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CORONA J

PERFORMANCE EVALUATION REPORT

MISSIONS 1007-1 and 1007-2

FTV 1609; J-07

19 February 1965

Approved: [redacted] 3-10-65
Mgr. Advanced Projects Date

Approved: [redacted] 3-12-65
Mgr. Program Date

SECRET [redacted] COPY NO. [redacted]

FOREWORD

This report details the performance of the payload section during the operational phase of the Program [redacted] Flight Test Vehicle 1609.

Lockheed Missiles and Space Company has responsibility for evaluating payload performance under the System Integration and "J" System contracts.

This document is the final payload test and performance evaluation report for Missions 1007-1 and 1007-2 which was launched on 19 June 1964.

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SECTION 1

INTRODUCTION

This report presents the final performance evaluation of Missions 1007-1 and 1007-2 of the Corona Program. The purpose of this report is to define the performance characteristics of the J-07 payload system, to identify the source of in-flight anomalies and recommend the necessary corrective action.

The performance evaluation was jointly conducted by representatives of Lockheed Missiles and Space Company and Itek at the facilities of NPIC and AFSPPL. The off-line evaluation normally performed at the individual contractors plant using Corona engineering material was of no value for this mission as essentially no photography was programmed during the orbital passes over the United States.

The quantitative data used for this report is obtained from government organizations. The diffuse density data, visual RES values and MTF/AIM resolution measurements are produced by AFSPPL. The vehicle attitude values and frame correlation times are made at NPIC who also supply the Processing History and MTF/AIM reports published by [redacted]

[redacted]

SECTION 2

SYSTEM PERFORMANCE

A. MISSION OBJECTIVES

The payload section of Mission 1007, placed into orbit by Flight Test Vehicle #1609 and Thor booster #410, consisted of two panoramic cameras, two Stellar-Index cameras, two Mark 5A recovery capsules and a space structure to enclose the cameras and provide mounting surfaces for all equipments. Figure 2-1 presents an inboard profile of the J-07 payload system. This Corona "J" system is designed to acquire search and reconnaissance photography of selected areas of the earth from orbital altitudes. The planned mission was two, four day photographic periods with no deactive period.

B. MISSION DESCRIPTION

The payload was launched from Vandenberg Air Force Base (VAFB) at 4:18:07 PM PDT on 19 June 1964. Ascent and injection were normal with the achieved orbit within nominal tolerances. Tracking and command support was effected by the Air Force Satellite Control Facility consisting of tracking and command stations at [redacted] under central control of the Satellite Test Center at Sunnyvale, California. Mission 1007-1 consisted of four days operation, recovery being effected by air catch on Orbit 65, 23 June 1964. Mission 1007-2 was accomplished over the following four days without a deactive phase. Mission 1007-2 was terminated with a successful air catch recovery on Orbit 128 on 27 June 1964.

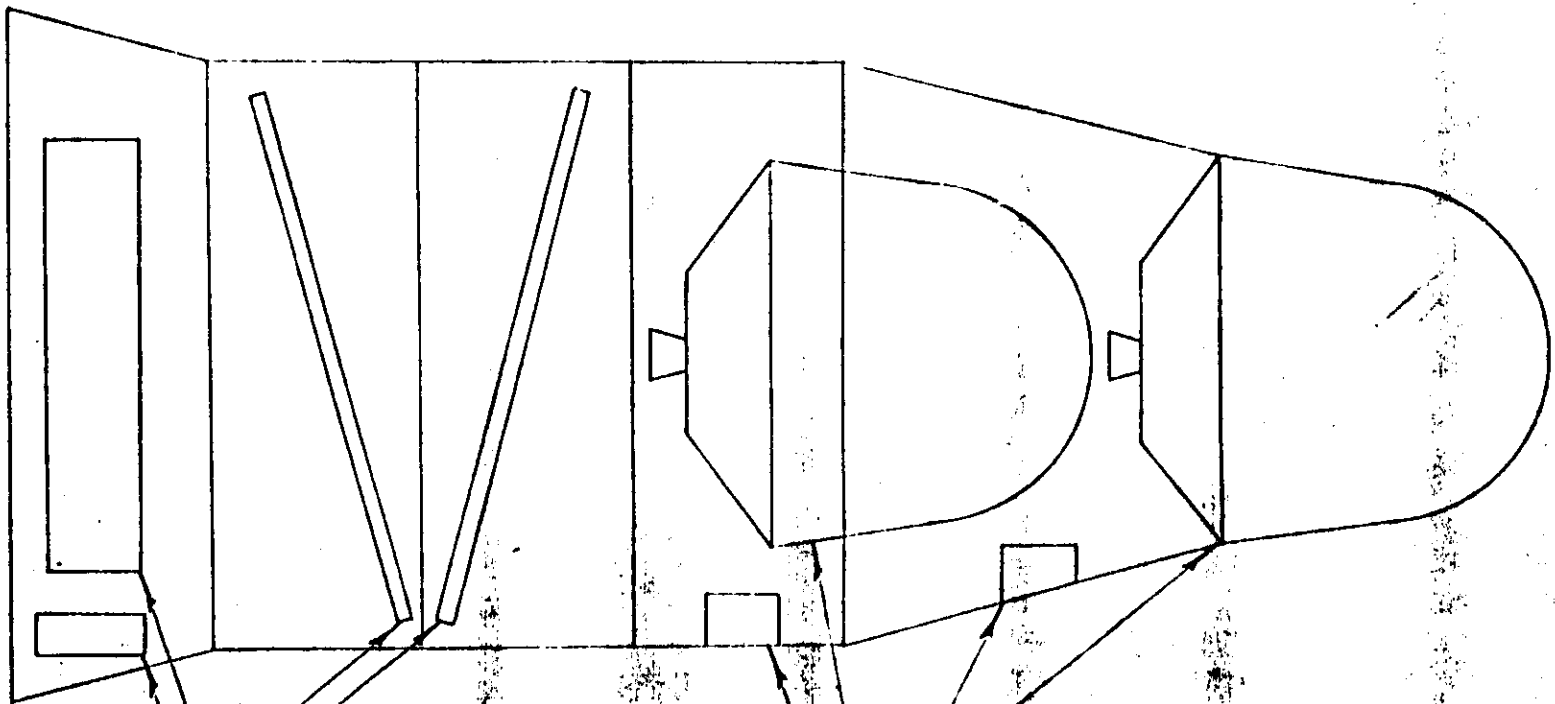
The comparison of the planned and actual orbit parameters is tabulated below:

Parameter	Planned	Actual (Orbit 1)
Period (Minutes)	91.06	90.95
Apogee (N.M.)	259.6	259.6
Perigee (N.M.)	100.27	99.2
Eccentricity	.02206	.02200
Inclination (Deg.)	85	85
Perigee Latitude (Deg.)	39.16	41.5

[redacted]

[redacted]

SCHEMATIC INBOARD PROFILE - CORONA J SYSTEM



Master Camera No: 144

Slave Camera No: 145

Supply Cassette No: S/C-9

Clock No: 505

Yaw Programmer No: N/A

"A" Recovery Subsystem No: 634

"A" Stellar-Index Camera No: D43/43/43

"B" Recovery Subsystem No: 633

"B" Stellar-Index Camera No: D54/56/51

Pressure Make-up Unit No: N/A

Figure 2-1

[redacted]

Both phases of the mission were executed in a normal manner. The two air recoveries had impact points within the prediction tolerances.

C. PANORAMIC CAMERAS

The Master and Slave panoramic cameras operated normally throughout both missions and produced excellent photographic coverage of the programmed areas. A small area on the Master camera formats was slightly out of focus during the later portion of Mission 1007-1. This soft spot was not present during Mission 1007-2.

D. STELLAR-INDEX CAMERAS

The Stellar-Index camera operation during Mission 1007-1 was completely normal. The star images and terrain photography were satisfactory for the desired attitude determination and relative orientation. The camera used during Mission 1007-2 encountered some shutter problems particularly in the stellar portion. Approximately 40% of the stellar photography was unusable and 3% of the index photography unusable due to shutter malfunctions.

E. OTHER SUB-SYSTEMS PERFORMANCE

The clock, instrumentation sub-system, and command and thermal control sub-system performed satisfactorily throughout the mission.

F. CONCLUSIONS

Mission 1007-1 and 1007-2 achieved the prime objective of obtaining high quality reconnaissance photography. The experiment using the red, Wratten 25 filter on the Master camera was successful.

G. RECOMMENDATIONS

Evaluation of the results of both missions has produced the following recommended actions:

1. Analyze the failure modes of the Stellar-Index camera shutters and take the necessary action to preclude future failures.

2. Incorporate a Wratten 25 filter on near noon launch missions to improve the normally lower performance of the Master camera.

3. Investigate the possibility of using a lower processing gamma to permit the recording of all imagery on the straight line portion of the characteristic curve.

[redacted]

SECTION 3

PRE-FLIGHT SYSTEMS TESTS

A. ENVIRONMENTAL TESTING

1. Test Objective

As a standard procedure, the J payload systems are subjected to thermal/altitude environmental testing which simulates orbital environment. One of the purposes of this test is to demonstrate the system susceptability to corona discharge. Such discharge fogs the film thus degrading the operational photography.

2. Test Description

The J-07 System was subjected to environmental testing six times before a valid test resulted in flight acceptable performance with respect to corona resistance. The final system environmental test was conducted in the LMSC Thermal Altitude Simulation Chamber (TASC) from 17 April 1964 to 21 April 1964. The payload system was operated for 16 orbits with extended soak periods between operations. This procedure assures a pressure within the corona marking pressure range at the start of each operation.

3. Test Environment

The thermal instrumentation system used in the system is subject to self-heating errors in the transducers, due to electrical power dissipation. The magnitude and characteristics of the self-heating errors have been demonstrated to be a function of time from excitation voltage on, the nature of the bond for each individual temp sensor, and the thermal mass of the component to which the sensor is bonded. A calibration of the self-heating characteristics of the installed temp sensors was conducted during the J-07 TASC Test No. 4. Figure 3-1 presents the results of this test. During the test, the time from excitation voltage on cannot be determined with certainty; therefore, accurate self-heating corrections cannot be applied to the TASC temperature data. Changes are in process to eliminate this problem. Following are representative thermal data (no self heating corrections applied):

[redacted]

[redacted]

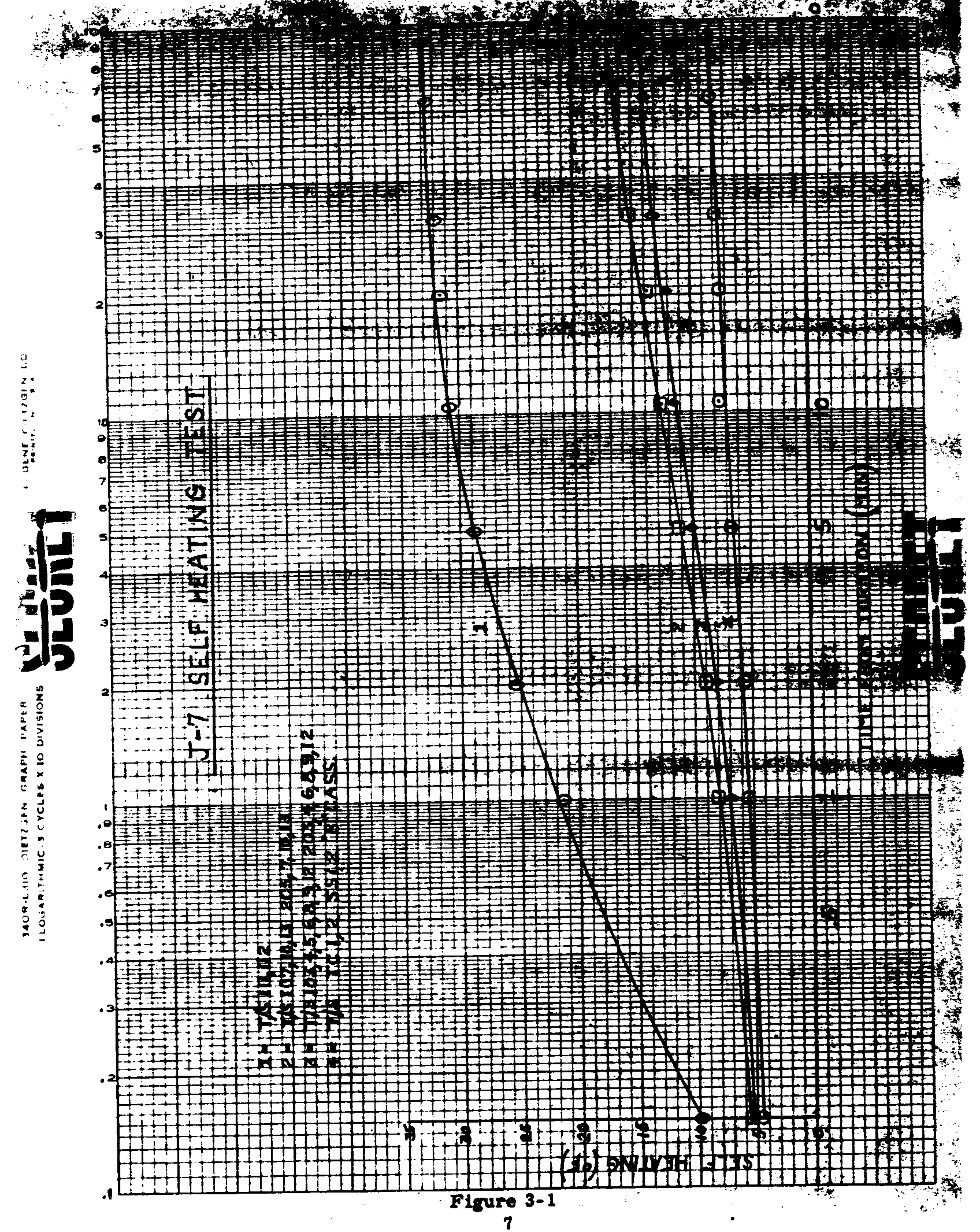


Figure 3-1

Temp Sensor	Orbit 0	Orbit 9	Orbit 16
Instrument #1	74.3	83.0	85.9
Instrument #2	76.6	89.0	88.1
Barrel #1	68.6	99.8	85.4
Barrel #2	69.3	97.4	83.8
Clock	74.2	90.0	92.5
Supply Spool	69.5	75.1	75.9
Thrustcone	67.8	81.0	87.5
Thermal Shield	57.3	110.4	72.3
Stellar/Index	77.3	85.8	95.2
Cassette	76.3	87.0	92.0

Figure 3-2 presents representative pressure data obtained during the test. As indicated, the pressures attained were within the corona marking range.

4. Panoramic Camera Performance

In general, the Panoramic Camera System Electro/Mechanical operation was satisfactory. The following anomalies were noted.

(1) There were several indications of possible payload movement during the scan portion of the camera cycle. Whether the payload actually moved, or whether the telemetry monitor was sitting on the edge of the cam producing this indication cannot be ascertained. This indicated movement was apparent on both panoramic instruments and is frequently observed in ground tests.

(2) A Mono No. 1 operation was conducted on Orbit 7. During this operation, the Horizon Idler on the Slave camera indicated possible payload take-up for approximately 4 seconds after the Master camera began operation. At this time, the Slave Horizon Idler returned to its normal inactive state. On the third cycle of the Master camera, one perturbation again occurred on the Slave Horizon Idler. There were no other indications of abnormal performance on the Slave camera during this operation.

[redacted]

Figure 3-2

The Slave camera operate voltage was off during the aforementioned period. The take-up cassette rotation monitor gave no indication of payload take-up. Therefore, this anomaly was probably caused by the bouncing of the commutator. A Mono No. 2 confidence run was conducted immediately after the previously-mentioned anomaly, and all payload system monitors indicated proper operation of the Slave camera.

(3) The T/M data indicated a possible payload slack loop on the Slave camera at the start of the last operation during Orbit 11.

(4) After the 7-second shutdown of the Master camera, the T/M data exhibited a possible take-up indication or slack during Orbit 16 of the test.

(5) No valid cycle rate calibration existed, due to replacement of the V/H programmer and several transistors in the magnetic amplifier; therefore, cycle rate performance could not be evaluated.

Examination of the film metered during the environmental test showed that the Master camera displayed a fog pattern from corona discharge during the start-up frames. No indication was present of a tendency to produce corona discharge continuously. The Slave camera did not fog the film during start-up. Both cameras were considered acceptable for flight.

5. Stellar Index Camera Performance

The test instrumentation indicated proper electro-mechanical operation of the S/I cameras throughout the test. Examination of the film metered during the test showed that both cameras met the acceptance criteria for corona discharge fogging hence both cameras were accepted for flight.

6. Clock Performance

The clock system operation appeared satisfactory. IRIG "C" was utilized as a standard. There were two time segments for

the entire TASC test due to a power shutdown on Orbit 4. A 38-millisecond offset occurred between Orbit 8 and Orbit 3, and a 79 millisecond offset between Orbit 4 and Orbit 16.

7. Instrumentation Performance

All instrumentation monitors indicated proper operation, with the exception of the Channel 13, Points 45, 51, and 56. These points are the minus 28 TLM buss voltage monitor, minus 28 volt TLM calibrate for the Master camera, and minus 28 volt TLM calibrate for the Slave camera. During Orbit 16, these monitors increased approximately 1/2 volts, indicating that the minus 28 voltage had decreased approximately 1 volt. A Theodolite and Resolution Run was conducted at A/P after the TASC test and this anomaly was not present indicating a test power supply problem. Good correlation was available between the film footage pots of both instruments and the corresponding cycle counters. The recovery sequence for the "B" bucket was satisfactory.

B. RESOLUTION TEST

The dynamic resolution test of the J-07 payload system was performed at the A/P facility on 24 April 1964. Each panoramic camera photographed high and low contrast resolution targets. The resulting through focus resolution data is shown in Figure 3-3 for the Master camera and in Figure 3-4 for the Slave camera.

C. LIGHT LEAK TEST

The examination of the film threaded in the J-07 system during the light leak test determined that no film fogging was present. The light tight integrity of the system was considered acceptable for flight.

Figure 3-2

[redacted]

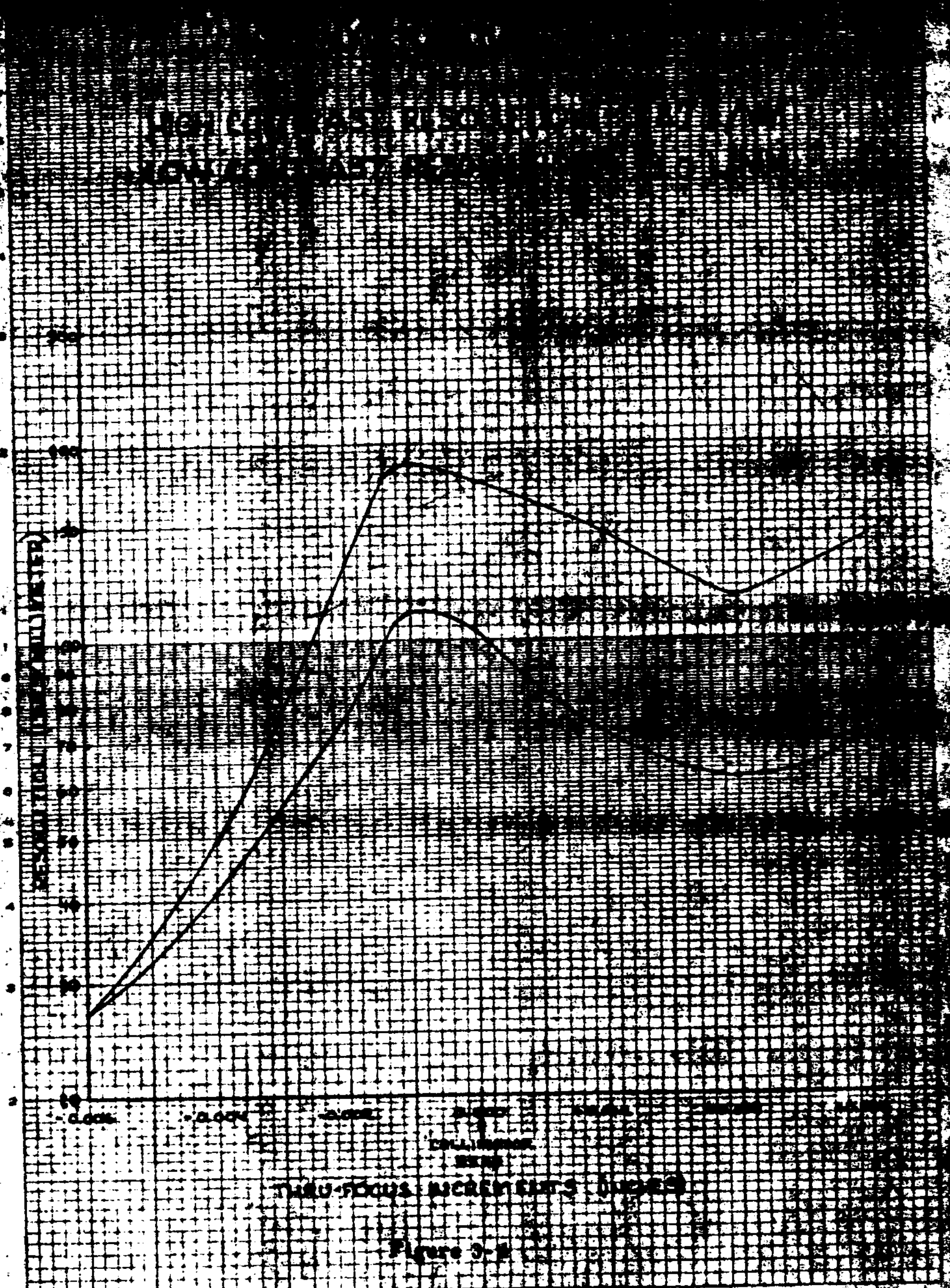


Figure 3-[illegible]

[redacted]

SECTION 4

FLIGHT OPERATIONS

A. INSTRUMENTATION AND COMMAND PERFORMANCE

The instrumentation and command performance was satisfactory. During the acquisition on Orbit 8 the V/H programmer start monitor indicated that only 11 of the 12 stored programmer start commands had been executed. This could have resulted in the programmer starting 50 seconds later than nominal. However, all 12 of the stored commands were programmed prior to telemetry acquisition preventing determination of the actual programmer start time. This anomaly did not re-occur on any other pass monitored during the flight. On Orbit 24 the hundreds digit cycle counter for the Master camera gave an incorrect reading of 8.5 instead of 9. The point was reading correctly on all other passes.

The film footage pots on both missions indicated less film consumption than the cycle counters. This anomaly has been attributed to loading of these monitors by the low impedance of the tape recorder used for recording on orbit data. This loading is being compensated for in the calibration of future systems.

On Orbit 49 over the [redacted] Tracking Station the instrument system was started and ran for three cycles as a result of the sequence of commands issued. At acquisition the instrument system was in intermix OFF and Program 2. Approximately 75 seconds after the programmed ON time of Program 2, the system was commanded to Program 10. There was no operation on Program 10 on this pass. Therefore, no OFF command was programmed until the redundant OFF command 825 seconds after the Program 2 ON time. This left the instrument systems in an enabled condition, but in intermix OFF. After commanding from Program 2 to Program 10 command 12 (intermix select) was issued 5 times. During this commanding the intermix selector stepped through three ON positions and ended up in an OFF position. The instrument system received an operate signal through the intermix selector each time the selector was stepped through an ON position resulting in the three-cycle operation. Had the intermix selector been left in an ON position, the instrument system would have run for approximately 800 seconds. This situation can only occur on passes where commanding occurs during programmed instrument operations. To prevent

the recurrence of this type of inadvertent operation, additional command restrictions are being placed on passes with programmed instrument operations within the range of a tracking station.

B. THERMAL ENVIRONMENT

A tabulation of the real-time temperatures recorded at the [redacted] Tracking Station are presented in Tables 4-1 and 4-2. These temperatures have been corrected for self-heating.

C. CLOCK PERFORMANCE

The clock system operation was satisfactory. During the flight a clock system time correlation was made using the system time transmitted via microwave from [redacted] Tracking Station to STC. This correlation indicated the clock was intermittently running fast and slow. Analog records from [redacted] Tracking Station tapes were used and a better correlation was obtained. Figure 4-1 is a plot showing the offset noted in both sets of data. The system time at STC had a different format than the system time recorded on the telemetry tapes and varied as much as 250 milliseconds. This problem has been discussed with the program office for correction on future flights.

D. PANORAMIC CAMERA PERFORMANCE

Panoramic camera electro/mechanical operation was normal throughout both phases of the mission. Camera operation was monitored on 8 night-time engineering operations, 4 on each phase of the mission. On page 19 is a tabulation of the cycle period data showing the nominal and actual cycle periods and the percent deviation.

J-07 1602 TEMPERATURE SUMMARY

OPERATIONAL

Fairing Barrel #1	L	8	16	24	31	40	47	56	63	71	79	87	94	103	110	119
1	OSH	38	107	38	99	38	96	38	101	7	23	7	23	7	31	3
2	OSH	15	24	12	18	12	12	12	18	0	0	0	0	0	12	-3
3	OSH	12	-	9	31	9	31	12	28	13	96	10	88	13	104	13
4	OSH	-	-	-	-	-	-	-	-	43	143	40	131	40	142	37
5	OSH	102	132	94	122	94	114	98	113	61	93	55	87	51	95	45
6	OSH	80	177	70	166	73	153	71	160	- - - - - - - - - - F A I R I N G - - - - - - - - - -						
Barrel #2																
1	165	87	115	81	106	81	100	77	99	66	92	58	89	56	94	53
2	150	67	158	61	150	61	139	54	144	51	141	47	130	45	138	41
3	136	21	101	18	99	21	91	21	98	18	90	18	91	18	104	18
4	189	0	10	-2	4	1	1	0	1	-2	-2	-2	-2	-6	9	-2
5	165	10	35	10	26	10	26	10	26	4	20	4	20	4	28	4
Conic Adapter																
1	160	61	100	61	90	61	85	57	87	45	81	43	73	38	81	38
Clock																
1	96	70	75	70	72	72	70	72	72	62	62	62	60	60	65	62
2	101	72	77	72	72	75	72	72	72	64	64	62	62	62	65	62
Thrusteone																
1	OSH	50	50	45	45	46	44	45	43	50	48	48	44	47	47	47
2	84	75	71	68	64	68	63	66	63	64	64	62	63	59	61	59
Stellar Index																
1	96	75	75	72	75	75	72	75	75	72	68	68	68	68	74	68
2	84	72	66	69	69	69	63	69	63	52	45	48	45	45	50	48
Sleve Cassette (Recovery System #1)																
1	96	53	45	42	41	44	41	47	46							
Recovery Battery (Recovery System #2)																
1	71	70	71	65	67	65	65	67	67	78	83	79	78	81	80	81

[redacted] SECRET

J-07 1609 TEMPERATURE SUMMARY

SENSOR	ORBIT															
Water	1	8	16	24	31	40	47	56	63	71	72	87	94	103	110	119
3	69	54	49	48	45	49	50	48	45	44	41	44	40	43	45	43
4	73	61	45	54	52	59	54	55	51	50	45	48	45	48	49	47
5	64	63	59	58	54	59	57	58	53	53	48	52	48	52	51	52
6	64	77	71	72	69	73	69	71	65	67	59	66	60	65	62	65
7	64	71	67	65	63	66	65	66	62	60	57	58	57	59	60	59
8	71	67	62	64	59	63	61	62	58	59	53	58	53	57	56	58
9	70	75	63	70	66	71	67	67	63	65	57	57	58	62	60	62
10	69	69	67	63	65	64	66	66	64	59	58	57	58	57	62	58
11	69	66	75	65	70	64	66	64	67	63	60	56	53	55	62	54
12	75	57	52	51	49	52	51	51	47	47	43	46	43	46	47	53
13	71	76	72	70	68	70	68	70	65	63	60	60	59	60	63	59
Slave																
3	67	81	78	75	76	76	76	75	72	71	56	68	68	68	71	67
4	69	77	73	72	71	74	72	73	69	70	64	68	64	68	66	67
5	67	71	66	65	63	66	65	66	62	61	57	59	57	61	61	61
6	63	67	60	60	58	61	60	60	56	57	52	56	52	56	55	56
7	63	71	66	64	63	63	65	63	62	61	57	58	57	58	59	57
8	68	70	64	65	62	67	58	65	61	63	57	61	57	60	59	60
9	67	61	56	57	52	58	55	57	52	53	48	51	49	52	50	52
10	65	71	69	64	66	64	66	66	64	59	60	56	58	56	61	58
11	89	59	58	58	56	61	57	61	57	59	55	56	54	56	57	59
12	70	76	73	70	71	72	72	72	69	69	64	66	63	65	65	66
13	64	69	65	64	62	66	64	66	62	62	57	59	57	58	60	61
Supply Spool																
1	57	72	55	54	53	57	54	57	55	55	54	54	51	53	53	53
2	62	60	61	60	60	63	60	63	60	60	58	58	54	57	57	57

TABLE 4-2

17

[redacted] SECRET

SECRET
STC Data
Vanderberg Data
OFFSET (MILLISECONDS X 100)
0
1
2
3
4
20
40
60
80
100
120

Figure 4-1

[redacted]

CYCLE PERIOD DATA

		MASTER			SLAVE	
ORBIT	TIME UP RAMP	NOMINAL	ACTUAL	% ERROR	ACTUAL	% ERROR
8	850	3.750	3.745	+0.13	3.80	-1.33
24	915	5.961	5.895	+1.11	6.030	-1.15
40	975	5.368	5.37	-0.04	5.43	-1.15
56	1025	5.111	5.075	+0.71	5.145	-0.67
71	1080	4.87	4.86	+0.2	4.925	-1.12
87	1149	4.547	4.568	-0.46	4.633	-1.9
103	1200	4.342	4.34	+0.05	4.40	-1.33
119	1290	4.022	4.12	-2.44	4.18	-3.94

No dynamic camera system problems were evident in the telemetry data.

E. STELLAR-INDEX CAMERA PERFORMANCE

The Stellar-Index camera operated normally throughout Mission 1007-1 with no anomalies evident. A total of 392 frames were metered.

A total of 428 frames were metered during Mission 1007-2. Stellar-Index operation was normal on all engineering passes.

[redacted]

SECTION 5

RECOVERY SYSTEM PERFORMANCE

A. MISSION 1007-1 RECOVERY SYSTEM

SRV 634 was received at A/P 15 July 1963, weighing in at 150 pounds. Normal disassembly was completed prior to A/P modifications. After modifications and E.O. incorporations, testing was completed for SRV 634 integration to the J-07 system.

The following items are noteworthy of being above the normal testing required and the rework/mods required, thus effecting additional A/P effort in rework and acceptance testing.

1. 2 October 1963: the TM relay failed by not presenting TM information. It was replaced with a new solid state type.

2. 2 June 1964: the bladder valve leaked during SRV testing. The area round it was primed and potted which stopped leaks.

3. Technical Directive modifications not done at G.E. were performed at A/P.

4. Cassette torque and motor calibrations required additional removals, installations, and retest.

5. Payload System J-07 went through two TASC tests. This involved additional SRV TASC preps and post TASC testing and retrievals.

On 6 May 1964, all A/P testing per procedures J13xxxx, installations, modifications, alignments, and cleanups were completed. SRV 634 was shipped to VAFB on 13 May 1964.

VAFB pre-pad installations and testing functions were completed on 28 May 1964. The Mission 1007, Vehicle 1609, SRV Systems pad run was completed successfully on 30 May 1964.

[redacted]

SECRET

After the pad run additional flight preparations were completed on 17 June 1964. The entire J-07 payload left for the launch pad #1, PALC on 17 June 1964. Launch occurred on 19 June 1964.

A successful air catch of the first capsule was made on Orbit 65 on 23 June 1964. The cut and wrap sequence occurred during telemetry acquisition at the [redacted] Tracking Station. Telemetry data indicated the camera operation and transfer to the second recovery system was normal. The impact point was within the predictable tolerance. All re-entry events were within tolerance and appeared normal. Following is a tabulation of the re-entry sequence of events and event time:

FIRST RECOVERY SEQUENCE OF EVENTS

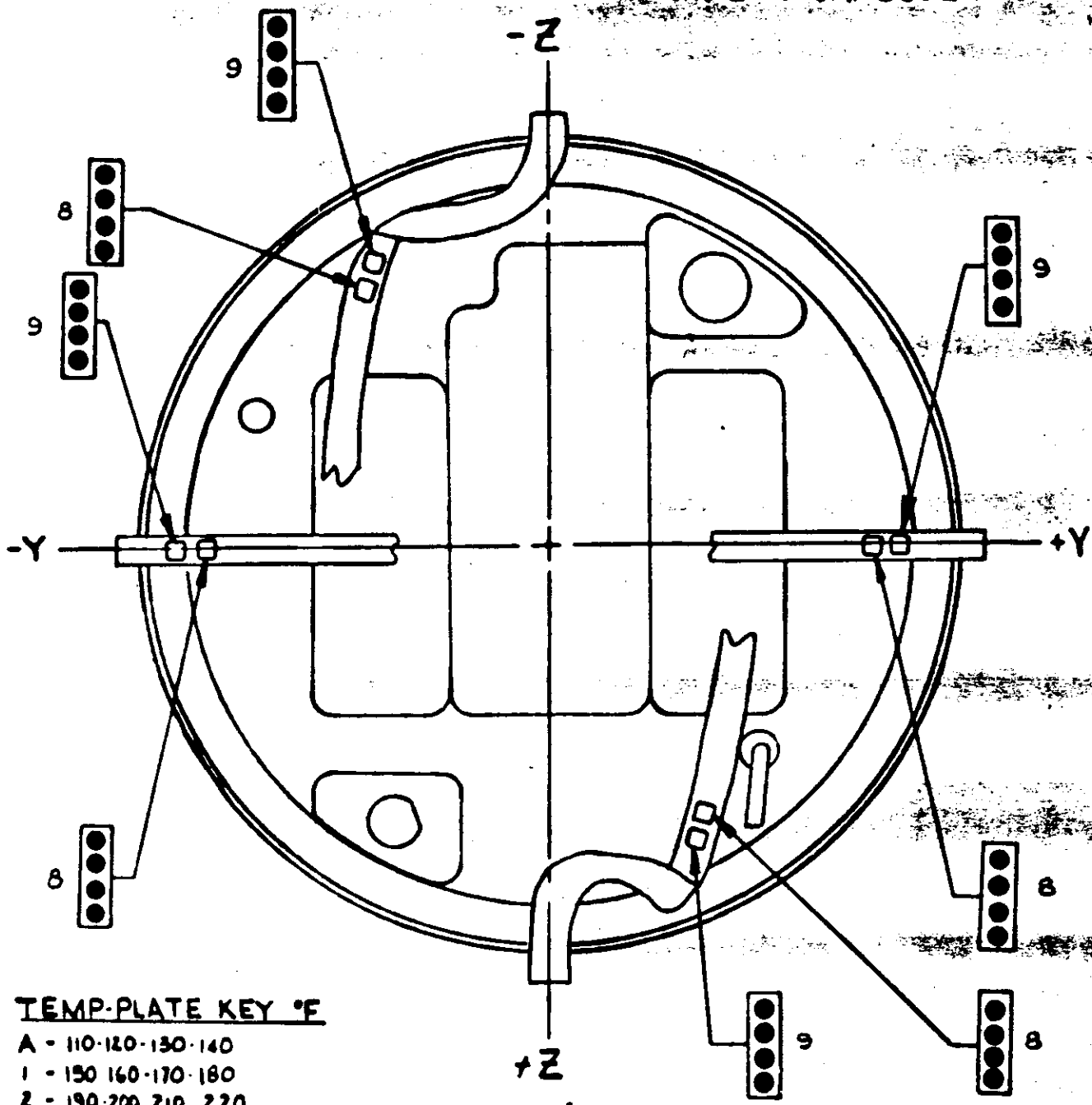
Event	System Time	Delta Time Actual	Delta Time Nominal
* Spin	06540.6		
* Retro	06548.6	8.00	7.55 ± .45
* De-Spin	06559.0	10.4	10.75 ± .54
* T/C Separation	06562.6	3.4	1.5 ± .15
* Volt Mon. Closed	06633.0	70.4	96.0 ± 40.
"G" Switch Open	07070.97	-	-
Parachute Cover Off	07105.4 ± .1	34.4 ± .1	34.0 ± 1.5

* Reported via TWX (No telemetry data available) hence Actual values are approximate.

SRV 634 was transported by air from Hawaii and arrived at A/P 0745, 24 June 1964 for film retrieval. It weighed in at 177.0 pounds. Retrieval operations proceeded normally. Weight of the recovered cassette #1 plus film was 71.7 pounds. Weight of the cassette #2 plus film was 72.6 pounds. The cassettes, with film, were packaged for shipment and turned over to A/P security.

The condition of the recovered capsule was satisfactory with damage limited to normal paint blistering. Figures 5-1, 5-2, and 5-3 are diagrams

TEMP-PLATE INSTALLATION - MK I-A CAPSULE



TEMP-PLATE KEY °F

A - 110-120-130-140
1 - 150 160-170-180
2 - 190-200 210 220
3 - 230 240-250-260
4 - 270 280-290-300
5 - 310-320 330 340
6 - 350 360-310 380
7 - 390-410-435-450
8 - 100-150-200-250
9 - 300-350-400-450

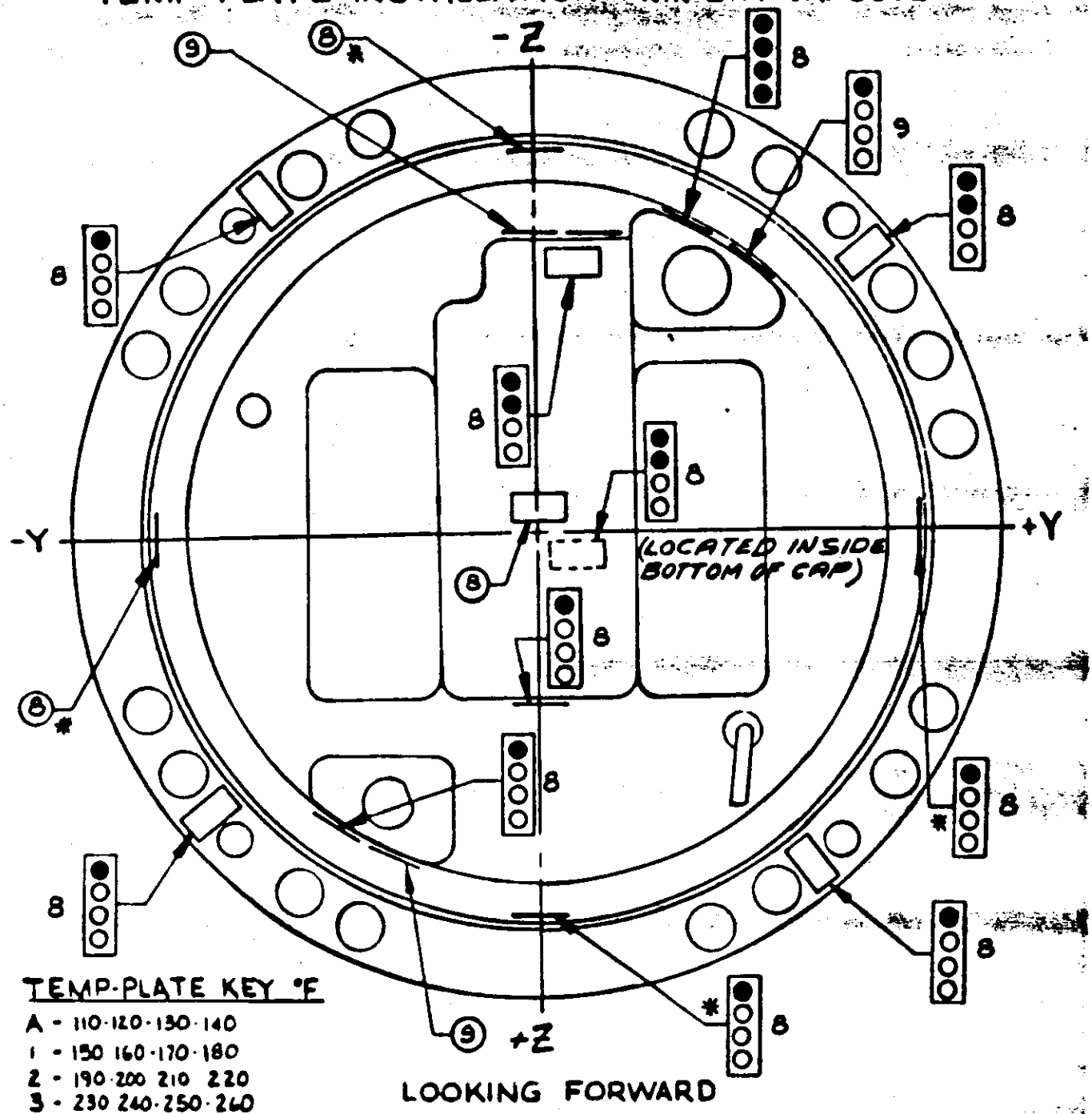
LOOKING FORWARD

USE OF TEMP PLATES ON PARACHUTE SHROUDS

● INDICATOR TURNED BLACK TEMP REACHED OR EXCEEDED INDICATED LEVEL

Figure 5-1

TEMP-PLATE INSTALLATION - Mk V-A CAPSULE



TEMP-PLATE KEY °F

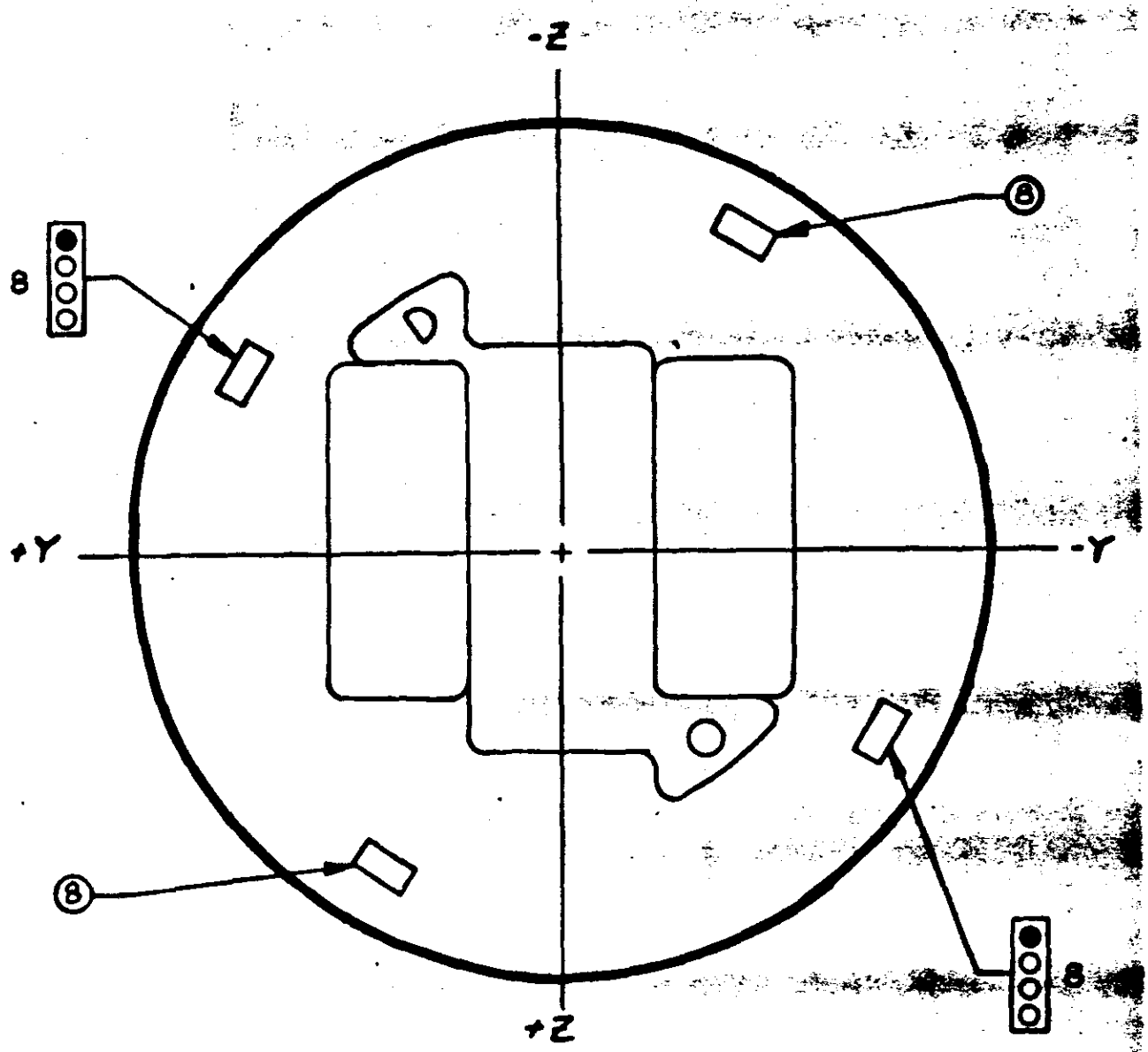
A - 110·120·130·140
1 - 150 160·170·180
2 - 190·200 210 220
3 - 230 240·250·260
4 - 270 280·290·300
5· 310·320 330 340
6· 350 360·370 380
7 - 390 410·435·450
8· 100·150·200·250
9·300·350·400·450

*LOCATED INSIDE CAPSULE ON NOSE WALL

●INDICATOR TURNED BLACK TEMP REACHED OR EXCEEDED INDICATED LEVEL

Figure 5-2

TEMP-PLATE INSTALLATION-MR V-A CAPSULE



LOOKING AFT

VEHICLE

(USE OF TEMP-PLATES)

TEMP PLATE KEY °F

A-110 · 120 · 130 · 140
1-150 · 160 · 170 · 180
2-190 · 200 · 210 · 220
3-230 · 240 · 250 · 260
4-270 · 280 · 290 · 300
5-310 · 320 · 330 · 340
6-350 · 360 · 370 · 380
7-390 · 410 · 435 · 450
8 · 100 · 150 · 200 · 250

● INDICATOR TURNED BLACK TEMP REACHED OR EXCEEDED INDICATOR LEVEL

Figure 5-3

showing the location and re-entry temperatures encountered by temp-plates attached to the capsule. SRV Post flight testing was per A/P procedure #5110. The beacon, recovery programmer, and telemetry were with specification. Various components of this SRV could possibly be used for flight again. However, this will be at the direction of the customer.

B. MISSION 1007-2 RECOVERY SYSTEM

SRV 633 was received at A/P 3 July 1963, weighing in at 144 pounds. Normal disassembly was completed prior to A/P modifications. After modifications and E.O. incorporations, testing was completed for SRV 633 integration to the J-07 system.

The following items are noteworthy of being above the normal testing required and the rework/mods required, thus effecting additional A/P effort in rework and acceptance testing.

1. 5 December 1963: the cassettes were removed for installation into Payload System M-26, requiring additional removal, installation and testing.

2. 7 February 1964: the TM tray failed by not presenting TM information. It was replaced with a new solid state type.

3. 19 February 1964: the S/I cassette rachet and pawl were inoperative. The entire S/I cassette assembly was replaced.

4. Technical Directive modifications not done at G.E. were performed at A/P.

5. Cassette torque and motor calibrations required additional removals. installations, and retest.

6. Payload System J-07 went through two TASC tests. This involved additional SRV TASC preps and post TASC testing and retrievals.

On 6 May 1964, all A/P testing per procedures J13xxxx, installations, modificiations, alignments, and cleanups were completed. SRV 633 was shipped to VAFB on 13 May 1964.

VAFB pre-pad installations and testing functions were completed on 28 May 1964. The Mission 1007, SRV Systems pad run was completed successfully on 30 May 1964.

After the pad run, additional flight preparations were completed on 17 June 1964. The entire J-07 payload left for the launch pad 17 June 1964. Launch occurred on 19 June 1964.

A successful air catch recovery of the second capsule was made on Orbit 128 on 27 June 1964. Impact was within tolerance and all recovery events were normal. Following is a tabulation of the re-entry sequence of events.

	Event	System Time	Delta Time Actual	Delta Time Nominal
	Transfer	4406.9	-	-
	Elect. Disconnect	4407.89	.99	.9 ± .43
*	Separation	$4408.9^{+.1}_{-0.0}$	2.00	2.0 ± .25
**	Spin	4411.26	3.37	3.4 ± .30
	Retro	4418.79	7.53	7.55 ± .43
	De-spin	4429.55	10.76	10.75 ± .54
	T/C Separation	4431.03	1.48	1.5 ± .15
	Volt Mon. Closed	4507.22	76.19	96.0 ± 40. **
	Volt Mon. Open	-	-	100. ± 40.
	"G" Switch Open	5011.04	503.82	-
	Parachute Cover Off	5044.75	33.71	34.0 ± 1.5
	Drogue Chute Deployed	5045.39	.64	.63 ± .08
	Drogue Chute Release	5055.68	10.29	10.05 ± 1.0
	Main Chute Deployed	5056.87	1.19	1.2 ± .15
	Main Chute Disreefed	5060.88	4.01	4.0 ± 1.7

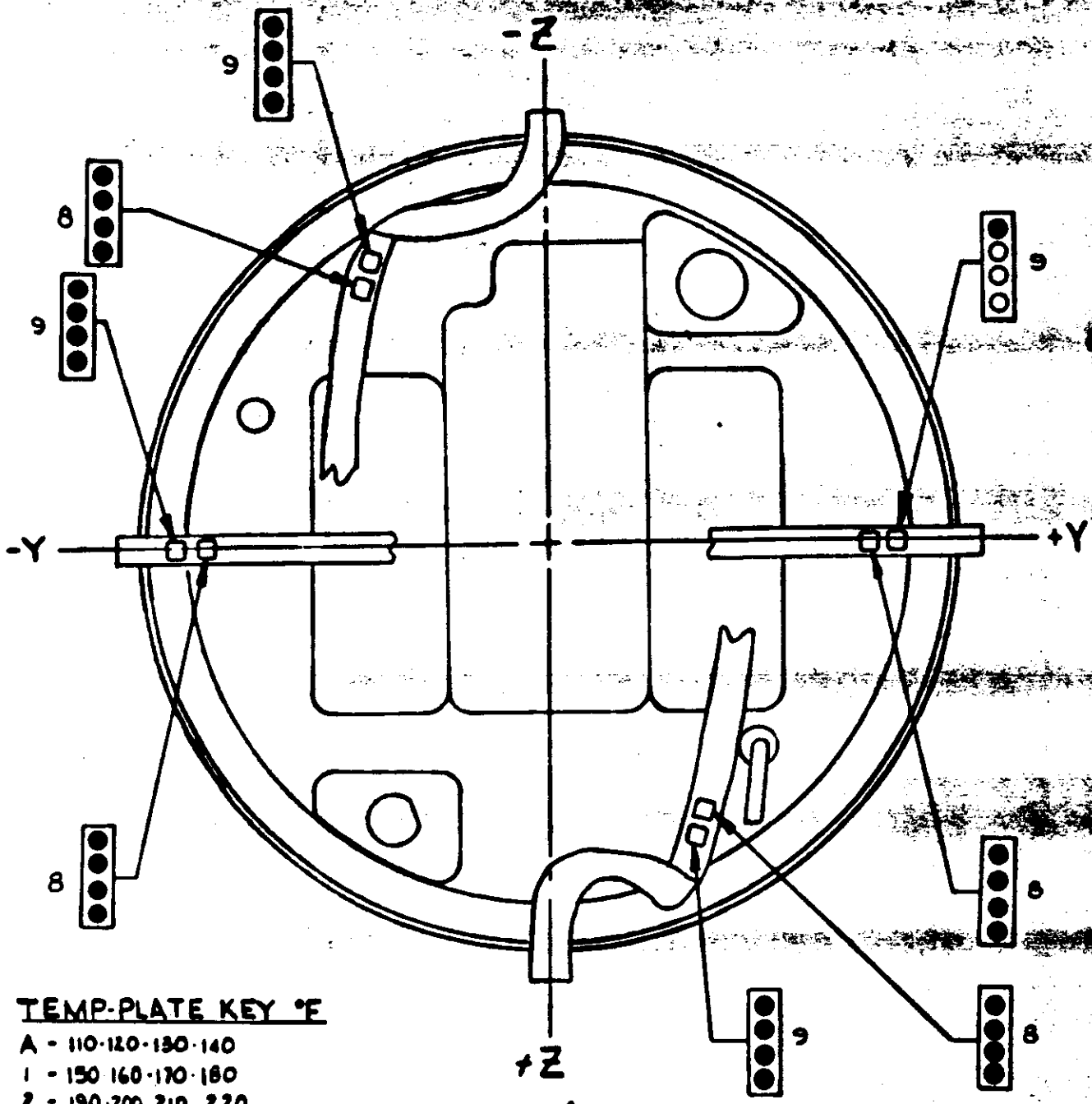
* - From Transfer
** - From Elect. Disconnect

Spin Rate	68.4 RPM
Despin Rate	10.3 RPM
Retro Velocity	875 ± 10 Ft/Sec.

SRV 633 was transported by air from Hawaii and arrived at A/P 0525, 28 June 1964 for film retrieval. It weighed in at 183 pounds. Retrieval operations proceeded normally. Weight of the recovered cassette #1 plus film was 76.5 pounds. Weight of the cassette #2 plus film was 75.25 pounds. The cassettes, with film, were packaged for shipment and turned over to A/P security.

SRV Post flight testing was per A/P procedure #5110. The beacon, recovery programmer, and telemetry were within specification. Figures 5-4 to 5-6 present the temperature encountered during recovery. Various components of this SRV could possible be used for flight again. However, this will be at the direction of the customer.

TEMP-PLATE INSTALLATION - MK 2A CAPSULE



TEMP-PLATE KEY °F

A - 110·120·130·140
1 - 150 160·170·180
2 - 190·200 210 220
3 - 230 240·250·260
4 - 270 280·290·300
5 - 310·320 330 340
6 - 350 360·370 380
7 - 390·410·435·450
8 - 100·150·200·250
9 - 300·350·400·450

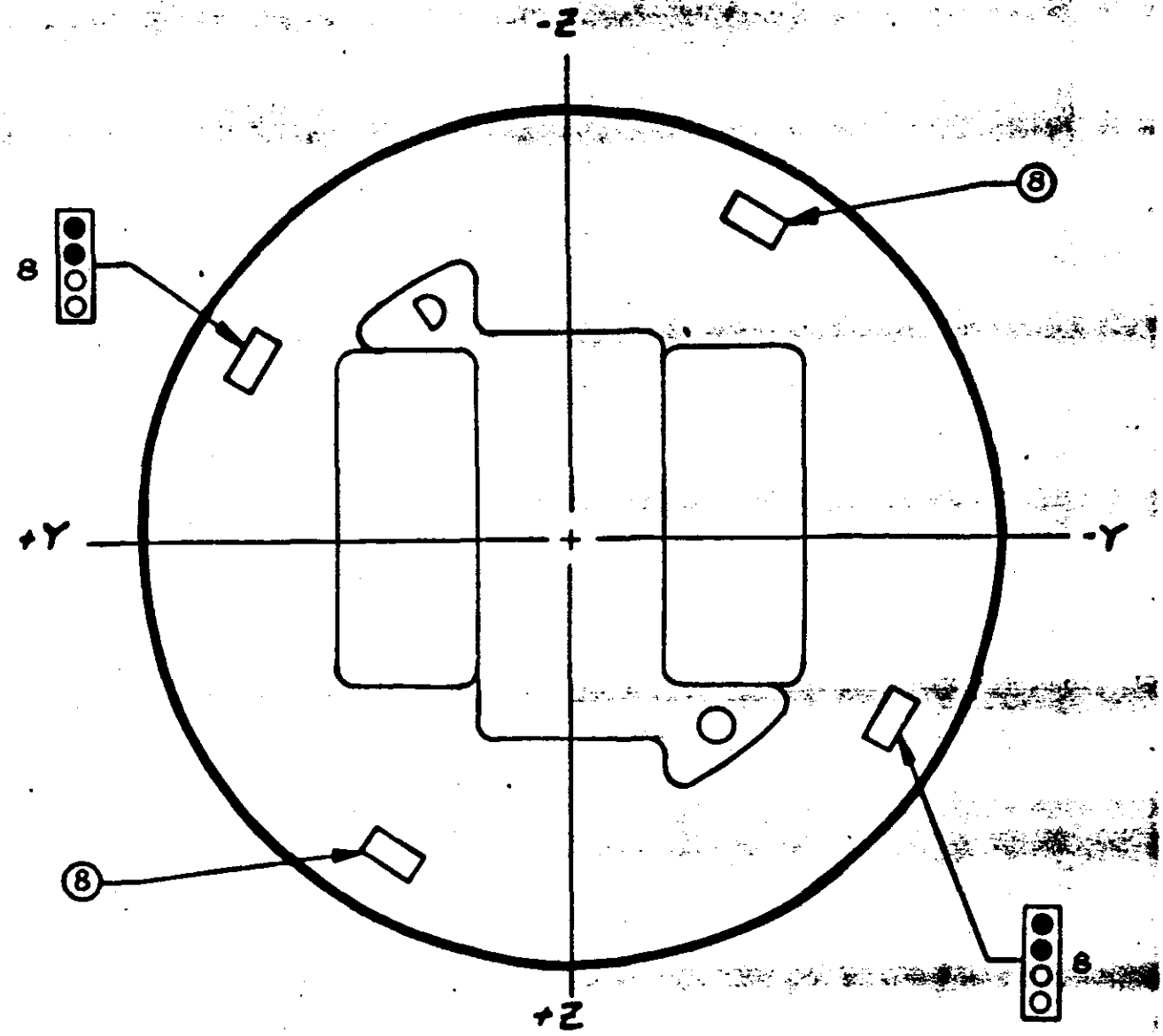
LOOKING FORWARD

USE OF TEMP PLATES ON PARACHUTE SHROUDS

● INDICATOR TURNED BLACK TEMP REACHED OR EXCEEDED INDICATED LEVEL

Figure 5-4

TEMP-PLATE INSTALLATION-MK V-A CAPSULE



LOOKING AFT

VEHICLE

(USE OF TEMP-PLATES)

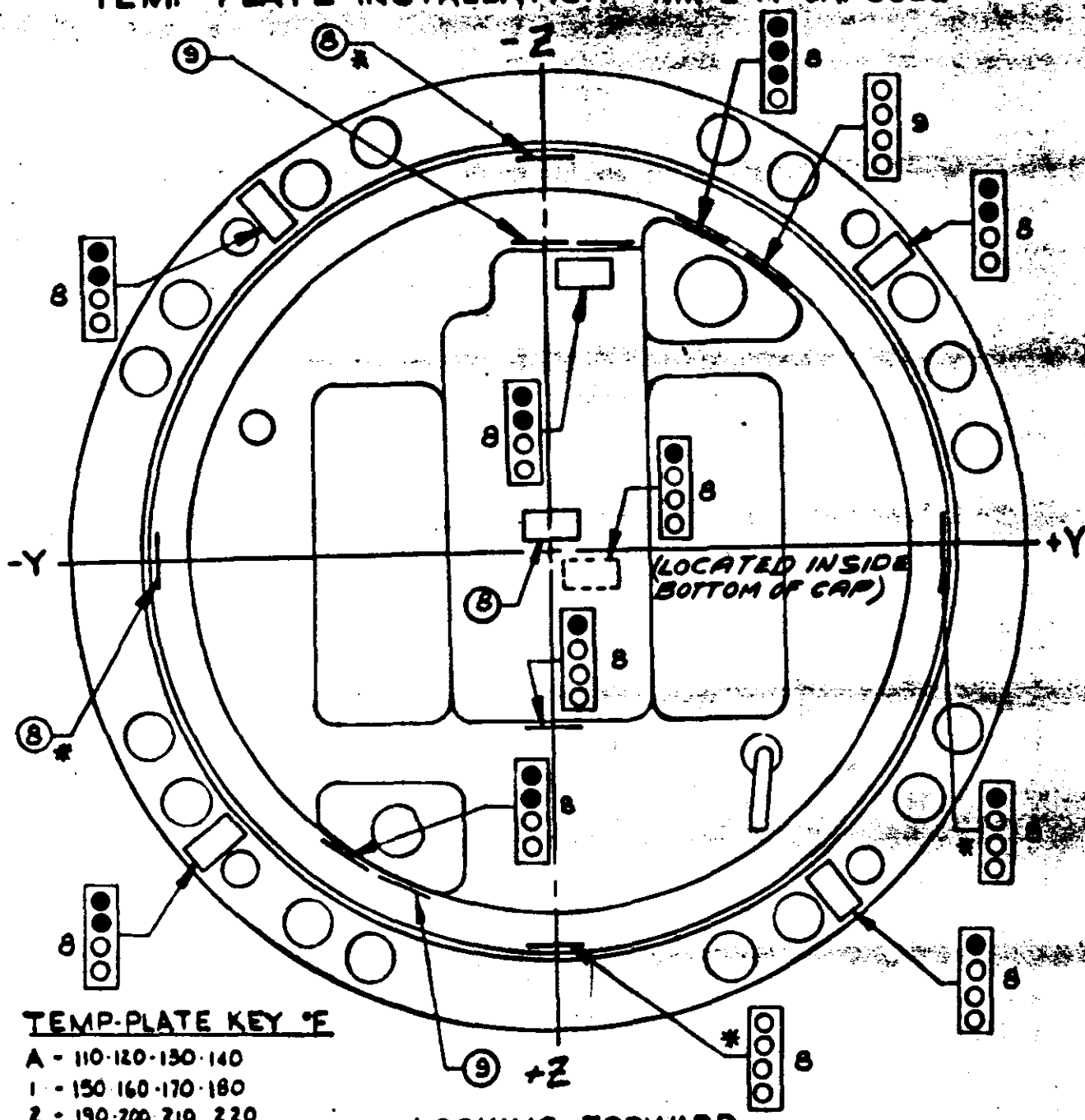
TEMP PLATE KEY °F

A-110·120·130·140
1-150·160·170·180
2-190·200·210·220
3-230·240·250·260
4-270·280·290·300
5-310·320·330·340
6-350·360·370·380
7-390·410·435·450
8-100·150·200·250

● INDICATOR TURNED BLACK TEMP REACHED OR EXCEEDED INDICATOR LEVEL

Figure 5-5

TEMP-PLATE INSTALLATION - MK 1 A CAPSULE



TEMP-PLATE KEY °F

A - 110·120·130·140
1 - 150 160·170·180
2 - 190·200 210 220
3 - 230 240·250·260
4 - 270 280·290·300
5· 310·320 330 340
6· 350·360·370 380
7 - 390·410·435·450
8· 100·150·200·250
9·300·350·400·450

*LOCATED INSIDE CAPSULE ON NOSE WALL

●INDICATOR TURNED BLACK TEMP REACHED OR EXCEEDED INDICATED LEVEL

Figure 5-6

SECTION 6

MASTER (FWD) PANORAMIC CAMERA

A. COMPONENT ASSIGNMENT

Component	Serial Number
Main Camera	144
Main Camera Lens	1212435
Supply Horizon Camera	130B
Supply Horizon Camera Lens	812281
Take-up Horizon Camera	SP2090A
Take-up Horizon Camera Lens	812277
Supply Cassette	S/C-9

B. CAMERA DATA AND FLIGHT SETTINGS

Main Camera:

Lens	24" f/3.5
Slit Width	0.250"
Filter Type	Wratten 25
Film Type	Eastman Type 4404

Supply (Port) Horizon Camera:

Lens	55 mm f/6.8
Aperture Setting	f/6.8
Exposure Time	1/100 second
Filter Type	Wratten 25

[redacted]

Take-up (Starboard Horizon Camera:

Lens	55 mm f/6.8
Aperture Setting	f/8.0
Exposure Time	1/100 second
Filter Type	Wratten 25

C. POST FLIGHT PERFORMANCE EVALUATION

The photographic quality of the Master camera film was very good throughout both missions. A small soft spot, approximately 1" square, was present on the data block edge at the supply end of all frames after pass D38. This soft area disappeared after the cut and wrap sequence and was not present during the second mission.

The information content of the photography was excellent. The photo interpreters felt that the Master camera photography was essentially equal to the Aft camera. They did comment about the loss of some information in shadow areas. The cause of the problem is attributed to underprocessing resulting from both the use of excessive Intermediate processing rather than Full and the apparent lack of processing control. This subject is discussed in detail in Section 9 of this report.

There were no significant component malfunctions during both missions. One data block lamp became inoperative during pass D56 however it was a high order bit, 1048 seconds, hence no data reduction problem was encountered.

SECTION 7

SLAVE (AFT) PANORAMIC CAMERA

A. COMPONENT ASSIGNMENT

Component	Serial Number
Main Camera	145
Main Camera Lens	1172435
Supply Horizon Camera	134B
Supply Horizon Camera Lens	812283
Take-up Horizon Camera	134A
Take-up Horizon Camera Lens	812287
Supply Cassette	S/C -9

B. CAMERA DATA AND FLIGHT SETTINGS

Main Camera:

Lens	24" f/3.5
Slit Width	0.200"
Filter Type	Wratten 21
Film Type	Eastman Type 4404

Supply (Starboard) Horizon Camera:

Lens	55 mm f/6.8
Aperture Setting	f/8.0
Exposure Time	1/100 second
Filter Type	Wratten 25

Take-up (Port) Horizon Camera:

Lens	55 mm f/6.8
Aperture Setting	f/6.8
Exposure Time	1/100 second
Filter Type	Wratten 25

[redacted]

C. POST FLIGHT PERFORMANCE EVALUATION

The photographic quality and information content of the Slave camera photography was essentially equal to the Master camera. There were no areas of soft focus observed in the Slave camera formats. The loss of information in shadow areas was similar to the Master camera and is attributed to the same processing problems discussed in Sections 6 and 9.

There were no equipment malfucntions or anomalies noted during both missions.

SECTION 8

PANORAMIC CAMERA EXPOSURE

The exposure parameters of the panoramic cameras were varied from normal to ascertain the affect of a red filter on orbital photography. The FWD camera contained a Wratten 25 filter and operated with a 0.250 inch wide slit while the AFT camera carried the usual Wratten 21 filter and 0.200 inch wide slit. The wider slit was used in the FWD camera to partially compensate for the filter factor variation between the two filters.

Missions flown near the winter solstice are normally launched during the early afternoon from Vandenberg AFB. Evaluation of acquired photographs has shown that the AFT camera consistently produces superior photography with greater information content. Analysis of the operating parameters showed that a major difference in exposure conditions of the panoramic cameras resulted from the fact that the satellite during descending photography was pointed at or near the sub-solar point. This results in the FWD camera looking toward the sub-solar point while the AFT camera looks away from the sub-solar point because of the 15° tilt of each camera subsystem. It was therefore postulated that the greater reflectance from the surface of the earth's haze layer and the internal reflectance within the haze layer was reducing the target contrast as presented to the FWD camera to a greater degree than to the AFT camera. It was considered possible to reduce the degraded FWD camera imagery by installing a red filter which would increase the observed target contrast.

An experiment was proposed by A/P to install a Wratten 25 filter on a flight near the summer solstice when the sub-solar point was to the side of the satellite and essentially common to both cameras. The purpose of the experiment was: 1) to assure that a Wratten 25 filter would not reduce photographic information content; and 2) to ascertain the degree of contrast reduction observed at the format ends of each camera that look toward the sub-solar point.

The results of the experiment were evaluated by an Ad Hoc group on 12-13 October 1964. A summary of the conclusions reached by the group are:

1. The Wratten 25 filter had no significant affect on the photography.

2. Examples of improved contrast were noted near the frame ends looking toward the sub-solar point.

The group recommended that a Wratten 25 filter be installed on a flight during November or December 1964 with more complete exposure compensation.

The illumination conditions during the mission were relatively constant as the flight was during the summer solstice. The frequency distribution of solar elevation and solar azimuth angles experienced during the flight are shown in Figures 8-1 to 8-4. The values of solar azimuth consider the heading of the payload as 0^{o} with plus values clockwise and negative values counterclockwise.

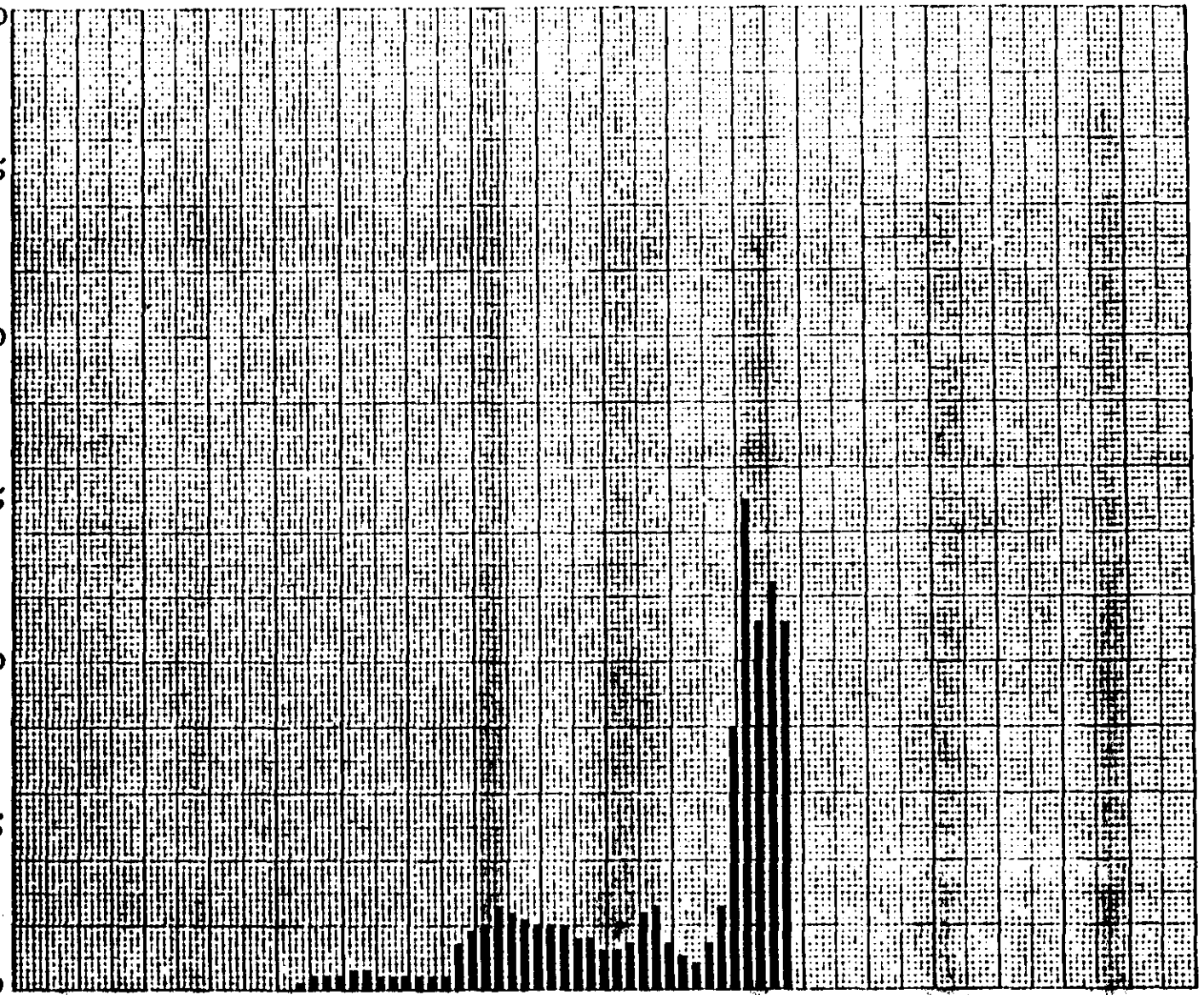
The nominal exposure times, as a function of latitude, are shown for each panoramic camera for passes D-01, D-63 and D-127 in Figures 8-5 to 8-10.

Photography over the ZI was limited to a very few frames during pass D-02. This small sample was insufficient to determine any realistic variation in exposure time as derived from the binary data block time word and the 200 cycles time marks as well as scan rate variations.

The actual and predicted levels of processing used on the mission original negative are tabulated below. All values are in percent.

Mission	Camera		Primary	Intermediate	Full
1007-1	FWD	Predicted	0	5	95
		Actual	1	20	79
1007-1	AFT	Predicted	0	100	0
		Actual	10	42	48
1007-2	FWD	Predicted	0	25	75
		Actual	3	28	69
1007-2	AFT	Predicted	0	100	0
		Actual	19	41	40

SOLAR ELEVATION FREQUENCY DISTRIBUTION



Mission No: 1007-1

Payload No: J-07

Camera No: 144

Launch Date: 6/19/64

Launch Time: 2318Z

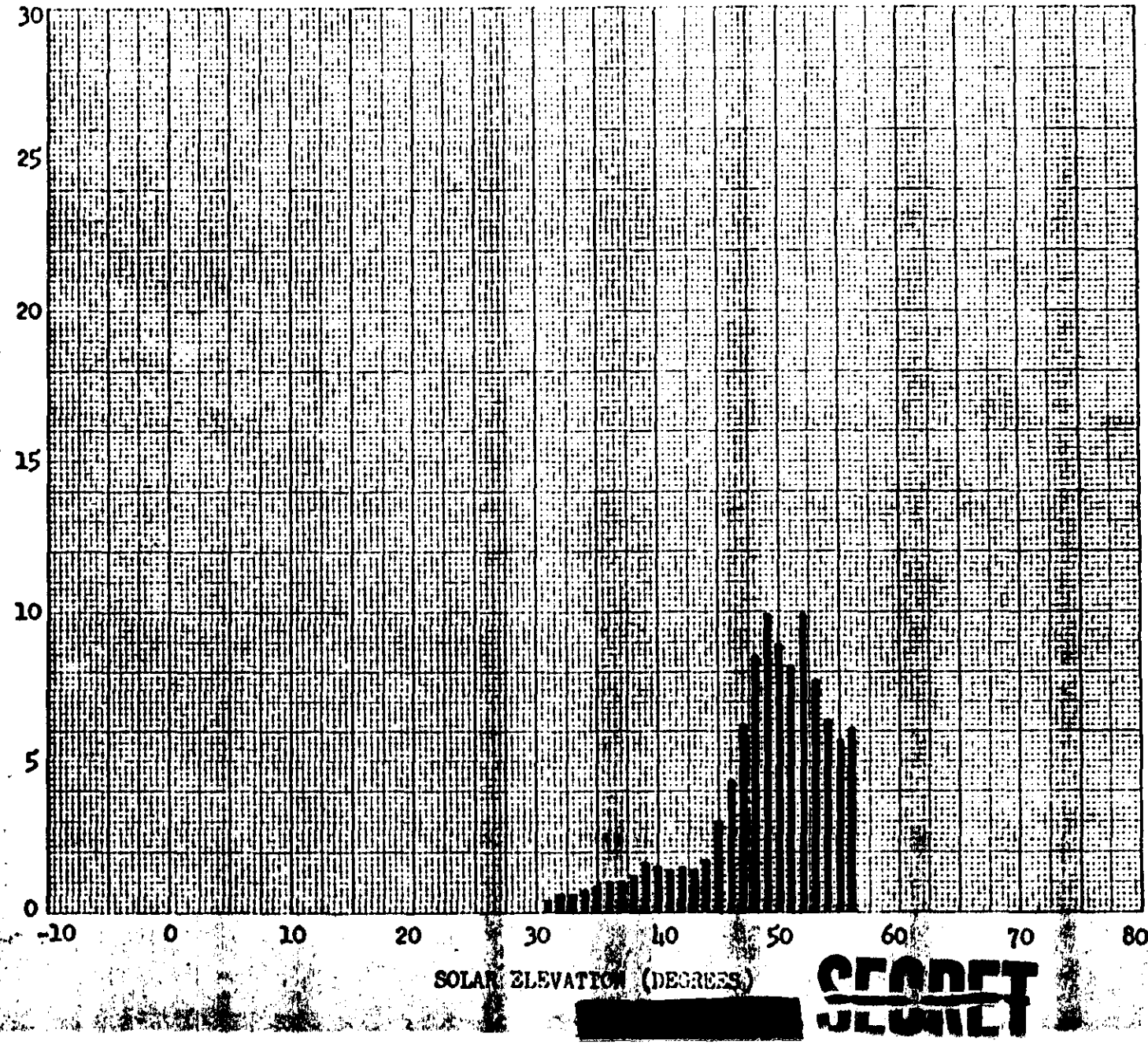
Inclination: 85°

Figure 8-1

SECRET

[redacted]

SOLAR ELEVATION FREQUENCY DISTRIBUTION



Mission No: 1007-2

Payload No: J-07

Camera No: 144

Launch Date: 6/19/64

Launch Time: 2318 Z

Inclination: 85°

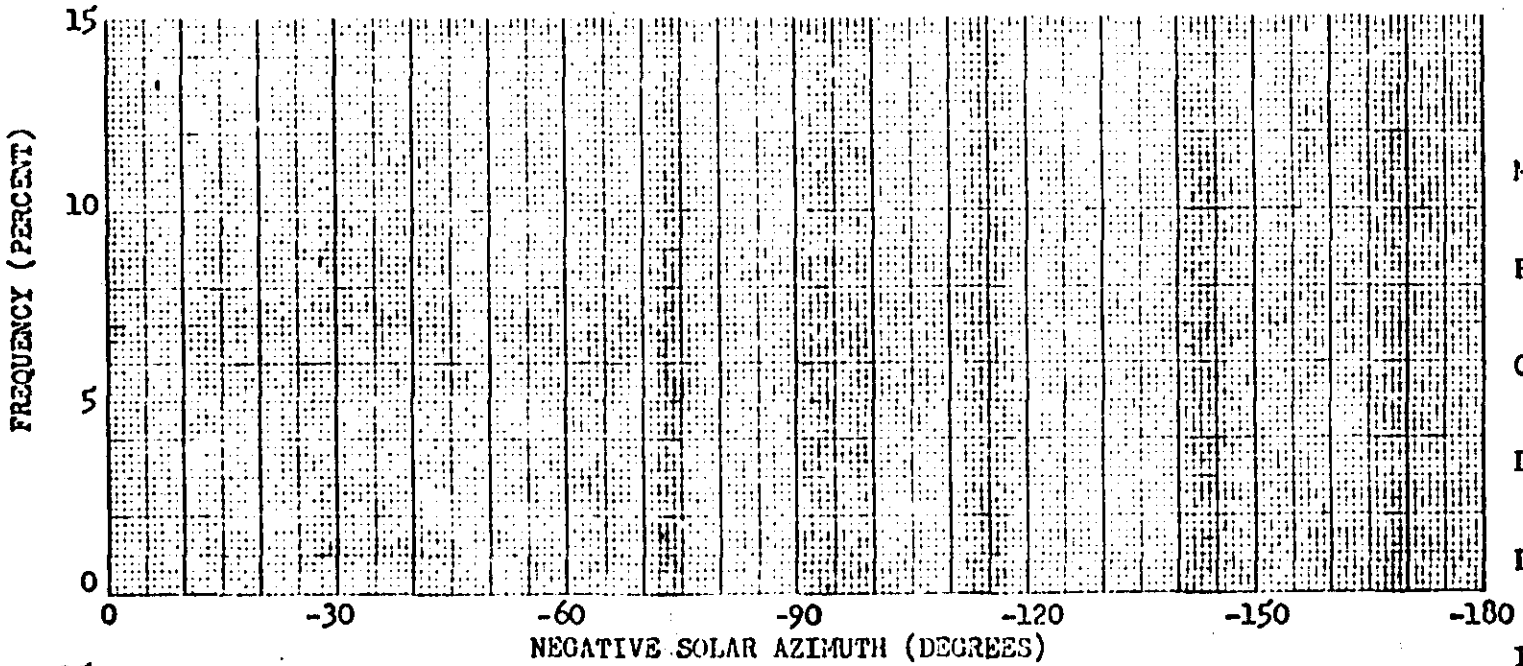
Figure 8-2

[redacted]

SECRET

SECRET

SOLAR AZIMUTH FREQUENCY DISTRIBUTION



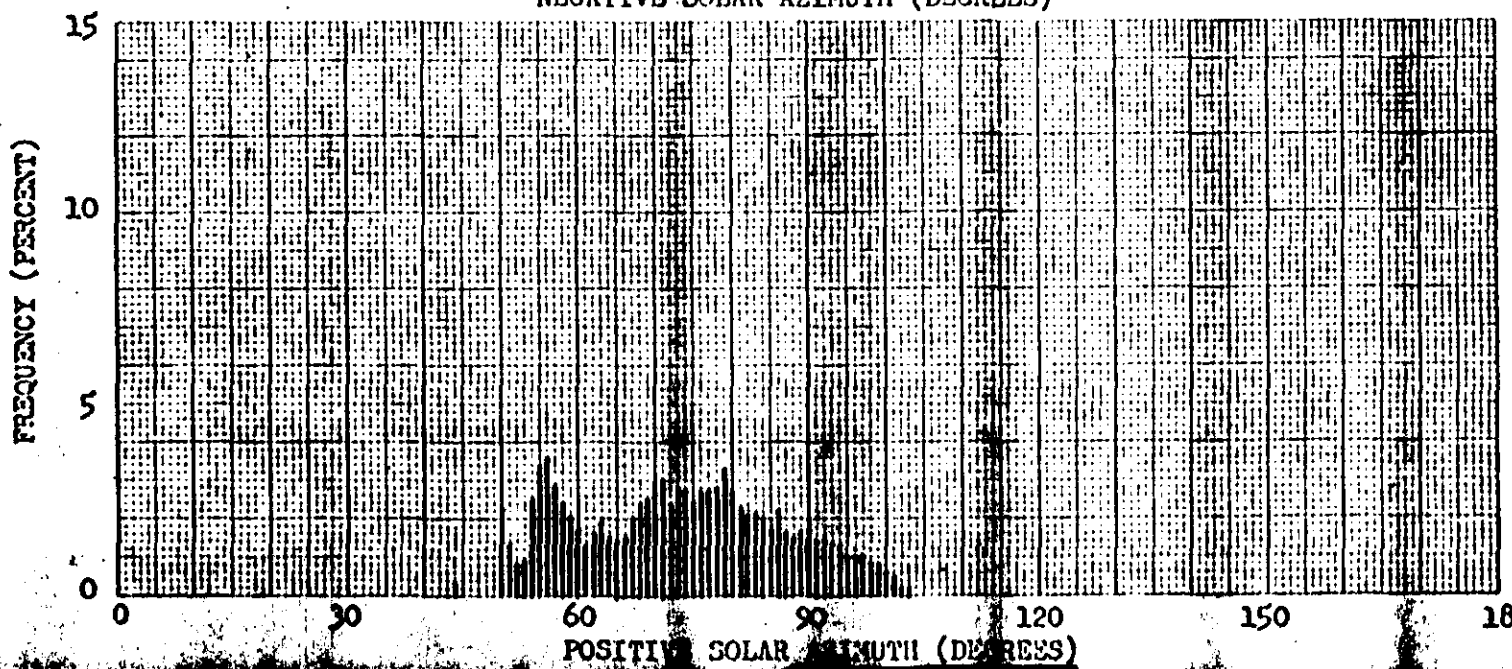


Figure 8-3

Mission No: 1007-1

Payload No: J-07

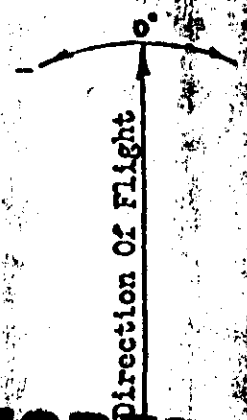
Camera No: 1144

Launch Date: 6/19/62

Launch Time: 2318 Z

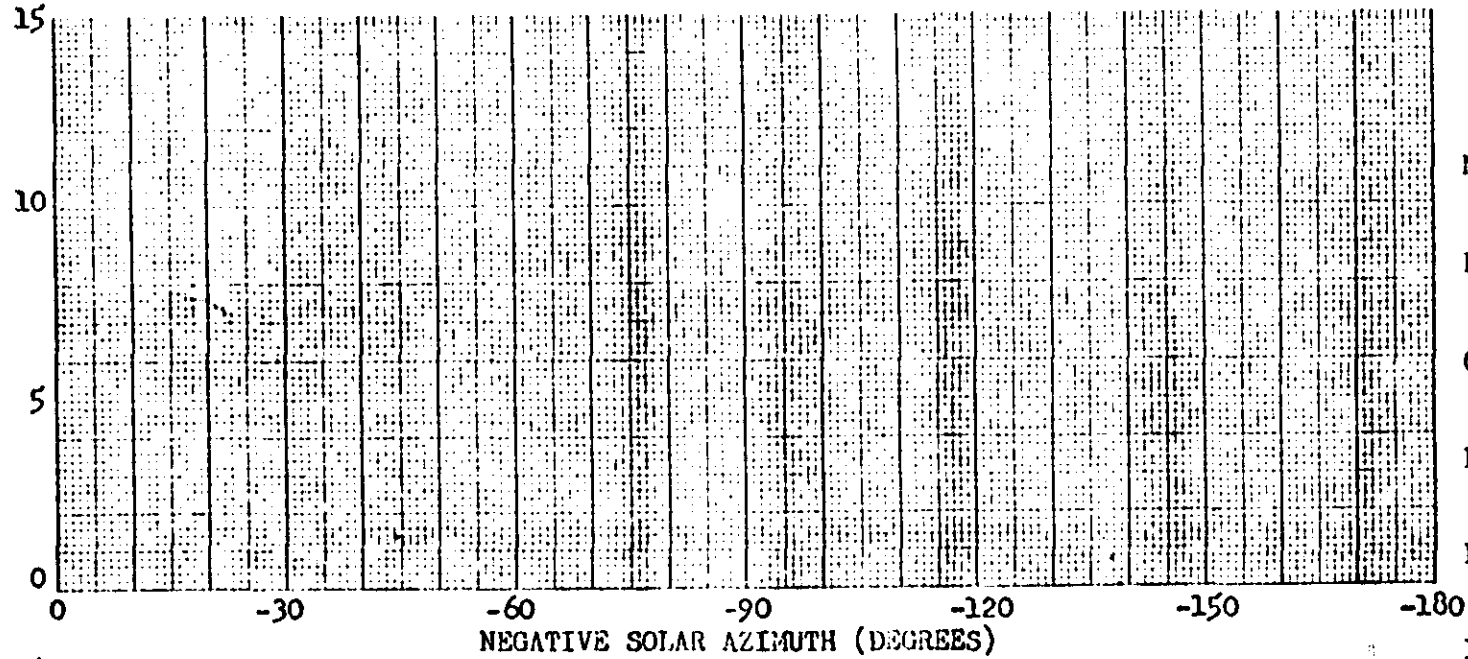
Inclination: 85°

SIGN NOTATION



SECRET

SOLAR AZIMUTH FREQUENCY DISTRIBUTION



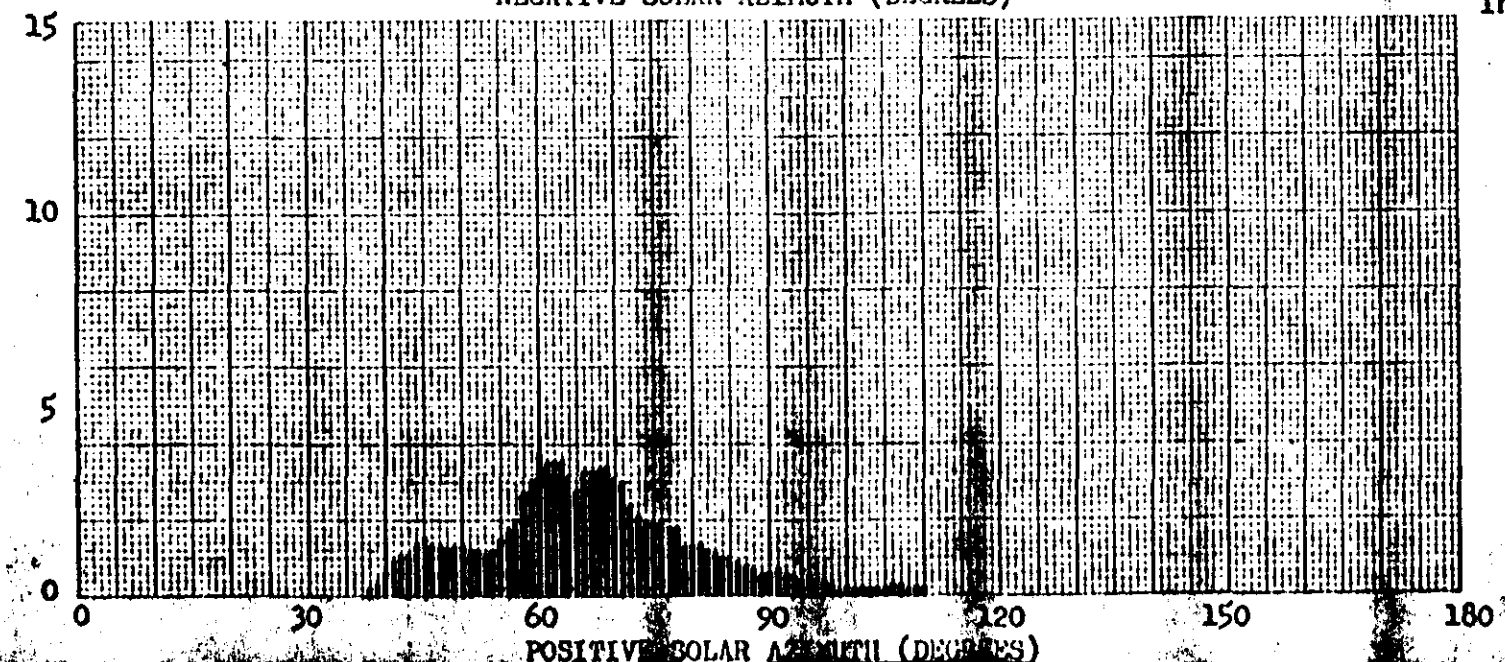


Figure 8-4

Mission No: 1007-2

Payload No: J-07

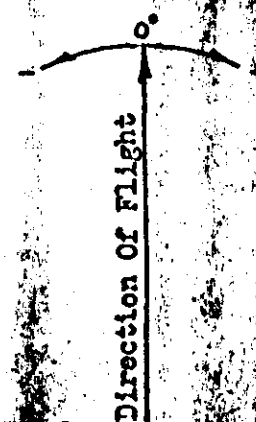
Camera No: 144

Launch Date: 6/19/64

Launch Time: 2318 Z

Inclination: 85°

SIGN NOTATION



[redacted]

EXPOSURE POINTS

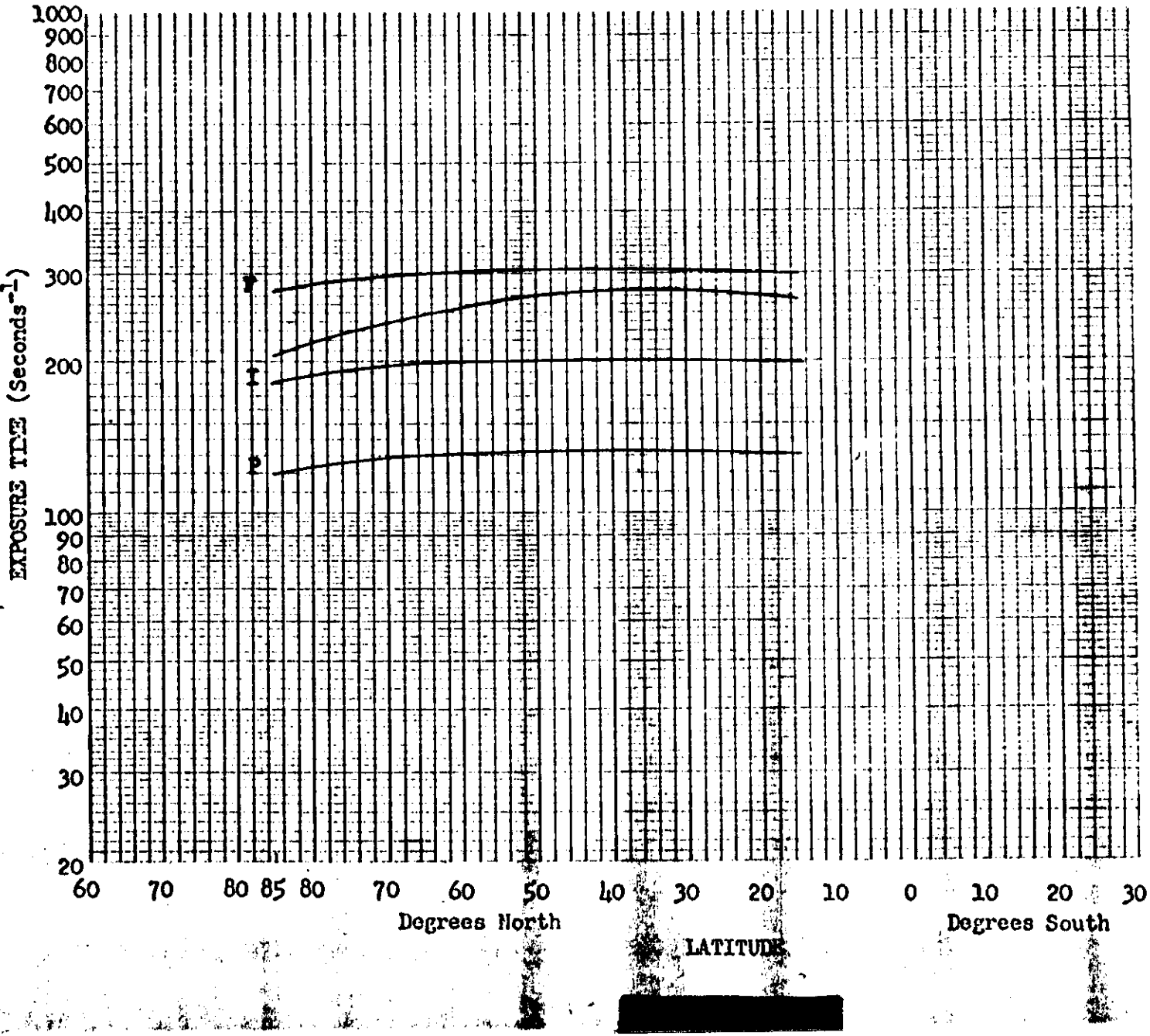


Figure 8-5
41

Mission No: 1007

Payload No: J-7

Camera No: 1414

Pass No: 1

Launch Date: 6/29/64

Launch Time: 2318 Z

Slit Width: .250

Filter Type: Wratten 25

Film Type: 4404

[redacted]

SECRET

EXPOSURE POINTS

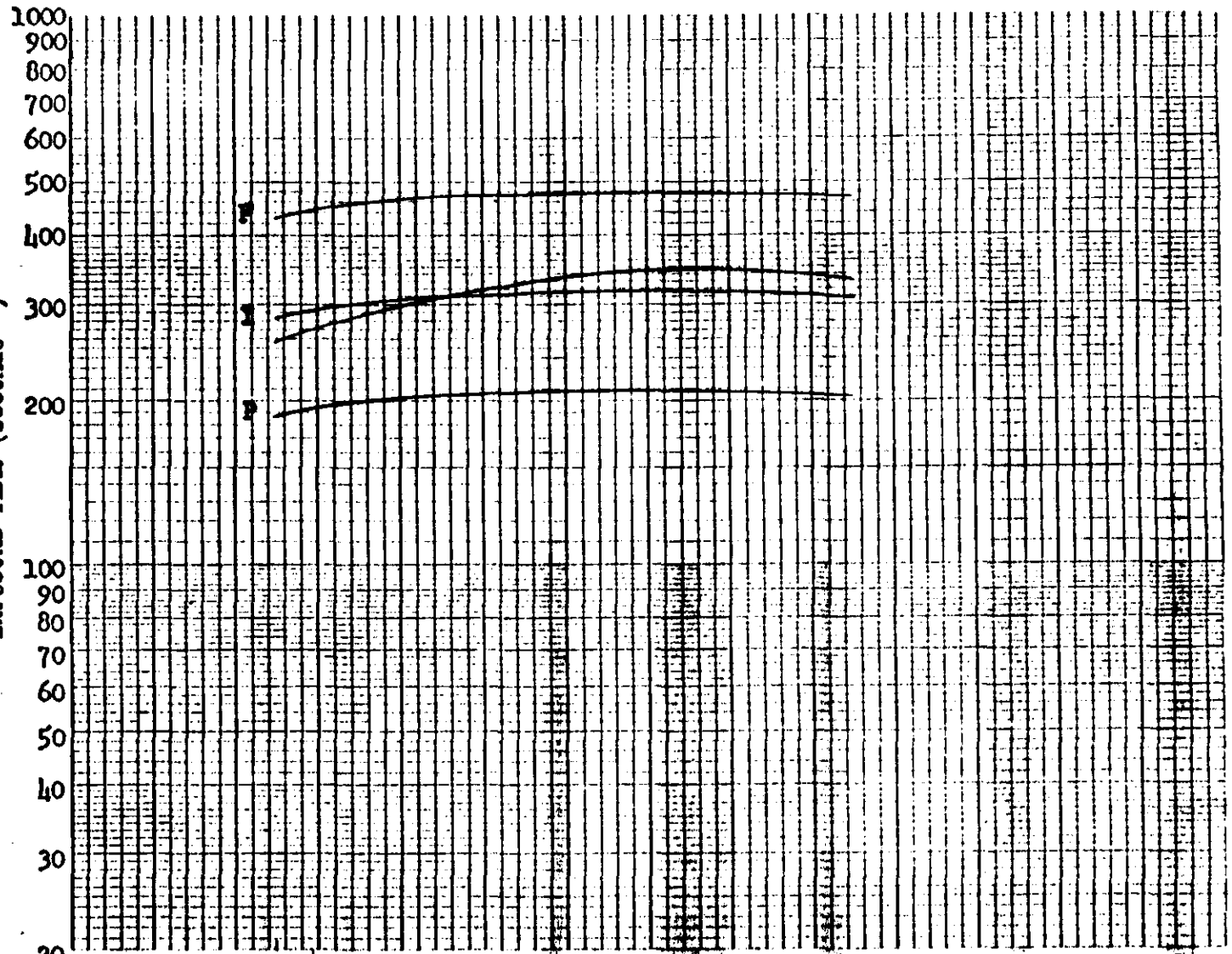


Figure 8-8
42

Mission No: 1007

Payload No: J-7

Camera No: 145

Pass No: 1

Launch Date: 6/19/64

Launch Time: 2318 Z

Slit Width: .200

Filter Type: Wratten 21

Film Type: 4404

[redacted]

[redacted]

EXPOSURE POINTS

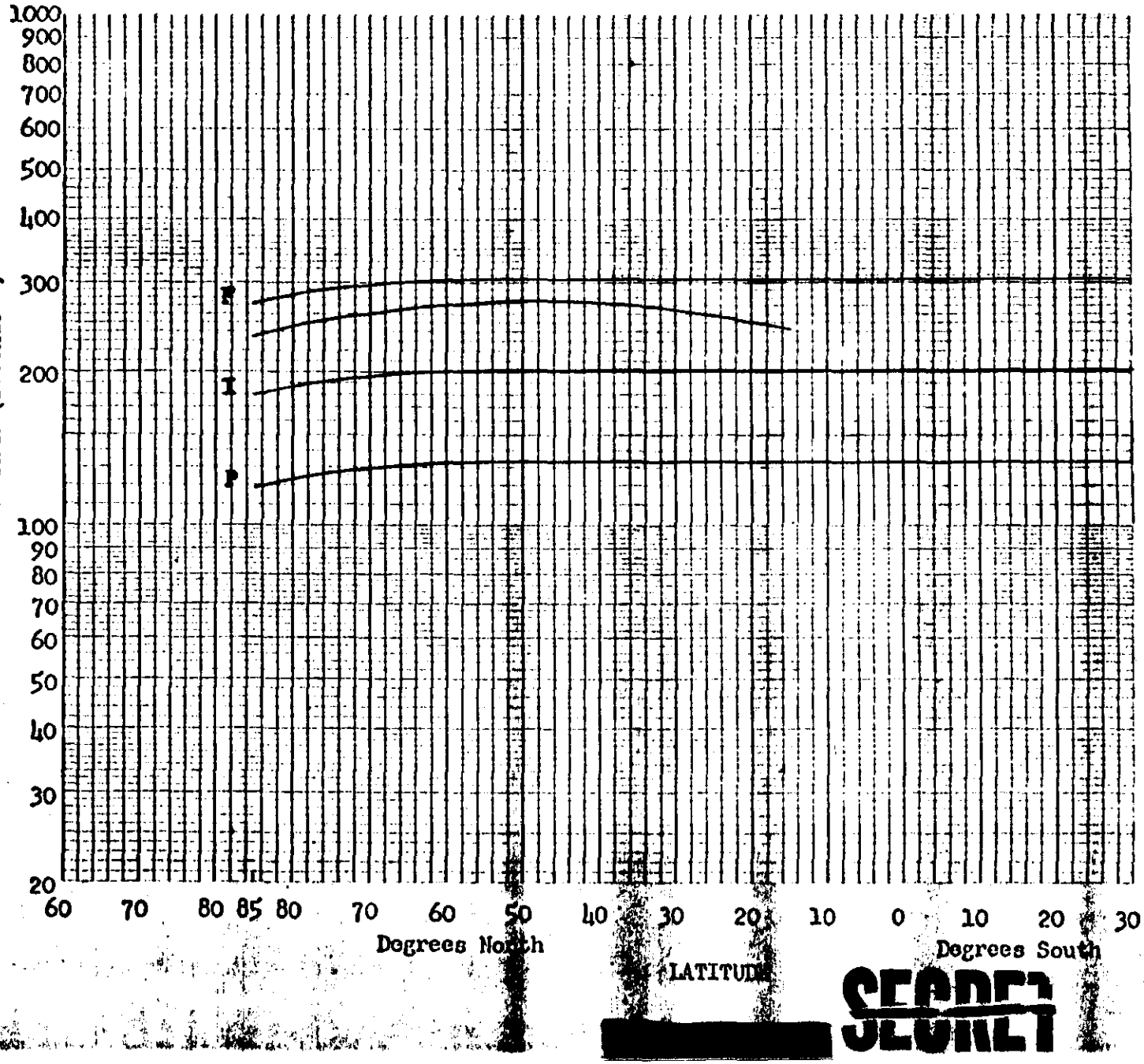


Figure 8-7

43

Mission No: 1007

Payload No: J-7

Camera No: 144

Pass No: 63

Launch Date: 6/19/64

Launch Time: 2318 Z

Slit Width: .250

Filter Type: Wratten 25

Film Type: 4404

[redacted]

EXPOSURE POINTS

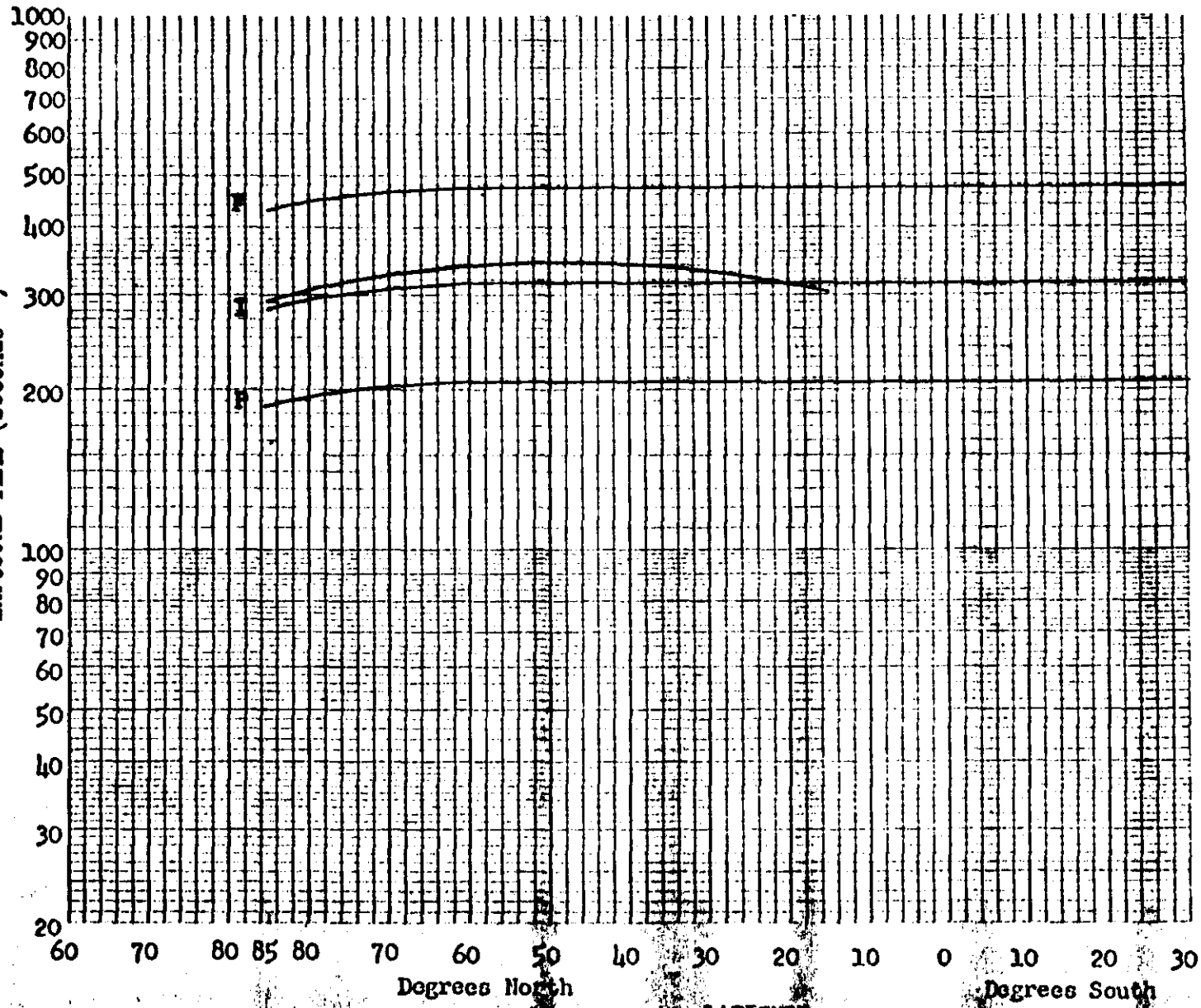


Figure 8-8

Mission No: 1007

Payload No: J-7

Camera No: 115

Pass No: 63

Launch Date: 6/19/64

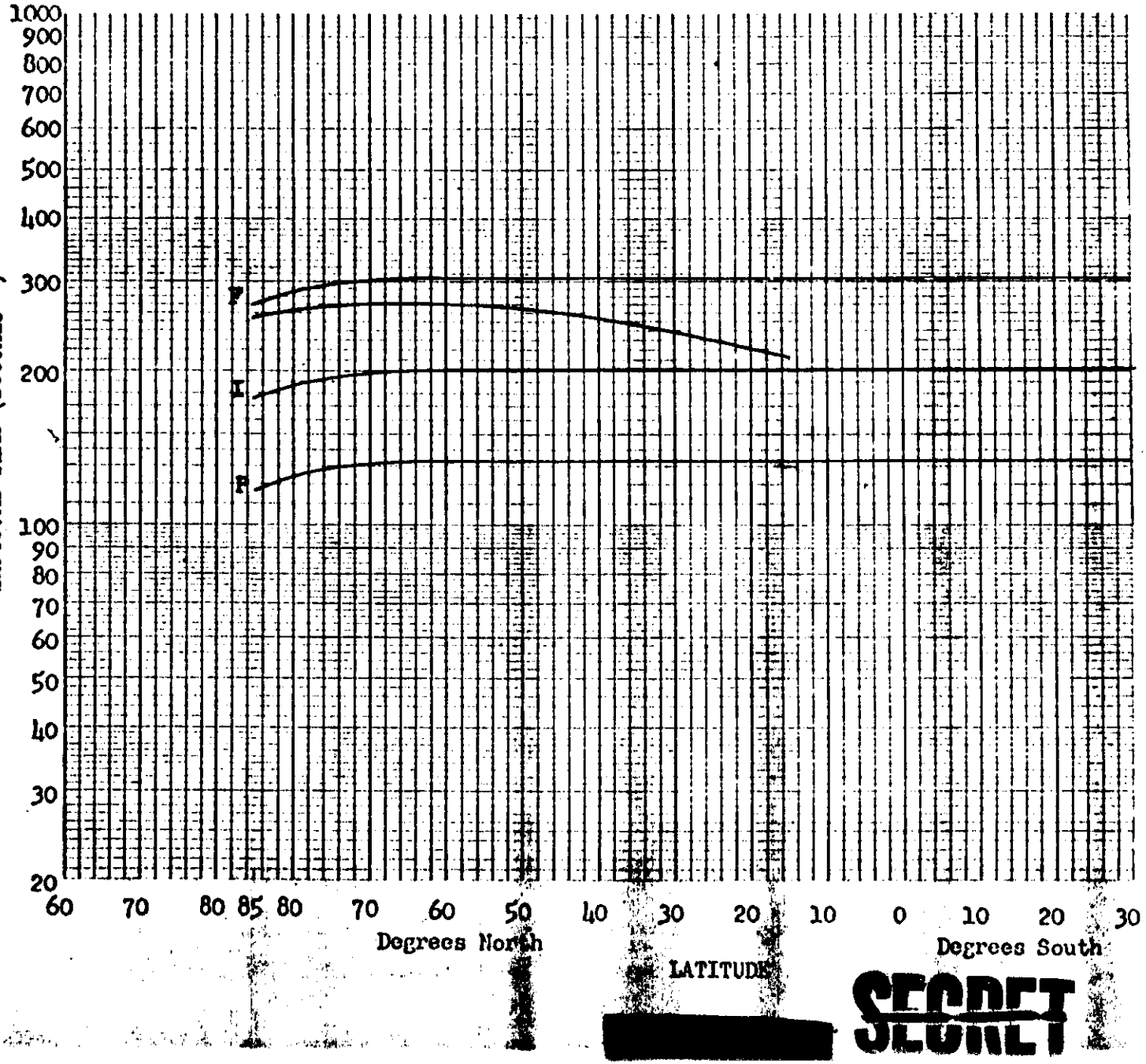
Launch Time: 2318 Z

Slit Width: .200

Filter Type: Wratten 21

Film Type: 4404

Figure 8-8



Mission No: 1007

Payload No: J-7

Camera No: 144

Pass No: 127

Launch Date: 6/19/64

Launch Time: 2318 Z

Slit Width: .250

Filter Type: Wratten 25

Film Type: 4404

SECRET

EXPOSURE POINTS

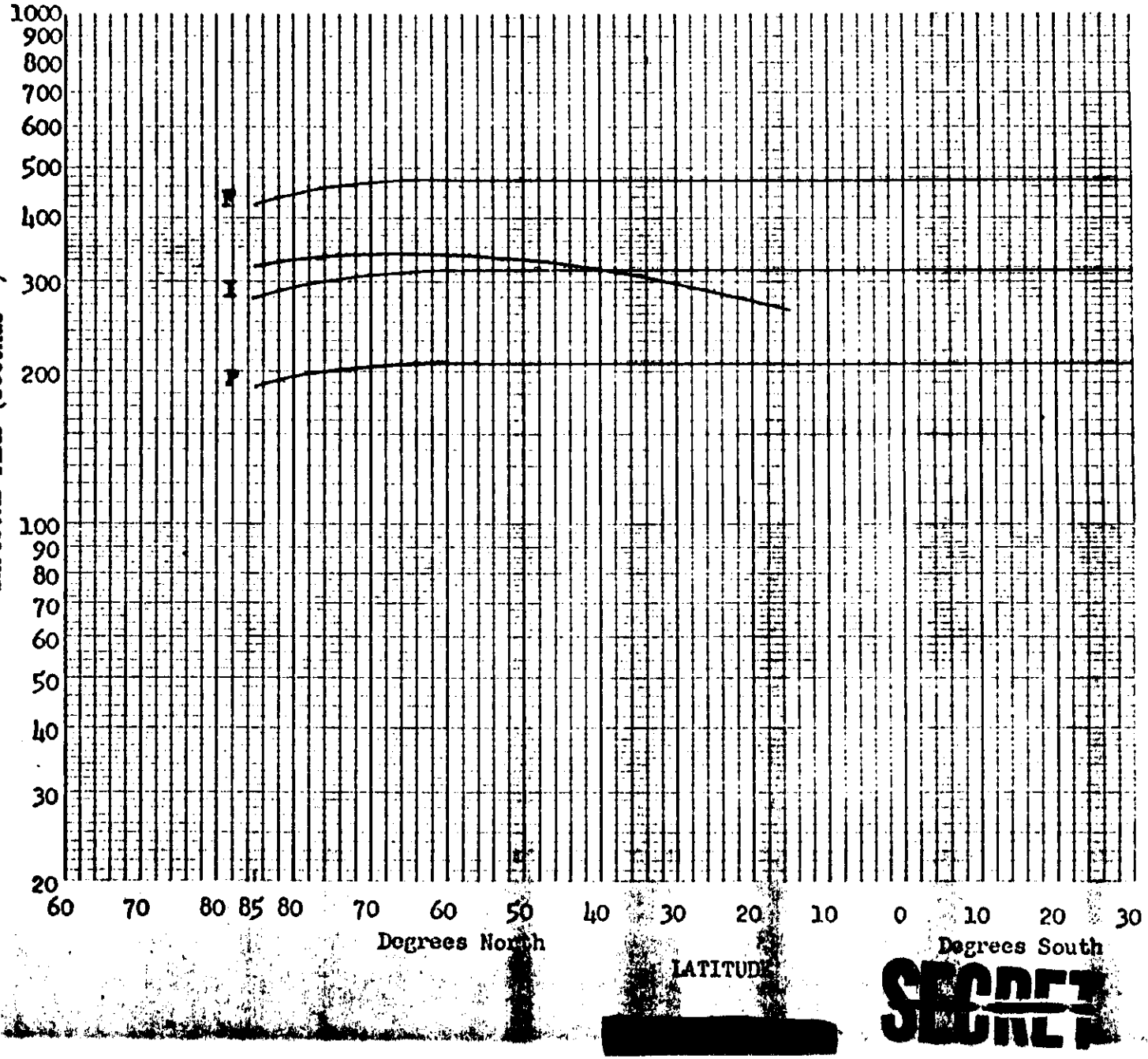


Figure 8-10

Mission No: 1007

Payload No: J-7

Camera No: 115

Pass No: 127

Launch Date: 6/19/64

Launch Time: 2318 Z

Slit Width: .200

Filter Type: Wratten 21

Film Type: 4404

The variation in the predicted processing levels and the actual processing is, in general, consistent with the variation noted in recent missions. The trend to use higher levels of processing on AFT camera is of particular interest. It is indicative of a lower general level of illumination reaching the AFT camera. Further analysis is being conducted to ascertain whether the FWD camera is consistently receiving more illumination because of reflection from the haze layer or because of the 15° camera tilt. Consideration will be given to varying the exposure parameters of the panoramic cameras to normalize the density range of the resulting photography.

SECTION 9

DIFFUSE DENSITY MEASUREMENTS

Tables 9-1 and 9-2 list mission data supplied by AFSPPL. This data includes the visual Reciprocal Edge Spread (RES) values, the area on the format in which the value was obtained and the general characteristics of the edge as shown on the data key page. The densitometric measurements of the base plus fog,. minimum and maximum terrain densities and the maximum cloud densities are also listed with other general data such as solar elevation, latitude and overlap.

The columns are arranged in the following order:

COLUMN NUMBER	HEADING	DATA
1	-	Ascending or Descending pass
2-4	Pas Nbr	Pass Number
5	-	FWD or AFT camera
6-8	Frm Nbr	Frame Number
9-17	Area 1 RES	RES data in area 1
9-11	WWW	With flight RES value
12-14	AAA	Across flight RES value
15	S	Subject - see key
16	T	Terrain - see key
17	Q	Qualifiers - see key
18-26	Area 2 RES	RES data in area 2
27-35	Area 3 RES	RES data in area 3
36-44	Area 4 RES	RES data in area 4
45-53	Area 5 RES	RES data in area 5
54-56	D min	Terrain minimum density
57-59	D max	Terrain maximum density
60-62	D B+F	Base plus fog density
63-65	LIM max	Cloud maximum density

COLUMN NUMBER	HEADING	DATA
66-68	LAT	Latitude
68	T	0 = North, 1 = South
69-71	Sun Ele	Solar Elevation
73-74	CLD	Percent cloud cover
75-76	OL	Percent overlap

The data key for the listings of the "Subject", "Terrain" and "Qualifiers" is shown below.

I SUBJECT

1. Buildings
2. Roads, runways
3. Tanks, A/C other man-made
4. Non-cultural

II TERRAIN

1. Flat
2. Hilly
3. Mountains
4. Flat and snow
5. Hilly and snow
6. Mountains and snow

III EDGE QUALIFIERS

1. Clear
2. Snow
3. Hazy
4. Shadow
5. Snow and Haze
6. Snow and Shadow
7. Haze and Shadow
8. Snow, Haze and Shadow

PAS FRMAREA1	RESAREA2	RESAREA3	RESAREA4	RESAREA5	RES	DLIM SUN
NBR NBRWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQMINMAXB+FMAXLATELECLDC						
D001F005						018212510+441005
DC01F010						018210500+451005
DC02F006						015220710+361005
D002F016		C94099411				038191012208700+370006
D002F026						034205016210680+38
DC02F036		C99104411				C46184018209660+390006
DC02F046						046206018194650+40
DC02F056		C99104411				054196018188630+410006
D006F005		C94090111				042101023223540+440406
DC06F015						043190019222530+44
DC06F025		C9C090411				034187018224510+450306
DC06F035						066122018208490+45
D006F045063055422						044126013222440+460756
DC06F055						038138013214420+46
DC06F065		C65070421				047130013208410+460156
D006F075						073152012210390+46
D006F085		C85090121				034170014208370+450306
DC06F095						037156019214360+45
DC06F105		C85075211				C41128019219340+450406
DC06F115						C35112019228320+45
DC06F120070062421						042078019228320+450856
DC07F005	072082111					047112018232560+430606
DC07F015						066112018233550+43
D007FC25		078072111				058134018228530+430706
DC07FC35						046138019226520+43
DC07F045		C67063421				C50116019230500+430406
DC07FC55						064132018231490+46
D007F065	063078111					056156019220470+440106
DC07FC75						043133016226450+44
DC07FC85		C67072412				C61166014200440+440806
DC07FC95						038213014215420+44
DC07F105		C82078431				049115013228410+440606
DC07F115						053115014218390+44
DC07F125051053412						080112014211380+440606
DC07F135						045174014205360+44
DC07F145		C85075431				032211014194350+450016
DC07F155						030204014000330+45
DC07F165		C75072431				033209013208310+450106
DC07F175						031101014220300+45
DC07F183		C85078111				042110013220290+450106
AC08F006						010 401- 6
DC09F013					078072112061106012216600+410906	
DC09FC23						057117018212590+42
DC09FC33		C90085111				048110018 570+420206
DC09F043						048129018204550+43
DC09FC53		C85082111				041124018 540+430156
DC09F063						042140018 520+43
DC09F070		C9C094111				045129018190510+440206
DC09F080						037117018203490+44
DC09FC90		C72075111				048093018205480+450056

[redacted]

Table 9-1

[redacted]

PAS	FRMAREA1	RESAREA2	RESAREA3	RESAREA4	RESAREA5	RES	D	D	D	LIM	SUN

NBR	NBRWWAAASTQWWAAASTQWWAAASTQWWAAASTQWWAAASTQMINMAXB+FMAXLATELECLD
DC09F100	059174018 460+45
D009F110	0820851120721580182174 50+45050
D009F120	018 430446
DC20F005090082411	039197020 540+44000
DC20F015	0301310191645 30+45
DC20F025 C94C82111	027062018 510+45000
DC20F035	027104018 490+45
DC20F045	0940901110431220181964 80+46015
DC20F051	041103018211470+46
DC21F005 C63C67411	046C92019220530+45045
DC21F015	042132017228520+45
DC21F025 C94104111	C43117017230500+45020
DC21F035	042160017230490+46
DC21F045 C94085411	049158017226470+46030
DC21F055	040112018212460+46
DC21F065 C72072411	044184018225440+46020
DC21FC75	056190017222420+46
DC21FC85 C94104411	036146017226410+46060
DC21F095	054138017190390+46
DC21F105 C90C99411	C741530171963 80+47030
DC21F115	066174016000360+47
DC21F125 C94C90111	069158017000350+47000
DC22F005 085072112	052132019206580+43020
DC22F015	052109018214570+44
DC22F025	0670721120621190182225 50+44095
DC22FC31	020222540+45100
DC22FC42 C78078431	062168020225420+44020
C022F052	085198019226410+45
DC22F062 C72078433	C861850202283 90+46040
DC22FC68	063220020226380+47
DC23FC05	120138020224580+43
DC23F015 075067111	C511310192235 70+44085
D023F025	054140020228550+44
DC23FC35 078078111	054159019224530+45090
DC23FC47	019220500+46100
DC23FC57 061067422	070174019229480+46060
DC23FC67	076174019226460+46
DC23FC77 C67067431	046194019214450+46001
DC23FC87	061162019213430+46
DC23FC97 072C72431	038180019215420+47005
DC23F107	038132016221400+47
DC23F117 C78C72431	C382120132243 80+47025
DC23F127	054210013213370+47
DC23F137 085085431	036211013225350+47060
AC24FC04	017 411- 7
DC24F005	045109020220660+40
DC24F015 059065422	062112020211650+41075
DC24FC25	C640880202146 30+41
C024F035 078078122	C621060202206 20+42090
DC24FC45	042122020210600+42

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PAS FRMAREA1 RESAREA2 RESAREA3 RESAREA4 RESAREA5 RES D  D  D LIM   SUN
NBR NBRWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQMINMAX8+FMAXLATELECLO
D024F055                    C72078411                   037103020122580+42000
D024F065                                                035166020160570+43
D024F075                    104099111                   041140020000550+43000
D024F085                                                036137021221540+44
D024F095                    C78075111                   049133021226520+44015
D024F105                                                    023218510+45
D024F109                                        072000212104155021220500+45070
D024F119                                                093158021222480+45
D024F129                    C67C00212                   102164020218470+46060
D024F139                                                    019181450+46
D024F149                                        067072212090156015219440+47025
D025F005                    C78C85111                   052119018222550+44010
D025F015                                                043136018224540+45
D025F025                    C94C94111                   049140020222520+45015
D025F035                                                053148020227500+45
D025F045                    C94C90111                   055138020225490+46030
D025F051                                                056148018222480+46
D036F005                    C85C90413                   043196018   740+35000
D036F015                                                042164020180730+37
D036F025                    C78C85423                   033188020   710+38000
D036F041072067411                                       052154020224520+46090
D036F051                                                045099020226500+46
D036F061                    C90C85112                   052136020227490+47080
D036F071                                                051141020229470+47
D036F081                    C94C90111                   040095020228460+47060
D036F091                                                039102020225440+47
D036F101                                                    015212420+48055
D036F110                                                    014206410+48
D037F005                                                    018198530+46100
D037F009                                        067072112058076015200530+46095
D037F019                                                032100018212510+46
D037F029                    C82072111                   038098019208500+46010
D037F039                                                    054152018000480+46
D037F049                    C67C72412                   046160019217460+47020
D037F059                                                070146019226450+47
D037F069                    C72C72412                   068180020225430+47040
D037F079                                                    018226420+47100
D037F031                                        070067112122174018226410+47095
D037F091                                                084156018228400+47
D037F101                                067065412       101184018224380+47060
D037F111                                                    018202370+47100
D037F112                                                104156018196360+47
D037F122          070067212                             102146018200350+47060
D037F132                                                085158018210330+48
D037F142                    C78C72411                   044140018200320+48035
D037F152                                                042112018224300+48
D037F160                    C75072411                   040154018222290+48060
D038F005075067412                                       056090020230580+44090
D038F015                                                046108020230570+45
D038F025078067411                                       068122019232550+45C90
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PAS FRMAREA1 RESAREA2 RESAREA3 RESAREA4 RESAREA5 RES D D D LIM SUN					
NBR NBRWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQMINMAXB+FMAXLATELECLD					
DC38F031					0741320192305 40+46
DC38F041		C78085411			0481700192275 00+47010
DC38F051					0332110202184 80+47
DC38F061		C78072411			0481740192064 60+47005
DC38F071					106141019206450+47
DC38F081					100158018210430+47
DC38F091		C75C78412			0601630132104 20+47040
DC38F101					072155012210400+47
DC38F111		C78C85411			0661620122183 80+47080
DC38F121					0832120122203 70+47
DC38F131		C82C90411			0482130122223 50+47045
DC38F141		C85C85411			0362040122253 30+47C45
DC38F151					068142012214320+47
DC38F161	085078411				0311520122183 00+47075
DC38F171					038C940142222 90+47
DC38F181		C72C75411			0741040182262 70+47090
DC38F189					068140019220260+47
DC39FC05		C9CC90111			0321550192245 80+44010
DC39FC15					032154018218570+45
DC39FC25		C94090111			C3615001921655 0+45020
DC39FC30					0541480192255 40+46
AC40F004					017 411- 8
DC40FC05		C85067111			0321140192225 90+43020
DC40FC15					036148018232580+44
DC40FC25		C85C82112			0481590202345 60+44020
DC40FC35					050118018228550+44
DC40FC45	085078111				0501780182125 30+45060
DC40FC55					038180019125 20+45
DC40FC65		C99090111			0411850190005 00+46000
DC40FC75					042170020000490+46
DC40FC85		C78C78111			0441710202134 70+46005
DC40FC95					042147018220460+47
DC40F105		C85C85111			0401320182184 40+47000
DC40F115					040128018222430+48
DC41FC05					018224580+44100
DC41FC15					018236570+45100
DC41FC25					018223550+45100
DC41FC35					0891450182225 30+45095
DC41FC43					018222520+46100
DC49F					+-0
DC52FC05			C72075412		1182140202097 70+34030
DC52FC15					073211019217760+35
DC52FC25		C67C85412			0831850161967 40+36005
DC52FC35					041174018224720+37
DC52FC45		C78C85421			0341110182267 00+38010
DC52FC59					062109018228590+44
DC52FC65		C78C72423			0521520182265 80+44080
DC52FC75					036089018222570+45
DC52FC85	072072411				0321140182245 50+45025
DC52FC95					054108018229540+46

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PAS FRMAREA1 RESAREA2 RESAREA3 RESAREA4 RESAREA5 RES D D D LIM SUN		
NBR NBRWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQMINMAXB+FMAXLATELECLD		
C052F105	C72072211	0311260182285 20+46005
C052F115		048149018228500+47
C052F125	078067211	033088018225490+47010
C052F135		C361120182204 70+47
C052F145	C72085211	0321340182184 60+48010
C052F155		0300920182214 40+48
C052F165	C85090111	0351400182194 20+49020
C052F175		0391610182044 10+49
C052F185		018208390+50015
C053F005	C85085211	0441150182245 40+46035
C053F015		0381120181325 30+47
C053F025	C94090111	0451380182105 10+47020
C053F032		0281000152085 00+48
C053FC42	070072322	0981820142214 30+49090
C053F052		0321280142004 20+49
C053F062	C00C90311	0411350122124 00+49070
C053F072		0421550142143 80+49
C053FC82	C99C94431	0771930182303 70+49090
C053FC92		0481660182263 50+49
CC53F102		018216340+49100
CC53F104	C82C85411	0801500162103 30+48098
CC53F114		018218320+48
C053F124		016226300+48100
CC53F134		016210280+48
CC53F144		016206270+48100
C053F151094099411		0721160172202 50+48098
C053F160		0561480172162 40+48
C054F005		020226580+44100
CC54FC06	0630631120841 5002022358 0+44098	
CC54FC16	0630651110491 0001822857 0+45095	
CC54FC26		052092018226 550+46098
CC54FC36		050134019228 540+47
C054F046	0590634110621 2001822650 0+48098	
CC54FC56		062166019224 480+48
CC54FC66	0530574110921 72018192 460+48075	
CC54FC76		056135020226 450+48
CC54FC86	C78078421	028200015210 430+48010
CC54FC96		054164014216 410+48
CC54F106		014216400+48
CC54F116	C70072411	060152014208 380+48001
CC54F126	C65065422	058151014220 370+49075
CC54F136		054160014212 350+49
CC54F146063063421		044138014206 330+49070
CC54F156		062172013222 320+49
C054F166	C70067411	044133014228 300+49075
C054F176		058170018226 290+49
CC54F186	C72067421	042132020224 270+49080
CC54F193		018230260+49
CC55FC05		018228590+44100
CC55FC15		017223580+45100

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PAS NBR	FRMAREA1 RESAREA2 RESAREA3 RESAREA4 RESAREA5 RES NBRWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQ	D D D LIM SUN MINMAXB+FMAXLATELECL
D055F020		0850901120881620172265 70+4509
D055F030		0541200182305 50+45
D055F040	C94094111	0521010202305 40+4606
D055F050		0461350192295 20+46
D055F060	070067411	0541320182205 10+4703
D055F070		0421400182274 90+47
D055F080	C78072411	0761660202304 70+4804
D055F090		0701720202284 60+48
D055F100	078067411	0641520202204 40+4902
AC56F005		016 411- 9
D056F005	085090411	0452120182227 10+3707
D056F015		040118018 700+38
D056F025	C75085111	032125018 680+3900
D056F035		030096018 670+39
D056F045	C94104111	029102018 650+4000
D056F055		027104018 640+41
D056F065	C99099411	026128018 620+4100
D056F075		027119018 610+42
D056F085	C94C99111	030126018 590+4300
D056F095		029135018 570+43
D056F105	C99085111	029160018 560+4400
D056F115		034124018 540+45
D056F125	C78078111	0361300181985 30+4500
D056F135		0711520182245 10+46
D056F145	118118111	0381380182295 00+4702
D056F155		039140018229480+47
D056F165	118C94111	0401490181994 70+4800
D056F175		029126018 450+49
D057F005	085090111	0520740182175 50+4604
D057F015		062148018222540+47
D057F025	104094111	0681330182255 20+4700
D057F035		034127018227500+48
D001A005		016216520+4410
D001A010		016220510+4510
D002A005		012220720+3610
D002A015	070067411	0621890102067 10+3702
D002A025		C401870101906 90+38
D002A035	C85072411	0362100102086 70+3901
D002A045		0381960112186 60+40
D002A055		015 640+41
D006A005	C99094111	0511250212245 50+4303
D006A015		C681440162325 40+44
D006A025	C94C94431	0562030192395 20+4407
D006A036		0581520122285 00+45
D006A047	C85090421	C501780122324 50+4602
D006A057		0491650122264 30+46
D006A067	000078211	0521860122304 10+4604
D006A077		C761580122294 00+46
D006A087	085085111	0671820122323 80+4609
D006A097		0441680142303 60+46

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PAS NBR	FRMAREA1 … RESAREA5 RES D D D LIM SUN / NBR WWWAAASTQ …				MINMAXB+FMAXLATELECLD
D006A107		078082111			048146018238350+46065
DC06A117					056176018236330+46
DC07A005					016230570+43100
DC07A007					120154016224570+43099
DC07A017		C85085111			058151016236550+43030
DC07A027					101166016234540+43
D007A037		C85082111			076172016228520+43020
DC07A047					060166016236510+44
CC07A057			075067411		C80196016232490+44030
D007A067					074172014234480+44
D007A077		C85075111			056122010228460+44010
DC07AC87					052164010224450+44
D007A097		C99C99111			C40172010230430+44060
DC07A1C7					040218010226410+44
D007A117		C85085111			054160010232400+44005
D007A127					090150010224380+44
D007A137	07007C431				046229010228370+44060
DC07A147					032226010222350+45
D007A157		C78C82431			034224010 340+45
D007A167					038231010219320+45
D007A177		C78C85111			034216010230300+45020
AC08A006					011 391- 7
D009AC13					011224610+41100
D009A023078082411					085126014221590+42090
D009A033					075154018216580+42
D009A043		C72078411			065134018218560+43005
D009AC53					071134018 550+43
D009A063		104C90111			063152018201530+44001
D009A073					063166018208510+44
D009A083		C94104111			062126017202500+44025
D009A093					058134017226480+45
D009A103		C85094111			070152017212470+45001
DC09A113					120171017229450+46
DC09A120					017204440+45
DC20A005				090085411	059121020 550+44000
DC20A015					C46118018 540+45
DC20A025		C94104111			044157018 520+45000
DC20A035					034078018 500+45
DC20A045	104099111				033118018181490+46002
DC20AC51					037102020221480+46
DC21A005		C82C94421			054095018231540+44040
DC21AC15					050105018236530+44
D021A025		C85087221			068145017236510+45030
DC21A035					054154018235500+45
DC21A045		C78C85411			092154018233480+45030
DC21A055					066163017238460+45
DC21A065		C63057422			074154017234450+45025
DC21A075					068138017228430+46
DC21A085	078072122				082184018232420+46050
D021A095					044142017224400+46

PAS	FRMAREA1	RESAREA2	RESAREA3	RESAREA4	RESAREA5	RES	D	D	D	LIM	SUN
NBR	NBRWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQMINMAX3+FMAXLATELECLD(										
C021A105085090112										066146018154390+46010	
C021A115										040162012 370+47	
D021A125			C78085311							042144013000350+47005(	
C022A005			C82094111							044134018214590+43015	
C022A015										066128018227580+44	
C022A025072078112										079164018232560+44080	
D022A031										086166018228550+45	
C022A041			C82085431							044178012225430+47030	
C022A051										045172012223420+47	
D022A061			C82075431							054162012218400+47020	
C022A068										068178012225390+47	
C023A005										053102011220590+43099	
C023A015										064130014225580+44098	
C023A025		072078112								070120016230560+44080	
C023A035										069120013230540+45	
C023A047										011220510+46100	
C023A057										C80120011222490+46098	
C023A067										067134011224470+46095	
C023A077			C75072411							052155011221460+46010	
C023A087										036178011227440+46	
C023A097			C85C85111							039214011220430+47020	
C023A107										031146011221410+47	
C023A117			C85094431							047212011220390+47020	
C023A127										029209011221380+47	
C023A137		078082431								059220011226360+47030	
AC24A004										013 391- 9	
C024A005			C72078411							079155015214670+39020	
C024A015										094111016238660+40	
C024A026						072067411				080120015220640+40070	
C024A036										011222620+41	
C024A046			C85090111							060142014214610+41020	
C024A056										056162015 590+42	
C024A066			C90C90111							047150015 590+43000	
C024A076										060166015 560+43	
C024A086			104118111							043158016 540+44000	
C024A096										046150015226530+44	
C024A106					085090112					092130015231510+45060	
C024A116										013225500+45	
C024A126					C78075412					072162010223480+46065	
C024A136										063109010224460+46	
D024A146			C78082411							063150010184450+47003	
C025A005			C85082111							060160016216560+44002	
C025A015										052149014232550+45	
D025A025			C78078111							059172016220530+45001	
C025A035										055136017232510+45	
C025A045			C78078111							070140016230500+46005	
C025A051										065144015228490+46	
D036A005			104104413							035212014000750+35000	
C036A015										046160011000730+36	
C036A025			C90C94413							052200015205720+37002	

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PAS NBR	FRMAREA1 NBR	RESAREA2 WWWAAASTQ	RESAREA3 WWWAAASTQ	RESAREA4 WWWAAASTC	RESAREA5 WWWAAASTQ	RES WWWAAASTQ	D MINMAX	D B+FMAX	D LATELEC	LIM CLD	SUN
D036A039									1121580	16229530	+46
D036A049										012227520	+46100
D036A059			C70067112						0471070	1222850	0+47060
D036AC69									055142	01623448	0+47
D036A079		094090111							C501100	1523C	70+47075
DC36A039									050172	01623145	0+47
D036A099	104099111								056116	01522143	0+4809C
DC36A109										015220420	+48
DC37A005			C78094411						045135	01019854	0+55050
DC37A015									091144	01020453	0+45
D037A025					067078412				045098	01623451	0+45045
DC37A035									045168	01522450	0+46
DC37A045			C94C99411						C661540	15222480	+4601C
DC37AC55									058164	01022846	0+46
DC37AC65			1C4104411						058150	01023245	0+4605C
DC37A075									060184	01022843	0+46
DC37AC85									116163	01021842	0+47099
DC37AC95			118118111						060134	01022840	0+47065
DC37A105									086164	01022438	0+47
DC37A115										010194370	+47
D037A125					078072411				067152	01020435	0+47095
DC37A135									036140	01021433	0+47
D037A145			C94094411						058170	01420632	0+6802
DC37A155									054180	01421030	0+48
DC38AC05		078078211							057157	01523059	0+43040
DC38AC15									090132	01623058	0+44
DC38A025		090082422							084130	01523056	0+45085
DC38A030									093148	01523255	0+45
DC38A041			085099433						048204	01121050	0+47050
DC38AC51									029188	01121449	0+47
DC38AC61			C72C75221						C441450	11211470	+47005
DC38A071									048162	01018046	0+47
DC38A081										011216440	+48100
DC38AC91									C611480	11209420	+47
DC38A101		078085422							069183	01122241	0+4702C
DC38A111									051131	01120539	0+47
DC38A121					082090433				067142	00920337	0+4708C
DC38A131									033206	00922136	0+47
DC38A141		099094433							058206	00919934	0+4709C
DC38A151									033103	00921333	0+47
DC38A161										009201310	+4710C
DC38A171									049145	01122229	0+47
DC38A181					082094433				C891560	13232280	+47085
DC38A187									C601520	16231270	+47
DC39AC05		078085111							041128	01822259	0+43002
DC39AC15									C491680	18232580	+44
DC39AC25		090111111							046146	01822756	0+4406C
DC39AC30									C621270	18229550	+45
AC40AC04										015	381-10
DC40AC05			C94085111						C621160	17228600	+4303C

[redacted]

PAS FRMAREA1 RESAREA2 RESAREA3 RESAREA4 RESAREA5 RES D D D LIM SUN

NBR NBRWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQMINMAXB+FMAXLATELECLD

D040A015					043182018233590+44
D040A025			099094111		062172018230570+44010
D040A035					066178018234550+44
D040A045		085075112			079152018218540+45050
D040A055					056132018000520+45
D040A065			104111111		055188018000510+46000
D040A075					052156018000490+46
D040A085			094104111		056174018222470+47002
D040A095					064174018225460+47
D040A105		094099111			069177018226440+47040
D040A115					044149018232420+48
D041A005					012230590+43100
D041A015					010218580+44100
D041A025					010222560+45100
D041A035					103132010220540+45
D041A043				072072112	103128010218530+46095
D052A005			094094413		176183009189780+33020
D052A015					089176007193770+34
D052A025			099094413		110170007180750+35040
D052A035					037157010188730+36
D052A045			104099411		044140009210710+37030
D052A057					060108010222610+43
D052A067	070078411				048090010204590+44090
D052A077					054192010212570+44
D052A087			075072411		048082014224560+45070
D052A097					058108013220540+45
D052A107			090094111		042130014221520+46010
D052A117					058122015222510+46
D052A127			104094111		051143014212490+47025
D052A137					050121012224480+47
D052A147			085090111		048110016210460+48020
D052A157					048103016222440+48
D052A167		085078111			054124014200430+49030
D052A177					074104012190410+49
D053A007					062098012228550+46095
D053A017			094094111		044168016228530+47003
D053A027					038150016224520+47
D053A040			078072411		059180010224450+49020
D053A050					054134008220430+49
D053A060			085078111		041110008174410+49008
D053A070					037154010224400+49
D053A080			072072111		043172010228380+49030
D053A090					040128010228360+49
D053A100			078072111		042158010198350+49005
D053A110					010212330+49100
D053A120					010222310+49100
D053A130					010222300+49100
D053A140					010226280+49100
D053A150					010220260+49100
D053A156					072090010222250+49100

[redacted]

PAS FRMAREA1 [redacted]REA3 RESAREA4 RESAREA5 RES D D D LIM SUN

NBR NBRWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQMINMAXB+FMAXLATELECLD

D054A005	094099121				058140016226590+44070
D054A015					078136016232580+45
D054A025		078072422			074142013232560+46070
D054A035					042114014224540+46
D054A046			085082433		052204010218500+47070
D054A056					058122010222490+47
D054A066		085090121			032118010228470+47025
D054A076					038164010200460+47
D054A086		085094433			026218010226440+48025
D054A096					048170010218420+48
D054A106					086166010220410+48030
D054A116					064120008224390+48
D054A126				072067422	068138010200370+48015
D054A136					032128008204360+48
D054A146		078090433			034194008205340+48010
D054A156					064172008194330+48
D054A166		082078421			042188010224310+49040
D054A176					028168010226290+49
D054A186					010224280+49095
D054A187					034098010216280+49
D054A192		085085422			072114010216270+49070
D055A005					010218600+44100
D055A015					01[illegible]
D055A025				085082112	082162011228570+45090
D055A035					055133012228550+46
D055A045		085085112			052126012224540+46060
D055A055					044132012224520+47
D055A065		082075111			049114012222510+[illegible]
D055A075					053178012222490+[illegible]
D055A085		078072411			061189012229470+48050
D055A095					040170012221460+48
D055A101		090082411			061168012228450+49020
D056A005					0[illegible]
D056A009		072067411			094132014218720+38090
D056A019					042156016000700+38
D056A029	118118111				046194016000680+39010
D056A039					034124016000670+40
D056A049		118111111			044118016000650+40000
D056A059					040132016000640+41
D056A069		078082411			034154016000620+42000
D056A079					036161016000600+42
D056A089		099104411			034142016000590+43000
D056A099					038190016000570+44
D056A109		118104111			044191015000560+44000
D056A119					042152016000540+45
D056A129		094099111			040186013210520+46000
D056A139					088166014226510+46
D056A149		094094111			058130016222490+47025
D056A159					058130016234480+48
D056A169		104094111			050160015228460+48002

[redacted] SECRET [redacted]

PAS	FRMAREA1	RESAREA2	RESAREA3	RESAREA4	RESAREA5	RES	D	D	D	LIN	SUN
NBR	NBRWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQMINMAXB+FMAXLATELECLDL										
DC56A176										038160015000450+49	
A056A005										011 391-11	
D057A005										090111010222560+45	
DC57A015	067070112									054091011216540+46030	
DC57AC25										0581220122226520+47	
D057A035		C90085111								040132012222500+47010	

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PAS	FRMAREA1	RESAREA2	RESAREA3	RESAREA4	RESAREA5	RES	D	D	D	LIM	SU
NBR	NBRWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQMINMAXB+FMAXLATELECL										
DC57A											+-0
DC65A015											020210210+49010
DC68A005			C85072422								058100022228550+44050
DC68A015											048140020208540+47
DC68AC25			C78C94421								0341020202085 20+48030
DC68AC35											040084020212500+48
DC68AC44			C72C75422								C431720202204 90+49050
DC69AC05											016228560+46100
DC69A015											081131016226550+46
DC69AC25											057062422114146016228540+47090
DC69AC35											072112014222530+47
DC69AC47											151164011207520+48
DC69AC57			C72C72312								119153011224520+48085
DC69AC67											059110009210510+48
DC69AC77											085090321042116010220500+49090
DC69AC84											010220490+48
DC70AC05											010216530+47
DC70AC15			C69C63412								C421280102195 20+48080
DC70AC25											058148010220500+48
DC70AC30			C59C73422								044156010216490+49075
DC70AC46											090170010222410+51
DC70AC50			C72C63422								045148010204400+51010
DC70AC60											010160380+51
DC70AC70											070069432048186010198360+51090
DC70AC80											036180009192350+51
DC70A090			C78C94431								C611900090003 30+51000
DC70A100											034180009191310+51
DC70A109075067432											036216010124200
AC71AC05											016000391
DC71AC05			C820824110								033156015178610+44001
DC71A015											042158015000600+45
DC71AC25			C99C94111								042155015217580+45001
DC71A030											052132016826570+44
DC71A040											090112010224520+48095
DC71AC5C											C781320102225 10+49090
DC71AC60			C7CC75411								040158010220490+49030
DC71AC7C											060216011217470+50
DC72AC05			C85083112								046080015229620+43065
DC72AC15											048151015238610+44
DC72AC25					C67085112						060165016235590+45070
DC72AC35											066141015228580+45
DC72AC45			C95111112								C721380152155 60+46070
DC72AC55											061158015230540+47
DC72AC65			C85082112								064160015000530+47
DC72AC75											049133015000510+48
DC72AC85			C78C99111								049140015000490+49000
DC72AC95											061144015234480+49
DC72A105					082072112						102173016238460+50000
DC72A115											096150015236450+50
DC72A120											012220440+51

[redacted]

Table 9-2

[redacted]

PAS	FRMAREA1	RESAREA2	RESAREA3	RESAREA4	RESAREA5	RES	D	D	D	LIN	SUN
NBR	NBRWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQMINMAXB+FMAXLATELECLD										
DC73AC05											013220560+46095
D073A015											C461200122305 50+47
C073A025				085090211							057120016236530+48050
C073A035											C801520172385 10+48
C073A043				C78085211							C561500162405 00+49020
C082A005											011226600+44100
D082AC15											011224590+45
CC82A025											011221570+46100
CC82A035											011222560+47
DC83A005											010228510+49100
DC83A015											009206500+50100
DC83AC20											0700751110350650092044 90+50098
DC83A030											C330650092124 80+51
DC85AC05											041046010209580+46
DCS5AC15											010200570+47
D085A025	C59061412										C440630092125 50+47095
CC85AC30											040C440102015 50+48
D085AC40				C72C75411							045111010220 440+51020
D085AC5C											C601750112314 30+52
DC85AC6C				C78C78411							066156011234 10+52085
CC85AC70											C511820102254 00+53
DC85AC78				C67C72411							120225012235 390+53020
DC86A005		078072412									C621250151
CC86AC15											057155015235 510+47
DC86AC25				C67C61412							090159016229 500+47090
DC86AC35											052121015234 490+48
DC86AC45				C78C7C412							057163016236 480+48060
CC86A055											057160016230 470+48
DC86AC65				C82C78111							052175014236 460+49
D086AC75											072160011228 440+49
DCS6AC85		078078111									C551710112224 30+50045
CC86AC95											060158011228 420+50
D086A105				C59C70431							044138017
DC86A115											036223011224 400+51
DC86A125				C72C70432							C342230112253 90+52065
DC86A135											061225011220 370+52
D086A145				C85C68432							063225011230 360+53025
DC86A151				C72C67222							C422190112283 60+53075
AC87AC05											017000391-11
DC87AC05				C94C94211							036150017224 600+44002
DC87AC15											034147017136 590+45
DC87AC25				C94C99111							037164017160 580+46002
DC87AC35											C401780172105 60+47
DC87AC44				C99C94111							050116017238 550+48000
CC88AC05				104C99111							059143017230 550+47020
LC88AC15											C681600172345 40+48
DC88AC25				1C4104111							060160017228 520+48025
DC88A035											082198017232 510+49
DC88AC45				C99099111							080191017240 490+49020
DC88AC50											084173017239 490+50

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PAS FRMAREA1 RE[illegible]E[illegible]AR A3 RESAREA4 RESAREA5 RES D D D LIM SUN

NBR NBRWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQMINMAXB+FMAXLATELECLD

D098A005		104090211		076131017232610+45040
D098A015				060204017222600+46
D098A025		090099311		046116017224580+47020
D098A035				040140017220560+48
D098A045		075082412		070110017223550+48095
D098A055				011220530+49
D098A063				011230520+50100
D099A005	057063412			082111012221530+49095
D099A015				010218520+50
D099A025		078085412		051072010221500+50090
D099A035				038132010226480+51
D099A045				010223470+51100
D099A055				010228450+52
D099A065				010197430+52100
D099A075				009206420+53
D100A005				011226540+48100
D100A015		070072411		028072011225530+48050
D100A025				084117011226510+48
D100A035		067078411		045150010218490+49040
D100A045				024144011223480+49
D100A055		072072411		042152011232460+49020
D100A065				072140011229440+49
D100A075		072073412		083158011233430+49020
D100A085				010198410+50
D100A095		085094111		051134010218390+50060
D100A105				050148010226380+50
D100A115			051055111	109162010222360+50060
D100A125				108139011225340+50
D100A135		072082111		062166010226330+51050
D100A145				010226310+51
D100A155				010225290+51100
D100A165		067075111		046168011214280+51075
D100A175				046175011227260+51
D100A185		072078411		058110010226240+52050
D100A195				064176010231230+52
D100A205				010216210+52100
D102A005				009180820+30
D102A015				009180810+31
D102A025				009179790+32
D102A035				009171780+33
D102A045				009173760+34
D102A055				009174750+34
D102A065				009179730+35
D102A075				009180710+36
D102A085				009200700+37
D102A095		067067411		084131014224680+37075
D102A105				049227015220670+38
D102A115		072070411		040154016220650+39015
D102A125				050120016227640+40
D102A135		090090411		038153016224620+41005

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PAS FRMAREA1 R[illegible]EA3 RESAREA4 RESAREA5 RES D D D LIM SUN				
NBR NBRWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQMINMAXB+FMAXLATELECLD				
C102A145				0541100162336C0+42
C102A155		C82085411		C471410162395C0+4204C
C102A165				0331670160005?0+43
C102A175		C94C94111		0381460160005C0+4400C
C102A185				016230540+45
C102A195			09909011107211201623253C+46080	
C102A205				C801480162365C+46
C102A215		C72067412		C8214101624049C+4704C
C102A225				C411590162294BC+48
C102A235		C67C72412		0701500162204C0+4909C
C102A245				1102000162304?0+5C
C102A255		C94085411		C8017001622343C+50C35
C102A265				0721600102304?0+51
C102A275		C99090111		C661520102324C0+52C15
C102A285				0551990102333B0+53
C102A295		1C4118411		0601500102203?0+54002
A103AC05				011C00381-13
C103AC05				010183720+3810C
C103AC15				009178710+3910C
C103AC25				C09188690+4C10C
C103AC35				C0918468C+4C10C
C103AC51	063061412			C34C79010084650+42090
C103AC61				0310710102206?0+42
C103AC75C78070212				C6012401021561C+43095
C103AC85				C52142C1022360C+44
C103AC95	C72082212			C9017901623458C+45C75
C103A105				0601700162335?0+46
C103A115		C94090111		0501600162355?0+4603C
C103A125				C481830162305?0+47
C103A135		C75089112		C7615201623152C+48065
C103A145				C7115601623450C+48
C103A155		C67063112		C5615201322449C+49045
C103A165				0481540102204?0+50
C103A175		C59067212		C5715201022045?+5107C
C103A185				C711420102244?0+51
C103A195				010214420+52
C103A207				C6110501021940C+53
C103A215		C63067432		0551210092163?0+5406C
C104AC05			07206741103611001622059C+46000	
C104AC15				026129011765B0+47
C104AC25		1C4094111		C6016401122056C+48085
C104AC35				0421280142025?0+49
C104AC45		1C4111111		0501260152105?0+49002
C104AC55				C6816101520951?+50
C104AC65		C94085411		C3814001C21449?+51C05
C104AC75				C4315601222480+52
C115AC05				011203780+34
C115AC15				011166770+35
C115AC25	094090411			0291600111667?0+3606C
C115AC35				C271340111547?0+37

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PAS FRMAREA1 RESAREA2 RESAREA3 RESAREA4 RESAREA5 RES D  D  D LIM   SUM

NBR NBRWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQMINMAXB+FMAXLATELECLD

C115AC45                    C99094411                   033129011216720+39020
C115AC61                                                C59180017220610+46
D115AC71                    078085422                   051134017239590+47030
C115AC81                                                079200017240570+48
C115AC91                    C72C78422                   110170017240560+48090
C115A101                                                050123017234540+49
C115A111                    C94C82411                   042134017232520+50005
C115A121                                                034136017230510+50
C115A131                    C90C90111                   055123017236490+51060
C115A141                                                C69160017227470+52
C115A151          090082312                             C74103014230460+52090
C115A161                                                C40120014226440+53
C115A171          094094111                             03206201323342O+54080
C115A181                                                      013219410+54
C115A186                                                      013209400+50010
C116AC05                    C78C72411                   034120010220550+49030
C116A015                                                      010225540+50
C116AC25                                                100130010222520+50090
C116AC30                    C90C94111                   036129010223510+51005
C116AC40                                                058170010230440+53
C116AC50                    C63C67411                   070170010220430+53030
C116AC6C                                                050151010230410+53
C116AC70                    C72C82111                   060162010231390+53030
C116AC80                                                C76176010230370+53
C116AC9C                    C72C78421                   032153010231350+53020
C116A10C                                                      010226340+53
C116A11C                                                      010227320+53100
C116A12C                                                      010226300+53100
C116A13C                                                      010222280+53100
C116A140C63067411                                       C70130010226270+53090
C116A15C                                                048114010230250+53
C116A160          065067411                             C33186010229230+53050
C116A170                                                049193010230210+53
C116A18C          078085111                             050171010233190+53030
C116A180                                                C40169010231180+53
C117AC05                    C67C67412                   C40140017220590+46020
C117AC15                                                038130017232580+47
C117AC25                    104C99111                   030150017230560+48010
C117AC35                                                037156017213540+49
C117AC46                    C85104411                   072219017234510+51060
C117AC56                                                C60160017234490+51
C117AC66                    104C94431                   042189014232470+52020
C117AC76                                                048188011220450+52
C117AC86                              094090131         C34218011236440+52040
C117AC96                                                C46180011230420+52
C117A105                                          078082311C63176011226400+53000
C117A116                                                100170011228390+53
C117A126                    C78C82431                   072216011226370+53020
C117A136                                                038186011203350+54
C117A146                    C67C70411                   052188010220330+54050
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SECRET [redacted]

PAS FRMAREA1 SECRET REA3 RESAREA4 RESAREA5 RES D D D LIM SUN

NBR NBRWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQMINMAXB+FMAXLATELECLD

D117A156			046140010188320+54
D117A166		072072421	042204010214300+54070
D117A176			040190010220280+55
D117A183		072075411	039084010221270+55025
D118A005			010160820+30
D118A015			010171810+31
D118A025			010169790+32
D118A035			010160780+33
D118A045			010141760+34
D118A055			010155740+35
D118A065			010159730+35
D118A075			010170710+36
D118A085			010170700+37
D118A095			010189680+38
D118A105			011186670+39
D118A115			010190650+40
D118A125	094104411		076110012230630+40080
D118A135			084132017233620+41
D118A145		104104112	064120017230600+42030
D118A155			050172017236590+43
D118A165		078072411	060130017230570+44075
D118A175			100134017236550+45
D118A185		099104111	056130017234540+45020
D118A195		072067412	086151017232510+47075
D118A205		072067412	086151017232510+47075
D118A215			080158017228490+48
D118A225		072075411	070156017229480+49090
D118A235			059170017229460+50
D118A245		094094411	046178017000440+50000
D118A255			156186017000430+51
D118A265			012230410+52
D118A275		078070412	062140012136400+53005
D118A285			048161010145380+54
D118A295		094085211	082156010000370+55000
D118A305			039120010000350+55
A119A005			010000380-14
D119A005			011158730+37090
D119A015			011146720+38098
D119A025			011216700+39100
D119A035			011223690+40095
D119A045051057411			062110011230670+40090
D119A055			050101011226650+41
D119A065		075082111	041140011230640+42050
D119A075			056112019222620+43
D119A085		099104111	038122019228610+44020
D119A095			056146019220590+44
D119A105		085090111	051189019230570+45010
D119A115			071155019232560+46
D119A125		082090111	092158019233540+47060
D119A135			090164019239530+47

[redacted]

SECRET

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 PAS FRMAREA1 RESAREA2 RESAREA3 RESAREA4 RESAREA5 RES D  D  D LIM   SUN
 NBR NBRWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQMINMAXB+FMAXLATELECLD

D119A145                  075082111                   080191019238510+48025
D119A155                                              116170019232490+49
D119A165                  085085111                   101160019236480+50010
D119A175                                              080184019237460+51
D119A185                  078085111                   090176019236450+51010
D119A195                                              120138019240430+52
D119A205                                     067072111104189019240410+53015
D119A215                                              110172019239400+54
D119A225                  072072431                   084201019241380+54010
D120A005                  085099111                   050131016208560+48001
D120A015                                                    016000550+49
D120A025                           104094211          119144016226530+50040
D120A035                                              100132016229510+50
D120A045                  085094111                   093155017226500+51030
D120A055                                              062160016225480+51
D120A065                  104090111                   073164016233460+52015
D120A075                                              070170016226450+53
D120A085                           078075412          085172017230430+53050
DC57F                                                               +-0
DC57F                                                               +-0
DC65F012                                                    025225200+45015
DC65F018                                                    023228200+47025
DC68F005                  072075312                   060104025228540+47030
DC68F015                                              051109024232530+48
DC68F025                  090075122                   044108023224510+49020
DC68F035                                              039144024212490+49
DC68F045                  090085111                   049123023232480+50025
DC69F005                  094085111                   061110020225550+47050
DC69F015                                              049112022233540+47
DC69F025                  075067411                   044145023233530+48070
DC69F035                                              054113022233520+48
DC69F053                  070072412                   123161017230510+48095
DC69F064                                              066116014222500+48
DC69F074063067411                                     039082013221490+49095
DC69F086                                                    013224480+49100
DC70F005                  085094112                   075131022233520+48075
DC70F015                                              061128020230510+49
DC70F025                  078085222                   058128020232490+49060
DC70F035                                              081158020230470+50
DC70F046         067090431                            081155018230400+51005
DC70F056                                              101152013167380+51
DC70F066                  078090431                   058208013222360+51070
DC70F076                                              066232019000350+51
DC70F086                  090094433                   063230020000330+51000
DC70F096                                              056222020231310+51
DC70F106                  085094431                   052157020234300+51050
DC70F110                                              068146020237290+51
AC71F004                                                    020   401- 9
DC71F005                  094090411                   033143020   600+44000
DC71F015                                              039146020190590+45
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[redacted]

PAS FRMAREA1	RESAREA2	RESAREA3	RESAREA4	RESAREA5	RES D	D	D	LIN	SUN
NBR NBRWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQMINMAXB+FMAXLATELECLD									
DC71F025		C78090111			0431100202265 70+46005				
DC71F035					C5410101621655C+47				
DC71F045		C94104111			C661050162195 10+48091				
DC71F055					C5411902023049 0+49				
DC71F065		C78090411			C6410802021447 0+49005				
DC71F074					C7220302023046 0+50				
DC72F005	072067212				C4010102123361 0+44045				
DC72F015					C4712702122760 0+45				
DC72F025		C64082212			C4317402122058 0+45050				
DC72F035					0501010221221570+46				
DC72F045		C70075211			C4214102122055 0+46025				
DC72F055					C4213302120153 0+47				
DC72F065		C70072212			C40150021 520+48000				
DC72F075					C39172021 500+48				
DC72F085		C99084111			C3915202100C490+49000				
DC72F095					0611650212294 70+49				
DC72F105		C75082112			C8216202122045 0+50060				
DC72F115					021171440+50				
DC72F121					C2118C430+51100				
DC73F005		C82C82112			C7816102123055 0+46085				
DC73F015					C5313601922554 0+47				
DC73F025		C78072112			C7313202022252 0+48025				
DC73F035					0441010202265 00+48				
DC73F045		C85072111			C4311901921849 0+49005				
DC82F005					050221600+45100				
DC82F015					021224590+46100				
DC82F025					022222570+47100				
DC82F035					022228550+47100				
DC82F038					021222550+48100				
DC83F005					022234510+49100				
DC83F015				0470591110	C7818802223250 0+50098				
DC83F025					C6811002222348 0+50				
DC83F030			082078111		0571140222274 70+51080				
DC85F005					020228570+46100				
DC85F015					020230560+47100				
DC85F025					020214550+48100				
DC85F035					020228530+49100				
DC85F046		C67063413			0951870202304 30+51015				
DC85F056					0961610192214 10+52100				
DC85F066		C54054411			0641860192244 00+52002				
DC85F076					019228380+53100				
DC85F080					019219380+53100				
DC86F005		C72C72411			040C900212145 80+46005				
DC86F015					0401160222305 70+47				
DC86F025		1C4099111			0561060212255 50+47080				
DC86F035					C5212002122654 0+48				
DC86F045		C94C99111			C4612502122252 0+48030				
DC86F055					047118020219500+48				
DC86F065		C99C99111			C5312302022849 0+49050				
DC86F075					C6016202022747 0+49				

[redacted]

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PAS FRMAREA1 RESAREA2 RESAREA3 RESAREA4 RESAREA5 RES D   D   D LIM    SUN

NBR NBRWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQMINMAXB+FMAXLATELECLD

DC86F085                C78C85412                    05419402223C460+5C03C
DC86F095                                             05019102223244C+50
DC86F105                118C99411                    04416402223042C+5102C
DC86F115                104C99411                    C4122401622139C+5202C
DC86F135                                             04320201521738C+52
DC86F145                C85085411                    C3521701521936C+5205C
DC86F153                                             06021201422235C+53
AC87F004                                                 019    411-10
DC87F005                C82C82111                    03210802118860C+45001
DC87F015                                             C3414002000059C+46
DC87F025                C78072111                    C4014002020557C+47CC1
DC87F035                                             C3813202020855C+40
DC87FC45067067111                                    05212602022854C+4904C
DC88F005                C94C85211                    C6314802421855C+47C1C
DC88F015                                             05014202222154C+48
DC88F025                C94C90212                    07113202223252C+49030
DC88F035                                             06214502223150C+50
DC88F045                C82C82111                    C5815502222449C+5C015
DC88F051                                             C4415502221C49C+51
DC98F005067062312                                    C7312105119660C+45025
DC98F011                                             C4813802217C59C+46
DC98F021                C85C94412                    C4211002217958C+4605C
DC98F031                                             03914001721756C+47
DC98F041                                       0720674110450910152095 40+4809C
DC98F051                                                 01521053C+49
DC98F061                                                 01522C51C+4910C
DC98F064                                                 01521851C+50
DC99F005                                                 01621552C+4910C
DC99F015                                                 C1622651C+5010C
DC99F025                      C72067111              07512102123249C+5C085
DC99F035                                                 02123C47C+5110C
DC99F045                                                 02122646C+5110C
DC99F055                                                 02123144C+5210C
DC99F065                                                 02121742C+5201C
DC99F075                                                 02119841C+5302C
D101F005                                                 02422358C+46
D101F015                                       06707231206711502122757C+47085
D101F017                                             06910102122856C+47
D101F027                C90C99121                    06011202122555C+4806C
D101F047                                                 02222349C+51
D101F057                                                 02222947C+51
D101F067                                                 02222645C+52
D101F077                                                 02122844C+52
D101F087                                                 C2122742C+52
D101F097                                                 C2122940C+52
D101F107                                                 02122839C+52
D101F117                                                 C2123037C+53
D101F127                      067072412              07123002123135C+5309C
D101F137                                             06120602122834C+53
D101F147                C78C94422                    06117702123132C+5306C
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PAS FRMAREA1 RESAREA2 RESAREA3 RESAREA4 RESAREA5 RES D D D LIM SUN		
NBR NBRWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQMINMAXB+FMAXLATELECLD		
D101F157		0692250212283O0+53
D101F167	075072432	C651620212322904+54C6C
D101F177		065155021231270+54
D101F184	C94087211	C461430212322604+5403C
D102FC05		02021C810+3010C
D102FC15		01921C800+3110C
D102FC25		C1921C780+3210C
D102FC35		01919977C+3310C
D102FC45		01220175C+3410C
D102FC55		C1119874O+3410C
D102FC65		01220672O+3510C
D102FC75		01220670O+3610C
D102FC85	082075411	062172012210690+37C7C
D102FC95		C501660122126704+37
D102FI05	C70078421	C361970122096604+38020
D102FI15		C31099012203640+39
D102FI25	C85094211	03009001819163O+40005
D102FI35		C35090018210610+41
D102FI45	104104111	038163018220600+41C1C
D102FI55		C32169018212580+42
D102FI65	C94090112	C301450180005604+43000
D102FI75		C36110019210550+44
D102FI85		019218530+45
D102FI95	C94104111	0540890192205204+45C80
D102FJ05		C601340192225004+46
D102FJ15	C63061422	C501340192204904+47C2C
D102FJ25		C601470192204704+48
D102FJ35		01922C450+49
D102FJ45		1201860192224404+49095
D102FJ55	070078421	066149013216420+5007C
D102FJ65		C381300112204104+51
D102FJ75	104094111	C351400112203904+5203C
D102FJ85		030209011210384+53
D102FJ95	C59063412	038148011220364+53005
A103FC05		013000401-11
D103FC05		014210710+38
D103FC15		01018C700+39
D103FC25		01020468O+40
D103FC35		01021C670+40
D103FC45		01622C650+41
D103FC55	C85078411	040121019222604+42080
D103FC65		C61127020223604+43
D103FC75	C78078412	C721100202266O4+43085
D103FC85		C801000202285904+44
D103FC95	C94C94411	040150020220570+4504C
D103FI05		C441460202285604+45
D103FI15	118118112	038148020220540+46005
D103FI25		032151020220520+47
D103FI35	C94C94111	050109020223510+48015
D103FI45		044120020226490+48

[redacted]

SECRET [redacted]

PAS NBR / FRM NBR	AREA1 RES WWWAAASTQ	AREA2 RES WWWAAASTQ	AREA3 RES WWWAAASTQ	AREA4 RES WWWAAASTQ	AREA5 RES WWWAAASTQ	D D D LIM SUN MINMAXB+FMAXLATELECL
D103F155			078085112			050140019220480+4902
D103F165						062140019224460+50
D103F175			104099112			053156018218450+5103
D103F185						073140018223430+51
D103F195						014220410+52
D103F205		094094111				033093012220400+5308
D103F215						032130011212330+53
D104F005					082078111	038130019210530+4600
D104F015						037130019220570+47
D104F025			082082111			043125020210550+4802
D104F035						045118020198530+49
D104F045			094085111			041150020196520+4900
D104F055						056140020211500+50
D104F065		067072111				062132019227490+5107
D104F075						056141020226470+52
D115F005						014194770+3
D115F015						012180760+36
D115F025						013192750+37
D115F035			085085411			059138017182730+3809
D115F045						051179018219720+39
D115F051			085082411			036135018220710+3903
D115F061						033090017220600+46
D115F071			085090411			043211017221560+4703
D115F081						077151018220560+48
D115F091			072082411			039124018218550+4802
D115F101						035194018210530+49
D115F111			067072411			030070018216520+5001
D115F121						029120018210500+50
D115F131			067072411			039078018216490+5102
D115F141						070227019221470+52
D115F151			094094411			050120019219450+5205
D115F161						051119019222440+53
D115F171						019200420+54
D115F181						019170410+54
D115F187						019221400+55
D116F005						019219540+49
D116F015						018212530+50
D116F025			104094111			038156017212510+5101
D116F030						037139017216500+51
D116F040				065060422		086176018226430+5404
D116F050						053170017225420+54
D116F060			078078122			054166013210400+5406
D116F070						040150011210380+54
D116F080			090085221			026120011212360+5402
D116F090						041151011221350+54
D116F100						011220330+54
D116F110						010209310+54
D116F120						011210029+53
D116F130						011212270+53
D116F140				078067312		051142011210260+5307

[redacted]

SECRET

PAS NBR / FRM NBR	AREA1 RES WWWAAASTQ	AREA2 RES WWWAAASTQ	AREA3 RES WWWAAASTQ	AREA4 RES WWWAAASTQ	AREA5 RES WWWAAASTQ	D MIN / D MAX / D+F / LIM MAX / LAT / SUN ELE / CLC
D116F150						043110011210240+53
D116F160			072075112			044142011216220+53080
D116F170						032163011210200+53
D116F180			078085111			027110011169180+53010
D116F189						015201170+53
D117F005				085072211		031100018201580+47050
D117F015						029100018200570+48
D117F025			078082111			034201018180560+49005
D117F035						034186018000540+49
D117F046			078090111			036180018223500+51060
D117F056						044160018220480+51
D117F066				063065212		027176018205460+52030
D117F076						028150018212440+52
D117F086			063070431			031140018220430+52070
D117F096						039160018214410+52
D117F106						061142018209390+53
D117F116						060137018219380+53
D117F126			078089422			043214011216360+53045
D117F136						044209012214340+54
D117F146		059063422				059167011217320+54075
D117F156						029140011222310+54
D117F166			082059432			042132011220290+54065
D117F176						060216011210270+55
D117F184		078075122				038102011220260+55050
D118F005						011190810+30
D118F015						011196800+31
D118F025						011185780+32
D118F035						011179770+33
D118F045						011181750+34
D118F055						011180740+35
D118F065						011186720+35
D118F075						011193700+36
D118F085						011181690+37
D118F095						010160670+38
D118F105						010167660+39
D118F115						010190640+40098
D118F125						050105013206630+40
D118F135						058110018220610+41095
D118F145			065065112			038159018220590+42055
D118F155						036166019210580+43
D118F165			055052412			043128019214560+44070
D118F175						049102019222550+45
D118F185			075075112			041180019210530+45065
D118F195						049141019212520+46
D118F205						019222500+47095
D118F215						051172019220480+48
D118F225				057051422		052144019210470+49080
D118F235						046160012210450+50
D118F235						046160012210450+50
D118F245					054050222	045160011000440+50000

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PAS FRMAREA1 RESAREA2 RESAREA3 RESAREA4 RESAREA5 RES D  D  D LIM   SUN

NBR NBRWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQMINMAXB+FMAXLATELECLC

C118F255                                                    0112C4420+51
C118F265                                                    011194410+52097
C118F275                                                045136011164390+53
C118F285                          059054212                 C46154C11214370+54C9C
C118F295                                                    C3313501100360+55
C118F305                  C57C61431                         040140010000340+55000
C118F308                  C52055431                         039142010000340+56000
A119FC05                                                    C10000401-12
C119FC05                                                    C1014C720+38
C119F015                                                    01014071C+39
C119F025                                                    01C200690+40
C119FC35                  C75C61412                         050156C1821C680+41009
C119FC45                                                    035132018220660+41
C119FC55          085072112                                 030123018210650+42070
C119F065                                                    042090018216630+43
C119FC75                  C94C82211                         029137018212610+43C45
C119FC85                                                    C3711401921260C+44
C119FC95                  C94C80211                         040133019220530+45C5C
C119F1C5                                                    045156019220570+46
C119F115                  C95072212                         051155019220550+46C45
C119F125                                                    060169019222540+47
C119F135                  C75082212                         046099019221520+48C60
C119F145                                                    069120019211510+49
C119F155          077C8C112                                 059146019220490+49065
C119F165                                                    C6014601922247C+50
C119F175                  C78072112                         053210019224460+51070
C119F185                                                    051192019222440+52
C119F195                  C67C75211                         054150019226430+52030
C119F205                                                    082130019221410+53
C119F215C61050232                                           C5013101922040C+54C9C
C119F225                                                    036129019214380+54
C119F229                  C72067431                         039135019219380+55005
D12CF005          090090111                                 050185018090550+48001
D120FC15                                                    C791120182205 0+49
D120FC25                  C85090311                         059124018222520+50010
D120FC35                                                    C401300182205 0+50
D120FC45                  C35078311                         043104018224490+51020
D120FC55                                                    C5212001822248C+51
D120FC60                  C72085111                         048140018222470+52015
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[redacted]

[redacted]

The diffuse density measurements made by AFSPPL were computer sorted at A/P to permit analysis of the density ranges encountered at the three processing levels. A study of sorting techniques showed that no absolute method was available to separate the density values as accuracy Processing History published by [redacted] appears rather low and processing transition phases are not accounted for. The sorting technique selected uses the base plus fog density values where measurements up to 0.09 density are considered as having received Primary processing, 0.10 to 0.17 as Intermediate and above 0.17 density as Full. The percentage of original negative that was processed at each level, based on the computer sort, is tabulated below with the predicted and reported processing percentages.

Mission	Camera		Primary	Intermediate	Full
1007-1	FWD	Predicted	0	5	95
		Reported	1	20	79
		Computed	0	25	75
1007-1	AFT	Predicted	0	100	0
		Reported	10	42	48
		Computed	6	77	17
1007-2	FWD	Predicted	0	25	75
		Reported	3	28	69
		Computed	0	26	74
1007-2	AFT	Predicted	0	100	0
		Reported	19	41	40
		Computed	3	88	9

The resulting percentage at each processing level for the FWD camera approximates the values published by [redacted] however the values for the AFT camera showed a gross mismatch in the Intermediate and Full processing levels. Further analysis showed that the proper percentage ratios could be achieved with the AFT camera data when the base plus fog values above 0.14 were considered as receiving Full processing. The cause of this variation is not understood at this time however it may have

a bearing on the fact that the AFT camera received much greater Full processing than predicted.

The tabulations of the density frequency distributions for Missions 1007-1 and 1007-2 are shown in Tables 9-3 through 9-6. The graphical plots of density distribution are computer plotted in Figures 9-1 through 9-42. No further attempt has been made at this time to re-sort the density data to other values of base plus fog.

Table 9-7 shows the distribution of minimum terrain densities that fall within and outside of the desired 0.4 to 0.9 density control range. It is noted that the values tend to have a greater percentage below the 0.4 density point than were observed from Mission 1006 where the bulk of the values outside of the desired control range were above 0.9 density. Approximately 85% of the values below 0.4 density in Table 9-7 are within the 0.30 to 0.39 density range.

Analysis of the maximum terrain density values shows that 10% of the measurements exceeded the desired peak value of 1.90 density for each camera. The true meaning of the maximum terrain density values is questionable as it is considered that the terrain highlights are generally man-made and therefore relatively small in the range of up to 100 feet in size such as the width of a runway. Diffuse density measurements are made with a 0.5 millimeter aperture in the densitometer which represents a circle on the ground of approximately 500 foot diameter. The reflectivity of the majority of terrain highlights, such as aircraft, is very high and approximates the reflectivity of clouds. In order to assure that these highlights are properly recorded on the original negative it appears that the maximum density of the clouds should be used as the maximum density control point.

It is recommended that a study be conducted to further evaluate the use of cloud density as the maximum density control point and that consideration be given to reducing the gamma, resulting from the present processing techniques, from approximately 2.2 to 1.5.

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MISSION • 1007-1 • INSTRUMENT • FWD 2-09-64 DENSITY FREQ DISTR

DENSITY VALUE	PRIMARY MIN	PRIMARY MAX	PRIMARY LIM	INTERMEDIATE MIN	INTERMEDIATE MAX	INTERMEDIATE LIM	FULL MIN	FULL MAX	FULL LIM	ALL LEVELS MIN	ALL LEVELS MAX	ALL LEVELS LIM
C.01	C	C	0	C	C	0	0	0	0	0	0	0
C.02	C	C	0	C	C	0	0	0	0	0	0	0
C.03	C	C	0	C	C	0	0	0	0	0	0	0
C.04	C	C	0	C	C	0	0	0	0	0	0	0
C.05	C	C	0	C	C	0	0	0	0	0	0	0
C.06	C	C	0	C	C	0	0	0	0	0	0	0
C.07	C	C	0	C	C	0	0	0	0	0	0	0
C.08	C	C	0	C	C	0	0	0	0	0	0	0
C.09	C	C	0	C	C	0	0	0	0	0	0	0
C.10	C	C	0	C	C	0	0	0	0	0	0	0
C.11	C	C	0	C	C	0	0	0	0	0	0	0
C.12	C	C	0	C	C	0	0	0	0	0	0	0
C.13	C	C	0	C	C	0	0	0	0	0	0	0
C.14	C	C	0	C	C	0	0	0	0	0	0	0
C.15	C	C	0	C	C	0	0	0	0	0	0	0
C.16	C	C	0	C	C	0	0	0	0	0	0	0
C.17	C	C	0	C	C	0	0	0	0	0	0	0
C.18	C	C	0	C	C	0	0	0	0	0	0	0
C.19	C	C	0	C	C	0	0	0	0	0	0	0
C.20	C	C	0	C	C	0	0	0	0	0	0	0
C.21	C	C	0	C	C	0	0	0	0	0	0	0
C.22	C	C	0	C	C	0	0	0	0	0	0	0
C.23	C	C	0	C	C	0	0	0	0	0	0	0
C.24	C	C	0	C	C	0	0	0	0	0	0	0
C.25	C	C	0	C	C	0	0	0	0	0	0	0
C.26	C	C	0	C	C	0	1	0	0	1	0	0
C.27	C	C	0	C	C	0	4	0	0	4	0	0
C.28	C	C	0	C	C	0	2	0	0	2	0	0
C.29	C	C	0	C	C	0	4	0	0	4	0	0
C.30	C	C	0	C	C	0	4	0	0	5	0	0
C.31	C	C	0	C	C	0	1	0	0	3	0	0
C.32	C	C	0	C	C	0	7	0	0	9	0	0
C.33	C	C	0	C	C	0	3	0	0	4	0	0
C.34	C	C	0	C	C	0	4	0	0	6	0	0
C.35	C	C	0	C	C	0	3	0	0	3	0	0
C.36	C	C	0	C	C	0	6	0	0	9	0	0
C.37	C	C	0	C	C	0	3	0	0	3	0	0
C.38	C	C	0	C	C	0	5	0	0	11	0	0
C.39	C	C	0	C	C	0	4	0	0	4	0	0
C.40	C	C	0	C	C	0	7	0	0	7	0	0
C.41	C	C	0	C	C	0	6	0	0	7	0	0
C.42	C	C	0	C	C	0	10	0	0	14	0	0
C.43	C	C	0	C	C	0	4	0	0	6	0	0
C.44	C	C	0	C	C	0	4	0	0	7	0	0
C.45	C	C	0	C	C	0	5	0	0	6	0	0
C.46	C	C	0	C	C	0	8	0	0	8	0	0
C.47	C	C	0	C	C	0	1	0	0	2	0	0
C.48	C	C	0	C	C	0	8	0	0	9	0	0
C.49	C	C	0	C	C	0	3	0	0	5	0	0
C.50	C	C	0	C	C	0	4	0	0	4	0	0
SUBTOTAL	C	C	0	34	0	0	109	0	0	143	0	0

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Table D-3

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DENSITY VALUE	PRIMARY MIN	PRIMARY MAX	PRIMARY LIM	INTERMEDIATE MIN	INTERMEDIATE MAX	INTERMEDIATE LIM	FULL MIN	FULL MAX	FULL LIM	ALL LEVELS MIN	ALL LEVELS MAX	ALL LEVELS LIM
C.51	C	C	0	C	0	0	2	0	0	2	0	0
C.52	C	C	0	C	0	0	9	0	0	9	0	0
C.53	C	C	0	1	0	0	1	0	0	2	0	0
C.54	C	C	0	4	0	0	8	0	0	12	0	0
C.55	C	C	0	C	0	0	1	0	0	1	0	0
C.56	C	C	0	2	0	0	4	0	0	6	0	0
C.57	C	C	0	C	0	0	1	0	0	1	0	0
C.58	C	C	0	2	C	0	2	0	0	4	0	0
C.59	C	C	0	C	0	0	1	0	0	1	0	0
C.60	C	C	0	2	0	0	1	0	0	2	0	0
C.61	C	C	0	2	0	0	1	0	0	3	0	0
C.62	C	C	0	1	C	0	8	1	0	9	1	0
C.63	C	C	0	C	C	0	1	0	0	1	0	0
C.64	C	C	0	C	C	0	3	0	0	3	0	0
C.65	C	C	0	C	0	0	0	0	0	0	0	0
C.66	C	C	0	2	0	0	2	0	0	4	0	0
C.67	C	C	0	C	C	0	0	0	0	0	0	0
C.68	C	C	0	1	C	0	4	0	0	5	0	0
C.69	C	C	0	1	C	0	0	0	0	1	0	0
C.70	C	C	0	C	C	0	3	0	0	3	0	0
C.71	C	C	0	C	C	0	1	0	0	1	0	0
C.72	C	C	0	2	C	0	1	0	0	3	0	0
C.73	C	C	0	C	C	0	1	0	0	2	0	0
C.74	C	C	0	1	C	0	2	1	0	3	1	0
C.75	C	C	0	C	0	0	2	0	0	3	0	0
C.76	C	C	0	C	1	0	0	2	0	0	1	0
C.77	C	C	0	C	0	0	1	0	0	1	0	0
C.78	C	C	0	C	C	0	0	1	0	0	1	0
C.79	C	C	0	C	C	0	0	0	0	0	0	0
C.80	C	C	0	2	C	0	0	0	0	2	0	0
C.81	C	C	0	C	C	0	0	0	0	0	0	0
C.82	C	C	0	C	C	0	0	0	0	0	0	0
C.83	C	C	0	2	C	0	0	0	0	2	0	0
C.84	C	C	0	C	C	0	2	0	0	2	0	0
C.85	C	C	0	C	C	0	2	1	0	2	1	0
C.86	C	C	0	C	C	0	0	0	0	0	0	0
C.87	C	C	0	C	C	0	1	0	0	1	0	0
C.88	C	C	0	1	C	0	0	2	0	1	2	0
C.89	C	C	0	1	C	0	1	1	0	2	1	0
C.90	C	C	0	1	C	0	1	1	0	2	1	0
C.91	C	C	0	C	C	0	0	1	0	0	1	0
C.92	C	C	0	C	C	0	1	3	0	1	3	0
C.93	C	C	0	C	C	0	1	1	0	1	1	0
C.94	C	C	0	C	1	0	0	1	0	0	1	0
C.95	C	C	0	C	0	0	0	1	0	0	1	0
C.96	C	C	0	C	C	0	0	1	0	0	1	0
C.97	C	C	0	C	C	0	0	0	0	0	0	0
C.98	C	C	0	1	C	0	0	1	0	1	1	0
C.99	C	C	0	C	1	0	0	1	0	0	1	0
1.00	C	C	0	C	1	0	0	2	0	1	3	0
SUBTOTAL	C	C	0	29	3	0	68	17	0	97	20	0

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MISSION • 1C07-1 • INSTRUMENT • FWD 2-09-64 DENSITY FREQ DISTR

DENSITY VALUE	PRIMARY MIN	PRIMARY MAX	PRIMARY LIM	INTERMEDIATE MIN	INTERMEDIATE MAX	INTERMEDIATE LIM	FULL MIN	FULL MAX	FULL LIM	ALL LEVELS MIN	ALL LEVELS MAX	ALL LEVELS LIM
1.01	0	0	0	0	1	0	1	2	0	1	3	0
1.02	0	0	0	0	0	0	2	2	0	2	2	0
1.03	0	0	0	0	0	0	2	3	0	2	3	0
1.04	0	0	0	0	0	0	3	0	0	3	0	0
1.05	0	0	0	0	1	0	0	1	0	0	1	0
1.06	0	0	0	0	0	0	1	0	0	1	0	0
1.07	0	0	0	0	0	0	0	2	0	0	2	0
1.08	0	0	0	0	0	0	0	3	0	0	3	0
1.09	0	0	0	0	1	0	0	1	0	0	2	0
1.10	0	0	0	0	0	0	0	1	0	0	1	0
1.11	0	0	0	0	1	0	0	0	0	0	1	0
1.12	0	0	0	0	0	0	0	8	0	0	9	0
1.13	0	0	0	0	0	0	0	2	0	0	2	0
1.14	0	0	0	0	2	0	0	1	0	0	3	0
1.15	0	0	0	0	1	0	0	1	0	0	2	0
1.16	0	0	0	0	1	0	0	2	0	0	3	0
1.17	0	0	0	0	0	0	1	2	0	1	3	0
1.18	0	0	0	0	0	0	1	3	0	1	3	0
1.19	0	0	0	0	0	0	1	2	0	1	2	0
1.20	0	0	0	0	0	0	1	4	0	1	4	0
1.21	0	0	0	0	0	0	1	0	0	1	0	0
1.22	0	0	0	0	0	0	1	0	0	1	0	0
1.23	0	0	0	0	0	0	1	0	0	1	0	0
1.24	0	0	0	0	0	0	0	2	0	0	2	0
1.25	0	0	0	0	1	0	0	1	0	0	1	0
1.26	0	0	0	0	0	0	0	3	0	0	4	0
1.27	0	0	0	0	1	0	0	1	0	0	1	0
1.28	0	0	0	0	0	0	0	3	0	0	4	0
1.29	0	0	0	0	0	0	0	2	0	0	2	0
1.30	0	0	0	0	1	0	0	1	0	0	2	0
1.31	0	0	0	0	0	0	0	2	0	0	2	0
1.32	0	0	0	0	2	0	0	6	0	0	8	0
1.33	0	0	0	0	2	0	0	2	0	0	4	0
1.34	0	0	0	0	1	0	0	3	0	0	3	0
1.35	0	0	0	0	0	0	0	3	0	0	4	0
1.36	0	0	0	0	1	0	0	2	0	0	2	0
1.37	0	0	0	0	0	0	0	1	0	0	1	0
1.38	0	0	0	0	3	0	0	5	0	0	8	0
1.39	0	0	0	0	0	0	0	9	0	0	9	0
1.40	0	0	0	0	0	0	0	2	0	0	2	0
1.41	0	0	0	0	1	0	0	0	0	0	1	0
1.42	0	0	0	0	0	0	0	0	0	0	0	0
1.43	0	0	0	0	0	0	0	1	0	0	1	0
1.44	0	0	0	0	0	0	0	2	0	0	3	0
1.45	0	0	0	0	1	0	0	1	0	0	1	0
1.46	0	0	0	0	0	0	0	0	0	0	0	0
1.47	0	0	0	0	1	0	0	1	0	0	2	0
1.48	0	0	0	0	0	0	0	5	0	0	6	0
1.49	0	0	0	0	0	0	0	2	0	0	2	0
1.50	0	0	0	0	1	0	0	2	0	0	3	0
SUBTOTAL	0	0	0	0	23	0	9	103	3	9	126	3

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DENSITY VALUE	PRIMARY MIN	PRIMARY MAX	PRIMARY LIM	INTERMEDIATE MIN	INTERMEDIATE MAX	INTERMEDIATE LIM	FULL MIN	FULL MAX	FULL LIM	ALL LEVELS MIN	ALL LEVELS MAX	ALL LEVELS LIM
1.51	0	0	0	0	1	0	0	0	0	0	1	0
1.52	0	0	0	0	3	0	0	4	0	0	7	0
1.53	0	0	0	0	1	0	0	3	0	0	1	0
1.54	0	0	0	0	2	0	0	2	0	0	3	0
1.55	0	0	0	0	1	0	0	4	0	0	4	0
1.56	0	0	0	0	0	0	0	0	0	0	5	0
1.57	0	0	0	0	2	0	0	4	0	0	6	0
1.58	0	0	0	0	2	0	0	2	0	0	2	0
1.59	0	0	0	0	2	0	0	2	0	0	4	0
1.60	0	0	0	0	2	0	0	1	0	0	1	0
1.61	0	0	0	0	2	0	0	1	0	0	3	0
1.62	0	0	0	0	1	0	0	2	0	0	1	0
1.63	0	0	0	0	1	0	0	0	0	0	3	0
1.64	0	0	0	0	1	0	0	4	0	0	5	0
1.65	0	0	0	0	0	0	0	0	0	0	0	0
1.66	0	0	0	0	1	0	0	3	0	0	4	0
1.67	0	0	0	0	2	0	0	1	0	0	3	0
1.68	0	0	0	0	0	0	0	0	0	0	0	0
1.69	0	0	0	0	0	0	0	0	0	0	0	0
1.70	0	0	0	0	1	0	0	0	0	0	1	0
1.71	0	0	0	0	0	0	0	0	0	0	0	0
1.72	0	0	0	0	0	0	0	0	0	0	0	0
1.73	0	0	0	0	0	0	0	0	0	0	0	0
1.74	0	0	0	0	0	0	0	0	0	0	0	0
1.75	0	0	0	0	0	0	0	0	0	0	0	0
1.76	0	0	0	0	0	0	0	0	0	0	0	0
1.77	0	0	0	0	0	0	0	0	0	0	0	0
1.78	0	0	0	0	0	0	0	0	0	0	0	0
1.79	0	0	0	0	0	0	0	0	0	0	0	0
1.80	0	0	0	0	0	0	0	0	0	0	0	0
1.81	0	0	0	0	0	0	0	0	0	0	0	0
1.82	0	0	0	0	0	0	0	0	0	0	0	0
1.83	0	0	0	0	0	0	0	0	0	0	0	0
1.84	0	0	0	0	0	0	0	0	0	0	0	0
1.85	0	0	0	0	0	0	0	0	0	0	0	0
1.86	0	0	0	0	0	0	0	0	0	0	0	0
1.87	0	0	0	0	0	0	0	0	0	0	0	0
1.88	0	0	0	0	0	0	0	0	0	0	0	0
1.89	0	0	0	0	0	0	0	0	0	0	0	0
1.90	0	0	0	0	0	0	0	0	0	0	0	0
1.91	0	0	0	0	0	0	0	0	0	0	0	0
1.92	0	0	0	0	0	0	0	0	0	0	0	0
1.93	0	0	0	0	0	0	0	0	0	0	0	0
1.94	0	0	0	0	0	0	0	0	0	0	0	0
1.95	0	0	0	0	0	0	0	0	0	0	0	0
1.96	0	0	0	0	0	0	0	0	0	0	0	0
1.97	0	0	0	0	0	0	0	0	0	0	0	0
1.98	0	0	0	0	0	0	0	0	0	0	0	0
1.99	0	0	0	0	0	0	0	0	0	0	0	0
2.00	0	0	0	0	1	0	0	0	0	0	1	0
SUBTOTAL	0	0	0	0	26	7	0	60	15	0	86	22

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DENSITY VALUE	PRIMARY MIN	PRIMARY MAX	PRIMARY LIM	INTERMEDIATE MIN	INTERMEDIATE MAX	INTERMEDIATE LIM	FULL MIN	FULL MAX	FULL LIM	ALL LEVELS MIN	ALL LEVELS MAX	ALL LEVELS LIM
2.01	0	0	0	0	0	0	0	0	0	0	0	0
2.02	0	0	0	0	0	0	0	0	1	0	0	1
2.03	0	0	0	0	0	0	0	0	1	0	0	1
2.04	0	0	0	0	0	0	0	0	2	0	0	2
2.05	0	0	0	0	0	1	0	0	1	0	0	2
2.06	0	0	0	0	0	3	0	0	1	0	0	6
2.07	0	0	0	0	0	0	0	0	3	0	0	0
2.08	0	0	0	0	0	6	0	0	0	0	0	9
2.09	0	0	0	0	1	0	0	0	2	0	0	2
2.10	0	0	0	0	1	7	0	0	2	0	1	12
2.11	0	0	0	0	2	1	0	0	2	0	1	3
2.12	0	0	0	0	2	3	0	0	1	0	4	8
2.13	0	0	0	0	2	1	0	0	1	0	3	3
2.14	0	0	0	0	2	3	0	0	1	0	2	7
2.15	0	0	0	0	0	1	0	0	0	0	1	2
2.16	0	0	0	0	0	4	0	0	1	0	0	6
2.17	0	0	0	0	0	0	0	0	2	0	0	4
2.18	0	0	0	0	0	3	0	0	0	0	0	10
2.19	0	0	0	0	0	1	0	0	1	0	0	3
2.20	0	0	0	0	0	6	0	0	1	1	0	17
2.21	0	0	0	0	0	2	0	0	0	1	0	4
2.22	0	0	0	0	0	5	0	0	1	5	0	20
2.23	0	0	0	0	0	1	0	0	0	4	0	5
2.24	0	0	0	0	0	1	0	0	0	5	0	16
2.25	0	0	0	0	0	2	0	0	0	8	0	10
2.26	0	0	0	0	0	4	0	0	0	7	0	21
2.27	0	0	0	0	0	0	0	0	0	5	0	5
2.28	0	0	0	0	0	4	0	0	0	6	0	20
2.29	0	0	0	0	0	0	0	0	0	6	0	6
2.30	0	0	0	0	0	2	0	0	0	9	0	11
2.31	0	0	0	0	0	0	0	0	0	1	0	1
2.32	0	0	0	0	0	0	0	0	0	3	0	3
2.33	0	0	0	0	0	0	0	0	0	1	0	1
2.34	0	0	0	0	0	0	0	0	0	1	0	1
2.35	0	0	0	0	0	0	0	0	0	0	0	0
2.36	0	0	0	0	0	0	0	0	0	1	0	1
2.37	0	0	0	0	0	0	0	0	0	0	0	0
2.38	0	0	0	0	0	0	0	0	0	0	0	0
2.39	0	0	0	0	0	0	0	0	0	0	0	0
2.40	0	0	0	0	0	0	0	0	0	0	0	0
2.41	0	0	0	0	0	0	0	0	0	0	0	0
2.42	0	0	0	0	0	0	0	0	0	0	0	0
2.43	0	0	0	0	0	0	0	0	0	0	0	0
2.44	0	0	0	0	0	0	0	0	0	0	0	0
2.45	0	0	0	0	0	0	0	0	0	0	0	0
2.46	0	0	0	0	0	0	0	0	0	0	0	0
2.47	0	0	0	0	0	0	0	0	0	0	0	0
2.48	0	0	0	0	0	0	0	0	0	0	0	0
2.49	0	0	0	0	0	0	0	0	0	0	0	0
2.50	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	0	0	0	0	11	61	0	6	162	0	17	223

[redacted] [redacted] [redacted]

[redacted] [redacted] [redacted]

MISSION * 1007-1 * INSTRUMENT * FWD 2-09-64 DENSITY FREQ DISTR

DENSITY VALUE	PRIMARY MIN	PRIMARY MAX	PRIMARY LIM	INTERMEDIATE MIN	INTERMEDIATE MAX	INTERMEDIATE LIM	FULL MIN	FULL MAX	FULL LIM	ALL LEVELS MIN	ALL LEVELS MAX	ALL LEVELS LIM
2.51	C	C	0	C	C	0	0	0	0	0	0	0
2.52	C	C	0	C	C	0	0	0	0	0	0	0
2.53	C	C	0	C	C	0	0	0	0	0	0	0
2.54	C	C	0	C	C	0	0	0	0	0	0	0
2.55	C	C	0	C	C	0	0	0	0	0	0	0
2.56	C	C	0	C	C	0	0	0	0	0	0	0
2.57	C	C	0	C	C	0	0	0	0	0	0	0
2.58	C	C	0	C	C	0	0	0	0	0	0	0
2.59	C	C	0	C	C	0	0	0	0	0	0	0
2.60	C	C	0	C	C	0	0	0	0	0	0	0
2.61	C	C	0	C	C	0	0	0	0	0	0	0
2.62	C	C	0	C	C	0	0	0	0	0	0	0
2.63	C	C	0	C	C	0	0	0	0	0	0	0
2.64	C	C	0	C	C	0	0	0	0	0	0	0
2.65	C	C	0	C	C	0	0	0	0	0	0	0
2.66	C	C	0	C	C	0	0	0	0	0	0	0
2.67	C	C	0	C	C	0	0	0	0	0	0	0
2.68	C	C	0	C	C	0	0	0	0	0	0	0
2.69	C	C	0	C	C	0	0	0	0	0	0	0
2.70	C	C	0	C	C	0	0	0	0	0	0	0
SUBTOTAL	C	C	0	0	0	0	0	0	0	0	0	0
TOTAL	C	C	0	63	63	68	186	186	180	249	249	248

MISSION 1007-1 INSTR - FWD 2-09-64 PROCESSING AND EXPOSURE ANAL

PROCESS LEVEL	SAMPLE SIZE	UNDER EXPOSED	UNDER PROCESSED	CORRECT EXP+PROC	OVER PROCESSED	OVE EXPOSE
PRIMARY	C	C PC	0 PC	0 PC	0 PC	0 P
INTERMEDIATE	63	C PC	30 PC	68 PC	2 PC	0 P
FULL	186	26 PC	0 PC	67 PC	6 PC	0 P
ALL LEVELS	249	20 PC	8 PC	67 PC	5 PC	0 P

PROCESS LEVEL	BASE + FOG	UNDER EXPOSED	UNDER PROCESSED	CORRECT EXP+PROC	OVER PROCESSED	OVE EXPOSE
PRIMARY	0.01-C.19	0.01-C.13	0.14-0.39	0.40-0.90	---------	0.91 AND
INTERMED	C.1C-C.17	C.01-C.2C	0.21-0.39	0.40-0.90	0.91-1.34	1.35 AND
FULL	C.18 AND UP	0.01-C.39	----------	0.40-0.90	0.91-1.69	1.70 AND

[redacted] [redacted] [redacted]

[redacted]

[redacted]

MISSION • 1C07-1 • INSTR • FWD • 2-09-64 PLOT OF D MIN • TERRAIN • PROCESSING • INTERMEDIATE

ARITH MEAN • 0.52 • MEDIAN • 0.48 • STD DEV • 0.17 • RANGE • 0.28 TO 0.98 WITH 63 SAMPLES

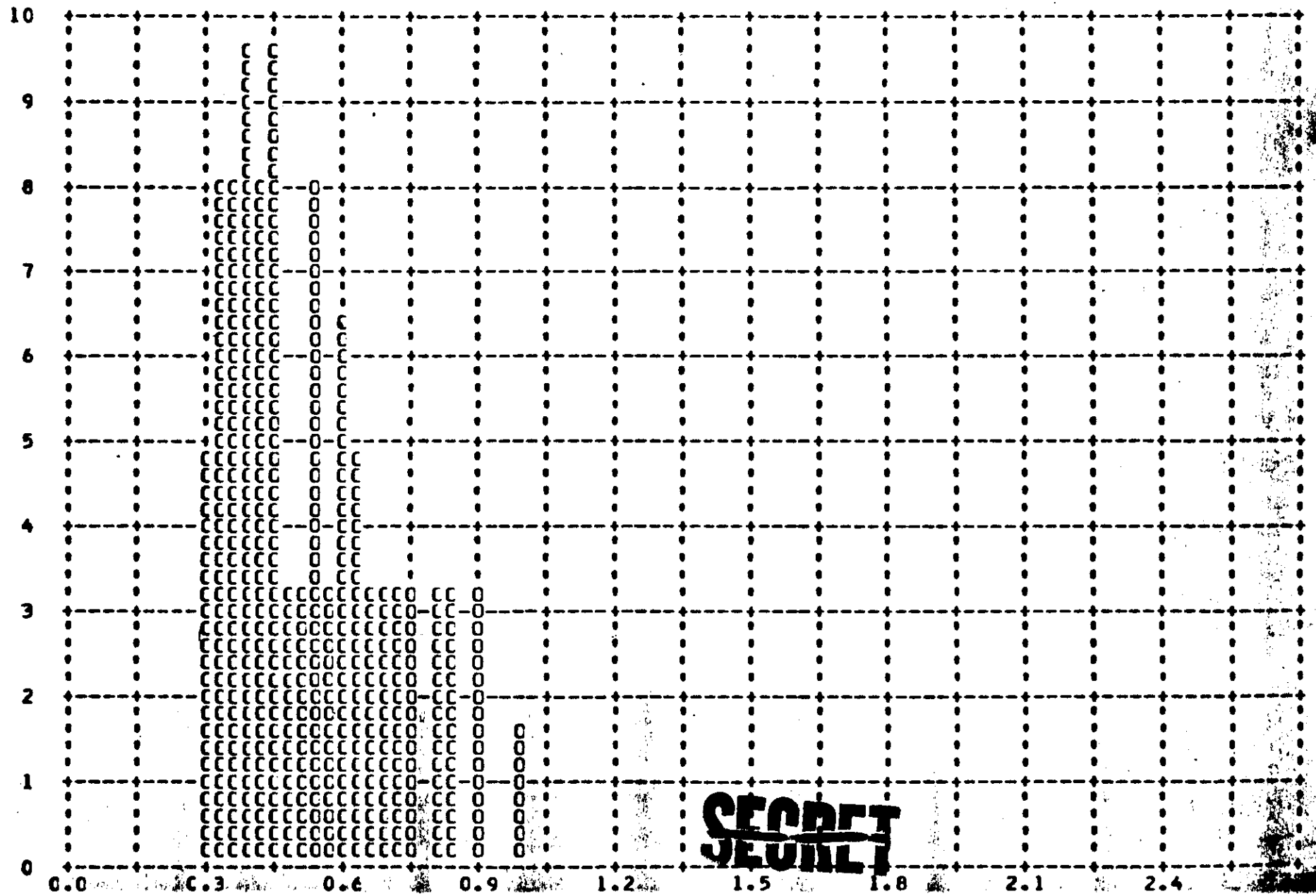


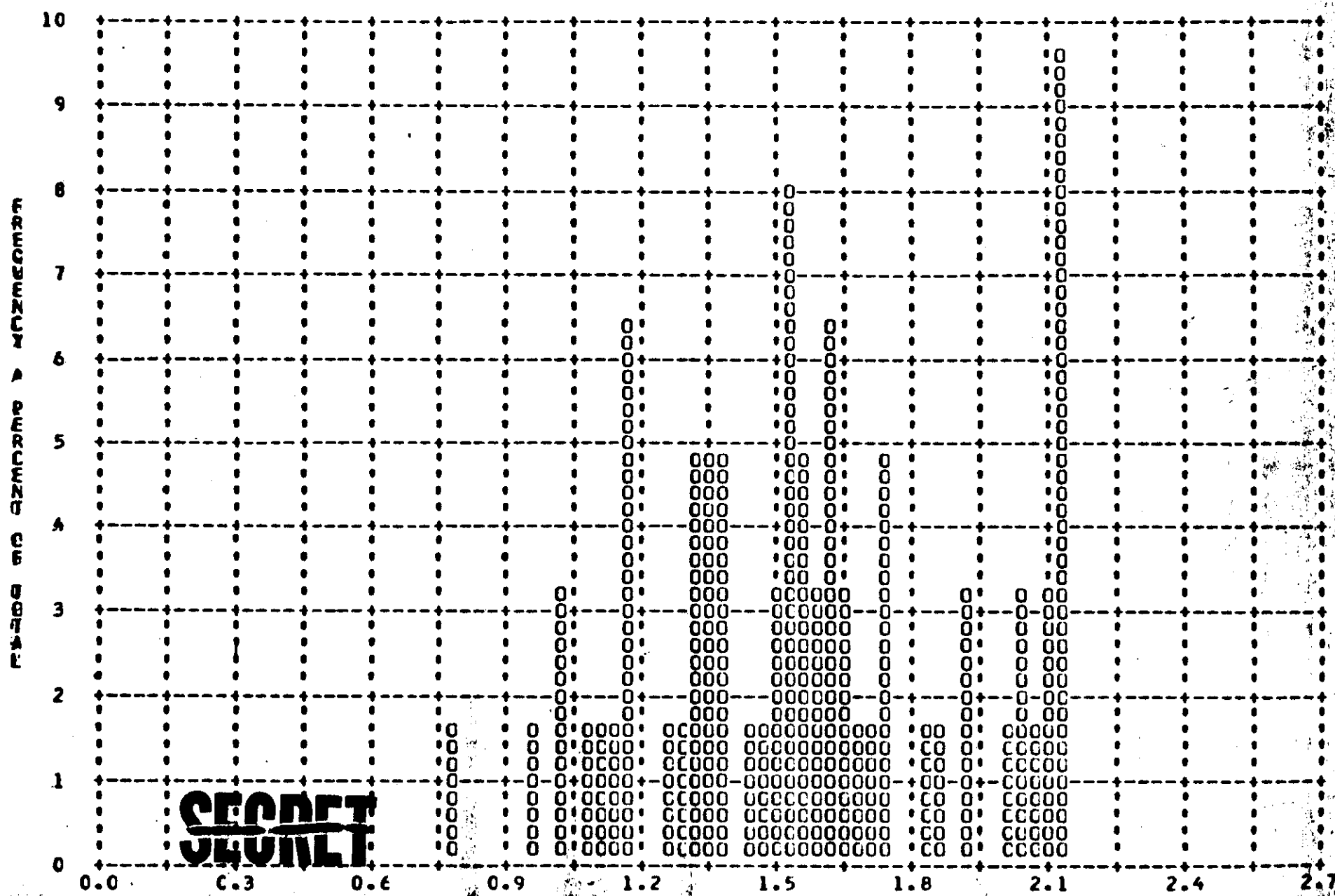
Figure 9-2

[redacted]

[redacted]

MISSION • 1007-1 • INSTR • FWD • 2-09-64 PLOT OF D MAX • TERRAIN • PROCESSING • INTERMEDIATE

ARITH MEAN • 1.56 • MEDIAN • 1.55 • STD DEV • 0.35 • RANGE • 0.76 TO 2.13 WITH 63 SAMPLES



SECRET

Figure 9-2

[redacted]

[redacted]

MISSION • 1C07-1 • INSTR • FWD • 2-09-64 PLOT OF D MAX • CLOUD • PROCESSING • INTERMEDIATE

ARITH MEAN • 2.15 • MEDIAN • 2.16 • STD DEV • 0.09 • RANGE • 1.90 TO 2.30 WITH 68 SAMPLES

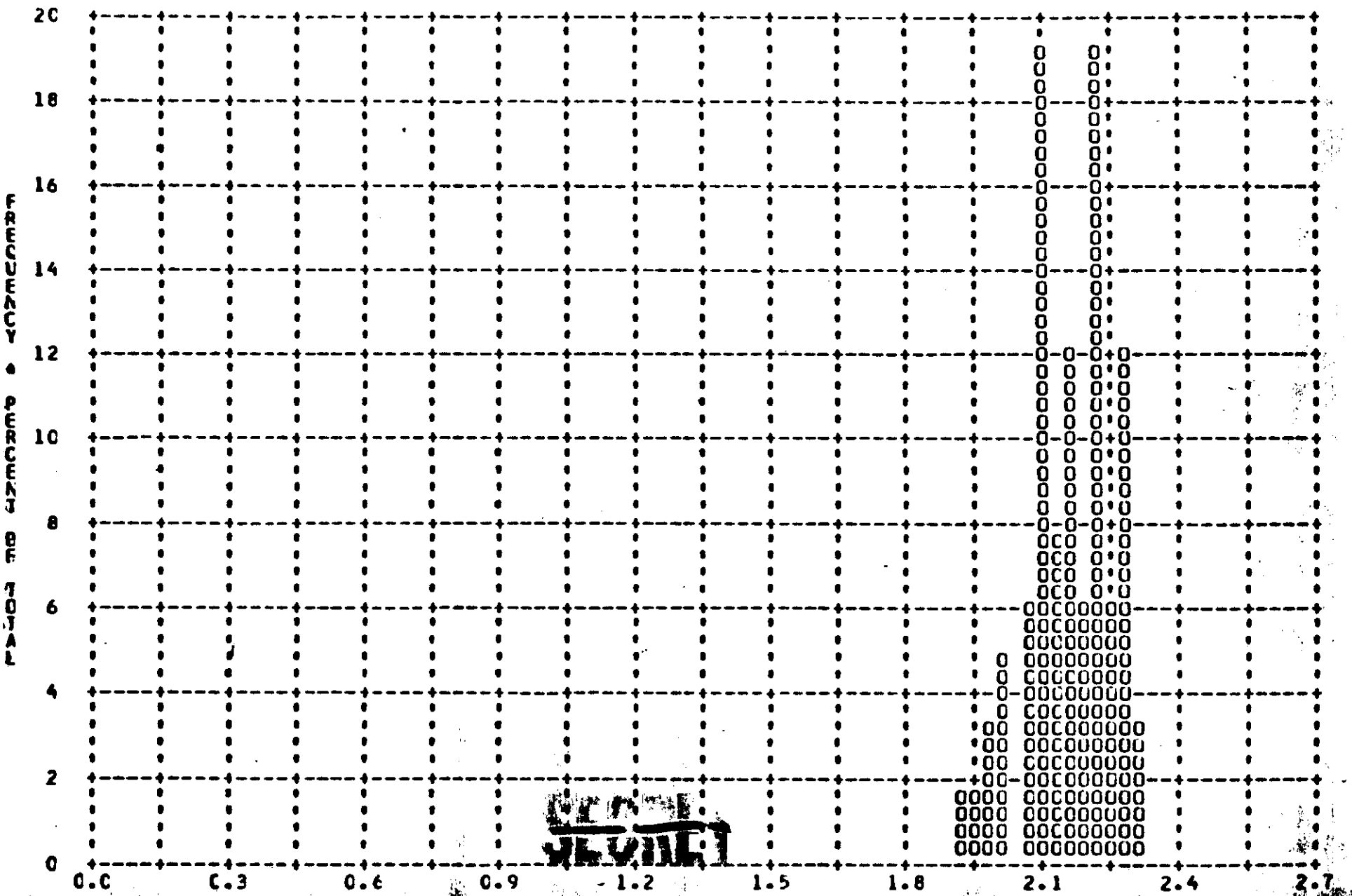


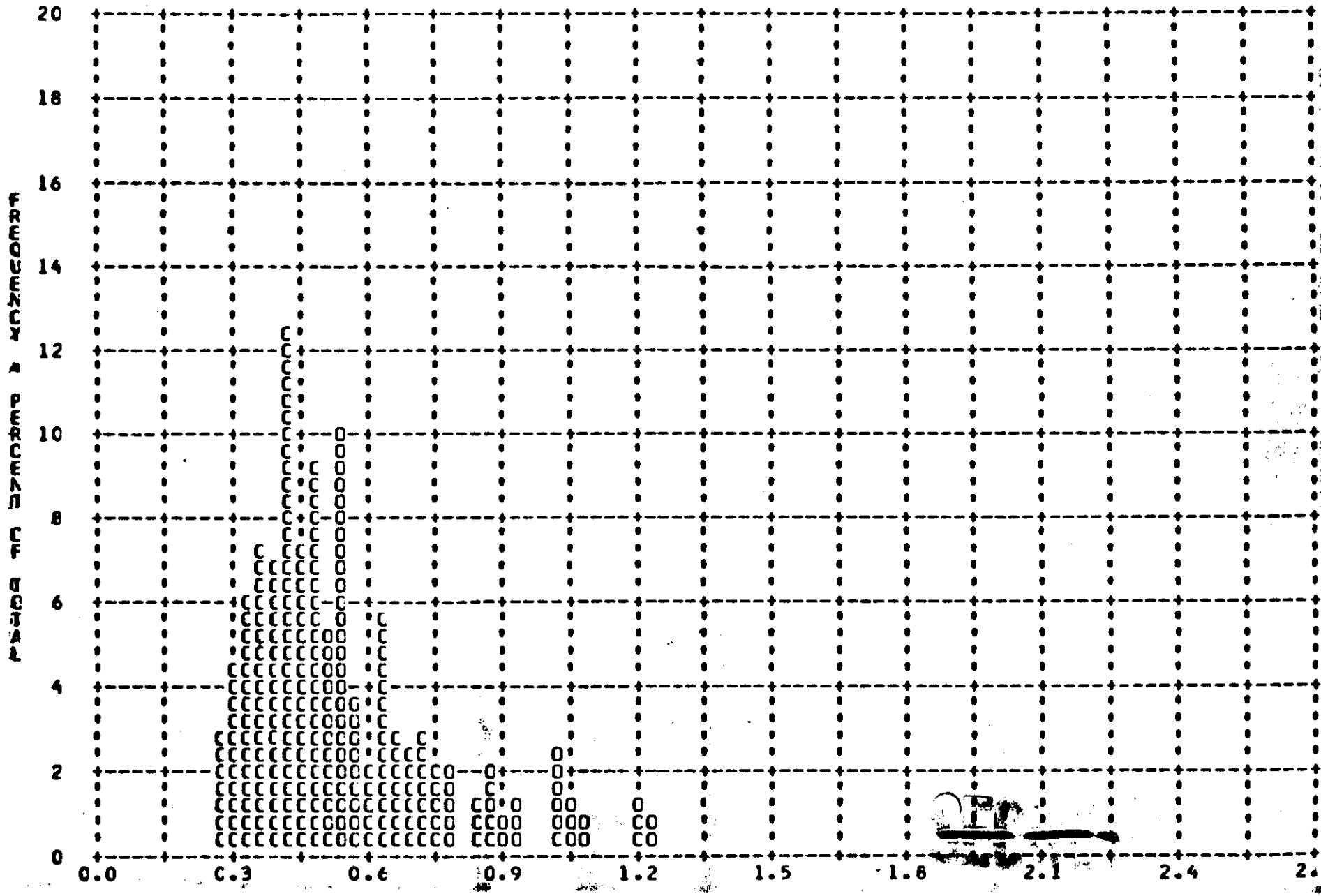
Figure 9-3

[redacted]

[redacted]

MISSION • 1007-1 • INSTR • FWD • 2-09-64 PLOT OF D MIN • TERRAIN • PROCESSING • FULL

ARITH MEAN • 0.52 • MEDIAN • 0.47 • STD DEV • 0.20 • RANGE • 0.26 TO 1.22 WITH 186 SAMPLES



[redacted] [redacted]

MISSION • 1C07-1 • INSTR • FWD • 2-09-64 PLOT OF D MAX • TERRAIN • PROCESSING • FULL

ARITH MEAN • 1.4C • MEDIAN • 1.38 • STD. DEV • C.31 • RANGE • 0.62 TO 2.20 WITH 186 SAMPLES

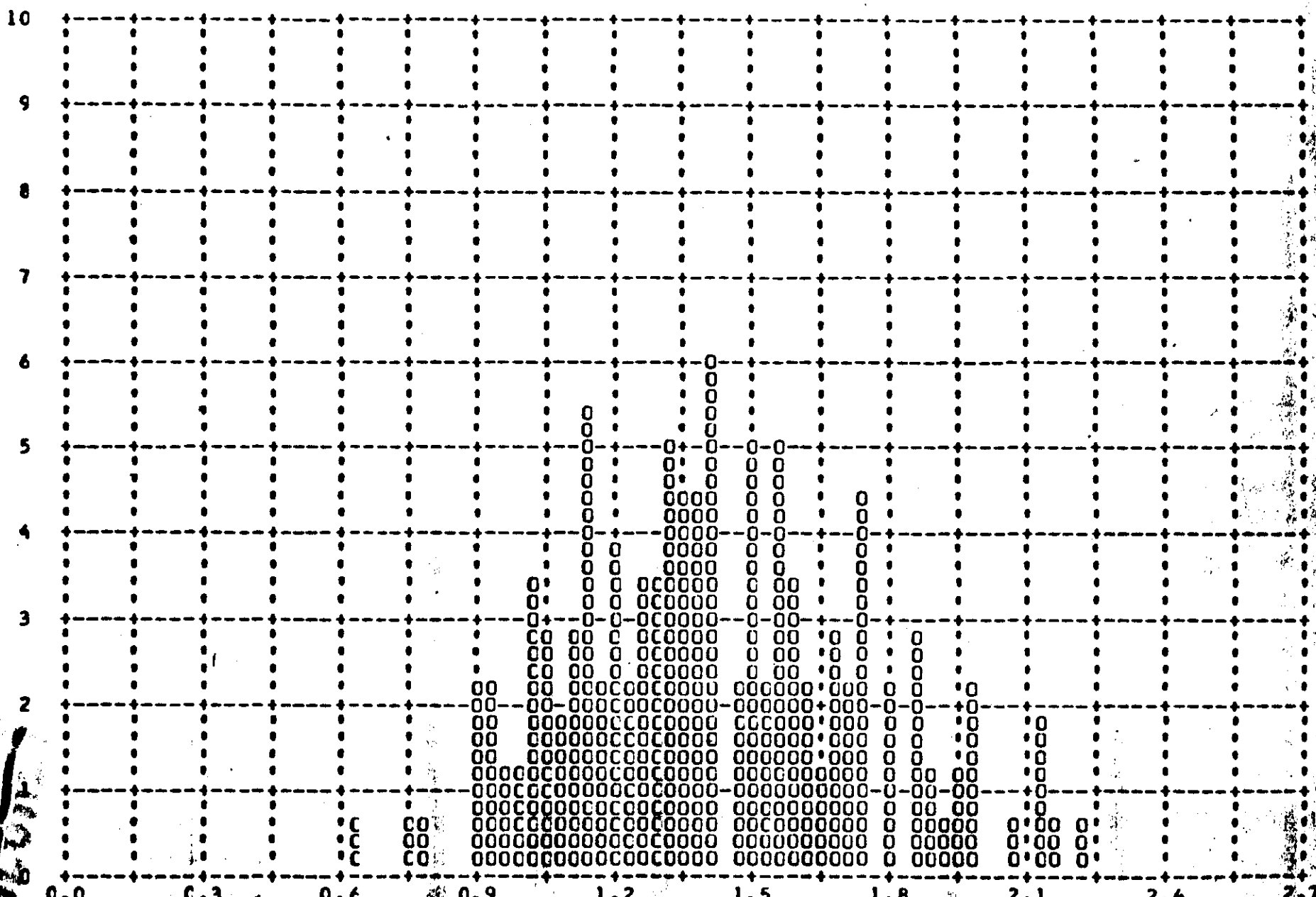


Figure 9-5

[redacted] [redacted]

MISSION • 1C07-1 • INSTR • FWD • 2-09-64 PLOT OF D MAX • CLOUD • PROCESSING • FULL

ARITH MEAN • 2.17 • MEDIAN • 2.22 • STD DEV • 0.17 • RANGE • 1.22 TO 2.36 WITH 180 SAMPLES

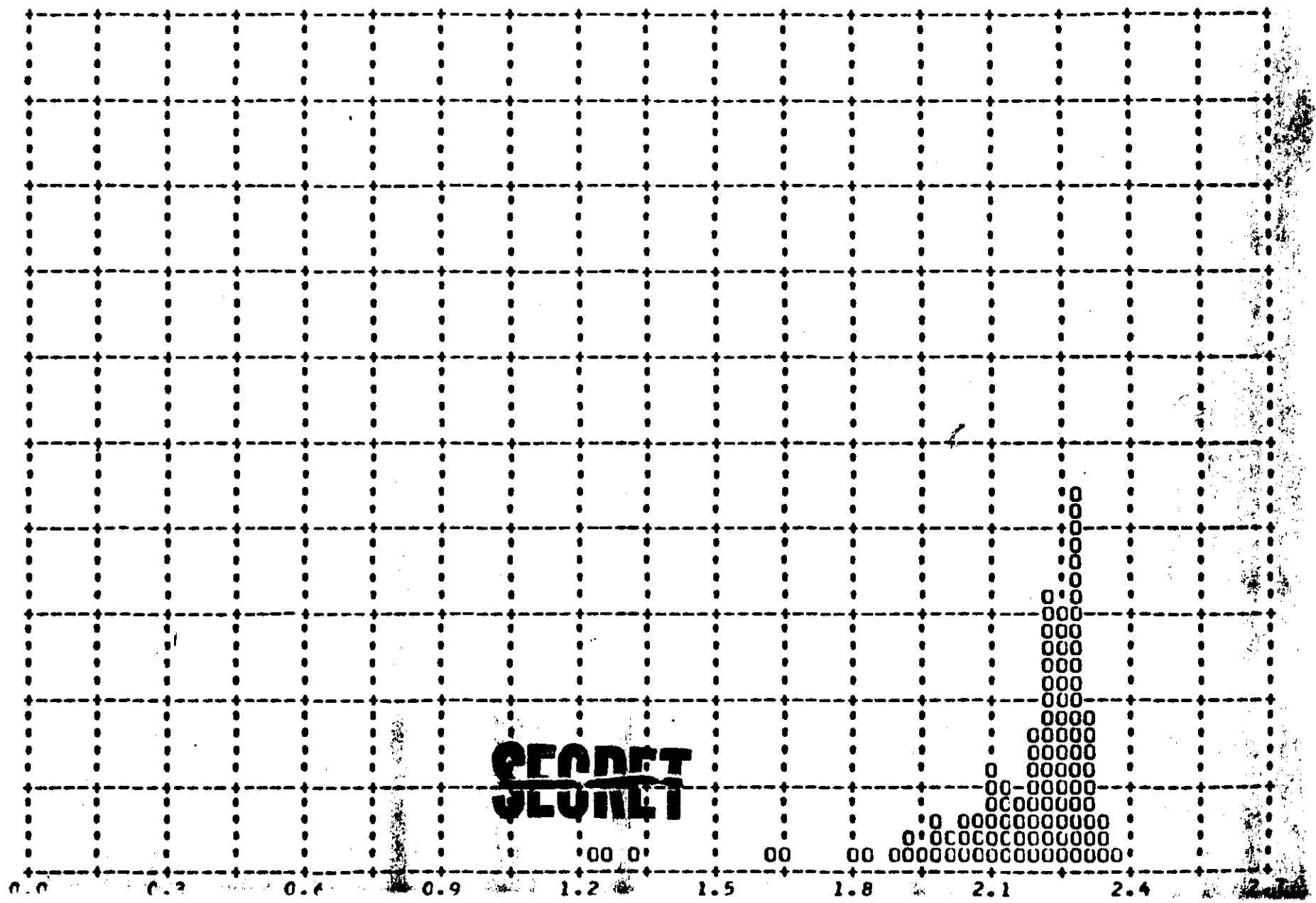


Figure 8-6

[redacted] [redacted]

MISSION • 1C07-1 • INSTR • FWD • 2-09-64 PLOT OF D MIN • TERRAIN • PROCESSING • ALL LEVELS

ARITH MEAN • 0.52 • MEDIAN • 0.47 • STD DEV • 0.19 • RANGE • 0.26 TO 1.22 WITH 249 SAMPLES

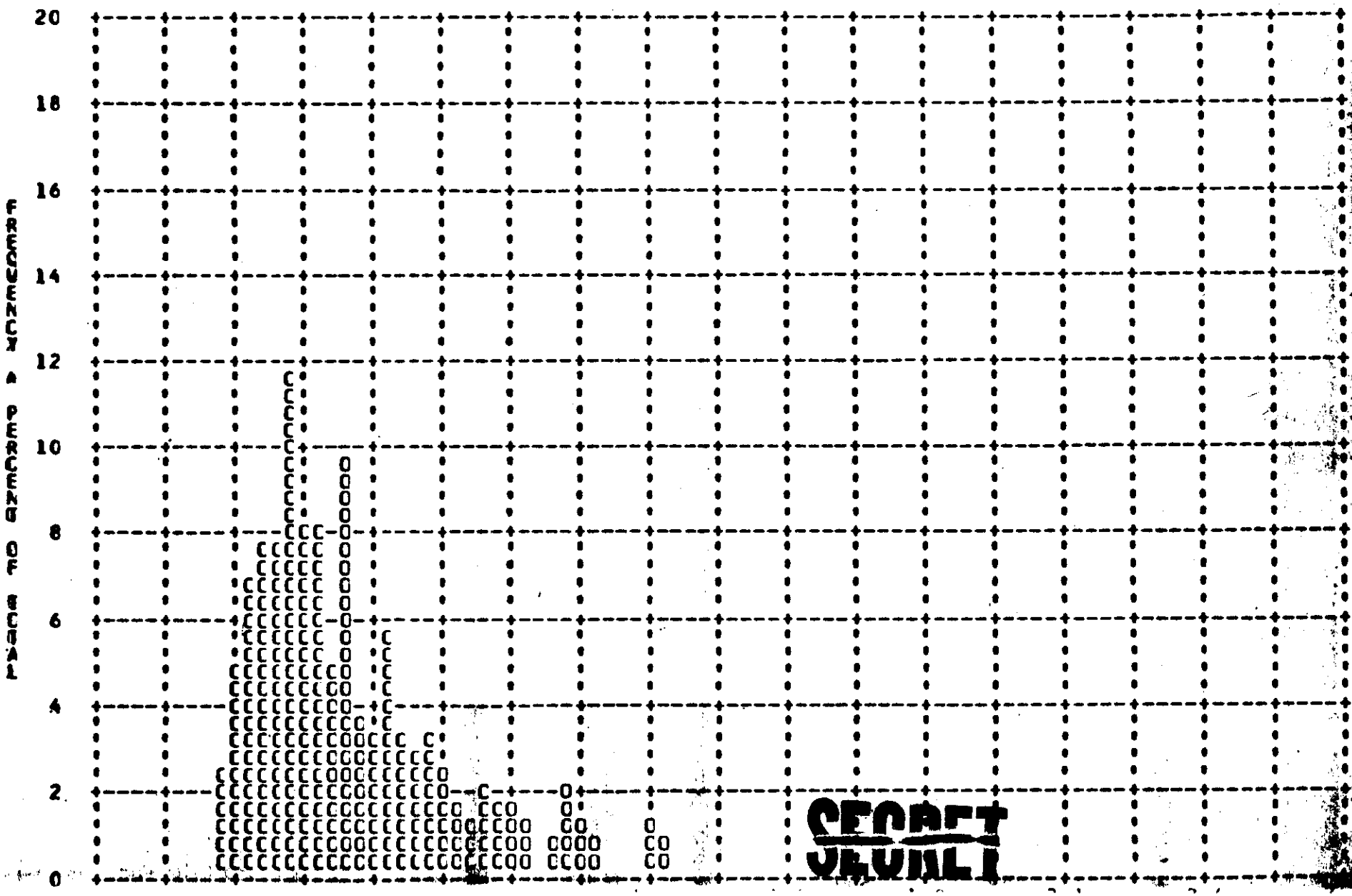


Figure 8-7

[redacted] [redacted]

MISSION • 1C07-1 • INSTR • FWD • 2-09-64 PLOT OF D MAX • TERRAIN • PROCESSING • ALL LEVELS

ARITH MEAN • 1.44 • MEDIAN • 1.40 • STD DEV • 0.33 • RANGE • 0.62 TO 2.20 WITH 249 SAMPLES

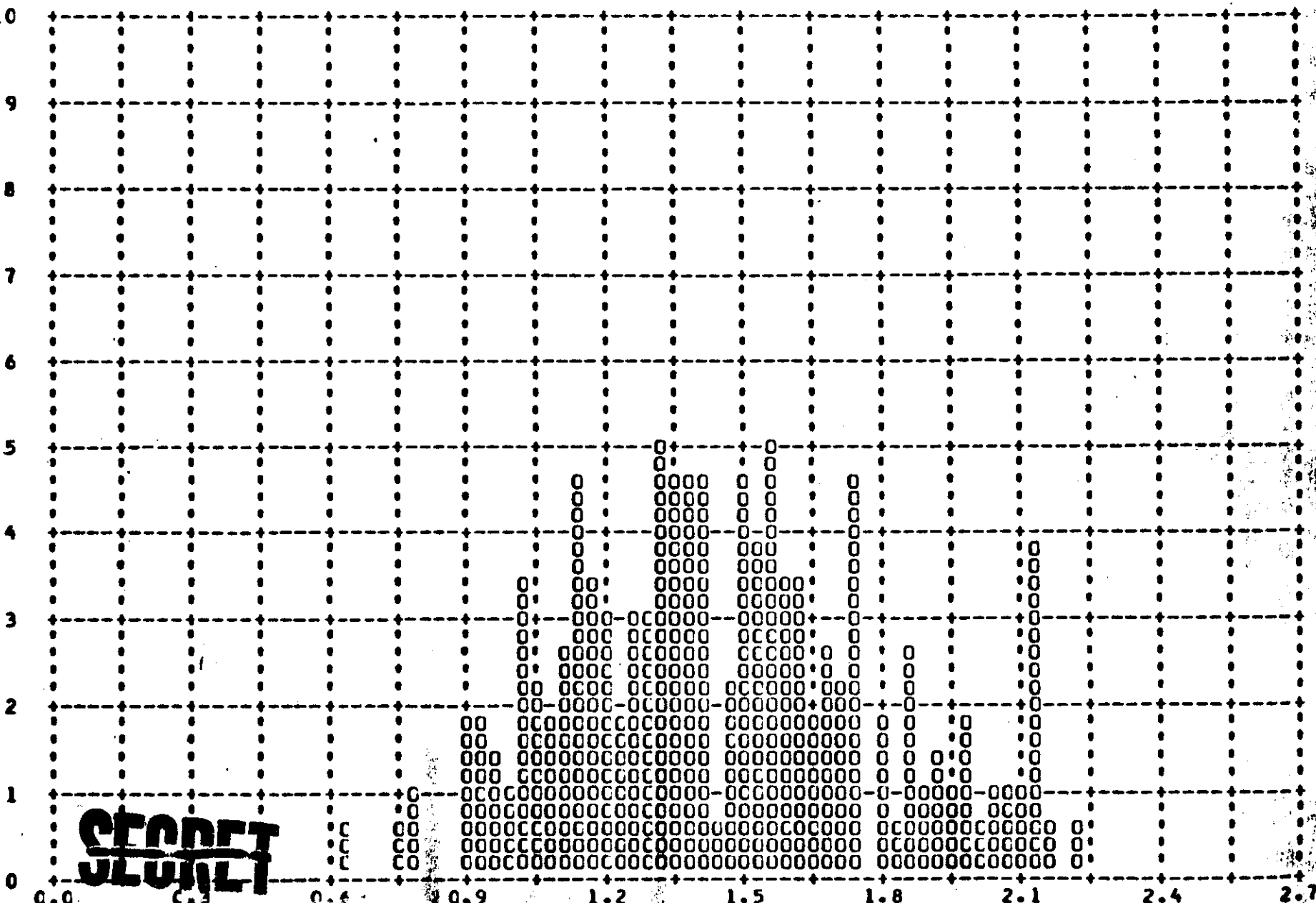


Figure 9-8

[redacted]

[redacted]

MISSION • 1C07-1 • INSTR • FWD • 2-09-64 PLOT OF D MAX • CLOUD • PROCESSING • ALL LEVELS

ARITH MEAN • 2.17 • MEDIAN • 2.21 • STD DEV • 0.15 • RANGE • 1.22 TO 2.36 WITH 248 SAMPLES

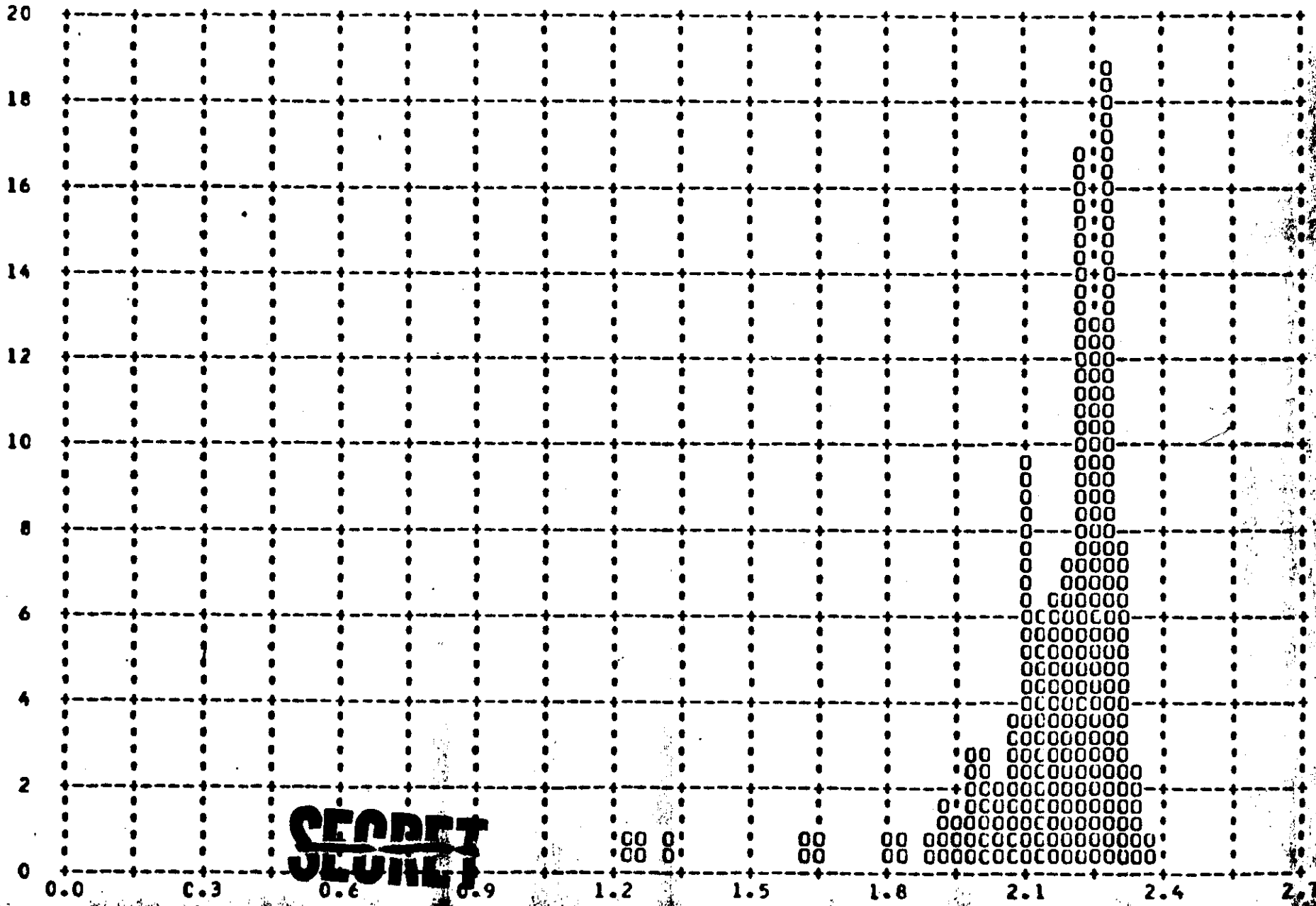


Figure 8-9

[redacted] [redacted] [redacted]

MISSION • 1007-1 • INSTRUMENT • AFT 2-09-64 DENSITY FREQ DISTR

DENSITY VALUE	PRIMARY MIN	PRIMARY MAX	PRIMARY LIM	INTERMEDIATE MIN	INTERMEDIATE MAX	INTERMEDIATE LIM	FULL MIN	FULL MAX	FULL LIM	ALL LEVELS MIN	ALL LEVELS MAX	ALL LEVELS LIM
C.C1	C	C	0	C	C	0	0	0	0	0	0	0
C.C2	C	C	0	C	C	0	0	0	0	0	0	0
C.C3	C	C	0	C	C	0	0	0	0	0	0	0
C.C4	C	C	0	C	C	0	0	0	0	0	0	0
C.C5	C	C	0	C	C	0	0	0	0	0	0	0
C.C6	C	C	0	C	C	0	0	0	0	0	0	0
C.C7	C	C	0	C	C	0	0	0	0	0	0	0
C.C8	C	C	0	C	C	0	0	0	0	0	0	0
C.C9	C	C	0	C	C	0	0	0	0	0	0	0
C.1C	C	C	0	C	C	0	0	0	0	0	0	0
C.11	C	C	0	C	C	0	0	0	0	0	0	0
C.12	C	C	0	C	C	0	0	0	0	0	0	0
C.13	C	C	0	C	C	0	0	0	0	0	0	0
C.14	C	C	0	C	C	0	0	0	0	0	0	0
C.15	C	C	0	C	C	0	0	0	0	0	0	0
C.16	C	C	0	C	C	0	0	0	0	0	0	0
C.17	C	C	0	C	C	0	0	0	0	0	0	0
C.18	C	C	0	C	C	0	0	0	0	0	0	0
C.19	C	C	0	C	C	0	0	0	0	0	0	0
C.20	C	C	0	C	C	0	0	0	0	0	0	0
C.21	C	C	0	C	C	0	0	0	0	0	0	0
C.22	C	C	0	C	C	0	0	0	0	0	0	0
C.23	C	C	0	C	C	0	0	0	0	0	0	0
C.24	C	C	0	C	C	0	0	0	0	0	0	0
C.25	C	C	0	C	C	0	0	0	0	0	0	0
C.26	C	C	0	1	C	0	0	0	0	1	0	0
C.27	C	C	0	C	C	0	0	0	0	0	0	0
C.28	C	C	0	1	C	0	0	0	0	1	0	0
C.29	C	C	0	2	C	0	0	0	0	2	0	0
C.3C	C	C	0	C	C	0	0	0	0	0	0	0
C.31	C	C	0	1	C	0	0	0	0	1	0	0
C.32	1	C	0	2	C	0	0	0	0	3	0	0
C.33	2	C	0	C	C	0	1	0	0	3	0	0
C.34	1	C	0	6	C	0	1	0	0	8	0	0
C.35	C	C	0	1	C	0	0	0	0	1	0	0
C.36	C	C	0	4	C	0	0	0	0	4	0	0
C.37	C	C	0	2	C	0	1	0	0	3	0	0
C.38	C	C	0	6	C	0	0	0	0	6	0	0
C.39	C	C	0	1	C	0	0	0	0	1	0	0
C.4C	C	C	0	9	C	0	0	0	0	9	0	0
C.41	1	C	0	C	C	0	1	0	0	2	0	0
C.42	C	C	0	7	C	0	0	0	0	7	0	0
C.43	C	C	0	2	C	0	1	0	0	3	0	0
C.44	1	C	0	8	C	0	3	0	0	12	0	0
C.45	1	C	0	4	C	0	3	0	0	4	0	0
C.46	C	C	0	4	C	0	2	0	0	6	0	0
C.47	C	C	0	3	C	0	0	0	0	3	0	0
C.48	C	C	0	7	C	0	1	0	0	8	0	0
C.49	C	C	0	3	C	0	1	0	0	4	0	0
C.5C	C	C	0	5	C	0	1	0	0	6	0	0
SUBTOTAL	6	C	0	79	0	0	13	0	0	98	0	0

[redacted] [redacted] [redacted]

Table 9-4

[redacted]

[redacted] [redacted] [redacted]

MISSION • 1C07-1 • INSTRUMENT • AFT 2-09-64 DENSITY FREQ DISTR

DENSITY VALUE	PRIMARY MIN	PRIMARY MAX	PRIMARY LIM	INTERMEDIATE MIN	INTERMEDIATE MAX	INTERMEDIATE LIM	FULL MIN	FULL MAX	FULL LIM	ALL LEVELS MIN	ALL LEVELS MAX	ALL LEVELS LIM
C.51	C	C	0	2	C	0	1	0	0	3	0	0
C.52	C	C	0	7	C	0	1	0	0	8	0	0
C.53	C	C	0	2	C	0	0	0	0	2	0	0
C.54	1	C	0	6	C	0	2	0	0	9	0	0
C.55	C	C	0	3	C	0	1	0	0	4	0	0
C.56	C	C	0	5	C	0	4	0	0	7	0	0
C.57	C	C	0	1	C	0	0	0	0	1	0	0
C.58	1	C	0	13	C	0	0	0	0	14	0	0
C.59	C	C	0	3	C	0	1	0	0	4	0	0
C.60	C	C	0	8	C	0	0	0	0	8	0	0
C.61	C	C	0	3	C	0	0	0	0	3	0	0
C.62	C	C	0	4	C	0	2	0	0	6	0	0
C.63	C	C	0	2	C	0	2	0	0	4	0	0
C.64	C	C	0	1	C	0	1	0	0	4	0	0
C.65	C	C	0	1	C	0	1	0	0	2	0	0
C.66	C	C	0	2	C	0	3	0	0	5	0	0
C.67	1	C	0	3	C	0	0	0	0	4	0	0
C.68	1	C	0	4	C	0	0	0	0	5	0	0
C.69	C	C	0	2	C	0	1	0	0	3	0	0
C.70	C	C	0	3	C	0	0	0	0	3	0	0
C.71	C	C	0	0	C	0	1	0	0	1	0	0
C.72	C	C	0	3	C	0	0	0	0	3	0	0
C.73	C	C	0	3	C	0	0	0	0	3	0	0
C.74	C	C	0	4	C	0	0	0	0	4	0	0
C.75	C	C	0	0	C	0	1	0	0	1	0	0
C.76	C	C	0	2	C	0	0	0	0	2	0	0
C.77	C	C	0	1	C	0	0	0	0	1	0	0
C.78	C	C	0	1	C	0	0	1	0	1	1	0
C.79	C	C	0	1	C	0	2	0	0	3	1	0
C.80	C	C	0	3	C	0	0	0	0	3	0	0
C.81	C	C	0	0	C	0	0	0	0	0	0	0
C.82	C	C	0	1	C	1	0	0	0	2	1	0
C.83	C	C	0	1	C	0	0	0	0	1	0	0
C.84	C	C	0	1	C	0	0	0	0	1	0	0
C.85	C	C	0	0	C	0	0	0	0	0	0	0
C.86	C	C	0	2	C	0	1	0	0	3	0	0
C.87	C	C	0	2	C	0	0	0	0	2	0	0
C.88	C	C	0	1	C	0	0	0	0	1	0	0
C.89	1	C	0	1	C	0	0	0	0	2	0	0
C.90	C	C	0	3	C	2	0	0	0	3	2	0
C.91	C	C	0	1	C	0	0	0	0	1	0	0
C.92	C	C	0	1	C	0	0	0	0	1	0	0
C.93	C	C	0	1	C	0	0	0	0	1	0	0
C.94	C	C	0	2	C	0	0	0	0	2	0	0
C.95	C	C	0	0	C	0	0	1	0	0	1	0
C.96	C	C	0	0	C	0	0	0	0	0	0	0
C.97	C	C	0	0	C	0	0	0	0	0	0	0
C.98	C	C	0	0	C	0	0	0	0	0	0	0
C.99	C	C	0	0	C	0	0	0	0	0	0	0
1.00	C	C	0	0	C	0	0	0	0	0	0	0
SUBTOTAL	7	C	0	102	7	0	27	2	0	136	9	0

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[redacted]

MISSION • 1007-1 • INSTRUMENT • AFT 2-09-64 DENSITY FREQ DISTR

DENSITY VALUE	PRIMARY MIN	PRIMARY MAX	PRIMARY LIM	INTERMEDIATE MIN	INTERMEDIATE MAX	INTERMEDIATE LIM	FULL MIN	FULL MAX	FULL LIM	ALL LEVELS MIN	ALL LEVELS MAX	ALL LEVELS LIM
1.01	0	0	0	1	0	0	0	0	0	1	0	0
1.02	0	0	0	0	1	0	0	0	0	0	2	0
1.03	0	0	0	2	1	0	0	0	0	2	2	0
1.04	0	0	0	0	1	0	0	0	0	0	1	0
1.05	0	0	0	0	0	0	0	0	0	0	0	0
1.06	0	0	0	0	0	0	0	0	0	0	0	0
1.07	0	0	0	0	0	0	0	0	0	0	0	0
1.08	0	0	0	0	0	0	0	0	0	0	0	0
1.09	0	0	0	0	0	0	0	0	0	0	0	0
1.10	1	0	0	0	0	0	0	0	0	1	0	0
1.11	0	1	0	0	0	0	0	0	0	0	1	0
1.12	0	0	0	1	0	0	0	0	0	1	0	0
1.13	0	0	0	0	0	0	0	0	0	0	0	0
1.14	0	0	0	0	0	0	0	0	0	0	0	0
1.15	0	0	0	0	0	0	0	0	0	0	0	0
1.16	0	0	0	1	0	0	0	0	0	1	0	0
1.17	0	0	0	0	0	0	0	0	0	0	0	0
1.18	0	0	0	0	0	0	0	0	0	0	0	0
1.19	0	0	0	0	0	0	0	0	0	0	0	0
1.20	0	0	0	2	0	0	0	0	0	2	0	0
1.21	0	0	0	0	0	0	0	0	0	0	0	0
1.22	0	0	0	0	0	0	0	0	0	0	0	0
1.23	0	0	0	0	0	0	0	0	0	0	0	0
1.24	0	0	0	0	0	0	0	0	0	0	0	0
1.25	0	0	0	0	0	0	0	0	0	0	0	0
1.26	0	0	0	0	0	0	0	0	0	0	0	0
1.27	0	0	0	0	0	0	0	0	0	0	0	0
1.28	0	0	0	0	0	0	0	0	0	0	0	0
1.29	0	0	0	0	0	0	0	0	0	0	0	0
1.30	0	0	0	0	0	0	0	0	0	0	0	0
1.31	0	0	0	0	0	0	0	0	0	0	0	0
1.32	0	0	0	0	0	0	0	0	0	0	0	0
1.33	0	0	0	0	0	0	0	0	0	0	0	0
1.34	0	0	0	0	0	0	0	0	0	0	0	0
1.35	0	0	0	0	0	0	0	0	0	0	0	0
1.36	0	0	0	0	0	0	0	0	0	0	0	0
1.37	0	0	0	0	0	0	0	0	0	0	0	0
1.38	0	0	0	0	0	0	0	0	0	0	0	0
1.39	0	0	0	0	0	0	0	0	0	0	0	0
1.40	0	0	0	0	0	0	0	0	0	0	0	0
1.41	0	0	0	0	0	0	0	0	0	0	0	0
1.42	0	0	0	0	0	0	0	0	0	0	0	0
1.43	0	0	0	0	0	0	0	0	0	0	0	0
1.44	0	0	0	0	0	0	0	0	0	0	0	0
1.45	0	0	0	0	0	0	0	0	0	0	0	0
1.46	0	0	0	0	0	0	0	0	0	0	0	0
1.47	0	0	0	0	0	0	0	0	0	0	0	0
1.48	0	0	0	0	0	0	0	0	0	0	0	0
1.49	0	0	0	0	0	0	0	0	0	0	0	0
1.50	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	1	0	0	7	81	0	0	17	0	8	106	0

[redacted]

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[redacted] [redacted] [redacted]

MISSION • 1007-1 • INSTRUMENT • AFT 2-09-64 DENSITY FREQ DISTR

DENSITY VALUE	PRIMARY MIN	PRIMARY MAX	PRIMARY LIM	INTERMEDIATE MIN	INTERMEDIATE MAX	INTERMEDIATE LIM	FULL MIN	FULL MAX	FULL LIM	ALL LEVELS MIN	ALL LEVELS MAX	ALL LEVELS LIM
1.51	0	0	0	0	1	0	0	0	0	0	1	0
1.52	0	0	0	0	5	0	0	2	0	0	7	0
1.53	0	0	0	0	0	0	0	0	1	0	0	1
1.54	0	0	0	0	5	0	0	3	1	0	8	1
1.55	0	0	0	0	2	0	0	0	1	0	2	1
1.56	0	0	0	0	2	0	0	1	0	0	3	0
1.57	0	0	0	0	2	0	0	1	0	0	3	0
1.58	0	0	0	0	4	0	0	1	0	0	4	0
1.59	0	0	0	0	0	0	0	0	0	0	0	0
1.60	0	0	0	0	5	0	0	0	0	0	5	0
1.61	0	0	0	0	1	0	0	0	0	0	1	0
1.62	0	0	0	0	6	0	0	0	0	0	6	0
1.63	0	0	0	0	2	0	0	0	0	0	2	0
1.64	0	0	0	0	4	0	0	0	0	0	5	0
1.65	0	0	0	0	1	0	0	0	0	0	1	0
1.66	0	0	0	0	5	0	0	0	0	0	7	0
1.67	0	0	0	0	0	0	0	0	0	0	0	0
1.68	0	0	0	0	5	0	0	0	0	0	6	0
1.69	0	0	0	0	0	0	0	0	0	0	0	0
1.70	0	0	0	0	3	0	0	0	0	0	4	0
1.71	0	0	0	0	1	0	0	0	0	0	0	0
1.72	0	0	0	0	7	0	0	0	0	0	9	0
1.73	0	0	0	0	0	0	0	0	0	0	0	0
1.74	0	0	0	0	0	0	0	0	0	0	0	0
1.75	0	0	0	0	0	0	0	0	0	0	0	0
1.76	0	0	0	0	0	0	0	0	0	0	0	0
1.77	0	0	0	0	0	0	0	0	0	0	0	0
1.78	0	0	0	0	5	0	0	0	0	0	0	0
1.79	0	0	0	0	0	0	0	0	0	0	0	0
1.80	0	0	0	0	2	0	0	0	0	0	0	0
1.81	0	0	0	0	0	0	0	0	0	0	0	0
1.82	0	0	0	0	1	0	0	0	0	0	0	0
1.83	0	0	0	0	1	0	0	0	0	0	0	0
1.84	0	0	0	0	1	0	0	0	0	0	0	0
1.85	0	0	0	0	0	0	0	0	0	0	0	0
1.86	0	0	0	0	2	0	0	0	0	0	0	0
1.87	0	0	0	0	1	0	0	0	0	0	0	0
1.88	0	0	0	0	2	0	0	0	0	0	0	0
1.89	0	0	0	0	2	0	0	0	0	0	0	0
1.90	0	0	0	0	1	0	0	0	0	0	0	0
1.91	0	0	0	0	1	0	0	0	0	0	0	0
1.92	0	0	0	0	0	0	0	0	0	0	0	0
1.93	0	0	0	0	1	0	0	0	0	0	0	0
1.94	0	0	0	0	1	0	0	0	0	0	0	0
1.95	0	0	0	0	1	0	0	0	0	0	0	0
1.96	0	0	0	0	0	0	0	0	0	0	0	0
1.97	0	0	0	0	0	0	0	0	0	0	0	0
1.98	0	0	0	0	0	0	0	0	0	0	0	0
1.99	0	0	0	0	0	0	0	0	0	0	0	0
2.00	0	0	1	0	1	2	0	0	0	0	1	3
SUBTOTAL	1	5	7	0	85	10	0	20	2	1	110	19

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MISSION • 1C07-1 • INSTRUMENT • AFT 2-09-64 DENSITY FREQ DISTR

DENSITY VALUE	PRIMARY MIN	PRIMARY MAX	PRIMARY LIM	INTERMEDIATE MIN	INTERMEDIATE MAX	INTERMEDIATE LIM	FULL MIN	FULL MAX	FULL LIM	ALL LEVELS MIN	ALL LEVELS MAX	ALL LEVELS LIM
2.01	0	0	1	0	0	0	0	0	1	0	0	2
2.02	0	0	1	0	0	1	0	0	1	0	0	1
2.03	0	0	1	0	0	4	0	0	1	0	0	1
2.04	0	0	1	0	0	2	0	0	1	0	0	1
2.05	0	0	1	0	0	0	0	0	1	0	0	1
2.06	0	0	1	0	0	2	0	0	1	0	0	1
2.07	0	0	1	0	0	0	0	0	1	0	0	1
2.08	0	0	1	0	0	1	0	0	1	0	0	1
2.09	0	0	1	0	0	1	0	0	1	0	0	1
2.10	0	0	1	0	0	1	0	0	1	0	0	1
2.11	0	0	1	0	0	1	0	0	1	0	0	1
2.12	0	0	1	0	0	2	0	0	1	0	0	1
2.13	0	0	1	0	0	0	0	0	1	0	0	1
2.14	0	0	1	0	0	4	0	0	1	0	0	1
2.15	0	0	1	0	0	0	0	0	1	0	0	1
2.16	0	0	1	0	0	6	0	0	1	0	0	1
2.17	0	0	1	0	0	0	0	0	1	0	0	1
2.18	0	0	1	0	0	9	0	0	1	0	0	1
2.19	0	0	1	0	0	1	0	0	1	0	0	1
2.20	0	0	1	0	0	13	0	0	1	0	0	1
2.21	0	0	1	0	0	7	0	0	1	0	0	1
2.22	0	0	1	0	0	20	0	0	1	0	0	1
2.23	0	0	1	0	0	3	0	0	1	0	0	1
2.24	0	0	1	0	0	19	0	0	1	0	0	1
2.25	0	0	1	0	0	4	0	0	1	0	0	1
2.26	0	0	1	0	0	11	0	0	1	0	0	1
2.27	0	0	1	0	0	2	0	0	1	0	0	1
2.28	0	0	1	0	0	20	0	0	1	0	0	1
2.29	0	0	1	0	0	4	0	0	1	0	0	1
2.30	0	0	1	0	0	13	0	0	1	0	0	1
2.31	0	0	1	0	0	3	0	0	1	0	0	1
2.32	0	0	1	0	0	12	0	0	1	0	0	1
2.33	0	0	1	0	0	6	0	0	1	0	0	1
2.34	0	0	1	0	0	0	0	0	1	0	0	1
2.35	0	0	1	0	0	3	0	0	1	0	0	1
2.36	0	0	1	0	0	0	0	0	1	0	0	1
2.37	0	0	1	0	0	2	0	0	1	0	0	1
2.38	0	0	1	0	0	0	0	0	1	0	0	1
2.39	0	0	1	0	0	0	0	0	1	0	0	1
2.40	0	0	1	0	0	0	0	0	1	0	0	1
2.41	0	0	1	0	0	0	0	0	1	0	0	1
2.42	0	0	1	0	0	0	0	0	1	0	0	1
2.43	0	0	1	0	0	0	0	0	1	0	0	1
2.44	0	0	1	0	0	0	0	0	1	0	0	1
2.45	0	0	1	0	0	0	0	0	1	0	0	1
2.46	0	0	1	0	0	0	0	0	1	0	0	1
2.47	0	0	1	0	0	0	0	0	1	0	0	1
2.48	0	0	1	0	0	0	0	0	1	0	0	1
2.49	0	0	1	0	0	0	0	0	1	0	0	1
2.50	0	0	1	0	0	0	0	0	1	0	0	1
SUBTOTAL	0	2	9	0	15	182	0	1	30	0	18	221

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MISSION * 1C07-1 * INSTRUMENT * AFT 2-09-64 DENSITY FREQ DISTR

DENSITY VALUE	PRIMARY MIN	PRIMARY MAX	PRIMARY LIM	INTERMEDIATE MIN	INTERMEDIATE MAX	INTERMEDIATE LIM	FULL MIN	FULL MAX	FULL LIM	ALL LEVELS MIN	ALL LEVELS MAX	ALL LEVELS LIM
2.51	C	C	0	C	C	0	0	0	0	0	0	0
2.52	C	C	0	C	C	0	0	0	0	0	0	0
2.53	C	C	0	C	C	0	0	0	0	0	0	0
2.54	C	C	0	C	C	0	0	0	0	0	0	0
2.55	C	C	0	C	C	0	0	0	0	0	0	0
2.56	C	C	0	C	C	0	0	0	0	0	0	0
2.57	C	C	0	C	C	0	0	0	0	0	0	0
2.58	C	C	0	C	C	0	0	0	0	0	0	0
2.59	C	C	0	C	C	0	0	0	0	0	0	0
2.60	C	C	0	C	C	0	0	0	0	0	0	0
2.61	C	C	0	C	C	0	0	0	0	0	0	0
2.62	C	C	0	C	C	0	0	0	0	0	0	0
2.63	C	C	0	C	C	0	0	0	0	0	0	0
2.64	C	C	0	C	C	0	0	0	0	0	0	0
2.65	C	C	0	C	C	0	0	0	0	0	0	0
2.66	C	C	0	C	C	0	0	0	0	0	0	0
2.67	C	C	0	C	C	0	0	0	0	0	0	0
2.68	C	C	0	C	C	0	0	0	0	0	0	0
2.69	C	C	0	C	C	0	0	0	0	0	0	0
2.7C	C	C	0	C	C	0	0	0	0	0	0	0
SUBTOTAL	C	C	0	C	C	0	0	0	0	0	0	0
TOTAL	15	15	16	188	188	192	40	40	32	243	243	240

MISSION 1C07-1 INSTR - AFT 2-09-64 PROCESSING AND EXPOSURE ANAL

PROCESS LEVEL	SAMPLE SIZE	UNDER EXPOSED	UNDER PROCESSED	CORRECT EXP+PROC	OVER PROCESSED	OVE EXPOSE
PRIMARY	15	C PC	27 PC	60 PC	0 PC	13 P
INTERMEDIATE	188	C PC	14 PC	79 PC	6 PC	0 P
FULL	4C	7 PC	0 PC	90 PC	2 PC	0 P
ALL LEVELS	243	1 PC	13 PC	80 PC	5 PC	1 P

PROCESS LEVEL	BASE + FOG	UNDER EXPOSED	UNDER PROCESSED	CORRECT EXP+PROC	OVER PROCESSED	OVE EXPOSE
PRIMARY	C.C1-C.19	C.01-C.13	0.14-0.39	0.40-0.90	----------	0.91 AND
INTERMED	C.1C-C.17	C.01-C.2C	0.21-0.39	0.4C-0.90	0.91-1.34	1.35 AND
FULL	C.18 AND UP	C.01-C.39	----------	0.40-0.90	0.91-1.69	1.70 AND

[redacted] [redacted] [redacted]

[redacted]

[redacted]

MISSION • 1007-1 • INSTR • AFT • 2-09-64 PLOT OF 0 MIN • TERRAIN • PROCESSING • PRIMARY

ARITH MEAN • C.64 • MEDIAN • C.58 • STD DEV • 0.38 • RANGE • 0.32 TO 1.76 WITH 15 SAMPLES

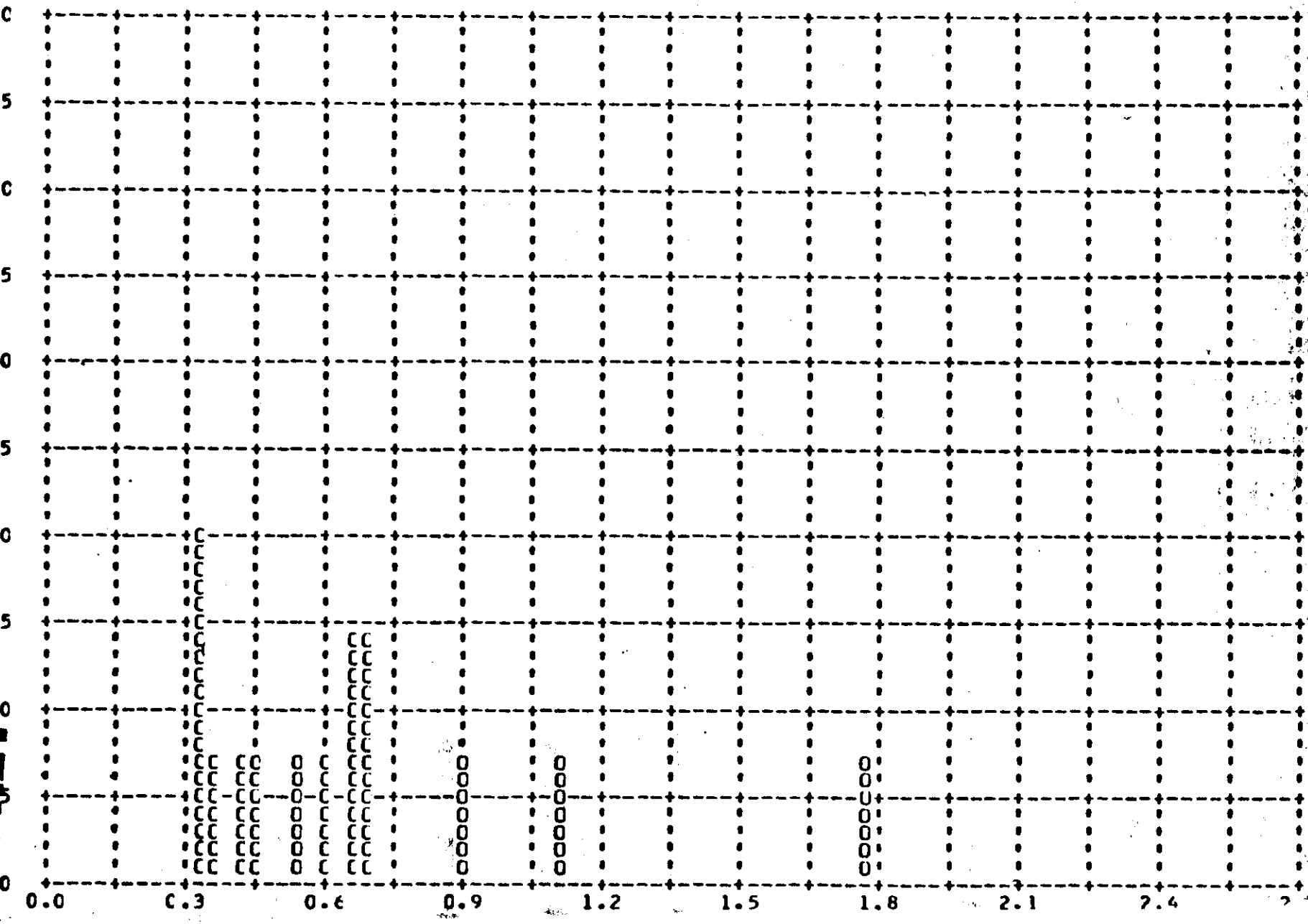


Figure 9-10

[redacted]

[redacted]

MISSION • 1C07-1 • INSTR • AFT • 2-09-64 PLOT OF D MAX • TERRAIN • PROCESSING • PRIMARY

ARITH MEAN • 1.55 • MEDIAN • 1.42 • STD DEV • 0.34 • RANGE • 1.03 TO 2.06 WITH 15 SAMPLES

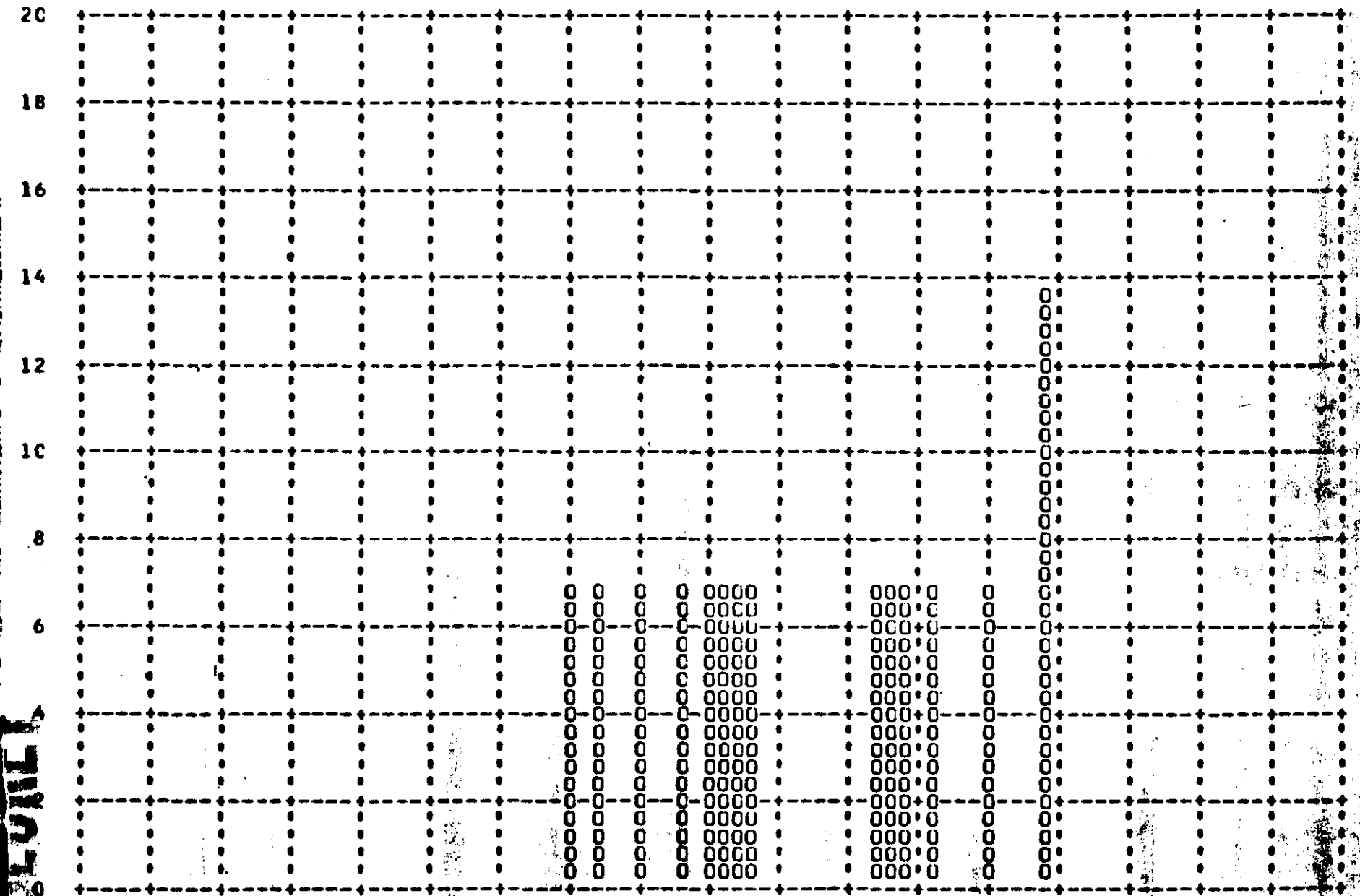


Figure 9-11

99

[redacted]

[redacted]

MISSION • 1C07-1 • INSTR • AFT • 2-09-64 PLOT OF D MAX • CLOUD • PROCESSING • PRIMARY

ARITH MEAN • 2.C2 • MEDIAN • 2.03 • STD DEV • 0.14 • RANGE • 1.74 TO 2.24 WITH 16 SAMPLES

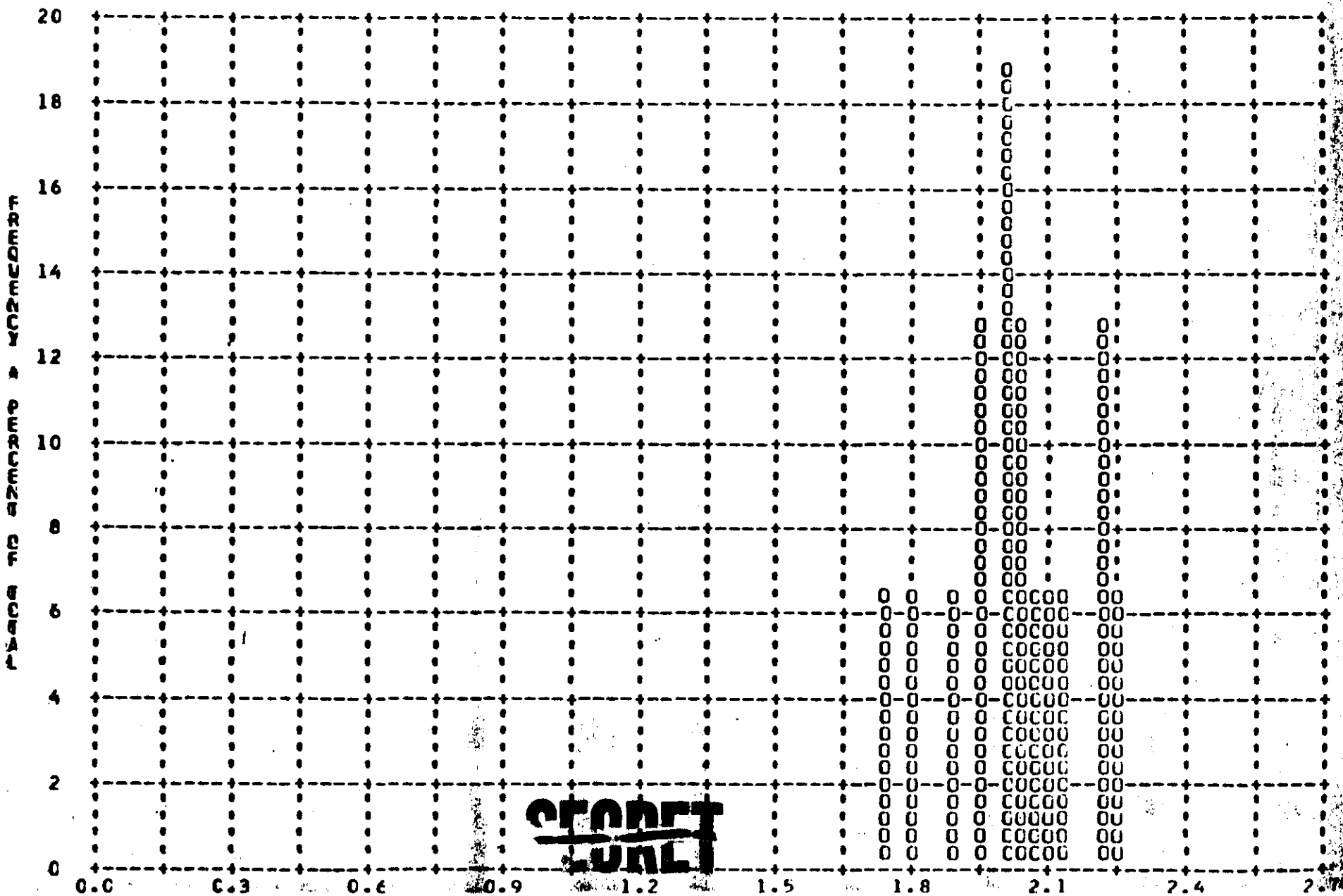


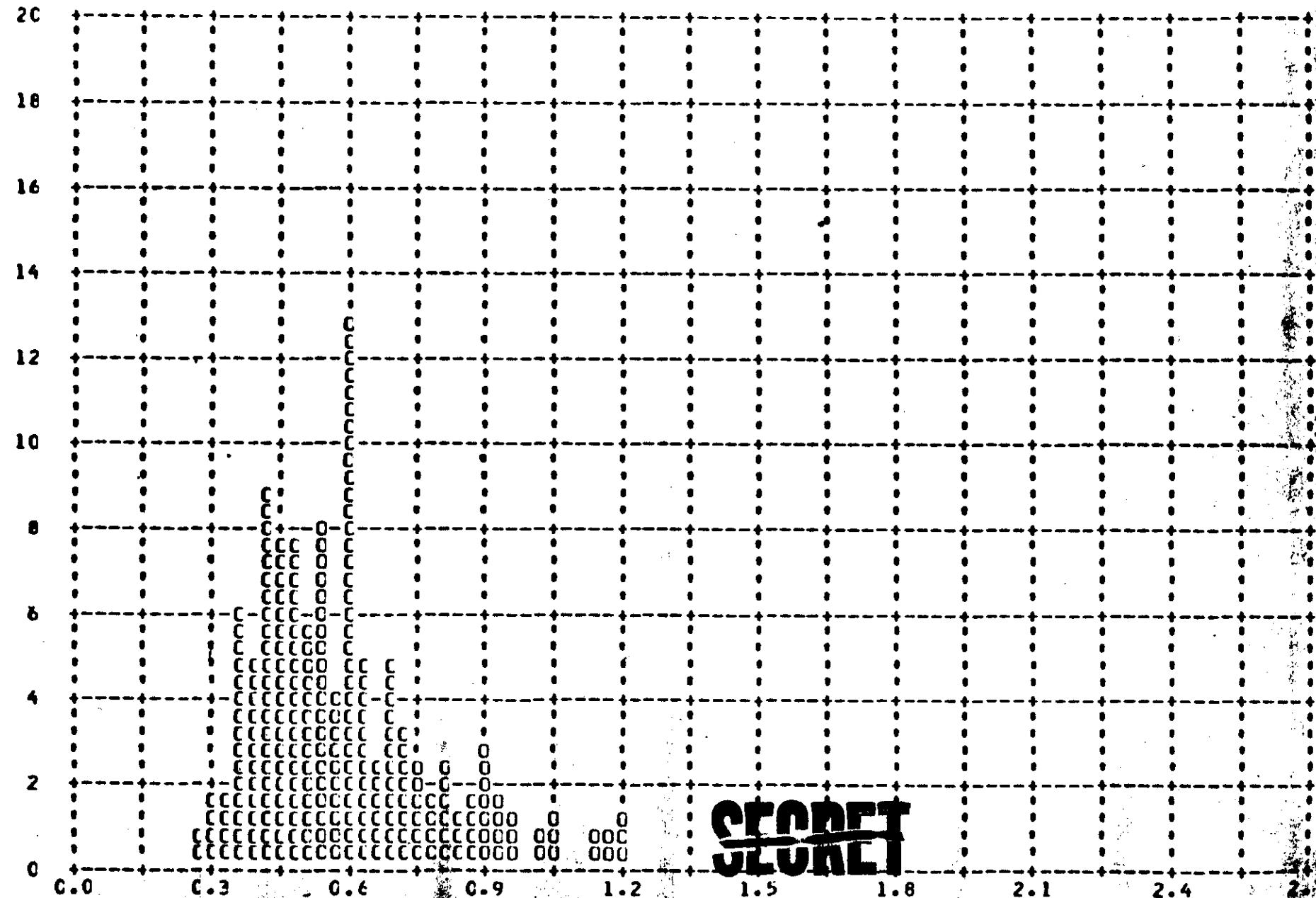
Figure 9-12

SECRET

[redacted] [redacted]

MISSION • 1CC7-1 • INSTR • AFT • 2-09-64 PLOT OF D MIN • TERRAIN • PROCESSING • INTERMEDIATE

ARITH MEAN • C.57 • MEDIAN • C.54 • STD DEV • 0.19 • RANGE • 0.26 TO 1.20 WITH 188 SAMPLES



SECRET

Figure 9-13

[redacted]

[redacted]

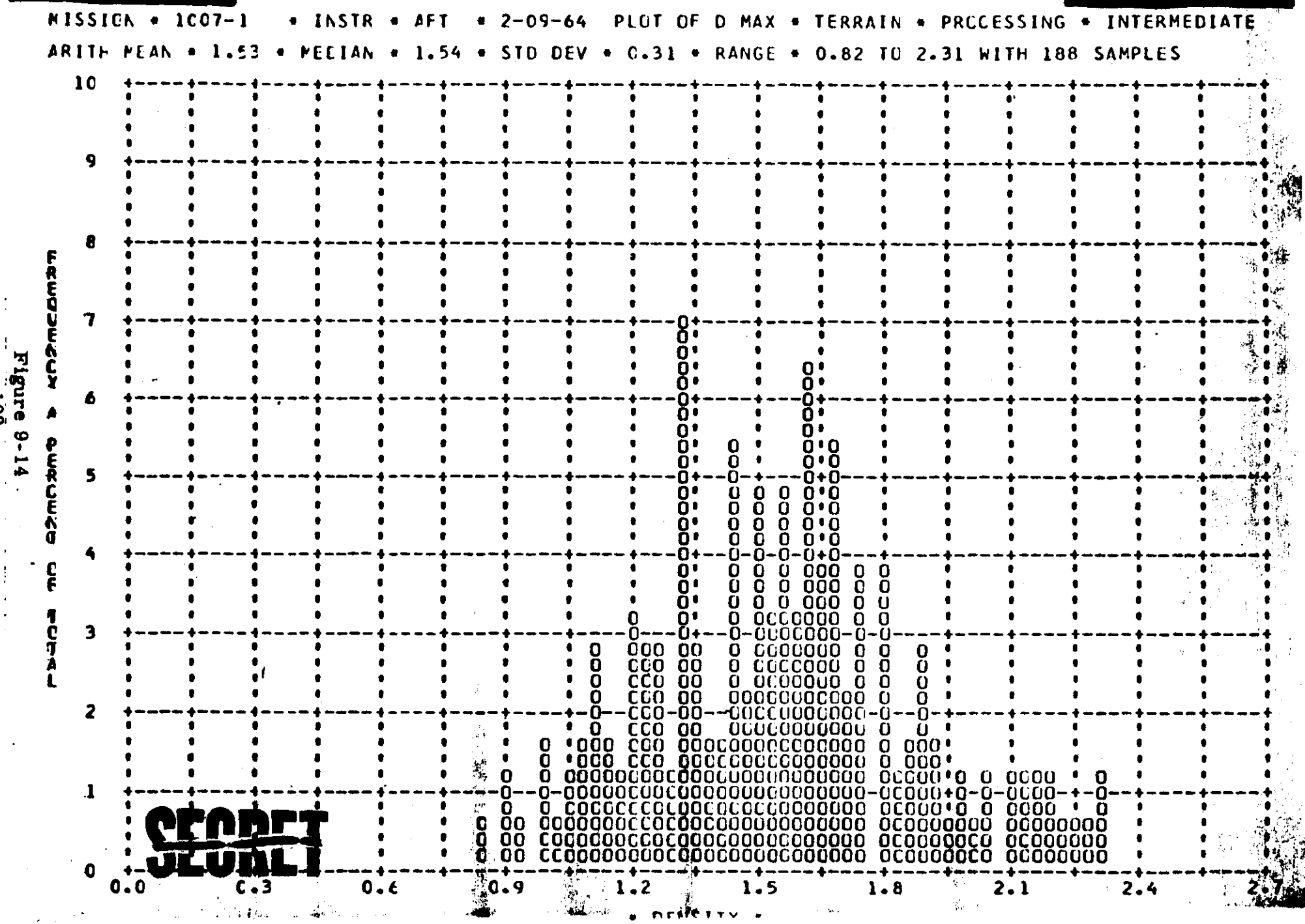


Figure 9-14

[redacted]

[redacted]

MISSION • 1C07-1 • INSTR • AFT • 2-09-64 PLOT OF D MAX • CLOUD • PROCESSING • INTERMEDIATE

ARITH MEAN • 2.22 • MEDIAN • 2.24 • STD DEV • 0.10 • RANGE • 1.80 TO 2.38 WITH 192 SAMPLES

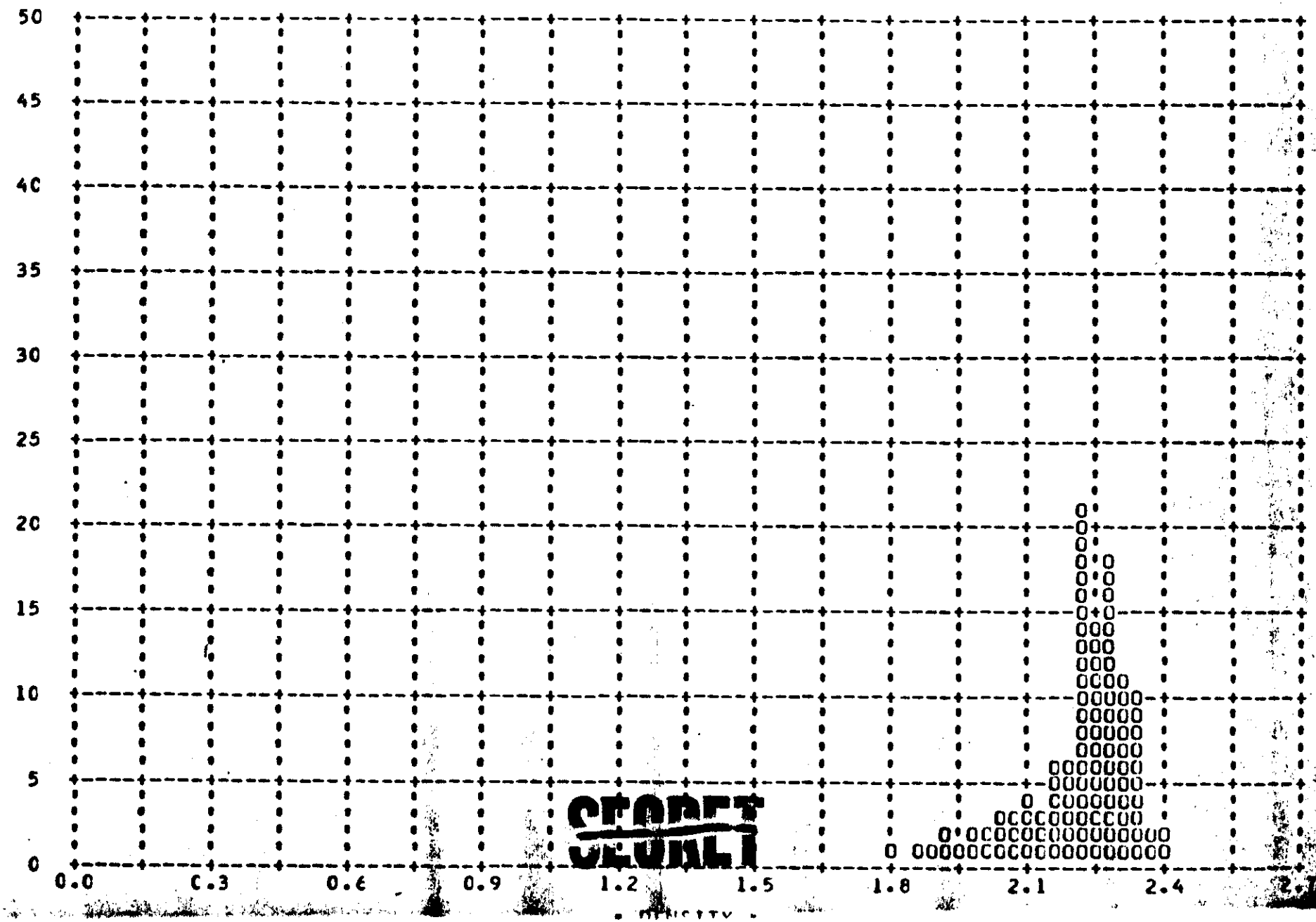


Figure 9-15

[redacted]

[redacted]

MISSION • 1CO7-1 • INSTR • AFT • 2-09-64 PLOT OF D MIN • TERRAIN • PROCESSING • FULL

ARITH MEAN • 0.58 • MEDIAN • 0.56 • STD DEV • 0.14 • RANGE • 0.33 TO 0.92 WITH 40 SAMPLES

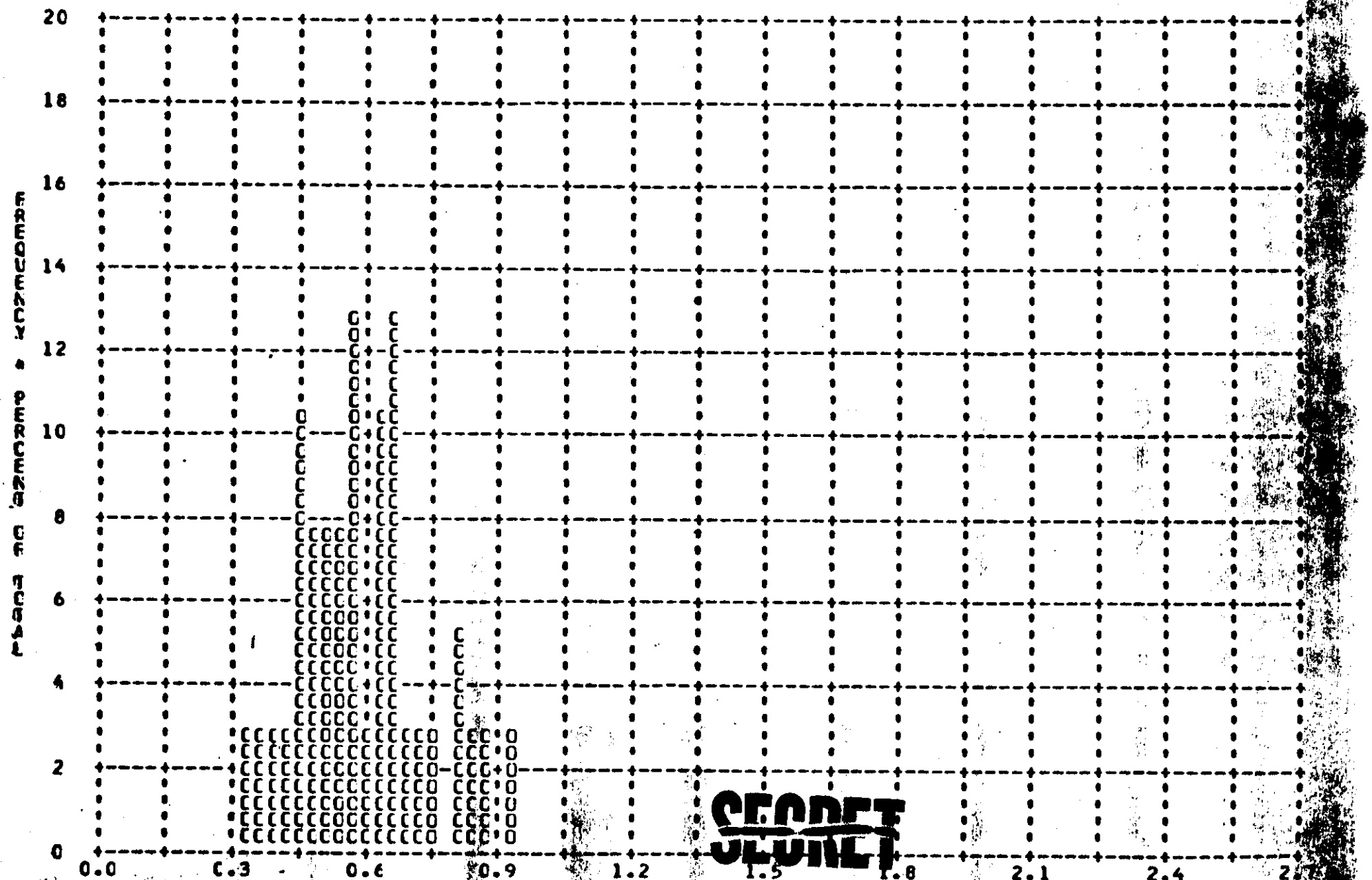


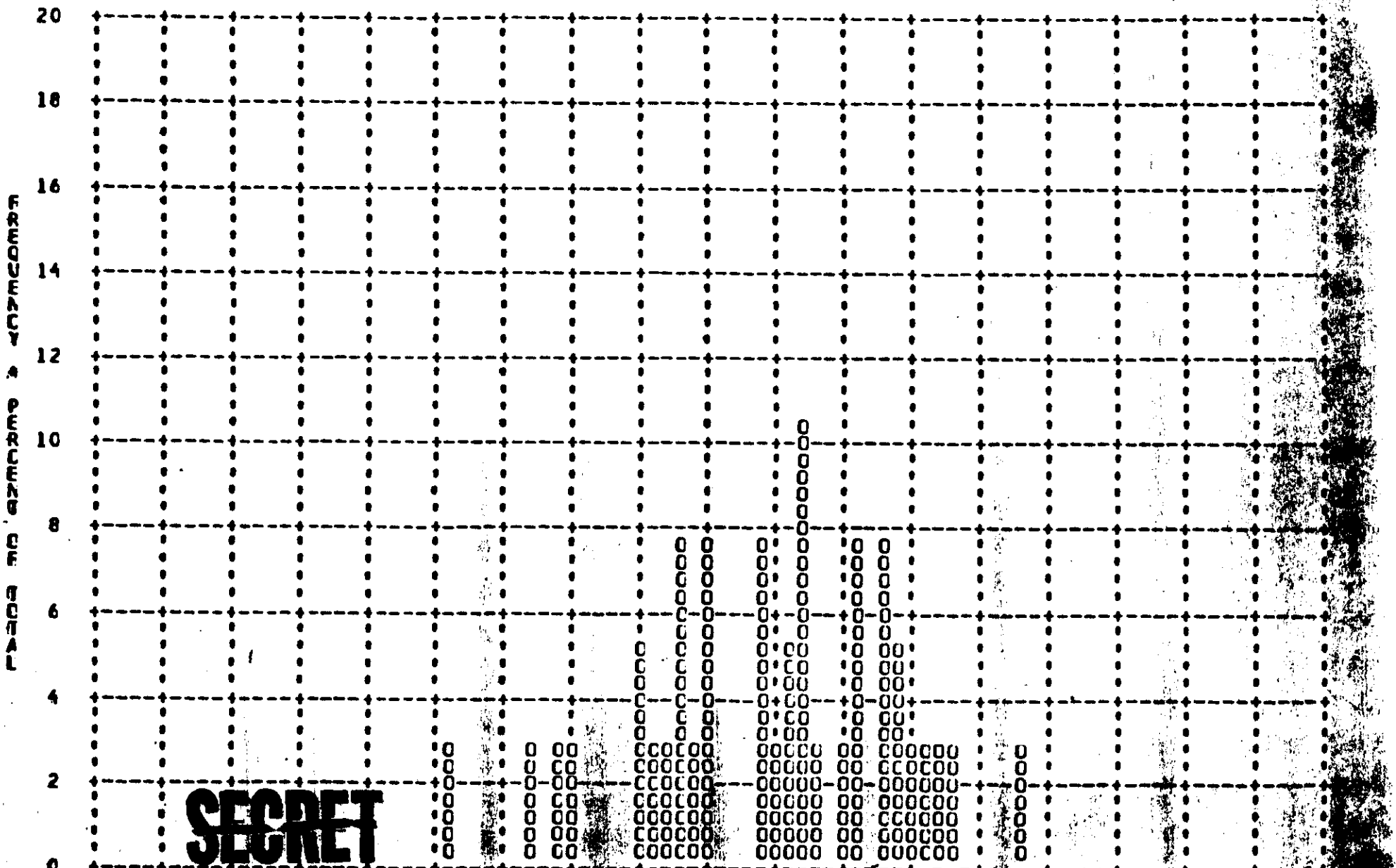
Figure 8-16

[redacted]

[redacted]

MISSION • 1CC7-1 • INSTR • AFT • 2-09-64 PLOT OF D MAX • TERRAIN • PROCESSING • FULL

ARITH MEAN • 1.48 • MEDIAN • 1.52 • STD DEV • 0.28 • RANGE • 0.78 TO 2.03 WITH 40 SAMPLES



SECRET

Figure 9-17

[redacted] [redacted]

MISSION • 1007-1 • INSTR • AFT • 2-09-64 PLOT OF D MAX • CLOUD • PROCESSING • FULL

ARITH MEAN • 2.23 • MEDIAN • 2.28 • STD DEV • 0.17 • RANGE • 1.54 TO 2.39 WITH 32 SAMPLES

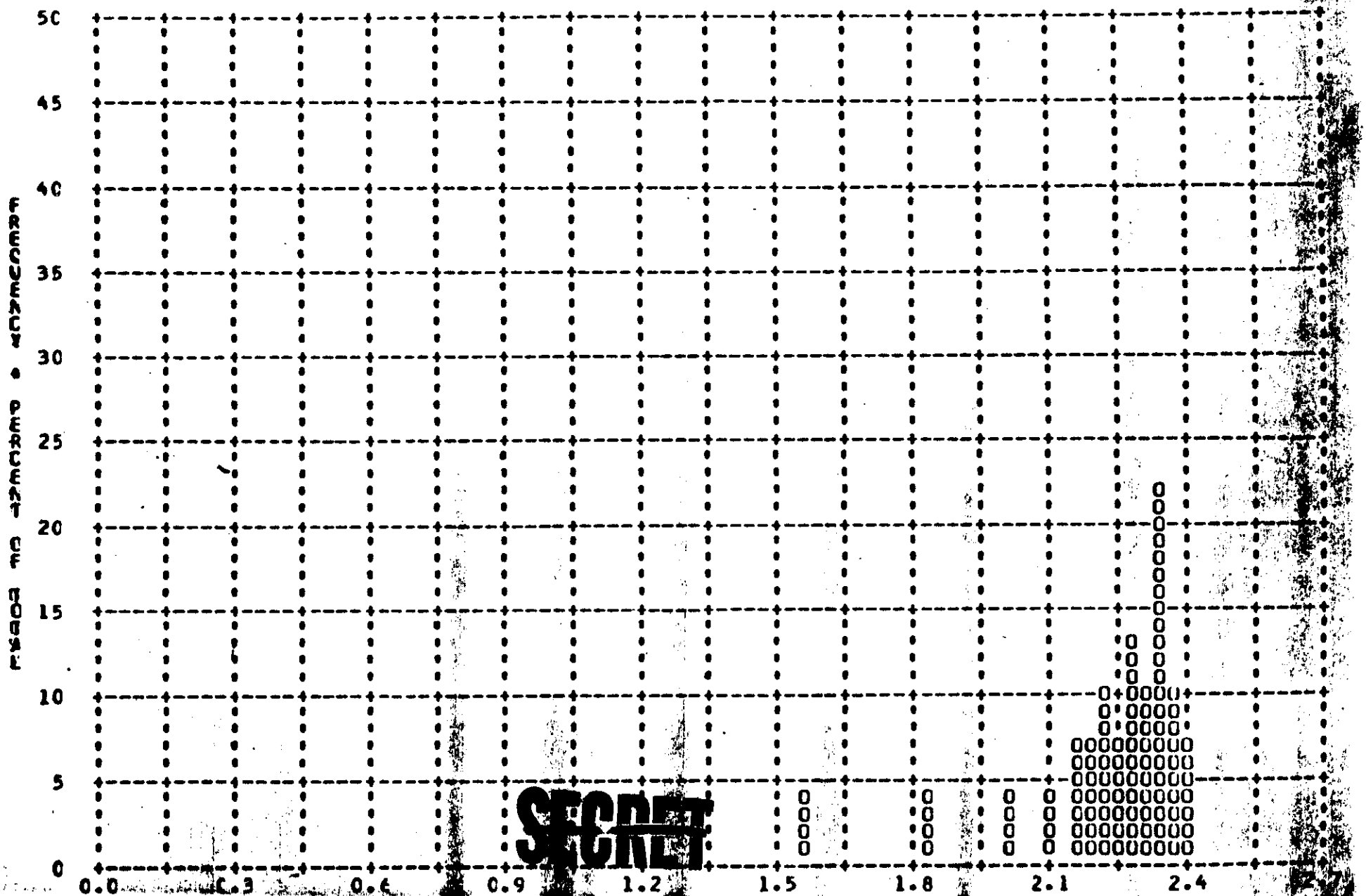


Figure 9-18

[redacted] [redacted]

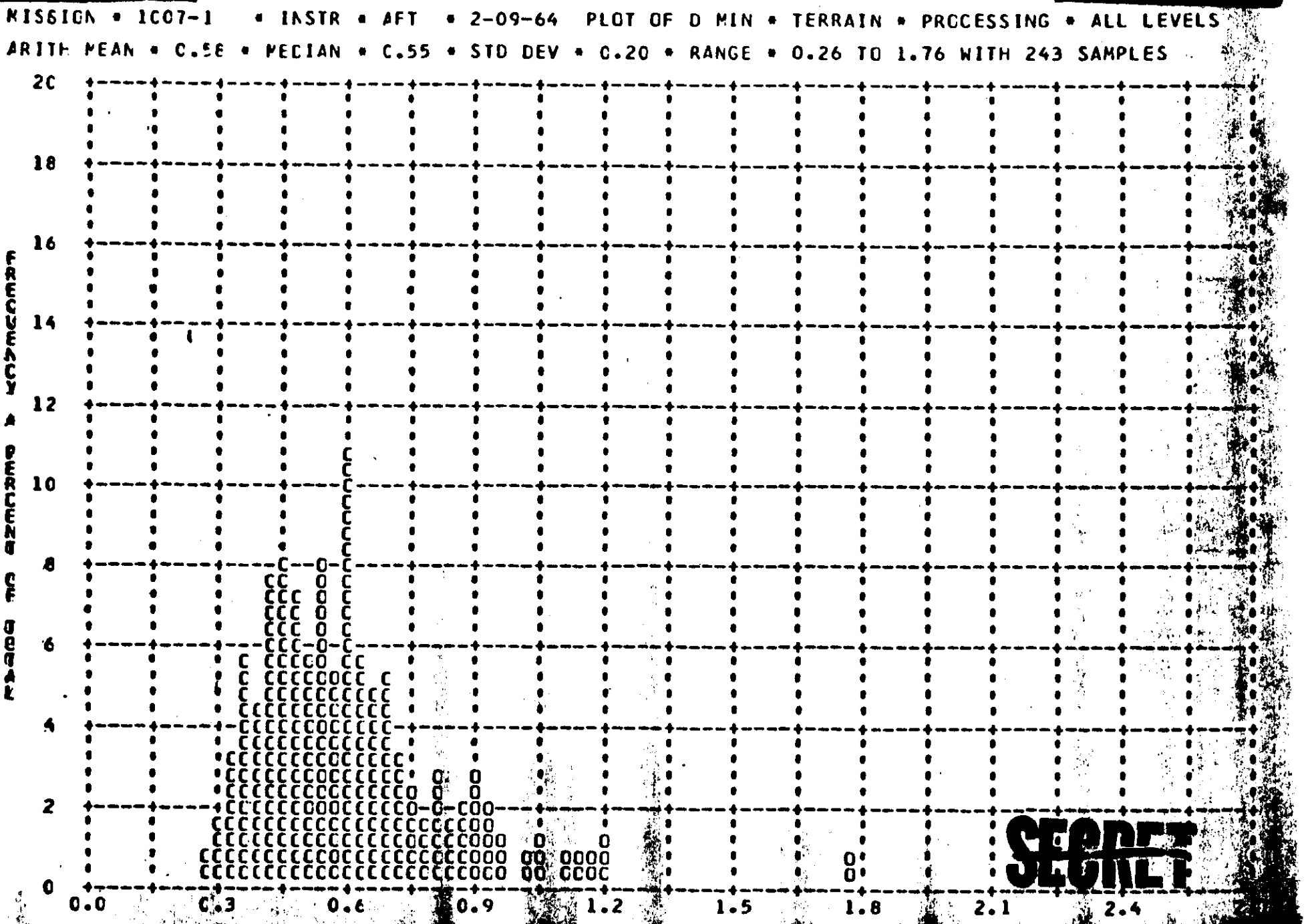


Figure 9-18

[redacted]

[redacted]

MISSION • 1007-1 • INSTR • AFT • 2-09-64 PLOT OF D MAX • TERRAIN • PROCESSING • ALL LEVELS

ARITH MEAN • 1.52 • MEDIAN • 1.52 • STD DEV • 0.31 • RANGE • 0.78 TO 2.31 WITH 243 SAMPLES

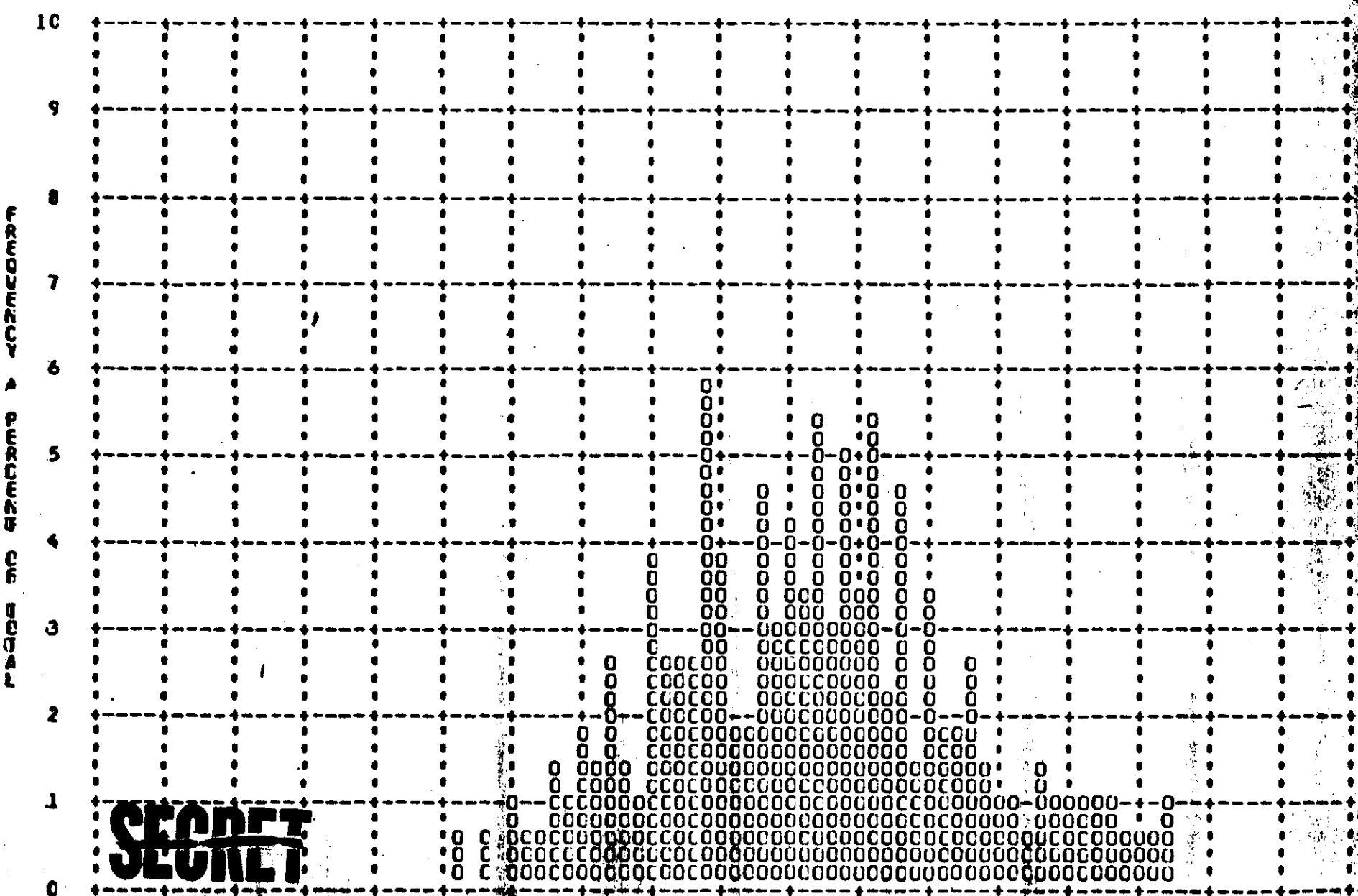


Figure 9-20

[redacted]

[redacted]

MISSION • 1C07-1 • INSTR • AFT • 2-09-64 PLOT OF D MAX • CLOUD • PROCESSING • ALL LEVELS

ARITH MEAN • 2.2C • MEDIAN • 2.24 • STD DEV • 0.13 • RANGE • 1.54 TO 2.39 WITH 240 SAMPLES

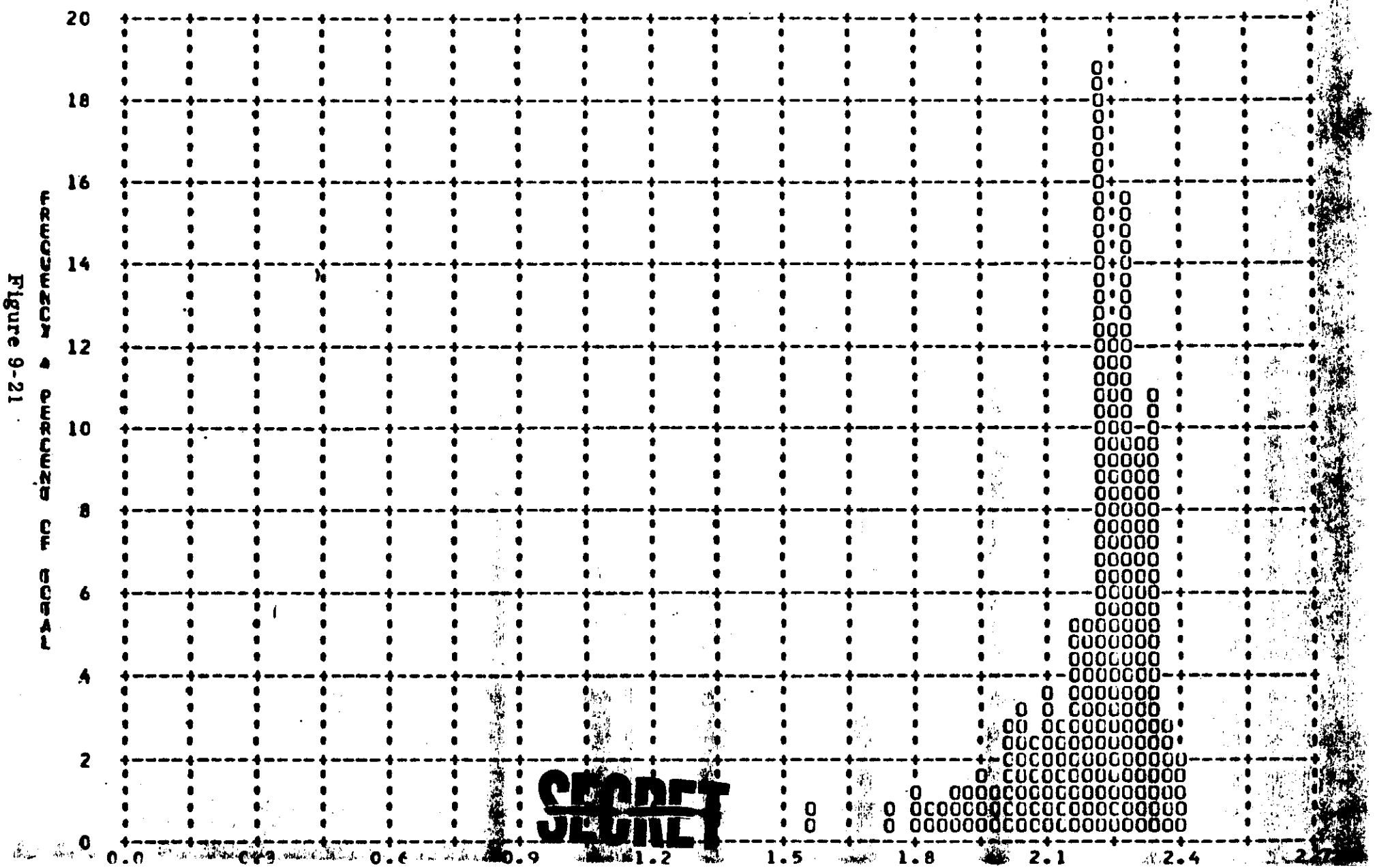


Figure 6-21

[redacted] [redacted] [redacted]

MISSION = 1007-2 * INSTRUMENT * FWD 2-09-64 DENSITY FREQ DISTR

DENSITY VALUE	PRIMARY MIN	PRIMARY MAX	PRIMARY LIM	INTERMEDIATE MIN	INTERMEDIATE MAX	INTERMEDIATE LIM	FULL MIN	FULL MAX	FULL LIM	ALL LEVELS MIN	ALL LEVELS MAX	ALL LEVELS LIM
C.C1	C	C	0	C	0	0	0	0	0	0	0	0
C.C2	C	C	0	C	0	0	0	0	0	0	0	0
C.C3	C	C	0	C	0	0	0	0	0	0	0	0
C.C4	C	C	0	C	0	0	0	0	0	0	0	0
C.C5	C	C	0	C	0	0	0	0	0	0	0	0
C.C6	C	C	0	C	0	0	0	0	0	0	0	0
C.C7	C	C	0	C	0	0	0	0	0	0	0	0
C.C8	C	C	0	C	0	0	0	0	0	0	0	0
C.C9	C	C	0	C	0	0	0	0	0	0	0	0
C.10	C	C	0	C	0	0	0	0	0	0	0	0
C.11	C	C	0	C	0	0	0	0	0	0	0	0
C.12	C	C	0	C	0	0	0	0	0	0	0	0
C.13	C	C	0	C	0	0	0	0	0	0	0	0
C.14	C	C	0	C	0	0	0	0	0	0	0	0
C.15	C	C	0	C	0	0	0	0	0	0	0	0
C.16	C	C	0	C	0	0	0	0	0	0	0	0
C.17	C	C	0	C	0	0	0	0	0	0	0	0
C.18	C	C	0	C	0	0	0	0	0	0	0	0
C.19	C	C	0	C	0	0	0	0	0	0	0	0
C.20	C	C	0	C	0	0	0	0	0	0	0	0
C.21	C	C	0	C	0	0	0	0	0	0	0	0
C.22	C	C	0	C	0	0	0	0	0	0	0	0
C.23	C	C	0	C	0	0	0	0	0	0	0	0
C.24	C	C	0	C	0	0	0	0	0	0	0	0
C.25	C	C	0	C	0	0	0	0	0	1	0	0
C.26	C	C	0	1	0	0	1	0	0	2	0	0
C.27	C	C	0	1	0	0	1	0	0	1	0	0
C.28	C	C	0	1	0	0	3	0	0	4	0	0
C.29	C	C	0	1	0	0	4	0	0	5	0	0
C.30	C	C	0	1	0	0	2	0	0	3	0	0
C.31	C	C	0	2	0	0	3	0	0	5	0	0
C.32	C	C	0	3	0	0	1	0	0	4	0	0
C.33	C	C	0	2	0	0	3	0	0	5	0	0
C.34	C	C	0	1	0	0	5	0	0	6	0	0
C.35	C	C	0	1	0	0	2	0	0	3	0	0
C.36	C	C	0	4	0	0	5	0	0	9	0	0
C.37	C	C	0	3	0	0	8	0	0	11	0	0
C.38	C	C	0	2	0	0	9	0	0	11	0	0
C.39	C	C	0	2	0	0	2	0	0	4	0	0
C.40	C	C	0	1	0	0	4	0	0	5	0	0
C.41	C	C	0	4	0	0	5	0	0	9	0	0
C.42	C	C	0	2	0	0	8	0	0	10	0	0
C.43	C	C	0	3	0	0	2	0	0	5	0	0
C.44	C	C	0	3	0	0	3	0	0	6	0	0
C.45	C	C	0	C	0	0	2	0	0	2	0	0
C.46	C	C	0	C	0	0	3	0	0	3	0	0
C.47	C	C	0	C	0	0	4	0	0	4	0	0
C.48	C	C	0	2	0	0	10	0	0	12	0	0
C.49	C	C	0	40	0	0	93	0	0	133	0	0
C.5C	C	C	0									
SUBTOTAL	C	C	0									

[redacted] [redacted] [redacted]

Table 9-5

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MISSION • 1007-2 • INSTRUMENT • FWD 2-09-64 DENSITY FREQ DISTR

DENSITY VALUE	PRIMARY MIN	PRIMARY MAX	PRIMARY LIM	INTERMEDIATE MIN	INTERMEDIATE MAX	INTERMEDIATE LIM	FULL MIN	FULL MAX	FULL LIM	ALL LEVELS MIN	ALL LEVELS MAX	ALL LEVELS LIM
.51	0	0	0	1	0	0	6	0	0	7	0	0
.52	0	0	0	1	0	0	5	0	0	5	0	0
.53	0	0	0	2	0	0	5	0	0	7	0	0
.54	0	0	0	2	0	0	5	0	0	7	0	0
.55	0	0	0	2	0	0	4	0	0	6	0	0
.56	0	0	0	2	0	0	4	0	0	6	0	0
.57	0	0	0	2	0	0	3	0	0	5	0	0
.58	0	0	0	2	0	0	3	0	0	5	0	0
.59	0	0	0	2	0	0	2	0	0	4	0	0
.60	0	0	0	2	0	0	8	0	0	10	0	0
.61	0	0	0	2	0	0	7	0	0	9	0	0
.62	0	0	0	1	0	0	3	0	0	4	0	0
.63	0	0	0	2	0	0	2	0	0	4	0	0
.64	0	0	0	2	0	0	1	0	0	3	0	0
.65	0	0	0	2	0	0	2	0	0	4	0	0
.66	0	0	0	3	0	0	1	0	0	4	0	0
.67	0	0	0	2	0	0	2	0	0	4	0	0
.68	0	0	0	2	0	0	3	0	0	5	0	0
.69	0	0	0	2	0	0	1	0	0	3	0	0
.70	0	0	0	2	0	0	2	0	0	4	0	0
.71	0	0	0	2	0	0	2	0	0	4	0	0
.72	0	0	0	2	0	0	3	0	0	5	0	0
.73	0	0	0	2	0	0	3	0	0	5	0	0
.74	0	0	0	2	0	0	2	0	0	4	0	0
.75	0	0	0	2	0	0	2	0	0	4	0	0
.76	0	0	0	2	0	0	1	0	0	3	0	0
.77	0	0	0	2	0	0	2	0	0	4	0	0
.78	0	0	0	2	0	0	1	0	0	3	0	0
.79	0	0	0	2	0	0	1	0	0	3	0	0
.80	0	0	0	2	0	0	1	0	0	3	0	0
.81	0	0	0	1	0	0	2	0	0	3	0	0
.82	0	0	0	2	0	0	2	0	0	4	0	0
.83	0	0	0	2	0	0	1	0	0	3	0	0
.84	0	0	0	2	0	0	1	0	0	3	0	0
.85	0	0	0	2	0	0	1	0	0	3	0	0
.86	0	0	0	2	0	0	1	0	0	3	0	0
.87	0	0	0	2	0	0	1	0	0	3	0	0
.88	0	0	0	2	0	0	0	0	0	2	0	0
.89	0	0	0	1	0	0	1	0	0	2	0	0
.90	0	0	0	2	0	0	4	0	0	6	0	0
.91	0	0	0	1	0	0	1	0	0	2	0	0
.92	0	0	0	2	0	0	0	0	0	2	0	0
.93	0	0	0	2	0	0	0	0	0	2	0	0
.94	0	0	0	2	0	0	1	0	0	3	0	0
.95	0	0	0	2	0	0	0	0	0	2	0	0
.96	0	0	0	2	0	0	1	0	0	3	0	0
.97	0	0	0	2	0	0	0	0	0	2	0	0
.98	0	0	0	1	0	0	0	0	0	1	0	0
.99	0	0	0	1	0	0	1	0	0	2	0	0
1.00	0	0	0	0	0	0	3	0	1	3	0	1
SUBTOTAL	0	0	0	13	5	0	83	11	1	96	16	1

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MISSION • 1007-2 • INSTRUMENT • FWD 2-09-64 DENSITY FREQ DISTR

DENSITY VALUE	PRIMARY MIN	PRIMARY MAX	PRIMARY LIM	INTERMEDIATE MIN	INTERMEDIATE MAX	INTERMEDIATE LIM	FULL MIN	FULL MAX	FULL LIM	ALL LEVELS MIN	ALL LEVELS MAX	ALL LEVELS LIM
1.01	0	0	0	1	1	0	0	4	0	1	5	0
1.02	0	0	0	0	1	0	0	1	0	0	2	0
1.03	0	0	0	0	0	0	0	0	0	0	0	0
1.04	0	0	0	0	2	0	0	2	0	0	2	0
1.05	0	0	0	0	2	0	0	0	0	0	2	0
1.06	0	0	0	0	0	0	0	1	0	0	1	0
1.07	0	0	0	0	0	0	0	0	0	0	0	0
1.08	0	0	0	0	0	0	0	2	0	0	2	0
1.09	0	0	0	0	2	0	0	2	0	0	2	0
1.10	0	0	0	0	2	0	0	7	0	0	9	0
1.11	0	0	0	0	0	0	0	0	0	0	0	0
1.12	0	0	0	0	0	0	0	3	0	0	3	0
1.13	0	0	0	0	0	0	0	1	0	0	1	0
1.14	0	0	0	0	0	0	0	2	0	0	2	0
1.15	0	0	0	0	1	0	0	1	0	0	1	0
1.16	0	0	0	0	1	0	0	1	0	0	2	0
1.17	0	0	0	0	0	0	0	0	0	0	0	0
1.18	0	0	0	0	0	0	0	2	0	0	2	0
1.19	0	0	0	0	0	0	0	3	0	0	3	0
1.20	0	0	0	0	1	0	0	6	0	0	7	0
1.21	0	0	0	0	0	0	0	3	0	0	3	0
1.22	0	0	0	0	0	0	0	0	0	0	0	0
1.23	0	0	0	1	0	0	0	3	0	1	3	0
1.24	0	0	0	0	0	0	0	2	0	0	2	0
1.25	0	0	0	0	0	0	0	2	0	0	2	0
1.26	0	0	0	0	0	0	0	1	0	0	1	0
1.27	0	0	0	0	0	0	0	2	0	0	2	0
1.28	0	0	0	0	0	0	0	3	0	0	3	0
1.29	0	0	0	0	0	0	0	1	0	0	1	0
1.30	0	0	0	0	2	0	0	4	0	0	6	0
1.31	0	0	0	0	1	0	0	2	0	0	2	0
1.32	0	0	0	0	0	0	0	5	0	0	6	0
1.33	0	0	0	0	0	0	0	2	0	0	2	0
1.34	0	0	0	0	1	0	0	2	0	0	3	0
1.35	0	0	0	0	1	0	0	1	0	0	2	0
1.36	0	0	0	0	0	0	0	2	0	0	2	0
1.37	0	0	0	0	1	0	0	1	0	0	2	0
1.38	0	0	0	0	1	0	0	1	0	0	2	0
1.39	0	0	0	0	1	0	0	0	0	0	1	0
1.40	0	0	0	0	4	0	0	8	0	1	12	0
1.41	0	0	0	0	2	0	0	3	0	0	3	0
1.42	0	0	0	0	3	0	0	2	0	0	5	0
1.43	0	0	0	0	0	0	0	2	0	0	2	0
1.44	0	0	0	0	0	0	0	2	0	0	2	0
1.45	0	0	0	0	0	0	0	3	0	0	3	0
1.46	0	0	0	0	0	0	0	5	0	0	5	0
1.47	0	0	0	0	1	0	0	1	0	0	1	0
1.48	0	0	0	0	1	0	0	2	0	0	3	0
1.49	0	0	0	0	1	0	0	0	0	0	1	0
1.50	0	0	0	0	1	0	0	5	0	0	6	0
SUBTOTAL	0	0	0	2	25	2	1	109	0	3	134	2

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MISSION • 1007-2 • INSTRUMENT • FWD 2-09-64 DENSITY FREQ DISTR

DENSITY VALUE	PRIMARY MIN	PRIMARY MAX	PRIMARY LIM	INTERMEDIATE MIN	INTERMEDIATE MAX	INTERMEDIATE LIM	FULL MIN	FULL MAX	FULL LIM	ALL LEVELS MIN	ALL LEVELS MAX	ALL LEVELS LIM
1.51	0	0	0	0	1	0	0	2	0	0	3	0
1.52	0	0	0	0	1	0	0	1	0	0	2	0
1.53	0	0	0	0	1	0	0	0	0	0	1	0
1.54	0	0	0	0	1	0	0	0	0	0	0	0
1.55	0	0	0	0	0	0	0	5	0	0	5	0
1.56	0	0	0	0	1	0	0	3	0	0	4	0
1.57	0	0	0	0	0	0	0	1	0	0	1	0
1.58	0	0	0	0	0	0	0	1	0	0	1	0
1.59	0	0	0	0	0	1	0	1	0	0	1	0
1.60	0	0	0	0	3	1	0	2	0	0	5	1
1.61	0	0	0	0	1	0	0	2	0	0	3	0
1.62	0	0	0	0	1	0	0	3	0	0	3	0
1.63	0	0	0	0	1	0	0	1	0	0	2	0
1.64	0	0	0	0	0	1	0	1	0	0	1	1
1.65	0	0	0	0	0	0	0	1	0	0	1	0
1.66	0	0	0	0	2	1	0	1	0	0	3	1
1.67	0	0	0	0	1	0	0	0	0	0	1	0
1.68	0	0	0	0	1	0	0	0	0	0	1	0
1.69	0	0	0	0	0	1	0	0	0	0	2	1
1.70	0	0	0	0	1	0	0	0	0	0	1	0
1.71	0	0	0	0	0	0	0	0	0	0	0	0
1.72	0	0	0	0	1	0	0	0	0	0	1	0
1.73	0	0	0	0	0	0	0	0	0	0	0	0
1.74	0	0	0	0	0	0	0	0	0	0	0	0
1.75	0	0	0	0	0	0	0	0	0	0	0	0
1.76	0	0	0	0	0	0	0	0	0	0	0	0
1.77	0	0	0	0	0	0	0	0	0	0	0	0
1.78	0	0	0	0	0	0	0	0	0	0	0	0
1.79	0	0	0	0	0	1	0	0	1	0	0	1
1.80	0	0	0	0	0	3	0	0	2	0	0	5
1.81	0	0	0	0	0	2	0	0	0	0	0	2
1.82	0	0	0	0	0	1	0	0	0	0	0	1
1.83	0	0	0	0	0	0	0	0	0	0	0	0
1.84	0	0	0	0	0	0	0	0	0	0	0	0
1.85	0	0	0	0	0	1	0	0	1	0	0	1
1.86	0	0	0	0	0	1	0	0	1	0	0	1
1.87	0	0	0	0	0	0	0	0	1	0	0	1
1.88	0	0	0	0	0	0	0	0	2	0	0	2
1.89	0	0	0	0	0	0	0	0	0	0	0	0
1.90	0	0	0	0	0	2	0	0	1	0	0	3
1.91	0	0	0	0	0	0	0	0	1	0	0	1
1.92	0	0	0	0	0	1	0	0	1	0	0	1
1.93	0	0	0	0	0	1	0	0	1	0	0	2
1.94	0	0	0	0	0	2	0	0	0	0	0	2
1.95	0	0	0	0	0	0	0	0	0	0	0	0
1.96	0	0	0	0	0	1	0	0	0	0	0	3
1.97	0	0	0	0	0	1	0	0	0	0	0	1
1.98	0	0	0	0	0	1	0	0	0	0	0	3
1.99	0	0	0	0	0	0	0	0	0	0	0	1
2.00	0	0	0	0	0	1	0	0	0	0	0	3
SUBTOTAL	0	0	0	0	15	23	0	47	16	0	62	39

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MISSION • 1007-2 • INSTRUMENT • FWD 2-09-64 DENSITY FREQ DISTR

DENSITY VALUE	PRIMARY MIN	PRIMARY MAX	PRIMARY LIM	INTERMEDIATE MIN	INTERMEDIATE MAX	INTERMEDIATE LIM	FULL MIN	FULL MAX	FULL LIM	ALL LEVELS MIN	ALL LEVELS MAX	ALL LEVELS LIM
2.01	0	0	0	0	0	2	0	1	2	0	1	4
2.02	0	0	0	0	1	0	0	0	0	0	1	0
2.03	0	0	0	0	0	1	0	0	0	0	0	1
2.04	0	0	0	0	0	2	0	0	0	0	0	2
2.05	0	0	0	0	0	0	0	0	2	0	0	2
2.06	0	0	0	0	0	3	0	0	1	0	0	3
2.07	0	0	0	0	0	0	0	0	0	0	0	0
2.08	0	0	0	0	1	0	0	0	1	0	0	1
2.09	0	0	0	0	0	3	0	0	1	0	0	4
2.10	0	0	0	0	1	4	0	0	1	0	1	29
2.11	0	0	0	0	0	0	0	0	0	0	0	0
2.12	0	0	0	0	1	0	0	0	0	0	0	0
2.13	0	0	0	0	0	5	0	0	0	0	0	5
2.14	0	0	0	0	1	0	0	0	0	0	0	0
2.15	0	0	0	0	0	2	0	0	0	0	0	2
2.16	0	0	0	0	1	5	0	0	0	0	1	5
2.17	0	0	0	0	1	3	0	0	0	0	1	3
2.18	0	0	0	0	1	1	0	0	0	0	1	1
2.19	0	0	0	0	0	2	0	0	0	0	0	2
2.20	0	0	0	0	0	11	0	0	28	0	0	39
2.21	0	0	0	0	0	4	0	0	8	0	0	12
2.22	0	0	0	0	0	4	0	1	16	0	1	20
2.23	0	0	0	0	0	1	0	0	6	0	0	6
2.24	0	0	0	0	1	0	0	0	7	0	1	8
2.25	0	0	0	0	1	1	0	0	5	0	1	6
2.26	0	0	0	0	1	1	0	0	10	0	0	11
2.27	0	0	0	0	0	0	0	0	6	0	0	6
2.28	0	0	0	0	0	0	0	0	16	0	0	16
2.29	0	0	0	0	0	0	0	0	3	0	0	3
2.30	0	0	0	0	0	1	0	0	13	0	0	14
2.31	0	0	0	0	0	0	0	0	6	0	0	6
2.32	0	0	0	0	0	0	0	0	9	0	0	9
2.33	0	0	0	0	0	0	0	0	5	0	0	5
2.34	0	0	0	0	0	0	0	0	2	0	0	2
2.35	0	0	0	0	0	0	0	0	0	0	0	0
2.36	0	0	0	0	0	0	0	0	0	0	0	0
2.37	0	0	0	0	0	0	0	0	1	0	0	1
2.38	0	0	0	0	0	0	0	0	0	0	0	0
2.39	0	0	0	0	0	0	0	0	0	0	0	0
2.40	0	0	0	0	0	0	0	0	0	0	0	0
2.41	0	0	0	0	0	0	0	0	0	0	0	0
2.42	0	0	0	0	0	0	0	0	0	0	0	0
2.43	0	0	0	0	0	0	0	0	0	0	0	0
2.44	0	0	0	0	0	0	0	0	0	0	0	0
2.45	0	0	0	0	0	0	0	0	0	0	0	0
2.46	0	0	0	0	0	0	0	0	0	0	0	0
2.47	0	0	0	0	0	0	0	0	0	0	0	0
2.48	0	0	0	0	0	0	0	0	0	0	0	0
2.49	0	0	0	0	0	0	0	0	0	0	0	0
2.50	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	0	0	0	0	10	67	0	10	193	0	20	260

[redacted] [redacted] [redacted]

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MISSION • 1007-2 • INSTRUMENT • FWD 2-09-64 DENSITY FREQ DISTR

DENSITY VALUE	PRIMARY MIN	PRIMARY MAX	PRIMARY LIM	INTERMEDIATE MIN	INTERMEDIATE MAX	INTERMEDIATE LIM	FULL MIN	FULL MAX	FULL LIM	ALL LEVELS MIN	ALL LEVELS MAX	ALL LEVELS LIM
2.51	0	0	0	0	0	0	0	0	0	0	0	0
2.52	0	0	0	0	0	0	0	0	0	0	0	0
2.53	0	0	0	0	0	0	0	0	0	0	0	0
2.54	0	0	0	0	0	0	0	0	0	0	0	0
2.55	0	0	0	0	0	0	0	0	0	0	0	0
2.56	0	0	0	0	0	0	0	0	0	0	0	0
2.57	0	0	0	0	0	0	0	0	0	0	0	0
2.58	0	0	0	0	0	0	0	0	0	0	0	0
2.59	0	0	0	0	0	0	0	0	0	0	0	0
2.60	0	0	0	0	0	0	0	0	0	0	0	0
2.61	0	0	0	0	0	0	0	0	0	0	0	0
2.62	0	0	0	0	0	0	0	0	0	0	0	0
2.63	0	0	0	0	0	0	0	0	0	0	0	0
2.64	0	0	0	0	0	0	0	0	0	0	0	0
2.65	0	0	0	0	0	0	0	0	0	0	0	0
2.66	0	0	0	0	0	0	0	0	0	0	0	0
2.67	0	0	0	0	0	0	0	0	0	0	0	0
2.68	0	0	0	0	0	0	0	0	0	0	0	0
2.69	0	0	0	0	0	0	0	0	0	0	0	0
2.70	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	55	55	92	177	177	210	232	232	302

MISSION 1007-2 INSTR - FWD 2-09-64 PROCESSING AND EXPOSURE ANAL

PROCESS LEVEL	SAMPLE SIZE	UNDER EXPOSED	UNDER PROCESSED	CORRECT EXP+PROC	OVER PROCESSED	OVE EXPOSE
PRIMARY	0	0 PC	0 PC	0 PC	0 PC	0 F
INTERMEDIATE	55	0 PC	38 PC	58 PC	4 PC	0 F
FULL	177	23 PC	0 PC	75 PC	2 PC	0 F
ALL LEVELS	232	18 PC	9 PC	71 PC	2 PC	0 F

PROCESS LEVEL	EASE + FOG	UNDER EXPOSED	UNDER PROCESSED	CORRECT EXP+PROC	OVER PROCESSED	OVE EXPOSE
PRIMARY	0.01-0.19	0.01-0.13	0.14-0.39	0.40-0.90	---------	0.91 AND
INTERMED	0.10-0.17	0.01-0.20	0.21-0.39	0.40-0.90	0.91-1.34	1.35 AND
FULL	0.18 AND UP	0.01-0.39	---------	0.40-0.90	0.91-1.69	1.70 AND

[redacted]

[redacted] [redacted]

MISSION • 1CC7-2 • INSTR • FWD • 2-09-64 PLOT OF D MIN • TERRAIN • PROCESSING • INTERMEDIATE

ARITH MEAN • C.4E • MEDIAN • C.43 • STD DEV • 0.17 • RANGE • 0.26 TO 1.23 WITH 55 SAMPLES

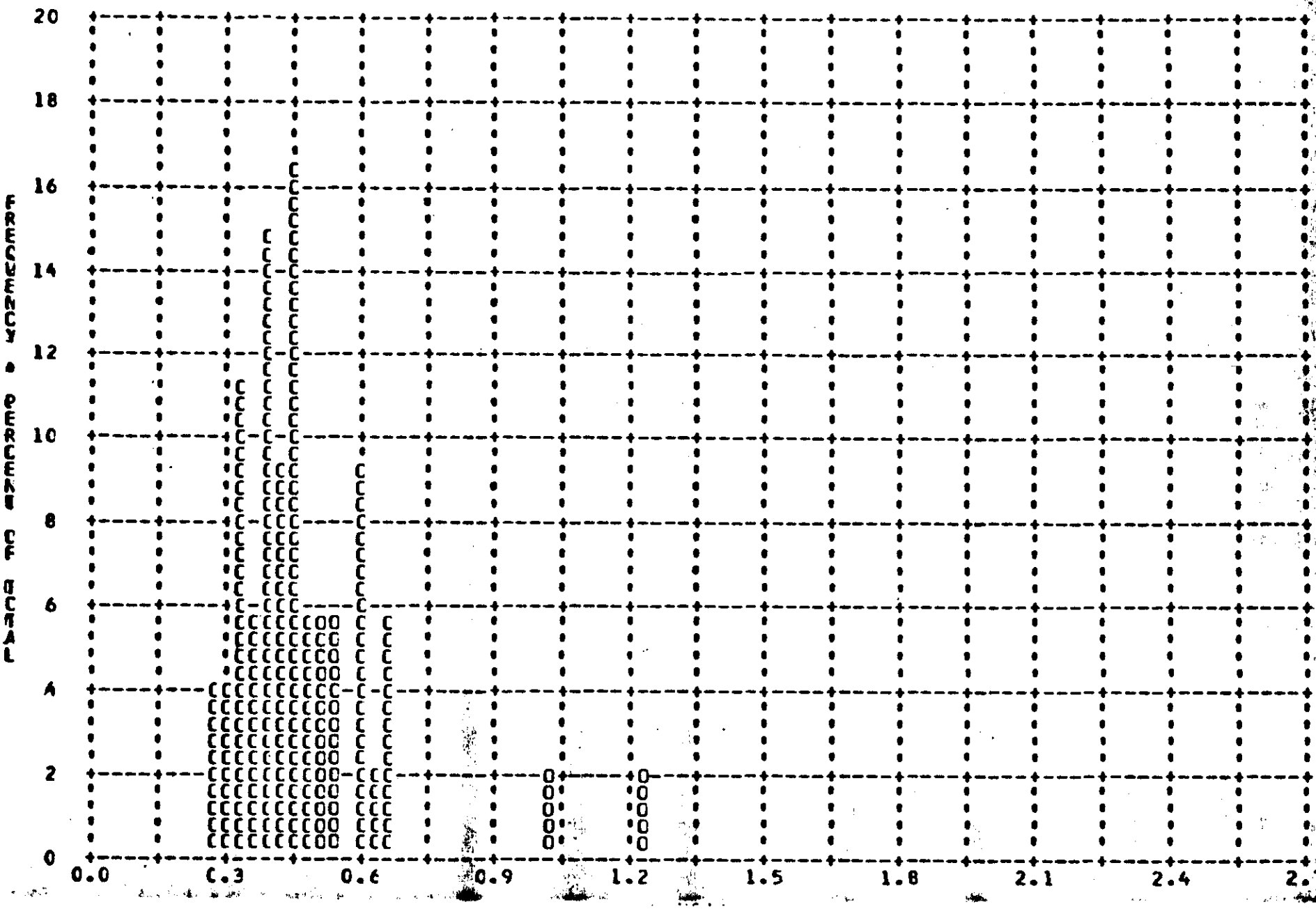

Figure 9-22

[redacted]

[redacted]

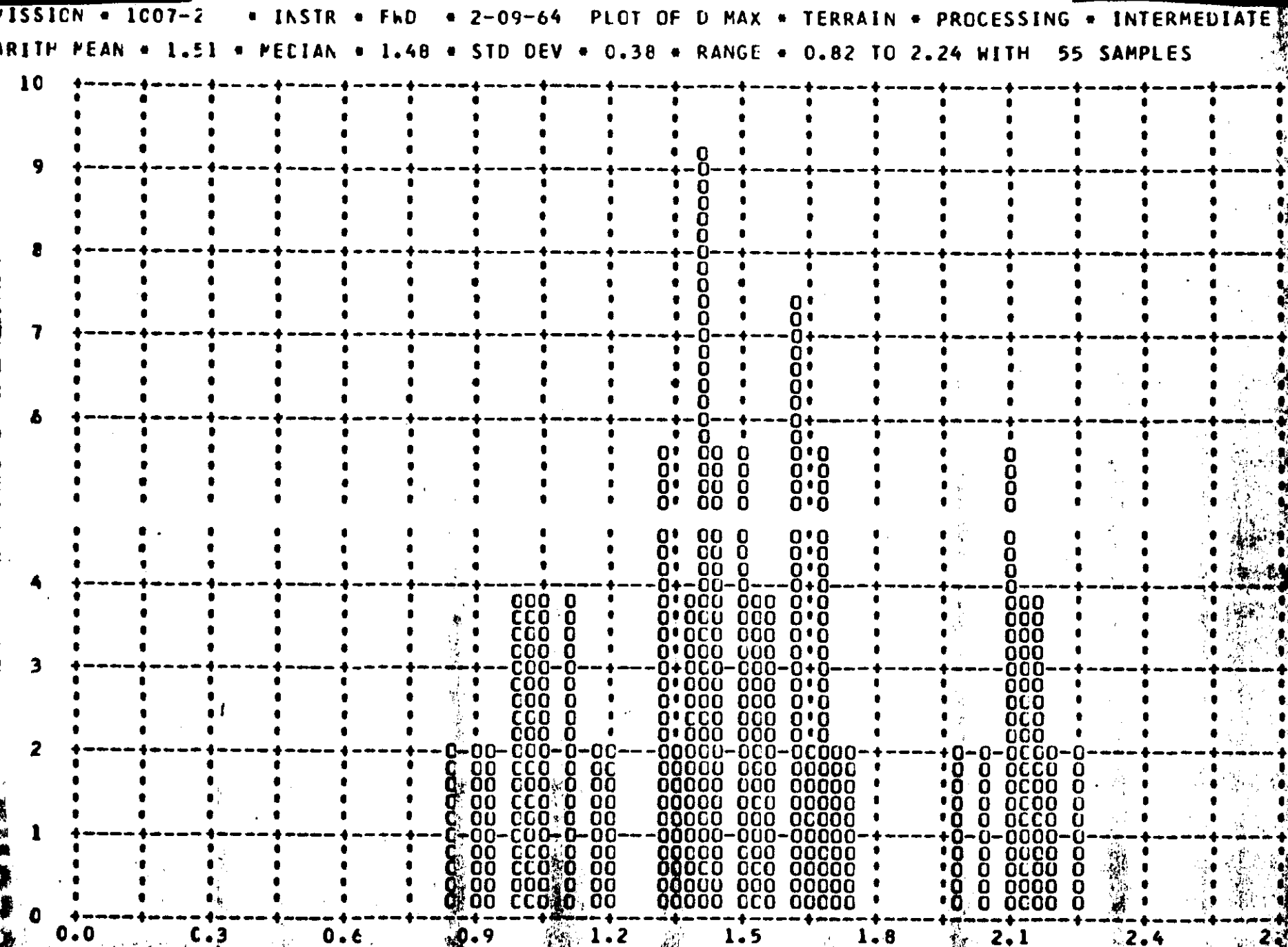

Figure 9-23

[redacted]

[redacted] [redacted]

MISSION • 1007-2 • INSTR • FWD • 2-09-64 PLOT OF D MAX • CLOUD • PROCESSING • INTERMEDIATE

ARITH MEAN • 2.05 • MEDIAN • 2.10 • STD DEV • 0.19 • RANGE • 1.40 TO 2.30 WITH 92 SAMPLES

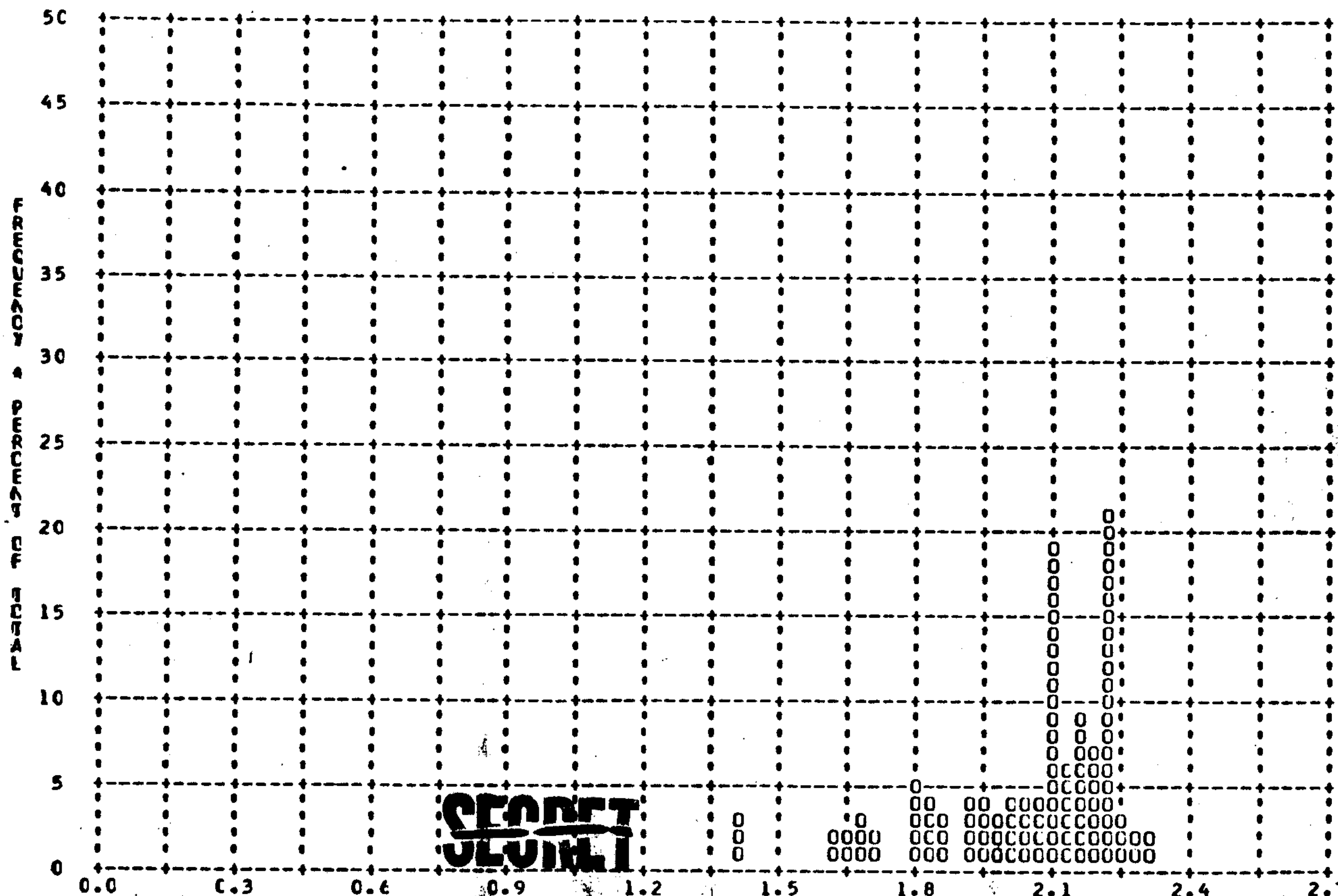

Figure 9-24

[redacted] [redacted]

MISSION • 1007-2 • INSTR • FWD • 2-09-64 PLOT OF D MIN • TERRAIN • PROCESSING • FULL

ARITH MEAN • 0.52 • MEDIAN • 0.50 • STD DEV • 0.16 • RANGE • 0.27 TO 1.20 WITH 177 SAMPLES

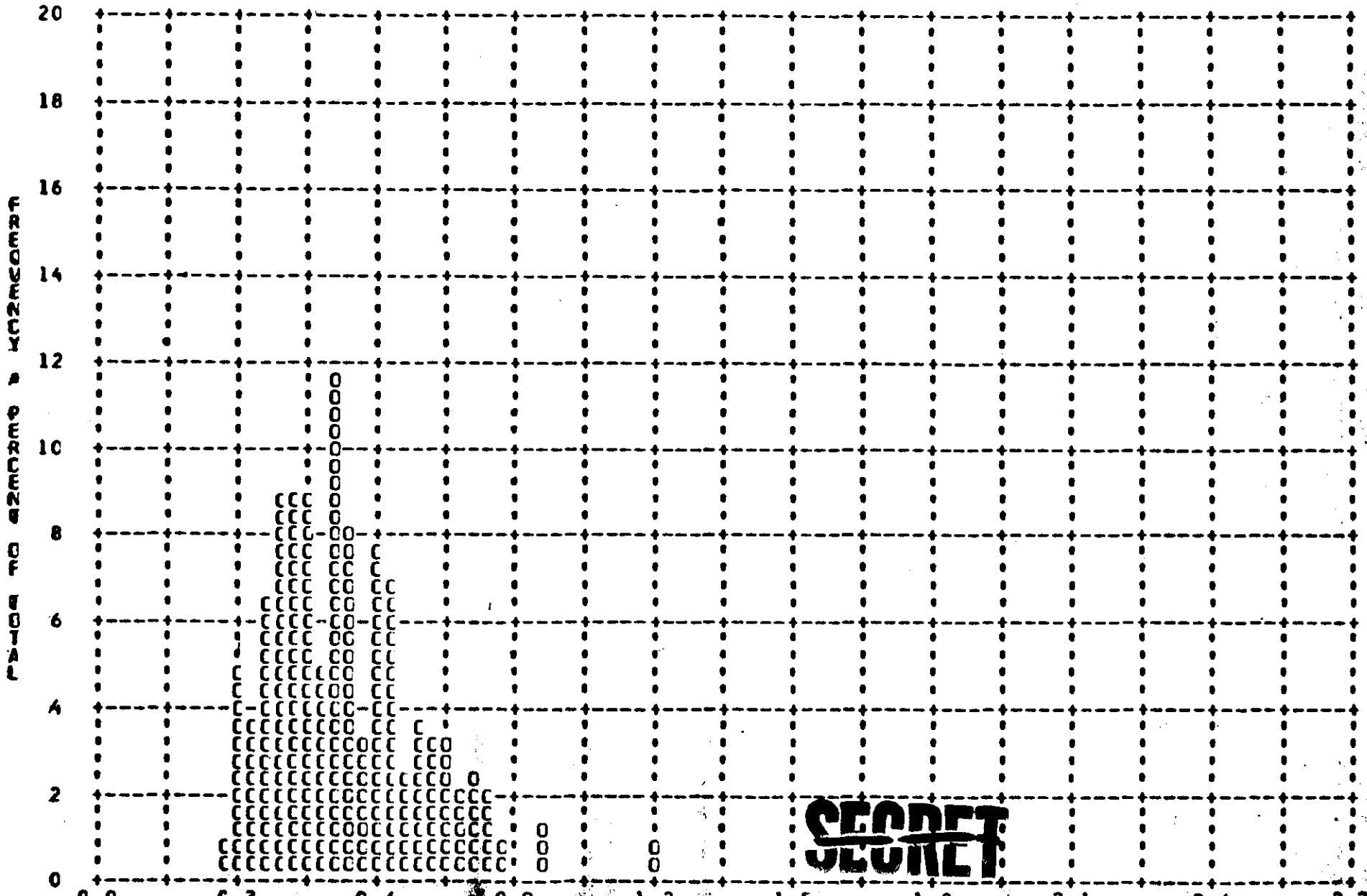

Figure 9-25

[redacted]

[redacted]

MISSION • 1007-2 • INSTR • FWD • 2-09-64 PLOT OF D MAX • TERRAIN • PROCESSING • FULL

ARITH MEAN • 1.42 • MEDIAN • 1.40 • STD DEV • 0.32 • RANGE • 0.70 TO 2.32 WITH 177 SAMPLES

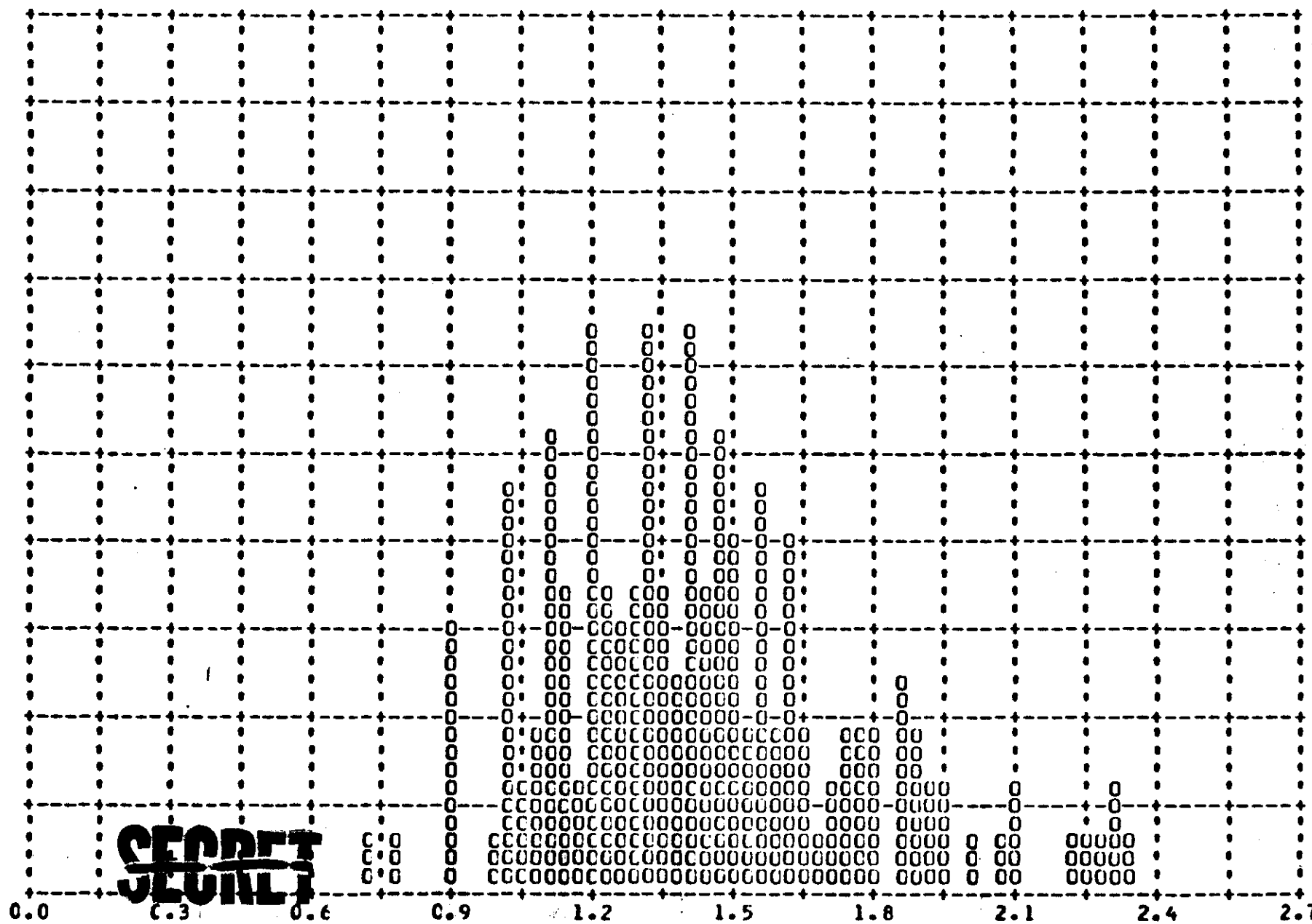

Figure 9-26

120

[redacted]

[redacted]

MISSION • 1CC7-2 • INSTR • FWD • 2-09-64 PLOT OF D MAX • CLOUD • PROCESSING • FULL

ARITH MEAN • 2.15 • MEDIAN • 2.22 • STD DEV • 0.15 • RANGE • 0.90 TO 2.37 WITH 210 SAMPLES

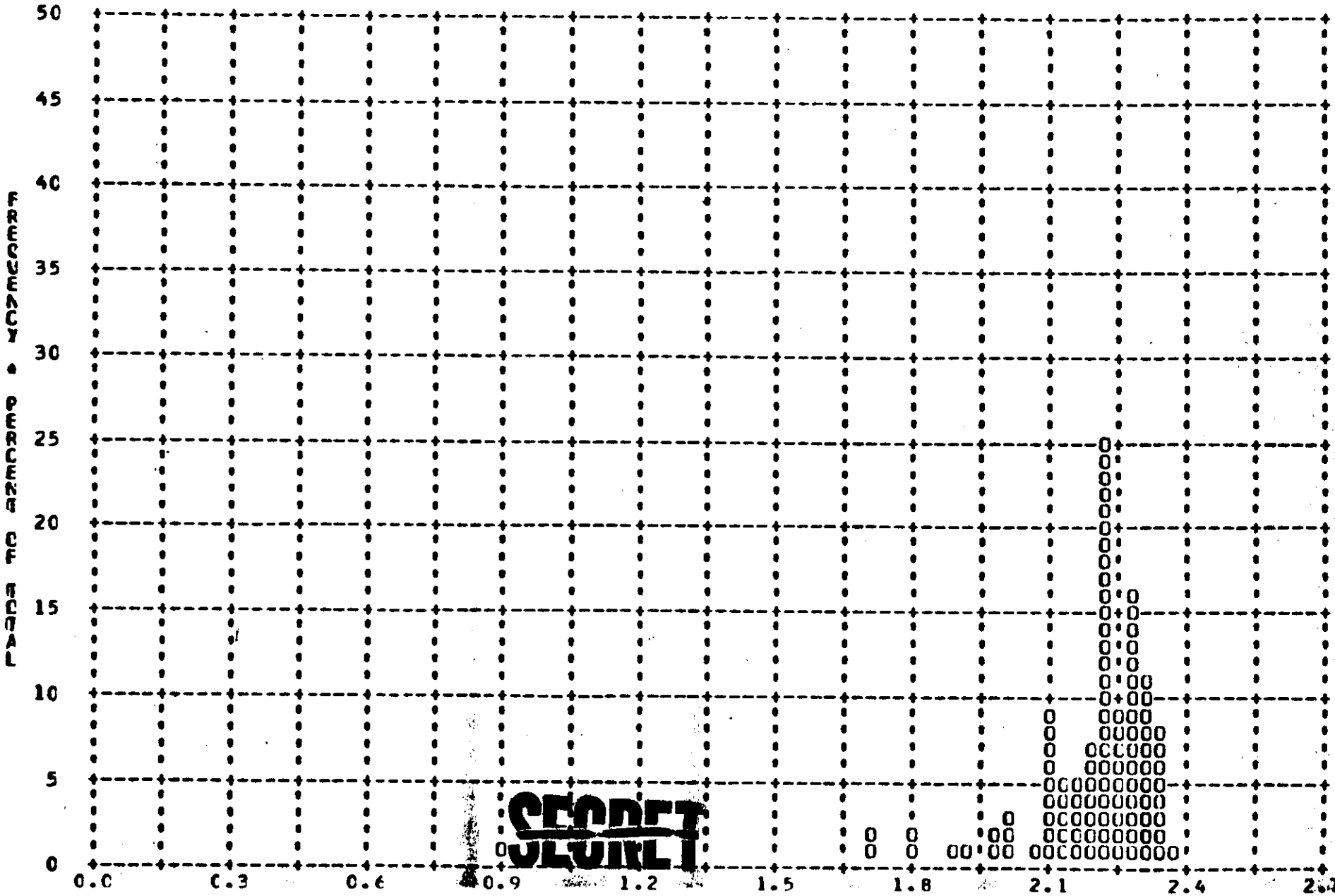

Figure 9-27

[redacted] [redacted]

MISSION • 1C07-2 • INSTR • FWD • 2-09-64 PLOT OF D MIN • TERRAIN • PROCESSING • ALL LEVELS

ARITH MEAN • C.51 • MEDIAN • C.48 • STD DEV • 0.16 • RANGE • 0.26 TO 1.23 WITH 232 SAMPLES

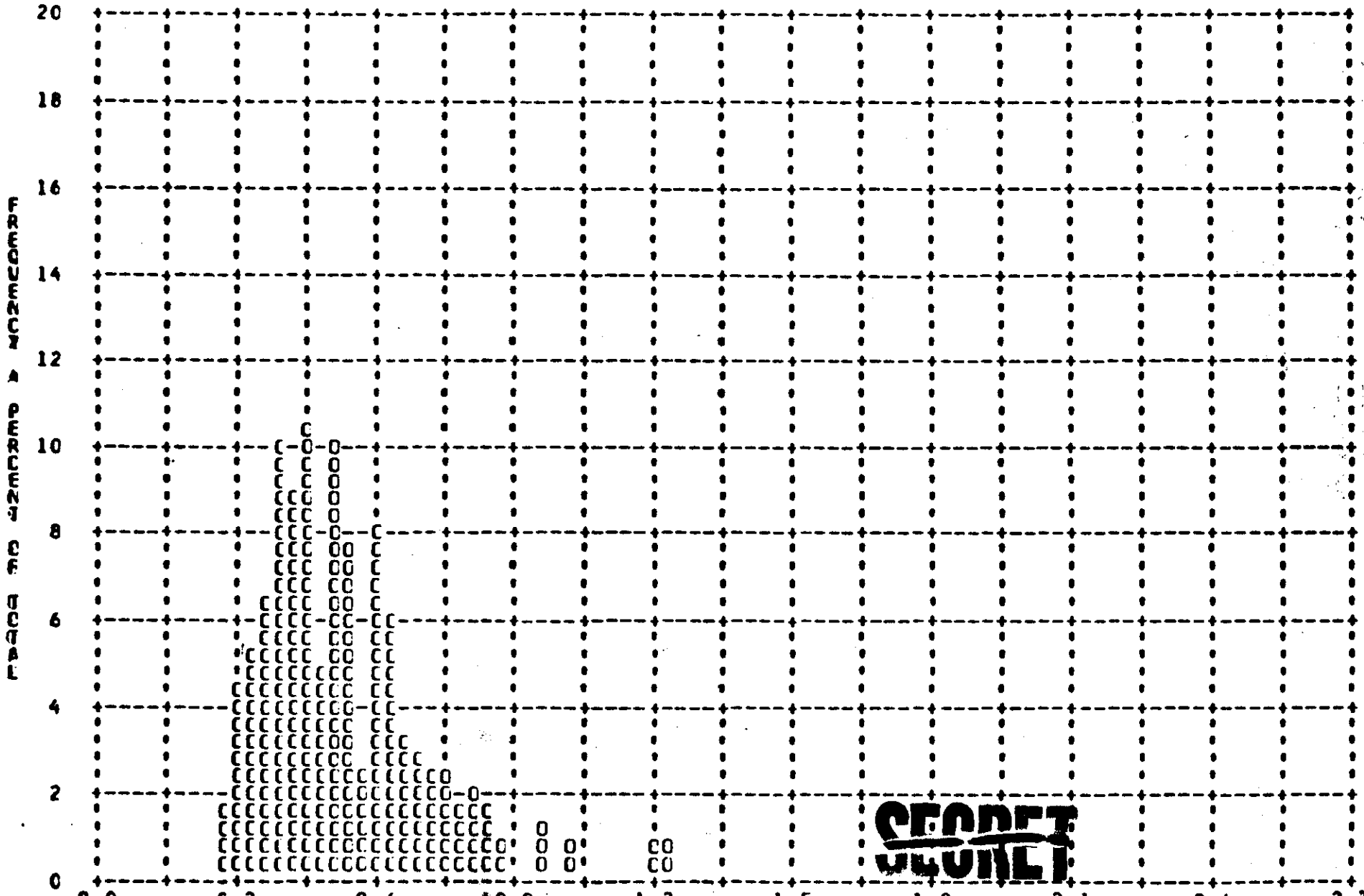

Figure 6-28

[redacted]

[redacted]

MISSION • 1007-2 • INSTR • FWD • 2-09-64 PLOT OF D MAX • TERRAIN • PROCESSING • ALL LEVELS

ARITH MEAN • 1.44 • MEDIAN • 1.40 • STD DEV • 0.33 • RANGE • 0.70 TO 2.32 WITH 232 SAMPLES

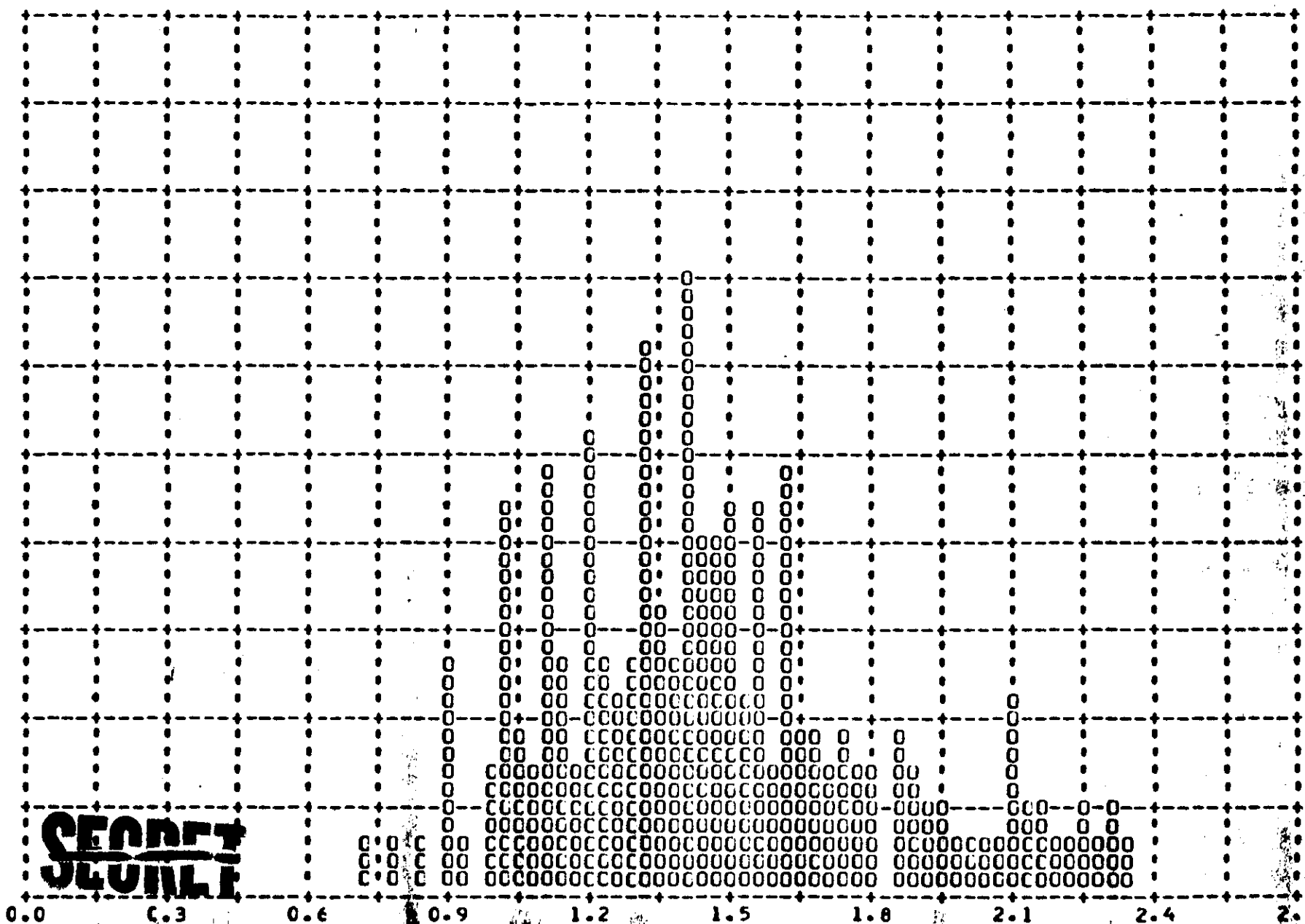

Figure 9-29

[redacted]

[redacted]

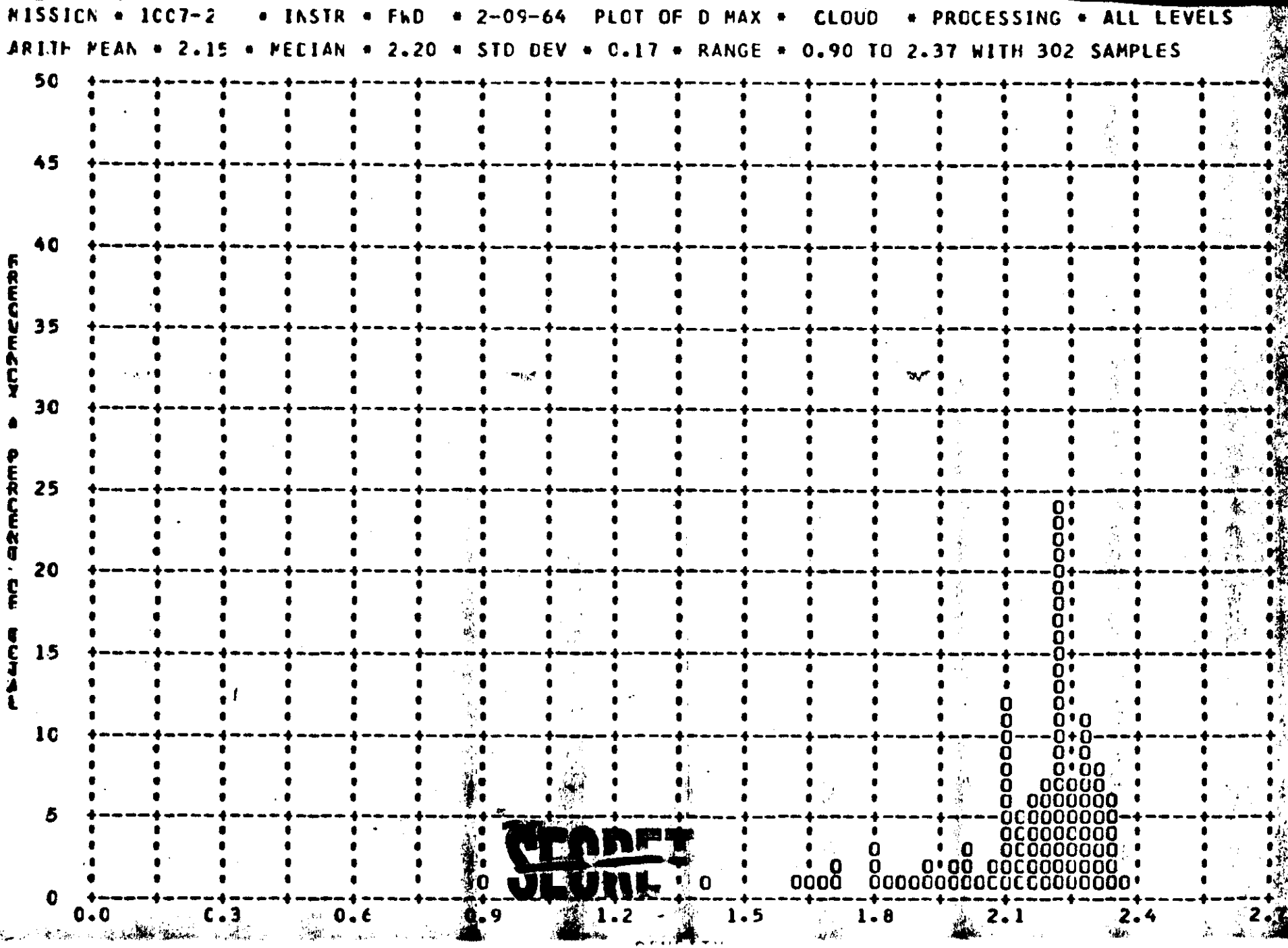

Figure 8-30

[redacted] [redacted] [redacted]

MISSION • 1007-2 • INSTRUMENT • AFT 2-09-64 DENSITY FREQ DISTR

DENSITY VALUE	PRIMARY MIN	PRIMARY MAX	PRIMARY LIM	INTERMEDIATE MIN	INTERMEDIATE MAX	INTERMEDIATE LIM	FULL MIN	FULL MAX	FULL LIM	ALL LEVELS MIN	ALL LEVELS MAX	ALL LEVELS LIM
C.01	C	C	0	C	C	0	0	0	0	0	0	0
C.02	C	C	0	C	C	0	0	0	0	0	0	0
C.03	C	C	0	C	C	0	0	0	0	0	0	0
C.04	C	C	0	C	C	0	0	0	0	0	0	0
C.05	C	C	0	C	C	0	0	0	0	0	0	0
C.06	C	C	0	C	C	0	0	0	0	0	0	0
C.07	C	C	0	C	C	0	0	0	0	0	0	0
C.08	C	C	0	C	C	0	0	0	0	0	0	0
C.09	C	C	0	C	C	0	0	0	0	0	0	0
C.10	C	C	0	C	C	0	0	0	0	0	0	0
C.11	C	C	0	C	C	0	0	0	0	0	0	0
C.12	C	C	0	C	C	0	0	0	0	0	0	0
C.13	C	C	0	C	C	0	0	0	0	0	0	0
C.14	C	C	0	C	C	0	0	0	0	0	0	0
C.15	C	C	0	C	C	0	0	0	0	0	0	0
C.16	C	C	0	C	C	0	0	0	0	0	0	0
C.17	C	C	0	C	C	0	0	0	0	0	0	0
C.18	C	C	0	C	C	0	0	0	0	0	0	0
C.19	C	C	0	C	C	0	0	0	0	0	0	0
C.20	C	C	0	C	C	0	0	0	0	0	0	0
C.21	C	C	0	C	C	0	0	0	0	0	0	0
C.22	C	C	0	C	C	0	0	0	0	0	0	0
C.23	C	C	0	C	C	0	0	0	0	0	0	0
C.24	C	C	0	1	C	0	0	0	0	1	0	0
C.25	C	C	0	C	C	0	0	0	0	1	0	0
C.26	C	C	0	1	C	0	0	0	0	1	0	0
C.27	C	C	0	1	C	0	0	0	0	1	0	0
C.28	C	C	0	1	C	0	0	0	0	1	0	0
C.29	C	C	0	1	C	0	0	0	0	1	0	0
C.30	C	C	0	C	C	0	0	0	0	1	0	0
C.31	C	C	0	1	C	0	0	0	0	1	0	0
C.32	C	C	0	2	C	0	0	0	0	2	0	0
C.33	1	C	0	4	C	0	0	0	0	5	0	0
C.34	1	C	0	6	C	0	1	0	0	8	0	0
C.35	1	C	0	5	C	0	0	0	0	6	0	0
C.36	1	C	0	2	C	0	0	0	0	2	0	0
C.37	C	C	0	6	C	0	1	0	0	7	0	0
C.38	C	C	0	2	C	0	0	0	0	2	0	0
C.39	C	C	0	5	C	0	1	0	0	10	0	0
C.40	C	C	0	3	C	0	0	0	0	3	0	0
C.41	C	C	0	10	C	0	0	0	0	10	0	0
C.42	C	C	0	1	C	0	1	0	0	2	0	0
C.43	1	C	0	2	1	0	0	0	0	3	0	0
C.44	1	C	0	8	1	0	0	0	0	8	0	0
C.45	C	C	0	1	C	0	0	0	0	1	0	0
C.46	C	C	0	7	C	0	1	0	0	8	0	0
C.47	C	C	0	4	C	0	0	0	0	4	0	0
C.48	C	C	0	11	C	0	0	0	0	11	0	0
C.49	C	C	0	2	C	0	0	0	0	2	0	0
C.50	C	C	0	1	C	0	0	0	0	1	0	0
SUBTOTAL	5	C	0	93	2	0	5	0	0	103	2	0

[redacted] [redacted] [redacted]

Table 9-6

[redacted] [redacted] [redacted]

MISSION • 1007-2 • INSTRUMENT • AFT 2-09-64 DENSITY FREQ DISTR

DENSITY VALUE	PRIMARY MIN	PRIMARY MAX	PRIMARY LIM	INTERMEDIATE MIN	INTERMEDIATE MAX	INTERMEDIATE LIM	FULL MIN	FULL MAX	FULL LIM	ALL LEVELS MIN	ALL LEVELS MAX	ALL LEVELS LIM
0.51	0	0	0	4	0	0	1	0	0	5	0	0
0.52	0	0	0	5	0	0	0	0	0	5	0	0
0.53	0	0	0	0	0	0	0	0	0	0	0	0
0.54	0	0	0	1	0	0	0	0	0	1	0	0
0.55	1	0	0	3	0	0	0	0	0	4	0	0
0.56	1	0	0	3	0	0	2	0	0	5	0	0
0.57	0	0	0	5	0	0	0	0	0	5	0	0
0.58	0	0	0	3	0	0	1	0	0	4	0	0
0.59	1	0	0	3	0	0	0	0	0	4	0	0
0.60	0	0	0	13	0	0	0	0	0	13	0	0
0.61	1	0	0	4	0	0	0	0	0	5	0	0
0.62	0	0	0	5	1	0	0	0	0	5	1	0
0.63	0	1	0	2	0	0	0	0	0	2	1	0
0.64	0	0	0	3	0	0	0	0	0	3	0	0
0.65	0	0	0	2	0	0	0	0	0	2	0	0
0.66	0	0	0	3	0	0	0	0	0	3	0	0
0.67	0	0	0	0	0	0	0	0	0	0	0	0
0.68	0	0	0	2	0	0	0	0	0	2	0	0
0.69	0	0	0	1	0	0	0	0	0	1	0	0
0.70	0	0	0	6	1	0	0	0	0	6	1	0
0.71	0	0	0	2	1	0	0	0	0	3	1	0
0.72	0	0	0	8	2	0	0	0	0	8	2	0
0.73	0	0	0	1	0	0	0	0	0	1	0	0
0.74	0	0	0	1	0	0	0	0	0	1	0	0
0.75	0	0	0	0	0	0	0	0	0	0	0	0
0.76	0	0	0	4	0	0	0	0	0	4	0	0
0.77	0	0	0	0	0	0	0	0	0	0	0	0
0.78	0	0	0	1	0	0	0	0	0	1	0	0
0.79	0	0	0	1	1	0	0	0	0	1	1	0
0.80	0	0	0	5	1	0	2	0	0	7	1	0
0.81	0	0	0	1	0	0	0	0	0	1	0	0
0.82	0	0	0	4	0	0	0	0	0	4	0	0
0.83	0	0	0	1	0	0	0	0	0	1	0	0
0.84	0	0	0	4	1	0	1	0	0	5	1	0
0.85	0	0	0	1	0	0	0	0	0	1	0	0
0.86	0	0	0	2	0	0	0	0	0	2	0	0
0.87	0	0	0	0	0	0	0	0	0	0	0	0
0.88	0	0	0	0	0	0	0	0	0	0	0	0
0.89	0	0	0	0	0	0	0	0	0	0	0	0
0.90	0	0	0	4	0	0	2	0	0	6	0	0
0.91	0	0	0	0	0	0	0	0	0	0	0	0
0.92	0	0	0	1	0	0	0	0	0	1	0	0
0.93	0	0	0	1	0	0	0	0	0	1	0	0
0.94	0	0	0	0	0	0	0	0	0	0	0	0
0.95	0	0	0	0	0	0	0	0	0	0	0	0
0.96	0	0	0	1	0	0	0	0	0	1	0	0
0.97	0	0	0	0	0	0	0	0	0	0	0	0
0.98	0	0	0	0	0	0	0	0	0	0	0	0
0.99	0	0	0	4	0	0	0	0	1	4	0	1
1.00	0	0	0	4	0	0	0	0	0	4	1	0
SUBTOTAL	3	3	0	112	7	1	11	2	0	126	12	1

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MISSION • 1C07-2 • INSTRUMENT • AFT 2-09-64 DENSITY FREQ DISTR

DENSITY VALUE	PRIMARY MIN	PRIMARY MAX	PRIMARY LIM	INTERMEDIATE MIN	INTERMEDIATE MAX	INTERMEDIATE LIM	FULL MIN	FULL MAX	FULL LIM	ALL LEVELS MIN	ALL LEVELS MAX	ALL LEVELS LIM
1.C1	C	C	0	C	1	0	1	0	0	1	1	0
1.C2	C	C	0	1	0	0	0	1	0	1	1	0
1.C3	C	C	0	C	1	0	0	1	0	0	1	0
1.C4	C	C	0	C	0	1	0	0	0	1	0	1
1.C5	C	C	0	C	0	1	0	0	0	0	1	0
1.C6	C	C	0	C	0	0	0	0	0	0	0	0
1.C7	C	C	0	C	0	0	0	0	0	0	0	0
1.C8	C	C	0	1	C	0	0	0	0	1	0	0
1.C9	C	C	0	1	C	0	0	0	0	1	0	0
1.10	C	1	0	2	6	0	1	0	0	3	7	0
1.11	C	C	0	C	2	0	0	1	0	0	2	0
1.12	C	C	0	C	3	0	0	1	0	0	4	0
1.13	C	C	0	1	C	0	0	0	0	1	0	0
1.14	C	C	0	C	1	0	0	0	0	0	1	0
1.15	C	C	0	C	3	0	0	0	0	1	3	0
1.16	C	C	0	C	3	0	1	0	0	1	3	0
1.17	C	C	0	C	1	0	0	0	0	1	0	0
1.18	C	C	0	C	0	0	0	0	0	0	2	0
1.19	C	C	0	2	7	0	1	0	0	2	7	0
1.20	C	C	0	1	C	0	0	1	0	2	0	0
1.21	C	1	0	C	1	0	0	0	0	0	1	0
1.22	C	C	0	C	2	0	0	0	0	0	2	0
1.23	C	C	0	C	1	0	0	0	0	0	1	0
1.24	C	C	0	C	1	0	0	0	0	0	1	0
1.25	C	C	0	C	1	0	0	0	0	0	1	0
1.26	C	C	0	C	1	0	0	0	0	0	1	0
1.27	C	C	0	C	2	0	0	0	0	0	2	0
1.28	C	C	0	C	3	0	0	0	0	0	3	0
1.29	C	C	0	C	5	0	0	0	0	0	5	0
1.30	C	C	0	C	4	0	0	0	0	0	4	0
1.31	C	C	0	C	5	0	0	0	0	0	5	0
1.32	C	C	0	C	1	0	0	0	0	0	1	0
1.33	C	C	0	C	5	0	0	0	0	0	5	0
1.34	C	C	0	C	C	1	0	0	0	0	0	1
1.35	C	C	0	C	1	0	0	0	0	0	1	0
1.36	C	C	0	C	C	1	0	0	0	0	0	1
1.37	C	C	0	C	1	0	0	0	0	0	1	0
1.38	C	C	0	C	2	0	0	0	1	0	3	0
1.39	C	C	0	C	1	0	0	0	1	0	1	0
1.40	C	C	0	C	8	0	0	0	1	0	9	0
1.41	C	C	0	C	3	0	0	0	0	0	3	0
1.42	C	C	0	C	2	0	0	0	0	0	2	0
1.43	C	C	0	C	1	0	0	0	0	0	1	0
1.44	C	C	0	C	3	0	0	0	0	0	3	0
1.45	C	C	0	C	0	1	0	0	0	0	0	1
1.46	C	C	0	C	2	1	0	0	1	0	3	1
1.47	C	C	0	C	1	0	0	0	0	0	1	0
1.48	C	C	0	C	4	0	0	0	0	0	4	0
1.49	C	C	0	C	0	0	0	0	0	0	0	0
1.50	C	C	0	C	7	0	0	0	0	0	7	0
SUBTOTAL	C	2	0	5	92	5	5	6	0	14	100	5

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MISSION • 1007-2 • INSTRUMENT • AFT 2-09-64 DENSITY FREQ DISTR

DENSITY VALUE	PRIMARY MIN	PRIMARY MAX	PRIMARY LIM	INTERMEDIATE MIN	INTERMEDIATE MAX	INTERMEDIATE LIM	FULL MIN	FULL MAX	FULL LIM	ALL LEVELS MIN	ALL LEVELS MAX	ALL LEVELS LIM
1.51	0	0	0	1	4	0	0	0	0	1	4	0
1.52	0	0	0	0	6	0	0	0	0	0	6	0
1.53	0	0	0	0	3	0	0	0	0	0	3	0
1.54	0	0	0	0	2	1	0	0	0	0	2	1
1.55	0	0	0	0	3	1	0	0	0	0	4	1
1.56	0	0	0	1	8	0	0	0	0	1	8	0
1.57	0	0	0	0	8	0	0	0	0	0	8	0
1.58	0	0	0	0	6	1	0	0	0	0	7	1
1.59	0	0	0	0	2	1	0	0	0	0	2	1
1.60	0	0	0	0	11	4	0	0	0	0	12	4
1.61	0	0	0	0	2	0	0	0	0	0	2	0
1.62	0	0	0	0	2	0	0	0	0	0	2	0
1.63	0	0	0	0	1	4	0	0	0	0	5	4
1.64	0	0	0	0	0	0	0	0	0	0	0	0
1.65	0	0	0	0	1	0	0	0	0	0	1	0
1.66	0	0	0	0	1	0	0	0	0	0	1	0
1.67	0	0	0	0	1	1	0	0	0	0	2	1
1.68	0	0	0	0	1	1	0	0	0	0	2	1
1.69	0	0	0	0	1	1	0	0	0	0	2	1
1.70	0	0	0	0	9	2	0	0	0	0	10	2
1.71	0	0	0	0	2	1	0	0	0	0	2	1
1.72	0	0	0	0	2	2	0	0	0	0	4	2
1.73	0	0	0	0	2	2	0	0	0	0	4	2
1.74	0	0	0	0	2	0	0	0	0	0	2	0
1.75	0	0	0	0	3	0	0	0	0	0	3	0
1.76	0	0	0	0	3	1	0	0	0	0	4	1
1.77	0	0	0	0	2	0	0	0	0	0	2	0
1.78	0	0	0	0	2	1	0	0	0	0	2	1
1.79	0	0	0	0	2	1	0	0	0	0	2	1
1.80	0	0	0	0	2	2	0	0	0	0	3	2
1.81	0	0	0	0	2	1	0	0	0	0	3	1
1.82	0	0	0	0	1	0	0	0	0	0	1	0
1.83	0	0	0	0	1	0	0	0	0	0	1	0
1.84	0	0	0	0	0	0	0	0	0	0	0	0
1.85	0	0	0	0	0	1	0	0	0	0	1	1
1.86	0	0	0	0	4	0	0	0	0	0	4	0
1.87	0	0	0	0	2	0	0	0	0	0	2	0
1.88	0	0	0	0	2	1	0	0	0	0	3	1
1.89	0	0	0	0	1	1	0	0	0	0	2	1
1.90	0	0	0	0	1	1	0	0	0	0	2	1
1.91	0	0	0	0	1	0	0	0	0	0	2	0
1.92	0	0	0	0	1	0	0	0	0	0	2	0
1.93	0	0	0	0	1	0	0	0	0	0	1	0
1.94	0	0	0	0	1	0	0	0	0	0	1	0
1.95	0	0	0	0	0	0	0	0	0	0	0	0
1.96	0	0	0	0	0	0	0	0	0	0	0	0
1.97	0	0	0	0	0	1	0	0	0	0	0	1
1.98	0	0	0	0	1	2	0	0	0	0	1	2
1.99	0	0	0	0	1	2	0	0	0	0	1	2
2.00	0	0	1	0	2	1	0	0	0	0	2	2
SUBTOTAL	0	3	14	2	101	26	0	12	0	2	116	40

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[redacted] [redacted] [redacted]

MISSION • 1C07-2 • INSTRUMENT • AFT 2-09-64 DENSITY FREQ DISTR

DENSITY VALUE	PRIMARY MIN	PRIMARY MAX	PRIMARY LIM	INTERMEDIATE MIN	INTERMEDIATE MAX	INTERMEDIATE LIM	FULL MIN	FULL MAX	FULL LIM	ALL LEVELS MIN	ALL LEVELS MAX	ALL LEVELS LIM
2.01	0	0	0	0	0	1	0	1	0	0	1	1
2.02	0	0	0	0	0	1	0	1	0	0	1	1
2.03	0	0	0	0	0	2	0	0	0	0	0	2
2.04	0	0	1	0	0	2	0	0	0	0	0	2
2.05	0	0	0	0	0	0	0	0	0	0	0	0
2.06	0	0	2	0	0	0	0	0	0	0	0	2
2.07	0	0	0	0	0	1	0	0	0	0	0	1
2.08	0	0	0	0	0	1	0	0	2	0	0	3
2.09	0	0	0	0	0	3	0	0	0	0	0	3
2.10	0	0	1	0	0	3	0	0	1	0	0	5
2.11	0	0	0	0	0	0	0	0	0	0	0	0
2.12	0	0	2	0	0	0	0	0	1	0	0	3
2.13	0	0	0	0	0	1	0	0	0	0	0	1
2.14	0	0	0	0	0	4	0	0	0	0	0	4
2.15	0	0	0	0	0	3	0	0	0	0	0	3
2.16	0	0	1	0	0	3	0	0	0	0	3	6
2.17	0	0	0	0	0	2	0	0	0	0	0	2
2.18	0	0	0	0	0	4	0	0	0	0	1	4
2.19	0	0	0	0	0	2	0	0	0	0	2	2
2.20	0	0	0	0	0	26	0	0	1	0	20	27
2.21	0	0	0	0	0	4	0	0	1	0	0	4
2.22	0	0	0	0	0	10	0	0	1	0	0	11
2.23	0	0	0	0	0	7	0	0	0	0	2	7
2.24	0	0	0	0	0	10	0	0	0	0	0	10
2.25	0	0	0	0	0	7	0	0	0	0	3	7
2.26	0	0	0	0	0	20	0	0	0	0	0	20
2.27	0	0	0	0	0	4	0	0	0	0	1	4
2.28	0	0	0	0	0	12	0	0	3	0	0	15
2.29	0	0	0	0	0	8	0	0	0	0	0	8
2.30	0	0	0	0	0	25	0	0	1	0	0	26
2.31	0	0	0	0	0	6	0	0	0	0	0	6
2.32	0	0	0	0	0	10	0	0	2	0	0	12
2.33	0	0	0	0	0	8	0	0	1	0	0	9
2.34	0	0	0	0	0	9	0	0	0	0	0	9
2.35	0	0	0	0	0	4	0	0	0	0	0	4
2.36	0	0	0	0	0	10	0	0	2	0	0	12
2.37	0	0	0	0	0	4	0	0	1	0	0	5
2.38	0	0	0	0	0	3	0	0	2	0	0	5
2.39	0	0	0	0	0	5	0	0	2	0	0	7
2.40	0	0	0	0	0	0	0	0	1	0	0	1
2.41	0	0	0	0	0	0	0	0	0	0	0	0
2.42	0	0	0	0	0	0	0	0	0	0	0	0
2.43	0	0	0	0	0	0	0	0	0	0	0	0
2.44	0	0	0	0	0	0	0	0	0	0	0	0
2.45	0	0	0	0	0	0	0	0	0	0	0	0
2.46	0	0	0	0	0	0	0	0	0	0	0	0
2.47	0	0	0	0	0	0	0	0	0	0	0	0
2.48	0	0	0	0	0	0	0	0	0	0	0	0
2.49	0	0	0	0	0	0	0	0	0	0	0	0
2.50	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	0	0	7	0	14	226	0	1	22	0	15	255

[redacted] [redacted] [redacted]

[redacted] [redacted] [redacted]

MISSION • 1007-2 • INSTRUMENT • AFT 2-09-64 DENSITY FREQ DISTR

DENSITY VALUE	PRIMARY MIN	PRIMARY MAX	PRIMARY LIM	INTERMEDIATE MIN	INTERMEDIATE MAX	INTERMEDIATE LIM	FULL MIN	FULL MAX	FULL LIM	ALL LEVELS MIN	ALL LEVELS MAX	ALL LEVELS LIM
2.51	C	C	0	C	0	0	0	0	0	0	0	0
2.52	C	C	0	C	C	0	0	0	0	0	0	0
2.53	C	C	0	C	C	0	0	0	0	0	0	0
2.54	C	C	0	C	C	0	0	0	0	0	0	0
2.55	C	C	0	C	C	0	0	0	0	0	0	0
2.56	C	C	0	C	C	0	0	0	0	0	0	0
2.57	C	C	0	C	C	0	0	0	0	0	0	0
2.58	C	C	0	C	C	0	0	0	0	0	0	0
2.59	C	C	0	C	C	0	0	0	0	0	0	0
2.60	C	C	0	C	C	0	0	0	0	0	0	0
2.61	C	C	0	C	C	0	0	0	0	0	0	0
2.62	C	C	0	C	C	0	0	0	0	0	0	0
2.63	C	C	0	C	C	0	0	0	0	0	0	0
2.64	C	C	0	C	C	0	0	0	0	0	0	0
2.65	C	C	0	C	C	0	0	0	0	0	0	0
2.66	C	C	0	C	C	0	0	0	0	0	0	0
2.67	C	C	0	C	C	0	0	0	0	0	0	0
2.68	C	C	0	C	C	0	0	0	0	0	0	0
2.69	C	C	0	C	C	0	0	0	0	0	0	0
2.7C	C	C	0	C	C	0	0	0	0	0	0	0
SUBTOTAL	C	C	0	C	C	0	0	0	0	0	0	0
TOTAL	8	8	21	216	216	258	21	21	22	245	245	301

MISSION 1007-2 INSTR - AFT 2-09-64 PROCESSING AND EXPOSURE ANAL

PROCESS LEVEL	SAMPLE SIZE	UNDER EXPOSED	UNDER PROCESSED	CORRECT EXP+PROC	OVER PROCESSED	OVE EXPOSE
PRIMARY	8	C PC	50 PC	50 PC	0 PC	0 P
INTERMEDIATE	216	C PC	16 PC	76 PC	7 PC	1 P
FULL	21	1C PC	0 PC	62 PC	29 PC	0 P
ALL LEVELS	245	1 PC	16 PC	74 PC	9 PC	1 P

PROCESS LEVEL	BASE + FOG	UNDER EXPOSED	UNDER PROCESSED	CORRECT EXP+PROC	OVER PROCESSED	OVE EXPOSE
PRIMARY	C.C1-C.1S	C.01-C.13	0.14-0.39	0.4C-0.90	---------	0.91 AND
INTERMED	C.1C-C.17	C.01-C.2C	0.21-0.39	0.4C-0.90	0.91-1.34	1.35 AND
FULL	C.18 AND UP	C.01-C.3S	---------	0.40-0.90	0.91-1.69	1.70 AND

[redacted] [redacted] [redacted]

[redacted]

[redacted]

MISSION • 1C07-2 • INSTR • AFT • 2-09-64 PLOT OF D MIN • TERRAIN • PROCESSING • PRIMARY

ARITH MEAN • 0.45 • MEDIAN • 0.44 • STD DEV • 0.12 • RANGE • 0.33 TO 0.61 WITH 8 SAMPLES

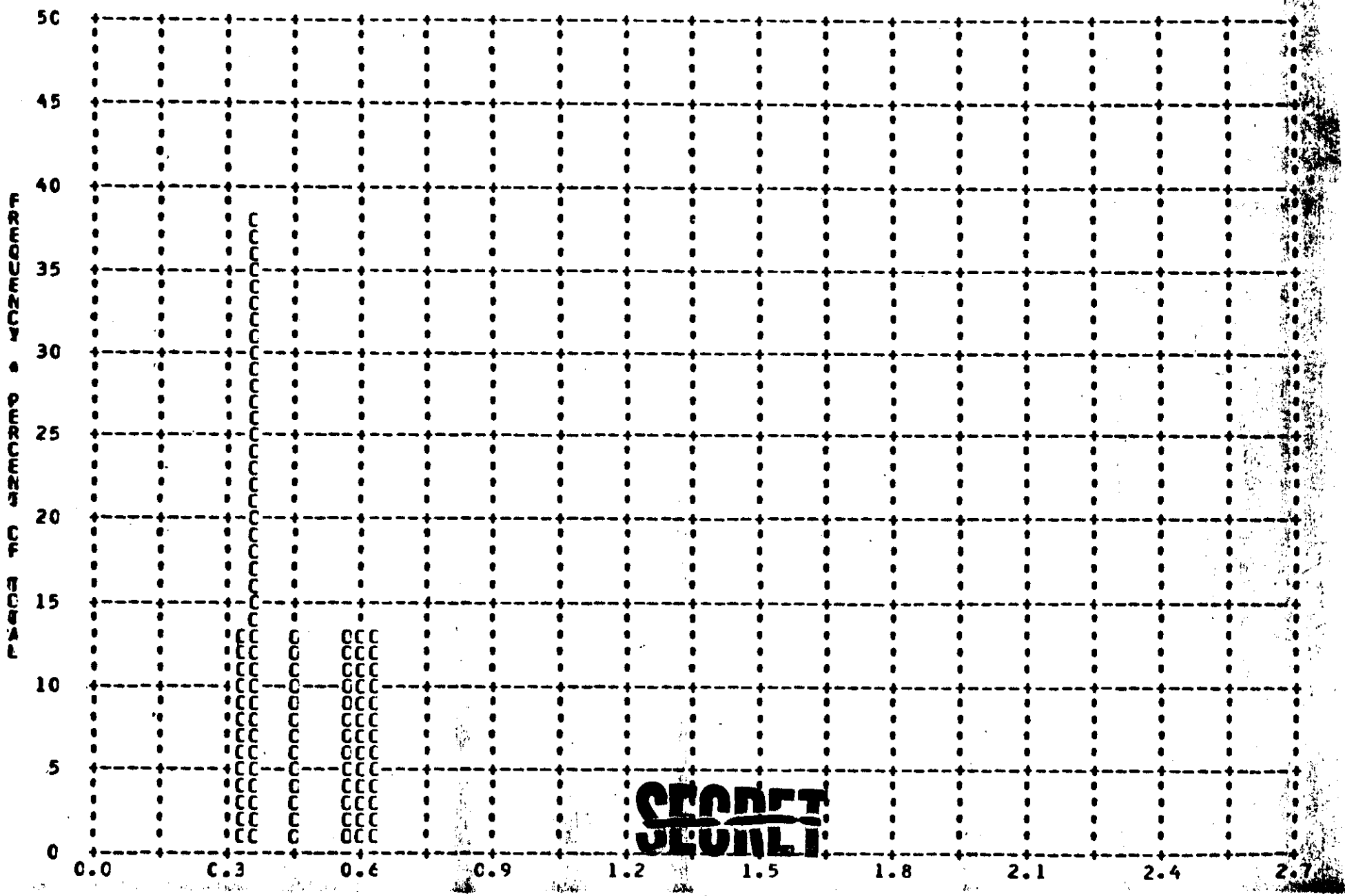


Figure 0-31

[redacted] [redacted]

MISSION • 1CC7-2 • INSTR • AFT • 2-09-64 PLOT OF D MAX • TERRAIN • PROCESSING • PRIMARY

ARITH MEAN • 1.22 • MEDIAN • 1.21 • STD DEV • 0.55 • RANGE • 0.63 TO 1.90 WITH 8 SAMPLES

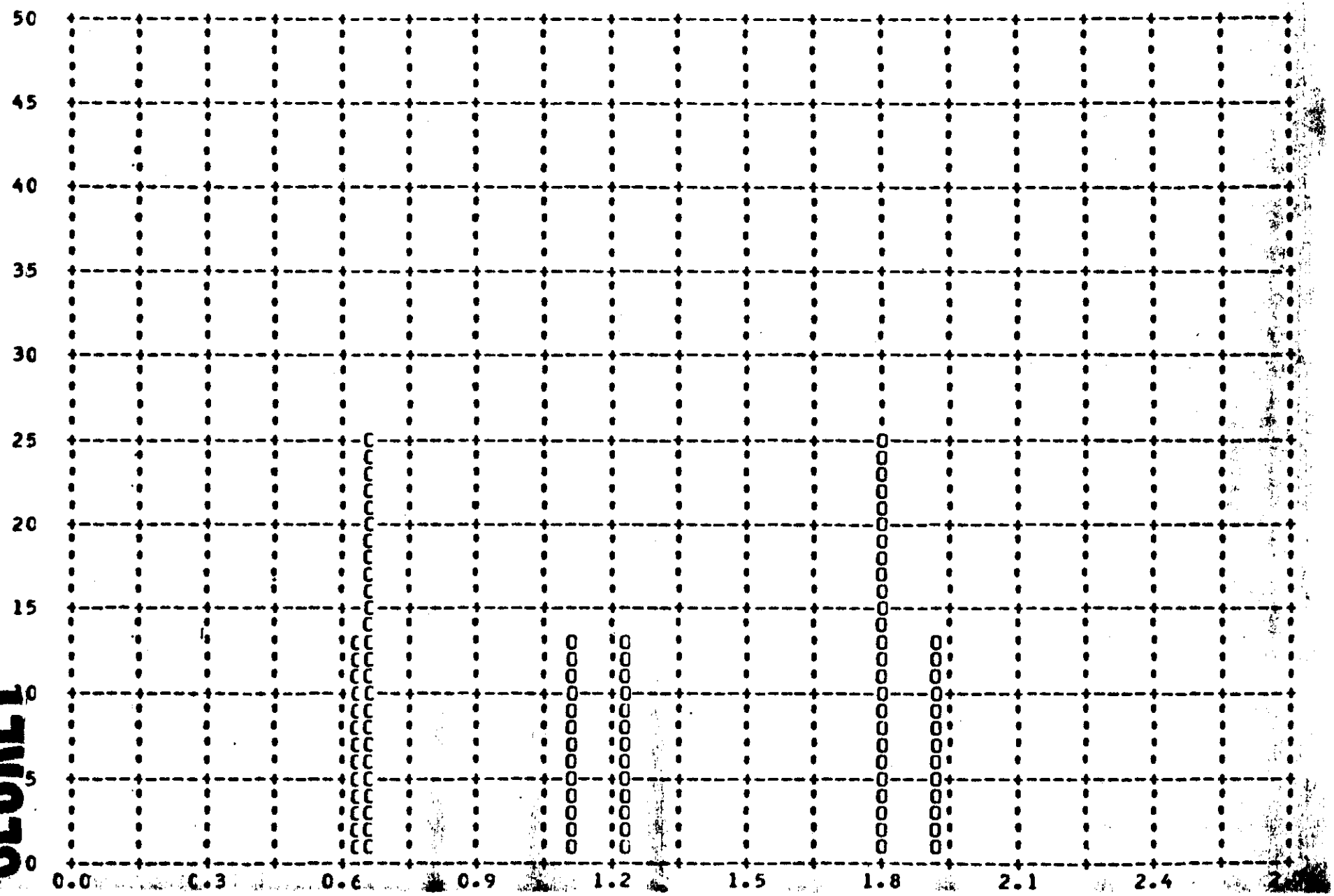


Figure 9-32

[redacted] [redacted]

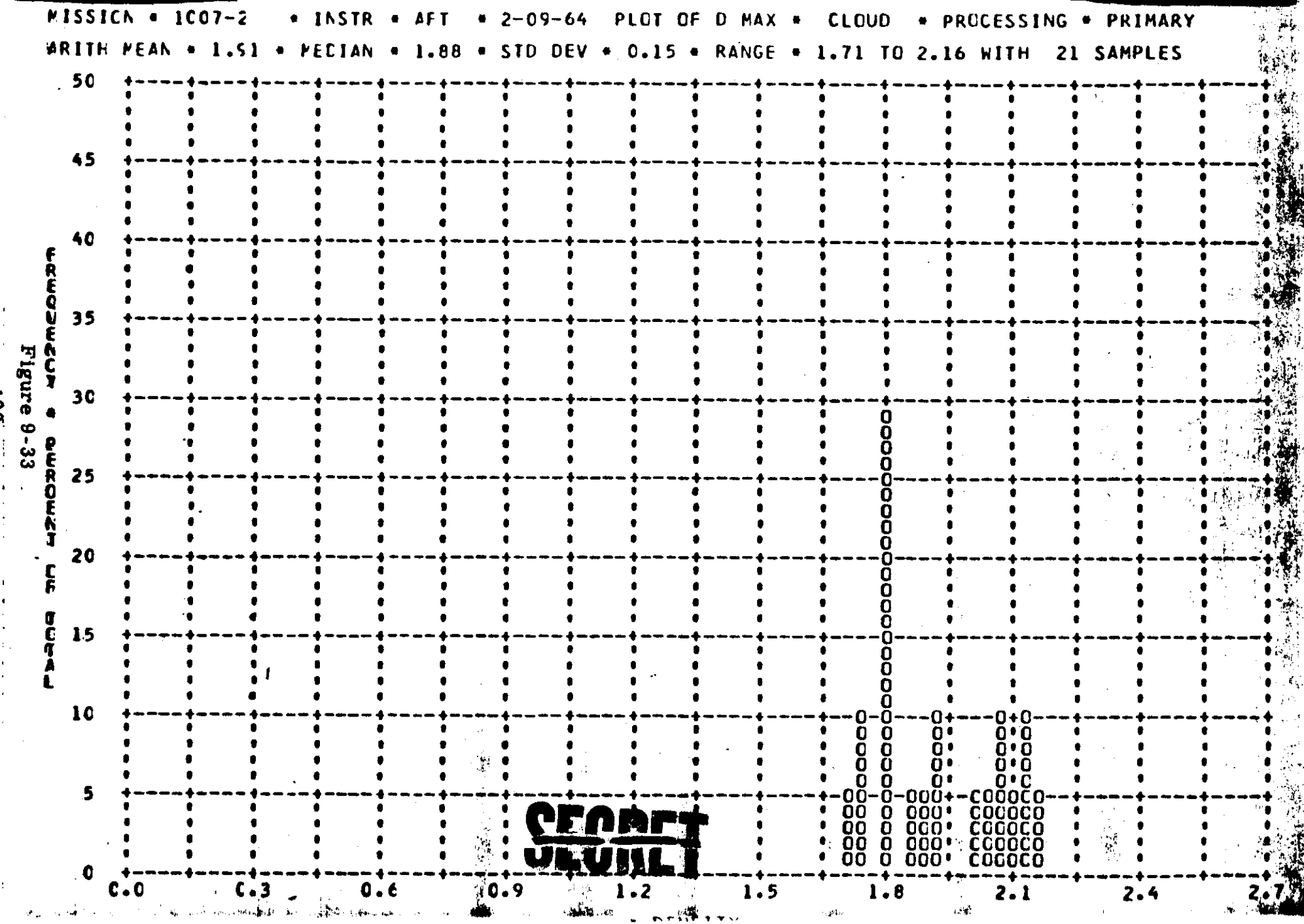


Figure 9-33

[redacted] [redacted]

MISSION • ICC7-2 • INSTR • AFT • 2-09-64 PLOT OF D MIN • TERRAIN • PROCESSING • INTERMEDIATE

ARITH MEAN • C.6C • MEDIAN • C.56 • STD DEV • 0.22 • RANGE • 0.24 TO 1.56 WITH 216 SAMPLES

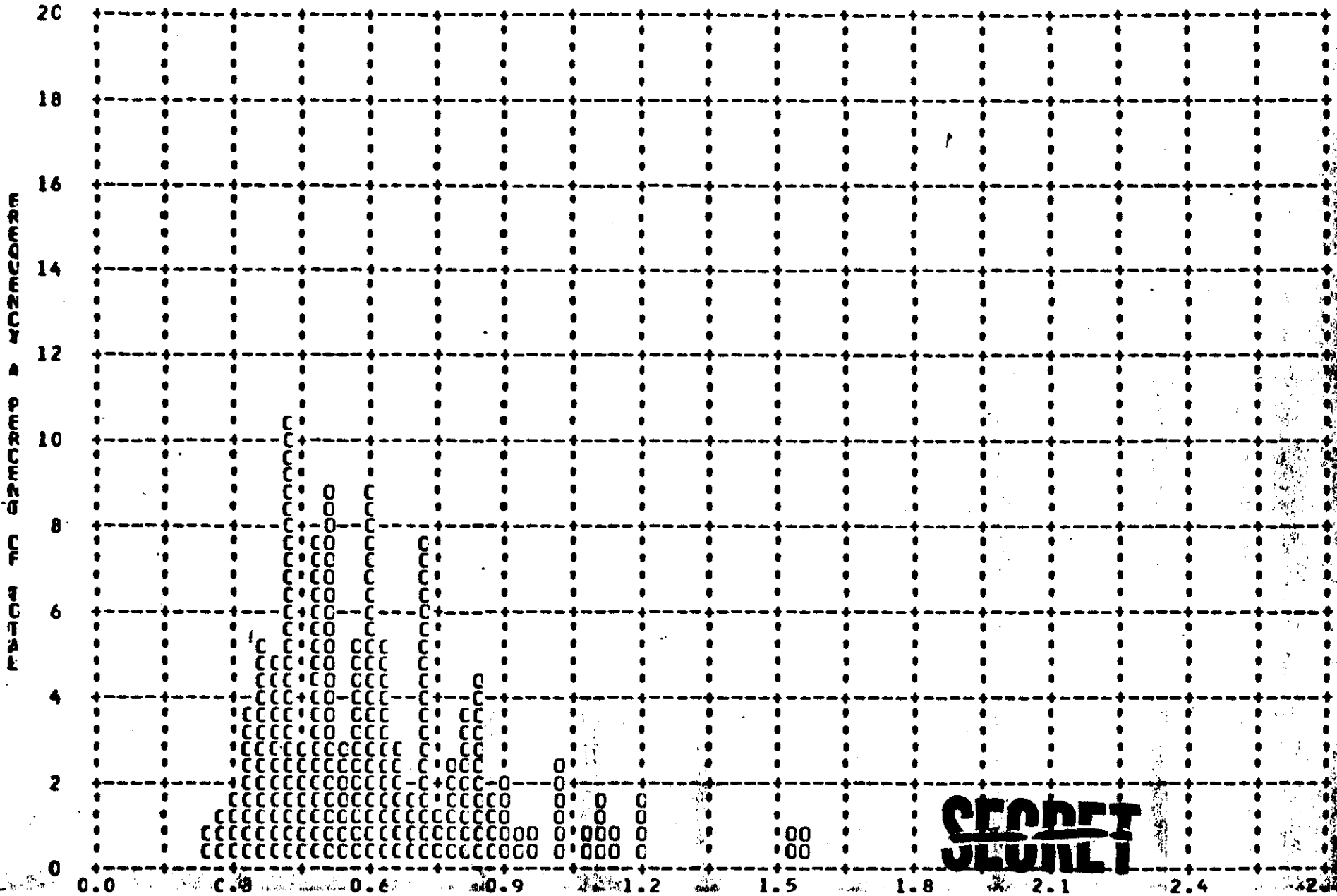


Figure 9-34

[redacted]

[redacted]

MISSION • 1007-2 • INSTR • AFT • 2-09-64 PLOT OF D MAX • TERRAIN • PROCESSING • INTERMEDIATE

ARITH MEAN • 1.51 • MEDIAN • 1.52 • STD DEV • 0.32 • RANGE • 0.44 TO 2.27 WITH 216 SAMPLES

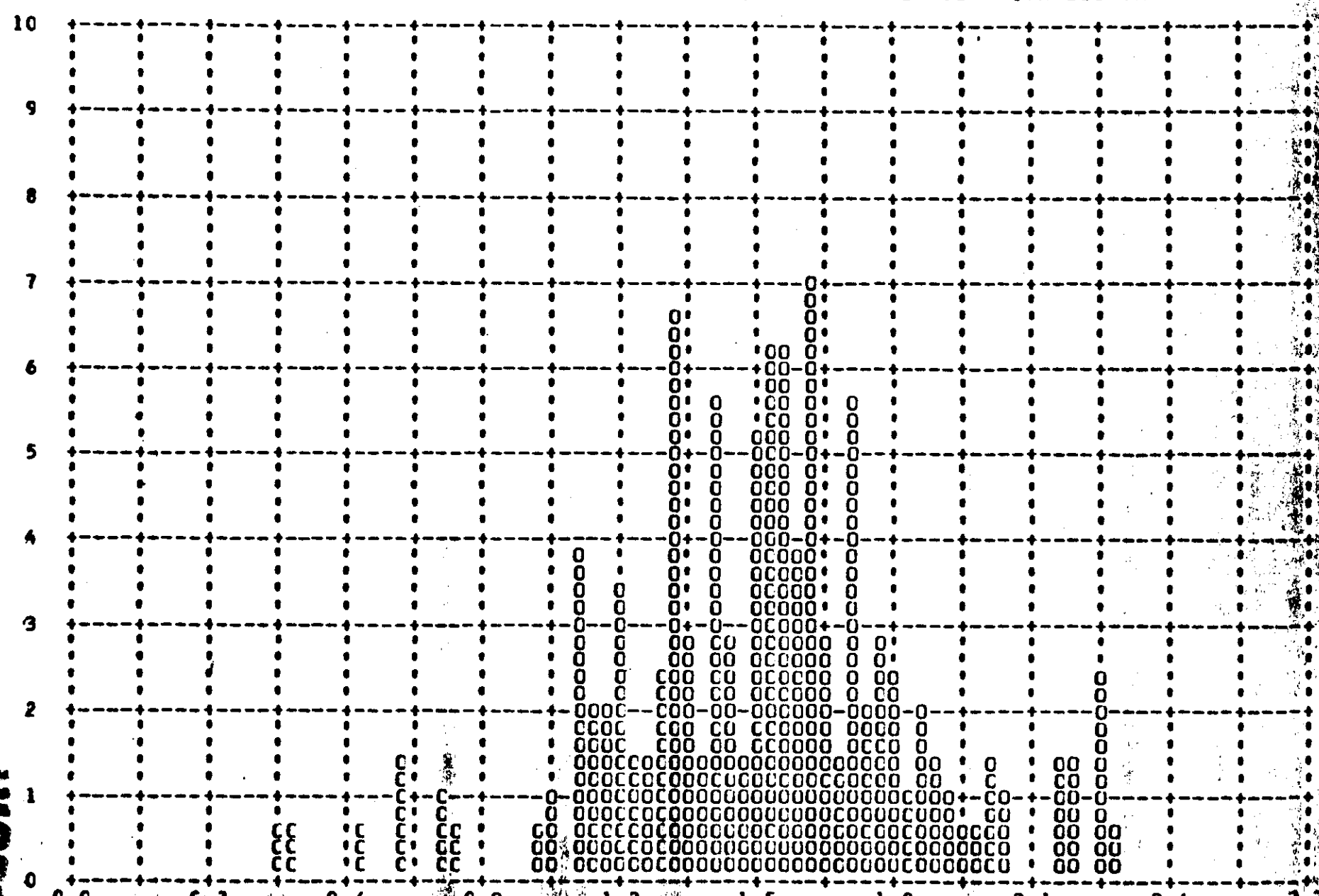


Figure 9-35

[redacted]

[redacted]

MISSION • 1CC7-2 • INSTR • AFT • 2-09-64 PLOT OF D MAX • CLOUD • PROCESSING • INTERMEDIATE

ARITH MEAN • 2.1E • MEDIAN • 2.25 • STD DEV • 0.23 • RANGE • 0.84 TO 2.40 WITH 258 SAMPLES

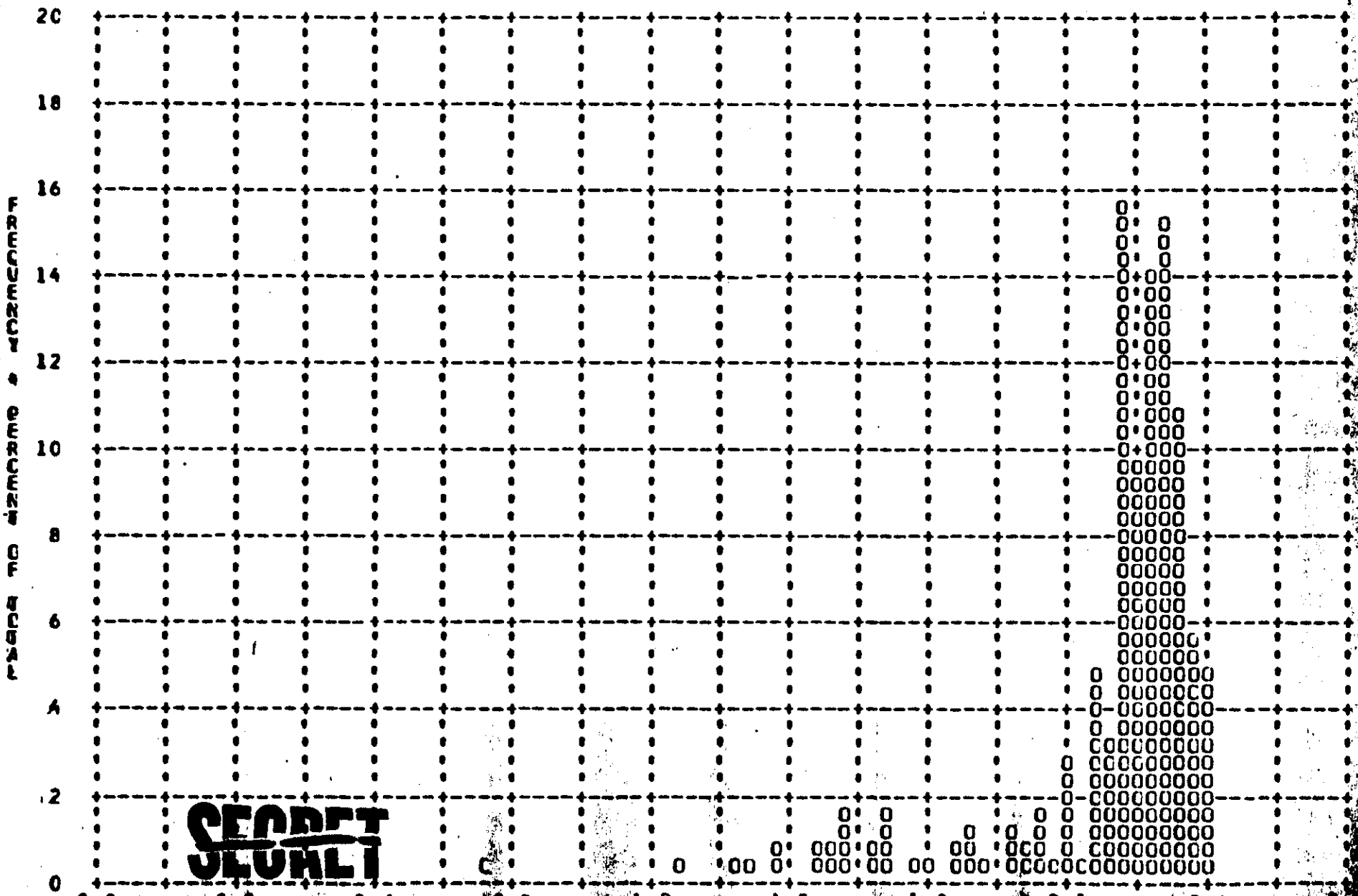


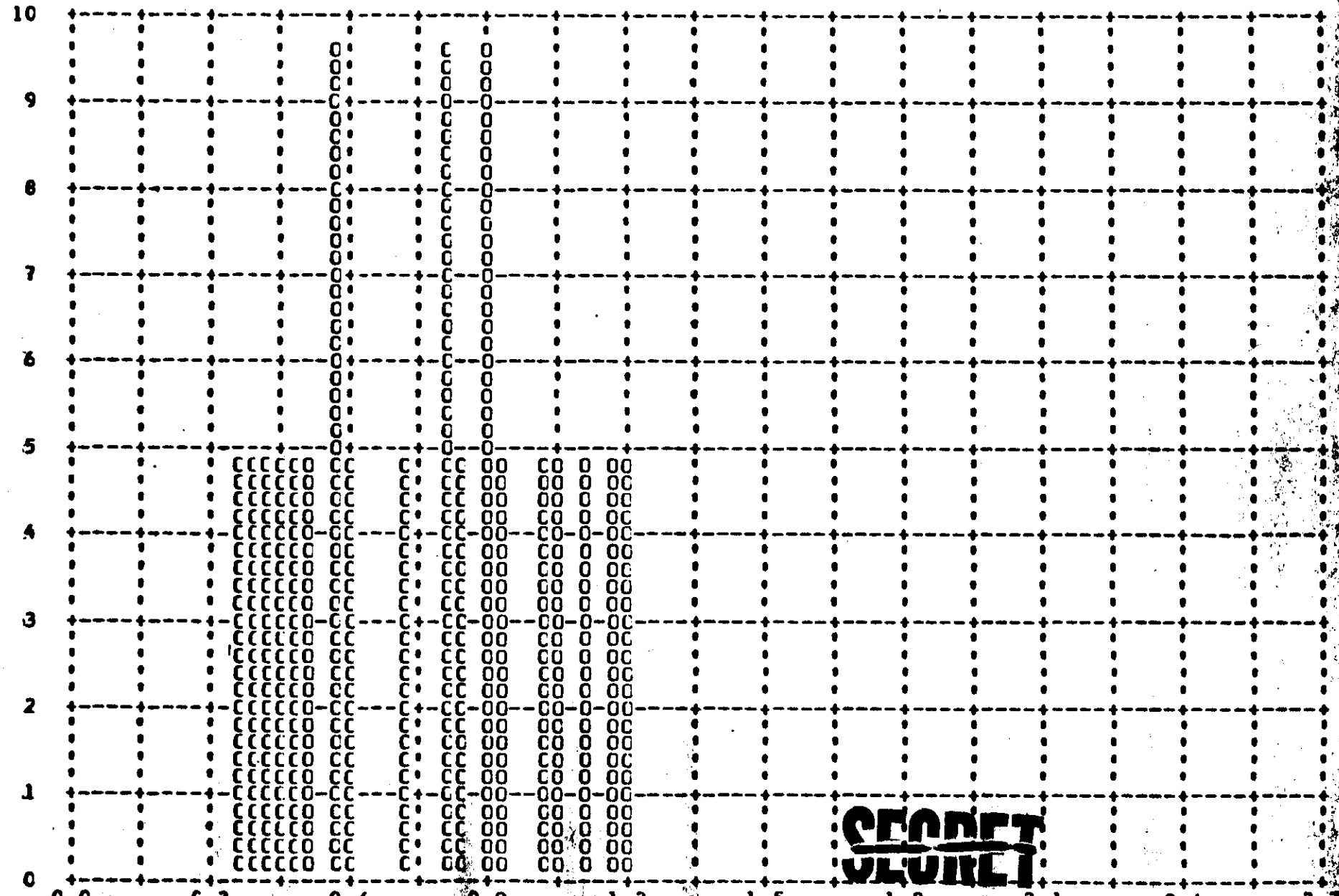
Figure 9-36

SECRET

[redacted] [redacted]

MISSION • 1CC7-2 • INSTR • AFT • 2-09-64 PLOT OF D MIN • TERRAIN • PROCESSING • FULL

ARITH MEAN • 0.74 • MEDIAN • 0.80 • STD DEV • 0.27 • RANGE • 0.34 TO 1.20 WITH 21 SAMPLES



SECRET

Figure 8-37

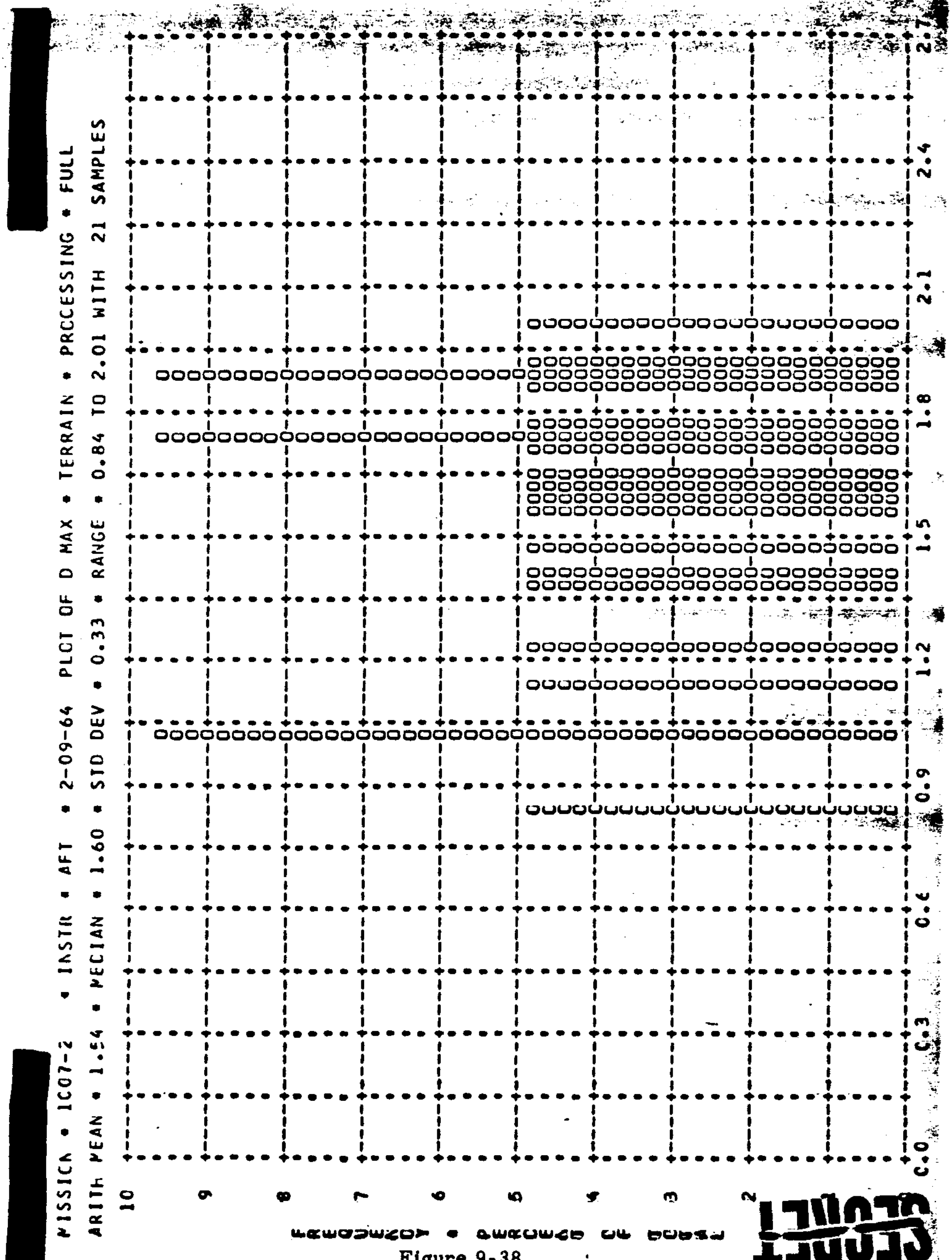

MISSION • 1C07-2 • INSTR • AFT • 2-09-64 PLOT OF D MAX • TERRAIN • PROCESSING • FULL
ARITH MEAN • 1.54 • MEDIAN • 1.60 • STD DEV • 0.33 • RANGE • 0.84 TO 2.01 WITH 21 SAMPLES
10
9
8
7
6
5
4
3
2
0.0
0.3
0.6
0.9
1.2
1.5
1.8
2.1
2.4
2.7

Figure 9-38

[redacted] [redacted]

MISSION • 1007-2 • INSTR • AFT • 2-09-64 PLOT OF D MAX • CLOUD • PROCESSING • FULL

ARITH MEAN • 2.25 • MEDIAN • 2.32 • STD DEV • 0.11 • RANGE • 2.08 TO 2.41 WITH 22 SAMPLES

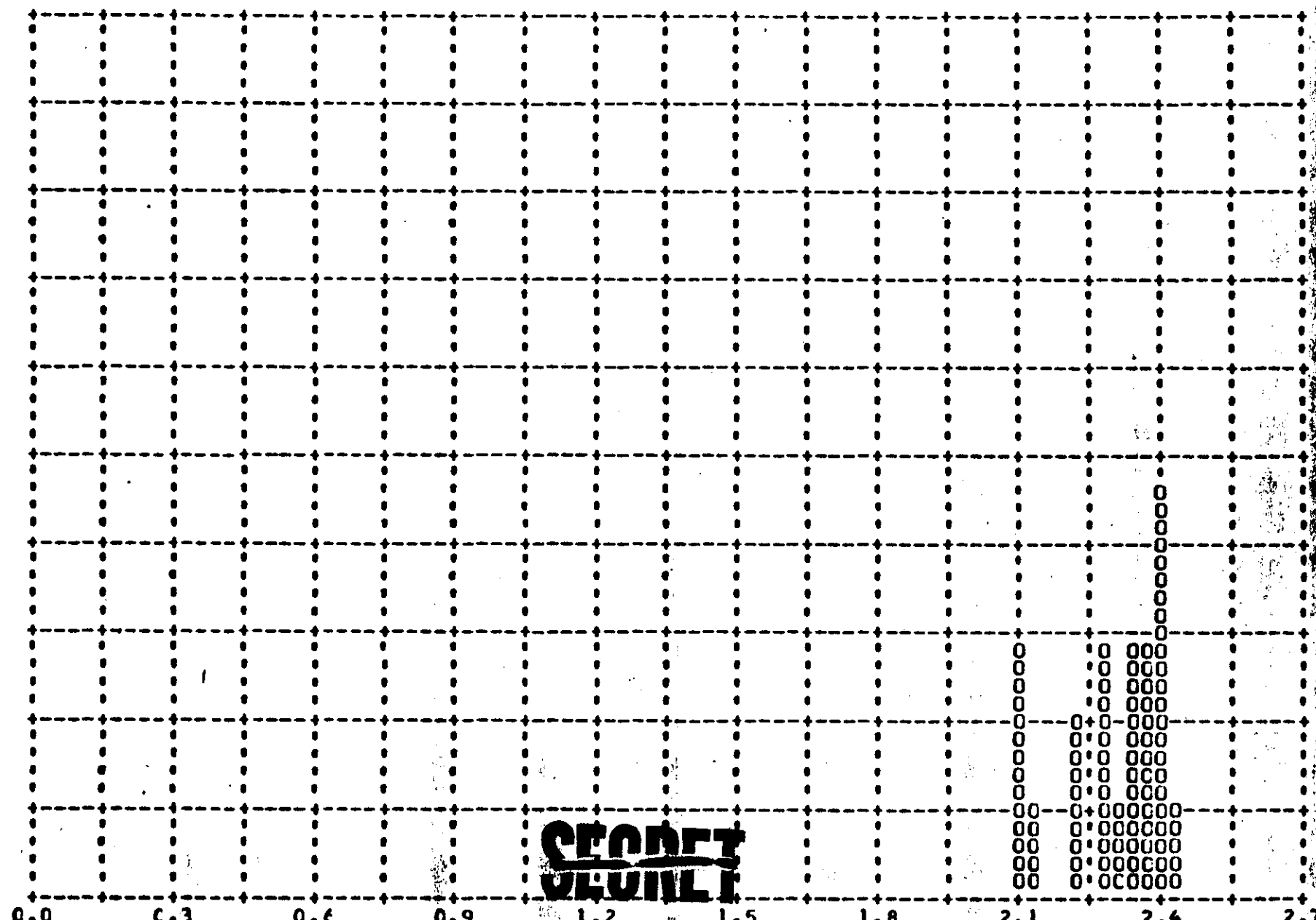


Figure 9-39

[redacted]

[redacted]

MISSION • 1C07-2 • INSTR • AFT • 2-09-64 PLOT OF D MIN • TERRAIN • PROCESSING • ALL LEVELS

ARITH MEAN • C.6C • MEDIAN • C.56 • STD DEV • 0.23 • RANGE • 0.24 TO 1.56 WITH 245 SAMPLES

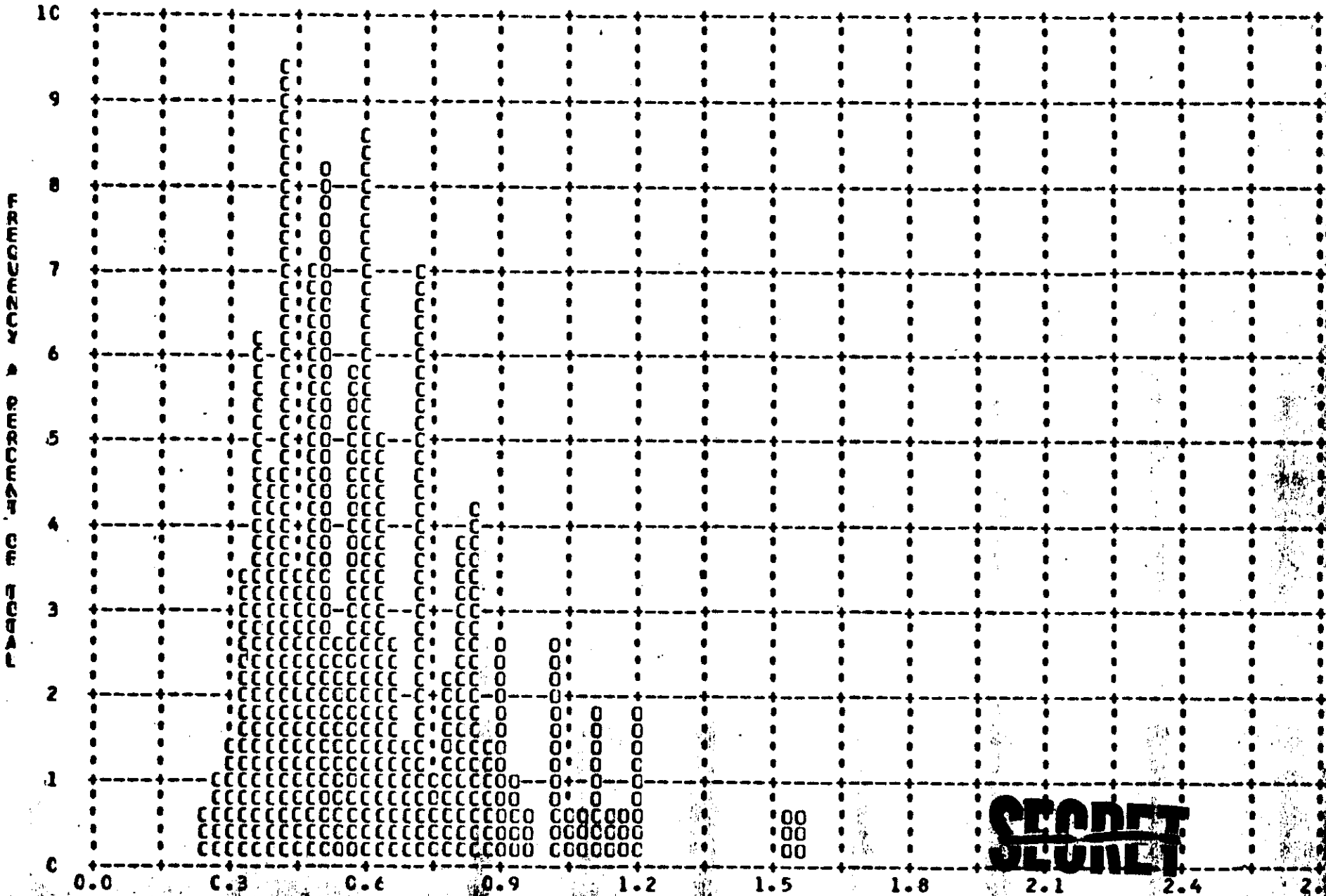


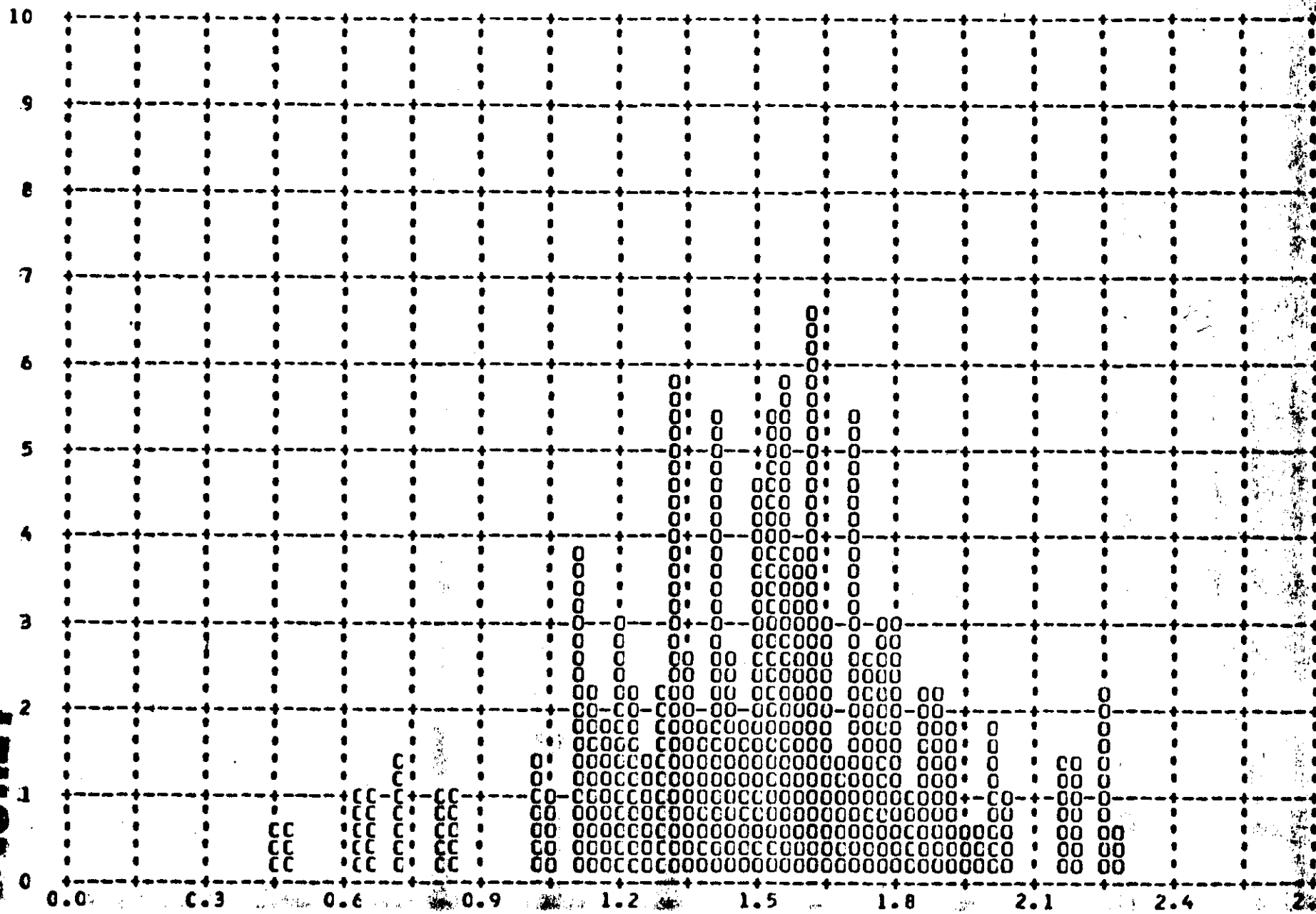
Figure 9-40

[redacted]

[redacted]

MISSION • 1CC7-2 • INSTR • AFT • 2-09-64 PLOT OF D MAX • TERRAIN • PROCESSING • ALL LEVELS

ARITH MEAN • 1.5C • MEDIAN • 1.52 • STD DEV • 0.34 • RANGE • 0.44 TO 2.27 WITH 245 SAMPLES



FREQUENCY • OCCURRENCE OF SCORE

Figure 9-41

[redacted]

[redacted]

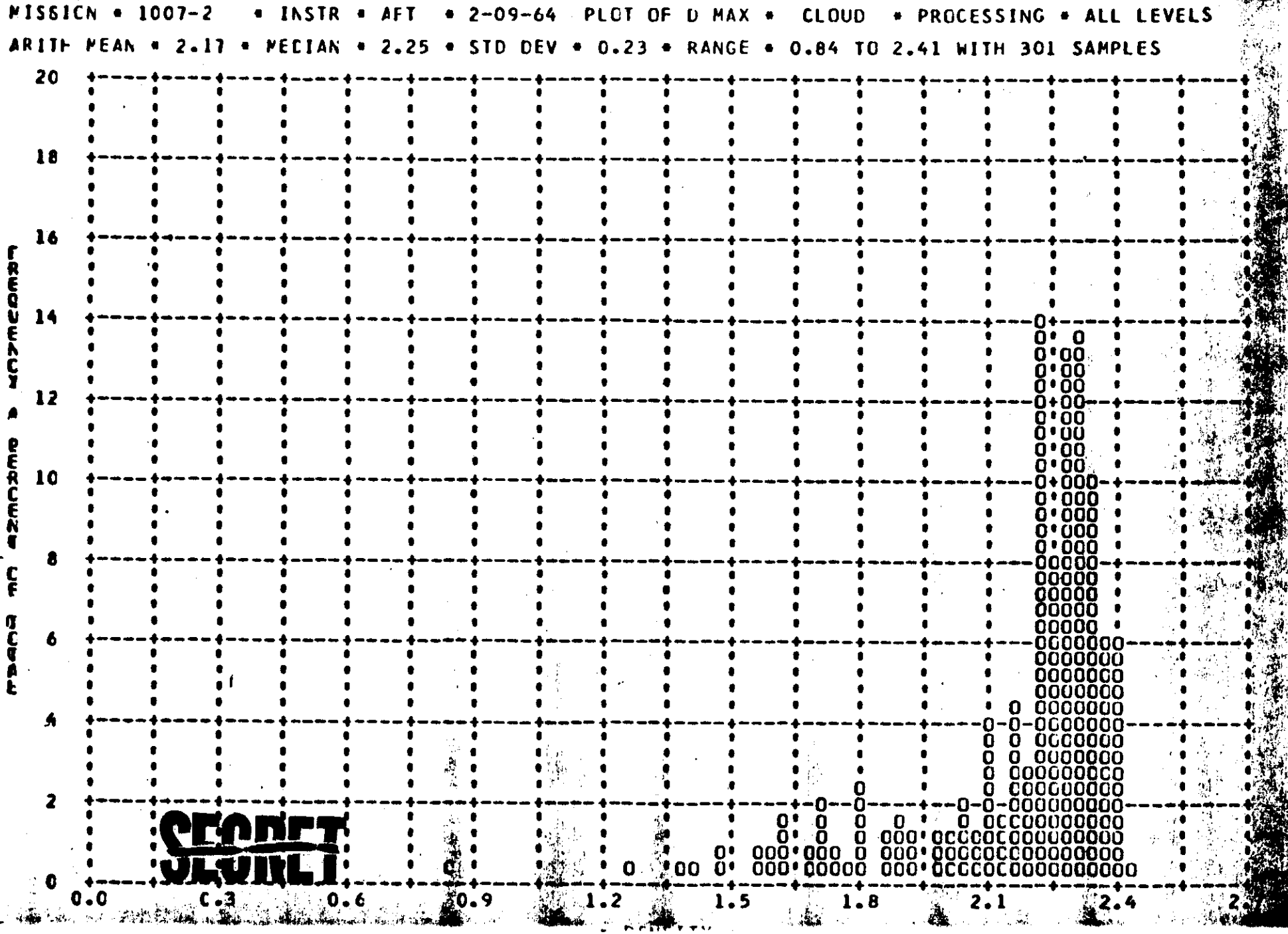


Figure 9-42

[redacted] [redacted] [redacted]

MISSION 1CC7-1 INSTR - FWD 2-09-64 PROCESSING AND EXPOSURE ANALYSIS

PROCESS LEVEL	SAMPLE SIZE	UNDER EXPOSED	UNDER PROCESSED	CORRECT EXP+PROC	OVER PROCESSED	OVER EXPOSED
PRIMARY	C	C PC	0 PC	0 PC	0 PC	0 PC
INTERMEDIATE	63	C PC	30 PC	68 PC	2 PC	0 PC
FULL	186	26 PC	0 PC	67 PC	6 PC	0 PC
ALL LEVELS	249	20 PC	8 PC	67 PC	5 PC	0 PC

MISSION 1CC7-1 INSTR - AFT 2-09-64 PROCESSING AND EXPOSURE ANALYSIS

PROCESS LEVEL	SAMPLE SIZE	UNDER EXPOSED	UNDER PROCESSED	CORRECT EXP+PROC	OVER PROCESSED	OVER EXPOSED
PRIMARY	15	C PC	27 PC	60 PC	0 PC	13 PC
INTERMEDIATE	188	C PC	14 PC	79 PC	6 PC	0 PC
FULL	40	7 PC	0 PC	90 PC	2 PC	0 PC
ALL LEVELS	243	1 PC	13 PC	80 PC	5 PC	1 PC

MISSION 1CC7-2 INSTR - FWD 2-09-64 PROCESSING AND EXPOSURE ANALYSIS

PROCESS LEVEL	SAMPLE SIZE	UNDER EXPOSED	UNDER PROCESSED	CORRECT EXP+PROC	OVER PROCESSED	OVER EXPOSED
PRIMARY	C	C PC	0 PC	0 PC	0 PC	0 PC
INTERMEDIATE	55	C PC	38 PC	58 PC	4 PC	0 PC
FULL	177	23 PC	0 PC	75 PC	2 PC	0 PC
ALL LEVELS	232	18 PC	9 PC	71 PC	2 PC	0 PC

MISSION 1CC7-2 INSTR - AFT 2-09-64 PROCESSING AND EXPOSURE ANALYSIS

PROCESS LEVEL	SAMPLE SIZE	UNDER EXPOSED	UNDER PROCESSED	CORRECT EXP+PROC	OVER PROCESSED	OVER EXPOSED
PRIMARY	8	C PC	50 PC	50 PC	0 PC	0 PC
INTERMEDIATE	216	C PC	16 PC	76 PC	7 PC	1 PC
FULL	21	10 PC	0 PC	62 PC	29 PC	0 PC
ALL LEVELS	245	1 PC	16 PC	74 PC	9 PC	1 PC

Table 9-7

SECTION 10

PERFORMANCE MEASUREMENTS

The photography acquired by both cameras during Missions 1007-1 and 1007-2 received a MIP rating of 85. A summary is tabulated below of the visual RES values reported by AFSPPL and the microdensitometric MTF/AIM resolution values measured by AFSPPL and [redacted] The microdensitometer slit width is shown for each MTF/AIM column as various widths are used.

Mission	Camera	Visual RES	AFSPPL 350 μ	AFSPPL 43 μ	EKCo 320 μ
1007-1	FWD	80	60	87	82
1007-1	AFT	86	63	83	97
1007-2	FWD	79	72	81	82
1007-2	AFT	81	77	92	90

The detailed measurement techniques, targets measured and MTF/AIM resolution values for each target is reported by AFSPPL and is therefore not duplicated in this report. It should be noted that the [redacted] data has been recomputed since the original publication however the corrected values have not been distributed

The correlation between the various groups of MTF/AIM resolution values appears to be rather poor. It is still recommended that the measurement program be continued to attempt to attain techniques and equipment that will provide a true measure of the acquired ground resolution.

SECTION 11

OBSERVED DATA

The photographic operations during Mission 1007-1 and 1007-2 were programmed over the denied area with the exception of the last few frames of pass D02 covering St. Lawrence Island. This precluded the acquisition of the fixed and portable ground resolution targets hence no quantitative performance data is available. The absence of daylight engineering photography also made detailed performance evaluation at the contractors plant impossible.

The detection and identification of automobiles and trucks was generally possible throughout the missions. All types of aircraft were identifiable and engine nacelles could be detected on most bomber and transport type aircraft.

The most significant observation by the evaluation team was noted during pass D56. A group of bicycle riders could, by association, be detected in front of a major university.

SECTION 12

MISSION 1007-1 STELLAR-INDEX CAMERA

A. COMPONENT ASSIGNMENT

Component	Serial Number
Camera	D 43
Index Reseau	43
Stellar Reseau	43

B. CAMERA DATA AND FLIGHT SETTINGS

Stellar Camera:

Lens	85 mm f/1.8
Exposure Time	2 seconds
Filter Type	None
Film Type	Eastman Type 4401

Index Camera:

Lens	38 mm f/4.5
Exposure Time	1/500 second
Filter Type	Wratten 21
Film Type	Eastman Type 4400

C. POST FLIGHT EVALUATION

The camera operated properly during the entire mission with no observed equipment malfunctions. Two of the Stellar camera fiducials were bloomed but were still usable for data reduction.

Approximately 30% of the stellar format was obscured by baffle vignetting and flare. The magnitude of the flare was the lowest observed.

Minor fogging was observed in seven areas of the stellar film, each area comprised of six to seven frames. Analysis has showed that this fogging was caused by radiation when the payload passed through the radioactive anomaly over South America. The fogged frames were in the film chute during the passage through the anomaly. Additional radiation protection has been added to the film chute.

The photography obtained from both the Stellar and Index cameras was execllent. Vehicle attitude and relative orientation data was derived without difficulty.

SECTION 13

MISSION 1007-2 STELLAR-INDEX CAMERA

A. COMPONENT ASSIGNMENT

Component	Serial Number
Camera	D54
Index Reseau	56
Stellar Reseau	51

B. CAMERA DATA AND FLIGHT SETTINGS

Stellar Camera	
Lens	85 mm f/1.8
Exposure Time	2 seconds
Filter Type	None
Film Type	Eastman Type 4401
Index Camera:	
Lens	38 mm f/4.5
Exposure Time	1/500 second
Filter Type	Wratten 21
Film Type	Eastman Type 4400

C. POST FLIGHT EVALUATION

The Stellar camera shutter exhibited several failure modes during the mission resulting in the loss of approximately 35% of the stellar formats. The shutter failed open during 116 frames and remained open during film meter, failed open on 21 frames but closed during metering, and failed to open on 20 frames. There were no associated failures in the Index camera hence the problems appear to be confined to the Stellar shutter.

There were 13 multiple exposures on both the stellar and index film which, in all cases, occurred simultaneously. This indicates a problem in the camera programmer as the meter pulse was apparently not received by the camera.

All stellar formats were effected by a large area of flare from the baffle side curtain. Approximately 55% of each format was obscured by baffle vignetting and flare. This excessive flare raised the base plus fog level of the unobscured format area to a level that degraded the recorded star field.

The multitude of problems in the stellar photography precluded the use of this material for vehicle attitude data. The index photography was satisfactory however essentially all frames were soft along the camera number edge.

SECTION 14

VEHICLE ATTITUDE

The vehicle attitude errors for Mission 1007-1 were obtained from the reduction of the Stellar camera photography. The Stellar photography of Mission 1007-2 was considered unusable therefore pitch and roll error data was obtained from the horizon cameras. Yaw error data is not available for Mission 1007-2.

The vehicle attitude error data is supplied to A/P by NPIC. The attitude rates are derived from the error data at the A/P computer facility. The computer also plots the frequency distribution of the error and rates. Figures 14-1 through 14-10 show this distribution for Missions 1007-1 and 1007-2.

The summary table below lists the maximum attitude errors and rates that were experienced during 90% of the photographic operations and the total range of the errors and rates

	Mission 1007-1		Mission 1007-2	
Value	90%	Range	90%	Range
Pitch Error (^{o})	0.58	-0.80 to +0.90	0.64	-1.40 to +0.70
Roll Error (^{o})	0.46	-0.50 to +0.32	0.47	-0.02 to +0.82
Yaw Error (^{o})	1.43	-1.90 to +0.10	-	-
Pitch Rate (^{o}/hr)	37.6	-90 to +90	43.0	-90 to + 100
Roll Rate (^{o}/hr)	23.9	-52 to +60	25.8	-90 to + 55
Yaw Rate (^{o}/hr)	29.9	-64 to +60	-	-

A comparison was made with the attitudes error data obtained from the control package by telemetry. A high degree of correlation exists between the general frequency curve shape and mode for the pitch and roll values.

[redacted] MISSION 1007-1 [redacted] MISSION 1(

J-07 A BUCKET 10-21-64 FRAMES 1-6 OF EACH OP OMITTED 90 PERCENT = (

Y PITCH ANGLE ERROR - DEGREES (X) VERSUS FREQUENCY - PERCENT (Y)

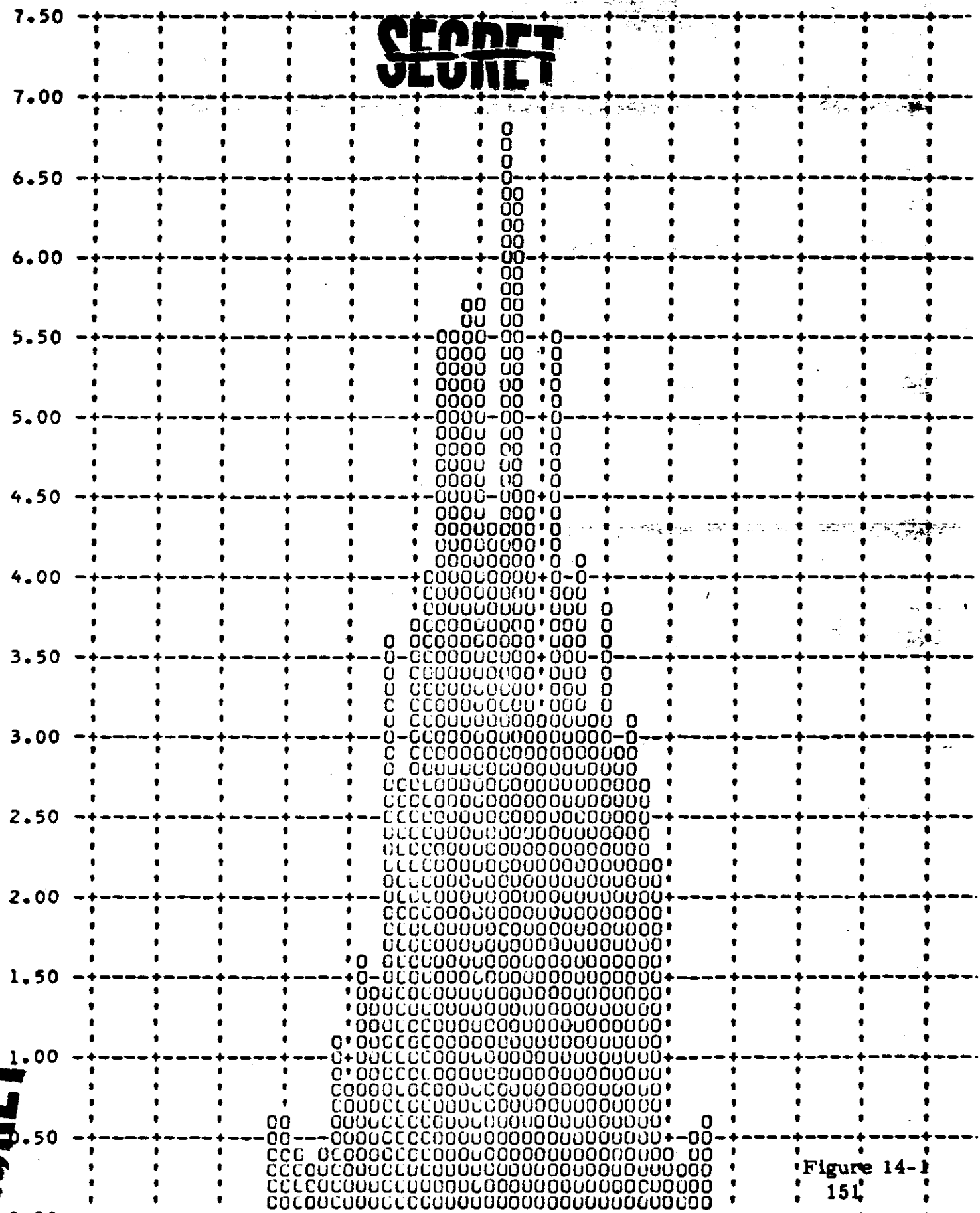


Figure 14-1

SECRET

J-07 A BUCKET 10-21-64 FRAMES 1-6 OF EACH OP OMITTED 90 PERCENT = 0[illegible]

Y ROLL ANGLE ERROR - DEGREES (X) VERSUS FREQUENCY - PERCENT (Y)

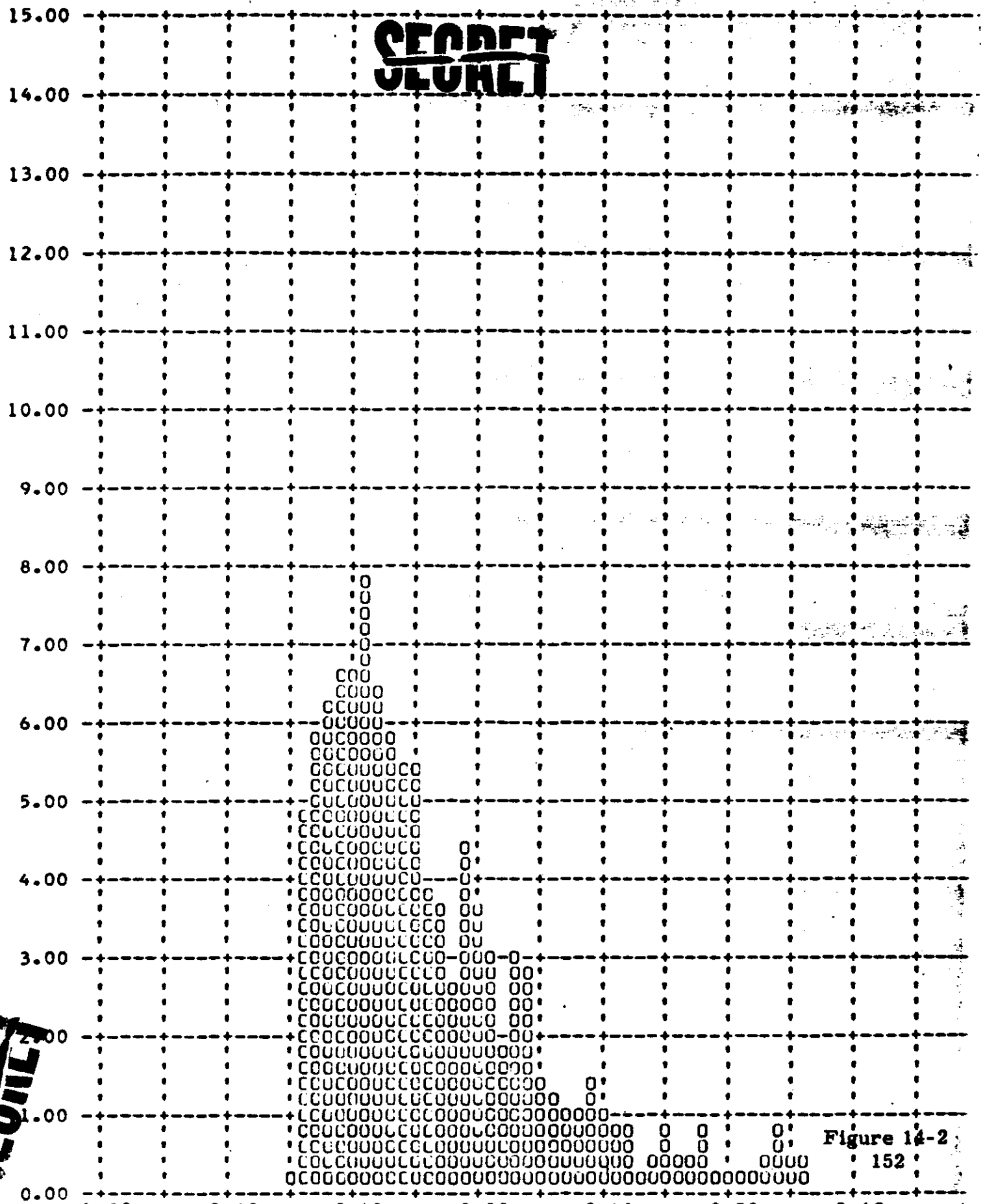


Figure 14-2

[redacted] MISSION 1007-1 [redacted] MISSION 10[illegible]

J-07 A BUCKET 10-21-64 FRAMES 1-6 OF EACH OF OMITTED 90 PERCENT = 1.[illegible]

Y YAW ANGLE ERROR - DEGREES (X) VERSUS FREQUENCY - PERCENT (Y)

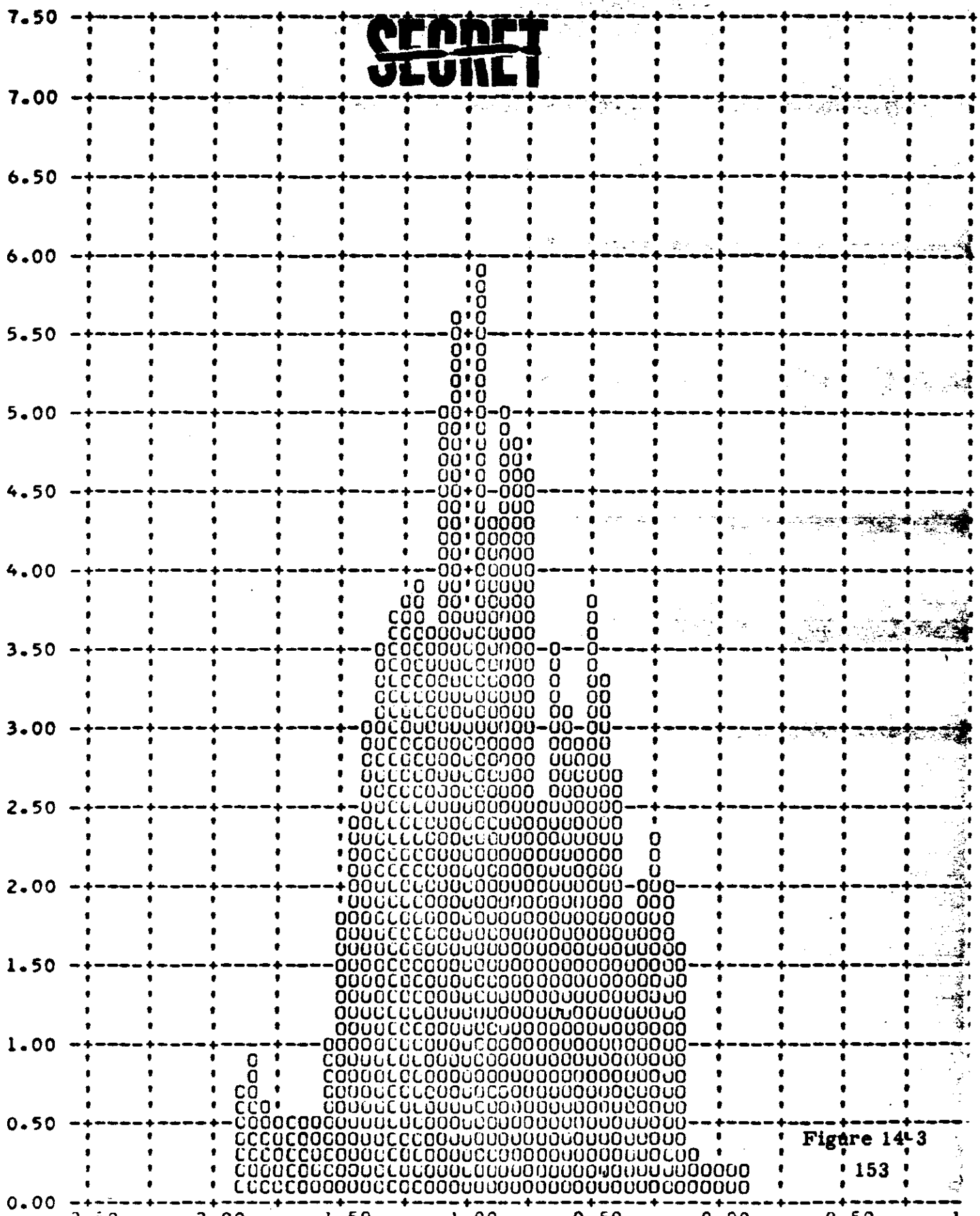


Figure 14-3

Y PITCH RATE ERROR - DEG/HOUR (X) VERSUS FREQUENCY - PERCENT (Y)

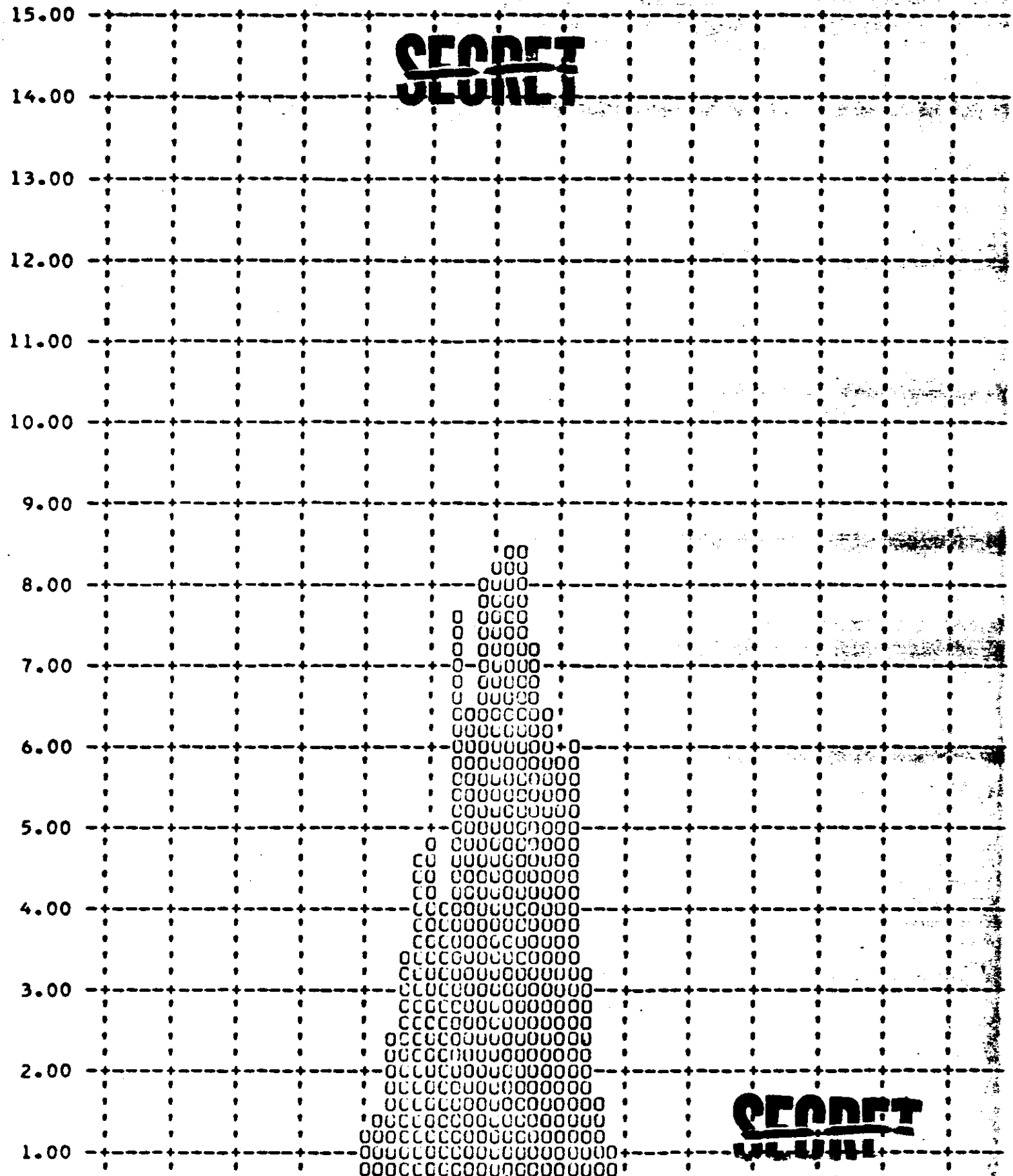


Figure 14-4

J-07 A BUCKET- 10-21-64 [redacted] FRAMES 1-6 OF EACH OF OMITTED- 90 PERCENT- 23.

Y ROLL RATE ERROR - DEG/HOUR (X) VERSUS FREQUENCY - PERCENT (Y)

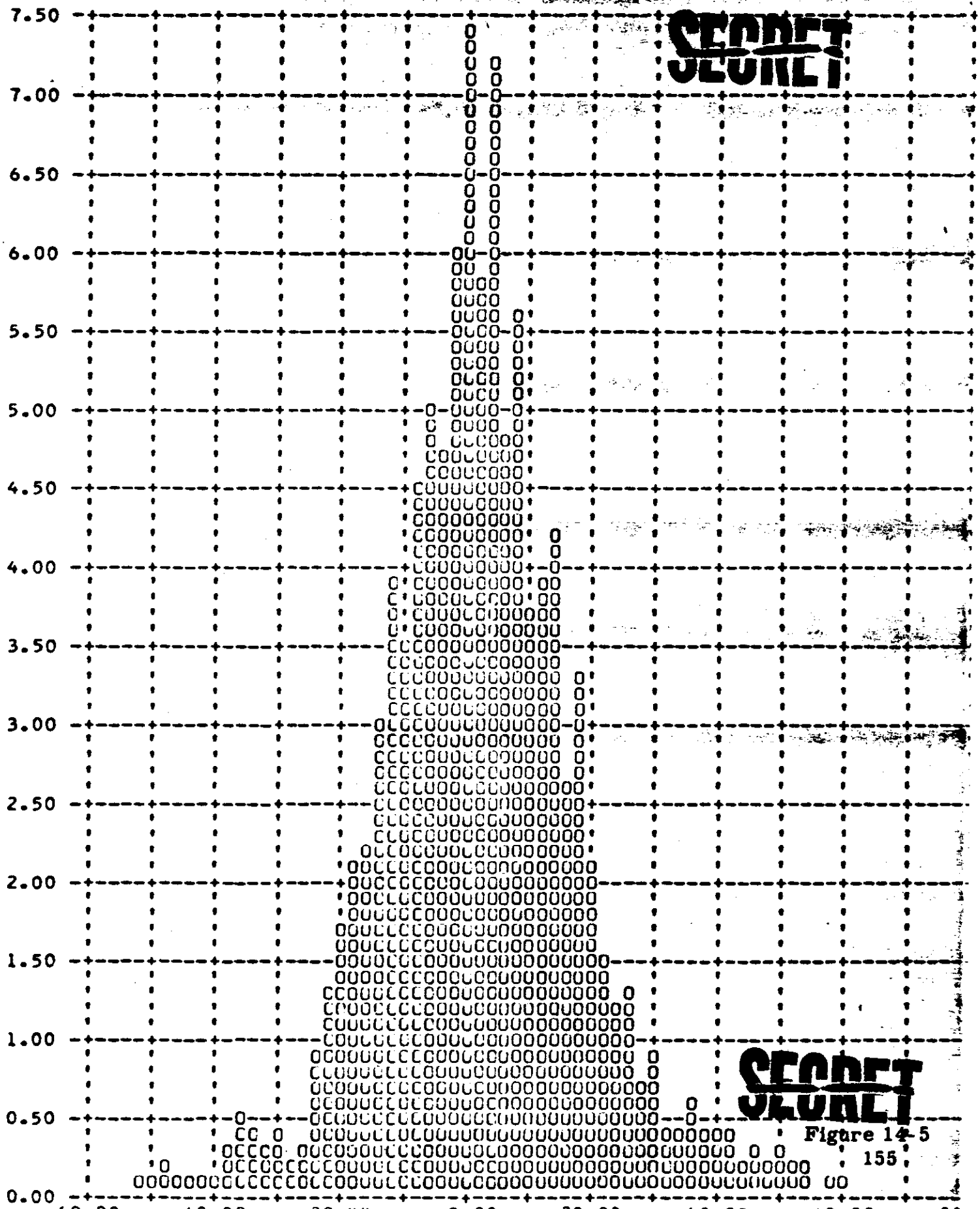


Figure 14-5

[redacted] MISSION 1007-1 [redacted] MISSION [redacted]

J-07 A BUCKET 10-21-64 FRAMES 1-6 OF EACH OF OMITTED 90 PERCENT = 29.

Y YAW RATE ERROR - DEG/HOUR (X) VERSUS FREQUENCY - PERCENT (Y)

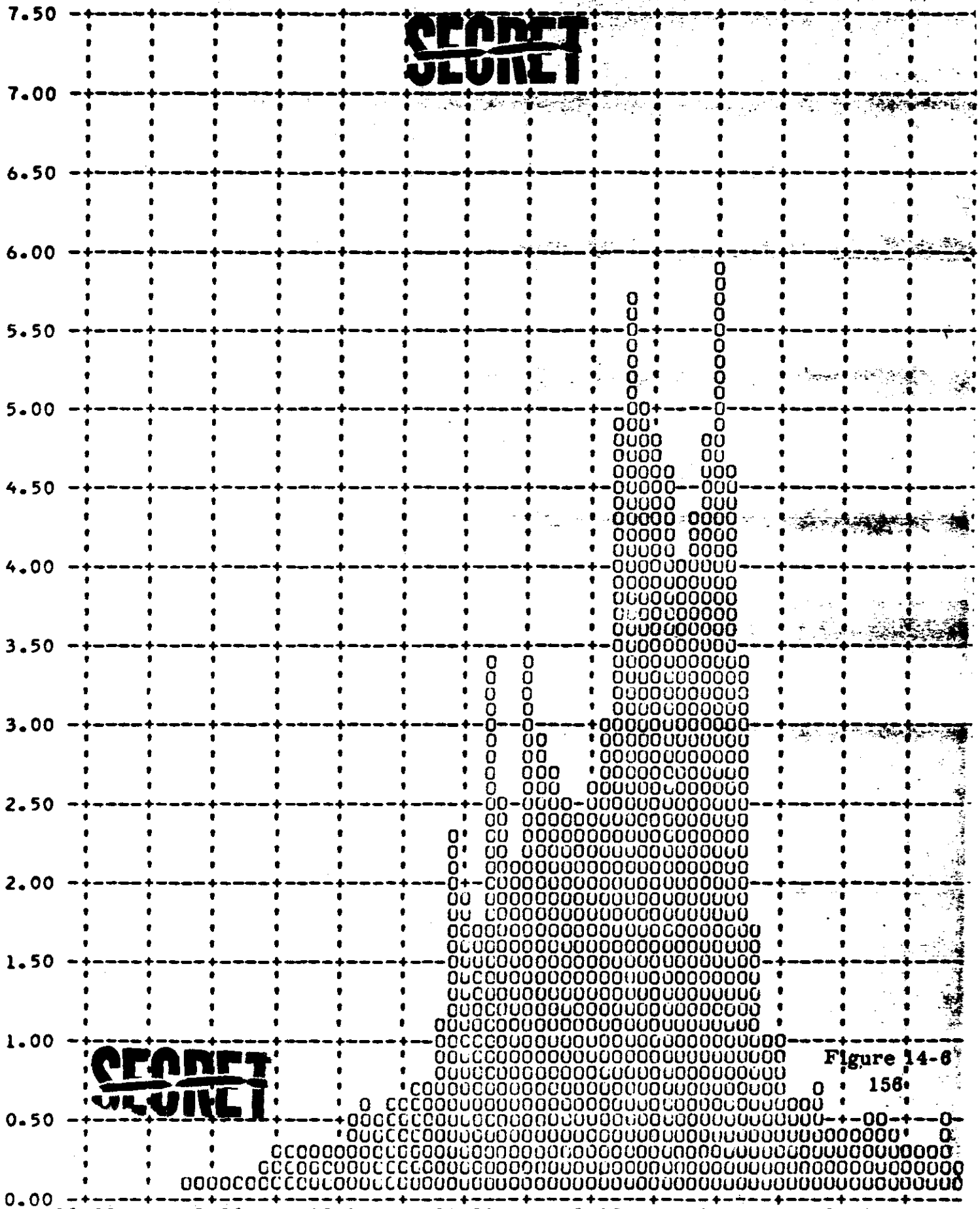


Figure 14-6

[redacted] MISSION 1007-1 [redacted] MISSION 1007-1

INST [redacted] OMITTED 90 PERCENT

Y PITCH ANGLE ERROR - DEGREES (X) VERSUS FREQUENCY - PERCENT (Y)

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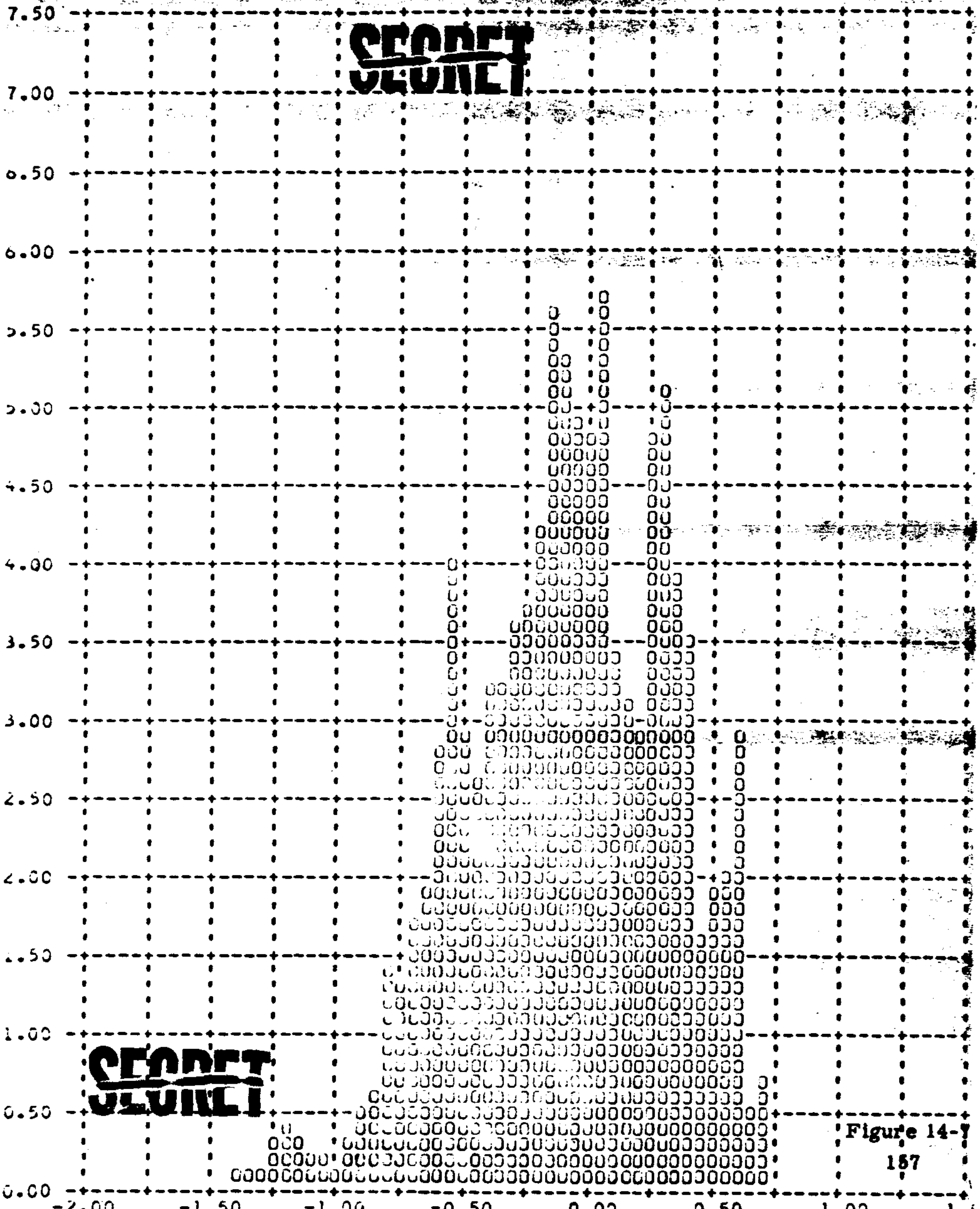

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Figure 14-7

157

INST 1 J078 V1607 E 6-19-65 IMAGES [redacted] LIMITED 90 PERCENT [redacted]

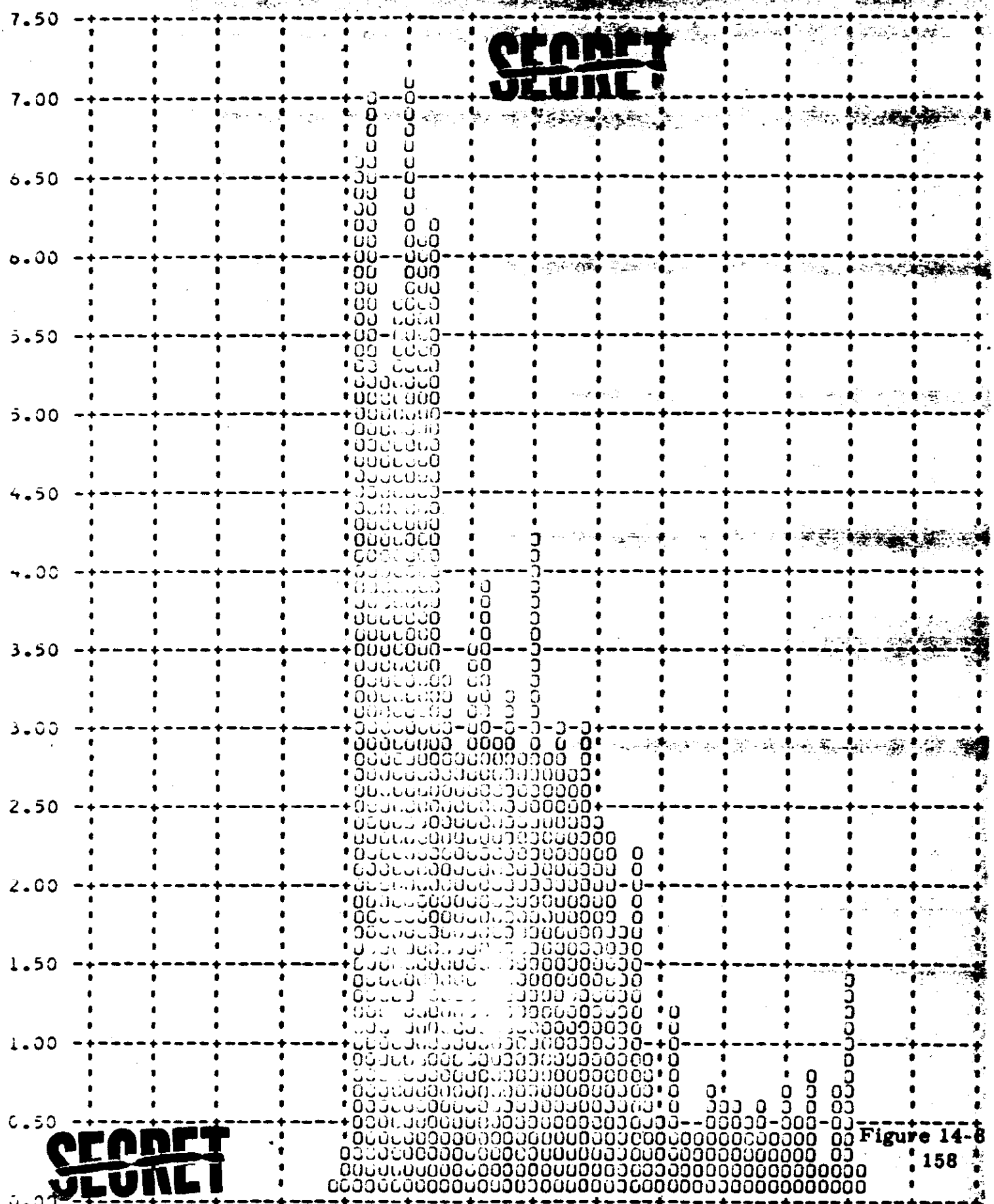

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Figure 14-8

Y PITCH RATE ERROR - DEG/HOUR (X) VERSUS FREQUENCY - PERCENT (Y)

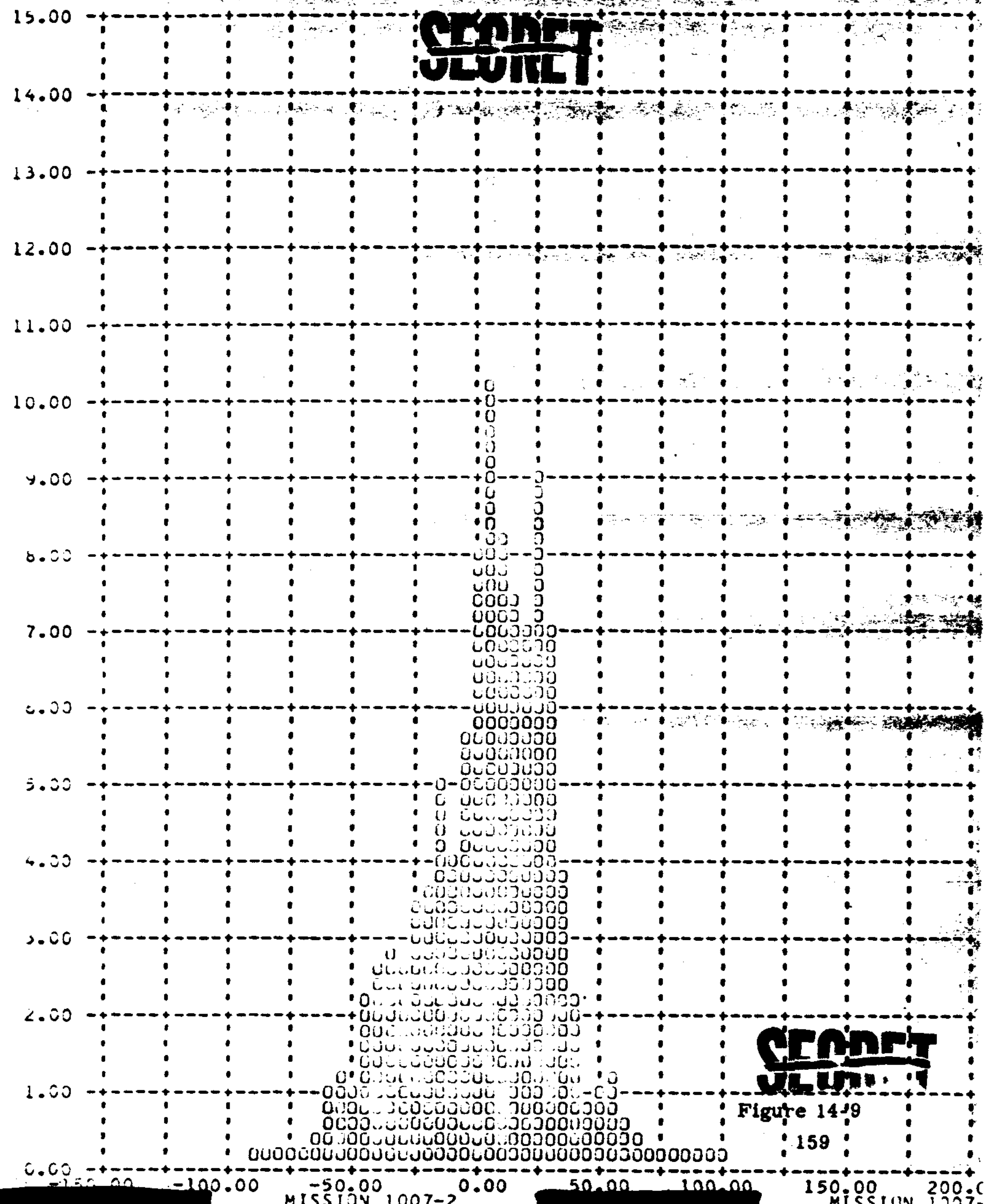

Figure 14-9

[redacted] MISSION 1007-2 [redacted] MISSION 1007

NST-1 J07B VI607 [redacted] 90 PERCENT [redacted]

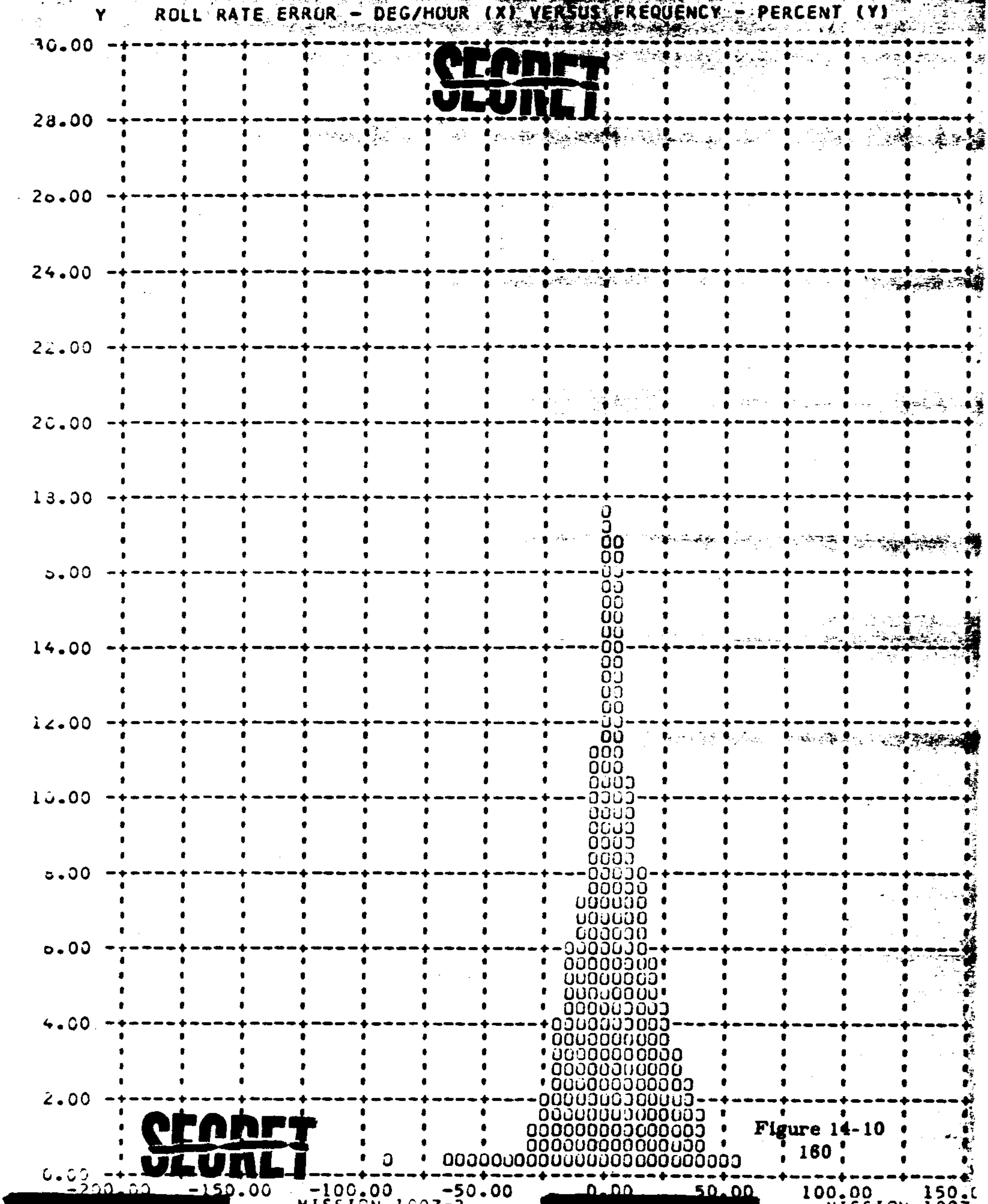

Figure 14-10

[redacted]

SECTION 15

IMAGE SMEAR ANALYSIS

The frame correlation tape supplied to A/P by NPIC contains the binary time word of each frame of photography. A computer program has been assembled at A/P which calculates the exposure time of each frame and compares the camera cycle rate with the ephemeris to calculate the V/h mismatch. This data is combined with the vehicle attitude error and rate values of each frame and the crab error caused by earth rotation at the latitude of each frame. The program outputs the total along track and cross track IMC error and the limit of ground resolution that can be acquired by a camera regardless of focal length and system capabilities.

The computer rejects the first six frames of all operations as the large V/h error induced by camera start-up is not representative of the overall system operations. The frequency distribution of the V/h errors and resolution limits are computer plotted and are shown in Figures 15-1 through 15-10. Frequency distribution plots have been made for both the Master and Slave camera as the cameras contained unequal slit sizes hence operated at different exposure times.

Figures 15-1 to 15-3 presents the distribution plots for the Master camera during Mission 1007-1 and Figures 15-4 to 15-6 are for the Slave camera. Figures 15-7 and 15-8 are the Master camera plots for Mission 1007-2 and Figures 15-9 and 15-10 are for the Slave camera. The cross track resolution limit for Mission 1007-2 has not been plotted as the absence of yaw error data precluded a valid calculation.

The summary table below presents the maximum V/h ratio errors and resolution limits that existed during 90% of the photographic operations and the total range of values during all operations that were computed.

[redacted]

[redacted]

J-07 A BUCKET 10-21-64 FRAMES 1-6 OF EACH OPTOMITTED 90 PERCENT = 3

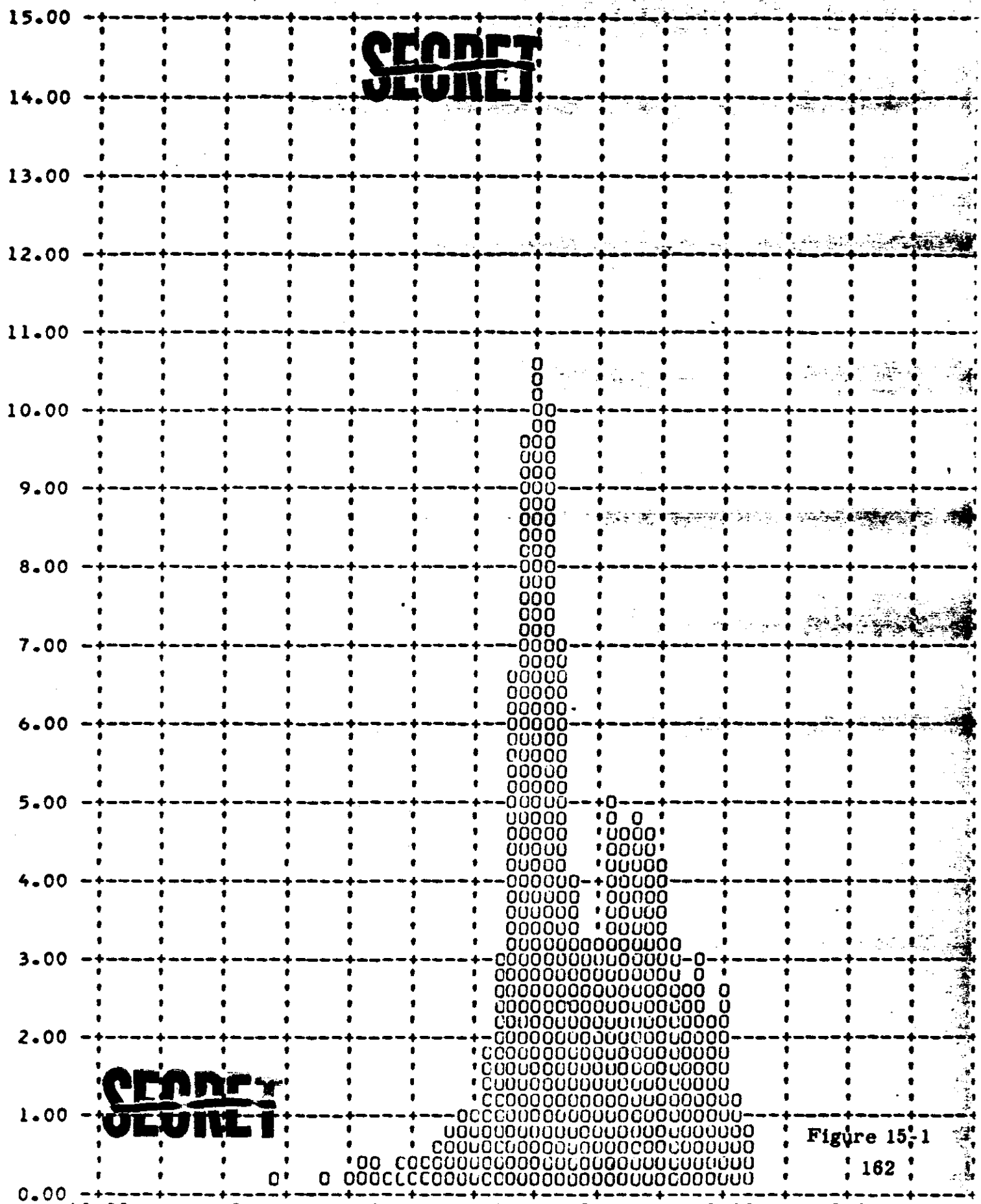

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Figure 15-1

[redacted] MISSION 1007-1

J-01 A BUCKET 10-21-64 [redacted] FRAMES 1-6 [redacted] OMITTED 90 PERCENT [redacted]

Y ALONG TRACK RESOLUTION LIMIT - FEET (X) VERSUS FREQUENCY - PERCENT (Y)

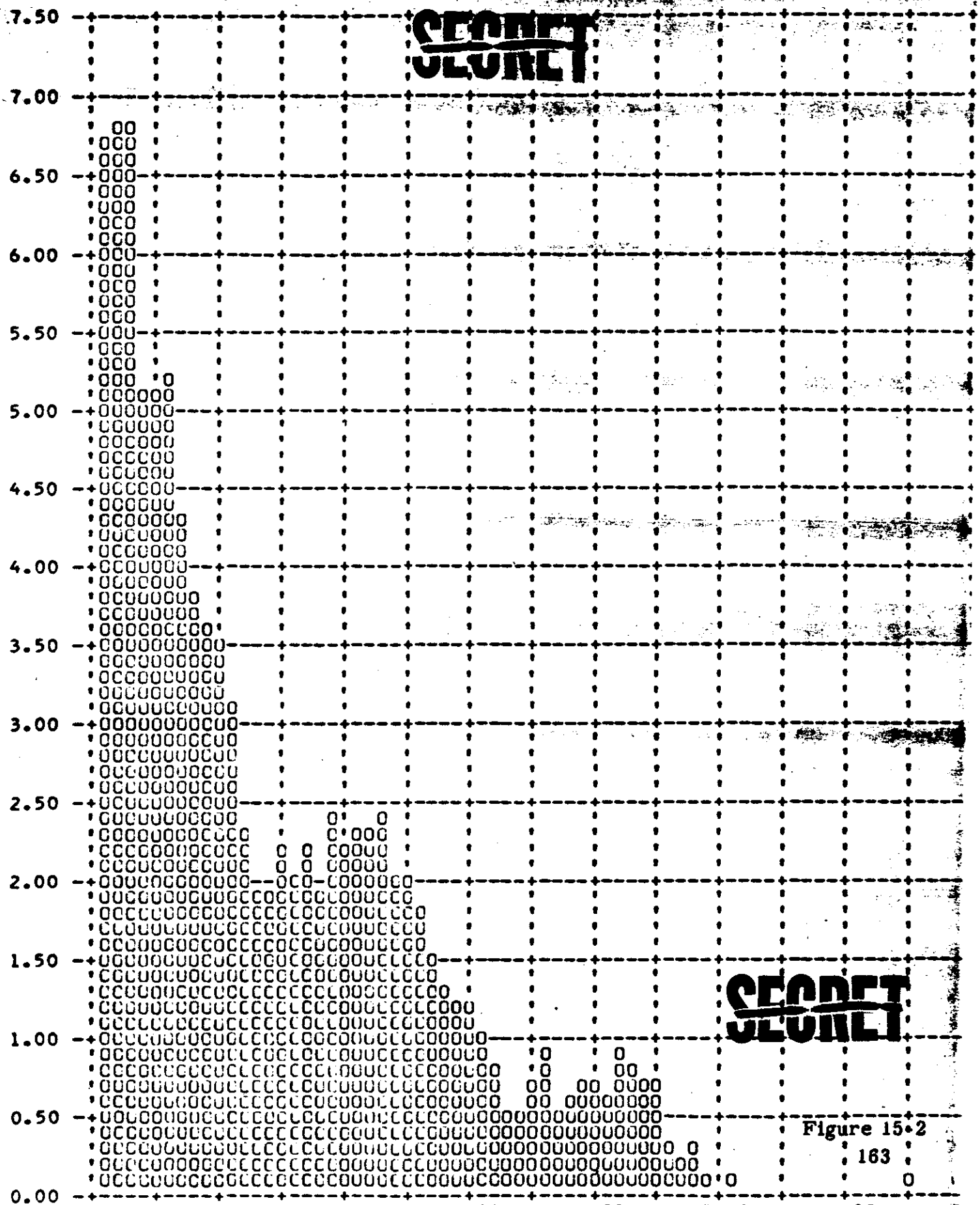

Figure 15-2

[redacted] MISSION 1007-1 MISSION 10

J-07 A BUCKET 10-21-64 FRAMES 1-6 OF EACH UP OMITTED 90 PERCENT = 9.

Y CROSS TRACK RESOLUTION LIMIT - FEET (X) VERSUS FREQUENCY - PERCENT (

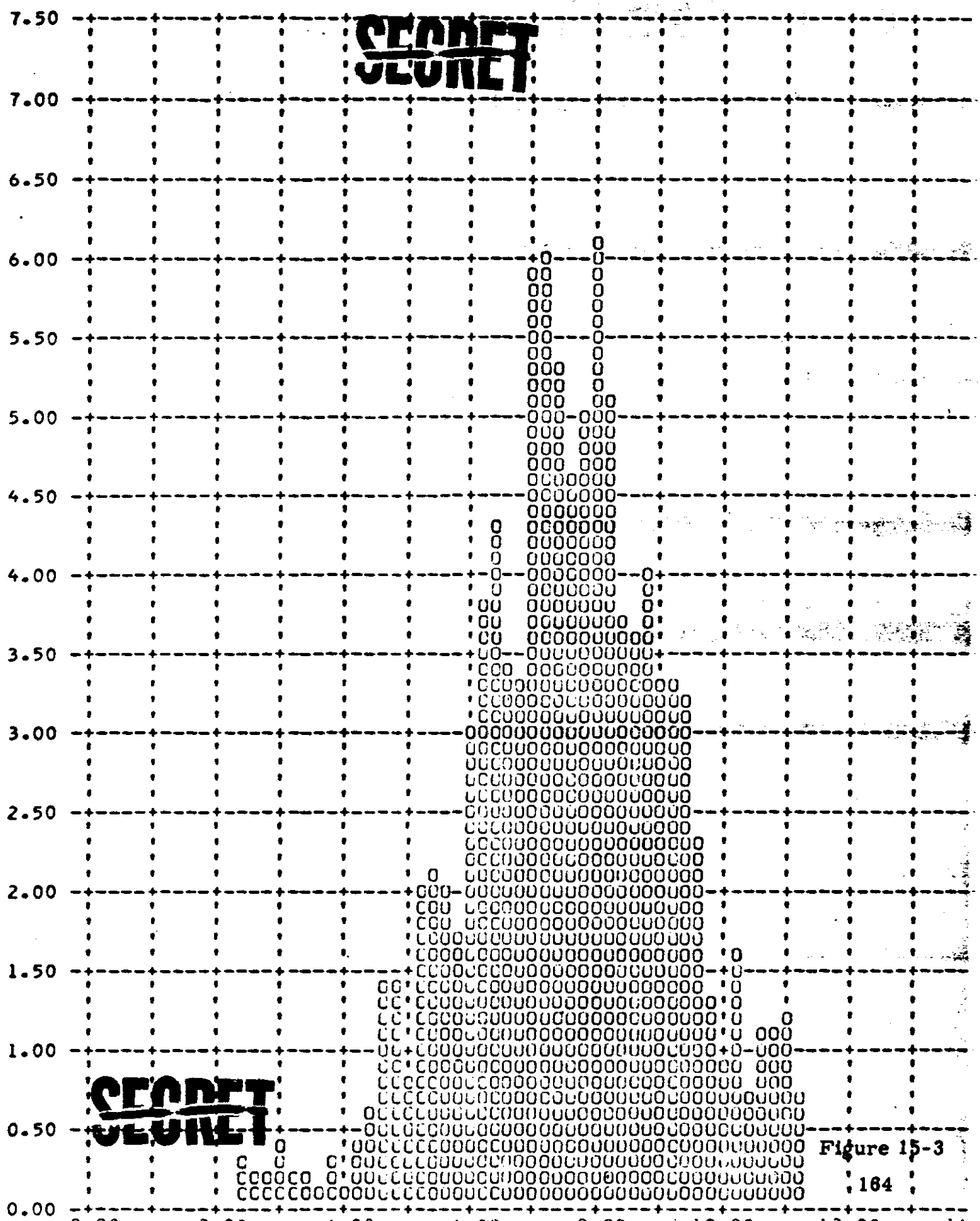

Figure 15-3

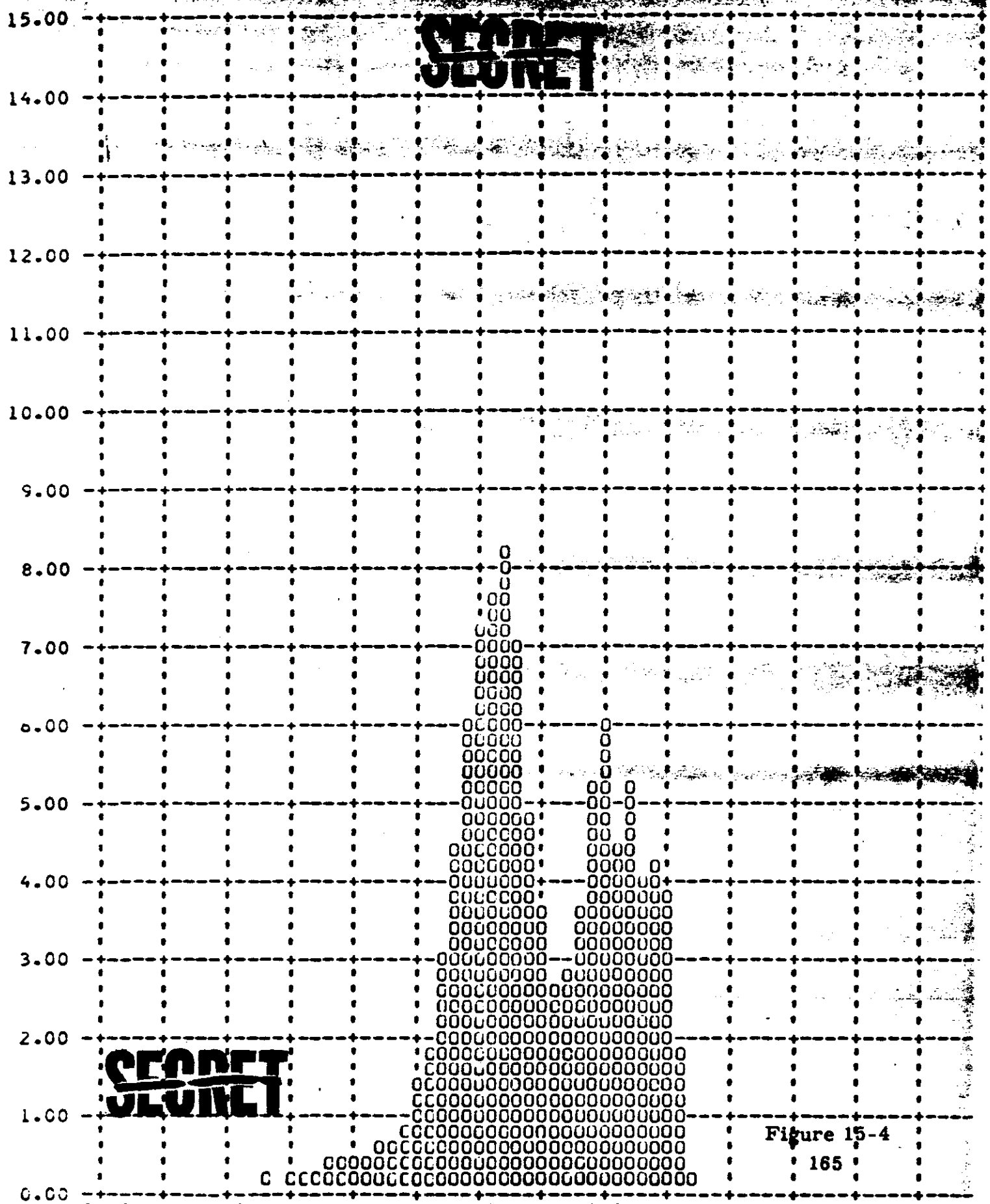
SECRET
SECRET
15.00
14.00
13.00
12.00
11.00
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
-10.00
-8.00
-6.00
-4.00
-2.00
0.00
2.00
4
MISSION 1007-1
MISSION 100

Figure 15-4

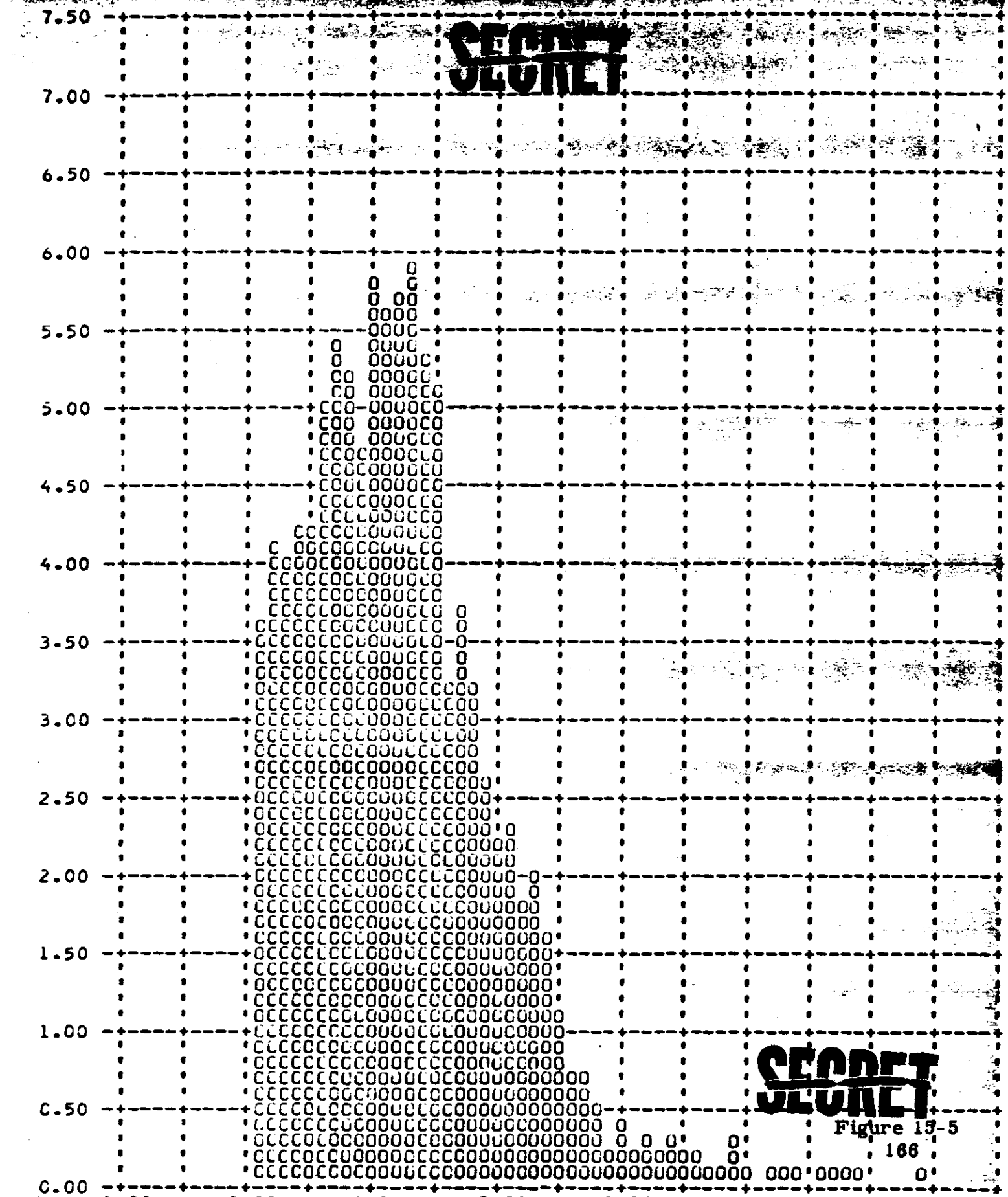
ALONG TRACK RESOLUTION (N. MILES) VERSUS FREQUENCY - PERCENT
7.50
7.00
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
0.00
1.00
2.00
3.00
4.00
5.00
6.
MISSION 1007-1
MISSION 1007

Figure 17-5

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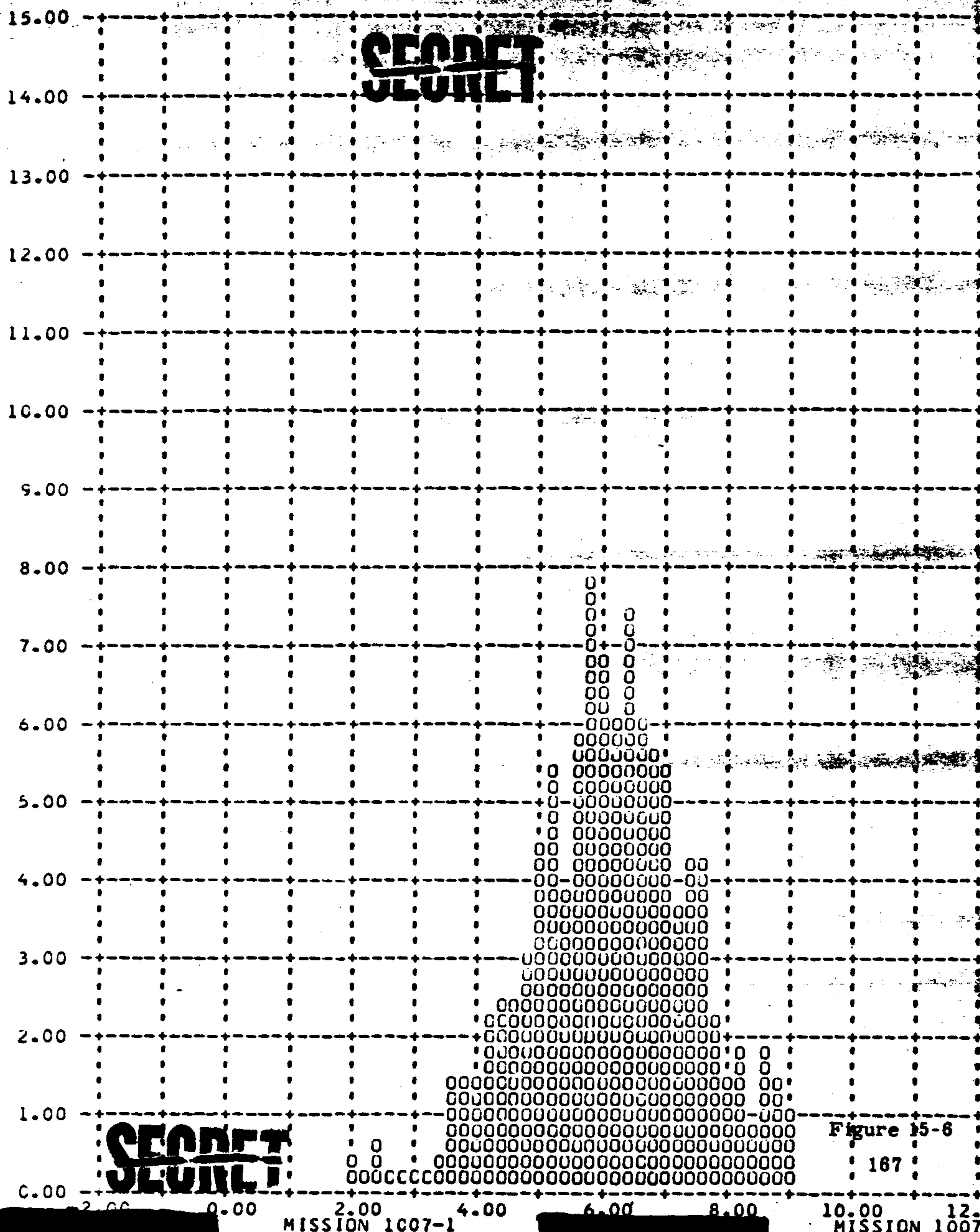
FRAMES 1-6 OF EACH OP OMITTED 90 PERCENT

Y CROSS TRACK RESOLUTION ... VERSUS FREQUENCY - PERCENT



[redacted]

Figure 15-6

SECRET

INST 1 J07B V1607 ... FRAMES 1-6 OF EACH ... OMITTED 90 PERCENT ...

V/H RATIO ERROR - PERCENT (X) VERSUS FREQUENCY - PERCENT (Y)

SECRET

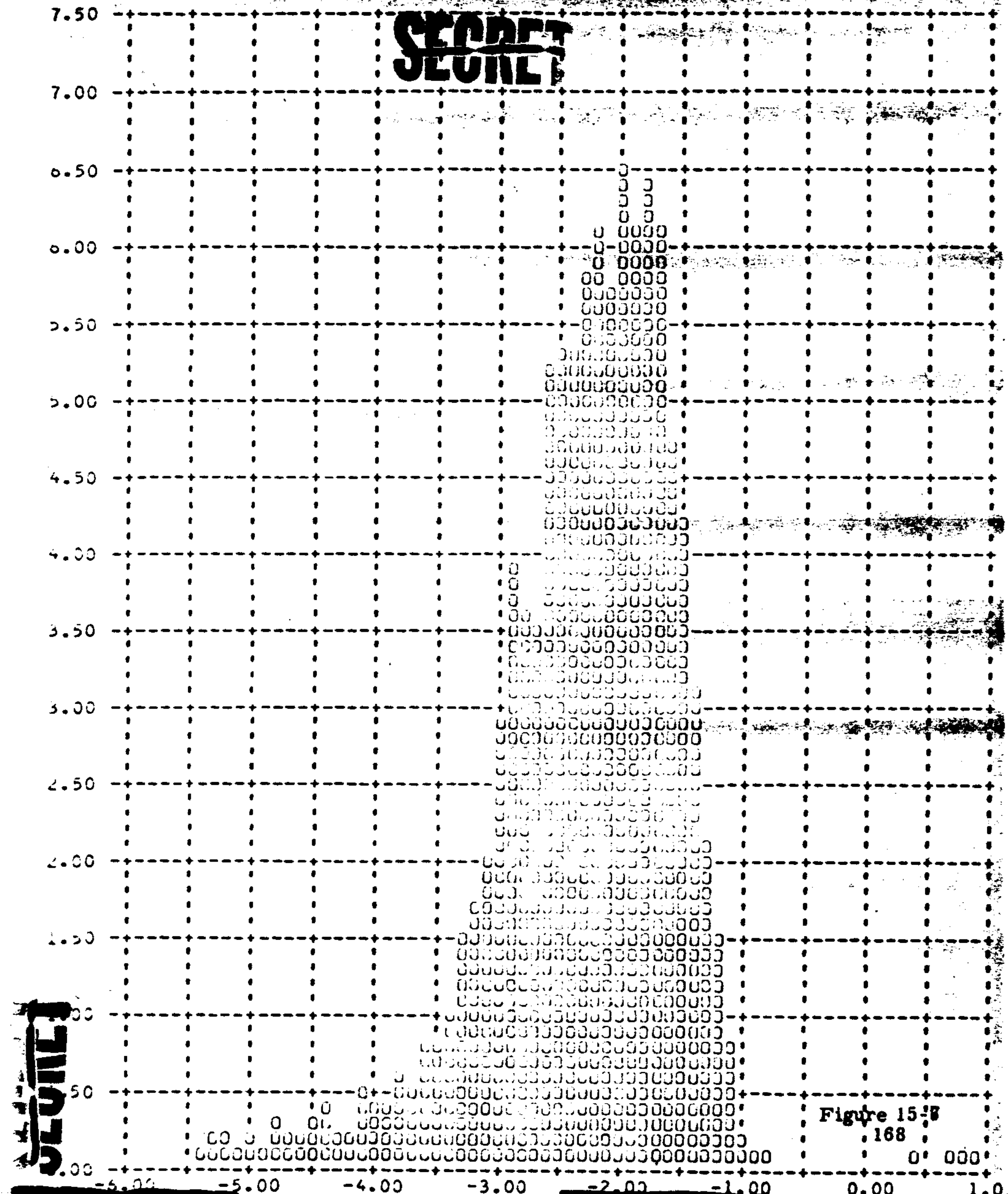


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Figure 15-7
168

[redacted] MISSION 1007-2 [redacted]

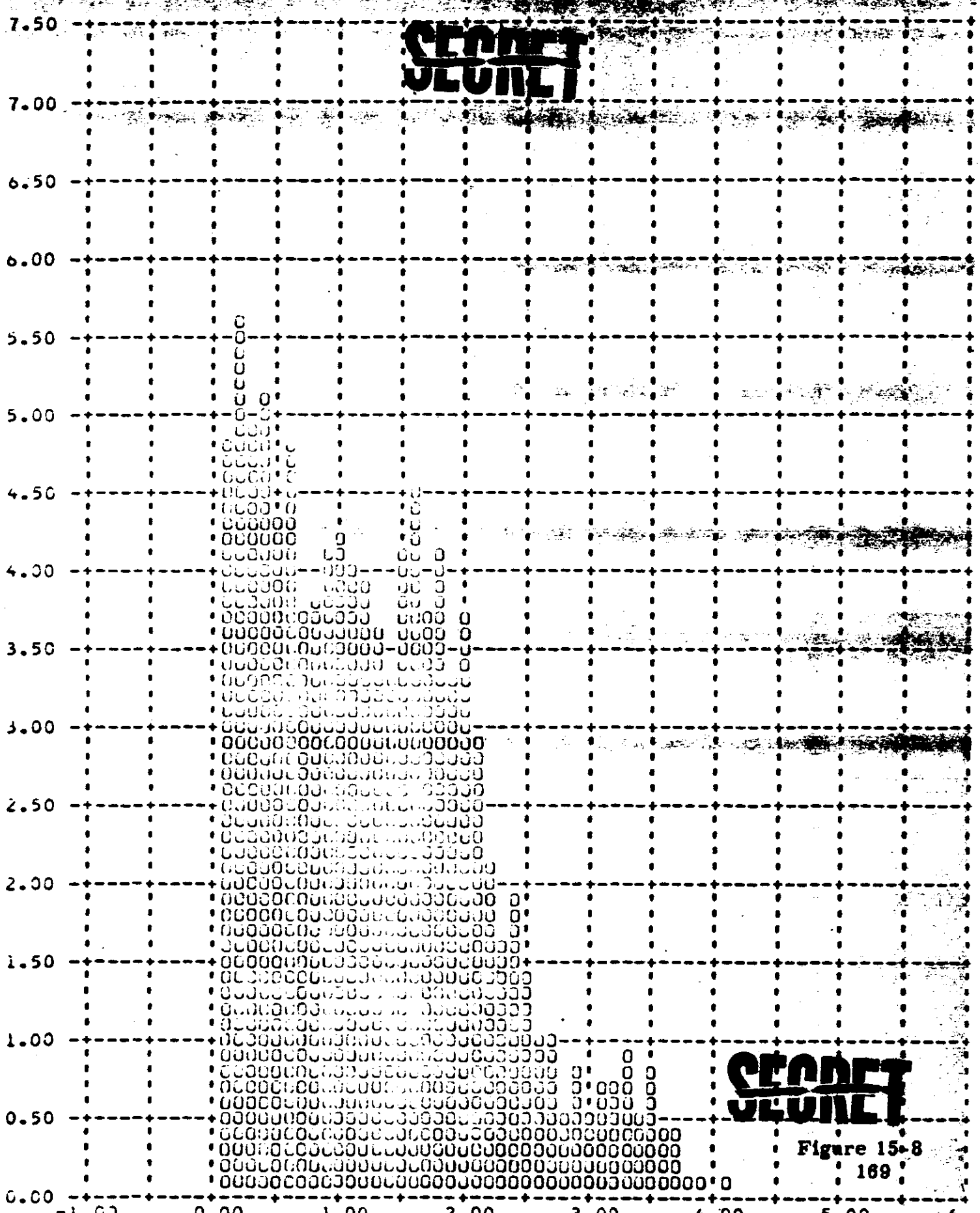
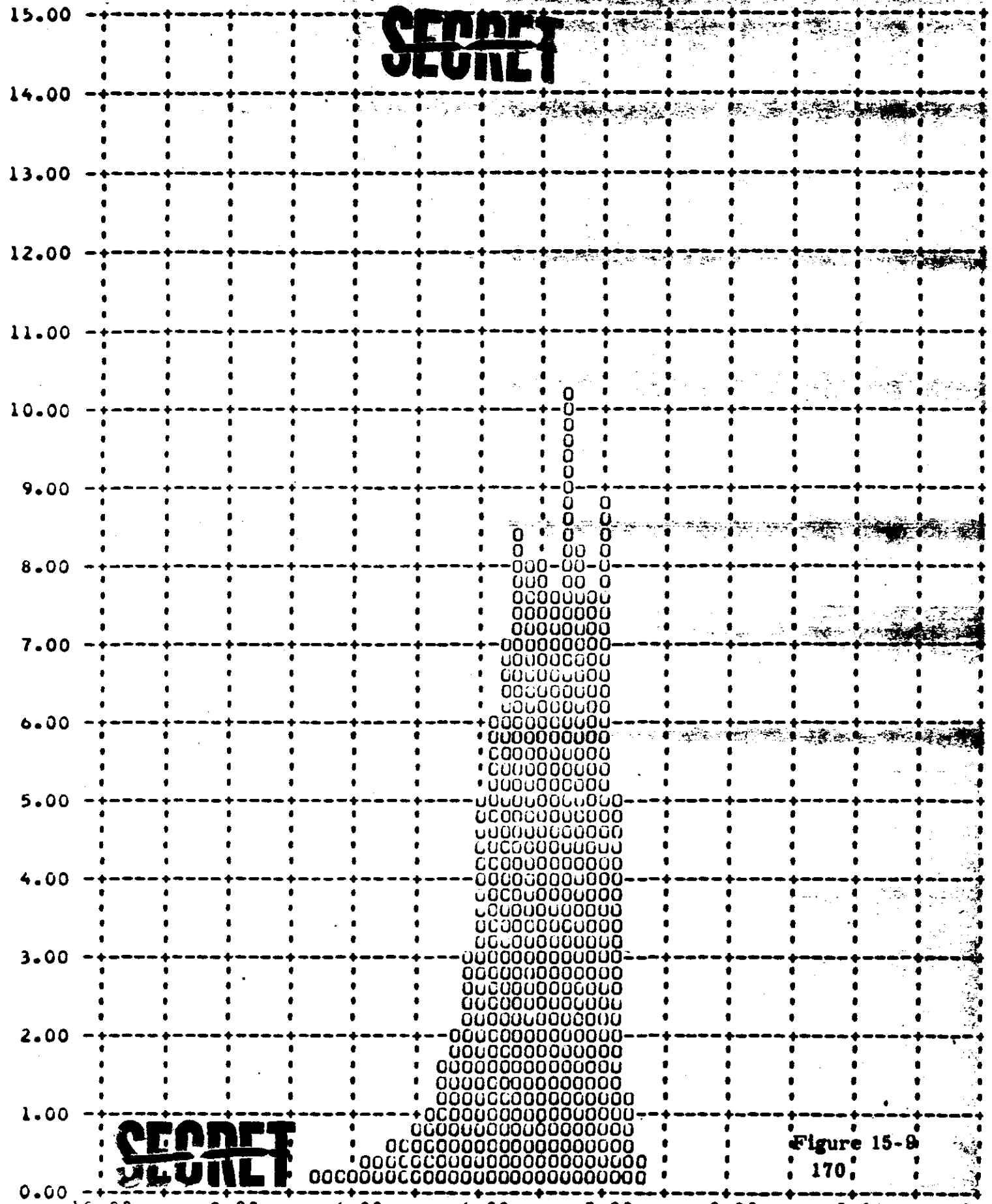

Y - ALONG TRACK RESOLUTION LIMIT - FEET (X) VERSUS FREQUENCY - PERCENT (Y
7.50
7.00
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
-1.00
0.00
1.00
2.00
3.00
4.00
5.00
6.
MISSION 1007-2
MISSION 100

Figure 15-8

INST 2 J078 V1607 [illegible]

Y V/H RATIO ERROR - PERCENT (X) VERSUS FREQUENCY - PERCENT



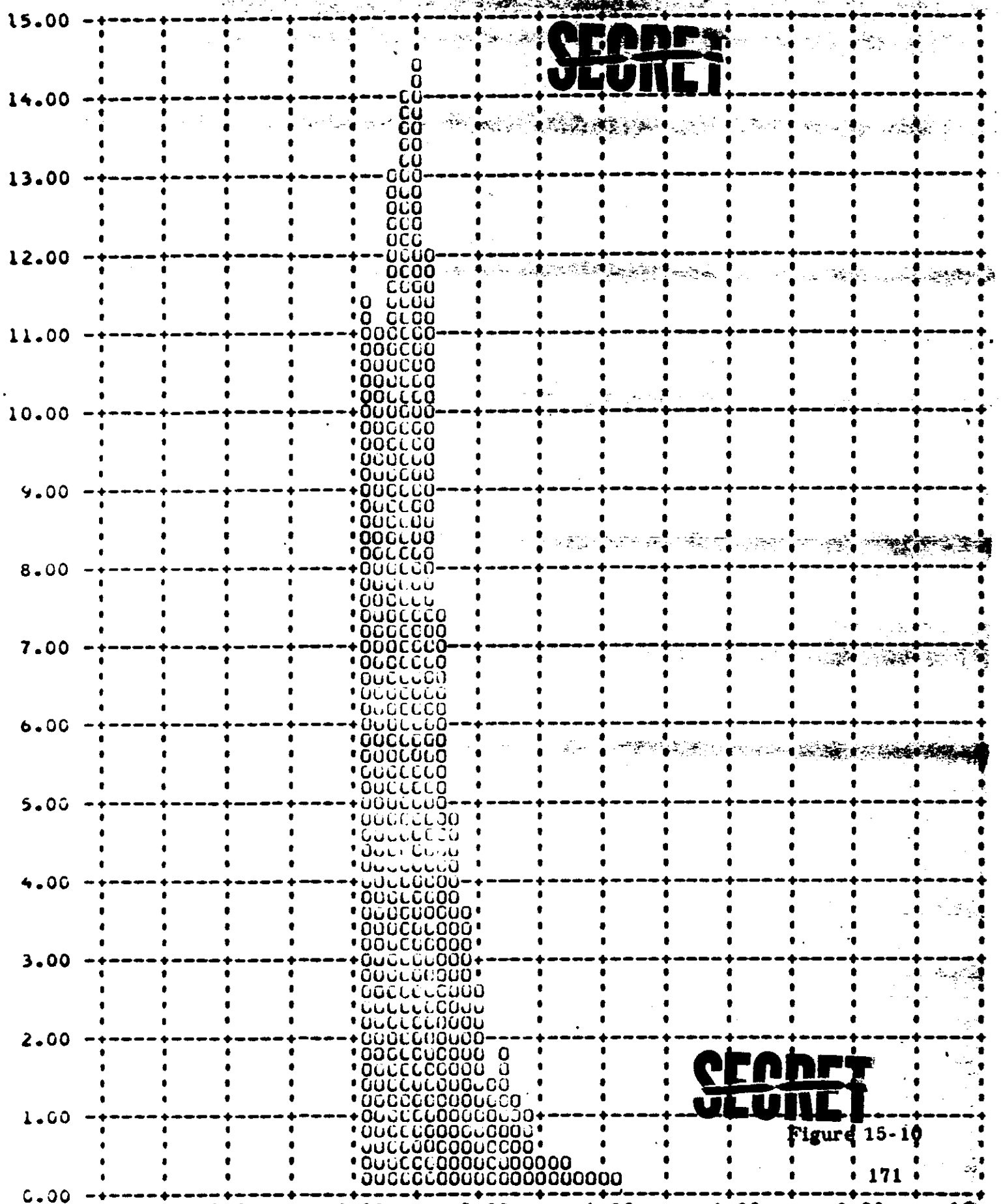
SECRET

SECRET

Figure 15-9

INST-2 J078 V1607 L 6-1 [redacted] FRAMES 1-6 OF EACH [redacted] OMITTED 90 PERCENT = 1.7

Y ALONG TRACK RESOLUTION LIMIT - FEET (X) VERSUS FREQUENCY - PERCENT (Y)



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SECRET

Figure 15-10

Value	Camera	Mission 1007-1 90%	Mission 1007-1 Range	Mission 1007-2 90%	Mission 1007-2 Range
V/h Ratio Error (%)	FWD	3.6	-7.2 to +0.1	3.2	-5.4 to -0.9
	AFT	4.6	-7.4 to -0.6	4.2	-6.6 to -1.4
Along Track Resolution Limit (ft.)	FWD	3.1	0 to 5.1	2.4	0 to 4.1
	AFT	2.1	0 to 4.9	1.8	0 to 4.1
Cross Track Resolution Limit (ft.)	FWD	9.4	2.4 to 11.2	-	-
	AFT	7.6	2.0 to 9.0	-	-

It is probable that the Master camera photography was degraded by the excessive cross track IMC error and resulting resolution limits. The information loss was not apparent in the evaluation at NPIC and AFSPPL and unfortunately detailed off line evaluation was not possible due to the absence of engineering photography. It is noteworthy that the edge trace MTF/AIM resolution values were, with one exception, lower with Master camera photography.

SECTION 16

RADIATION DOSAGE

Each recovery system flown on a Corona mission contains a sealed packet of Eastman Type 4401 and Royal X Pan emulsions to determine the total radiation inside received at the take-up cassette. Both film type has been irradiated by LMSC at various levels and the base plus fog densities recorded after controlled processing.

Following recovery the film dosimeter packets are removed at A/P and processed with a pre-flight sample of the same film type and sensitometric control film. The resulting base plus fog density measurement of the dosimeter strips is used to ascertain the total radiation level. The table below presents the base plus fog reading for the dosimetic strips and the radiation level equivalents

	Mission 1007-1		Mission 1007-2	
	B + F		B + F	
Emulsion	Density	Radiation	Density	Radiation
Type 4401	0.25	1.2 R	0.25	1.2 R
Royal X Pan	0.36	0.8 R	0.34	0.7 R

The mean total radiation seen by the take-up cassettes during both missions was approximately 1.0 roentgens. This level is the same as received during recent missions and is below the level that will degrade the panoramic photography.

[redacted]

SECTION 17

SYSTEM RELIABILITY

Reliability calculations for the payload are based on a sample beginning with M-7. Hence both the major part of the Mural Program and the "J" Program are covered in the calculation. For certain auxiliaries, i. e., the stellar-index camera and the horizon cameras, the sample size is changed to recognize incorporation of modified equipment or new designs where reliability was one of the principal reasons for the modification. However, for primary mission function, the sample size is consistent with reliability reporting for the vehicle.

The reliability estimates of this section deal exclusively with the payload. Failures to achieve orbit or vehicle induced failures are thereby excluded. Recoveries before a complete mission has been completed are considered as full missions providing that early termination was caused by reasons not connected with payload operation. Film quality is not considered in the reliability estimate calculation. Hence, only electrical and mechanical functioning are considered.

The reliability estimate is also divided into primary and secondary functions. The primary functions are operation of the panoramic cameras, main camera door operation, operation of the payload clock, and recovery operations. The secondary mission functions are horizon camera operation excluding catastrophic open shutter failure mode, auxiliary data recording, and stellar-index camera operation.

Panoramic Camera Reliability

Sample Size - 58 opportunities to operate
One failure - capping shutter on slave instrument on system M-7
Assume - 3000 cycles per camera per mission
Estimated Reliability = 98.3% at 50% confidence level.

Main Camera Door Reliability

Sample Size - 29 vehicles x 2 doors = 58 opportunities to operate.
1 major malfunction, door failed to eject for ? passes, Mission 9048.
1 minor malfunction, door failed to eject for 2 passes, Mission 1006.
Estimated Reliability = 97.1% at 50% confidence level.

[redacted]

[redacted]

[redacted]

Payload Clock Reliability

Sample size - 30 completed missions in sample.
No failures
Estimated Reliability = 97.8% at 50% confidence level.
Estimated Reliability of Payload Functioning on orbit
98.3 x 97.8 x 97.1 = 93.3%.

Recovery System Reliability

26 opportunities to recover
1 failure - improper separation due to water seal - cutter failure.
Estimated Reliability = 93.4% at 50% confidence level.

Stellar-Index Camera Reliability

Sample begins with M-13
Sample size = 18
Number of failures = 6
Estimated Reliability = 71.0% at 50% confidence.

Horizon Camera Reliability

Sample includes M27, J5A, J5B, J9A, J9B, J7A and J7B.
1 failure - center of format switch, Mission 1006.
Estimated Reliability of Single Camera = 86.7% at 50% confidence level.
Estimated Reliability of Four Horizon Cameras at a Parallel Redundant System = 98.2% at 50% confidence level.

Horizon Camera Door Reliability

Sample size = 23 x 4 = 92 opportunities to operate
No failures have occurred
Estimated Reliability = 99.2% reliability at 50% confidence level.

Stellar-Index Camera Door Reliability

Terrain Door, Stellar Door and deployment of Stellar Baffle are functions considered.
Sample size = 18 x 3 = 54 chances to operate.
One failure - stellar baffle failed to deploy.
Estimated Reliability = 96.8% at 50% confidence level.

[redacted]

Distribution:

Copy No. To

[redacted]