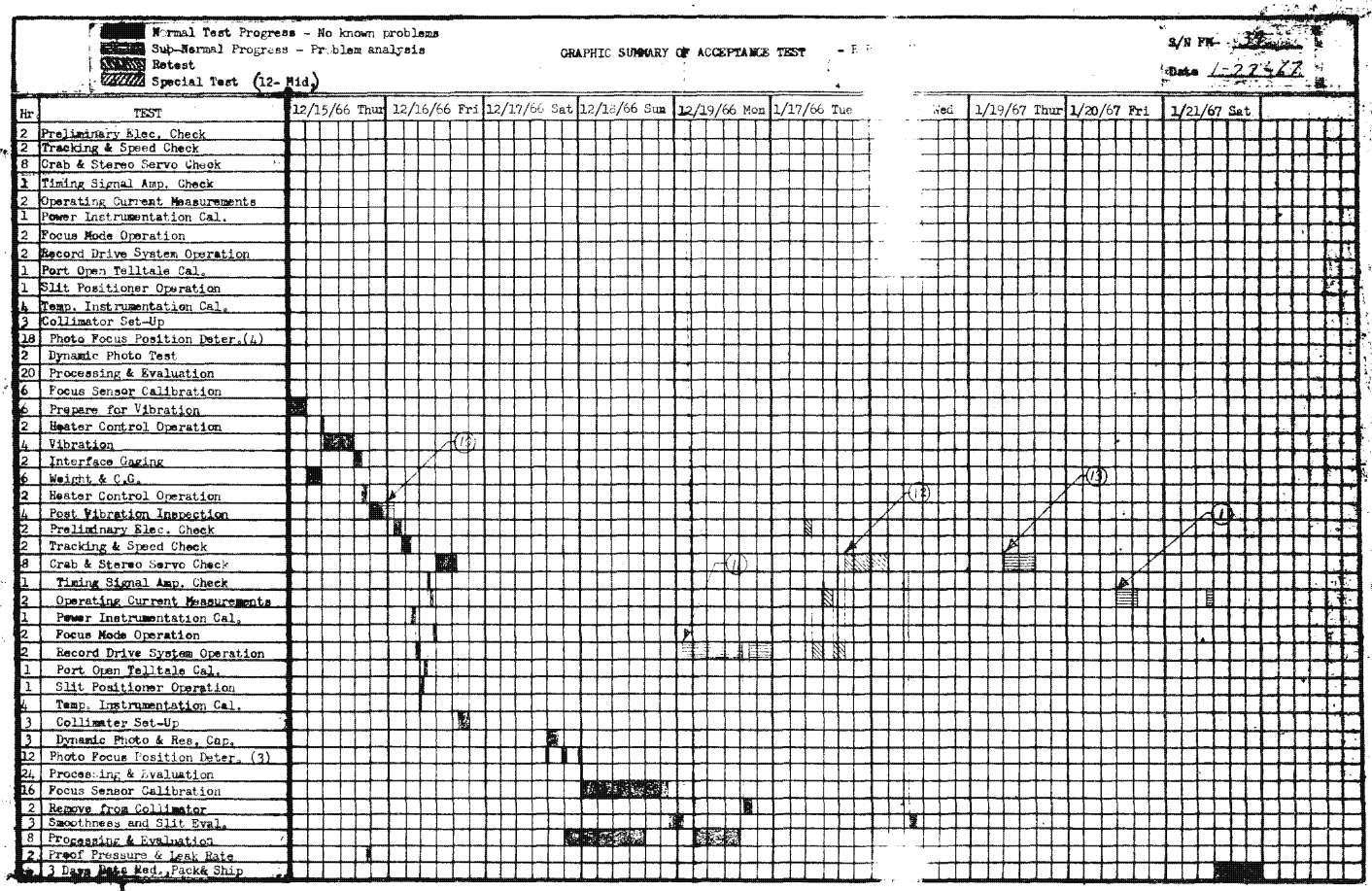
C05098941
Approved for Release: 2024/01/30 C05098941

Normal Test Progress - No known problems
Sub-Normal Progress - Problem analysis
Retest
Special Test (12- Mid.)

GRAPHIC SUMMARY OF ACCEPTANCE TEST - P

S/N FR- 38
Date 1-22-67

Hr	TEST
2	Preliminary Elec. Check
2	Tracking & Speed Check
8	Crab & Stereo Servo Check
1	Timing Signal Amp. Check
2	Operating Current Measurements
1	Power Instrumentation Cal.
2	Focus Mode Operation
2	Record Drive System Operation
1	Port Open Telltale Cal.
1	Slit Positioner Operation
4	Temp. Instrumentation Cal.
3	Collimator Set-Up
18	Photo Focus Position Deter.(4)
2	Dynamic Photo Test
20	Processing & Evaluation
6	Focus Sensor Calibration
6	Prepare for Vibration
2	Heater Control Operation
4	Vibration
2	Interface Gaging
6	Weight & C.G.
2	Heater Control Operation
4	Post Vibration Inspection
2	Preliminary Elec. Check
2	Tracking & Speed Check
8	Crab & Stereo Servo Check
1	Timing Signal Amp. Check
2	Operating Current Measurements
1	Power Instrumentation Cal.
2	Focus Mode Operation
2	Record Drive System Operation
1	Port Open Telltale Cal.
1	Slit Positioner Operation
4	Temp. Instrumentation Cal.
3	Collimator Set-Up
3	Dynamic Photo & Res. Cap.
12	Photo Focus Position Deter. (3)
24	Processing & Evaluation
16	Focus Sensor Calibration
2	Remove from Collimator
3	Smoothness and Slit Eval.
8	Processing & Evaluation
2	Proof Pressure & Leak Rate
3	3 Days Rate Med., Pack& Ship



Approved for Release: 2024/01/30 C05098941