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CORONA J

PERFORMANCE EVALUATION REPORT

MISSION 1037-1 and 1037-2

FTV 1632, J-38

22 September 1967

Approved: [redacted]
Manager
Advanced Projects

Approved [redacted]
Manager
[redacted]ogram

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NO. [redacted]

17 October 1967

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

THRU: [redacted]

FROM: [redacted]

SUBJECT: MISSION 1037-1 and 1037-2 FINAL REPORT

Enclosed is the Final Performance Evaluation Report for Mission 1037-1 and 1037-2.

[redacted]
Manager
Advanced Projects

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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 1632.

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 1037-1 and 1037-2 which was launched on 8 November 1966.

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INTRODUCTION

This report presents the final performance evaluation of Missions 1037-1 and 1037-2 of the Corona Program. The purpose of this report is to define the performance characteristics of the J-38 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 1037, placed into orbit by Flight Test Vehicle #1632 and a Thorad booster #507, 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-38 payload system. This Corona "J" system is designed to acquire search and reconnaissance photography of selected areas of the earth from orbit altitudes. The planned mission was a seven day -1 mission followed by a five day -2 mission.

B. MISSION DESCRIPTION

The payload was launched from Vandenberg Air Force Base (VAFB) at 1957:00 Z (1157:00 PST) on 8 November 1966. Ascent and injection were normal and the achieved orbit was within the 3 sigma predicted dispersions. Tracking and command support was effected by the Air Force Satellite Control Facility consisting of tracking and command stations at [redacted] under central control of the Satellite Test Center at Sunnyvale, California. Mission 1037-1 consisted of a 4 day operation and was completed by air recovery on 12 November 1966. Mission 1037-2 was completed with an air recovery on 20 November 1966 following an 8 day photographic operation.

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

ORBITAL PARAMETERS

Parameter	Predicted	Orbit 32 Actuals	Orbit 130 Actuals
Period (Min.)	89.48	89.378	89.239
Perigee (N.M.)	98.1	91.785	98.846
Apogee (N.M.)	171.9	171.30	166.83
Inclination (Deg.)	100.0	100.074	100.74
Perigee Latitude (Deg. N.)	16.0	14.534	45.035
Eccentricity	0.0102	0.01112	0.00952

C. PANORAMIC CAMERAS

The image quality produced by both cameras was consistently good. The horizon camera imagery was normal and no "veiling". The PG traces were denser than desired in several frames.

D. STELLAR-INDEX CAMERAS

Both stellar cameras operated satisfactorily and produced imagery adequate for attitude determination.

Both index cameras produced excellent imagery due in part to extensive cloud free areas.

E. OTHER SUBSYSTEMS

The clock-instrumentation, command and thermal control subsystems performed satisfactorily.

FTV 1632 carried 3 Orbit Adjust (OAS) rockets with a boost capability only. A single OAS was successfully fired on orbit 86.

The first 5-1H type battery pack was successfully utilized on this mission.

This was the second panoramic camera modified for panoramic geometry (PG).

An Orbital Sine Function Generator (OSFG) was not flown due to pre-flight predicted power limitations.

SCHEMATIC INBOARD PROFILE - CORONA J SYSTEM

MISSION 1037

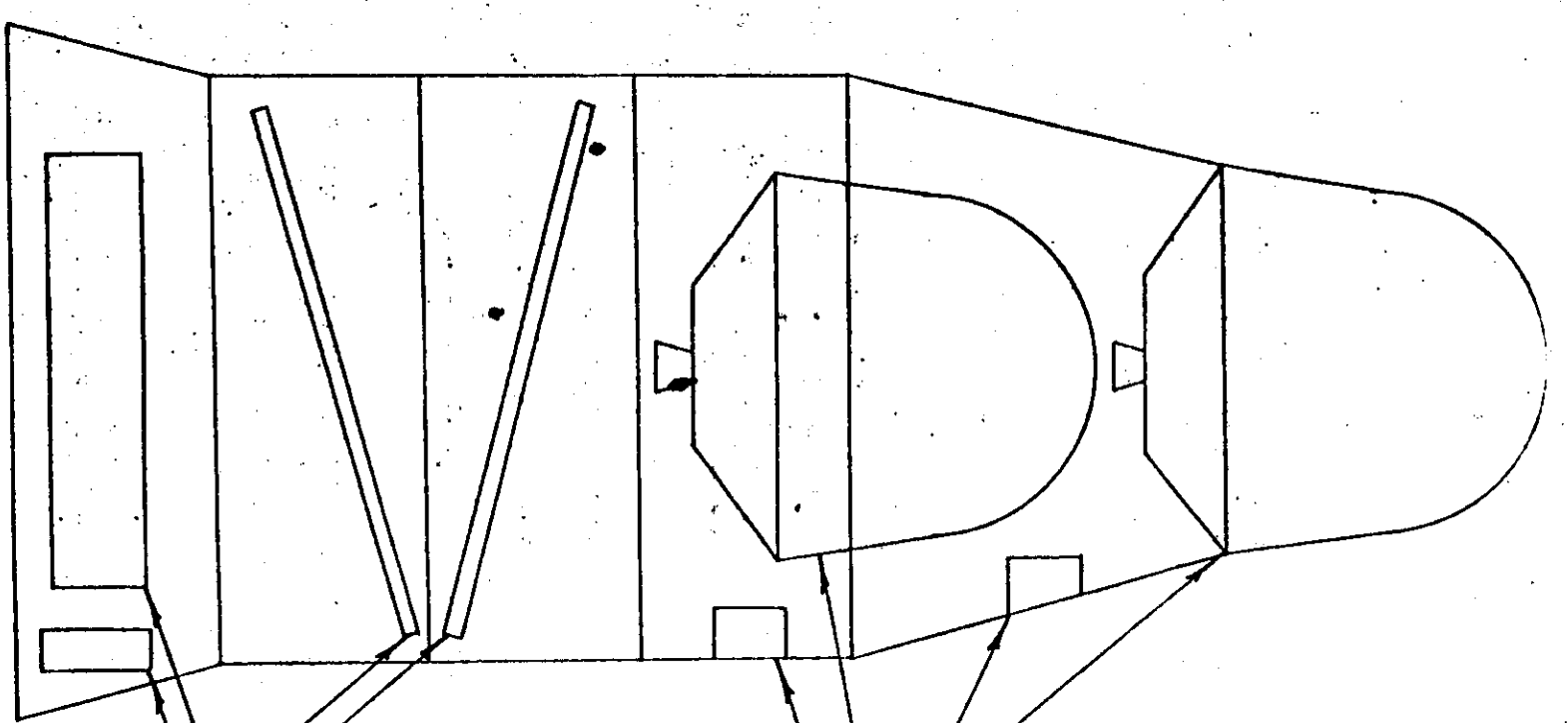


FIGURE 1-1

SECTION 2

PRE-FLIGHT SYSTEMS TEST

A. ENVIRONMENTAL TESTING

1. Test Objective

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

2. General Test Information

The J-38 payload system was subjected to an environmental HIVOS chamber test from 15 through 22 September 1966. A complete "J" mission was simulated with approximately 15,100 feet (5741 cycles) of payload through the master instrument #198 and 15,350 feet (5838 cycles) through the slave instrument number 199. The minimum internal system pressures of 2.9, and 1.1 microns were attained during the "A" and "B" operates respectively.

3. Panoramic Camera Performance

The dynamic performance of both instruments was satisfactory for center of format switch, lens rotation, and film transport. The 99/101 percent clutch ratios were 5/5 on the master and 5/7 on the slave.

Instrument cycle rates were satisfactory except on Revs. 14A and all Revs in "B" which were 1 to 3 percent slow. The slow rates are attributed to low temperatures which averaged 55 to 60 degrees Fahrenheit during the "B" Revs.

Both instruments produced unacceptably low density data recording on the film. After correction of the regulated power supply, adjustment and replacement of lamps, acceptable data was produced.

3. Panoramic Camera Performance (continued)

The PG rail hole images produced in the HIVOS test were also of low density or non-existent. Additional tests performed with the system in a horizontal position produced acceptable rail hole images. In HIVOS the system is in a vertical position and on a previous PG system (J-36) a similar condition was experienced. The J-36 flight results were satisfactory.

Both instruments exhibited an unusually low frequency and degree of corona fog.

4. Stellar/Index Performance

Only one unit (D-105) was available and it was operated in the "B" mission position. The index unit functioned normally and it was free of corona fog. The stellar unit shutter failed open and was returned to Boston for shutter repair and optical calibration.

5. Clock Performance

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

6. Command & Instrumentation Performance

The instrumentation command performance was satisfactory. A BR 44 command did not get in during Rev. 8B and the operation failed to go. There were several other minor anomalies.

7. Pressure Make-up System Performance

The average gas consumption for both missions was 8.7 psi/min. The pressure ranged from 48 microns during operates to 1.1 microns during a non-operate.

8. Temperature Summary

Average instrument temperatures (^{o}F) for several days in the -1 and -2 modes are listed below:

-1 Mission	Master		Slave		
Day	High	Low	High	Low	Beta Angle
1	90	72	91	72	-53
2	99	92	91	86	-53
3	82	74	72	66	-53
4	86	76	82	73	-53

-2 Mission	Master		Slave		
Day	High	Low	High	Low	Beta Angle
1	75	48	73	47	0
2	57	51	55	50	0
3	66	52	65	52	0
4	62	55	61	56	0

9. Yaw Programmer (OSFG) Performance

The OSFG cycled once during each mission. The periods of one cycle was 87.5 minutes and the peak amplitude was plus or minus 20 millivolts. The operations were satisfactory.

10. Vehicle Deactivate

The main instruments operated for 4 cycles and stowed properly. The 30 second timer and the S/I operation were satisfactory. The deactivate capability was not available in flight.

11. Recovery System Performance

The transfer from the -1 to -2 mission was accomplished by the secure real time command (KZ-38) and all transfer functions occurred normally. The instrument operated for 3 cycles during the cut and wrap sequence and stowed properly.

B. RESOLUTION TEST

Resolution and theodolite tests were performed on 5 October 1966. Results of the thru-focus resolution tests of pan instruments 198 and 199 show the following characteristics:

Master Pan Instrument No. 198

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

Maximum low contrast resolution 106 lines/mm at 0.000 focal position.

Slave Instrument No. 199

Maximum high contrast resolution 179 lines/mm at 0.000 focal position.

Maximum low contrast resolution 104 lines/mm at 0.000 focal position.

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

C. LIGHT LEAK TEST

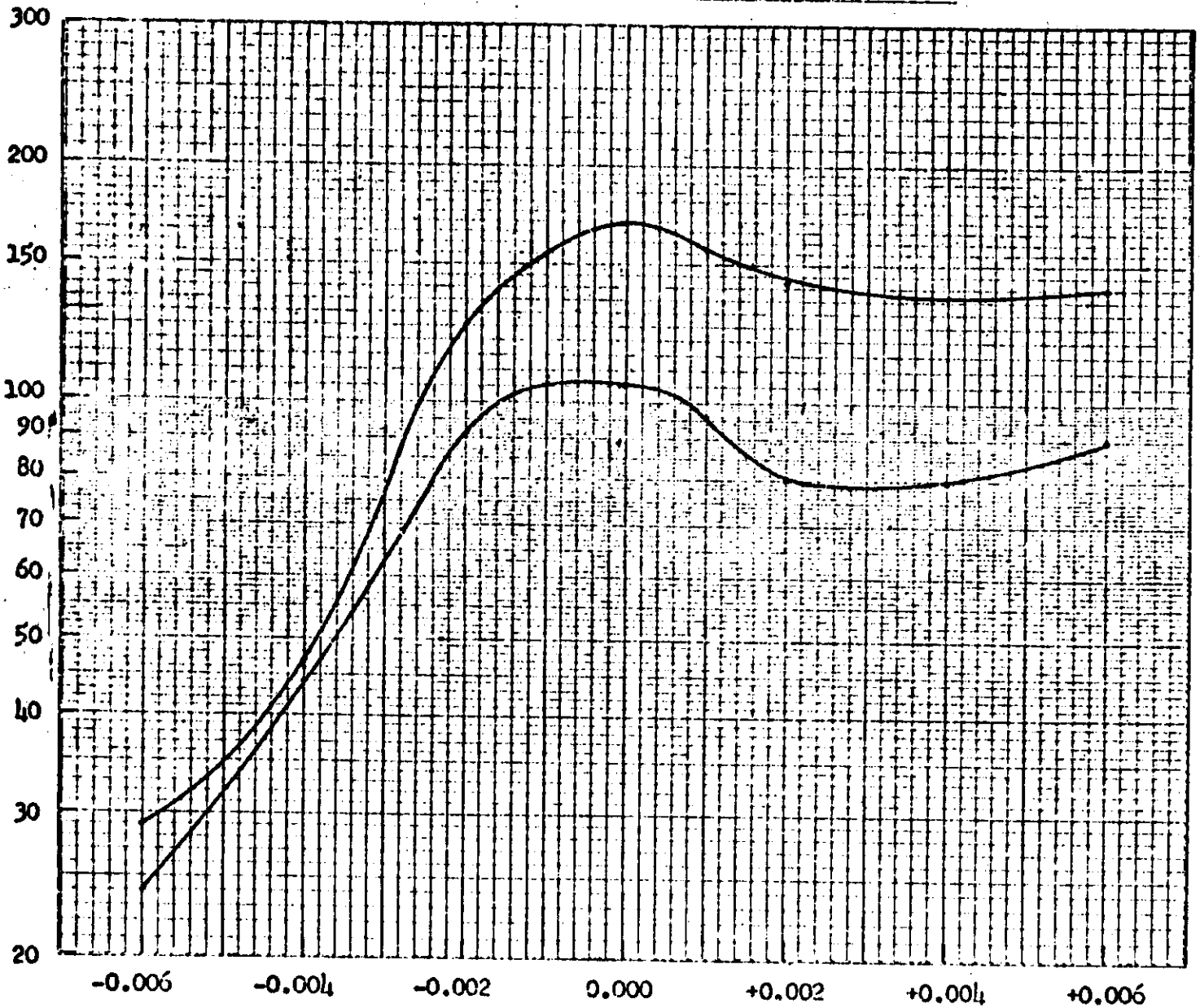
The J-38 system was tested for light leaks on 13 September 1966. Evaluation of the payload material disclosed only one fogged area. It was in the forward end of the fairing section on the master film. RTV rubber was applied to a tear drop fitting in this area and the leak was eliminated.

D. FLIGHT LOADING AND CERTIFICATION

The J-38 readiness tests were evaluated on 26 October 1966. All data recording was considered acceptable. The rail hole images were satisfactory and the PG lens scan lines were continuous and well defined. The instruments operated with no anomalies.

The loading of the flight payload into the supply cassette was performed on 30 October 1966. After final system assembly payload splices and tracking were observed to be normal.

PRE-FLIGHT DYNAMIC RESOLUTION



Camera No: 198

Payload No: J-38

Resolution (l/mm)

High Contrast: 169

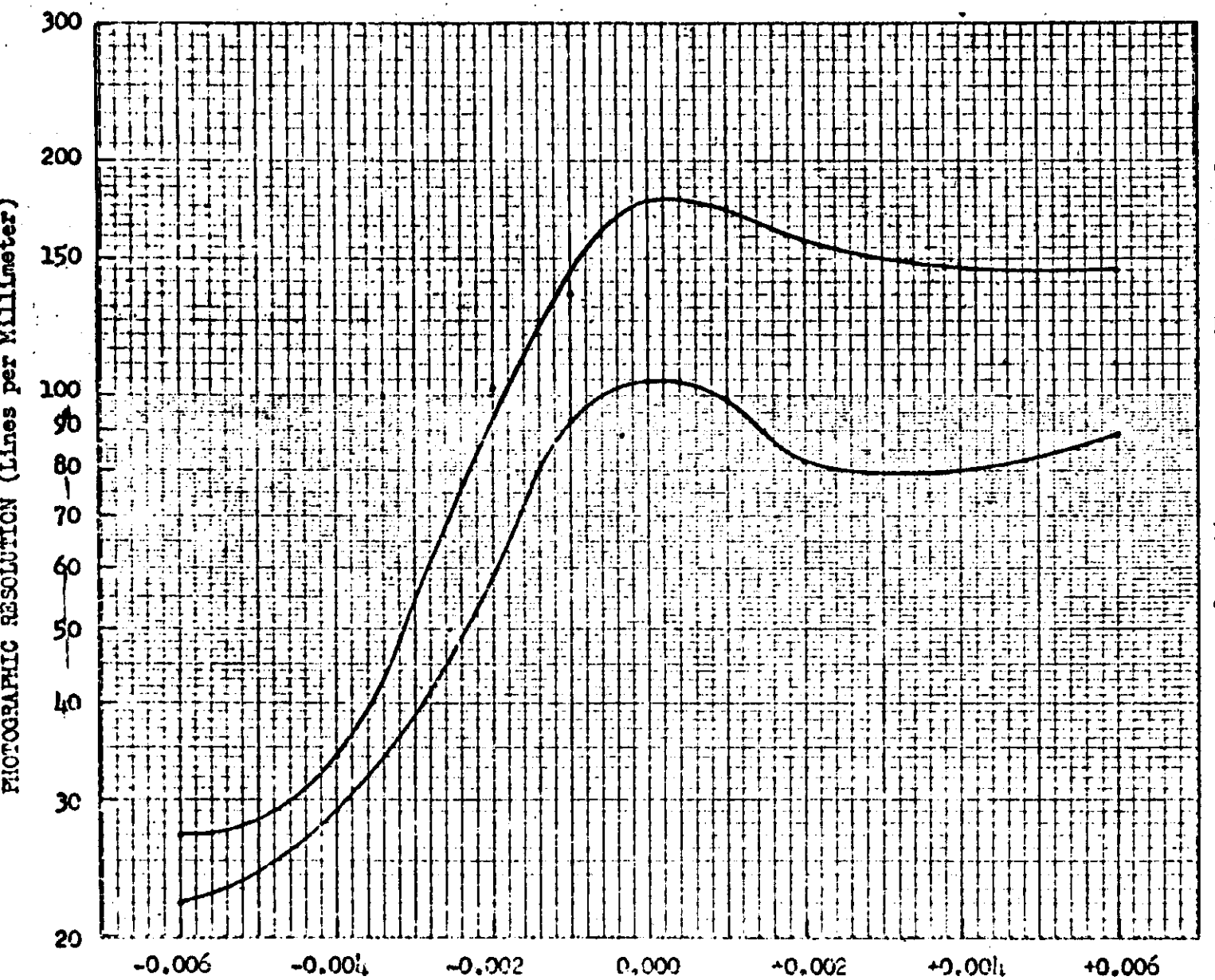
Low Contrast: 106

Film Type: 3404

Test Date: 10/5/66

Figure 2-1

PRE-FLIGHT DYNAMIC RESOLUTION



Camera No: 199

Payload No: K-38

Resolution (l/mm)

High Contrast: 179

Low Contrast: 104

Film Type: 3404

Test Date: 10/5/66

Figure 2-2

HIVCS CLOCK DATA

REV	IRIG DAY-HR-MIN-SEC	IRIG SECONDS	CLOCK SECONDS	DELTA IRIG	DELTA CLOCK	ERRO
4	259 14 49 43.775	22430983.775	102560.500	---	---	---
5	259 15 52 48.495	22434768.495	106345.203	3784.720	3784.703	-0.01
11	261 9 20 56.565	22584056.565	255433.297	149288.068	149288.092	0.02
12	261 10 24 1.280	22587841.280	259417.997	3784.715	3784.700	-0.01
	1 19 34 17.505-DELTA TIME			TOTAL ACCUM. ERROR		-0.00
20	263 10 25 15.360	22760715.360	432292.166	---	---	---
21	263 12 22 15.425	22767735.425	439312.217	7020.065	7020.051	-0.01
25	264 10 48 37.240	22846717.240	518294.061	78981.814	78981.843	0.02
27	264 13 45 31.570	22859131.570	530708.385	12414.330	12414.324	-0.00
	1 3 20 16.210-DELTA TIME			TOTAL ACCUM. ERROR		0.00

Table 2-1

SECTION 3

FLIGHT OPERATIONS

A. SUMMARY

All launch, ascent, and injection events occurred as programmed. The orbit achieved was within the 3 sigma predicted dispersions.

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

Both the -1 and -2 Stellar Index cameras, the clock, and the command system operated normally throughout the flight.

The pressure make-up system operated normally throughout the flight with 520 PSIA supply remaining.

The instrumentation system operated properly with the following exceptions:

An apparent intermittent accelerometer in the capsule, an intermittent temperature sensor on the conic adapter and a problem with the 10's position on the cycle counter for the Slave instrument.

Ascent vibration data appeared normal and good data was acquired with the exception noted above.

The internal temperatures were within tolerances for the flight. Ascent and two orbital profiles were obtained.

Both recovery systems operated normally, however the -1 recovery system impacted approximately 56 miles downrange and 4 miles west of the predicted impact point.

KIK-Zorro 38 (early A to B switchover) was not utilized on this flight.

B. PANORAMIC CAMERA PERFORMANCE

Both panoramic cameras operated normally throughout the flight. Cycle period data for the engineering passes monitored are tabulated in Table 3-1.

Camera system dynamic operation, 99/101 per cent clutch operation, start-up, shutdown, and transport functions were normal for all passes monitored. Cut and wrap and transfer of the -2 system occurred as programmed with the first recovery arm signal.

Panoramic Film Consumption - Cycles

	Actual	
	Master	Slave
Sample - Off Spooling	19	19
Pre-Launch	148	149
-1 Mission	2907	2899
-2 Mission	2963	2982
Total	6037	6049

C. FMC MATCH

The V/H ramp to orbit match was acceptable throughout the flight. The following settings for Real Time Commands (RTC) 6, 8, and 10 were used to attain the optimum match during the flight:

RTC Position			Remarks
6	8	10	
4	6	6	Launch thru Rev. 3
4	6	5	Rev. 4 thru Rev. 13
4	5	5	Rev. 14 thru Rev. 29
4	5	8	Rev. 30 only
4	3	8	Rev. 31 thru Rev. 61
3	4	7	Rev. 62 thru Rev. 85
4	5	5	Rev. 86 thru Rev. 158
4	5	7	Rev. 159 thru End of Mission

D. ORBITAL PARAMETERS AND OAS EFFECTS

Parameter - Rev. 2	Predicted	Actual - APF
Period - Min.	89.48	89.54
Apogee - N. M.	171.9	179.1
Perigee - N. M.	98.1	94.1
Eccentricity	0.0103	0.0117
Inclination - Deg.	100.0	100.1
Argument of Perigee - Deg.	164	172.38

A single Orbital Adjust System rocket was fired on Rev. 86. All telemetry monitors and subsequent orbital parameters confirmed successful operation. Orbital parameters are given below:

Parameter	Prior to OAS - Rev. 82	After OAS - Rev. 89
Period - Min.	89.10	89.36
Apogee - N. M.	165.4	170.7
Perigee - N. M.	91.8	98.6
Eccentricity	0.0102	0.0101
Inclination - Deg.	100.1	100.1
Argument of Perigee - Deg.	153.5	143.6

E. INSTRUMENTATION AND COMMAND SYSTEM PERFORMANCE

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

1. Intermittent output of accelerometer mounted on the ring of thrust cone. (Capsule Telemetry Channel 18)

2. Intermittent output of temperature sensor mounted on conic adapter.

3. Ten's digit of Slave cycle counter. (Counter took 2 cycles to advance 10's digit from 9 to 0, however resultant count was correct.)

There were no adverse effects on the mission due to the above instrumentation anomalies.

F. STELLAR/INDEX CAMERA PERFORMANCE

Both the -1 and -2 Stellar Index cameras operated normally with no anomalies noted in the programmer, shutter monitors, or metering data.

G. CLOCK PERFORMANCE

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

H. PRESSURE MAKE-UP SYSTEM PERFORMANCE

Pressure Make-up System performance was normal. Average gas consumption was 8.88 lbs/min. for 232 minutes operating time. The system had a surplus of 520 PSIA at the end of the mission.

I. THERMAL ENVIRONMENT

Temperature data for the [redacted] Tracking Station acquisitions are included in Table 3-3. The average instrument temperatures ranged from a high of 85°F on the Master and 82°F on the Slave to a low of 74 and 70°F on the Master and Slave instruments respectively. Ascent temperature data for all skin temperature sensors was obtained and is plotted as Figures 3-1 to 3-3. Temperature data for two orbits (23 and 87) were reduced and are included in Table 3-4.

J. ASCENT VIBRATION ENVIRONMENT

A total of 11 accelerometers were installed in the payload system for monitoring ascent vibrations. Eight of these were located in the payload area and the data transmitted on Link IV during ascent. The other three were located in the -1 recovery system and transmitted on the capsule telemetry. Figure 3-4 shows accelerometer locations and "Pogo" acceleration level and frequency.

J-38 FLIGHT

REV. MODE	OP.	RAMP R	TUR A	SECS	SYSTEM CALIB.	INST. 198 ACTUAL	INST. 198 UNIT DEV.	INST. 198 SYSTEM DEV.	INST. 199 ACTUAL	INST. 199 UNIT DEV.	INST. 199 SYSTEM DEV.	198/19 DIFF.
8	A	4	6	80	3.324	3.330	0.29F	0.17S	3.335	0.79S	0.32S	0.15
16	A	4	5	1632	2.221	2.225	0.25S	0.20S	2.252	1.35S	1.41S	1.21
32	A	4	3	1554	2.212	2.235	1.12S	1.03S	2.250	1.62S	1.71S	0.67
48	A	4	3	1620	2.207	2.205	0.02S	0.08F	2.210	0.04S	0.15S	0.23
64	A	3	4	1711	2.201	2.210	0.54S	0.42S	2.260	2.56S	2.69S	2.26
72	B	3	4	150	3.496	3.500	0.37F	0.12S	3.500	0.61S	0.12S	-0.00
81	B	3	4	1707	2.201	2.222	1.08S	0.95S	2.235	1.42S	1.55S	0.59
113	B	4	5	1877	2.212	2.242	1.47S	1.38S	2.232	0.84S	0.93S	-0.45
145	B	4	5	2000	2.212	2.220	0.47S	0.38S	2.224	0.47S	0.56S	0.18
161	B	4	5	1942	2.211	2.245	1.62S	1.53S	2.245	1.44S	1.53S	-0.00

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

ORDER FIT ONE

SYS TIME I/P	CL TIME I/P	COMP SYS TM	DELTA ST	REV	STA
0.213291800 05	0.4777999990 06	0.2132918020 05	-0.0002	7	[redacted]
0.712730230 05	0.5277438480 06	0.7127302310 05	-0.0001	16	
0.208587700 05	0.2685868400 05	0.2085876660 05	0.0032	23	
0.706255310 05	0.7662545700 05	0.7062553360 05	-0.0028	32	
0.255045980 05	0.1179045270 06	0.2550459880 05	-0.0006	40	
0.700002000 05	0.1624001340 06	0.7000020040 05	-0.0004	48	
0.248678040 05	0.2036677430 06	0.2486780440 05	-0.0004	56	
0.693996730 05	0.2481996190 06	0.6939967500 05	-0.0020	64	
0.242282460 05	0.2894281990 06	0.2422825000 05	-0.0040	72	
0.738998400 05	0.3390997920 06	0.7389983700 05	0.0030	81	
0.234292760 05	0.3750292300 06	0.2342927070 05	0.0053	88	
0.732968680 05	0.4246968520 06	0.7329688660 05	0.0014	97	
0.227951690 05	0.4607951390 06	0.2279516930 05	-0.0003	104	
0.726210090 05	0.5106209860 06	0.7262101030 05	-0.0013	113	
0.274295760 05	0.1495864300 05	0.2742957430 05	0.0017	121	
0.718905010 05	0.5941957200 05	0.7189049790 05	0.0031	129	
0.267814980 05	0.1007105860 06	0.2678150690 05	-0.0089	137	
0.711315500 05	0.1450606330 06	0.7113154860 05	0.0014	145	
0.259275310 05	0.1862566190 06	0.2592752960 05	0.0014	153	
0.703754650 05	0.2307045580 06	0.7037546320 05	0.0018	161	
0.251075310 05	0.2718366310 06	0.2510753120 05	-0.0002	169	
0.747664850 05	0.3214955900 06	0.7476648420 05	0.0008	178	
0.242289360 05	0.3573580450 06	0.2422893490 05	0.0011	185	
0.738689000 05	0.4069980190 06	0.7386690290 05	-0.0029	194	

A0=-0.45647076110 06 A1= 0.9999998790850 00

SIGMA=0.00275 NO. POINTS= 24

RATIO OF CLOCK TIME TO SYS TIME= 0.1000000120910 01

ORDER FIT TWO

SYS TIME I/P	CL TIME I/P	COMP SYS TM	DELTA ST	REV	STA
0.213291800 05	0.4777999990 06	0.2132917980 05	0.0002	7	[redacted]
0.712730230 05	0.5277438480 06	0.7127302280 05	0.0002	16	
0.208587700 05	0.2685868400 05	0.2085876660 05	0.0034	23	
0.706255310 05	0.7662545700 05	0.7062553360 05	-0.0026	32	
0.255045980 05	0.1179045270 06	0.2550459870 05	-0.0007	40	
0.700002000 05	0.1624001340 06	0.7000020040 05	-0.0004	48	
0.248678040 05	0.2036677430 06	0.2486780450 05	-0.0005	56	
0.693996730 05	0.2481996190 06	0.6939967510 05	-0.0021	64	
0.242282460 05	0.2894281990 06	0.2422825020 05	-0.0042	72	
0.738998400 05	0.3390997920 06	0.7389983720 05	0.0028	81	
0.234292760 05	0.3750292300 06	0.2342927090 05	0.0051	88	
0.732968680 05	0.4246968520 06	0.7329688690 05	0.0011	97	
0.227951690 05	0.4607951390 06	0.2279516950 05	-0.0005	104	
0.726210090 05	0.5106209860 06	0.7262101050 05	-0.0015	113	
0.274295760 05	0.1495664300 05	0.2742957450 05	0.0015	121	
0.718905010 05	0.5941957200 05	0.7189049810 05	0.0029	129	
0.267814980 05	0.1007105860 06	0.2678150710 05	-0.0091	137	
0.711315500 05	0.1450606330 06	0.7113154860 05	0.0014	145	
0.259275310 05	0.1862566190 06	0.2592752960 05	0.0014	153	
0.703754650 05	0.2307045580 06	0.7037546320 05	0.0018	161	
0.251075310 05	0.2718366310 06	0.2510753110 05	-0.0001	169	
0.747664850 05	0.3214955900 06	0.7476648400 05	0.0010	178	
0.242289360 05	0.3573580450 06	0.2422893460 05	0.0014	185	
0.738689000 05	0.4069980190 06	0.7386690250 05	-0.0025	194	

A0=-0.45647076320 06 A1= 0.9999998839610 00

A2=-0.2489124709564D-14

SIGMA=0.00275 NO. POINTS = 24

J-38 TEMPERATURE SUMMARY

DEGREES - FAHR

SENSOR	ORBITS ACQUIRED																					
Master Camera	8	16	23	32	40	48	56	64	72	81	88	97	104	113	121	129	137	145	153	161	169	178	185
3	83	80	83	81	83	80	82	78	74	73	72	72	74	71	74	71	74	69	75	70	75	70	74
4	90	86	91	88	92	86	90	84	83	81	81	80	83	78	83	78	84	77	83	78	83	78	83
5	86	84	86	86	87	84	84	83	81	77	77	78	80	77	79	77	80	75	80	77	81	75	80
6	82	82	81	83	82	82	79	81	75	74	71	74	74	73	74	73	75	72	75	74	75	72	75
7	86	85	86	87	87	85	84	83	78	77	75	77	78	77	77	77	79	75	79	77	79	75	78
8	89	84	87	87	87	84	87	83	81	77	78	77	80	76	80	76	81	74	80	75	80	75	80
9	87	84	87	86	89	85	87	83	80	78	78	78	80	78	79	78	81	75	81	77	81	75	81
11	80	78	79	80	82	79	78	78	73	72	71	71	73	70	75	70	75	69	76	72	75	70	75
12	91	85	90	86	91	84	89	83	83	78	81	77	82	77	82	77	83	75	83	76	83	75	82
13	80	80	80	82	81	81	79	79	72	71	69	72	72	70	72	71	73	70	73	72	73	70	72
Avg. Inst. Temp.	85	83	85	85	85	83	84	82	78	76	75	76	78	75	78	77	79	73	79	75	79	74	79
Slave																							
3	70	68	69	70	71	69	68	67	63	62	61	61	63	61	63	61	64	60	65	62	65	61	64
4	78	76	77	77	79	78	78	75	72	69	69	70	72	69	71	69	73	68	74	69	73	68	74
5	85	83	85	85	86	84	85	83	79	77	76	76	79	77	78	76	80	75	80	77	79	76	79
6	86	84	85	86	86	86	84	83	78	78	75	76	77	76	76	76	77	74	79	76	77	74	77
7	83	81	82	83	84	82	81	80	74	74	71	73	74	70	73	72	74	71	76	73	75	71	74
8	86	83	85	85	87	84	85	82	80	77	77	76	79	77	79	76	80	75	81	77	80	76	79
9	90	86	88	87	90	86	88	84	83	77	80	77	81	65	79	77	82	75	82	77	82	77	81
11	78	75	78	78	80	78	79	75	70	67	68	68	71	67	71	67	72	66	72	68	72	66	70
12	76	73	76	75	79	74	77	73	71	67	68	66	71	67	70	67	72	66	83	67	72	67	71
13	77	78	77	79	79	79	77	77	70	69	67	69	70	69	69	69	71	68	71	69	71	68	70
Avg. Inst. Temp.	82	80	81	80	82	80	80	78	76	72	71	71	74	70	74	70	75	70	76	72	75	70	74
Supply Spool																							
1	66	65	68	68	72	69	71	69	65	63	63	63	65	63	66	63	65	61	66	63	66	63	67
2	68	67	69	70	72	70	71	70	66	64	63	62	66	63	65	63	66	61	66	64	67	63	67

TABLE 3-3

J-38 TEMPERATURE SUMMARY

DEGREES - FAHR

SENSOR	ORBITS ACQUIRED																					
Fairing/Barrel #1 ("A") ("B")	8	16	23	32	40	48	56	64	72	81	88	97	104	113	121	129	137	145	153	161	169	178	185
1 (6 1 2)	47	28	44	25	57	31	57	28	34	31	28	37	40	37	40	41	43	31	43	34	37	28	40
2 (5 3)	42	15	35	12	48	15	48	12	83	77	80	77	89	83	94	86	97	73	94	83	89	67	97
3 (4)	18	11	11	4	25	8	25	8	75	66	72	78	81	93	90	35	90	84	93	96	84	69	93
4 (4 3 2)	45	39	45	39	52	39	49	39	23	17	17	20	27	23	23	26	33	20	33	27	30	17	33
5 (5 1)	43	39	39	33	43	39	46	36	23	23	16	26	26	23	29	23	29	26	32	23	29	19	32
6	39	23	36	23	46	26	46	23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Barrel No. 2																							
1	31	34	31	31	34	34	34	31	19	16	12	22	82	19	22	25	25	16	25	34	25	16	28
2 (2 3 4)	29	22	26	19	39	26	32	22	22	13	19	16	26	22	29	26	29	16	32	26	26	13	32
3 (1 5)	80	88	77	77	91	91	88	91	71	65	68	80	77	83	83	97	83	80	85	91	77	62	85
4	95	95	92	86	98	92	98	92	80	68	77	74	86	80	92	86	89	74	92	83	83	65	89
5	75	72	75	72	81	72	75	69	51	48	45	51	57	46	57	51	57	42	60	45	54	45	57
Conic Adapter																							
1	32	41	38	45	38	25	41	32	22	Open	32	25	32	22	32	32	OBH	18	38	25	58	22	48
Rec. Barrel																							
1	60	63	57	57	66	66	60	63	51	44	47	51	54	57	60	66	60	54	60	63	57	47	60
2	77	77	74	71	86	80	86	77	68	58	61	64	71	71	77	74	67	61	80	74	74	55	80
Clock																							
1	76	76	78	76	82	76	78	76	67	63	63	63	69	65	71	65	69	61	74	65	71	65	71
Thrust Cone "A" to "B"																							
1 (Skin)	47	40	45	39	47	40	48	40	67	67	66	65	69	65	67	66	70	64	70	66	70	65	69
2 (Retro)	54	49	49	49	50	49	49	48	67	66	65	66	67	66	67	66	67	65	68	67	68	65	67
Master Cassette "A" SRV																							
2	55	62	61	61	62	62	64	63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Recovery Batt. "B" SRV																							
1	63	65	64	67	66	67	66	67	76	77	76	76	77	77	77	77	77	76	78	78	78	78	78

TABLE 3-3

[redacted]

J-38 TEMPERATURE SUMMARY REV. 23

DEGREES - FAHR

Latitude No.	1	2	3	4	5	6	7	8	9
Time (secs) from Ascending Node	595	1192	1790	2387	2983	3580	4179	4771	78
SENSOR									
Master									
3	84	82	79	78	78	79	82	84	84
4	92	89	86	85	85	87	90	93	92
5	87	86	83	83	82	83	85	87	87
6	82	82	81	82	81	81	81	82	82
7	86	86	85	84	85	85	85	86	86
8	87	86	85	84	83	84	86	87	88
9	88	86	84	83	83	84	86	88	89
11	81	80	78	78	78	79	81	83	82
12	91	89	85	83	84	87	91	93	93
13	81	80	80	79	79	79	80	80	82
Avg. Instr. Temp.	86	85	83	82	82	82	85	86	86
Slave									
3	71	69	67	67	67	67	68	70	70
4	78	78	76	75	75	75	77	78	80
5	85	85	83	83	83	82	83	85	86
6	86	85	85	85	84	83	84	85	86
7	82	82	81	81	82	82	83	84	83
8	86	85	83	82	81	81	84	86	87
9	89	88	86	84	84	86	87	89	90
11	79	78	75	75	75	76	79	80	81
12	77	75	74	72	72	74	76	78	78
13	78	78	77	76	77	76	77	78	78
Avg. Instr. Temp	81	80	79	78	78	78	80	81	82
Supply Spool									
1	68	67	65	65	65	65	67	69	69
2	70	68	67	67	66	66	68	70	71

No./Latitude		System Time
1	138° 58'	20951
2	175 30	21546
3	258 57	22142
4	219 19	22739
5	320 58	23335
6	360 11	23931
7	474 55	24527
8	438 39	25123
9	105 04	25796

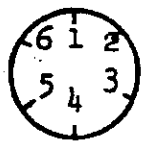
TABLE 3-4

[redacted]

J-38 TEMPERATURE SUMMARY REV 23

DEGREES - FAHR

	Latitude No.	1	2	3	4	5	6	7	8	9
	Time (secs) from Ascending Node	595	1192	1790	2387	2983	3580	4179	4771	78
Fairing/Barrel #1 ("A") ("B")										
1		47	35	18	38	91	135	135	94	67
2		42	22	9	19	58	101	115	89	61
3		18	1	-6	8	15	38	74	61	31
4		49	39	32	36	45	55	61	65	55
5		43	36	30	36	43	49	56	56	49
6		43	29	19	23	43	72	82	66	53
Barrel No. 2										
1		31	25	22	34	37	43	43	37	37
2		9	22	13	29	52	65	58	49	39
3		80	68	59	106	165	189	162	123	100
4		95	83	71	101	139	158	153	130	110
5		75	72	63	69	75	90	96	96	84
Conic Adapter										
1		38	51	32	38	45	48	51	51	48
Press. Make-Up Bottle										
1		57	51	44	69	102	117	99	82	69
2		77	64	55	86	129	157	146	116	94
Clock										
1		76	76	71	74	74	74	78	80	82
2										
Thrust Cone "A" to "B"										
1 (Skin)		46	43	39	37	38	40	44	48	48
2 (Retro)		49	49	48	47	47	46	47	49	49
Master Cassette "A" SRV										
2		62	62	62	62	63	62	62	62	62
Recovery Batt. "B" SRV										
1		64	64	64	63	64	63	63	63	63



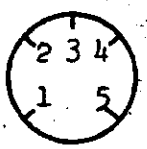


TABLE 3-4

J-38 TEMPERATURE SUMMARY REV. 87

DEGREES - FAHR

Latitude No.	1	2	3	4	5	6	7	8	9
Time (secs) from Ascending Node	600	1204	1790	2386	2981	3578	4174	4770	80
SENSOR									
MASTER									
3	74	73	71	70	69	71	73	74	75
4	83	82	79	78	77	79	81	83	84
5	80	78	77	76	75	76	78	80	80
6	74	74	73	73	72	72	73	74	74
7	78	77	76	76	76	78	78	79	80
8	80	78	76	75	74	76	78	79	80
9	80	79	79	77	75	78	79	81	81
11	73	72	70	69	70	72	74	75	75
12	83	81	78	76	75	79	82	84	84
13	72	71	70	70	69	70	71	72	72
AVG. INSTR. TEMP.	78	76	75	74	73	75	77	78	79
SLAVE									
3	63	63	61	60	59	60	61	63	63
4	72	71	69	68	67	69	70	72	72
5	79	78	77	76	75	75	76	78	79
6	77	77	76	75	75	74	76	77	77
7	74	73	72	71	72	73	74	75	74
8	80	79	77	75	74	75	77	79	80
9	82	81	78	76	76	78	80	82	82
11	71	70	67	66	66	68	71	71	72
12	71	69	67	65	65	68	70	71	72
13	70	70	68	67	67	68	69	69	70
AVG. INSTR. TEMP.	74	73	71	70	70	71	72	74	74
SUPPLY SPOOL									
1	65	65	63	62	61	63	64	66	66
2	65	64	63	61	60	62	63	65	65

No./Latitude		System Time (Secs.)
1	139° 10'	18245
2	175 46	18851
3	258 27	19437
4	218 49	20033
5	321 20	20628
6	360 21	21225
7	474 54	21821
8	438 42	22417
9	105 07	23090

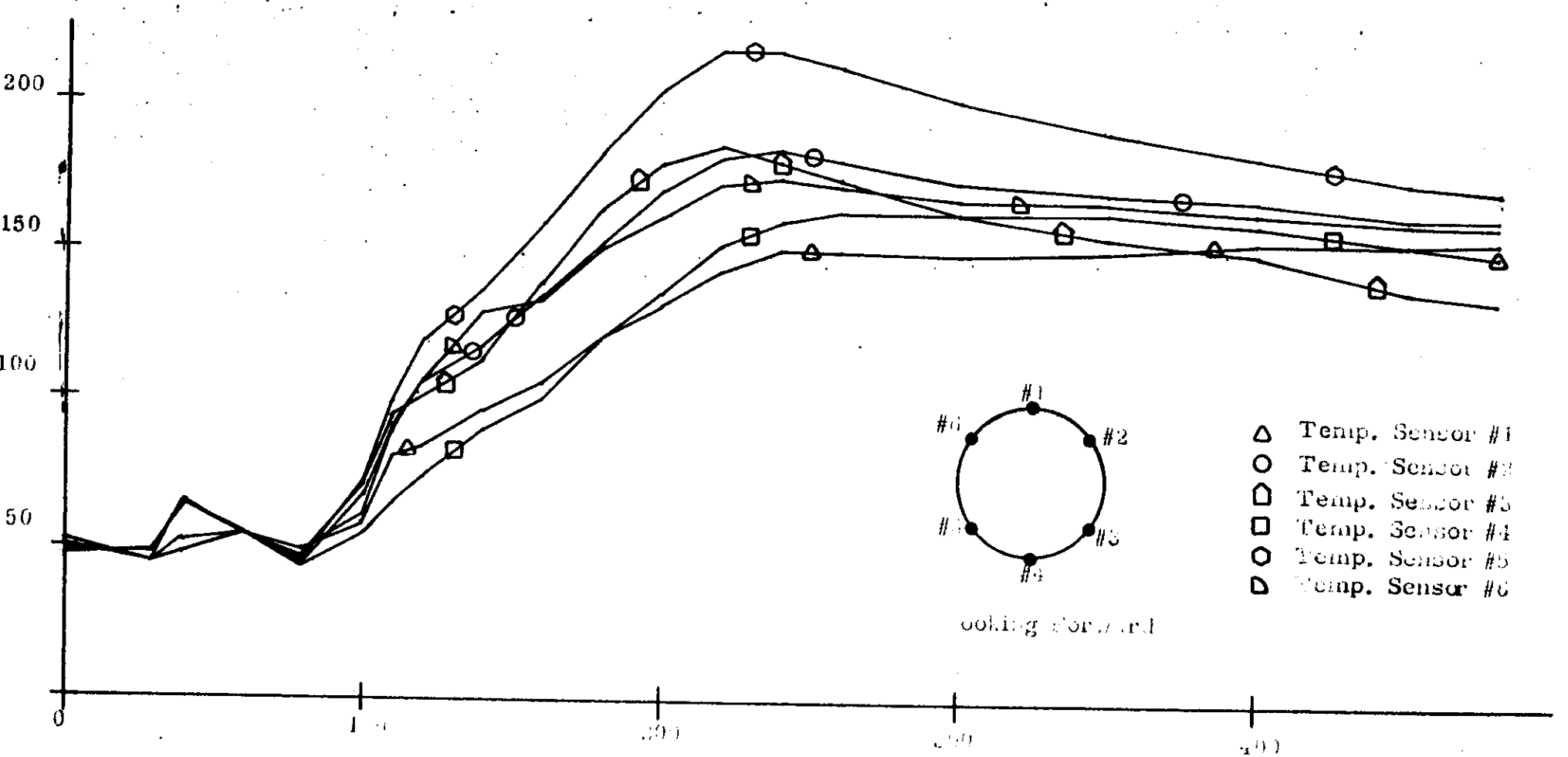
TABLE 3-4

J-38 TEMPERATURE SUMMARY REV. 87
DEGREES - FAHR

Latitude No.	1	2	3	4	5	6	7	8	9
Time (secs) from Ascending Node	600	1204	1790	2386	2981	3578	4174	4770	80
SENSOR									
Fairing/Barrel #1									
("A") ("B")									
1	37	28	22	40	49	61	67	58	49
2	92	77	63	89	127	158	155	130	109
3	84	69	57	105	171	205	182	135	105
4	27	17	10	27	49	72	65	49	36
5	23	16	13	23	29	38	41	35	29
Barrel No. 2									
1	22	12	9	19	25	34	43	26	22
2	22	16	6	22	45	65	61	45	32
3	80	62	50	97	157	186	162	123	97
4	86	74	62	86	121	147	142	119	101
5	54	45	39	51	60	72	78	72	63
Conic Adapter									
1	28	25	22	22	22	28	48	48	45
Press. Make-Up Bottle									
1	54	47	38	63	96	111	96	85	63
2	74	58	49	77	121	149	141	112	88
Clock									
1	69	65	61	61	63	65	69	74	71
2									
Thrust Cone "A" to "B"									
1 (Skin)	69	66	65	64	64	64	66	68	68
2 (Retro)	67	66	65	65	65	65	66	67	66
Recovery Batt. "B" SRV									
1	77	77	76	76	77	78	77	77	77

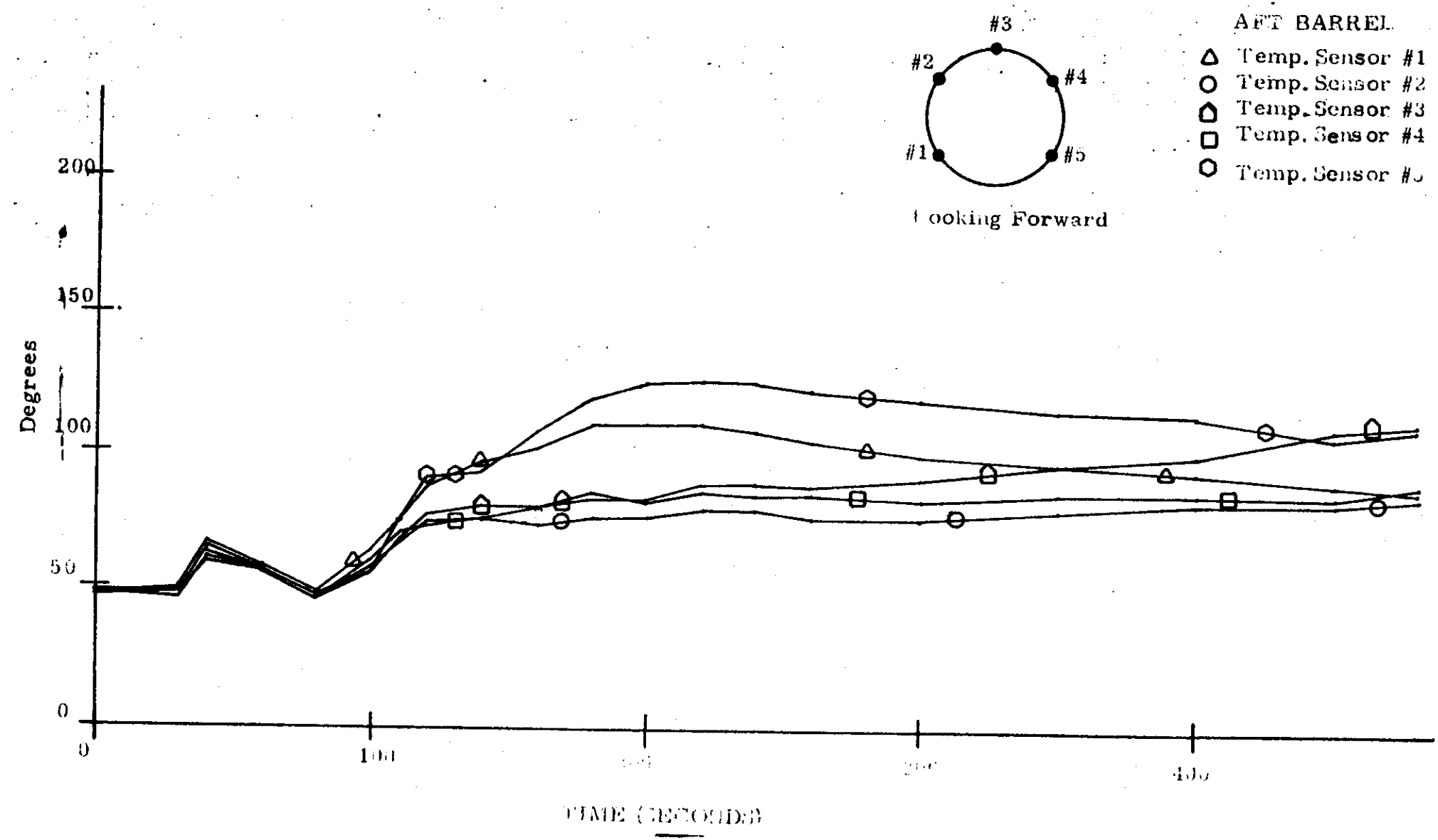
TABLE 3-4

J-33 ASCENT TEMPERATURE



IME (SECONDS)

J-38 ASCENT TEMPERATURE



J-38 ASCENT TEMPERATURE

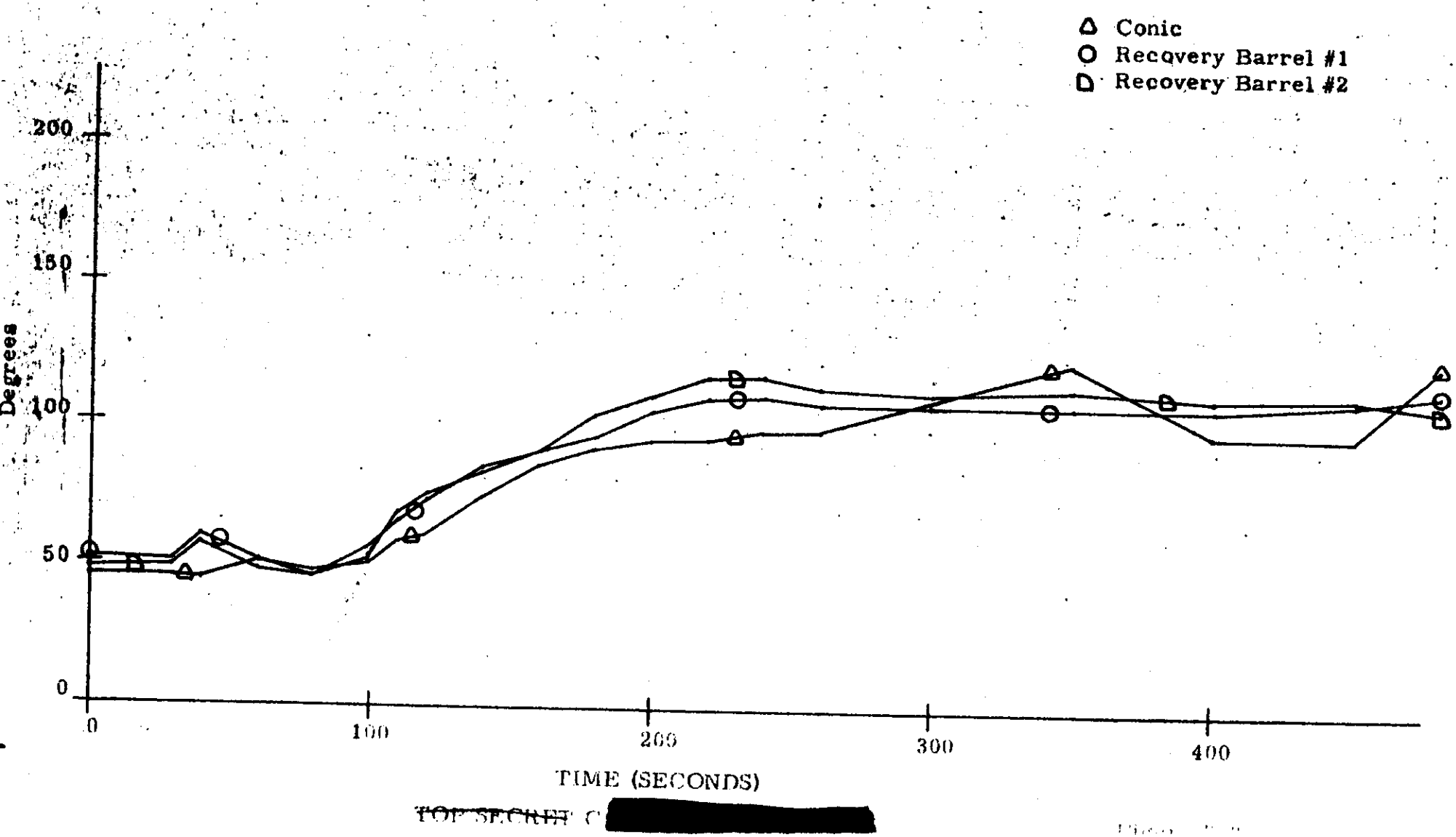
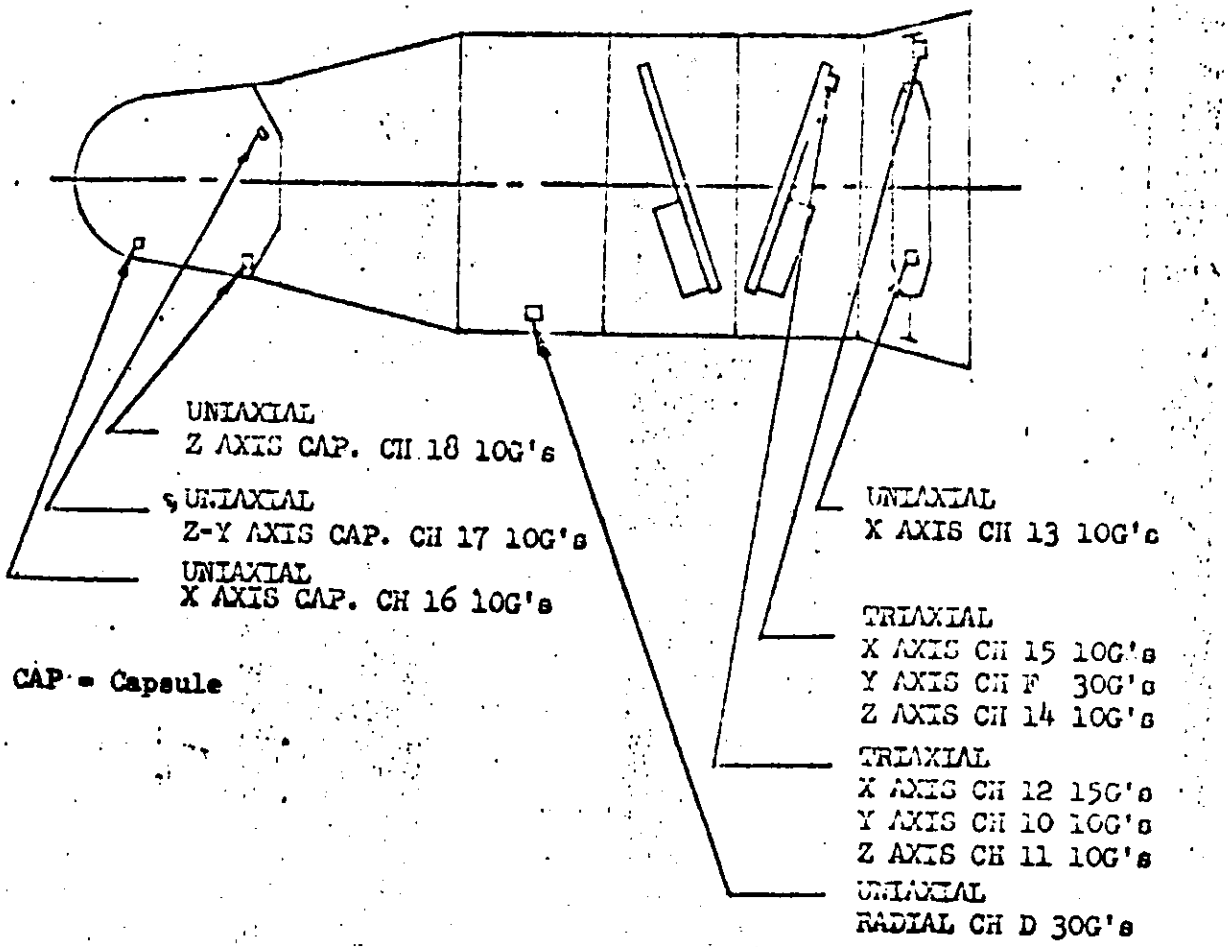


Figure 3-4
ACCELEROMETER LOCATIONS AND CALIBRATION LEVELS



ASCENT VIBRATION LEVELS MONITORED

CH	Liftoff (G's Rms)	*(G's Rms)	Transonic (G's Rms)	THORAD Burnout (Pogo)(G's O-P)
17	---	4.6	---	1.85 at 17.5 CPS
D	4.54		5.4	----
F	6.6		3.8	----
12	---		---	2.8 at 17.5 CPS
13	---		---	2.8 at 17.5 CPS
14	---		---	2.5 at 17.5 CPS
16	---		---	3.05 at 17.5 CPS

*Between Liftoff and Transonic
O-P = Zero to Peak

Figure 3-4

SECTION 4

MISSION 1037-1 RECOVERY SYSTEM

SRV #727 was received at A/P on 10 February 1966. The receiving weight was 153.7 pounds. After modifications and incorporation of outstanding E.O.'s, the SRV was delivered to Systems Test for incorporation into the J-38 system.

The capsule was shipped to VAFB on 13 October 1966.

The -1 recovery capsule was successfully recovered by air-catch on Rev. 66. All re-entry sequence of events monitored appeared normal and occurred within tolerance. The actual impact point was approximately 54 miles down range and 4 miles west of the predicted impact point. However, the actual impact point was within the pre-flight predicted dispersions.

Predicted impact	25^{o} 07.6'N/155^{o} 55.4'W
Actual impact	24^{o} 14'N/155^{o} 59'W

The re-entry sequence of events is contained in Table 4-1. The cause of the longer than normal downrange dispersions is under investigation

MISSION 1037-1

RECOVERY SEQUENCE OF EVENTS

Event	Delta Time (Seconds) Actual	Nominal
*Arm	76.77	77.0 ± 1.0
*Transfer	1.99	2.0 ± 0.25
Electrical Disconnect	0.85	0.900 $^{+0.430}_{-0.400}$
Separation	--	--
**Spin	3.35	3.4 ± 0.30
Retro	7.53	7.55 ± 0.45
Despin	10.90	10.75 ± 0.59
T/C Separation	1.51	1.5 ± 0.15
***"G" Switch Open	477.41	468.4
Parachute Cover Off	33.99	34.0 ± 1.5
Drogue Chute Deployed	0.65	0.63 ± 0.08
Main Chute Bag Separate	12.31	10.25 ± 1.5
Main Chute Deployed	0.50	0.52 ± 0.13
Main Chute Disreef	4.49	4.5 ± 0.80

*From Separation
**From Electrical Disconnect
***From Retro

Spin Rate 59.2 RPM
Despin Rate 11.7 RPM
Retro Velocity 1024 ft./sec.

TABLE 4-1

SECTION 5

MISSION 1037-2 RECOVERY SYSTEM

SRV #728 was received at A/P on 10 February 1966. The receiving weight was 151.6 pounds. After modifications and incorporation of outstanding E.O.'s the unit was delivered to Systems Test for mating to the J-38 system.

The capsule was shipped to VAFB on 13 October 1966.

The -2 recovery capsule was successfully recovered by air-catch on Rev. 195. All recovery events monitored occurred within tolerance and appeared normal. Re-entry sequence of event times are included in Table 5-1.

Predicted impact	21° 52.3'N/148° 59.9'W
Actual impact	22° 03'N/148° 54'W

MISSION 1037-2

RECOVERY SEQUENCE OF EVENTS

Event	Delta Time (Seconds) Actual	Nominal
*Arm	76.80	77.0 ± 1.0
*Transfer	1.98	2.0 ± 0.25
Electrical Disconnect	0.77	$0.900^{+0.430}_{-0.400}$
Separation	--	---
**Spin	3.31	3.4 ± 0.30
Retro	7.45	7.55 ± 0.45
Despin	10.55	10.75 ± 0.59
T/C Separation	1.49	1.5 ± 0.15
***"G" Switch Open	469.07	469.7
Parachute Cover Off	33.88	34.0 ± 1.5
Drogue Chute Deployed	0.59	0.63 ± 0.08
Main Chute Bag Separate	11.05	10.25 ± 1.5
Main Chute Deployed	0.55	0.52 ± 0.13
Main Chute Disreef	4.45	4.45 ± 0.80

From Separation
From Electrical Disconnect

Spin Rate 63 RPM
Despin Rate 10.6 RPM
Retro Velocity 1000 ft./sec.

TABLE 5-1

SECTION 6

MISSION 1037 PANORAMIC CAMERAS

A. COMPONENT ASSIGNMENT

Component	Master (FWD)	Slave (AFT)
Main Camera	198	199
Main Camera Lens	2112435	2082435
Supply Horizon Camera	292-G6	295-G6
Supply Horizon Camera Lens	E12855	E12840
Take-up Horizon Camera	293-G5	303-G5
Take-up Horizon Camera Lens	E12834	E12856
Supply Cassette	SC-46	SC-46

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 (E.K.)	3404	3404
Supply Horizon Cameras	Port	Starboard
Lens	55 mm f/6.3	55 mm f/6.3
Aperture Setting	f/6.3	f/8.0
Exposure Time	1/100 second	1/100 second
Filter Type	Wratten 25	Wratten 25
Take-up Horizon Cameras	Starboard	Port
Lens	55 mm f/6.3	55 mm f/6.3
Aperture Setting	f/8.0	f/6.3
Exposure Time	1/100 second	1/100 second
Filter Type	Wratten 25	Wratten 25

C. POST FLIGHT PERFORMANCE EVALUATION

The image quality produced from both panoramic cameras on this mission was consistently good and equal to the best obtained from any recent mission. The image quality is closely comparable to that obtained from Mission 1035, which was launched in late September 1966, and was the most recent Corona mission prior to the present one. In both cases the high image quality is attributed to the usual seasonal improvement in atmospheric conditions along with uniquely high percentages of cloud free areas. Visual examination of original negative and duplicate positive films showed the usual condition of slightly better detail in aft-looking camera imagery. The MIP rating for the -1 and -2 missions was 85, and in both cases the selected frames were from the aft-looking camera. No Corn targets were recorded on this mission.

Mission 1037 was the second Corona J system flown with the photogrammetric configuration. Photo interpreters indicated that in several instances the nodal traces interfered with analysis of targets. Also the traces were found to be disturbing during rapid scanning of the film. These conditions result from high density of the traces and are to be corrected in fugure PG systems by reduction of nodal trace light intensity. The quality of the PG rail hole images from both instruments was generally poorer than had been anticipated from pre-flight tests. Photogrammetric evaluation of this condition is beyond the scope of this report.

Aside from the photogrammetric recording conditions noted above, both panoramic cameras were free of significant photographic or data recording anomalies. Light leakage fog produced during non operate periods was considered to be of very minor significance.

All horizon camera imagery was normal, without "veiling", and adequate for attitude measurement.

SECTION 7

MISSION 1037 STELLAR-INDEX CAMERAS

A. COMPONENT ASSIGNMENT

Component	-1 Mission Serial Number	-2 Mission Serial Number
Camera	D-101	D-106
Index Reseau	128	136
Stellar Reseau	124	134

B. CAMERA DATA AND FLIGHT SETTINGS

Stellar Camera:		
Lens	85 mm f/1.8	85 mm f/1.8
Exposure Time	1 second	2 seconds
Filter Type	None	None
Film Type (E.K.)	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 (E.K.)	3400	3400

C. POST FLIGHT EVALUATION

Stellar Cameras

Both stellar cameras were operational throughout their assigned mission segments. Although many stellar images were elongated or smeared, they were adequate for attitude determination.

There were three instances of double-exposed stellar and index images. One of these instances was a normal cycling condition for the first stellar and index frames of the 1037-2 mission. The other two instances, one each in the -1 and -2 missions, has been determined to be inherent in the design of switching of S/I programmer control from forward to

aft camera. This switching, used for the first time on this mission, will cause double exposures a very small number of times in any mission, and has been determined to be adequate without modification.

Index Cameras

Both index cameras were operational throughout their assigned mission segments. Due to the unusually extensive cloud free areas recorded, the quality of images from both index cameras appeared to be particularly good.

There were three instances of double exposed index camera images, one in the -1 mission segment, and two in the -2 mission segment. All three instances are due to normal S/I control conditions which have been described in the paragraph on stellar cameras.

SECTION 8

PANORAMIC CAMERA EXPOSURE

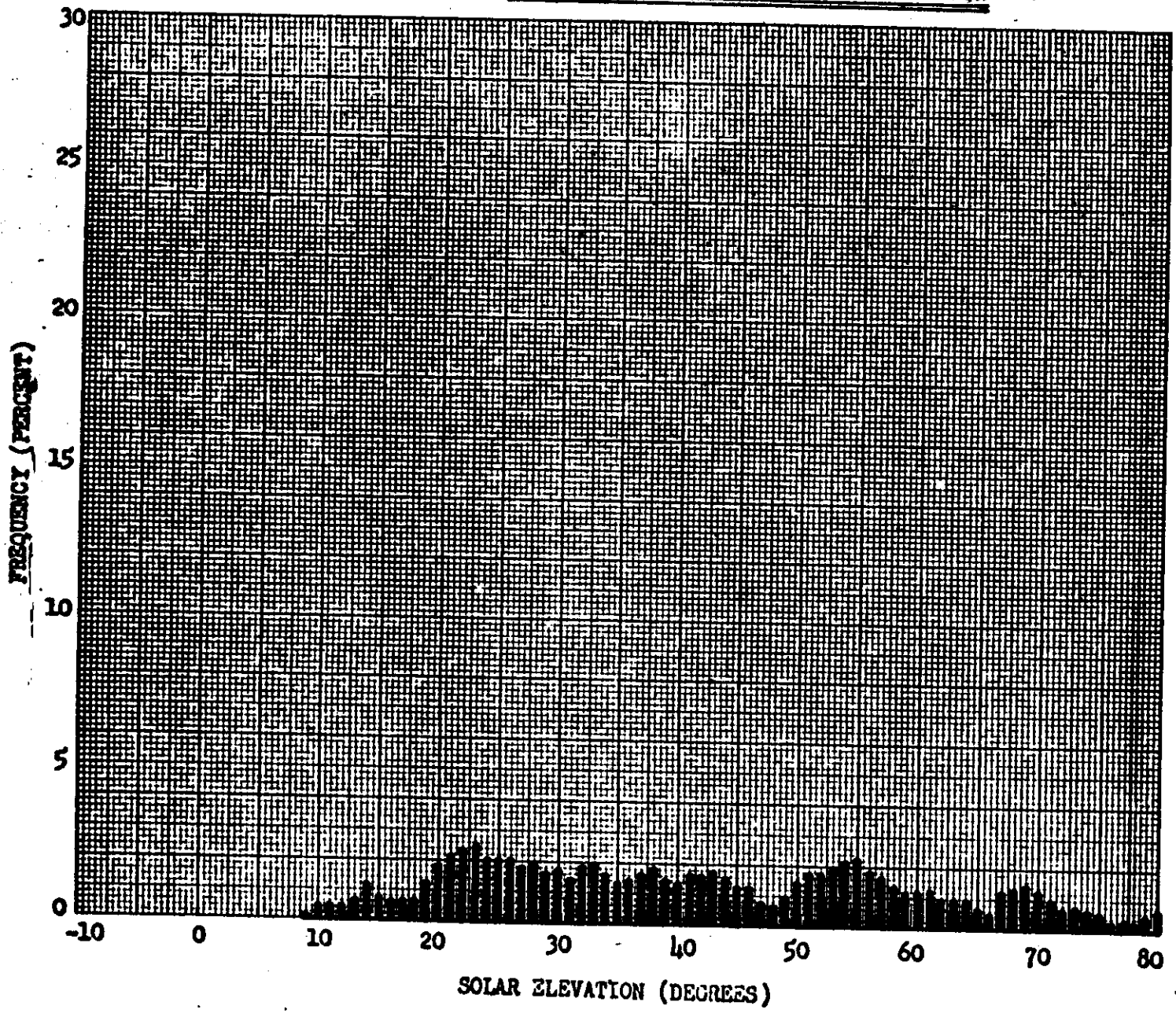
The Master camera contained a 0.225 inch slit and a Wratten 23A filter. The Slave camera had a 0.175 inch slit and a Wratten 21 filter. These conditions placed the nominal exposure on the full processing curve.

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-23, D-71, D-105 and D-153 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]

Mission	Camera		Primary %	Intermediate %	Full %
1037-1	FWD	Predicted	0	29	71
		Reported	8	10	82
1037-1	AFT	Predicted	0	25	75
		Reported	0	19	81
1037-2	FWD	Predicted	0	25	75
		Reported	14	26	60
1037-2	AFT	Predicted	1	24	76
		Reported	11	33	56

SOLAR ELEVATION FREQUENCY DISTRIBUTION



Mission No: 1037-1

Payload No: J-38

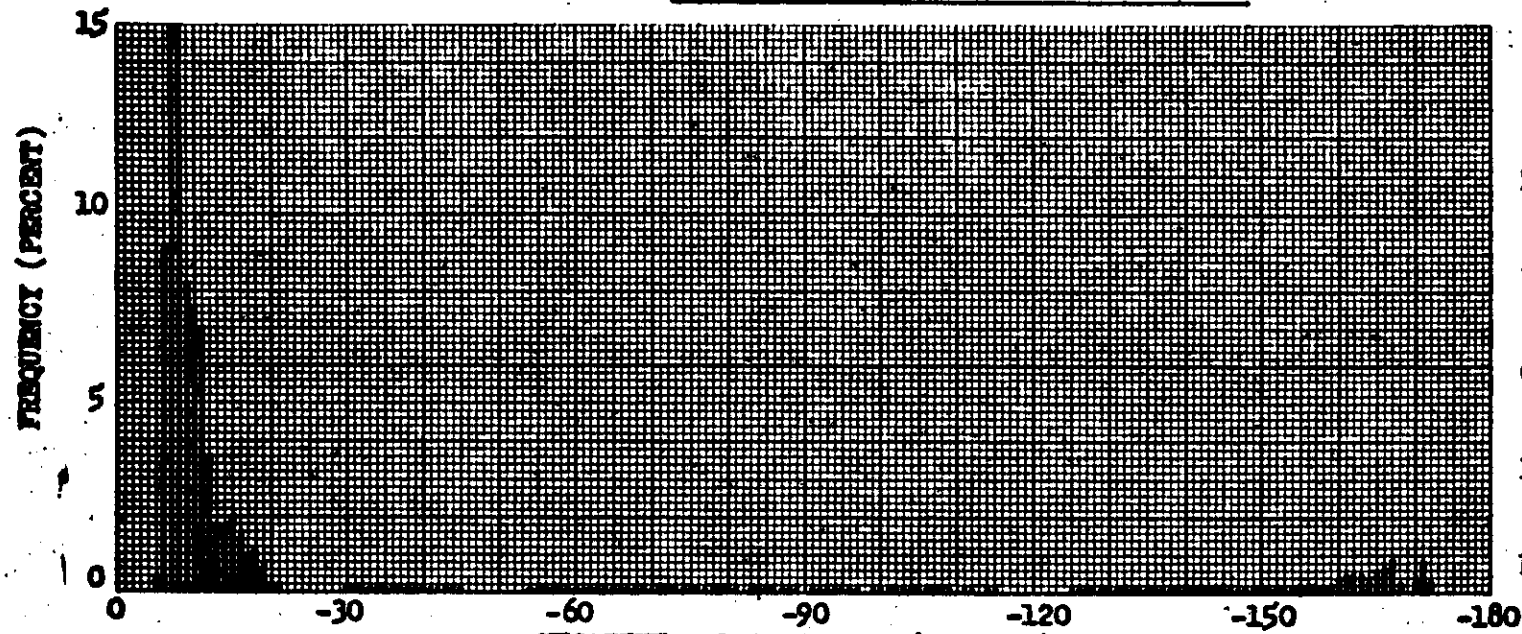
Camera No: 198

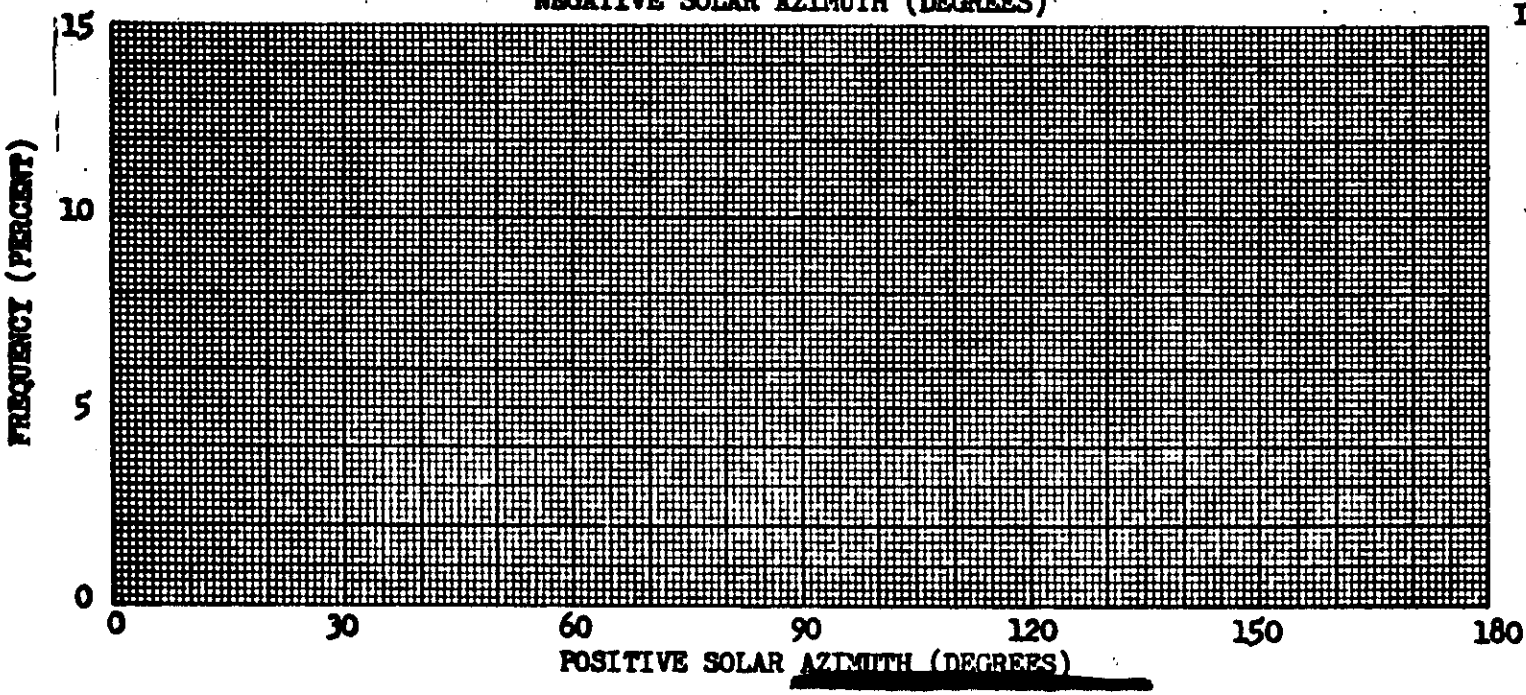
Launch Date: 11/8/66

Launch Time: 1957 Z

Inclination: 100°

SOLAR AZIMUTH FREQUENCY DISTRIBUTION





Mission No: 1037-1

Payload No: J-38

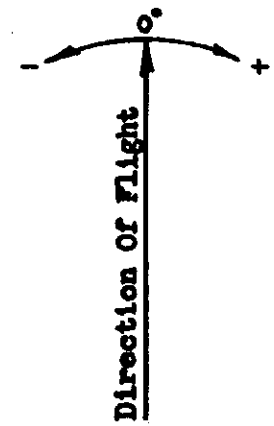
Camera No: 198

Launch Date: 11/8/66

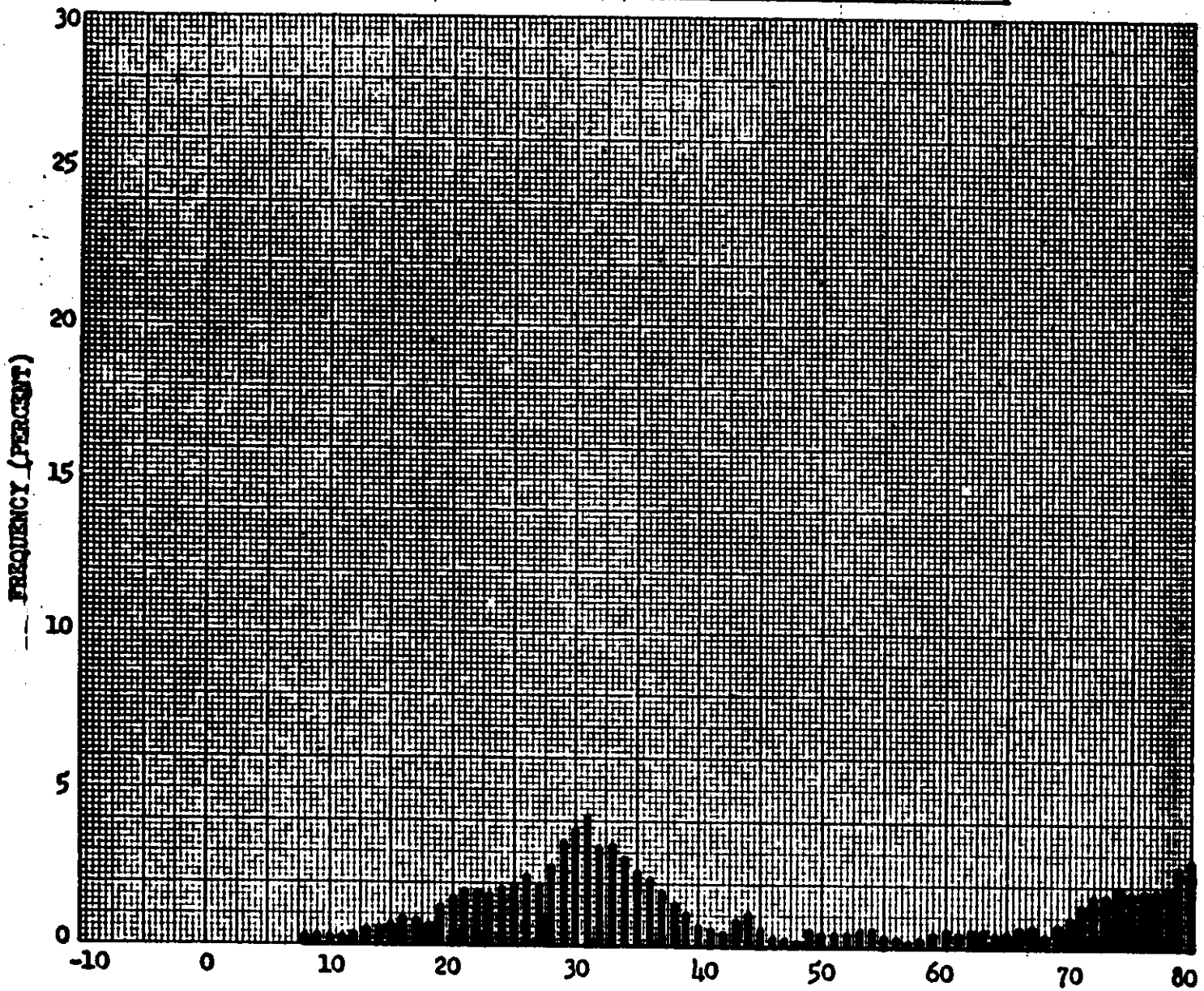
Launch Time: 1957 Z

Inclination: 100°

SIGN NOTATION



SOLAR ELEVATION FREQUENCY DISTRIBUTION



Mission No: 1037-2

Payload No: J-38

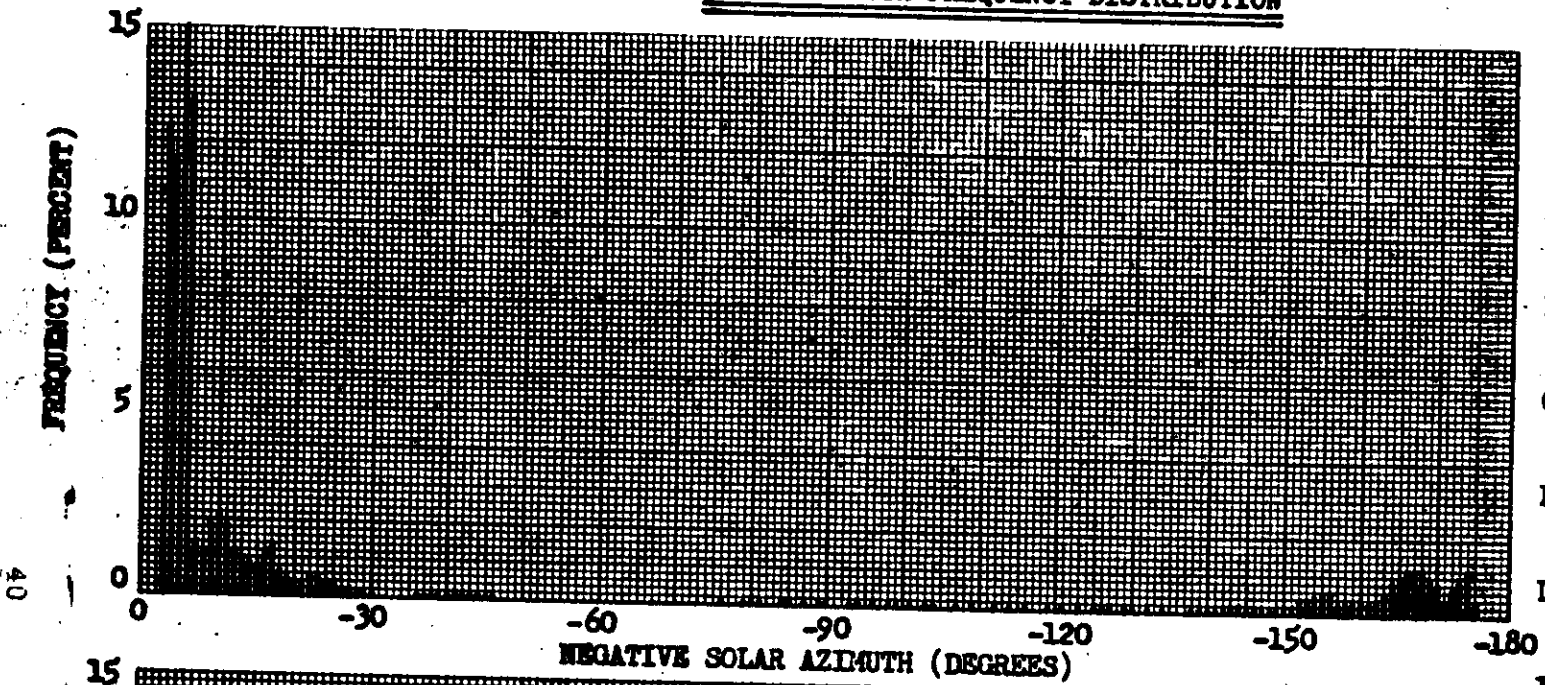
Camera No: 198

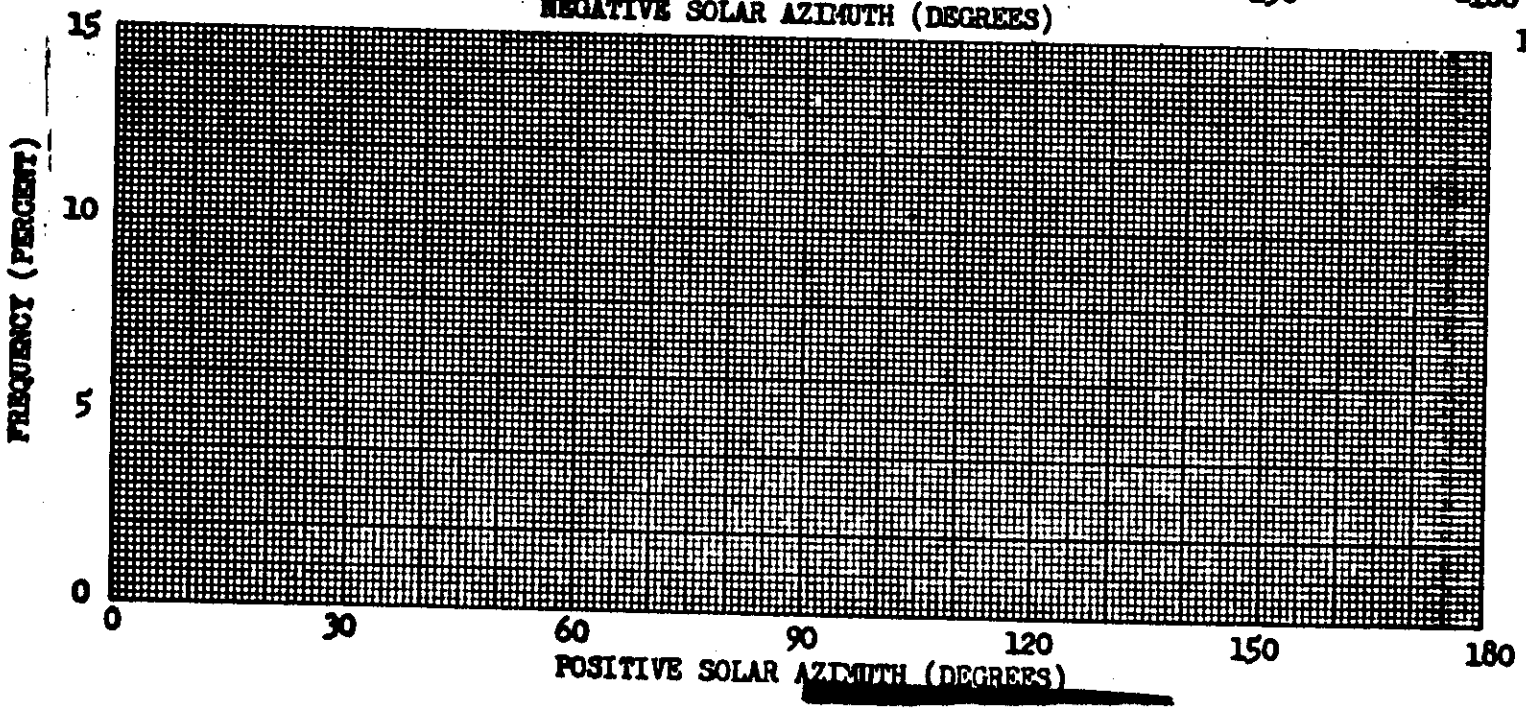
Launch Date: 11/8/66

Launch Time: 1957 Z

Inclination: 100°

SOLAR AZIMUTH FREQUENCY DISTRIBUTION





Mission No: 1037-2

Payload No: J-38

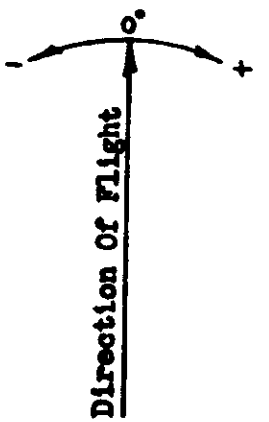
Camera No: 198

Launch Date: 11/8/66

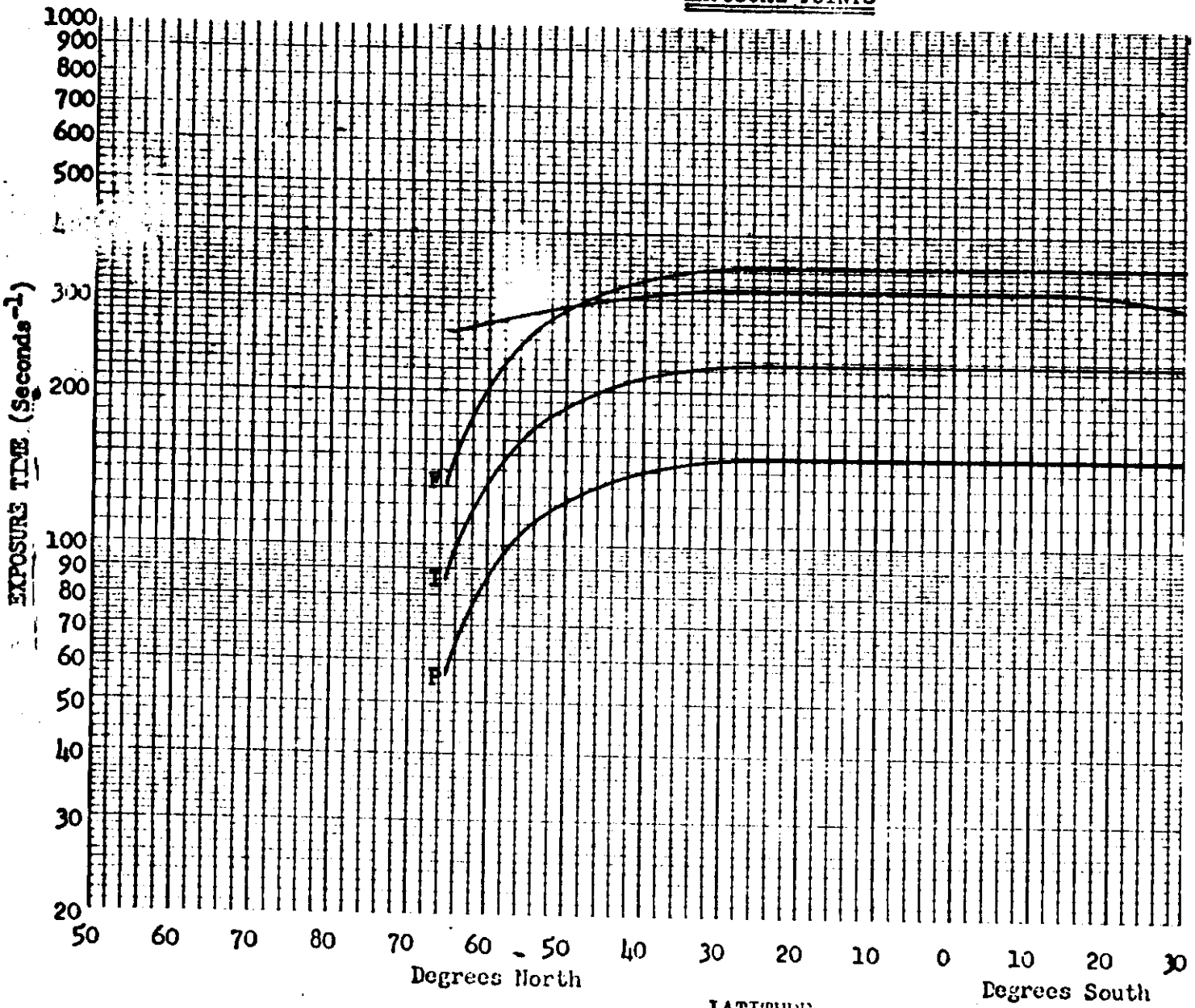
Launch Time: 1957 Z

Inclination: 100°

SIGN NOTATION



EXPOSURE POINTS



Mission No: 1037

Payload No: J-38

Camera No: 198

Pass No: 23

Launch Date: 11/8/66

Launch Time: 1957 Z

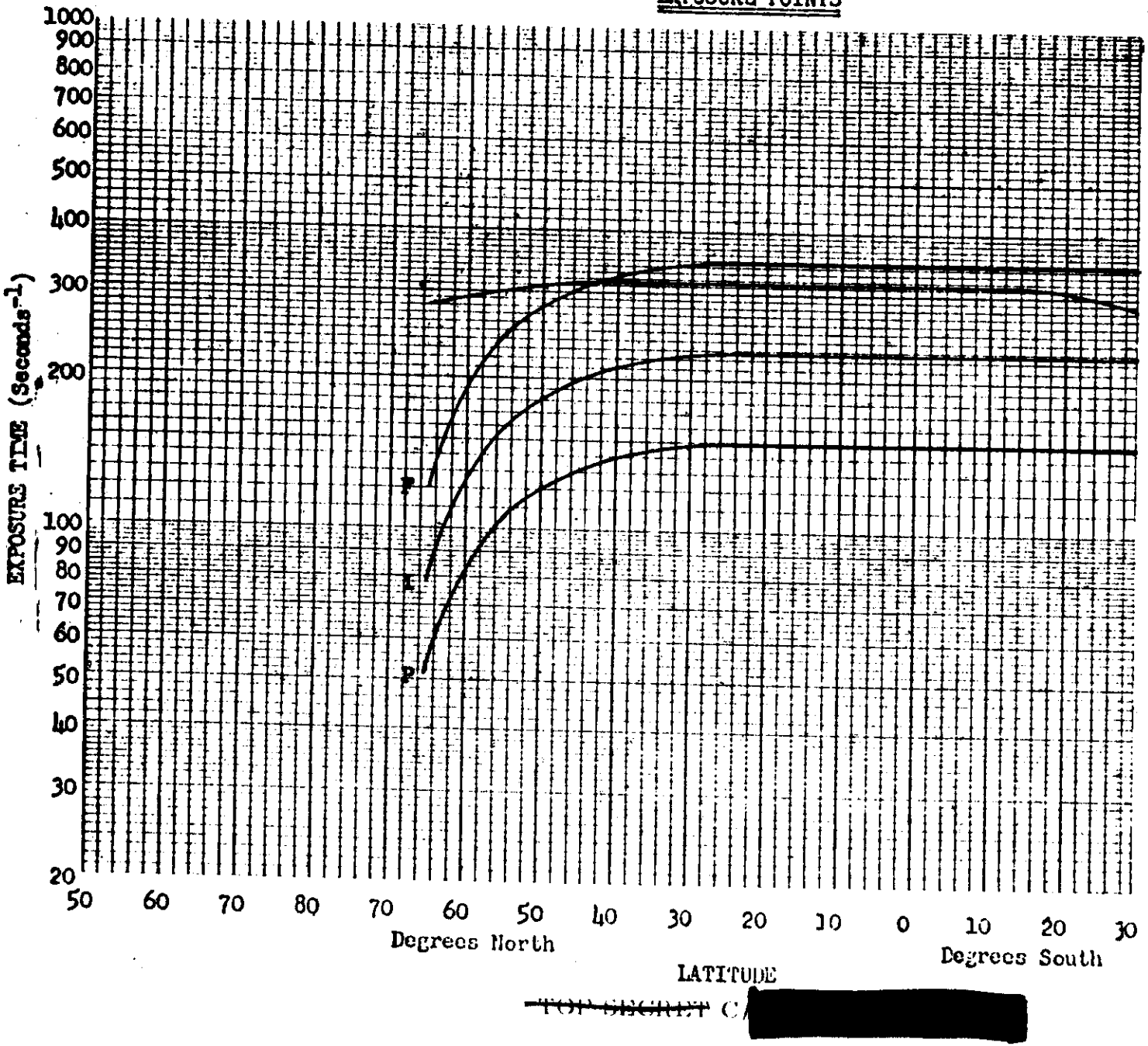
Slit Width: .225

Filter Type: Wratten 23

Film Type: 3404

Figure 8-5

EXPOSURE POINTS



Mission No: 1037

Payload No: J-38

Camera No: 198

Pass No: 71

Launch Date: 11/8/66

Launch Time: 1957 Z

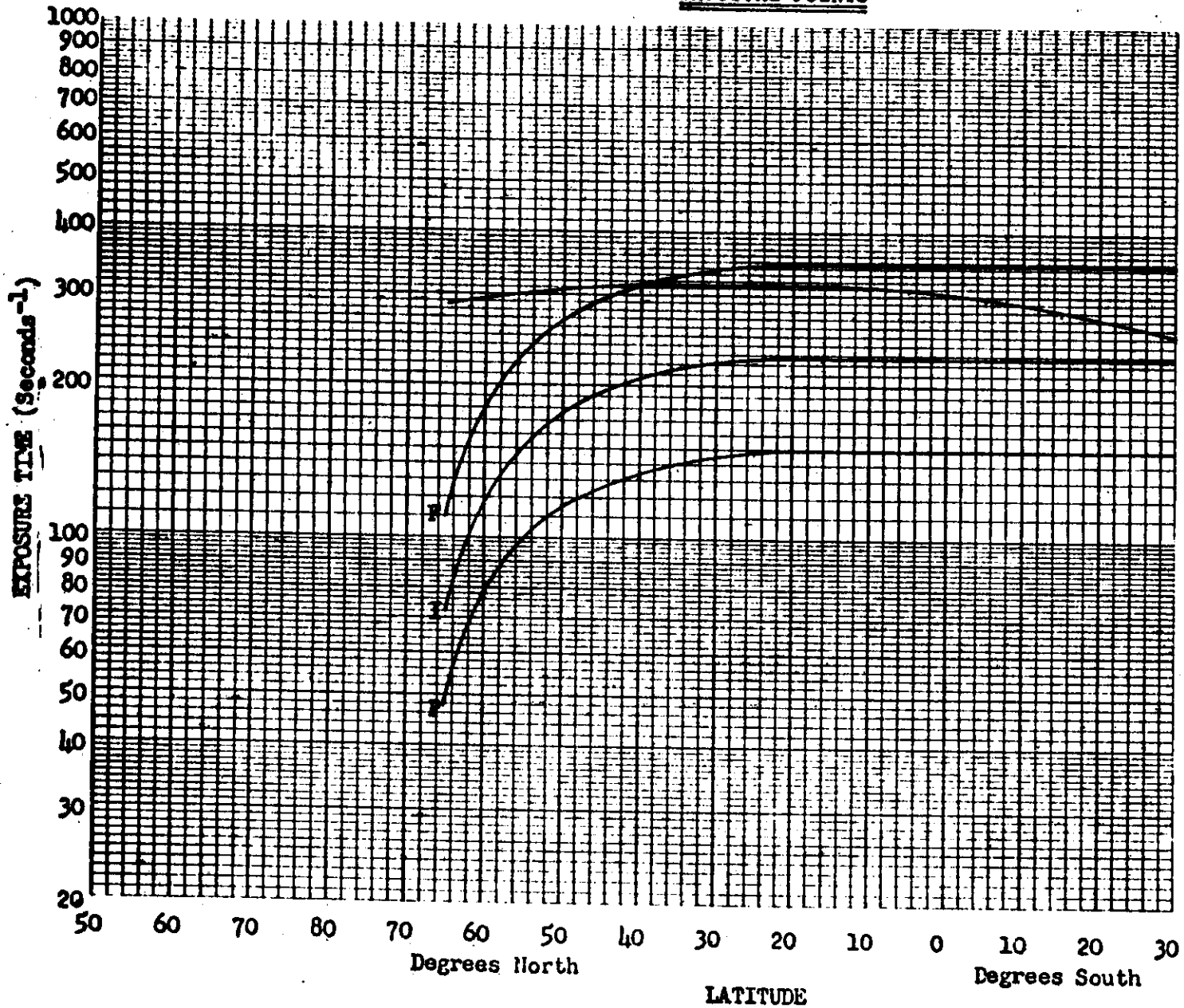
Slit Width: .225

Filter Type: Wratten 23

Film Type: 3404

Figure 8-6

EXPOSURE POINTS



Mission No: 1037

Payload No: J-38

Camera No: 198

Pass No: 105

Launch Date: 11/8/66

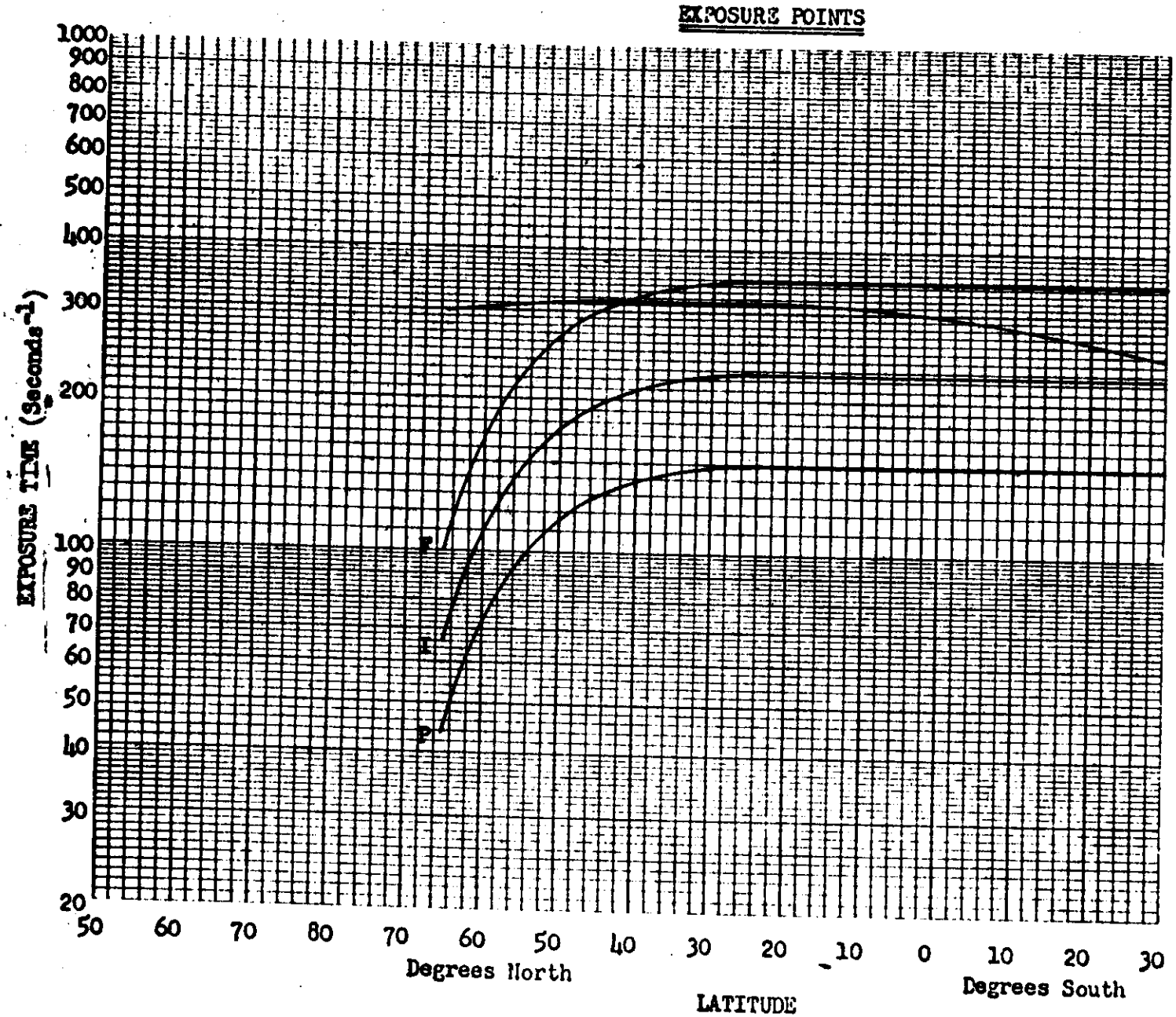
Launch Time: 1957 Z

Slit Width: .225

Filter Type: Wratten 23

Film Type: 3404

Figure 3-7



Mission No: 1037

Payload No: J-38

Camera No: 198

Pass No: 153

Launch Date: 11/8/66

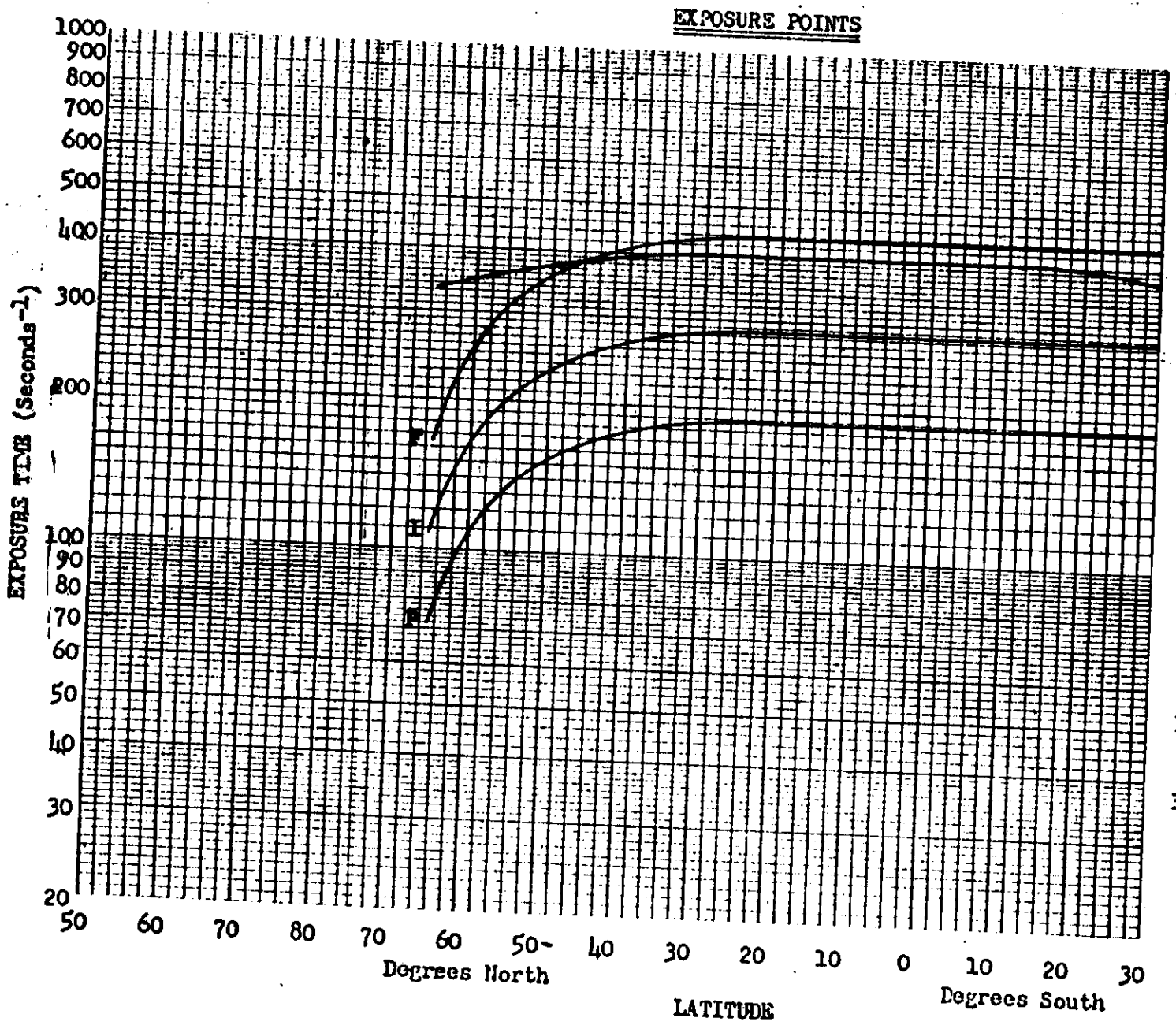
Launch Time: 1957 Z

Slit Width: .225

Filter Type: Wratten 23

Film Type: 3404

Figure 8-8



Mission No: 1037

Payload No: J-38

Camera No: 199

Pass No: 23

Launch Date: 11/8/66

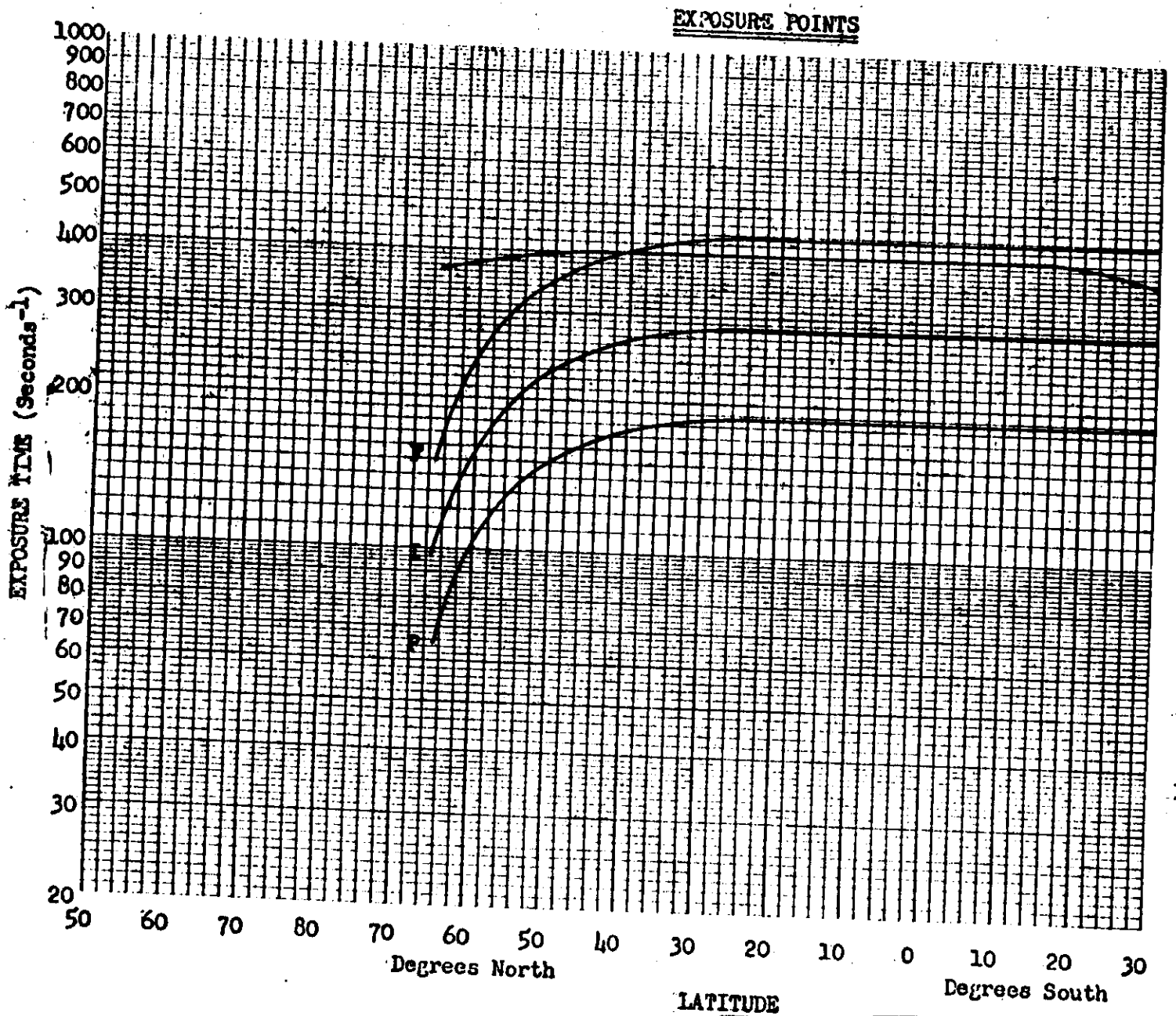
Launch Time: 1957 Z

Slit Width: .175

Filter Type: Wratten 21

Film Type: 3404

Figure 3-9



Mission No: 1037

Payload No: J-38

Camera No: 199

Pass No: 71

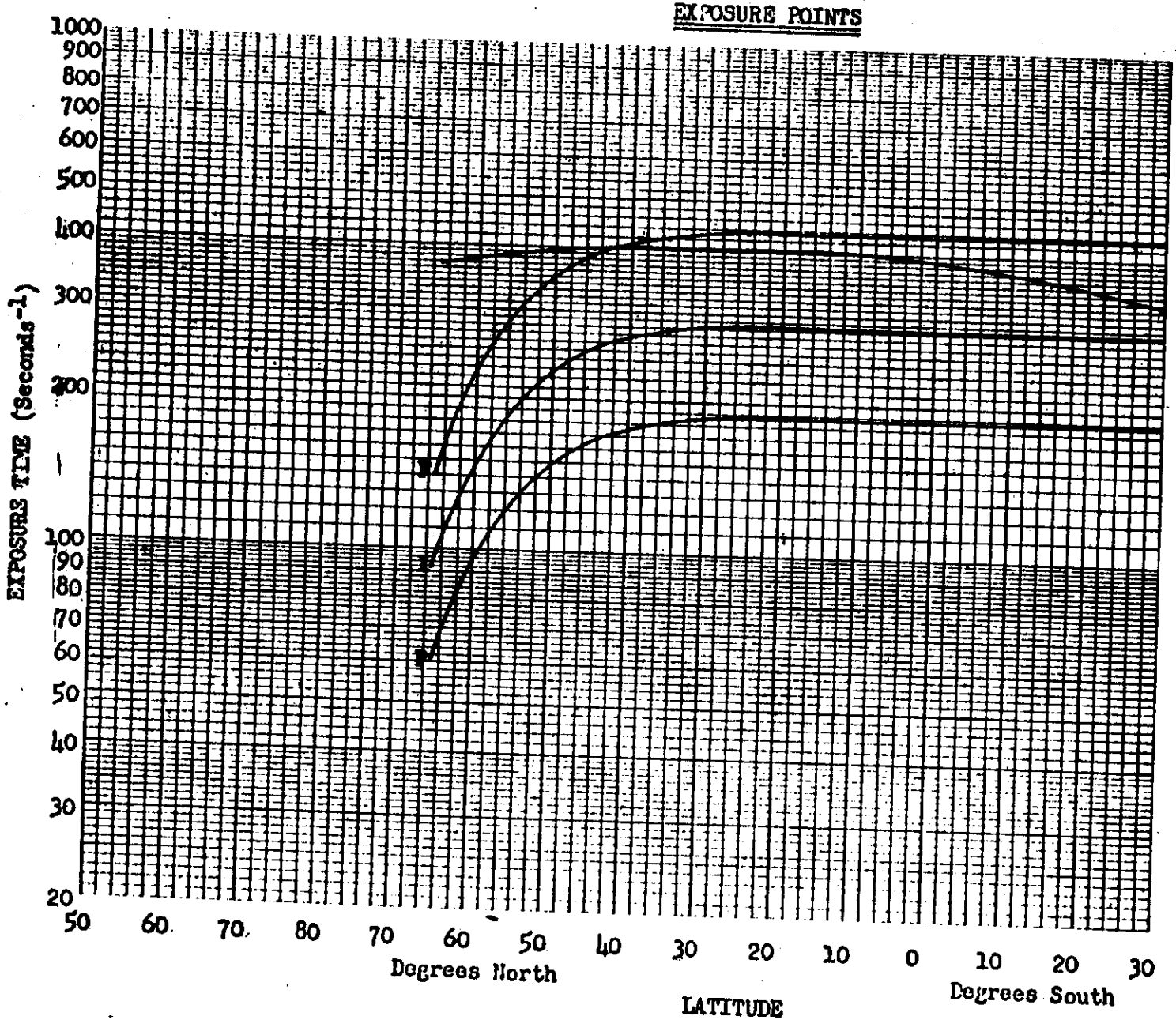
Launch Date: 11/8/66

Launch Time: 1957 Z

Slit Width: .175

Filter Type: Wratten 21

Film Type: 3404



Mission No: 1037

Payload No: J-38

Camera No: 199

Pass No: 105

Launch Date: 11/8/66

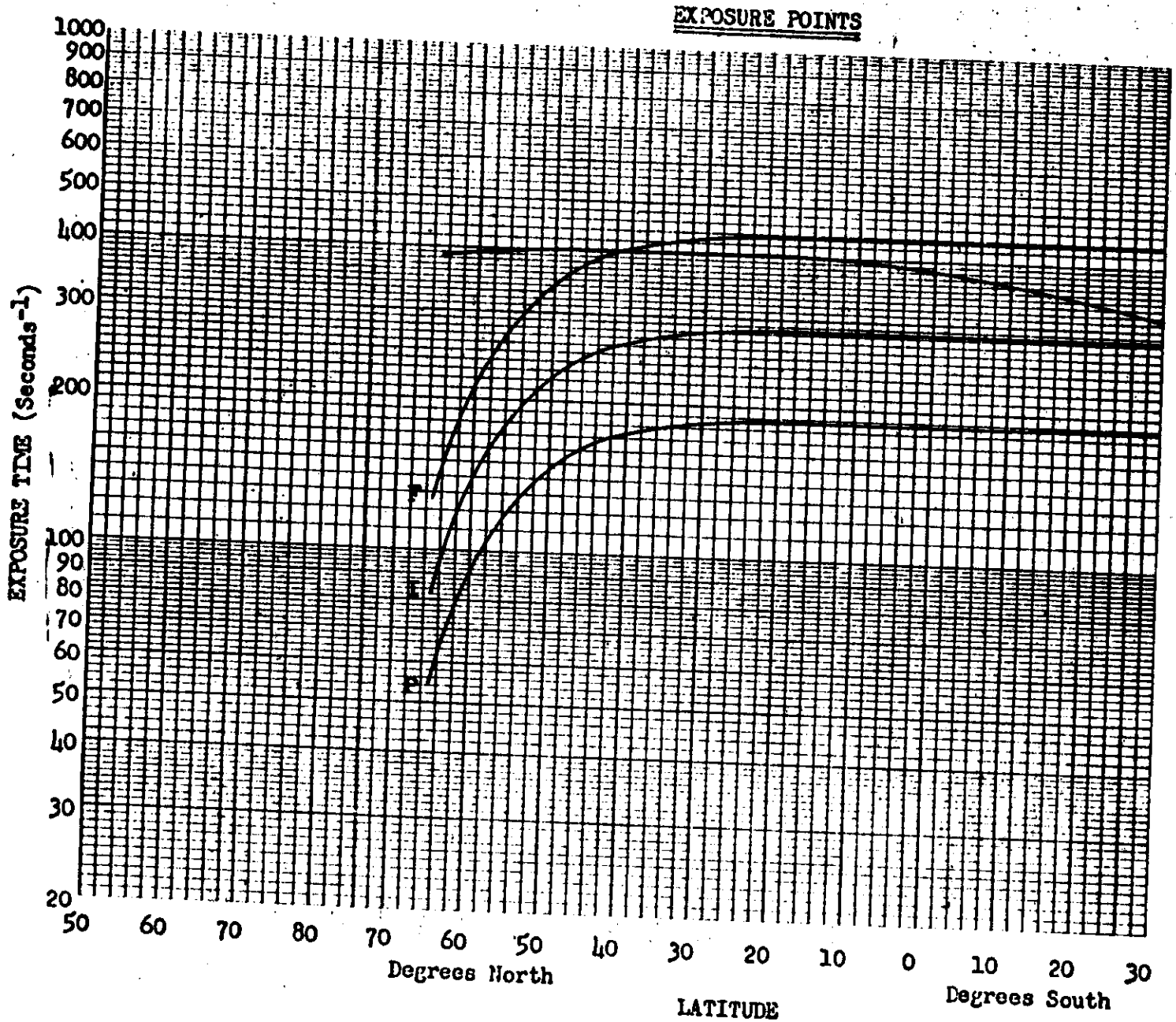
Launch Time: 1957 Z

Slit Width: .175

Filter Type: Wratten 21

Film Type: 3404

Figure 8-11



Mission No: 1037

Payload No: J-38

Camera No: 199

Pass No: 153

Launch Date: 11/8/66

Launch Time: 1957 Z

Slit Width: .175

Filter Type: Wratten 21

Film Type: 3404

Figure 8-12

SECTION 9

DIFFUSE DENSITY MEASUREMENTS

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

Mission	Camera		Primary	Intermediate	Full
1037-1	FWD	Predicted	0	29	71
		Reported	8	10	82
		Computed	0	11	89
1037-1	AFT	Predicted	0	25	75
		Reported	0	19	81
		Computed	0	12	88
1037-2	FWD	Predicted	0	25	75
		Reported	14	26	60
		Computed	0	12	88
1037-2	AFT	Predicted	0	24	76
		Reported	11	33	56
		Computed	0	23	77

The tabulations of density frequency distributions for Missions 1037-1 and 1037-2 are included in Appendix A, Table A-1 through A-4. The graphical presentation of the density distribution are computed plotted in Appendix A, Figures A1 through A-36.

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.

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.

MISSION 1037-1 INSTR - FWD 2/24/67 PROCESSING AND EXPOSURE ANALYSIS

PROCESS LEVEL	SAMPLE SIZE	UNDER EXPOSED	UNDER PROCESSED	CORRECT EXP&PROC	OVER PROCESSED	OVER EXPOSED
PRIMARY	0	0 PC	0 PC	0 PC	14 PC	13 PC
INTERMEDIATE	25	0 PC	8 PC	76 PC	16 PC	0 PC
FULL	212	5 PC	0 PC	84 PC	11 PC	0 PC
ALL LEVELS	237	4 PC	1 PC	83 PC	12 PC	0 PC

MISSION 1037-1 INSTR - AFT 2/24/67 PROCESSING AND EXPOSURE ANALYSIS

PROCESS LEVEL	SAMPLE SIZE	UNDER EXPOSED	UNDER PROCESSED	CORRECT EXP&PROC	OVER PROCESSED	OVER EXPOSED
PRIMARY	0	0 PC	0 PC	0 PC	15 PC	15 PC
INTERMEDIATE	29	0 PC	17 PC	59 PC	24 PC	0 PC
FULL	209	4 PC	0 PC	82 PC	14 PC	0 PC
ALL LEVELS	238	3 PC	2 PC	79 PC	16 PC	0 PC

MISSION 1037-2 INSTR - FWD 2/24/67 PROCESSING AND EXPOSURE ANALYSIS

PROCESS LEVEL	SAMPLE SIZE	UNDER EXPOSED	UNDER PROCESSED	CORRECT EXP&PROC	OVER PROCESSED	OVER EXPOSED
PRIMARY	0	0 PC	0 PC	0 PC	16 PC	16 PC
INTERMEDIATE	30	0 PC	0 PC	70 PC	30 PC	0 PC
FULL	226	4 PC	0 PC	85 PC	10 PC	0 PC
ALL LEVELS	256	4 PC	0 PC	84 PC	13 PC	0 PC

MISSION 1037-2 INSTR - AFT 2/24/67 PROCESSING AND EXPOSURE ANALYSIS

PROCESS LEVEL	SAMPLE SIZE	UNDER EXPOSED	UNDER PROCESSED	CORRECT EXP&PROC	OVER PROCESSED	OVER EXPOSED
PRIMARY	0	0 PC	0 PC	0 PC	31 PC	31 PC
INTERMEDIATE	61	0 PC	21 PC	64 PC	15 PC	0 PC
FULL	205	5 PC	0 PC	81 PC	13 PC	0 PC
ALL LEVELS	266	4 PC	5 PC	77 PC	14 PC	0 PC

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

TABLE II-1

J MISSION DENSITY RANGES

FIGURE 9-1

SECTION 10

PERFORMANCE MEASUREMENTS

The photography acquired by both panoramic cameras during Missions 1037-1 and 1037-2 received a MIP rating of 85. A summary is tabulated below of the MTF/AIM resolution values measured by AFSPPF. The micro-densitometer slit was 1 micron by 80 microns for the edge scan analysis.

Mission	Camera	Cycles/mm	Average	Ground Resolution
1037-1	FWD	71	77	15.3'
1037-2	FWD	81		
1037-1	AFT	88	85	12.9'
1037-2	AFT	83		

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 normally included in this report.

SECTION 11

VEHICLE ATTITUDE

The vehicle attitude errors for both Mission 1037-1 and 1037-2 were derived from the reduction of the Stellar camera photography. This attitude data is supplied to A/P by NPIC.

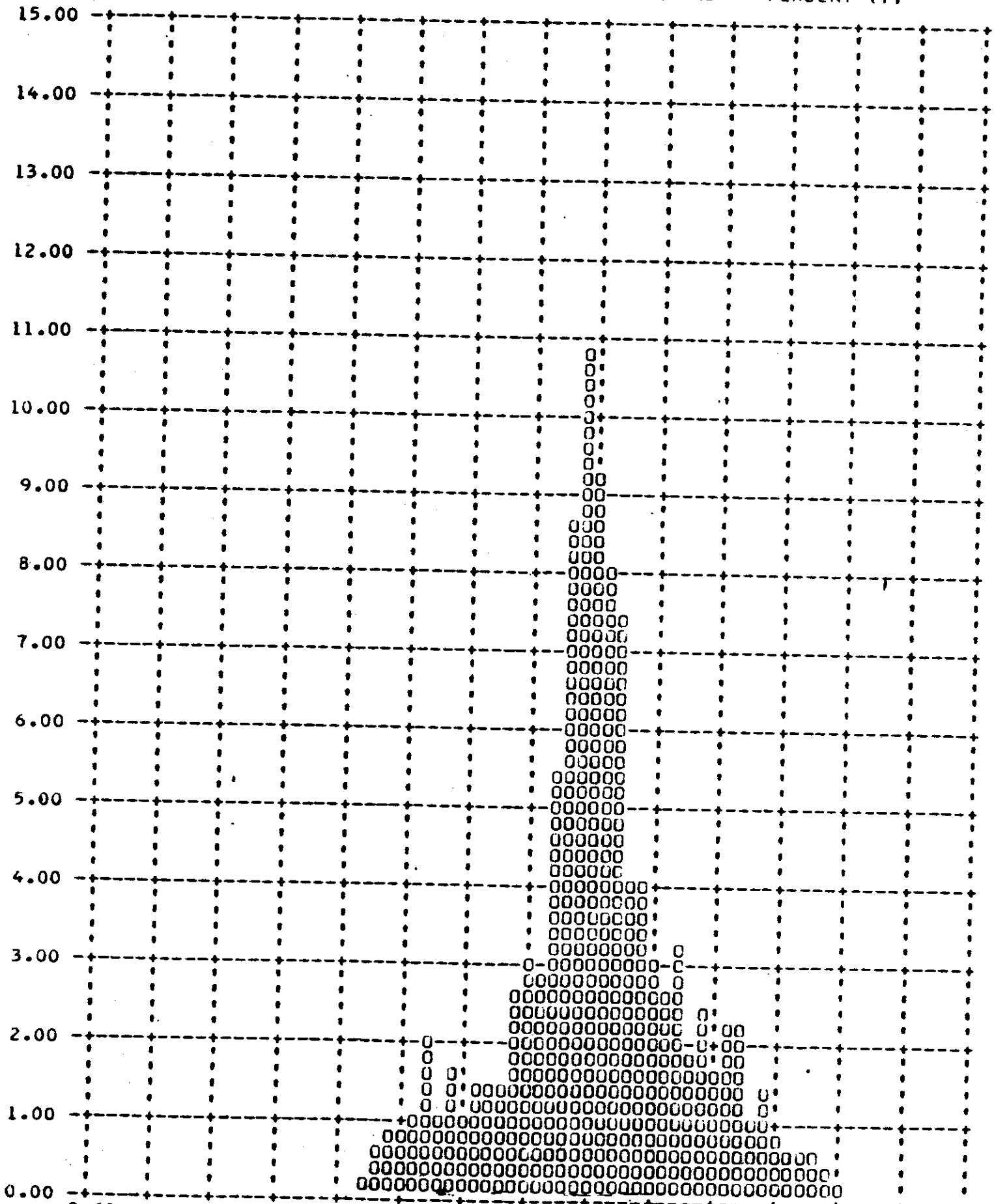
The attitude errors for each frame and the attitude control rates are calculated at the A/P computer facility. The computer also plots the frequency distribution of the rates and errors. Figures 11-1 through 11-6 show these distributions for Mission 1037-1 and Figures 11-7 through 11-12 for Missions 1037-2.

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.

Value	Mission 1037-1 90%	Mission 1037-1 Range	Mission 1037-2 90%	Mission 1037-2 Range
Pitch Error (^{o})	0.25	-0.36 to +0.40	0.24	-0.36 to +0.40
Roll Error (^{o})	0.25	-0.44 to +0.38	0.30	-0.44 to +0.42
Yaw Error (^{o})	1.50	-0.45 to +1.65	1.17	-0.80 to +1.70
Pitch Rate (^{o}/hr.)	22.80	-50 to +85	26.45	-38 to +94
Roll Rate (^{o}/hr.)	39.97	-95 to +75	52.53	-95 to +50
Yaw Rate (^{o}/hr.)	29.29	-50 to +95	26.16	-85 to +100

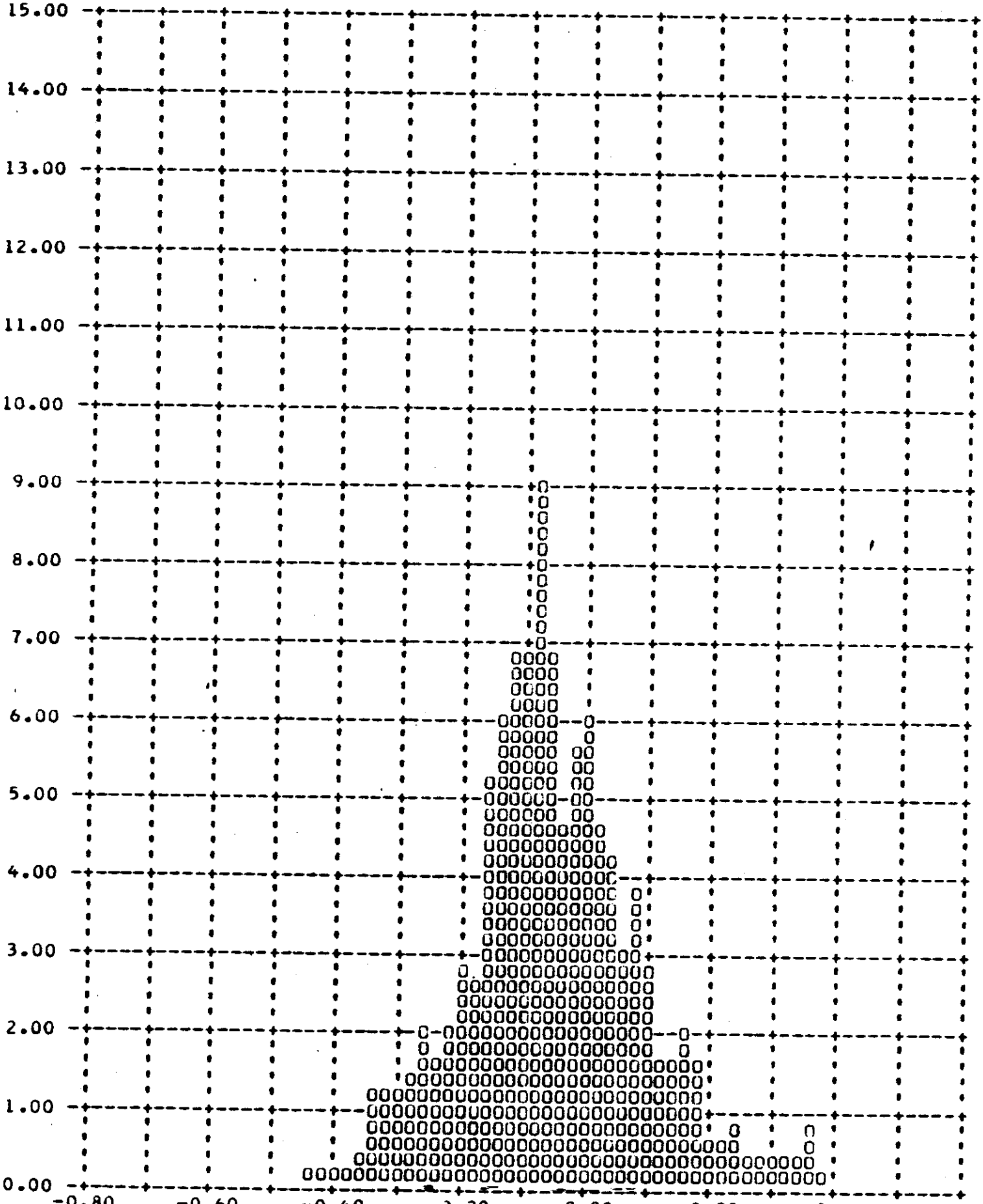
FRAMES 1-6 OF EACH OP OMITTED 90 PERCENT = 0.25

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

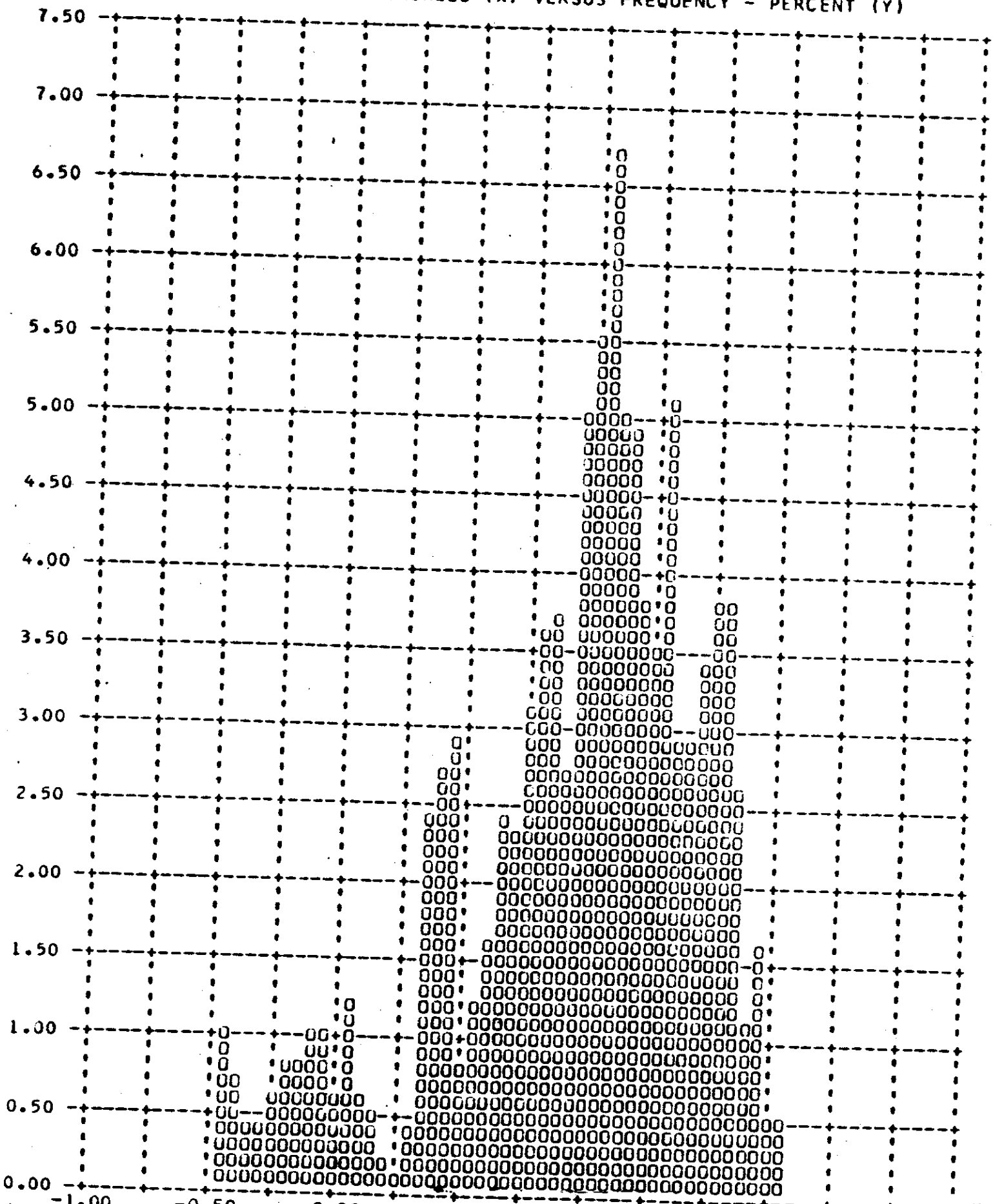


FRAMES 1-6 OF EACH OP OMITTED 90 PERCENT = 0.25

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

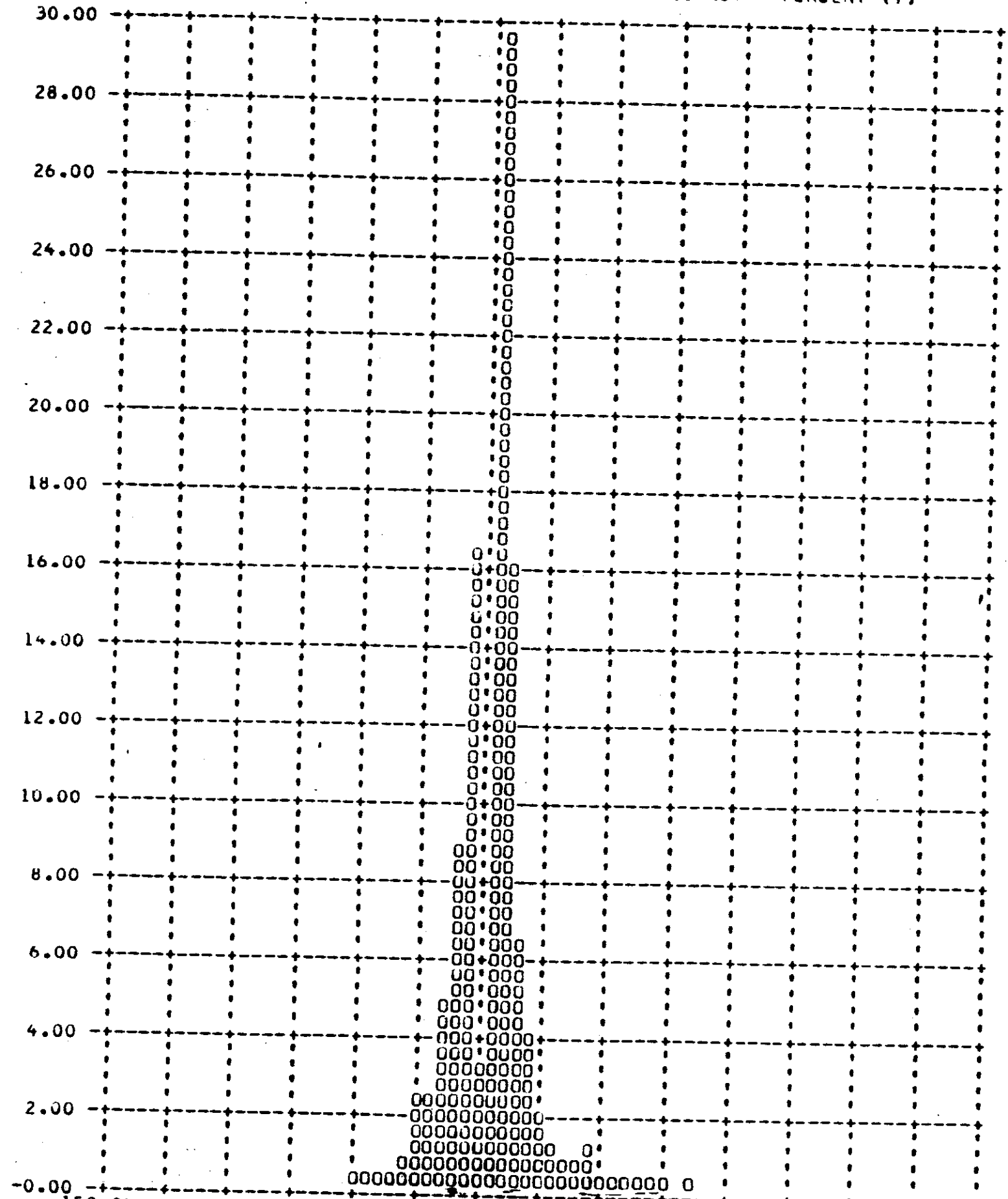


FRAMES 1-6 OF EACH OP OMITTED 90 PERCENT = 1.5

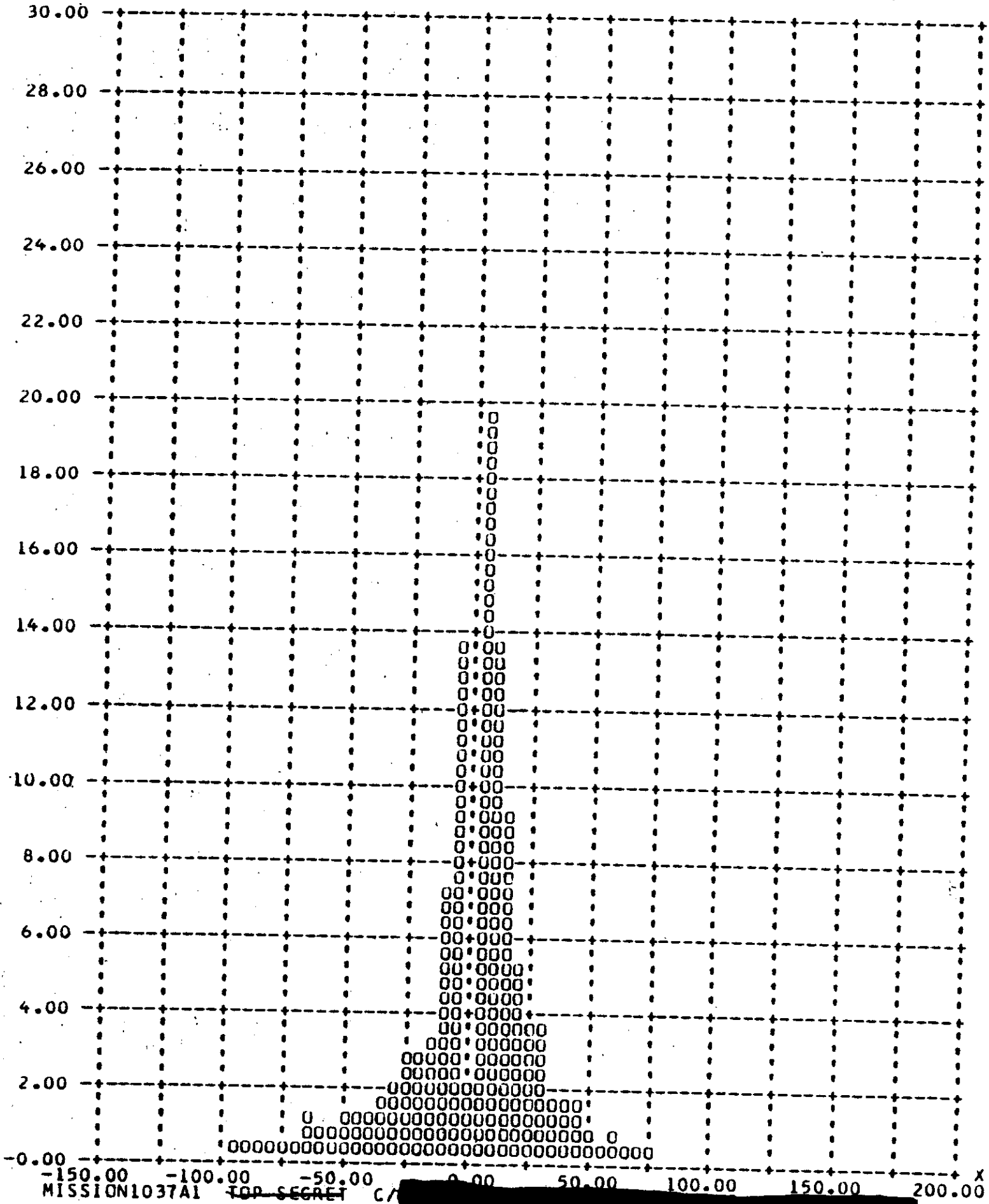


FRAMES 1-8 OF EACH OP OMITTED 90 PERCENT = 22.8

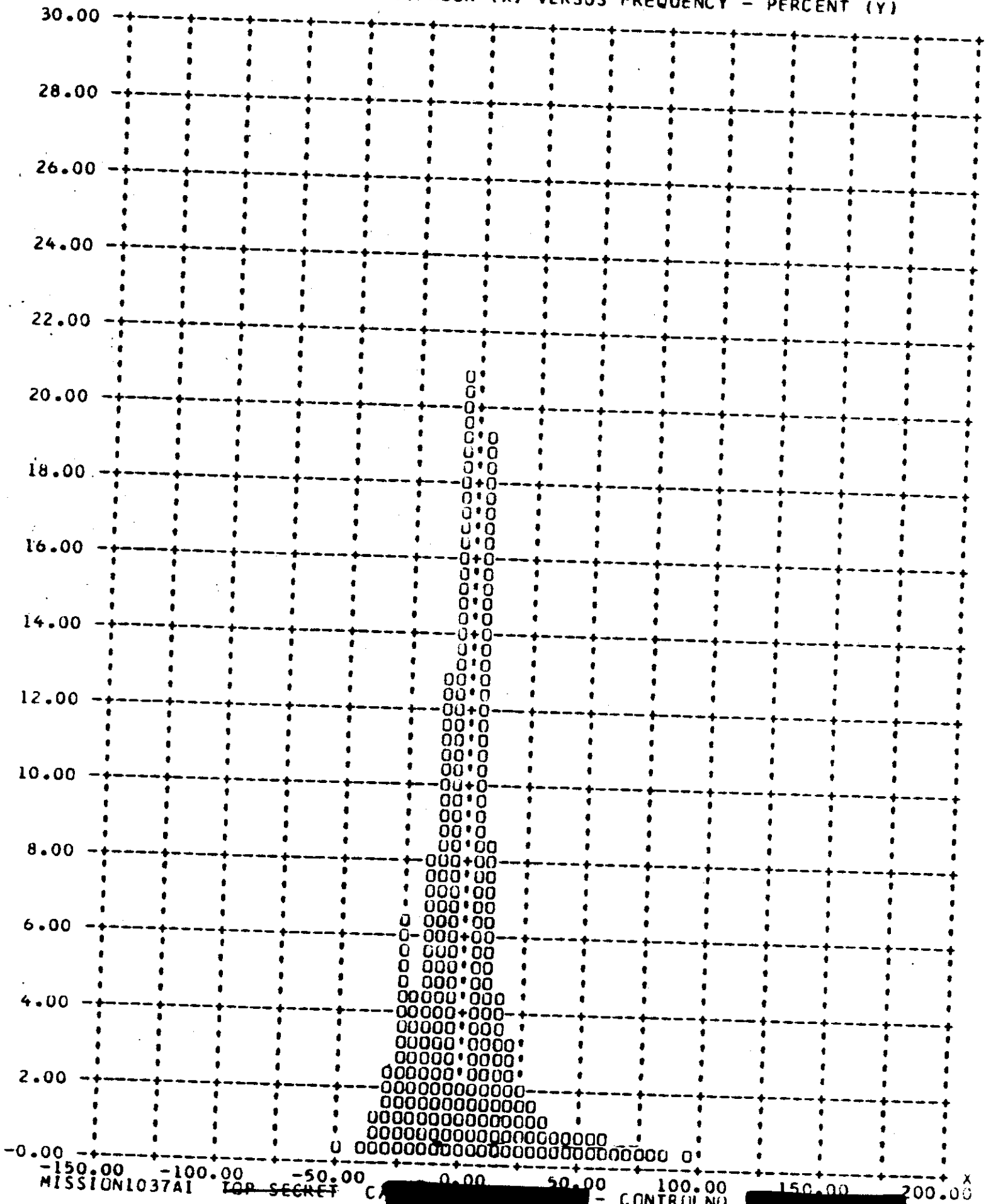
Y PITCH RATE ERROR - DEG/HOUR (X) VERSUS FREQUENCY - PERCENT (Y)



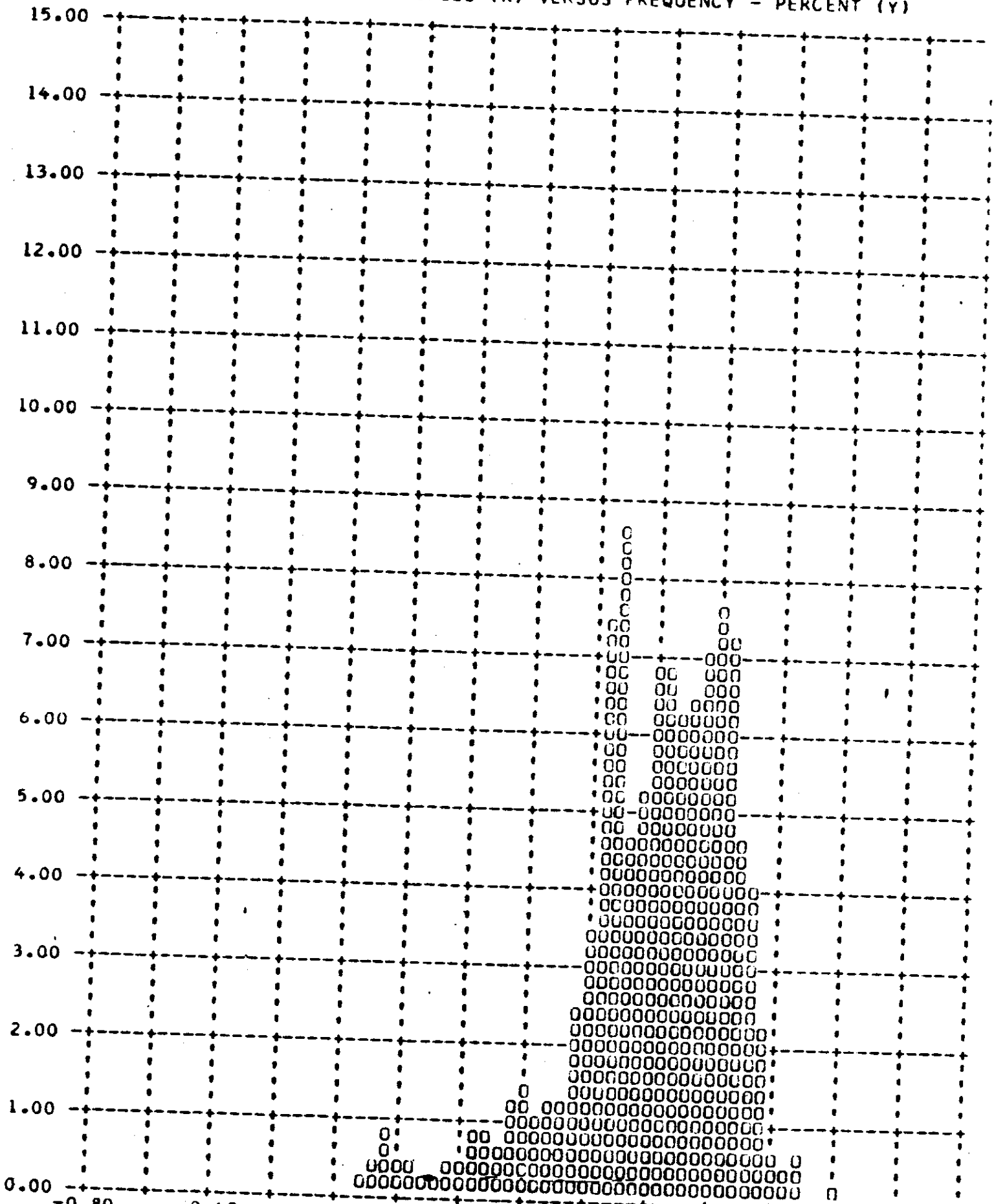
FRAMES 1-6 OF EACH OP OMITTED 90 PERCENT = 39.97



FRAMES 1-6 OF EACH UP OMITTED 90 PERCENT = 29.2

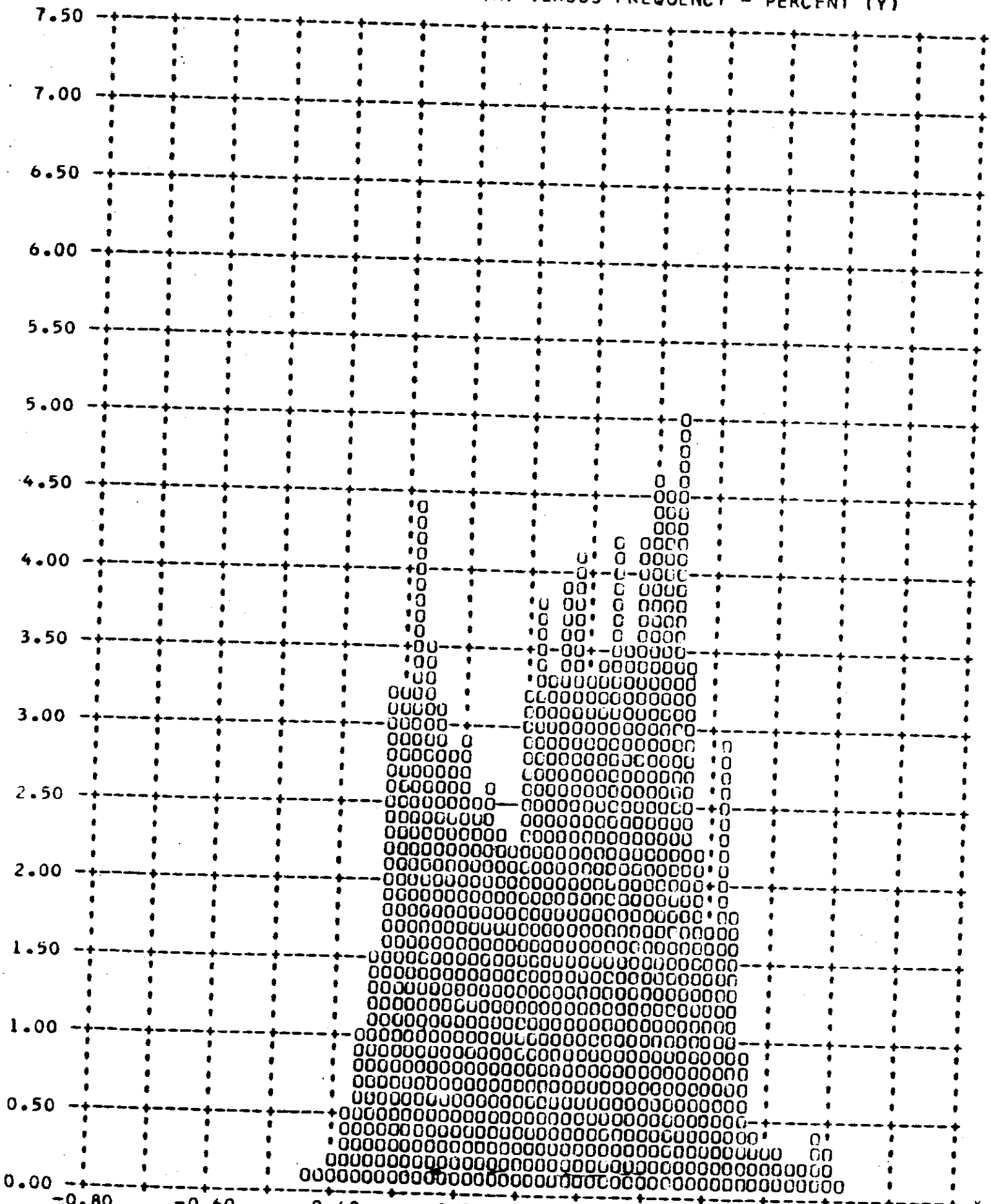


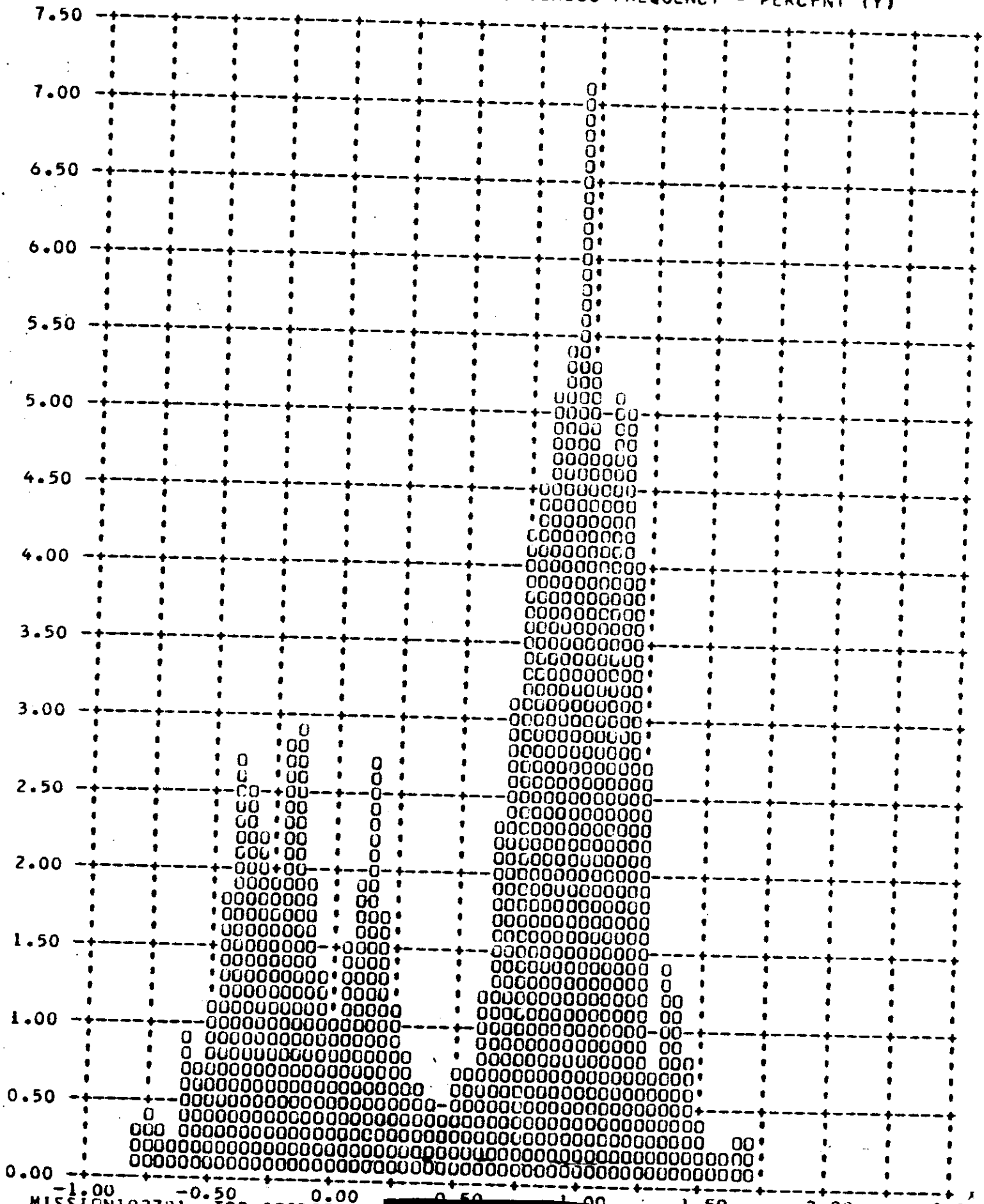
Y PITCH ANGLE ERROR - DEGREES (X) VERSUS FREQUENCY - PERCENT (Y)



FRAMES 1-6 OF EACH OP OMITTED 90 PERCENT = 0.30

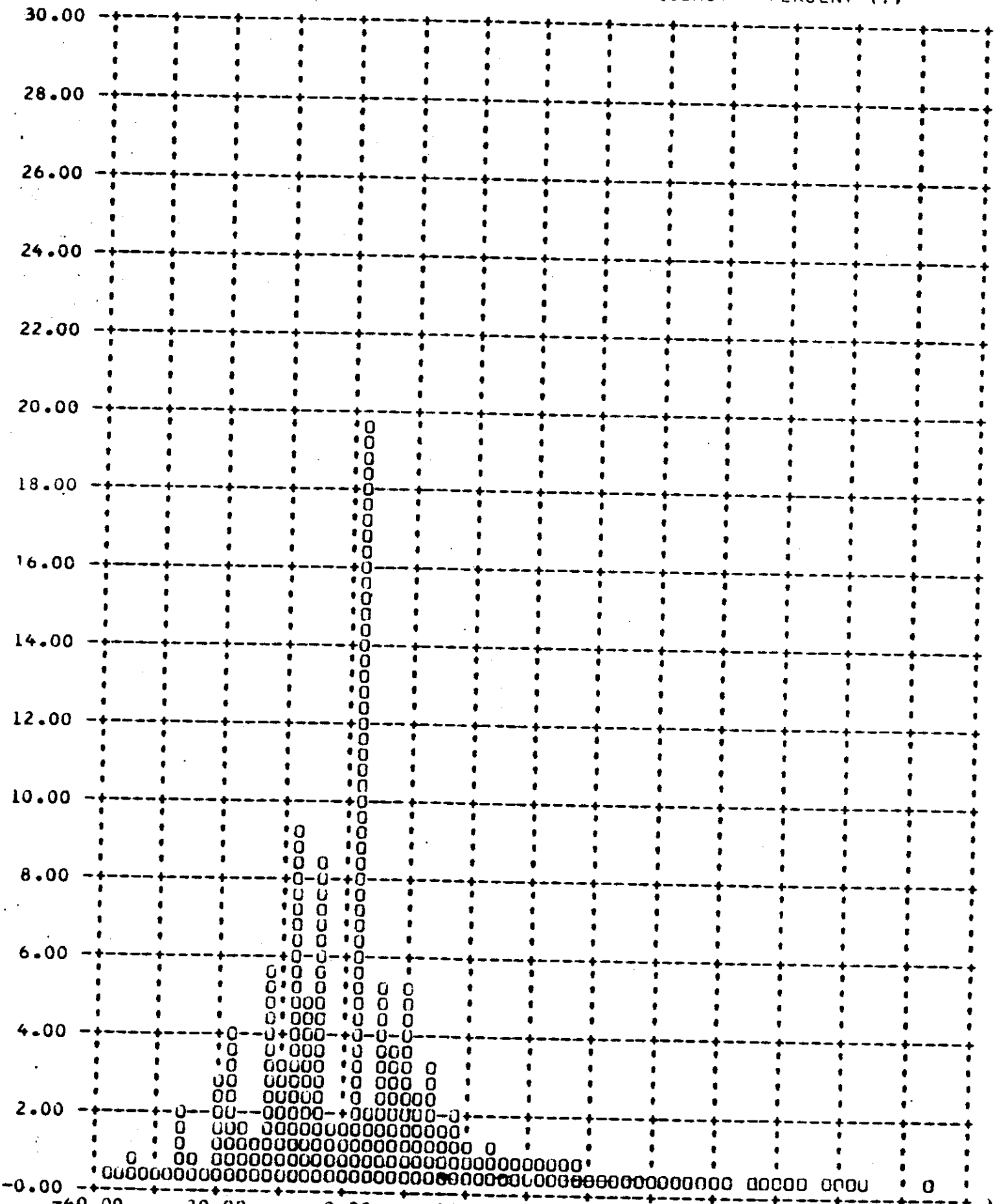
Y ROLL ANGLE ERROR - DEGREES (X) VERSUS FREQUENCY - PERCENT (Y)




Y YAW ANGLE ERROR - DEGREES (X) VERSUS FREQUENCY - PERCENT (Y)
7.50
7.00
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
-1.00
-0.50
0.00
0.50
1.00
1.50
2.00
2.5

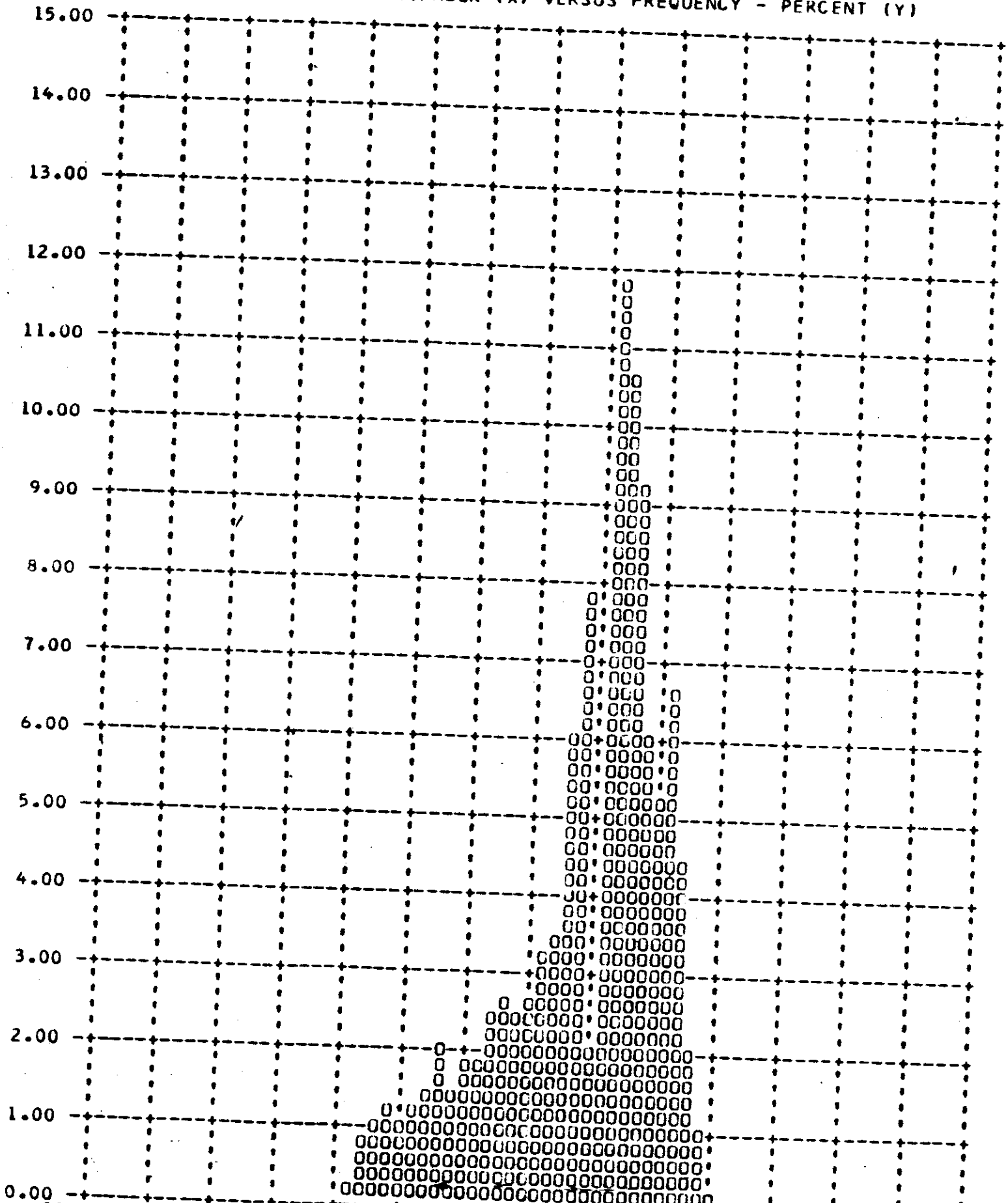
FRAMES 1-6 OF EACH OP OMITTED 90 PERCENT = 26.45

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



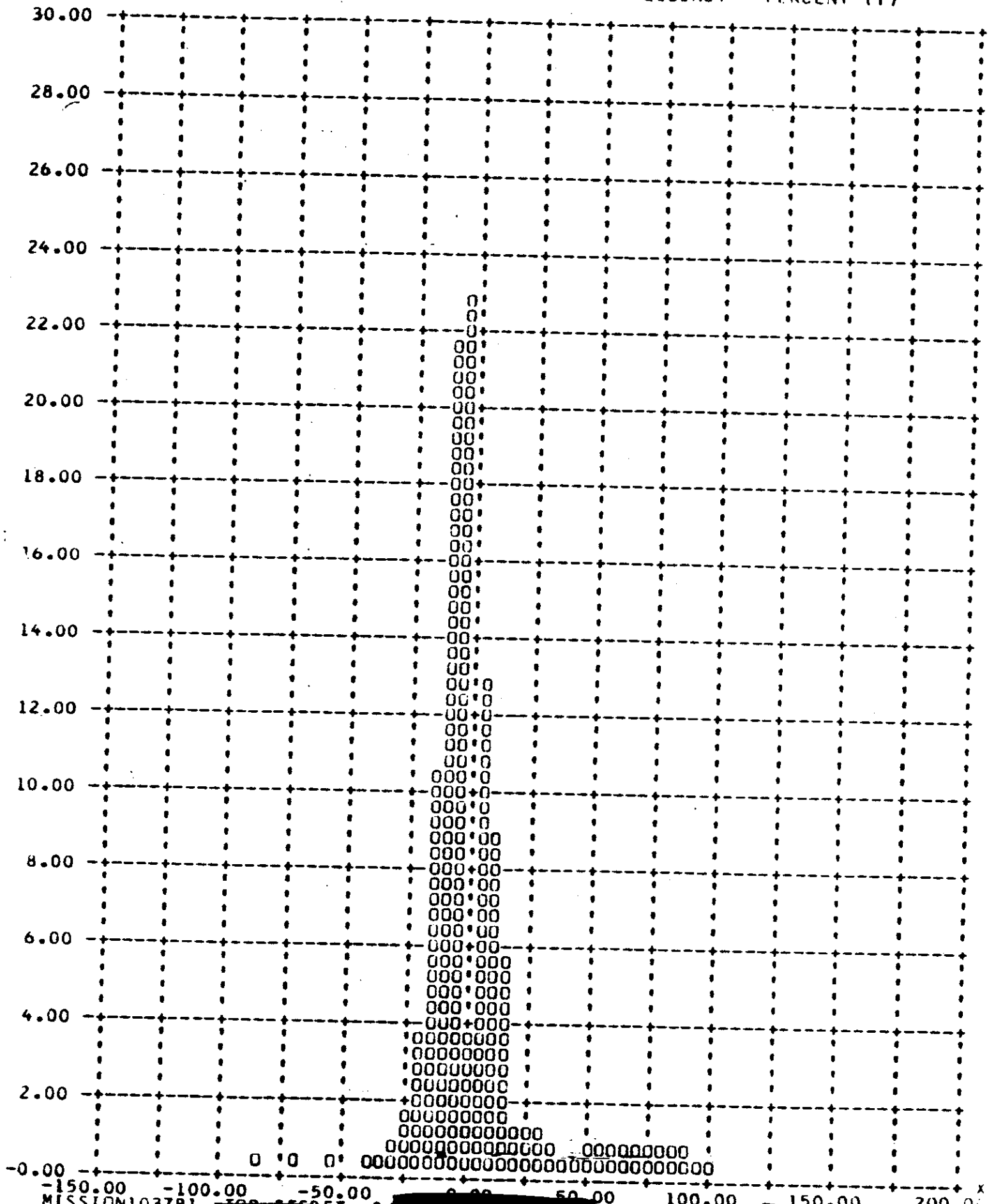
FRAMES 1-6 OF EACH OP OMITTED 90 PERCENT = 52.5

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



FRAMES 1-6 OF EACH OP OMITTED 90 PERCENT = 26.16

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



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.

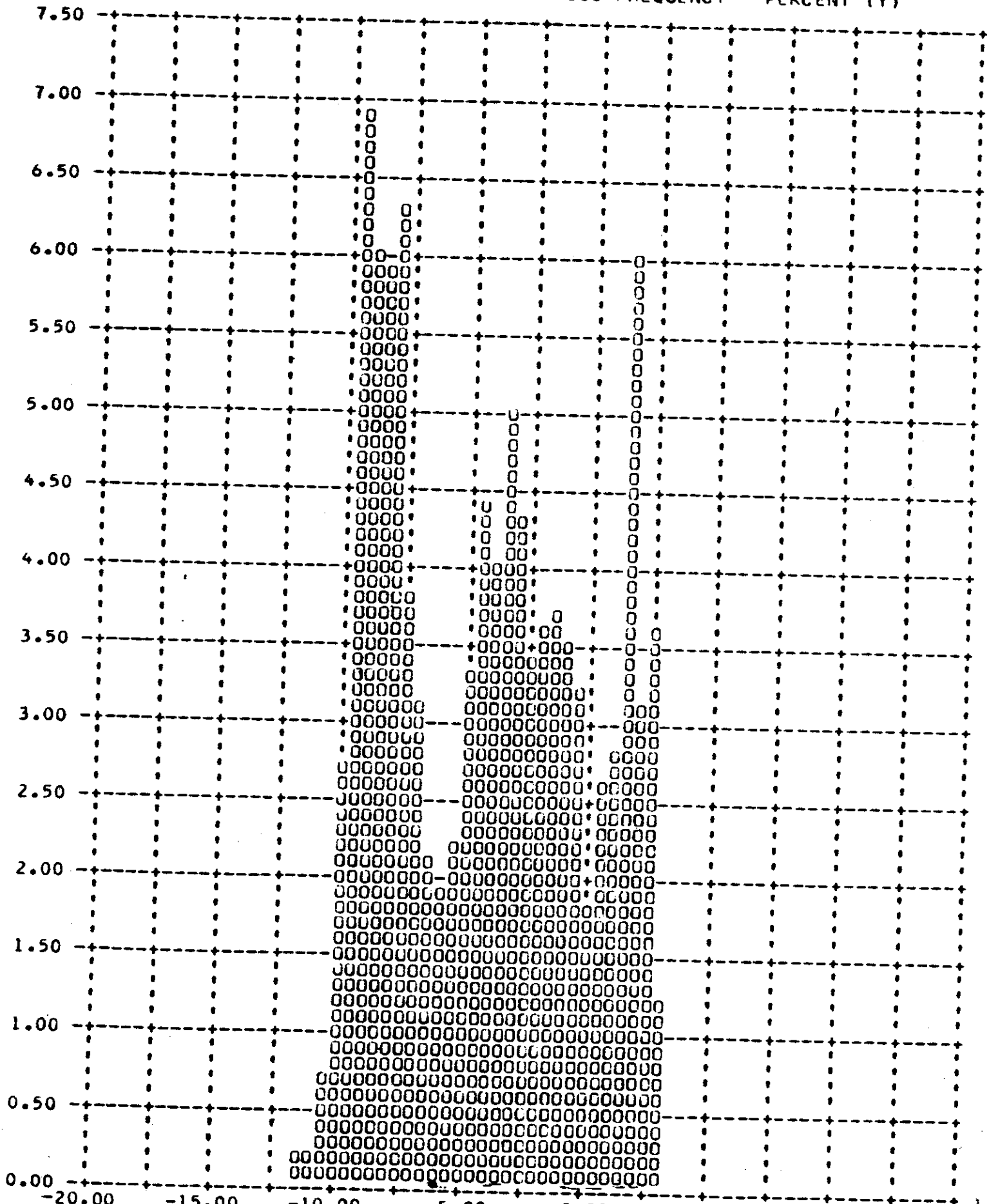
The computer rejects the first six frames of all operations as the large V/h error induced by camera start-up is not representative of the overall system operations. The frequency distribution of the V/h errors and resolution limits are computer plotted and are shown in Figures 12-1 through 12-16.

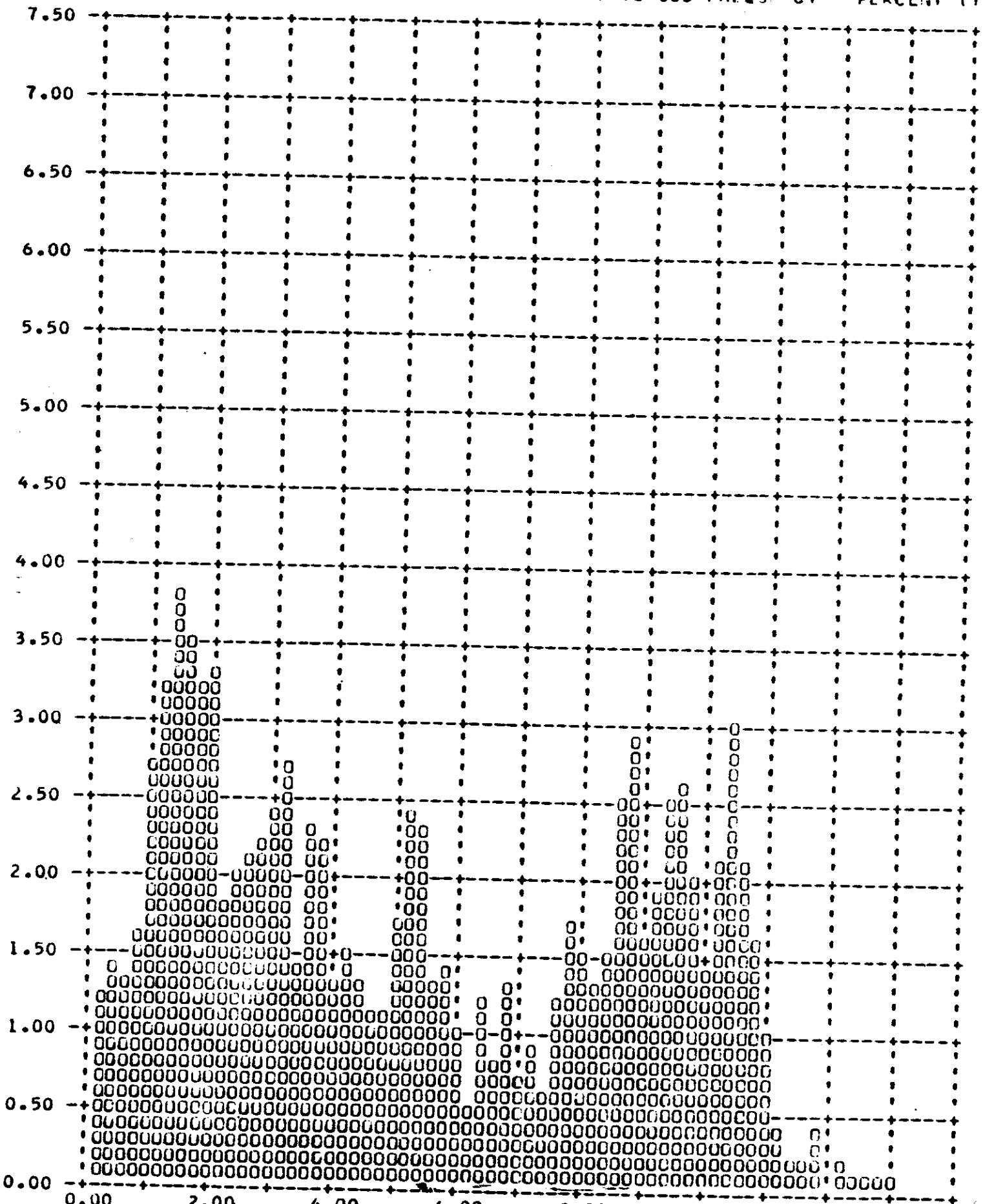
The summary table 12-1 presents the maximum V/h ratio errors and resolution limits that existed during 90% of the photographic operations and the total range of values during all operations that were computed.

MISSION 1037
V/h RATIO AND RESOLUTION LIMITS

VALUE	UNITS	CAMERA	MISSION 1037-1 90%	MISSION 1037-1 Range	MISSION 1037-2 90%	MISSION 1037-2 Range
V/h Ratio Error	%	FWD	9.54	-11.5 to +3.0	6.30	-11.8 to +2.0
		AFT	10.05	-12.0 to +3.0	6.59	-12.5 to +2.5
Along Track Resolution Limit	Feet	FWD	10.08	0.2 to 13.0	6.63	0.2 to 13.2
		AFT	8.01	0.2 to 10.4	5.37	0.2 to 10.4
Cross Track Resolution Limit	Feet	FWD	8.04	4.6 to 9.0	7.50	4.0 to 10.8
		AFT	6.06	3.2 to 7.2	5.85	2.6 to 8.6

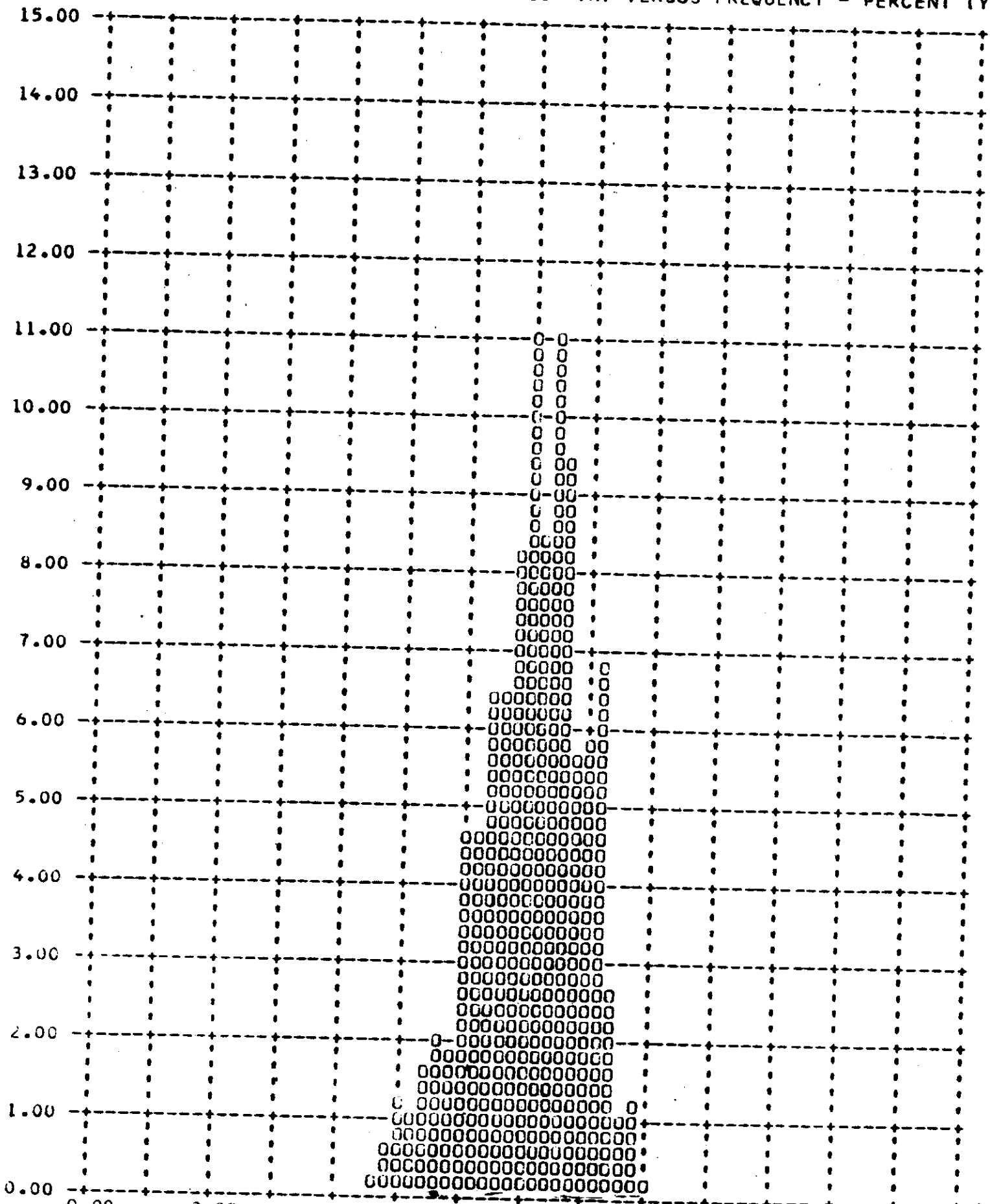
TABLE 12-1


Y V/H RATIO ERROR - PERCENT (X) VERSUS FREQUENCY - PERCENT (Y)
7.50
7.00
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
-20.00
-15.00
-10.00
-5.00
0.00
5.00
10.00
15.00

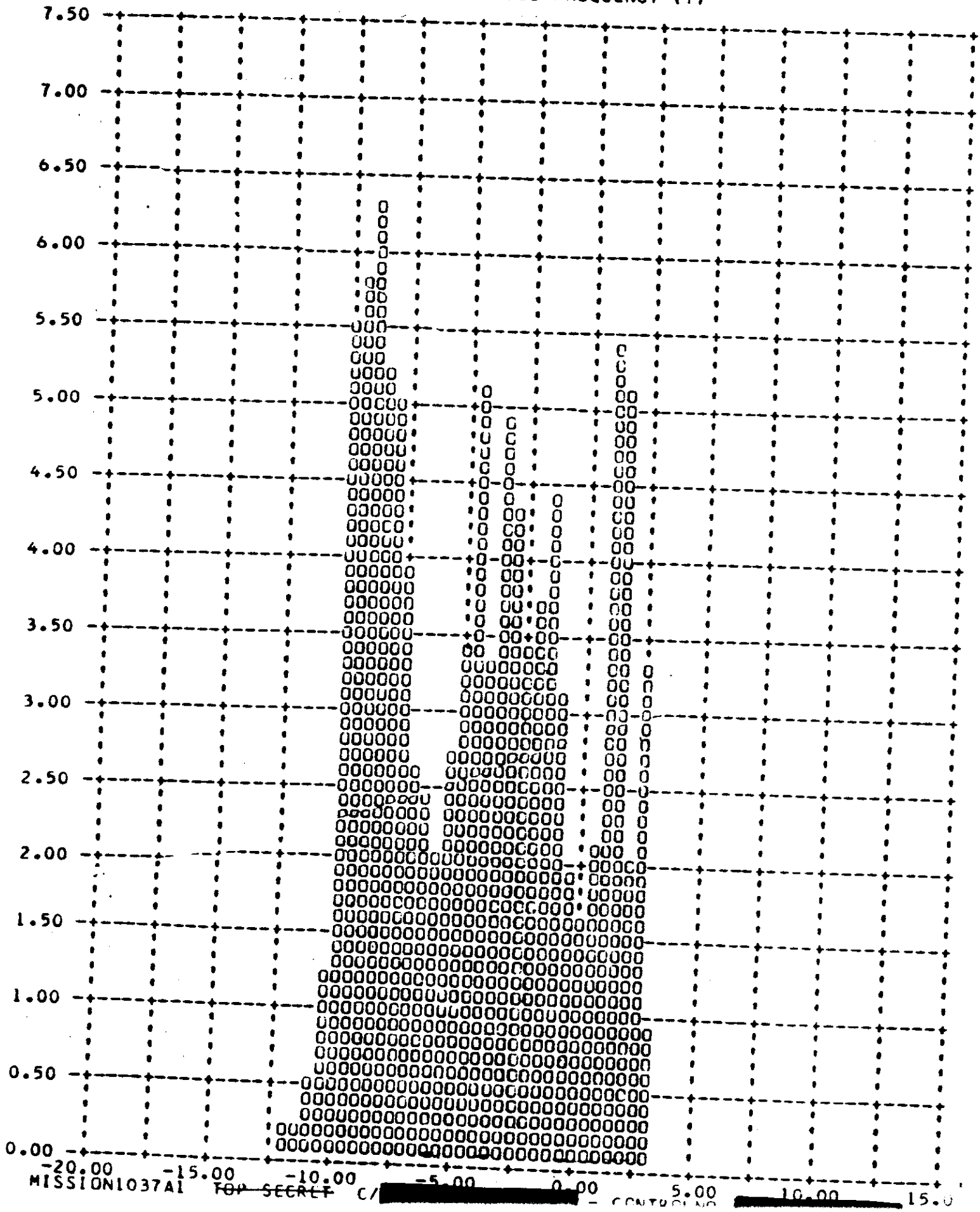

Y ALONG TRACK RESOLUTION LIMIT - FEET (X) VERSUS FREQUENCY - PERCENT (Y)
7.50
7.00
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
0.00
2.00
4.00
6.00
8.00
10.00
12.00
14.0

FRAMES 1-6 OF EACH OP OMITTED 90 PERCENT = 8.04

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



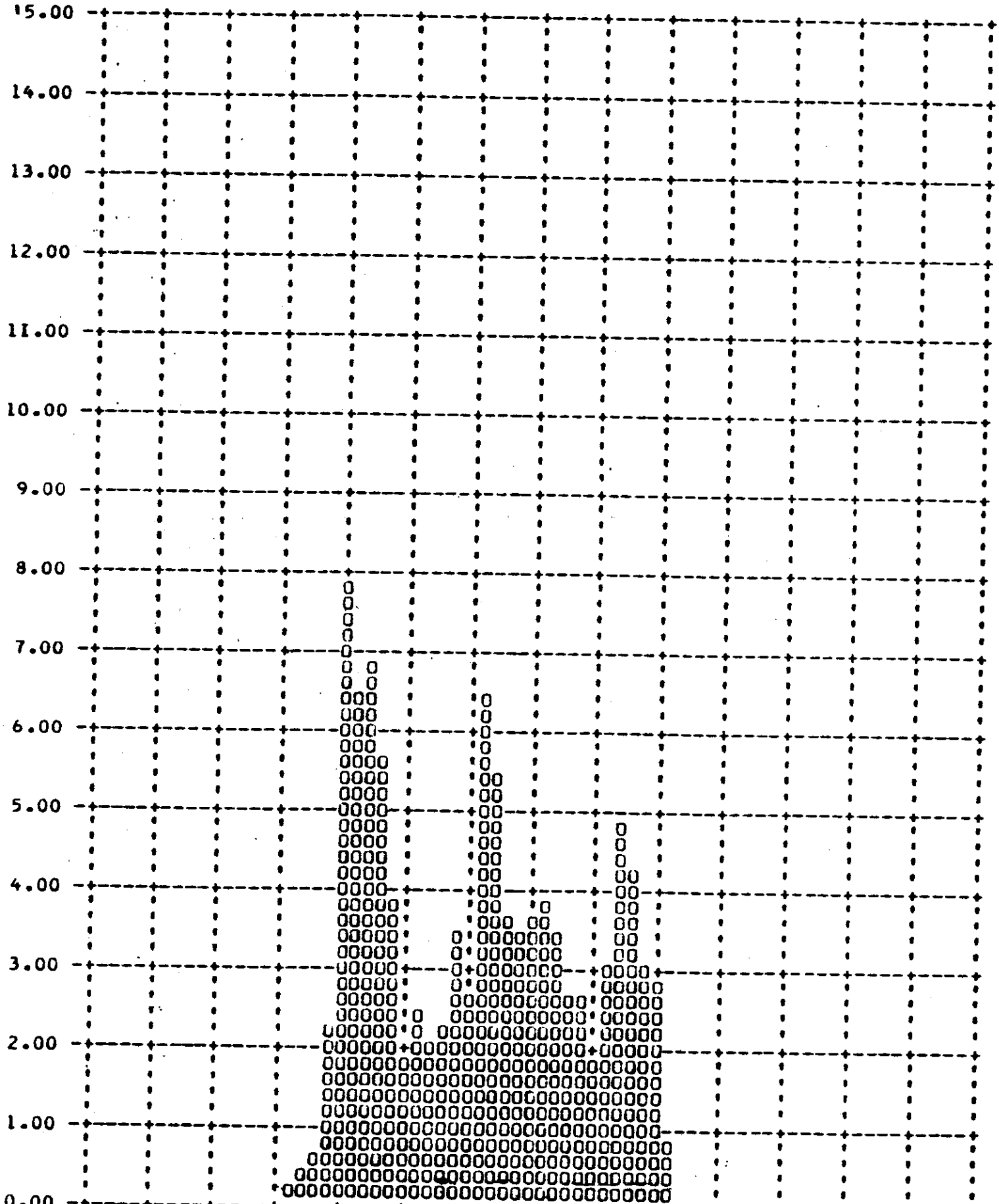
FRAMES 1-6 OF EACH OP OMITTED 90 PERCENT = 9.7



MISSION1037A2 ~~TOP SECRET~~ C[redacted] - CONTROLNO. [redacted]

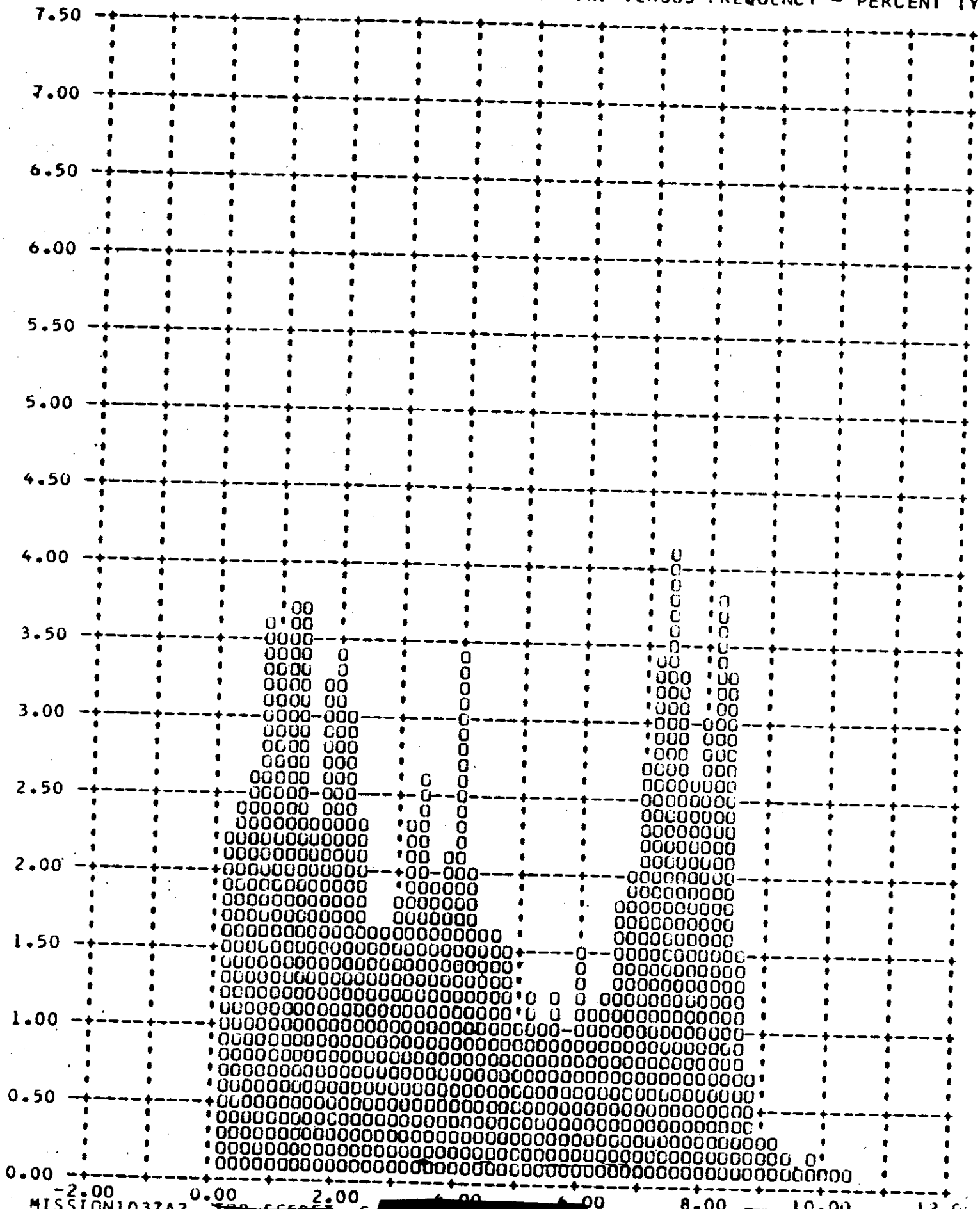
FRAMES 1-6 OF EACH OP OMITTED 90 PERCENT = 10.05

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



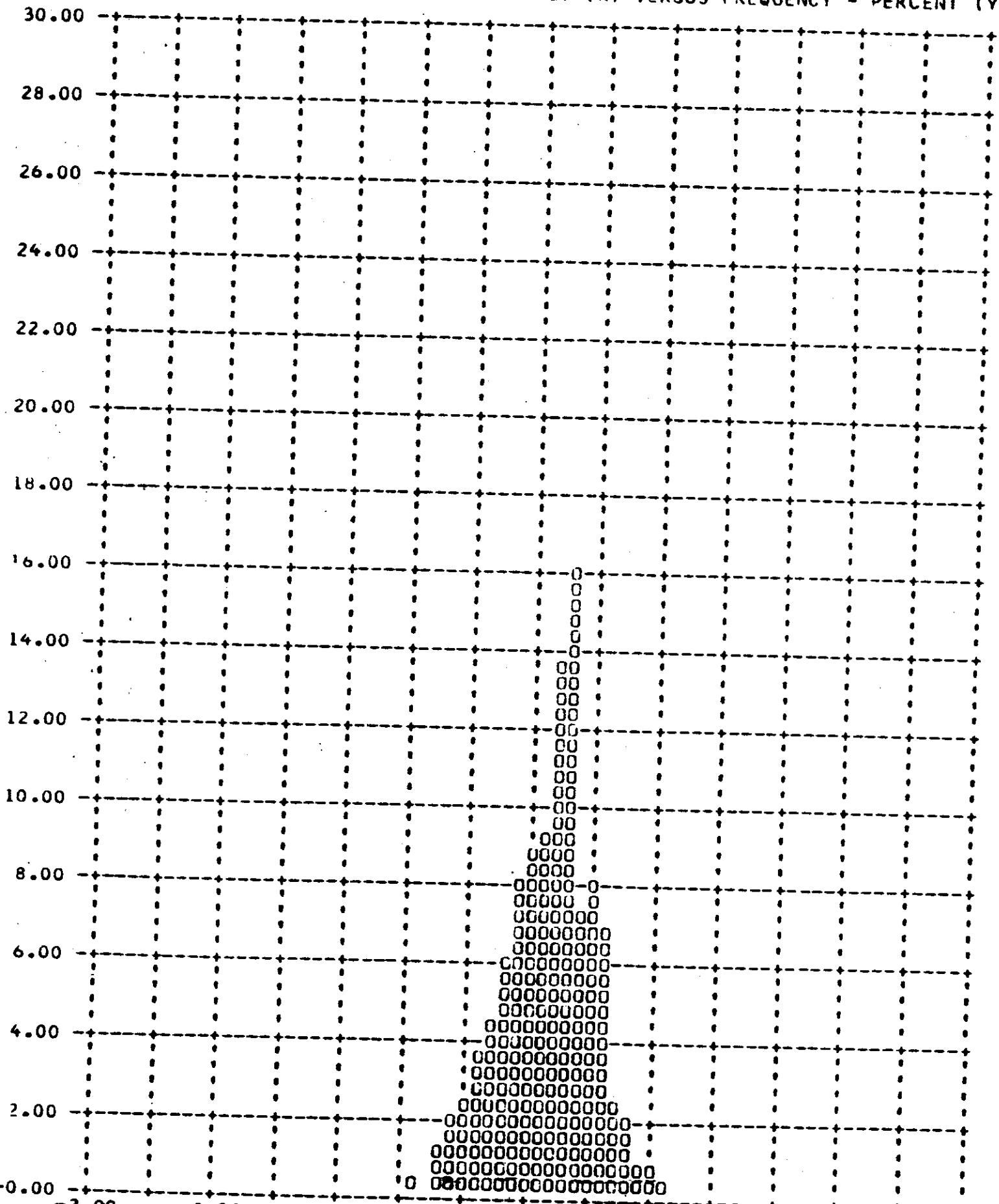
FRAMES 1-6 OF EACH OP OMITTED 90 PERCENT = 8.0

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



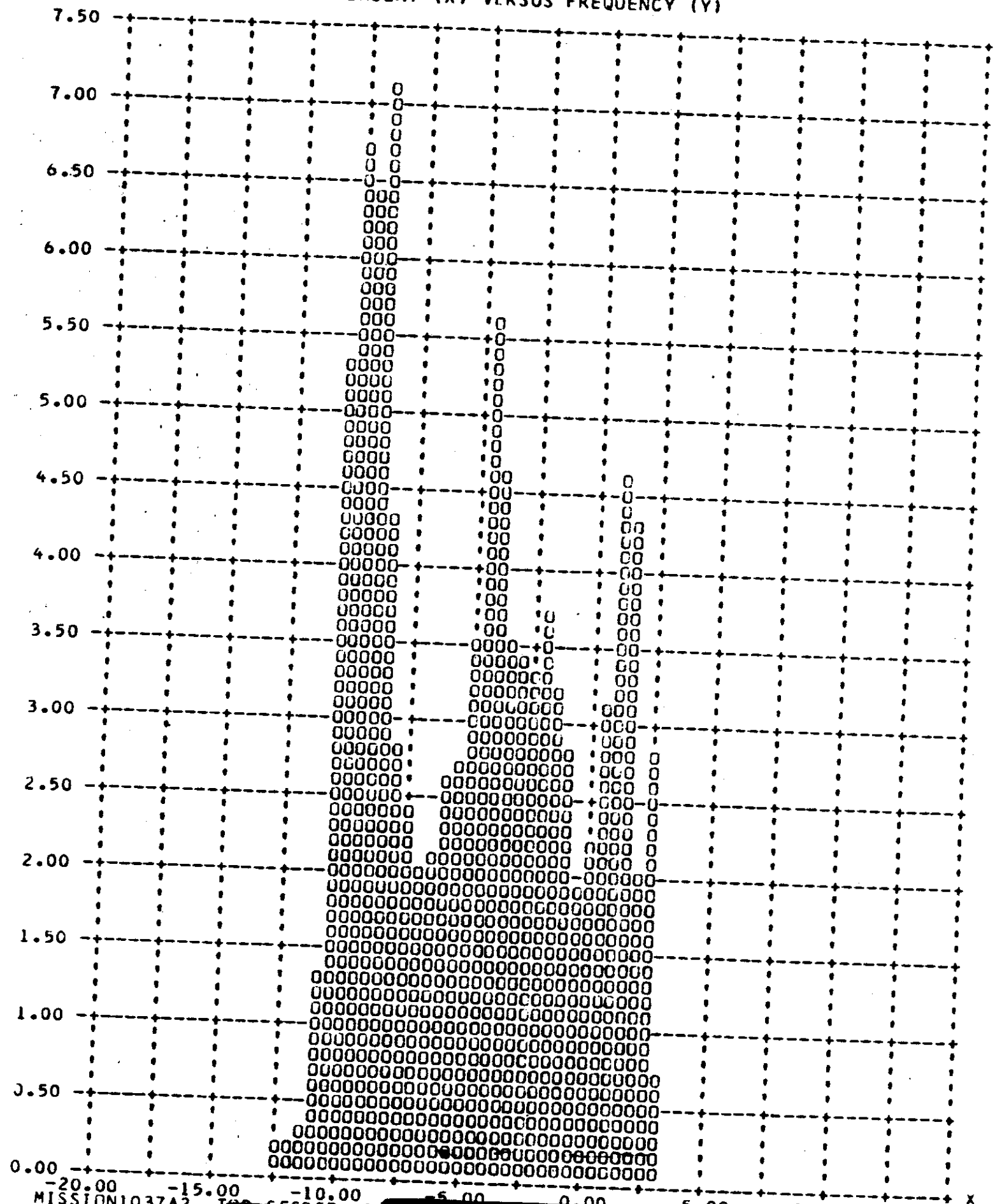
FRAMES 1-6 OF EACH OP OMITTED 90 PERCENT 6.06

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

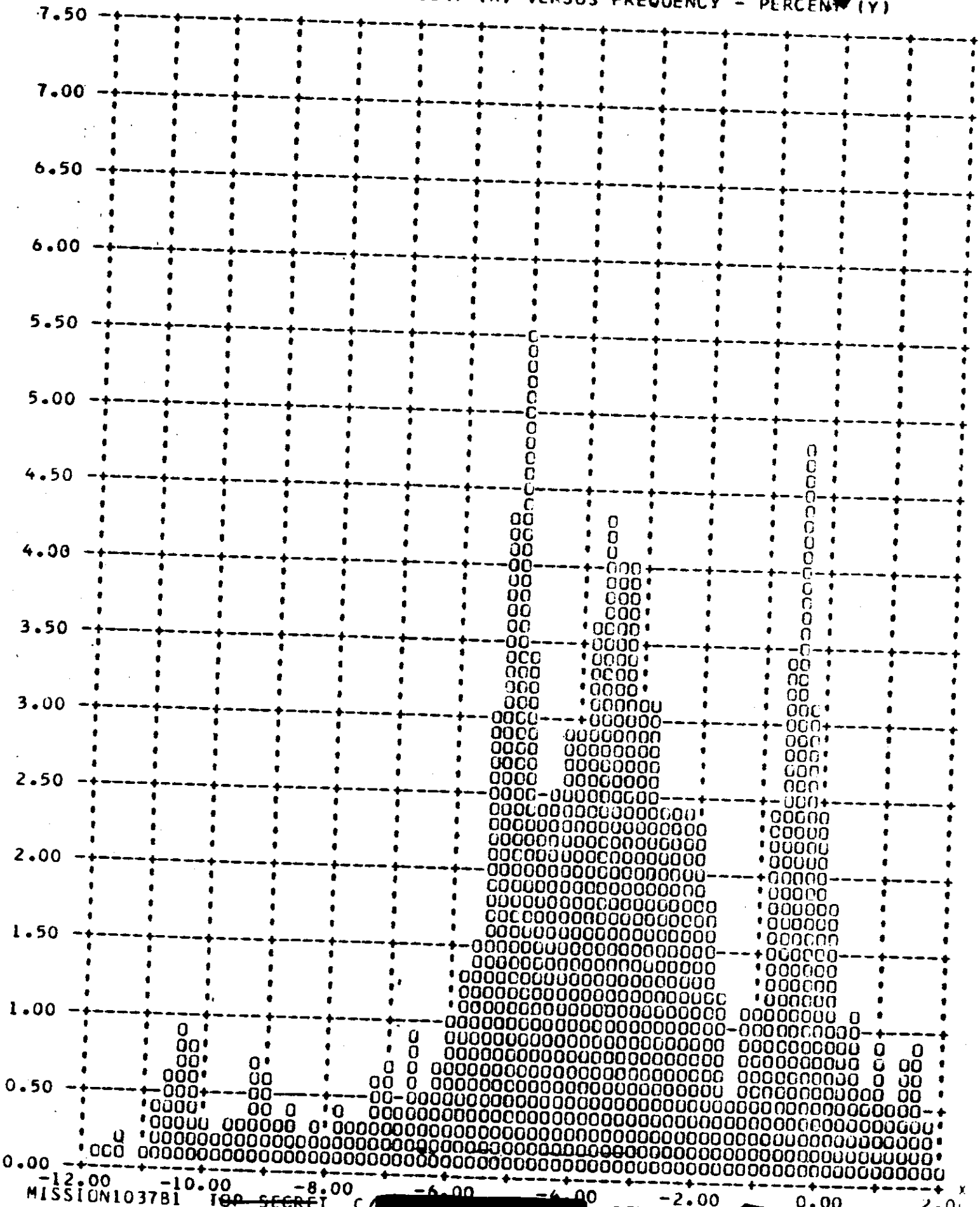


MISSION1037A2 ~~TOP SECRET~~ C[redacted] CONTROLNO. [redacted]

FRAMES 1-6 OF EACH OP OMITTED 90 PERCENT = 10.2

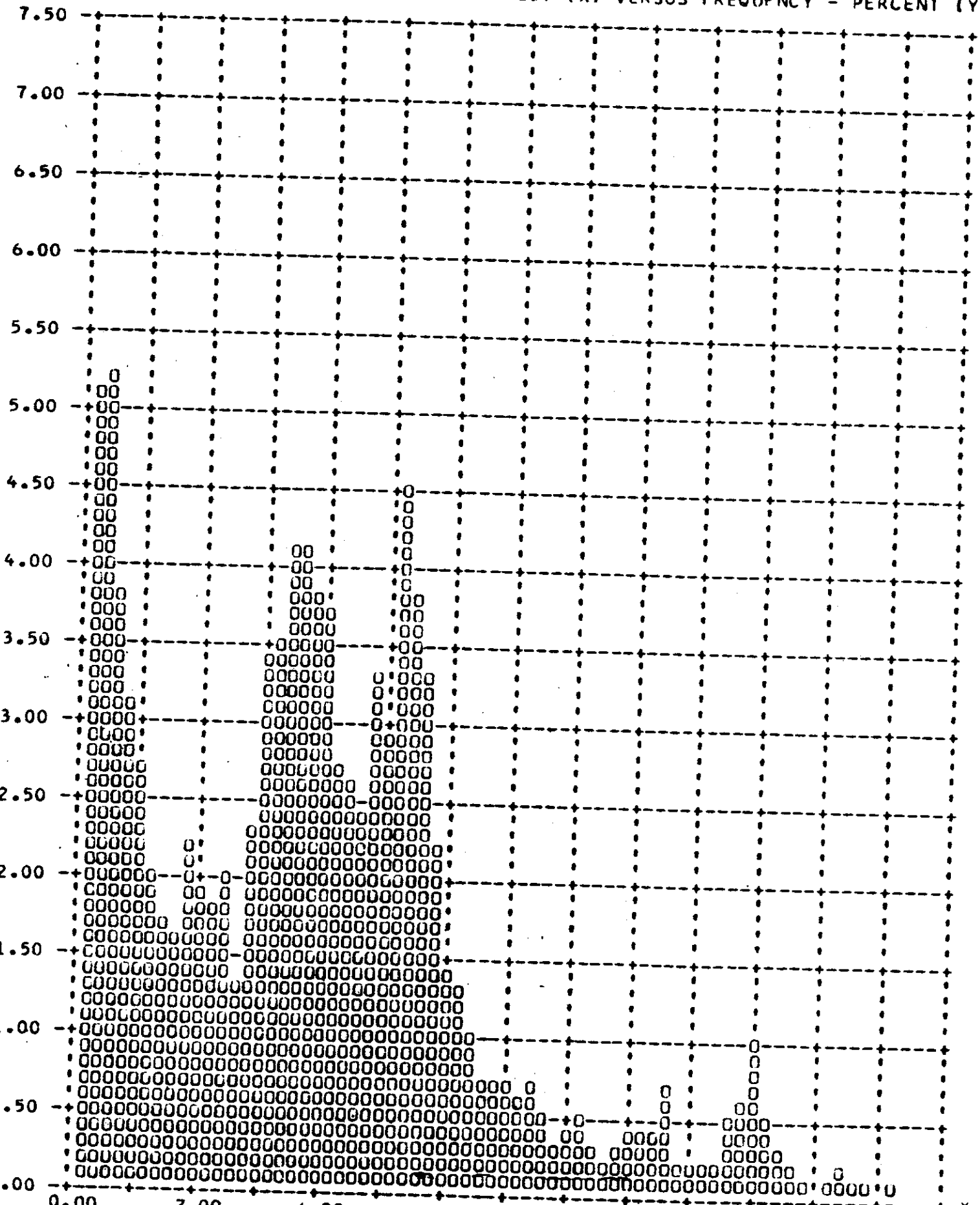


MISSION1037A2 ~~TOP SECRET~~ C[redacted]

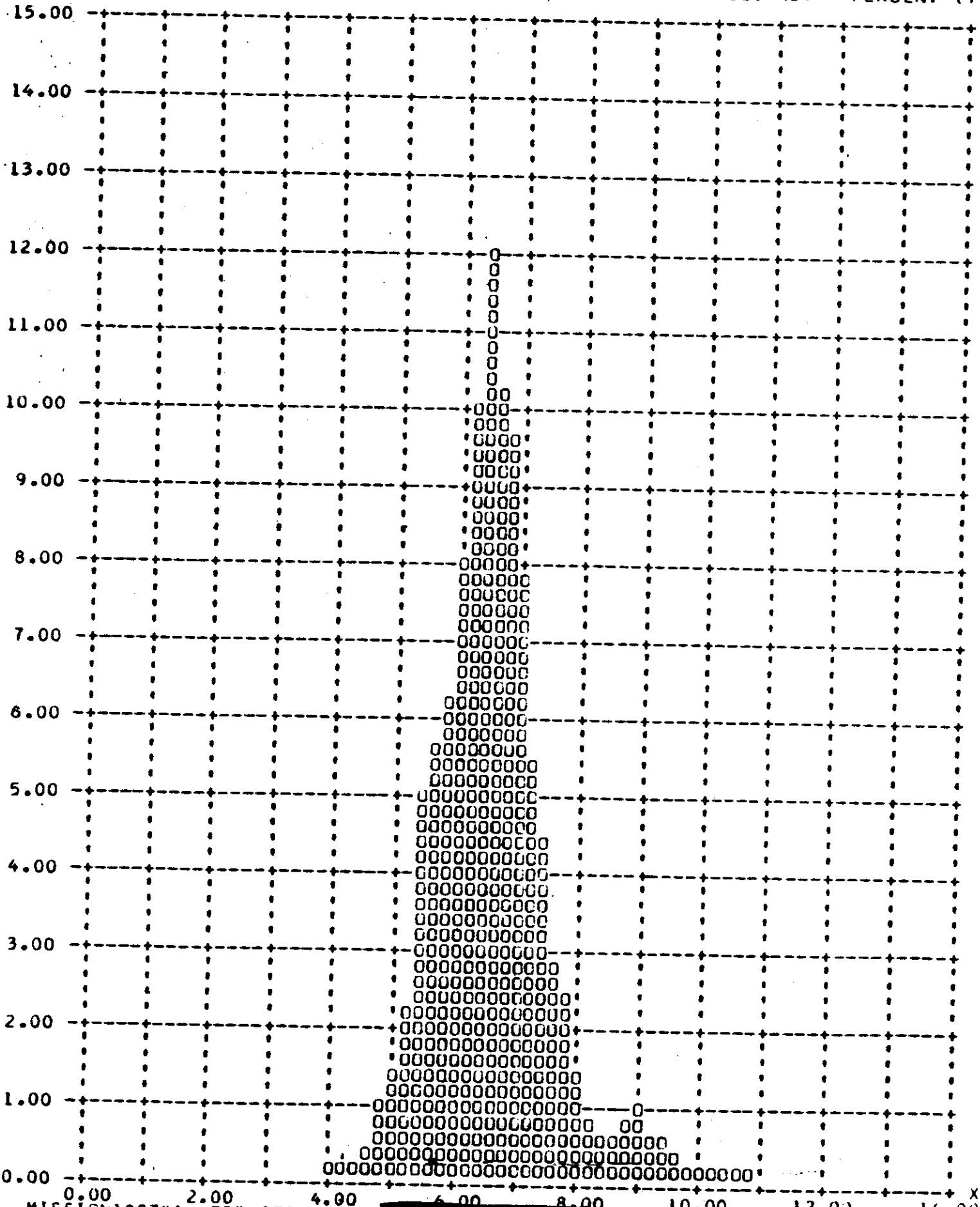

Y V/H RATIO ERROR - PERCENT (X) VERSUS FREQUENCY - PERCENT (Y)
7.50
7.00
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
-12.00
-10.00
-8.00
-6.00
-4.00
-2.00
0.00
X

FRAMES 1-6 OF EACH OP OMITTED 90 PERCENT = 6.63

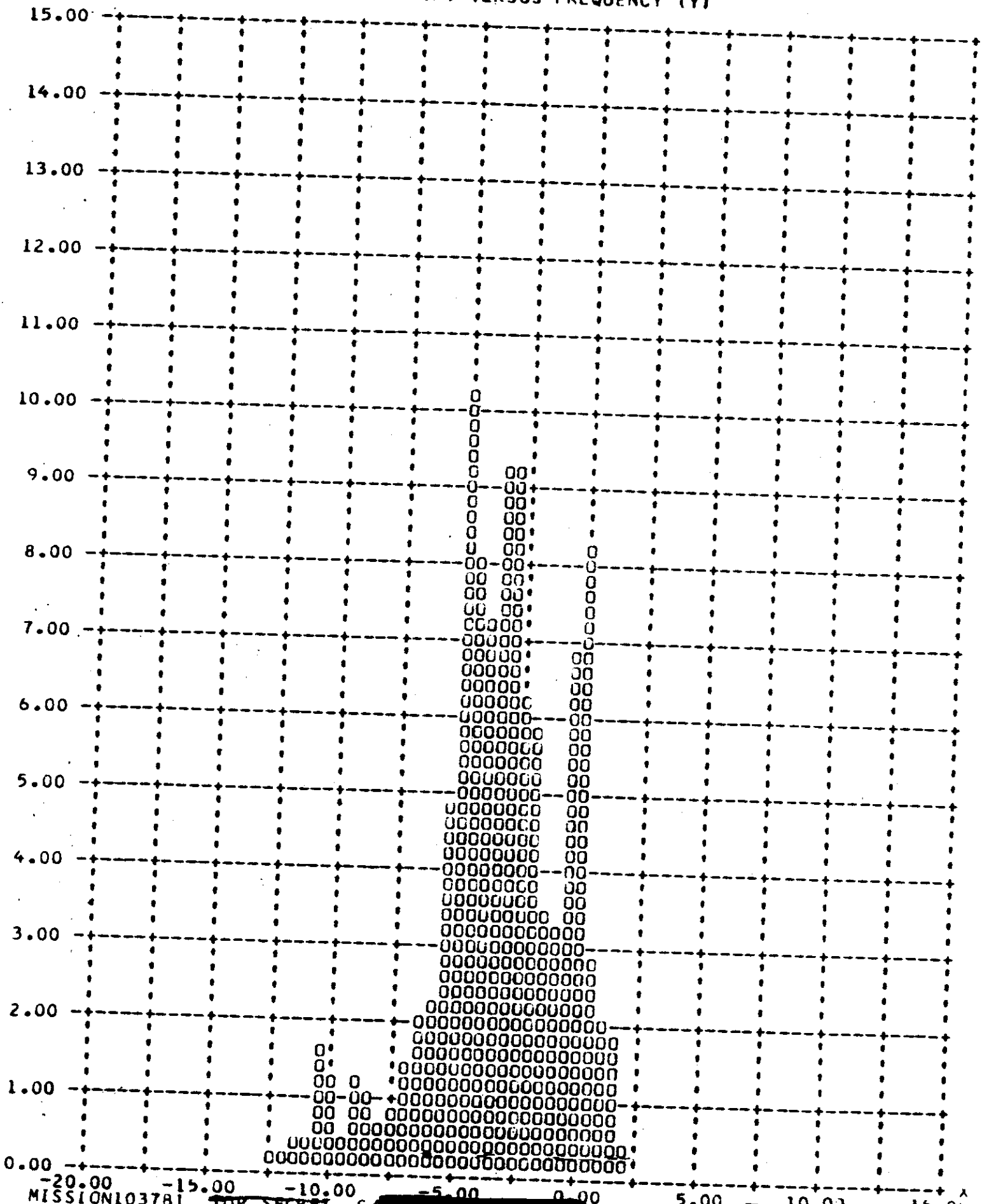
Y ALONG TRACK RESOLUTION LIMIT - FEET (X) VERSUS FREQUENCY - PERCENT (Y)



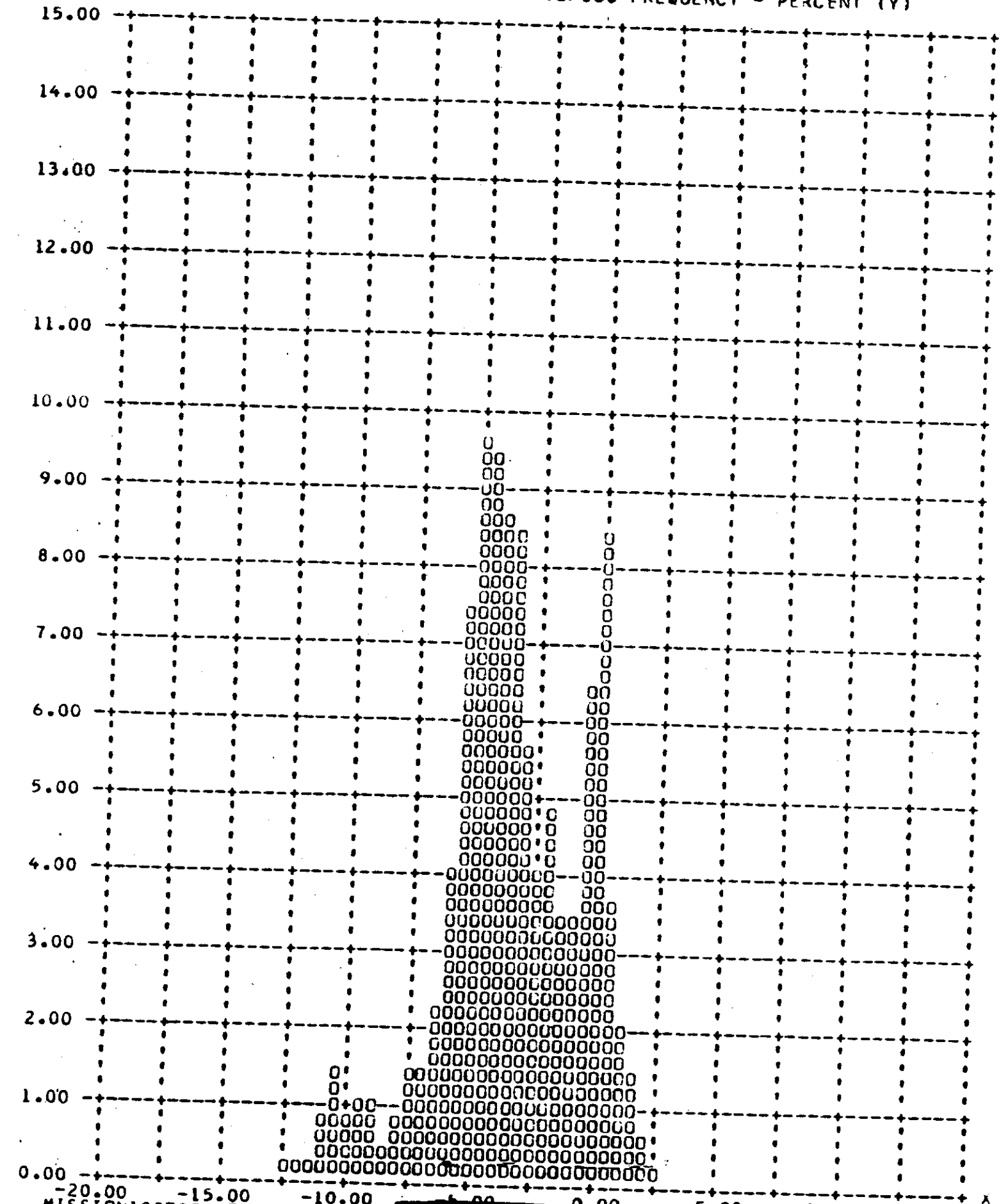
FRAMES 1-6 OF EACH OP OMITTED 90 PERCENT = 7.50



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

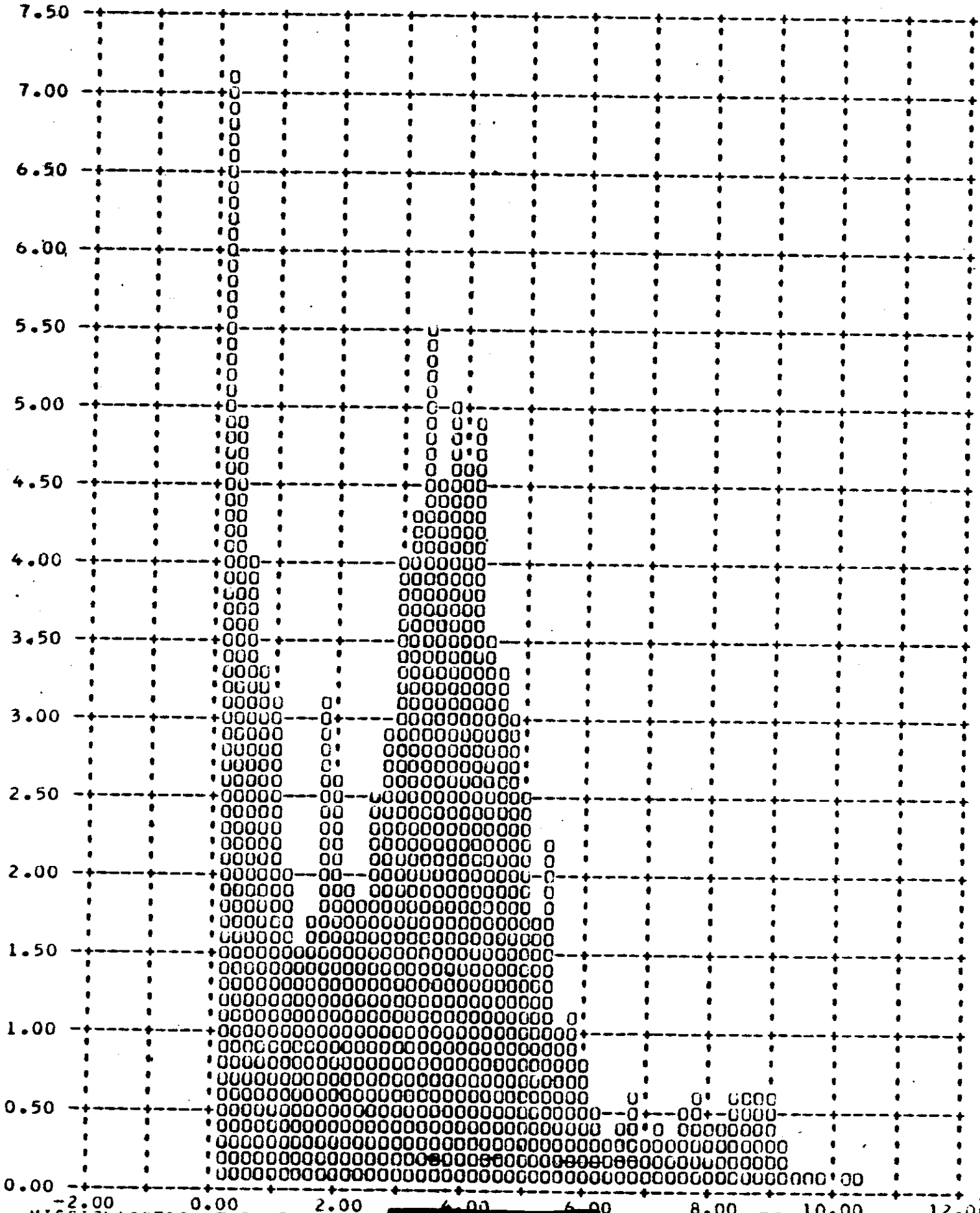


FRAMES 1-6 OF EACH UP OMITTED 90 PERCENT = 6.5

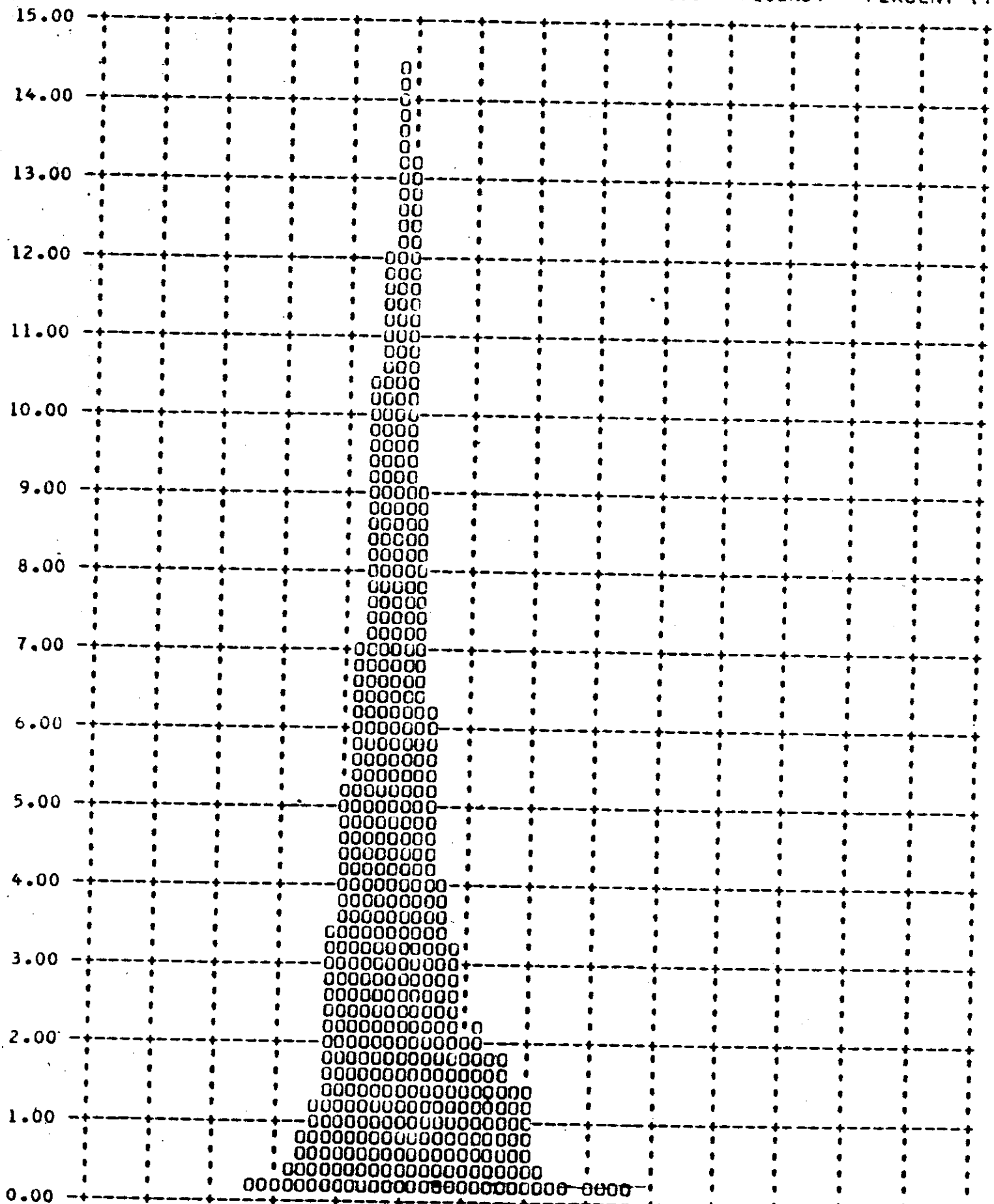


MISSION103782 ~~TOP SECRET~~ C/[redacted] CONTROL NO. [redacted]
FRAMES 1-6 OF EACH OP OMITTED 90 PERCENT = 5.37

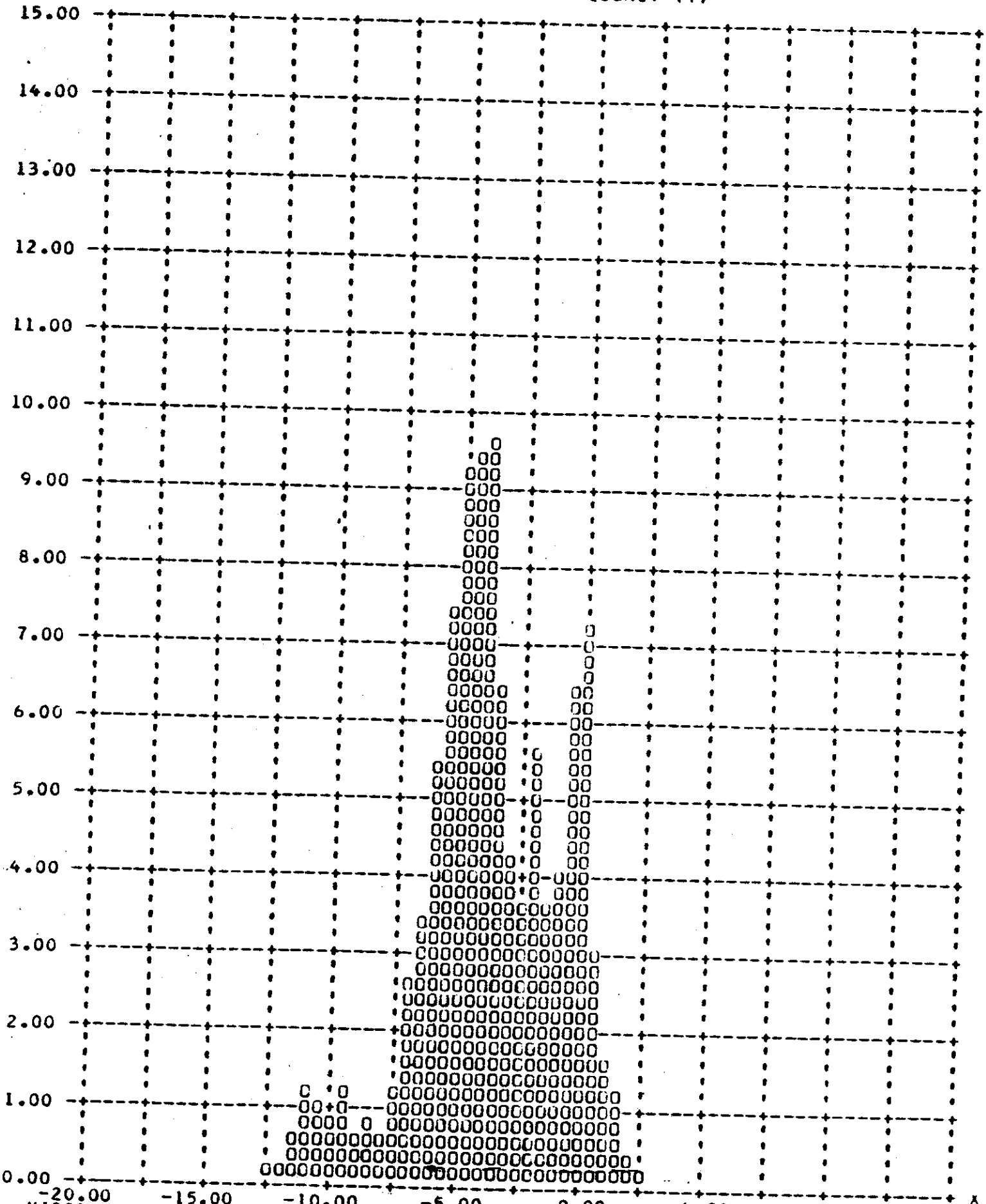
Y ALONG TRACK RESOLUTION LIMIT - FEET (X) VERSUS FREQUENCY - PERCENT (Y)



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



FRAMES 1-6 OF EACH UP OMITTED 90 PERCENT = 7.00



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

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

	Mission 1037-1		Mission 1037-2	
Emulsion	B + F Density	Radiation	B + F Density	Radiation
Type 3401	0.15	0.3 R	0.18	0.6 R
Royal X Pan	0.18	0.2 R	0.22	0.4 R

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 - 163 opportunities to operate
One failure
Assume - 3000 cycles per camera per mission
Estimated Reliability = 99.0% at 50% confidence level.

Main Camera Door Reliability

Sample Size - 54 vehicles x 2 doors = 108 opportunities to operate
Estimated Reliability = 99.4% at 50% confidence level

Payload Command and Control

Sample Size - 9048 hours operation in sample
Two failures
Estimated Reliability = 97.2% at 50% confidence level

Payload Clock Reliability

Sample Size - 9048 hours operation in sample
No failures
Estimated Reliability = 99.3% at 50% confidence level.

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

Recovery System Reliability

73 opportunities to recover
1 failure - improper separation due to water seal - cutter failure
Estimated Reliability = 97.7% at 50% confidence level

Stellar-Index Camera Reliability

Sample begins with J5
Sample Size = 22,530 cycles
Four failures
Estimated Reliability = 91.6% at 50% confidence level.

Horizon Camera Reliability

Sample begins with J5 - 91,500 cycles
Estimated Reliability of Single Camera = 98.9% at 50% confidence level
Estimated Reliability of Four Horizon Cameras at a Parallel Redundant System = 99.9% at 50% confidence level.

ESTIMATED RELIABILITY SUMMARY

(AT 50% CONFIDENCE LEVEL)

SESSION NUMBER	PRIMARY FUNCTIONS						SECONDARY FUNCTIONS	
	PANORAMIC CAMERA	PANORAMIC CAMERA DOORS	COMMAND & CONTROL SYSTEM	PAYLOAD CLOCK	ON-ORBIT FUNCTIONS	RECOVERY SYSTEM	STELLAR-INDEX CAMERAS	HORIZON CAMERAS
	SAMPLE / FAILURES / RELIABILITY	SAMPLE / FAILURES / RELIABILITY	SAMPLE / FAILURES / RELIABILITY	SAMPLE / FAILURES / RELIABILITY	RELIABILITY	SAMPLE / FAILURES / RELIABILITY	SAMPLE / FAILURES / RELIABILITY	SAMPLE / FAILURES / RELIABILITY
0058 TO 1008	60 CYCLES / 1 / 97.9	52 CYCLES / 0 / 98.6	3124 HOURS / 0 / 98.0	3124 HOURS / 0 / 98.0	98.1	18 CYCLES / 1 / 90.7	3400 CYCLES / 3 / 83.1	12,000 CYCLES / 0 / 91.7
1009	64 / 1 / 97.4	54 / 0 / 98.7	3216 / 0 / 98.0	3216 / 0 / 98.0	98.2	20 / 1 / 91.0	4280 / 3 / 89.3	16,000 / 0 / 93.4
1010	68 / 1 / 97.6	56 / 0 / 98.8	3432 / 0 / 98.1	3432 / 0 / 98.1	98.4	22 / 1 / 92.8	5100 / 3 / 73.7	18,000 / 0 / 94.4
1011	72 / 1 / 97.7	58 / 0 / 98.9	3600 / 0 / 98.1	3600 / 0 / 98.1	98.6	24 / 1 / 93.0	5625 / 0* / 94.7	21,000 / 0 / 96.2
1012	76 / 1 / 97.8	60 / 0 / 98.9	3720 / 0 / 98.3	3720 / 0 / 98.2	98.9	26 / 1 / 93.5	5625 / 0 / 94.7	24,000 / 0 / 96.8
1013	78 / 1 / 97.8	62 / 0 / 99.0	3840 / 1 / 95.9	3840 / 0 / 96.3	96.0	28 / 1 / 94.0	5950 / 0 / 96.1	25,500 / 0 / 96.0
1014	82 / 1 / 97.9	64 / 0 / 99.0	4056 / 1 / 96.1	4056 / 0 / 96.3	96.1	30 / 1 / 94.4	6375 / 1 / 89.6	28,500 / 0 / 96.4
1015	86 / 1 / 98.0	66 / 0 / 99.0	4320 / 1 / 96.3	4320 / 0 / 96.4	96.1	32 / 1 / 94.8	7225 / 1 / 90.4	31,500 / 0 / 96.7
1016	90 / 1 / 98.1	68 / 0 / 99.0	4560 / 1 / 96.5	4560 / 0 / 96.5	96.4	34 / 1 / 95.2	7650 / 1 / 91.0	34,500 / 0 / 97.0
1017	94 / 0* / 99.3	70 / 0 / 99.0	4760 / 1 / 96.7	4760 / 0 / 96.6	97.6	36 / 1 / 95.4	8925 / 1 / 92.3	37,500 / 0 / 97.3
1018	98 / 1 / 98.3	72 / 0 / 99.1	4920 / 1 / 96.8	4920 / 0 / 96.7	96.7	38 / 1 / 95.6	8960 / 1 / 92.3	40,500 / 0 / 97.5
1019	102 / 1 / 98.4	74 / 0 / 99.1	5136 / 1 / 96.9	5136 / 0 / 96.7	96.8	39 / 1 / 95.8	8075** / 1 / 91.5	43,500 / 0 / 97.6

* DESIGN FIX NEGATED PREVIOUS FAILURE CONSIDERATIONS

** 6TH SAMPLE OUT OF SEQUENCE

[redacted]

ESTIMATED RELIABILITY SUMMARY

(AT 50% CONFIDENCE LEVEL)

MISSION NUMBER	PRIMARY FUNCTIONS						SECONDARY FUNCTIONS	
	PANORAMIC CAMERA	PANORAMIC CAMERA DOORS	COMMAND & CONTROL SYSTEM	PAYLOAD CLOCK	ON-ORBIT FUNCTIONS	RECOVERY SYSTEM	STELLAR-INDEX CAMERAS	HORIZON CAMERAS
	SAMPLE / FAILURES / RELIABILITY	SAMPLE / FAILURES / RELIABILITY	SAMPLE / FAILURES / RELIABILITY	SAMPLE / FAILURES / RELIABILITY	RELIABILITY	SAMPLE / FAILURES / RELIABILITY	SAMPLE / FAILURES / RELIABILITY	SAMPLE / FAILURES / RELIABILITY
1020	108 / 1 / 98.5	78 / 0 / 99.1	5544 / 1 / 97.1	5544 / 0 / 98.9	96.9	43 / 1 / 96.1	10,680 / 2 / 89.9	48,000 / 0 / 97.9
1021	104 / 1 / 98.5	76 / 0 / 99.1	5376 / 1 / 97.0	5376 / 0 / 98.8	96.9	41 / 1 / 96.0	9830 / 2 / 89.1	46,500 / 0 / 97.8
1022	112 / 1 / 98.5	80 / 0 / 99.2	5784 / 1 / 97.3	5784 / 0 / 98.9	96.9	45 / 1 / 96.3	11,550 / 2 / 90.7	51,000 / 0 / 98.0
1023	114 / 1 / 98.6	82 / 0 / 99.2	6000 / 2 / 95.8	6000 / 0 / 98.9	96.2	47 / 1 / 96.5	12,190 / 2 / 91.1	54,000 / 0 / 98.1
1024	118 / 1 / 98.6	84 / 0 / 99.2	6240 / 2 / 96.0	6240 / 0 / 98.9	96.3	49 / 1 / 96.6	13,040 / 2 / 91.6	57,000 / 0 / 98.2
1025	122 / 1 / 98.6	86 / 0 / 99.2	6480 / 2 / 96.1	6480 / 0 / 99.0	96.4	51 / 1 / 96.7	13,890 / 2 / 92.1	60,000 / 0 / 98.3
1026	126 / 1 / 98.7	88 / 0 / 99.2	6720 / 2 / 96.3	6720 / 0 / 99.0	96.5	53 / 1 / 96.8	14,740 / 2 / 92.6	63,000 / 0 / 98.4
1027	128 / 1 / 98.7	90 / 0 / 99.2	6744 / 2 / 96.3	6744 / 0 / 99.0	96.5	55 / 1 / 97.0	15,165 / 3 / 90.0	64,500 / 0 / 98.4
1028	132 / 1 / 98.7	92 / 0 / 99.2	6960 / 2 / 96.4	6960 / 0 / 99.0	96.7	57 / 1 / 97.1	16,015 / 3 / 90.7	67,500 / 0 / 98.5
1029	136 / 1 / 98.8	94 / 0 / 99.3	7200 / 2 / 96.5	7200 / 0 / 99.1	96.8	59 / 1 / 97.1	16,580 / 4 / 88.7	70,500 / 0 / 98.5
1030	140 / 1 / 98.9	96 / 0 / 99.3	7440 / 2 / 96.6	7440 / 0 / 99.1	96.9	61 / 1 / 97.2	17,430 / 4 / 89.3	73,500 / 0 / 98.6
1031	143 / 1 / 98.8	98 / 0 / 99.3	7704 / 2 / 96.7	7704 / 0 / 99.1	96.9	63 / 1 / 97.3	18,280 / 4 / 89.7	76,500 / 0 / 98.6

ESTIMATED RELIABILITY SUMMARY

(AT 50% CONFIDENCE LEVEL)

MISSION NUMBER	PRIMARY FUNCTIONS						SECONDARY FUNCTIONS	
	PANORAMIC CAMERA	PANORAMIC CAMERA DOORS	COMMAND & CONTROL SYSTEM	PAYLOAD CLOCK	ON-ORBIT FUNCTIONS	RECOVERY SYSTEM	STELLAR-INDEX CAMERAS	HORIZON CAMERAS
	SAMPLE / FAILURES / RELIABILITY	SAMPLE / FAILURES / RELIABILITY	SAMPLE / FAILURES / RELIABILITY	SAMPLE / FAILURES / RELIABILITY	RELIABILITY	SAMPLE / FAILURES / RELIABILITY	SAMPLE / FAILURES / RELIABILITY	SAMPLE / FAILURES / RELIABILITY
1033	147 / 1 / 98.9	100 / 0 / 99.3	7968 / 2 / 96.8	7968 / 0 / 99.2	97.1	65 / 1 / 97.4	19,130 / 4 / 90.2	79,500 / 0 / 98.7
1034	151 / 1 / 98.9	102 / 0 / 99.3	8208 / 2 / 96.9	8208 / 0 / 99.2	97.2	67 / 1 / 97.5	19,980 / 4 / 90.5	82,500 / 0 / 98.7
1035	159 / 1 / 99.0	106 / 0 / 99.4	8760 / 2 / 97.1	8760 / 0 / 99.2	97.4	71 / 1 / 97.6	21,680 / 4 / 91.3	88,500 / 0 / 98.8
1036	155 / 1 / 98.9	104 / 0 / 99.3	8520 / 2 / 97.0	8520 / 0 / 99.2	97.3	69 / 1 / 97.6	20,830 / 4 / 90.9	85,500 / 0 / 98.8
1037	163 / 1 / 99.0	108 / 0 / 99.4	9048 / 2 / 97.2	9048 / 0 / 99.3	97.4	73 / 1 / 97.7	22,530 / 4 / 91.6	91,500 / 0 / 98.9

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 Missions 1003, 1005 and 1032 are deleted.

MISSION SUMMARY

MISSION NUMBER	PAYLOAD NUMBER	VEHICLE NUMBER	LAUNCH DATE	LAUNCH TIME	ORBIT INCLINATION (°)	PERIGEE ALTITUDE (NM)	PERIGEE LOCATION (°N)	RECOVERY PASS	MASTER CAMERA CAMERA NUMBER	MASTER CAMERA SLIT (")	MASTER CAMERA FILTER TYPE	SLAVE CAMERA CAMERA NUMBER	SLAVE CAMERA SLIT (")	SLAVE CAMERA FILTER TYPE	STELLAR-INDEX CAMERA NUMBER
1004	J-05	1174	2/15/64	2138 Z	74.9	99.9	29.0	49 / 112	124	0.250	W-21	125	0.250	W-21	029/29/29 / D42/42/37
1006	J-09	1176	6/4/64	2259 Z	79.9	84.0	63.2	65 / 128	148	0.200	W-21	149	0.200	W-21	D45/47/45 / D49/53/42
1007	J-07	1609	6/19/64	2318 Z	85.0	99.2	41.5	65 / 128	144	0.250	W-25	145	0.200	W-21	D43/43/43 / D54/56/51
1008	J-10	1177	7/10/64	2314 Z	85.0	99.4	40.8	49 / 112	150	0.200	W-21	151	0.200	W-21	D48/45/48 / D33/28/33
1009	J-12	1605	8/5/64	2316 Z	80.1	99.6	39.5	49 / 128	154	0.200	W-21	155	0.200	W-21	D56/54/56 / D38/38/34
1010	J-11	1178	9/14/64	2254 Z	84.9	97.4	42.5	65 / 144	152	0.175	W-21	153	0.175	W-21	D41/41/41 / D44/46/44
1011	J-3X	1170	10/6/64	2150 Z	79.9	99.3	20.9	65 / —	160	0.175	W-21	161	0.175	W-21	D30/30/30 / D57/57/57
1012	J-13	1179	10/17/64	2202 Z	75.0	96.2	32.4	49 / 81	156	0.200	W-21	157	0.200	W-21	D51/51/47 / D48/52/53
1013	J-15	1173	11/2/64	2130 Z	80.0	100.0	25.0	65 / 81	158	0.225	W-21	159	0.225	W-21	D52/49/55 / D47/48/54
1014	J-16	1180	11/18/64	2036 Z	70.0	103.2	65.6	81 / 145	162	0.250	W-25	139	0.175	W-21	D53/59/49 / D50/44/46
1015	J-17	1607	12/19/64	2110 Z	74.9	96.7	21.5	81 / 175	138	0.250	W-25	141	0.175	W-21	D61/61/61 / D58/58/58
1016	J-18	1608	1/15/65	2101 Z	74.9	99.4	30.2	81 / 159	132	0.250	W-25	133	0.175	W-21	D55/55/50 / D59/50/59
1017	J-14	1611	2/25/65	2144 Z	75.0	97.2	25.9	81 / 145	140	0.250	W-25	165	0.175	W-21	D21/21/21 / D60/61/1
1018	J-19	1612	3/25/65	2111 Z	96.0	100.2	40.3	66 / 99	122	0.250	W-25	123	0.175	W-21	D20/20/20 / D22/22/22
1019	J-04	1614	4/29/65	2144 Z	85.0	99.1	27.1	80 / —	118	0.250	W-25	119	0.175	W-21	D39/39/35 / D19/18/19
1020	J-20	1613	6/9/65	2158 Z	75.1	97.1	40.6	97 / 113	136	0.250	W-25	137	0.175	W-21	D67/65/60 / D62/65/65
1021	J-21	1615	5/18/65	1803 Z	75.0	109.2	24.3	81 / 161	166	0.175	W-21	167	0.250	W-25	D63/69/69 / D25/27/25
1022	J-22	1617	7/19/65	2201 Z	85.0	99.7	30.3	65 / 144	168	0.250	W-25	169	0.175	W-21	D65/77/70 / D24/24/24
1023	J-23	1618	8/17/65	2100 Z	70.0	97.8	29.0	81 / 144	170	0.225	W-25	171	0.150	W-21	D17/19/82 / D66/75/72
1024	J-24	1619	9/22/65	2131 Z	80.0	95.9	18.4	81 / 161	172	0.225	W-25	173	0.150	W-21	D69/72/84 / D64/82/66
1025	JX-28	1616	10/5/65	1746 Z	75.0	112.9	44.3	81 / 161	142	0.175	W-21	127	0.175	W-21	D73/78/88 / D70/88/81
1026	J-25	1620	10/28/65	2117 Z	75.0	93.0	17.0	81 / 160	174	0.225	W-25	175	0.150	W-21	D75/92/93 / D72/89/85
1027	JX-27	1621	12/9/65	2110 Z	80.0	97.4	17.3	17 / 33	164	0.250	W-25	163	0.175	W-21	D71/87/87 / D68/74/83
1028	J-26	1610	12/24/65	2106 Z	80.0	97.6	28.4	81 / 144	176	0.250	W-25	177	0.175	W-21	D77/91/97 / D74/76/95

REC/JOW 4/65

MISSION SUMMARY

MISSION NUMBER	PAYLOAD NUMBER	VEHICLE NUMBER	LAUNCH DATE	LAUNCH TIME	ORBIT INCLINATION (°)	PERIGEE ALTITUDE (NM)	PERIGEE LOCATION (°N)	RECOVERY PASS	MASTER CAMERA CAMERA NUMBER	MASTER CAMERA SLIT (")	MASTER CAMERA FILTER TYPE	SLAVE CAMERA CAMERA NUMBER	SLAVE CAMERA SLIT (")	SLAVE CAMERA FILTER TYPE	STELLAR-INDEX CAMERA NUMBER
1029	J-27	1623	2/2/66	2132 Z	75.1	99.5	22.5	81/160	178	0.275	W-25	179	0.175	W-21	D79/94/91 / D76/70/94
1030	J-29	1622	3/9/66	2202 Z	75.0	97.5	18.7	81/159	182	0.275	W-25	183	0.175	W-21	D94/100/107 / D82/195/102
1031	J-30	1627	4/7/66	2202 Z	75.1	104.5	23.3	113/177	184	0.225	W-23A	185	0.150	W-21	D83/101/89 / D86/106/86
1032	J-28	1625	5/3/66	1925 Z	—	—	—	—/—	180	0.150	W-21	181	0.150	W-21	D81/97/101 / D80/73/100
1033	J-33	1630	5/24/66	0213 Z	66.1	102.0	60.7	82/178	194	0.200	W-21	195	0.200	W-21	D91/105/109 / D84/102/75
1034	J-31	1626	6/21/66	2131 Z	80.1	105.4	18.2	81/161	186	0.200	W-23A	187	0.150	W-21	D85/109/76 / D87/107/105
1035	J-36	1628	9/20/66	2114 Z	85.0	99.5	29.1	81/160	188	0.225	W-23A	189	0.175	W-21	D95/112/113 / D96/104/116
1036	J-32	1631	8/9/66	2046 Z	100.0	102.4	22.9	115/212	190	0.200	W-23A	191	0.150	W-21	D89/110/111 / D88/108/106
1037	J-38	1632	11/8/66	1957 Z	100.0	91.8	14.5	66/197	198	0.225	W-23A	199	0.175	W-21	D101/128/128 / D106/136/134

PERFORMANCE SUMMARY

MISSION NUMBER	CAMERA	SERIAL NUMBER	M I P VALUE	VISUAL RES	AFSPPL MTF/AIM		[redacted] MTF/AIM		[redacted] MTF/AIM AVERAGE			90% ATTITUDE ERROR (°)			90% ATTITUDE RATES (°/HR)			90% V/H ERROR (%)	90% RESOLUTION LIMIT (FEET)	
					SLIT (μ)	AVERAGE	SLIT (μ)	AVERAGE	SLIT (μ)	ALL	HIGH	PITCH	ROLL	YAW	PITCH	ROLL	YAW		ALONG TRACK	CROSS TRACK
1004-1	FWD	124	85	78	350	97	48	109	320	115	127	0 45	0 42	1 08	30 0	25 0	21 0	5 1	7 7	6 1
1004-2	AFT			86		80		96		117	124									
	FWD	125	85	76		88		113		82	90	0 74	0 50	0 91	44 0	30 0	29 0	4 9	6 8	6 5
	AFT			73		83		106		89	95									
1006-1	FWD	148	90	78	350	65	43	88	320	84	97	0 41	0 42	1 14	26 8	28 5	27 8	15 4	13 8	6 7
1006-2	AFT			74		71		90		87	92									
	FWD	149	90	85		64		81		84	90	0 49	0 40	1 08	31 1	27 9	30 0	11 6	10 1	7 0
	AFT			83		72		90		87	94									
1007-1	FWD	144	85	80	350	60	43	87	320	82	91	0 58	0 46	1 43	37 6	23 9	29 9	3 6	3 1	9 4
1007-2	AFT			86		63		83		97	110							4 6	2 1	7 6
	FWD	145	85	79		72		81		88	74	0 64	0 47	—	43 0	25 8	—	3 2	2 4	—
	AFT			81		77		99		74	81							4 2	1 8	—
1008-1	FWD	150	85	80	350	80	43	95	320	81	89	0 59	0 39	0 94	43 8	23 9	29 6	2 9	4 9	5 9
1008-2	AFT			78		73		89		86	95									
	FWD	151	85	82		84		96		83	92	0 63	0 36	0 71	42 9	24 0	32 5	2 8	4 2	5 4
	AFT			79		91		83		85	91									
1009-1	FWD	154	85	92	350	80	—	—	80	78	88	0 65	0 65	0 71	29 2	22 7	27 6	3 3	5 3	5 8
1009-2	AFT			89		85				75	83									
	FWD	155	85	94		85				76	84	0 48	0 65	0 59	33 6	23 9	27 2	2 6	4 9	5 9
	AFT			87		87				72	79									
1010-1	FWD	152	85	90	350	90	80	88	80	87	96	0 93	0 30	0 87	39 1	23 6	30 8	4 5	2 3	4 4
1010-2	AFT			88		86		80		92	103									
	FWD	153	85	92		81		82		82	93	0 59	0 70	1 21	45 4	23 6	30 7	4 6	7 5	3 8
	AFT			90		82		85		87	98									
1011-1	FWD	160	90	84	350	76	80	96	80	78	87	0 77	0 39	0 97	43 1	28 9	31 1	2 3	5 3	5 6
	AFT	161		84		77		86		83	93									
1012-1	FWD	156	85	92	—	—	80	91	80	84	98	0 65	0 51	—	47 1	33 2	—	1 5	4 8	—
1012-2	AFT			91				87		89	100									
	FWD	157	85	91				89		84	91	0 97	0 77	0 51	45 2	30 7	20 4	5 9	3 3	5 9
	AFT			89				96		85	98									
1013-1	FWD	158	85	89	—	—	80	94	80	85	99	0 64	0 32	1 34	36 9	29 0	32 3	3 7	7 8	8 3
	AFT	159		77				97		81	103	0 64	0 32	1 34	36 9	29 0	32 3	4 5	9 6	8 2
1014-1	FWD	162	80	87	—	—	80	78	80	74	86	0 62	0 41	1 46	35 0	36 1	38 5	2 2	6 2	8 8
1014-2	AFT			83				80		95	107	0 62	0 41	1 44	34 8	36 0	38 3	3 3	2 8	6 3
	FWD	139	80	83				75		70	77	1 06	0 55	—	38 4	36 4	—	1 4	6 4	—
	AFT			86				84		80	88	1 06	0 59	—	38 1	36 0	—	3 2	2 2	—
1015-1	FWD	138	85	87	—	—	80	76	80	90		0 65	0 38	0 53	47 0	29 4	38 2	5 0	5 5	7 8
1015-2	AFT			87				75		97	—	0 64	0 39	0 53	46 9	29 2	38 2	6 3	3 4	5 5
	FWD	141	85	83				72		89		0 50	0 61	0 64	39 1	27 1	36 2	3 2	6 8	7 5
	AFT			82				72		90		0 50	0 61	0 64	39 1	27 0	36 3	3 3	4 6	5 3
1016-1	FWD	132	85	85	—	—	80	56	80	81		0 72	0 83	2 01	48 9	30 2	40 4	2 0	5 5	10 5
1016-2	AFT			83				61		94	—	0 72	0 83	2 01	48 4	30 1	40 4	2 8	3 4	7 4
	FWD	133	85	90				55		92		0 83	0 93	2 19	42 2	27 2	39 9	1 8	4 9	8 0
	AFT			91				56		91		0 83	0 93	2 19	42 2	27 3	39 9	2 3	3 3	7 1
1017-1	FWD	140	85	72	—	—	80	57	80	78	86	0 49	0 76	2 50	35 5	32 2	38 4	3 3	9 8	11 6
1017-2	AFT			75				70		94	107	0 49	0 76	2 49	35 3	32 0	38 5	4 3	8 3	8 1
	FWD	165	85	85				65		80	94	0 69	0 45	—	36 5	34 0	—	1 8	8 2	—
	AFT			85				69		86	101	0 69	0 45	—	36 3	33 8	—	2 3	5 3	—
1018-1	FWD	122	85	79	—	—	80	70	80	82	92	0 91	0 48	—	47 4	36 7	—	3 4	5 6	—
1018-2	AFT			77				74		96	109	0 90	0 47	—	48 2	36 2	—	3 2	3 7	—
	FWD	123	85	84				75		77	89	0 84	0 63	—	34 7	30 7	—	3 1	5 6	—
	AFT			88				71		91	103	0 85	0 63	—	34 8	30 7	—	2 8	4 1	—

Table 15-2

REC/JOM 4/65

PERFORMANCE SUMMARY

MISSION NUMBER	CAMERA	SERIAL NUMBER	M I P VALUE	VISUAL RES	AFSPPF MTF/AIM SLIT (μ)	AFSPPF MTF/AIM AVERAGE	[redacted] MTF/AIM SLIT (μ)	[redacted] MTF/AIM AVERAGE	[redacted] MTF/AIM AVERAGE ALL	[redacted] MTF/AIM AVERAGE HIGH	90% ATTITUDE ERROR (°) PITCH	90% ATTITUDE ERROR (°) ROLL	90% ATTITUDE ERROR (°) YAW	90% ATTITUDE RATES (°/HR) PITCH	90% ATTITUDE RATES (°/HR) ROLL	90% ATTITUDE RATES (°/HR) YAW	90% V/H ERROR (%)	90% RESOLUTION LIMIT (FEET) ALONG TRACK	90% RESOLUTION LIMIT (FEET) CROSS TRACK
1019-1	FWD	118	85	81	—	—	80	76	80	88	104	0.43	0.36	0.97	31.6	34.7	33.0	3.3	9.3	9.1
	AFT	119		99				63		87	101	0.44	0.37	0.96	31.6	34.9	33.1	3.8	8.0	6.5
1020-1	FWD	136	80	88	—	—	80	68	80	78	90	0.46	0.35	0.78	37.4	31.8	26.7	5.4	5.8	8.4
1020-2	AFT			89				82		94	105	0.46	0.35	0.78	37.4	31.8	26.7	5.3	4.2	5.9
	FWD	137	—	—				—		—	—	0.41	0.17	1.06	42.6	23.8	42.5	3.5	6.4	7.6
	AFT			—				—		—	—	0.41	0.17	1.06	42.6	23.8	42.5	3.4	4.5	2.8
1021-1	FWD	166	85	88	—	—	80	77	80	86	99	0.55	0.37	0.81	34.9	32.6	26.2	2.7	8.8	8.0
1021-2	AFT			90				90		98	109	0.55	0.38	0.81	34.8	33.0	26.3	5.4	8.6	5.8
	FWD	167	86	85				74		88	112	0.59	0.65	—	44.7	50.6	—	3.1	9.2	—
	AFT			74				62		—	—	—	—	—	—	—	—	—	—	—
1022-1	FWD	168	85	88	—	—	80	66	80	78	91	0.47	0.51	0.89	28.3	27.1	23.8	3.5	9.8	8.6
1022-2	AFT			91				83		101	111	0.47	0.51	0.90	27.9	26.6	23.8	3.0	6.2	6.1
	FWD	169	86	90				68		74	84	0.40	0.51	0.90	29.4	27.3	31.0	2.6	8.0	8.4
	AFT			82				92		99	110	0.40	0.51	0.90	29.4	27.3	31.1	1.8	4.9	6.9
1023-1	FWD	170	85	—	—	—	80	94	80	97	110	0.49	0.33	0.50	33.0	28.7	23.5	3.4	4.0	6.4
1023-2	AFT							87		83	101	0.49	0.33	0.50	32.9	28.7	23.5	3.5	2.7	4.3
	FWD	171	85					71		76	87	0.42	0.36	0.53	29.7	21.0	28.6	2.4	3.9	6.3
	AFT							89		88	76	0.43	0.37	0.53	29.6	21.3	28.6	2.5	2.7	4.2
1024-1	FWD	172	85	—	—	—	80	79	80	90	102	0.42	0.25	0.62	32.2	24.9	30.5	2.6	5.9	6.8
1024-2	AFT							95		94	105	0.42	0.25	0.62	32.2	24.9	30.4	2.1	3.8	4.5
	FWD	173	85					86		89	101	0.36	0.31	0.93	30.4	24.5	36.4	5.5	4.7	5.4
	AFT							95		100	114	0.36	0.31	0.93	30.6	23.6	36.4	5.1	3.3	3.6
1025-1	FWD	142	85	—	—	—	80	87	80	80	97	0.50	0.41	0.88	28.1	28.7	25.9	2.0	3.9	6.7
1025-2	AFT							97		101	114	0.51	0.42	0.85	28.6	29.7	25.7	3.2	2.8	6.8
	FWD	127	88					85		96	107	0.52	0.44	0.82	28.0	26.1	29.0	1.7	4.7	6.9
	AFT							91		89	103	0.52	0.44	0.82	28.1	26.0	29.0	1.8	6.7	6.9
1026-1	FWD	174	85	—	—	—	80	76	80	80	92	0.65	0.24	0.70	37.9	33.2	28.5	6.1	13.5	6.2
1026-2	AFT							88		98	113	0.65	0.24	0.70	37.9	33.2	28.5	6.1	9.1	4.1
	FWD	175	86					85		92	104	0.55	0.56	0.87	41.1	46.5	30.8	6.1	5.5	8.7
	AFT							93		90	103	0.59	0.65	0.88	43.3	50.0	27.7	6.7	3.3	4.5
1027-1	FWD	164	85	—	—	—	80	69	80	80	—	0.51	0.37	0.74	47.2	25.5	26.4	4.7	10.5	7.2
	AFT	163						79		92		0.51	0.37	0.74	47.3	25.2	26.2	3.8	6.0	5.2
1028-1	FWD	176	85	—	—	—	80	81	80	89	—	0.52	0.37	0.50	36.6	28.0	30.5	3.9	4.8	8.0
1028-2	AFT							92		93		0.52	0.37	0.50	36.6	28.0	30.5	3.1	4.0	5.6
	FWD	177	85					88		87		0.76	0.52	—	42.7	25.7	—	3.2	4.2	—
	AFT							77		84		0.76	0.52	—	42.5	25.6	—	2.9	3.3	—
1029-1	FWD	178	85	—	80	[illegible] 89	80	[illegible] 91	80	77	—	0.67	0.34	0.77	29.1	31.3	34.4	2.9	7.8	7.4
1029-2	AFT					91		95		73		0.68	0.33	0.77	28.5	30.8	34.6	4.6	3.3	4.8
	FWD	179	85			83		82		77		0.64	0.48	0.44	38.8	32.5	25.7	2.3	7.5	7.5
	AFT					91		94		81		0.65	0.48	0.44	37.5	32.1	25.7	3.6	2.9	4.9
1030-1	FWD	182	85	—	80	95	80	76	80	66	—	0.67	0.25	0.89	29.6	22.7	36.1	3.9	8.9	8.6
1030-2	AFT					74		79		77		0.67	0.25	0.89	29.6	22.8	35.9	5.4	5.1	5.6
	FWD	183	85			77		81		71		0.70	0.27	0.87	28.4	22.7	36.3	4.9	11.2	8.6
	AFT					91		74		71		0.70	0.26	0.87	28.2	21.9	36.3	5.0	6.6	5.5
1031-1	FWD	184	85	—	80	65	80	76	80	80	—	0.50	0.47	0.96	16.2	17.3	26.6	6.1	13.8	6.4
1031-2	AFT					57		71		66		0.54	0.41	0.91	18.1	18.7	22.8	6.0	12.0	5.6
	FWD	185	85			91		94		74		0.57	0.20	0.75	19.0	19.3	15.7	5.4	10.3	4.9
	AFT					—		—		—		—	—	—	—	—	—	—	—	—
1033-1	FWD	194	85	—	80	77	80	94	80	87	—	0.11	0.33	0.80	11.3	34.9	27.3	3.5	8.2	6.2
1033-2	AFT					67		93		72		0.15	0.27	0.39	8.2	59.6	18.8	4.9	8.1	5.6
	FWD	195	85			75		90		98		0.21	0.24	1.09	22.3	49.3	17.5	2.6	5.8	6.9
	AFT					93		92		73		0.20	0.24	1.08	22.3	50.7	17.4	2.9	7.3	6.7

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Table 15-2

PERFORMANCE SUMMARY

MISSION NUMBER	CAMERA	SERIAL NUMBER	M.I.P. VALUE	AFSPPF MTF/AIM			90% ATTITUDE ERROR (°)			90% ATTITUDE RATES (°/HR.)			90% V/h ERROR (%)	90% RESOLUTION LIMIT (FEET)		E.M.C ERROR
				AVERAGE (Along Track)	SLIT (μ)	AVERAGE (Cross Track)	PITCH	ROLL	YAW	PITCH	ROLL	YAW		ALONG TRACK	CROSS TRACK	
1034-1	FWD	186	80	78	80	81	0.20	0.19	0.99	19.3	20.4	24.9	15.0	17.8	5.9	—
1034-2	AFT			93		90	0.20	0.19	0.99	19.3	20.4	24.9	15.2	13.6	4.5	—
	FWD			74		89	0.34	0.36	0.33	21.1	28.8	16.2	8.7	10.4	7.1	—
	AFT	187	80	89		86	0.34	0.36	0.33	21.1	29.0	16.2	8.9	8.0	5.3	—
1035-1	FWD	188	88	86	80	—	0.16	0.58	2.39	18.9	27.8	33.9	4.0	4.8	3.7	4.0
1035-2	AFT			80			0.17	0.54	2.43	19.3	23.4	32.2	4.1	3.7	2.4	4.1
	FWD			81			0.16	0.50	3.02	18.4	30.1	27.5	5.2	4.0	3.5	3.8
	AFT	189	85	82			0.17	0.51	3.02	19.9	24.7	26.3	3.4	3.3	2.4	3.4
1036-1	FWD	190	85	89	80	—	0.76	0.96	0.60	31.2	25.6	29.5	3.4	5.1	6.8	—
1036-2	AFT			94			0.76	0.96	0.60	31.1	25.6	29.4	3.3	3.6	5.1	—
	FWD			75			0.94	0.70	0.40	33.0	29.7	23.3	3.3	3.6	6.5	—
	AFT	191	86	84			0.94	0.70	0.40	32.9	29.7	23.3	3.1	2.7	4.9	—
1037-1	FWD	198	85	80	80	—	0.25	0.28	1.50	22.8	40.0	29.5	9.5	10.1	8.0	7.8
1037-2	AFT			73			0.28	0.27	1.51	28.7	36.9	32.4	10.1	8.0	6.1	10.3
	FWD			88			0.24	0.30	1.17	26.5	52.5	26.2	6.3	6.6	7.5	6.5
	AFT	199	88	81			0.27	0.32	1.18	33.8	36.8	53.4	6.6	5.4	5.2	7.0

SECTION 8/87

~~TOP SECRET~~ C[redacted]

NO. [redacted]

EXPOSURE - PROCESSING SUMMARY

MISSION NUMBER	CAMERA	SOLAR ELEVATION RANGE (°)		SOLAR AZIMUTH RANGE (°)		PREDICTED PROCESSING (%)			REPORTED PROCESSING (%)			COMPUTED PROCESSING (%)			TERRAIN D-MIN				TERRAIN D-MAX				CLOUD D-MAX				UNDER EXPOSED (%)	UNDER PROCESSED (%)	NOMINAL EXP & PRO (%)	OVER PROCESSED (%)	OVER EXPOSED (%)	CLOUD OVER (%)
															RANGE				RANGE				RANGE									
		LOW	HIGH	LOW	HIGH	P	I	F	P	I	F	P	I	F	LOW	HIGH	MEAN	MEDIAN	LOW	HIGH	MEAN	MEDIAN	LOW	HIGH	MEAN	MEDIAN						
1004-1	FWD	-3	61	25	124	5	76	19	4	79	17	0	79	21	0 28	1 89	0 83	0 78	0 43	2 43	1 97	2 02	1 00	2 43	2 04	2 08	0	4	60	31	5	55
1004-2	AFT	-3	61	25	124	5	74	21	4	79	17	0	80	20	0 22	1 56	0 76	0 70	0 93	2 45	1 92	1 94	1 08	2 43	1 98	2 03	1	4	67	26	3	55
	FWD	-4	68	10	131	7	76	17	37	50	13	4	83	13	0 29	1 80	0 83	0 78	0 36	2 30	1 84	1 80	0 41	2 37	1 87	1 93	0	4	59	27	9	55
	AFT	-4	68	10	131	7	76	17	37	50	13	4	77	19	0 29	1 91	0 81	0 73	0 36	2 39	1 89	1 99	0 43	2 46	1 89	1 98	0	4	67	20	9	55
1006-1	FWD	38	56	52	140	1	99	0	1	51	48	0	51	49	0 23	1 81	0 71	0 68	0 80	2 31	1 58	1 52	1 31	2 40	2 20	2 24	0	5	72	21	1	60
1006-2	AFT	38	56	52	140	1	98	0	0	23	77	0	24	76	0 36	1 66	0 87	0 84	0 98	2 35	1 72	1 72	1 14	2 40	2 24	2 28	0	1	58	40	1	60
	FWD	32	64	36	147	2	98	0	30	41	29	11	59	30	0 21	1 14	0 53	0 50	0 56	2 28	1 49	1 50	1 30	2 33	2 11	2 16	0	2	21	72	4	0	60
	AFT	32	64	36	147	2	98	0	15	40	25	21	54	25	0 26	1 34	0 82	0 58	0 65	2 19	1 48	1 47	1 56	2 50	2 12	2 18	0	1	77	9	3	45
1007-1	FWD	12	49	90	103	0	5	95	1	20	79	0	25	75	0 26	1 22	0 52	0 47	0 62	2 20	1 44	1 40	1 22	1 36	2 17	2 21	20	8	67	5	0	60
1007-2	AFT	11	49	48	102	0	100	0	10	42	48	6	77	17	0 26	1 76	0 58	0 55	0 78	2 31	1 52	1 52	1 54	2 39	2 20	2 24	1	13	80	5	0	60
	FWD	32	57	43	112	0	25	75	3	28	69	0	26	74	0 26	1 23	0 51	0 48	0 70	2 32	1 44	1 40	0 90	2 37	2 15	2 20	18	9	71	2	0	60
	AFT	31	57	38	111	0	100	0	18	41	40	3	88	9	0 24	1 56	0 60	0 55	0 44	2 27	1 50	1 52	0 84	2 41	2 17	2 25	1	16	74	9	1	65
1008-1	FWD	30	51	50	102	0	100	0	4	32	64	1	35	64	0 32	1 48	0 66	0 62	0 78	2 24	1 55	1 54	1 46	2 35	2 21	2 24	2	2	86	8	1	45
1008-2	AFT	30	51	50	102	0	100	0	3	31	66	0	34	66	0 32	1 57	0 71	0 69	0 81	2 21	1 57	1 58	1 08	2 37	2 21	2 24	1	1	84	13	1	45
	FWD	29	56	42	105	0	100	0	4	27	69	0	27	73	0 14	1 81	0 76	0 72	0 57	2 10	1 54	1 55	1 09	2 40	2 20	2 25	2	1	73	23	1	45
	AFT	29	56	42	105	0	100	0	3	30	67	0	29	71	0 32	1 64	0 77	0 76	0 73	2 10	1 55	1 55	1 10	2 38	2 18	2 22	1	3	69	27	0	65
1009-1	FWD	12	49	42	132	0	100	0	1	26	73	0	34	66	0 32	1 40	0 65	0 62	0 85	2 41	1 53	1 52	0 83	2 51	2 30	2 36	5	4	77	14	0	50
1009-2	AFT	12	49	42	132	0	100	0	0	40	60	0	45	55	0 28	1 42	0 70	0 64	0 92	2 28	1 58	1 55	0 63	2 51	2 32	2 36	1	5	73	20	0	50
	FWD	23	58	35	138	2	98	0	3	21	76	0	40	60	0 29	1 55	0 69	0 64	0 73	2 37	1 53	1 53	1 08	2 45	2 25	2 30	4	4	74	17	0	55
	AFT	23	58	35	138	2	98	0	4	47	49	0	56	44	0 26	1 47	0 69	0 64	0 64	2 42	1 61	1 60	1 61	2 50	2 31	2 34	1	4	77	18	0	55
1010-1	FWD	18	47	45	83	0	21	79	0	13	87	0	9	91	0 28	1 14	0 52	0 47	0 43	2 32	1 38	1 32	1 11	2 42	2 16	2 20	18	3	75	4	0	48
1010-2	AFT	18	47	45	83	0	21	79	0	19	81	0	16	84	0 27	1 25	0 57	0 52	0 78	2 42	1 45	1 41	0 96	2 46	2 20	2 26	9	4	81	6	0	48
	FWD	15	52	38	76	0	50	50	0	16	84	0	13	87	0 26	1 51	0 55	0 50	0 52	2 36	1 41	1 38	1 00	2 44	2 14	2 20	22	4	67	6	0	48
	AFT	15	52	38	76	0	50	50	0	23	77	0	25	75	0 20	1 48	0 59	0 56	0 30	2 40	1 47	1 45	1 89	2 48	2 18	2 22	13	3	76	8	0	45
1011-1	FWD	2	55	33	66	0	64	36	2	23	75	2	23	75	0 18	0 99	0 50	0 46	0 56	2 36	1 48	1 43	0 78	2 40	2 07	2 16	17	11	70	2	0	45
1011-2	AFT	2	55	33	66	0	67	33	3	47	50	0	37	63	0 24	1 48	0 60	0 56	0 50	2 35	1 57	1 55	0 74	2 37	2 11	2 18	3	7	81	8	0	40
1012-1	FWD	0	45	38	71	0	64	36	7	56	37	0	65	35	0 25	1 30	0 59	0 53	0 54	2 39	1 40	1 42	0 90	2 39	1 93	2 00	6	17	68	10	0	40
1012-2	FWD	0	45	38	71	0	64	36	0	33	67	0	49	51	0 26	1 40	0 61	0 56	0 47	2 27	1 44	1 40	0 72	2 32	1 89	1 96	5	10	74	11	0	50
	AFT	0	57	24	104	0	77	23	6	44	50	0	49	51	0 30	1 20	0 58	0 55	0 73	2 32	1 49	1 42	0 67	2 34	1 91	2 00	4	9	80	7	0	50
1013-1	FWD	0	56	28	83	0	64	36	0	42	58	0	55	45	0 20	1 66	0 56	0 50	0 48	2 33	1 55	1 50	0 70	2 38	1 96	2 02	4	0	72	23	0	50
	AFT	0	56	28	82	0	64	36	2	7	91	0	33	67	0 28	1 56	0 66	0 48	0 64	2 28	1 59	1 63	1 10	2 36	1 97	2 03	5	5	74	16	0	67
1014-1	FWD	0	59	15	71	0	21	79	1	38	61	0	63	37	0 17	0 99	0 40	0 36	0 26	2 36	1 40	1 42	1 01	2 38	1 94	2 05	27	33	39	1	0	40
1014-2	AFT	0	59	14	69	0	31	69	0	13	87	0	36	64	0 18	1 26	0 51	0 48	0 25	2 38	1 42	1 43	0 42	2 43	1 91	2 00	19	12	64	5	0	10
	FWD	0	77	0	36	0	21	79	0	26	74	0	61	39	0 17	1 08	0 36	0 31	0 23	2 32	1 30	1 36	0 42	2 36	1 72	1 80	31	40	27	2	0	10
	AFT	0	76	0	34	0	28	71	0	5	95	0	68	32	0 18	1 49	0 44	0 40	0 27	2 28	1 34	1 45	0 26	2 44	1 71	1 84	19	29	50	2	0	40
1015-1	FWD	5	68	19	68	0	8	92	2	2	96	0	2	98	0 25	1 70	0 54	0 47	0 54	2 28	1 44	1 46	0 46	2 41	1 86	1 90	28	0	65	7	0	45
1015-2	AFT	4	68	18	67	0	30	70	0	5	95	0	4	96	0 29	1 20	0 60	0 56	0 46	2 28	1 49	1 50	0 80	2 36	1 86	1 95	14	0	77	8	0	45
	FWD	0	80	-2	71	0	10	90	0	10	90	0	11	89	0 22	1 10	0 50	0 46	0 34	2 07	1 29	1 30	0 28	2 34	1 89	1 78	28	4	65	3	0	40
	AFT	0	79	-2	71	0	21	79	0	9	91	0	9	91	0 26	1 21	0 59	0 52	0 36	2 22	1 37	1 38	0 38	2 40	1 74	1 80	17	1	70	12	0	40
1016-1	FWD	5	69	13	76	0	7	93	1	41	58	0	59	41	0 13	1 55	0 51	0 45	0 70	2 43	1 67	1 68	0 85	2 44	1 91	1 90	19	17	56	8	1	45
1016-2	AFT	4	69	12	76	0	27	73	0	26	74	0	42	58	0 22	1 65	0 64	0 58	0 62	2 34	1 69	1 72	0 98	2 46	1 90	1 92	11	9	62	17	1	45
	FWD	1	84	-4	76	0	8	92	0	31	69	0	48	52	0 18	1 56	0 48	0 44	0 29	2 35	1 45	1 44	0 34	2 50	1 78	1 82	22	18	56	3	0	40
	AFT	0	84	-4	76	0	19	81	1	27	72	0	40	60	0 20	1 88	0 55	0 49	0 26	2 32	1 52	1 52	0 30	2 49	1 75	1 82	23	5	65	6	1	40
1017-1	FWD	-11	50	21	99	0	0	100	13	63	24	0	82	18	0 20	1 65	0 66	0 61	0 46	2 23	1 74	1 78	0 60	2 32	1 93	2 00	1	8	77	13	1	25
1017-2	AFT	-1	57	19	98	0	10	100	5	62	33	7	77	16	0 22	1 22	0 58	0 55	0 37	2 30	1 70	1 80	0 86	2 37	1 93	1 94	3	13	74	11	2	25
	FWD	1	78	9	138	0	17	83	24	58	18	4	90	6	0 20	1 62	0 64	0 60	0 60	2 29	1 75	1 75	1 18	2 36	1 89	1 90	2	14	74	9	0	30
	AFT	1	79	7	135	0	7	93	18	62	20	7	89	11	0 20	1 54	0 64	0 62	0 30	2 30	1 62	1 68	0 38	2 34	1 85	1 92	2	13	74	10	1	30
1018-1	FWD	6	77	13	134	0	0	100	9	63	28	1	83	16	0 19	1 46	0 56	0 52	0 64	2 22	1 66	1 73	1 00	2 32	1 96	1 99	2	19	71	7	0	35
1018-2	AFT	6	78	10	125	0	22	78	9	53	38	5	72	23	0 18	1 36	0 62	0 58	0 68	2 20	1 68	1 80	1 03	2 28	1 95	2 00	1	12	77	9	2	35
	FWD	8	77	14	134	0	0	100	18	74	8	17	79	4	0 16	1 78	0 57	0 49	0 50	2 24	1 50	1 54	0 90	2 26	1 85	1 91	1	31	58	9	4	45
	AFT	8	77	10	132	0	15	85	1	50	49	0	74	26	0 22	1 50	0 81	0 79	0 94	2 26	1 70	1 74	1 09	2 35	1 98	2 04	0	5	58	35	2	45

[redacted]

REC'D JUN 4/65

EXPOSURE - PROCESSING SUMMARY

MISSION NUMBER	CAMERA	SOLAR ELEVATION RANGE (°)		SOLAR AZIMUTH RANGE (°)		PREDICTED PROCESSING (%)			REPORTED PROCESSING (%)			COMPUTED PROCESSING (%)			TERRAIN D-MIN				TERRAIN D-MAX				CLOUD D-MAX				UNDER EXPOSED (%)	UNDER PROCESSED (%)	NOMINAL EXP & PRO (%)	OVER PROCESSED (%)	OVER EXPOSED (%)	CLOUD COVER (%)
															RANGE				RANGE				RANGE									
		LOW	HIGH	LOW	HIGH	P	I	F	P	I	F	P	I	F	LOW	HIGH	MEAN	MEDIAN	LOW	HIGH	MEAN	MEDIAN	LOW	HIGH	MEAN	MEDIAN						
1019-1	FWD	24	70	24	152	0	21	79	22	32	46	4	56	40	0.26	1.92	0.71	0.61	0.60	2.15	1.45	1.50	0.84	2.26	1.94	2.00	4	7	64	17	7	45
	AFT	23	70	21	152	0	92	8	26	55	19	3	87	10	0.13	1.70	0.66	0.60	0.39	2.26	1.46	1.45	0.80	2.30	1.96	2.02	1	13	70	14	3	45
1020-1	FWD	30	75	19	156	0	19	81	13	48	39	1	58	41	0.23	1.30	0.55	0.52	0.80	2.28	1.57	1.54	1.40	2.38	2.10	2.16	1	18	78	4	0	42
	AFT	29	75	17	156	0	64	36	15	56	29	0	74	26	0.23	1.20	0.55	0.54	0.70	2.20	1.47	1.46	1.22	2.29	2.04	2.10	0	18	76	5	0	42
1020-2	FWD	47	69	18	35	INSUFFICIENT DATA																										
	AFT	46	68	17	33																											
1021-1	FWD	15	66	-148	-23	0	68	32	14	39	47	1	52	47	0.25	1.90	0.64	0.58	0.74	2.18	1.50	1.50	0.97	2.36	1.92	2.00						
	AFT	14	66	-147	-25	0	99	1	15	38	47	0	57	43	0.17	1.70	0.65	0.57	0.54	2.24	1.45	1.42	0.85	2.30	1.90	2.00	5	9	72	11	3	35
1021-2	FWD	13	52	-133	-41	0	29	71	15	41	46	0	57	43	0.18	1.52	0.54	0.50	0.60	2.36	1.36	1.34	1.05	2.23	1.82	1.85	5	5	75	12	3	35
	AFT	13	52	-133	-41	0	100	0	53	25	22	0	50	50	0.33	1.38	0.76	0.76	0.70	2.30	1.52	1.50	1.30	2.36	1.94	1.94	14	13	66	6	0	20
1022-1	FWD	28	67	30	150	0	36	64	8	36	56	0	42	58	0.18	1.49	0.45	0.40	0.54	2.42	1.57	1.60	1.32	2.55	2.24	2.29	6	0	71	21	1	20
	AFT	27	67	26	150	0	89	11	7	42	51	0	53	47	0.24	1.48	0.57	0.50	0.52	2.30	1.63	1.68	1.30	2.47	2.21	2.25	30	19	47	3	0	35
1022-2	FWD	29	74	21	152	0	8	92	1	37	62	0	43	57	0.20	0.99	0.39	0.35	0.62	2.65	1.45	1.45	1.16	2.45	2.23	2.28	4	15	71	9	1	35
	AFT	28	74	19	152	0	100	0	10	44	46	0	53	47	0.21	1.40	0.48	0.44	0.50	2.32	1.51	1.52	1.45	2.49	2.25	2.28	35	28	35	1	0	45
1023-1	FWD	22	82	8	164	0	5	95	19	54	27	0	72	28	0.15	1.26	0.39	0.35	0.43	2.41	1.22	1.22	0.87	2.41	2.06	2.11	10	25	61	4	0	45
	AFT	20	81	8	163	0	11	89	0	39	61	0	42	58	0.20	1.40	0.53	0.48	0.41	2.21	1.31	1.37	0.94	2.45	2.15	2.20	20	44	34	2	0	35
1023-2	FWD	29	81	-13	177	0	7	93	0	19	81	0	18	82	0.22	1.38	0.48	0.42	0.41	2.03	1.18	1.22	0.90	2.41	2.03	2.11	13	14	65	7	0	35
	AFT	28	80	-13	178	0	3	97	0	34	66	0	28	72	0.22	1.60	0.52	0.46	0.44	2.31	1.24	1.24	1.08	2.46	2.10	2.17	35	2	60	2	1	35
1024-1	FWD	10	61	24	137	0	0	100	0	57	43	0	72	28	0.17	1.74	0.35	0.32	0.40	2.25	1.22	1.15	0.58	2.34	1.97	2.03	13	10	73	4	0	35
	AFT	9	61	21	136	0	0	100	0	28	72	0	82	18	0.20	1.22	0.40	0.37	0.48	2.32	1.30	1.24	0.94	2.40	1.97	2.06	27	49	23	0	0	35
1024-2	FWD	9	79	11	151	0	0	100	12	19	69	0	25	75	0.24	1.17	0.46	0.42	0.35	2.40	1.30	1.27	1.01	2.45	1.91	1.99	13	46	39	2	0	35
	AFT	8	79	9	151	0	0	100	1	22	77	0	66	34	0.20	1.39	0.47	0.40	0.29	2.26	1.31	1.32	0.90	2.40	1.89	1.95	36	3	58	2	0	35
1025-1	FWD	1	70	-123	-18	0	68	32	10	41	49	0	56	44	0.18	1.42	0.43	0.37	0.29	2.36	1.37	1.39	0.42	2.35	1.81	1.92	20	25	50	5	0	35
	AFT	0	70	-121	-19	0	72	28	8	49	43	0	61	39	0.18	1.69	0.49	0.42	0.26	2.26	1.33	1.38	0.23	2.32	1.75	1.90	33	25	38	4	1	35
1025-2	FWD	0	56	-124	-31	0	71	29	3	42	55	0	56	44	0.18	1.22	0.45	0.39	0.26	2.24	1.32	1.33	0.63	2.29	1.78	1.89	25	20	47	7	1	35
	AFT	0	56	-122	-33	0	73	27	3	45	52	0	51	49	0.21	1.32	0.53	0.48	0.39	2.16	1.31	1.35	0.48	2.23	1.71	1.79	29	21	45	4	0	22
1026-1	FWD	0	57	23	135	0	4	96	0	21	79	0	24	76	0.20	1.26	0.38	0.33	0.31	2.27	1.22	1.22	0.40	2.28	1.77	1.87	19	12	61	8	0	22
	AFT	0	57	21	135	0	5	95	0	4	96	0	38	62	0.20	1.16	0.39	0.34	0.24	2.36	1.29	1.30	0.37	2.40	1.78	1.86	57	13	28	2	0	45
1026-2	FWD	1	72	8	84	0	0	100	1	5	94	0	5	95	0.19	1.32	0.36	0.30	0.23	2.17	1.05	1.02	0.48	2.24	1.63	1.70	39	27	33	1	0	45
	AFT	0	57	13	78	0	0	100	2	5	93	0	15	85	0.21	1.35	0.39	0.32	0.27	2.20	1.08	1.03	0.30	2.26	1.61	1.70	78	2	19	1	0	45
1027-1	FWD	3	63	26	110	0	0	100	0	0	100	0	3	97	0.26	1.54	0.52	0.46	0.50	2.38	1.45	1.52	0.71	2.39	2.03	2.10	60	12	25	3	0	50
	AFT	2	63	26	108	0	0	100	0	21	79	0	20	80	0.26	1.34	0.58	0.53	0.34	2.30	1.46	1.46	0.40	2.40	1.96	2.06	36	2	58	4	0	50
1028-1	FWD	3	73	15	135	0	4	96	0	4	96	0	11	89	0.22	1.08	0.37	0.32	0.40	2.32	1.42	1.42	0.62	2.30	1.77	1.83	12	3	78	7	0	50
	AFT	1	73	14	133	0	5	95	0	16	84	0	11	89	0.20	1.01	0.41	0.36	0.30	2.23	1.35	1.40	0.68	2.26	1.72	1.77	65	6	28	1	0	30
1028-2	FWD	2	81	5	48	0	3	97	1	9	90	0	15	85	0.23	0.98	0.40	0.35	0.37	2.20	1.36	1.38	0.30	2.33	1.72	1.77	56	5	37	1	0	30
	AFT	1	80	5	43	0	10	90	0	6	94	0	6	94	0.22	1.40	0.50	0.40	0.28	2.21	1.40	1.43	0.30	2.35	1.69	1.75	59	3	37	1	0	30
1029-1	FWD	3	63	18	130	0	8	92	1	16	83	0	14	86	0.25	1.80	0.64	0.54	0.50	2.30	1.72	1.76	0.48	2.39	2.03	2.08	47	1	44	7	1	30
	AFT	2	62	16	128	0	20	80	0	21	79	0	25	75	0.16	1.73	0.57	0.48	0.20	2.32	1.62	1.65	0.36	2.40	1.91	1.95	20	0	62	14	3	35
1029-2	FWD	0	80	4	146	0	4	96	2	28	70	0	20	80	0.22	1.68	0.54	0.45	0.31	2.35	1.52	1.59	0.45	2.40	1.88	2.00	24	5	59	10	1	35
	AFT	0	80	3	145	0	10	90	2	24	74	0	25	75	0.20	1.58	0.56	0.49	0.30	2.34	1.52	1.60	0.34	2.40	1.87	1.93	33	5	50	11	2	25
1030-1	FWD	5	63	27	130	0	58	42	3	32	65	1	52	47	0.30	1.86	0.81	0.75	0.61	2.34	1.75	1.79	0.78	2.38	2.01	2.08	23	5	59	11	2	25
	AFT	4	63	22	129	0	53	47	0	46	54	0	71	29	0.25	1.64	0.76	0.69	0.66	2.30	1.69	1.74	1.00	2.40	1.97	2.05	4	3	61	28	5	40
1030-2	FWD	3	78	10	158	1	42	57	0	53	47	0	70	30	0.24	1.65	0.64	0.57	0.76	2.26	1.69	1.70	1.17	2.36	1.99	2.05	1	9	64	22	4	40
	AFT	2	78	7	157	1	23	76	0	28	72	0	30	70	0.34	1.94	0.82	0.77	0.83	2.40	1.79	1.82	0.63	2.43	2.06	2.10	5	9	71	13	2	30
1031-1	FWD	17	70	20	140	0	99	1	18	34	48	0	51	49	0.25	1.67	0.71	0.63	0.72	2.33	1.74	1.80	1.36	2.44	2.10	2.18	2	0	66	30	2	30
	AFT	17	70	18	140	0	14	86	15	43	42	0	47	53	0.24	1.66	0.71	0.62	0.53	2.35	1.65	1.70	1.15	2.35	2.00	2.05	2	8	70	17	3	45
1031-2	FWD	19	82	6	67	0	99	1	8	53	39	0	60	40	0.26	1.88	0.80	0.72	0.46	2.34	1.73	1.82	1.40	2.57	2.05	2.09	4	4	70	18	4	45
	AFT	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0	5	64	22	9	40
1033-1	FWD	10	47	46	135	0	89	11	0	3	97	0	2	98	0.28	1.10	0.54	0.50	0.70	2.28	1.35	1.30	1.26	2.42	2.15	2.20	—	—	—	—	—	—
	AFT	11	47	45	135	0	10	90	3	8	89	0	3	97	0.30	1.20	0.53	0.50	0.64	2.32	1.40	1.40	0.84	2.44	2.13	2.20	11	1	85	3	0	45
1033-2	FWD	0	54	34	131	0	84	16	1	4	95	0	0	100	0.30	1.52	0.53	0.49	0.49	2.30	1.30	1.26	0.54	2.41	2.15	2.21	8	1	90	1	0	45
	AFT	0	54	34	131	0	86	14	0	5	95	0	1	99	0.26	1.38	0.54	0.50	0.50	2.32	1.25	1.20	0.38	2.44	2.15	2.24	16	0	79	5	0	50
																											12	0	84	4	0	50

REC / JON 12/83

EXPOSURE - PROCESSING SUMMARY

MISSION NUMBER	CAMERA	SOLAR ELEVATION RANGE (°)		SOLAR AZIMUTH RANGE (°)		PREDICTED PROCESSING (%)			REPORTED PROCESSING (%)			COMPUTED PROCESSING (%)			TERRAIN D-MIN				TERRAIN D-MAX				CLOUD D-MAX				UNDER EXPOSED (%)	UNDER PROCESSED (%)	NOMINAL EXP & PRO (%)	OVER PROCESSED (%)	OVER EXPOSED (%)	CLOUD COVER (%)
		LOW	HIGH	LOW	HIGH	P	I	F	P	I	F	P	I	F	RANGE LOW	RANGE HIGH	MEAN	MEDIAN	RANGE LOW	RANGE HIGH	MEAN	MEDIAN	RANGE LOW	RANGE HIGH	MEAN	MEDIAN						
1034-1	FWD	23	77	16	165	0	96	4	3	21	76	0	20	80	0.23	1.80	0.57	0.50	0.55	2.42	1.58	1.61	0.68	2.45	2.22	2.26	16	3	70	7	2	35
1034-2	AFT	23	77	10	165	0	55	45	2	31	67	0	16	84	0.29	1.65	0.56	0.50	0.41	2.35	1.55	1.60	0.97	2.44	2.19	2.25	18	4	71	7	0	35
	FWD	29	86	0	178	0	88	12	9	26	65	0	27	73	0.19	1.52	0.57	0.52	0.72	2.40	1.65	1.60	1.21	2.47	2.25	2.31	12	4	76	8	0	45
1035-1	AFT	30	86	0	178	0	41	59	6	37	57	0	34	66	0.26	1.60	0.54	0.49	0.70	2.32	1.59	1.62	1.08	2.48	2.22	2.29	12	10	73	4	2	45
	FWD	13	68	19	144	0	17	83	0	11	89	0	5	95	0.28	1.90	0.52	0.45	0.61	2.44	1.40	1.40	1.06	2.43	2.15	2.22	23	1	71	4	1	30
1035-2	AFT	13	68	18	144	0	5	95	1	14	85	0	9	91	0.24	1.39	0.50	0.43	0.60	2.42	1.48	1.83	0.90	2.55	2.15	2.24	27	3	66	5	0	30
	FWD	4	81	10	156	0	22	78	4	16	78	0	18	82	0.21	1.50	0.52	0.47	0.43	2.33	1.32	1.30	0.96	2.50	2.09	2.18	24	5	66	4	0	40
	AFT	3	81	8	156	0	23	77	1	20	79	0	12	88	0.21	1.39	0.55	0.51	0.50	2.25	1.34	1.30	0.74	2.60	2.09	2.16	14	3	76	7	0	40
1036-1	FWD	13	82	7	170	0	66	34	6	14	78	1	14	85	0.20	1.91	0.48	0.42	0.80	2.40	1.54	1.53	1.10	2.47	2.26	2.33	33	5	59	2	1	40
	AFT	18	83	5	171	0	5	95	3	9	88	0	10	90	0.24	1.65	0.55	0.51	0.55	2.28	1.49	1.52	1.20	2.43	2.23	2.29	12	2	80	5	0	40
1036-2	FWD	10	78	12	167	0	15	85	1	19	80	0	18	82	0.26	1.43	0.47	0.42	0.50	2.20	1.30	1.35	1.18	2.60	2.12	2.16	38	6	53	3	0	35
	AFT	12	78	9	168	0	4	96	3	20	77	0	17	83	0.28	1.14	0.48	0.44	0.48	2.10	1.37	1.40	1.54	2.40	2.18	2.20	28	4	64	4	0	35
1037-1	FWD	9	84	-172	-8	0	29	71	8	10	82	0	11	89	0.31	1.47	0.64	0.58	0.61	2.38	1.54	1.53	1.05	2.46	2.07	2.14	4	1	83	12	0	35
	AFT	9	84	-171	-8	0	25	75	0	19	81	0	12	88	0.25	1.45	0.66	0.61	0.84	2.33	1.48	1.48	1.15	2.45	2.02	2.10	3	2	79	16	0	35
1037-2	FWD	8	87	-175	-3	0	28	72	14	26	60	0	12	88	0.26	1.20	0.66	0.61	0.82	2.43	1.51	1.46	0.90	2.50	2.04	2.12	4	0	64	13	0	30
	AFT	8	87	-173	-3	0	24	76	11	33	56	0	23	77	0.25	1.60	0.67	0.64	0.56	2.33	1.51	1.45	1.10	2.43	2.03	2.10	4	5	77	14	0	30

APPENDIX

MISSION * 1037-1 * INSTRUMENT * FWD 2/24/67 DENSITY FREQ DISTR

DENSITY VALUE	PRIMARY MIN	PRIMARY MAX	PRIMARY LIM	INTERMEDIATE MIN	INTERMEDIATE MAX	INTERMEDIATE LIM	FULL MIN	FULL MAX	FULL LIM	ALL LEVELS MIN	ALL LEVELS MAX	ALL LEVELS LIM
0.01	0	0	0	0	0	0	0	0	0	0	0	0
0.02	0	0	0	0	0	0	0	0	0	0	0	0
0.03	0	0	0	0	0	0	0	0	0	0	0	0
0.04	0	0	0	0	0	0	0	0	0	0	0	0
0.05	0	0	0	0	0	0	0	0	0	0	0	0
0.06	0	0	0	0	0	0	0	0	0	0	0	0
0.07	0	0	0	0	0	0	0	0	0	0	0	0
0.08	0	0	0	0	0	0	0	0	0	0	0	0
0.09	0	0	0	0	0	0	0	0	0	0	0	0
0.10	0	0	0	0	0	0	0	0	0	0	0	0
0.11	0	0	0	0	0	0	0	0	0	0	0	0
0.12	0	0	0	0	0	0	0	0	0	0	0	0
0.13	0	0	0	0	0	0	0	0	0	0	0	0
0.14	0	0	0	0	0	0	0	0	0	0	0	0
0.15	0	0	0	0	0	0	0	0	0	0	0	0
0.16	0	0	0	0	0	0	0	0	0	0	0	0
0.17	0	0	0	0	0	0	0	0	0	0	0	0
0.18	0	0	0	0	0	0	0	0	0	0	0	0
0.19	0	0	0	0	0	0	0	0	0	0	0	0
0.20	0	0	0	0	0	0	0	0	0	0	0	0
0.21	0	0	0	0	0	0	0	0	0	0	0	0
0.22	0	0	0	0	0	0	0	0	0	0	0	0
0.23	0	0	0	0	0	0	0	0	0	0	0	0
0.24	0	0	0	0	0	0	0	0	0	0	0	0
0.25	0	0	0	0	0	0	0	0	0	0	0	0
0.26	0	0	0	0	0	0	0	0	0	0	0	0
0.27	0	0	0	0	0	0	0	0	0	0	0	0
0.28	0	0	0	0	0	0	0	0	0	0	0	0
0.29	0	0	0	0	0	0	0	0	0	0	0	0
0.30	0	0	0	0	0	0	0	0	0	0	0	0
0.31	0	0	0	1	0	0	0	0	0	1	0	0
0.32	0	0	0	1	0	0	0	0	0	1	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	1	0	0	1	0	0
0.36	0	0	0	0	0	0	0	0	0	0	0	0
0.37	0	0	0	0	0	0	3	0	0	3	0	0
0.38	0	0	0	0	0	0	2	0	0	2	0	0
0.39	0	0	0	0	0	0	4	0	0	4	0	0
0.40	0	0	0	0	0	0	4	0	0	4	0	0
0.41	0	0	0	1	0	0	5	0	0	5	0	0
0.42	0	0	0	1	0	0	5	0	0	6	0	0
0.43	0	0	0	0	0	0	4	0	0	4	0	0
0.44	0	0	0	1	0	0	7	0	0	7	0	0
0.45	0	0	0	1	0	0	5	0	0	6	0	0
0.46	0	0	0	1	0	0	8	0	0	9	0	0
0.47	0	0	0	0	0	0	7	0	0	7	0	0
0.48	0	0	0	2	0	0	4	0	0	6	0	0
0.49	0	0	0	2	0	0	3	0	0	3	0	0
0.50	0	0	0	0	0	0	8	0	0	8	0	0
SUBTOTAL	0	0	0	7	0	0	70	0	0	77	0	0

Table A-1

MISSION * 1037-1 * INSTRUMENT * FWD 2/24/67 DENSITY FREQ DISTR

DENSITY VALUE	PRIMARY MIN	PRIMARY MAX	PRIMARY LIM	INTERMEDIATE MIN	INTERMEDIATE MAX	INTERMEDIATE LIM	FULL MIN	FULL MAX	FULL LIM	ALL LEVELS MIN	ALL LEVELS MAX	ALL LEVELS LIM
0.51	0	0	0	0	0	0	5	0	0	5	0	0
0.52	0	0	0	1	0	0	10	0	0	11	0	0
0.53	0	0	0	0	0	0	5	0	0	5	0	0
0.54	0	0	0	0	0	0	3	0	0	3	0	0
0.55	0	0	0	0	0	0	7	0	0	7	0	0
0.56	0	0	0	1	0	0	2	0	0	3	0	0
0.57	0	0	0	0	0	0	3	0	0	3	0	0
0.58	0	0	0	0	0	0	7	0	0	7	0	0
0.59	0	0	0	0	0	0	1	0	0	1	0	0
0.60	0	0	0	2	0	0	6	0	0	8	0	0
0.61	0	0	0	0	0	0	2	1	0	2	1	0
0.62	0	0	0	0	0	0	2	1	0	2	1	0
0.63	0	0	0	0	0	0	3	1	0	3	1	0
0.64	0	0	0	0	0	0	2	0	0	2	0	0
0.65	0	0	0	1	0	0	1	0	0	2	0	0
0.66	0	0	0	2	0	0	5	0	0	7	0	0
0.67	0	0	0	0	0	0	1	0	0	1	0	0
0.68	0	0	0	0	0	0	5	0	0	5	0	0
0.69	0	0	0	0	0	0	2	0	0	2	0	0
0.70	0	0	0	1	0	0	7	0	0	8	0	0
0.71	0	0	0	0	0	0	2	0	0	2	0	0
0.72	0	0	0	0	0	0	4	0	0	4	0	0
0.73	0	0	0	0	0	0	2	1	0	2	1	0
0.74	0	0	0	1	0	0	2	0	0	3	0	0
0.75	0	0	0	0	0	0	3	0	0	3	0	0
0.76	0	0	0	1	0	0	3	0	0	4	0	0
0.77	0	0	0	0	0	0	3	0	0	3	0	0
0.78	0	0	0	0	0	0	2	1	0	2	1	0
0.79	0	0	0	0	0	0	1	0	0	1	0	0
0.80	0	0	0	2	0	0	1	1	0	3	1	0
0.81	0	0	0	0	0	0	1	0	0	1	0	0
0.82	0	0	0	0	0	0	3	0	0	3	0	0
0.83	0	0	0	0	0	0	4	1	0	4	1	0
0.84	0	0	0	0	0	0	1	0	0	1	0	0
0.85	0	0	0	0	0	0	1	0	0	1	0	0
0.86	0	0	0	1	0	0	0	0	0	1	0	0
0.87	0	0	0	0	0	0	2	0	0	2	0	0
0.88	0	0	0	0	0	0	1	0	0	1	0	0
0.89	0	0	0	0	0	0	1	0	0	1	0	0
0.90	0	0	0	0	0	0	1	0	0	1	0	0
0.91	0	0	0	1	0	0	2	1	0	3	1	0
0.92	0	0	0	0	0	0	0	1	0	0	1	0
0.93	0	0	0	1	0	0	3	0	0	4	0	0
0.94	0	0	0	0	0	0	1	0	0	1	0	0
0.95	0	0	0	0	0	0	1	0	0	1	0	0
0.96	0	0	0	0	0	0	1	0	0	1	0	0
0.97	0	0	0	0	0	0	1	0	0	1	0	0
0.98	0	0	0	0	0	0	1	0	0	1	0	0
0.99	0	0	0	0	0	0	0	1	0	1	0	0
1.00	0	0	0	1	0	0	1	0	0	2	0	0
SUBTOTAL	0	0	0	17	0	0	127	10	0	144	10	0

Table A-1

MISSION * 1037-1 * INSTRUMENT * FWD 2/24/67 DENSITY FREQ DISTR

DENSITY VALUE	PRIMARY MIN	PRIMARY MAX	PRIMARY LIM	INTERMEDIATE MIN	INTERMEDIATE MAX	INTERMEDIATE LIM	FULL MIN	FULL MAX	FULL LIM	ALL LEVELS MIN	ALL LEVELS MAX	ALL LEVELS LIM
1.01	0	0	0	1	0	0	0	0	0	1	0	0
1.02	0	0	0	0	0	0	0	2	0	0	2	0
1.03	0	0	0	0	0	0	1	1	0	1	1	0
1.04	0	0	0	0	0	0	2	1	0	2	1	0
1.05	0	0	0	0	0	0	1	2	1	1	2	1
1.06	0	0	0	0	0	0	0	3	0	0	3	0
1.07	0	0	0	0	0	0	2	0	0	2	0	0
1.08	0	0	0	0	0	0	2	0	0	2	0	0
1.09	0	0	0	0	0	0	1	1	0	1	1	0
1.10	0	0	0	0	0	0	1	1	0	1	1	0
1.11	0	0	0	0	0	0	1	1	0	1	1	0
1.12	0	0	0	0	0	0	0	2	0	0	2	0
1.13	0	0	0	0	0	0	0	1	0	0	1	0
1.14	0	0	0	0	0	0	0	4	0	0	4	0
1.15	0	0	0	0	0	0	0	1	0	0	1	0
1.16	0	0	0	0	0	0	1	0	0	1	0	0
1.17	0	0	0	0	0	0	0	5	0	0	5	0
1.18	0	0	0	0	0	0	0	3	0	0	3	0
1.19	0	0	0	0	0	0	0	2	0	0	2	0
1.20	0	0	0	0	0	0	0	3	0	0	3	0
1.21	0	0	0	0	0	0	0	1	0	0	1	0
1.22	0	0	0	0	0	0	0	2	0	0	2	0
1.23	0	0	0	0	0	0	0	3	0	0	3	0
1.24	0	0	0	0	0	0	0	1	0	0	1	0
1.25	0	0	0	0	0	0	2	0	0	2	0	0
1.26	0	0	0	0	0	0	0	1	0	0	1	0
1.27	0	0	0	0	0	0	1	2	0	1	2	0
1.28	0	0	0	0	0	0	0	4	0	0	4	0
1.29	0	0	0	0	0	0	0	2	0	0	2	0
1.30	0	0	0	0	0	0	1	4	0	1	4	0
1.31	0	0	0	0	0	0	0	3	0	0	3	0
1.32	0	0	0	0	0	0	0	5	0	0	5	0
1.33	0	0	0	0	0	0	0	3	1	0	6	1
1.34	0	0	0	0	0	0	0	1	1	0	1	1
1.35	0	0	0	0	0	0	0	3	1	0	4	1
1.36	0	0	0	0	0	0	0	2	1	0	3	1
1.37	0	0	0	0	0	0	0	1	0	0	1	0
1.38	0	0	0	0	0	0	0	1	0	0	2	0
1.39	0	0	0	0	0	0	0	1	0	0	1	0
1.40	0	0	0	0	0	0	0	4	0	0	4	0
1.41	0	0	0	0	0	0	0	0	0	0	0	0
1.42	0	0	0	0	0	0	0	1	0	0	1	0
1.43	0	0	0	0	0	0	0	3	0	0	3	0
1.44	0	0	0	0	0	0	0	2	1	0	2	1
1.45	0	0	0	0	0	0	0	2	1	0	2	1
1.46	0	0	0	0	0	0	0	4	0	0	4	0
1.47	0	0	0	0	0	0	1	3	0	1	3	0
1.48	0	0	0	0	0	0	0	3	0	0	3	0
1.49	0	0	0	0	0	0	0	0	0	0	0	0
1.50	0	0	0	0	0	0	0	4	1	0	4	1
SUBTOTAL	0	0	0	1	13	5	15	93	7	16	106	12

Table A-1

MISSION * 1037-1 * INSTRUMENT * FWD 2/24/67 DENSITY FREQ DISTR

DENSITY VALUE	PRIMARY MIN	PRIMARY MAX	PRIMARY LIM	INTERMEDIATE MIN	INTERMEDIATE MAX	INTERMEDIATE LIM	FULL MIN	FULL MAX	FULL LIM	ALL LEVELS MIN	ALL LEVELS MAX	ALL LEVELS LIM
1.51	0	0	0	0	1	0	0	0	0	0	1	0
1.52	0	0	0	0	0	0	0	1	0	0	1	0
1.53	0	0	0	0	0	0	0	2	0	0	2	0
1.54	0	0	0	0	0	0	0	3	1	0	3	1
1.55	0	0	0	0	0	0	0	2	0	0	2	0
1.56	0	0	0	0	0	1	0	6	1	0	6	2
1.57	0	0	0	0	0	1	0	1	0	0	1	0
1.58	0	0	0	0	2	0	0	5	1	0	7	1
1.59	0	0	0	0	0	0	0	3	0	0	3	0
1.60	0	0	0	0	0	0	0	2	2	0	2	2
1.61	0	0	0	0	0	2	0	0	2	0	0	2
1.62	0	0	0	0	1	0	0	0	2	0	1	2
1.63	0	0	0	0	0	0	0	2	0	0	2	0
1.64	0	0	0	0	0	0	0	2	0	0	2	0
1.65	0	0	0	0	0	0	0	4	3	0	4	3
1.66	0	0	0	0	2	0	0	0	3	0	2	3
1.67	0	0	0	0	0	0	0	1	0	0	1	0
1.68	0	0	0	0	1	1	0	1	0	0	2	1
1.69	0	0	0	0	0	1	0	1	3	0	1	4
1.70	0	0	0	0	0	1	0	3	3	0	3	4
1.71	0	0	0	0	0	0	0	2	0	0	2	0
1.72	0	0	0	0	0	1	0	5	2	0	5	3
1.73	0	0	0	0	0	0	0	0	2	0	0	2
1.74	0	0	0	0	0	1	0	3	2	0	3	3
1.75	0	0	0	0	0	0	0	3	1	0	3	1
1.76	0	0	0	0	0	0	0	0	1	0	0	1
1.77	0	0	0	0	0	0	0	1	0	0	1	0
1.78	0	0	0	0	0	0	0	1	0	0	1	0
1.79	0	0	0	0	0	0	0	0	0	0	0	0
1.80	0	0	0	0	0	1	0	4	3	0	4	4
1.81	0	0	0	0	0	0	0	0	0	0	0	0
1.82	0	0	0	0	1	0	0	3	2	0	4	2
1.83	0	0	0	0	1	0	0	2	1	0	3	1
1.84	0	0	0	0	0	0	0	2	0	0	2	0
1.85	0	0	0	0	0	0	0	1	1	0	1	1
1.86	0	0	0	0	0	1	0	3	1	0	3	2
1.87	0	0	0	0	0	0	0	2	1	0	2	1
1.88	0	0	0	0	0	1	0	2	0	0	2	1
1.89	0	0	0	0	0	0	0	0	0	0	0	0
1.90	0	0	0	0	0	1	0	4	7	0	4	8
1.91	0	0	0	0	0	0	0	1	3	0	1	3
1.92	0	0	0	0	0	0	0	1	0	0	1	0
1.93	0	0	0	0	0	1	0	1	1	0	1	2
1.94	0	0	0	0	0	1	0	1	0	0	0	1
1.95	0	0	0	0	0	0	0	0	2	0	0	2
1.96	0	0	0	0	0	0	0	1	2	0	1	2
1.97	0	0	0	0	0	1	0	1	0	0	1	1
1.98	0	0	0	0	1	0	0	2	1	0	3	1
1.99	0	0	0	0	0	0	0	0	0	0	0	0
2.00	0	0	0	0	0	2	0	2	6	0	2	8
SUBTOTAL	0	0	0	0	10	16	0	86	52	0	96	68

Table A-1

~~TOP SECRET~~ C[redacted]

MISSION * 1037-1 * INSTRUMENT * FWD 2/24/67 DENSITY FREQ DISTR

DENSITY VALUE	PRIMARY MIN	PRIMARY MAX	PRIMARY LIM	INTERMEDIATE MIN	INTERMEDIATE MAX	INTERMEDIATE LIM	FULL MIN	FULL MAX	FULL LIM	ALL LEVELS MIN	ALL LEVELS MAX	ALL LEVELS LIM
2.01	0	0	0	0	0	0	0	1	0	0	1	0
2.02	0	0	0	0	0	0	0	0	2	0	0	2
2.03	0	0	0	0	0	1	0	0	0	0	0	1
2.04	0	0	0	0	0	0	0	1	0	0	1	0
2.05	0	0	0	0	0	0	0	1	4	0	1	4
2.06	0	0	0	0	0	0	0	0	1	0	0	1
2.07	0	0	0	0	0	1	0	0	1	0	0	1
2.08	0	0	0	0	0	1	0	0	2	0	0	2
2.09	0	0	0	0	1	0	0	2	0	0	2	0
2.10	0	0	0	0	1	0	0	2	8	0	3	10
2.11	0	0	0	0	1	0	0	2	1	0	1	1
2.12	0	0	0	0	0	0	0	1	1	0	1	1
2.13	0	0	0	0	0	0	0	0	1	0	0	1
2.14	0	0	0	0	0	0	0	0	3	0	0	3
2.15	0	0	0	0	0	0	0	0	2	0	0	2
2.16	0	0	0	0	0	0	0	0	0	0	0	0
2.17	0	0	0	0	0	0	0	0	1	0	0	1
2.18	0	0	0	0	0	0	0	0	3	0	0	3
2.19	0	0	0	0	0	0	0	0	1	0	0	1
2.20	0	0	0	0	0	0	0	0	12	0	0	12
2.21	0	0	0	0	0	0	0	0	4	0	0	4
2.22	0	0	0	0	0	0	0	0	2	0	0	2
2.23	0	0	0	0	0	0	0	0	2	0	0	2
2.24	0	0	0	0	0	0	0	0	1	0	0	1
2.25	0	0	0	0	0	0	0	0	1	0	0	1
2.26	0	0	0	0	0	0	0	0	2	0	0	2
2.27	0	0	0	0	0	0	0	0	1	0	0	1
2.28	0	0	0	0	0	0	0	0	2	0	0	2
2.29	0	0	0	0	0	0	0	0	2	0	0	2
2.30	0	0	0	0	0	0	0	0	9	0	0	9
2.31	0	0	0	0	0	0	0	0	3	0	0	3
2.32	0	0	0	0	0	0	0	0	1	0	0	1
2.33	0	0	0	0	0	0	0	0	2	0	0	2
2.34	0	0	0	0	0	0	0	0	2	0	0	2
2.35	0	0	0	0	0	0	0	0	8	0	0	8
2.36	0	0	0	0	0	0	0	0	4	0	0	4
2.37	0	0	0	0	0	0	0	0	5	0	0	5
2.38	0	0	0	0	0	0	0	0	2	0	0	2
2.39	0	0	0	0	0	0	0	0	1	0	0	1
2.40	0	0	0	0	0	0	0	0	17	0	0	17
2.41	0	0	0	0	0	0	0	0	2	0	0	2
2.42	0	0	0	0	0	0	0	0	1	0	0	1
2.43	0	0	0	0	0	0	0	0	3	0	0	3
2.44	0	0	0	0	0	0	0	0	0	0	0	0
2.45	0	0	0	0	0	0	0	0	4	0	0	4
2.46	0	0	0	0	0	0	0	0	2	0	0	2
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	2	9	0	23	122	0	25	131

~~TOP SECRET~~ C[redacted]

Table A-1

TOP SECRET C [redacted]

MISSION * 1037-1 * INSTRUMENT * FWD 2/24/67 DENSITY FREQ DISTR

DENSITY VALUE	PRIMARY MIN	PRIMARY MAX	PRIMARY LIM	INTERMEDIATE MIN	INTERMEDIATE MAX	INTERMEDIATE LIM	FULL MIN	FULL MAX	FULL LIM	ALL LEVELS MIN	ALL LEVELS MAX	ALL LEVELS LIM
2.51	0	0	0	0	0	0	0	0	0	0	0	0
2.52	0	0	0	0	0	0	0	0	0	0	0	0
2.53	0	0	0	0	0	0	0	0	0	0	0	0
2.54	0	0	0	0	0	0	0	0	0	0	0	0
2.55	0	0	0	0	0	0	0	0	0	0	0	0
2.56	0	0	0	0	0	0	0	0	0	0	0	0
2.57	0	0	0	0	0	0	0	0	0	0	0	0
2.58	0	0	0	0	0	0	0	0	0	0	0	0
2.59	0	0	0	0	0	0	0	0	0	0	0	0
2.60	0	0	0	0	0	0	0	0	0	0	0	0
2.61	0	0	0	0	0	0	0	0	0	0	0	0
2.62	0	0	0	0	0	0	0	0	0	0	0	0
2.63	0	0	0	0	0	0	0	0	0	0	0	0
2.64	0	0	0	0	0	0	0	0	0	0	0	0
2.65	0	0	0	0	0	0	0	0	0	0	0	0
2.66	0	0	0	0	0	0	0	0	0	0	0	0
2.67	0	0	0	0	0	0	0	0	0	0	0	0
2.68	0	0	0	0	0	0	0	0	0	0	0	0
2.69	0	0	0	0	0	0	0	0	0	0	0	0
2.70	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	25	25	30	212	212	181	237	237	211

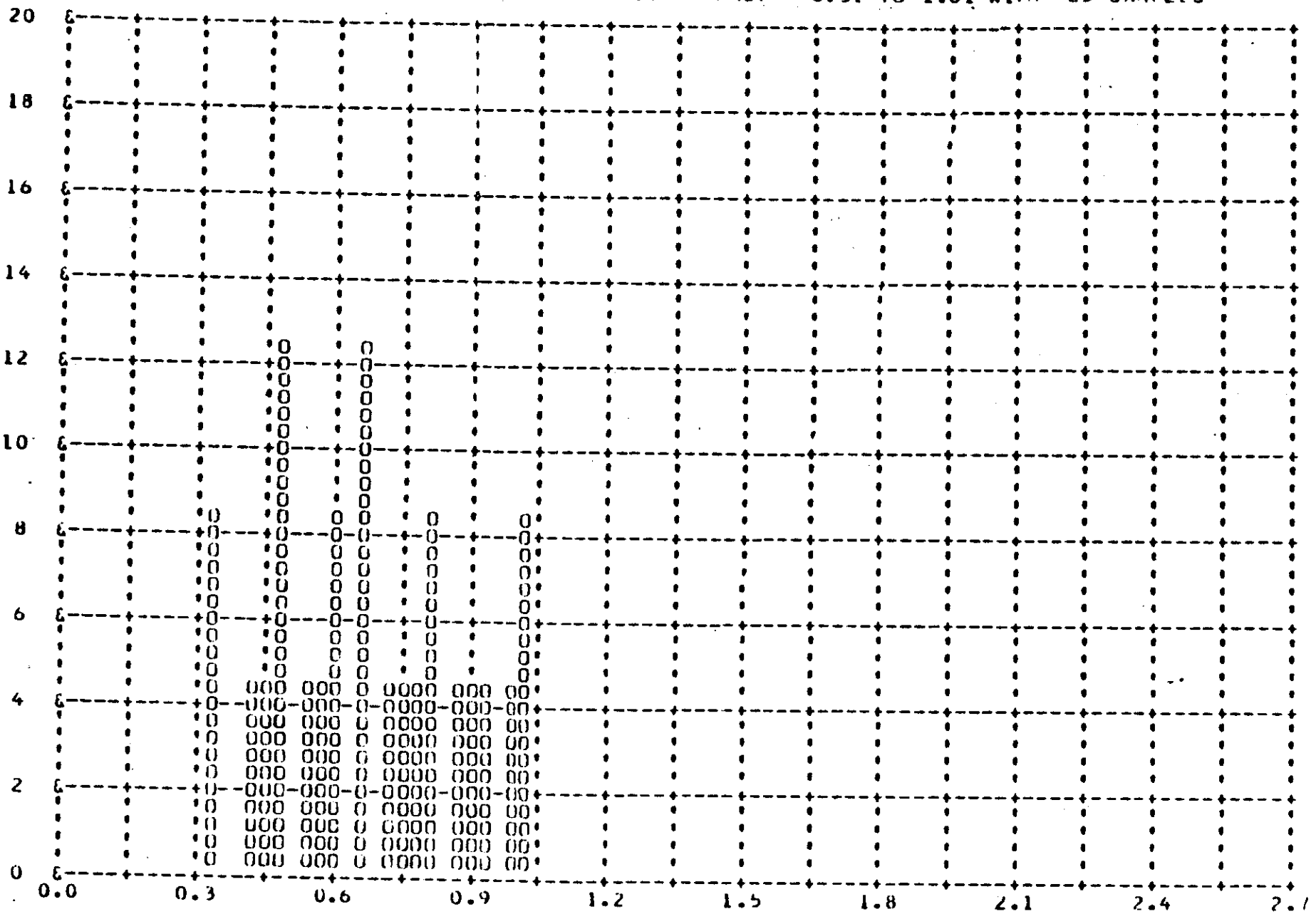
TOP SECRET C [redacted]

Table A-1

[redacted]

MISSION * 1037-1 * INSTR * FWD * 2/24/67 PLOT OF D MIN * TERRAIN * PROCESSING * INTERMEDIATE

AIRTH MEAN * 0.67 * MEDIAN * 0.66 * STD DEV * 0.21 * RANGE * 0.31 TO 1.01 WITH 25 SAMPLES



[redacted]

Figure A-1

MISSION * 1037-1 * INSTR * FWD * 2/24/67 PLOT OF D MAX * TERRAIN * PROCESSING * INTERMEDIATE

AIRTH MEAN * 1.51 * MEDIAN * 1.38 * STD DEV * 0.29 * RANGE * 1.13 TO 2.10 WITH 25 SAMPLES

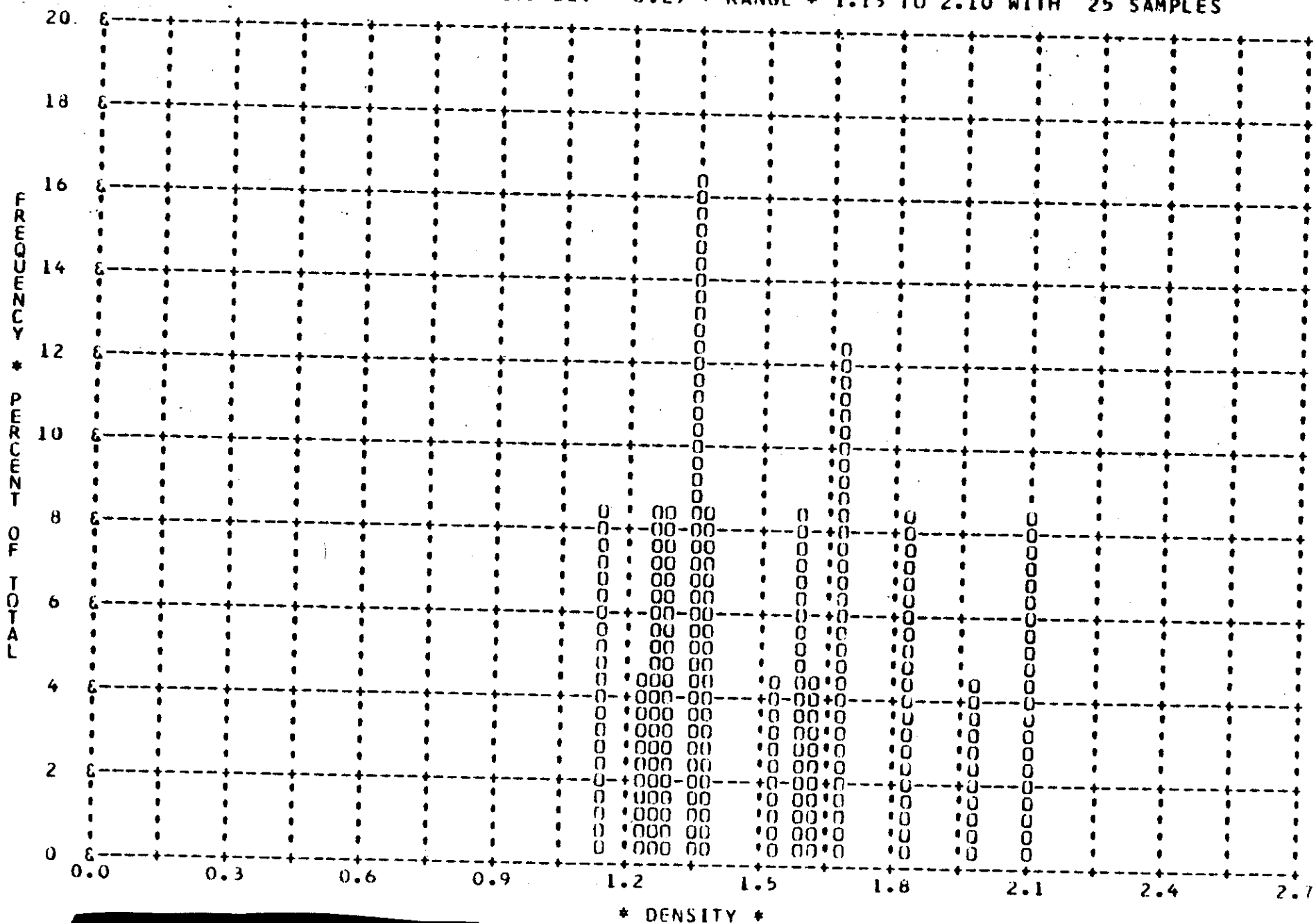
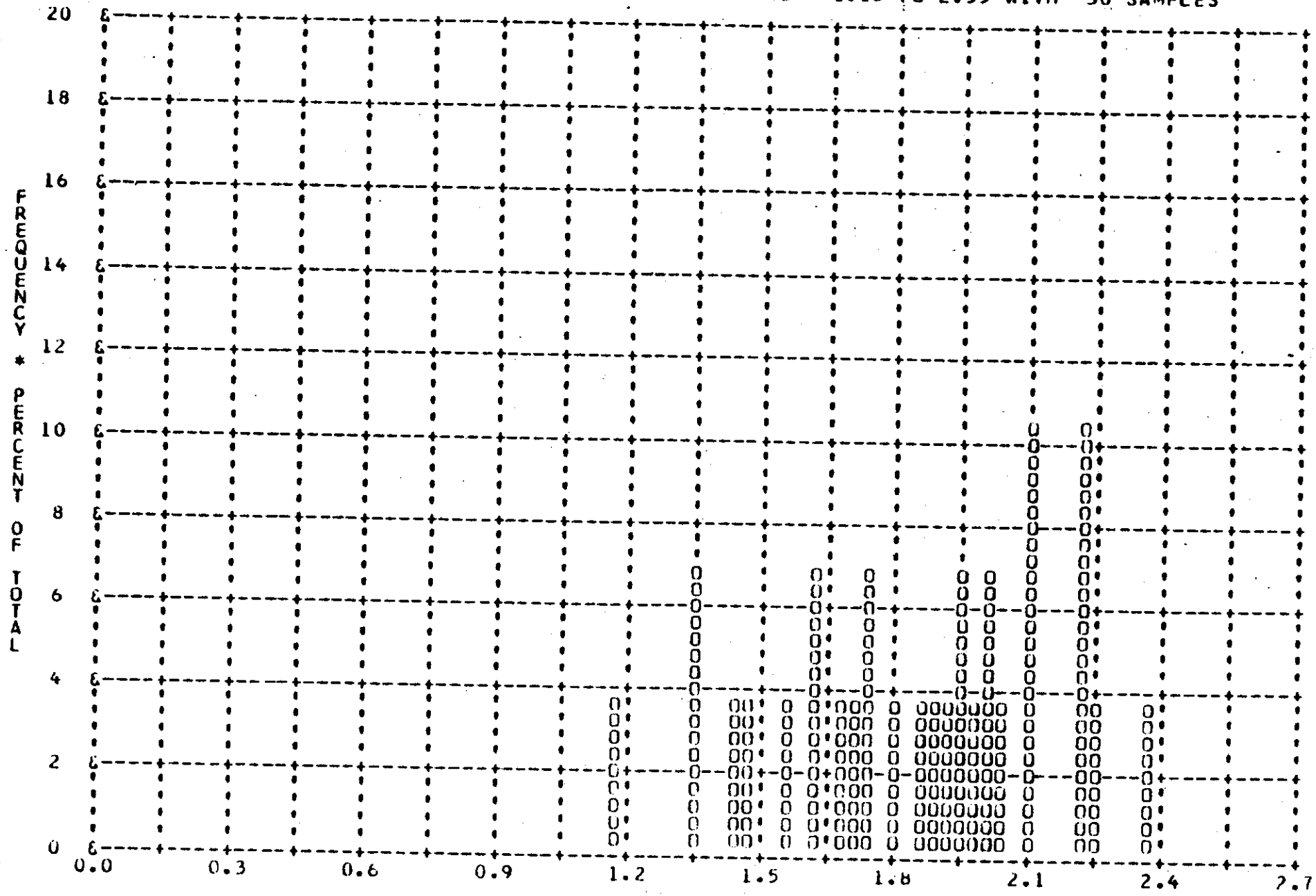


Figure A-2

TOP SECRET C [redacted]

MISSION * 1037-1 * INSTR * FWD * 2/24/67 PLOT OF D MAX * CLOUD * PROCESSING * INTERMEDIATE

AIRTH MEAN * 1.84 * MEDIAN * 1.90 * STD DEV * 0.30 * RANGE * 1.16 TO 2.35 WITH 30 SAMPLES



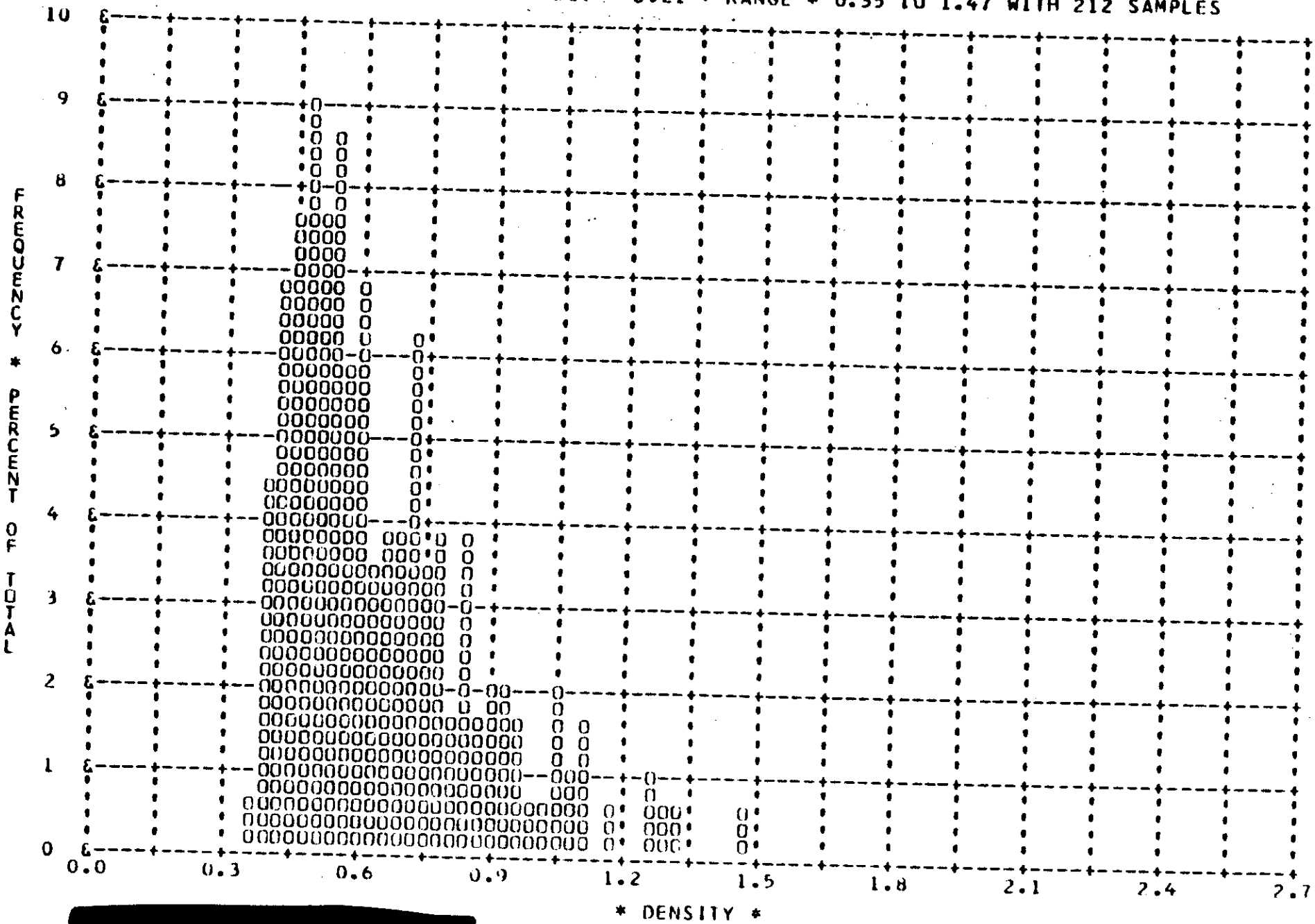
TOP SECRET C [redacted]

Figure A-3

[redacted]

MISSION * 1037-1 * INSTR * FWD * 2/24/67 PLOT OF D MIN * TERRAIN * PROCESSING * FULL

AIRTH MEAN * 0.63 * MEDIAN * 0.58 * STD DEV * 0.21 * RANGE * 0.35 TO 1.47 WITH 212 SAMPLES



A-10

Figure A-4

MISSION * 1037-1 * INSTR * FWD * 2/24/67 PLOT OF D MAX * TERRAIN * PROCESSING * FULL

AIRTH MEAN * 1.54 * MEDIAN * 1.54 * STD DEV * 0.36 * RANGE * 0.61 TO 2.38 WITH 212 SAMPLES

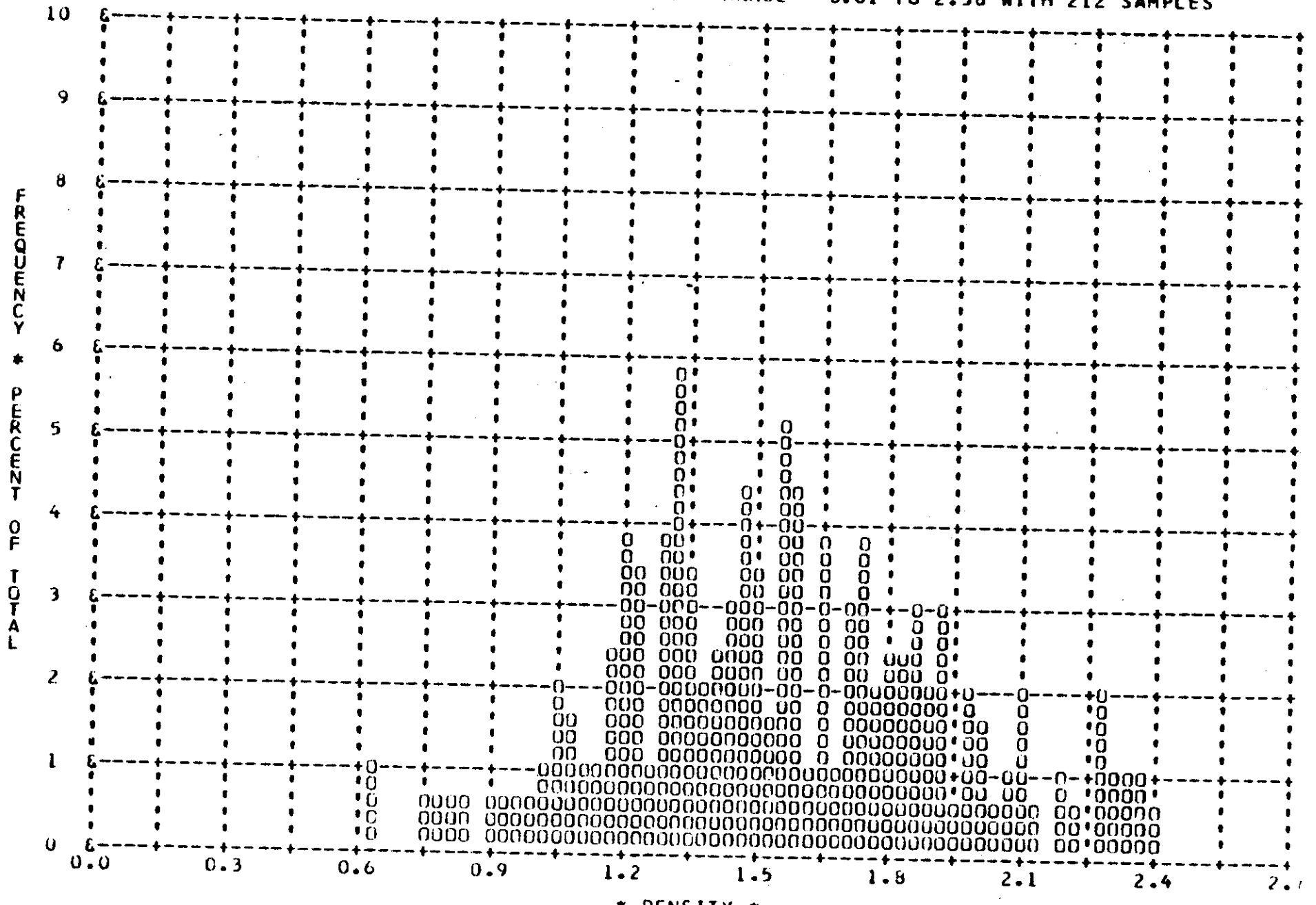


Figure A-3

MISSION * 1037-1 * INSTR * FWD * 2/24/67 PLOT OF D MAX * CLOUD * PROCESSING * FULL

AIRTH MEAN * 2.11 * MEDIAN * 2.20 * STD DEV * 0.29 * RANGE * 1.05 TO 2.46 WITH 181 SAMPLES

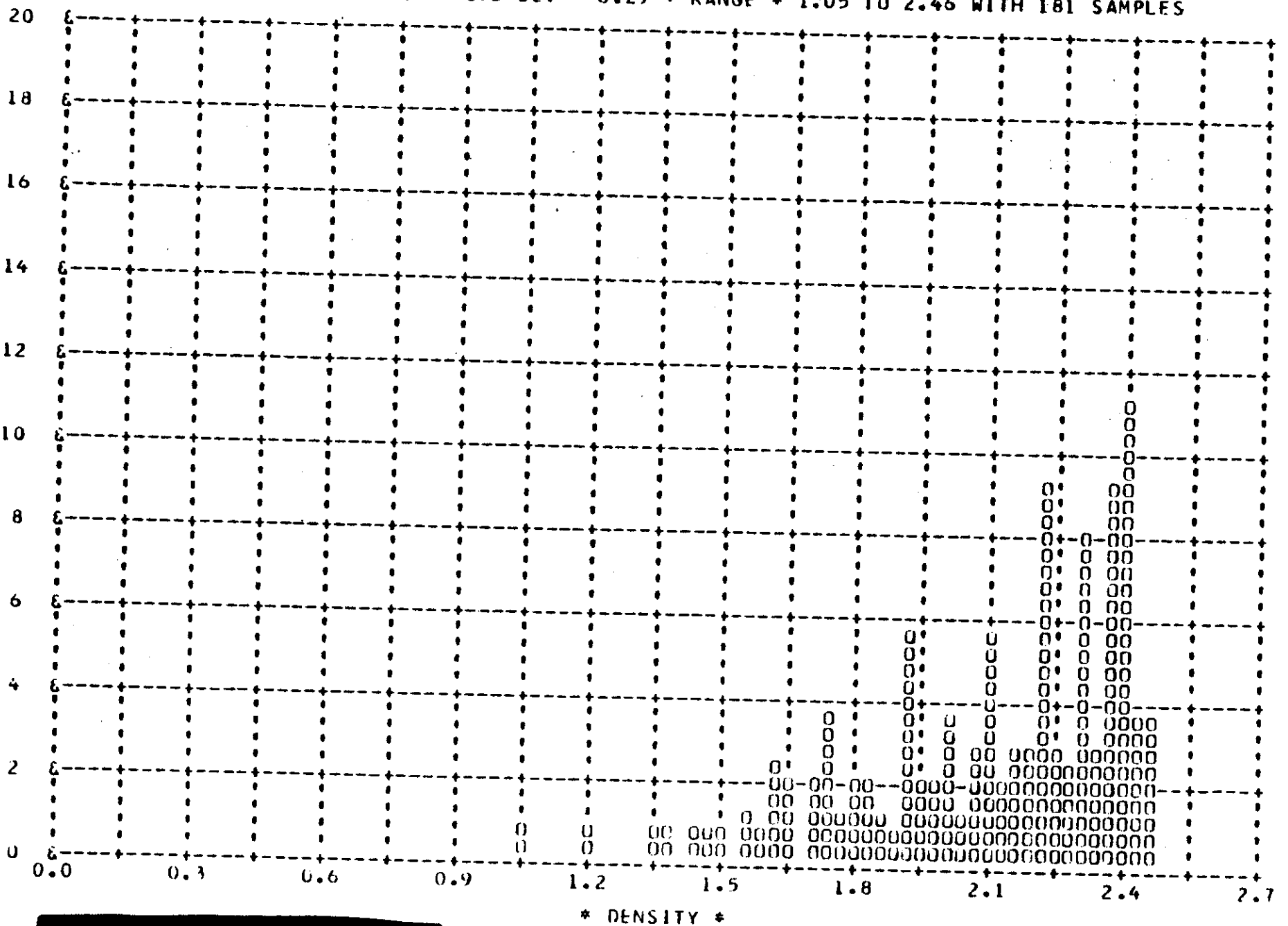
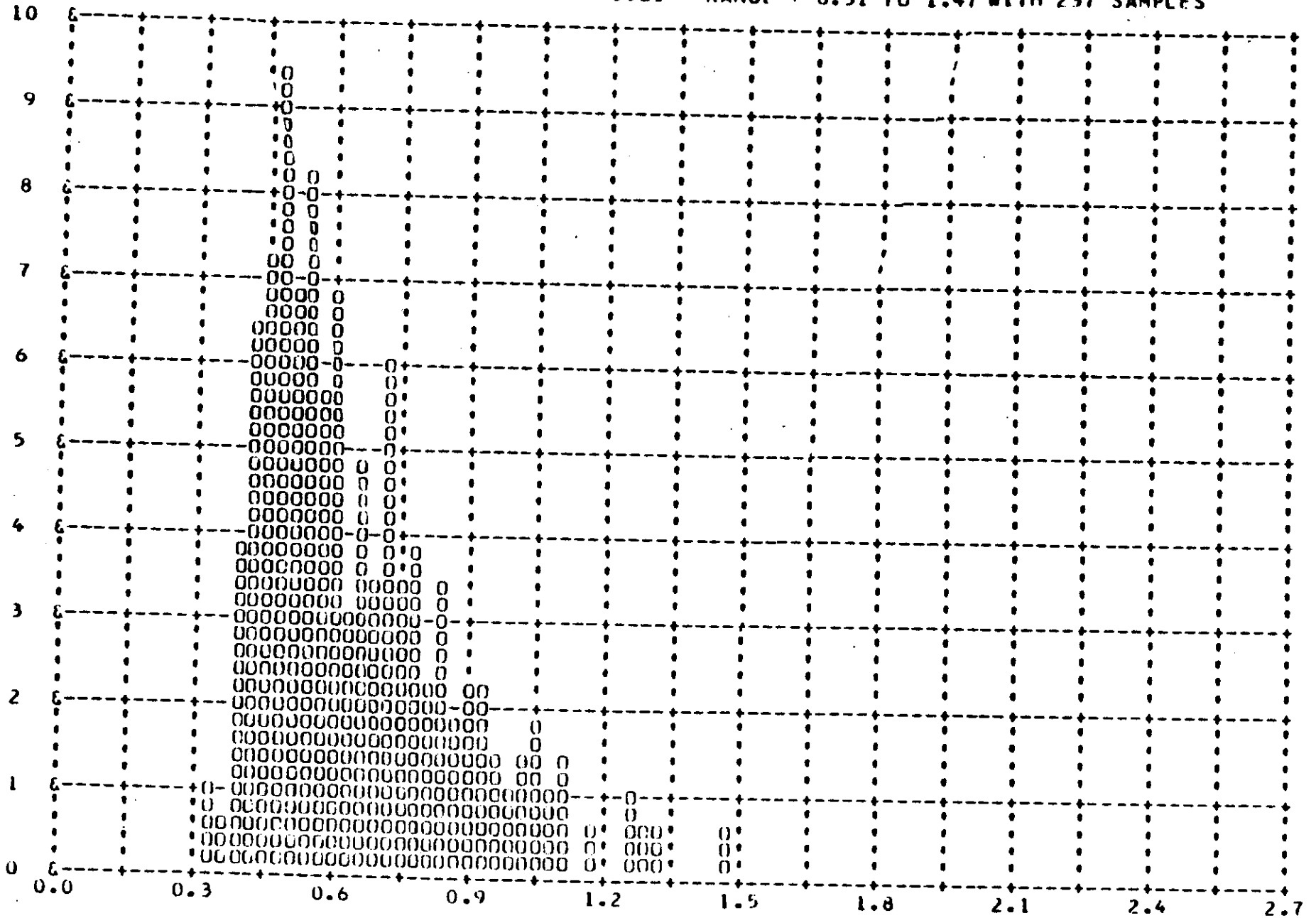


Figure A-6

[redacted]

MISSION * 1037-I * INSTR * FWD * 2/24/67 PLOT OF D MIN * TERRAIN * PROCESSING * ALL LEVELS

AIRTH MEAN * 0.64 * MEDIAN * 0.58 * STD DEV * 0.21 * RANGE * 0.31 TO 1.47 WITH 237 SAMPLES

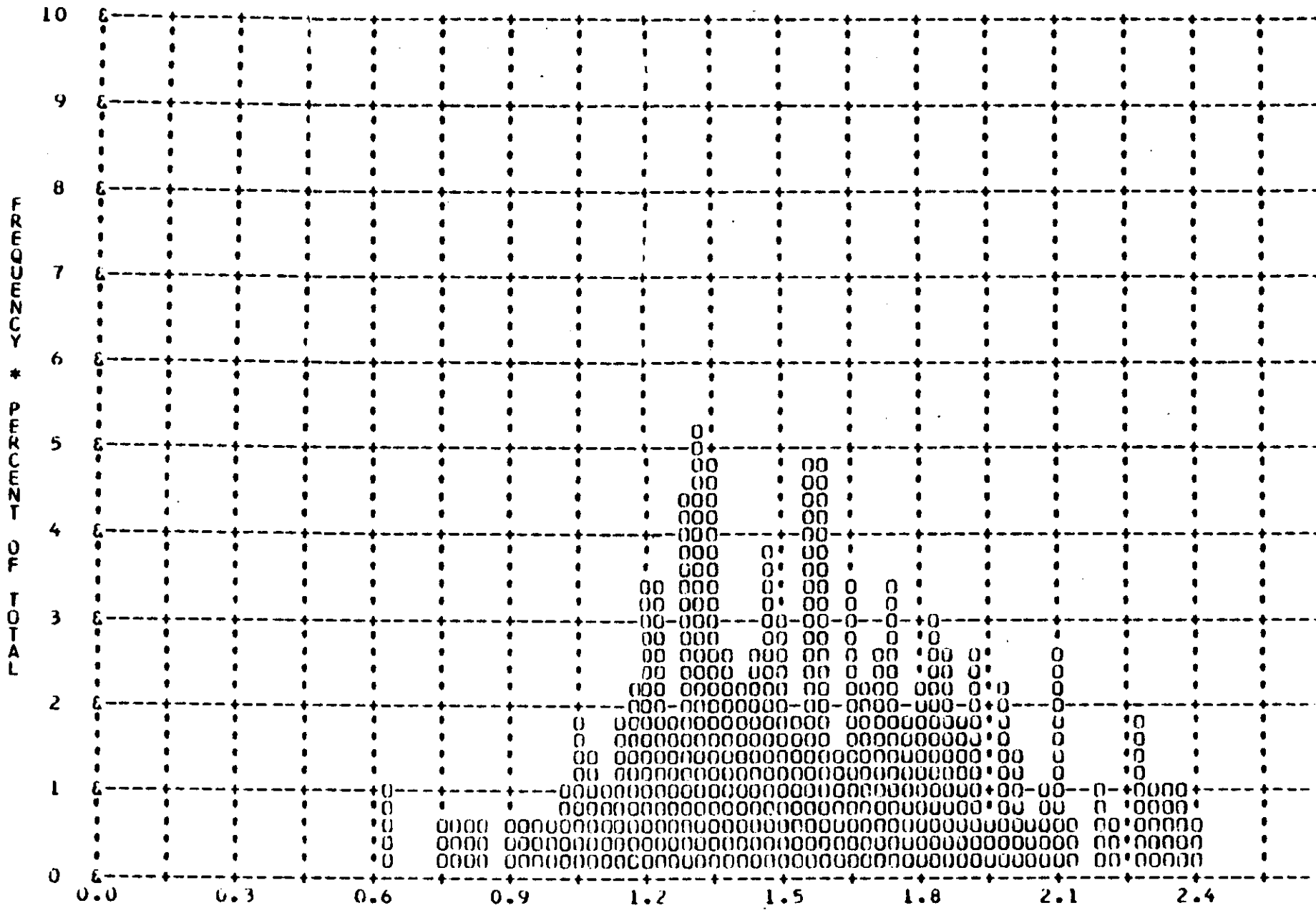


[redacted]

Figure A-7

MISSION * 1037-1 * INSTR * FWD * 2/24/67 PLOT OF D MAX * TERRAIN * PROCESSING * ALL LEVELS

AIRTH MEAN * 1.54 * MEDIAN * 1.53 * STD DEV * 0.36 * RANGE * 0.61 TO 2.38 WITH 237 SAMPLES



A-14

Figure A-6

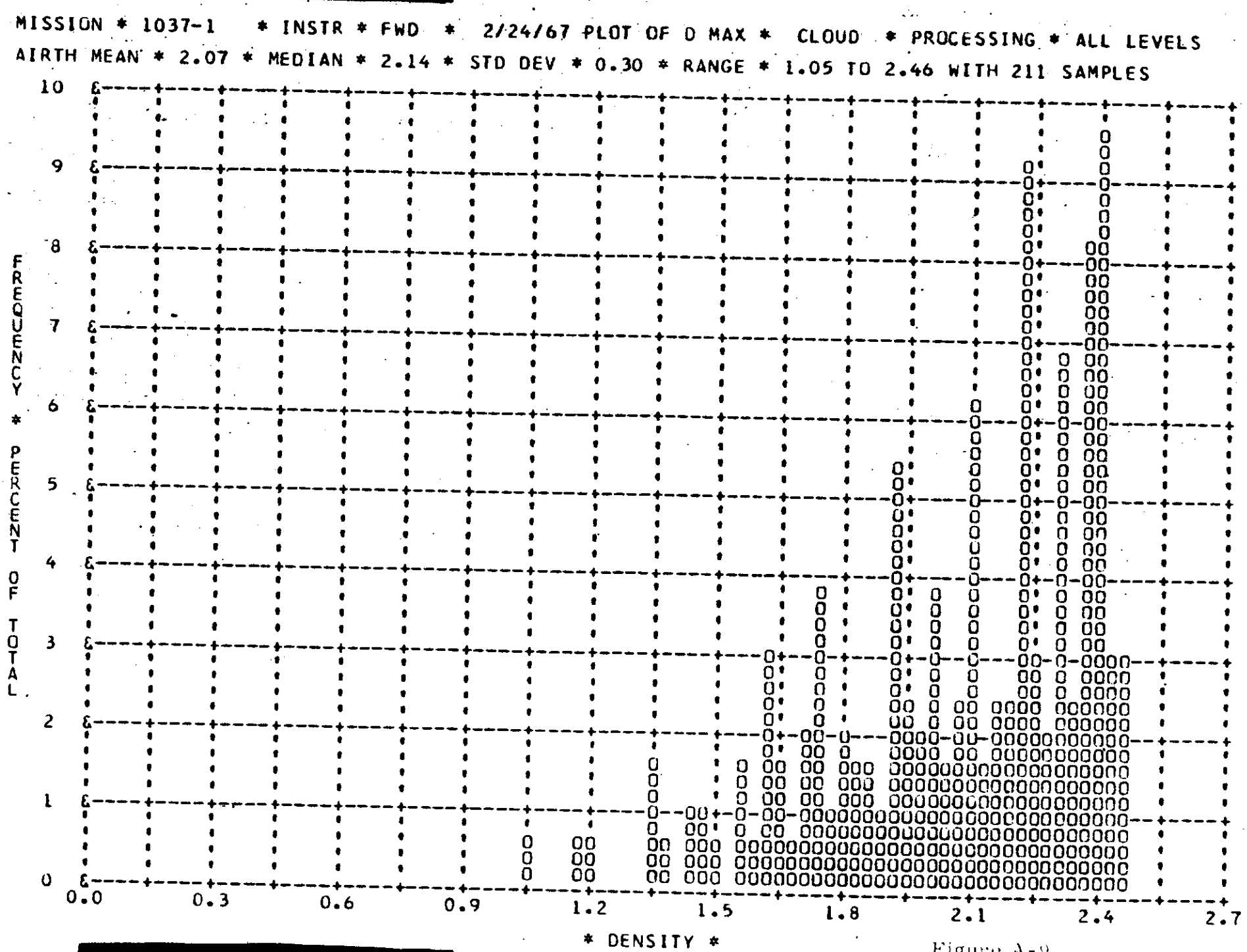

MISSION * 1037-1 * INSTR * FWD * 2/24/67 PLOT OF D MAX * CLOUD * PROCESSING * ALL LEVELS
AIRTH MEAN * 2.07 * MEDIAN * 2.14 * STD DEV * 0.30 * RANGE * 1.05 TO 2.46 WITH 211 SAMPLES
FREQUENCY * PERCENT OF TOTAL
10
9
8
7
6
5
4
3
2
1
0
0.0
0.3
0.6
0.9
1.2
1.5
1.8
2.1
2.4
2.7
* DENSITY *

Figure A-9

MISSION * 1037-1 * INSTRUMENT * AFT 2/24/67 DENSITY FREQ DISTR

DENSITY VALUE	PRIMARY MIN	PRIMARY MAX	PRIMARY LIM	INTERMEDIATE MIN	INTERMEDIATE MAX	INTERMEDIATE LIM	FULL MIN	FULL MAX	FULL LIM	ALL LEVELS MIN	ALL LEVELS MAX	ALL LEVELS LIM
0.01	0	0	0	0	0	0	0	0	0	0	0	0
0.02	0	0	0	0	0	0	0	0	0	0	0	0
0.03	0	0	0	0	0	0	0	0	0	0	0	0
0.04	0	0	0	0	0	0	0	0	0	0	0	0
0.05	0	0	0	0	0	0	0	0	0	0	0	0
0.06	0	0	0	0	0	0	0	0	0	0	0	0
0.07	0	0	0	0	0	0	0	0	0	0	0	0
0.08	0	0	0	0	0	0	0	0	0	0	0	0
0.09	0	0	0	0	0	0	0	0	0	0	0	0
0.10	0	0	0	0	0	0	0	0	0	0	0	0
0.11	0	0	0	0	0	0	0	0	0	0	0	0
0.12	0	0	0	0	0	0	0	0	0	0	0	0
0.13	0	0	0	0	0	0	0	0	0	0	0	0
0.14	0	0	0	0	0	0	0	0	0	0	0	0
0.15	0	0	0	0	0	0	0	0	0	0	0	0
0.16	0	0	0	0	0	0	0	0	0	0	0	0
0.17	0	0	0	0	0	0	0	0	0	0	0	0
0.18	0	0	0	0	0	0	0	0	0	0	0	0
0.19	0	0	0	0	0	0	0	0	0	0	0	0
0.20	0	0	0	0	0	0	0	0	0	0	0	0
0.21	0	0	0	0	0	0	0	0	0	0	0	0
0.22	0	0	0	0	0	0	0	0	0	0	0	0
0.23	0	0	0	0	0	0	0	0	0	0	0	0
0.24	0	0	0	0	0	0	0	0	0	0	0	0
0.25	0	0	0	1	0	0	0	0	0	1	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	2	0	0	1	0	0	2	0	0
0.34	0	0	0	0	0	0	0	0	0	0	0	0
0.35	0	0	0	1	0	0	2	0	0	2	0	0
0.36	0	0	0	0	0	0	0	0	0	0	0	0
0.37	0	0	0	1	0	0	2	0	0	2	0	0
0.38	0	0	0	0	0	0	0	0	0	0	0	0
0.39	0	0	0	1	0	0	2	0	0	3	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	1	0	0	3	0	0	3	0	0
0.43	0	0	0	1	0	0	5	0	0	5	0	0
0.44	0	0	0	1	0	0	9	0	0	10	0	0
0.45	0	0	0	0	0	0	6	0	0	7	0	0
0.46	0	0	0	0	0	0	8	0	0	9	0	0
0.47	0	0	0	0	0	0	3	0	0	3	0	0
0.48	0	0	0	0	0	0	5	0	0	5	0	0
0.49	0	0	0	0	0	0	6	0	0	6	0	0
0.50	0	0	0	0	0	0	4	0	0	4	0	0
SUBTOTAL	0	0	0	8	0	0	65	0	0	73	0	0

Table A-2

MISSION * 1037-1 * INSTRUMENT * AFT 2/24/67 DENSITY FREQ DISTR

DENSITY VALUE	PRIMARY MIN	PRIMARY MAX	PRIMARY LIM	INTERMEDIATE MIN	INTERMEDIATE MAX	INTERMEDIATE LIM	FULL MIN	FULL MAX	FULL LIM	ALL LEVELS MIN	ALL LEVELS MAX	ALL LEVELS LIM
0.51	0	0	0	1	0	0	2	0	0	3	0	0
0.52	0	0	0	0	0	0	6	0	0	6	0	0
0.53	0	0	0	0	0	0	4	0	0	4	0	0
0.54	0	0	0	1	0	0	5	0	0	6	0	0
0.55	0	0	0	0	0	0	10	0	0	10	0	0
0.56	0	0	0	0	0	0	4	0	0	4	0	0
0.57	0	0	0	0	0	0	1	0	0	1	0	0
0.58	0	0	0	0	0	0	4	0	0	4	0	0
0.59	0	0	0	1	0	0	0	0	0	1	0	0
0.60	0	0	0	0	0	0	6	0	0	6	0	0
0.61	0	0	0	1	0	0	3	0	0	4	0	0
0.62	0	0	0	1	0	0	4	0	0	5	0	0
0.63	0	0	0	0	0	0	4	0	0	4	0	0
0.64	0	0	0	0	0	0	3	0	0	3	0	0
0.65	0	0	0	1	0	0	2	0	0	3	0	0
0.66	0	0	0	0	0	0	1	0	0	1	0	0
0.67	0	0	0	0	0	0	3	0	0	3	0	0
0.68	0	0	0	0	0	0	1	0	0	1	0	0
0.69	0	0	0	0	0	0	9	0	0	9	0	0
0.70	0	0	0	0	0	0	3	0	0	3	0	0
0.71	0	0	0	1	0	0	5	0	0	6	0	0
0.72	0	0	0	0	0	0	2	0	0	2	0	0
0.73	0	0	0	0	0	0	2	0	0	2	0	0
0.74	0	0	0	0	0	0	3	0	0	3	0	0
0.75	0	0	0	1	0	0	4	0	0	4	0	0
0.76	0	0	0	0	0	0	1	0	0	2	0	0
0.77	0	0	0	0	0	0	2	0	0	2	0	0
0.78	0	0	0	2	0	0	1	0	0	3	0	0
0.79	0	0	0	0	0	0	2	0	0	2	0	0
0.80	0	0	0	0	0	0	1	0	0	2	0	0
0.81	0	0	0	1	0	0	3	0	0	4	0	0
0.82	0	0	0	0	0	0	3	0	0	3	0	0
0.83	0	0	0	0	0	0	0	1	0	1	0	0
0.84	0	0	0	1	0	0	2	0	0	3	0	0
0.85	0	0	0	1	0	0	1	0	0	2	0	0
0.86	0	0	0	0	0	0	0	0	0	0	0	0
0.87	0	0	0	0	0	0	1	0	0	1	0	0
0.88	0	0	0	0	0	0	0	0	0	0	0	0
0.89	0	0	0	0	0	0	1	0	0	1	0	0
0.90	0	0	0	0	0	0	0	0	0	0	0	0
0.91	0	0	0	1	0	0	3	0	0	4	0	0
0.92	0	0	0	0	0	0	1	0	0	1	0	0
0.93	0	0	0	0	0	0	0	1	0	0	1	0
0.94	0	0	0	2	0	0	1	0	0	3	0	0
0.95	0	0	0	0	0	0	2	0	0	2	0	0
0.96	0	0	0	0	0	0	1	0	0	1	0	0
0.97	0	0	0	0	0	0	1	0	0	1	0	0
0.98	0	0	0	0	0	0	1	0	0	1	0	0
0.99	0	0	0	0	0	0	1	0	0	1	0	0
1.00	0	0	0	0	0	0	1	0	0	1	0	0
SUBTOTAL	0	0	0	17	1	0	129	8	0	146	9	0

Table A-2

MISSION * 1037-1 * INSTRUMENT * AFT 2/24/67 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	2	0	0	2	0
1.03	0	0	0	1	1	0	0	1	0	1	2	0
1.04	0	0	0	0	0	0	1	1	0	1	1	0
1.05	0	0	0	0	0	0	0	2	0	0	2	0
1.06	0	0	0	0	0	0	0	1	0	0	1	0
1.07	0	0	0	0	0	0	0	0	0	0	0	0
1.08	0	0	0	1	0	0	3	0	0	4	0	0
1.09	0	0	0	0	0	0	1	1	0	1	1	0
1.10	0	0	0	0	1	0	0	1	0	0	2	0
1.11	0	0	0	0	1	0	1	1	0	1	2	0
1.12	0	0	0	0	0	0	1	4	0	1	4	0
1.13	0	0	0	1	0	0	0	0	0	1	0	0
1.14	0	0	0	0	0	0	0	3	0	0	3	0
1.15	0	0	0	0	1	0	0	3	1	0	4	1
1.16	0	0	0	0	0	0	1	2	0	1	2	0
1.17	0	0	0	0	1	0	1	3	0	1	3	0
1.18	0	0	0	0	1	0	1	4	1	1	5	1
1.19	0	0	0	1	0	0	0	1	0	1	1	0
1.20	0	0	0	0	0	0	0	0	0	0	0	0
1.21	0	0	0	0	0	0	0	0	0	0	0	0
1.22	0	0	0	0	0	0	0	0	0	0	0	0
1.23	0	0	0	0	0	0	0	0	0	0	0	0
1.24	0	0	0	0	0	0	0	0	0	0	0	0
1.25	0	0	0	0	0	0	0	0	0	0	0	0
1.26	0	0	0	0	0	0	0	0	0	0	0	0
1.27	0	0	0	0	0	0	0	0	0	0	0	0
1.28	0	0	0	0	0	0	0	0	0	0	0	0
1.29	0	0	0	0	0	0	0	0	0	0	0	0
1.30	0	0	0	0	0	0	0	0	0	0	0	0
1.31	0	0	0	0	0	0	0	0	0	0	0	0
1.32	0	0	0	0	0	0	0	0	0	0	0	0
1.33	0	0	0	0	0	0	0	0	0	0	0	0
1.34	0	0	0	0	0	0	0	0	0	0	0	0
1.35	0	0	0	0	0	0	0	0	0	0	0	0
1.36	0	0	0	0	0	0	0	0	0	0	0	0
1.37	0	0	0	0	0	0	0	0	0	0	0	0
1.38	0	0	0	0	0	0	0	0	0	0	0	0
1.39	0	0	0	0	0	0	0	0	0	0	0	0
1.40	0	0	0	0	0	0	0	0	0	0	0	0
1.41	0	0	0	0	0	0	0	0	0	0	0	0
1.42	0	0	0	0	0	0	0	0	0	0	0	0
1.43	0	0	0	0	0	0	0	0	0	0	0	0
1.44	0	0	0	0	0	0	0	0	0	0	0	0
1.45	0	0	0	0	0	0	0	0	0	0	0	0
1.46	0	0	0	0	0	0	0	0	0	0	0	0
1.47	0	0	0	0	0	0	0	0	0	0	0	0
1.48	0	0	0	0	0	0	0	0	0	0	0	0
1.49	0	0	0	0	0	0	0	0	0	0	0	0
1.50	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	0	0	0	4	16	2	15	115	10	19	131	12

Table A-2

MISSION * 1037-1 * INSTRUMENT * AFT 2/24/67 DENSITY FREQ DISTR

DENSITY VALUE	PRIMARY MIN	PRIMARY MAX	PRIMARY LIM	INTERMEDIATE MIN	INTERMEDIATE MAX	INTERMEDIATE LIM	FULL MIN	FULL MAX	FULL LIM	ALL LEVELS MIN	ALL LEVELS MAX	ALL LEVELS LIM
1.51	0	0	0	0	1	0	0	3	0	0	4	0
1.52	0	0	0	0	0	0	0	2	3	0	2	3
1.53	0	0	0	0	0	0	0	6	0	0	6	0
1.54	0	0	0	0	0	0	0	4	2	0	4	2
1.55	0	0	0	0	0	0	0	3	2	0	3	2
1.56	0	0	0	0	0	0	0	8	1	0	8	1
1.57	0	0	0	0	0	0	0	0	1	0	0	1
1.58	0	0	0	0	0	0	0	1	2	0	1	2
1.59	0	0	0	0	0	0	0	1	1	0	1	1
1.60	0	0	0	0	1	1	0	2	6	0	3	7
1.61	0	0	0	0	0	0	0	2	1	0	2	1
1.62	0	0	0	0	0	0	0	0	1	0	0	1
1.63	0	0	0	0	0	0	0	1	0	0	1	0
1.64	0	0	0	0	0	0	0	2	0	0	2	0
1.65	0	0	0	0	0	1	0	2	0	0	2	1
1.66	0	0	0	0	1	0	0	0	1	0	1	1
1.67	0	0	0	0	0	0	0	2	1	0	2	1
1.68	0	0	0	0	1	0	0	1	2	0	2	2
1.69	0	0	0	0	1	0	0	1	2	0	2	2
1.70	0	0	0	0	1	1	0	2	2	0	3	3
1.71	0	0	0	0	0	0	0	1	0	0	1	0
1.72	0	0	0	0	0	0	0	0	2	0	0	2
1.73	0	0	0	0	0	0	0	2	2	0	2	2
1.74	0	0	0	0	1	1	0	2	0	0	1	1
1.75	0	0	0	0	0	1	0	1	0	0	1	2
1.76	0	0	0	0	0	0	0	1	0	0	1	0
1.77	0	0	0	0	1	0	0	1	0	0	2	0
1.78	0	0	0	0	1	0	0	0	0	0	1	0
1.79	0	0	0	0	0	0	0	0	0	0	0	0
1.80	0	0	0	0	0	3	0	4	1	0	4	4
1.81	0	0	0	0	0	0	0	0	1	0	0	1
1.82	0	0	0	0	0	0	0	0	2	0	0	2
1.83	0	0	0	0	0	1	0	2	1	0	2	2
1.84	0	0	0	0	0	0	0	1	1	0	1	1
1.85	0	0	0	0	0	0	0	1	1	0	1	1
1.86	0	0	0	0	0	0	0	1	0	0	1	0
1.87	0	0	0	0	0	0	0	0	1	0	0	1
1.88	0	0	0	0	0	0	0	1	0	0	1	0
1.89	0	0	0	0	0	0	0	0	1	0	0	1
1.90	0	0	0	0	1	2	0	2	6	0	3	8
1.91	0	0	0	0	1	0	0	0	1	0	1	0
1.92	0	0	0	0	0	1	0	3	0	0	3	2
1.93	0	0	0	0	0	0	0	0	1	0	0	1
1.94	0	0	0	0	0	0	0	0	3	0	0	3
1.95	0	0	0	0	0	1	0	0	2	0	0	3
1.96	0	0	0	0	1	0	0	2	1	0	3	1
1.97	0	0	0	0	0	0	0	0	1	0	0	1
1.98	0	0	0	0	0	0	0	3	1	0	3	1
1.99	0	0	0	0	0	0	0	0	1	0	0	1
2.00	0	0	0	0	1	0	0	0	5	0	1	5
SUBTOTAL	0	0	0	0	12	14	0	68	58	0	80	72

Table A-2

~~TOP SECRET~~ C[redacted]

MISSION * 1037-1 * INSTRUMENT * AFT 2/24/67 DENSITY FREQ DISTR

DENSITY VALUE	PRIMARY MIN	PRIMARY MAX	PRIMARY LIM	INTERMEDIATE MIN	INTERMEDIATE MAX	INTERMEDIATE LIM	FULL MIN	FULL MAX	FULL LIM	ALL LEVELS MIN	ALL LEVELS MAX	ALL LEVELS LIM
2.01	0	0	0	0	0	0	0	0	0	0	0	0
2.02	0	0	0	0	0	0	0	0	0	0	0	0
2.03	0	0	0	0	0	1	0	0	1	0	0	2
2.04	0	0	0	0	0	0	0	0	3	0	0	3
2.05	0	0	0	0	0	0	0	0	2	0	0	2
2.06	0	0	0	0	0	0	0	0	3	0	1	3
2.07	0	0	0	0	0	0	0	0	4	0	1	4
2.08	0	0	0	0	0	1	0	0	4	0	2	5
2.09	0	0	0	0	0	0	0	0	2	0	2	3
2.10	0	0	0	0	0	0	0	0	3	0	1	3
2.11	0	0	0	0	0	0	0	0	6	0	3	6
2.12	0	0	0	0	0	0	0	0	6	0	3	6
2.13	0	0	0	0	0	0	0	0	3	0	1	3
2.14	0	0	0	0	0	0	0	0	2	0	1	2
2.15	0	0	0	0	0	0	0	0	1	0	1	1
2.16	0	0	0	0	0	1	0	0	2	0	1	3
2.17	0	0	0	0	0	0	0	0	2	0	1	2
2.18	0	0	0	0	0	0	0	0	1	0	1	1
2.19	0	0	0	0	0	0	0	0	2	0	1	2
2.20	0	0	0	0	0	2	0	0	2	0	2	2
2.21	0	0	0	0	0	0	0	0	3	0	2	3
2.22	0	0	0	0	0	0	0	0	3	0	2	3
2.23	0	0	0	0	0	0	0	0	3	0	2	3
2.24	0	0	0	0	0	1	0	0	3	0	2	4
2.25	0	0	0	0	0	0	0	0	2	0	2	2
2.26	0	0	0	0	0	0	0	0	2	0	2	2
2.27	0	0	0	0	0	0	0	0	0	0	2	0
2.28	0	0	0	0	0	0	0	0	5	0	2	5
2.29	0	0	0	0	0	0	0	0	0	0	2	0
2.30	0	0	0	0	0	0	0	0	13	0	2	13
2.31	0	0	0	0	0	1	0	0	2	0	3	3
2.32	0	0	0	0	0	0	0	0	5	0	3	7
2.33	0	0	0	0	0	0	0	0	2	0	3	2
2.34	0	0	0	0	0	0	0	0	1	0	3	1
2.35	0	0	0	0	0	0	0	0	4	0	3	4
2.36	0	0	0	0	0	0	0	0	7	0	3	8
2.37	0	0	0	0	0	1	0	0	0	0	3	0
2.38	0	0	0	0	0	0	0	0	2	0	3	2
2.39	0	0	0	0	0	0	0	0	0	0	3	0
2.40	0	0	0	0	0	0	0	0	6	0	3	6
2.41	0	0	0	0	0	0	0	0	1	0	3	1
2.42	0	0	0	0	0	0	0	0	0	0	3	0
2.43	0	0	0	0	0	0	0	0	3	0	3	3
2.44	0	0	0	0	0	0	0	0	1	0	3	1
2.45	0	0	0	0	0	0	0	0	2	0	3	2
2.46	0	0	0	0	0	0	0	0	0	0	3	0
2.47	0	0	0	0	0	0	0	0	0	0	3	0
2.48	0	0	0	0	0	0	0	0	0	0	3	0
2.49	0	0	0	0	0	0	0	0	0	0	3	0
2.50	0	0	0	0	0	0	0	0	0	0	3	0
SUBTOTAL	0	0	0	0	0	11	0	18	108	0	18	119

~~TOP SECRET~~ C[redacted]

Table A-2

MISSION * 1037-1 * INSTRUMENT * AFT 2/24/67 DENSITY FREQ DISTR

DENSITY VALUE	PRIMARY MIN	PRIMARY MAX	PRIMARY LIM	INTERMEDIATE MIN	INTERMEDIATE MAX	INTERMEDIATE LIM	FULL MIN	FULL MAX	FULL LIM	ALL LEVELS MIN	ALL LEVELS MAX	ALL LEVELS LIM
2.51	0	0	0	0	0	0	0	0	0	0	0	0
2.52	0	0	0	0	0	0	0	0	0	0	0	0
2.53	0	0	0	0	0	0	0	0	0	0	0	0
2.54	0	0	0	0	0	0	0	0	0	0	0	0
2.55	0	0	0	0	0	0	0	0	0	0	0	0
2.56	0	0	0	0	0	0	0	0	0	0	0	0
2.57	0	0	0	0	0	0	0	0	0	0	0	0
2.58	0	0	0	0	0	0	0	0	0	0	0	0
2.59	0	0	0	0	0	0	0	0	0	0	0	0
2.60	0	0	0	0	0	0	0	0	0	0	0	0
2.61	0	0	0	0	0	0	0	0	0	0	0	0
2.62	0	0	0	0	0	0	0	0	0	0	0	0
2.63	0	0	0	0	0	0	0	0	0	0	0	0
2.64	0	0	0	0	0	0	0	0	0	0	0	0
2.65	0	0	0	0	0	0	0	0	0	0	0	0
2.66	0	0	0	0	0	0	0	0	0	0	0	0
2.67	0	0	0	0	0	0	0	0	0	0	0	0
2.68	0	0	0	0	0	0	0	0	0	0	0	0
2.69	0	0	0	0	0	0	0	0	0	0	0	0
2.70	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	29	29	27	209	209	176	238	238	203

Table A-2

[redacted]

MISSION * 1037-1 * INSTR * AFT * 2/24/67 PLOT OF D MIN * TERRAIN * PROCESSING * INTERMEDIATE

AIRTH MEAN * 0.70 * MEDIAN * 0.72 * STD DEV * 0.27 * RANGE * 0.25 TO 1.20 WITH 29 SAMPLES

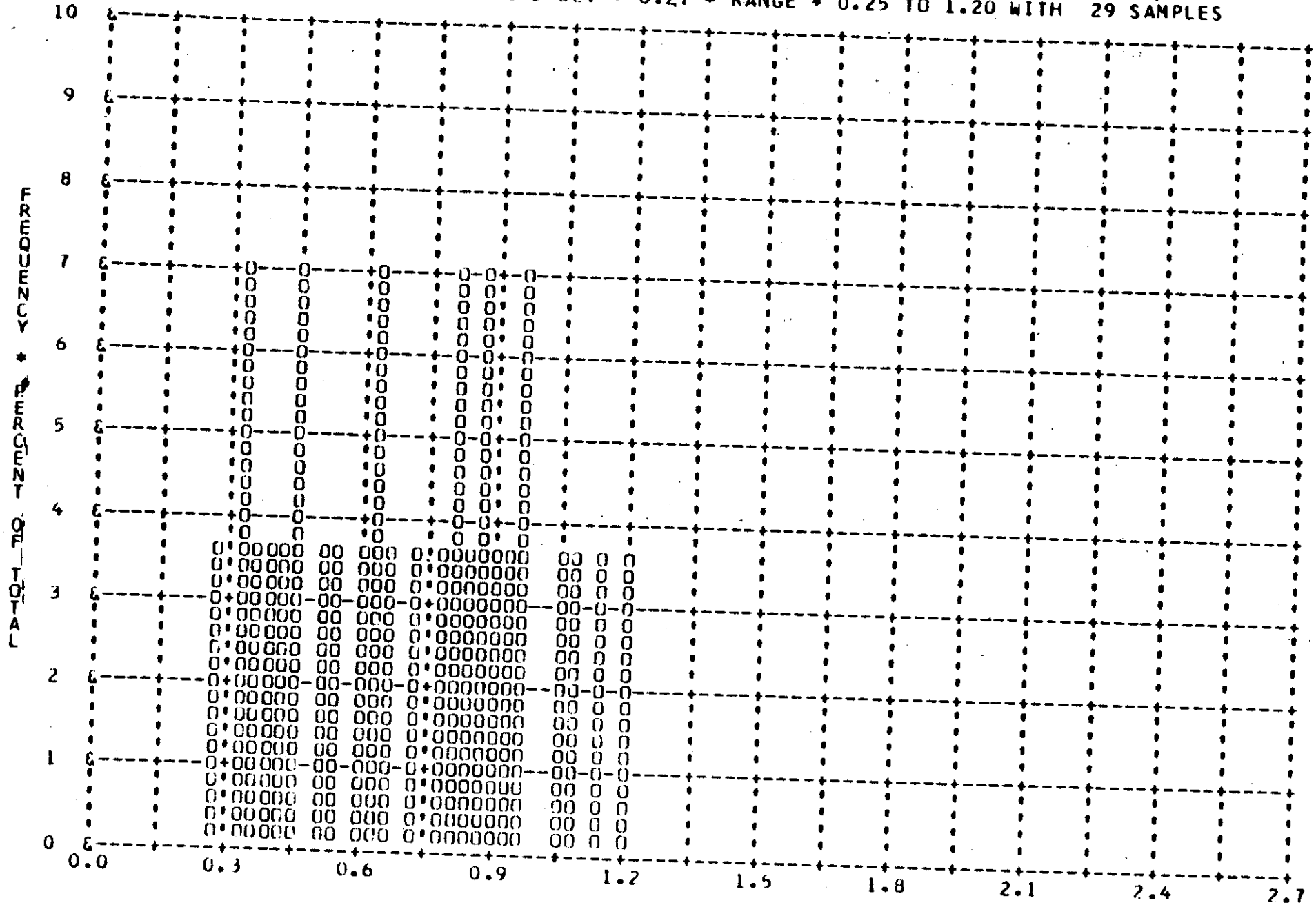


Figure A-10

MISSION * 1037-1 * INSTR * AFT * 2/24/67 PLOT OF D MAX * TERRAIN * PROCESSING * INTERMEDIATE

AIRTH MEAN * 1.47 * MEDIAN * 1.43 * STD DEV * 0.29 * RANGE * 0.98 TO 2.00 WITH 29 SAMPLES

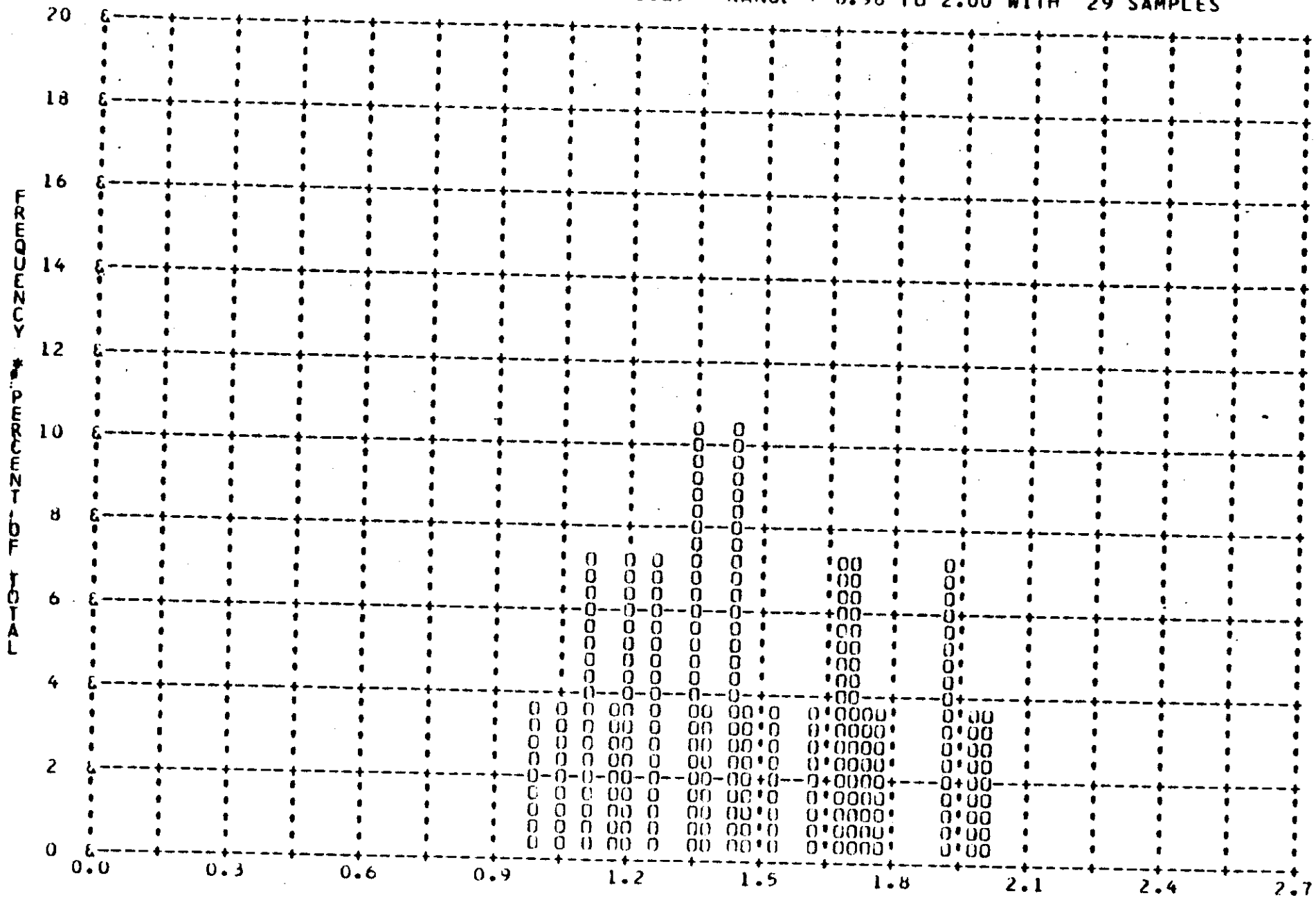


Figure A-11

MISSION * 1037-1 * INSTR * AFT * 2/24/67 PLOT OF D MAX * CLOUD * PROCESSING * INTERMEDIATE

AIRTH MEAN * 1.93 * MEDIAN * 1.90 * STD DEV. * 0.30 * RANGE * 1.18 TO 2.36 WITH 27 SAMPLES

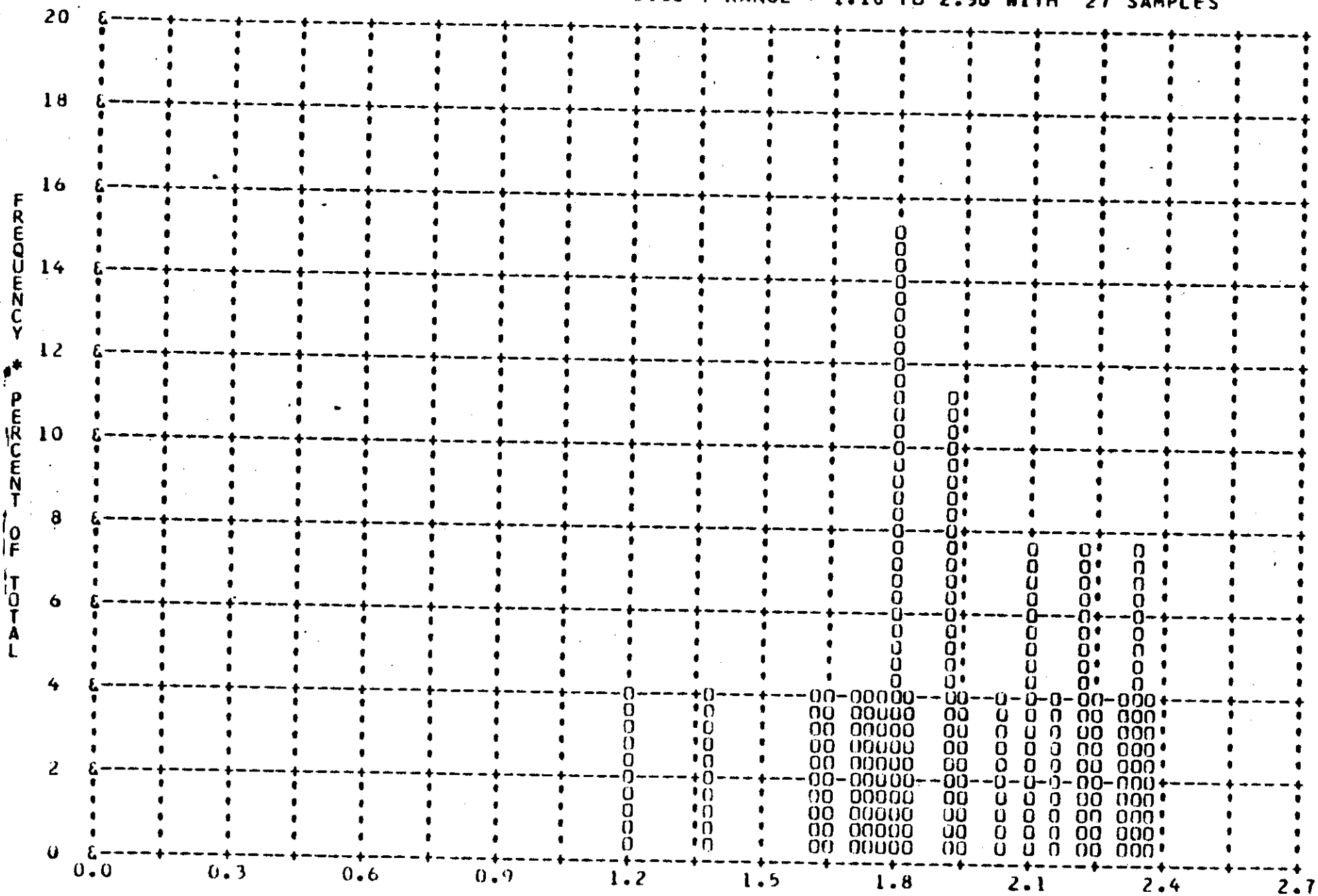


Figure A-12

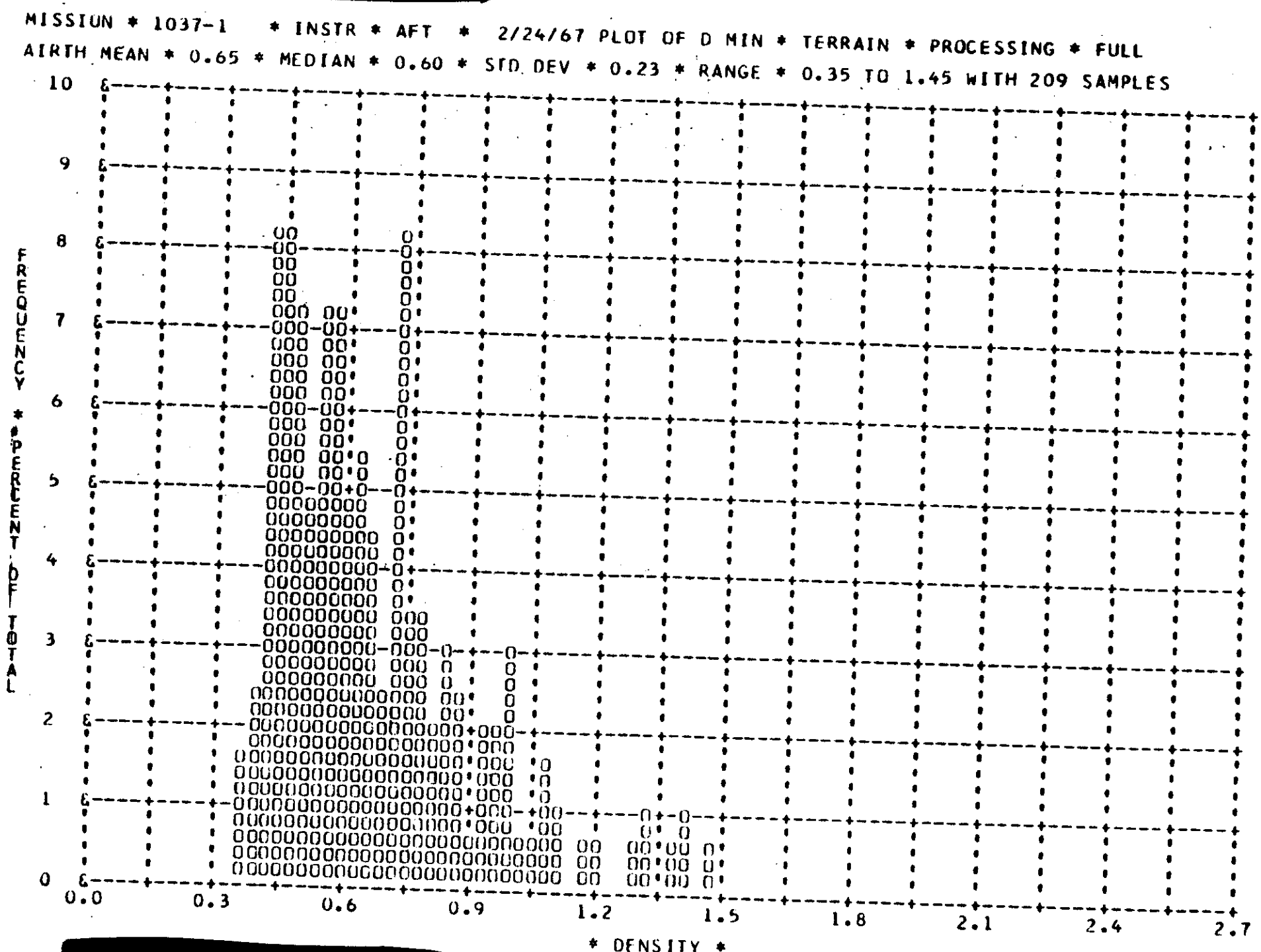

MISSION * 1037-1 * INSTR * AFT * 2/24/67 PLOT OF D MIN * TERRAIN * PROCESSING * FULL
AIRTH MEAN * 0.65 * MEDIAN * 0.60 * STD DEV * 0.23 * RANGE * 0.35 TO 1.45 WITH 209 SAMPLES
FREQUENCY * PERCENT OF TOTAL
10
9
8
7
6
5
4
3
2
1
0
0.0
0.3
0.6
0.9
1.2
1.5
1.8
2.1
2.4
2.7
* DENSITY *

Figure A-13

MISSION * 1037-1 * INSTR * AFT * 2/24/67 PLOT OF D MAX * TERRAIN * PROCESSING * FULL

AIRTH MEAN * 1.48 * MEDIAN * 1.44 * STD DEV * 0.32 * RANGE * 0.84 TO 2.33 WITH 209 SAMPLES

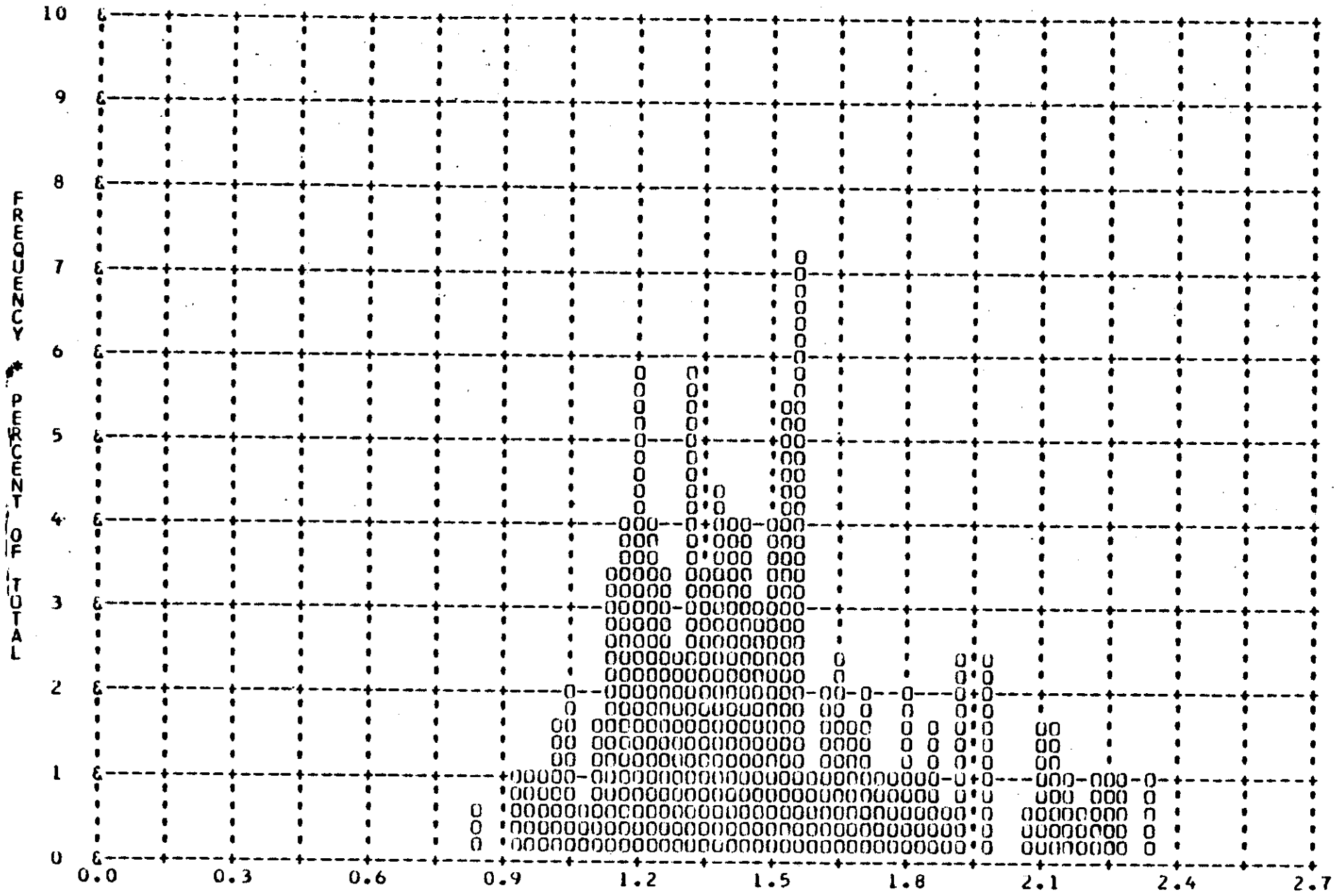


Figure A-14

MISSION * 1037-1 * INSTR * AFT * 2/24/67 PLOT OF D MAX * CLOUD * PROCESSING * FULL

AIRTH MEAN * 2.04 * MEDIAN * 2.12 * STD DEV * 0.32 * RANGE * 1.15 TO 2.45 WITH 176 SAMPLES

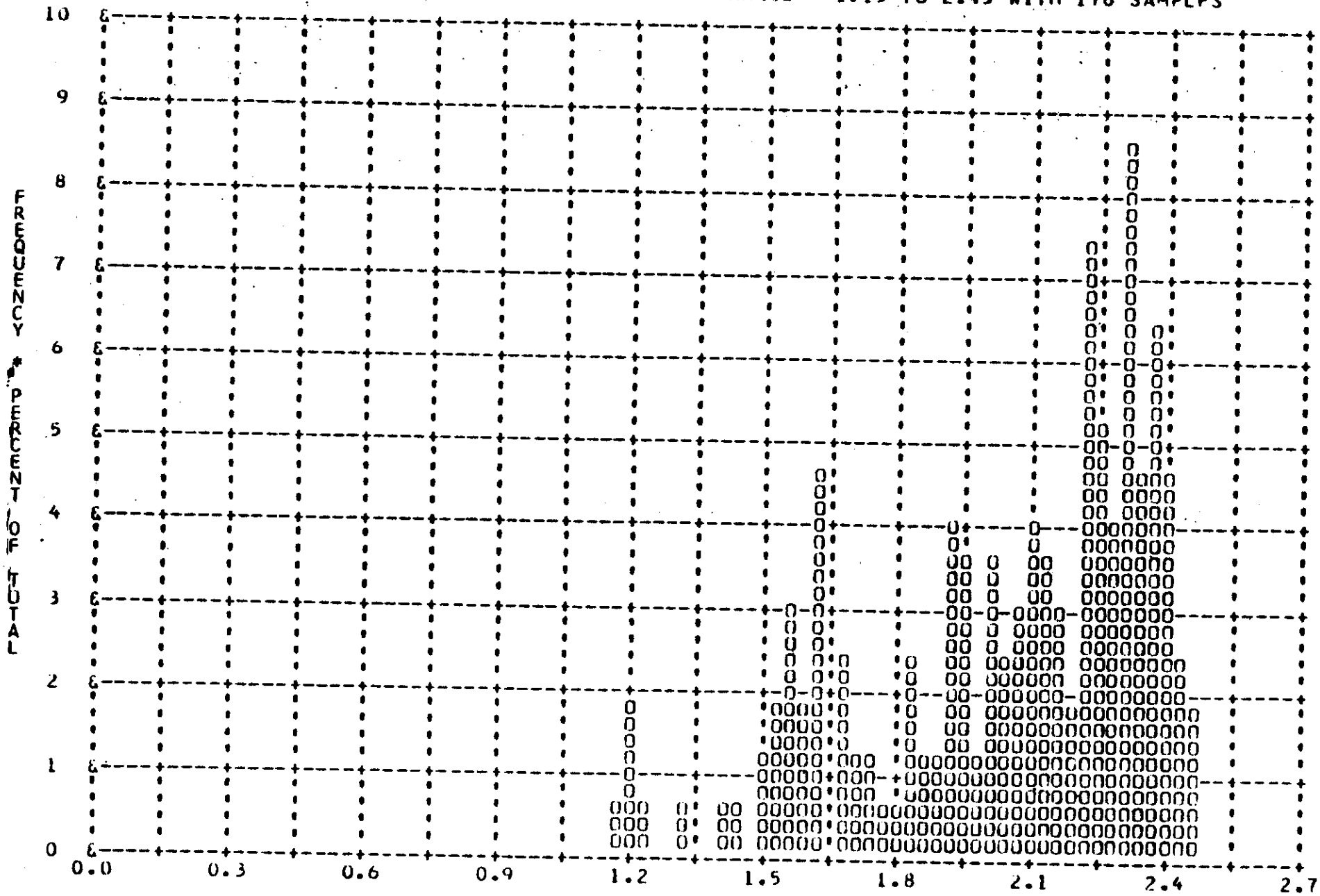


Figure A-15

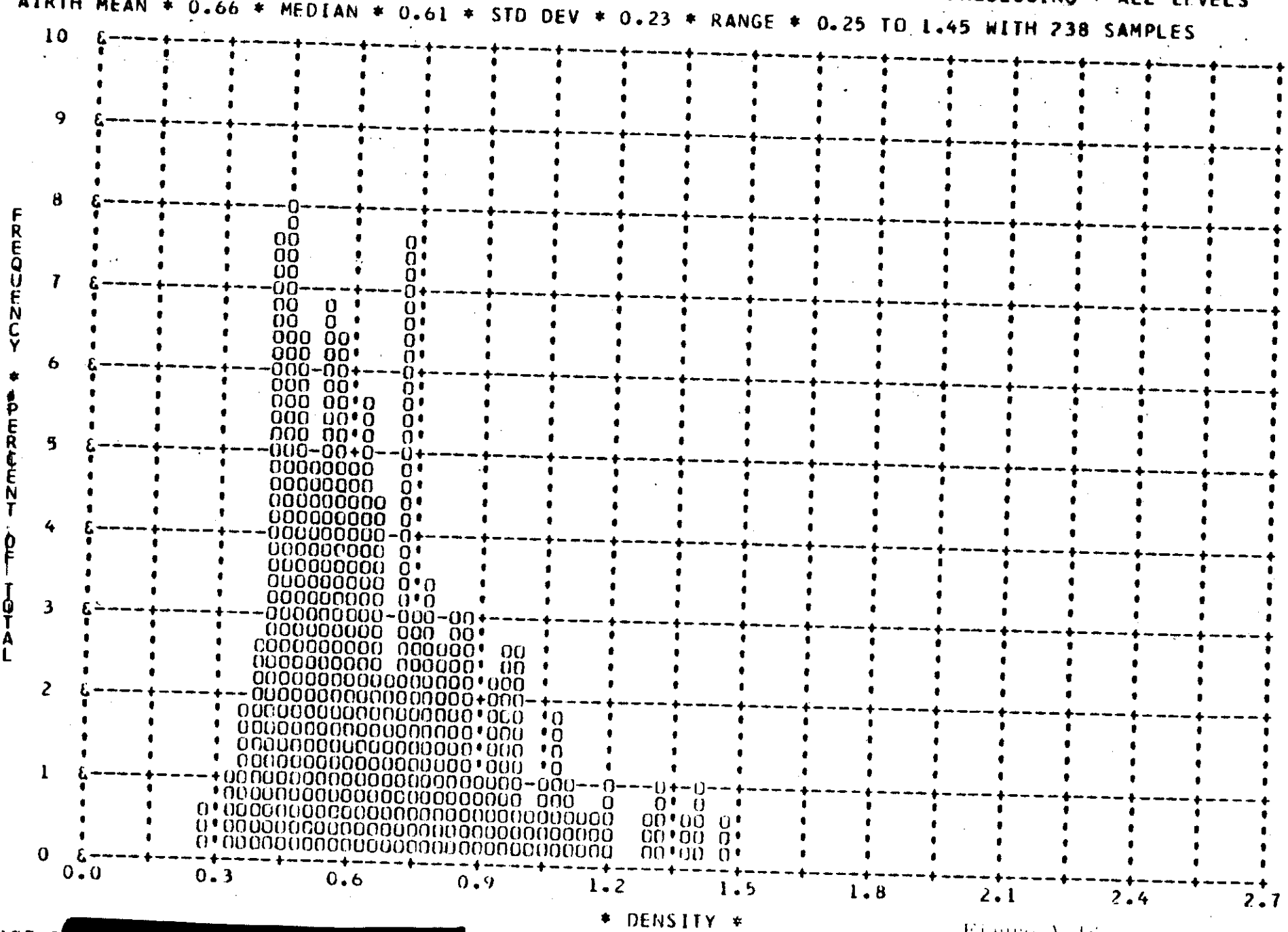


Figure A-16

SECRET C

MISSION * 1037-1 * INSTR * AFT * 2/24/67 PLOT OF D MAX * TERRAIN * PROCESSING * ALL LEVELS

AIRTH MEAN * 1.48 * MEDIAN * 1.44 * STD DEV * 0.32 * RANGE * 0.84 TO 2.33 WITH 238 SAMPLES

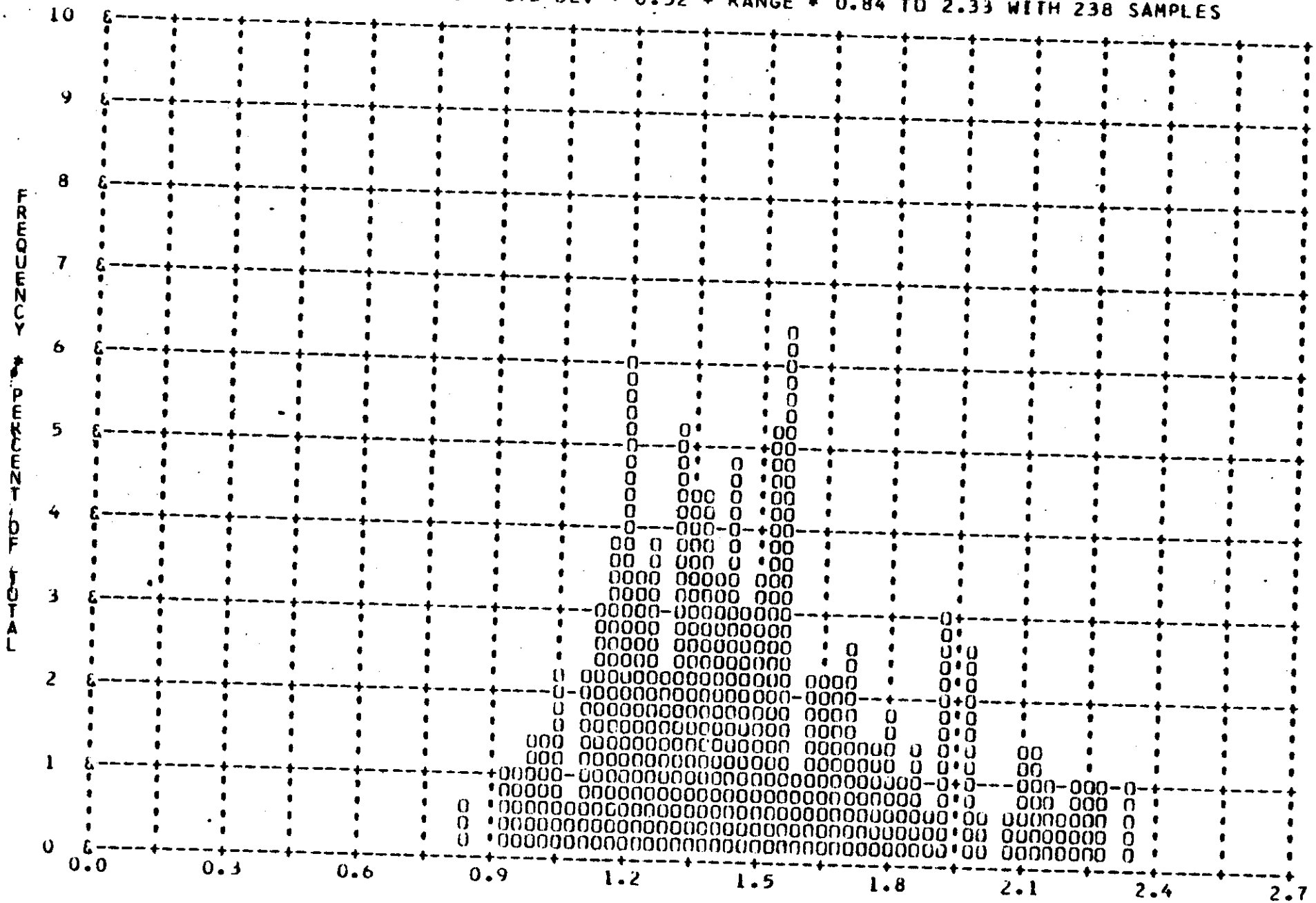


Figure A-17

[redacted]

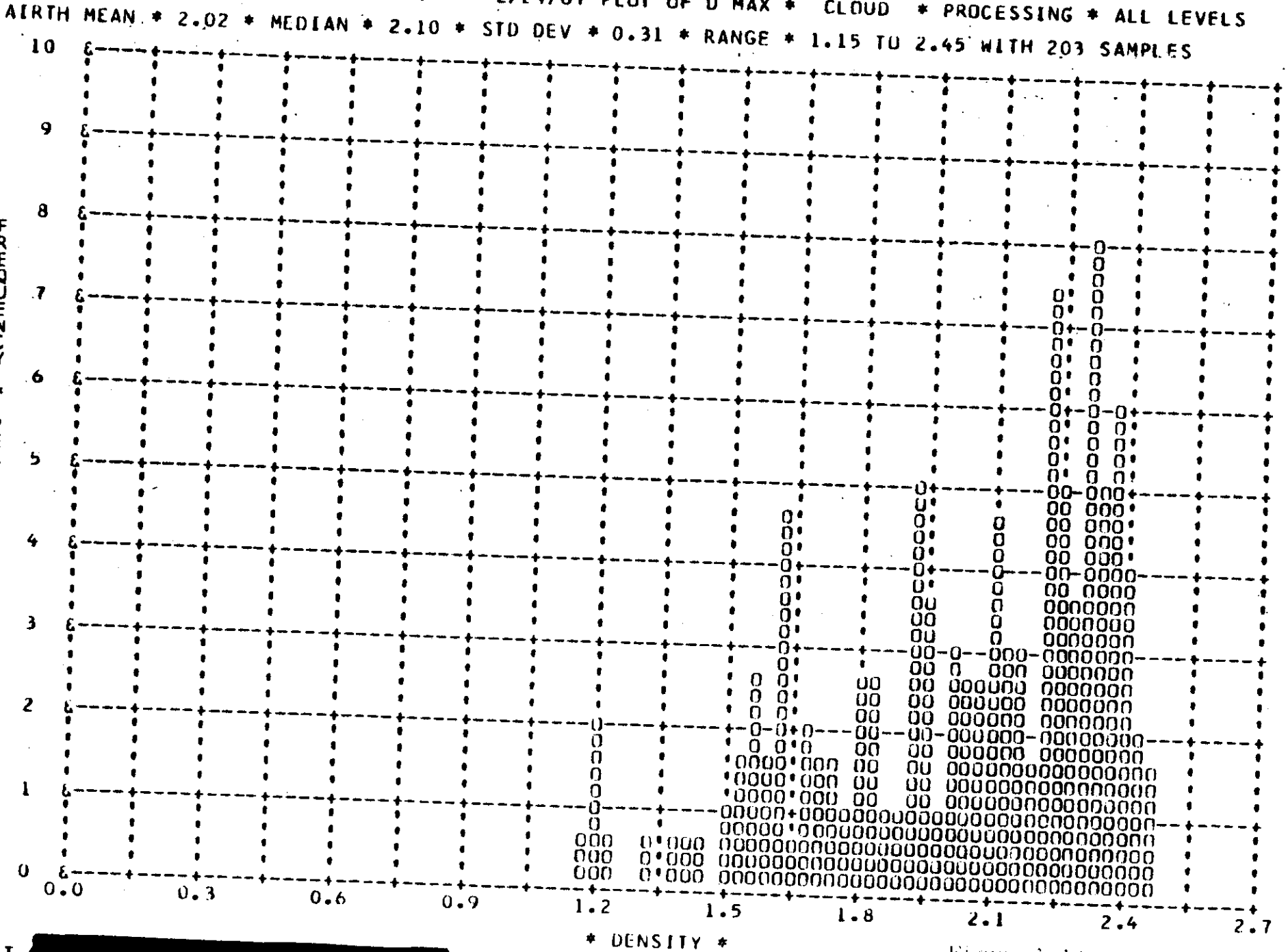


Figure A-18

[redacted]

~~TOP SECRET~~ C [redacted]

MISSION * 1037-2 * INSTRUMENT * FWD 2/24/67 DENSITY FREQ DISTR

DENSITY VALUE	PRIMARY MIN	PRIMARY MAX	PRIMARY LIM	INTERMEDIATE MIN	INTERMEDIATE MAX	INTERMEDIATE LIM	FULL MIN	FULL MAX	FULL LIM	ALL LEVELS MIN	ALL LEVELS MAX	ALL LEVELS LIM
0.01	0	0	0	0	0	0	0	0	0	0	0	0
0.02	0	0	0	0	0	0	0	0	0	0	0	0
0.03	0	0	0	0	0	0	0	0	0	0	0	0
0.04	0	0	0	0	0	0	0	0	0	0	0	0
0.05	0	0	0	0	0	0	0	0	0	0	0	0
0.06	0	0	0	0	0	0	0	0	0	0	0	0
0.07	0	0	0	0	0	0	0	0	0	0	0	0
0.08	0	0	0	0	0	0	0	0	0	0	0	0
0.09	0	0	0	0	0	0	0	0	0	0	0	0
0.10	0	0	0	0	0	0	0	0	0	0	0	0
0.11	0	0	0	0	0	0	0	0	0	0	0	0
0.12	0	0	0	0	0	0	0	0	0	0	0	0
0.13	0	0	0	0	0	0	0	0	0	0	0	0
0.14	0	0	0	0	0	0	0	0	0	0	0	0
0.15	0	0	0	0	0	0	0	0	0	0	0	0
0.16	0	0	0	0	0	0	0	0	0	0	0	0
0.17	0	0	0	0	0	0	0	0	0	0	0	0
0.18	0	0	0	0	0	0	0	0	0	0	0	0
0.19	0	0	0	0	0	0	0	0	0	0	0	0
0.20	0	0	0	0	0	0	0	0	0	0	0	0
0.21	0	0	0	0	0	0	0	0	0	0	0	0
0.22	0	0	0	0	0	0	0	0	0	0	0	0
0.23	0	0	0	0	0	0	0	0	0	0	0	0
0.24	0	0	0	0	0	0	0	0	0	0	0	0
0.25	0	0	0	0	0	0	0	0	0	0	0	0
0.26	0	0	0	0	0	0	1	0	0	1	0	0
0.27	0	0	0	0	0	0	0	0	0	0	0	0
0.28	0	0	0	0	0	0	1	0	0	1	0	0
0.29	0	0	0	0	0	0	1	0	0	1	0	0
0.30	0	0	0	0	0	0	1	0	0	1	0	0
0.31	0	0	0	0	0	0	1	0	0	1	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	4	0	0	4	0	0
0.39	0	0	0	0	0	0	1	0	0	1	0	0
0.40	0	0	0	0	0	0	2	0	0	2	0	0
0.41	0	0	0	0	0	0	1	0	0	1	0	0
0.42	0	0	0	0	0	0	2	0	0	2	0	0
0.43	0	0	0	0	0	0	4	0	0	4	0	0
0.44	0	0	0	0	0	0	4	0	0	4	0	0
0.45	0	0	0	0	0	0	4	0	0	4	0	0
0.46	0	0	0	0	0	0	3	0	0	3	0	0
0.47	0	0	0	0	0	0	5	0	0	5	0	0
0.48	0	0	0	0	0	0	9	0	0	9	0	0
0.49	0	0	0	0	0	0	3	0	0	3	0	0
0.50	0	0	0	0	0	0	11	0	0	11	0	0
SUBTOTAL	0	0	0	0	0	0	58	0	0	58	0	0

~~TOP SECRET~~ C/ [redacted]

Table A-3

MISSION * 1037-2 * INSTRUMENT * FWD 2/24/67 DENSITY FREQ DISTR

DENSITY VALUE	PRIMARY MIN	PRIMARY MAX	PRIMARY LIM	INTERMEDIATE MIN	INTERMEDIATE MAX	INTERMEDIATE LIM	FULL MIN	FULL MAX	FULL LIM	ALL LEVELS MIN	ALL LEVELS MAX	ALL LEVELS LIM
0.51	0	0	0	0	0	0	1	0	0	1	0	0
0.52	0	0	0	0	0	0	12	0	0	12	0	0
0.53	0	0	0	0	0	0	8	0	0	8	0	0
0.54	0	0	0	0	0	0	6	0	0	6	0	0
0.55	0	0	0	1	0	0	3	0	0	4	0	0
0.56	0	0	0	0	0	0	9	0	0	9	0	0
0.57	0	0	0	0	0	0	0	0	0	0	0	0
0.58	0	0	0	0	0	0	7	0	0	7	0	0
0.59	0	0	0	0	0	0	3	0	0	3	0	0
0.60	0	0	0	1	0	0	15	0	0	16	0	0
0.61	0	0	0	2	0	0	3	0	0	5	0	0
0.62	0	0	0	0	0	0	6	0	0	6	0	0
0.63	0	0	0	0	0	0	4	0	0	4	0	0
0.64	0	0	0	0	0	0	3	0	0	3	0	0
0.65	0	0	0	0	0	0	2	0	0	2	0	0
0.66	0	0	0	1	0	0	3	0	0	4	0	0
0.67	0	0	0	0	0	0	4	0	0	4	0	0
0.68	0	0	0	2	0	0	8	0	0	10	0	0
0.69	0	0	0	0	0	0	0	0	0	0	0	0
0.70	0	0	0	1	0	0	1	0	0	2	0	0
0.71	0	0	0	0	0	0	3	0	0	3	0	0
0.72	0	0	0	0	0	0	2	0	0	2	0	0
0.73	0	0	0	0	0	0	2	0	0	2	0	0
0.74	0	0	0	1	0	0	2	0	0	3	0	0
0.75	0	0	0	0	0	0	0	0	0	0	0	0
0.76	0	0	0	2	0	0	2	0	0	4	0	0
0.77	0	0	0	0	0	0	2	0	0	2	0	0
0.78	0	0	0	0	0	0	4	0	0	4	0	0
0.79	0	0	0	0	0	0	1	0	0	1	0	0
0.80	0	0	0	0	0	0	4	0	0	4	0	0
0.81	0	0	0	1	0	0	4	0	0	5	0	0
0.82	0	0	0	2	0	0	1	1	0	3	1	0
0.83	0	0	0	1	0	0	2	0	0	3	0	0
0.84	0	0	0	1	0	0	6	0	0	7	0	0
0.85	0	0	0	2	0	0	0	0	0	2	0	0
0.86	0	0	0	1	0	0	4	0	0	5	0	0
0.87	0	0	0	0	0	0	2	0	0	2	0	0
0.88	0	0	0	1	0	0	1	0	0	2	0	0
0.89	0	0	0	1	0	0	2	0	0	2	0	0
0.90	0	0	0	1	0	0	3	0	1	4	0	1
0.91	0	0	0	1	0	0	2	0	0	3	0	0
0.92	0	0	0	2	0	0	1	0	0	3	0	0
0.93	0	0	0	1	0	0	2	0	0	3	0	0
0.94	0	0	0	1	0	0	3	0	0	4	0	0
0.95	0	0	0	1	0	0	1	2	0	2	2	0
0.96	0	0	0	0	0	0	0	1	0	0	1	0
0.97	0	0	0	0	0	0	0	1	0	0	1	0
0.98	0	0	0	0	0	0	2	0	0	2	0	0
0.99	0	0	0	0	0	0	0	0	0	0	0	0
1.00	0	0	0	0	0	0	2	0	0	2	0	0
SUBTOTAL	0	0	0	27	0	0	158	5	1	185	5	1

Table A-3

MISSION * 1037-2 * INSTRUMENT * FWD 2/24/67 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	1	0	0	0	2	0	1	2	0
1.03	0	0	0	0	0	0	1	0	0	1	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	1	1	0	1	1
1.06	0	0	0	0	0	0	0	2	0	0	2	0
1.07	0	0	0	0	0	0	0	1	0	0	1	0
1.08	0	0	0	0	0	0	3	4	0	3	4	0
1.09	0	0	0	0	0	0	1	2	0	1	2	0
1.10	0	0	0	0	0	0	1	2	0	1	2	0
1.11	0	0	0	1	0	0	0	3	0	1	3	0
1.12	0	0	0	0	0	0	3	4	0	3	4	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	1	0	1	3	0	1	4	0
1.16	0	0	0	0	0	0	0	1	0	0	1	0
1.17	0	0	0	0	0	0	0	3	0	0	3	0
1.18	0	0	0	0	2	0	0	2	0	0	4	0
1.19	0	0	0	0	0	0	0	2	0	0	2	0
1.20	0	0	0	1	0	0	0	7	0	1	7	0
1.21	0	0	0	0	0	0	0	2	0	0	2	0
1.22	0	0	0	0	0	0	0	3	0	0	3	0
1.23	0	0	0	0	0	0	0	1	1	0	1	1
1.24	0	0	0	0	0	0	0	2	1	0	2	1
1.25	0	0	0	0	1	0	0	2	0	0	3	0
1.26	0	0	0	0	1	0	0	1	0	0	2	0
1.27	0	0	0	0	0	0	0	2	0	0	2	0
1.28	0	0	0	0	1	0	0	1	0	0	2	0
1.29	0	0	0	0	1	0	0	0	0	0	1	0
1.30	0	0	0	0	0	0	0	7	1	0	7	1
1.31	0	0	0	0	0	0	0	0	0	0	0	0
1.32	0	0	0	0	1	0	0	3	0	0	4	0
1.33	0	0	0	0	1	0	0	3	0	0	4	0
1.34	0	0	0	0	0	1	0	0	0	0	0	1
1.35	0	0	0	0	1	0	0	1	1	0	2	1
1.36	0	0	0	0	1	0	0	9	0	0	10	0
1.37	0	0	0	0	1	0	0	1	0	0	2	0
1.38	0	0	0	0	0	0	0	4	0	0	4	0
1.39	0	0	0	0	1	0	0	1	0	0	2	0
1.40	0	0	0	0	2	0	0	6	0	0	8	0
1.41	0	0	0	0	0	0	0	5	0	0	5	0
1.42	0	0	0	0	1	0	0	2	1	0	3	1
1.43	0	0	0	0	0	0	0	7	0	0	7	0
1.44	0	0	0	0	0	0	0	1	1	0	1	1
1.45	0	0	0	0	0	1	0	1	0	0	1	1
1.46	0	0	0	0	1	0	0	8	2	0	9	2
1.47	0	0	0	0	0	1	0	3	0	0	3	1
1.48	0	0	0	0	0	0	0	3	0	0	3	0
1.49	0	0	0	0	0	0	0	4	0	0	4	0
1.50	0	0	0	0	1	1	0	5	0	0	6	1
SUBTOTAL	0	0	0	3	18	4	10	127	9	13	145	13

Table A-3

MISSION * 1037-2 * INSTRUMENT * FWD 2/24/67 DENSITY FREQ DISTR

DENSITY VALUE	PRIMARY MIN	PRIMARY MAX	PRIMARY LIM	INTERMEDIATE MIN	INTERMEDIATE MAX	INTERMEDIATE LIM	FULL MIN	FULL MAX	FULL LIM	ALL LEVELS MIN	ALL LEVELS MAX	ALL LEVELS LIM
1.51	0	0	0	0	1	0	0	4	0	0	5	0
1.52	0	0	0	0	0	0	0	0	0	0	0	0
1.53	0	0	0	0	0	0	0	2	1	0	2	1
1.54	0	0	0	0	0	1	0	4	0	0	4	1
1.55	0	0	0	0	0	0	0	2	1	0	2	1
1.56	0	0	0	0	0	0	0	1	0	0	1	0
1.57	0	0	0	0	0	0	0	2	0	0	2	0
1.58	0	0	0	0	3	1	0	2	2	0	5	3
1.59	0	0	0	0	1	0	0	1	2	0	2	2
1.60	0	0	0	0	0	0	0	3	2	0	3	2
1.61	0	0	0	0	1	2	0	0	2	0	1	0
1.62	0	0	0	0	0	0	0	2	0	0	4	0
1.63	0	0	0	0	0	0	0	3	0	0	3	0
1.64	0	0	0	0	0	0	0	1	1	0	1	0
1.65	0	0	0	0	0	0	0	4	0	0	4	0
1.66	0	0	0	0	1	0	0	1	1	0	2	1
1.67	0	0	0	0	0	0	0	1	1	0	1	0
1.68	0	0	0	0	0	0	0	1	1	0	1	0
1.69	0	0	0	0	0	0	0	2	0	0	2	0
1.70	0	0	0	0	0	0	0	3	0	0	3	0
1.71	0	0	0	0	0	0	0	4	1	0	4	1
1.72	0	0	0	0	0	0	0	1	2	0	1	2
1.73	0	0	0	0	0	0	0	2	0	0	2	0
1.74	0	0	0	0	0	0	0	0	1	0	0	1
1.75	0	0	0	0	0	0	0	1	0	0	1	0
1.76	0	0	0	0	0	0	0	0	0	0	0	0
1.77	0	0	0	0	0	1	0	0	0	0	1	0
1.78	0	0	0	0	0	0	0	0	1	0	0	1
1.79	0	0	0	0	0	0	0	0	2	0	0	2
1.80	0	0	0	0	0	0	0	1	0	0	1	0
1.81	0	0	0	0	0	1	0	0	2	0	0	2
1.82	0	0	0	0	0	0	0	2	1	0	2	1
1.83	0	0	0	0	0	0	0	4	2	0	4	2
1.84	0	0	0	0	0	0	0	1	0	0	1	0
1.85	0	0	0	0	0	0	0	1	1	0	1	1
1.86	0	0	0	0	0	1	0	1	1	0	1	1
1.87	0	0	0	0	0	0	0	1	0	0	1	0
1.88	0	0	0	0	0	0	0	0	1	0	0	1
1.89	0	0	0	0	0	0	0	1	0	0	1	0
1.90	0	0	0	0	0	0	0	1	1	0	1	1
1.91	0	0	0	0	0	0	0	1	0	0	1	0
1.92	0	0	0	0	0	0	0	0	1	0	0	1
1.93	0	0	0	0	0	0	0	1	0	0	1	0
1.94	0	0	0	0	0	0	0	0	0	0	0	0
1.95	0	0	0	0	0	0	0	0	1	0	0	1
1.96	0	0	0	0	0	0	0	1	0	0	1	0
1.97	0	0	0	0	1	0	0	0	1	0	1	0
1.98	0	0	0	0	0	1	0	0	0	0	0	1
1.99	0	0	0	0	1	0	0	0	2	0	1	3
2.00	0	0	0	0	0	0	0	2	0	0	2	0
SUBTOTAL	0	0	0	0	12	5	0	68	45	0	80	50

Table A-3

~~TOP SECRET~~ C[redacted]

MISSION * 1037-2 * INSTRUMENT * FWD 2/24/67 DENSITY FRFQ DISTR

DENSITY VALUE	PRIMARY MIN	PRIMARY MAX	PRIMARY LIM	INTERMEDIATE MIN	INTERMEDIATE MAX	INTERMEDIATE LIM	FULL MIN	FULL MAX	FULL LIM	ALL LEVELS MIN	ALL LEVELS MAX	ALL LEVELS LIM
2.01	0	0	0	0	0	1	0	0	0	0	0	1
2.02	0	0	0	0	0	0	0	0	0	0	0	0
2.03	0	0	0	0	0	0	0	1	3	0	1	3
2.04	0	0	0	0	0	0	0	1	3	0	1	3
2.05	0	0	0	0	0	0	0	1	0	0	1	0
2.06	0	0	0	0	0	1	0	0	2	0	0	3
2.07	0	0	0	0	0	1	0	0	2	0	0	3
2.08	0	0	0	0	0	0	0	0	2	0	0	2
2.09	0	0	0	0	0	0	0	0	1	0	0	1
2.10	0	0	0	0	0	0	0	1	2	0	1	2
2.11	0	0	0	0	0	0	0	1	0	0	1	0
2.12	0	0	0	0	0	1	0	1	2	0	1	3
2.13	0	0	0	0	0	1	0	1	2	0	1	3
2.14	0	0	0	0	0	1	0	0	1	0	0	2
2.15	0	0	0	0	0	0	0	2	4	0	2	4
2.16	0	0	0	0	0	0	0	1	2	0	1	2
2.17	0	0	0	0	0	1	0	1	1	0	1	2
2.18	0	0	0	0	0	0	0	1	3	0	1	3
2.19	0	0	0	0	0	0	0	0	0	0	0	0
2.20	0	0	0	0	0	0	0	3	5	0	3	5
2.21	0	0	0	0	0	0	0	0	1	0	0	1
2.22	0	0	0	0	0	0	0	0	0	0	0	0
2.23	0	0	0	0	0	0	0	1	3	0	1	3
2.24	0	0	0	0	0	0	0	1	4	0	1	4
2.25	0	0	0	0	0	0	0	1	4	0	1	4
2.26	0	0	0	0	0	0	0	1	2	0	1	2
2.27	0	0	0	0	0	0	0	0	1	0	0	1
2.28	0	0	0	0	0	0	0	0	2	0	0	2
2.29	0	0	0	0	0	0	0	0	0	0	0	0
2.30	0	0	0	0	0	0	0	2	6	0	2	6
2.31	0	0	0	0	0	0	0	0	3	0	0	3
2.32	0	0	0	0	0	0	0	1	3	0	1	3
2.33	0	0	0	0	0	0	0	3	7	0	3	7
2.34	0	0	0	0	0	0	0	0	4	0	0	4
2.35	0	0	0	0	0	0	0	1	4	0	1	4
2.36	0	0	0	0	0	0	0	0	2	0	0	2
2.37	0	0	0	0	0	0	0	0	1	0	0	1
2.38	0	0	0	0	0	0	0	0	5	0	0	5
2.39	0	0	0	0	0	0	0	0	0	0	0	0
2.40	0	0	0	0	0	0	0	1	12	0	1	12
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	1	0	0	1	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	2	0	0	2
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	1	0	0	1
SUBTOTAL	0	0	0	0	0	7	0	26	100	0	26	107

~~TOP SECRET~~ C[redacted]

Table A-3

~~TOP SECRET~~ C[redacted]

MISSION * 1037-2 * INSTRUMENT * FWD 2/24/67 DENSITY FREQ DISTR

DENSITY VALUE	PRIMARY MIN	PRIMARY MAX	PRIMARY LIM	INTERMEDIATE MIN	INTERMEDIATE MAX	INTERMEDIATE LIM	FULL MIN	FULL MAX	FULL LIM	ALL LEVELS MIN	ALL LEVELS MAX	ALL LEVELS LIM
2.51	0	0	0	0	0	0	0	0	0	0	0	0
2.52	0	0	0	0	0	0	0	0	0	0	0	0
2.53	0	0	0	0	0	0	0	0	0	0	0	0
2.54	0	0	0	0	0	0	0	0	0	0	0	0
2.55	0	0	0	0	0	0	0	0	0	0	0	0
2.56	0	0	0	0	0	0	0	0	0	0	0	0
2.57	0	0	0	0	0	0	0	0	0	0	0	0
2.58	0	0	0	0	0	0	0	0	0	0	0	0
2.59	0	0	0	0	0	0	0	0	0	0	0	0
2.60	0	0	0	0	0	0	0	0	0	0	0	0
2.61	0	0	0	0	0	0	0	0	0	0	0	0
2.62	0	0	0	0	0	0	0	0	0	0	0	0
2.63	0	0	0	0	0	0	0	0	0	0	0	0
2.64	0	0	0	0	0	0	0	0	0	0	0	0
2.65	0	0	0	0	0	0	0	0	0	0	0	0
2.66	0	0	0	0	0	0	0	0	0	0	0	0
2.67	0	0	0	0	0	0	0	0	0	0	0	0
2.68	0	0	0	0	0	0	0	0	0	0	0	0
2.69	0	0	0	0	0	0	0	0	0	0	0	0
2.70	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	30	30	16	226	226	155	256	256	171

~~TOP SECRET~~ C[redacted]

Table A-3

MISSION * 1037-2 * INSTR * FWD * 2/24/67 PLOT OF D MIN * TERRAIN * PROCESSING * INTERMEDIATE

AIRTH MEAN * 0.82 * MEDIAN * 0.84 * STD DEV * 0.15 * RANGE * 0.55 TO 1.20 WITH 30 SAMPLES

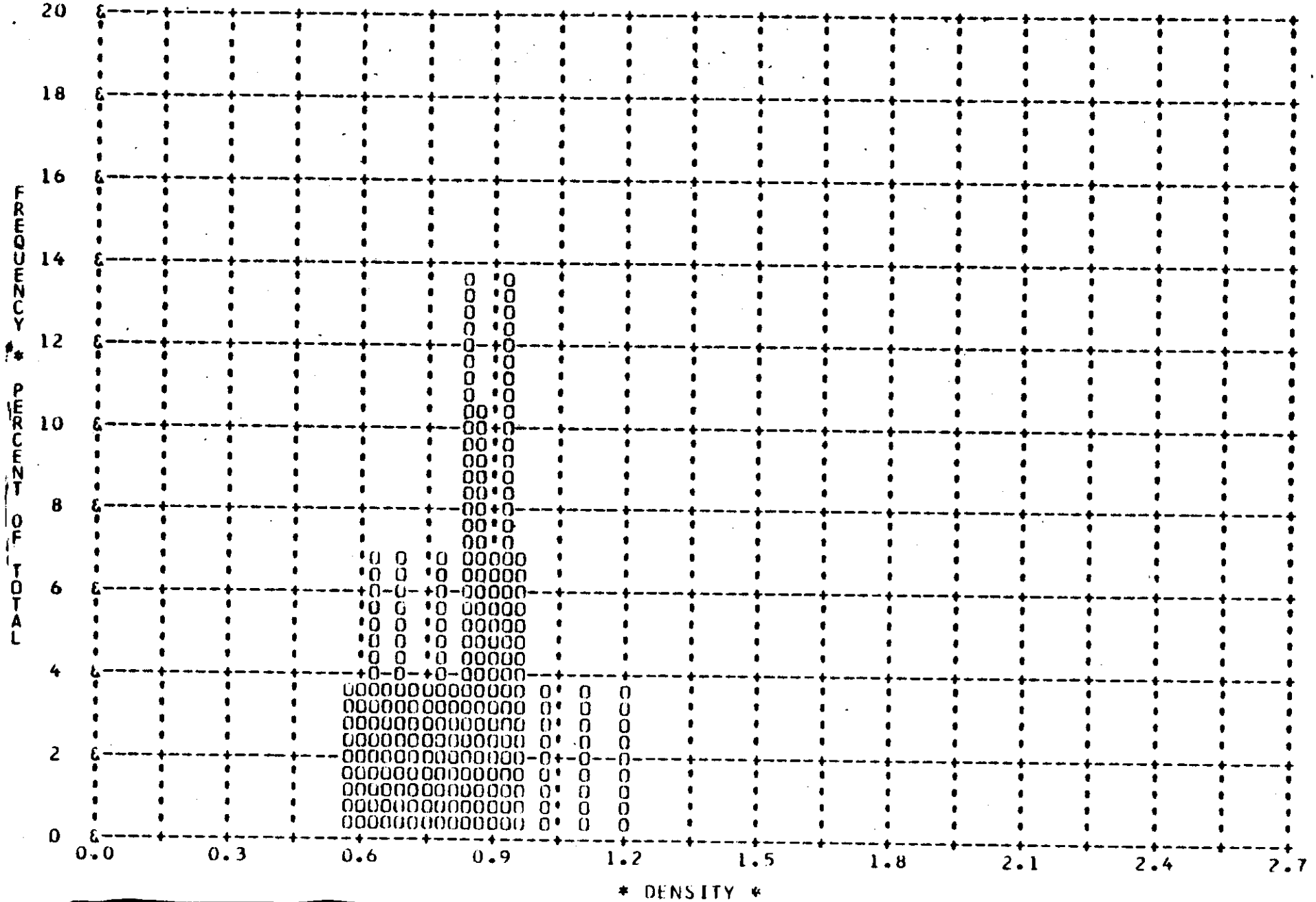


Figure A-19

[redacted]

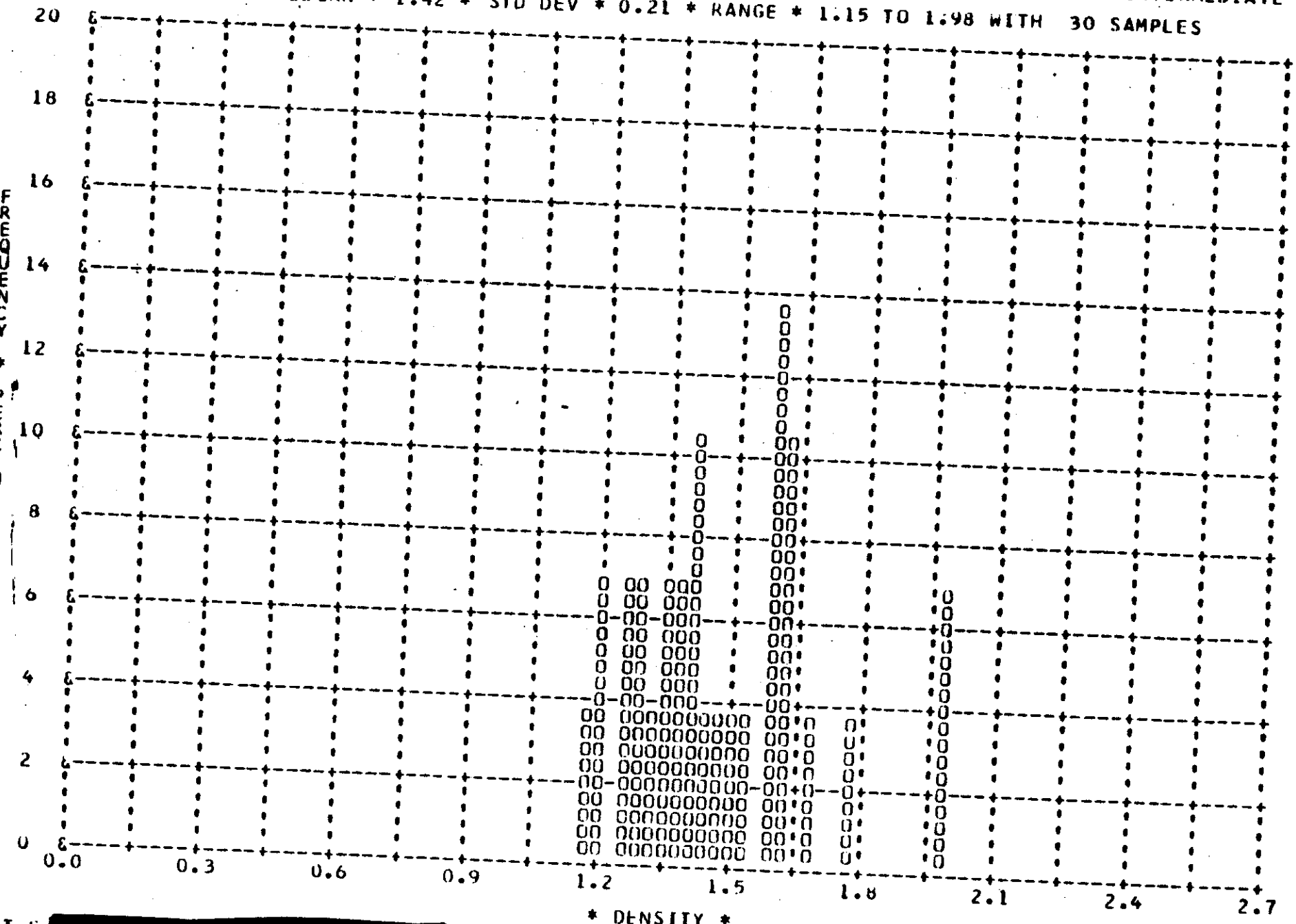


Figure A-20

~~SECRET~~ C[redacted]

MISSION * 1037-2 * INSTR * FWD * 2/24/67 PLOT OF D MAX * CLOUD * PROCESSING * INTERMEDIATE

AIRTH MEAN * 1.83 * MEDIAN * 1.98 * STD DEV * 0.30 * RANGE * 1.34 TO 2.17 WITH 16 SAMPLES

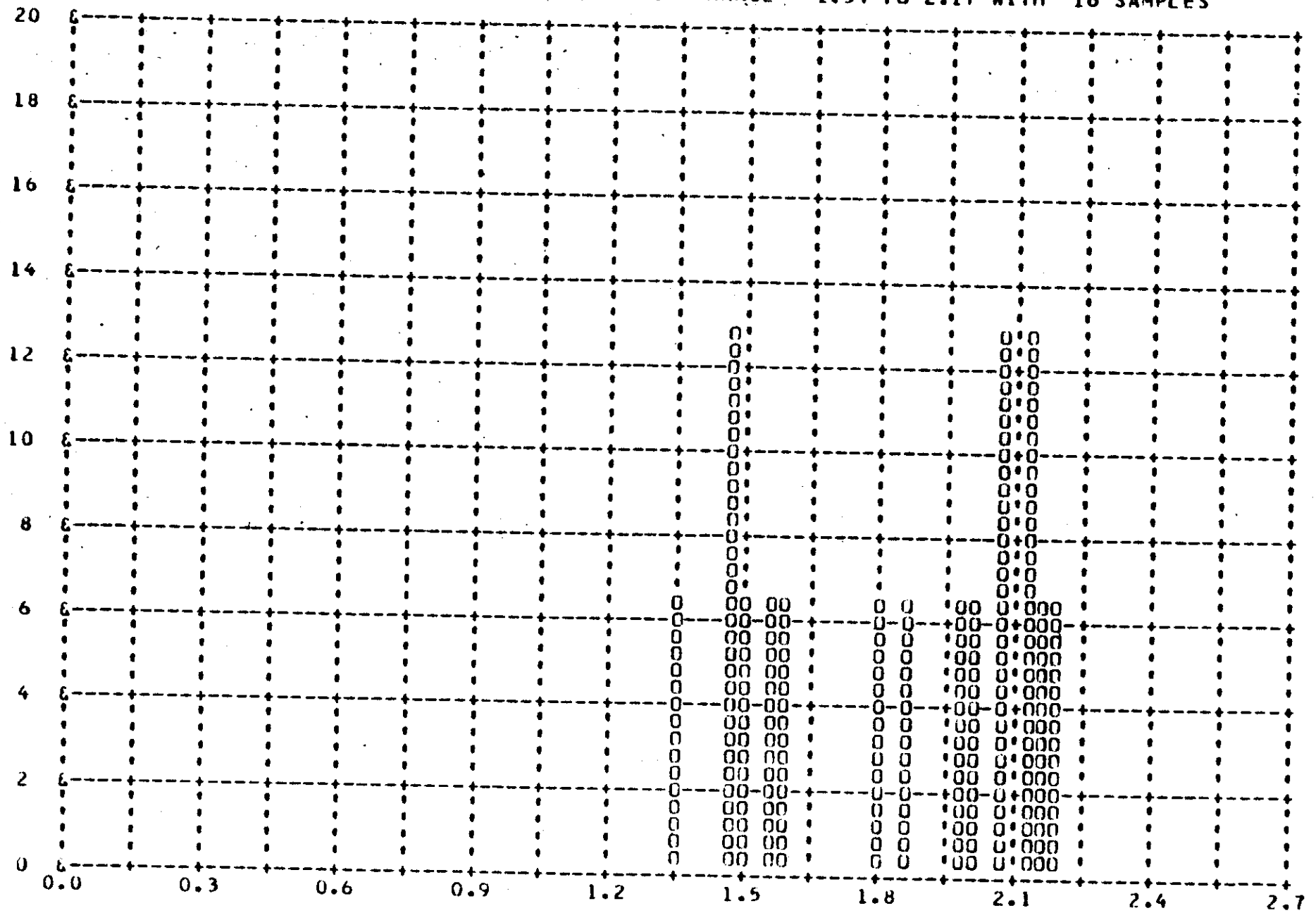


Figure A-21

MISSION * 1037-2 * INSTR * FWD * 2/24/67 PLOT OF D MIN * TERRAIN * PROCESSING * FULL

AIRTH MEAN * 0.64 * MEDIAN * 0.60 * STD DEV * 0.19 * RANGE * 0.26 TO 1.15 WITH 226 SAMPLES

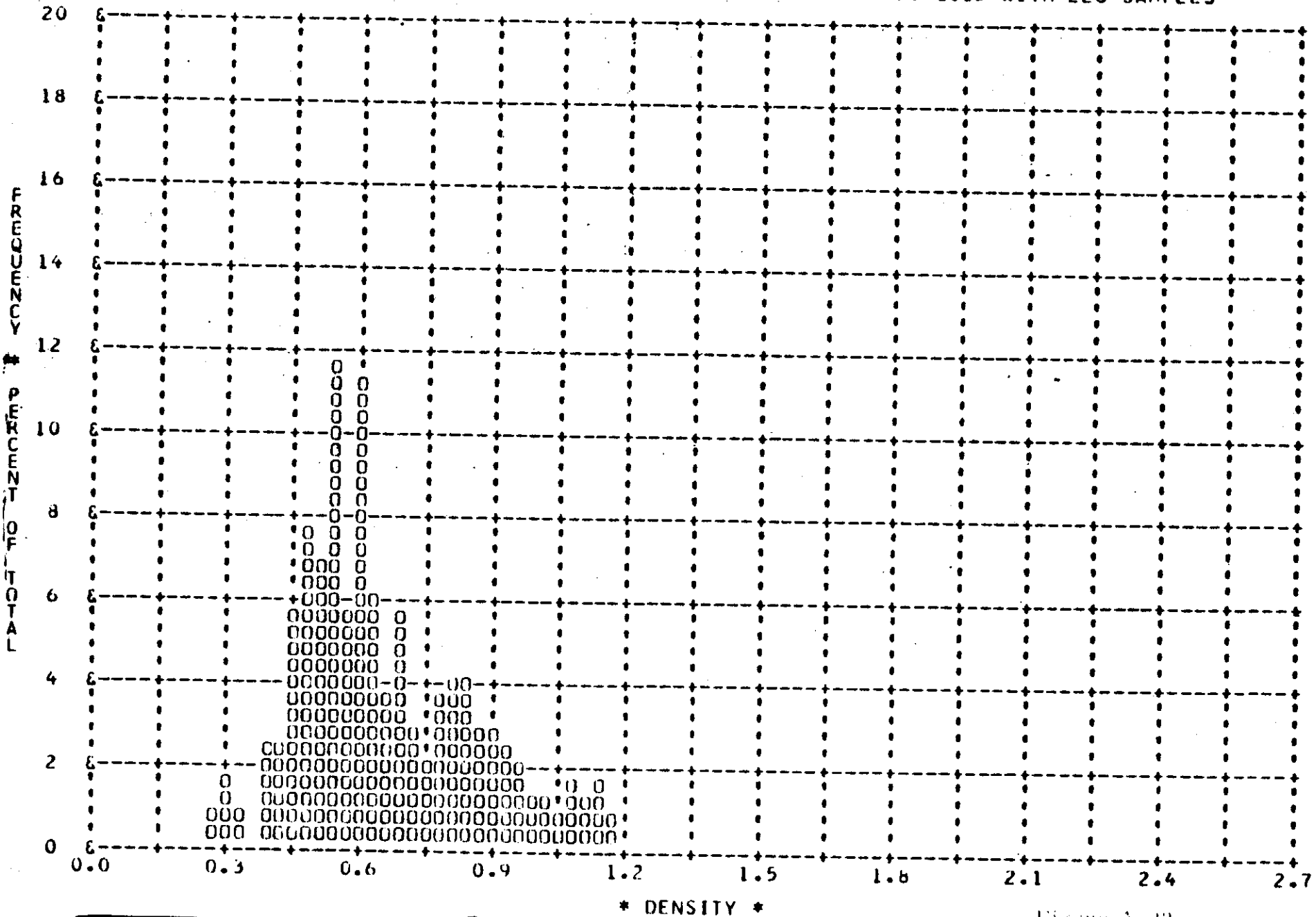


Figure A-22

MISSION * 1037-2 * INSTR * FWD * 2/24/67 PLOT OF D MAX * TERRAIN * PROCESSING * FULL

AIRTH MEAN * 1.52 * MEDIAN * 1.46 * STD DEV * 0.35 * RANGE * 0.82 TO 2.43 WITH 226 SAMPLES

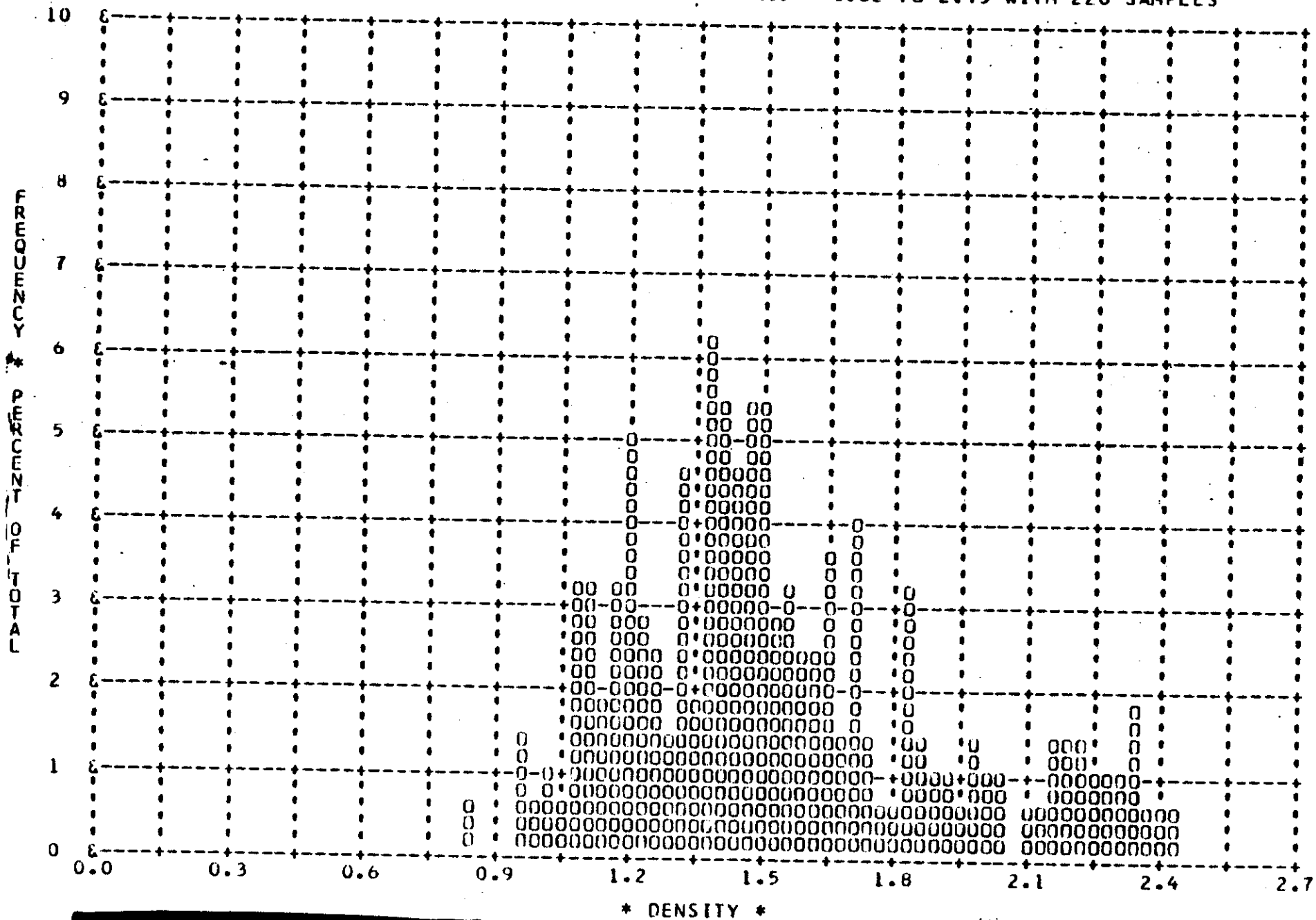


Figure A-23

[redacted]

MISSION * 1037-2 * INSTR * FWD * 2/24/67 PLOT OF D MAX * CLOUD * PROCESSING * FULL

AIRTH MEAN * 2.07 * MEDIAN * 2.15 * STD DEV * 0.31 * RANGE * 0.90 TO 2.50 WITH 155 SAMPLES

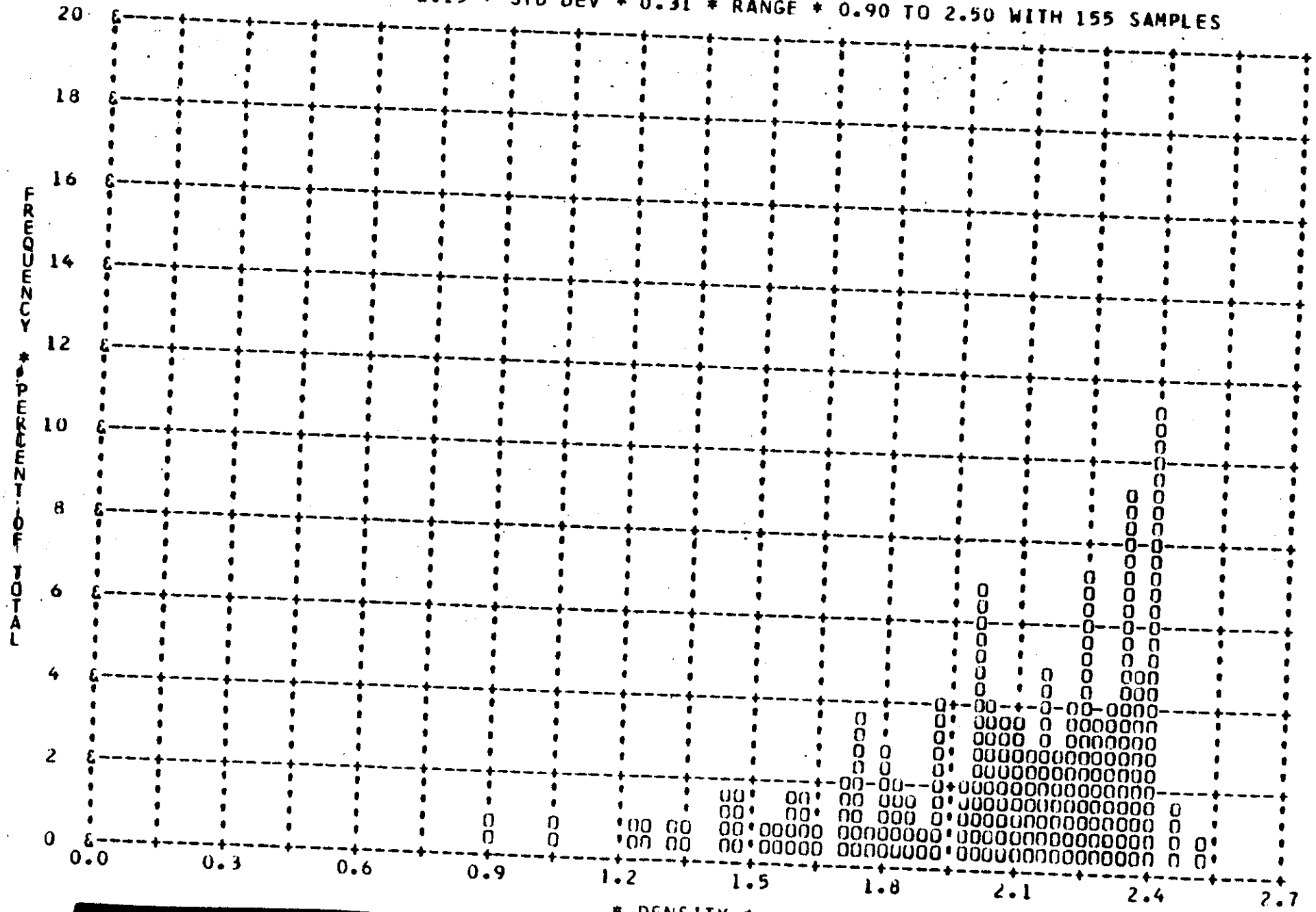


Figure A-24

SECRET C[redacted]

MISSION * 1037-2 * INSTR * FWD * 2/24/67 PLOT OF D MIN * TERRAIN * PROCESSING * ALL LEVELS

AIRTH MEAN * 0.66 * MEDIAN * 0.61 * STD DEV * 0.19 * RANGE * 0.26 TO 1.20 WITH 256 SAMPLES

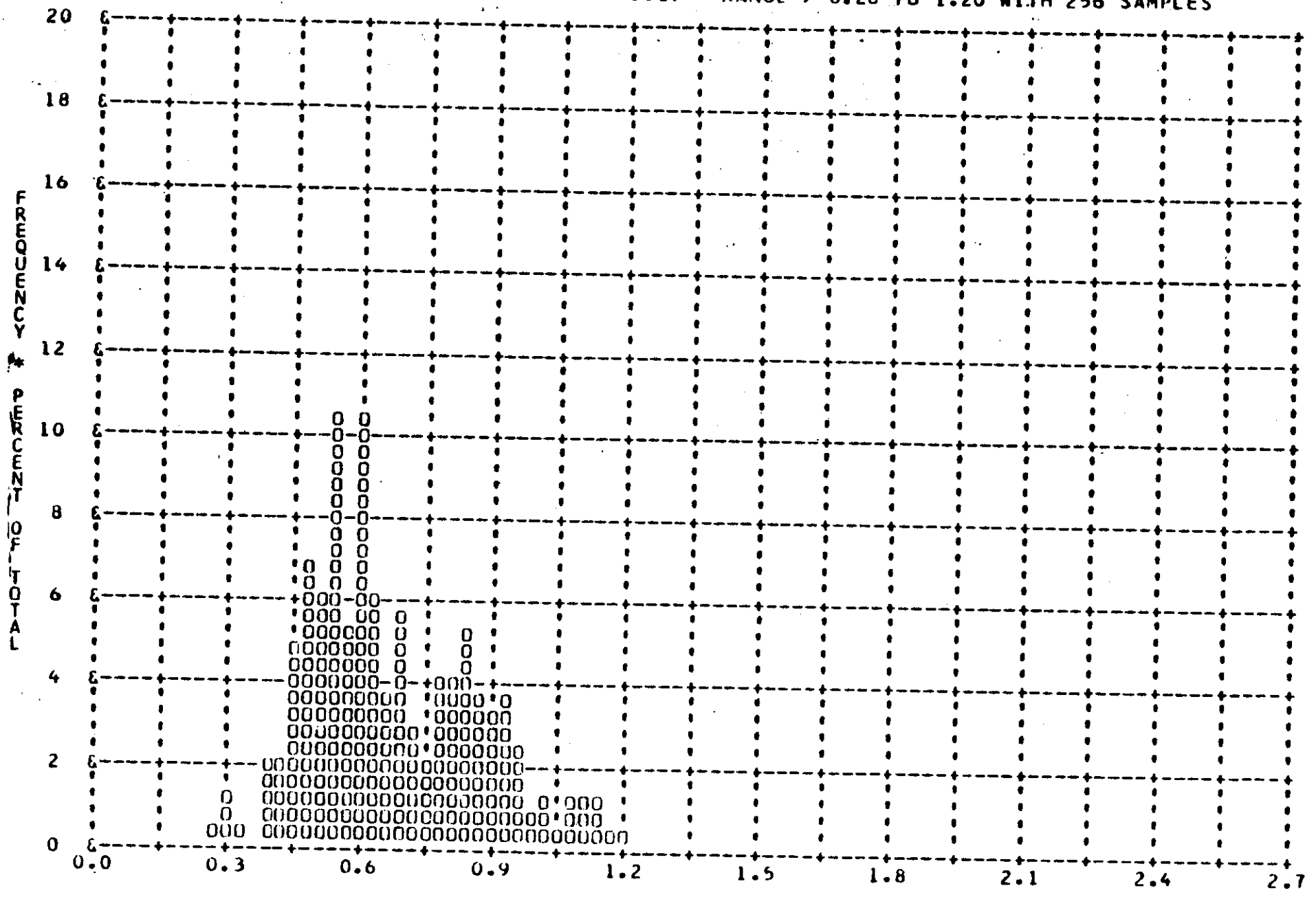


Figure A-25

MISSION * 1037-2 * INSTR * FWD * 2/24/67 PLOT OF D MAX * TERRAIN * PROCESSING * ALL LEVELS

AIRTH MEAN * 1.51 * MEDIAN * 1.46 * STD DEV * 0.33 * RANGE * 0.82 TO 2.43 WITH 256 SAMPLES

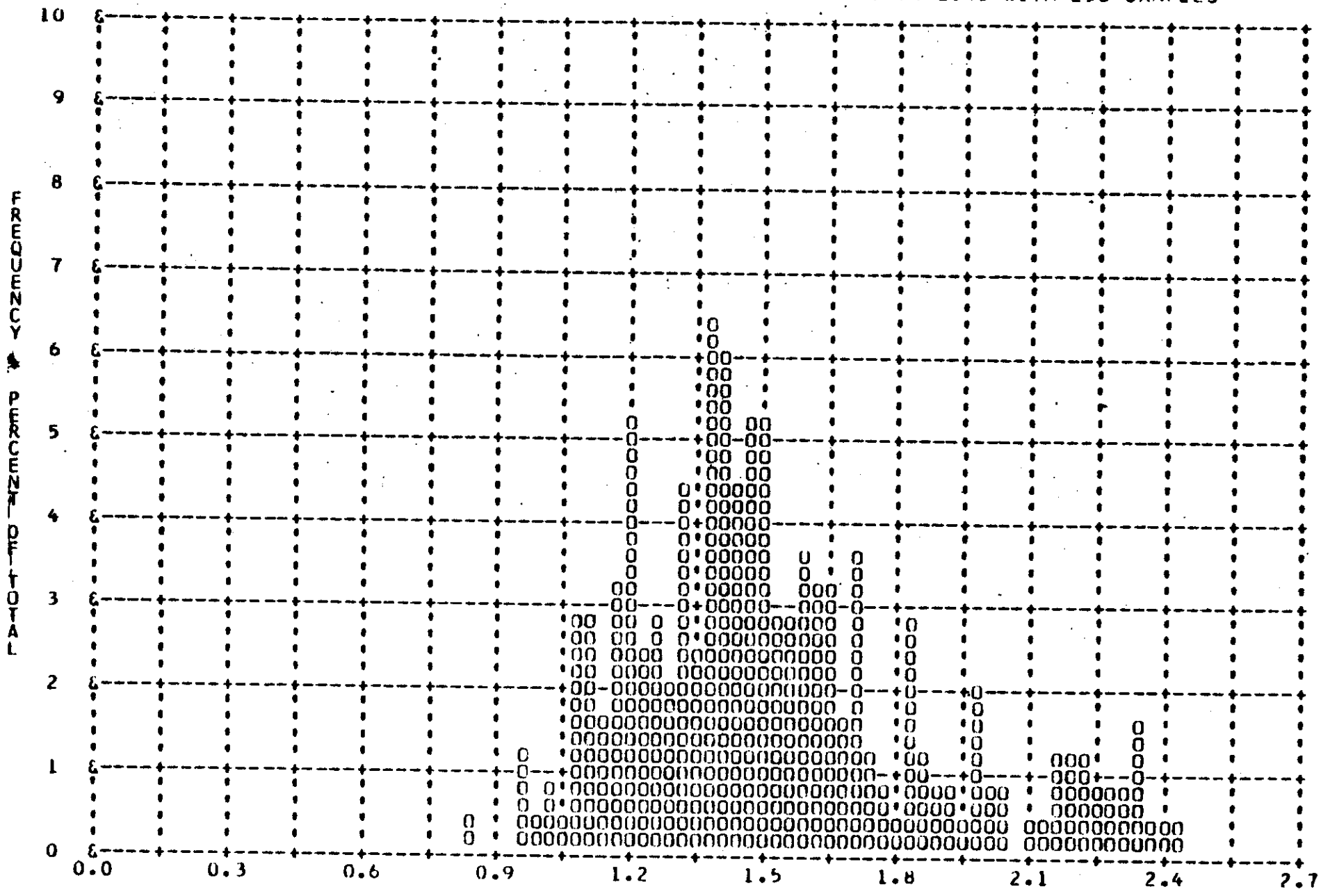


Figure A-26

MISSION * 1037-2 * INSTR * FWD * 2/24/67 PLOT OF D MAX * CLOUD * PROCESSING * ALL LEVELS

AIRTH MEAN * 2.04 * MEDIAN * 2.12 * STD DEV * 0.32 * RANGE * 0.90 TO 2.50 WITH 171 SAMPLES

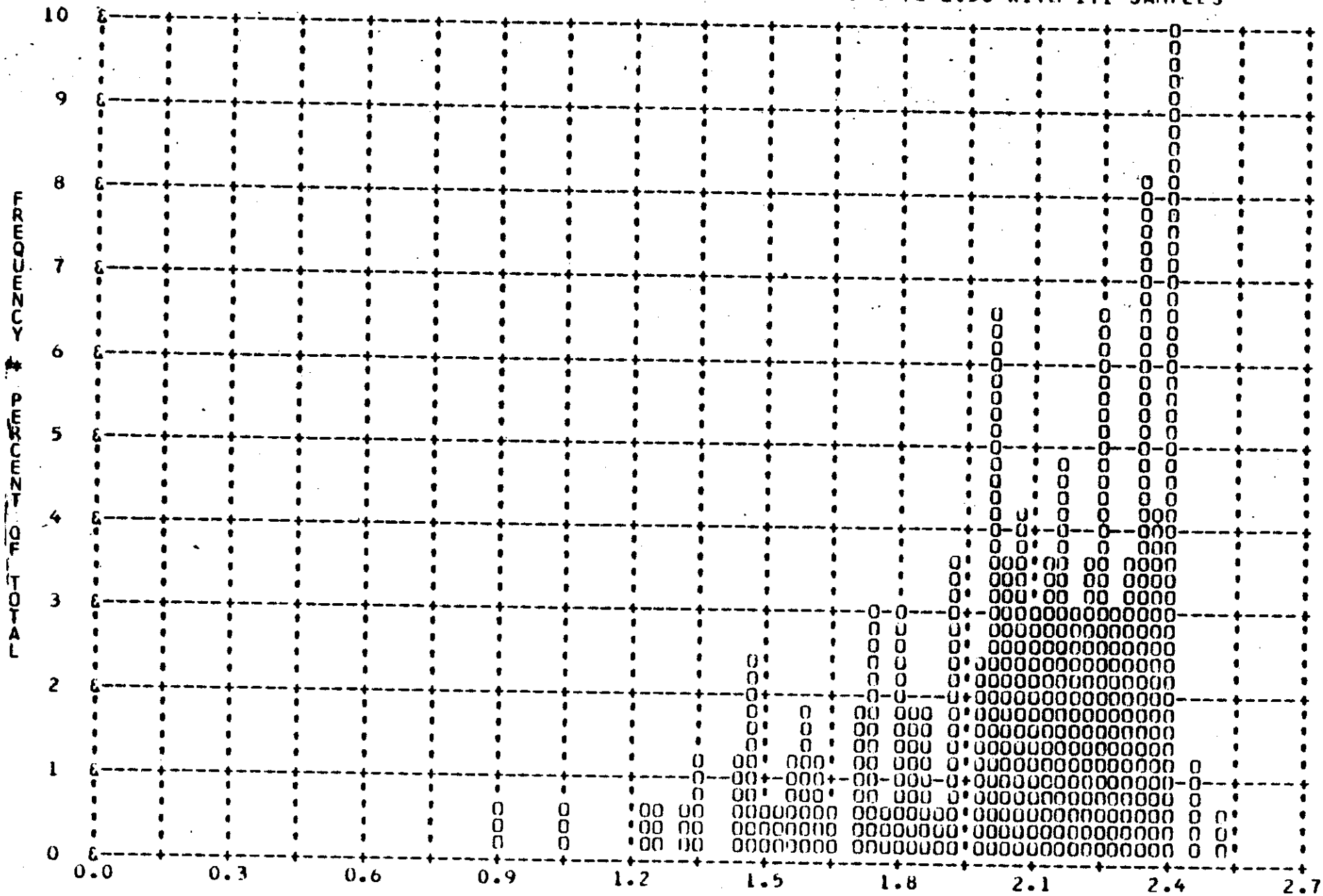


Figure A-27

MISSION * 1037-2 * INSTRUMENT * AFT 2/24/67 DENSITY FREQ DISTR

DENSITY VALUE	PRIMARY MIN	PRIMARY MAX	PRIMARY LIM	INTERMEDIATE MIN	INTERMEDIATE MAX	INTERMEDIATE LIM	FULL MIN	FULL MAX	FULL LIM	ALL LEVELS MIN	ALL LEVELS MAX	ALL LEVELS LIM
0.01	0	0	0	0	0	0	0	0	0	0	0	0
0.02	0	0	0	0	0	0	0	0	0	0	0	0
0.03	0	0	0	0	0	0	0	0	0	0	0	0
0.04	0	0	0	0	0	0	0	0	0	0	0	0
0.05	0	0	0	0	0	0	0	0	0	0	0	0
0.06	0	0	0	0	0	0	0	0	0	0	0	0
0.07	0	0	0	0	0	0	0	0	0	0	0	0
0.08	0	0	0	0	0	0	0	0	0	0	0	0
0.09	0	0	0	0	0	0	0	0	0	0	0	0
0.10	0	0	0	0	0	0	0	0	0	0	0	0
0.11	0	0	0	0	0	0	0	0	0	0	0	0
0.12	0	0	0	0	0	0	0	0	0	0	0	0
0.13	0	0	0	0	0	0	0	0	0	0	0	0
0.14	0	0	0	0	0	0	0	0	0	0	0	0
0.15	0	0	0	0	0	0	0	0	0	0	0	0
0.16	0	0	0	0	0	0	0	0	0	0	0	0
0.17	0	0	0	0	0	0	0	0	0	0	0	0
0.18	0	0	0	0	0	0	0	0	0	0	0	0
0.19	0	0	0	0	0	0	0	0	0	0	0	0
0.20	0	0	0	0	0	0	0	0	0	0	0	0
0.21	0	0	0	0	0	0	0	0	0	0	0	0
0.22	0	0	0	0	0	0	0	0	0	0	0	0
0.23	0	0	0	0	0	0	0	0	0	0	0	0
0.24	0	0	0	0	0	0	0	0	0	0	0	0
0.25	0	0	0	1	0	0	0	0	0	1	0	0
0.26	0	0	0	0	0	0	1	0	0	1	0	0
0.27	0	0	0	0	0	0	0	0	0	0	0	0
0.28	0	0	0	4	0	0	0	0	0	4	0	0
0.29	0	0	0	3	0	0	0	0	0	3	0	0
0.30	0	0	0	0	0	0	3	0	0	3	0	0
0.31	0	0	0	0	0	0	3	0	0	3	0	0
0.32	0	0	0	1	0	0	0	0	0	1	0	0
0.33	0	0	0	0	0	0	0	0	0	0	0	0
0.34	0	0	0	2	0	0	0	0	0	2	0	0
0.35	0	0	0	0	0	0	0	0	0	0	0	0
0.36	0	0	0	1	0	0	0	0	0	1	0	0
0.37	0	0	0	0	0	0	3	0	0	3	0	0
0.38	0	0	0	1	0	0	0	0	0	1	0	0
0.39	0	0	0	0	0	0	0	0	0	0	0	0
0.40	0	0	0	0	0	0	1	0	0	1	0	0
0.41	0	0	0	0	0	0	1	0	0	1	0	0
0.42	0	0	0	3	0	0	3	0	0	6	0	0
0.43	0	0	0	1	0	0	2	0	0	3	0	0
0.44	0	0	0	0	0	0	2	0	0	2	0	0
0.45	0	0	0	1	0	0	4	0	0	5	0	0
0.46	0	0	0	1	0	0	3	0	0	4	0	0
0.47	0	0	0	0	0	0	0	0	0	0	0	0
0.48	0	0	0	1	0	0	6	0	0	7	0	0
0.49	0	0	0	0	0	0	2	0	0	2	0	0
0.50	0	0	0	1	0	0	13	0	0	14	0	0
SUBTOTAL	0	0	0	21	0	0	47	0	0	68	0	0

Table A-4

~~TOP SECRET~~ C [redacted]

MISSION * 1037-2 * INSTRUMENT * AFT 2/24/67 DENSITY FREQ DISTR

DENSITY VALUE	PRIMARY MIN	PRIMARY MAX	PRIMARY LIM	INTERMEDIATE MIN	INTERMEDIATE MAX	INTERMEDIATE LIM	FULL MIN	FULL MAX	FULL LIM	ALL LEVELS MIN	ALL LEVELS MAX	ALL LEVELS LIM
0.51	0	0	0	1	0	0	3	0	0	4	0	0
0.52	0	0	0	2	0	0	4	0	0	6	0	0
0.53	0	0	0	2	0	0	7	0	0	9	0	0
0.54	0	0	0	1	0	0	7	0	0	8	0	0
0.55	0	0	0	0	1	0	4	0	0	4	1	0
0.56	0	0	0	1	0	0	4	0	0	5	0	0
0.57	0	0	0	2	0	0	1	0	0	3	0	0
0.58	0	0	0	1	0	0	2	0	0	3	0	0
0.59	0	0	0	2	0	0	1	0	0	3	0	0
0.60	0	0	0	0	0	0	2	0	0	2	0	0
0.61	0	0	0	1	0	0	3	0	0	4	0	0
0.62	0	0	0	0	0	0	5	0	0	5	0	0
0.63	0	0	0	2	0	0	6	0	0	8	0	0
0.64	0	0	0	2	0	0	4	0	0	6	0	0
0.65	0	0	0	1	0	0	8	0	0	9	0	0
0.66	0	0	0	3	0	0	3	0	0	6	0	0
0.67	0	0	0	1	0	0	3	0	0	4	0	0
0.68	0	0	0	3	0	0	5	0	0	8	0	0
0.69	0	0	0	0	0	0	3	0	0	3	0	0
0.70	0	0	0	0	0	0	3	0	0	3	0	0
0.71	0	0	0	0	0	0	3	0	0	3	0	0
0.72	0	0	0	0	0	0	4	0	0	4	0	0
0.73	0	0	0	0	0	0	5	0	0	5	0	0
0.74	0	0	0	0	0	0	5	0	0	5	0	0
0.75	0	0	0	0	0	0	3	0	0	3	0	0
0.76	0	0	0	0	0	0	1	1	0	1	1	0
0.77	0	0	0	0	0	0	1	0	0	1	0	0
0.78	0	0	0	0	0	0	4	0	0	4	0	0
0.79	0	0	0	1	0	0	1	0	0	2	0	0
0.80	0	0	0	0	0	0	1	0	0	1	0	0
0.81	0	0	0	0	0	0	2	0	0	2	0	0
0.82	0	0	0	2	1	0	3	0	0	5	1	0
0.83	0	0	0	1	0	0	1	0	0	2	0	0
0.84	0	0	0	0	0	0	3	0	0	3	0	0
0.85	0	0	0	0	0	0	5	0	0	5	0	0
0.86	0	0	0	2	0	0	3	0	0	5	0	0
0.87	0	0	0	0	0	0	2	0	0	2	0	0
0.88	0	0	0	0	0	0	2	0	0	2	0	0
0.89	0	0	0	0	0	0	2	0	0	2	0	0
0.90	0	0	0	0	0	0	1	2	0	1	2	0
0.91	0	0	0	0	0	0	2	0	0	2	0	0
0.92	0	0	0	0	1	0	2	0	0	2	1	0
0.93	0	0	0	0	0	0	3	0	0	3	0	0
0.94	0	0	0	0	0	0	3	1	0	4	1	0
0.95	0	0	0	1	0	0	0	1	0	2	1	0
0.96	0	0	0	2	0	0	1	0	0	1	0	0
0.97	0	0	0	0	0	0	0	0	0	0	0	0
0.98	0	0	0	1	0	0	0	2	0	1	2	0
0.99	0	0	0	0	0	0	1	0	0	1	0	0
1.00	0	0	0	1	0	0	1	2	0	2	2	0
SUBTOTAL	0	0	0	36	3	0	142	7	0	178	10	0

~~TOP SECRET~~ C [redacted]

Table A-4

~~TOP SECRET~~ C[redacted]

MISSION * 1037-2 * INSTRUMENT * AFT 2/24/67 DENSITY FREQ DISTR

DENSITY VALUE	PRIMARY MIN	PRIMARY MAX	PRIMARY LIM	INTERMEDIATE MIN	INTERMEDIATE MAX	INTERMEDIATE LIM	FULL MIN	FULL MAX	FULL LIM	ALL LEVELS MIN	ALL LEVELS MAX	ALL LEVELS LIM
1.01	0	0	0	0	0	0	0	1	0	0	1	0
1.02	0	0	0	0	0	0	0	2	0	0	2	0
1.03	0	0	0	0	0	0	0	1	0	0	1	0
1.04	0	0	0	0	0	0	3	1	0	3	1	0
1.05	0	0	0	0	1	0	0	2	0	0	3	0
1.06	0	0	0	1	0	0	0	1	0	1	1	0
1.07	0	0	0	0	0	0	0	0	0	0	0	0
1.08	0	0	0	0	1	0	0	1	0	0	2	0
1.09	0	0	0	0	0	0	1	1	0	1	1	0
1.10	0	0	0	1	2	1	1	3	0	2	5	1
1.11	0	0	0	0	0	0	1	0	0	1	0	0
1.12	0	0	0	0	1	0	0	2	0	0	3	0
1.13	0	0	0	0	1	0	1	0	0	1	1	0
1.14	0	0	0	0	1	0	0	0	0	0	1	0
1.15	0	0	0	1	2	0	0	1	1	1	3	1
1.16	0	0	0	0	0	0	1	2	0	1	2	0
1.17	0	0	0	0	0	0	0	0	0	0	0	0
1.18	0	0	0	0	1	0	0	3	1	0	4	1
1.19	0	0	0	0	0	0	0	4	0	0	4	0
1.20	0	0	0	0	1	0	0	7	0	0	8	0
1.21	0	0	0	0	1	0	0	0	0	0	1	0
1.22	0	0	0	0	0	0	1	1	1	1	1	1
1.23	0	0	0	0	1	0	0	1	0	0	2	0
1.24	0	0	0	0	1	0	0	1	0	0	2	0
1.25	0	0	0	0	2	0	1	5	0	1	7	0
1.26	0	0	0	0	0	0	1	1	1	1	1	1
1.27	0	0	0	0	2	1	0	0	1	0	2	2
1.28	0	0	0	0	0	0	0	1	0	0	1	0
1.29	0	0	0	0	0	0	0	0	1	0	0	1
1.30	0	0	0	1	0	0	0	2	0	1	2	0
1.31	0	0	0	0	0	0	0	2	0	0	2	0
1.32	0	0	0	0	0	0	0	0	0	0	0	0
1.33	0	0	0	0	1	1	1	5	0	1	6	1
1.34	0	0	0	0	3	0	1	5	1	1	8	1
1.35	0	0	0	0	0	0	0	8	0	0	8	0
1.36	0	0	0	0	1	0	0	1	0	0	2	0
1.37	0	0	0	0	0	0	0	3	0	0	3	0
1.38	0	0	0	0	2	0	0	0	0	0	2	0
1.39	0	0	0	0	1	0	0	4	0	0	5	0
1.40	0	0	0	0	1	0	0	5	1	0	6	1
1.41	0	0	0	0	1	0	0	1	0	0	2	0
1.42	0	0	0	0	1	0	0	3	0	0	4	0
1.43	0	0	0	0	1	0	0	2	0	0	3	0
1.44	0	0	0	0	0	0	0	2	0	0	2	0
1.45	0	0	0	0	2	0	0	9	0	0	11	0
1.46	0	0	0	0	0	0	0	1	0	0	1	0
1.47	0	0	0	0	1	0	0	3	0	0	4	0
1.48	0	0	0	0	2	0	0	1	0	0	3	0
1.49	0	0	0	0	1	0	0	1	0	0	2	0
1.50	0	0	0	0	1	0	0	2	2	0	3	2
SUBTOTAL	0	0	0	4	37	3	13	102	10	17	139	13

~~TOP SECRET~~ C[redacted]

Table A-4

MISSION * 1037-2 * INSTRUMENT * AFT 2/24/67 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	5	1	0	5	1
1.52	0	0	0	0	1	1	0	2	0	0	3	1
1.53	0	0	0	0	1	0	0	4	1	0	5	1
1.54	0	0	0	0	0	0	0	3	0	0	3	0
1.55	0	0	0	0	2	0	1	5	1	1	7	1
1.56	0	0	0	0	1	0	0	1	0	0	2	0
1.57	0	0	0	0	0	0	0	0	0	0	0	0
1.58	0	0	0	0	0	1	0	2	0	0	2	1
1.59	0	0	0	0	0	0	0	0	1	0	0	1
1.60	0	0	0	0	0	0	1	5	0	1	5	0
1.61	0	0	0	0	1	1	0	0	1	0	1	2
1.62	0	0	0	0	0	0	0	2	0	0	2	0
1.63	0	0	0	0	0	0	0	1	0	0	1	0
1.64	0	0	0	0	1	0	0	0	1	0	1	1
1.65	0	0	0	0	0	0	0	4	1	0	4	1
1.66	0	0	0	0	0	0	0	1	2	0	1	2
1.67	0	0	0	0	0	0	0	0	0	0	0	0
1.68	0	0	0	0	0	1	0	3	1	0	3	2
1.69	0	0	0	0	0	0	0	0	1	0	0	1
1.70	0	0	0	0	0	0	0	3	3	0	3	3
1.71	0	0	0	0	0	0	0	3	0	0	3	0
1.72	0	0	0	0	1	0	0	1	0	0	2	0
1.73	0	0	0	0	0	0	0	3	1	0	3	1
1.74	0	0	0	0	2	0	0	1	2	0	3	2
1.75	0	0	0	0	2	0	0	2	3	0	4	3
1.76	0	0	0	0	0	0	0	1	1	0	1	1
1.77	0	0	0	0	1	0	0	0	1	0	1	1
1.78	0	0	0	0	0	0	0	0	0	0	0	0
1.79	0	0	0	0	0	0	0	0	0	0	0	0
1.80	0	0	0	0	0	2	1	3	1	1	3	3
1.81	0	0	0	0	0	0	1	2	0	1	2	0
1.82	0	0	0	0	0	2	0	0	0	0	0	2
1.83	0	0	0	0	0	0	0	1	0	0	1	0
1.84	0	0	0	0	0	0	0	0	0	0	0	0
1.85	0	0	0	0	0	0	0	1	0	0	1	0
1.86	0	0	0	0	0	1	0	1	3	0	1	4
1.87	0	0	0	0	0	0	0	1	0	0	1	0
1.88	0	0	0	0	0	1	0	0	0	0	0	1
1.89	0	0	0	0	0	0	0	1	0	0	1	0
1.90	0	0	0	0	0	2	0	2	1	0	2	3
1.91	0	0	0	0	0	0	0	0	0	0	0	0
1.92	0	0	0	0	0	1	0	2	1	0	2	2
1.93	0	0	0	0	0	0	0	0	4	0	0	4
1.94	0	0	0	0	1	0	0	3	1	0	4	1
1.95	0	0	0	0	0	0	0	1	1	0	1	1
1.96	0	0	0	0	0	0	0	1	2	0	1	2
1.97	0	0	0	0	0	0	0	0	1	0	0	1
1.98	0	0	0	0	1	0	0	0	3	0	1	3
1.99	0	0	0	0	0	0	0	0	1	0	0	1
2.00	0	0	0	0	1	0	0	2	1	0	3	1
SUBTOTAL	0	0	0	0	16	13	3	73	42	3	89	55

Table A-4

MISSION * L037-2 * INSTRUMENT * AFT 2/24/67 DENSITY FREQ DISTR

DENSITY VALUE	PRIMARY MIN	PRIMARY MAX	PRIMARY LIM	INTERMEDIATE MIN	INTERMEDIATE MAX	INTERMEDIATE LIM	FULL MIN	FULL MAX	FULL LIM	ALL LEVELS MIN	ALL LEVELS MAX	ALL LEVELS LIM
2.01	0	0	0	0	0	0	0	0	1	0	0	1
2.02	0	0	0	0	0	1	0	1	0	0	1	1
2.03	0	0	0	0	0	0	0	0	2	0	0	2
2.04	0	0	0	0	0	1	0	1	2	0	1	4
2.05	0	0	0	0	0	1	0	2	3	0	3	1
2.06	0	0	0	0	0	1	0	2	1	0	3	2
2.07	0	0	0	0	0	1	0	0	1	0	0	1
2.08	0	0	0	0	0	1	0	1	3	0	1	4
2.09	0	0	0	0	0	0	0	0	4	0	0	4
2.10	0	0	0	0	2	1	0	4	0	0	6	5
2.11	0	0	0	0	0	0	0	0	2	0	0	2
2.12	0	0	0	0	0	0	0	2	1	0	2	1
2.13	0	0	0	0	0	0	0	0	3	0	0	3
2.14	0	0	0	0	2	0	0	0	3	0	2	4
2.15	0	0	0	0	0	1	0	0	3	0	0	3
2.16	0	0	0	0	0	2	0	1	1	0	1	3
2.17	0	0	0	0	0	2	0	1	0	0	1	2
2.18	0	0	0	0	0	2	0	0	0	0	0	2
2.19	0	0	0	0	0	1	0	0	3	0	0	4
2.20	0	0	0	0	0	1	0	1	3	0	1	4
2.21	0	0	0	0	0	2	0	1	2	0	1	4
2.22	0	0	0	0	0	2	0	1	2	0	1	4
2.23	0	0	0	0	0	2	0	2	2	0	2	2
2.24	0	0	0	0	0	0	0	2	2	0	2	2
2.25	0	0	0	0	0	0	0	1	2	0	1	2
2.26	0	0	0	0	0	1	0	0	5	0	0	6
2.27	0	0	0	0	0	0	0	0	1	0	0	1
2.28	0	0	0	0	0	1	0	1	3	0	1	4
2.29	0	0	0	0	0	0	0	1	0	0	1	0
2.30	0	0	0	0	0	1	0	0	3	0	0	4
2.31	0	0	0	0	0	0	0	2	4	0	2	4
2.32	0	0	0	0	0	0	0	1	2	0	1	2
2.33	0	0	0	0	0	0	0	1	5	0	1	5
2.34	0	0	0	0	0	0	0	0	5	0	0	5
2.35	0	0	0	0	0	0	0	0	7	0	0	7
2.36	0	0	0	0	0	0	0	0	4	0	0	4
2.37	0	0	0	0	0	0	0	0	1	0	0	1
2.38	0	0	0	0	0	0	0	0	1	0	0	1
2.39	0	0	0	0	0	0	0	0	2	0	0	2
2.40	0	0	0	0	0	0	0	0	5	0	0	5
2.41	0	0	0	0	0	0	0	0	0	0	0	0
2.42	0	0	0	0	0	0	0	0	1	0	0	1
2.43	0	0	0	0	0	1	0	0	2	0	0	3
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	5	18	0	23	86	0	28	104

Table A-4

[redacted]

MISSION * 1037-2 * INSTRUMENT * AFT 2/24/67 DENSITY FREQ DISTR

DENSITY VALUE	PRIMARY MIN	PRIMARY MAX	PRIMARY LIM	INTERMEDIATE MIN	INTERMEDIATE MAX	INTERMEDIATE LIM	FULL MIN	FULL MAX	FULL LIM	ALL LEVELS MIN	ALL LEVELS MAX	ALL LEVELS LIM
2.51	0	0	0	0	0	0	0	0	0	0	0	0
2.52	0	0	0	0	0	0	0	0	0	0	0	0
2.53	0	0	0	0	0	0	0	0	0	0	0	0
2.54	0	0	0	0	0	0	0	0	0	0	0	0
2.55	0	0	0	0	0	0	0	0	0	0	0	0
2.56	0	0	0	0	0	0	0	0	0	0	0	0
2.57	0	0	0	0	0	0	0	0	0	0	0	0
2.58	0	0	0	0	0	0	0	0	0	0	0	0
2.59	0	0	0	0	0	0	0	0	0	0	0	0
2.60	0	0	0	0	0	0	0	0	0	0	0	0
2.61	0	0	0	0	0	0	0	0	0	0	0	0
2.62	0	0	0	0	0	0	0	0	0	0	0	0
2.63	0	0	0	0	0	0	0	0	0	0	0	0
2.64	0	0	0	0	0	0	0	0	0	0	0	0
2.65	0	0	0	0	0	0	0	0	0	0	0	0
2.66	0	0	0	0	0	0	0	0	0	0	0	0
2.67	0	0	0	0	0	0	0	0	0	0	0	0
2.68	0	0	0	0	0	0	0	0	0	0	0	0
2.69	0	0	0	0	0	0	0	0	0	0	0	0
2.70	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	61	61	34	205	205	138	266	266	172

[redacted]

Table A-4

MISSION * 1037-2 * INSTR * AFT * 2/24/67 PLOT OF D MIN * TERRAIN * PROCESSING * INTERMEDIATE

AIRTH MEAN * 0.61 * MEDIAN * 0.58 * STD DEV * 0.25 * RANGE * 0.25 TO 1.30 WITH 61 SAMPLES

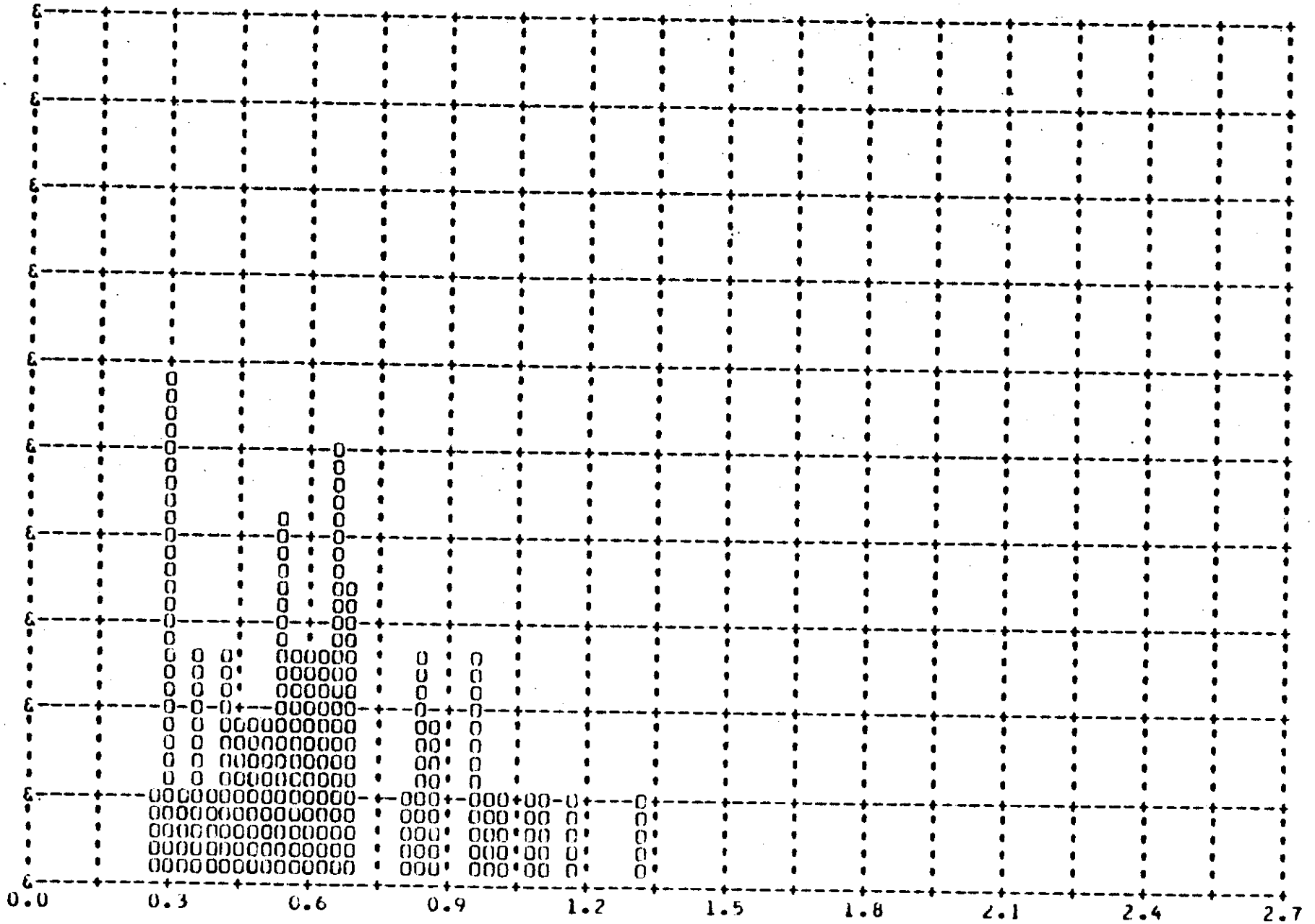


Figure A-28

[redacted]

MISSION * 1037-2 * INSTR * AFT * 2/24/67 PLOT OF D MAX * TERRAIN * PROCESSING * INTERMEDIATE

AIRTH MEAN * 1.44 * MEDIAN * 1.41 * STD DEV * 0.33 * RANGE * 0.55 TO 2.14 WITH 61 SAMPLES

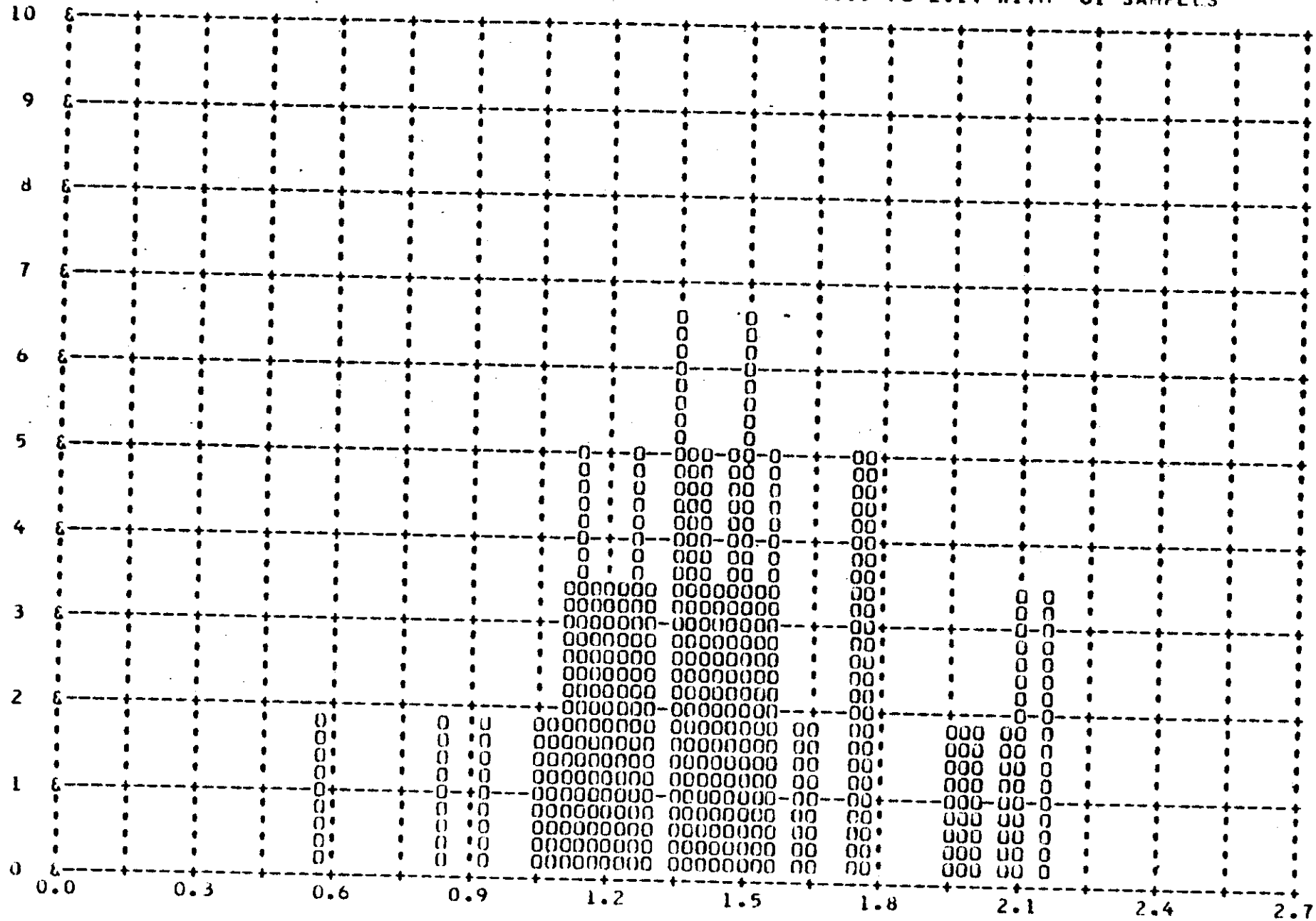


Figure A-21

MISSION * 1037-2 * INSTR * AFT * 2/24/67 PLOT OF D MAX * CLOUD * PROCESSING * INTERMEDIATE

AIRTH MEAN * 1.94 * MEDIAN * 2.05 * STD DEV * 0.31 * RANGE * 1.10 TO 2.43 WITH 34 SAMPLES

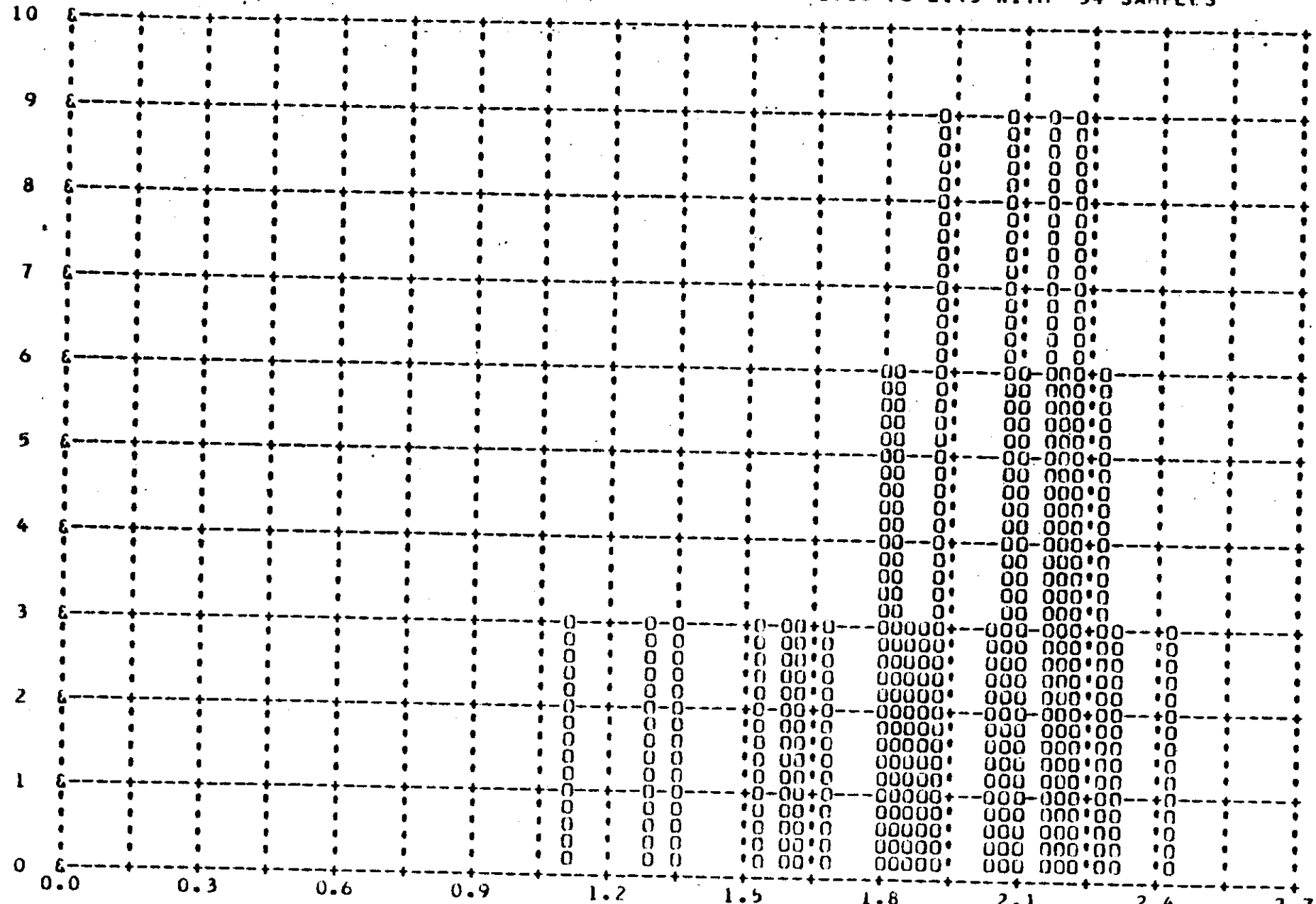


Figure A-30

MISSION * 1037-2 * INSTR * AFT * 2/24/67 PLOT OF D MIN * TERRAIN * PROCESSING * FULL

AIRTH MEAN * 0.68 * MEDIAN * 0.65 * STD DEV * 0.24 * RANGE * 0.26 TO 1.80 WITH 205 SAMPLES

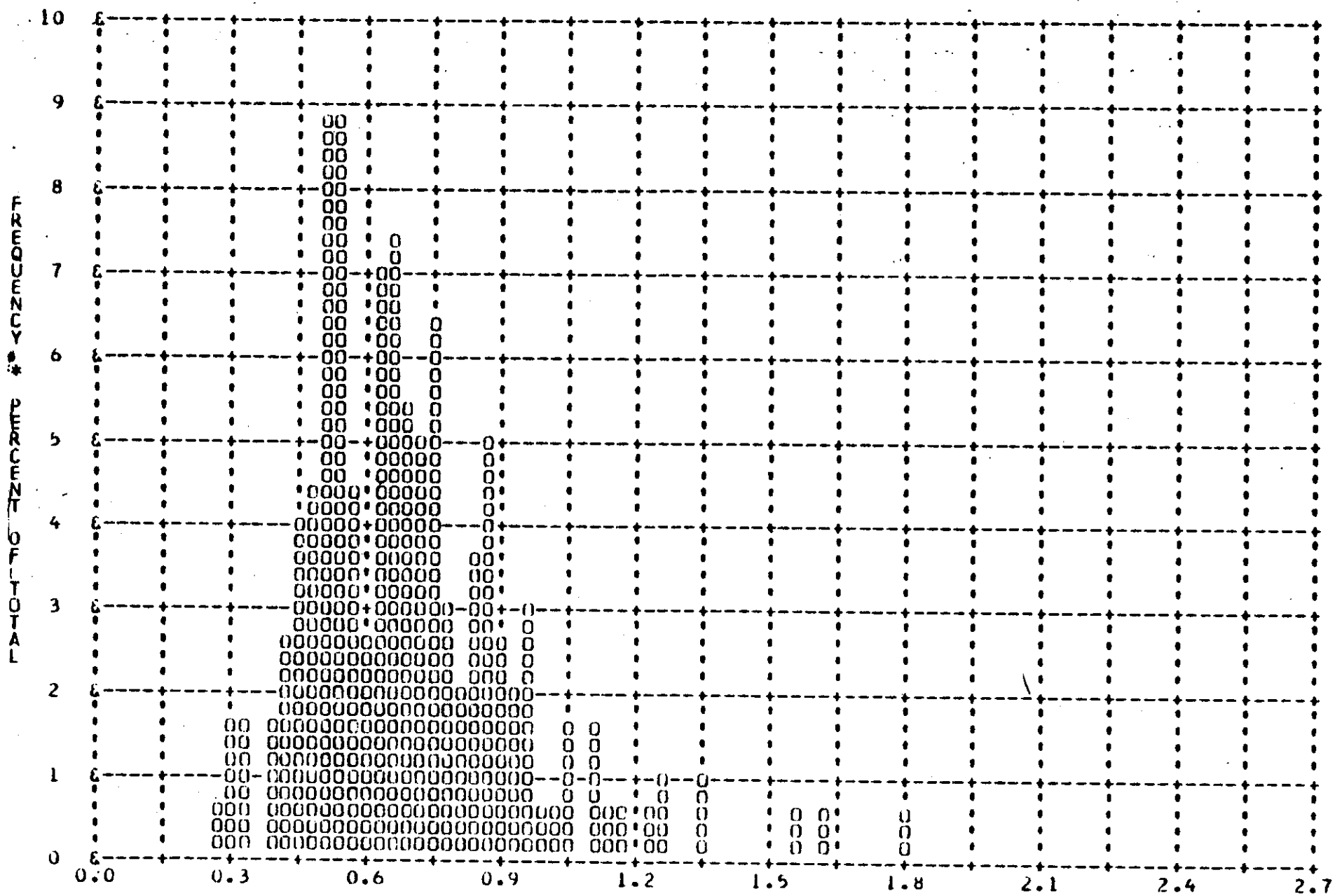


Figure A-31

MISSION * 1037-2 * INSTR * AFT * 2/24/67 PLOT OF D MAX * TERRAIN * PROCESSING * FULL

AIRTH MEAN * 1.52 * MEDIAN * 1.47 * STD DEV * 0.34 * RANGE * 0.76 TO 2.33 WITH 205 SAMPLES

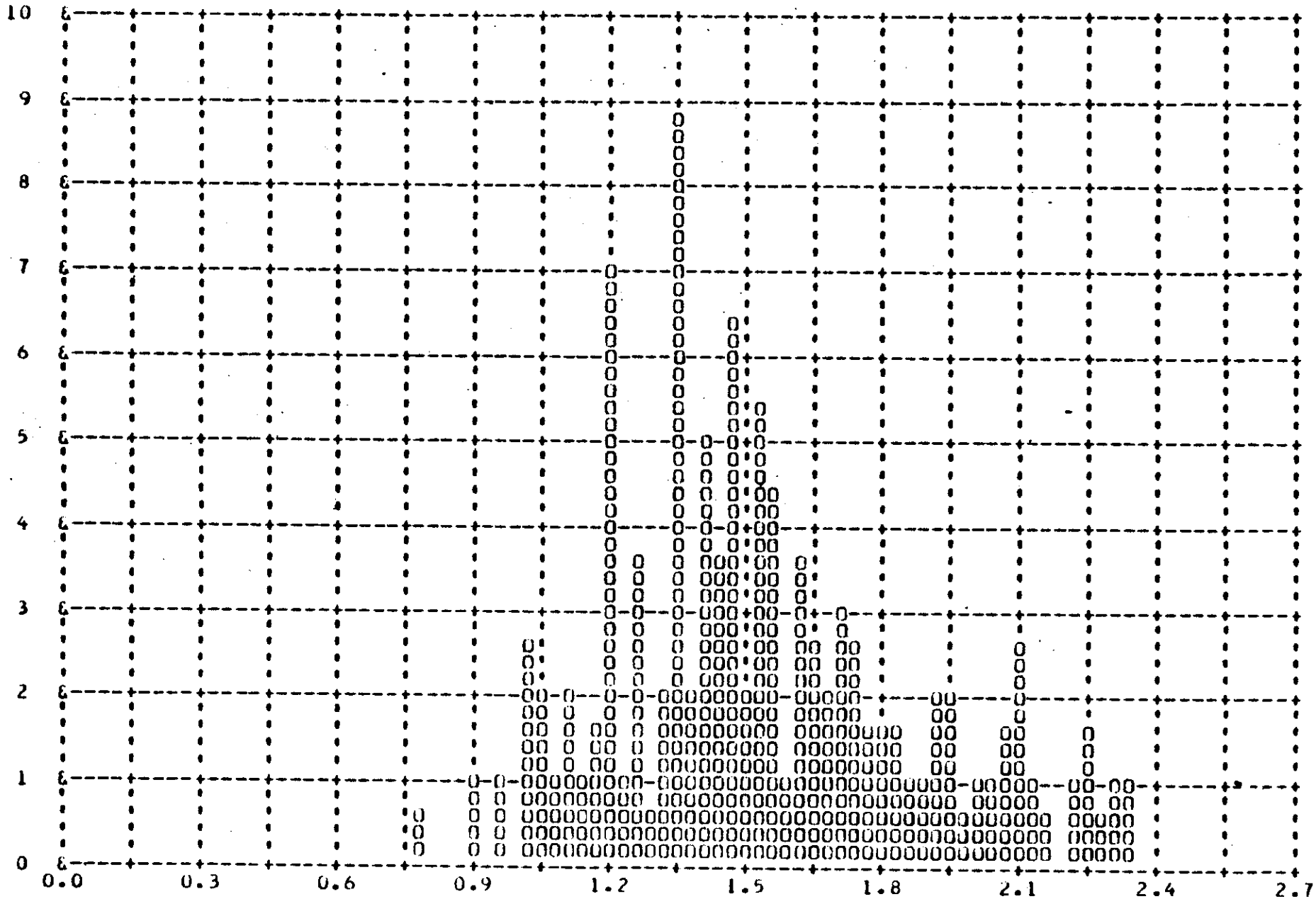


Figure A-32

MISSION * 1037-2 * INSTR * AFT * 2/24/67 PLOT OF D MAX * CLOUD * PROCESSING * FULL

AIRTH MEAN * 2.05 * MEDIAN * 2.14 * STD DEV * 0.32 * RANGE * 1.15 TO 2.43 WITH 138 SAMPLES

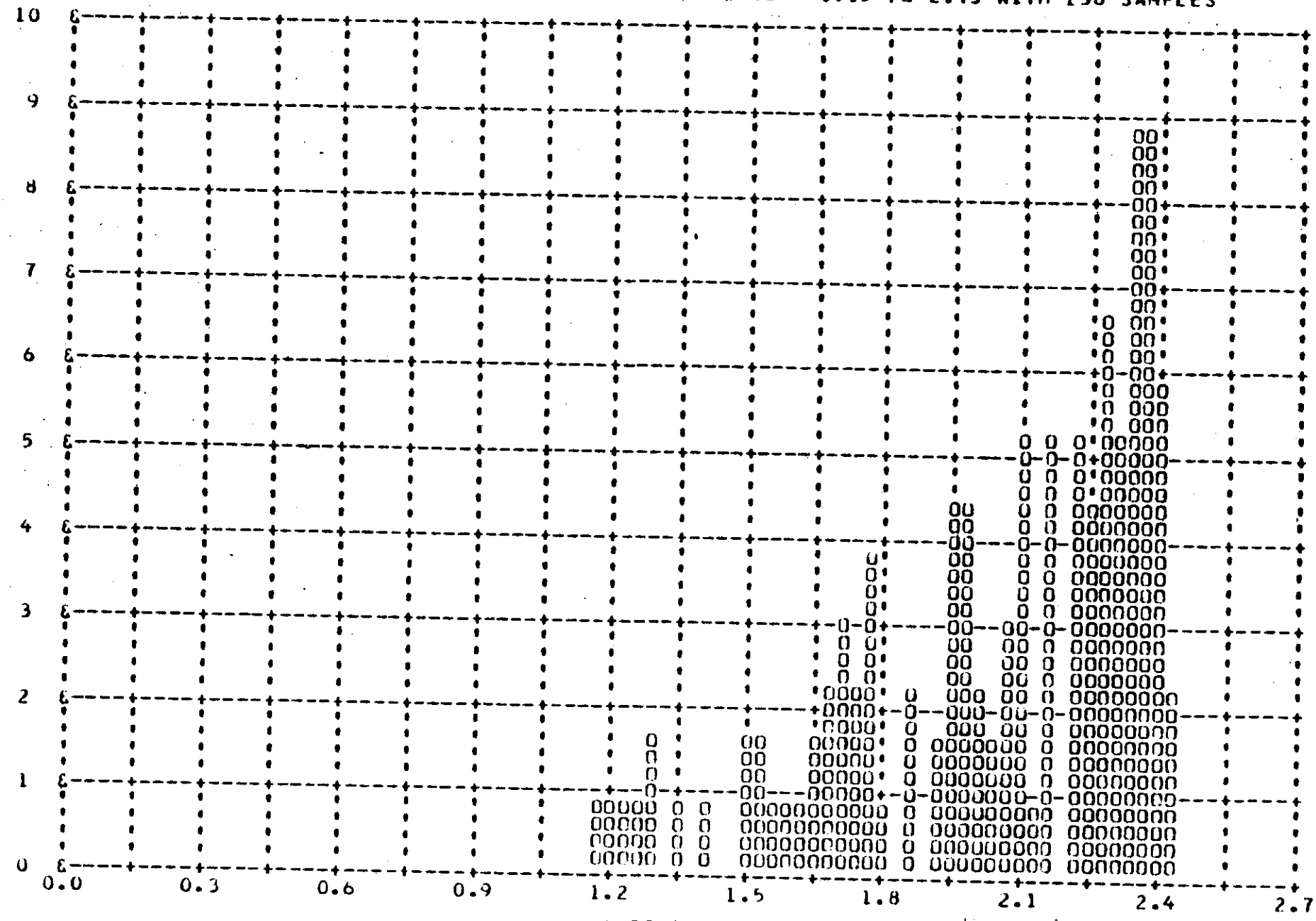
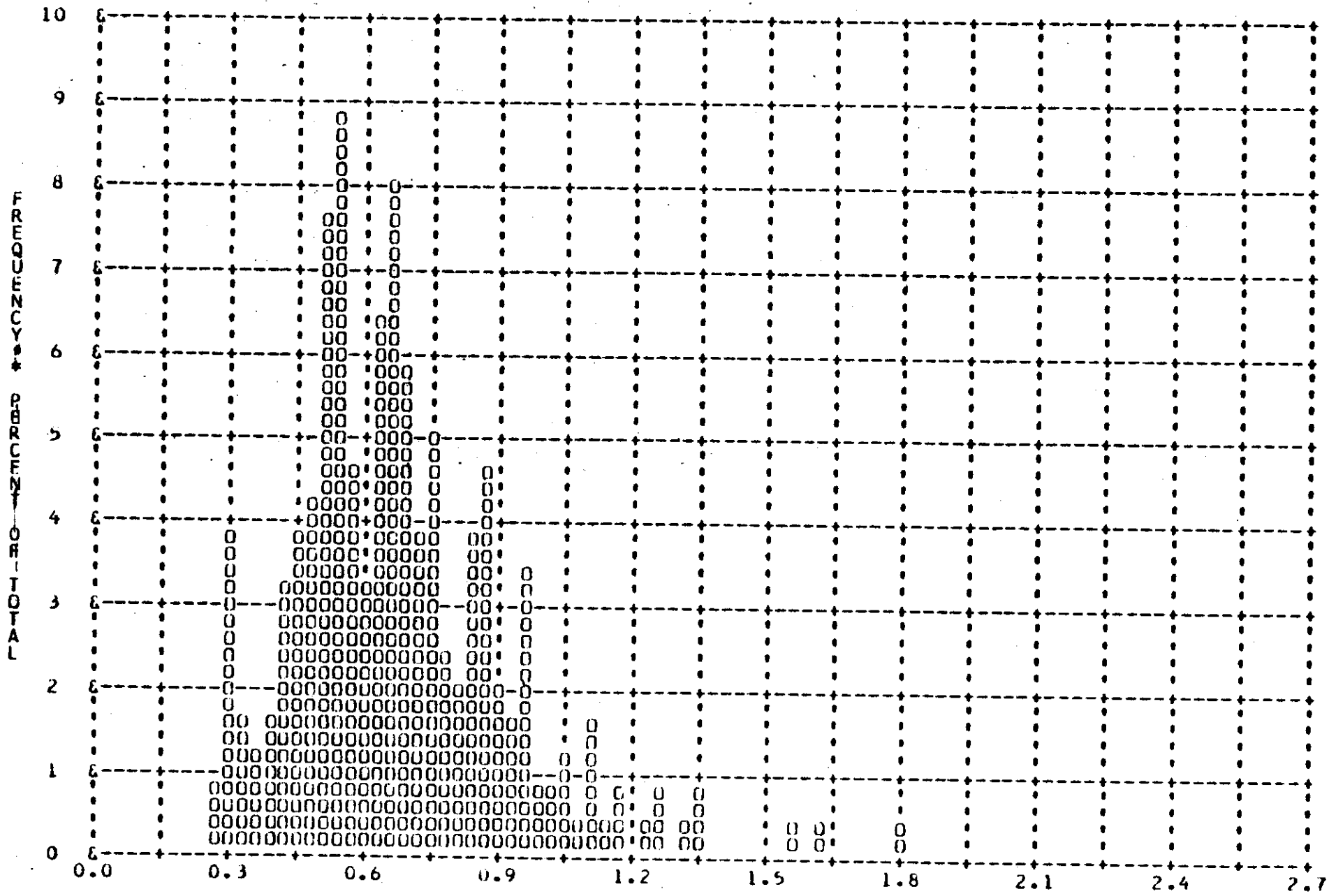


Figure A-33

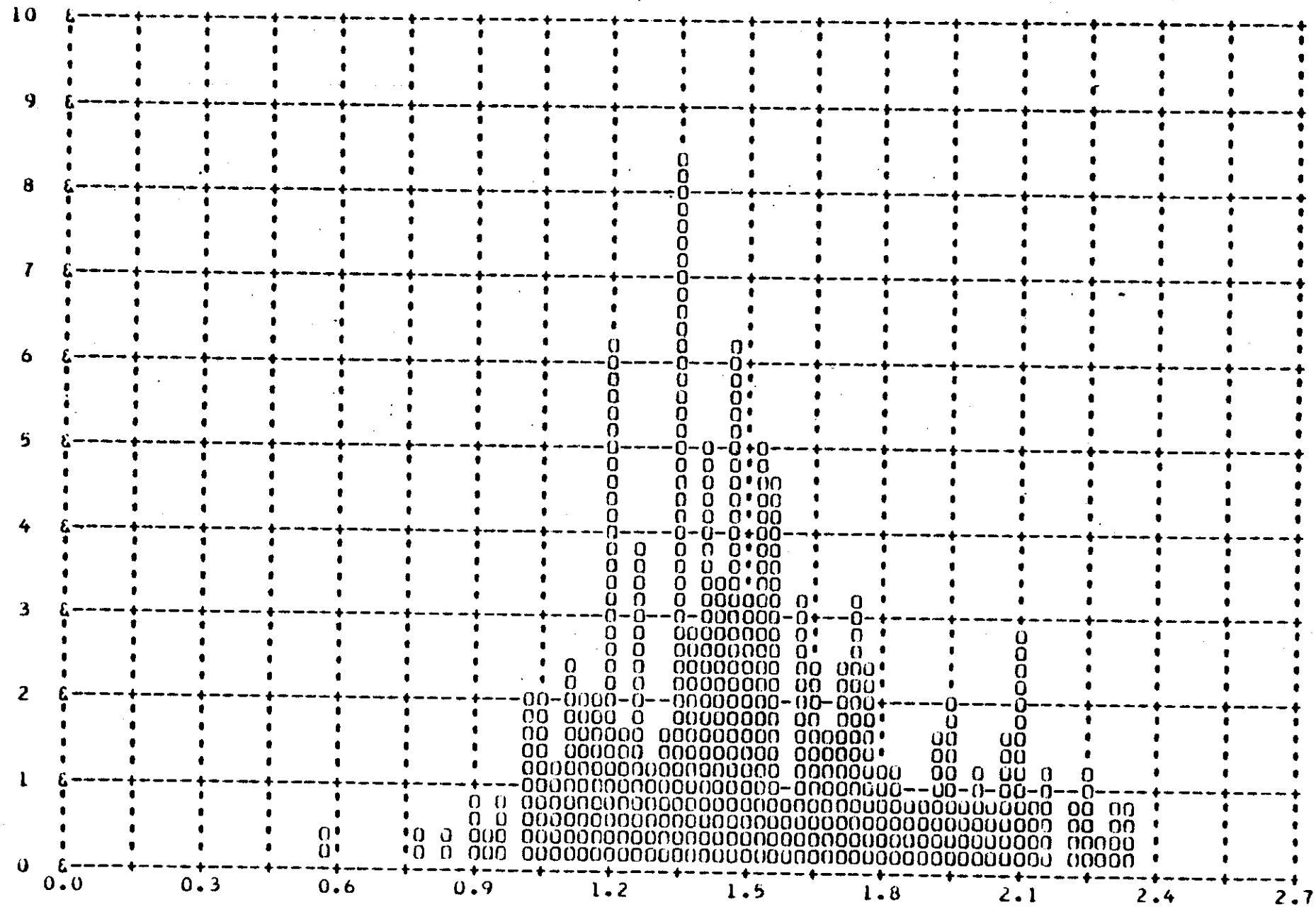
MISSION * 1037-2 * INSTR * AFT * 2/24/67 PLOT OF D MIN * TERRAIN * PROCESSING * ALL LEVELS

AIRTH MEAN * 0.67 * MEDIAN * 0.64 * STD DEV * 0.24 * RANGE * 0.25 TO 1.80 WITH 266 SAMPLES



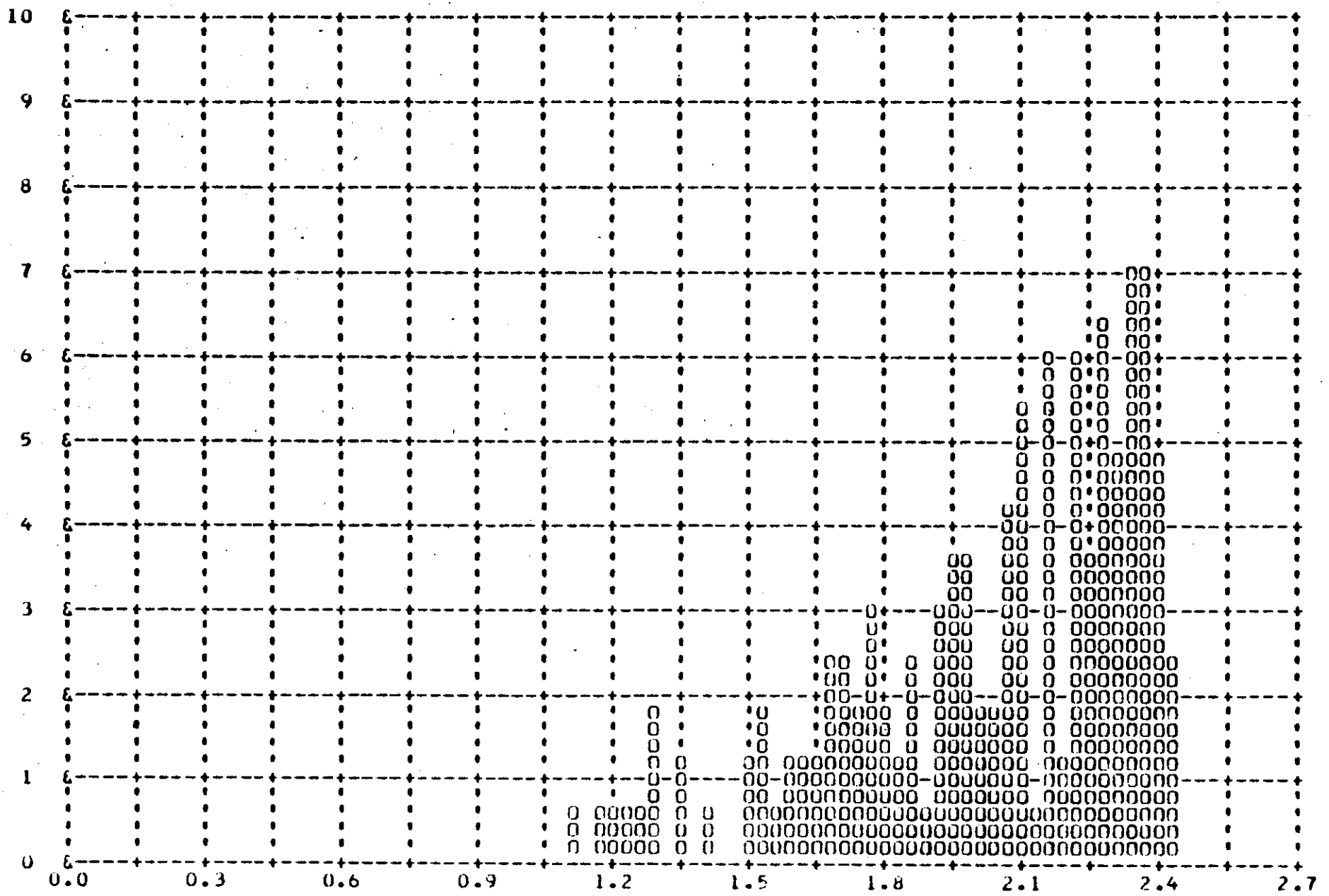
MISSION * 1037-2 * INSTR * AFT * 2/24/67 PLOT OF D MAX * TERRAIN * PROCESSING * ALL LEVELS

AIRTH MEAN * 1.51 * MEDIAN * 1.45 * STD DEV * 0.34 * RANGE * 0.55 TO 2.33 WITH 266 SAMPLES



MISSION * 1037-2 * INSTR * AFT * 2/24/67 PLOT OF D MAX * CLOUD * PROCESSING * ALL LEVELS

AIRTH MEAN * 2.03 * MEDIAN * 2.10 * STD DEV * 0.32 * RANGE * 1.10 TO 2.43 WITH 172 SAMPLES



Distribution:

Copy No.	To
[redacted]	[redacted]