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17 November 1967

TO: [redacted]
C. Murphy
A. Johnson
[redacted]

THRU: [redacted]

FROM: [redacted]

SUBJECT: MISSION 1038-1 and 1038-2 FINAL REPORT (J-34)

Enclosed is the Final Performance Evaluation Report for Mission 1038-1 and 1038-2.

[redacted] Manager
Advanced Projects

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[redacted]

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CORONA J

PERFORMANCE EVALUATION REPORT

Mission 1038-1 and 1038-2

MTV 1629, J-34

October 10, 1967

Approved [redacted]

Advanced Projects

Approved [redacted]

[redacted]

FOREWARD

This report details the performance of the payload system during the operational phase of the [redacted] Flight Test Vehicle 1629.

Lockheed Missiles and Space Company has the responsibility for evaluating payload performance under the Level-of-Effort and "J" System contracts.

This document is the final payload test and performance evaluation report for Mission 1038-1 and 1038-2 which was launched on 14 January 1967.

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INTRODUCTION

This report presents the final performance evaluation of Missions 1038-1 and 1038-2 of the Corona Program. The purpose of this report is to define the performance characteristics of the J-34 payload system and to identify the source of in-flight anomalies.

The performance evaluation was jointly conducted by representatives of Lockheed Missiles and Space Company (LMSC) and ITEK at the facilities of NPIC and AFSPPF. 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, and MTF/AIM resolution are produced by AFSPPF. The vehicle attitude error values, frame correlation times are made at NPIC who also supply the Processing Summary 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.

SECTION 1

SYSTEM PERFORMANCE

A. MISSION OBJECTIVES

The payload section of Mission 1038, placed into orbit by Flight Test Vehicle #1629 and SLV-2A booster #495, 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-34 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 missions were 4/5/6 days -1 and 7/6/5 -2 with no inactive period.

B. MISSION DESCRIPTION

The payload was launched from Vandenberg Air Force Base (VAFB) at 2128:18 Z (1328:18 PST) on 14 January 1967. Ascent and injection were normal and the achieved orbit was 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 1038-1 consisted of five days operation and was completed by air recovery on 19 January 1967. Mission 1038-2 was completed with an air recovery on 26 January 1967 following seven days of photographic operations.

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

ORBITAL PARAMETERS

Parameter	Predicted	Orbit 42 Actuals	Orbit 120 Actuals
Period (Min.)	90.104	90.088	89.919
Perigee (N. M.)	99.834	96.944	98.505
Apogee (N. M.)	204.925	208.05	204.100
Incliniation (Deg.)	80.00	80.075	80.074
Perigee Latitude (Deg. N.)	20.35	29.232	46.518
Eccentricity	0.014623	0.01546	0.01471

C. PANORAMIC CAMERAS

Both instruments operated satisfactorily. The image quality was degraded by atmospheric conditions. The slave camera starboard H.O. imagery was veiled.

D. STELLAR-INDEX CAMERAS

Both instruments produced acceptable imagery for data reduction.

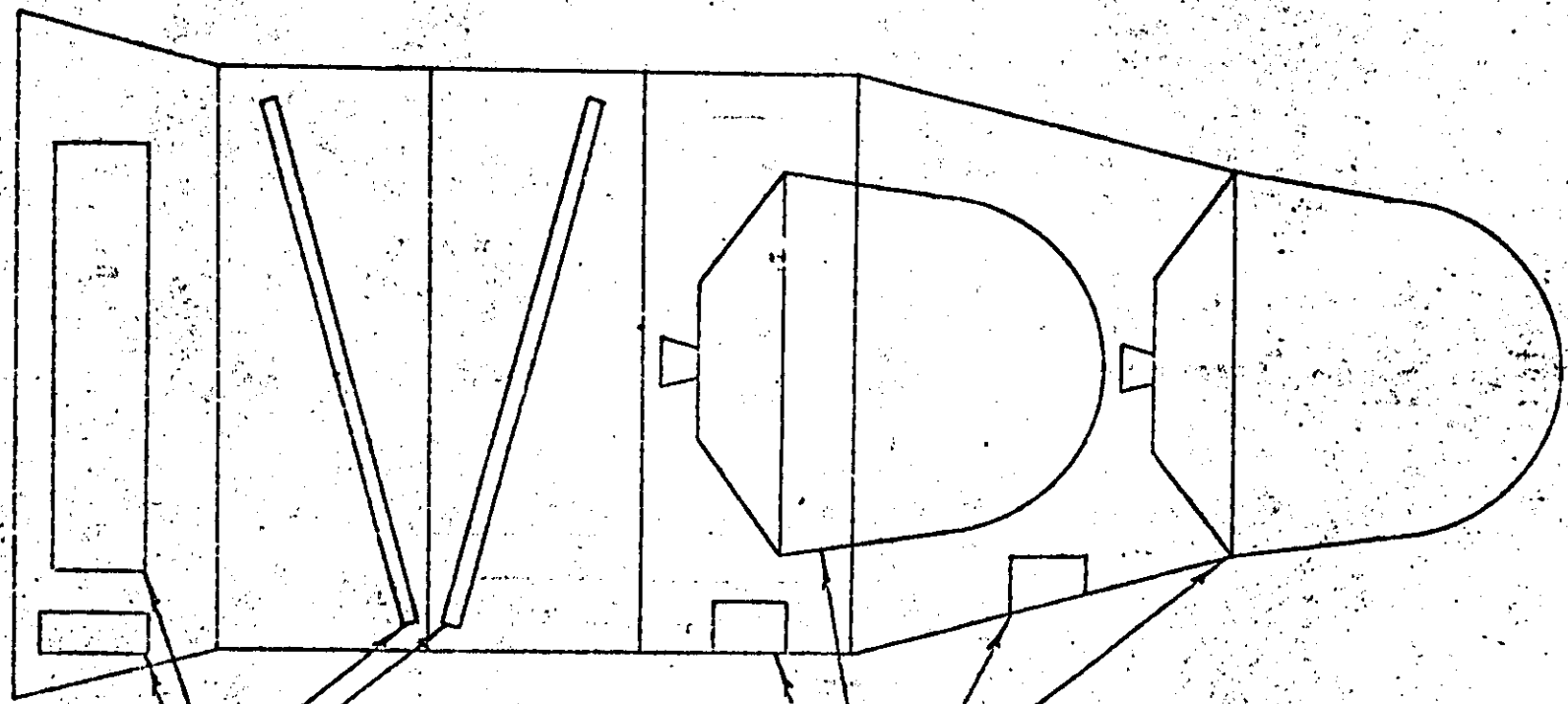
E. OTHER SUBSYSTEMS

The clock, instrumentation, command, PMU and thermal control subsystems performed satisfactorily throughout both missions.

No. [redacted]

SCHEMATIC INBOARD PROFILE - CORONA J SYSTEM

MISSION 1038



Master Camera No: 192

Slave Camera No: 193

Supply Cassette No: SC-44

Clock No: 542

Yaw Programmer No: 461

"A" Recovery Subsystem No: 719

"A" Stellar-Index Camera No: D93/86/112

"B" Recovery Subsystem No: 720

"B" Stellar-Index Camera No: D90/111/108

Pressure Make-up Unit No: 1013

FIGURE 1-1

SECTION 2

PRE-FLIGHT SYSTEMS TEST

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 susceptibility to corona discharge. Such discharge fogs the film thus degrading the operational photography.

2. General Test Information

The J-34 payload system was subjected to an environmental HIVOS chamber test from 1 through 8 March 1966. A complete "J" mission was simulated. The -1 and -2 missions consisted of approximately 3000 cycles per mission per instrument. Camera internal operating pressures ranged from 0.5 microns to 80 microns. This system was the first to incorporate the new "double intermix" command system.

3. Panoramic Camera Performance

The dynamic performance of both instruments was satisfactory for the center of format switch, lens rotation and film transport. The 99/101 percent clutch ratios were 6/6 on both instruments.

Instrument cycle periods were fast during the first 8 orbits of the -1 mission and excessive coasting was noted. These anomalies occurred when temperatures were high (100°F).

The slave instrument payload had scratches which were traced to the payload riding on a roller flange after manual handling during a test interruption. Both instruments produced material completely free of corona. All recorded pan instrument data was excellent.

4. Stellar/Index Performance

The S/I instruments operated satisfactorily. Examination of the payload on D-93 showed one instance of stellar shutter malfunction (high density). Instrument D-90 had 26 frames out of 452 frames affected by corona. The corona density was within acceptable density levels. The stellar shutter D-93 was checked over and certified to be acceptable.

This "J" system was the first to provide S/I control from the slave instrument. The smear pulses on the slave payload were normal.

5. Clock Performance

The clock accuracy was satisfactory. The clock readouts were correlated with the IRIG "C" time and the results are shown in Table 2-1.

6. Command and Instrumentation Performance

The instrumentation functioned normally. The command system was satisfactory except the V/H delay stepper switch did not home with brush 14 in orbits 13, 14, 15 and 16. The transfer from -1 to -2 was accomplished by the secure real time command (KZ-38).

7. Pressure Make-Up System Performance

The PMU operated normally. The average gas consumption on both missions was 7.92 psi/min. The pressure ranged from 44 microns during operates to 0.5 microns with the instruments off.

8. Temperature Summary

Average instrument temperatures (^{o}F) for several days in both missions are listed below:

-1 Mission	Master		Slave		Beta Angle
Day	High	Low	High	Low	
1	105	70	95	70	53
2	100	72	100	72	53
3	100	65	100	66	53
4	87	64	82	65	53

-2 Mission	Master		Slave		
Day	High	Low	High	Low	
1	84	74	86	76	0
2	80	58	80	62	0
3	76	52	78	56	0
4	100	60	100	60	0

B. RESOLUTION TEST

Resolution and theodolite tests of the J-34 system were completed on 6 April 1966. Results of the thru-focus resolution tests of pan instruments 192 and 193 show the following characteristics;

MASTER PAN INSTRUMENT NO. 192

Maximum high contrast resolution 169 lines/mm at -0.000 focal position.

Maximum low contrast resolution 112 lines/mm at -0.001 focal position.

SLAVE INSTRUMENT NO. 193

Maximum high contrast resolution 165 lines/mm at -0.001 focal position.

Maximum low contrast resolution 119 lines/mm at -0.001 focal position.

The resolution test data for both instruments as shown in Figures 2-1 and 2-2, has been reviewed and appears normal in all respects. The demonstrated resolution performance meets the system requirements specification.

C. LIGHT LEAK TEST

The first live payload light leak test on the J-34 system was performed on 19 April. This test was the first in which the test exposure was increased to 90 minutes (from 60 minutes). This exposure produces on the high speed test film a density equivalent to the density that would be produced on flight film by about 90 percent of the computed direct solar illumination reaching a system in four orbits. Since portions of the system do not see this solar illumination or are affected primarily by the lower intensity albedo illumination, such conditions are considered in the evaluation of light leak effects. However, this first light leak test showed severe fogging at several points on the film from felt seals on the slave instrument drum, and minor fog from a leak at the teardrop fitting just forward of the fairing access door.

After correcting the teardrop leak and reworking the slave felt seals, a second light leak test was run on 25 April. The 90 minute soak was also used on this test. In addition, the instruments were cycled at high speed to the sit position. This procedure causes the instrument

scan arms (stovepipes) to come to rest near the start of scan position, which is the normal sit position during flight operations. In all previous J system tests, cycling to the sit position has been done at low speed which causes the scan arms to come to rest at the "home" position near the end of scan. The effect of this procedural change is that the scan arm tends to obscure leaks from the output edge of the drum. The results from the second light leak test verified correction of the teardrop leak but showed severe leaks from the felt seal at the input side of the slave instrument. These leaks also produced minor fog on the master film in the area where this film passes the slave instrument. On the basis of our regular evaluation criteria, the system freedom from light leakage was acceptable, except for the slave instrument drum area which was not acceptable.

Light leakage from the drum area of the main instrument has seen a continuous problem of the J program. It has been the primary reason for rework and retest for light leakage qualification at A/P. While some minor improvements have been made, the problem will continue until adequate drum seals are provided. Although rework of felt seals has enabled systems to pass the light leakage tests, flight results suggest that creep in the stretched felt seals has effectively undone the rework. As a result of flight performance evaluations, Boston has investigated the problem and concluded that simple modifications to the felt seals will solve the problem. Although a Boston ECO is expected in the near future, no adequate felt seals are presently available.

Since all of the severe fog from the felt seals is within three frames of the end of pass, and since no effective means for correcting the problem is available, the light leakage requirement for the salve instrument was waived and the J-34 system light leakage performance was considered acceptable for flight.

D. J-34 FLIGHT READINESS AND LOADING EVALUATION

The final Flight Readiness Test payload was processed and evaluated on 6 January 1967. The test payload showed that the functioning and data recording of both pan instruments was acceptable for flight loading.

Master Instrument No. 192 showed two notable defects. On some (but not all) frames there was distinct banding of fogged main formats. A check of timing mark spacing showed scan head velocity variations of up to 20 percent in such frames. Such variations in scan velocity occurred frequently in early "J" systems but no direct correlation with quality degradations has been established. Since a check of the scan arm-lens latch mechanism showed normal operation, the banding is considered to be within acceptable limits. Also on the Master Instrument

it was noted that a film rail partially obscured the timing marks for about one-half of the scan. This condition was not expected to have any significant effect on use of the timing record. Payload from Slave instrument No. 193 showed excellent data recording and no indication of functional defects. A slight minus density streak was noted in the pan format from scraped emulsion on the exposure slit. This scraped emulsion was removed before flight loading.

Rail scratching of both pan instrument films was average from inboard (data block) rails and much less than average from outboard rails. Although the system does not have polished rails, the only evidence of emulsion buildup was slight shadows at one or two shrinkage markers on each instrument. It is noted that humidity of the work area was much less than usual (20% to 30% rather than 40% to 50%) during readiness and loading operations. Low humidity appears to be very significant in minimizing rail scratches and accumulations of scraped emulsion.

Since this system is the first to be prepared for flight with full Phase III procedures, this was the first time that a live film bench test of S/I units was made as a part of the Flight Readiness Procedure. Ten cycle samples from each unit were processed and evaluated on 5 January. These samples showed normal operation of Stellar and Index components of S/I units D-93 and D-90, which were installed for flight in the "A" and "B" positions respectively.

Loading of the main instrument supply cassettes proceeded in a routine manner on 8 January. Sensitometric samples of all flight payloads were prepared and showed acceptable characteristics. Since flight payload from the J-38 (PG-2) system had shown abnormally high base-plus-fog density, two simulated "full" processing samples were prepared from both main instrument flight payloads. The flight samples processed at the "full" level showed lower base-plus-fog densities than the manufacturer's control sample. It is also noted that these samples showed the highest maximum densities that we have ever observed on type 3404 film. Maximum densities of 2.81 and 2.85 resulting from one of the full level processes can only be considered advantageous in that they represent an extension of the effective exposure range.

Final tracking and light leak checks were completed on 9 January. During the tracking tests, it was noted that there were distinct and continuous scratch-like streaks in the back coating of both main films. Similar, though less severe, marking has been noted during flight loading on many previous systems. Such marking has

been described by the manufacturer as an unavoidable defect in the manufacturing process which produces no defect whatsoever in image quality. Microscopic examination by Performance Evaluation of both processed and unprocessed flight samples supports the statement that image quality is not affected.

The final light leak checks showed an exceptional freedom from light leakage.

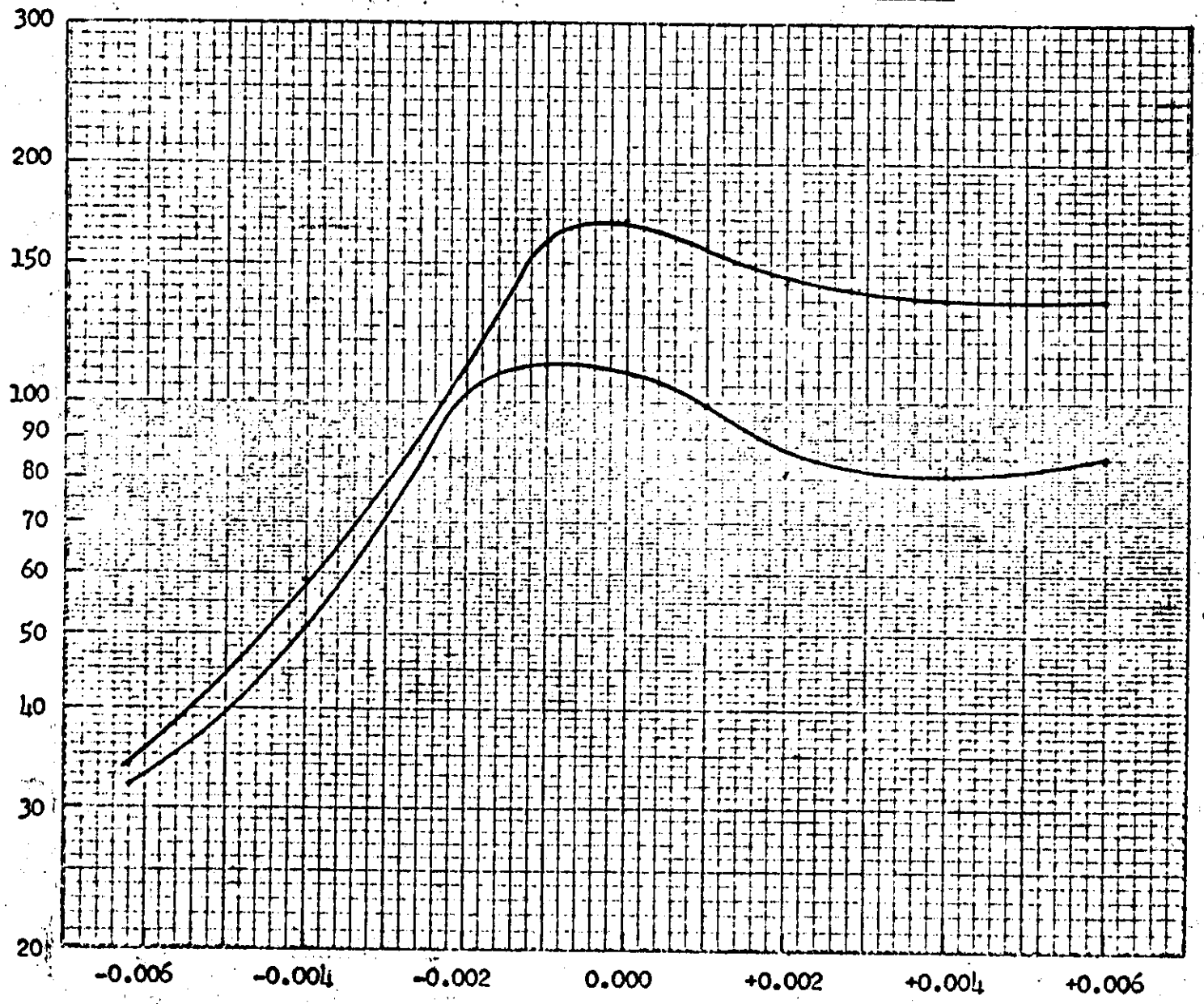
The J-34 system was certified for flight on 9 January.

E. COMMENTS

The J-34 payload system was the first system to utilize the full Phase III concept (Factory to Pad).

System testing was completed on 21 June 1966 and the payload system went into Phase II storage. The system was removed from storage on 2 August 1966 for 90 day recycle testing. The system was returned to Phase III storage on 11 August 1966. The system was removed from storage on 7 November 1966 for flight preparations. The flight date was cancelled and the system was returned to a partial Phase III storage on 29 November 1966. The system was removed for flight preparations again on 27 December 1966. All flight preparations were completed and the system was shipped to VAFB on R-3 for launch preparations. All confidence tests were completed and the system was launched on the scheduled date.

PRE-FLIGHT DYNAMIC RESOLUTION



Camera No: 192

Payload No: J-34

Resolution (l/mm)

High Contrast: 169

Low Contrast: 112

Film Type: 3404

Test Date: 4/6/66

Figure 2-1

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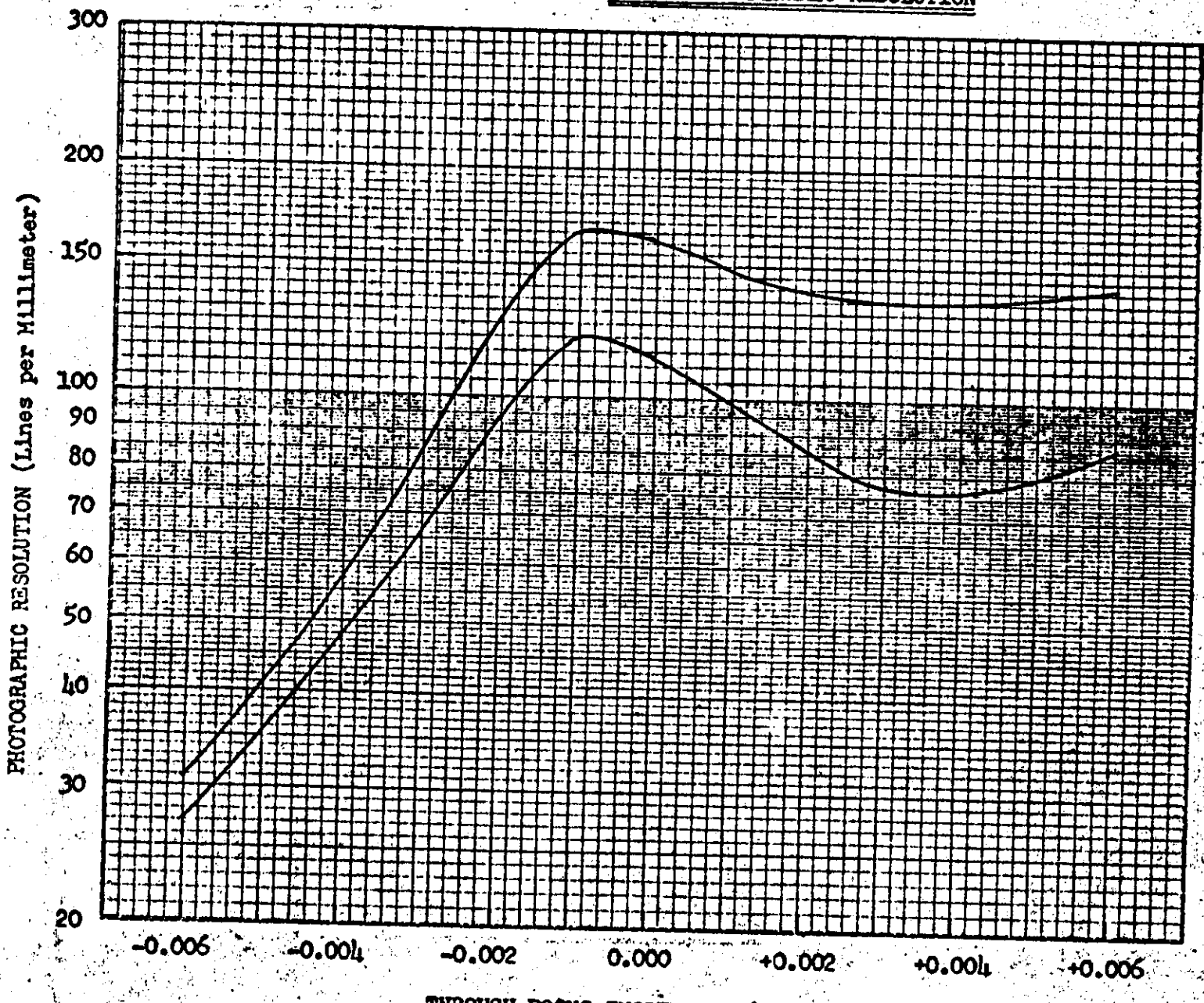
PRE-FLIGHT DYNAMIC RESOLUTION



Camera No: 193

Payload No: J-34

Resolution (1/mm)

High Contrast: 165

Low Contrast: 119

Film Type: 3404

Test Date: 4/6/66

Figure 2-2

[redacted]

J-34 HIVOS CLOCK CORRELATION

REV	IRIG DAY-HR-MIN-SEC	IRIG SECONDS	CLOCK SECONDS	DELTA IRIG	DELTA CLOCK	ERROR
1	60 8 31 46.220	5214706.220	47701.828	---	---	---
1	60 9 34 51.220	5218491.220	51486.837	3785.000	3785.009	0.009
2	60 10 1 56.320	5220116.320	53111.931	1625.100	1625.094	-0.006
2	60 11 4 51.380	5223891.380	56886.983	3775.060	3775.052	-0.008
3	60 11 31 41.420	5225501.420	58497.034	1610.040	1610.051	0.011
3	60 12 34 51.320	5229291.320	62286.933	3789.900	3789.899	-0.001
5	60 15 35 46.270	5240146.270	73141.899	10854.950	10854.966	0.016
	0 7 4 0.050=DELTA TIME			TOTAL ACCUM. ERROR		0.021
6	62 8 1 53.040	5385713.040	21273.738	---	---	---
6	62 9 4 58.380	5389498.380	25059.080	3785.340	3785.342	0.002
7	62 10 34 58.280	5394898.280	30458.986	5399.900	5399.906	0.006
8	62 11 1 53.340	5396513.340	32074.045	1615.060	1615.059	-0.001
9	62 12 31 53.380	5401913.380	37474.088	5400.040	5400.043	0.003
9	62 13 34 58.340	5405698.340	41259.049	3784.960	3784.961	0.001
10	62 14 1 53.380	5407313.380	42874.086	1615.040	1615.037	-0.003
11	63 9 4 24.840	5475864.840	111425.559	68551.459	68551.472	0.013
12	63 10 34 25.140	5481265.140	116825.851	5400.300	5400.292	-0.008
13	63 12 4 24.880	5486664.880	122225.595	5399.740	5399.744	0.004
14	63 12 31 19.800	5488279.800	123840.529	1614.920	1614.934	0.014
15	63 14 1 20.220	5493680.220	129240.940	5400.420	5400.411	-0.009
16	64 8 1 0.160	5558460.160	194020.875	64779.940	64779.935	-0.005
16	64 9 4 5.220	5562245.220	197805.932	3785.060	3785.057	-0.003
1	64 9 31 9.000	5563869.000	199429.705	1623.780	1623.773	-0.007
1	64 10 34 22.198	5567662.198	203222.911	3793.198	3793.206	0.008
2	64 11 1 7.200	5569267.200	204827.911	1605.002	1605.000	-0.002
2	64 12 4 12.080	5573052.080	208612.805	3784.880	3784.894	0.014
3	64 13 34 12.130	5578452.130	214012.848	5400.050	5400.043	-0.007
4	64 14 1 7.140	5580067.140	215627.856	1615.010	1615.008	-0.002
4	64 15 4 12.200	5583852.200	219412.916	3785.060	3785.060	0.000
	2 7 2 19.160=DELTA TIME			TOTAL ACCUM. ERROR		0.017
5	65 8 0 17.240	5644817.240	17925.564	---	---	---
5	65 9 3 22.540	5648602.540	21710.848	3785.300	3785.284	-0.016
6	65 10 33 22.260	5654002.260	27110.579	5399.720	5399.731	0.011
8	65 12 30 7.610	5661007.610	34115.938	7005.350	7005.359	0.009
8	65 13 33 22.380	5664802.380	37910.698	3794.770	3794.760	-0.010
9	65 14 0 17.350	5666417.350	39525.671	1614.970	1614.973	0.003
10	66 8 4 30.750	5731470.750	104579.153	65053.400	65053.482	0.082
10	66 9 7 35.680	5735255.680	108364.068	3784.930	3784.915	-0.015
12	66 11 4 30.760	5742270.760	115379.161	7015.080	7015.093	0.013
12	66 12 7 35.640	5746055.640	119164.029	3784.880	3784.868	-0.012
13	66 12 34 30.880	5747670.880	120779.279	1615.240	1615.250	0.010
13	66 13 37 35.680	5751455.680	124564.073	3784.800	3784.794	-0.006
14	67 9 5 25.790	5821525.790	194634.202	70070.109	70070.128	0.020
15	67 9 32 20.810	5823140.810	196249.244	1615.020	1615.042	0.022
15	67 10 35 25.920	5826925.920	200034.340	3785.110	3785.096	-0.014
16	67 11 2 20.910	5828540.910	201649.322	1614.990	1614.982	-0.008
16	67 12 5 25.880	5832325.880	205434.294	3784.970	3784.972	0.002
	2 4 5 8.640=DELTA TIME			TOTAL ACCUM. ERROR		0.091

TABLE 2-1

SECTION 3

FLIGHT OPERATIONS

A. SUMMARY

All launch, ascent, and injection events occurred as programmed, however telemetry Link II failed to turn on during ascent and was inoperative for the remainder of the flight. The orbit achieved was within the 3 sigma dispersions.

Both panoramic cameras operated satisfactorily throughout the flight. Average cycle rates for both cameras deviated from the pre-flight calibrations by less than 2 per cent.

Both the -1 and -2 Stellar/Index cameras and the clock system performed satisfactorily throughout the flight.

The AP command system failed to respond once to real time command (RTC) 11 and once more to RTC 15 during the -2 mission.

The -1 mission thrust cone skin temperature sensor was inoperative for the duration of the mission.

The pressure make-up system operated satisfactorily throughout the flight with 690 PSIA supply remaining.

The on-orbit internal temperatures were slightly higher than recent systems.

Both recovery systems operated normally throughout the flight.

Kik-Zorro 38 (early A to B switchover) was utilized on Rev 72 and performed satisfactorily.

The orbit sine function generator (OSFG) performed normally for the duration of the flight.

The -1 mission was successfully terminated on Rev 81 by air-catch recovery and the -2 mission was completed by air-catch recovery on Rev 193.

B. PANORAMIC CAMERA PERFORMANCE

Both panoramic cameras operated normally throughout the mission. Cycle period data for the engineering passes monitored are tabulated in Table 3-1. Camera system dynamic operation, 99/101 percent clutch operation, start-up, shut-down, and transport functions were normal for all passes monitored. The cut and wrap operation and transfer to the -2 system occurred as programmed, utilizing the Kik-Zorro 38 (early A to B switchover) command.

The panoramic film was exhausted on Pass 183 frame 55 and frame 71 for the Master and Slave cameras respectively.

Panoramic Film Consumption-Cycles

	Actual	
	Master	Slave
Sample off-Spooling	20	20
Pre-Launch	126	125
-1 Mission	2869	2870
-2 Mission	3029	3034
Total	6044	6049

FMC Match

The V/H ramp to orbit match was acceptable throughout the flight. The following settings for RTC's 6, 8, and 10 were utilized to obtain the optimum FMC match during the flight:

	RTC Commands			Remarks
	6	8	10	
RTC	6	5	6	Launch thru Rev 3
Positions	7	3	7	Rev 4 thru Rev 92
	6	4	7	Rev 93 thru the end of the mission

C. STELLAR/INDEX CAMERA PERFORMANCE

Both the -1 and -2 Stellar/Index cameras operated properly on all engineering passes.

D. INSTRUMENTATION AND COMMAND SYSTEM PERFORMANCE

The instrumentation and command systems operated properly throughout the flight with the following exceptions:

1. The -1 mission thrust cone skin temperature sensor became inoperative between the mating confidence and the launch countdown and remained inoperative for the duration of the -1 mission.

2. The AP command system failed to respond to an RTC on two different occasions during the flight. On both passes the vehicle command tone verification monitors indicated normal vehicle decoder output. Additional commands were issued and the command system responded normally on both occasions to step commands to the desired terminal positions.

   The first missed command occurred on pass 169 [redacted] RTC 11 was in position 11 and one command was issued to step RTC 11 to position one. However, the command was not executed.

   The second missed command occurred on pass 177 [redacted] RTC 15 was in position 13 and 12 commands were issued to step RTC 15 to position 9. However, the 9th command was not executed.

E. CLOCK SYSTEM PERFORMANCE

Clock system operation was normal for the duration of the flight. Good correlation between the flight clock and [redacted] Tracking Station time was obtained. Table 3-2 contains the correlation data.

F. PRESSURE MAKE-UP SYSTEM PERFORMANCE

Pressure make-up system performance was normal throughout the mission. Average gas consumption was approximately 9.0 psi/min for the 223 minutes of total operate time. The system had a surplus of 690 PSIA at the end of the mission.

G. THERMAL ENVIRONMENT

Temperature data for th[redacted]acquisitions are included in Table 3-3. The average instrument temperatures ranged from a high of 97°F on the Master and 89°F on the Slave to a low of 75°F on the Master and 69°F on the Slave.

The average J-34 payload system temperatures were approximately 10°F higher than the J-24 payload system, even though the orbits were the same. The J-34 payload system was launched at 13:38 PST on 14 January 1967 and the J-24 payload system was launched at 14:31 PDT on 22 September 1965. No explanation of this difference in average payload system temperature is available. A detailed analysis is continuing to ascertain the causes of this anomaly.

J-34 FLIGHT 01-13-67

REV. MODE	OP	RAMP R	TUR A	SECS	SYSTEM CALIB.	ACTUAL	UNIT DEV.	SYSTEM DEV.	ACTUAL	UNIT DEV.	SYSTEM DEV.	192/ DIF
					INST. 192			INST. 193				
009	A	7	3	97	4.714	4.695	1.90F	1.47F	4.525	3.60F	4.01F	-2.5
016	A	7	3	1699	2.216	2.236	0.81S	0.84S	2.245	1.32S	1.29S	0.4
032	A	7	3	1745	2.215	2.239	0.65S	0.83S	2.245	1.40S	1.37S	0.4
047	A	7	3	1771	2.214	2.243	1.30S	1.32S	2.250	1.67S	1.64S	0.3
072	B	7	3	250	4.487	4.420	1.61F	1.49F	4.400	1.52F	1.94F	-0.4
079		7	3	1696	2.212	2.240	1.24S	1.27S	2.250	1.75S	1.72S	0.4
095	B	6	4	1930	2.212	2.235	1.03S	1.05S	2.235	1.08S	1.05S	0.0
127	B	6	4	1994	2.212	2.240	1.22S	1.24S	2.250	2.17S	2.15S	0.9
143	B	6	4	1989	2.212	2.217	0.18S	0.21S	2.223	0.51S	0.48S	0.2
168	B	6	4	580	3.534	3.560	0.74S	0.75S	3.540	0.59S	0.18S	-0.5

DEV. AND DIFF. ARE IN PERCENT
THE (-) SIGN INDICATES THAT INST 1 IS SLOWER THAN INST 2
F=FAST AND S=SLOW

TABLE 3-1

CLOCK CORRELATION SUMMARY [redacted]

ORDER FIT ONE

SYS TIME I/P	CL TIME I/P	COMP SYS TM	DELTA ST	REV	ST
0.379885030 05	0.111283892D 06	0.379885114D 05	-0.0084	9	COO
0.775328750 05	0.150828281D 06	0.775328938D 05	-0.0188	16	COO
0.327512140 05	0.192446610D 06	0.327512159D 05	-0.0019	24	COO
0.776874470 05	0.237382852D 06	0.776874505D 05	-0.0035	32	COO
0.382209780 05	0.284316381D 06	0.382209716D 05	0.0062	41	COO
0.723007930 05	0.318396203D 06	0.723007881D 05	0.0049	47	COO
0.329272180 05	0.365422641D 06	0.329272184D 05	-0.0004	56	COO
0.723713850 05	0.404866809D 06	0.723713798D 05	0.0052	63	COO
0.329298030 05	0.451825234D 06	0.329297971D 05	0.0059	72	COO
0.723990460 05	0.491294483D 06	0.723990396D 05	0.0064	79	COO
0.329454990 05	0.137003600D 04	0.329454968D 06	0.0022	88	COO
0.723967180 05	0.408212580D 05	0.723967123D 05	0.0057	95	COO
0.329220160 05	0.877465650D 05	0.329220115D 05	0.0045	104	COO
0.723571870 05	0.127181740D 06	0.723571800D 05	0.0070	111	COO
0.328630990 05	0.174087655D 06	0.328630872D 05	0.0118	120	COO
0.722786690 05	0.213503243D 06	0.722786687D 05	0.0003	127	COO
0.327663100 05	0.260390891D 06	0.327663090D 05	0.0010	136	COO
0.721780230 05	0.299802616D 06	0.721780275D 05	-0.0045	143	COO
0.326301100 05	0.346654708D 06	0.326301117D 05	-0.0017	152	COO
0.720218550 05	0.386046460D 06	0.720218572D 05	-0.0022	159	COO
0.324556760 05	0.432880292D 06	0.324556815D 05	-0.0055	168	COO
0.718298660 05	0.472254487D 06	0.718298700D 05	-0.0040	175	COO
0.322439110 05	0.519068546D 06	0.322439212D 05	-0.0102	184	COO

A0=-0.73295362260 05 A1= 0.9999998347400 00

SIGMA=0.00655 NO. POINTS= 23

RATIO OF CLOCK TIME TO SYS TIME= 0.1000000165260 01

ORDER FIT TWO

SYS TIME I/P	CL TIME I/P	COMP SYS TM	DELTA ST	REV	ST
0.379885030 05	0.111283892D 06	0.379885008D 05	0.0022	9	COO
0.775328750 05	0.150828281D 06	0.775328859D 05	-0.0109	16	COO
0.327512140 05	0.192446610D 06	0.327512106D 05	0.0034	24	COO
0.776874470 05	0.237382852D 06	0.776874477D 05	-0.0007	32	COO
0.382209780 05	0.284316381D 06	0.382209712D 05	0.0068	41	COO
0.723007930 05	0.318396203D 06	0.723007890D 05	0.0040	47	COO
0.329272180 05	0.365422641D 06	0.329272210D 05	-0.0030	56	COO
0.723713850 05	0.404866809D 06	0.723713836D 05	0.0014	63	COO
0.329298030 05	0.451825234D 06	0.329298020D 05	0.0010	72	COO
0.723990460 05	0.491294483D 06	0.723990451D 05	0.0009	79	COO
0.329454990 05	0.137003600D 04	0.329455028D 05	-0.0038	88	COO
0.723967180 05	0.408212580D 05	0.723967184D 05	-0.0004	95	COO
0.329220160 05	0.877465650D 05	0.329220175D 05	-0.0015	104	COO
0.723571870 05	0.127181740D 06	0.723571856D 05	0.0014	111	COO
0.328630990 05	0.174087655D 06	0.328630921D 05	0.0069	120	COO
0.722786690 05	0.213503243D 06	0.722786727D 05	-0.0037	127	COO
0.327663100 05	0.260390891D 06	0.327663116D 05	-0.0016	136	COO
0.721780230 05	0.299802616D 06	0.721780287D 05	-0.0057	143	COO
0.326301100 05	0.346654708D 06	0.326301110D 05	-0.0010	152	COO
0.720218550 05	0.386046460D 06	0.720218546D 05	0.0004	159	COO
0.324556760 05	0.432880292D 06	0.324556762D 05	-0.0002	168	COO
0.718298660 05	0.472254487D 06	0.718298623D 05	0.0037	175	COO
0.322439110 05	0.519068546D 06	0.322439104D 05	0.0006	184	COO

A0=-0.73295361710 05 A1= 0.9999999227760 00

A2=-0.7567429548257D-13

SIGMA=0.00377 NO. POINTS= 23

TABLE 3-2

TABLE 3-3

J-34 TEMPERATURE SUMMARY

SENSOR	ORBITS ACQUIRED										A	B												
Master Camera	9	16	24	32	41	47	56	61	63	72	79	88	95	104	111	120	127	136	143	152	159	168	175	184	191
3	86	81	80	81	85	82	87	85	81	85	82	80	71	78	73	76	72	76	71	76	70	76	72	76	70
4	97	90	92	90	95	91	97	96	89	96	90	89	79	87	81	86	80	86	79	86	78	85	79	86	77
5	99	93	92	92	96	93	97	96	92	96	91	90	81	87	82	86	81	85	80	85	78	83	79	83	77
6	98	92	89	92	93	92	95	93	91	93	90	87	79	83	80	81	78	80	76	80	75	78	75	77	73
7	95	91	88	91	92	90	93	91	90	91	87	86	79	82	80	80	78	80	77	80	75	79	75	79	75
8	100	94	94	93	97	94	99	98	93	96	93	92	83	89	83	87	83	87	82	87	79	85	80	85	78
9	104	96	96	95	100	96	102	99	95	99	94	94	84	91	87	88	83	88	81	87	80	86	79	85	78
11	101	95	95	94	98	93	100	99	91	97	91	90	78	85	78	83	75	82	73	79	74	77	74	77	71
12	94	88	89	88	93	89	95	95	89	95	88	99	79	87	81	86	80	86	79	86	78	85	79	86	79
13	95	92	88	92	93	91	94	92	89	90	90	90	76	80	77	78	75	77	73	77	73	74	73	74	73
AVG.	97	91	90	91	94	91	96	94.5	90	94	89	89	79	85	80	83	79	83	78	83	76	82	76	82	75
Slave Camera																									
3	94	88	87	87	90	87	92	90	85	88	84	83	74	80	74	77	71	76	69	75	67	71	67	70	65
4	91	82	85	83	88	83	90	88	83	87	81	82	72	80	73	78	71	76	70	76	67	73	68	72	64
5	91	85	84	85	89	86	91	90	86	90	85	84	76	82	77	81	77	80	75	81	74	79	75	79	74
6	89	84	83	85	87	85	89	87	85	86	86	81	75	78	76	77	74	77	73	76	73	76	73	76	73
7	91	85	83	85	87	84	90	87	84	87	84	82	74	78	76	77	74	76	71	76	71	74	71	75	71
8	92	85	85	85	90	86	92	91	86	93	85	85	76	82	78	82	77	80	73	80	74	79	74	79	73
9	89	83	83	83	87	84	89	89	85	89	85	83	71	81	77	81	77	81	76	81	74	80	75	80	75
11	80	76	76	75	79	79	80	79	79	79	78	74	67	71	71	70	69	69	66	70	65	69	66	69	65
12	96	87	89	87	92	87	96	94	87	93	86	88	77	84	77	83	76	81	74	81	72	78	71	77	70
13	81	77	75	78	78	78	81	79	79	79	77	72	67	69	68	68	67	68	66	69	64	66	65	66	63
AVG	89	83	83	83	87	84	89	87.5	83	87	84	81	73	79	74	78	74	78	72	77	70	75	70	75	69
Supply Spool																									
1	71	69	67	71	74	73	74	74	73	74	71	70	63	67	65	66	63	67	63	65	62	65	63	65	62
2	80	74	75	75	80	77	81	80	77	80	76	75	66	71	67	70	66	69	64	69	62	67	63	66	62

TABLE 3-3

J-34 TEMPERATURE SUMMARY

SENSOR	ORBITS ACQUIRED										A	B												
	9	16	24	32	41	47	56	61	63	72	79	88	95	104	111	120	127	136	143	152	159	168	175	184	191
Fair ("A")																									
Barrel #1 ("B")																									
1	60	44	57	47	54	37	70	77	27	70	37	67	27	33	23	37	27	37	23	38	30	30	30	30	33
2	24	4	20	4	20	4	30	30	4	33	4	78	49	81	62	81	59	84	52	85	65	75	65	78	75
3	4	4	0	0	0	4	4	0	0	10	4	97	88	97	69	97	69	94	66	97	90	79	69	76	97
4	59	49	52	45	52	45	66	59	45	62	45	57	54	57	41	51	35	48	29	51	35	32	22	29	29
5	84	61	78	65	72	61	87	87	58	84	55	52	42	48	38	45	35	42	29	45	29	29	22	25	25
6	81	78	78	74	68	64	89	92	50	84	50	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Barrel #2																									
1																									
2	56	66	49	59	49	56	59	52	52	52	45	42	28	38	25	32	25	32	14	32	14	21	18	14	14
3	58	85	55	82	51	76	69	65	58	62	62	58	51	51	34	48	30	44	19	48	27	27	16	19	19
4	77	89	77	92	74	86	92	95	72	92	74	89	83	89	60	89	60	95	60	45	89	74	63	72	93
5	70	54	67	54	70	61	80	80	60	83	73	80	54	91	57	83	57	86	57	84	70	80	70	80	80
Conic Adapter	59	59	56	56	59	62	65	59	61	48	59	54	48	56	48	54	51	59	48	59	51	56	51	56	54
1	52	42	46	42	42	39	52	52	36	49	29	36	20	33	16	33	16	29	10	27	6	16	16	16	3
Clock																									
1	74	68	68	66	72	68	76	72	70	74	68	64	54	64	56	62	56	64	52	63	52	58	52	58	52
2	74	68	68	68	72	68	76	74	70	76	68	64	54	64	56	62	56	64	52	63	52	58	52	58	52
Thrust Cone "A" to "B" SRV																									
1	NA	NA	NA	NA	NA	NA	--	--	--	--	--	72	65	70	66	67	66	68	64	68	62	66	63	66	62
2	74	65	65	62	68	64	69	67	64	67	86	81	72	76	74	74	71	72	69	72	68	69	68	68	65
Press. Make-Up Bottle																									
1	113	96	99	96	105	96	105	101	93	105	87	96	68	90	75	87	75	81	68	81	58	68	67	65	54
2	124	107	110	107	115	104	115	113	104	113	99	101	79	99	85	87	82	90	76	82	67	76	68	73	60
Recovery Battery "B" SRV																									
1	78	79	76	82	82	83	82	81	82	81	79	76	81	76	79	77	84	84	76	83	83	84	78	79	77
Master Cassette "A" SRV																									
2	74	68	66	68	68	69	70	69	71	70	71	--	--	--	--	--	--	--	--	--	--	--	--	--	--

SECTION 4

MISSION 1038-1 RECOVERY SYSTEM

SRV #719 was received at A/P on 27 October 1965. The receiving weight was 152.75 pounds. After modifications and incorporation of outstanding E.O.'s, the SRV was delivered to Systems Test for incorporation into the J-34 system.

The capsule was delivered for shipment to VAFB on 10 January 1967.

The -1 recovery capsule was successfully recovered by air-catch on Rev 81 at 15:31 PST on 19 January 1967. All re-entry sequence of events monitored appeared normal and occurred within tolerance. The capsule impact point was very close to the predicted impact point.

Predicted	25° 59.2' N	155° 51.3' W
Actual	26° 03.0' N	155° 54.0' W

The re-entry sequence of events is contained in Table 4-1.

MISSION 1038-1

RECOVERY SEQUENCE OF EVENTS

Event	Delta Time Actual	Delta Time Nominal
*Arm	76.90	77.0 ± 1.0
*Transfer	1.98	2.0 ± 0.25
Electrical Disconnect	0.87	.900 + 0.43 − 0.40
Separation	--	--
**Spin	3.31	3.4 ± 0.30
Retro	7.55	7.55 ± 0.45
Despin	10.75	10.75 ± 0.59
T/C Separation	1.53	1.5 ± 0.15
***"G" Switch Open	479.34	482.8
Parachute Cover Off	33.61	34.0 ± 1.5
Drogue Chute Deployed	0.58	0.63 ± 0.08
Main Chute Bag Separate	12.21	10.0 + 3.0 − 2.2
Main Chute Deployed	0.52	0.52 ± .13
Main Chute Disreef	4.61	4.5 ± 0.80

* From Separation
** From Elect. Disc.
*** From Retro

TABLE 4-1

SECTION 5

MISSION 1038-2 RECOVERY SYSTEM

SRV #720 was received at A/P on 27 October, 1965 at a receiving weight of 150.25 pounds. After modification and incorporation of outstanding E.O.'s the capsule was delivered to Systems Test for incorporation into the J-34 system.

The capsule was delivered for shipment to VAFB on 10 January 1967.

The -2 recovery capsule was successfully recovered by air-catch on Rev 193 at 15:38 PST on 26 January 1967. All re-entry sequence of events monitored appeared normal and occurred within tolerance. The capsule impact point was very close to the predicted impact point.

Predicted	23° 25.7' N	169° 12.06' W
Actual	23° 43.0' N	169° 01.0' W

The re-entry sequence of events is contained in Table 5-1.

MISSION 1038-2

RECOVERY SEQUENCE OF EVENTS

Event	Delta Time Actual	Delta Time Nominal
*Arm	N/A	77.0 ± 1.0
*Transfer	2.00	2.0 ± 0.25
Electrical Disconnect	0.74	.900 + 0.43 − 0.40
Separation	--	--
**Spin	3.44	3.4 ± 0.30
Retro	7.68	7.55 ± 0.45
Despin	10.47	10.75 ± 0.59
T/C Separation	1.47	1.50 ± 0.15
***"G" Switch Open	514.66	520.7
Parachute Cover Off	33.81	34.0 ± 1.5
Drogue Chute Deployed	0.57	0.63 ± .08
Main Chute Bag Separate	11.43	10.0 + 3.0 − 2.2
Main Chute Deployed	0.57	0.52 ± 0.13
Main Chute Disreefed	4.47	4.50 ± 0.80

* From Separation
** From Elect. Disc.
*** From Retro

TABLE 5-1

[redacted]

SECTION 6

MISSION 1038 PANORAMIC CAMERAS

A. COMPONENT ASSIGNMENT

Component	Master (Fwd) Serial Number	Slave (Aft) Serial Number
Main Camera	192	193
Main Camera Lens	1792435	1982435
Supply Horizon Camera	284-G6	291-G6
Supply Horizon Camera Lens	E12858	E12857
Take-up Horizon Camera	294-G5	291-G5
Take-up Horizon Camera Lens	E12881	E12852
Supply Cassette	SC-44	SC-44

B. CAMERA DATA AND FLIGHT SETTINGS

Main Camera:

Lens	24" f/3.5	24" f/3.5
Slit Width	0.225"	0.175"
Filter Type	Wratten 23A	Wratten 21
Film Type (Eastman)	3404	3404

Supply Horizon Cameras	Port	Starboard
Lens	55 mm f/6.3	55 mm f/6.3
Aperture Setting	f/6.3	f/8.0
Exposure Time	1/100 second	1/100 second
Filter Type	Wratten 25	Wratten 25

Take-up Horizon Camera	Starboard	Port
	Master (Fwd)	Slave (Aft)
Lens	55 mm f/6.3	55 mm f/6.3
Aperture Setting	f/8.0	f/6.3
Exposure Time	1/100 second	1/100 second
Filter Type	Wratten 25	Wratten 25

C. POST FLIGHT PERFORMANCE EVALUATION

The overall image quality of the mission was not as good as observed on recent missions. The cause of the generally poorer imagery was the atmospheric conditions. The percentage of clear terrain areas, observed in the index camera photography, was unusually low. In certain isolated instances the quality of the photography approached that of recent missions. This fact tends to substantiate that atmospherics degraded the imagery.

The original negative of the -1 mission was processed by ASFPPF. There was no detectable difference between the two portions of the mission due to processing.

The master film record had a crease beginning on frame 139 pass D-38 and it left the material on frame 141 at the time-track edge. The crease extended one quarter inch into the format. This defect is explained by tension transients caused by a splice located in frame 142.

There are certain characteristic anomalies that are considered inherent to the operation of the J-1 system. The degree of degradation is minor, and they are continually being monitored to prevent increased severity. In this mission rail scratches and dendritic static discharges were more severe than normal. Scan head roller scratches and light leak fog patterns were less than normal.

The starboard horizon photography of the slave instrument was veiled from pass D5 through D-85, at which time a gradual closing begins. The imagery was clear at the end of the mission. The horizon boots were properly painted and checked prior to flight.

SECTION 7

MISSION 1038 STELLAR-INDEX CAMERA

A. COMPONENT ASSIGNMENT

Component	-1 Mission Serial Number	-2 Mission Serial Number
Camera	D-93	D-90
Index Camera Lens	819192	819958
Index Reseau	86	111
Stellar Camera Lens	11910	10742
Stellar Reseau	112	108

B. CAMERA DATA AND FLIGHT SETTINGS

Stellar Camera:		
Lens	85 mm f/1.8	85 mm f/1.8
Exposure Time	2 seconds	2 seconds
Filter Type	None	None
Film Type (Eastman)	3401	3401
Index Camera:		
Lens	38 mm f/4.5	38 mm f/4.5
Exposure Time	1/500 second	1/500 second
Filter Type	Wratten 21	Wratten 21
Film Type (Eastman)	3400	3400

C. POST FLIGHT EVALUATION

The -1 mission stellar camera operated normally except for a double exposure on frame 229. Approximately 50% of each format is affected by flare. There are an average of 10 stellar images per format. The images are elongated rather than points. The last 13 frames are affected by the usual scratches, gouges, and pinholes associated with film depletion.

The -1 mission index camera produced good imagery. Frame 229 was double exposed.

The -2 mission stellar camera operated satisfactorily. Approximately 20% of each format was affected by flare. There were approximately 10 stellar images per format and they were elongated.

The -2 mission index camera produced good image quality. Frames 4 and 16 are double exposed in this camera and the stellar camera.

[redacted]

SECTION 8

PANORAMIC CAMERA EXPOSURE

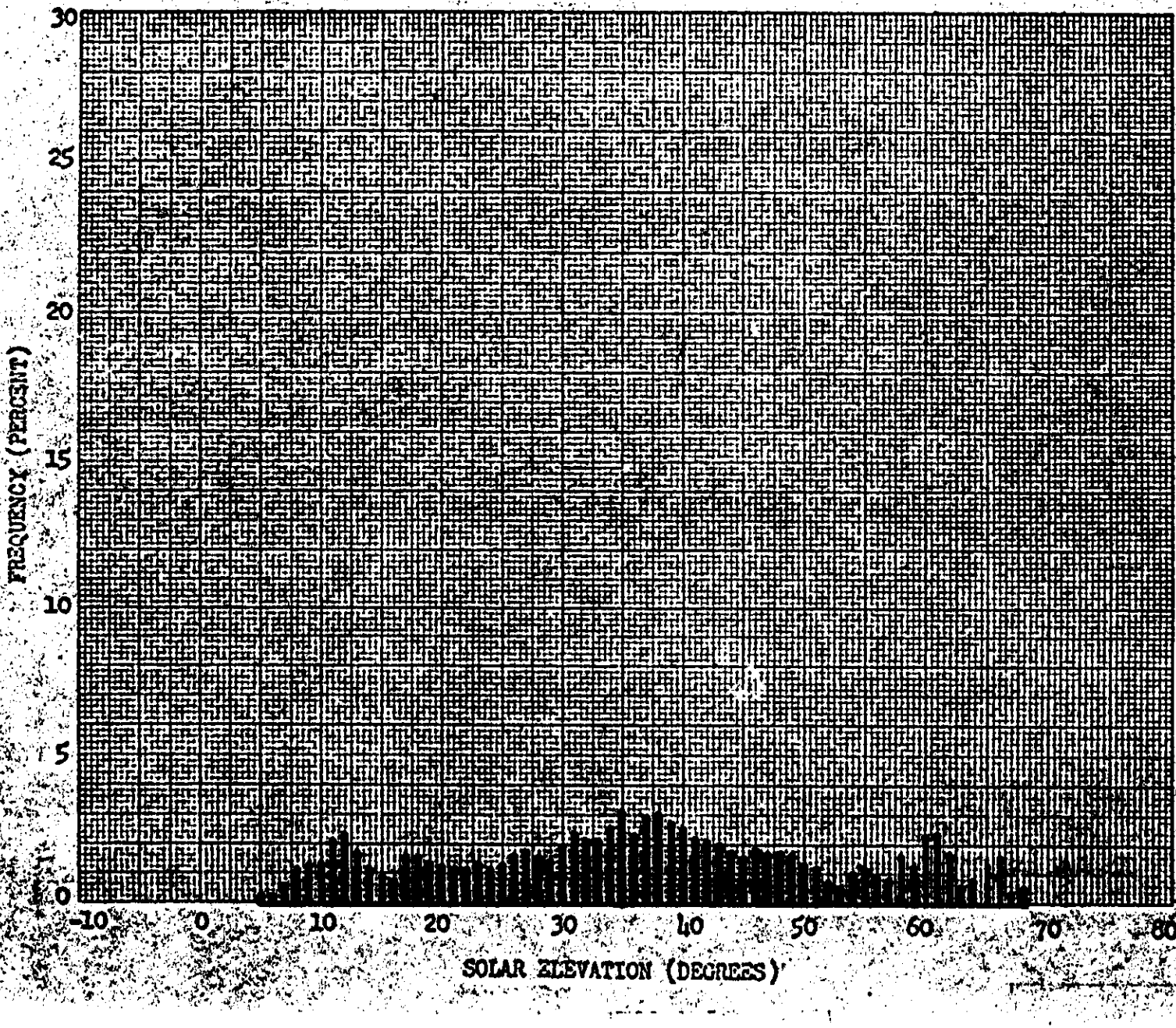
The Master camera contained a 0.225 inch wide slit and a Wratten 23A filter while the Slave camera had a 0.175 inch wide slit and a Wratten 21 filter. These conditions placed the nominal exposure between the full processing and intermediate curve as published by [redacted] for 3404 emulsion.

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 of the Master and Slave cameras are shown as a function of latitude for passes D-8, D-72, D-136, and D-184 in Figures 8-5 to 8-12. 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] for -1 mission and -2 mission by AFSPPF.

Mission	Camera		% Primary	% Int.	% Full	% Transition
1038-1	Fwd	Predicted	0	21.6	78.4	---
		Reported	2	10	76	12
1038-1	Aft	Predicted	C	22	78	---
		Reported	1	7	81	11
1038-2	Fwd	Predicted	1.4	36.4	62.2	---
		Reported	0	10	81	9
1038-2	Aft	Predicted	3.1	28.9	68	---
		Reported	0	24	70	6

SOLAR ELEVATION FREQUENCY DISTRIBUTION



Mission No: 1038-1

Payload No: J-34

Camera No: 192

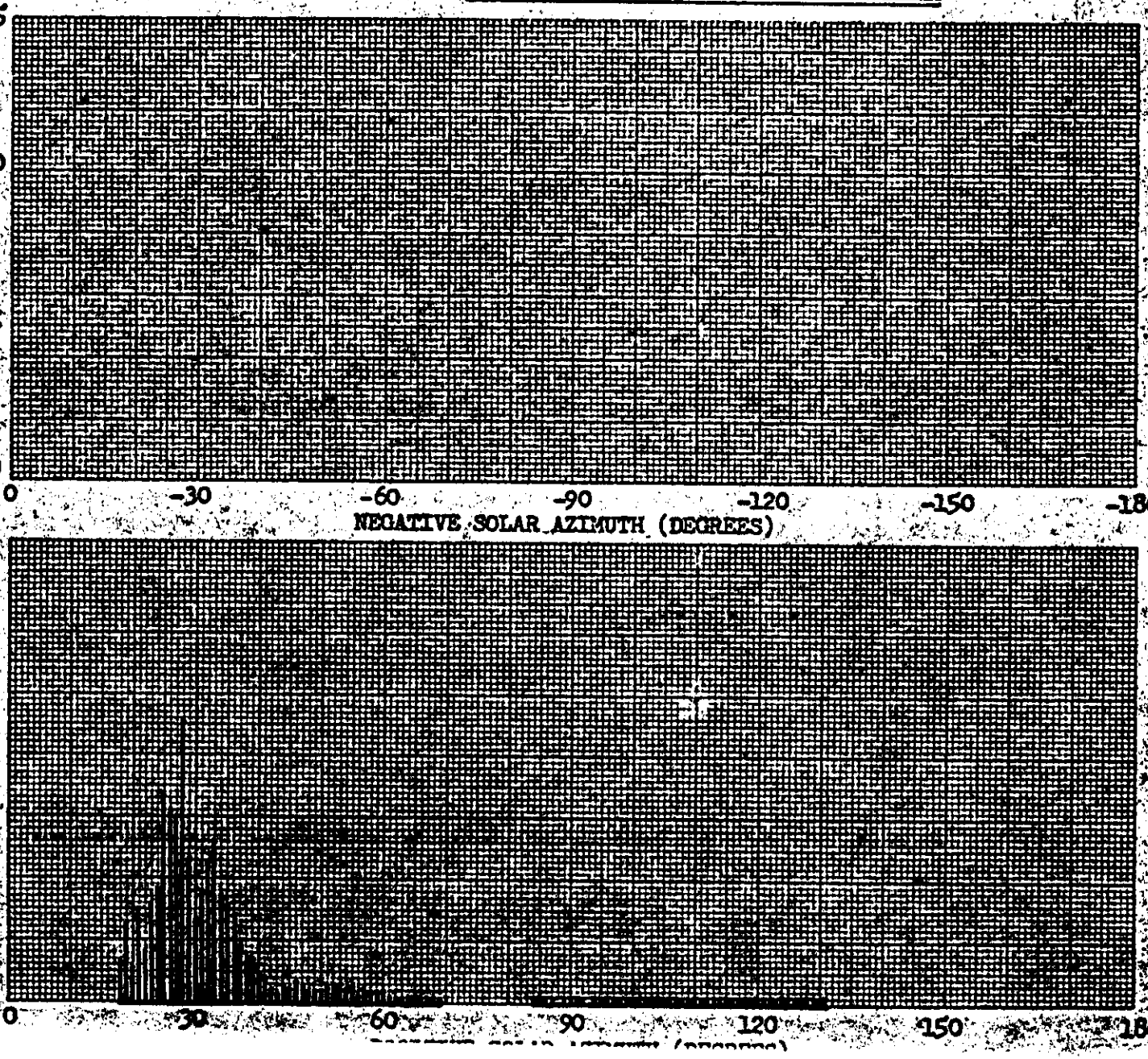
Launch Date: 1-14-67

Launch Time: 2128Z

Inclination: 80°

Figure 8-1

SOLAR AZIMUTH FREQUENCY DISTRIBUTION



Mission No: 1038-1

Payload No: J-34

Camera No: 192

Launch Date: 1-14-67

Launch Time: 2126Z

Inclination: 80°

SIGN NOTATION

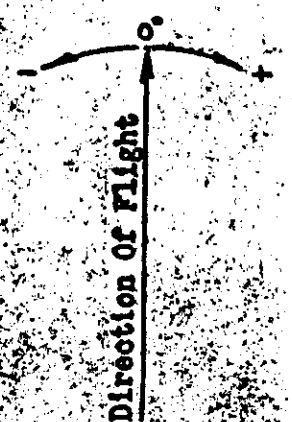
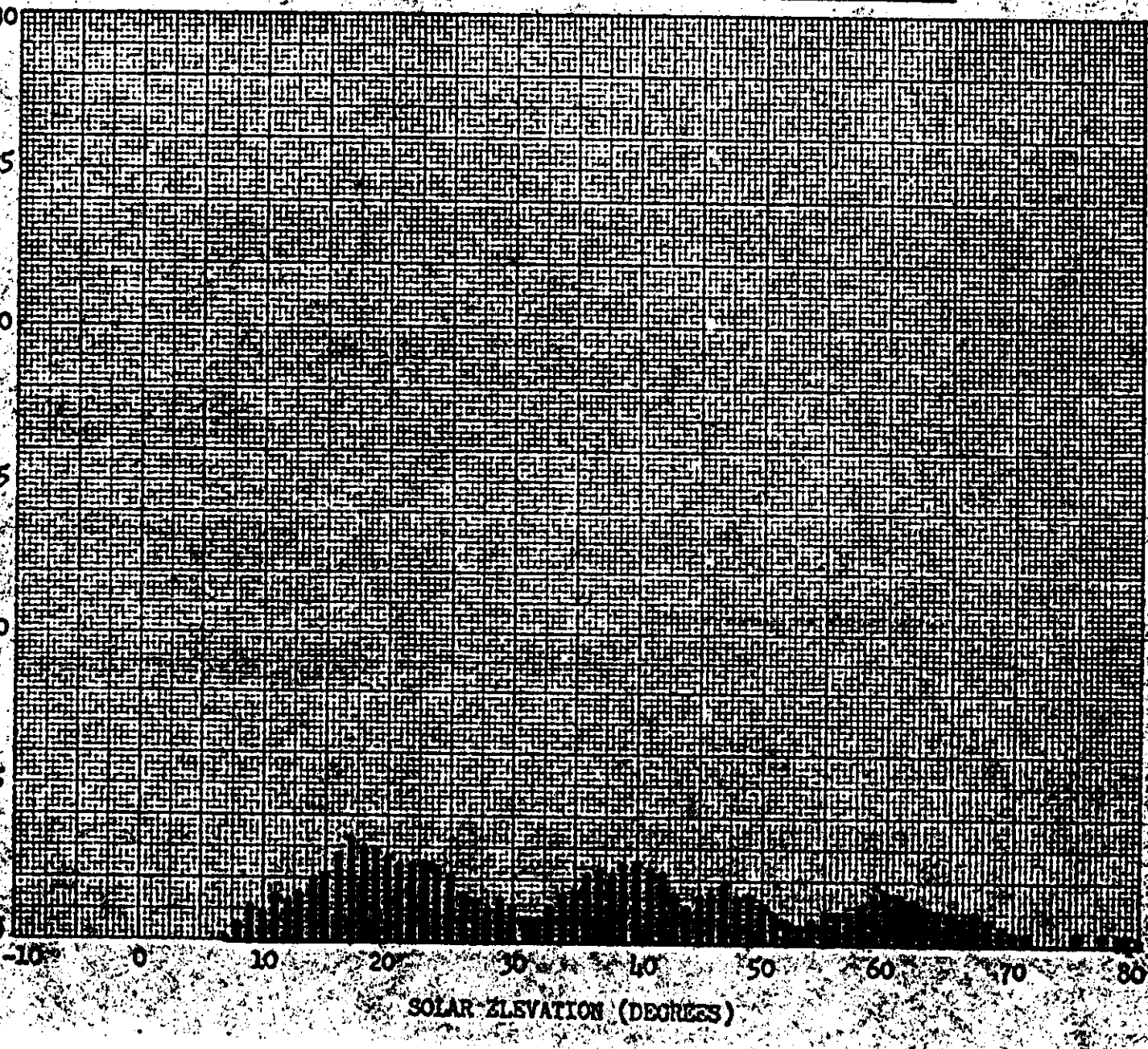


Figure 8-2

SOLAR ELEVATION FREQUENCY DISTRIBUTION



Mission No: 1038-2

Payload No: J-34

Camera No: 193

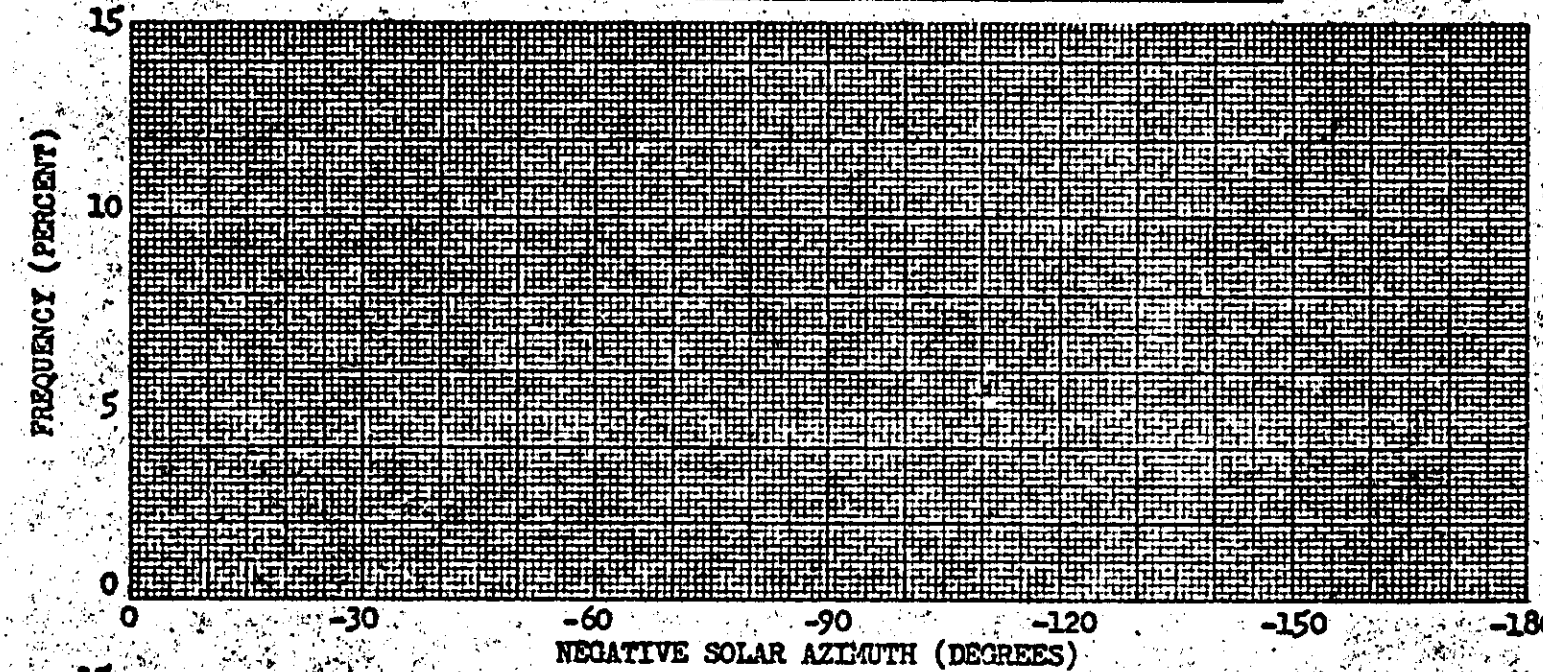
Launch Date: 1-14-67

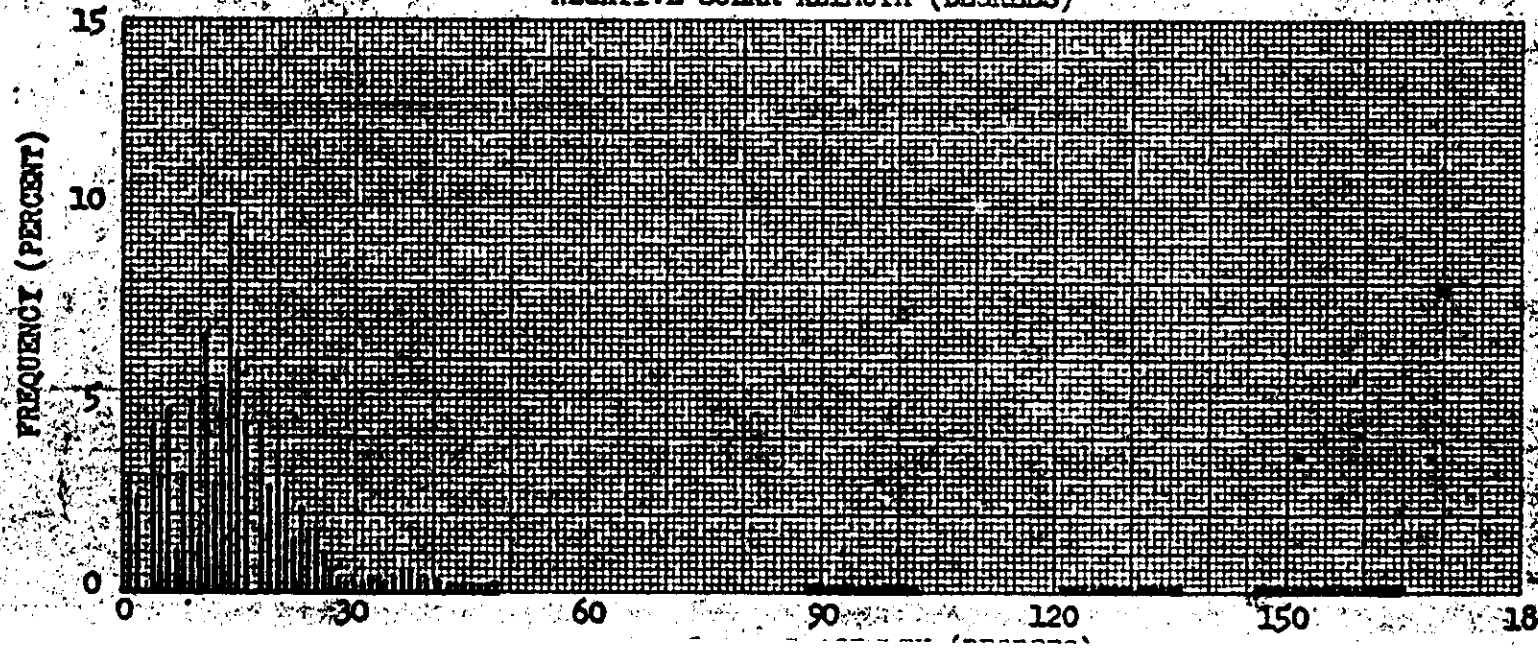
Launch Time: 2128Z

Inclination: 80°

Figure 8-3

SOLAR AZIMUTH FREQUENCY DISTRIBUTION





Mission No: 1038-2

Payload No: J-34

Camera No: 192

Launch Date: 1-14-67

Launch Time: 2128Z

Inclination: 80°

SIGN NOTATION

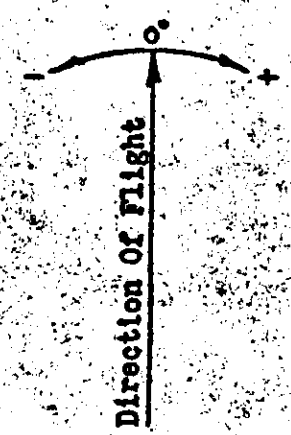


Figure 8-4

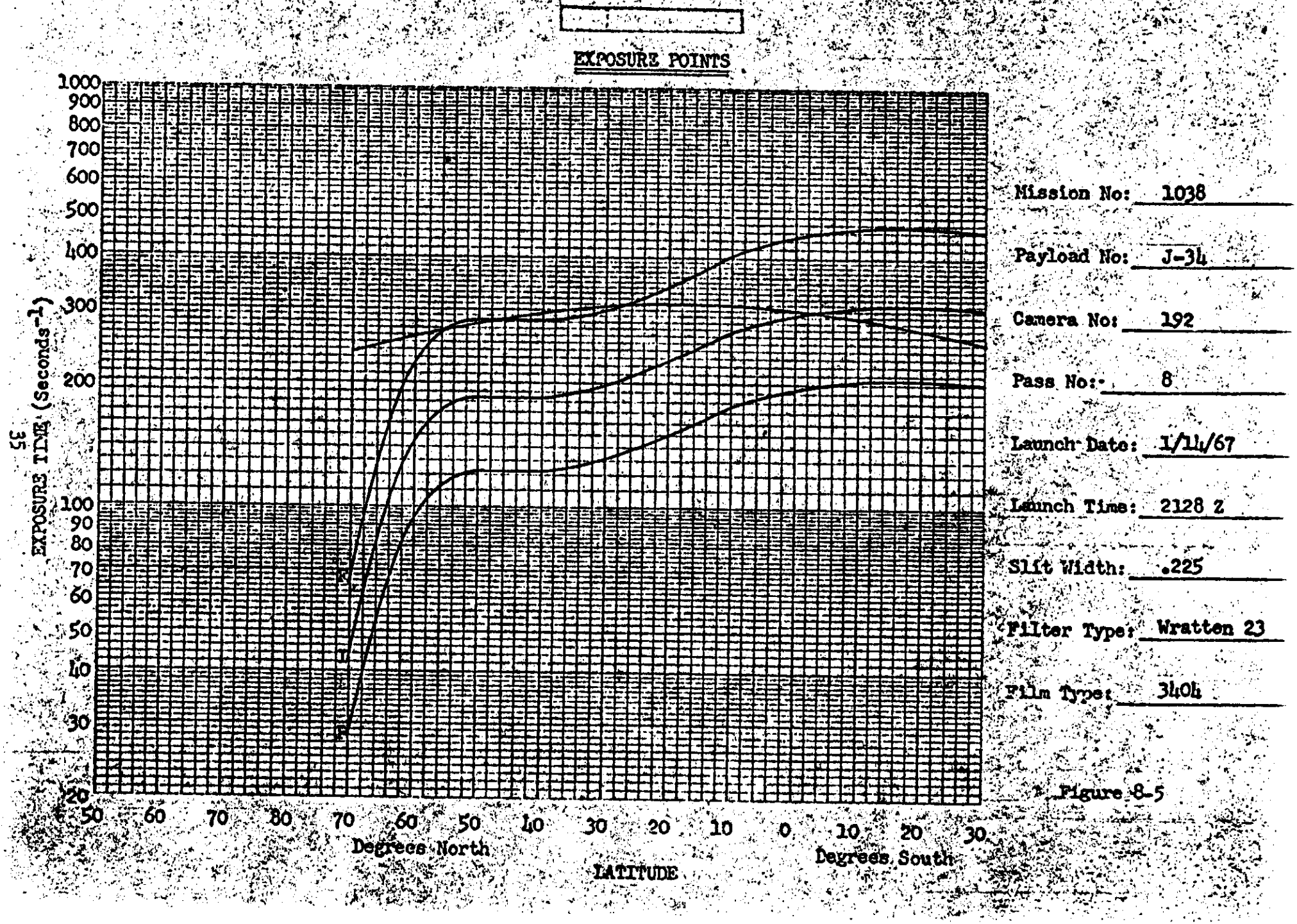
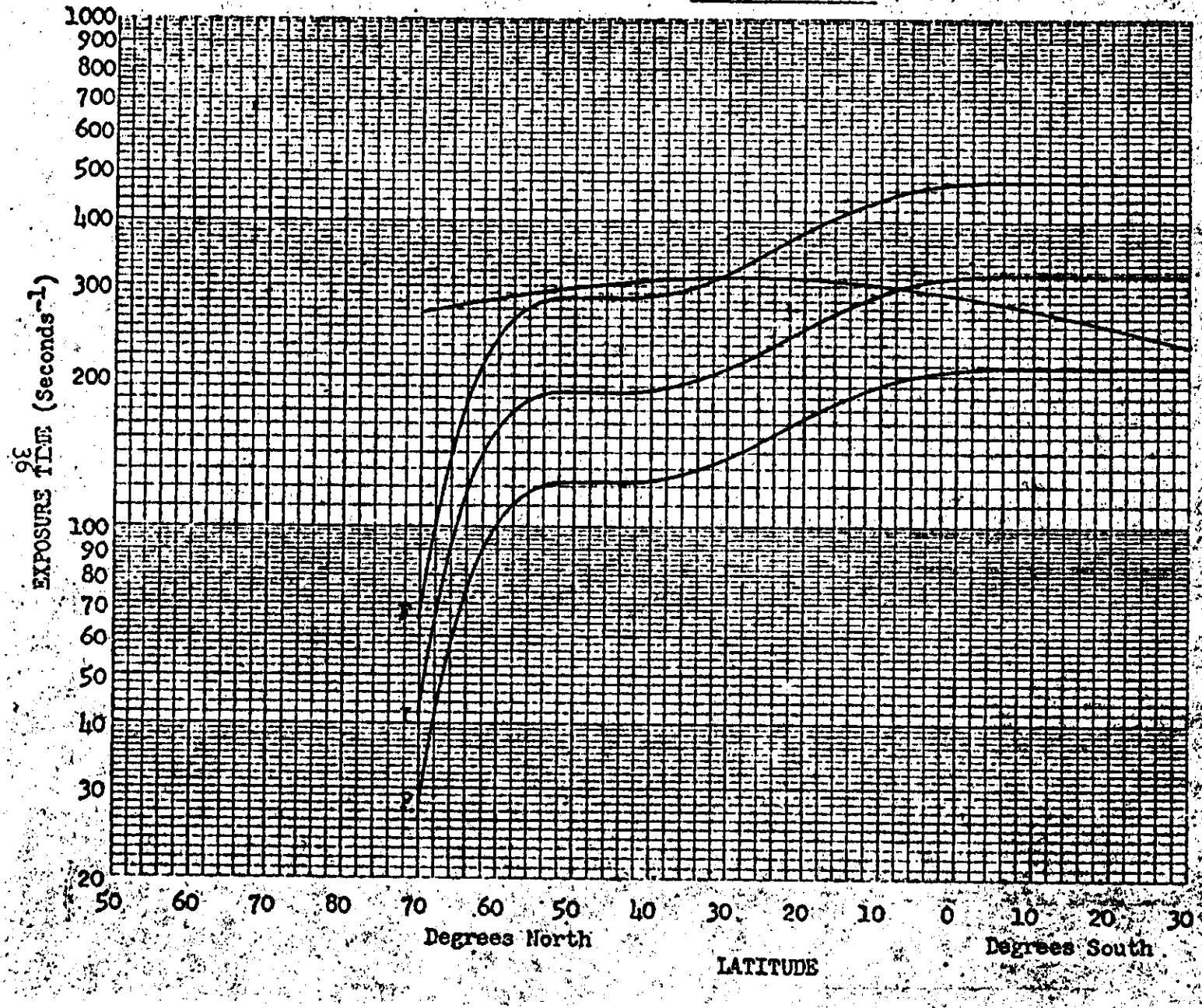

EXPOSURE POINTS
EXPOSURE TIME (Seconds-1)
1000
900
800
700
600
500
400
300
200
100
90
80
70
60
50
40
30
20
50 60 70 80 70 60 50 40 30 20 10 0 10 20 30
Degrees North
LATITUDE
Degrees South
Mission No: 1038
Payload No: J-34
Camera No: 192
Pass No: 8
Launch Date: 1/14/67
Launch Time: 2128 Z
Slit Width: .225
Filter Type: Wratten 23
Film Type: 3404

Figure 8-5

EXPOSURE POINTS



Mission No: 1038

Payload No: J-34

Camera No: 192

Pass No: 72

Launch Date: 1/14/67

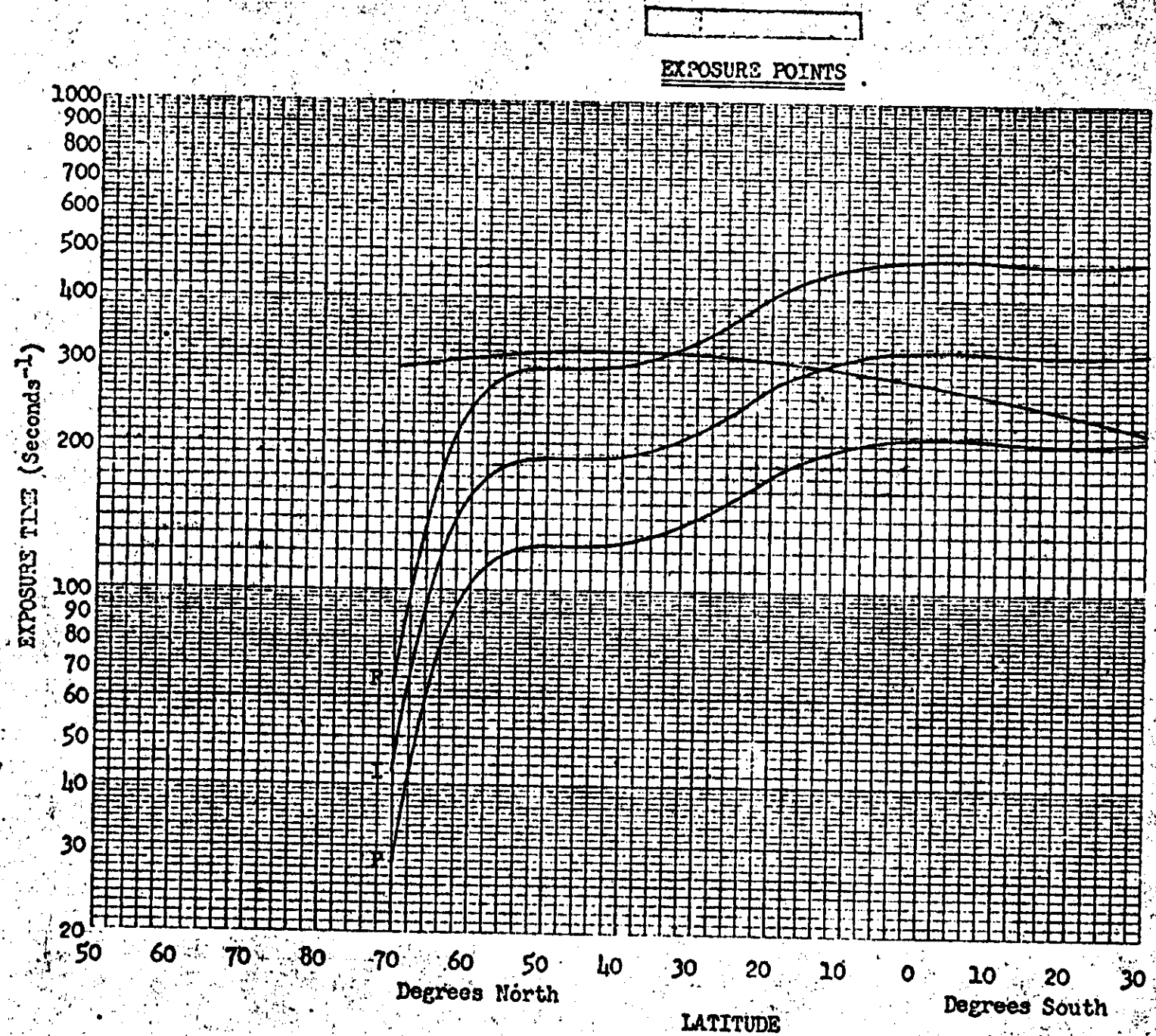
Launch Time: 2128 Z

Slit Width: .225

Filter Type: Wratten 23

Film Type: 3404

Figure 8-6



Mission No: 1038

Payload No: J-34

Camera No: 192

Pass No: 136

Launch Date: 1/24/67

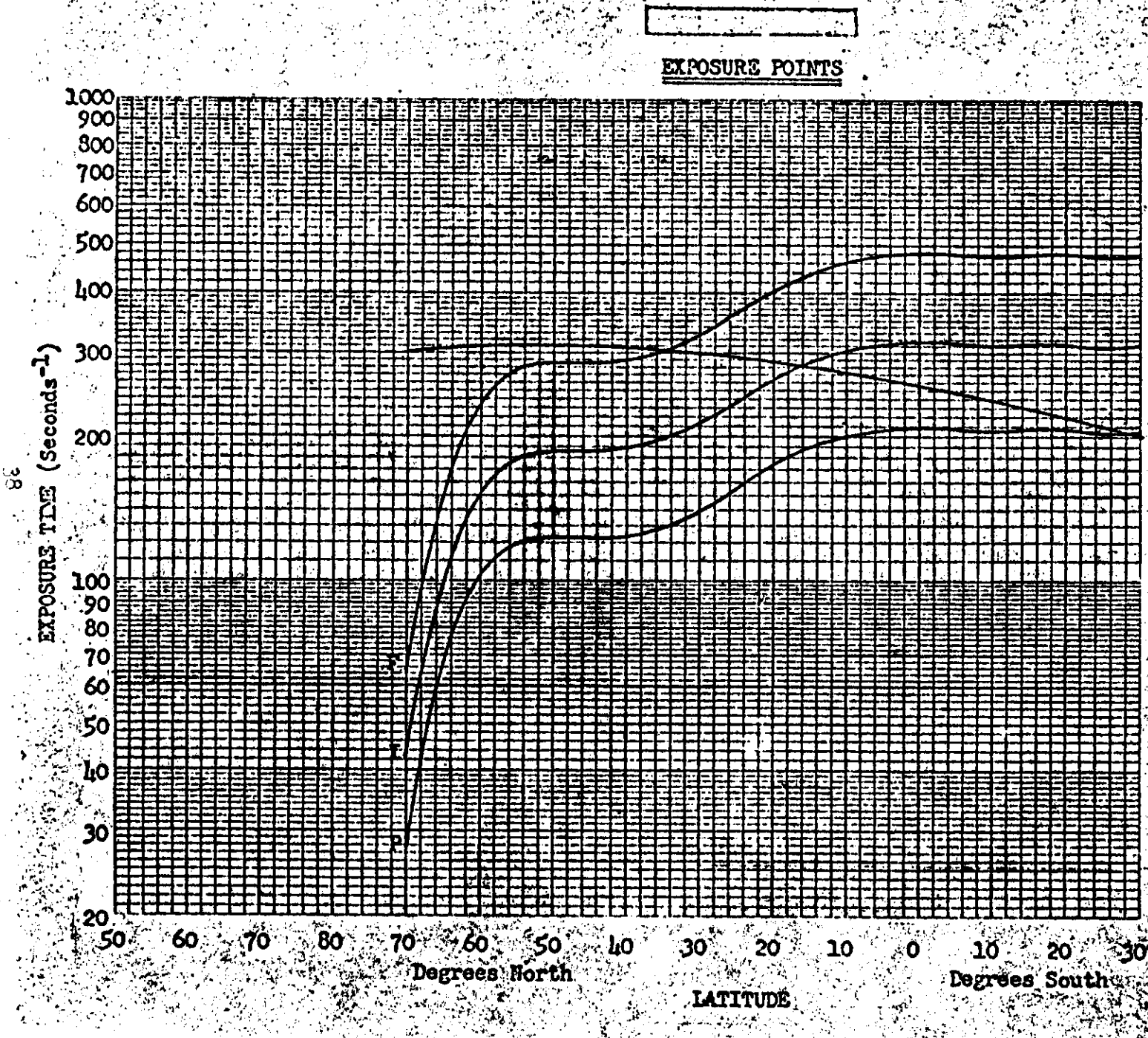
Launch Time: 2128 Z

Slit Width: .225

Filter Type: Wratten 23

Film Type: 3404

Figure 8-7



Mission No: 1038

Payload No: J-34

Camera No: 192

Pass No: 184

Launch Date: 1/14/67

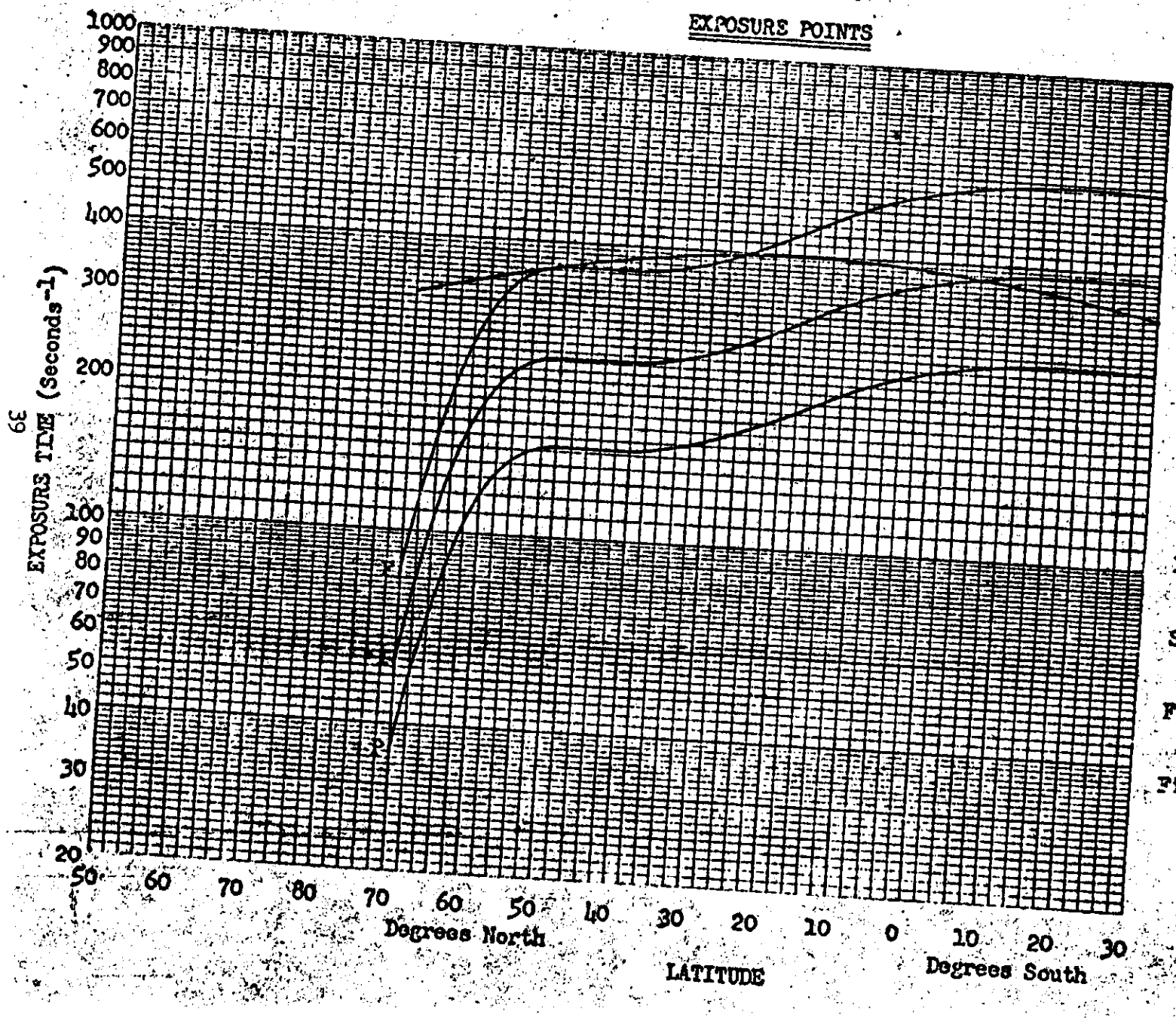
Launch Time: 2128 Z

Slit Width: .225

Filter Type: Wratten 23

Film Type: 3404

Figure 8-8



Mission No: 1038

Payload No: J-34

Camera No: 193

Pass No: 8

Launch Date: 1/14/67

Launch Time: 2128 Z

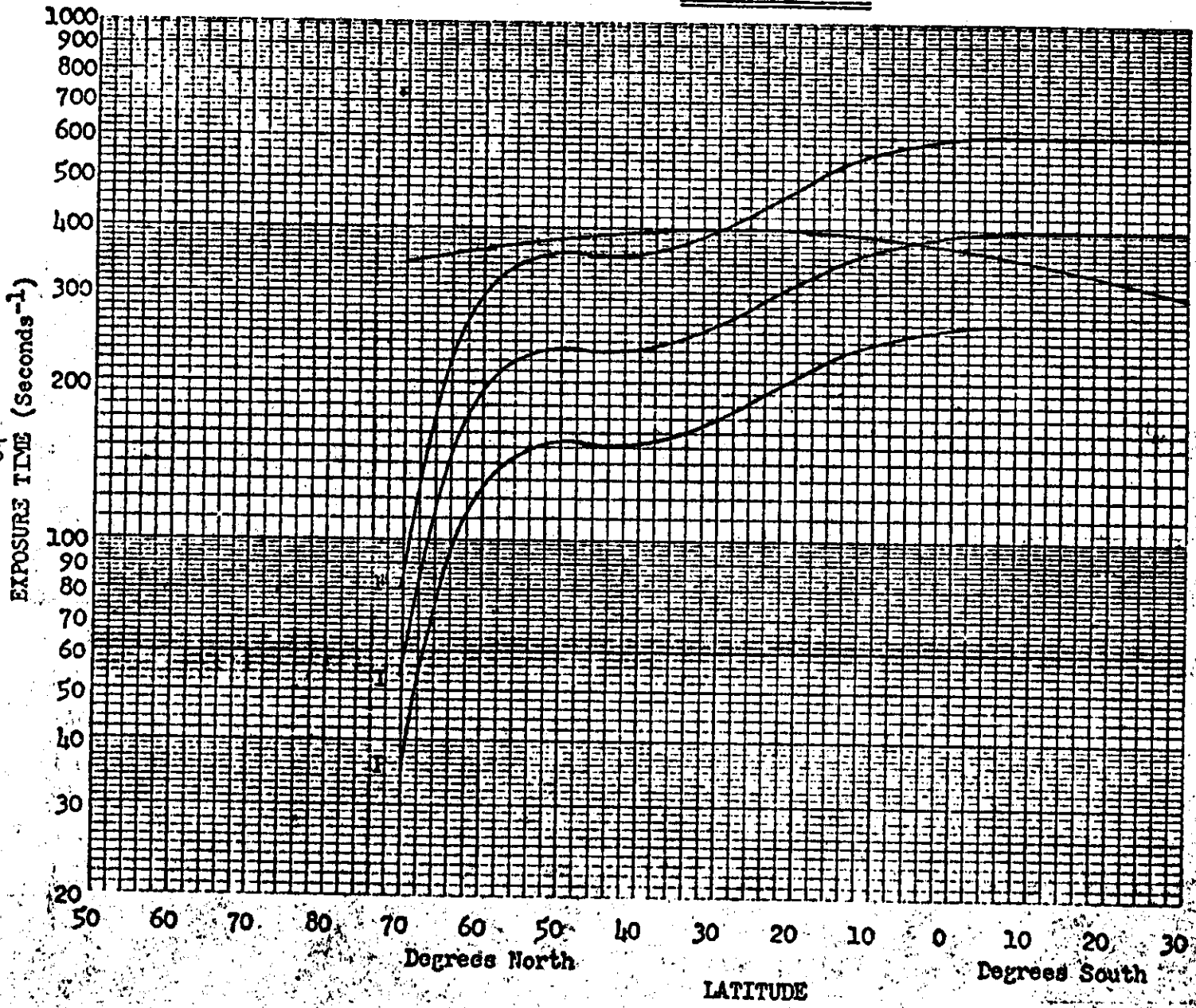
Slit Width: .175

Filter Type: Wratten 21

Film Type: 3404

Figure 8-9

EXPOSURE POINTS



Mission No: 1038

Payload No: J-34

Camera No: 193

Pass No: 72

Launch Date: 1/14/67

Launch Time: 2128 Z

Slit Width: .175

Filter Type: Wratten 21

Film Type: 3404

Figure 8-10

~~TOP SECRET~~ C/[redacted]

MISSION 1038-1 INSTR - FWD 3/6/67 PROCESSING AND EXPOSURE ANALYSIS

PROCESS LEVEL	SAMPLE SIZE	UNDER EXPOSED	UNDER PROCESSED	CORRECT EXP&PROC	OVER PROCESSED	OVER EXPOSED
PRIMARY	4	0 PC	25 PC	75 PC	0 PC	0 PC
INTERMEDIATE	38	0 PC	18 PC	76 PC	5 PC	0 PC
FULL	214	35 PC	0 PC	63 PC	2 PC	0 PC
ALL LEVELS	256	29 PC	3 PC	65 PC	3 PC	0 PC

MISSION 1038-1 INSTR - AFT 3/6/67 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	18 PC	19 PC
INTERMEDIATE	34	0 PC	24 PC	62 PC	12 PC	3 PC
FULL	212	39 PC	0 PC	57 PC	5 PC	0 PC
ALL LEVELS	246	33 PC	3 PC	57 PC	6 PC	0 PC

MISSION 1038-2 INSTR - FWD 3/6/67 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	18 PC	20 PC
INTERMEDIATE	35	0 PC	11 PC	74 PC	14 PC	0 PC
FULL	238	27 PC	0 PC	64 PC	9 PC	0 PC
ALL LEVELS	273	23 PC	1 PC	65 PC	10 PC	0 PC

MISSION 1038-2 INSTR - AFT 3/6/67 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	35 PC	36 PC
INTERMEDIATE	69	4 PC	48 PC	39 PC	6 PC	3 PC
FULL	198	17 PC	0 PC	62 PC	21 PC	1 PC
ALL LEVELS	267	14 PC	12 PC	56 PC	17 PC	1 PC

PROCESS LEVEL	BASE & FOG	UNDER EXPOSED	UNDER PROCESSED	CORRECT EXP&PROC	OVER PROCESSED	OVER EXPOSED
PRIMARY	0.01-0.09	0.01-0.13	0.14-0.39	0.40-0.90	----------	0.91 AND UP
INTERMED	0.10-0.17	0.01-0.20	0.21-0.39	0.40-0.90	0.91-1.34	1.35 AND UP
FULL	0.18 AND UP	0.01-0.39	----------	0.40-0.90	0.91-1.69	1.70 AND UP

~~TOP SECRET~~ C/[redacted]

TABLE 9-1

J MISSION DENSITY RANGES

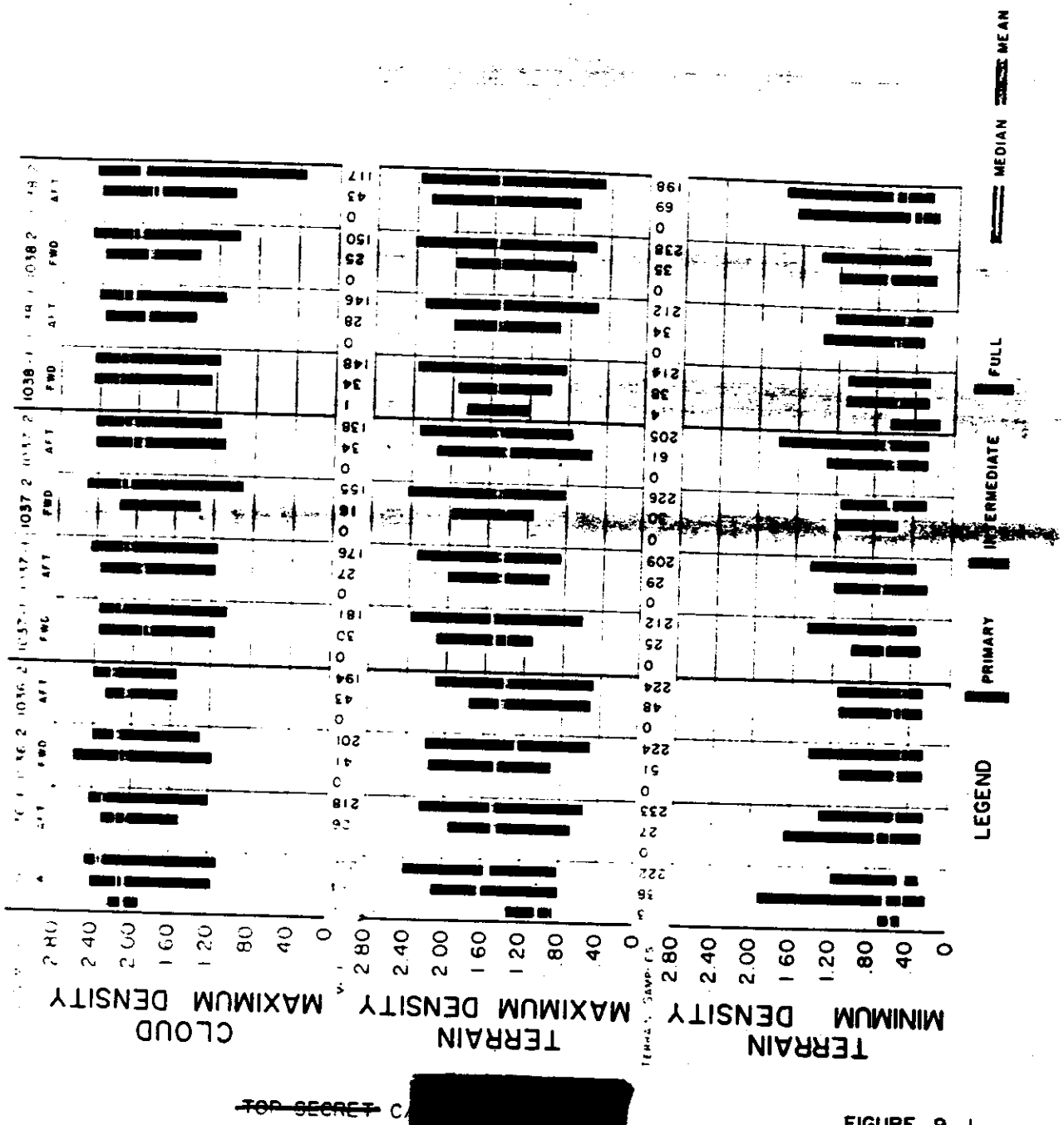


FIGURE 9 - 1

SECTION IV

PERFORMANCE MEASUREMENTS

The photography acquired by both panoramic cameras during Missions 1038-1 and 1038-2 received a MIP rating of 80. A summary is tabulated below of the average MTF/AIM resolution values measured by AFSPPF. The length of the microdensitometer slit used was 1 x 80 microns.

MISSION	CAMERA	CYCLES/mm	AVG.	GROUND RESOLUTION
1038-1	Fwd	53	58	19.8'
1038-2	Fwd	63		
1038-1	Aft	76	77	15.0'
1038-2	Aft	77		

The details of the measurement and computing techniques, targets measured and target locations are fully reported in the evaluation report published by AFSPPF and are therefore not included in this report.

SECTION 11

VEHICLE ATTITUDE

The vehicle attitude errors for both Mission 1038-1 and 1038-2 were derived from the reduction of the Stellar camera photography. This attitude data is supplied to A/P by [redacted].

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 11-1 thru 11-6 show these distributions for Mission 1038-1 and Figures 11-7 thru 11-12 for Mission 1038-2.

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

	Mission 1038-1		Mission 1038-2	
Value	90%	Range	90%	Range
Pitch Error (°)	0.22	-0.19 to +0.49	0.39	+0.22 to +0.71
Roll Error (°)	0.25	-0.50 to +0.38	0.51	-0.70 to +0.40
Yaw Error (°)	2.98	-3.2 to +0.[redacted]	2.61	-3.2 to +0.[redacted]
Pitch Rate (°/hr)	18.67	-34 to +98	19.98	-36 to +100
Roll Rate (°/hr)	33.66	-80 to +95	46.65	-95 to +100
Yaw Rate (°/hr)	39.91	-70 to +40	27.79	-52 to +32

The panoramic photography was not degraded by the attitude control system.

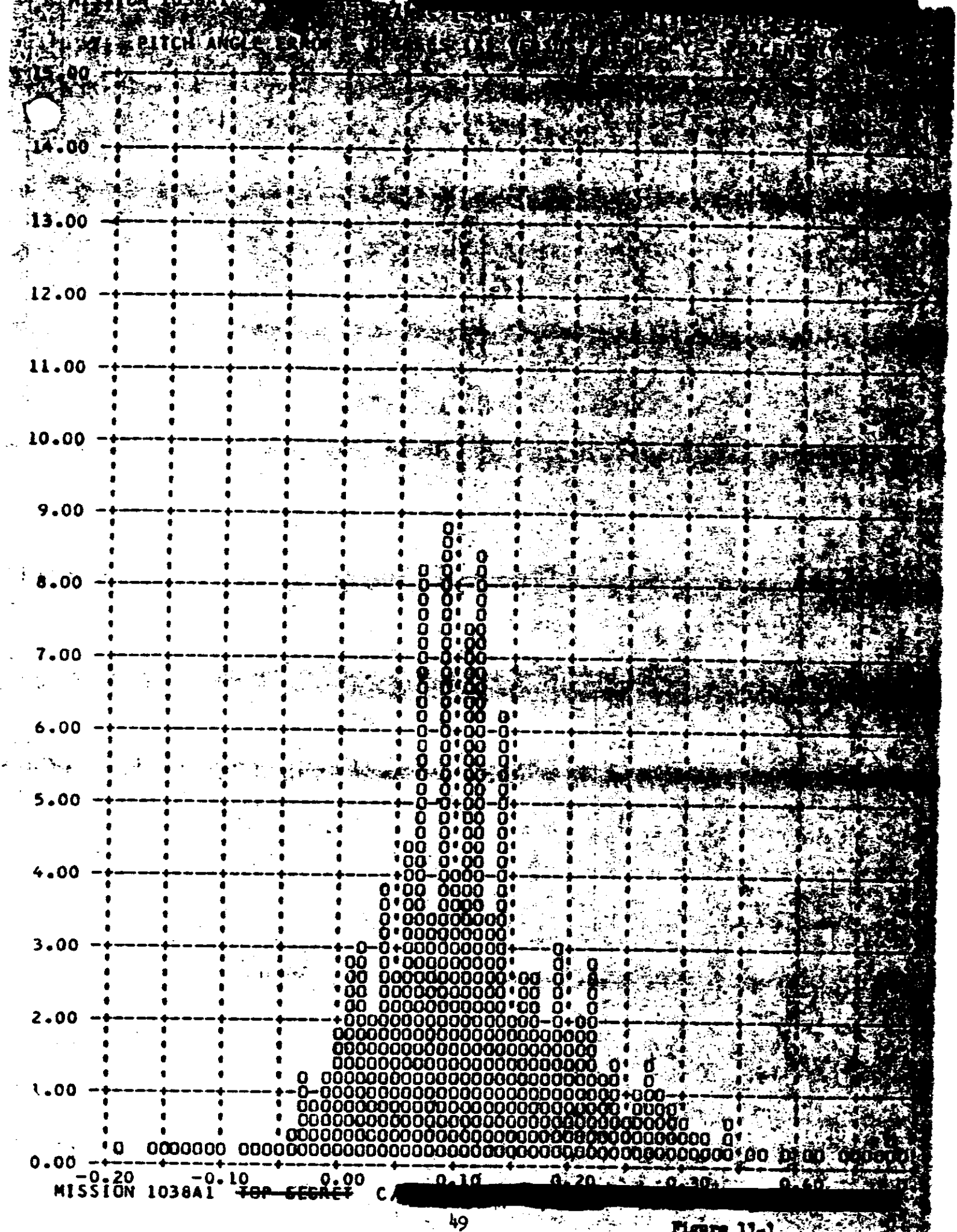

PITCH ANGLE ERROR
15.00
14.00
13.00
12.00
11.00
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
-0.20
-0.10
0.00
0.10
0.20
0.30
0.40
MISSION 1038A1 TOP SECRET

Figure 11-1

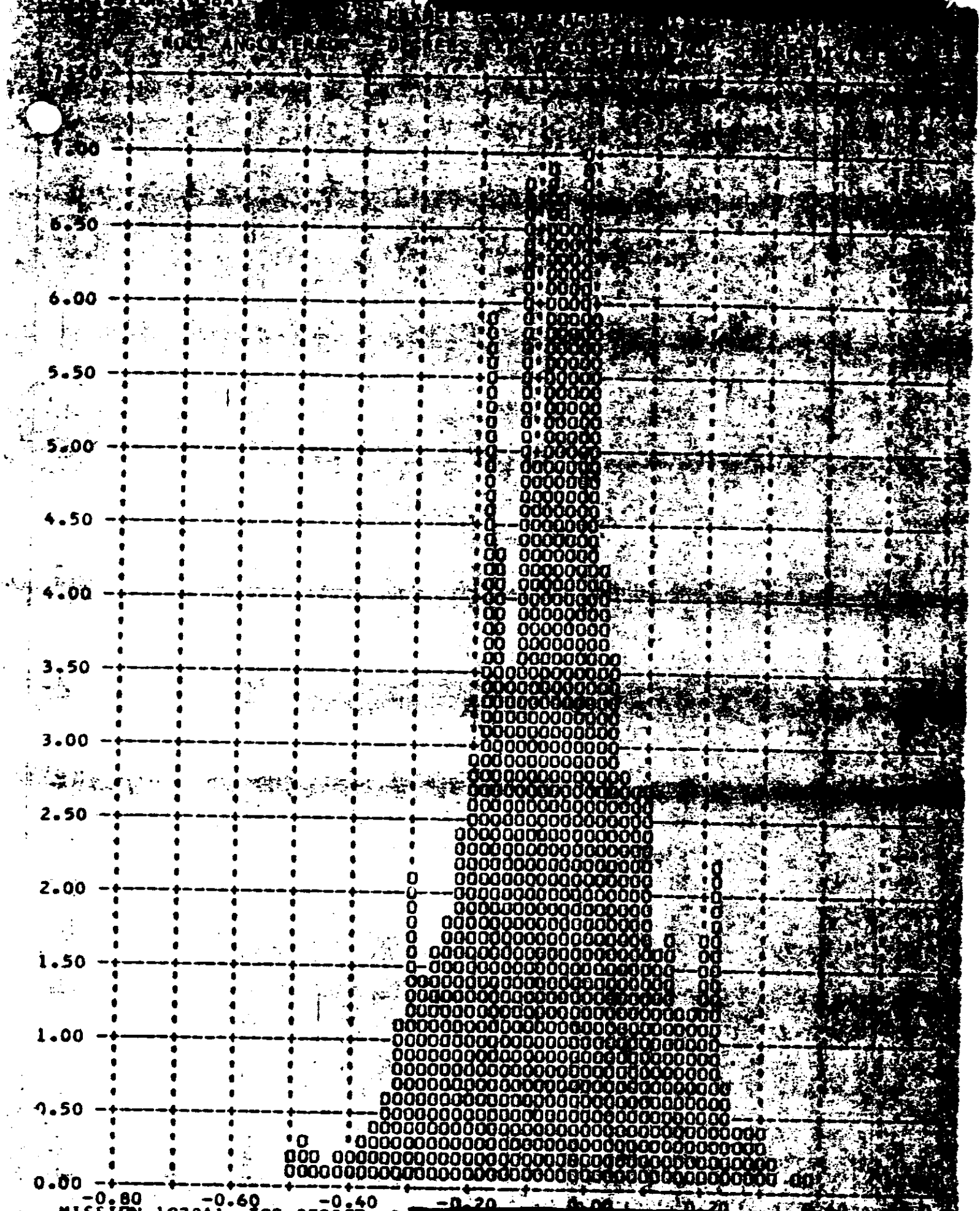
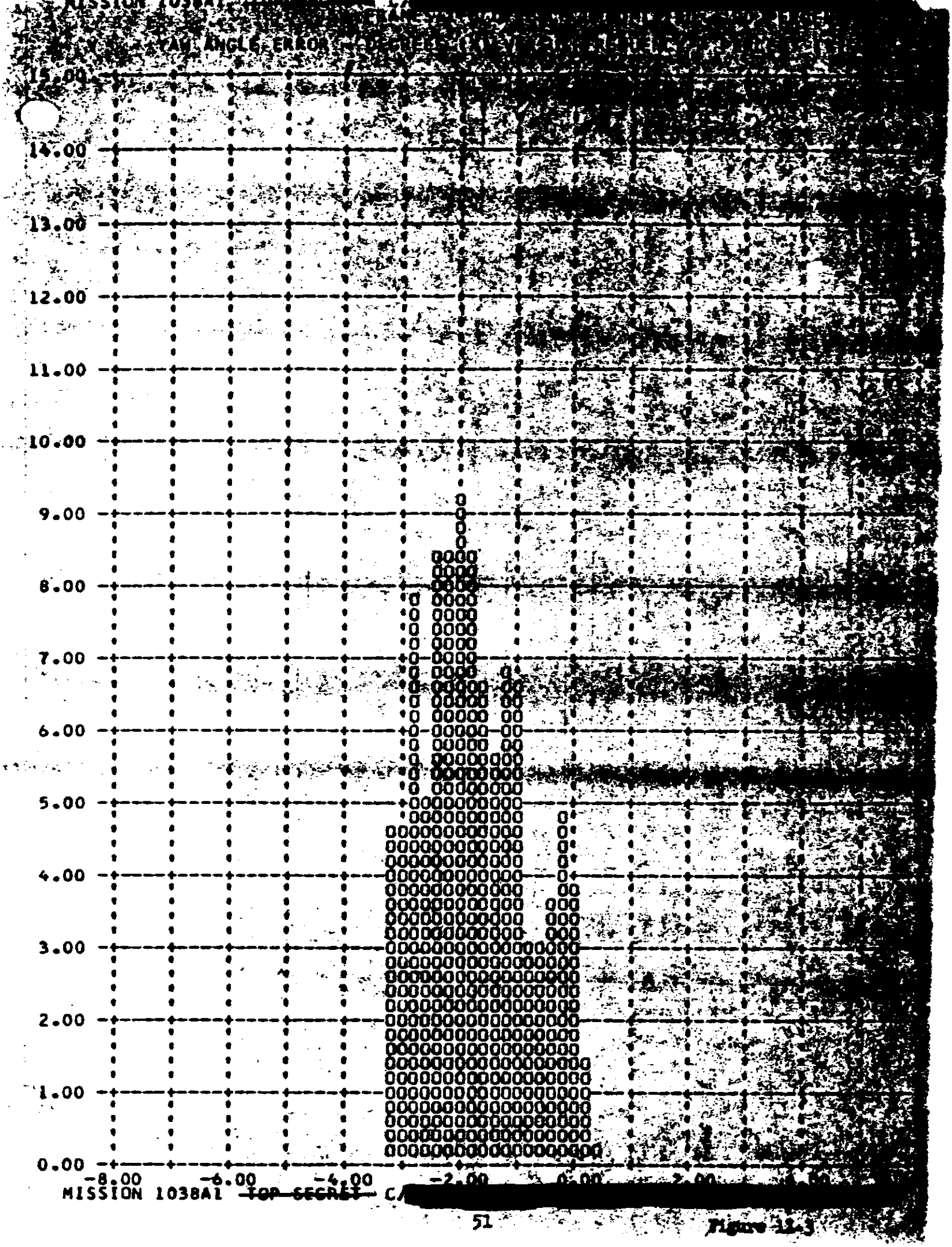
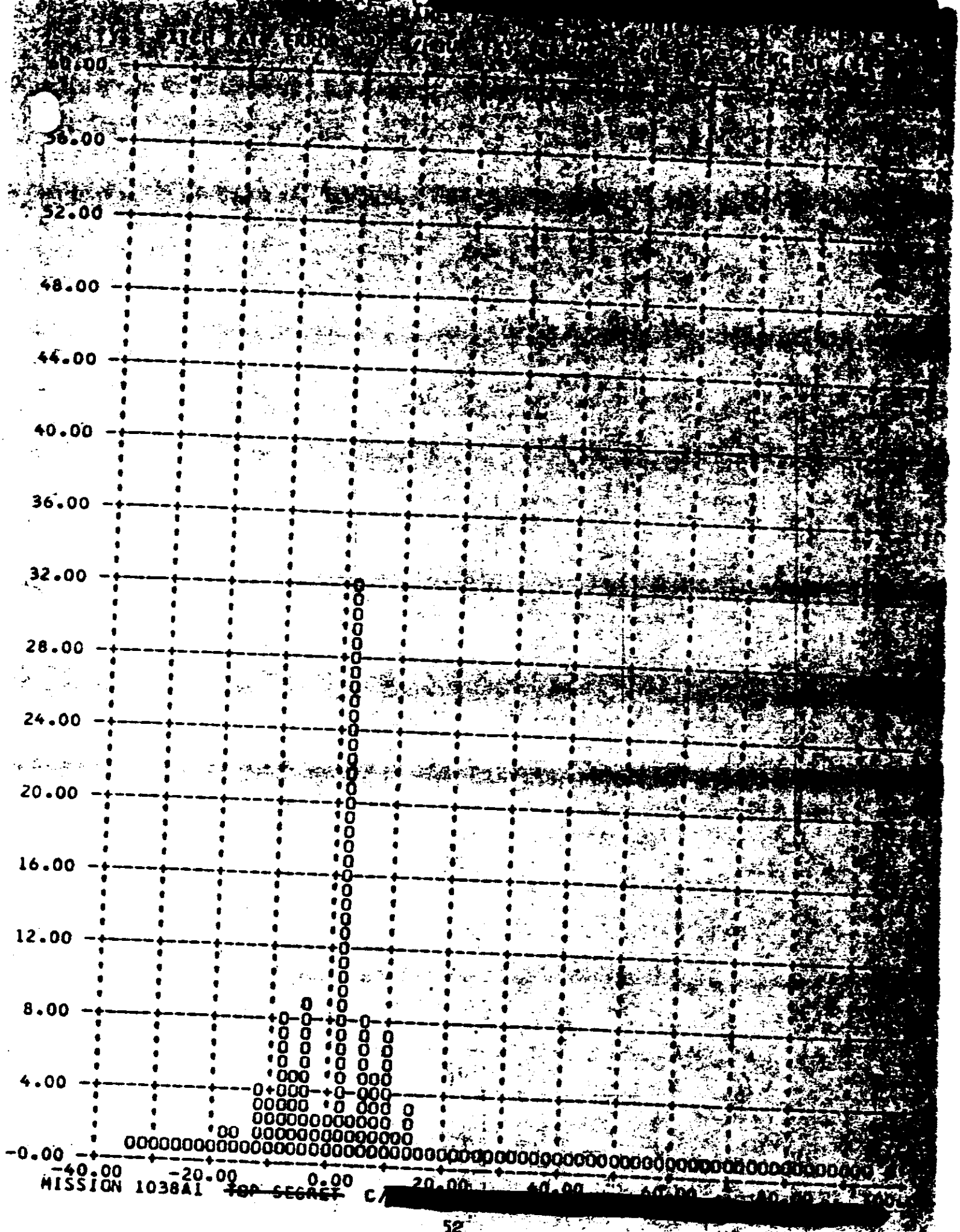

7.50
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
-0.80
-0.60
-0.40
-0.20
MISSION 1038A1 TOP SECRET

Figure II-2



MISSION 1038A1 ~~TOP SECRET~~ C[redacted]

Figure 12-3



MISSION 1038A1 ~~TOP SECRET~~ C[redacted]

Figure 11-4

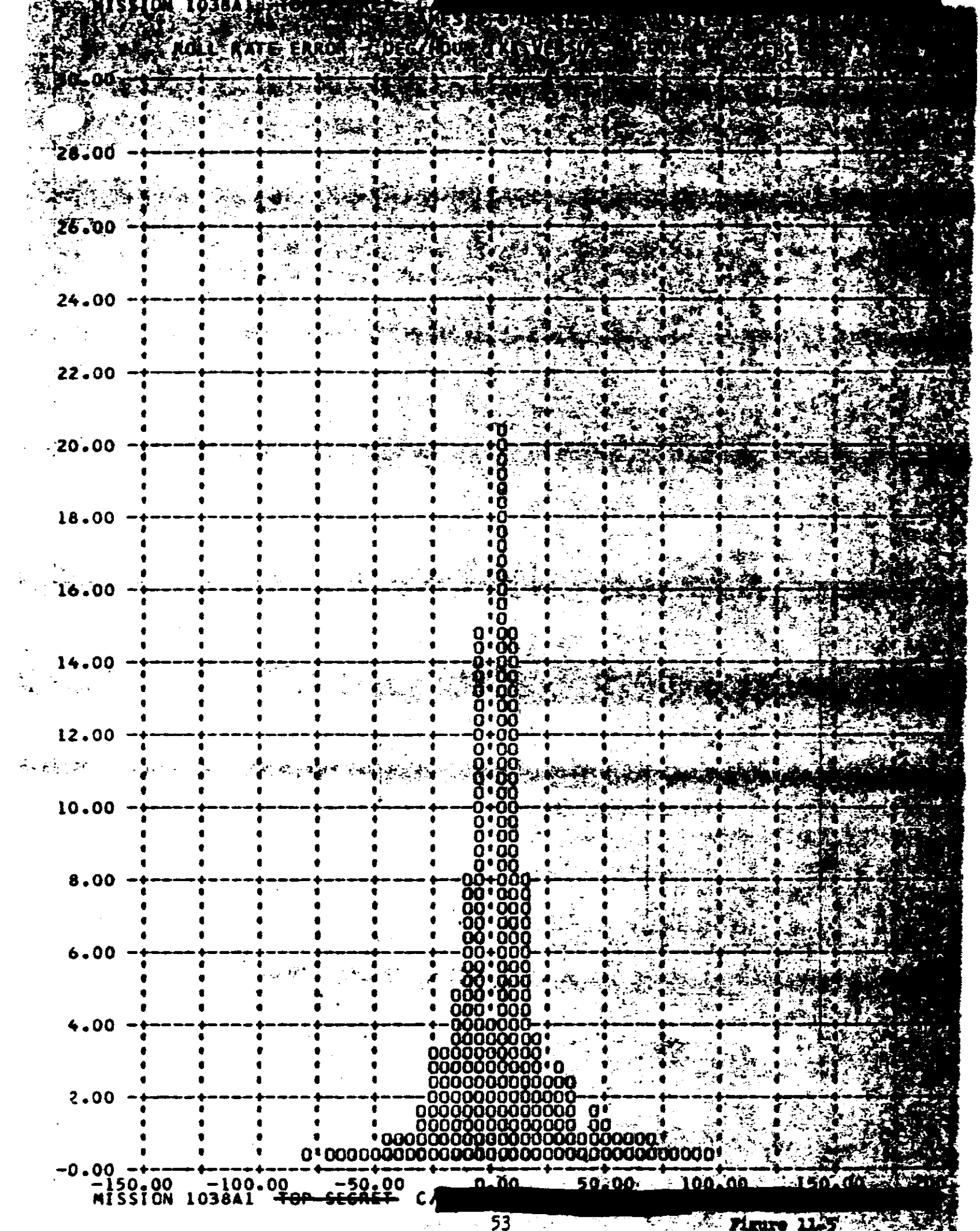
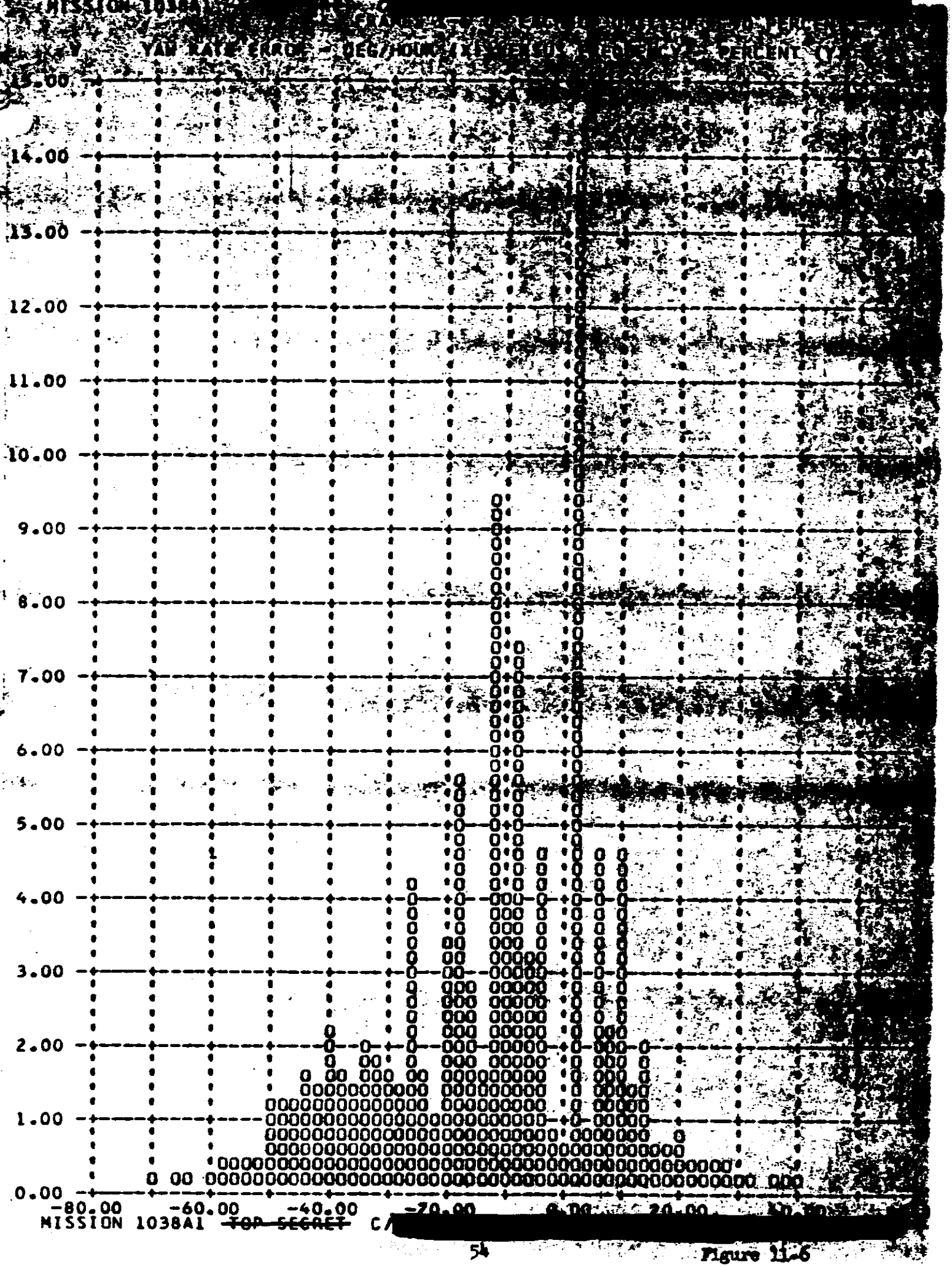
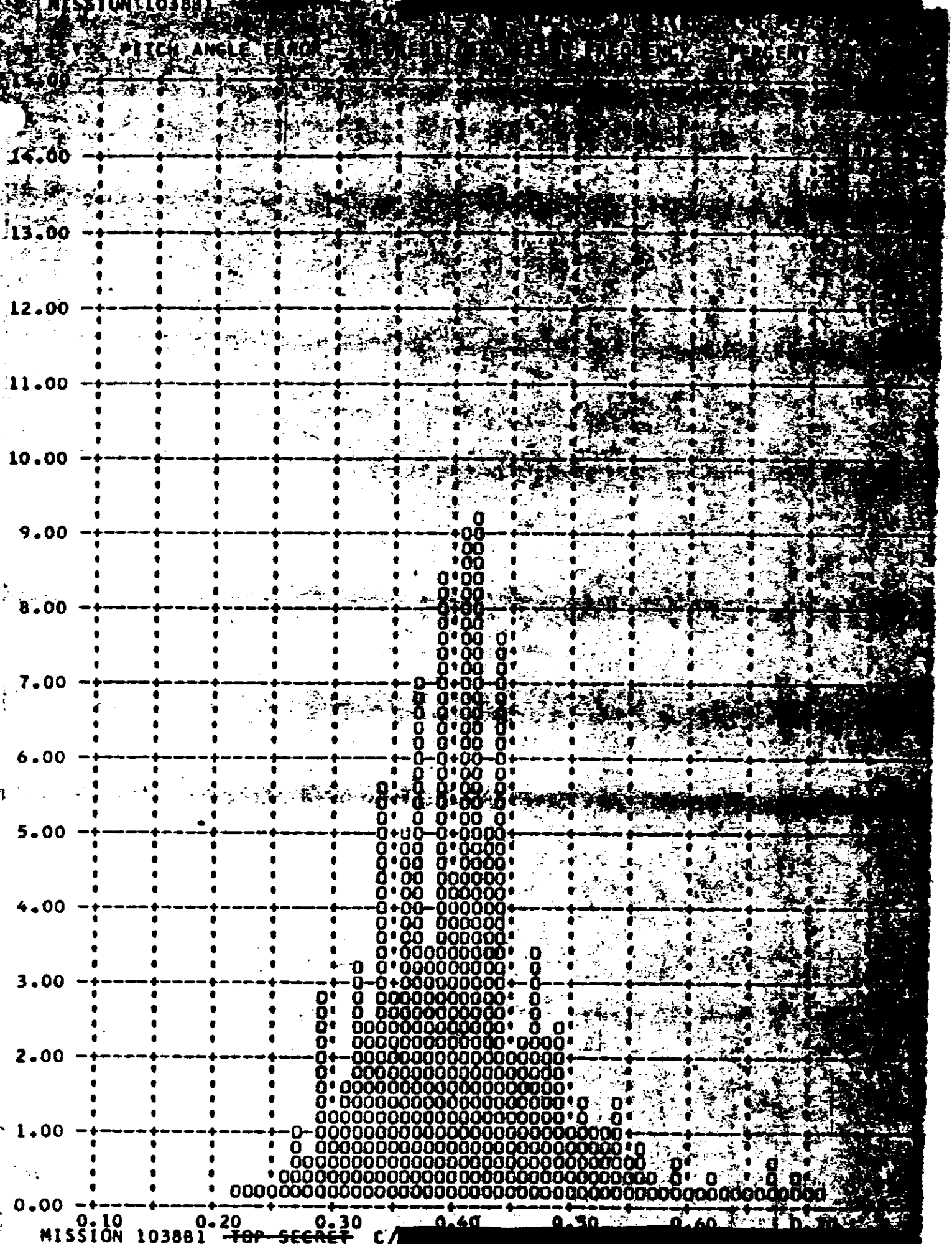

MISSION 1038A1
ROLL RATE ERROR - DEG/HOUR
30.00
28.00
26.00
24.00
22.00
20.00
18.00
16.00
14.00
12.00
10.00
8.00
6.00
4.00
2.00
-0.00
-150.00
-100.00
-50.00
0.00
50.00
100.00
150.00
MISSION 1038A1 TOP SECRET C/

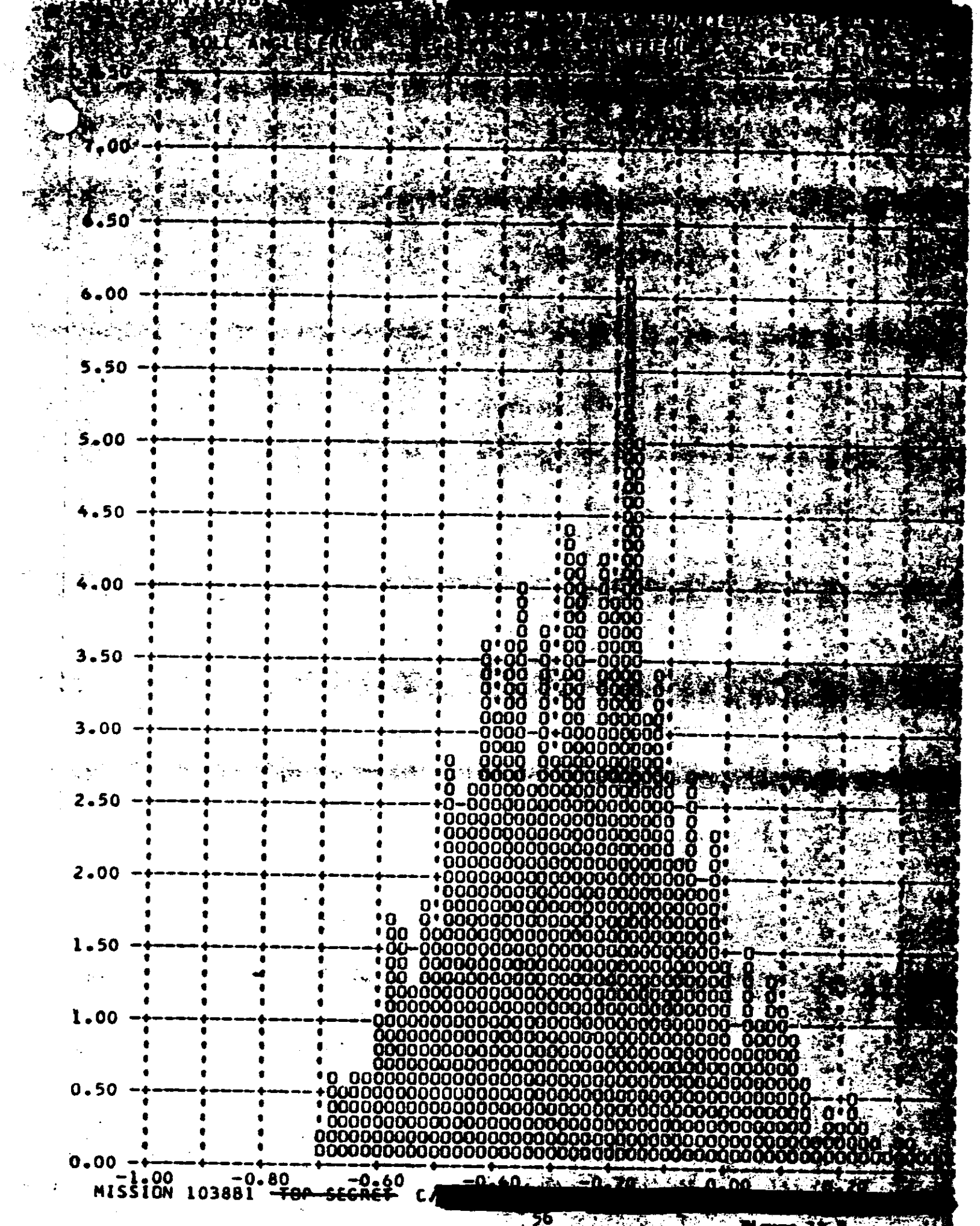
Figure 11-5



MISSION 1038A1 ~~TOP SECRET~~ C/[redacted]

Figure 11-6


MISSION(10388)
V. PITCH ANGLE FLUX
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
0.10
0.20
0.30
0.60
0.90
0.60



MISSION 10388I ~~TOP SECRET~~ C[redacted]

Figure 12.8

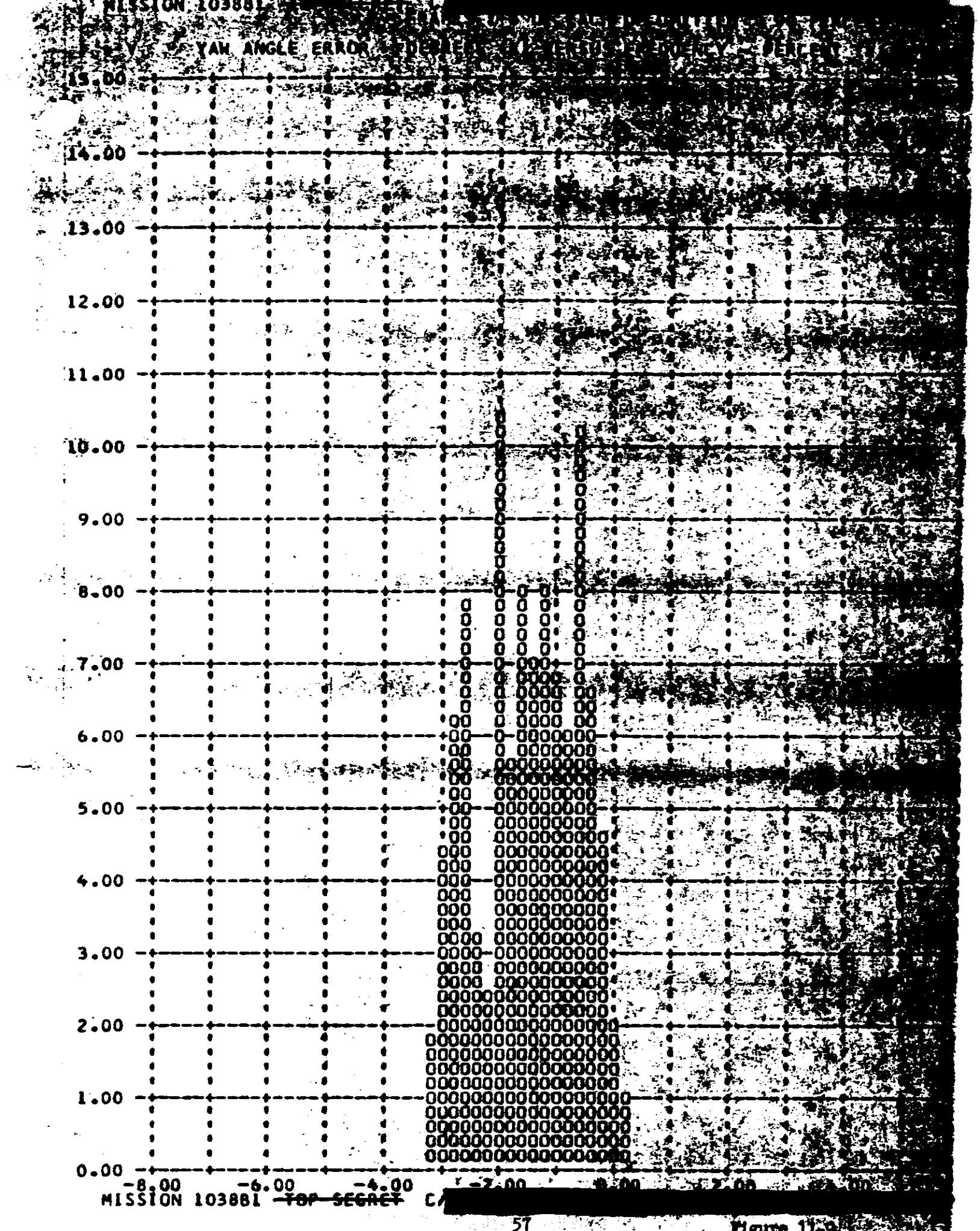
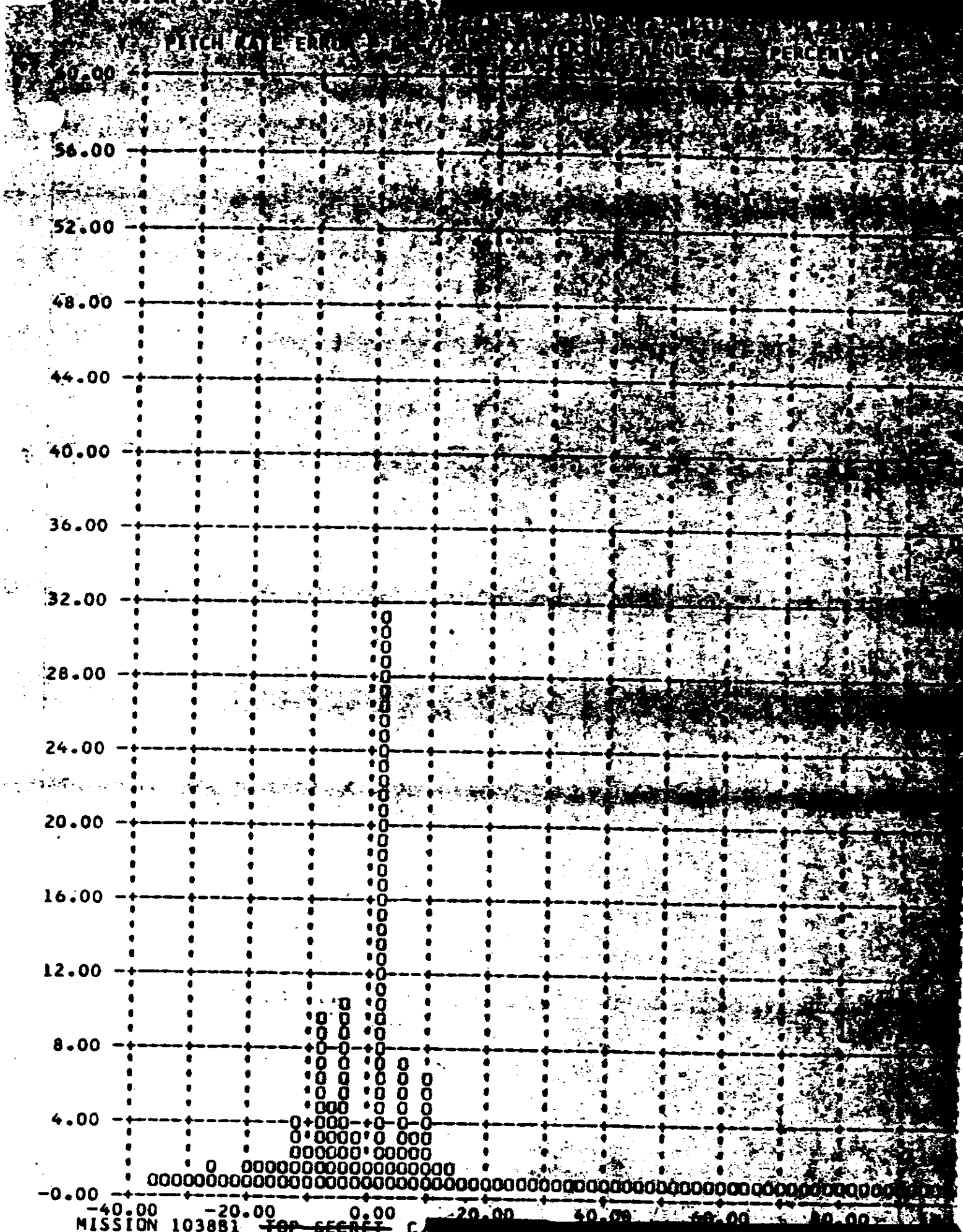

MISSION 10388I
YAW ANGLE ERROR
15.00
14.00
13.00
12.00
11.00
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
-8.00
-6.00
-4.00
MISSION 10388I TOP SECRET

Figure 11-9



MISSION 103881 ~~TOP SECRET~~ C[redacted]

Figure 11-10

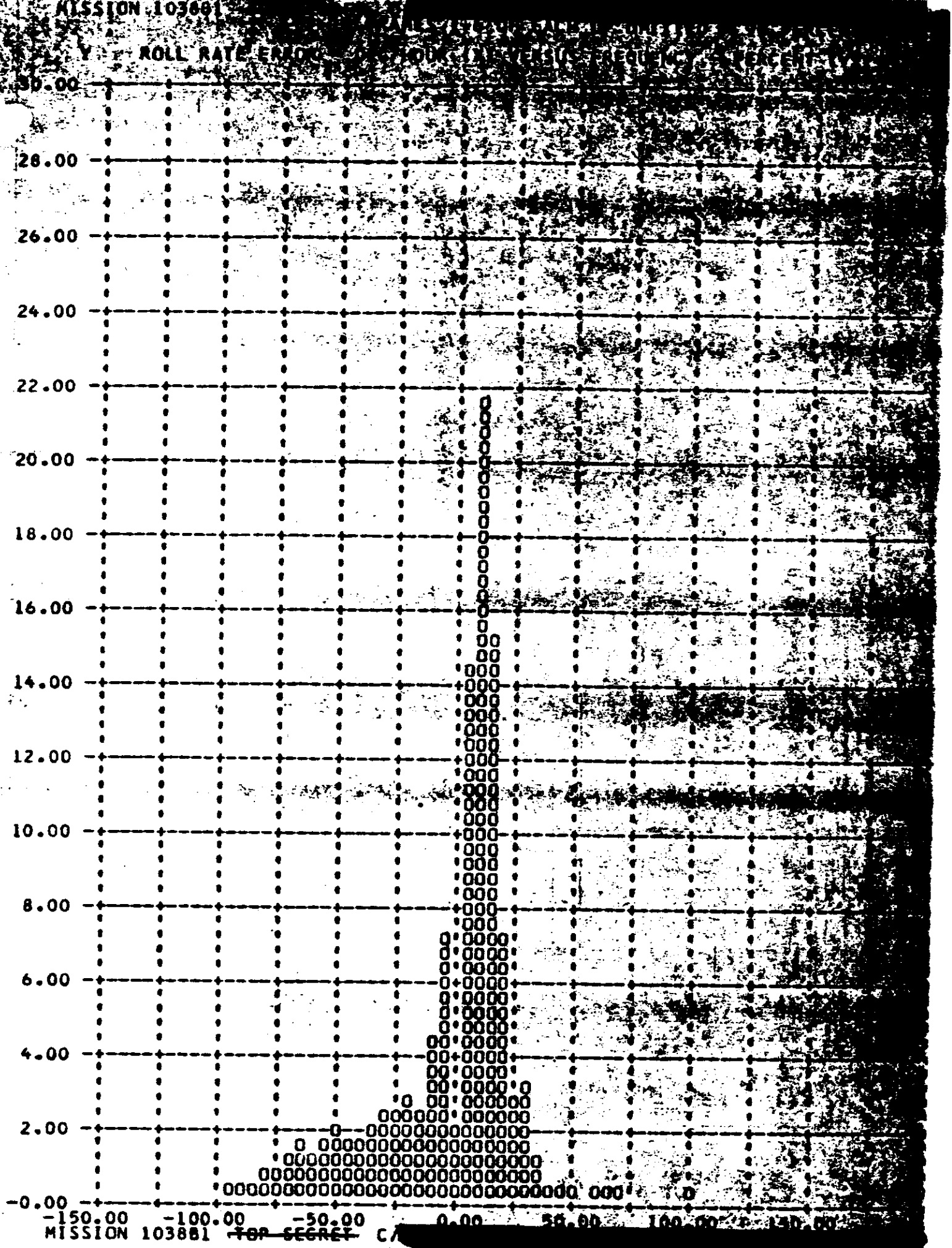

MISSION 103681
Y - ROLL RATE ERROR
30.00
28.00
26.00
24.00
22.00
20.00
18.00
16.00
14.00
12.00
10.00
8.00
6.00
4.00
2.00
-0.00
-150.00
-100.00
-50.00
0.00
50.00
100.00
150.00
MISSION 103881 TOP SECRET

Figure 11-11

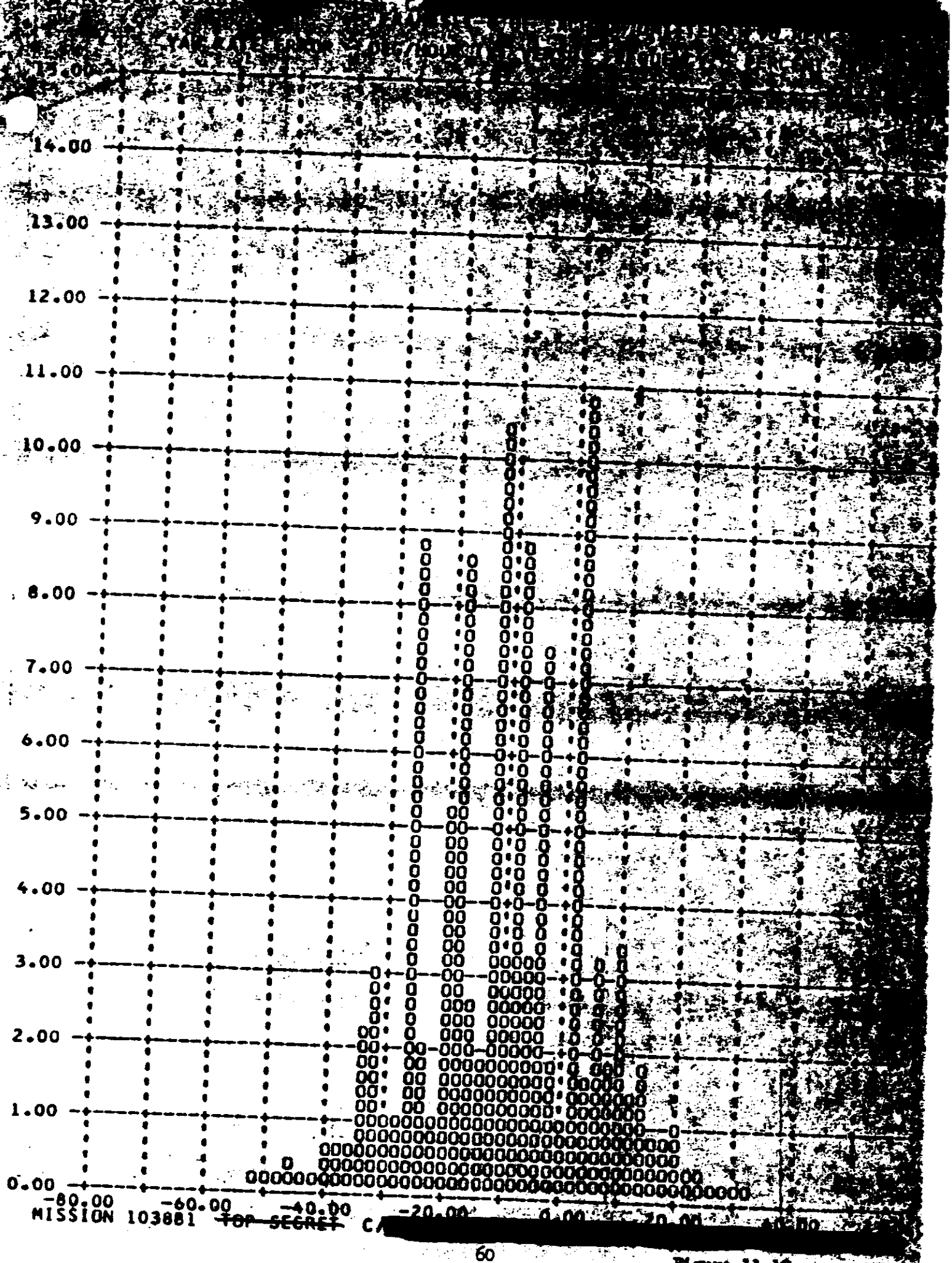

14.00
13.00
12.00
11.00
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
-80.00
-60.00
-40.00
-20.00
0.00
20.00
MISSION 103881 ~~TOP SECRET~~ C/

Figure 11-12

IMAGE SMEAR ANALYSIS

The frame correlation tape supplied to A/P by JPIQ 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 lattitude of each frame. The program outputs the total along track and cross track IMC error and the [illegible] 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 for each panoramic camera have been calculated and plotted in Figures 12-1 through 12-16. The variation in the data for the panoramic cameras is the result of the different slit widths used during the mission and the resulting slower exposure time in the FWD camera.

The summary shown in Table 12-1 presents the maximum V/h rate errors and resolution limits that existed during 90% of the photographic operations and the total range of values during all operations that were computed.

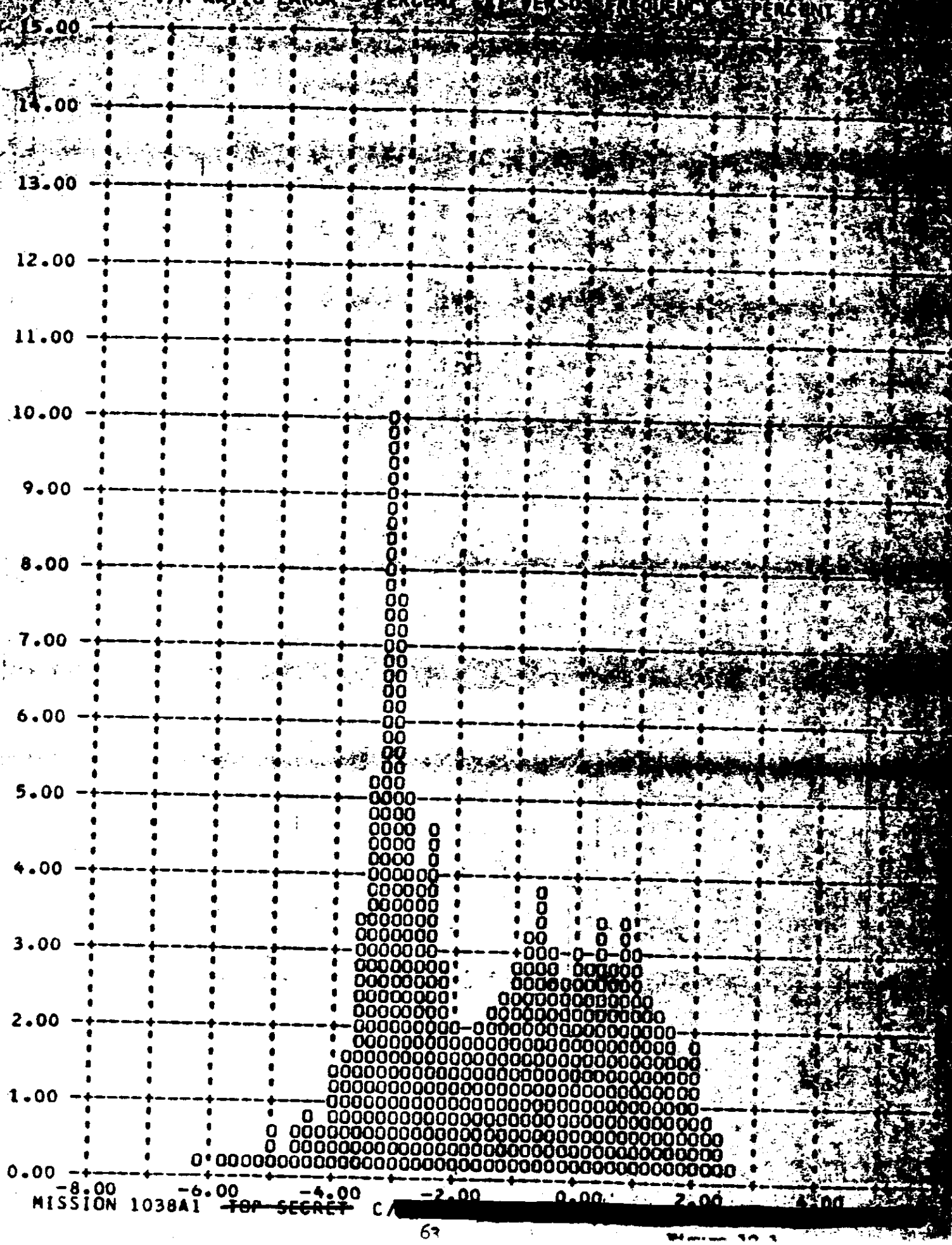
~~TOP SECRET~~ C [redacted]

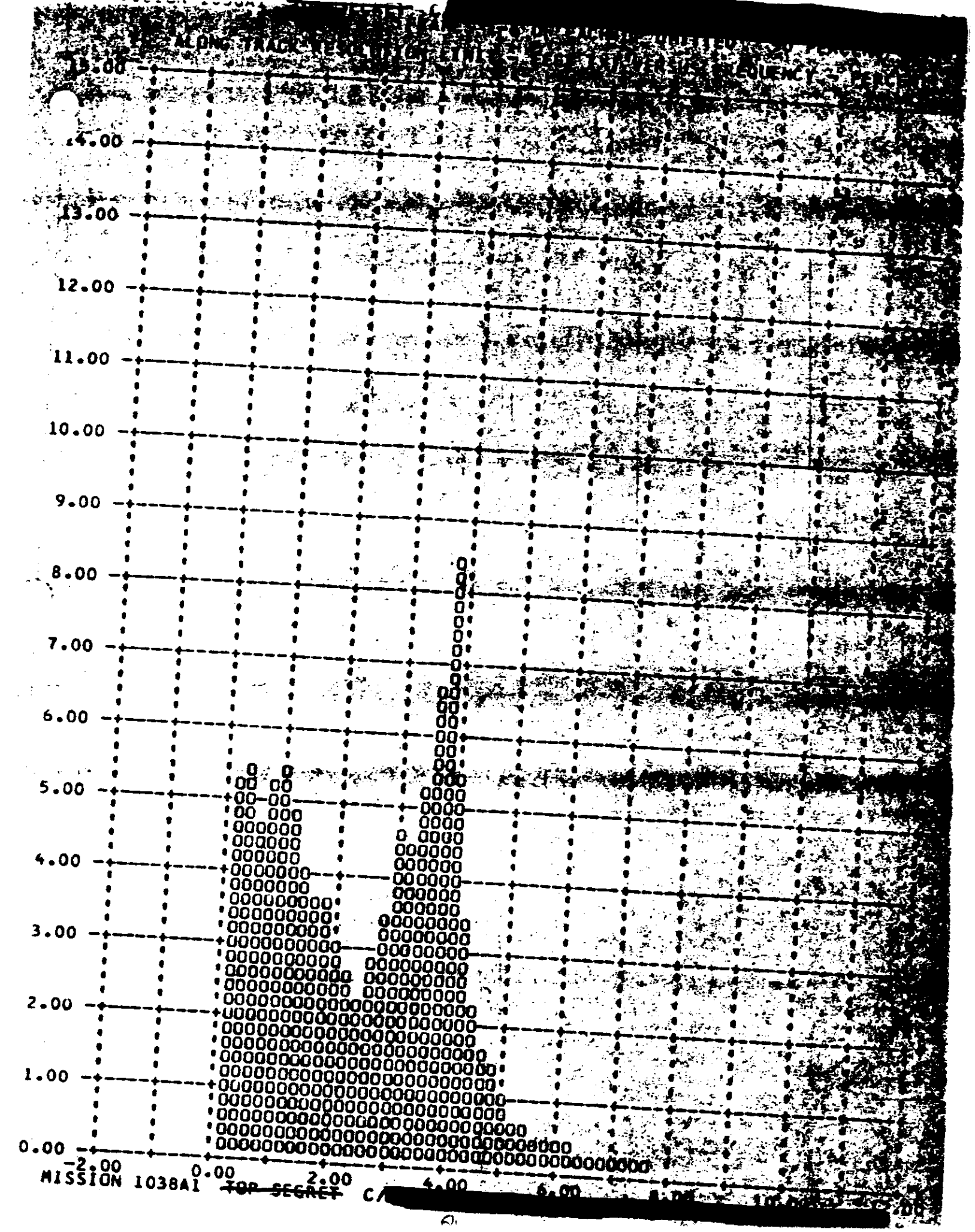
MISSION 1038

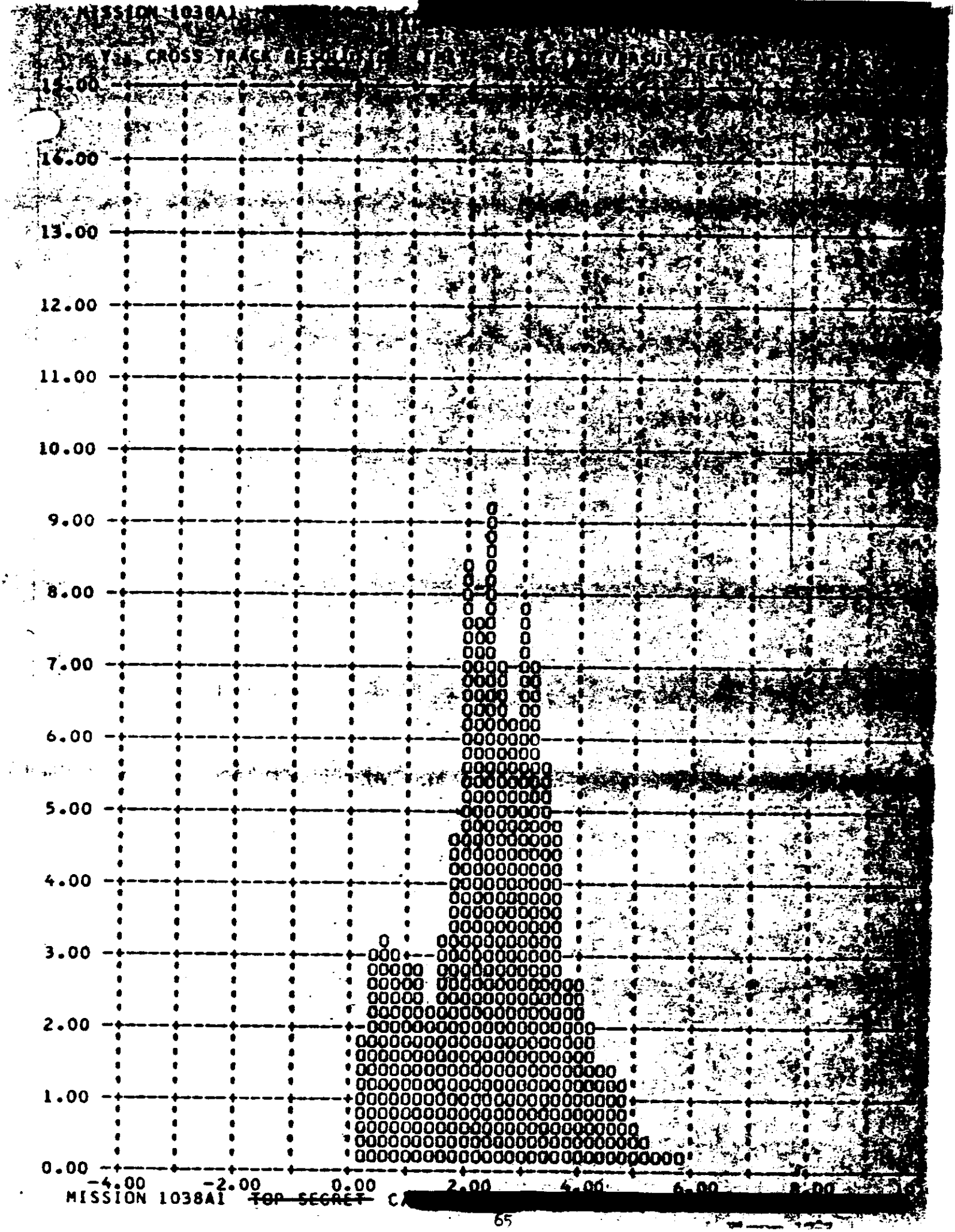
V/h RATIO AND RESOLUTION LIMITS

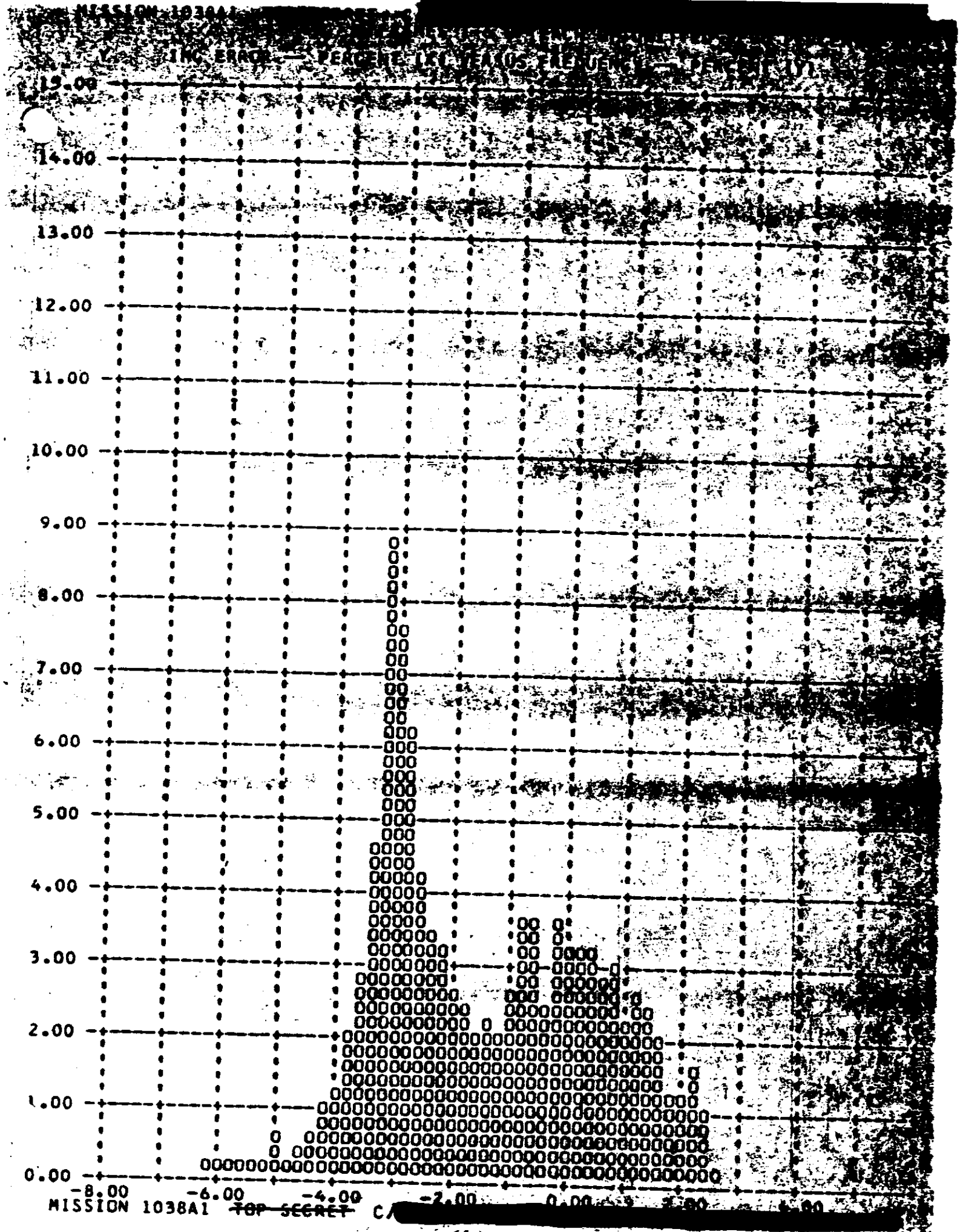
Value	Units	Camera	Mission 1038-1 90%	Mission 1038-1 Range	Mission 1038-2 90%	Mission 1038-2 Range
V/h Ratio Error	%	FWD	3.56	-6.2 to +2.6	3.40	-5.4 to +2.0
		AFT	3.44	-9.0 to +3.6	3.37	-5.6 to +2.8
Along Track Resolution Limit	Feet	FWD	4.11	0.2 to 7.6	3.68	0.2 to 6.4
		AFT	3.33	0.2 to 11.0	2.[illegible]	0.2 to 5.8
Cross Track Resolution Limit	Feet	FWD	3.74	0.2 to 5.8	3.83	0.2 to 6.6
		AFT	2.50	0.2 to 7.0	2.44	0.2 to 3.8

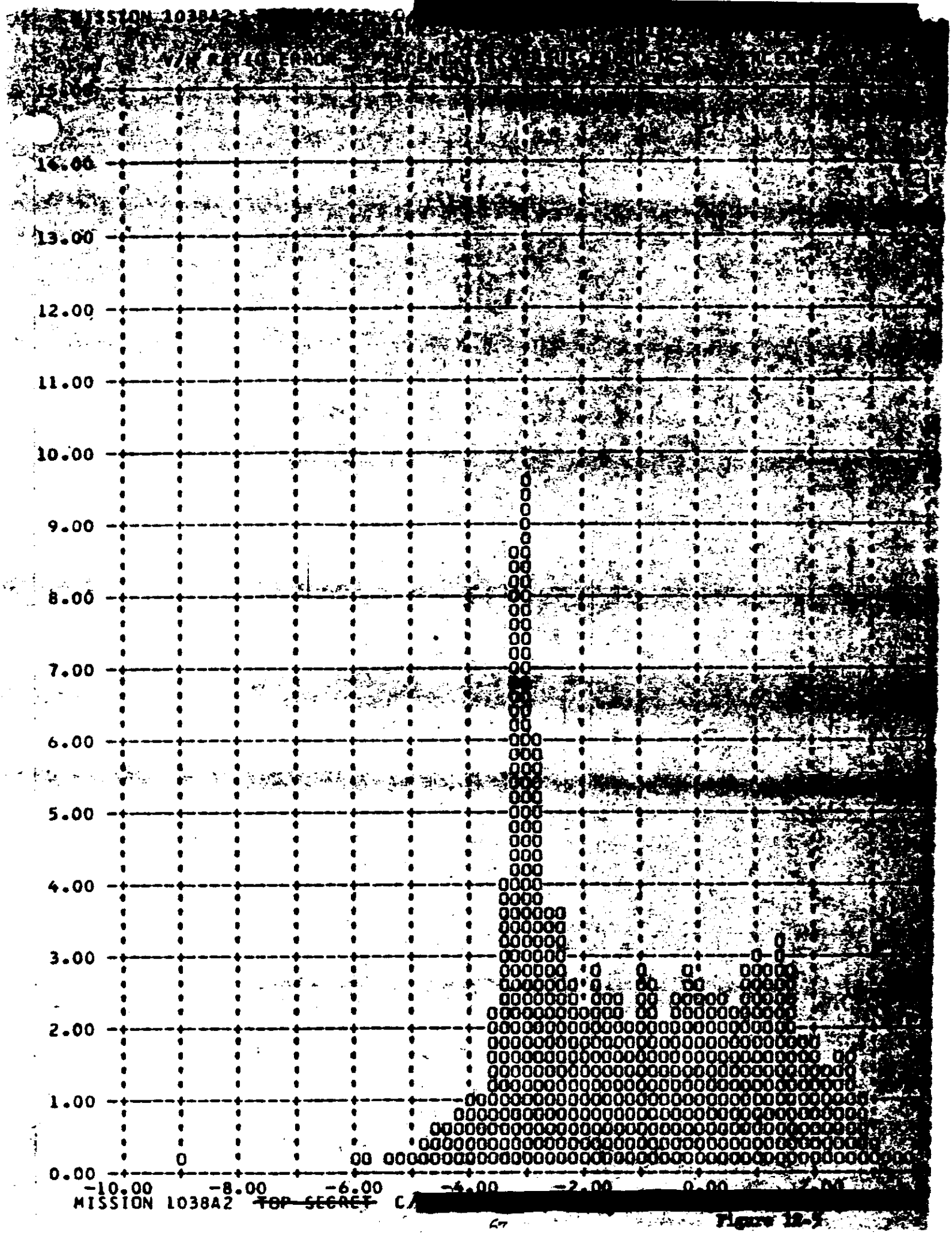
TABLE [illegible]


Y V/H RATIO ERROR - PERCENT VERSUS FREQUENCY - PERCENT
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
-8.00
-6.00
-4.00
-2.00
0.00
2.00
4.00


ALONG TRACK RESOLUTION, LINES PER MILLIMETER
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
MISSION 1038A1
TOP SECRET

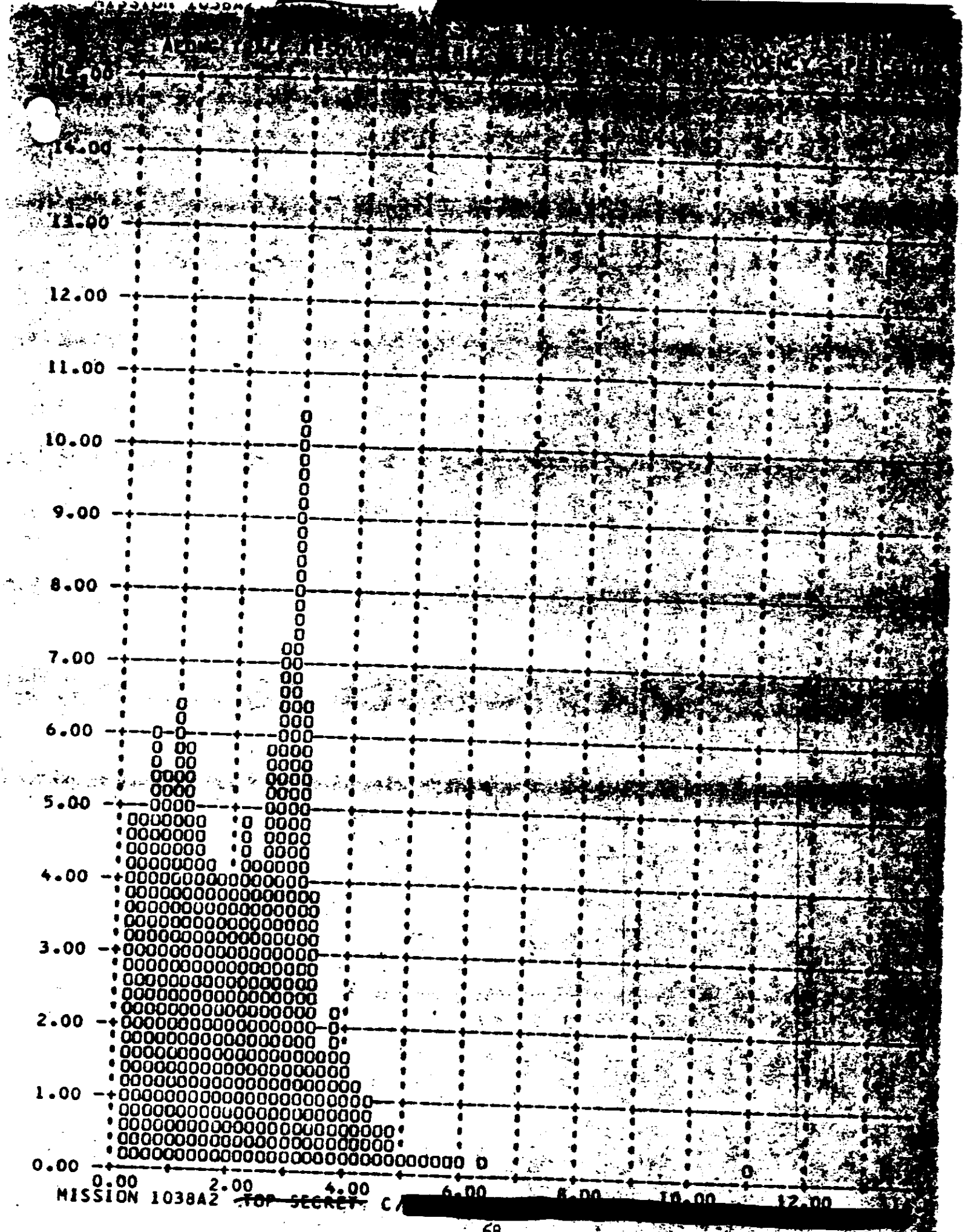

MISSION 1038AI
CROSS TRACK
16.00
15.00
14.00
13.00
12.00
11.00
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
-4.00
-2.00
0.00
2.00
4.00
6.00
8.00


MISSION 1038A1
Y, INC ERROR — PERCENT LETHALITY REDUCTION — PERCENT (Y)
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
-8.00
-6.00
-4.00
-2.00
0.00
MISSION 1038A1 TOP SECRET C

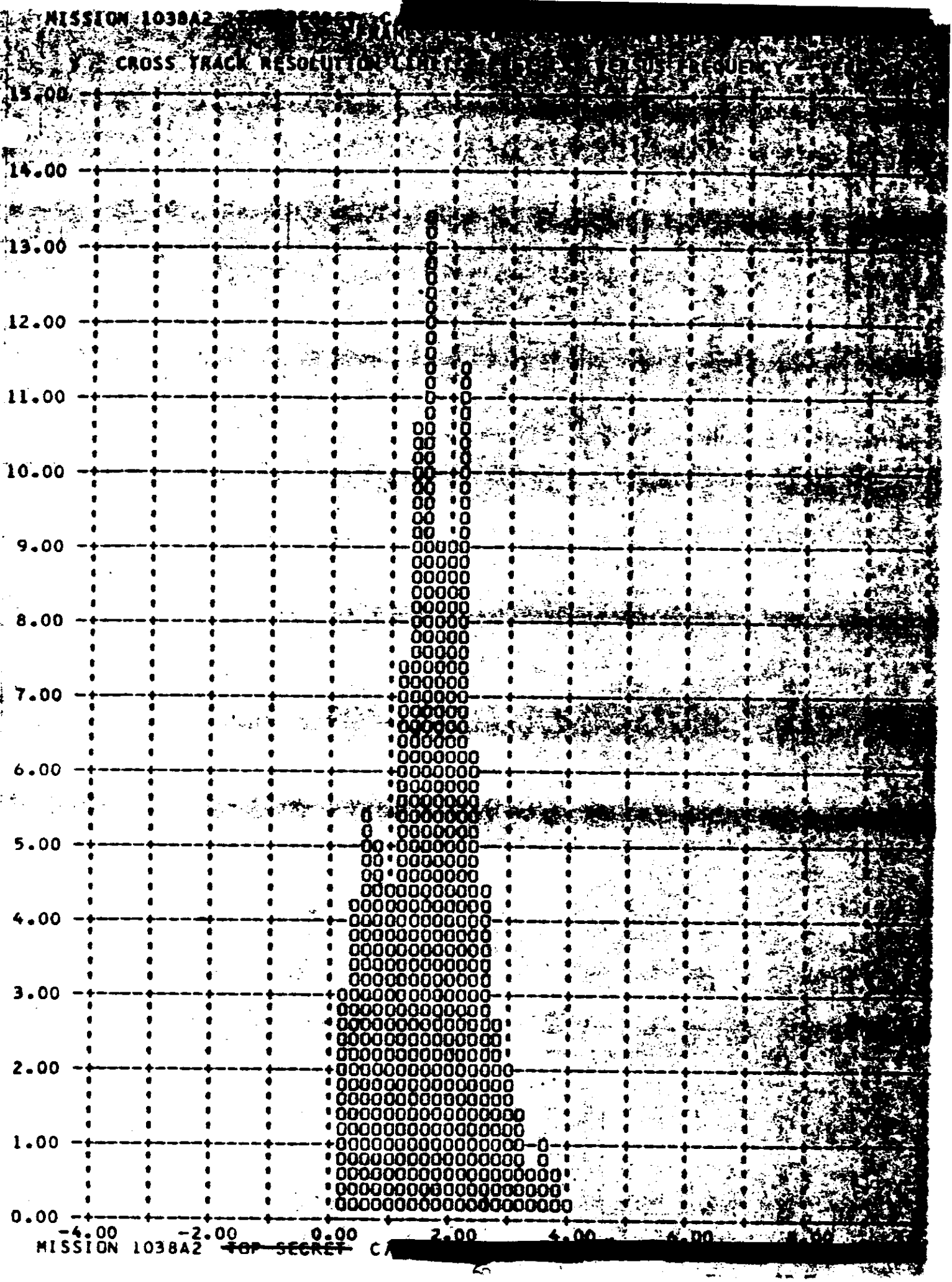


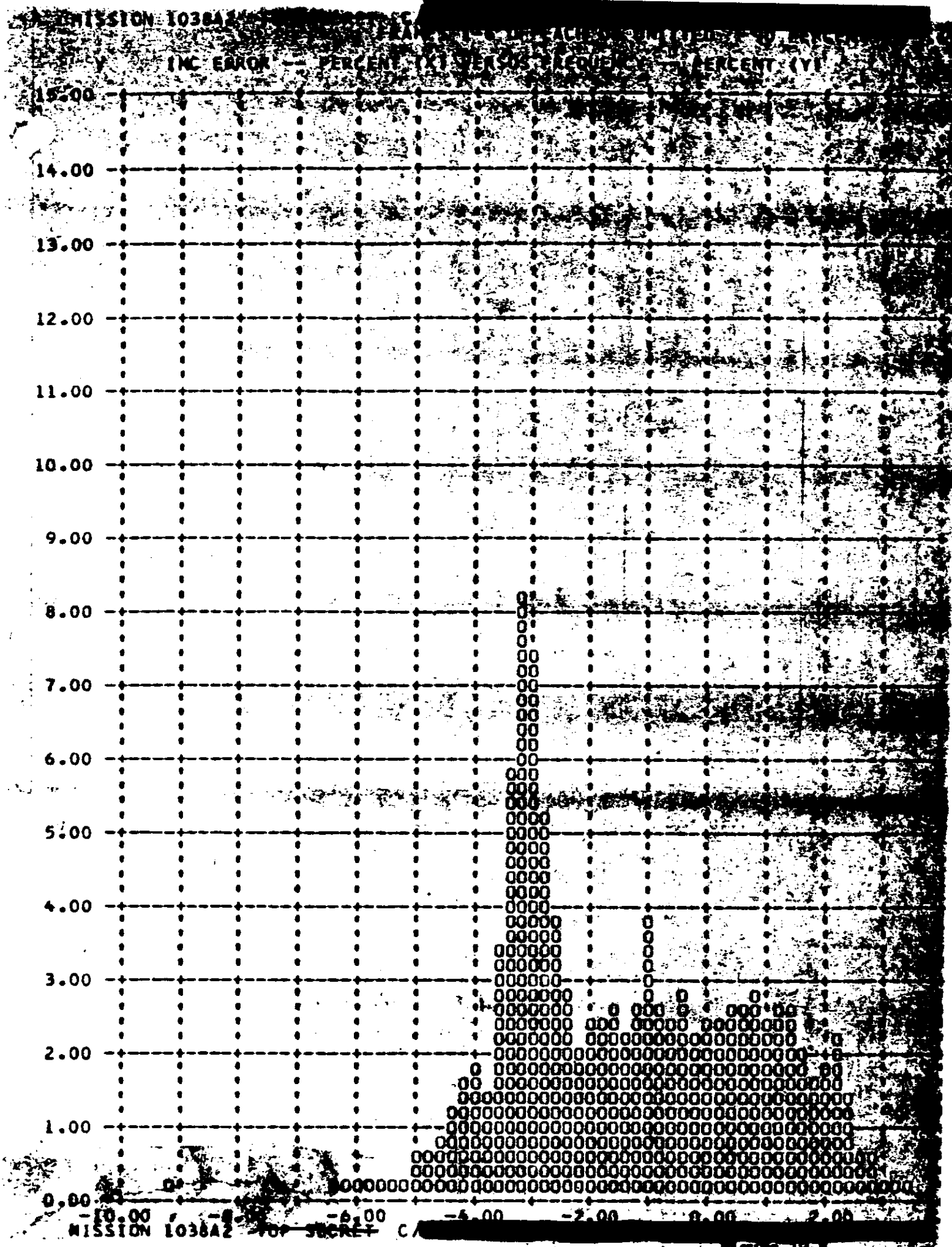
MISSION 1038A2 ~~TOP SECRET~~ C[redacted]

Figure 12-5



MISSION 1038A2 ~~TOP SECRET~~ C/[redacted]


MISSION 1038A2
CROSS TRACK RESOLUTION
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
-4.00
-2.00
0.00
2.00
4.00
MISSION 1038A2 TOP SECRET


MISSION I038A2 -TOP SECRET C
Y INC ERROR -- PERCENT (X) VERSUS X REQUIRED -- PERCENT (Y)
15.00
14.00
13.00
12.00
11.00
10.00
9.00
8.00
7.00
6.00
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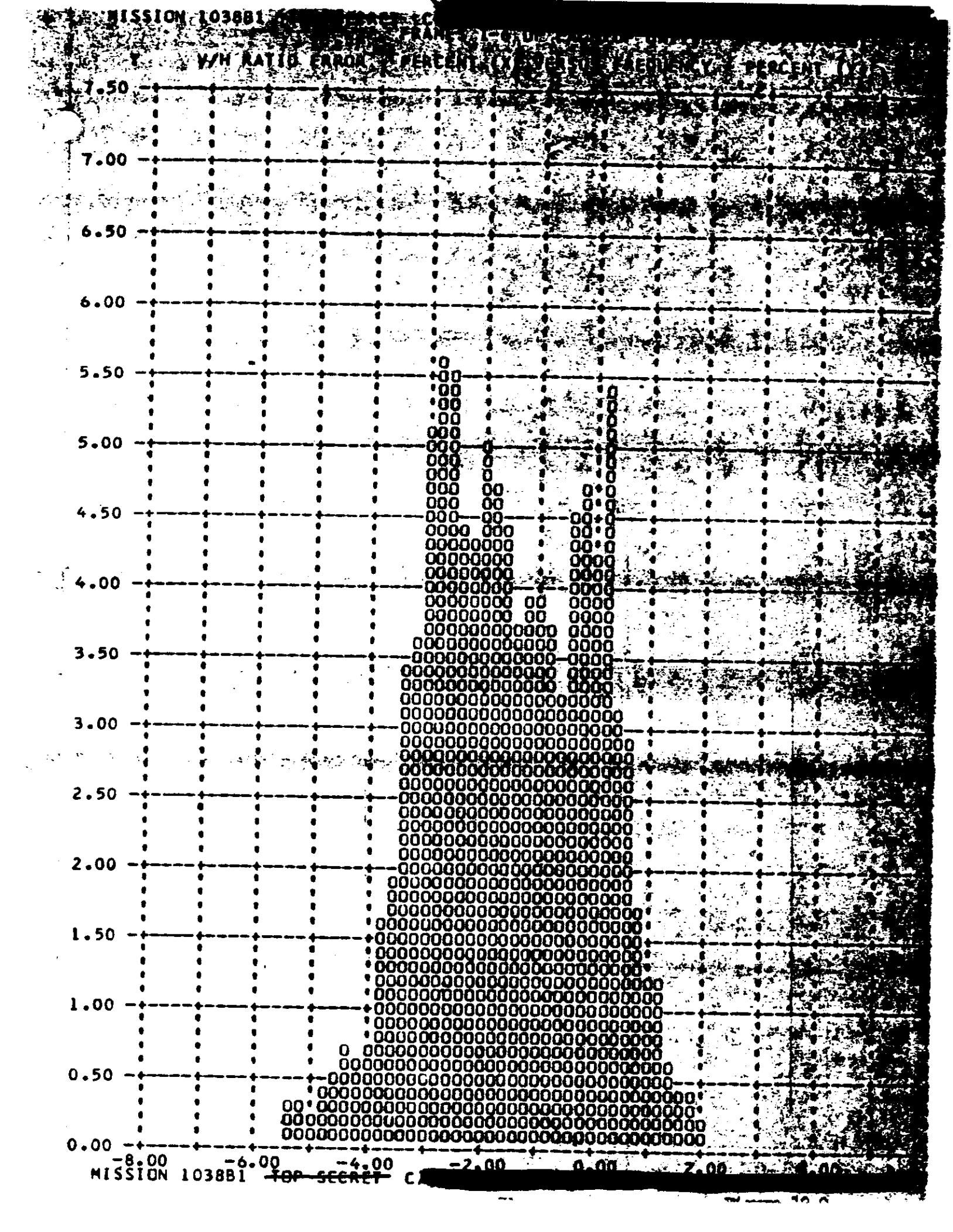
0.00
-10.00
-8.00
-6.00
-4.00
-2.00
0.00
2.00

Figure IX-6


MISSION 1038B1
V/H RATIO ERROR, PERCENT (X 10**3)
FREQUENCY, PERCENT (X
7.50
7.00
6.50
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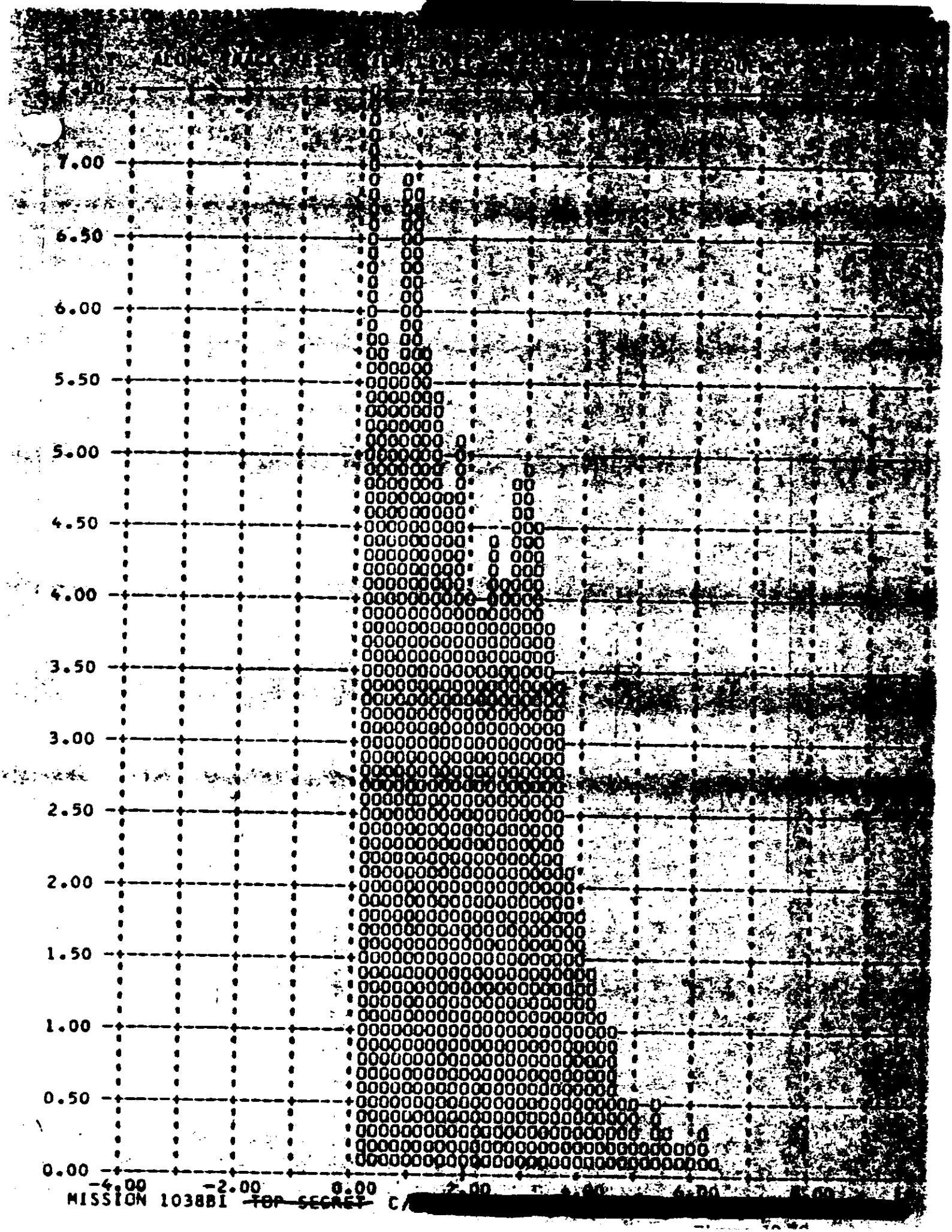
-8.00
-6.00
-4.00
-2.00
0.00
2.00
MISSION 1038B1 TOP SECRET


7.00
6.50
6.00
5.50
5.00
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4.00
3.50
3.00
2.50
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1.50
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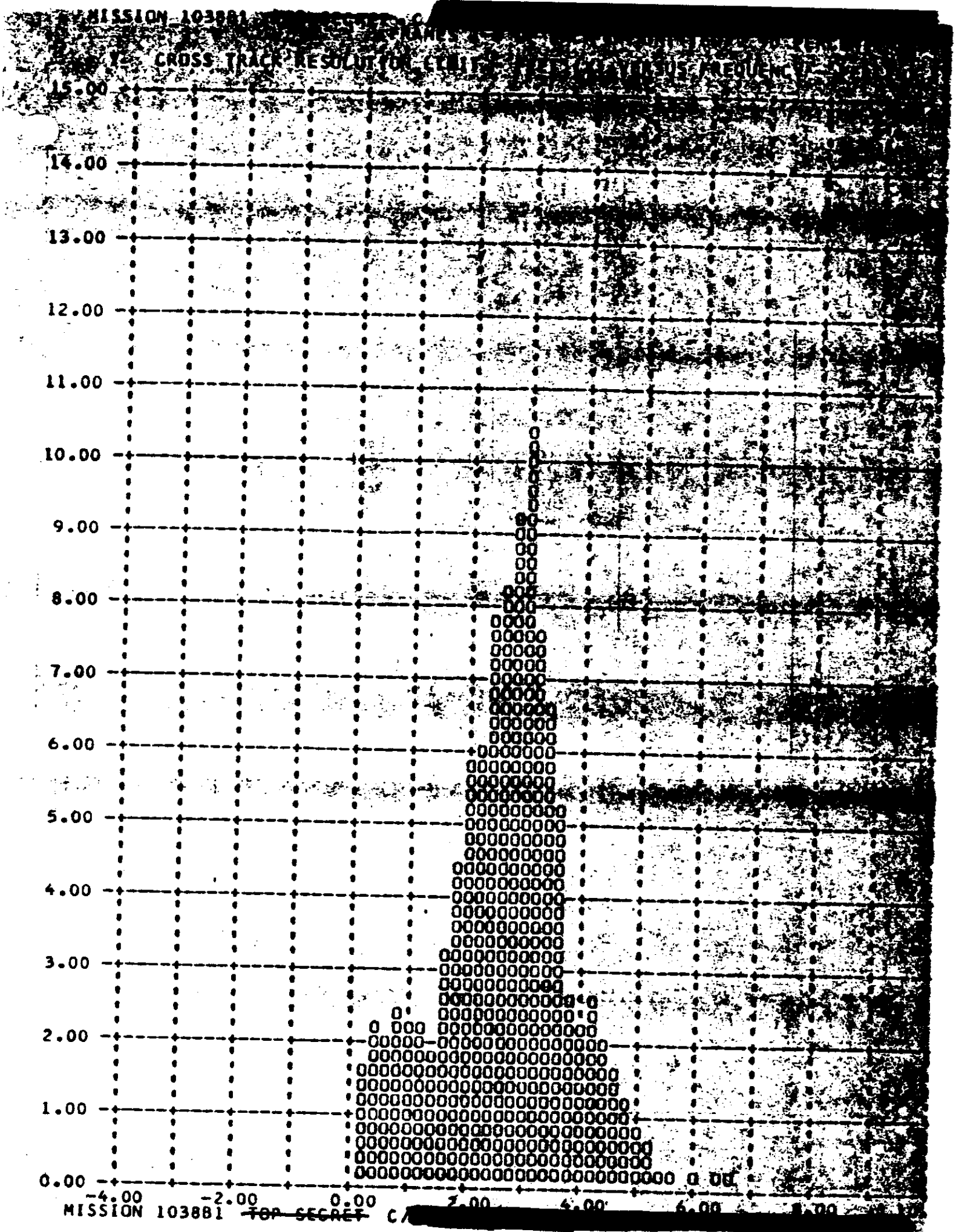
0.50
0.00
-4.00
-2.00
0.00
2.00
4.00
6.00


MISSION 103881
Y: CROSS TRACK RESOLUTION (CYCLES
VERSUS FREQUENCY
15.00
14.00
13.00
12.00
11.00
10.00
9.00
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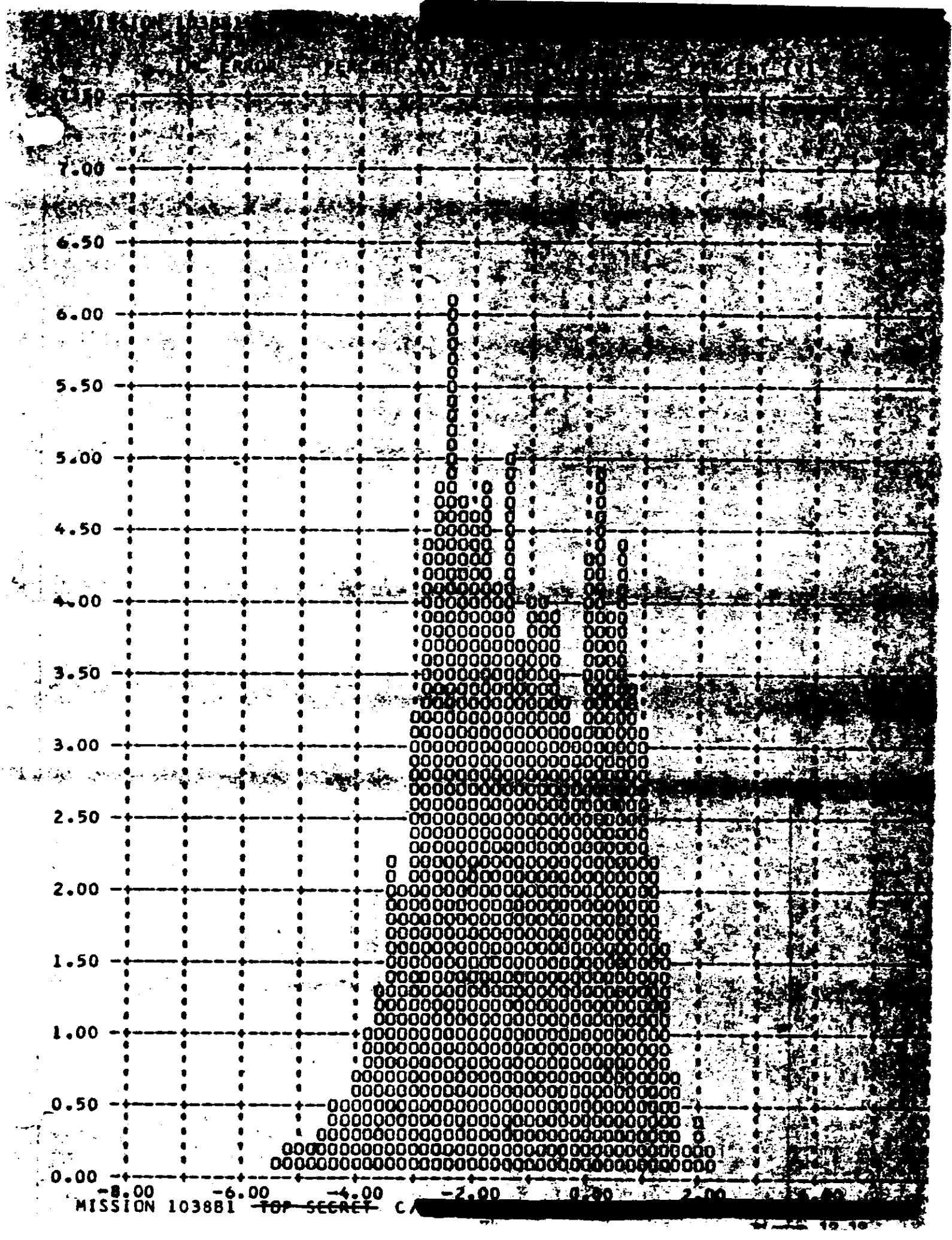
4.00
6.00
MISSION 103881 TOP SECRET


7.00
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3.00
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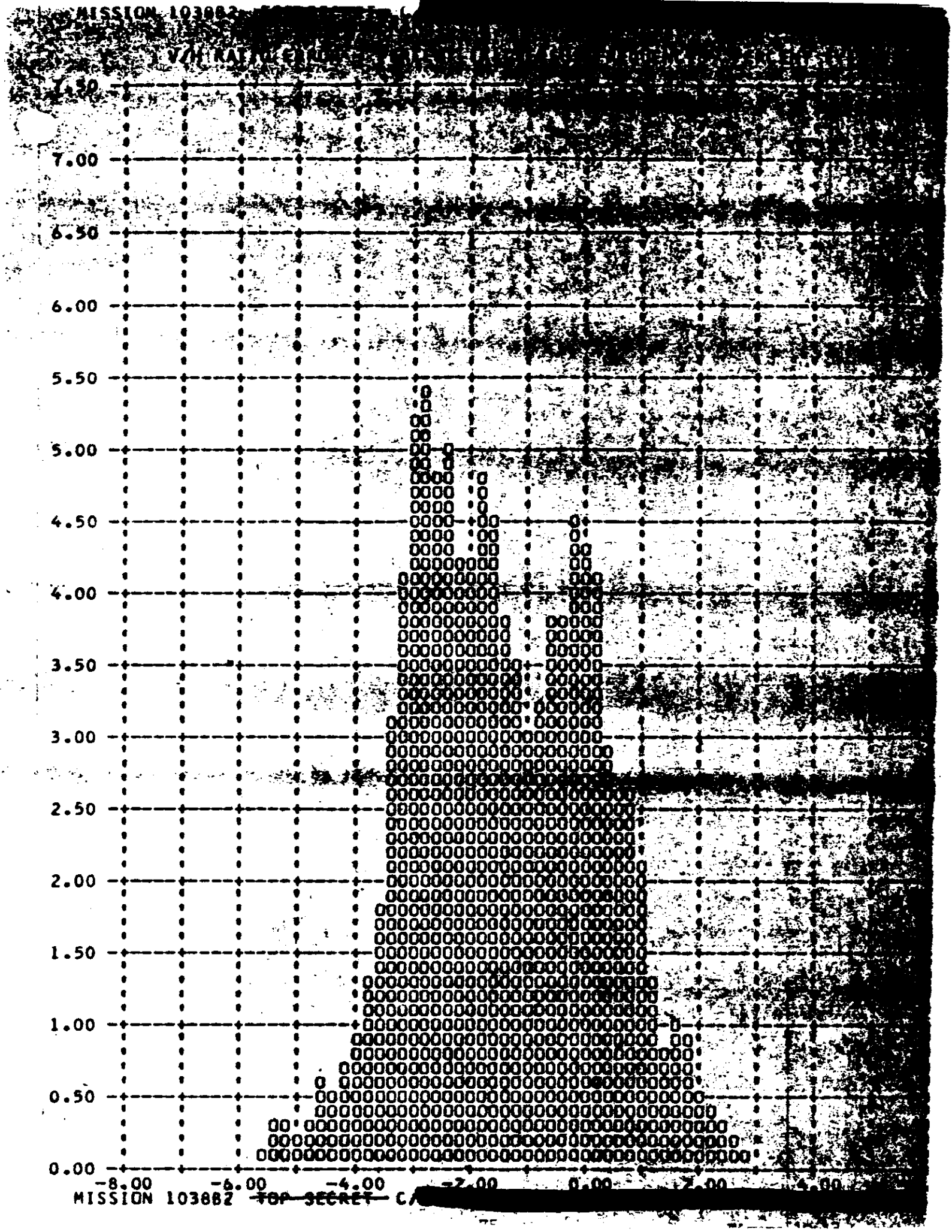
-8.00
-6.00
-4.00
-2.00
0.00
2.00


MISSION 103882
V/H RATIO
7.50
7.00
6.50
6.00
5.50
5.00
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3.50
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-4.00
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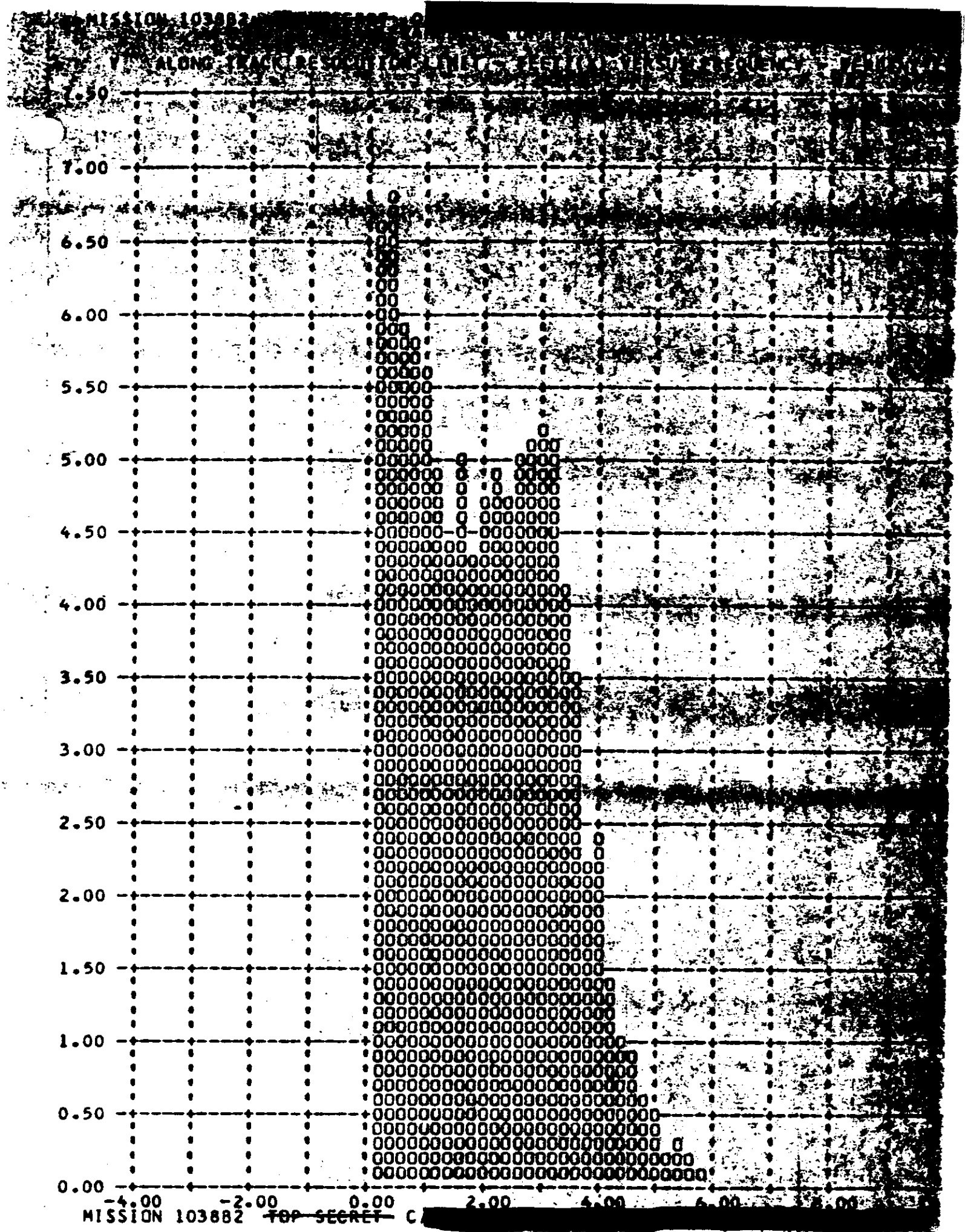
MISSION 103882 TOP SECRET


MISSION 103882
7.50
7.00
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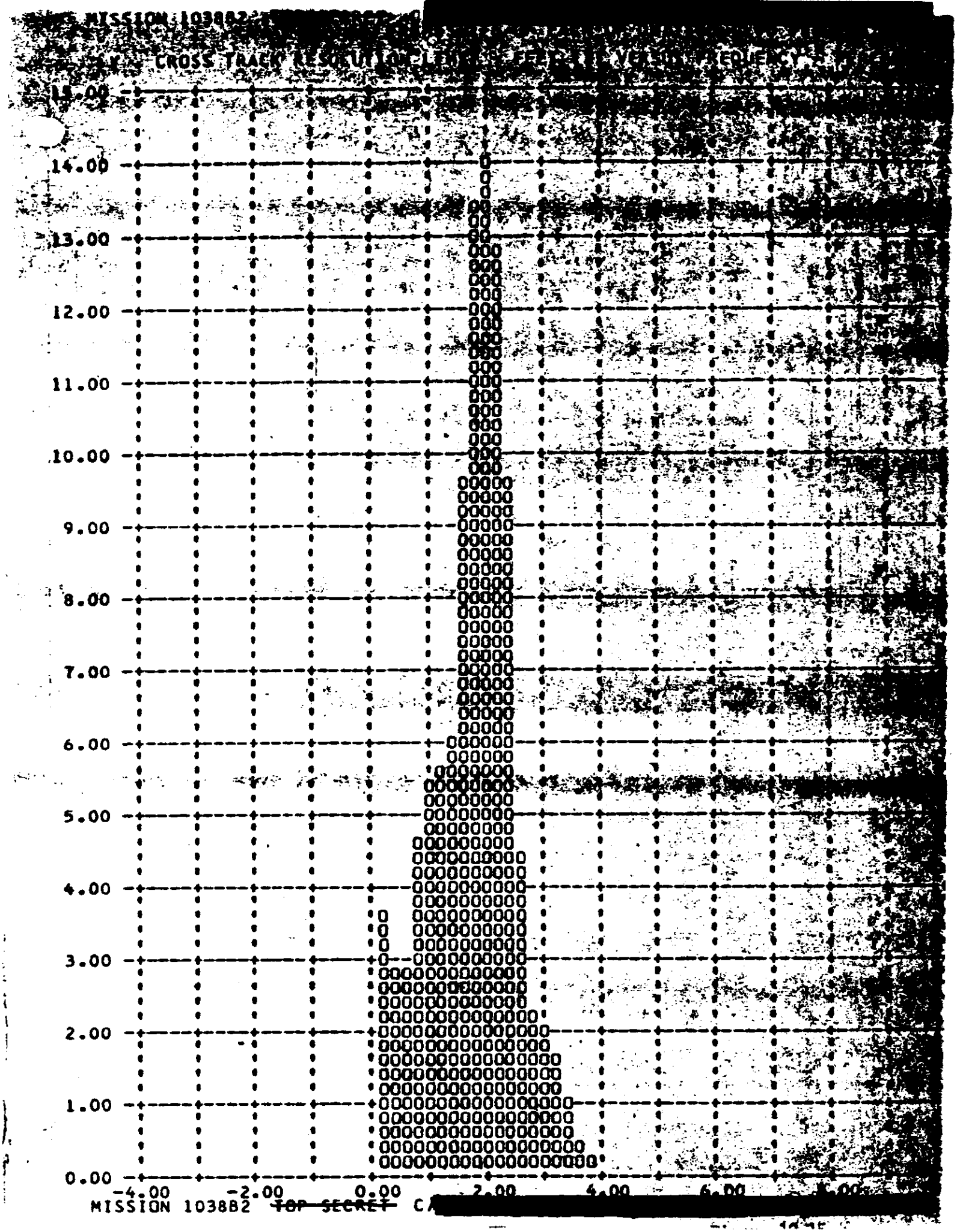
6.00
MISSION 103882 TOP SECRET


MISSION 103882
CROSS TRACK RESOLUTION
15.00
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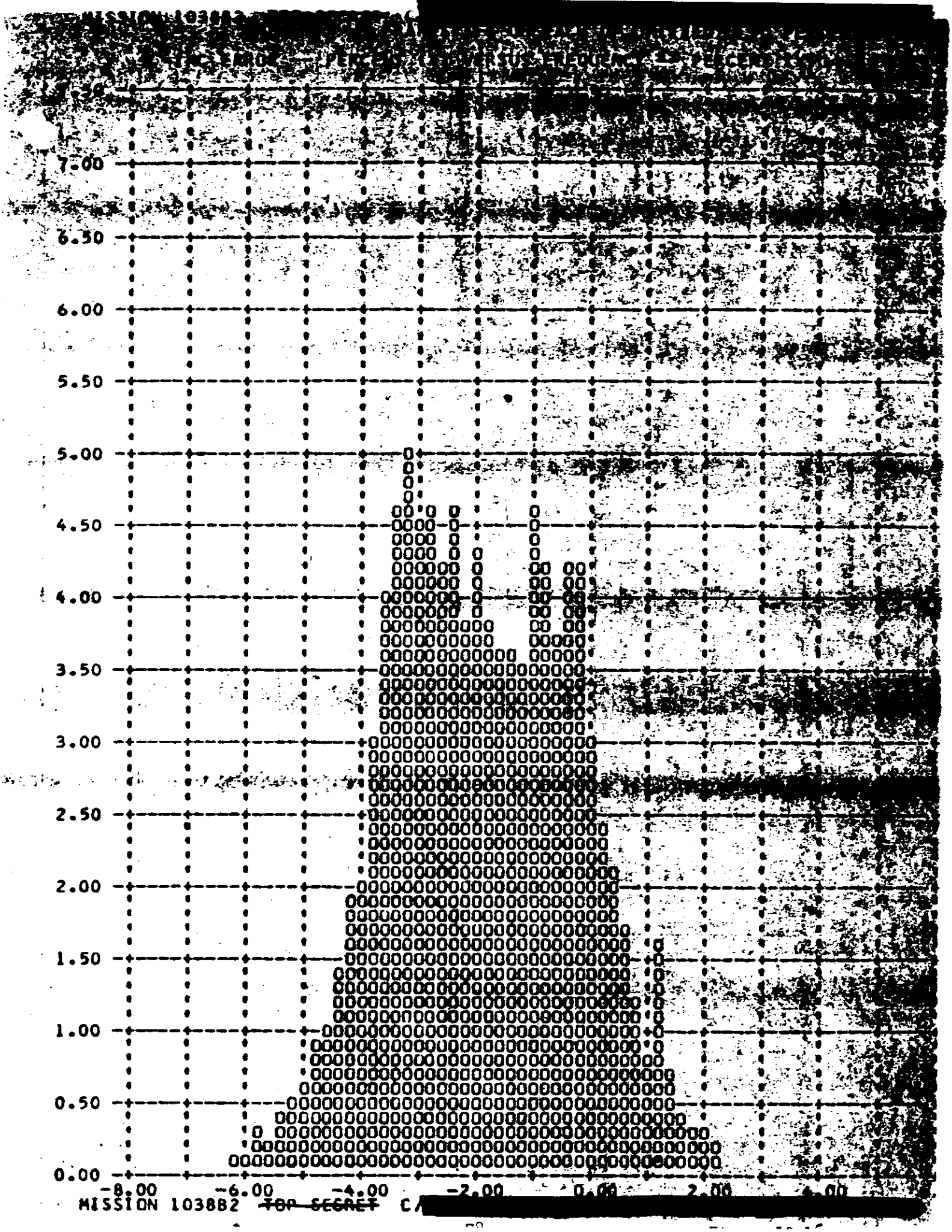
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[redacted]

SECTION 13

RADIATION DOSAGE

Each recovery system flown on a Corona mission contains a sealed packet of Eastman Type 3401 and Royal X Pan emulsions to determine the total radiation received at the take-up cassette. Both film types have been irradiated by DMSC at various levels and the base plus fog densities recorded after controlled processing.

Following recovery the film dosimeter packets are removed at A/R and processed with a pre-flight sample of the same film type and sensitometric control film. The resulting base plus fog density measurements 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 1038-1		Mission 1038-2	
Emulsion	B + F Density	Radiation	B + F Density	Radiation
Type 3401	0.18	0.6R	0.22	1.0R
Royal X Pan	0.24	0.4R	0.30	0.6R

This level is well below the level that will degrade the panoramic photography.

[redacted]

SECTION 14

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 M-1 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 camera, 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. A summary of estimated reliability is shown in Table 14.1.

Panoramic Camera Reliability

Sample Size - 167 opportunities to operate.
One failure - S/I Programmer on system J-19.
Assume - 3000 cycles per camera per mission.
Estimated Reliability - 99.0% at 50% confidence level.

Main Camera Door Reliability

Sample Size - 55 vehicles x 2 doors = 110 opportunities to operate.
Estimated Reliability = 99.4% at 50% confidence level.

Payload Command & Control Reliability

Sample size: 936 hours operation
Two Failures
Estimated Reliability = 97.3% at 50% confidence level

Payload Clock Reliability

Sample size: 936 hours operation
No Failures
Estimated Reliability = 99.3% at 50% confidence level

Estimated Reliability of Payload Functioning on Orbit: 97.5% at
50% confidence level

Recovery System Reliability

75 opportunities to recover
1 failure - improper separation due to [redacted]
Estimated Reliability = 97.8% at 50% confidence level

Stellar-Index Camera Reliability

Sample begins with J-5
Sample size = 23,380
Number of failures - 4
Estimated Reliability = 91.9% at 50% confidence level.

Horizon Camera Reliability

Sample includes J5 and up
Sample size: 94,500
Estimated Reliability of Single Camera = 98.9% at 50% confidence
level.
Estimated Reliability of Four Horizon Cameras at a Parallel
Redundant System = 99.9% at 50% confidence level.

ESTIMATED RELIABILITY SUMMARY

(AT 50% CONFIDENCE LEVEL)

MISSION NUMBER	PRIMARY FUNCTIONS						SECONDARY FUNCTIONS	
	PANORAMIC CAMERA	PANORAMIC CAMERA DOORS	COMMAND & CONTROL SYSTEM	PAYLOAD CLOCK	ON-ORBIT FUNCTIONS	RECOVERY SYSTEM	STELLAR - INERTIAL GUIDANCE	HORIZON SCANNERS
	SAMPLE / FAILURES / RELIABILITY	SAMPLE / FAILURES / RELIABILITY	SAMPLE / FAILURES / RELIABILITY	SAMPLE / FAILURES / RELIABILITY	RELIABILITY	SAMPLE / FAILURES / RELIABILITY	SAMPLE / FAILURES / RELIABILITY	SAMPLE / FAILURES / RELIABILITY
9038 to 1008	60 / 1 / 97.3	52 / 0 / 98.6	3124 / 0 / 98.0	3124 / 0 / 98.0	96.1	18 / 1 / 90.7	3400 / 0 / 98.1	12,000 / 0 / 99.7
1009	64 / 1 / 97.4	54 / 0 / 98.7	3216 / 0 / 98.0	3216 / 0 / 98.0	96.2	29 / 1 / 91.8	4250 / 0 / 98.5	15,000 / 0 / 99.8
1010	68 / 1 / 97.6	56 / 0 / 98.8	3432 / 0 / 98.1	3432 / 0 / 98.1	96.4	25 / 1 / 92.3	5100 / 0 / 98.8	15,000 / 0 / 99.8
1011	72 / 1 / 97.7	58 / 0 / 98.8	3600 / 0 / 98.1	3600 / 0 / 98.1	96.5	24 / 1 / 92.3	5400 / 0 / 98.8	15,000 / 0 / 99.8
1012	76 / 1 / 97.8	60 / 0 / 98.9	3720 / 0 / 98.2	3720 / 0 / 98.2	96.6	23 / 1 / 92.3	5550 / 0 / 98.8	15,000 / 0 / 99.8
1013	78 / 1 / 97.8	62 / 0 / 98.9	3840 / 0 / 98.2	3840 / 0 / 98.2	96.6	23 / 1 / 92.3	5700 / 0 / 98.8	15,000 / 0 / 99.8
1014	82 / 1 / 97.9	64 / 0 / 98.9	3960 / 0 / 98.3	4084 / 0 / 98.3	96.7	22 / 1 / 92.3	5850 / 0 / 98.8	15,000 / 0 / 99.8
1015	86 / 1 / 97.9	66 / 0 / 98.9	4080 / 0 / 98.3	4200 / 0 / 98.4	96.8	22 / 1 / 92.3	6000 / 0 / 98.8	15,000 / 0 / 99.8
1016	90 / 1 / 98.0	68 / 0 / 98.9	4200 / 0 / 98.4	4320 / 0 / 98.5	96.8	22 / 1 / 92.3	6150 / 0 / 98.8	15,000 / 0 / 99.8
1017	94 / 1 / 98.0	70 / 0 / 98.9	4320 / 0 / 98.5	4440 / 0 / 98.5	96.9	22 / 1 / 92.3	6300 / 0 / 98.8	15,000 / 0 / 99.8
1018	98 / 1 / 98.0	72 / 0 / 98.9	4440 / 0 / 98.5	4560 / 0 / 98.6	96.9	22 / 1 / 92.3	6450 / 0 / 98.8	15,000 / 0 / 99.8

ESTIMATED RELIABILITY SUMMARY

(AT 50% CONFIDENCE LEVEL)

MISSION NUMBER	PRIMARY FUNCTIONS						SECONDARY FUNCTIONS	
	PANORAMIC CAMERA	PANORAMIC CAMERA DOORS	COMMAND & CONTROL SYSTEM	PAYLOAD CLOCK	ON-ORBIT FUNCTIONS	RECOVERY SYSTEM	STELLAR-INDEX CAMERAS	HORIZON CAMERAS
	SAMPLE / FAILURES / RELIABILITY	SAMPLE / FAILURES / RELIABILITY	SAMPLE / FAILURES / RELIABILITY	SAMPLE / FAILURES / RELIABILITY	RELIABILITY	SAMPLE / FAILURES / RELIABILITY	SAMPLE / FAILURES / RELIABILITY	SAMPLE / FAILURES / RELIABILITY
1020	108 / 1 / 98.8	78 / 0 / 99.1	5544 / 1 / 97.1	5544 / 0 / 98.9	96.9	48 / 1 / 96.1	[illegible]	[illegible]
1021	104 / 1 / 98.8	76 / 0 / 99.1	[illegible] / [illegible] / 97.0	[illegible] / [illegible] / 98.8	96.8	41 / [illegible] / 96.0	[illegible]	[illegible]
1022	118 / 1 / 98.8	80 / 0 / 99.2	5784 / 1 / 97.3	5784 / 0 / 98.9	96.9	46 / [illegible] / 96.3	[illegible]	[illegible]
1023	114 / 1 / 98.6	82 / 0 / 99.2	[illegible] / 2 / 96.8	[illegible] / [illegible] / 98.9	[illegible]	[illegible] / [illegible] / [illegible]	[illegible]	[illegible]
1024	116 / 1 / 98.6	84 / 0 / 99.2	[illegible] / 2 / 96.0	[illegible] / 0 / 98.9	[illegible]	[illegible] / [illegible] / 96.0	[illegible]	[illegible]
1025	102 / 1 / 98.6	86 / 1 / 98.8	[illegible] / 2 / [illegible]	[illegible] / 0 / 98.8	[illegible]	[illegible] / [illegible] / [illegible]	[illegible]	[illegible]
1026	120 / 1 / 98.7	88 / 0 / 99.2	[illegible] / 2 / 96.3	[illegible] / 0 / 99.0	[illegible]	[illegible] / [illegible] / 96.6	[illegible]	[illegible]
1027	120 / 1 / 98.7	90 / 0 / 99.2	[illegible] / 2 / [illegible]	[illegible] / 0 / 99.0	[illegible]	[illegible] / [illegible] / 97.0	[illegible]	[illegible]
1028	122 / 1 / 98.7	92 / 0 / 99.2	[illegible] / 2 / [illegible]	[illegible] / 0 / 99.0	[illegible]	[illegible] / [illegible] / 97.1	[illegible]	[illegible]
1029	124 / 1 / 98.8	94 / 0 / 99.2	[illegible] / 2 / [illegible]	[illegible] / 0 / 99.0	[illegible]	[illegible] / [illegible] / 97.2	[illegible]	[illegible]

ESTIMATED RELIABILITY SUMMARY

(AT 50% CONFIDENCE LEVEL)

MISSION NUMBER	PRIMARY FUNCTIONS						SECONDARY FUNCTIONS	
	PANORAMIC CAMERA	PANORAMIC CAMERA DOORS	COMMAND & CONTROL SYSTEM	PAYLOAD CLOCK	ON-ORBIT FUNCTIONS	RECOVERY SYSTEM	STELLAR & INDEX CAMERAS	HORIZON CAMERAS
	SAMPLE / FAILURES / RELIABILITY	SAMPLE / FAILURES / RELIABILITY	SAMPLE / FAILURES / RELIABILITY	SAMPLE / FAILURES / RELIABILITY	RELIABILITY	SAMPLE / FAILURES / RELIABILITY	SAMPLE / FAILURES / RELIABILITY	SAMPLE / FAILURES / RELIABILITY
1033	147 / 1 / 99.3	100 / 0 / 99.3	7968 / 2 / 98.8	17968 / 0 / 99.2	97.1	68 / 1 / 97.4	19,130 / 1 / 99.2	75,500 / 1 / 99.2
1034	161 / 1 / 99.3	102 / 0 / 99.3	8208 / 2 / 98.9	8208 / 0 / 99.2	97.2	67 / 1 / 97.8	19,968 / 1 / 99.2	84,500 / 1 / 99.2
1035	159 / 1 / 99.0	106 / 0 / 99.4	8780 / 2 / 97.1	8780 / 0 / 99.2	97.4	71 / 1 / 97.8	21,800 / 1 / 99.2	88,300 / 1 / 99.2
1036	155 / 1 / 99.3	104 / 0 / 99.3	8520 / 2 / 97.0	8520 / 0 / 99.2	97.3	69 / 1 / 97.8	20,800 / 1 / 99.2	86,500 / 1 / 99.2
1037	163 / 1 / 99.0	106 / 0 / 99.4	9048 / 2 / 97.2	9048 / 0 / 99.3	97.4	73 / 1 / 97.9	22,430 / 1 / 99.2	91,000 / 1 / 99.2
1038	157 / 1 / 99.0	110 / 0 / 99.4	8736 / 2 / 97.1	8736 / 0 / 99.3	97.3	70 / 1 / 97.8	21,450 / 1 / 99.2	87,750 / 1 / 99.2

[redacted]

SECTION 15

SUMMARY DATA

The comparison of the operating parameters and the performance achieved by previous missions has been difficult due to the large volume of data that results from each mission. Some of the pertinent characteristics from prior missions have been summarized in Tables 15-1 through 15-3.

The summary data was started with Mission 1004 as the J-05 camera syster was the first to incorporate the major modifications to the titanium drum and scan arm, four roller scan head and Corona J capabilities. Only those missions that culminated in the recovery of some photography have been listed, therefore Missions 1003, 1005, and 1032 are deleted.

MISSION SUMMARY

MISSION NUMBER	PAYLOAD NUMBER	VEHICLE NUMBER	LAUNCH DATE	LAUNCH TIME	ORBIT INCLINATION (°)	PERIGEE ALTITUDE (NM)	PERIGEE LOCATION (°N)	RECOVERY PASS	MASTER CAMERA CAMERA NUMBER	MASTER CAMERA SLIT (")	MASTER CAMERA FILTER TYPE	SLAVE CAMERA CAMERA NUMBER	SLAVE CAMERA SLIT (")	SLAVE CAMERA FILTER TYPE	STELLAR INDEX CAMERA NUMBER
1004	J-05	1174	2/15/64	2136 Z	74.9	99.9	29.0	49/112	124	0.250	W-21	128	0.500	W-21	
1006	J-09	1176	6/24/64	2259 Z	79.9	84.0	63.2	96/128	148	0.500	W-21	148	0.250	W-21	
1007	J-07	1609	6/19/64	2316 Z	85.0	99.2	41.5	65/128	144	0.250	W-25	146	0.500	W-21	
1008	J-10	1177	7/10/64	2314 Z	85.0	99.4	40.8	49/112	180	0.500	W-21	181	0.500	W-21	
1009	J-12	1605	8/5/64	2316 Z	86.1	99.6	39.8	48/128	204	0.500	W-21	186	0.500	W-21	
1010	J-11	1178	8/14/64	2254 Z	84.9	97.4	42.5	65/144	182	0.175	W-21	183	0.175	W-21	
1011	J-21	1179	10/5/64	2150 Z	79.9	99.3	30.9	65/—	180	0.175	W-21	181	0.175	W-21	
1012	J-13	1179	10/17/64	2302 Z	79.9	96.2	32.4	49/81	150	0.500	W-21	151	0.500	W-21	
1013	J-16	1175	11/2/64	2150 Z	80.0	100.0	28.0	49/81	186	0.500	W-21	187	0.500	W-21	
1014	J-19	1180	11/18/64	2056 Z	79.9	103.2	26.6	81/145	182	0.175	W-21	183	0.175	W-21	
1015	J-17	1607	12/15/64	2110 Z	74.9	96.7	21.8	65/176	190	0.500	W-21	191	0.500	W-21	
1016	J-15	1606	1/10/65	2101 Z	74.9	99.9	20.2	97/145	192	0.500	W-21	193	0.500	W-21	
1017	J-14	1611	1/28/65	2104 Z	74.9	97.2	22.8	81/145	140	0.500	W-21	141	0.175	W-21	
1018	J-18	1608	2/16/65	2111 Z	84.9	100.2	20.3	65/96	128	0.500	W-21	129	0.175	W-21	
1019	J-20	1610	3/4/65	2144 Z	85.0	98.1	27.1	81/—	118	0.500	W-21	119	0.500	W-21	
1020	J-22	1612	3/19/65	2056 Z	79.9	97.1	29.0	49/112	146	0.500	W-21	147	0.500	W-21	
1021	J-23	1613	4/9/65	1928 Z	79.9	100.2	24.8	81/160	164	0.500	W-21	165	0.500	W-21	
1022	J-24	1614	4/28/65	2000 Z	85.0	99.1	30.5	65/144	168	0.500	W-21	169	0.500	W-21	
1023	J-25	1615	5/14/65	2000 Z	85.0	97.6	31.0	81/144	170	0.500	W-21	171	0.500	W-21	
								81/—							
								81/—							
								81/—							
								81/—							
								81/—							
								81/—							

MISSION SUMMARY

MISSION NUMBER	PAYLOAD NUMBER	VEHICLE NUMBER	LAUNCH DATE	LAUNCH TIME	ORBIT INCLINATION (°)	PERIGEE ALTITUDE (NM)	PERIGEE LOCATION (°N)	RECOVERY PASS	MASTER CAMERA CAMERA NUMBER	MASTER CAMERA SLIT (")	MASTER CAMERA FILTER TYPE	SLAVE CAMERA CAMERA NUMBER	SLAVE CAMERA SLIT (")	SLAVE CAMERA FILTER TYPE	STELLAR-INERTIAL CAMERA NUMBER
1029	J-27	1623	2/2/66	2132 Z	75.1	99.8	-22.5	81 / 160	178	0.275	W-25	179	0.175	W-[illegible]	[illegible]
1030	J-29	1622	3/9/66	2202 Z	75.0	97.5	18.7	81 / 159	182	0.275	W-25	183	0.175	W-21	[illegible]
1031	J-30	1627	4/7/66	2202 Z	75.0	104.5	23.3	115 / 177	194	0.225	W-25A	195	0.150	W-21	[illegible]
1032	J-28	1626	5/3/66	1925 Z	—	—	—	— / —	190	0.150	W-21	191	0.150	W-21	[illegible]
1033	J-33	1630	5/24/66	0213 Z	65.1	102.0	30.7	82 / 178	194	0.200	W-21	195	0.200	W-21	[illegible]
1034	J-31	1628	6/21/66	2131 Z	80.4	105.4	18.2	84 / 161	186	0.300	W-25A	187	0.150	W-21	[illegible]
1035	J-34	1629	9/20/66	2114 Z	88.0	99.5	29.1	84 / 160	188	0.225	W-25A	189	0.175	W-[illegible]	[illegible]
1036	J-35	1634	8/3/66	2046 Z	100.0	102.4	22.9	118 / 212	190	0.200	W-25A	191	0.200	W-21	[illegible]
1037	J-36	1632	11/5/66	1957 Z	100.0	91.0	14.5	[illegible] / 197	198	0.225	W-25A	199	0.175	W-21	[illegible]
1038	J-24	1629	1/14/67	2128 Z	90.1	96.9	29.2	[illegible] / 193	192	0.225	W-25A	193	0.175	W-21	[illegible]

PERFORMANCE SUMMARY

MISSION NUMBER	CAMERA	SERIAL NUMBER	M T F VALUE	VISUAL [illegible]	AFSPPL MTF/AIM SLIT (μ)	AFSPPL MTF/AIM AVERAGE	AFSPPL MTF/AIM SLIT (μ)	AFSPPL MTF/AIM AVERAGE	SLIT (μ)	AVERAGE ALL	AVERAGE HIGH	90% ATTITUDE ERROR (°) PITCH	90% ATTITUDE ERROR (°) ROLL	90% ATTITUDE ERROR (°) YAW	90% ATTITUDE RATES (°/HR) PITCH	90% ATTITUDE RATES (°/HR) ROLL	90% ATTITUDE RATES (°/HR) YAW	90% V/H ERROR (°)	90% RESOLUTION ALONG TRACK	[illegible]
1004-1	FWD	124	88	76	380	97	48	109	320	118	127	0.45	0.42	1.08	30.0	25.0	81.0	6.0	2.7	[illegible]
	AFT			86		80		96		117	124									
1004-2	FWD	125	88	78		88		113		82	90	0.74	0.50	0.91	44.0	30.0	29.0	6.0	2.7	[illegible]
	AFT			73		83		106		89	96									
1006-1	FWD	148	90	79	380	85	48	88	320	84	97	0.41	0.42	1.14	28.8	28.9	37.8	4.8	2.2	[illegible]
	AFT			74		71		90		87	98									
1006-2	FWD	149	90	85		64		81		64	80	0.49	0.40	1.06	31.1	27.9	80.0	5.1	2.3	[illegible]
	AFT			83		72		90		87	94									
1007-1	FWD	144	88	88	380	80	48	87	320	84	91	0.58	0.46	1.43	37.6	23.9	29.9	5.2	2.4	[illegible]
	AFT			86		83		85		97	110									
1007-2	FWD	145	88	79		72		81		68	74	0.64	0.47	—	45.0	26.8	—	5.2	2.4	[illegible]
	AFT			81		77		92		74	81									
1008-1	FWD	180	88	80	380	80	48	96	320	81	88	0.69	0.38	0.94	43.8	23.8	20.8	5.2	2.4	[illegible]
	AFT			78		73		89		86	95									
1008-2	FWD	181	88	86		84		96		82	92	0.69	0.36	0.71	46.8	26.0	26.8	5.2	2.4	[illegible]
	AFT			78		91		83		89	91									
1009-1	FWD	184	88	82	380	80	—	—	80	78	86	0.68	0.65	0.91	46.8	25.7	32.6	5.2	2.4	[illegible]
	AFT			89		88				78	83									
1009-2	FWD	185	85	84		85				78	84	0.66	0.65	0.89	38.8	28.9	27.8	5.2	2.4	[illegible]
	AFT			87		87				78	79									
1010-1	FWD	182	88	90	380	90	80	88	80	87	96	0.82	0.30	0.87	46.8	23.8	26.8	5.2	2.4	[illegible]
	AFT			88		86		80		88	103									
1010-2	FWD	183	88	82		81		82		88	93	0.66	0.70	1.81	46.8	28.8	30.8	5.2	2.4	[illegible]
	AFT			78		82		85		87	88									
1011-1	FWD	180	90	84	380	78	80	96	80	78	87	0.71	0.38	0.97	43.1	[illegible]	31.1	5.2	2.4	[illegible]
	AFT	181		84		77		88		87	93									
1011-2	FWD	189	88	86	—	—	80	81	80	84	90	0.66	0.81	—	[illegible]	[illegible]	—	5.2	2.4	[illegible]
	AFT	187	88	81				87		88	100									
	FWD			86				80		80	91	0.66	0.77	0.81	[illegible]	[illegible]	[illegible]	5.2	2.4	[illegible]
	AFT	186	88	88	—	—	80	84	80	80	88									
	FWD			87				78		84	88	0.66	0.81	1.46	[illegible]	[illegible]	[illegible]	5.2	2.4	[illegible]
	AFT	188	88	88	—	—	80	80	80	84	87									
	FWD			87				78		84	88	0.66	0.81	0.84	[illegible]	[illegible]	[illegible]	5.2	2.4	[illegible]
	AFT	184	88	88	—	—	80	84	80	84	88									
	FWD			88				80		84	88	0.66	0.81	0.84	[illegible]	[illegible]	[illegible]	5.2	2.4	[illegible]
	AFT	186	88	88	—	—	80	84	80	84	88									
1017-2	FWD	185	88	88	—	—	80	84	80	84	88	0.66	0.81	0.84	[illegible]	[illegible]	[illegible]	5.2	2.4	[illegible]

PERFORMANCE SUMMARY

MISSION NUMBER	CAMERA	SERIAL NUMBER	M.I.P. VALUE	VISUAL RES.	ARSPPF SLIT (µ)	ARSPPF AVERAGE	MTF/AIM SLIT (µ)	MTF/AIM AVERAGE	[redacted] SLIT (µ)	[redacted] ALL	[redacted] HIGH	90% ATTITUDE ERROR (°) PITCH	90% ATTITUDE ERROR (°) ROLL	90% ATTITUDE ERROR (°) YAW	90% ATTITUDE RATES PITCH	90% ATTITUDE RATES ROLL	90% ATTITUDE RATES YAW	90% [illegible] ERROR	90% RESOLUTION ALONG TRACK	[illegible]
1019-1	FWD AFT	118 119	80	81 89	—	—	80	78 83	80	88 87	104 101	0.43 0.44	0.36 0.37	0.97 0.96	31.6 31.6	34.7 34.9	33.0 33.1	[illegible]	[illegible]	[illegible]
1020-1 1020-2	FWD AFT FWD AFT	136 137	80 —	86 89 — —	—	—	80	89 82 — —	80	78 94 — —	90 106 — —	0.46 0.46 0.41 0.41	0.35 0.35 0.17 0.17	0.78 0.78 1.06 1.06	37.4 37.4 42.6 42.6	31.8 31.8 23.8 23.6	28.7 [illegible] [illegible] [illegible]	[illegible]	[illegible]	[illegible]
1021-1 1021-2	FWD AFT FWD AFT	166 167	85 85	98 96 88 74	—	—	80	77 90 74 86	80	86 98 88 —	99 109 112 —	0.55 0.55 0.50 —	0.37 0.38 0.68 —	0.81 0.81 — —	34.9 34.9 44.7 —	32.0 33.0 60.6 —	26.2 26.3 — —	[illegible]	[illegible]	[illegible]
1022-1 1022-2	FWD AFT FWD AFT	[illegible]	85 85	[illegible]	—	—	80	84 83 86 98	80	76 101 74 99	91 111 94 110	0.47 0.47 0.40 0.40	0.51 0.51 0.51 0.51	0.90 0.90 0.90 0.90	28.3 27.[illegible] 29.4 29.4	17.1 [illegible]	23.8 23.8 31.0 31.1	[illegible]	[illegible]	[illegible]
1023-1 1023-2	FWD AFT FWD AFT	170 171	80 86	—	—	—	80	94 87 71 89	80	[illegible]	110 101 87 76	0.48 0.49 0.48 0.43	0.33 0.33 0.36 0.37	0.80 0.80 0.83 0.83	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1024-1 1024-2	FWD AFT FWD AFT	[illegible]	[illegible]	[illegible]	—	—	80	79 95 86 93	80	[illegible]	102 105 101 114	0.42 0.42 0.36 0.36	0.25 0.25 0.31 0.31	0.42 0.42 0.33 0.93	[illegible]	[illegible]	30.8 30.4 [illegible]	[illegible]	[illegible]	[illegible]
[illegible]	FWD AFT FWD AFT	[illegible]	[illegible]	[illegible]	—	—	80	87 87 [illegible] 91	80	[illegible]	97 114 107 103	[illegible]	[illegible] 0.42 0.44 0.44	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	FWD AFT FWD AFT	[illegible]	[illegible]	[illegible]	—	—	80	[illegible]	80	[illegible]	[illegible] 113 104 103	[illegible]	0.24 0.24 0.56 0.56	0.78 0.70 0.87 0.88	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	FWD AFT	[illegible]	[illegible]	[illegible]	—	—	[illegible]	[illegible]	80	[illegible]	—	[illegible]	0.37 0.37	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	80	[illegible]	—	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.34 0.33 0.48 0.48	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

PERFORMANCE SUMMARY

MISSION NUMBER	CAMERA	SERIAL NUMBER	N.I.P. VALUE	AFSPPF MTF/AIM			90% ATTITUDE ERROR (°)			90% ATTITUDE RATES (°/HR.)			90% V/H ERROR (%)	90% RESOLUTION LIMITED BY		
				AVERAGE	SLIT (μ)	AVERAGE	PITCH	ROLL	YAW	PITCH	ROLL	YAW		ALONG TRACK	CROSS TRACK	
1034 - 1	FWD	186	80	75	80	81	0.20	0.19	0.99	19.3	20.4	24.9	15.0	17.8	8.9	
	AFT			93		90	0.20	0.19	0.99	19.3	20.4	24.9	15.2	23.6	4.8	
1034 - 2	FWD	187	80	74		88	0.34	0.38	0.33	21.1	28.9	16.2	9.7	10.4	7.1	
	AFT			89		84	0.34	0.38	0.33	21.1	29.0	16.2	8.9	8.0	5.3	
1035 - 1	FWC	188	85	68	80		0.18	0.58	2.39	18.9	27.9	33.9	4.0	4.6	3.7	
	AFT			80			0.17	0.54	2.43	19.3	23.4	32.2	4.1	3.7	2.4	
1035 - 2	FWD	189	85	81			0.16	0.50	3.02	18.4	30.1	27.8	3.2	4.03	3.3	
	AFT			82			0.17	0.51	3.02	19.9	24.7	26.3	3.4	3.3	2.4	
1036 - 1	FWD	190	85	89	80		0.76	0.96	0.60	31.2	28.6	29.8	3.4	5.1	6.8	
	AFT			84			0.78	0.96	0.60	31.1	25.8	29.4	3.3	5.6	8.1	
1036 - 2	FWD	191	85	73			0.94	0.70	0.40	33.0	29.7	23.3	3.3	5.6	6.8	
	AFT			84			0.94	0.70	0.40	32.9	29.7	23.3	3.1	5.7	4.9	
1037 - 1	FWD	198	85	80	80		0.25	0.25	1.50	22.8	40.0	28.3	9.8	10.1	8.0	
	AFT			71			0.26	0.27	1.51	28.7	36.9	32.4	10.1	8.0	6.1	
1037 - 2	FWD	199	85	88			0.24	0.30	1.17	26.5	52.9	26.7	8.3	6.6	7.8	
	AFT			81			0.27	0.32	1.10	33.6	38.6	33.4	6.6	5.1	5.8	
1038 - 1	FWD	192	80	63	80		0.22	0.25	2.98	18.7	33.7	30.8	3.6	4.1	3.7	
	AFT			76			0.27	0.24	2.99	41.8	27.2	34.4	3.4	3.8	2.5	
1038 - 2	FWD	193	80	83			0.39	0.61	2.87	20.0	48.7	27.8	3.4	3.6	2.6	
	AFT			77			0.39	0.51	2.90	30.4	28.2	27.3	3.4	3.8	2.6	

EXPOSURE - PROCESSING SUMMARY

MISSION NUMBER	CAMERA	SOLAR ELEVATION RANGE (°)		SOLAR AZIMUTH RANGE (°)		PREDICTED PROCESSING (%)			REPORTED PROCESSING (%)			COMPUTED PROCESSING (%)			TERRAIN D-MIN				TERRAIN D-MAX				CLOUD D-MAX				UNDER EXPOSED (%)	UNDER PROCESSED (%)	NOMINAL (%)	OVER PROCESSED (%)	OVER EXPOSED (%)	CLOUD COVER (%)
		LOW	HIGH	LOW	HIGH	P	I	F	P	I	F	P	I	F	RANGE LOW	RANGE HIGH	MEAN	MEDIAN	RANGE LOW	RANGE HIGH	MEAN	MEDIAN	RANGE LOW	RANGE HIGH	MEAN	MEDIAN						
1004-1	FWD	-3	41	26	124	3	76	19	4	79	17	0	79	21	0.26	1.89	0.88	0.78	0.43	2.43	1.97	2.02	1.00	2.48	2.04	2.08	0	4	60	31	4	44
	AFT	-3	41	26	124	3	76	21	4	79	17	0	80	20	0.22	1.86	0.78	0.70	0.93	2.45	1.92	1.94	1.08	2.43	1.98	2.03	1	4	57	28	4	44
1004-2	FWD	-4	68	10	131	7	76	17	37	80	13	4	83	13	0.29	1.80	0.83	0.78	0.36	2.50	1.84	1.90	0.41	2.37	1.87	1.93	0	4	59	27	4	44
	AFT	-4	68	10	131	7	76	17	37	80	13	4	77	19	0.29	1.91	0.81	0.73	0.36	2.98	1.89	1.98	0.43	2.98	1.89	1.98	0	4	57	30	4	44
1006-1	FWD	38	86	82	140	1	99	0	1	81	48	0	51	49	0.23	1.81	0.71	0.68	0.80	2.51	1.58	1.62	1.31	2.40	2.20	2.24	0	5	72	21	1	44
1006-2	FWD	38	86	82	140	1	99	0	0	23	77	0	24	76	0.38	1.66	0.67	0.64	0.96	2.35	1.72	1.72	1.14	2.40	2.24	2.28	0	1	68	40	1	44
	AFT	38	84	86	147	2	98	0	80	41	29	11	59	30	0.21	1.14	0.83	0.80	0.58	2.88	1.48	1.50	1.30	2.38	2.11	2.16	2	2	76	18	1	44
	AFT	38	84	86	147	2	98	0	33	40	28	21	54	25	0.26	1.34	0.82	0.58	0.65	2.19	1.48	1.47	1.86	2.80	2.12	2.18	0	1	77	22	0	44
1007-1	FWD	12	48	80	108	0	8	98	1	20	79	0	25	75	0.26	1.22	0.52	0.47	0.62	2.80	1.44	1.48	1.22	2.98	2.17	2.21	20	8	61	10	0	44
1007-2	FWD	11	48	48	108	0	100	0	10	42	48	0	77	17	0.26	1.76	0.68	0.55	0.78	2.81	1.62	1.62	1.54	2.98	2.68	2.84	1	13	66	19	0	44
	AFT	31	87	48	118	0	28	72	3	38	59	0	36	74	0.20	1.23	0.51	0.48	0.70	2.82	1.44	1.40	0.90	2.37	2.73	2.80	18	9	73	0	0	44
	AFT	31	87	48	111	0	100	0	18	41	40	3	88	9	0.24	1.86	0.88	0.86	0.44	2.87	1.80	1.82	0.84	2.81	2.17	2.25	1	18	80	0	0	44
	FWD	36	81	88	102	0	100	0	4	32	64	1	35	64	0.32	1.48	0.86	0.82	0.78	2.84	1.55	1.64	1.46	2.33	2.23	2.28	2	2	66	28	0	44
	AFT	30	81	88	102	0	100	0	4	27	69	0	34	66	0.32	1.87	0.91	0.89	0.81	2.81	1.87	1.88	1.08	2.37	2.21	2.26	1	1	80	18	0	44
	FWD	29	44	42	103	0	100	0	3	31	66	0	27	73	0.14	1.81	0.76	0.72	0.67	2.98	1.84	1.88	1.09	2.40	2.26	2.30	1	1	78	19	0	44
	AFT	29	50	42	108	0	100	0	3	38	67	0	29	71	0.32	1.64	0.79	0.76	0.73	2.10	1.88	1.88	1.40	2.38	2.18	2.22	1	2	80	17	0	44
	FWD	18	49	48	132	0	100	0	1	26	73	0	34	66	0.32	1.40	0.86	0.82	0.88	2.41	1.53	1.86	0.83	2.81	2.30	2.36	0	1	77	22	0	44
	AFT	18	49	48	132	0	100	0	0	40	60	0	45	55	0.28	1.42	0.79	0.84	0.92	2.88	1.58	1.85	0.83	2.81	2.36	2.38	0	1	73	26	0	44
	FWD	23	28	38	138	2	98	0	3	21	76	0	40	60	0.29	1.86	0.83	0.84	0.73	2.98	1.83	1.83	1.08	2.46	2.26	2.30	1	4	74	21	0	44
	AFT	23	28	38	138	2	98	0	4	47	49	0	84	16	0.26	1.47	0.89	0.84	0.44	2.48	1.81	1.80	1.01	2.80	2.31	2.34	1	4	77	18	0	44
	FWD	14	47	48	83	0	21	79	0	13	87	0	8	92	0.28	1.14	0.98	0.67	0.43	2.82	1.58	1.86	1.11	2.82	2.18	2.20	1	2	76	21	0	44
	AFT	18	47	48	83	0	21	79	0	19	81	0	16	84	0.27	1.28	0.87	0.82	0.78	2.48	1.45	1.41	0.96	2.80	2.30	2.36	0	2	80	18	0	44
	FWD	18	82	48	78	0	80	80	0	16	84	0	18	82	0.26	1.51	0.88	0.80	0.68	2.98	1.41	1.38	1.00	2.80	2.31	2.36	1	2	80	17	0	44
	AFT	18	82	38	78	0	80	80	0	23	77	0	28	72	0.20	1.48	0.88	0.86	0.80	2.40	1.47	1.48	1.00	2.80	2.31	2.34	1	2	77	20	0	44
	FWD	2	36	33	88	0	64	36	2	23	75	0	23	77	0.18	0.99	0.50	0.46	0.56	2.36	1.48	1.43	0.78	2.82	2.07	2.18	1	1	76	22	0	44
	AFT	2	36	33	88	0	67	33	3	47	50	0	37	63	0.24	1.48	0.80	0.86	0.80	2.98	1.87	1.89	0.96	2.87	2.18	2.22	1	1	78	20	0	44
	FWD	0	48	38	71	0	84	36	1	88	37	0	68	32	0.28	1.30	0.88	0.85	0.94	2.98	1.40	1.42	1.08	2.80	2.30	2.34	1	2	80	17	0	44
	AFT	0	48	38	71	0	84	36	0	83	87	0	48	52	0.26	1.48	0.86	0.88	0.67	2.98	1.44	1.40	0.98	2.80	2.30	2.34	1	2	80	17	0	44
	FWD	0	87	38	104	0	77	23	0	49	50	0	38	62	0.30	1.20	0.88	0.85	0.73	2.98	1.39	1.48	1.00	2.80	2.30	2.34	1	2	80	17	0	44
	AFT	0	87	38	104	0	72	28	3	18	82	0	10	90	0.27	1.27	0.87	0.86	0.68	2.98	1.88	1.88	0.78	2.80	2.30	2.34	1	2	80	17	0	44
	FWD	0	86	88	82	0	84	36	0	46	58	0	36	64	0.80	1.86	0.88	0.86	0.88	2.98	1.56	1.59	1.21	2.80	2.30	2.34	1	2	80	17	0	44
	AFT	0	86	88	82	0	84	36	2	7	91	0	15	85	0.28	1.86	0.88	0.86	0.84	2.98	1.89	1.83	1.18	2.80	2.30	2.34	1	2	80	17	0	44
	FWD	0	89	18	91	0	21	79	1	38	61	0	53	47	0.17	0.98	0.40	0.36	0.86	2.38	1.40	1.42	1.01	2.80	2.30	2.34	1	2	80	17	0	44
	AFT	0	88	44	88	0	29	88	0	18	82	0	36	64	0.18	1.28	0.81	0.81	0.86	2.98	1.48	1.49	0.98	2.80	2.30	2.34	1	2	80	17	0	44
	AFT	0	72	0	84	0	21	79	0	86	74	0	67	33	0.12	1.06	0.36	0.31	0.23	2.38	1.30	1.36	0.98	2.80	2.30	2.34	1	2	80	17	0	44
	FWD	0	80	18	80	0	8	92	0	8	92	0	2	98	0.26	1.70	0.84	0.87	0.84	2.98	1.44	1.48	1.46	2.98	2.34	2.38	1	2	80	17	0	44
	FWD	0	80	18	80	0	30	70	0	8	92	0	4	96	0.88	1.60	0.80	0.86	0.46	2.98	1.49	1.80	0.88	2.80	2.30	2.34	1	2	80	17	0	44
	AFT	0	80	18	80	0	10	90	0	18	80	0	11	89	0.22	1.10	0.80	0.80	0.34	2.87	1.39	1.30	0.88	2.80	2.30	2.34	1	2	80	17	0	44
	AFT	0	78	18	78	0	21	79	0	8	92	0	19	81	0.26	1.21	0.86	0.82	0.36	2.98	1.87	1.88	0.98	2.80	2.30	2.34	1	2	80	17	0	44
	FWD	0	88	18	80	0	8	92	1	41	58	0	83	17	0.18	0.98	0.41	0.38	0.70	2.80	1.47	1.68	0.88	2.80	2.30	2.34	1	2	80	17	0	44
	AFT	0	88	18	80	0	17	83	0	18	82	0	42	58	0.28	1.82	0.88	0.86	0.88	2.98	1.72	1.88	0.98	2.80	2.30	2.34	1	2	80	17	0	44

EXPOSURE - PROCESSING SUMMARY

MISSION NUMBER	CAMERA	SOLAR ELEVATION RANGE (°)		SOLAR AZIMUTH RANGE (°)		PREDICTED PROCESSING (%)			REPORTED PROCESSING (%)			COMPUTED PROCESSING (%)			TERRAIN D-MIN				TERRAIN D-MAX				CLOUD D-MAX				UNDER EXPOSED (%)	UNDER PROCESSED (%)	NORMAL (%)	OVER PROCESSED (%)	
		LOW	HIGH	LOW	HIGH	P	I	F	P	I	F	P	I	F	RANGE LOW	RANGE HIGH	MEAN	MEDIAN	RANGE LOW	RANGE HIGH	MEAN	MEDIAN	RANGE LOW	RANGE HIGH	MEAN	MEDIAN					
1019-1	FWD	24	70	24	152	0	21	79	22	32	46	4	56	40	0.26	1.92	0.71	0.61	0.60	2.15	1.45	1.50	0.84	2.86	1.84	2.00	4	7	84	17	
	AFT	25	70	21	152	0	32	8	26	65	10	3	87	10	0.13	1.70	0.88	0.60	0.59	2.26	1.46	1.45	0.80	2.30	1.96	2.28	1	15	70	14	
1020-1	FWD	30	78	19	186	0	19	81	13	48	39	1	58	41	0.23	1.30	0.55	0.52	0.80	2.28	1.87	1.54	1.40	2.38	2.10	2.16	1	105	78	4	
	AFT	29	78	17	186	0	64	36	18	58	29	0	74	26	0.23	1.28	0.69	0.54	0.70	2.20	1.47	1.46	1.22	2.29	2.04	2.10	0	18	78	4	
1020-2	FWD	47	69	18	138																										
	AFT	46	68	17	33																										
1021-1	FWD	15	84	-148	-23	8	66	32	14	38	47	1	82	42	0.25	1.90	0.84	0.86	0.74	2.18	1.80	1.80	0.97	2.86	1.82	2.00	8	9	82	11	
	AFT	14	86	-147	-28	10	90	1	15	38	47	0	57	43	0.17	1.70	0.66	0.87	0.84	2.24	1.45	1.42	0.83	2.30	1.90	2.00	6	8	76	12	
1021-2	FWD	15	82	-135	-41	9	29	71	13	41	46	0	57	43	0.18	1.52	0.84	0.80	0.80	2.28	1.38	1.34	1.08	2.38	1.88	1.85	14	13	64	9	
	AFT	15	82	-135	-41	20	100	0	23	20	22	0	80	20	0.33	1.38	0.78	0.78	0.79	2.30	1.82	1.80	1.30	2.36	1.94	1.94	9	9	82	9	
1022-1	FWD	28	67	30	150	0	36	64	8	36	56	0	42	58	0.18	1.49	0.98	0.90	0.94	2.28	1.97	1.80	1.32	2.48	2.24	2.28	8	10	76	6	
	AFT	27	67	26	150	0	89	11	7	38	51	0	53	47	0.24	1.46	0.87	0.80	0.82	2.30	1.83	1.88	1.30	2.47	2.21	2.28	4	10	76	10	
1022-2	FWD	29	74	21	182	0	8	92	1	37	62	0	43	57	0.20	0.99	0.38	0.35	0.82	2.46	1.45	1.45	1.16	2.48	2.23	2.28	18	36	46	9	
	AFT	28	74	19	182	0	100	0	10	44	46	0	55	45	0.21	1.40	0.48	0.44	0.60	2.36	1.51	1.52	1.48	2.49	2.25	2.28	10	28	62	1	
1023-1	FWD	22	82	8	184	0	5	95	19	54	27	0	72	28	0.15	1.26	0.39	0.35	0.43	2.41	1.22	1.22	0.87	2.41	2.00	2.41	80	44	16	2	
	AFT	20	81	-9	183	0	11	89	0	38	61	0	42	58	0.20	0.60	0.43	0.48	0.41	2.21	1.31	1.37	0.84	2.48	2.10	2.29	18	14	64	4	
1023-2	FWD	29	81	-15	177	0	7	93	9	19	81	0	18	82	0.22	1.38	0.46	0.42	0.61	2.03	1.18	1.32	0.90	2.41	2.03	2.14	88	8	4	0	
	AFT	28	80	-15	178	0	2	97	0	34	66	0	68	32	0.22	1.40	0.50	0.46	0.64	2.31	1.24	1.28	1.08	2.46	2.10	2.17	10	10	74	6	
1024-1	FWD	10	61	24	152	0	0	100	0	67	33	0	72	28	0.17	1.26	0.35	0.32	0.40	2.26	1.15	0.98	0.82	2.46	1.98	2.06	40	40	20	0	
	AFT	9	65	21	156	0	0	100	0	28	72	0	82	18	0.20	1.32	0.36	0.37	0.38	2.28	1.30	1.24	0.84	2.46	1.91	1.96	60	30	10	0	
1024-2	FWD	9	79	11	181	0	0	100	12	19	69	0	83	17	0.21	1.17	0.44	0.42	0.35	2.20	1.30	1.27	1.01	2.48	1.97	1.96	88	10	2	0	
	AFT	8	78	9	180	0	0	100	1	22	77	0	66	34	0.20	1.39	0.37	0.40	0.29	2.26	1.31	1.26	0.98	2.48	1.97	1.96	68	28	4	0	
1025-1	FWD	17	70	-123	-16	20	68	32	10	41	49	0	88	12	0.18	1.48	0.43	0.37	0.29	2.36	1.37	1.30	0.48	2.50	1.81	1.97	100	0	0	0	
	AFT	0	70	-121	-10	0	72	28	0	49	48	0	81	19	0.18	1.48	0.38	0.42	0.28	2.36	1.33	1.38	0.23	2.32	1.78	1.90	94	6	0	0	
1025-2	FWD	0	66	-124	-31	28	71	29	3	42	55	0	56	44	0.18	1.28	0.40	0.36	0.26	2.24	1.32	1.32	0.83	2.48	1.79	1.98	98	2	0	0	
	AFT	0	66	-122	-33	0	73	27	3	48	52	0	81	19	0.21	1.32	0.42	0.46	0.30	2.40	1.31	1.32	0.98	2.48	1.96	1.96	68	28	4	0	
1026-1	FWD	0	67	98	155	0	4	96	0	21	79	0	24	76	0.20	1.26	0.34	0.33	0.31	2.27	1.22	1.22	0.40	2.48	1.72	1.87	100	0	0	0	
	AFT	0	67	97	155	0	4	96	0	4	96	0	88	12	0.20	1.18	0.33	0.34	0.26	2.28	1.29	1.30	0.29	2.48	1.78	1.96	96	4	0	0	
1026-2	FWD	1	72	0	84	0	0	100	1	2	96	0	78	22	0.18	1.28	0.34	0.30	0.23	2.27	1.05	1.08	0.48	2.48	1.83	1.96	98	2	0	0	
	AFT	0	69	13	78	0	0	100	1	2	93	0	78	22	0.21	1.28	0.33	0.32	0.27	2.30	1.09	1.03	0.29	2.48	1.91	1.96	94	6	0	0	
1027-1	FWD	3	68	26	110	0	0	100	0	0	100	0	73	27	0.18	1.24	0.32	0.32	0.26	2.28	1.40	1.32	0.29	2.48	1.91	1.96	94	6	0	0	
	AFT	2	63	26	108	0	0	100	0	21	79	0	88	12	0.18	1.24	0.32	0.33	0.24	2.28	1.46	1.46	0.40	2.48	1.98	2.06	98	2	0	0	
1028-1	FWD	3	73	18	138	0	4	96	0	4	96	0	14	86	0.22	1.26	0.38	0.36	0.40	2.28	1.42	1.42	0.32	2.48	1.93	1.93	98	2	0	0	
	AFT	3	73	16	135	0	8	92	0	18	82	0	19	81	0.20	1.01	0.36	0.36	0.38	2.30	1.36	1.40	0.32	2.48	1.88	1.93	98	2	0	0	
1028-2	FWD	3	81	8	98	0	2	98	0	3	97	0	38	62	0.22	1.26	0.38	0.37	0.37	2.30	1.36	1.36	0.30	2.48	1.88	1.93	98	2	0	0	
	AFT	3	80	8	98	0	10	90	0	8	92	0	38	62	0.22	1.26	0.38	0.40	0.38	2.30	1.40	1.43	0.30	2.48	1.88	1.93	98	2	0	0	
1029-1	FWD	3	83	18	150	0	0	100	1	18	81	0	14	86	0.22	1.28	0.38	0.34	0.36	2.30	1.78	1.78	0.48	2.48	1.98	2.06	98	2	0	0	
	AFT	3	82	16	148	0	20	80	0	21	79	0	23	77	0.18	1.28	0.38	0.40	0.38	2.32	1.48	1.48	0.38	2.48	1.98	2.06	98	2	0	0	
1029-2	FWD	3	84	16	146	0	2	98	0	2	98	0	30	70	0.22	1.28	0.38	0.43	0.31	2.32	1.32	1.32	0.48	2.48	1.98	2.06	98	2	0	0	
	AFT	3	84	3	144	0	0	100	0	0	100	0	26	74	0.20	1.28	0.38	0.43	0.34	2.32	1.30	1.32	0.34	2.48	1.97	2.06	98	2	0	0	
1030-1	FWD	3	83	27	138	0	0	100	1	16	83	0	17	83	0.20	1.28	0.38	0.38	0.38	2.30	1.78	1.78	0.78	2.48	2.01	2.06	98	2	0	0	
	AFT	3	82	22	138	0	20	80	0	21	79	0	23	77	0.18	1.28	0.38	0.38	0.38	2.30	1.68	1.68	0.74	2.48	1.97	2.06	98	2	0	0	
1030-2	FWD	3	84	22	138	0	2	98	0	2	98	0	30	70	0.22	1.28	0.38	0.43	0.31	2.32	1.32	1.32	0.48	2.48	1.98	2.06	98	2	0	0	
	AFT	3	84	3	144	0	0	100	0	0	100	0	26	74	0.20	1.28	0.38	0.43	0.34	2.32	1.30	1.32	0.34	2.48	1.97	2.06	98	2	0	0	
1031-1	FWD	3	83	27	138	0	0	100	1	16	83	0	17	83	0.20	1.28	0.38	0.38	0.38	2.30	1.78	1.78	0.78	2.48	2.01	2.06	98	2	0	0	
	AFT	3	82	22	138	0	20	80	0	21	79	0	23	77	0.18	1.28	0.38	0.38	0.38	2.30	1.68	1.68	0.74	2.48	1.97	2.06	98	2	0	0	
1031-2	FWD	3	84	22	138	0	2	98	0	2	98	0	30	70	0.22	1.28	0.38	0.43	0.31	2.32	1.32	1.32	0.48	2.48	1.98	2.06	98	2	0	0	
	AFT	3	84	3	144	0	0	100	0	0	100	0	26	74	0.20	1.28	0.38	0.43	0.34	2.32	1.30	1.32	0.34	2.48	1.97	2.06	98	2	0	0	

INSUFFICIENT DATA

EXPOSURE - PROCESSING SUMMARY

MISSION NUMBER	CAMERA	SOLAR ELEVATION RANGE (°) LOW	SOLAR ELEVATION RANGE (°) HIGH	SOLAR AZIMUTH RANGE (°) LOW	SOLAR AZIMUTH RANGE (°) HIGH	PREDICTED PROCESSING (D) P	PREDICTED PROCESSING (D) I	PREDICTED PROCESSING (D) F	REPORTED PROCESSING (D) P	REPORTED PROCESSING (D) I	REPORTED PROCESSING (D) F	COMPUTED PROCESSING (D) P	COMPUTED PROCESSING (D) I	COMPUTED PROCESSING (D) F	TERRAIN D-MIN RANGE LOW	TERRAIN D-MIN RANGE HIGH	TERRAIN D-MIN MEAN	TERRAIN D-MIN MEDIAN	TERRAIN D-MAX RANGE LOW	TERRAIN D-MAX RANGE HIGH	TERRAIN D-MAX MEAN	TERRAIN D-MAX MEDIAN	CLOSE D-MAX RANGE LOW	CLOSE D-MAX RANGE HIGH	CLOSE D-MAX MEAN	CLOSE D-MAX MEDIAN	UNDER EXPOSED (%)	UNDER PROCESSED (%)	NORMAL EXP. & PROC. (%)	OVER PROCESSED (%)	OVER EXPOSED (%)	CLOUD COVER (%)
1034-1	FWD	23	77	10	165	0	26	4	3	21	76	0	20	80	0.26	1.80	0.87	0.80	0.66	2.42	1.66	1.61	0.88	2.48	2.22	2.26	18	3	76	1	2	10
	AFT	23	77	10	165	0	65	45	2	31	67	0	16	84	0.29	1.63	0.88	0.80	0.41	2.36	1.65	1.60	0.97	2.44	2.19	2.26	18	4	71	1	2	10
1034-2	FWD	29	86	9	178	0	88	12	2	26	88	0	27	73	0.19	1.82	0.87	0.82	0.72	2.40	1.63	1.60	1.21	2.47	2.25	2.31	12	4	76	1	2	10
	AFT	30	86	9	178	0	41	59	6	37	57	0	34	66	0.26	1.80	0.84	0.49	0.70	2.32	1.59	1.62	1.08	2.48	2.22	2.29	12	10	75	4	2	10
1035-1	FWD	13	68	19	144	0	17	83	0	11	89	0	8	92	0.20	1.90	0.82	0.45	0.61	2.44	1.40	1.48	1.06	2.43	2.15	2.22	23	1	71	4	1	10
	AFT	13	68	18	144	0	8	92	1	14	85	0	8	92	0.24	1.38	0.80	0.43	0.60	2.42	1.48	1.88	0.90	2.86	2.15	2.24	23	3	66	4	1	10
1035-2	FWD	4	81	10	166	0	22	78	4	18	78	0	18	82	0.21	1.80	0.82	0.47	0.43	2.33	1.32	1.30	0.96	2.80	2.09	2.18	24	3	68	4	1	10
	AFT	3	81	8	166	0	23	77	1	20	79	0	12	88	0.21	1.39	0.96	0.51	0.50	2.25	1.34	1.30	0.74	2.80	2.09	2.16	14	3	78	7	0	10
1036-1	FWD	15	82	7	170	0	66	34	0	14	78	1	14	85	0.20	1.91	0.46	0.42	0.60	2.48	1.94	1.83	1.10	2.47	2.20	2.32	33	6	58	2	1	10
1036-2	AFT	15	82	8	171	0	8	92	3	9	88	0	10	90	0.24	1.65	0.89	0.51	0.56	2.23	1.49	1.32	1.20	2.43	2.23	2.28	12	8	80	2	1	10
	FWD	10	78	12	167	0	15	85	1	19	80	0	18	82	0.26	1.43	0.47	0.42	0.50	2.30	1.30	1.36	1.18	2.50	2.18	2.16	35	8	53	3	1	10
	AFT	12	78	9	168	78	4	96	5	20	77	0	17	83	0.28	1.14	0.48	0.44	0.42	2.10	1.37	1.40	0.84	2.48	2.18	2.20	22	4	64	4	1	10
1037-1	FWD	5	84	-172	-6	0	29	71	8	10	82	0	11	89	0.31	1.47	0.84	0.88	0.61	2.36	1.84	1.83	1.06	2.48	2.07	2.14	28	1	63	12	1	10
	AFT	9	84	-171	-6	0	25	75	0	19	81	0	12	88	0.25	1.48	0.66	0.61	0.84	2.33	1.48	1.44	1.18	2.48	2.08	2.10	9	5	76	10	0	10
1037-2	FWD	8	87	-178	-3	0	25	75	14	26	60	0	12	88	0.26	1.20	0.86	0.61	0.82	2.43	1.81	1.46	0.90	2.80	2.04	2.12	6	8	74	13	0	10
	AFT	8	87	-178	-3	0	23	78	11	33	56	0	23	77	0.25	1.80	0.67	0.64	0.55	2.38	1.81	1.48	1.10	2.48	2.01	2.10	6	8	72	14	0	10
1038-1	FWD	5	88	18	134	0	22	78	2	18	82	1	18	81	0.16	1.11	0.31	0.48	0.84	2.36	1.90	1.82	1.18	2.48	2.11	2.12	[illegible]					
1038-2	AFT	8	89	18	130	0	22	78	1	13	86	0	14	86	0.28	1.57	0.53	0.47	0.82	2.31	1.68	1.62	1.18	[illegible]								
	FWD	7	80	1	164	1	37	62	0	18	88	0	13	88	0.21	1.40	0.39	0.51	0.56	2.42	1.57	1.52	1.00	[illegible]								
	AFT	7	80	1	164	3	29	68	0	27	73	0	28	72	0.19	1.78	0.31	0.48	0.47	2.36	1.96	1.87	0.36	[illegible]								

[redacted]

SECTION 4

APPENDIX

[redacted]

[redacted] C

MISSION # 1036-1 INSTRUMENT # PMD [redacted]

DENSITY VALUE	PRIMARY MIN	PRIMARY MAX	PRIMARY LIN	INTERMEDIATE MIN	INTERMEDIATE MAX	INTERMEDIATE LIN	FULL MIN	FULL MAX	FULL LIN	ALL SIZES MIN	ALL SIZES MAX	ALL SIZES LIN
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	0	0	0	0	0	0
0.33	0	0	0	0	0	0	0	0	0	0	0	0
0.34	0	0	0	0	0	0	0	0	0	0	0	0
0.35	0	0	0	0	0	0	0	0	0	0	0	0
0.36	0	0	0	0	0	0	0	0	0	0	0	0
0.37	0	0	0	0	0	0	0	0	0	0	0	0
0.38	0	0	0	0	0	0	0	0	0	0	0	0
0.39	0	0	0	0	0	0	0	0	0	0	0	0
0.40	0	0	0	0	0	0	0	0	0	0	0	0
0.41	0	0	0	0	0	0	0	0	0	0	0	0
0.42	0	0	0	0	0	0	0	0	0	0	0	0
0.43	0	0	0	0	0	0	0	0	0	0	0	0
0.44	0	0	0	0	0	0	0	0	0	0	0	0
0.45	0	0	0	0	0	0	0	0	0	0	0	0
0.46	0	0	0	0	0	0	0	0	0	0	0	0
0.47	0	0	0	0	0	0	0	0	0	0	0	0
0.48	0	0	0	0	0	0	0	0	0	0	0	0
0.49	0	0	0	0	0	0	0	0	0	0	0	0
0.50	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	1	0	0	17	0	0	129	0	0	147	0	0

~~TOP SECRET~~ C [redacted]

TABLE A-1

[redacted]

MISSION [redacted] INSTRUMENT [redacted] DENSITY FREQ

DENSITY VALUE	PRIMARY MIN	PRIMARY MAX	PRIMARY LIM	INTERMEDIATE MIN	INTERMEDIATE MAX	INTERMEDIATE LIM	FINE MIN	FINE MAX	FINE LIM	ALL LEVELS MIN	ALL LEVELS MAX	ALL LEVELS LIM
0.51	0	0	0	1	0	0	1	0	0	2	0	0
0.52	0	0	0	1	0	0	1	0	0	2	0	0
0.53	0	0	0	1	0	0	1	0	0	2	0	0
0.54	0	0	0	1	0	0	1	0	0	2	0	0
0.55	0	0	0	2	0	0	1	0	0	3	0	0
0.56	0	0	0	2	0	0	1	0	0	3	0	0
0.57	0	0	0	2	0	0	2	0	0	4	0	0
0.58	0	0	0	2	0	0	3	0	0	5	0	0
0.59	0	0	0	2	0	0	3	0	0	5	0	0
0.60	0	0	0	2	0	0	3	0	0	5	0	0
0.61	1	0	0	2	0	0	3	0	0	6	0	0
0.62	1	0	0	2	0	0	4	0	0	7	0	0
0.63	1	0	0	2	0	0	4	0	0	7	0	0
0.64	1	0	0	2	0	0	4	0	0	7	0	0
0.65	0	0	0	2	0	0	4	0	0	6	0	0
0.66	0	0	0	2	0	0	4	0	0	6	0	0
0.67	0	0	0	2	0	0	4	0	0	6	0	0
0.68	0	0	0	2	0	0	4	0	0	6	0	0
0.69	0	0	0	2	0	0	4	0	0	6	0	0
0.70	0	0	0	2	0	0	4	0	0	6	0	0
0.71	0	0	0	2	0	0	4	0	0	6	0	0
0.72	0	0	0	2	0	0	4	0	0	6	0	0
0.73	0	0	0	2	0	0	4	0	0	6	0	0
0.74	0	0	0	2	0	0	4	0	0	6	0	0
0.75	0	0	0	1	0	0	4	0	0	5	0	0
0.76	0	0	0	2	0	0	4	0	0	6	0	0
0.77	0	0	0	1	0	0	4	0	0	5	0	0
0.78	0	0	0	1	0	0	4	0	0	5	0	0
0.79	0	0	0	1	0	0	4	0	0	5	0	0
0.80	0	0	0	1	0	0	4	0	0	5	0	0
0.81	0	0	0	2	0	0	3	0	0	5	0	0
0.82	0	0	0	1	0	0	3	0	0	4	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	1	0	0	2	0	0	3	0	0
0.86	0	0	0	1	0	0	2	0	0	3	0	0
0.87	0	0	0	2	0	0	2	0	0	4	0	0
0.88	0	0	0	2	0	0	2	0	0	4	0	0
0.89	0	0	0	2	0	0	1	0	0	3	0	0
0.90	0	0	0	1	0	0	1	0	0	2	0	0
0.91	0	0	0	1	0	0	1	0	0	2	0	0
0.92	0	0	0	1	0	0	0	0	0	1	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	0	0	0	0	0	0
0.96	0	0	0	0	0	0	0	0	0	0	0	0
0.97	0	0	0	0	0	0	0	0	0	0	0	0
0.98	0	0	0	0	0	0	0	0	0	0	0	0
0.99	0	0	0	0	0	0	0	0	0	0	0	0
1.00	0	0	0	0	0	0	1	0	0	1	0	0
SUBTOTAL	3	0	0	20	1	0	83	9	0	106	10	0

~~TOP SECRET~~ C[redacted]

TABLE A-1

MISSION [redacted] INSTRUMENT [redacted] DENSITY

DENSITY VALUE	PRIMARY MIN	PRIMARY MAX	PRIMARY LIM	INTERMEDIATE MIN	INTERMEDIATE MAX	INTERMEDIATE LIM	FINE MIN	FINE MAX	FINE LIM	[illegible] MIN	[illegible] MAX	[illegible] 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	0	0	0	0	0
1.04	0	0	0	0	0	0	0	0	0	0	0	0
1.05	0	0	0	0	0	0	0	0	0	0	0	0
1.06	0	0	0	0	0	0	0	0	0	0	0	0
1.07	0	0	0	0	0	0	0	0	0	0	0	0
1.08	0	0	0	0	0	0	0	0	0	0	0	0
1.09	0	0	0	0	0	0	0	0	0	0	0	0
1.10	0	0	0	0	0	0	0	0	0	0	0	0
1.11	0	0	0	0	0	0	0	0	0	0	0	0
1.12	0	0	0	0	0	0	0	0	0	0	0	0
1.13	0	0	0	0	0	0	0	0	0	0	0	0
1.14	0	0	0	0	0	0	0	0	0	0	0	0
1.15	0	0	0	0	0	0	0	0	0	0	0	0
1.16	0	0	0	0	0	0	0	0	0	0	0	0
1.17	0	0	0	0	0	0	0	0	0	0	0	0
1.18	0	0	0	0	0	0	0	0	0	0	0	0
1.19	0	0	0	0	0	0	0	0	0	0	0	0
1.20	0	0	0	0	0	0	0	0	0	0	0	0
1.21	0	0	0	0	0	0	0	0	0	0	0	0
1.22	0	0	0	0	0	0	0	0	0	0	0	0
1.23	0	0	0	0	0	0	0	0	0	0	0	0
1.24	0	0	0	0	0	0	0	0	0	0	0	0
1.25	0	0	0	0	0	0	0	0	0	0	0	0
1.26	0	0	0	0	0	0	0	0	0	0	0	0
1.27	0	0	0	0	0	0	0	0	0	0	0	0
1.28	0	0	0	0	0	0	0	0	0	0	0	0
1.29	0	0	0	0	0	0	0	0	0	0	0	0
1.30	0	0	0	0	0	0	0	0	0	0	0	0
1.31	0	0	0	0	0	0	0	0	0	0	0	0
1.32	0	0	0	0	0	0	0	0	0	0	0	0
1.33	0	0	0	0	0	0	0	0	0	0	0	0
1.34	0	0	0	0	0	0	0	0	0	0	0	0
1.35	0	0	0	0	0	0	0	0	0	0	0	0
1.36	0	0	0	0	0	0	0	0	0	0	0	0
1.37	0	0	0	0	0	0	0	0	0	0	0	0
1.38	0	0	0	0	0	0	0	0	0	0	0	0
1.39	0	0	0	0	0	0	0	0	0	0	0	0
1.40	0	0	0	0	0	0	0	0	0	0	0	0
1.41	0	0	0	0	0	0	0	0	0	0	0	0
1.42	0	0	0	0	0	0	0	0	0	0	0	0
1.43	0	0	0	0	0	0	0	0	0	0	0	0
1.44	0	0	0	0	0	0	0	0	0	0	0	0
1.45	0	0	0	0	0	0	0	0	0	0	0	0
1.46	0	0	0	0	0	0	0	0	0	0	0	0
1.47	0	0	0	0	0	0	0	0	0	0	0	0
1.48	0	0	0	0	0	0	0	0	0	0	0	0
1.49	0	0	0	0	0	0	0	0	0	0	0	0
1.50	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	0	3	1	1	17	2	2	92	6	3	11	1

TABLE A-1

~~TOP SECRET~~ C[redacted]

[redacted] MISSION [redacted] INSTRUMENT [redacted]

DENSITY VALUE	PRIMARY MIN	PRIMARY MAX	PRIMARY LIN	INTERMEDIATE MIN	INTERMEDIATE MAX	INTERMEDIATE LIN	[illegible] MIN	[illegible] MAX	[illegible] LIN	DENSITY MIN	DENSITY MAX	DENSITY LIN
1.51	0	0	0	0	0	0	0	1	1	0	0	0
1.52	0	0	0	0	0	0	0	1	1	0	0	0
1.53	0	0	0	0	0	0	0	1	1	0	0	0
1.54	0	0	0	0	0	0	0	1	1	0	0	0
1.55	0	0	0	0	0	0	0	1	1	0	0	0
1.56	0	0	0	0	0	0	0	1	1	0	0	0
1.57	0	0	0	0	0	0	0	1	1	0	0	0
1.58	0	0	0	0	0	0	0	1	1	0	0	0
1.59	0	0	0	0	0	0	0	1	1	0	0	0
1.60	0	0	0	0	0	0	0	1	1	0	0	0
1.61	0	0	0	0	0	0	0	1	1	0	0	0
1.62	0	0	0	0	0	0	0	1	1	0	0	0
1.63	0	0	0	0	0	0	0	1	1	0	0	0
1.64	0	0	0	0	0	0	0	1	1	0	0	0
1.65	0	0	0	0	0	0	0	1	1	0	0	0
1.66	0	0	0	0	0	0	0	1	1	0	0	0
1.67	0	0	0	0	0	0	0	1	1	0	0	0
1.68	0	0	0	0	0	0	0	1	1	0	0	0
1.69	0	0	0	0	0	0	0	1	1	0	0	0
1.70	0	0	0	0	0	0	0	1	1	0	0	0
1.71	0	0	0	0	0	0	0	1	1	0	0	0
1.72	0	0	0	0	0	0	0	1	1	0	0	0
1.73	0	0	0	0	0	0	0	1	1	0	0	0
1.74	0	0	0	0	0	0	0	1	1	0	0	0
1.75	0	0	0	0	0	0	0	1	1	0	0	0
1.76	0	0	0	0	0	0	0	1	1	0	0	0
1.77	0	0	0	0	0	0	0	1	1	0	0	0
1.78	0	0	0	0	0	0	0	1	1	0	0	0
1.79	0	0	0	0	0	0	0	1	1	0	0	0
1.80	0	0	0	0	0	0	0	1	1	0	0	0
1.81	0	0	0	0	0	0	0	1	1	0	0	0
1.82	0	0	0	0	0	0	0	1	1	0	0	0
1.83	0	0	0	0	0	0	0	1	1	0	0	0
1.84	0	0	0	0	0	0	0	1	1	0	0	0
1.85	0	0	0	0	0	0	0	1	1	0	0	0
1.86	0	0	0	0	0	0	0	1	1	0	0	0
1.87	0	0	0	0	0	0	0	1	1	0	0	0
1.88	0	0	0	0	0	0	0	1	1	0	0	0
1.89	0	0	0	0	0	0	0	1	1	0	0	0
1.90	0	0	0	0	0	0	0	1	1	0	0	0
1.91	0	0	0	0	0	0	0	1	1	0	0	0
1.92	0	0	0	0	0	0	0	1	1	0	0	0
1.93	0	0	0	0	0	0	0	1	1	0	0	0
1.94	0	0	0	0	0	0	0	1	1	0	0	0
1.95	0	0	0	0	0	0	0	1	1	0	0	0
1.96	0	0	0	0	0	0	0	1	1	0	0	0
1.97	0	0	0	0	0	0	0	1	1	0	0	0
1.98	0	0	0	0	0	0	0	1	1	0	0	0
1.99	0	0	0	0	0	0	0	1	1	0	0	0
2.00	0	0	0	0	0	0	0	1	1	0	0	0
SUBTOTAL	0	1	0	0	20	8	0	7	35	0	0	0

~~TOP SECRET~~ C[redacted]

TABLE A-1

~~TOP SECRET~~ C [redacted]

MISSION [redacted]

DENSITY VALUE	PRIMARY MIN	PRIMARY MAX	PRIMARY LIN	INTERMEDIATE MIN	INTERMEDIATE MAX	INTERMEDIATE LIN	[illegible] MIN	[illegible] MAX	[illegible] LIN	[illegible] MIN	[illegible] MAX	[illegible] LIN
2.01	0	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0
2.04	0	0	0	0	0	0	0	0	0	0	0	0
2.05	0	0	0	0	0	0	0	0	0	0	0	0
2.06	0	0	0	0	0	0	0	0	0	0	0	0
2.07	0	0	0	0	0	0	0	0	0	0	0	0
2.08	0	0	0	0	0	0	0	0	0	0	0	0
2.09	0	0	0	0	0	0	0	0	0	0	0	0
2.10	0	0	0	0	0	0	0	0	0	0	0	0
2.11	0	0	0	0	0	0	0	0	0	0	0	0
2.12	0	0	0	0	0	0	0	0	0	0	0	0
2.13	0	0	0	0	0	0	0	0	0	0	0	0
2.14	0	0	0	0	0	0	0	0	0	0	0	0
2.15	0	0	0	0	0	0	0	0	0	0	0	0
2.16	0	0	0	0	0	0	0	0	0	0	0	0
2.17	0	0	0	0	0	0	0	0	0	0	0	0
2.18	0	0	0	0	0	0	0	0	0	0	0	0
2.19	0	0	0	0	0	0	0	0	0	0	0	0
2.20	0	0	0	0	0	0	0	0	0	0	0	0
2.21	0	0	0	0	0	0	0	0	0	0	0	0
2.22	0	0	0	0	0	0	0	0	0	0	0	0
2.23	0	0	0	0	0	0	0	0	0	0	0	0
2.24	0	0	0	0	0	0	0	0	0	0	0	0
2.25	0	0	0	0	0	0	0	0	0	0	0	0
2.26	0	0	0	0	0	0	0	0	0	0	0	0
2.27	0	0	0	0	0	0	0	0	0	0	0	0
2.28	0	0	0	0	0	0	0	0	0	0	0	0
2.29	0	0	0	0	0	0	0	0	0	0	0	0
2.30	0	0	0	0	0	0	0	0	0	0	0	0
2.31	0	0	0	0	0	0	0	0	0	0	0	0
2.32	0	0	0	0	0	0	0	0	0	0	0	0
2.33	0	0	0	0	0	0	0	0	0	0	0	0
2.34	0	0	0	0	0	0	0	0	0	0	0	0
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	0	24	0	36	107	0	36	13

~~TOP SECRET~~ C [redacted]

TABLE A-1

[redacted]

MISSION [redacted] INSTRUMENT

DENSITY VALUE	PRIMARY MIN	PRIMARY MAX	PRIMARY LIM	INTERMEDIATE MIN	INTERMEDIATE MAX	INTERMEDIATE LIM	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2.51	0	0	0	0	0	0	0	0	0	0	0	0
2.52	0	0	0	0	0	0	0	0	0	0	0	0
2.53	0	0	0	0	0	0	0	0	0	0	0	0
2.54	0	0	0	0	0	0	0	0	0	0	0	0
2.55	0	0	0	0	0	0	0	0	0	0	0	0
2.56	0	0	0	0	0	0	0	0	0	0	0	0
2.57	0	0	0	0	0	0	0	0	0	0	0	0
2.58	0	0	0	0	0	0	0	0	0	0	0	0
2.59	0	0	0	0	0	0	0	0	0	0	0	0
2.60	0	0	0	0	0	0	0	0	0	0	0	0
2.61	0	0	0	0	0	0	0	0	0	0	0	0
2.62	0	0	0	0	0	0	0	0	0	0	0	0
2.63	0	0	0	0	0	0	0	0	0	0	0	0
2.64	0	0	0	0	0	0	0	0	0	0	0	0
2.65	0	0	0	0	0	0	0	0	0	0	0	0
2.66	0	0	0	0	0	0	0	0	0	0	0	0
2.67	0	0	0	0	0	0	0	0	0	0	0	0
2.68	0	0	0	0	0	0	0	0	0	0	0	0
2.69	0	0	0	0	0	0	0	0	0	0	0	0
2.70	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	4	4	1	38	38	34	214	214	148	256	256	181

[redacted]

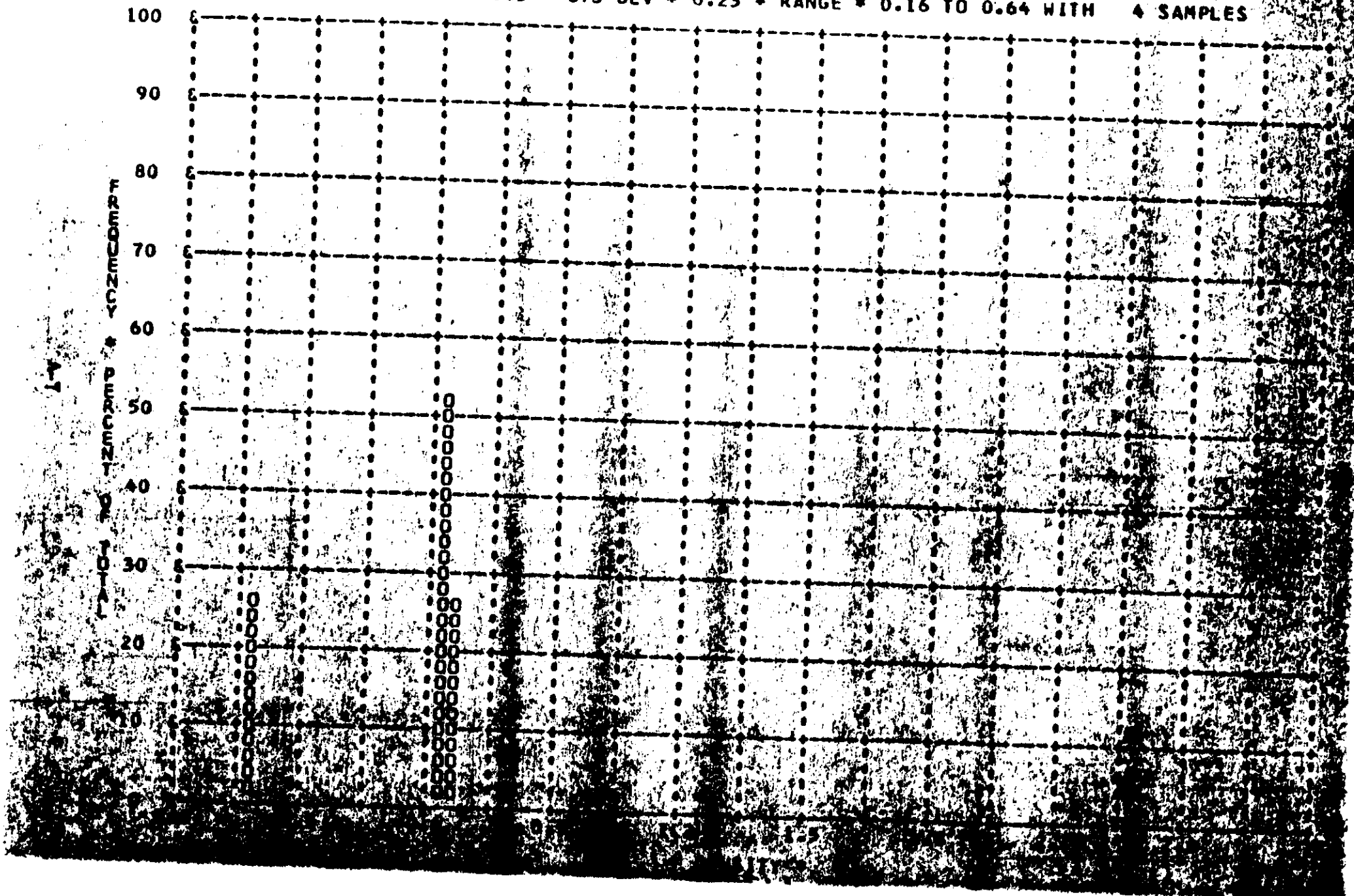
[redacted]

[redacted] A-1

~~TOP SECRET~~ C [redacted]

MISSION * 1038-1 * INSTR * FWD * 3/6/67 PLOT OF D MIN * TERRAIN * PROCESSING * PRIMARY

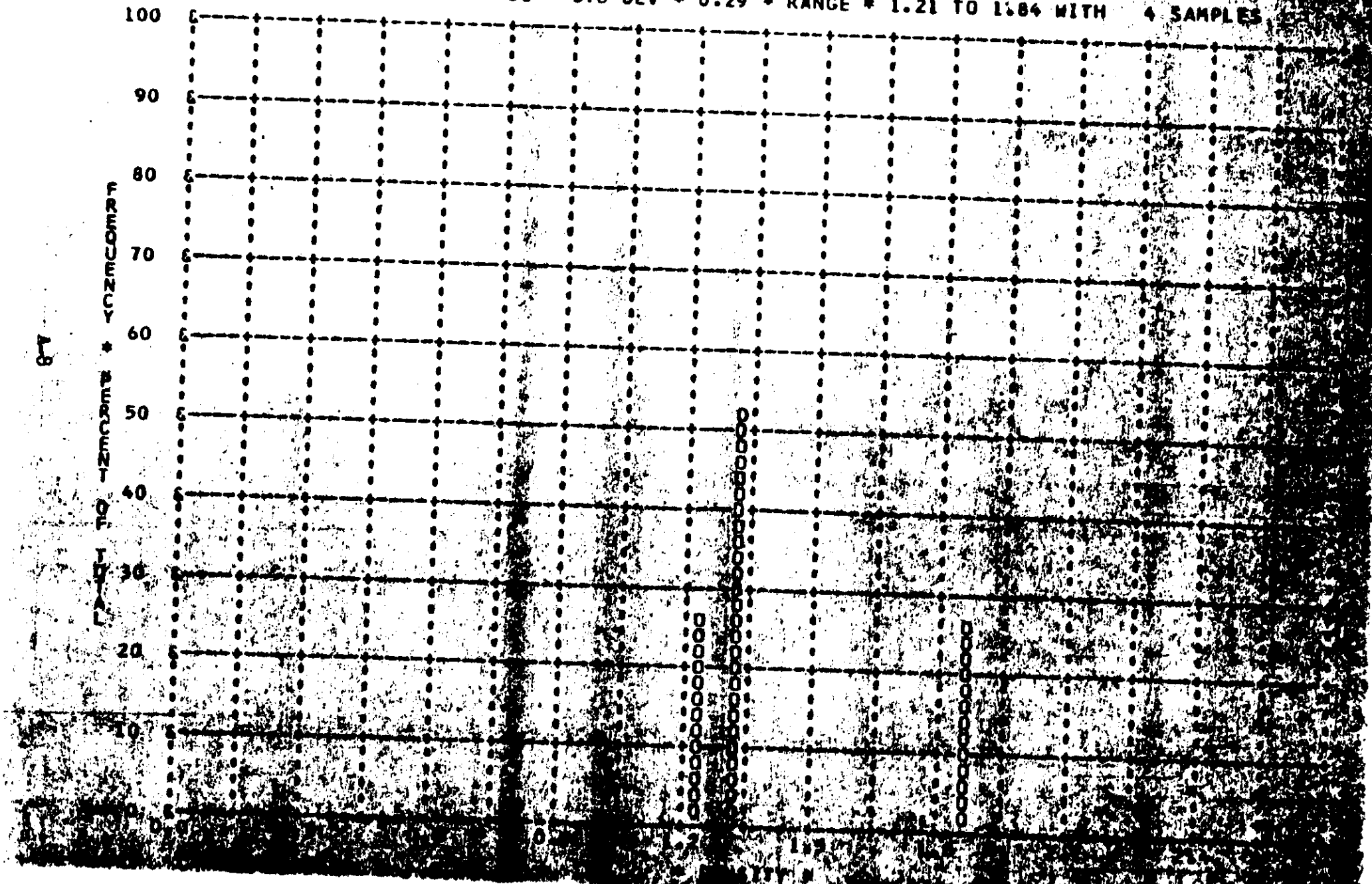
AIRTH MEAN * 0.51 * MEDIAN * 0.63 * STD DEV * 0.23 * RANGE * 0.16 TO 0.64 WITH 4 SAMPLES



~~TOP SECRET~~ C [redacted]

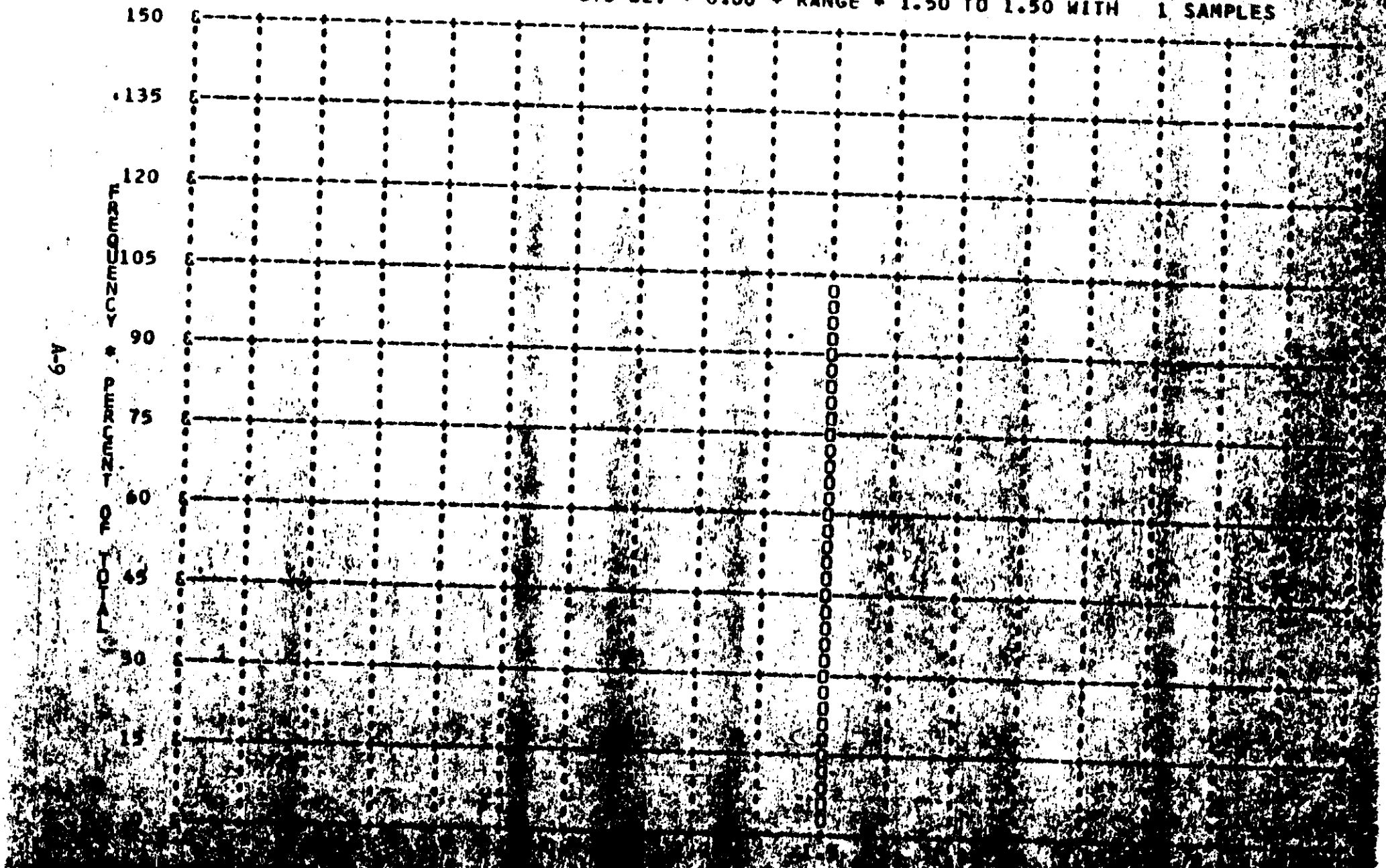
MISSION * 1038-1 * INSTR * FWD * 3/6/67 PLOT OF D MAX * TERRAIN * PROCESSING * PRIMARY

AIRTH MEAN * 1.42 * MEDIAN * 1.31 * STD DEV * 0.29 * RANGE * 1.21 TO 1.84 WITH 4 SAMPLES



MISSION * 1038-1 * INSTR * FWD * 3/6/67 PLOT OF D MAX * CLOUD * PROCESSING * PRIMARY

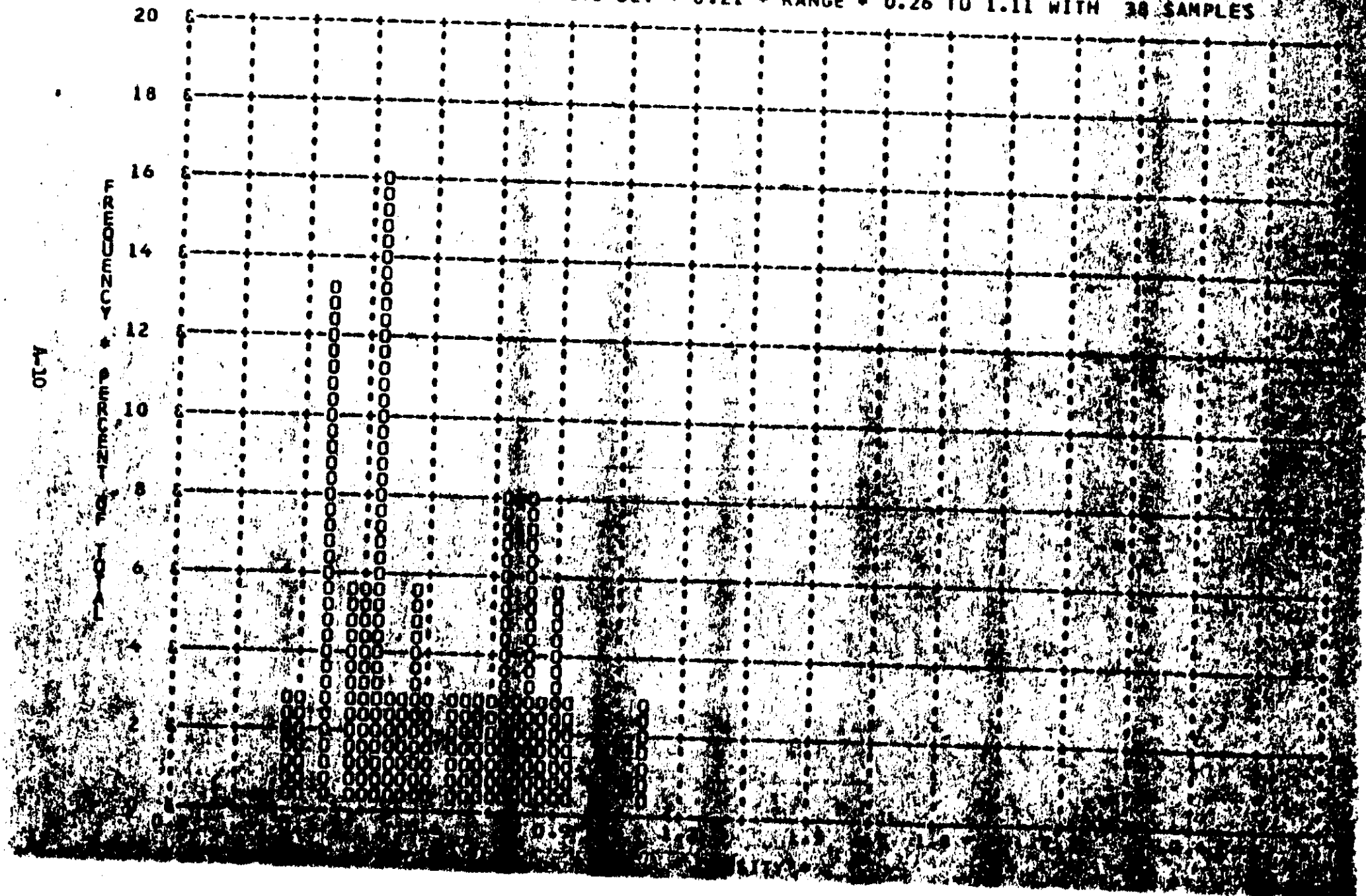
AIRTH MEAN * 1.50 * MEDIAN * 1.50 * STD DEV * 0.00 * RANGE * 1.50 TO 1.50 WITH 1 SAMPLES



~~TOP SECRET~~ C[redacted]

MISSION * 1038-1 * INSTR * FWD * 3/6/67 PLOT OF D MIN * TERRAIN * PROCESSING * INTERMEDIATE

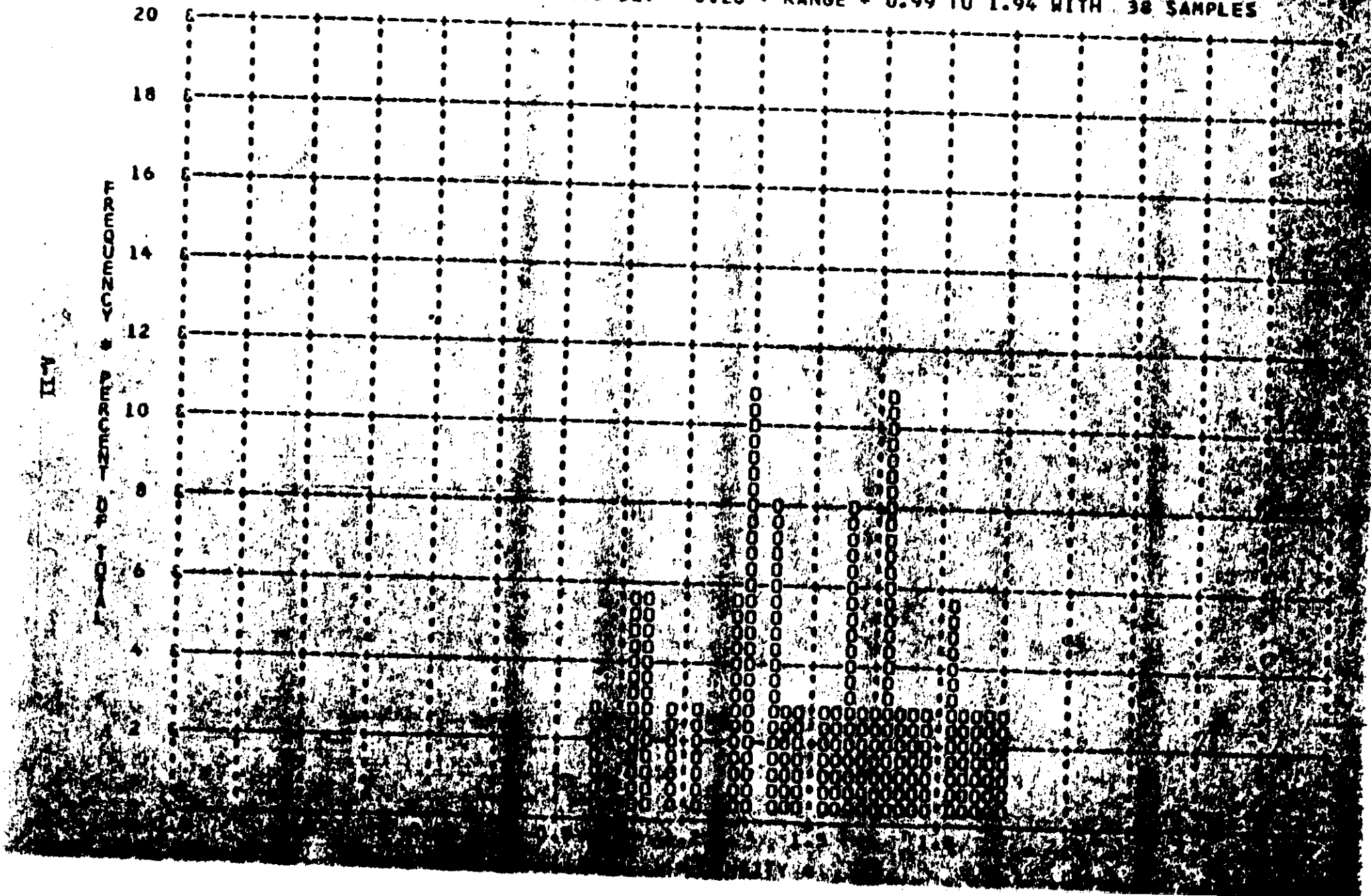
AIRTH MEAN * 0.59 * MEDIAN * 0.55 * STD DEV * 0.21 * RANGE * 0.26 TO 1.11 WITH 38 SAMPLES



~~TOP SECRET~~ C[redacted]

MISSION * 1038-1 * INSTR * FWD * 3/6/67 PLOT OF D MAX * TERRAIN * PROCESSING * INTERMEDIATE

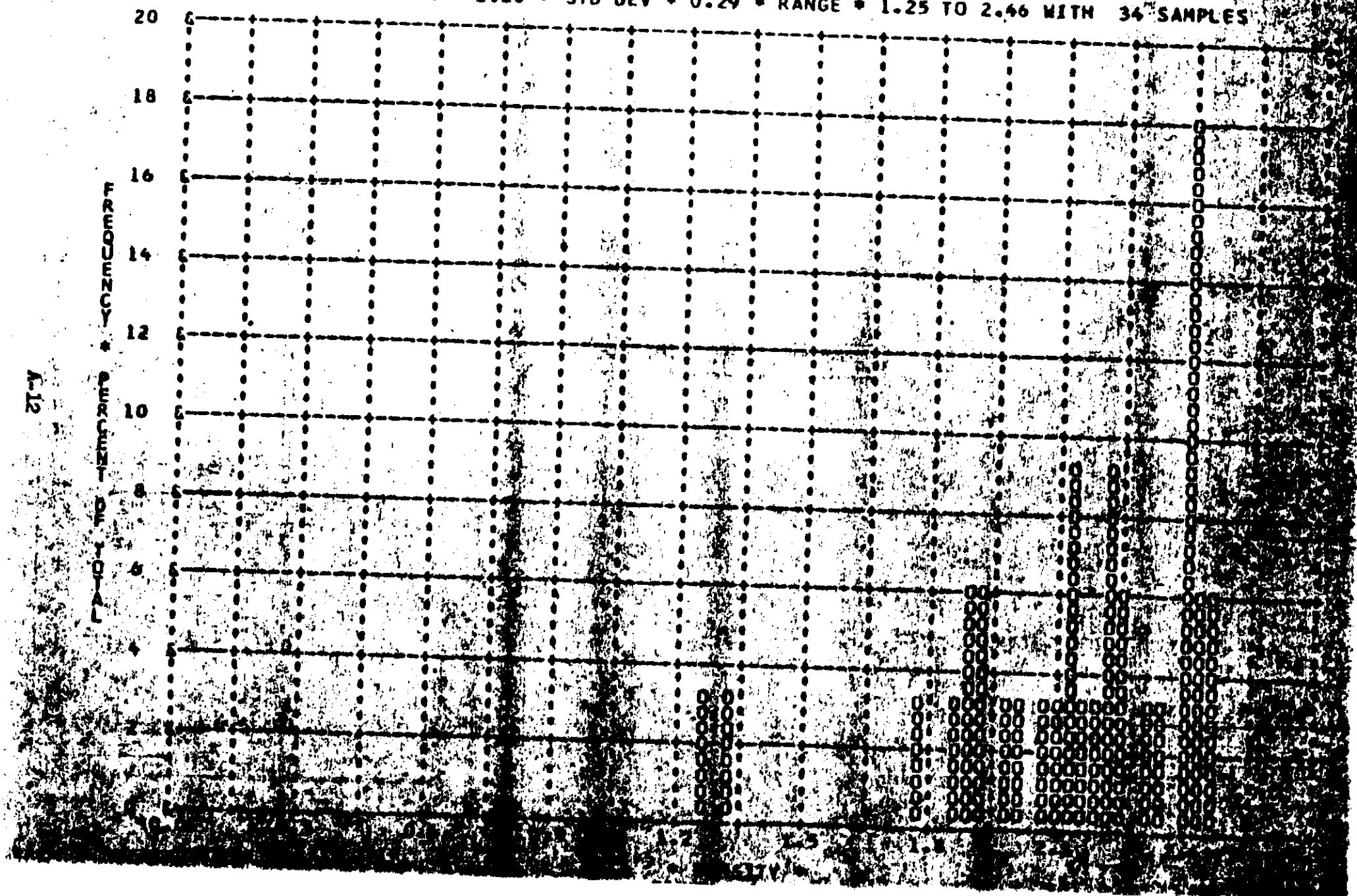
AIRTH MEAN * 1.50 * MEDIAN * 1.54 * STD DEV * 0.26 * RANGE * 0.99 TO 1.94 WITH 38 SAMPLES



~~TOP SECRET~~ C[redacted]

MISSION * 1038-1 * INSTR * FWD * 3/6/67 PLOT OF D MAX * CLOUD * PROCESSING * INTERMEDIATE

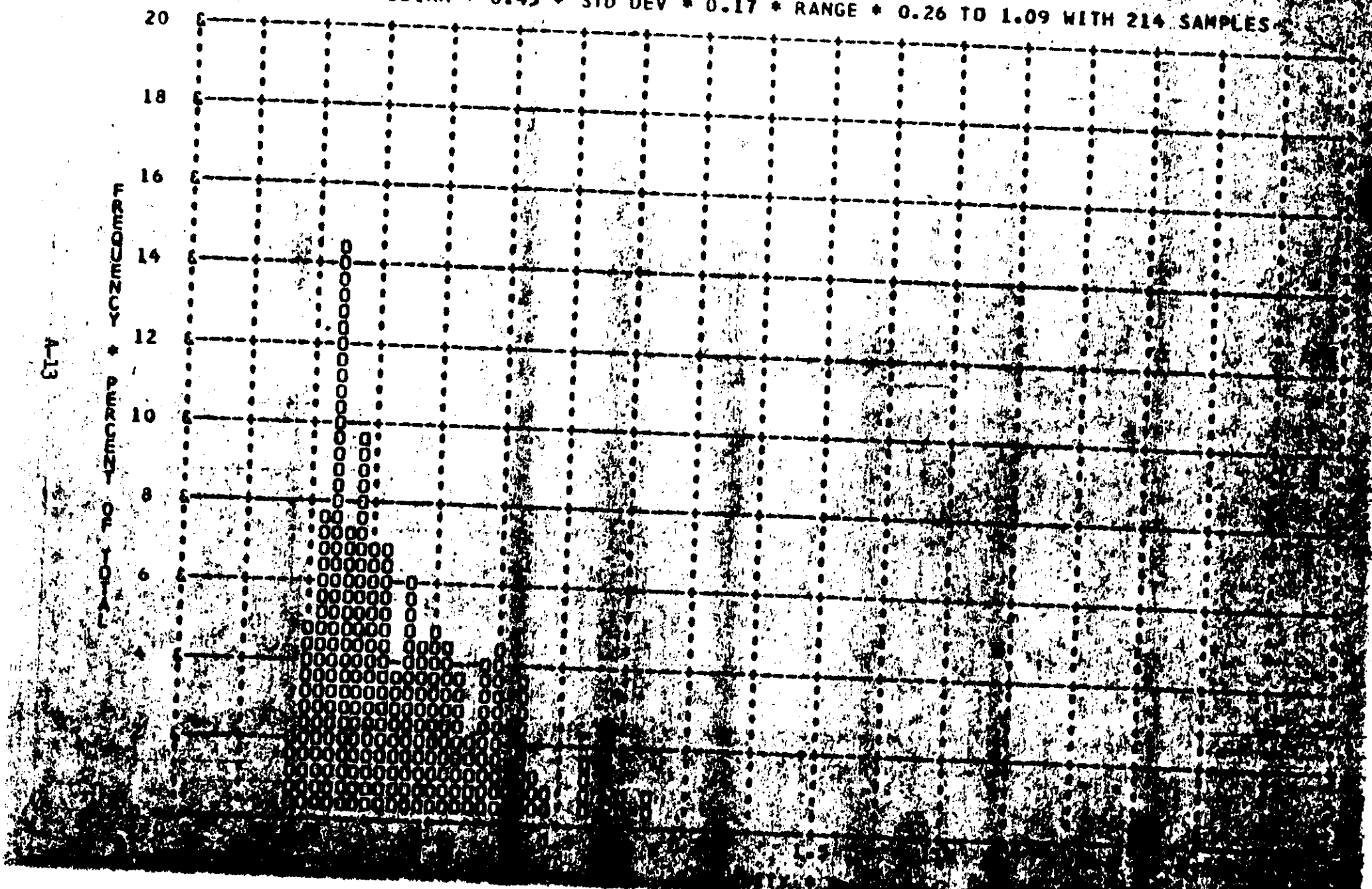
AIRTH MEAN * 2.13 * MEDIAN * 2.20 * STD DEV * 0.29 * RANGE * 1.25 TO 2.46 WITH 34 SAMPLES



A-12

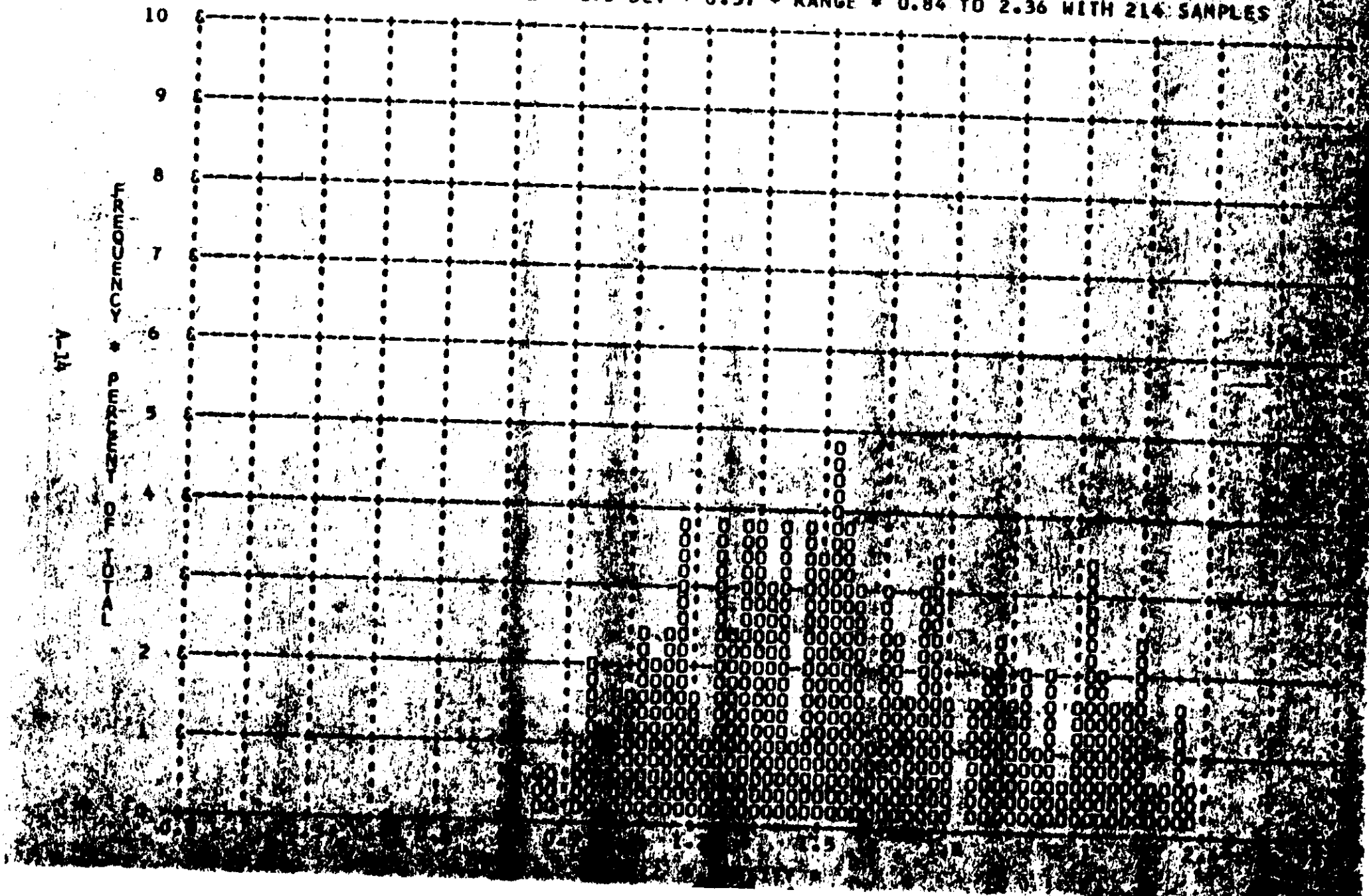
MISSION * 1038-1 * INSTR * FWD * 3/6/67 PLOT OF D MIN * TERRAIN * PROCESSING * FULL

AIRTH MEAN * 0.50 * MEDIAN * 0.45 * STD DEV * 0.17 * RANGE * 0.26 TO 1.09 WITH 214 SAMPLES



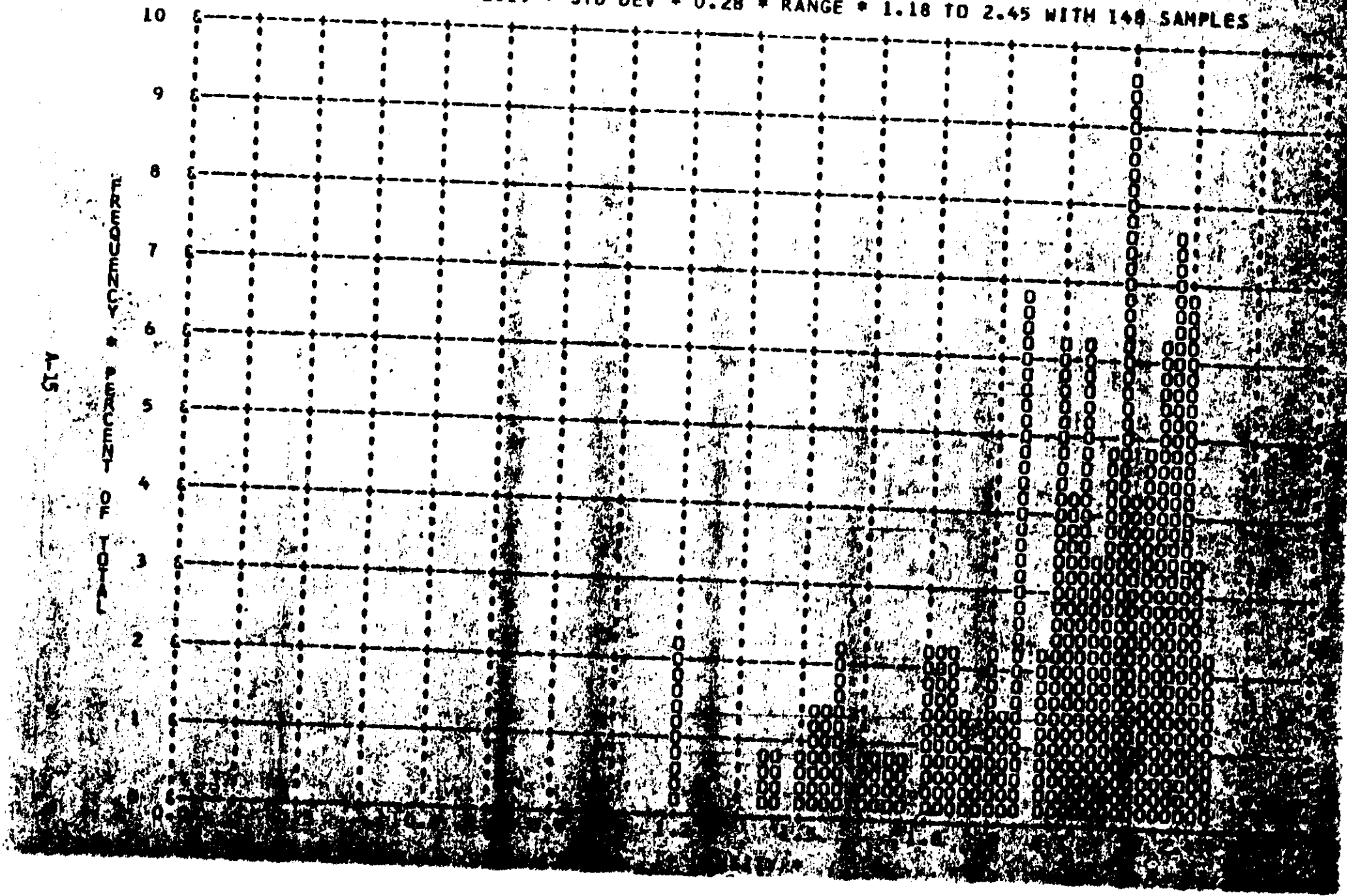
MISSION * 1038-1 * INSTR * FWD * 3/6/67 PLOT OF D MAX * TERRAIN * PROCESSING * FULL

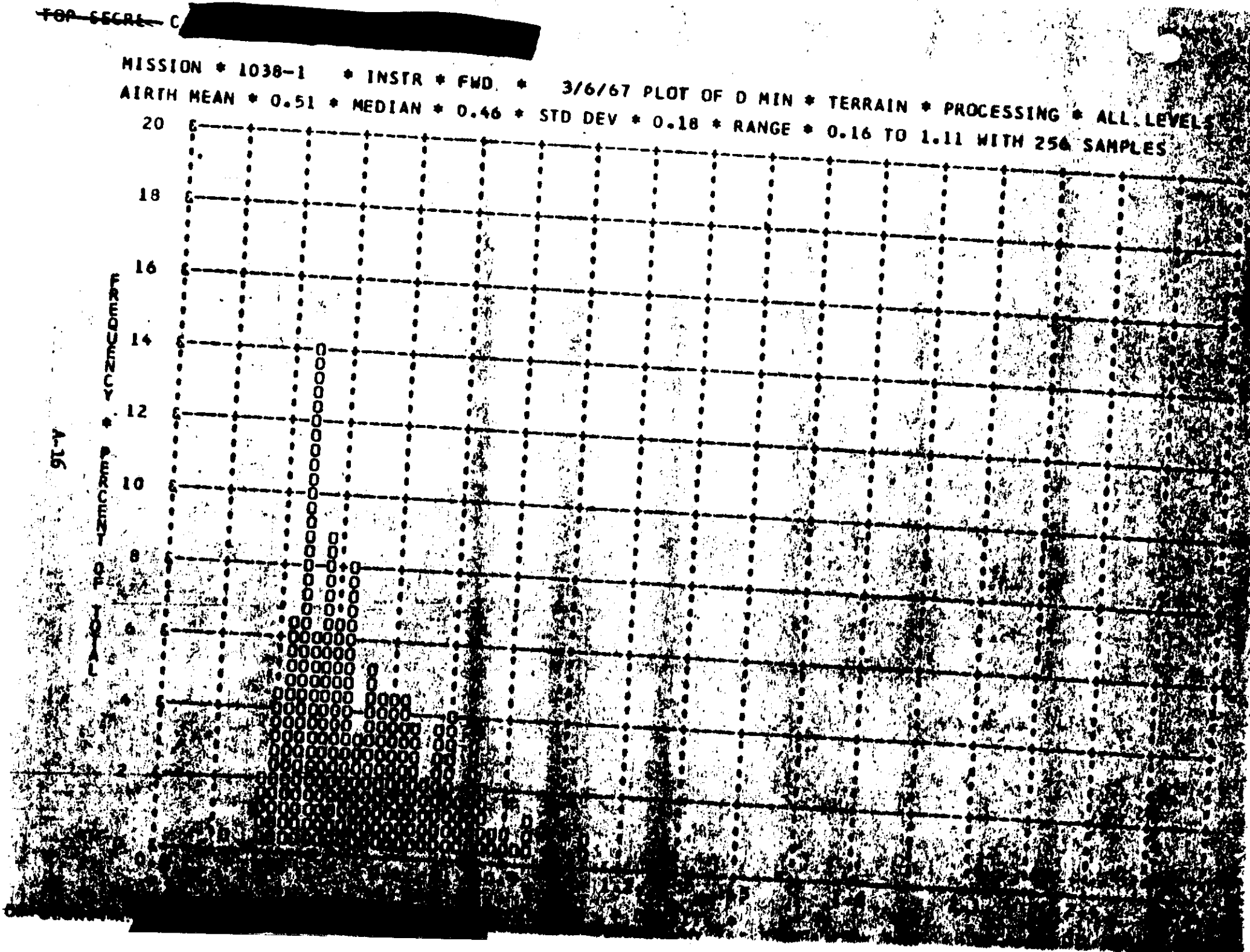
AIRTH MEAN * 1.57 * MEDIAN * 1.52 * STD DEV * 0.37 * RANGE * 0.84 TO 2.36 WITH 214 SAMPLES



MISSION * 1038-1 * INSTR * FWD * 3/6/67 PLOT OF D MAX * CLOUD * PROCESSING * FULL

AIRTH MEAN * 2.11 * MEDIAN * 2.19 * STD DEV * 0.28 * RANGE * 1.18 TO 2.45 WITH 148 SAMPLES

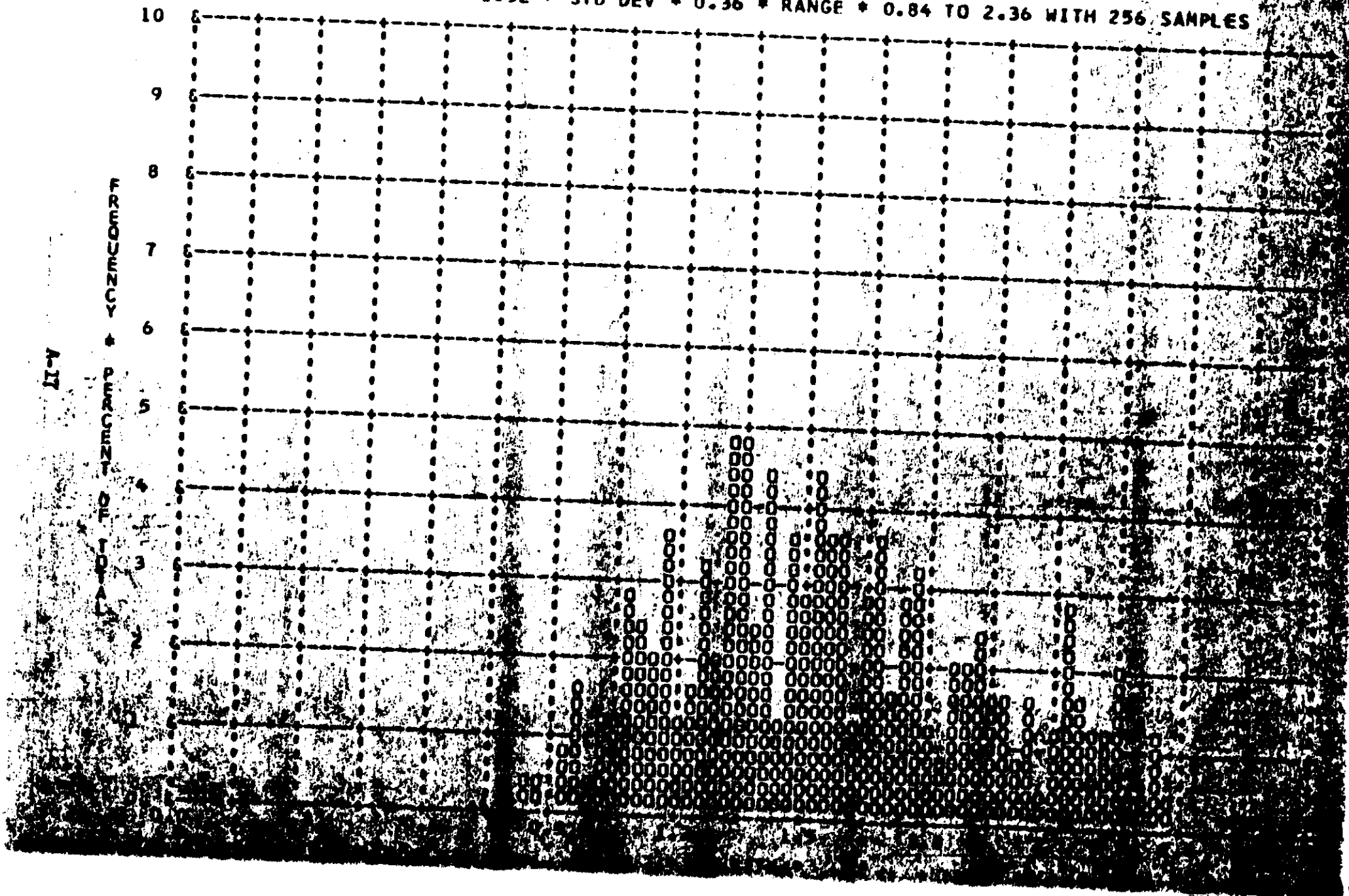



MISSION * 1038-1 * INSTR * FWD * 3/6/67 PLOT OF D MIN * TERRAIN * PROCESSING * ALL LEVELS
AIRTH MEAN * 0.51 * MEDIAN * 0.46 * STD DEV * 0.18 * RANGE * 0.16 TO 1.11 WITH 256 SAMPLES
PERCENT OF TOTAL * FREQUENCY
20
18
16
14
12
10
8
6
4
2
0

~~TOP SECRET~~ C[redacted]

MISSION * 1038-1 * INSTR * FWD * 3/6/67 PLOT OF D MAX * TERRAIN * PROCESSING * ALL LEVELS

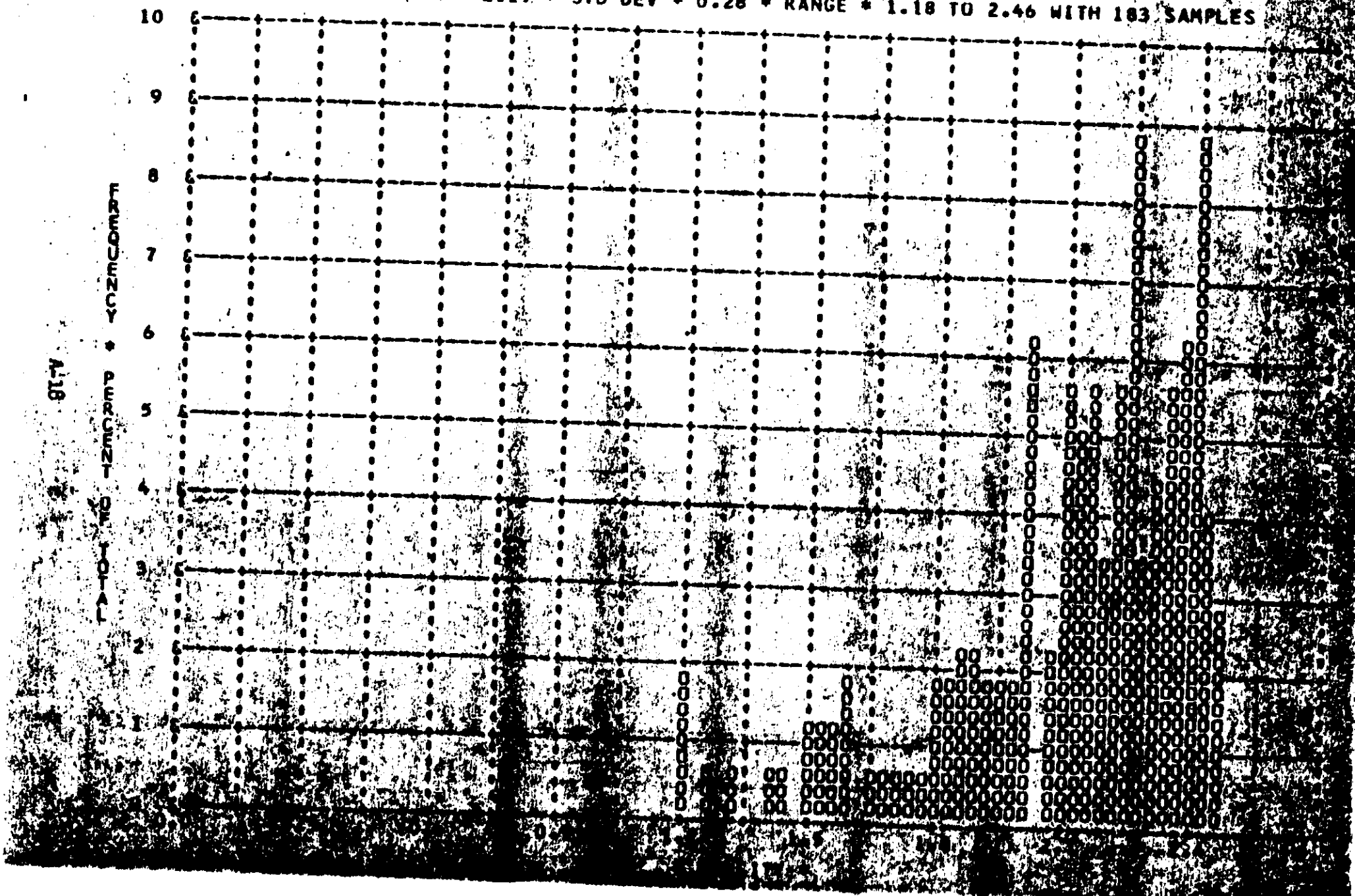
AIRTH MEAN * 1.56 * MEDIAN * 1.52 * STD DEV * 0.36 * RANGE * 0.84 TO 2.36 WITH 256 SAMPLES



~~TOP SECRET~~ C[redacted]

MISSION * 1038-1 * INSTR * FWD * 3/6/67 PLOT OF D MAX * CLOUD * PROCESSING * ALL LEVELS

AIRTH MEAN * 2.11 * MEDIAN * 2.19 * STD DEV * 0.28 * RANGE * 1.18 TO 2.46 WITH 183 SAMPLES



[redacted] C

MISSION [redacted] INSTRUMENT [redacted]

DENSITY VALUE	PRIMARY MIN	PRIMARY MAX	PRIMARY CUM	INTERMEDIATE MIN	INTERMEDIATE MAX	INTERMEDIATE CUM	[illegible] MIN	[illegible] MAX	[illegible] CUM	DENSITY [illegible] MIN	DENSITY [illegible] MAX	DENSITY [illegible] CUM
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	0	0	0	0	0	0
0.33	0	0	0	0	0	0	0	0	0	0	0	0
0.34	0	0	0	0	0	0	0	0	0	0	0	0
0.35	0	0	0	0	0	0	0	0	0	0	0	0
0.36	0	0	0	0	0	0	0	0	0	0	0	0
0.37	0	0	0	0	0	0	0	0	0	0	0	0
0.38	0	0	0	0	0	0	0	0	0	0	0	0
0.39	0	0	0	0	0	0	0	0	0	0	0	0
0.40	0	0	0	0	0	0	0	0	0	0	0	0
0.41	0	0	0	0	0	0	0	0	0	0	0	0
0.42	0	0	0	0	0	0	0	0	0	0	0	0
0.43	0	0	0	0	0	0	0	0	0	0	0	0
0.44	0	0	0	0	0	0	0	0	0	0	0	0
0.45	0	0	0	0	0	0	0	0	0	0	0	0
0.46	0	0	0	0	0	0	0	0	0	0	0	0
0.47	0	0	0	0	0	0	0	0	0	0	0	0
0.48	0	0	0	0	0	0	0	0	0	0	0	0
0.49	0	0	0	0	0	0	0	0	0	0	0	0
0.50	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	0	0	0	16	0	0	123	0	0	134	0	0

~~TOP SECRET~~ C [redacted]

TABLE A-2

[redacted]

MISSION 1036-1 INSTRUMENT [redacted] 5/67

DENSITY VALUE	PRIMARY MIN	PRIMARY MAX LIM	INTERMEDIATE MIN	INTERMEDIATE MAX LIM	FIXED MIN	FIXED MAX LIM	DENSITY FREQ ALL LEVELS MIN	DENSITY FREQ ALL LEVELS MAX LIM
0.51	0	0	0	0	0	0	0	0
0.52	0	0	0	0	0	0	0	0
0.53	0	0	0	0	0	0	0	0
0.54	0	0	0	0	0	0	0	0
0.55	0	0	0	0	0	0	0	0
0.56	0	0	0	0	0	0	0	0
0.57	0	0	0	0	0	0	0	0
0.58	0	0	0	0	0	0	0	0
0.59	0	0	0	0	0	0	0	0
0.60	0	0	0	0	0	0	0	0
0.61	0	0	0	0	0	0	0	0
0.62	0	0	0	0	0	0	0	0
0.63	0	0	0	0	0	0	0	0
0.64	0	0	0	0	0	0	0	0
0.65	0	0	0	0	0	0	0	0
0.66	0	0	0	0	0	0	0	0
0.67	0	0	0	0	0	0	0	0
0.68	0	0	0	0	0	0	0	0
0.69	0	0	0	0	0	0	0	0
0.70	0	0	0	0	0	0	0	0
0.71	0	0	0	0	0	0	0	0
0.72	0	0	0	0	0	0	0	0
0.73	0	0	0	0	0	0	0	0
0.74	0	0	0	0	0	0	0	0
0.75	0	0	0	0	0	0	0	0
0.76	0	0	0	0	0	0	0	0
0.77	0	0	0	0	0	0	0	0
0.78	0	0	0	0	0	0	0	0
0.79	0	0	0	0	0	0	0	0
0.80	0	0	0	0	0	0	0	0
0.81	0	0	0	0	0	0	0	0
0.82	0	0	0	0	0	0	0	0
0.83	0	0	0	0	0	0	0	0
0.84	0	0	0	0	0	0	0	0
0.85	0	0	0	0	0	0	0	0
0.86	0	0	0	0	0	0	0	0
0.87	0	0	0	0	0	0	0	0
0.88	0	0	0	0	0	0	0	0
0.89	0	0	0	0	0	0	0	0
0.90	0	0	0	0	0	0	0	0
0.91	0	0	0	0	0	0	0	0
0.92	0	0	0	0	0	0	0	0
0.93	0	0	0	0	0	0	0	0
0.94	0	0	0	0	0	0	0	0
0.95	0	0	0	0	0	0	0	0
0.96	0	0	0	0	0	0	0	0
0.97	0	0	0	0	0	0	0	0
0.98	0	0	0	0	0	0	0	0
0.99	0	0	0	0	0	0	0	0
1.00	0	0	0	0	0	0	0	0
SUBTOTAL	0	0	14	1	84	12	98	11

TOP SECRET C/[redacted]

TABLE A-2

MISSION * 1038-1 * INSTRUMENT * AFT * 3/6/67 DENSITY FREQUENCY

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	0	0	0	0	0
1.04	0	0	0	0	0	0	0	0	0	0	0	0
1.05	0	0	0	0	0	0	0	0	0	0	0	0
1.06	0	0	0	0	0	0	0	0	0	0	0	0
1.07	0	0	0	0	0	0	0	0	0	0	0	0
1.08	0	0	0	0	0	0	0	0	0	0	0	0
1.09	0	0	0	0	0	0	0	0	0	0	0	0
1.10	0	0	0	0	0	0	0	0	0	0	0	0
1.11	0	0	0	0	0	0	0	0	0	0	0	0
1.12	0	0	0	0	0	0	0	0	0	0	0	0
1.13	0	0	0	0	0	0	0	0	0	0	0	0
1.14	0	0	0	0	0	0	0	0	0	0	0	0
1.15	0	0	0	0	0	0	0	0	0	0	0	0
1.16	0	0	0	0	0	0	0	0	0	0	0	0
1.17	0	0	0	0	0	0	0	0	0	0	0	0
1.18	0	0	0	0	0	0	0	0	0	0	0	0
1.19	0	0	0	0	0	0	0	0	0	0	0	0
1.20	0	0	0	0	0	0	0	0	0	0	0	0
1.21	0	0	0	0	0	0	0	0	0	0	0	0
1.22	0	0	0	0	0	0	0	0	0	0	0	0
1.23	0	0	0	0	0	0	0	0	0	0	0	0
1.24	0	0	0	0	0	0	0	0	0	0	0	0
1.25	0	0	0	0	0	0	0	0	0	0	0	0
1.26	0	0	0	0	0	0	0	0	0	0	0	0
1.27	0	0	0	0	0	0	0	0	0	0	0	0
1.28	0	0	0	0	0	0	0	0	0	0	0	0
1.29	0	0	0	0	0	0	0	0	0	0	0	0
1.30	0	0	0	0	0	0	0	0	0	0	0	0
1.31	0	0	0	0	0	0	0	0	0	0	0	0
1.32	0	0	0	0	0	0	0	0	0	0	0	0
1.33	0	0	0	0	0	0	0	0	0	0	0	0
1.34	0	0	0	0	0	0	0	0	0	0	0	0
1.35	0	0	0	0	0	0	0	0	0	0	0	0
1.36	0	0	0	0	0	0	0	0	0	0	0	0
1.37	0	0	0	0	0	0	0	0	0	0	0	0
1.38	0	0	0	0	0	0	0	0	0	0	0	0
1.39	0	0	0	0	0	0	0	0	0	0	0	0
1.40	0	0	0	0	0	0	0	0	0	0	0	0
1.41	0	0	0	0	0	0	0	0	0	0	0	0
1.42	0	0	0	0	0	0	0	0	0	0	0	0
1.43	0	0	0	0	0	0	0	0	0	0	0	0
1.44	0	0	0	0	0	0	0	0	0	0	0	0
1.45	0	0	0	0	0	0	0	0	0	0	0	0
1.46	0	0	0	0	0	0	0	0	0	0	0	0
1.47	0	0	0	0	0	0	0	0	0	0	0	0
1.48	0	0	0	0	0	0	0	0	0	0	0	0
1.49	0	0	0	0	0	0	0	0	0	0	0	0
1.50	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	0	0	0	4	14	1	5	92	11	106		

TABLE A-2

MISSION [redacted] INSTRUMENT [redacted] DATE [redacted]

DENSITY VALUE	PRIMARY MIN	PRIMARY MAX	PRIMARY LIM	INTERMEDIATE MIN	INTERMEDIATE MAX	INTERMEDIATE LIM	[illegible] MIN	[illegible] MAX	[illegible] LIM	DENSITY VALUE	[illegible] MIN	[illegible] MAX	[illegible] LIM
1.51	0	0	0	0	0	0	0	0	0				
1.52	0	0	0	0	0	0	0	0	0				
1.53	0	0	0	0	0	0	0	0	0				
1.54	0	0	0	0	0	0	0	0	0				
1.55	0	0	0	0	0	0	0	0	0				
1.56	0	0	0	0	0	0	0	0	0				
1.57	0	0	0	0	0	0	0	0	0				
1.58	0	0	0	0	0	0	0	0	0				
1.59	0	0	0	0	0	0	0	0	0				
1.60	0	0	0	0	0	0	0	0	0				
1.61	0	0	0	0	0	0	0	0	0				
1.62	0	0	0	0	0	0	0	0	0				
1.63	0	0	0	0	0	0	0	0	0				
1.64	0	0	0	0	0	0	0	0	0				
1.65	0	0	0	0	0	0	0	0	0				
1.66	0	0	0	0	0	0	0	0	0				
1.67	0	0	0	0	0	0	0	0	0				
1.68	0	0	0	0	0	0	0	0	0				
1.69	0	0	0	0	0	0	0	0	0				
1.70	0	0	0	0	0	0	0	0	0				
1.71	0	0	0	0	0	0	0	0	0				
1.72	0	0	0	0	0	0	0	0	0				
1.73	0	0	0	0	0	0	0	0	0				
1.74	0	0	0	0	0	0	0	0	0				
1.75	0	0	0	0	0	0	0	0	0				
1.76	0	0	0	0	0	0	0	0	0				
1.77	0	0	0	0	0	0	0	0	0				
1.78	0	0	0	0	0	0	0	0	0				
1.79	0	0	0	0	0	0	0	0	0				
1.80	0	0	0	0	0	0	0	0	0				
1.81	0	0	0	0	0	0	0	0	0				
1.82	0	0	0	0	0	0	0	0	0				
1.83	0	0	0	0	0	0	0	0	0				
1.84	0	0	0	0	0	0	0	0	0				
1.85	0	0	0	0	0	0	0	0	0				
1.86	0	0	0	0	0	0	0	0	0				
1.87	0	0	0	0	0	0	0	0	0				
1.88	0	0	0	0	0	0	0	0	0				
1.89	0	0	0	0	0	0	0	0	0				
1.90	0	0	0	0	0	0	0	0	0				
1.91	0	0	0	0	0	0	0	0	0				
1.92	0	0	0	0	0	0	0	0	0				
1.93	0	0	0	0	0	0	0	0	0				
1.94	0	0	0	0	0	0	0	0	0				
1.95	0	0	0	0	0	0	0	0	0				
1.96	0	0	0	0	0	0	0	0	0				
1.97	0	0	0	0	0	0	0	0	0				
1.98	0	0	0	0	0	0	0	0	0				
1.99	0	0	0	0	0	0	0	0	0				
2.00	0	0	0	0	0	0	0	0	0				
SUBTOTAL	0	0	0	0	19	16	0	2	3			16	

TABLE A-2

DENSITY VALUE	PRIMARY MIN	PRIMARY MAX	PRIMARY LIM	INTERMEDIATE MIN	INTERMEDIATE MAX	INTERMEDIATE LIM	[illegible] MIN	[illegible] MAX	[illegible] LIM	[illegible] MIN	[illegible] MAX	[illegible] 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	0	0	0	0
2.03	0	0	0	0	0	0	0	0	0	0	0	0
2.04	0	0	0	0	0	0	0	0	0	0	0	0
2.05	0	0	0	0	0	0	0	0	0	0	0	0
2.06	0	0	0	0	0	0	0	0	0	0	0	0
2.07	0	0	0	0	0	0	0	0	0	0	0	0
2.08	0	0	0	0	0	0	0	0	0	0	0	0
2.09	0	0	0	0	0	0	0	0	0	0	0	0
2.10	0	0	0	0	0	0	0	0	0	0	0	0
2.11	0	0	0	0	0	0	0	0	0	0	0	0
2.12	0	0	0	0	0	0	0	0	0	0	0	0
2.13	0	0	0	0	0	0	0	0	0	0	0	0
2.14	0	0	0	0	0	0	0	0	0	0	0	0
2.15	0	0	0	0	0	0	0	0	0	0	0	0
2.16	0	0	0	0	0	0	0	0	0	0	0	0
2.17	0	0	0	0	0	0	0	0	0	0	0	0
2.18	0	0	0	0	0	0	0	0	0	0	0	0
2.19	0	0	0	0	0	0	0	0	0	0	0	0
2.20	0	0	0	0	0	0	0	0	0	0	0	0
2.21	0	0	0	0	0	0	0	0	0	0	0	0
2.22	0	0	0	0	0	0	0	0	0	0	0	0
2.23	0	0	0	0	0	0	0	0	0	0	0	0
2.24	0	0	0	0	0	0	0	0	0	0	0	0
2.25	0	0	0	0	0	0	0	0	0	0	0	0
2.26	0	0	0	0	0	0	0	0	0	0	0	0
2.27	0	0	0	0	0	0	0	0	0	0	0	0
2.28	0	0	0	0	0	0	0	0	0	0	0	0
2.29	0	0	0	0	0	0	0	0	0	0	0	0
2.30	0	0	0	0	0	0	0	0	0	0	0	0
2.31	0	0	0	0	0	0	0	0	0	0	0	0
2.32	0	0	0	0	0	0	0	0	0	0	0	0
2.33	0	0	0	0	0	0	0	0	0	0	0	0
2.34	0	0	0	0	0	0	0	0	0	0	0	0
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	0	11	0	26	100	0	26	11

TABLE A-2

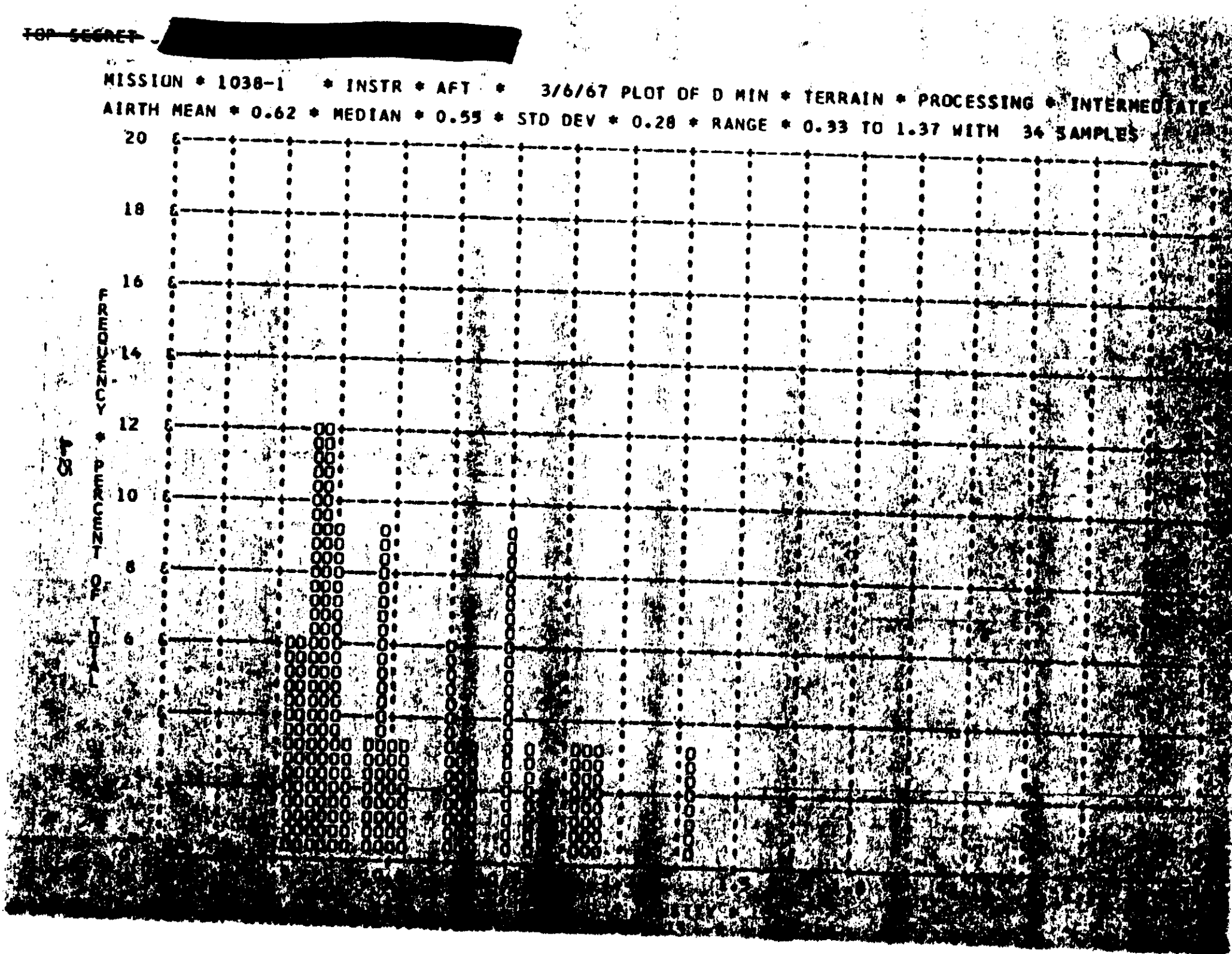
[redacted]

DENSITY VALUE	TRINITY MIN	TRINITY MAX	TRINITY INC	INTERMEDIATE MIN	INTERMEDIATE MAX	INTERMEDIATE INC	[illegible] MIN	[illegible] MAX	[illegible] INC	[illegible] MIN	[illegible] MAX	[illegible] INC
2.51	0	0	0	0	0	0	0	0	0	0	0	0
2.52	0	0	0	0	0	0	0	0	0	0	0	0
2.53	0	0	0	0	0	0	0	0	0	0	0	0
2.54	0	0	0	0	0	0	0	0	0	0	0	0
2.55	0	0	0	0	0	0	0	0	0	0	0	0
2.56	0	0	0	0	0	0	0	0	0	0	0	0
2.57	0	0	0	0	0	0	0	0	0	0	0	0
2.58	0	0	0	0	0	0	0	0	0	0	0	0
2.59	0	0	0	0	0	0	0	0	0	0	0	0
2.60	0	0	0	0	0	0	0	0	0	0	0	0
2.61	0	0	0	0	0	0	0	0	0	0	0	0
2.62	0	0	0	0	0	0	0	0	0	0	0	0
2.63	0	0	0	0	0	0	0	0	0	0	0	0
2.64	0	0	0	0	0	0	0	0	0	0	0	0
2.65	0	0	0	0	0	0	0	0	0	0	0	0
2.66	0	0	0	0	0	0	0	0	0	0	0	0
2.67	0	0	0	0	0	0	0	0	0	0	0	0
2.68	0	0	0	0	0	0	0	0	0	0	0	0
2.69	0	0	0	0	0	0	0	0	0	0	0	0
2.70	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	34	34	28	212	212	144	246	246	75

~~TOP SECRET~~ C[redacted]

TABLE A-2

~~TOP SECRET~~ [redacted]



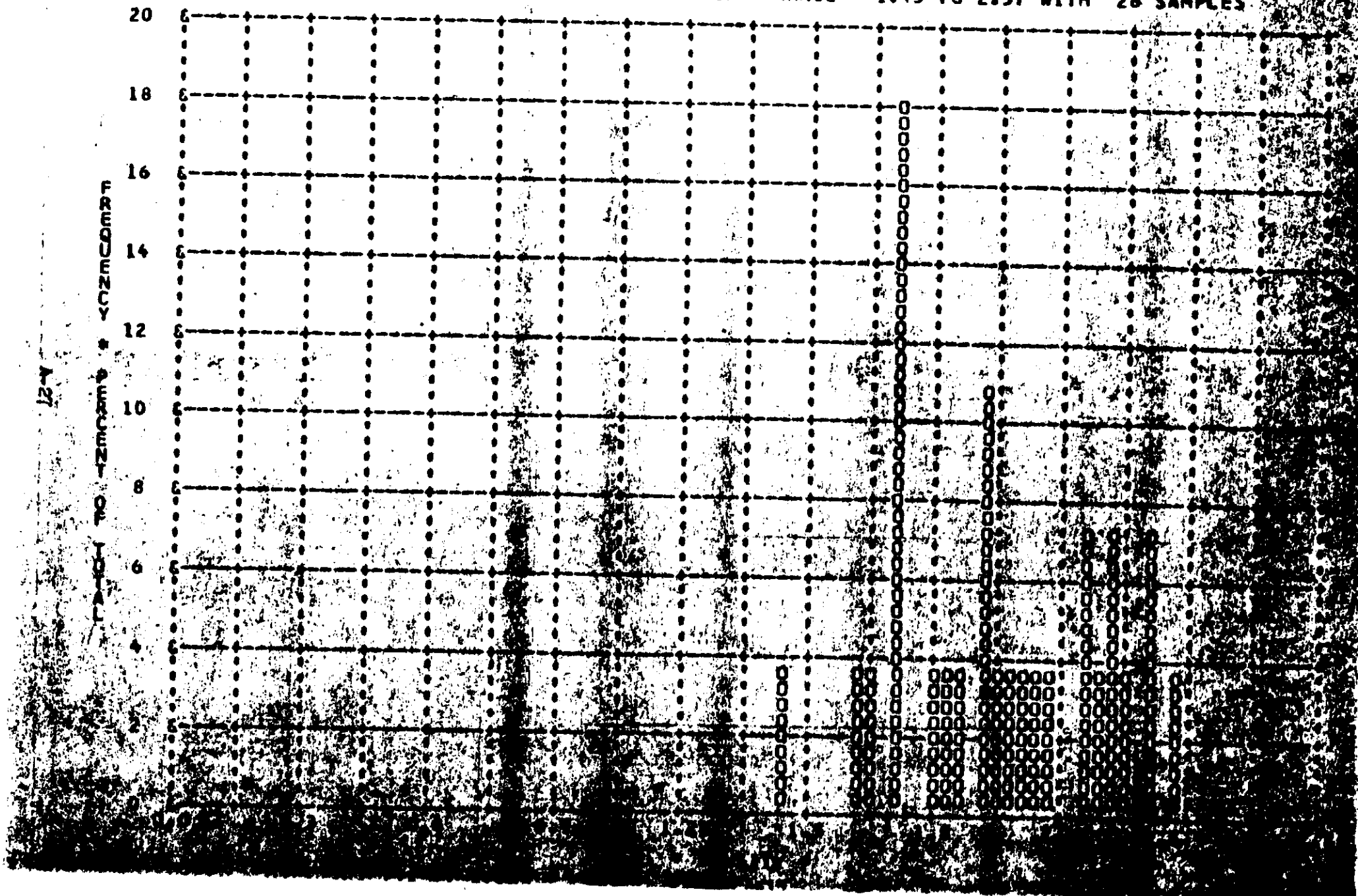
~~TOP SECRET~~ [redacted]

MISSION * 1038-1 * INSTR * AFT * 3/6/67 PLOT OF D MAX * TERRAIN * PROCESSING * INTERMEDIATE

AIRTH MEAN * 1.51 * MEDIAN * 1.55 * STD DEV * 0.28 * RANGE * 0.90 TO 2.00 WITH 34 SAMPLES

MISSION * 1038-1 * INSTR * AFT * 3/6/67 PLOT OF D MAX * CLOUD * PROCESSING * INTERMEDIATE

AIRTH MEAN * 1.94 * MEDIAN * 1.94 * STD DEV * 0.25 * RANGE * 1.43 TO 2.37 WITH 28 SAMPLES



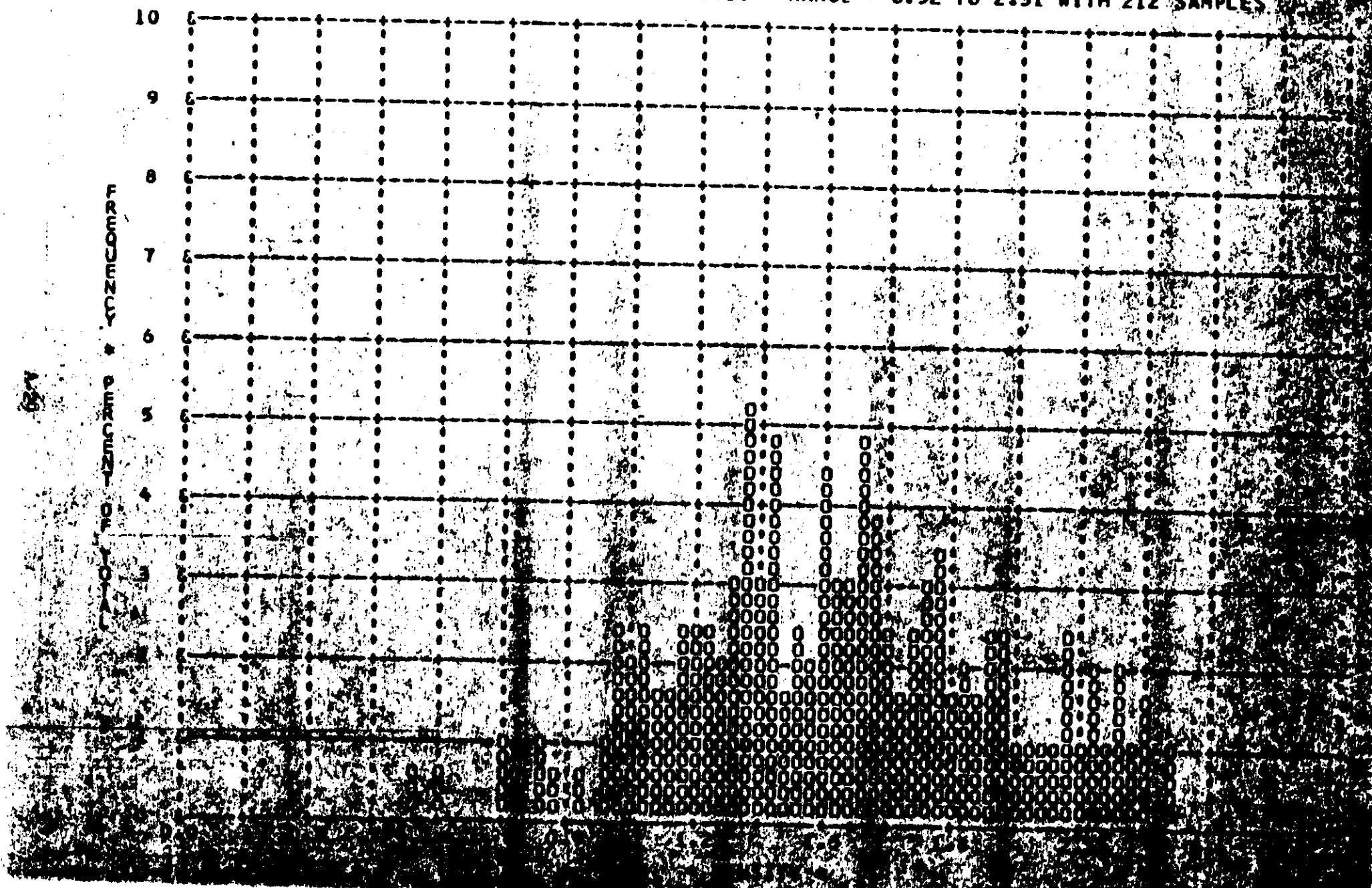
MISSION * 1038-1 * INSTR * AFT * 3/6/67 PLOT OF D MIN * TERRAIN * PROCESSING * FULL

AIRTH MEAN * 0.51 * MEDIAN * 0.46 * STD DEV * 0.20 * RANGE * 0.25 TO 1.24 WITH 212 SAMPLES

~~TOP SECRET~~ [redacted]

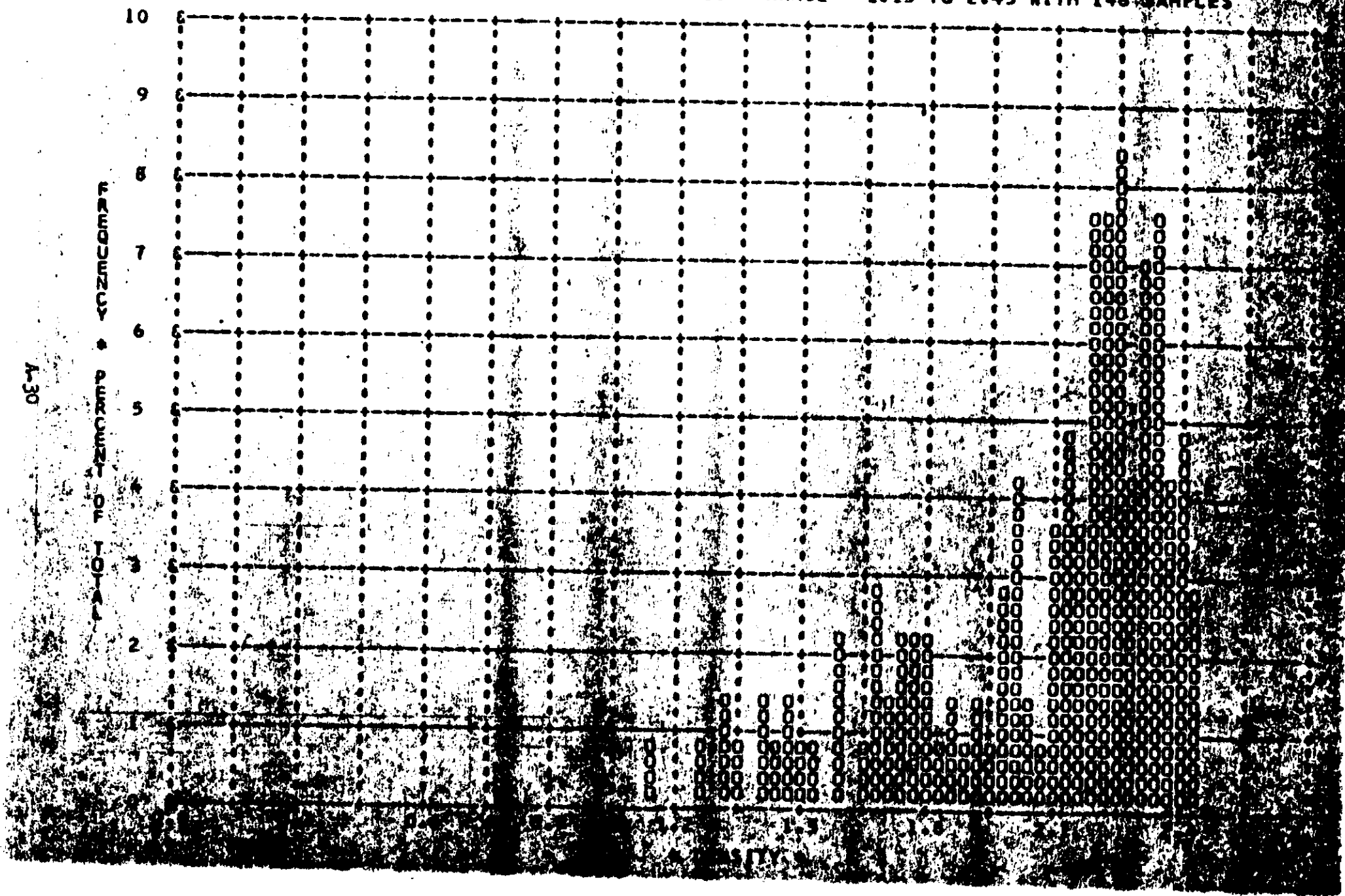
MISSION * 1038-1 * INSTR * AFT * 3/6/67 PLOT OF D MAX * TERRAIN * PROCESSING * FULL

AIRTH MEAN * 1.53 * MEDIAN * 1.51 * STD DEV * 0.37 * RANGE * 0.52 TO 2.31 WITH 212 SAMPLES



MISSION * 1038-1 * INSTR * AFT * 3/6/67 PLOT OF D MAX * CLOUD * PROCESSING * FULL

AIRTH MEAN * 2.07 * MEDIAN * 2.18 * STD DEV * 0.30 * RANGE * 1.13 TO 2.43 WITH 146 SAMPLES



TOP SECRET [redacted]

MISSION * 1038-1 * INSTR * AFT * 3/6/67 PLOT OF D MIN * TERRAIN * PROCESSING * ALL LEVELS
AIRTH MEAN * 0.53 * MEDIAN * 0.47 * STD DEV * 0.21 * RANGE * 0.25 TO 1.37 WITH 246 SAMPLES

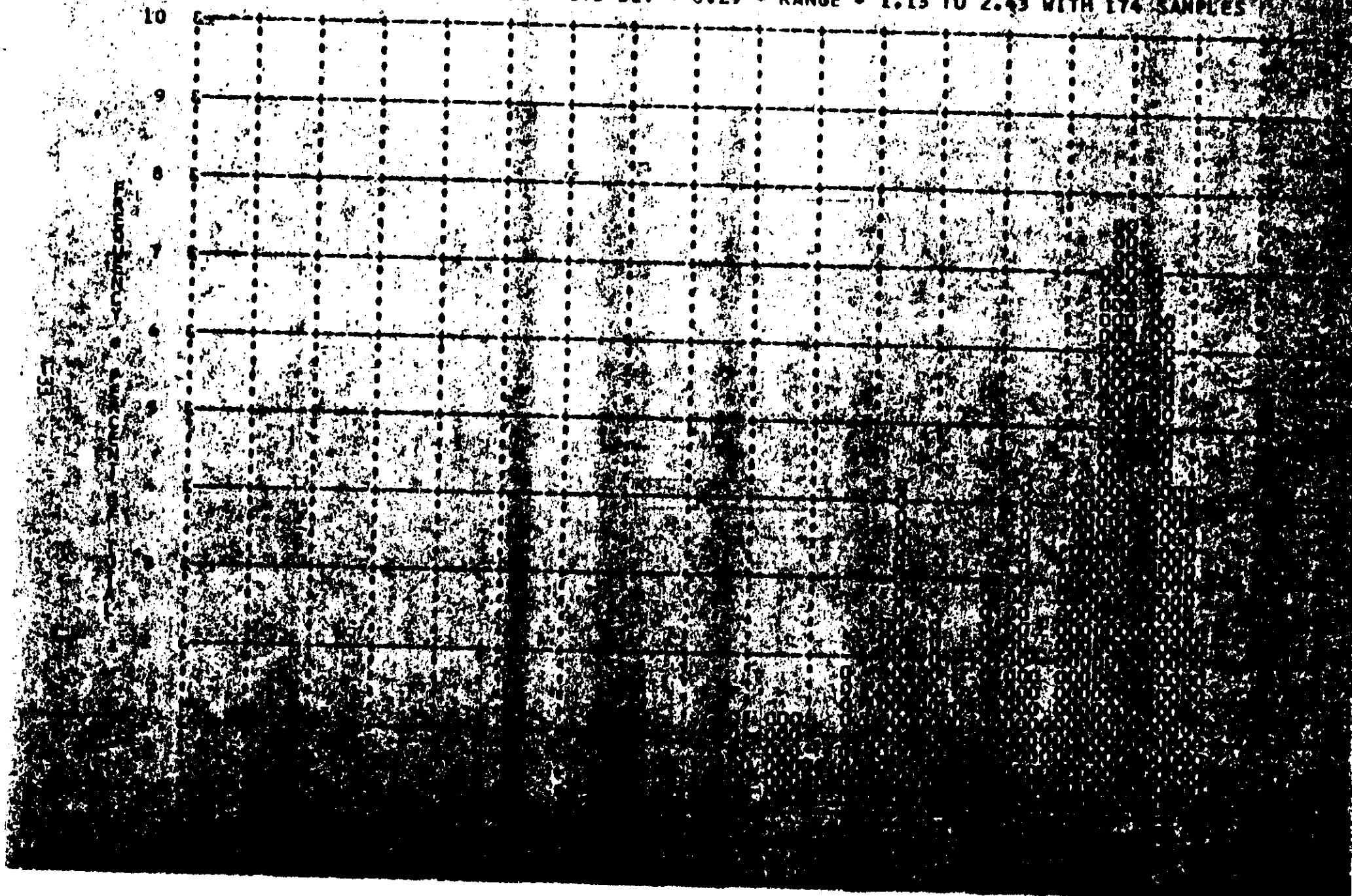
MISSION * 1038-1 * INSTR * AFT * 3/6/67 PLOT OF D MAX * TERRAIN * PROCESSING * ALL LEVELS

AIRTH MEAN * 1.53 * MEDIAN * 1.52 * STD DEV * 0.36 * RANGE * 0.52 TO 2.31 WITH 246 SAMPLES

~~TOP SECRET~~ [redacted]

MISSION * 1038-1 * INSTR * AFT * 3/6/67 PLOT OF D MAX * CLOUD * PROCESSING * ALL LEVEL

EARTH MEAN * 2.05 * MEDIAN * 2.16 * STD DEV * 0.29 * RANGE * 1.13 TO 2.43 WITH 174 SAMPLES



~~TOP SECRET~~ C/[redacted]

MISSION [redacted] INSTRUMENT [redacted]

DENSITY VALUE	PRIMARY MIN	PRIMARY MAX	PRIMARY LIN	INTERMEDIATE MIN	INTERMEDIATE MAX	INTERMEDIATE LIN	FULL MIN	FULL MAX	FULL LIN	ALC LEVEL MIN	ALC LEVEL MAX	ALC LEVEL LIN
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	0	0	0	0	0	0
0.33	0	0	0	0	0	0	0	0	0	0	0	0
0.34	0	0	0	0	0	0	0	0	0	0	0	0
0.35	0	0	0	0	0	0	0	0	0	0	0	0
0.36	0	0	0	0	0	0	0	0	0	0	0	0
0.37	0	0	0	0	0	0	0	0	0	0	0	0
0.38	0	0	0	0	0	0	0	0	0	0	0	0
0.39	0	0	0	0	0	0	0	0	0	0	0	0
0.40	0	0	0	0	0	0	0	0	0	0	0	0
0.41	0	0	0	0	0	0	0	0	0	0	0	0
0.42	0	0	0	0	0	0	0	0	0	0	0	0
0.43	0	0	0	0	0	0	0	0	0	0	0	0
0.44	0	0	0	0	0	0	0	0	0	0	0	0
0.45	0	0	0	0	0	0	0	0	0	0	0	0
0.46	0	0	0	0	0	0	0	0	0	0	0	0
0.47	0	0	0	0	0	0	0	0	0	0	0	0
0.48	0	0	0	0	0	0	0	0	0	0	0	0
0.49	0	0	0	0	0	0	0	0	0	0	0	0
0.50	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	0	0	0	8	0	0	128	0	0	136	0	0

~~TOP SECRET~~ C/[redacted]

TABLE A-3

TOP SECRET C[redacted]

MISSION #1030-2 INSTRUMENT [redacted]

DENSITY VALUE	PRIMARY MIN	PRIMARY MAX	PRIMARY LIN	INTERMEDIATE MIN	INTERMEDIATE MAX	INTERMEDIATE LIN	FILL MIN	FILL MAX	FILL LIN	ALL LEVELS MIN	ALL LEVELS MAX
0.51	0	0	0	1	0	0	1	0	0	1	0
0.52	0	0	0	0	0	0	0	0	0	0	0
0.53	0	0	0	0	0	0	0	0	0	0	0
0.54	0	0	0	0	0	0	0	0	0	0	0
0.55	0	0	0	0	0	0	0	0	0	0	0
0.56	0	0	0	0	0	0	0	0	0	0	0
0.57	0	0	0	0	0	0	0	0	0	0	0
0.58	0	0	0	0	0	0	0	0	0	0	0
0.59	0	0	0	0	0	0	0	0	0	0	0
0.60	0	0	0	0	0	0	0	0	0	0	0
0.61	0	0	0	0	0	0	0	0	0	0	0
0.62	0	0	0	0	0	0	0	0	0	0	0
0.63	0	0	0	0	0	0	0	0	0	0	0
0.64	0	0	0	0	0	0	0	0	0	0	0
0.65	0	0	0	0	0	0	0	0	0	0	0
0.66	0	0	0	0	0	0	0	0	0	0	0
0.67	0	0	0	0	0	0	0	0	0	0	0
0.68	0	0	0	0	0	0	0	0	0	0	0
0.69	0	0	0	0	0	0	0	0	0	0	0
0.70	0	0	0	0	0	0	0	0	0	0	0
0.71	0	0	0	0	0	0	0	0	0	0	0
0.72	0	0	0	0	0	0	0	0	0	0	0
0.73	0	0	0	0	0	0	0	0	0	0	0
0.74	0	0	0	0	0	0	0	0	0	0	0
0.75	0	0	0	0	0	0	0	0	0	0	0
0.76	0	0	0	0	0	0	0	0	0	0	0
0.77	0	0	0	0	0	0	0	0	0	0	0
0.78	0	0	0	0	0	0	0	0	0	0	0
0.79	0	0	0	0	0	0	0	0	0	0	0
0.80	0	0	0	0	0	0	0	0	0	0	0
0.81	0	0	0	0	0	0	0	0	0	0	0
0.82	0	0	0	0	0	0	0	0	0	0	0
0.83	0	0	0	0	0	0	0	0	0	0	0
0.84	0	0	0	0	0	0	0	0	0	0	0
0.85	0	0	0	0	0	0	0	0	0	0	0
0.86	0	0	0	0	0	0	0	0	0	0	0
0.87	0	0	0	0	0	0	0	0	0	0	0
0.88	0	0	0	0	0	0	0	0	0	0	0
0.89	0	0	0	0	0	0	0	0	0	0	0
0.90	0	0	0	0	0	0	0	0	0	0	0
0.91	0	0	0	0	0	0	0	0	0	0	0
0.92	0	0	0	0	0	0	0	0	0	0	0
0.93	0	0	0	0	0	0	0	0	0	0	0
0.94	0	0	0	0	0	0	0	0	0	0	0
0.95	0	0	0	0	0	0	0	0	0	0	0
0.96	0	0	0	0	0	0	0	0	0	0	0
0.97	0	0	0	0	0	0	0	0	0	0	0
0.98	0	0	0	0	0	0	0	0	0	0	0
0.99	0	0	0	0	0	0	0	0	0	0	0
1.00	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	0	0	0	25	2	0	95	12	1	120	14

TOP SECRET C[redacted]

TABLE A-3

MISSION • 1036 [redacted] 3/67 67

DENSITY VALUE	PRIMARY MIN	PRIMARY MAX	PRIMARY LIN	INTERMEDIATE MIN	INTERMEDIATE MAX	INTERMEDIATE LIN	[illegible] MIN	[illegible] MAX	[illegible] LIN	DENSITY [illegible] ALL LEVELS MIN	ALL LEVELS MAX	ALL LEVELS LIN
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	0	0	0	0	0
1.04	0	0	0	0	0	0	0	0	0	0	0	0
1.05	0	0	0	0	0	0	0	0	0	0	0	0
1.06	0	0	0	0	0	0	0	0	0	0	0	0
1.07	0	0	0	0	0	0	0	0	0	0	0	0
1.08	0	0	0	0	0	0	0	0	0	0	0	0
1.09	0	0	0	0	0	0	0	0	0	0	0	0
1.10	0	0	0	0	0	0	0	0	0	0	0	0
1.11	0	0	0	0	0	0	0	0	0	0	0	0
1.12	0	0	0	0	0	0	0	0	0	0	0	0
1.13	0	0	0	0	0	0	0	0	0	0	0	0
1.14	0	0	0	0	0	0	0	0	0	0	0	0
1.15	0	0	0	0	0	0	0	0	0	0	0	0
1.16	0	0	0	0	0	0	0	0	0	0	0	0
1.17	0	0	0	0	0	0	0	0	0	0	0	0
1.18	0	0	0	0	0	0	0	0	0	0	0	0
1.19	0	0	0	0	0	0	0	0	0	0	0	0
1.20	0	0	0	0	0	0	0	0	0	0	0	0
1.21	0	0	0	0	0	0	0	0	0	0	0	0
1.22	0	0	0	0	0	0	0	0	0	0	0	0
1.23	0	0	0	0	0	0	0	0	0	0	0	0
1.24	0	0	0	0	0	0	0	0	0	0	0	0
1.25	0	0	0	0	0	0	0	0	0	0	0	0
1.26	0	0	0	0	0	0	0	0	0	0	0	0
1.27	0	0	0	0	0	0	0	0	0	0	0	0
1.28	0	0	0	0	0	0	0	0	0	0	0	0
1.29	0	0	0	0	0	0	0	0	0	0	0	0
1.30	0	0	0	0	0	0	0	0	0	0	0	0
1.31	0	0	0	0	0	0	0	0	0	0	0	0
1.32	0	0	0	0	0	0	0	0	0	0	0	0
1.33	0	0	0	0	0	0	0	0	0	0	0	0
1.34	0	0	0	0	0	0	0	0	0	0	0	0
1.35	0	0	0	0	0	0	0	0	0	0	0	0
1.36	0	0	0	0	0	0	0	0	0	0	0	0
1.37	0	0	0	0	0	0	0	0	0	0	0	0
1.38	0	0	0	0	0	0	0	0	0	0	0	0
1.39	0	0	0	0	0	0	0	0	0	0	0	0
1.40	0	0	0	0	0	0	0	0	0	0	0	0
1.41	0	0	0	0	0	0	0	0	0	0	0	0
1.42	0	0	0	0	0	0	0	0	0	0	0	0
1.43	0	0	0	0	0	0	0	0	0	0	0	0
1.44	0	0	0	0	0	0	0	0	0	0	0	0
1.45	0	0	0	0	0	0	0	0	0	0	0	0
1.46	0	0	0	0	0	0	0	0	0	0	0	0
1.47	0	0	0	0	0	0	0	0	0	0	0	0
1.48	0	0	0	0	0	0	0	0	0	0	0	0
1.49	0	0	0	0	0	0	0	0	0	0	0	0
1.50	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	0	0	0	2	15	4	15	96	1	1	1	1

TABLE A-3

~~TOP SECRET~~ C[redacted]

MISSION 6-1036-2 [illegible] INSTRUMENT [illegible] 7/67 [illegible] DENSITY [illegible]

DENSITY VALUE	PRIMARY MIN	PRIMARY MAX	PRIMARY LTH	INTERMEDIATE MIN	INTERMEDIATE MAX	INTERMEDIATE LTH	FULL MIN	FULL MAX	FULL LTH	[illegible] MIN	[illegible] MAX	[illegible]
1.51	0	0	0	0	0	0	0	2	2	0	0	0
1.52	0	0	0	0	0	0	0	2	2	0	0	0
1.53	0	0	0	0	0	0	0	2	2	0	0	0
1.54	0	0	0	0	0	0	0	2	2	0	0	0
1.55	0	0	0	0	0	0	0	2	2	0	0	0
1.56	0	0	0	0	0	0	0	2	2	0	0	0
1.57	0	0	0	0	0	0	0	2	2	0	0	0
1.58	0	0	0	0	0	0	0	2	2	0	0	0
1.59	0	0	0	0	0	0	0	2	2	0	0	0
1.60	0	0	0	0	0	0	0	2	2	0	0	0
1.61	0	0	0	0	0	0	0	2	2	0	0	0
1.62	0	0	0	0	0	0	0	2	2	0	0	0
1.63	0	0	0	0	0	0	0	2	2	0	0	0
1.64	0	0	0	0	0	0	0	2	2	0	0	0
1.65	0	0	0	0	0	0	0	2	2	0	0	0
1.66	0	0	0	0	0	0	0	2	2	0	0	0
1.67	0	0	0	0	0	0	0	2	2	0	0	0
1.68	0	0	0	0	0	0	0	2	2	0	0	0
1.69	0	0	0	0	0	0	0	2	2	0	0	0
1.70	0	0	0	0	0	0	0	2	2	0	0	0
1.71	0	0	0	0	0	0	0	2	2	0	0	0
1.72	0	0	0	0	0	0	0	2	2	0	0	0
1.73	0	0	0	0	0	0	0	2	2	0	0	0
1.74	0	0	0	0	0	0	0	2	2	0	0	0
1.75	0	0	0	0	0	0	0	2	2	0	0	0
1.76	0	0	0	0	0	0	0	2	2	0	0	0
1.77	0	0	0	0	0	0	0	2	2	0	0	0
1.78	0	0	0	0	0	0	0	2	2	0	0	0
1.79	0	0	0	0	0	0	0	2	2	0	0	0
1.80	0	0	0	0	0	0	0	2	2	0	0	0
1.81	0	0	0	0	0	0	0	2	2	0	0	0
1.82	0	0	0	0	0	0	0	2	2	0	0	0
1.83	0	0	0	0	0	0	0	2	2	0	0	0
1.84	0	0	0	0	0	0	0	2	2	0	0	0
1.85	0	0	0	0	0	0	0	2	2	0	0	0
1.86	0	0	0	0	0	0	0	2	2	0	0	0
1.87	0	0	0	0	0	0	0	2	2	0	0	0
1.88	0	0	0	0	0	0	0	2	2	0	0	0
1.89	0	0	0	0	0	0	0	2	2	0	0	0
1.90	0	0	0	0	0	0	0	2	2	0	0	0
1.91	0	0	0	0	0	0	0	2	2	0	0	0
1.92	0	0	0	0	0	0	0	2	2	0	0	0
1.93	0	0	0	0	0	0	0	2	2	0	0	0
1.94	0	0	0	0	0	0	0	2	2	0	0	0
1.95	0	0	0	0	0	0	0	2	2	0	0	0
1.96	0	0	0	0	0	0	0	2	2	0	0	0
1.97	0	0	0	0	0	0	0	2	2	0	0	0
1.98	0	0	0	0	0	0	0	2	2	0	0	0
1.99	0	0	0	0	0	0	0	2	2	0	0	0
2.00	0	0	0	0	0	0	0	2	2	0	0	0
SUBTOTAL	0	0	0	0	18	11	0	90	35	0	108	[illegible]

~~TOP SECRET~~ C[redacted]

TABLE A-3

TOP SECRET C[redacted]

MISSION # 1036-2 PM INSTRUMENT [illegible] DENSITY FREQ [illegible]

DENSITY VALUE	PRIMARY MIN	PRIMARY MAX	PRIMARY LTM	INTERMED(ATE MIN	INTERMED(ATE MAX	INTERMED(ATE LTM	FINE MIN	FINE MAX	FINE LTM	ALL LEVELS MIN	ALL LEVELS MAX	ALL LEVELS LTM
2.01	0	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0
2.04	0	0	0	0	0	0	0	0	0	0	0	0
2.05	0	0	0	0	0	0	0	0	0	0	0	0
2.06	0	0	0	0	0	0	0	0	0	0	0	0
2.07	0	0	0	0	0	0	0	0	0	0	0	0
2.08	0	0	0	0	0	0	0	0	0	0	0	0
2.09	0	0	0	0	0	0	0	0	0	0	0	0
2.10	0	0	0	0	0	0	0	0	0	0	0	0
2.11	0	0	0	0	0	0	0	0	0	0	0	0
2.12	0	0	0	0	0	0	0	0	0	0	0	0
2.13	0	0	0	0	0	0	0	0	0	0	0	0
2.14	0	0	0	0	0	0	0	0	0	0	0	0
2.15	0	0	0	0	0	0	0	0	0	0	0	0
2.16	0	0	0	0	0	0	0	0	0	0	0	0
2.17	0	0	0	0	0	0	0	0	0	0	0	0
2.18	0	0	0	0	0	0	0	0	0	0	0	0
2.19	0	0	0	0	0	0	0	0	0	0	0	0
2.20	0	0	0	0	0	0	0	0	0	0	0	0
2.21	0	0	0	0	0	0	0	0	0	0	0	0
2.22	0	0	0	0	0	0	0	0	0	0	0	0
2.23	0	0	0	0	0	0	0	0	0	0	0	0
2.24	0	0	0	0	0	0	0	0	0	0	0	0
2.25	0	0	0	0	0	0	0	0	0	0	0	0
2.26	0	0	0	0	0	0	0	0	0	0	0	0
2.27	0	0	0	0	0	0	0	0	0	0	0	0
2.28	0	0	0	0	0	0	0	0	0	0	0	0
2.29	0	0	0	0	0	0	0	0	0	0	0	0
2.30	0	0	0	0	0	0	0	0	0	0	0	0
2.31	0	0	0	0	0	0	0	0	0	0	0	0
2.32	0	0	0	0	0	0	0	0	0	0	0	0
2.33	0	0	0	0	0	0	0	0	0	0	0	0
2.34	0	0	0	0	0	0	0	0	0	0	0	0
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	0	10	0	40	9	0	40	9

TOP SECRET C[redacted]

TABLE A-3

MISSION # 1030-2

DENSITY VALUE	PRIMARY MIN	PRIMARY MAX	PRIMARY LIN	INTERMEDIATE MIN	INTERMEDIATE MAX	INTERMEDIATE LIN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2.51	0	0	0	0	0	0						
2.52	0	0	0	0	0	0						
2.53	0	0	0	0	0	0						
2.54	0	0	0	0	0	0						
2.55	0	0	0	0	0	0						
2.56	0	0	0	0	0	0						
2.57	0	0	0	0	0	0						
2.58	0	0	0	0	0	0						
2.59	0	0	0	0	0	0						
2.60	0	0	0	0	0	0						
2.61	0	0	0	0	0	0						
2.62	0	0	0	0	0	0						
2.63	0	0	0	0	0	0						
2.64	0	0	0	0	0	0						
2.65	0	0	0	0	0	0						
2.66	0	0	0	0	0	0						
2.67	0	0	0	0	0	0						
2.68	0	0	0	0	0	0						
2.69	0	0	0	0	0	0						
2.70	0	0	0	0	0	0						
SUBTOTAL	0	0	0	0	0	0	0	0	0			
TOTAL	0	0	0	35	35	25	214	238	150	273	273	1

[redacted]

[redacted]

~~TOP SECRET~~ C[redacted]

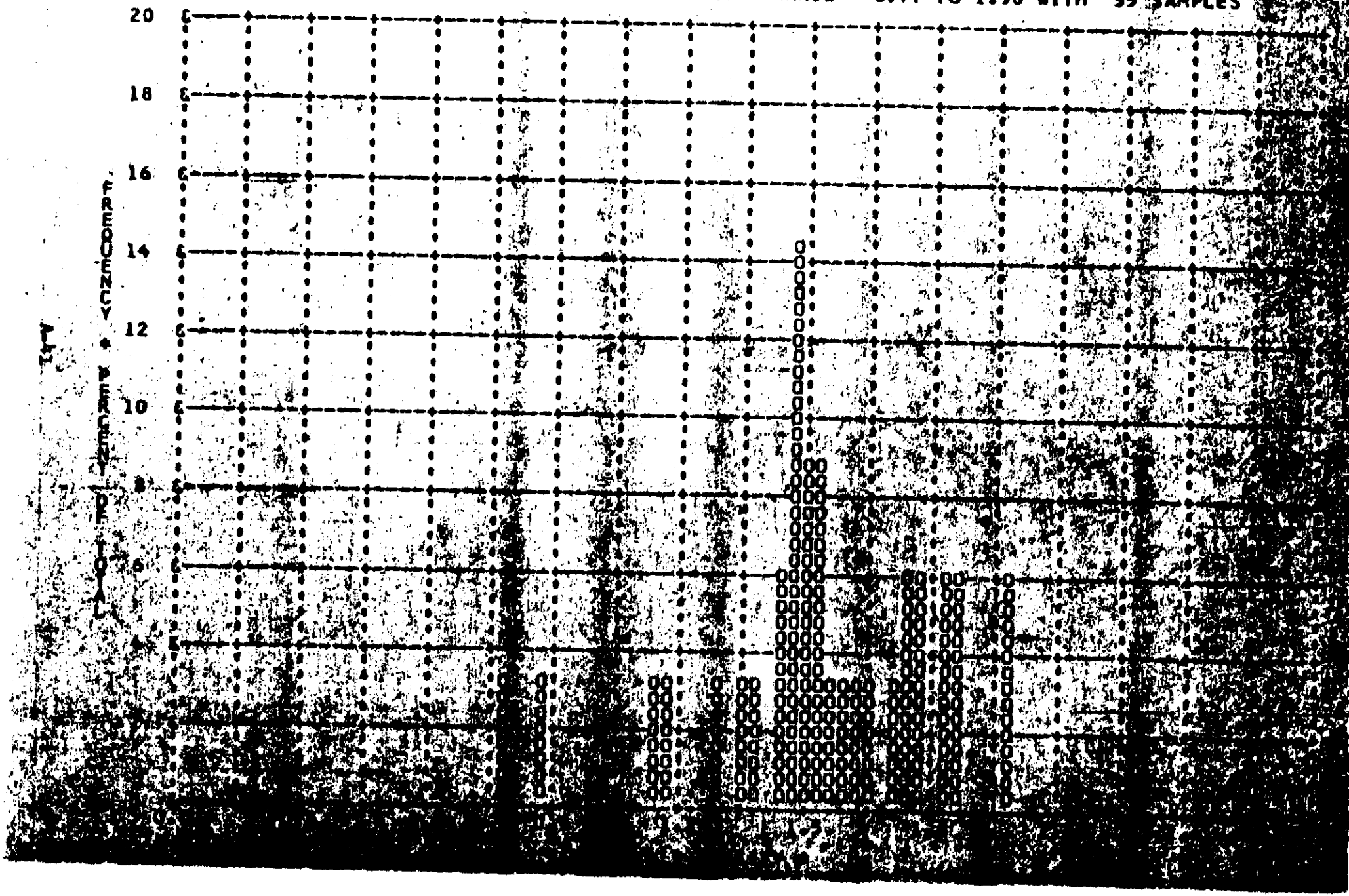
MISSION * 1038-2 * INSTR * FWD * 3/6/67 PLOT OF D MIN * TERRAIN * PROCESSING * INTERMEDIATE

AIRTH MEAN * 0.69 * MEDIAN * 0.71 * STD DEV * 0.23 * RANGE * 0.21 TO 1.22 WITH 35 SAMPLES

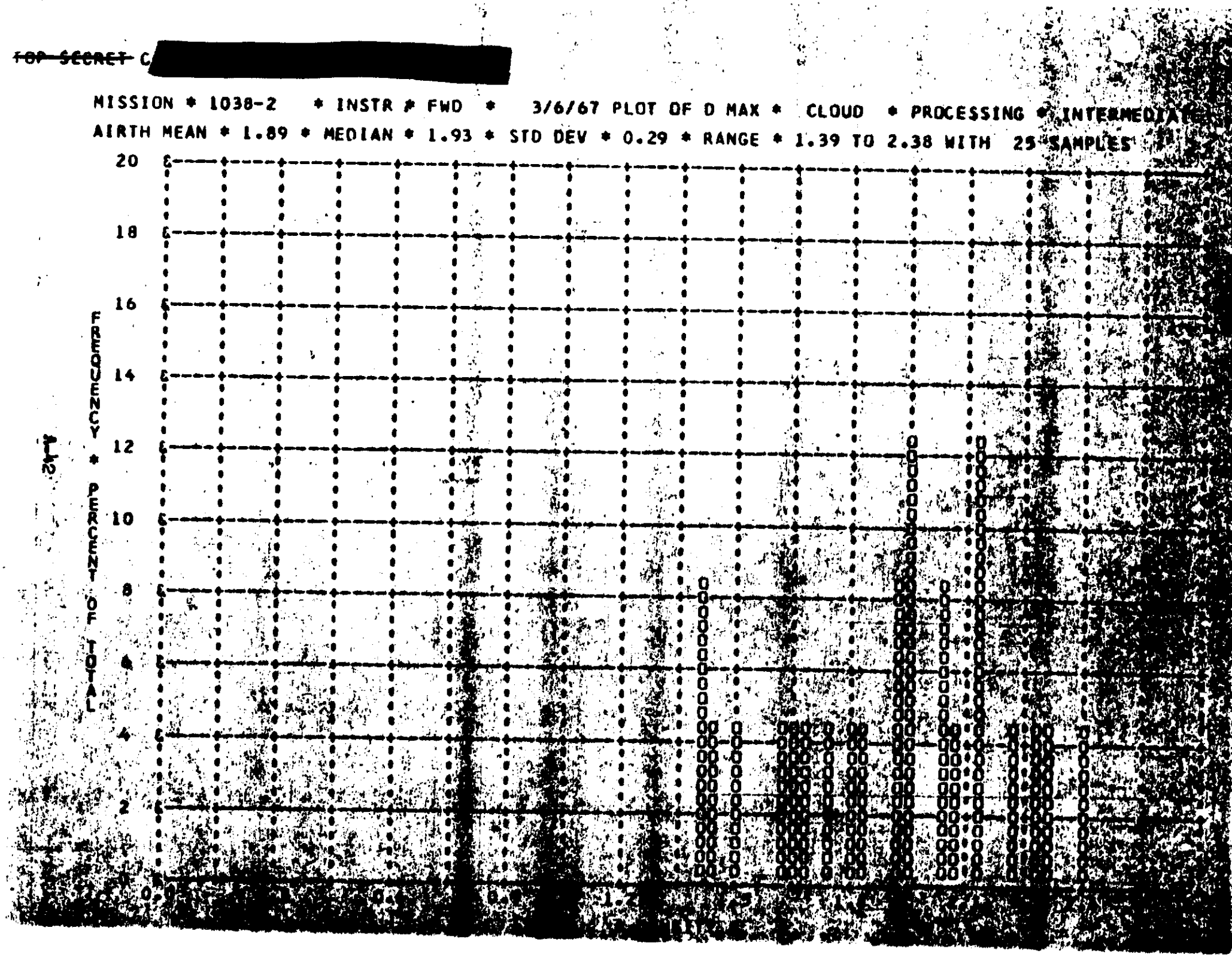
~~TOP SECRET~~ C [redacted]

MISSION * 1038-2 * INSTR * FWD * 3/6/67 PLOT OF D MAX * TERRAIN * PROCESSING * INTERMEDIATE

AIRTH MEAN * 1.53 * MEDIAN * 1.53 * STD DEV * 0.27 * RANGE * 0.77 TO 1.98 WITH 35 SAMPLES



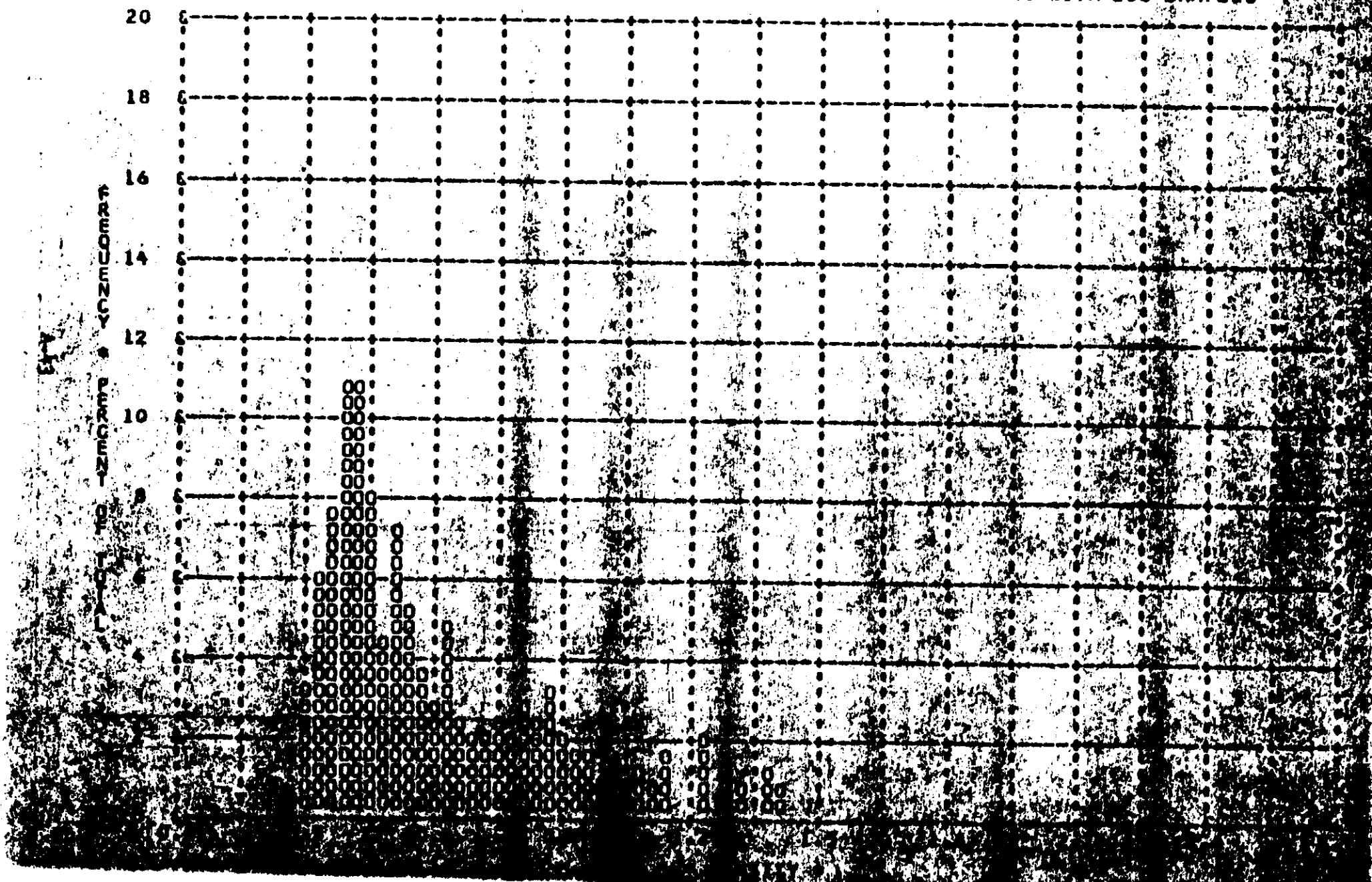
~~TOP SECRET~~ C[redacted]



~~TOP SECRET~~ C [redacted]

MISSION * 1038-2 * INSTR * FWD * 3/6/67 PLOT OF D MIN * TERRAIN * PROCESSING * FULL

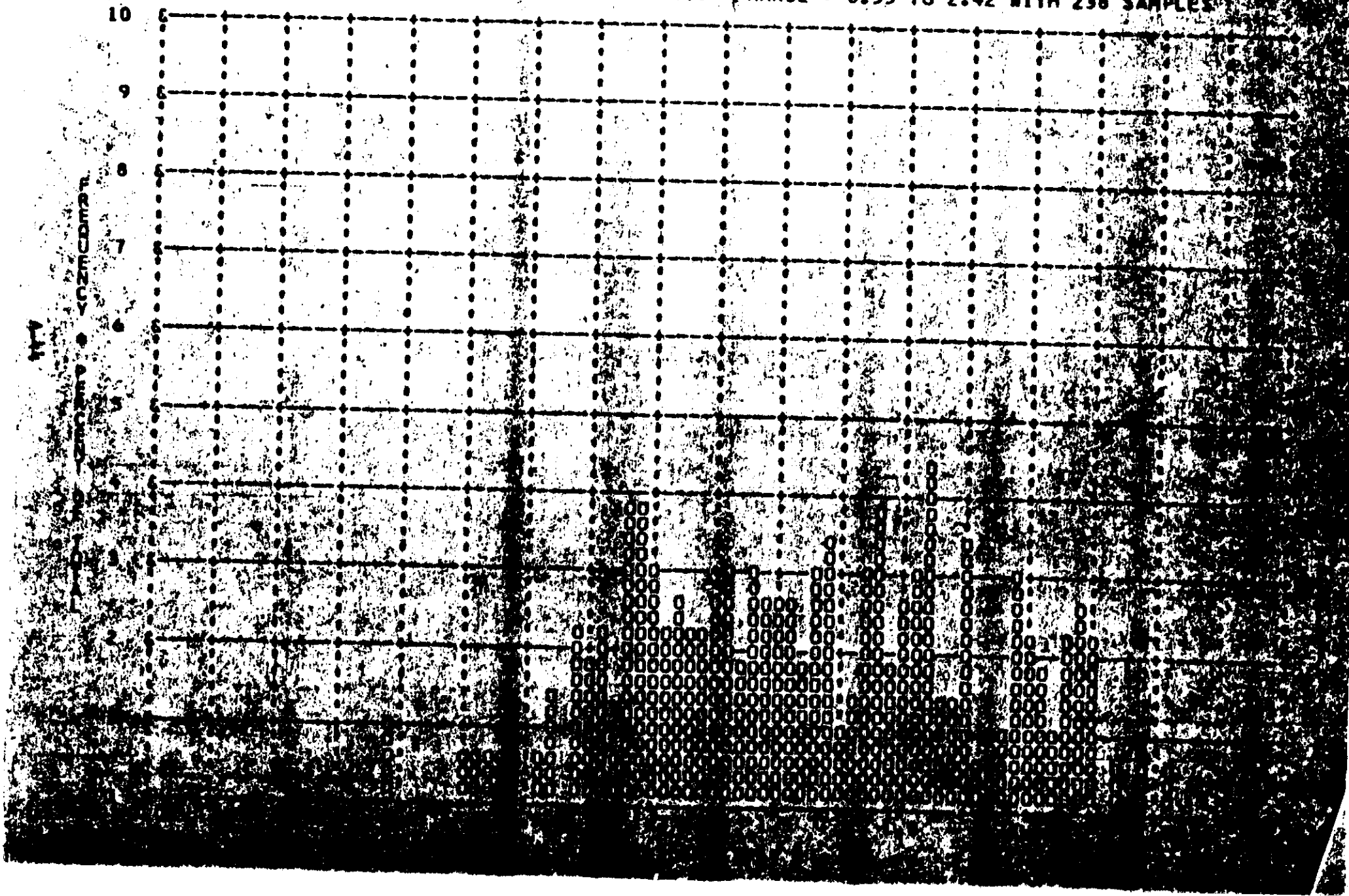
AIRTH MEAN * 0.56 * MEDIAN * 0.49 * STD DEV * 0.24 * RANGE * 0.28 TO 1.40 WITH 238 SAMPLES



SECRET C [redacted]

MISSION * 1038-2 * INSTR * FWD * 3/6/67 PLOT OF D MAX * TERRAIN * PROCESSING * FULL

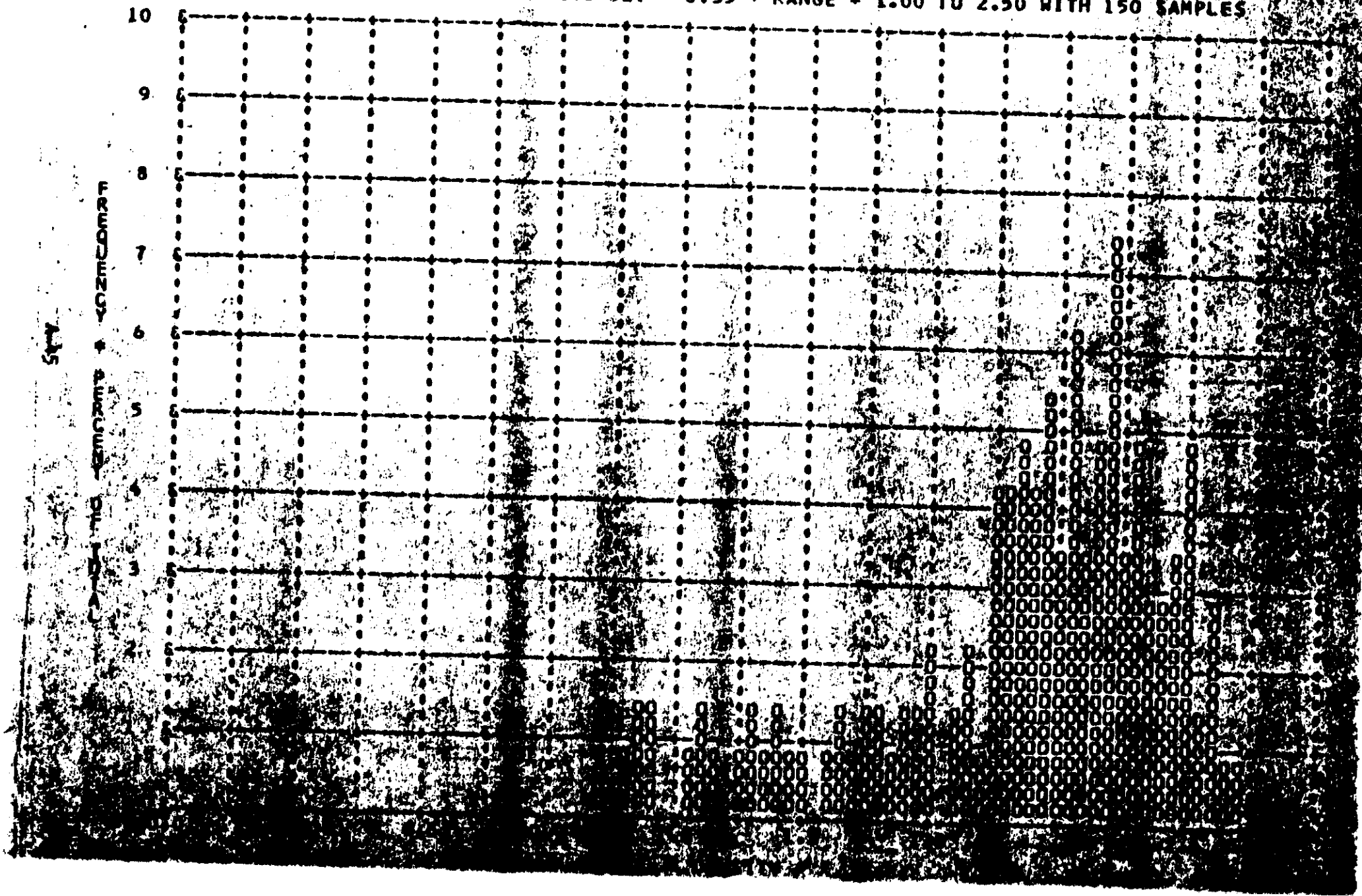
AIRTH MEAN * 1.57 * MEDIAN * 1.57 * STD DEV * 0.39 * RANGE * 0.55 TO 2.42 WITH 238 SAMPLES



~~TOP SECRET~~ C/[redacted]

MISSION * 1038-2 * INSTR * FWD * 3/6/67 PLOT OF D MAX * CLOUD * PROCESSING * FULL

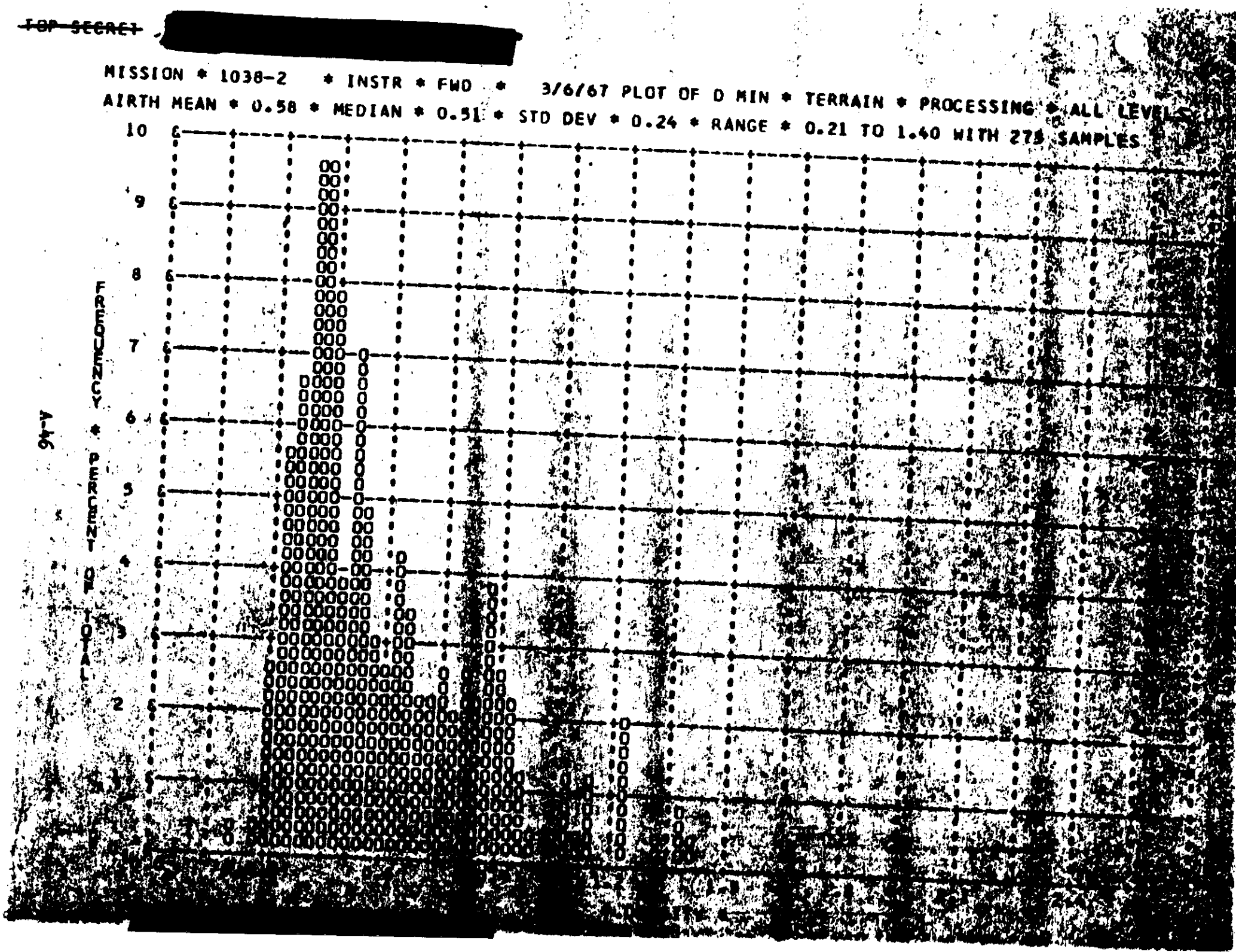
AIRTH MEAN * 2.01 * MEDIAN * 2.09 * STD DEV * 0.35 * RANGE * 1.00 TO 2.50 WITH 150 SAMPLES



~~TOP SECRET~~ [redacted]

MISSION * 1038-2 * INSTR * FWD * 3/6/67 PLOT OF D MIN * TERRAIN * PROCESSING * ALL LEVELS

AIRTH MEAN * 0.58 * MEDIAN * 0.51 * STD DEV * 0.24 * RANGE * 0.21 TO 1.40 WITH 275 SAMPLES

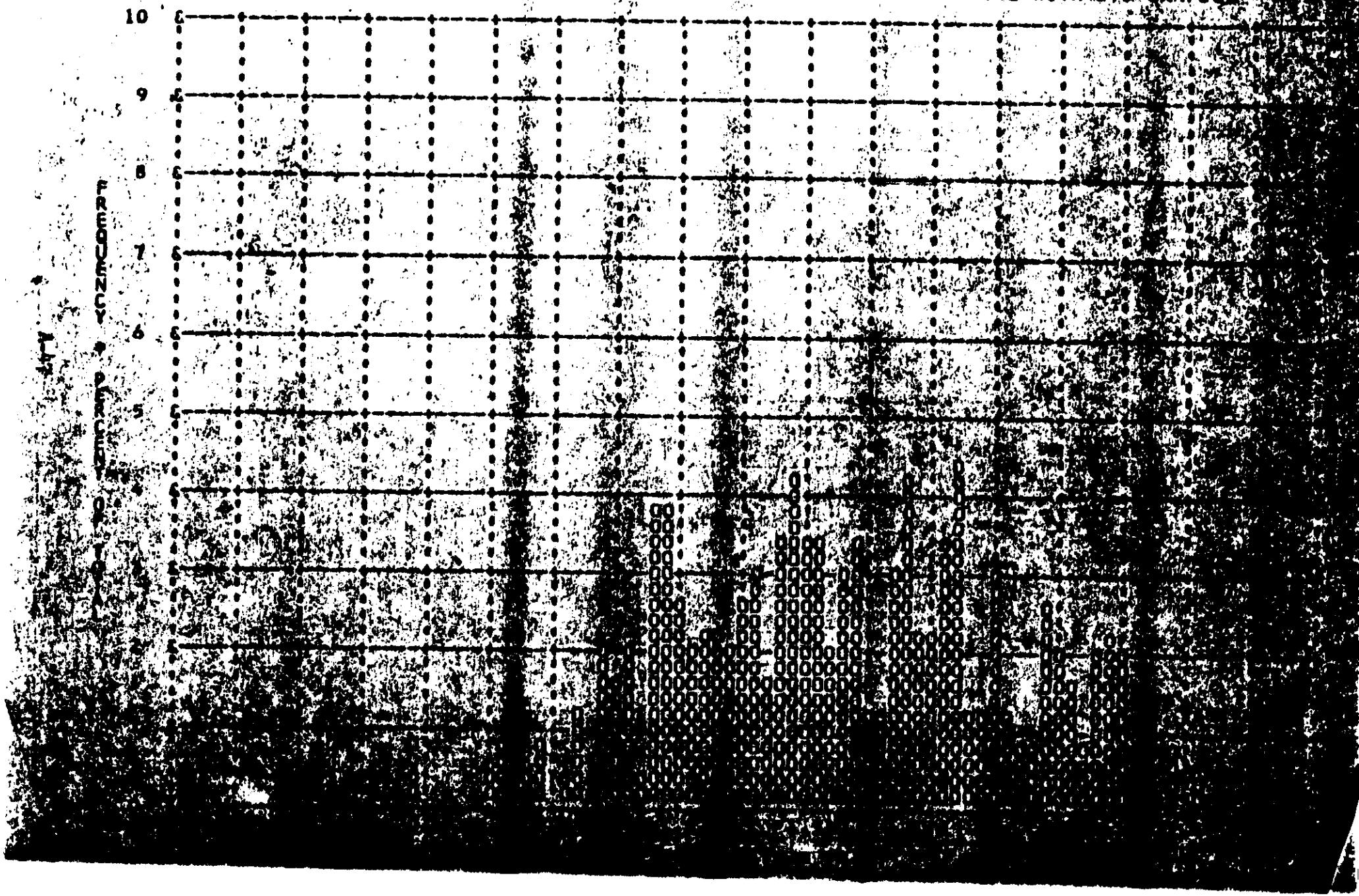


94-A

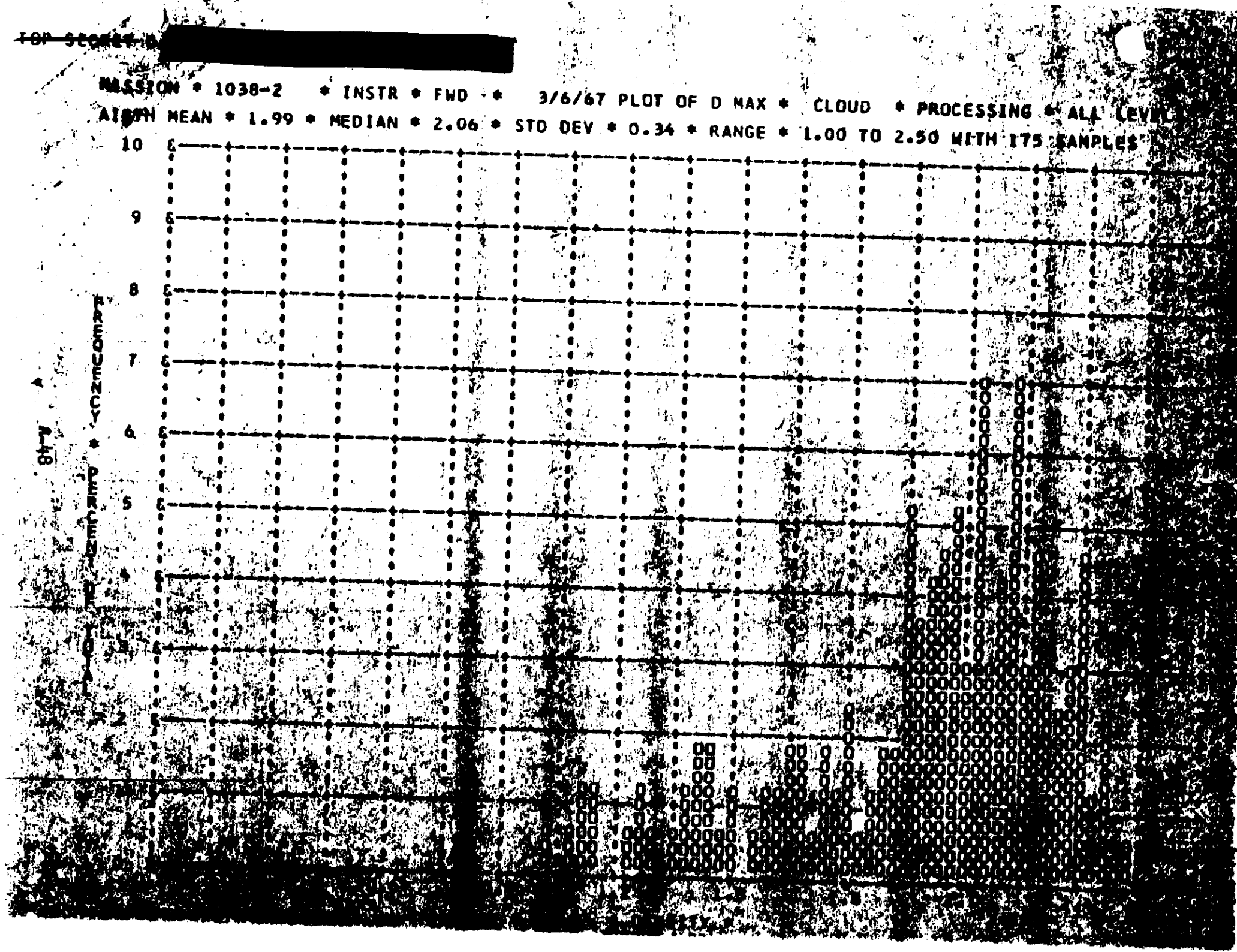
~~TOP SECRET~~ [redacted]

MISSION * 1038-2 * INSTR * FWD * 3/6/67 PLOT OF D MAX * TERRAIN * PROCESSING * ALL LEVEL

AIRTH MEAN * 1.57 * MEDIAN * 1.54 * STD DEV. * 0.38 * RANGE * 0.55 TO 2.42 WITH 273 SAMPLES



TOP SECRET [redacted]



[redacted]

DENSITY VALUE											
0.01											
0.02											
0.03											
0.04											
0.05											
0.06											
0.07											
0.08											
0.09											
0.10											
0.11											
0.12											
0.13											
0.14											
0.15											
0.16											
0.17											
0.18											
0.19											
0.20											
0.21											
0.22											
0.23											
0.24											
0.25											
0.26											
0.27											
0.28											
0.29											
0.30											
0.31											
0.32											
0.33											
0.34											
0.35											
0.36											
0.37											
0.38											
0.39											
0.40											
0.41											
0.42											
0.43											
0.44											
0.45											
0.46											
0.47											
0.48											
0.49											
0.50											
SUBTOTAL	0	0	0	47	0	0	94	1	1	141	

~~TOP SECRET~~ C[redacted]

TABLE A-4

[redacted]

DENSITY VALUE	PRIMARY MIN	PRIMARY MAX	PRIMARY CUM	INTERMEDIATE MIN	INTERMEDIATE MAX	INTERMEDIATE CUM	[illegible]	[illegible]	[illegible]	MINOR MIN	MINOR MAX	MINOR CUM
0.51	0	0	0	0	0	0						
0.52	0	0	0	0	0	0						
0.53	0	0	0	0	0	0						
0.54	0	0	0	0	0	0						
0.55	0	0	0	0	0	0						
0.56	0	0	0	0	0	0						
0.57	0	0	0	0	0	0						
0.58	0	0	0	0	0	0						
0.59	0	0	0	0	0	0						
0.60	0	0	0	0	0	0						
0.61	0	0	0	0	0	0						
0.62	0	0	0	0	0	0						
0.63	0	0	0	0	0	0						
0.64	0	0	0	0	0	0						
0.65	0	0	0	0	0	0						
0.66	0	0	0	0	0	0						
0.67	0	0	0	0	0	0						
0.68	0	0	0	0	0	0						
0.69	0	0	0	0	0	0						
0.70	0	0	0	0	0	0						
0.71	0	0	0	0	0	0						
0.72	0	0	0	0	0	0						
0.73	0	0	0	0	0	0						
0.74	0	0	0	0	0	0						
0.75	0	0	0	0	0	0						
0.76	0	0	0	0	0	0						
0.77	0	0	0	0	0	0						
0.78	0	0	0	0	0	0						
0.79	0	0	0	0	0	0						
0.80	0	0	0	0	0	0						
0.81	0	0	0	0	0	0						
0.82	0	0	0	0	0	0						
0.83	0	0	0	0	0	0						
0.84	0	0	0	0	0	0						
0.85	0	0	0	0	0	0						
0.86	0	0	0	0	0	0						
0.87	0	0	0	0	0	0						
0.88	0	0	0	0	0	0						
0.89	0	0	0	0	0	0						
0.90	0	0	0	0	0	0						
0.91	0	0	0	0	0	0						
0.92	0	0	0	0	0	0						
0.93	0	0	0	0	0	0						
0.94	0	0	0	0	0	0						
0.95	0	0	0	0	0	0						
0.96	0	0	0	0	0	0						
0.97	0	0	0	0	0	0						
0.98	0	0	0	0	0	0						
0.99	0	0	0	0	0	0						
1.00	0	0	0	0	0	0						
SUBTOTAL	0	0	0	18	7	0	74	8	1	92	15	

TOP SECRET C/[redacted]

TABLE A-4

[redacted]

DENSITY VALUE	PRIMARY MIN	PRIMARY MAX	PRIMARY LTH	INTERMEDIATE MIN	INTERMEDIATE MAX	INTERMEDIATE LTH	MINOR MIN	MINOR MAX	MINOR LTH	TRACE MIN	TRACE MAX	TRACE LTH
1.01	0	0	0	1	0	0	1	2	2	1	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	0	0	0	0	0
1.04	0	0	0	0	0	0	0	0	0	0	0	0
1.05	0	0	0	0	0	0	0	0	0	0	0	0
1.06	0	0	0	0	0	0	0	0	0	0	0	0
1.07	0	0	0	0	0	0	0	0	0	0	0	0
1.08	0	0	0	0	0	0	0	0	0	0	0	0
1.09	0	0	0	0	0	0	0	0	0	0	0	0
1.10	0	0	0	0	0	0	0	0	0	0	0	0
1.11	0	0	0	0	0	0	0	0	0	0	0	0
1.12	0	0	0	0	0	0	0	0	0	0	0	0
1.13	0	0	0	0	0	0	0	0	0	0	0	0
1.14	0	0	0	0	0	0	0	0	0	0	0	0
1.15	0	0	0	0	0	0	0	0	0	0	0	0
1.16	0	0	0	0	0	0	0	0	0	0	0	0
1.17	0	0	0	0	0	0	0	0	0	0	0	0
1.18	0	0	0	0	0	0	0	0	0	0	0	0
1.19	0	0	0	0	0	0	0	0	0	0	0	0
1.20	0	0	0	0	0	0	0	0	0	0	0	0
1.21	0	0	0	0	0	0	0	0	0	0	0	0
1.22	0	0	0	0	0	0	0	0	0	0	0	0
1.23	0	0	0	0	0	0	0	0	0	0	0	0
1.24	0	0	0	0	0	0	0	0	0	0	0	0
1.25	0	0	0	0	0	0	0	0	0	0	0	0
1.26	0	0	0	0	0	0	0	0	0	0	0	0
1.27	0	0	0	0	0	0	0	0	0	0	0	0
1.28	0	0	0	0	0	0	0	0	0	0	0	0
1.29	0	0	0	0	0	0	0	0	0	0	0	0
1.30	0	0	0	0	0	0	0	0	0	0	0	0
1.31	0	0	0	0	0	0	0	0	0	0	0	0
1.32	0	0	0	0	0	0	0	0	0	0	0	0
1.33	0	0	0	0	0	0	0	0	0	0	0	0
1.34	0	0	0	0	0	0	0	0	0	0	0	0
1.35	0	0	0	0	0	0	0	0	0	0	0	0
1.36	0	0	0	0	0	0	0	0	0	0	0	0
1.37	0	0	0	0	0	0	0	0	0	0	0	0
1.38	0	0	0	0	0	0	0	0	0	0	0	0
1.39	0	0	0	0	0	0	0	0	0	0	0	0
1.40	0	0	0	0	0	0	0	0	0	0	0	0
1.41	0	0	0	0	0	0	0	0	0	0	0	0
1.42	0	0	0	0	0	0	0	0	0	0	0	0
1.43	0	0	0	0	0	0	0	0	0	0	0	0
1.44	0	0	0	0	0	0	0	0	0	0	0	0
1.45	0	0	0	0	0	0	0	0	0	0	0	0
1.46	0	0	0	0	0	0	0	0	0	0	0	0
1.47	0	0	0	0	0	0	0	0	0	0	0	0
1.48	0	0	0	0	0	0	0	0	0	0	0	0
1.49	0	0	0	0	0	0	0	0	0	0	0	0
1.50	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	0	0	0	2	20	11	28	79	11	30	99	11

~~TOP SECRET~~ C[redacted]

TABLE A-4

[redacted]

DENSITY VALUE												
.51	0	0	0									
.52												
.53												
.54												
.55												
.56												
.57												
.58												
.59												
.60												
.61												
.62												
.63												
.64												
.65												
.66												
.67												
.68												
.69												
.70												
.71												
.72												
.73												
.74												
.75												
.76												
.77												
.78												
.79												
.80												
.81												
.82												
.83												
.84												
.85												
.86												
.87												
.88												
.89												
.90												
.91												
.92												
.93												
.94												
.95												
.96												
.97												
.98												
.99												
2.00												
SUBTOTAL	0	0	0	2	31	17	2	00	37	1	12	

~~TOP SECRET~~ C[redacted]

[redacted]

~~TOP SECRET~~ C[redacted]

MISSION 1038-2 INSTRUMENT C/A [redacted] DENSITY

DENSITY VALUE	PRIMARY MIN	PRIMARY MAX	PRIMARY LTH	INTERMEDIATE MIN	INTERMEDIATE MAX	INTERMEDIATE LTH	MIN	MAX	LTH	ALT MIN	ALT MAX	ALT
2.01	0	0	0	0	0	0	0	3	4	0	3	4
2.02	0	0	0	0	0	0	0	0	0	0	0	0
2.03	0	0	0	0	0	0	0	0	0	0	0	0
2.04	0	0	0	0	0	0	0	0	0	0	0	0
2.05	0	0	0	0	0	0	0	0	0	0	0	0
2.06	0	0	0	0	0	0	0	0	0	0	0	0
2.07	0	0	0	0	0	0	0	0	0	0	0	0
2.08	0	0	0	0	0	0	0	0	0	0	0	0
2.09	0	0	0	0	0	0	0	0	0	0	0	0
2.10	0	0	0	0	0	0	0	0	0	0	0	0
2.11	0	0	0	0	0	0	0	0	0	0	0	0
2.12	0	0	0	0	0	0	0	0	0	0	0	0
2.13	0	0	0	0	0	0	0	0	0	0	0	0
2.14	0	0	0	0	0	0	0	0	0	0	0	0
2.15	0	0	0	0	0	0	0	0	0	0	0	0
2.16	0	0	0	0	0	0	0	0	0	0	0	0
2.17	0	0	0	0	0	0	0	0	0	0	0	0
2.18	0	0	0	0	0	0	0	0	0	0	0	0
2.19	0	0	0	0	0	0	0	0	0	0	0	0
2.20	0	0	0	0	0	0	0	0	0	0	0	0
2.21	0	0	0	0	0	0	0	0	0	0	0	0
2.22	0	0	0	0	0	0	0	0	0	0	0	0
2.23	0	0	0	0	0	0	0	0	0	0	0	0
2.24	0	0	0	0	0	0	0	0	0	0	0	0
2.25	0	0	0	0	0	0	0	0	0	0	0	0
2.26	0	0	0	0	0	0	0	0	0	0	0	0
2.27	0	0	0	0	0	0	0	0	0	0	0	0
2.28	0	0	0	0	0	0	0	0	0	0	0	0
2.29	0	0	0	0	0	0	0	0	0	0	0	0
2.30	0	0	0	0	0	0	0	0	0	0	0	0
2.31	0	0	0	0	0	0	0	0	0	0	0	0
2.32	0	0	0	0	0	0	0	0	0	0	0	0
2.33	0	0	0	0	0	0	0	0	0	0	0	0
2.34	0	0	0	0	0	0	0	0	0	0	0	0
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	11	15	0	20	67	0	31	82

~~TOP SECRET~~ C/[redacted]

TABLE A-4

~~TOP SECRET~~ C [redacted]

[redacted] MISSION [redacted] (U) INSTRUMENT [redacted] (U) DENSITY [redacted]

DENSITY VALUE	PRIMARY MIN	PRIMARY MAX	PRIMARY LIN	INTERMEDIATE MIN	INTERMEDIATE MAX	INTERMEDIATE LIN	FIL MIN	FIL MAX	FIL LIN	ALL LC MIN	ALL LC MAX
2.51	0	0	0	0	0	0	0	0	0	0	0
2.52	0	0	0	0	0	0	0	0	0	0	0
2.53	0	0	0	0	0	0	0	0	0	0	0
2.54	0	0	0	0	0	0	0	0	0	0	0
2.55	0	0	0	0	0	0	0	0	0	0	0
2.56	0	0	0	0	0	0	0	0	0	0	0
2.57	0	0	0	0	0	0	0	0	0	0	0
2.58	0	0	0	0	0	0	0	0	0	0	0
2.59	0	0	0	0	0	0	0	0	0	0	0
2.60	0	0	0	0	0	0	0	0	0	0	0
2.61	0	0	0	0	0	0	0	0	0	0	0
2.62	0	0	0	0	0	0	0	0	0	0	0
2.63	0	0	0	0	0	0	0	0	0	0	0
2.64	0	0	0	0	0	0	0	0	0	0	0
2.65	0	0	0	0	0	0	0	0	0	0	0
2.66	0	0	0	0	0	0	0	0	0	0	0
2.67	0	0	0	0	0	0	0	0	0	0	0
2.68	0	0	0	0	0	0	0	0	0	0	0
2.69	0	0	0	0	0	0	0	0	0	0	0
2.70	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	69	69	43	[redacted]				

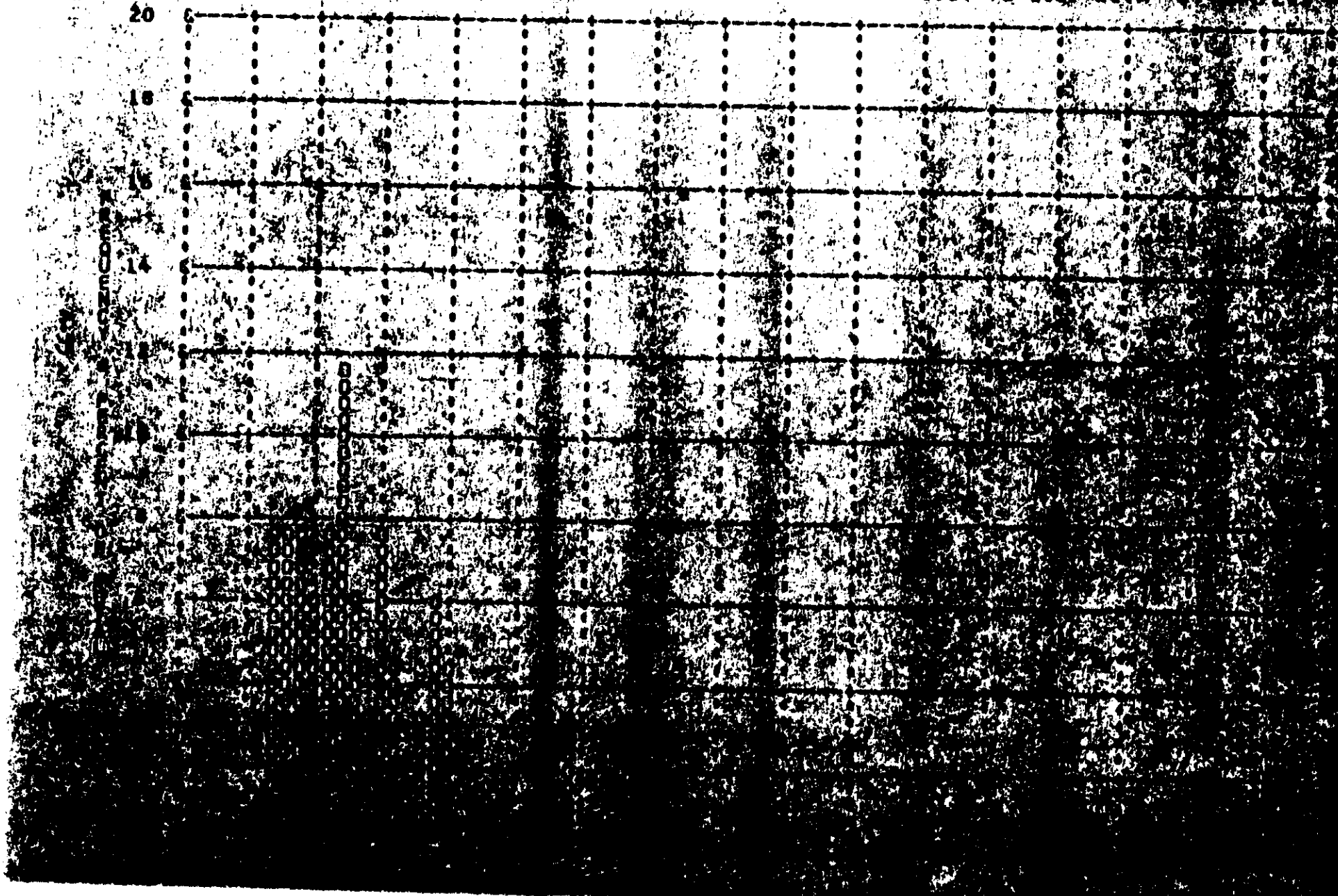
~~TOP SECRET~~ C [redacted]

TABLE A-4

~~SECRET~~ C [redacted]

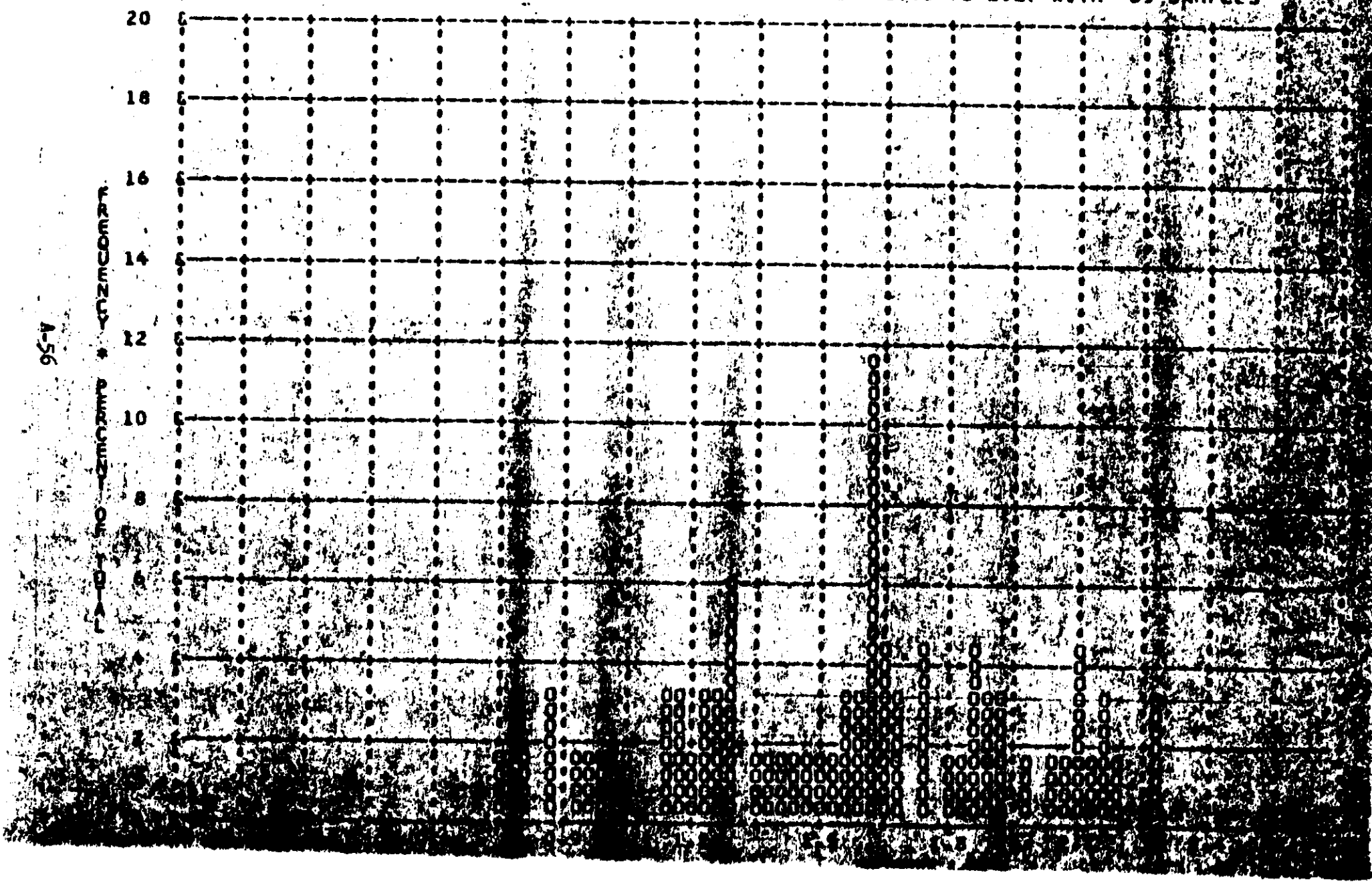
MISSION * 1038-2 * INSTR * AFT * 3/6/67 PLOT OF D MIN * TERRAIN * PROCESSING * INTERMED

AIRTH MEAN * 0.48 * MEDIAN * 0.38 * STD DEV * 0.30 * RANGE * 0.19 TO 1.67 WITH [redacted] SAMPLES



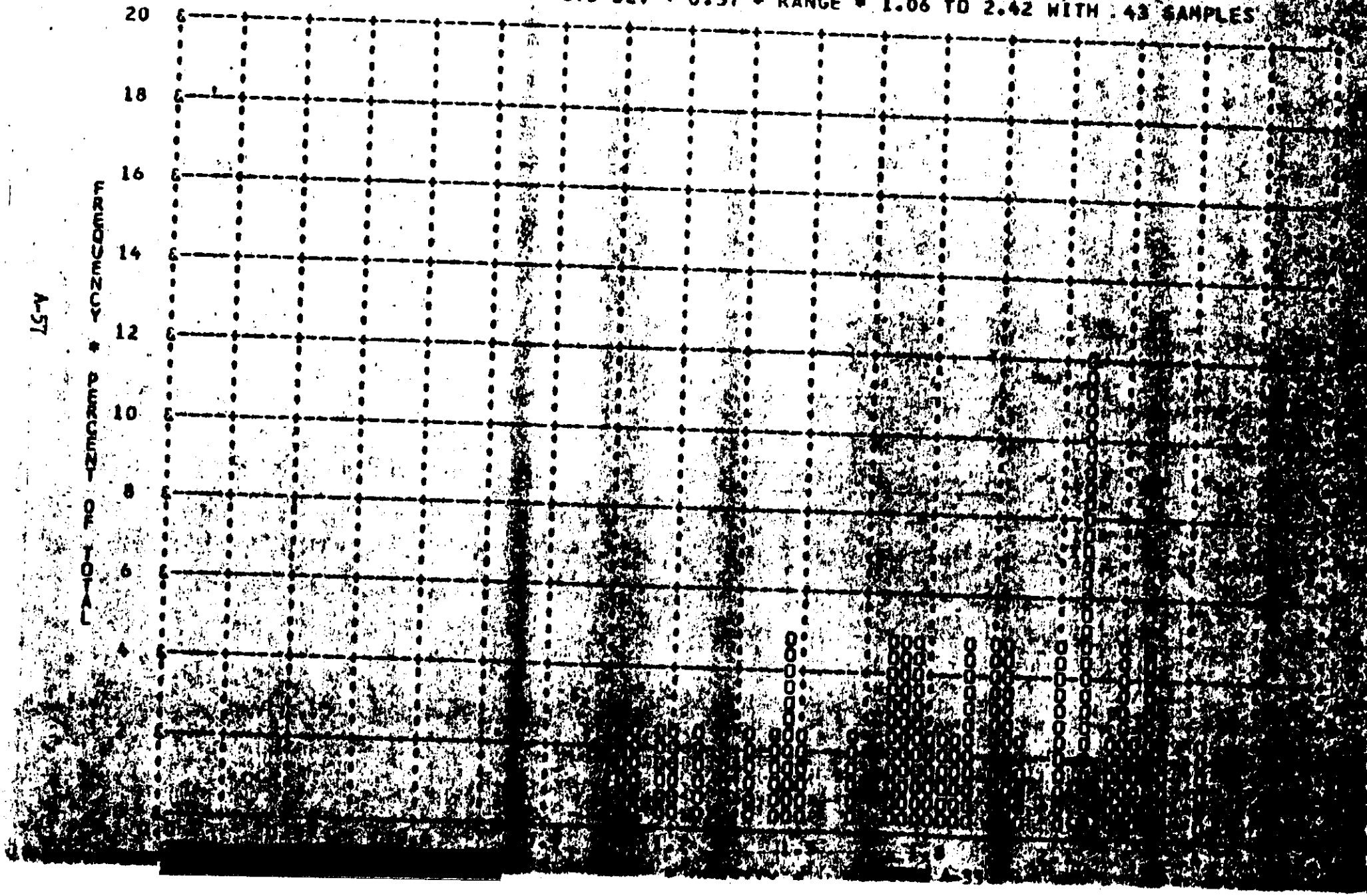
MISSION * 1038-2 * INSTR * AFT * 3/6/67 PLOT OF D MAX * TERRAIN * PROCESSING * INTERMEDIATE

AIRTH MEAN * 1.56 * MEDIAN * 1.61 * STD DEV * 0.39 * RANGE * 0.73 TO 2.27 WITH 69 SAMPLES



MISSION * 1038-2 * INSTR * AFT * 3/6/67 PLOT OF D MAX * CLOUD * PROCESSING * INTERMEDIATE

AIRTH MEAN * 1.83 * MEDIAN * 1.89 * STD DEV * 0.37 * RANGE * 1.06 TO 2.42 WITH .43 SAMPLES

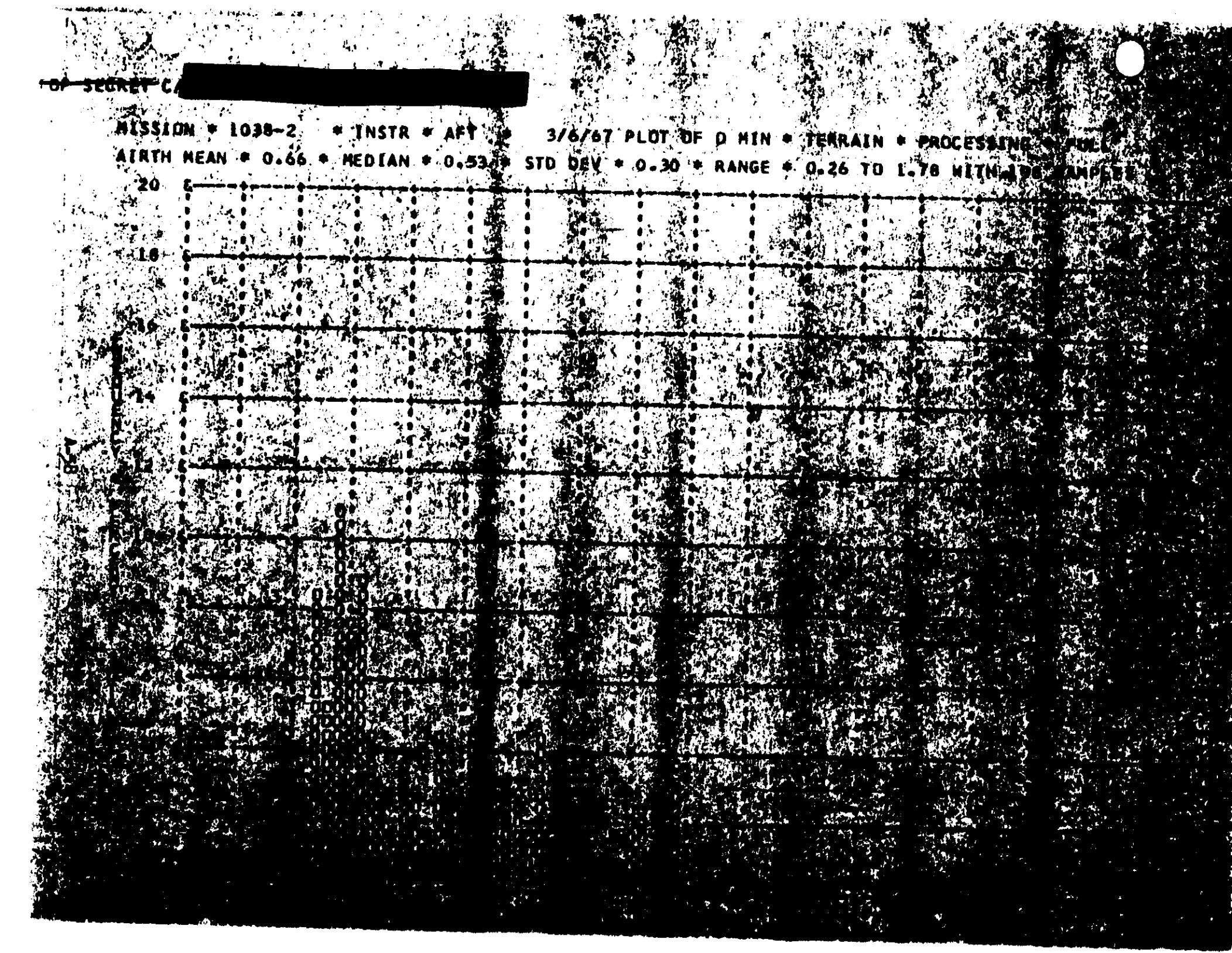


A-57

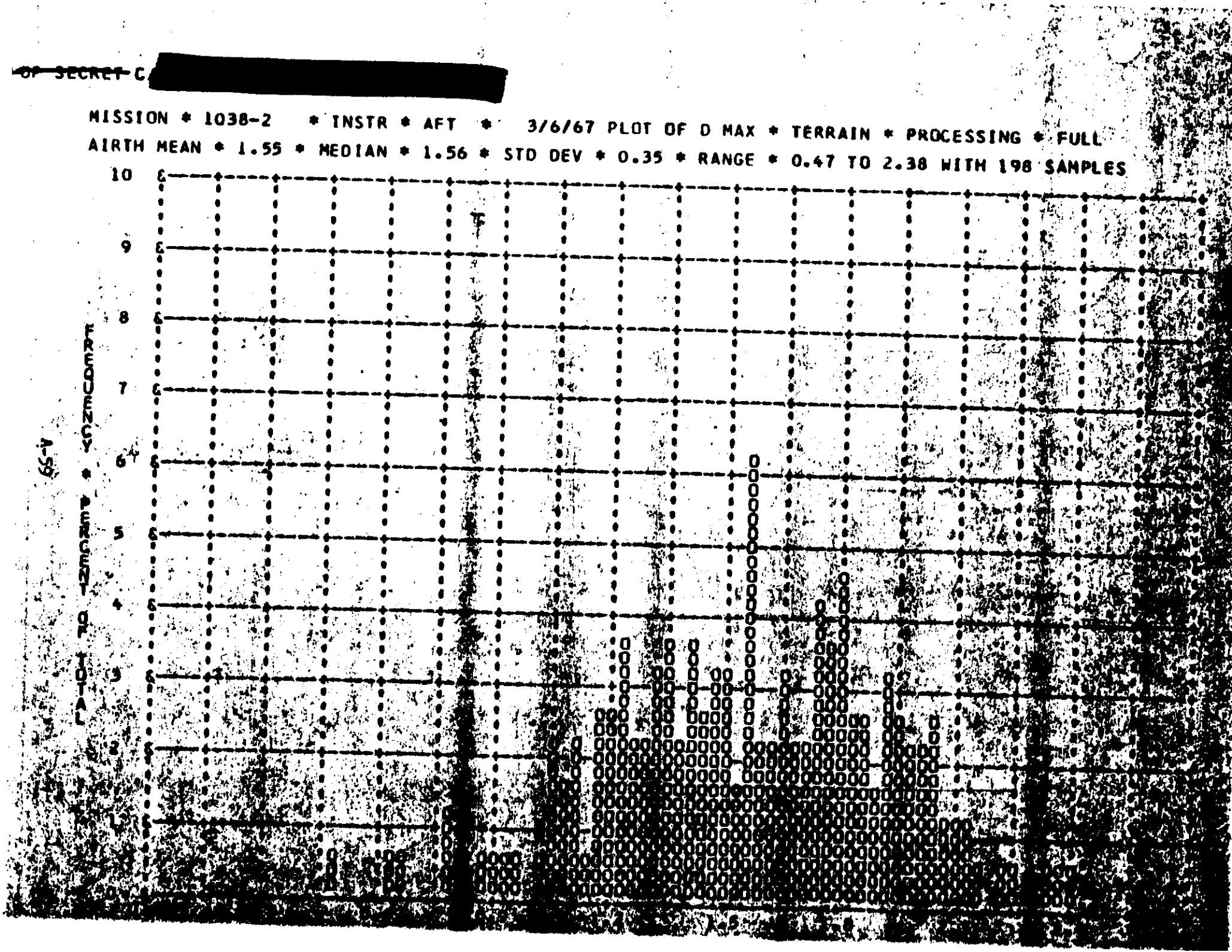
[redacted]

MISSION * 1038-2 * INSTR * AFT * 3/6/67 PLOT OF D MIN * TERRAIN * PROCESSING * FOLL

AIRTH MEAN * 0.66 * MEDIAN * 0.53 * STD DEV * 0.30 * RANGE * 0.26 TO 1.78 MIL[illegible] SAMPLES



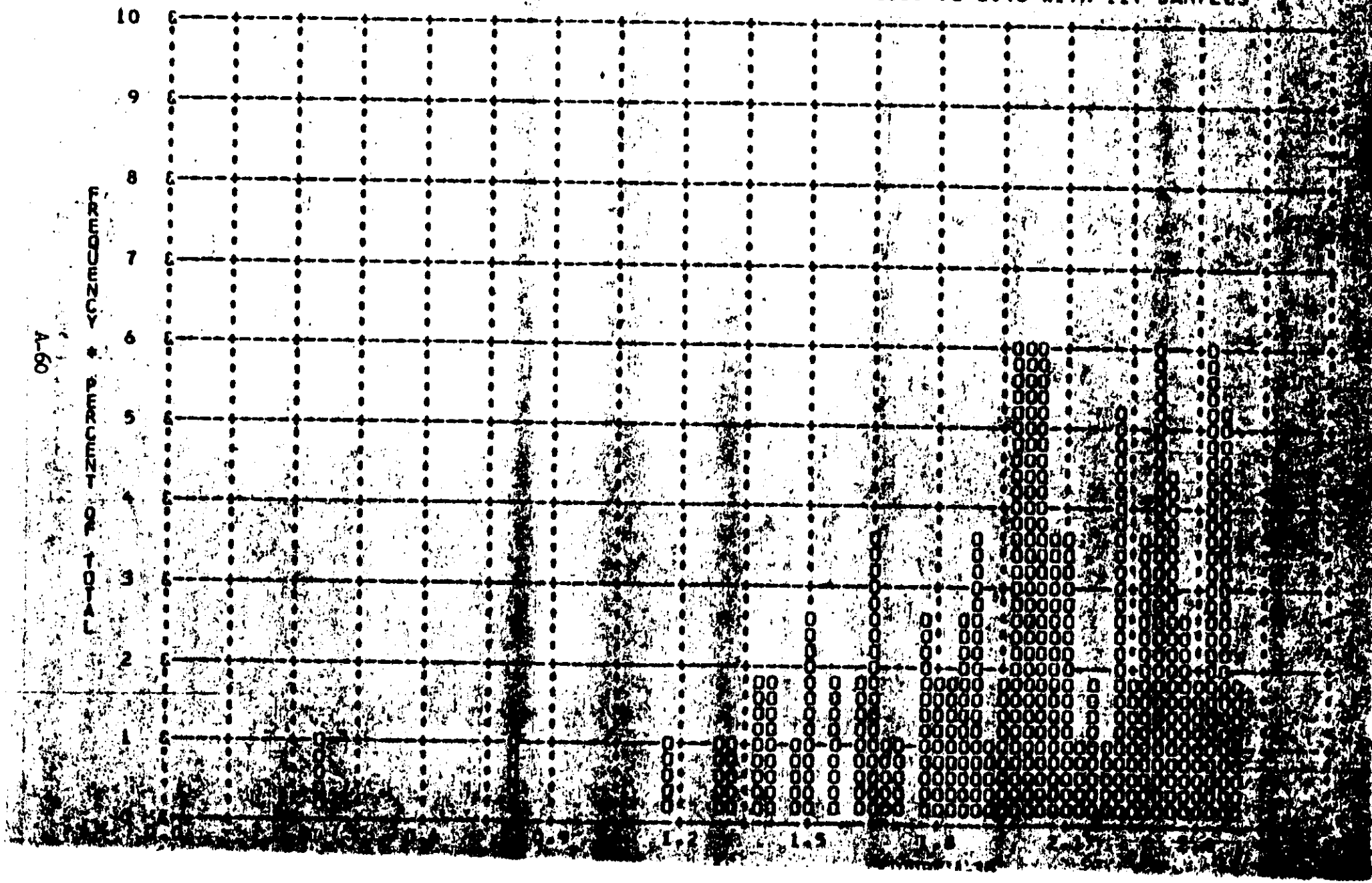
~~SECRET~~ C [redacted]



~~SECRET~~ C/ [redacted]

MISSION * 1038-2 * INSTR * AFT * 3/6/67 PLOT OF D MAX * CLOUD * PROCESSING * FULL

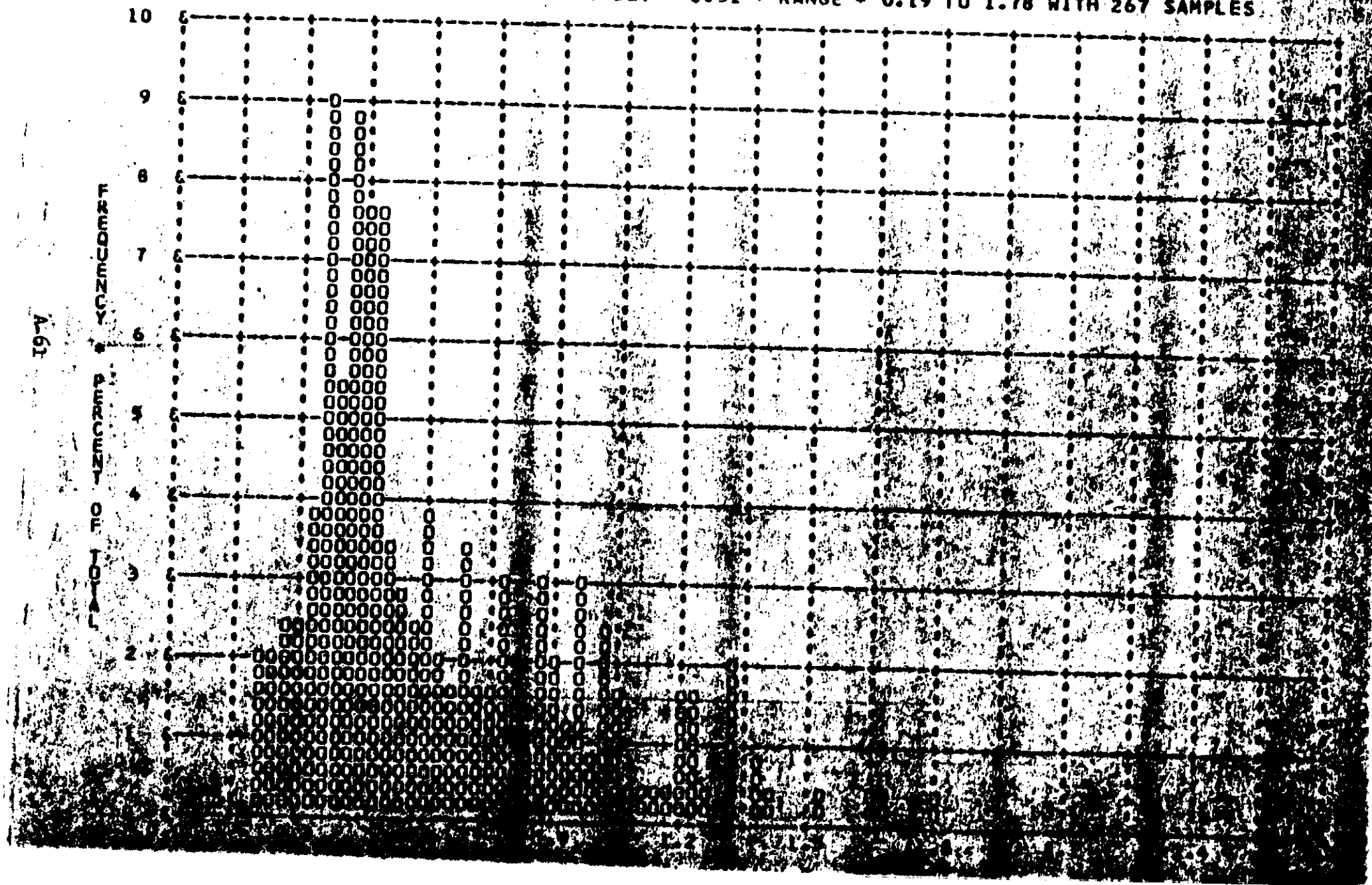
AIRTH MEAN * 2.00 * MEDIAN * 2.03 * STD DEV * 0.37 * RANGE * 0.35 TO 2.48 WITH 117 SAMPLES



~~SECRET~~ C [redacted]

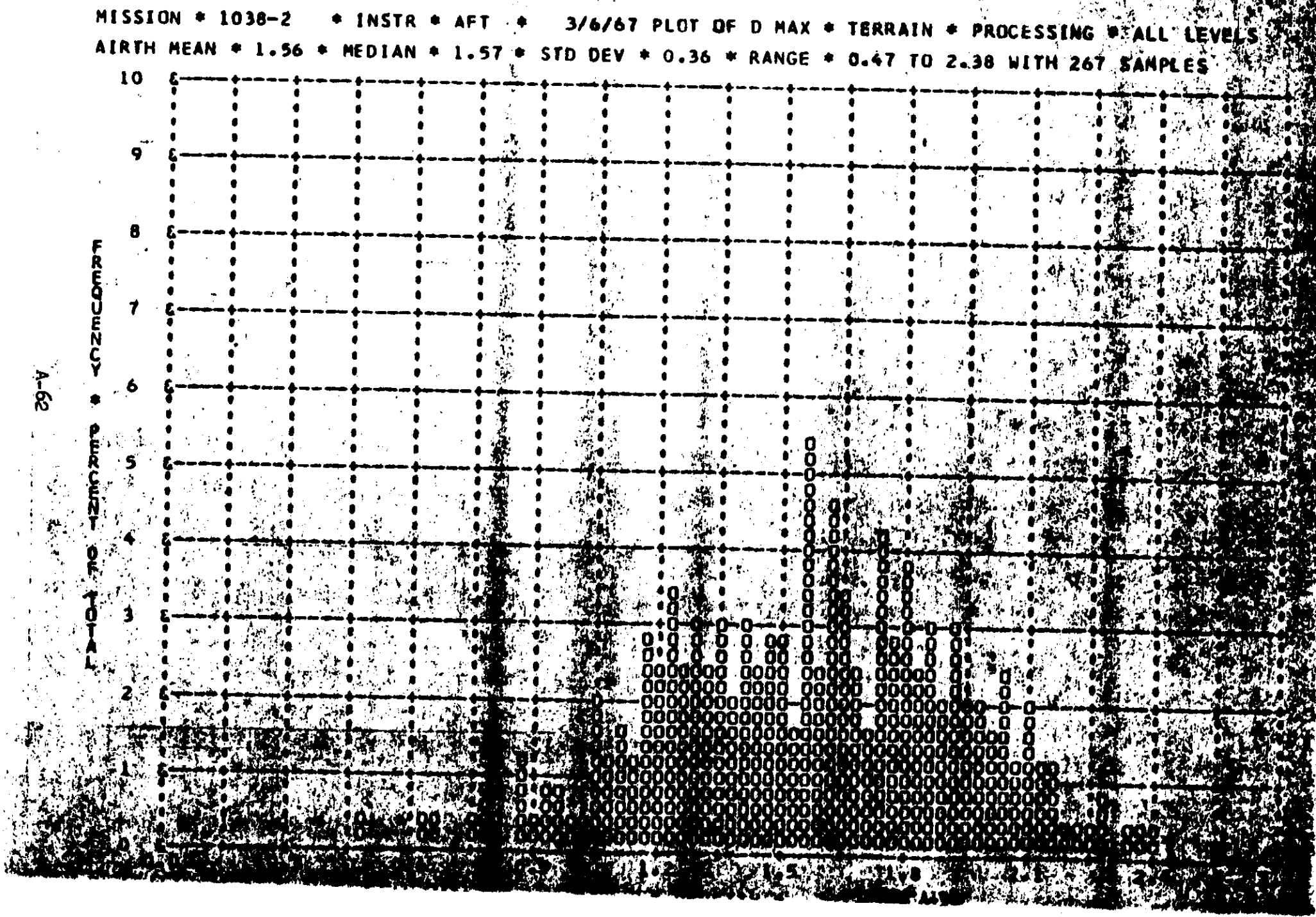
MISSION * 1038-2 * INSTR * AFT * 3/6/67 PLOT OF D MIN * TERRAIN * PROCESSING * ALL LEVELS

AIRTH MEAN * 0.61 * MEDIAN * 0.49 * STD DEV * 0.31 * RANGE * 0.19 TO 1.78 WITH 267 SAMPLES



A-61

19


MISSION * 1038-2 * INSTR * AFT * 3/6/67 PLOT OF D MAX * TERRAIN * PROCESSING * ALL LEVELS
AIRTH MEAN * 1.56 * MEDIAN * 1.57 * STD DEV * 0.36 * RANGE * 0.47 TO 2.38 WITH 267 SAMPLES
FREQUENCY * PERCENT OF TOTAL
10
9
8
7
6
5
4
3
2
1
0

MISSION * 1038-2 * INSTR * AFT * 3/6/67 PLOT OF D MAX * CLOUD * PROCESSING * ALL LEVELS

AIRTH MEAN * 1.96 * MEDIAN * 2.01 * STD DEV * 0.38 * RANGE * 0.35 TO 2.48 WITH 160 SAMPLES

Distribution:

Copy No.	To
[redacted]	[redacted]