CORONA J

PERFORMANCE EVALUATION REPORT

MISSION 1008-1 and 1008-2

FTV 1177; J-10

1 April 1965

Approved: [redacted]
Mgr.
Advanced Projects

Approved: [redacted]
Mgr.
Program [redacted]

FOREWORD

This report details the performance of the payload section during the operational phase of the Program [redacted] Flight Test Vehicle 1177.

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 1008-1 and 1008-2.

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[redacted]

LIST OF TABLES

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LIST OF ILLUSTRATIONS

INTRODUCTION

This report presents the final performance evaluation of Missions 1008-1 and 1008-2 of the Corona Program. The purpose of this report is to define the performance characteristics of the J-10 payload system, to identify the source of in-flight anomalies and recommend the appropriate corrective action.

The performance evaluation was jointly conducted by representatives of Lockheed Missiles and Space Company (LMSC) and ITEK at the facilities of NPIC and AFSPPL. The off-line evaluation using Corona engineering photography acquired over the United States was performed at the individual contractors plants.

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

Computer programs developed by A/P are utilized to calculate and plot the frequency distribution of the various contributors to image smear to permit analysis and correlation of the conditions of photography to the information content and quality of the acquired pictures. Computer analysis of the exposure, processing and illumination data provides the necessary data to analyze the exposure criteria selected for the mission.

[redacted]

SECTION 1

SYSTEM PERFORMANCE

A. MISSION OBJECTIVES

The payload section of Mission 1008, placed into orbit by Flight Test Vehicle #1177 and SLV-2A booster #404, 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 1-1 presents an inboard profile of the J-10 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 deactivation.

B. MISSION DESCRIPTION

The payload was launched from Vandenberg Air Force Base (VAFB) at 2314:04 Z (4:14:04 PDT) on 10 July 1064. Ascent and injection were normal and 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 1008-1 consisted of three days operation and was completed by air recovery on 13 July 1964. The mission was one day shorter than originally planned as the programmed operations filled the take-up cassette. Mission 1008-2 was completed with an air recovery on 17 July 1964 following four days of photographic operations.

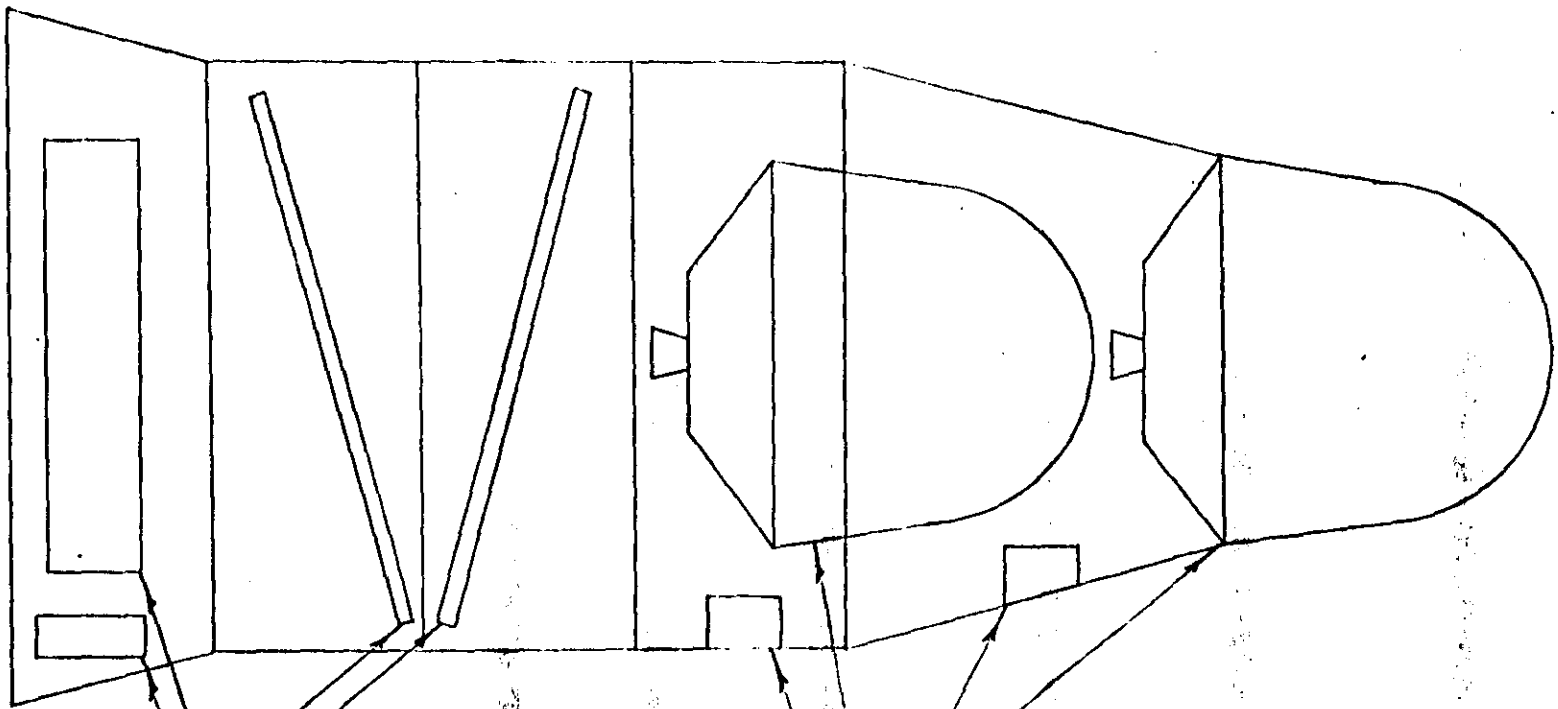
The comparison of the planned and actual orbit parameters is tabulated as follows:

[redacted]

[redacted]

SCHEMATIC INBOARD PROFILE - CORONA J SYSTEM

MISSION 1008



Master Camera No: 150

Slave Camera No: 151

Supply Cassette No: SC-12

Clock No: 514

Yaw Programmer No: N/A

"A" Recovery Subsystem No: 640

"A" Stellar-Index Camera No: D48/45/48

"B" Recovery Subsystem No: 641

"B" Stellar-Index Camera No: D33/28/33

Pressure Make-up Unit No: N/A

[redacted]

SECRET

Parameter	Planned	Orbit 7 Actuals
Period (minutes)	91.06	91.01
Perigee (n. m.)	100.01	99.44
Apogee (n. m.)	260.27	259.05
Eccentricity	0.0222	0.0220
Inclination (deg.)	85.0	85.0
Argument of Perigee (deg.)	139.3	139.2

All of the film carried was exposed and recovered. Both recoveries were nominal with impact points approximately five to fifteen miles from predictions. The Agena vehicle encountered problems in the right horizon sensor between orbit nine and twenty. After orbit twenty the sensor operated properly including a de-activate/re-activate cycle between orbits 117 and 164.

C. PANORAMIC CAMERAS

The Master and Slave panoramic cameras operated throughout both missions with no significant problems and produced excellent photographic coverage. The cloud cover and atmospheric haze observed in the photography was abnormally high. A small area on the aft camera formats during the majority of Mission 1008-1 contained a small soft focus area which was not present during Mission 1008-2.

D. STELLAR-INDEX CAMERAS

The Stellar-Index camera operated properly throughout Mission 1008-1. The star imagery and terrain detail were satisfactory for the desired attitude determination and relative orientation. The Index camera used during Mission 1008-2 experienced shutter problems during the last 75% of the mission as the shutter remained open continuously. The resulting terrain photography was unusable and the stellar photography was somewhat fogged however still usable for attitude determination.

E. OTHER SUB-SYSTEMS

The clock, instrumentation, command and thermal control sub-systems performed satisfactorily through both missions.

F. CONCLUSIONS

Mission 1008-1 and 1008-2 achieved the objective of acquiring high quality search and reconnaissance photography from orbital altitudes.

G. RECOMMENDATIONS

The evaluation and analysis of the data produced by both missions has resulted in the following recommendations:

1. Continue the analysis of Stellar-Index camera failures to preclude the re-occurrence of future data loss.

2. Incorporate additional radiation shielding on the film chute of the "A" Stellar-Index camera.

3. Investigate the cause of cloud flare and incorporate the necessary modifications to preclude re-occurrence.

4. Continue the analysis of the cause of soft focus areas in the panoramic photography.

SECTION 2

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 Summary

In order to simulate thermal and altitude conditions in orbital flight, the J-10 payload system went to the HIVOS chamber on 19 April 1964. Three days of "A" bucket operations, one day of soak, and two days of "B" bucket operations comprised the HIVOS test. The following anomalies were noted during this test: T/M Point 13-37 was open; T/M Point 13-53 was out of band low; T/M Point 11-13 was zero and had occasional 60-cycle noise; the "A" bucket S/I failed; in orbit 3 of day 2 the 28th bit of the clock came on prematurely causing a gross clock error; at transfer in the cut and wrap sequence the +24 volt unregulated monitor jumped up to 39.9 volts for one commutator readout; a few scattered instances of possible payload movement during scan period were noticed, and corona was evident on the master payload.

A second orbital simulated flight test was conducted on the J-10 payload system. This test was conducted in the TASC chamber on the first and second of May in a one-day "B" bucket mode. The following anomalies were noted during this test: a few scattered instances of possible payload movement during scan period were noticed; and the V/H pot was open for the last two orbits of the test.

For both the HIVOS and TASC tests the panoramic instrument cycle rate repeatability error did not exceed ± 3% and generally

was between ± 1% and ± 2%. The cycle rate repeatability error was predominantly slow for the HIVOS test and both slow and fast for the TASC test.

All T/M instrumentation points that had been defective during the HIVOS test were corrected for the TASC test and performed satisfactorily. Based upon the data analysis of the two tests on the J-10 payload system, it appears that the panoramic instruments are acceptable for flight.

3. Instrumentation Performance

A conflict between the film footage pots and the cycle counters was observed for both the HIVOS and TASC tests. The delta difference between film footage pot readings and cycle counter readings indicates a rather large discrepancy. These discrepancies are apparent for both the master and slave instruments and for both buckets. These delta differences are listed below:

Test	Bucket	Camera	Delta
#1 - HIVOS	A	Master	74
#1 - HIVOS	A	Slave	112
#1 - HIVOS	B	Master	137
#1 - HIVOS	B	Slave	132
#2 - TASC	B	Master	44
#2 - TASC	B	Slave	54

This frame count differential is not abnormally high for environmental testing. The anomaly is caused by the inability to match the full range impedence of the film footage pot to the recorder, the scale of the recorder which produces reading errors and the test equipment ground loops. Prior experience has shown that the on-orbit accuracy is much greater hence no action was taken to modify the flight hardware.

4. Thermal Environment

Temperatures were reduced once each day for the five days of active operation for the HIVOS test, and twice during the one-day

TASC test. Two self-heating tests were conducted during the soak period of the HIVOS test. The first test was invalid due to an operate error, but the second test was deemed valid, and graphs of sensor temperature rise versus time have been made. Table 2-1 shows the average instrument temperatures, excluding the lens scan arm sensor which is usually significantly higher, at various times throughout the two tests. Figure 2-1 has the plots of the self-heating characteristics of the sensors.

5. Pressure Environment

The internal camera pressure experienced during the HIVOS test is plotted in Figure 2-2 as a function of frame number. Pressures in the corona discharge sensitive region were present during all operations.

6. Panoramic Camera Performance

Evaluation of the film metered through the panoramic cameras during the HIVOS test showed that both the Master camera, serial number 150, and the Slave camera, serial number 151, displayed some start-up corona discharge during the "A" mission operations. The frequency of the discharge and the resulting fog level were within the acceptance criteria. The Slave camera exhibited this same level of fogging during the "B" mission operations and was considered acceptable for flight.

The Master camera film from the "B" mission contained a large amount of corona discharge fogging in a 2 pi pattern during the first 25 to 30 frames after camera start-up. The camera was not acceptable for flight and it was recommended that the metering rollers be replaced.

After the replacement of the metering rollers the J-10 system was subjected to a repeat environmental test in the TASC chamber. Evaluation of the film metered during the test showed that the corona discharge fogging of both cameras was within the acceptance criteria.

AVERAGE INSTRUMENT TEMPERATURES DURING THE TESTS NOT CORRECTED FOR SELF-HEATING HIVOS

	Day #1 - Rev. #1	Day #2 - Rev. #2	Day #3 - Rev. #9
Instrument #1	89.9	97.7	101.6
Scan Arm #1	110.1	113.9	125.4
Instrument #2	91.3	98.1	101.1
Scan Arm #2	110.1	117.7	112.6

	Day #5 - Rev. #1	Day #6 - Rev. #12
Instrument #1	88.4	75.5
Scan Arm #1	98.8	95.2
Instrument #2	84.9	74.1
Scan Arm #2	88.0	90.3

TASC

	Day #1 - Rev. #1	Day #1 - Rev. #16
Instrument #1	84.1	82.9
Scan Arm #1	100.3	99.0
Instrument #2	86.8	84.6
Scan Arm #2	105.3	99.0

TABLE 2-1

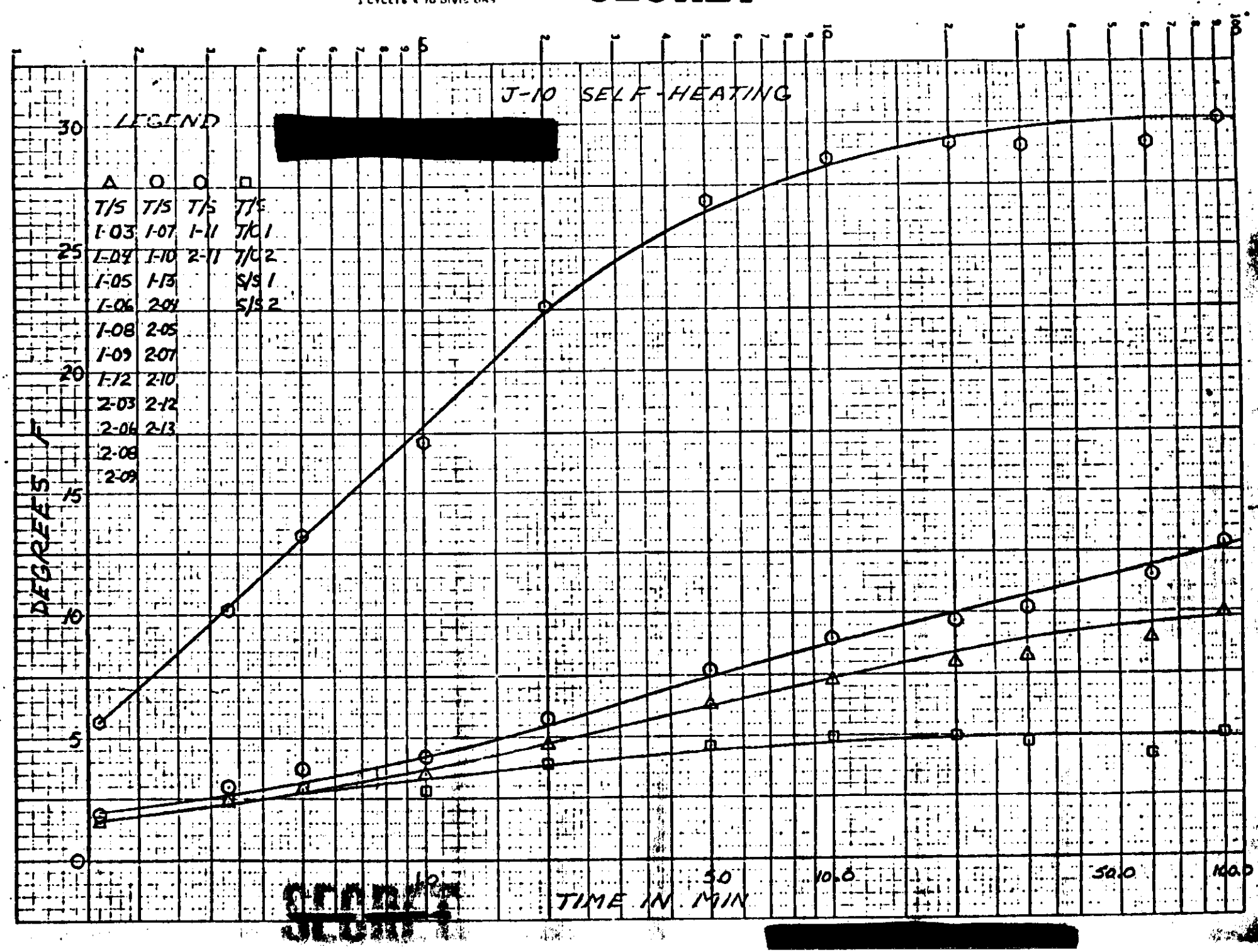
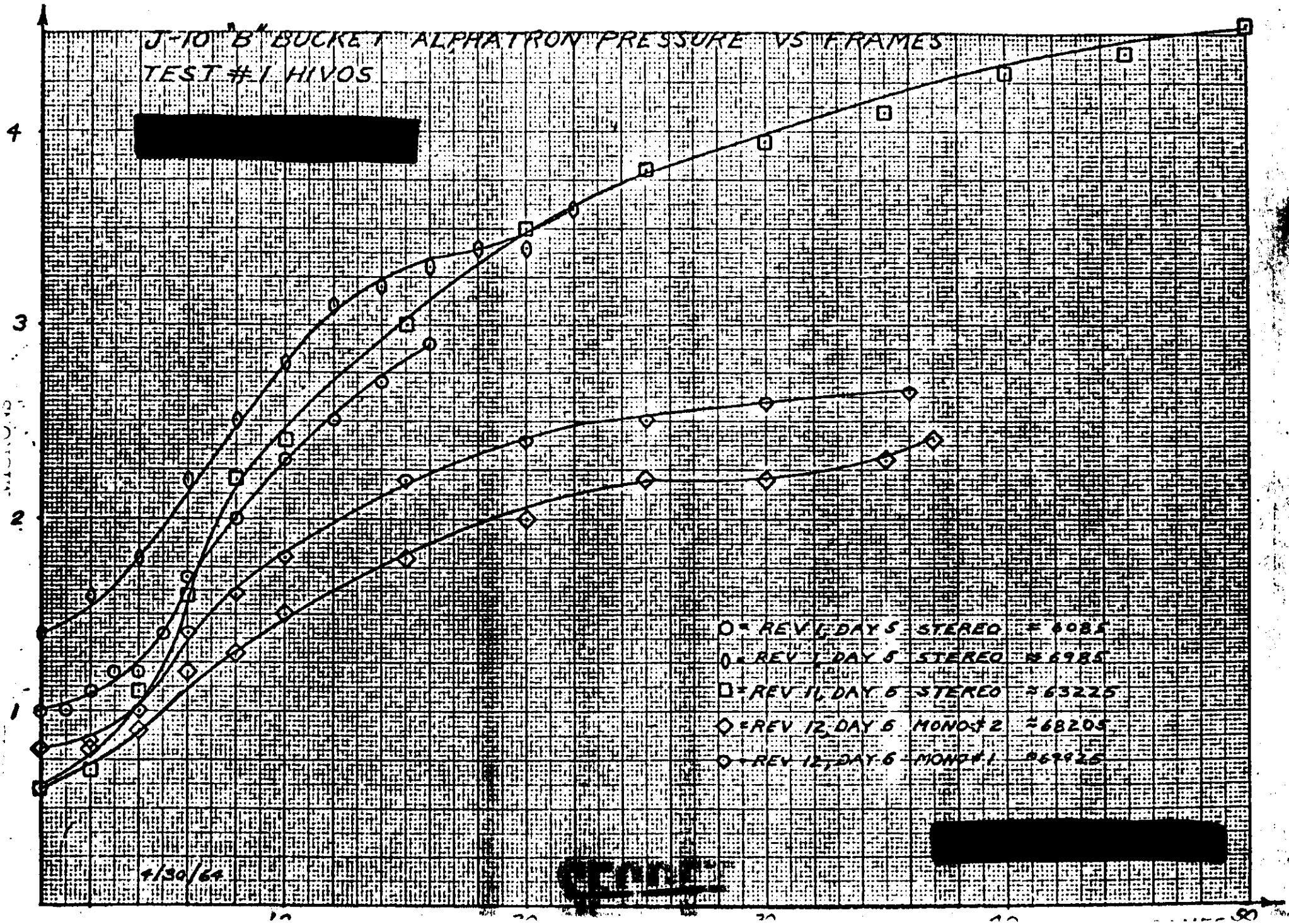

SEMI LOGARITHMIC 359-71
KEUFFEL & ESSER CO
3 CYCLES X 70 DIVISIONS
J-10 SELF-HEATING
LEGEND
[redacted]
A O O □
T/S T/S T/S T/S
1-03 1-07 1-11 T/C 1
1-04 1-10 2-11 T/C 2
1-05 1-13 S/S 1
1-06 2-04 S/S 2
1-08 2-05
1-09 2-07
1-12 2-10
2-03 2-12
2-06 2-13
2-08
2-09
DEGREES F
30
25
20
15
10
5
0
1.0
5.0
10.0
50.0
100
TIME IN MIN
[redacted]

FIGURE 2-1


MICRONS
J-10 "B" BUCKET ALPHATRON PRESSURE VS FRAMES
TEST #1 HIVOS
[redacted]
4
3
2
1
4/30/64
○ = REV 1, DAY 5 STEREO # 6085
○ = REV 1, DAY 5 STEREO # 6985
□ = REV 11, DAY 6 STEREO # 63225
◇ = REV 12, DAY 6 MONO #2 # 68205
○ = REV 12, DAY 6 MONO #1 # 69926
[redacted]
[redacted]

7. Stellar-Index Camera Performance

Stellar-Index camera #D-48 was operated during the "A" mission HIVOS test and camera #D-38 during the "B" mission. Camera D-48 exhibited some metering anomalies during the test however all other camera functions were normal. The corona discharge fogging was within the acceptance criteria hence the camera was considered flightworthy after correcting the meter problem.

Camera D-38 operated normally throughout the "B" mission test however examination of the Index camera film showed that 80% of the formats were fogged due to corona discharge. The camera was not considered acceptable for flight and it's return to Itek for rework was recommended.

Camera D-48 was installed in the "B" position during the TASC test. The stellar shutter failed in the open mode during 20% of the operations. The corona discharge fogging was within the acceptance criteria. Subsequent testing in the TEAL chamber, after shutter modifications, determined that camera D-48 was acceptable for flight.

B. RESOLUTION TEST

The dynamic resolution test of the J-10 payload system was performed at the A/P facility on 7 May 1964. Each panoramic camera photographed high and low contrast resolution targets. The resulting through focus resolution data is shown in Figure 2-3 for the Master camera and in Figure 2-4 for the Slave camera.

C. LIGHT LEAK TEST

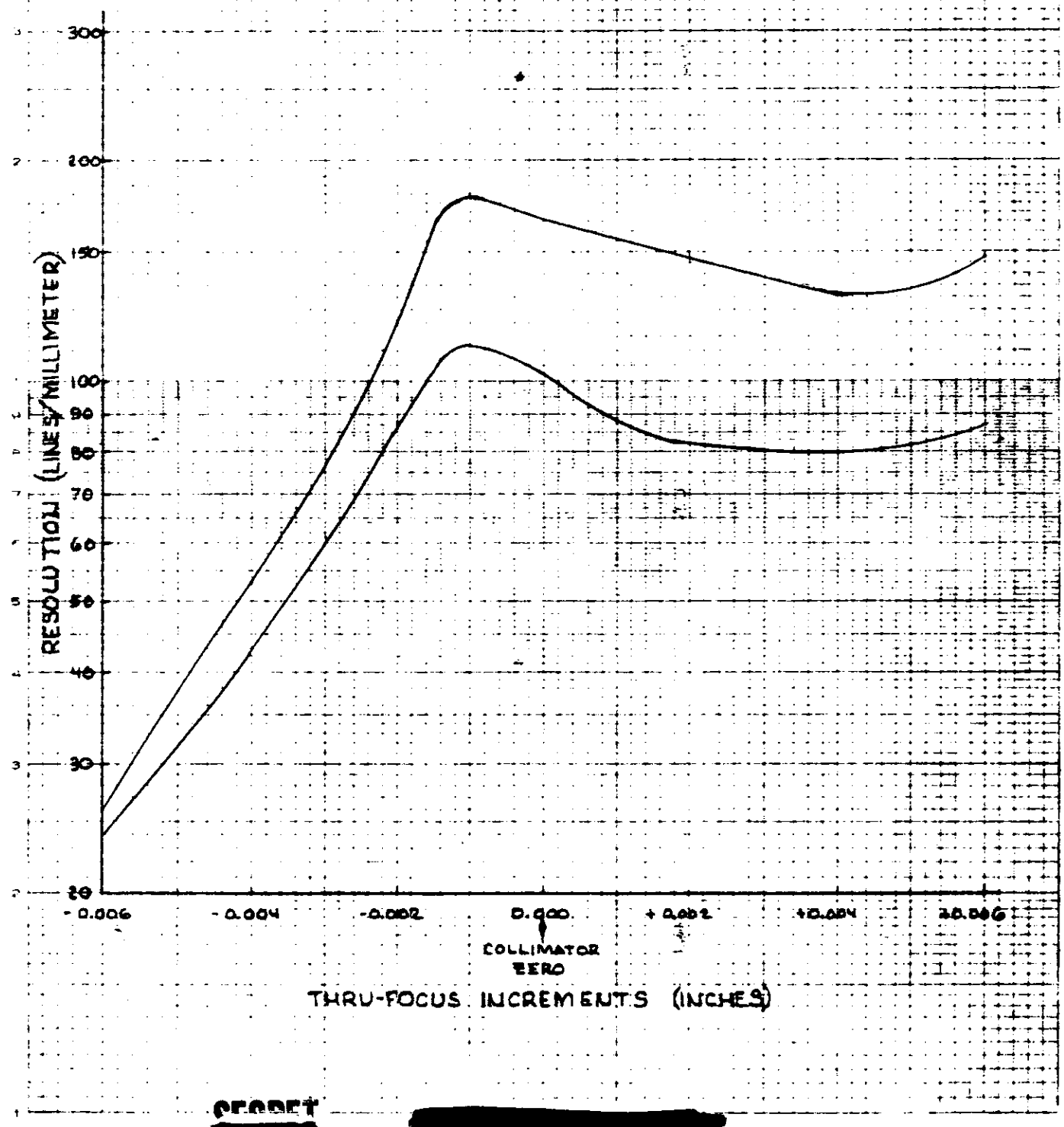
The examination of the film threaded in the J-10 system during the light leak test determined that no film fogging was present. The light tight integrity of the system was considered acceptable for flight.

[redacted]

CAMERA NO. 150

HIGH CONTRAST RESOLUTION - 178 L/MM

LOW CONTRAST RESOLUTION - 112 L/MM



SECRET

[redacted]

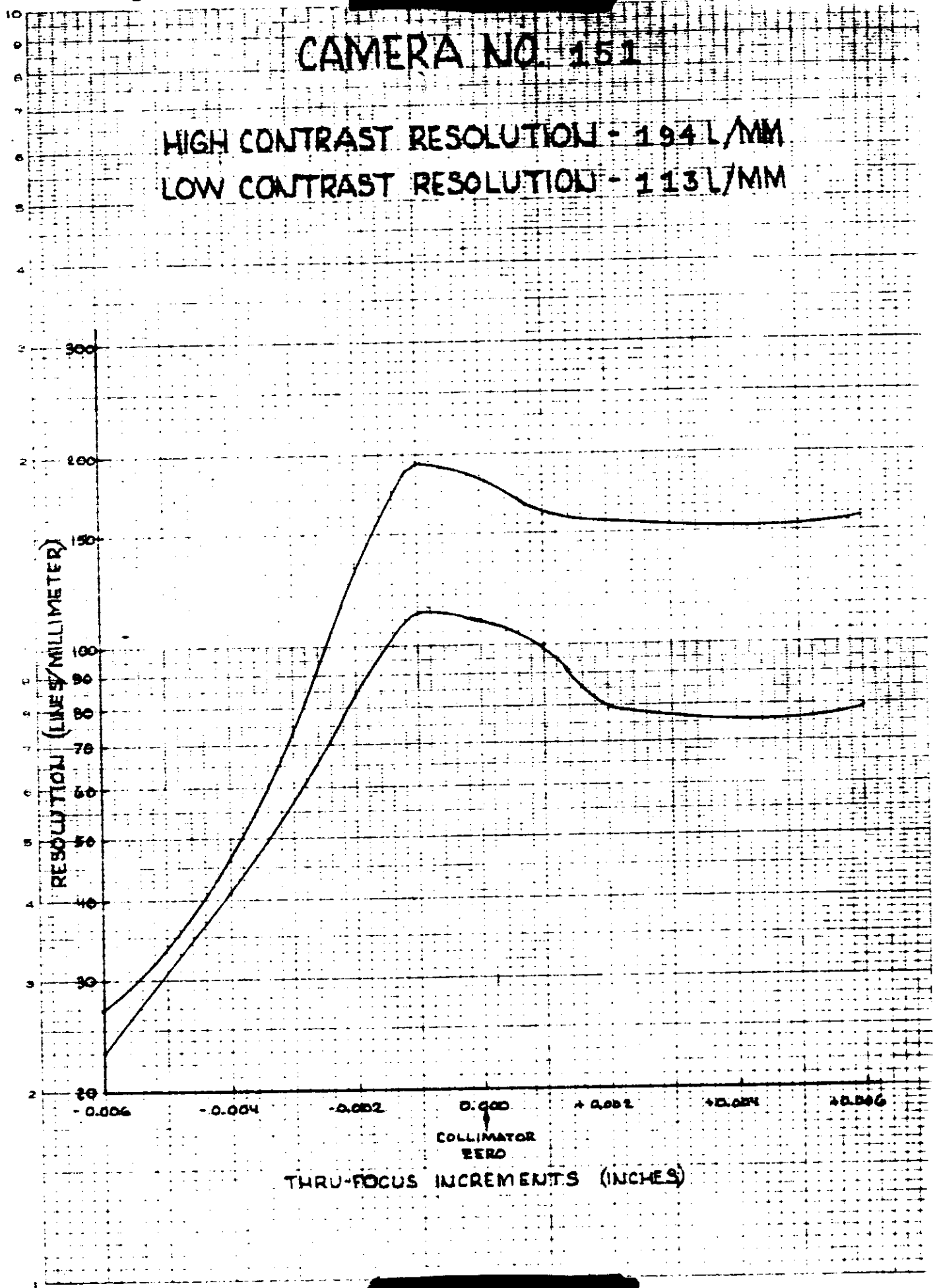

CAMERA NO. 151
HIGH CONTRAST RESOLUTION - 194 L/MM
LOW CONTRAST RESOLUTION - 113 L/MM
RESOLUTION (LINES/MILLIMETER)
300
200
150
100
90
80
70
60
50
40
30
20
- 0.006
- 0.004
- 0.002
0.000
COLLIMATOR ZERO
+ 0.002
+0.004
+0.006
THRU-FOCUS INCREMENTS (INCHES)

FIGURE 2-4

SECTION 3

FLIGHT OPERATIONS

A. INSTRUMENTATION AND TELEMETRY PERFORMANCE

The instrumentation and telemetry system performance was completely satisfactory throughout the flight. The TLM commutator was hard-wired and ran continuously for the life of the satellite. This was the second system to be hard-wired in order to overcome the start-up deficiency.

The take-up footage monitors shifted from their preflight calibrations. This shift is attributed to the difference in the impedance load and the supply voltage from the calibration to flight. The preflight calibration procedure has been changed to correct this deficiency.

B. THERMAL ENVIRONMENT

The thermal control on this mission was within tolerance. The average panoramic camera temperatures during the "A" mission ranged from 69°F. to 61°F. This was within specification limits, but was 5° to 10° lower than predictions, as shown by Figures 3-1 and 3-2.

Tables 3-1 and 3-2 present the real time thermal data. All of this data was obtained during [redacted] Tracking Station acquisitions and was corrected for self-heating where applicable.

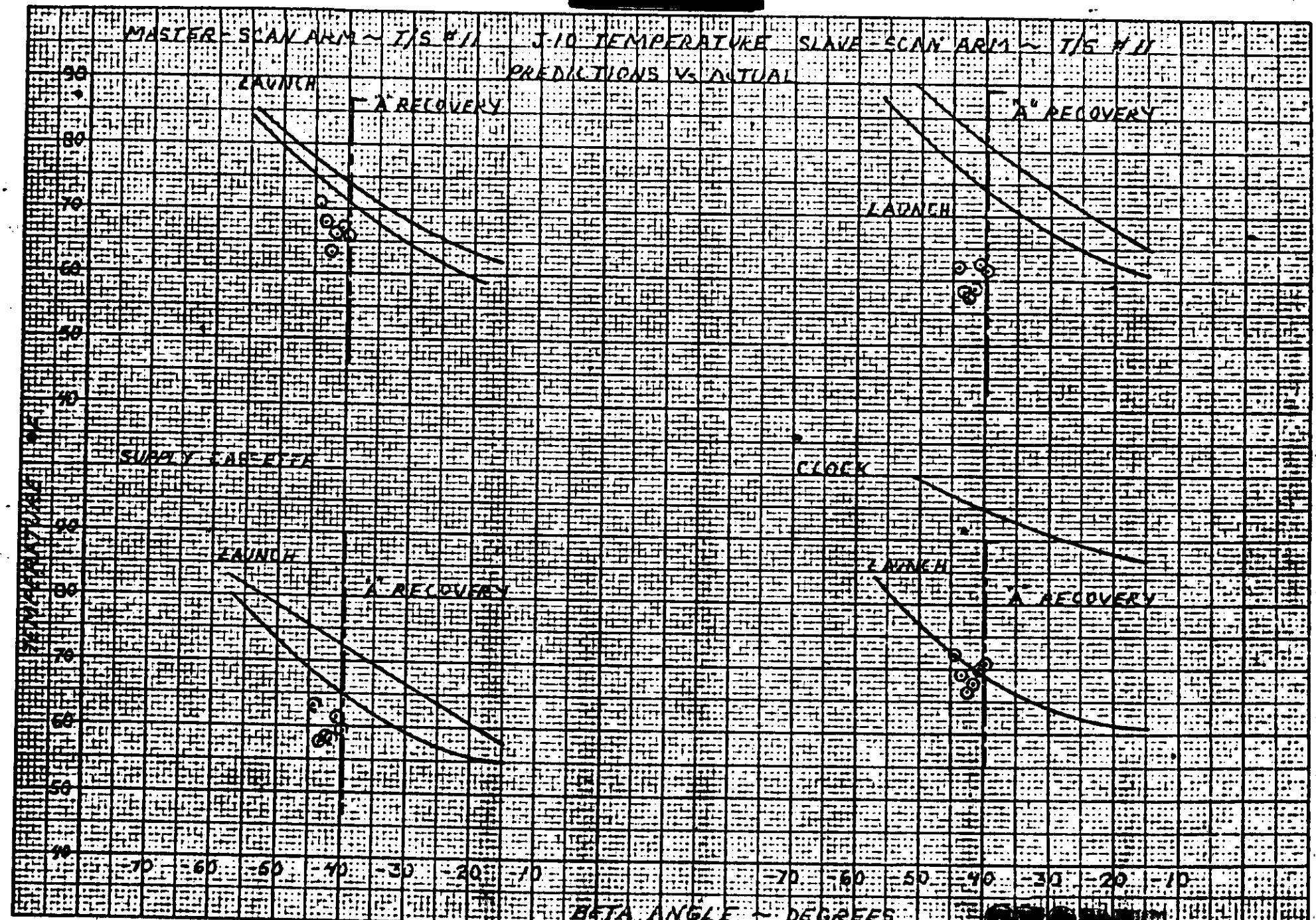
C. CLOCK PERFORMANCE

The clock performance was normal throughout both the "A" and "B" missions. A linear fit of the system time data to the clock data indicated the clock was running fast by 29 milliseconds per twenty-four hours. The maximum correction between the raw data and the fitted data was 13 milliseconds.

D. PANORAMIC CAMERA PERFORMANCE

The performance of the Master camera, S/N 150, was nominal for both the "A" and "B" missions. A total of 5852 frames were exposed which

[redacted]



[redacted]

[redacted]

MASTER-LENS ASSY - T/S #13 ± 10 TEMPERATURE PREDICTIONS VS ACTUAL SLAVE-LENS ASSY - T/S #13

MASTER-DRUM - T/S #13

SLAVE-DRUM - T/S #13

"A" RECOVERY

LAUNCH

90 80 70 60 50 40 30 20 10

-70 -60 -50 -40 -30 -20 -10

BETA ANGLE - DEGREES

[redacted]

J-10A/B, 1177 TEMPERATURE SUMMARY

SENSOR / Master	ORBIT NO. / Injection	8	16	24	31	40	47	56	63	71	79	87	94	103	110
3	67	55.5	50.5	48.6	50.2	53.6	49.6	47.5	44.0	47.6	45.0	45.0	44.0	44.0	43.0
4	74	62.5	55.0	55.5	56.5	60.6	55.3	54.3	49.0	54.4	50.0	52.0	50.0	51.0	49.0
5	71	68.3	62.2	62.5	61.8	67.6	62.3	60.1	56.0	61.5	59.0	58.0	58.0	58.0	55.0
6	65	75.3	65.7	68.3	67.6	72.3	67.0	67.1	61.0	66.2	61.0	64.0	60.0	62.0	60.0
7	66	70.8	64.7	68.8	65.0	68.5	65.0	62.6	58.0	62.3	59.0	60.0	58.0	59.0	58.0
8	68	88.4	57.5	57.8	57.1	63.0	58.8	56.6	53.0	55.8	53.0	55.0	53.0	53.0	52.0
9	69	70.6	63.3	64.8	65.3	68.8	64.6	63.6	59.0	63.8	59.0	61.0	59.0	60.0	57.0
10	68	68.5	65.0	61.5	65.0	65.0	65.8	60.3	59.0	60.0	59.0	59.0	58.0	57.0	58.0
11	99	70.8	67.7	63.1	66.0	67.2	65.3	61.2	61.0	60.5	59.0	57.0	58.0	56.0	58.0
12	79	59.0	55.0	53.1	53.6	58.3	53.0	52.0	48.0	53.3	49.0	51.0	48.0	50.0	49.0
13	69	74.3	68.2	66.1	66.1	69.6	66.1	63.8	60.0	63.5	59.0	61.0	58.0	59.0	58.0
Slave				A MISSION ←						→ B MISSION					
3	66	75.3	68.0	70.6	73.5	74.7	72.8	69.5	68.0	69.7	67.0	67.0	67.0	65.0	66.0
4	72	75.5	65.8	70.6	69.6	74.3	68.5	69.7	65.0	70.5	64.0	68.0	65.0	57.0	64.0
5	69	70.8	63.5	65.0	65.0	70.8	65.0	65.0	60.0	64.7	59.0	64.0	59.0	61.0	60.0
6	65	64.8	57.5	57.8	58.3	64.1	61.1	59.0	54.0	58.0	54.0	58.0	54.0	58.0	54.0
7	64	67.3	63.5	60.3	62.6	66.1	62.6	60.3	58.0	61.2	57.0	59.0	57.0	68.0	58.0
8	71	68.3	62.2	62.5	63.0	68.8	64.6	62.5	60.0	63.8	59.0	61.0	59.0	69.0	58.0
9	69	60.1	55.0	55.5	54.8	60.6	56.5	55.5	52.0	56.8	51.0	54.0	52.0	53.0	51.0
10	67	68.5	65.8	61.5	65.0	66.1	65.0	61.5	60.0	60.0	59.0	60.0	59.0	58.0	59.0
11	98	62.4	58.1	57.2	58.8	62.4	61.7	58.8	55.0	54.3	59.0	58.0	58.0	56.0	57.0
12	75	74.3	67.5	68.5	69.6	74.3	70.8	69.6	65.0	69.4	64.0	68.0	65.0	65.0	64.0
13	69	68.5	63.5	62.6	63.8	68.5	65.0	63.8	59.0	64.7	62.0	64.0	63.0	61.0	60.0
Supply Spool															
1	69	61.0	57.0	56.8	56.8	60.3	59.1	59.1	56.0	60.0	56.0	57.0	55.0	56.0	56.0
2	68	64.5	58.3	59.1	59.1	62.6	60.3	63.5	57.0	63.5	56.0	66.0	56.0	59.0	56.0

[redacted]

TABLE 3-1

J-10A/B, 1177 TEMPERATURE SUMMARY

Station/Parcel (A) (B)	Injection	8	16	24	31	40	47	56	63	71	79	87	94	103	
1	OBH	55.4	105.6	45.7	109.1	48.9	109.1	.50	26.4	9.1	26.0	0	25.0	-4.0	2
2	OBH	16.5	21.6	6.9	13.4	6.9	13.4	-2.7	-2.7	5.9	-2.0	-2.0	-3.0	-3.0	-
3	OBH	-2.4	16.0	-8.8	16.9	-5.6	16.9	10.9	74.3	19.0	77.0	11.0	83.0	14.0	8
4	OBH	61.6	73.2	55.2	71.2	55.2	68.0	41.3	123.6	43.3	124.0	38.0	124.0	35.0	12
5	OBH	99.5	96.0	91.0	113.4	91.0	107.8	57.1	99.0	56.2	93.0	-4.0	88.0	41.0	8
6	OBH	82.9	124.0	73.6	154.3	73.6	154.3								
Barrel No. 2				A MISSION ←				→ B MISSION							
1	171.7	76.9	79.1	67.2	97.5	64.0	91.8	51.1	89.0	53.3	83.0	45.0	77.0	38.0	7
2	168.5	66.4	124.2	60.0	144.1	56.7	141.3	51.1	130.4	55.7	128.0	47.0	130.0	44.0	12
3	201.4	17.7	88.6	11.5	83.6	14.6	80.8	23.8	74.6	22.7	75.0	15.0	81.0	15.0	8
4	207.7	7.2	18.7	.7	7.3	4.0	4.0	0.7	0.7	5.8	1.0	1.0	4.0	1.0	
5	184.9	15.9	30.7	9.6	25.4	12.8	25.4	3.1	22.2	11.6	19.0	6.0	19.0	6.0	1
Comic Adapter															
1	189.5	72.5	77.9	66.1	96.5	66.1	96.5	56.5	90.8	61.9	88.0	53.0	88.0	50.0	8
Clock															
1	101.0	73.1	70.2	68.8	68.8	71.0	70.9	64.5	62.4	68.0	62.0	65.0	60.0	62.0	6
2	101.0	70.9	68.0	64.5	66.7	68.8	70.9	60.3	60.3	63.8	60.0	60.0	58.0	60.0	5
Thrust Cone "A" to "B" SRV															
1	118.5	52.5	44.5	46.5	46.5	48.5	46.0	50.5	46.0	45.5	45.0	46.0	44.0	46.0	4
2	79.0	76.5	61.0	66.7	64.5	69.0	65.5	64.3	60.0	60.5	59.0	62.0	58.0	59.0	6
Stellar Index "A" to "B"															
1	89.6	77.9	73.7	68.4	68.4	68.4	68.4	49.9	49.9	55.3	50.0	50.0	47.0	47.0	4
2	73.3	67.1	56.8	54.6	54.6	57.7	51.4	42.9	36.4	44.9	33.0	40.0	33.0	36.0	3
Recovery Patt. "B" SRV															
1	73.9	74.0	70.1	63.4	65.8	66.9	66.9	81.0	85.7	87.8	86.0	86.0	86.0	84.0	8
Master Cassette "A" SRV															
2	100.5	63.8	55.4	52.4	52.4	55.8	54.7								

Note: Only Thrust Cone Data corrected for

completely depleted the flight supply. The cycle rates of the unit varied from the predicted rates by 1 percent fast to 3 percent slow.

The performance of the Slave camera, S/N 151, was also nominal for both missions and a total of 5859 exposed frames were obtained from this unit. The inflight cycle rates varied from the predicted rates by 1 percent fast to 2.5 percent slow.

E. STELLAR-INDEX CAMERA PERFORMANCE

The "A" mission Stellar/Index Camera performed normally throughout its mission. Complete consumption of the index film was observed on the 2935th frame of the master panoramic, which was two S/I frames short for this mission.

The performance of the second Stellar/Index Camera was normal for the first quarter of the "B" mission. After 107 frames of operation, the index shutters failed in the open position and remained open through the depletion of the S/I film. Two orbits prior to the "B" recovery the index shutter was observed to be firing during the shutter winding cycle.

SECTION 4

MISSION 1008-1 RECOVERY SYSTEM

SRV #640 was received at A/P on 5 September 1963. The receiving weight was 151 pounds. After modifications and incorporation of outstanding E.O.'s, testing was completed for integration to the J-10 system.

The following major modifications were made to SRV #640 during the system test phase at A/P:

1. 11 February 1964 (FEDR 1254); the forebody, S/N 110 was removed for use on M-27. It was replaced by S/N 180.

2. 15 April 1964 (FEDR 1304); a faulty resistor in telemetry tray S/N 111 resulted in it being replaced by S/N 109.

The SRV was shipped to VAFB on 18 April 1964. The recovery battery connector was replaced after inproper mating.

The capsule was successfully air recovered on orbit 49. The recovery system performance was nominal, as shown by Table 4-1. Actual impact point was reported to be 16 $\pm$ 5 miles from predicted.

The only abnormality was in the capsule telemetry channel 9 which did not indicate the #2 recovery battery voltage. The voltage is monitored through two circuits during the recovery sequence and neither one indicated voltage to the redundant programmer. After recovery, extensive tests of the capsule programmer and battery did not reveal any abnormalities.

The Temp-Plate temperature indicator locations and the temperature ranges experienced are shown in Figures 4-1 to 4-3.

TABLE 4-1

RE-ENTRY SEQUENCE OF EVENTS
MISSION 1008-1

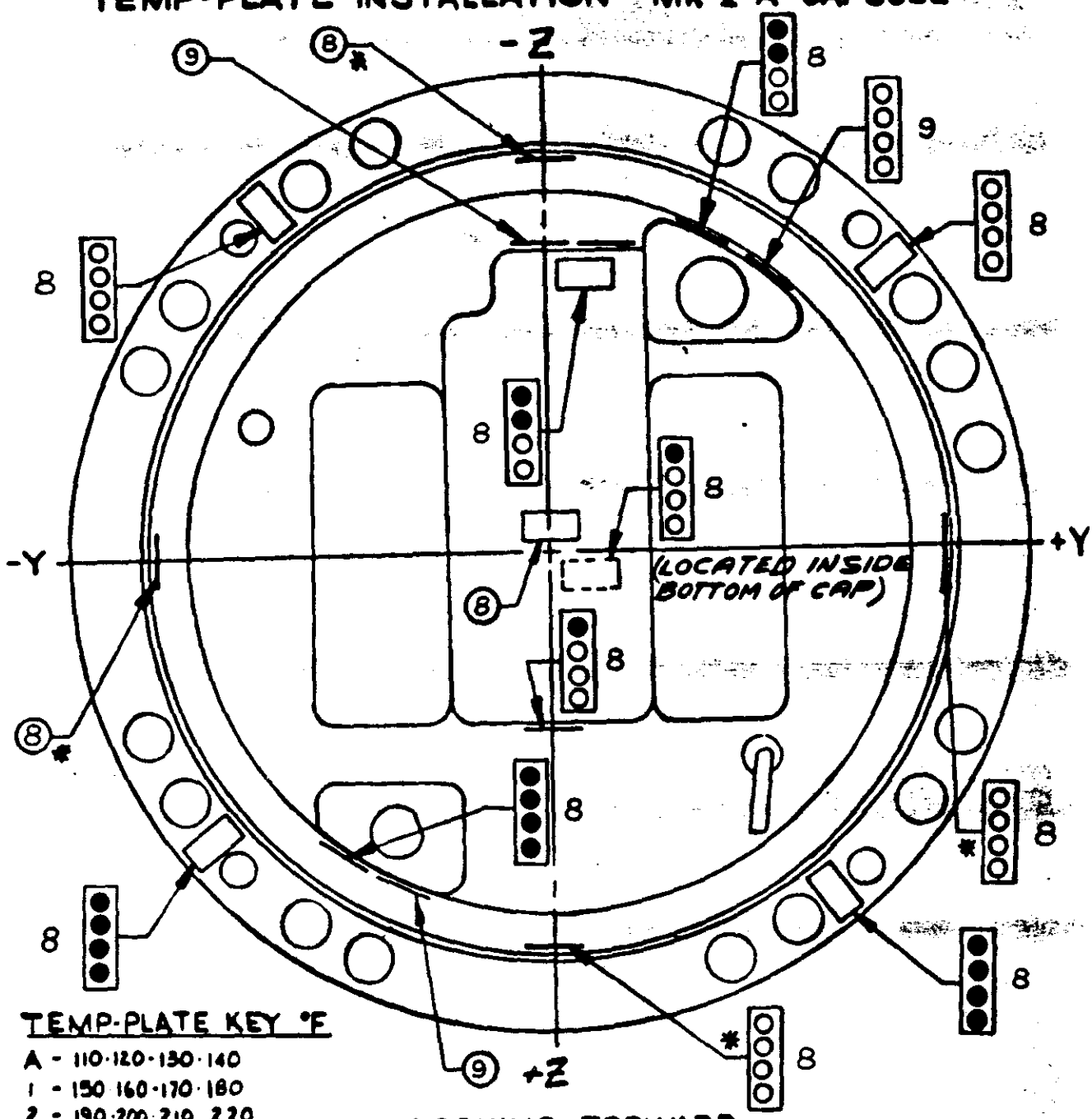
Event	System Time	Delta Time Actual	Delta Time Nominal
Transfer	5461.02	-	-
Electrical Disconnect	5461.94	.92	.900 $^{+.43}_{-.40}$
Separation	5463.02	2.00	2.0 ± .25 *
Spin	5465.34	3.40	3.4 ± .30 **
Retro	5472.90	7.56	7.55 ± .45
Despin	5483.61	10.71	10.75 ± .54
T/C separation	5485.10	1.49	1.5 ± .15
Voltage Mon. Closed	5580.14	118.20	104.0 ± 44.
"G" Switch Open	5981.91	401.77	-
Parachute Cover Off	6016.21	34.30	34.0 ± 1.5
Drogue Chute Deployed	6016.86	.65	.63 ± .08
Drogue Chute Release	6027.03	10.17	10.05 ± 1.0
Main Chute Deployed	6027.58	.55	.80 ± .20
Main Chute Disreefed	6031.61	4.03	4.0 ± 1.7

* From Transfer

** From Elect. Disc.

Spin Rate	66.0 RPM
Despin Rate	6.6 RPM
Retro Velocity	884.8 FT/SEC.

TEMP-PLATE INSTALLATION - Mk V-A CAPSULE



TEMP-PLATE KEY °F

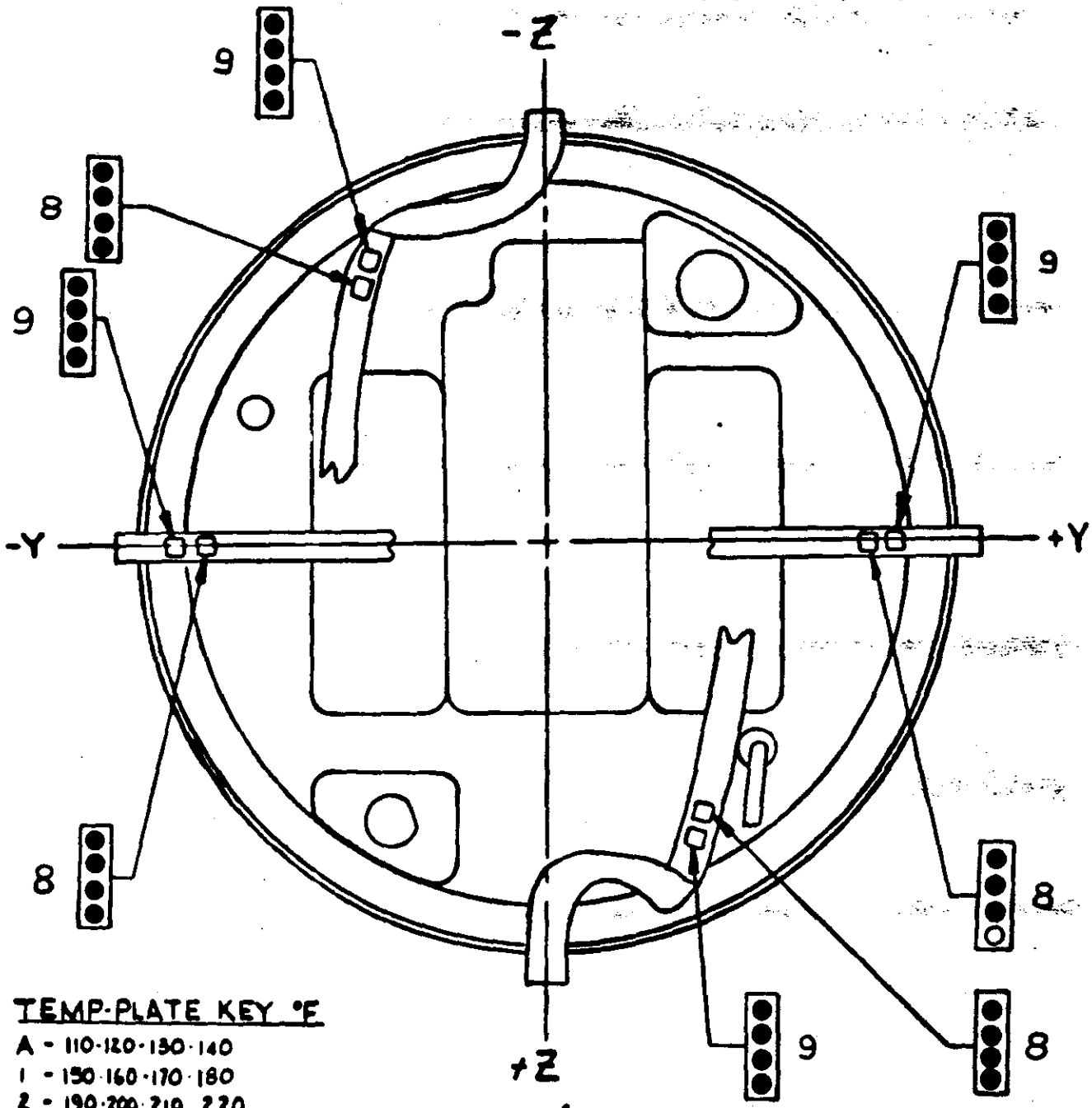
A - 110·120·130·140
1 - 150 160·170·180
2 - 190·200 210 220
3 - 230 240·250·260
4 - 270 280·290·300
5 - 310·320 330 340
6 - 350·360·370 380
7 - 390 410·435·450
8 - 100·150·200·250
9 - 300·350·400·450

*LOCATED INSIDE CAPSULE ON NOSE WALL

●INDICATOR TURNED BLACK TEMP REACHED OR EXCEEDED INDICATED LEVEL

1008-1

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

LOOKING FORWARD

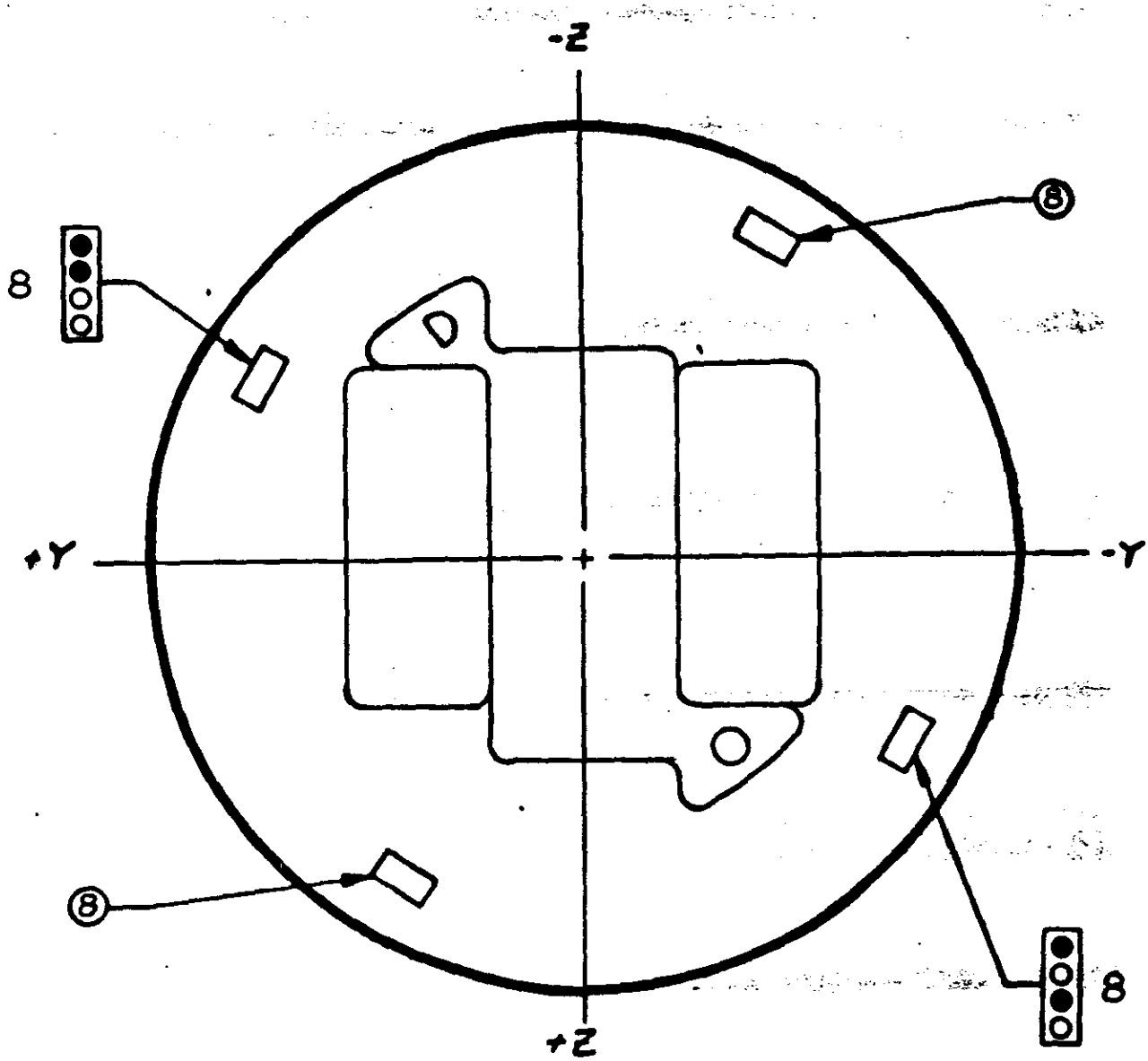
USE OF TEMP PLATES ON PARACHUTE SHROUDS

● INDICATOR TURNED BLACK TEMP REACHED OR EXCEEDED INDICATED LEVEL

1008-1

FIGURE 4-2

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

1008-1

FIGURE 4-3

[redacted]

SECTION 5

MISSION 1008-2 RECOVERY SYSTEM

SRV #641 was received at A/P on 6 September 1963 and weighed 149 pounds. Following modifications and incorporation of open E.O.'s the SRV was integrated to the J-10 system.

The following major anomalies and subsequent corrective actions were encountered during systems tests at A/P:

1. A blown fuse in the recovery tray was replaced.

2. The recovery programmer, S/N F-1, was replaced by S/N LOT L-6.

3. Cracks in the forebody resulted in S/N 119 being replaced by S/N 168.

The SRV was shipped to VAFB on 18 April 1964. At VAFB minor wiring problems resulted in rework of the W2P1 plug and the ARM-2 connector.

The second mission capsule was successfully air recovered on orbit 112. The recovery system performance was nominal as shown by Table 5-1 and the actual impact point was reported to be as predicted ± 5 miles.

The location of the Temp-Plate temperature indicators and the experienced temperatures are shown in Figures 5-1 to 5-3.

[redacted]

[redacted]

TABLE 5-1

RE-ENTRY SEQUENCE OF EVENTS
MISSION 1008-2

	Event	System Time	Delta Time Actual	Delta Time Nominal
	Transfer	3494.42	-	-
	Electrical Disconnect	3495.43	1.01	.900 $^{+.43}_{-.40}$
*	Separation	3496.42	2.00	2.0 ± .25
**	Spin	3498.80	3.37	3.4 ± .30
	Retro	3506.35	7.55	7.55 ± .45
	Despin	3516.96	10.61	10.75 ± .54
	T/C Separation	3518.48	1.52	1.5 ± .15
	Voltage Monitor Closed	3610.10	101.62	104.0 ± 44.
	"G" Switch Open	4064.05	453.95	-
	Parachute Cover Off	4097.95	33.90	34.0 ± 1.5
	Drogue Chute Deployed	4098.50	.55	.63 ± .08
	Drogue Chute Release	4108.74	9.99	10.05 ± 1.0
	Main Chute Deployed	4109.57	.83	.80 ± .20
	Main Chute Disreefed	4113.57	4.00	4.0 ± 1.7

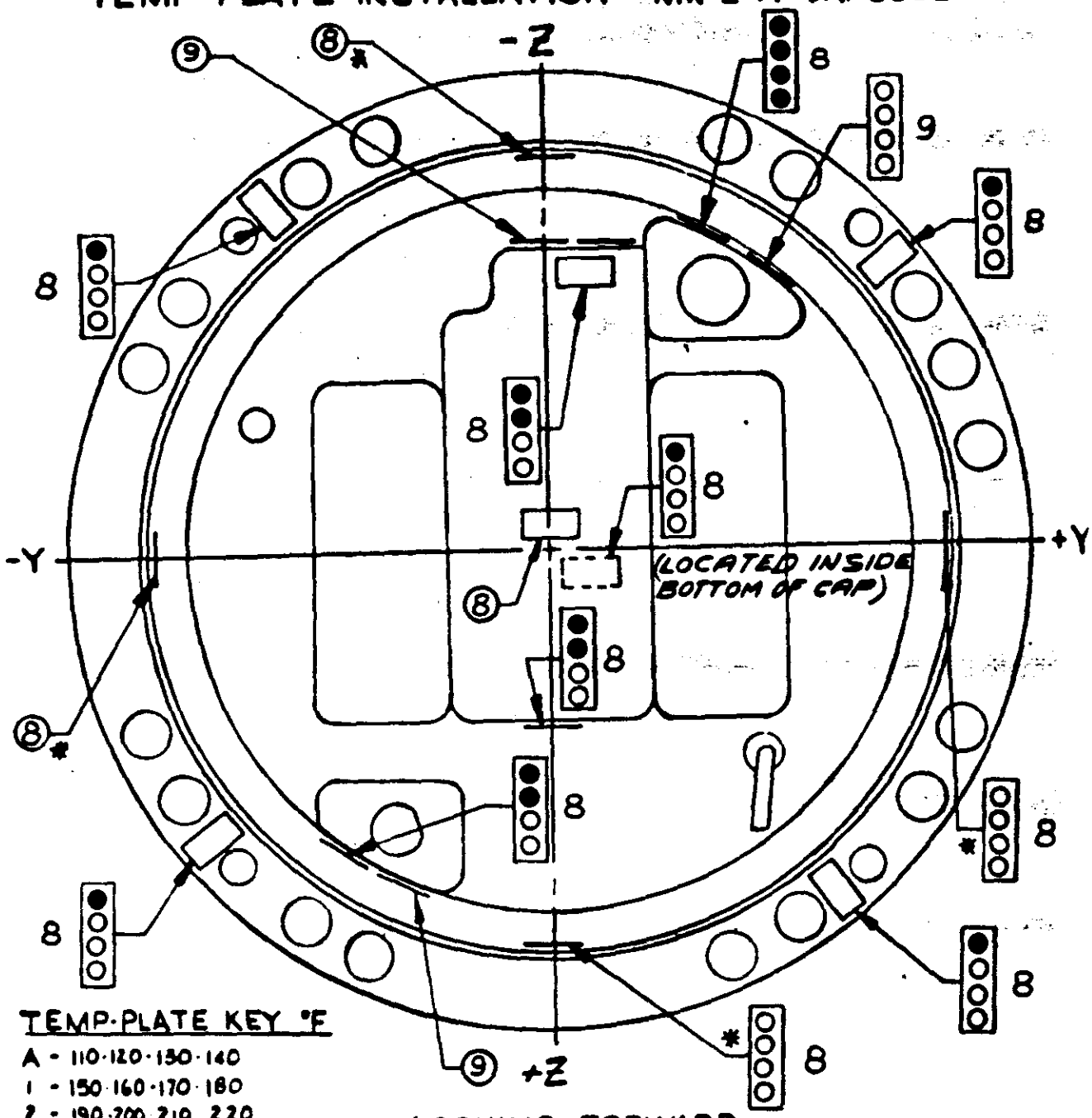
* From Transfer

** From Elect. Disc.

Performance

Spin Rate	No TLM Data
Despin Rate	8.2 RPM (TLM Marginal)
Retro Velocity	989.8 FT/SEC.

TEMP-PLATE INSTALLATION - Mk V-A CAPSULE



TEMP-PLATE KEY °F

A - 110-120-150-140
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

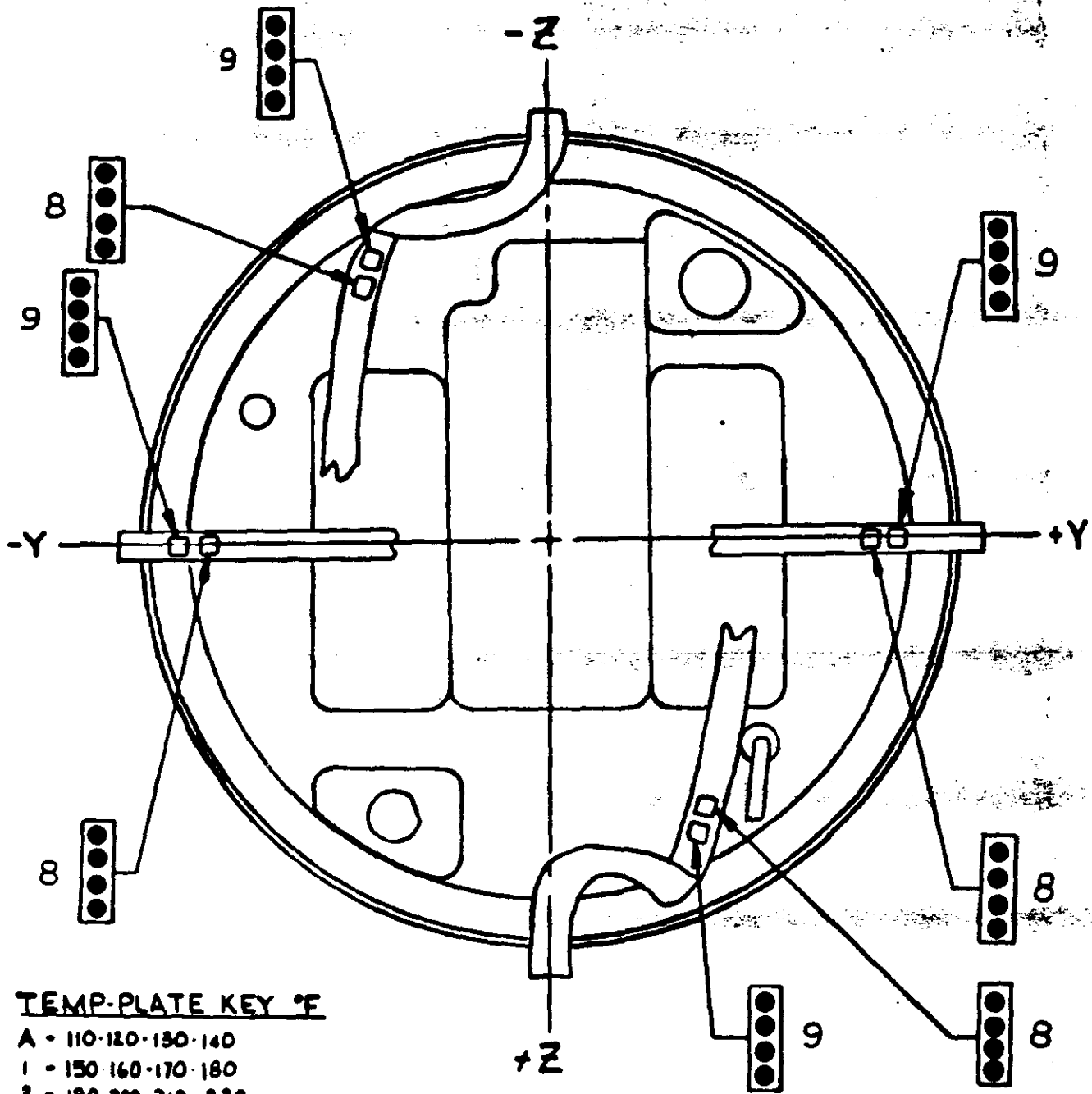
*LOCATED INSIDE CAPSULE ON NOSE WALL

●INDICATOR TURNED BLACK TEMP REACHED OR EXCEEDED INDICATED LEVEL

1008-2

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

LOOKING FORWARD

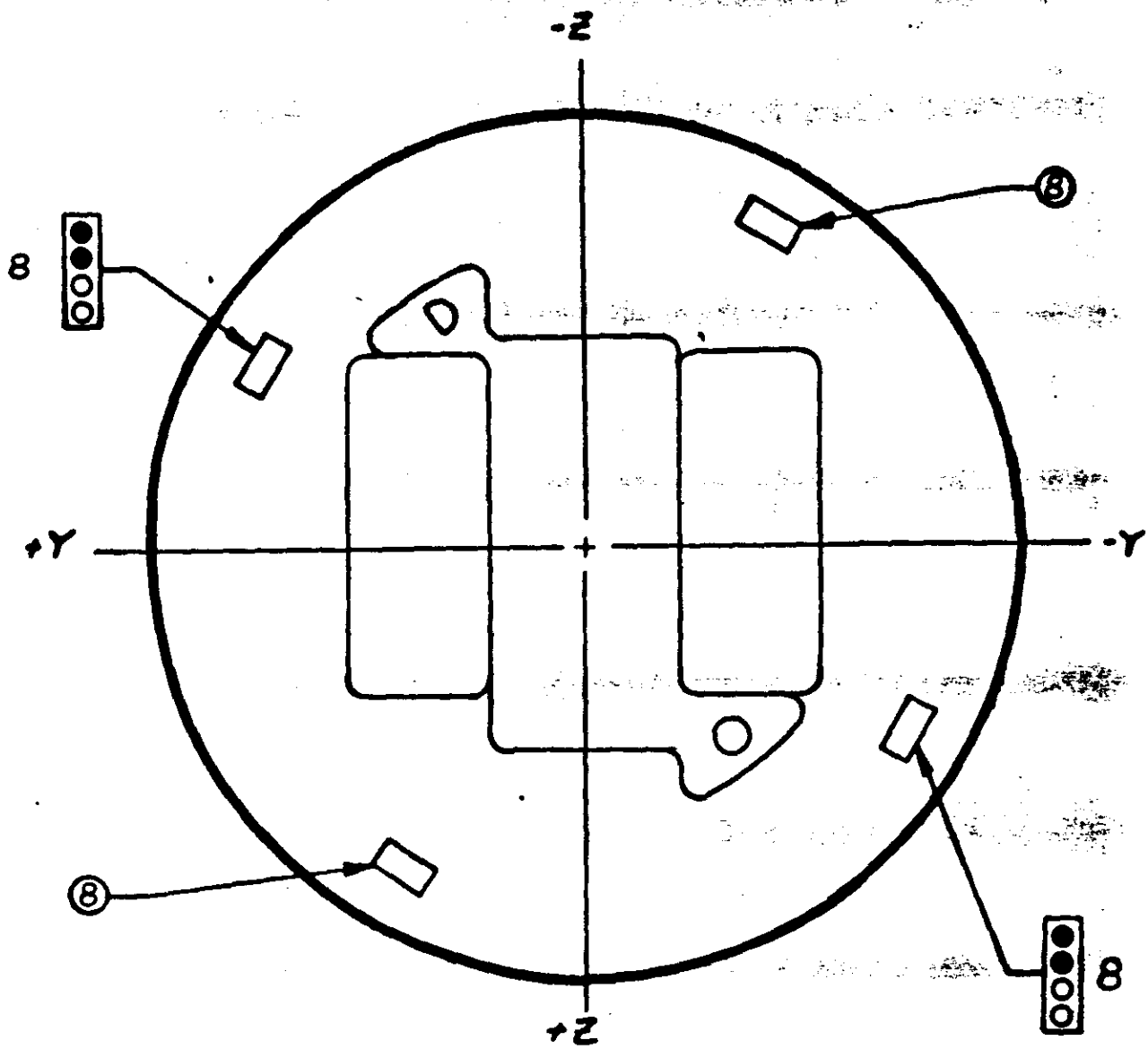
USE OF TEMP PLATES ON PARACHUTE SHROUDS

● INDICATOR TURNED BLACK TEMP REACHED OR EXCEEDED INDICATED LEVEL

1008-2

FIGURE 5-2

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 5-3

SECTION 6

MASTER (FWD) PANORAMIC CAMERA

A. COMPONENT ASSIGNMENT

Component	Serial Number
Main Camera	150
Main Camera Lens	1272435
Supply Horizon Camera	157 B
Supply Horizon Camera Lens	812302
Take-up Horizon Camera	161 A
Take-up Horizon Camera Lens	813546
Supply Cassette	SC-12

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 (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 quality of the photography produced by the Master camera was very good throughout both missions in low haze areas. The cloud cover during operations was quite heavy and the atmospheric haze was judged to be significantly heavier than usual. These factors resulted in the conclusion that the overall photographic quality was somewhat lower than Mission 1007.

The electro-mechanical operation of the camera system was normal during both missions. Minor degradation was caused in the photography as a result of the usual light leaks at the beginning and end of most camera operations. A continuous minus density streak was noted along the film major axis during both missions. The streak could only be detected in areas where the terrain was relatively dark. The streak was caused by the supply spool puck arm roller. Procedural changes have been incorporated to assure that the puck arm tension is correct prior to launch and to assure that the roller turns freely.

Occasional flare was observed adjacent to cumulus clouds where the background was very dense, such as water. The anomaly has been noted in many of the prior missions and has been common throughout the history of aerial photography. It is probably caused by the residual veiling glare of the lens and/or internal camera reflections. An investigation is underway to ascertain the cause in the Corona system and devise a solution.

SECTION 7

SLAVE (AFT) PANORAMIC CAMERA

A. COMPONENT ASSIGNMENT

Component	Serial Number
Main Camera	151
Main Camera Lens	1312435
Supply Horizon Camera	159B
Supply Horizon Camera Lens	812307
Take-up Horizon Camera	138A
Take-up Horizon Camera Lens	812286
Supply Cassette	SC-12

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

C. POST FLIGHT PERFORMANCE EVALUATION

The photographic quality of the Slave camera film was essentially equal to the Master camera. The photography was slightly degraded by an area of soft focus which started during pass D-03 and continued during the remainder of Mission 1008-1. The magnitude of the degraded area, originally approximately three to five inches long by one to one and one half inches wide, was significantly reduced after pass D-31 and continued to reduce through D-47. The soft area was not present during Mission 1008-2.

The horizon camera fiducials and camera serial number failed to appear intermittently during both missions. The exact cause of this anomaly has not been determined however the most probable cause is the intermittent failure of the capacitor in the lamp sync unit to discharge.

SECTION 8

PANORAMIC CAMERA EXPOSURE

The exposure parameters of both the panoramic cameras were the normal 0.200 inch wide slit and Wratten 21 filter used historically during summer flights. These conditions place the nominal exposure on the intermediate level processing curve, as published by [redacted] for their 4404 emulsion.

The illumination conditions during the mission were relatively constant as the flight was conducted near the summer solstice. The frequency distributions of the solar elevations and solar azimuths encountered during the photographic operations are shown in Figures 8-1 to 8-4.

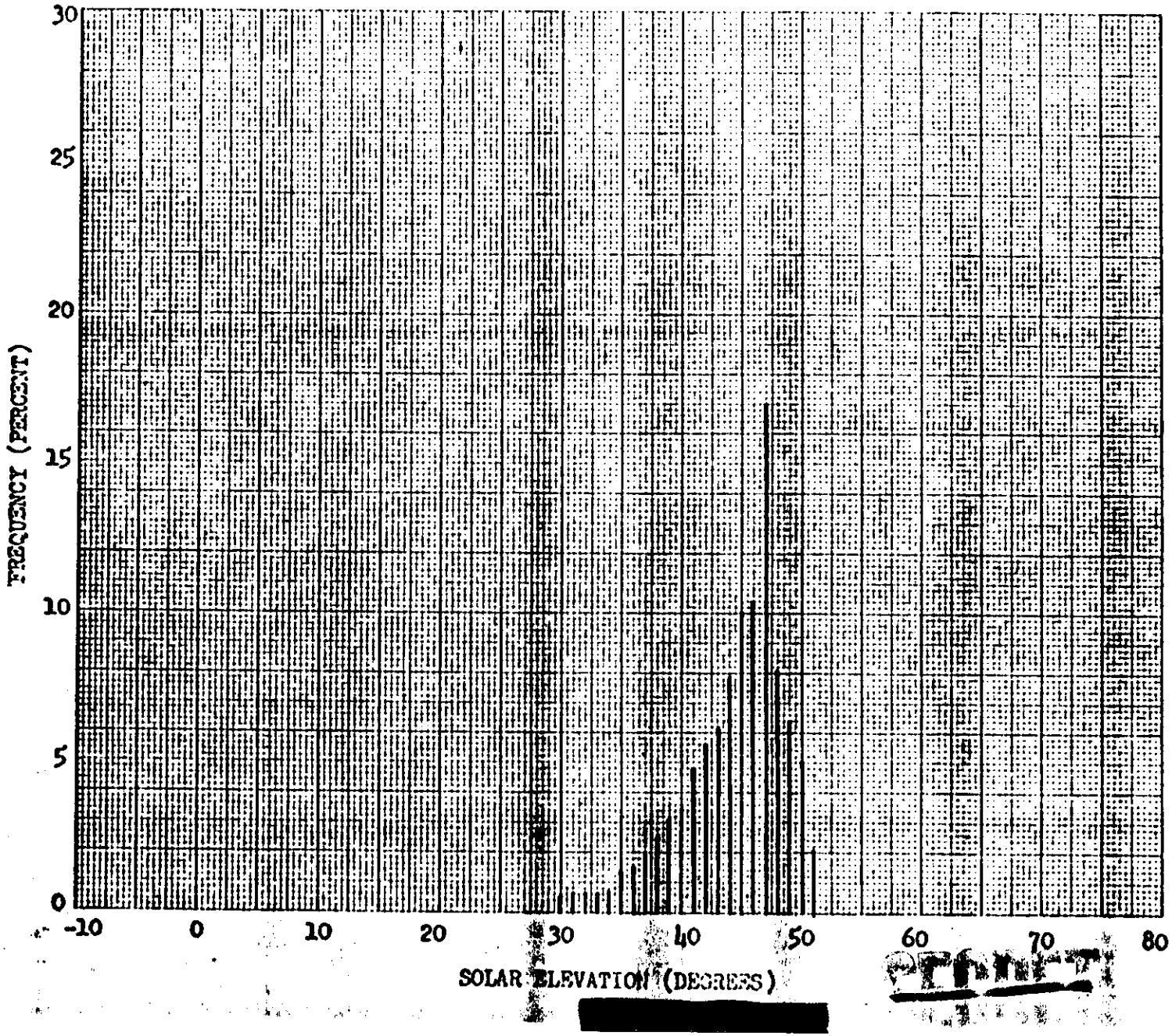
The nominal exposure times are shown as a function of latitude for passes D-08, D-56 and D-104 in Figures 8-5 to 8-7. The predicted level of processing for the original negative is based on the in-flight performance estimate and is tabulated below with the processing levels reported by [redacted]

Mission	Camera		Primary	Intermediate	Full
1008-1	FWD	Predicted	0	100	0
		Reported	4	32	64
1008-1	AFT	Predicted	0	100	0
		Reported	4	27	69
1008-2	FWD	Predicted	0	100	0
		Reported	3	31	66
1008-2	AFT	Predicted	0	100	0
		Reported	3	30	67

The variation in the predicted and reported processing levels is generally consistent with the data observed from recent missions. The use of significantly greater percentages of full processing has been experienced throughout the Corona program. Further analysis and calculations are in process to attempt to ascertain the optimum exposure-processing conditions.

[redacted]

SOLAR ELEVATION FREQUENCY DISTRIBUTION



Mission No: 1008-1

Payload No: J-10

Camera No: 150

Launch Date: 7/10/64

Launch Time: 2314 Z

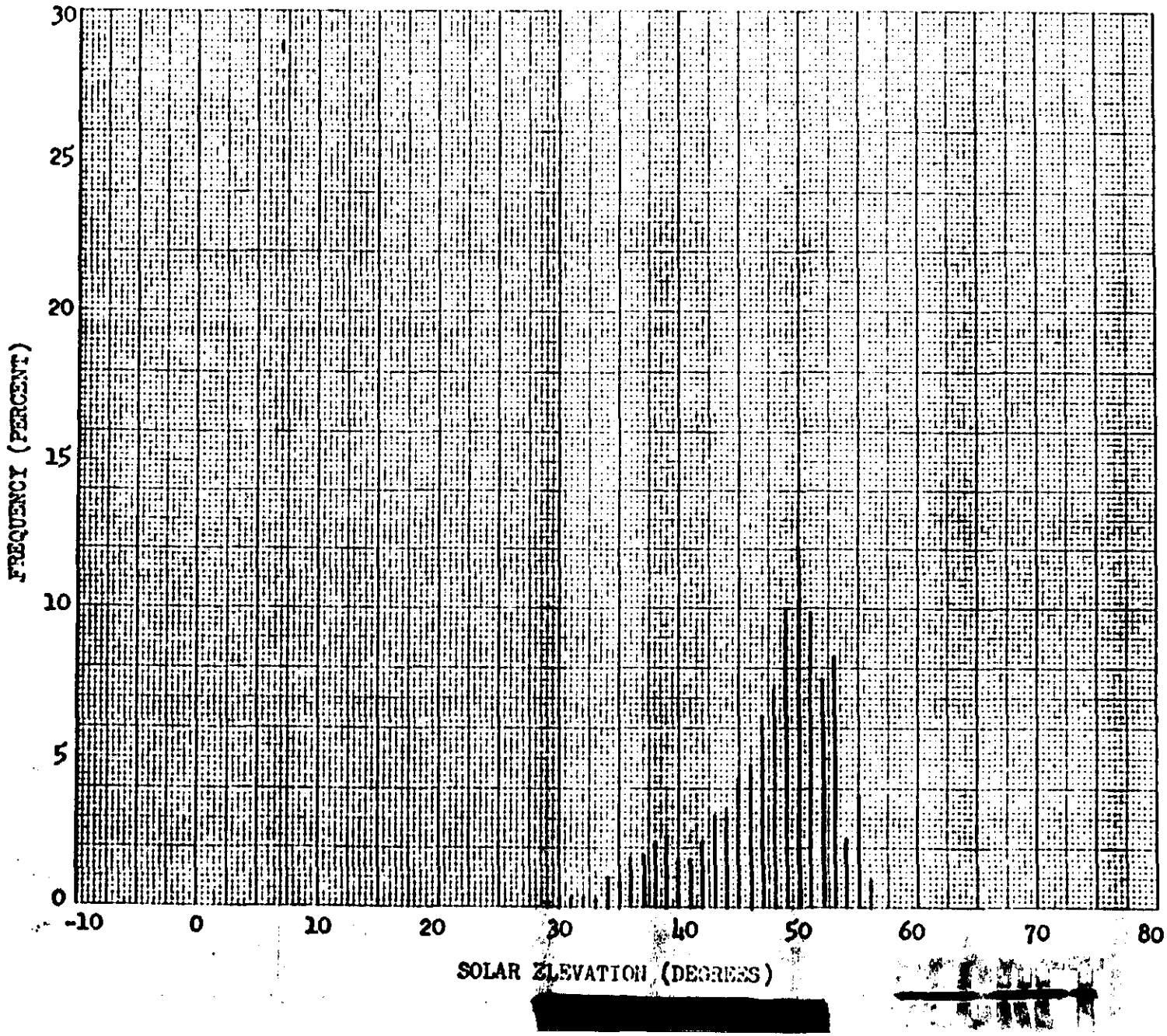
Inclination: 85°

FIGURE 8-1

[redacted]

[redacted]

SOLAR ELEVATION FREQUENCY DISTRIBUTION



Mission No: 1008-2

Payload No: J-10

Camera No: 150

Launch Date: 7/10/64

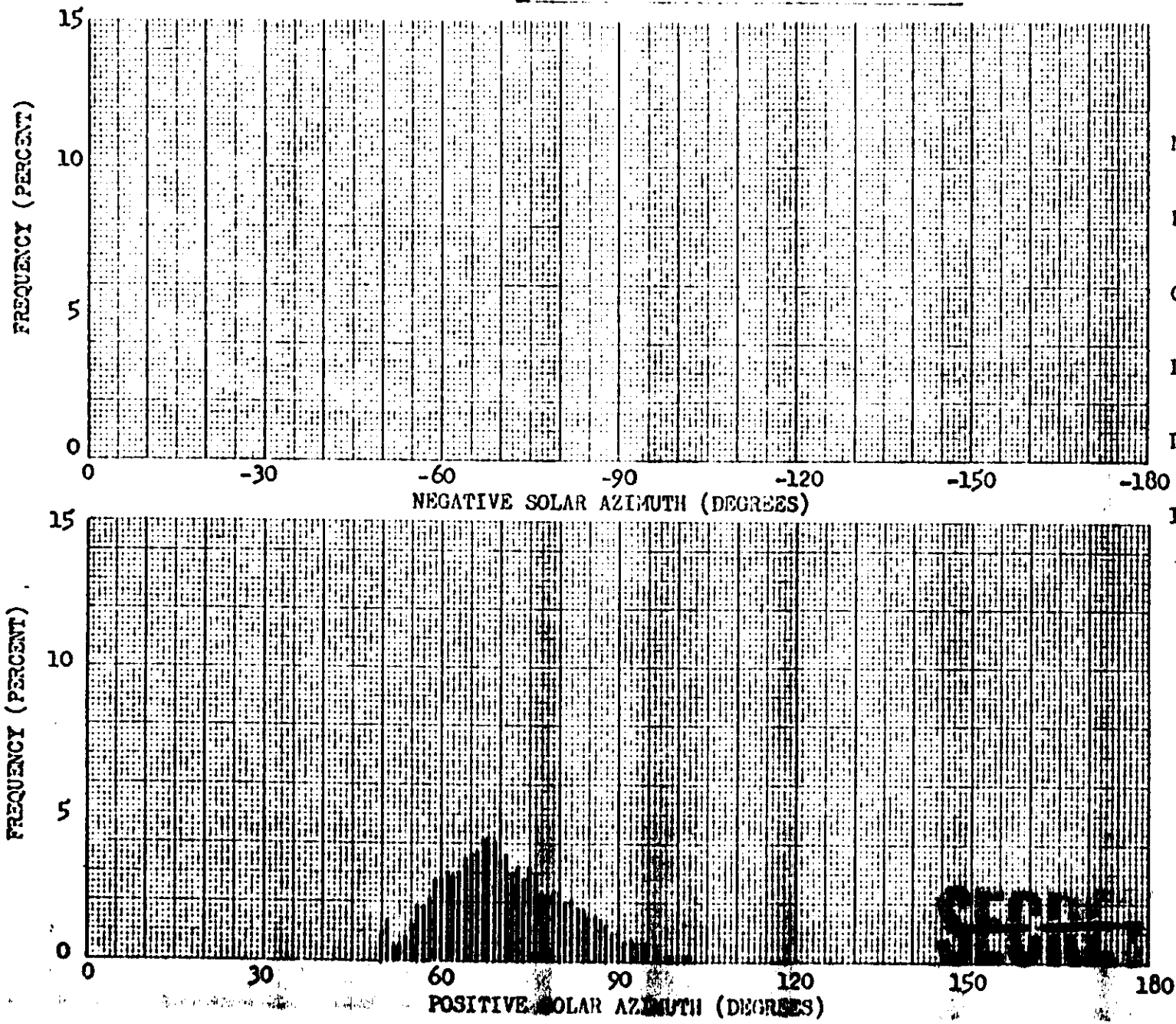
Launch Time: 2314 Z

Inclination: 85°

FIGURE 8-2

[redacted]

SOLAR AZIMUTH FREQUENCY DISTRIBUTION



Mission No: 1008-1

Payload No: J-10

Camera No: 150

Launch Date: 7/10/64

Launch Time: 2314 Z

Inclination: 85°

SIGN NOTATION

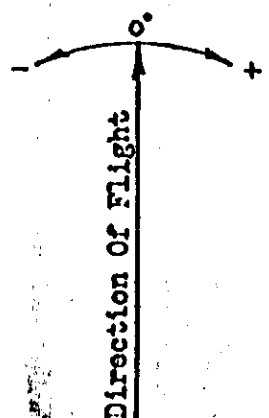
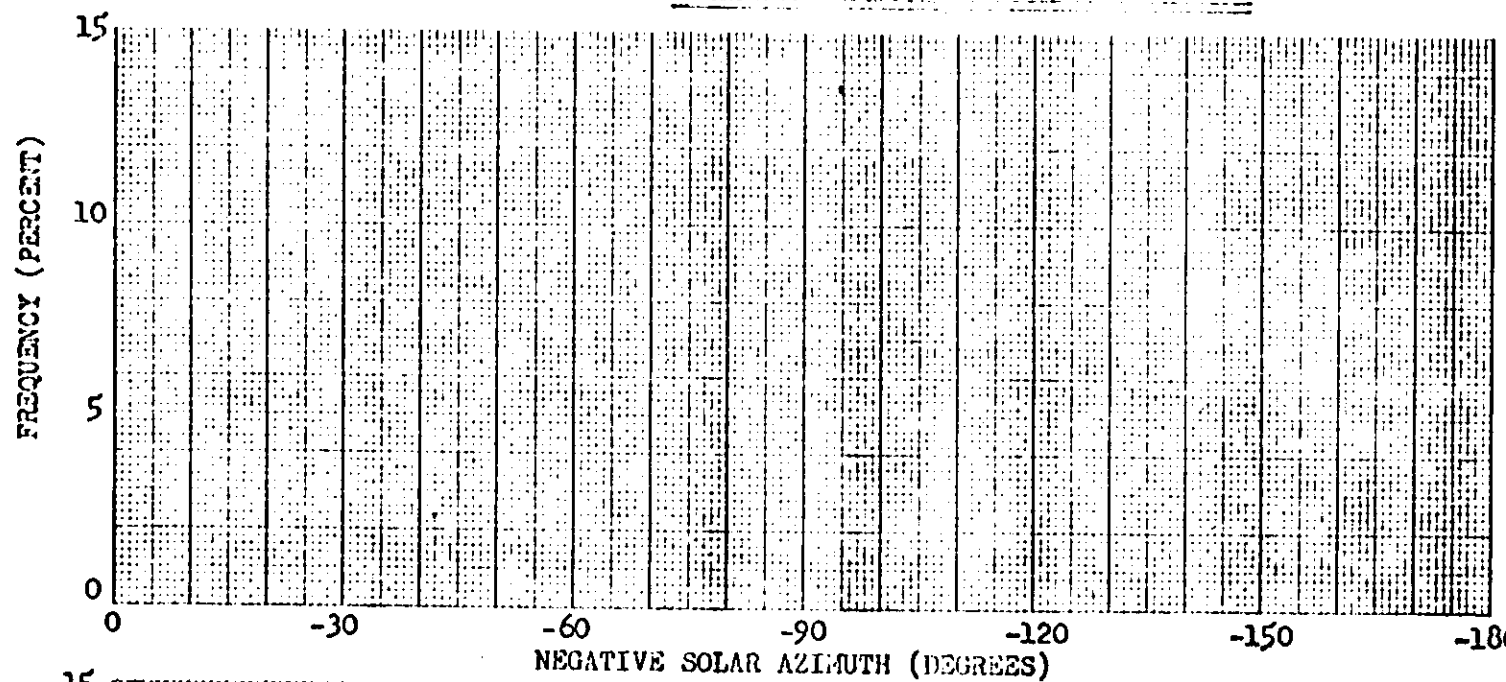
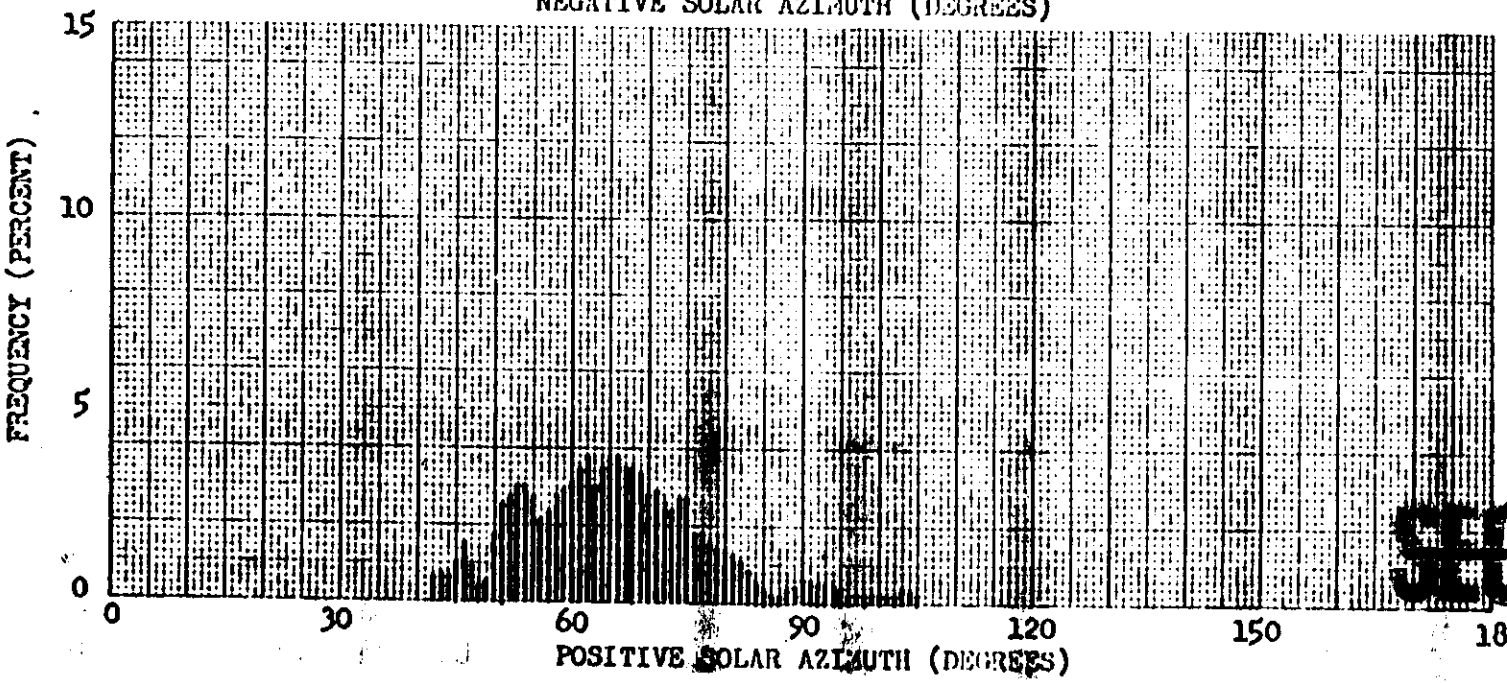


FIGURE 8-3

SECRET
[redacted]

SOLAR AZIMUTH FREQUENCY DISTRIBUTION





Mission No: 1008-2

Payload No: J-10

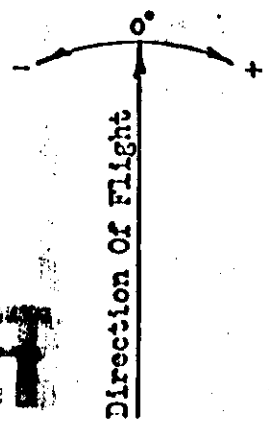
Camera No: 150

Launch Date: 7/10/64

Launch Time: 2314 Z

Inclination: 85°

SIGN NOTATION



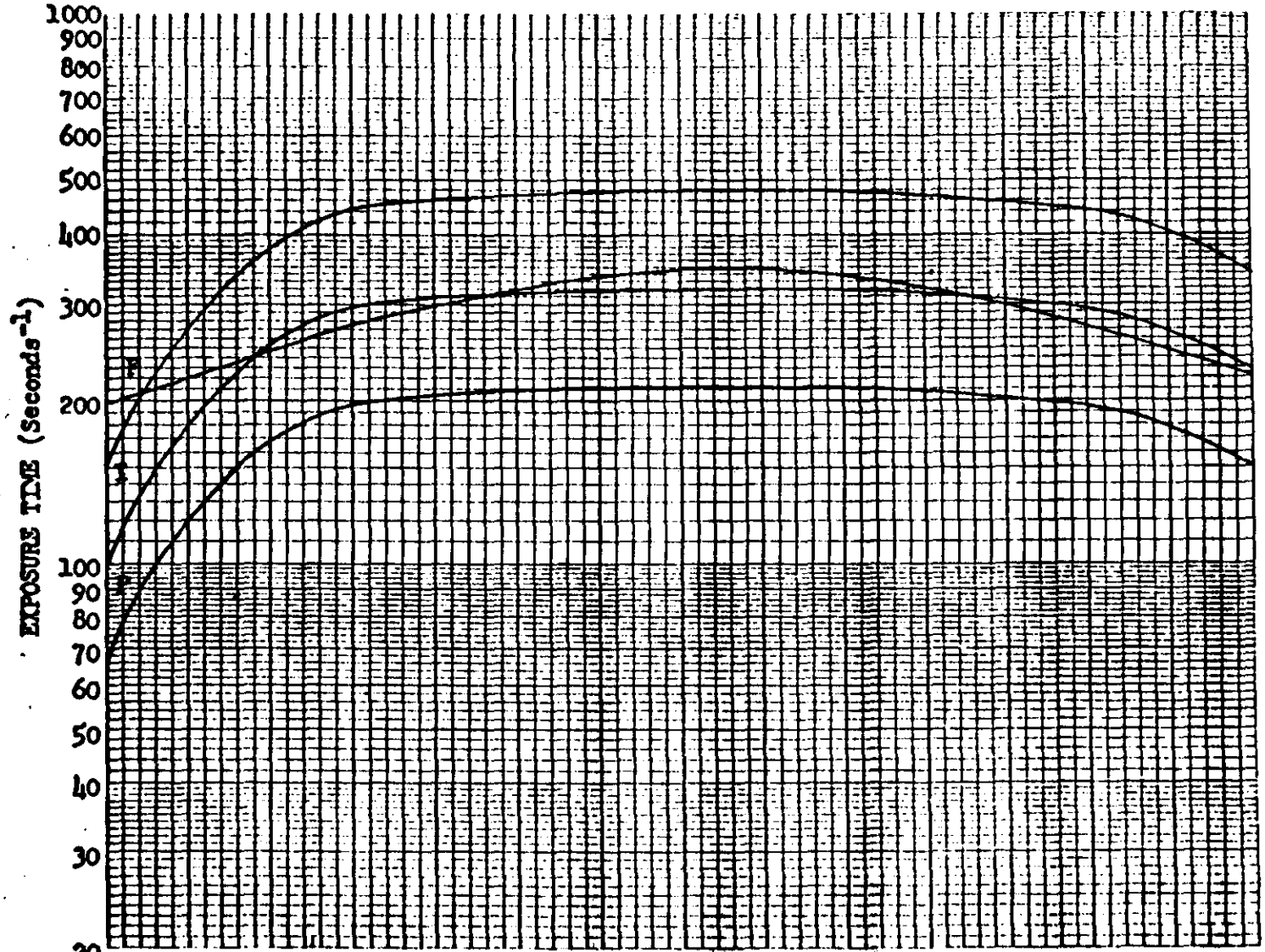
SECRET
[redacted]

FIGURE 8-4

SECRET

[redacted]

EXPOSURE POINTS



Mission No: 1008

Payload No: J-10

Camera No: 150 & 151

Pass No: 8

Launch Date: 7/10/64

Launch Time: 2314 Z

Slit Width: .200

Filter Type: Wratten 21

Film Type: 4404

[redacted]

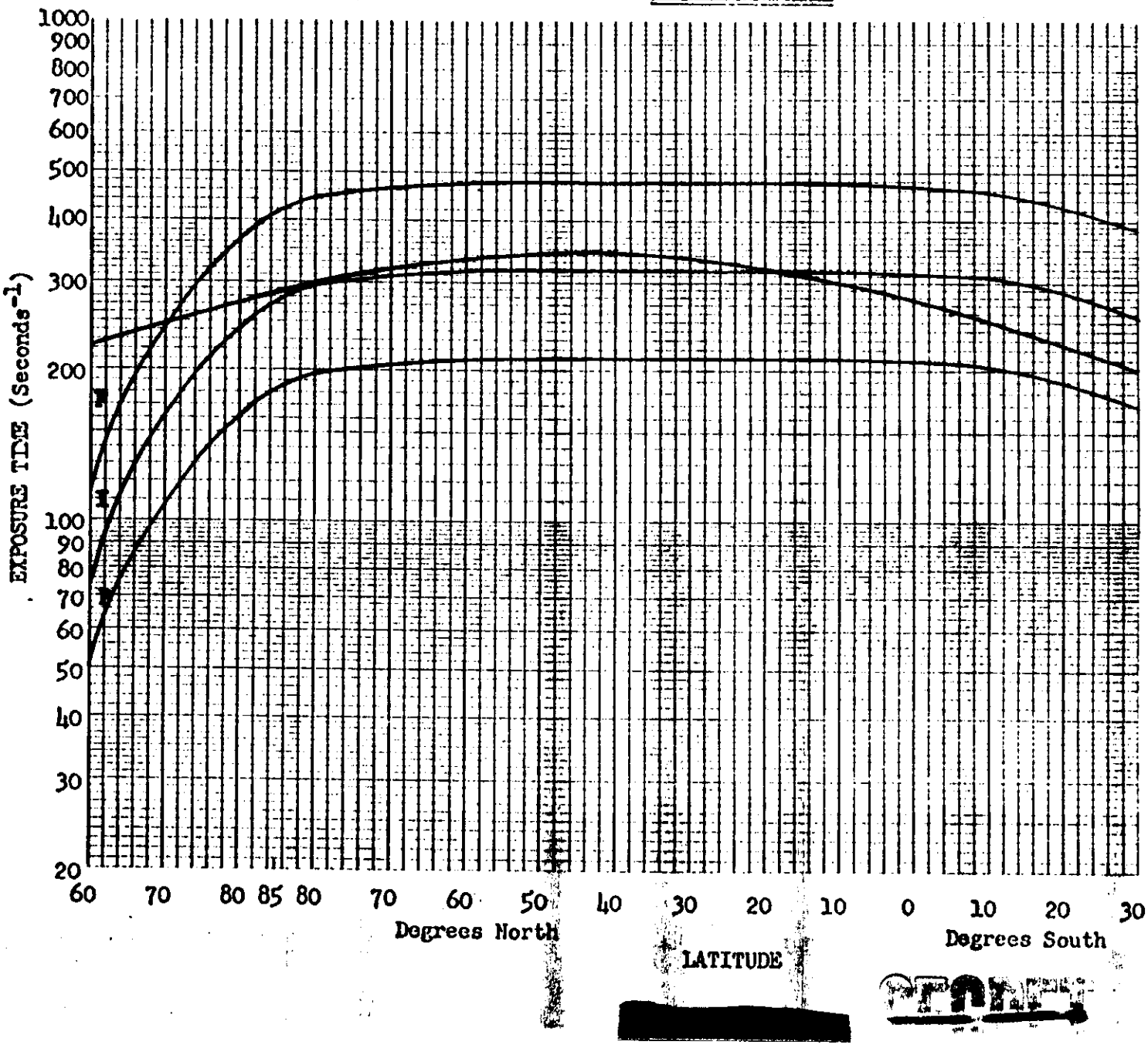
SECRET

FIGURE 8-5

SECRET

[redacted]

EXPOSURE POINTS



Mission No: 1008

Payload No: J-10

Camera No: 150 & 151

Pass No: 56

Launch Date: 7/10/64

Launch Time: 2314 Z

Slit Width: .200

Filter Type: Wratten 21

Film Type: 4404

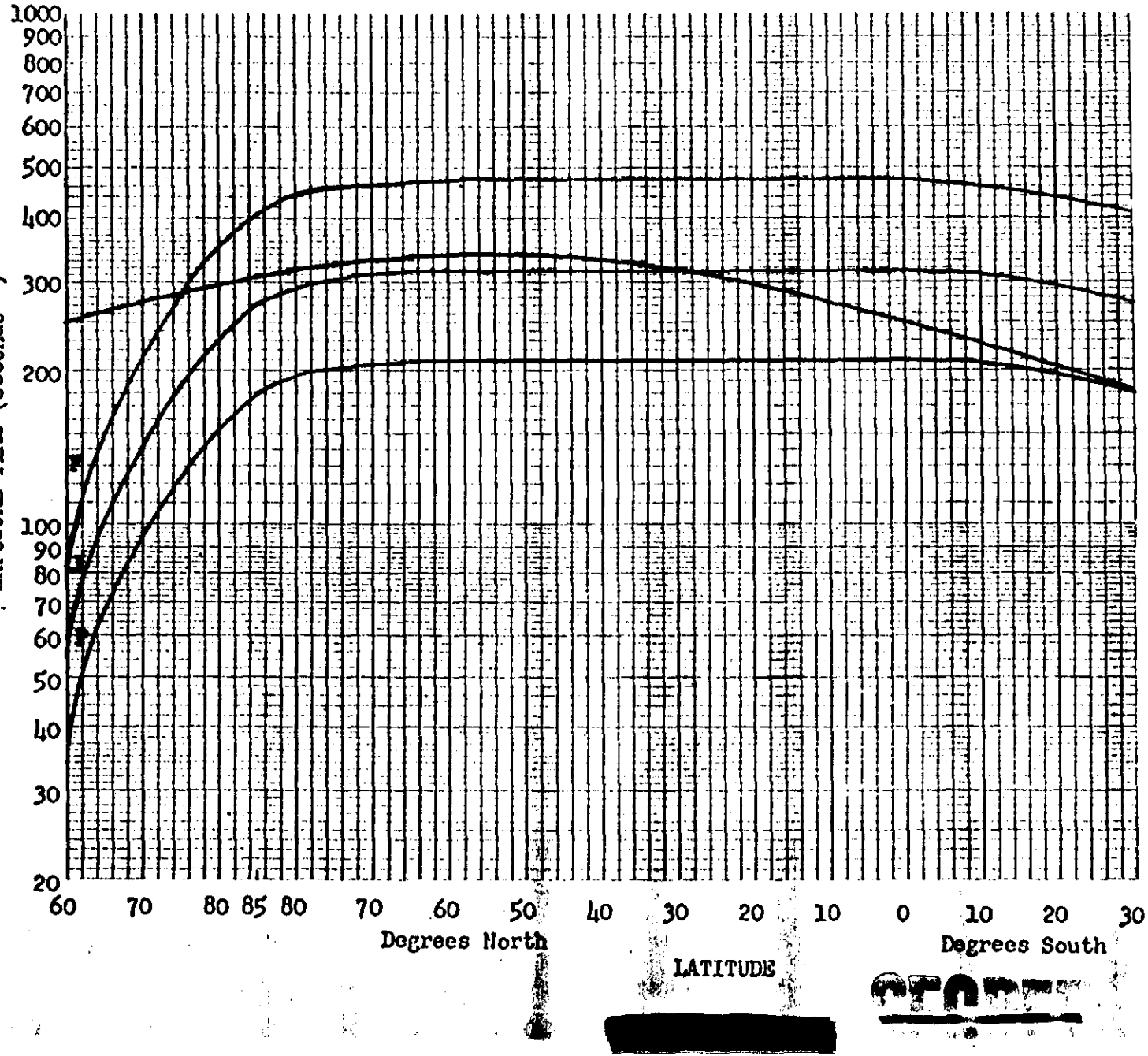
[redacted]

SECRET

FIGURE 8-6

SECRET

EXPOSURE POINTS



Mission No: 1008

Payload No: J-10

Camera No: 150 & 151

Pass No: 104

Launch Date: 7/10/64

Launch Time: 2314 Z

Slit Width: .200

Filter Type: Wratten 21

Film Type: 4404

FIGURE 8-7

[redacted]

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

[redacted]

[redacted]

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

[redacted]

PAS NBR	FRMAREA1 NBRWWWAAASTQ	RESAREA2 WWWAAASTQ	RESAREA3 WWWAAASTQ	RESAREA4 WWWAAASTQ	RESAREA5 WWWAAASTQ	RES D MINMAX	D B+	D MAXLATE	D LIM LECLD	SUN
D001F005									0101915	10+44100
D001F011									0122185	00+45100
D002F005			059072422						0721320	19222660+370 70
D002F015									0681980	20219650+38
D002F025			063080411						0621740	20222630+39035
D002F035									0142146	20+40
D002F042									0122146	10+41100
D003F005									0192157	10+35098
D003F011			078078412						0822100	13214700+36090
D003F021									0671120	19218690+37
D003F031			052069412						0581500	19223670+37085
D003F041									0551260	19220660+38
D003F051			078067422						0851420	19223640+39065
D003F061									0731470	19219630+39
D003F071			061067431						0552070	18000610+40000
D003F081									0131965	90+41
D003F091									0132195	80+42100
D003F092									0132205	80+42100
D005F005		099104411							0591150	18220540+43000
D005F015									0631060	20229530+43
D005F025			099099411						0531350	20226510+44020
D005F035									0621170	20230500+44
D005F045									0192264	80+44100
D005F055									0182314	70+44
D005F065									0182354	50+45100
D005F075			094099111						0501250	13228440+45050
D005F085									0471090	13224420+45
D005F095	085078411								0611080	13226410+45095
D005F105									0132283	90+45
D005F115									0132243	80+46100
D005F124									0132313	60+46
D006F005			070067411						1452090	16220750+33000
D006F015									0721580	18205740+34
D006F025			085072411						0611560	18234720+35005
D006F035									0631720	18230710+35
D006F045			076075412						0762240	18232690+36015
D006F055									0671520	18230670+37
D006F065			082082411						0461340	18231660+38005
D006F075									0421220	18220640+38
D006F085			067070411						0431090	18000630+39000
D006F095									0401040	15000610+40
D006F105			075075411						0380880	18214590+41002
D006F115									0451060	18229580+41
D006F125			090085111						0411820	18230560+42005
D006F135									0321210	15228550+43
D006F145			070070411						0471500	12226430+46080
D006F155									0521780	12226420+46
D006F165					067065411				0761730	12222400+46060
D006F175									0122263	80+46
D006F185									0122233	70+46100

SECRET [redacted]

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

NBR NBRWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQMINMAXB+FMAXLATELECLD

D006F195					012225350+46100
D006F205		072075412			092139017227340+45095
D006F215					044154018231320+45
D006F225		072072421			062178018232300+45060
D006F235					068174018231290+45
D006F245		078075421			060149018232270+45030
D006F254					092132018233260+45
D007F005				0670654131482090	18228760+32098
D007F015					018222750+33
D007F025					018227730+34100
D007F035					014226710+35
D007F036				0670614131061690	14225710+35095
D007F046					073144012224700+36
D007F056			065065411		062170011225680+37065
D007F068					034078011224560+42
D007F078		085078113			074152015230550+43085
D007F088					074210017229530+43
D007F098		090085111			068175018234510+43055
D007F108					068158016230500+44
D007F118			094099111		055151011224480+44050
D007F128					061159011226470+45
D007F138		094094111			042163012228450+45040
D007F148					105172012227440+46
D007F154					080134012224430+46090
A008F005					018000401- 8
A008F008					020000411- 8
D008F005		085082111			058171022217600+41003
D008F015					052164022215590+41
D008F025		094090111			048163022213570+42001
D008F035					054138021233560+42
D008F045		085085111			048130021230540+42003
D008F055					063130021230520+43
D008F065		090085111			062165020230510+43005
D008F075					050163016222490+43
D008F085		078082411			063189019221480+44001
D008F095					070148015210460+44
D008F105		082082411			071177014224440+44010
D008F115					089163013000430+44
D008F125		072075411			067148012000410+45000
D008F135					061129011000400+45
D008F145		078075111			052131011000380+45000
D008F155					068191014232360+46000
D008F160					014222360+4600J
D009F005		085082111			039120014221630+39025
D009F015					014214620+40
D009F025			082075113		058087014216600+40060
D009F035					047106014216590+41
D009F045		075072113			076130021223570+41050
D009F055					070139021228550+42
D009F065	094090211				065185021220540+42045

[redacted]

SECRET

PAS	FRMAREA1	RESAREA2	RESAREA3	RESAREA4	RESAREA5	RES	D	D	D	LIM	SUN
NBR	NBRWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQMINMAXB+FMAXLATELECLD										
D009F075										057188021224520+43	
D009F085099094211										062183021230510+43075	
D009F095										080189021226490+44	
D009F105090085111										091146019228470+44060	
D009F115										077163014216460+45	
D009F125									085094111	057146014210440+45015	
D009F134										014000430+46	
D019F005										013228650+39100	
D019F015										013220640+40	
D019F025			085090412							074141021222620+41060	
D019F035										048220021162610+41	
D019F045					085090433					076222020226590+42050	
D019F055										052221021228580+43	
D019F065			099099431							047217021228560+43050	
D021F005			085090411							058110027224690+37025	
D021F015										082150021232680+38	
D021F025					070067413					096145023234660+39090	
D021F035										064141023230650+39	
D021F045			094085111							050160023230630+40030	
D021F055										042107022220610+41	
D021F065			078075411							042156021220600+41010	
D021F075										044194021221580+42	
D021F085			075072411							050204023229560+43030	
D021F095										063132023228550+43	
D021F105					075078411					060178022230530+44035	
D021F115										058160023232520+45	
D021F125		075000211								085220022233500+45050	
D021F133										078169020228490+46	
D022F005										124198012214750+33	
D022F015			094090413							048146014225740+34060	
D022F025										058160018219720+35	
D022F035			090094413							082192018233700+36050	
D022F045										085196019231690+37	
D022F055			085094413							052174019228670+37015	
D022F065										053146018218650+38	
D022F075		082090413								042128018196640+39001	
D022F085										051180018207620+40	
D022F095			094082111							040194018224610+41010	
D022F105										043110018222590+42	
D022F115			104090111							038118018218570+42005	
D022F125										038142018225560+43	
D022F135			085090411							051153018229540+44025	
D022F145										064136016222520+45	
D022F155			078072432							067164012218420+47040	
D022F165										079186012188400+47	
D022F175		085085433								092166012224390+47090	
D023F005			090094112							078120017220570+42060	
D023F015										071176019224560+43	
D023F025			104111111							077147019227540+43060	
D023F041										070144019226490+45	

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

 NBR NBRWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQMINMAXB+FMAXLATELECLD

D023F051                  078082432                   060150018220480+46040
D023F061                                              058151013220460+46
D023F071                  090090211                   048172012212440+46025
D023F081                                              046157013214430+47
A024F004                                                    012000411- 9
D024F005                  085070412                   068138021228650+39045
D024F015                                              084132022226640+40
D024F025                                     063067412068152022231620+40055
D024F035                                              062146022230610+41
D024F045                  082094111                   063159021224590+41015
D024F055                                              064160021220570+42
D024F065                  104094111                   060167021223560+43005
D024F075                                              050130021221540+43
D024F085052072112                                     060120021226530+44075
D024F095                                              079126016220510+44
D024F105                                                    016226490+45093
D024F115                                              057186015226480+45
D024F125                  072061212                   033130014206460+46005
D024F135                                              040176014146450+46
D024F141                                                    020200440+47000
D025F005                  094090111                   054146020225570+42025
D025F015                                              058165020223560+43
D025F025                  072082113                   078158020220540+43025
D025F035                                              076170019223520+44
D025F045                  090085111                   061166020221510+44015
D025F055                                              069150020231490+45
D025F065                  099094111                   074169020221480+45020
D025F071                                              080151020225470+46
D031F005                                                    013222330+47
D031F010                  090099121                   074164011213330+47060
D031F020                                              073160012220310+47
D031F030         085082321                            048113011219300+47060
D036F005                  085085411                   111205016210820+28095
D036F015                                              140196014218810+29
D036F029                  094094111                   106194013212790+30085
D036F039                                              126204013217770+31
D036F049                                     067059411125198013222750+32095
D036F059                                              058139018224740+32
D036F069                  072075411                   056136020225720+33002
D036F079                                              066122020225710+34
D036F089                  085090431                   064210020231690+34050
D036F099                                              061199020224680+35
D036F109                  085090431                   059197020226660+36005
D036F119                                              044135020185640+37
D036F129                  072070111                   050106020224630+37005
D036F139                                              045138020230610+38
D036F149                  082085111                   045106020219600+39010
D036F159                                                    020224580+40
D036F169                                                    020230570+40100
D036F179                                                    020230550+41100
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PAS FRMAREA1 RESAREA2 RESAREA3 RESAREA4 RESAREA5 RES D  D  D LIM   SUN
NBR NBRWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQMINMAX8+FMAXLATELECLDI
D036F189059063412                                          1141430202245304209S
D036F199                                                   078150020226520+43
D036F209                    067067421                      055129020228500+43030
D036F219                                                   044117020223490+44
D036F229                    085090111                      035097020226470+45005
D036F239                                                   036106020209460+45
D036F249                    085082111                      054131020219440+46010
D036F259                                                         020204420+47
D036F269                                                         020223410+47040
D037F005                    072067412                      049164018228540+44055
D037F015                                                   065132016229530+45
D037F025                    082070212                      065159018228520+46065
D037F035                                                   072146018224490+46
D037F039                    075085432                      068138016224490+47080
D038F005                                                         010206820+28098
D038F006                    070070412                      049176010170820+29095
D038F016                                                   135162009172810+30
D038F026                    078082413                      061146009152790+31000
D038F036                                                   062170012232770+32
D038F046                    055059412                      050141018225650+40025
D038F056                                                   052123018204630+40
D038F066                                                   110220018222610+41090
D038F076                                                   089126020232600+42
D038F086                              063072212            060130020227580+42060
D038F096                                                   044118020229570+43
D038F106                    085089112                      051136020222550+44045
D038F116                                                   058126019230530+44
D038F126                                                   055057413108178015227500+46090
D038F136                                                   061152012226480+46
D038F146                    072078422                      078183014225470+47070
D038F156                                                   097150013227450+47
D038F166                                                   063063431055185013223430+47080
D038F176                                                   067179013224420+48
D038F186                                                   102161012211400+48000
D038F196                                                   085209012226380+49
D038F206                    055047423                      109223015230370+49020
D039F005          094080112                                048122021000590+42000
D039F015                                                   053140021165580+43
D039F025                    072072112                      061120021224560+43065
D039F035                                                   066130021223530+44080
D039F045                    085072212                      072174020222500+45075
D039F055                                                   088168020225510+44
D039F065                    063072212                      072174020222500+45075
D039F075                                                   077170018222480+45
D039F085          085068412                                062146015218470+46080
D039F095                                                   062180015220450+46
D039F105                    104094211                      060144015204440+47010
D039F115                                                   062172015205420+47
D039F125                              082099211            072151015000400+47000
D039F135                                                   038212015210390+48
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PAS FRMAREA1 RESAREA2 RESAREA3 RESAREA4 RESAREA5 RES D  D  D LIM   SUN

NBR NBRWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQMINMAXB+FMAXLATELECLD

D039F145 -     085075112                                  07216401420O370+48005
D039F155                  063067432                       073155014213360+49002
A040F004                                                      012000411-10
D040F005                                                      011198710+36015
D040F015                                                      012210700+37000
D040F025                            059065412             065116017221680+37060
D040F035                                                  043164018214670+38
D040F045                            067067411             043124018205650+39001
D040F055                                                  086170018228640+39
D040F065                                     067059112073136018227620+40040
D040F075                                                  063171018222600+40
D040F085                  080085111                       057164018230590+41010
D040F095                                                  062175018228570+41
D040F105                  094094111                       056164018224560+42010
D040F115                                                  056168018224540+43
D040F125                  090094111                       054154018228530+43010
D040F135                                                  056148018226510+44
D040F145                  082078111                       073177018227490+44010
D040F155                                                  076158018225480+45
D040F165                  078078111                       038164013220460+46015
D040F175                                                  044146011214450+46
D040F185                  094094111                       045160018202430+47001
D040F195                                                  033166018226420+47
D040F205                  104099111                       056174018228400+48010
D040F215                                                  061184018220380+48
D041F005                                                      021221580+43
D041F008                  094094211                       063103020220580+43050
D041F018                                                      021203560+44
D041F028                  085087211                       089153021223550+44060
D041F038                                                  070146021221530+45
D041F048                  090099211                       080167021228520+45015
D041F058                                                  079152020223500+46
D041F068                  087094211                       090156021227490+46040
D041F078                                                      020228470+47
D041F084                  090099211                       100146021222470+47040
D047F005       085082232                                  076162016220390+48050
D047F015                                                  072156011222370+48
D047F025                            099104211             074146011218350+48010
D047F035                                                  070164011216330+47
D047F045                  085085212                       062152011224320+47060
D047F053                                                  068146011212300+47
D001A005                                                      018225520+44095
D001A010                                                      018228510+44100
D002A005                                                      018231670+37100
D002A008                  067070421                       099198018227670+38060
D002A018                                                  074172018221650+39
D002A028                  075072411                       083162018219630+39050
D002A036                                                      018217610+40
D002A041                                                      018215610+41100
D003A005                                                      018228720+35100
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PAS FRMAREA1 RESAREA2 RESAREA3 RESAREA4 RESAREA5 RES D D D LIM SUN

NBR NBRWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQMINMAXB+FMAXLATELECLDC

D003A015				018228710+36
D003A025			063072111	062164018220690+370859
D003A035				060161018221670+38
D003A045		055072412		052186018228660+380450
D003A055		049067412		072174018237640+39
D003A065				066161018224620+400600
D003A075				045164018211600+41
D003A085				018223590+41100
D003A091				018227580+42100
D005A0050570634 11				074144014229550+43095
D005A015				037081013228540+43
D005A025		072075411		051124018222520+440200
D005A035				087138019227510+44
D005A045		067070412		083134020221490+440900
D005A055				019230480+44
D005A065				018229460+45100
D005A075		061061112		106155014224450+45095
D005A085				082142014230430+45
D005A095		072075121		060156018225420+450100
D005A105				018226400+45
D005A115				018224390+46100
D006A006		067067411		122184013214760+320200
D006A016				062188014223750+33
D006A026		075075411		077174020213730+340000
D006A036				070174020228710+35
D006A046		063063411		075219019225700+360050
D006A056				068210019226680+36
D006A066		072078411		071174020225660+370100
D006A076				080118020224650+38
D006A082		072075411		057091020000640+390000
D006A092				050118019108620+39
D006A102		067075411		048120019000610+400000
D006A112				042108020222590+41
D006A122		059065411		050091020206570+420100
D006A132				044152020226560+43
D006A143	067059411			061177014226430+45060
D006A153				076164013220420+45
D006A163		053053411		077151013221400+450400
D006A173				088160012220390+45
D006A183				013220370+45100
D006A193				013218360+45100
D006A203				013222340+45100
D006A213		085094111		072146016224330+45060
D006A223				068133019228310+45
D006A233		070072422		084150019229300+45060
D006A243				060140020228280+45
D006A252		078075431		050137019230270+45020
D007A005				011212770+32
D007A0160670634 13				090185011210760+34095
D007A026				011212740+35100

PAS	FRMAREA1	RESAREA2	RESAREA3	RESAREA4	RESAREA5	RES D	D	D LIM	SUN
NBR	NBRWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQMINMAXB+FMAXLATELECLD								
D007A036								011218720+36100	
D007A046								0670674130891510112207l0+37095	
D007A056								102176011216690+38	
D007A069			085000211					0340910112165b0+42040	
D007A079								092147020229540+43	
DC07A089		094090112						C8213501922553O+43050	
D007A099								097184018229510+44	
D007A109			067070112					106184018226490+44040	
D007A119								097168019230480+44	
D007A129			070063212					116176019227460+45050	
D007A139								066170016224450+45	
D007A149					072063212			C8116301322143O+46050	
DC07A152								013220430+46100	
AC08A005								016000391- 9	
AC08A007								019000401- 9	
D008A005			049063212					058132019180610+40080	
DC08A015								059175019204600+41	
D008A025			085082111					055162019000580+41000	
D008AC35								052152019221570+41	
DC08A045			094104111					050152019224550+42035	
DC08A055								053129019221530+42	
D008A065			070082211					066126019218520+42025	
DC08A075								089154019225500+43	
D008A085			063072412					084196020230490+43075	
D008A095								137190020000470+43	
D008A105			051065412					114188020213450+44020	
D003A115								109216021225440+44	
DC08A125								015000420+45999	
DC08A135								126195014000410+45	
DC08A145			065050432					089180014000390+45999	
DC08A155								051175013208370+46	
D008A160			049075431					079171014217370+46015	
DC09A005		094099111						C661310132206l0+39050	
D009AC15								071131016209630+40	
D009A029					075075112			120149019221600+40070	
D009AC39								090143019228590+41	
D009AC49			072085112					090139019226570+41020	
DC09AC59								074145019223560+42	
D009AC69			094094111					069165019223540+43010	
D009AC79								060150020230520+43	
DC09AC89		094099111						067188020230510+44040	
D009AC99								080130020228490+44	
D009A109		099099112						099136020227480+45040	
D009A119								020230460+45	
DC09A129					104094211			104166020230440+46005	
D019AC05								013219660+38100	
D019AC15								012216650+39	
DC19AC25		062067412						070119012217630+40095	
DC19AC35								070192017219610+41	
D019AC45					078075432			084155018224600+42060	

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

NBR NBRWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQMINMAXD+FMAXLATELEC

D019A055				082214018225580+43
D019A065		082085431		062180017222560+430
D019A069		082099131		047135017223560+440
D021A005			065061411	072161018227700+360
D021A015				055172018229690+37
D021A025075067411				084164018233670+380
D021A035				076156018235650+38
D021A045		067070411		055144018230640+390
D021A055				061140018228620+40
D021A065	078072111			042137018209610+400
D021A075				044172018226590+41
D021A085		072067431		050166018225570+420
D021A095				055152018228560+42
D021A105		072075421		060144018224540+430
D021A115				062162018228530+44
D021A125		085094111		062179018228510+440
D021A132				053158018229500+45
D022A005		072079412		090173013204750+330
D022A015				133191012207740+34
D022A025		094099413		044155012212720+350
D022A035				042141013209710+36
D022A048			082085413	122213016222690+370
D022A058				084171018229670+37
D022A068		090082411		066120018220650+380
D022A078				047134018217640+39
D022A088		075070411		051145018170620+400
D022A098				046102019226610+40
D022A108		085090211		054110017227590+410
D022A118				048127017221570+42
D022A128		085094111		054124017221560+4301
D022A136				040138017221550+43
D022A142	094085122			072172017223540+4408
D022A152				112198017227420+47
D022A162		075085422		077160012218410+4705
D022A172				086165012215400+47
D022A182		079085433		075219012223380+4708
D023A010082078111				074144018230570+4308
D023A020				066176018232560+43
D023A030		067072112		075164018234540+4405
D023A040				121180018233500+45
D023A050		070070411		055172012227490+4604
D023A060				052186012226470+46
D023A070		072067411		051174012223450+4600
D023A080				048188012227440+47
D023A085		080082111		054180012230430+4704
AC24A004				014000391-11
D024A006		085085112		080120022225660+3803
D024A016				080146021236650+39
D024A026063063411				094164022234630+4003
D024A036				064171022231610+41

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

NBR NBRWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQMINMAXB+FMAXLATELECLD

D024A046                        082090111                       060150021230600+41005
D024A056                                                        055161021222580+41
D024A066                        090099111                       051166022214570+42000
D024A076                                                        052136019226550+43
D024A086                        072078111                       054200019218530+43001
D024A096                                                              019229520+44
D024A106                                                              019232500+45100
D024A116                                067067411               099150019228490+45070
D024A126                                                        056130013220470+46
D024A136                                                              019210450+46001
D025A005                        085090111                       053120020220580+42010
D025A015                                                        054166020236570+43
D025A025                        082082111                       060120020230550+43010
D025A035                                                        086155020226530+44
D025A045                        085087111                       080146020230520+44010
D025A055                                                        070140019231500+45
D025A065                        090090111                       070187019230490+45040
D031A012054061431                                               086168015230330+47095
D031A022                                                        089178013226310+47
D031A031            067070111                                   055150014230300+47085
D036A005                        067059412                       089160010190820+27090
D036A015                                                        066150010186810+28
D036A025                                                              010180790+27098
D036A035                                                        052160010200780+30
D036A045                                                  072082412079158010200760+30075
D036A055                                                              010210750+31
D036A065                        072082411                       036174012214730+32020
D036A075                                                        050152020215720+33
D036A085                        063063422                       060130019230700+33065
D036A095                                                        065201019232680+34
D036A105                        067082432                       048200019160670+35045
D036A115                                                        070124019220650+36
D036A125                        070063432                       040130019210640+37010
D036A145                                                        042121019230610+38
D036A155                        067075412                       060135020223590+39070
D036A165                                                              020231580+40
D036A175                                                              020231560+40100
D036A185                                                              020229550+41
D036A195                                                  055055412081147020223530+42090
D036A205                                                        068121020231520+43
D036A215                        082072432                       060134020233500+44055
D036A225                                                        056144020224480+44
D036A235                                094072211               036122020230470+45035
D036A245                                                        039120020180450+46
D036A255                        052063212                       086126020217440+47080
D036A265                                                              020180420+47
D036A269                                                              020218420+48075
D037A005                        075070432                       057187020231550+44020
D037A015                                                        082149019228540+45
D037A025                                072085112               105183018233520+45075
```

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PAS FRMAREA1 RESAREA2 RESAREA3 RESAREA4 RESAREA5 RES D  D  D LIM  SUN
NBR NBRWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQMINMAXB+FMAXLATELECLD
D037A035                                                 0691330182285O0+46
D038A005                                 082078111       157206014210820+28093
D038A015                                                 065160010180810+29
D038A025                 078078411                       041161010184790+31030
D038A030                                                 110200011209790+31
D038A040                 075078411                       055162019234660+39030
D038A050                                                 065166020232650+40
D038A060                 085082411                       051177020220630+41025
D038A070                                                 102120020222620+41
D038A080                 054061412                       100128020234600+42075
D038A090                                                 076156020234580+43
D038A100                 085085111                       051152020231570+43030
D038A110                                                 05115202023055O+44
D038A117        072078111                                046190020233540+45020
D038A126                                                 086182016230510+46
D038A136                                 057052422       078167013230490+46055
D038A146                                                 07816001422647O+47
D038A156                                                 067070422114170013222460+47090
D038A166                                                 081160013229440+47
D038A176                 072072431                       055170013224420+48045
D038A186                                                 051190013226410+48
D038A196                 090085431                       061175013222390+49012
D038A205                                                 089221017230380+49
D039A005                 104099111                       055178020000600+42000
D039A015                                                 049152020000590+43
D039A025                 099090111                       072160020225570+43030
D039A035                                                 064134020229560+44
D039A045                 099104111                       082136020230540+44040
D039A055                                                 081136020228520+44
D039A065                 082072212                       085178020232510+45040
D039A075                                                 064141016230490+45
D039A085                 078082222                       079170013223480+46040
D039A095                                                 064158013224460+46
D039A105                 067069222                       072164012228450+47020
D039A115                                                 057157012200430+47
D039A125                                 082087211       062172011190410+47005
D039A135                                                 068166011000400+48
D039A145                 099090231                       042160011216380+48005
D039A155                                                 124146011000370+49
A040A004                                                        011000391-11
D040A005                                                        015200720+35070
D040A015                                                        020200710+36100
D040A025                                                        020212690+37100
D040A035                 065065411                       070124020217680+37020
D040A045                                                 065130020213660+38
D040A055078078111                                        068119020226640+38035
D040A065                                                 071140020206630+39
D040A075                 085082111                       064144020218610+40020
D040A085                                                 073150018218600+40
D040A095                 090094111                       072155019220580+41005
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PAS	FRMAREA1	RESAREA2	RESAREA3	RESAREA4	RESAREA5	RES	D	D	D	LIM	SUN

NBR NBRWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQMINMAXB+FMAXLATELECLD

D040A105				0801690182225?0+42
D040A115		072082111		0621640182235?0+42005
D040A125				0711300182105?0+43
D040A135		085094111		0501400182225?0+43010
D040A145				0801470192125?0+44
D040A155		078078111		0771660192264?0+45002
D040A165				0691720192204?0+45
D040A175		0670721110		0701700192144?0+46002
D040A185				0461930192124?0+47
D040A195		099104121		0322130192094?0+47002
D040A205				0501660192194?0+48
D040A215		085090121		0741670182123?0+48002
D041A005		054070422		0741010182175?0+42007
D041A015				0591100182145?0+43
D041A025	072072212			1161310182195?0+43020
D041A035				1161420182205?0+44
D041A045		094069212		0791140182165?0+45015
D041A055				0851510182255?0+45
D041A065		070075112		0681430182105?0+46040
D041A075				0841400182224?0+46
D041A084	072059212			1071460182204?0+47065
D047A005		104099211		0561620112183?0+50040
D047A015				0691700112153?0+55
D047A025		111104211		0601570102163?0+61025
D047A035				0701660102123?0+66
D047A045	087094431			0401650102123?0+71030
8 F				+-0

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PAS	FRMAREA1	RESAREA2	RESAREA3	RESAREA4	RESAREA5	RES D	D	D	LIM	SUN
NBR	NBRWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQMINMAXB+FMAXLATELECLO									
D047F										+-0
D049F010				085078111						059126019224220+50030
D049F017										019233210+50
D052F005			078072411							074192020200770+32020
D052F015										125182014208760+33
D052F025										013211740+34098
D052F035										014215720+35100
D052F045										014209710+36100
D052F055				063065411						049114016216690+37090
D052F057										045121017228690+38
D052F066										066170022227650+40
D052F072						065065421				086163021225640+41055
D052F080										091159021232630+42
D052F090										020223610+42098
D052F103										020224530+46100
D052F113										094130023229510+47095
D052F123										115142023232500+47090
D052F133			082078111							089125022225490+48050
D052F143										053100023230470+48
D052F153			072078112							095123023236450+49095
D052F163										061178023236440+49
D052F173			080085111							057134022181420+50005
D052F183										128136022229400+50
D052F194										022222390+51100
D053F005			085085411							074124021233540+46030
D053F015										088146020232530+47
D053F025			094090111							074164020228510+47050
D053F032										099153020229500+48
D054F005				090078411						062154020208580+44050
D054F015										048164020173570+45
D054F025			104111111							061138020000550+45000
D054F035										076154020166540+46
D054F045			104111111							072140020204520+46002
D054F055										020238500+47
D054F063										140168020222490+47098
D054F073				094085412						103196020232480+48060
D054F083										070162020226460+48
D054F093			078085111							110185020224440+49020
D054F103										012220430+49
D054F108			104099411							122174013222420+50090
D054F118										084182014212400+50
D054F128										106162012226390+51098
D055F005										012204750+33100
D055F015										012222740+34100
D055F021				078085411						118132012226730+35096
D055F031										012229710+36100
D055F041										012226700+37100
D055F045		075075412								100158018212690+37095
D055F055										062132018226670+38
D055F065			067072412							092158020226660+39060

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

NBR NBRWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQMINMAXB+FMAXLATELECLD

D055F075                                                  1061500202316 40
D055F085          063067212                               0841380202276 20+41040
D055F095                                                  0591480202286 10+42
D055F105                    072075111                     0581870162275 90+42010
D055F115                                                  0501740190005 80+43
D055F125                    085085111                     0461560182075 60+44001
D055F135                                                  0521640202185 40+45
D055F151                    067075411                     0721840172224 90+48050
D055F161                                                  0521640132234 70+49
D055F171                    067067411                     0522020122254 60+49015
D055F181                                                  0451520122274 40+49
D055F190                    072075411                     0811860122204 30+50005
A056F005                                                        013000411-12
D056F005                                                        013208710+36
D056F015          078078111                               0370800132097 00+37040
D056F025                                                  0500840192226 80+38
D056F035                    082088411                     0481230212306 60+39010
D056F048                                                  0801530212315 90+43
D056F058                    099090211                     0741460202285 80+44
D056F068                                                  1081580202315 60+45
D056F078                    072078112                     0821520202315 40+45035
D056F088                                                  0781640202355 30+46
D056F098                    072078112                     0881580202355 10+46060
D056F108                                                  1051520202325 00+47
D056F118                    090090112                     0781540212344 80+48061
D056F128                                                  0931610202384 70+48
D056F138                    099104111                     0731640202314 50+49005
D056F148                                                  0641730202354 30+49
D056F152                                111094111         0812090202194 30+50015
D057F005                    094090111                     0501140200005 50+45000
D057F015                                                  0711530202285 40+46
D057F025                    078082112                     1121690202355 20+46080
D057F035                                                  0861640202315 10+47
D057F045                    075072111                     0841480202324 90+47025
D057F055                                                  0761600202314 70+48
D057F065                    078082111                     0681530202234 60+48015
D057F071                                                  0651490202304 50+49
D068F005                    085094421                     0701180222275 30+47030
D068F015                                                  0901380212275 20+48
D068F025          065078422                               0951220212295 00+48090
D068F031                                                  1171510212284 90+49
D068F042                    078082112                     0621250152184 50+50060
D068F052                                                  0701220132204 30+51
D068F062                    085094111                     0461470192194 20+51040
D068F072                                                  0531490212304 00+51
D068F079                                085078122         0821400202303 90+52030
D069F005                    070067421                     0941830172264 30+51075
D069F015                                                  0681660152244 20+51
D069F025                    078082421                     0721640172114 00+51050
D069F035                                                  0751580162143 80+51
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PAS FRMAREA1	RESAREA2	RESAREA3	RESAREA4	RESAREA5	RES D	D	D	LIM	SUN
NBR NBRWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQMINMAXB+FMAXLATELECLD									
DC69F045		094090111			071137020224370+52065				
DC69F055					071184023234350+52				
DC69F065		C85000211			059181021234340+52050				
DC69F075					075171021230320+52				
DC69F077		078072111			071122019228320+52080				
DC70F005		085090111			061127020215560+45010				
DC70F015					068159020233550+46				
DC70F025			082082112		099156020217530+47040				
DC70F035					078210020000520+47				
DC70F045		085082111			069197020219500+48001				
DC70F055					082133021228480+48				
DC70F065			067059322		132180021230470+49025				
DC70F075					106186017227450+50				
DC70F085			111094111		055164016220440+50010				
DC70F091					046185016222430+51				
AC71F005					013000411-13				
DC71F005					017210700+37				
DC71F015078075411					080150019220690+38080				
DC71F025					070105023230670+40				
DC71F035			094090111		043163021220650+41010				
DC71F044					042149022130640+41				
DC71F055					023237600+43				
DC71F065			082082111		072189021163580+44010				
DC71F075					074130021231570+45				
DC71F085		C75078111			071140022220550+46010				
DC71F097					098160023236510+48				
DC71F107		C82075222			106166022232500+49060				
DC71F117					060140017233480+49				
DC71F127		C75075222			069178015222460+50050				
DC71F139					094200015230410+51				
DC71F149	072078212				089180015228400+51050				
DC71F159					085184015226380+52				
DC71F169		C87085431			087176015220360+52001				
DC72F005		090085111			043144019180630+41005				
DC72F015					038126019225620+42				
DC72F025		C85090111			075143019205600+43030				
DC72F035					057127019231590+43				
DC72F045		C82075112			086166019220570+44030				
DC72F055					084133019228550+45				
DC72F065		C85072112			082162019232540+46020				
DC72F075					110200019228520+46				
DC72F085	099104111				083148019229510+47020				
DC72F095					093144015226490+48				
DC72F105			094099111		111152013223470+49085				
DC72F115					053155012213460+49				
DC72F125			094090111		043168012218440+50005				
DC72F135					012146430+51				
DC72F145	072075111				061188013110320+52000				
DC72F155					097193012000300+52				
DC72F165		067063412			053154010000290+52000				

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PAS FRMAREA1 RESAREA2 RESAREA3 RESAREA4 RESAREA5 RES D  D  D LIM  SUN
NBR NBRWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQMINMAXB+FMAXLATELECLD
D072F170                                                 047155009000280+52
D083F005                  094085411                      026057021195630+42040
D083F015                                                 072146022222620+43
D083F025                  078085421                      099119021219600+44040
D083F035                                                 112144021224580+45
D083F048                            104090111            078163021222520+48070
D083F058                                                 063165021224510+49
D083F068                                     085078111069112021224490+50050
D083F078                                                 099121019223470+50
D083F082                            075082411            116151018225470+51040
D084F005                  072078412                      080117020225540+47060
D084F015                                                 072142018231530+48
D084F025                  099118111                      066144018227510+49030
D084F035                                                 082137018225490+50
D084F045072078411                                        115156019220480+51090
D085F005                  072078111                      063146021224580+45045
D085F015                                                 053126020226570+46
D085F025                  072075111                      073138023227550+47065
D085F035                                                 071140022222530+47
D085F048                  085090421                      047155016222430+52030
D085F058                                                 077183016219420+53
D085F068                  085082421                      116192015218400+53090
D085F078                                                       015219380+53100
D085F088                  078078421                      075190015221370+54055
D086F005                                                       014212770+32100
D086F015                                                       020224760+33100
D086F025                            078085411            160202021230740+34090
D086F035                                                 136209020220730+35
D086F045                            094099411            084182021229710+36080
D086F055                                                 064177021226700+37
D086F065                            078078412            071156021226680+38060
D086F075                                                 089159021226660+39
D086F085                  078072411                      099136021230650+39085
D086F095                                                 067130021227630+40
D086F105078085411                                        056157021226620+41040
D086F115                                                 107159021226600+42
D086F125072075411                                        052164020232590+43025
D086F135                                                 050146020224570+44
D086F145                  094090111                      064150021228560+45045
D086F155                                                 096140021229540+46
D086F165                  078075112                      111146020210530+46070
D086F175                                                 086140020229510+47
D086F185                  090094111                      055150014226490+48050
D086F195                                                 092134014230480+49
D086F205                  094099111                      048186013222460+50020
D086F215                                                 059159014206450+51
D086F225                  082078111                      088176014226430+52075
D086F234                                                 062120015226420+53
A087F005                                                       019000401-14
D087F005                  065067411                      036103020188660+40005
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PAS NBR	FRMAREA1 NBRWWWAAASTQ	RESAREA2 WWWAAASTQ / RESAREA3 WWWAAASTQ / RESAREA4 WWWAAASTQ / RESAREA5 WWWAAASTQ	RES MIN D / MAX D / 8+F D / MAX LIM / LAT ELE / SUN CLD
D087F015			03809402000650+41
D087F025		085082111	036104020000630+4200
D087F035			040137020182610+43
D087F038			048145020207610+43
D087F049		104104111	078140020228550+4703
D087F059			053140020233540+48
D087F069		104104111	070161020232520+4803
D087F079			092135020232500+49
D087F089		067065412	088161020233490+5003
D087F099			115190020233470+51
D087F109			020240460+51
D087F119		070070411	130208020231440+5201
D087F129			181192014000420+52
D087F133067075411			175182013000420+5300
D088F005		099094111	038126015216630+42025
D088F015			054131020218620+43
D088F025		090094111	052135020000600+4400
D088F035			062194020206590+44
D088F045		094094111	072181020225570+45025
D088F055			038162020232550+46
D088F065		085082112	090142020223540+4602
D088F075			082160020228520+47
D088F085		078085212	096170020229510+4802
D088F095			112160018228490+49
D088F105		075088112	088132014222480+4907
D088F115			080158014226460+50
D088F125		078090111	064165014225440+5105
D088F135			072150015230430+51
D088F145		082090111	070165018228410+5201
D088F155			068166020204400+53
D088F165			- 017152320+5400
D088F171			078188013000310+54
D088F181			122158010000290+5400
D088F191			068158010000280+54
D099F005		085078411	014161010109740+3500
D099F015			032111014189730+36
D099F025		094085411	056188020178710+3702
D099F033			052201020216700+38
D099F043		090090411	100175020232650+4104
D099F053			055125020213640+42
D099F063		085082111	047100020180620+4302
D099F073			050148020217600+44
D099F083082075411			068121020225590+4509
D099F093			126160020234570+46
D099F103		085075412	116158020231560+4708
D099F113			064118020218540+47
D099F123		078075412	076126020231530+4804
D099F133			055118020229510+49
D099F143	072072412		061112020228490+5004
D099F153			126153020230480+51

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PAS FRMAREA1 RESAREA2 RESAREA3 RESAREA4 RESAREA5 RES D  D  D LIM   SUN
NBR NBRHWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQMINMAXB+FMAXLATELECLDC
D099F163                    072070412                   109142020233460+520250
D099F173                                                    020230450+52
D099F183                                                    020232430+53100
D099F193                                                    020228420+54
D100F005                                                    014224770+32100
D100F015                    067072412                   070150021196760+340500
D100F025                                                    060196021000750+35
D100F035                    072072411                   046149020221730+36015
D100F045                                                    057182020229720+37
D100F055                                                    021230540+49100
D100F068                                                    016230520+50100
D100F078                                                067072111070140015228510+51090
D100F088                                                    076140015233490+52
D100F098          075075411                                 072174015200450+53085
D100F108                                                    060170020228440+54
D100F118                    085088111                   059172020230420+54010
D100F128                                                    089162020222400+55
D100F138070070112                                           105189015224390+55095
D100F148                                                    011210370+56
D100F158                                                    011213350+56100
D100F166                    080078112                   076101011190340+57095
D100F176                                                    063156013222300+57
D100F186                    067075111                   083190021233280+57010
D100F196                                                    066177020232270+57
D100F206                    082085111                   072178020231250+57020
D100F216                                                    120190021236230+57
D100F226                                                    020230210+57020
D102F005                                                090085413085170016204820+28093
D102F015                                                    015196810+29
D102F025                                078085412           065173015206800+30035
D102F035                                                    017219780+32
D102F045                    075078411                   046142020212650+42045
D102F055                                                    043096019219640+42
D102F065                    090099111                   046117019184620+43010
D102F075                                                    049151019179610+44
D102F085                    090085111                   043127019169590+45005
D102F095                                                    053131019220580+46
D102F105                    104104111                   047147018218560+47020
D102F115                                                    075136019201540+48
D102F125                                085072122           085142019207530+49030
D102F135                                                    089150018219520+50
D102F145                    078085422                   089166019224500+51025
D102F155                                                    101180019216490+51
D102F165                    072078422                   089173015222470+52040
D102F175                                                    079168013213450+53
D102F180                    075082421                   049163013218450+54015
A103F005                                                    016000401-16
D103F005          090082111                                 056137012214540+48085
D103F015                                                    091134012223530+49
D103F025                                                    012224510+50100
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PAS FRMAREA1 RESAREA2 RESAREA3 RESAREA4 RESAREA5 RES D D D LIM SUN

NBR NBRWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQMINMAXB+FMAXLATELECLD

D103F035094090111			069171012218490+51095
D103F045			067158012222480+52
D103F051	094085111		084171015225470+53040
D104F005	090078111		054165019224550+48010
D104F015			058150019229540+49
D104F025	094085111		066144019227520+50020
D104F035			078158019231510+51
D104F045	085078111		098150018234490+51079
D104F055			112174019232480+52
D047A			+-0
D049A009			021218230+50025
D049A018		104111211	054163019221220+50035
D052A005	085085411		052178016203790+31090
D052A015			098181012198770+32
D052A025	082085411		106182012204750+34099
D052A035			012200730+35
D052A045			012188720+36100
D052A055			012192700+37100
D052A065	076082411		070140016220660+39040
D052A075			078132017226650+41
D052A085	075072411		094134018224630+42020
D052A101			082128018212530+47100
D052A111			018218530+47100
D052A114	072072211		120134018219520+47085
D052A124			100128015220510+47
D052A134	090094111		046114012218490+48035
D052A144			060084014212470+48
D052A154	067072111		078138018226460+49020
D052A164			096146018226440+49
D052A174	090085111		054142018213430+50005
D052A184			056148018225410+50
D052A192			018223400+51100
D053A005	072078111		061094021218550+45075
D053A015			078127020227540+46
D053A025	094104111		079160021229520+47030
D053A033			103153021235510+48
D054A005	085090111		056168018200590+43010
D054A015			045158020178580+44
D054A025	094090111		060160020000560+44000
D054A035			072144020000550+45
D054A045	099090112		074146020230550+45020
D054A055			056120018220530+46
D054A065			020224500+47
D054A069			120188020230490+47
D054A079	072072412		104189020226480+48040
D054A089			086156020227460+48
D054A099	085072112		100156019220450+49020
D054A109			106181013222430+49
D054A119			075072112097160013210410+50090
D054A129			096169012200400+51

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PAS FRMAREA1 RESAREA2 RESAREA3 RESAREA4 RESAREA5 RES D  D  D LIM  SUN
NBR NBRWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQMINMAXB+FMAXLATELECLD
D055A005                                                 011206760+33100
D055A015                                                 012210750+34100
D055A025                                                 012217730+35100
D055A029                                    061067412097146012216720+36098
D055A039                                                 012219710+36100
D055A049                                                 012198690+37095
D055A054                  067067411                   053142015205680+38005
D055A064                                                 104128019223670+39090
D055A074                  061059412                   083136019215650+40010
D055A084                                                 019222640+41085
D055A094                  061061412                   089119019210620+41085
D055A104                                                 071141019223600+42065
D055A114                  082078111                   039148019193590+43001
D055A124                                                 042144019000570+44000
D055A134                  085085111                   049178019196560+45003
D055A142                                                 074163019214540+46
D055A152                  080078112                   081149020229500+47060
D055A162                                                 089192020212480+48
D055A172                  067072412                   097184020220470+49050
D055A182                                                 093184020226450+49
D055A191         065059412                           083198020230440+50045
A056A004                                                 018000381-13
D056A005                                                 019216720+36090
D056A015                  067067411                   082156019209710+37010
D056A025                                                 089147020227690+38
D056A035                  082078111                   070144019209670+39010
D056A046                                                 053142019230610+43
D056A056                  082078111                   079149019233590+44050
D056A066                                                 091158019226570+44
D056A076                  085085111                   088166019226560+45015
D056A086                                                 087148020229540+46
D056A096         065065412                           116156020225530+46090
D056A106                                                 089138020229510+47
D056A116                            063067112           113169020228490+48075
D056A126                                                 095166020226480+48
D056A136                  072078111                   074158020226460+49005
D056A146                                                 059153019203450+49
D056A151                  082085111                   052148019217440+50001
D057A005                  099099111                   054129020225560+45005
D057A015                                                 064148020000550+46
D057A025                  078082112                   092160020227530+46060
D057A035                                                 089156019227520+47
D057A045                  082082111                   088155020227500+47025
D057A055                                                 072136020230480+48
D057A065                                    067070112122160020226470+48085
D057A072                                                 074150020219460+49
D068A005                  111104122                   084145022222540+47050
D068A015                                                 077102020222530+48
D068A025                  085090112                   097117020216510+48060
D068A031                                                 021217500+49
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PAS FRMAREA1	RESAREA2	RESAREA3	RESAREA4	RESAREA5	RES D	D	D LIM	SUN
NBR NBRWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQMINMAXB+FMAXLATELECLD								
DC68A042		078085212						1041730232144 50+50040
DC68A052								1291550202224 40+51
DC68A062		C90082122						0761240172204 20+51030
DC68A072								0491300182264 10+51
DC68A079		094099211						0641260182244 00+52015
DC69A005								021217440+50990
DC69A007	072070432							1181920202184 40+50080
DC69A017								0871860192234 20+50
DC69A027	067078432							0671860152124 10+51030
DC69A037								014203390+51
DC69A047	067063432							0571550142153 70+51095
DC69A057								0461760162193 60+51
DC69A067		067072431						0691590212243 40+52040
DC69A076								0581550202273 30+52
DC70A005	063071112							0571420192275 70+45015
DC70A015								0721300192265 60+46
DC70A025		094094111						1101450192285 40+47010
DC70A035								0681930191715 30+47
DC70A045		094104111						0691670190005 10+48000
DC70A055								0641690192184 90+48
DC70A065								019232480+49
DC70A075		072078411						1251620192314 60+50016
DC70A085								1221670192304 50+50
DC70A090072078111								0981960192324 40+51020
AC71A004								018000381-15
DC71A005								017220710+36
DC71A015								013196700+37
DC71A025065078411								0350730132126 80+39080
DC71A035								037082016209 60+40
DC71A044		090094211						0421560192156 50+40005
DC71A055								019228610+43
DC71A065	078078212							0711780212025 90+44030
DC71A075								0761670222275 60+45
DC71A085		094104111						0761700212205 60+46020
DC71A097								0741340212265 20+47
DC71A107	085090122							1211780212325 10+48050
DC71A117								100140017233 490+49
DC71A127		C00070222						0542000152324 70+50040
DC71A139								1042010152284 20+51
DC71A149		082087212						0962100152264 10+51050
DC71A159								092189016225 390+52
DC71A169		C94094111						0371990152263 70+52005
DC72A005		099104111						0411090191866 40+41002
DC72A015								041110018222 630+42
DC72A025		094094111						0491060172186 10+43005
DC72A035								064152018220 600+43
DC72A046		082078111						0761560182305 80+44030
DC72A056								061130019232 560+45
DC72A066	075070112							0761640192305 50+46020
DC72A076								1191810182325 30+46

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PAS	FRMAREA1	RESAREA2	RESAREA3	RESAREA4	RESAREA5	RES	D	D	D	LIM	SUN
NBR	NBRWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQMINMAXB+FMAXLATELECLD										
D072A086		082078112									0901280182335l0+47020
D072A096											106149019232500+48
D072A106		085085112									0961860192324l0+49040
D072A116											075156014230470+49
D072A126		085104111									058157011210450+50005
D072A136											012177430+51
D072A146078085111											100181012187330+52010
D072A156											051132010000310+52000
D072A166		067070412									064160010000300+52000
D072A171											079190011000290+52000
D083A005		067078412									073158019223630+42020
D083A015											079155021229620+43
D083A025		076078411									075152020220600+44060
D083A035											089162021219590+45
D083A049		078078111									101137022218520+48075
D083A059											069137019213510+49
D083A069094078111											077136021224490+50065
D083A079											117134020222480+51
D083A081											021223480+51095
D084A005		078059421									071139020230550+47050
D084A015											120162019230540+48
D084A027	094111122										098146019231520+49080
D084A035											104151019230500+49
D084A044											110152019232490+50995
D085A005				072072412							100138019227590+44050
D085A015											069127020226580+45
D085A025		085083121									058142020225560+46030
D085A035											079127019229540+47
D085A048		078072421									051186015221440+52010
D085A058											058178015224430+53
D085A068		082078431									077194015222410+53030
D085A078											015221390+53
D085A087				078082432							100191011200380+54080
D086A005											010186770+31
D086A015											010182760+32
D086A019	067072412										060132010194750+33095
D086A029											085126012200740+33
D086A039						090099413125188012200720+34090					
D086A049											071200012200710+35
D086A059		090078412									079179016214690+36060
D086A069											092176019215680+37
D086A079	079072112										084160020212660+38060
D086A089											106130020223650+39
D086A099		075075412									080168019221630+40060
D086A109											048152018220620+41
D086A119											100150020218600+41090
D086A129											058126020218590+42
D086A139		085078112									062160020208570+43010
D086A149											064138020218560+44
D086A159		094090111									088144020218540+45015

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PAS NBR	FRMAREA1 NBRWWWAAA	RESAREA2 STQWWWAAA	RESAREA3 STQWWWAAA	RESAREA4 STQWWWAAA	RESAREA5 STQWWWAAA	RES D STQWWWAAA	D STQMINMAXB	D +FMAXLATELECLD	D LIM
D086A169								098156020220530+46	
D086A179			085000222					118188020230510+47030	
D086A189								110152020226500+48	
D086A199								150160018222480+48090	
D086A209			000090211					056192014216470+49010	
D086A219								062150012192450+50	
D066A229			099104111					062148013220440+51050	
A087A004								015000391-16	
D087A005			C70078411					044114020110670+39005	
D087A015								044131023162660+41	
D087A025		085082111						039148021000640+42000	
D087A035								041145021191620+43	
D087A047		078072111						096158017224570+46080	
D087A057								036130014208550+47	
D087A067			094085111					068149020222530+47035	
D087A077								076161021230520+48	
D087A087		085078111						078146021228500+49065	
D087A097								104185021230480+49	
D087A107			075075211					099201021220470+50025	
D087A117								110201021000450+51000	
D087A127		000072412						136209019229430+51000	
D087A132								164197019229430+52	
D088A005			085085111					082128021216640+41040	
D088A015								052120021225630+42	
D088A025			C67070111					061134021226610+43025	
D088A035								052133021000600+44	
D088A045			075072111					067155021223580+44015	
D088A055								086146021233560+45	
D088A065			C67070112					109146021232550+46065	
D088A075								072156022231530+47	
D088A085			C82085111					080150021230520+47020	
D088A095								116160021230500+48	
D088A105								146176021230490+49085	
D088A115								116133016227470+50090	
D088A125			C90085111					056155016225450+50045	
D088A135								076152016226440+51	
D088A145			082085111					052106015224420+52015	
D088A155								056160015220410+53	
D088A165								016000330+54999	
D088A175								149191014000310+54	
D088A185								014000300+54999	
D099A005			090099421					090190017200750+34040	
D099A015								075185019210740+36	
D099A025			C67070412					076187019214720+37030	
D099A035								080187019210700+38	
D099A045			062070412					090178019200660+42050	
D099A055								077180019220640+42	
D099A065			078072111					047134020190630+43005	
D099A075								043140020200610+44	
D099A085	067072411							047145020200600+45095	

PAS	FRMAREA1	RESAREA2	RESAREA3	RESAREA4	RESAREA5	RES D	D	D	LIM	SUN
NBR	NBRWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQMINMAXB+FMAXLATELECLD									
D099A095						0411400202105 80+46				
D099A105						0501390202205 60+47				
D099A115	075082421					0701400202265 50+48030				
D099A125						0801480202285 30+48				
D099A135		078064121				0761440202285 20+49030				
D099A145						0801300202205 00+50				
D099A155			067067122			0801240172224 80+51060				
D099A165						0132004 70+52				
D099A175						0132204 50+53				
D099A185						0132224 40+54				
D099A195						0132214 20+54				
D100A005						0152157 30+32				
D100A015						0780724120500920111457 70+33095				
D100A025						0491630232007 50+34				
D100A035		072078411				0441790231847 30+35010				
D100A044						0661200232287 20+36				
D100A055						0232305 50+48				
D100A065						0232305 40+49				
D100A075						0232315 20+50				
D100A085						0232305 00+51				
D100A096						1221760232304 70+530				
D100A106		072075411				0761920182224 50+54045				
D100A116						0641610152064 30+54				
D100A126		082078111				0361440152224 10+55020				
D100A136						0441580152264 00+55				
D100A146						0152303 80+56100				
D100A156						0152303 60+56				
D100A164						0152313 50+57100				
D100A174		085090321				0801550152103 20+57080				
D100A184						0451650152253 10+57				
D100A194		078070321				0321660152303 00+57025				
D100A204						0321500152302 90+57				
D100A214		075072421				0501660152322 80+57050				
D100A224						0501660152202 80+57				
D102A005						0132003 20+27100				
D102A015						0132068 10+28100				
D102A025						0132108 00+30100				
D102A033						0132067 90+31100				
D102A043	067063412					0471310232226 60+41030				
D102A053						0581520212266 50+42				
D102A063		067075111				0461100212246 30+43010				
D102A073						0461660212016 20+44				
D102A083		082078111				0441200211906 00+45001				
D102A093						0491390212035 80+46				
D102A103		078078111				0491480212295 70+47015				
D102A113						0521650212165 50+48				
D102A123		072067112				0601700212205 40+49070				
D102A133						0621690202225 20+49				
D102A143		075070411				0581670132245 10+50010				
D102A153						0601700132244 90+51				

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PAS	FRMAREA1	RESAREA2	RESAREA3	RESAREA4	RESAREA5	RES	D	D	D	LIM	SUN
NBR	NBRWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQWWWAAASTQ					MINMAX8+FMAXLATELECLO					
D102A163			072072411			0591660132224 70+52010					
D102A173						0802010132244 60+53					
D102A178			072067411			0921880132224 50+53010					
A103A005						013000331-18					
D103A005			082085111			0581540132305 50+48050					
D103A015						0631210142245 40+49					
D103A025		090090111				0931160142265 20+50085					
D103A035						1101410142205 00+51					
D103A045			072070111			0841550142264 90+52090					
D103A051						0671870162304 80+53					
D104A005			082075111			0641510232065 70+47001					
D104A015						0641730212305 50+48					
D104A025			073075111			0741490212305 40+49005					
D104A035						0681780212305 30+50					
D104A045		085085111				0771510212305 20+51030					
D104A055						0781600212325 00+52					
D104A065			085080111			1061600212314 90+53055					
D104A075						1211460212324 80+53					
D110A005			111094321			0661770162303 90+56010					
D110A012						0621880142263 80+56					
8 F						+-0					

[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 the accuracy of the 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
1008-1	FWD	Predicted	0	100	0
		Reported	4	32	64
		Computed	1	35	64
1008-1	AFT	Predicted	0	100	0
		Reported	4	27	69
		Computed	0	34	66
1008-2	FWD	Predicted	0	100	0
		Reported	3	31	66
		Computed	0	27	73
1008-2	AFT	Predicted	0	100	0
		Reported	3	30	67
		Computed	0	29	71

The correlation of the computed percentages to the reported percentages is exceedingly good, particularly for Mission 1008-1. This is the same degree of correlation that was noted from the processing data of Mission 1006. It is concluded that the sorting technique is valid and that the lack of correlation noted in Mission 1007 may be due to a departure from nominal processing control.

The tabulations of the density frequency distribution for Missions 1008-1 and 1008-2 are shown in Tables 9-3 through 9-6. The graphical

presentation of the density distribution are computer plotted in Figures 9-1 through 9-42.

Table 9-7 shows the distribution of the minimum terrain density measurements that are within and outside of the desired control range of 0.40 to 0.90 density. The percentage of values below 0.40 is very small and approximately 95% of these values are above 0.30 density. The percentage of over processed film is significant and cause for concern. It strongly indicates that processing should have been more consistent with the predicted levels.

An extensive study is in process to ascertain the inter-relationship of the conditions of illumination, resulting densities and exposure-processing parameters.

[redacted] [redacted] [redacted]

MISSION # 1008-1 • 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.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.1C	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	0	0	0
C.26	C	C	0	C	0	0	0	0	0	0	0	0
C.27	C	C	0	C	0	0	0	0	0	0	0	0
C.28	C	C	0	C	0	0	0	0	0	0	0	0
C.29	C	C	0	C	0	0	0	0	0	0	0	0
C.3C	C	C	0	C	0	0	0	0	0	0	0	0
C.31	C	C	0	C	0	0	0	0	0	0	0	0
C.32	C	C	0	1	0	0	0	0	0	1	0	0
C.33	C	C	0	1	0	0	1	0	0	2	0	0
C.34	C	C	0	1	0	0	0	0	0	1	0	0
C.35	C	C	0	C	0	0	1	0	0	1	0	0
C.36	C	C	0	C	0	0	1	0	0	1	0	0
C.37	C	C	0	C	0	0	0	0	0	0	0	0
C.38	C	C	0	2	0	0	3	0	0	5	0	0
C.39	C	C	0	1	0	0	0	0	0	1	0	0
C.4C	C	C	0	C	0	0	2	0	0	3	0	0
C.41	C	C	0	1	0	0	1	0	0	2	0	0
C.42	C	C	0	C	0	0	4	0	0	4	0	0
C.43	C	C	0	1	0	0	4	0	0	5	0	0
C.44	C	C	0	1	0	0	5	0	0	6	0	0
C.45	C	C	0	C	0	0	4	0	0	4	0	0
C.46	C	C	0	1	0	0	1	0	0	2	0	0
C.47	C	C	0	3	0	0	1	0	0	4	0	0
C.48	C	C	0	3	0	0	4	0	0	7	0	0
C.49	C	C	0	1	0	0	1	0	0	2	0	0
C.50	C	C	0	2	0	0	5	0	0	7	0	0
SUBTOTAL	C	C	0	19	0	0	38	0	0	57	0	0

[redacted] [redacted] [redacted]

TABLE 9-3

[redacted]

[redacted] [redacted] [redacted]

MISSION • 1008-1 • 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.51	C	C	0	C	C	0	3	0	0	3	0	0
C.52	C	C	0	2	C	0	4	0	0	6	0	0
C.53	C	C	0	C	C	0	3	0	0	3	0	0
C.54	C	C	0	2	C	0	4	0	0	4	0	0
C.55	C	C	0	2	C	0	3	0	0	5	0	0
C.56	C	C	0	0	C	0	5	0	0	5	0	0
C.57	C	C	0	2	C	0	2	0	0	4	0	0
C.58	C	C	0	2	C	0	8	0	0	10	0	0
C.59	C	C	0	0	C	0	2	0	0	2	0	0
C.60	C	C	0	1	C	0	5	0	0	6	0	0
C.61	1	C	0	4	C	0	5	0	0	10	0	0
C.62	C	C	0	6	C	0	7	0	0	13	0	0
C.63	C	C	0	C	C	0	8	0	0	8	0	0
C.64	C	C	0	1	C	0	3	0	0	4	0	0
C.65	C	C	0	1	C	0	3	0	0	4	0	0
C.66	C	C	0	C	C	0	2	0	0	2	0	0
C.67	C	C	0	3	C	0	2	0	0	5	0	0
C.68	C	C	0	4	C	0	4	0	0	8	0	0
C.69	C	C	0	2	C	0	1	0	0	5	0	0
C.70	C	C	0	C	C	0	3	0	0	5	0	0
C.71	C	C	0	1	C	0	1	0	0	2	0	0
C.72	C	C	0	3	C	0	5	0	0	8	0	0
C.73	C	C	0	3	C	0	3	0	0	6	0	0
C.74	C	C	0	4	C	0	2	0	0	6	0	0
C.75	C	C	0	2	C	0	5	0	0	7	0	0
C.76	C	C	0	1	C	0	2	0	0	3	0	0
C.77	C	C	0	1	C	0	3	0	0	5	0	0
C.78	C	C	0	2	C	0	1	0	0	3	0	0
C.79	C	C	0	1	C	0	4	0	0	5	0	0
C.80	C	C	0	C	C	0	0	2	0	0	2	0
C.81	C	C	0	1	C	0	2	0	0	3	0	0
C.82	C	C	0	C	C	0	1	3	0	1	3	0
C.83	C	C	0	C	C	0	1	0	0	1	0	0
C.84	C	C	0	C	C	0	1	0	0	1	0	0
C.85	C	C	0	1	C	0	3	0	0	4	0	0
C.86	C	C	0	0	C	0	1	0	0	1	0	0
C.87	C	C	0	C	C	0	0	1	0	0	1	0
C.88	C	C	0	C	C	0	2	1	0	2	1	0
C.89	C	C	0	1	C	0	2	1	0	3	1	0
C.90	C	C	0	C	C	0	1	1	0	1	1	0
C.91	C	C	0	C	C	0	1	1	0	1	1	0
C.92	C	C	0	2	C	0	1	0	0	3	0	0
C.93	C	C	0	C	C	0	1	0	0	1	0	0
C.94	C	C	0	C	C	0	0	0	0	0	0	0
C.95	C	C	0	C	C	0	0	1	0	0	1	0
C.96	C	C	0	1	C	0	1	0	0	1	0	0
C.97	C	C	0	C	C	0	1	0	0	1	0	0
C.98	C	C	0	C	C	0	0	1	0	0	1	0
C.99	C	C	0	C	C	0	0	1	0	0	1	0
1.CC	C	C	0	C	C	0	1	0	0	1	0	0
SUBTOTAL	1	C	0	55	2	0	119	2	0	175	4	0

[redacted] [redacted] [redacted]

[redacted] [redacted] [redacted]

MISSION • 1008-1 • 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	0	0	0	0	0	0	0	0
1.02	0	0	0	0	0	0	0	0	0	0	0	0
1.03	0	0	0	0	0	0	0	1	0	0	1	0
1.04	0	0	0	0	0	0	0	1	0	0	1	0
1.05	0	0	0	1	0	0	0	5	0	0	6	0
1.06	0	0	0	2	1	0	0	10	0	1	6	0
1.07	0	0	0	0	0	0	0	10	0	1	1	0
1.08	0	0	0	1	1	0	0	12	0	1	2	0
1.09	0	0	0	1	1	0	0	12	0	1	2	0
1.10	0	0	0	1	0	0	0	12	0	1	2	0
1.11	0	0	0	1	0	0	0	10	0	1	1	0
1.12	0	0	0	0	1	0	0	10	0	1	1	0
1.13	0	0	0	0	0	0	0	10	0	1	0	0
1.14	0	0	0	0	0	0	0	10	0	1	0	0
1.15	0	0	0	0	0	0	0	10	0	1	1	0
1.16	0	0	0	0	0	0	0	10	0	1	1	0
1.17	0	0	0	0	0	0	0	12	0	1	2	0
1.18	0	0	0	0	0	0	0	12	0	1	2	0
1.19	0	0	0	0	0	0	0	12	0	1	2	0
1.20	0	0	0	0	0	0	0	12	0	1	2	0
1.21	0	0	0	0	0	0	0	12	0	1	2	0
1.22	0	0	0	0	0	0	0	12	0	1	2	0
1.23	0	0	0	0	0	0	0	12	0	1	2	0
1.24	0	0	0	0	0	0	0	12	0	1	2	0
1.25	0	0	0	0	0	0	0	12	0	1	2	0
1.26	0	0	0	0	0	0	0	12	0	1	2	0
1.27	0	0	0	0	0	0	0	12	0	1	2	0
1.28	0	0	0	0	0	0	0	12	0	1	2	0
1.29	0	0	0	0	0	0	0	12	0	1	2	0
1.30	0	0	0	0	0	0	0	12	0	1	2	0
1.31	0	0	0	0	0	0	0	12	0	1	2	0
1.32	0	0	0	0	0	0	0	12	0	1	2	0
1.33	0	0	0	0	0	0	0	12	0	1	2	0
1.34	0	0	0	0	0	0	0	12	0	1	2	0
1.35	0	0	0	0	0	0	0	12	0	1	2	0
1.36	0	0	0	0	0	0	0	12	0	1	2	0
1.37	0	0	0	0	0	0	0	12	0	1	2	0
1.38	0	0	0	0	0	0	0	12	0	1	2	0
1.39	0	0	0	0	0	0	0	12	0	1	2	0
1.40	0	0	0	0	0	0	0	12	0	1	2	0
1.41	0	0	0	0	0	0	0	12	0	1	2	0
1.42	0	0	0	0	0	0	0	12	0	1	2	0
1.43	0	0	0	0	0	0	0	12	0	1	2	0
1.44	0	0	0	0	0	0	0	12	0	1	2	0
1.45	0	0	0	0	0	0	0	12	0	1	2	0
1.46	0	0	0	0	0	0	0	12	0	1	2	0
1.47	0	0	0	0	0	0	0	12	0	1	2	0
1.48	0	0	0	0	0	0	0	12	0	1	2	0
1.49	0	0	0	0	0	0	0	12	0	1	2	0
1.50	0	0	0	0	0	0	0	12	0	1	2	0
SUBTOTAL	1	1	0	12	29	1	3	77	0	16	107	1

[redacted] [redacted] [redacted]

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MISSION • 1008-1 • 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
1.51	0	0	0	0	3	0	0	1	0	0	4	0
1.52	0	0	0	0	3	0	0	1	0	0	6	0
1.53	0	0	0	0	3	0	0	2	0	0	6	0
1.54	0	0	0	0	2	0	0	2	0	0	2	0
1.55	0	0	0	0	1	0	0	2	0	0	2	0
1.56	0	0	0	0	1	0	0	3	0	0	1	0
1.57	0	0	0	0	1	0	0	3	0	0	4	0
1.58	0	0	0	0	1	0	0	3	0	0	1	0
1.59	0	0	0	0	1	0	0	2	0	0	4	0
1.60	0	0	0	0	1	0	0	5	0	0	3	0
1.61	0	0	0	0	1	0	0	1	0	0	6	0
1.62	0	0	0	0	1	0	0	2	0	0	1	0
1.63	0	0	0	0	1	0	0	1	0	0	2	0
1.64	0	0	0	0	4	0	0	1	0	0	5	0
1.65	0	0	0	0	5	0	0	5	0	0	10	0
1.66	0	0	0	0	1	0	0	2	0	0	2	0
1.67	0	0	0	0	1	0	0	2	0	0	3	0
1.68	0	0	0	0	1	0	0	2	0	0	2	0
1.69	0	0	0	0	1	0	0	2	0	0	2	0
1.70	0	0	0	0	1	0	0	2	0	0	3	0
1.71	0	0	0	0	2	0	0	3	0	0	5	0
1.72	0	0	0	0	3	0	0	2	0	0	2	0
1.73	0	0	0	0	1	0	0	1	0	0	4	0
1.74	0	0	0	0	4	0	0	6	0	0	1	0
1.75	0	0	0	0	2	0	0	2	0	0	6	0
1.76	0	0	0	0	2	0	0	1	0	0	2	0
1.77	0	0	0	0	2	0	0	1	0	0	3	0
1.78	0	0	0	0	1	0	0	2	0	0	2	0
1.79	0	0	0	0	1	0	0	1	0	0	4	0
1.80	0	0	0	0	1	0	0	2	0	0	1	0
1.81	0	0	0	0	1	0	0	1	0	0	2	0
1.82	0	0	0	0	1	0	0	1	0	0	0	0
1.83	0	0	0	0	1	0	0	1	0	0	1	0
1.84	0	0	0	0	1	0	0	1	0	0	2	0
1.85	0	0	0	0	1	0	0	1	0	0	1	0
1.86	0	0	0	0	1	0	0	1	0	0	2	0
1.87	0	0	0	0	2	0	0	1	0	0	0	0
1.88	0	0	0	0	1	0	0	1	0	0	1	0
1.89	0	0	0	0	1	0	0	2	0	0	2	0
1.90	0	0	0	0	1	0	0	1	0	0	1	0
1.91	0	0	0	0	1	0	0	1	0	0	1	0
1.92	0	0	0	0	1	0	0	1	0	0	1	0
1.93	0	0	0	0	1	0	0	2	0	0	3	0
1.94	0	0	0	0	1	0	0	1	0	0	2	0
1.95	0	0	0	0	1	0	0	1	0	0	1	0
1.96	0	0	0	0	1	0	0	1	0	0	2	0
1.97	0	0	0	0	2	0	0	1	0	0	1	0
1.98	0	0	0	0	2	0	0	1	0	0	3	0
1.99	0	0	0	0	2	0	0	1	0	0	1	0
2.00	0	0	0	0	2	0	0	1	0	0	2	0
SUBTOTAL	0	1	2	0	47	6	0	70	5	0	118	13

[redacted] [redacted] [redacted]

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MISSION • 1C08-1 • 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
2.01	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	1	0	0	1	0	0	1
2.04	0	0	0	0	0	1	0	0	1	0	0	2
2.05	0	0	0	0	0	1	0	0	2	0	0	3
2.06	0	0	0	0	0	2	0	0	1	0	0	2
2.07	0	0	0	0	0	2	0	0	1	0	0	1
2.08	0	0	0	0	0	0	0	0	1	0	0	1
2.09	0	0	0	0	0	2	0	0	1	0	0	3
2.10	0	0	0	0	0	5	0	0	1	0	0	5
2.11	0	0	0	0	0	1	0	0	0	0	0	1
2.12	0	0	0	0	0	3	0	0	0	0	0	3
2.13	0	0	0	0	0	2	0	0	1	0	0	3
2.14	0	0	0	0	0	7	0	0	2	0	0	9
2.15	0	0	0	0	0	4	0	0	0	0	0	4
2.16	0	0	0	0	0	1	0	0	1	0	0	2
2.17	0	0	0	0	0	5	0	0	3	0	0	8
2.18	0	0	0	0	0	2	0	0	5	0	0	7
2.19	0	0	0	0	0	10	0	3	10	0	3	20
2.20	0	0	0	0	0	7	0	1	2	0	1	9
2.21	0	0	0	0	0	7	0	1	12	0	1	19
2.22	0	0	0	0	0	2	0	0	11	0	1	13
2.23	0	0	0	0	0	11	0	0	14	0	1	25
2.24	0	0	0	0	0	5	0	0	8	0	0	13
2.25	0	0	0	0	0	10	0	0	13	0	0	23
2.26	0	0	0	0	0	4	0	0	6	0	0	10
2.27	0	0	0	0	0	5	0	0	18	0	0	23
2.28	0	0	0	0	0	1	0	0	6	0	0	7
2.29	0	0	0	0	0	3	0	0	17	0	0	20
2.30	0	0	0	0	0	1	0	0	8	0	0	9
2.31	0	0	0	0	0	2	0	0	6	0	0	8
2.32	0	0	0	0	0	0	0	0	4	0	0	4
2.33	0	0	0	0	0	0	0	0	3	0	0	3
2.34	0	0	0	0	0	0	0	0	1	0	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	0	0	0
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	8	97	0	11	166	0	19	263

[redacted] [redacted] [redacted]

[redacted] [redacted] [redacted]

MISSION * 1008-1 * 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	0	0	0	0	0	0	0	0
2.52	C	C	0	C	0	0	0	0	0	0	0	0
2.53	C	C	0	C	0	0	0	0	0	0	0	0
2.54	C	C	0	C	0	0	0	0	0	0	0	0
2.55	C	C	0	C	0	0	0	0	0	0	0	0
2.56	C	C	0	C	0	0	0	0	0	0	0	0
2.57	C	C	0	C	0	0	0	0	0	0	0	0
2.58	C	C	0	C	0	0	0	0	0	0	0	0
2.59	C	C	0	C	0	0	0	0	0	0	0	0
2.60	C	C	0	C	0	0	0	0	0	0	0	0
2.61	C	C	0	C	0	0	0	0	0	0	0	0
2.62	C	C	0	C	0	0	0	0	0	0	0	0
2.63	C	C	0	C	0	0	0	0	0	0	0	0
2.64	C	C	0	C	0	0	0	0	0	0	0	0
2.65	C	C	0	C	0	0	0	0	0	0	0	0
2.66	C	C	0	C	0	0	0	0	0	0	0	0
2.67	C	C	0	C	0	0	0	0	0	0	0	0
2.68	C	C	0	C	0	0	0	0	0	0	0	0
2.69	C	C	0	C	0	0	0	0	0	0	0	0
2.7C	C	C	0	C	0	0	0	0	0	0	0	0
SUBTCTAL	C	C	0	C	0	0	0	0	0	0	0	0
TCTAL	2	2	2	86	86	104	160	160	171	248	248	277

MISSICN 1008-1 INSTR - FWC 2-09-64 PROCESSING AND EXPOSURE ANAL

PRCCESS LEVEL	SAMPLE SIZE	UNDER EXPCSED	UNDER PRCCESSED	CORRECT EXP+PROC	OVER PROCESSED	OVE EXPOSE
PRIMARY	2	C PC	0 PC	50 PC	0 PC	50 F
INTERMEDIATE	86	C PC	7 PC	76 PC	15 PC	2 F
FULL	16C	4 PC	0 PC	92 PC	4 PC	0 F
ALL LEVELS	248	2 PC	2 PC	86 PC	8 PC	1 F

PRCCESS LEVEL	BASE + FCG	UNDER EXPCSED	UNDER PRCCESSED	CORRECT EXP+PROC	OVER PROCESSED	OVE EXPOSE
PRIMARY	0.01-C.19	C.01-C.13	0.14-0.39	0.40-0.90	---------	0.91 AND
INTERMED	C.10-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	C.01-C.3S	---------	0.40-0.90	0.91-1.69	1.70 AND

[redacted] [redacted] [redacted]

[redacted]

[redacted]

[redacted]

MISSION • ICC8-1 • INSTR • FWD • 2-09-64 PLOT OF D MIN • TERRAIN • PROCESSING • PRIMARY

ARITH MEAN • 0.58 • MEDIAN • 1.35 • STD DEV • 0.52 • RANGE • 0.61 TO 1.35 WITH 2 SAMPLES

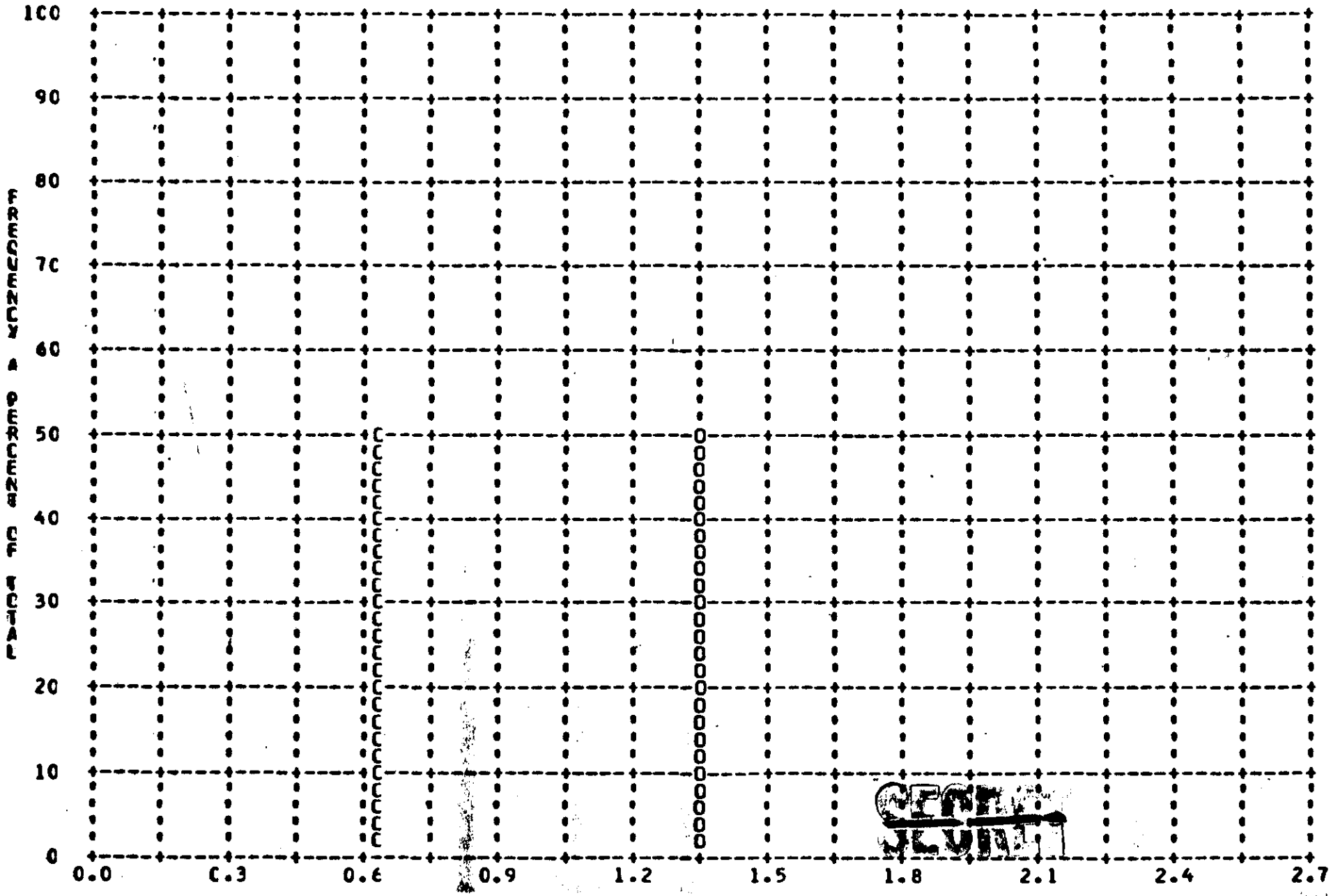


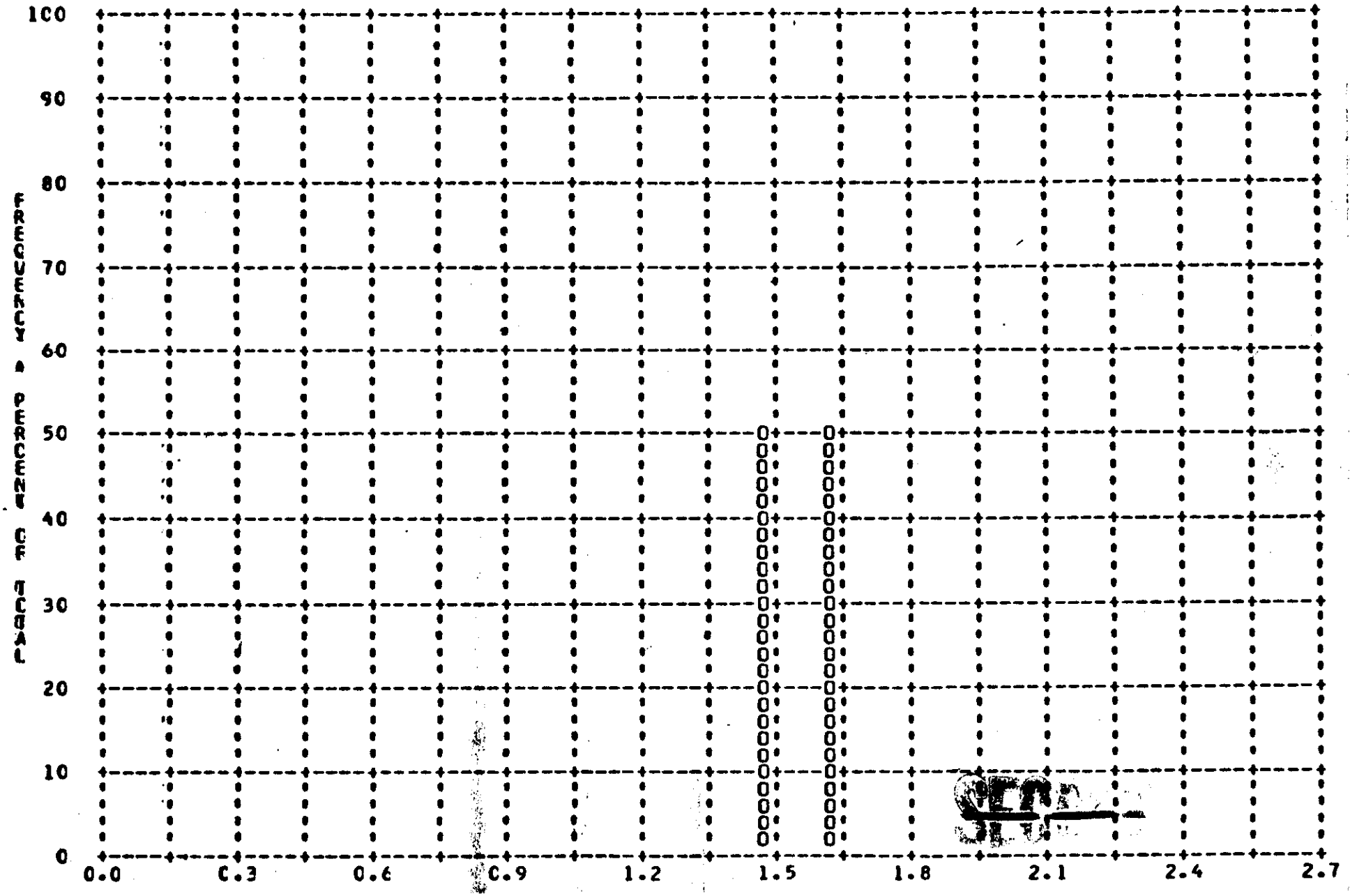
FIGURE 6-1

[redacted]

[redacted]

MISSION • 1008-1 • INSTR • FWD • 2-09-64 PLOT OF D MAX • TERRAIN • PROCESSING • PRIMARY

BRITH MEAN • 1.54 • MEDIAN • 1.62 • STD DEV • 0.11 • RANGE • 1.46 TO 1.62 WITH 2 SAMPLES



[redacted]

FIGURE 9-2

[redacted]

[redacted]

MISSION • 1CC8-1 • INSTR • FWD • 2-09-64 PLOT OF D MAX • CLOUD • PROCESSING • PRIMARY

ARITH MEAN • 1.62 • MEDIAN • 1.72 • STD DEV • 0.14 • RANGE • 1.52 TO 1.72 WITH 2 SAMPLES

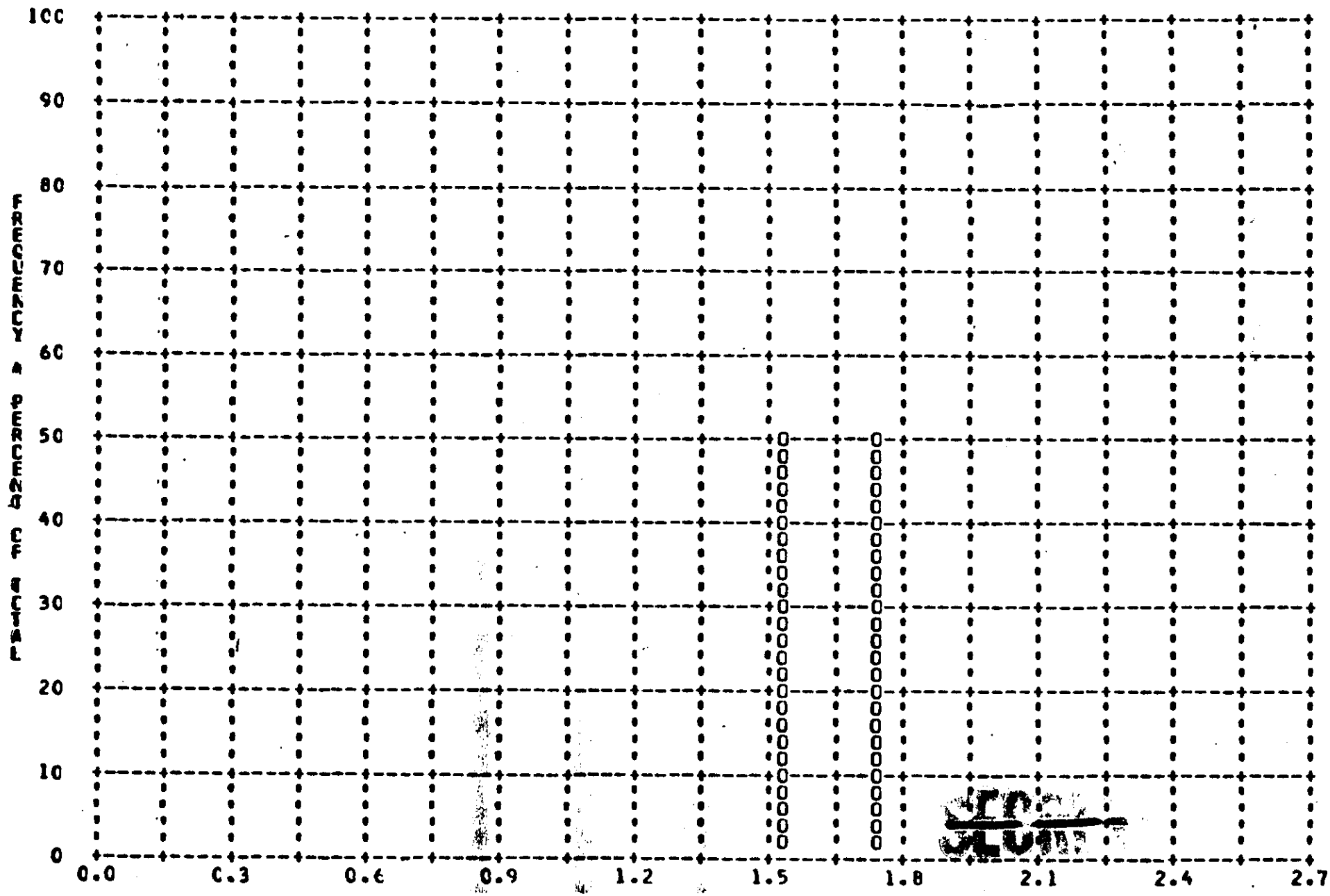


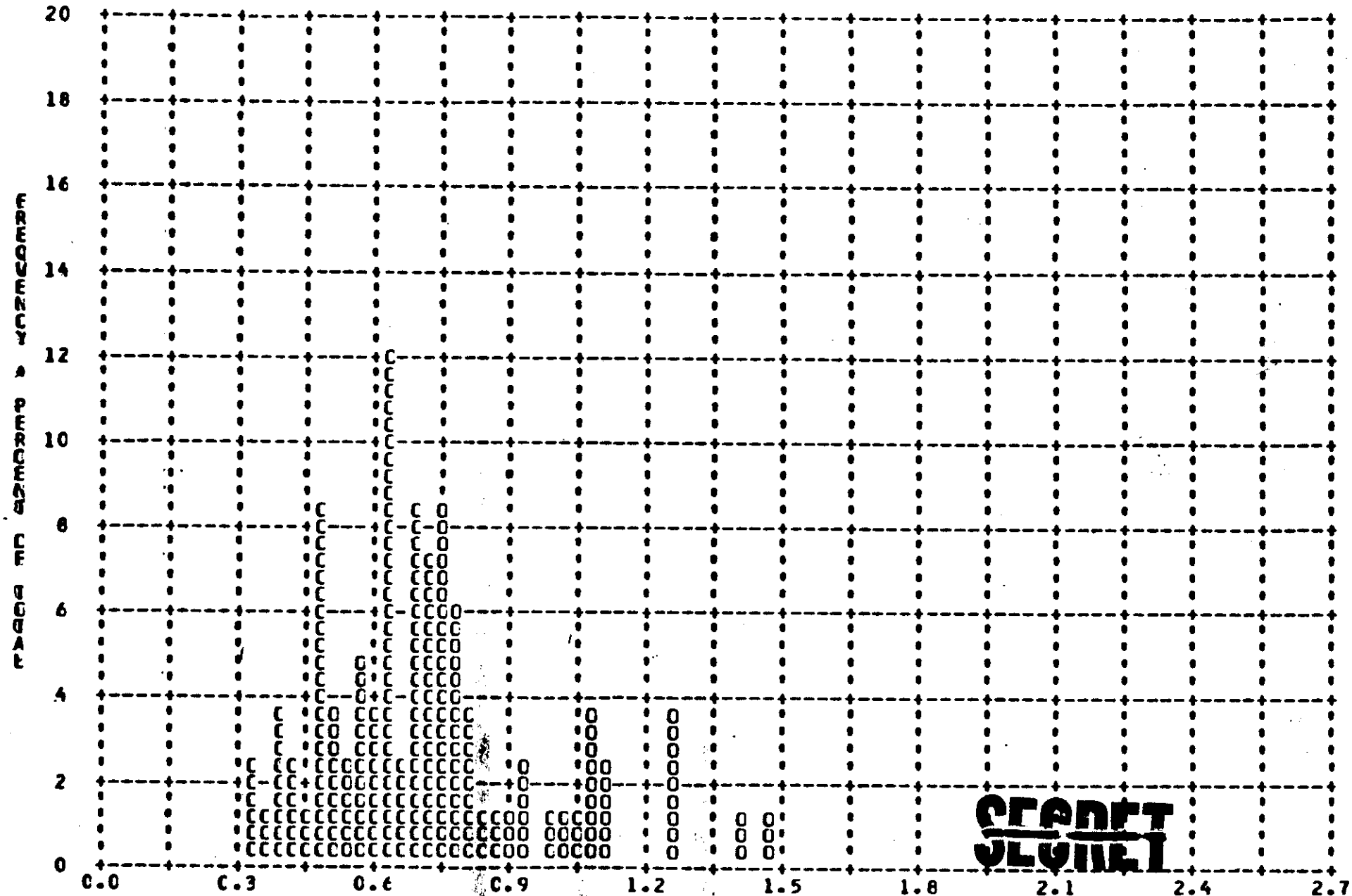
FIGURE 9-3

[redacted]

[redacted]

MISSION • 1008-1 • INSTR • FWD • 2-09-64 PLOT OF D MIN • TERRAIN • PROCESSING • INTERMEDIATE

ARITH MEAN • 0.70 • MEDIAN • 0.68 • STD DEV • 0.24 • RANGE • 0.32 TO 1.45 WITH 86 SAMPLES



SECRET
SI-GIMEL

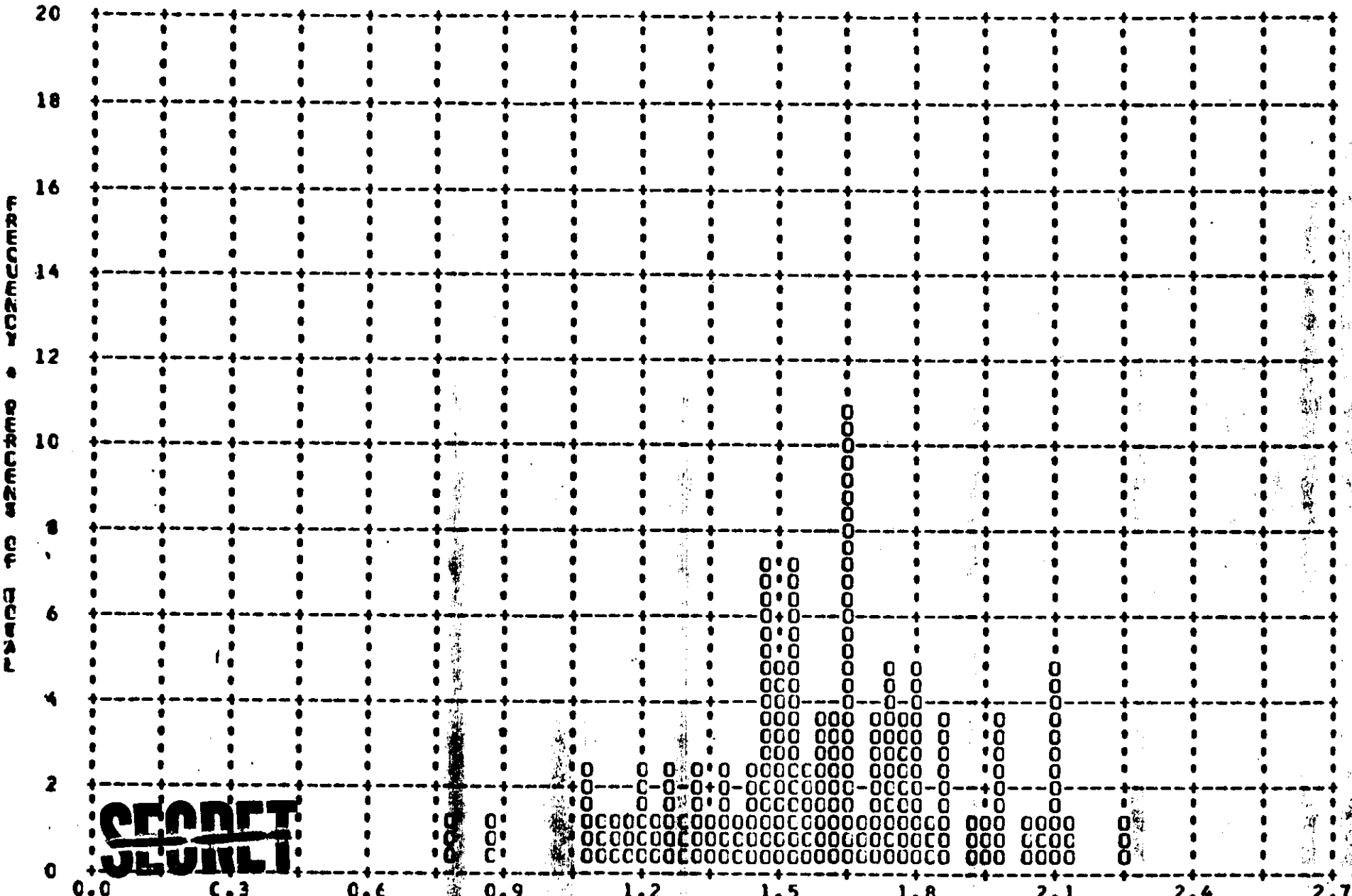
FIGURE 9-4

[redacted]

[redacted]

MISSION • 1008-1 • INSTR • FWD • 2-09-64 PLOT OF D MAX • TERRAIN • PROCESSING • INTERMEDIATE

ARITH MEAN • 1.55 • MEDIAN • 1.61 • STD DEV • 0.29 • RANGE • 0.78 TO 2.23 WITH 86 SAMPLES



SECRET

FIGURE 8-5

[redacted]

[redacted]

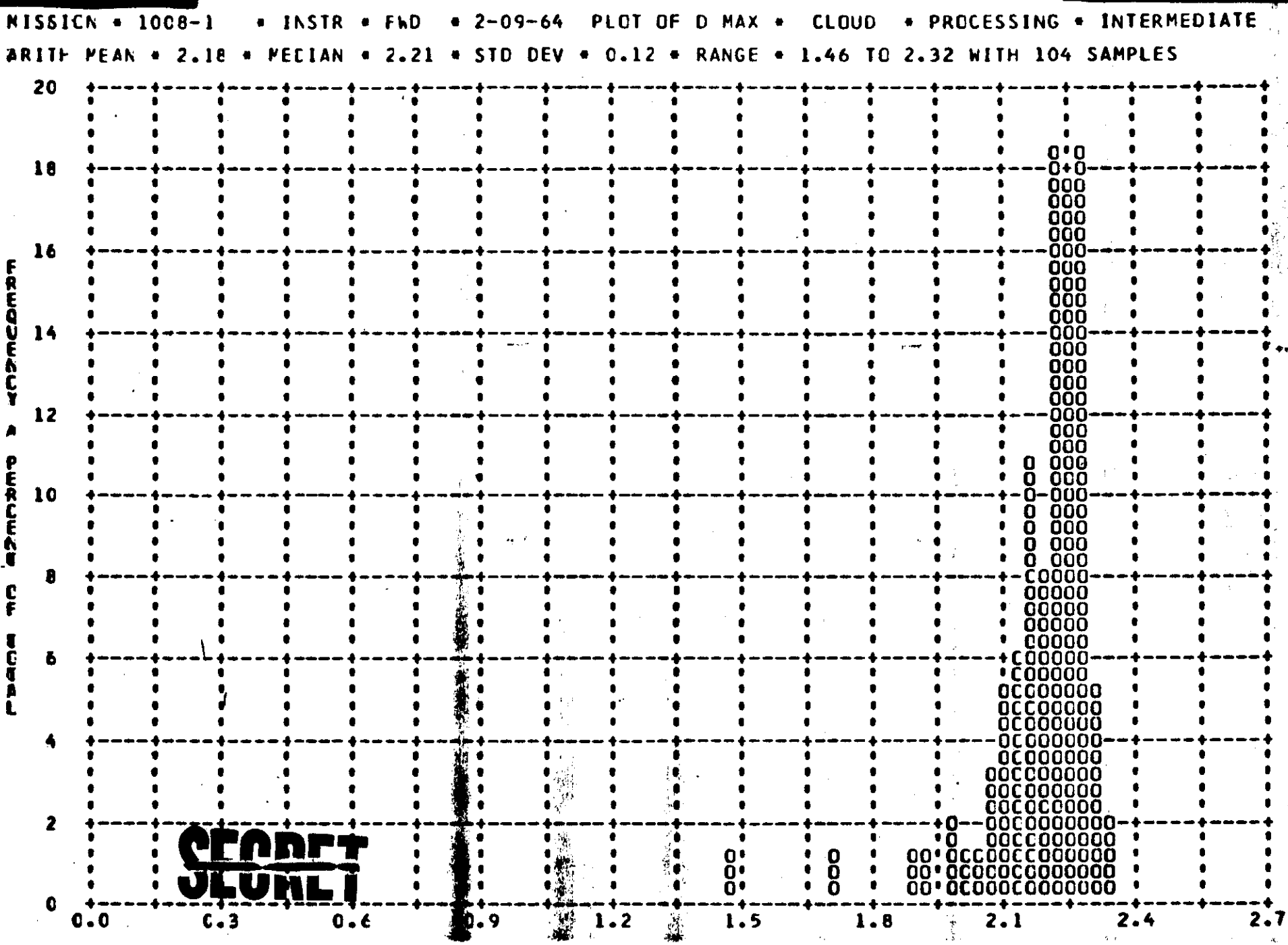


FIGURE 9-6

[redacted] [redacted]

MISSION • 1008-1 • INSTR • FWD • 2-09-64 PLOT OF D MIN • TERRAIN • PROCESSING • FULL

ARITH MEAN • 0.63 • MEDIAN • 0.61 • STD DEV • 0.17 • RANGE • 0.33 TO 1.48 WITH 160 SAMPLES

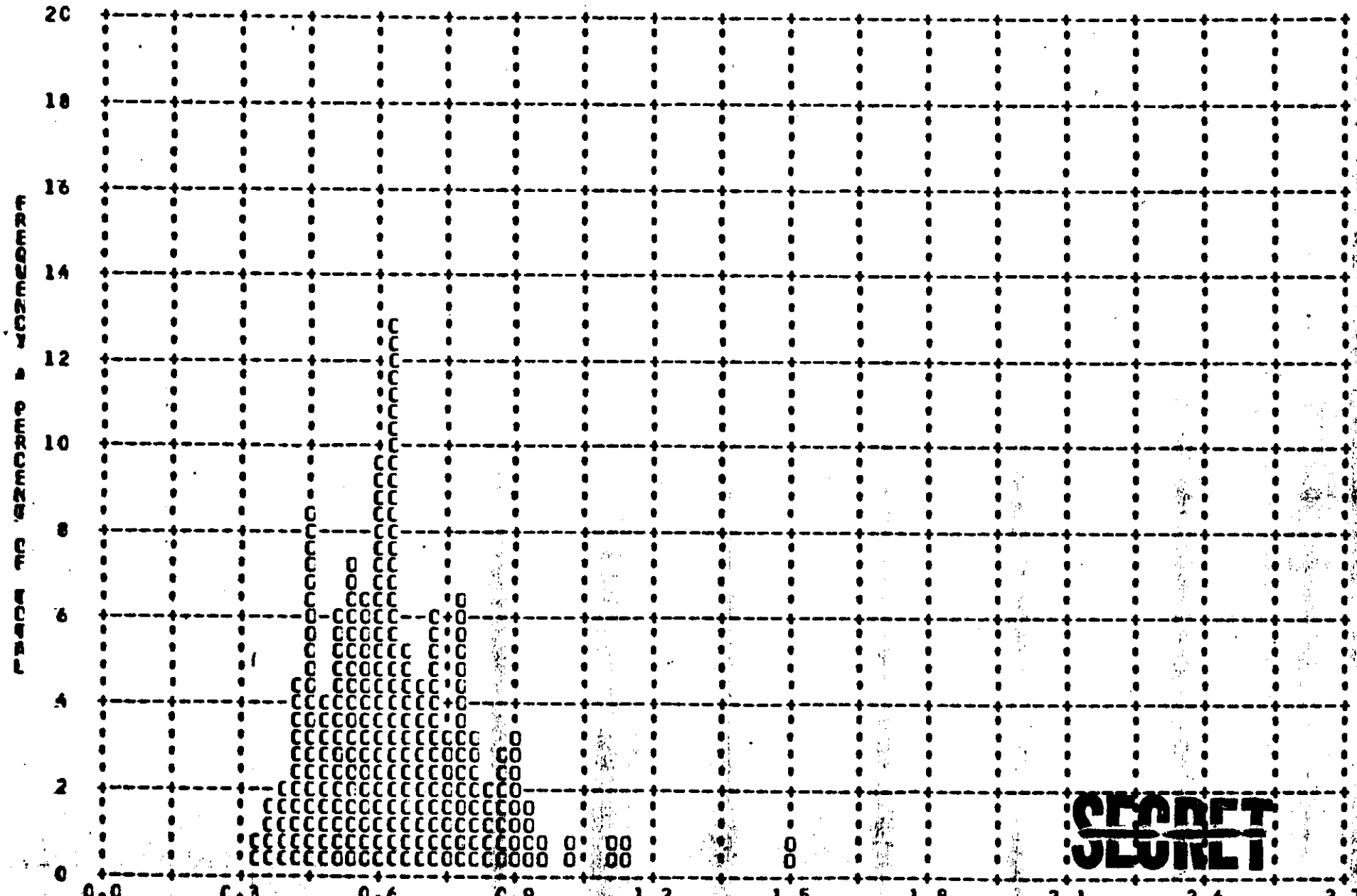


FIGURE 9-7

[redacted]

[redacted]

MISSION • 1008-1 • INSTR • FWD • 2-09-64 PLOT OF D MAX • TERRAIN • PROCESSING • FULL

ARITH MEAN • 1.53 • MEDIAN • 1.52 • STD DEV • 0.29 • RANGE • 0.88 TO 2.24 WITH 160 SAMPLES

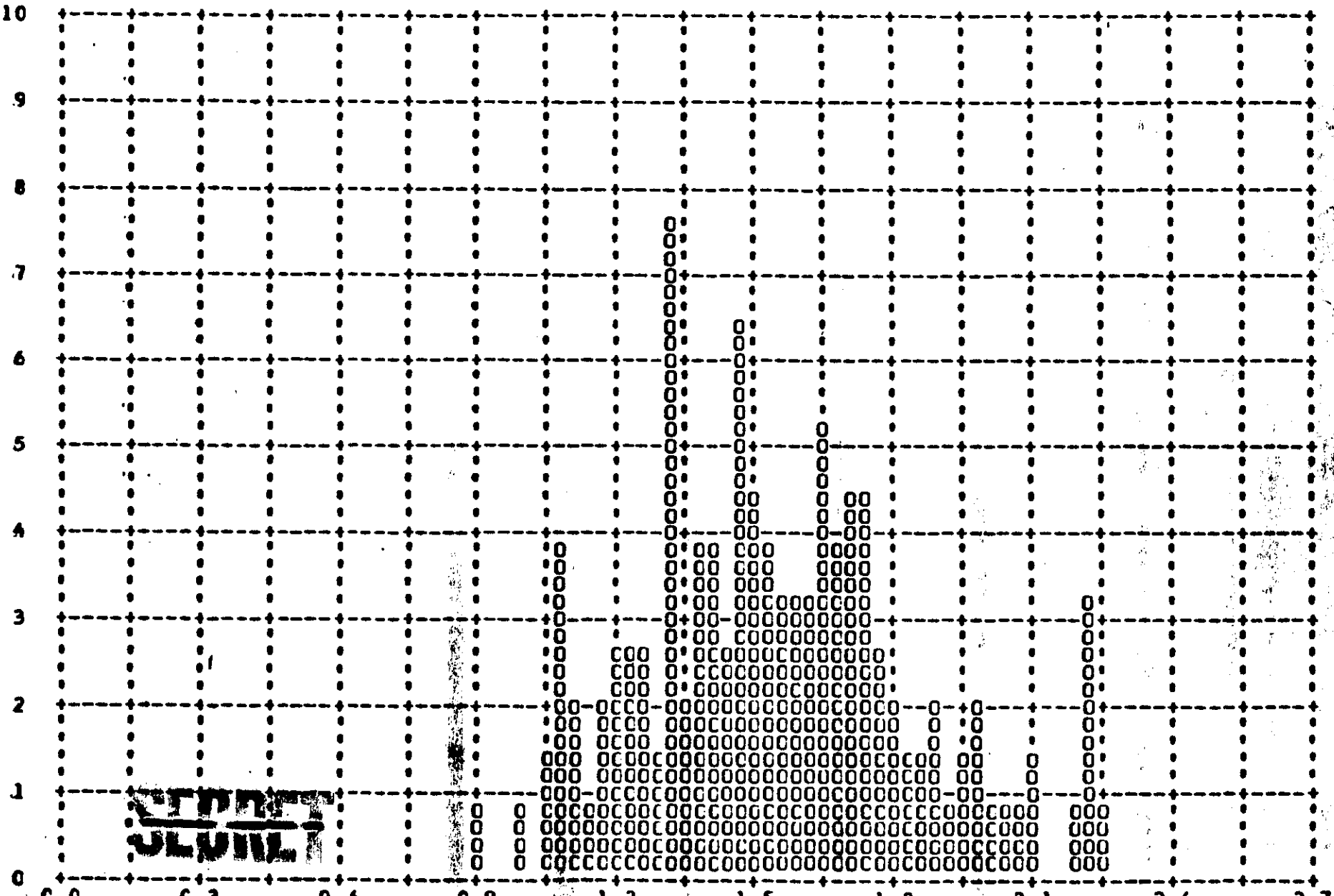


FIGURE 9-8

[redacted]

[redacted]

MISSION • 1008-1 • INSTR • FWD • 2-09-64 PLOT OF D MAX • CLOUD • PROCESSING • FULL

ARITH MEAN • 2.23 • MEDIAN • 2.25 • STD DEV • 0.10 • RANGE • 1.62 TO 2.35 WITH 171 SAMPLES

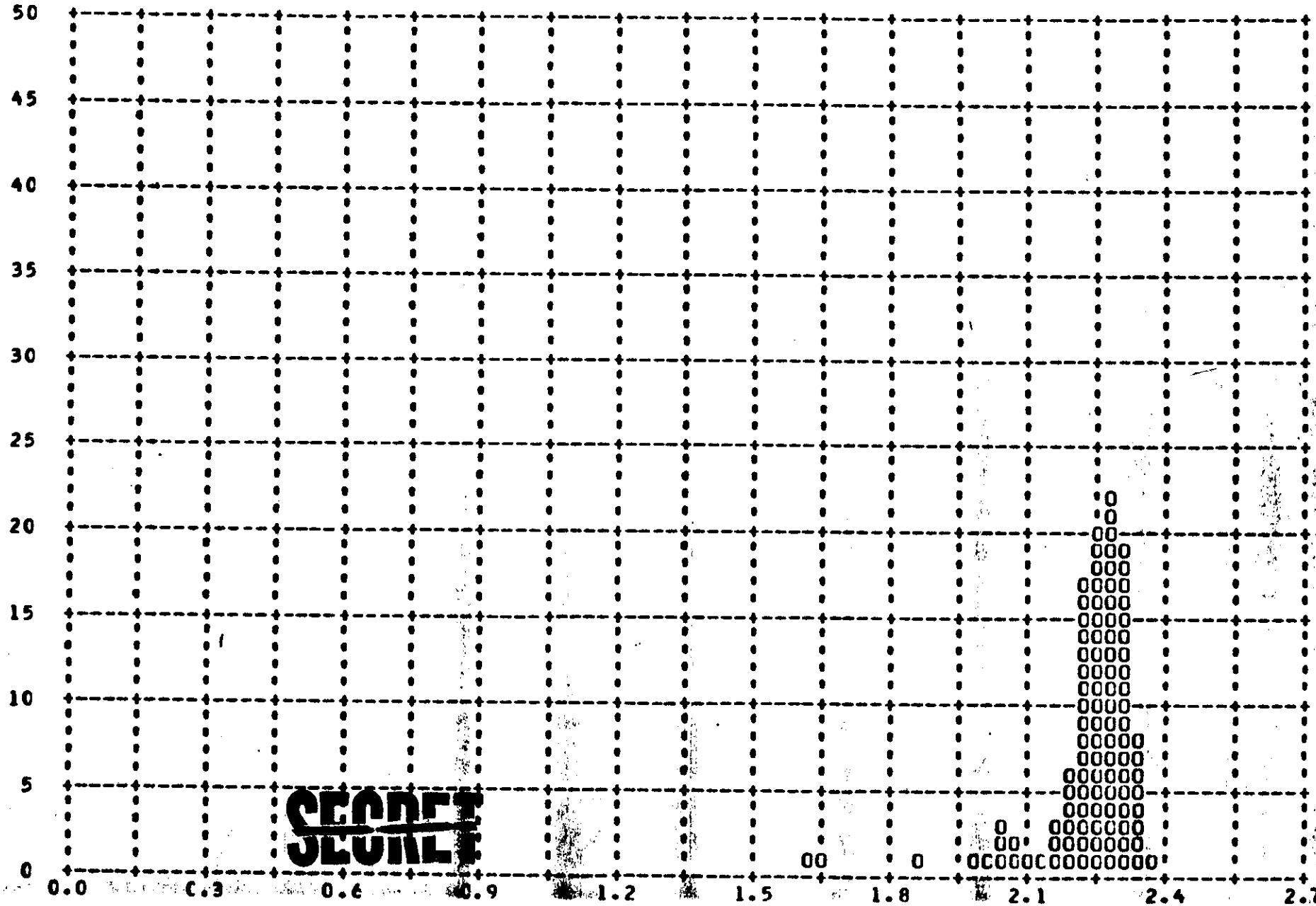


FIGURE 9-9

[redacted]

[redacted]

MISSION • 1008-1 • INSTR • FWD • 2-09-64 PLOT OF D MIN • TERRAIN • PROCESSING • ALL LEVELS

ARITH MEAN • 0.66 • MEDIAN • 0.62 • STD DEV • 0.20 • RANGE • 0.32 TO 1.48 WITH 248 SAMPLES

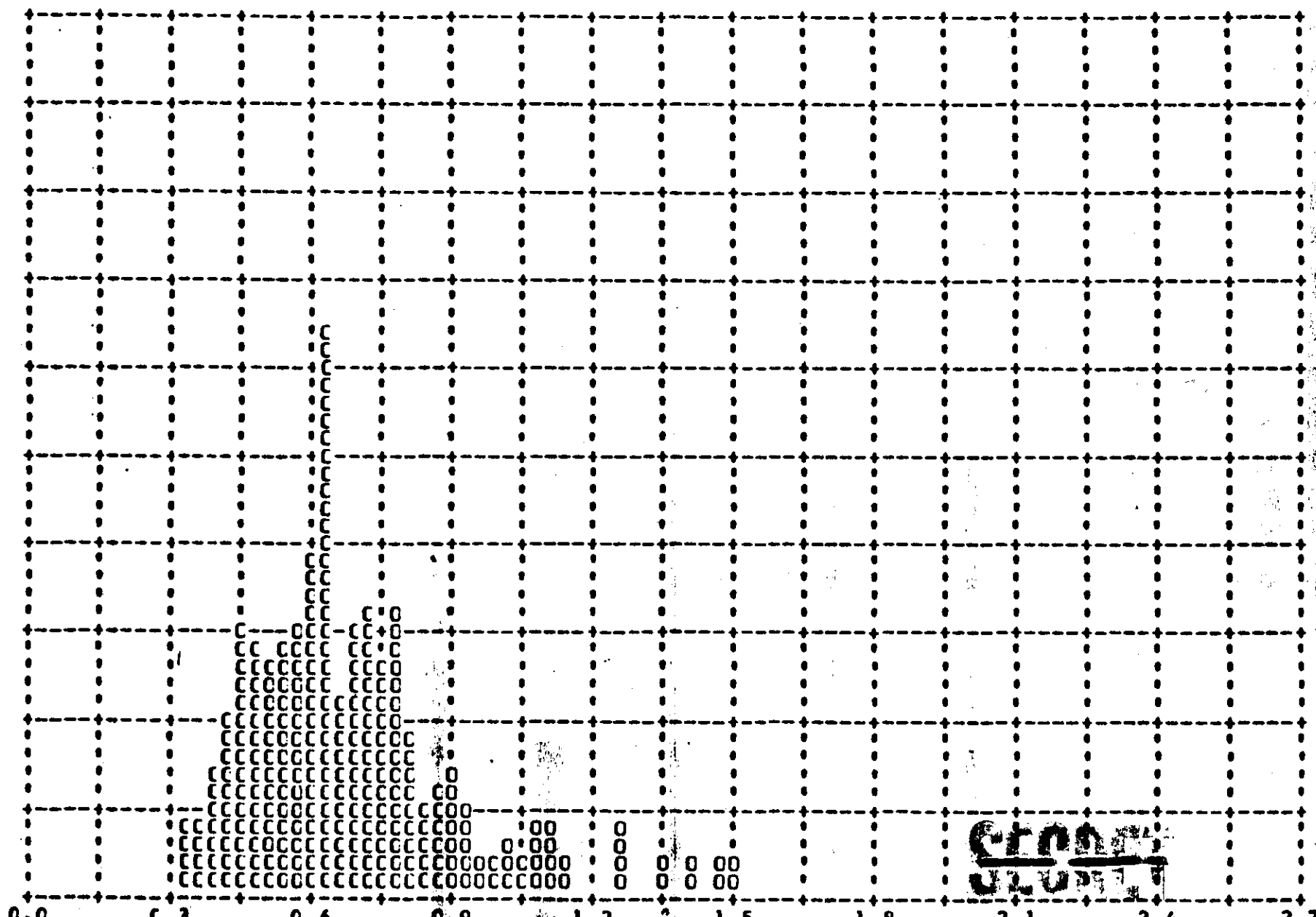


FIGURE 9-10

[redacted] [redacted]

MISSION • 1008-1 • INSTR • FWD • 2-09-64 PLOT OF D MAX • TERRAIN • PROCESSING • ALL LEVELS

ARITH MEAN • 1.55 • MEDIAN • 1.54 • STD DEV • 0.29 • RANGE • 0.78 TO 2.24 WITH 248 SAMPLES

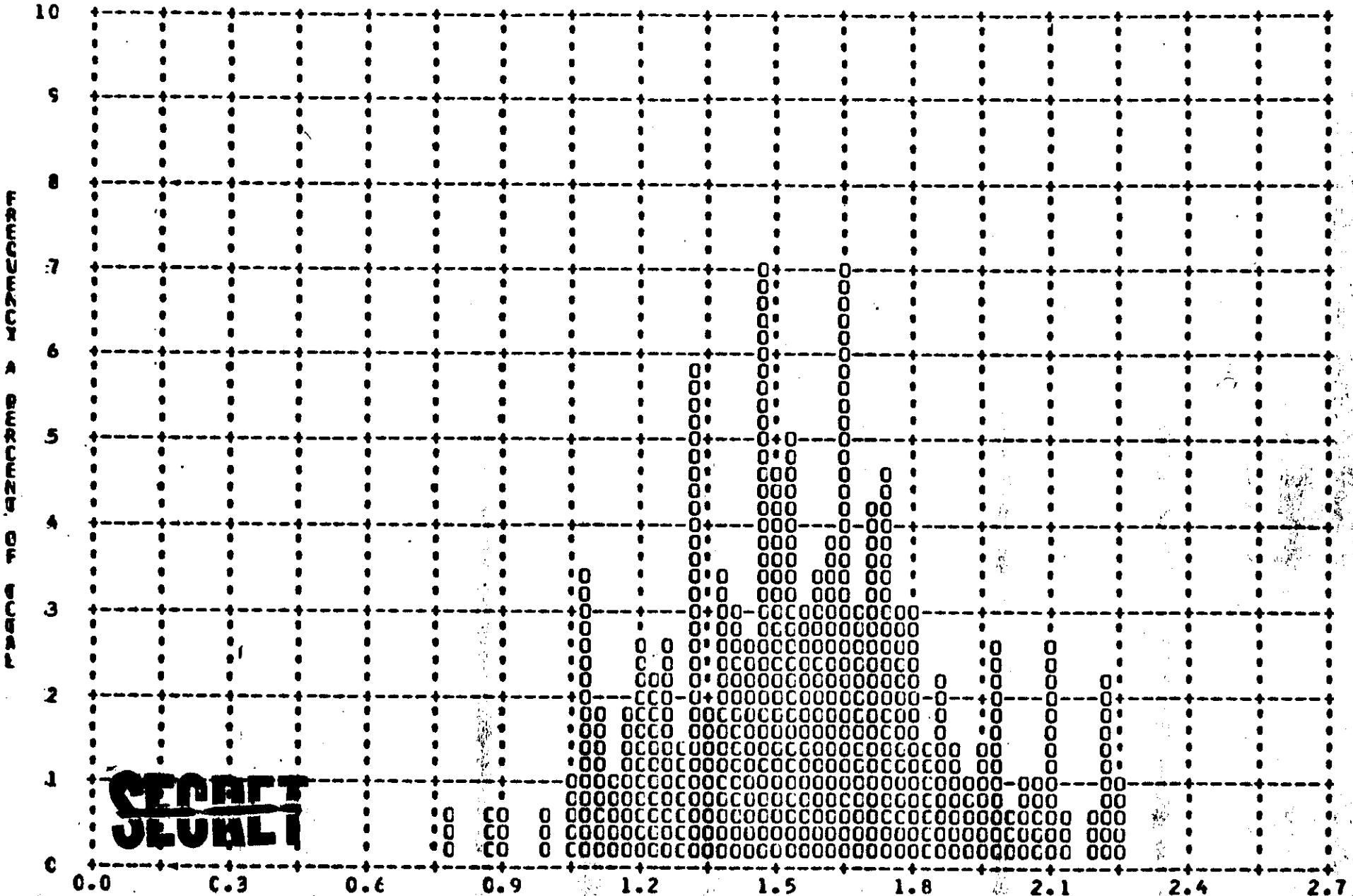


FIGURE 9-11

[redacted]

[redacted]

MISSION • 1008-1 • INSTR • FWD • 2-09-64 PLOT OF D MAX • CLOUD • PROCESSING • ALL LEVELS

ARITH MEAN • 2.21 • MEDIAN • 2.24 • STD DEV • 0.12 • RANGE • 1.46 TO 2.35 WITH 277 SAMPLES

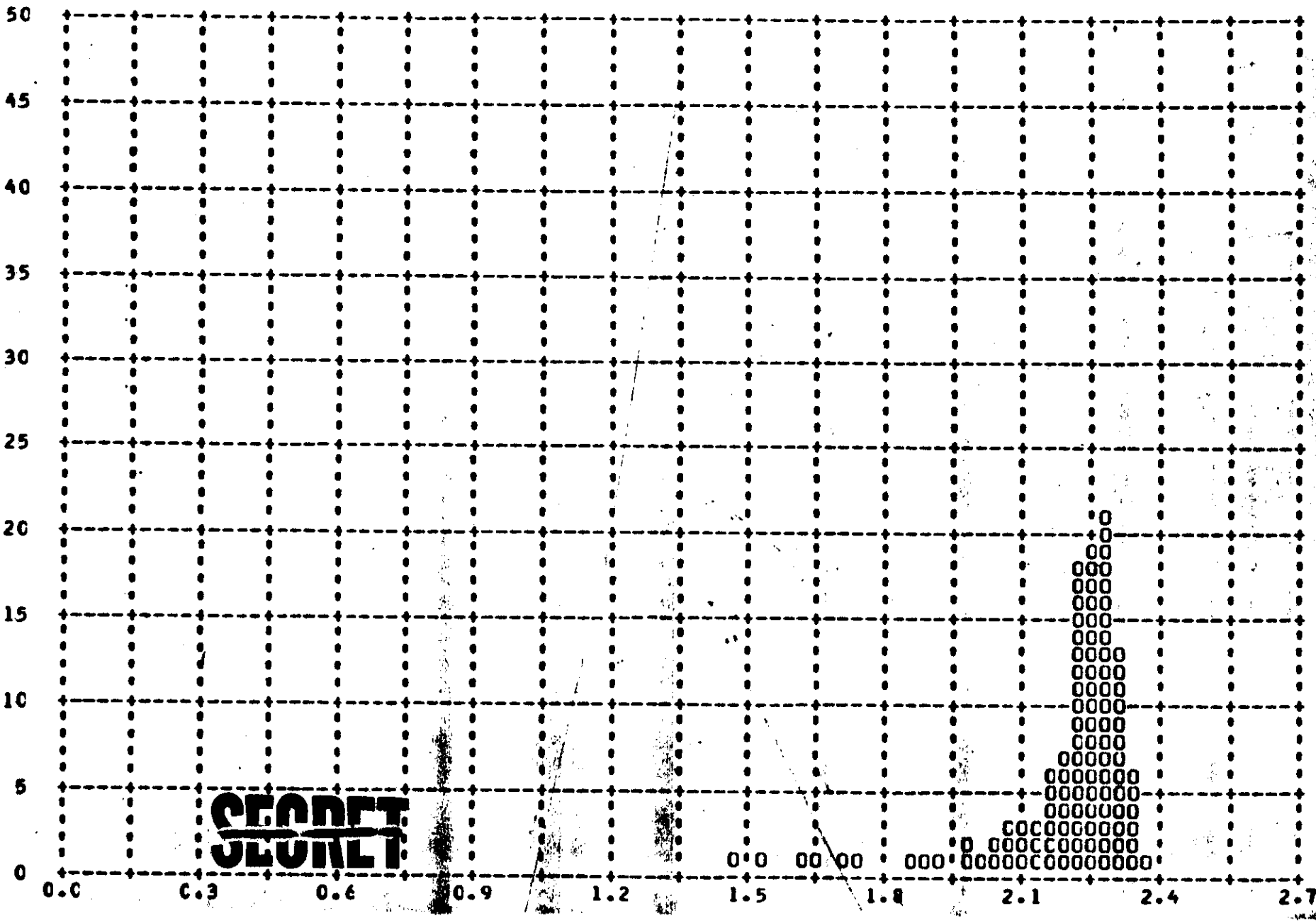


FIGURE 9-12

[redacted]

MISSION • 1008-1 • 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
0.01	0	0	0	0	0	0	0	0	0	0	0	0
0.02	0	0	0	0	0	0	0	0	0	0	0	0
0.03	0	0	0	0	0	0	0	0	0	0	0	0
0.04	0	0	0	0	0	0	0	0	0	0	0	0
0.05	0	0	0	0	0	0	0	0	0	0	0	0
0.06	0	0	0	0	0	0	0	0	0	0	0	0
0.07	0	0	0	0	0	0	0	0	0	0	0	0
0.08	0	0	0	0	0	0	0	0	0	0	0	0
0.09	0	0	0	0	0	0	0	0	0	0	0	0
0.10	0	0	0	0	0	0	0	0	0	0	0	0
0.11	0	0	0	0	0	0	0	0	0	0	0	0
0.12	0	0	0	0	0	0	0	0	0	0	0	0
0.13	0	0	0	0	0	0	0	0	0	0	0	0
0.14	0	0	0	0	0	0	0	0	0	0	0	0
0.15	0	0	0	0	0	0	0	0	0	0	0	0
0.16	0	0	0	0	0	0	0	0	0	0	0	0
0.17	0	0	0	0	0	0	0	0	0	0	0	0
0.18	0	0	0	0	0	0	0	0	0	0	0	0
0.19	0	0	0	0	0	0	0	0	0	0	0	0
0.20	0	0	0	0	0	0	0	0	0	0	0	0
0.21	0	0	0	0	0	0	0	0	0	0	0	0
0.22	0	0	0	0	0	0	0	0	0	0	0	0
0.23	0	0	0	0	0	0	0	0	0	0	0	0
0.24	0	0	0	0	0	0	0	0	0	0	0	0
0.25	0	0	0	0	0	0	0	0	0	0	0	0
0.26	0	0	0	0	0	0	0	0	0	0	0	0
0.27	0	0	0	0	0	0	0	0	0	0	0	0
0.28	0	0	0	0	0	0	0	0	0	0	0	0
0.29	0	0	0	0	0	0	0	0	0	0	0	0
0.30	0	0	0	0	0	0	0	0	0	0	0	0
0.31	0	0	0	0	0	0	0	0	0	0	0	0
0.32	0	0	0	0	0	0	1	0	0	1	0	0
0.33	0	0	0	0	0	0	0	0	0	0	0	0
0.34	0	0	0	1	0	0	0	0	0	1	0	0
0.35	0	0	0	0	0	0	0	0	0	0	0	0
0.36	0	0	0	1	0	0	1	0	0	2	0	0
0.37	0	0	0	0	0	0	0	0	0	0	0	0
0.38	0	0	0	1	0	0	1	0	0	2	0	0
0.39	0	0	0	0	0	0	1	0	0	1	0	0
0.40	0	0	0	2	0	0	1	0	0	3	0	0
0.41	0	0	0	0	0	0	0	0	0	0	0	0
0.42	0	0	0	2	0	0	3	0	0	5	0	0
0.43	0	0	0	0	0	0	0	0	0	0	0	0
0.44	0	0	0	1	0	0	2	0	0	3	0	0
0.45	0	0	0	0	0	0	1	0	0	1	0	0
0.46	0	0	0	1	0	0	3	0	0	4	0	0
0.47	0	0	0	0	0	0	0	0	0	0	0	0
0.48	0	0	0	2	0	0	2	0	0	4	0	0
0.49	0	0	0	0	0	0	0	0	0	0	0	0
0.50	0	0	0	0	0	0	1	0	0	1	0	0
SUBTOTAL	0	0	0	12	0	0	25	0	0	37	0	0

[redacted]

TABLE 9-4.

[redacted] [redacted] [redacted]

MISSION • 1008-1 • 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
0.51	0	0	0	3	0	0	6	0	0	9	0	0
0.52	0	0	0	2	0	0	3	0	0	5	0	0
0.53	0	0	0	3	0	0	3	0	0	5	0	0
0.54	0	0	0	3	0	0	2	0	0	5	0	0
0.55	0	0	0	3	0	0	7	0	0	10	0	0
0.56	0	0	0	2	0	0	1	0	0	3	0	0
0.57	0	0	0	1	0	0	2	0	0	3	0	0
0.58	0	0	0	0	0	0	1	0	0	1	0	0
0.59	0	0	0	0	0	0	2	0	0	2	0	0
0.60	0	0	0	1	0	0	9	0	0	10	0	0
0.61	0	0	0	2	0	0	1	0	0	3	0	0
0.62	0	0	0	3	0	0	4	0	0	7	0	0
0.63	0	0	0	2	0	0	3	0	0	5	0	0
0.64	0	0	0	2	0	0	3	0	0	5	0	0
0.65	0	0	0	3	0	0	4	0	0	7	0	0
0.66	0	0	0	1	0	0	5	0	0	6	0	0
0.67	0	0	0	1	0	0	3	0	0	4	0	0
0.68	0	0	0	1	0	0	6	0	0	7	0	0
0.69	0	0	0	1	0	0	3	0	0	4	0	0
0.70	0	0	0	3	0	0	6	0	0	9	0	0
0.71	0	0	0	3	0	0	4	0	0	7	0	0
0.72	0	0	0	3	0	0	1	0	0	4	0	0
0.73	0	0	0	1	0	0	5	0	0	6	0	0
0.74	0	0	0	1	0	0	2	0	0	3	0	0
0.75	0	0	0	1	0	0	2	0	0	3	0	0
0.76	0	0	0	1	0	0	2	0	0	3	0	0
0.77	0	0	0	2	0	0	2	0	0	4	0	0
0.78	0	0	0	3	0	0	0	0	0	3	0	0
0.79	0	0	0	3	0	0	1	0	0	4	0	0
0.80	0	0	0	3	0	0	2	0	0	5	0	0
0.81	0	0	0	2	0	0	4	0	0	6	0	0
0.82	0	0	0	1	0	0	2	0	0	3	0	0
0.83	0	0	0	1	0	0	2	0	0	3	0	0
0.84	0	0	0	1	0	0	2	0	0	3	0	0
0.85	0	0	0	3	0	0	2	0	0	5	0	0
0.86	0	0	0	3	0	0	2	0	0	5	0	0
0.87	0	0	0	1	0	0	0	0	0	1	0	0
0.88	0	0	0	1	0	0	1	0	0	2	0	0
0.89	0	0	0	2	0	0	2	0	0	4	0	0
0.90	0	0	0	0	0	0	1	0	0	1	0	0
0.91	0	0	0	1	0	0	2	0	0	3	0	0
0.92	0	0	0	0	0	0	0	0	0	0	0	0
0.93	0	0	0	0	0	0	1	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	1	0	0	1	0	0
0.96	0	0	0	0	0	0	0	0	0	0	0	0
0.97	0	0	0	0	0	0	2	0	0	2	0	0
0.98	0	0	0	0	0	0	0	0	0	0	0	0
0.99	0	0	0	0	0	0	3	0	0	3	0	0
1.00	0	0	0	0	0	0	1	0	0	1	0	0
SUBTOTAL	0	0	0	59	2	0	124	2	0	183	4	0

[redacted] [redacted] [redacted]

[redacted]

[redacted] [redacted] [redacted]

MISSION • 1008-1 • 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	0	0	0	0	1	0	0	1	0
1.02	0	0	0	1	0	0	1	1	0	2	1	0
1.03	0	0	0	0	0	0	0	1	0	0	1	0
1.04	0	0	0	0	0	0	1	1	0	1	1	0
1.05	0	0	0	0	0	0	1	1	0	1	1	0
1.06	0	0	0	1	0	0	0	1	0	1	1	0
1.07	0	0	0	0	0	0	1	1	0	1	1	0
1.08	0	0	0	0	0	0	1	0	0	1	0	0
1.09	0	0	0	0	0	0	0	1	0	0	1	0
1.10	0	0	0	0	0	0	1	0	0	1	0	0
1.11	0	0	0	1	0	0	0	0	0	1	0	0
1.12	0	0	0	0	0	0	0	0	0	0	0	0
1.13	0	0	0	1	0	0	0	0	0	1	0	0
1.14	0	0	0	0	0	0	1	0	0	1	0	0
1.15	0	0	0	0	0	0	1	0	0	1	0	0
1.16	0	0	0	0	0	0	3	0	0	3	0	0
1.17	0	0	0	0	0	0	3	0	0	3	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	2	0	0	2	0
1.20	0	0	0	0	0	0	1	7	0	1	7	0
1.21	0	0	0	0	0	0	1	2	0	1	2	0
1.22	0	0	0	0	0	0	1	0	0	1	2	0
1.23	0	0	0	0	0	0	0	1	0	0	1	0
1.24	0	0	0	0	0	0	0	3	0	0	4	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	1	0	0	1	0
1.28	0	0	0	0	0	0	0	1	0	0	1	0
1.29	0	0	0	0	0	0	0	1	0	0	1	0
1.30	0	0	0	0	0	0	0	5	0	0	6	0
1.31	0	0	0	0	0	0	0	1	0	0	3	0
1.32	0	0	0	0	0	0	0	1	0	0	1	0
1.33	0	0	0	0	0	0	0	2	0	0	2	0
1.34	0	0	0	0	0	0	0	4	0	0	4	0
1.35	0	0	0	0	0	0	0	2	0	0	3	0
1.36	0	0	0	0	0	0	0	4	0	0	4	0
1.37	0	0	0	0	0	0	0	2	0	0	2	0
1.38	0	0	0	0	0	0	0	1	0	0	2	0
1.39	0	0	0	0	0	0	0	1	0	0	1	0
1.40	0	0	0	0	0	0	0	6	0	0	6	0
1.41	0	0	0	0	0	0	0	0	0	0	2	0
1.42	0	0	0	0	0	0	0	1	0	0	2	0
1.43	0	0	0	0	0	0	0	2	0	0	2	0
1.44	0	0	0	0	0	0	0	5	0	0	6	0
1.45	0	0	0	0	0	0	0	2	0	0	2	0
1.46	0	0	0	0	0	0	0	3	0	0	5	0
1.47	0	0	0	0	0	0	0	3	0	0	3	0
1.48	0	0	0	0	0	0	0	0	0	0	0	0
1.49	0	0	0	0	0	0	0	2	0	0	2	0
1.50	0	0	0	0	2	0	0	5	0	0	7	0
SUBTOTAL	0	0	0	10	17	0	13	77	1	23	94	1

[redacted] [redacted] [redacted]

[redacted] [redacted] [redacted]

MISSION • 1008-1 • 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	2	0	0	1	0	0	3	0
1.52	0	0	0	0	2	0	0	1	0	0	3	0
1.53	0	0	0	0	0	0	0	0	0	0	0	0
1.54	0	0	0	0	0	0	0	1	0	0	1	0
1.55	0	0	0	0	2	0	0	1	0	0	3	0
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	2	0	0	1	0	0	3	0
1.59	0	0	0	0	2	0	0	1	0	0	3	0
1.60	0	0	0	0	8	1	0	1	0	0	9	1
1.61	0	0	0	0	1	0	0	1	0	0	1	0
1.62	0	0	0	0	1	0	0	1	0	0	1	0
1.63	0	0	0	0	1	0	0	1	0	0	1	0
1.64	0	0	0	0	2	0	0	1	0	0	3	0
1.65	0	0	0	0	2	0	0	1	0	0	3	0
1.66	0	0	0	0	2	0	0	1	0	0	3	0
1.67	0	0	0	0	1	0	0	1	0	0	2	0
1.68	0	0	0	0	1	0	0	1	0	0	2	0
1.69	0	0	0	0	0	0	0	1	0	0	1	0
1.70	0	0	0	0	5	1	0	1	0	0	6	1
1.71	0	0	0	0	3	0	0	2	0	0	5	0
1.72	0	0	0	0	3	0	0	4	0	0	7	0
1.73	0	0	0	0	2	0	0	4	0	0	6	0
1.74	0	0	0	0	2	0	0	1	0	0	3	0
1.75	0	0	0	0	1	0	0	2	0	0	3	0
1.76	0	0	0	0	1	0	0	2	0	0	3	0
1.77	0	0	0	0	1	0	0	1	0	0	2	0
1.78	0	0	0	0	1	0	0	2	0	0	3	0
1.79	0	0	0	0	3	0	0	1	0	0	4	0
1.80	0	0	0	0	2	0	0	3	0	0	5	0
1.81	0	0	0	0	1	0	0	1	0	0	2	0
1.82	0	0	0	0	1	0	0	1	0	0	2	0
1.83	0	0	0	0	1	0	0	1	0	0	2	0
1.84	0	0	0	0	1	0	0	2	0	0	3	0
1.85	0	0	0	0	1	0	0	1	0	0	2	0
1.86	0	0	0	0	1	0	0	2	0	0	3	0
1.87	0	0	0	0	1	0	0	2	0	0	3	0
1.88	0	0	0	0	2	0	0	2	0	0	4	0
1.89	0	0	0	0	2	0	0	2	0	0	4	0
1.90	0	0	0	0	1	0	0	2	0	0	3	0
1.91	0	0	0	0	2	0	0	2	0	0	4	0
1.92	0	0	0	0	2	0	0	1	0	0	3	0
1.93	0	0	0	0	1	0	0	1	0	0	2	0
1.94	0	0	0	0	1	0	0	1	0	0	2	0
1.95	0	0	0	0	1	0	0	1	0	0	2	0
1.96	0	0	0	0	1	0	0	1	0	0	2	0
1.97	0	0	0	0	1	0	0	1	0	0	2	0
1.98	0	0	0	0	1	0	0	1	0	0	2	0
1.99	0	0	0	0	1	0	0	1	0	0	2	0
2.00	0	0	0	0	4	1	0	2	1	0	5	1
SUBTOTAL	0	0	0	1	59	10	0	77	6	1	136	16

[redacted] [redacted] [redacted]

[redacted] [redacted] [redacted]

MISSION • 1008-1 • 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	0	0	0	0	0	1	0	0	1	0
2.02	0	0	0	0	0	0	0	0	0	0	0	0
2.03	0	0	0	0	0	0	0	0	1	0	0	1
2.04	0	0	0	0	0	1	0	0	0	0	0	2
2.05	0	0	0	0	0	0	0	0	0	0	0	0
2.06	0	0	0	0	0	1	0	0	0	0	0	1
2.07	0	0	0	0	0	0	0	0	0	0	0	0
2.08	0	0	0	0	0	1	0	0	0	0	0	1
2.09	0	0	0	0	0	0	0	0	0	0	0	0
2.10	0	0	0	0	0	3	0	0	1	0	0	4
2.11	0	0	0	0	0	0	0	0	0	0	0	0
2.12	0	0	0	0	0	5	0	0	1	0	0	6
2.13	0	0	0	0	0	0	0	0	0	0	0	0
2.14	0	0	0	0	0	2	0	0	1	0	0	3
2.15	0	0	0	0	0	0	0	0	0	0	0	0
2.16	0	0	0	0	0	5	0	0	1	0	0	6
2.17	0	0	0	0	0	0	0	0	0	0	0	0
2.18	0	0	0	0	0	4	0	0	1	0	0	5
2.19	0	0	0	0	0	0	0	0	0	0	0	0
2.20	0	0	0	0	0	2	0	0	1	0	0	3
2.21	0	0	0	0	0	7	0	0	0	0	0	7
2.22	0	0	0	0	0	5	0	0	6	0	0	11
2.23	0	0	0	0	0	0	0	0	0	0	0	0
2.24	0	0	0	0	0	6	0	0	6	0	0	12
2.25	0	0	0	0	0	5	0	0	7	0	0	12
2.26	0	0	0	0	0	0	0	0	0	0	0	0
2.27	0	0	0	0	0	4	0	0	12	0	0	12
2.28	0	0	0	0	0	2	0	0	11	0	0	13
2.29	0	0	0	0	0	3	0	0	6	0	0	9
2.30	0	0	0	0	0	8	0	0	17	0	0	25
2.31	0	0	0	0	0	0	0	0	9	0	0	9
2.32	0	0	0	0	0	0	0	0	19	0	0	19
2.33	0	0	0	0	0	0	0	0	8	0	0	8
2.34	0	0	0	0	0	0	0	0	5	0	0	5
2.35	0	0	0	0	0	0	0	0	5	0	0	5
2.36	0	0	0	0	0	0	0	0	1	0	0	1
2.37	0	0	0	0	0	0	0	0	2	0	0	2
2.38	0	0	0	0	0	0	0	0	1	0	0	1
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	4	81	0	6	172	0	10	253

[redacted] [redacted] [redacted]

[redacted] [redacted] [redacted]

MISSION # 1008-1 • 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	0	0	0	0	0	0	0	0
2.52	C	C	0	C	0	0	0	0	0	0	0	0
2.53	C	C	0	C	0	0	0	0	0	0	0	0
2.54	C	C	0	C	0	0	0	0	0	0	0	0
2.55	C	C	0	C	0	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	C	C	0	0	0	0	0	0	0
TOTAL	C	C	0	82	82	91	162	162	179	244	244	270

MISSION 1008-1 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	C	C PC	0 PC	0 PC	0 PC	0 F
INTERMEDIATE	82	C PC	4 PC	83 PC	12 PC	1 F
FULL	162	2 PC	0 PC	85 PC	13 PC	0 F
ALL LEVELS	244	1 PC	1 PC	84 PC	13 PC	0 F

PROCESS LEVEL	BASE + FOG	UNDER EXPOSED	UNDER PROCESSED	CORRECT EXP+PROC	OVER PROCESSED	OVE EXPOSE
PRIMARY	C.C1-C.15	C.01-C.13	0.14-0.39	0.40-0.90	----------	0.91 AND
INTERMED	C.10-C.17	C.01-C.2C	0.21-0.39	0.40-0.90	0.91-1.34	1.35 AND
FULL	0.18 AND UP	C.01-C.35	----------	0.40-0.90	0.91-1.69	1.70 AND

[redacted] [redacted] [redacted]

[redacted] [redacted]

MISSION • 1008-1 • INSTR • AFT • 2-09-64 PLOT OF D MIN • TERRAIN • PROCESSING • INTERMEDIATE

ARITH MEAN • 0.72 • MEDIAN • 0.70 • STD DEV • 0.25 • RANGE • 0.34 TO 1.57 WITH 82 SAMPLES

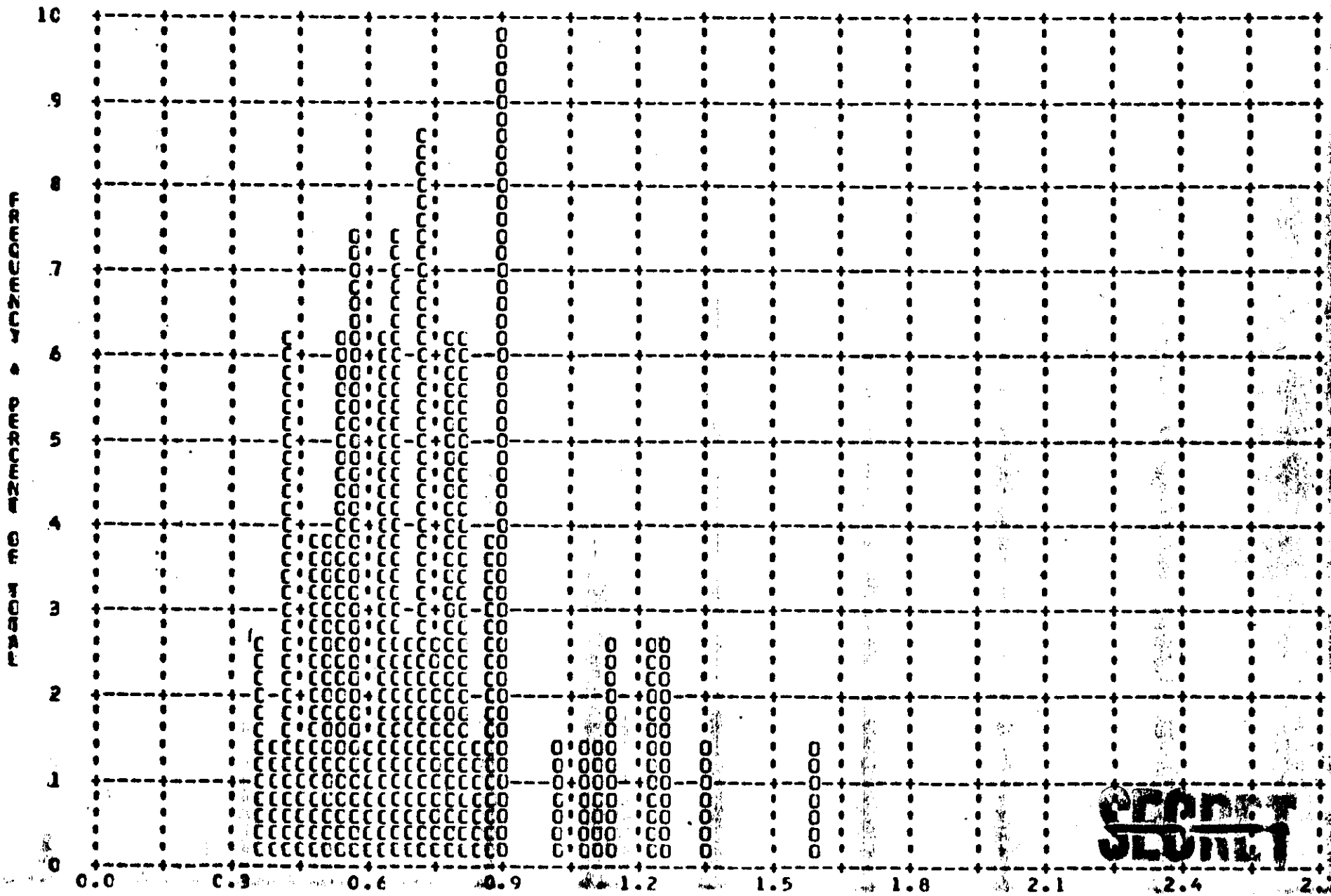


FIGURE 9-13

[redacted] [redacted]

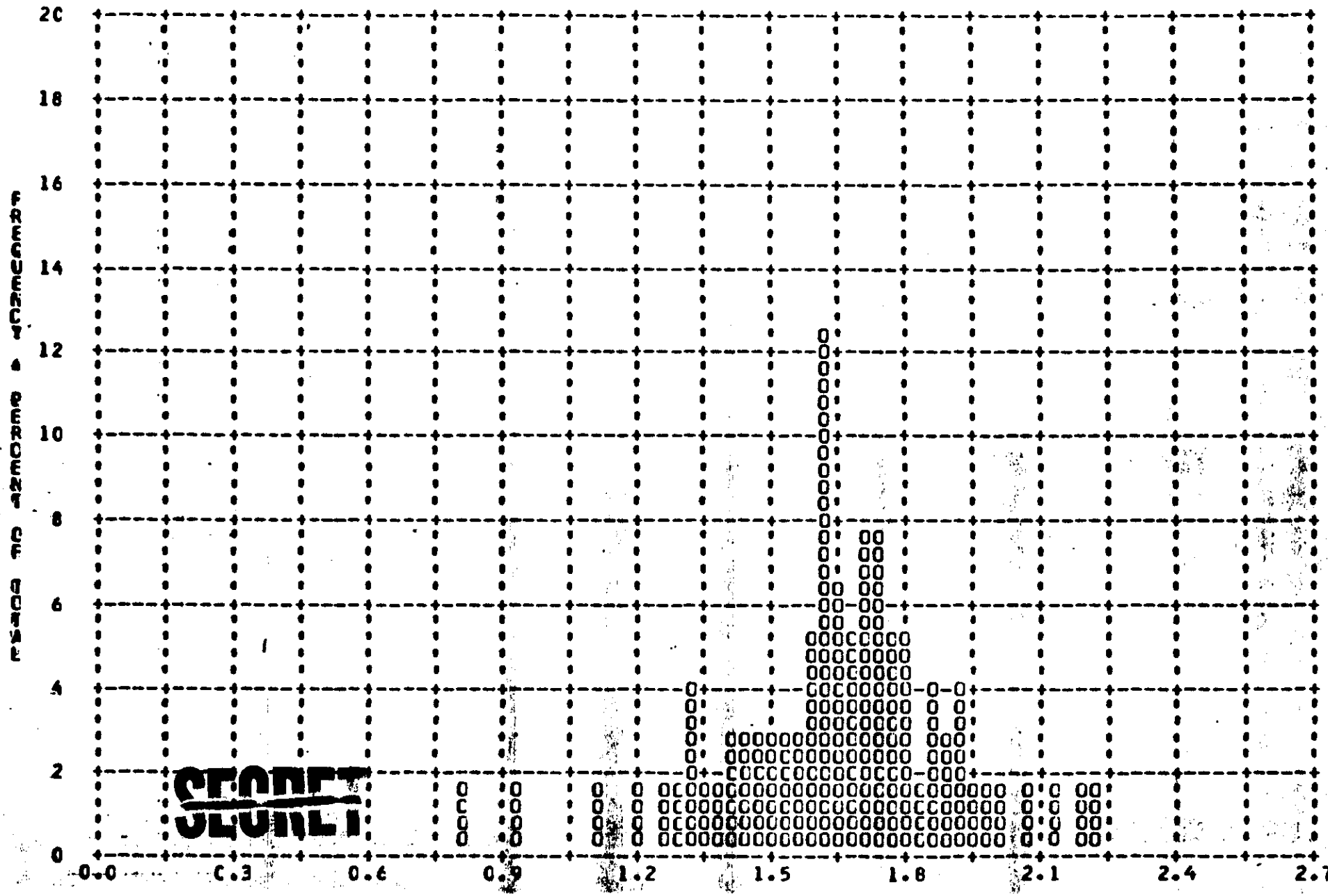


FIGURE 9-14

[redacted] [redacted]

MISSION * 1008-1 * INSTR * AFT * 2-09-64 PLOT OF D MAX * CLOUD * PROCESSING * INTERMEDIATE

ARITH MEAN * 2.17 * MEDIAN * 2.20 * STD DEV * 0.11 * RANGE * 1.80 TO 2.30 WITH 91 SAMPLES

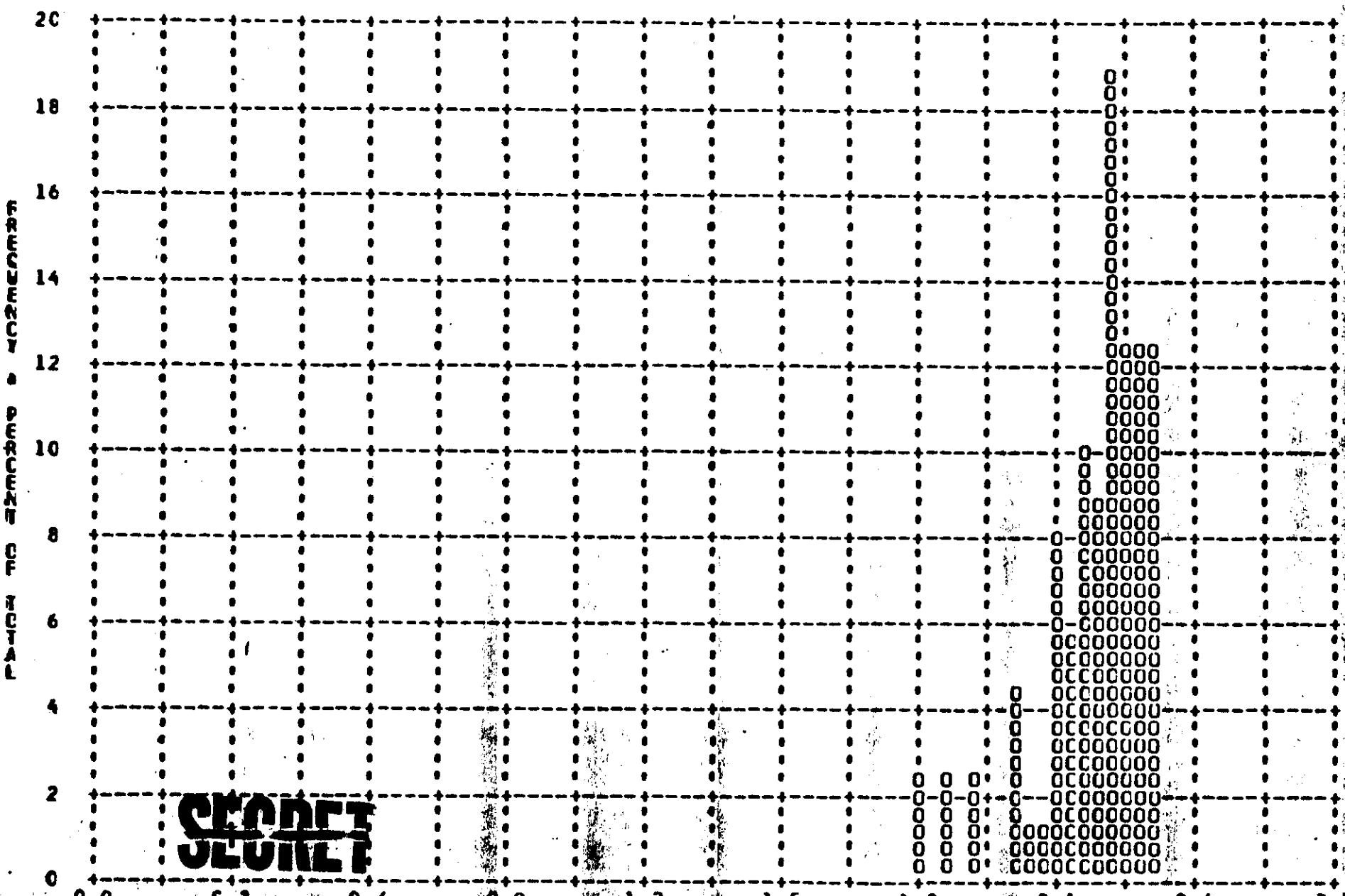


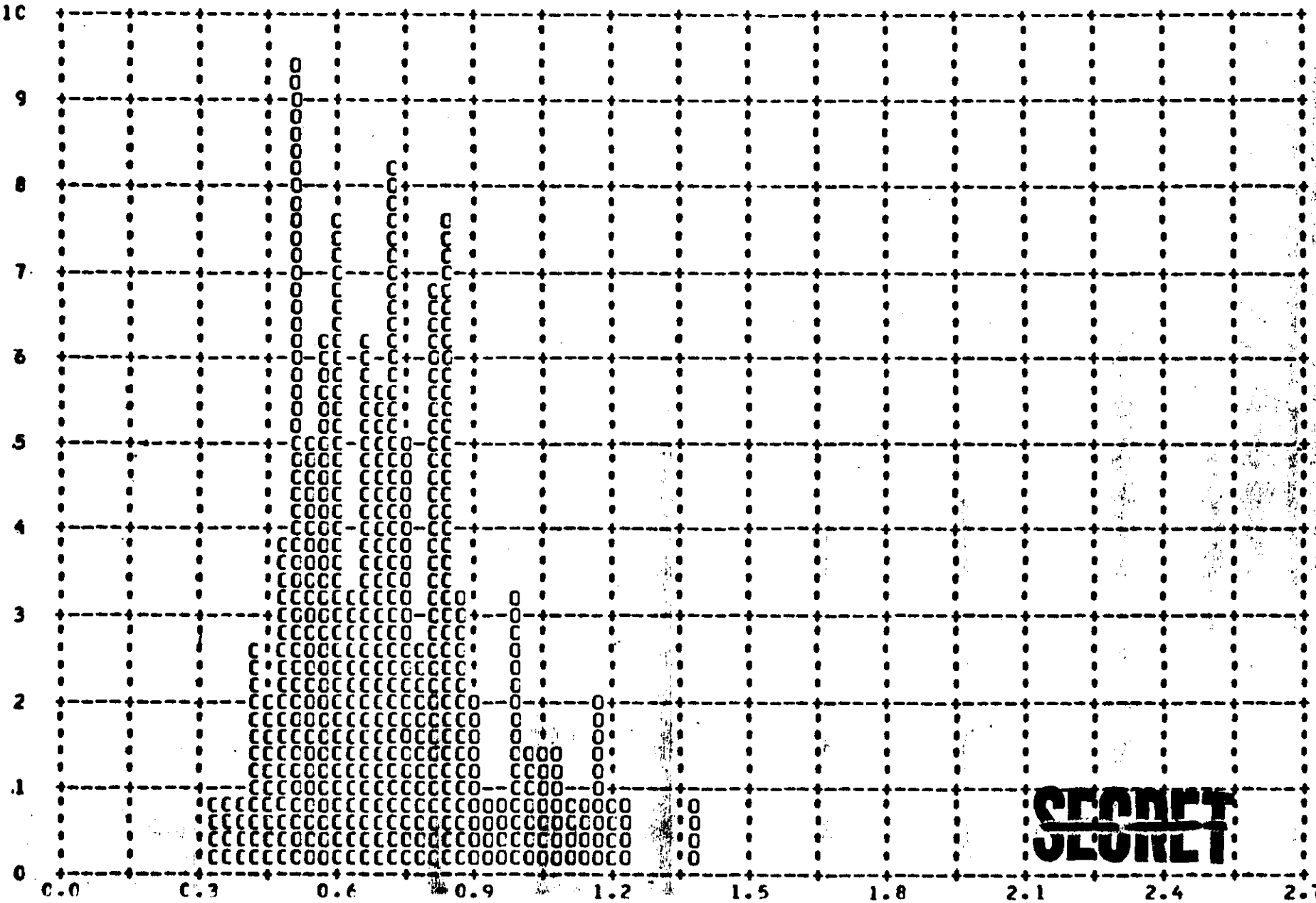
FIGURE 8-15

[redacted]

[redacted]

MISSION • 1CC8-1 • INSTR • AFT • 2-09-64 PLOT OF D MIN • TERRAIN • PROCESSING • FULL

ARITH MEAN • C.7C • MEDIAN • C.68 • STD DEV • 0.20 • RANGE • 0.32 TO 1.37 WITH 162 SAMPLES



SECRET

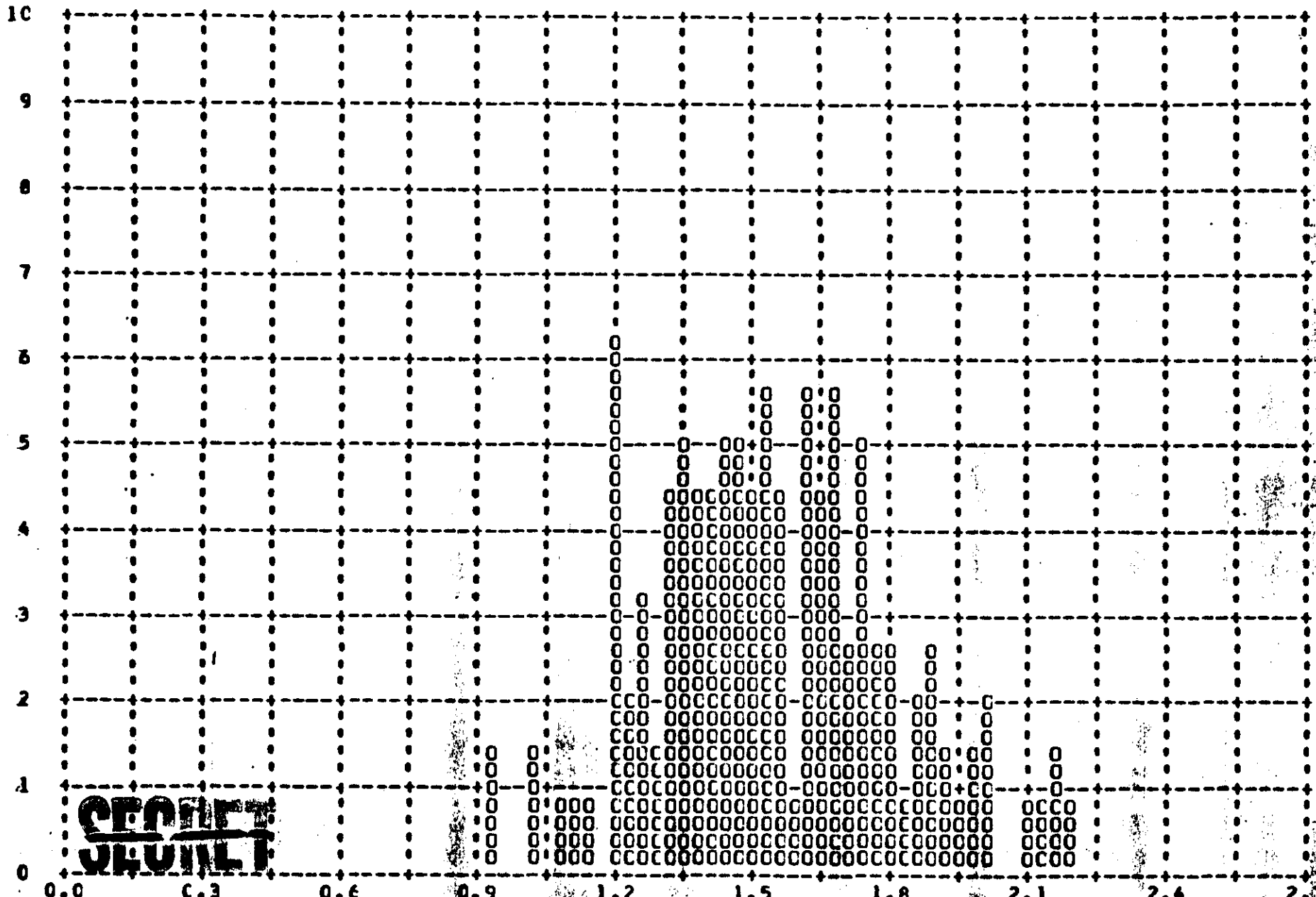
FIGURE 9-16

[redacted]

[redacted]

MISSION • 1CC8-1 • INSTR • AFT • 2-09-64 PLOT OF D MAX • TERRAIN • PROCESSING • FULL

ARITH MEAN • 1.53 • MEDIAN • 1.52 • STD DEV • 0.25 • RANGE • 0.91 TO 2.19 WITH 162 SAMPLES



100

FIGURE 9-17

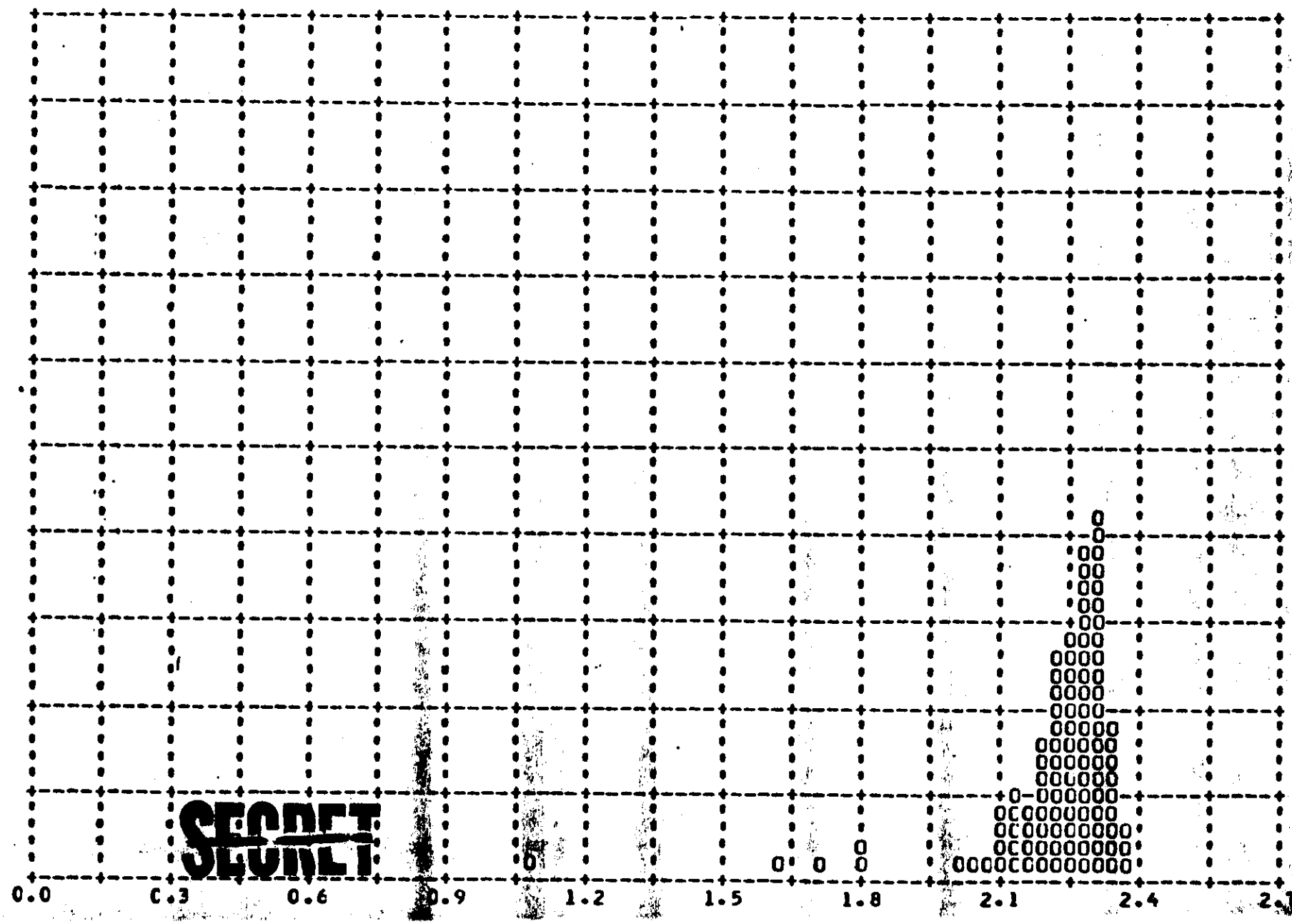
[redacted]

[redacted]

[redacted]

MISSION • 1008-1 • INSTR • AFT • 2-09-64 PLOT OF D MAX • CLOUD • PROCESSING • FULL

ARITH MEAN • 2.22 • MEDIAN • 2.25 • STD DEV • 0.14 • RANGE • 1.08 TO 2.37 WITH 179 SAMPLES



SECRET

FIGURE 8-18

[redacted]

[redacted]

MISSION * 1CC8-1 * INSTR * AFT * 2-09-64 PLOT OF D MIN * TERRAIN * PROCESSING * ALL LEVELS

ARITH MEAN * 0.71 * MEDIAN * 0.69 * STD DEV * 0.21 * RANGE * 0.32 TO 1.57 WITH 244 SAMPLES

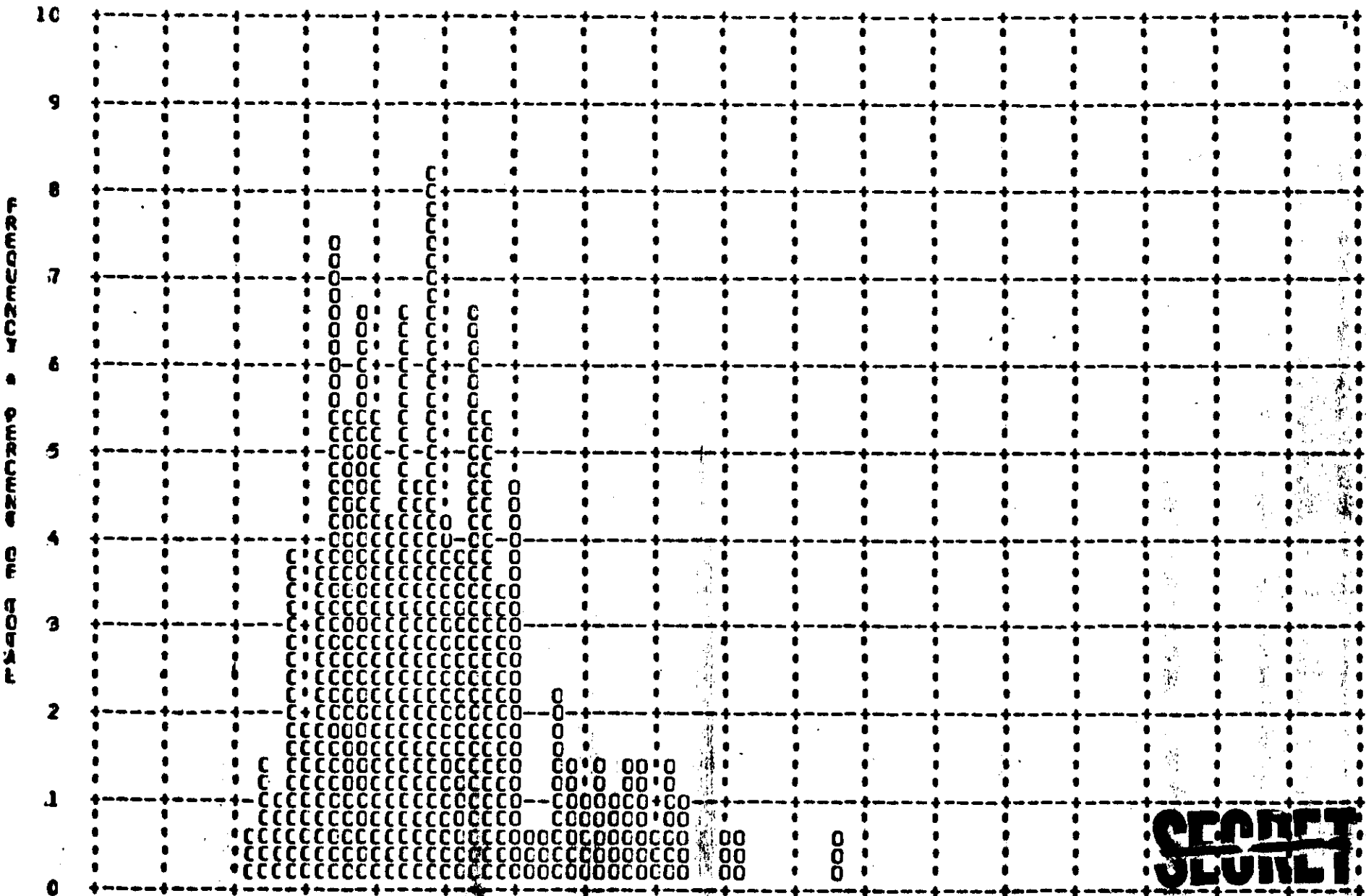


FIGURE 9-19

[redacted]

[redacted]

MISSION • 1008-1 • INSTR • AFT • 2-09-64 PLOT OF D MAX • TERRAIN • PROCESSING • ALL LEVELS

ARITH MEAN • 1.57 • MEDIAN • 1.58 • STD DEV • 0.26 • RANGE • 0.81 TO 2.21 WITH 244 SAMPLES

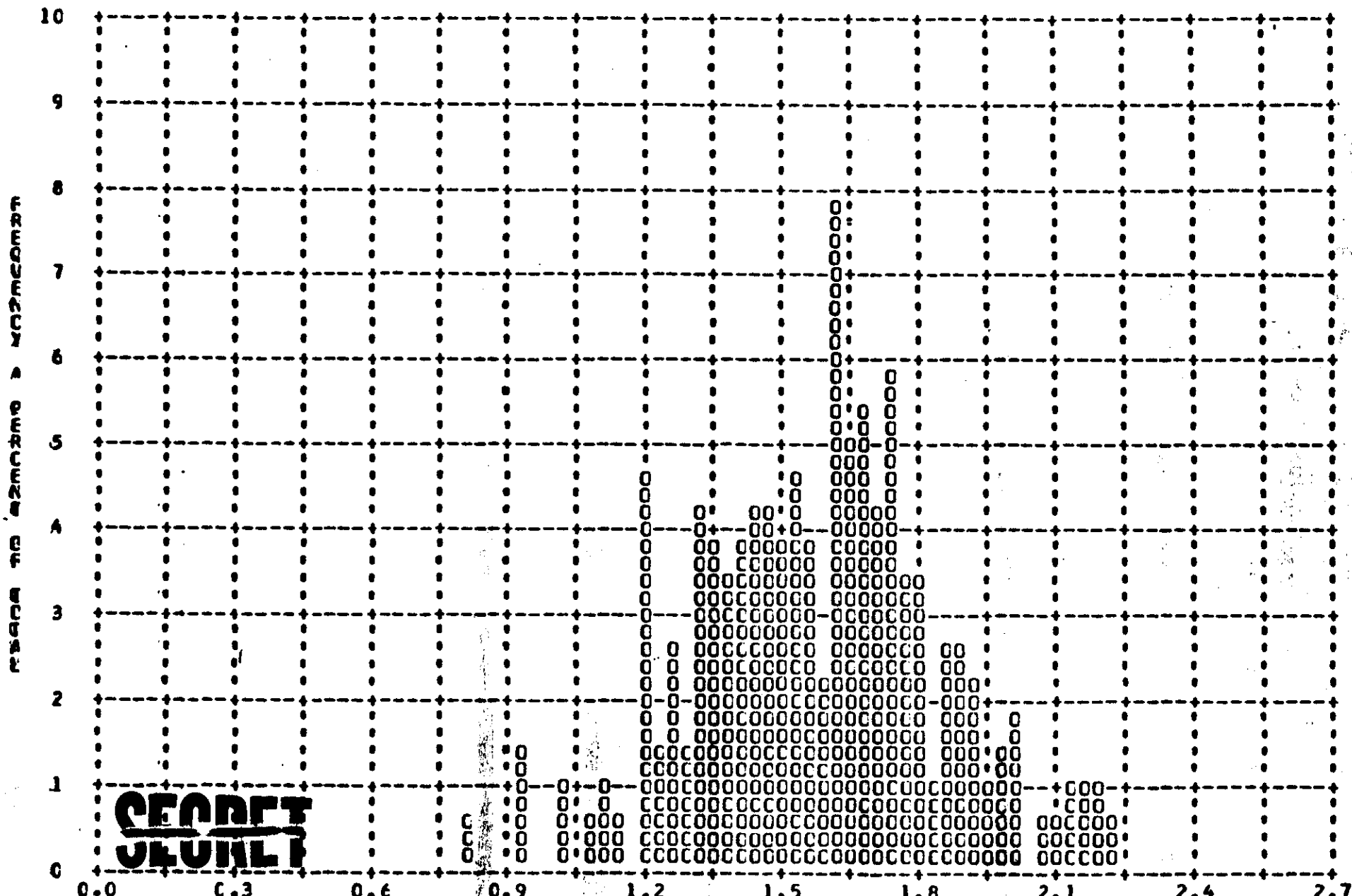
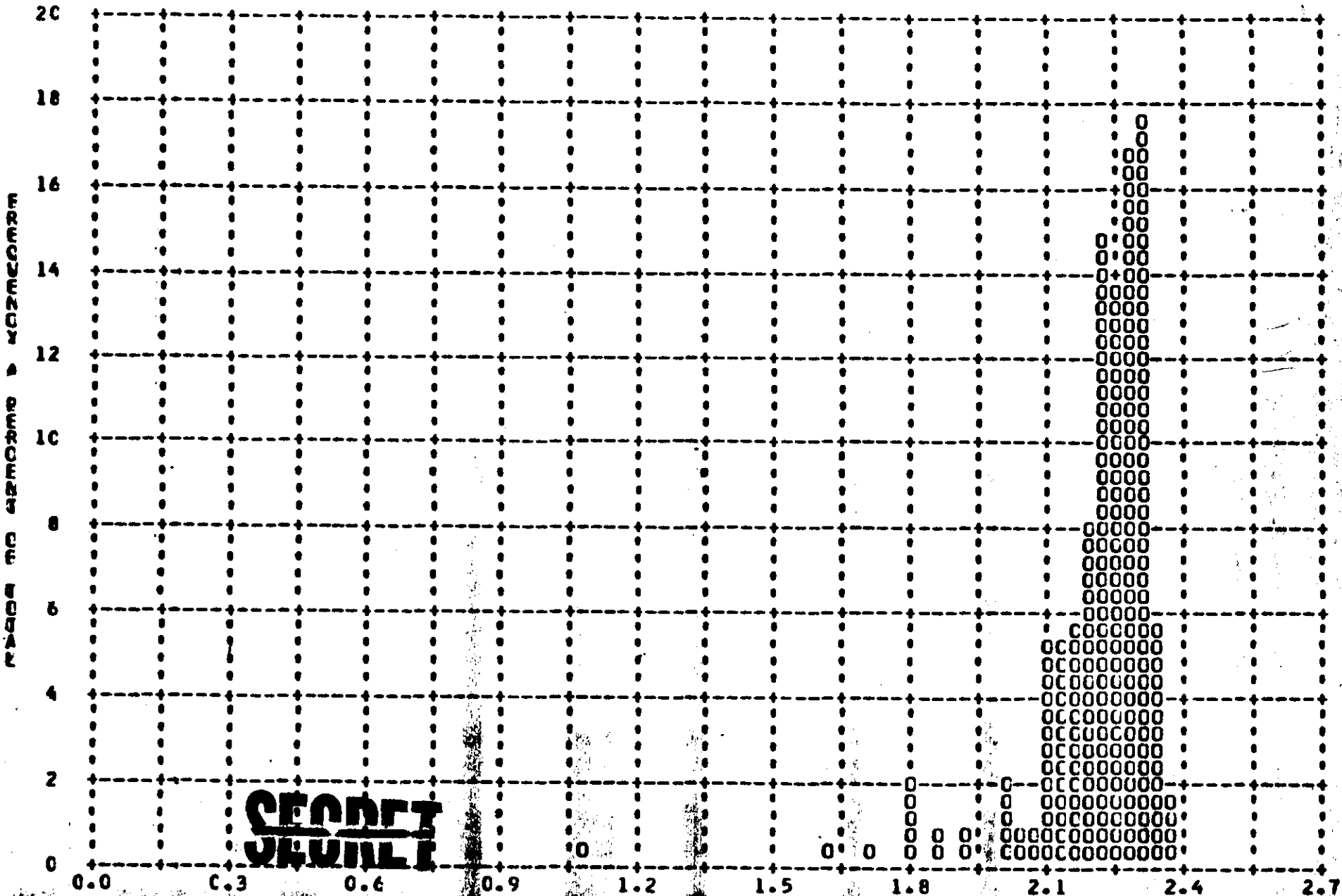


FIGURE 9-20

[redacted]

MISSION • 1008-1 • INSTR • AFT • 2-09-64 PLOT OF D MAX • CLOUD • PROCESSING • ALL LEVELS

ARITH MEAN • 2.21 • MEDIAN • 2.24 • STD DEV • 0.13 • RANGE • 1.08 TO 2.37 WITH 270 SAMPLES



SECRET

FIGURE 9-21

[redacted] [redacted] [redacted]

MISSION • 1008-2 • 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.1C	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	1	0	0	0	0	0	1	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	1	0	0	1	0	0
C.26	C	C	0	C	0	0	0	0	0	0	0	0
C.27	C	C	0	C	0	0	0	0	0	0	0	0
C.28	C	C	0	C	0	0	0	0	0	0	0	0
C.29	C	C	0	C	0	0	0	0	0	0	0	0
C.3C	C	C	0	C	0	0	0	0	0	0	0	0
C.31	C	C	0	C	0	0	0	0	0	0	0	0
C.32	C	C	0	1	0	0	0	0	0	1	0	0
C.33	C	C	0	C	0	0	0	0	0	0	0	0
C.34	C	C	0	C	0	0	0	0	0	0	0	0
C.35	C	C	0	C	0	0	0	0	0	0	0	0
C.36	C	C	0	C	0	0	2	0	0	2	0	0
C.37	C	C	0	1	0	0	2	0	0	3	0	0
C.38	C	C	0	C	0	0	2	0	0	3	0	0
C.39	C	C	0	C	0	0	1	0	0	1	0	0
C.4C	C	C	0	C	0	0	0	0	0	0	0	0
C.41	C	C	0	C	0	0	1	0	0	1	0	0
C.42	C	C	0	C	0	0	1	0	0	1	0	0
C.43	C	C	0	1	0	0	4	0	0	5	0	0
C.44	C	C	0	C	0	0	0	0	0	0	0	0
C.45	C	C	0	2	0	0	0	0	0	2	0	0
C.46	C	C	0	1	0	0	5	0	0	6	0	0
C.47	1	C	0	1	0	0	2	0	0	4	0	0
C.48	C	C	0	1	0	0	3	0	0	4	0	0
C.49	C	C	0	2	0	0	1	0	0	3	0	0
C.5C	C	C	0	C	0	0	5	0	0	5	0	0
SUBTOTAL	1	C	0	12	0	0	27	0	0	40	0	0

[redacted] [redacted] [redacted]

TABLE 9-5

[redacted] [redacted] [redacted]

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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	C	0	0	0	0	0	0	0
C.52	C	C	0	2	C	0	4	0	0	6	0	0
C.53	C	C	0	2	C	0	5	0	0	7	0	0
C.54	C	C	0	C	C	0	2	0	0	2	0	0
C.55	C	C	0	2	C	0	2	0	0	4	0	0
C.56	C	C	0	1	C	0	2	1	0	3	1	0
C.57	C	C	0	C	C	0	3	1	0	3	1	0
C.58	C	C	0	C	C	0	2	1	0	2	1	0
C.59	C	C	0	1	C	0	4	1	0	5	1	0
C.60	C	C	0	1	C	0	2	1	0	3	1	0
C.61	C	C	0	1	C	0	4	1	0	5	1	0
C.62	C	C	0	2	C	0	3	2	0	5	2	0
C.63	C	C	0	1	C	0	2	1	0	3	1	0
C.64	C	C	0	1	C	0	4	1	0	5	1	0
C.65	C	C	0	1	C	0	1	1	0	2	1	0
C.66	C	C	0	C	C	0	4	0	0	4	0	0
C.67	C	C	0	1	C	0	1	1	0	2	1	0
C.68	C	C	0	2	C	0	4	2	0	6	2	0
C.69	C	C	0	2	C	0	2	2	0	4	2	0
C.70	C	C	0	2	C	0	6	2	0	8	2	0
C.71	C	C	0	4	C	0	7	3	0	7	3	0
C.72	C	C	0	4	C	0	6	4	0	10	4	0
C.73	C	C	0	C	C	0	2	0	0	2	0	0
C.74	C	C	0	C	C	0	5	0	0	5	0	0
C.75	C	C	0	2	C	0	3	2	0	5	2	0
C.76	C	C	0	2	C	0	3	2	0	5	2	0
C.77	C	C	0	1	C	0	0	1	0	1	1	0
C.78	C	C	0	1	C	0	6	1	0	7	1	0
C.79	C	C	0	1	C	0	0	1	0	1	1	0
C.80	C	C	0	1	C	0	3	1	0	4	1	0
C.81	C	C	0	1	C	0	1	1	0	2	1	0
C.82	C	C	0	C	C	0	6	0	0	6	0	0
C.83	C	C	0	2	C	0	2	1	0	2	1	0
C.84	C	C	0	2	C	0	4	1	0	6	1	0
C.85	C	C	0	2	C	0	1	1	0	3	1	0
C.86	C	C	0	C	C	0	4	0	0	4	0	0
C.87	C	C	0	1	C	0	0	1	0	1	1	0
C.88	C	C	0	2	C	0	4	2	0	6	2	0
C.89	C	C	0	2	C	0	5	2	0	7	2	0
C.90	C	C	0	C	C	0	2	0	0	2	0	0
C.91	C	C	0	1	C	0	1	1	0	2	1	0
C.92	C	C	0	1	C	0	2	1	0	3	1	0
C.93	C	C	0	1	C	0	1	1	0	2	1	0
C.94	C	C	0	2	C	0	1	2	0	3	2	0
C.95	C	C	0	C	C	0	2	1	0	2	1	0
C.96	C	C	0	C	C	0	2	2	0	2	2	0
C.97	C	C	0	1	C	0	0	2	0	1	2	0
C.98	C	C	0	C	C	0	2	0	0	2	0	0
C.99	C	C	0	C	C	0	5	2	0	5	2	0
1.CO	C	C	0	C	C	0	2	2	0	2	2	0
SUBTOTAL	C	C	0	50	1	0	139	6	0	189	7	0

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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.C1	C	C	0	C	1	0	1	0	0	1	1	0
1.C2	C	C	0	C	0	0	0	1	0	0	1	0
1.C3	C	C	0	C	C	0	0	1	0	0	1	0
1.C4	C	C	0	C	C	0	0	1	0	0	1	0
1.C5	C	C	0	1	C	0	0	1	0	0	2	0
1.C6	C	C	0	2	C	0	0	2	0	0	4	0
1.C7	C	C	0	C	C	0	0	1	0	0	1	0
1.C8	C	C	0	C	C	0	0	1	0	0	1	0
1.C9	C	C	0	C	C	1	0	1	0	0	1	1
1.10	C	C	0	C	1	0	0	2	0	0	2	0
1.11	C	C	0	1	C	0	0	2	0	0	2	0
1.12	C	C	0	C	1	0	0	4	0	0	4	0
1.13	C	C	0	C	C	0	0	4	0	0	4	0
1.14	C	C	0	C	1	0	0	3	0	0	3	0
1.15	C	C	0	C	1	0	0	3	0	0	3	0
1.16	C	C	0	1	C	0	0	3	0	0	3	0
1.17	C	C	0	1	C	0	0	2	0	0	2	0
1.18	C	C	0	1	C	0	0	3	0	0	3	0
1.19	C	C	0	C	1	0	0	1	0	0	1	0
1.2C	C	C	0	1	1	0	0	2	0	0	2	0
1.21	C	C	0	2	1	0	0	2	0	0	2	0
1.22	C	C	0	2	C	0	0	2	0	0	2	0
1.23	C	C	0	C	1	0	0	1	0	0	1	0
1.24	C	C	0	C	1	0	0	2	0	0	3	0
1.25	C	C	0	1	C	0	0	4	0	0	5	0
1.26	C	C	0	1	C	0	0	3	0	0	3	0
1.27	C	C	0	C	C	0	0	1	0	0	1	0
1.28	C	C	0	C	C	0	0	3	0	0	3	0
1.29	C	C	0	C	C	0	0	2	0	0	2	0
1.30	C	C	0	C	C	0	0	1	0	0	1	0
1.31	C	C	0	C	C	0	0	2	0	0	2	0
1.32	C	C	0	C	C	0	0	1	0	0	1	0
1.33	C	C	0	C	C	0	0	2	0	0	2	0
1.34	C	C	0	C	C	0	0	1	0	0	1	0
1.35	C	C	0	C	C	0	0	2	0	0	2	0
1.36	C	C	0	C	C	0	0	3	0	0	3	0
1.37	C	C	0	C	1	0	0	3	0	0	4	0
1.38	C	C	0	C	C	0	0	4	0	0	4	0
1.39	C	C	0	C	C	0	0	1	0	0	1	0
1.4C	C	C	0	C	3	0	0	8	0	0	11	0
1.41	C	C	0	C	C	0	0	6	0	0	6	0
1.42	C	C	0	C	C	0	0	1	0	0	1	0
1.43	C	C	0	C	C	0	0	4	0	0	5	0
1.44	C	C	0	C	1	0	0	1	0	0	1	0
1.45	C	C	0	C	C	0	0	6	0	0	6	0
1.46	C	C	0	C	C	0	0	2	0	0	2	0
1.47	C	C	0	C	C	0	0	4	0	0	4	0
1.48	C	C	0	C	C	0	0	4	0	0	4	0
1.49	C	C	0	C	C	0	0	7	0	0	9	0
1.5C	C	C	0	C	2	0	0	7	0	0	9	0
SUBTOTAL	C	C	0	9	19	3	29	92	1	38	111	4

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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	0	0	0	3	0	0	3	0
1.52	0	0	0	0	2	1	0	2	0	0	4	1
1.53	0	0	0	0	0	1	0	0	0	0	5	1
1.54	0	0	0	0	1	0	0	0	0	0	4	0
1.55	0	0	1	0	2	0	0	0	0	0	3	0
1.56	0	0	0	0	1	0	0	0	0	0	5	0
1.57	0	0	0	0	0	0	0	0	1	0	1	0
1.58	0	0	0	0	5	0	0	0	1	0	11	0
1.59	0	0	0	0	1	0	0	0	0	0	5	0
1.60	0	0	0	0	0	0	0	1	0	0	5	0
1.61	0	0	0	0	1	0	0	0	0	0	4	0
1.62	0	0	0	0	1	0	0	0	1	0	5	1
1.63	0	0	0	0	1	0	0	0	0	0	4	0
1.64	0	0	0	0	3	0	0	0	1	0	10	1
1.65	0	0	0	0	1	0	0	0	0	0	4	0
1.66	0	0	0	0	1	0	0	0	1	0	5	1
1.67	0	0	0	0	0	0	0	0	0	0	3	0
1.68	0	0	0	0	2	0	0	0	0	0	3	0
1.69	0	0	0	0	0	0	0	0	0	0	4	0
1.70	0	0	0	0	1	0	0	0	0	0	4	0
1.71	0	0	0	0	2	0	0	0	0	0	3	0
1.72	0	0	0	0	0	0	0	0	1	0	3	1
1.73	0	0	0	0	2	0	0	0	1	0	3	1
1.74	0	0	0	0	2	0	0	0	0	0	4	0
1.75	0	0	0	0	0	0	0	0	0	0	4	0
1.76	0	0	0	0	2	0	0	0	0	0	2	0
1.77	0	0	0	0	0	0	0	0	0	0	3	0
1.78	0	0	0	0	1	0	0	0	0	0	3	0
1.79	0	0	0	0	0	0	0	0	1	0	3	1
1.80	0	0	0	0	1	0	0	0	2	0	3	2
1.81	0	0	0	0	0	0	0	0	1	0	2	1
1.82	0	0	0	0	3	0	0	0	1	0	5	1
1.83	0	0	0	0	2	0	0	0	0	0	3	0
1.84	0	0	0	0	2	0	0	0	1	0	3	1
1.85	0	0	0	0	1	0	0	0	0	0	2	0
1.86	0	0	0	0	3	0	0	0	0	0	3	0
1.87	0	0	0	0	0	0	0	0	1	0	1	1
1.88	0	0	0	0	2	0	0	0	1	0	3	1
1.89	0	0	0	0	1	0	0	0	1	0	2	1
1.90	0	0	0	0	1	0	0	0	0	0	4	0
1.91	0	0	0	0	0	0	0	0	0	0	3	0
1.92	0	0	0	0	2	0	0	0	0	0	1	0
1.93	0	0	0	0	1	0	0	0	0	0	1	0
1.94	0	0	0	0	0	0	0	0	0	0	1	0
1.95	0	0	0	0	0	0	0	0	1	0	1	1
1.96	0	0	0	0	0	0	0	0	0	0	2	0
1.97	0	0	0	0	0	0	0	0	1	0	2	1
1.98	0	0	0	0	0	0	0	0	0	0	1	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	1	0	2	1
SUBTOTAL	0	1	0	2	52	5	1	92	15	3	145	20

[redacted] [redacted] [redacted]

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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	1	1	0	1	1
2.02	0	0	0	0	1	0	0	1	1	0	2	1
2.03	0	0	0	0	0	0	0	1	0	0	2	0
2.04	0	0	0	0	0	2	0	0	2	0	0	4
2.05	0	0	0	0	0	0	0	0	1	0	0	1
2.06	0	0	0	0	0	2	0	0	1	0	0	3
2.07	0	0	0	0	0	0	0	0	3	0	0	3
2.08	0	0	0	0	0	2	0	0	1	0	1	3
2.09	0	0	0	0	0	2	0	0	2	0	1	2
2.10	0	0	0	0	0	2	0	0	1	0	1	3
2.11	0	0	0	0	0	2	0	0	1	0	1	2
2.12	0	0	0	0	0	2	0	0	2	0	0	4
2.13	0	0	0	0	0	3	0	0	1	0	0	4
2.14	0	0	0	0	0	2	0	0	1	0	0	2
2.15	0	0	0	0	0	1	0	0	2	0	0	2
2.16	0	0	0	0	0	2	0	0	2	0	0	4
2.17	0	0	0	0	0	0	0	0	2	0	0	2
2.18	0	0	0	0	0	5	0	0	4	0	0	9
2.19	0	0	0	0	0	3	0	0	6	0	0	9
2.20	0	0	0	0	0	5	0	0	6	0	0	11
2.21	0	0	0	0	0	1	0	0	1	0	0	12
2.22	0	0	0	0	0	11	0	0	7	0	0	18
2.23	0	0	0	0	0	3	0	0	4	0	0	7
2.24	0	0	0	0	0	4	0	0	12	0	0	16
2.25	0	0	0	0	0	3	0	0	8	0	0	11
2.26	0	0	0	0	0	10	0	0	10	0	0	20
2.27	0	0	0	0	0	2	0	0	9	0	0	11
2.28	0	0	0	0	0	3	0	0	17	0	0	20
2.29	0	0	0	0	0	1	0	0	12	0	0	13
2.30	0	0	0	0	0	4	0	0	15	0	0	19
2.31	0	0	0	0	0	0	0	0	15	0	0	15
2.32	0	0	0	0	0	0	0	0	16	0	0	16
2.33	0	0	0	0	0	2	0	0	8	0	0	10
2.34	0	0	0	0	0	0	0	0	5	0	0	5
2.35	0	0	0	0	0	0	0	0	4	0	0	4
2.36	0	0	0	0	0	0	0	0	4	0	0	4
2.37	0	0	0	0	0	0	0	0	1	0	0	1
2.38	0	0	0	0	0	0	0	0	2	0	0	2
2.39	0	0	0	0	0	0	0	0	0	0	0	0
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	0	0	1	79	0	6	185	0	7	264

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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
2.51	C	C	0	C	0	0	0	0	0	0	0	0
2.52	C	C	0	C	0	0	0	0	0	0	0	0
2.53	C	C	0	C	0	0	0	0	0	0	0	0
2.54	C	C	0	C	0	0	0	0	0	0	0	0
2.55	C	C	0	C	0	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	0	0	0	0	0	0	0	0
TOTAL	1	1	0	73	73	87	196	196	201	270	270	288

MISSION 1008-2 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	1	C PC	0 PC	1CO PC	0 PC	0 P
INTERMEDIATE	73	1 PC	4 PC	71 PC	21 PC	3 P
FULL	196	3 PC	0 PC	73 PC	24 PC	0 P
ALL LEVELS	27C	2 PC	1 PC	73 PC	23 PC	2 P

PROCESS LEVEL	BASE + FOG	UNDER EXPOSED	UNDER PROCESSED	CORRECT EXP+PROC	OVER PROCESSED	OVE EXPOSE
PRIMARY	0.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	0.18 AND UP	C.01-C.3S	----------	0.40-0.90	0.91-1.69	1.70 AND

[redacted]

[redacted] [redacted]

MISSION • 1CC8-2 • INSTR • FWD • 2-09-64 PLOT OF D MIN • TERRAIN • PROCESSING • PRIMARY

ARITH MEAN • C.47 • MEDIAN • C.47 • STD DEV • 0.00 • RANGE • 0.47 TO 0.47 WITH 1 SAMPLES

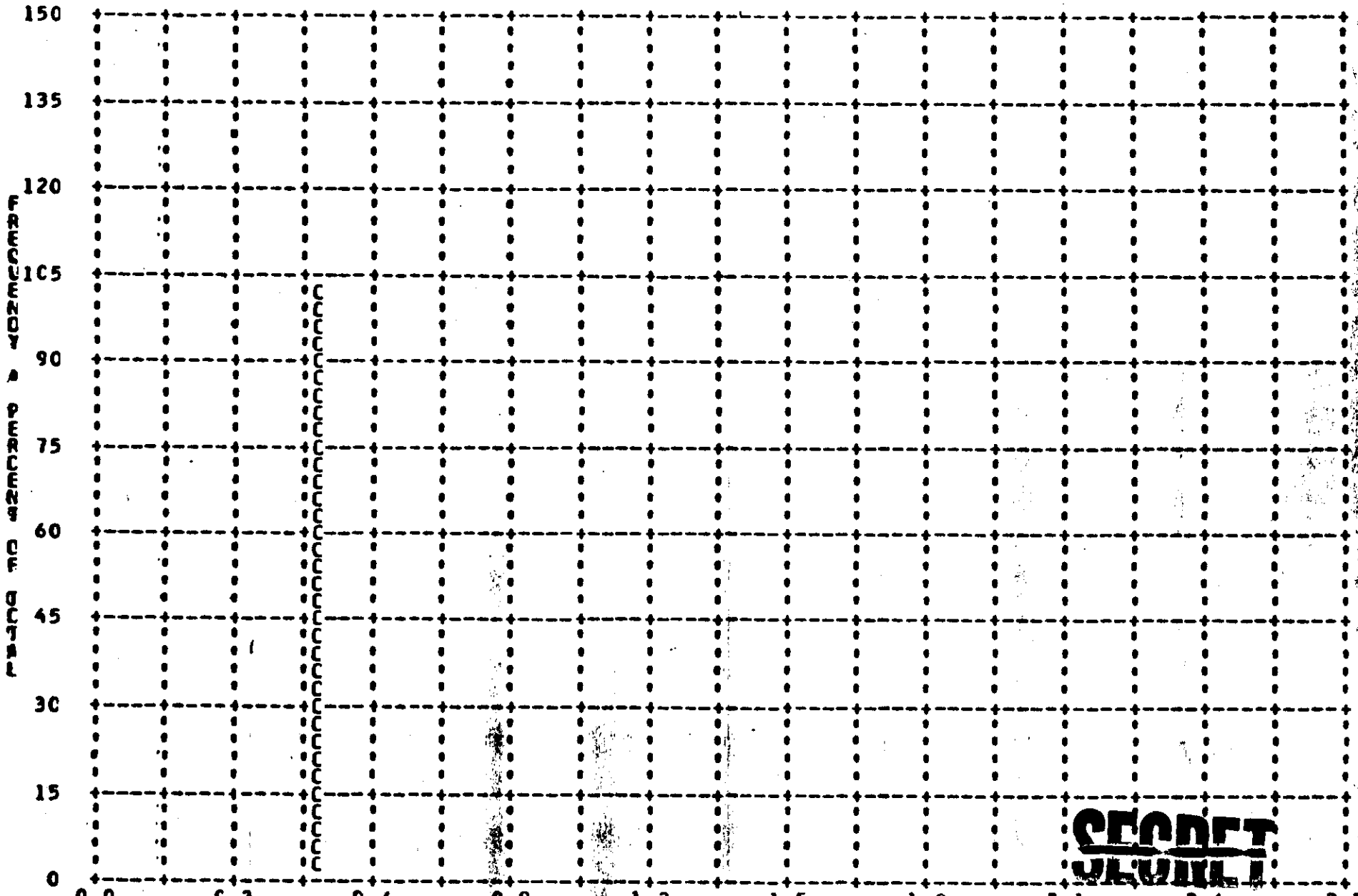


FIGURE 9-22

[redacted]

[redacted]

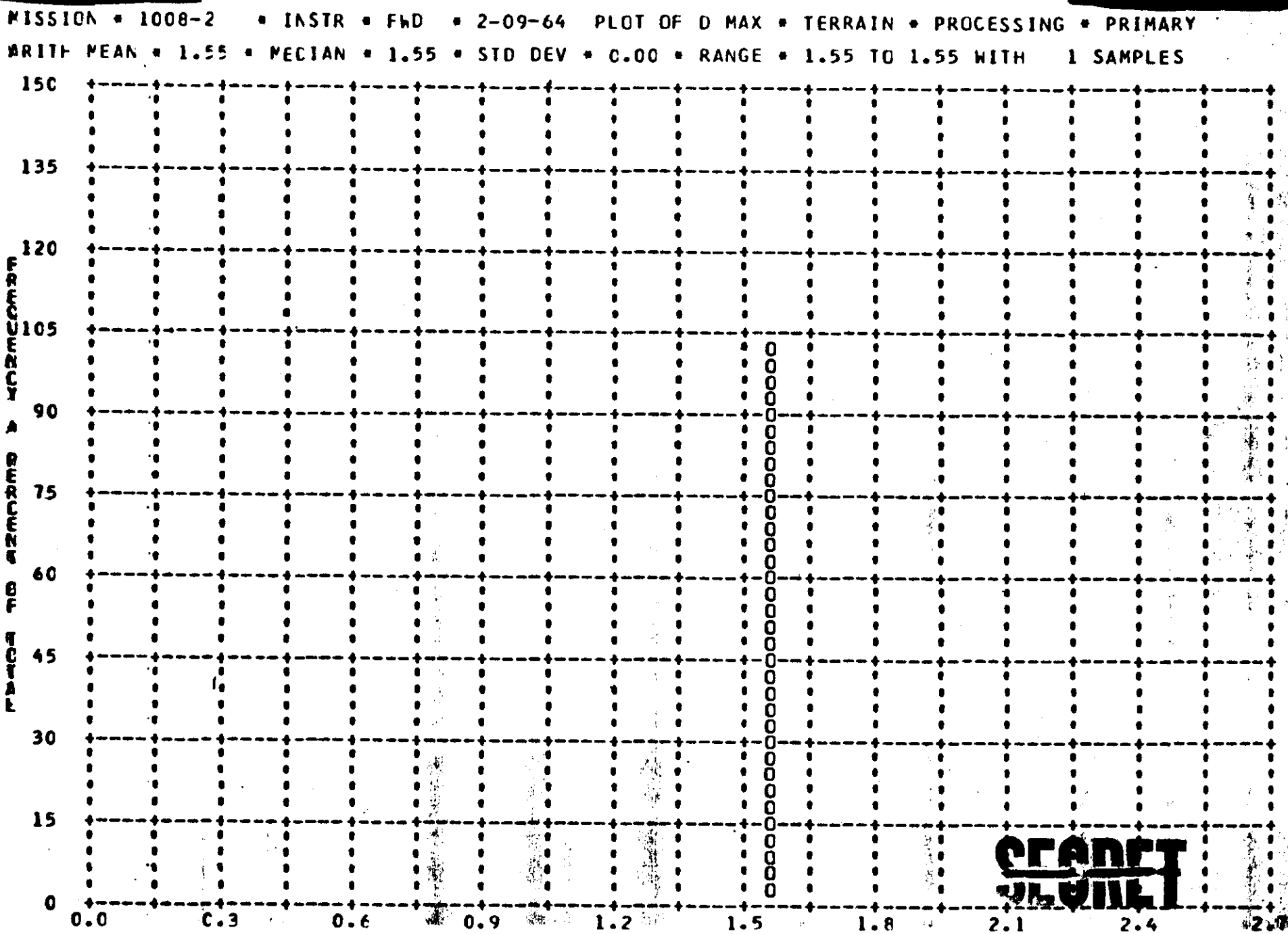


FIGURE 9-23

[redacted]

SECRET

[redacted]

MISSION * ICC8-2 * INSTR * FWD * 2-09-64 PLOT OF D MAX * CLOUD * PROCESSING * PRIMARY

ARITH MEAN * C.CC * MEDIAN * C.CO * STD DEV * 0.00 * RANGE * 2.70 TO 0.00 WITH 0 SAMPLES

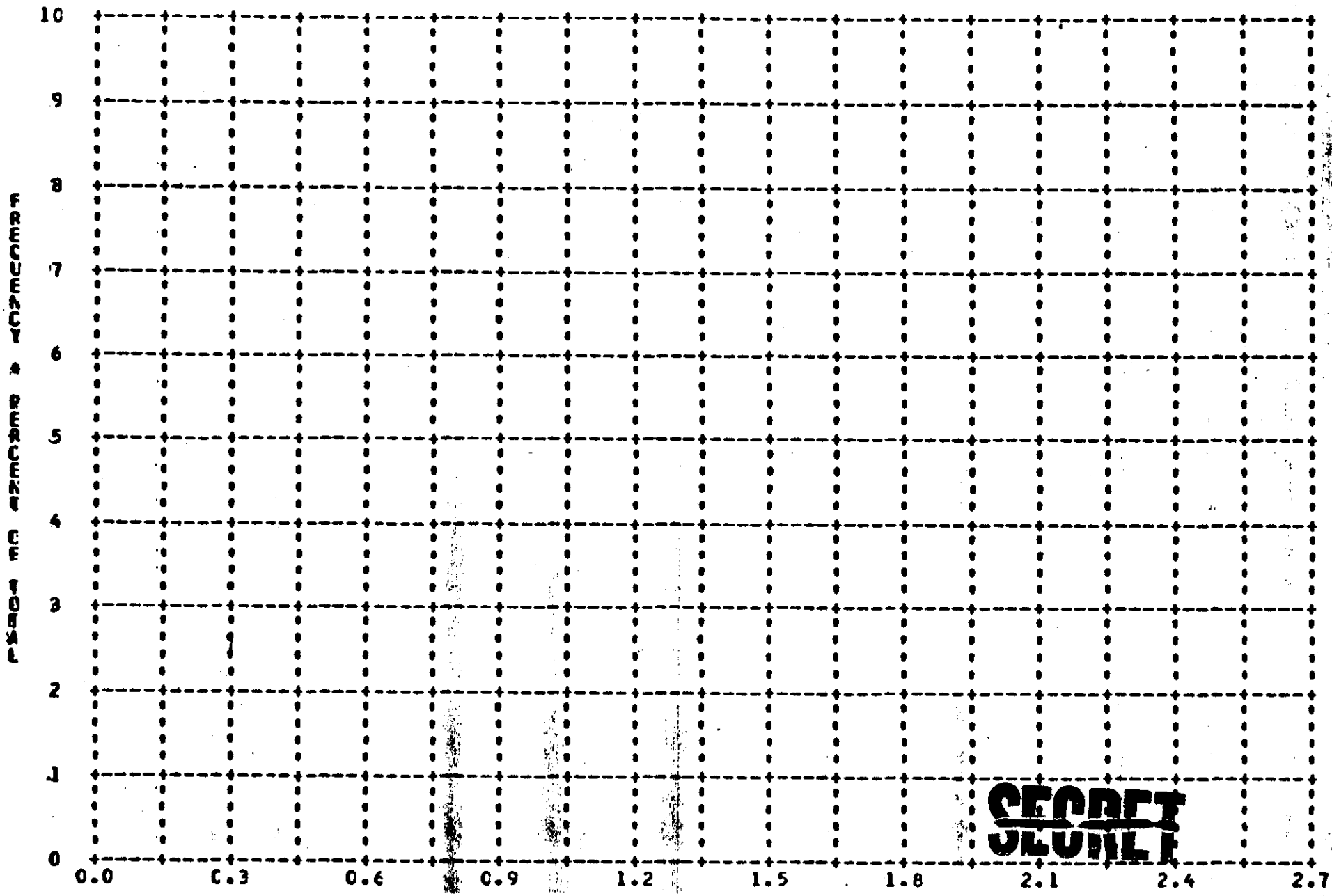


FIGURE 9-24

[redacted] [redacted]

MISSION • 1008-2 • INSTR • FWD • 2-09-64 PLOT OF D MIN • TERRAIN • PROCESSING • INTERMEDIATE

ARITH MEAN • 0.76 • MEDIAN • 0.72 • STD DEV • 0.29 • RANGE • 0.14 TO 1.81 WITH 73 SAMPLES

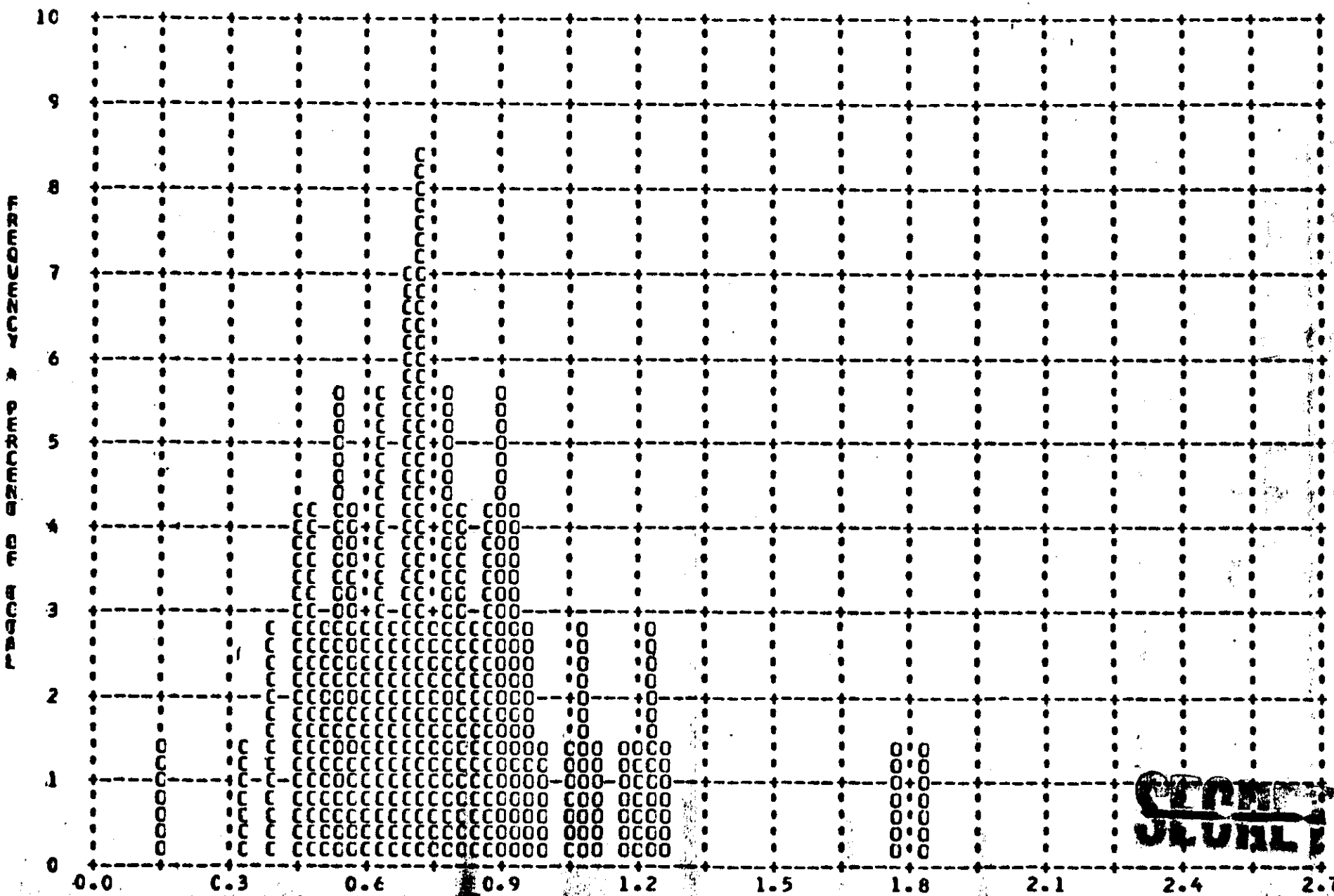


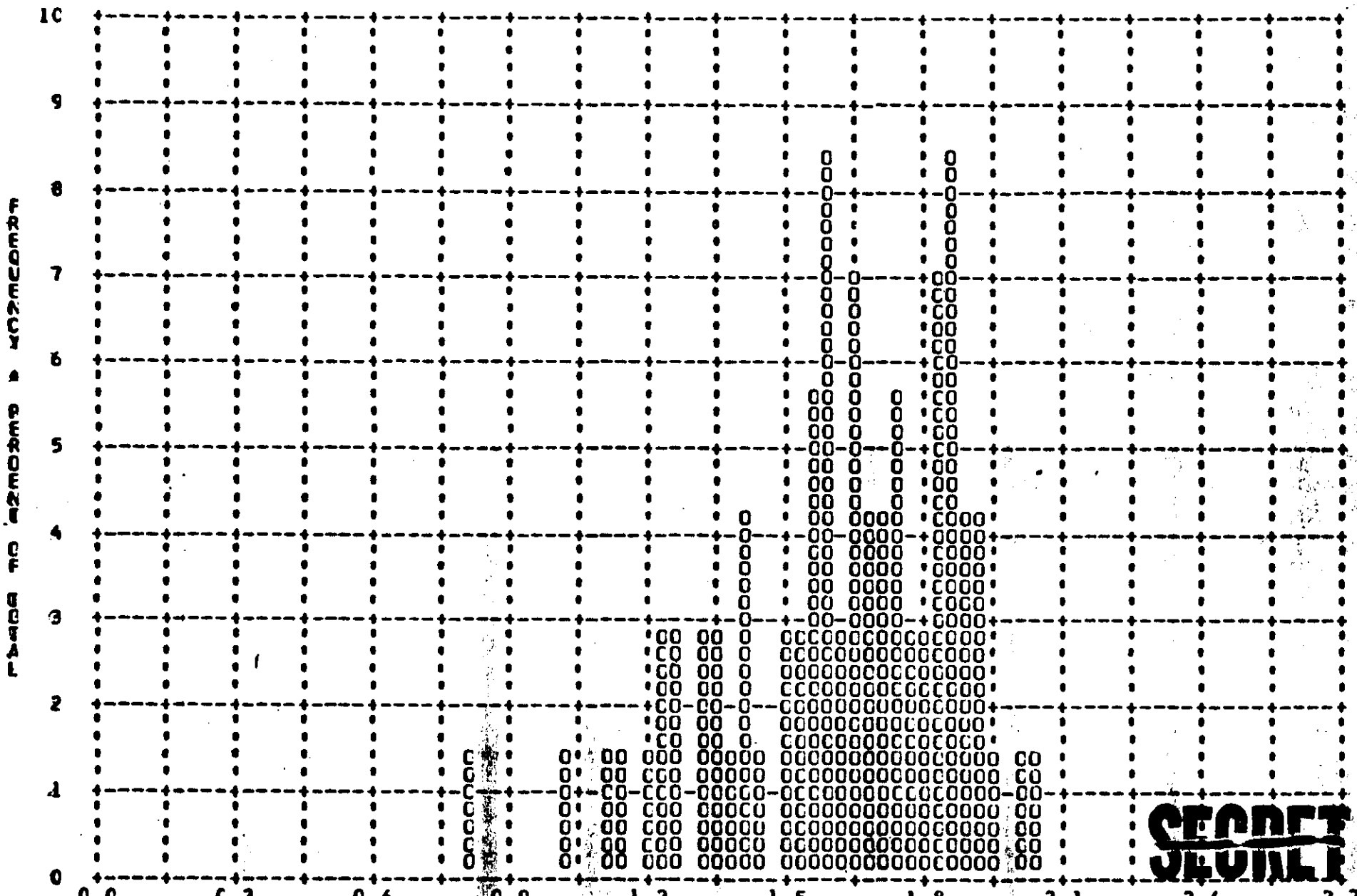
FIGURE 8-25

[redacted]

[redacted]

MISSION • 1008-2 • INSTR • FWD • 2-09-64 PLOT OF D MAX • TERRAIN • PROCESSING • INTERMEDIATE

ARITH MEAN • 1.61 • MEDIAN • 1.64 • STD DEV • 0.25 • RANGE • 0.80 TO 2.02 WITH 73 SAMPLES



[redacted]

115

FIGURE 6-26

[redacted]

[redacted]

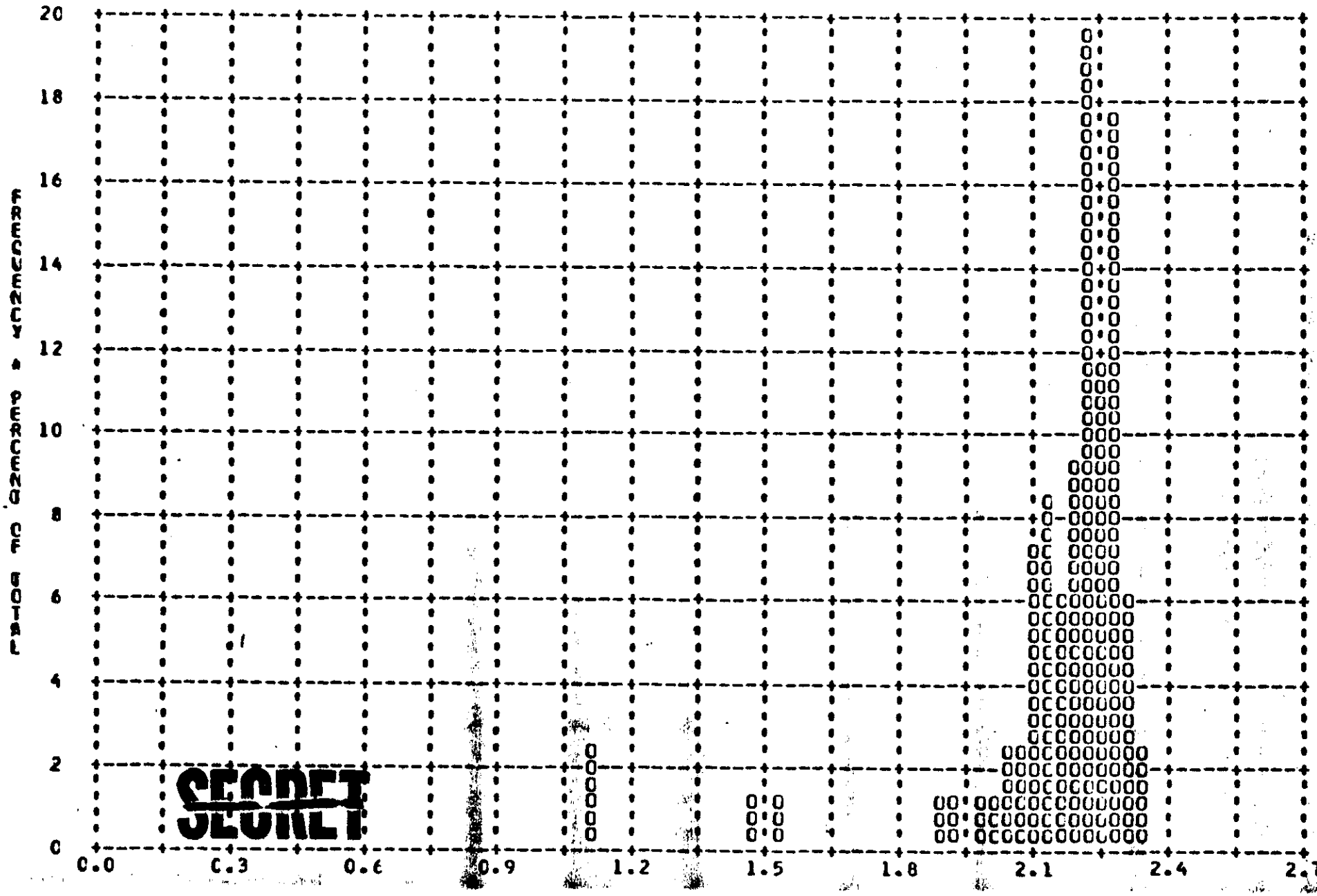


FIGURE 9-27

[redacted] [redacted]

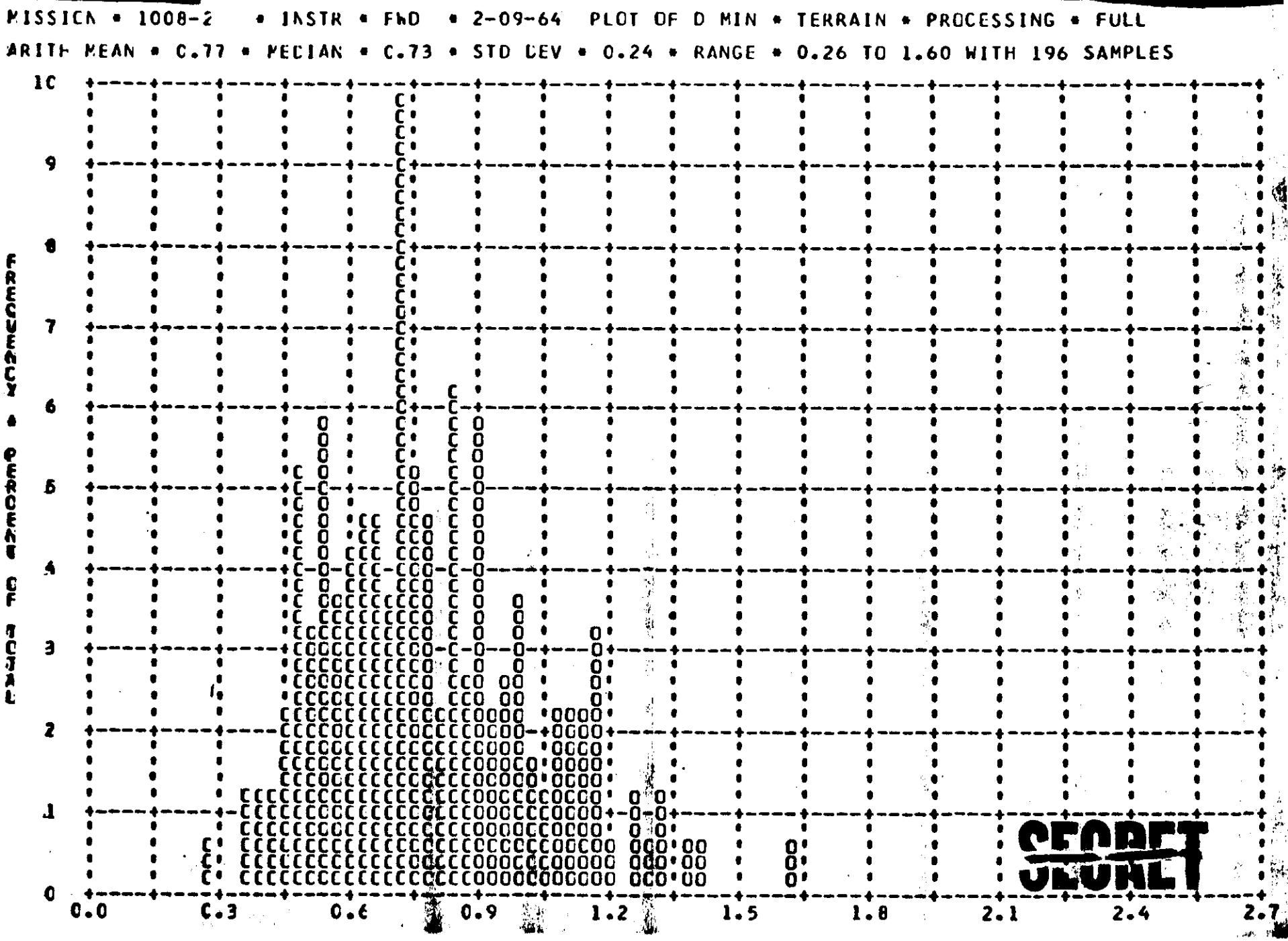


FIGURE 9-28

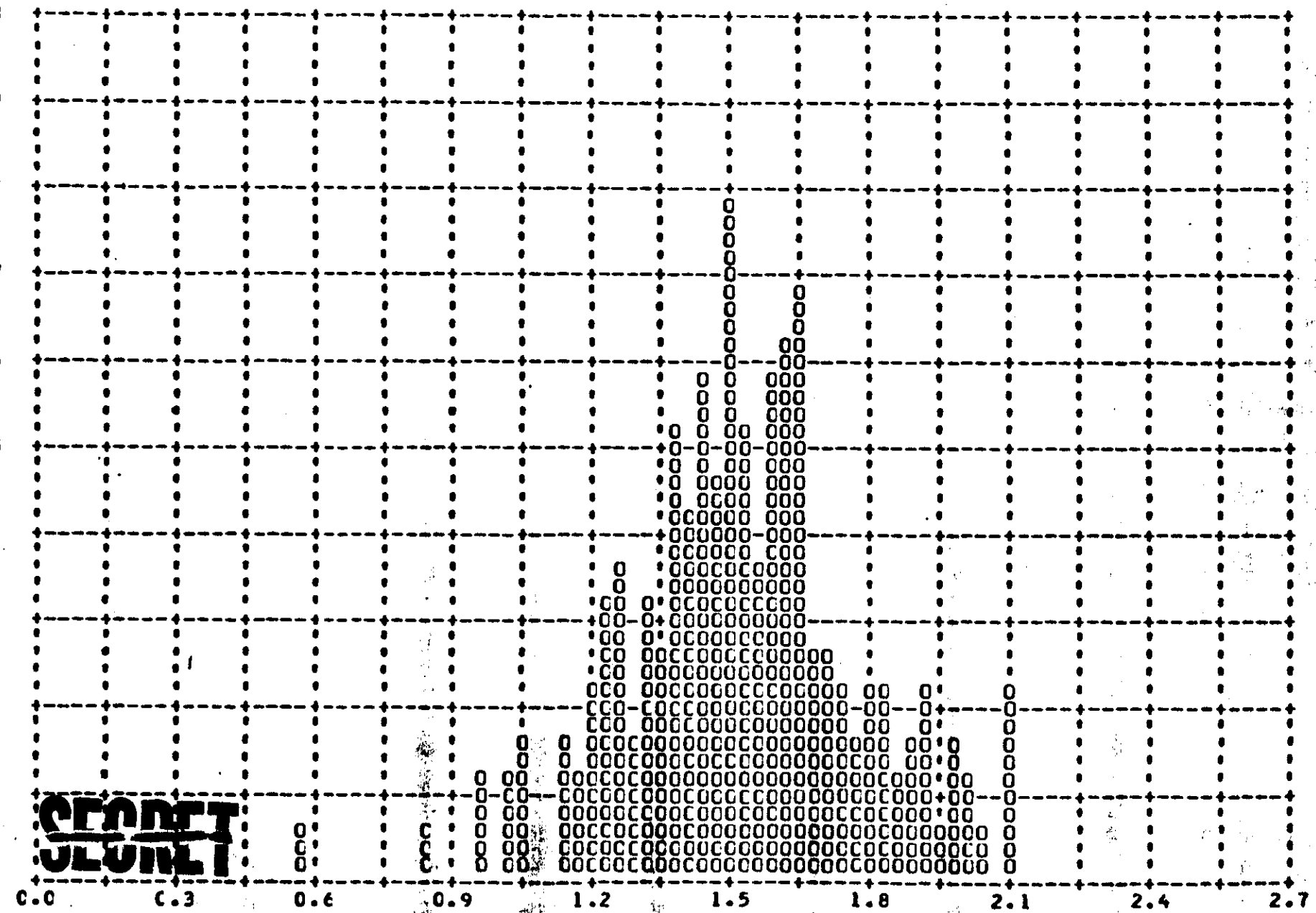
[redacted]

SECRET

[redacted]

MISSION • 1008-2 • INSTR • FWD • 2-09-64 PLOT OF D MAX • TERRAIN • PROCESSING • FULL

ARITH MEAN • 1.51 • MEDIAN • 1.51 • STD DEV • 0.25 • RANGE • 0.57 TO 2.10 WITH 196 SAMPLES



SECRET

FIGURE 9-29

[redacted]

[redacted]

MISSION * 1008-2 * INSTR * FWD * 2-09-64 PLOT OF D MAX * CLOUD * PROCESSING * FULL

ARITH MEAN * 2.23 * MEDIAN * 2.27 * STD DEV * 0.15 * RANGE * 1.30 TO 2.40 WITH 201 SAMPLES

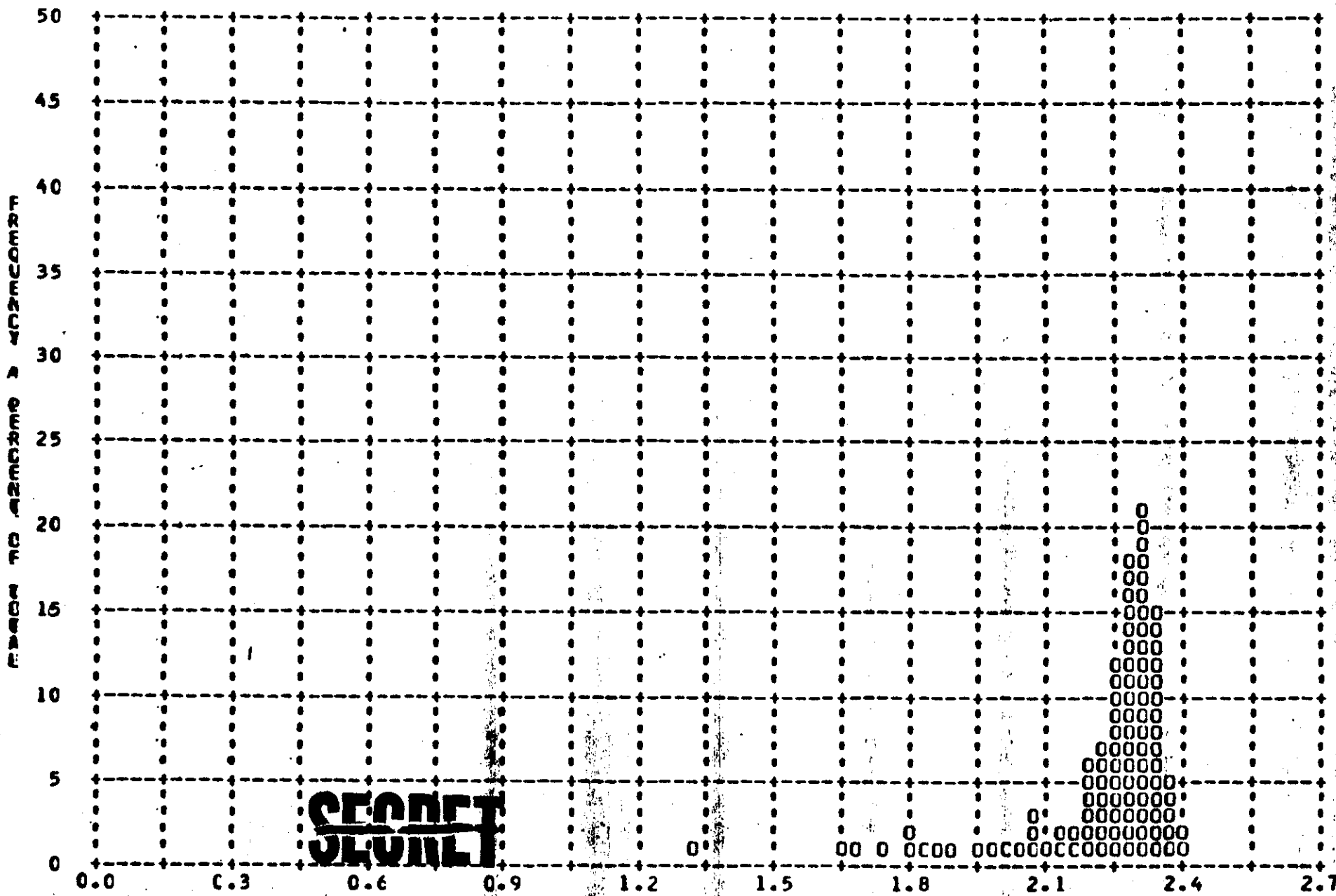


FIGURE 9-30

[redacted]

[redacted]

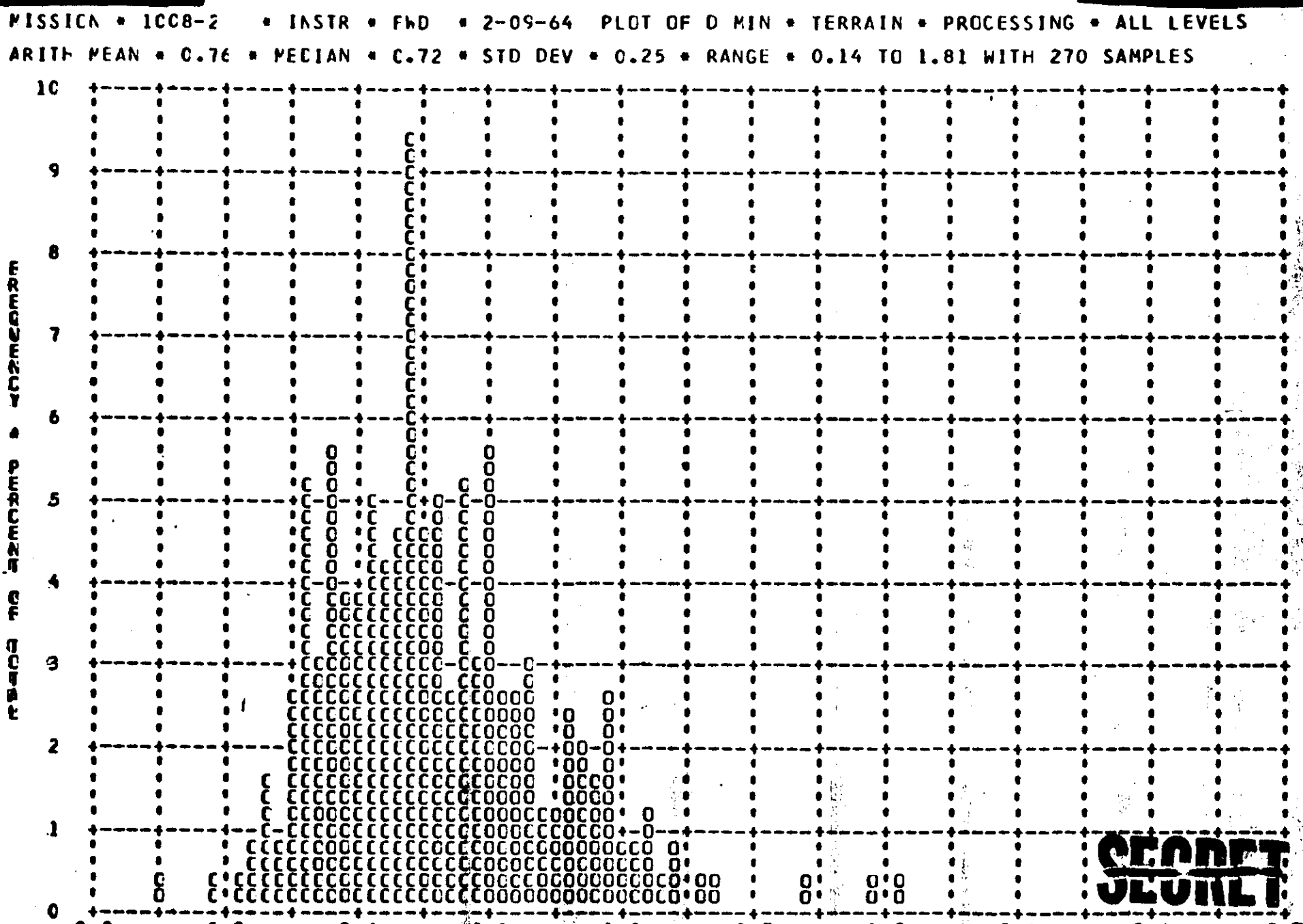


FIGURE 9-31

[redacted]

[redacted]

MISSION • 1008-2 • INSTR • FWD • 2-09-64 PLOT OF D MAX • TERRAIN • PROCESSING • ALL LEVELS

ARITH MEAN • 1.54 • MEDIAN • 1.55 • STD DEV • 0.25 • RANGE • 0.57 TO 2.10 WITH 270 SAMPLES

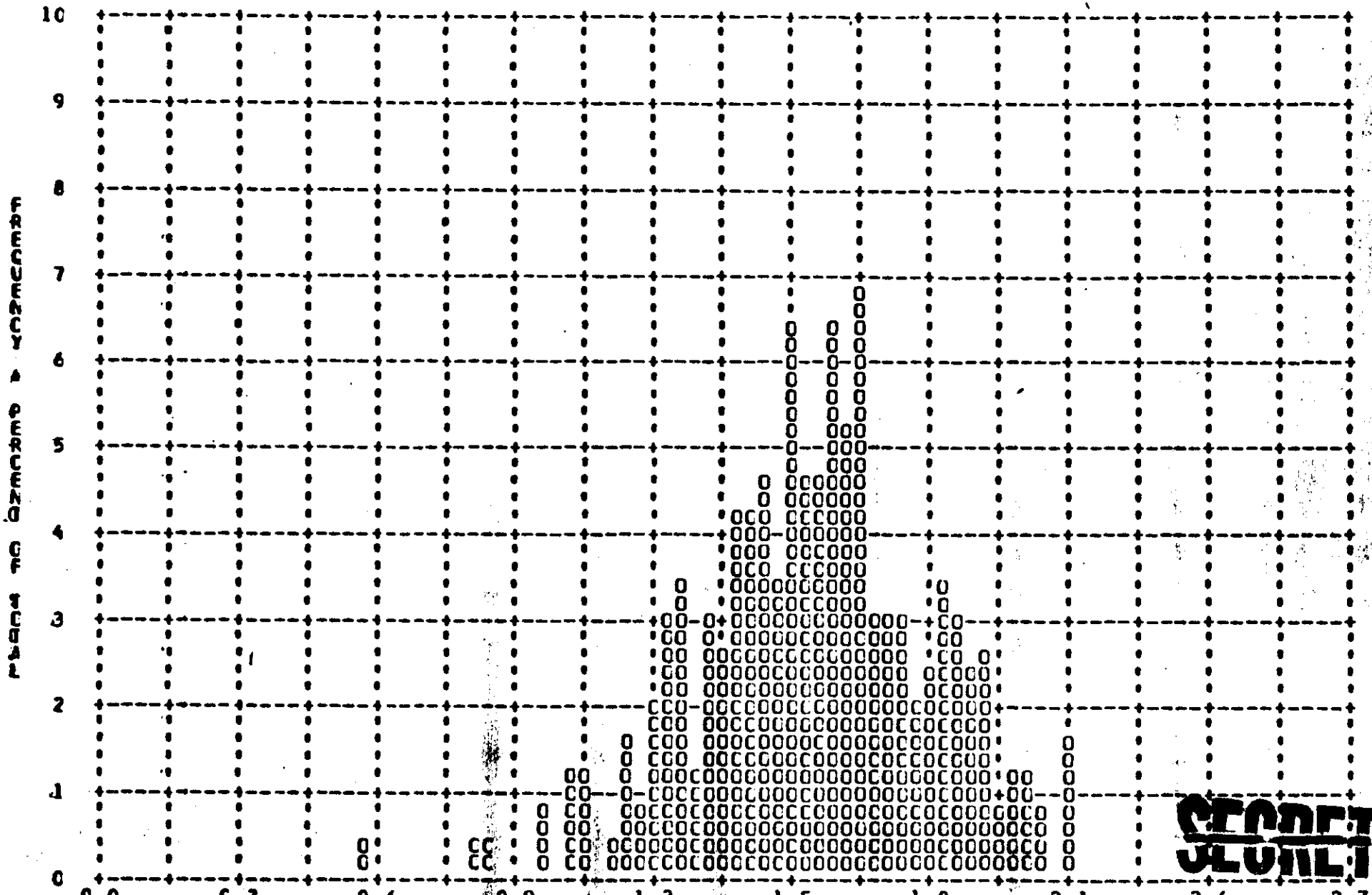


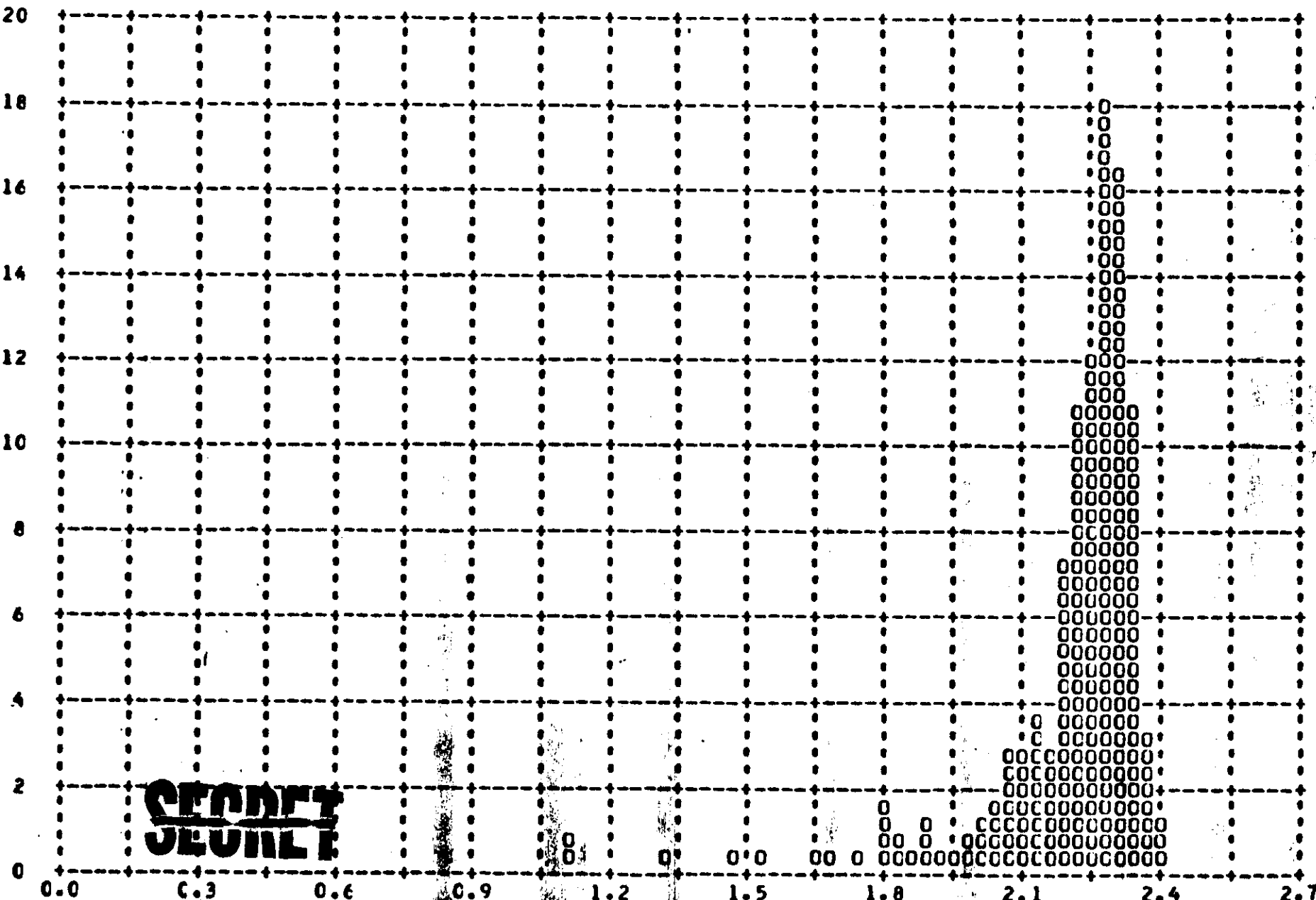
FIGURE 9-32

[redacted]

[redacted]

MISSION • 1008-2 • INSTR • FWD • 2-09-64 PLOT OF D MAX • CLOUD • PROCESSING • ALL LEVELS

ARITH MEAN • 2.20 • MEDIAN • 2.25 • STD DEV • 0.18 • RANGE • 1.09 TO 2.40 WITH 288 SAMPLES



SECRET

FIGURE 9-33

[redacted] [redacted] [redacted]

MISSION • 1008-2 • 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.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	0	0	0
C.26	C	C	0	C	0	0	0	0	0	0	0	0
C.27	C	C	0	C	0	0	0	0	0	0	0	0
C.28	C	C	0	C	0	0	0	0	0	0	0	0
C.29	C	C	0	C	0	0	0	0	0	0	0	0
C.30	C	C	0	C	0	0	0	0	0	0	0	0
C.31	C	C	0	C	0	0	0	0	0	0	0	0
C.32	C	C	0	C	0	0	0	0	0	2	0	0
C.33	C	C	0	C	0	0	0	0	0	0	0	0
C.34	C	C	0	C	0	0	0	0	0	0	0	0
C.35	C	C	0	1	0	0	0	0	0	1	0	0
C.36	C	C	0	2	0	0	0	0	0	2	0	0
C.37	C	C	0	2	0	0	0	0	0	2	0	0
C.38	C	C	0	C	0	0	2	0	0	2	0	0
C.39	C	C	0	C	0	0	0	0	0	0	0	0
C.40	C	C	0	C	0	0	0	0	0	0	0	0
C.41	C	C	0	C	0	0	4	0	0	4	0	0
C.42	C	C	0	C	0	0	2	0	0	2	0	0
C.43	C	C	0	C	0	0	1	0	0	1	0	0
C.44	C	C	0	1	0	0	4	0	0	5	0	0
C.45	C	C	0	1	0	0	1	0	0	2	0	0
C.46	C	C	0	C	0	0	2	0	0	4	0	0
C.47	C	C	0	C	0	0	3	0	0	3	0	0
C.48	C	C	0	C	0	0	1	0	0	1	0	0
C.49	C	C	0	1	0	0	5	0	0	6	0	0
C.50	C	C	0	3	0	0	1	0	0	4	0	0
SUBTOTAL	C	C	0	15	0	0	26	0	0	41	0	0

[redacted] [redacted] [redacted]

TABLE 9-6

[redacted]

[redacted] [redacted] [redacted]

MISSION • 1008-2 • 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.51	C	C	0	2	C	0	0	0	0	2	0	0
C.52	C	C	0	2	C	0	0	0	0	6	0	0
C.53	C	C	0	1	C	0	0	0	0	2	0	0
C.54	C	C	0	1	C	0	0	0	0	4	0	0
C.55	C	C	0	3	C	0	0	0	0	0	0	0
C.56	C	C	0	1	C	0	0	0	0	6	0	0
C.57	C	C	0	4	C	0	0	0	0	2	0	0
C.58	C	C	0	1	C	0	0	0	0	8	0	0
C.59	C	C	0	3	C	0	0	0	0	2	0	0
C.6C	C	C	0	3	C	0	0	0	0	5	0	0
C.61	C	C	0	3	C	0	0	0	0	3	0	0
C.62	C	C	0	1	C	0	0	0	0	5	0	0
C.63	C	C	0	2	C	0	0	0	0	1	0	0
C.64	C	C	0	2	C	0	0	0	0	9	0	0
C.65	C	C	0	2	C	0	0	0	0	0	0	0
C.66	C	C	0	1	C	0	0	0	0	2	0	0
C.67	C	C	0	2	C	0	0	0	0	3	0	0
C.68	C	C	0	2	C	0	0	0	0	3	0	0
C.69	C	C	0	1	C	0	0	0	0	4	0	0
C.7C	C	C	0	1	C	0	0	0	0	3	0	0
C.71	C	C	0	1	C	0	0	0	0	4	0	0
C.72	C	C	0	1	C	0	0	0	0	4	0	0
C.73	C	C	0	1	C	0	0	0	0	1	0	0
C.74	C	C	0	1	C	0	0	0	0	6	0	0
C.75	C	C	0	1	C	0	0	0	0	3	0	0
C.76	C	C	0	2	C	0	0	0	0	10	0	0
C.77	C	C	0	1	C	0	0	0	0	5	0	0
C.78	C	C	0	1	C	0	0	0	0	5	0	0
C.79	C	C	0	2	C	0	0	0	0	6	0	0
C.80	C	C	0	3	C	0	0	0	0	8	0	0
C.81	C	C	0	C	1	0	0	0	0	1	1	0
C.82	C	C	0	1	C	0	0	0	0	3	0	0
C.83	C	C	0	C	1	0	0	0	0	2	1	0
C.84	C	C	0	1	C	0	0	0	0	3	0	0
C.85	C	C	0	1	C	0	0	0	0	1	1	0
C.86	C	C	0	1	C	0	0	0	0	2	0	0
C.87	C	C	0	C	C	0	0	0	0	2	2	0
C.88	C	C	0	C	C	0	0	0	0	3	0	0
C.89	C	C	0	C	C	0	0	0	0	6	0	0
C.9C	C	C	0	1	C	0	0	0	0	3	0	0
C.91	C	C	0	C	1	0	0	0	0	1	1	0
C.92	C	C	0	2	C	0	0	0	0	4	0	0
C.93	C	C	0	1	C	0	0	0	0	2	1	0
C.94	C	C	0	1	C	0	0	0	0	1	1	0
C.95	C	C	0	3	C	0	0	0	0	1	1	0
C.96	C	C	0	3	C	0	0	0	0	5	0	0
C.97	C	C	0	2	C	0	0	0	0	4	0	0
C.98	C	C	0	1	C	0	0	0	0	4	0	0
C.99	C	C	0	4	C	0	0	0	0	1	0	0
1.CO	C	C	0	3	C	0	0	0	0	7	0	0
SUBTOTAL	C	C	0	55	4	0	123	1	0	178	5	0

[redacted] [redacted] [redacted]

[redacted]

[redacted] [redacted] [redacted]

MISSION • 1008-2 • 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
1.01	0	0	0	0	0	0	1	0	0	1	0	0
1.02	0	0	0	0	0	0	0	1	0	0	1	0
1.03	0	0	0	0	0	0	1	0	0	1	0	0
1.04	0	0	0	1	0	0	5	0	0	6	0	0
1.05	0	0	0	0	0	0	0	0	0	0	0	0
1.06	0	0	0	2	0	0	3	0	0	5	2	0
1.07	0	0	0	0	0	0	0	0	0	0	0	0
1.08	0	0	0	0	0	0	0	1	0	0	1	0
1.09	0	0	0	0	0	0	1	2	0	1	2	0
1.10	0	0	0	1	0	0	4	2	1	5	2	1
1.11	0	0	0	0	0	0	0	0	0	0	0	0
1.12	0	0	0	0	0	0	0	1	0	0	1	0
1.13	0	0	0	0	1	0	1	0	0	1	0	0
1.14	0	0	0	0	1	0	1	0	0	1	0	0
1.15	0	0	0	0	1	0	0	2	0	0	2	0
1.16	0	0	0	1	0	0	2	0	0	3	1	0
1.17	0	0	0	1	0	0	1	1	0	1	1	0
1.18	0	0	0	0	0	0	2	0	0	2	0	0
1.19	0	0	0	0	0	0	1	3	0	1	3	0
1.20	0	0	0	0	0	0	3	1	0	3	1	0
1.21	0	0	0	0	1	0	2	0	0	2	1	0
1.22	0	0	0	0	0	0	3	0	0	3	0	0
1.23	0	0	0	0	0	0	3	0	0	3	0	0
1.24	0	0	0	0	2	0	0	2	0	0	2	0
1.25	0	0	0	1	0	0	1	0	0	2	0	0
1.26	0	0	0	0	1	0	0	2	0	0	3	0
1.27	0	0	0	0	1	0	0	3	0	0	3	0
1.28	0	0	0	0	1	0	0	4	0	0	5	0
1.29	0	0	0	0	1	0	1	1	0	1	1	0
1.30	0	0	0	0	1	0	1	5	0	1	6	0
1.31	0	0	0	0	0	0	0	2	0	0	2	0
1.32	0	0	0	0	3	0	0	3	0	0	3	0
1.33	0	0	0	0	1	0	0	2	0	0	2	0
1.34	0	0	0	0	0	0	0	6	0	0	6	0
1.35	0	0	0	0	0	0	0	0	0	0	0	0
1.36	0	0	0	0	0	0	1	3	0	1	3	0
1.37	0	0	0	0	0	0	1	0	0	1	0	0
1.38	0	0	0	0	0	0	0	4	0	0	4	0
1.39	0	0	0	0	0	0	0	3	0	0	3	0
1.40	0	0	0	0	2	0	0	3	0	0	5	0
1.41	0	0	0	0	1	0	0	2	0	0	2	0
1.42	0	0	0	0	1	0	0	4	0	0	5	0
1.43	0	0	0	0	0	0	0	0	0	0	0	0
1.44	0	0	0	0	1	0	0	5	0	0	6	0
1.45	0	0	0	0	0	1	0	4	0	0	4	1
1.46	0	0	0	0	1	0	1	7	0	1	8	0
1.47	0	0	0	0	1	0	0	1	0	0	1	0
1.48	0	0	0	1	0	0	0	8	0	0	9	0
1.49	0	0	0	0	1	0	0	5	0	1	5	0
1.50	0	0	0	0	2	0	1	3	0	1	5	0
SUBTOTAL	0	0	0	7	23	1	35	88	1	42	111	2

[redacted] [redacted] [redacted]

[redacted] [redacted] [redacted]

MISSION • 1008-2 • 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	0	0	0	0	3	0	0	3	0
1.52	0	0	0	0	0	0	0	6	0	0	7	0
1.53	0	0	0	0	1	0	0	2	0	0	2	0
1.54	0	0	0	0	1	0	0	0	0	0	1	0
1.55	0	0	0	0	4	0	0	5	0	0	9	0
1.56	0	0	0	0	1	0	0	9	0	0	10	0
1.57	0	0	0	0	1	0	0	0	0	0	1	0
1.58	0	0	0	0	2	0	0	4	0	0	6	0
1.59	0	0	0	0	0	0	0	1	0	0	1	0
1.60	0	0	0	0	3	0	0	10	0	0	13	0
1.61	0	0	0	0	1	0	0	1	0	0	2	0
1.62	0	0	0	0	0	0	0	3	0	0	3	0
1.63	0	0	0	0	0	0	1	3	0	1	3	0
1.64	0	0	0	0	1	0	0	1	0	0	2	0
1.65	0	0	0	0	4	0	0	3	0	0	7	0
1.66	0	0	0	0	1	0	0	3	0	0	4	0
1.67	0	0	0	0	0	0	0	2	0	0	2	0
1.68	0	0	0	0	1	0	0	3	0	0	4	0
1.69	0	0	0	0	1	0	0	2	0	0	3	0
1.70	0	0	0	0	0	0	0	0	1	0	0	1
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	2	0	0	2	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	1	0	0	3	0	0	4	0
1.77	0	0	0	0	1	0	0	0	0	0	1	0
1.78	0	0	0	0	2	0	0	5	0	0	7	0
1.79	0	0	0	0	1	0	0	1	0	0	2	0
1.80	0	0	0	0	0	0	0	1	0	0	1	0
1.81	0	0	0	0	3	0	0	1	0	0	4	0
1.82	0	0	0	0	1	0	0	0	0	0	1	0
1.83	0	0	0	0	0	0	0	2	0	0	2	0
1.84	0	0	0	0	0	0	0	1	0	0	1	0
1.85	0	0	0	0	2	0	0	2	0	0	4	0
1.86	0	0	0	0	1	0	0	2	0	0	3	0
1.87	0	0	0	0	1	0	0	2	0	0	3	0
1.88	0	0	0	0	1	0	0	1	0	0	2	0
1.89	0	0	0	0	2	0	0	0	0	0	2	0
1.90	0	0	0	0	2	0	0	0	0	0	2	0
1.91	0	0	0	0	1	0	0	3	0	0	4	0
1.92	0	0	0	0	1	0	0	1	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	1	0	0	2	0
1.95	0	0	0	0	0	0	0	1	0	0	1	0
1.96	0	0	0	0	1	0	0	1	0	0	2	0
1.97	0	0	0	0	0	0	0	1	0	0	1	0
1.98	0	0	0	0	2	0	0	0	0	0	2	0
1.99	0	0	0	0	1	0	0	1	0	0	2	0
2.00	0	0	0	0	2	9	0	0	5	0	2	14
SUBTOTAL	0	0	0	0	47	20	1	93	15	1	140	35

[redacted] [redacted] [redacted]

[redacted] [redacted] [redacted]

MISSION • 1008-2 • 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	2	0	0	2	1	0	4	1
2.02	0	0	0	0	0	2	0	0	2	0	0	1
2.03	0	0	0	0	0	2	0	0	2	0	0	4
2.04	0	0	0	0	0	1	0	0	2	0	0	1
2.05	0	0	0	0	0	1	0	0	0	0	0	1
2.06	0	0	0	0	0	4	0	0	1	0	0	5
2.07	0	0	0	0	0	0	0	0	0	0	0	0
2.08	0	0	0	0	0	1	0	0	1	0	0	2
2.09	0	0	0	0	0	1	0	1	2	0	1	3
2.10	0	0	0	0	1	5	0	0	4	0	1	9
2.11	0	0	0	0	0	0	0	0	0	0	0	0
2.12	0	0	0	0	0	3	0	0	3	0	0	6
2.13	0	0	0	0	0	0	0	0	2	0	0	2
2.14	0	0	0	0	0	1	0	0	3	0	0	4
2.15	0	0	0	0	0	2	0	0	3	0	0	5
2.16	0	0	0	0	0	2	0	0	4	0	0	6
2.17	0	0	0	0	0	1	0	0	3	0	0	4
2.18	0	0	0	0	0	2	0	0	10	0	0	12
2.19	0	0	0	0	0	2	0	0	3	0	0	5
2.20	0	0	0	0	0	9	0	0	13	0	0	22
2.21	0	0	0	0	0	3	0	0	2	0	0	5
2.22	0	0	0	0	0	7	0	0	11	0	0	18
2.23	0	0	0	0	0	0	0	0	8	0	0	8
2.24	0	0	0	0	0	7	0	0	6	0	0	13
2.25	0	0	0	0	0	3	0	0	5	0	0	8
2.26	0	0	0	0	0	7	0	0	17	0	0	24
2.27	0	0	0	0	0	1	0	0	10	0	0	11
2.28	0	0	0	0	0	2	0	0	7	0	0	9
2.29	0	0	0	0	0	0	0	0	9	0	0	9
2.30	0	0	0	0	0	8	0	0	25	0	0	33
2.31	0	0	0	0	0	1	0	0	5	0	0	6
2.32	0	0	0	0	0	2	0	0	11	0	0	13
2.33	0	0	0	0	0	1	0	0	3	0	0	4
2.34	0	0	0	0	0	0	0	0	0	0	0	0
2.35	0	0	0	0	0	0	0	0	1	0	0	1
2.36	0	0	0	0	0	0	0	0	0	0	0	0
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	3	79	0	3	176	0	6	255

[redacted] [redacted] [redacted]

[redacted]

[redacted] [redacted] [redacted]

MISSION • 1008-2 • 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	0	0	0	0	0	0	0	0
2.53	C	C	0	C	0	0	0	0	0	0	0	0
2.54	C	C	0	C	0	0	0	0	0	0	0	0
2.55	C	C	0	C	0	0	0	0	0	0	0	0
2.56	C	C	0	C	0	0	0	0	0	0	0	0
2.57	C	C	0	C	0	0	0	0	0	0	0	0
2.58	C	C	0	C	0	0	0	0	0	0	0	0
2.59	C	C	0	C	0	0	0	0	0	0	0	0
2.60	C	C	0	C	0	0	0	0	0	0	0	0
2.61	C	C	0	C	0	0	0	0	0	0	0	0
2.62	C	C	0	C	0	0	0	0	0	0	0	0
2.63	C	C	0	C	0	0	0	0	0	0	0	0
2.64	C	C	0	C	0	0	0	0	0	0	0	0
2.65	C	C	0	C	0	0	0	0	0	0	0	0
2.66	C	C	0	C	0	0	0	0	0	0	0	0
2.67	C	C	0	C	0	0	0	0	0	0	0	0
2.68	C	C	0	C	0	0	0	0	0	0	0	0
2.69	C	C	0	C	0	0	0	0	0	0	0	0
2.70	C	C	0	C	0	0	0	0	0	0	0	0
SUBTOTAL	C	C	0	C	0	0	0	0	0	0	0	0
TOTAL	C	C	0	77	77	100	185	185	192	262	262	292

MISSION 1008-2 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	C	C PC	0 PC	0 PC	0 PC	0 P
INTERMEDIATE	77	C PC	9 PC	65 PC	25 PC	1 P
FULL	185	1 PC	0 PC	70 PC	29 PC	0 P
ALL LEVELS	262	1 PC	3 PC	69 PC	27 PC	0 P

PROCESS LEVEL	BASE + FOG	UNDER EXPOSED	UNDER PROCESSED	CORRECT EXP+PROC	OVER PROCESSED	OVE EXPOS
PRIMARY	C.01-C.15	C.01-C.13	0.14-0.39	0.40-0.90	---------	0.91 AN
INTERMED	C.16-C.17	0.01-C.2C	0.21-0.39	0.40-0.90	0.91-1.34	1.35 AN
FULL	C.18 AND UP	C.01-C.39	---------	0.4C-0.90	0.91-1.69	1.70 AN

[redacted] [redacted] [redacted]

[redacted]

[redacted]

[redacted]

MISSION • 1C08-2 • INSTR • AFT • 2-09-64 PLOT OF D MIN • TERRAIN • PROCESSING • INTERMEDIATE

ARITH MEAN • C.71 • MEDIAN • C.64 • STD DEV • C.24 • RANGE • 0.32 TO 1.49 WITH 77 SAMPLES

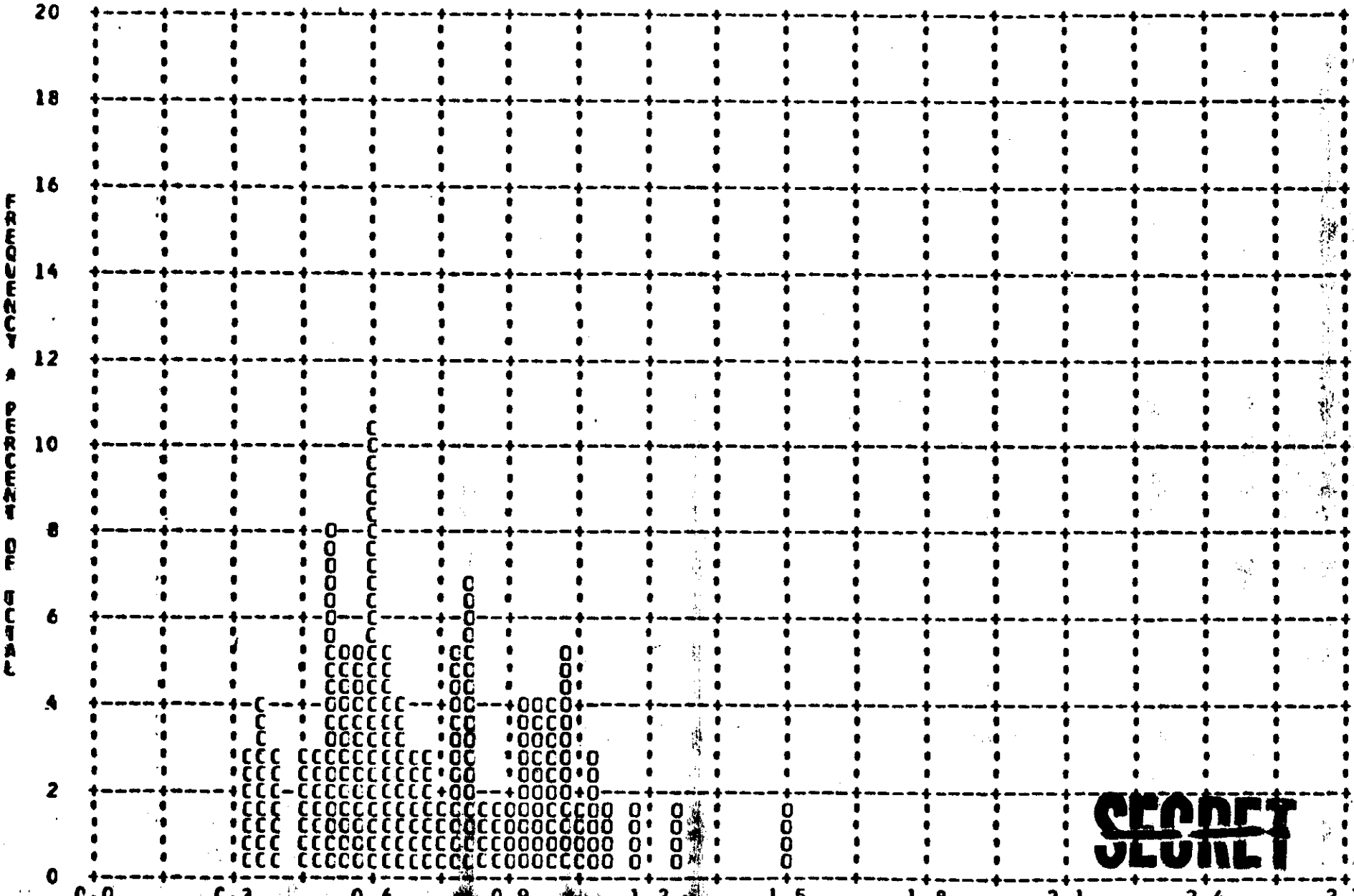


FIGURE 8-34

[redacted]

[redacted]

MISSION • 1CC8-2 • INSTR • AFT • 2-09-64 PLOT OF D MAX • TERRAIN • PROCESSING • INTERMEDIATE

WRITH MEAN • 1.58 • MEDIAN • 1.60 • STD DEV • 0.31 • RANGE • 0.73 TO 2.10 WITH 77 SAMPLES

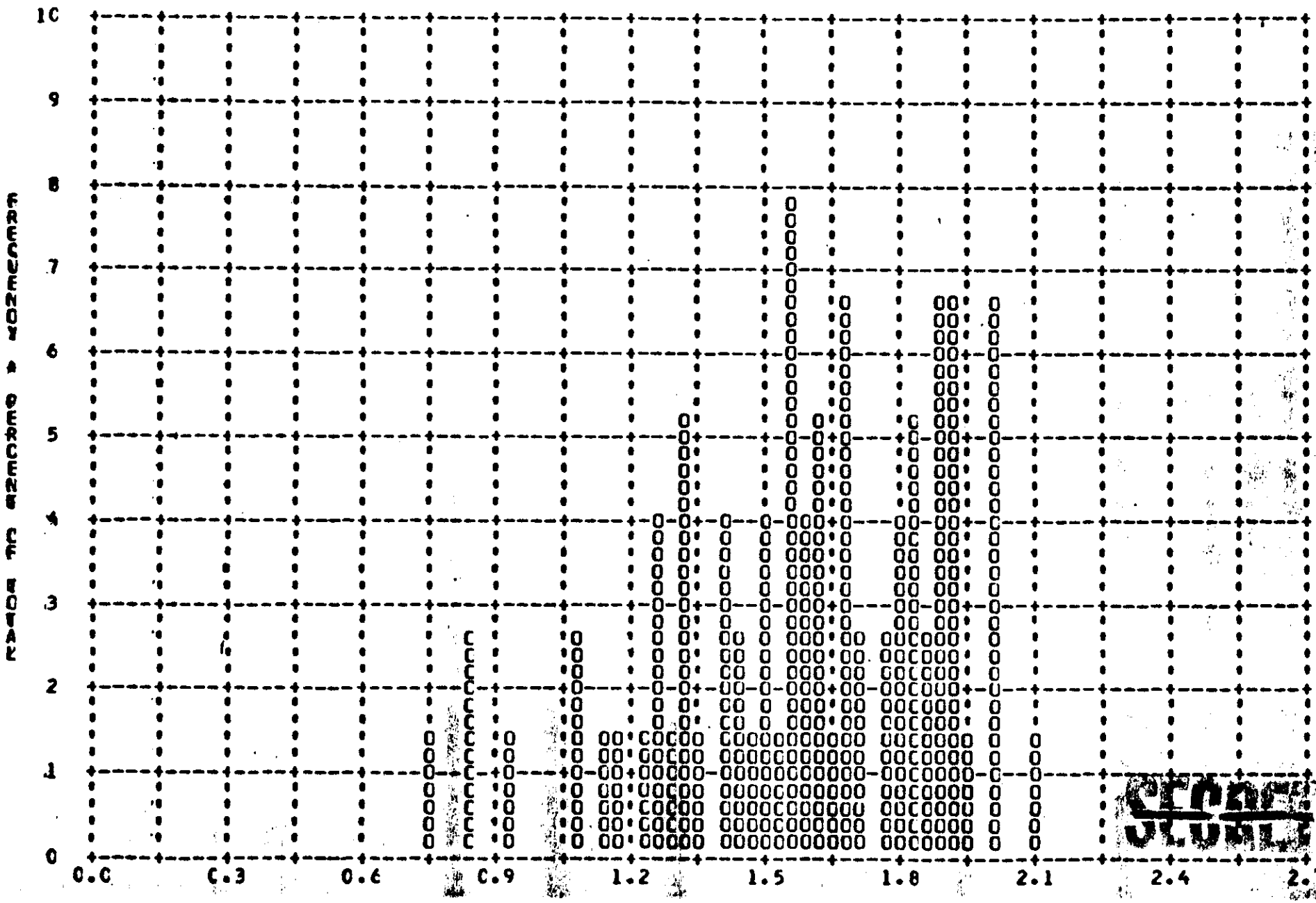


FIGURE 9-35

[redacted]

[redacted]

MISSION • 1008-2 • INSTR • AFT • 2-09-64 PLOT OF D MAX • CLOUD • PROCESSING • INTERMEDIATE

ARITH MEAN • 2.14 • MEDIAN • 2.20 • STD DEV • 0.15 • RANGE • 1.45 TO 2.33 WITH 100 SAMPLES

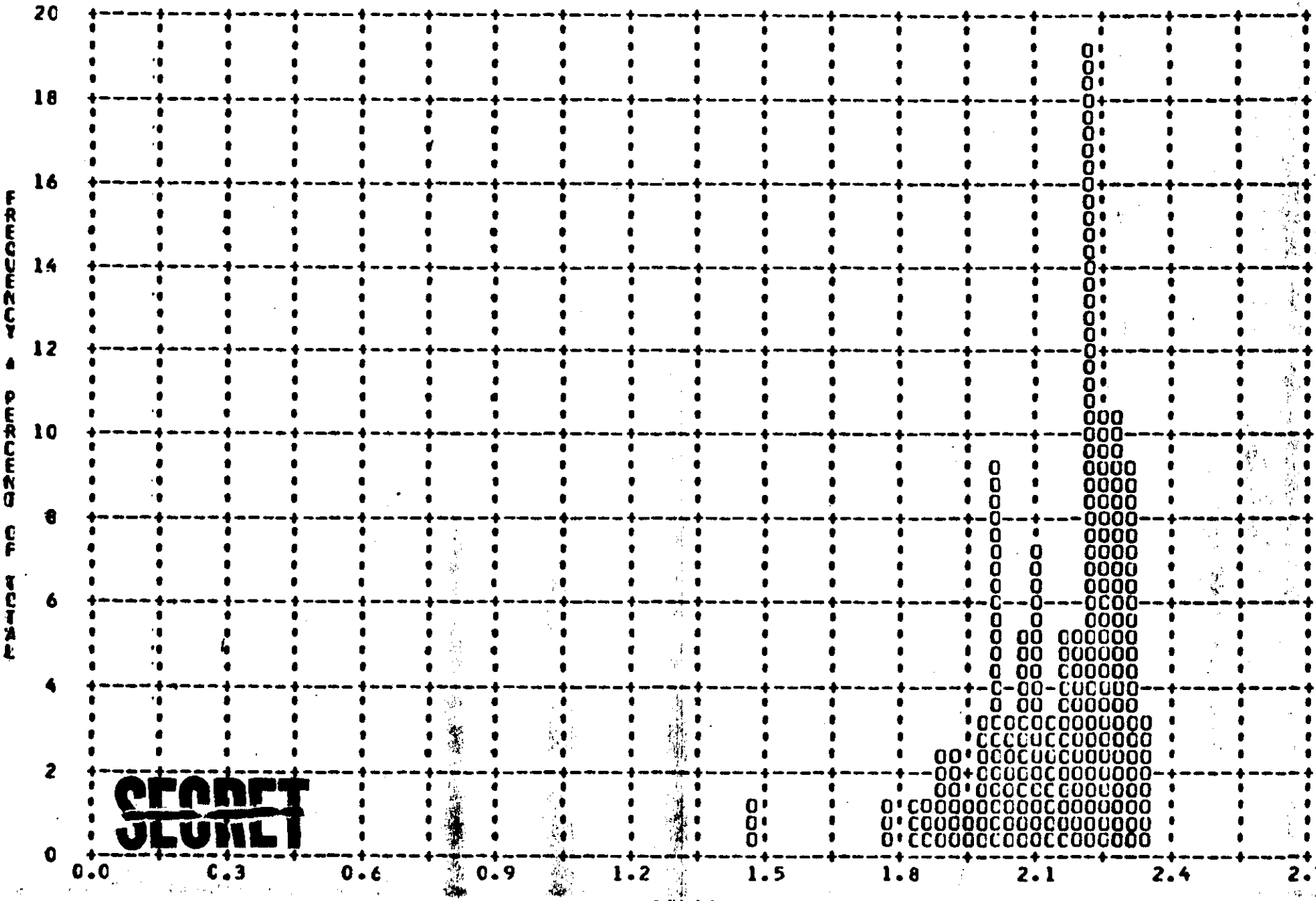


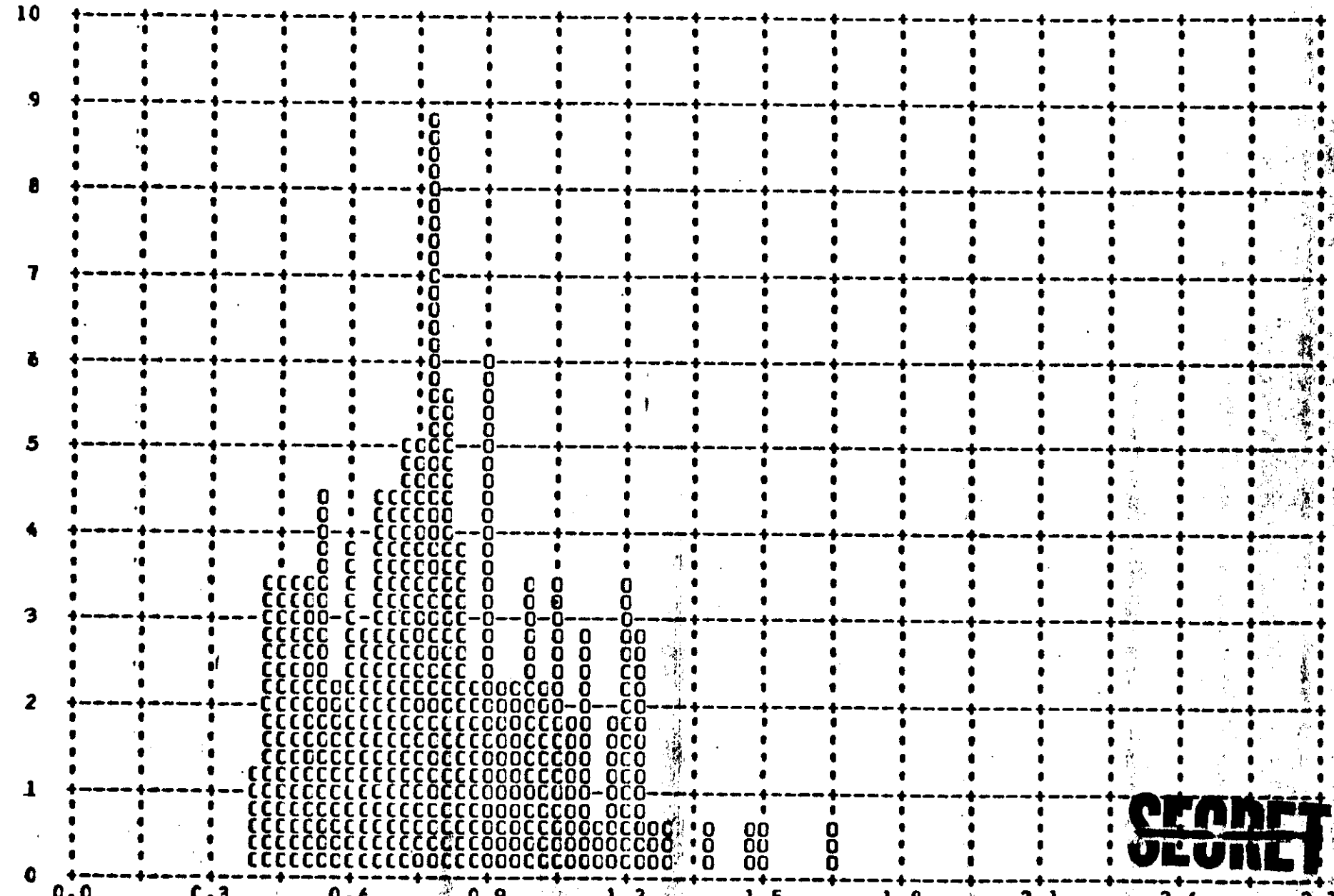
FIGURE 9-36

[redacted]

[redacted]

MISSION * 1CC8-2 * INSTR * AFT * 2-09-64 PLOT OF D MIN * TERRAIN * PROCESSING * FULL

ARITH MEAN * 0.79 * MEDIAN * 0.77 * STD DEV * 0.25 * RANGE * 0.39 TO 1.64 WITH 185 SAMPLES



SECRET

FIGURE 9-37

[redacted]

[redacted]

MISSION • 1008-2 • INSTR • AFT • 2-09-64 PLOT OF D MAX • TERRAIN • PROCESSING • FULL

ARITH MEAN • 1.53 • MEDIAN • 1.52 • STD DEV • 0.21 • RANGE • 0.94 TO 2.09 WITH 185 SAMPLES

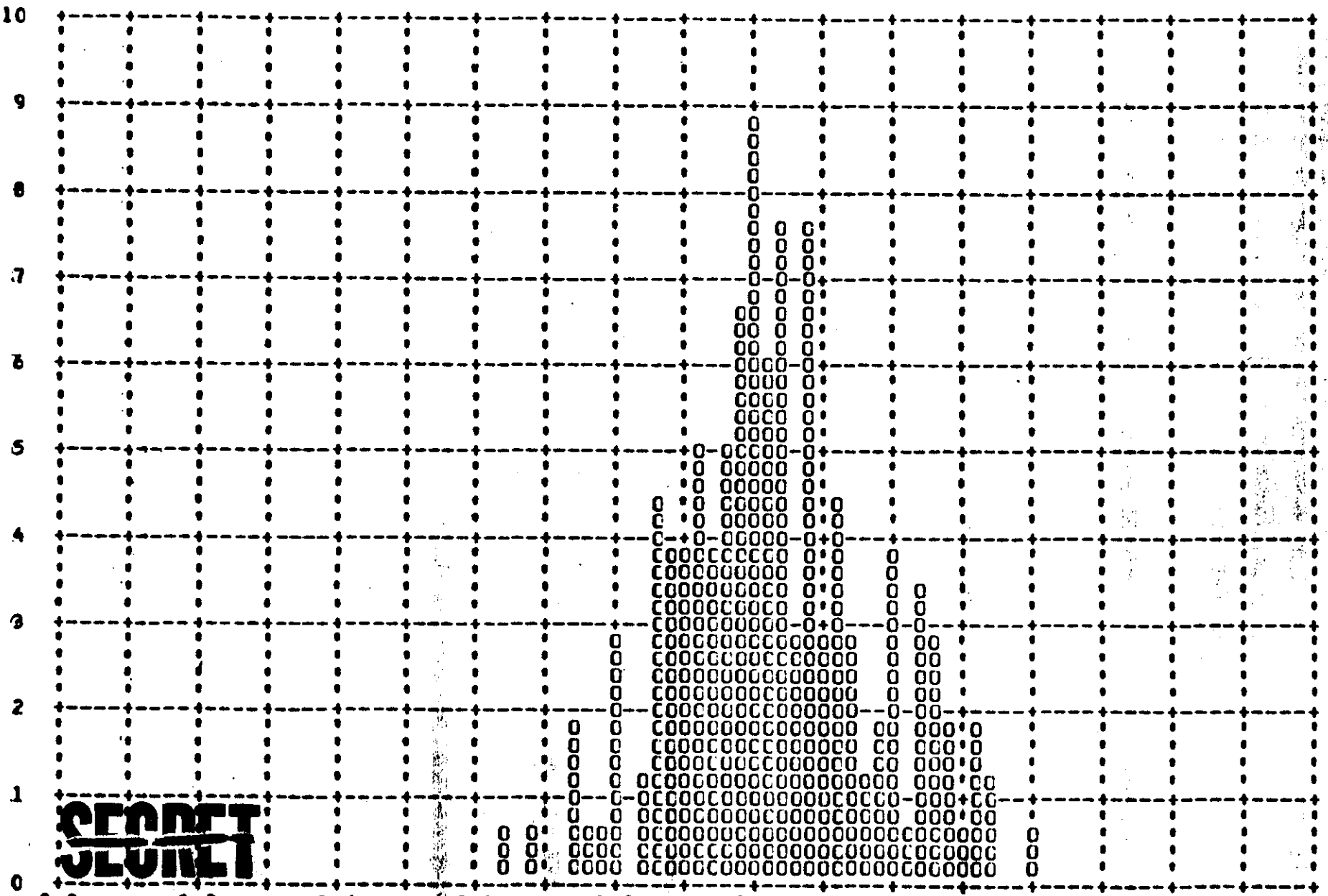


FIGURE 9-38

[redacted]

[redacted]

MISSION * 1CC8-2 * INSTR * AFT * 2-09-64 PLOT OF D MAX * CLOUD * PROCESSING * FULL

ARITH MEAN * 2.2C * MEDIAN * 2.24 * STD DEV * 0.14 * RANGE * 1.10 TO 2.35 WITH 192 SAMPLES

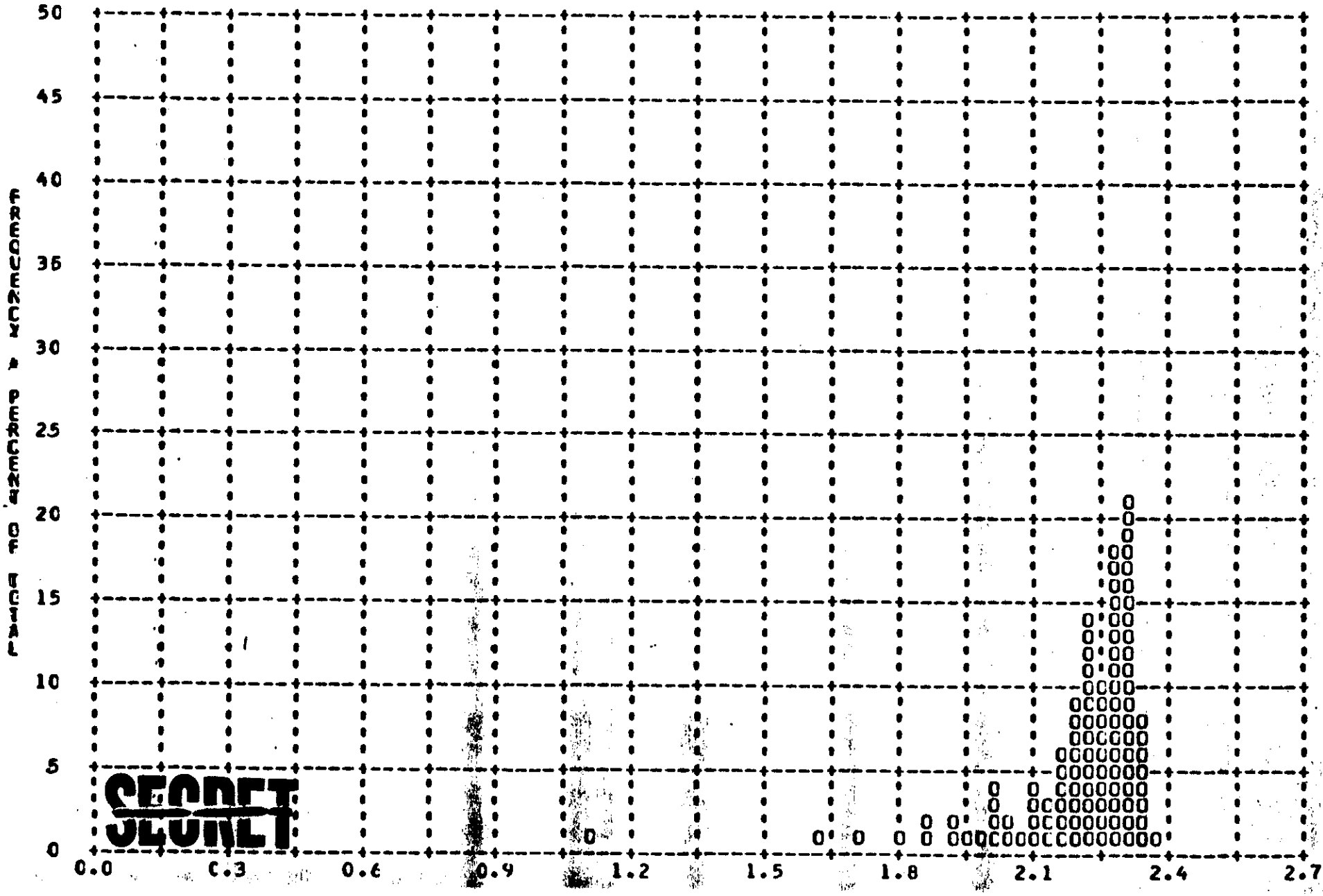
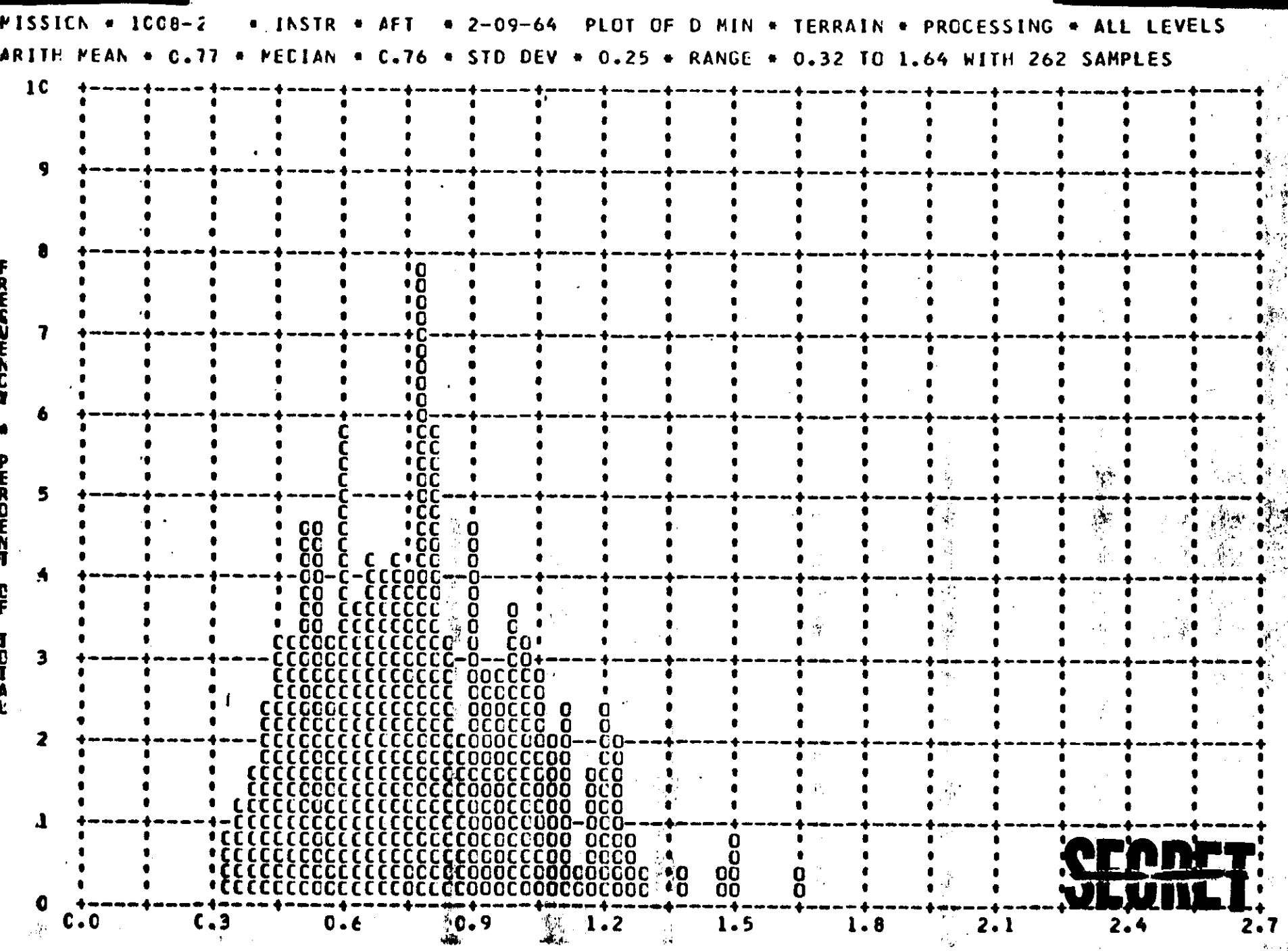


FIGURE 9-39

[redacted]

[redacted]



135

FIGURE 9-40

[redacted]

[redacted]

MISSION • ICC8-2 • INSTR • AFT • 2-09-64 PLOT OF D MAX • TERRAIN • PROCESSING • ALL LEVELS

ARITH MEAN • 1.55 • MEDIAN • 1.55 • STD DEV • 0.24 • RANGE • 0.73 TO 2.10 WITH 262 SAMPLES

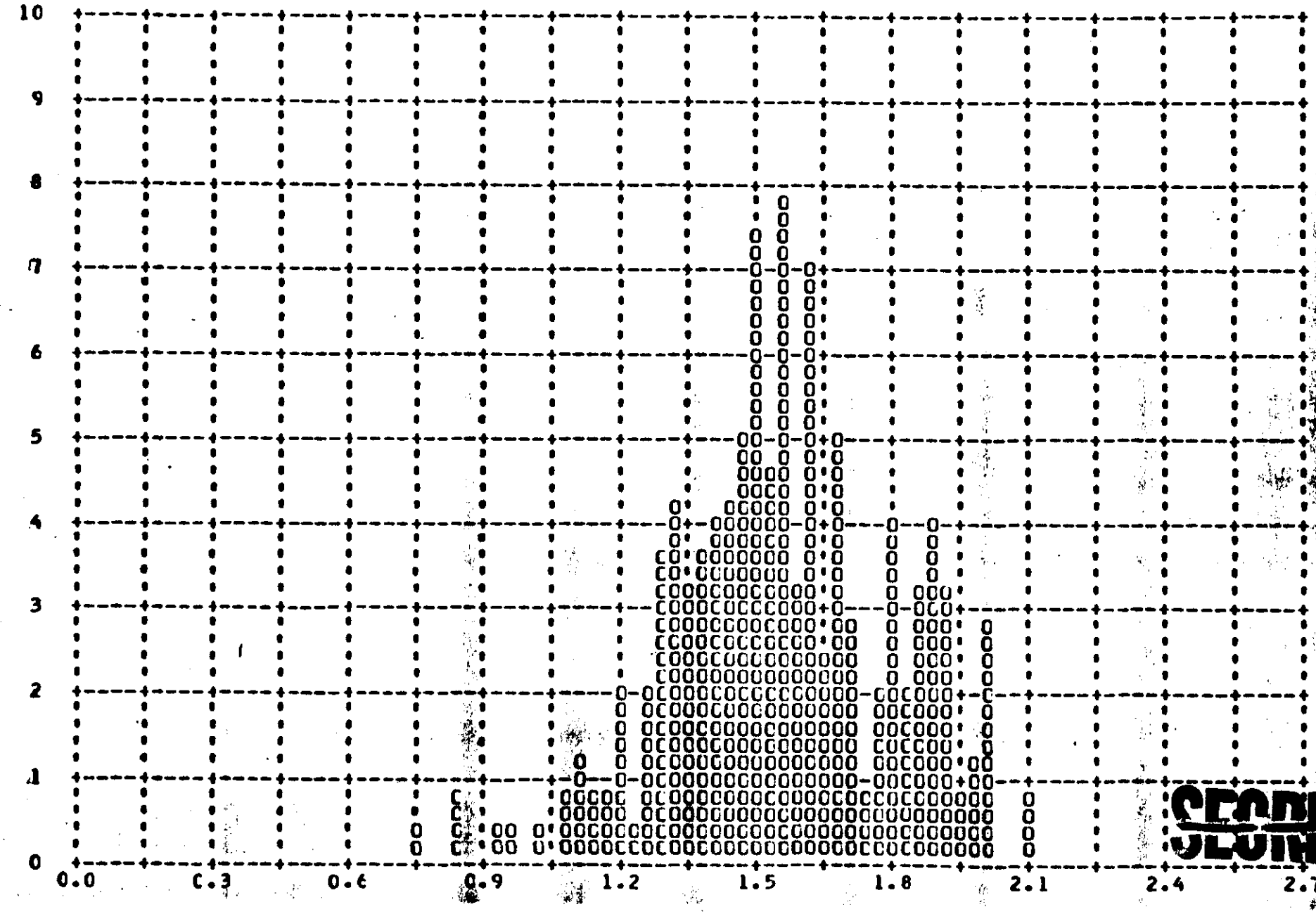


FIGURE 9-41

SECRET

[redacted]

[redacted]

MISSION * 1008-2 * INSTR * AFT * 2-09-64 PLOT OF D MAX * CLOUD * PROCESSING * ALL LEVELS

ARITH MEAN * 2.18 * MEDIAN * 2.22 * STD DEV * 0.15 * RANGE * 1.10 TO 2.35 WITH 292 SAMPLES

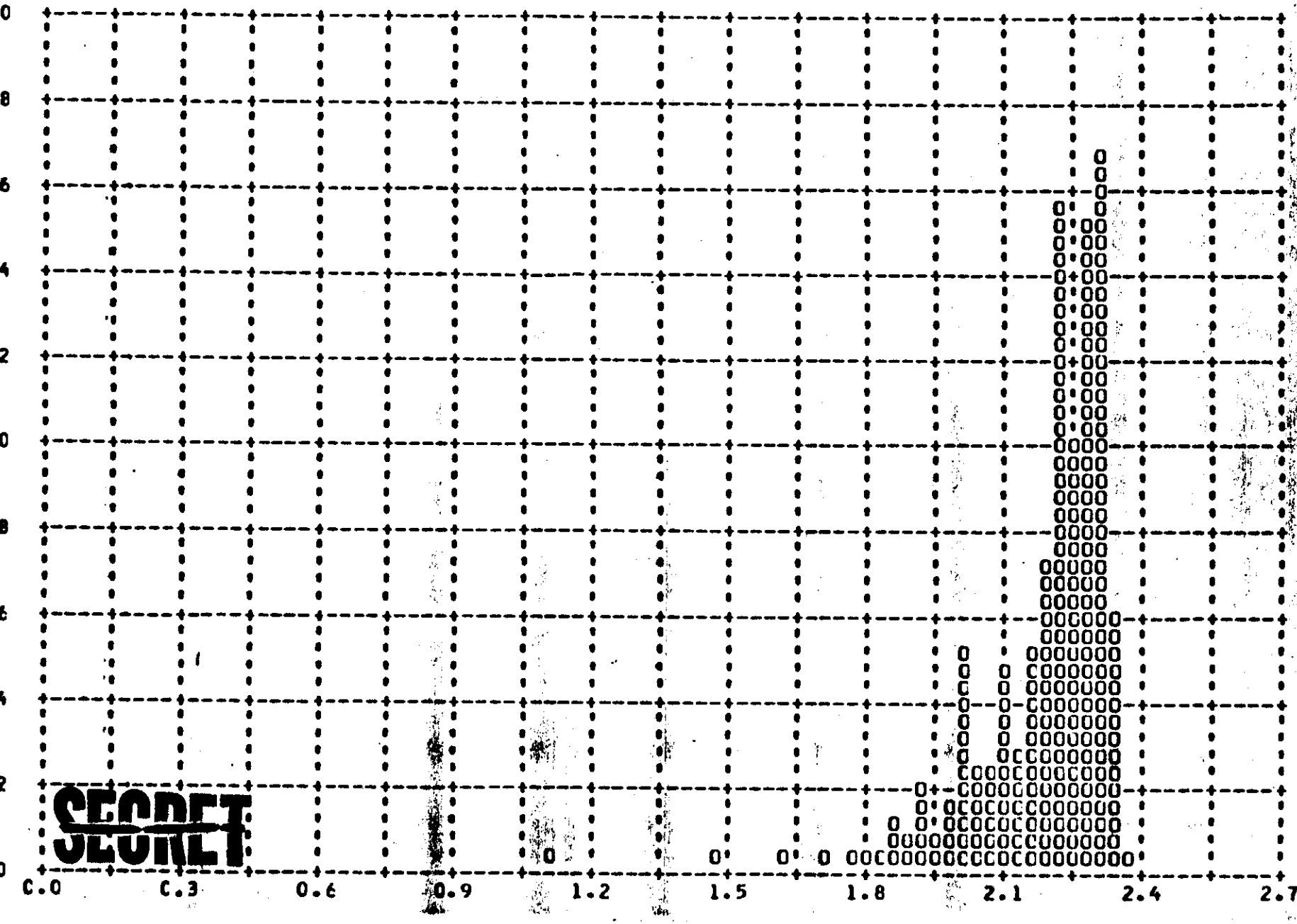


FIGURE 8-42

MISSION 1008-1 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	2	0 PC	0 PC	50 PC	0 PC	50 PC
INTERMEDIATE	86	0 PC	7 PC	76 PC	15 PC	2 PC
FULL	160	4 PC	0 PC	92 PC	4 PC	0 PC
ALL LEVELS	248	2 PC	2 PC	86 PC	8 PC	1 PC

MISSION 1008-1 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	0	0 PC	0 PC	0 PC	0 PC	0 PC
INTERMEDIATE	82	0 PC	4 PC	83 PC	12 PC	1 PC
FULL	162	2 PC	0 PC	85 PC	13 PC	0 PC
ALL LEVELS	244	1 PC	1 PC	84 PC	13 PC	0 PC

MISSION 1008-2 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	1	0 PC	0 PC	100 PC	0 PC	0 PC
INTERMEDIATE	73	1 PC	4 PC	71 PC	21 PC	3 PC
FULL	196	3 PC	0 PC	73 PC	24 PC	0 PC
ALL LEVELS	270	2 PC	1 PC	73 PC	23 PC	1 PC

MISSION 1008-2 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	0	0 PC	0 PC	0 PC	0 PC	0 PC
INTERMEDIATE	77	0 PC	9 PC	65 PC	25 PC	1 PC
FULL	185	1 PC	0 PC	70 PC	29 PC	0 PC
ALL LEVELS	262	1 PC	3 PC	69 PC	27 PC	0 PC

TABLE 9-7

SECTION 10

PERFORMANCE MEASUREMENTS

The panoramic photography acquired by both main cameras during Missions 1008-1 and 1008-2 received a MIP rating of 85. A summary is tabulated below of the visual RES values and MTF/AIM resolution values made by AFSPPL as well as the MTF/AIM resolution values made by [redacted] The length of the microdensitometer slit is shown for each MTF/AIM column as various sizes are used. All slits are one micron wide.

Mission	Camera	Visual RES	AFSPPL 350 μ	ASFPPL 43 μ	[redacted] All	320 μ High
1008-1	FWD	80	80	95	95	104
1008-1	AFT	76	73	89	98	106
1008-2	FWD	82	84	96	98	108
1008-2	AFT	79	91	83	97	105

The details of the measurement and computing techniques, targets measured and target locations are fully reported in the evaluation report published by AFSPPL and therefore is 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 [redacted] data normally contains two readings of the same edge the tabulation shows both the average of all the readings and the average of the highest readings of each edge. The value of the average of all readings is questionable as no valid reason can be ascertained for a measurement being greater than the resolution recorded however many factors can reduce the reading.

[redacted]

SECTION 11

OBSERVED DATA

Much of the engineering pass photography was characterized by heavy cloud cover and/or haze. Only one opportunity occurred for a quantitative analysis of camera performance.

The first frames of pass D-31 were solid clouds. The ground track opened over Duncan, Arizona but still too much haze for evaluation. Frame 12 (Fwd) contained Wilcox, Arizona 8 3/4" West of C/F where cars were barely discernable. Pass 31 material is not considered suitable for performance evaluation except to note the sharp horizon photography from both instruments.

Pass D-47 contained no culture in the clear on the ground track. Indian Springs fixed target was edited out between frames 7-8 Fwd and 12-13 Aft. Parumph resolution target appeared in 9 (Fwd) and 14 (Aft) 11 1/8" West of C/F. The third group was readable in both directions, forward and aft. This group consists of 5' 5 1/8" wide bars. This indicates a ground resolution of 10' 10". The slant range was approximately 115 miles and produced a photo scale of 1:350,000. Hence, the cameras were both delivering about 106 lines per millimeter at this time.

The computed system resolution of the Parumph target compares favorably with the average of the higher MTF/AIM values measured by [redacted]. The target was photographed at 2233 Z on 13 July 1964. The Site Manning Report prepared by [redacted] and published in the AFSPPL report states that the temperature was 107 degrees F., barometric pressure of 29.28" Hg, winds 10-18 mph from the south and the atmosphere contained 10% clouds with a light haze. The illuminance of the black portion of the target was 900 foot lamberts and the white portion was 8750 foot lamberts. These readings show that the target contrast was approximately 9.73 to 1. Microdensitometric data is not available to calculate the image contrast.

To the south, on this same operation, many small boats could be isolated on lower Lake Mojave. These might, typically, represent a 5'-6' x 14'-16' dimension, however these objects were at high visual contrast and undoubtedly some image spread increased their apparent size.

[redacted]

Several airport runway signs were clearly readable, e.g., Lake Havasu City, Imperial County, Calexico. However, since the dimensions of these are unknown, little significance is attached to their readability. It would seem worthwhile to consider taking steps to obtain the dimensions of these and similar signs elsewhere (Modesto, Madera, Red Bluff, etc.) in areas usually covered by engineering passes. Such information could be used as an aid to evaluation when fixed or mobile targets are out of range or cloud covered.

In summary, no culture was present in the clear, on the ground track in pass D-47.

The forward camera had depleted the film supply spool by pass D-110. The Aft camera had enough film for 18 frames, though frames 16, 17 and 18 were badly smeared and out of focus due to loss of tension. Indian Springs fixed target appeared in the bonus area of frame 14, and at the west fiducial in frame 15. In neither case could the largest group be resolved. Also in frame 15 at the C/F, on a blacktop highway near Mesquite, Nevada, cars and trucks could be easily isolated.

[redacted]

SECTION 12

MISSION 1008-1 STELLAR-INDEX CAMERA

A. COMPONENT ASSIGNMENT

Component	Serial Number
Camera	D48
Index Reseau	45
Stellar Reseau	48

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 throughout the mission with no observed equipment or photographic anomalies. Approximately 30% of each format was obscured due to baffle vignetting and baffle flare. This amount of obscuration was predicted and is normal with the 11 inch extended baffle.

The analysis of Mission 1007 determined the cause of the zones of increased base plus fog density on the stellar film. It was not possible to apply the additional shielding to the film chute of the Mission 1008-1 camera prior to launch hence four zones of high base plus fog were encountered. The location of these zones was predicted prior to recovery and evaluation of the film supported the prediction.

SECTION 13

MISSION 1008-2 STELLAR-INDEX CAMERA

A. COMPONENT ASSIGNMENT

Component	Serial Number
Camera	D33
Index Reseau	28
Stellar Reseau	33

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 first 20% of the mission at which time the Index camera shutter failed in an open state causing the complete loss of all subsequent terrain photography. The Index camera shutter failure also caused the fifth, sixth, and seventh frames from the Stellar camera platen, at sit times, to be fogged to a point of being unusable.

The flare and vignetted area pattern were essentially the same as observed in Mission 1008-1. The flare intensity was very low. This reduction is attributed to the addition of low reflective paint to the Recovery Barrel above the Stellar port.

SECTION 14

VEHICLE ATTITUDE

The vehicle attitude errors for both Mission 1008-1 and 1008-2 were derived from the reduction of the Stellar camera photography. This attitude data is supplied to A/P by NPIC.

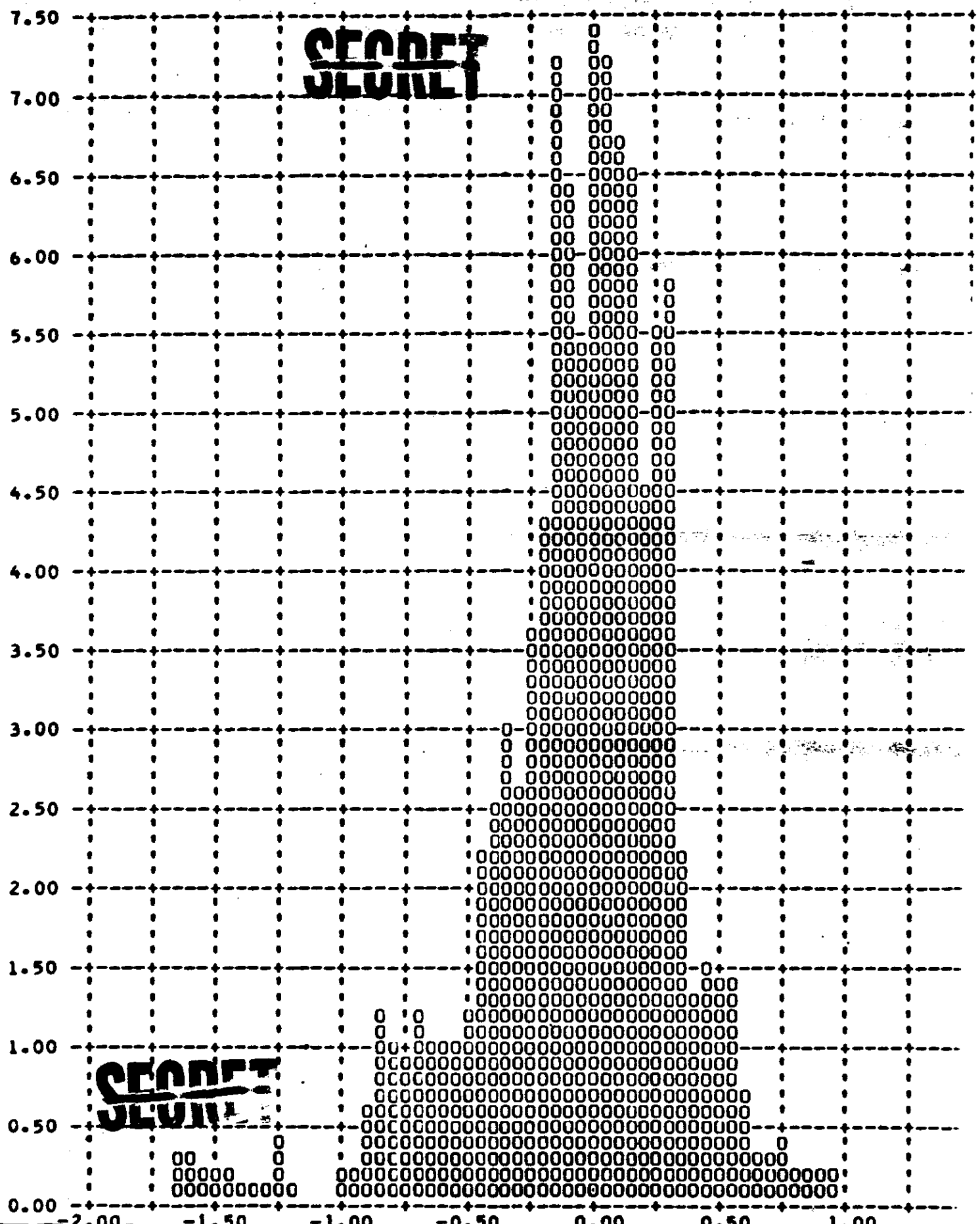
The attitude errors for each frame and the attitude control rates are calculated at the A/P computer facility. The computer also plots the frequency distribution of the rates and errors. Figures 14-1 through 14-6 show these distributions for Mission 1008-1 and Figures 14-7 through 14-12 for Mission 1008-2.

The summary table below lists the maximum attitude errors and rates that were experienced during 90% of the photographic operations, excluding the first six frames of each operation, and the total range of the errors and rates.

Value	Mission 1008-1 90%	Mission 1008-1 Range	Mission 1008-2 90%	Mission 1008-2 Range
Pitch Error (^{o})	0.59	-1.65 to +0.95	0.63	-1.50 to +1.10
Roll Error (^{o})	0.39	0 to +0.70	0.36	0 to +0.60
Yaw Error (^{o})	0.94	-1.35 to +0.50	0.71	-1.15 to +0.75
Pitch Rate (^{o}/hr)	43.8	-75 to +70	42.9	-90 to +90
Roll Rate (^{o}/hr)	23.9	-70 to +95	24.0	-90 to +70
Yaw Rate (^{o}/hr)	29.6	-74 to +60	32.5	-46 to +44

J-10 A BUCKET 10-20-64 FRAMES 1-6 OF EACH DP OMITTED 90 PERCENT = 0.5

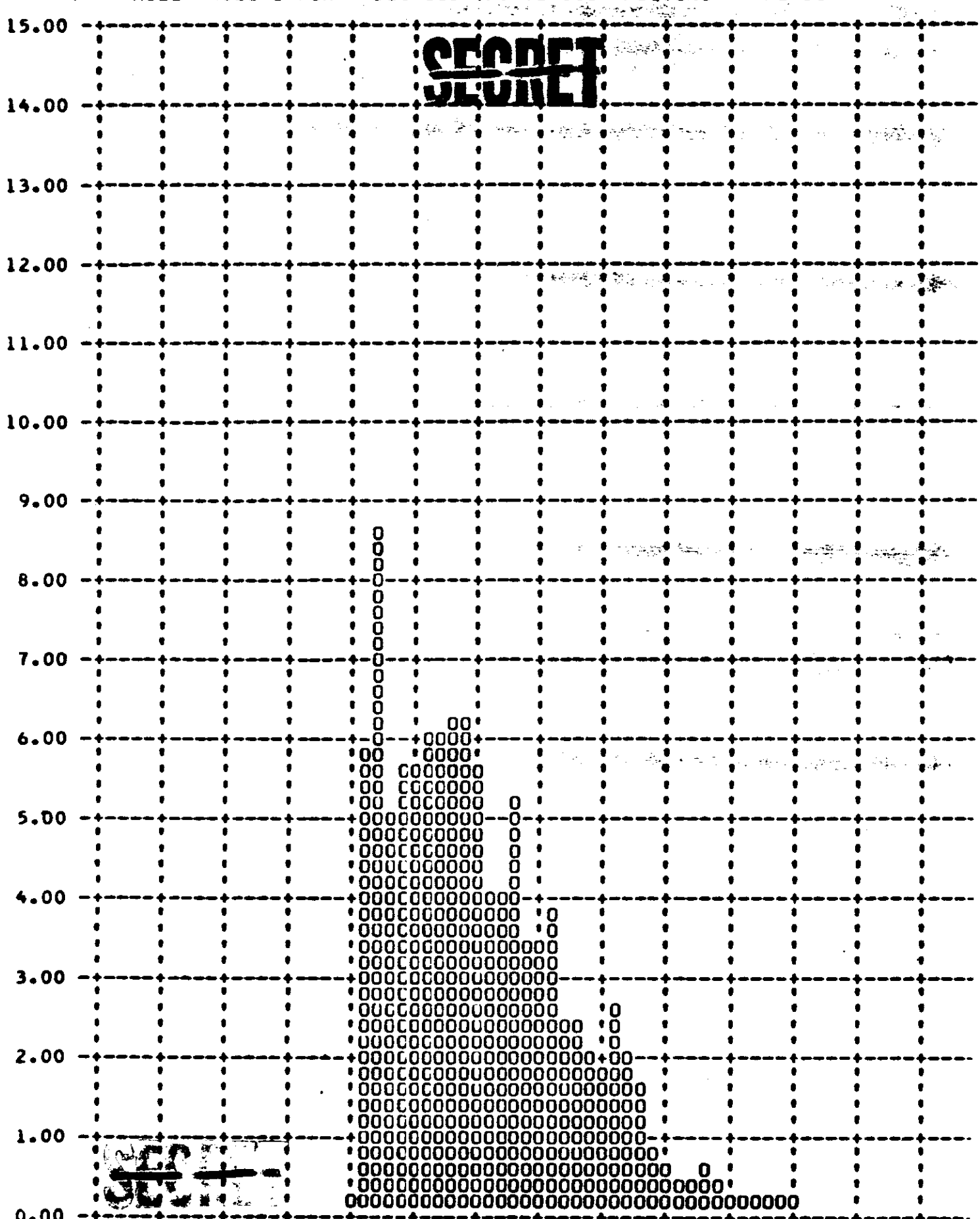
Y PITCH ANGLE ERROR - DEGREES (X) VERSUS FREQUENCY - PERCENT (Y)



[redacted] MISSION 1008-1 [redacted] MISSION 10(

J-10 A BUCKET 10-20-64 FRAMES 1-6 OF EACH OP OMITTED 90 PERCENT = 0.

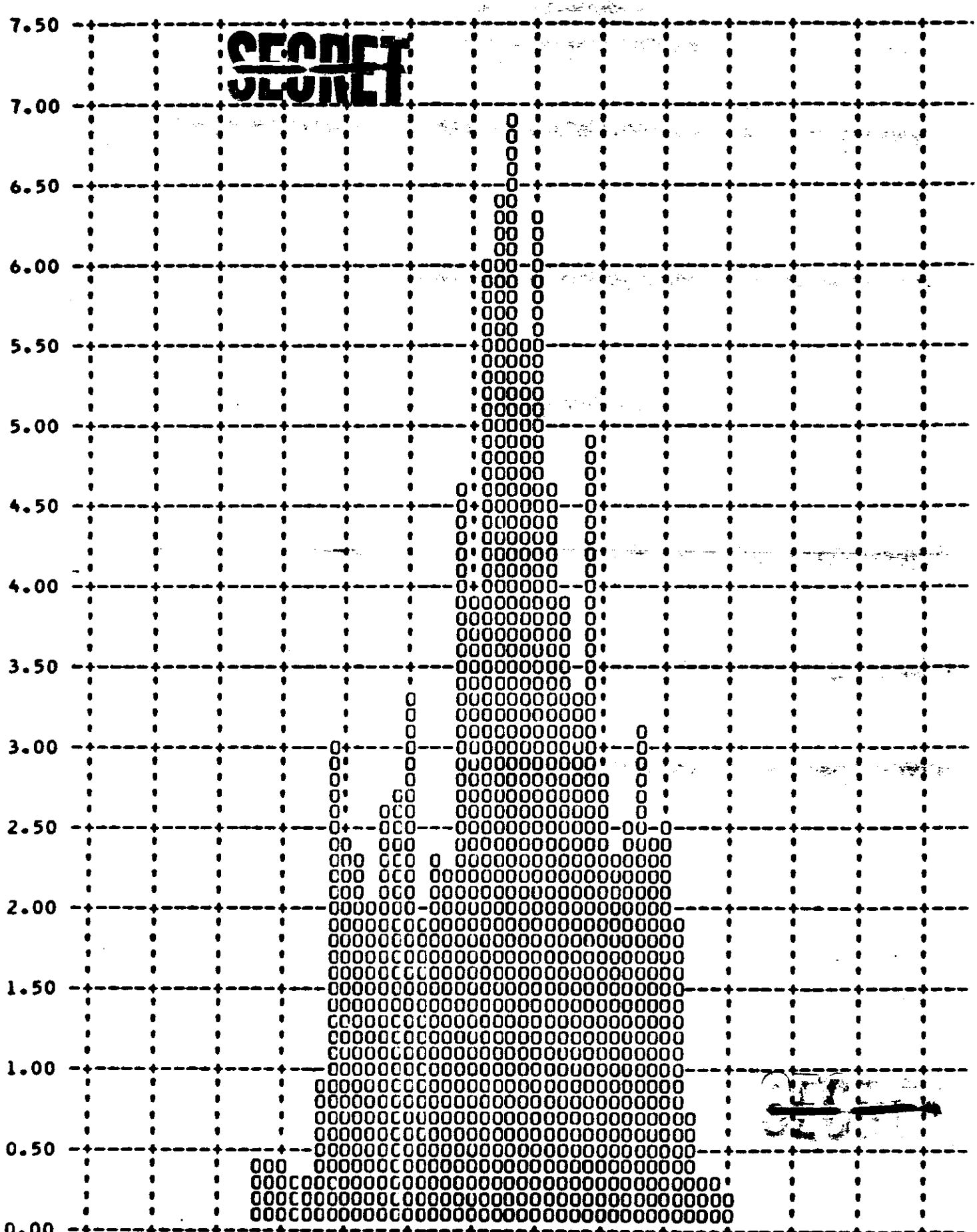
Y ROLL ANGLE ERROR - DEGREES (X) VERSUS FREQUENCY - PERCENT (Y)



[redacted] MISSION 1008-1 [redacted] MISSION 10

J-10 A BUCKET 10-20-64 FRAMES 1-6 OF EACH OP OMITTED 90 PERCENT = 0.

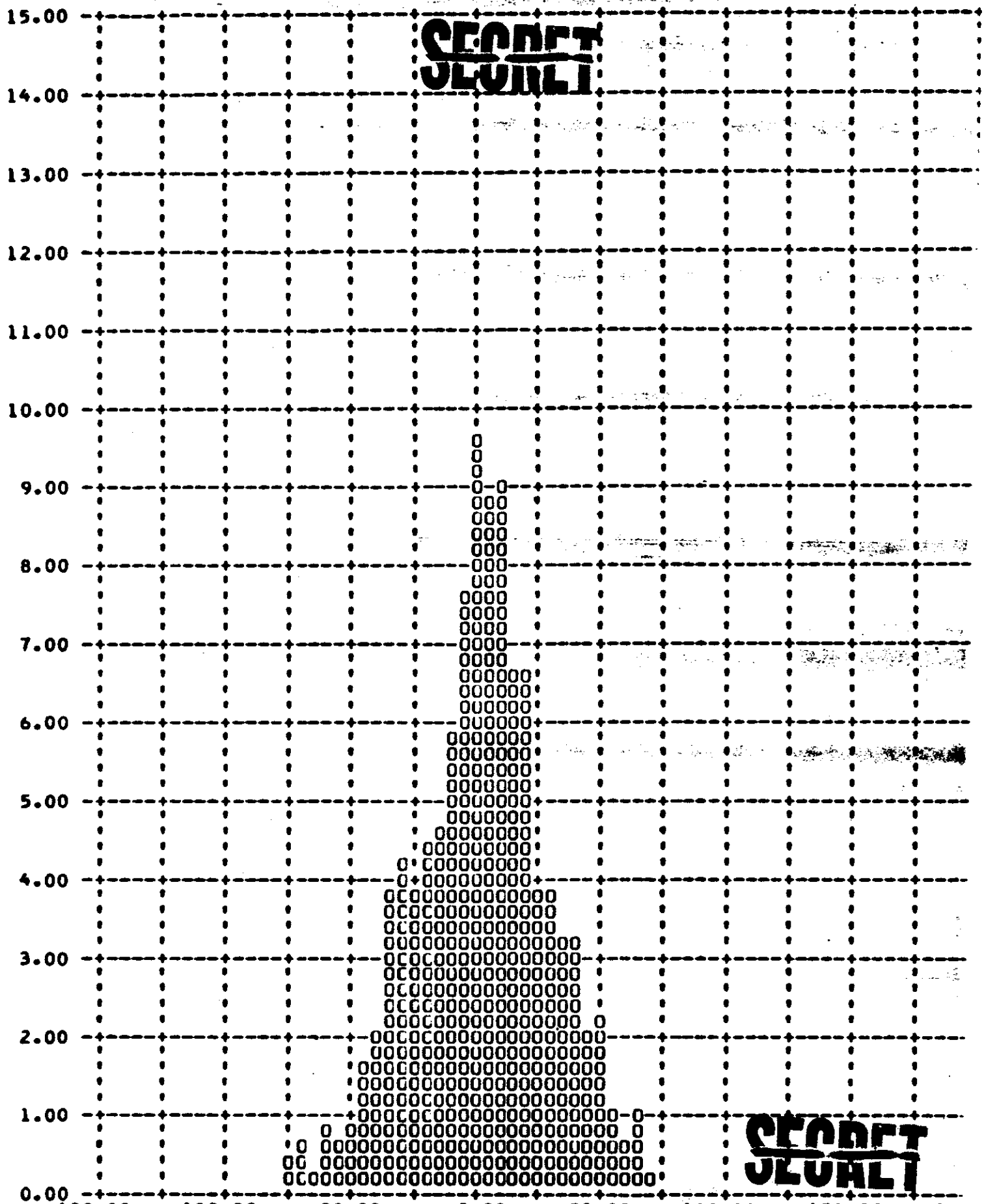
Y YAW ANGLE ERROR - DEGREES (X) VERSUS FREQUENCY - PERCENT (Y)



[redacted] MISSION 1008-1 [redacted] MISSION 10

J-10 A BUCKET 10-20-64 FRAMES 1-6 OF EACH OP OMITTED 90 PERCENT = 43.8

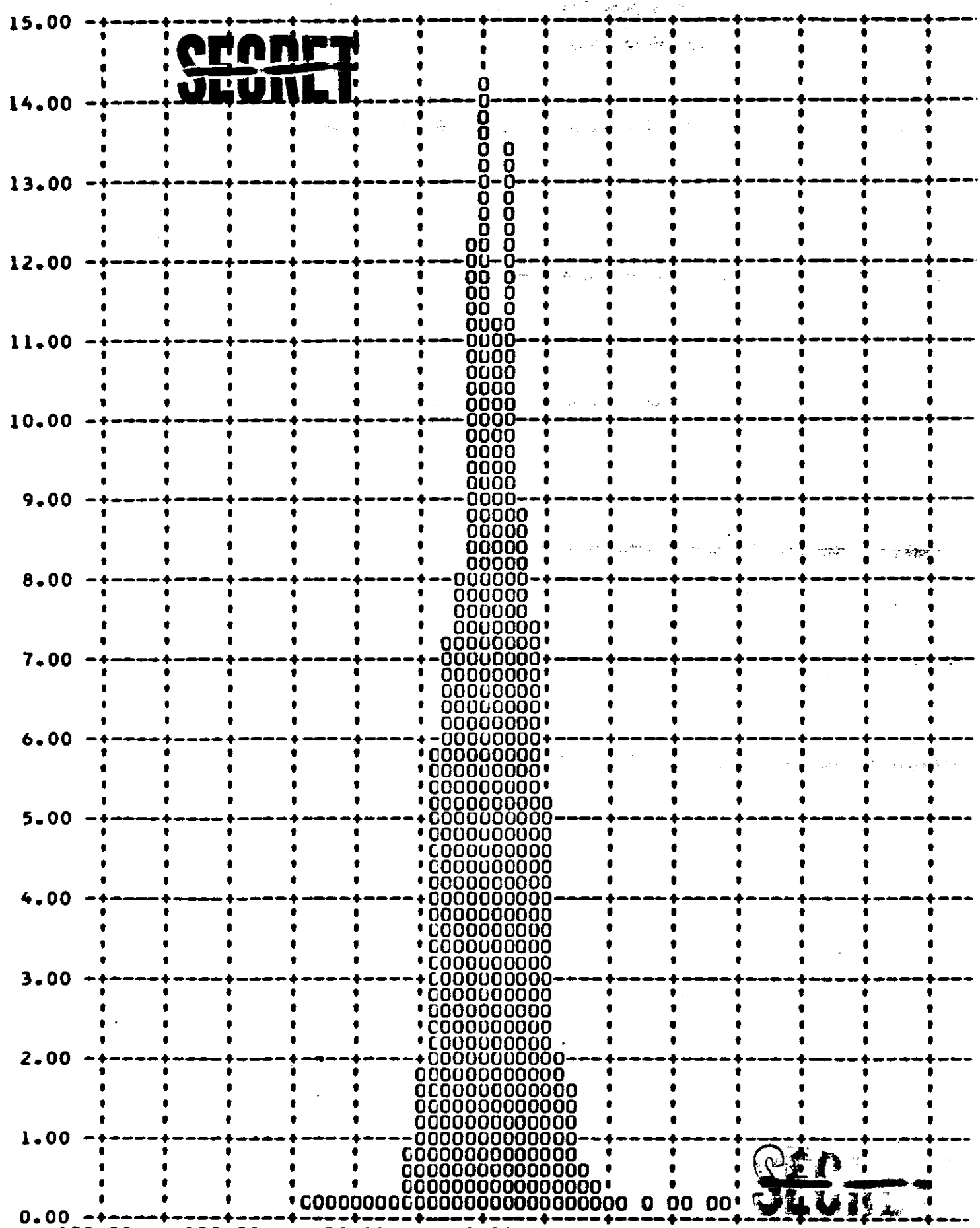
Y PITCH RATE ERROR - DEG/HOUR (X) VERSUS FREQUENCY - PERCENT (Y)



[redacted] MISSION 1008-1 [redacted] MISSION 1C

J-10 A BUCKET 10-20-64 FRAMES 1-6 OF EACH OP OMITTED 90 PERCENT = 23

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



[redacted] MISSION 1008-1 [redacted] MISSION 1C

J-10 A BUCKET 10-20-64 FRAMES 1-6 OF EACH OP OMITTED 90 PERCENT = 29.6

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

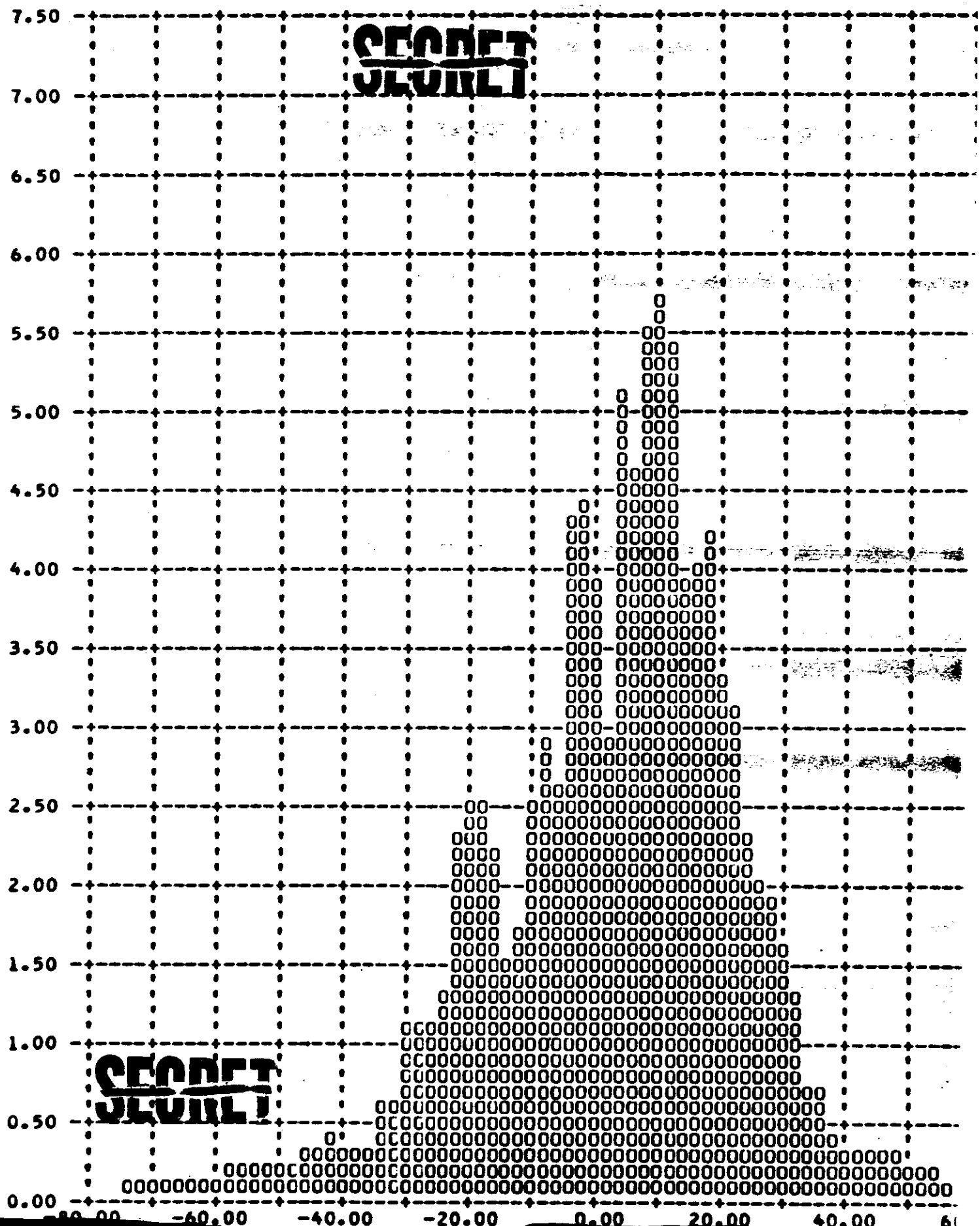
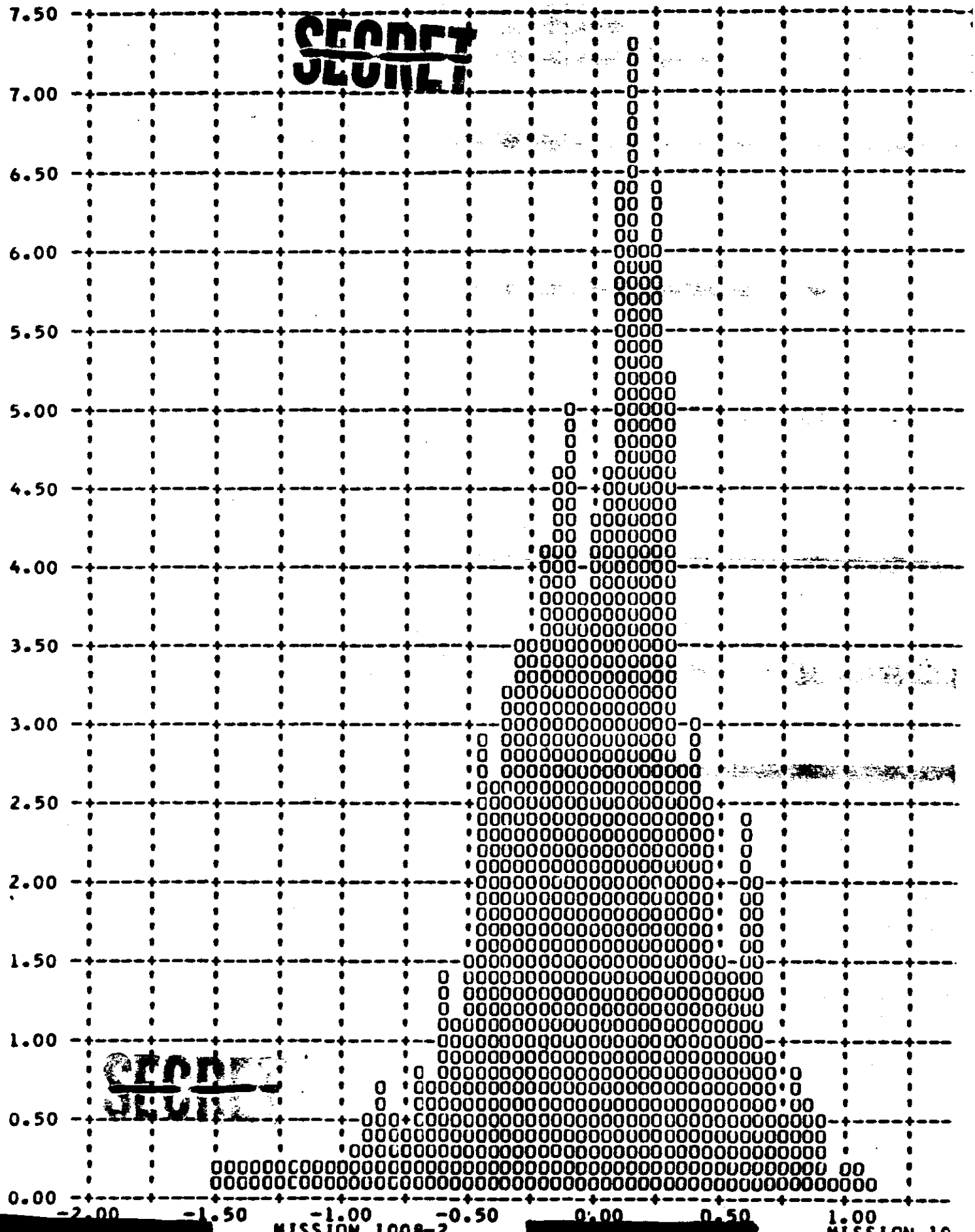


FIGURE 14-6

J-10 B BUCKET 10-20-64 FRAMES 1-6 OF EACH OP OMITTED 90 PERCENT = 0.2

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



[redacted]

FIGURE 14-7

J-10 B BUCKET 10-20-64 FRAMES 1-6 OF EACH OP OMITTED 90 PERCENT = 0.

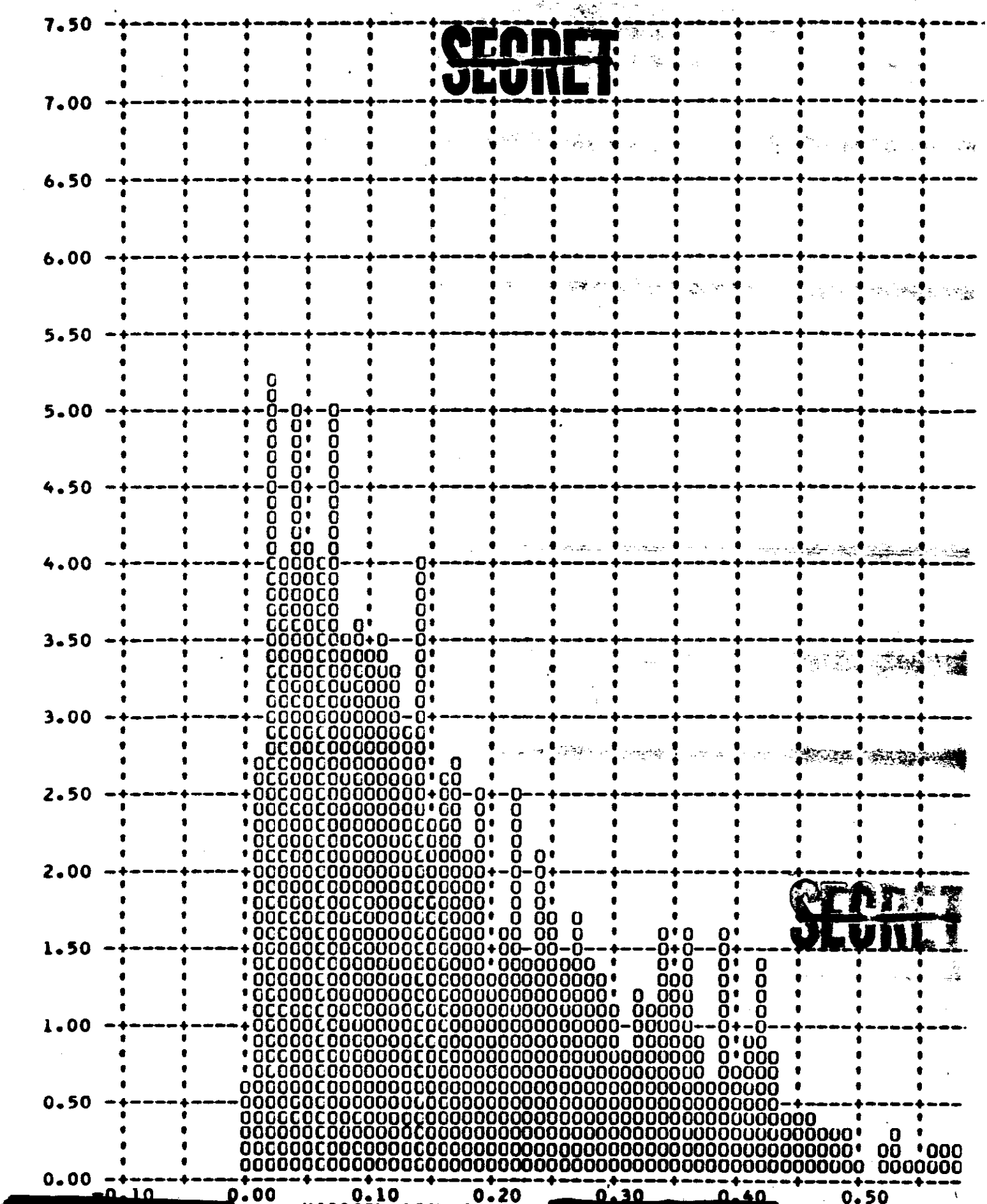
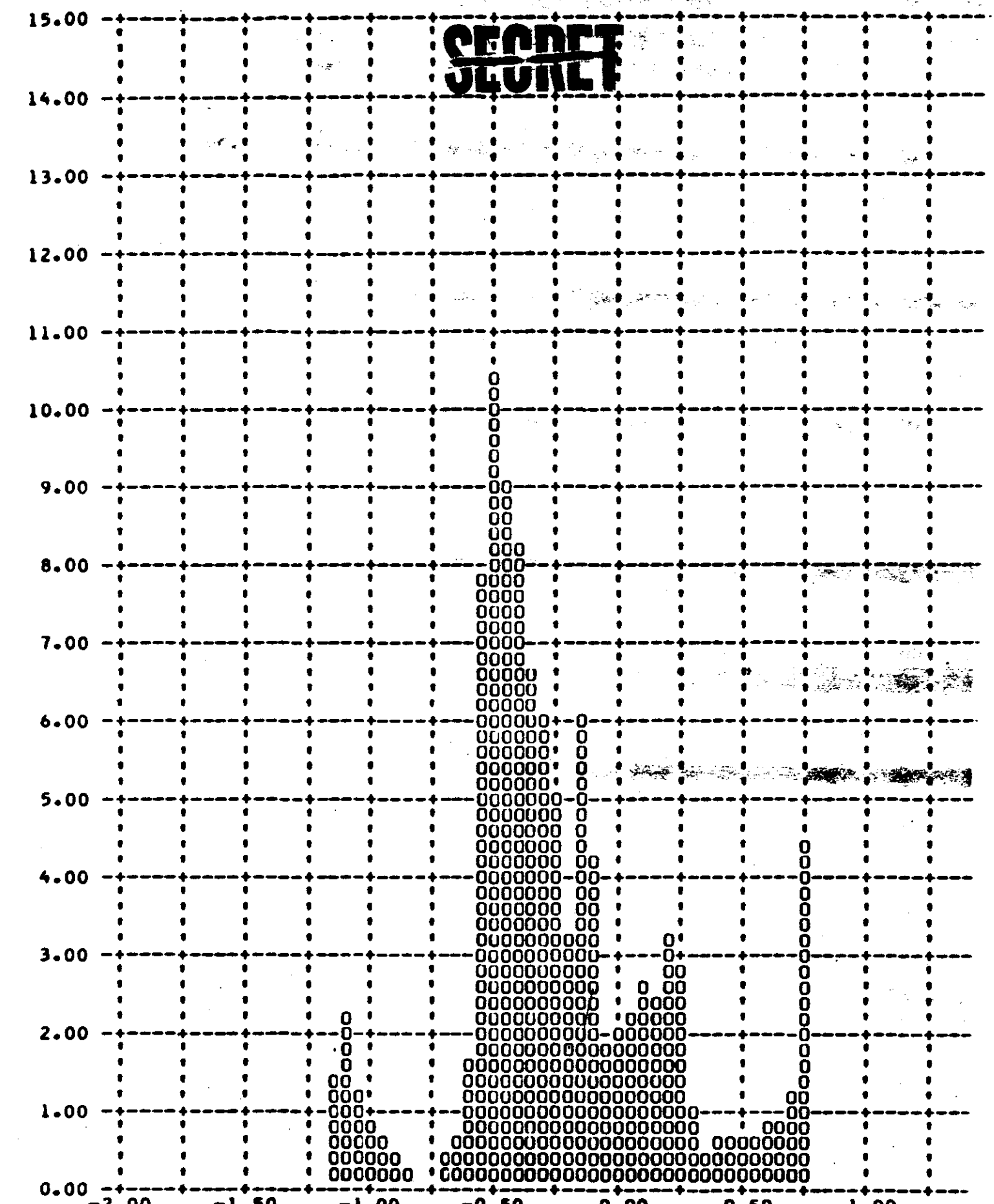


FIGURE 14-8

J-10 8 BUCKET 10-20-64 FRAMES 1-6 OF EACH UP OMITTED 90 PERCENT = 0.



[redacted] MISSION 1008-2 MISSION 1(

FIGURE 14-9

J-10 B BUCKET 10-20-64 FRAMES 1-6 OF EACH OP OMITTED 90 PERCENT = 42

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

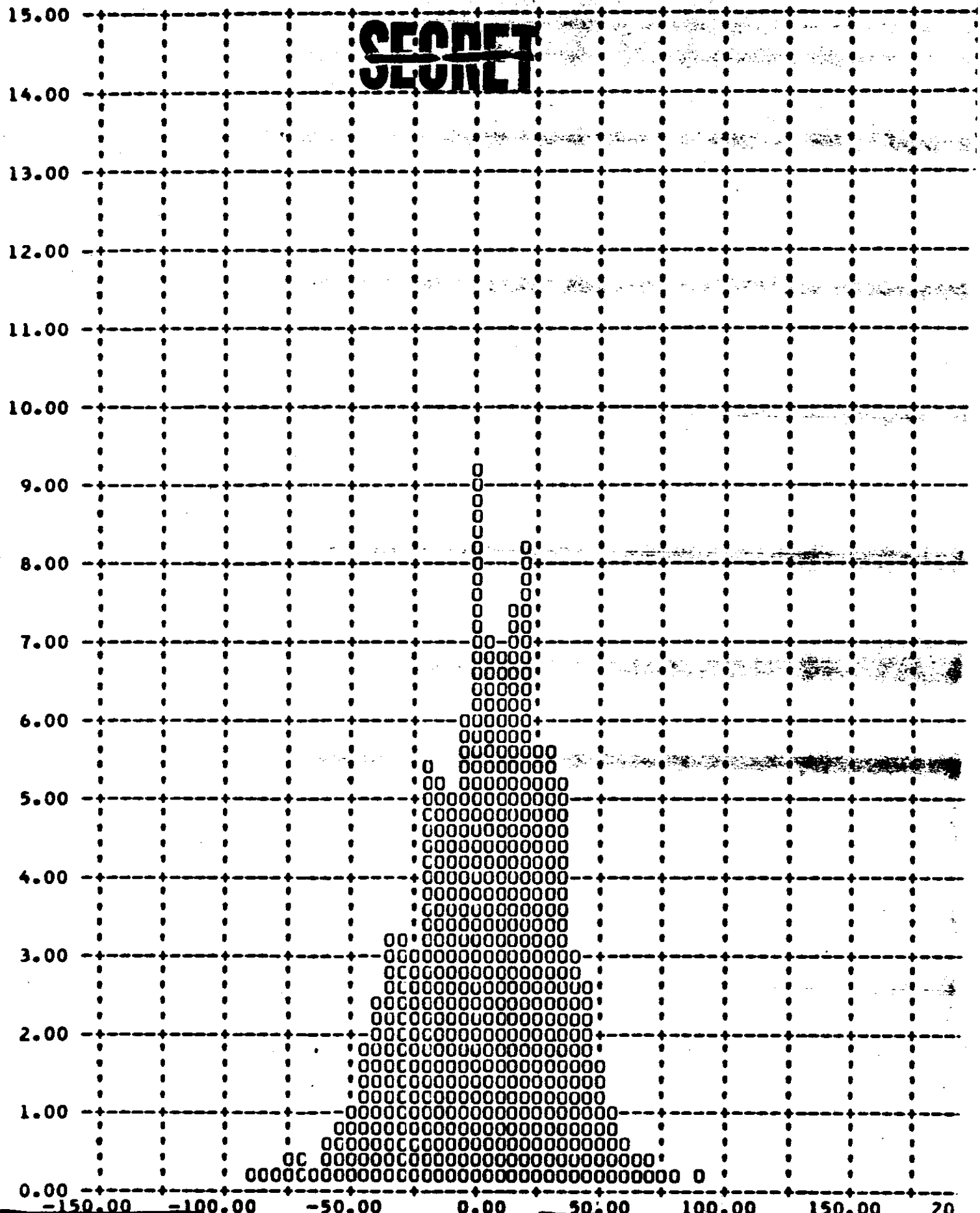
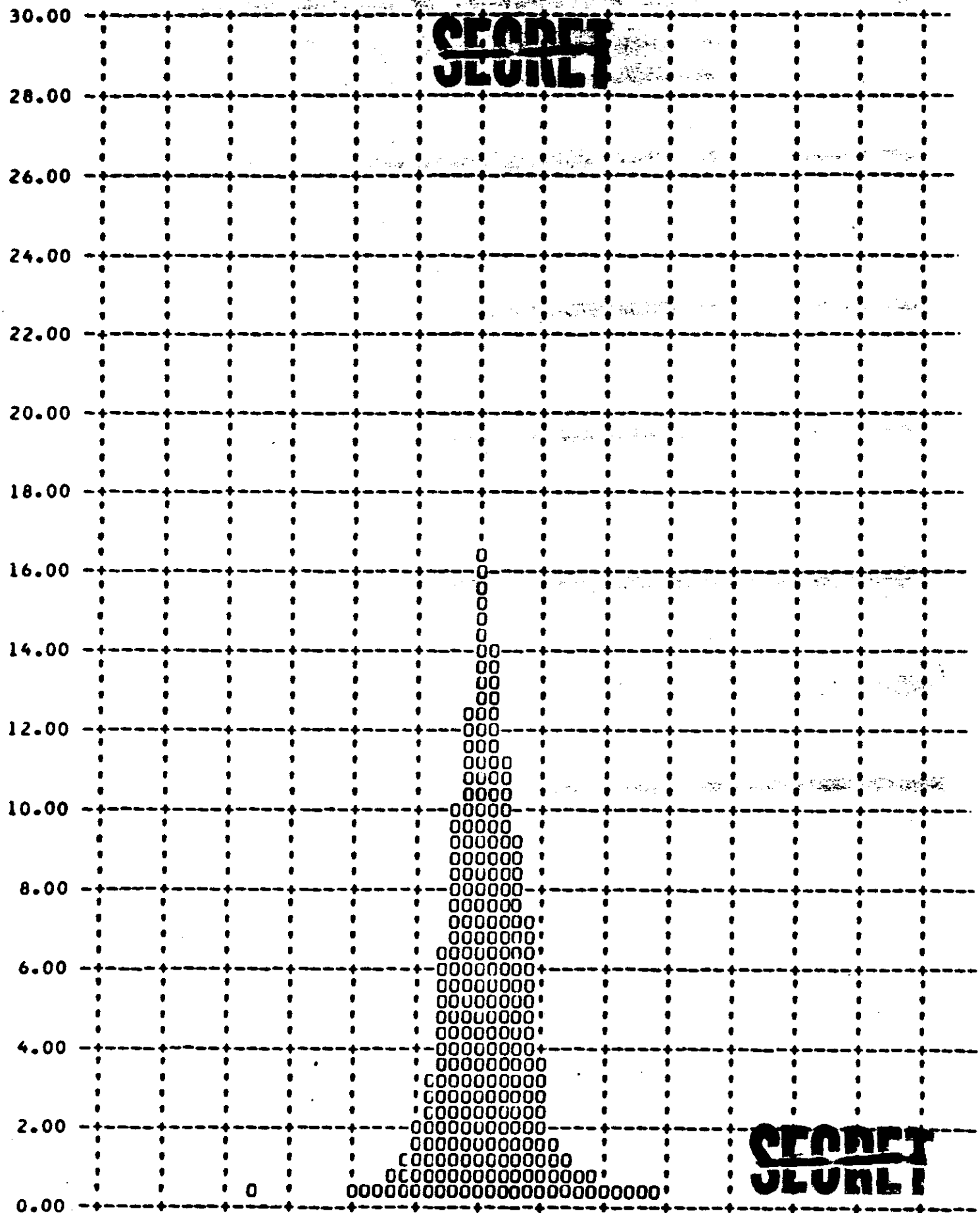


FIGURE 14-10

FRAMES 1-6 OF EACH OP OMITTED [redacted] 90 PERCENT = .

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



[redacted] MISSION 1008-2 [redacted] MISSION 100

FIGURE

J-10 B BUCKET 10-20-64 FRAMES 1-6 OF EACH OP OMITTED 90 PERCENT = 32.

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

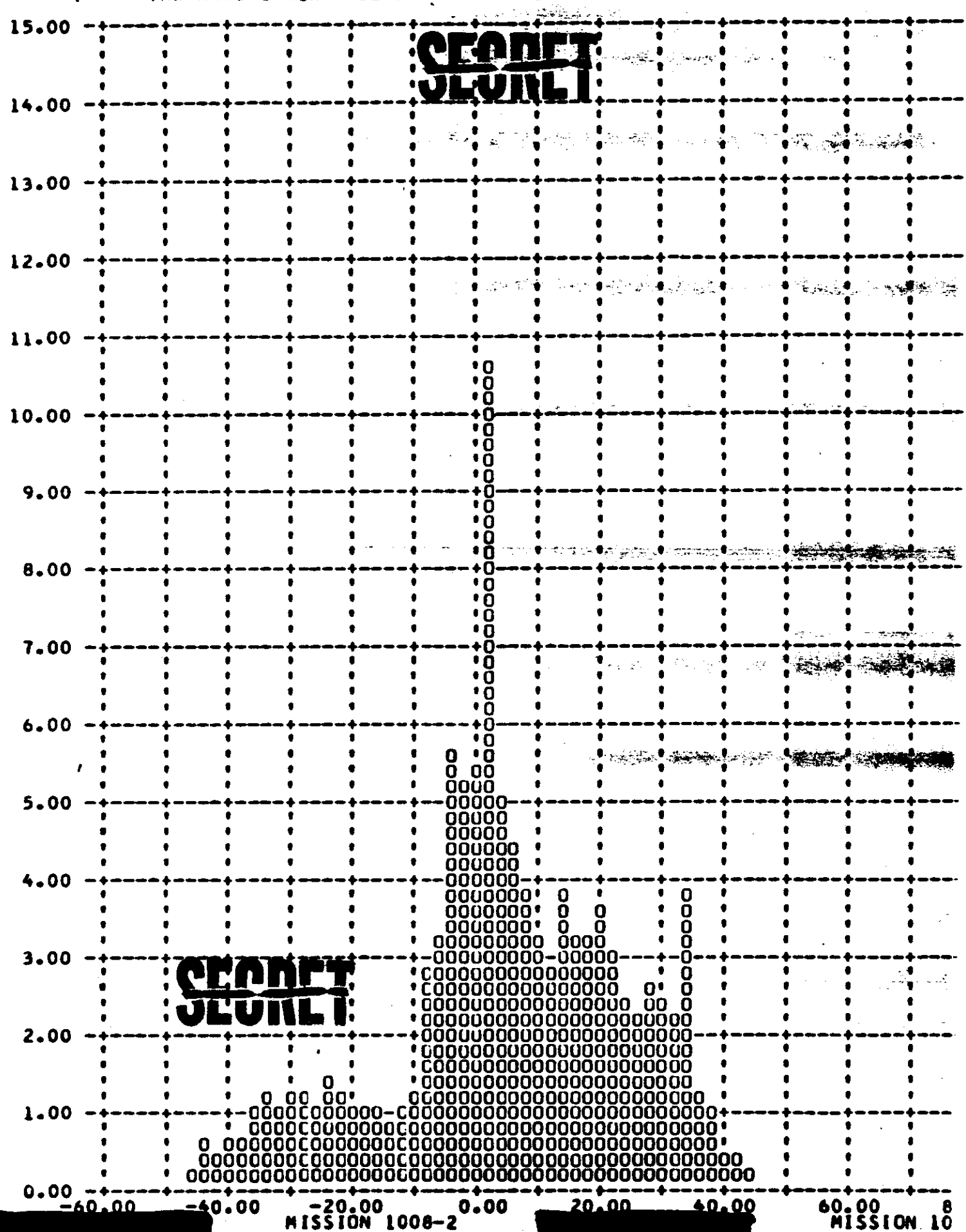


FIGURE 14-12

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 15-6.

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.

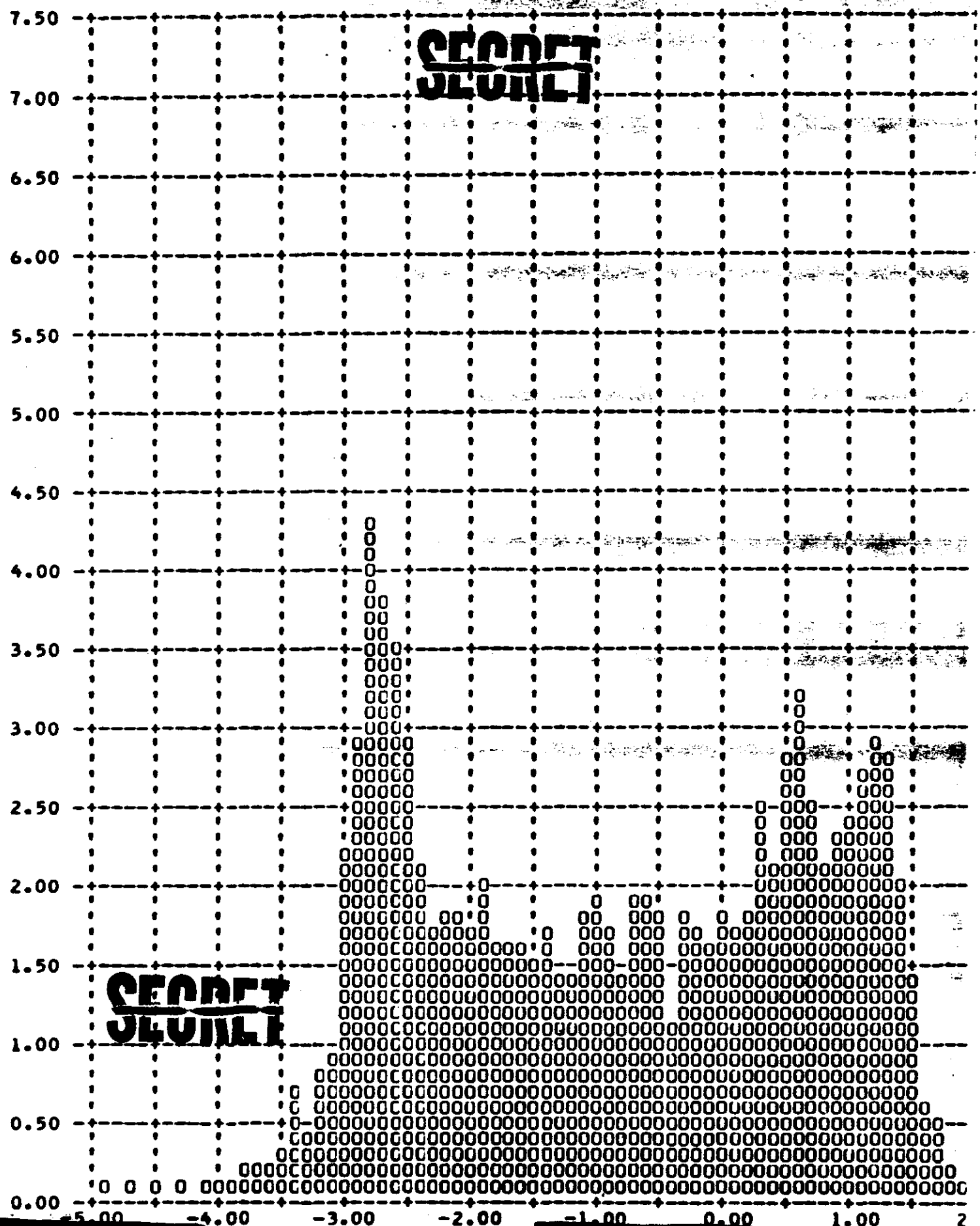
	Mission 1008-1		Mission 1008-2	
Value	90%	Range	90%	Range
V/h Ratio Error (%)	2.9	-4.9 to +1.9	2.8	-4.4 to +2.0
Along Track Resolution Limit (ft)	4.9	0 to 6.1	4.2	0 to 6.0
Cross Track Resolution Limit (ft.)	5.9	0 to 7.4	5.4	1.0 to 7.4

The attitude control errors and the V/h errors are among the lowest observed from recent missions. The resulting resolution limits are correspondingly low and it is not felt that the camera system was smear limited during the missions.

[redacted] MISSION 1008-1 [redacted] MISSION 100

J-10 A BUCKET 10-20-64 FRAMES 1-6 OF EACH OP OMITTED 90 PERCENT = 2.

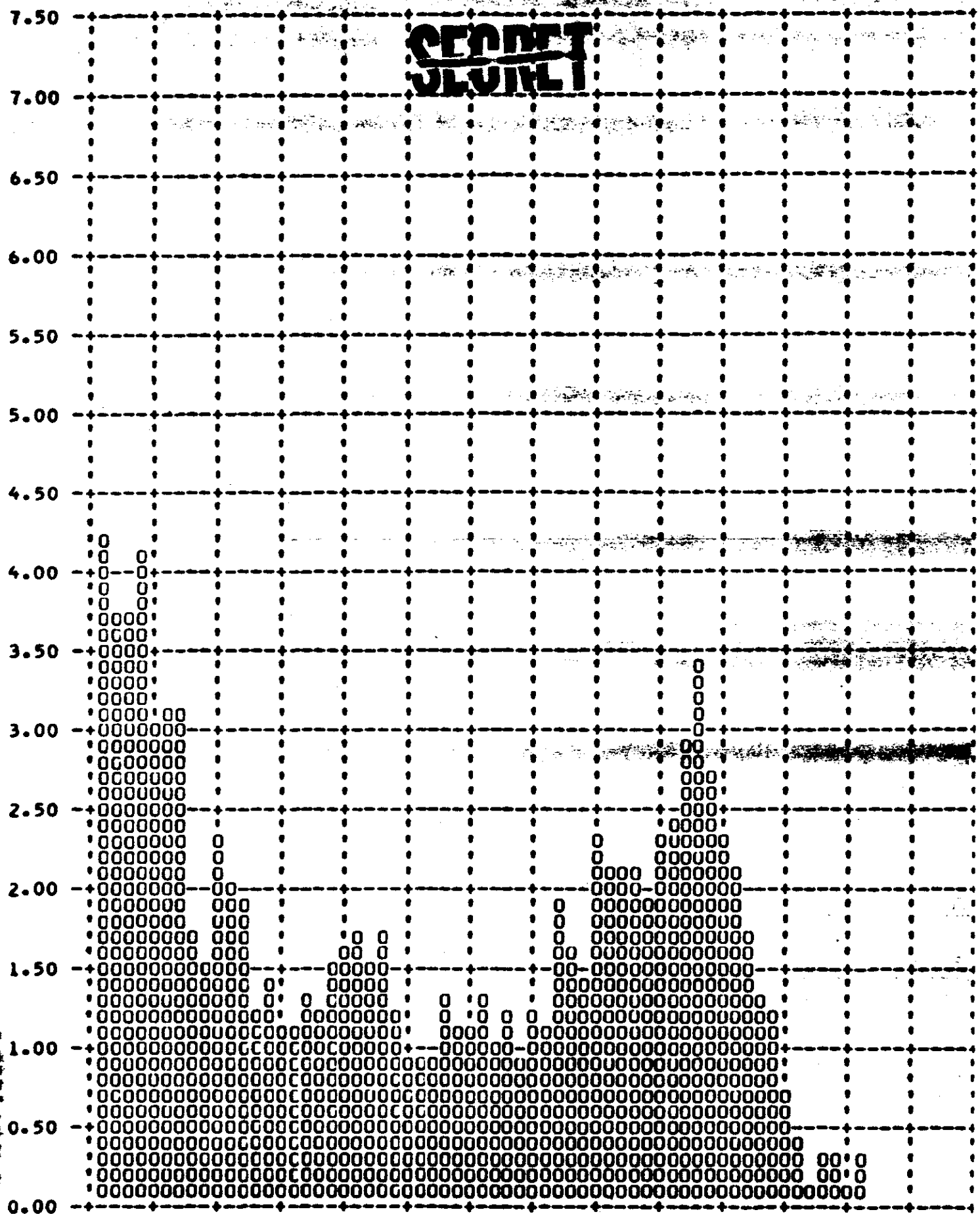
Y V/H RATIO ERROR - PERCENT (X) VERSUS FREQUENCY - PERCENT (Y)



[redacted] MISSION 1008-1 [redacted] MISSION 100

J-10 A BUCKET 10-20-64 FRAMES 1-6 OF EACH OP OMITTED 90 PERCENT = 4.9

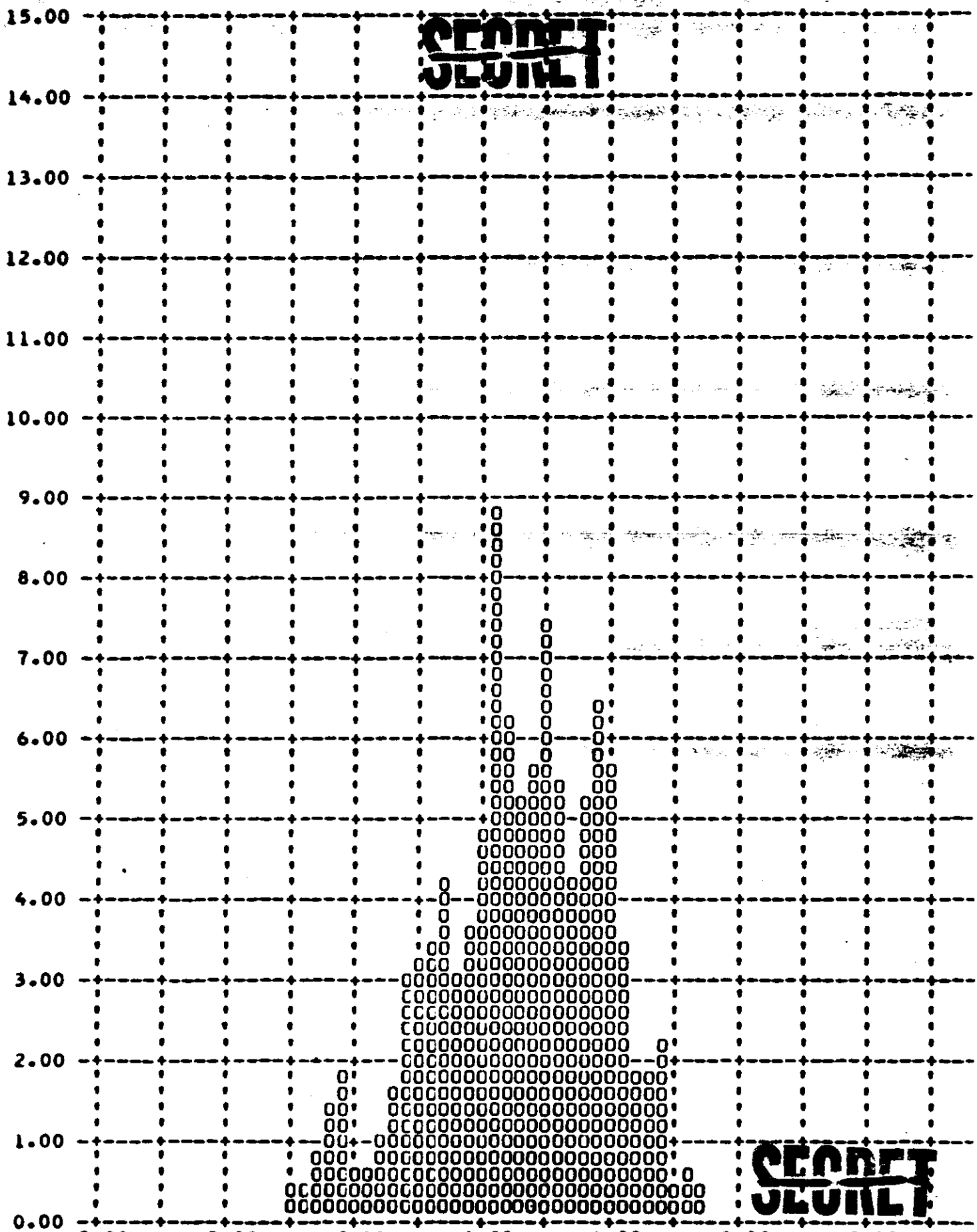
Y ALONG TRACK RESOLUTION LIMIT - FEET (X) VERSUS FREQUENCY - PERCENT (Y



[redacted] MISSION 1008-1 [redacted] MISSION 1(

J-10 A BUCKET 10-20-64 FRAMES 1-6 OF EACH OP OMITTED 90 PERCENT = 5

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



MISSION 1008-1

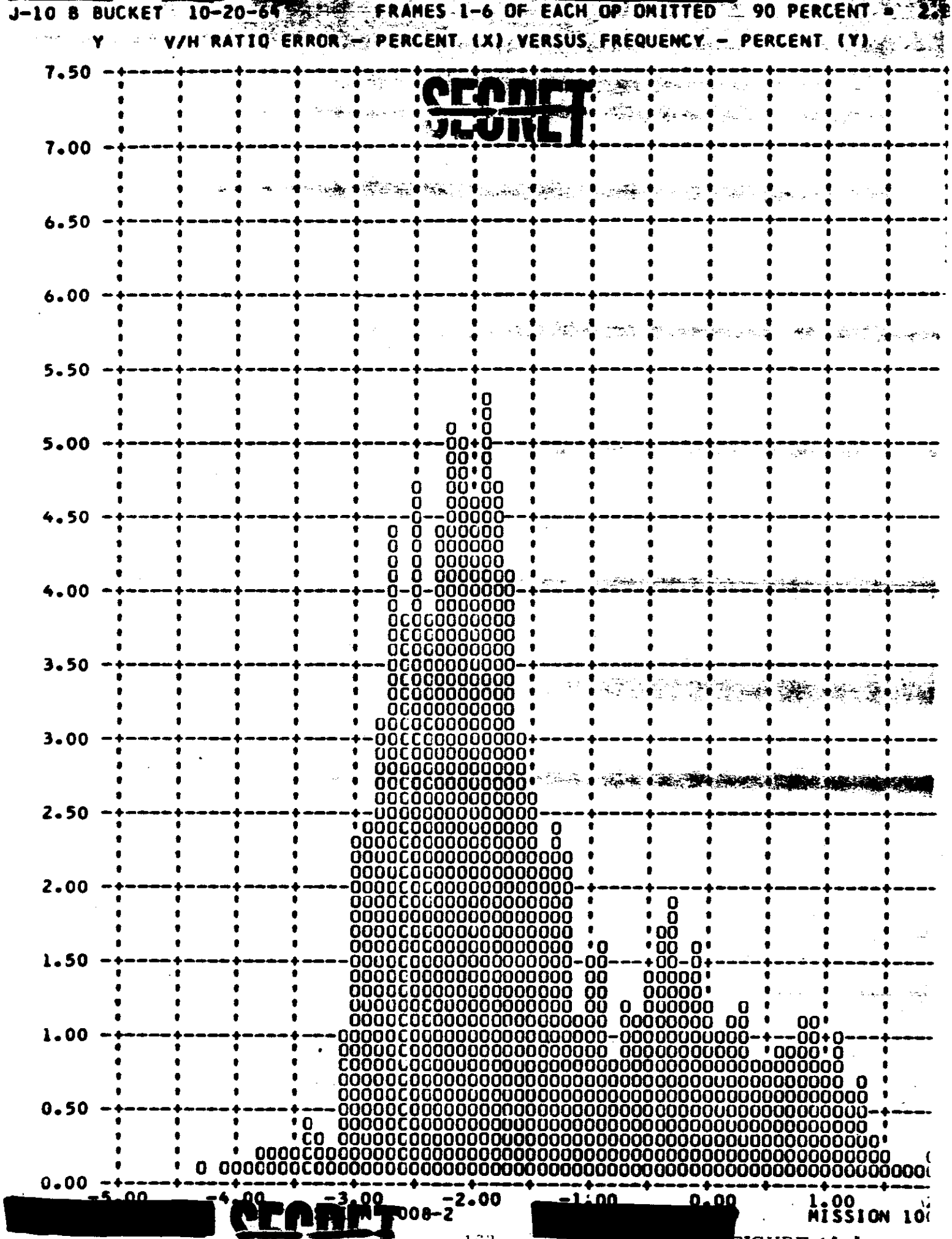

J-10 B BUCKET 10-20-64 FRAMES 1-6 OF EACH OP OMITTED 90 PERCENT
Y V/H RATIO ERROR - PERCENT (X) VERSUS FREQUENCY - PERCENT (Y)
SECRET
7.50
7.00
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
-5.00
-4.00
-3.00
-2.00
-1.00
0.00
1.00
008-2
MISSION 10

FIGURE 15-4

J-10 B BUCKET 10-20-64 FRAMES 1-6 OF EACH OP OMITTED 90 PERCENT = 4

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

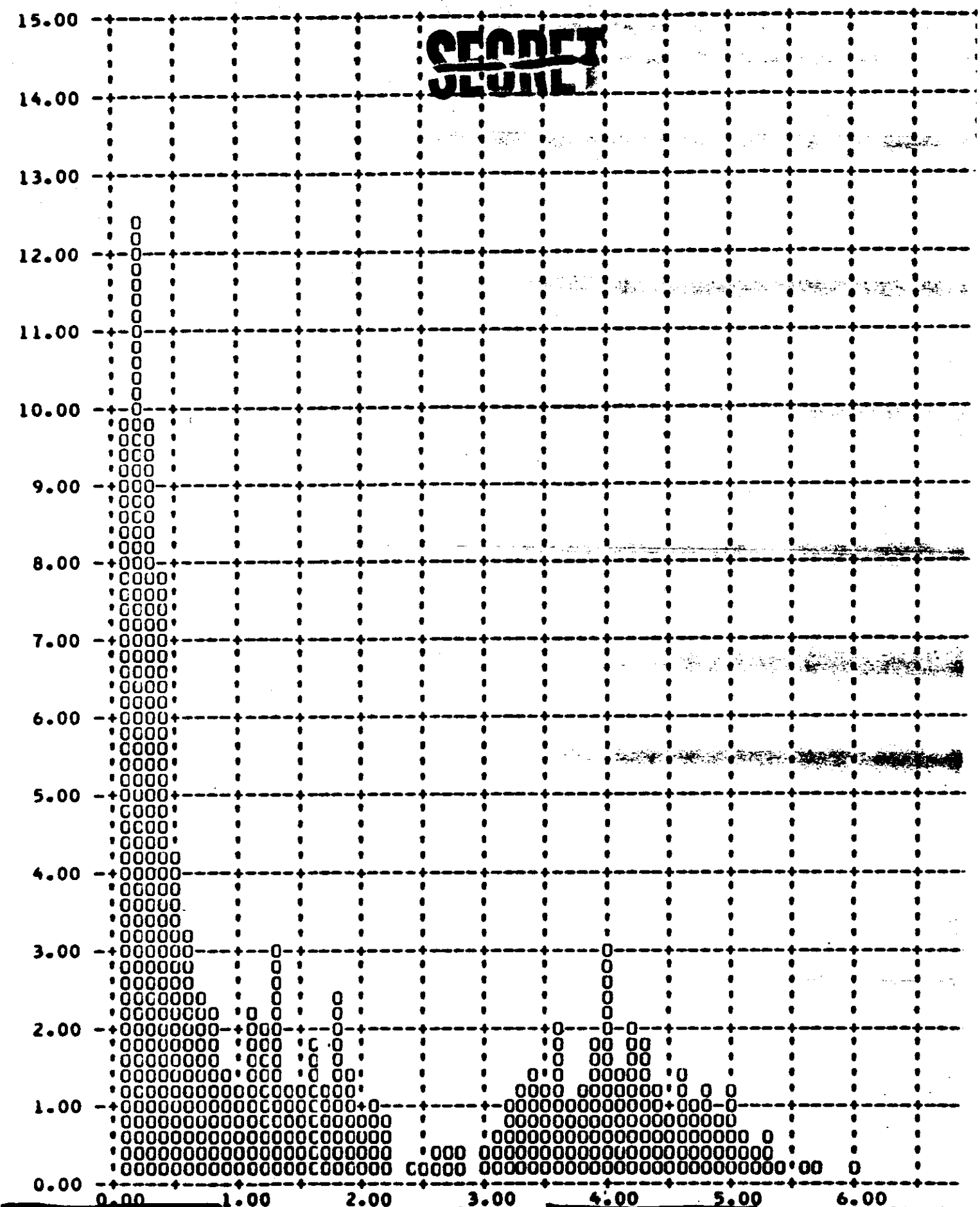


FIGURE 15-5

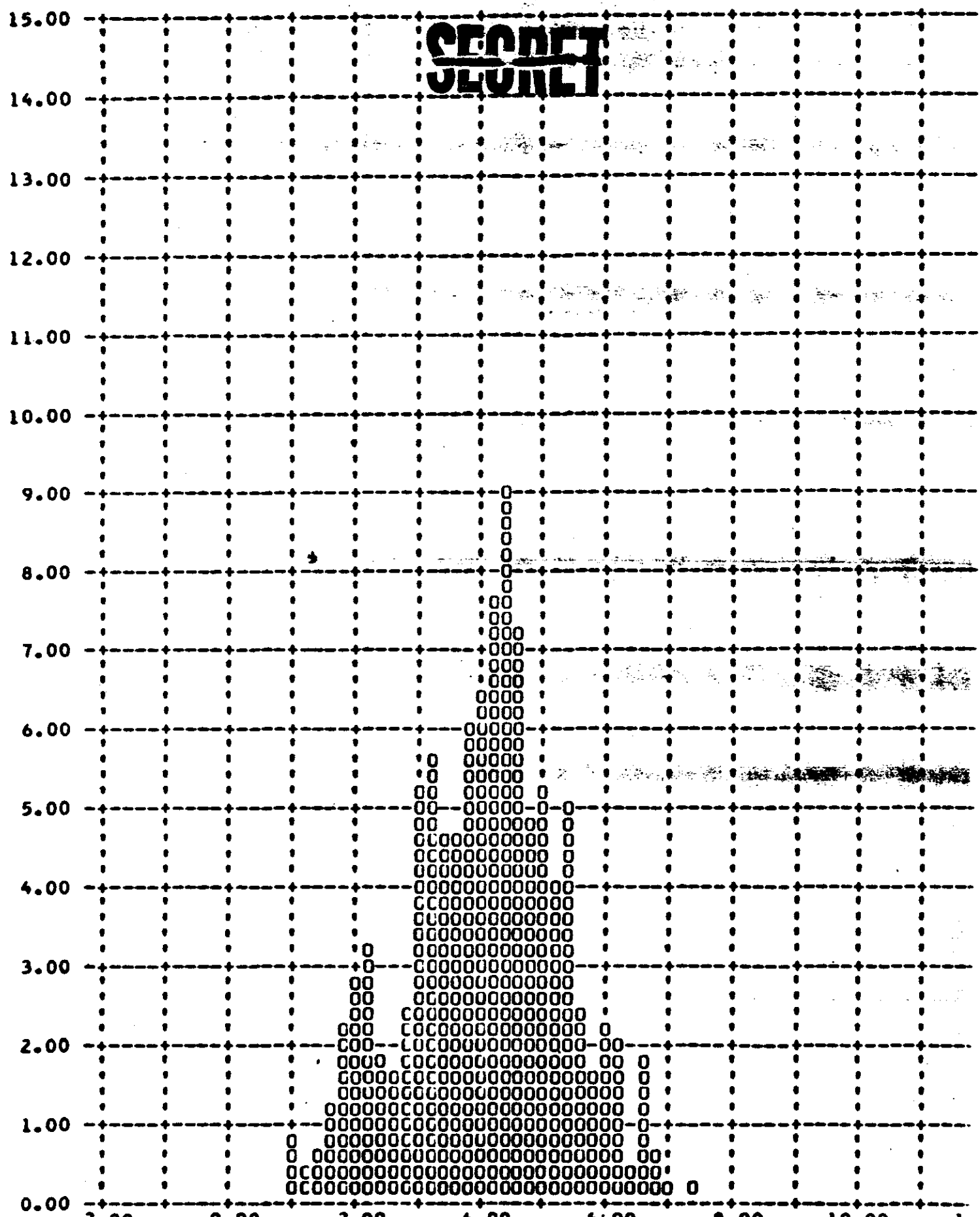

Y CROSS TRACK RESOLUTION LIMIT - FEET (X) VERSUS FREQUENCY - PERCENT (
SECRET
15.00
14.00
13.00
12.00
11.00
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
-2.00
0.00
2.00
4.00
6.00
8.00
10.00
MISSION 1008-2
MISSION 10

FIGURE 15-6

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 received at the take-up cassette. Both film types have 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 readings for the dosimeter strips and the radiation level equivalents.

	Mission 1008-1		Mission 1008-2	
Emulsion	B + F Density	Radiation	B + F Density	Radiation
Type 4401	0.20	0.8 R	0.20	0.8 R
Royal X Pan	0.30	0.6 R	0.33	0.7 R

The mean total radiation seen by the take-up cassettes during both missions was approximately 0.7 roentgens. This level is somewhat less than received during recent missions and is below the level that will degrade the panoramic photography.

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 - 60 opportunities to operate.
One failure - capping shutter on slave instrument on system M-7.
Assume - 3000 cycles per camera per mission.
Estimated Reliability = 98.4% at 50% confidence level.

Main Camera Door Reliability

Sample Size - 30 vehicles x 2 doors = 60 opportunities to operate.
1 major malfunction. door failed to eject for 7 passes, Mission 9048.
1 minor malfunction, door failed to eject for 2 passes, Mission 1006.
Estimated Reliability = 97.4% at 50% confidence level.

Payload Clock Reliability

Sample size - 31 completed missions in sample.
No failures
Estimated Reliability = 97.9% at 50% confidence level.
Estimated Reliability of Payload Functioning on orbit
98.4 x 97.9 x 97.4 = 93.7%.

Recovery System Reliability

28 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 = 20
Number of failures = 7
Estimated Reliability = 70.5% at 50% confidence.

Horizon Camera Reliability

Sample includes M27, J5A J5B, J9A, J9B, and up.
1 failure - center of format switch, Mission 1006
Estimated Reliability of Single Camera = 89.6% at 50% confidence level.
Estimated Reliability of Four Horizon Cameras at a Parallel Redundant System = 98.9% at 50% confidence level.

Horizon Camera Door Reliability

Sample size = 30 x 4 = 120 opportunities to operate.
No failures have occurred.
Estimated Reliability = 99.7% reliability at 50% confidence level.

Stellar-Index Camera Door Reliability

Terrain Door, Stellar Door, and deployment of Stellar Baffle are functions considered.
Sample size = 19 x 3 = 57 chances to operate.
One failure - stellar baffle failed to deploy.
Estimated Reliability = 97.1% at 50% confidence level.

[redacted]

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