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FINAL REPORT

OF THE

TYPE III MOBILITY VIBRATION PROFILE

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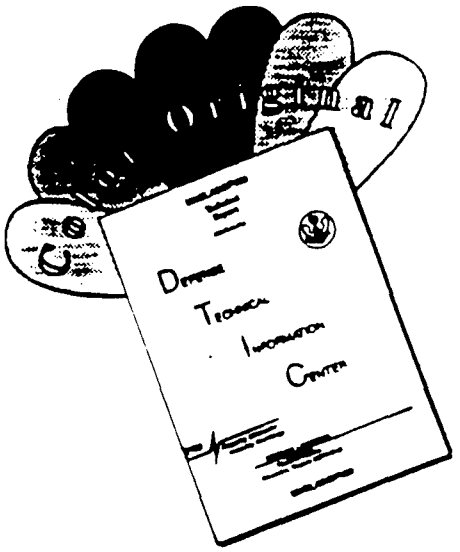

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There is an existing void in current test specifications for vibration design and laboratory test schedules. Present standards contain specifications for a common carrier environment, which is representative of operation in commercial vehicles over highways (only), and the composite wheeled vehicle specifications, which represent operation over extreme terrain at worst-case speeds. The proposed series of tests subjected the test items to highway, improved surface, and cross-country terrains, and produced results which lie between the existing standards.

A series of seven different mobile shelter/prime mover configurations was subjected to the Type III mobility requirements of MIL-M-8090F in order to gather vibration data. Data were collected using selected courses at the Munson Test Area (MTA) and Perryman Test Area (PTA) at Aberdeen Proving Ground (APG), Maryland.

Test specifications were developed for the shelter input (attachment to prime mover/mobilizer), the walls, and the floor of each shelter combination and master input; wall and floor specifications were developed by combining data from all shelter combinations.

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SECTION 1. EXECUTIVE DIGEST

1.1 SUMMARY

There is an existing void in current test specifications for vibration design and laboratory test schedules. Present standards contain specifications for a common carrier environment, which is representative of operation in commercial vehicles over highways (only), and the composite wheeled vehicle specifications, which represent operation over extreme terrain at worst-case speeds. The proposed series of tests will subject the test items to highway, improved surface, and cross-country terrains, and they are expected to produce results which lie between the existing standards.

A series of seven different mobile shelter/prime mover configurations was subjected to the Type III mobility requirements of MIL-M-8090F (app G, ref 2) in order to gather vibration data. Data were collected using selected courses at the Munson Test Area (MTA) and Perryman Test Area (PTA) at Aberdeen Proving Ground (APG), Maryland.

Test specifications were developed for the shelter input (attachment to prime mover/ mobilizer), the walls, and the floor of each shelter combination and master input; wall and floor specifications were developed by combining data from all shelter combinations.

1.2 TEST OBJECTIVE

The test objective was to subject various generic tactical mobile shelters to the Type III mobility requirements of MIL-M-8090F in order to gather vibration data for design and test specifications.

1.3 TESTING AUTHORITY

The U.S. Army Test and Evaluation Command (TECOM) tasked the U.S. Army Aberdeen Test Center (ATC) to accomplish the required test program per Memorandum (ref 1).

1.4 SYSTEM DESCRIPTIONS

Several combinations of prime movers, mobilizers, and shelters were tested. A short description and identification of each item are provided in the following paragraphs.

a. M923A2 5-Ton Cargo Truck. The M923A2 has a cross-country payload capability of 10,000 pounds and highway payload capability of 20,000 pounds. The identification of the truck used for this test was as follows: National Stock Number (NSN) 2320-01-230-0307, Identification (ID) No. 23/06719, serial number (SN) NL111H, contract No. DAAE07-86-C-J111. The Central Tire Inflation System (CTIS) pressure ratings are as follows: Highway - 60 psi, Secondary - 35 psi, Off-highway - 25 psi.

b. M1097 High-Mobility Multipurpose Wheeled Vehicle (HMMMV) - Heavy Variant (HHV). The M1097 has a payload capability of 4400 pounds. The identification of the truck used for this test was as follows: Registration No. NG4980, SN 137920, contract No. DAAE07-80-0-0998.

c. M1022 Mobilizer/Dolly Set. The M1022 is capable of mobilizing 20-foot containers or shelters with gross weights of 15,000 pounds. The identification of the M1022 used for this test was as follows: SN 0003.

d. M832 Mobilizer/Dolly Set. The M832 is capable of mobilizing S280 or 12-foot shelters with gross weights of 10,500 pounds. The identification of the M832 used for this test was as follows: NSN 2330-00-221-4939, SN 376, contract No. DAAE07-81-C-5913.

e. S280 C/G Shelter. The S280 C/G has a payload capability of 7100 pounds and can be transported by 5-ton cargo truck or M832 mobilizer. The shelter tested was equipped with coil spring shock isolators in upgraded skids as an equipment upgrade study to increase payload rating. The identification of the S280 C/G used for this test was as follows: NSN 5411-01-092-0892, SN 0936C, contract No. DAA807-84-C-B102.

f. S250/G Shelter. The S250/G has a payload capability of 2530 pounds and can be transported on the Commercial Utility Cargo Vehicle (CUCV) or HMMWV with a shelter mounting kit. The identification of the S-250/G used for this test was as follows: NSN 5411-00-489-6076, SN 310L, contract No. DAAB07-78-C-2013.

g. S787 Shelter. The S787 has an increased cargo area and reduced weight in comparison with the S250, increasing the payload capability to 3300 pounds. The identification of the S787 used for this test was as follows: NSN 5411-01-333-0663, SN 0253, contract No. DAAK01-91-0-0075.

h. U.S. Navy 20-foot International Standards Organization (ISO) Nonexpandable Shelter. The GMS 1011 shelter is transportable by an M1022 mobilizer or flatbed trailer and has a payload capacity of 15,100 pounds. The identification of the shelter used for this test was as follows: Navy SN PBT050, contract No. N00140-84-C-3251.

i. S785 20-foot ISO Two-Sided Expandable Shelter. The S785 shelter has a payload capability of 8100 pounds. The identification of the S785 used for this test was as follows: SN 0003, contract No. DAAK60-80-C-0077.

j. Twenty-foot Shipping Container. The metal shipping container is compatible in size with the 20-foot ISO nonexpandable shelter and has a maximum gross weight rating of 48,600 pounds. The identification of the shipping container used for this test was as follows: ID Code No. CMLU 126015.

1.5 CONCLUSIONS

The schedules developed represent the vibration environment at the input, walls, and floor of the shelter when driven over terrain (or at speeds) which produces a less severe environment than that represented in MIL-STD-810E (ref 3). This is beneficial when designing test equipment to withstand the effects of vibration during transport. The severity of the schedules is controlled by operation on the Belgian Block Course and is a somewhat conservative estimate of that environment (i.e., the schedule root mean square (rms) matches the largest rms measured on each vehicle/shelter series). The schedule power spectral density (PSD) levels have been modified for the purpose of matching measured rms values but have not been time compressed. No attempt has been made to match the data to a specific scenario or develop a test time, but that can be easily accomplished with the existing data.

No attempt was made to configure the shelter interiors to represent a typical application (racks with electronic equipment). Therefore, the wall and floor specifications are not representative of any particular application and may vary from actual user conditions, depending upon the structural effects imparted by equipment installation. The use of a conservative approach to the specification development should provide the materiel developer with a reasonable estimate of the shelter interior environment.

1.6 RECOMMENDATIONS

It is recommended that these specifications, along with a description of the test environment (test courses and speeds), be published in International Test Operations Procedure (ITOP) 1-2-601 (ref 4), Laboratory Vibration Schedules and North Atlantic Treaty Organization (NATO) Standardization Agreement (STANAG) 4370 (ref 5), Environmental Testing. Inclusion in ITOP 1-2-601 will result in inclusion in MIL-STD-810E.

(Page 1-4 Blank)

SECTION 2. SUBTESTS

2.1 WEIGHT AND CENTER OF GRAVITY (CG)

2.1.1 Weight

The weights of each shelter alone and in combination with various prime movers or mobilizers were measured on a platform scale with accuracy of ±10 pounds. The weights of the individual shelters are outlined in Table 2.1-1. The weights of the shelters in combination with a prime mover or mobilizer are outlined in Table 2.1-2.

TABLE 2.1-1. WEIGHT OF TEST SHELTERS

Shelter Identification	Weight, lb
S250/G	3,732
S787	3,960
S280 C/G	8,235
Navy ISO Nonexpandable[a]	15,370
S785 ISO Two-Sided Expandable	14,660
ISO Container[b]	14,720

TABLE 2.1-2. WEIGHT OF COMBINATIONS

Combination Identification	Weight, lb
M923 and S280 C/G Shelter	29,420
M1097 HHV and S250 Shelter	9,312
M1097 HHV and S787 Shelter	9,540
M832 Dolly and S280 C/G Shelter	12,055
M1022 Dolly and Navy ISO Nonexpandable Shelter	21,180
M1022 Dolly and S785 ISO Two-Sided Expandable Shelter	20,020
M1022 Dolly[b] and ISO Container	21,020

[a]Loaded to 77 percent of capacity.
[b]An M1022A1 Dolly Set, NSN 2330-01-378-9997, registration No. PL03DN/1210894 S, contract No. DAAE07-93-D-J001, was used in combination with the ISO Container. The ISO Container was loaded to 31-percent capacity.

2.1.2 Center of Gravity (CG)

The CG of each shelter, shelter-prime mover, and shelter-mobilizer combination was measured by the weighing and suspension methods. The results of the shelter CG measurements are outlined in Table 2.1-3. The results of the shelter-prime mover and shelter-mobilizer combinations are outlined in Table 2.1-4.

TABLE 2.1-3. CENTER OF GRAVITY OF TEST SHELTERS

Test Shelter	Axis of Measurement, in.		
	Longitudinal[a]	Vertical[b]	Lateral[c]
S250/G	45.5	27.6	ND
S787	61.5	19.4	1.7 Left
S280 C/G	84.2	32.0	1.9 Left
Navy ISO Nonexpandable	120.6	28.1	ND
S785 ISO Two-Sided Expandable	120.1	42.5	ND
ISO Container[d]	ND	ND	ND

[a]Measured from the door end of the shelter.
[b]Measured from the ground.
[c]Measured from the longitudinal centerline.
[d]The CG of the ISO Container was not determined as it was part of a system (with the M1022A1 Dolly Set) that was being tested concurrently at APG.

ND = Not determined.

TABLE 2.1-4. CENTER OF GRAVITY OF TEST SHELTERS WITH PRIME MOVERS

Combination	Axis of Measurement, in.		
	Longitudinal[a]	Vertical[b]	Lateral[c]
M923 5-Ton and S280 C/G	[e] 79.3	44.3	0.6 Left
M1097 HMMWV and S250	47.0	38.7	0.4 Left
M1097 HMMWV and S787	47.0	38.7	0.2 Left
M832 Dolly and S280 C/G	123.9	43.9	ND
M1022 Dolly and Navy ISO Nonexpandable	170.3	48.0	1.2 Left
M1022 Dolly and S785 ISO Two-Sided Expandable	168.2	53.2	ND
M1022A1 Dolly[d] and ISO Container	62.0	48.0	0.0

[a]Measured from the rear axle centerline of the prime mover or mobilizer.
[b]Measured from the ground.
[c]Measured from the longitudinal centerline.
[d]An M1022A1 Dolly Set, NSN 2330-01-378-9997, registration No. PL03DN/1210894 S, contract No. DAAE07-93-D-J001, was used in combination with the ISO Container. The weight had purposely been loaded off of the longitudinal centerline.
[e]Measured forward of the trunnion centerline.

ND = Not determined.

(Page 2.1-4 Blank)

2.2 VIBRATION

2.2.1 Objective

The objective of this test was to subject various generic tactical mobile shelters to the Type III mobility requirements of MIL-M-8090F in order to gather vibration data for design and test specifications.

2.2.2 Criterion

None. Data were collected for information only and to establish vibration test schedules.

2.2.3 Test Procedures

This test was conducted on a series of prime movers/mobilizers and shelters as listed in Table 2.2-1. Characteristic photographs are presented in Appendix B, Figures B-1 through B-6.

TABLE 2.2-1. PRIME MOVERS AND SHELTERS

Vehicle	Shelter
M923 5-Ton Cargo Truck	S280C/G
M1097 HHV	S250/G
M1097 HHV	S787
M832 Dolly Set	S280C/G
M1022 Dolly Set	20-foot ISO Nonexpandable
M1022 Dolly Set	20-foot ISO Two-Sided Expandable
M1022 Dolly Set	20-foot ISO Container

Each shelter was loaded to its specified gross weight. Shelters were secured to the respective prime mover with standard tie-down or shelter mounting kits. Dolly set air bags were set and maintained at the recommended (by load) pressure.

Each shelter was instrumented with piezoresistive accelerometers oriented to measure acceleration in the orthogonal axes (vertical, transverse, and longitudinal). Specific measurement locations for each test shelter are illustrated in Appendix B, Figures B-7 through B-18, and transducer specifications are presented in Appendix B, Tables B-1 through B-7. An optical noncontact fifth wheel was used to measure vehicle road speed. A digital indicator from the fifth wheel was provided to the driver, and an analog voltage proportional to road speed was part of the data stream.

An on-board pulse code modulation (PCM) data acquisition system was used to acquire the acceleration and road speed data while each vehicle traversed the test courses. All data channels were low-pass filtered at 500 Hz (50 Hz for road speed) and were digitized sequentially at a rate of 2083.333 samples per second. A 12-bit analog to digital converter was used for all data.

Prior to testing, an electrical calibration was performed on all channels. The channels were calibrated by shunting a calibrated resistor across one arm of the accelerometer bridge, producing a voltage output equivalent to a calculated acceleration based on the shunt resistance value and the transducer sensitivity. The calibration was performed at zero and in both the positive and negative directions. Road speed was calibrated by inserting frequencies which were equivalent to three different road speeds. Prior to operation each day, a linear least squares curve fit was performed on the calibration data to determine system linearity and to provide a quality check on the calibration data. Any channels which demonstrated high noise levels, direct current (DC) offsets, or nonlinearities were corrected before testing began.

Each vehicle was tested at the Munson Test Area (MTA) and the Perryman Test Area (PTA) and traversed each of the test courses at the speeds indicated in Table 2.2-2. Data were recorded for approximately 30 seconds on each course at each speed. The vertical microprofile of each course was measured by the ATC profilometer prior to operation by each combination. Test course descriptions are presented in Appendix F.

TABLE 2.2-2. TEST COURSES AND SPEEDS

Test Course	Vehicle Speed, mph
MTA Gravel	10 and 15
MTA Belgian Block[a]	10 and 15
PTA Paved	45 and 50
PTA Secondary "A"	10 and 15

[a]Considered as three separate courses: south turn, straight section, north turn. Runs were made in the middle of the course and on the left and right sides.

A minimum of five runs at each speed was made on each test course. Various sections of each of the test courses were utilized. At the conclusion of the five maximum speed runs, a coefficient of variation (COV, standard deviation divided by the mean) analysis was performed on the vector rms value for the shelter input channels (taken as a group). If the COV was greater than 0.25, additional data runs (up to a maximum of ten) were made until a value of 0.25 or less was achieved. Details of the data acquisition system and data verification procedures are summarized in Appendixes C and D.

The test speeds and number of runs per test course for most of the schedule development process were as described in Table 2.2-3. Exceptions are listed by vehicle in Table 2.2-4.

TABLE 2.2-3. TEST COURSES, SPEEDS AND NUMBER OF DATA RUNS

Course	Speed, mph	No. of Runs
Munson Gravel	15	5
Perryman Paved	50	5
Secondary "A"	15	5
Belgian Block	15	6

TABLE 2.2-4. EXCEPTIONS TO TEST COURSES, SPEEDS AND NUMBER OF DATA RUNS

Vehicle	Course	Speed, mph	No. of Runs
M923	Secondary "A"	10	5
HMMWV	Munson Gravel	15	7
HMMWV	Belgian Block	15	9
HMMWV	Secondary "A"	15	6
M1097 HHV	Secondary "A"	15	6
M1022 Nonexpandable	Paved	50	6
M1022A1	Belgian Block	15	3
M832	Paved	45	6

2.2.4 Test Findings

For each data run, the time domain instantaneous amplitude levels are summarized by histogramming the data and saving appropriate high-level values in an amplitude distribution table. Amplitude distribution tables from the most severe data run on each shelter combination are presented in Appendix B, Tables B-8 through B-14.

Time domain data are converted to the frequency domain and are saved as PSD functions. Selected functions are then combined as described in paragraph 2.2.5 to form the final specification for each shelter combination. Information relevant to the computation of the PSD functions is presented in Table 2.2-5.

TABLE 2.2-5. POWER SPECTRAL DENSITY FUNCTION COMPUTATION PARAMETERS

Parameter	Value
Sample Rate, Hz	2083.333
Block Size	2048
Frequency Bandwidth, Hz	1.02
Analysis Range, Hz	2 to 500
Windowing	Hanning
Number of Linear Spectral Averages	35
90-Percent Confidence Limit on PSD Estimate, dB	+1.12, -1.31

The test course profiles were summarized in the form of wave number spectra (PSD functions of the spatial history). Sample wave number spectra for each test course are presented in Appendix B, Figures B-19 through B-22.

2.2.5 Technical Analysis

Specifications which represent the Type III mobility dynamic environment were developed for each shelter independently, using a modification of the standard technique that is used at ATC. The development process is described in detail in the paragraphs on the following pages.

When computing PSD functions at the Vibration Test Branch, it is common practice to compute the linear average, the standard deviation, and the peak, all as a function of frequency over the length of a test run. The standard deviation represents the variance in the spectral data, as a function of frequency, at a given location on the vehicle due to randomness of the test process. Although the data are stationary, excursions about the mean occur in both the time and frequency domains. The average, average plus one standard deviation, and peak spectra are saved for each channel for each data run processed. For the Type III mobility project, approximately 35 instantaneous spectra, representing time increments of 0.98 second, were averaged for each run. This process can be shown mathematically as:

$$S_m(f) = 1/N \{\text{SUM}_{i=1}^{N} [S_i(f)]\} \qquad \text{[Equation 1]}$$

where:

$S_m(f)$ = Average PSD value as a function of frequency.
$S_i(f)$ = Instantaneous PSD value.
N = Number of records (approximately 35) per data run.

$$S_d(f) = [1/N \{\text{SUM}_{i=1}^{N} [S_i(f) - S_m(f)]^2\}]^{1/2} \qquad \text{[Equation 2]}$$

where:

$S_d(f)$ = Standard deviation of PSD values as a function of frequency.

$$S_s(f) = S_m(f) + S_d(f) \qquad \text{[Equation 3]}$$

where:

$S_s(f)$ = Average plus one standard deviation PSD value.

$$S_p(f) = \text{MAX}_{i=1}^{N} [S_i(f)] \qquad \text{[Equation 4]}$$

where:

$S_p(f)$ = Peak PSD value.

Data from the input locations (four on the trucks, eight on the dolly sets) were used to make a vehicle unique composite spectrum for each axis representing operation over four test courses.

The data from all the locations and all the test runs listed were combined (by axis) using three different techniques to produce representative composite spectra. The first technique was a simple linear average of all average spectra (all channels, all runs) to produce an overall average spectra. If the mean and the median of the distribution are the same, this represents approximately the 50th percentile of the spectral data. The second technique was the "standard" Vibration Test Branch conservative schedule development process, in which the average plus one standard deviation spectra from each channel and each run (from Equation 3) are combined by using the average of these spectra with the addition of one standard deviation. The standard deviation computed during this process represents the spectral variance due to location and test course differences, and is not the same as that computed by Equation 2. Mathematically, this is shown as:

$$S_a(f) = 1/N \{\sum_{i=1}^{M} [S_s(f)]\} \qquad \text{[Equation 5]}$$

where:

$S_a(f)$ = Average PSD value as a function of frequency.
$S_s(f)$ = Average plus standard deviation PSD values (from Equation 3).
M = Number of records (data runs and locations).

$$S_e(f) = [1/N \{\sum_{i=1}^{M} [S_s(f) - S_a(f)]^2\}]^{1/2} \qquad \text{[Equation 6]}$$

where:

$S_e(f)$ = Standard deviation of PSD values due to variations in test courses and instrumentation locations as a function of frequency.

$$S_f(f) = S_a(f) + S_e(f) \qquad \text{[Equation 7]}$$

where:

$S_f(f)$ = Average plus one standard deviation PSD value (final schedule levels based on "standard" technique).

The last technique (shown by Equation 4) produced a spectrum which represents the 100th percentile of the spectral data and which resulted from enveloping all of the individual (channel and run) peak spectra.

It is desirable for a vibration schedule to be a conservative estimate of the true environment, within some credible bounds. Merely enveloping the peak spectra provides conservatism but results in an overtest since the test rms level is generally much greater than the highest individual level measured. Using the "standard" technique applies some conservatism but yields realistic rms values. This procedure was used to compute the original estimate for each vehicle in each axis; however, it can produce a final spectrum which is not sufficiently conservative if the value of M (Equation 6) is large, as it was in this case. To ensure that the final spectral estimate is at least as large as the actual measured data, this spectrum was then adjusted (amplified or attenuated) so that its rms value was the same as the largest rms value measured at any location during any data run. The adjustment values for the input locations are presented in Table 2.2-6. Note that these values are applied to the PSD values directly (multipliers) and affect the rms value as the square root of the adjustment values. The shelter input specifications are presented in Appendix B, Tables B-15 through B-38 and are shown graphically in Appendix B, Figures B-23 through B-46.

TABLE 2.2-6. SHELTER INPUT SPECIFICATION ADJUSTMENT VALUES

Vehicle	Axis		
	Vertical	Transverse	Longitudinal
M923/S280	1.63	1.27	0.98
HMMWV/S250	0.59	0.87	0.83
M1097 HHV/M787	1.11	0.84	0.48
M1022/Expandable	1.01	1.09	0.54
M1022/Nonexpandable	1.00	2.37	0.69
M1022A1/Generic	1.69	2.60	1.26
M832/S280	1.02	0.72	0.89

A similar technique was used to describe the floor and wall environment of the individual shelters and to develop a master spectrum (all shelter combinations) for the floor and wall environments. Floor data were not available for M1022A1/Generic shelter combination, and wall data were unavailable for all dolly set configurations. The locations used to develop the spectra for each shelter are presented in Tables 2.2-7 and 2.2-8, and the schedule adjustment values are presented in Tables 2.2-9 and 2.2-10. Floor and wall specifications are presented in Appendix B, Tables B-39 through B-71 and are shown graphically in Appendix B, Figures B-47 through B-79.

TABLE 2.2-7. SHELTER FLOOR SPECIFICATION MEASUREMENT LOCATIONS

Vehicle	Locations
M923/S280	Curbside aft floor Roadside mid floor Curbside forward floor
HMMWV/S250	Aft floor Mid floor Forward floor
M1097 HHV/M787	Curbside floor Forward floor Roadside floor Forward rack base Generator compartment floor
M1022/Expandable	Forward floor Aft floor
M1022/Nonexpandable	Forward floor Aft floor
M832/S280	Forward floor Aft floor

TABLE 2.2-8. SHELTER WALL SPECIFICATION MEASUREMENT LOCATIONS

Vehicle	Locations
M923/S280	Forward wall Roadside wall Curbside wall
HMMWV/S250	Forward wall Roadside wall Curbside wall
M1097 HHV/M787	Roadside wall Curbside wall

TABLE 2.2-9. SHELTER FLOOR SPECIFICATION ADJUSTMENT VALUES

Vehicle	Axis		
	Vertical	Transverse	Longitudinal
M923/S280	1.22	1.14	0.88
HMMWV/S250	0.92	1.25	0.48
M1097 HHV/M787	1.82	2.15	0.77
M1022/Expandable	0.92	1.33	0.87
M1022/Nonexpandable	0.92	1.62	0.33
M832/S280	0.83	0.69	0.94

TABLE 2.2-10. SHELTER WALL SPECIFICATION ADJUSTMENT VALUES

Vehicle	Axis		
	Vertical	Transverse	Longitudinal
M923/S280	1.45	1.10	1.11
HMMWV/S250	1.44	1.61	0.56
M1097 HHV/M787	1.64	1.81	0.70

Master input, floor, and wall specifications were developed by enveloping the applicable (input, floor, or wall) "standard" master spectra for all shelters. The final schedule was then adjusted (as described previously) so that the master specification rms value matched that of the largest field measured rms value for the appropriate location. Master specifications are presented in Appendix B, Tables B-36 through B-38 (input), Tables B-57 through B-59 (floor), and Tables B-69 through B-71 (walls) and are shown graphically in Appendix B, Figures B-44 through B-46 (input), Figures B-65 through B-67 (floor), and Figures B-77 through B-79 (walls). The schedule adjustment values are presented in Table 2.2-11.

TABLE 2.2-11. MASTER SPECIFICATION ADJUSTMENT VALUES

Vehicle	Axis		
	Vertical	Transverse	Longitudinal
Master Input	1.00	1.00	1.00
Master Floor	0.63	0.69	0.30
Master Walls	1.23	0.96	0.70

The schedules developed represent the vibration environment at the input, walls, and floor of the shelter when driven over terrain (or at speeds) which produces a less severe environment than that represented in MIL-STD-810D/E. The severity of the schedules is controlled by operation on the Belgian Block Course and is a somewhat conservative estimate of that environment (i.e., the schedule rms matches the largest rms measured on each vehicle/shelter series). The schedule PSD levels have been modified for the purpose of matching measured rms values but have not been time compressed. No attempt has been made to match the data to a specific scenario or develop a test time, but that can be easily accomplished with the existing data.

No attempt was made to configure the shelter interiors to represent a typical application (racks with electronic equipment). Therefore, the wall and floor specifications are not representative of any particular application and may vary from actual user conditions, depending upon the structural effects imparted by equipment installation. The use of a conservative approach to the specification development should provide the materiel developer with a reasonable estimate of the shelter interior environment.

SECTION 3. APPENDIXES

APPENDIX A. TEST CRITERIA

Not used.

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APPENDIX B. TEST DATA

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TABLE B-1. TRANSDUCER LOCATIONS AND SPECIFICATIONS S250 SHELTER ON M1037 HMMWV

CHANNEL	DESCRIPTION	AXIS	MANUFACTURER	MODEL	SERIAL NO.	DUE FOR CAL	FREQUENCY RANGE (HZ)	(+/- G's) RANGE	(+/- G's) RESOLUTION
1	CS FWD CORNER	VERT	ENDEVCO	2262C-25	A15J	17MAR95	0 - 500	17.5	0.0086
2	"	TRAN	"	"	A26G	17MAR95	"	16.8	0.0082
3	"	LONG	"	"	A41A	31JUL95	"	18.5	0.0090
4	CS AFT CORNER	VERT	"	"	A42A	23FEB95	"	18.0	0.0088
5	"	TRAN	"	"	A43P	31JUL95	"	18.6	0.0091
6	"	LONG	"	"	A46A	30APR95	"	18.2	0.0089
7	RS FWD CORNER	VERT	"	"	A46D	16MAR95	"	17.9	0.0087
8	"	TRAN	"	"	A59P	31JUL95	"	18.4	0.0090
9	"	LONG	"	"	A60P	30JUL95	"	17.1	0.0083
10	RS AFT CORNER	VERT	"	"	A63F	30APR95	"	20.4	0.0100
11	"	TRAN	"	"	A64F	17MAR95	"	20.7	0.0101
12	"	LONG	"	"	A68F	30JUL95	"	18.7	0.0091
13	CS AFT FLOOR	VERT	"	"	A68G	17MAR95	"	18.3	0.0089
14	"	TRAN	"	"	A70L	04MAY95	"	17.2	0.0084
15	"	LONG	"	"	A71F	17MAR95	"	19.4	0.0095
16	RS MID FLOOR	VERT	"	"	A75F	04MAY95	"	16.6	0.0081
17	"	TRAN	"	"	A81D	30-Apr-95	"	18.9	0.0092
18	"	LONG	"	"	A82L	04MAY95	"	16.1	0.0079
19	CS FWD FLOOR	VERT	"	"	A86C	30JUL95	"	15.9	0.0078
20	"	TRAN	"	"	A86D	30APR95	"	19.0	0.0093
21	"	LONG	"	"	A89F	16MAR95	"	20.0	0.0098
22	FWD WALL	VERT	"	"	A94D	17MAR95	"	19.8	0.0097
23	"	TRAN	"	"	A94F	16MAR95	"	17.9	0.0087
24	"	LONG	"	"	A99D	12MAY95	"	21.1	0.0103
25	RS SIDE WALL	VERT	"	"	BL30	13-Apr-95	"	17.8	0.0087
26	"	TRAN	"	"	CC96	3-Aug-95	"	17.0	0.0083
27	"	LONG	"	"	CE25	3-Aug-95	"	16.2	0.0079
28	CS SIDE WALL	VERT	"	"	CE79	11-Jun-95	"	15.3	0.0075
29	"	TRAN	"	"	CW98	30-Apr-95	"	20.0	0.0098
30	"	LONG	"	"	NP85	3-Aug-95	"	16.1	0.0079
31	ROAD SPEED	-	DATRON	-	-	-	0 - 50	64.8	0.0176

NOTES: UNITS FOR RANGE AND RESOLUTION (CHANNEL 31) ARE MPH.
DATA FROM INDIVIDUAL CAL; CALIBRATION WAS PERFORMED DAILY.

TABLE B-2. TRANSDUCER LOCATIONS AND SPECIFICATIONS S280 SHELTER ON M923A2 5-TON TRUCK

CHANNEL	DESCRIPTION	AXIS	MANUFACTURER	MODEL	SERIAL NO.	DUE FOR CAL	FREQUENCY RANGE (HZ)	(+/- G's) RANGE	(+/- G's) RESOLUTION
1	CS FWD CORNER	VERT	ENDEVCO	2262C-25	A15J	17MAR95	0 - 500	18.0	0.0088
2	"	TRAN	"	"	A26G	17MAR95	"	17.3	0.0084
3	"	LONG	"	"	A41A	31JUL95	"	18.9	0.0092
4	CS AFT CORNER	VERT	"	"	A42A	23FEB95	"	18.2	0.0089
5	"	TRAN	"	"	A43P	31JUL95	"	19.0	0.0093
6	"	LONG	"	"	A46A	30APR95	"	18.4	0.0090
7	RS FWD CORNER	VERT	"	"	A46D	16MAR95	"	17.9	0.0088
8	"	TRAN	"	"	A59P	31JUL95	"	18.5	0.0090
9	"	LONG	"	"	A60P	30JUL95	"	17.1	0.0084
10	RS AFT CORNER	VERT	"	"	A63F	30APR95	"	20.4	0.0100
11	"	TRAN	"	"	A64F	17MAR95	"	20.7	0.0101
12	"	LONG	"	"	A68F	30JUL95	"	18.7	0.0091
13	CS AFT FLOOR	VERT	"	"	A68G	17MAR95	"	18.4	0.0090
14	"	TRAN	"	"	A70L	04MAY95	"	17.4	0.0085
15	"	LONG	"	"	A71F	17MAR95	"	19.5	0.0095
16	RS MID FLOOR	VERT	"	"	A75F	04MAY95	"	16.7	0.0082
17	"	TRAN	"	"	A52D	23FEB95	"	19.1	0.0093
18	"	LONG	"	"	A82L	04MAY95	"	16.3	0.0080
19	CS FWD FLOOR	VERT	"	"	A86C	30JUL95	"	16.1	0.0079
20	"	TRAN	"	"	A86D	30APR95	"	18.1	0.0088
21	"	LONG	"	"	A89F	16MAR95	"	21.6	0.0105
22	FWD WALL	VERT	"	"	A94D	17MAR95	"	20.0	0.0098
23	"	TRAN	"	"	A94F	16MAR95	"	18.0	0.0088
24	"	LONG	"	"	A99D	12MAY95	"	21.3	0.0104
25	RS SIDE WALL	VERT	"	"	BL30	13-Apr-95	"	17.8	0.0087
26	"	TRAN	"	"	CC96	3-Aug-95	"	17.0	0.0083
27	"	LONG	"	"	CE25	3-Aug-95	"	16.2	0.0079
28	CS SIDE WALL	VERT	"	"	CE79	11-Jun-95	"	16.0	0.0078
29	"	TRAN	"	"	CW98	30-Apr-95	"	21.1	0.0103
30	"	LONG	"	"	NP85	3-Aug-95	"	16.9	0.0082
31	ROAD SPEED	-	DATRON	-	-	-	0 - 50	65.4	0.0177

NOTES: UNITS FOR RANGE AND RESOLUTION (CHANNEL 31) ARE MPH.
DATA FROM INDIVIDUAL CAL; CALIBRATION WAS PERFORMED DAILY.

TABLE B-3. TRANSDUCER LOCATIONS AND SPECIFICATIONS 20-FOOT EXPANDABLE SHELTER ON M1022 DOLLY SET

CHANNEL	DESCRIPTION	AXIS	MANUFACTURER	MODEL	SERIAL NO.	DUE FOR CAL	FREQUENCY RANGE (HZ)	(+/- G's) RANGE	(+/- G's) RESOLUTION
1	CS FWD TOP CORNER	VERT	ENDEVCO	2262C-25	A15J	17MAR95	0 - 500	18.4	0.0090
2	"	TRAN	"	"	A26G	17MAR95	"	17.6	0.0086
3	"	LONG	"	"	A41A	31JUL95	"	19.4	0.0095
4	CS AFT TOP CORNER	VERT	"	"	A42A	23FEB95	"	18.4	0.0090
5	"	TRAN	"	"	A43P	31JUL95	"	19.2	0.0094
6	"	LONG	"	"	A46A	30APR95	"	18.6	0.0091
7	RS AFT TOP CORNER	VERT	"	"	A46D	16MAR95	"	18.4	0.0090
8	"	TRAN	"	"	A59P	31JUL95	"	19.0	0.0093
9	"	LONG	"	"	A60P	30JUL95	"	17.7	0.0086
10	RS FWD TOP CORNER	VERT	"	"	A63F	30APR95	"	21.5	0.0105
11	"	TRAN	"	"	A64F	17MAR95	"	21.8	0.0107
12	"	LONG	"	"	A68F	30JUL95	"	19.7	0.0096
13	RS FWD BOTTOM CONNER	VERT	"	"	A68G	17MAR95	"	19.3	0.0094
14	"	TRAN	"	"	A70L	04MAY95	"	18.4	0.0090
15	"	LONG	"	"	A71F	17MAR95	"	20.5	0.0100
16	RS AFT BOTTOM CORNER	VERT	"	"	A75F	04MAY95	"	17.4	0.0085
17	"	TRAN	"	"	A52D	23FEB95	"	20.0	0.0098
18	"	LONG	"	"	A82L	04MAY95	"	17.2	0.0084
19	CS AFT BOTTOM CORNER	VERT	"	"	A86C	30JUL95	"	16.4	0.0080
20	"	TRAN	"	"	A86D	30APR95	"	19.6	0.0096
21	"	LONG	"	"	A89F	16MAR95	"	20.5	0.0100
22	CS FWD BOTTOM CORNER	VERT	"	"	A94D	17MAR95	"	20.5	0.0100
23	"	TRAN	"	"	A94F	16MAR95	"	18.4	0.0090
24	"	LONG	"	"	A99D	12MAY95	"	21.9	0.0107
25	FWD FLOOR	VERT	"	"	BL30	13-Apr-95	"	18.8	0.0092
26	"	TRAN	"	"	CC96	3-Aug-95	"	17.9	0.0087
27	"	LONG	"	"	CE25	3-Aug-95	"	17.2	0.0084
28	AFT FLOOR	VERT	"	"	CE79	11-Jun-95	"	16.9	0.0083
29	"	TRAN	"	"	CW98	30-Apr-95	"	22.3	0.0109
30	"	LONG	"	"	NP85	3-Aug-95	"	17.8	0.0087
31	ROAD SPEED	-	DATRON	-	-	-	0 - 50	65.5	0.0179

NOTES: UNITS FOR RANGE AND RESOLUTION (CHANNEL 31) ARE MPH.
DATA FROM INDIVIDUAL CAL; CALIBRATION WAS PERFORMED DAILY.

TABLE B-4. TRANSDUCER LOCATIONS AND SPECIFICATIONS 20-FOOT GENERIC SHELTER ON M1022A1 DOLLY SET

CHANNEL	DESCRIPTION	AXIS	MANUFACTURER	MODEL	SERIAL NO.	DUE FOR CAL	FREQUENCY RANGE (HZ)	(+/- G's) RANGE	(+/- G's) RESOLUTION
1	CS FWD TOP CORNER	VERT	ENDEVCO	2262C-25	A15J	17MAR95	0 - 500	10.2	0.0050
2	"	TRAN	"	"	A26G	17MAR95	"	9.9	0.0048
3	"	LONG	"	"	A41A	31JUL95	"	9.2	0.0045
4	CS AFT TOP CORNER	VERT	"	"	A42A	23FEB95	"	10.1	0.0049
5	"	TRAN	"	"	A43P	31JUL95	"	10.3	0.0050
6	"	LONG	"	"	A46A	3OAPR95	"	9.0	0.0044
7	RS AFT TOP CORNER	VERT	"	"	A46D	16MAR95	"	10.3	0.0050
8	"	TRAN	"	"	A59P	31JUL95	"	10.1	0.0049
9	"	LONG	"	"	A60P	30JUL95	"	9.8	0.0048
10	RS FWD TOP CORNER	VERT	"	"	A63F	30APR95	"	9.3	0.0046
11	"	TRAN	"	"	A64F	17MAR95	"	9.5	0.0046
12	"	LONG	"	"	A68F	30JUL95	"	8.6	0.0042
13	RS FWD BOTTOM CORNER	VERT	"	"	A68G	17MAR95	"	10.4	0.0051
14	"	TRAN	"	"	A70L	04MAY95	"	10.2	0.0050
15	"	LONG	"	"	A71F	17MAR95	"	9.2	0.0045
16	RS AFT BOTTOM CORNER	VERT	"	"	A75F	04MAY95	"	9.9	0.0049
17	"	TRAN	"	"	A52D	23FEB95	"	10.2	0.0050
18	"	LONG	"	"	A82L	04MAY95	"	9.6	0.0047
19	CS AFT BOTTOM CORNER	VERT	"	"	A86C	30JUL95	"	11.6	0.0057
20	"	TRAN	"	"	A86D	30APR95	"	9.1	0.0044
21	"	LONG	"	"	A89F	16MAR95	"	9.6	0.0047
22	CS FWD BOTTOM CORNER	VERT	"	"	A94D	17MAR95	"	11.4	0.0056
23	"	TRAN	"	"	A94F	16MAR95	"	9.2	0.0045
24	"	LONG	"	"	A99D	12MAY95	"	10.0	0.0049
25	ROAD SPEED	-	DATRON	-	-	-	0 - 50	65.2	0.0177

UNITS FOR RANGE AND RESOLUTION (CHANNEL 25) ARE MPH.

DATA FROM ONE INDIVIDUAL CALIBRATION; CALIBRATION WAS PERFORMED DAILY.

TABLE B-5. TRANSDUCER LOCATIONS AND SPECIFICATIONS 20-FOOT NONEXPANDABLE SHELTER ON M1022 DOLLY SET

CHANNEL	DESCRIPTION	AXIS	MANUFACTURER	MODEL	SERIAL NO.	DUE FOR CAL	FREQUENCY RANGE (HZ)	(+/- G's) RANGE	(+/- G's) RESOLUTION
1	CS FWD TOP CORNER	VERT	ENDEVCO	2262C-25	A15J	17MAR95	0 - 500	11.4	0.0056
2	"	TRAN	"	"	A26G	17MAR95	"	11.0	0.0054
3	"	LONG	"	"	A41A	31JUL95	"	10.3	0.0050
4	CS AFT TOP CORNER	VERT	"	"	A42A	23FEB95	"	11.0	0.0054
5	"	TRAN	"	"	A43P	31JUL95	"	11.5	0.0056
6	"	LONG	"	"	A46A	3OAPR95	"	10.0	0.0049
7	RS AFT TOP CORNER	VERT	"	"	A46D	16MAR95	"	11.3	0.0055
8	"	TRAN	"	"	A59P	31JUL95	"	11.2	0.0055
9	"	LONG	"	"	A60P	30JUL95	"	10.8	0.0053
10	RS FWD TOP CORNER	VERT	"	"	A63F	30APR95	"	10.3	0.0050
11	"	TRAN	"	"	A64F	17MAR95	"	10.4	0.0051
12	"	LONG	"	"	A68F	30JUL95	"	9.4	0.0046
13	RS FWD BOTTOM CORNER	VERT	"	"	A68G	17MAR95	"	11.2	0.0055
14	"	TRAN	"	"	A70L	04MAY95	"	11.1	0.0054
15	"	LONG	"	"	A71F	17MAR95	"	9.9	0.0048
16	RS AFT BOTTOM CORNER	VERT	"	"	A75F	04MAY95	"	10.6	0.0052
17	"	TRAN	"	"	A52D	23FEB95	"	9.6	0.0047
18	"	LONG	"	"	A82L	04MAY95	"	10.3	0.0050
19	CS AFT BOTTOM CORNER	VERT	"	"	A86C	30JUL95	"	9.9	0.0048
20	"	TRAN	"	"	A86D	30APR95	"	9.7	0.0048
21	"	LONG	"	"	A89F	16MAR95	"	10.2	0.0050
22	CS FWD BOTTOM CORNER	VERT	"	"	A94D	17MAR95	"	10.3	0.0050
23	"	TRAN	"	"	A94F	16MAR95	"	9.9	0.0048
24	"	LONG	"	"	A99D	12MAY95	"	10.9	0.0053
25	FWD FLOOR	VERT	"	"	BL30	13-Apr-95	"	10.9	0.0053
26	"	TRAN	"	"	CC96	3-Aug-95	"	10.2	0.0050
27	"	LONG	"	"	CE25	3-Aug-95	"	10.0	0.0049
28	AFT FLOOR	VERT	"	"	CE79	11-Jun-95	"	9.8	0.0048
29	"	TRAN	"	"	CW98	30-Apr-95	"	10.8	0.0053
30	"	LONG	"	"	NP85	3-Aug-95	"	10.3	0.0051
31	ROAD SPEED	-	DATRON	-	-	-	0 - 50	65.2	0.0177

NOTES: UNITS FOR RANGE AND RESOLUTION (CHANNEL 31) ARE MPH.
DATA FROM INDIVIDUAL CAL; CALIBRATION WAS PERFORMED DAILY.

TABLE B-6. TRANSDUCER LOCATIONS AND SPECIFICATIONS S280 SHELTER ON M832 DOLLY SET

CHANNEL	DESCRIPTION	AXIS	MANUFACTURER	MODEL	SERIAL NO.	DUE FOR CAL	FREQUENCY RANGE (HZ)	(+/- G's) RANGE	(+/- G's) RESOLUTION
1	CS FWD TOP BRKT	VERT	ENDEVCO	2262C-25	A15J	17-Mar-95	0 - 500	9.9	0.0049
2	"	TRAN	"	"	A26G	17-Mar-95	"	9.8	0.0048
3	"	LONG	"	"	A41A	31-Jul-95	"	9.1	0.0044
4	CS AFT TOP BRKT	VERT	"	"	A25A	4-May-95	"	9.7	0.0048
5	"	TRAN	"	"	A43P	31-Jul-95	"	9.5	0.0046
6	"	LONG	"	"	A46A	30-Apr-95	"	9.0	0.0044
7	RS AFT TOP BRKT	VERT	"	"	A46D	16-Mar-95	"	10.5	0.0052
8	"	TRAN	"	"	A82F	4-May-95	"	9.4	0.0046
9	"	LONG	"	"	CE60	11-Jun-95	"	10.7	0.0052
10	RS FWD TOP BRKT	VERT	"	"	A63F	30-Apr-95	"	9.6	0.0047
11	"	TRAN	"	"	A64F	17-Mar-95	"	9.8	0.0048
12	"	LONG	"	"	A68F	30-Jul-95	"	8.8	0.0043
13	RS FWD BOT BRKT	VERT	"	"	A68G	17-Mar-95	"	10.5	0.0051
14	"	TRAN	"	"	A70L	4-May-95	"	10.3	0.0051
15	"	LONG	"	"	A71F	17-Mar-95	"	18.5	0.0090
16	RS AFT BOT BRKT	VERT	"	"	A75F	4-May-95	"	9.9	0.0048
17	"	TRAN	"	"	NJ94	4-May-95	"	8.9	0.0044
18	"	LONG	"	"	A82L	4-May-95	"	19.2	0.0094
19	CS AFT BOT BRKT	VERT	"	"	A86C	30-Jul-95	"	9.2	0.0045
20	"	TRAN	"	"	A86D	30-Apr-95	"	9.0	0.0044
21	"	LONG	"	"	A89F	16-Mar-95	"	19.0	0.0093
22	CS FWD BOT BRKT	VERT	"	"	A94D	17-Mar-95	"	9.4	0.0046
23	"	TRAN	"	"	A94F	16-Mar-95	"	9.1	0.0044
24	"	LONG	"	"	CE37	10-Dec-95	"	16.6	0.0081
25	FWD FLOOR	VERT	"	"	BL30	13-Apr-95	"	10.2	0.0050
26	"	TRAN	"	"	CC96	3-Aug-95	"	9.7	0.0048
27	"	LONG	"	"	CE25	3-Aug-95	"	9.3	0.0045
28	AFT FLOOR	VERT	"	"	CE79	11-Jun-95	"	9.1	0.0045
29	"	TRAN	"	"	CW98	30-Apr-95	"	9.9	0.0048
30	"	LONG	"	"	NP85	3-Aug-95	"	9.5	0.0047
31	ROAD SPEED	-	DATRON	-	-	-	0 - 50	65.1	0.0177

NOTES: UNITS FOR RANGE AND RESOLUTION (CHANNEL 31) ARE MPH.
DATA FROM INDIVIDUAL CAL; CALIBRATION WAS PERFORMED DAILY.

TABLE B-7. TRANSDUCER LOCATIONS AND SPECIFICATIONS SICPS SHELTER ON M1097 HEAVY HMMWV

CHANNEL	DESCRIPTION	AXIS	MANUFACTURER	MODEL	SERIAL NO.	DUE FOR CAL	FREQUENCY RANGE (HZ)	(+/- G's) RANGE	(+/- G's) RESOLUTION
1	CS FLOOR	VERT	ENDEVCO	2262C-25	CE35	3-Aug-95	0 - 500	9.7	0.0048
2	"	TRAN	"	"	A51F	21-Mar-96	"	11.0	0.0054
3	"	LONG	"	"	A41A	31-Jul-95	"	9.8	0.0048
4	FWD FLOOR	VERT	"	"	A25A	4-May-95	"	10.0	0.0049
5	"	TRAN	"	"	A43P	31-Jul-95	"	9.7	0.0047
6	"	LONG	"	"	CE94	11-Aug-95	"	8.8	0.0043
7	RS FLOOR	VERT	"	"	CY71	17-Jun-95	"	8.9	0.0044
8	"	TRAN	"	"	A82F	4-May-95	"	9.6	0.0047
9	"	LONG	"	"	CN93	3-Aug-95	"	11.2	0.0055
10	RS WALL	VERT	"	"	CW93	11-Aug-95	"	9.1	0.0045
11	"	TRAN	"	"	NN62	3-Aug-95	"	9.3	0.0046
12	"	LONG	"	"	A68F	30-Jul-95	"	8.4	0.0041
13	FWD RACK BASE	VERT	"	"	LA73	4-Aug-95	"	9.5	0.0046
14	"	TRAN	"	"	A70L	4-May-95	"	9.5	0.0047
15	"	LONG	"	"	CB32	30-Sep-95	"	8.2	0.0040
16	CS WALL	VERT	"	"	A75F	4-May-95	"	9.4	0.0046
17	"	TRAN	"	"	NJ94	4-May-95	"	8.4	0.0041
18	"	LONG	"	"	A82L	4-May-95	"	9.1	0.0044
19	CS FWD MOUNT	VERT	"	"	A86C	30-Jul-95	"	9.0	0.0044
20	"	TRAN	"	"	TY86	3-Aug-95	"	8.2	0.0040
21	"	LONG	"	"	A62D	21-Mar-96	"	9.6	0.0047
22	GEN COMP FLOOR	VERT	"	"	A33A	4-May-95	"	9.2	0.0045
23	"	TRAN	"	"	A01E	21-Mar-96	"	7.7	0.0038
24	"	LONG	"	"	CE37	10-Dec-95	"	8.0	0.0039
25	CS AFT CORNER	VERT	"	"	CM27	15-May-95	"	8.9	0.0044
26	"	TRAN	"	"	CC96	3-Aug-95	"	9.6	0.0047
27	"	LONG	"	"	CE25	3-Aug-95	"	9.1	0.0044
28	RS AFT CORNER	VERT	"	"	CE79	11-Jun-95	"	9.1	0.0044
29	"	TRAN	"	"	A67F	21-Mar-96	"	8.7	0.0042
30	"	LONG	"	"	NP85	3-Aug-95	"	9.5	0.0047
31	RS AFT HMMWV	VERT	"	"	A83F	21-Mar-96		9.8	0.0048
32	ROAD SPEED	-	DATRON	-	-	-	0 - 50	65.1	0.0177

NOTES: UNITS FOR RANGE AND RESOLUTION (CHANNEL 31) ARE MPH.
DATA FROM INDIVIDUAL CAL; CALIBRATION WAS PERFORMED DAILY.

TABLE B-8. AMPLITUDE DISTRIBUTION

May 28 08:49 1996 run028.amd Page 1

Thu Oct 27 09:32:29 1994

AMPLITUDE DISTRIBUTION PROGRAM (AMDST)
REV P 21JUN94

Type III Mobility (hmmwv)
RUN 28 HMMWV/S250 Bel Blk @ 15 mph left

DESCRIPTION	RMS	+PEAK	-PEAK	+99.9%	-99.9%	+99%	-99%	+90%	-90%
V CS FWD CORNER	0.23	0.86	-1.00	0.72	-0.72	0.58	-0.58	0.31	-0.31
T CS FWD CORNER	0.13	0.66	-0.46	0.46	-0.40	0.26	-0.33	0.13	-0.20
L CS FWD CORNER	0.11	0.49	-0.81	0.42	-0.45	0.28	-0.30	0.13	-0.16
V CS AFT CORNER	0.29	1.18	-1.33	0.97	-1.05	0.70	-0.70	0.35	-0.35
T CS AFT CORNER	0.19	0.97	-0.77	0.61	-0.62	0.46	-0.48	0.25	-0.26
L CS AFT CORNER	0.09	0.46	-0.67	0.32	-0.39	0.25	-0.25	0.11	-0.10
V RS FWD CORNER	0.20	0.88	-0.83	0.68	-0.62	0.54	-0.49	0.27	-0.28
T RS FWD CORNER	0.13	0.68	-0.51	0.47	-0.44	0.33	-0.30	0.12	-0.16
L RS FWD CORNER	0.08	0.40	-0.38	0.27	-0.32	0.20	-0.25	0.07	-0.12
V RS AFT CORNER	0.25	0.99	-1.52	0.83	-1.05	0.68	-0.66	0.28	-0.27
T RS AFT CORNER	0.17	0.83	-0.77	0.59	-0.61	0.43	-0.45	0.19	-0.21
L RS AFT CORNER	0.08	0.37	-0.43	0.29	-0.28	0.22	-0.21	0.08	-0.07
V AFT FLOOR	0.25	1.20	-1.55	0.92	-0.98	0.63	-0.63	0.28	-0.28
T AFT FLOOR	0.16	0.77	-0.63	0.50	-0.56	0.37	-0.43	0.17	-0.23
L AFT FLOOR	0.08	0.68	-0.81	0.38	-0.44	0.23	-0.21	0.08	-0.07
V MID FLOOR	0.18	0.71	-0.75	0.65	-0.63	0.46	-0.43	0.20	-0.24
T MID FLOOR	0.11	0.35	-0.44	0.28	-0.37	0.21	-0.23	0.14	-0.15
L MID FLOOR	0.06	0.40	-0.35	0.21	-0.29	0.15	-0.16	0.09	-0.10
V FWD FLOOR	0.18	0.87	-0.78	0.63	-0.59	0.45	-0.47	0.20	-0.23
T FWD FLOOR	0.13	0.67	-0.50	0.45	-0.42	0.31	-0.28	0.16	-0.13
L FWD FLOOR	0.06	0.40	-0.44	0.25	-0.29	0.17	-0.14	0.09	-0.06
V FWD WALL	0.19	0.83	-0.84	0.60	-0.61	0.45	-0.46	0.22	-0.23
T FWD WALL	0.23	0.93	-0.86	0.79	-0.65	0.52	-0.51	0.31	-0.31
L FWD WALL	0.24	1.29	-1.38	0.88	-0.98	0.56	-0.65	0.32	-0.33
V RS SIDE WALL	0.21	0.86	-0.80	0.72	-0.67	0.51	-0.53	0.23	-0.25
T RS SIDE WALL	0.26	0.91	-0.87	0.71	-0.67	0.58	-0.61	0.32	-0.34
L RS SIDE WALL	0.19	0.81	-1.27	0.68	-0.70	0.43	-0.51	0.24	-0.26
V CS SIDE WALL	0.28	1.06	-1.12	0.93	-0.94	0.68	-0.62	0.37	-0.37
T CS SIDE WALL	0.26	0.96	-1.01	0.79	-0.77	0.55	-0.60	0.30	-0.36
L CS SIDE WALL	0.19	0.98	-1.12	0.72	-0.85	0.46	-0.46	0.26	-0.20

	MEAN	STD DEV	MAX	MIN	+90%	-90%
VEHICLE SPEED	14.86	0.45	16.14	13.60	15.39	14.16

Tracks analyzed: 1 to 500

TABLE B-9. AMPLITUDE DISTRIBUTION

May 28 08:56 1996 run074.amd Page 1

Tue Nov 15 14:35:45 1994

AMPLITUDE DISTRIBUTION PROGRAM (AMDST)
REV R 07NOV94

Type III Mobility Study
RUN 74: M923/S280, Bel Block @ 15 mph (CCW, Left)

DESCRIPTION	RMS	+PEAK	-PEAK	+99.9%	-99.9%	+99%	-99%	+90%	-90%
(V) CS FWD CORNER	0.42	1.62	-1.43	1.28	-1.23	1.02	-0.99	0.54	-0.53
(T) CS FWD CORNER	0.26	1.50	-1.16	0.89	-0.90	0.64	-0.65	0.33	-0.32
(L) CS FWD CORNER	0.18	0.87	-0.94	0.62	-0.62	0.44	-0.44	0.22	-0.23
(V) CS AFT CORNER	0.49	2.34	-1.78	1.82	-1.56	1.29	-1.24	0.60	-0.60
(T) CS AFT CORNER	0.31	1.24	-1.42	1.04	-1.10	0.75	-0.77	0.39	-0.39
(L) CS AFT CORNER	0.18	0.79	-0.87	0.63	-0.57	0.43	-0.41	0.22	-0.22
(V) RS FWD CORNER	0.43	1.71	-1.58	1.47	-1.23	1.05	-0.99	0.55	-0.55
(T) RS FWD CORNER	0.26	1.54	-1.19	0.93	-0.91	0.66	-0.66	0.33	-0.33
(L) RS FWD CORNER	0.17	0.71	-0.70	0.55	-0.55	0.41	-0.40	0.21	-0.21
(V) RS AFT CORNER	0.57	2.47	-2.04	2.06	-1.86	1.51	-1.40	0.71	-0.69
(T) RS AFT CORNER	0.29	1.22	-1.32	1.00	-1.00	0.70	-0.71	0.36	-0.37
(L) RS AFT CORNER	0.18	0.78	-0.71	0.60	-0.58	0.44	-0.44	0.22	-0.23
(V) CS AFT FLOOR	0.46	3.08	-1.79	1.89	-1.51	1.24	-1.14	0.57	-0.57
(T) CS AFT FLOOR	0.25	1.06	-1.32	0.86	-0.86	0.61	-0.61	0.31	-0.31
(L) CS AFT FLOOR	0.13	0.68	-0.59	0.45	-0.42	0.32	-0.31	0.18	-0.16
(V) RS MID FLOOR	0.37	2.46	-1.56	1.47	-1.19	1.00	-0.88	0.46	-0.45
(T) RS MID FLOOR	0.20	1.71	-0.95	0.77	-0.68	0.50	-0.50	0.24	-0.25
(L) RS MID FLOOR	0.13	0.63	-0.58	0.44	-0.41	0.32	-0.31	0.16	-0.17
(V) CS FWD FLOOR	0.37	1.57	-1.23	1.16	-1.08	0.90	-0.88	0.47	-0.48
(T) CS FWD FLOOR	0.23	1.33	-1.02	0.80	-0.80	0.57	-0.58	0.28	-0.28
(L) CS FWD FLOOR	0.15	0.79	-0.75	0.50	-0.50	0.36	-0.34	0.19	-0.17
(V) FWD WALL	0.38	1.63	-1.24	1.23	-1.09	0.92	-0.90	0.49	-0.48
(T) FWD WALL	0.31	1.42	-1.22	0.94	-1.03	0.73	-0.78	0.39	-0.38
(L) FWD WALL	0.40	1.68	-1.74	1.34	-1.42	0.94	-0.98	0.51	-0.49
(V) RS SIDE WALL	0.47	2.06	-1.76	1.81	-1.57	1.27	-1.11	0.59	-0.57
(T) RS SIDE WALL	0.43	2.01	-1.86	1.46	-1.42	1.02	-1.05	0.54	-0.53
(L) RS SIDE WALL	0.28	1.22	-1.19	0.93	-0.99	0.69	-0.74	0.35	-0.36
(V) CS SIDE WALL	0.35	1.76	-1.22	1.36	-1.02	0.93	-0.82	0.45	-0.44
(T) CS SIDE WALL	0.41	1.70	-1.60	1.40	-1.36	0.98	-1.02	0.50	-0.54
(L) CS SIDE WALL	0.30	1.34	-1.05	1.03	-0.93	0.76	-0.74	0.36	-0.37

	MEAN	STD DEV	MAX	MIN	+90%	-90%
VEHICLE SPEED	11.11	2.28	18.33	0.69	14.07	8.37

Tracks analyzed: 1 to 500

TABLE B-10. AMPLITUDE DISTRIBUTION

May 28 08:59 1996 run110.amd Page 1

Tue Dec 6 16:34:52 1994

AMPLITUDE DISTRIBUTION PROGRAM (AMDST)
REV R 07NOV94

Type III Mobility Study
RUN 110: M1022/EXPAND, Bel Block - 15 mph (CCW, Rt)

DESCRIPTION	RMS	+PEAK	-PEAK	+99.9%	-99.9%	+99%	-99%	+90%	-90%
(V) CS FWD TOP CORNER	0.30	1.26	-1.13	1.04	-0.93	0.80	-0.66	0.38	-0.37
(T) CS FWD TOP CORNER	0.27	1.25	-1.27	0.87	-0.86	0.64	-0.65	0.33	-0.34
(L) CS FWD TOP CORNER	0.25	3.36	-2.29	1.21	-1.02	0.67	-0.61	0.29	-0.30
(V) CS AFT TOP CORNER	0.34	2.02	-3.91	1.16	-1.38	0.78	-0.88	0.43	-0.43
(T) CS AFT TOP CORNER	0.32	2.46	-2.78	0.90	-1.04	0.72	-0.75	0.40	-0.39
(L) CS AFT TOP CORNER	0.23	3.87	-3.91	1.04	-0.87	0.61	-0.54	0.26	-0.26
(V) RS AFT TOP CORNER	0.32	1.59	-2.46	1.19	-1.15	0.76	-0.81	0.39	-0.41
(T) RS AFT TOP CORNER	0.29	1.43	-1.43	0.84	-0.94	0.66	-0.69	0.37	-0.36
(L) RS AFT TOP CORNER	0.23	1.90	-2.39	0.89	-0.87	0.59	-0.56	0.29	-0.27
(V) RS FWD TOP CORNER	0.32	2.90	-2.13	1.08	-1.22	0.76	-0.77	0.40	-0.40
(T) RS FWD TOP CORNER	0.27	1.72	-2.03	0.89	-0.91	0.65	-0.67	0.34	-0.33
(L) RS FWD TOP CORNER	0.24	2.24	-3.03	1.10	-1.00	0.63	-0.59	0.30	-0.29
(V) RS FWD BOTTOM CORNER	0.32	2.00	-1.58	1.03	-1.25	0.74	-0.77	0.39	-0.42
(T) RS FWD BOTTOM CORNER	0.16	0.97	-0.59	0.52	-0.49	0.41	-0.37	0.21	-0.21
(L) RS FWD BOTTOM CORNER	0.14	1.03	-0.80	0.56	-0.58	0.37	-0.37	0.17	-0.17
(V) RS AFT BOTTOM CORNER	0.32	1.57	-2.82	1.19	-1.14	0.76	-0.82	0.39	-0.40
(T) RS AFT BOTTOM CORNER	0.17	1.20	-1.28	0.54	-0.57	0.40	-0.41	0.22	-0.20
(L) RS AFT BOTTOM CORNER	0.13	1.30	-0.87	0.52	-0.52	0.35	-0.36	0.16	-0.16
(V) CS AFT BOTTOM CORNER	0.34	1.58	-2.98	1.12	-1.38	0.78	-0.87	0.43	-0.42
(T) CS AFT BOTTOM CORNER	0.17	1.36	-0.98	0.55	-0.56	0.40	-0.39	0.22	-0.21
(L) CS AFT BOTTOM CORNER	0.14	4.03	-3.50	0.58	-0.58	0.36	-0.37	0.17	-0.16
(V) CS FWD BOTTOM CORNER	0.30	1.29	-1.19	1.04	-0.89	0.81	-0.66	0.37	-0.37
(T) CS FWD BOTTOM CORNER	0.16	0.73	-0.65	0.52	-0.48	0.40	-0.37	0.21	-0.20
(L) CS FWD BOTTOM CORNER	0.16	1.09	-1.27	0.62	-0.66	0.42	-0.42	0.17	-0.17
(V) FWD FLOOR	0.22	1.52	-1.09	0.79	-0.84	0.56	-0.50	0.27	-0.28
(T) FWD FLOOR	0.14	0.57	-0.63	0.44	-0.44	0.35	-0.32	0.18	-0.17
(L) FWD FLOOR	0.12	0.66	-0.67	0.50	-0.49	0.32	-0.35	0.16	-0.13
(V) AFT FLOOR	0.22	1.78	-2.62	0.85	-0.89	0.52	-0.59	0.26	-0.26
(T) AFT FLOOR	0.15	0.79	-0.77	0.47	-0.47	0.35	-0.31	0.19	-0.17
(L) AFT FLOOR	0.12	1.00	-0.77	0.50	-0.49	0.32	-0.34	0.14	-0.13

	MEAN	STD DEV	MAX	MIN	+90%	-90%
VEHICLE SPEED	9.97	3.77	20.49	-5.67	15.11	6.54

Tracks analyzed: 1 to 500

TABLE B-11. AMPLITUDE DISTRIBUTION

May 28 08:34 1996 run179.amd Page 1

Tue Jan 10 18:37:14 1995

AMPLITUDE DISTRIBUTION PROGRAM (AMDST)
REV S 13DEC94

Type III Mobility Study
RUN 179: M1022A1 (Max), Bel Block at 15 mph (CCW, Left)

DESCRIPTION	RMS	+PEAK	-PEAK	+99.9%	-99.9%	+99%	-99%	+90%	-90%
(V) CS FWD TOP CORNER	0.34	1.86	-1.90	1.20	-1.23	0.81	-0.87	0.42	-0.43
(T) CS FWD TOP CORNER	0.45	4.64	-6.35	1.79	-1.89	1.18	-1.09	0.53	-0.52
(L) CS FWD TOP CORNER	0.28	3.24	-3.89	1.23	-1.14	0.71	-0.68	0.33	-0.34
(V) CS AFT TOP CORNER	0.44	2.32	-2.65	1.57	-1.61	1.06	-1.03	0.55	-0.56
(T) CS AFT TOP CORNER	0.73	3.80	-4.69	2.40	-2.79	1.63	-1.79	0.91	-0.95
(L) CS AFT TOP CORNER	0.29	2.60	-2.27	1.22	-1.27	0.74	-0.77	0.35	-0.35
(V) RS AFT TOP CORNER	0.48	5.76	-2.05	1.74	-1.40	1.23	-1.07	0.62	-0.60
(T) RS AFT TOP CORNER	0.69	3.60	-5.04	2.32	-2.58	1.52	-1.67	0.86	-0.88
(L) RS AFT TOP CORNER	0.36	6.88	-5.37	1.94	-1.96	0.89	-0.89	0.39	-0.39
(V) RS FWD TOP CORNER	0.34	2.08	-2.70	1.33	-1.25	0.96	-0.79	0.41	-0.40
(T) RS FWD TOP CORNER	0.46	3.03	-3.21	1.75	-1.82	1.22	-1.13	0.56	-0.54
(L) RS FWD TOP CORNER	0.29	2.54	-2.01	1.14	-1.06	0.72	-0.71	0.36	-0.35
(V) RS FWD BOTTOM CORNER	0.35	2.12	-2.66	1.37	-1.31	0.99	-0.82	0.42	-0.42
(T) RS FWD BOTTOM CORNER	0.25	2.14	-3.11	1.02	-1.07	0.60	-0.62	0.30	-0.31
(L) RS FWD BOTTOM CORNER	0.19	3.08	-2.63	1.02	-0.91	0.46	-0.47	0.22	-0.22
(V) RS AFT BOTTOM CORNER	0.48	5.31	-2.13	1.79	-1.42	1.24	-1.07	0.62	-0.60
(T) RS AFT BOTTOM CORNER	0.44	5.82	-7.54	2.13	-3.09	1.14	-1.07	0.47	-0.47
(L) RS AFT BOTTOM CORNER	0.30	6.13	-4.25	1.82	-1.60	0.78	-0.80	0.32	-0.32
(V) CS AFT BOTTOM CORNER	0.45	2.57	-2.88	1.61	-1.61	1.07	-1.06	0.56	-0.57
(T) CS AFT BOTTOM CORNER	0.42	5.70	-7.97	2.07	-2.81	1.08	-1.02	0.46	-0.45
(L) CS AFT BOTTOM CORNER	0.31	6.33	-8.03	1.84	-2.32	0.74	-0.75	0.30	-0.30
(V) CS FWD BOTTOM CORNER	0.34	1.77	-2.27	1.17	-1.22	0.80	-0.87	0.41	-0.42
(T) CS FWD BOTTOM CORNER	0.25	2.53	-2.47	0.99	-1.03	0.59	-0.60	0.30	-0.30
(L) CS FWD BOTTOM CORNER	0.23	3.38	-2.97	1.16	-1.09	0.56	-0.58	0.26	-0.27

	MEAN	STD DEV	MAX	MIN	+90%	-90%
VEHICLE SPEED	15.39	0.48	17.93	14.06	15.96	14.77

Tracks analyzed: 1 to 500

TABLE B-12. AMPLITUDE DISTRIBUTION

May 28 08:45 1996 run208.amd Page 1

Thu Feb 16 15:45:18 1995

AMPLITUDE DISTRIBUTION PROGRAM (AMDST)
REV S 13DEC94

Type III Mobility Study
RUN 208: M1022/Non-expand, Belgian Block at 15 mph,L

DESCRIPTION	RMS	+PEAK	-PEAK	+99.9%	-99.9%	+99%	-99%	+90%	-90%
(V) CS FWD TOP CORNER	0.29	1.13	-1.13	0.97	-0.95	0.72	-0.67	0.37	-0.37
(T) CS FWD TOP CORNER	0.30	0.89	-1.16	0.77	-0.92	0.65	-0.73	0.38	-0.40
(L) CS FWD TOP CORNER	0.14	0.62	-0.55	0.51	-0.46	0.33	-0.35	0.17	-0.17
(V) CS AFT TOP CORNER	0.30	1.12	-1.16	0.91	-0.92	0.69	-0.70	0.38	-0.41
(T) CS AFT TOP CORNER	0.35	0.99	-1.14	0.87	-0.99	0.75	-0.81	0.45	-0.45
(L) CS AFT TOP CORNER	0.14	0.65	-0.52	0.52	-0.46	0.33	-0.35	0.17	-0.17
(V) RS AFT TOP CORNER	0.26	1.08	-0.93	0.79	-0.76	0.58	-0.61	0.35	-0.33
(T) RS AFT TOP CORNER	0.31	0.89	-1.02	0.78	-0.88	0.67	-0.73	0.40	-0.40
(L) RS AFT TOP CORNER	0.13	0.67	-0.66	0.48	-0.46	0.32	-0.33	0.16	-0.16
(V) RS FWD TOP CORNER	0.26	0.87	-0.91	0.77	-0.78	0.61	-0.62	0.34	-0.33
(T) RS FWD TOP CORNER	0.30	0.88	-1.16	0.76	-0.90	0.65	-0.73	0.38	-0.40
(L) RS FWD TOP CORNER	0.13	0.63	-0.62	0.48	-0.47	0.33	-0.34	0.16	-0.17
(V) RS FWD BOTTOM CORNER	0.27	0.93	-0.97	0.81	-0.82	0.64	-0.65	0.35	-0.34
(T) RS FWD BOTTOM CORNER	0.14	0.47	-0.45	0.37	-0.41	0.30	-0.31	0.17	-0.18
(L) RS FWD BOTTOM CORNER	0.09	0.59	-0.49	0.35	-0.38	0.25	-0.24	0.12	-0.10
(V) RS AFT BOTTOM CORNER	0.27	1.13	-0.95	0.83	-0.81	0.61	-0.63	0.37	-0.35
(T) RS AFT BOTTOM CORNER	0.13	0.40	-0.50	0.33	-0.42	0.26	-0.33	0.17	-0.17
(L) RS AFT BOTTOM CORNER	0.09	0.47	-0.45	0.35	-0.37	0.26	-0.24	0.13	-0.09
(V) CS AFT BOTTOM CORNER	0.31	1.13	-1.16	0.93	-0.95	0.70	-0.71	0.39	-0.41
(T) CS AFT BOTTOM CORNER	0.14	0.44	-0.54	0.37	-0.46	0.29	-0.34	0.17	-0.18
(L) CS AFT BOTTOM CORNER	0.10	0.56	-0.54	0.38	-0.38	0.27	-0.26	0.13	-0.10
(V) CS FWD BOTTOM CORNER	0.31	1.22	-1.18	1.01	-1.00	0.75	-0.70	0.39	-0.38
(T) CS FWD BOTTOM CORNER	0.14	0.48	-0.49	0.37	-0.41	0.30	-0.31	0.18	-0.18
(L) CS FWD BOTTOM CORNER	0.11	0.74	-0.59	0.45	-0.44	0.29	-0.28	0.13	-0.12
(V) FWD FLOOR	0.20	0.90	-0.83	0.68	-0.58	0.48	-0.44	0.26	-0.25
(T) FWD FLOOR	0.13	0.45	-0.46	0.36	-0.39	0.29	-0.31	0.17	-0.18
(L) FWD FLOOR	0.12	0.91	-0.69	0.55	-0.46	0.32	-0.30	0.14	-0.13
(V) AFT FLOOR	0.20	0.79	-0.75	0.70	-0.64	0.49	-0.48	0.27	-0.26
(T) AFT FLOOR	0.13	0.40	-0.50	0.34	-0.43	0.27	-0.33	0.16	-0.17
(L) AFT FLOOR	0.10	0.47	-0.53	0.36	-0.39	0.27	-0.25	0.12	-0.10

	MEAN	STD DEV	MAX	MIN	+90%	-90%
VEHICLE SPEED	15.54	0.39	16.54	14.56	16.05	14.98

Tracks analyzed: 1 to 500

TABLE B-13. AMPLITUDE DISTRIBUTION

May 28 08:26 1996 run255.amd Page 1

Thu Mar 9 17:35:00 1995

AMPLITUDE DISTRIBUTION PROGRAM (AMDST): Revision T - 17 Feb 95

Type III Mobility Study
RUN 255: M832/S280, Bel. Block at 15 mph (CW, Rt)

DESCRIPTION	RMS	+PEAK	-PEAK	+99.9%	-99.9%	+99%	-99%	+90%	-90%
(V) CS FWD TOP BRKT	0.41	2.23	-1.46	1.92	-1.25	0.98	-0.98	0.50	-0.50
(T) CS FWD TOP BRKT	0.21	2.10	-2.19	0.71	-0.79	0.51	-0.54	0.25	-0.26
(L) CS FWD TOP BRKT	0.15	1.80	-1.52	0.61	-0.60	0.37	-0.37	0.19	-0.18
(V) CS AFT TOP BRKT	0.49	2.22	-1.87	1.86	-1.46	1.16	-1.20	0.62	-0.60
(T) CS AFT TOP BRKT	0.27	1.76	-1.69	1.00	-0.93	0.66	-0.64	0.32	-0.33
(L) CS AFT TOP BRKT	0.17	1.50	-1.66	0.61	-0.69	0.42	-0.42	0.21	-0.20
(V) RS AFT TOP BRKT	0.50	2.09	-1.86	1.66	-1.58	1.26	-1.18	0.64	-0.60
(T) RS AFT TOP BRKT	0.25	1.34	-1.34	0.98	-0.87	0.64	-0.61	0.31	-0.33
(L) RS AFT TOP BRKT	0.18	1.17	-0.83	0.65	-0.59	0.44	-0.40	0.23	-0.22
(V) RS FWD TOP BRKT	0.38	1.71	-1.66	1.38	-1.19	0.94	-0.89	0.51	-0.46
(T) RS FWD TOP BRKT	0.23	2.31	-2.95	0.86	-0.91	0.56	-0.59	0.26	-0.28
(L) RS FWD TOP BRKT	0.16	2.27	-1.79	0.63	-0.53	0.39	-0.35	0.20	-0.19
(V) RS FWD BOTTOM BRKT	0.39	3.00	-4.97	1.55	-1.53	0.99	-0.96	0.50	-0.46
(T) RS FWD BOTTOM BRKT	0.22	1.31	-1.20	0.74	-0.78	0.52	-0.56	0.26	-0.27
(L) RS FWD BOTTOM BRKT	0.35	9.36	-9.02	2.48	-2.48	0.84	-0.81	0.31	-0.31
(V) RS AFT BOTTOM BRKT	0.49	5.79	-3.07	1.66	-1.62	1.25	-1.18	0.63	-0.58
(T) RS AFT BOTTOM BRKT	0.21	1.60	-0.93	0.79	-0.70	0.53	-0.52	0.26	-0.27
(L) RS AFT BOTTOM BRKT	0.34	11.17	-8.25	1.74	-1.72	0.88	-0.89	0.37	-0.37
(V) CS AFT BOTTOM BRKT	0.48	2.48	-2.23	1.80	-1.50	1.18	-1.16	0.60	-0.57
(T) CS AFT BOTTOM BRKT	0.23	1.60	-1.02	0.86	-0.77	0.58	-0.56	0.29	-0.29
(L) CS AFT BOTTOM BRKT	0.43	12.26	-17.89	2.49	-2.84	0.90	-0.94	0.33	-0.36
(V) CS FWD BOTTOM BRKT	0.41	2.34	-1.71	1.90	-1.27	1.01	-1.01	0.51	-0.49
(T) CS FWD BOTTOM BRKT	0.22	0.92	-1.21	0.72	-0.77	0.51	-0.56	0.26	-0.27
(L) CS FWD BOTTOM BRKT	0.28	4.30	-6.45	1.62	-1.72	0.69	-0.71	0.29	-0.28
(V) FWD FLOOR	0.30	1.66	-1.79	1.19	-1.05	0.73	-0.72	0.37	-0.35
(T) FWD FLOOR	0.20	1.21	-1.29	0.66	-0.75	0.48	-0.50	0.24	-0.25
(L) FWD FLOOR	0.17	1.43	-1.16	0.66	-0.66	0.42	-0.42	0.20	-0.20
(V) AFT FLOOR	0.41	1.95	-1.81	1.56	-1.31	1.02	-1.01	0.52	-0.50
(T) AFT FLOOR	0.19	0.98	-0.84	0.72	-0.65	0.47	-0.47	0.24	-0.24
(L) AFT FLOOR	0.14	0.78	-1.15	0.50	-0.48	0.36	-0.34	0.18	-0.17

	MEAN	STD DEV	MAX	MIN	+90%	-90%
VEHICLE SPEED	14.38	0.43	16.31	13.20	14.93	13.84

Tracks analyzed: 1 to 500

TABLE B-14. AMPLITUDE DISTRIBUTION

May 28 08:30 1996 run294.amd Page 1

Thu Apr 6 16:38:51 1995

AMPLITUDE DISTRIBUTION PROGRAM (AMDST): Revision T - 17 Feb 95

Type III Mobility Study
RUN 294: HHV/SICPS, Bel Block at 15 mph (CW, Left)

DESCRIPTION	RMS	+PEAK	-PEAK	+99.9%	-99.9%	+99%	-99%	+90%	-90%
(V) CS FLOOR	0.28	1.10	-1.15	0.90	-0.96	0.69	-0.67	0.34	-0.35
(T) CS FLOOR	0.18	0.72	-0.59	0.58	-0.48	0.43	-0.38	0.23	-0.23
(L) CS FLOOR	0.12	0.46	-0.50	0.38	-0.40	0.27	-0.29	0.14	-0.15
(V) FWD FLOOR	0.20	0.79	-0.86	0.74	-0.73	0.50	-0.49	0.25	-0.23
(T) FWD FLOOR	0.16	0.65	-0.57	0.50	-0.50	0.38	-0.37	0.21	-0.21
(L) FWD FLOOR	0.10	0.50	-0.46	0.34	-0.35	0.24	-0.25	0.13	-0.13
(V) RS FLOOR	0.27	1.19	-1.08	0.97	-0.89	0.74	-0.67	0.34	-0.32
(T) RS FLOOR	0.16	0.65	-0.56	0.47	-0.46	0.38	-0.35	0.21	-0.20
(L) RS FLOOR	0.11	0.55	-0.43	0.37	-0.37	0.28	-0.27	0.15	-0.14
(V) RS WALL	0.30	1.49	-1.56	1.04	-1.01	0.76	-0.70	0.38	-0.36
(T) RS WALL	0.33	1.72	-1.16	1.08	-0.94	0.82	-0.72	0.43	-0.41
(L) RS WALL	0.22	1.52	-1.21	0.77	-0.81	0.54	-0.55	0.28	-0.27
(V) FWD RACK BASE	0.19	0.72	-0.84	0.62	-0.69	0.47	-0.45	0.24	-0.23
(T) FWD RACK BASE	0.22	0.82	-0.65	0.68	-0.62	0.54	-0.48	0.30	-0.28
(L) FWD RACK BASE	0.13	0.76	-0.56	0.50	-0.44	0.34	-0.31	0.16	-0.16
(V) CS WALL	0.30	1.29	-1.61	0.92	-1.03	0.70	-0.71	0.38	-0.39
(T) CS WALL	0.35	2.01	-4.66	1.09	-1.78	0.79	-0.81	0.43	-0.43
(L) CS WALL	0.26	4.40	-6.40	1.53	-1.44	0.63	-0.60	0.29	-0.28
(V) CS FWD MOUNT	0.22	0.87	-1.04	0.75	-0.83	0.54	-0.52	0.28	-0.27
(T) CS FWD MOUNT	0.20	0.82	-0.89	0.62	-0.65	0.48	-0.50	0.26	-0.26
(L) CS FWD MOUNT	0.12	0.50	-0.59	0.37	-0.39	0.27	-0.29	0.15	-0.14
(V) GEN COMP FLOOR	0.18	0.74	-0.79	0.66	-0.67	0.46	-0.44	0.22	-0.21
(T) GEN COMP FLOOR	0.15	0.60	-0.56	0.48	-0.47	0.36	-0.36	0.20	-0.19
(L) GEN COMP FLOOR	0.09	0.41	-0.40	0.29	-0.30	0.20	-0.22	0.12	-0.11
(V) CS AFT CORNER	0.33	1.11	-1.24	0.99	-1.08	0.76	-0.76	0.43	-0.43
(T) CS AFT CORNER	0.19	0.75	-1.10	0.62	-0.59	0.47	-0.42	0.24	-0.24
(L) CS AFT CORNER	0.16	0.78	-0.73	0.52	-0.55	0.38	-0.39	0.20	-0.20
(V) RS AFT CORNER	0.37	1.51	-1.58	1.32	-1.17	0.94	-0.86	0.48	-0.45
(T) RS AFT CORNER	0.18	0.70	-0.60	0.57	-0.50	0.43	-0.38	0.23	-0.23
(L) RS AFT CORNER	0.14	0.57	-0.59	0.47	-0.44	0.35	-0.34	0.19	-0.18
(V) RS AFT HMMWV	0.34	1.63	-1.27	1.15	-1.08	0.87	-0.81	0.43	-0.42

	MEAN	STD DEV	MAX	MIN	+90%	-90%
VEHICLE SPEED	15.43	0.43	17.35	14.14	15.90	14.81

Tracks analyzed: 1 to 500

TABLE B-15. SHELTER INPUT VIBRATION SCHEDULE BREAKPOINTS

20	NUMBER OF BREAK POINTS		
	3.00	0.0706279	FREQUENCY AND AMPLITUDE
	4.00	0.0567729	FREQUENCY AND AMPLITUDE
	7.00	0.0046944	FREQUENCY AND AMPLITUDE
	14.00	0.0040098	FREQUENCY AND AMPLITUDE
	19.00	0.0060147	FREQUENCY AND AMPLITUDE
	36.00	0.0007009	FREQUENCY AND AMPLITUDE
	39.00	0.0011573	FREQUENCY AND AMPLITUDE
	43.00	0.0003586	FREQUENCY AND AMPLITUDE
	47.00	0.0004890	FREQUENCY AND AMPLITUDE
	50.00	0.0002282	FREQUENCY AND AMPLITUDE
	54.00	0.0004238	FREQUENCY AND AMPLITUDE
	57.00	0.0003260	FREQUENCY AND AMPLITUDE
	64.00	0.0004890	FREQUENCY AND AMPLITUDE
	98.00	0.0000326	FREQUENCY AND AMPLITUDE
	105.00	0.0013855	FREQUENCY AND AMPLITUDE
	111.00	0.0000326	FREQUENCY AND AMPLITUDE
	125.00	0.0000163	FREQUENCY AND AMPLITUDE
	135.00	0.0000163	FREQUENCY AND AMPLITUDE
	138.00	0.0000163	FREQUENCY AND AMPLITUDE
	141.00	0.0000163	FREQUENCY AND AMPLITUDE

RMS VALUE = 0.53

M923/S280 TYPE III MOBILITY VIBRATION SCHEDULE, VERTICAL

TABLE B-16. SHELTER INPUT VIBRATION SCHEDULE BREAKPOINTS

22	NUMBER OF BREAK POINTS		
	3.00	0.0124587	FREQUENCY AND AMPLITUDE
	6.00	0.0033274	FREQUENCY AND AMPLITUDE
	8.00	0.0124587	FREQUENCY AND AMPLITUDE
	11.00	0.0018288	FREQUENCY AND AMPLITUDE
	27.00	0.0009144	FREQUENCY AND AMPLITUDE
	42.00	0.0001143	FREQUENCY AND AMPLITUDE
	46.00	0.0006604	FREQUENCY AND AMPLITUDE
	55.00	0.0001524	FREQUENCY AND AMPLITUDE
	66.00	0.0009398	FREQUENCY AND AMPLITUDE
	73.00	0.0000127	FREQUENCY AND AMPLITUDE
	78.00	0.0000381	FREQUENCY AND AMPLITUDE
	85.00	0.0000127	FREQUENCY AND AMPLITUDE
	90.00	0.0000254	FREQUENCY AND AMPLITUDE
	97.00	0.0000127	FREQUENCY AND AMPLITUDE
	105.00	0.0000762	FREQUENCY AND AMPLITUDE
	112.00	0.0000127	FREQUENCY AND AMPLITUDE
	121.00	0.0000127	FREQUENCY AND AMPLITUDE
	124.00	0.0000127	FREQUENCY AND AMPLITUDE
	127.00	0.0000127	FREQUENCY AND AMPLITUDE
	407.00	0.0000127	FREQUENCY AND AMPLITUDE
	417.00	0.0000762	FREQUENCY AND AMPLITUDE
	423.00	0.0000127	FREQUENCY AND AMPLITUDE

RMS VALUE = 0.31

M923/S280 TYPE III MOBILITY VIBRATION SCHEDULE, TRANSVERSE

TABLE B-17. SHELTER INPUT VIBRATION SCHEDULE BREAKPOINTS

31	NUMBER OF BREAK POINTS		
	3.00	0.0046648	FREQUENCY AND AMPLITUDE
	4.00	0.0048902	FREQUENCY AND AMPLITUDE
	6.00	0.0008526	FREQUENCY AND AMPLITUDE
	8.00	0.0033124	FREQUENCY AND AMPLITUDE
	11.00	0.0005586	FREQUENCY AND AMPLITUDE
	16.00	0.0006272	FREQUENCY AND AMPLITUDE
	22.00	0.0002548	FREQUENCY AND AMPLITUDE
	27.00	0.0004900	FREQUENCY AND AMPLITUDE
	43.00	0.0000392	FREQUENCY AND AMPLITUDE
	47.00	0.0002646	FREQUENCY AND AMPLITUDE
	58.00	0.0000784	FREQUENCY AND AMPLITUDE
	65.00	0.0005194	FREQUENCY AND AMPLITUDE
	86.00	0.0000000	FREQUENCY AND AMPLITUDE
	88.00	0.0000098	FREQUENCY AND AMPLITUDE
	96.00	0.0000000	FREQUENCY AND AMPLITUDE
	105.00	0.0001176	FREQUENCY AND AMPLITUDE
	121.00	0.0000098	FREQUENCY AND AMPLITUDE
	125.00	0.0000098	FREQUENCY AND AMPLITUDE
	136.00	0.0000000	FREQUENCY AND AMPLITUDE
	152.00	0.0000000	FREQUENCY AND AMPLITUDE
	156.00	0.0000000	FREQUENCY AND AMPLITUDE
	206.00	0.0000000	FREQUENCY AND AMPLITUDE
	211.00	0.0000000	FREQUENCY AND AMPLITUDE
	214.00	0.0000000	FREQUENCY AND AMPLITUDE
	262.00	0.0000000	FREQUENCY AND AMPLITUDE
	270.00	0.0000000	FREQUENCY AND AMPLITUDE
	288.00	0.0000000	FREQUENCY AND AMPLITUDE
	336.00	0.0000000	FREQUENCY AND AMPLITUDE
	375.00	0.0000000	FREQUENCY AND AMPLITUDE
	423.00	0.0000196	FREQUENCY AND AMPLITUDE
	451.00	0.0000000	FREQUENCY AND AMPLITUDE

RMS VALUE = 0.19

M923/S280 TYPE III MOBILITY VIBRATION SCHEDULE, LONGITUDINAL

TABLE B-18. SHELTER INPUT VIBRATION SCHEDULE BREAKPOINTS

13	NUMBER OF BREAK POINTS	
3.00	0.0057879	FREQUENCY AND AMPLITUDE
5.00	0.0016343	FREQUENCY AND AMPLITUDE
7.00	0.0058528	FREQUENCY AND AMPLITUDE
23.00	0.0001357	FREQUENCY AND AMPLITUDE
28.00	0.0002596	FREQUENCY AND AMPLITUDE
33.00	0.0000531	FREQUENCY AND AMPLITUDE
38.00	0.0000649	FREQUENCY AND AMPLITUDE
43.00	0.0000472	FREQUENCY AND AMPLITUDE
46.00	0.0000590	FREQUENCY AND AMPLITUDE
63.00	0.0000059	FREQUENCY AND AMPLITUDE
103.00	0.0000059	FREQUENCY AND AMPLITUDE
109.00	0.0000295	FREQUENCY AND AMPLITUDE
118.00	0.0000059	FREQUENCY AND AMPLITUDE

RMS VALUE = 0.19

HMMWV/S250 TYPE III MOBILITY SCHEDULE, VERTICAL

TABLE B-19. SHELTER INPUT VIBRATION SCHEDULE BREAKPOINTS

28	NUMBER OF BREAK POINTS		
	3.00	0.0043413	FREQUENCY AND AMPLITUDE
	5.00	0.0004350	FREQUENCY AND AMPLITUDE
	7.00	0.0003828	FREQUENCY AND AMPLITUDE
	10.00	0.0035409	FREQUENCY AND AMPLITUDE
	13.00	0.0022185	FREQUENCY AND AMPLITUDE
	15.00	0.0029841	FREQUENCY AND AMPLITUDE
	37.00	0.0000261	FREQUENCY AND AMPLITUDE
	43.00	0.0000348	FREQUENCY AND AMPLITUDE
	68.00	0.0000000	FREQUENCY AND AMPLITUDE
	72.00	0.0000000	FREQUENCY AND AMPLITUDE
	79.00	0.0000000	FREQUENCY AND AMPLITUDE
	83.00	0.0000000	FREQUENCY AND AMPLITUDE
	92.00	0.0000000	FREQUENCY AND AMPLITUDE
	100.00	0.0000000	FREQUENCY AND AMPLITUDE
	110.00	0.0000000	FREQUENCY AND AMPLITUDE
	128.00	0.0000000	FREQUENCY AND AMPLITUDE
	146.00	0.0000000	FREQUENCY AND AMPLITUDE
	181.00	0.0000087	FREQUENCY AND AMPLITUDE
	186.00	0.0000000	FREQUENCY AND AMPLITUDE
	220.00	0.0000000	FREQUENCY AND AMPLITUDE
	223.00	0.0000000	FREQUENCY AND AMPLITUDE
	305.00	0.0000000	FREQUENCY AND AMPLITUDE
	341.00	0.0000000	FREQUENCY AND AMPLITUDE
	352.00	0.0000000	FREQUENCY AND AMPLITUDE
	388.00	0.0000000	FREQUENCY AND AMPLITUDE
	394.00	0.0000000	FREQUENCY AND AMPLITUDE
	407.00	0.0000000	FREQUENCY AND AMPLITUDE
	413.00	0.0000000	FREQUENCY AND AMPLITUDE

RMS VALUE = 0.19

HMMWV/S250 TYPE III MOBILITY SCHEDULE, TRANSVERSE

TABLE B-20. SHELTER INPUT VIBRATION SCHEDULE BREAKPOINTS

31	NUMBER OF BREAK POINTS		
	3.00	0.0003486	FREQUENCY AND AMPLITUDE
	5.00	0.0001743	FREQUENCY AND AMPLITUDE
	12.00	0.0019920	FREQUENCY AND AMPLITUDE
	16.00	0.0017596	FREQUENCY AND AMPLITUDE
	35.00	0.0000166	FREQUENCY AND AMPLITUDE
	43.00	0.0000166	FREQUENCY AND AMPLITUDE
	47.00	0.0000332	FREQUENCY AND AMPLITUDE
	70.00	0.0000000	FREQUENCY AND AMPLITUDE
	73.00	0.0000083	FREQUENCY AND AMPLITUDE
	87.00	0.0000000	FREQUENCY AND AMPLITUDE
	94.00	0.0000000	FREQUENCY AND AMPLITUDE
	97.00	0.0000000	FREQUENCY AND AMPLITUDE
	104.00	0.0000000	FREQUENCY AND AMPLITUDE
	109.00	0.0000000	FREQUENCY AND AMPLITUDE
	126.00	0.0000000	FREQUENCY AND AMPLITUDE
	137.00	0.0000000	FREQUENCY AND AMPLITUDE
	144.00	0.0000000	FREQUENCY AND AMPLITUDE
	162.00	0.0000000	FREQUENCY AND AMPLITUDE
	171.00	0.0000000	FREQUENCY AND AMPLITUDE
	178.00	0.0000000	FREQUENCY AND AMPLITUDE
	189.00	0.0000000	FREQUENCY AND AMPLITUDE
	198.00	0.0000000	FREQUENCY AND AMPLITUDE
	203.00	0.0000000	FREQUENCY AND AMPLITUDE
	206.00	0.0000000	FREQUENCY AND AMPLITUDE
	336.00	0.0000000	FREQUENCY AND AMPLITUDE
	341.00	0.0000000	FREQUENCY AND AMPLITUDE
	347.00	0.0000000	FREQUENCY AND AMPLITUDE
	369.00	0.0000000	FREQUENCY AND AMPLITUDE
	381.00	0.0000000	FREQUENCY AND AMPLITUDE
	403.00	0.0000000	FREQUENCY AND AMPLITUDE
	437.00	0.0000000	FREQUENCY AND AMPLITUDE

RMS VALUE = 0.14

HMMWV/S250 TYPE III MOBILITY SCHEDULE, LONGITUDINAL

TABLE B-21. SHELTER INPUT VIBRATION SCHEDULE BREAKPOINTS

32	NUMBER OF BREAK POINTS		
	3.00	0.0108891	FREQUENCY AND AMPLITUDE
	5.00	0.0048618	FREQUENCY AND AMPLITUDE
	7.00	0.0108891	FREQUENCY AND AMPLITUDE
	14.00	0.0009768	FREQUENCY AND AMPLITUDE
	16.00	0.0041292	FREQUENCY AND AMPLITUDE
	30.00	0.0001554	FREQUENCY AND AMPLITUDE
	37.00	0.0002664	FREQUENCY AND AMPLITUDE
	51.00	0.0000555	FREQUENCY AND AMPLITUDE
	55.00	0.0000555	FREQUENCY AND AMPLITUDE
	60.00	0.0001887	FREQUENCY AND AMPLITUDE
	69.00	0.0000222	FREQUENCY AND AMPLITUDE
	72.00	0.0000333	FREQUENCY AND AMPLITUDE
	81.00	0.0000222	FREQUENCY AND AMPLITUDE
	85.00	0.0000666	FREQUENCY AND AMPLITUDE
	92.00	0.0000111	FREQUENCY AND AMPLITUDE
	116.00	0.0000111	FREQUENCY AND AMPLITUDE
	121.00	0.0000222	FREQUENCY AND AMPLITUDE
	122.00	0.0000111	FREQUENCY AND AMPLITUDE
	136.00	0.0000222	FREQUENCY AND AMPLITUDE
	147.00	0.0000111	FREQUENCY AND AMPLITUDE
	152.00	0.0000222	FREQUENCY AND AMPLITUDE
	165.00	0.0000111	FREQUENCY AND AMPLITUDE
	177.00	0.0000555	FREQUENCY AND AMPLITUDE
	183.00	0.0000111	FREQUENCY AND AMPLITUDE
	199.00	0.0000222	FREQUENCY AND AMPLITUDE
	204.00	0.0000111	FREQUENCY AND AMPLITUDE
	268.00	0.0000111	FREQUENCY AND AMPLITUDE
	270.00	0.0000111	FREQUENCY AND AMPLITUDE
	275.00	0.0000111	FREQUENCY AND AMPLITUDE
	369.00	0.0000111	FREQUENCY AND AMPLITUDE
	407.00	0.0000777	FREQUENCY AND AMPLITUDE
	427.00	0.0000111	FREQUENCY AND AMPLITUDE

RMS VALUE = 0.30

M1097 HHV/M787 TYPE III MOBILITY VIBRATION SCHEDULE, VERTICAL

TABLE B-22. SHELTER INPUT VIBRATION SCHEDULE BREAKPOINTS

32	NUMBER OF BREAK POINTS		
	3.00	0.0027468	FREQUENCY AND AMPLITUDE
	5.00	0.0002604	FREQUENCY AND AMPLITUDE
	7.00	0.0004536	FREQUENCY AND AMPLITUDE
	9.00	0.0029736	FREQUENCY AND AMPLITUDE
	12.00	0.0004620	FREQUENCY AND AMPLITUDE
	16.00	0.0021420	FREQUENCY AND AMPLITUDE
	28.00	0.0002268	FREQUENCY AND AMPLITUDE
	33.00	0.0003612	FREQUENCY AND AMPLITUDE
	50.00	0.0000084	FREQUENCY AND AMPLITUDE
	61.00	0.0000168	FREQUENCY AND AMPLITUDE
	85.00	0.0000084	FREQUENCY AND AMPLITUDE
	109.00	0.0000000	FREQUENCY AND AMPLITUDE
	115.00	0.0000000	FREQUENCY AND AMPLITUDE
	129.00	0.0000000	FREQUENCY AND AMPLITUDE
	139.00	0.0000000	FREQUENCY AND AMPLITUDE
	162.00	0.0000000	FREQUENCY AND AMPLITUDE
	177.00	0.0000168	FREQUENCY AND AMPLITUDE
	186.00	0.0000000	FREQUENCY AND AMPLITUDE
	193.00	0.0000168	FREQUENCY AND AMPLITUDE
	206.00	0.0000000	FREQUENCY AND AMPLITUDE
	227.00	0.0000000	FREQUENCY AND AMPLITUDE
	242.00	0.0000000	FREQUENCY AND AMPLITUDE
	260.00	0.0000000	FREQUENCY AND AMPLITUDE
	273.00	0.0000084	FREQUENCY AND AMPLITUDE
	298.00	0.0000000	FREQUENCY AND AMPLITUDE
	307.00	0.0000084	FREQUENCY AND AMPLITUDE
	328.00	0.0000000	FREQUENCY AND AMPLITUDE
	394.00	0.0000168	FREQUENCY AND AMPLITUDE
	420.00	0.0000000	FREQUENCY AND AMPLITUDE
	448.00	0.0000084	FREQUENCY AND AMPLITUDE
	470.00	0.0000000	FREQUENCY AND AMPLITUDE
	485.00	0.0000084	FREQUENCY AND AMPLITUDE

RMS VALUE = 0.17

M1097 HHV/S787 TYPE III MOBILITY VIBRATION SCHEDULE, TRANSVERSE

TABLE B-23. SHELTER INPUT VIBRATION SCHEDULE BREAKPOINTS

29	NUMBER OF BREAK POINTS		
	3.00	0.0002736	FREQUENCY AND AMPLITUDE
	5.00	0.0001392	FREQUENCY AND AMPLITUDE
	9.00	0.0012432	FREQUENCY AND AMPLITUDE
	12.00	0.0004656	FREQUENCY AND AMPLITUDE
	16.00	0.0012432	FREQUENCY AND AMPLITUDE
	29.00	0.0000576	FREQUENCY AND AMPLITUDE
	33.00	0.0001056	FREQUENCY AND AMPLITUDE
	52.00	0.0000096	FREQUENCY AND AMPLITUDE
	63.00	0.0000240	FREQUENCY AND AMPLITUDE
	69.00	0.0000096	FREQUENCY AND AMPLITUDE
	73.00	0.0000240	FREQUENCY AND AMPLITUDE
	79.00	0.0000048	FREQUENCY AND AMPLITUDE
	85.00	0.0000096	FREQUENCY AND AMPLITUDE
	101.00	0.0000048	FREQUENCY AND AMPLITUDE
	128.00	0.0000432	FREQUENCY AND AMPLITUDE
	166.00	0.0000624	FREQUENCY AND AMPLITUDE
	178.00	0.0001632	FREQUENCY AND AMPLITUDE
	189.00	0.0000480	FREQUENCY AND AMPLITUDE
	203.00	0.0002304	FREQUENCY AND AMPLITUDE
	221.00	0.0000048	FREQUENCY AND AMPLITUDE
	246.00	0.0000288	FREQUENCY AND AMPLITUDE
	262.00	0.0000096	FREQUENCY AND AMPLITUDE
	277.00	0.0000528	FREQUENCY AND AMPLITUDE
	295.00	0.0000048	FREQUENCY AND AMPLITUDE
	307.00	0.0000144	FREQUENCY AND AMPLITUDE
	325.00	0.0000048	FREQUENCY AND AMPLITUDE
	407.00	0.0000480	FREQUENCY AND AMPLITUDE
	451.00	0.0000000	FREQUENCY AND AMPLITUDE
	489.00	0.0000000	FREQUENCY AND AMPLITUDE

RMS VALUE = 0.16

M1097 HHV/S787 TYPE III MOBILITY VIBRATION SCHEDULE, LONGITUDINAL

TABLE B-24. SHELTER INPUT VIBRATION SCHEDULE BREAKPOINTS

31	NUMBER OF BREAK POINTS		
	3.00	0.0174427	FREQUENCY AND AMPLITUDE
	12.00	0.0012726	FREQUENCY AND AMPLITUDE
	13.00	0.0044238	FREQUENCY AND AMPLITUDE
	15.00	0.0008383	FREQUENCY AND AMPLITUDE
	25.00	0.0005353	FREQUENCY AND AMPLITUDE
	27.00	0.0012928	FREQUENCY AND AMPLITUDE
	29.00	0.0002828	FREQUENCY AND AMPLITUDE
	37.00	0.0001717	FREQUENCY AND AMPLITUDE
	40.00	0.0002626	FREQUENCY AND AMPLITUDE
	46.00	0.0001818	FREQUENCY AND AMPLITUDE
	50.00	0.0001010	FREQUENCY AND AMPLITUDE
	54.00	0.0001515	FREQUENCY AND AMPLITUDE
	68.00	0.0000505	FREQUENCY AND AMPLITUDE
	75.00	0.0001717	FREQUENCY AND AMPLITUDE
	102.00	0.0000202	FREQUENCY AND AMPLITUDE
	121.00	0.0000505	FREQUENCY AND AMPLITUDE
	145.00	0.0000202	FREQUENCY AND AMPLITUDE
	151.00	0.0000303	FREQUENCY AND AMPLITUDE
	163.00	0.0000202	FREQUENCY AND AMPLITUDE
	189.00	0.0000404	FREQUENCY AND AMPLITUDE
	198.00	0.0000303	FREQUENCY AND AMPLITUDE
	229.00	0.0000606	FREQUENCY AND AMPLITUDE
	244.00	0.0008989	FREQUENCY AND AMPLITUDE
	279.00	0.0000202	FREQUENCY AND AMPLITUDE
	293.00	0.0000101	FREQUENCY AND AMPLITUDE
	317.00	0.0000202	FREQUENCY AND AMPLITUDE
	336.00	0.0000202	FREQUENCY AND AMPLITUDE
	364.00	0.0000101	FREQUENCY AND AMPLITUDE
	462.00	0.0000101	FREQUENCY AND AMPLITUDE
	473.00	0.0000303	FREQUENCY AND AMPLITUDE
	497.00	0.0000101	FREQUENCY AND AMPLITUDE

RMS VALUE = 0.31

M1022 EXPANDABLE SHELTER TYPE III MOBILITY VIBRATION SCHEDULE, VERTICAL

TABLE B-25. SHELTER INPUT VIBRATION SCHEDULE BREAKPOINTS

33	NUMBER OF BREAK POINTS		
	3.00	0.0071831	FREQUENCY AND AMPLITUDE
	6.00	0.0021037	FREQUENCY AND AMPLITUDE
	9.00	0.0035207	FREQUENCY AND AMPLITUDE
	12.00	0.0017222	FREQUENCY AND AMPLITUDE
	13.00	0.0041420	FREQUENCY AND AMPLITUDE
	18.00	0.0005014	FREQUENCY AND AMPLITUDE
	20.00	0.0005668	FREQUENCY AND AMPLITUDE
	25.00	0.0003488	FREQUENCY AND AMPLITUDE
	27.00	0.0005341	FREQUENCY AND AMPLITUDE
	43.00	0.0000763	FREQUENCY AND AMPLITUDE
	48.00	0.0001308	FREQUENCY AND AMPLITUDE
	67.00	0.0000327	FREQUENCY AND AMPLITUDE
	75.00	0.0000763	FREQUENCY AND AMPLITUDE
	82.00	0.0000109	FREQUENCY AND AMPLITUDE
	117.00	0.0000327	FREQUENCY AND AMPLITUDE
	121.00	0.0000654	FREQUENCY AND AMPLITUDE
	129.00	0.0000327	FREQUENCY AND AMPLITUDE
	135.00	0.0000545	FREQUENCY AND AMPLITUDE
	143.00	0.0000327	FREQUENCY AND AMPLITUDE
	152.00	0.0000436	FREQUENCY AND AMPLITUDE
	165.00	0.0000218	FREQUENCY AND AMPLITUDE
	186.00	0.0000327	FREQUENCY AND AMPLITUDE
	196.00	0.0000109	FREQUENCY AND AMPLITUDE
	206.00	0.0000327	FREQUENCY AND AMPLITUDE
	244.00	0.0014170	FREQUENCY AND AMPLITUDE
	264.00	0.0000109	FREQUENCY AND AMPLITUDE
	295.00	0.0000327	FREQUENCY AND AMPLITUDE
	320.00	0.0000218	FREQUENCY AND AMPLITUDE
	336.00	0.0000327	FREQUENCY AND AMPLITUDE
	381.00	0.0000109	FREQUENCY AND AMPLITUDE
	459.00	0.0000109	FREQUENCY AND AMPLITUDE
	477.00	0.0000327	FREQUENCY AND AMPLITUDE
	497.00	0.0000109	FREQUENCY AND AMPLITUDE

RMS VALUE = 0.29

M1022/EXPANDABLE SHELTER TYPE III MOBILITY VIBRATION SCHEDULE, TRANSVERSE

TABLE B-26. SHELTER INPUT VIBRATION SCHEDULE BREAKPOINTS

26	NUMBER OF BREAK POINTS	
3.00	0.0030240	FREQUENCY AND AMPLITUDE
6.00	0.0007236	FREQUENCY AND AMPLITUDE
8.00	0.0011988	FREQUENCY AND AMPLITUDE
10.00	0.0012744	FREQUENCY AND AMPLITUDE
25.00	0.0001026	FREQUENCY AND AMPLITUDE
27.00	0.0002214	FREQUENCY AND AMPLITUDE
38.00	0.0000324	FREQUENCY AND AMPLITUDE
41.00	0.0000486	FREQUENCY AND AMPLITUDE
47.00	0.0000432	FREQUENCY AND AMPLITUDE
50.00	0.0000216	FREQUENCY AND AMPLITUDE
55.00	0.0000378	FREQUENCY AND AMPLITUDE
64.00	0.0000162	FREQUENCY AND AMPLITUDE
75.00	0.0000486	FREQUENCY AND AMPLITUDE
82.00	0.0000162	FREQUENCY AND AMPLITUDE
117.00	0.0000216	FREQUENCY AND AMPLITUDE
121.00	0.0000486	FREQUENCY AND AMPLITUDE
124.00	0.0000324	FREQUENCY AND AMPLITUDE
187.00	0.0000810	FREQUENCY AND AMPLITUDE
198.00	0.0000324	FREQUENCY AND AMPLITUDE
221.00	0.0000594	FREQUENCY AND AMPLITUDE
244.00	0.0040014	FREQUENCY AND AMPLITUDE
264.00	0.0000270	FREQUENCY AND AMPLITUDE
307.00	0.0000324	FREQUENCY AND AMPLITUDE
430.00	0.0000108	FREQUENCY AND AMPLITUDE
477.00	0.0000378	FREQUENCY AND AMPLITUDE
493.00	0.0000108	FREQUENCY AND AMPLITUDE

RMS VALUE = 0.28

M1022/EXPANDABLE SHELTER TYPE III MOBILITY VIBRATION SCHEDULE, LONGITUDINAL

TABLE B-27. SHELTER INPUT VIBRATION SCHEDULE BREAKPOINTS

31	NUMBER OF BREAK POINTS		
	3.00	0.0162300	FREQUENCY AND AMPLITUDE
	12.00	0.0009700	FREQUENCY AND AMPLITUDE
	13.00	0.0015700	FREQUENCY AND AMPLITUDE
	17.00	0.0004100	FREQUENCY AND AMPLITUDE
	20.00	0.0008500	FREQUENCY AND AMPLITUDE
	25.00	0.0003800	FREQUENCY AND AMPLITUDE
	27.00	0.0012400	FREQUENCY AND AMPLITUDE
	37.00	0.0001200	FREQUENCY AND AMPLITUDE
	40.00	0.0001800	FREQUENCY AND AMPLITUDE
	47.00	0.0001900	FREQUENCY AND AMPLITUDE
	50.00	0.0000900	FREQUENCY AND AMPLITUDE
	60.00	0.0002400	FREQUENCY AND AMPLITUDE
	66.00	0.0000600	FREQUENCY AND AMPLITUDE
	73.00	0.0004600	FREQUENCY AND AMPLITUDE
	90.00	0.0000100	FREQUENCY AND AMPLITUDE
	93.00	0.0000200	FREQUENCY AND AMPLITUDE
	97.00	0.0000100	FREQUENCY AND AMPLITUDE
	109.00	0.0000100	FREQUENCY AND AMPLITUDE
	125.00	0.0000300	FREQUENCY AND AMPLITUDE
	140.00	0.0000100	FREQUENCY AND AMPLITUDE
	147.00	0.0000300	FREQUENCY AND AMPLITUDE
	154.00	0.0000100	FREQUENCY AND AMPLITUDE
	183.00	0.0000100	FREQUENCY AND AMPLITUDE
	195.00	0.0000300	FREQUENCY AND AMPLITUDE
	199.00	0.0000100	FREQUENCY AND AMPLITUDE
	229.00	0.0000100	FREQUENCY AND AMPLITUDE
	244.00	0.0019800	FREQUENCY AND AMPLITUDE
	252.00	0.0000100	FREQUENCY AND AMPLITUDE
	470.00	0.0000100	FREQUENCY AND AMPLITUDE
	477.00	0.0000300	FREQUENCY AND AMPLITUDE
	493.00	0.0000100	FREQUENCY AND AMPLITUDE

RMS VALUE = 0.30

M1022/NON-EXPANDABLE SHELTER TYPE III MOBILITY VIBRATION SCHEDULE, VERTICAL

TABLE B-28. SHELTER INPUT VIBRATION SCHEDULE BREAKPOINTS

25	NUMBER OF BREAK POINTS		
	3.00	0.0232497	FREQUENCY AND AMPLITUDE
	12.00	0.0008058	FREQUENCY AND AMPLITUDE
	13.00	0.0017064	FREQUENCY AND AMPLITUDE
	15.00	0.0005451	FREQUENCY AND AMPLITUDE
	18.00	0.0006162	FREQUENCY AND AMPLITUDE
	20.00	0.0015168	FREQUENCY AND AMPLITUDE
	25.00	0.0006162	FREQUENCY AND AMPLITUDE
	27.00	0.0011850	FREQUENCY AND AMPLITUDE
	31.00	0.0002607	FREQUENCY AND AMPLITUDE
	33.00	0.0004266	FREQUENCY AND AMPLITUDE
	38.00	0.0002133	FREQUENCY AND AMPLITUDE
	41.00	0.0003792	FREQUENCY AND AMPLITUDE
	45.00	0.0001896	FREQUENCY AND AMPLITUDE
	47.00	0.0002607	FREQUENCY AND AMPLITUDE
	52.00	0.0000711	FREQUENCY AND AMPLITUDE
	54.00	0.0001185	FREQUENCY AND AMPLITUDE
	66.00	0.0000237	FREQUENCY AND AMPLITUDE
	75.00	0.0002133	FREQUENCY AND AMPLITUDE
	81.00	0.0000237	FREQUENCY AND AMPLITUDE
	117.00	0.0000237	FREQUENCY AND AMPLITUDE
	120.00	0.0000237	FREQUENCY AND AMPLITUDE
	128.00	0.0000237	FREQUENCY AND AMPLITUDE
	229.00	0.0000237	FREQUENCY AND AMPLITUDE
	242.00	0.0017538	FREQUENCY AND AMPLITUDE
	254.00	0.0000237	FREQUENCY AND AMPLITUDE

RMS VALUE = 0.31

M1022/NON-EXPANDABLE SHELTER TYPE III MOBILITY VIBRATION SCHEDULE, TRANSVERSE

TABLE B-29. SHELTER INPUT VIBRATION SCHEDULE BREAKPOINTS

30	NUMBER OF BREAK POINTS		
	3.00	0.0030360	FREQUENCY AND AMPLITUDE
	15.00	0.0000414	FREQUENCY AND AMPLITUDE
	20.00	0.0001449	FREQUENCY AND AMPLITUDE
	25.00	0.0000759	FREQUENCY AND AMPLITUDE
	27.00	0.0001863	FREQUENCY AND AMPLITUDE
	29.00	0.0000621	FREQUENCY AND AMPLITUDE
	32.00	0.0000621	FREQUENCY AND AMPLITUDE
	33.00	0.0001173	FREQUENCY AND AMPLITUDE
	37.00	0.0000414	FREQUENCY AND AMPLITUDE
	48.00	0.0000552	FREQUENCY AND AMPLITUDE
	66.00	0.0000069	FREQUENCY AND AMPLITUDE
	74.00	0.0000345	FREQUENCY AND AMPLITUDE
	81.00	0.0000000	FREQUENCY AND AMPLITUDE
	104.00	0.0000000	FREQUENCY AND AMPLITUDE
	114.00	0.0000069	FREQUENCY AND AMPLITUDE
	127.00	0.0000069	FREQUENCY AND AMPLITUDE
	140.00	0.0000000	FREQUENCY AND AMPLITUDE
	148.00	0.0000069	FREQUENCY AND AMPLITUDE
	170.00	0.0000000	FREQUENCY AND AMPLITUDE
	189.00	0.0000207	FREQUENCY AND AMPLITUDE
	204.00	0.0000000	FREQUENCY AND AMPLITUDE
	227.00	0.0000138	FREQUENCY AND AMPLITUDE
	240.00	0.0016560	FREQUENCY AND AMPLITUDE
	258.00	0.0000069	FREQUENCY AND AMPLITUDE
	378.00	0.0000000	FREQUENCY AND AMPLITUDE
	407.00	0.0000069	FREQUENCY AND AMPLITUDE
	420.00	0.0000000	FREQUENCY AND AMPLITUDE
	462.00	0.0000000	FREQUENCY AND AMPLITUDE
	481.00	0.0000276	FREQUENCY AND AMPLITUDE
	493.00	0.0000000	FREQUENCY AND AMPLITUDE

RMS VALUE = 0.16

M1022/NON-EXPANDABLE SHELTER TYPE III MOBILITY VIBRATION SCHEDULE, LONGITUDINAL

TABLE B-30. SHELTER INPUT VIBRATION SCHEDULE BREAKPOINTS

29	NUMBER OF BREAK POINTS		
	3.00	0.0282906	FREQUENCY AND AMPLITUDE
	7.00	0.0052559	FREQUENCY AND AMPLITUDE
	10.00	0.0102752	FREQUENCY AND AMPLITUDE
	11.00	0.0107653	FREQUENCY AND AMPLITUDE
	15.00	0.0024505	FREQUENCY AND AMPLITUDE
	18.00	0.0031434	FREQUENCY AND AMPLITUDE
	37.00	0.0005408	FREQUENCY AND AMPLITUDE
	40.00	0.0007267	FREQUENCY AND AMPLITUDE
	54.00	0.0006084	FREQUENCY AND AMPLITUDE
	65.00	0.0003042	FREQUENCY AND AMPLITUDE
	67.00	0.0004563	FREQUENCY AND AMPLITUDE
	78.00	0.0001521	FREQUENCY AND AMPLITUDE
	81.00	0.0003211	FREQUENCY AND AMPLITUDE
	88.00	0.0001183	FREQUENCY AND AMPLITUDE
	93.00	0.0001690	FREQUENCY AND AMPLITUDE
	104.00	0.0001183	FREQUENCY AND AMPLITUDE
	108.00	0.0002366	FREQUENCY AND AMPLITUDE
	128.00	0.0001183	FREQUENCY AND AMPLITUDE
	162.00	0.0002535	FREQUENCY AND AMPLITUDE
	206.00	0.0000676	FREQUENCY AND AMPLITUDE
	211.00	0.0001014	FREQUENCY AND AMPLITUDE
	238.00	0.0000338	FREQUENCY AND AMPLITUDE
	260.00	0.0000507	FREQUENCY AND AMPLITUDE
	286.00	0.0000338	FREQUENCY AND AMPLITUDE
	302.00	0.0000507	FREQUENCY AND AMPLITUDE
	420.00	0.0000169	FREQUENCY AND AMPLITUDE
	423.00	0.0000507	FREQUENCY AND AMPLITUDE
	430.00	0.0000169	FREQUENCY AND AMPLITUDE
	489.00	0.0000169	FREQUENCY AND AMPLITUDE

RMS VALUE = 0.45

M1022A1/GENERIC SHELTER TYPE III MOBILITY VIBRATION SCHEDULE, VERTICAL

TABLE B-31. SHELTER INPUT VIBRATION SCHEDULE BREAKPOINTS

27	NUMBER OF BREAK POINTS		
	3.00	0.0632840	FREQUENCY AND AMPLITUDE
	4.00	0.0160420	FREQUENCY AND AMPLITUDE
	7.00	0.0093080	FREQUENCY AND AMPLITUDE
	12.00	0.0135200	FREQUENCY AND AMPLITUDE
	18.00	0.0031720	FREQUENCY AND AMPLITUDE
	21.00	0.0040820	FREQUENCY AND AMPLITUDE
	30.00	0.0026000	FREQUENCY AND AMPLITUDE
	36.00	0.0010920	FREQUENCY AND AMPLITUDE
	44.00	0.0016380	FREQUENCY AND AMPLITUDE
	55.00	0.0015600	FREQUENCY AND AMPLITUDE
	68.00	0.0006760	FREQUENCY AND AMPLITUDE
	70.00	0.0002600	FREQUENCY AND AMPLITUDE
	78.00	0.0004160	FREQUENCY AND AMPLITUDE
	81.00	0.0012480	FREQUENCY AND AMPLITUDE
	85.00	0.0002080	FREQUENCY AND AMPLITUDE
	95.00	0.0003640	FREQUENCY AND AMPLITUDE
	104.00	0.0003120	FREQUENCY AND AMPLITUDE
	108.00	0.0005980	FREQUENCY AND AMPLITUDE
	111.00	0.0003120	FREQUENCY AND AMPLITUDE
	116.00	0.0008580	FREQUENCY AND AMPLITUDE
	123.00	0.0002080	FREQUENCY AND AMPLITUDE
	171.00	0.0004940	FREQUENCY AND AMPLITUDE
	208.00	0.0002600	FREQUENCY AND AMPLITUDE
	258.00	0.0003640	FREQUENCY AND AMPLITUDE
	330.00	0.0001560	FREQUENCY AND AMPLITUDE
	410.00	0.0001560	FREQUENCY AND AMPLITUDE
	497.00	0.0000520	FREQUENCY AND AMPLITUDE

RMS VALUE = 0.64

M1022A1/GENERIC SHELTER TYPE III MOBILITY VIBRATION SCHEDULE, TRANSVERSE

TABLE B-32. SHELTER INPUT VIBRATION SCHEDULE BREAKPOINTS

28	NUMBER OF BREAK POINTS		
	3.00	0.0066528	FREQUENCY AND AMPLITUDE
	6.00	0.0014364	FREQUENCY AND AMPLITUDE
	11.00	0.0027090	FREQUENCY AND AMPLITUDE
	32.00	0.0002646	FREQUENCY AND AMPLITUDE
	35.00	0.0003402	FREQUENCY AND AMPLITUDE
	40.00	0.0003150	FREQUENCY AND AMPLITUDE
	44.00	0.0002142	FREQUENCY AND AMPLITUDE
	57.00	0.0003024	FREQUENCY AND AMPLITUDE
	62.00	0.0002016	FREQUENCY AND AMPLITUDE
	67.00	0.0004914	FREQUENCY AND AMPLITUDE
	77.00	0.0001764	FREQUENCY AND AMPLITUDE
	81.00	0.0002142	FREQUENCY AND AMPLITUDE
	90.00	0.0001512	FREQUENCY AND AMPLITUDE
	99.00	0.0002016	FREQUENCY AND AMPLITUDE
	124.00	0.0001512	FREQUENCY AND AMPLITUDE
	129.00	0.0002142	FREQUENCY AND AMPLITUDE
	132.00	0.0001386	FREQUENCY AND AMPLITUDE
	159.00	0.0002142	FREQUENCY AND AMPLITUDE
	176.00	0.0003150	FREQUENCY AND AMPLITUDE
	198.00	0.0001638	FREQUENCY AND AMPLITUDE
	211.00	0.0002016	FREQUENCY AND AMPLITUDE
	221.00	0.0001386	FREQUENCY AND AMPLITUDE
	229.00	0.0001890	FREQUENCY AND AMPLITUDE
	234.00	0.0001512	FREQUENCY AND AMPLITUDE
	252.00	0.0002016	FREQUENCY AND AMPLITUDE
	281.00	0.0001008	FREQUENCY AND AMPLITUDE
	378.00	0.0002394	FREQUENCY AND AMPLITUDE
	500.00	0.0000378	FREQUENCY AND AMPLITUDE

RMS VALUE = 0.35

M1022A1/GENERIC SHELTER TYPE III MOBILITY VIBRATION SCHEDULE, LONGITUDINAL

TABLE B-33. SHELTER INPUT VIBRATION SCHEDULE BREAKPOINTS

29	NUMBER OF BREAK POINTS		
	3.00	0.0977364	FREQUENCY AND AMPLITUDE
	6.00	0.0053856	FREQUENCY AND AMPLITUDE
	9.00	0.0063342	FREQUENCY AND AMPLITUDE
	15.00	0.0003162	FREQUENCY AND AMPLITUDE
	19.00	0.0005814	FREQUENCY AND AMPLITUDE
	22.00	0.0001122	FREQUENCY AND AMPLITUDE
	25.00	0.0001836	FREQUENCY AND AMPLITUDE
	27.00	0.0001020	FREQUENCY AND AMPLITUDE
	49.00	0.0001020	FREQUENCY AND AMPLITUDE
	54.00	0.0002958	FREQUENCY AND AMPLITUDE
	58.00	0.0001122	FREQUENCY AND AMPLITUDE
	79.00	0.0001224	FREQUENCY AND AMPLITUDE
	95.00	0.0001326	FREQUENCY AND AMPLITUDE
	121.00	0.0001122	FREQUENCY AND AMPLITUDE
	153.00	0.0001122	FREQUENCY AND AMPLITUDE
	157.00	0.0002244	FREQUENCY AND AMPLITUDE
	162.00	0.0001020	FREQUENCY AND AMPLITUDE
	229.00	0.0001020	FREQUENCY AND AMPLITUDE
	238.00	0.0002754	FREQUENCY AND AMPLITUDE
	244.00	0.0001020	FREQUENCY AND AMPLITUDE
	252.00	0.0001020	FREQUENCY AND AMPLITUDE
	258.00	0.0002040	FREQUENCY AND AMPLITUDE
	262.00	0.0001020	FREQUENCY AND AMPLITUDE
	268.00	0.0001020	FREQUENCY AND AMPLITUDE
	275.00	0.0001428	FREQUENCY AND AMPLITUDE
	284.00	0.0001020	FREQUENCY AND AMPLITUDE
	307.00	0.0001020	FREQUENCY AND AMPLITUDE
	315.00	0.0003876	FREQUENCY AND AMPLITUDE
	322.00	0.0001020	FREQUENCY AND AMPLITUDE
RMS VALUE =	0.46		

M832/S280 Type III Mobility Vibration Schedule, Vertical

TABLE B-34. SHELTER INPUT VIBRATION SCHEDULE BREAKPOINTS

35	NUMBER OF BREAK POINTS		
	3.00	0.0033048	FREQUENCY AND AMPLITUDE
	7.00	0.0011016	FREQUENCY AND AMPLITUDE
	10.00	0.0062856	FREQUENCY AND AMPLITUDE
	14.00	0.0008496	FREQUENCY AND AMPLITUDE
	19.00	0.0005112	FREQUENCY AND AMPLITUDE
	22.00	0.0001008	FREQUENCY AND AMPLITUDE
	25.00	0.0003744	FREQUENCY AND AMPLITUDE
	30.00	0.0000288	FREQUENCY AND AMPLITUDE
	32.00	0.0000360	FREQUENCY AND AMPLITUDE
	39.00	0.0000072	FREQUENCY AND AMPLITUDE
	42.00	0.0000360	FREQUENCY AND AMPLITUDE
	50.00	0.0000072	FREQUENCY AND AMPLITUDE
	56.00	0.0000144	FREQUENCY AND AMPLITUDE
	58.00	0.0000360	FREQUENCY AND AMPLITUDE
	69.00	0.0000072	FREQUENCY AND AMPLITUDE
	79.00	0.0000432	FREQUENCY AND AMPLITUDE
	83.00	0.0000288	FREQUENCY AND AMPLITUDE
	98.00	0.0000432	FREQUENCY AND AMPLITUDE
	108.00	0.0001224	FREQUENCY AND AMPLITUDE
	126.00	0.0000936	FREQUENCY AND AMPLITUDE
	133.00	0.0001368	FREQUENCY AND AMPLITUDE
	150.00	0.0000288	FREQUENCY AND AMPLITUDE
	157.00	0.0005184	FREQUENCY AND AMPLITUDE
	163.00	0.0000216	FREQUENCY AND AMPLITUDE
	216.00	0.0000288	FREQUENCY AND AMPLITUDE
	230.00	0.0000216	FREQUENCY AND AMPLITUDE
	238.00	0.0003096	FREQUENCY AND AMPLITUDE
	260.00	0.0000432	FREQUENCY AND AMPLITUDE
	305.00	0.0002952	FREQUENCY AND AMPLITUDE
	344.00	0.0000144	FREQUENCY AND AMPLITUDE
	413.00	0.0000216	FREQUENCY AND AMPLITUDE
	437.00	0.0000216	FREQUENCY AND AMPLITUDE
	462.00	0.0000144	FREQUENCY AND AMPLITUDE
	473.00	0.0000360	FREQUENCY AND AMPLITUDE
	497.00	0.0000144	FREQUENCY AND AMPLITUDE

RMS VALUE = 0.25

M832/S280 TYPE III MOBILITY VIBRATION SCHEDULE, TRANSVERSE

TABLE B-35. SHELTER INPUT VIBRATION SCHEDULE BREAKPOINTS

34	NUMBER OF BREAK POINTS		
	3.00	0.0045746	FREQUENCY AND AMPLITUDE
	7.00	0.0004450	FREQUENCY AND AMPLITUDE
	10.00	0.0017177	FREQUENCY AND AMPLITUDE
	14.00	0.0003026	FREQUENCY AND AMPLITUDE
	18.00	0.0004895	FREQUENCY AND AMPLITUDE
	22.00	0.0001068	FREQUENCY AND AMPLITUDE
	24.00	0.0001691	FREQUENCY AND AMPLITUDE
	31.00	0.0000712	FREQUENCY AND AMPLITUDE
	45.00	0.0002759	FREQUENCY AND AMPLITUDE
	48.00	0.0001691	FREQUENCY AND AMPLITUDE
	55.00	0.0005251	FREQUENCY AND AMPLITUDE
	67.00	0.0001335	FREQUENCY AND AMPLITUDE
	79.00	0.0002403	FREQUENCY AND AMPLITUDE
	83.00	0.0001958	FREQUENCY AND AMPLITUDE
	91.00	0.0004628	FREQUENCY AND AMPLITUDE
	101.00	0.0002670	FREQUENCY AND AMPLITUDE
	115.00	0.0004094	FREQUENCY AND AMPLITUDE
	151.00	0.0004272	FREQUENCY AND AMPLITUDE
	159.00	0.0015842	FREQUENCY AND AMPLITUDE
	165.00	0.0002937	FREQUENCY AND AMPLITUDE
	199.00	0.0002136	FREQUENCY AND AMPLITUDE
	232.00	0.0004361	FREQUENCY AND AMPLITUDE
	242.00	0.0017177	FREQUENCY AND AMPLITUDE
	248.00	0.0005518	FREQUENCY AND AMPLITUDE
	256.00	0.0010769	FREQUENCY AND AMPLITUDE
	262.00	0.0004183	FREQUENCY AND AMPLITUDE
	275.00	0.0010591	FREQUENCY AND AMPLITUDE
	291.00	0.0003738	FREQUENCY AND AMPLITUDE
	312.00	0.0014240	FREQUENCY AND AMPLITUDE
	344.00	0.0003649	FREQUENCY AND AMPLITUDE
	369.00	0.0005785	FREQUENCY AND AMPLITUDE
	455.00	0.0002848	FREQUENCY AND AMPLITUDE
	470.00	0.0004984	FREQUENCY AND AMPLITUDE
	497.00	0.0002136	FREQUENCY AND AMPLITUDE

RMS VALUE = 0.49

M832/S280 TYPE III MOBILITY VIBRATION SCHEDULE, LONGITUDINAL

TABLE B-36. SHELTER INPUT VIBRATION SCHEDULE BREAKPOINTS

31	NUMBER OF BREAK POINTS	
3.00	0.0958200	FREQUENCY AND AMPLITUDE
6.00	0.0060000	FREQUENCY AND AMPLITUDE
7.00	0.0137600	FREQUENCY AND AMPLITUDE
14.00	0.0026800	FREQUENCY AND AMPLITUDE
16.00	0.0036700	FREQUENCY AND AMPLITUDE
20.00	0.0036300	FREQUENCY AND AMPLITUDE
36.00	0.0004300	FREQUENCY AND AMPLITUDE
39.00	0.0007000	FREQUENCY AND AMPLITUDE
42.00	0.0003800	FREQUENCY AND AMPLITUDE
53.00	0.0004000	FREQUENCY AND AMPLITUDE
59.00	0.0002200	FREQUENCY AND AMPLITUDE
63.00	0.0003000	FREQUENCY AND AMPLITUDE
69.00	0.0001700	FREQUENCY AND AMPLITUDE
73.00	0.0004400	FREQUENCY AND AMPLITUDE
79.00	0.0001200	FREQUENCY AND AMPLITUDE
100.00	0.0001300	FREQUENCY AND AMPLITUDE
105.00	0.0008200	FREQUENCY AND AMPLITUDE
109.00	0.0001200	FREQUENCY AND AMPLITUDE
120.00	0.0001000	FREQUENCY AND AMPLITUDE
152.00	0.0001000	FREQUENCY AND AMPLITUDE
157.00	0.0002200	FREQUENCY AND AMPLITUDE
163.00	0.0001000	FREQUENCY AND AMPLITUDE
229.00	0.0001000	FREQUENCY AND AMPLITUDE
242.00	0.0021400	FREQUENCY AND AMPLITUDE
252.00	0.0001000	FREQUENCY AND AMPLITUDE
264.00	0.0001000	FREQUENCY AND AMPLITUDE
275.00	0.0001400	FREQUENCY AND AMPLITUDE
284.00	0.0001000	FREQUENCY AND AMPLITUDE
307.00	0.0001000	FREQUENCY AND AMPLITUDE
315.00	0.0003600	FREQUENCY AND AMPLITUDE
322.00	0.0001100	FREQUENCY AND AMPLITUDE

RMS VALUE = 0.55

MASTER SCHEDULE (ALL SHELTERS) TYPE III MOBILITY, VERTICAL

TABLE B-37. SHELTER INPUT VIBRATION SCHEDULE BREAKPOINTS

31	NUMBER OF BREAK POINTS		
	3.00	0.0239600	FREQUENCY AND AMPLITUDE
	7.00	0.0035800	FREQUENCY AND AMPLITUDE
	8.00	0.0100100	FREQUENCY AND AMPLITUDE
	10.00	0.0087000	FREQUENCY AND AMPLITUDE
	36.00	0.0004400	FREQUENCY AND AMPLITUDE
	50.00	0.0006300	FREQUENCY AND AMPLITUDE
	60.00	0.0002400	FREQUENCY AND AMPLITUDE
	65.00	0.0007500	FREQUENCY AND AMPLITUDE
	71.00	0.0001000	FREQUENCY AND AMPLITUDE
	81.00	0.0004600	FREQUENCY AND AMPLITUDE
	85.00	0.0000900	FREQUENCY AND AMPLITUDE
	115.00	0.0003000	FREQUENCY AND AMPLITUDE
	127.00	0.0001100	FREQUENCY AND AMPLITUDE
	135.00	0.0001900	FREQUENCY AND AMPLITUDE
	138.00	0.0001100	FREQUENCY AND AMPLITUDE
	153.00	0.0001500	FREQUENCY AND AMPLITUDE
	157.00	0.0007100	FREQUENCY AND AMPLITUDE
	166.00	0.0001800	FREQUENCY AND AMPLITUDE
	208.00	0.0001000	FREQUENCY AND AMPLITUDE
	232.00	0.0001300	FREQUENCY AND AMPLITUDE
	242.00	0.0013400	FREQUENCY AND AMPLITUDE
	252.00	0.0001400	FREQUENCY AND AMPLITUDE
	286.00	0.0001900	FREQUENCY AND AMPLITUDE
	291.00	0.0001200	FREQUENCY AND AMPLITUDE
	302.00	0.0003900	FREQUENCY AND AMPLITUDE
	333.00	0.0000600	FREQUENCY AND AMPLITUDE
	352.00	0.0000600	FREQUENCY AND AMPLITUDE
	364.00	0.0000800	FREQUENCY AND AMPLITUDE
	375.00	0.0000600	FREQUENCY AND AMPLITUDE
	420.00	0.0000600	FREQUENCY AND AMPLITUDE
	497.00	0.0000200	FREQUENCY AND AMPLITUDE

RMS VALUE = 0.46

MASTER SCHEDULE (ALL SHELTERS) TYPE III MOBILITY, TRANSVERSE

TABLE B-38. SHELTER INPUT VIBRATION SCHEDULE BREAKPOINTS

35	NUMBER OF BREAK POINTS		
	3.00	0.0055300	FREQUENCY AND AMPLITUDE
	4.00	0.0049200	FREQUENCY AND AMPLITUDE
	6.00	0.0013400	FREQUENCY AND AMPLITUDE
	8.00	0.0033500	FREQUENCY AND AMPLITUDE
	14.00	0.0018400	FREQUENCY AND AMPLITUDE
	15.00	0.0025300	FREQUENCY AND AMPLITUDE
	16.00	0.0025900	FREQUENCY AND AMPLITUDE
	24.00	0.0003500	FREQUENCY AND AMPLITUDE
	27.00	0.0005200	FREQUENCY AND AMPLITUDE
	30.00	0.0004700	FREQUENCY AND AMPLITUDE
	33.00	0.0002500	FREQUENCY AND AMPLITUDE
	43.00	0.0002400	FREQUENCY AND AMPLITUDE
	45.00	0.0003100	FREQUENCY AND AMPLITUDE
	48.00	0.0002000	FREQUENCY AND AMPLITUDE
	54.00	0.0005900	FREQUENCY AND AMPLITUDE
	62.00	0.0002500	FREQUENCY AND AMPLITUDE
	65.00	0.0005300	FREQUENCY AND AMPLITUDE
	73.00	0.0001600	FREQUENCY AND AMPLITUDE
	90.00	0.0005100	FREQUENCY AND AMPLITUDE
	102.00	0.0002800	FREQUENCY AND AMPLITUDE
	108.00	0.0004500	FREQUENCY AND AMPLITUDE
	152.00	0.0005000	FREQUENCY AND AMPLITUDE
	157.00	0.0018200	FREQUENCY AND AMPLITUDE
	166.00	0.0003100	FREQUENCY AND AMPLITUDE
	229.00	0.0004700	FREQUENCY AND AMPLITUDE
	246.00	0.0076700	FREQUENCY AND AMPLITUDE
	262.00	0.0004900	FREQUENCY AND AMPLITUDE
	277.00	0.0012500	FREQUENCY AND AMPLITUDE
	288.00	0.0004200	FREQUENCY AND AMPLITUDE
	312.00	0.0016200	FREQUENCY AND AMPLITUDE
	352.00	0.0004100	FREQUENCY AND AMPLITUDE
	372.00	0.0006600	FREQUENCY AND AMPLITUDE
	455.00	0.0002900	FREQUENCY AND AMPLITUDE
	473.00	0.0005700	FREQUENCY AND AMPLITUDE
	500.00	0.0002200	FREQUENCY AND AMPLITUDE

RMS VALUE = 0.61

MASTER SCHEDULE (ALL SHELTERS) TYPE III MOBILITY, LONGITUDINAL

TABLE B-39. SHELTER FLOOR VIBRATION SCHEDULE BREAKPOINTS

42	NUMBER OF BREAK POINTS		
	3.00	0.0375150	FREQUENCY AND AMPLITUDE
	4.00	0.0279014	FREQUENCY AND AMPLITUDE
	7.00	0.0023790	FREQUENCY AND AMPLITUDE
	10.00	0.0029524	FREQUENCY AND AMPLITUDE
	13.00	0.0017446	FREQUENCY AND AMPLITUDE
	19.00	0.0029158	FREQUENCY AND AMPLITUDE
	21.00	0.0014152	FREQUENCY AND AMPLITUDE
	24.00	0.0018544	FREQUENCY AND AMPLITUDE
	27.00	0.0004880	FREQUENCY AND AMPLITUDE
	31.00	0.0016836	FREQUENCY AND AMPLITUDE
	34.00	0.0003538	FREQUENCY AND AMPLITUDE
	40.00	0.0022692	FREQUENCY AND AMPLITUDE
	42.00	0.0003904	FREQUENCY AND AMPLITUDE
	45.00	0.0008052	FREQUENCY AND AMPLITUDE
	48.00	0.0003782	FREQUENCY AND AMPLITUDE
	53.00	0.0008784	FREQUENCY AND AMPLITUDE
	59.00	0.0003050	FREQUENCY AND AMPLITUDE
	65.00	0.0009516	FREQUENCY AND AMPLITUDE
	73.00	0.0000610	FREQUENCY AND AMPLITUDE
	83.00	0.0003050	FREQUENCY AND AMPLITUDE
	86.00	0.0000610	FREQUENCY AND AMPLITUDE
	90.00	0.0001098	FREQUENCY AND AMPLITUDE
	97.00	0.0000488	FREQUENCY AND AMPLITUDE
	106.00	0.0004758	FREQUENCY AND AMPLITUDE
	111.00	0.0001098	FREQUENCY AND AMPLITUDE
	121.00	0.0003172	FREQUENCY AND AMPLITUDE
	146.00	0.0000366	FREQUENCY AND AMPLITUDE
	162.00	0.0000610	FREQUENCY AND AMPLITUDE
	181.00	0.0000366	FREQUENCY AND AMPLITUDE
	187.00	0.0000610	FREQUENCY AND AMPLITUDE
	208.00	0.0000488	FREQUENCY AND AMPLITUDE
	211.00	0.0000976	FREQUENCY AND AMPLITUDE
	216.00	0.0000488	FREQUENCY AND AMPLITUDE
	252.00	0.0000610	FREQUENCY AND AMPLITUDE
	270.00	0.0001098	FREQUENCY AND AMPLITUDE
	281.00	0.0000488	FREQUENCY AND AMPLITUDE
	317.00	0.0000854	FREQUENCY AND AMPLITUDE
	364.00	0.0000244	FREQUENCY AND AMPLITUDE
	378.00	0.0000488	FREQUENCY AND AMPLITUDE
	397.00	0.0000122	FREQUENCY AND AMPLITUDE
	417.00	0.0002928	FREQUENCY AND AMPLITUDE
	451.00	0.0000122	FREQUENCY AND AMPLITUDE

RMS VALUE = 0.43

M923/S280 TYPE III MOBILITY VIBRATION SCHEDULE, FLOOR, VERTICAL

TABLE B-40. SHELTER FLOOR VIBRATION SCHEDULE BREAKPOINTS

40	NUMBER OF BREAK POINTS		
	3.00	0.0065436	FREQUENCY AND AMPLITUDE
	6.00	0.0015162	FREQUENCY AND AMPLITUDE
	7.00	0.0020292	FREQUENCY AND AMPLITUDE
	8.00	0.0052554	FREQUENCY AND AMPLITUDE
	9.00	0.0044346	FREQUENCY AND AMPLITUDE
	11.00	0.0007752	FREQUENCY AND AMPLITUDE
	14.00	0.0006840	FREQUENCY AND AMPLITUDE
	19.00	0.0010602	FREQUENCY AND AMPLITUDE
	22.00	0.0007182	FREQUENCY AND AMPLITUDE
	24.00	0.0010032	FREQUENCY AND AMPLITUDE
	42.00	0.0001026	FREQUENCY AND AMPLITUDE
	47.00	0.0003534	FREQUENCY AND AMPLITUDE
	57.00	0.0001026	FREQUENCY AND AMPLITUDE
	66.00	0.0003762	FREQUENCY AND AMPLITUDE
	70.00	0.0000114	FREQUENCY AND AMPLITUDE
	78.00	0.0000114	FREQUENCY AND AMPLITUDE
	85.00	0.0000114	FREQUENCY AND AMPLITUDE
	91.00	0.0000228	FREQUENCY AND AMPLITUDE
	97.00	0.0000114	FREQUENCY AND AMPLITUDE
	106.00	0.0000570	FREQUENCY AND AMPLITUDE
	109.00	0.0000114	FREQUENCY AND AMPLITUDE
	121.00	0.0000228	FREQUENCY AND AMPLITUDE
	147.00	0.0000000	FREQUENCY AND AMPLITUDE
	157.00	0.0000000	FREQUENCY AND AMPLITUDE
	180.00	0.0000000	FREQUENCY AND AMPLITUDE
	195.00	0.0000000	FREQUENCY AND AMPLITUDE
	206.00	0.0000000	FREQUENCY AND AMPLITUDE
	213.00	0.0000114	FREQUENCY AND AMPLITUDE
	218.00	0.0000000	FREQUENCY AND AMPLITUDE
	244.00	0.0000000	FREQUENCY AND AMPLITUDE
	248.00	0.0000114	FREQUENCY AND AMPLITUDE
	254.00	0.0000000	FREQUENCY AND AMPLITUDE
	268.00	0.0000000	FREQUENCY AND AMPLITUDE
	298.00	0.0000000	FREQUENCY AND AMPLITUDE
	352.00	0.0000000	FREQUENCY AND AMPLITUDE
	369.00	0.0000114	FREQUENCY AND AMPLITUDE
	400.00	0.0000114	FREQUENCY AND AMPLITUDE
	417.00	0.0000570	FREQUENCY AND AMPLITUDE
	437.00	0.0000000	FREQUENCY AND AMPLITUDE
	481.00	0.0000114	FREQUENCY AND AMPLITUDE

RMS VALUE = 0.23

M923/S280 TYPE III MOBILITY VIBRATION SCHEDULE, FLOOR, TRANSVERSE

TABLE B-41. SHELTER FLOOR VIBRATION SCHEDULE BREAKPOINTS

43	NUMBER OF BREAK POINTS	
3.00	0.0013816	FREQUENCY AND AMPLITUDE
4.00	0.0015664	FREQUENCY AND AMPLITUDE
6.00	0.0003168	FREQUENCY AND AMPLITUDE
7.00	0.0002816	FREQUENCY AND AMPLITUDE
8.00	0.0005192	FREQUENCY AND AMPLITUDE
9.00	0.0004840	FREQUENCY AND AMPLITUDE
11.00	0.0001936	FREQUENCY AND AMPLITUDE
16.00	0.0006072	FREQUENCY AND AMPLITUDE
20.00	0.0004400	FREQUENCY AND AMPLITUDE
22.00	0.0002376	FREQUENCY AND AMPLITUDE
26.00	0.0005280	FREQUENCY AND AMPLITUDE
30.00	0.0004840	FREQUENCY AND AMPLITUDE
37.00	0.0000968	FREQUENCY AND AMPLITUDE
38.00	0.0001232	FREQUENCY AND AMPLITUDE
43.00	0.0000264	FREQUENCY AND AMPLITUDE
49.00	0.0001672	FREQUENCY AND AMPLITUDE
53.00	0.0001584	FREQUENCY AND AMPLITUDE
58.00	0.0000616	FREQUENCY AND AMPLITUDE
64.00	0.0003432	FREQUENCY AND AMPLITUDE
70.00	0.0000440	FREQUENCY AND AMPLITUDE
86.00	0.0000088	FREQUENCY AND AMPLITUDE
90.00	0.0000176	FREQUENCY AND AMPLITUDE
99.00	0.0000088	FREQUENCY AND AMPLITUDE
107.00	0.0001232	FREQUENCY AND AMPLITUDE
121.00	0.0000088	FREQUENCY AND AMPLITUDE
127.00	0.0000176	FREQUENCY AND AMPLITUDE
134.00	0.0000000	FREQUENCY AND AMPLITUDE
152.00	0.0000000	FREQUENCY AND AMPLITUDE
171.00	0.0000000	FREQUENCY AND AMPLITUDE
198.00	0.0000000	FREQUENCY AND AMPLITUDE
211.00	0.0000088	FREQUENCY AND AMPLITUDE
223.00	0.0000000	FREQUENCY AND AMPLITUDE
238.00	0.0000000	FREQUENCY AND AMPLITUDE
244.00	0.0000000	FREQUENCY AND AMPLITUDE
264.00	0.0000000	FREQUENCY AND AMPLITUDE
273.00	0.0000000	FREQUENCY AND AMPLITUDE
298.00	0.0000000	FREQUENCY AND AMPLITUDE
325.00	0.0000000	FREQUENCY AND AMPLITUDE
366.00	0.0000000	FREQUENCY AND AMPLITUDE
427.00	0.0000264	FREQUENCY AND AMPLITUDE
437.00	0.0000000	FREQUENCY AND AMPLITUDE
462.00	0.0000088	FREQUENCY AND AMPLITUDE
493.00	0.0000000	FREQUENCY AND AMPLITUDE

RMS VALUE = 0.15

M923/S280 TYPE III MOBILITY VIBRATION SCHEDULE, FLOOR, LONGITUDINAL

TABLE B-42. SHELTER FLOOR VIBRATION SCHEDULE BREAKPOINTS

17	NUMBER OF BREAK POINTS		
	3.00	0.0090252	FREQUENCY AND AMPLITUDE
	5.00	0.0016744	FREQUENCY AND AMPLITUDE
	7.00	0.0071392	FREQUENCY AND AMPLITUDE
	9.00	0.0026404	FREQUENCY AND AMPLITUDE
	11.00	0.0023828	FREQUENCY AND AMPLITUDE
	12.00	0.0028060	FREQUENCY AND AMPLITUDE
	20.00	0.0004140	FREQUENCY AND AMPLITUDE
	24.00	0.0011684	FREQUENCY AND AMPLITUDE
	36.00	0.0000460	FREQUENCY AND AMPLITUDE
	38.00	0.0000552	FREQUENCY AND AMPLITUDE
	55.00	0.0000092	FREQUENCY AND AMPLITUDE
	288.00	0.0000092	FREQUENCY AND AMPLITUDE
	305.00	0.0000368	FREQUENCY AND AMPLITUDE
	338.00	0.0000644	FREQUENCY AND AMPLITUDE
	352.00	0.0000276	FREQUENCY AND AMPLITUDE
	384.00	0.0001564	FREQUENCY AND AMPLITUDE
	434.00	0.0000092	FREQUENCY AND AMPLITUDE

RMS VALUE = 0.25

HMMWV/S250 TYPE III MOBILITY VIBRATION SCHEDULE, FLOOR, VERTICAL

TABLE B-43. SHELTER FLOOR VIBRATION SCHEDULE BREAKPOINTS

32	NUMBER OF BREAK POINTS		
	3.00	0.0046375	FREQUENCY AND AMPLITUDE
	5.00	0.0003875	FREQUENCY AND AMPLITUDE
	7.00	0.0003750	FREQUENCY AND AMPLITUDE
	10.00	0.0038500	FREQUENCY AND AMPLITUDE
	13.00	0.0017625	FREQUENCY AND AMPLITUDE
	15.00	0.0024875	FREQUENCY AND AMPLITUDE
	17.00	0.0012500	FREQUENCY AND AMPLITUDE
	20.00	0.0012750	FREQUENCY AND AMPLITUDE
	27.00	0.0001625	FREQUENCY AND AMPLITUDE
	29.00	0.0002000	FREQUENCY AND AMPLITUDE
	38.00	0.0000250	FREQUENCY AND AMPLITUDE
	43.00	0.0000375	FREQUENCY AND AMPLITUDE
	50.00	0.0000125	FREQUENCY AND AMPLITUDE
	58.00	0.0000125	FREQUENCY AND AMPLITUDE
	67.00	0.0000000	FREQUENCY AND AMPLITUDE
	71.00	0.0000000	FREQUENCY AND AMPLITUDE
	73.00	0.0000000	FREQUENCY AND AMPLITUDE
	75.00	0.0000000	FREQUENCY AND AMPLITUDE
	83.00	0.0000000	FREQUENCY AND AMPLITUDE
	90.00	0.0000000	FREQUENCY AND AMPLITUDE
	94.00	0.0000000	FREQUENCY AND AMPLITUDE
	106.00	0.0000000	FREQUENCY AND AMPLITUDE
	110.00	0.0000000	FREQUENCY AND AMPLITUDE
	113.00	0.0000000	FREQUENCY AND AMPLITUDE
	119.00	0.0000000	FREQUENCY AND AMPLITUDE
	124.00	0.0000000	FREQUENCY AND AMPLITUDE
	170.00	0.0000000	FREQUENCY AND AMPLITUDE
	178.00	0.0000000	FREQUENCY AND AMPLITUDE
	181.00	0.0000000	FREQUENCY AND AMPLITUDE
	381.00	0.0000000	FREQUENCY AND AMPLITUDE
	400.00	0.0000000	FREQUENCY AND AMPLITUDE
	420.00	0.0000000	FREQUENCY AND AMPLITUDE

RMS VALUE = 0.19

HMMWV/S250 TYPE III MOBILITY VIBRATION SCHEDULE, FLOOR, TRANSVERSE

TABLE B-44. SHELTER FLOOR VIBRATION SCHEDULE BREAKPOINTS

38	NUMBER OF BREAK POINTS		
	3.00	0.0000432	FREQUENCY AND AMPLITUDE
	4.00	0.0000576	FREQUENCY AND AMPLITUDE
	5.00	0.0000384	FREQUENCY AND AMPLITUDE
	7.00	0.0002256	FREQUENCY AND AMPLITUDE
	9.00	0.0001152	FREQUENCY AND AMPLITUDE
	12.00	0.0006144	FREQUENCY AND AMPLITUDE
	13.00	0.0006864	FREQUENCY AND AMPLITUDE
	14.00	0.0004512	FREQUENCY AND AMPLITUDE
	16.00	0.0006144	FREQUENCY AND AMPLITUDE
	26.00	0.0000336	FREQUENCY AND AMPLITUDE
	30.00	0.0000336	FREQUENCY AND AMPLITUDE
	35.00	0.0000096	FREQUENCY AND AMPLITUDE
	38.00	0.0000096	FREQUENCY AND AMPLITUDE
	43.00	0.0000096	FREQUENCY AND AMPLITUDE
	46.00	0.0000144	FREQUENCY AND AMPLITUDE
	50.00	0.0000096	FREQUENCY AND AMPLITUDE
	52.00	0.0000096	FREQUENCY AND AMPLITUDE
	70.00	0.0000000	FREQUENCY AND AMPLITUDE
	73.00	0.0000000	FREQUENCY AND AMPLITUDE
	83.00	0.0000000	FREQUENCY AND AMPLITUDE
	107.00	0.0000000	FREQUENCY AND AMPLITUDE
	109.00	0.0000000	FREQUENCY AND AMPLITUDE
	120.00	0.0000000	FREQUENCY AND AMPLITUDE
	131.00	0.0000000	FREQUENCY AND AMPLITUDE
	134.00	0.0000000	FREQUENCY AND AMPLITUDE
	140.00	0.0000000	FREQUENCY AND AMPLITUDE
	173.00	0.0000000	FREQUENCY AND AMPLITUDE
	176.00	0.0000000	FREQUENCY AND AMPLITUDE
	180.00	0.0000000	FREQUENCY AND AMPLITUDE
	216.00	0.0000000	FREQUENCY AND AMPLITUDE
	220.00	0.0000000	FREQUENCY AND AMPLITUDE
	223.00	0.0000000	FREQUENCY AND AMPLITUDE
	277.00	0.0000000	FREQUENCY AND AMPLITUDE
	341.00	0.0000048	FREQUENCY AND AMPLITUDE
	358.00	0.0000048	FREQUENCY AND AMPLITUDE
	381.00	0.0000240	FREQUENCY AND AMPLITUDE
	427.00	0.0000048	FREQUENCY AND AMPLITUDE
	466.00	0.0000096	FREQUENCY AND AMPLITUDE

RMS VALUE = 0.09

HMMWV/S250 TYPE III MOBILITY VIBRATION SCHEDULE, FLOOR, LONGITUDINAL

TABLE B-45. SHELTER FLOOR VIBRATION SCHEDULE BREAKPOINTS

36	NUMBER OF BREAK POINTS		
	3.00	0.0141301	FREQUENCY AND AMPLITUDE
	5.00	0.0038597	FREQUENCY AND AMPLITUDE
	7.00	0.0118573	FREQUENCY AND AMPLITUDE
	9.00	0.0040921	FREQUENCY AND AMPLITUDE
	11.00	0.0042381	FREQUENCY AND AMPLITUDE
	14.00	0.0006683	FREQUENCY AND AMPLITUDE
	16.00	0.0020291	FREQUENCY AND AMPLITUDE
	19.00	0.0008248	FREQUENCY AND AMPLITUDE
	20.00	0.0008951	FREQUENCY AND AMPLITUDE
	29.00	0.0002563	FREQUENCY AND AMPLITUDE
	32.00	0.0007338	FREQUENCY AND AMPLITUDE
	46.00	0.0000637	FREQUENCY AND AMPLITUDE
	49.00	0.0000948	FREQUENCY AND AMPLITUDE
	52.00	0.0000395	FREQUENCY AND AMPLITUDE
	58.00	0.0000493	FREQUENCY AND AMPLITUDE
	62.00	0.0000834	FREQUENCY AND AMPLITUDE
	68.00	0.0000193	FREQUENCY AND AMPLITUDE
	83.00	0.0000189	FREQUENCY AND AMPLITUDE
	85.00	0.0000248	FREQUENCY AND AMPLITUDE
	86.00	0.0000189	FREQUENCY AND AMPLITUDE
	150.00	0.0000189	FREQUENCY AND AMPLITUDE
	153.00	0.0000280	FREQUENCY AND AMPLITUDE
	154.00	0.0000184	FREQUENCY AND AMPLITUDE
	169.00	0.0000182	FREQUENCY AND AMPLITUDE
	177.00	0.0000581	FREQUENCY AND AMPLITUDE
	187.00	0.0000309	FREQUENCY AND AMPLITUDE
	198.00	0.0001411	FREQUENCY AND AMPLITUDE
	213.00	0.0000184	FREQUENCY AND AMPLITUDE
	227.00	0.0000187	FREQUENCY AND AMPLITUDE
	238.00	0.0000593	FREQUENCY AND AMPLITUDE
	260.00	0.0000233	FREQUENCY AND AMPLITUDE
	284.00	0.0001054	FREQUENCY AND AMPLITUDE
	305.00	0.0000184	FREQUENCY AND AMPLITUDE
	352.00	0.0000182	FREQUENCY AND AMPLITUDE
	381.00	0.0000291	FREQUENCY AND AMPLITUDE
	407.00	0.0000184	FREQUENCY AND AMPLITUDE
RMS VALUE =	0.31		

M1097 HHV/S787 TYPE III MOBILITY VIBRATION SCHEDULE, FLOOR, VERTICAL

TABLE B-46. SHELTER FLOOR VIBRATION SCHEDULE BREAKPOINTS

42	NUMBER OF BREAK POINTS		
	3.00	0.0066115	FREQUENCY AND AMPLITUDE
	5.00	0.0008060	FREQUENCY AND AMPLITUDE
	7.00	0.0010185	FREQUENCY AND AMPLITUDE
	9.00	0.0029855	FREQUENCY AND AMPLITUDE
	12.00	0.0006897	FREQUENCY AND AMPLITUDE
	14.00	0.0010185	FREQUENCY AND AMPLITUDE
	16.00	0.0024379	FREQUENCY AND AMPLITUDE
	19.00	0.0014805	FREQUENCY AND AMPLITUDE
	24.00	0.0013693	FREQUENCY AND AMPLITUDE
	27.00	0.0003698	FREQUENCY AND AMPLITUDE
	31.00	0.0004745	FREQUENCY AND AMPLITUDE
	33.00	0.0008060	FREQUENCY AND AMPLITUDE
	50.00	0.0000174	FREQUENCY AND AMPLITUDE
	54.00	0.0000172	FREQUENCY AND AMPLITUDE
	60.00	0.0000479	FREQUENCY AND AMPLITUDE
	80.00	0.0000052	FREQUENCY AND AMPLITUDE
	85.00	0.0000116	FREQUENCY AND AMPLITUDE
	99.00	0.0000026	FREQUENCY AND AMPLITUDE
	108.00	0.0000026	FREQUENCY AND AMPLITUDE
	109.00	0.0000045	FREQUENCY AND AMPLITUDE
	112.00	0.0000022	FREQUENCY AND AMPLITUDE
	121.00	0.0000034	FREQUENCY AND AMPLITUDE
	129.00	0.0000034	FREQUENCY AND AMPLITUDE
	133.00	0.0000024	FREQUENCY AND AMPLITUDE
	137.00	0.0000041	FREQUENCY AND AMPLITUDE
	146.00	0.0000022	FREQUENCY AND AMPLITUDE
	153.00	0.0000073	FREQUENCY AND AMPLITUDE
	162.00	0.0000024	FREQUENCY AND AMPLITUDE
	178.00	0.0000282	FREQUENCY AND AMPLITUDE
	186.00	0.0000075	FREQUENCY AND AMPLITUDE
	195.00	0.0000404	FREQUENCY AND AMPLITUDE
	211.00	0.0000022	FREQUENCY AND AMPLITUDE
	229.00	0.0000022	FREQUENCY AND AMPLITUDE
	242.00	0.0000095	FREQUENCY AND AMPLITUDE
	262.00	0.0000028	FREQUENCY AND AMPLITUDE
	279.00	0.0000185	FREQUENCY AND AMPLITUDE
	295.00	0.0000024	FREQUENCY AND AMPLITUDE
	310.00	0.0000039	FREQUENCY AND AMPLITUDE
	315.00	0.0000024	FREQUENCY AND AMPLITUDE
	366.00	0.0000024	FREQUENCY AND AMPLITUDE
	410.00	0.0000120	FREQUENCY AND AMPLITUDE
	462.00	0.0000022	FREQUENCY AND AMPLITUDE

RMS VALUE = 0.22

M1097 HHV/S787 TYPE III MOBILITY VIBRATION SCHEDULE, FLOOR, TRANSVERSE

TABLE B-47. SHELTER FLOOR VIBRATION SCHEDULE BREAKPOINTS

35	NUMBER OF BREAK POINTS		
	3.00	0.0004068	FREQUENCY AND AMPLITUDE
	4.00	0.0002548	FREQUENCY AND AMPLITUDE
	7.00	0.0033888	FREQUENCY AND AMPLITUDE
	9.00	0.0006911	FREQUENCY AND AMPLITUDE
	12.00	0.0005643	FREQUENCY AND AMPLITUDE
	16.00	0.0017068	FREQUENCY AND AMPLITUDE
	30.00	0.0000357	FREQUENCY AND AMPLITUDE
	37.00	0.0000411	FREQUENCY AND AMPLITUDE
	51.00	0.0000115	FREQUENCY AND AMPLITUDE
	61.00	0.0000138	FREQUENCY AND AMPLITUDE
	70.00	0.0000030	FREQUENCY AND AMPLITUDE
	72.00	0.0000076	FREQUENCY AND AMPLITUDE
	79.00	0.0000017	FREQUENCY AND AMPLITUDE
	85.00	0.0000040	FREQUENCY AND AMPLITUDE
	88.00	0.0000008	FREQUENCY AND AMPLITUDE
	107.00	0.0000008	FREQUENCY AND AMPLITUDE
	109.00	0.0000013	FREQUENCY AND AMPLITUDE
	112.00	0.0000008	FREQUENCY AND AMPLITUDE
	120.00	0.0000008	FREQUENCY AND AMPLITUDE
	138.00	0.0000035	FREQUENCY AND AMPLITUDE
	144.00	0.0000013	FREQUENCY AND AMPLITUDE
	154.00	0.0000032	FREQUENCY AND AMPLITUDE
	162.00	0.0000020	FREQUENCY AND AMPLITUDE
	178.00	0.0000078	FREQUENCY AND AMPLITUDE
	189.00	0.0000020	FREQUENCY AND AMPLITUDE
	204.00	0.0000149	FREQUENCY AND AMPLITUDE
	208.00	0.0000008	FREQUENCY AND AMPLITUDE
	266.00	0.0000008	FREQUENCY AND AMPLITUDE
	275.00	0.0000028	FREQUENCY AND AMPLITUDE
	288.00	0.0000008	FREQUENCY AND AMPLITUDE
	328.00	0.0000008	FREQUENCY AND AMPLITUDE
	413.00	0.0000056	FREQUENCY AND AMPLITUDE
	444.00	0.0000023	FREQUENCY AND AMPLITUDE
	485.00	0.0000134	FREQUENCY AND AMPLITUDE
	497.00	0.0000073	FREQUENCY AND AMPLITUDE

RMS VALUE = 0.15

M1097 HHV/S787 TYPE III MOBILITY VIBRATION SCHEDULE, FLOOR, LONGITUDINAL

TABLE B-48. SHELTER FLOOR VIBRATION SCHEDULE BREAKPOINTS

36	NUMBER OF BREAK POINTS		
	3.00	0.0065050	FREQUENCY AND AMPLITUDE
	7.00	0.0016760	FREQUENCY AND AMPLITUDE
	11.00	0.0017768	FREQUENCY AND AMPLITUDE
	13.00	0.0091304	FREQUENCY AND AMPLITUDE
	15.00	0.0004578	FREQUENCY AND AMPLITUDE
	19.00	0.0001265	FREQUENCY AND AMPLITUDE
	21.00	0.0001473	FREQUENCY AND AMPLITUDE
	26.00	0.0000658	FREQUENCY AND AMPLITUDE
	27.00	0.0000850	FREQUENCY AND AMPLITUDE
	32.00	0.0000739	FREQUENCY AND AMPLITUDE
	33.00	0.0001637	FREQUENCY AND AMPLITUDE
	37.00	0.0000371	FREQUENCY AND AMPLITUDE
	40.00	0.0000571	FREQUENCY AND AMPLITUDE
	43.00	0.0000200	FREQUENCY AND AMPLITUDE
	46.00	0.0000222	FREQUENCY AND AMPLITUDE
	50.00	0.0000095	FREQUENCY AND AMPLITUDE
	54.00	0.0000126	FREQUENCY AND AMPLITUDE
	58.00	0.0000096	FREQUENCY AND AMPLITUDE
	65.00	0.0000096	FREQUENCY AND AMPLITUDE
	75.00	0.0000153	FREQUENCY AND AMPLITUDE
	77.00	0.0000095	FREQUENCY AND AMPLITUDE
	81.00	0.0000126	FREQUENCY AND AMPLITUDE
	85.00	0.0000105	FREQUENCY AND AMPLITUDE
	89.00	0.0000166	FREQUENCY AND AMPLITUDE
	96.00	0.0000131	FREQUENCY AND AMPLITUDE
	121.00	0.0000756	FREQUENCY AND AMPLITUDE
	150.00	0.0000173	FREQUENCY AND AMPLITUDE
	192.00	0.0001099	FREQUENCY AND AMPLITUDE
	198.00	0.0000697	FREQUENCY AND AMPLITUDE
	206.00	0.0001037	FREQUENCY AND AMPLITUDE
	221.00	0.0000437	FREQUENCY AND AMPLITUDE
	242.00	0.0008118	FREQUENCY AND AMPLITUDE
	258.00	0.0000244	FREQUENCY AND AMPLITUDE
	307.00	0.0000095	FREQUENCY AND AMPLITUDE
	315.00	0.0000132	FREQUENCY AND AMPLITUDE
	336.00	0.0000096	FREQUENCY AND AMPLITUDE

RMS VALUE = 0.25

M1022/EXPANDABLE SHELTER TYPE III MOBILITY VIBRATION SCHEDULE, FLOOR, VERTICAL

TABLE B-49. SHELTER FLOOR VIBRATION SCHEDULE BREAKPOINTS

41	NUMBER OF BREAK POINTS		
	3.00	0.0056738	FREQUENCY AND AMPLITUDE
	12.00	0.0001701	FREQUENCY AND AMPLITUDE
	13.00	0.0003708	FREQUENCY AND AMPLITUDE
	16.00	0.0000646	FREQUENCY AND AMPLITUDE
	27.00	0.0005226	FREQUENCY AND AMPLITUDE
	29.00	0.0001782	FREQUENCY AND AMPLITUDE
	32.00	0.0000883	FREQUENCY AND AMPLITUDE
	34.00	0.0001285	FREQUENCY AND AMPLITUDE
	35.00	0.0000646	FREQUENCY AND AMPLITUDE
	39.00	0.0000628	FREQUENCY AND AMPLITUDE
	41.00	0.0001411	FREQUENCY AND AMPLITUDE
	42.00	0.0000870	FREQUENCY AND AMPLITUDE
	47.00	0.0001810	FREQUENCY AND AMPLITUDE
	50.00	0.0000571	FREQUENCY AND AMPLITUDE
	55.00	0.0000971	FREQUENCY AND AMPLITUDE
	66.00	0.0000118	FREQUENCY AND AMPLITUDE
	76.00	0.0000628	FREQUENCY AND AMPLITUDE
	82.00	0.0000073	FREQUENCY AND AMPLITUDE
	90.00	0.0000047	FREQUENCY AND AMPLITUDE
	95.00	0.0000070	FREQUENCY AND AMPLITUDE
	98.00	0.0000043	FREQUENCY AND AMPLITUDE
	104.00	0.0000052	FREQUENCY AND AMPLITUDE
	108.00	0.0000097	FREQUENCY AND AMPLITUDE
	116.00	0.0000060	FREQUENCY AND AMPLITUDE
	121.00	0.0000148	FREQUENCY AND AMPLITUDE
	124.00	0.0000061	FREQUENCY AND AMPLITUDE
	135.00	0.0000102	FREQUENCY AND AMPLITUDE
	139.00	0.0000040	FREQUENCY AND AMPLITUDE
	151.00	0.0000092	FREQUENCY AND AMPLITUDE
	159.00	0.0000027	FREQUENCY AND AMPLITUDE
	177.00	0.0000017	FREQUENCY AND AMPLITUDE
	187.00	0.0000064	FREQUENCY AND AMPLITUDE
	209.00	0.0000016	FREQUENCY AND AMPLITUDE
	242.00	0.0001188	FREQUENCY AND AMPLITUDE
	270.00	0.0000024	FREQUENCY AND AMPLITUDE
	286.00	0.0000112	FREQUENCY AND AMPLITUDE
	298.00	0.0000023	FREQUENCY AND AMPLITUDE
	312.00	0.0000053	FREQUENCY AND AMPLITUDE
	322.00	0.0000015	FREQUENCY AND AMPLITUDE
	372.00	0.0000032	FREQUENCY AND AMPLITUDE
	493.00	0.0000019	FREQUENCY AND AMPLITUDE

RMS VALUE = 0.15

M1022/EXPANDABLE SHELTER TYPE III MOBILITY VIBRATION SCHEDULE, FLOOR, TRANSVERSE

TABLE B-50. SHELTER FLOOR VIBRATION SCHEDULE BREAKPOINTS

40	NUMBER OF BREAK POINTS		
	3.00	0.0022537	FREQUENCY AND AMPLITUDE
	4.00	0.0030306	FREQUENCY AND AMPLITUDE
	7.00	0.0005541	FREQUENCY AND AMPLITUDE
	9.00	0.0008984	FREQUENCY AND AMPLITUDE
	11.00	0.0007568	FREQUENCY AND AMPLITUDE
	16.00	0.0000880	FREQUENCY AND AMPLITUDE
	18.00	0.0001342	FREQUENCY AND AMPLITUDE
	24.00	0.0000730	FREQUENCY AND AMPLITUDE
	27.00	0.0000937	FREQUENCY AND AMPLITUDE
	32.00	0.0000398	FREQUENCY AND AMPLITUDE
	34.00	0.0000686	FREQUENCY AND AMPLITUDE
	36.00	0.0000502	FREQUENCY AND AMPLITUDE
	40.00	0.0000708	FREQUENCY AND AMPLITUDE
	44.00	0.0000300	FREQUENCY AND AMPLITUDE
	47.00	0.0000398	FREQUENCY AND AMPLITUDE
	52.00	0.0000185	FREQUENCY AND AMPLITUDE
	54.00	0.0000249	FREQUENCY AND AMPLITUDE
	63.00	0.0000188	FREQUENCY AND AMPLITUDE
	70.00	0.0000080	FREQUENCY AND AMPLITUDE
	76.00	0.0000154	FREQUENCY AND AMPLITUDE
	89.00	0.0000012	FREQUENCY AND AMPLITUDE
	98.00	0.0000012	FREQUENCY AND AMPLITUDE
	134.00	0.0000024	FREQUENCY AND AMPLITUDE
	148.00	0.0000009	FREQUENCY AND AMPLITUDE
	177.00	0.0000009	FREQUENCY AND AMPLITUDE
	189.00	0.0000040	FREQUENCY AND AMPLITUDE
	198.00	0.0000011	FREQUENCY AND AMPLITUDE
	220.00	0.0000020	FREQUENCY AND AMPLITUDE
	244.00	0.0004596	FREQUENCY AND AMPLITUDE
	270.00	0.0000029	FREQUENCY AND AMPLITUDE
	295.00	0.0000012	FREQUENCY AND AMPLITUDE
	315.00	0.0000048	FREQUENCY AND AMPLITUDE
	328.00	0.0000010	FREQUENCY AND AMPLITUDE
	338.00	0.0000023	FREQUENCY AND AMPLITUDE
	352.00	0.0000012	FREQUENCY AND AMPLITUDE
	413.00	0.0000022	FREQUENCY AND AMPLITUDE
	444.00	0.0000069	FREQUENCY AND AMPLITUDE
	470.00	0.0000048	FREQUENCY AND AMPLITUDE
	481.00	0.0000081	FREQUENCY AND AMPLITUDE
	497.00	0.0000016	FREQUENCY AND AMPLITUDE

RMS VALUE = 0.15

M1022/EXPANDABLE SHELTER TYPE III MOBILITY VIBRATION SCHEDULE, FLOOR, LONGITUDINAL

TABLE B-51. SHELTER FLOOR VIBRATION SCHEDULE BREAKPOINTS

40	NUMBER OF BREAK POINTS		
	3.00	0.0049586	FREQUENCY AND AMPLITUDE
	5.00	0.0030584	FREQUENCY AND AMPLITUDE
	7.00	0.0015646	FREQUENCY AND AMPLITUDE
	9.00	0.0013387	FREQUENCY AND AMPLITUDE
	11.00	0.0016652	FREQUENCY AND AMPLITUDE
	12.00	0.0012775	FREQUENCY AND AMPLITUDE
	13.00	0.0021039	FREQUENCY AND AMPLITUDE
	15.00	0.0011277	FREQUENCY AND AMPLITUDE
	20.00	0.0024973	FREQUENCY AND AMPLITUDE
	25.00	0.0009501	FREQUENCY AND AMPLITUDE
	27.00	0.0036875	FREQUENCY AND AMPLITUDE
	32.00	0.0001233	FREQUENCY AND AMPLITUDE
	34.00	0.0002646	FREQUENCY AND AMPLITUDE
	38.00	0.0000462	FREQUENCY AND AMPLITUDE
	40.00	0.0000682	FREQUENCY AND AMPLITUDE
	45.00	0.0000244	FREQUENCY AND AMPLITUDE
	47.00	0.0000414	FREQUENCY AND AMPLITUDE
	50.00	0.0000145	FREQUENCY AND AMPLITUDE
	54.00	0.0000574	FREQUENCY AND AMPLITUDE
	57.00	0.0000098	FREQUENCY AND AMPLITUDE
	61.00	0.0000134	FREQUENCY AND AMPLITUDE
	69.00	0.0000026	FREQUENCY AND AMPLITUDE
	74.00	0.0000124	FREQUENCY AND AMPLITUDE
	81.00	0.0000010	FREQUENCY AND AMPLITUDE
	183.00	0.0000010	FREQUENCY AND AMPLITUDE
	189.00	0.0000029	FREQUENCY AND AMPLITUDE
	198.00	0.0000010	FREQUENCY AND AMPLITUDE
	209.00	0.0000010	FREQUENCY AND AMPLITUDE
	240.00	0.0002373	FREQUENCY AND AMPLITUDE
	256.00	0.0000031	FREQUENCY AND AMPLITUDE
	270.00	0.0000259	FREQUENCY AND AMPLITUDE
	288.00	0.0000029	FREQUENCY AND AMPLITUDE
	307.00	0.0000103	FREQUENCY AND AMPLITUDE
	333.00	0.0000010	FREQUENCY AND AMPLITUDE
	378.00	0.0000070	FREQUENCY AND AMPLITUDE
	407.00	0.0000075	FREQUENCY AND AMPLITUDE
	427.00	0.0000484	FREQUENCY AND AMPLITUDE
	466.00	0.0000068	FREQUENCY AND AMPLITUDE
	485.00	0.0000715	FREQUENCY AND AMPLITUDE
	493.00	0.0000068	FREQUENCY AND AMPLITUDE

RMS VALUE = 0.25

M1022/NON-EXPANDABLE SHELTER TYPE III MOBILITY VIBR SCHEDULE, FLOOR, VERTICAL

TABLE B-52. SHELTER FLOOR VIBRATION SCHEDULE BREAKPOINTS

34	NUMBER OF BREAK POINTS		
	3.00	0.0048287	FREQUENCY AND AMPLITUDE
	8.00	0.0001220	FREQUENCY AND AMPLITUDE
	12.00	0.0000624	FREQUENCY AND AMPLITUDE
	13.00	0.0000907	FREQUENCY AND AMPLITUDE
	15.00	0.0000403	FREQUENCY AND AMPLITUDE
	21.00	0.0002040	FREQUENCY AND AMPLITUDE
	25.00	0.0001110	FREQUENCY AND AMPLITUDE
	27.00	0.0002347	FREQUENCY AND AMPLITUDE
	38.00	0.0000245	FREQUENCY AND AMPLITUDE
	40.00	0.0000379	FREQUENCY AND AMPLITUDE
	44.00	0.0000196	FREQUENCY AND AMPLITUDE
	47.00	0.0000826	FREQUENCY AND AMPLITUDE
	52.00	0.0000159	FREQUENCY AND AMPLITUDE
	54.00	0.0000256	FREQUENCY AND AMPLITUDE
	69.00	0.0000037	FREQUENCY AND AMPLITUDE
	74.00	0.0000423	FREQUENCY AND AMPLITUDE
	83.00	0.0000019	FREQUENCY AND AMPLITUDE
	112.00	0.0000018	FREQUENCY AND AMPLITUDE
	128.00	0.0000042	FREQUENCY AND AMPLITUDE
	141.00	0.0000016	FREQUENCY AND AMPLITUDE
	151.00	0.0000058	FREQUENCY AND AMPLITUDE
	158.00	0.0000016	FREQUENCY AND AMPLITUDE
	221.00	0.0000016	FREQUENCY AND AMPLITUDE
	244.00	0.0006464	FREQUENCY AND AMPLITUDE
	254.00	0.0000105	FREQUENCY AND AMPLITUDE
	277.00	0.0002040	FREQUENCY AND AMPLITUDE
	300.00	0.0000076	FREQUENCY AND AMPLITUDE
	320.00	0.0000740	FREQUENCY AND AMPLITUDE
	381.00	0.0000016	FREQUENCY AND AMPLITUDE
	423.00	0.0000036	FREQUENCY AND AMPLITUDE
	434.00	0.0000016	FREQUENCY AND AMPLITUDE
	470.00	0.0000016	FREQUENCY AND AMPLITUDE
	485.00	0.0000065	FREQUENCY AND AMPLITUDE
	493.00	0.0000016	FREQUENCY AND AMPLITUDE

RMS VALUE = 0.16

M1022/NON-EXPANDABLE SHELTER TYPE III MOBILITY VIBR SCHEDULE, FLOOR, TRANSVERSE

TABLE B-53. SHELTER FLOOR VIBRATION SCHEDULE BREAKPOINTS

32	NUMBER OF BREAK POINTS		
	3.00	0.0007430	FREQUENCY AND AMPLITUDE
	4.00	0.0010634	FREQUENCY AND AMPLITUDE
	8.00	0.0001492	FREQUENCY AND AMPLITUDE
	10.00	0.0001492	FREQUENCY AND AMPLITUDE
	16.00	0.0000112	FREQUENCY AND AMPLITUDE
	21.00	0.0000135	FREQUENCY AND AMPLITUDE
	30.00	0.0000043	FREQUENCY AND AMPLITUDE
	34.00	0.0000081	FREQUENCY AND AMPLITUDE
	38.00	0.0000050	FREQUENCY AND AMPLITUDE
	40.00	0.0000066	FREQUENCY AND AMPLITUDE
	44.00	0.0000013	FREQUENCY AND AMPLITUDE
	47.00	0.0000026	FREQUENCY AND AMPLITUDE
	50.00	0.0000010	FREQUENCY AND AMPLITUDE
	66.00	0.0000010	FREQUENCY AND AMPLITUDE
	68.00	0.0000015	FREQUENCY AND AMPLITUDE
	69.00	0.0000009	FREQUENCY AND AMPLITUDE
	73.00	0.0000025	FREQUENCY AND AMPLITUDE
	80.00	0.0000004	FREQUENCY AND AMPLITUDE
	181.00	0.0000004	FREQUENCY AND AMPLITUDE
	187.00	0.0000011	FREQUENCY AND AMPLITUDE
	193.00	0.0000004	FREQUENCY AND AMPLITUDE
	208.00	0.0000004	FREQUENCY AND AMPLITUDE
	244.00	0.0011860	FREQUENCY AND AMPLITUDE
	256.00	0.0000135	FREQUENCY AND AMPLITUDE
	281.00	0.0001492	FREQUENCY AND AMPLITUDE
	375.00	0.0000003	FREQUENCY AND AMPLITUDE
	410.00	0.0000003	FREQUENCY AND AMPLITUDE
	423.00	0.0000009	FREQUENCY AND AMPLITUDE
	427.00	0.0000004	FREQUENCY AND AMPLITUDE
	470.00	0.0000004	FREQUENCY AND AMPLITUDE
	489.00	0.0000011	FREQUENCY AND AMPLITUDE
	493.00	0.0000003	FREQUENCY AND AMPLITUDE

RMS VALUE = 0.16

M1022/NON-EXPANDABLE SHELTER TYPE III MOBILITY VIBR SCHEDULE, FLOOR, LONGITUDINAL

TABLE B-54. SHELTER FLOOR VIBRATION SCHEDULE BREAKPOINTS

43	NUMBER OF BREAK POINTS	
3.00	0.0468771	FREQUENCY AND AMPLITUDE
4.00	0.0259241	FREQUENCY AND AMPLITUDE
6.00	0.0028339	FREQUENCY AND AMPLITUDE
7.00	0.0027469	FREQUENCY AND AMPLITUDE
9.00	0.0041844	FREQUENCY AND AMPLITUDE
10.00	0.0032607	FREQUENCY AND AMPLITUDE
15.00	0.0002098	FREQUENCY AND AMPLITUDE
19.00	0.0006056	FREQUENCY AND AMPLITUDE
22.00	0.0002199	FREQUENCY AND AMPLITUDE
24.00	0.0004646	FREQUENCY AND AMPLITUDE
27.00	0.0000749	FREQUENCY AND AMPLITUDE
30.00	0.0002911	FREQUENCY AND AMPLITUDE
33.00	0.0000328	FREQUENCY AND AMPLITUDE
39.00	0.0004504	FREQUENCY AND AMPLITUDE
45.00	0.0000492	FREQUENCY AND AMPLITUDE
48.00	0.0002414	FREQUENCY AND AMPLITUDE
52.00	0.0000272	FREQUENCY AND AMPLITUDE
57.00	0.0000863	FREQUENCY AND AMPLITUDE
69.00	0.0000182	FREQUENCY AND AMPLITUDE
79.00	0.0003349	FREQUENCY AND AMPLITUDE
87.00	0.0001090	FREQUENCY AND AMPLITUDE
92.00	0.0002610	FREQUENCY AND AMPLITUDE
125.00	0.0000120	FREQUENCY AND AMPLITUDE
134.00	0.0000378	FREQUENCY AND AMPLITUDE
140.00	0.0000087	FREQUENCY AND AMPLITUDE
148.00	0.0000087	FREQUENCY AND AMPLITUDE
158.00	0.0000947	FREQUENCY AND AMPLITUDE
176.00	0.0000095	FREQUENCY AND AMPLITUDE
199.00	0.0000093	FREQUENCY AND AMPLITUDE
234.00	0.0005779	FREQUENCY AND AMPLITUDE
244.00	0.0002340	FREQUENCY AND AMPLITUDE
248.00	0.0011122	FREQUENCY AND AMPLITUDE
275.00	0.0000918	FREQUENCY AND AMPLITUDE
284.00	0.0002131	FREQUENCY AND AMPLITUDE
295.00	0.0001315	FREQUENCY AND AMPLITUDE
317.00	0.0020427	FREQUENCY AND AMPLITUDE
336.00	0.0000276	FREQUENCY AND AMPLITUDE
366.00	0.0002165	FREQUENCY AND AMPLITUDE
388.00	0.0001090	FREQUENCY AND AMPLITUDE
400.00	0.0002911	FREQUENCY AND AMPLITUDE
448.00	0.0000087	FREQUENCY AND AMPLITUDE
473.00	0.0000165	FREQUENCY AND AMPLITUDE
485.00	0.0000085	FREQUENCY AND AMPLITUDE

RMS VALUE = 0.43

M832/S280 SHELTER TYPE III MOBILITY VIBRATION SCHEDULE, FLOOR, VERTICAL

TABLE B-55. SHELTER FLOOR VIBRATION SCHEDULE BREAKPOINTS

41	NUMBER OF BREAK POINTS		
	3.00	0.0024191	FREQUENCY AND AMPLITUDE
	6.00	0.0008348	FREQUENCY AND AMPLITUDE
	7.00	0.0007256	FREQUENCY AND AMPLITUDE
	10.00	0.0050529	FREQUENCY AND AMPLITUDE
	17.00	0.0003598	FREQUENCY AND AMPLITUDE
	19.00	0.0002881	FREQUENCY AND AMPLITUDE
	22.00	0.0000645	FREQUENCY AND AMPLITUDE
	25.00	0.0003950	FREQUENCY AND AMPLITUDE
	34.00	0.0000159	FREQUENCY AND AMPLITUDE
	37.00	0.0000185	FREQUENCY AND AMPLITUDE
	40.00	0.0000081	FREQUENCY AND AMPLITUDE
	42.00	0.0000409	FREQUENCY AND AMPLITUDE
	50.00	0.0000070	FREQUENCY AND AMPLITUDE
	56.00	0.0000069	FREQUENCY AND AMPLITUDE
	59.00	0.0000104	FREQUENCY AND AMPLITUDE
	62.00	0.0000072	FREQUENCY AND AMPLITUDE
	72.00	0.0000072	FREQUENCY AND AMPLITUDE
	78.00	0.0000313	FREQUENCY AND AMPLITUDE
	82.00	0.0000108	FREQUENCY AND AMPLITUDE
	87.00	0.0000153	FREQUENCY AND AMPLITUDE
	88.00	0.0000086	FREQUENCY AND AMPLITUDE
	93.00	0.0000108	FREQUENCY AND AMPLITUDE
	99.00	0.0000071	FREQUENCY AND AMPLITUDE
	105.00	0.0000098	FREQUENCY AND AMPLITUDE
	109.00	0.0000071	FREQUENCY AND AMPLITUDE
	153.00	0.0000070	FREQUENCY AND AMPLITUDE
	157.00	0.0000504	FREQUENCY AND AMPLITUDE
	162.00	0.0000072	FREQUENCY AND AMPLITUDE
	230.00	0.0000072	FREQUENCY AND AMPLITUDE
	238.00	0.0000684	FREQUENCY AND AMPLITUDE
	246.00	0.0000135	FREQUENCY AND AMPLITUDE
	254.00	0.0000178	FREQUENCY AND AMPLITUDE
	258.00	0.0000078	FREQUENCY AND AMPLITUDE
	270.00	0.0000106	FREQUENCY AND AMPLITUDE
	291.00	0.0000073	FREQUENCY AND AMPLITUDE
	315.00	0.0004389	FREQUENCY AND AMPLITUDE
	349.00	0.0000098	FREQUENCY AND AMPLITUDE
	397.00	0.0002077	FREQUENCY AND AMPLITUDE
	413.00	0.0000482	FREQUENCY AND AMPLITUDE
	448.00	0.0001532	FREQUENCY AND AMPLITUDE
	477.00	0.0000071	FREQUENCY AND AMPLITUDE

RMS VALUE = 0.22

M832/S280 SHELTER TYPE III MOBILITY VIBRATION SCHEDULE, FLOOR, TRANSVERSE

TABLE B-56. SHELTER FLOOR VIBRATION SCHEDULE BREAKPOINTS

37	NUMBER OF BREAK POINTS		
	3.00	0.0068035	FREQUENCY AND AMPLITUDE
	4.00	0.0032194	FREQUENCY AND AMPLITUDE
	7.00	0.0002112	FREQUENCY AND AMPLITUDE
	8.00	0.0002239	FREQUENCY AND AMPLITUDE
	10.00	0.0004113	FREQUENCY AND AMPLITUDE
	12.00	0.0001879	FREQUENCY AND AMPLITUDE
	14.00	0.0001577	FREQUENCY AND AMPLITUDE
	19.00	0.0004411	FREQUENCY AND AMPLITUDE
	22.00	0.0000232	FREQUENCY AND AMPLITUDE
	25.00	0.0001387	FREQUENCY AND AMPLITUDE
	35.00	0.0000145	FREQUENCY AND AMPLITUDE
	37.00	0.0000175	FREQUENCY AND AMPLITUDE
	42.00	0.0000097	FREQUENCY AND AMPLITUDE
	50.00	0.0000869	FREQUENCY AND AMPLITUDE
	59.00	0.0000149	FREQUENCY AND AMPLITUDE
	63.00	0.0000306	FREQUENCY AND AMPLITUDE
	75.00	0.0000133	FREQUENCY AND AMPLITUDE
	79.00	0.0000286	FREQUENCY AND AMPLITUDE
	89.00	0.0000098	FREQUENCY AND AMPLITUDE
	95.00	0.0000185	FREQUENCY AND AMPLITUDE
	99.00	0.0000097	FREQUENCY AND AMPLITUDE
	104.00	0.0000095	FREQUENCY AND AMPLITUDE
	110.00	0.0000129	FREQUENCY AND AMPLITUDE
	119.00	0.0000095	FREQUENCY AND AMPLITUDE
	153.00	0.0000095	FREQUENCY AND AMPLITUDE
	157.00	0.0000126	FREQUENCY AND AMPLITUDE
	158.00	0.0000097	FREQUENCY AND AMPLITUDE
	232.00	0.0000095	FREQUENCY AND AMPLITUDE
	236.00	0.0000357	FREQUENCY AND AMPLITUDE
	246.00	0.0000098	FREQUENCY AND AMPLITUDE
	293.00	0.0000098	FREQUENCY AND AMPLITUDE
	315.00	0.0001419	FREQUENCY AND AMPLITUDE
	325.00	0.0000111	FREQUENCY AND AMPLITUDE
	338.00	0.0000201	FREQUENCY AND AMPLITUDE
	358.00	0.0000114	FREQUENCY AND AMPLITUDE
	427.00	0.0001731	FREQUENCY AND AMPLITUDE
	485.00	0.0000097	FREQUENCY AND AMPLITUDE

RMS VALUE = 0.17

M832/S280 SHELTER TYPE III MOBILITY VIBRATION SCHEDULE, FLOOR, LONGITUDINAL

TABLE B-57. SHELTER FLOOR VIBRATION SCHEDULE BREAKPOINTS

45	NUMBER OF BREAK POINTS		
	3.00	0.0350311	FREQUENCY AND AMPLITUDE
	4.00	0.0184879	FREQUENCY AND AMPLITUDE
	6.00	0.0021177	FREQUENCY AND AMPLITUDE
	7.00	0.0049913	FREQUENCY AND AMPLITUDE
	11.00	0.0015996	FREQUENCY AND AMPLITUDE
	13.00	0.0065058	FREQUENCY AND AMPLITUDE
	15.00	0.0011004	FREQUENCY AND AMPLITUDE
	20.00	0.0017840	FREQUENCY AND AMPLITUDE
	25.00	0.0006477	FREQUENCY AND AMPLITUDE
	27.00	0.0025533	FREQUENCY AND AMPLITUDE
	29.00	0.0002924	FREQUENCY AND AMPLITUDE
	31.00	0.0008846	FREQUENCY AND AMPLITUDE
	35.00	0.0001804	FREQUENCY AND AMPLITUDE
	40.00	0.0011530	FREQUENCY AND AMPLITUDE
	43.00	0.0001920	FREQUENCY AND AMPLITUDE
	45.00	0.0004186	FREQUENCY AND AMPLITUDE
	48.00	0.0001891	FREQUENCY AND AMPLITUDE
	53.00	0.0004387	FREQUENCY AND AMPLITUDE
	59.00	0.0001593	FREQUENCY AND AMPLITUDE
	65.00	0.0005126	FREQUENCY AND AMPLITUDE
	72.00	0.0000430	FREQUENCY AND AMPLITUDE
	80.00	0.0002542	FREQUENCY AND AMPLITUDE
	86.00	0.0000802	FREQUENCY AND AMPLITUDE
	93.00	0.0001891	FREQUENCY AND AMPLITUDE
	103.00	0.0000789	FREQUENCY AND AMPLITUDE
	107.00	0.0002464	FREQUENCY AND AMPLITUDE
	110.00	0.0000569	FREQUENCY AND AMPLITUDE
	121.00	0.0001643	FREQUENCY AND AMPLITUDE
	146.00	0.0000183	FREQUENCY AND AMPLITUDE
	157.00	0.0000730	FREQUENCY AND AMPLITUDE
	166.00	0.0000257	FREQUENCY AND AMPLITUDE
	193.00	0.0000815	FREQUENCY AND AMPLITUDE
	195.00	0.0000465	FREQUENCY AND AMPLITUDE
	204.00	0.0000665	FREQUENCY AND AMPLITUDE
	223.00	0.0000335	FREQUENCY AND AMPLITUDE
	248.00	0.0007689	FREQUENCY AND AMPLITUDE
	277.00	0.0000708	FREQUENCY AND AMPLITUDE
	312.00	0.0015996	FREQUENCY AND AMPLITUDE
	344.00	0.0000368	FREQUENCY AND AMPLITUDE
	369.00	0.0001722	FREQUENCY AND AMPLITUDE
	384.00	0.0000840	FREQUENCY AND AMPLITUDE
	400.00	0.0002279	FREQUENCY AND AMPLITUDE
	455.00	0.0000067	FREQUENCY AND AMPLITUDE
	485.00	0.0000472	FREQUENCY AND AMPLITUDE
	493.00	0.0000075	FREQUENCY AND AMPLITUDE

RMS VALUE = 0.43

MASTER TYPE III MOBILITY VIBRATION SCHEDULE, FLOOR, VERTICAL

TABLE B-58. SHELTER FLOOR VIBRATION SCHEDULE BREAKPOINTS

41	NUMBER OF BREAK POINTS		
	3.00	0.0038166	FREQUENCY AND AMPLITUDE
	6.00	0.0009060	FREQUENCY AND AMPLITUDE
	8.00	0.0033170	FREQUENCY AND AMPLITUDE
	9.00	0.0029511	FREQUENCY AND AMPLITUDE
	10.00	0.0049361	FREQUENCY AND AMPLITUDE
	13.00	0.0009384	FREQUENCY AND AMPLITUDE
	15.00	0.0013326	FREQUENCY AND AMPLITUDE
	22.00	0.0004708	FREQUENCY AND AMPLITUDE
	25.00	0.0006306	FREQUENCY AND AMPLITUDE
	42.00	0.0000595	FREQUENCY AND AMPLITUDE
	47.00	0.0002151	FREQUENCY AND AMPLITUDE
	56.00	0.0000653	FREQUENCY AND AMPLITUDE
	66.00	0.0002280	FREQUENCY AND AMPLITUDE
	70.00	0.0000092	FREQUENCY AND AMPLITUDE
	77.00	0.0000316	FREQUENCY AND AMPLITUDE
	83.00	0.0000106	FREQUENCY AND AMPLITUDE
	85.00	0.0000151	FREQUENCY AND AMPLITUDE
	87.00	0.0000081	FREQUENCY AND AMPLITUDE
	89.00	0.0000106	FREQUENCY AND AMPLITUDE
	99.00	0.0000071	FREQUENCY AND AMPLITUDE
	105.00	0.0000351	FREQUENCY AND AMPLITUDE
	109.00	0.0000079	FREQUENCY AND AMPLITUDE
	121.00	0.0000124	FREQUENCY AND AMPLITUDE
	125.00	0.0000070	FREQUENCY AND AMPLITUDE
	154.00	0.0000069	FREQUENCY AND AMPLITUDE
	156.00	0.0000529	FREQUENCY AND AMPLITUDE
	162.00	0.0000072	FREQUENCY AND AMPLITUDE
	192.00	0.0000072	FREQUENCY AND AMPLITUDE
	193.00	0.0000132	FREQUENCY AND AMPLITUDE
	203.00	0.0000072	FREQUENCY AND AMPLITUDE
	232.00	0.0000072	FREQUENCY AND AMPLITUDE
	242.00	0.0003127	FREQUENCY AND AMPLITUDE
	262.00	0.0000082	FREQUENCY AND AMPLITUDE
	275.00	0.0000844	FREQUENCY AND AMPLITUDE
	288.00	0.0000081	FREQUENCY AND AMPLITUDE
	315.00	0.0004546	FREQUENCY AND AMPLITUDE
	344.00	0.0000090	FREQUENCY AND AMPLITUDE
	397.00	0.0002202	FREQUENCY AND AMPLITUDE
	413.00	0.0000476	FREQUENCY AND AMPLITUDE
	444.00	0.0001532	FREQUENCY AND AMPLITUDE
	481.00	0.0000072	FREQUENCY AND AMPLITUDE

RMS VALUE = 0.26

MASTER TYPE III MOBILITY VIBRATION SCHEDULE, FLOOR, TRANSVERSE

TABLE B-59. SHELTER FLOOR VIBRATION SCHEDULE BREAKPOINTS

43	NUMBER OF BREAK POINTS		
	3.00	0.0023021	FREQUENCY AND AMPLITUDE
	5.00	0.0006288	FREQUENCY AND AMPLITUDE
	6.00	0.0004919	FREQUENCY AND AMPLITUDE
	7.00	0.0012982	FREQUENCY AND AMPLITUDE
	9.00	0.0003118	FREQUENCY AND AMPLITUDE
	11.00	0.0002678	FREQUENCY AND AMPLITUDE
	16.00	0.0006905	FREQUENCY AND AMPLITUDE
	23.00	0.0000893	FREQUENCY AND AMPLITUDE
	26.00	0.0001821	FREQUENCY AND AMPLITUDE
	29.00	0.0001678	FREQUENCY AND AMPLITUDE
	43.00	0.0000101	FREQUENCY AND AMPLITUDE
	49.00	0.0000586	FREQUENCY AND AMPLITUDE
	51.00	0.0000469	FREQUENCY AND AMPLITUDE
	53.00	0.0000586	FREQUENCY AND AMPLITUDE
	57.00	0.0000186	FREQUENCY AND AMPLITUDE
	65.00	0.0001181	FREQUENCY AND AMPLITUDE
	68.00	0.0000151	FREQUENCY AND AMPLITUDE
	85.00	0.0000031	FREQUENCY AND AMPLITUDE
	88.00	0.0000055	FREQUENCY AND AMPLITUDE
	93.00	0.0000040	FREQUENCY AND AMPLITUDE
	95.00	0.0000059	FREQUENCY AND AMPLITUDE
	99.00	0.0000036	FREQUENCY AND AMPLITUDE
	106.00	0.0000427	FREQUENCY AND AMPLITUDE
	110.00	0.0000053	FREQUENCY AND AMPLITUDE
	117.00	0.0000067	FREQUENCY AND AMPLITUDE
	121.00	0.0000030	FREQUENCY AND AMPLITUDE
	126.00	0.0000064	FREQUENCY AND AMPLITUDE
	129.00	0.0000032	FREQUENCY AND AMPLITUDE
	153.00	0.0000032	FREQUENCY AND AMPLITUDE
	157.00	0.0000042	FREQUENCY AND AMPLITUDE
	159.00	0.0000031	FREQUENCY AND AMPLITUDE
	196.00	0.0000031	FREQUENCY AND AMPLITUDE
	201.00	0.0000058	FREQUENCY AND AMPLITUDE
	208.00	0.0000031	FREQUENCY AND AMPLITUDE
	229.00	0.0000030	FREQUENCY AND AMPLITUDE
	244.00	0.0010275	FREQUENCY AND AMPLITUDE
	258.00	0.0000114	FREQUENCY AND AMPLITUDE
	281.00	0.0001493	FREQUENCY AND AMPLITUDE
	302.00	0.0000130	FREQUENCY AND AMPLITUDE
	315.00	0.0000413	FREQUENCY AND AMPLITUDE
	341.00	0.0000052	FREQUENCY AND AMPLITUDE
	430.00	0.0000566	FREQUENCY AND AMPLITUDE
	485.00	0.0000056	FREQUENCY AND AMPLITUDE

RMS VALUE = 0.18

MASTER TYPE III MOBILITY VIBRATION SCHEDULE, FLOOR, LONGITUDINAL

TABLE B-60. SHELTER WALL VIBRATION SCHEDULE BREAKPOINTS

23	NUMBER OF BREAK POINTS		
	3.00	0.0452835	FREQUENCY AND AMPLITUDE
	4.00	0.0297250	FREQUENCY AND AMPLITUDE
	7.00	0.0032045	FREQUENCY AND AMPLITUDE
	10.00	0.0039730	FREQUENCY AND AMPLITUDE
	13.00	0.0024505	FREQUENCY AND AMPLITUDE
	19.00	0.0038570	FREQUENCY AND AMPLITUDE
	36.00	0.0003335	FREQUENCY AND AMPLITUDE
	39.00	0.0006090	FREQUENCY AND AMPLITUDE
	43.00	0.0001885	FREQUENCY AND AMPLITUDE
	47.00	0.0002465	FREQUENCY AND AMPLITUDE
	48.00	0.0001595	FREQUENCY AND AMPLITUDE
	51.00	0.0001450	FREQUENCY AND AMPLITUDE
	54.00	0.0002465	FREQUENCY AND AMPLITUDE
	66.00	0.0002175	FREQUENCY AND AMPLITUDE
	73.00	0.0000145	FREQUENCY AND AMPLITUDE
	76.00	0.0000145	FREQUENCY AND AMPLITUDE
	78.00	0.0000145	FREQUENCY AND AMPLITUDE
	99.00	0.0000145	FREQUENCY AND AMPLITUDE
	105.00	0.0005075	FREQUENCY AND AMPLITUDE
	110.00	0.0000145	FREQUENCY AND AMPLITUDE
	413.00	0.0000145	FREQUENCY AND AMPLITUDE
	420.00	0.0000290	FREQUENCY AND AMPLITUDE
	427.00	0.0000145	FREQUENCY AND AMPLITUDE

RMS VALUE = 0.41

M923/S280 TYPE III MOBILITY VIBRATION SCHEDULE, WALLS, VERTICAL

TABLE B-61. SHELTER WALL VIBRATION SCHEDULE BREAKPOINTS

44	NUMBER OF BREAK POINTS		
	3.00	0.0139150	FREQUENCY AND AMPLITUDE
	7.00	0.0033660	FREQUENCY AND AMPLITUDE
	8.00	0.0058080	FREQUENCY AND AMPLITUDE
	9.00	0.0054560	FREQUENCY AND AMPLITUDE
	11.00	0.0016170	FREQUENCY AND AMPLITUDE
	15.00	0.0015180	FREQUENCY AND AMPLITUDE
	16.00	0.0011440	FREQUENCY AND AMPLITUDE
	19.00	0.0084480	FREQUENCY AND AMPLITUDE
	21.00	0.0030140	FREQUENCY AND AMPLITUDE
	23.00	0.0111870	FREQUENCY AND AMPLITUDE
	25.00	0.0052140	FREQUENCY AND AMPLITUDE
	27.00	0.0076890	FREQUENCY AND AMPLITUDE
	35.00	0.0003630	FREQUENCY AND AMPLITUDE
	41.00	0.0013420	FREQUENCY AND AMPLITUDE
	43.00	0.0006160	FREQUENCY AND AMPLITUDE
	47.00	0.0029700	FREQUENCY AND AMPLITUDE
	53.00	0.0001430	FREQUENCY AND AMPLITUDE
	58.00	0.0001760	FREQUENCY AND AMPLITUDE
	67.00	0.0026290	FREQUENCY AND AMPLITUDE
	69.00	0.0002530	FREQUENCY AND AMPLITUDE
	76.00	0.0001540	FREQUENCY AND AMPLITUDE
	79.00	0.0003080	FREQUENCY AND AMPLITUDE
	81.00	0.0001540	FREQUENCY AND AMPLITUDE
	96.00	0.0003850	FREQUENCY AND AMPLITUDE
	100.00	0.0001430	FREQUENCY AND AMPLITUDE
	107.00	0.0026620	FREQUENCY AND AMPLITUDE
	116.00	0.0001210	FREQUENCY AND AMPLITUDE
	125.00	0.0003300	FREQUENCY AND AMPLITUDE
	134.00	0.0000440	FREQUENCY AND AMPLITUDE
	139.00	0.0001210	FREQUENCY AND AMPLITUDE
	144.00	0.0000330	FREQUENCY AND AMPLITUDE
	153.00	0.0000440	FREQUENCY AND AMPLITUDE
	161.00	0.0000110	FREQUENCY AND AMPLITUDE
	180.00	0.0000110	FREQUENCY AND AMPLITUDE
	192.00	0.0000330	FREQUENCY AND AMPLITUDE
	196.00	0.0000110	FREQUENCY AND AMPLITUDE
	211.00	0.0000220	FREQUENCY AND AMPLITUDE
	218.00	0.0000110	FREQUENCY AND AMPLITUDE
	315.00	0.0000110	FREQUENCY AND AMPLITUDE
	349.00	0.0001980	FREQUENCY AND AMPLITUDE
	384.00	0.0000110	FREQUENCY AND AMPLITUDE
	410.00	0.0000110	FREQUENCY AND AMPLITUDE
	417.00	0.0000440	FREQUENCY AND AMPLITUDE
	430.00	0.0000110	FREQUENCY AND AMPLITUDE

RMS VALUE = 0.45

M923/S280 TYPE III MOBILITY VIBRATION SCHEDULE, WALLS, TRANSVERSE

TABLE B-62. SHELTER WALL VIBRATION SCHEDULE BREAKPOINTS

46	NUMBER OF BREAK POINTS		
	3.00	0.0224109	FREQUENCY AND AMPLITUDE
	4.00	0.0336108	FREQUENCY AND AMPLITUDE
	6.00	0.0014874	FREQUENCY AND AMPLITUDE
	7.00	0.0014652	FREQUENCY AND AMPLITUDE
	8.00	0.0031413	FREQUENCY AND AMPLITUDE
	9.00	0.0031968	FREQUENCY AND AMPLITUDE
	12.00	0.0005439	FREQUENCY AND AMPLITUDE
	17.00	0.0011100	FREQUENCY AND AMPLITUDE
	22.00	0.0069597	FREQUENCY AND AMPLITUDE
	27.00	0.0014430	FREQUENCY AND AMPLITUDE
	33.00	0.0010212	FREQUENCY AND AMPLITUDE
	36.00	0.0031413	FREQUENCY AND AMPLITUDE
	43.00	0.0003108	FREQUENCY AND AMPLITUDE
	46.00	0.0004329	FREQUENCY AND AMPLITUDE
	48.00	0.0002664	FREQUENCY AND AMPLITUDE
	50.00	0.0003774	FREQUENCY AND AMPLITUDE
	52.00	0.0002442	FREQUENCY AND AMPLITUDE
	55.00	0.0004773	FREQUENCY AND AMPLITUDE
	59.00	0.0001443	FREQUENCY AND AMPLITUDE
	65.00	0.0003996	FREQUENCY AND AMPLITUDE
	72.00	0.0000333	FREQUENCY AND AMPLITUDE
	76.00	0.0000333	FREQUENCY AND AMPLITUDE
	79.00	0.0000222	FREQUENCY AND AMPLITUDE
	83.00	0.0000333	FREQUENCY AND AMPLITUDE
	87.00	0.0000222	FREQUENCY AND AMPLITUDE
	92.00	0.0000444	FREQUENCY AND AMPLITUDE
	99.00	0.0000333	FREQUENCY AND AMPLITUDE
	106.00	0.0001776	FREQUENCY AND AMPLITUDE
	109.00	0.0000888	FREQUENCY AND AMPLITUDE
	126.00	0.0011766	FREQUENCY AND AMPLITUDE
	139.00	0.0000333	FREQUENCY AND AMPLITUDE
	150.00	0.0000222	FREQUENCY AND AMPLITUDE
	153.00	0.0000444	FREQUENCY AND AMPLITUDE
	159.00	0.0000111	FREQUENCY AND AMPLITUDE
	206.00	0.0000111	FREQUENCY AND AMPLITUDE
	213.00	0.0000333	FREQUENCY AND AMPLITUDE
	216.00	0.0000111	FREQUENCY AND AMPLITUDE
	246.00	0.0000111	FREQUENCY AND AMPLITUDE
	264.00	0.0000222	FREQUENCY AND AMPLITUDE
	279.00	0.0000111	FREQUENCY AND AMPLITUDE
	295.00	0.0000111	FREQUENCY AND AMPLITUDE
	302.00	0.0000111	FREQUENCY AND AMPLITUDE
	307.00	0.0000111	FREQUENCY AND AMPLITUDE
	330.00	0.0000111	FREQUENCY AND AMPLITUDE
	344.00	0.0000333	FREQUENCY AND AMPLITUDE
	361.00	0.0000111	FREQUENCY AND AMPLITUDE

RMS VALUE = 0.39

M923/S280 TYPE III MOBILITY VIBRATION SCHEDULE, WALLS, LONGITUDINAL

TABLE B-63. SHELTER WALL VIBRATION SCHEDULE BREAKPOINTS

37	NUMBER OF BREAK POINTS	
3.00	0.0142910	FREQUENCY AND AMPLITUDE
5.00	0.0024742	FREQUENCY AND AMPLITUDE
7.00	0.0105451	FREQUENCY AND AMPLITUDE
9.00	0.0055436	FREQUENCY AND AMPLITUDE
10.00	0.0065294	FREQUENCY AND AMPLITUDE
18.00	0.0004650	FREQUENCY AND AMPLITUDE
21.00	0.0006602	FREQUENCY AND AMPLITUDE
23.00	0.0003856	FREQUENCY AND AMPLITUDE
28.00	0.0008539	FREQUENCY AND AMPLITUDE
41.00	0.0000395	FREQUENCY AND AMPLITUDE
53.00	0.0000376	FREQUENCY AND AMPLITUDE
55.00	0.0000298	FREQUENCY AND AMPLITUDE
59.00	0.0000336	FREQUENCY AND AMPLITUDE
64.00	0.0000145	FREQUENCY AND AMPLITUDE
78.00	0.0000144	FREQUENCY AND AMPLITUDE
81.00	0.0000239	FREQUENCY AND AMPLITUDE
83.00	0.0000150	FREQUENCY AND AMPLITUDE
108.00	0.0000150	FREQUENCY AND AMPLITUDE
110.00	0.0000203	FREQUENCY AND AMPLITUDE
112.00	0.0000145	FREQUENCY AND AMPLITUDE
127.00	0.0000145	FREQUENCY AND AMPLITUDE
134.00	0.0000444	FREQUENCY AND AMPLITUDE
139.00	0.0000148	FREQUENCY AND AMPLITUDE
153.00	0.0000145	FREQUENCY AND AMPLITUDE
161.00	0.0000481	FREQUENCY AND AMPLITUDE
176.00	0.0001623	FREQUENCY AND AMPLITUDE
181.00	0.0000222	FREQUENCY AND AMPLITUDE
189.00	0.0000475	FREQUENCY AND AMPLITUDE
193.00	0.0000148	FREQUENCY AND AMPLITUDE
204.00	0.0000145	FREQUENCY AND AMPLITUDE
209.00	0.0000242	FREQUENCY AND AMPLITUDE
211.00	0.0000148	FREQUENCY AND AMPLITUDE
227.00	0.0000145	FREQUENCY AND AMPLITUDE
244.00	0.0000554	FREQUENCY AND AMPLITUDE
256.00	0.0000351	FREQUENCY AND AMPLITUDE
268.00	0.0001184	FREQUENCY AND AMPLITUDE
279.00	0.0000148	FREQUENCY AND AMPLITUDE

RMS VALUE = 0.30

HMMWV/S250 TYPE III MOBILITY VIBRATION SCHEDULE, WALLS, VERTICAL

TABLE B-64. SHELTER WALL VIBRATION SCHEDULE BREAKPOINTS

27	NUMBER OF BREAK POINTS		
	3.00	0.0161660	FREQUENCY AND AMPLITUDE
	4.00	0.0033746	FREQUENCY AND AMPLITUDE
	5.00	0.0021642	FREQUENCY AND AMPLITUDE
	7.00	0.0021642	FREQUENCY AND AMPLITUDE
	11.00	0.0078307	FREQUENCY AND AMPLITUDE
	13.00	0.0024325	FREQUENCY AND AMPLITUDE
	18.00	0.0007469	FREQUENCY AND AMPLITUDE
	22.00	0.0009327	FREQUENCY AND AMPLITUDE
	28.00	0.0073860	FREQUENCY AND AMPLITUDE
	48.00	0.0000192	FREQUENCY AND AMPLITUDE
	51.00	0.0000274	FREQUENCY AND AMPLITUDE
	52.00	0.0000166	FREQUENCY AND AMPLITUDE
	56.00	0.0000163	FREQUENCY AND AMPLITUDE
	59.00	0.0000303	FREQUENCY AND AMPLITUDE
	62.00	0.0000163	FREQUENCY AND AMPLITUDE
	93.00	0.0000163	FREQUENCY AND AMPLITUDE
	103.00	0.0000341	FREQUENCY AND AMPLITUDE
	106.00	0.0000166	FREQUENCY AND AMPLITUDE
	114.00	0.0000163	FREQUENCY AND AMPLITUDE
	127.00	0.0000612	FREQUENCY AND AMPLITUDE
	136.00	0.0000166	FREQUENCY AND AMPLITUDE
	171.00	0.0000163	FREQUENCY AND AMPLITUDE
	177.00	0.0000353	FREQUENCY AND AMPLITUDE
	181.00	0.0000166	FREQUENCY AND AMPLITUDE
	187.00	0.0000163	FREQUENCY AND AMPLITUDE
	196.00	0.0000270	FREQUENCY AND AMPLITUDE
	199.00	0.0000166	FREQUENCY AND AMPLITUDE

RMS VALUE = 0.33

HMMWV/S250 TYPE III MOBILITY VIBRATION SCHEDULE, WALLS, TRANS

TABLE B-65. SHELTER WALL VIBRATION SCHEDULE BREAKPOINTS

30	NUMBER OF BREAK POINTS		
	3.00	0.0019725	FREQUENCY AND AMPLITUDE
	4.00	0.0009934	FREQUENCY AND AMPLITUDE
	5.00	0.0012358	FREQUENCY AND AMPLITUDE
	7.00	0.0078986	FREQUENCY AND AMPLITUDE
	9.00	0.0022345	FREQUENCY AND AMPLITUDE
	10.00	0.0023783	FREQUENCY AND AMPLITUDE
	13.00	0.0011431	FREQUENCY AND AMPLITUDE
	15.00	0.0013782	FREQUENCY AND AMPLITUDE
	23.00	0.0002855	FREQUENCY AND AMPLITUDE
	29.00	0.0046491	FREQUENCY AND AMPLITUDE
	35.00	0.0000747	FREQUENCY AND AMPLITUDE
	50.00	0.0000105	FREQUENCY AND AMPLITUDE
	56.00	0.0000068	FREQUENCY AND AMPLITUDE
	60.00	0.0000115	FREQUENCY AND AMPLITUDE
	65.00	0.0000057	FREQUENCY AND AMPLITUDE
	72.00	0.0000056	FREQUENCY AND AMPLITUDE
	81.00	0.0001460	FREQUENCY AND AMPLITUDE
	92.00	0.0000058	FREQUENCY AND AMPLITUDE
	115.00	0.0000058	FREQUENCY AND AMPLITUDE
	122.00	0.0000280	FREQUENCY AND AMPLITUDE
	124.00	0.0000058	FREQUENCY AND AMPLITUDE
	132.00	0.0000057	FREQUENCY AND AMPLITUDE
	135.00	0.0000103	FREQUENCY AND AMPLITUDE
	137.00	0.0000058	FREQUENCY AND AMPLITUDE
	159.00	0.0000057	FREQUENCY AND AMPLITUDE
	177.00	0.0000491	FREQUENCY AND AMPLITUDE
	180.00	0.0000058	FREQUENCY AND AMPLITUDE
	190.00	0.0000057	FREQUENCY AND AMPLITUDE
	195.00	0.0000106	FREQUENCY AND AMPLITUDE
	203.00	0.0000058	FREQUENCY AND AMPLITUDE

RMS VALUE = 0.23

HMMWV/S250 TYPE III MOBILITY VIBRATION SCHEDULE, WALLS, LONGITUDINAL

TABLE B-66. SHELTER WALL VIBRATION SCHEDULE BREAKPOINTS

36	NUMBER OF BREAK POINTS		
	3.00	0.0141301	FREQUENCY AND AMPLITUDE
	5.00	0.0038597	FREQUENCY AND AMPLITUDE
	7.00	0.0118573	FREQUENCY AND AMPLITUDE
	9.00	0.0040921	FREQUENCY AND AMPLITUDE
	11.00	0.0042381	FREQUENCY AND AMPLITUDE
	14.00	0.0006683	FREQUENCY AND AMPLITUDE
	16.00	0.0020291	FREQUENCY AND AMPLITUDE
	19.00	0.0008248	FREQUENCY AND AMPLITUDE
	20.00	0.0008951	FREQUENCY AND AMPLITUDE
	29.00	0.0002563	FREQUENCY AND AMPLITUDE
	32.00	0.0007338	FREQUENCY AND AMPLITUDE
	46.00	0.0000637	FREQUENCY AND AMPLITUDE
	49.00	0.0000948	FREQUENCY AND AMPLITUDE
	52.00	0.0000395	FREQUENCY AND AMPLITUDE
	58.00	0.0000493	FREQUENCY AND AMPLITUDE
	62.00	0.0000834	FREQUENCY AND AMPLITUDE
	68.00	0.0000193	FREQUENCY AND AMPLITUDE
	83.00	0.0000189	FREQUENCY AND AMPLITUDE
	85.00	0.0000248	FREQUENCY AND AMPLITUDE
	86.00	0.0000189	FREQUENCY AND AMPLITUDE
	150.00	0.0000189	FREQUENCY AND AMPLITUDE
	153.00	0.0000280	FREQUENCY AND AMPLITUDE
	154.00	0.0000184	FREQUENCY AND AMPLITUDE
	169.00	0.0000182	FREQUENCY AND AMPLITUDE
	177.00	0.0000581	FREQUENCY AND AMPLITUDE
	187.00	0.0000309	FREQUENCY AND AMPLITUDE
	198.00	0.0001411	FREQUENCY AND AMPLITUDE
	213.00	0.0000184	FREQUENCY AND AMPLITUDE
	227.00	0.0000187	FREQUENCY AND AMPLITUDE
	238.00	0.0000593	FREQUENCY AND AMPLITUDE
	260.00	0.0000233	FREQUENCY AND AMPLITUDE
	284.00	0.0001054	FREQUENCY AND AMPLITUDE
	305.00	0.0000184	FREQUENCY AND AMPLITUDE
	352.00	0.0000182	FREQUENCY AND AMPLITUDE
	381.00	0.0000291	FREQUENCY AND AMPLITUDE
	407.00	0.0000184	FREQUENCY AND AMPLITUDE

RMS VALUE = 0.31

M1097 HHV/S787 TYPE III MOBILITY VIBRATION SCHEDULE, FLOOR, VERTICAL

TABLE B-67. SHELTER WALL VIBRATION SCHEDULE BREAKPOINTS

44	NUMBER OF BREAK POINTS		
	3.00	0.0177541	FREQUENCY AND AMPLITUDE
	6.00	0.0030381	FREQUENCY AND AMPLITUDE
	7.00	0.0029335	FREQUENCY AND AMPLITUDE
	9.00	0.0109932	FREQUENCY AND AMPLITUDE
	13.00	0.0016933	FREQUENCY AND AMPLITUDE
	14.00	0.0014717	FREQUENCY AND AMPLITUDE
	16.00	0.0043145	FREQUENCY AND AMPLITUDE
	23.00	0.0004903	FREQUENCY AND AMPLITUDE
	30.00	0.0006568	FREQUENCY AND AMPLITUDE
	35.00	0.0005019	FREQUENCY AND AMPLITUDE
	55.00	0.0000442	FREQUENCY AND AMPLITUDE
	61.00	0.0001732	FREQUENCY AND AMPLITUDE
	67.00	0.0000183	FREQUENCY AND AMPLITUDE
	69.00	0.0000181	FREQUENCY AND AMPLITUDE
	72.00	0.0000319	FREQUENCY AND AMPLITUDE
	77.00	0.0000279	FREQUENCY AND AMPLITUDE
	80.00	0.0000183	FREQUENCY AND AMPLITUDE
	85.00	0.0000720	FREQUENCY AND AMPLITUDE
	87.00	0.0000183	FREQUENCY AND AMPLITUDE
	104.00	0.0000183	FREQUENCY AND AMPLITUDE
	110.00	0.0001752	FREQUENCY AND AMPLITUDE
	113.00	0.0000188	FREQUENCY AND AMPLITUDE
	122.00	0.0000205	FREQUENCY AND AMPLITUDE
	129.00	0.0000829	FREQUENCY AND AMPLITUDE
	141.00	0.0000183	FREQUENCY AND AMPLITUDE
	165.00	0.0000183	FREQUENCY AND AMPLITUDE
	174.00	0.0000407	FREQUENCY AND AMPLITUDE
	186.00	0.0000212	FREQUENCY AND AMPLITUDE
	193.00	0.0000436	FREQUENCY AND AMPLITUDE
	204.00	0.0000188	FREQUENCY AND AMPLITUDE
	223.00	0.0000532	FREQUENCY AND AMPLITUDE
	232.00	0.0000237	FREQUENCY AND AMPLITUDE
	258.00	0.0000811	FREQUENCY AND AMPLITUDE
	277.00	0.0000186	FREQUENCY AND AMPLITUDE
	281.00	0.0000738	FREQUENCY AND AMPLITUDE
	295.00	0.0000297	FREQUENCY AND AMPLITUDE
	317.00	0.0001048	FREQUENCY AND AMPLITUDE
	328.00	0.0000729	FREQUENCY AND AMPLITUDE
	344.00	0.0001061	FREQUENCY AND AMPLITUDE
	381.00	0.0000201	FREQUENCY AND AMPLITUDE
	407.00	0.0000641	FREQUENCY AND AMPLITUDE
	420.00	0.0000425	FREQUENCY AND AMPLITUDE
	448.00	0.0000491	FREQUENCY AND AMPLITUDE
	489.00	0.0002214	FREQUENCY AND AMPLITUDE
RMS VALUE =	0.35		

M1097 HHV/S787 TYPE III MOBILITY VIBRATION SCHEDULE, WALLS, TRANSVERSE

TABLE B-68. SHELTER WALL VIBRATION SCHEDULE BREAKPOINTS

20	NUMBER OF BREAK POINTS	
3.00	0.0026243	FREQUENCY AND AMPLITUDE
4.00	0.0014741	FREQUENCY AND AMPLITUDE
5.00	0.0023167	FREQUENCY AND AMPLITUDE
7.00	0.0175771	FREQUENCY AND AMPLITUDE
13.00	0.0005352	FREQUENCY AND AMPLITUDE
16.00	0.0013013	FREQUENCY AND AMPLITUDE
20.00	0.0002738	FREQUENCY AND AMPLITUDE
30.00	0.0001109	FREQUENCY AND AMPLITUDE
33.00	0.0001973	FREQUENCY AND AMPLITUDE
52.00	0.0000071	FREQUENCY AND AMPLITUDE
62.00	0.0000212	FREQUENCY AND AMPLITUDE
68.00	0.0000072	FREQUENCY AND AMPLITUDE
73.00	0.0000182	FREQUENCY AND AMPLITUDE
75.00	0.0000072	FREQUENCY AND AMPLITUDE
199.00	0.0000071	FREQUENCY AND AMPLITUDE
201.00	0.0000119	FREQUENCY AND AMPLITUDE
204.00	0.0000072	FREQUENCY AND AMPLITUDE
358.00	0.0000071	FREQUENCY AND AMPLITUDE
417.00	0.0000112	FREQUENCY AND AMPLITUDE
489.00	0.0002167	FREQUENCY AND AMPLITUDE

RMS VALUE = 0.26

M1097 HHV/S787 TYPE III MOBILITY VIBRATION SHELTER, WALLS, LONGITUDINAL

TABLE B-69. SHELTER WALL VIBRATION SCHEDULE BREAKPOINTS

34	NUMBER OF BREAK POINTS	
3.00	0.0384177	FREQUENCY AND AMPLITUDE
4.00	0.0272642	FREQUENCY AND AMPLITUDE
6.00	0.0041346	FREQUENCY AND AMPLITUDE
7.00	0.0088748	FREQUENCY AND AMPLITUDE
9.00	0.0047574	FREQUENCY AND AMPLITUDE
11.00	0.0055598	FREQUENCY AND AMPLITUDE
13.00	0.0021483	FREQUENCY AND AMPLITUDE
16.00	0.0037654	FREQUENCY AND AMPLITUDE
17.00	0.0025502	FREQUENCY AND AMPLITUDE
20.00	0.0032725	FREQUENCY AND AMPLITUDE
36.00	0.0002831	FREQUENCY AND AMPLITUDE
39.00	0.0005200	FREQUENCY AND AMPLITUDE
49.00	0.0001279	FREQUENCY AND AMPLITUDE
54.00	0.0002041	FREQUENCY AND AMPLITUDE
66.00	0.0001888	FREQUENCY AND AMPLITUDE
69.00	0.0000226	FREQUENCY AND AMPLITUDE
75.00	0.0000335	FREQUENCY AND AMPLITUDE
81.00	0.0000197	FREQUENCY AND AMPLITUDE
85.00	0.0000839	FREQUENCY AND AMPLITUDE
87.00	0.0000132	FREQUENCY AND AMPLITUDE
101.00	0.0000132	FREQUENCY AND AMPLITUDE
105.00	0.0003929	FREQUENCY AND AMPLITUDE
111.00	0.0000129	FREQUENCY AND AMPLITUDE
129.00	0.0000129	FREQUENCY AND AMPLITUDE
134.00	0.0000357	FREQUENCY AND AMPLITUDE
139.00	0.0000129	FREQUENCY AND AMPLITUDE
154.00	0.0000129	FREQUENCY AND AMPLITUDE
176.00	0.0001383	FREQUENCY AND AMPLITUDE
180.00	0.0000156	FREQUENCY AND AMPLITUDE
192.00	0.0000373	FREQUENCY AND AMPLITUDE
195.00	0.0000129	FREQUENCY AND AMPLITUDE
229.00	0.0000129	FREQUENCY AND AMPLITUDE
268.00	0.0000966	FREQUENCY AND AMPLITUDE
277.00	0.0000129	FREQUENCY AND AMPLITUDE

RMS VALUE = 0.41

MASTER TYPE III MOBILITY VIBRATION SCHEDULE, WALLS, VERTICAL

TABLE B-70. SHELTER WALL VIBRATION SCHEDULE BREAKPOINTS

47	NUMBER OF BREAK POINTS		
	3.00	0.0098675	FREQUENCY AND AMPLITUDE
	7.00	0.0028911	FREQUENCY AND AMPLITUDE
	9.00	0.0058992	FREQUENCY AND AMPLITUDE
	11.00	0.0047242	FREQUENCY AND AMPLITUDE
	14.00	0.0014505	FREQUENCY AND AMPLITUDE
	16.00	0.0022095	FREQUENCY AND AMPLITUDE
	17.00	0.0014676	FREQUENCY AND AMPLITUDE
	19.00	0.0071964	FREQUENCY AND AMPLITUDE
	21.00	0.0025721	FREQUENCY AND AMPLITUDE
	24.00	0.0091989	FREQUENCY AND AMPLITUDE
	25.00	0.0045084	FREQUENCY AND AMPLITUDE
	27.00	0.0064776	FREQUENCY AND AMPLITUDE
	35.00	0.0003484	FREQUENCY AND AMPLITUDE
	41.00	0.0011085	FREQUENCY AND AMPLITUDE
	44.00	0.0005245	FREQUENCY AND AMPLITUDE
	47.00	0.0024835	FREQUENCY AND AMPLITUDE
	52.00	0.0001335	FREQUENCY AND AMPLITUDE
	57.00	0.0001400	FREQUENCY AND AMPLITUDE
	66.00	0.0022618	FREQUENCY AND AMPLITUDE
	69.00	0.0002314	FREQUENCY AND AMPLITUDE
	75.00	0.0001335	FREQUENCY AND AMPLITUDE
	79.00	0.0002541	FREQUENCY AND AMPLITUDE
	81.00	0.0001335	FREQUENCY AND AMPLITUDE
	97.00	0.0003484	FREQUENCY AND AMPLITUDE
	101.00	0.0001367	FREQUENCY AND AMPLITUDE
	107.00	0.0023700	FREQUENCY AND AMPLITUDE
	115.00	0.0001688	FREQUENCY AND AMPLITUDE
	117.00	0.0001009	FREQUENCY AND AMPLITUDE
	125.00	0.0002790	FREQUENCY AND AMPLITUDE
	135.00	0.0000370	FREQUENCY AND AMPLITUDE
	140.00	0.0000929	FREQUENCY AND AMPLITUDE
	144.00	0.0000285	FREQUENCY AND AMPLITUDE
	153.00	0.0000382	FREQUENCY AND AMPLITUDE
	158.00	0.0000101	FREQUENCY AND AMPLITUDE
	176.00	0.0000180	FREQUENCY AND AMPLITUDE
	181.00	0.0000099	FREQUENCY AND AMPLITUDE
	192.00	0.0000292	FREQUENCY AND AMPLITUDE
	208.00	0.0000113	FREQUENCY AND AMPLITUDE
	225.00	0.0000269	FREQUENCY AND AMPLITUDE
	238.00	0.0000123	FREQUENCY AND AMPLITUDE
	258.00	0.0000410	FREQUENCY AND AMPLITUDE
	288.00	0.0000169	FREQUENCY AND AMPLITUDE
	347.00	0.0001592	FREQUENCY AND AMPLITUDE
	388.00	0.0000099	FREQUENCY AND AMPLITUDE
	413.00	0.0000344	FREQUENCY AND AMPLITUDE
	441.00	0.0000248	FREQUENCY AND AMPLITUDE
	493.00	0.0001134	FREQUENCY AND AMPLITUDE

RMS VALUE = 0.43

MASTER TYPE III MOBILITY VIBRATION SCHEDULE, WALLS, TRANSVERSE

TABLE B-71. SHELTER WALL VIBRATION SCHEDULE BREAKPOINTS

39	NUMBER OF BREAK POINTS		
	3.00	0.0145783	FREQUENCY AND AMPLITUDE
	4.00	0.0222072	FREQUENCY AND AMPLITUDE
	5.00	0.0059954	FREQUENCY AND AMPLITUDE
	6.00	0.0067917	FREQUENCY AND AMPLITUDE
	7.00	0.0170375	FREQUENCY AND AMPLITUDE
	13.00	0.0014741	FREQUENCY AND AMPLITUDE
	15.00	0.0017499	FREQUENCY AND AMPLITUDE
	17.00	0.0008026	FREQUENCY AND AMPLITUDE
	22.00	0.0043896	FREQUENCY AND AMPLITUDE
	25.00	0.0011851	FREQUENCY AND AMPLITUDE
	29.00	0.0056330	FREQUENCY AND AMPLITUDE
	32.00	0.0006158	FREQUENCY AND AMPLITUDE
	36.00	0.0019516	FREQUENCY AND AMPLITUDE
	40.00	0.0003739	FREQUENCY AND AMPLITUDE
	52.00	0.0001797	FREQUENCY AND AMPLITUDE
	55.00	0.0003101	FREQUENCY AND AMPLITUDE
	60.00	0.0000877	FREQUENCY AND AMPLITUDE
	66.00	0.0002493	FREQUENCY AND AMPLITUDE
	73.00	0.0000188	FREQUENCY AND AMPLITUDE
	81.00	0.0001688	FREQUENCY AND AMPLITUDE
	87.00	0.0000241	FREQUENCY AND AMPLITUDE
	99.00	0.0000212	FREQUENCY AND AMPLITUDE
	126.00	0.0006976	FREQUENCY AND AMPLITUDE
	141.00	0.0000190	FREQUENCY AND AMPLITUDE
	153.00	0.0000188	FREQUENCY AND AMPLITUDE
	159.00	0.0000072	FREQUENCY AND AMPLITUDE
	176.00	0.0000585	FREQUENCY AND AMPLITUDE
	178.00	0.0000072	FREQUENCY AND AMPLITUDE
	199.00	0.0000071	FREQUENCY AND AMPLITUDE
	211.00	0.0000219	FREQUENCY AND AMPLITUDE
	214.00	0.0000076	FREQUENCY AND AMPLITUDE
	252.00	0.0000076	FREQUENCY AND AMPLITUDE
	258.00	0.0000112	FREQUENCY AND AMPLITUDE
	266.00	0.0000075	FREQUENCY AND AMPLITUDE
	330.00	0.0000075	FREQUENCY AND AMPLITUDE
	344.00	0.0000226	FREQUENCY AND AMPLITUDE
	358.00	0.0000074	FREQUENCY AND AMPLITUDE
	420.00	0.0000096	FREQUENCY AND AMPLITUDE
	489.00	0.0002167	FREQUENCY AND AMPLITUDE

RMS VALUE = 0.41

MASTER TYPE III MOBILITY VIBRATION SCHEDULE, WALLS, LONGITUDINAL

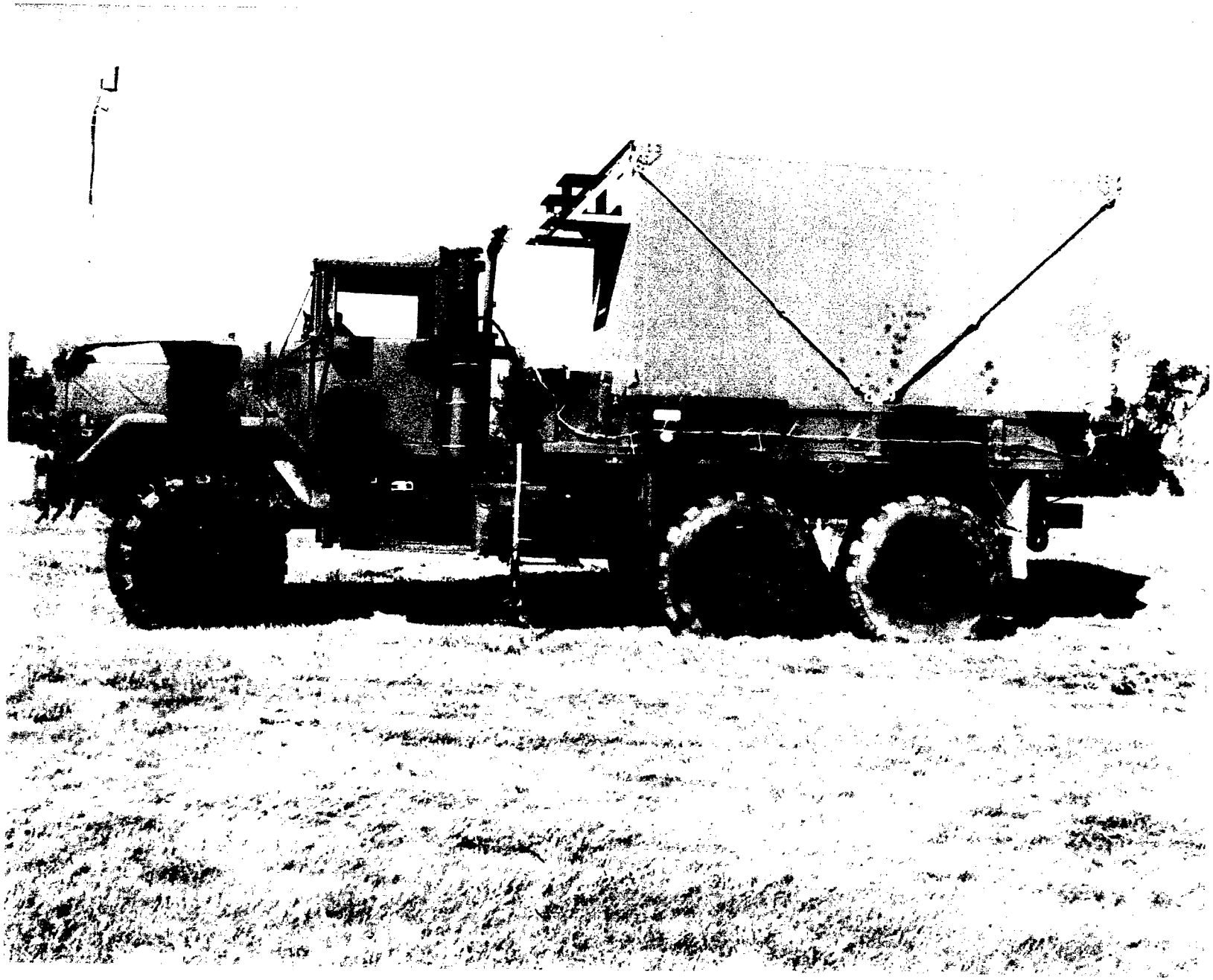


Figure B-1. M923 with S280 shelter.

Figure B-2. HHV with S250 shelter.

Figure B-3. HHV with M787 shelter.

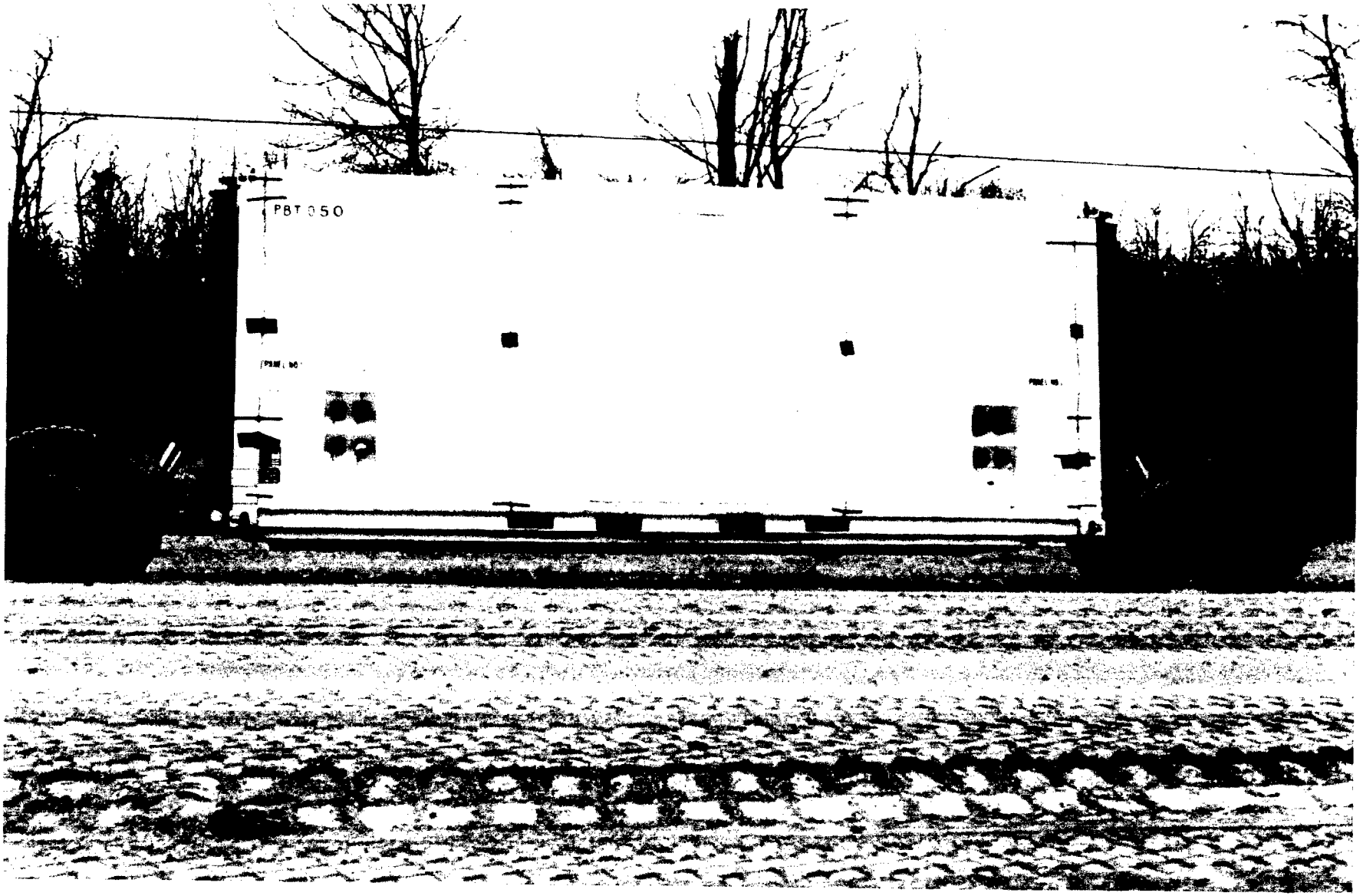


Figure B-4. M1022 dolly set with 20-foot nonexpandable shelter.

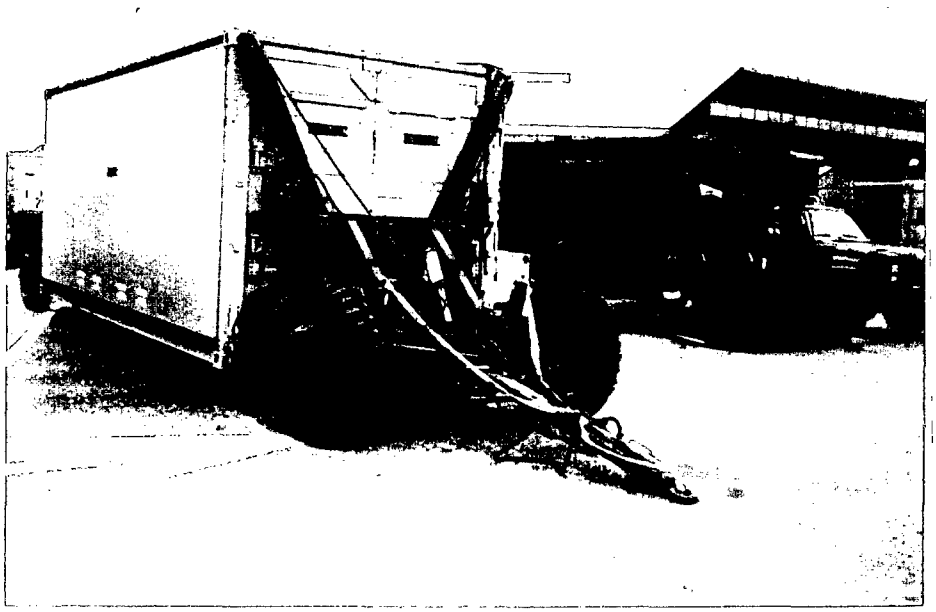


Figure B-5. M1022 dolly set with two-sided expandable shelter.

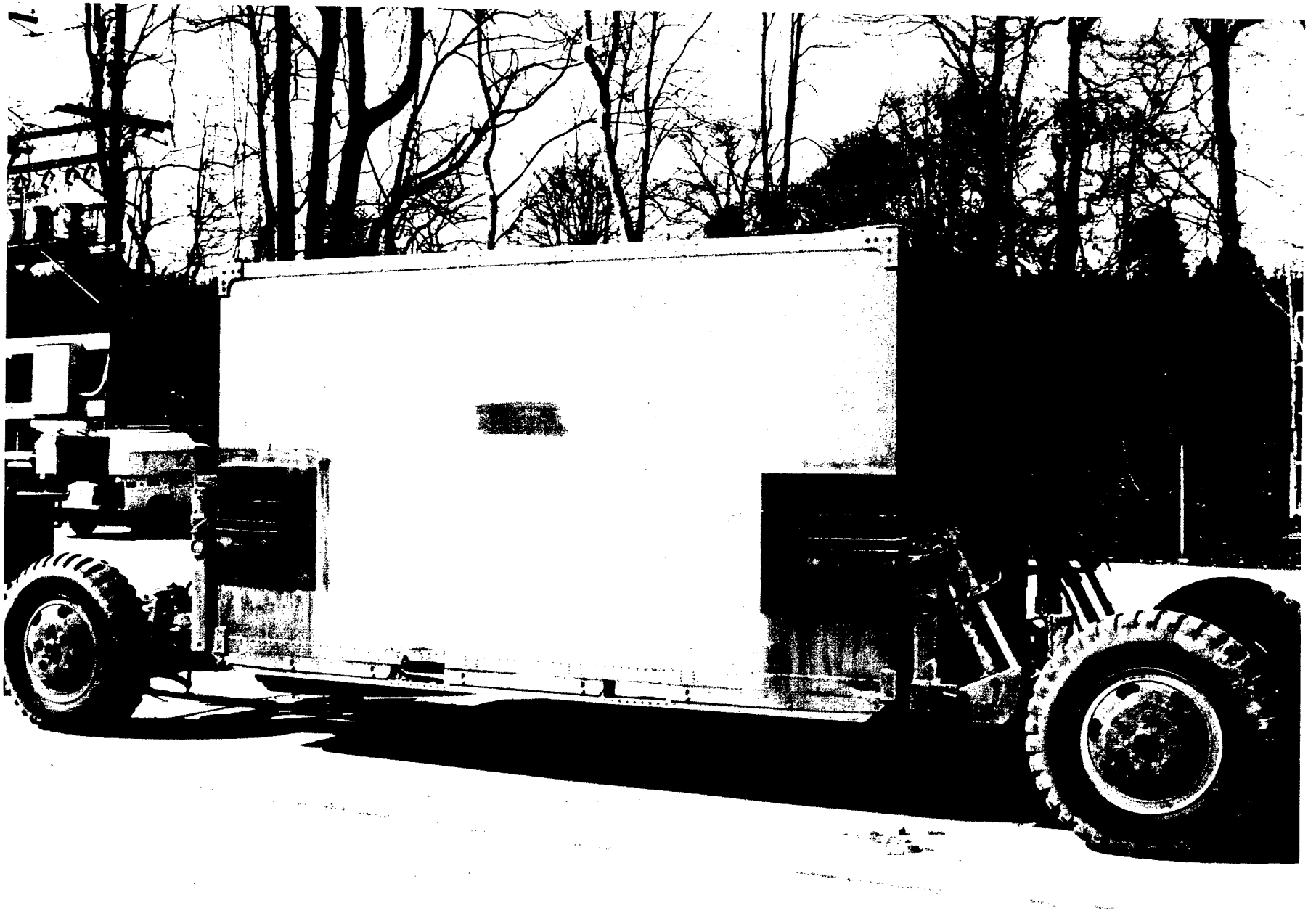


Figure B-6. S280 shelter mounted on an M832 dolly set.

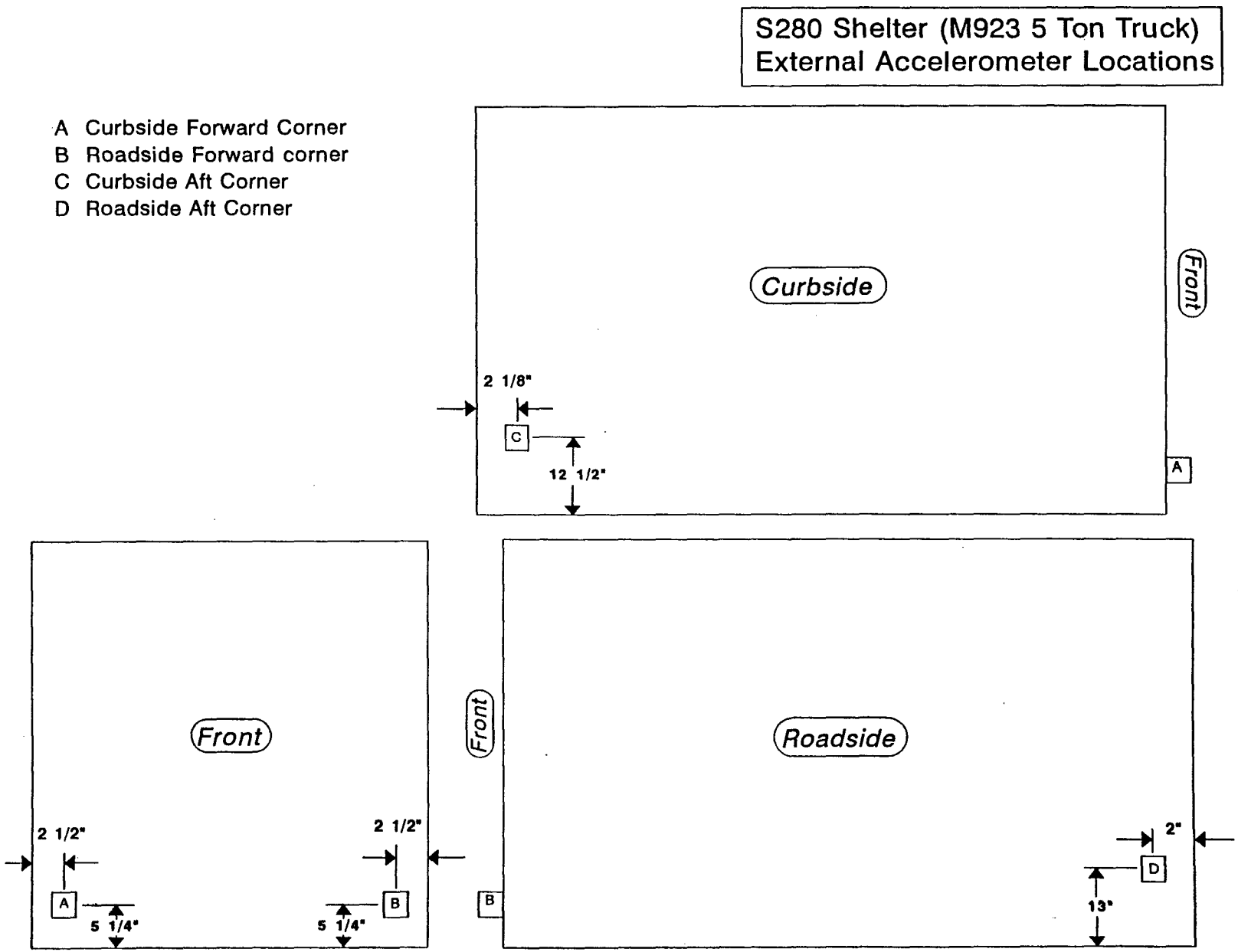


Figure B-7. Instrumentation locations.

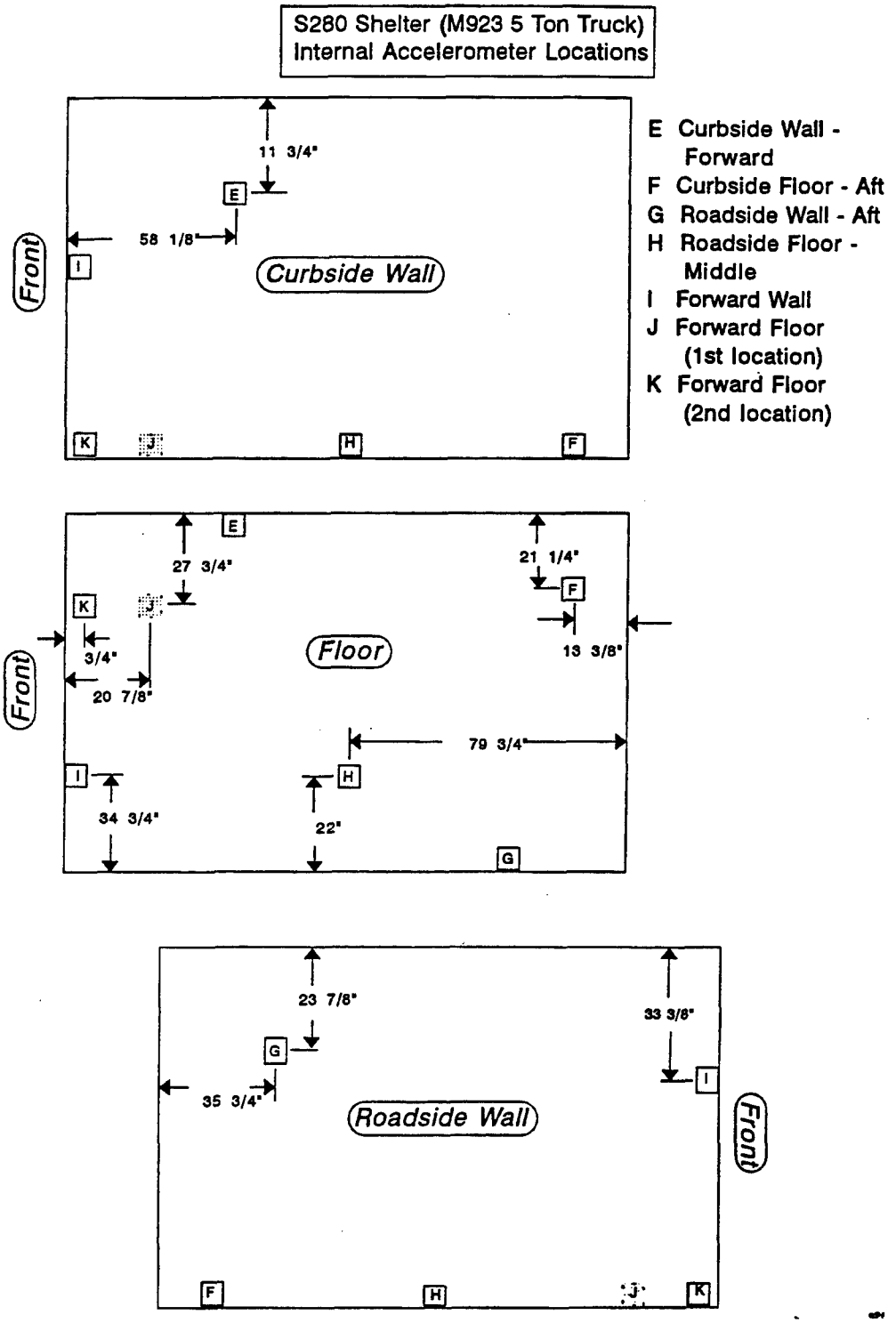


Figure B-8. Instrumentation loctions.

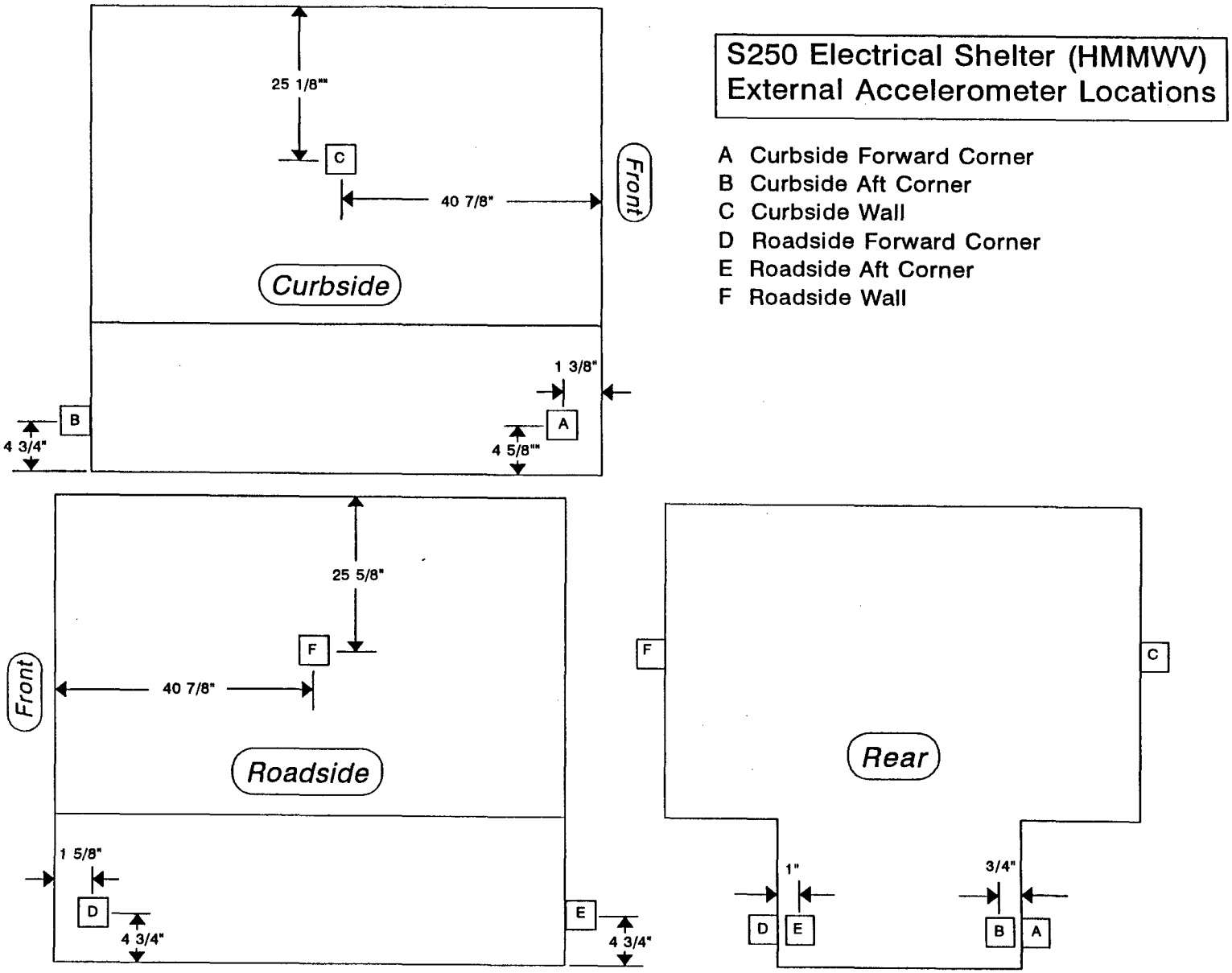
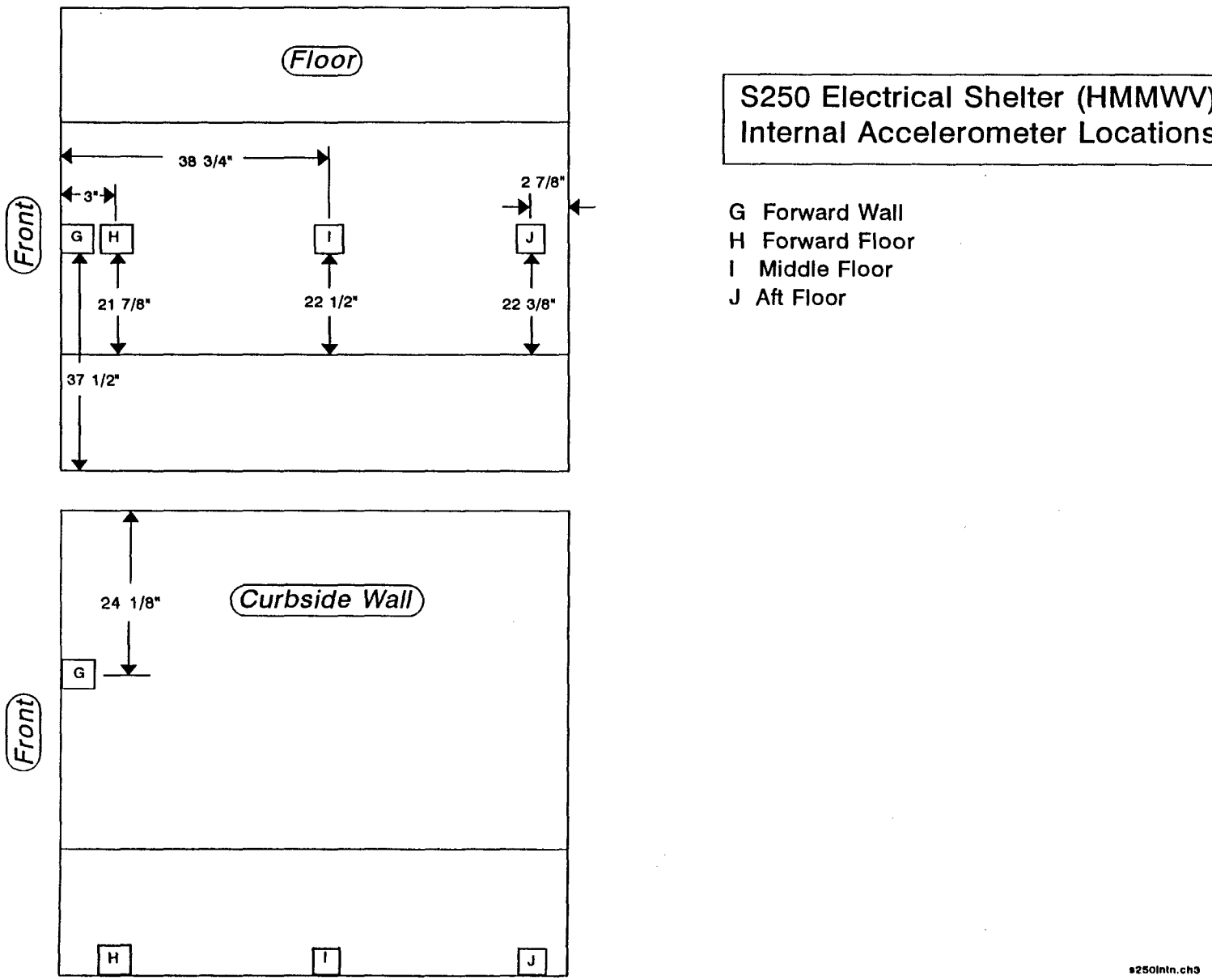


Figure B-9. Instrumentation locations.



S250 Electrical Shelter (HMMWV)
Internal Accelerometer Locations

G Forward Wall
H Forward Floor
I Middle Floor
J Aft Floor

s250intn.ch3

Figure B-10. Instrumentation locations.

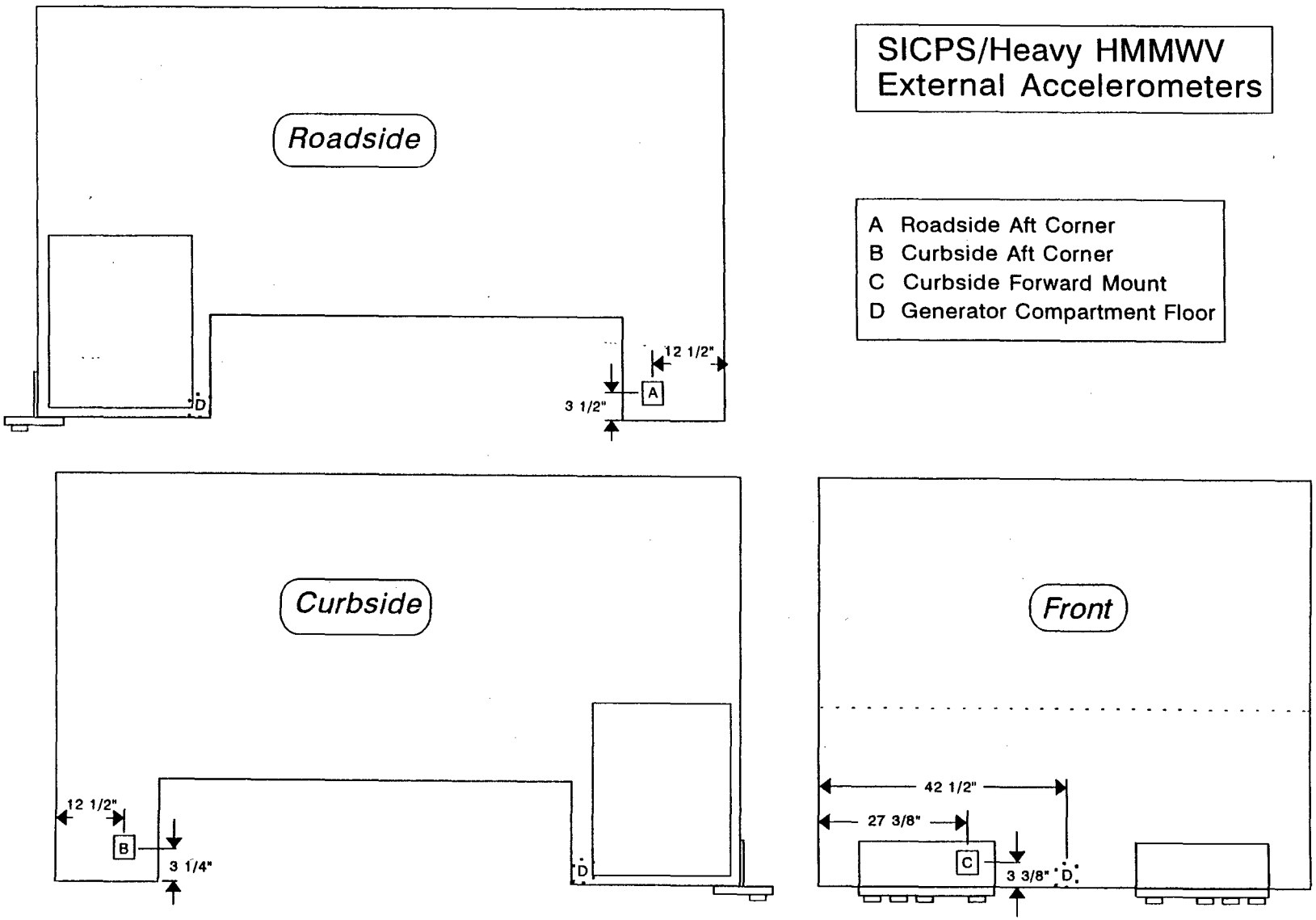


Figure B-11. Instrumentation locations.

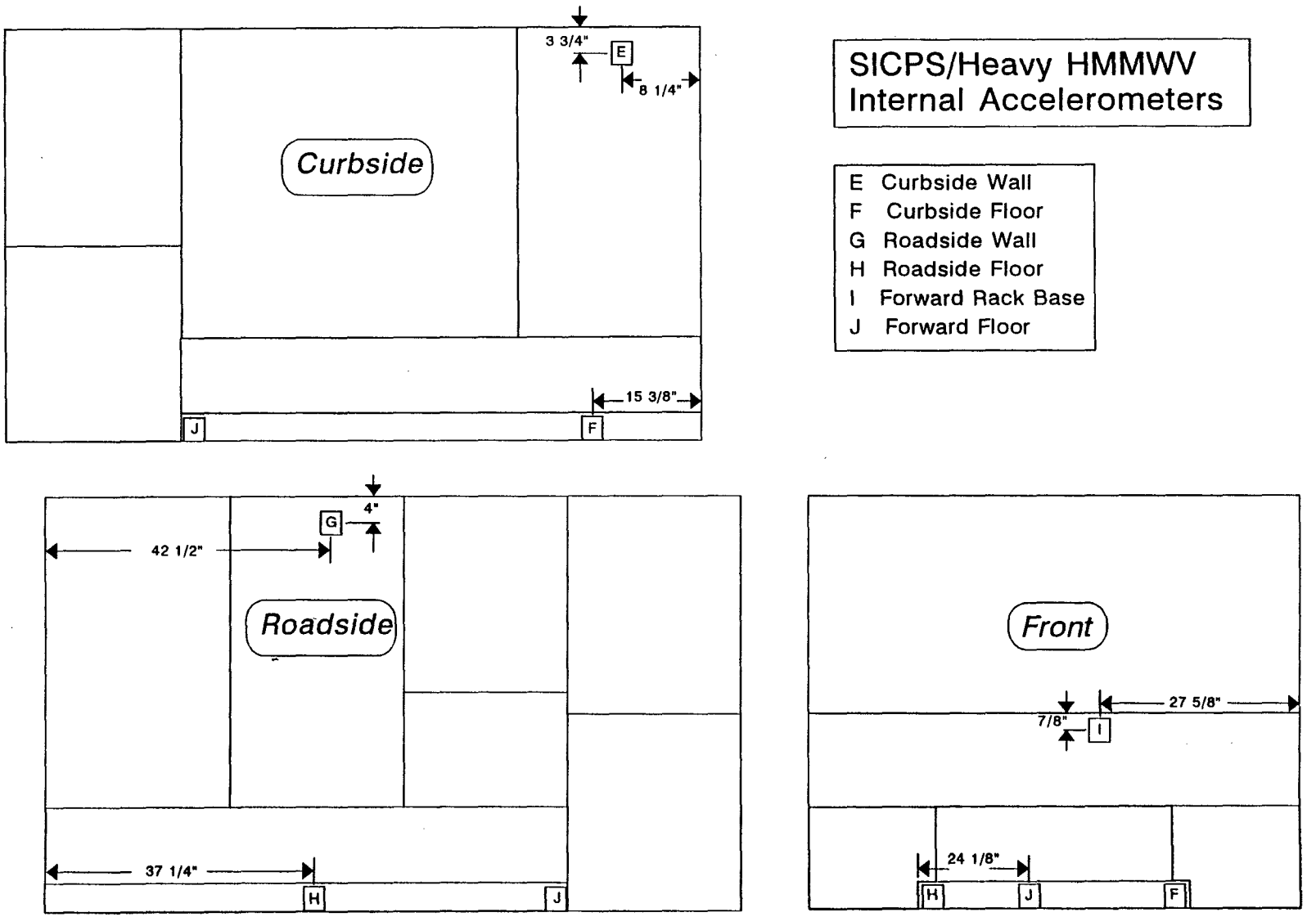


Figure B-12. Instrumentation locations.

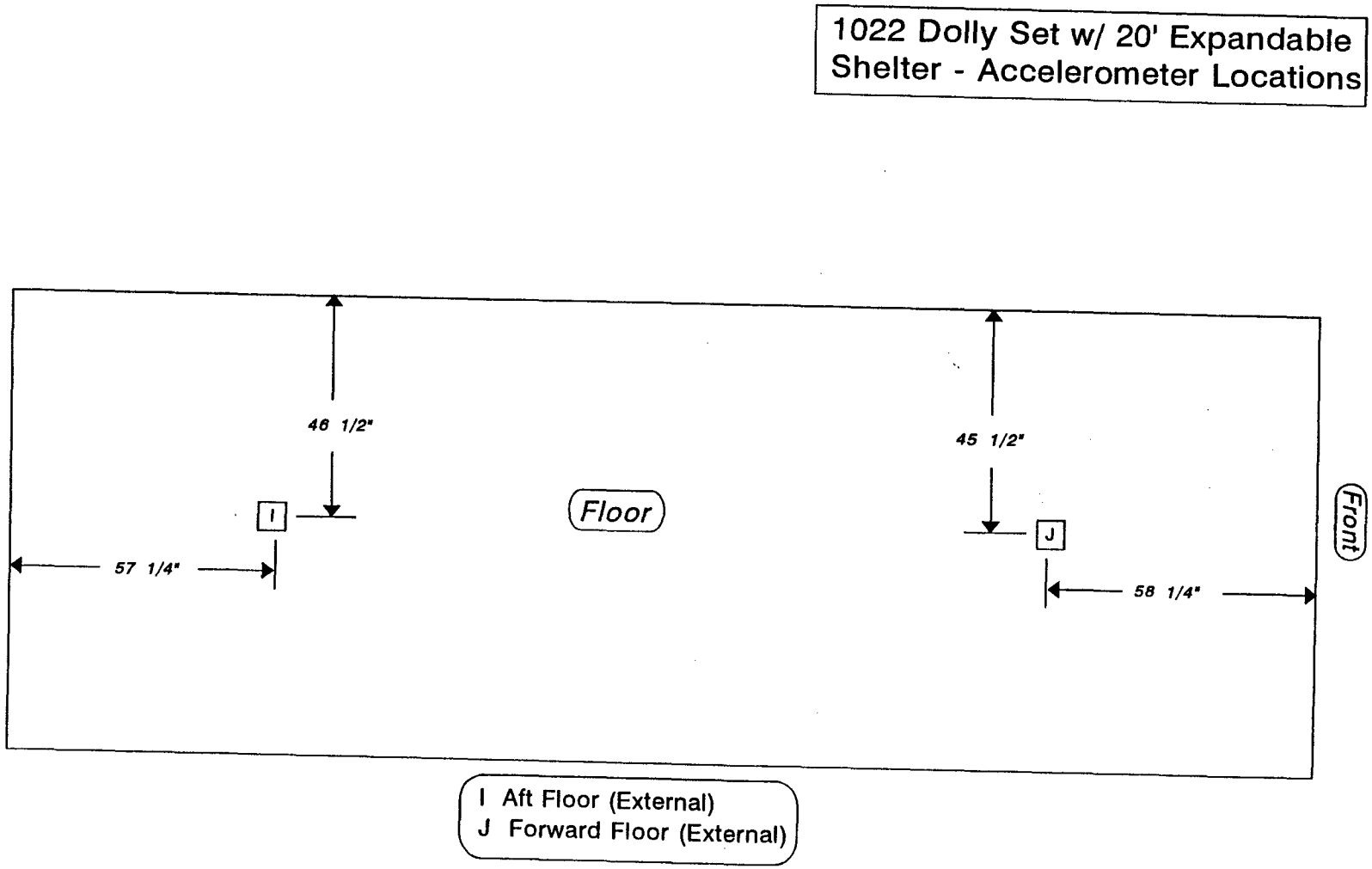


Figure B-13. Instrumentation locations.

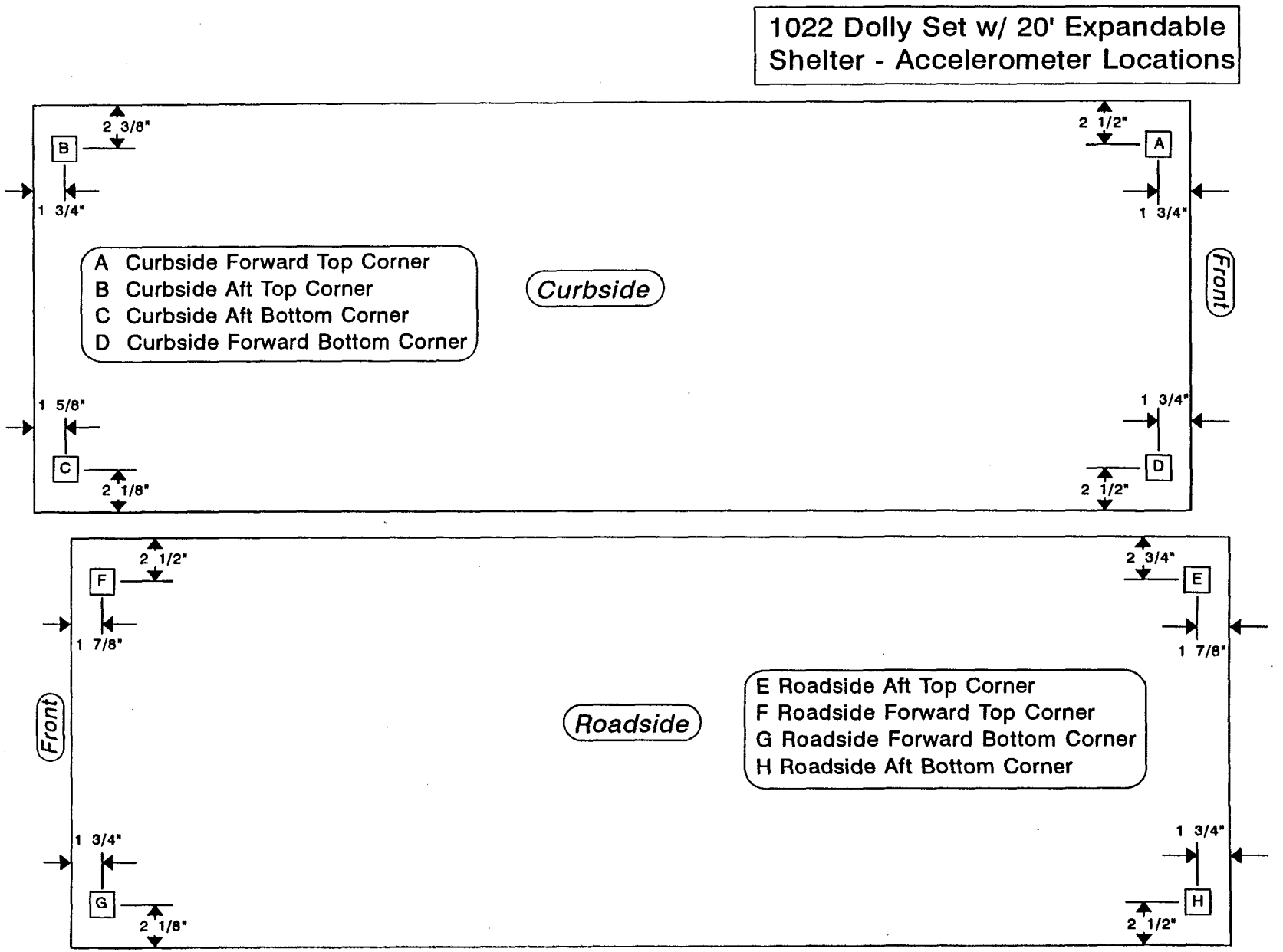


Figure B-14. Instrumentation locations.

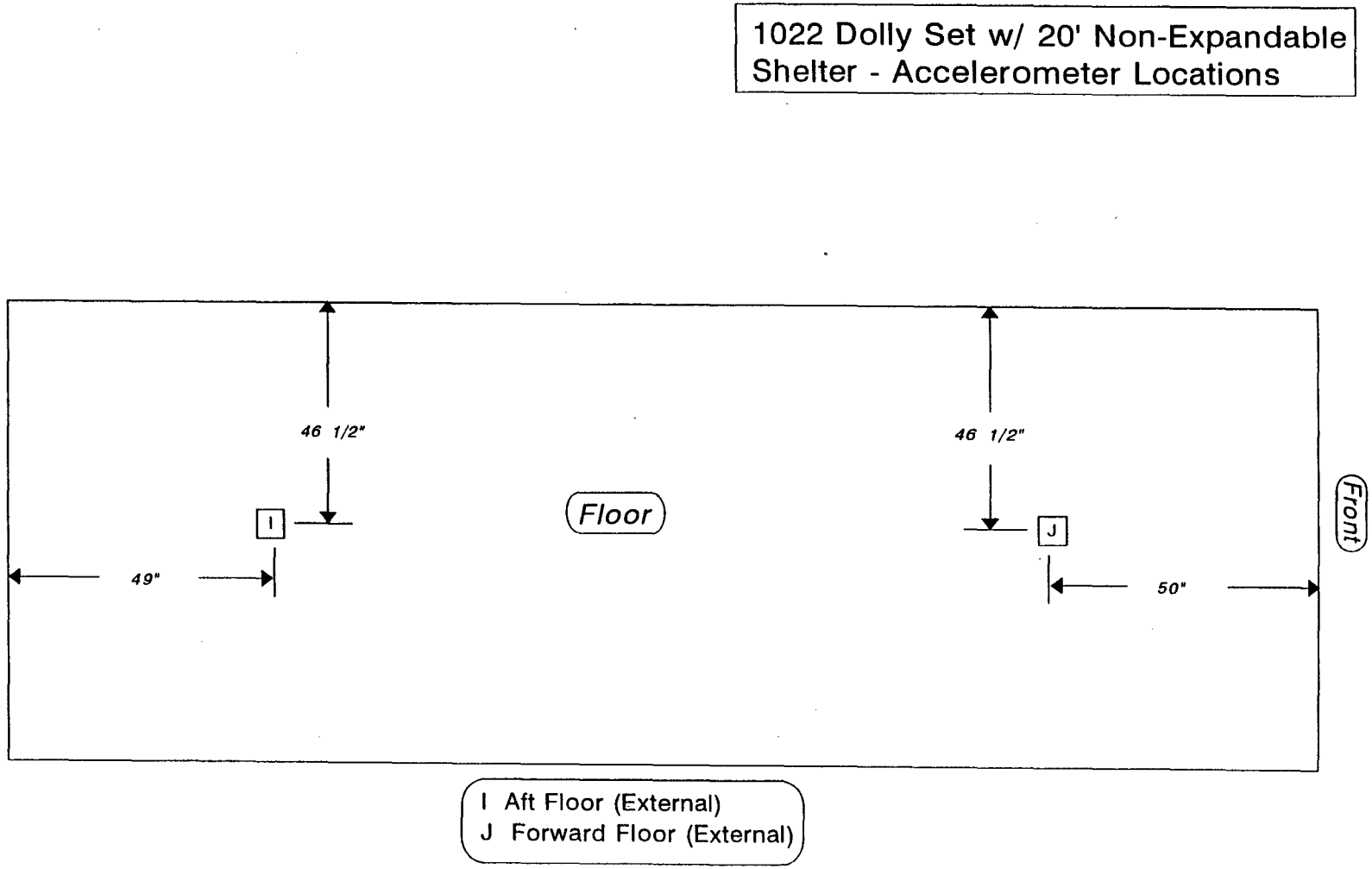


Figure B-15. Instrumentation locations.

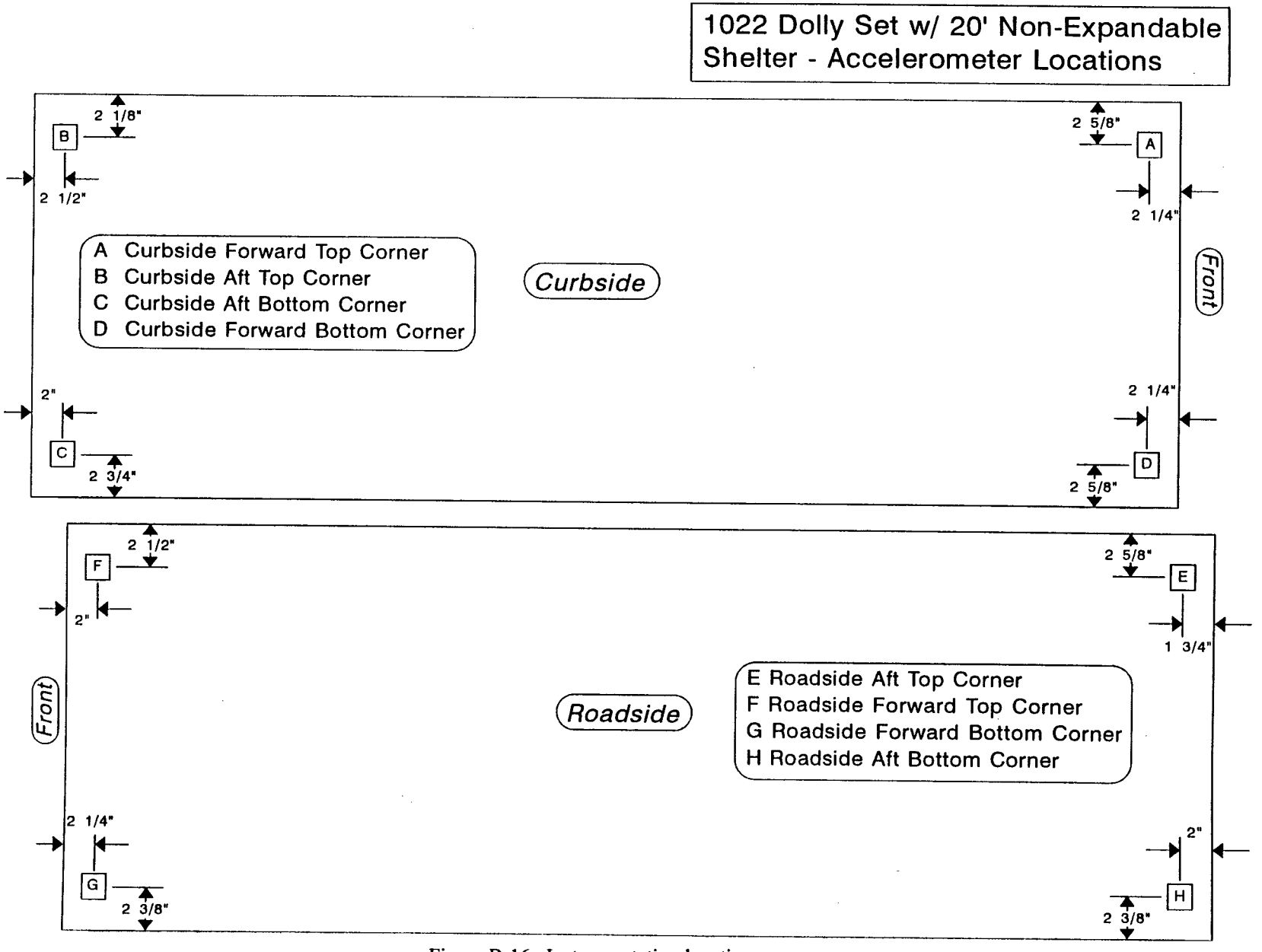


Figure B-16. Instrumentation locations.

M832 Dolly Set w/S280 Shelter
External Accelerometer Locations

A Curbside Forward Lower Backet
B Roadside Forward Lower Bracket
C Roadside Forward Upper Bracket
D Curbside Forward Upper Bracket

E Roadside Aft Lower Bracket
F Curbside Aft Lower Bracket
G Curbside Aft Upper Bracket
H Roadside Aft Upper Bracket

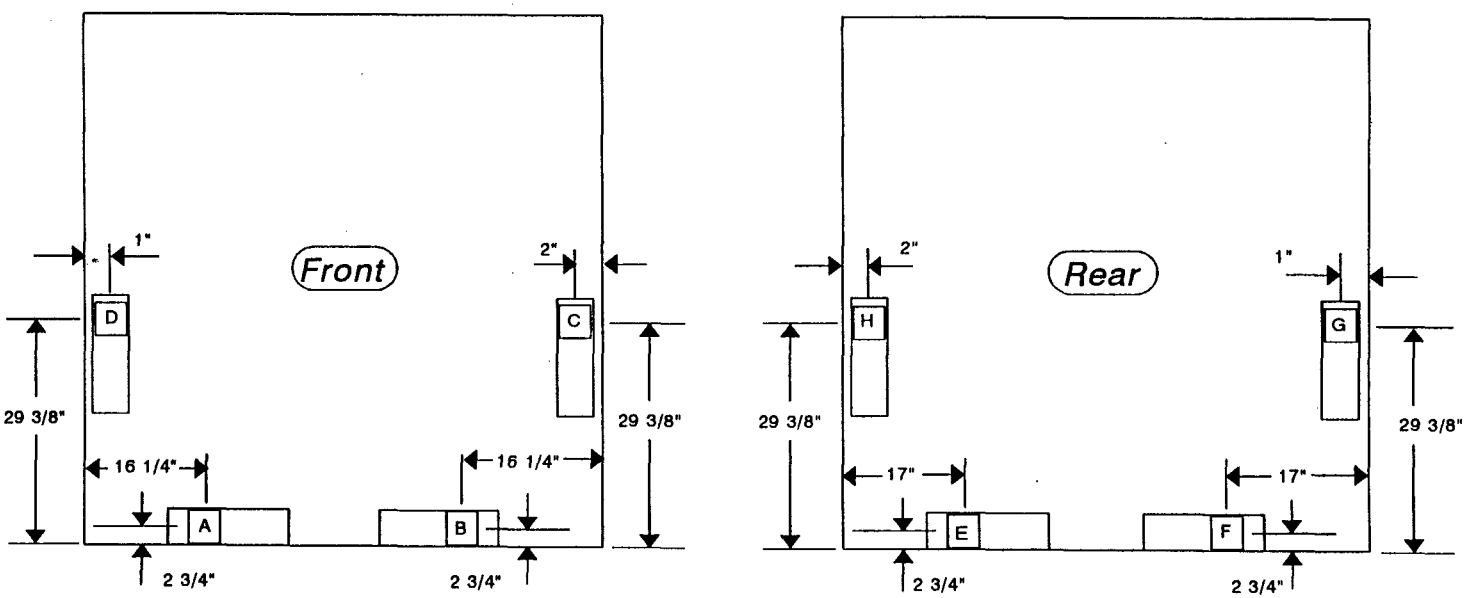


Figure B-17. Instrumentation locations.

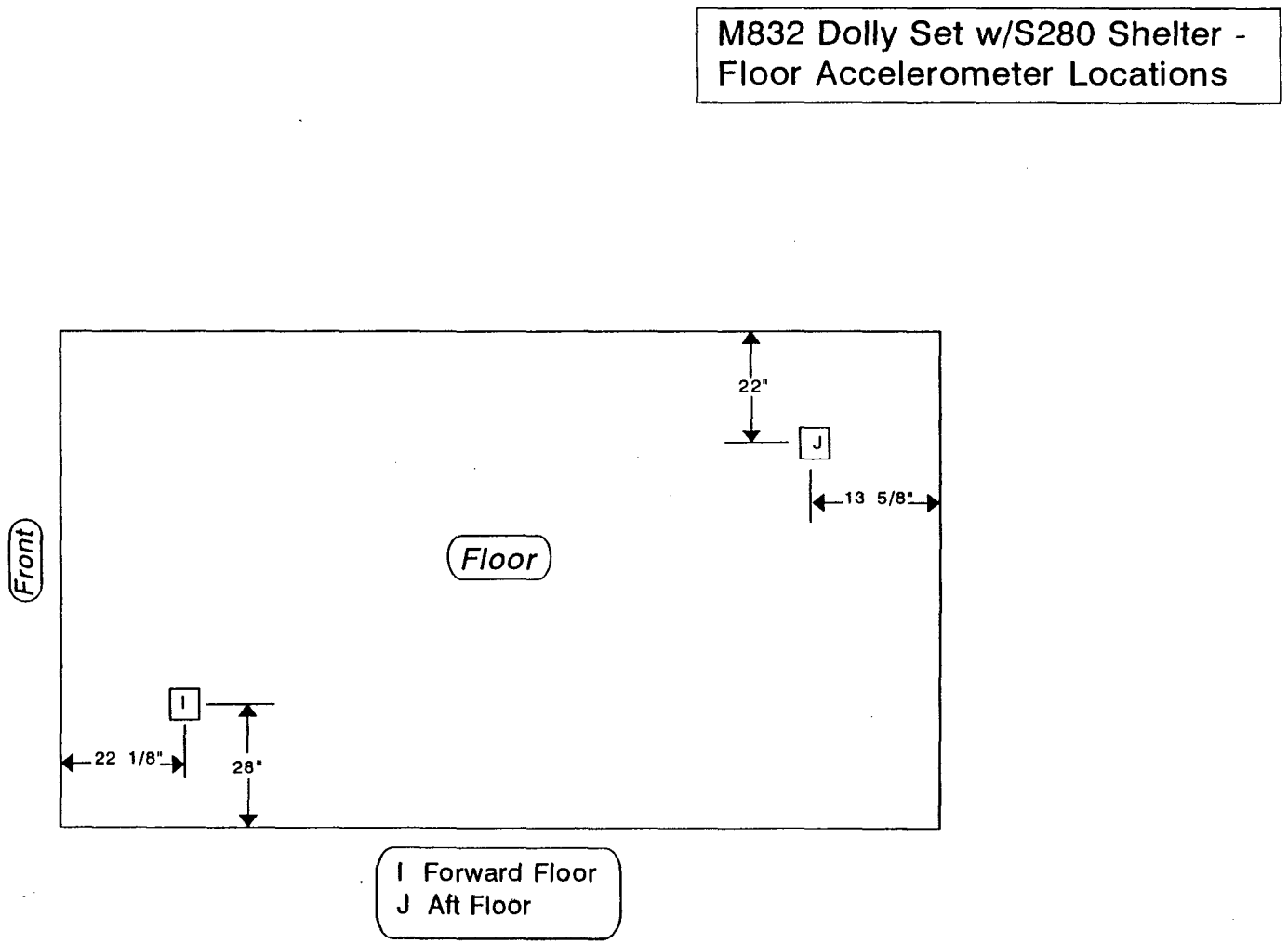
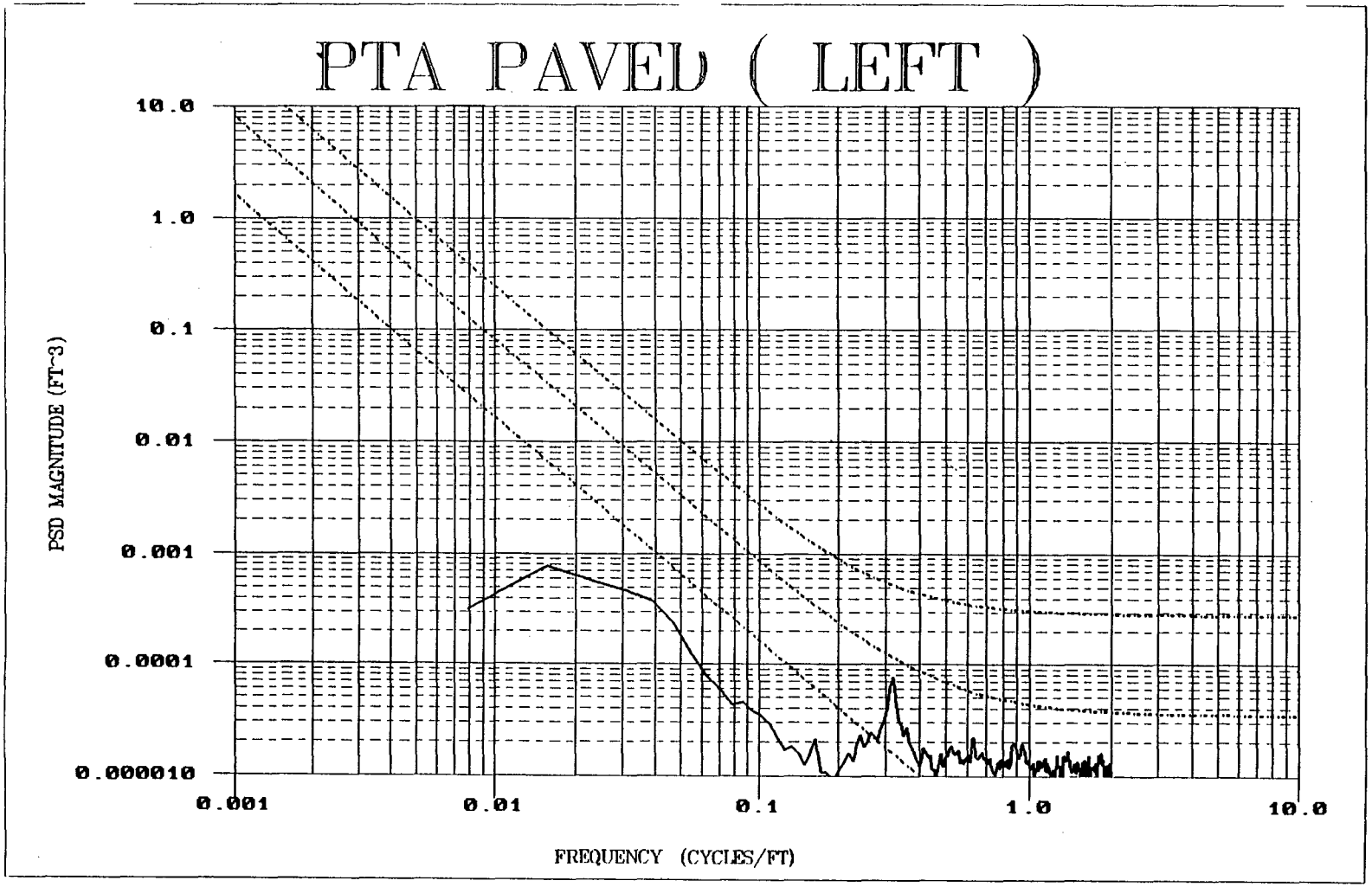


Figure B-18. Instrumentation locations.



SEGMENT 1 OF 1

TOTAL RMS = .09 INCHES. # AVGs = 54

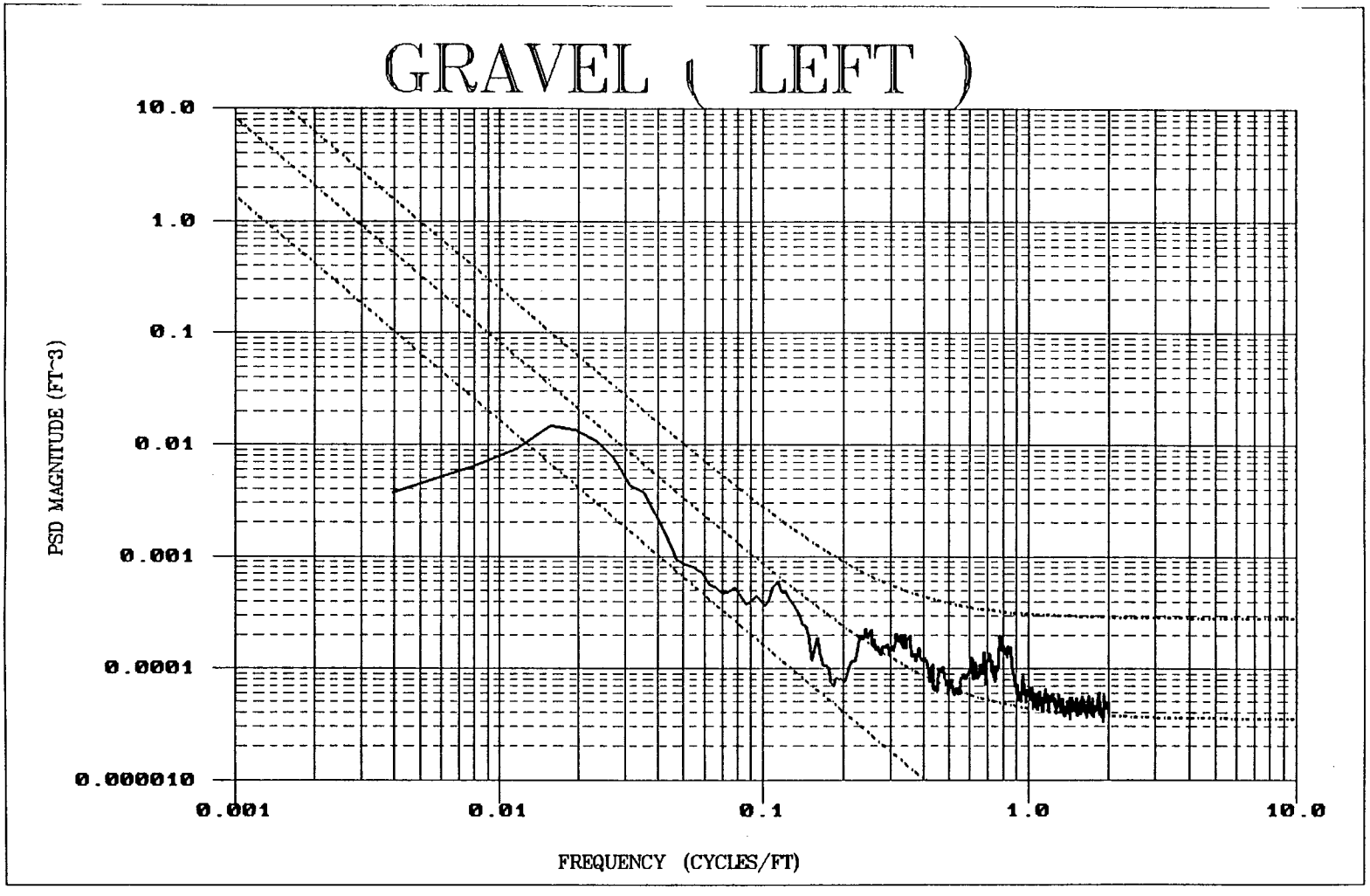
DATE TAKEN: 14SEP95

1 - 10 FEET RMS = .05 INCHES

10 - 100 FEET RMS = .06 INCHES

.5 - 50 FEET RMS (FITTED CURVE) = .08 INCHES

Figure B-19. Test course wave number spectrum.



SEGMENT ENTIRE

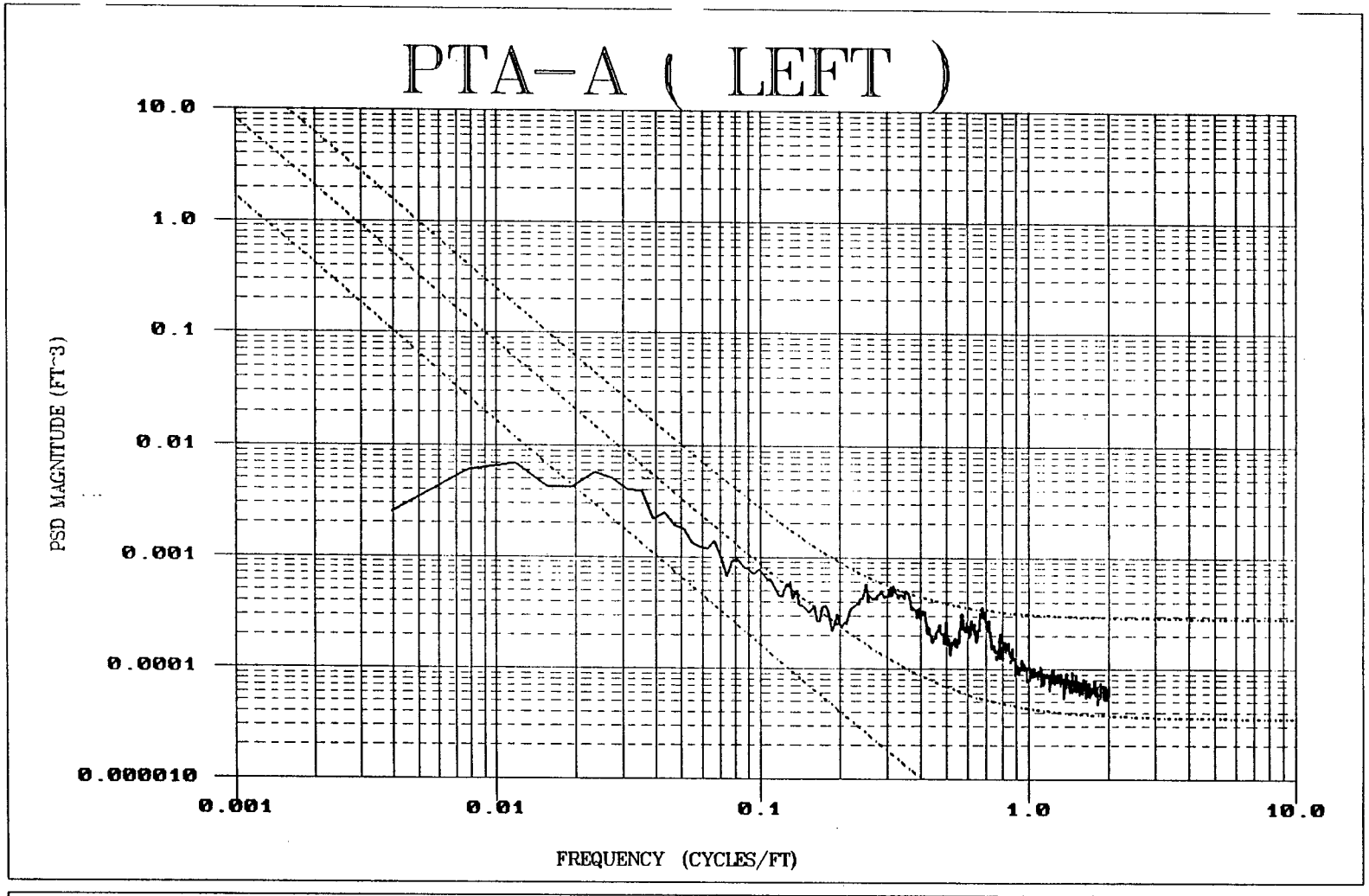
TOTAL RMS = .27 INCHES. # AVGs = 68

DATE TAKEN: 15SEP94

1 - 10 FEET RMS = .13 INCHES

10 - 100 FEET RMS = .21 INCHES

Figure B-20. Test course wave number spectrum.



SEGMENT ENTIRE

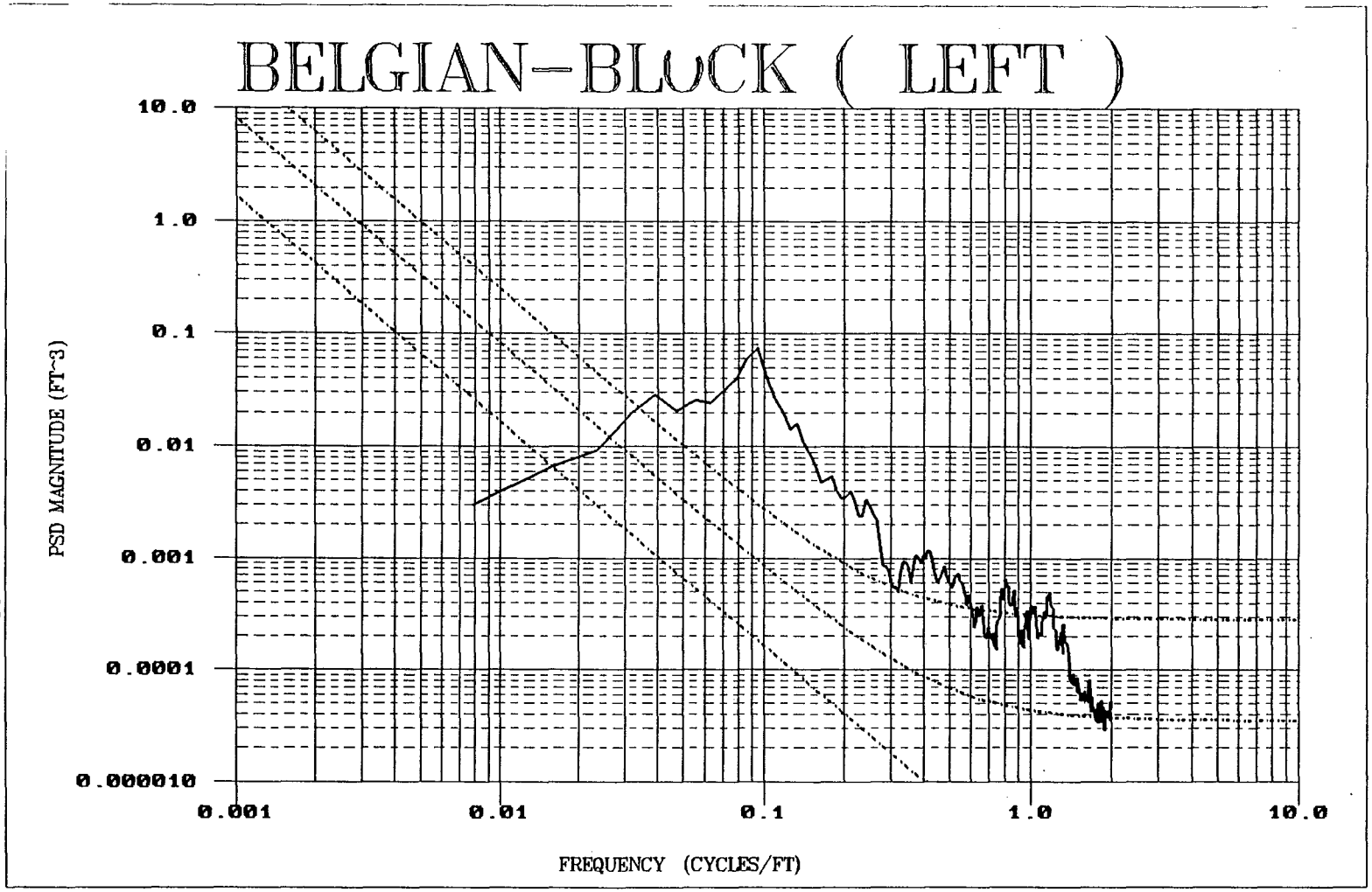
TOTAL RMS = .28 INCHES. # AVGs = 73

DATE TAKEN: 15SEP94

1 - 10 FEET RMS = .18 INCHES

10 - 100 FEET RMS = .17 INCHES

Figure B-21. Test course wave number spectrum.



SEGMENT 1_OF_1

TOTAL RMS = .82 INCHES. # AVGs = 39

DATE TAKEN: 15SEP94

1 - 10 FEET RMS = .52 INCHES

10 - 100 FEET RMS = .62 INCHES

Figure B-22. Test course wave number spectrum.

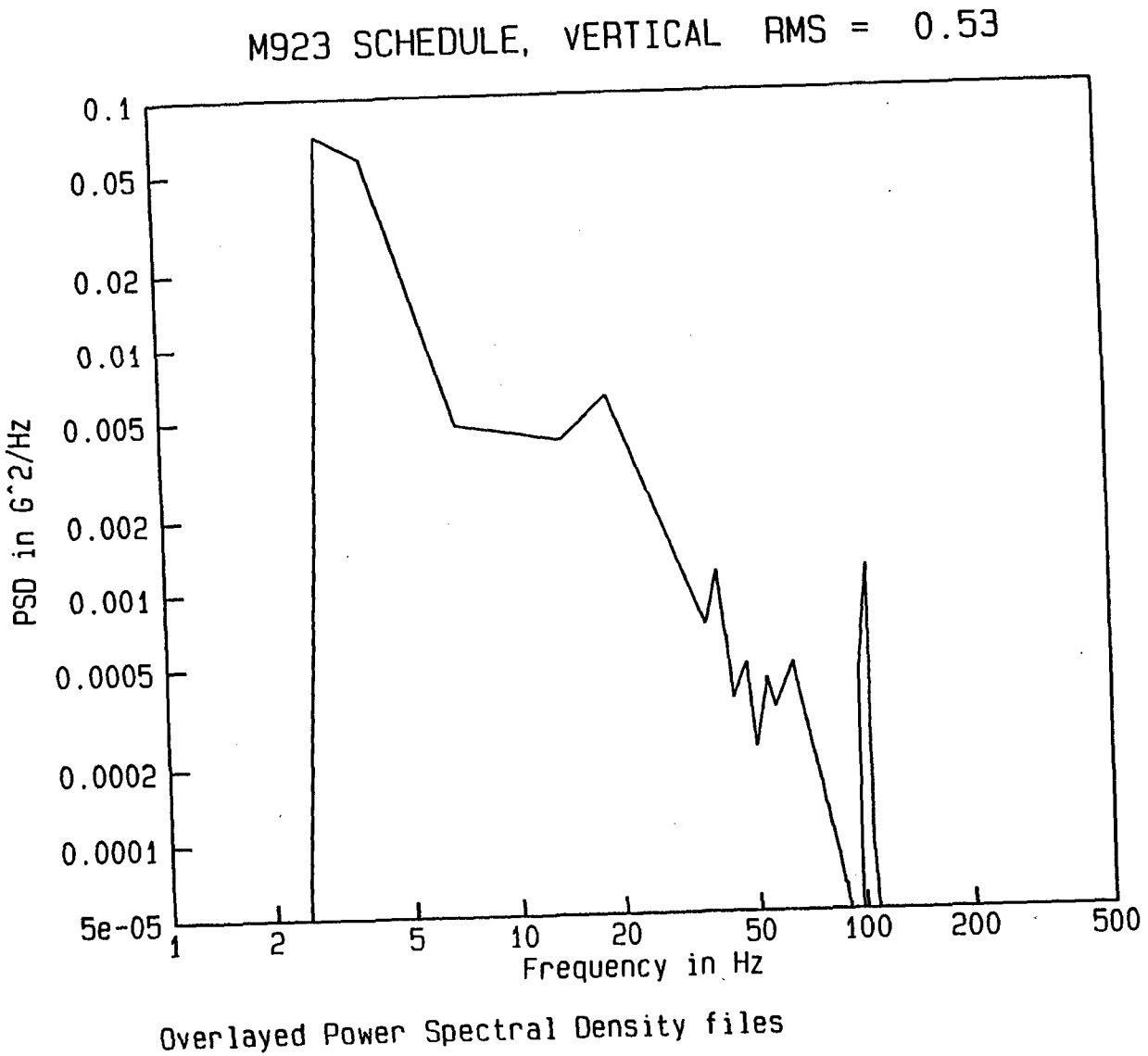


Figure B-23. Vibration schedule power spectral density function.

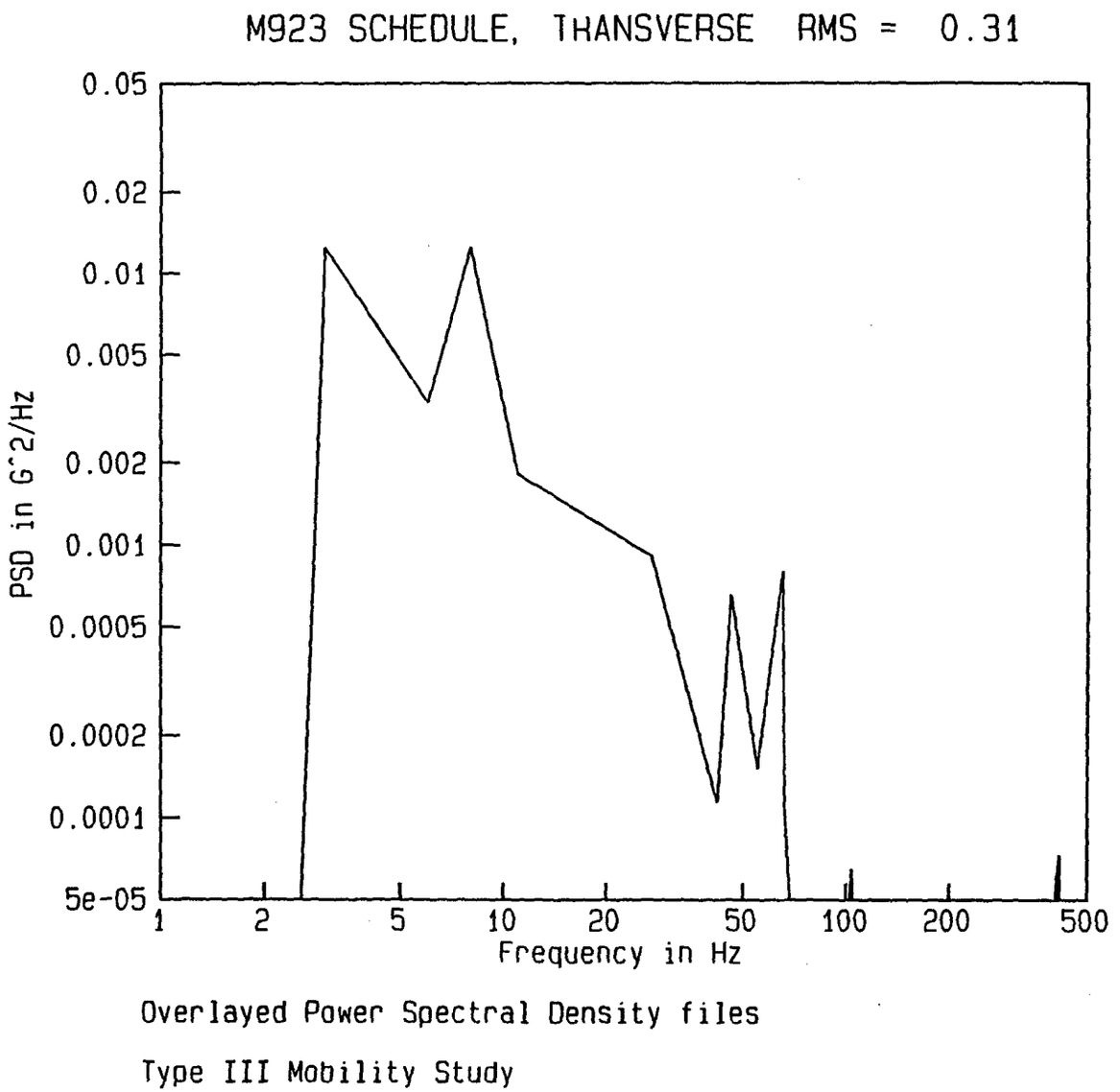


Figure B-24. Vibration schedule power spectral density function.

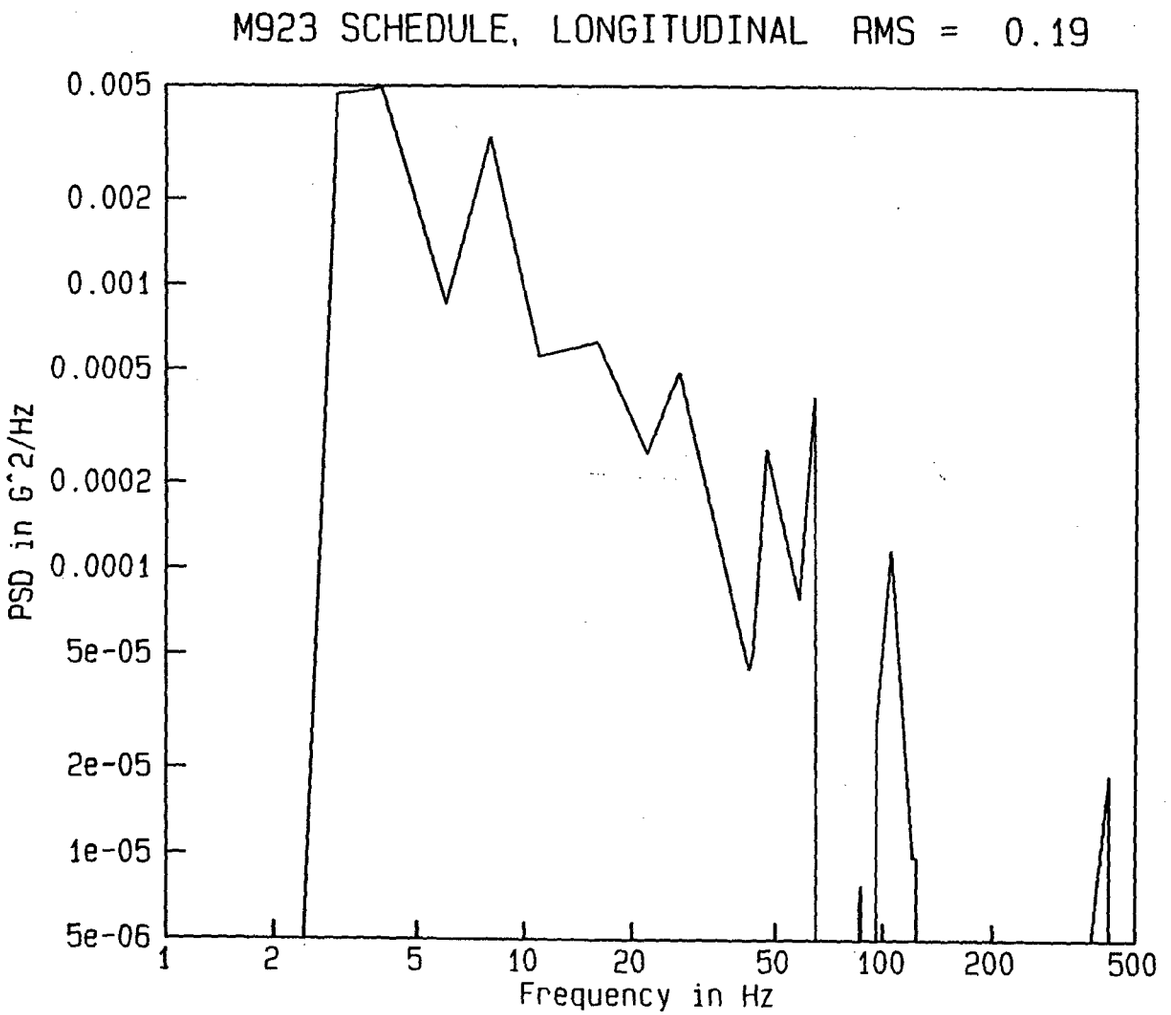


Figure B-25. Vibration schedule power spectral density function.

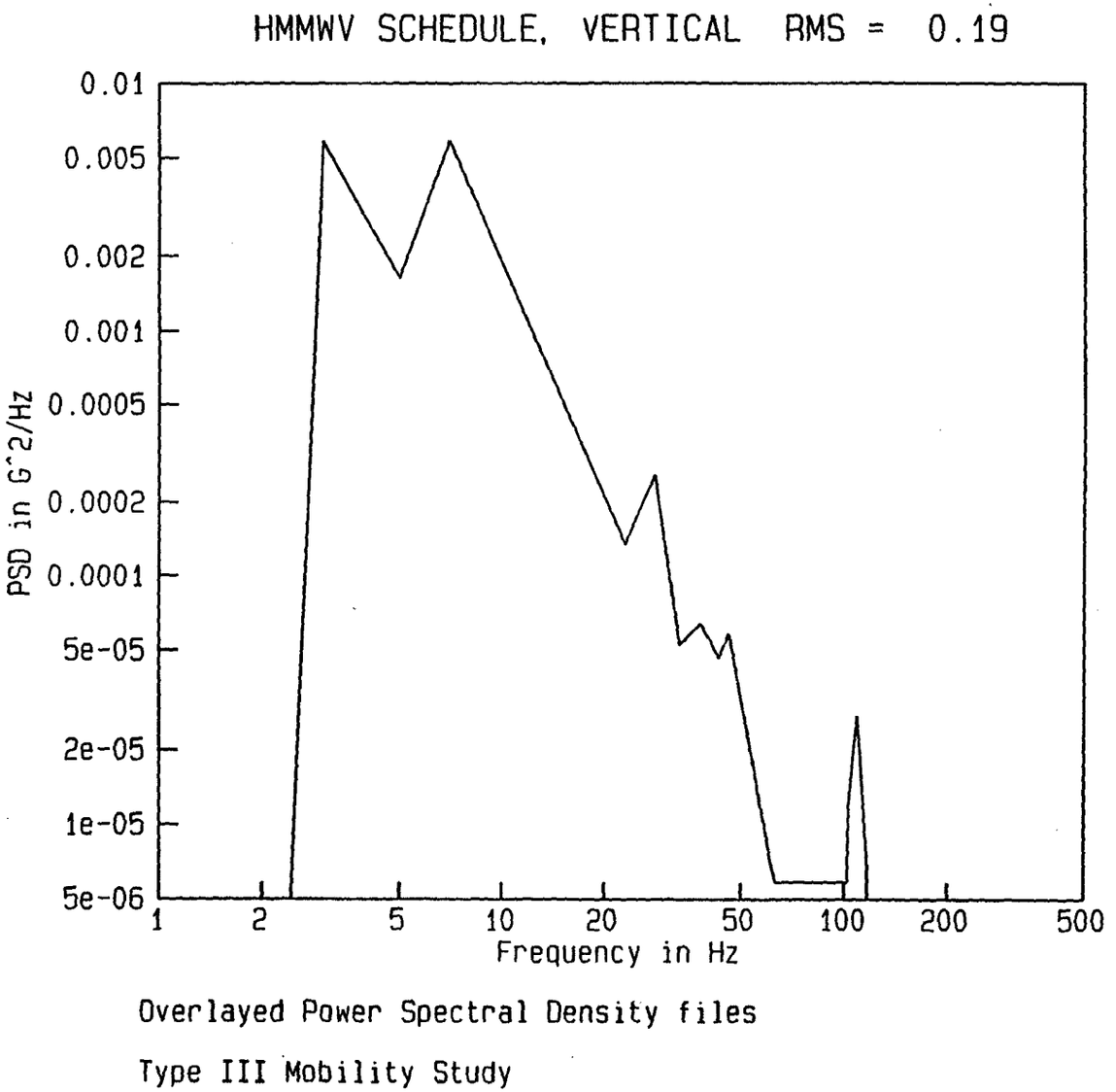


Figure B-26. Vibration schedule power spectral density function.

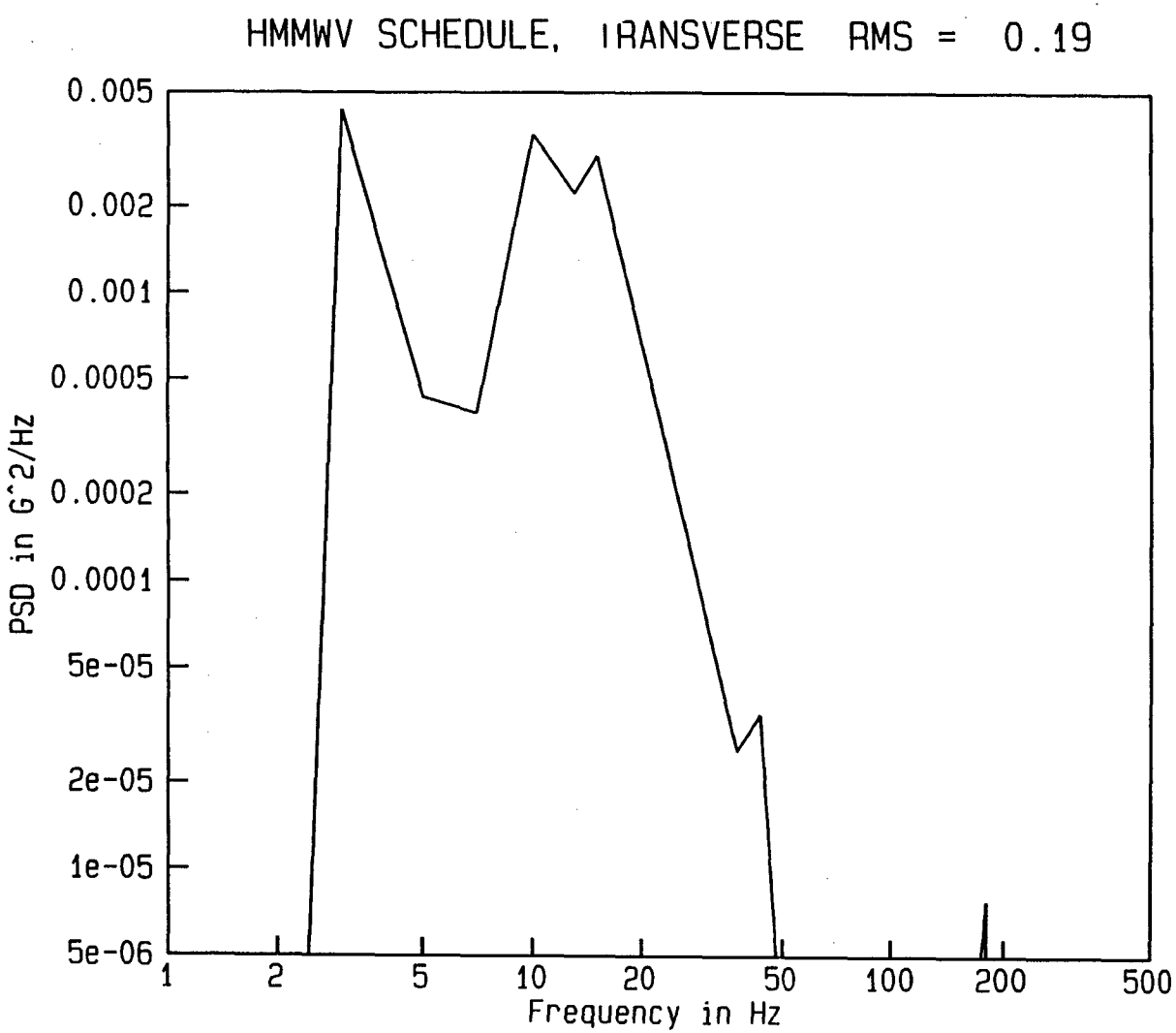


Figure B-27. Vibration schedule power spectral density function.

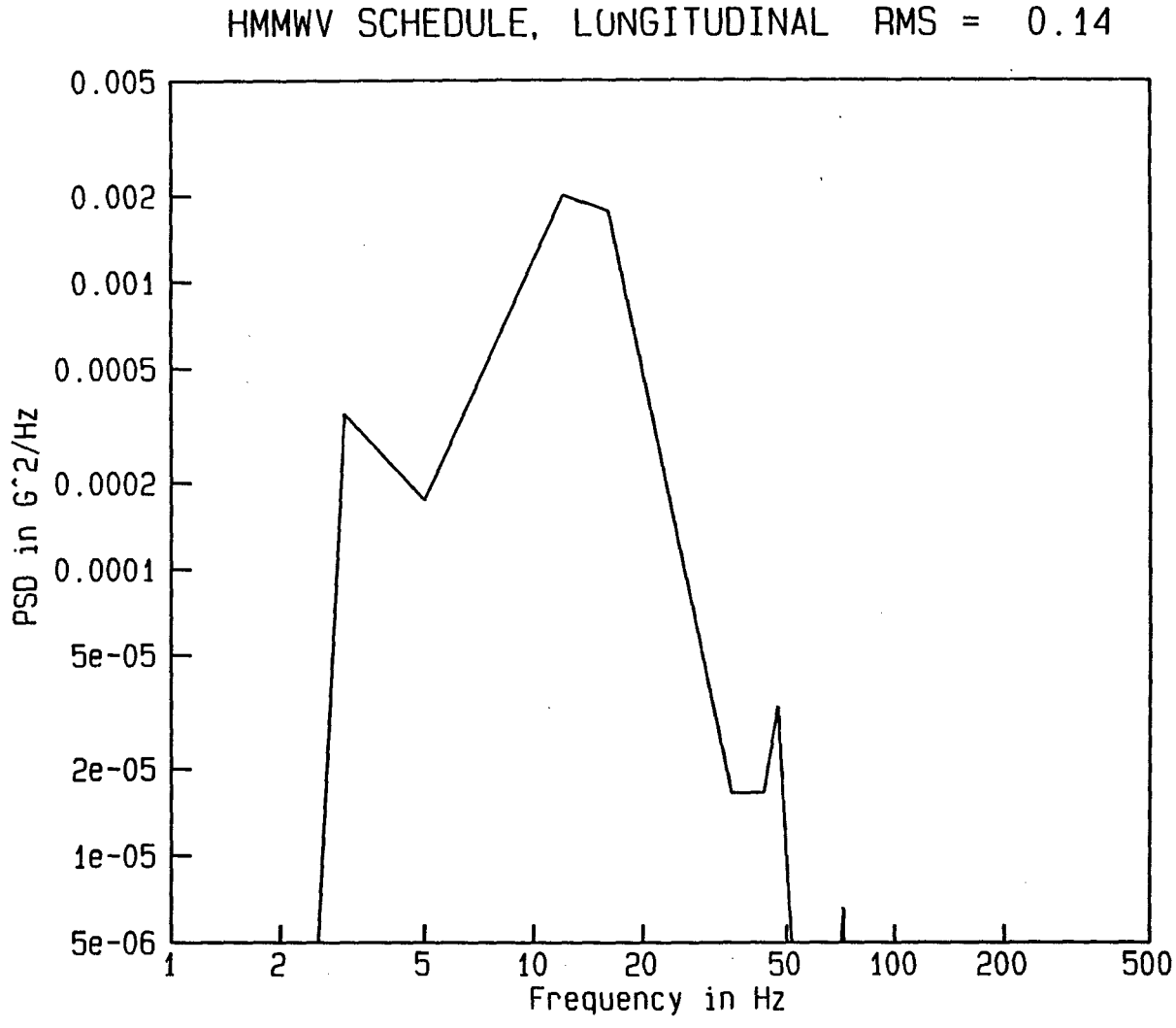


Figure B-28. Vibration schedule power spectral density function.

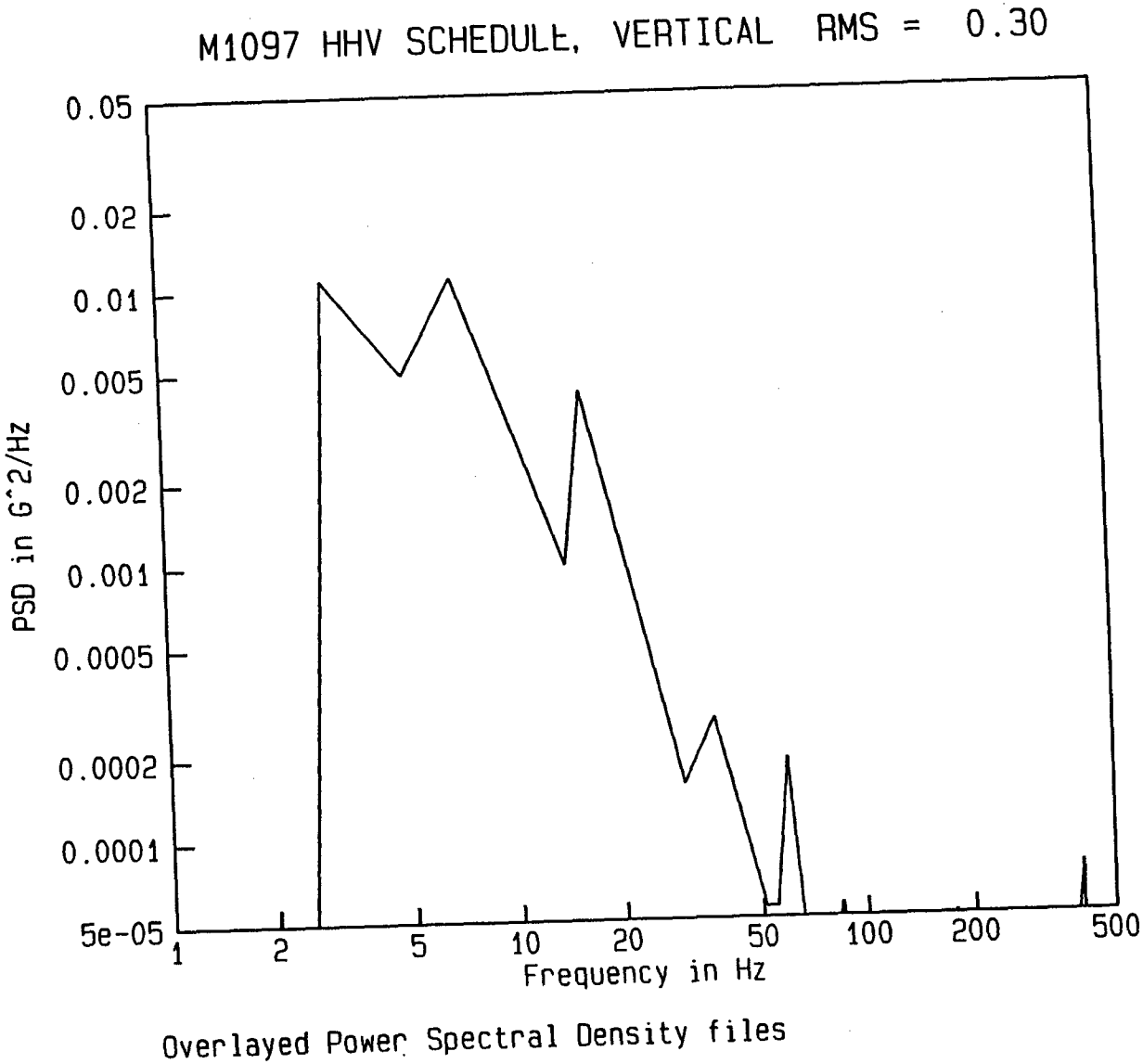


Figure B-29. Vibration schedule power spectral density function.

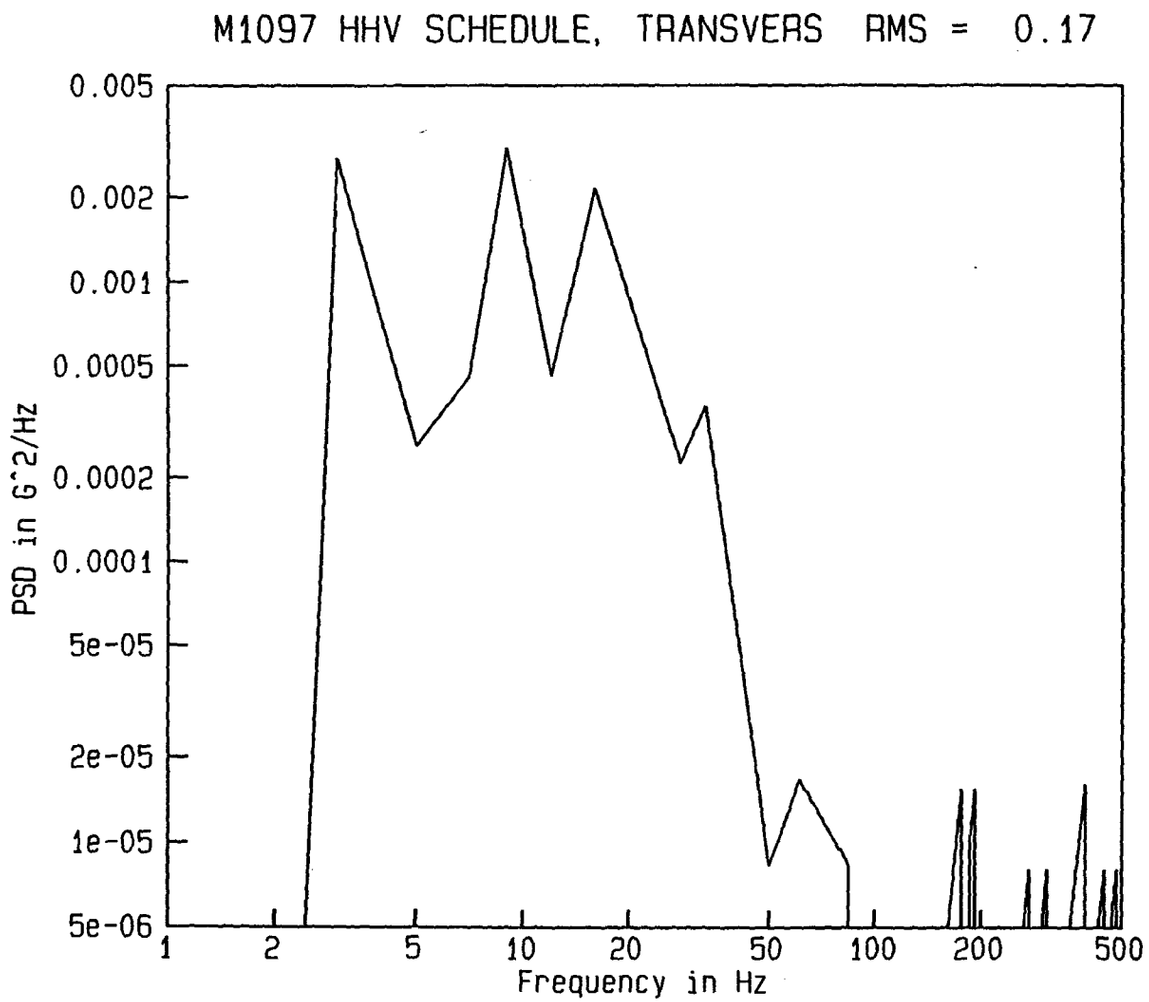


Figure B-30. Vibration schedule power spectral density function.

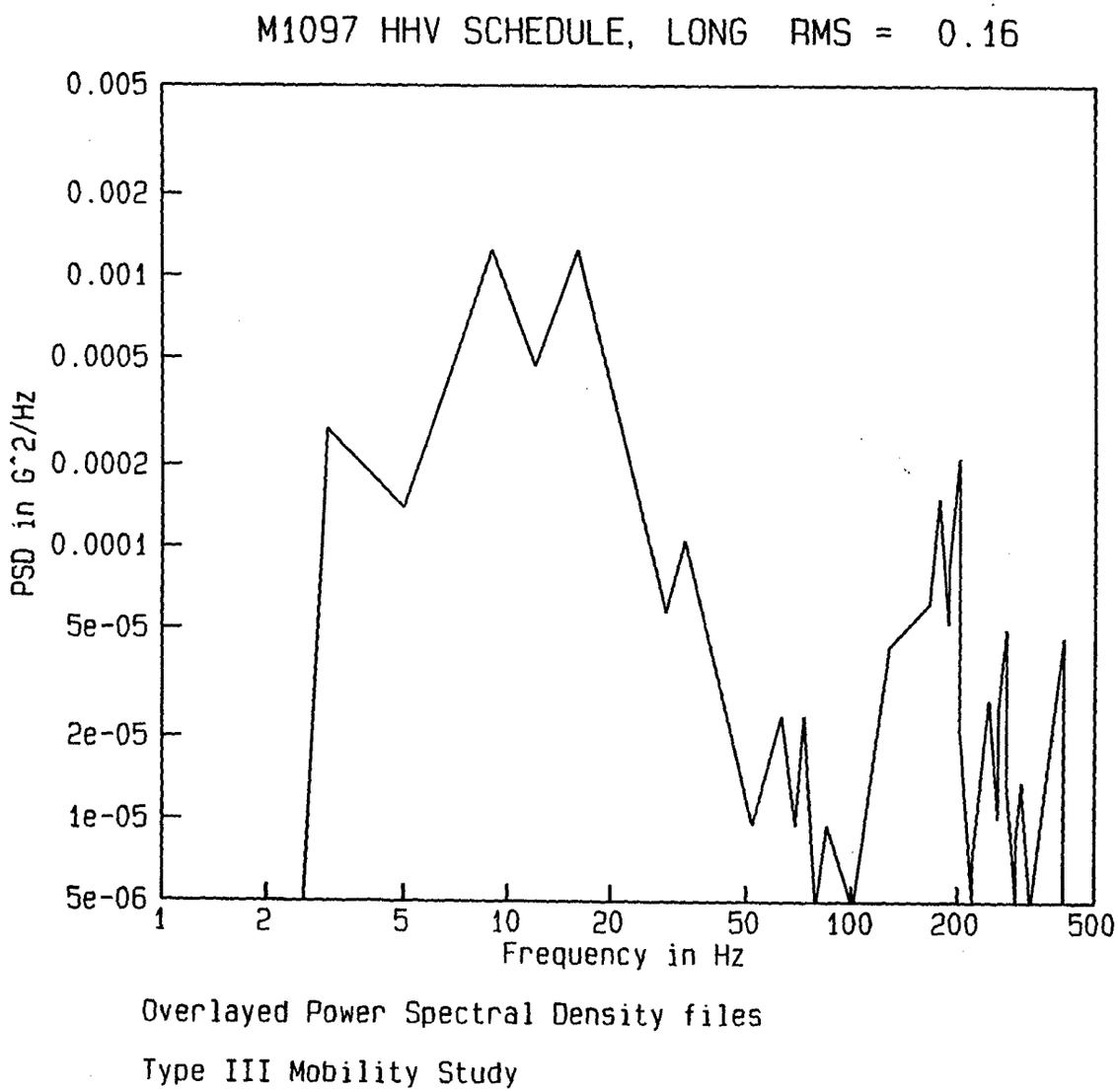


Figure B-31. Vibration schedule power spectral density function.

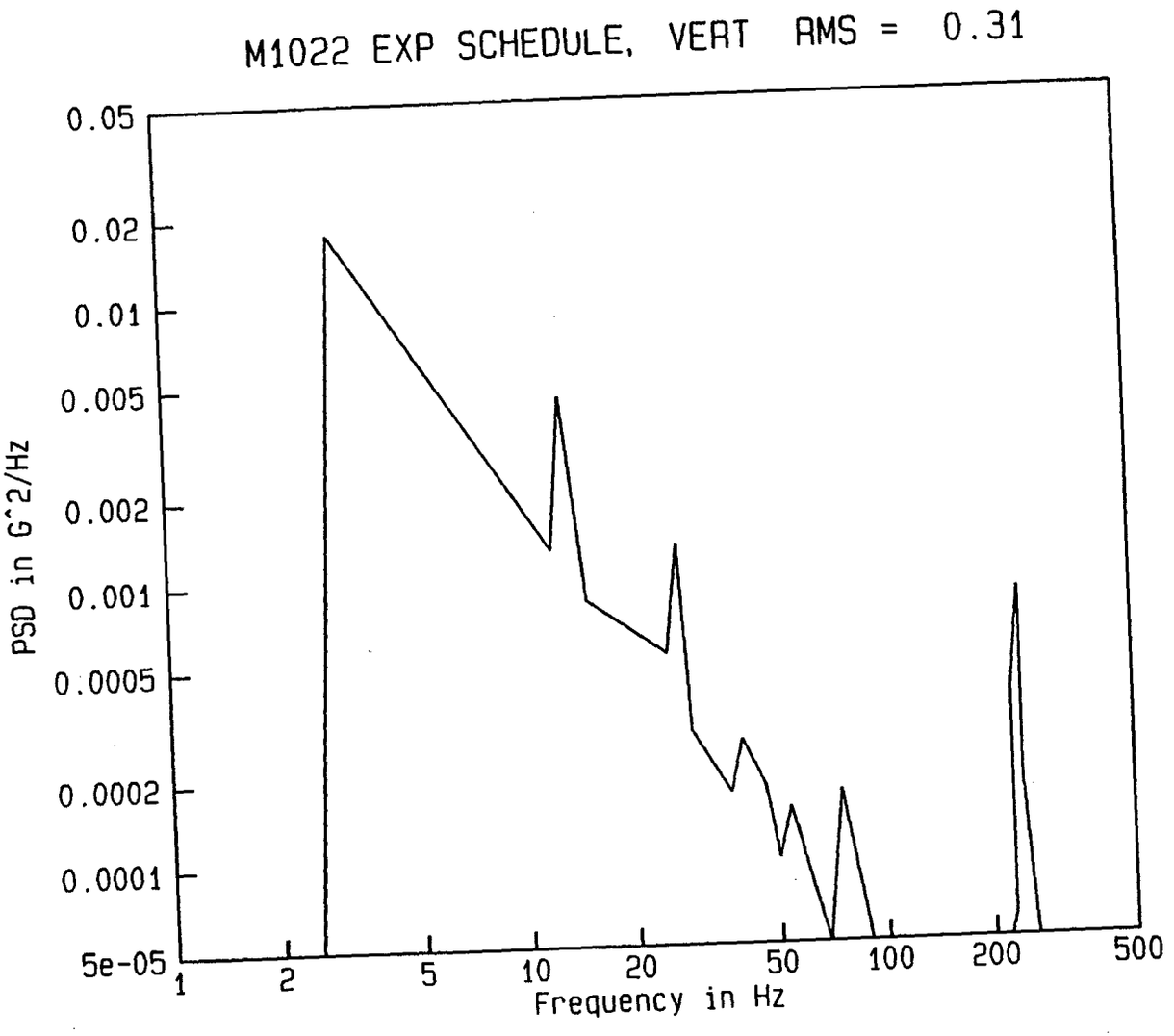


Figure B-32. Vibration schedule power spectral density function.

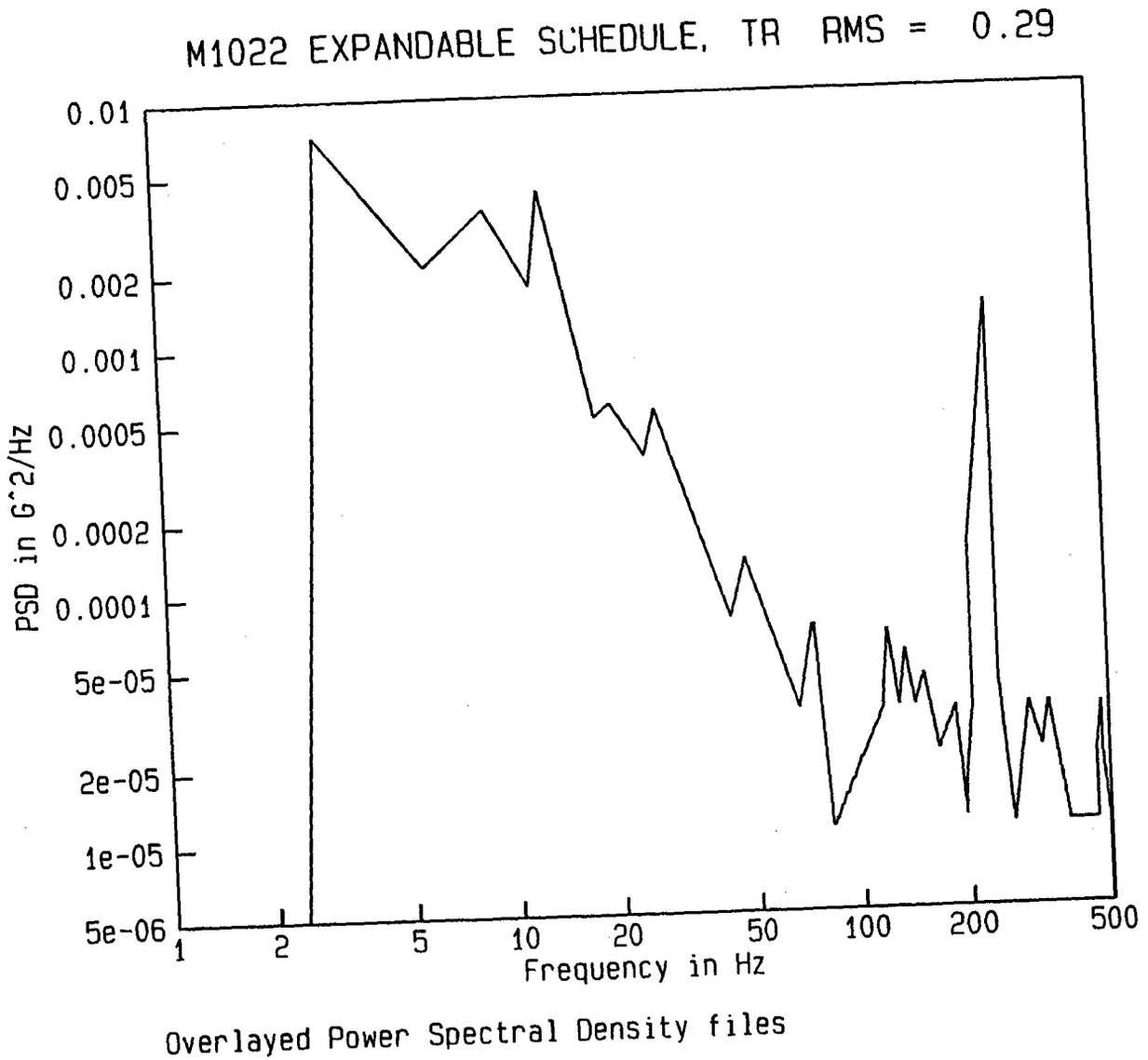


Figure B-33. Vibration schedule power spectral density function.

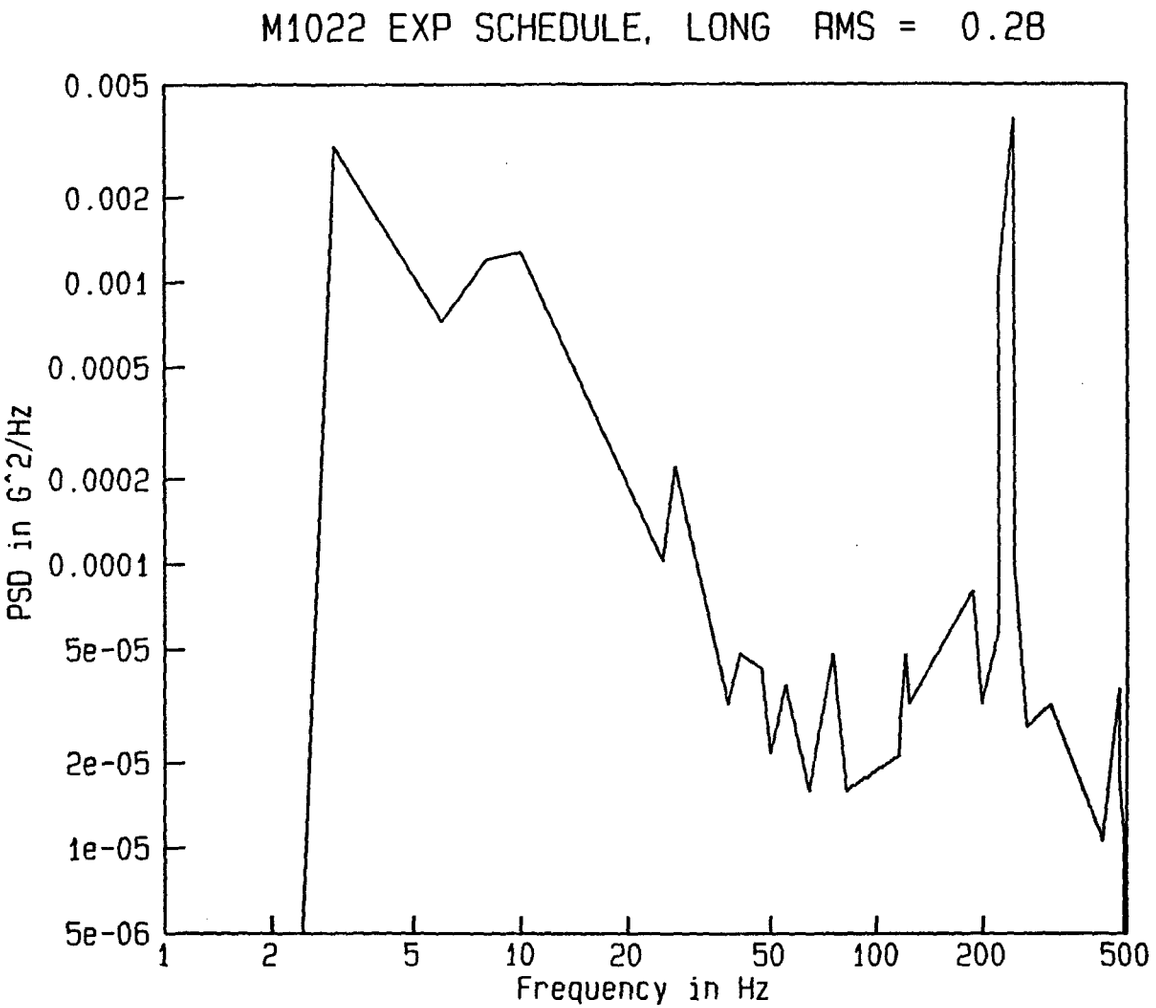


Figure B-34. Vibration schedule power spectral density function.

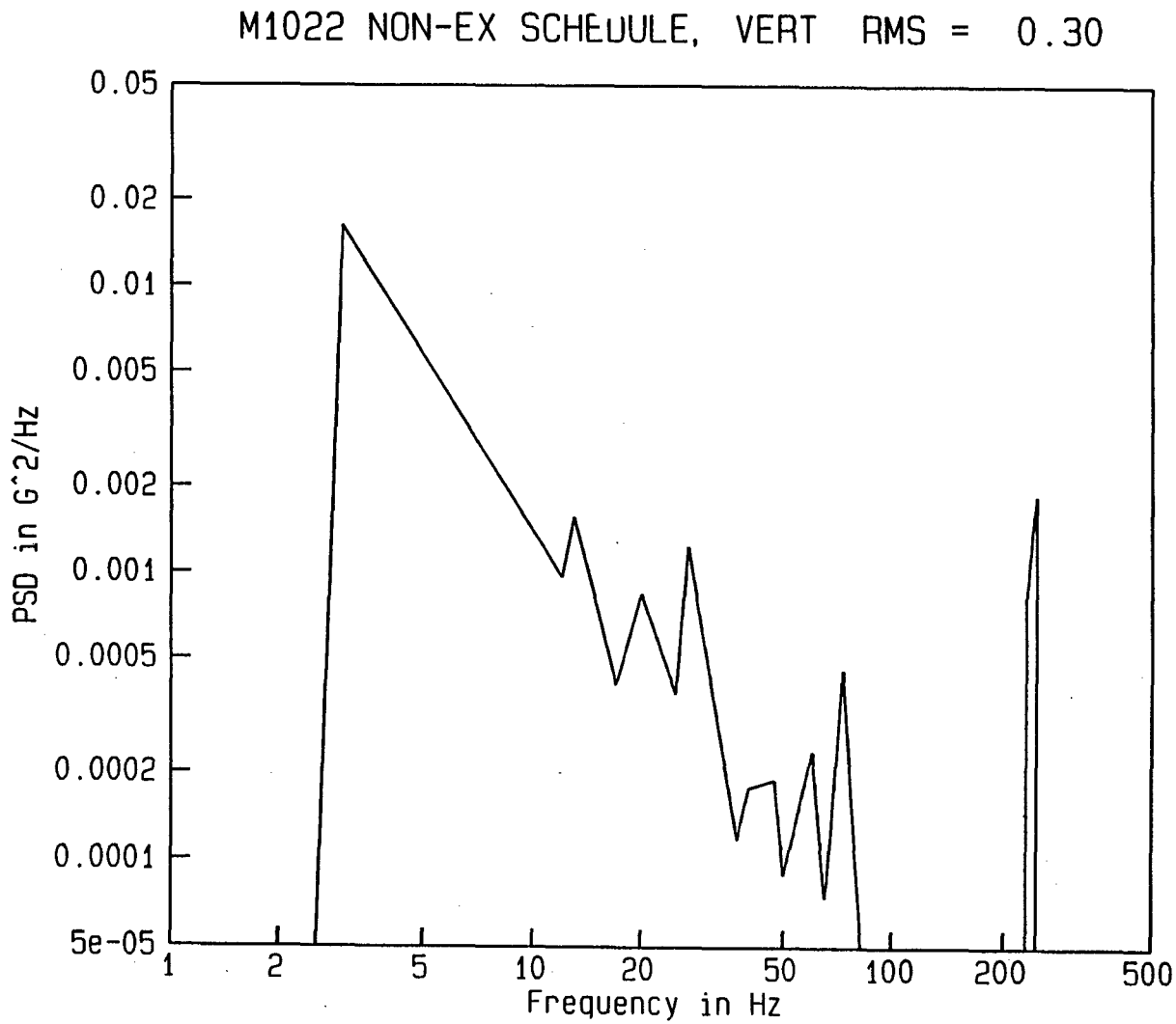


Figure B-35. Vibration schedule power spectral density function.

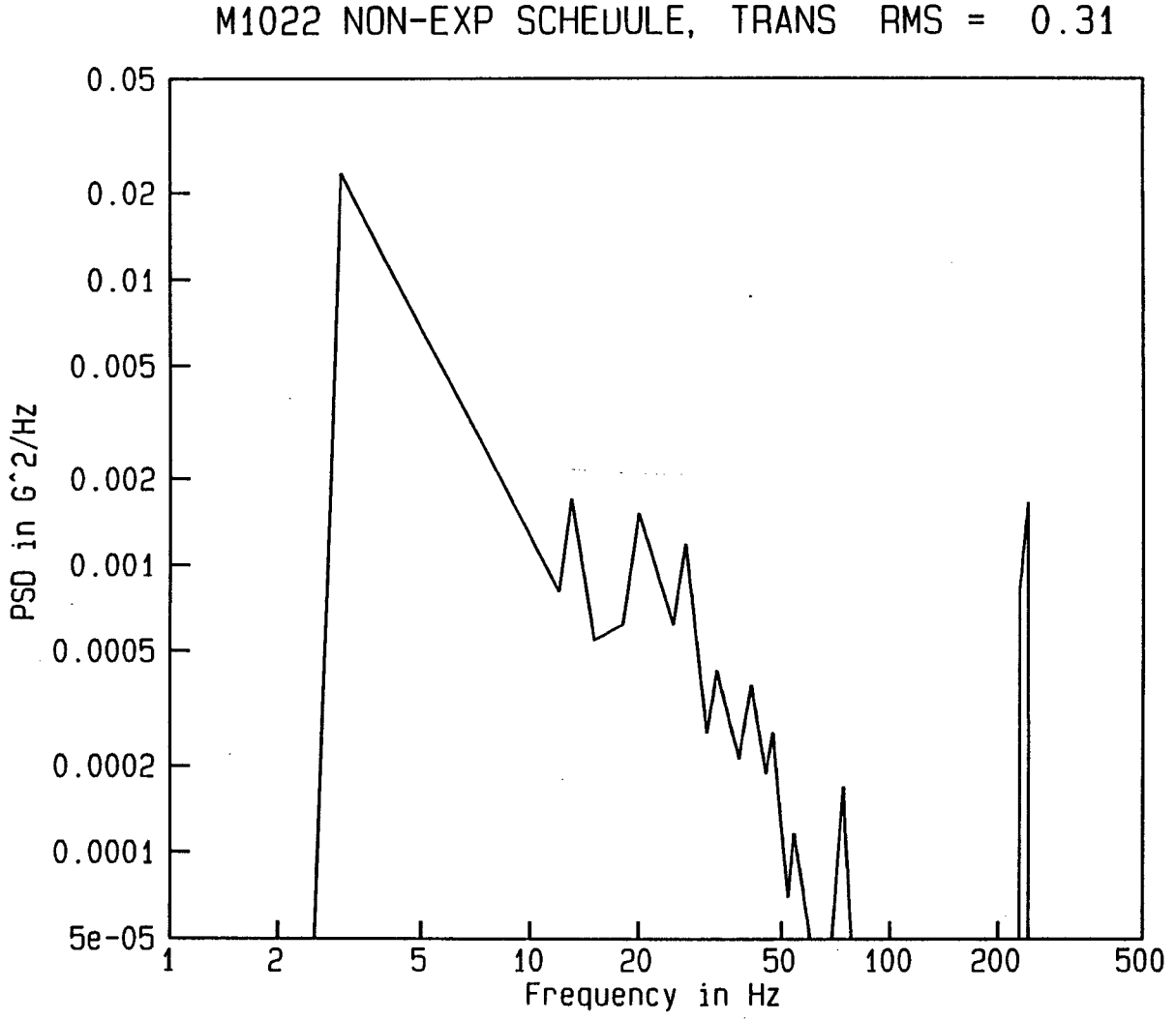


Figure B-36. Vibration schédule power spectral density function.

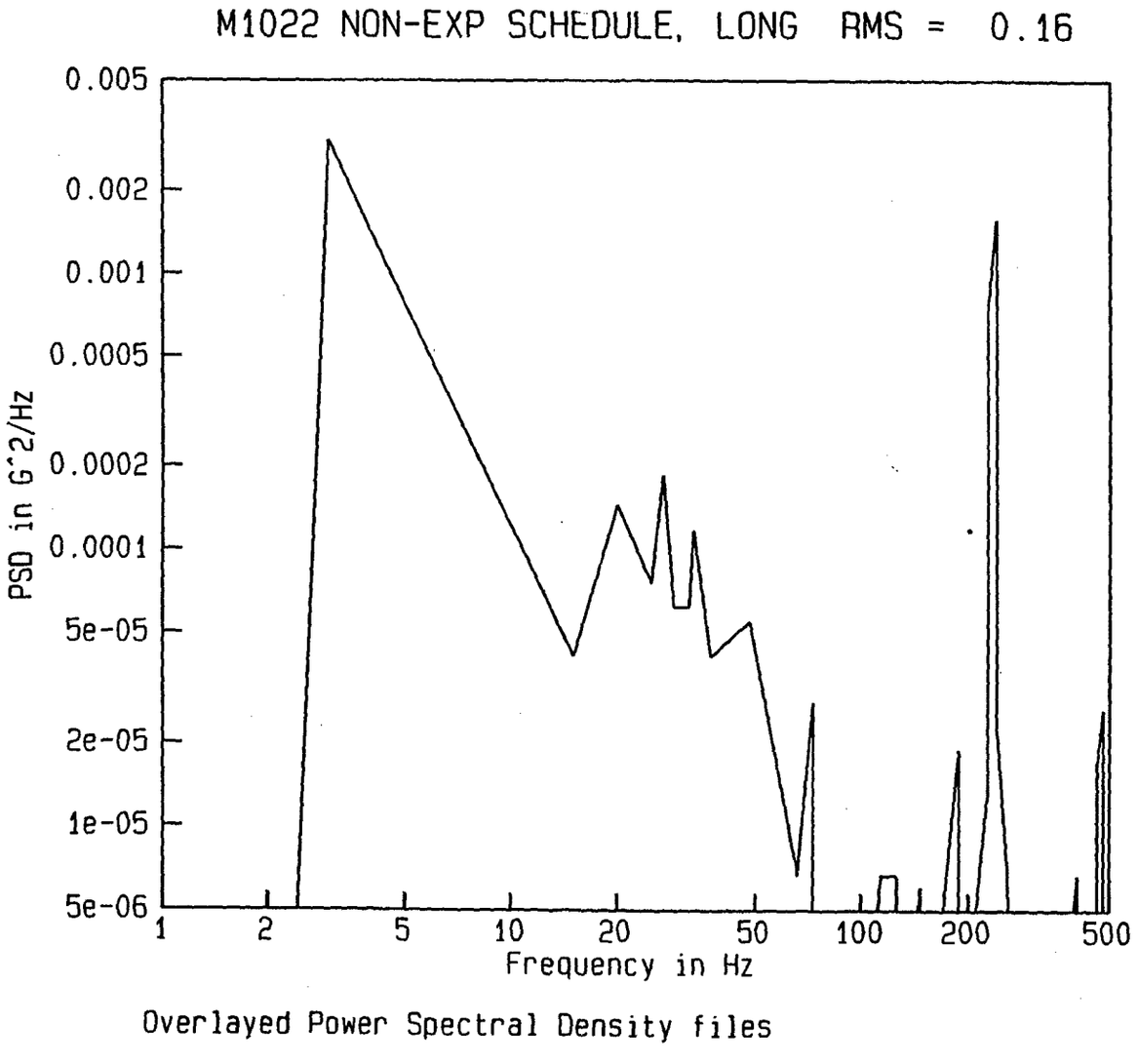


Figure B-37. Vibration schedule power spectral density function.

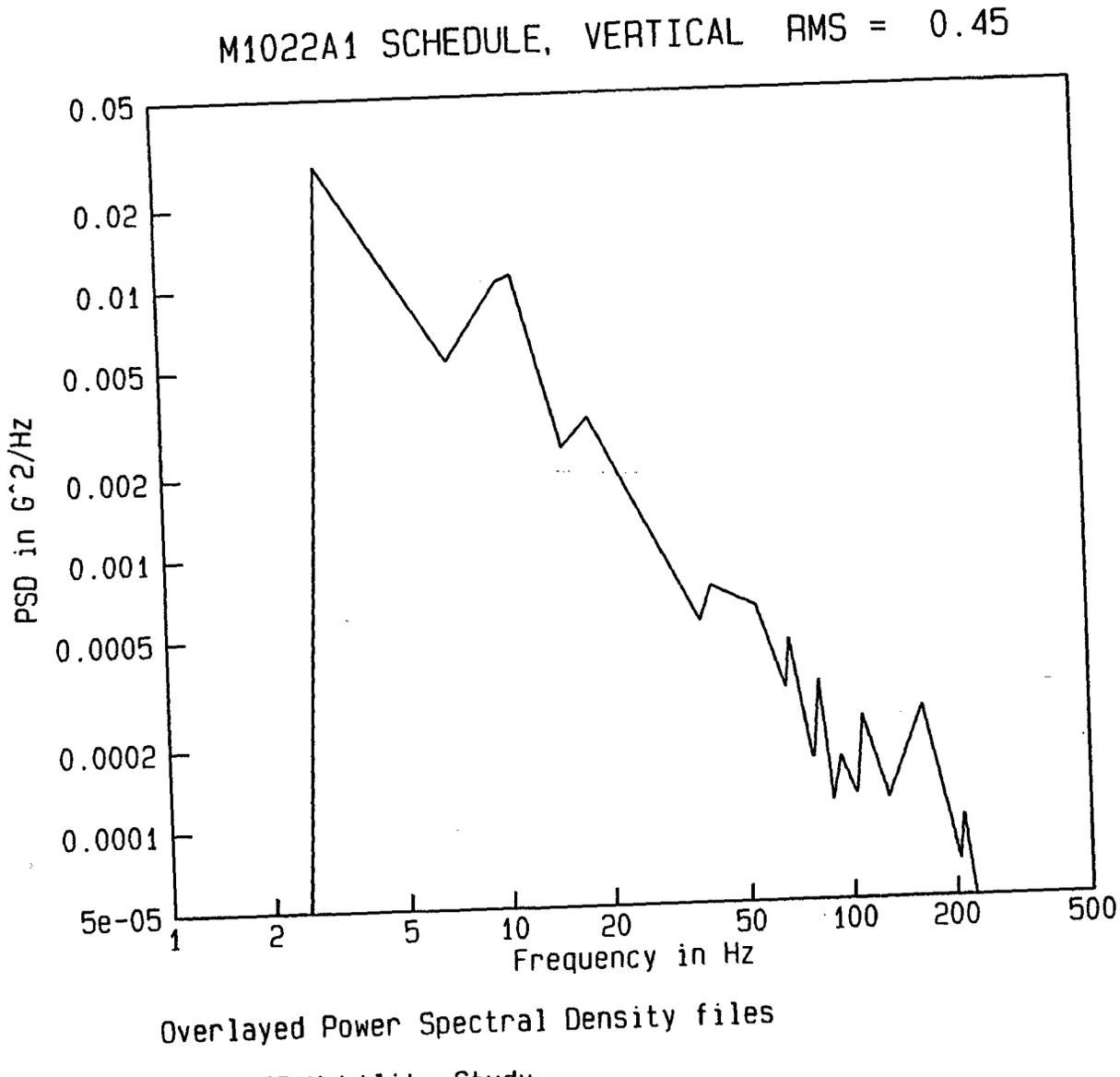


Figure B-38. Vibration schedule power spectral density function.

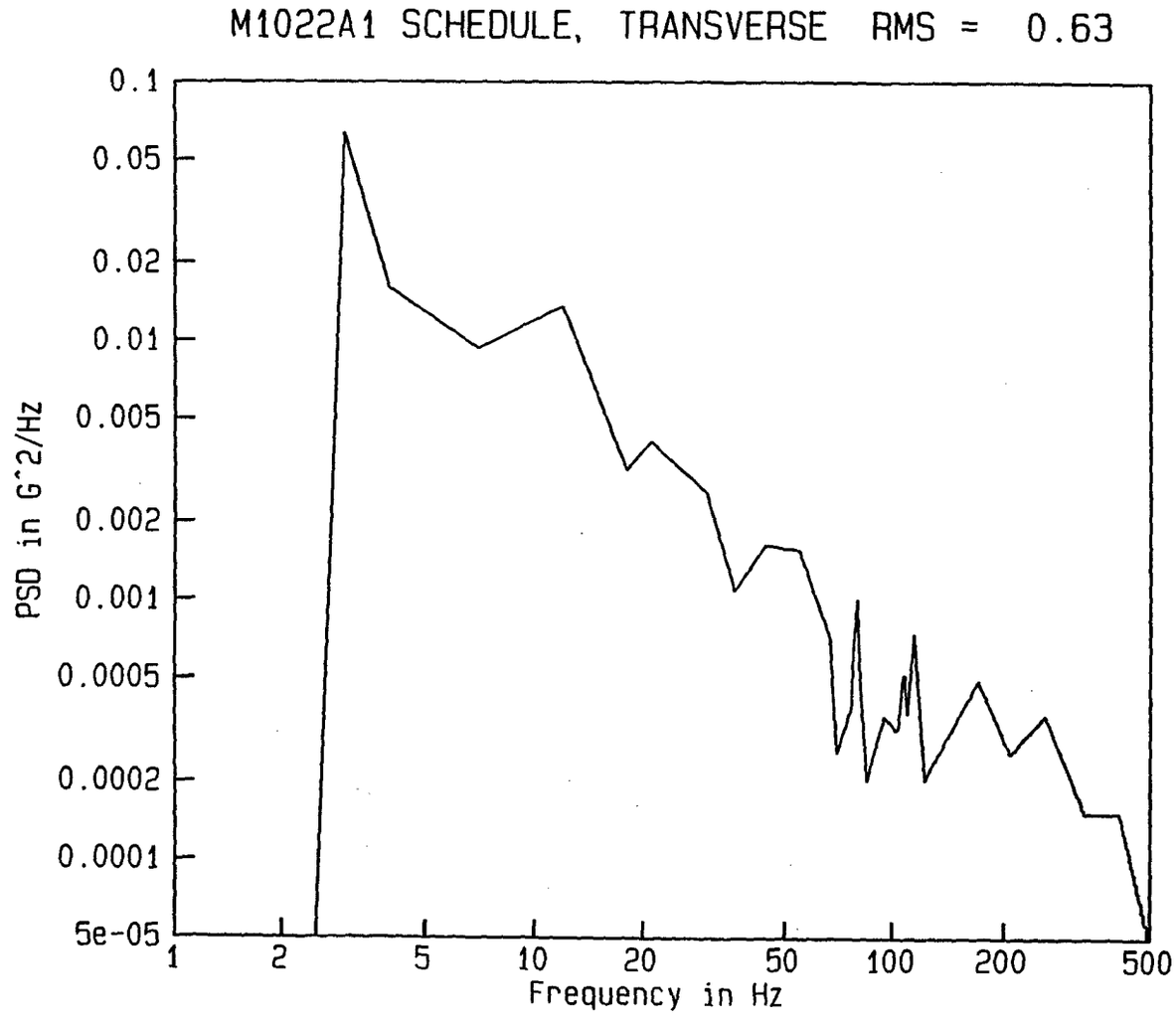


Figure B-39. Vibration schedule power spectral density function.

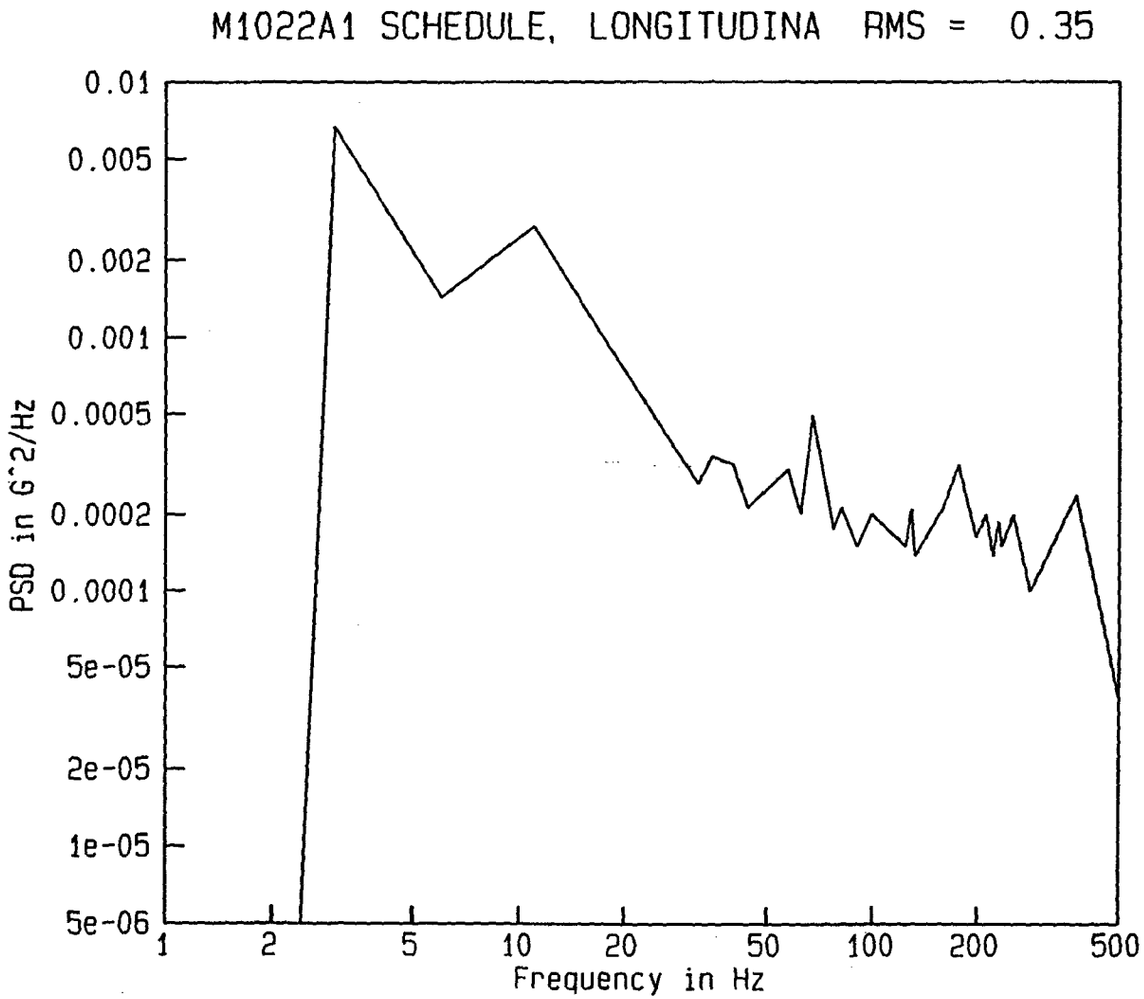


Figure B-40. Vibration schedule power spectral density function.

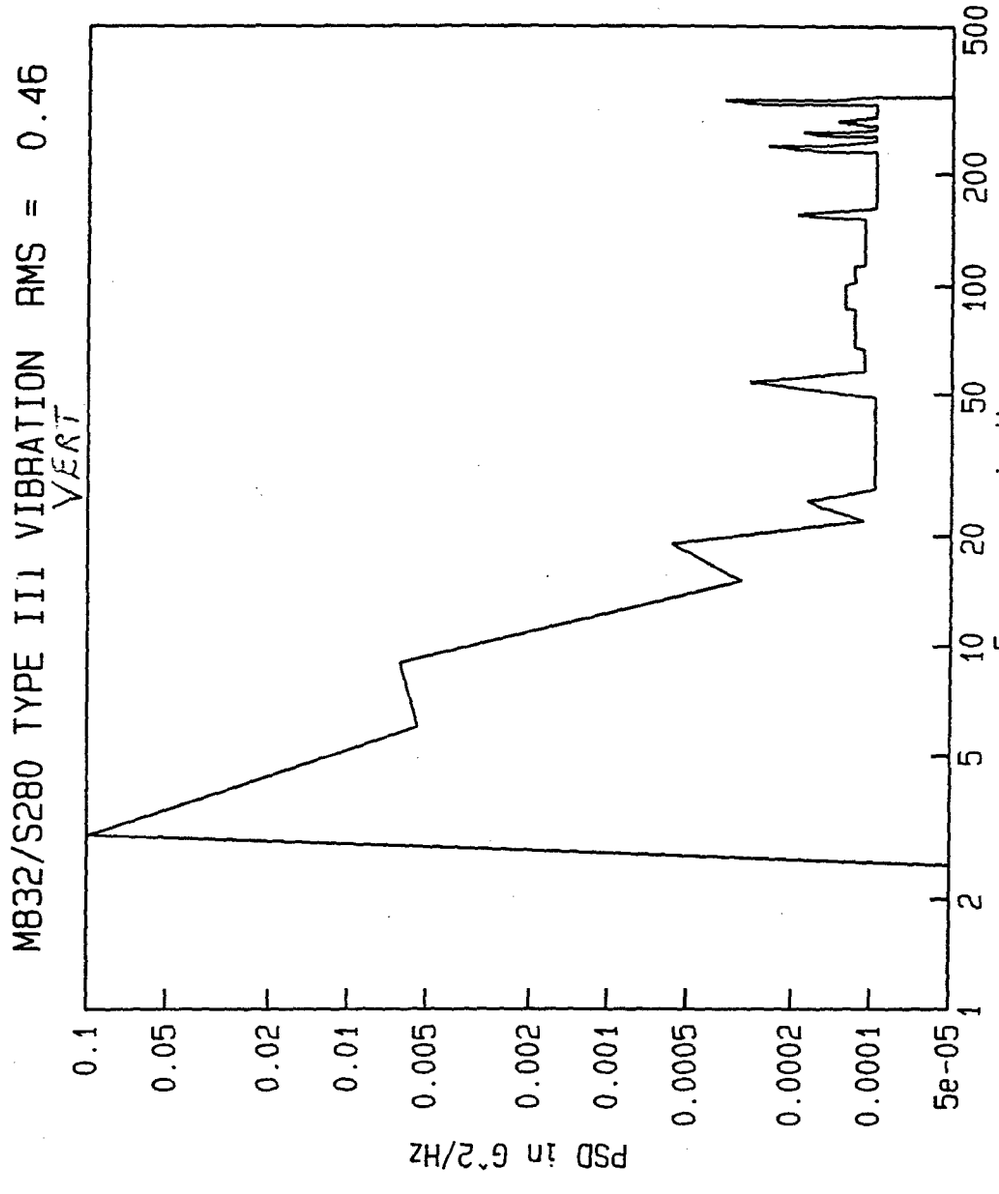


Figure B-41. Vibration schedule power spectral density function.

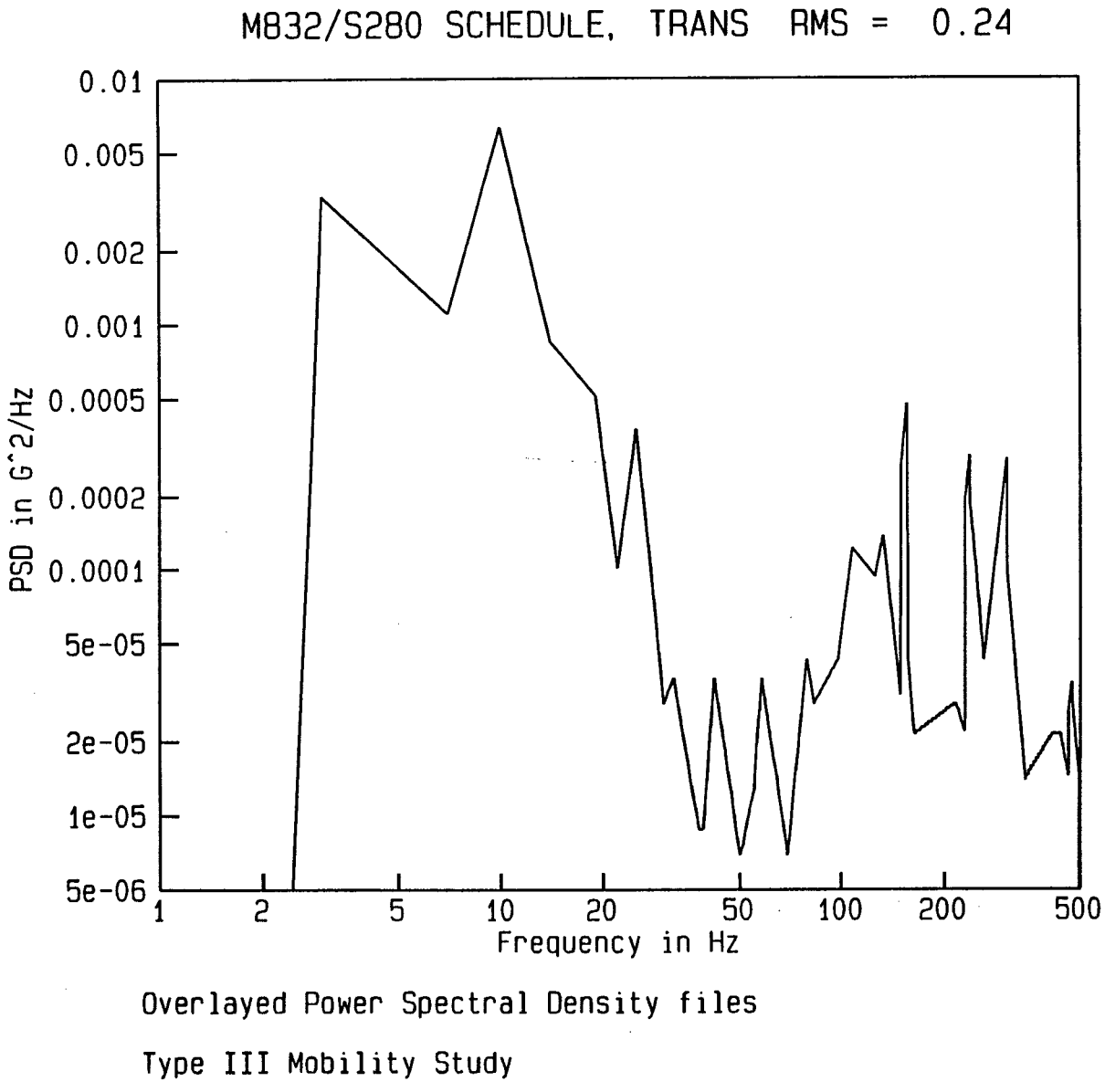


Figure B-42. Vibration schedule power spectral density function.

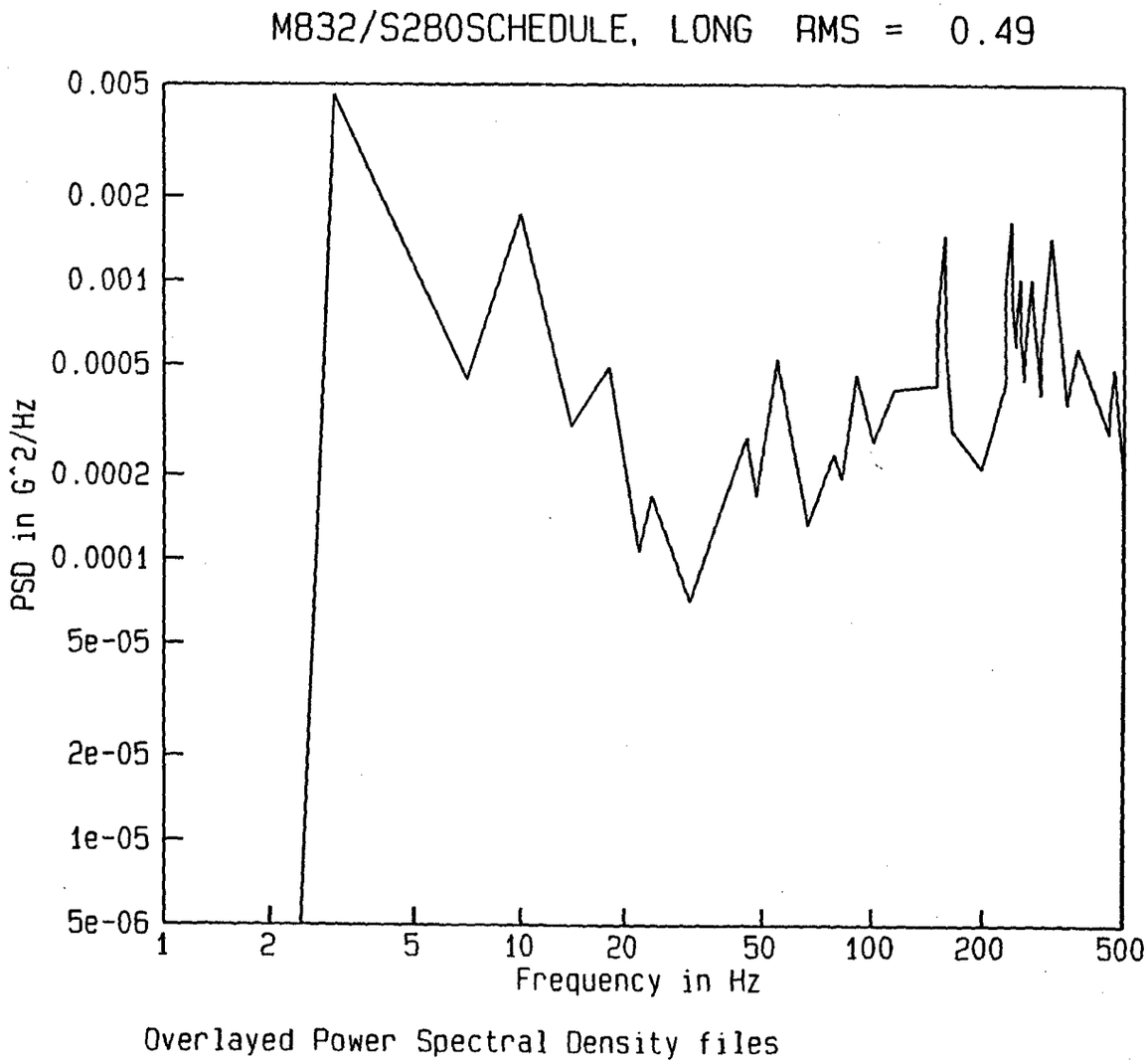


Figure B-43. Vibration schedule power spectral density function.

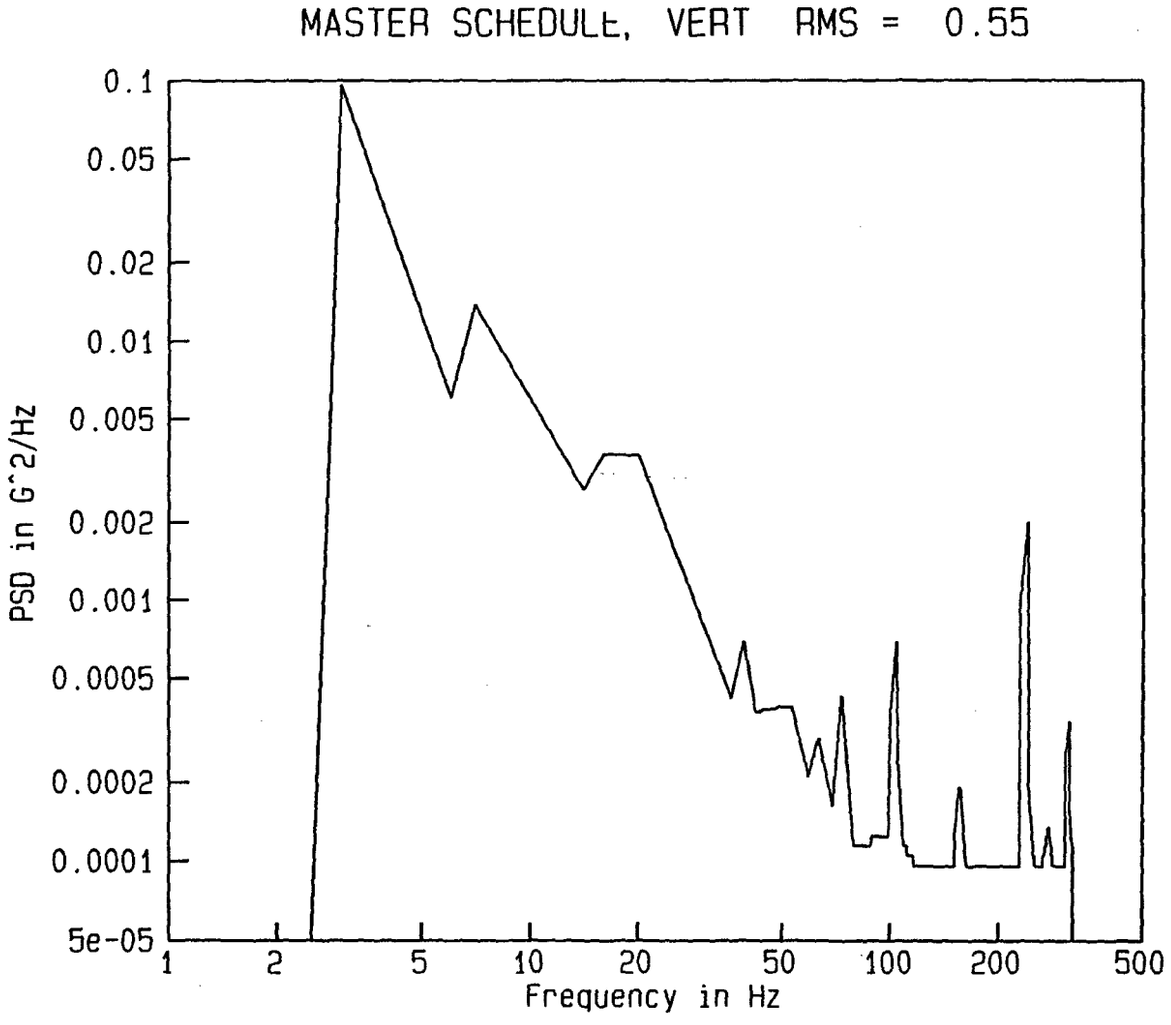


Figure B-44. Vibration schedule power spectral density function.

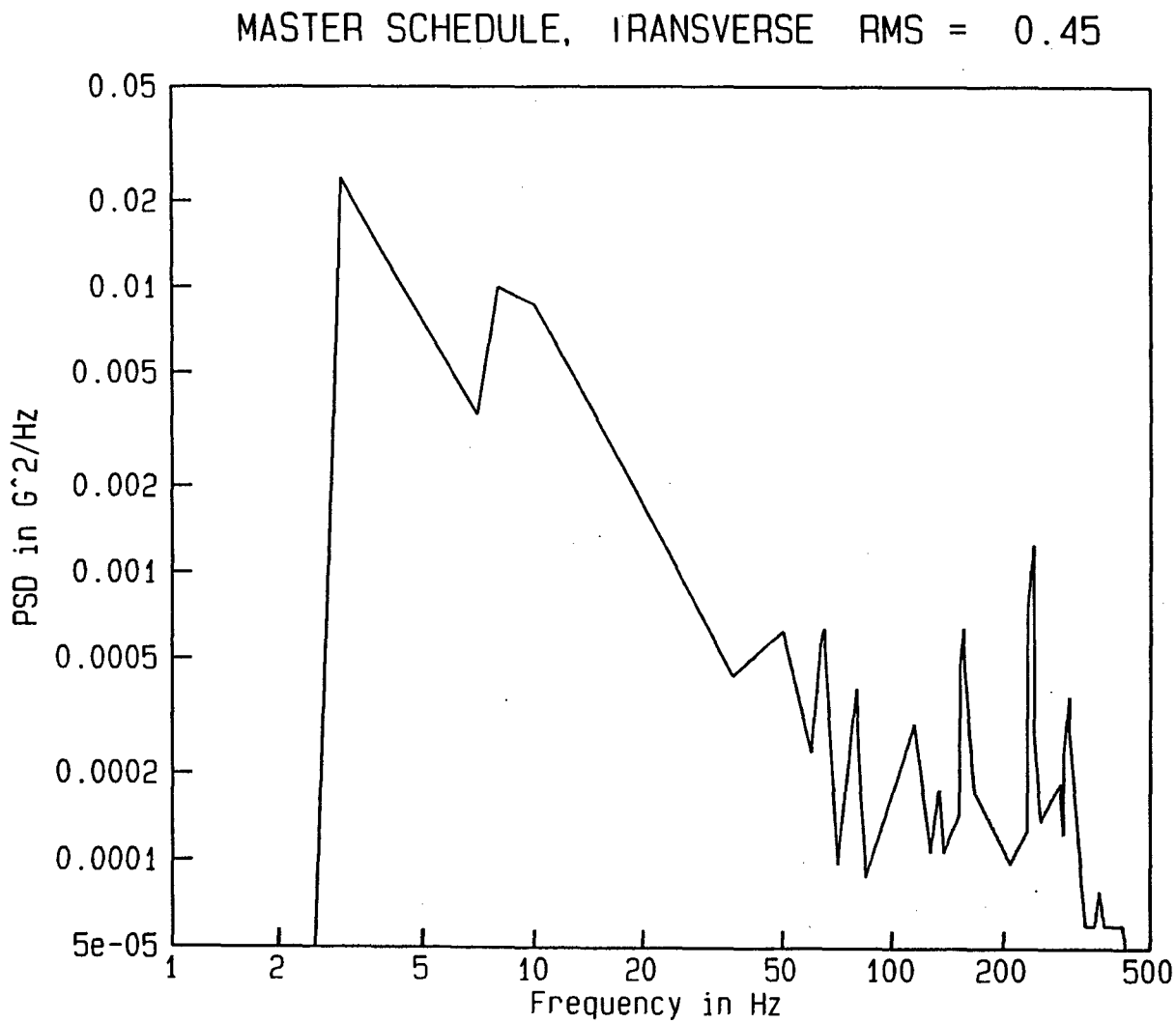


Figure B-45. Vibration schedule power spectral density function.

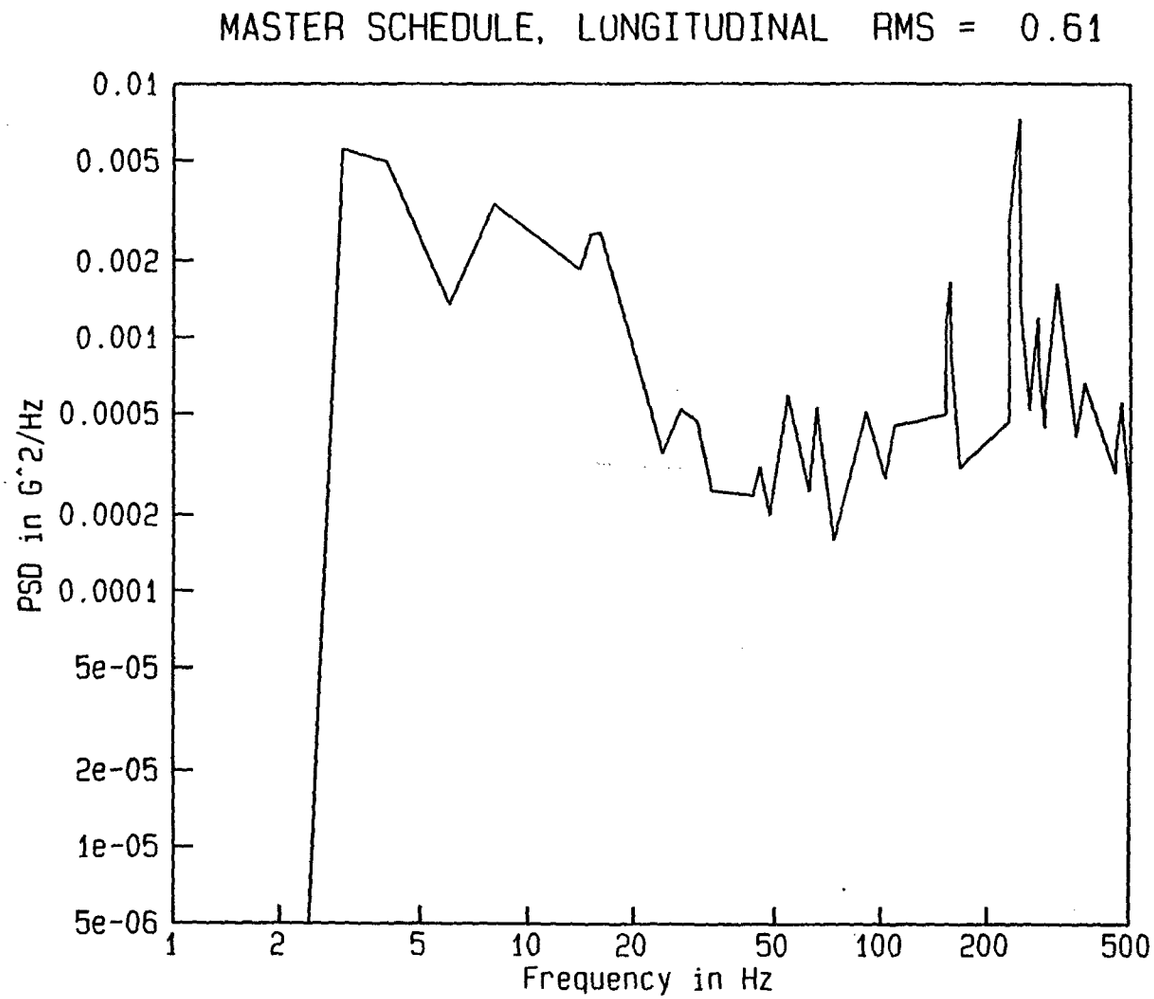


Figure B-46. Vibration schedule power spectral density function.

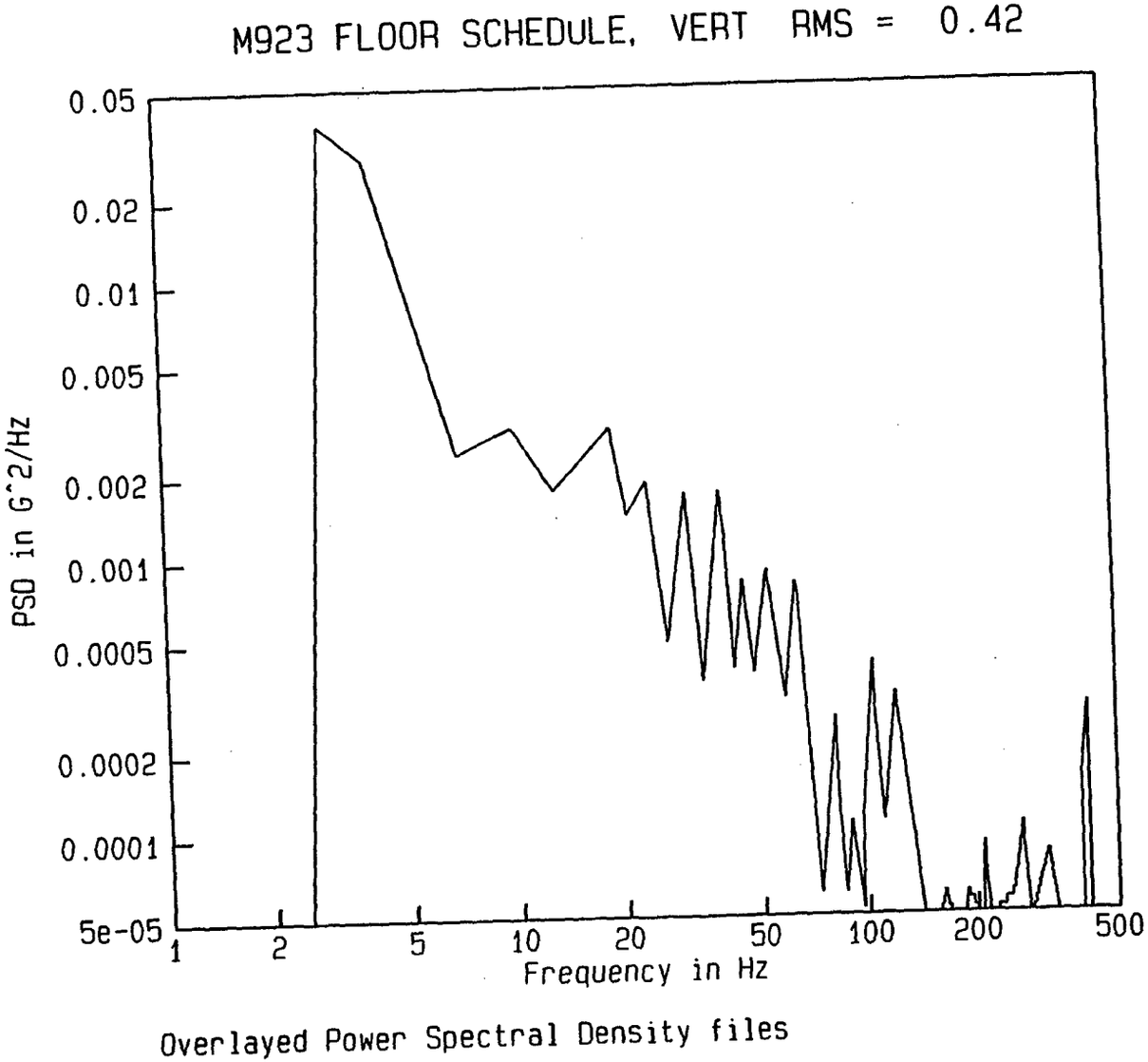


Figure B-47. Vibration schedule power spectral density function.

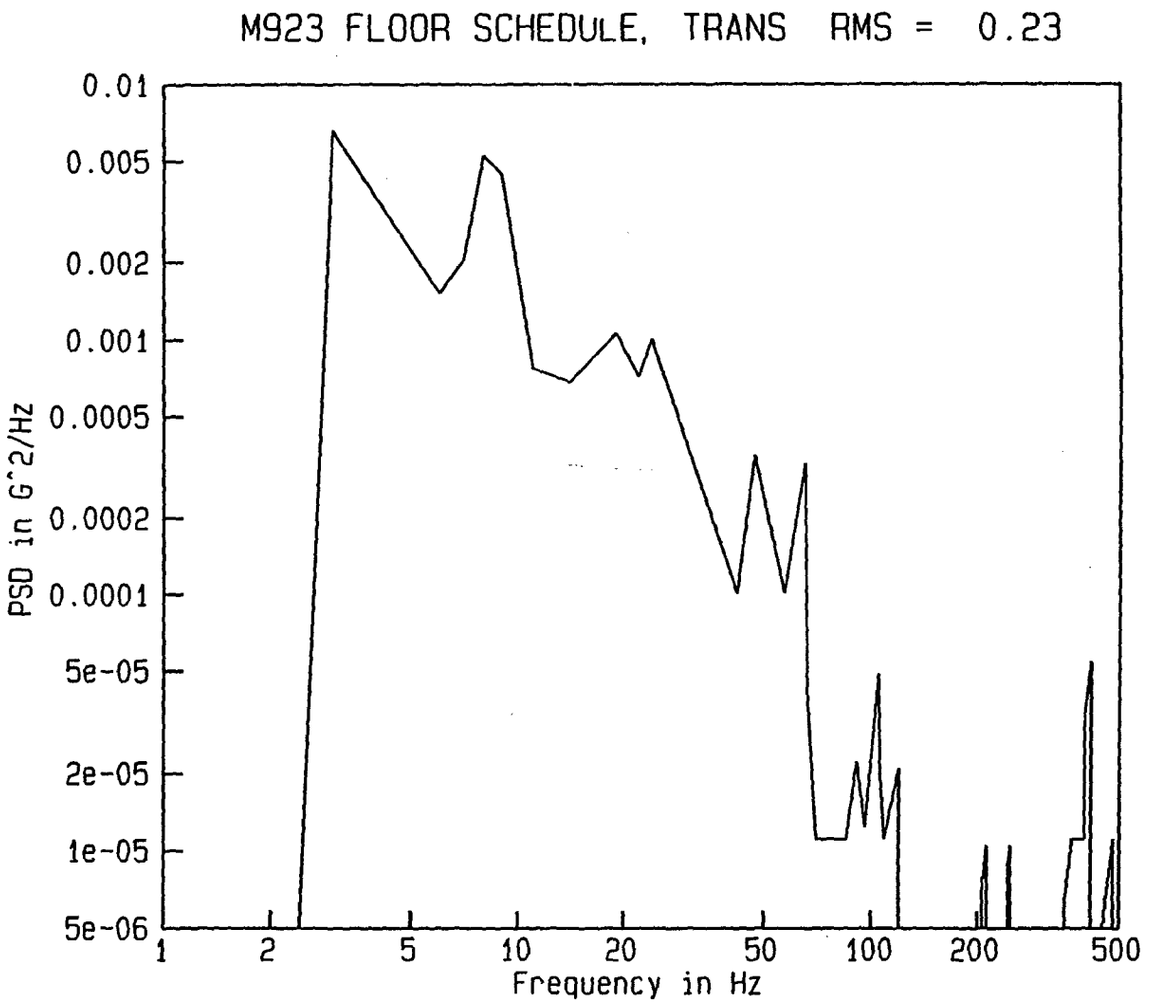


Figure B-48. Vibration schedule power spectral density function.

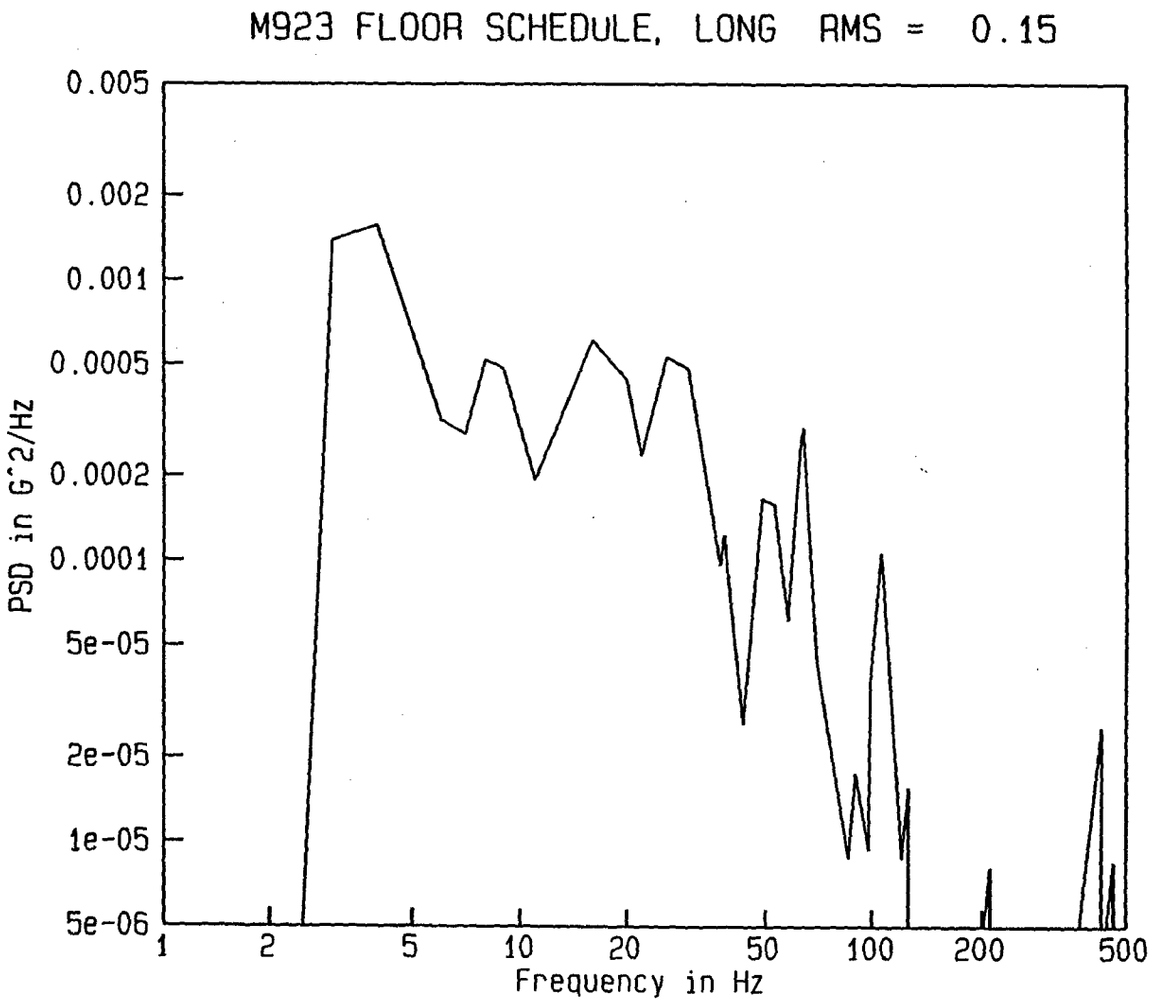


Figure B-49. Vibration schedule power spectral density function.

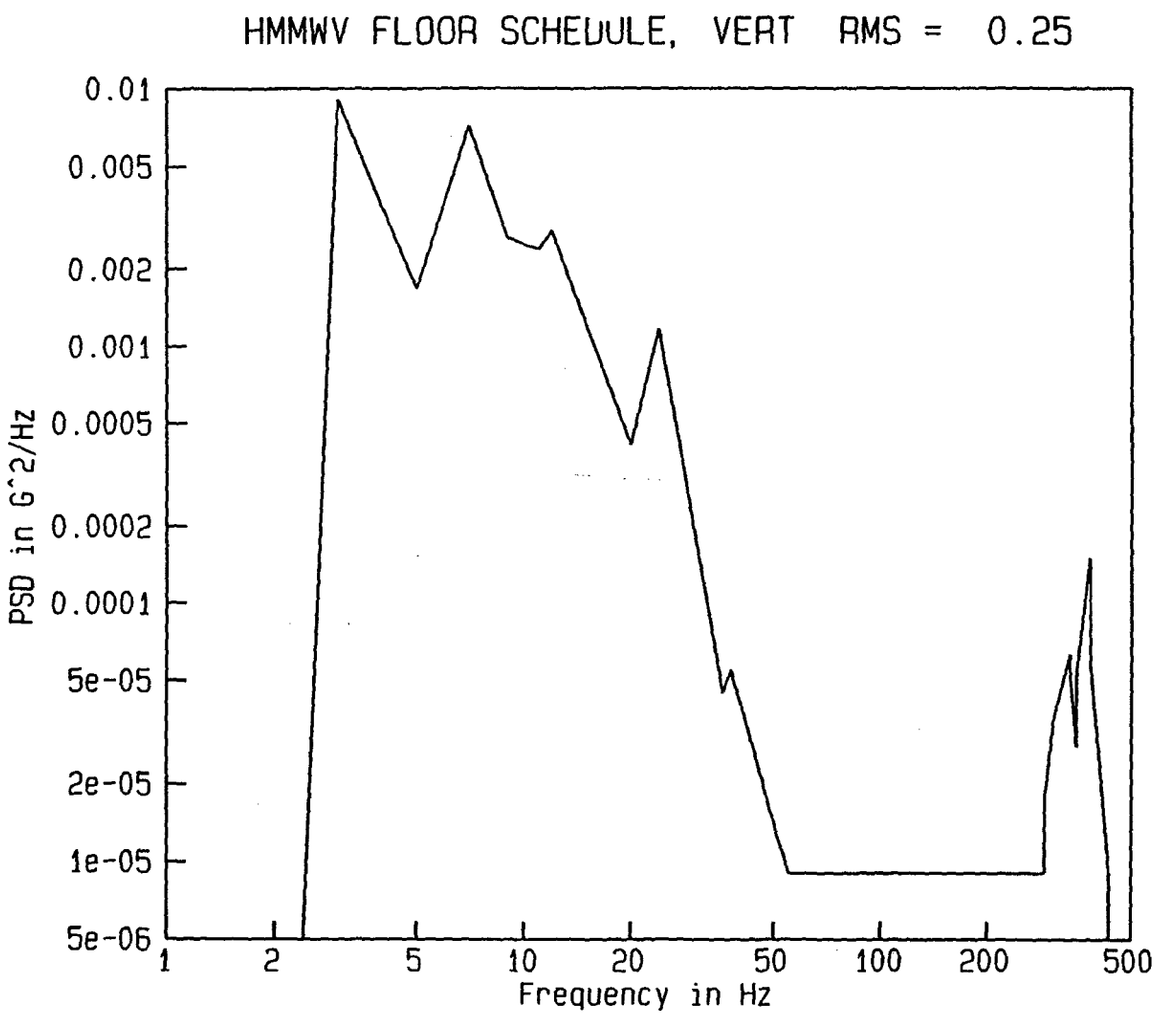


Figure B-50. Vibration schedule power spectral density function.

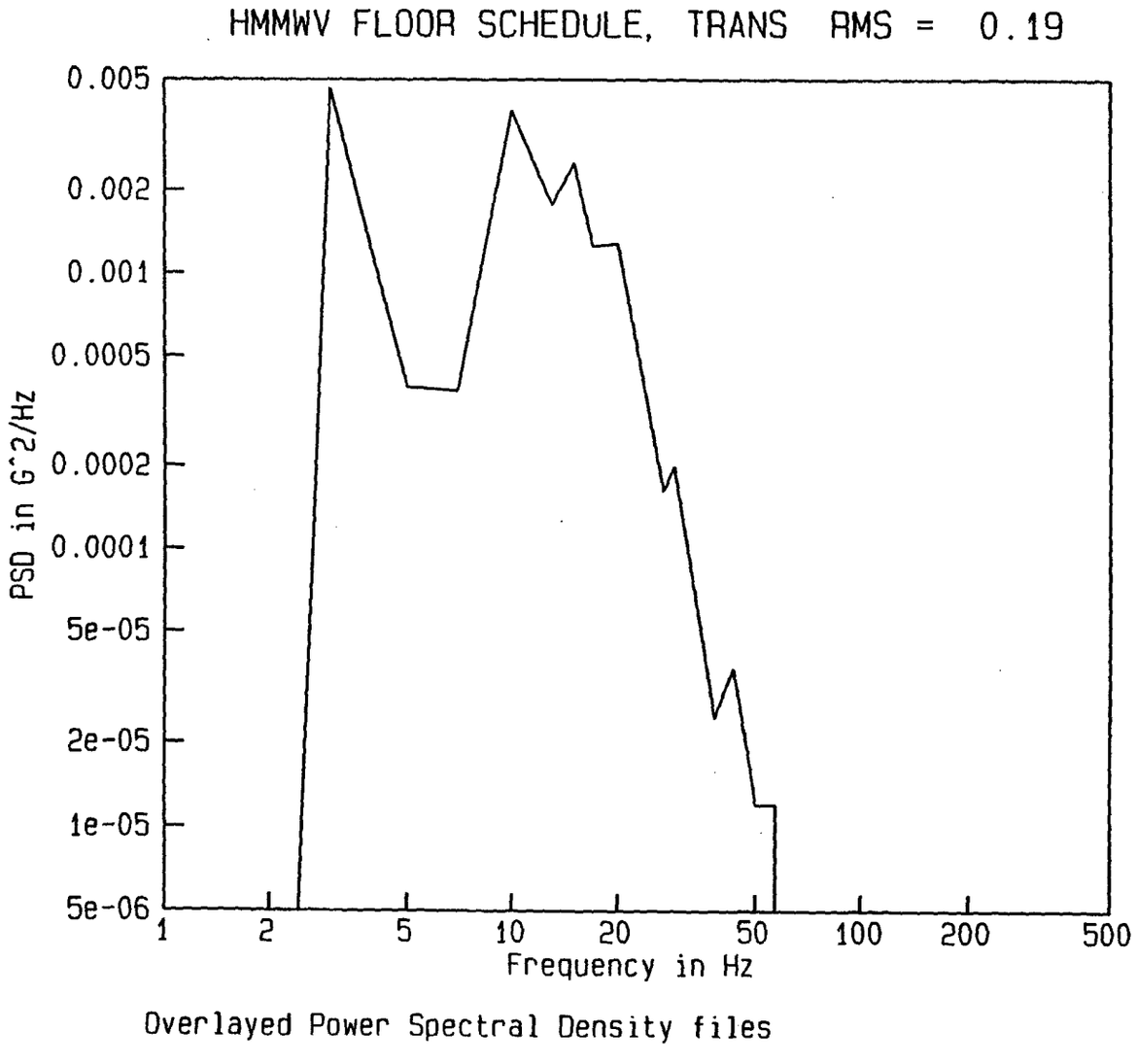


Figure B-51. Vibration schedule power spectral density function.

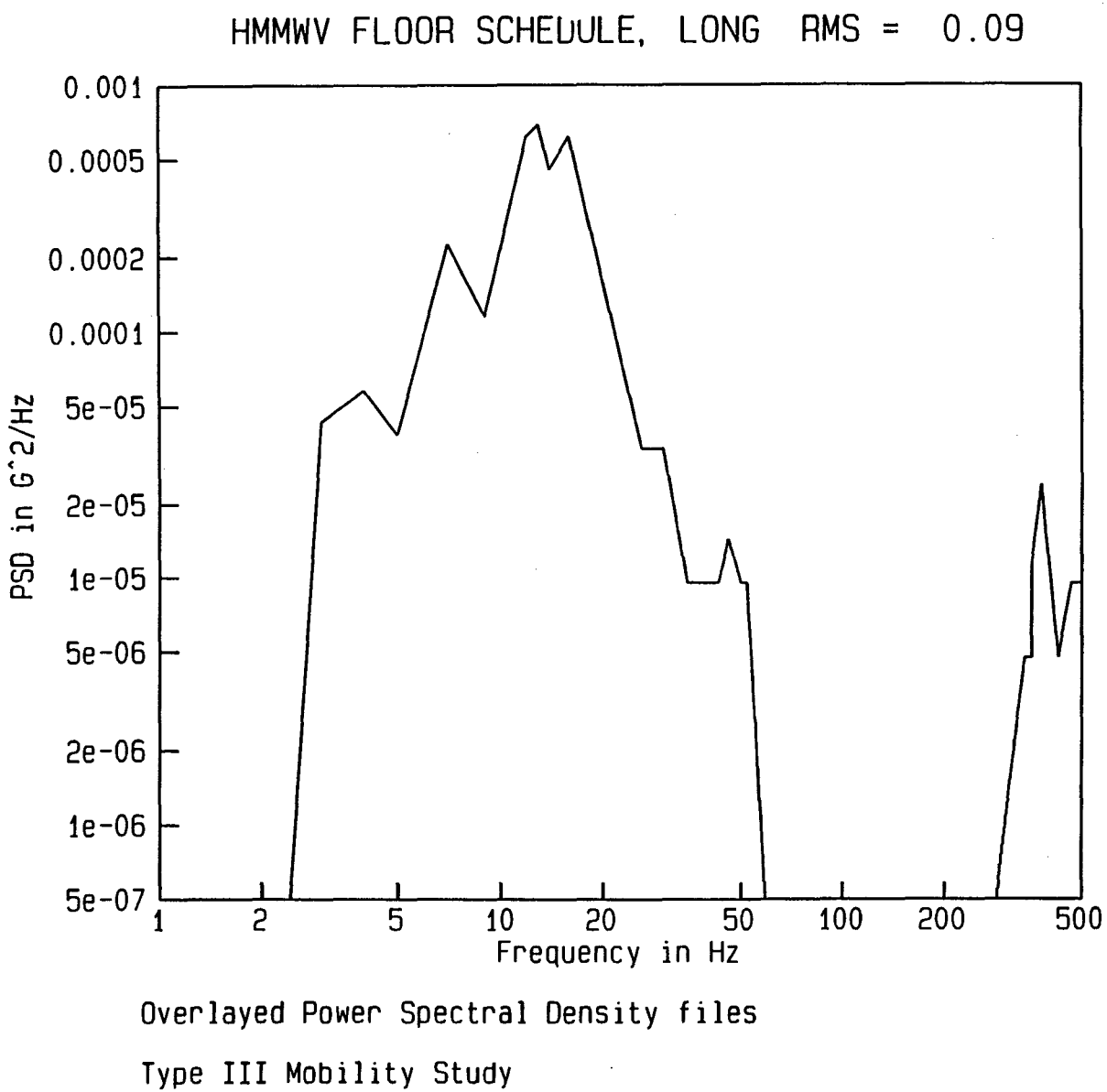


Figure B-52. Vibration schedule power spectral density function.

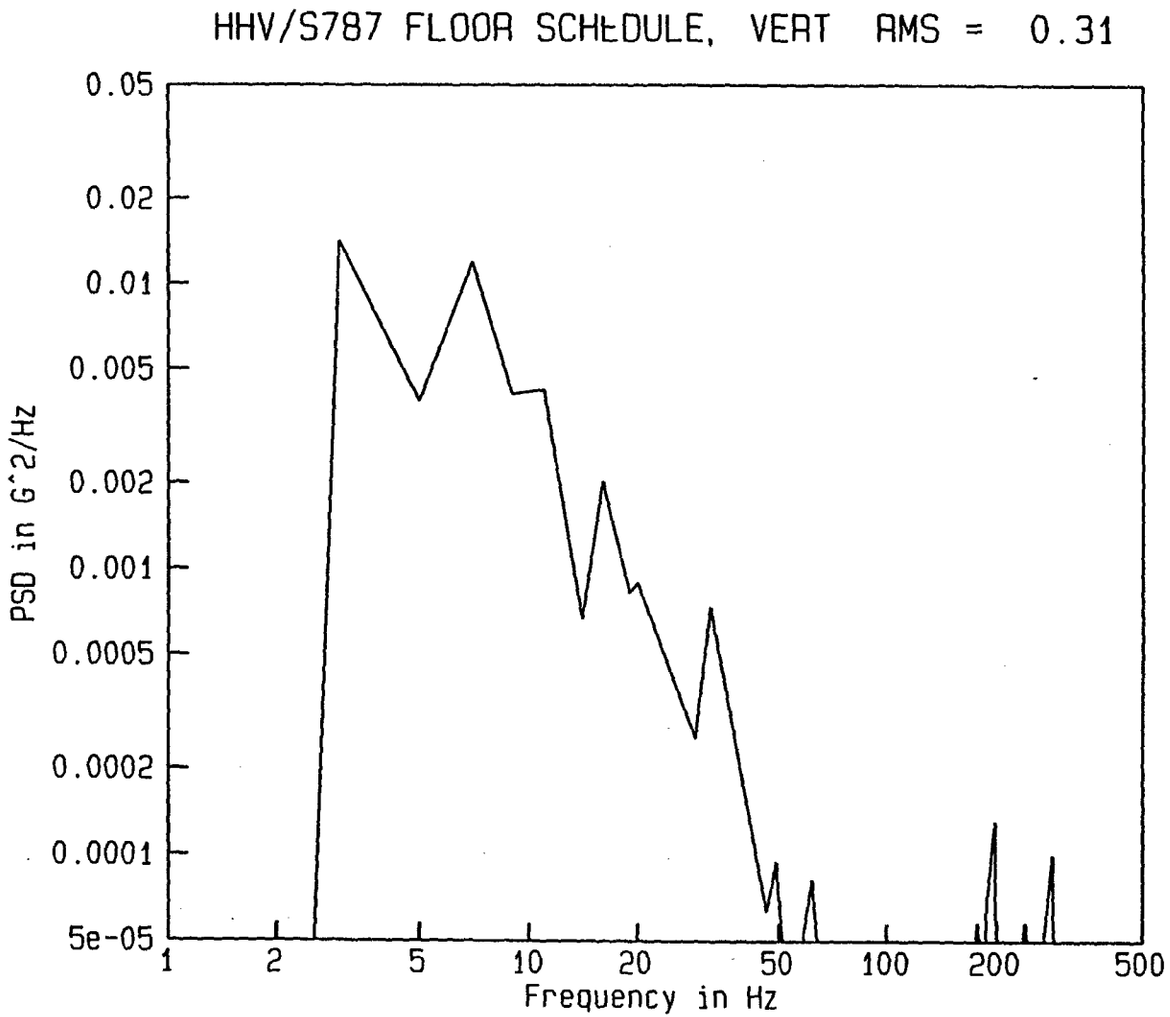


Figure B-53. Vibration schedule power spectral density function.

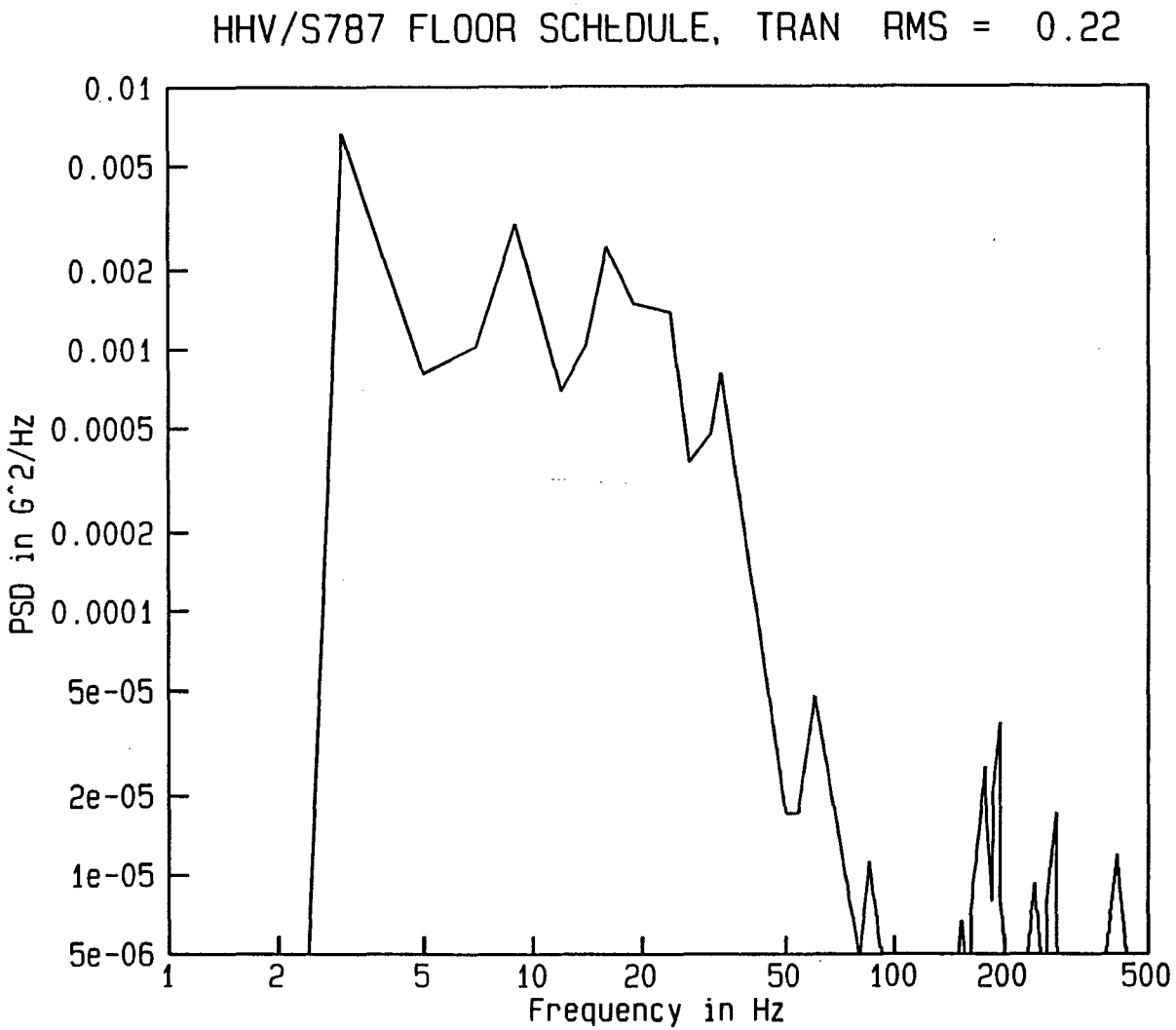


Figure B-54. Vibration schedule power spectral density function.

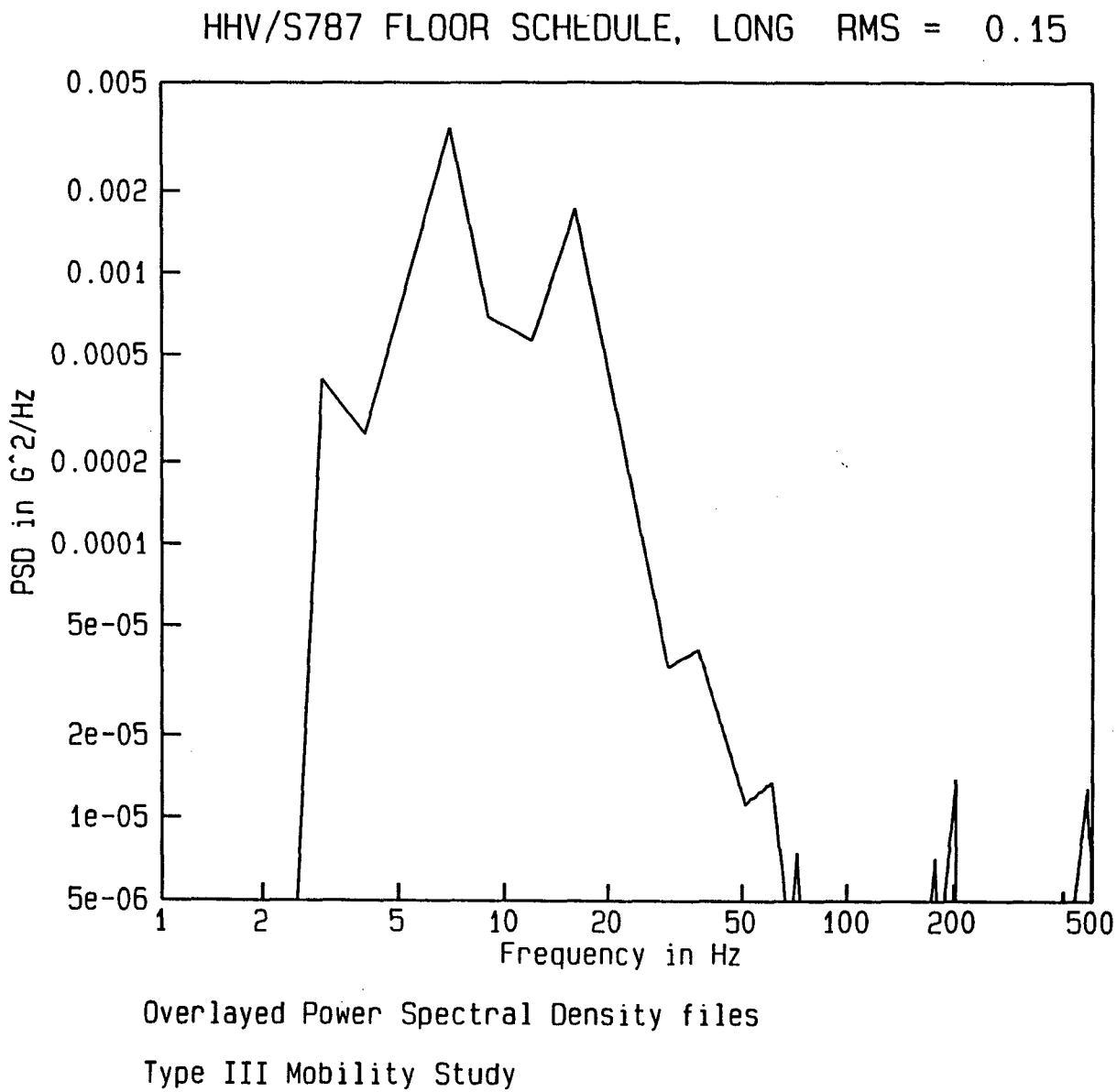


Figure B-55. Vibration schedule power spectral density function.

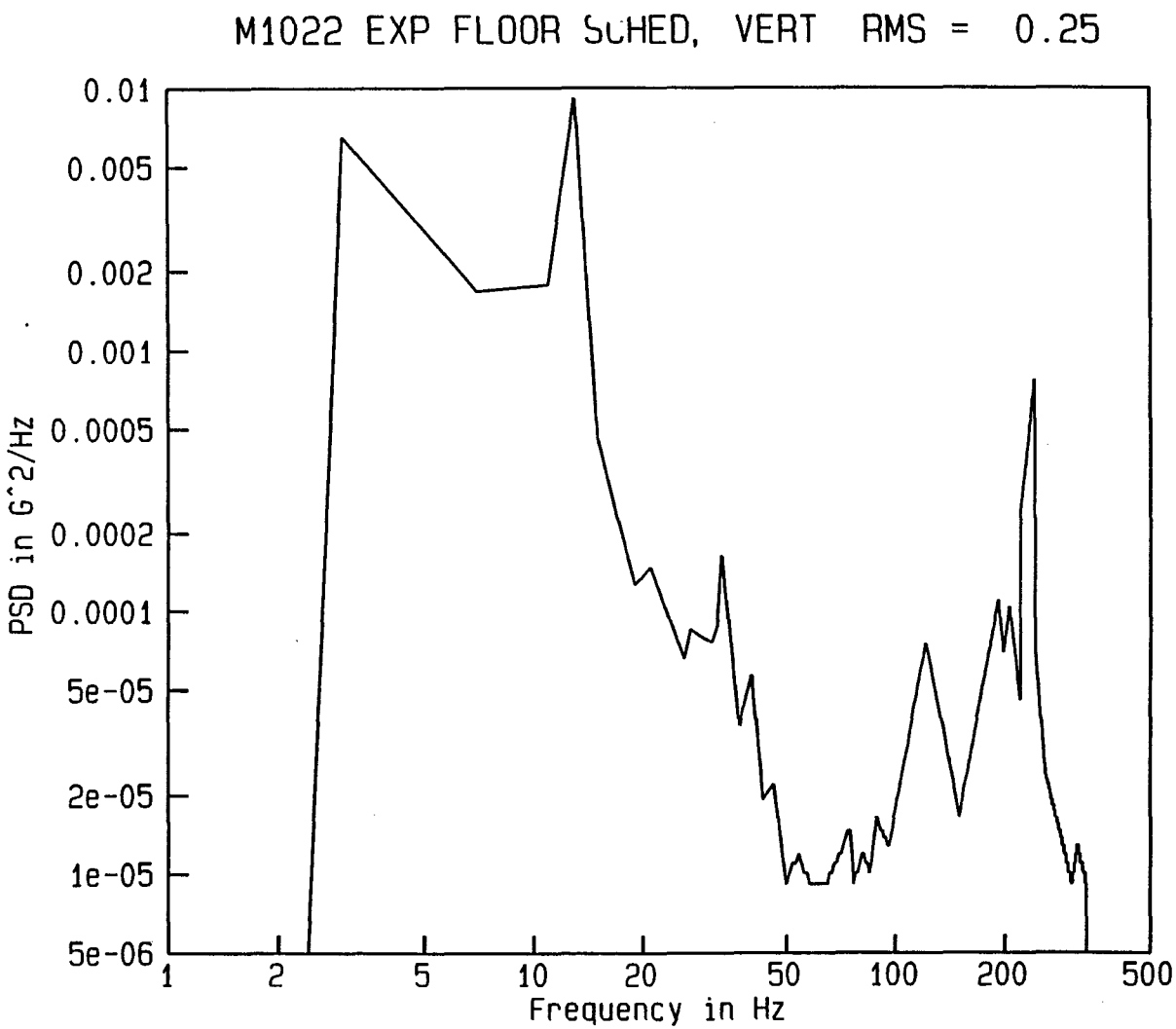


Figure B-56. Vibration schedule power spectral density function.

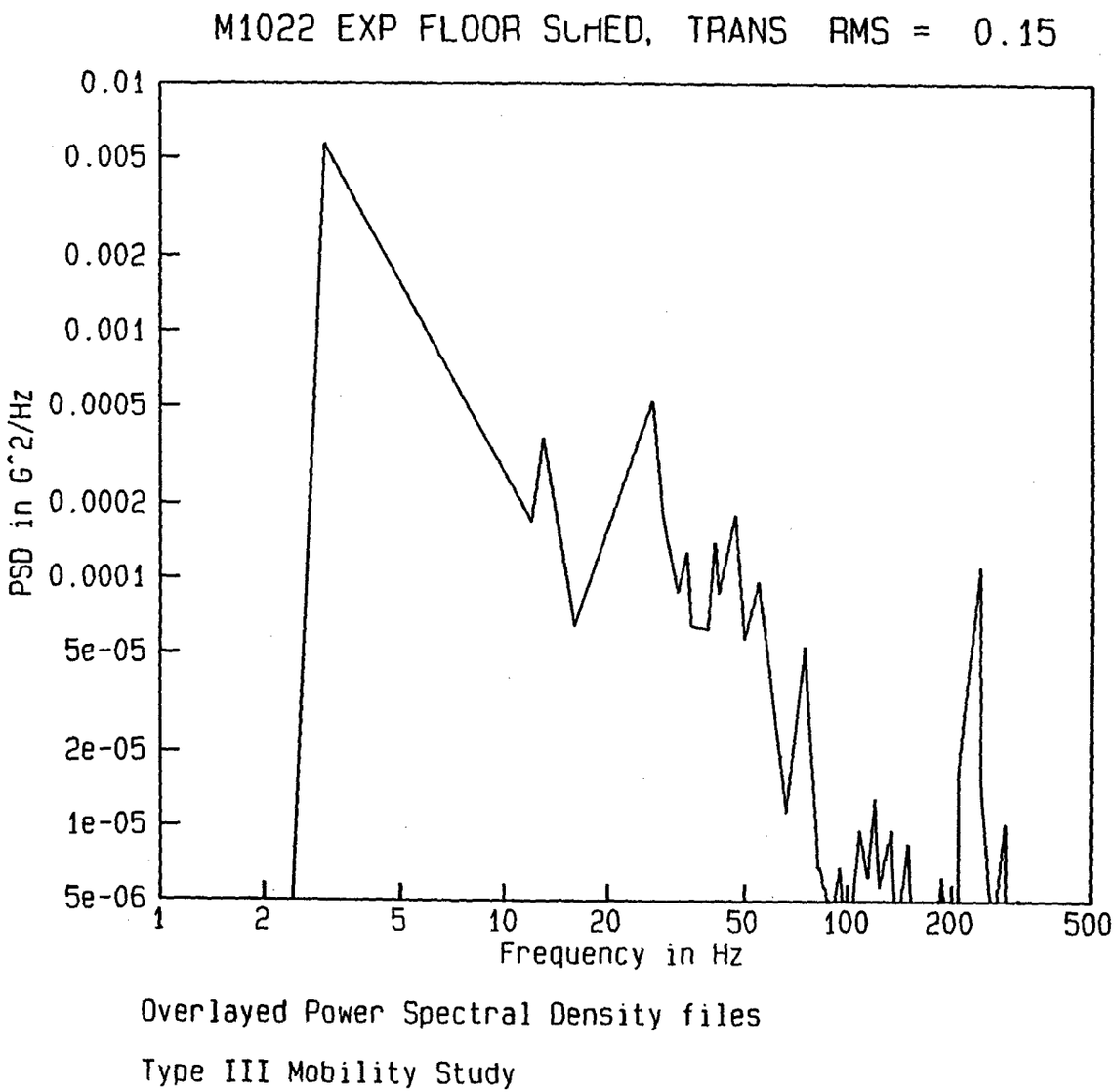


Figure B-57. Vibration schedule power spectral density function.

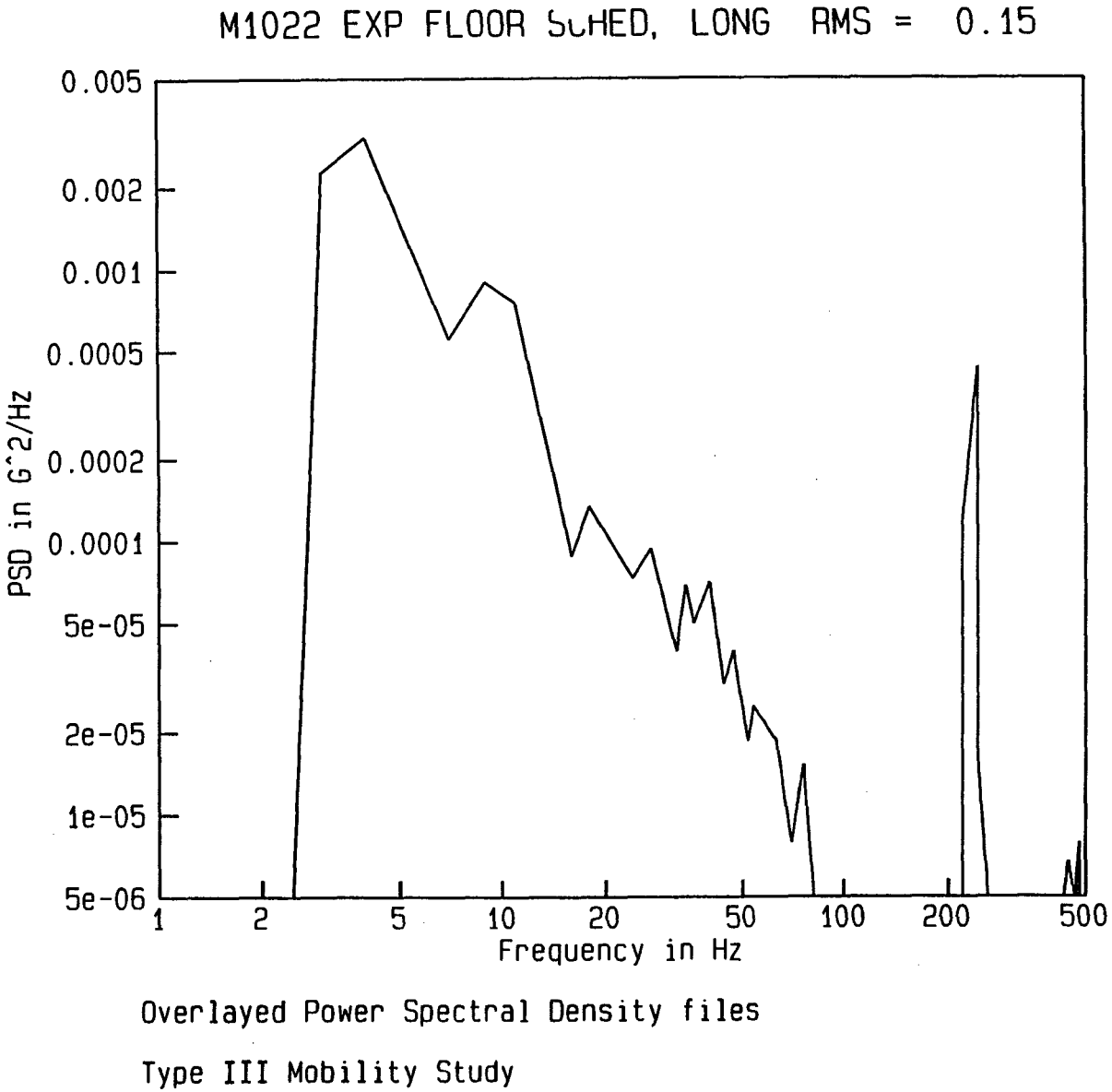


Figure B-58. Vibration schedule power spectral density function.

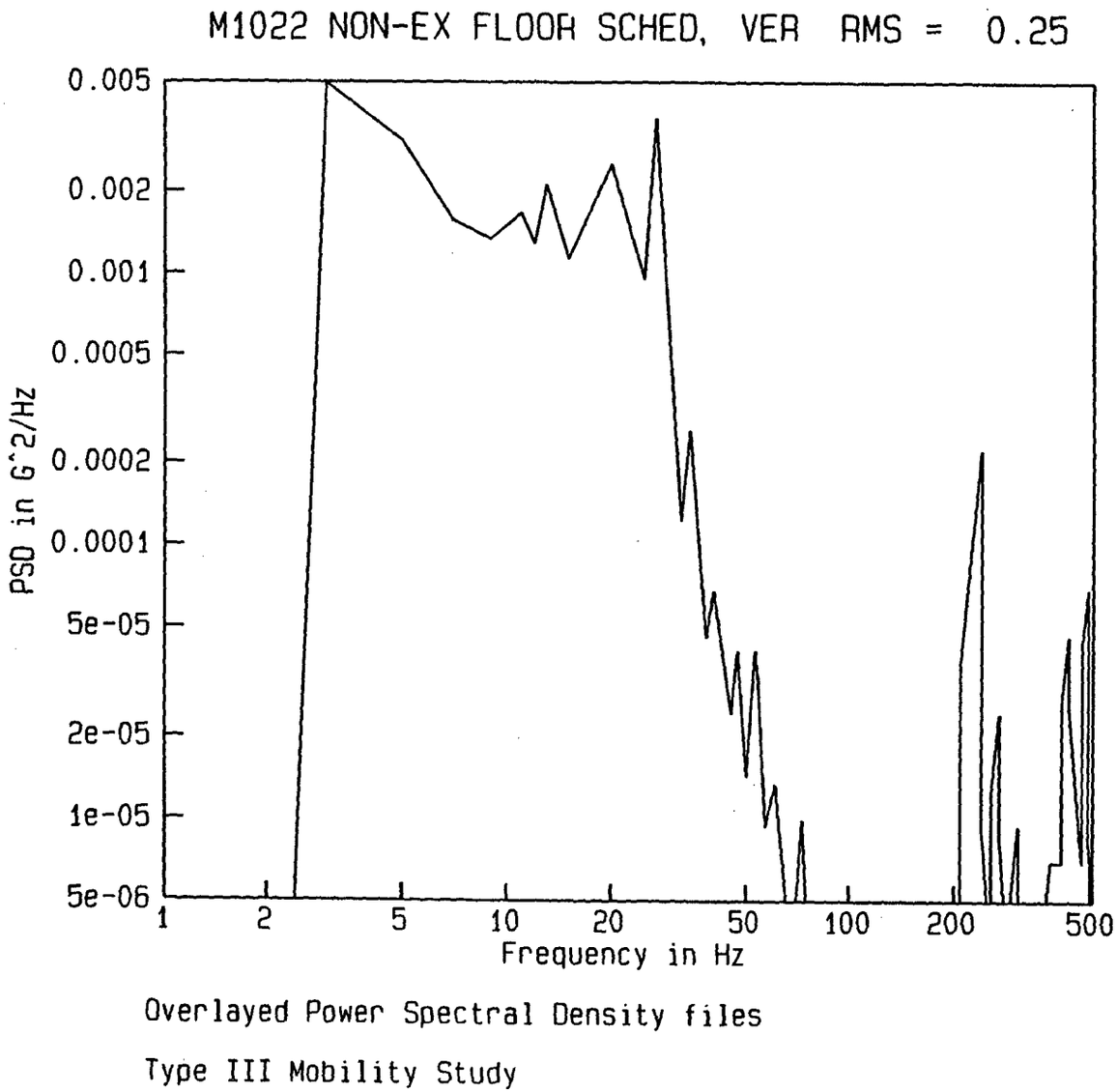


Figure B-59. Vibration schedule power spectral density function.

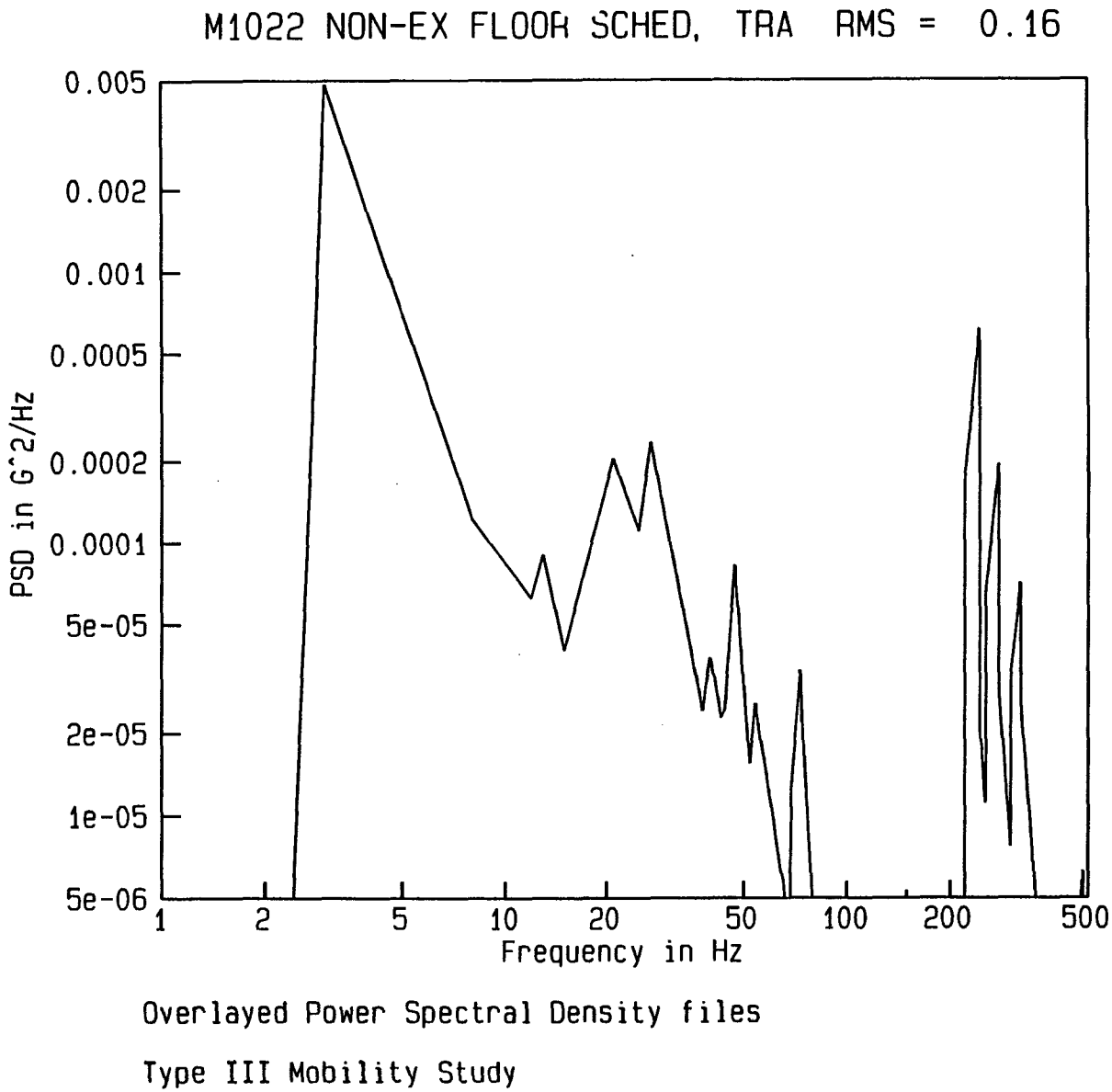


Figure B-60. Vibration schedule power spectral density function.

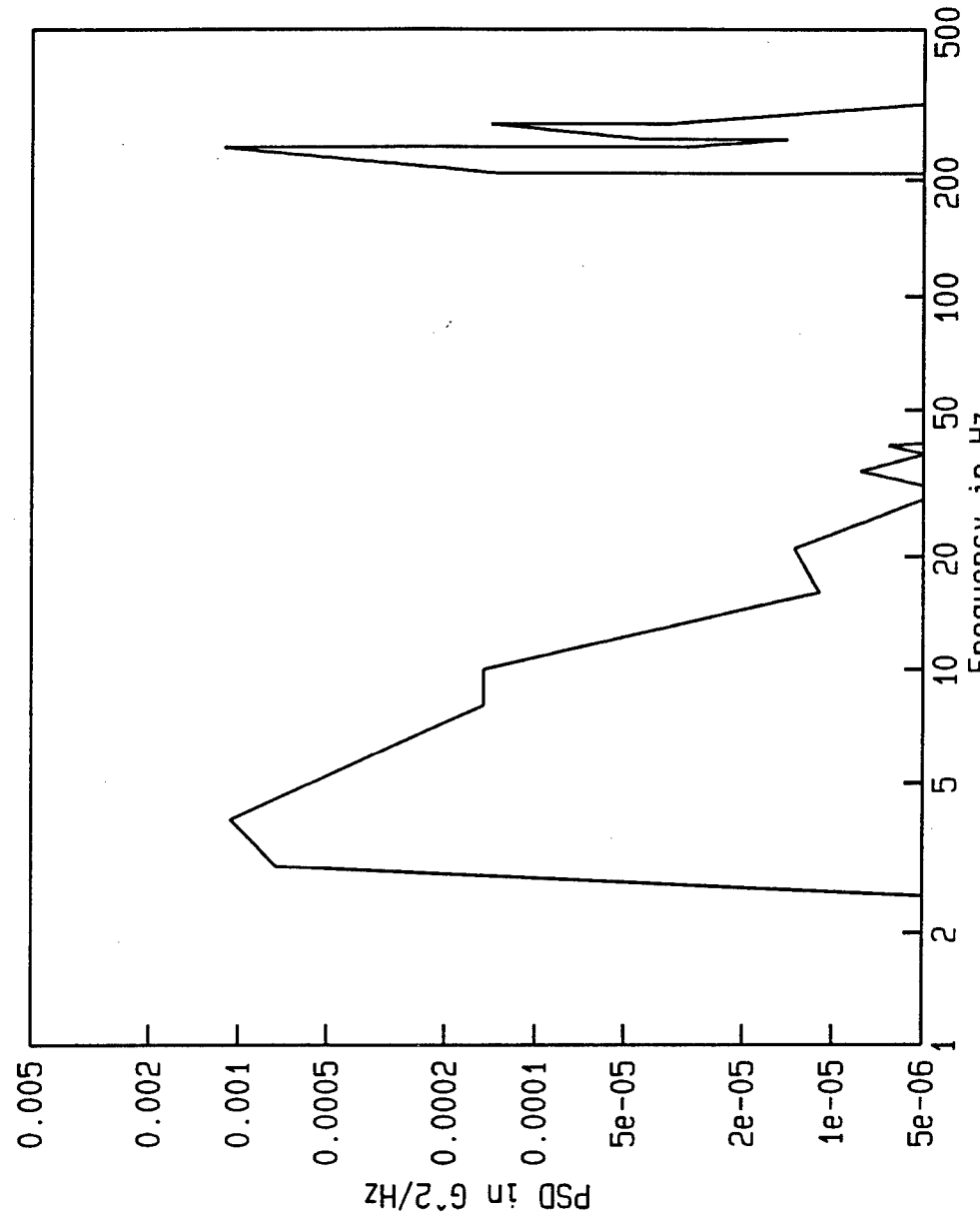


Figure B-61. Vibration schedule power spectral density function.

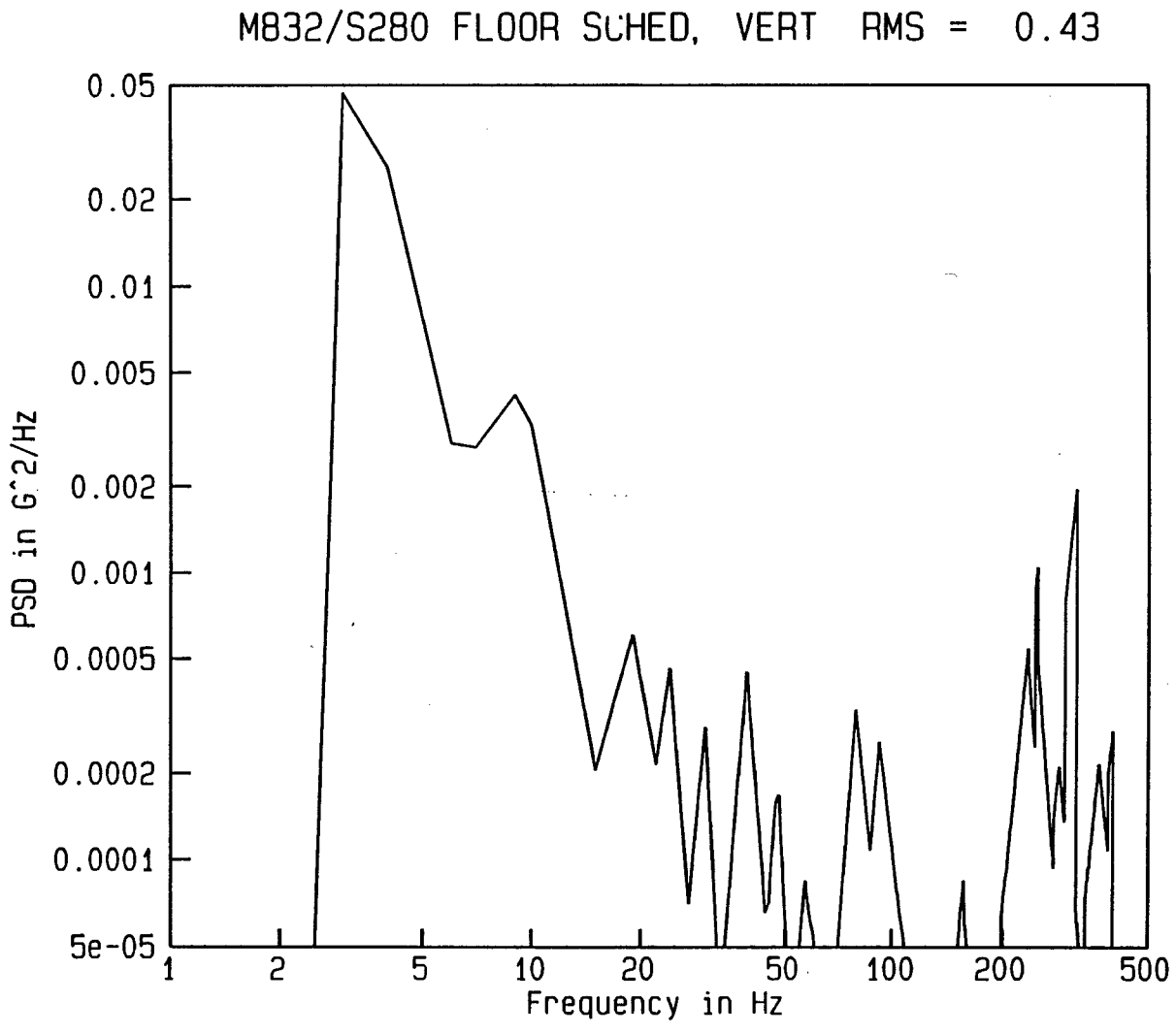


Figure B-62. Vibration schedule power spectral density function.

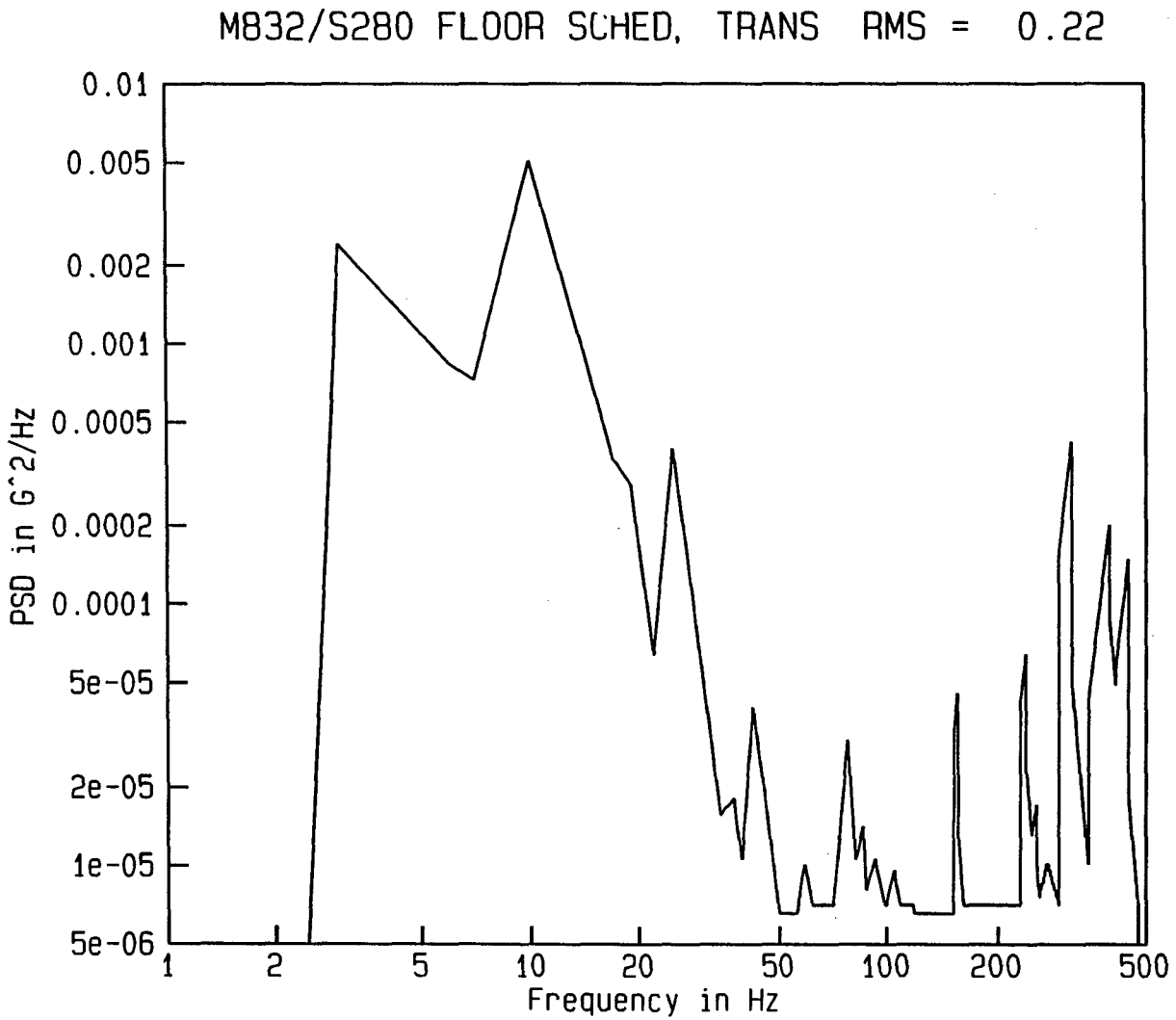


Figure B-63. Vibration schedule power spectral density function.

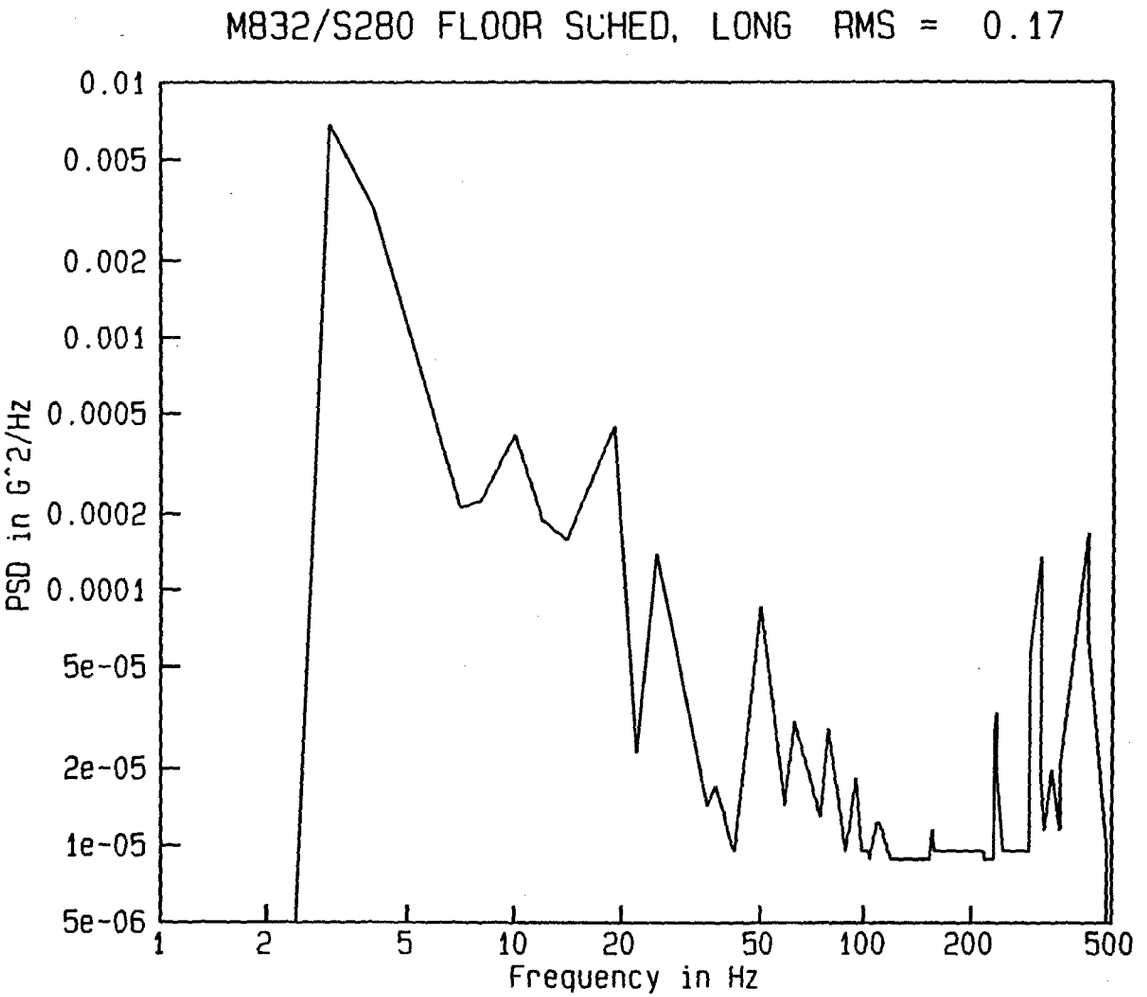


Figure B-64. Vibration schedule power spectral density function.

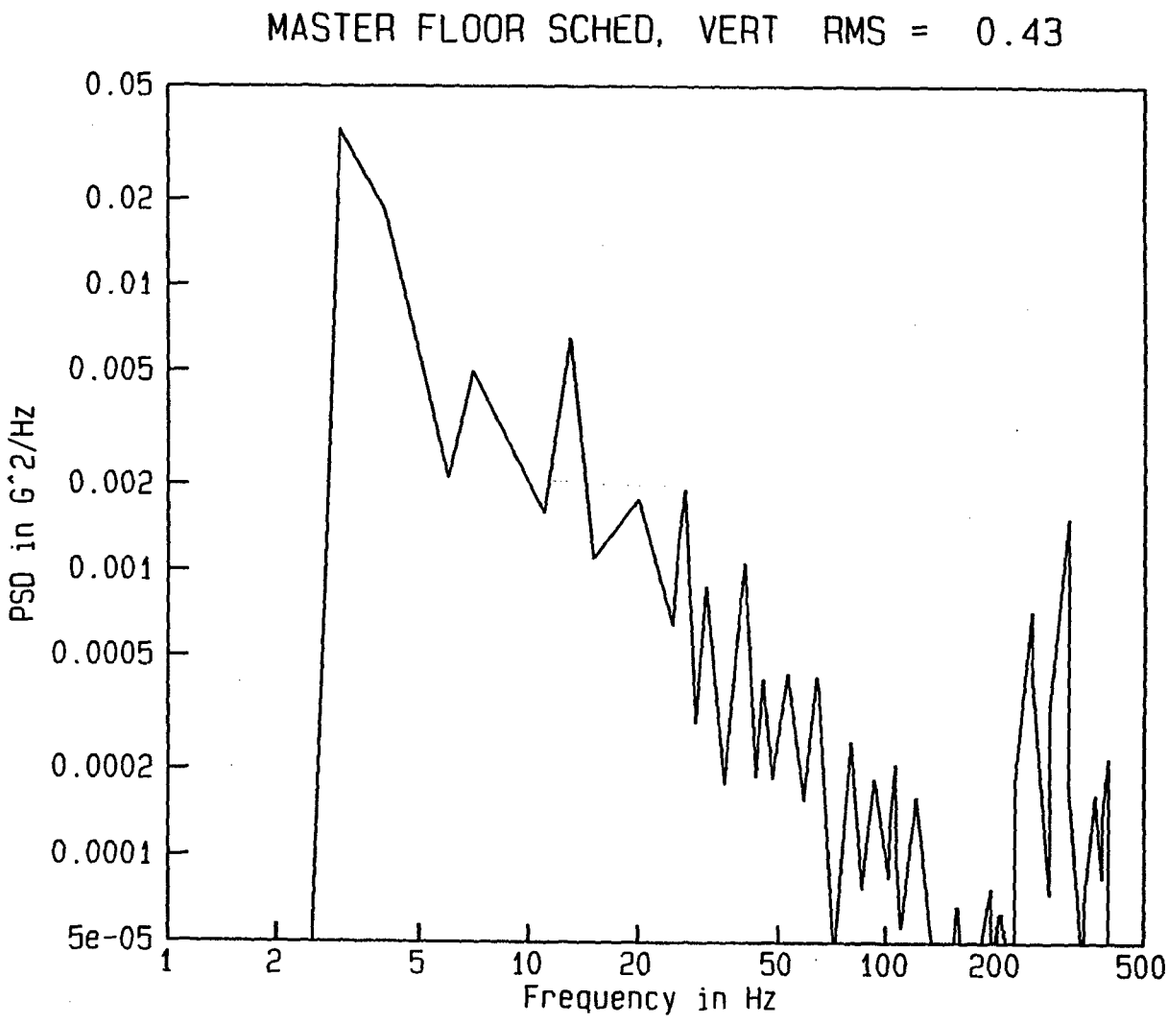


Figure B-65. Vibration schedule power spectral density function.

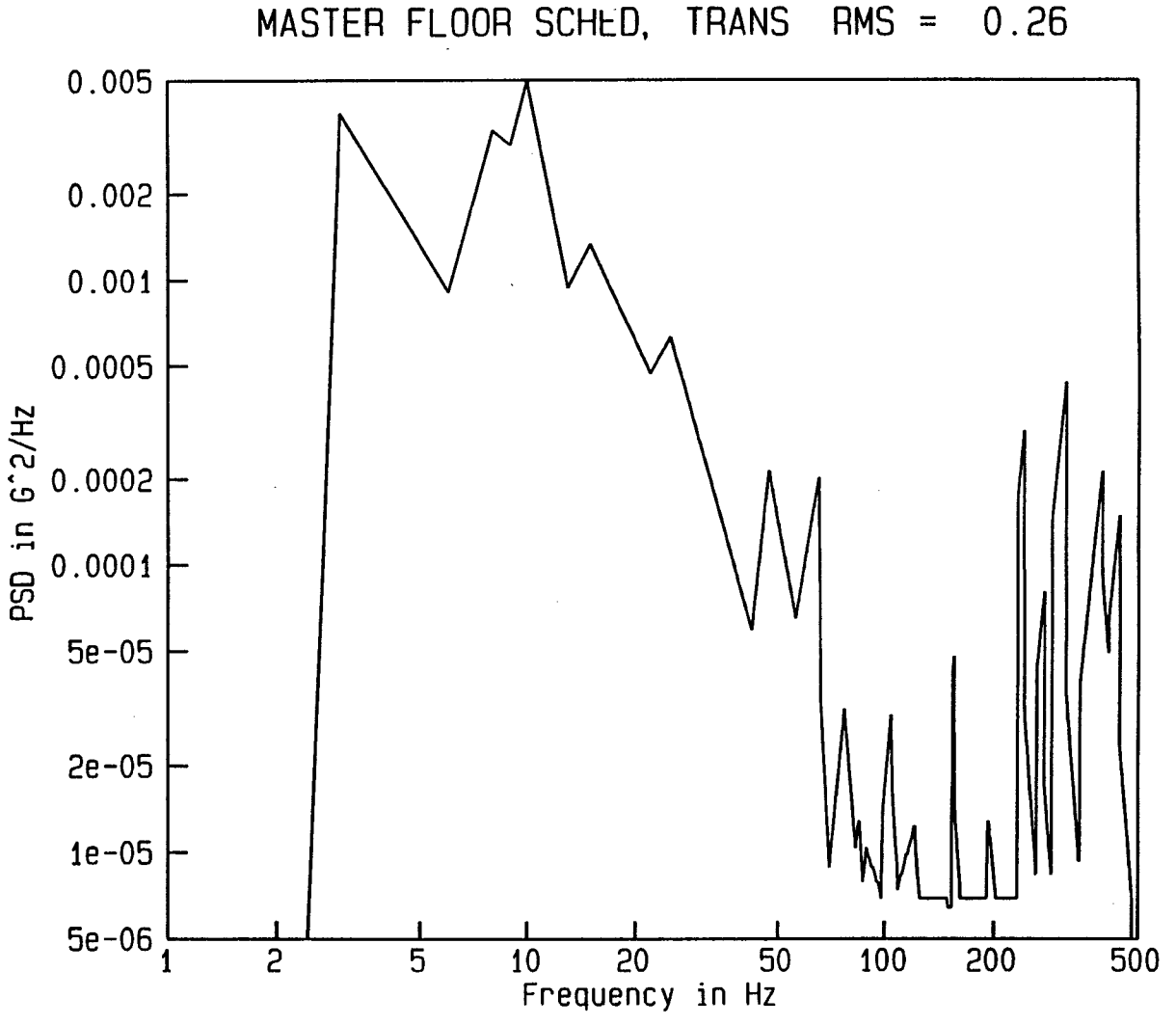


Figure B-66. Vibration schedule power spectral density function.

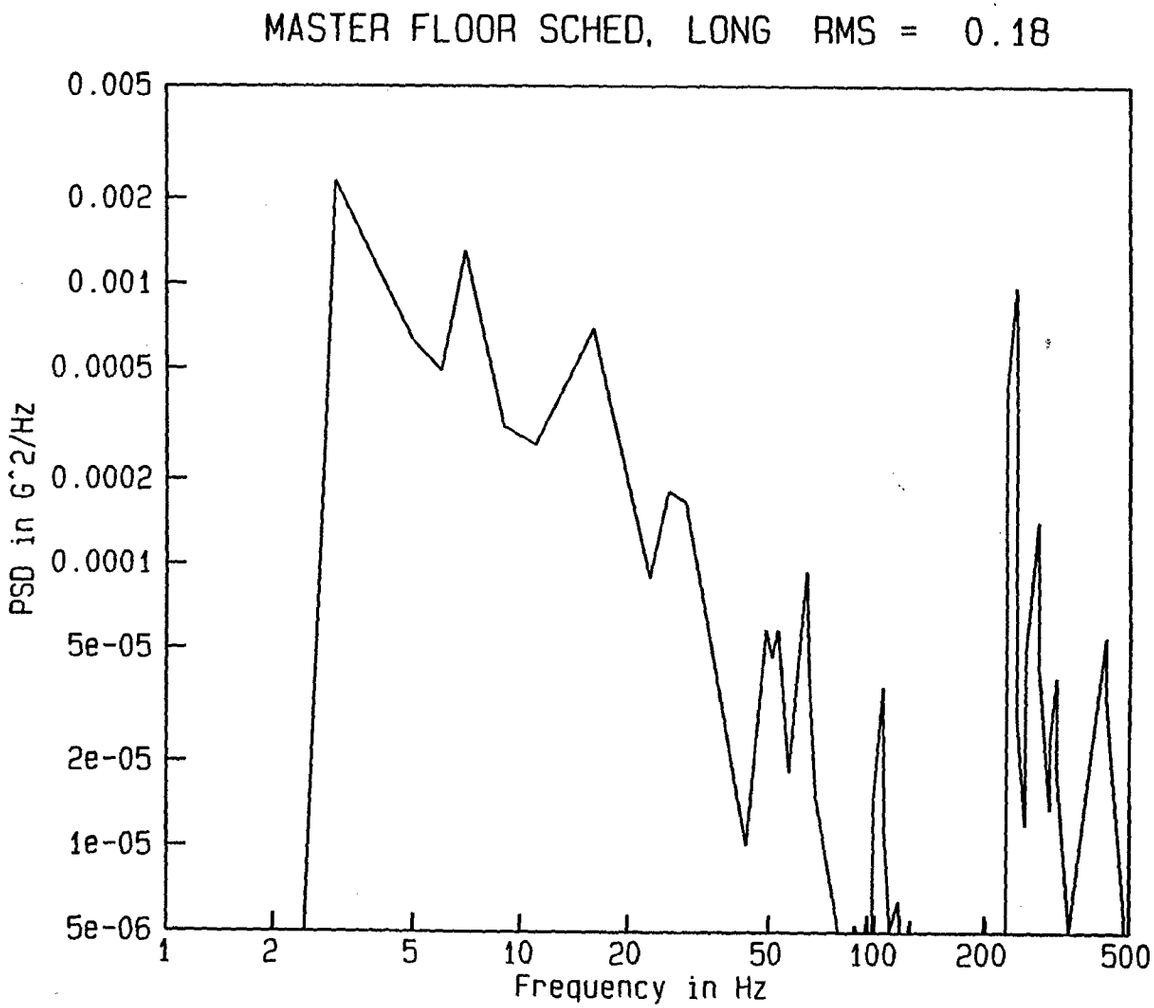


Figure B-67. Vibration schedule power spectral density function.

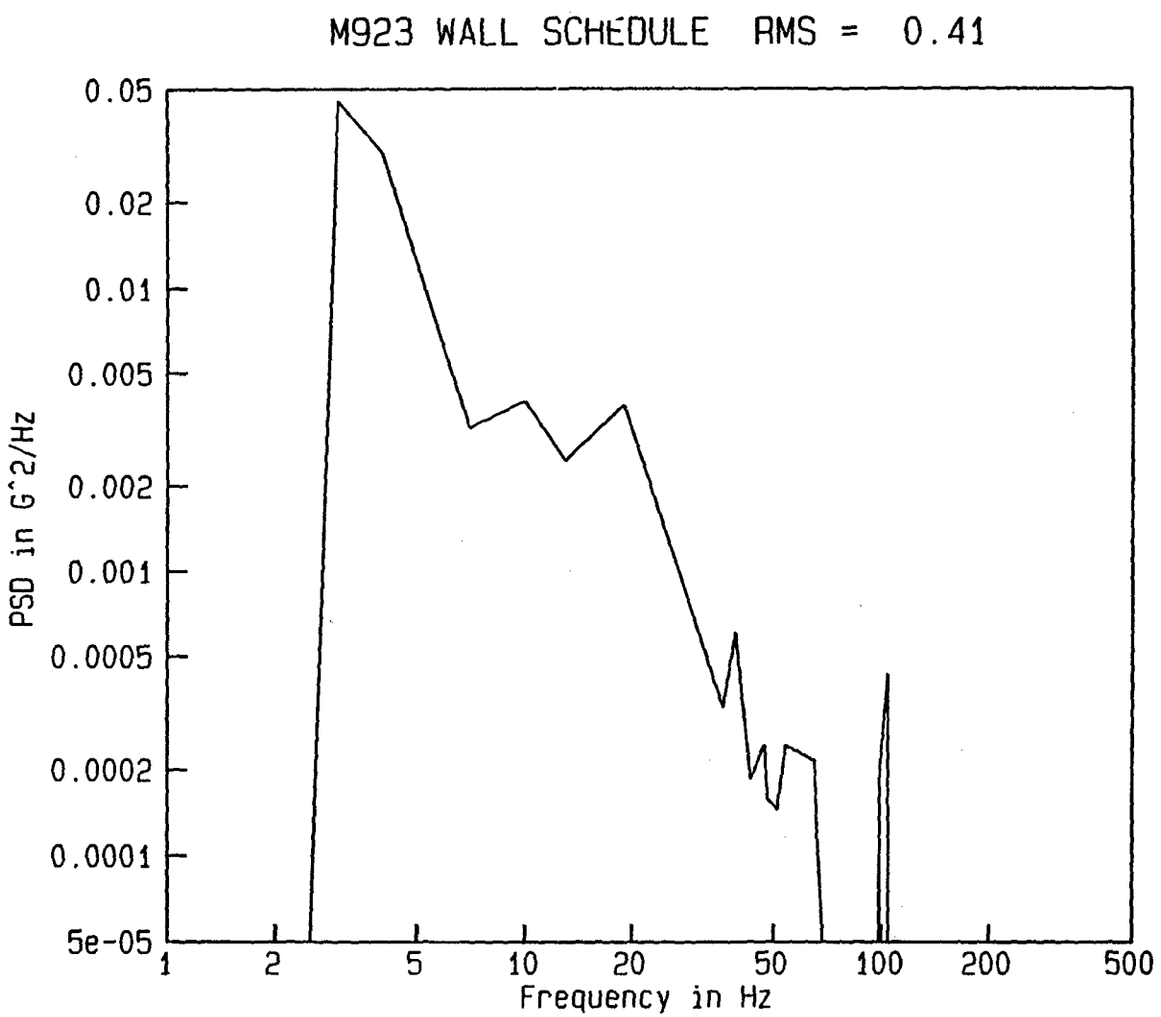


Figure B-68. Vibration schedule power spectral density function.

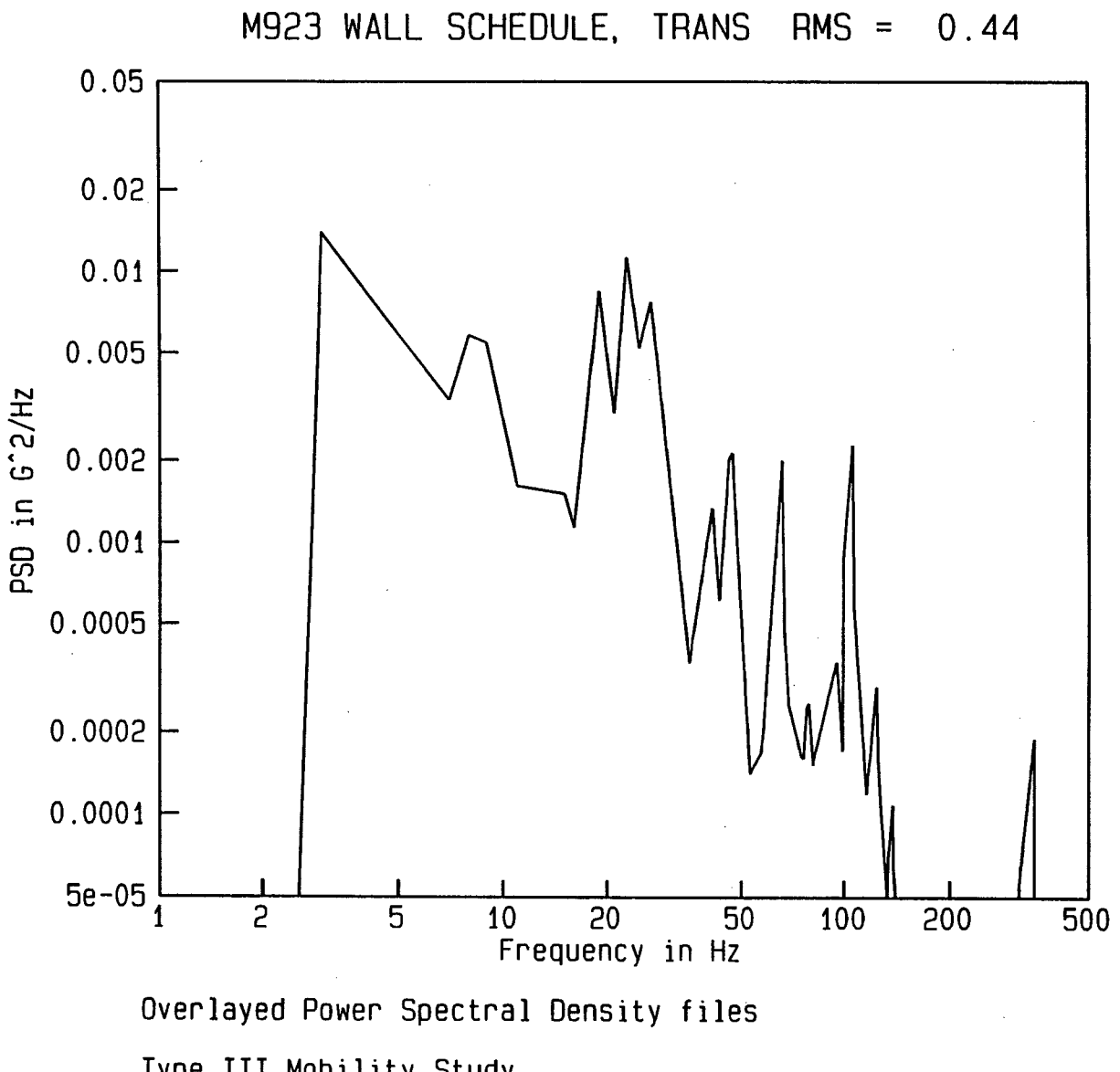


Figure B-69. Vibration schedule power spectral density function.

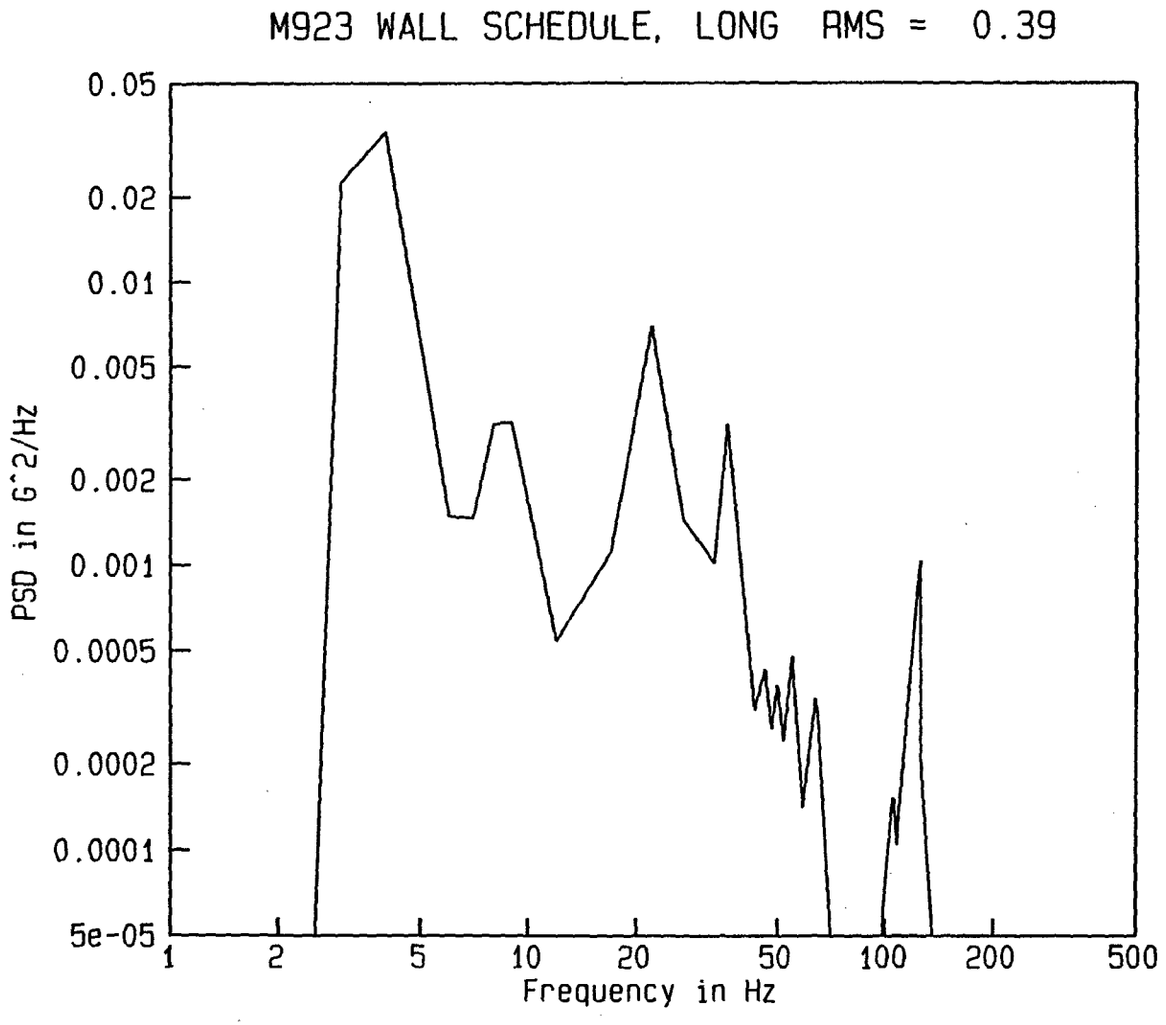


Figure B-70. Vibration schedule power spectral density function.

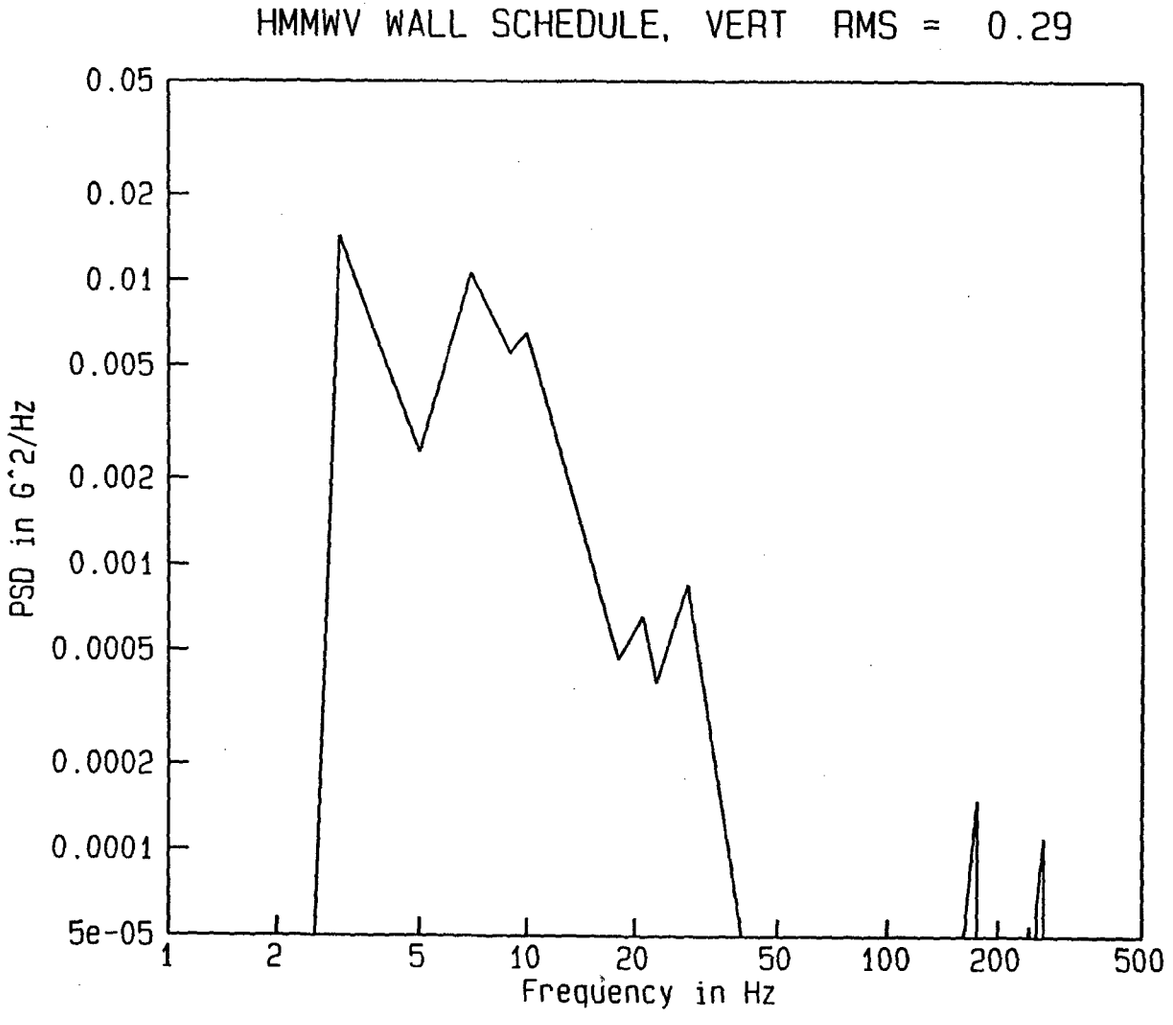


Figure B-71. Vibration schedule power spectral density function.

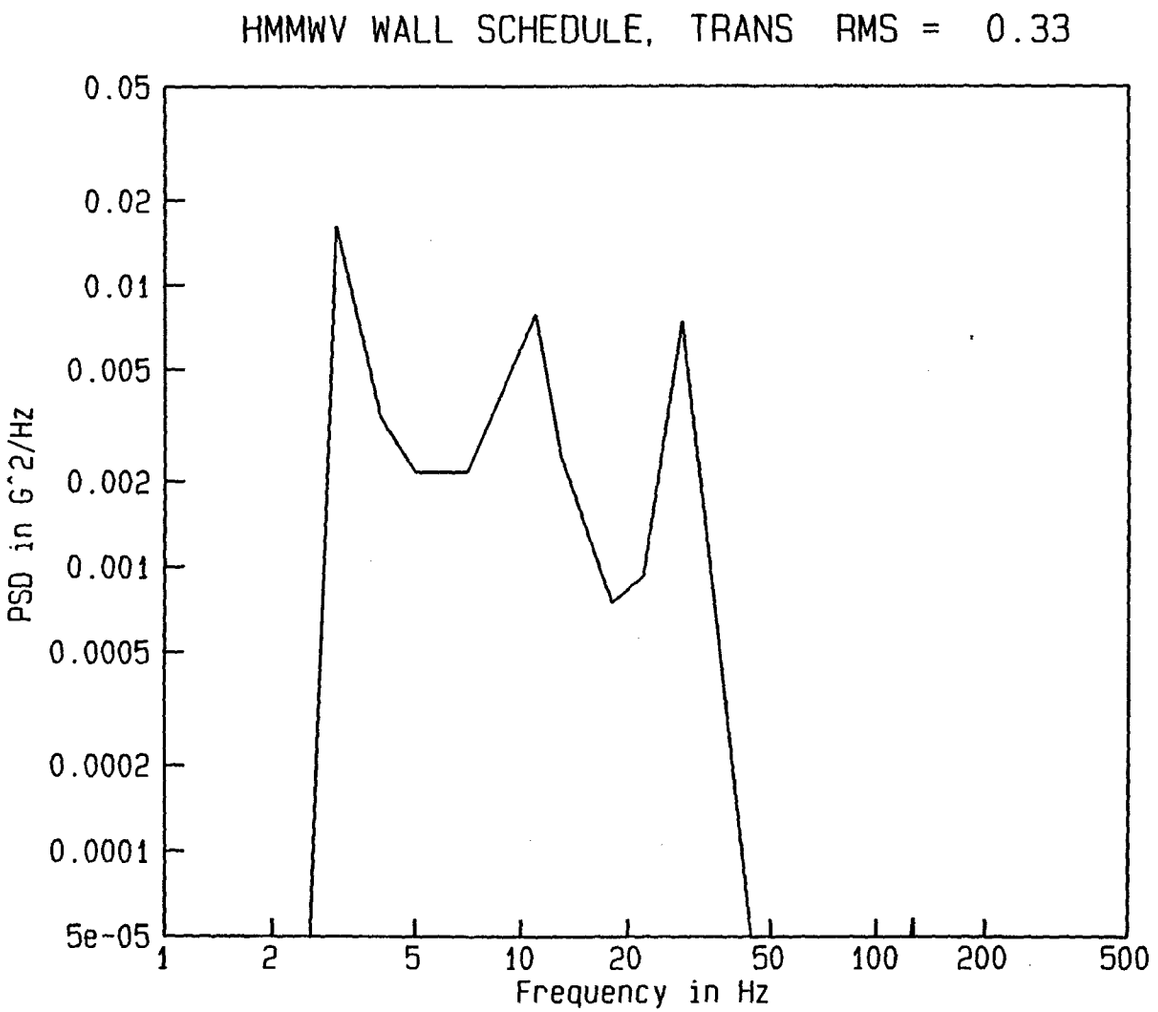


Figure B-72. Vibration schedule power spectral density function.

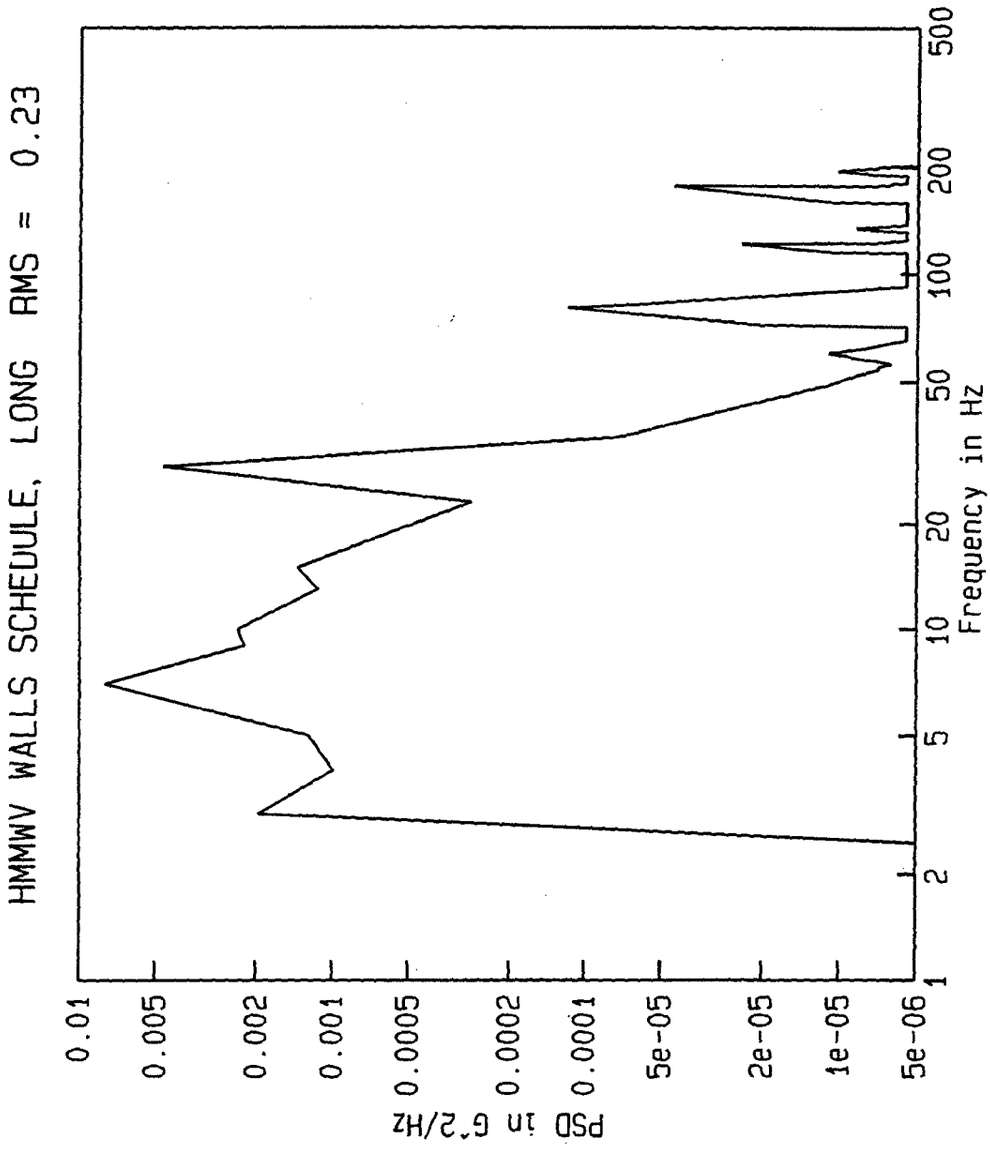


Figure B-73. Vibration schedule power spectral density function.

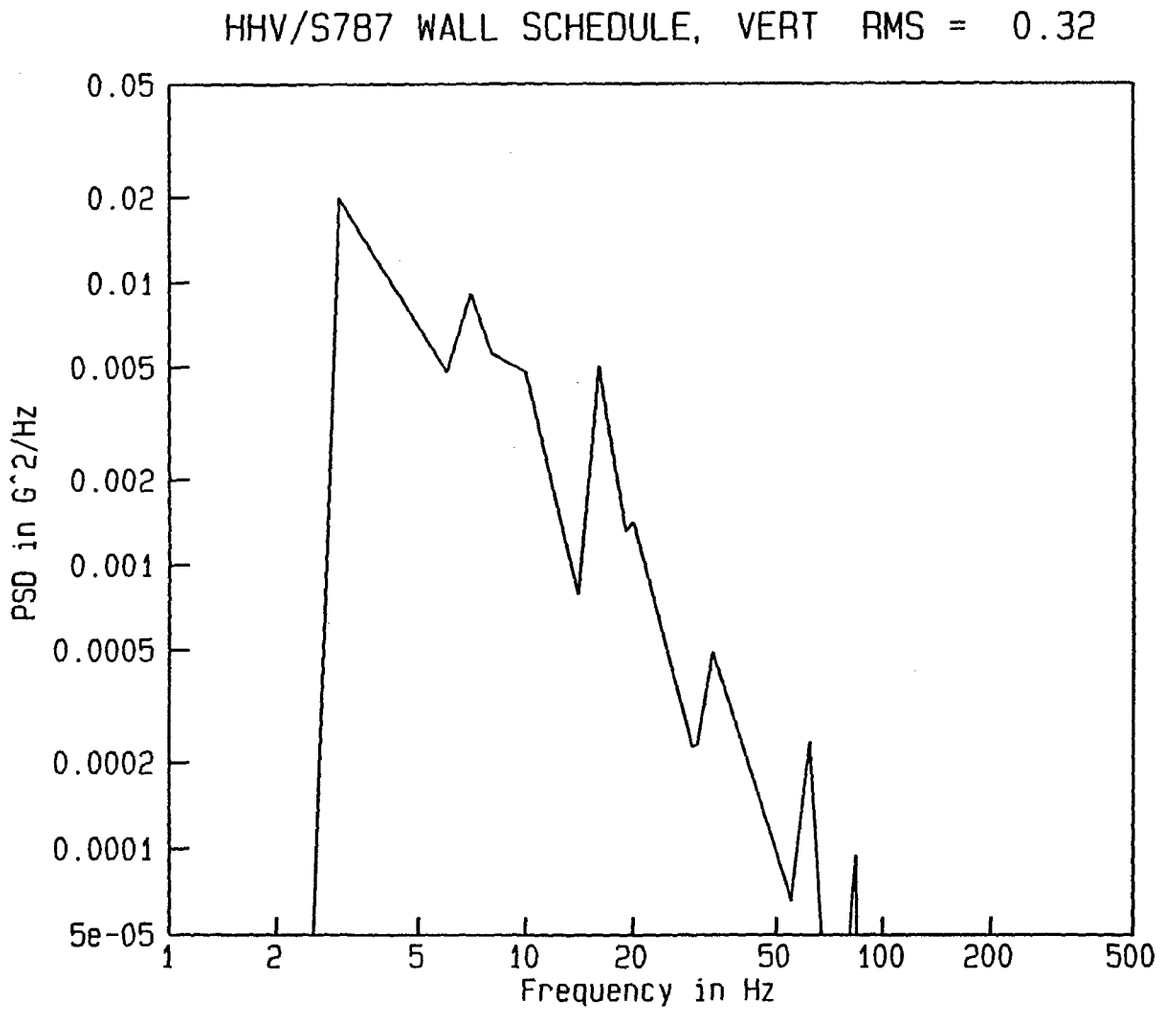


Figure B-74. Vibration schedule power spectral density function.

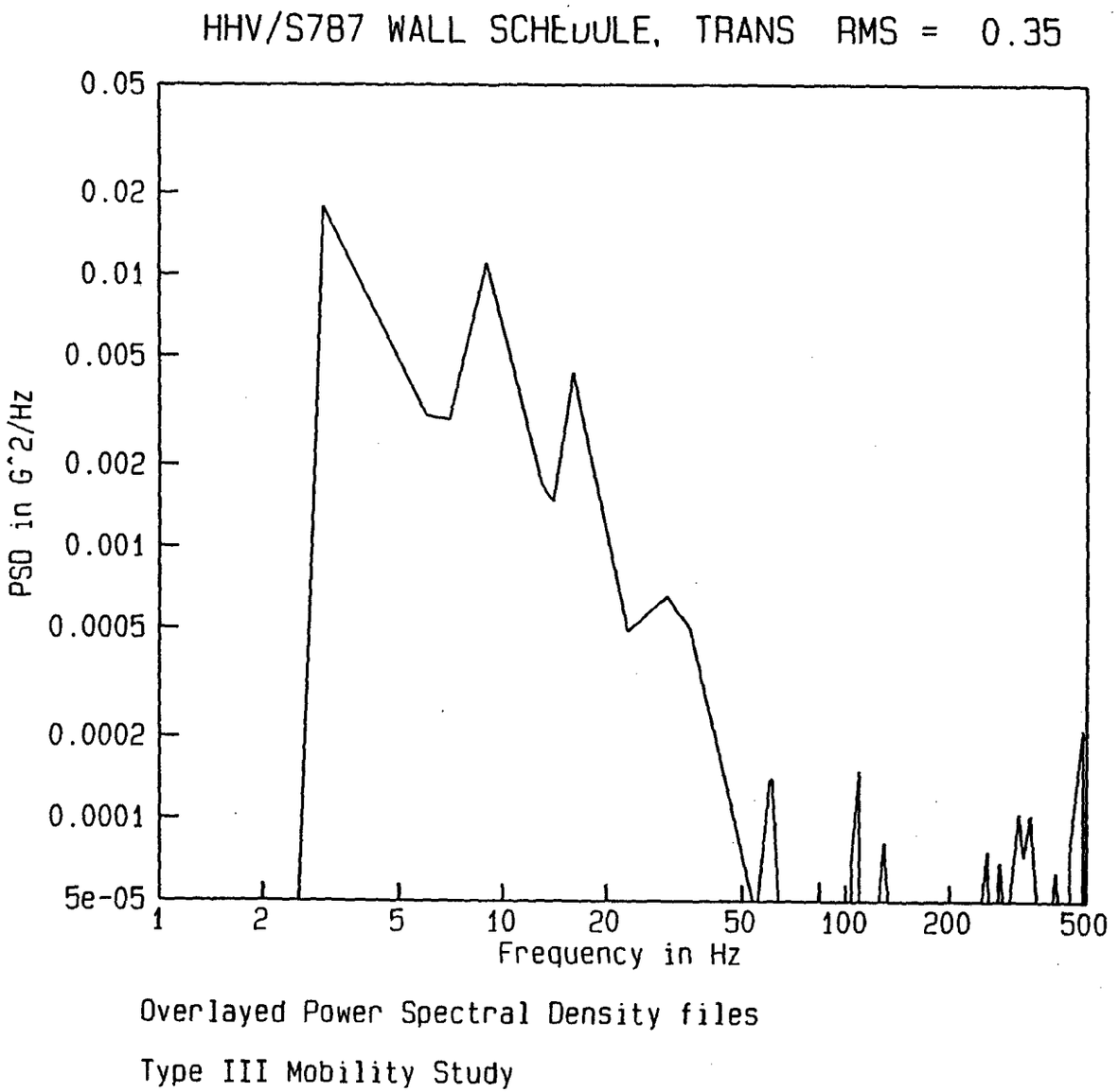


Figure B-75. Vibration schedule power spectral density function.

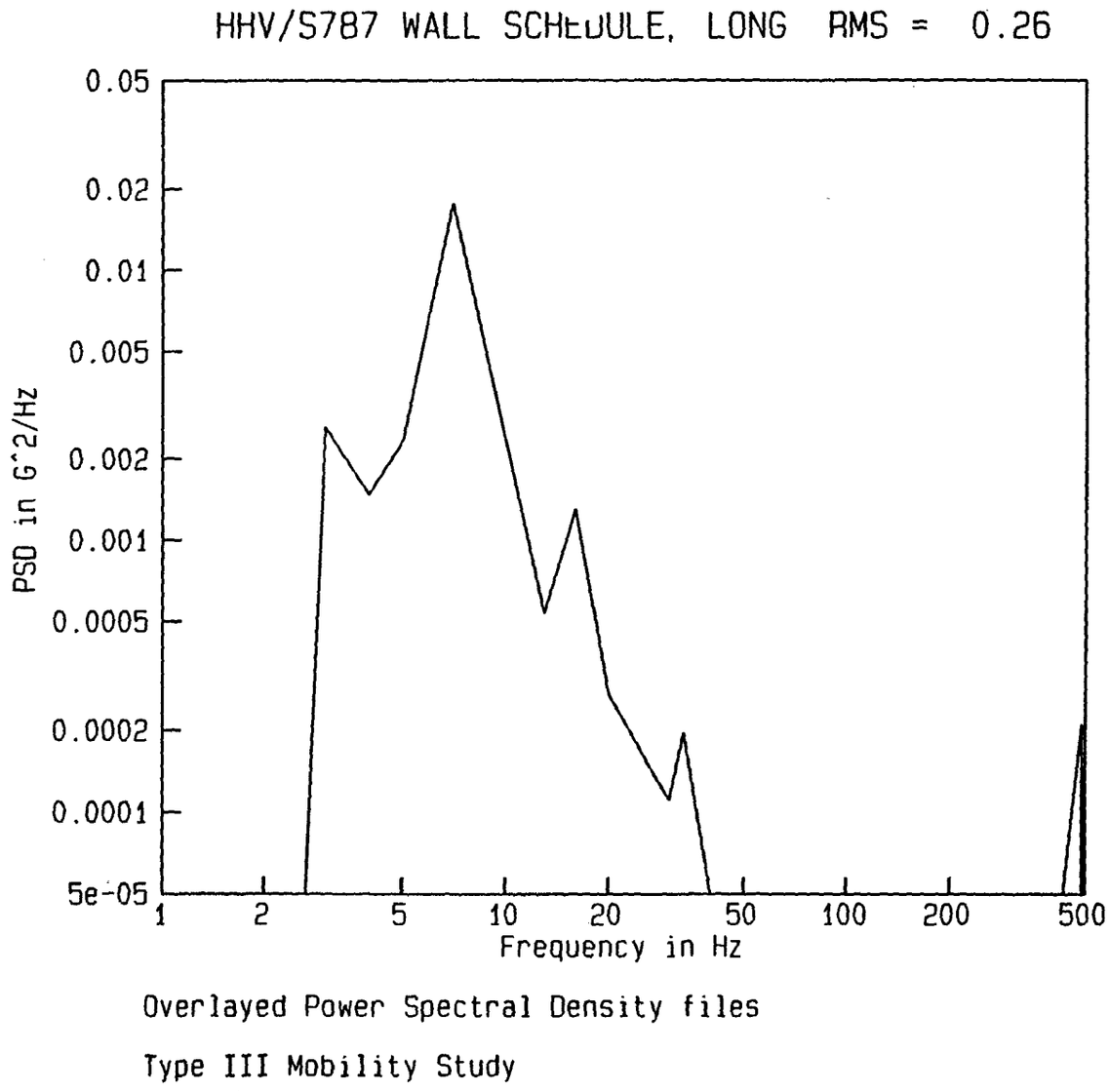


Figure B-76. Vibration schedule power spectral density function.

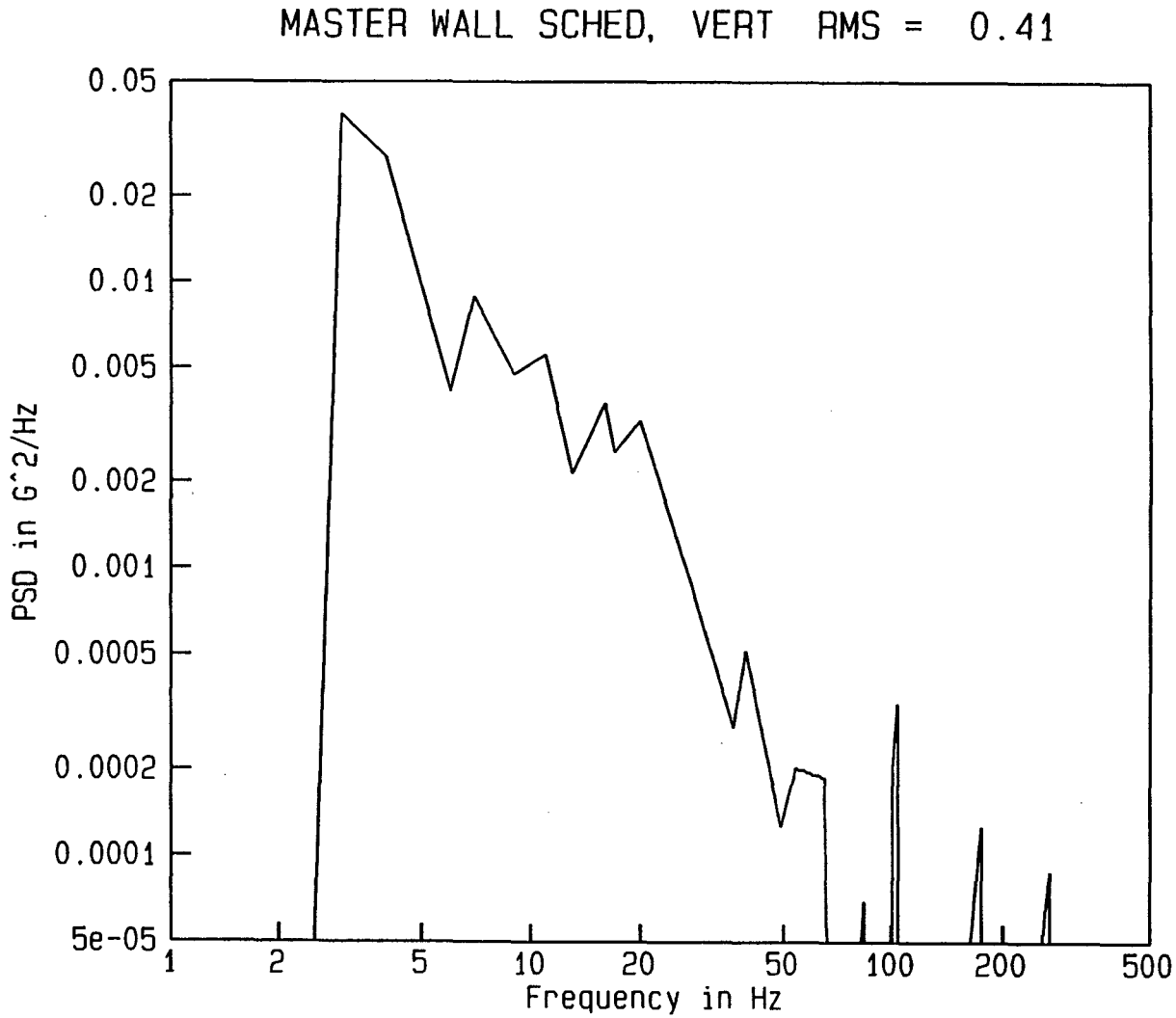


Figure B-77. Vibration schedule power spectral density function.

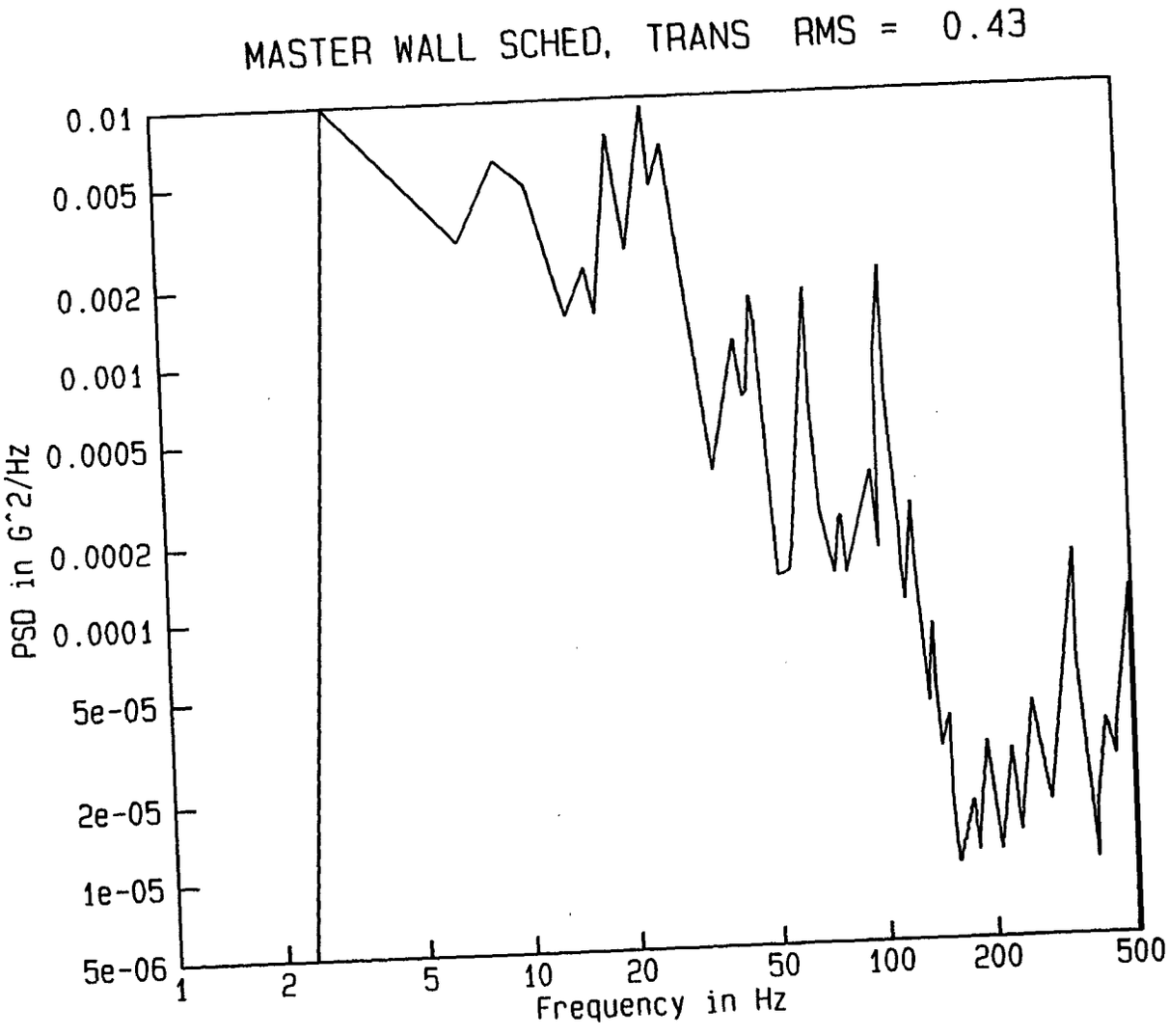


Figure B-78. Vibration schedule power spectral density function.

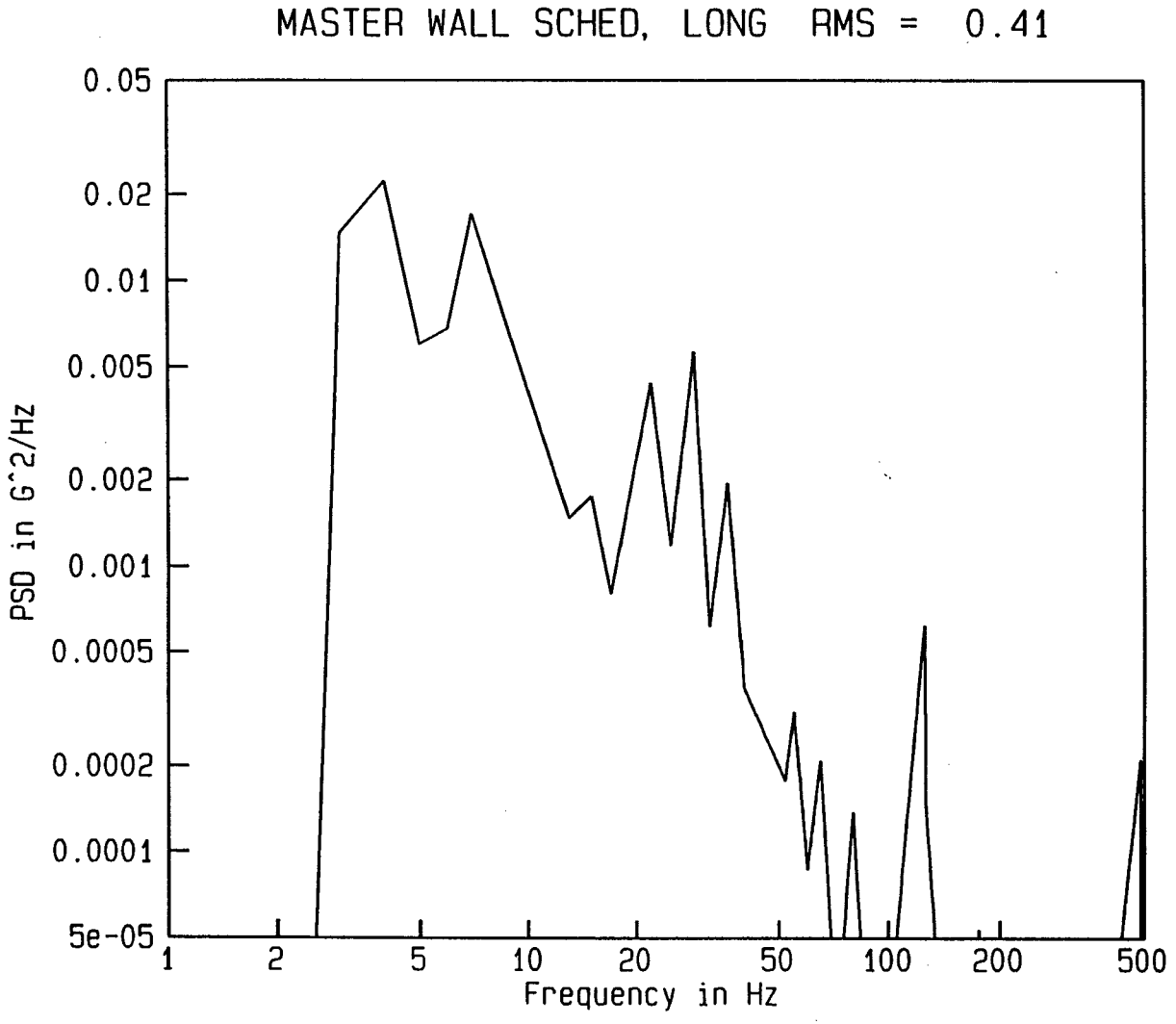


Figure B-79. Vibration schedule power spectral density function.

APPENDIX C. PULSE CODE MODULATION DATA ACQUISITION SYSTEM

Each of the transducers was connected to a Metraplex model No. 760 PCM hybrid data acquisition system populated with 760-PC2 programmable channel cards, which provided amplification, offset control, excitation, and 8-pole Butterworth low-pass filtering (roll-off rate 160 dB/decade (48 dB/octave)); transducer signals were filtered at 500 Hz (except the road speed channel, which was filtered at 50 Hz). The cut-off frequency is the nominal frequency at which the transducer response is attenuated by 3 dB. Calibration was provided by an external circuit board designed within ATC. The Metraplex also provided Pulse Code Modulation (PCM) encoding. The incoming signals were multiplexed and sampled at 2083.333 samples per second per channel by a sample-and-hold amplifier, digitized by a 12-bit successive approximation analog-to-digital converter, and converted to non-return to zero-level (NRZ-L) code for transmission. The encoded PCM data were then input to a Emhiser Research model No. EVT 11D2A103-S001 video transmitter with a center frequency of 1777 MHz. The signal conditioner and transmitter were mounted in the cab of the prime mover. A block diagram of the PCM data acquisition system is included in Figure C-1.

The transmitted NRZ-L code was received by a Scientific-Atlanta Series 930 telemetry receiver and passed to a Loral Instrumentation ADS-100 PCM decommutator.

The ADS-100 system consists of several modules. The input buffer and bit synchronizer modules recovered the serial pulse train from data link noise and disturbances. The frame synchronizer and data distributor modules demultiplexed the serial pulse train into 16-bit words. A parallel input module was used to input digital IRIG-B time code into the ADS-100. The compressor and direct memory access (DMA) modules performed data sorting and transfer to the host computer, a Concurrent Computers series 5600 minicomputer. The data were temporarily stored on the system disk and later transferred to magneto-optical disk to provide a permanent storage medium. The ADS-100 system was independent of host control; however, software residing on the minicomputer controlled the hand shaking between the ADS-100 and the minicomputer during the data acquisition. The audio alarm feature of the ADS-100 was used to provide a warning whenever the amplitude of any of the data channels exceeded 95 percent of its full-scale value (plus or minus) or whenever the frame synchronization words varied from the anticipated value.

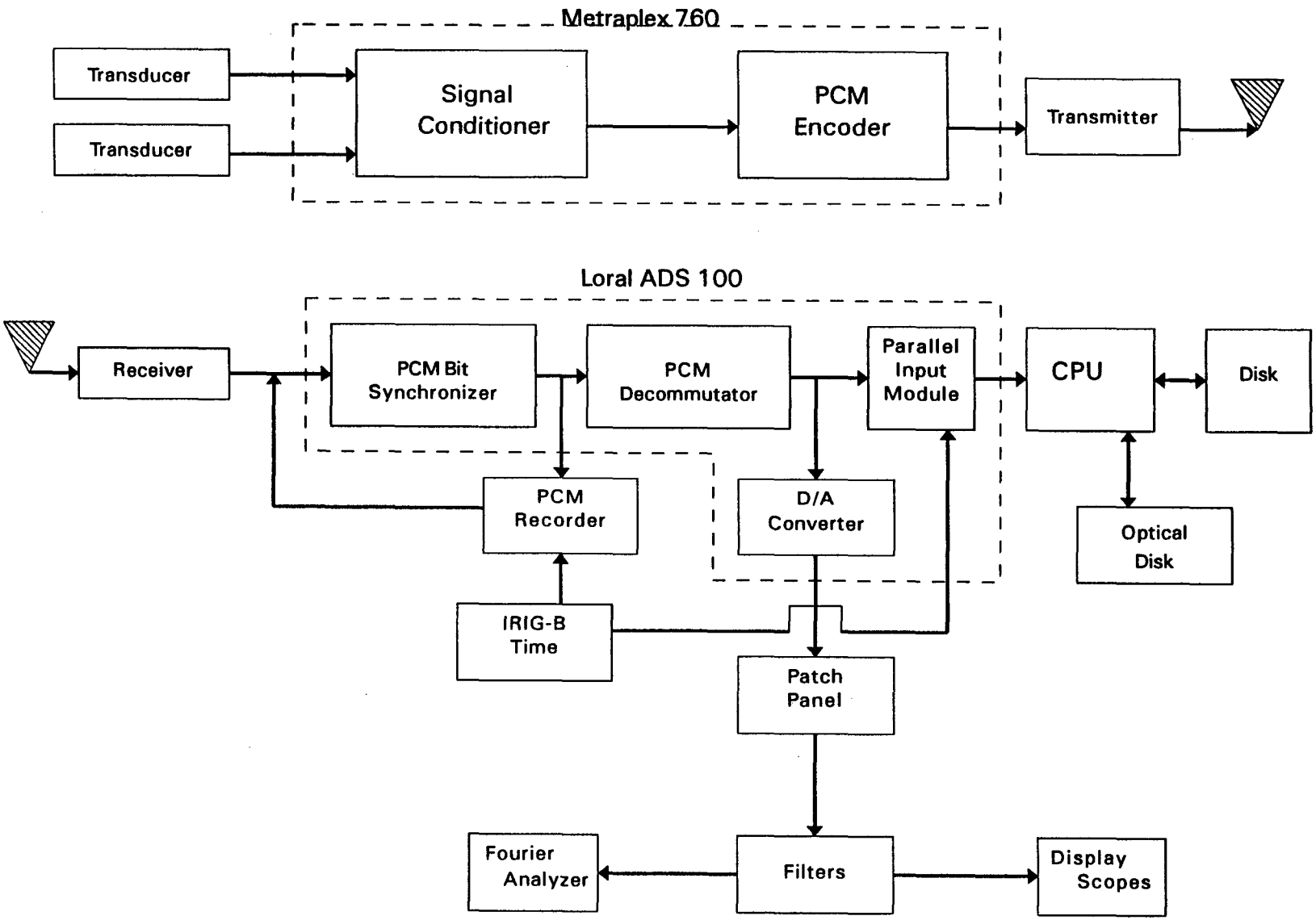


Figure C-1. Block diagram of PCM data acquisition system.

APPENDIX D. DATA VERIFICATION

Data verification was done in two stages: at the test site terminal during the acquisition process and at one of the analysis nodes during the post-test data analysis phase. The test site terminal verification process is designed to run from the computer alone (without a vector accelerator or array processor) and to function as quickly as possible to allow the acquisition process to proceed at a reasonable rate with some assurance that valid data are being collected.

The initial data verification that was performed consisted of searching the individual channels for frame errors and direct current (DC) shifts using the program *frmer*. A frame error occurs whenever the PCM stream is interrupted, which induces artificial high-level spikes into the data stream. Data approaching full-scale values, in addition to frame errors, are flagged by the frame error check program, because the program defines a frame error as being any data value which is greater than 98 percent of full scale. The same program checks the data for wild points and DC shifts. A wild point is defined as a sudden change in the value of adjacent data points. The magnitude of the change required to trigger a wild point error is operator selectable and was chosen as 150 computer counts for this project. A DC shift occurs whenever the data average changes rather abruptly and then remains constant after the change. The program defines a DC shift as a shift of more than 25 resolution steps from the previous average, with the average being based on approximately 1/6 second. A check is also made for incomplete frames of data (missing channels). These errors are obvious when plotted in the form of a time history, but the quantity of data collected is such that viewing it all as a time history is impossible. For this reason, the frame error check program is utilized, and the locations of all such errors on the system disk are printed out for a permanent record.

As a further step in the data verification process, acceleration amplitude distribution data are compiled by histogramming the data into a 512-bin field and calculating cumulative distributions using the program *amdst*. Table D-1 shows sample acceleration amplitude distribution data. The average value for each channel is removed to account for DC offsets in the instrumentation. The percentile columns represent the percentage of time the data are below (plus) or above (minus) that particular value. For example, 99.9 percent of the time, the data value for channel No. 1 was less than 1.02. The units for the accelerometer amplitude distribution data are gravitational acceleration (*g*'s).

TABLE D-1. SAMPLE AMPLITUDE DISTRIBUTION DATA

Run Number, Test Course, Speed, etc.

Channel No.	rms	+Peak	-Peak	+99.9%	-99.9%	+99%	-99%	+90%	-90%
1	0.28	1.25	-1.05	1.02	-0.71	0.68	-0.55	0.37	-0.36
2	0.31	1.32	-1.02	1.08	-0.78	0.71	-0.62	0.39	-0.42
3	0.23	1.34	-0.83	0.96	-0.65	0.66	-0.50	0.29	-0.27
4	0.22	1.22	-0.82	0.94	-0.58	0.62	-0.42	0.26	-0.26
5	0.24	1.04	-1.02	0.85	-0.64	0.59	-0.49	0.33	-0.31
6	0.36	1.50	-1.57	1.19	-0.92	0.81	-0.73	0.46	-0.46
7	0.39	1.66	-1.37	1.30	-0.97	0.86	-0.81	0.50	-0.49
8	0.21	1.27	-0.83	0.95	-0.60	0.64	-0.44	0.24	-0.24

The program which performs the amplitude distribution analysis and creates tables such as the one above performs a number of data validity tests for each channel and provides messages such as:

a. Channel inactive (rms less than 0.03 *g*).

b. Data one-sided (+peak/-peak greater than three or less than one-third).

c. Data noisy (99.9/90 percent (plus or minus) is greater than 4.82, which is twice the value for normally distributed data).

d. Large kurtosis predicted (indicative of wild points, predicts kurtosis based on ratio of the actual 99.9-percent value to the expected (Gaussian) value and triggers when the prediction is greater than five).

e. Data clipped (peak value (plus or minus) exceeds 95 percent of full-scale value).

f. Large rms value (rms greater than 3.5 *g*'s).

g. Large DC offset (average value is greater than 10 percent of full scale).

h. No data spread (lack of resolution, triggered if the 99- and 90-percent value (plus or minus) are equal or if the 99-percent range (+99 - -99 percent) covers less than 25 histogram bins).

i. Shock present in data (peak (plus or minus) greater than six times the rms value).

Although the amplitude distribution program is not foolproof, and the rules which determine data validity are somewhat arbitrary, the program provides a very useful tool for quick-look verification and analysis.

The post-test verification routines make use of the vector accelerator and are more computationally complex than the previous techniques. The test data are first checked for stationarity or time invariance using the program *statn*. Data are collected and analyzed for short periods of time wherein seasonal differences in performance and long-term vehicle degradation have no influence. Hence, a single time history record should adequately define the distribution of the data. Multiple sample records are used in all steady-state analyses under the assumption that the data are stationary. This provides a broader, more dependable sample population and statistical base for analyses such as acceleration amplitude distributions and acceleration PSDs. The test for stationarity is based on the following assumptions:

a. The data to be analyzed are not of transient nature (e.g., single mechanical shock).

b. The sample record taken will reveal the nonstationary character of the random process in question.

c. The sample record is very long relative to the lowest frequency component in the data.

d. Any nonstationarity of significance will be revealed by changes in the rms value of the data with time.

Because the objective is to measure short-term rapidly changing phenomena rather than seasonal differences or vehicle degradation, it is assumed that paragraphs a, b, and c, for this purpose, are true. Two nonparametric statistical tests called a run test and a trend test are used to check paragraph d. The run test consists of computing the rms value for a series of subrecords from the time history (e.g., 30-rms values over 1-second intervals for a 30-second record), finding the median value of the computed rms values, and counting the number of runs (crossings above and below the median value) in the set of rms values. The number of runs is then compared at the 5-percent level of significance to that for theoretical Gaussian distribution, and the hypothesis that the data are stationary is either accepted or rejected.

The trend test uses the same set of rms values and computes the number of reverse arrangements from the following:

A quantity h_{ij} is computed from:

$$h_{ij} = 1 \text{ if } rms_i > rms_j$$
$$= 0 \text{ of } rms_i \leq rms_j$$

where $i < j$ and $i = 1, 2, \ldots N-1$, $j = i+1, i+2, \ldots N$, and N is the number of rms sample values.

The number of reverse arrangements for rms_i is computed from:

$$A_i = \mathbf{SUM}_{j=i+1}^{N} h_{ij}$$

The total number of reverse arrangements for the data set is equal to:

$$ATOT = \mathbf{SUM}_{i=1}^{N-1} A_i$$

This value is then compared to an acceptance range based on the desired statistical level of significance, a, and the hypothesis of stationarity is accepted if:

$$A_{N;1-a/2} < ATOT \leq A_{N;a/2}$$

where the values of A are determined from the applicable statistical table (resident in the program) as a function of N and a.

The level of significance, a, is chosen from:

$a = 0.10$ if $N < 20$
$a = 0.05$ if $N \geq 20$ and ≤ 40
$a = 0.02$ if $N > 40$

The trend test is more powerful than the run test for detecting monotonic trends, but is not as powerful for detecting fluctuating trends. Both tests are employed to provide optimum detection of either type of trend. If a set of data fails either or both tests, the data are examined to ensure that the failure has physical significance in addition to the implied statistical significance.

Printouts list the average value, maximum absolute value, and rms value for the data in the same blocks in which the PSDs will be computed so that inconsistent blocks of data can also be deleted from the analyses. The results are also saved in a file for plotting or further analysis. The stationarity results are also useful for determining vehicle speed variation and the location in the data stream when the vehicle left the test course (for short courses).

The statistical moments, or weighted excursions about the mean, are also computed as part of the verification process using the program *skewk*. Only the first four moments are generally of interest and are described below:

$$M_1 = 1/n \text{ SUM}[xi] = x$$

$$M_2 = 1/n \text{ SUM}[(xi-x)^2]$$

$$M_3 = 1/n \text{ SUM}[(xi-x)^3]$$

$$M_4 = 1/n \text{ SUM}[(xi-x)^4]$$

The first two moments are commonly referred to as the mean and variance, while the third and fourth moments are sometimes called the skewness and kurtosis of the distribution. More often, a normalized version of the skewness and kurtosis is computed as shown below:

$$\text{Skewness} = \frac{M_3}{(M_2)^{3/2}}$$

$$\text{Kurtosis} = \frac{M_4}{(M_2)^2}$$

Since the moments described are central moments or moments about the mean, it would appear to be necessary to first compute the mean of the data set (for each channel), and then subtract this value from each of the data points while computing the moments. The number of disk reads required to first read the data to compute the mean, and then again to subtract the mean from each data point, would make the computations extremely time consuming. By considering the average value to be a constant for the data set examined, a computational technique for each of the moments which avoids computation of the mean prior to other computations was derived and is presented below:

$$M_2 = 1/n \left[\text{SUM}(x_i^2) - (\text{SUM}(x_i))^2/n\right]$$

$$M_3 = 1/n \left[\text{SUM}(x_i^3) - (3 \text{ SUM}(x_i) \text{ SUM}(x_i^2))/n + 2(\text{SUM}(x_i))^3/n^2\right]$$

$$M_4 = 1/n \left[\text{SUM}(x_i^4) - (4 \text{ SUM}(x_i) \text{ SUM}(x_i^3))/n + (6(\text{SUM}(x_i))^2 \right.$$

$$\left. \text{SUM}(x_i^2))/n^2 - 3(\text{SUM}(x_i))^4/n^3\right]$$

The computations are performed for each channel, and the channel, description, average, second moment (variance), third moment, fourth moment, standard deviation, skewness coefficient, and kurtosis coefficient are printed on the line printer. The peak value (magnitude with the average removed) and the crest factor (ratio of the peak to the rms value) are also tabulated and printed.

A normal distribution has a skewness of zero (as do all symmetric distributions) and a kurtosis of three. If the kurtosis of the data set is higher than this, it is an indication that there are considerable data out at high amplitude values. Because the kurtosis value is based on the fourth power of the distance from the mean, it is extremely sensitive to wild points, even in small quantities. This value has proven to be an effective screen against abnormal data.

The program *kurst* performed a function similar to that of *skewk*, except that the data set was the output of the program *statn*. The statistical properties of the set of rms and peak values for each data channel were computed and printed to serve as an aid to interpreting the stationarity of the data set.

APPENDIX E. VIBRATION DATA ANALYSIS

Frequency Domain Analysis

The acceleration PSD was computed by dividing the time domain data into successive blocks of data points (in this case, 2048), converting to the frequency domain using the Fast Fourier Transform (FFT), multiplying this result by its complex conjugate, and linearly accumulating (averaging) these results over the entire data run. The number of linear averages applied is dependent upon the amount of valid data available for a particular data run. For a linearly averaged process, the number of statistical degrees-of-freedom is equal to twice the number of averages used. The amount of averaging (degrees-of-freedom) determines the degree of confidence that the value measured is a true representation of the actual physical phenomena. An error band, based on the number of averages, can be computed for various confidence levels from the chi-squared/degrees-of-freedom distribution.

Although the averaging process is unaffected by the data sample rate, the rate has an enormous effect on the resolution and validity of the PSD. The data must be sampled at a rate sufficient to prevent aliasing, yet slowly enough to provide adequate frequency domain resolution. Aliasing is a misrepresentation of the nature of the data due to undersampling (sampling too slowly for the true frequency content of the data) and is corrected by low-pass filtering the data and sampling at some rate above the filter cut-off frequency. The sampling ratio (sampling rate to cut-off frequency) is dependent upon the type of filter used and knowledge of the frequency content of the data (e.g., filtering effect supplied by the transducer). A sampling ratio of 4:1 is adequate for the Butterworth filters used in the ATC signal conditioning packages with a higher value recommended if Bessel filters are used. While increasing the sample rate reduces the aliasing problem, the resolution problem is adversely affected by this action. The following time-frequency equations, based on the mathematics of the Fourier transform, describe the relationship between the sample rate and the frequency domain resolution.

$$T = BS/SR$$

$$F_{max} = SR/2$$

$$\text{delta } f = 1/T = SR/BS$$

where:

- T = Time to fill one analysis data block (N points), seconds.
- BS = Number of points in data block (2048 for this analysis).
- SR = Sample rate, sample per second.
- F_{max} = Maximum frequency which can be represented by the data, Hz.
- delta f = Frequency resolution, Hz.

When the FFT algorithm is used, an assumption is made that the time record being transformed (data block) is repeated throughout time. If the time record contains an integer number of cycles within the data block, the assumption is valid and the waveform is said to be periodic within the time record. In most cases, the data are not periodic within the record, which causes a truncation of the signal at the end of the data block. Since the assumption is one of a repeated waveform, the analysis process assumes that the truncation is repeated throughout the entire data record. The effect in the time domain is an apparent discontinuity in the representation of the data signal. In the frequency domain, the discontinuity appears as side lobes or additional frequency components and is known as leakage. A time domain truncation technique known as windowing is employed to reduce the leakage. A Hanning window was employed for this analysis.

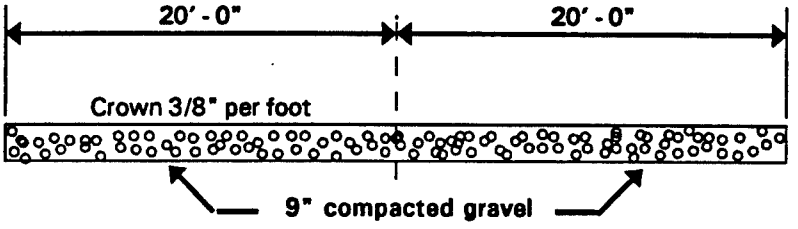
In addition to computing the linear average spectrum over the length of the data run, the program also computes the standard deviation at each spectral line and the peak value at each spectral line over the course of the run. At the conclusion of the process, the standard deviation is added to the average value, and the average, average plus standard deviation, and the peak spectra for each data channel analyzed are saved in a file for further analysis. Only the average spectra were used for this analysis.

The PSDs generated were verified by plotting them in the log-log domain. A further form of verification used the program *sigmu* to measure the spectral scatter which occurred during the averaging process. This program computes the ratio of the standard deviation to the average value at each spectral line and averages this ratio over the frequency range of interest. The average ratio is printed for each channel, and an overall average ratio (all channels) is also computed and printed. The standard deviation of the average ratios is also computed and printed, indicating the variation among channels. Individual channels which exhibit spectral scatter well beyond the norm can be easily identified and removed from further analysis, if necessary.

APPENDIX F. TEST COURSE DESCRIPTIONS

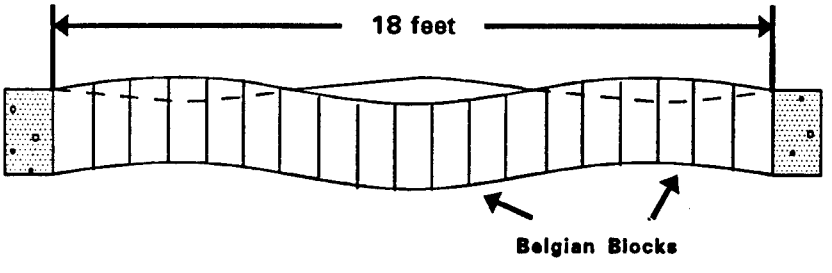
MUNSON TEST AREA

IMPROVED GRAVEL ROAD



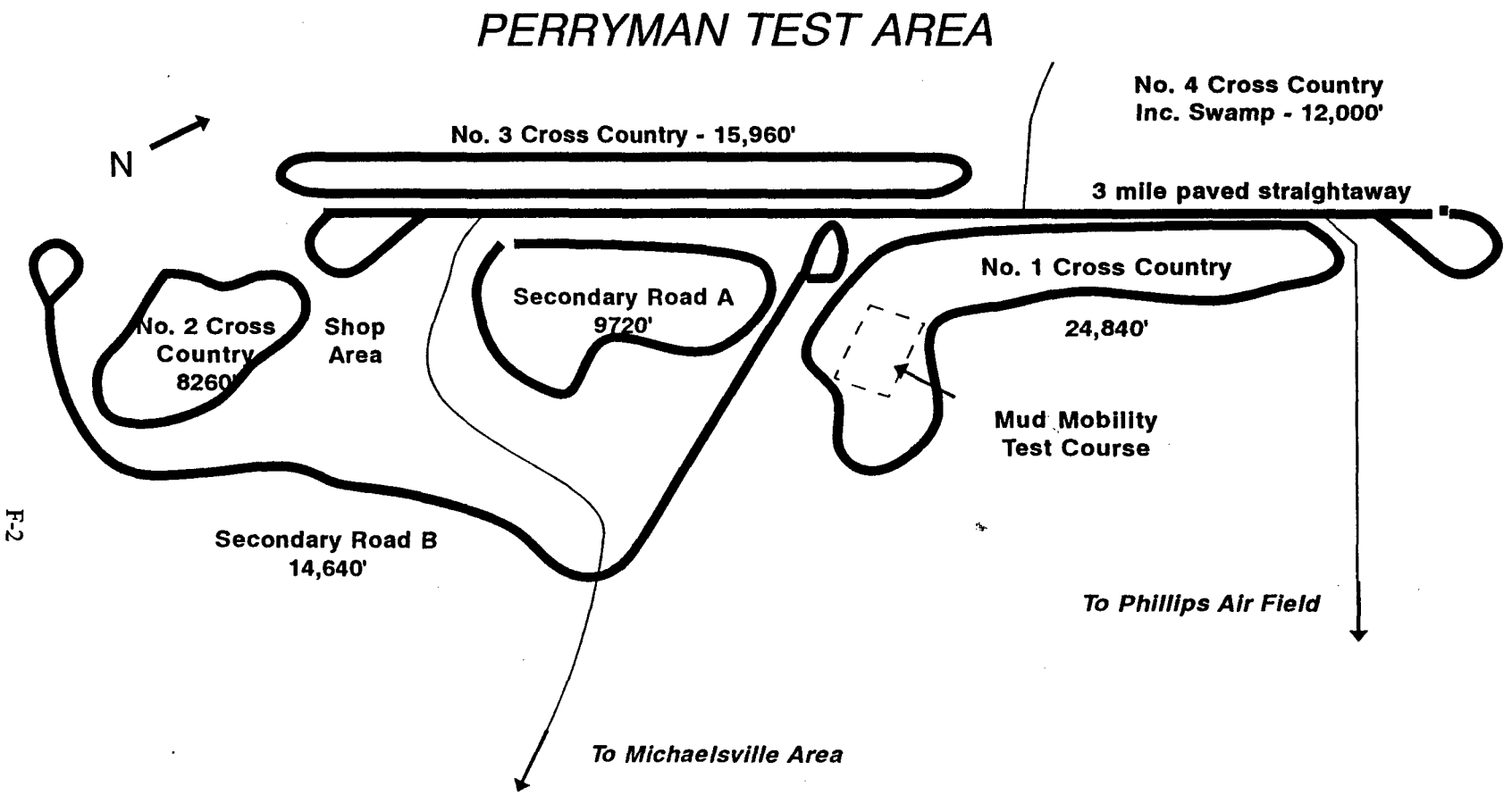
The improved gravel road is a 3.2 km (2 mi) loop with left and right curves. The surface is compacted gravel maintained by grading. The course is often used for endurance testing.

BELGIAN BLOCK COURSE



This course is a cobblestone road which provides an irregular and bumpy surface. The individual cobblestones average approximately five inches in width. The course irregularities, which not only vary along the length (3940 feet) of the course but also across its width, have crests of about three inches. The crests are such that a vehicle travelling over them is subjected to both pitching and rolling motions.

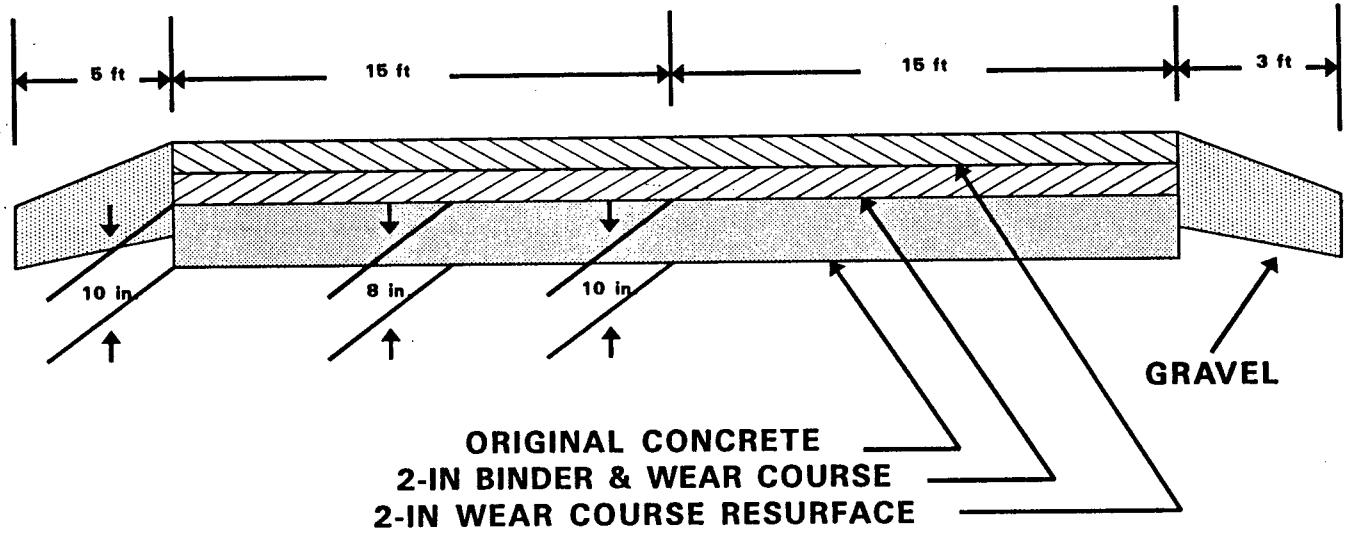
Figure F-1. Sketches of two of the Munson courses.



Straightaway - Bituminous Concrete
Cross-Country
No. 1 (Moderate) Native Soil - Dirt, Mud, Dust
No. 2 (Moderately Rough) Native Soil - Dirt, Mud, Dust with Quarry Spall
No. 3 (Rough) Native Soil - Dirt, Mud, Dust
No. 4 (Severe) Native Loam - Dirt, Mud, Dust, Natural Marsh
Secondary Roads Crushed Stone, Natural Soil

Figure F-2. Sketch showing test courses at the Perryman Test Area (PTA).

PERRYMAN THREE-MILE PAVED STRAIGHTAWAY



The paved straightaway is essentially a level road, three miles in length, with banked turn-around loops at each end. The course is used where high speed as well as tests requiring long periods of uninterrupted operation are desired.

Figure F-3. Test course cross section.

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APPENDIX G. REFERENCES

1. Memorandum, AMSTE-TA-S, 8 August 1994, subject: Test Execution Directive: Type III Mobility Vibration Profile, Various Tactical Shelters for the U.S. Air Force (USAF), Electronic Systems Center, TECOM Project No. 1-CO-210-000-029.

2. MIL-M-8090F, Mobility, Towed Aerospace Ground Equipment, General Requirements For, 1 February 1974.

3. MIL-STD-810E, Environmental Test Methods and Engineering Guidelines, 14 July 1989.

4. ITOP 1-2-601, Laboratory Vibration Schedules, 1 March 1988.

5. NATO STANAG 4370, Environmental Testing, 30 August 1996.

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APPENDIX H. ABBREVIATIONS

APG	=	Aberdeen Proving Ground
ATC	=	U.S. Army Aberdeen Test Center
CG	=	center of gravity
COV	=	coefficient of variation
CTIS	=	Central Tire Inflation System
CUCV	=	Commercial Utility Cargo Vehicle
CUCV	=	Commercial Utility Cargo Vehicle
DC	=	direct current
DMA	=	direct memory access
FFT	=	Fast Fourier Transform
HHV	=	HMMWV Heavy Variant
HMMWV	=	High-Mobility Multipurpose Wheeled Vehicle
ISO	=	International Standards Organization
ITOP	=	International Test Operating Procedure
MTA	=	Munson Test Area
NATO	=	North Atlantic Treaty Organization
NRZ-L	=	non-return to zero-level
NSN	=	National Stock Number
PCM	=	pulse code modulation
PSD	=	power spectral density
PTA	=	Perryman Test Area
rms	=	root mean square
SN	=	serial number
STANAG	=	Standardization Agreement
TECOM	=	U.S. Army Test and Evaluation Command

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