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17 October 1967

TO:

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SUBJECT: MISSION 1035-1 and 1035-2 FINAL REPORT

Enclosed is the Final Performance Evaluation Report for
Mission 1035-1 and 1035-2.


Manager
Advanced Projects

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CORONA J

PERFORMANCE EVALUATION REPORT

MISSION 1035-1 and 1035-2

FTV 1628, J-36

8 September 1967

Approved:

Manager

Advanced Projects

Approved:

Mgr.

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FOREWORD

This report details the performance of the payload system during the operational phase of the Program [REDACTED] Flight Test Vehicle 1628.

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 Missions 1035-1 and 1035-2 which was launched on 20 September 1967.

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INTRODUCTION

This report presents the final performance evaluation of Missions 1035-1 and 1035-2 of the Corona Program. The purpose of this report is to define the performance characteristics of the J-36 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 1035, placed into orbit by Flight Test Vehicle #1023 and LV-2A booster #477, 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-36 payload system. This Corona "J" system is designed to acquire search and reconnaissance photography of selected areas of the earth from orbital altitudes. The planned mission was two, 5 day photographic periods with no deactivate period.

B. MISSION DESCRIPTION

The payload was launched from Vandenberg Air Force Base (VAFB) at 2143:05 Z (1414:05 PDT) on 20 September 1966. 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]

[REDACTED] under central control of the Satellite Test Center at Sunnyvale, California. Mission 1035-1 consisted of a 5 day operation and was completed by air recovery on 25 September 1966. Mission 1035-2 was completed with an air recovery on 30 September 1966 following a 5 day photographic operation.

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

ORBITAL PARAMETERS

<u>Parameter</u>	<u>Orbit 1 Predicted</u>	<u>Orbit 120 Actuals</u>
Period (Min.)	91.06	90.601
Perigee (N. M.)	99.6	100.718
Apogee (N. M.)	254.9	238.820
Inclination (Deg.)	85.00	85.054
Perigee Latitude (Deg. N.)	18	48.780
Eccentricity	0.0215	0.01915

C. PANORAMIC CAMERAS

The instruments operated normally throughout both missions. The photo quality was excellent. The average cloud cover was 30% on the -1 mission and 40% on the -2.

The horizon camera was not veiled, but reported as slightly over-exposed on the sun side of the vehicle.

D. STELLAR-INDEX CAMERAS

Both units operated satisfactorily. Each stellar format contained at least 15 star images. The index camera produced good photo quality.

E. OTHER SUBSYSTEMS

The clock instrumentation, command, pressure make-up and thermal control systems performed satisfactorily.

SCHEMATIC INBOARD PROFILE - CORONA J SYSTEM

Mission 1035

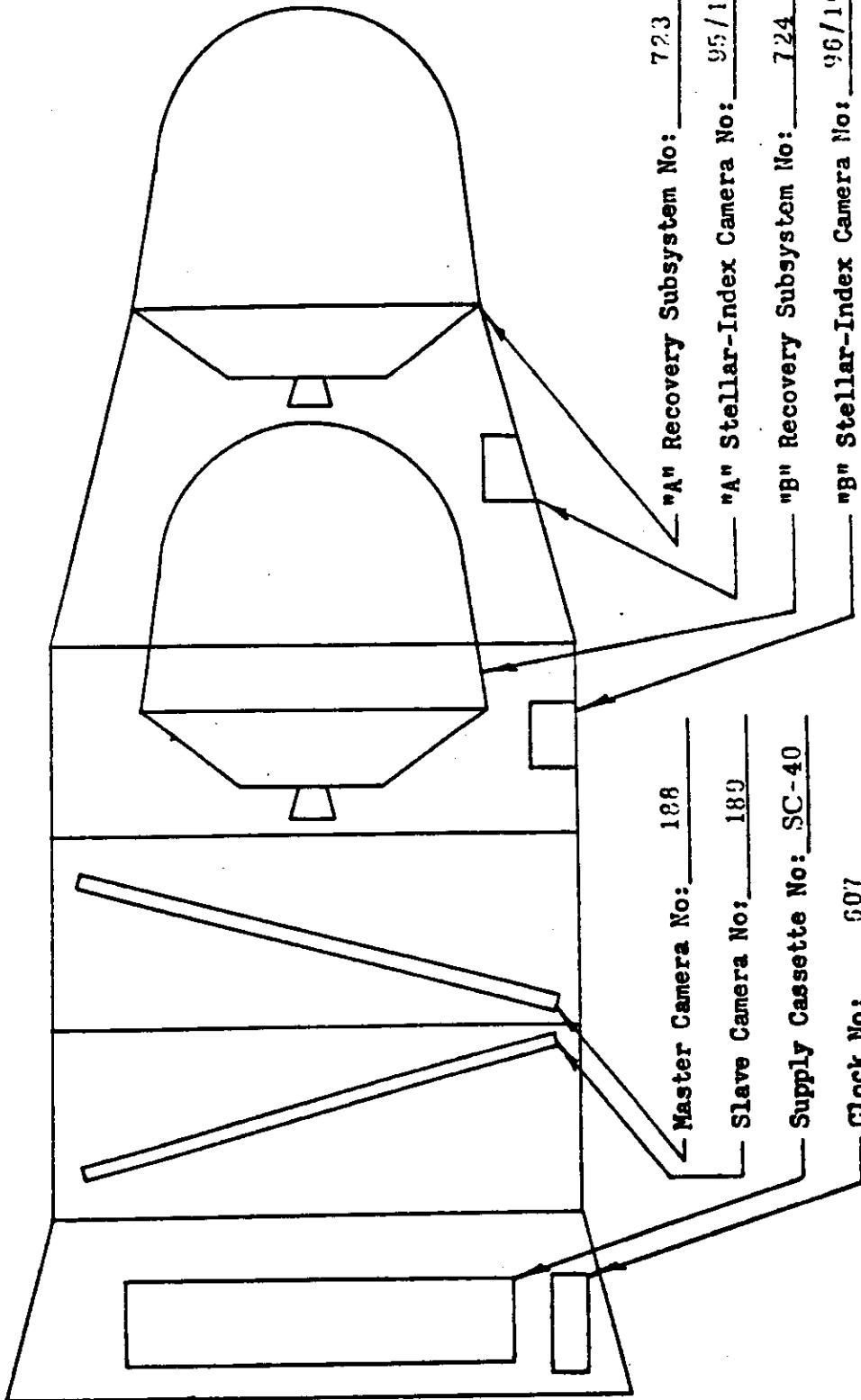


FIGURE 1-1

SECTION 2

PRE-FLIGHT SYSTEMS TESTS

A. ENVIRONMENTAL TESTING

1. Test Objective

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

2. Test Summary

The J-36 system was tested in the HiVOS chamber during the period 13-21 April. Nearly 16,000 feet of payload was cycled through each system in simulated complete "A" and "B" missions. Internal system pressures as low as 1.0 microns were recorded and provided adequate demonstrations of Corona characteristics.

The J-36 system is the first with "pan-geometry" modifications to be tested at A/P. The main features of these modifications on the payload are small reference or fiducial spots exposed through holes in the rails, and three lines exposed through collimators on the main cells indicating IMC displacement.

The main instruments showed good to excellent recording of all data, excluding the PG features described above. Horizon camera functioning appeared normal throughout. Both instruments produced minor Corona from the input metering rollers at low pressure starts. The condition was well within the acceptance standards. Cut and wrap functions between "A" and "B" missions produced no defects on the payload. Scratching from rails and scan head rollers was within the normal range on both instruments. Some unidentified and relatively severe scratches of an apparently random nature appear on the slave payload. Since the scratches appear during the "B" mission as well as the "A" mission, it is demonstrated that the often blamed main payload chute was not the cause.

All data recording in both stellar/index units was acceptable. Both stellar films showed minor Corona marks that are acceptable for flight. The index films showed no Corona marking. Small plus density streaks were noted in some "A" mission stellar formats. The condition does not appear to be a flight hazard, but the cause is not known and investigation is continuing. The "B" mission stellar film shows evidence of several instances of shutter failure in the open position. This condition is not acceptable for flight. The reseau plate of this stellar unit appeared to have a large number of foreign particles and it was cleaned.

The pan geometry features of the J-36 system cannot be adequately evaluated on the basis of data presently available. Ideally, the rail hole images should be circular, about 40 microns in diameter, and of high density with sharp edges. In actual practice, considerable variation may be tolerated if reference points can be identified with sufficient accuracy. From the defined characteristics of the rail hole images, it appears that variations in the placement of cross hairs on any image should not exceed five microns from a mean location. This criterion has been used to subjectively evaluate the rail hole images of the J-36 cameras.

Images of all rail holes on both instruments were detected on the test film. On master camera No. 188, the hole images on the data block edge were acceptable except for the first two and last one (counting in the direction of scan). At the timing mark edge, the first, as well as the last seven hole images are poor. On slave camera #189, there are very few hole images of good quality. In general, the data block edge is better than the timing mark edge. It is estimated that the probable error in placing a cross hair on some hole images would be in the order of 20 microns.

Both cameras recorded continuous IMC traces. Some variation in density and width of these traces is noted. Slight oscillations in the traces were also noted, however, there are no present means for distinguishing an instrumentation defect from a system characteristic in this case.

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It is concluded that basic J system functions were performed satisfactorily except for the stellar shutter failure on unit No. D-96. To the extent that the PG functions presently can be evaluated, it is concluded that master unit No. 188 performed acceptably, but that rail hole images on Unit No. 189 had to be improved for acceptable photogrammetric application. These hole images were adjusted to an acceptable condition in subsequent atmospheric tests.

The panoramic camera operation was normal. The cycle rates are shown in Table 2-1.

The clock system performance was acceptable. See Table 2-2.

The pressure make-up system operation was satisfactory. The gas depletion rate was 7 lbs./min. on the -1 mission and 8.1 lbs./min. on -2 mission.

PRESSURE PROFILE (Microns)

-1 Mission	PMU ON	PMU OFF
Pressure (Prior to Camera ON)	4	2
Pressure (At Camera OFF) (Lowest point)	44	7
- 2 Mission		
Pressure (Prior to Camera ON)	1	1
Pressure (At Camera OFF) (Lowest point)	43	6

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The thermal environment was normal:

Average Panoramic Instrument Temperatures ($^{\circ}$ F) (Thermocouple)

-1 Mission	Master		Slave		Beta Angle $^{\circ}$	
	Day	<u>High</u>	<u>Low</u>	<u>High</u>	<u>Low</u>	
1		100	71	90	71	53
2		86	69	76	60	53
3		94	76	84	69	53
4		77	70	73	62	0

-2 Mission	Master		Slave		Beta Angle $^{\circ}$	
	Day	<u>High</u>	<u>Low</u>	<u>High</u>	<u>Low</u>	
1		76	66	75	64	0
2		80	71	79	70	0
3		76	72	75	72	0

B. RESOLUTION TEST

Resolution and theodolite tests were performed on 10 May 1966. Results of the thru-focus resolution tests of pan instruments 188 and 189 show the following characteristics:

Master Pan Instrument No. 188

Maximum high contrast resolution 180 lines/mm at 0.000 focal position.

Maximum low contrast resolution 117 lines/mm at 0.000 focal position.

Slave Instrument No. 189

Maximum high contrast resolution 174 lines/mm at 0.000 focal position.

Maximum low contrast resolution 110 lines/mm at 0.000 focal position.

The test data for both instruments is shown in Figures 2-1 and 2-2. Both instruments met the system requirements specification.

C. LIGHT LEAK TEST

The live payload light leak test of the J-36 system was completed on 25 May. Examination of the test payload showed material from the master instrument to be virtually free of light leak fog defects. However, material from the slave instrument showed two regions of light leak fog. One region is where the payload passes the drum side of the slave mainplate; the other is where it passes the same point on the master instrument.

A photomultiplier and visual check verified a suspected leak along the slave instrument laminated strips which form a light seal over the drum flange. It is believed that the RTV seal was broken during installation of improved felt seals at the side of the drum. RTV was applied to the laminated strips and a subsequent photomultiplier check verified the fix.

It was believed that a similar leak on the master camera caused the second fog area on the slave film. However, the visual and photomultiplier checks indicated that much of the fogging light was entering at the mainplate end of the input felt seal. It was recommended that RTV be applied to the laminated strips of the master instrument and that a photomultiplier verification then be attempted. A reduced photomultiplier response would indicate the leakage had been reduced below any significant level, while a substantially unchanged response would indicate that the fog producing leakage entered at the end of the felt seal where no effective remedy is available. The photomultiplier response after applying RTV was unchanged (20 MV. before and after).

The light leakage performance of the J-36 system is therefore considered acceptable except for the leak described in the preceding paragraph for which a waiver is recommended. This leak produced a density of 0.92 at the edge of the film and a maximum density in the format area of 0.51.

It should be noted J-36 is the first system with the felt seal and drum modifications tested at A/P. While this test has demonstrated that the modifications provide a substantial improvement, it is apparent that they are not a complete solution to the chronic problem of the pan camera light leakage.

D. J-36 (PG-1) FLIGHT READINESS AND CERTIFICATION

A final flight readiness test, completed on 15 September, produced pan instrument payload in generally excellent condition. All basic data recording was acceptable and the payload was unusually free of random scratches and minus density streaks.

Photogrammetric data recording was acceptable for the speed at which the system was operated. On master instrument No. 188, rail hole image #40 on the data block side, and hole #10 on the timing mark edge were missing. On slave instrument #189, all rail hole images were present but hole image #14 on the timing mark edge was of low density and probably will not appear on flight material. The lens scan lines of both instruments appeared excellent throughout the format.

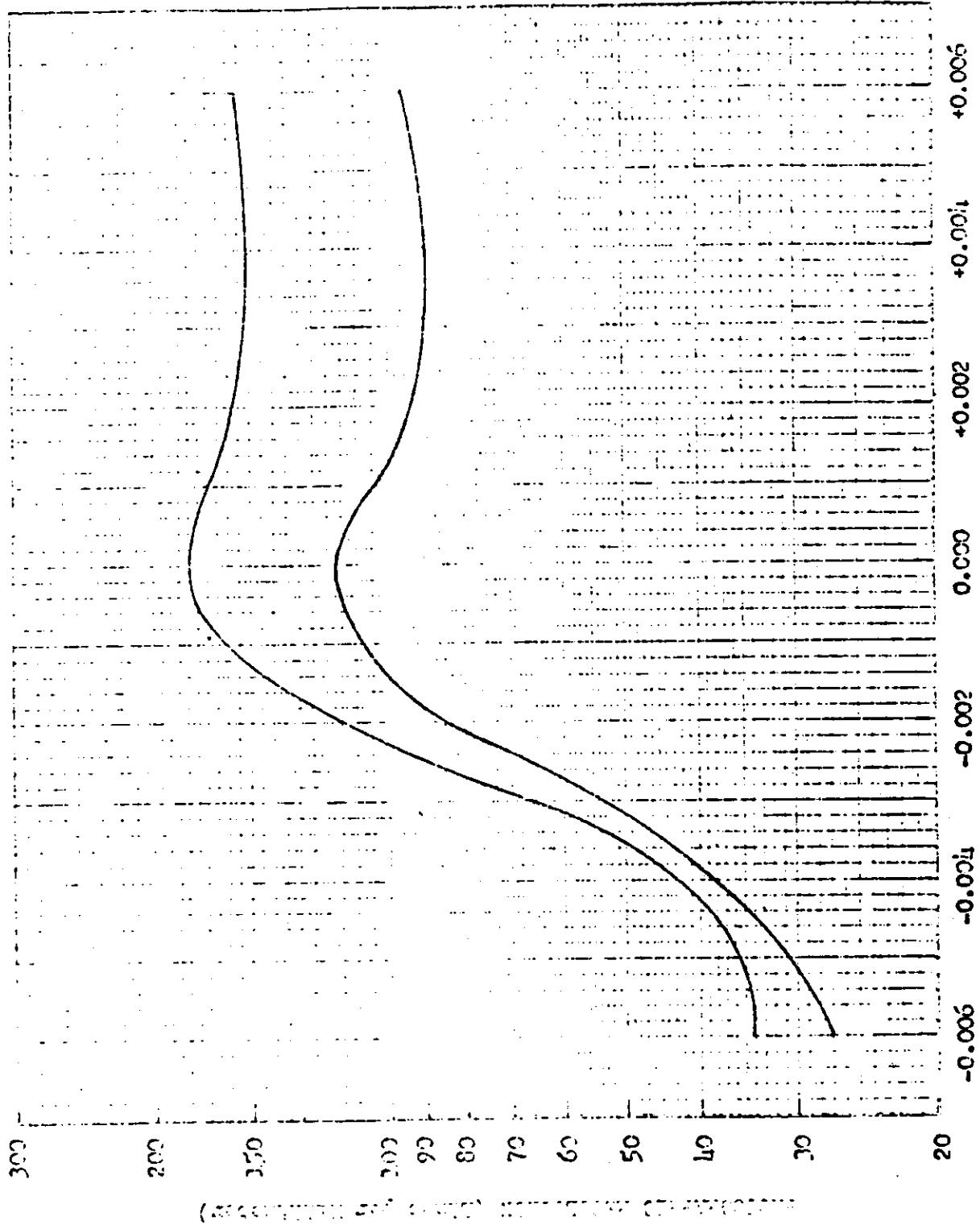
Spacing of the 200 cycle marks indicated that the cycle period for both instruments was about seven seconds. This rate provides an exposure of the PG data that is about three times that provided at flight speeds. Experience with this system has shown that higher cycle rates also cause dynamic anomalies that degrade PG data recording. Therefore, this excellent readiness test payload cannot be considered valid baseline data for flight evaluation purposes.

Loading of the main instruments supply cassette was performed on 16 September. Sensitometric samples of this main payload showed the type 3404 emulsions to have acceptable characteristics. Bands of probable faint backing scratches parallel to the major axis were detected in both flight samples. Similar streaks were observed in these films during subsequent tracking tests. Such streaks are frequently observed during flight loading tracking tests but they have not been detected in processed material. Since this condition causes no detectable density and is on the backing surface, it is not considered a hazard to either the original flight information or subsequently produced copies.

Sensitometric samples of stellar and index flight payloads had been processed on 7 September. Results on all four films were acceptable.

Tracking and light leak tests were completed on 17 September. Other than the backing streaks on main payloads noted above, no anomalies were noted. The J-36 system was then certified for flight.

THROUGH FOCUS IMAGE SEQUENCES (Infrared)

+0.005
+0.001
+0.002
+0.000
-0.002
-0.004
-0.006
-0.008

Nikon Model 2000

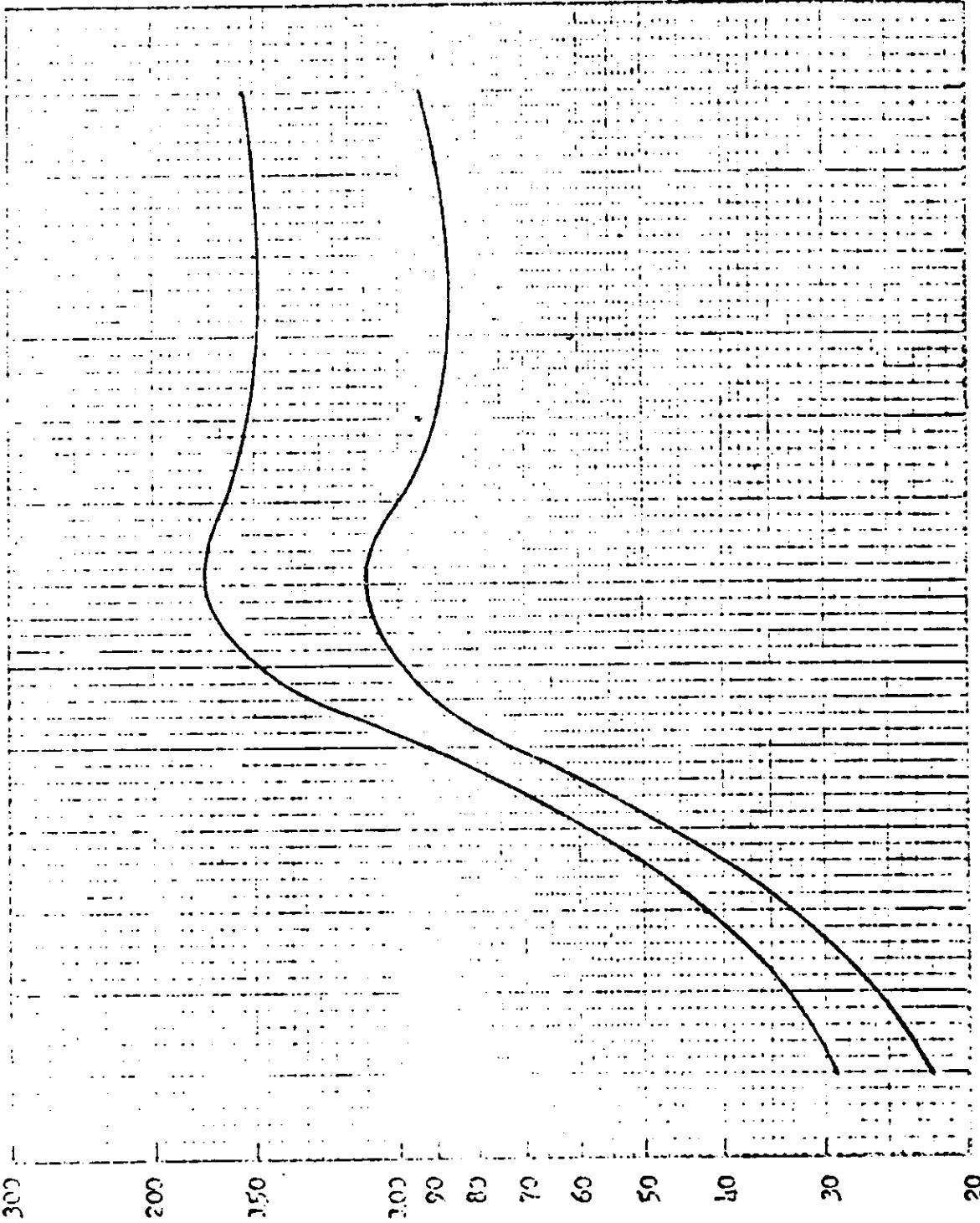
TEST SPOT NO. C

Center No: 188
Payload No: J-26
Resolution (1/mm) 160
High Contrast: 117
Film Type: 3604

Test Date: 5/10/66

THROAT FOCUS INTEGRITY (Inches)

-0.005 -0.001 0.000 +0.001 +0.002 +0.005



Test Date: 5/10/66

Film Type: 35mm

Lens Contrast: 110

Resolution (l/mm) 27L

Payload No: J-36

Camera No: 189

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TEST

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J-36 ALVCS CYCLE RATES 04-09-66

[----INST. 188----] [----INST. 189----]

REV.	CP	RAMP TUR	SYSTEM ACTUAL UNIT	SYSTEM ACTUAL UNIT	SYSTEM ACTUAL UNIT	SYSTEM 188/1	
VALUE	R	A SECS CALIB.	SEV.	DEV.	DEV.	DEV.	DIFF
1A	4	1 72 4.346	4.355	0.00S	4.365	0.62S	0.43S 0.21
1A	4	1 1833 2.100	2.216	0.59S	0.74S 2.215	0.85S	0.70S -0.05
1A	4	1 1802 2.167	2.212	0.55S	0.70S 2.207	0.62S	0.47S -0.21
1A	4	1 2011 2.192	2.218	1.02S	1.16S 2.212	1.04S	0.84S -0.21
1A	4	1 2032 2.348	2.335	0.9CF	0.57F 2.330	0.05F	0.40F 0.17
1A	4	1 2656 2.393	2.370	1.25F	0.96F 2.371	0.60F	0.92F 0.04
1A	4	1 2884 2.789	2.773	0.85F	0.58F 2.772	0.24F	0.01F -0.04
1A	4	1 3084 3.171	3.149	1.00F	0.70F 3.154	0.24F	0.54F 0.16
1A	4	1 3175 3.367	3.340	1.05F	0.80F 3.344	0.40F	0.69F 0.12
2A	5	62 3.083	3.088	0.14F	0.175 3.080	0.21S	0.09F -0.26
2A	5	8 2027 2.373	2.376	0.21F	0.12S 2.375	0.46S	0.07S -0.04
2A	5	8 2679 2.744	2.735	0.65F	0.33F 2.732	0.12F	0.44F -0.11
2A	5	8 3398 2.993	2.986	0.54F	0.23F 2.983	0.03F	0.33F -0.10
3A	7	7 0 3.615	3.603	0.60F	0.34F 3.590	0.43F	0.70F -0.36
3A	7	7 0 3.615	3.592	0.90F	0.64F 3.577	0.74F	1.05F -0.42
3A	7	7 1581 2.561	2.565	0.17F	0.16S 2.564	0.44S	0.12S -0.04
3A	7	7 1893 2.478	2.482	0.17F	0.16S 2.481	0.46S	0.12S -0.04
3A	7	7 1960 2.478	2.489	0.68F	0.35F 2.471	0.05S	0.27F 0.08
3A	7	7 2029 2.484	2.471	0.86F	0.54F 2.469	0.24F	0.62F -0.08

Table 2-1

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[---INST. 188---] [---INST. 189---]

REV.	CP	RAMP	TUR	SYSTEM	ACTUAL UNIT	SYSTEM	ACTUAL UNIT	SYSTEM	ACTUAL	SYSTEM	ACTUAL	SYSTEM
42		R	A	SECS CALIB.	SEV.	BLV.	SEV.	BLV.	SEV.	BLV.	SEV.	BLV.
42	11	1	102	8.7e5	8.464	3.04F	3.43F	3.427	4.25F	3.8eF	-0.	
42	11	1	1956	2.454	2.485	0.67F	0.35F	2.484	0.08F	0.39F	-0.	
42	11	1	1631	2.406	2.392	0.92F	0.59F	2.383	0.65F	0.97F	-0.	
42	11	1	1702	2.344	2.328	0.55F	0.67F	2.320	0.53F	1.01F	-0.	
42	11	1	2024	2.273	2.279	0.08F	0.24S	2.273	0.31S	0.02F	-0.	
42	11	1	3351	2.560	2.541	1.06F	0.76F	2.533	0.75F	1.07F	-0.	
42	11	1	2463	2.7e2	2.726	1.61F	1.29F	2.716	1.34F	1.65F	-0.	
42	11	1	2648	3.253	3.215	1.47F	1.18F	3.206	1.17F	1.46F	-0.	
42	11	1	2884	4.100	4.096	1.30F	1.08F	4.045	1.13F	1.35F	-0.	
42	11	1	3418	7.028	6.891	1.80F	1.95F	6.860	2.54F	2.39F	-0.	
52	4	1	93	4.338	4.375	0.72S	0.51S	4.405	1.74S	1.54S	0.	
52	4	1	2369	2.210	2.229	0.67S	0.84S	2.233	1.19S	1.02S	0.	
52	4	1	2463	2.222	2.234	0.34S	0.52S	2.241	1.01S	0.85S	0.	
52	4	1	3421	3.874	3.891	0.20S	0.44S	3.903	1.00S	0.75S	0.	
62	5	3	71	3.082	3.068	0.12F	0.18S					
62	5	6	2046	2.375				2.404	1.54S	1.21S		
62	5	8	2654	2.e15	2.630	0.24S	0.57S	2.643	1.39S	1.07S	0.	
62	5	8	2693	2.751	2.757	0.12F	0.21S					
62	5	8	3061	2.549	2.662	0.14S	0.46S	2.666	0.92S	0.60S	0.	
62	5	8	3179	2.898	2.903	0.13F	0.19S	2.902	0.47S	0.15S	-0.	
62	5	8	3420	3.001				3.003	0.37S	0.06S		
72	7	7	81	3.610	3.618	0.04F	0.23S	3.617	0.47S	0.20S	-0.	

Table 2-1

-----INST. 188-----|-----INST. 189-----|

REV. CP MODE	R	A	SECS	CALIB.	SYSTEM ACTUAL UNIT	SYSTEM ACTUAL UNIT	SYSTEM 188	SYSTEM 189	DIF		
7A	7	7	2033	2.485	2.508	C.6CS	0.93S	2.010	1.46S	1.13S	0..
7A	7	7	2057	2.354	2.360	C.1CF	0.22S	2.858	0.47S	0.15S	-0..
7A	7	7	3070	3.212	3.227	C.1ES	0.46S	3.225	0.71S	0.42S	-0..
7A	7	7	3178	3.299	3.303	C.1EF	0.11S	3.299	0.28S	0.01F	-0..
8A	11	1	102	6.765	6.760	C.58S	C.17S				
8A	11	1	2044	2.260				2.286	0.52S	0.26S	
8A	11	1	2054	3.273	3.208	1.37F	1.08F	3.246	0.54F	0.83F	0.1
8A	11	1	2574	4.081	4.036	1.26F	1.06F				
8A	11	1	3173	5.485	5.456	C.60F	C.54F	5.456	0.42F	0.54F	-0..
8A	11	1	3435	7.159				7.093	1.09F	0.92F	
9A	4	1	0	4.359	4.338	C.67F	C.48F	4.329	0.50F	0.69F	-0.2
9A	4	1	0	4.359	4.335	C.74F	C.55F	4.332	0.43F	0.62F	-0.0
9A	4	1	0	4.359	4.357	C.24F	C.04F	4.351	0.01S	0.18F	-0.1
9A	4	1	0	4.359	4.362	C.12F	C.07S	4.355	0.17S	0.02F	-0..
9A	4	1	0	4.359	4.326	C.55F	C.76F	4.316	0.79F	0.99F	-0.2
9A	4	1	0	4.359	4.347	C.47F	C.27F	4.326	0.56F	0.76F	-0.4
10A	5	8	91	3.081	3.069	C.7CF	C.39F	3.056	0.51F	0.81F	-0.4
10A	5	8	1056	2.438	2.450	C.17S	0.50S	2.443	0.54S	0.21S	-0.2
10A	5	8	1698	2.395	2.395	C.35F	C.02F	2.390	0.10S	0.23F	-0.2
10A	5	8	2030	2.374	2.378	C.14F	C.19S	2.372	0.26S	0.07F	-0.2
10A	5	8	2323	2.445	2.449	C.16F	C.17S	2.442	0.21S	0.12F	-0.2
10A	5	8	2466	2.50E	2.501	C.62F	C.29F	2.492	0.33F	0.65F	-0.3

Table 2-1

[-----INST. 189-----]

REV. CP NOOE	RAMP TOR A A SECS CALIB.	SYSTEM ACTUAL UNIT DEV.	SYSTEM ACTUAL UNIT DEV.	SYSTEM 188/ SIF
10A	5 8 2010 2.576	2.591	0.258	0.375 2.574 0.245 0.69F -0.6
10A	5 8 2712 2.646	2.628	0.55F	0.57F 2.620 0.65F 0.97F -0.3
10A	5 8 2863 2.746	2.750	0.18F	0.145 2.751 0.23F 0.55F -0.6
10A	5 8 2941 2.776	2.763	0.8CF	0.46F 2.750 0.63F 0.95F -0.4
10A	5 8 3121 2.809	2.869	0.32F	0.60F 2.851 0.32F 0.63F -0.6
10A	5 8 3193 2.904	2.886	0.94F	0.63F 2.870 0.87F 1.18F -0.5
10A	5 8 3375 2.934	2.975	0.62F	0.31F 2.962 0.43F 0.74F -0.4
10A	5 8 3475 3.021	2.990	1.35F	0.04F 2.962 1.00F 1.31F -0.2
11A	4 1 50 4.340	4.293	1.27F	1.08F 4.284 1.09F 1.29F -0.2
11A	4 1 1504 2.229	2.226	0.60S	0.77S 2.213 0.34S 0.16S -0.5
11A	4 1 1669 2.157	2.207	0.29S	0.44S 2.193 0.18S 0.03S -0.4
11A	4 1 1971 2.152	2.212	0.76S	0.91S 2.198 0.41S 0.27S -0.6
11A	4 1 2404 2.214	2.230	0.53S	0.70S 2.216 0.24S 0.07S -0.6
11A	4 1 2650 2.350	2.385	0.52F	0.19F 2.371 0.45F 0.78F -0.5
11A	4 1 2942 2.854	2.889	0.48F	0.17F 2.672 0.44F 0.72F -0.5
11A	4 1 3070 3.143	3.140	0.39F	0.09F 3.125 0.20F 0.56F -0.4
11A	4 1 3211 3.437	3.409	1.1CF	0.82F 3.398 0.86F 1.14F -0.3
11A	4 1 3449 3.928	3.901	0.52F	0.68F 3.874 1.13F 1.37F -0.6
12A	11 1 1590 2.451	2.474	0.60S	0.93S 2.464 0.65S 0.52S -0.4
12A	11 1 1715 2.334	2.335	0.16F	0.17S 2.331 0.19S 0.13F -0.3
12A	11 1 2017 2.371	2.283	0.18S	0.51S 2.276 0.53S 0.20S -0.3
12A	11 1 2372 2.593	2.581	0.8CF	0.48F

Table 2-1

[----INST. 186----] [----INST. 189----]

REV.	CP	RAMP TUR	SYSTEM	ACTUAL UNIT	SYSTEM	ACTUAL UNIT	SYSTEM	DEV.	DEV.	DEV.	DEV.
MODE		8 A SECS CALIB.		SLV.	SLV.						
12A	11	1 2386	2.617					2.575	1.27F	1.59F	
12A	11	1 2644	3.240	3.187	1.93F	1.84F	3.184	1.44F	1.73F	-	
12A	11	1 2909	4.195	4.167	0.97F	0.76F	4.137	1.21F	1.47F	-	
12A	11	1 3170	5.468	5.441	0.56F	0.50F	5.395	1.23F	1.34F	-	
13A	4	1 98	4.336	4.305	0.90F	0.71F	4.222	1.05F	1.24F	-	
13A	4	1 1933	2.192	2.217	0.99S	1.14S	2.203	0.64S	0.50S	-	
13A	4	1 1977	2.192	2.212	0.76S	0.90S	2.200	0.50S	0.36S	-	
13A	4	1 2021	2.193	2.209	0.60S	0.75S					
13A	4	1 2043	2.193	2.207	0.50S	0.64S	2.196	0.29S	0.14S	-0	
13A	4	1 3210	3.435	3.433	0.34F	0.06F	3.421	0.13F	0.41F	-0	
13A	4	1 3509	4.036	4.007	0.55F	0.73F	3.986	1.02F	1.25F	-0	
14A	5	3 93	3.061	3.103	0.42S	0.72S	3.105	1.09S	0.78S	0.	
14A	5	3 2310	2.440	2.471	0.94S	1.27S	2.477	1.85S	1.51S	0.	
14A	5	3 2381	2.469	2.489	0.50S	0.83S	2.494	1.36S	1.03S	0.	
14A	5	3 2406	2.506	2.521	0.18S	0.50S	2.529	1.15S	0.82S	0.	
14A	5	3 2871	2.740	2.768	0.70S	1.03S	2.767	1.32S	0.99S	-0.	
14A	5	3 2957	2.725	2.805	0.40S	0.73S	2.801	0.90S	0.58S	-0.	
15A	7	7 91	3.010	3.034	0.40S	0.07S	3.043	1.15S	0.92S	0..	
15A	7	7 2309	2.562	2.610	0.76S	1.09S	2.615	1.61S	1.28S	0..	
15A	7	7 2460	2.621	2.686	0.13F	0.20S	2.697	0.93S	0.61S	0..	
15A	7	7 2801	3.039	3.064	0.52S	0.83S	3.064	1.14S	0.83S	-0.0	
15A	7	7 2953	3.115	3.122	0.07F	0.24S	3.127	0.70S	0.40S	0.1	

Table 2-1

[----INST. 186----] [----INST. 189----]

REV.	CP	RAMP TIME	SYSTEM ACTUAL UNIT RTA SECS CALIB.	SYSTEM ACTUAL UNIT DEV.	SYSTEM ACTUAL UNIT DEV.	SYSTEM 188 DEV.	SYSTEM 189 DEV.	DI	
188	4	1	2011 2.192	2.216	0.93S	1.07S	2.213	1.06S	0.94S -0.
188	4	1	2375 2.211	2.227	0.65S	0.72S	2.230	1.02S	0.86S 0.
188	4	1	2645 2.370	2.378	0.01F	0.32S	2.368	1.07S	0.74S 0.
188	4	1	2911 2.837	2.863	0.55S	0.91S	2.866	1.34S	1.02S 0.
188	4	1	3164 3.338	3.376	0.26S	1.15S	3.384	1.69S	1.39S 0.
188	4	1	3400 3.930	3.961	0.56S	0.80S	3.965	1.14S	0.90S 0.
18	4	1	93 4.338	4.358	0.26S	0.45S	4.360	0.70S	0.50S 0.
18	4	1	1578 2.203	2.221	0.68S	0.83S	2.215	0.72S	0.56S -0.
18	4	1	1735 2.196	2.210	0.50S	0.65S	2.203	0.48S	0.33S -0.
18	4	1	2032 2.193	2.209	0.60S	0.74S	2.204	0.66S	0.51S -0.
18	4	1	2664 2.404	2.392	0.81F	0.49F	2.393	0.12F	0.44F 0.
18	4	1	2681 2.784	2.766	0.17F	0.15S	2.763	0.29S	0.03F -0.
18	4	1	3059 3.121	3.128	0.06F	0.24S	3.129	0.58S	0.27S 0.
18	4	1	3182 3.376	3.371	0.42F	0.14F	3.376	0.30S	0.01S 0.
28	5	8	92 3.081	3.005	0.15S	0.45S			
28	5	8	108 3.080				3.085	0.47S	0.17S
28	5	8	2042 2.375	2.394	0.48S	0.81S	2.393	1.31S	0.96S 0.
28	5	8	2825 2.746	2.768	0.47S	0.80S	2.766	1.00S	0.72S -0.
28	5	8	3421 3.002	3.019	0.27S	0.58S	3.017	0.83S	0.51S -0.
38	7	7	2034 2.485	2.514	0.83S	1.17S	2.50S	1.25S	0.92S -0.
38	7	7	2325 2.551	2.607	0.30S	0.62S	2.604	0.83S	0.51S -0.
38	7	7	2465 2.685	2.691	0.45F	0.13F	2.677	0.04S	0.28F -0.

Table 2-1

-----INST. 188-----|-----INST. 189-----|

SERIAL NO.	CP	AAMP TUR	SYSTEM ACTUAL UNIT	SYSTEM ACTUAL UNIT		SYSTEM 188 DEV.	SYSTEM 189 DEV.	UNIT DEV.
				SECS CALIB.	SECS CALIB.			
46	11	1	1649 2.503	2.530	0.765	1.065	2.529	1.375 1.045 -0.
46	11	1	1702 2.344	2.355	0.165	0.495	2.356	0.665 0.535 0.
48	11	1	2034 2.277	2.295	0.525	0.855	2.298	1.275 0.945 0..
48	11	1	2326 2.124	2.138	0.245	0.575	2.543	1.055 0.775 0..
48	11	1	2463 2.762	2.760	0.36F	0.06F	2.767	0.515 0.195 0..
48	11	1	2659 3.290	3.294	0.17F	0.125	3.308	0.845 0.545 0..
49	11	1	2855 4.104	4.142	0.705	0.925	4.146	1.245 1.025 0..
49	11	1	3425 7.081	7.205	1.925	1.765		
49	11	1	3437 7.153				7.261	1.345 1.525
58	4	1	4 4.359	4.382	0.335	0.535	4.378	0.635 0.445 -0.0
58	4	1	2144 2.195	2.214	0.705	0.855	2.216	1.055 0.945 0.0
58	4	1	2265 2.203	2.209	0.125	0.285	2.218	0.855 0.695 0.4
58	4	1	3241 3.501	3.533	0.645	0.915	3.539	1.365 1.095 0.1
65	5	6	95 3.081	3.082	0.27F	0.045		
65	5	6	2048 2.376				2.392	1.025 0.695
65	5	6	2557 2.617	2.624	0.06F	0.275	2.626	0.675 0.345 0.0
65	5	6	2584 2.747	2.755	0.02F	0.315		
65	5	6	3056 2.836	2.853	0.285	0.595	2.853	0.915 0.595 -0.0
65	5	6	3179 2.856	2.859	0.27F	0.055	2.900	0.405 0.085 0.0
65	5	6	3449 3.011				3.013	0.365 0.055
75	7	7	2034 2.485	2.503	0.355	0.725	2.506	1.175 0.845 0.1
75	7	7	2659 2.650	2.654	0.38F	0.06F	2.655	0.295 0.03F 0.0

Table 2-1

		-----INST. 18H-----				-----INST. 19H-----					
REV.	CP	RAMP TIME	SYSTEM ACTUAL UNIT	SYSTEM ACTUAL UNIT	SYSTEM ACTUAL UNIT	DEV.	DEV.	DEV.	DEV.	DEV.	DIF
		SECS CALIB.		SECS CALIB.		SECS CALIB.		SECS CALIB.		SECS CALIB.	
78	7	7	3004	3.198	3.214	0.193	0.495	3.217	0.885	0.585	0.0
78	7	7	3181	3.303	3.302	0.267	0.015	3.302	0.305	0.015	-0.0
80	11	1	2046	2.301				2.205	0.515	0.185	
85	11	1	2059	3.277	3.303	0.515	0.805	3.299	0.925	0.665	-0.1
85	11	1	2061	4.035	4.120	0.645	0.765				
85	11	1	3007	5.068	5.145	1.405	1.515	5.136	1.455	1.345	-0.1
90	4	1	1959	2.204	2.222	0.855	0.815	2.226	1.155	0.995	0.1
90	4	1	1976	2.019	2.110	0.495	0.645	2.216	0.795	0.645	-0.0
90	4	1	2054	2.386	2.384	0.41F	0.09F	2.392	0.585	0.255	0.3
90	4	1	2077	2.777	2.787	0.055	0.375	2.789	0.765	0.445	0.0
90	4	1	2972	2.950	2.947	0.42F	0.11F	2.947	0.215	0.11F	-0.0
90	4	1	3065	5.133	5.141	0.04F	0.275	5.140	0.545	0.245	-0.0
90	4	1	3170	3.367	3.365	0.35F	0.06F	3.376	0.555	0.265	0.31
90	4	1	3411	3.854				3.869	0.635	0.385	
90	4	1	3416	3.864	3.873	0.01F	0.235				
100	5	8	95	3.081	3.099	0.04F	0.265	3.096	0.805	0.495	0.2
100	5	8	1546	2.441	2.465	0.665	0.995	2.467	1.405	1.075	0.0
100	5	8	1723	2.390	2.394	0.16F	0.175	2.403	0.875	0.545	0.3
100	5	8	2462	2.506	2.504	0.42F	0.09F	2.510	0.475	0.155	0.2
100	5	8	2704	2.647	2.643	0.48F	0.15F				
100	5	8	2942	2.777	2.778	0.26F	0.04S	2.782	0.505	0.185	0.1
100	5	8	3197	2.906	2.908	0.25F	0.06S	2.910	0.455	0.135	0.0

Table 2-1

-----INST. 186-----!-----INST. 187-----!

RECEIVED	LP	RAMP TIME	SYSTEM ACTUAL UNIT	SYSTEM ACTUAL UNIT	SYSTEM ACTUAL UNIT	SYSTEM ACTUAL UNIT	1400
		SEC'S	CALC'D.	SEC'S	SEC'S	SEC'S	DEV.
108	5	6	3369 2.560	2.598	0.05F	0.28S 3.000	0.8eS 0.55S 0.21
109	5	6	3476 3.021	3.016	0.45F	0.18F 3.023	0.3eS 0.05S 0.21
110	4	1	69 4.340	4.355	0.14S	0.34S 4.360	0.6eS 0.45S 0.11
111	4	1	1500 2.209	2.226	0.58S	0.75S 2.232	1.1eS 1.02S 0.21
112	4	1	1600 2.201	2.214	0.49S	0.59S 2.219	0.97S 0.01S 0.21
113	4	1	1673 2.157	2.207	0.30S	0.45S 2.213	0.8eS 0.72S 0.21
114	4	1	1970 2.192	2.208	0.58S	0.72S 2.212	1.0eS 0.91S 0.11
115	4	1	2401 2.214	2.224	0.28S	0.45S 2.233	1.03S 0.86S 0.4
116	4	1	2368 2.411	2.400	0.77F	0.45F 2.406	0.13S 0.20F 0.2
117	4	1	2942 2.694	2.694	0.31F	0.01S 2.693	0.4eS 0.14S 0.1
118	4	1	3077 3.157	3.150	0.20F	0.10S 3.165	0.56S 0.25S 0.1
119	4	1	3206 3.426	3.423	0.38F	0.10F 3.429	0.3eS 0.07S 0.1
120	4	1	3450 3.930	3.929	0.25F	0.01F 3.938	0.45S 0.21S 0.2
121	11	1	1585 2.457	2.475	0.40S	0.73S 2.482	1.34S 1.01S 0.2
122	11	1	1715 2.334	2.342	0.01S	0.34S 2.345	0.79S 0.47S 0.1
123	11	1	2018 2.272	2.290	0.48S	0.61S 2.299	1.53S 1.20S 0.3
124	11	1	2376 2.600	2.610	0.05S	0.38S 2.617	0.96S 0.65S 0.2
125	11	1	2643 3.237	3.249	0.08S	0.37S 3.255	0.8eS 0.56S 0.1
126	11	1	2913 4.215	4.248	0.57S	0.78S 4.253	1.11S 0.90S 0.1
127	4	1	95 4.327	4.376	0.69S	0.89S 4.376	1.06S 0.69S -0.0
128	4	1	1930 2.152	2.214	0.86S	1.00S 2.211	1.01S 0.87S -0.1
129	4	1	1998 2.152	2.212	0.76S	0.90S 2.205	0.72S 0.58S -0.2

Table 2-1

[----INST. 186----]-[----INST. 189----]
REV. CP RAMP TIME SYSTEM ACTUAL UNIT SYSTEM ACTUAL UNIT SYSTEM 186/
ACCE R A SECS CALIBR. DEV. DEV. DEV. DEV. S1F

	186	189	186	189	186	189	186	189	186	189	186	189
1	4	1	3.432	3.681	3.921	3.525	0.765	0.917	0.605	0.665	-0.1	
2	4	1	3.512	4.041	4.646	3.667	0.165	4.056	0.555	0.365	0.2	

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

Table 2-1

J-36 HIVOS TIME CORRELATION 5-5-66

	IRIG REV DAY-HR-MIN-SEC	IRIG SECONDS	CLOCK SECONDS	DELTA IRIG	DELTA CLOCK	ERRCR
0	104 8 22 50.440	SC15770.440	157284.747	---	---	---
3	104 12 36 35.470	SC30555.470	172505.790	15225.030	15225.043	0.01
5	105 15 6 32.885	SI26392.885	267907.116	95397.414	95397.325	-0.08
14	107 9 5 7.980	SI277507.980	419022.180	151115.092151115.062	151115.092151115.062	-0.03
11	107 12 31 31.370	SI285851.370	431405.573	12383.390	12383.393	0.00
	3 4 8 40.930-DELTA TIME			TOTAL ACCUM.	ERROR -0.10	
4	108 9 30 54.720	SI365454.720	169548.754	---	---	---
6	108 13 33 59.590	SI380039.590	184133.619	14584.870	14584.865	-0.00
5	108 9 34 56.700	SI452056.700	256190.845	72057.109	72057.225	0.11
10	109 11 4 56.830	SI457496.830	261590.921	5400.130	5400.076	-0.05
11	109 13 38 1.970	SI466681.970	270776.018	9185.140	9185.097	-0.04
13	110 8 3 12.615	SI532592.615	337086.683	66310.645	66310.664	0.02
16	110 11 3 11.960	SI543791.960	347886.024	10799.345	10799.341	-0.00
	2 1 32 17.240-DELTA TIME			TOTAL ACCUM.	ERRCR 0.03	

Table 2-2

SECTION 3

FLIGHT OPERATIONS

A. SUMMARY

All launch, ascent and injection events occurred as programmed to achieve orbit. The period was 0.2 minutes low from predicted and slightly below 3 sigma tolerance.

Both panoramic instruments operated properly throughout the flight. The cycle rates were 3.5% slow from preflight calibrations but the instruments were matched within 0.75% of the same rate. The V/H programmer failed on orbit 156 descending or 157 ascending, however this was after the completion of the active mission.

The -1 and -2 Stellar/Index cameras, the clock, and the command system operated properly throughout the flight. Early A to B transfer was successfully executed during acquisition at [REDACTED] on orbit 72. The pressure make-up system operated properly with 496 PSI supply remaining at Event 2.

The instrumentation system performed properly throughout the flight except for Channels 18 and F Link 2 on ascent and Channel 13 on later orbits.

Both recovery systems operated properly during recovery of each capsule. The -2 telemetry battery spilled electrolyte into the recovery capsule.

B. PANORAMIC CAMERA SYSTEM PERFORMANCE

The camera system dynamics were normal on all engineering operations observed during the mission. The film transport system operation was smooth and produced 99/101 ratios of 6/6 to 7/6 for both instruments. Cycle rate data (Table 3-1) was 0.5 to 3.5% slow compared to preflight calibrations with a typical error of 1.6% slow. The individual instrument rates matched generally to less than 0.5%. Early A to E transfer, (KZ-38 command) was issued on orbit 72 at the [REDACTED] the A to B transfer was observed via microwave in real time. All events associated with the command occurred properly.

Panoramic Film Consumption

	<u>Actual</u>	
	<u>Master</u>	<u>Slave</u>
Pre-Launch	126	127
- 1 Mission	2846	2867
- 2 Mission	3073	3057
<hr/>	<hr/>	<hr/>
Total	6045	6051

FMC Match

The V/H ramp to orbit match was acceptable throughout the flight. The following settings of RTC 6, 8, and 10 were used to attain the best match during the mission:

RTC	<u>6</u>	<u>8</u>	<u>10</u>	<u>Remarks</u>
	8	3	6	Best settings for nominal orbit.
	7	3	5	Changed at Rev. 6. To compensate for orbit dispersions at launch.
	8	2	5	Changed at Rev. 12. Additional orbital data permitted improved ramp selection.
	8	2	6	Changed at Rev. 76. To compensate for normal orbit decay.
	7	3	6	Changed at Rev. 107. To compensate for normal orbit decay.

The V/H Programmer failed either on orbit 156 descending or 157 ascending. The start commands stepped through properly and 400 cycle voltage was present at the OSFG. The main instruments indicated the failure was located in the programmer. The programmer stopped at either 1000 seconds or 2800 seconds. This position of the programmer produced an output voltage level approximating the

reference level. The programmer did not operate again. The most probable point of failure was at the 2800 second point (Ref. Figure 3-1). This is near the time that S-202 closes (approximately 2500 seconds) and resets the start relay K-201. This condition indicates that S-201 failed to close at the proper time (near 400 seconds into the cycle). The failure indications were identical to the failure experienced on J-32 (Mission 1030). The programmer serial numbers were VP43 and VP44 for J-32 and J-36 respectively. Boston ran a complete qualification test on a programmer and ran another programmer to failure.

Yaw Programmer Performance

This yaw programmer was the fifth to be flown on the Corona J Program and was the first of a new design. The programmer was enabled on orbit 1 at [REDACTED] and remained enabled throughout the flight. A 100 second disable - enable test was conducted on orbit 8 at [REDACTED]. The test indicated proper phasing of the programmer output. Telemetry indicated proper phasing and output on all acquisitions during the flight. It has been noted however, that there is a time delay of approximately 6 minutes in operate from command. This causes an incorrect yaw correction for the vehicle latitude position. This has been corrected on Mission 1041.

C. STELLAR/INDEX CAMERA PERFORMANCE

The -1 Stellar/Index camera operation was normal throughout the mission with telemetry indicating proper shutter, meter, and programmer functions.

The -2 Stellar/Index operation was normal throughout the mission. Telemetry indicated proper shutter, meter, programmer and slewing functions.

D. INSTRUMENTATION AND COMMAND SYSTEM PERFORMANCE

The instrumentation system operated properly throughout the mission with two exceptions:

1. Link II Telemetry data during launch was not recorded at the [REDACTED] or SFC.

2. Link I Channel 13 VCO (AP Status) clipped voltages above 4 volts from orbit 121 for the remainder of the mission.

Link II was reported by voice to be acquired during ascent but telemetry tapes from the [REDACTED] and STC did not contain any voltage control oscillator (VCO) data.

The VCO of Link I Channel 13 began clipping during orbit 121. The data below the clipping level remained linear when 4 volts was used as a calibrate level. The clipping level became lower with Link I operating time per rev. The lowest levels of the clipping reached 80% toward the end of the mission. This did not severely hamper command verification but some orbit command verification was obtained from the Link II back-up Channel 12-2-00.

The command system operated properly throughout the mission and was the first system with the new operations selection control and the real time early A to B transfer capability.

Clock System Performance

The payload clock system performed satisfactorily throughout the mission. The clock/system time correlation data obtained from the [REDACTED] acquisitions are included in Table 3-2.

Pressure Make-up System Performance

The pressure make-up system operated satisfactorily throughout the mission. The mission consumed 2035 PSIA supply pressure for a duration of 234 minutes of operate time. This resulted in an average supply consumption of 8.65 PSIA/minute of operate. This system had temperature sensors mounted on the supply bottle. A plot of temperatures vs. orbit is included as Figure 3-5. Figure 3-6 describes the PMU supply pressure vs. operate time. Two points are included for each acquisition, one the uncorrected pressure indication and the second pressure corrected to 70°F.

Thermal Environment

Temperature data obtained from [REDACTED] acquisitions are contained in Table 3-3. Average master instrument temperatures started with a

high of 85° F and ended with a low of 69° F. The Slave instrument temperatures started with a high of 82° F and ended with a low of 67° F. Specific plots of temperature vs. Beta angle are included as Figure 3-2, 3-3 and 3-4.

This system was equipped with the high range fairing temperature sensors and was to be played out on Link II. As noted earlier, Link II was not recorded on ascent.

J-36 188/189 FLIGHT MISSION

REV. CP MODE	RAMP TUR R A SECS	SYSTEM CALIB.	INST. 188		INST. 189		SYSTEM 188 DEV. DEV.	SYSTEM 189 DEV. DEV.	DIFF.			
			ACTUAL	UNIT	ACTUAL	UNIT						
.06	A	7	3	100	4.714	4.740	0.39S	0.54S	4.745	0.80S	0.65S	0.
16	A	R	2	1709	2.235	2.287	2.16S	2.35S	2.282	2.32S	2.12S	-0.
31	A	S	2	1763	2.230	2.215	1.39S	1.98S	2.260	1.54S	1.35S	-0.
47	A	S	2	1840	2.228	2.212	1.6CS	1.99S	2.265	1.86S	1.67S	-0.
63	A	S	2	1920	2.226	2.210	2.67S	2.85S	2.270	2.14S	1.96S	-0.
79	S	S	2	1923	2.226	2.307	3.42S	3.62S	2.300	3.45S	3.30S	-0.
110	R	T	3	2005	2.225	2.270	1.62S	2.00S	2.262	2.73S	2.54S	0.
126	R	T	3	2060	2.227	2.245	0.62S	0.80S	2.255	1.44S	1.25S	0.
142	R	T	3	2120	2.230	2.270	1.61S	1.80S	2.265	1.76S	1.57S	-0.

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

CLOCK FIT ONE

SYS TIME I/P	CL TIME I/P	COMP SYS TM	DELTA ST	REV	STA
0.374708900 05	0.2123414290 06	0.3747088710 05	0.0029	9	
0.772858120 05	0.2521563550 06	0.7728581090 05	0.0016	16	
0.327885680 05	0.2940591200 06	0.3278857250 05	-0.0045	24	
0.726562400 05	0.3339267910 06	0.7265624090 05	-0.0008	31	
0.335269380 05	0.3811974880 06	0.3352693460 05	0.0034	40	
0.733087380 05	0.4209792950 06	0.7330873890 05	-0.0009	47	
0.290478430 05	0.4631184040 06	0.2904784500 05	-0.0020	55	
0.740732970 05	0.5081438600 06	0.7407329790 05	-0.0009	63	
0.255495430 05	0.1314915200 05	0.2954953910 05	0.0039	71	
0.747396300 05	0.5833929100 05	0.7473963500 05	-0.0050	79	
0.301376050 05	0.1001372580 06	0.3013759910 05	0.0059	87	
0.755603700 05	0.1455600410 06	0.7556037400 05	-0.0090	95	
0.310138910 05	0.1874135540 06	0.3101388920 05	0.0018	103	
0.705463110 05	0.2269455770 06	0.7054630950 05	0.0015	110	
0.313533540 05	0.2741530230 06	0.3135335230 05	0.0017	119	
0.766604530 05	0.3194601260 06	0.7666045220 05	0.0008	127	
0.319163810 05	0.3611160580 06	0.3191638130 05	-0.0003	135	
0.715989900 05	0.4007586700 06	0.7159899060 05	-0.0006	142	
0.324478580 05	0.4480475400 06	0.3244785740 05	0.0006	151	

 $A_0 = -0.17487052740 \text{ 06}$ $A_1 = 0.9999999317440 \text{ 00}$ $\text{SIGMA} = 0.00329$ NO. POINTS = 19

RATIO OF CLOCK TIME TO SYS TIME = 0.100000068260 01

CLOCK FIT TWO

SYS TIME I/P	CL TIME I/P	COMP SYS TM	DELTA ST	REV	STA
0.374708900 05	0.2123414290 06	0.3747088790 05	0.0021	9	
0.772858120 05	0.2521563550 06	0.7728581090 05	0.0011	16	
0.327885680 05	0.2940591200 06	0.3278857280 05	-0.0048	24	
0.726562400 05	0.3339267910 06	0.7265624090 05	-0.0009	31	
0.335269380 05	0.3811974880 06	0.3352693450 05	0.0035	40	
0.733087380 05	0.4209792950 06	0.7330873870 05	-0.0007	47	
0.290478430 05	0.4631184040 06	0.2904784470 05	-0.0017	55	
0.740732970 05	0.5081438600 06	0.7407329790 05	-0.0005	63	
0.295495430 05	0.1314915200 05	0.2954953860 05	0.0044	71	
0.747396300 05	0.5833929100 05	0.7473963450 05	-0.0045	79	
0.301376050 05	0.1001372580 06	0.3013759870 05	0.0063	87	
0.755603700 05	0.1455600410 06	0.7556037860 05	-0.0086	95	
0.310138910 05	0.1874135540 06	0.310138890 05	0.0021	103	
0.705463110 05	0.2269455770 06	0.7054630930 05	0.0017	110	
0.313533540 05	0.2741530230 06	0.3135335220 05	0.0018	119	
0.766604530 05	0.3194601260 06	0.7666045230 05	0.0007	127	
0.319163810 05	0.3611160580 06	0.3191638160 05	-0.0006	135	
0.715989900 05	0.4007586700 06	0.7159899110 05	-0.0011	142	
0.324478580 05	0.4480475400 06	0.3244785820 05	-0.0002	151	

 $A_0 = -0.17487052440 \text{ 06}$ $A_1 = 0.95599999219480 \text{ 00}$ $A_2 = 0.82093015572340 \text{ -14}$ $\text{SIGMA} = 0.00326$ NO. POINTS = 19

Table 3-2

TABLE 3-3

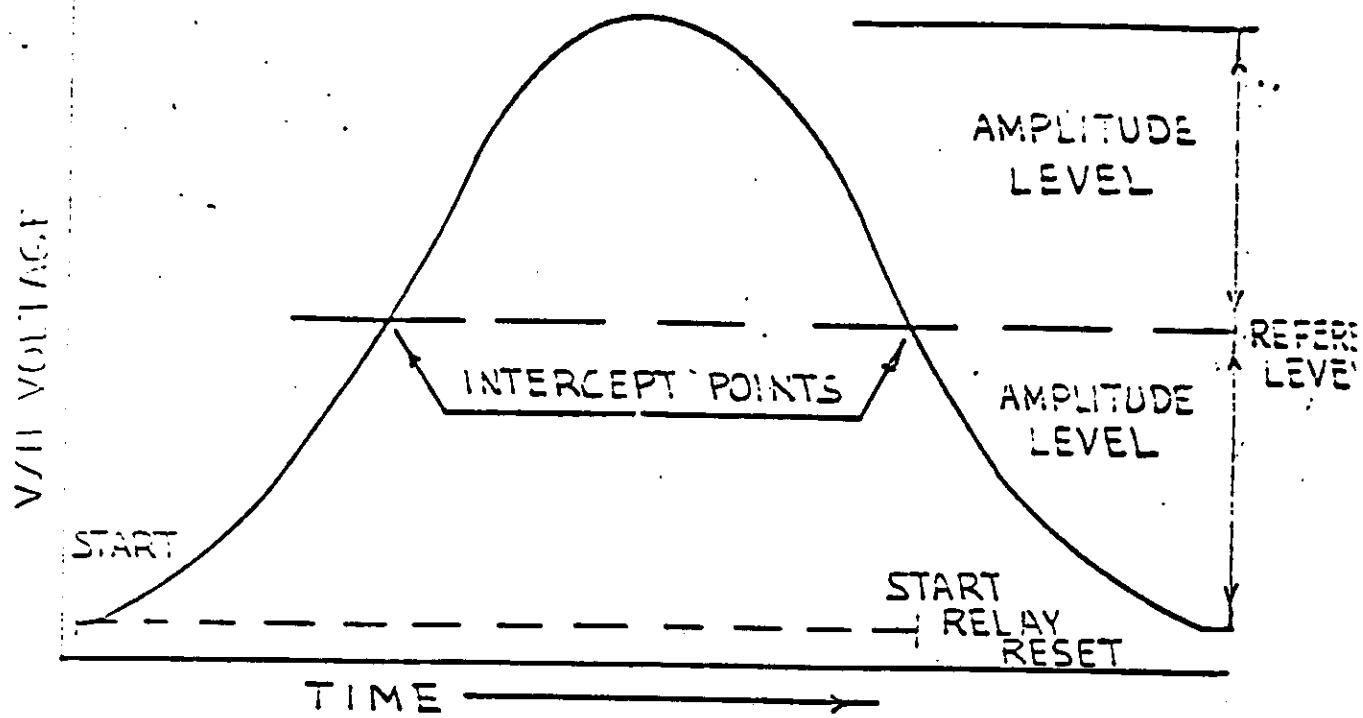
J-36 TEMPERATURE SUMMARY

<u>SENSOR</u>	<u>ORBITS ACQUIRED</u>																		
<u>Master Camera</u>	8	16	24	31	40	47	55	63	71	79	87	95	103	110	119	127	135	142	150
3	79	74	78	75	78	75	78	74	75	74	72	67	70	67	69	67	69	64	68
4	83	76	73	77	73	78	81	76	79	77	77	70	75	70	74	69	74	68	72
5	83	83	87	82	87	83	86	81	83	81	80	75	79	74	78	73	78	71	74
6	88	81	86	84	85	83	84	82	82	83	78	75	76	75	75	72	73	71	72
7	84	81	84	81	83	81	82	80	80	80	76	73	74	72	72	72	70	70	70
8	89	83	87	82	87	82	86	82	84	81	81	75	79	75	79	73	78	73	76
9	90	84	88	82	88	82	86	82	84	81	82	76	79	74	78	72	78	72	75
11	80	77	86	80	85	81	83	76	80	78	77	72	74	71	74	69	73	67	70
12	82	75	82	76	82	77	81	76	79	76	77	70	75	70	75	69	74	69	73
13	85	81	83	82	82	81	82	80	79	79	76	72	73	72	70	70	68	69	69
Avg	85	83	85	80	84	80	83	79	80	79	78	73	75	72	75	71	74	69	72
<u>Master Slave</u>	<u>-1 PHASE</u>								<u>-2 PHASE</u>										
	81	79	82	79	81	76	80	77	77	77	75	70	71	68	69	66	68	65	66
4	81	75	79	75	80	75	79	74	76	74	75	67	71	65	70	64	70	63	66
5	84	78	83	79	83	80	82	79	80	78	77	71	74	71	74	71	73	70	71
6	82	78	81	79	81	79	81	79	78	79	75	72	72	71	72	69	72	70	70
7	84	81	83	82	83	81	82	82	81	81	77	74	75	74	74	71	73	71	71
8	84	78	84	78	83	79	83	78	80	78	78	72	75	71	75	69	74	69	72
9	81	78	84	79	84	80	83	79	81	78	78	73	76	73	77	72	76	71	75
11	76	74	76	73	76	73	75	76	73	74	70	67	78	65	67	64	67	64	66
12	86	80	86	80	86	80	84	79	81	78	80	72	76	71	76	69	75	68	72
13	74	73	73	72	75	73	73	74	71	71	67	66	65	64	64	63	62	61	61
Avg	82	78	82	76	81	78	80	76	78	77	75	70	72	69	72	68	71	67	69
<u>Supply Stage</u>																			
1	70	67	71	68	72	70	72	71	70	68	64	65	62	64	62	64	61	62	
2	74	69	74	70	75	70	74	70	71	69	68	62	64	60	63	60	63	58	60

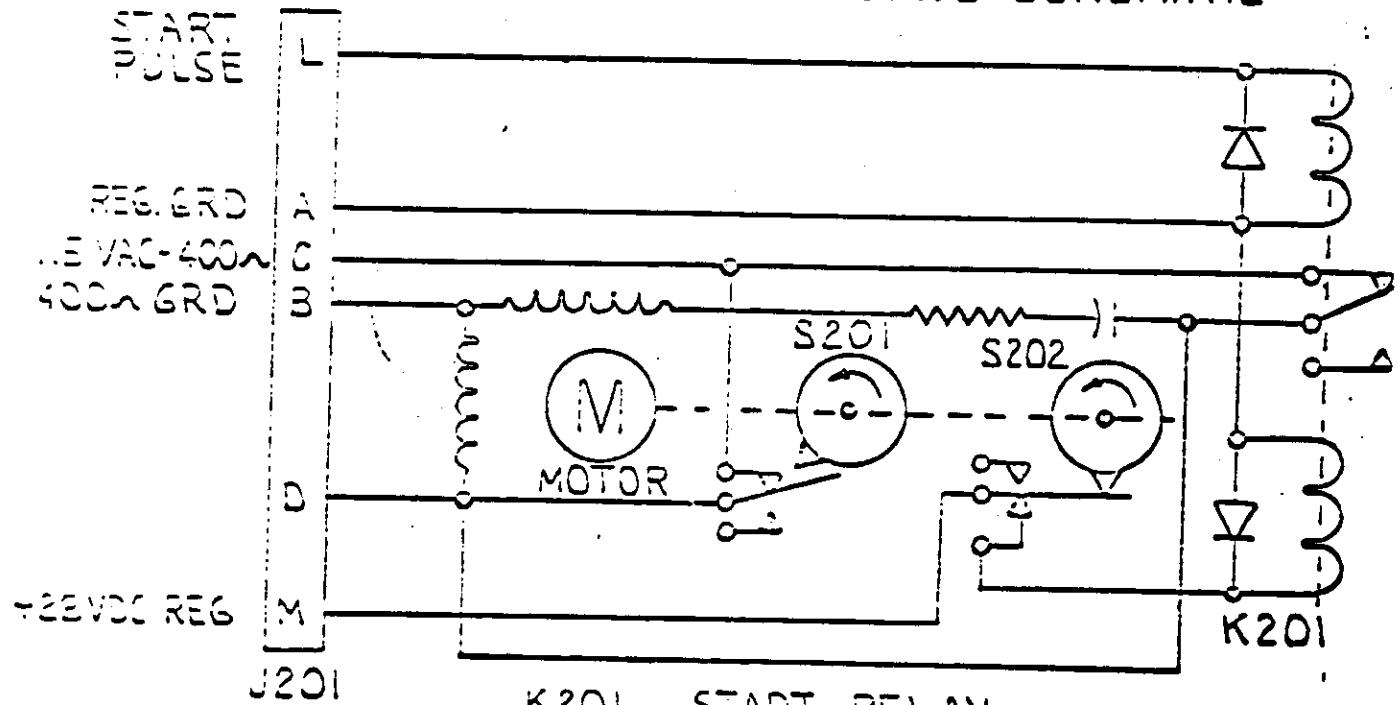
TABLE 3-3
J-36 TEMPERATURE SUMMARY

												<u>ORBITS ACQUIRED</u>															
												A		B													
Fair ("A")		8	16	24	31	40	47	55	63	71	79	87	95	103	110	119	127	135	142	1							
Fair	("A")	25	40	40	40	40	18	25	40	9	33	22	32	19	35	19	32	22	25								
Barrel #1	("B")	8	16	24	31	40	47	55	63	71	79	87	95	103	110	119	127	135	142	1							
1		25	40	40	40	40	18	25	40	9	33	22	32	19	35	19	32	22	25								
2		OBL	OBL	10	0	13	-5	06	--	13	-9	66	56	56	60	60	56	66	74								
3		OBL	OBL	-15	0	-9	-27	-9	--	-1	-16	82	118	70	118	73	106	82	115								
4		44	30	44	37	44	37	37	44	44	44	45	69	36	63	36	57	39	51								
5		53	46	53	46	59	46	46	53	39	39	45	33	42	33	39	36	30									
6		49	56	56	56	56	42	49	49	56	42	--	--	--	--	--	--	--	--								
Barrel #2																											
1		44	53	47	53	47	50	40	50	37	47	34	37	27	34	27	30	27	20								
2		41	80	49	77	49	60	41	69	35	66	41	63	29	58	32	46	35	46								
3		66	110	74	110	74	86	69	110	63	110	72	104	63	107	66	89	72	101								
4		58	52	62	55	65	52	62	58	62	62	62	52	55	58	58	52	62	55								
5		56	56	59	59	62	59	59	65	56	65	42	46	36	49	39	42	39	39								
Coolant																											
1		54	52	60	51	60	53	51	48	48	48	45	32	35	29	35	26	35	20								
Press. Mixture Ratio																											
1		103	94	103	91	103	86	97	86	91	88	94	80	88	77	85	77	85	70								
2		101	90	101	90	98	87	93	64	87	84	87	75	84	72	81	69	78	63								
Clock																											
1		79	72	81	77	81	77	77	77	77	77	70	64	68	64	66	62	66	57								
2		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--								
Thrust Core "A" to "B"																											
1 (Skin)		42	34	37	33	36	33	37	33	36	34	60	56	58	56	58	55	57	52								
2 (Retro)		61	52	56	49	54	50	54	49	50	77	73	70	70	68	68	68	68	65								
Mastor Capsule "A" SRV																											
2		69	66	68	65	68	67	69	67	67	67	--	--	--	--	--	--	--	--								
Recover. Data "B" SRV																											
2		67	64	65	64	65	64	65	64	63	65	75	73	81	82	86	82	77	84								

VSH PROGRAMMER VOLTAGE PROFILE



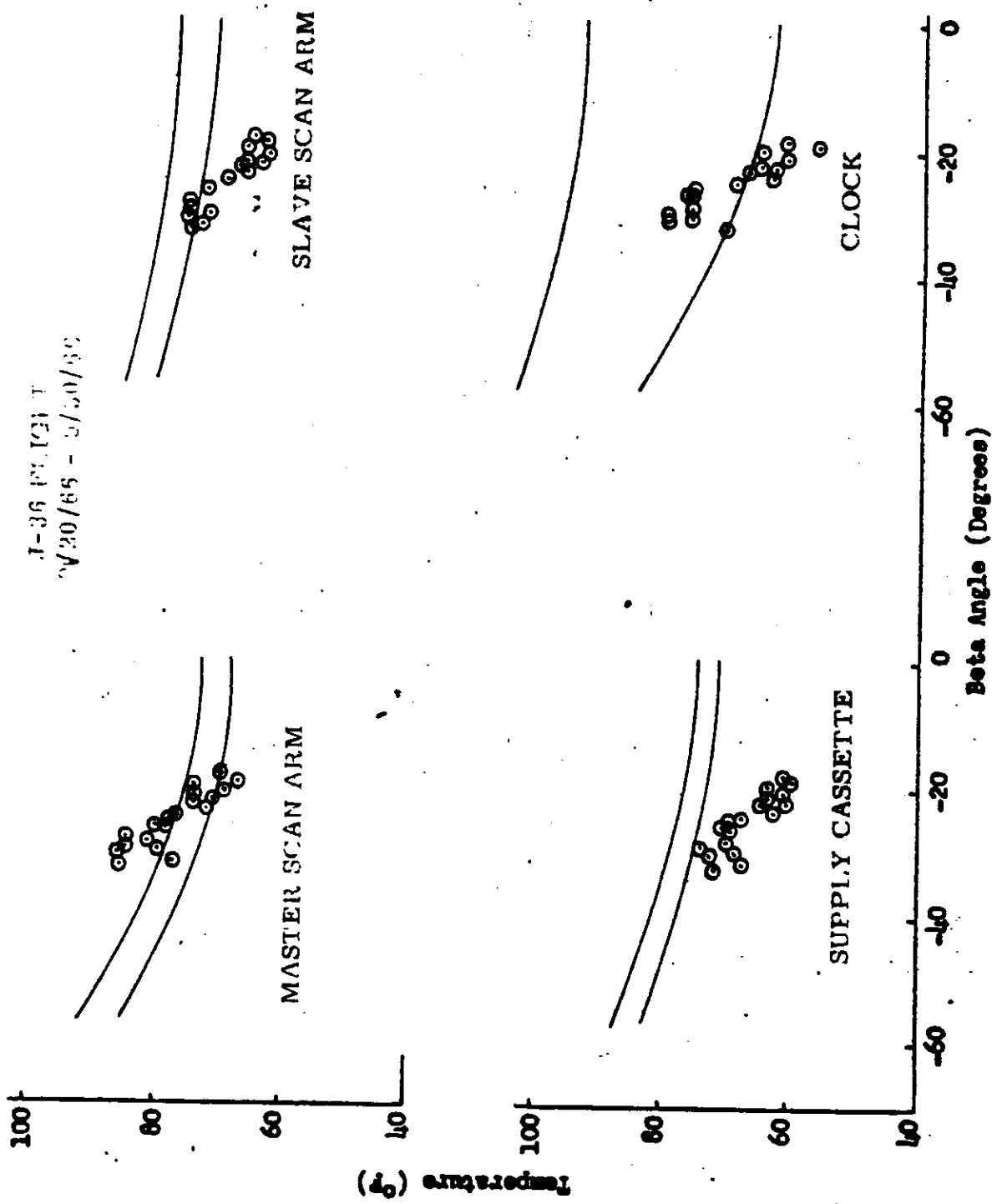
VSH PROGRAMMER DRIVE SCHEMATIC



K201 START RELAY
S201 SELF ENERGIZE SWITCH
S202 START RELAY RESET SWITCH

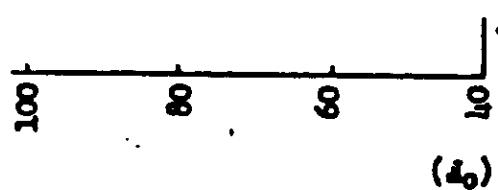
Figure 3-1

TOP SECRET//
NO.



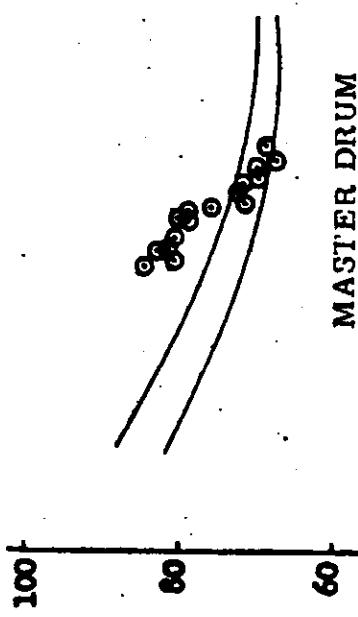
~~CONFIDENTIAL~~
NO.

J-36 FLIR
 $\alpha f/20/f6R-\alpha f/10/f6$

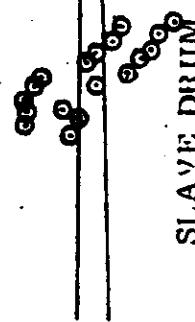


MASTER LENS

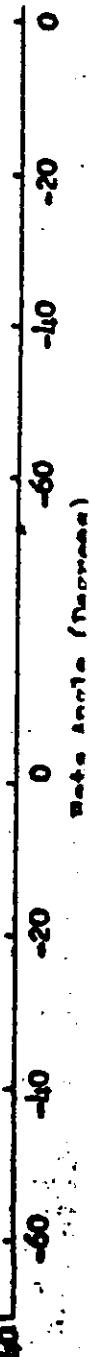
SLAVE LENS



MASTER DRUM



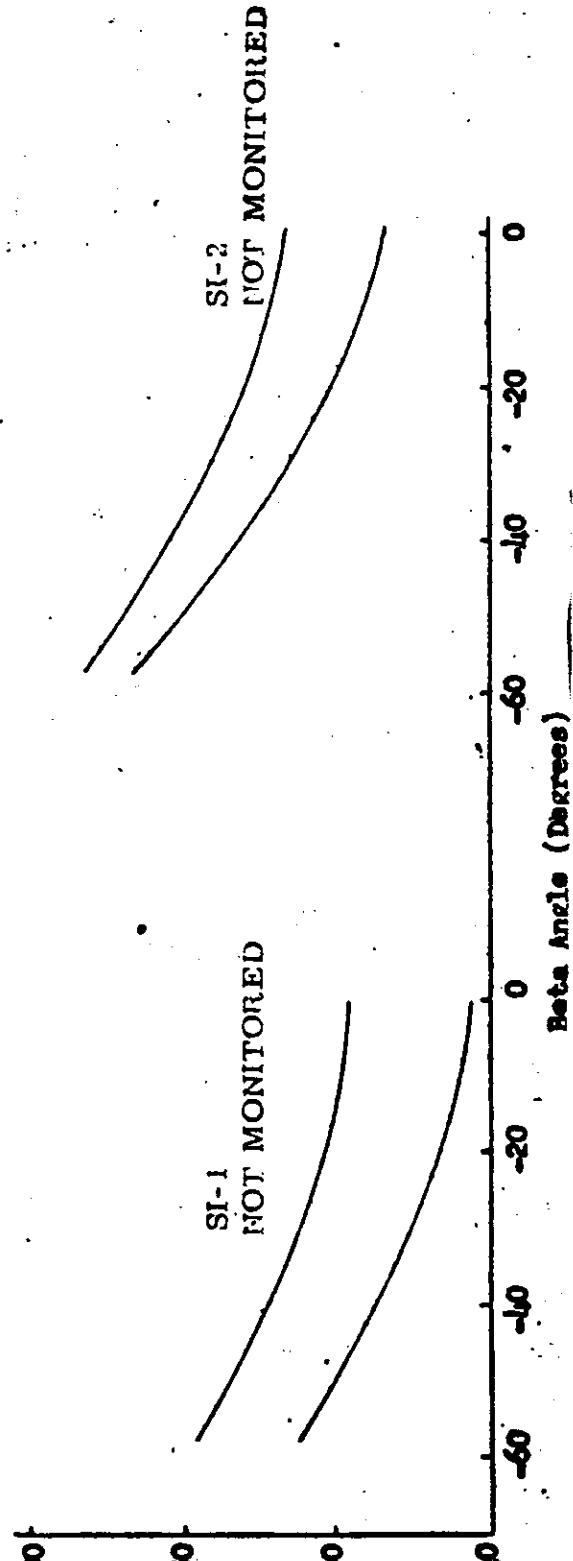
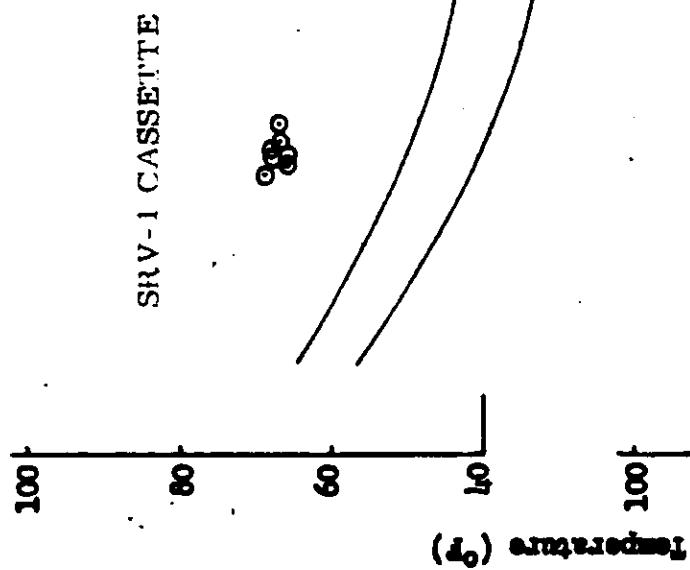
SLAVE DRUM



SLAVE LENS

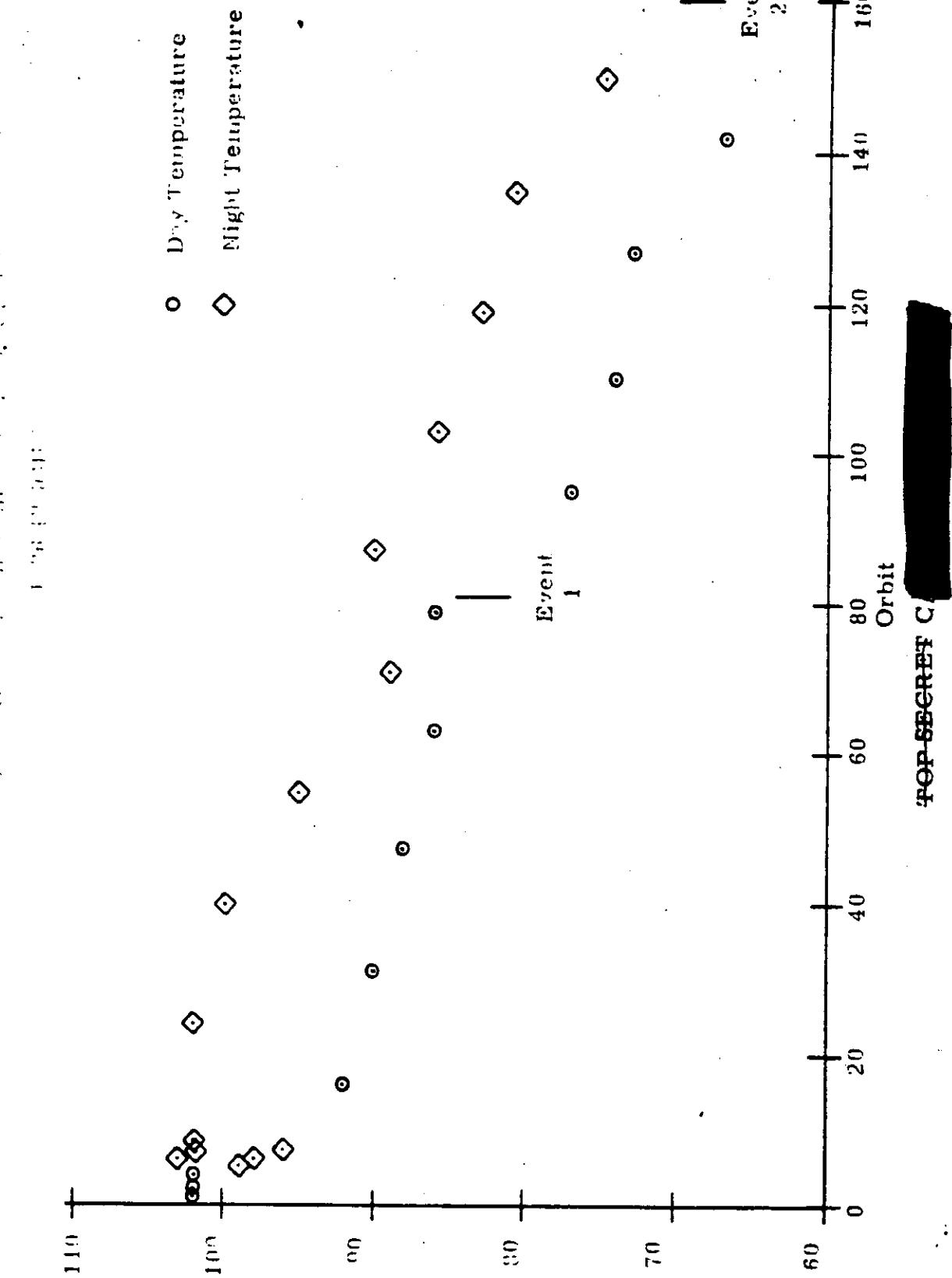
RECORDED BY
NO.

100% WET DRY
4/20/68 - 6/20/68

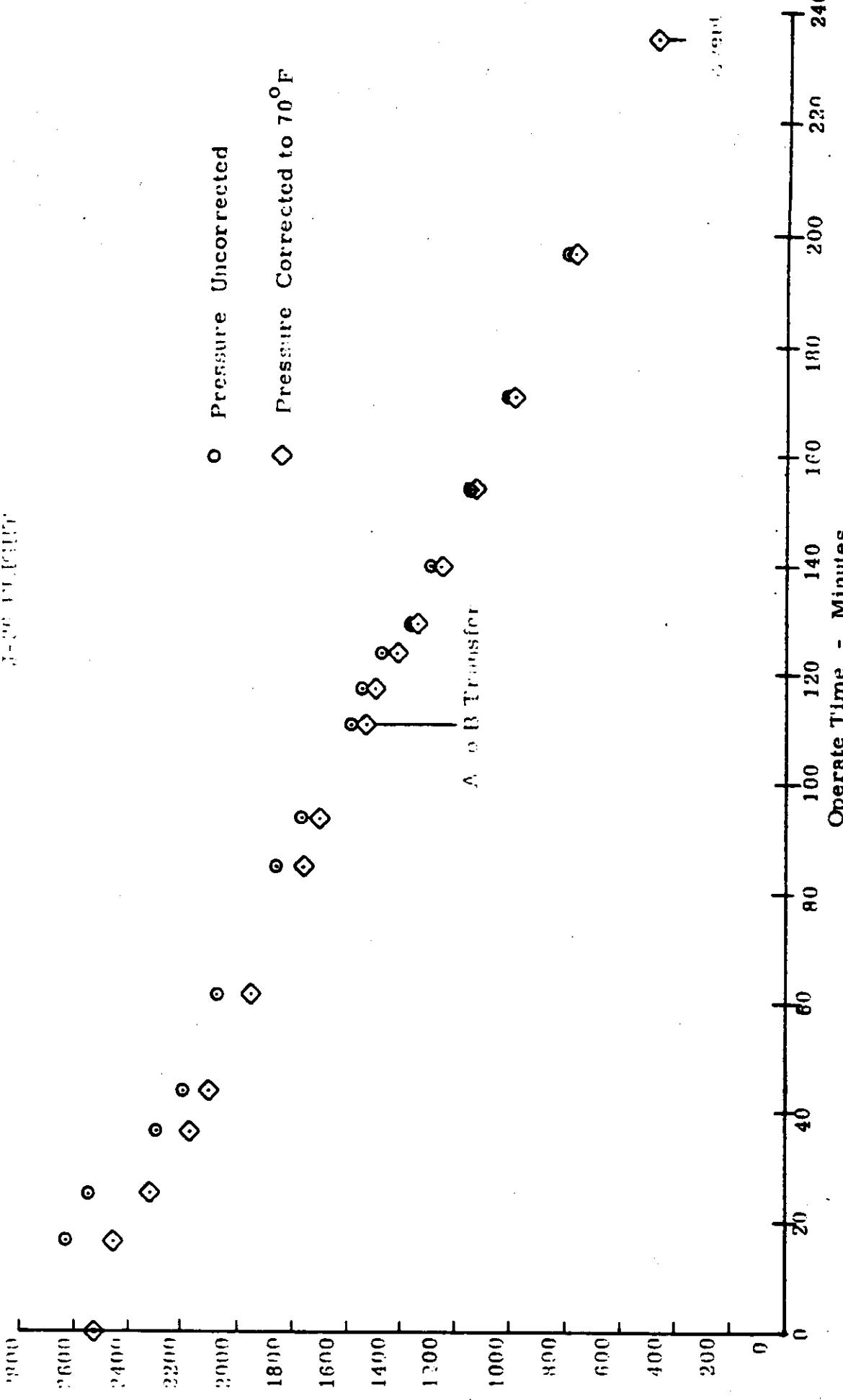


TELEMETRY
[REDACTED]
[REDACTED]

Figure 37. Day/Night Temperature Data



REF ID: A6512
TOP SECRET C [REDACTED]



SECTION 4

MISSION 1035-1 RECOVERY SYSTEM

SRV #723 was received at A/P on 4 January 1966. The receiving weight was 153.50 pounds. After modifications and incorporation of outstanding E. O.'s, the SRV was delivered to Systems Test for incorporation into the J-36 system.

The capsule was shipped to VAFB on 21 June 1966.

The -1 recovery system was successfully recovered by air catch from orbit 81 at 1719 PDT on 25 September 1966. The impact point was as follows:

Predicted Impact $24^{\circ}32'N/166^{\circ}30'W$

Actual Impact $24^{\circ}27'N/166^{\circ}31'W$

The condition of the recovered capsule was satisfactory with no damage other than normal paint blistering due to the re-entry environment.

Event times are shown in Table 4-1.

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NO.

MISSION 1035-1

RECOVERY SEQUENCE OF EVENTS

<u>Event</u>	Delta Time (Seconds)	
	<u>Actual</u>	<u>Nominal</u>
* Arm	76.90	77.0 ± 1.0
* Transfer	2.00	2.0 ± 0.25
Electrical Disconnect	0.81	$0.900 \begin{smallmatrix} + 0.430 \\ - 0.400 \end{smallmatrix}$
Separation	--	--
** Spin	3.38	3.4 ± 0.30
Retro	7.23	7.55 ± 0.45
Despin	10.56	10.75 ± 0.59
T/C Separation	1.50	1.5 ± 0.15
*** "G" Switch Open	496.49	497.7
Parachute Cover Off	33.99	34.0 ± 1.5
Drogue Chute Deployed	0.66	0.63 ± 0.08
Main Chute Bag Separate	12.10	$10.0 \begin{smallmatrix} + 3.0 \\ - 2.2 \end{smallmatrix}$
Main Chute Deployed	0.58	0.52 ± 0.13
Main Chute Disreef	4.33	4.5 ± 0.80
* From Separation		
** From Electrical Disconnect		
*** From Retro		
Spin Rate (RPM) 61.0		
Despin Rate (RPM) 8.5		
Retro Velocity (Ft/Sec.) 1016		TABLE 4-1

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~~TOP SECRET C~~

NO. [REDACTED]

SECTION 5

MISSION 1035-2 RECOVERY SYSTEM

SRV #724 was received at A/P on 4 January 1966. The receiving weight was 152.75 pounds. After modifications and incorporation of outstanding E.O.'s the unit was delivered to Systems Test for mating to the J-30 system.

The capsule was shipped to VAFB on 21 June 1966.

The -2 recovery system was successfully recovered by air catch from orbit 160 at 1641 PDT on 30 September 1966. The impact point was as follows:

Predicted Impact $24^{\circ}05'N/164^{\circ}17'W$

Actual Impact $23^{\circ}50'N/164^{\circ}22'W$

Event times are shown in Table 5-1.

Post flight inspection of the -2 recovery system revealed that the T/M battery spilled electrolyte into the recovery capsule. The electrolyte was blown through the vent valve. The fix of adding a vent valve storage tube has been issued for all further T/M batteries and is incorporated into the next flight units.

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~~TOP SECRET C~~

NO.

MISSION 1035-2

RECOVERY SEQUENCE OF EVENTS

<u>Event</u>	<u>Delta Time (Seconds)</u>	
	<u>Actual</u>	<u>Nominal</u>
* Arm	76.48	77.0 <u>±</u> 1.0
Transfer	2.00	2.0 <u>±</u> 0.25
Electrical Disconnect	0.80	0.900 ^{+0.430} _{-0.400}
Separation	--	---
** Spin	3.33	3.4 <u>±</u> 0.30
Retro	7.40	7.55 <u>±</u> 0.45
Despin	10.61	10.75 <u>±</u> 0.59
T/C Separation	1.44	1.5 <u>±</u> 0.15
*** "G" Switch Open	539.0	536.6
Parachute Cover Off	34.22	34.0 <u>±</u> 1.5
Drogue Chute Deployed	0.46	0.63 <u>±</u> 0.08
Main Chute Bag Separate	11.60	10.0 ^{+3.0} _{-2.2}
Main Chute Deployed	0.59	0.52 <u>±</u> 0.13
Main Chute Disreef	4.07	4.45 <u>±</u> 0.80

- * From Separation
- ** From Electrical Disconnect
- *** From Retro
- Spin Rate (RPM) 61.2
- Despin Rate (RPM) 11.1
- Retro Velocity (Ft/Sec.) 1040

Table 5-1

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~~TOP SECRET C~~

NO.

SECTION 6

MISSION 1035 PANORAMIC CAMERAS

A. COMPONENT ASSIGNMENT

<u>Component</u>	<u>Master (Fwd)</u>	<u>Slave (Aft.)</u>
	<u>Serial Number</u>	<u>Serial Numbe</u>
Main Camera	188	189
Main Camera Lens	2072435	2122435
Supply Horizon Camera	289GCH	298G6II
Supply Horizon Camera Lens	E12888	E12835
Take-up Horizon Camera	296-G5H	299G5H
Take-up Horizon Camera Lens	E12898	E12887
Supply Cassette	SC-40	SC-40

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 (Kodak)	3404	3404

Supply Horizon Cameras:

	<u>Port</u>	<u>Stbd.</u>
Lens	55 mm f/6.3	55 mm f/6
Aperture Setting	f/6.3	f/8.0
Exposure Time	1/100 second	1/100 sec
Filter Type	Wratten 25	Wratten 21

Take-up Horizon Cameras:

	<u>Stbd.</u>	<u>Port</u>
Lens	55 mm f/6.3	55 mm f/6
Aperture Setting	f/8.0	f/6.3
Exposure Time	1/100 second	1/100 sec
Filter Type	Wratten 25	Wratten 21

~~TOP SECRET C~~

C. POST FLIGHT PERFORMANCE EVALUATION

The image quality on both missions was excellent. The MIP rating was 85. The high quality is due in part to the unusually clear atmospheric conditions as noted in a cloud cover analysis from the index camera photography. The use of the yaw programmer, first in over a year, provided an improved image motion compensation.

The aft-looking camera photography produced imagery of better detail than the forward looking camera. This same quality relationship has been observed on most missions and it is attributed to the forward looking camera being pointed toward the sub solar point which results in more haze light striking the camera. As a result of this haze light a filter with a higher film - filter factor is used on the forward camera, which requires a longer exposure time.

The horizon camera photography was not veiled, however slight overexposure was reported on the sun side cameras.

Several minor areas of light leak fog were observed on both pan films during inactive periods. This is the first system incorporating improved main camera seals and it is noted that the magnitude of the light leaks was less than generally experienced.

The last few feet of -2 pan film was contaminated by spilled electrolyte from the recovery battery. A new vent device will be incorporated on future missions to prevent the condition.

Mission 1035 is the first "J" system flown with the photogrammetric configuration. The rail hole images and lens scan lines produced by both cameras showed some defects but in general were equivalent to pre-flight test results and provided adequate photogrammetric data points.

Of the 73 programmed dots along each format edge, one dot on each edge was not detected on the master and all the dots on the slave were recorded. As the mission progressed several dots failed to record. These failures are attributed to micro particles of emulsion from the rail surfaces filling the holes.

The nod of traces on the master camera failed to appear occasionally and there were instances of the traces starting after the beginning of the scan.

Both cameras produced random instances of undulating traces. This condition was noted in pre-flight test and are attributed to the operation of the lens to stove interlock and some imbalance of the main lens and collimator assemblies. These conditions are to be improved on future PG systems. The nodal traces do not obscure terrain detail as much as had been anticipated.

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SECTION 7

MISSION 1035- STELLAR-INDEX CAMERAS

A. COMPONENT ASSIGNMENT

<u>Component</u>	<u>-1 Mission</u> <u>Serial Number</u>	<u>-2 Mission</u> <u>Serial Number</u>
Camera	D-95	D-96
Index Reseau	112	101
Stellar Reseau	113	116

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 PERFORMANCE EVALUATION

The -1 S/I unit produced 435 frames on each camera. The index imagery was excellent. The stellar formats contained at least 15 stars per exposure. Light flare in the stellar formats was minimal. The plus density streaks that are being called "jettisoned fuel particles" were more frequent than usual.

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The streaked timing pulse on the -1 slave film and the 26 unprogrammed S/I exposures reported after the master camera off command are the normal result of a new arrangement which switches control from the master to the slave when only the slave is operating. This operation will be normal on future "J-1" missions.

The -2 stellar and index cameras each produced 475 frames. Each stellar frame contained at least 15 star images for vehicle attitude determination. Earth flare was at a minimum. A small foreign particle was located on the backside of the reseau plate on both stellar cameras causing a focal out of focus condition.

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SECTION 8

PANORAMIC CAMERA EXPOSURE

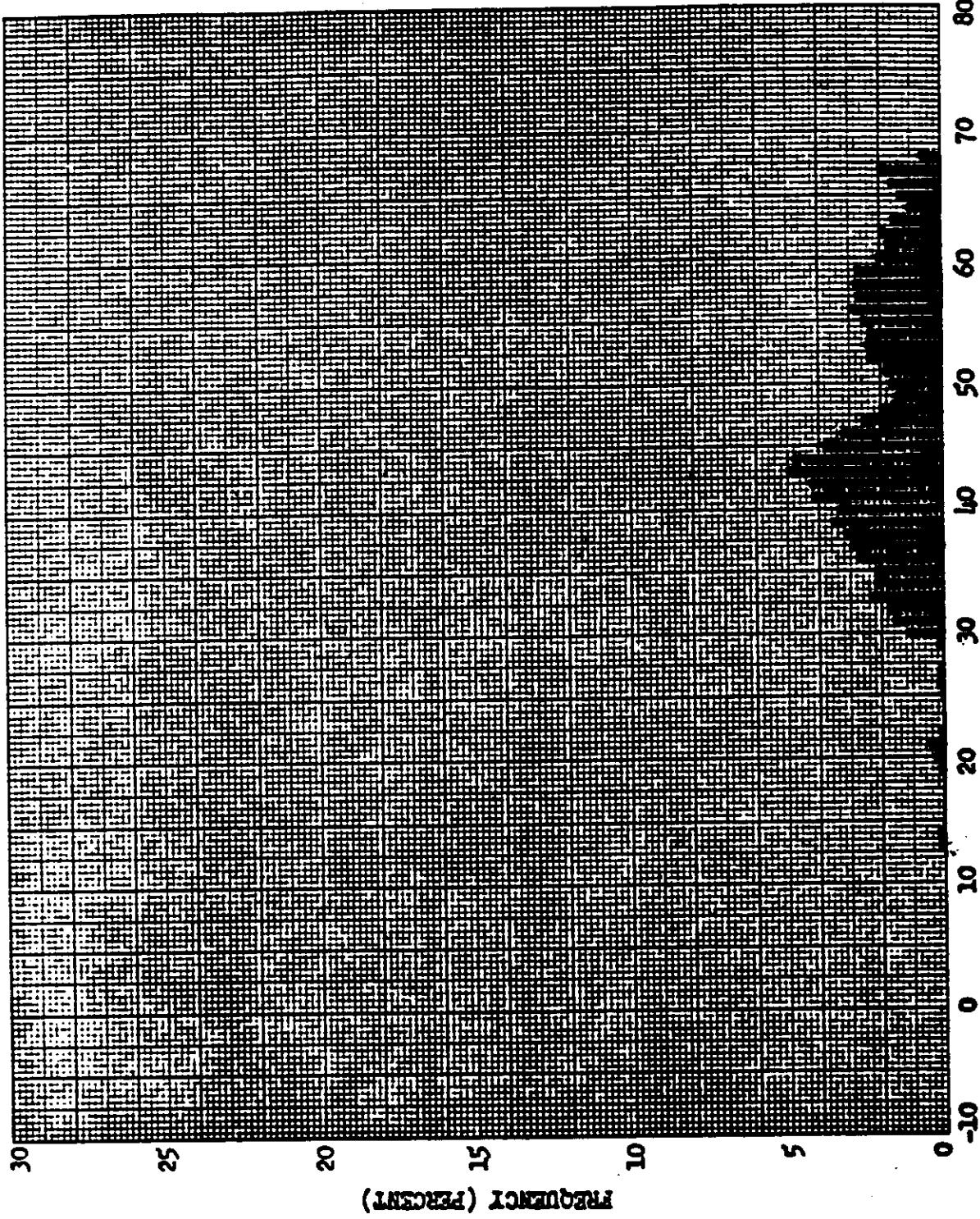
The Master camera contained a 0.225 inch slit and a Wratten 23A filter. The Slave camera had a 0.175 inch slit and a Wratten 21 filter. These conditions placed the nominal exposure between the full and intermediate processing curve.

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-56, D-104 and D-152 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]

<u>Mission</u>	<u>Camera</u>		<u>% Primary</u>	<u>% Intermediate</u>	<u>% Full</u>
1035-1	FWD	Predicted	0	17	83
		Reported	0	11	89
1035-1	AFT	Predicted	0	5	95
		Reported	1	14	85
1035-2	FWD	Predicted	0	22	78
		Reported	4	18	78
1035-2	AFT	Predicted	0	23	77
		Reported	0	12	88

SOLAR ELEVATION FREQUENCY DISTRIBUTION



Mission No. 1035-2

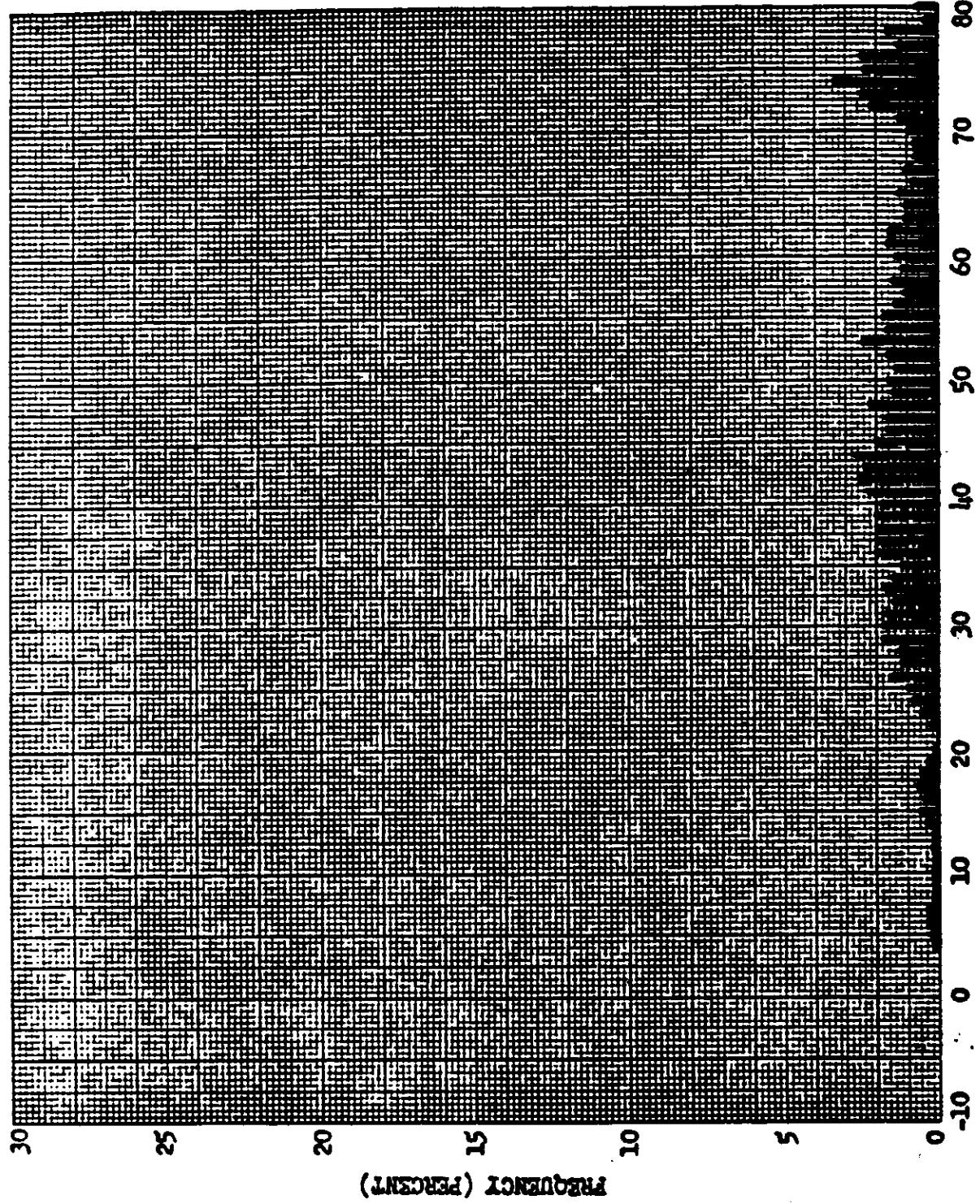
Payload No: J-36

Camera No: 108

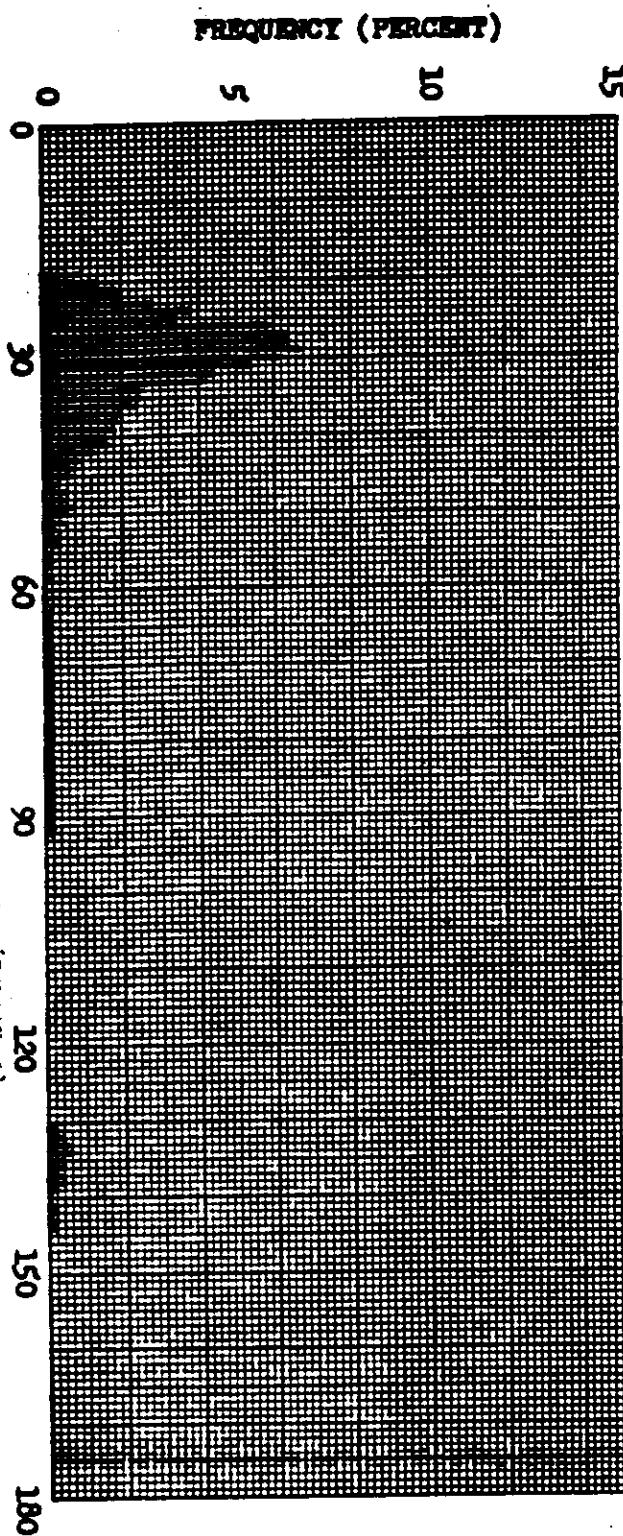
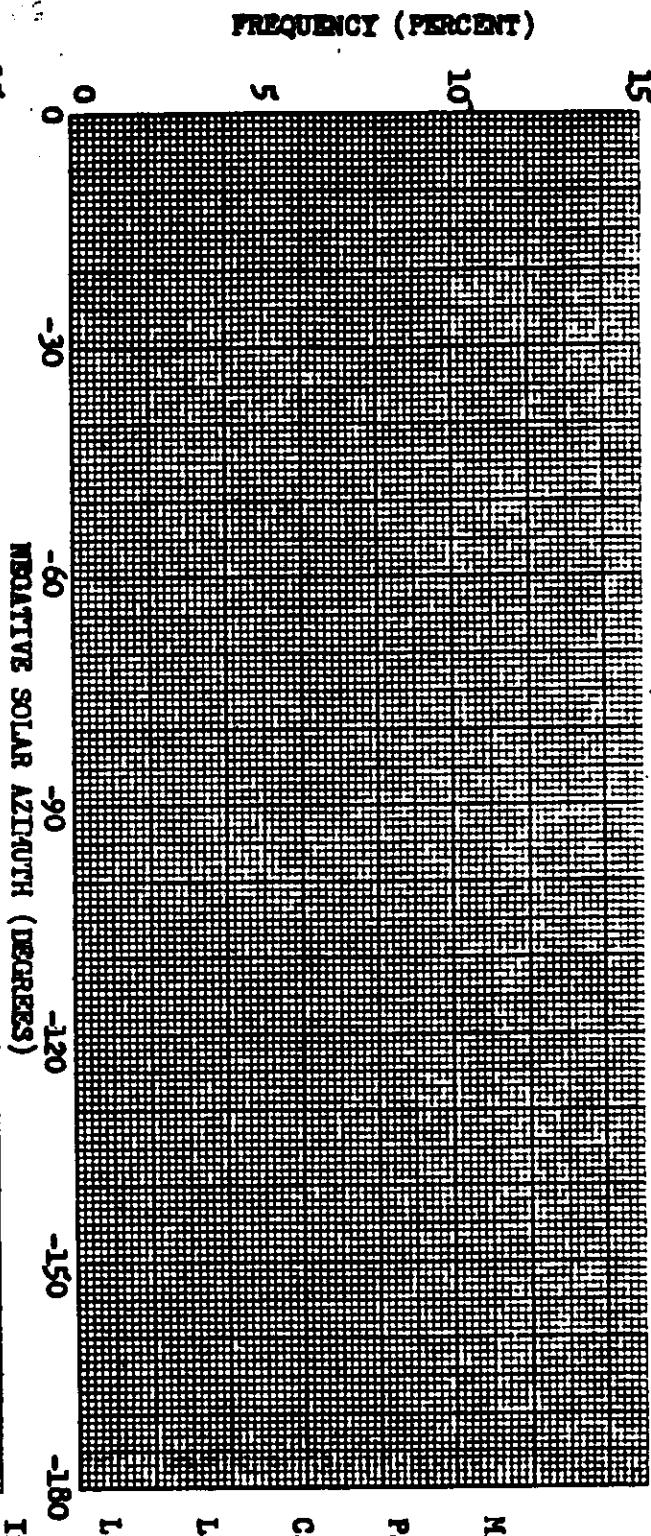
Launch Date: 9/20/66

Launch Time: 2014-2

Inclinations 850



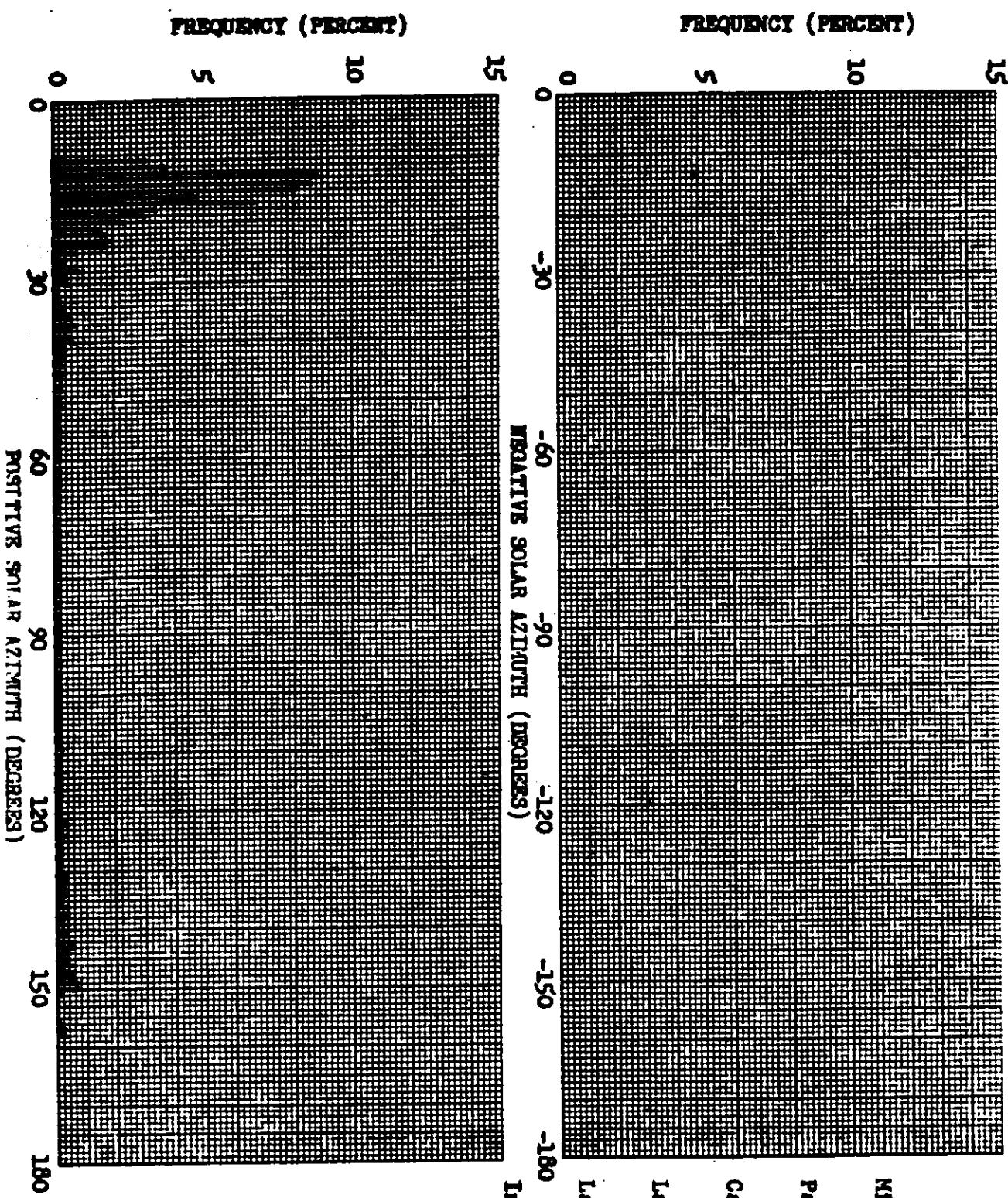
SOLAR AZIMUTH FREQUENCY DISTRIBUTION



Direction Of Flight



SIGN ROTATION

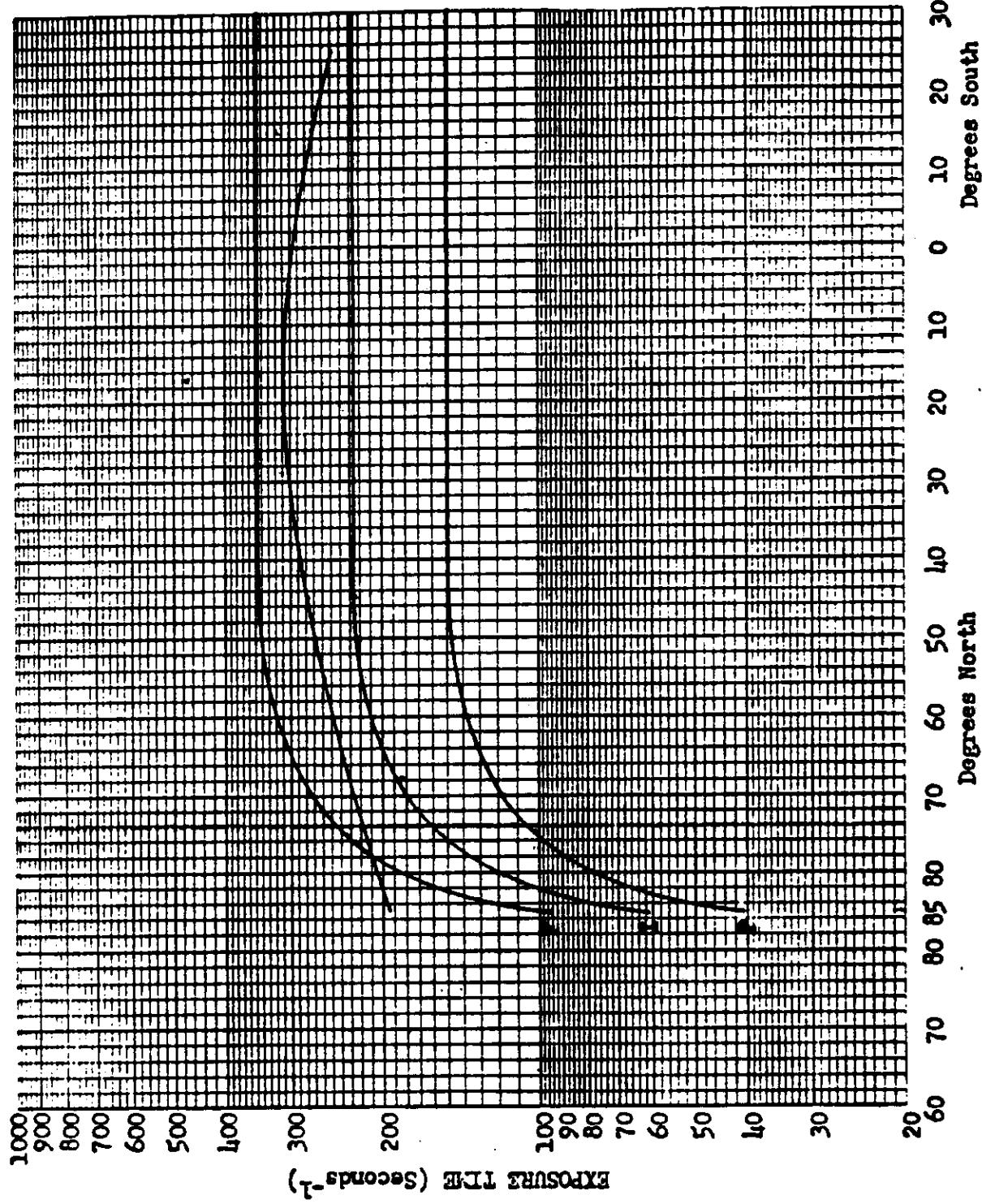


Direction Of Flight



SIGN NOTATION

EXPOSURE POINTS



Mission No: 1035

Payload No: J-36

Camera No: 168

Pass No: 8

Launch Date: 9/20/66

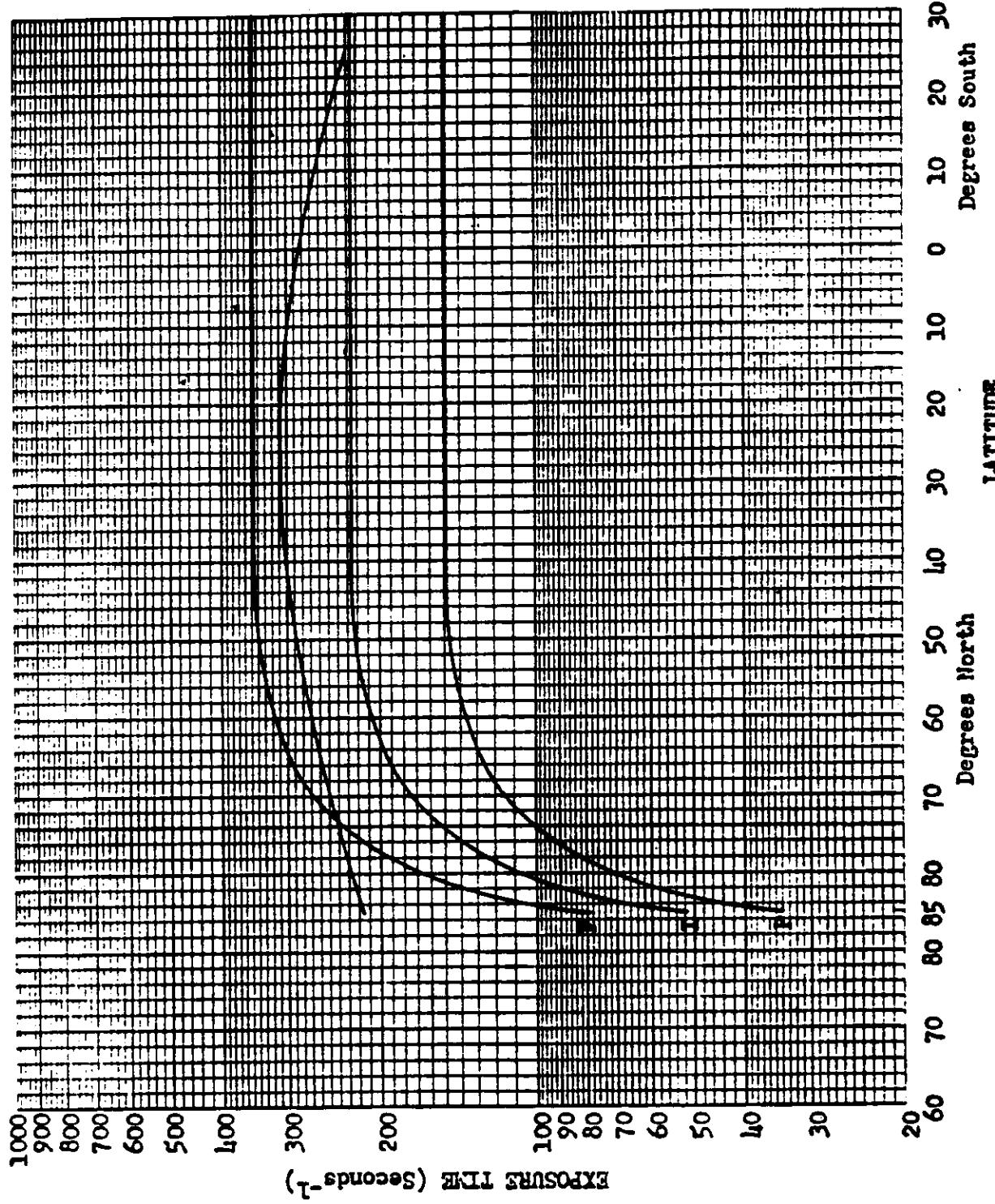
Launch Time: 214.2

Slit Width: .225

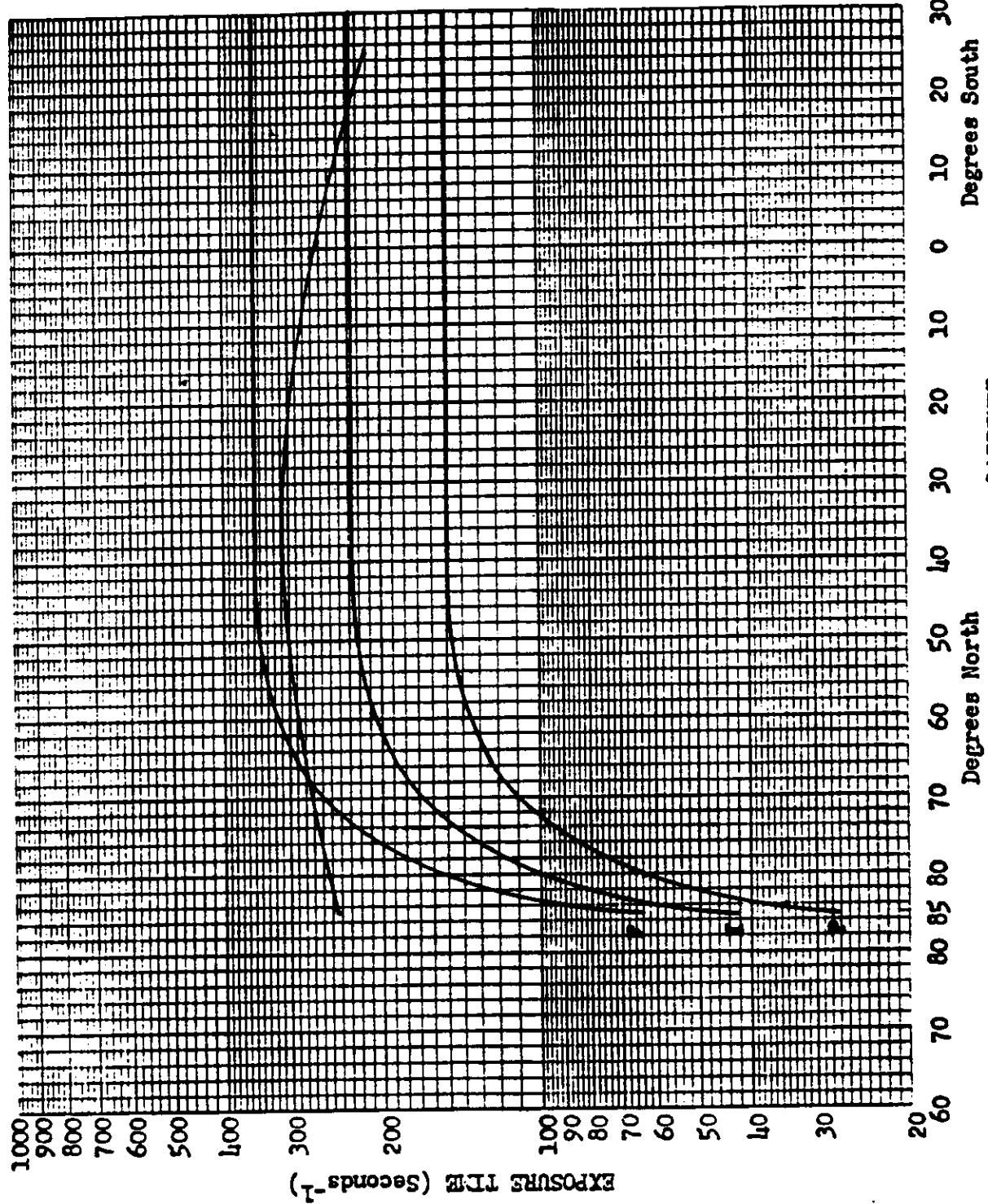
Filter Type: Wratten 23

Filter Type: 310k

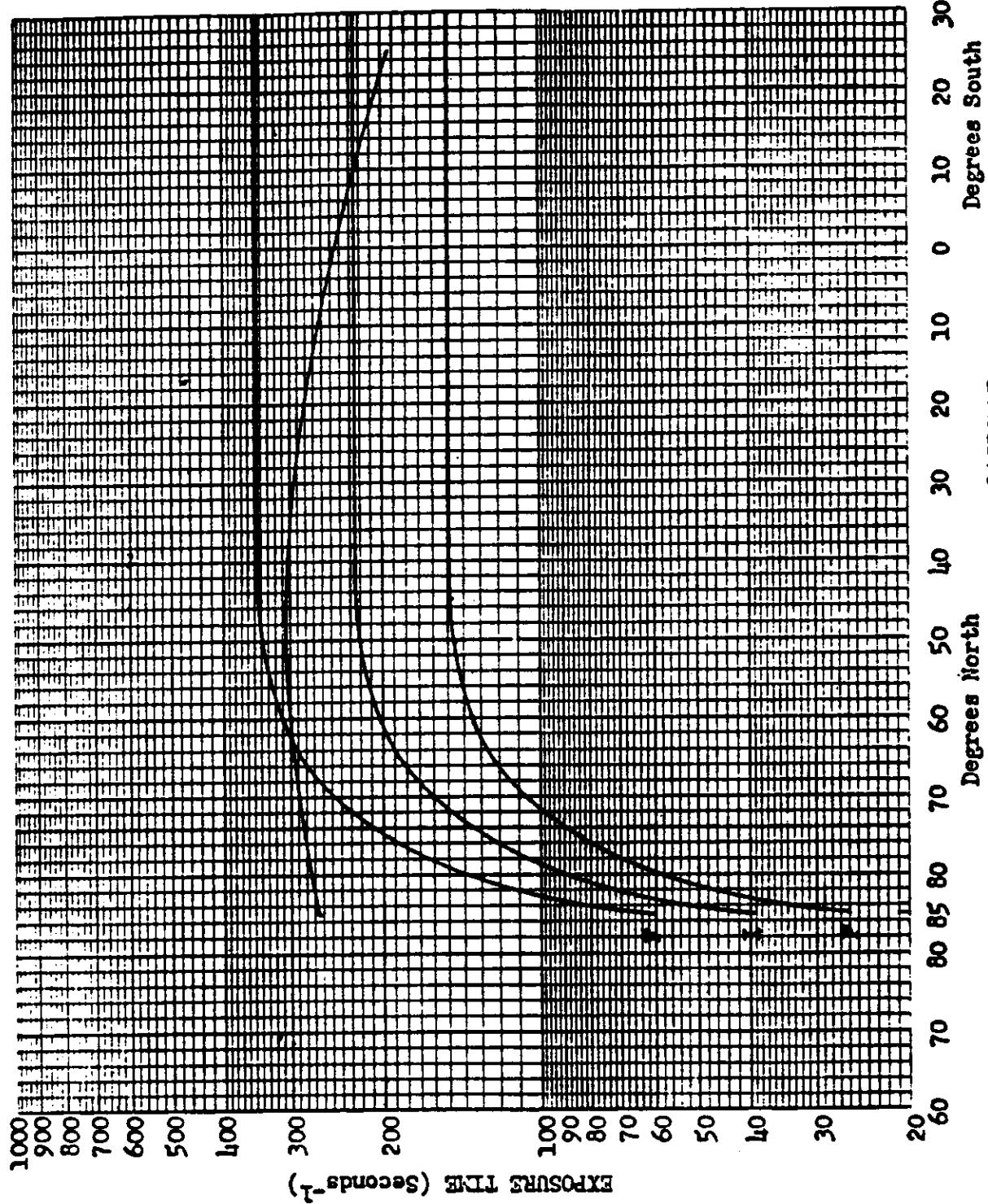
EXPOSURE POINTS



EXPOSURE POINTS



EXPOSURE POINTS



Mission No: 1035

Payload No: 4-36

Camera No: 189

Pass No: 162

Launch Date: 9/20/66

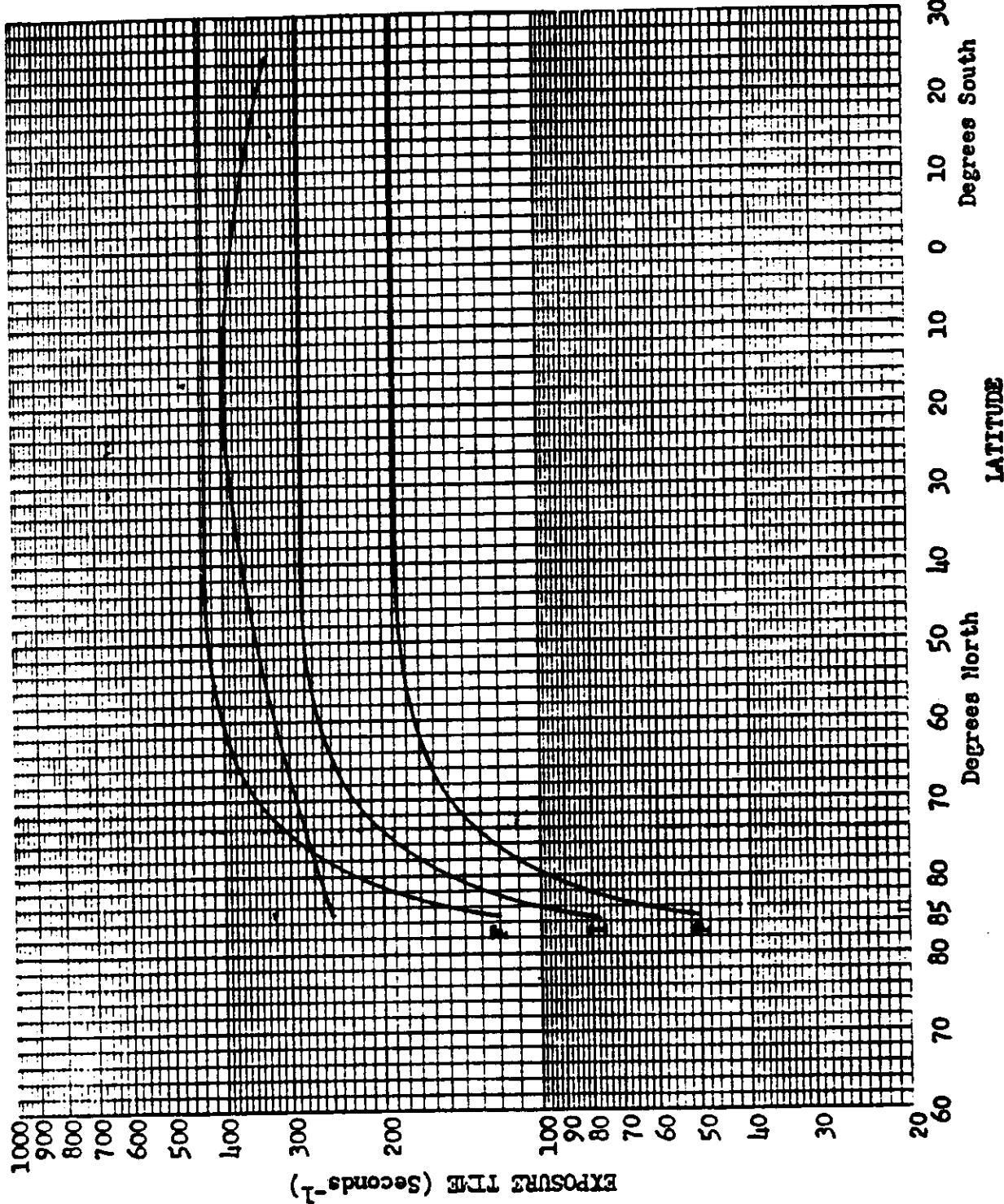
Launch Time: 2114 2

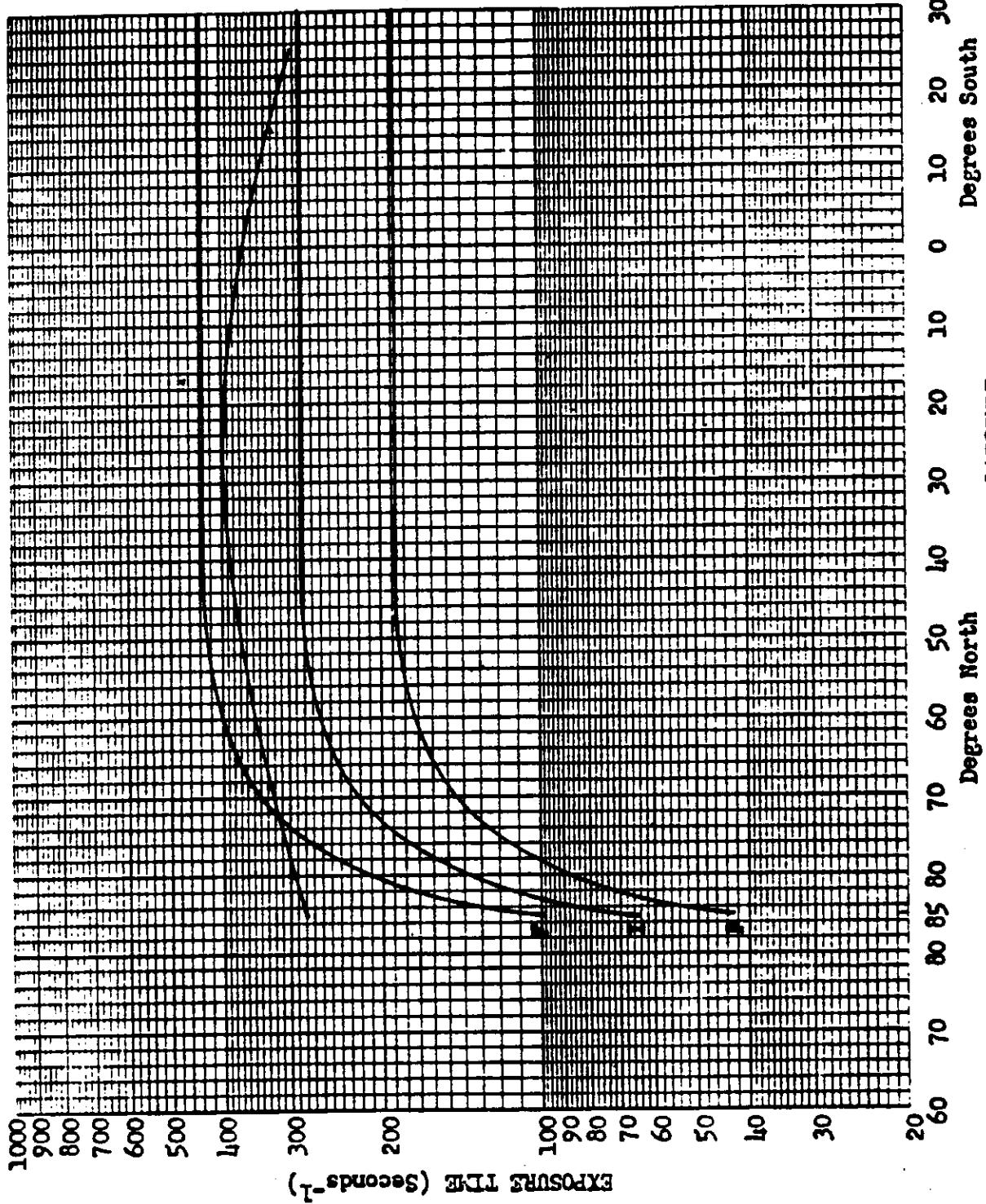
Slit Width: .225

Filter Type: Wratten 23

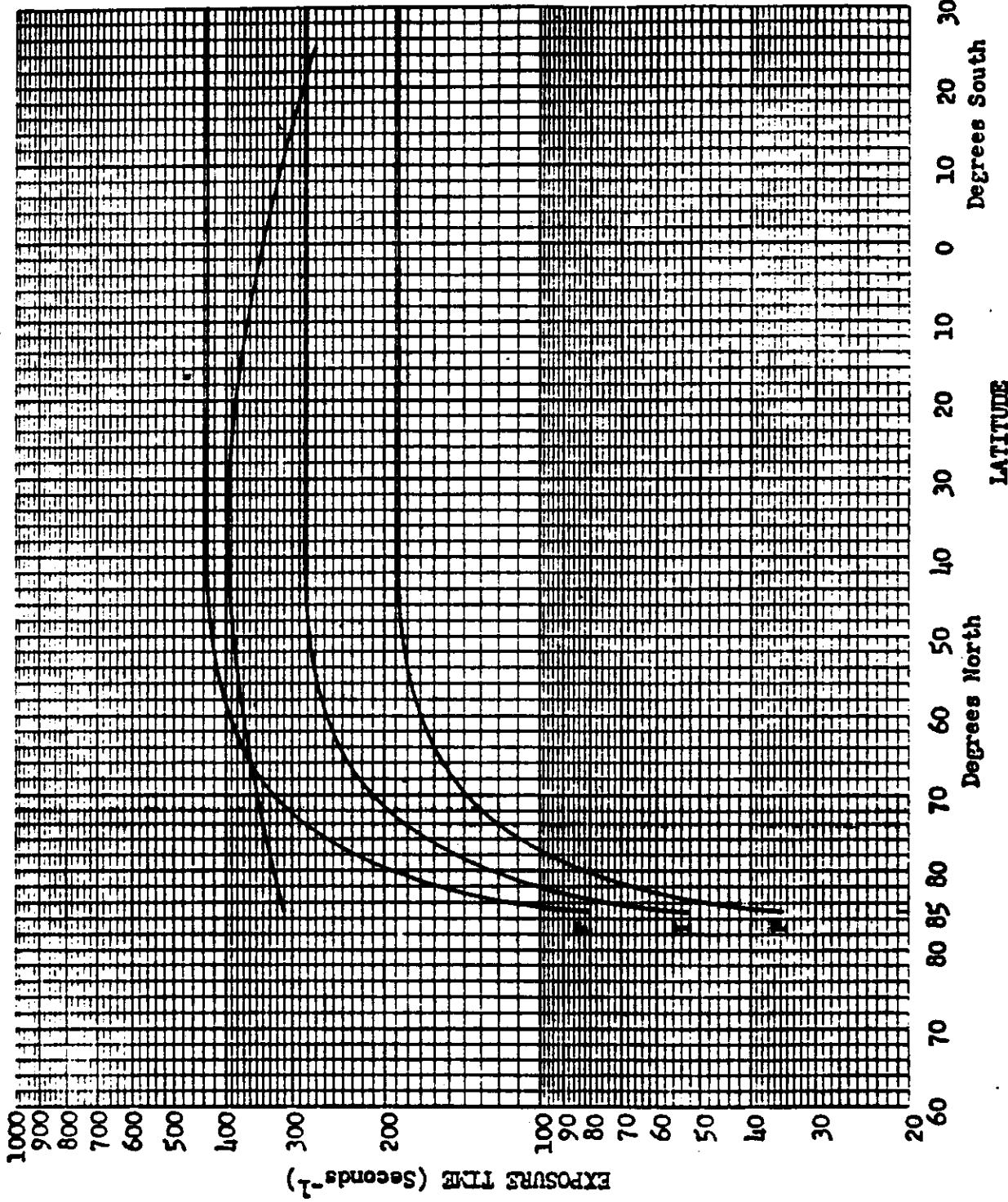
Slit Type: 340k

EXPOSURE POINTS



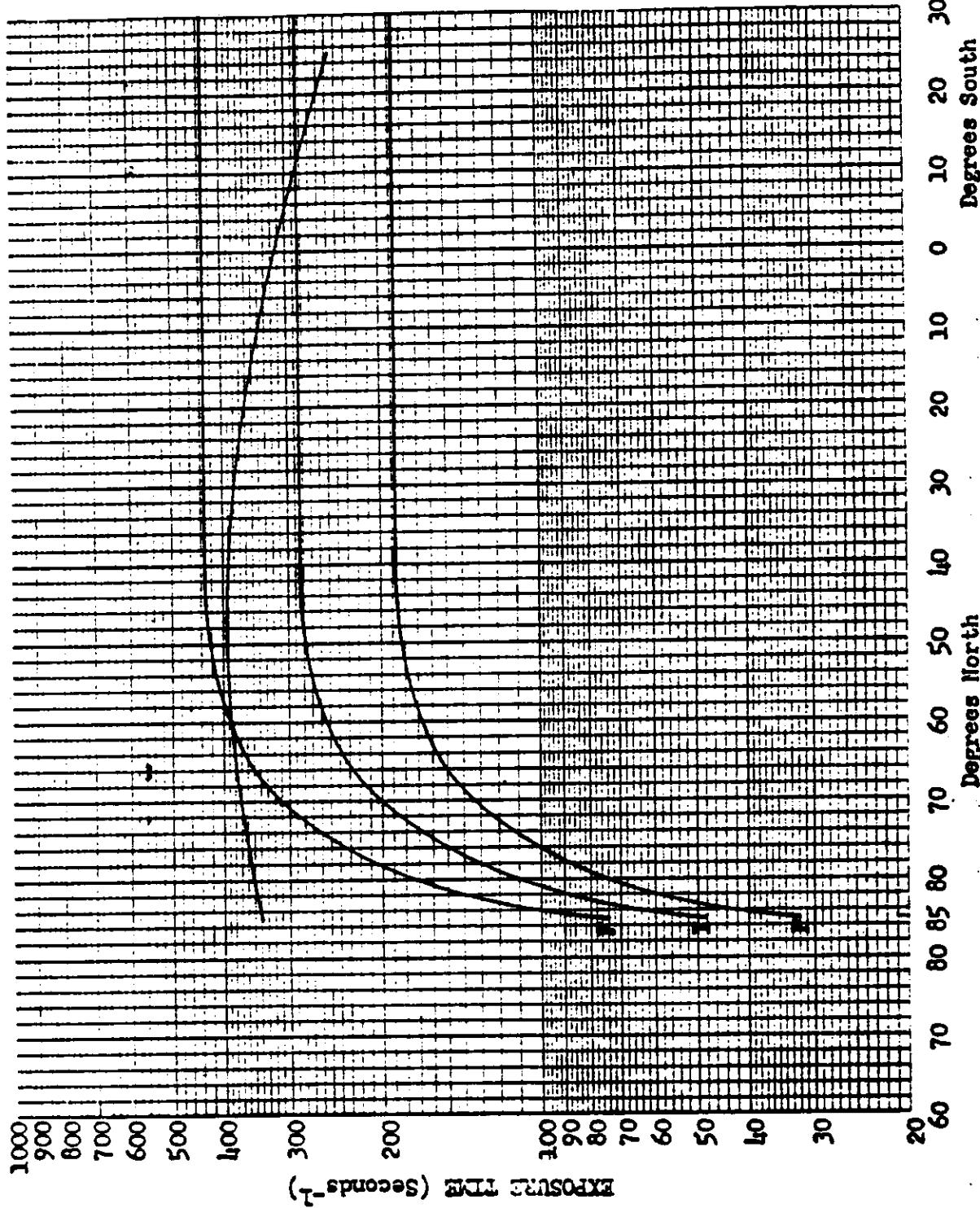
Mission No: 1035Payload No: J-36Camera No: 189Pass No: 56Launch Date: 9/20/66Launch Time: 2114 ZSlit Width: .175Filter Type: Wratten 21Slit Type: 340A**EXPOSURE POINTS**

EXPOSURE POINTS



N.O.

EXPOSURE POINTS



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SECTION 9

DIFFUSE DENSITY MEASUREMENTS

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

<u>Mission</u>	<u>Camera</u>		<u>Primary</u>	<u>Intermediate</u>	<u>Full</u>
1035-1	FWD	Predicted	0	17	83
		Reported	0	11	89
		Computed	0	5	95
1035-1	AFT	Predicted	0	5	95
		Reported	1	14	85
		Computed	0	9	91
1035-2	FWD	Predicted	0	22	78
		Reported	4	18	78
		Computed	0	18	82
1035-2	AFT	Predicted	0	23	77
		Reported	1	20	79
		Computed	0	12	88

The tabulations of density frequency distributions for Missions 1035-1 and 1035-2 are included in Appendix A, Table A-1 thru A-4. The graphical presentation of the density distribution are computer plotted in Appendix A Figures A-1 thru A-36.

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A summary of the processing and exposure analysis is shown in Table 9-1. The terrain D-Min. criteria, (range) for proper exposure and processing is 0.40 to 0.90 density units. The area measured for D-Min. is selected subjectively and is not necessarily the absolute D-Min in the photography.

A density range chart, Figure 9-1 is included in this report. This type of chart for missions 1004 to 1031 is included in the A/P Final Report for Mission 1031.

These charts are produced from the same density measurements previously mentioned in this section. The computer produced the mean, median and range figures for the various processing levels used. The chart includes the number of frames (samples) in which the density measurements were made. These measurements are made on approximately every tenth frame throughout the mission.

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- CONTROL NO.

MISSION 1035-1		INSTR - FWD		11/28/66		PROCESSING AND EXPOSURE ANALYSIS!	
PROCESS LEVEL	SAMPLE SIZE	UNDER PROCESSED	EXPOSED	CURRENT EXP+PROJ	OVER PROCESSED	OVER EXPOSED	OVER EXPOSED
PRIMARY	0	0 PC	0 PC	0 PC	0 PC	0 PC	0 PC
INTERMEDIATE	13	23 PC	71 PC	71 PC	71 PC	71 PC	71 PC
FULL	247	25 PC	4 PC	75 PC	4 PC	1 PC	1 PC
ALL LEVELS	260	23 PC	23 PC	71 PC	4 PC	4 PC	4 PC

MISSION 1035-1		INSTR - AFT		11/28/66		PROCESSING AND EXPOSURE ANALYSIS!	
PROCESS LEVEL	SAMPLE SIZE	UNDER PROCESSED	EXPOSED	CURRENT EXP+PROJ	OVER PROCESSED	OVER EXPOSED	OVER EXPOSED
PRIMARY	0	0 PC	0 PC	0 PC	0 PC	0 PC	0 PC
INTERMEDIATE	13	23 PC	71 PC	71 PC	71 PC	71 PC	71 PC
FULL	247	24 PC	27 PC	54 PC	13 PC	14 PC	14 PC
ALL LEVELS	260	23 PC	27 PC	65 PC	5 PC	5 PC	5 PC

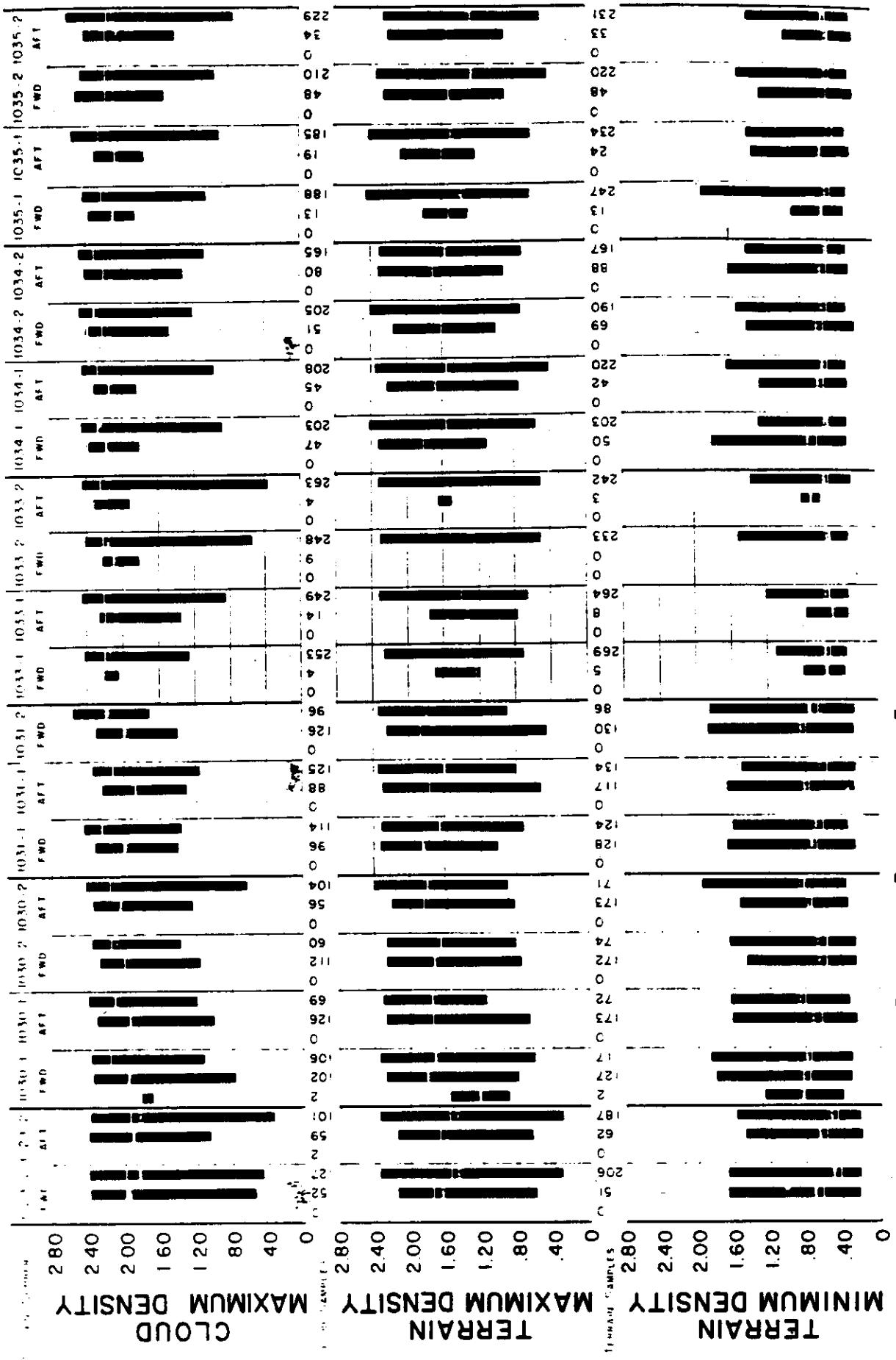
MISSION 1035-2		INSTR - FWD		11/28/66		PROCESSING AND EXPOSURE ANALYSIS!	
PROCESS LEVEL	SAMPLE SIZE	UNDER PROCESSED	EXPOSED	CURRENT EXP+PROJ	OVER PROCESSED	OVER EXPOSED	OVER EXPOSED
PRIMARY	0	0 PC	0 PC	0 PC	0 PC	0 PC	0 PC
INTERMEDIATE	13	20 PC	20 PC	20 PC	20 PC	20 PC	20 PC
FULL	247	20 PC	20 PC	64 PC	64 PC	64 PC	64 PC
ALL LEVELS	260	20 PC	20 PC	65 PC	5 PC	5 PC	5 PC

MISSION 1035-2		INSTR - AFT		11/28/66		PROCESSING AND EXPOSURE ANALYSIS!	
PROCESS LEVEL	SAMPLE SIZE	UNDER PROCESSED	EXPOSED	CURRENT EXP+PROJ	OVER PROCESSED	OVER EXPOSED	OVER EXPOSED
PRIMARY	0	0 PC	0 PC	0 PC	0 PC	0 PC	0 PC
INTERMEDIATE	13	23 PC	71 PC	71 PC	71 PC	71 PC	71 PC
FULL	247	24 PC	112 PC	112 PC	76 PC	76 PC	76 PC
ALL LEVELS	260	24 PC	112 PC	112 PC	76 PC	76 PC	76 PC

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NO.

J MISSION DENSITY RANGES



SECTION 10

PERFORMANCE MEASUREMENTS

The photography acquired by both panoramic cameras during Missions 1035-1 and 1035-2 received a MIP rating of 85. A summary is tabulated below of the MTF/AIM resolution values measured by AFSPPF. The microdensitometer slit was 1 micron by 80 microns for the edge scan analysis.

Mission	Camera	Cycles/mm	Average	Ground Resolution
1035-1	FWD	66	74	16.6'
1035-2	FWD	81		
1035-1	AFT	80	81	14.7'
1035-2	AFT	82		

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 not included in this report.

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SECTION 11

VEHICLE ATTITUDE

The vehicle attitude errors for both Mission 1035-1 and 1035-2 were derived from the reduction of the Stellar camera photography. This attitude date is supplied to A/P by NPIC.

The attitude errors for each frame and the attitude control rates are calculated at the A/P computer facility. The computer also plots the frequency distribution of the rates and errors. Figures 11-1 through 11-6 show these distributions for Mission 1035-1 and Figures 11-7 through 11-12 for Mission 1035-2.

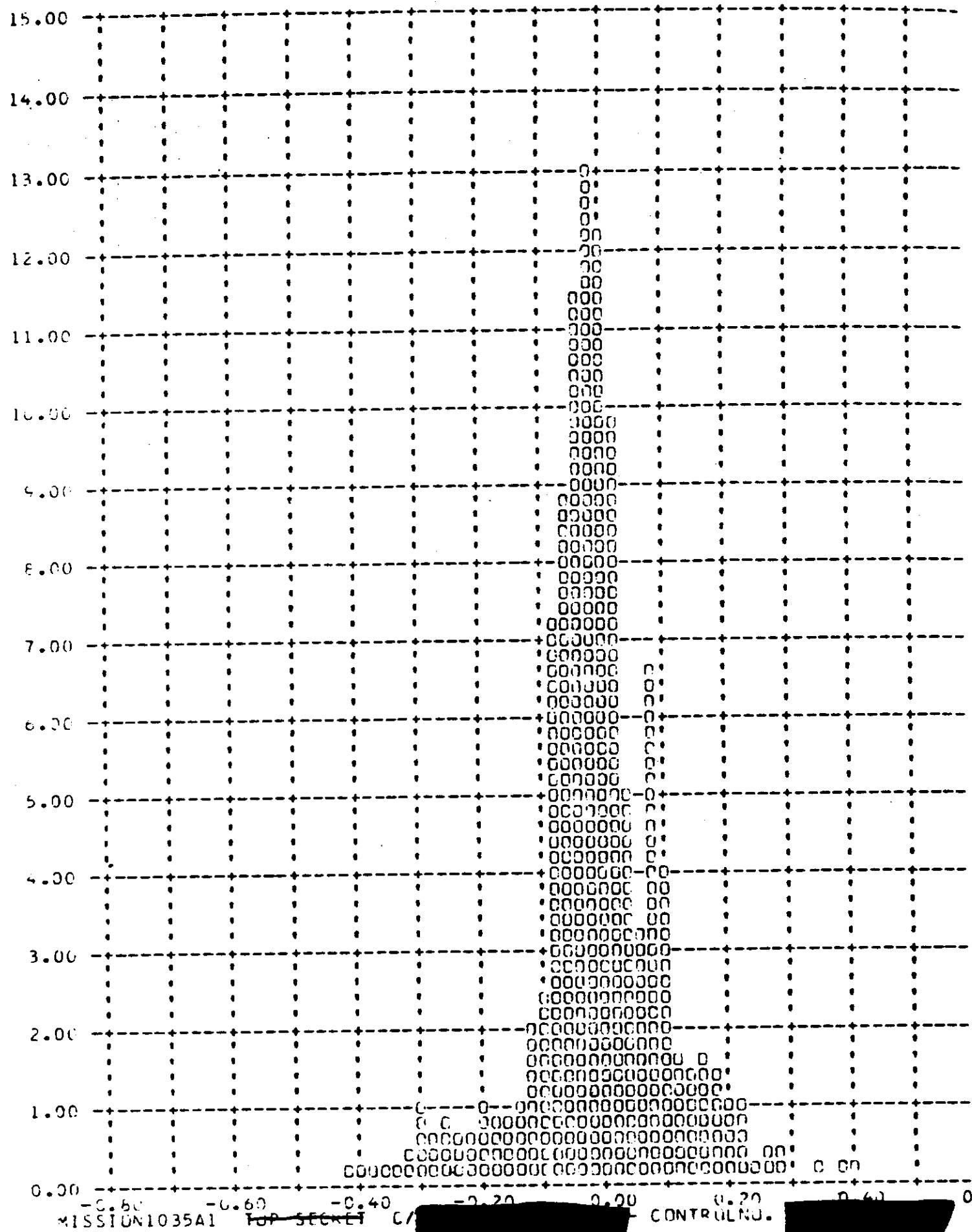
The summary table below lists the maximum attitude errors and rates that were experienced during 90% of the FWD camera photographic operations, excluding the first six frames of each operation, and the total range of the errors and rates.

<u>Value</u>	Mission 1035-1		Mission 1035-2	
	<u>90%</u>	<u>Range</u>	<u>90%</u>	<u>Range</u>
Pitch Error ($^{\circ}$)	0.16	-0.42 to +0.40	0.16	-0.42 to +0.30
Roll Error ($^{\circ}$)	0.55	-0.70 to +0.02	0.50	-0.88 to +0.02
Yaw Error ($^{\circ}$)	2.39	-3.2 to +0.8	3.02	-3.2 to +1.2
Pitch Rate ($^{\circ}/\text{hr.}$)	18.86	-85 to +65	18.37	-56 to +36
Roll Rate ($^{\circ}/\text{hr.}$)	27.92	-70 to +80	30.14	-85 to +75
Yaw Rate ($^{\circ}/\text{hr.}$)	33.95	-60 to +70	27.47	-85 to +70

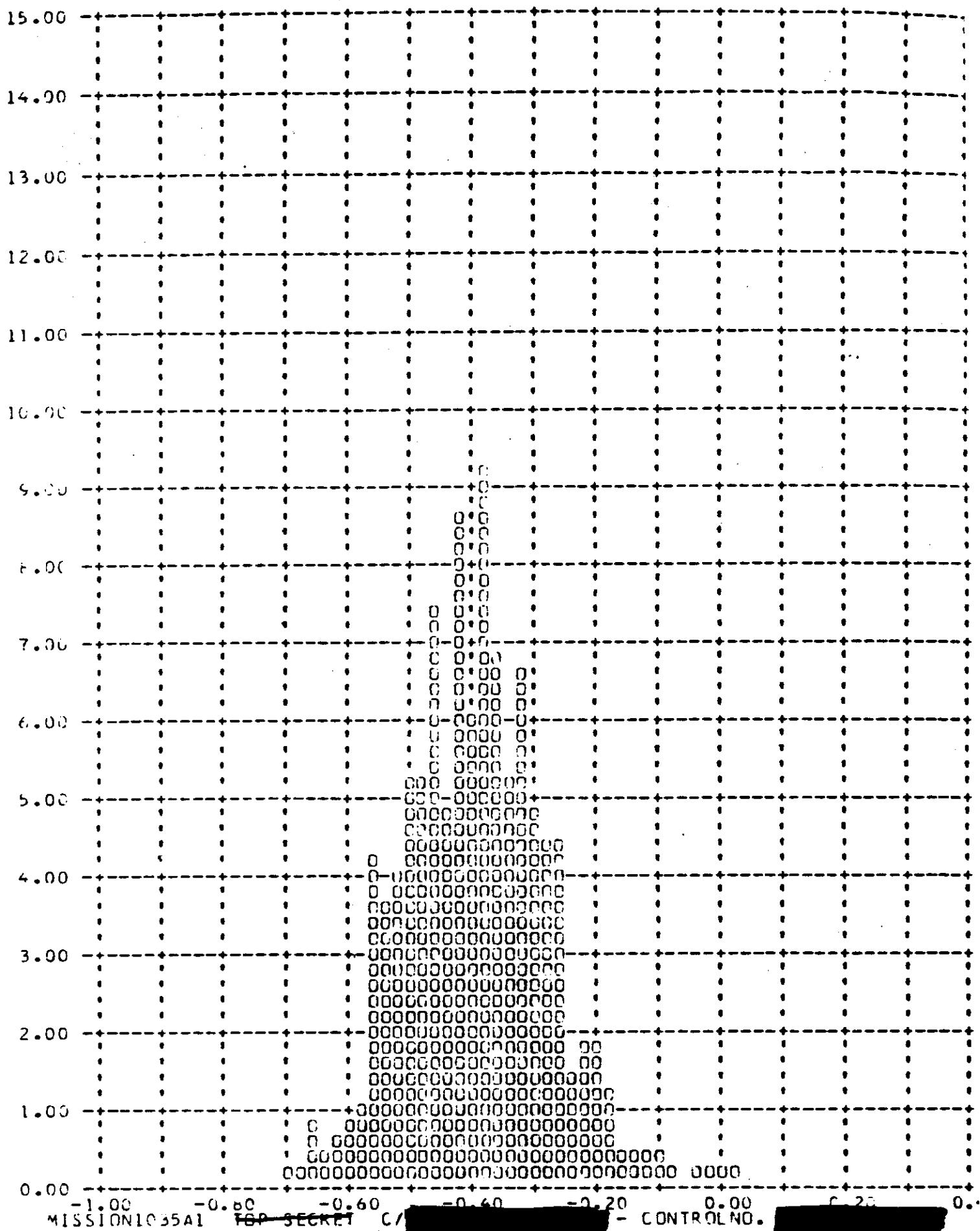
The performance of the attitude control system is comparable to the control systems used on recent missions. The panoramic photography was not degraded by the attitude control system. The yaw programmer caused the high yaw error. See Section 3-B for discussion.

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



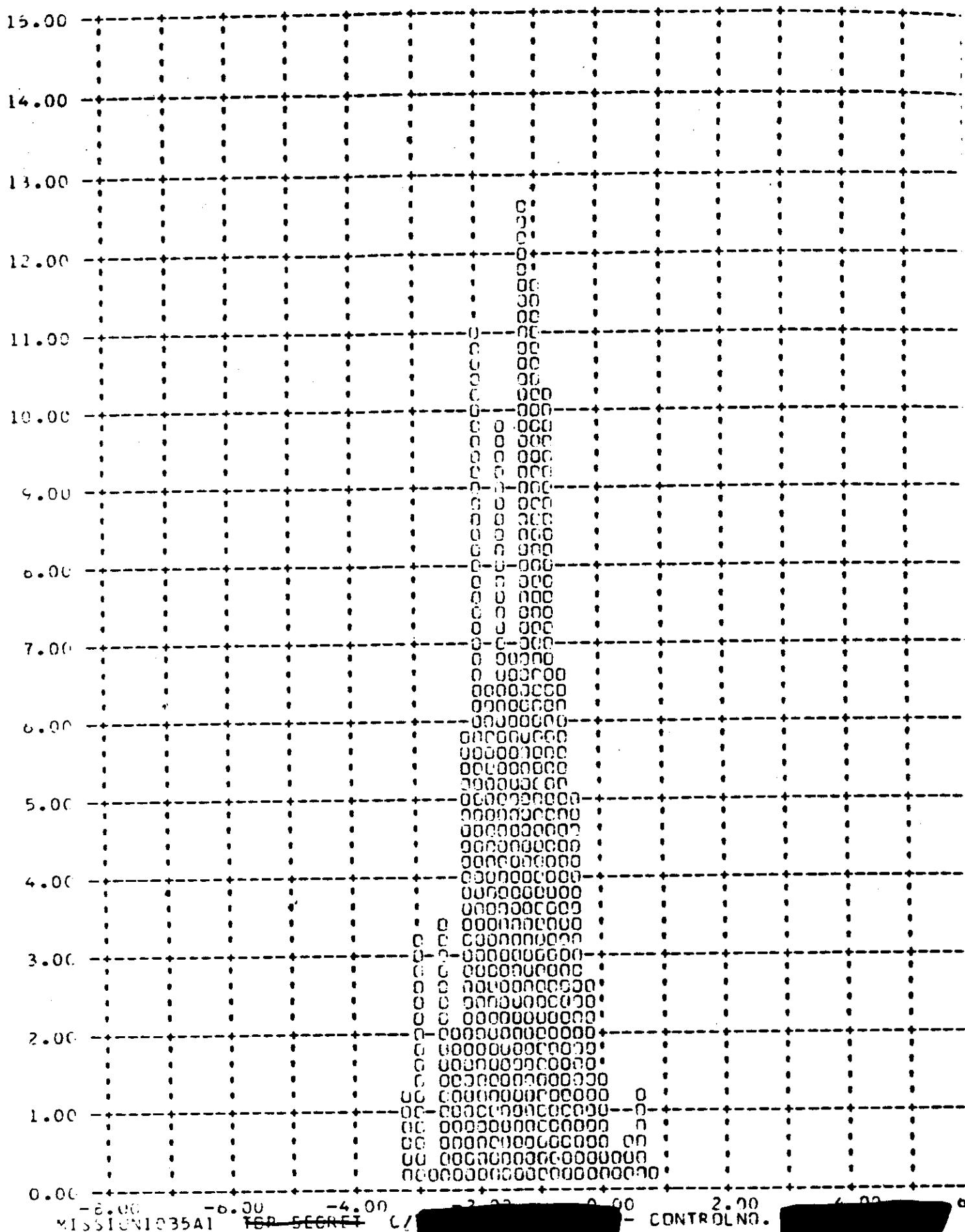
Y ROLL ANGLE ERROR - DEGREES (X) VERSUS FREQUENCY - PERCENT (Y)



MISSION1035A1 TOP SECRET C/

- CONTROLNO.

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

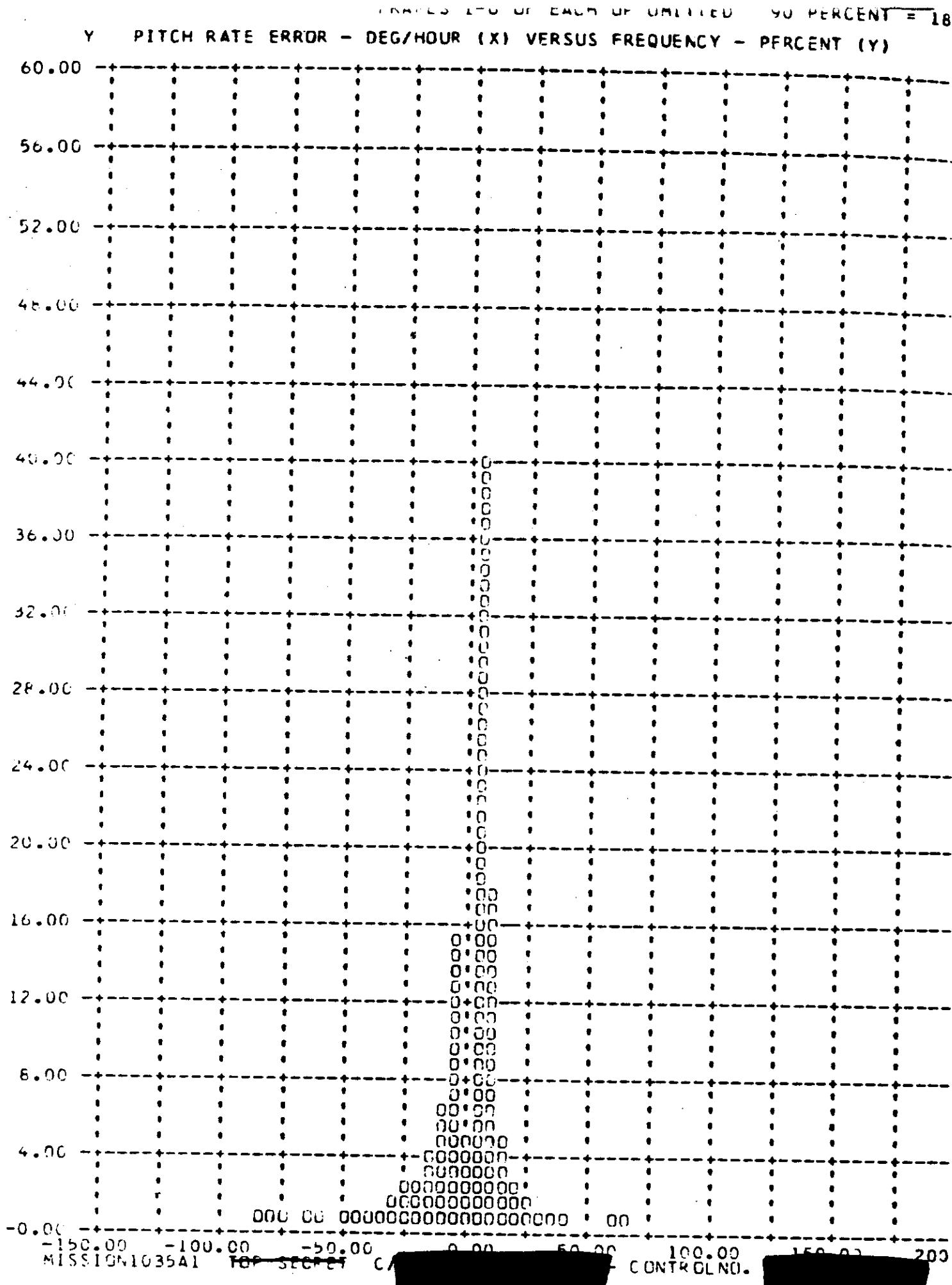


MISSION1035A1

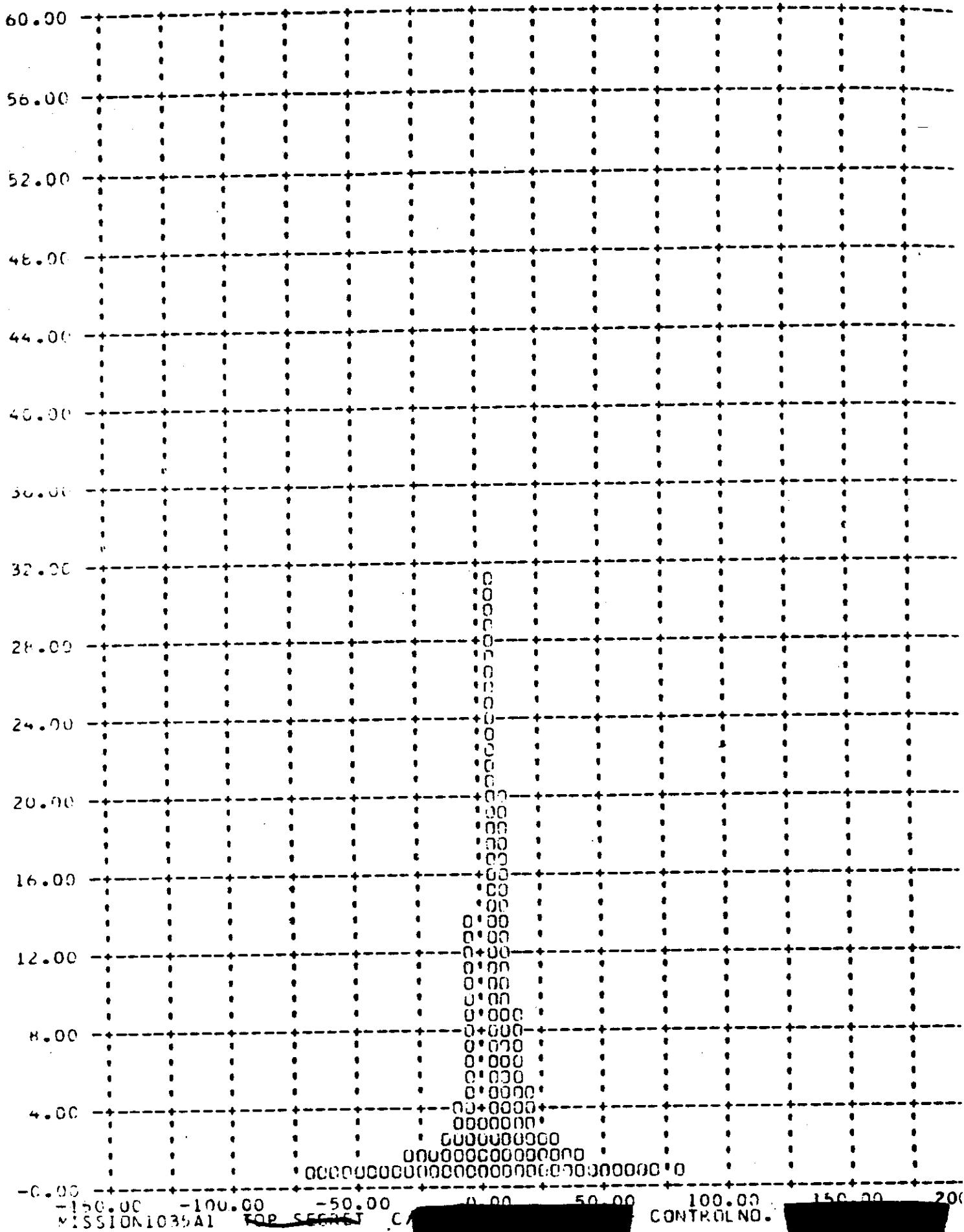
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CONTROL NO.



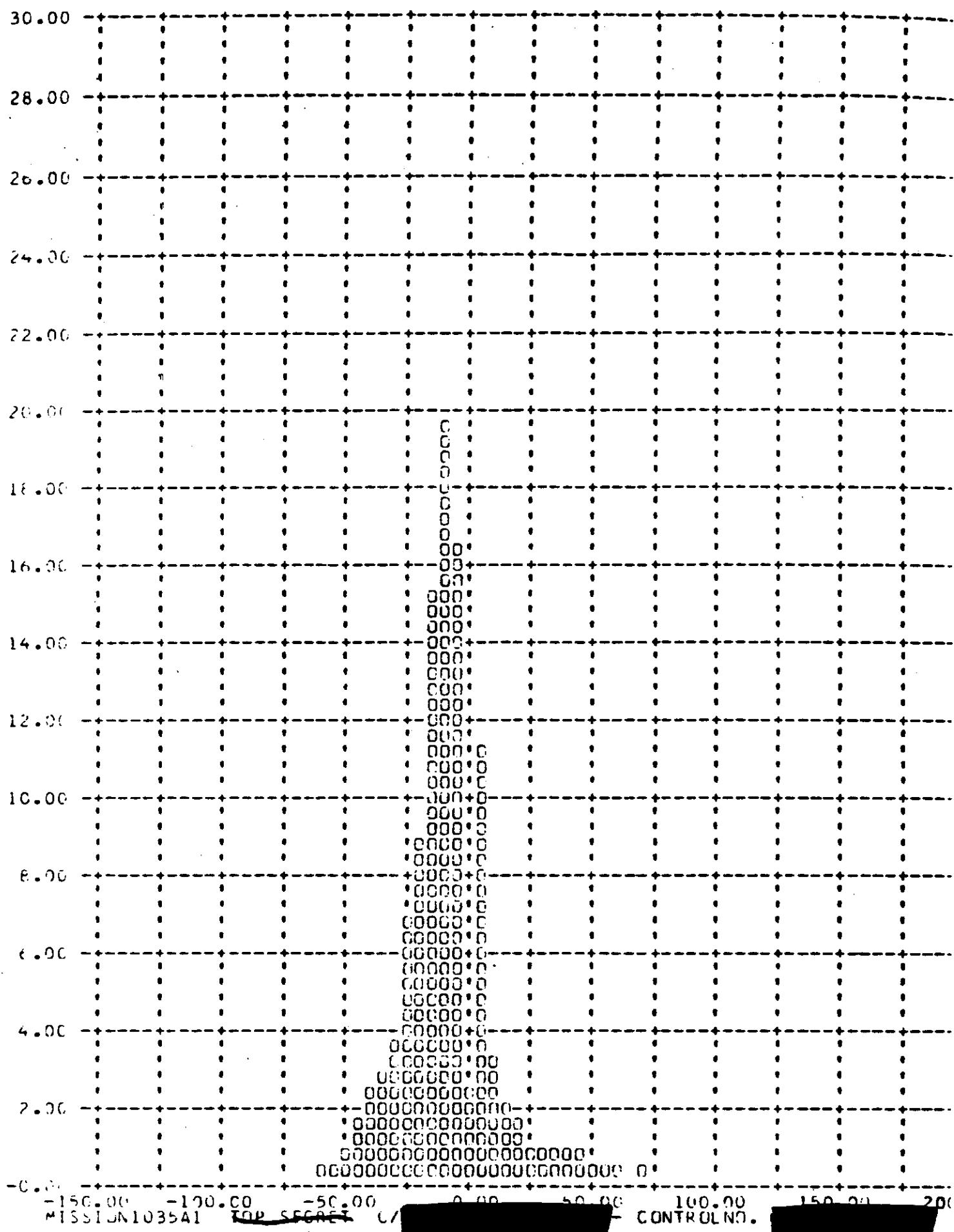
Y ROLL RATE ERROR - DEG/HOUR (X) VERSUS FREQUENCY - PERCENT (Y)



MISSION 1035A1 TOP SECRET C

CONTROL NO. [REDACTED]

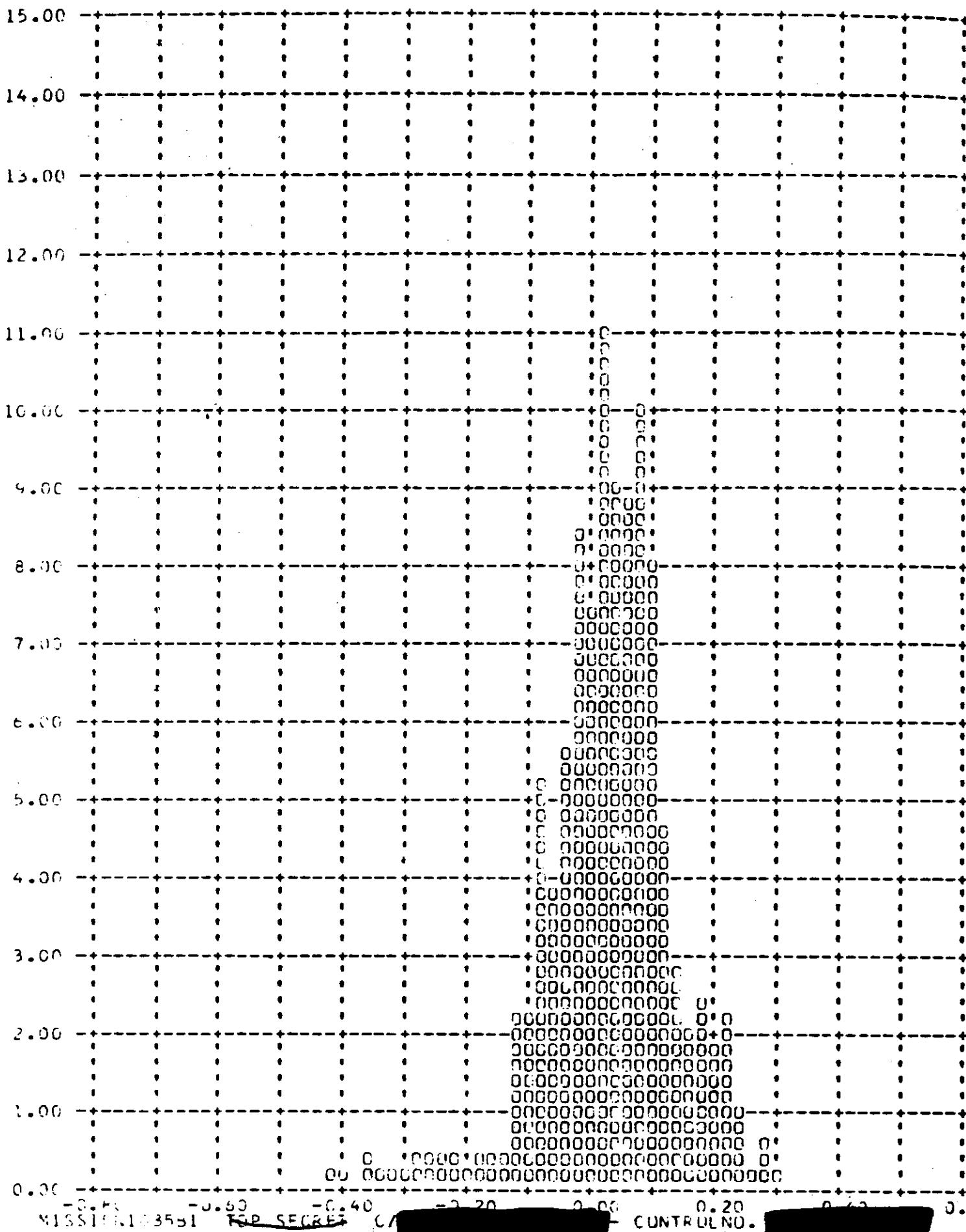
YAW RATE ERROR - DEG/HOUR (X) VERSUS FREQUENCY - PERCENT (Y)



MISSION1035A1 TOP SECRET

C/ CONTROLNO.

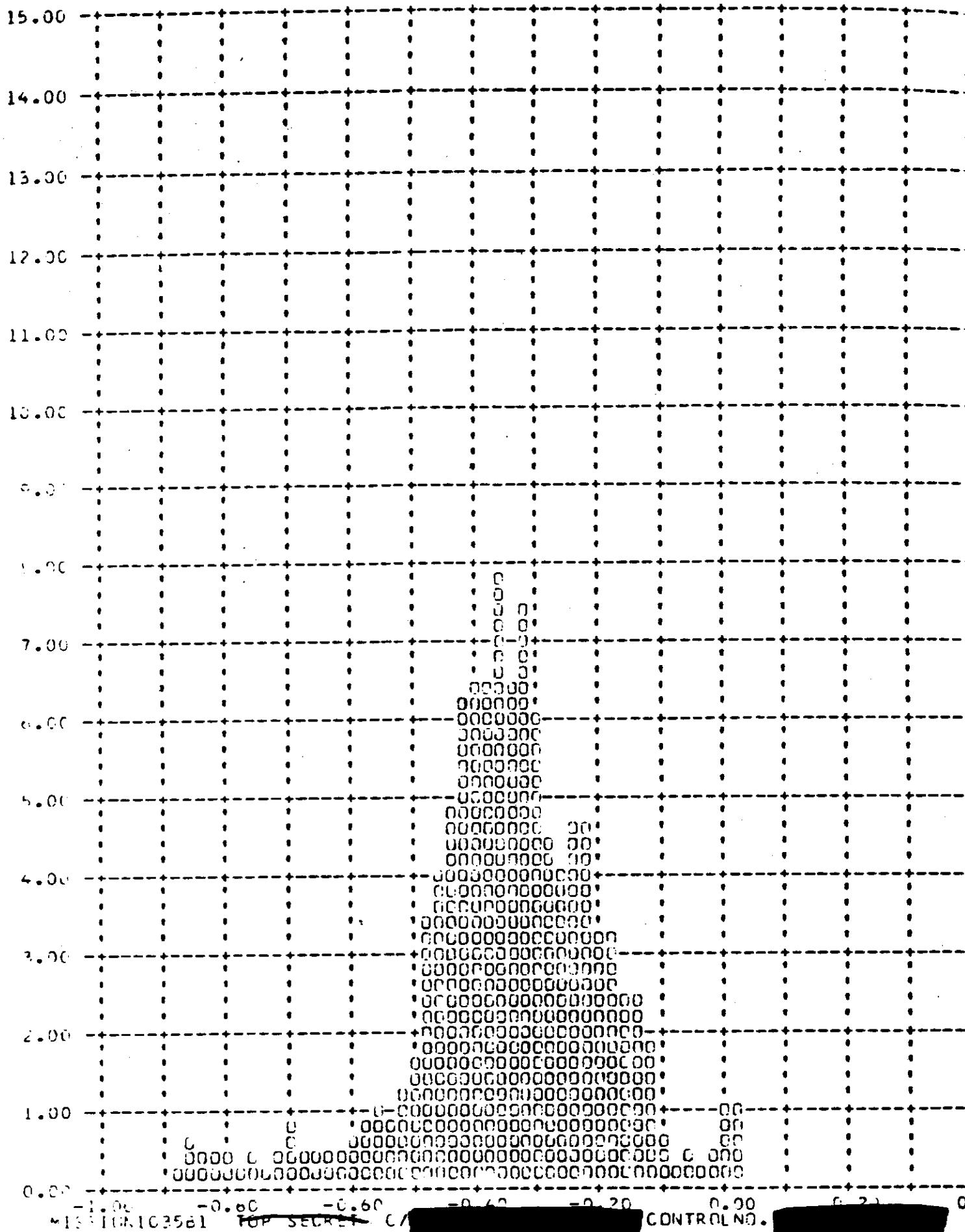
Y PITCH ANGLE ERROR - DEGREES (X) VERSUS FREQUENCY - PERCENT (Y)



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CUNTRULNU.

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

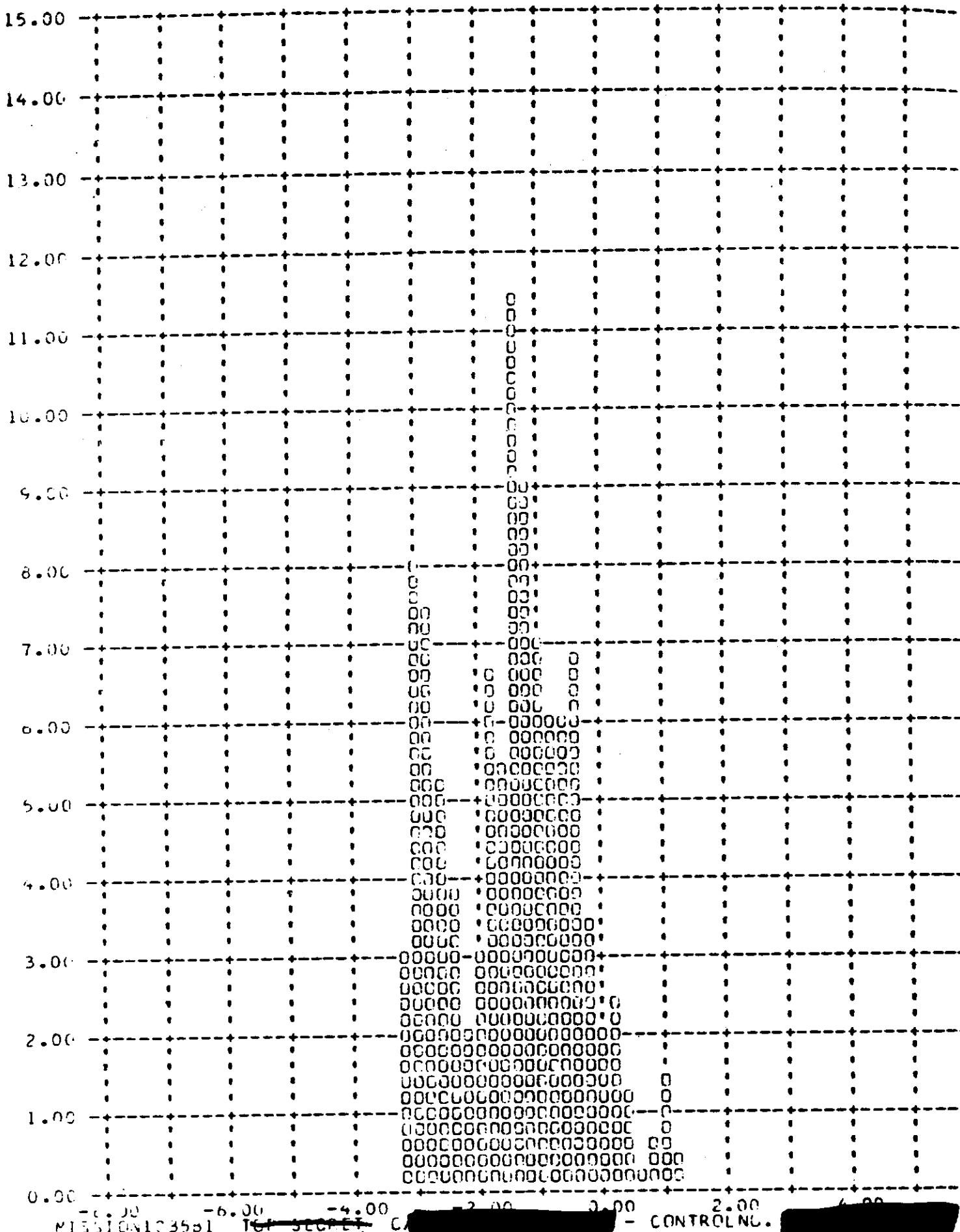


REF ID: A10K1C3561

TOP SECRET C1

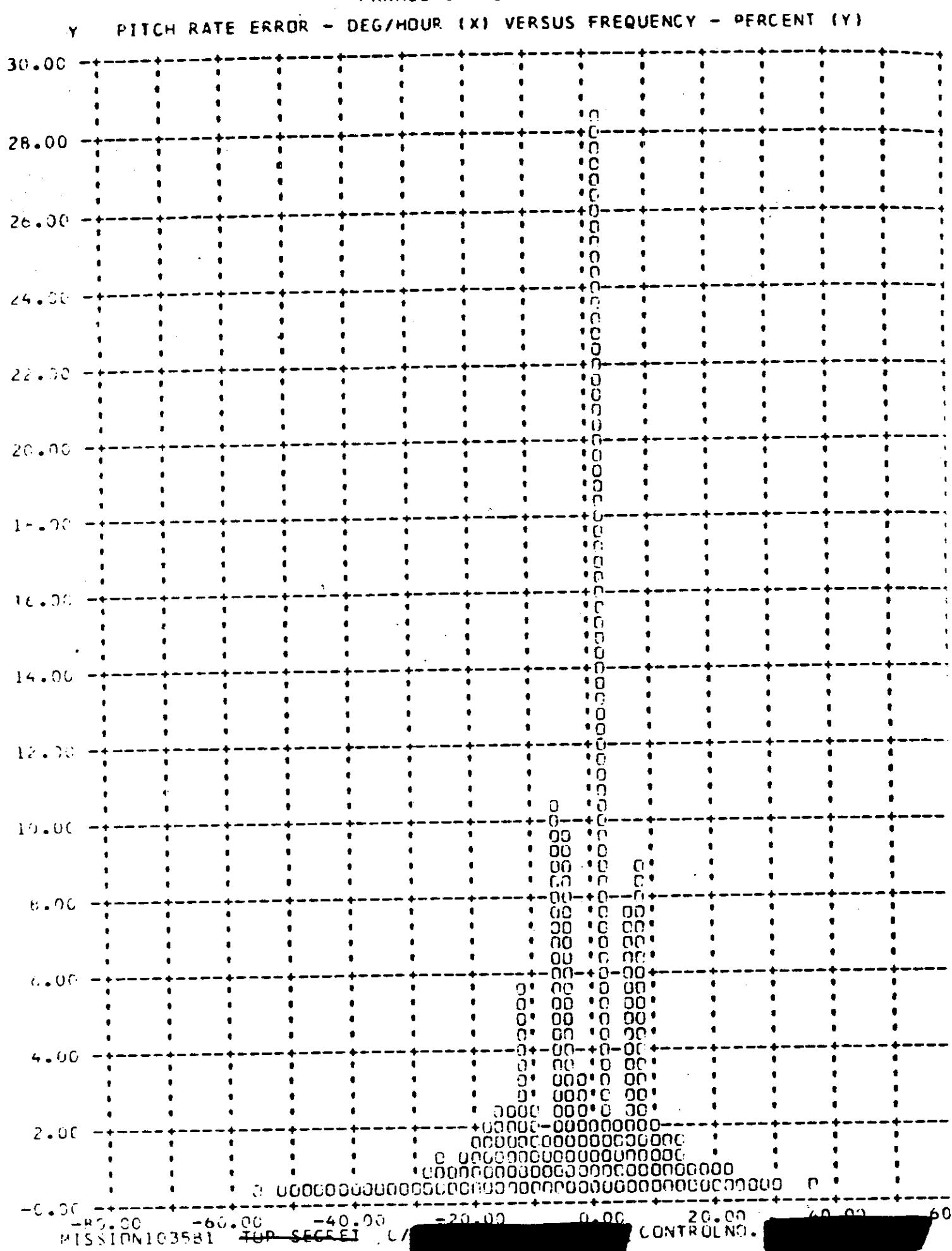
CONTROL NO.

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



MISSION 103581 TEL SECRET

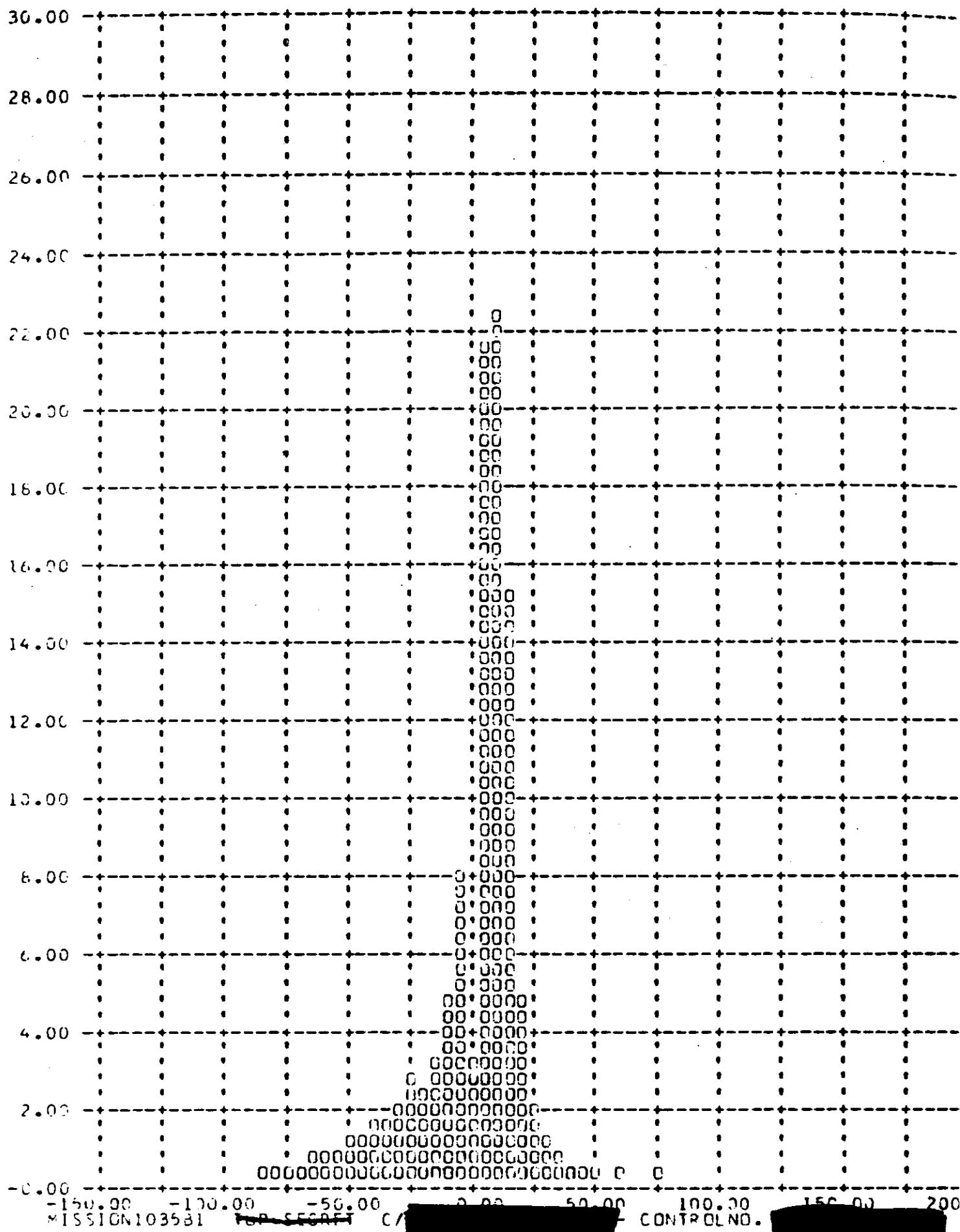
- CONTROL NO. [REDACTED]



MISSION103581 TOP SECRET U//
[REDACTED] CONTROL NO. [REDACTED]

FRAMES 1-6 OF EACH UP OMITTED 90 PERCENT = 30.

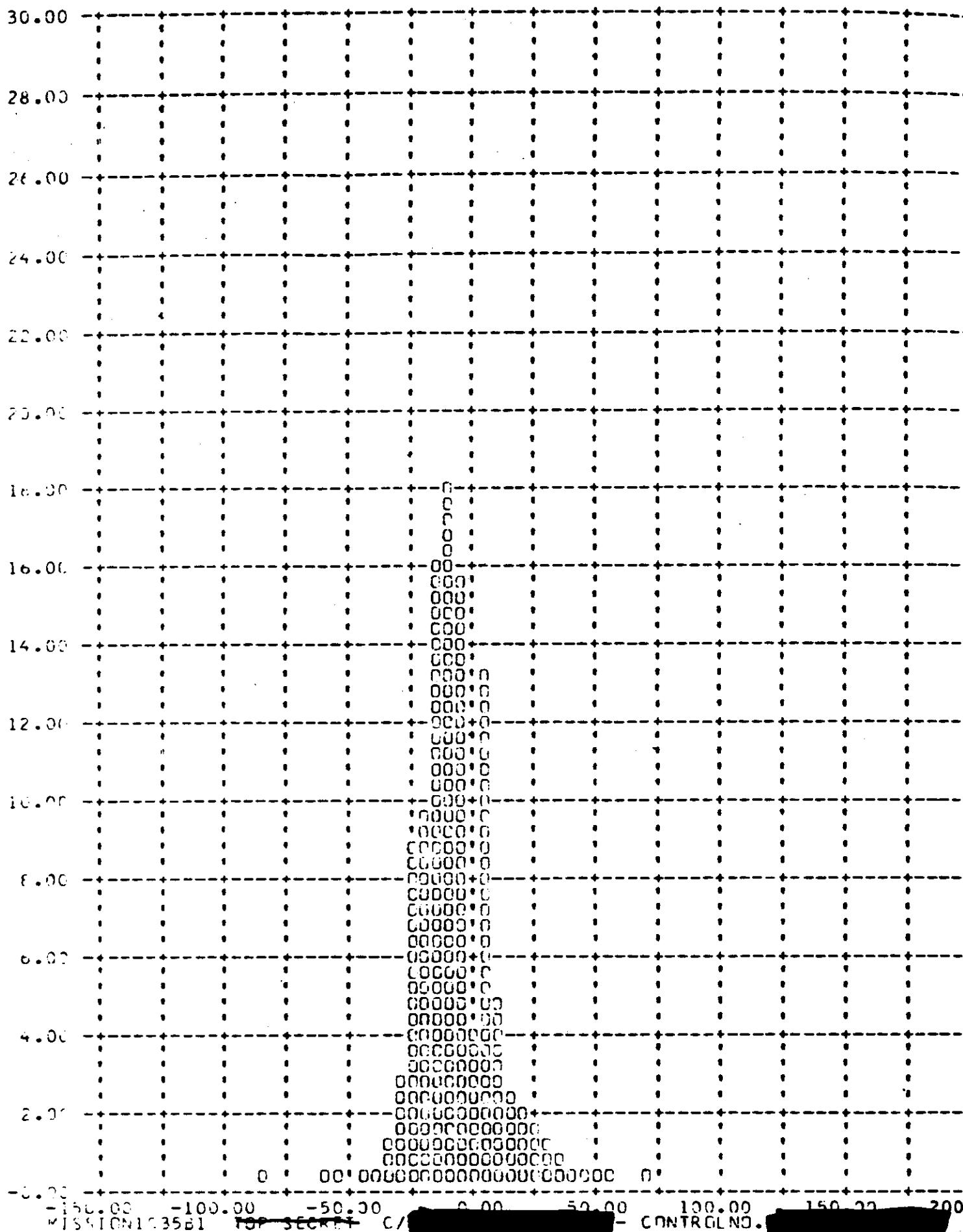
Y ROLL RATE ERROR - DEG/HOUR (X) VERSUS FREQUENCY - PERCENT (Y)



MISSION 1035B1 ~~TOP SECRET~~ C/A

CONTROL NO.

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



MISSION 103561

TOP SECRET C/

CONTROL NO.

SECTION 12

IMAGE SMEAR ANALYSIS

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

The computer rejects the first six frames of all operations as the large V/h error induced by camera start-up is not representative of the overall system operations. The frequency distribution of the V/h errors and resolution limits are computer plotted and are shown in Figures 12-1 through 12-16.

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

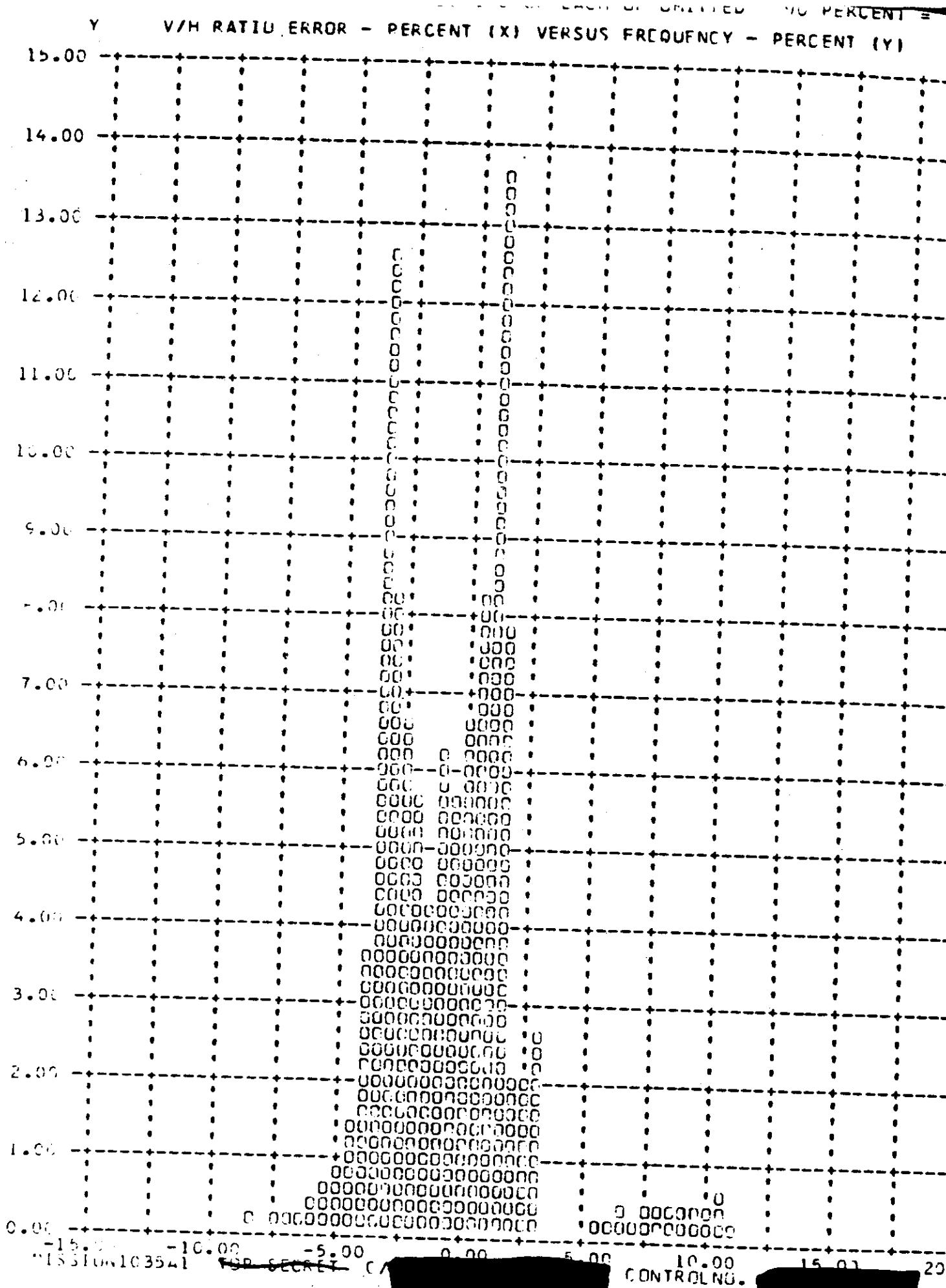
~~TOP SECRET C~~
NO. [REDACTED]

MISSION 1035
V/h RATIO AND RESOLUTION LIMITS

<u>VALUE</u>	<u>UNITS</u>	<u>CAMERA</u>	<u>MISSION 1035-1</u> <u>90% Range</u>	<u>MISSION 1035-2</u> <u>90% Range</u>
V/h Ratio Error	%	FWD	3.99 -8.5 to +11.0	3.21 -5.8 to +3.2
		AFT	4.06 -7.5 to +11.0	3.35 -5.0 to +2.8
Along Track Resolution Limit	Feet	FWD	4.80 0.5 to 14.5	4.04 0.2 to 8.6
		AFT	3.73 0.2 to 10.4	3.26 0.2 to 5.8
Cross Track Resolution Limit	Feet	FWD	3.65 0.2 to 6.2	3.50 0.2 to 5.2
		AFT	2.39 0.2 to 4.4	2.36 0.2 to 3.6

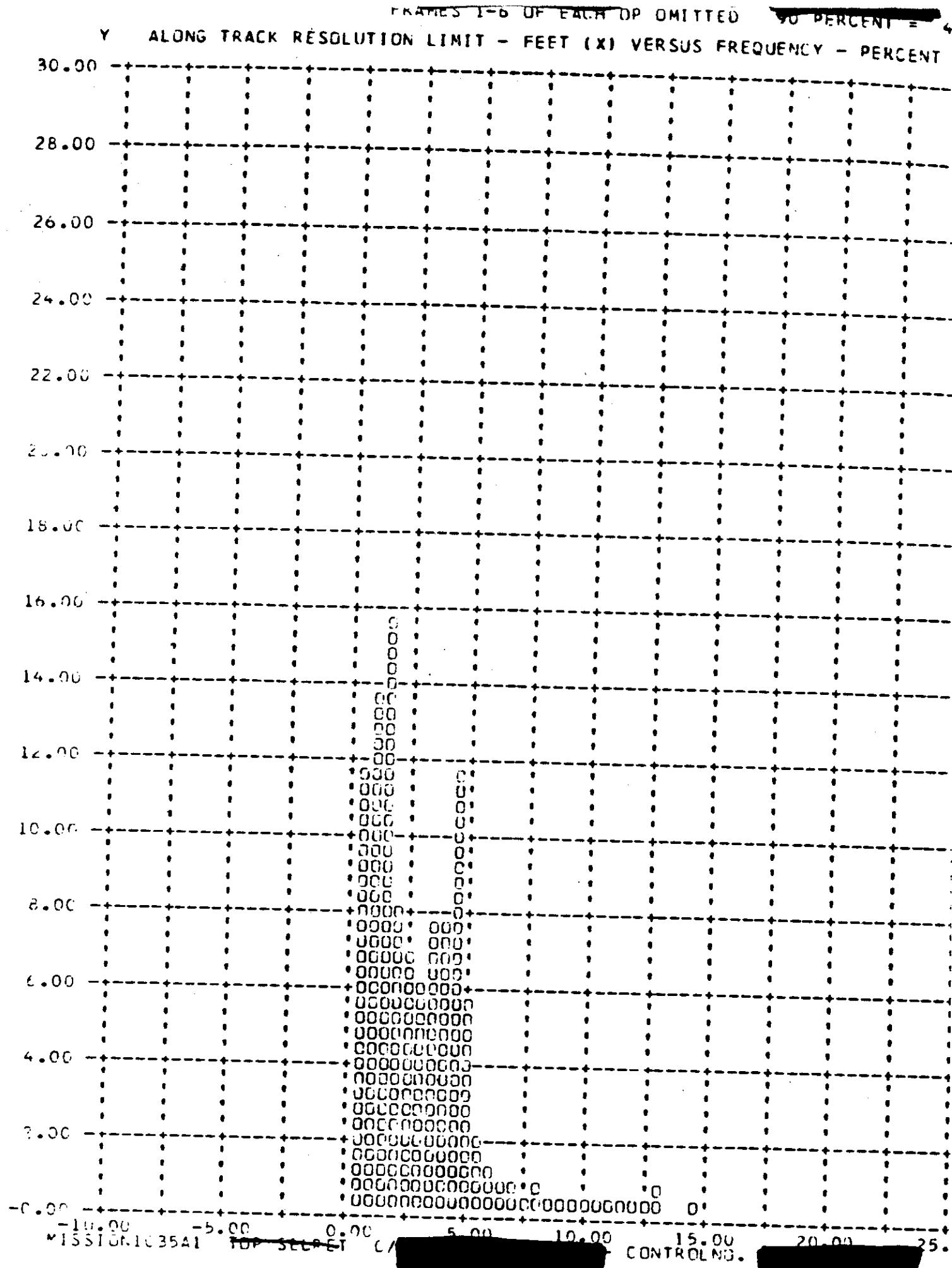
TAB LE 12-1

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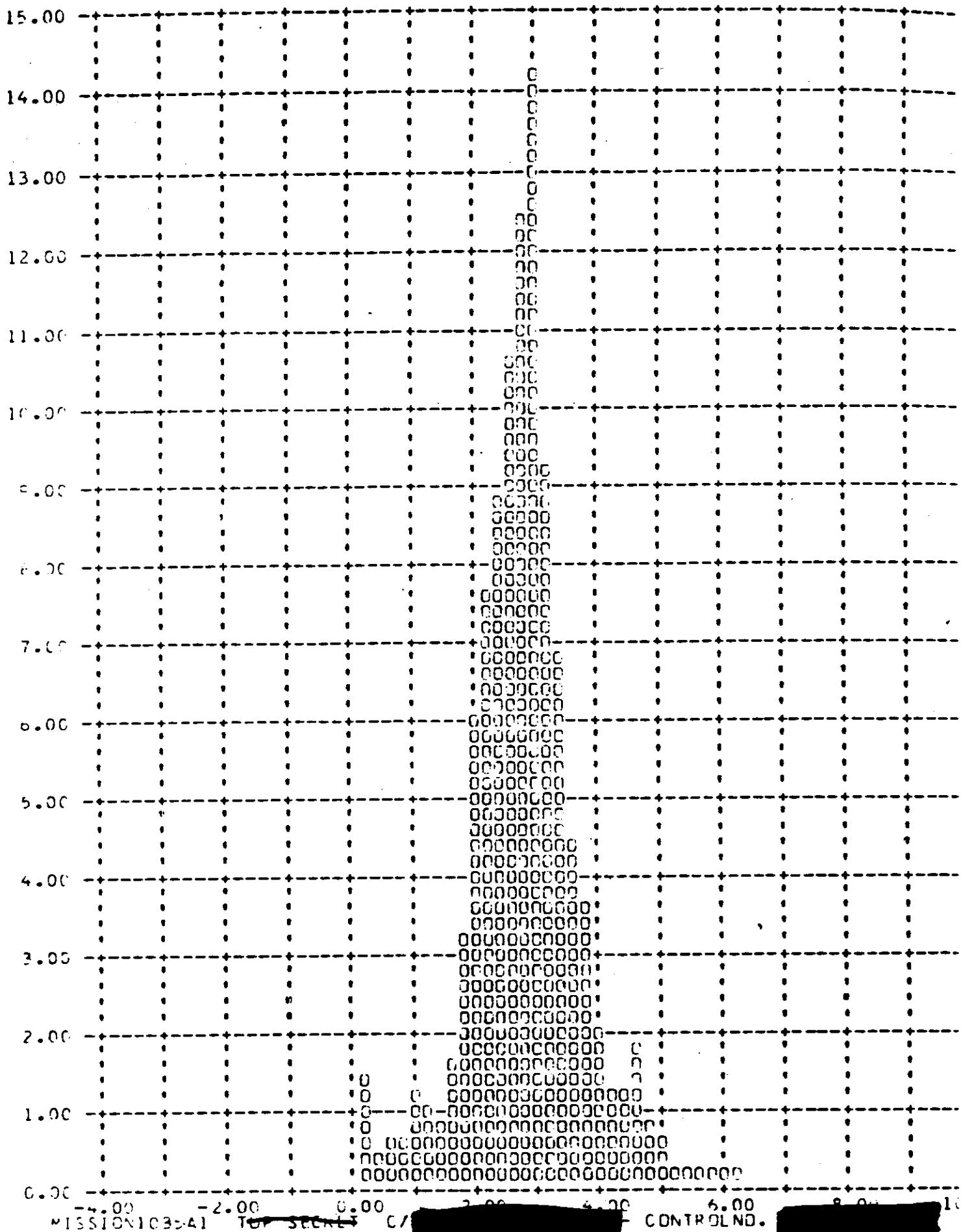


MISSION 103541

TOP SECRET C4 CONTROL NO. 15.01 20.



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



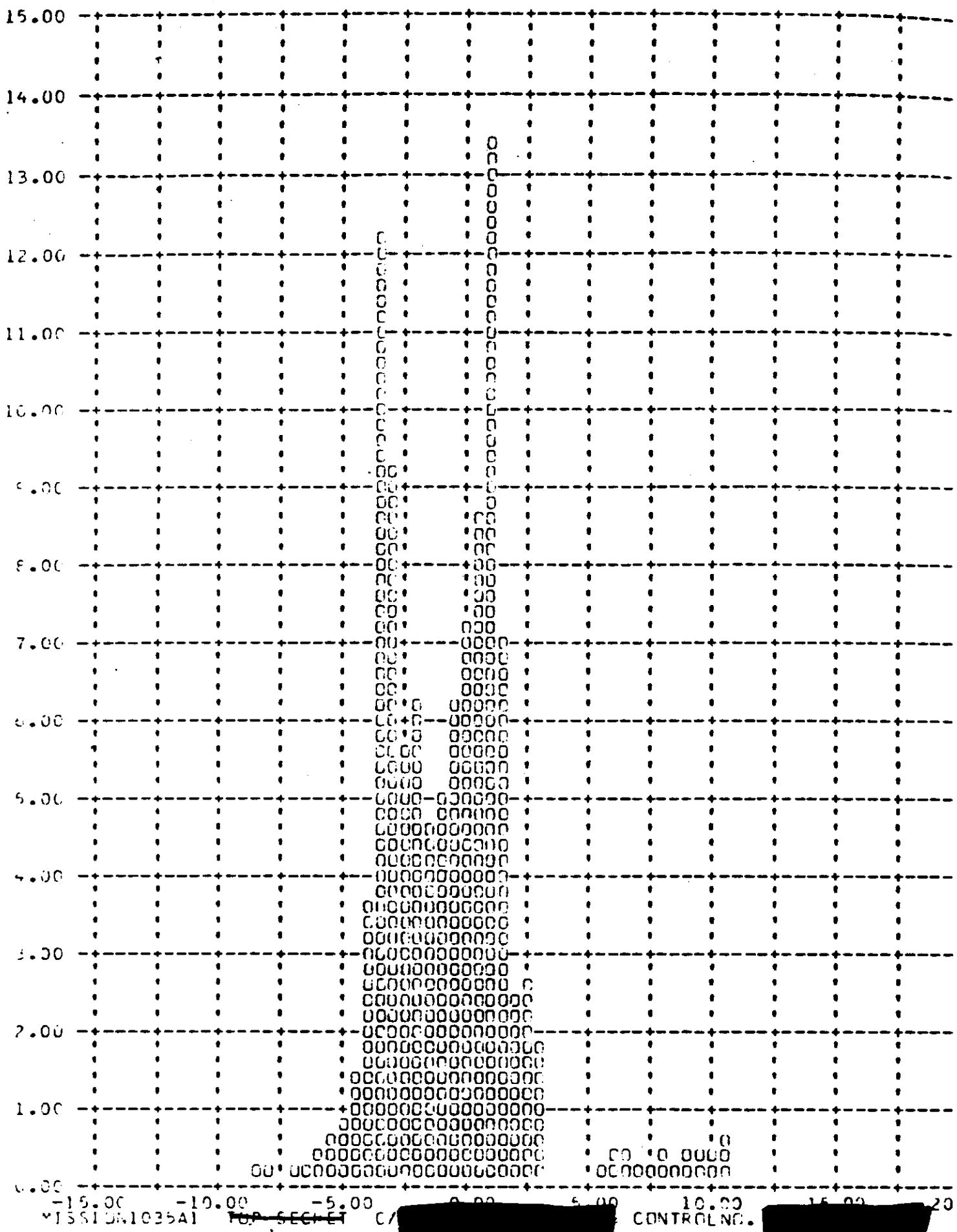
MISSION 103-A1

TOP SECRET

C/ [REDACTED]

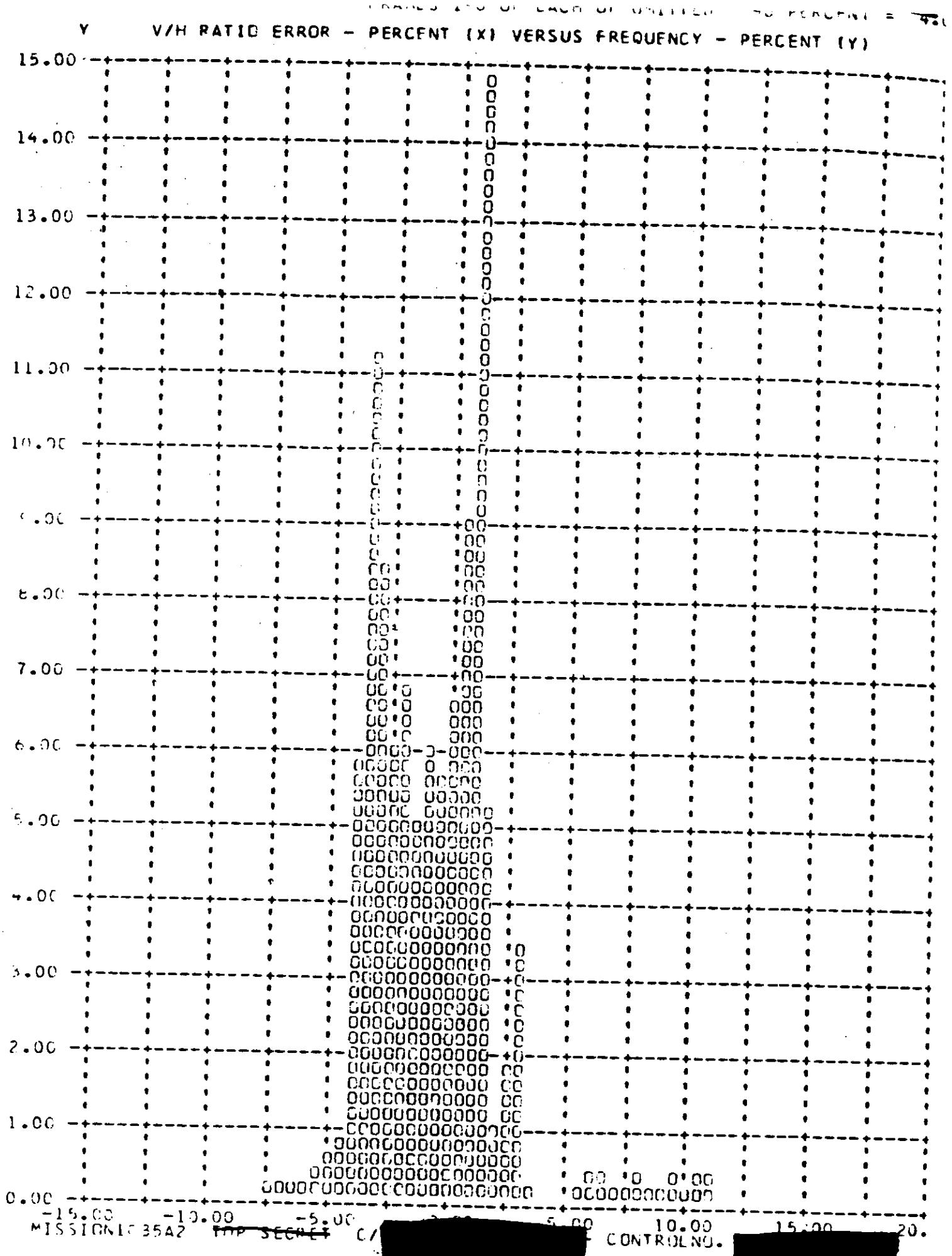
CONTROL NO. [REDACTED] 10

Y IMC ERROR -- PERCENT (X) VERSUS FREQUNCY (Y)



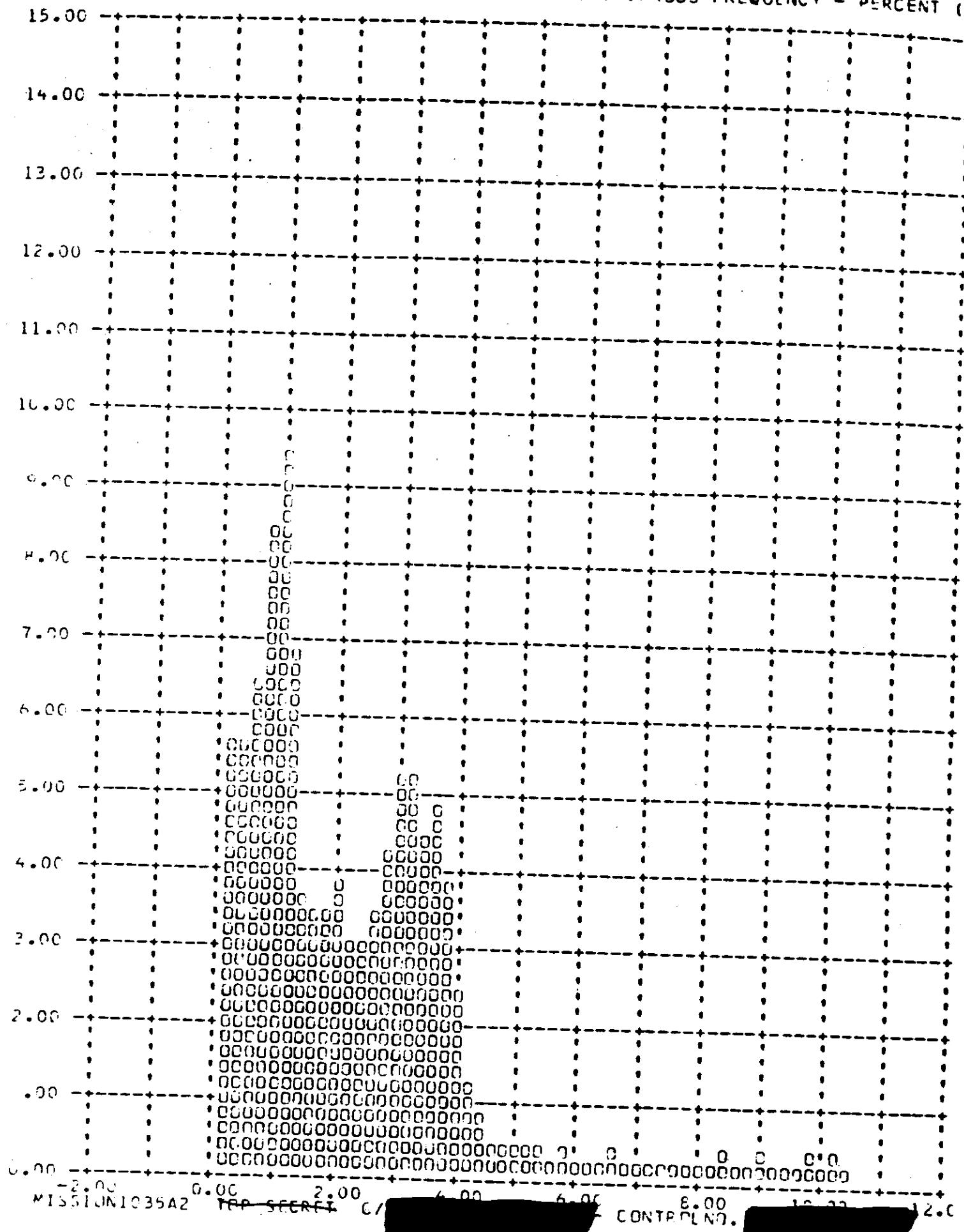
MISSOURI 1035A1 TOP SECRET C/

CONTROLLING.



FRAMES 1-6 OF EACH OP OMITTED " " ON PERCENT = 3.

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

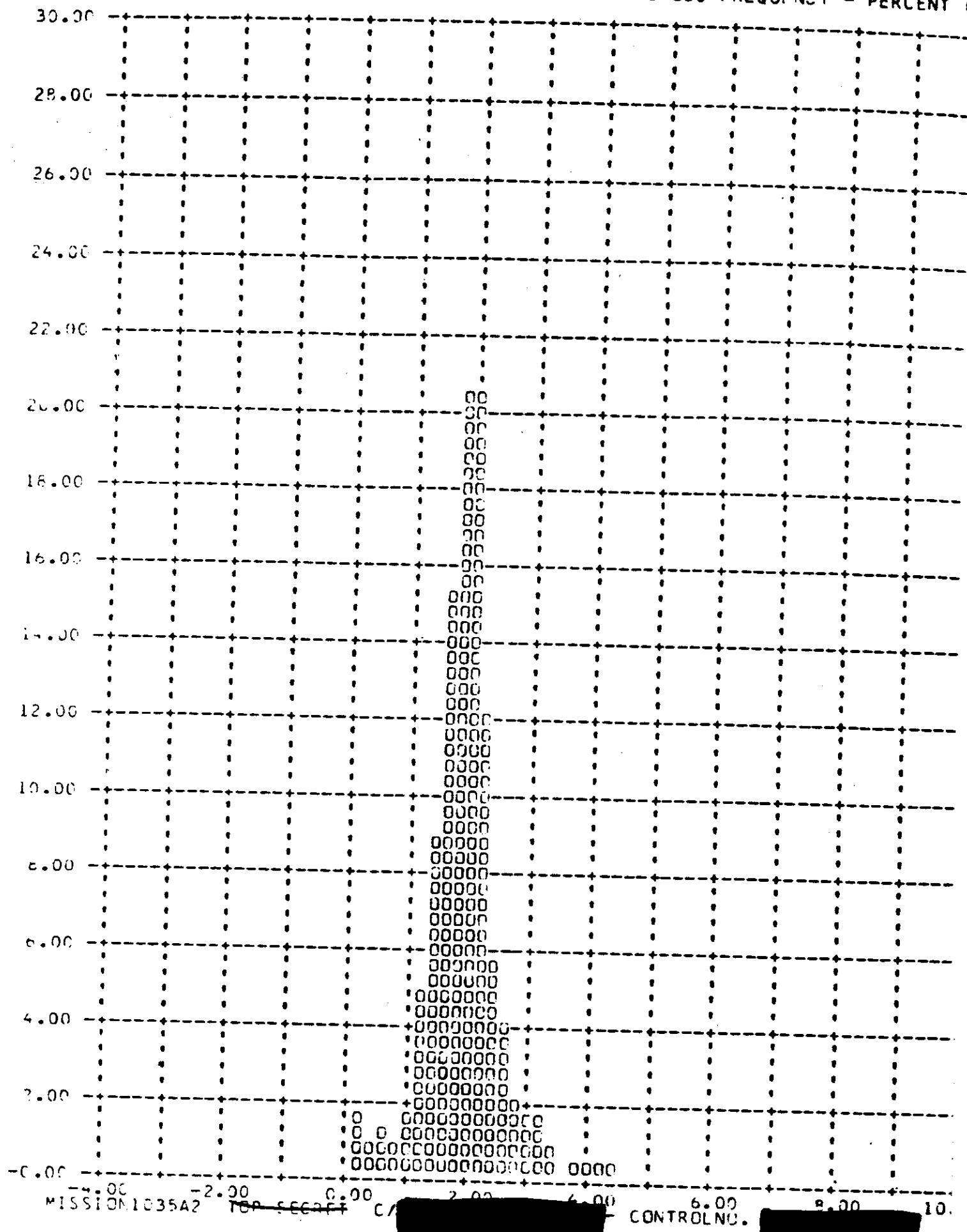


MISSION 1035A2 TEP SEERFI C/

CONTINUOUS

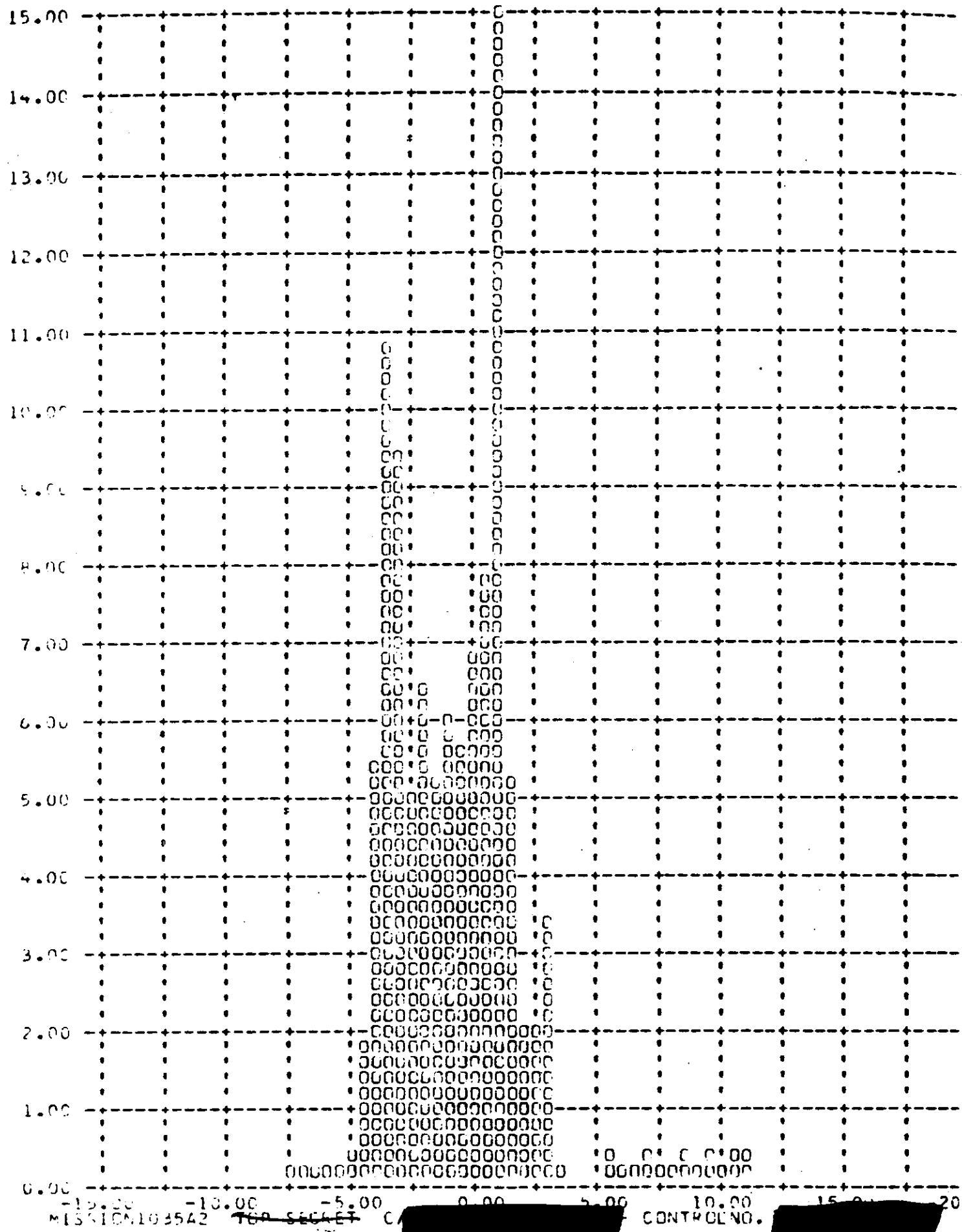
FRAMES 1-6 OF EACH DP OMITTED 90 PERCENT = 2.

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



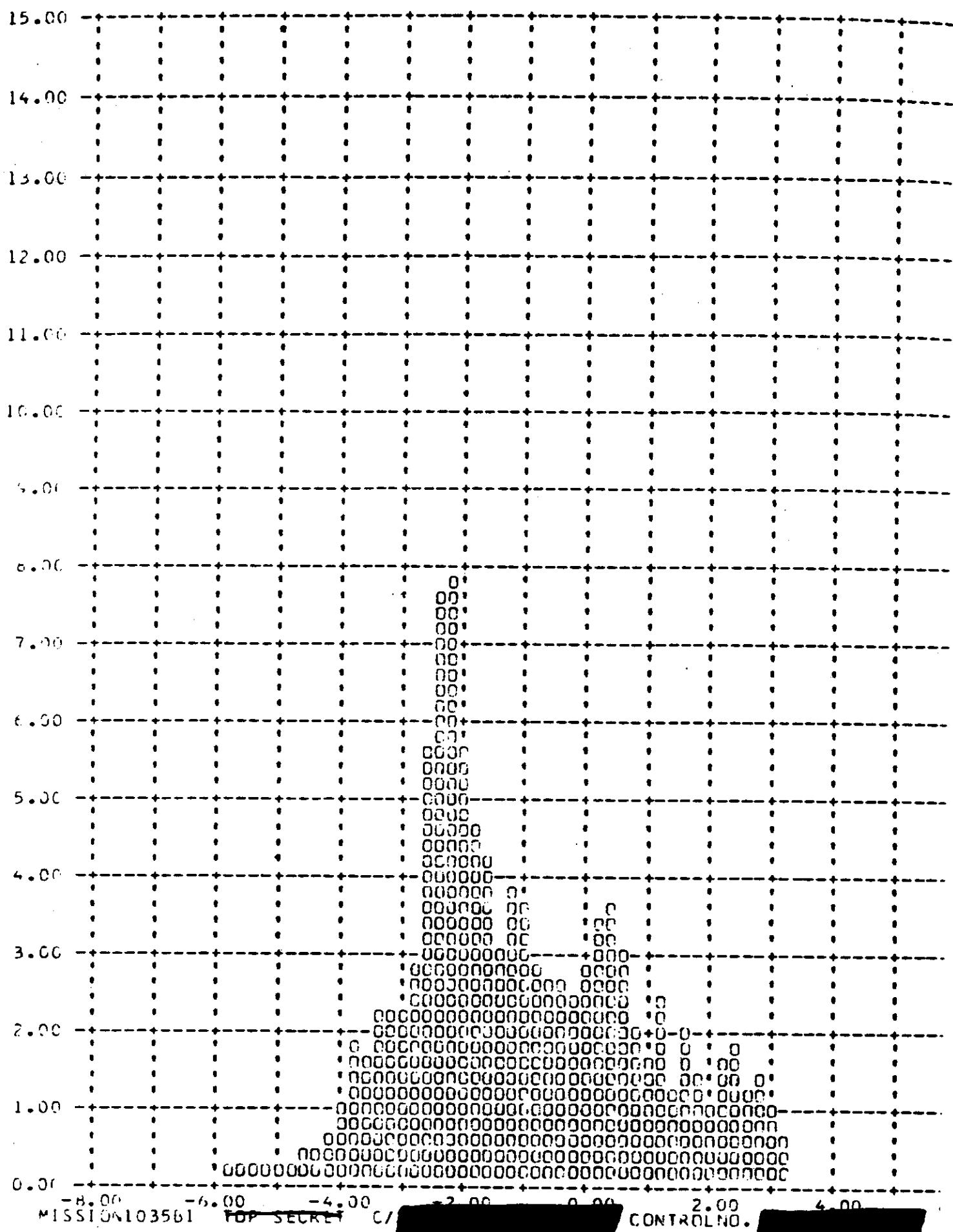
-2.00 -2.00 0.00 2.00 4.00 6.00 8.00 10.00
MISSION1035A2 TOP SECRET C/ [REDACTED] CONTROLNO. [REDACTED]

Y IMC ERROR -- PERCENT (X) VERSUS FREQUENCY (Y)

MISSION 103542 ~~TOP SECRET~~

CONTINUO.

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

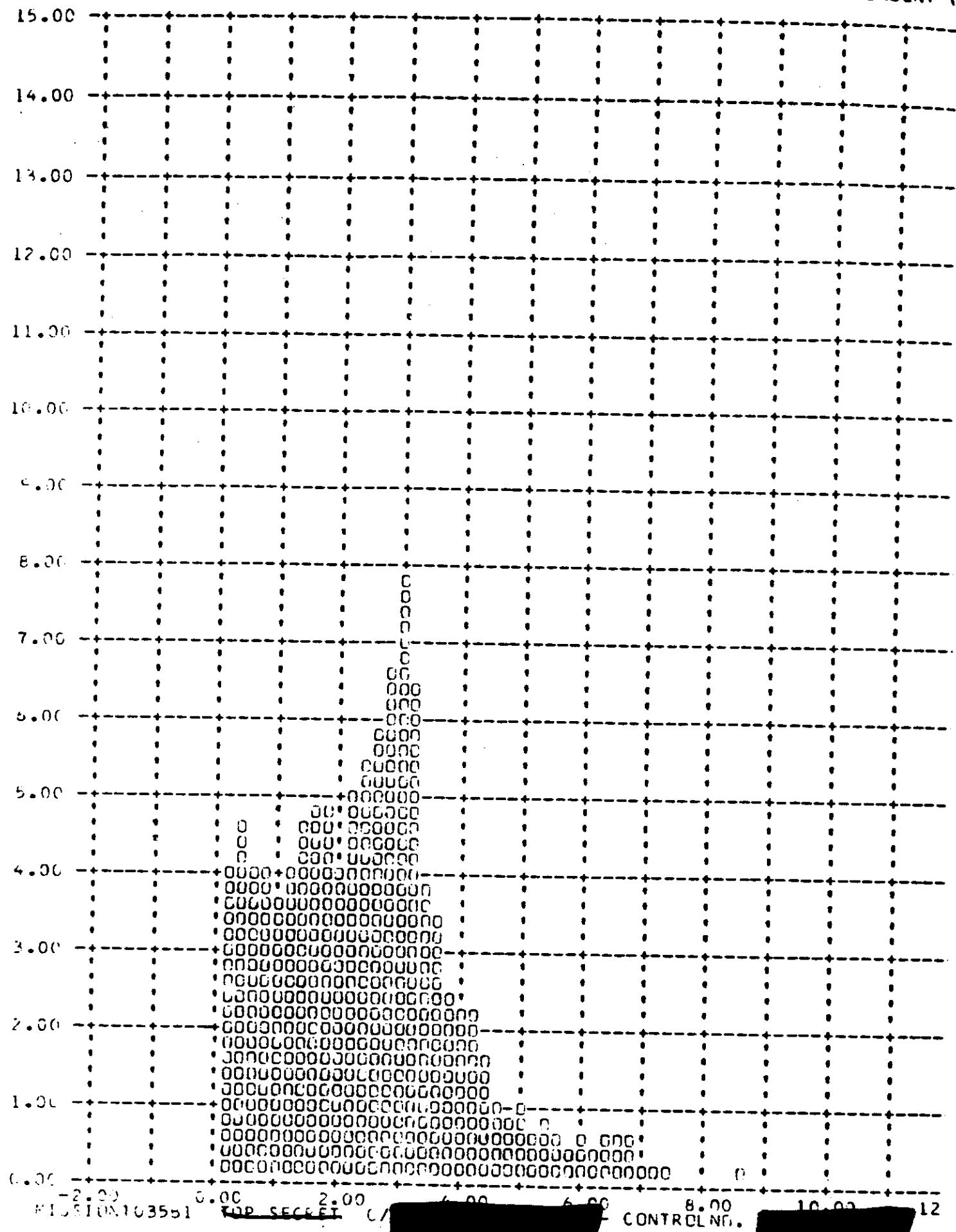


MISSION 103561 TOP SECRET C/

CONTROL NO.

EXAMPLES AND USES OF UNLTD. 50 PERCENT = 4.

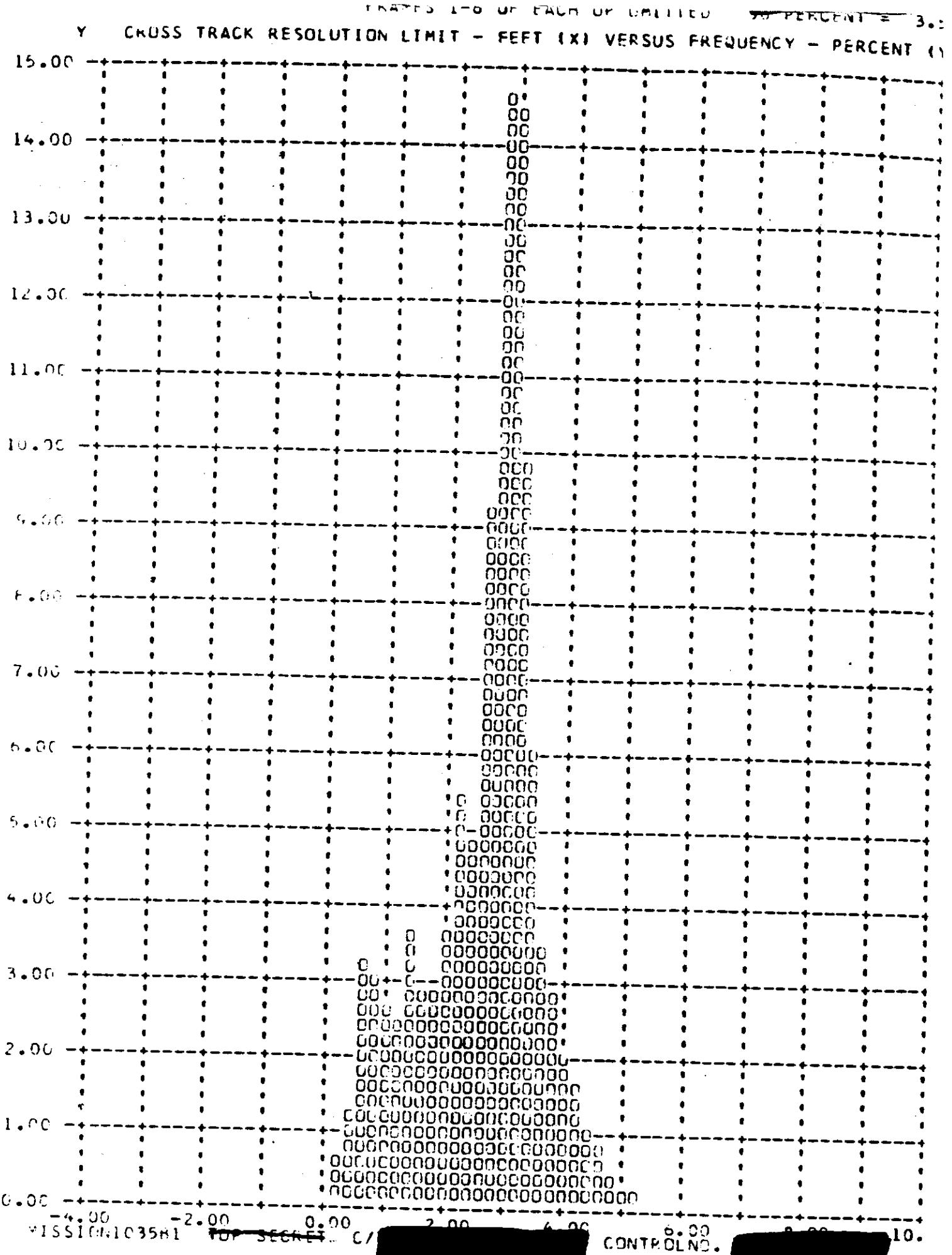
Y ALONG TRACK RESOLUTION LIMIT - FEET (X) VERSUS FREQUENCY - PERCENT (



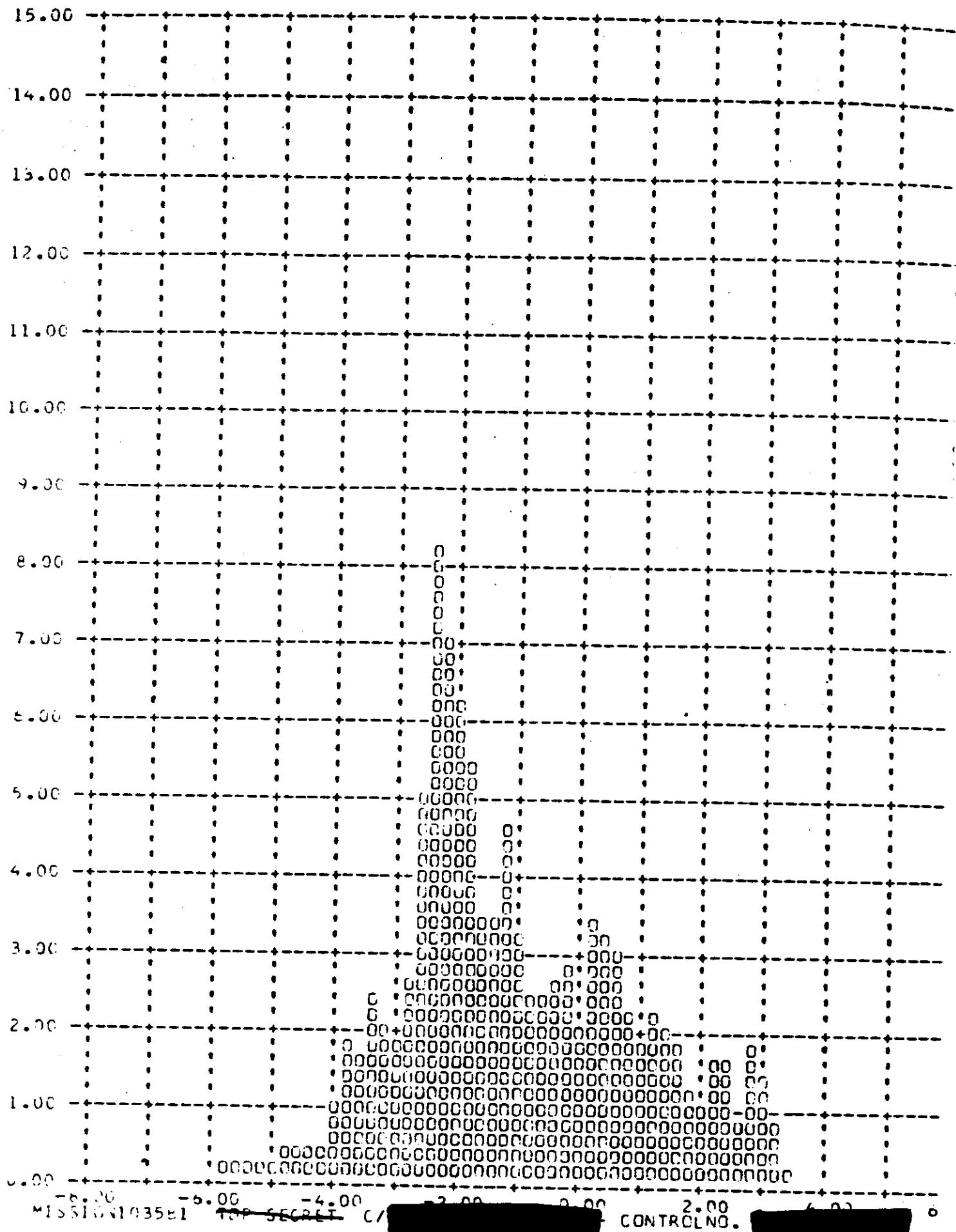
MISSION 103551 TOP SECRET C/

CONTROL NO. [REDACTED]

2.00 4.00 6.00 8.00 10.00 12.00



Y - IMC ERROR -- PERCENT (X) VERSUS FREQUENCY (Y)



MISSION 1035E1

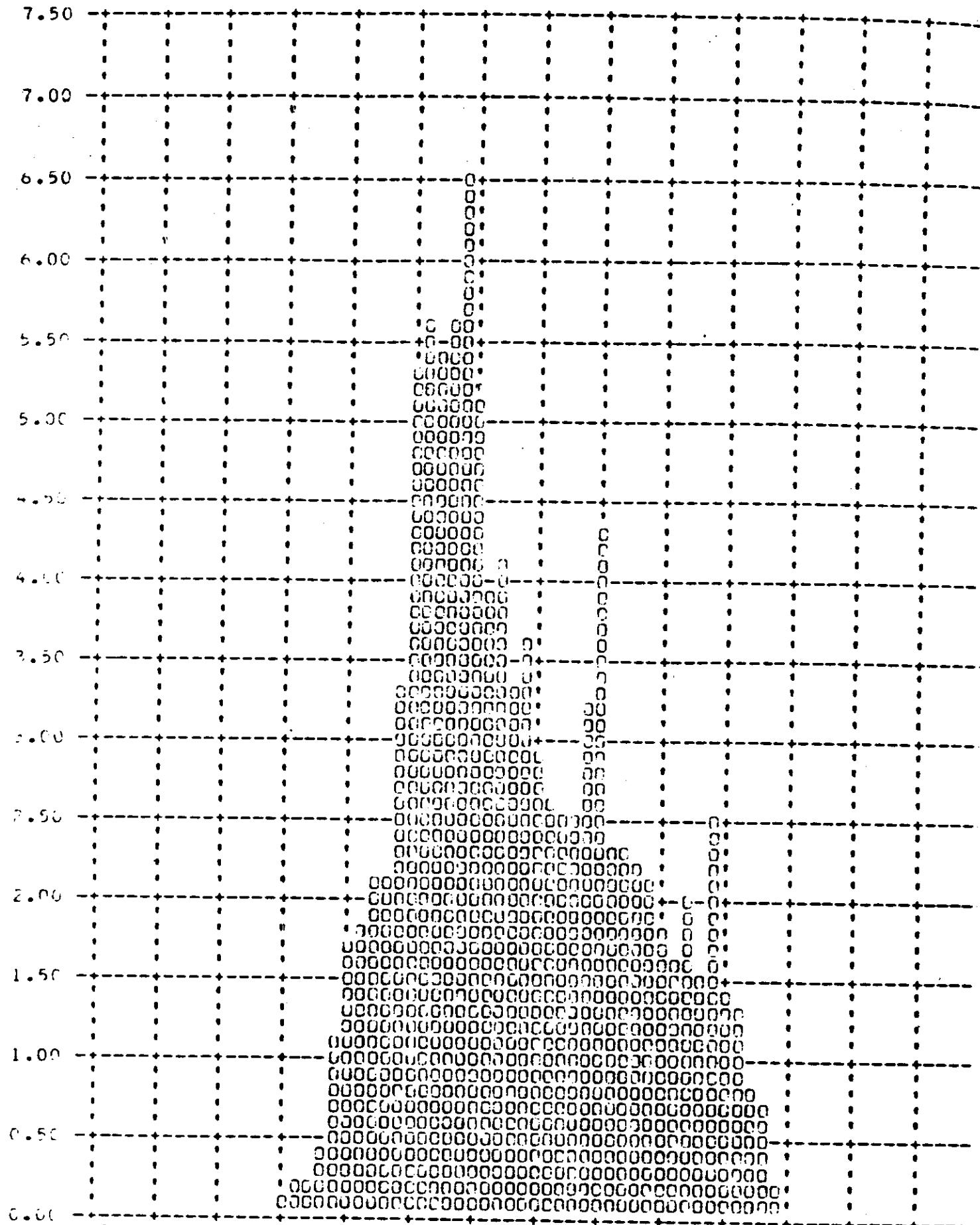
TOP SECRET

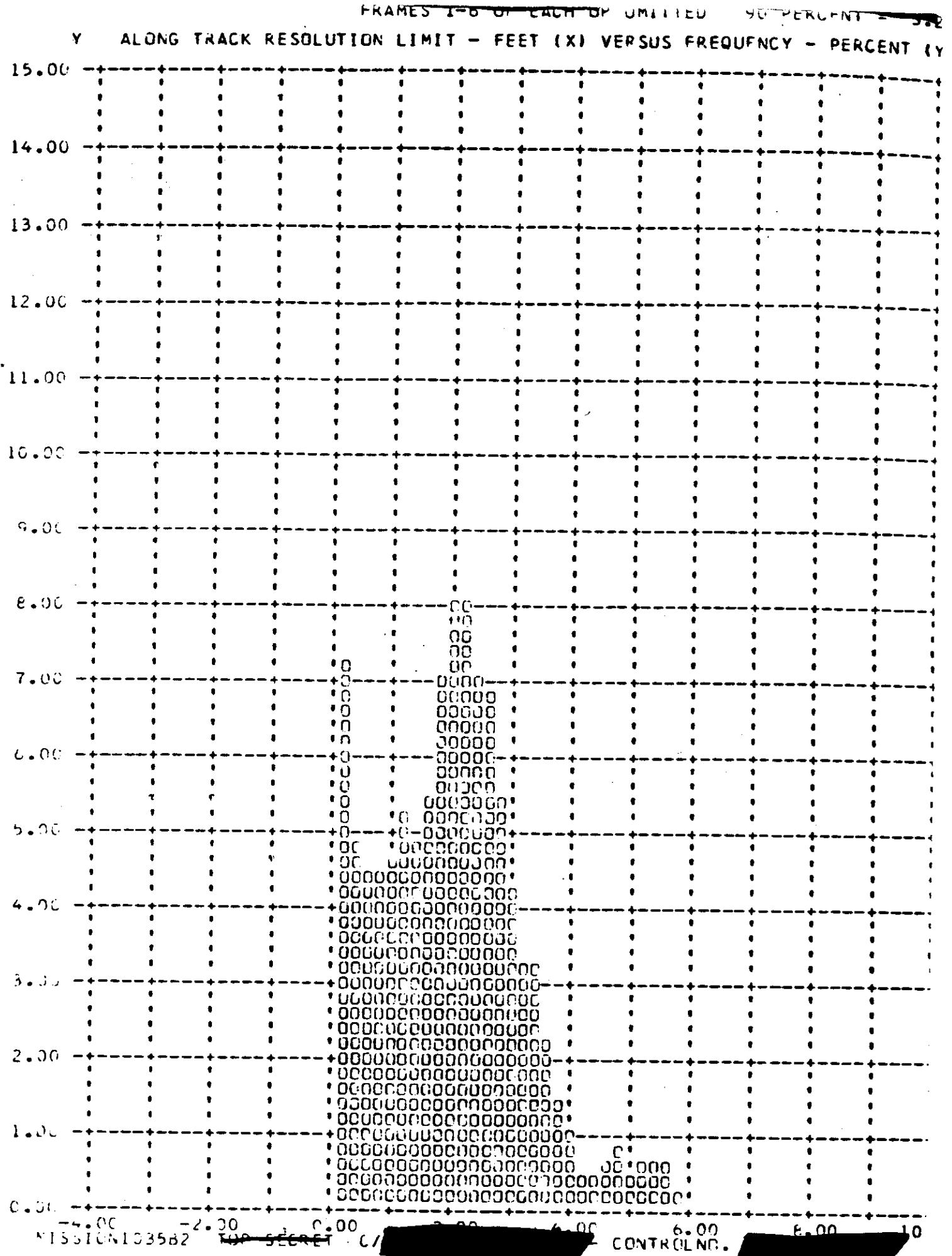
C/

CONTROL NO. [REDACTED]

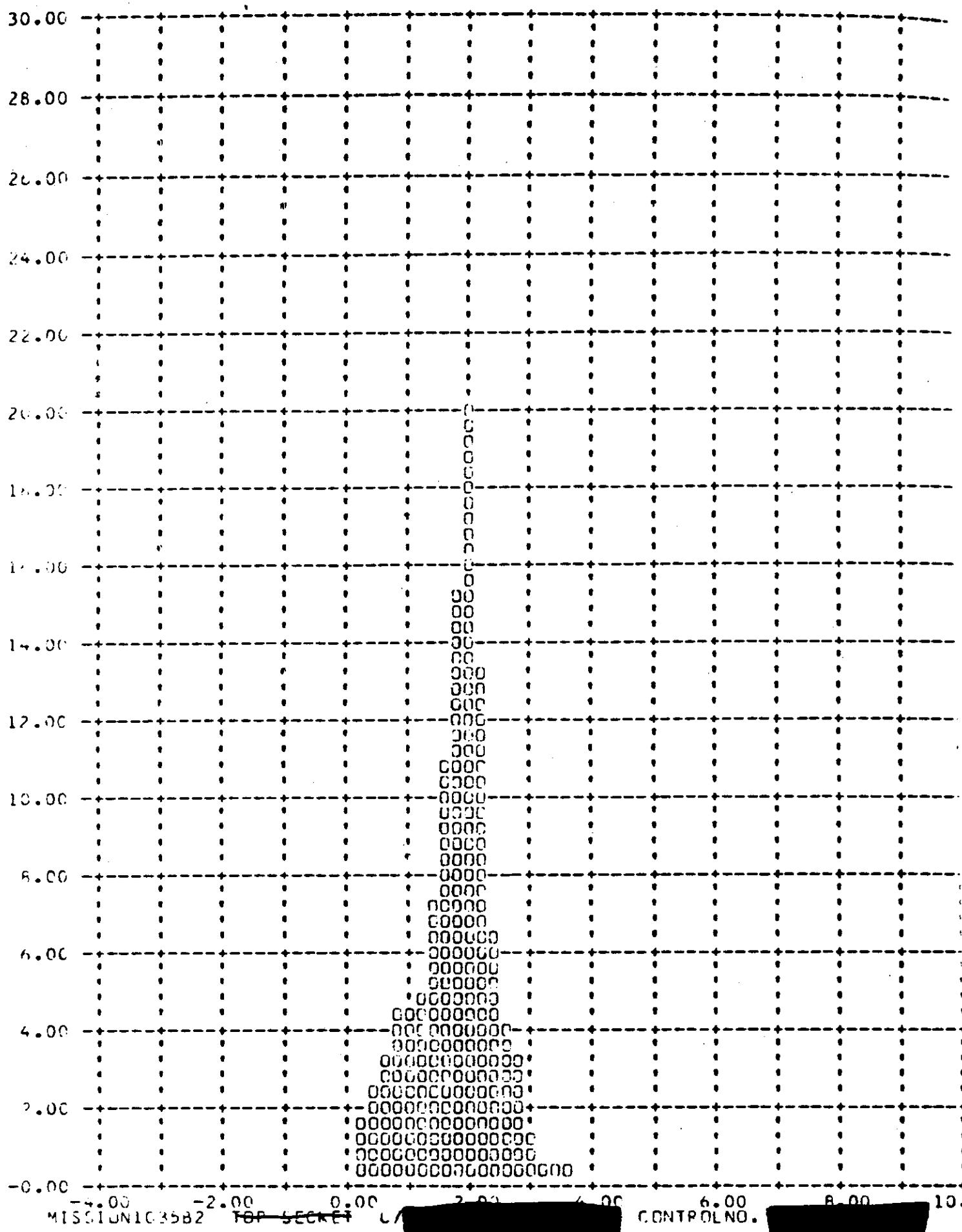
[REDACTED]

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





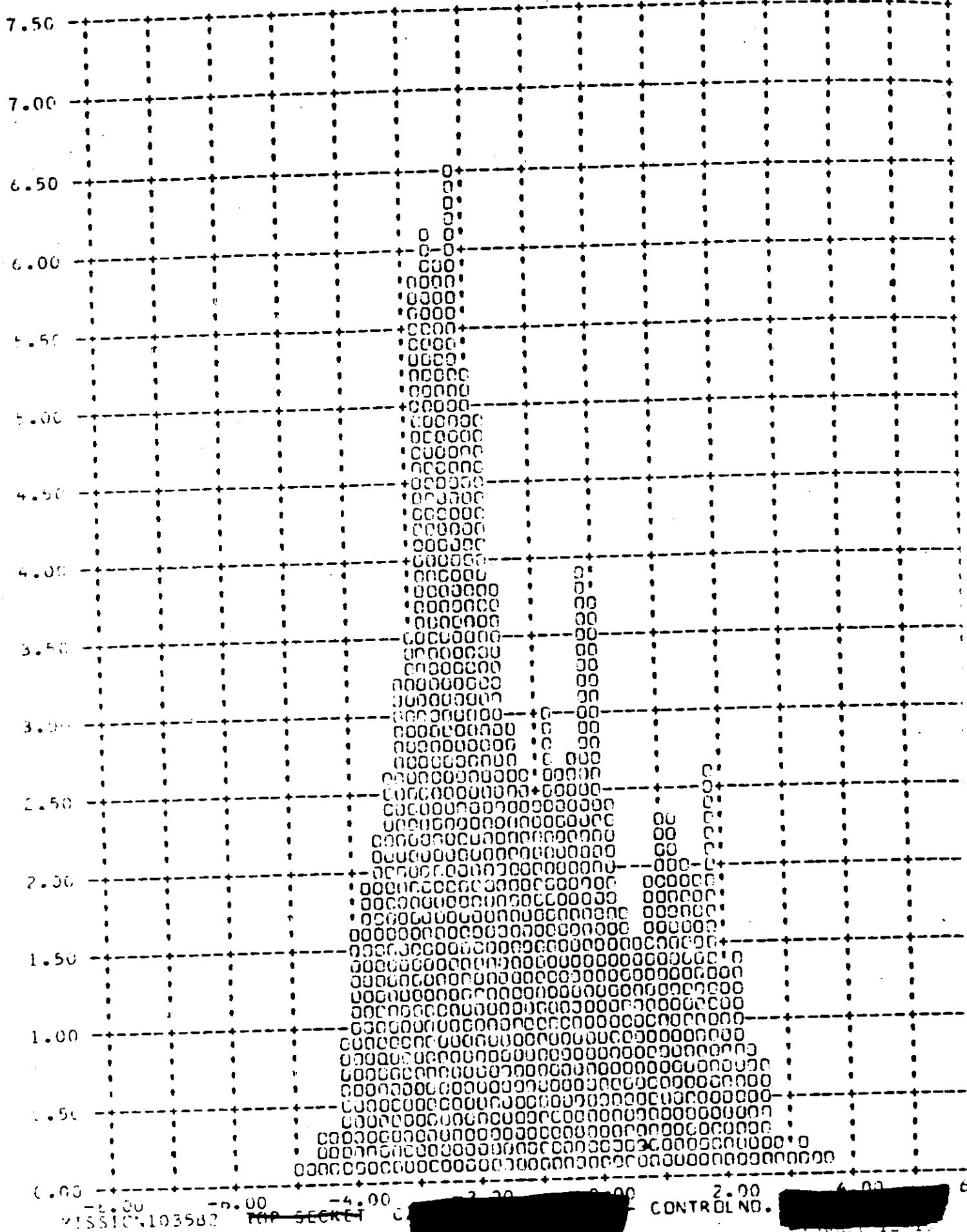
Y CROSS TRACK RESOLUTION LIMIT - FEET () VERSUS FREQUENCY - PERCENT



MISSION 1035B2 TOP SECRET

CONTROL NO.

Y IMC ERROR -- PERCENT (X) VERSUS FREQUENCY (Y)



MISSIC 103582

TOP SOCKET

CONTROL NO.

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 1.MSC at various levels and the base plus fog densities recorded after controlled processing.

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

<u>Emulsion</u>	Mission 1035-1		Mission 1035-2	
	<u>E + F</u> <u>Density</u>	<u>Radiation</u>	<u>B + F</u> <u>Density</u>	<u>Radiation</u>
Type 3401	0.21	0.7 R	0.25	1.2R
Royal X Pan	0.27	0.5 R	0.32	0.7 R

These levels are below that which will degrade the photography.

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 "J" Program are covered in the calculation. For certain auxiliaries, i.e., the stellar-index camera and the horizon cameras, the sample size is changed to recognize incorporation of modified equipment or new designs where reliability was one of the principal reasons for the modification. However, for primary mission function, the sample size is consistent with reliability reporting for the vehicle.

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

The reliability estimate is also divided into primary and secondary functions. The primary functions are operation of the panoramic cameras, main camera door operation, operation of the payload clock, and recovery operations. The secondary mission functions are horizon camera operation excluding catastrophic open shutter failure mode, auxiliary data recording, and stellar-index camera operation. A summary of estimated reliability is shown in Tables 14-1.

Panoramic Camera Reliability

Sample Size - 159 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 - 53 vehicles x 2 doors = 106 opportunities to operate

Estimated Reliability = 99.4% at 50% confidence level

Payload Command and Control

Sample Size - 8760 hours operation in sample

Two failures

Estimated Reliability = 97.1% at 50% confidence level

Payload Clock Reliability

Sample Size - 8760 hours operation in sample

No failures

Estimated Reliability = 99.2% at 50% confidence level

Estimated Reliability of Payload Functioning on orbit = 97.4% at
50% confidence level

Recovery System Reliability

71 opportunities to recover

1 failure - improper separation due to water seal - cutter failure

Estimated Reliability = 97.6% at 50% confidence level

Stellar-Index Camera Reliability

Sample begins with J5

Sample size = 21,680 cycles

Four failures

Estimated Reliability = 91.3 at 50% confidence level

Horizon Camera Reliability

Sample begins with J5 - 28,500 cycles

Estimated Reliability of Single Camera = 98.8% at 50% confidence level

Estimated Reliability of Four Horizon Cameras at a Parallel

Redundant System = 99.9% at 50% confidence level.

100-1000
NO.

ESTIMATED RELIABILITY SUMMARY

(AT 50% CONFIDENCE LEVEL)

MISSION NUMBER	PRIMARY FUNCTIONS	SECONDARY FUNCTIONS		HORIZON CAMERAS	
		RECOVERY SYSTEM			
		SAMPLE	FAIRINGS		
1000	PANORAMIC CAMERA COMMAND & CONTROL SYSTEM	PAYOUT CLOCK	ON - ORBIT FUNCTIONS	STELLAR - INDEX	
1001	PANORAMIC CAMERA DOORS	SAMPLE	SAMPLE	CAMERAS	
1002	SAMPLE	FAILURE	FAILURES	HORIZON	
1003	FAILURE	FAILURE	FAILURES	FAILURES	
1004	FAILURE	FAILURE	FAILURES	FAILURES	
1005	FAILURE	FAILURE	FAILURES	FAILURES	
1006	FAILURE	FAILURE	FAILURES	FAILURES	
1007	FAILURE	FAILURE	FAILURES	FAILURES	
1008	FAILURE	FAILURE	FAILURES	FAILURES	
1009	FAILURE	FAILURE	FAILURES	FAILURES	
1010	FAILURE	FAILURE	FAILURES	FAILURES	
1011	FAILURE	FAILURE	FAILURES	FAILURES	
1012	FAILURE	FAILURE	FAILURES	FAILURES	
1013	FAILURE	FAILURE	FAILURES	FAILURES	
1014	FAILURE	FAILURE	FAILURES	FAILURES	
1015	FAILURE	FAILURE	FAILURES	FAILURES	
1016	FAILURE	FAILURE	FAILURES	FAILURES	
1017	FAILURE	FAILURE	FAILURES	FAILURES	
1018	FAILURE	FAILURE	FAILURES	FAILURES	
1019	FAILURE	FAILURE	FAILURES	FAILURES	

ESTIMATED RELIABILITY SUMMARY

(AT 50% CONFIDENCE LEVEL)

MISSION NUMBER	PRIMARY FUNCTIONS						SECONDARY - FUNCTIONS					
	PANORAMIC CAMERA			COMMAND & CONTROL SYSTEM			RECOVERY SYSTEM			STELLAR - INDEX CAMERAS		
	SAMPLE	FAILURES	RELIABILITY	SAMPLE	FAILURES	RELIABILITY	SAMPLE	FAILURES	RELIABILITY	SAMPLE	FAILURES	RELIABILITY
108	78	0	99.1	5544	0	96.9	43	1	96.1	49,000	0	97.0
1020	98.5	0	99.1	97	1	98.9	41	1	96.1	69,900	0	97.0
104	76	0	99.1	5376	0	96.9	41	1	96.0	48,500	0	97.0
1021	98.5	0	99.1	970	0	98.8	45	1	96.0	89,100	0	97.0
112	80	0	99.2	5784	0	96.9	47	1	96.3	151,000	0	98.0
1022	98.5	0	99.2	97.3	1	98.9	47	1	96.3	90,700	0	98.0
114	82	0	99.2	6000	0	96.2	47	1	96.5	34,000	0	98.0
123	98.6	0	99.2	95.8	0	98.9	49	1	92,190	2	91.1	98.1
116	84	0	99.2	6240	0	96.3	49	1	96.5	13,040	0	98.2
124	98.6	0	99.2	96.0	0	98.9	51	1	96.6	57,000	0	98.2
122	86	0	99.2	6480	0	96.4	51	1	96.890	60,000	0	98.3
025	98.6	0	99.2	96.1	0	99.0	53	1	96.7	2	92.1	98.3
120	88	0	99.2	6720	0	96.5	53	1	96.8	14,740	0	98.4
026	98.7	0	99.2	96.3	0	99.0	53	1	96.8	63,000	0	98.4
1027	90	0	99.2	6744	0	96.5	53	1	97.0	64,500	0	98.5
132	92	0	99.2	96.3	0	99.0	53	1	97.0	15,165	0	98.5
1028	98.7	0	99.2	6960	0	96.7	53	1	97.1	67,500	0	98.5
1029	94	0	99.2	7200	0	99.0	59	1	97.1	16,015	3	90.7
140	96	0	99.3	7440	2	96.5	61	1	97.1	16,580	4	88.7
1030	98.9	0	99.3	7440	2	96.9	61	1	97.2	17,430	4	89.5
143	98	0	99	7704	2	96.9	63	1	97.2	16,280	4	90.6
1031	98	0	99	7704	2	96.9	63	1	97.3	76,500	0	90.6

ESTIMATED RELIABILITY SUMMARY

(AT 50% CONFIDENCE LEVEL)

MISSION NUMBER	PRIMARY FUNCTIONS				SECONDARY FUNCTIONS				HORIZON CAMERAS			
	PANORAMIC CAMERA COMMAND & CONTROL SYSTEM		PAYLOAD CLOCK		ON-ORBIT FUNCTIONS		RECOVERY SYSTEM		STELLAR INDEX CAMERAS		SAMPLE FAILURES	
	SAMPLE FAILURES	RELIABILITY	SAMPLE FAILURES	RELIABILITY	SAMPLE FAILURES	RELIABILITY	SAMPLE FAILURES	RELIABILITY	SAMPLE FAILURES	RELIABILITY	SAMPLE FAILURES	RELIABILITY
1033	100	79.68	96.8	99.2	97.1	97.4	97.4	97.4	90.2	90.7	0	0
1034	102	82.08	82.08	97.2	97.2	97.5	97.5	97.5	92.500	92.500	0	0
1035	103	98.9	99.3	96.9	99.2	97.4	97.4	97.4	96.500	96.500	0	0
1036	105	97.60	87.60	97.1	97.1	97.6	97.6	97.6	91.3	91.3	0	0
1037	106	99.0	99.4	97.1	97.1	97.6	97.6	97.6	91.3	91.3	0	0

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 system was the first to incorporate the major modifications of 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 Mission 1003, 1005 and 1032 are deleted.

MISSION SUMMARY

N(1)

MISSION NUMBER	PAYLOAD NUMBER	VEHICLE NUMBER	LAUNCH DATE	LAUNCH TIME	ORBIT INCLINATION (°)	PERIGEE ALTITUDE (NM)	RECOVERY PASS	MASTER CAMERA SLIT FILTER NUMBER	SLAVE CAMERA SLIT FILTER NUMBER	CAMERA NUMBER	CAMERA SLIT FILTER TYPE	STELLAR INDEX CAMERA NUMBER
1004	J-05	1174	2/19/64	2138 2	74.9	99.9	29.0	49	112	124	0 250	W-21
1005	J-09	1176	3/4/64	2259 2	79.9	84.0	63.2	65	128	148	0 200	W-21
1006	J-09	1176	3/4/64	2259 2	79.9	84.0	63.2	65	128	144	0 250	W-21
1007	J-07	1069	6/19/64	2318 2	85.0	99.2	41.5	49	112	145	0 200	W-21
1008	J-10	1177	7/10/64	2314 2	85.0	99.4	40.8	49	112	150	0 200	W-21
1009	J-12	1069	8/5/64	2316 2	80.1	99.6	39.5	49	128	154	0 200	W-21
1010	J-11	1178	9/14/64	2254 2	84.9	97.4	42.5	65	144	152	0 175	W-21
1011	J-3X	1170	10/5/64	2150 2	79.9	99.3	20.9	65	160	160	0 175	W-21
1012	J-13	1179	10/17/64	2202 2	75.0	96.2	32.4	49	61	156	0 200	W-21
1013	J-15	1173	11/2/64	2130 2	80.0	100.0	25.0	65	81	158	0 225	W-21
1014	J-16	1180	11/20/64	2036 2	70.0	103.2	85.6	61	145	162	0 250	W-21
1015	J-17	1007	12/19/64	2110 2	74.9	96.7	21.9	61	175	158	0 250	W-21
1016	J-18	1008	1/19/65	2101 2	74.9	99.4	30.2	61	159	132	0 250	W-21
1017	J-14	1011	2/29/65	2144 2	75.0	97.2	25.9	61	145	140	0 250	W-21
1018	J-19	1012	3/25/65	2111 2	96.0	100.2	40.3	66	99	122	0 250	W-21
1019	J-04	1014	4/29/65	2144 2	85.0	99.1	27.1	60	—	118	0 250	W-21
1020	J-20	1013	6/19/65	2158 2	75.1	97.1	40.8	97	113	136	0 250	W-21
1021	J-21	1015	9/10/65	1803 2	75.0	109.2	24.3	61	161	166	0 175	W-21
1022	J-22	1017	7/19/65	2201 2	85.0	99.7	30.3	65	144	169	0 250	W-21
1023	J-23	1018	8/17/65	2100 2	70.0	97.0	29.0	81	144	170	0 225	W-21
1024	J-24	1019	9/22/65	2151 2	80.0	99.9	18.4	61	161	172	0 225	W-21
1025	J-26	1016	10/5/65	1746 2	75.0	112.9	44.3	61	161	142	0 175	W-21
1026	J-25	1020	10/20/65	2117 2	75.0	93.0	17.0	61	160	174	0 225	W-21
1027	J-27	1021	12/19/65	2110 2	80.0	97.4	17.3	17	93	164	0 250	W-21
1028	J-26	1010	10/24/65	2106 2	80.0	97.6	28.4	81	144	176	0 250	W-21

MISSION SUMMARY

MISSION NUMBER	PAYLOAD NUMBER	VEHICLE NUMBER	LAUNCH DATE	LAUNCH TIME	ORBIT INCLINATION (°)	ALTITUDE (NM)	PERIGEE LOCATION (°N)	RECOVERY PASS	MASTER CAMERA SLAVE CAMERA			STELLAR INDEX	CAMERA NUMBER
									MASTER CAMERA NUMBER	CAMERA SLIT FILTER TYPE	CAMERA SLIT FILTER TYPE		
1029	J-27	1623	2/2/66	2132 2	75.1	99.5	22.5	81	180	178	0.275	W-21	079/94/91
1030	J-29	1622	3/9/66	2202 2	75.0	97.5	18.7	81	159	192	0.275	W-21	094/100/07
1031	J-30	1627	4/7/66	2202 2	76.1	104.3	23.3	113	177	184	0.225	W-21	093/101/89
1032	J-28	1625	5/3/66	1925 2	—	—	—	—	—	180	0.150	W-21	081/87/101
1033	J-33	1630	5/24/66	0213 2	86.1	102.0	60.7	82	178	194	0.200	W-21	091/103/09
1034	J-31	1626	6/21/66	2131 2	80.1	105.4	18.2	81	161	186	0.200	W-21	085/109/76
1035	J-36	1628	9/6/66	2114 2	85.0	99.5	29.1	81	160	188	0.225	W-21	093/112/113
													D94/104/116

PROT. SPEC. NO.:

PERFORMANCE SUMMARY

MISSION NUMBER	CAMERA SERIAL NUMBER	W/D VALUE	VISUAL RES.	AP SPOL AIRFOIL	M/T/AIR AVG	S/T/AIR AVG	T/W	AVERAGE HIGH	AVERAGE TAIL	90% ATTITUDE RATES (°/HR) YAW		90% ATTITUDE RATES (°/HR) PITCH		90% ATTITUDE RATES (°/HR) ROLL		90% RESOLUTION LIMIT (LIFE) CROSS TRACK	
										90% V/H ERROR IN	90% RESOLUTION LIMIT (LIFE)	90% V/H ERROR IN	90% RESOLUTION LIMIT (LIFE)	90% V/H ERROR IN	90% RESOLUTION LIMIT (LIFE)	90% V/H ERROR IN	90% RESOLUTION LIMIT (LIFE)
1004-1	FWD	124	85	78	97	80	43	96	103	115	127	0.45	0.42	1.08	30.0	25.0	21.0
1004-2	FWD	125	85	76	95	88	43	113	106	117	124	0.50	0.50	1.08	30.0	29.0	24.9
1006-1	FWD	148	90	78	74	95	43	90	88	95	90	0.74	0.50	0.91	44.0	30.0	29.0
1008-2	FWD	149	90	85	85	64	72	61	90	95	94	0.41	0.42	1.14	26.6	28.5	27.8
1007-1	FWD	144	85	80	66	60	67	63	63	72	91	0.98	0.46	1.43	37.6	23.9	29.9
1007-2	FWD	145	85	79	74	72	71	71	72	74	81	0.64	0.47	—	43.0	25.6	—
1008-1	FWD	150	85	80	80	60	60	95	95	91	95	0.59	0.39	0.94	43.0	25.9	29.6
1008-2	FWD	151	85	82	76	84	43	75	89	86	92	0.63	0.36	0.71	42.9	24.0	32.5
1009-1	FWD	154	85	92	89	80	80	80	80	75	86	0.65	0.66	0.71	29.2	22.7	27.6
1009-2	FWD	155	85	94	94	85	87	80	80	75	83	0.48	0.65	0.59	33.6	23.9	27.2
1010-1	FWD	152	85	90	90	86	80	80	80	72	79	0.93	0.30	0.67	39.1	25.6	30.8
1010-2	FWD	153	85	92	92	81	82	82	82	80	92	0.76	0.70	1.21	45.4	23.6	30.7
1011-1	FWD	160	90	84	84	75	80	86	86	80	83	0.77	0.39	0.97	43.1	28.9	31.1
1012-1	FWD	156	85	92	91	87	80	87	87	84	93	0.65	0.51	—	47.1	33.2	—
1012-2	FWD	157	85	91	91	89	80	89	89	84	91	0.97	0.77	0.51	45.2	30.7	20.4
1013-1	FWD	158	85	93	97	87	80	96	96	80	91	0.64	0.32	1.34	36.9	29.0	32.3
1014-1	FWD	162	80	87	83	83	—	80	87	78	86	0.62	0.41	1.46	35.0	36.1	36.9
1014-2	FWD	159	80	86	85	85	—	80	87	79	87	0.62	0.41	1.44	36.4	36.4	36.4
1015-1	FWD	158	85	87	87	87	—	80	87	80	88	1.06	0.59	—	38.1	36.0	—
1015-2	FWD	141	85	83	83	83	—	80	87	78	86	0.65	0.53	0.53	47.0	29.4	38.2
1017-1	FWD	140	85	72	75	65	82	75	75	60	70	0.64	0.59	0.64	46.9	21.9	42.2
1017-2	FWD	165	85	85	85	85	—	80	85	80	80	0.50	0.61	0.53	39.0	27.3	36.2
1018-1	FWD	152	85	79	77	64	64	76	76	61	64	0.49	0.76	2.49	35.9	32.2	38.4
1018-2	FWD	123	85	85	84	84	—	80	84	74	74	0.49	0.69	0.45	35.3	32.0	38.5

PERFORMANCE SUMMARY

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PERFORMANCE SUMMARY

MISSION NUMBER	CAMERA NUMBER	M.I.P. VALUE	AFSPPF MTF/AIM AVERAGE	SLIT (μ)	90% ATTITUDE ERROR (°)			90% ALTITUDE RATES (°/HR)			90% V/H ERROR (%)			I.M.C. EPRON
					PITCH _{AVG}	PITCH _{ROLL}	PITCH _{RAW}	PITCH	PITCH	PITCH	YAW	YAW	YAW	
1034-1	FWD	80	75	81	0.20	0.19	0.99	19.3	20.4	24.3	15.0	17.6	3.9	—
	AFT	186	93	80	0.20	0.19	0.97	19.3	20.4	24.9	15.2	15.6	4.5	—
1034-2	FWD	80	74	65	0.54	0.54	0.33	21.1	28.9	16.2	9.7	10.4	7.1	—
	AFT	187	69	86	0.54	0.56	0.35	21.1	29.2	16.2	8.9	8.9	7.5	—
1035-1	FWD	85	66	—	0.16	0.55	2.39	18.9	27.9	33.9	4.6	4.8	3.7	4.0
	AFT	188	80	80	0.17	2.54	2.45	13.1	23.4	32.2	4.1	3.7	2.9	3.1
1035-2	FWD	65	61	82	—	0.16	3.50	3.02	30.1	27.5	3.2	4.0	3.5	3.2
	AFT	185	65	82	0.17	0.51	3.02	15.5	24.7	26.3	3.4	3.3	2.4	3.4

EXPOSURE - PROCESSING SUMMARY

MISSION NUMBER	CAMERA	SOLAR ELEVATION RANGE [°]	AZIMUTH RANGE [°]	PREDICTED PROCESSING TIME			REPORTED PROCESSING TIME			COMPUTED PROCESSING TIME			TERRAIN D-MIN			TERRAIN D-MAX			CLOUD RANGE			CLOUD D-MIN							
				HIGH	MEDIUM	LOW	HIGH	MEDIUM	LOW	HIGH	MEDIUM	LOW	HIGH	MEDIUM	LOW	HIGH	MEDIUM	LOW	HIGH	MEDIUM	LOW	HIGH	MEDIUM	LOW	HIGH				
1004-1	FWD	-3	61	25	124	9	78	19	4	79	17	0.79	21	0.26	1.89	0.83	0.78	0.43	2.43	1.97	2.02	1.00	2.43	2.04	2.08				
1004-2	AFT	-3	61	25	124	9	74	21	4	79	17	0.60	20	0.22	1.56	0.78	0.70	0.92	2.45	1.94	1.08	0.83	2.43	1.98	2.03				
1005-1	FWD	-4	68	10	131	7	76	17	37	50	13	0.83	15	0.29	1.80	0.80	0.75	0.36	1.10	0.84	0.04	0.41	2.37	0.77	1.93				
1005-2	AFT	-4	68	10	131	7	76	17	37	50	13	4	77	19	0.29	1.91	0.61	0.73	0.36	2.39	0.89	0.99	0.43	2.46	1.89	1.98			
1006-1	FWD	50	56	52	140	1	99	0	-51	46	0	51	49	0.23	81	0.71	0.68	0.80	2.31	1.58	1.52	1.31	2.40	2.20	2.24				
1006-2	AFT	50	56	52	140	1	99	0	0	23	77	0	24	76	0.56	66	0.87	0.84	0.96	2.59	1.72	1.72	1.44	2.40	2.24	2.28			
1007-1	FWD	12	49	50	103	0	5	93	-1	20	79	0	25	75	0.26	22	0.32	0.47	0.62	2.20	1.44	1.22	1.36	2.17	2.21	2.20			
1007-2	AFT	12	49	48	102	0	100	0	0	42	48	6	77	17	0.26	76	0.58	0.55	0.70	2.31	1.52	1.54	2.39	2.20	2.24	2.28			
1008-1	FWD	50	51	57	45	112	0	25	75	3	69	0	26	74	0.26	123	0.51	0.48	0.70	2.32	1.44	1.40	0.90	2.37	2.15	2.20			
1008-2	AFT	50	51	57	45	111	0	100	0	19	41	40	3	66	9	0.24	58	0.60	0.56	0.44	2.27	1.50	1.52	0.84	2.41	2.17	2.20		
1009-1	FWD	50	51	50	102	0	100	0	0	4	32	64	-3	35	64	0.32	48	0.66	0.62	0.78	2.24	1.55	1.56	1.48	2.35	2.12	2.24		
1009-2	AFT	50	51	50	102	0	100	0	0	4	27	65	0	54	66	0.32	57	0.71	0.69	0.81	2.21	1.57	1.58	1.55	2.40	2.12	2.24		
1010-1	FWD	18	47	49	63	0	21	79	0	13	97	0	13	97	0	9	128	0.64	0.64	0.73	2.10	1.55	1.55	1.55	2.35	2.14	2.22		
1010-2	AFT	18	47	45	63	0	21	79	0	19	84	0	13	87	0	18	164	0.26	25	0.57	0.52	0.63	2.11	1.41	1.41	1.41	2.46	2.16	2.26
1011-1	FWD	10	47	45	63	0	21	79	0	19	84	0	13	87	0	18	164	0.26	25	0.57	0.52	0.63	2.11	1.41	1.41	1.41	2.46	2.16	2.26
1011-2	AFT	10	47	45	63	0	21	79	0	19	84	0	13	87	0	18	164	0.26	25	0.57	0.52	0.63	2.11	1.41	1.41	1.41	2.46	2.16	2.26
1012-1	FWD	10	47	45	63	0	21	79	0	19	84	0	13	87	0	18	164	0.26	25	0.57	0.52	0.63	2.11	1.41	1.41	1.41	2.46	2.16	2.26
1012-2	AFT	10	47	45	63	0	21	79	0	19	84	0	13	87	0	18	164	0.26	25	0.57	0.52	0.63	2.11	1.41	1.41	1.41	2.46	2.16	2.26
1013-1	FWD	10	47	45	63	0	21	79	0	19	84	0	13	87	0	18	164	0.26	25	0.57	0.52	0.63	2.11	1.41	1.41	1.41	2.46	2.16	2.26
1014-1	FWD	10	47	45	63	0	21	79	0	19	84	0	13	87	0	18	164	0.26	25	0.57	0.52	0.63	2.11	1.41	1.41	1.41	2.46	2.16	2.26
1014-2	AFT	10	47	45	63	0	21	79	0	19	84	0	13	87	0	18	164	0.26	25	0.57	0.52	0.63	2.11	1.41	1.41	1.41	2.46	2.16	2.26
1015-1	FWD	10	47	45	63	0	21	79	0	19	84	0	13	87	0	18	164	0.26	25	0.57	0.52	0.63	2.11	1.41	1.41	1.41	2.46	2.16	2.26
1015-2	AFT	10	47	45	63	0	21	79	0	19	84	0	13	87	0	18	164	0.26	25	0.57	0.52	0.63	2.11	1.41	1.41	1.41	2.46	2.16	2.26
1016-1	FWD	10	47	45	63	0	21	79	0	19	84	0	13	87	0	18	164	0.26	25	0.57	0.52	0.63	2.11	1.41	1.41	1.41	2.46	2.16	2.26
1016-2	AFT	10	47	45	63	0	21	79	0	19	84	0	13	87	0	18	164	0.26	25	0.57	0.52	0.63	2.11	1.41	1.41	1.41	2.46	2.16	2.26
1017-1	FWD	10	47	45	63	0	21	79	0	19	84	0	13	87	0	18	164	0.26	25	0.57	0.52	0.63	2.11	1.41	1.41	1.41	2.46	2.16	2.26
1017-2	AFT	10	47	45	63	0	21	79	0	19	84	0	13	87	0	18	164	0.26	25	0.57	0.52	0.63	2.11	1.41	1.41	1.41	2.46	2.16	2.26
1018-1	FWD	10	47	45	63	0	21	79	0	19	84	0	13	87	0	18	164	0.26	25	0.57	0.52	0.63	2.11	1.41	1.41	1.41	2.46	2.16	2.26
1018-2	AFT	10	47	45	63	0	21	79	0	19	84	0	13	87	0	18	164	0.26	25	0.57	0.52	0.63	2.11	1.41	1.41	1.41	2.46	2.16	2.26

EXPOSURE - PROCESSING SUMMARY

(No.)

MISSION NUMBER	SOLAR ELEVATION	CAMERA RANGE	PREDICTED PROCESSING TIME (hr)	REPORTED PROCESSING TIME (hr)	COMPUTED PROCESSING TIMES (hr)			TERRAIN D. MIN. RANGES			TERRAIN D. MAX. RANGES			CLOUD COV. IN																				
					F	P	T	LOW	HIGH	M	LOW	HIGH	M	LOW	HIGH	M																		
1019-1	FWD	24	152	0	21	79	22	32	46	45	40	026	92	071	061	050	215	145	26	94	200	4	26	94	200	45								
1020-1	AFT	23	70	21	152	0	92	8	26	55	19	3	87	10	013	170	066	060	39	26	16	45	200	1	13	70	200	42						
1020-2	FWD	30	75	19	156	0	19	61	13	48	39	-	58	41	023	130	055	052	80	228	57	54	140	238	10	16	78	210	42					
1020-2	AFT	29	75	17	156	0	64	36	15	56	29	0	74	26	023	20	055	054	70	220	147	46	22	29	204	210	0	76	5					
1021-1	FWD	28	67	30	150	0	66	36	64	6	36	56	0	42	38	018	149	045	040	054	42	57	60	32	55	224	229	30	19	47				
1021-1	AFT	27	67	26	150	0	69	32	14	39	47	-	52	47	025	90	064	058	74	12	18	50	50	150	192	200	7	17	72					
1022-1	FWD	29	74	21	152	0	80	62	1	37	62	0	43	57	020	99	039	035	62	65	45	45	162	230	230	200	55	75	12					
1022-1	AFT	28	74	19	152	0	100	0	10	44	46	0	53	47	021	40	048	044	50	32	51	52	43	49	225	225	10	25	61					
1023-1	FWD	22	82	8	164	0	5	95	19	54	27	0	72	28	015	26	039	035	43	41	22	22	087	241	206	211	20	44	34					
1023-1	AFT	20	81	5	163	0	11	89	0	59	61	0	42	58	020	40	033	048	41	22	31	57	94	45	152	20	13	44	65					
1023-2	FWD	29	81	15	177	0	73	0	54	66	0	18	61	0	18	62	022	36	48	42	41	203	111	111	111	35	55	2						
1023-2	AFT	28	80	13	178	0	3	97	0	54	66	0	28	72	022	60	32	48	44	203	110	110	110	22	35	0								
1024-1	FWD	10	61	84	137	0	100	0	100	0	100	0	57	43	0	72	28	017	74	35	32	40	225	225	225	225	25	46	35					
1024-1	AFT	9	61	21	136	0	0	100	0	100	0	28	72	0	82	18	020	22	40	37	32	30	24	24	24	24	24	35	58					
1024-2	FWD	9	73	11	151	0	100	12	19	69	0	25	75	024	17	46	042	35	240	30	27	1	01	45	91	99	20	25	50					
1024-2	AFT	8	73	9	151	0	100	14	22	77	0	66	34	020	39	47	042	40	25	26	31	52	90	240	69	95	20	25	50					
1025-1	FWD	70	123	18	0	68	32	10	41	49	0	56	44	018	42	43	037	029	236	37	39	042	235	81	92	35	35	35						
1025-1	AFT	70	121	19	0	72	28	8	49	43	0	61	39	018	69	49	042	026	226	33	38	023	232	75	90	25	25	25						
1025-2	FWD	0	56	124	-31	0	0	71	29	3	42	55	0	56	44	018	22	35	039	026	224	32	33	063	229	76	89	29	29	29				
1025-2	AFT	0	56	122	-33	0	73	27	3	45	52	0	51	51	021	32	33	048	039	216	31	35	048	223	71	79	19	19	19					
1026-1	FWD	0	67	23	135	0	0	4	95	0	4	96	0	24	76	020	26	36	033	031	227	122	22	040	228	77	67	37	37	37				
1026-1	AFT	0	67	21	135	0	0	5	95	0	4	96	0	56	44	018	61	39	034	024	236	29	30	037	240	78	86	39	39	39				
1026-2	FWD	0	72	8	84	0	0	0	100	0	5	94	0	5	95	019	32	36	030	023	220	32	36	030	220	78	82	20	20	20				
1026-2	AFT	0	72	13	78	0	0	100	2	5	93	0	15	95	021	35	39	032	027	220	30	36	030	220	78	82	20	20	20					
1027-1	FWD	3	63	26	110	0	0	0	0	0	0	0	100	0	100	0	100	0	37	026	16	34	030	46	040	240	96	206	12	3	76			
1028-1	FWD	3	73	15	135	0	0	4	96	0	4	96	0	16	82	020	16	39	034	024	236	29	30	037	240	78	86	39	39	39				
1028-1	AFT	2	73	14	135	0	0	5	95	0	4	96	0	16	84	020	16	39	034	024	236	29	30	037	240	78	86	39	39	39				
1028-2	FWD	2	61	5	63	0	0	5	97	0	4	96	0	16	84	020	16	39	034	024	236	29	30	037	240	78	86	39	39	39				
1029-1	FWD	3	62	16	128	0	20	80	0	21	79	0	20	82	020	16	73	057	048	020	16	34	036	030	235	32	62	30	63	37	63			
1029-2	FWD	0	64	146	0	90	2	24	74	0	25	75	0	20	82	020	16	73	057	048	020	16	34	036	030	235	32	62	30	63	37	63		
1030-1	FWD	3	63	27	130	0	56	42	3	65	-32	45	0	46	54	020	16	73	057	048	020	16	34	036	030	235	32	62	30	63	37	63		
1030-1	AFT	4	63	22	129	0	93	47	0	46	54	0	47	50	020	16	73	057	048	020	16	34	036	030	235	32	62	30	63	37	63			
1030-2	FWD	3	78	7	157	0	23	76	0	28	72	0	30	70	0	34	94	062	077	062	077	062	077	062	077	062	077	062	077	062	077	062	077	062
1031-1	FWD	17	70	20	140	0	99	-1	18	34	48	0	51	49	025	67	071	063	072	035	74	80	80	80	80	80	80	80	80	80	80	80		
1031-1	AFT	17	70	18	140	0	94	86	15	43	42	0	47	53	024	65	071	062	072	035	65	70	70	70	70	70	70	70	70	70	70	70		
1031-2	FWD	19	82	6	67	0	-	-	-	-	-	0	63	39	0	60	40	0	26	88	0	72	0	46	34	73	0	72	0	54	0	54		
1031-2	AFT	2	47	46	45	135	0	10	90	3	88	89	0	10	90	0	3	87	0	26	88	0	72	0	46	34	73	0	72	0	54	0	54	
1033-1	FWD	10	41	47	45	135	0	10	90	3	88	89	0	10	90	0	3	87	0	26	88	0	72	0	46	34	73	0	72	0	54	0	54	
1033-1	AFT	11	41	47	45	134	0	94	15	3	88	89	0	10	90	0	3	87	0	26	88	0	72	0	46	34	73	0	72	0	54	0	54	
1033-2	FWD	0	54	34	151	0	86	14	0	55	39	0	63	39	0	60	40	0	26	88	0	72	0	46	34	73	0	72	0	54	0	54		
1033-2	AFT	0	54	34	151	0	86	14	0	55	39	0	63	39	0	60	40	0	26	88	0	72	0	46	34	73	0	72	0	54	0	54		

EXPOSURE - PROCESSING SUMMARY

MISSION NUMBER	CAMERA ELEVATION RANGE [°]	SOLAR ELEVATION RANGE [°]	PREDICTED PROCESSING TIME [s]	COMPUTED PROCESSING TIME [s]			TERRAIN D-MIN RANGE			TERRAIN D-MAX RANGE			CLOUD CHANGE RANGE			CLOUD COVERAGE [%]											
				F	P	F	LOW	HIGH	MEAN	LOW	HIGH	MEAN	LOW	HIGH	MEAN	LOW	HIGH	MEAN									
1034-1	FWD	77	16	105	96	4	21	76	0.20	0.29	1.60	0.57	0.50	0.55	1.42	1.54	1.61	0.88	2.45	2.22	2.26	18					
	AFT	77	10	165	95	45	2	51	67	0.16	0.84	0.29	1.63	0.56	0.50	0.41	1.35	1.55	1.60	0.97	2.44	2.19	2.25	18			
	FWD	86	0	178	86	12	9	26	65	0.19	0.73	0.27	1.73	0.52	0.50	0.72	2.40	1.63	1.60	1.21	2.47	2.25	2.31	45			
	AFT	86	0	178	86	41	59	6	37	57	0.26	0.66	0.34	1.76	0.54	0.49	0.70	2.32	1.59	1.62	0.88	2.48	2.22	2.29	45		
	FWD	68	19	144	0	17	83	0	11	69	0	5.95	0.28	1.90	0.32	0.45	0.61	1.44	1.40	1.40	1.05	2.43	2.15	2.22	30		
	AFT	68	18	144	0	5	95	-1	14	85	0	0.91	0.24	1.39	0.50	0.43	0.60	1.42	1.48	1.53	0.90	2.55	2.15	2.24	30		
	FWD	4	61	10	158	0	22	79	4	16	28	0	0.18	0.02	0.21	1.50	0.52	0.47	0.43	1.23	1.32	1.10	0.96	2.50	2.09	2.16	40
	AFT	4	61	6	158	0	23	77	0	12	86	0	0.21	0.12	0.39	0.55	0.51	0.50	0.25	1.34	1.34	1.30	0.74	2.60	2.09	2.16	40
1035-2	FWD	81	5	158	0	23	77	0	12	86	0	0.21	0.12	0.39	0.55	0.51	0.50	0.25	1.34	1.34	1.30	0.74	2.60	2.09	2.16	40	
	AFT	81	5	158	0	23	77	0	12	86	0	0.21	0.12	0.39	0.55	0.51	0.50	0.25	1.34	1.34	1.30	0.74	2.60	2.09	2.16	40	

~~TOP SECRET C~~ [REDACTED]

NO. [REDACTED]

SECTION A

APPENDIX

112

~~TOP SECRET C~~ [REDACTED]

~~TOP SECRET~~

- CONTROL NO.

MISSION * 1035-1 * INSTRUMENT * FRWD 11/28/65 DENSITY FREQ DISTR

DENSITY VALUE	PRIMARY MIN MAX LIM	INTERMEDIATE MIN MAX LIM	FULL MIN MAX LIM	ALL LEVELS MIN MAX LIM
0.01	0 0	0 0	0 0	0 0
0.02	0 0	0 0	0 0	0 0
0.03	0 0	0 0	0 0	0 0
0.04	0 0	0 0	0 0	0 0
0.05	0 0	0 0	0 0	0 0
0.06	0 0	0 0	0 0	0 0
0.07	0 0	0 0	0 0	0 0
0.08	0 0	0 0	0 0	0 0
0.09	0 0	0 0	0 0	0 0
0.10	0 0	0 0	0 0	0 0
0.11	0 0	0 0	0 0	0 0
0.12	0 0	0 0	0 0	0 0
0.13	0 0	0 0	0 0	0 0
0.14	0 0	0 0	0 0	0 0
0.15	0 0	0 0	0 0	0 0
0.16	0 0	0 0	0 0	0 0
0.17	0 0	0 0	0 0	0 0
0.18	0 0	0 0	0 0	0 0
0.19	0 0	0 0	0 0	0 0
0.20	0 0	0 0	0 0	0 0
0.21	0 0	0 0	0 0	0 0
0.22	0 0	0 0	0 0	0 0
0.23	0 0	0 0	0 0	0 0
0.24	0 0	0 0	0 0	0 0
0.25	0 0	0 0	0 0	0 0
0.26	0 0	0 0	0 0	0 0
0.27	0 0	0 0	0 0	0 0
0.28	0 0	0 0	0 0	0 0
0.29	0 0	0 0	0 0	0 0
0.30	0 0	0 0	0 0	0 0
0.31	0 0	0 0	0 0	0 0
0.32	0 0	0 0	0 0	0 0
0.33	0 0	0 0	0 0	0 0
0.34	0 0	0 0	0 0	0 0
0.35	0 0	0 0	0 0	0 0
0.36	0 0	0 0	0 0	0 0
0.37	0 0	0 0	0 0	0 0
0.38	0 0	0 0	0 0	0 0
0.39	0 0	0 0	0 0	0 0
0.40	0 0	0 0	0 0	0 0
0.41	0 0	0 0	0 0	0 0
0.42	0 0	0 0	0 0	0 0
0.43	0 0	0 0	0 0	0 0
0.44	0 0	0 0	0 0	0 0
0.45	0 0	0 0	0 0	0 0
0.46	0 0	0 0	0 0	0 0
0.47	0 0	0 0	0 0	0 0
0.48	0 0	0 0	0 0	0 0
0.49	0 0	0 0	0 0	0 0
0.50	0 0	0 0	0 0	0 0
SUBTOTAL	0 0	0 0	148615508413861096105159	165

~~TOP SECRET~~

- CONTROL NO.

Table A-1

~~TOP SECRET~~

- CONTROL NO.

MISSION * 1035-1 * INSTRUMENT * FRWD.

11/28/66 DENSITY FREQ DISTR

DENSITY VALUE	PRIMARY			INTERMEDIATE			FULL			ALL LEVELS		
	MIN	MAX	LIM	MIN	MAX	LIM	MIN	MAX	LIM	MIN	MAX	LIM
0.51	0	0	0	0	0	0	3	6	4	0	0	0
0.52	0	0	0	0	0	0	6	4	5	0	0	0
0.53	0	0	0	0	0	0	4	7	4	0	0	0
0.54	0	0	0	0	0	0	0	5	4	4	0	0
0.55	0	0	0	0	0	0	4	4	2	3	2	1
0.56	0	0	0	0	0	0	0	5	4	4	2	3
0.57	0	0	0	0	0	0	0	4	4	2	3	1
0.58	0	0	0	0	0	0	0	2	2	2	1	1
0.59	0	0	0	0	0	0	0	2	2	1	1	1
0.60	0	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
0.62	0	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
0.64	0	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
0.66	0	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
0.68	0	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
0.70	0	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
0.72	0	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
0.74	0	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
0.76	0	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
0.78	0	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
0.80	0	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
0.82	0	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
0.84	0	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
0.86	0	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
0.88	0	0	0	0	0	0	0	0	0	0	0	0
0.89	0	0	0	0	0	0	0	0	0	0	0	0
0.90	0	0	0	0	0	0	0	0	0	0	0	0
0.91	0	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
0.93	0	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
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	0	0	0	0	0	0
SUBTOTAL	0	0	0	0	0	0	79	31	31	86	31	0

~~TOP SECRET~~

- CONTROL NO.

Table A-1

~~TOP SECRET~~

- CONTROL NO.

MISSION # 1035-1

* INSTRUMENT * FRW

11/28/

DENSITY FREQ DISTR

~~TOP SECRET~~

- CONTROL NO.

Table A-1

~~TOP SECRET~~

- CONTROL NO.

MISSION # 1035-1 * INSTRUMENT # FRWD 11/28/66 DENSITY FREQ DISTR

DENSITY VALUE	PRIMARY			INTERMEDIATE			FULL			ALL LEVELS		
	MIN	MAX	LIM	MIN	MAX	LIM	MIN	MAX	LIM	MIN	MAX	LIM
1.51	0	0	0	0	0	0	0	2	0	0	0	0
1.52	0	0	0	0	0	0	0	3	0	0	0	0
1.53	0	0	0	0	0	0	0	2	0	0	0	0
1.54	0	0	0	0	0	0	0	2	0	0	0	0
1.55	0	0	0	0	0	0	0	2	0	0	0	0
1.56	0	0	0	0	0	0	0	2	0	0	0	0
1.57	0	0	0	0	0	0	0	2	0	0	0	0
1.58	0	0	0	0	0	0	0	2	0	0	0	0
1.59	0	0	0	0	0	0	0	2	0	0	0	0
1.60	0	0	0	0	0	0	0	2	0	0	0	0
1.61	0	0	0	0	0	0	0	2	0	0	0	0
1.62	0	0	0	0	0	0	0	2	0	0	0	0
1.63	0	0	0	0	0	0	0	2	0	0	0	0
1.64	0	0	0	0	0	0	0	2	0	0	0	0
1.65	0	0	0	0	0	0	0	2	0	0	0	0
1.66	0	0	0	0	0	0	0	2	0	0	0	0
1.67	0	0	0	0	0	0	0	2	0	0	0	0
1.68	0	0	0	0	0	0	0	2	0	0	0	0
1.69	0	0	0	0	0	0	0	2	0	0	0	0
1.70	0	0	0	0	0	0	0	2	0	0	0	0
1.71	0	0	0	0	0	0	0	2	0	0	0	0
1.72	0	0	0	0	0	0	0	2	0	0	0	0
1.73	0	0	0	0	0	0	0	2	0	0	0	0
1.74	0	0	0	0	0	0	0	2	0	0	0	0
1.75	0	0	0	0	0	0	0	2	0	0	0	0
1.76	0	0	0	0	0	0	0	2	0	0	0	0
1.77	0	0	0	0	0	0	0	2	0	0	0	0
1.78	0	0	0	0	0	0	0	2	0	0	0	0
1.79	0	0	0	0	0	0	0	2	0	0	0	0
1.80	0	0	0	0	0	0	0	2	0	0	0	0
1.81	0	0	0	0	0	0	0	2	0	0	0	0
1.82	0	0	0	0	0	0	0	2	0	0	0	0
1.83	0	0	0	0	0	0	0	2	0	0	0	0
1.84	0	0	0	0	0	0	0	2	0	0	0	0
1.85	0	0	0	0	0	0	0	2	0	0	0	0
1.86	0	0	0	0	0	0	0	2	0	0	0	0
1.87	0	0	0	0	0	0	0	2	0	0	0	0
1.88	0	0	0	0	0	0	0	2	0	0	0	0
1.89	0	0	0	0	0	0	0	2	0	0	0	0
1.90	0	0	0	0	0	0	0	2	0	0	0	0
1.91	0	0	0	0	0	0	0	2	0	0	0	0
1.92	0	0	0	0	0	0	0	2	0	0	0	0
1.93	0	0	0	0	0	0	0	2	0	0	0	0
1.94	0	0	0	0	0	0	0	2	0	0	0	0
1.95	0	0	0	0	0	0	0	2	0	0	0	0
1.96	0	0	0	0	0	0	0	2	0	0	0	0
1.97	0	0	0	0	0	0	0	2	0	0	0	0
1.98	0	0	0	0	0	0	0	2	0	0	0	0
1.99	0	0	0	0	0	0	0	2	0	0	0	0
2.00	0	0	0	0	0	0	0	2	0	0	0	0
SUBTOTAL	0	0	0	0	0	0	0	85	34	92	40	

~~TOP SECRET~~

- CONTROL NO.

Table A-1

~~TOP SECRET~~

- CONTROL NO.

MISSION * 1035-1 * INSTRUMENT * FRND

11/28/66 DENSITY FREQ DISTR

DENSITY VALUE	PRIMARY			INTERMEDIATE			FULL			ALL LEVELS		
	MIN	MAX	LIM	MIN	MAX	LIM	MIN	MAX	LIM	MIN	MAX	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	0	0	0	0	10	148	155

~~TOP SECRET~~

CONTROL NO.

Table A-1

~~TOP SECRET~~

- CONTROL NO.

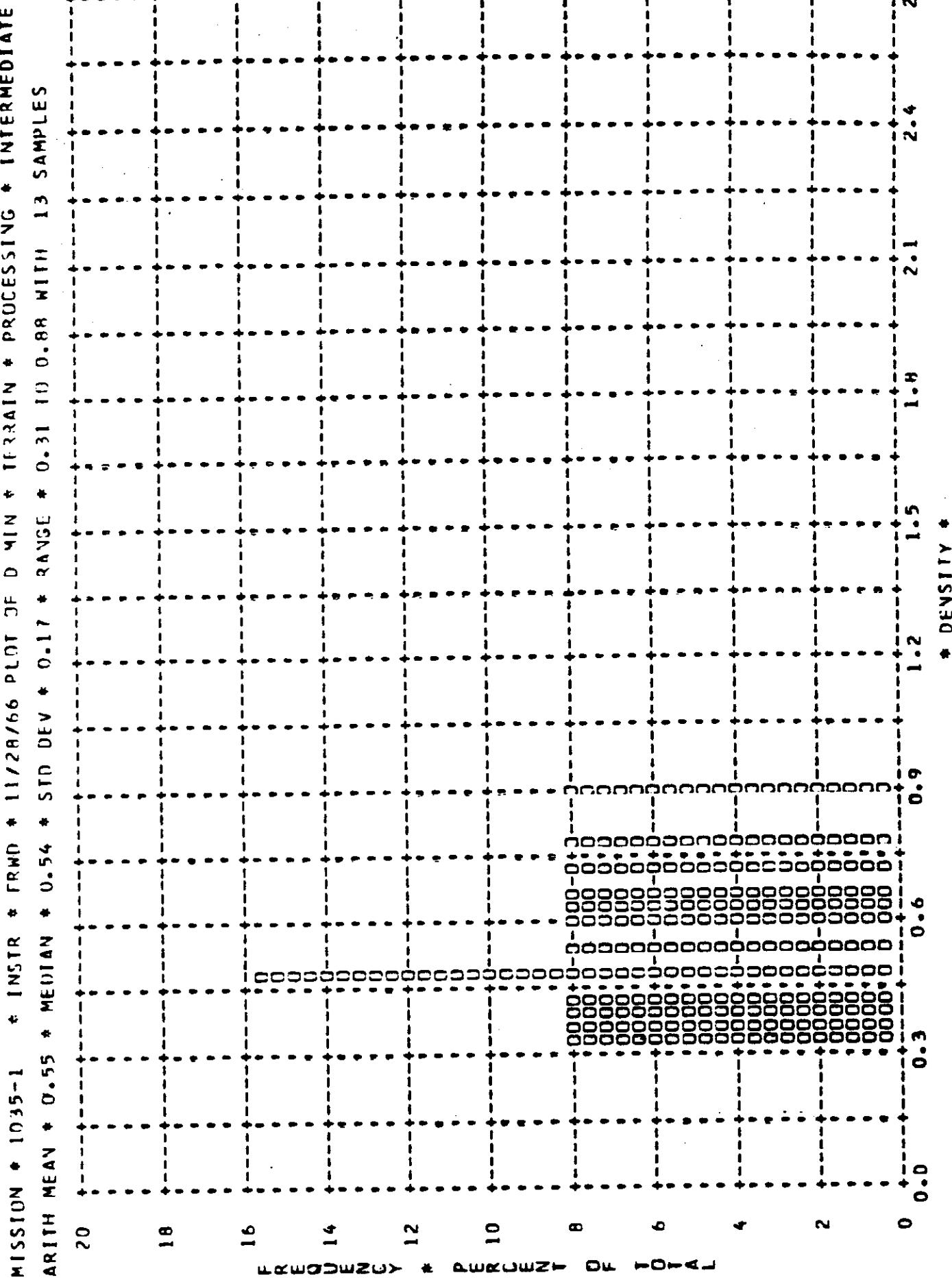
MISSION # 1035-1 * INSTRUMENT # FWD 11/28/68 DENSITY FREQ DISTR

DENSITY VALUE	PRIMARY		INTERMEDIATE		FULL		ALL LEVELS	
	MIN	MAX LIM	LIM	MAX LIM	MIN	MAX LIM	MIN	MAX LIM
0.500	0	0	0	0	0	0	0	0
0.503	0	0	0	0	0	0	0	0
0.507	0	0	0	0	0	0	0	0
0.510	0	0	0	0	0	0	0	0
0.513	0	0	0	0	0	0	0	0
0.516	0	0	0	0	0	0	0	0
0.519	0	0	0	0	0	0	0	0
0.522	0	0	0	0	0	0	0	0
0.525	0	0	0	0	0	0	0	0
0.528	0	0	0	0	0	0	0	0
0.531	0	0	0	0	0	0	0	0
0.534	0	0	0	0	0	0	0	0
0.537	0	0	0	0	0	0	0	0
0.540	0	0	0	0	0	0	0	0
0.543	0	0	0	0	0	0	0	0
0.546	0	0	0	0	0	0	0	0
0.549	0	0	0	0	0	0	0	0
0.552	0	0	0	0	0	0	0	0
0.555	0	0	0	0	0	0	0	0
0.558	0	0	0	0	0	0	0	0
0.561	0	0	0	0	0	0	0	0
0.564	0	0	0	0	0	0	0	0
0.567	0	0	0	0	0	0	0	0
0.570	0	0	0	0	0	0	0	0
0.573	0	0	0	0	0	0	0	0
0.576	0	0	0	0	0	0	0	0
0.579	0	0	0	0	0	0	0	0
0.582	0	0	0	0	0	0	0	0
0.585	0	0	0	0	0	0	0	0
0.588	0	0	0	0	0	0	0	0
0.591	0	0	0	0	0	0	0	0
0.594	0	0	0	0	0	0	0	0
0.597	0	0	0	0	0	0	0	0
0.600	0	0	0	0	0	0	0	0
0.603	0	0	0	0	0	0	0	0
0.606	0	0	0	0	0	0	0	0
0.609	0	0	0	0	0	0	0	0
0.612	0	0	0	0	0	0	0	0
0.615	0	0	0	0	0	0	0	0
0.618	0	0	0	0	0	0	0	0
0.621	0	0	0	0	0	0	0	0
0.624	0	0	0	0	0	0	0	0
0.627	0	0	0	0	0	0	0	0
0.630	0	0	0	0	0	0	0	0
0.633	0	0	0	0	0	0	0	0
0.636	0	0	0	0	0	0	0	0
0.639	0	0	0	0	0	0	0	0
0.642	0	0	0	0	0	0	0	0
0.645	0	0	0	0	0	0	0	0
0.648	0	0	0	0	0	0	0	0
0.651	0	0	0	0	0	0	0	0
0.654	0	0	0	0	0	0	0	0
0.657	0	0	0	0	0	0	0	0
0.660	0	0	0	0	0	0	0	0
0.663	0	0	0	0	0	0	0	0
0.666	0	0	0	0	0	0	0	0
0.669	0	0	0	0	0	0	0	0
0.672	0	0	0	0	0	0	0	0
0.675	0	0	0	0	0	0	0	0
0.678	0	0	0	0	0	0	0	0
0.681	0	0	0	0	0	0	0	0
0.684	0	0	0	0	0	0	0	0
0.687	0	0	0	0	0	0	0	0
0.690	0	0	0	0	0	0	0	0
0.693	0	0	0	0	0	0	0	0
0.696	0	0	0	0	0	0	0	0
0.699	0	0	0	0	0	0	0	0
0.702	0	0	0	0	0	0	0	0
0.705	0	0	0	0	0	0	0	0
0.708	0	0	0	0	0	0	0	0
0.711	0	0	0	0	0	0	0	0
0.714	0	0	0	0	0	0	0	0
0.717	0	0	0	0	0	0	0	0
0.720	0	0	0	0	0	0	0	0
0.723	0	0	0	0	0	0	0	0
0.726	0	0	0	0	0	0	0	0
0.729	0	0	0	0	0	0	0	0
0.732	0	0	0	0	0	0	0	0
0.735	0	0	0	0	0	0	0	0
0.738	0	0	0	0	0	0	0	0
0.741	0	0	0	0	0	0	0	0
0.744	0	0	0	0	0	0	0	0
0.747	0	0	0	0	0	0	0	0
0.750	0	0	0	0	0	0	0	0
0.753	0	0	0	0	0	0	0	0
0.756	0	0	0	0	0	0	0	0
0.759	0	0	0	0	0	0	0	0
0.762	0	0	0	0	0	0	0	0
0.765	0	0	0	0	0	0	0	0
0.768	0	0	0	0	0	0	0	0
0.771	0	0	0	0	0	0	0	0
0.774	0	0	0	0	0	0	0	0
0.777	0	0	0	0	0	0	0	0
0.780	0	0	0	0	0	0	0	0
0.783	0	0	0	0	0	0	0	0
0.786	0	0	0	0	0	0	0	0
0.789	0	0	0	0	0	0	0	0
0.792	0	0	0	0	0	0	0	0
0.795	0	0	0	0	0	0	0	0
0.798	0	0	0	0	0	0	0	0
0.801	0	0	0	0	0	0	0	0
0.804	0	0	0	0	0	0	0	0
0.807	0	0	0	0	0	0	0	0
0.810	0	0	0	0	0	0	0	0
0.813	0	0	0	0	0	0	0	0
0.816	0	0	0	0	0	0	0	0
0.819	0	0	0	0	0	0	0	0
0.822	0	0	0	0	0	0	0	0
0.825	0	0	0	0	0	0	0	0
0.828	0	0	0	0	0	0	0	0
0.831	0	0	0	0	0	0	0	0
0.834	0	0	0	0	0	0	0	0
0.837	0	0	0	0	0	0	0	0
0.840	0	0	0	0	0	0	0	0
0.843	0	0	0	0	0	0	0	0
0.846	0	0	0	0	0	0	0	0
0.849	0	0	0	0	0	0	0	0
0.852	0	0	0	0	0	0	0	0
0.855	0	0	0	0	0	0	0	0
0.858	0	0	0	0	0	0	0	0
0.861	0	0	0	0	0	0	0	0
0.864	0	0	0	0	0	0	0	0
0.867	0	0	0	0	0	0	0	0
0.870	0	0	0	0	0	0	0	0
0.873	0	0	0	0	0	0	0	0
0.876	0	0	0	0	0	0	0	0
0.879	0	0	0	0	0	0	0	0
0.882	0	0	0	0	0	0	0	0
0.885	0	0	0	0	0	0	0	0
0.888	0	0	0	0	0	0	0	0
0.891	0	0	0	0	0	0	0	0
0.894	0	0	0	0	0	0	0	0
0.897	0	0	0	0	0	0	0	0
0.900	0	0	0	0	0	0	0	0
0.903	0	0	0	0	0	0	0	0
0.906	0	0	0	0	0	0	0	0
0.909	0	0	0	0	0	0	0	0
0.912	0	0	0	0	0	0	0	0
0.915	0	0	0	0	0	0	0	0
0.918	0	0	0	0	0	0	0	0
0.921	0	0	0	0	0	0	0	0
0.924	0	0	0	0	0	0	0	0
0.927	0	0	0	0	0	0	0	0
0.930	0	0	0	0	0	0	0	0
0.933	0	0	0	0	0	0	0	0
0.936	0	0	0	0	0	0	0	0
0.939	0	0	0	0	0	0	0	0
0.942	0	0	0	0	0	0	0	0
0.945	0	0	0	0	0	0	0	0
0.948	0	0	0	0	0	0	0	0
0.951	0	0	0	0	0	0	0	0
0.954	0	0	0	0	0	0	0	0
0.957	0	0	0	0	0	0	0	0
0.960	0	0	0	0	0	0	0	0
0.963	0	0	0	0	0	0	0	0
0.966	0	0	0	0	0	0	0	0
0.969	0	0	0	0	0	0	0	0
0.972	0	0	0	0	0	0	0	0
0.975	0	0	0	0	0	0	0	0
0.978	0	0	0	0	0	0	0	0
0.981	0	0	0	0	0	0	0	0
0.984	0	0	0	0	0	0	0	0
0.987	0	0	0	0	0	0	0	0
0.990	0	0	0	0	0	0	0	0
0.993	0	0	0	0	0	0	0	0
0.996	0	0	0	0	0	0	0	0
0.999	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0

10 A-1

TOP SECRET

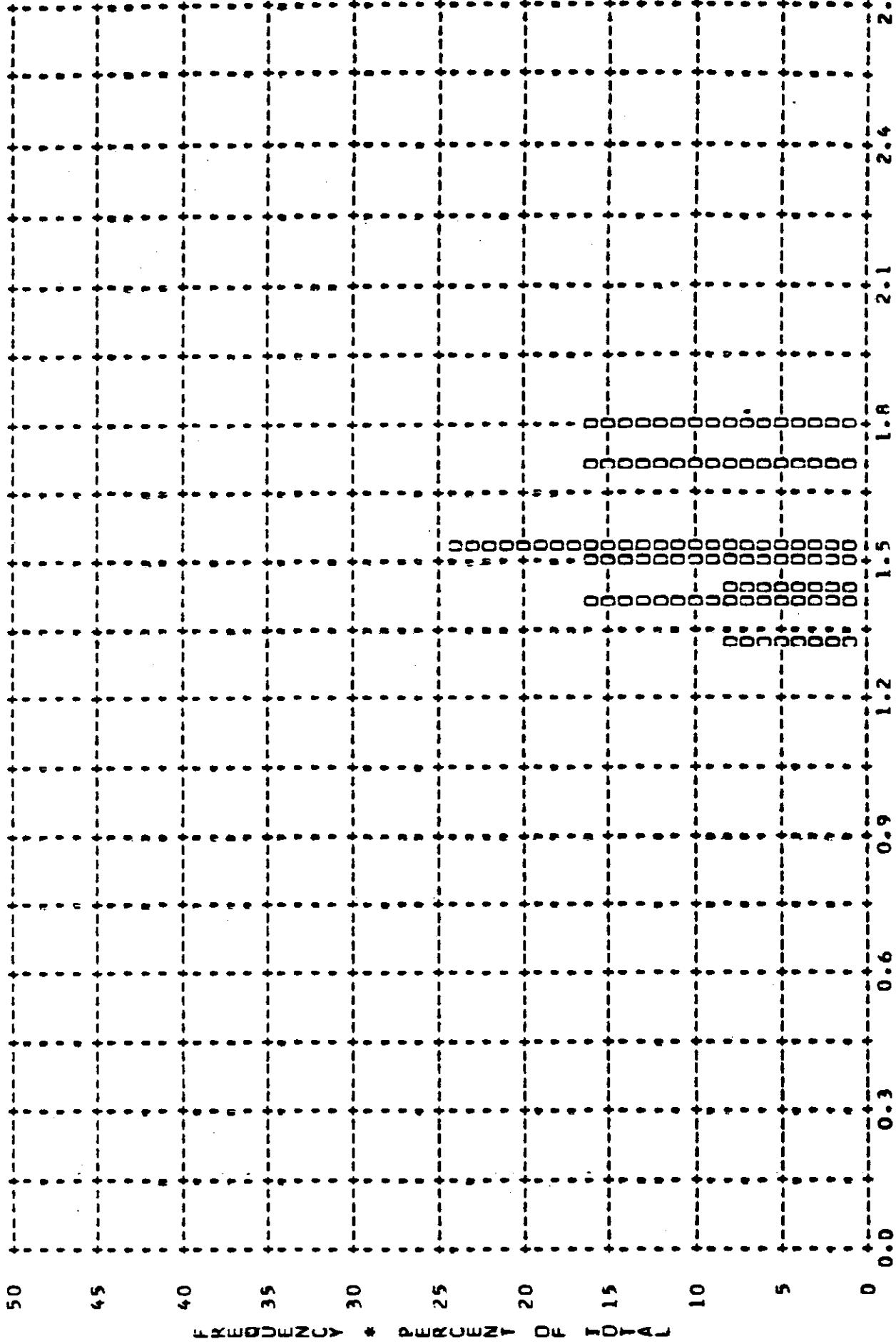
COPY RL V3.



REPORT

CONT'D NO.

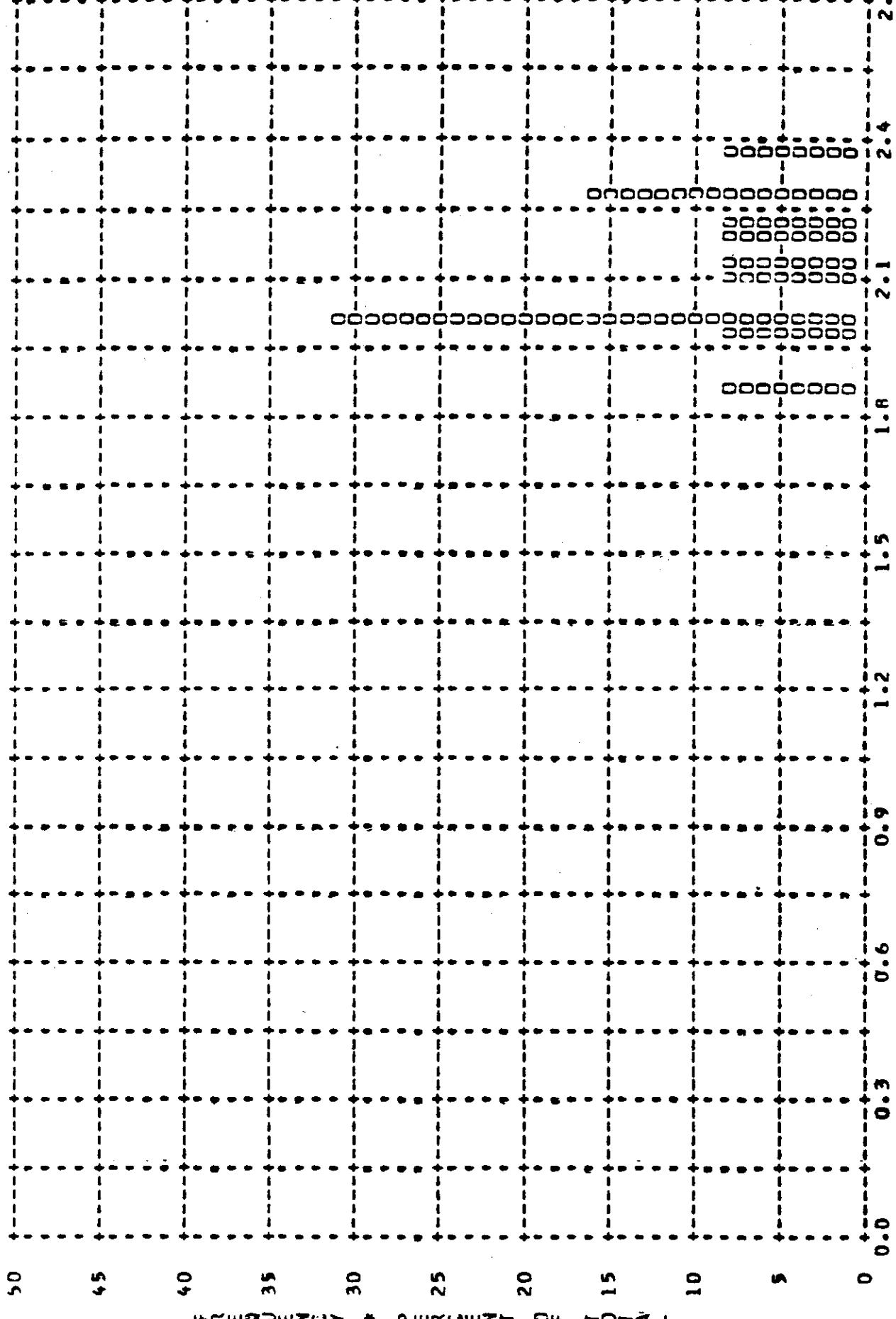
MISSION * 1035-1 * INSTR * FRND * 11/28/66 PLNT OF D MAX * TERRAIN * PROCESSING * INTERMEDIATE
ARITH MEAN * 1.54 * MEDIAN * 1.52 * STD DEV * 0.16 * RANGE * 1.31 TO 1.80 WITH 13 SAMPLES



TOP SECRET

CONT'D.

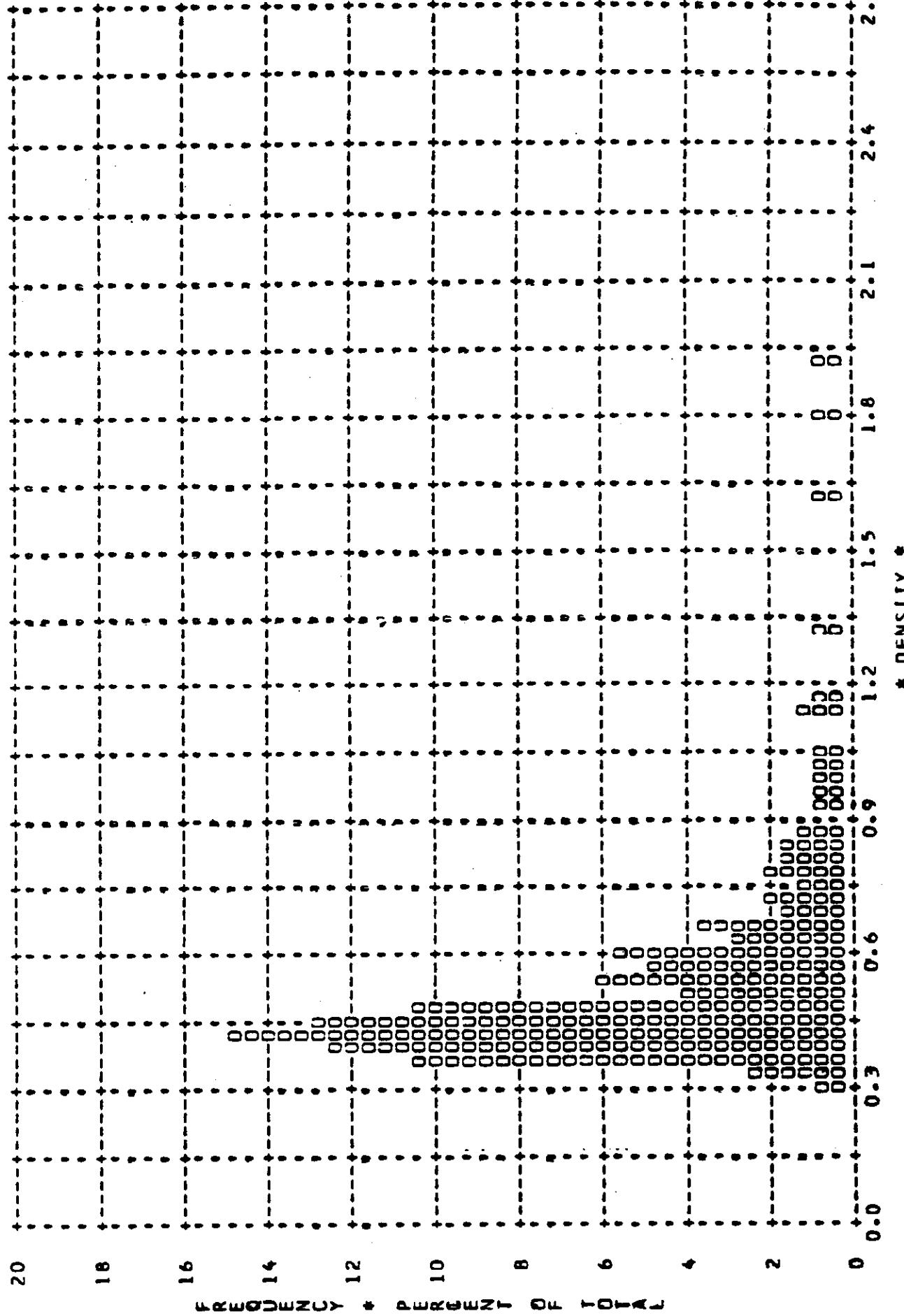
MISSION * 1035-1 * INSTR * FRWD * 11/28/66 PILOT OF D MAX * CLOUD * PROCESSING * INTERMEDIATE
ARITH MEAN * 2.10 * MEDIAN * 2.10 * STD DEV * .015 * RANGE * 1.86 TO 2.37 WITH 13 SAMPLES



TOP SECRET

CONTRL NO. [REDACTED]

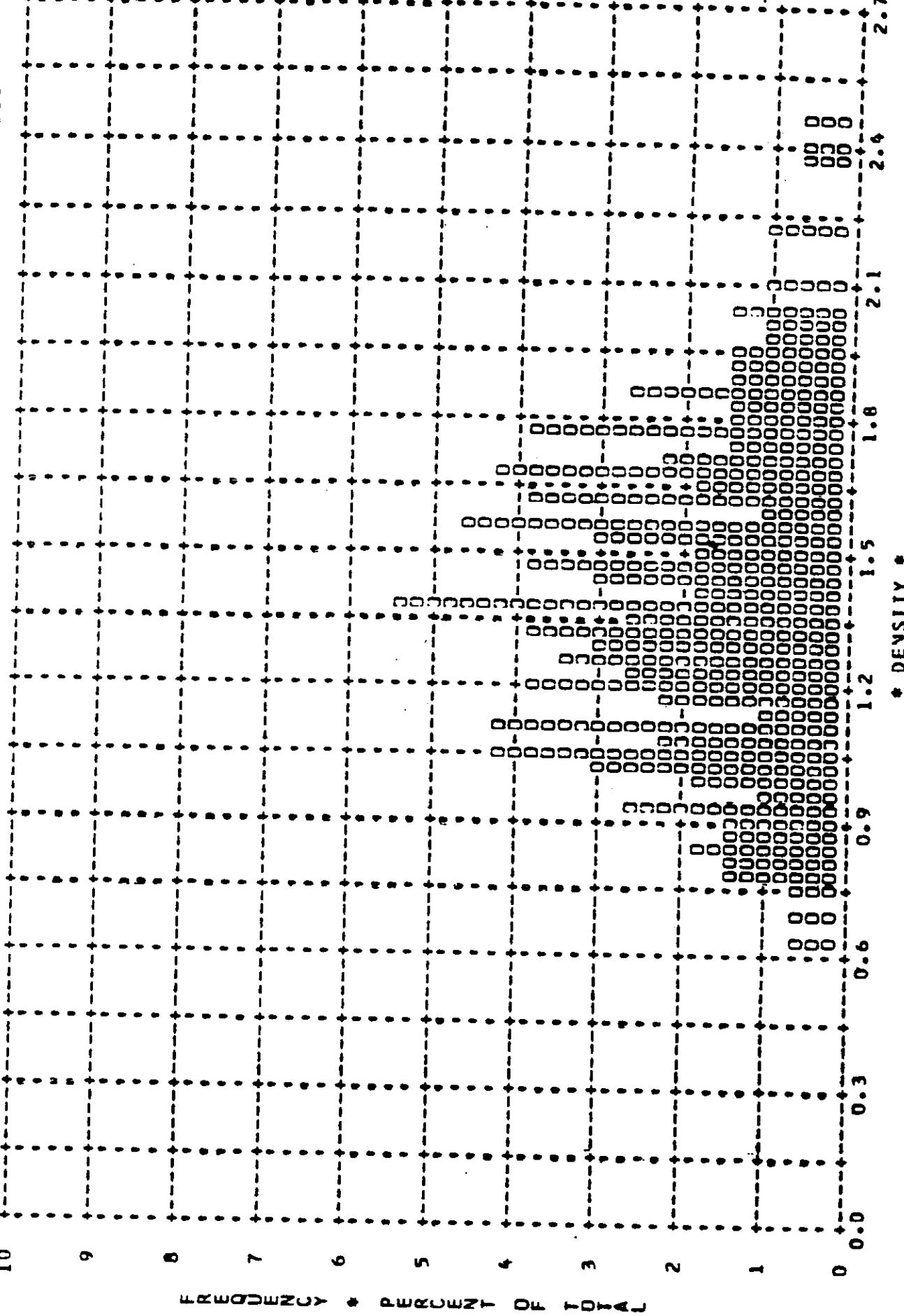
MISSION * 1035-1 * INSTR * FRWD * 11/28/66 PLOT D MIN * TERRAIN * PROCESSING * FULL
ARITH MEAN * 0.52 * MEDIAN * 0.45 * STD DEV * 0.21 * RANGE * 0.28 TO 1.90 WITH 247 SAMPLES



TOP SECRET

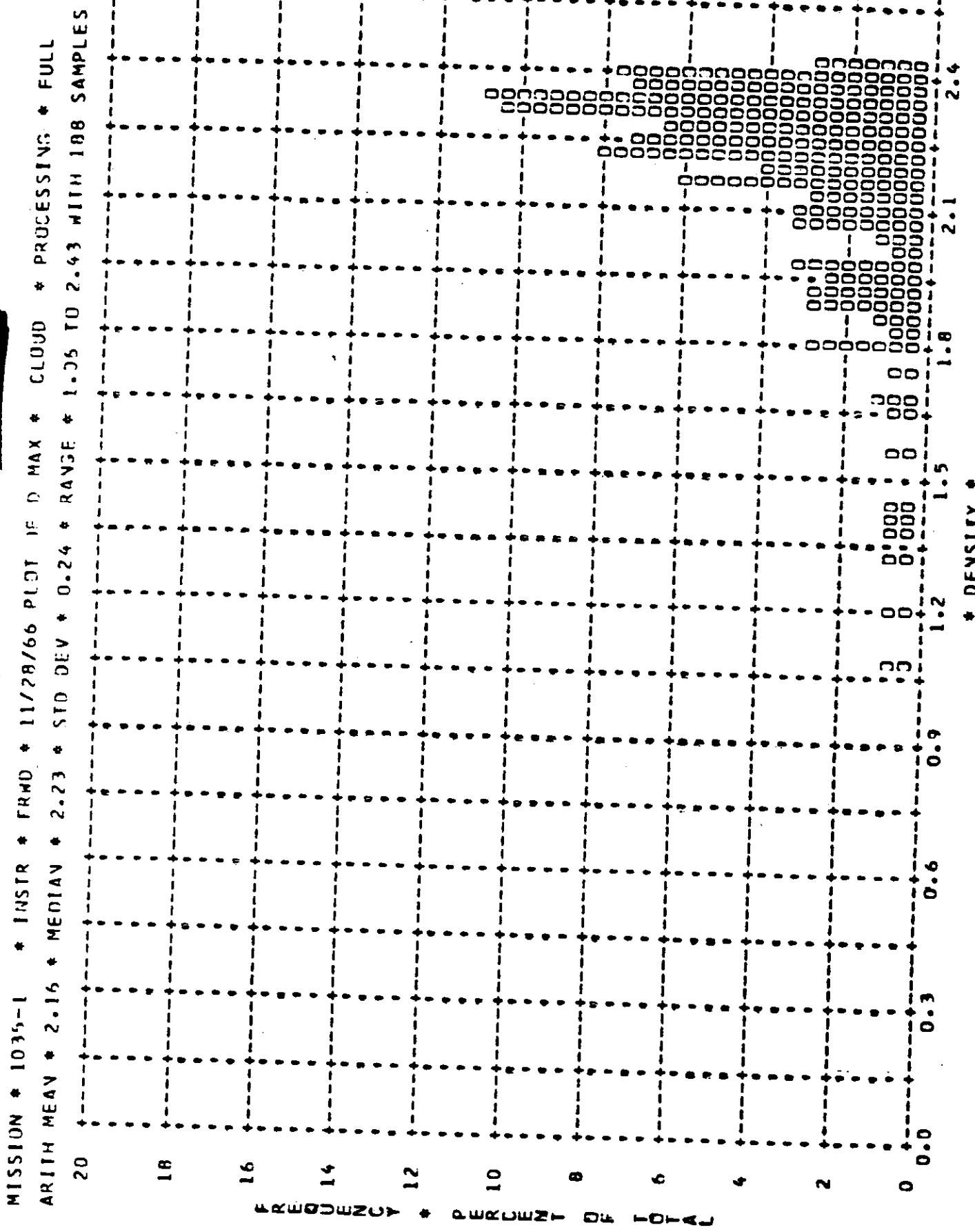
- CONTROL NO. [REDACTED]

MISSION * 1035-1 * INSTR * FRWD * 11/28/66 PLOT OF D MAX * TERRAIN * PROCESSING * FULL
ARITH MEAN * 1.40 * MEDIAN * 1.38 * STD DEV * 0.35 * RANGE * 0.51 TO 2.44 WITH 247 SAMPLES



~~TOP SECRET~~

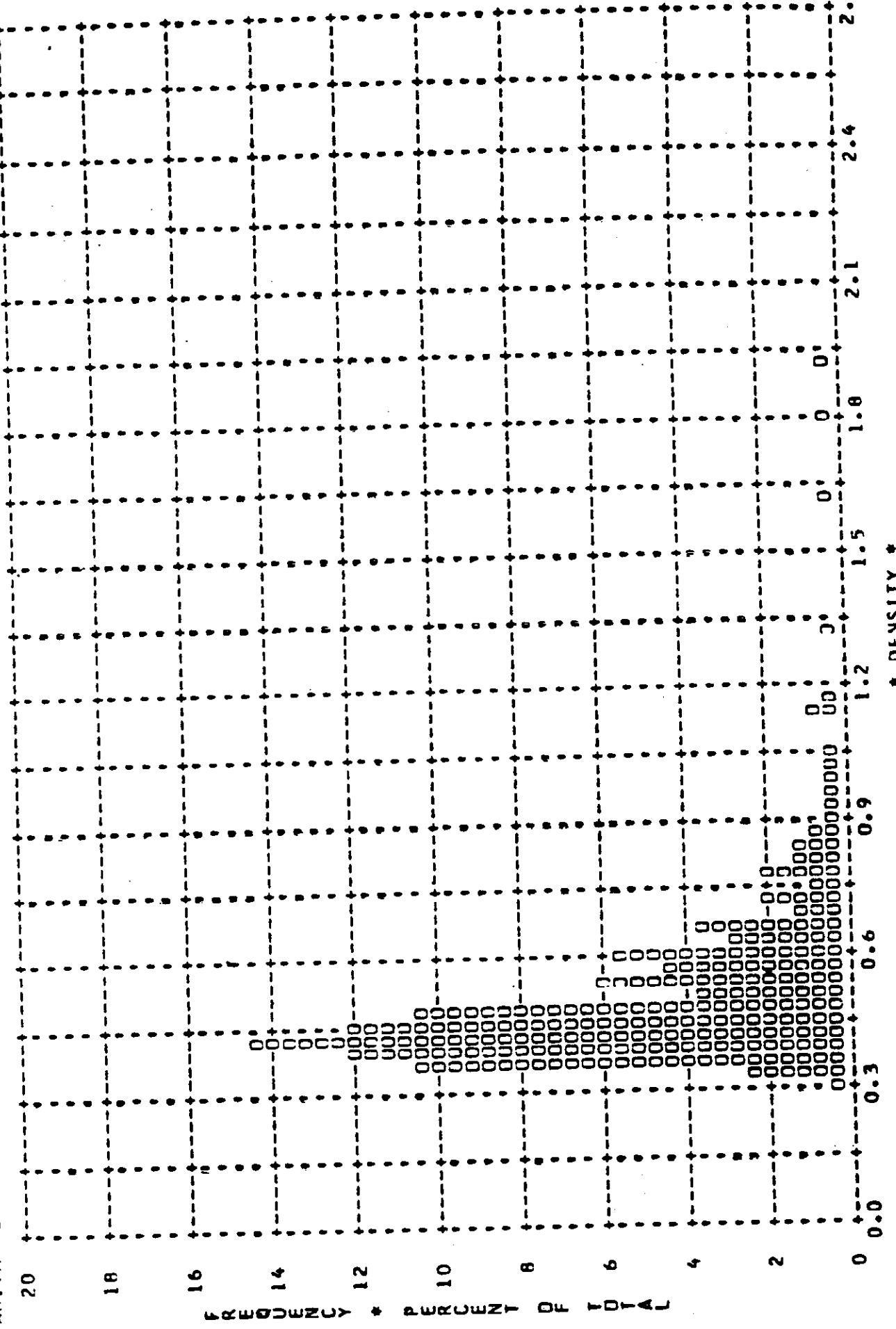
CONVERT V7.



CONFIDENTIAL

CONT'D. V1.

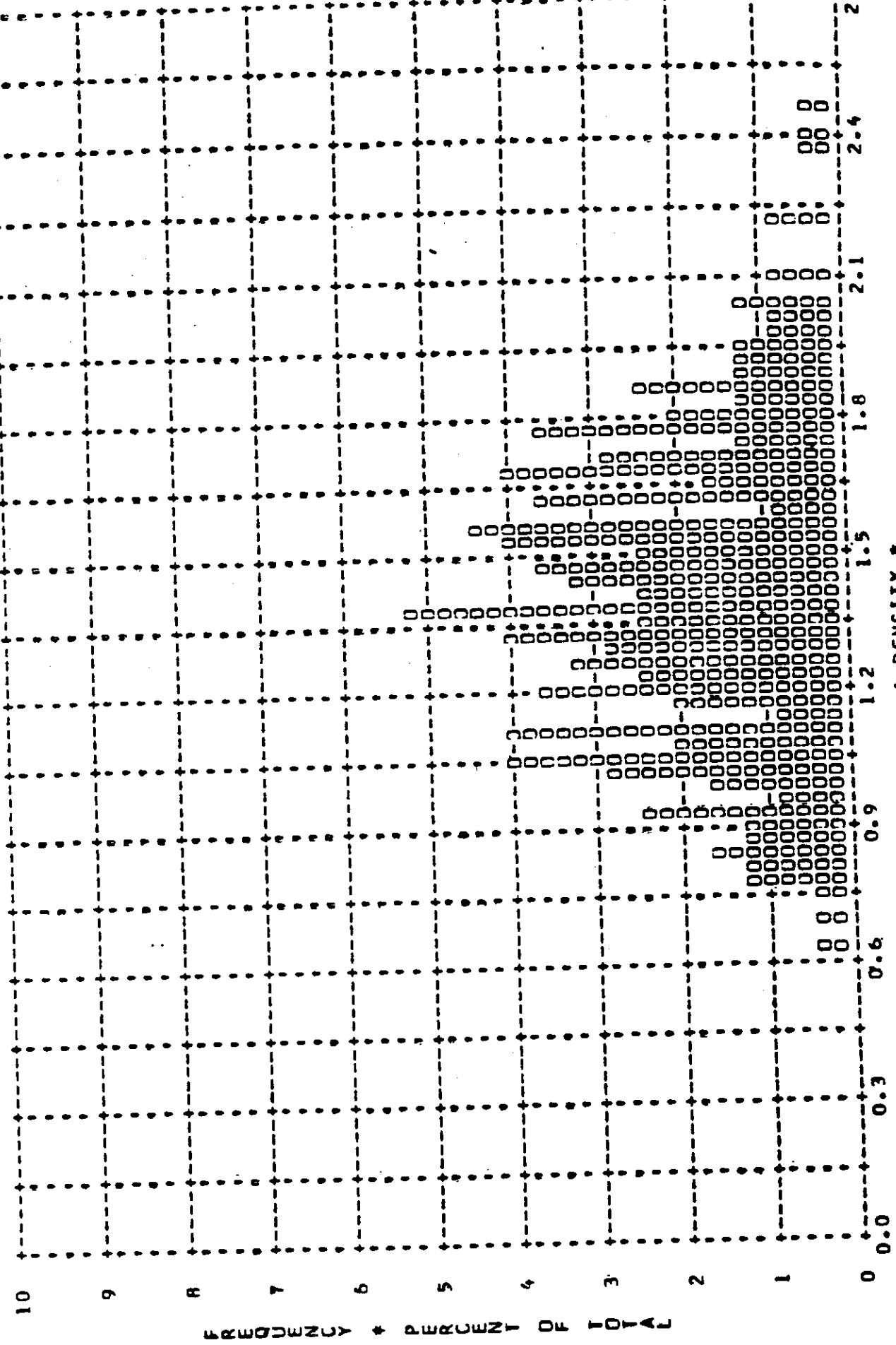
MISSION * 1035-1 * INSTR * FRWD * 11/28/66 PL01 3 MIN * TERRAIN * PROCESSING * ALL LEVELS
ARITH MEAN * 0.52 * MEDIAN * 0.45 * STD DEV * 0.21 * RANGE * 0.28 TO 1.90 WITH 260 SAMPLES



REF-SECRET

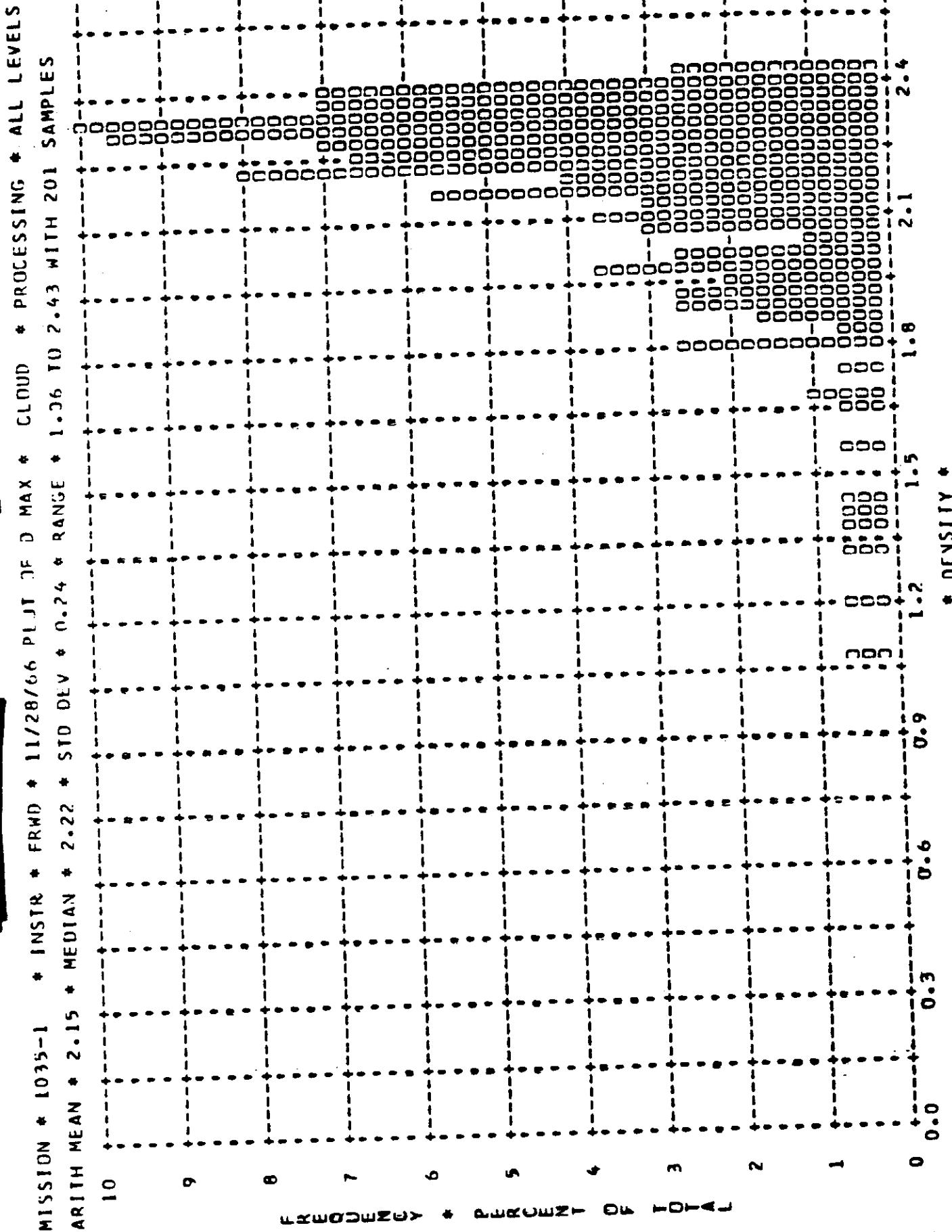
- CONTROL NO.

MISSION * 1035-1 * INSTR * FRWD * 11/28/66 PLOT CF D MAX * TERRAIN * PROCESSING * ALL LEVELS
ARITH MEAN * 1.40 * MEDIAN * 1.40 * STD DEV * 0.35 * RANGE * 0.61 TO 2.44 WITH 260 SAMPLES



TOP SECRET

COVIRJL V1.



~~TOP SECRET~~

- CONTROL NO.

MISSION * 1035-1 * INSTRUMENT * AFT 11/28/66 DENSITY FREQ DISTR

DENSITY VALUE	PRIMARY			INTERMEDIATE			FULL			ALL LEVELS		
	MIN	MAX	LIM	MIN	MAX	LIM	MIN	MAX	LIM	MIN	MAX	LIM
0.01	0	0	0	0	0	0	0	0	0	0	0	0
0.02	0	0	0	0	0	0	0	0	0	0	0	0
0.03	0	0	0	0	0	0	0	0	0	0	0	0
0.04	0	0	0	0	0	0	0	0	0	0	0	0
0.05	0	0	0	0	0	0	0	0	0	0	0	0
0.06	0	0	0	0	0	0	0	0	0	0	0	0
0.07	0	0	0	0	0	0	0	0	0	0	0	0
0.08	0	0	0	0	0	0	0	0	0	0	0	0
0.09	0	0	0	0	0	0	0	0	0	0	0	0
0.10	0	0	0	0	0	0	0	0	0	0	0	0
0.11	0	0	0	0	0	0	0	0	0	0	0	0
0.12	0	0	0	0	0	0	0	0	0	0	0	0
0.13	0	0	0	0	0	0	0	0	0	0	0	0
0.14	0	0	0	0	0	0	0	0	0	0	0	0
0.15	0	0	0	0	0	0	0	0	0	0	0	0
0.16	0	0	0	0	0	0	0	0	0	0	0	0
0.17	0	0	0	0	0	0	0	0	0	0	0	0
0.18	0	0	0	0	0	0	0	0	0	0	0	0
0.19	0	0	0	0	0	0	0	0	0	0	0	0
0.20	0	0	0	0	0	0	0	0	0	0	0	0
0.21	0	0	0	0	0	0	0	0	0	0	0	0
0.22	0	0	0	0	0	0	0	0	0	0	0	0
0.23	0	0	0	0	0	0	0	0	0	0	0	0
0.24	0	0	0	0	0	0	0	0	0	0	0	0
0.25	0	0	0	0	0	0	0	0	0	0	0	0
0.26	0	0	0	0	0	0	0	0	0	0	0	0
0.27	0	0	0	0	0	0	0	0	0	0	0	0
0.28	0	0	0	0	0	0	0	0	0	0	0	0
0.29	0	0	0	0	0	0	0	0	0	0	0	0
0.30	0	0	0	0	0	0	0	0	0	0	0	0
0.31	0	0	0	0	0	0	0	0	0	0	0	0
0.32	0	0	0	0	0	0	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	0	0	0	10	0	0	0	168	178

~~TOP SECRET~~

- CONTROL NO.

Table A-2

~~TOP SECRET~~

- CONTROL NO.

MISSION * 1035-1 * INSTRUMENT * AFT 11/28/66 DENSITY FREQ DISTR

DENSITY VALUE	PRIMARY			INTERMEDIATE			FULL			ALL LEVELS		
	MIN	MAX	LIM	MIN	MAX	LIM	MIN	MAX	LIM	MIN	MAX	LIM
0.51	0	0	0	0	0	0	2	0	0	0	0	0
0.52	0	0	0	0	1	0	3	0	0	0	0	0
0.53	0	0	0	0	0	0	4	0	0	0	0	0
0.54	0	0	0	0	0	0	1	5	7	2	4	4
0.55	0	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
0.57	0	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
0.59	0	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
0.61	0	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
0.63	0	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
0.65	0	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
0.67	0	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
0.69	0	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
0.71	0	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
0.73	0	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
0.75	0	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
0.77	0	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
0.79	0	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
0.81	0	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
0.83	0	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
0.85	0	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
0.87	0	0	0	0	0	0	0	0	0	0	0	0
0.88	0	0	0	0	0	0	0	0	0	0	0	0
0.89	0	0	0	0	0	0	0	0	0	0	0	0
0.90	0	0	0	0	0	0	0	0	0	0	0	0
0.91	0	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
0.93	0	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
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	0	0	0	0	0	0
SUBTOTAL	0	0	0	0	0	0	12	0	0	59	28	1

~~TOP SECRET~~

- CONTROL NO.

Table A-2

~~TOP SECRET~~

- CONTROL NO.

MISSION * 1035-1 * INSTRUMENT * AFT	11/28/66	DEVSITY FREQ DISTR							
		PRIMARY		INTERMEDIATE		FULL	ALL LEVELS		
DENSITY VALUE	MIN	MAX	LIM	MIN	MAX	LIM	MIN	MAX	LIM
1.01	0	0	0	0	0	0	0	0	0
1.02	0	0	0	0	0	0	0	0	0
1.03	0	0	0	0	0	0	0	0	0
1.04	0	0	0	0	0	0	0	0	0
1.05	0	0	0	0	0	0	0	0	0
1.06	0	0	0	0	0	0	0	0	0
1.07	0	0	0	0	0	0	0	0	0
1.08	0	0	0	0	0	0	0	0	0
1.09	0	0	0	0	0	0	0	0	0
1.10	0	0	0	0	0	0	0	0	0
1.11	0	0	0	0	0	0	0	0	0
1.12	0	0	0	0	0	0	0	0	0
1.13	0	0	0	0	0	0	0	0	0
1.14	0	0	0	0	0	0	0	0	0
1.15	0	0	0	0	0	0	0	0	0
1.16	0	0	0	0	0	0	0	0	0
1.17	0	0	0	0	0	0	0	0	0
1.18	0	0	0	0	0	0	0	0	0
1.19	0	0	0	0	0	0	0	0	0
1.20	0	0	0	0	0	0	0	0	0
1.21	0	0	0	0	0	0	0	0	0
1.22	0	0	0	0	0	0	0	0	0
1.23	0	0	0	0	0	0	0	0	0
1.24	0	0	0	0	0	0	0	0	0
1.25	0	0	0	0	0	0	0	0	0
1.26	0	0	0	0	0	0	0	0	0
1.27	0	0	0	0	0	0	0	0	0
1.28	0	0	0	0	0	0	0	0	0
1.29	0	0	0	0	0	0	0	0	0
1.30	0	0	0	0	0	0	0	0	0
1.31	0	0	0	0	0	0	0	0	0
1.32	0	0	0	0	0	0	0	0	0
1.33	0	0	0	0	0	0	0	0	0
1.34	0	0	0	0	0	0	0	0	0
1.35	0	0	0	0	0	0	0	0	0
1.36	0	0	0	0	0	0	0	0	0
1.37	0	0	0	0	0	0	0	0	0
1.38	0	0	0	0	0	0	0	0	0
1.39	0	0	0	0	0	0	0	0	0
1.40	0	0	0	0	0	0	0	0	0
1.41	0	0	0	0	0	0	0	0	0
1.42	0	0	0	0	0	0	0	0	0
1.43	0	0	0	0	0	0	0	0	0
1.44	0	0	0	0	0	0	0	0	0
1.45	0	0	0	0	0	0	0	0	0
1.46	0	0	0	0	0	0	0	0	0
1.47	0	0	0	0	0	0	0	0	0
1.48	0	0	0	0	0	0	0	0	0
1.49	0	0	0	0	0	0	0	0	0
1.50	0	0	0	0	0	0	0	0	0
SUBTOTAL	0	0	0	0	0	0	0	0	0

~~TOP SECRET~~

- CONTROL NO.

Table A-2

~~TOP SECRET~~

- CONTROL NO.

MISSION * 1035-1 * INSTRUMENT * AFT 11/28/66 DENSITY FREQ DISTR

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

~~TOP SECRET~~

- CONTROL NO.

Table A-2

~~TOP SECRET~~

- CONTROL NO.

MISSION # 1035-1

* INSTRUMENT * AFT

11/28/

DENSITY FREQ DISTR

TOP SECRET

- CONTROL V3.

Table A-2

~~SECRET~~

- CONTROLLED -

MISSION #: 1035-1 * INSTRUMENT #: AFT 11/28/65 DEVSITY FREQ DISTR

DENSITY VALUE	PRIMARY MIN MAX LIM	INTERMEDIATE MIN MAX LIM	FULL MIN MAX LIM	ALL LEVELS MIN MAX LIM
2.51	0	0	0	0
2.52	0	0	0	0
2.53	0	0	0	0
2.54	0	0	0	0
2.55	0	0	0	0
2.56	0	0	0	0
2.57	0	0	0	0
2.58	0	0	0	0
2.59	0	0	0	0
2.60	0	0	0	0
2.61	0	0	0	0
2.62	0	0	0	0
2.63	0	0	0	0
2.64	0	0	0	0
2.65	0	0	0	0
2.66	0	0	0	0
2.67	0	0	0	0
2.68	0	0	0	0
2.69	0	0	0	0
2.70	0	0	0	0
SUM TOTAL	0	0	0	0
TOTAL	0	24	234	259
		24	234	258
		17	185	204

Table A-1

TOP SECRET

CU...JL NO.

MISSION * 1035-1 * INSTR * AFT * 11/28/66 PLUT DF D MIN * TERRAIN * PROCESSING * INTERMEDIATE
ARITH MEAN * 0.57 * MEDIAN * 0.57 * STD DEV * 0.27 * RANGE * 0.24 TO 1.33 WITH 24 SAMPLES

20

18

16

14

12

10

8

6

4

2

0

FREQUENZU * PERCENT OF TOTAL

0.6
0.4
0.2
0.0

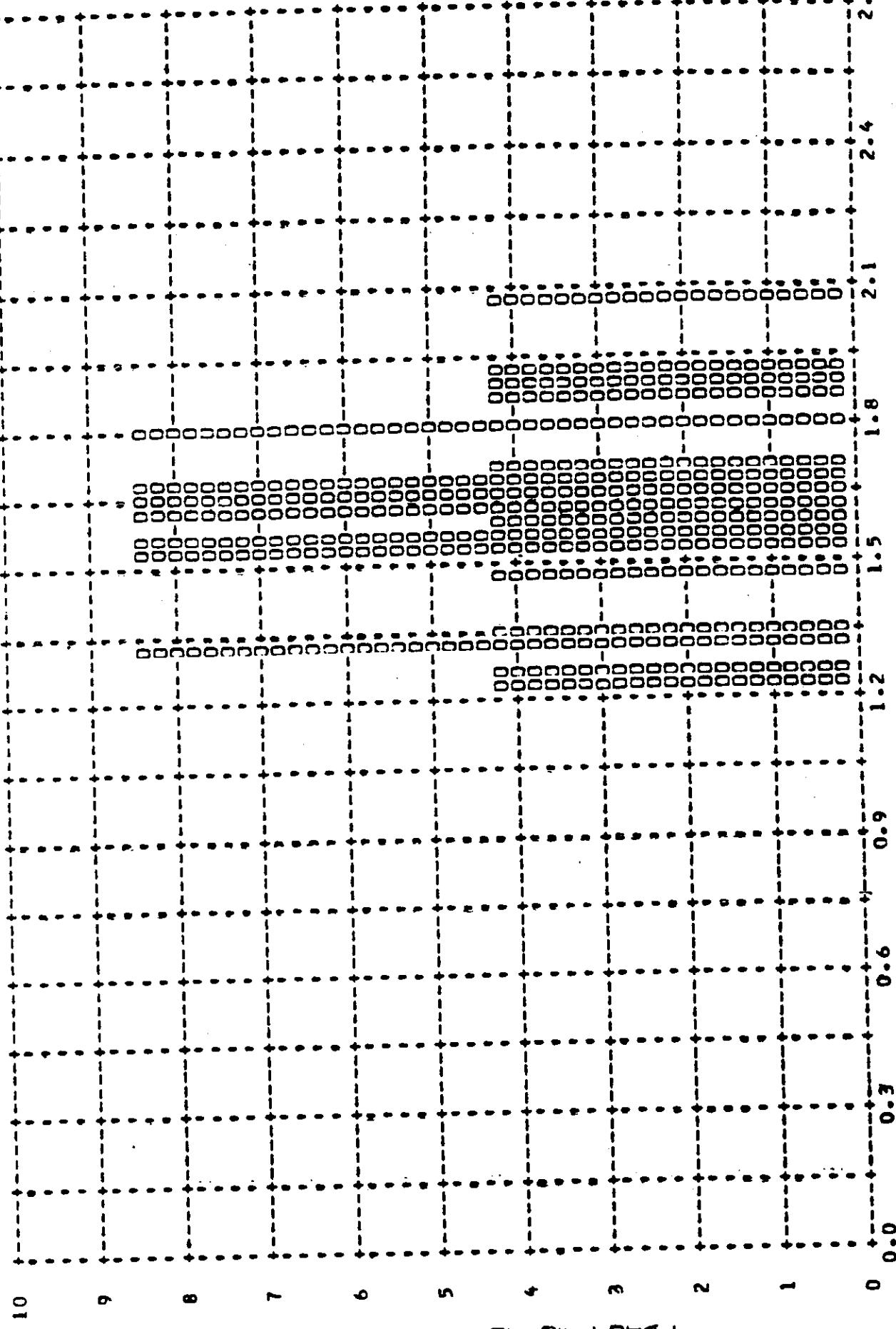
* DENSITY *

2.0
2.1
2.2
2.3
2.4

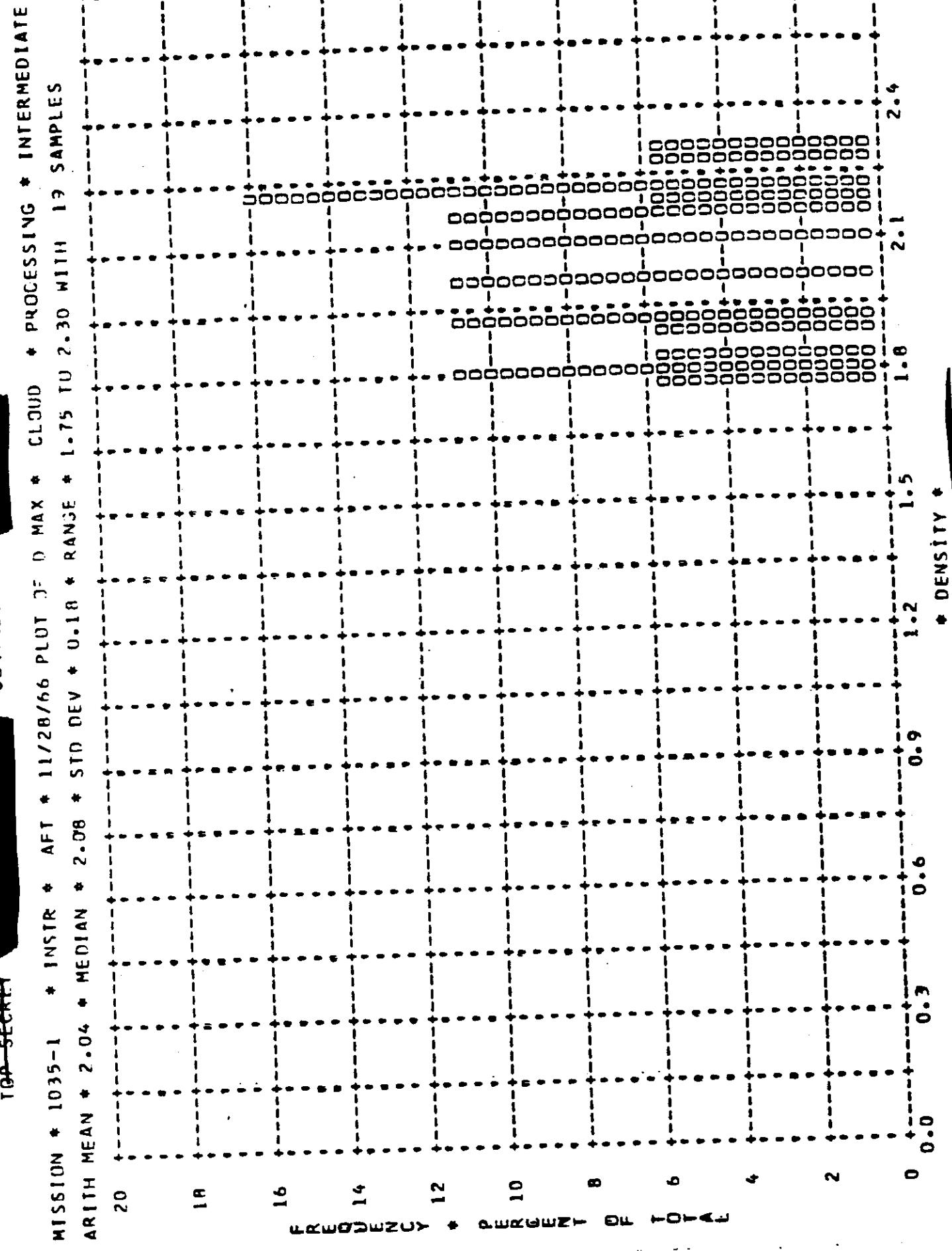
~~H&P SECRET~~

CO. OL 40.

MISSION * 1035-1 * INSTR * AFT * 11/28/66 PILOT JF D MAX * TERRAIN * PROCESSING * INTERMEDIATE
ARITH MEAN * 1.60 * MEDIAN * 1.60 * STD DEV * 0.22 * RANGE * 1.24 10 2.06 WITH 24 SAMPLES



PERCENTAGE * PERCENT OF TOTAL



HÖRSTELLER

• 6A 1000000000

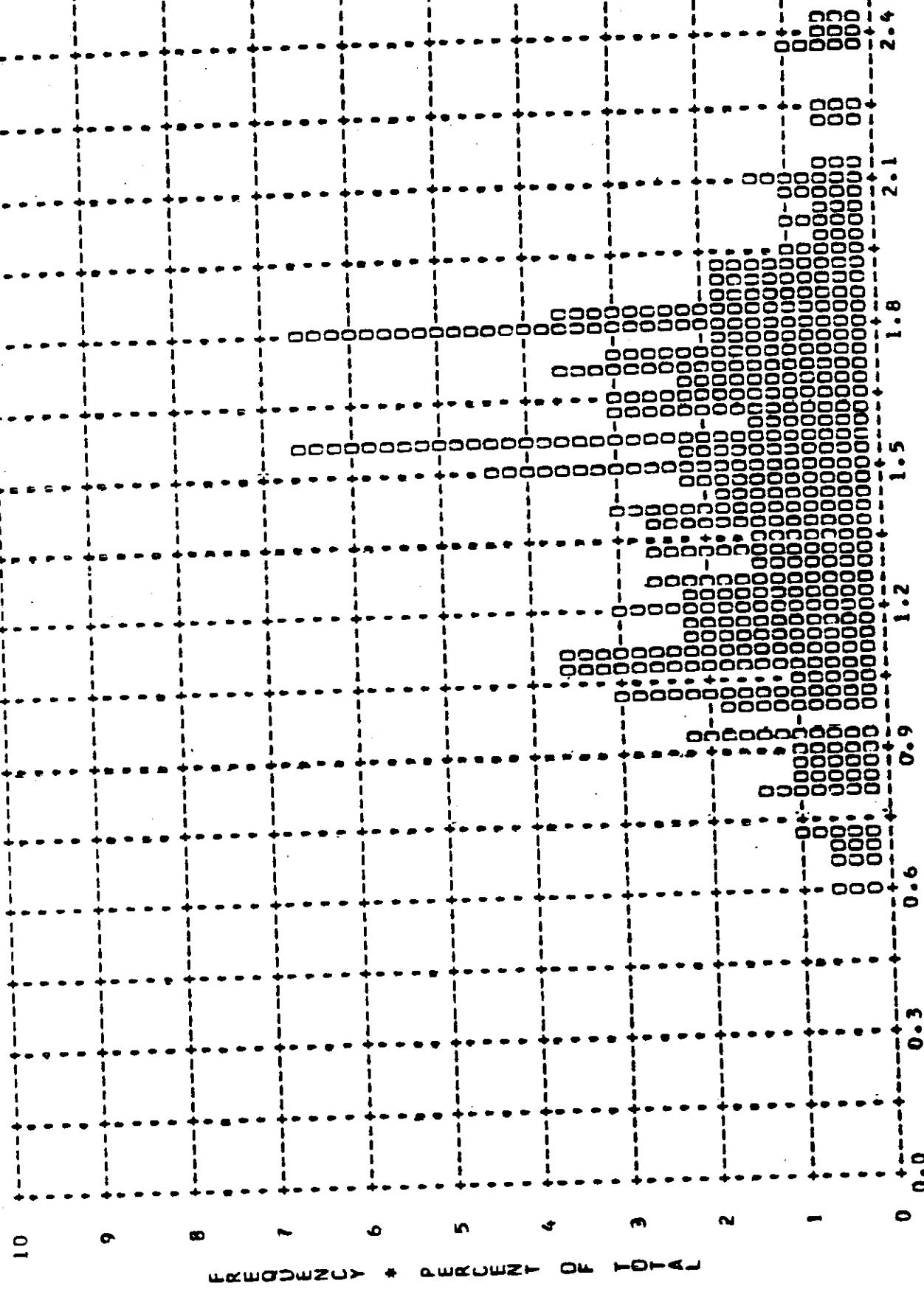
MISSION * 1035-1 * INSTR * AFI * 11/28/66 PLUT D MIN * TERRAIN * PROCESSING * FULL
 ARITH MEAN * 0.49 * MEDIAN * 0.43 * STD DEV * 0.18 * RANGE * 0.29 TO 1.39 WITH 234 SAMPLES

FREQUENCY * PERCENT OF TOTAL
 DENSITY *

RECORDED

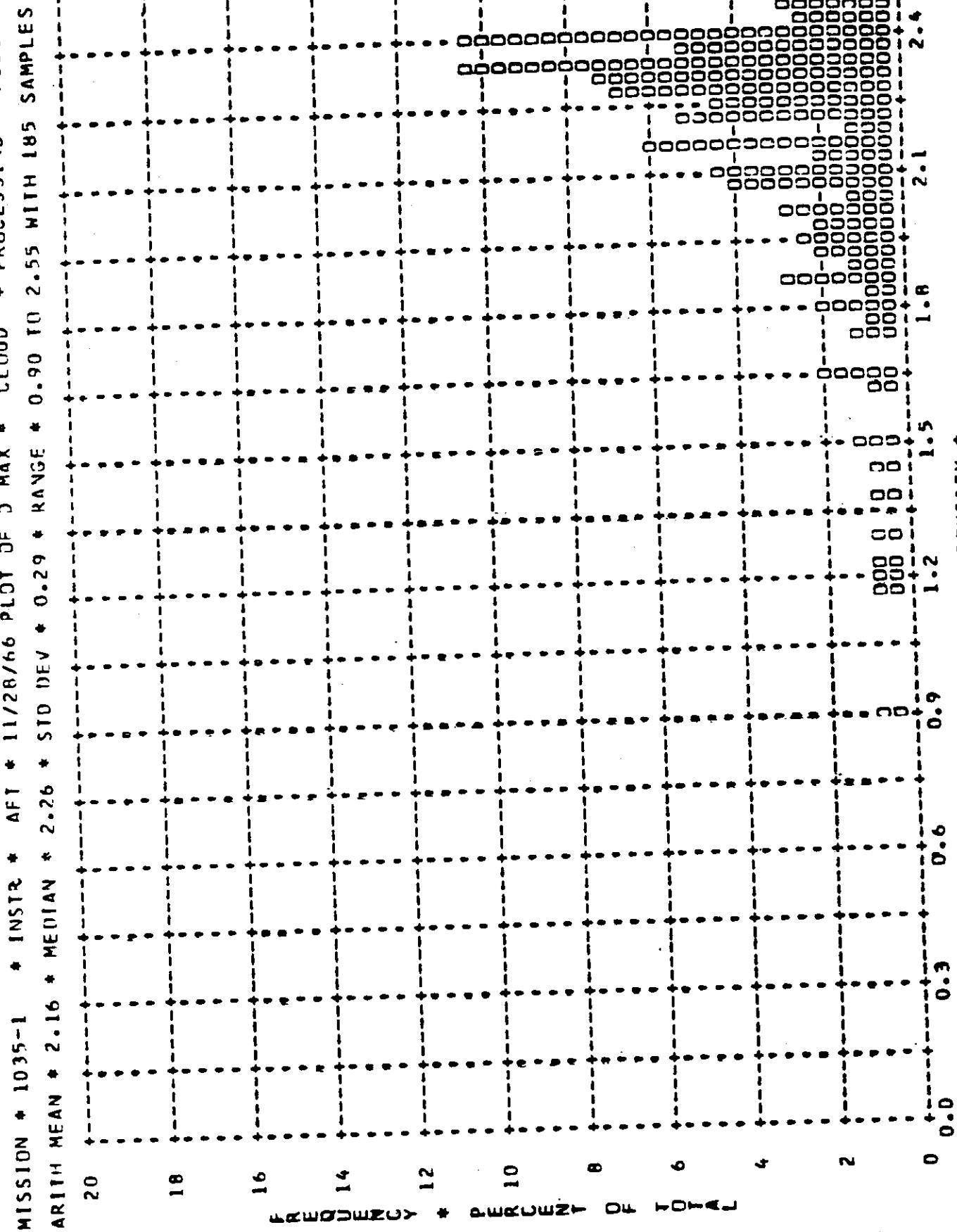
CON. CL NO.

MISSION * 1035-1 * INSTR * AFI * 11/28/66 PLOT OF D MAX * TERRAIN * PROCESSING * FULL
ARITH MEAN * 1.47 * MEDIAN * 1.50 * STD DEV * 0.36 * RANGE * 0.50 10 2.42 WITH 234 SAMPLES



TOP SECRET

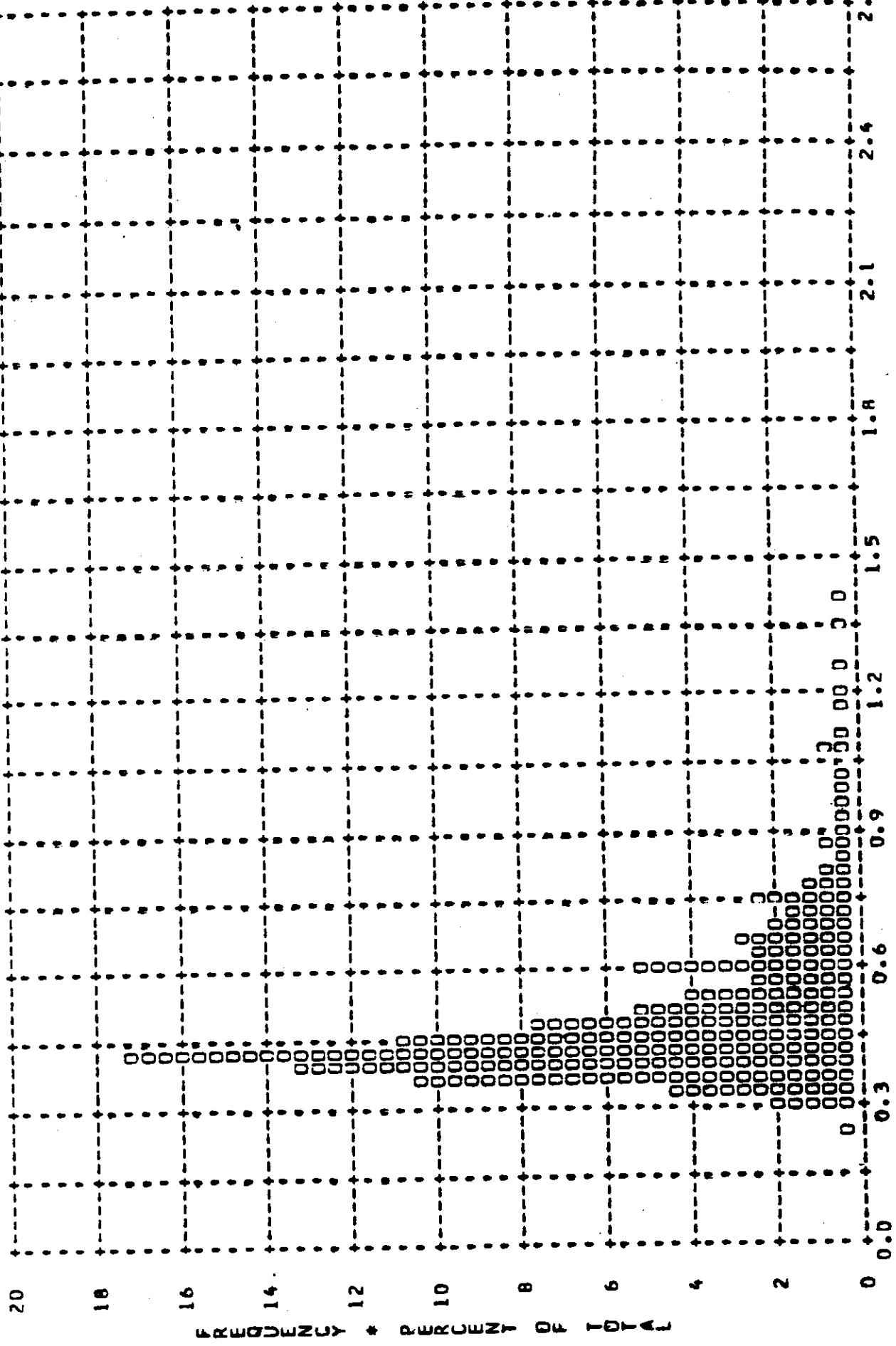
- CON...JL NO.



TOP SECRET

CONTRL NO.

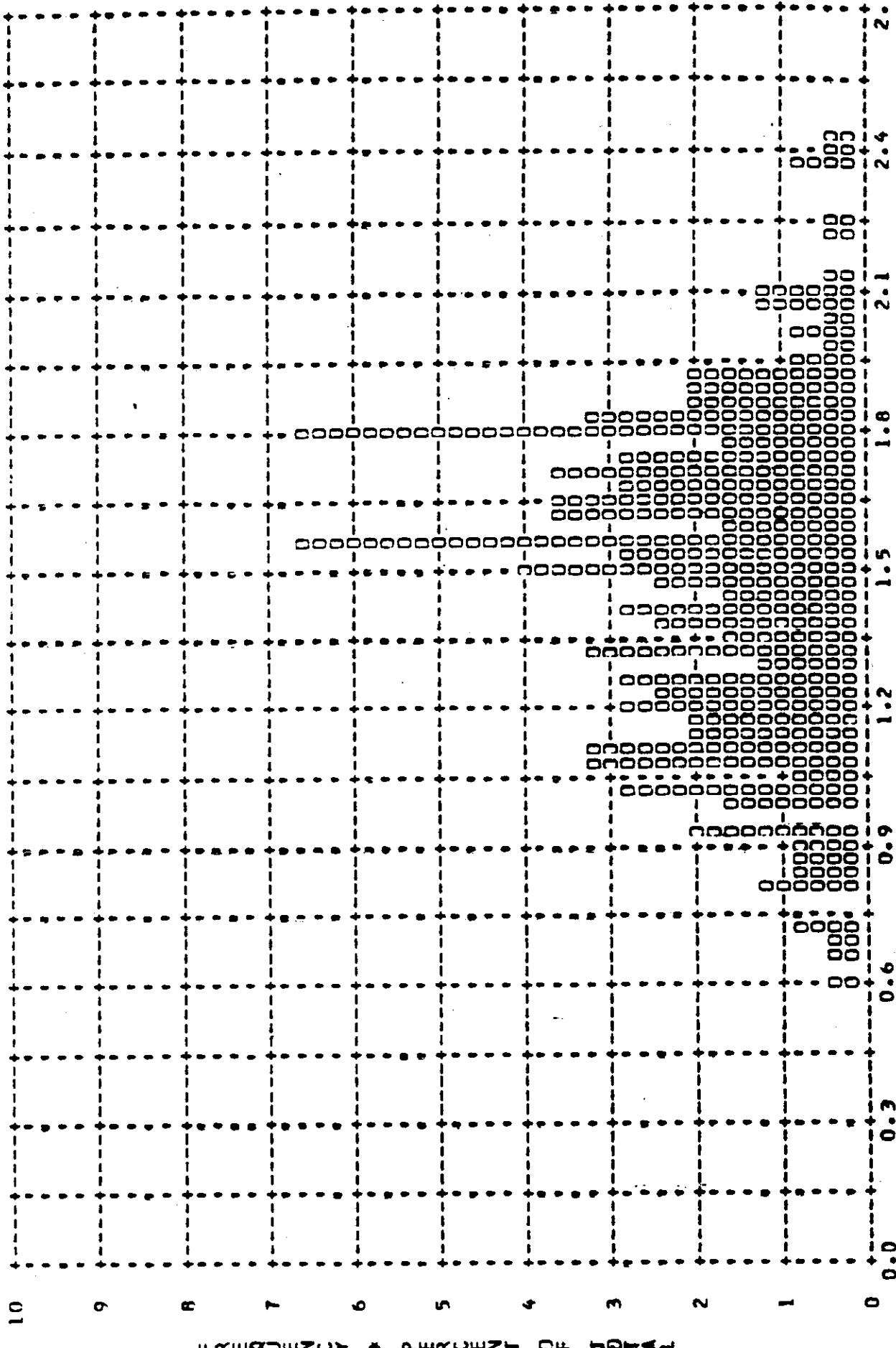
MISSION # 1035-1 * INST# AFI # 11/28/66 PLNT DF O MIN * TERRAIN * PROCESSING * ALL LEVELS
ARITH MEAN # 0.50 * MEDIAN # 0.43 * STD DEV # 0.19 * RANGE # 0.24 TO 1.39 WITH 258 SAMPLES



TOP SECRET

CD, KDL NO.

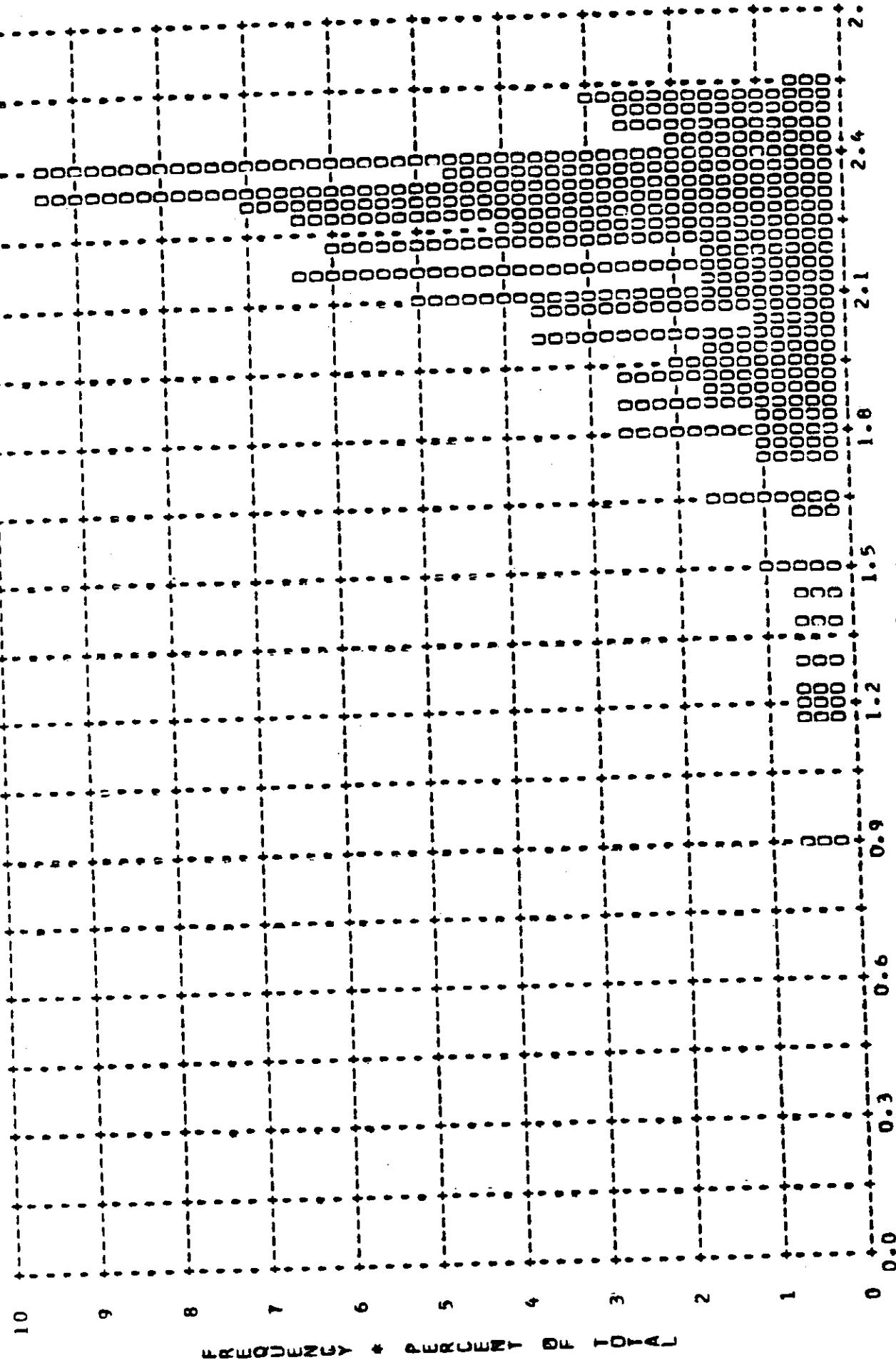
MISSION * 1035-1 * INSTR * AFT * 11/28/66 PLOT OF MAX * TERRAIN * PROCESSING * ALL LEVELS
ARITH MEAN * 1.48 * MEDIAN * 1.53 * STD DEV * 0.36 * RANGE * 0.60 TO 2.42 WITH 258 SAMPLES



TOP SECRET

CON-JL-VJ.

MISSION * 1035-1 * INSTR * AFI * 11/28/66 PLOT OF D MAX * CLOUD * PROCESSING * ALL LEVELS
ARITH MEAN * 2.15 * MEDIAN * 2.24 * STD DEV * 0.28 * RANGE * 0.70 10 2.55 WITH 204 SAMPLES



~~TOP SECRET~~

- CONTROL NO.

MISSION * 1035-2 * INSTRUMENT * FRWD 11/28/66 DENSITY FREQ DISTR

DENSITY VALUE	PRIMARY		INTERMEDIATE		FULL		ALL LEVELS	
	MIN	MAX LIM	MIN	MAX LIM	MIN	MAX LIM	MIN	MAX LIM
0.01	0	0	0	0	0	0	0	0
0.02	0	0	0	0	0	0	0	0
0.03	0	0	0	0	0	0	0	0
0.04	0	0	0	0	0	0	0	0
0.05	0	0	0	0	0	0	0	0
0.06	0	0	0	0	0	0	0	0
0.07	0	0	0	0	0	0	0	0
0.08	0	0	0	0	0	0	0	0
0.09	0	0	0	0	0	0	0	0
0.10	0	0	0	0	0	0	0	0
0.11	0	0	0	0	0	0	0	0
0.12	0	0	0	0	0	0	0	0
0.13	0	0	0	0	0	0	0	0
0.14	0	0	0	0	0	0	0	0
0.15	0	0	0	0	0	0	0	0
0.16	0	0	0	0	0	0	0	0
0.17	0	0	0	0	0	0	0	0
0.18	0	0	0	0	0	0	0	0
0.19	0	0	0	0	0	0	0	0
0.20	0	0	0	0	0	0	0	0
0.21	0	0	0	0	0	0	0	0
0.22	0	0	0	0	0	0	0	0
0.23	0	0	0	0	0	0	0	0
0.24	0	0	0	0	0	0	0	0
0.25	0	0	0	0	0	0	0	0
0.26	0	0	0	0	0	0	0	0
0.27	0	0	0	0	0	0	0	0
0.28	0	0	0	0	0	0	0	0
0.29	0	0	0	0	0	0	0	0
0.30	0	0	0	0	0	0	0	0
0.31	0	0	0	0	0	0	0	0
0.32	0	0	0	0	0	0	0	0
0.33	0	0	0	0	0	0	0	0
0.34	0	0	0	0	0	0	0	0
0.35	0	0	0	0	0	0	0	0
0.36	0	0	0	0	0	0	0	0
0.37	0	0	0	0	0	0	0	0
0.38	0	0	0	0	0	0	0	0
0.39	0	0	0	0	0	0	0	0
0.40	0	0	0	0	0	0	0	0
0.41	0	0	0	0	0	0	0	0
0.42	0	0	0	0	0	0	0	0
0.43	0	0	0	0	0	0	0	0
0.44	0	0	0	0	0	0	0	0
0.45	0	0	0	0	0	0	0	0
0.46	0	0	0	0	0	0	0	0
0.47	0	0	0	0	0	0	0	0
0.48	0	0	0	0	0	0	0	0
0.49	0	0	0	0	0	0	0	0
0.50	0	0	0	0	0	0	0	0
SUBTOTAL	0	0	0	25	0	132	1	157

~~TOP SECRET~~

- CONTROL NO.

Table A-3

~~TOP SECRET~~

- CONTROL NO.

MISSION * 1035-2 * INSTRUMENT * FRWD

11/28/66 DENSITY FREQ DISTR

~~TOP SECRET~~

CONTROL NO.

Table A-3

~~TOP SECRET~~

CONTROL NO.

MISSION * 1035-2 * INSTRUMENT * FRWD 11/28/66 DENSITY FREQ DISTR

DENSITY VALUE	PRIMARY			INTERMEDIATE			FULL			ALL LEVELS		
	MIN	MAX	LIM	MIN	MAX	LIM	MIN	MAX	LIM	MIN	MAX	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
1.17	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	1	19	0	7	81	10	8	100	10

~~TOP SECRET~~

CONTROL NO.

Table A-3

~~TOP SECRET~~

- CONTROL ND.

MISSION * 1035-2 * INSTRUMENT * FRWD 11/28/66 DENSITY FREQ DISTR

DENSITY VALUE	PRIMARY		INTERMEDIATE		FULL		ALL LEVELS	
	MIN	MAX LIM	MIN	MAX LIM	MIN	MAX LIM	MIN	MAX LIM
1.51	0	0	0	0	0	0	0	0
1.52	0	0	0	0	0	0	0	0
1.53	0	0	0	0	0	0	0	0
1.54	0	0	0	0	0	0	0	0
1.55	0	0	0	0	0	0	0	0
1.56	0	0	0	0	0	0	0	0
1.57	0	0	0	0	0	0	0	0
1.58	0	0	0	0	0	0	0	0
1.59	0	0	0	0	0	0	0	0
1.60	0	0	0	0	0	0	0	0
1.61	0	0	0	0	0	0	0	0
1.62	0	0	0	0	0	0	0	0
1.63	0	0	0	0	0	0	0	0
1.64	0	0	0	0	0	0	0	0
1.65	0	0	0	0	0	0	0	0
1.66	0	0	0	0	0	0	0	0
1.67	0	0	0	0	0	0	0	0
1.68	0	0	0	0	0	0	0	0
1.69	0	0	0	0	0	0	0	0
1.70	0	0	0	0	0	0	0	0
1.71	0	0	0	0	0	0	0	0
1.72	0	0	0	0	0	0	0	0
1.73	0	0	0	0	0	0	0	0
1.74	0	0	0	0	0	0	0	0
1.75	0	0	0	0	0	0	0	0
1.76	0	0	0	0	0	0	0	0
1.77	0	0	0	0	0	0	0	0
1.78	0	0	0	0	0	0	0	0
1.79	0	0	0	0	0	0	0	0
1.80	0	0	0	0	0	0	0	0
1.81	0	0	0	0	0	0	0	0
1.82	0	0	0	0	0	0	0	0
1.83	0	0	0	0	0	0	0	0
1.84	0	0	0	0	0	0	0	0
1.85	0	0	0	0	0	0	0	0
1.86	0	0	0	0	0	0	0	0
1.87	0	0	0	0	0	0	0	0
1.88	0	0	0	0	0	0	0	0
1.89	0	0	0	0	0	0	0	0
1.90	0	0	0	0	0	0	0	0
1.91	0	0	0	0	0	0	0	0
1.92	0	0	0	0	0	0	0	0
1.93	0	0	0	0	0	0	0	0
1.94	0	0	0	0	0	0	0	0
1.95	0	0	0	0	0	0	0	0
1.96	0	0	0	0	0	0	0	0
1.97	0	0	0	0	0	0	0	0
1.98	0	0	0	0	0	0	0	0
1.99	0	0	0	0	0	0	0	0
2.00	0	0	0	0	0	0	0	0
SUBTOTAL	0	0	0	0	23	18	0	0
	61	48					84	66

~~TOP SECRET~~

- CONTROL ND.

Table A-3

~~TOP SECRET~~

- CONTROL NO.

MISSION * 1035-2 * INSTRUMENT * FRWD 11/28/66 DENSITY FREQ DISTR

DENSITY VALUE	PRIMARY		INTERMEDIATE		FULL		ALL LEVELS	
	MIN	MAX LIM	MIN	MAX LIM	MIN	MAX LIM	MIN	MAX LIM
2.01	0	0	0	0	1	0	0	0
2.02	0	0	0	0	0	0	0	0
2.03	0	0	0	0	0	0	0	0
2.04	0	0	0	0	0	0	0	0
2.05	0	0	0	0	0	0	0	0
2.06	0	0	0	0	0	0	0	0
2.07	0	0	0	0	0	0	0	0
2.08	0	0	0	0	0	0	0	0
2.09	0	0	0	0	0	0	0	0
2.10	0	0	0	0	0	0	0	0
2.11	0	0	0	0	0	0	0	0
2.12	0	0	0	0	0	0	0	0
2.13	0	0	0	0	0	0	0	0
2.14	0	0	0	0	0	0	0	0
2.15	0	0	0	0	0	0	0	0
2.16	0	0	0	0	0	0	0	0
2.17	0	0	0	0	0	0	0	0
2.18	0	0	0	0	0	0	0	0
2.19	0	0	0	0	0	0	0	0
2.20	0	0	0	0	0	0	0	0
2.21	0	0	0	0	0	0	0	0
2.22	0	0	0	0	0	0	0	0
2.23	0	0	0	0	0	0	0	0
2.24	0	0	0	0	0	0	0	0
2.25	0	0	0	0	0	0	0	0
2.26	0	0	0	0	0	0	0	0
2.27	0	0	0	0	0	0	0	0
2.28	0	0	0	0	0	0	0	0
2.29	0	0	0	0	0	0	0	0
2.30	0	0	0	0	0	0	0	0
2.31	0	0	0	0	0	0	0	0
2.32	0	0	0	0	0	0	0	0
2.33	0	0	0	0	0	0	0	0
2.34	0	0	0	0	0	0	0	0
2.35	0	0	0	0	0	0	0	0
2.36	0	0	0	0	0	0	0	0
2.37	0	0	0	0	0	0	0	0
2.38	0	0	0	0	0	0	0	0
2.39	0	0	0	0	0	0	0	0
2.40	0	0	0	0	0	0	0	0
2.41	0	0	0	0	0	0	0	0
2.42	0	0	0	0	0	0	0	0
2.43	0	0	0	0	0	0	0	0
2.44	0	0	0	0	0	0	0	0
2.45	0	0	0	0	0	0	0	0
2.46	0	0	0	0	0	0	0	0
2.47	0	0	0	0	0	0	0	0
2.48	0	0	0	0	0	0	0	0
2.49	0	0	0	0	0	0	0	0
2.50	0	0	0	0	0	0	0	0
SUBTOTAL	0	0	0	0	3	30	0	14181

~~TOP SECRET~~

- CONTROL NO.

Table A-2

~~TOP SECRET~~

- CONTROL NO. [REDACTED]

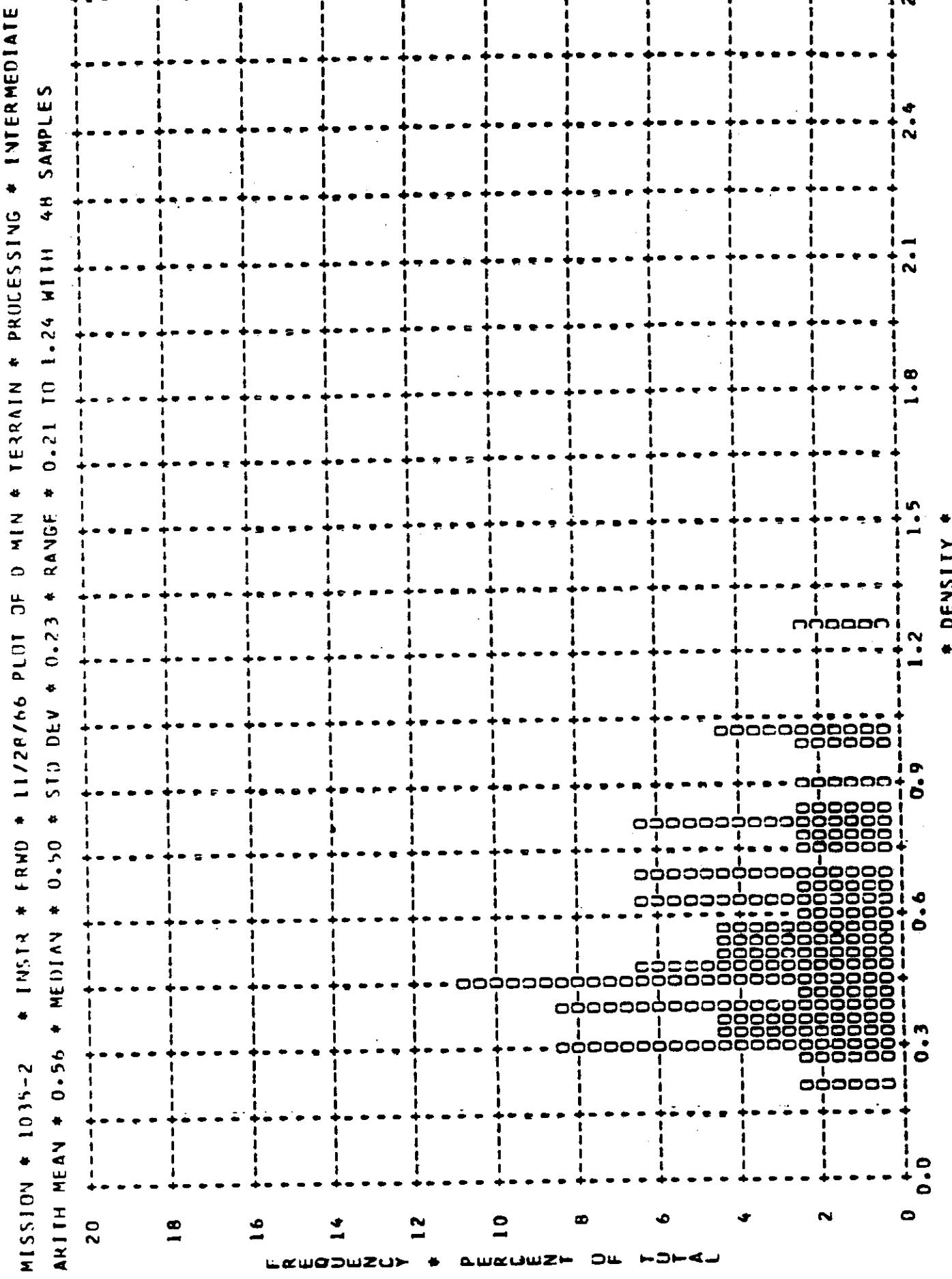
MISSION #: 1035-2 * INSTRUMENT #: FWD 11/28/66 DENSITY FREQ DISTR

DENSITY VALUE	PRIMARY		INTERMEDIATE		FULL		ALL LEVELS		
	MIN	MAX	LIN	MIN	MAX	LIN	MIN	MAX	LIN
0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51
0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52
0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53
0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54
0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55
0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56
0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57
0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58
0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59
0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61
0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62
0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63
0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64
0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65
0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66
0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67
0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68
0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69
0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71
0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73
0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74
0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
TOTAL	0	0	0	48	48	48	220	220	210

C-1 A-

TOP SECRET

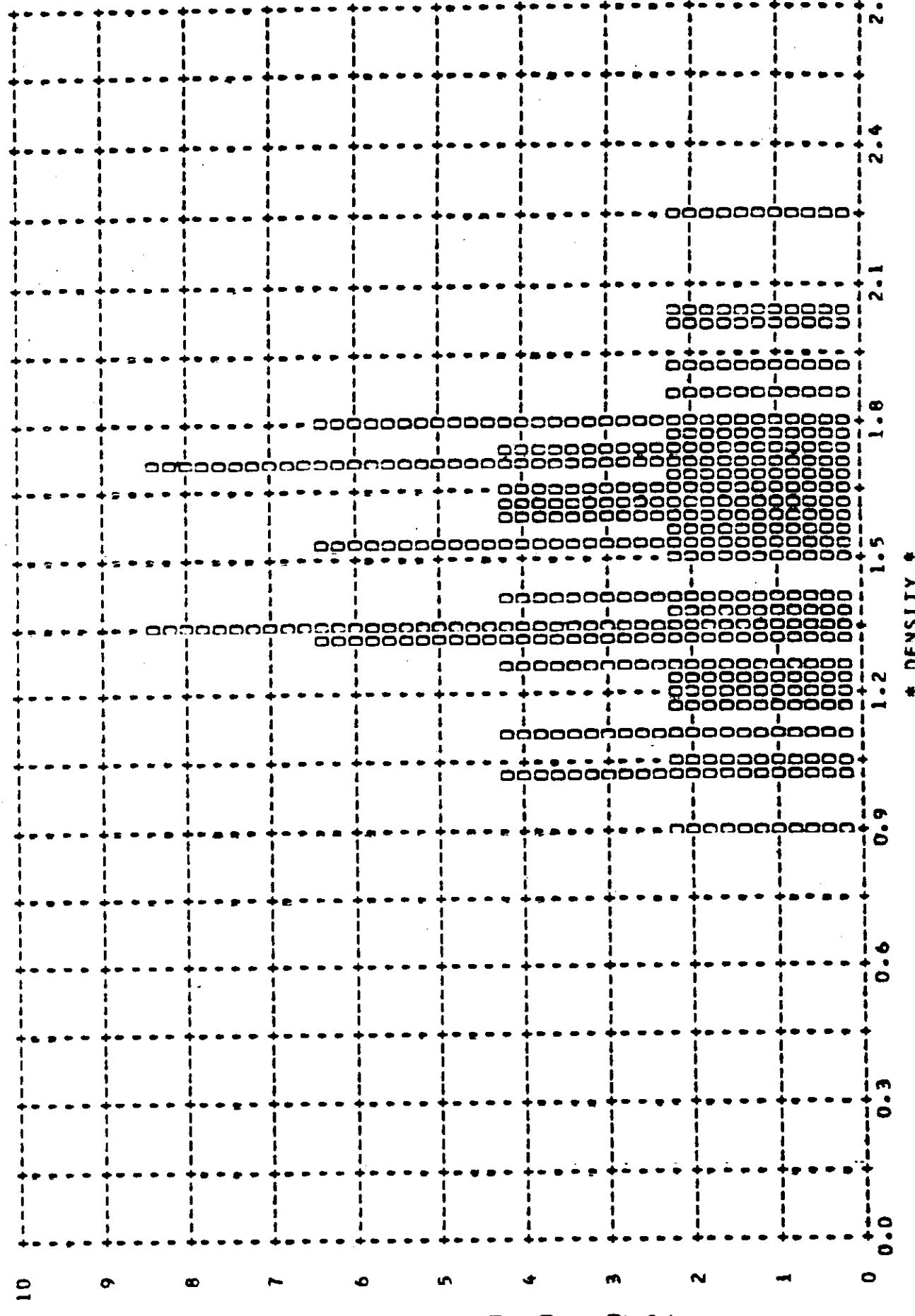
CONVNL N.D.



HAP-STER

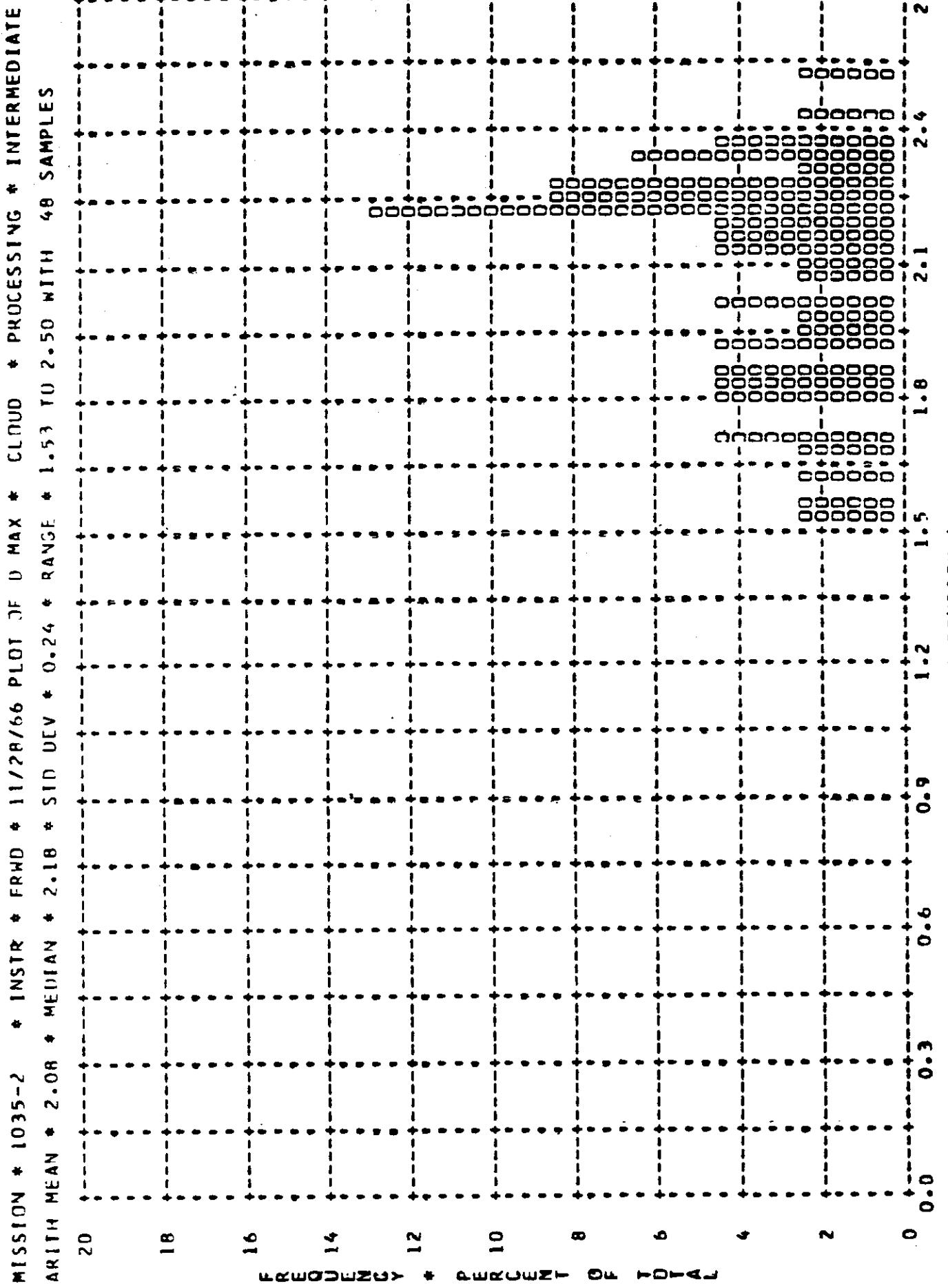
- CON. & L. NO.

MISSION * 1035-2 * INSTR * FRWD * 11/28/66 PLOT OF D MAX * TERRAIN * PROCESSING * INTERMEDIATE
ARITH MEAN * 1.50 * MEDIAN * 1.53 * STD DEV * 0.30 * RANGE * 0.30 TO 2.24 WITH 48 SAMPLES



TOP SECRET

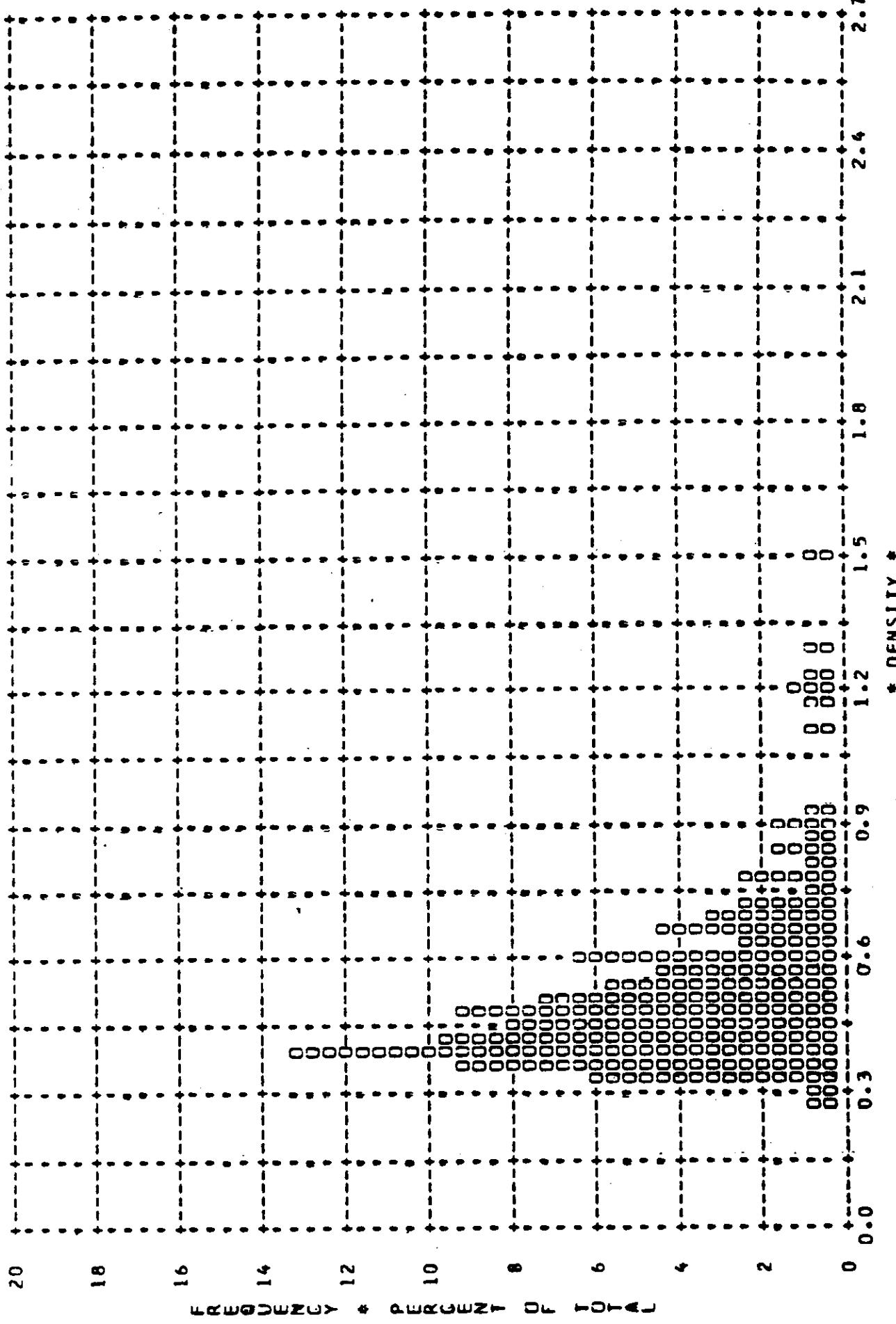
- COV. COL VJ.



~~TOP SECRET~~

- CONVUL VD.

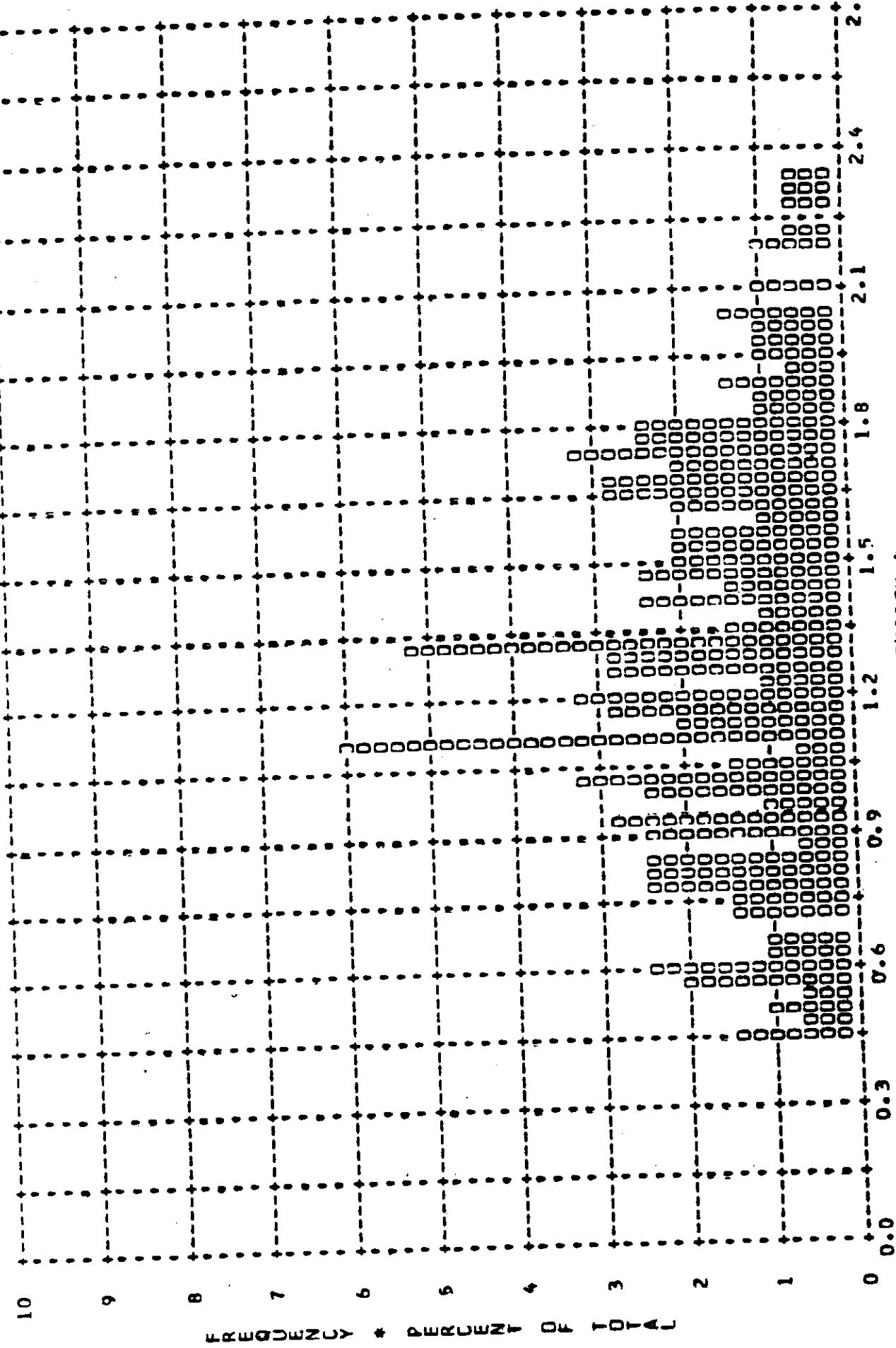
MISSION * 1035-2 * INSIR * FWD * 11/28/66 PLN1 CFD MIN * TERRAIN * PROCESSING * FULL
ARITH MEAN * 0.52 * MEDIAN * 0.46 * STD DEV * 0.19 * RANGE * 0.76 TO 1.50 WITH 220 SAMPLES



REF-SEREF

COVIR, VD.

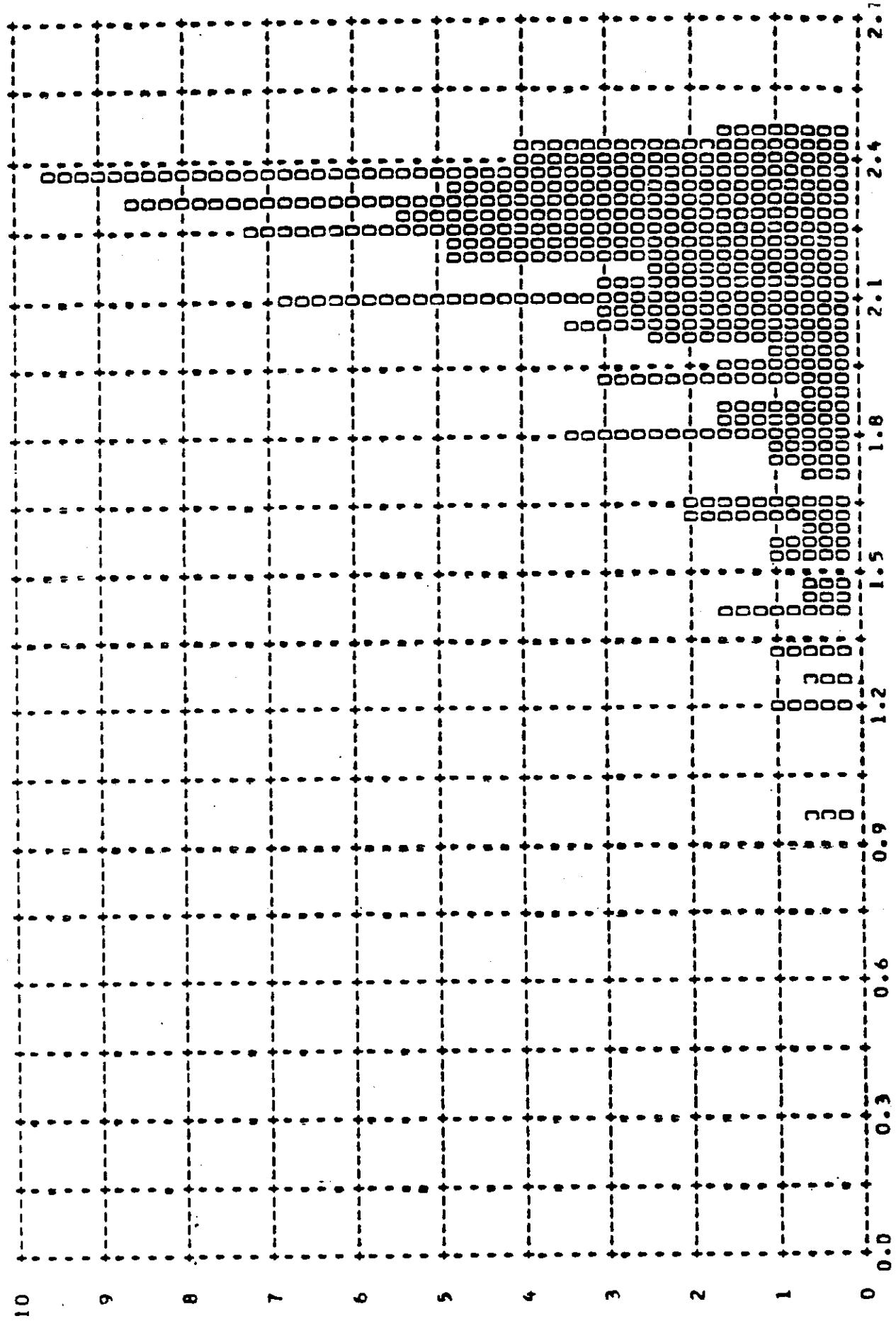
MISSION * 1035-2 * INSTR * FWD * 11/28/66 PLUT D MAX * TERRAIN * PROCESSING * FULL
ARITH MEAN * 1.2A * MEDIAN * 1.2B * STD Dev * 0.44 * RANGE * 3.43 TO 2.33 WITH 223 SAMPLES



TOP SECRET

- CONTROL NO.

MISSION * 1035-2 * INSTR * FRWD * 11/28/66 PLUT 3F D MAX * CLOUD * PROCESSING * FULL
ARITH MEAN * 2.09 * MEDIAN * 2.18 * STD DEV * 0.29 * RANGE * 0.96 TO 2.45 WITH 210 SAMPLES



FREQUENCY * PERCENT OF TOTAL

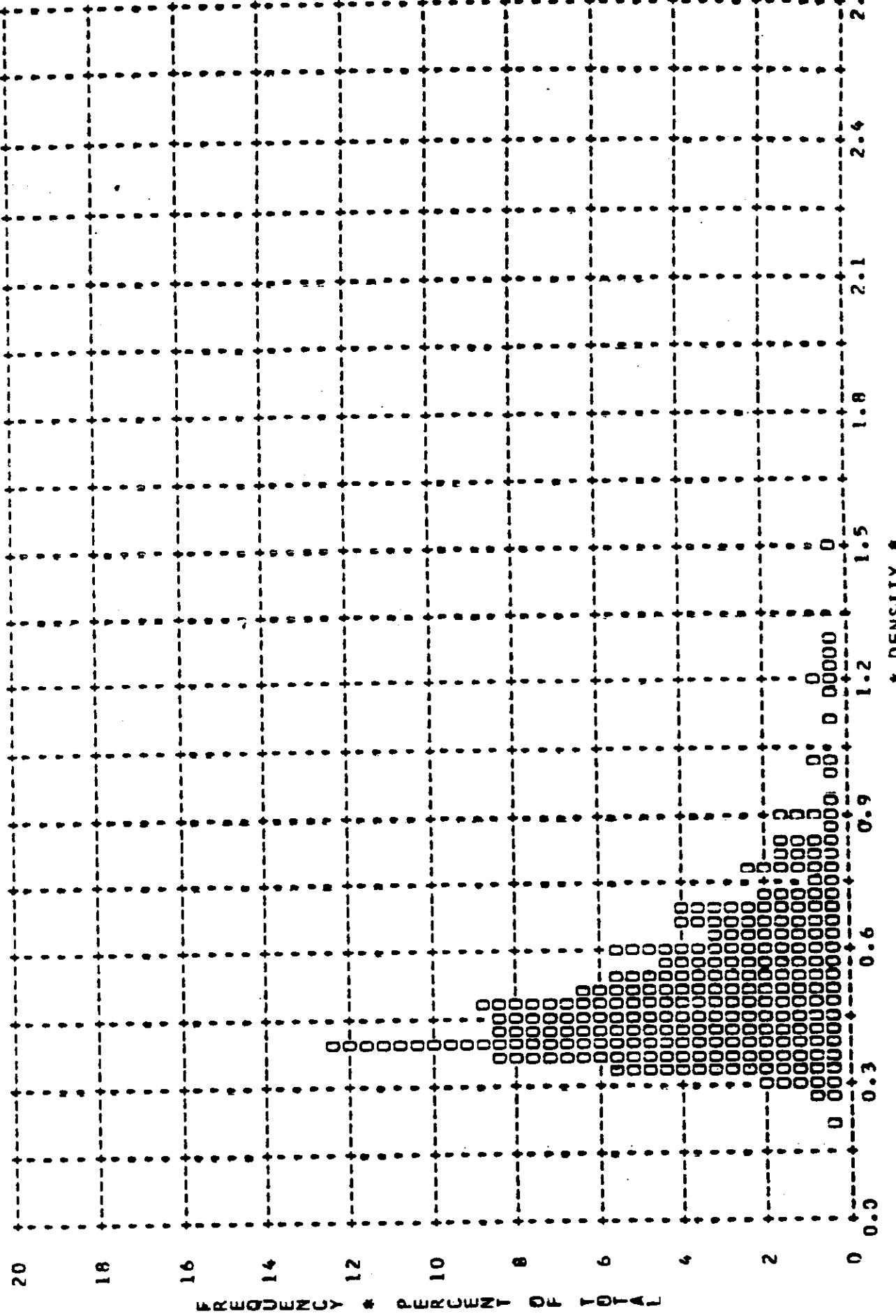
A-42

* DENSITY *

TOP SECRET

- CONTROL NO.

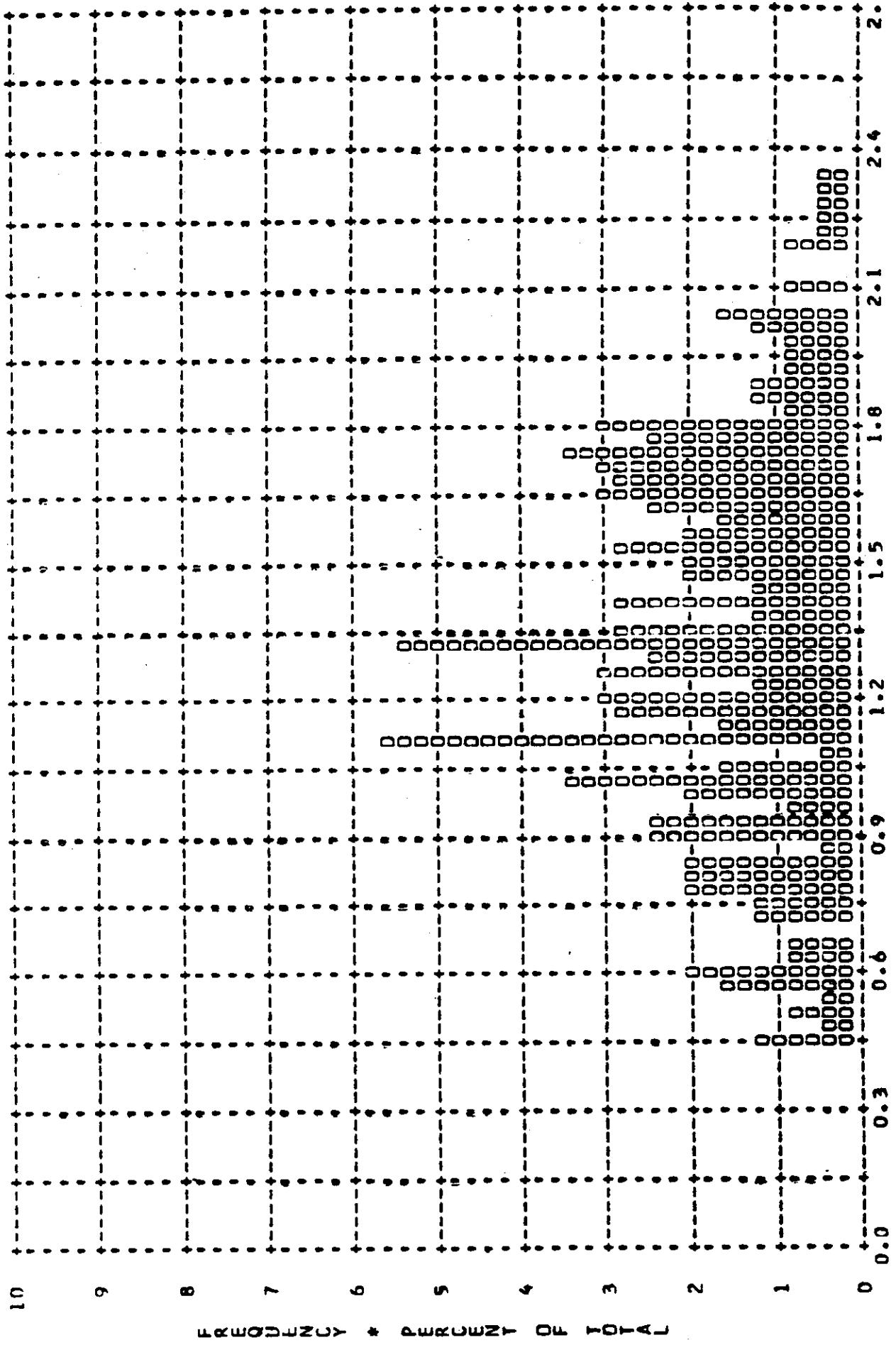
MISSION * 1035-2 * INSTR * FRWD * 11/28/66 PLOT OF 3 MIN * TERRAIN * PROCESSING * ALL LEVELS
ARITH MEAN * 0.52 * MEDIAN * 0.47 * STD DEV * 0.20 * RANGE * 0.21 TO 1.50 WITH 268 SAMPLES



TOP SECRET

- COUNTRY NO.

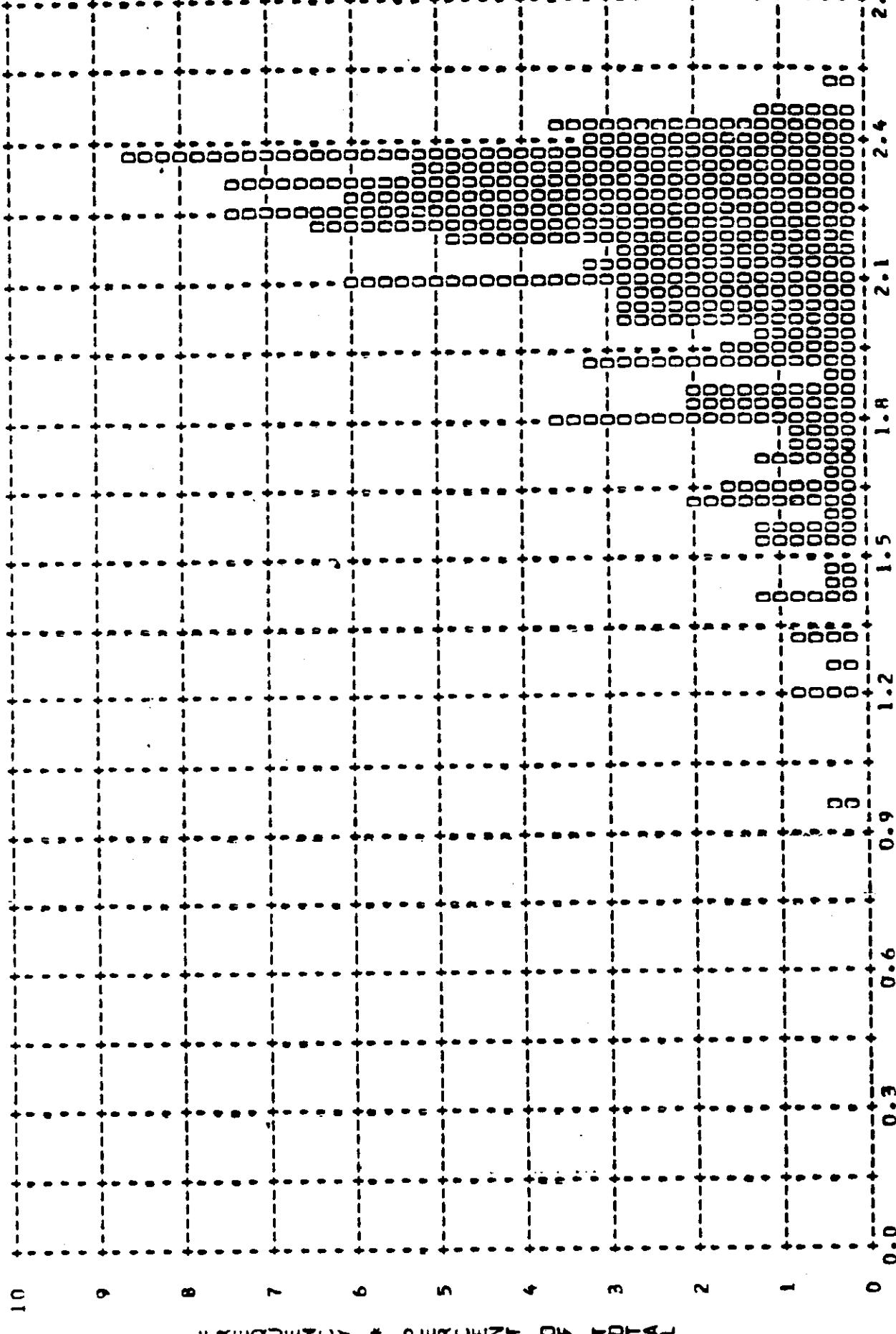
MISSION # 1035-2 * INSTR * FRWD * 11/28/66 PLOT OF U MAX * TERRAIN * PROCESSING * ALL LEVELS
ARITH MEAN * 1.32 * MEDIAN * 1.30 * STD DEV * 0.42 * RANGE * 0.43 TO 2.33 WITH 268 SAMPLES



TOP SECRET

- CONTROL NO. [REDACTED]

MISSION * 1035-2 * INSTR * FRWD * 11/28/66 PLOT OF D MAX * CLOUD * PROCESSING * ALL LEVELS
ARITH MEAN * 2.09 * MEDIAN * 2.18 * STD DEV * 0.29 * RANGE * 0.76 TO 2.50 WITH 258 SAMPLES



~~TOP SECRET~~

CONTROL NO.

MISSION * 1035-2 * INSTRUMENT * AFT 11/28/66 DENSITY FREQ DISTR

DENSITY VALUE	PRIMARY			INTERMEDIATE			FULL			ALL LEVELS		
	MIN	MAX	LIM	MIN	MAX	LIM	MIN	MAX	LIM	MIN	MAX	LIM
0.01	0	0	0	0	0	0	0	0	0	0	0	0
0.02	0	0	0	0	0	0	0	0	0	0	0	0
0.03	0	0	0	0	0	0	0	0	0	0	0	0
0.04	0	0	0	0	0	0	0	0	0	0	0	0
0.05	0	0	0	0	0	0	0	0	0	0	0	0
0.06	0	0	0	0	0	0	0	0	0	0	0	0
0.07	0	0	0	0	0	0	0	0	0	0	0	0
0.08	0	0	0	0	0	0	0	0	0	0	0	0
0.09	0	0	0	0	0	0	0	0	0	0	0	0
0.10	0	0	0	0	0	0	0	0	0	0	0	0
0.11	0	0	0	0	0	0	0	0	0	0	0	0
0.12	0	0	0	0	0	0	0	0	0	0	0	0
0.13	0	0	0	0	0	0	0	0	0	0	0	0
0.14	0	0	0	0	0	0	0	0	0	0	0	0
0.15	0	0	0	0	0	0	0	0	0	0	0	0
0.16	0	0	0	0	0	0	0	0	0	0	0	0
0.17	0	0	0	0	0	0	0	0	0	0	0	0
0.18	0	0	0	0	0	0	0	0	0	0	0	0
0.19	0	0	0	0	0	0	0	0	0	0	0	0
0.20	0	0	0	0	0	0	0	0	0	0	0	0
0.21	0	0	0	0	0	0	0	0	0	0	0	0
0.22	0	0	0	0	0	0	0	0	0	0	0	0
0.23	0	0	0	0	0	0	0	0	0	0	0	0
0.24	0	0	0	0	0	0	0	0	0	0	0	0
0.25	0	0	0	0	0	0	0	0	0	0	0	0
0.26	0	0	0	0	0	0	0	0	0	0	0	0
0.27	0	0	0	0	0	0	0	0	0	0	0	0
0.28	0	0	0	0	0	0	0	0	0	0	0	0
0.29	0	0	0	0	0	0	0	0	0	0	0	0
0.30	0	0	0	0	0	0	0	0	0	0	0	0
0.31	0	0	0	0	0	0	0	0	0	0	0	0
0.32	0	0	0	0	0	0	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	0	19	0	108	1	0	127	1	1

~~TOP SECRET~~

- CONTROL NO.

Table A-4

~~TOP SECRET~~

- CONTROL NO.

MISSION * 1035-2 * INSTRUMENT * AFT

11/28/66 DENSITY FREQ DISTR

DENSITY VALUE	PRIMARY			INTERMEDIATE			FULL			ALL LEVELS		
	MIN	MAX	LIM	MIN	MAX	LIM	MIN	MAX	LIM	MIN	MAX	LIM
0.51	0	0	0	0	1	0	0	11	0	0	12	0
0.52	0	0	0	0	1	0	0	18	0	0	9	0
0.53	0	0	0	0	1	0	0	5	0	0	6	0
0.54	0	0	0	0	0	0	0	0	0	0	1	0
0.55	0	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
0.57	0	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
0.59	0	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
0.61	0	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
0.63	0	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
0.65	0	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
0.67	0	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
0.69	0	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
0.71	0	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
0.73	0	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
0.75	0	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
0.77	0	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
0.79	0	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
0.81	0	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
0.83	0	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
0.85	0	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
0.87	0	0	0	0	0	0	0	0	0	0	0	0
0.88	0	0	0	0	0	0	0	0	0	0	0	0
0.89	0	0	0	0	0	0	0	0	0	0	0	0
0.90	0	0	0	0	0	0	0	0	0	0	0	0
0.91	0	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
0.93	0	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
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	0	0	0	0	0	0
SUBTOTAL	0	0	0	3	14	3	0	117	52	1	131	55

~~TOP SECRET~~

- CONTROL NO.

Table A-4

~~TOP SECRET~~

- CONTROL NO.

MISSION * 1035-2 * INSTRUMENT * AFT 11/28/66 DENSITY FREQ DISTR

DENSITY VALUE	PRIMARY MIN	PRIMARY MAX	PRIMARY LIM	INTERMEDIATE MIN	INTERMEDIATE MAX	INTERMEDIATE LIM	FULL MIN	FULL MAX	FULL LIM	ALL LEVELS MIN	ALL LEVELS MAX	ALL LEVELS LIM
1.01	0	0	0	0	0	0	0	0	0	0	0	0
1.02	0	0	0	0	0	0	0	0	0	0	0	0
1.03	0	0	0	0	0	0	0	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	0	0	0	13	0	0	6	106	119

~~TOP SECRET~~

- CONTROL NO.

Table A-4

~~TOP SECRET~~

- CONTROL NO.

MISSION * 1035-2 * INSTRUMENT * AFT 11/28/66 DENSITY FREQ DISTR

DENSITY VALUE	PRIMARY MIN	PRIMARY MAX	PRIMARY LIM	INTERMEDIATE MIN	INTERMEDIATE MAX	INTERMEDIATE LIM	FULL MIN	FULL MAX	FULL LIM	ALL LEVELS MIN	ALL LEVELS MAX	ALL LEVELS LIM
1.51	0	0	0	0	0	0	0	0	0	0	0	1
1.52	0	0	0	0	0	0	0	0	0	0	0	2
1.53	0	0	0	0	0	0	0	0	0	0	0	3
1.54	0	0	0	0	0	0	0	0	0	0	0	3
1.55	0	0	0	0	0	0	0	0	0	0	0	4
1.56	0	0	0	0	0	0	0	0	0	0	0	4
1.57	0	0	0	0	0	0	0	0	0	0	0	5
1.58	0	0	0	0	0	0	0	0	0	0	0	5
1.59	0	0	0	0	0	0	0	0	0	0	0	6
1.60	0	0	0	0	0	0	0	0	0	0	0	6
1.61	0	0	0	0	0	0	0	0	0	0	0	7
1.62	0	0	0	0	0	0	0	0	0	0	0	7
1.63	0	0	0	0	0	0	0	0	0	0	0	8
1.64	0	0	0	0	0	0	0	0	0	0	0	8
1.65	0	0	0	0	0	0	0	0	0	0	0	9
1.66	0	0	0	0	0	0	0	0	0	0	0	9
1.67	0	0	0	0	0	0	0	0	0	0	0	10
1.68	0	0	0	0	0	0	0	0	0	0	0	10
1.69	0	0	0	0	0	0	0	0	0	0	0	11
1.70	0	0	0	0	0	0	0	0	0	0	0	11
1.71	0	0	0	0	0	0	0	0	0	0	0	12
1.72	0	0	0	0	0	0	0	0	0	0	0	12
1.73	0	0	0	0	0	0	0	0	0	0	0	13
1.74	0	0	0	0	0	0	0	0	0	0	0	13
1.75	0	0	0	0	0	0	0	0	0	0	0	14
1.76	0	0	0	0	0	0	0	0	0	0	0	14
1.77	0	0	0	0	0	0	0	0	0	0	0	14
1.78	0	0	0	0	0	0	0	0	0	0	0	14
1.79	0	0	0	0	0	0	0	0	0	0	0	14
1.80	0	0	0	0	0	0	0	0	0	0	0	14
1.81	0	0	0	0	0	0	0	0	0	0	0	14
1.82	0	0	0	0	0	0	0	0	0	0	0	14
1.83	0	0	0	0	0	0	0	0	0	0	0	14
1.84	0	0	0	0	0	0	0	0	0	0	0	14
1.85	0	0	0	0	0	0	0	0	0	0	0	14
1.86	0	0	0	0	0	0	0	0	0	0	0	14
1.87	0	0	0	0	0	0	0	0	0	0	0	14
1.88	0	0	0	0	0	0	0	0	0	0	0	14
1.89	0	0	0	0	0	0	0	0	0	0	0	14
1.90	0	0	0	0	0	0	0	0	0	0	0	14
1.91	0	0	0	0	0	0	0	0	0	0	0	14
1.92	0	0	0	0	0	0	0	0	0	0	0	14
1.93	0	0	0	0	0	0	0	0	0	0	0	14
1.94	0	0	0	0	0	0	0	0	0	0	0	14
1.95	0	0	0	0	0	0	0	0	0	0	0	14
1.96	0	0	0	0	0	0	0	0	0	0	0	14
1.97	0	0	0	0	0	0	0	0	0	0	0	14
1.98	0	0	0	0	0	0	0	0	0	0	0	14
1.99	0	0	0	0	0	0	0	0	0	0	0	14
2.00	0	0	0	0	0	0	0	0	0	0	0	14
SUBTOTAL	0	0	0	0	0	0	0	0	0	0	0	65

~~TOP SECRET~~

- CONTROL NO.

Table A-4

~~TOP SECRET~~

- CONTROL NO.

MISSION * 1035-2 * INSTRUMENT * AFT 11/28/66 DENSITY FREQ DISTR

DENSITY VALUE	PRIMARY MIN MAX LIM	INTERMEDIATE MIN MAX LIM	FULL MIN MAX LIM	ALL LEVELS MIN MAX LIM
2.01	0 0	0 0	0 0	0 0
2.02	0 0	0 0	0 0	0 0
2.03	0 0	0 0	0 0	0 0
2.04	0 0	0 0	0 0	0 0
2.05	0 0	0 0	0 0	0 0
2.06	0 0	0 0	0 0	0 0
2.07	0 0	0 0	0 0	0 0
2.08	0 0	0 0	0 0	0 0
2.09	0 0	0 0	0 0	0 0
2.10	0 0	0 0	0 0	0 0
2.11	0 0	0 0	0 0	0 0
2.12	0 0	0 0	0 0	0 0
2.13	0 0	0 0	0 0	0 0
2.14	0 0	0 0	0 0	0 0
2.15	0 0	0 0	0 0	0 0
2.16	0 0	0 0	0 0	0 0
2.17	0 0	0 0	0 0	0 0
2.18	0 0	0 0	0 0	0 0
2.19	0 0	0 0	0 0	0 0
2.20	0 0	0 0	0 0	0 0
2.21	0 0	0 0	0 0	0 0
2.22	0 0	0 0	0 0	0 0
2.23	0 0	0 0	0 0	0 0
2.24	0 0	0 0	0 0	0 0
2.25	0 0	0 0	0 0	0 0
2.26	0 0	0 0	0 0	0 0
2.27	0 0	0 0	0 0	0 0
2.28	0 0	0 0	0 0	0 0
2.29	0 0	0 0	0 0	0 0
2.30	0 0	0 0	0 0	0 0
2.31	0 0	0 0	0 0	0 0
2.32	0 0	0 0	0 0	0 0
2.33	0 0	0 0	0 0	0 0
2.34	0 0	0 0	0 0	0 0
2.35	0 0	0 0	0 0	0 0
2.36	0 0	0 0	0 0	0 0
2.37	0 0	0 0	0 0	0 0
2.38	0 0	0 0	0 0	0 0
2.39	0 0	0 0	0 0	0 0
2.40	0 0	0 0	0 0	0 0
2.41	0 0	0 0	0 0	0 0
2.42	0 0	0 0	0 0	0 0
2.43	0 0	0 0	0 0	0 0
2.44	0 0	0 0	0 0	0 0
2.45	0 0	0 0	0 0	0 0
2.46	0 0	0 0	0 0	0 0
2.47	0 0	0 0	0 0	0 0
2.48	0 0	0 0	0 0	0 0
2.49	0 0	0 0	0 0	0 0
2.50	0 0	0 0	0 0	0 0
SUBTOTAL	0 0	0 0	3 19	9 165

~~TOP SECRET~~

- CONTROL NO.

Table A-4

~~TOP SECRET~~

- CONTROL NO.

MISSION # 1035-2 * INSTRUMENT # AFT * 11/26/66 DENSITY FREQ DISTR

DENSITY VALUE	PRIMARY MIN MAX LIM	INTERMEDIATE MIN MAX LIM	FULL MIN MAX LIM	ALL LEVELS MIN MAX LIM	
2.51	00000000000000000000	00000000000000000000	00000000000000000000	00000000000000000000	
2.52	00000000000000000000	00000000000000000000	00000000000000000000	00000000000000000000	
2.53	00000000000000000000	00000000000000000000	00000000000000000000	00000000000000000000	
2.54	00000000000000000000	00000000000000000000	00000000000000000000	00000000000000000000	
2.55	00000000000000000000	00000000000000000000	00000000000000000000	00000000000000000000	
2.56	00000000000000000000	00000000000000000000	00000000000000000000	00000000000000000000	
2.57	00000000000000000000	00000000000000000000	00000000000000000000	00000000000000000000	
2.58	00000000000000000000	00000000000000000000	00000000000000000000	00000000000000000000	
2.59	00000000000000000000	00000000000000000000	00000000000000000000	00000000000000000000	
2.60	00000000000000000000	00000000000000000000	00000000000000000000	00000000000000000000	
2.61	00000000000000000000	00000000000000000000	00000000000000000000	00000000000000000000	
2.62	00000000000000000000	00000000000000000000	00000000000000000000	00000000000000000000	
2.63	00000000000000000000	00000000000000000000	00000000000000000000	00000000000000000000	
2.64	00000000000000000000	00000000000000000000	00000000000000000000	00000000000000000000	
2.65	00000000000000000000	00000000000000000000	00000000000000000000	00000000000000000000	
2.66	00000000000000000000	00000000000000000000	00000000000000000000	00000000000000000000	
2.67	00000000000000000000	00000000000000000000	00000000000000000000	00000000000000000000	
2.68	00000000000000000000	00000000000000000000	00000000000000000000	00000000000000000000	
2.69	00000000000000000000	00000000000000000000	00000000000000000000	00000000000000000000	
2.70	00000000000000000000	00000000000000000000	00000000000000000000	00000000000000000000	
2.71	00000000000000000000	00000000000000000000	00000000000000000000	00000000000000000000	
2.72	00000000000000000000	00000000000000000000	00000000000000000000	00000000000000000000	
2.73	00000000000000000000	00000000000000000000	00000000000000000000	00000000000000000000	
2.74	00000000000000000000	00000000000000000000	00000000000000000000	00000000000000000000	
2.75	00000000000000000000	00000000000000000000	00000000000000000000	00000000000000000000	
2.76	00000000000000000000	00000000000000000000	00000000000000000000	00000000000000000000	
2.77	00000000000000000000	00000000000000000000	00000000000000000000	00000000000000000000	
2.78	00000000000000000000	00000000000000000000	00000000000000000000	00000000000000000000	
2.79	00000000000000000000	00000000000000000000	00000000000000000000	00000000000000000000	
2.80	00000000000000000000	00000000000000000000	00000000000000000000	00000000000000000000	
2.81	00000000000000000000	00000000000000000000	00000000000000000000	00000000000000000000	
TOTAL	0	0	33 33 34	231 231 229	254 264 263

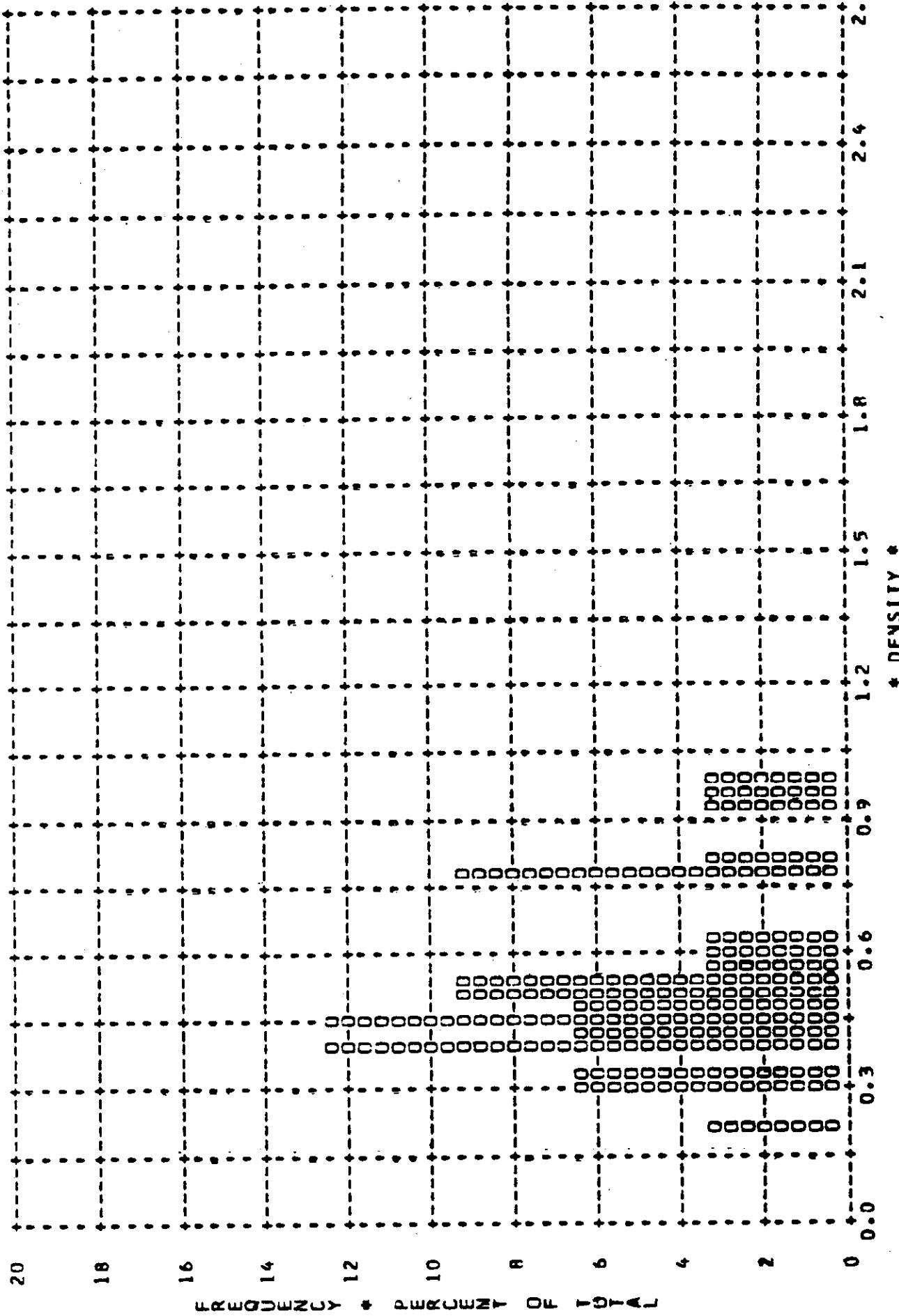
C-12 A-6

A-3

REPORT

- CONTROL NO.

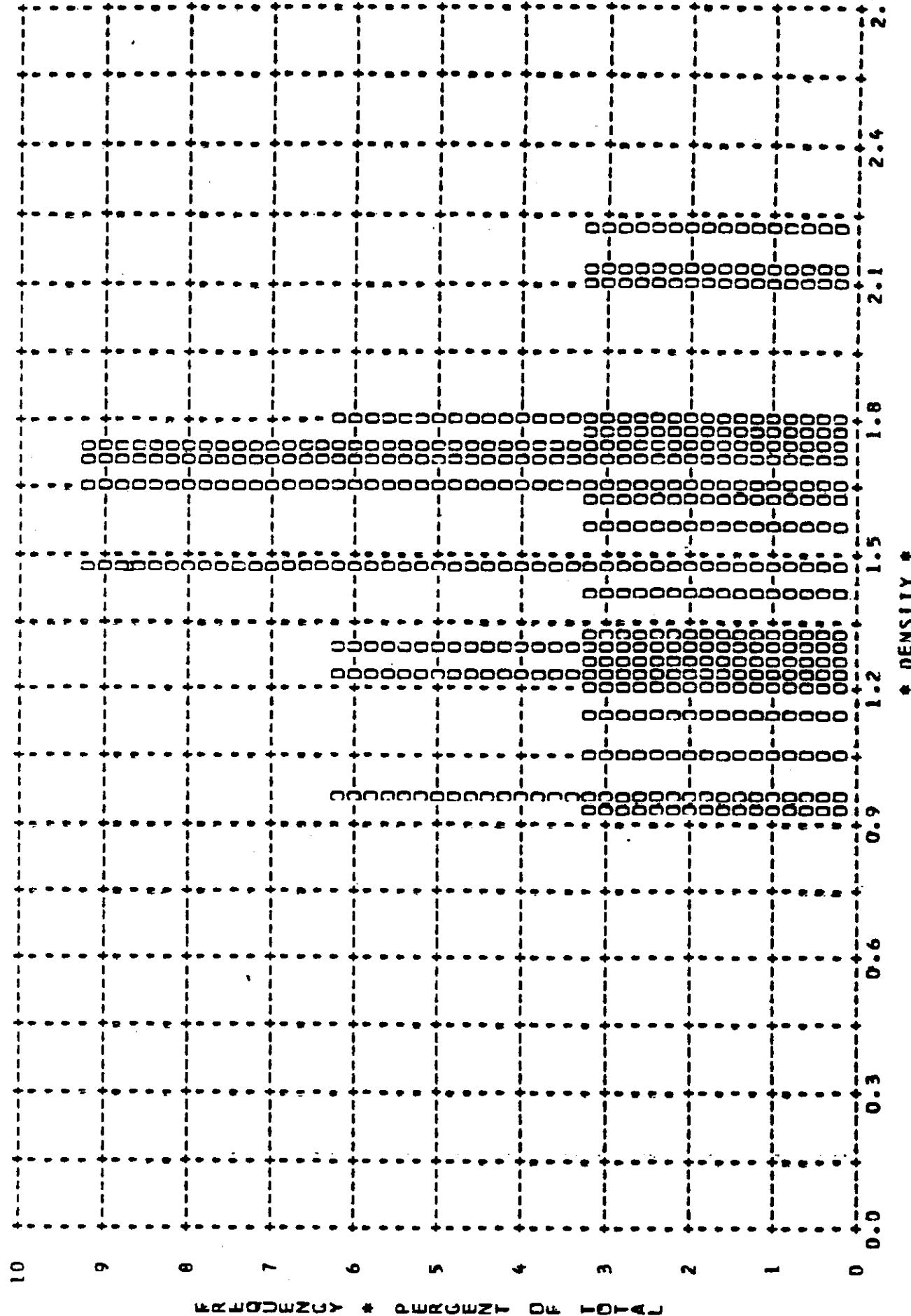
MISSION * 1035-2 * INSTR * ARI * 11/28/66 PLT OF D MIN * TERRAIN * PROCESSING * INTERMEDIATE
ARITH MEAN * 0.52 * MEDIAN * 0.48 * STD DEV * 0.20 * RANGE * 0.21 TO 0.97 WITH 33 SAMPLES



~~TOP SECRET~~

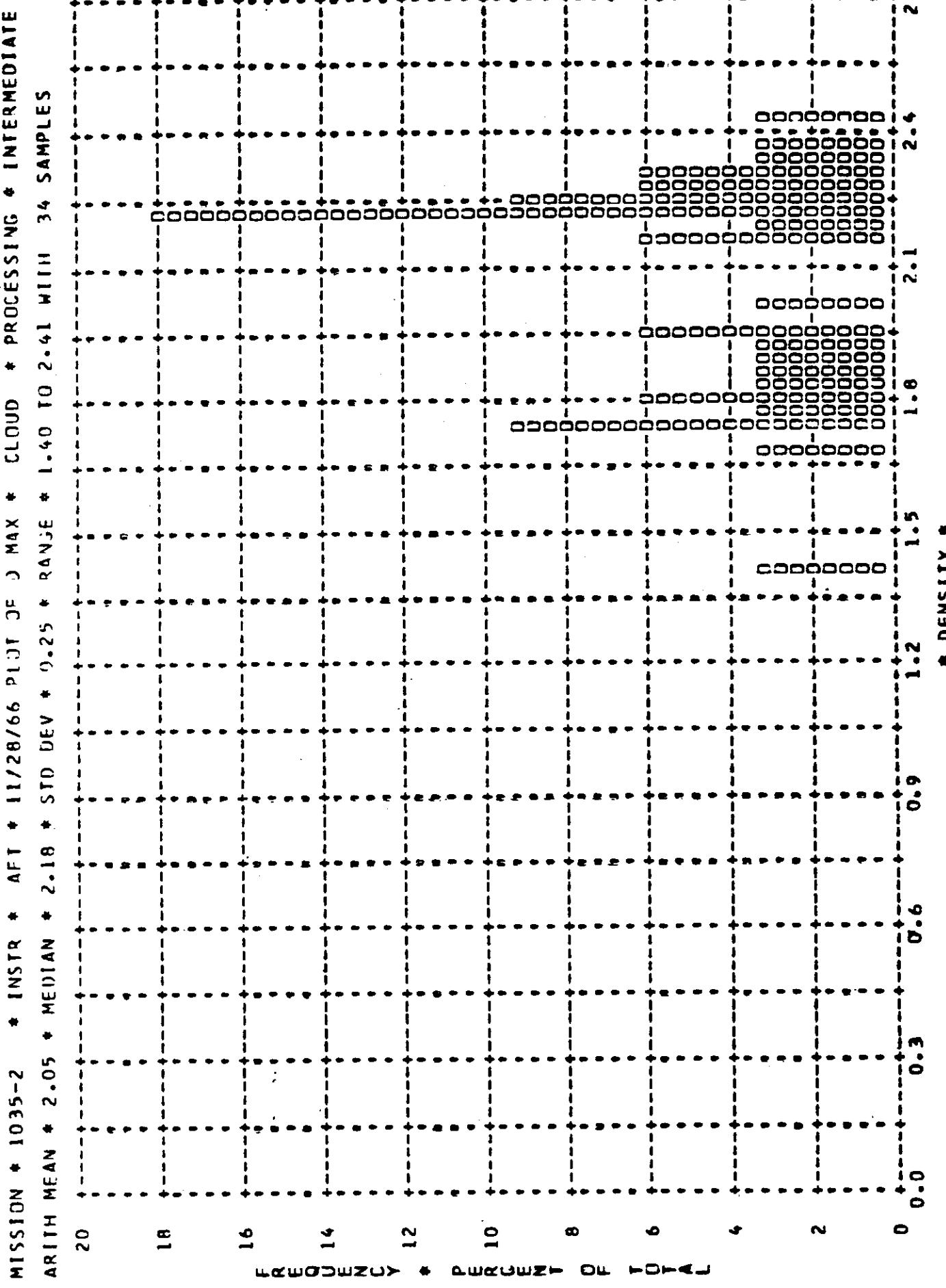
COV. & L. NO.

MISSION * 1035-2 * INSTR * AFT * 11/28/66 PLOT OF D MAX * TERRAIN * PROCESSING * INTERMEDIATE
ARITH MEAN * 1.50 * MEDIAN * 1.55 * STD DEV * 0.33 * RANGE * 0.92 TO 2.20 WITH 33 SAMPLES



HOLD SEAGET

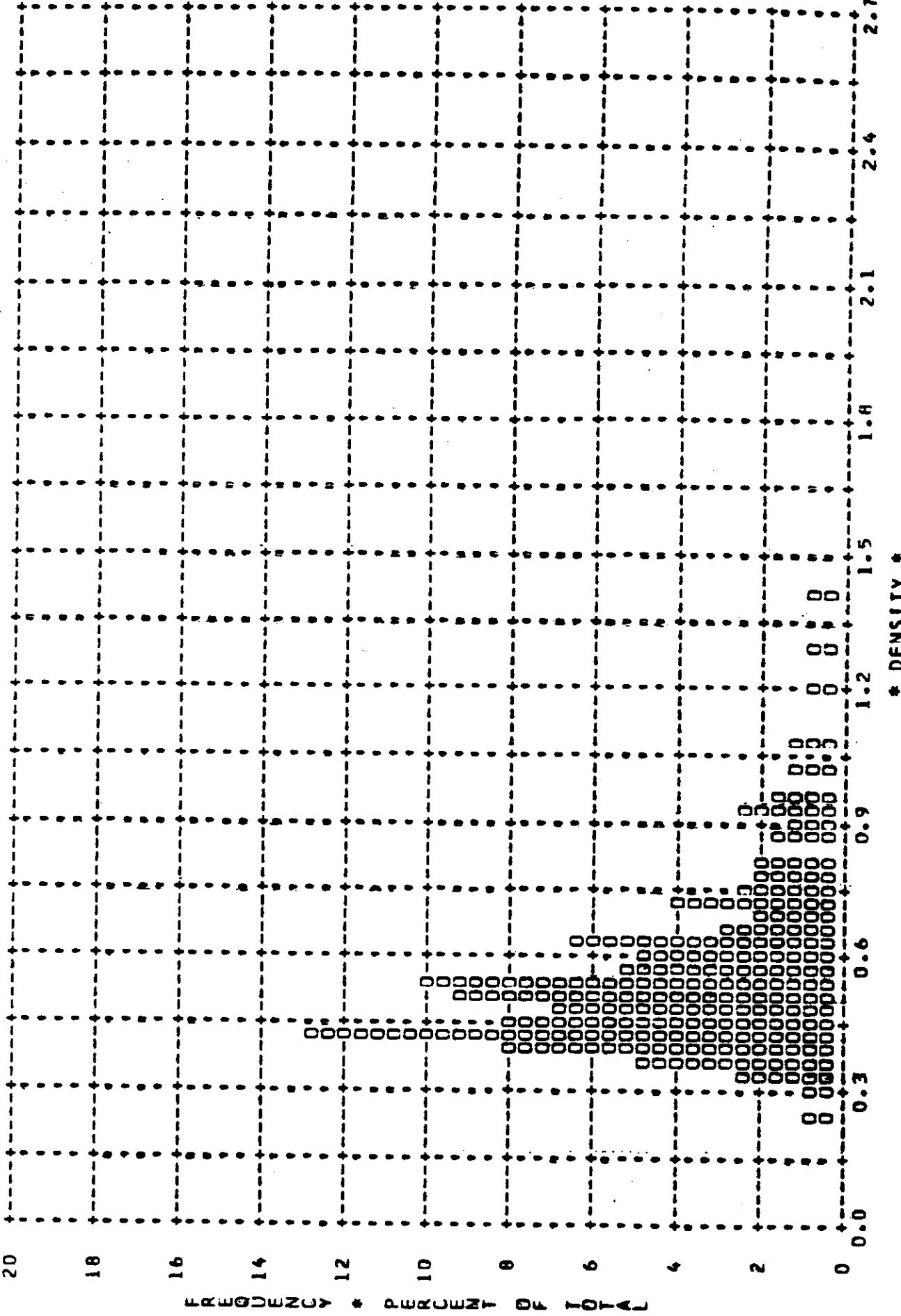
CON. JNL NO.



TOP SECRET

CONV. KOL. NO.

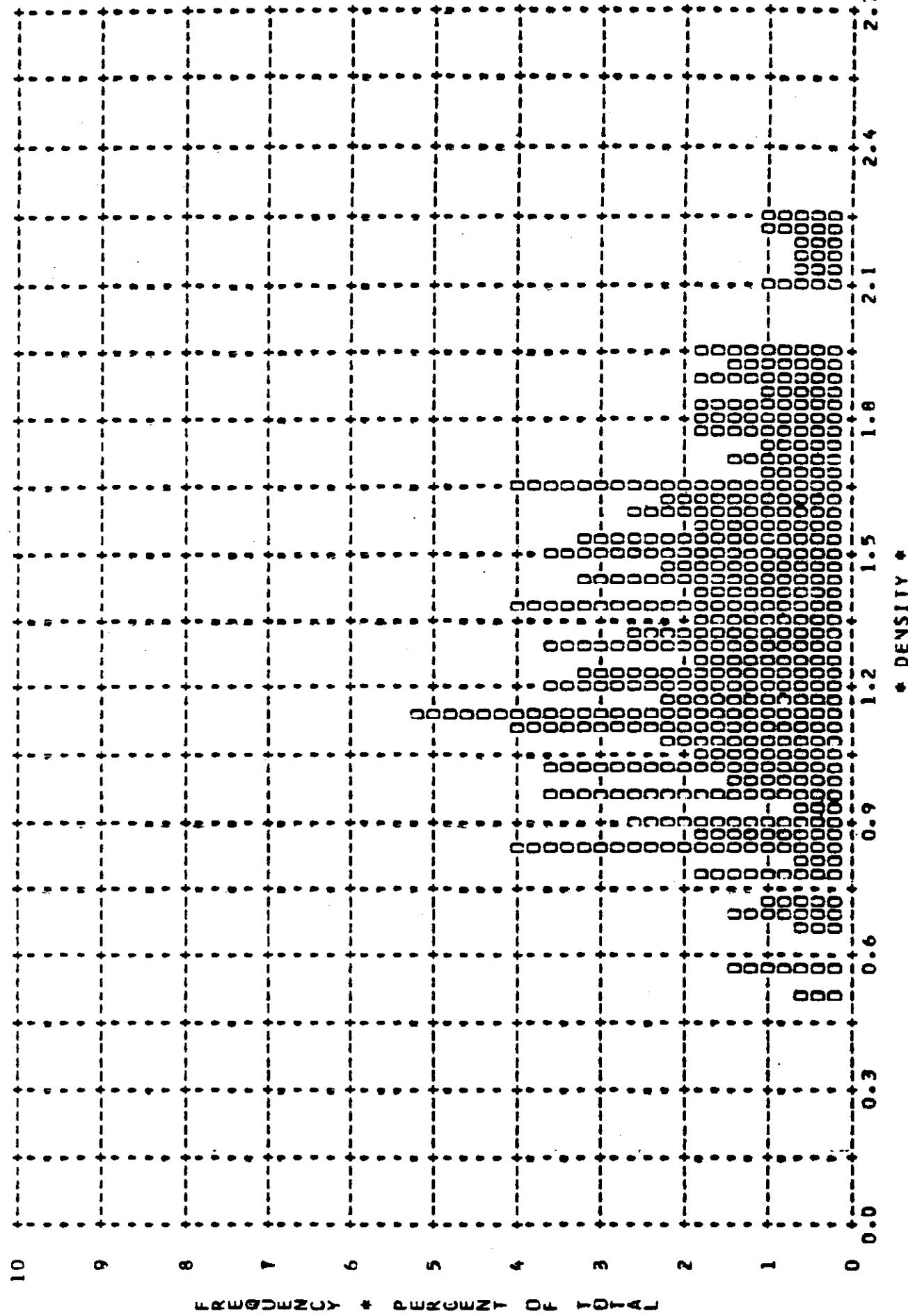
MISSION * 1035-2 * INSTR * AFT * 11/28/66 PLOT OF D MIN * TERRAIN * PROCESSING * FULL
ARITH MEAN * 0.55 * MEDIAN * 0.51 * STD DEV * 0.18 * RANGE * 0.24 TO 1.39 WITH 231 SAMPLES



TOP SECRET

- COVIRL NO. [REDACTED]

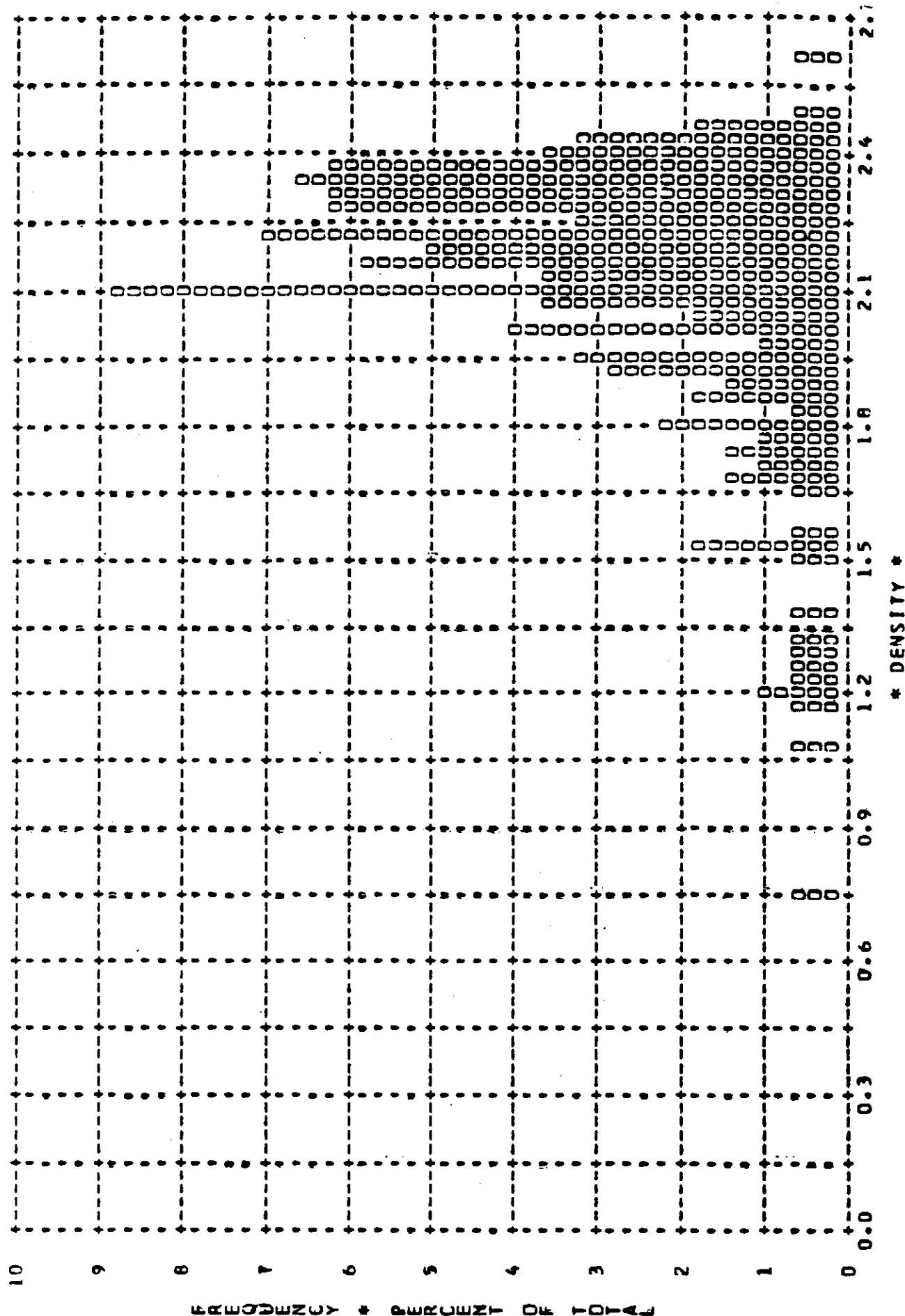
MISSION * 1035-2 * INSTR * AFT * 11/28/66 PILOT JF D MAX * TERRAIN * PROCESSING * FULL
ARITH MEAN * 1.37 * MEDIAN * 1.29 * STD DEV * 0.37 * RANGE * 0.50 TO 2.25 WITH 231 SAMPLES



TOP SECRET

CONTRL NO. [REDACTED]

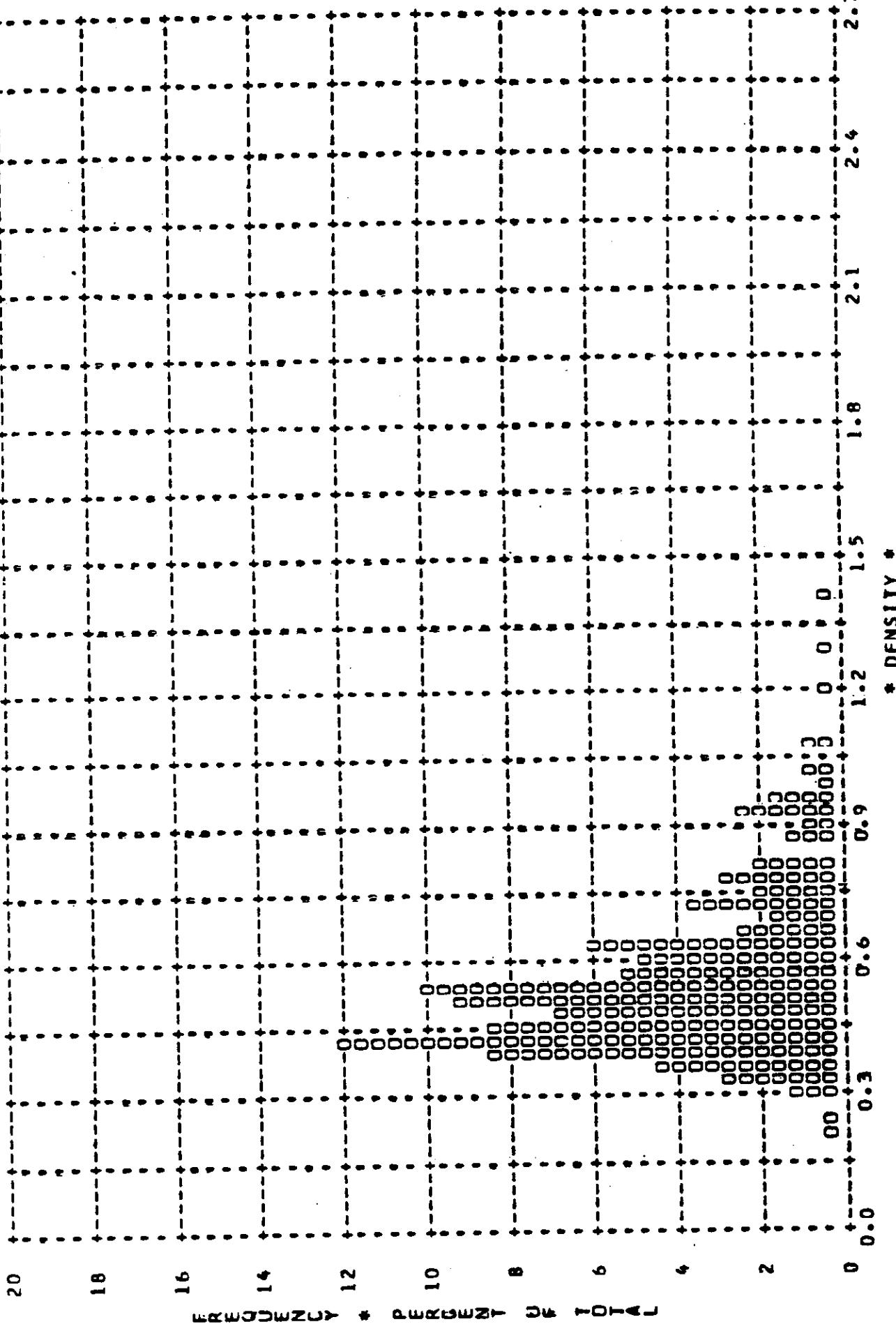
MISSION * 1035-2 * INSTR. * AFT * 11/28/66 PLUT OF D MAX * CLOUD * PROCESSING * FULL
ARITH MEAN * 2.10 * MEDIAN * 2.16 * STD DEV * 0.29 * RANGE * 0.74 TO 2.60 WITH 229 SAMPLES



TOP SECRET

- CONKLIN NO.

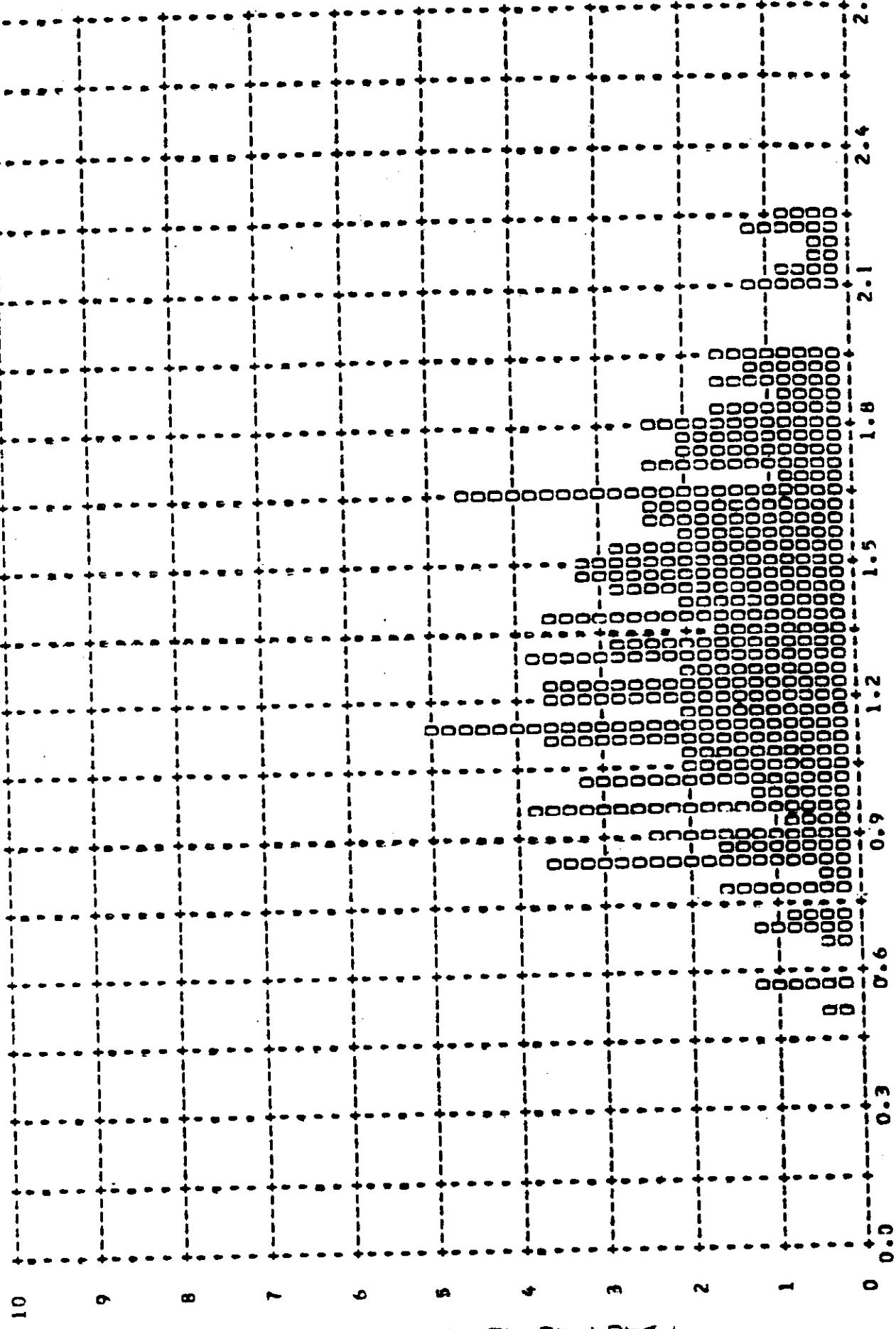
MISSION * 1035-2 * INSTR * AFT * 11/28/66 PLOT OF 0 MIN * TERRAIN * PROCESSING * ALL LEVELS
ARITH MEAN * 0.55 * MEDIAN * 0.51 * STD DEV * 0.18 * RANGE * 0.71 TO 1.39 WITH 254 SAMPLES



TOP SECRET

CONTINUED

MISSION * 1035-2 * INSTR * AFT * 11/28/66 PLOT OF D MAX * TERRAIN * PROCESSING * ALL LEVELS
ARITH MEAN * 1.34 * MEDIAN * 1.30 * STD DEV * 0.37 * RANGE * 0.50 TO 2.25 WITH 264 SAMPLES



DATA SOURCE * PERIODIC DATA

TOP SECRET

- CONTROL NO.

MISSION * 1035-2 * INSTR * AFT * 11/28/66 PLJT JF D MAX * CLOUD * PROCESSING * ALL LEVELS
ARITH MEAN * 2.09 * MEDIAN * 2.16 * STD DEV * 0.29 * RANGE * 0.74 TO 2.60 WITH 263 SAMPLES

