



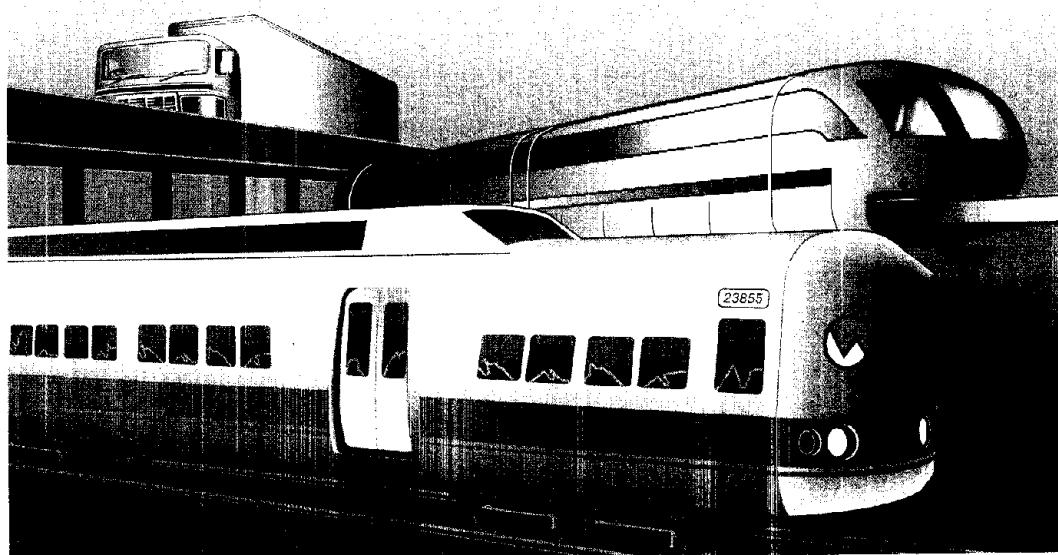
PB94-102480



U. S. Department
of Transportation
Federal Railroad
Administration

Safety of High Speed Guided Ground Transportation Systems

Office of Research
and Development
Washington, D.C. 20590



DOT/FRA/ORD-93/04.II
DOT-VNTSC-FRA-93-8.II

Final Report
June 1993

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REPORT DOCUMENTATION PAGE

*Form Approved
OMB No. 0704-0188*

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.

1. 	2. REPORT DATE June 1993	3. REPORT TYPE AND DATES COVERED Final Report September 1992 - March 1993
4. TITLE AND SUBTITLE Safety of High Speed Guided Ground Transportation Systems: Magnetic and Electric Field Testing of the Washington Metropolitan Transit (WMATA) System Volume II - Appendices		5. FUNDING NUMBERS R3010/RR393
6. AUTHOR(S) William L. Jacobs, Fred M. Dietrich *		
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Electric Research and Management, Inc. P.O. Box 165 State College, PA 16804		8. PERFORMING ORGANIZATION REPORT NUMBER DOT-VNTSC-FRA-93-8.II
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) U.S. Department of Transportation Federal Railroad Administration Office of Research and Development Washington, D.C. 20590		10. SPONSORING/MONITORING AGENCY REPORT NUMBER DOT/FRA/ORD-93/04.II
11. SUPPLEMENTARY NOTES U.S. Department of Transportation Research and Special Programs Administration * Under contract to: John A. Volpe National Transportation Systems Center Kendall Square, Cambridge, MA 02142		
12a. DISTRIBUTION/AVAILABILITY STATEMENT This document is available to the public through the National Technical Information Service, Springfield, VA 22161		12b. DISTRIBUTION CODE
13. ABSTRACT (Maximum 200 words) The safety of magnetically levitated (maglev) and high speed rail (HSR) trains proposed for application in the United States is the responsibility of the Federal Railroad Administration (FRA). Plans for near future US applications include maglev technology (e.g. in Orlando, FL and Pittsburgh, PA) and high speed rail (e.g. the French Train a Grande Vitesse (TGV) in the Texas Triangle, between Dallas-Fort Worth, Houston and San Antonio, and along five designated high speed corridors). Concerns exist regarding the potential safety, environmental and health effects on the public and on transportation workers due to electrification along new or existing rail corridors, and to maglev and high speed rail operations. Therefore, the characterization of electric and magnetic fields (EMF) produced by both steady (dc) and alternating currents (ac) at power frequency (50 Hz in Europe and 60 Hz in the U.S.) and above, in the Extreme Low Frequency (ELF) range (3-3000 Hz) is of interest. An EMF survey of the Washington Metrorail (WMATA) transit system was performed, as part of a comprehensive comparative EMF safety assessment of the German Transrapid (TR-07) maglev system with other existing and advanced rail systems. This report provides the Analysis (Vol. I) of results, and detailed data and statistical summaries (Vol. II, Appendices) of representative EMF profiles on vehicles and facilities typical of this transit electrotechnology (third rail dc). EMF data represent a range of train operating conditions and locations (in vehicles, stations and waysides), as well as in traffic control and electrical power supply facilities. A portable magnetic field monitoring system (augmented to include an electric fields probe) was used to sample, record and store 3 axis static and ac magnetic fields waveforms simultaneously, at multiple locations. A real time Digital Audio Tape (DAT) recorder able to capture EMF transients, and two personal power-frequency magnetic field monitors were used to collect complementary data. The statistical and Fourier analysis of results enable a comparative characterization of EMF intensities, and spatial and temporal variability, by frequency band, and by distance from the source. While dc fields recorded at some locations are above the normal range, EMF ELF levels for WMATA are comparable to those produced by common environmental sources at home, work, and under power lines, but have specific frequency signatures, and are more variable in time.		
14. SUBJECT TERMS Electric and Magnetic Fields (EMF); Static (dc) Magnetic Field; Alternating Field (ac); Extremely Low Frequency (ELF); Washington Metropolitan Area Transit Authority (WMATA); Rapid Rail Transit; Transit; Third Rail; Traffic Control Center; Passenger Stations; Power Substations; Power Frequency (PF); Harmonics; Transients; Fourier Analysis; EMDEX Personal Magnetic Field Exposure Monitor; Digital Audio Tape (DAT) Recorder; MultiWave Magnetic Field Recording System.		15. NUMBER OF PAGES 546
16. PRICE CODE		
17. SECURITY CLASSIFICATION OF REPORT Unclassified	18. SECURITY CLASSIFICATION OF THIS PAGE Unclassified	19. SECURITY CLASSIFICATION OF ABSTRACT Unclassified
20. LIMITATION OF ABSTRACT		

NSN 7540-01-280-5500

Standard Form 298 (Rev. 2-89)
Prescribed by ANSI Std. Z39-18
298-102

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1 foot (ft)	= 30.5 centimeters (cm)	= 0.305 meters (m)
1 yard (yd)	= 91.4 centimeters (cm)	= 0.914 meters (m)
1 mile (mi)	= 1.61 kilometers (km)	= 1,610 meters (m)

ELECTRICAL QUANTITIES:

Electric Fields

1 Volt/meter (V/m)	= 0.01 Volts/centimeter (V/cm)
1 kiloVolt/meter (kV/m)	= 1000 Volts/meter (V/m)
1 kiloVolt/meter (kV/m)	= 10 Volts/centimeter (V/cm)

Magnetic Flux Densities (English-to-SI Conversion)

10,000 Gauss (G)	= 1 Tesla (T)
10 milliGauss (mG)	= 1 microTesla (μ T)
1 milliGauss (mG)	= .1 microTesla (μ T)
0.01 milliGauss (mG)	= 1 nanoTesla (nT)

Electromagnetic Frequency Bands

1 cycle per second	= 1 Hertz (Hz)
1,000 cycles per second	= 1 kiloHertz (kHz)

Ultra Low Frequency (ULF) Band	= 0 Hz to 3 Hz
Extreme Low Frequency (ELF) Band	= 3 Hz to 3 kHz
Very Low Frequency (VLF) Band	= 3 kHz to 30 kHz
Low Frequency (LF) Band	= 30 kHz to 300 kHz

PREFACE

The Federal Railroad Administration (FRA) has undertaken a series of studies to facilitate the introduction of advanced high speed guided ground transportation (HSGGT) technology to the U.S., including both magnetic levitation (maglev) and steel wheel on rail high speed alternatives, such as the French Train a Grande Vitesse (TGV), the Swedish Tilt Train (X2000), or the German Intercity Express (ICE). HSGGT technology options can be expected to undergo detailed public scrutiny and environmental assessment in order to convincingly establish their safety.

Timely development of technical information required for rulemaking initiatives is needed to ensure the public safety. An emerging concern related to environmental, workers', and to public health and safety is that of potentially adverse health effects of extra-low frequency (ELF) electric and magnetic fields (EMF) commonly associated with power transmission and distribution lines. Magnetic fields are of greater concern than electric fields, because they are pervasive, penetrate biological tissues without attenuation, and are more difficult to shield. Although no federal standards and guidelines on EMF/ELF exposure of workers and the public exist at present, international, state and professional associations have issued interim guidelines.

To enable informed assessments and comparisons to be made amongst emerging and existing technologies, a thorough EMF characterization (frequency, intensity, spatial and temporal variability, source analysis) of all representative existing and advanced electrical transportation systems is needed. This report is one of a comprehensive series of studies and reports addressing the ELF EMF safety issues for candidate HSGGT technologies and systems.

Electric Research and Management, Inc. (ERM) was engaged to measure, characterize and analyze the EMF for representative existing and advanced rail and transit systems.

This report presents data on both static (dc) and alternating (ac) magnetic fields and on ac electric fields obtained on the Washington Metropolitan Area Transit Authority (WMATA) system. Volume I, Analysis presents a summary of representative EMF data on transit system vehicles and facilities, over a full range of operating conditions, as well as their variability in time, space and frequency. A comparison of transit system magnetic field strengths with power frequency EMF produced by home appliances and common electric power distribution and transmission lines is also provided. Volume II, Appendices contains detailed EMF data files arranged by location, time, and frequency range, as well as statistics.

This report was prepared by a team of ERM personnel designated as authors for each volume, led by Fred M. Dietrich, Program Manager and William E. Feero, President. The technical monitor for this task and for the entire series of reports characterizing ELF and EMF for rail technologies was Dr. Aviva Brecher of the DOT/RSPA John A. Volpe National Transportation Systems Center (Volpe Center) who manages the FRA's EMF Research Program. Guidance and program support was provided by Robert Dorer, the HSGGT Safety Program Manager at the Volpe Center. Professor Ross Holmstrom of University of Massachusetts and Volpe Center assisted both in planning the measurements and reviewing the results. Arne Bang, Senior Manager of Special Programs and the FRA sponsor for this work is thanked for overall direction and oversight.

Mr. Ronald D. Kangas and Jeffrey G. Mora from the Federal Transit Administration's Office of Technical Assistance and Safety provided technical advice and review comments. Valuable assistance with the measurements and logistics, as well as review comments on the draft report were provided by Mr. Joseph F. Krempasky, Vehicle Engineering, Department of Rail Service at WMATA.

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APPENDIX A

DESCRIPTION OF APPENDED DATA

The following 51 appendices contain a detailed reporting of the magnetic field characteristics measured onboard the WMATA Metrorail and near associated facilities. The data have been consolidated and presented as efficiently as possible without resorting to summary measures which obscure the temporal or frequency characteristics of the magnetic fields. The analysis of summary data obtained by collapsing the frequency spectra into a small number of relatively broad bands or by collapsing the time distributions into statistical parameters is found in the body of the report.

One appendix is provided for each of the 51 repetitive waveform datasets collected during the May 19 and 20, 1992 measurement program. Table A-1 provides a list of the datasets and the relevant parameters, and the appendix where each dataset may be found. Appendices may contain the following material:

- Table of measurement parameters
- Field by frequency and time plots for each field sensor
- Field by distance and time plot for six frequency bands
- Summary statistics

Each of these items is described below.

Table of Measurement Parameters

Each appendix begins with a table of measurement parameters. It identifies the dataset by number and title and gives measurement setup code which refers to the sensor staff and reference probe locations on the appropriate sketch of the measurement setup. (Copies of the setup sketches are included in this appendix as Figures A-1 through A-8.) The vehicle status entry indicates whether the trains were operating during the test and includes general comments on the mode of operation.

The next group of data on the table of measurement parameters identifies the time during which repetitive waveform measurements were made. Start and stop time are merely clock times for the first and last waveform samples, respectively. During that time period, the indicated number of waveform samples were taken. The programmed sample interval and actual sample interval represent the requested and actual time between successive waveform samples. These should agree. However, during the tests, the test engineers wanted the waveform capture system to sample as frequently as possible. In this mode, samples are sometimes delayed if the system is automatically adjusting its programmable amplifiers in response to a sudden change in field intensity.

TABLE A-1.

INDEX OF REPETITIVE WAVEFORM DATA WMATA METRORAIL
May 19 - May 20, 1992

DATA FILE NUMBER	APPENDIX CONTAINING DATA	DATE/ TIME	PROBE LOCATION FIG. STAFF REF.	SAMPLE INTERVAL, SECONDS	NUMBER OF SAMPLES	LOCATION AND TYPE OF MEASUREMENT
METO01	B	08:25-08:29	3-1	1 -	5	18 CENTER OF AISLE IN CENTER OF CAR #1173 ON RED LINE. STAFF IN VERTICAL POSITION.
METO02	C	08:32-08:35	3-1	5 10	5	14 CENTER OF AISLE AT REAR OF CAR #1173 ON RED LINE. STAFF IN VERTICAL POSITION.
METO03	D	08:36-08:40	3-1	8 10,11	5	27 IN FRONT OF OPERATOR'S SEAT AT REAR OF CAR #1173 ON RED LINE. STAFF IN VERTICAL POSITION.
METO04	E	10:00-10:00	3-1	1 -	5	2 CENTER OF AISLE IN CENTER OF CAR #3012 ON RED LINE. STAFF IN VERTICAL POSITION.
METO06	F	10:04-10:05	3-1	1 9	5	10 SAME POSITION AS METO04.
METO07	G	10:07-10:09	3-1	1 9	5	12 SAME POSITION AS METO04.
METO08	H	10:12-10:15	3-1	5 11	5	16 CENTER OF AISLE AT REAR OF CAR #3012 ON RED LINE. STAFF IN VERTICAL POSITION.

TABLE A-1.

INDEX OF REPETITIVE WAVEFORM DATA WMATA METRORAIL
May 19 - May 20, 1992 (CONT'D)

DATA FILE NUMBER	APPENDIX CONTAINING DATA	DATE/ TIME	PROBE LOCATION FIG. STAFF REF.	SAMPLE INTERVAL, SECONDS	NUMBER OF SAMPLES	LOCATION AND TYPE OF MEASUREMENT
METO09	I	10:16-10:18	3-1 8	11	5	10 IN FRONT OF OPERATOR'S SEAT AT REAR OF CAR #3012 ON RED LINE. STAFF IN VERTICAL POSITION.
METO10	J	10:18-10:20	3-1 6	10	5	13 REAR OF CAR #3012 ON RED LINE. STAFF IN HORIZONTAL POSITION ALONG THE AXIS OF THE CAR WITH THE REAR DOOR AS THE REFERENCE.
METO11	K	10:21-10:22	3-1 7	10	5	10 REAR OF CAR #3012 ON RED LINE. STAFF IN HORIZONTAL POSITION TRANSVERSE TO THE AXIS OF THE CAR WITH CENTER OF AISLE AS THE REFERENCE.
METO12	L	10:34-10:35	3-1 3	-	5	9 CENTER OF CAR #3090 ON RED LINE. STAFF IN HORIZONTAL POSITION TRANSVERSE TO THE AXIS OF THE CAR WITH CENTER OF AISLE AS THE REFERENCE.
METO13	M	10:35-10:38	3-1 2	-	5	18 CENTER OF CAR #3090 ON RED LINE. STAFF IN HORIZONTAL POSITION ALONG THE AXIS OF THE CAR WITH THE CENTER OF THE CAR AS THE REFERENCE.
METO14	N	10:39-10:40	3-1 4	-	5	6 NEAR DOORS AT LEFT CENTER OF CAR #3090 ON RED LINE. STAFF IN VERTICAL POSITION.

TABLE A-1.

INDEX OF REPETITIVE WAVEFORM DATA WMATA METRORAIL
May 19 - May 20, 1992 (CONT'D)

DATA FILE NUMBER	APPENDIX CONTAINING DATA	DATE/ TIME	PROBE LOCATION FIG. STAFF REF.	SAMPLE INTERVAL, SECONDS	NUMBER OF SAMPLES	LOCATION AND TYPE OF MEASUREMENT
MET015	O	10:56-10:57	6-1 16	17	5	11 ON DEPARTING END OF NORTH BOUND SIDE OF GROSVENOR STATION PLATFORM AT SAFETY LINE. STAFF IN VERTICAL POSITION.
MET017	P	11:00-11:02	6-1 18	19	5	23 ON ARRIVING END OF SOUTH BOUND SIDE OF GROSVENOR STATION PLATFORM AT SAFETY LINE. STAFF IN VERTICAL POSITION.
MET018	Q	11:05-11:08	6-1 20	17	5	34 ON ARRIVING END OF GROSVENOR STATION PLATFORM AT SAFETY LINE. STAFF IN HORIZONTAL POSITION 1 m (3.3 ft) ABOVE PLATFORM WITH SAFETY LINE AS REFERENCE.
MET019	R	11:10-11:11	6-1 21	-	5	6 AT GROSVENOR STATION, BOTTOM OF ESCALATOR. STAFF IN VERTICAL POSITION.
MET021	S	11:16-11:17	6-1 22, 23	-	5	13 AT GROSVENOR STATION, UP AND DOWN THE ESCALATOR. STAFF IN VERTICAL POSITION WITH ESCALATOR STEP AS REFERENCE.
MET022	T	11:20-11:21	6-1 24	25	5	11 CENTER OF GROSVENOR STATION PLATFORM AT SAFETY LINE. STAFF IN VERTICAL POSITION.
MET024	U	11:24-11:25	6-1 24	25	5	10 SAME AS MET022.

TABLE A-1.

INDEX OF REPETITIVE WAVEFORM DATA WMATA METRORAIL
May 19 - May 20, 1992 (CONT'D)

DATA FILE NUMBER	APPENDIX CONTAINING DATA	DATE / TIME	PROBE LOCATION FIG. STAFF REF.	SAMPLE INTERVAL, SECONDS	NUMBER OF SAMPLES	LOCATION AND TYPE OF MEASUREMENT
METO25	V	11:27-11:31	6-1 26 27	5	41	CENTER OF GROSVENOR STATION PLATFORM. STAFF IN HORIZONTAL POSITION WITH SAFETY LINE AS REFERENCE.
METO26	W	15:31-15:33	3-1 8	-	5	9
METO27	X	15:34-15:35	3-1 5	-	5	11
METO28	Y	15:38-15:41	3-1 1	-	5	24
METO29	Z	15:41-15:42	3-1 2	-	5	7
METO30	AA	15:43-15:43	3-1 3	-	5	4
METO31	AB	15:49-15:51	6-2 28	-	5	26
						ON SOUTH BOUND SIDE OF GALLERY PLACE GREEN/YELLOW LINE PLATFORM. STAFF IN VERTICAL POSITION AT PLATFORM EDGE.

TABLE A-1.

INDEX OF REPETITIVE WAVEFORM DATA WMATA METRORAIL
May 19 - May 20, 1992 (CONT'D)

DATA FILE NUMBER	APPENDIX CONTAINING DATA	DATE/ TIME	PROBE LOCATION FIG. STAFF REF.	SAMPLE INTERVAL, SECONDS	NUMBER OF SAMPLES	LOCATION AND TYPE OF MEASUREMENT
METO32	AC	15:52-15:53	6-2 30 -	5	15	ON SOUTH BOUND SIDE OF GALLERY PLACE GREEN/YELLOW LINE PLATFORM. STAFF IN HORIZONTAL POSITION WITH EDGE OF PLATFORM AS THE REFERENCE.
METO33	AD	15:56-15:58	6-2 31 -	5	11	ON NORTH BOUND SIDE OF GALLERY PLACE GREEN/YELLOW LINE PLATFORM. STAFF IN VERTICAL POSITION AT PLATFORM EDGE.
METO34	AE	15:59-16:01	6-2 33 -	5	16	ON NORTH BOUND SIDE OF GALLERY PLACE GREEN/YELLOW LINE PLATFORM. STAFF IN HORIZONTAL POSITION WITH EDGE OF PLATFORM AS THE REFERENCE.
METO35	AF	16:05-16:05	6-2 34 -	5	4	ON MEZZANINE AT GALLERY PLACE STATION. STAFF IN VERTICAL POSITION DIRECTLY OVER CENTER GREEN/YELLOW LINE TRACK.
METO37	AG	16:11-16:13	6-2 35 -	5	18	SAME AS METO35.
		MAY 20				
METO38	AH	08:39-08:42	7-1 36 -	5	38	TRACTION POWER SUPPLY STATION SOUTH OF SHADY GROVE. STAFF IN HORIZONTAL POSITION 1 m (3.3 ft) ABOVE GROUND WITH NORTH WALL AS THE REFERENCE.

TABLE A-1.

INDEX OF REPETITIVE WAVEFORM DATA WMATA METRORAIL
May 19 - May 20, 1992 (CONT'D)

DATA FILE NUMBER	APPENDIX CONTAINING DATA	DATE / TIME	PROBE LOCATION FIG. STAFF REF.	SAMPLE INTERVAL, SECONDS	NUMBER OF SAMPLES	LOCATION AND TYPE OF MEASUREMENT
METO39	AI	08:44-08:48	7-1 38 -	5	38	TRACTION POWER SUPPLY STATION SOUTH OF SHADY GROVE. STAFF IN HORIZONTAL POSITION 1 m (3.3 ft) ABOVE GROUND WITH WEST WALL AS THE REFERENCE.
METO40	AJ	08:50-08:56	7-1 40 -	5	62	SAME AS METO39.
METO41	AK	08:59-09:02	7-1 42 -	5	39	SAME AS METO39.
METO42	AL	09:05-09:09	7-1 44 -	5	37	TRACTION POWER SUPPLY STATION SOUTH OF SHADY GROVE. STAFF IN HORIZONTAL POSITION 1 m (3.3 ft) ABOVE GROUND WITH SOUTH WALL AS THE REFERENCE.
METO43	AM	09:42-09:45	7-2 46 -	5	38	SHADY GROVE TRACTION POWER SUPPLY STATION. STAFF IN HORIZONTAL POSITION WITH SOUTH EDGE OF FENCE AS THE REFERENCE.
METO44	AN	09:53-09:57	7-2 48 -	5	38	SHADY GROVE TRACTION POWER SUPPLY STATION. STAFF IN HORIZONTAL POSITION WITH SOUTH WALL OF BRICK BUILDING AS THE REFERENCE.
METO45	AO	10:01-10:05	7-2 50 -	5	43	SHADY GROVE TRACTION POWER SUPPLY STATION. STAFF IN HORIZONTAL POSITION WITH WEST WALL OF BRICK BUILDING AS THE REFERENCE.

TABLE A-1.

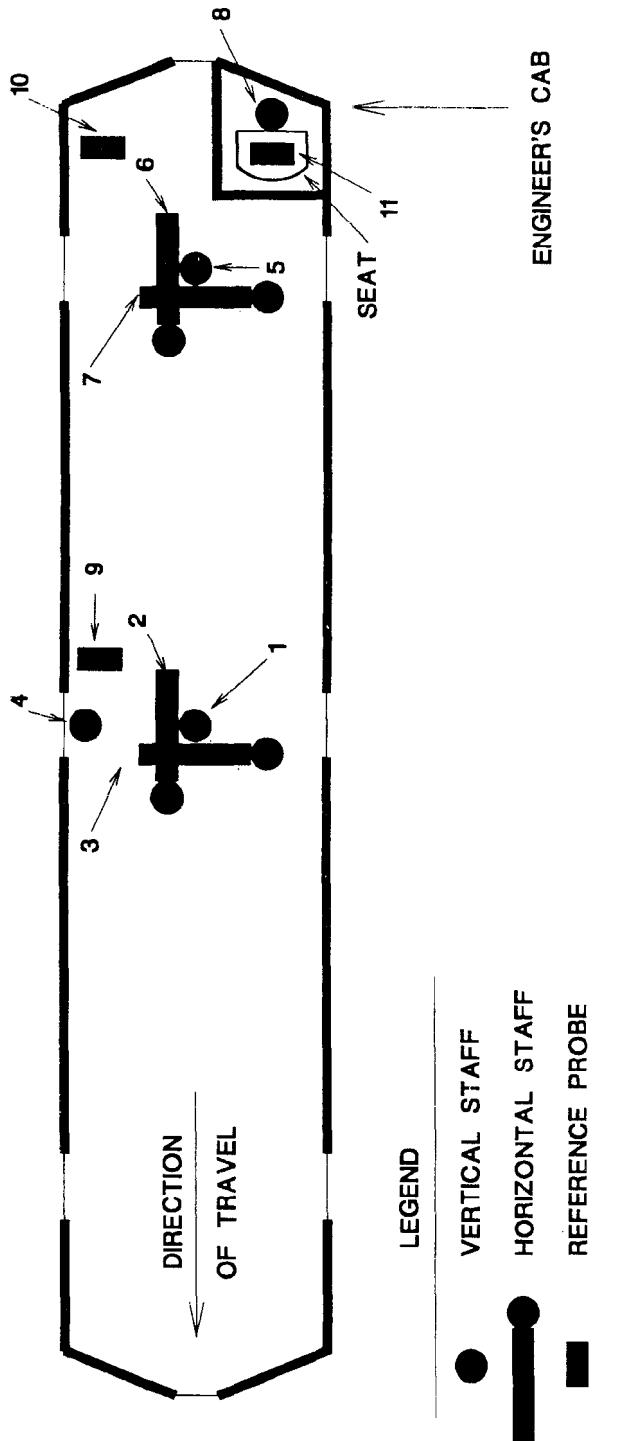
INDEX OF REPETITIVE WAVEFORM DATA WMATA METRORAIL
May 19 - May 20, 1992 (CONT'D)

DATA FILE NUMBER	APPENDIX CONTAINING DATA	DATE/ TIME	PROBE LOCATION FIG. STAFF REF.	SAMPLE INTERVAL, SECONDS	NUMBER OF SAMPLES	LOCATION AND TYPE OF MEASUREMENT
METO46	AP	11:11-11:12	8-1 52	-	5	19 IN THE DISPATCHER'S ROOM AT SHADY GROVE. STAFF IN VERTICAL POSITION AT DISPATCHER'S CHAIR.
METO47	AQ	11:13-11:15	8-1 53	-	5	19 IN THE DISPATCHER'S ROOM AT SHADY GROVE. STAFF IN HORIZONTAL POSITION 1.25 m (4.1 ft) ABOVE FLOOR WITH MONITORS AS THE REFERENCE.
METO48	AR	11:15-11:17	8-1 54	-	5	18 IN THE DISPATCHER'S ROOM AT SHADY GROVE. STAFF IN HORIZONTAL POSITION 1.25 m (4.1 ft) ABOVE FLOOR WITH MOCK-UP PANEL AS THE REFERENCE.
METO49	AS	12:05-12:07	3-1 1	-	5	34 CENTER OF AISLE IN CENTER OF A 3000 SERIES CAR ON RED LINE FROM ROCKVILLE. STAFF IN VERTICAL POSITION.
METO50	AT	12:08-12:08	3-1 2	-	5	11 CENTER OF A 3000 SERIES CAR. STAFF IN HORIZONTAL POSITION AT FLOOR LEVEL ALONG THE AXIS OF THE CAR.
METO51	AU	12:10-12:10	3-1 3	-	5	9 CENTER OF A 3000 SERIES CAR ON RED LINE. STAFF IN HORIZONTAL POSITION AT FLOOR LEVEL TRANSVERSE TO THE AXIS OF THE CAR.

TABLE A-1.

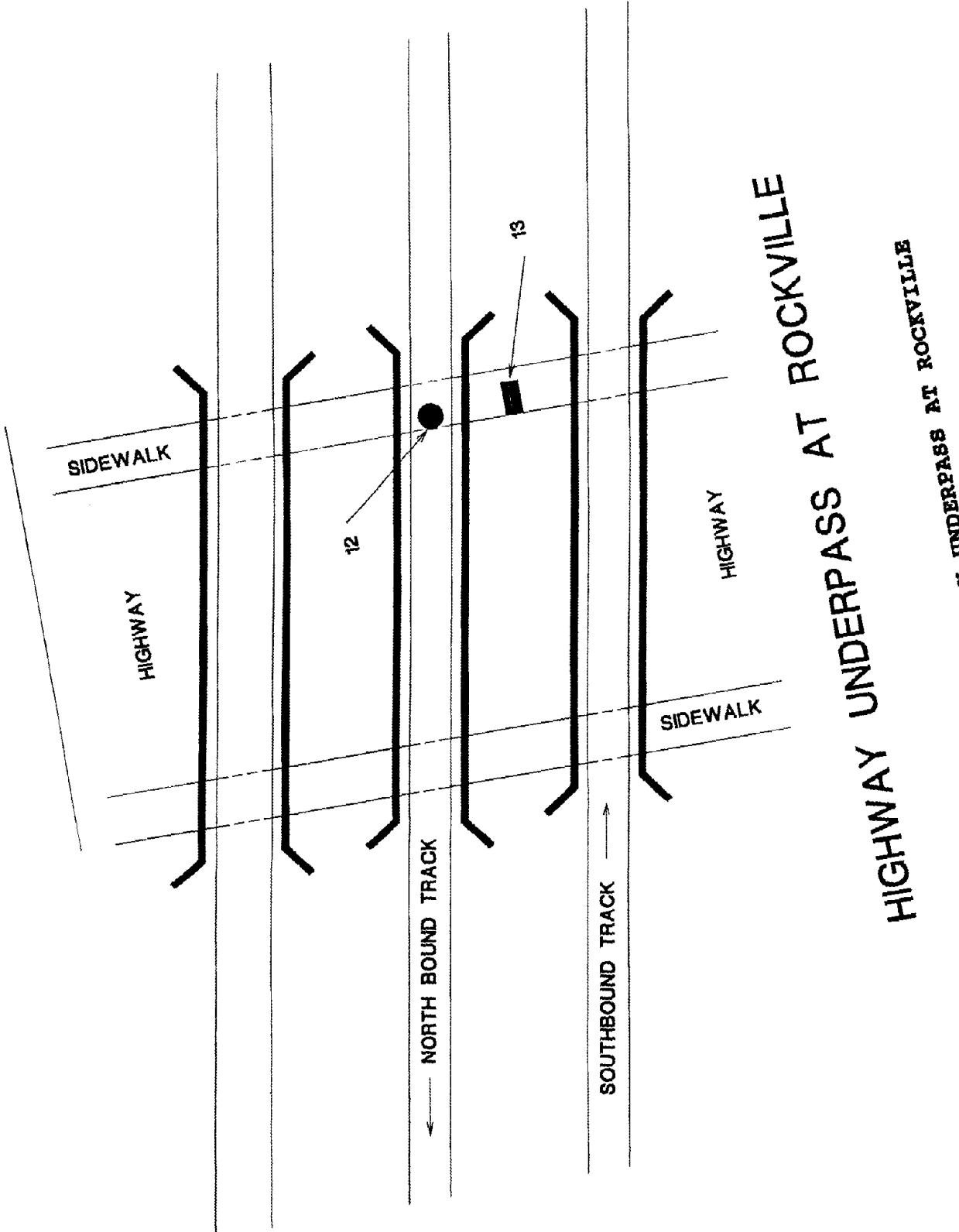
INDEX OF REPETITIVE WAVEFORM DATA WMATA METRORAIL
May 19 - May 20, 1992 (CONT'D)

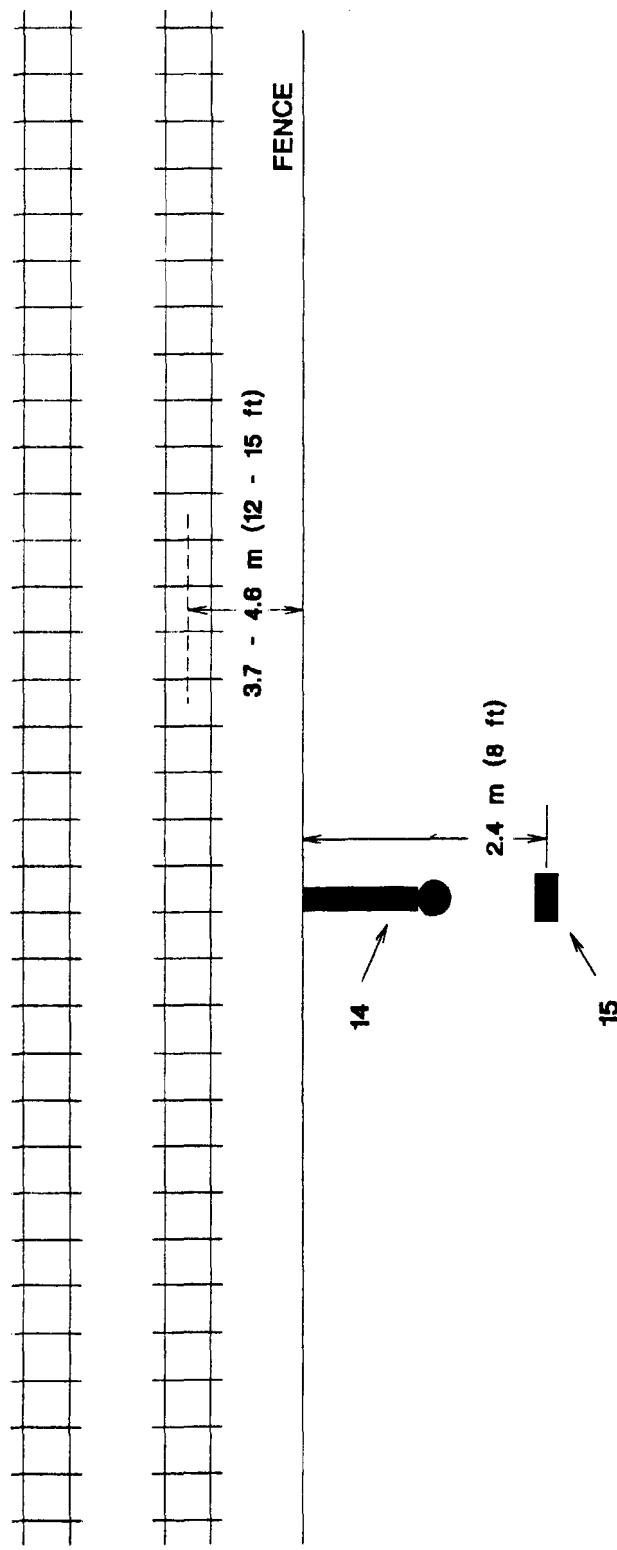
DATA FILE NUMBER	APPENDIX CONTAINING DATA	DATE/ TIME	PROBE LOCATION FIG. STAFF REF.	SAMPLE INTERVAL, SECONDS	NUMBER OF SAMPLES	LOCATION AND TYPE OF MEASUREMENT
METO52	AV	12:11- 12:11	3-1 3	- 5	3	CENTER OF A 3000 SERIES CAR ON RED LINE. STAFF IN HORIZONTAL POSITION 1 m (3.3 ft) ABOVE THE FLOOR, TRANSVERSE TO THE AXIS OF THE CAR.
METO53	AW	12:11- 12:14	3-1 2	- 5	28	CENTER OF A 3000 SERIES CAR. STAFF IN HORIZONTAL POSITION 1 m (3.3 ft) ABOVE THE FLOOR, ALONG THE AXIS OF THE CAR.
METO54	AX	14:17- 14:28	5-1 12	- 5	133	BENEATH METRORAIL AT HIGHWAY UNDERPASS NEAR ROCKVILLE. STAFF IN VERTICAL POSITION.
METO55	AY	14:33- 14:33	5-1 12	- 5	6	SAME AS METO54.
METO56	AZ	14:53- 14:57	5-2 14	- 5	15	ALONG WAYSIDE 4.4 km (2.75 mi) SOUTH OF ROCKVILLE. STAFF IN A HORIZONTAL POSITION 1 m (3.3 ft) ABOVE GROUND WITH FENCE AS THE REFERENCE.



CAR LAYOUT

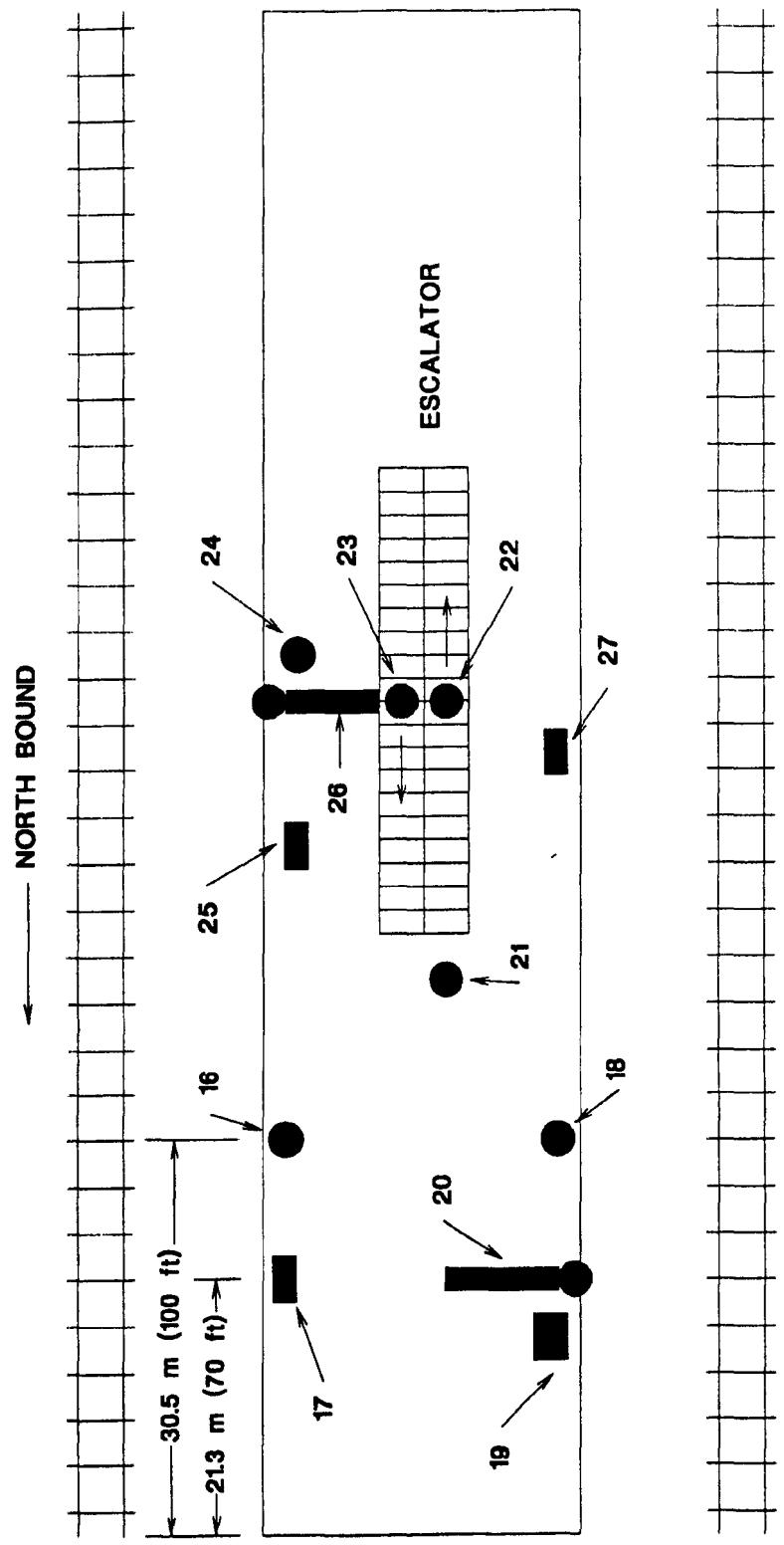
FIGURE A-1. CAR LAYOUT





AT WAYSIDE, SOUTH OF SHADY GROVE

FIGURE A-3. AT WAYSIDE, SOUTH OF SHADY GROVE



PLATFORM AT GROSVENOR

FIGURE A-4. PLATFORM AT GROSVENOR

N ←

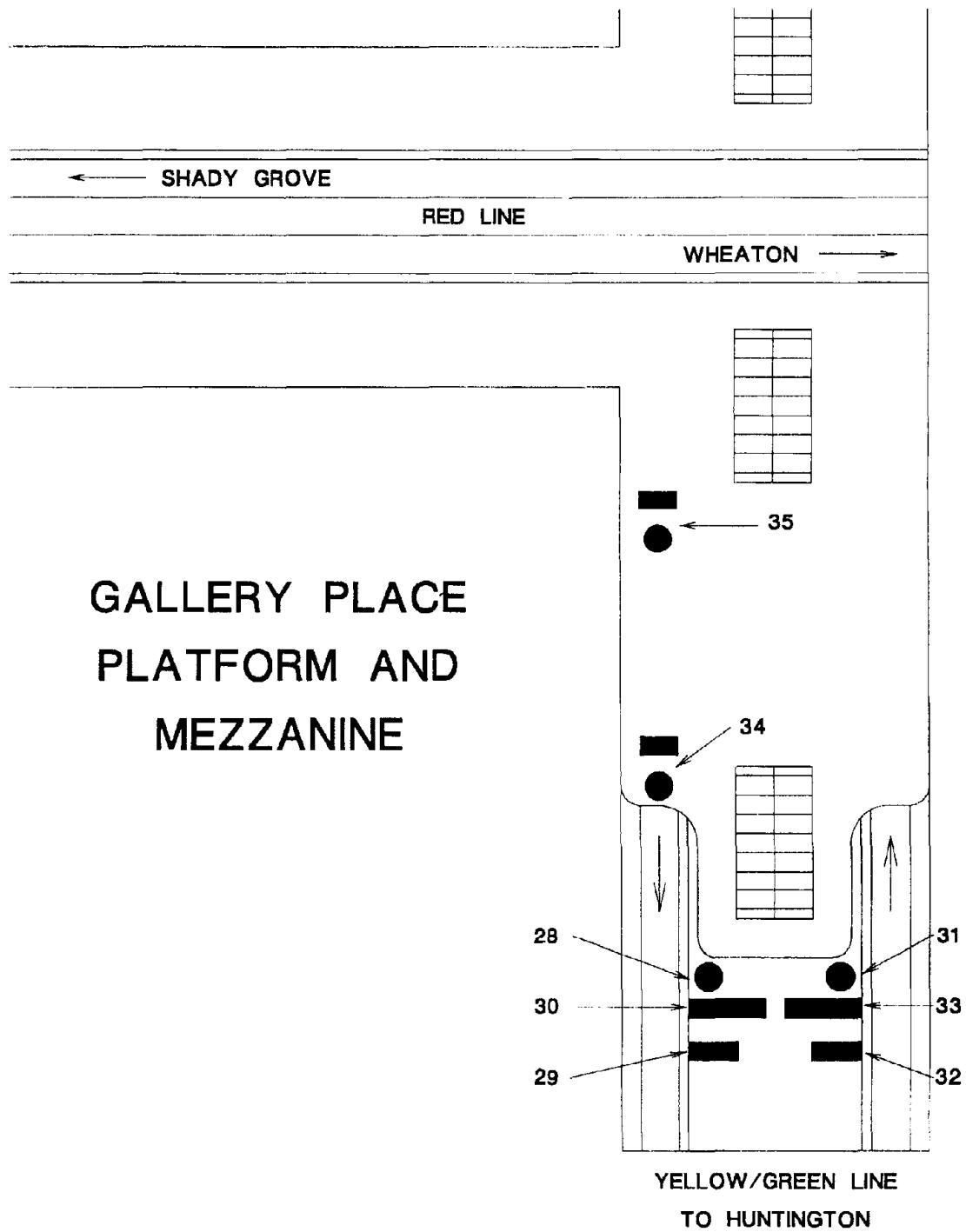
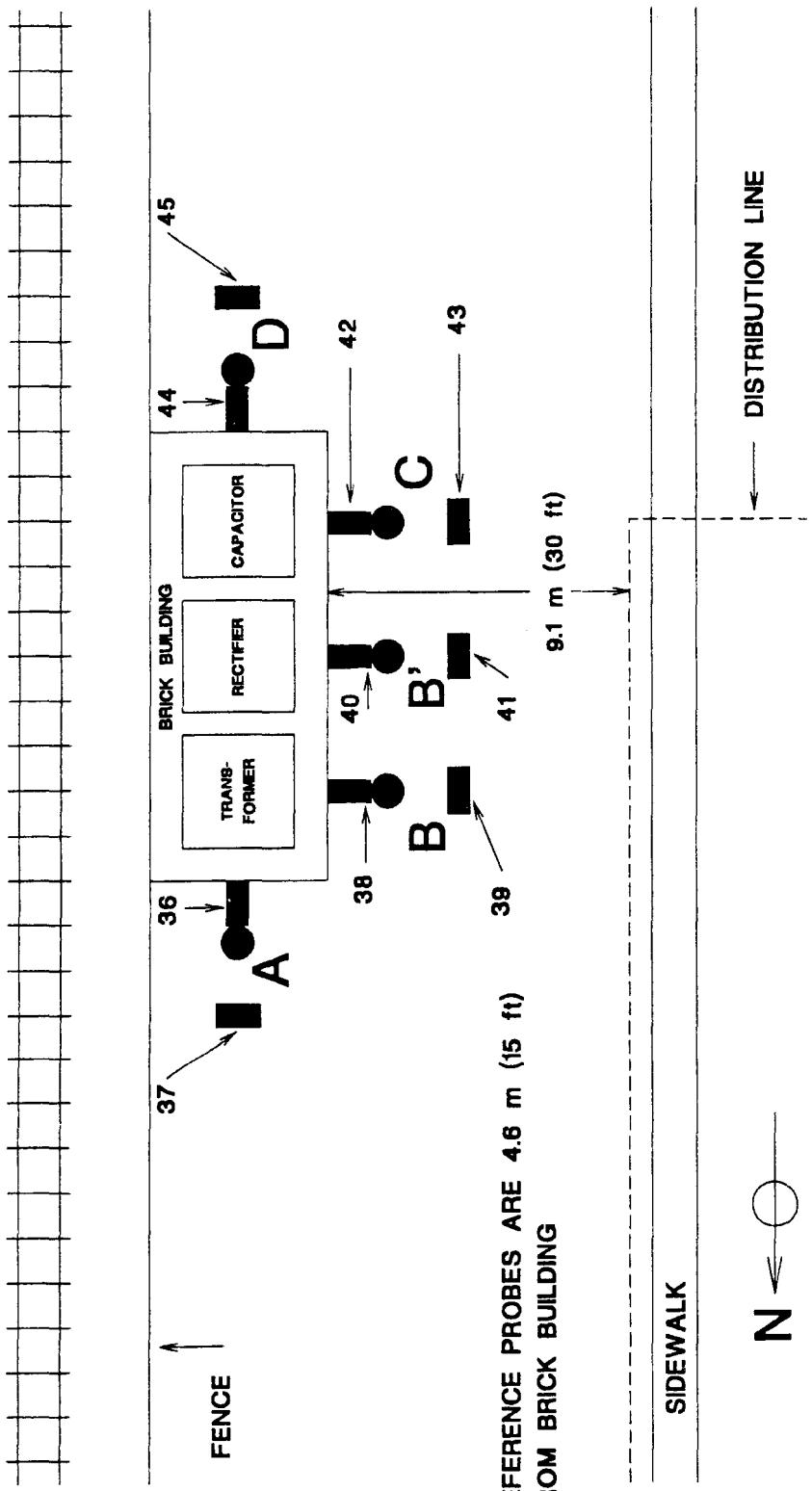


FIGURE A-5. GALLERY PLACE PLATFORM AND MEZZANINE

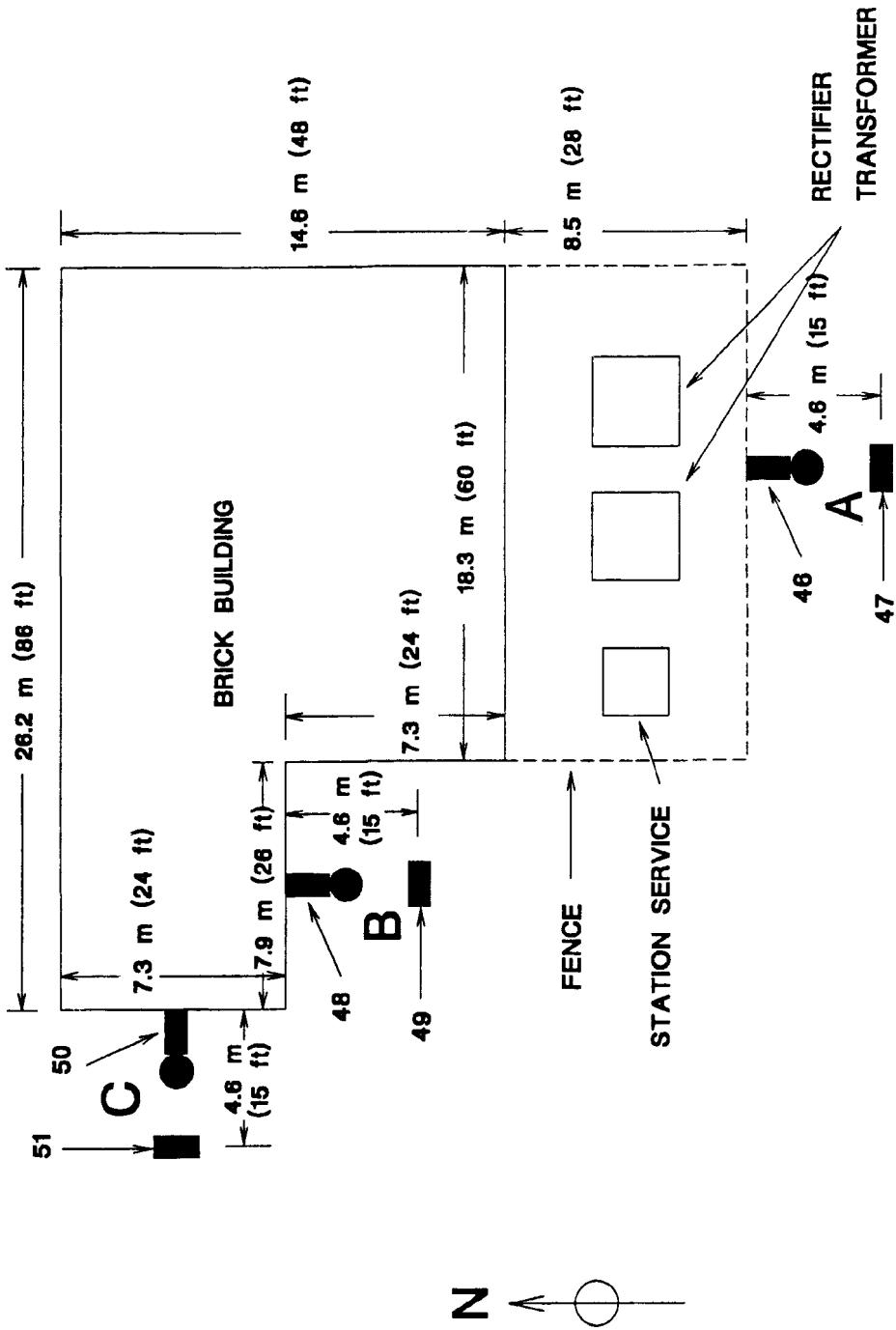


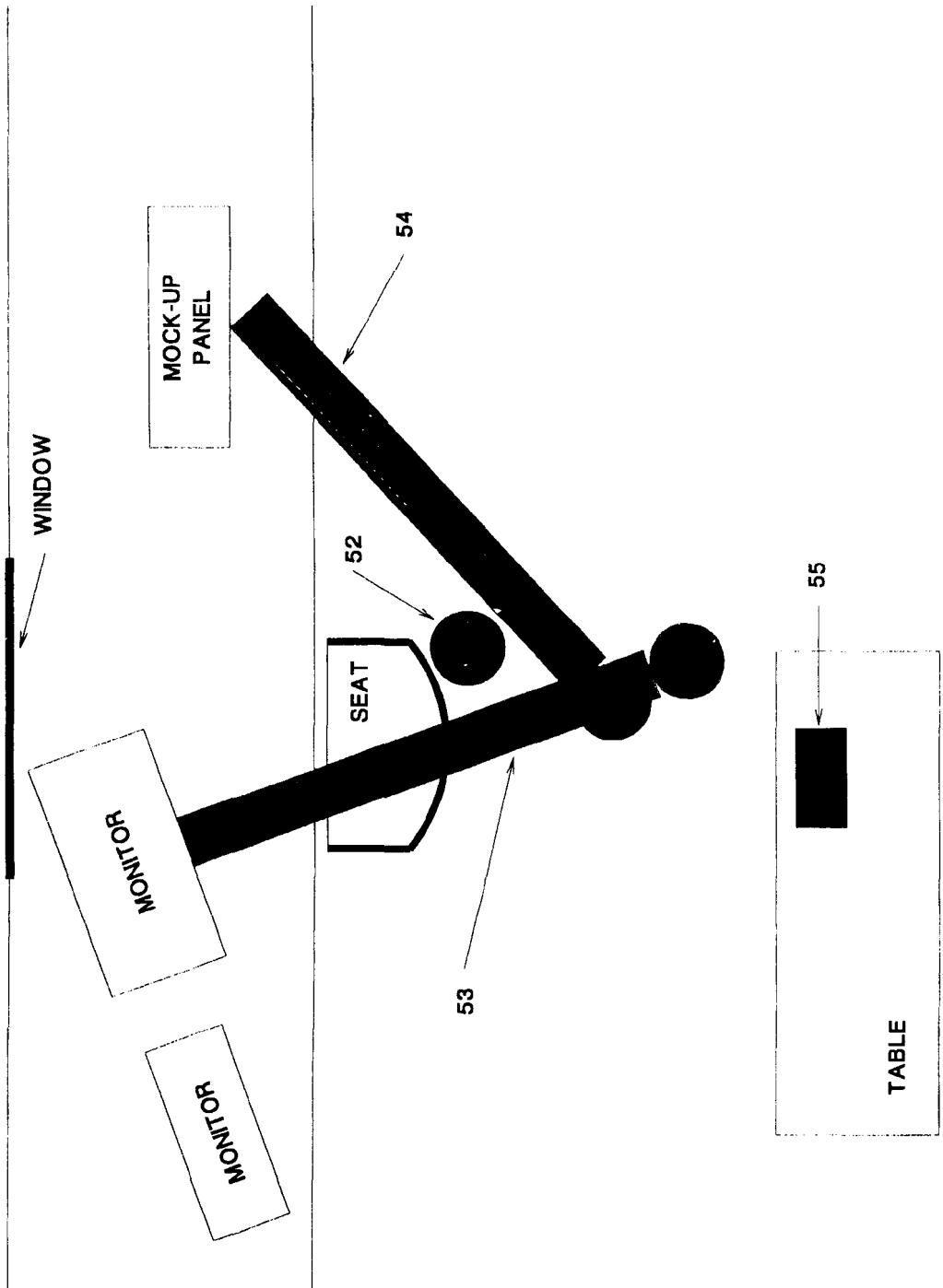
TRACTION POWER SUPPLY STATION SOUTH OF SHADY GROVE

FIGURE A-6. TRACTION POWER SUPPLY STATION SOUTH OF SHADY GROVE

SHADY GROVE TRACTION POWER SUPPLY STATION

FIGURE A-7. SHADY GROVE TRACTION POWER SUPPLY STATION





DISPATCHER'S ROOM AT SHADY GROVE

FIGURE A-8. DISPATCHER'S ROOM AT SHADY GROVE

The table of measurement parameters also contains various parameters from the waveform sampling and subsequent Fourier transformation of the waveform data that affect the interpretation of the magnetic field frequency spectra. The tabulated maximum frequency and minimum frequency are center frequencies of the upper and lower components of the Fourier transform. The spectral bandwidth is the interval between frequency components in the Fourier transform and is effectively the smallest increment in frequency that can be resolved in the frequency spectrum. The spectral bandwidth parameter is also important to the reader because the intensity of broadband magnetic field components (as opposed to fields at unique discrete frequencies) is proportional to the square root of the bandwidth. Consequently, to compare the spectral data for broadband signals contained in these appendices to values reported by others, one must make the appropriate bandwidth adjustments to the data.

The final items on the table of measurement parameters are listings of any missing data or saturated data within that particular dataset. If a sensor was known to be inoperative or was inadvertently not connected, the faulty data was deleted and identified as "missing data." In a relatively small number of cases, the total magnetic field level at a measurement point exceeded the measurement capability of a fluxgate magnetometer. Those cases are identified as "saturated data" if even one of the three orthogonal components exceeded the 5 Gauss capability of the sensor. Since the time varying field measurements were in most cases derived from the same sensor as the static field measurement, saturation of the sensor from high static field levels also compromises the time varying magnetic field measurement. A somewhat more frequent occurrence was the failure of the programmable gain amplifiers in the portable waveform capture system unit to achieve the optimal gain settings when the magnetic field levels were fluctuating rapidly from one sample point to the next. (The system is programmed in this way so that it does not totally miss a sample interval while "hunting" for the appropriate gain settings.) While these autoranging failures compromise the validity of the measurement along one of the three orthogonal axes, that effect is not necessarily fatal to the validity of the resultant field measurement. Nevertheless, autoranging failures are listed in the table of saturated data.

Field by Frequency and Time Plots for Each Sensor

The first set of data plots in each appendix is the field by frequency and time plots for each magnetic field sensor. These plots are described in more detail in Section 2 of this report. The top frame of each page shows the static magnetic field component and time varying components up to 100 Hz. The lower frame has the static field suppressed to show the time varying magnetic field components in more detail. Although all of the time varying magnetic measurements extended out to a maximum frequency of 2560 Hz, only that portion of the spectrum containing fields of significant amplitude were plotted.

Field by Distance and Time Plots

The next group of graphs in each appendix show the intensity of the field in each of six frequency bands as a function of distance from some reference point (such as floor of the vehicle, etc.) over the time of the measurements. These graphs were created for each set of measurements whether the spatial distribution was expected to help identify the source of the magnetic field or establish an attenuation rate which would be useful for predicting field intensities at other distances from the source.

The spatial sampling of the magnetic field level is by necessity limited to only the few points where magnetic field sensors were placed (see the sketches of sensor locations in this appendix). From this relatively sparse sample, the contours of the field by distance and time plots were generated by a computer program which attempts to fit a surface to the available data points. These plots are therefore very accurate at the sensor locations but represent a "best fit" approximation of the field levels between sensor locations. In those cases where the attenuation data are orderly and consistent, the contours are expected to be a good approximation of reality. However, in the cases where field values are erratic or inconsistent between probe locations, the validity of the contour is more uncertain at places other than the sample locations. In evaluating these curves, the reader should be cognizant of the actual measurement locations and place the most credibility in the data at those locations.

Summary Statistics

Statistical summaries of individual datasets are also included in the appendix. Those summaries consist of tables of field strength and variability parameters.

APPENDIX B

**DATASET MET001
CENTER OF AISLE, CENTER OF CAR #1173**

Measurement Setup Code: Staff: 1 Reference: -
Drawing: A-1

Vehicle Status: Traveling on the Red Line

Measurement Date: May 19, 1992

Measurement Time: Start: 08:25:01
End: 08:28:48

Number of Samples: 18

Programmed Sample Interval: 5 sec

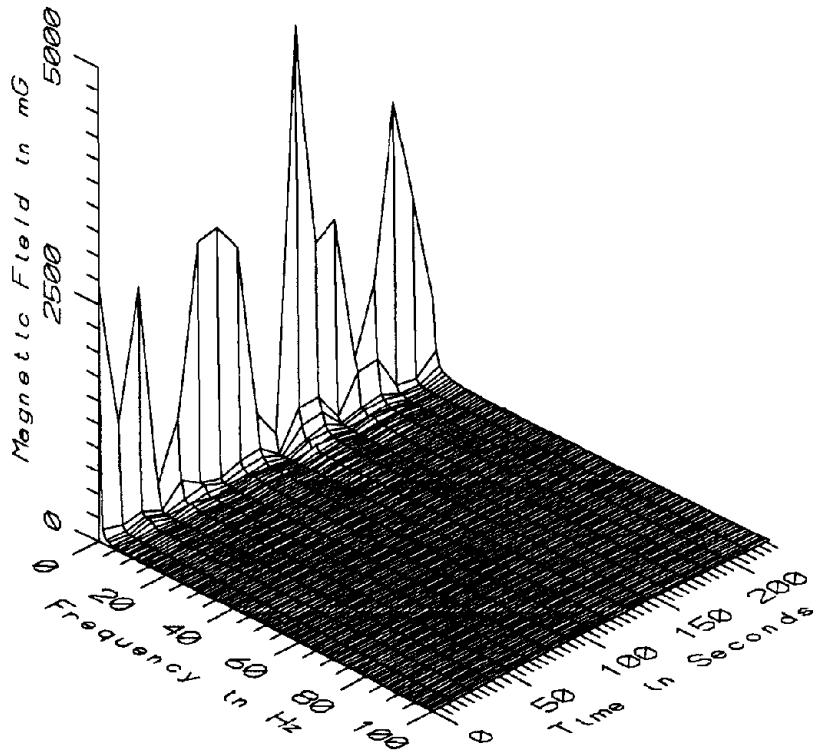
Actual Sample Interval: 13.4 sec

Frequency Spectrum Parameters

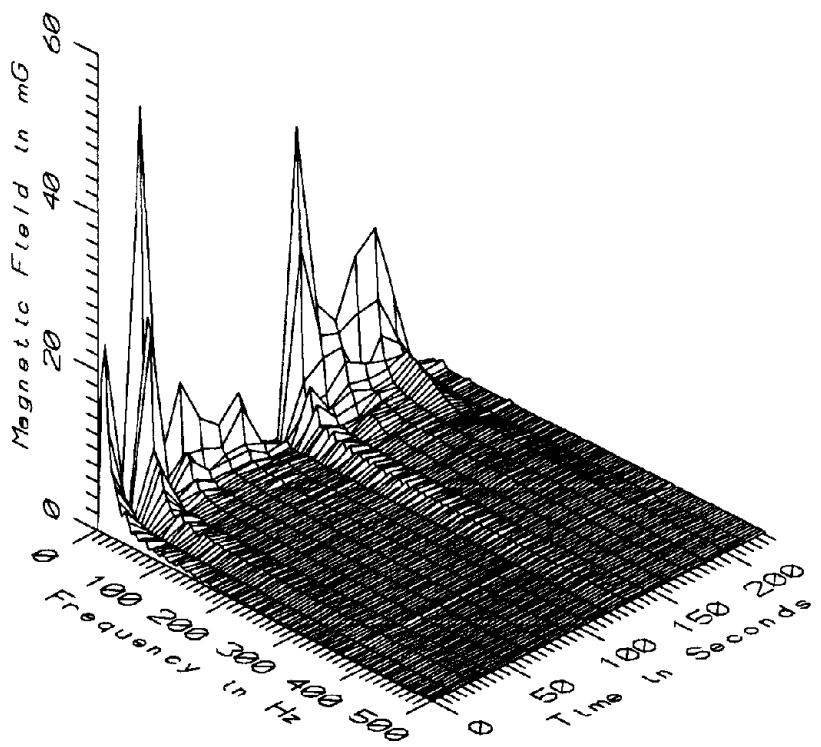
<u>Probe Type:</u>	<u>Wideband</u>	<u>Static</u>
Maximum Frequency (Hz)	2560	100
Minimum Frequency (Hz)	5	0
Spectral Bandwidth (Hz)	5	1

Missing Data: No reference probe

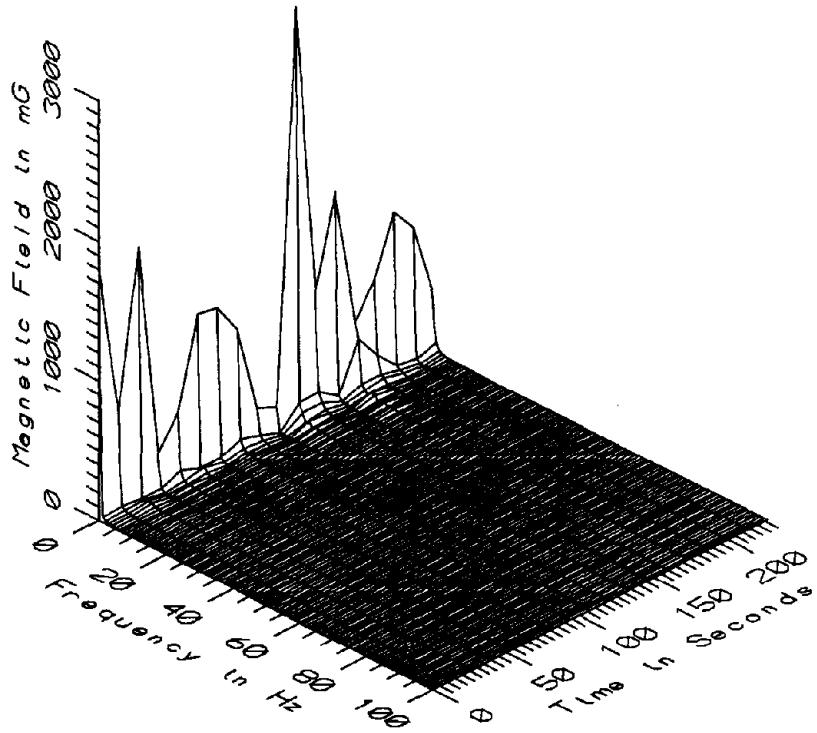
Saturated Data - Wideband:	<u>Sensor</u>	<u>Sample</u>	<u>Time (sec)</u>
	10cm	1	0
	10cm	11	134
	10cm	16	201
	60cm	8	94
	60cm	11	134
	110cm	7	80
	110cm	11	134
	110cm	15	188



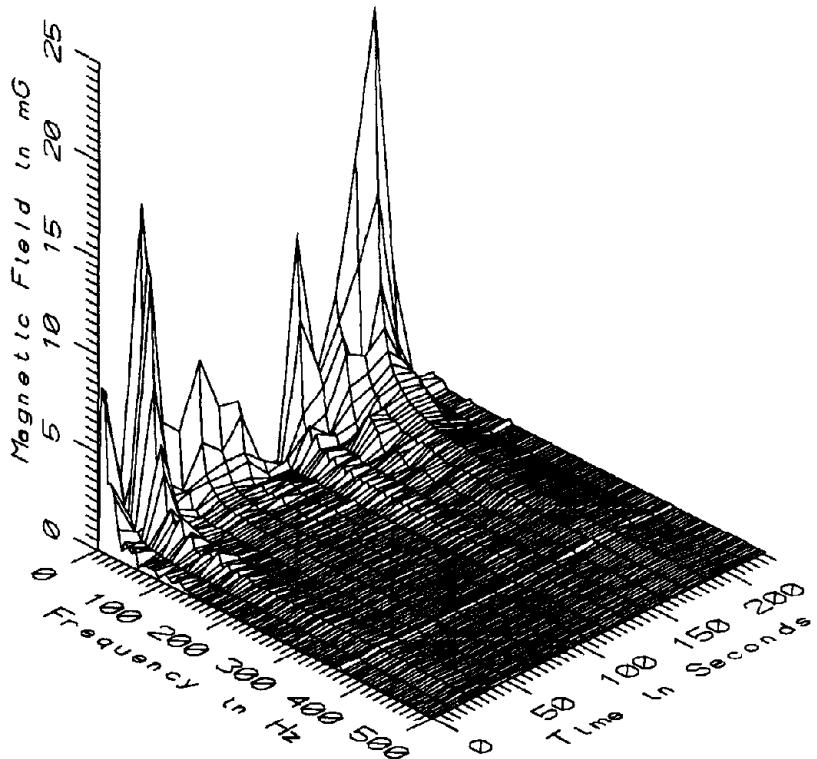
MET001 - 10cm ABOVE FLOOR, CENTER OF AISLE, CENTER OF CAR 1173



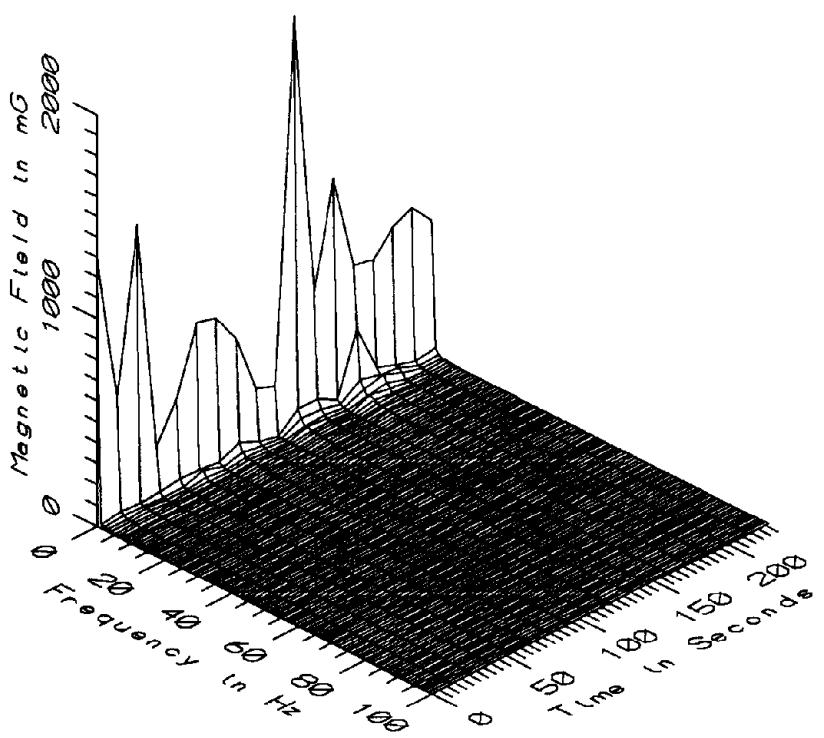
MET001 - 10cm ABOVE FLOOR, CENTER OF AISLE, CENTER OF CAR 1173



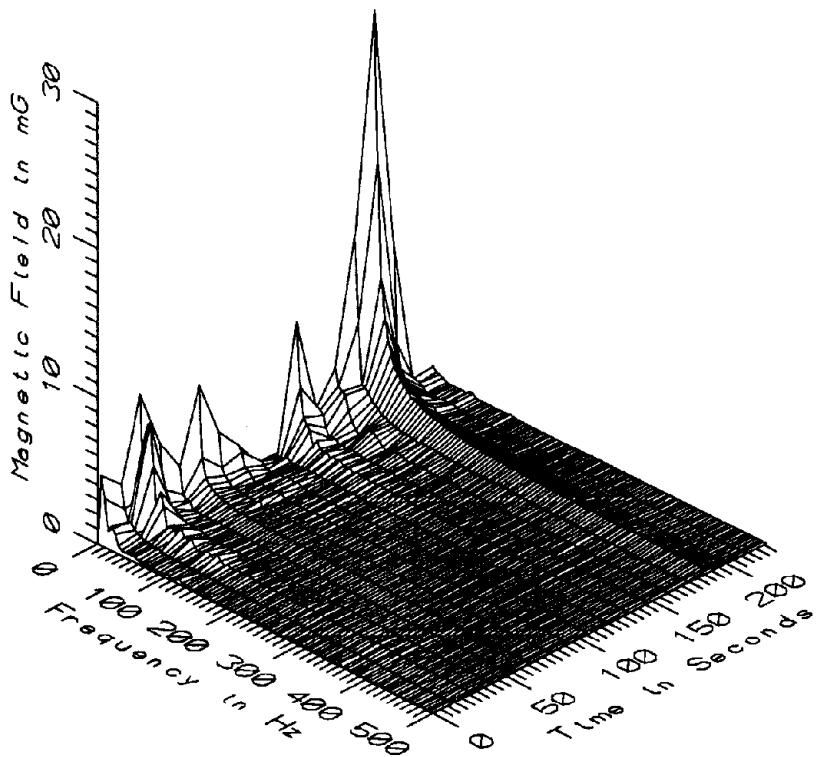
MET001 - 60cm ABOVE FLOOR, CENTER OF AISLE, CENTER OF CAR 1173



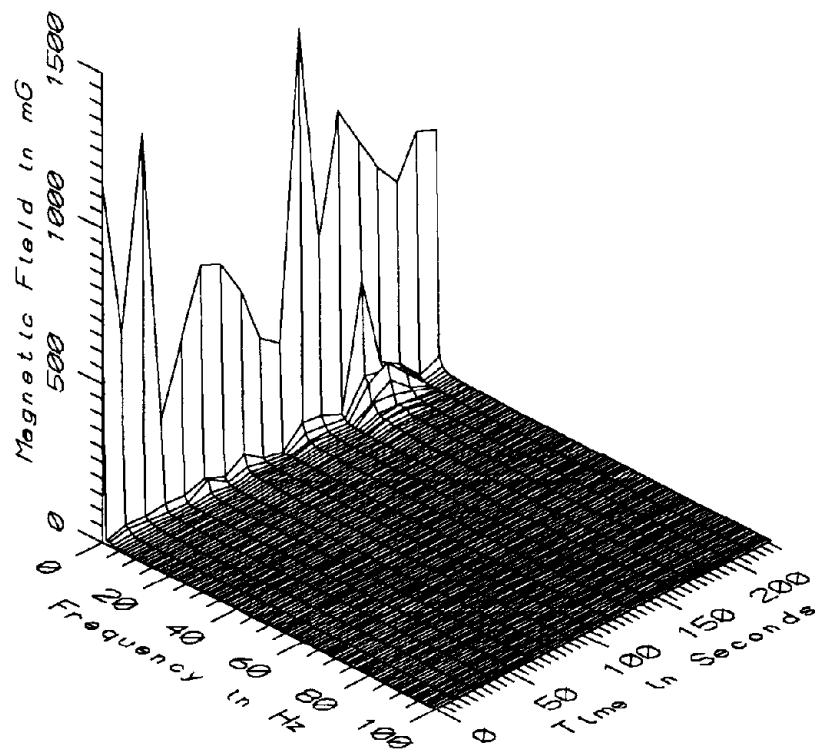
MET001 - 60cm ABOVE FLOOR, CENTER OF AISLE, CENTER OF CAR 1173



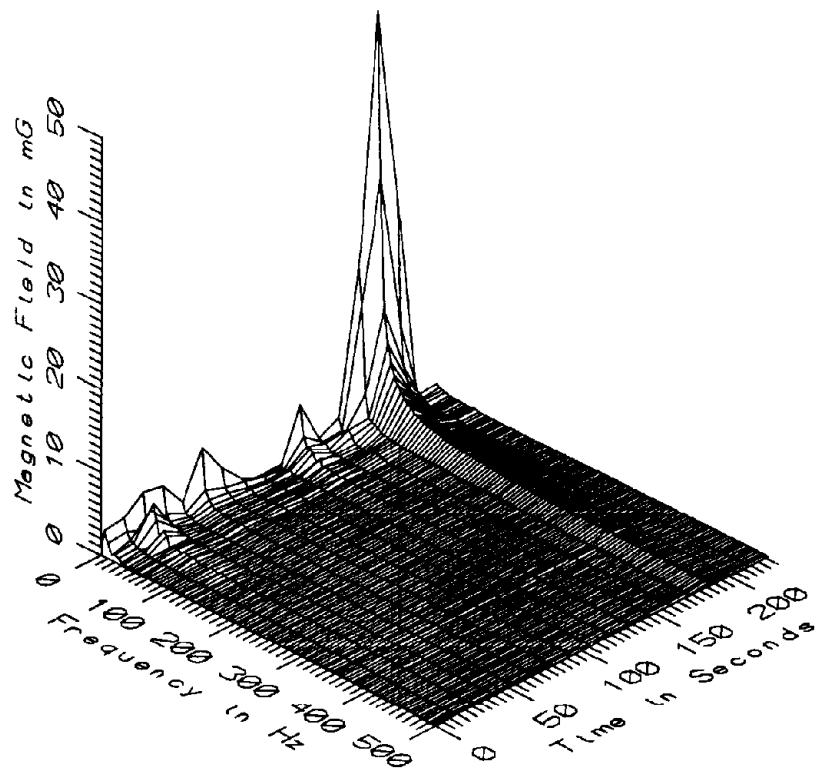
MET001 - 110cm ABOVE FLOOR, CENTER OF AISLE, CENTER OF CAR 1173



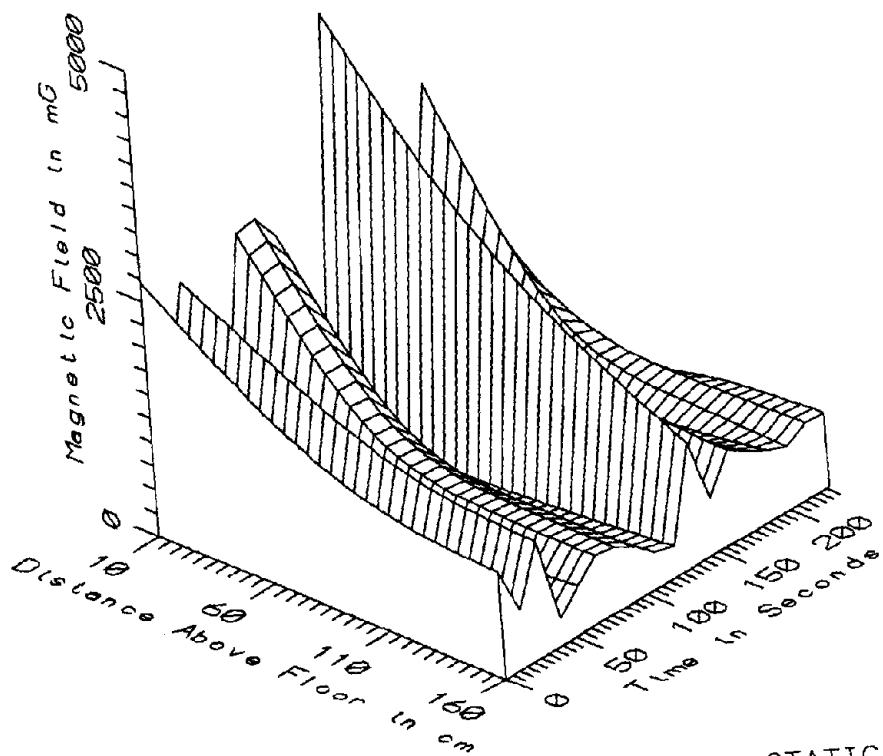
MET001 - 110cm ABOVE FLOOR, CENTER OF AISLE, CENTER OF CAR 1173



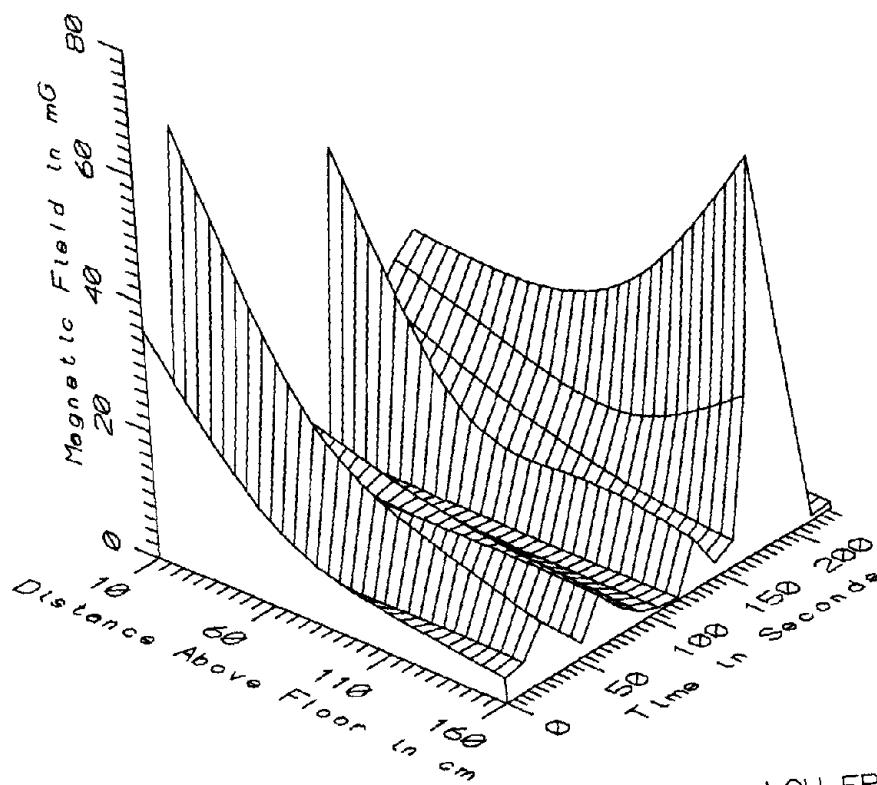
MET001 - 160cm ABOVE FLOOR, CENTER OF AISLE, CENTER OF CAR 1173



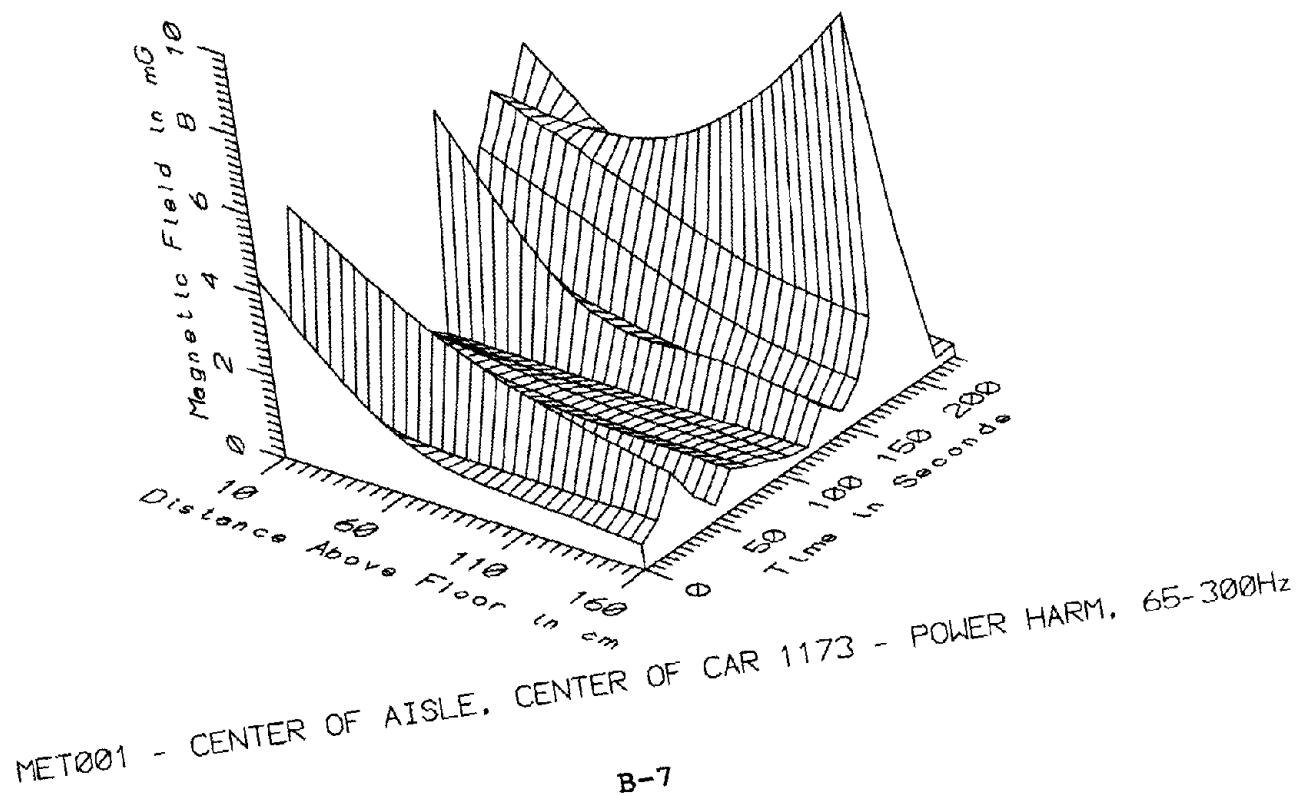
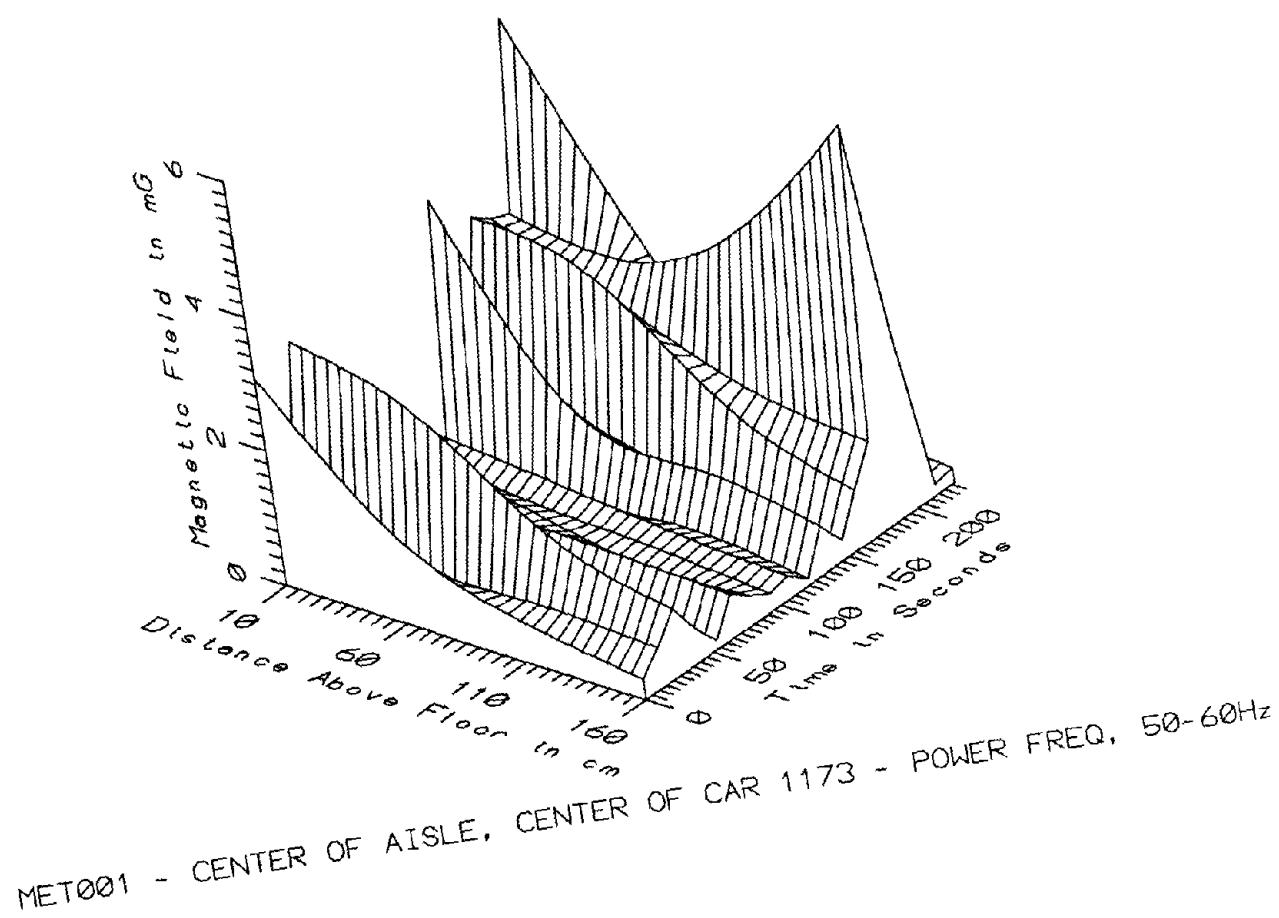
MET001 - 160cm ABOVE FLOOR, CENTER OF AISLE, CENTER OF CAR 1173

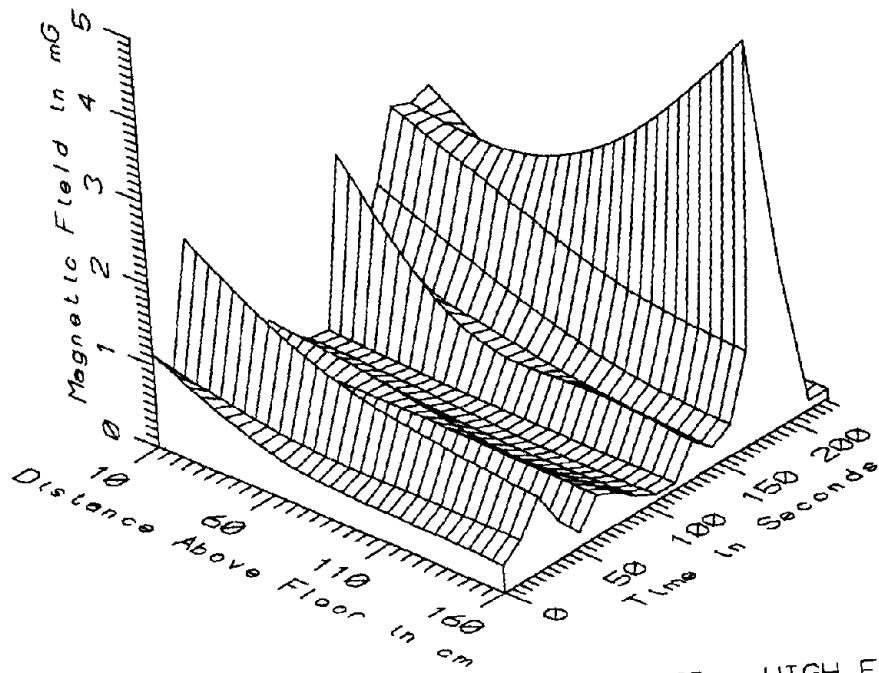


MET001 - CENTER OF AISLE, CENTER OF CAR 1173 - STATIC

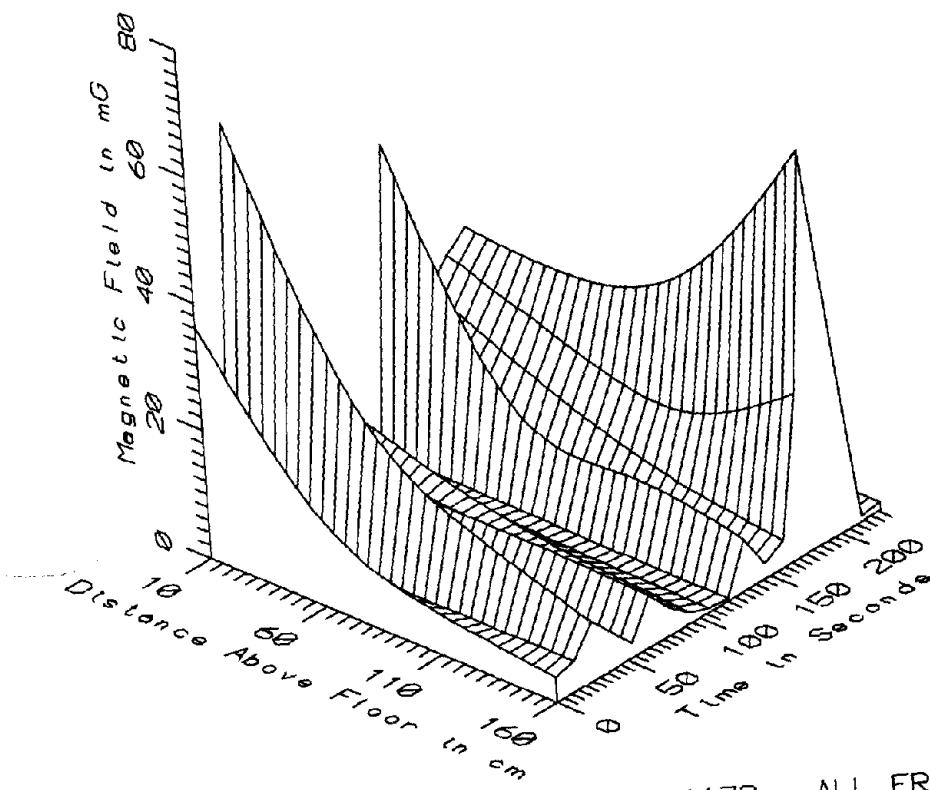


MET001 - CENTER OF AISLE, CENTER OF CAR 1173 - LOW FREQ, 5-45Hz





MET001 - CENTER OF AISLE, CENTER OF CAR 1173 - HIGH FREQ, 305-2560Hz



MET001 - CENTER OF AISLE, CENTER OF CAR 1173 - ALL FREQ, 5-2560Hz

MET001 - CENTER OF AISLE, CENTER OF CAR #1173		TOTAL OF 18 SAMPLES			
FREQUENCY BAND	HEIGHT ABOVE FLOOR (cm)	MINIMUM MAGNETIC FIELD (mG)	MAXIMUM MAGNETIC FIELD (mG)	AVERAGE MAGNETIC FIELD (mG)	STANDARD DEVIATION OF VARIATION (mG)
STATIC	10	205.11	4395.54	1779.76	1134.12
	60	172.01	2964.69	984.82	699.25
	110	233.17	1988.68	749.85	443.06
	160	290.89	1319.42	742.89	291.48
5-45Hz LOW FREQ	10	0.84	64.48	17.89	17.05
	60	0.53	28.06	9.23	8.01
	110	0.33	34.65	7.48	8.16
	160	0.39	60.79	9.54	15.09
50-60Hz PWR FREQ	10	0.25	5.59	1.89	1.50
	60	0.13	2.86	1.20	0.98
	110	0.27	3.77	0.90	0.85
	160	0.10	5.87	0.90	1.37
65-300Hz PWR HARM	10	0.22	5.58	2.53	2.04
	60	0.22	4.40	1.59	1.30
	110	0.20	6.13	1.27	1.39
	160	0.22	9.43	1.42	2.17
305-2560Hz HIGH FREQ	10	0.18	2.37	1.09	0.85
	60	0.12	2.24	0.71	0.61
	110	0.08	3.12	0.58	0.72
	160	0.07	4.79	0.70	1.11
5-2560Hz ALL FREQ	10	0.93	64.84	18.28	17.17
	60	0.60	28.46	9.51	8.16
	110	0.49	35.53	7.68	8.33
	160	0.47	61.98	9.73	15.34

APPENDIX C

DATASET MET002 CENTER OF AISLE, REAR OF CAR #1173

Measurement Setup Code: Staff: 5 Reference: 10
Drawing: A-1

Vehicle Status: Traveling on the Red Line

Measurement Date: May 19, 1992

Measurement Time: Start: 08:32:05
End: 08:34:55

Number of Samples: 14

Programmed Sample Interval: 5 sec

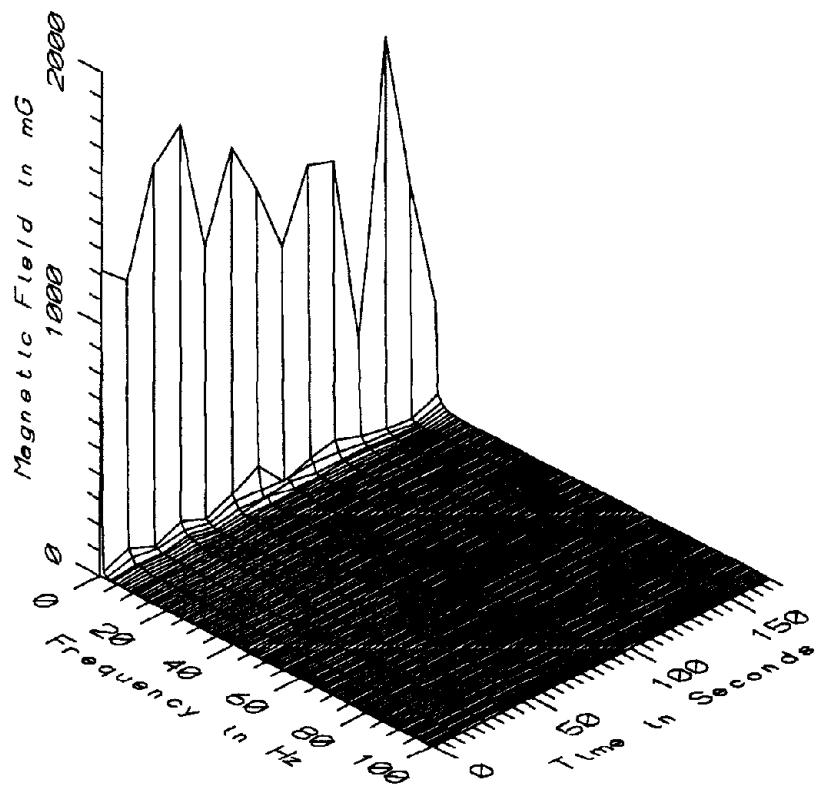
Actual Sample Interval: 13.1 sec

Frequency Spectrum Parameters

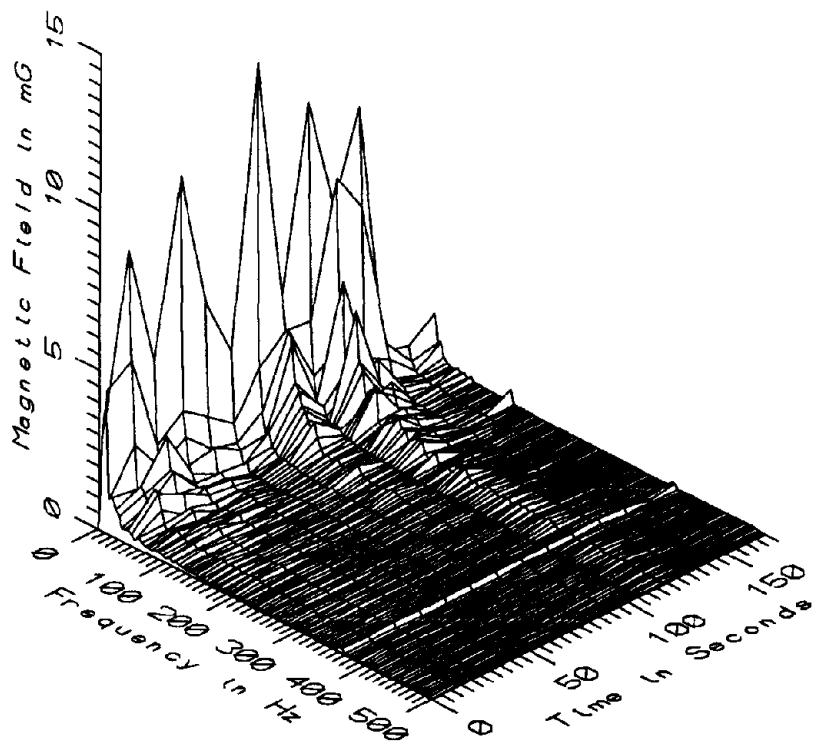
<u>Probe Type:</u>	<u>Wideband</u>	<u>Static</u>
Maximum Frequency (Hz)	2560	100
Minimum Frequency (Hz)	5	0
Spectral Bandwidth (Hz)	5	1

Missing Data: Wideband data from the reference probe

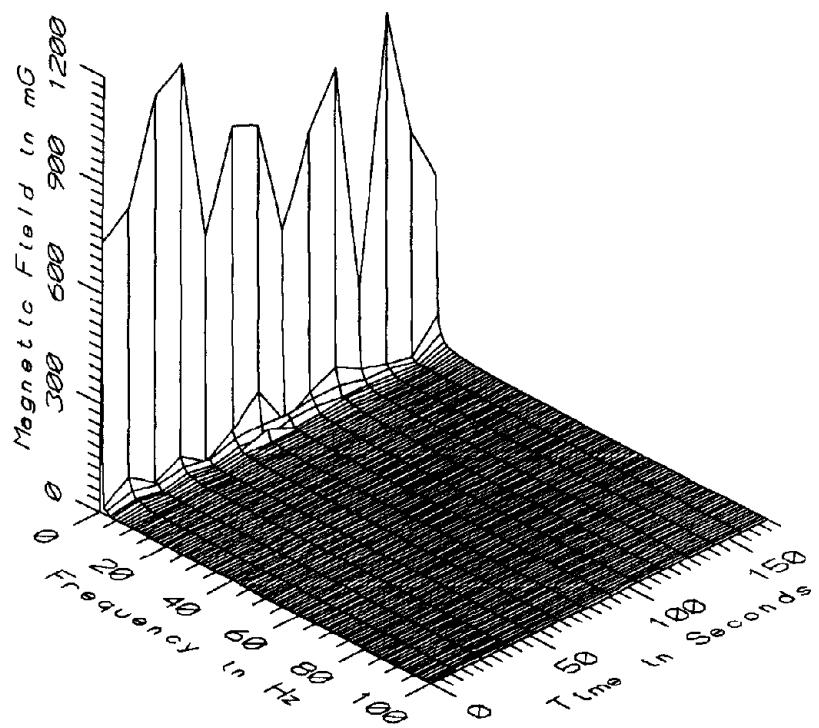
Saturated Data - Wideband:	<u>Sensor</u>	<u>Sample</u>	<u>Time (sec)</u>
	10cm	8	105
	60cm	8	105
	160cm	7	92



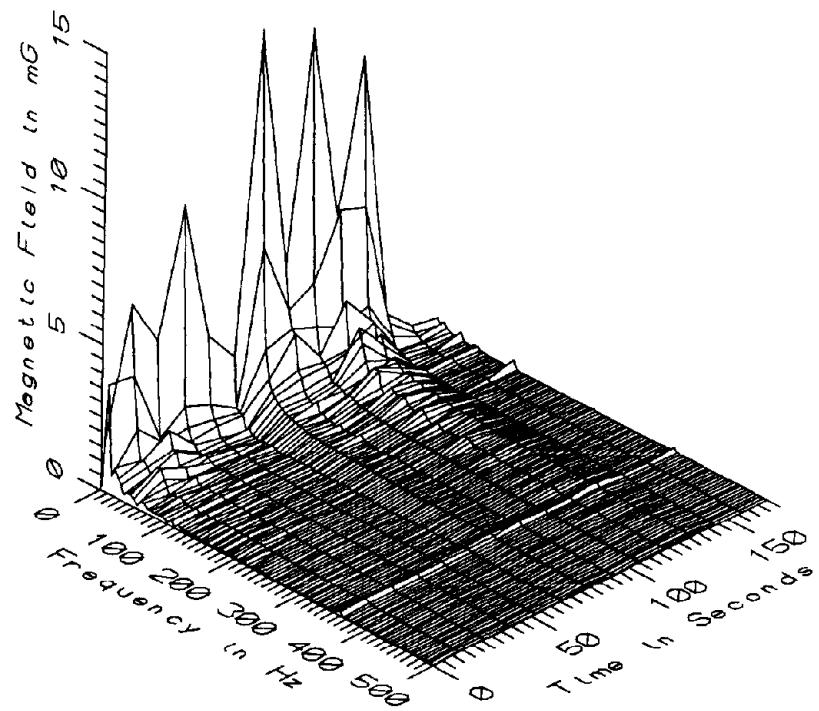
MET002 - 10cm ABOVE FLOOR, CENTER OF AISLE, REAR OF CAR 1173



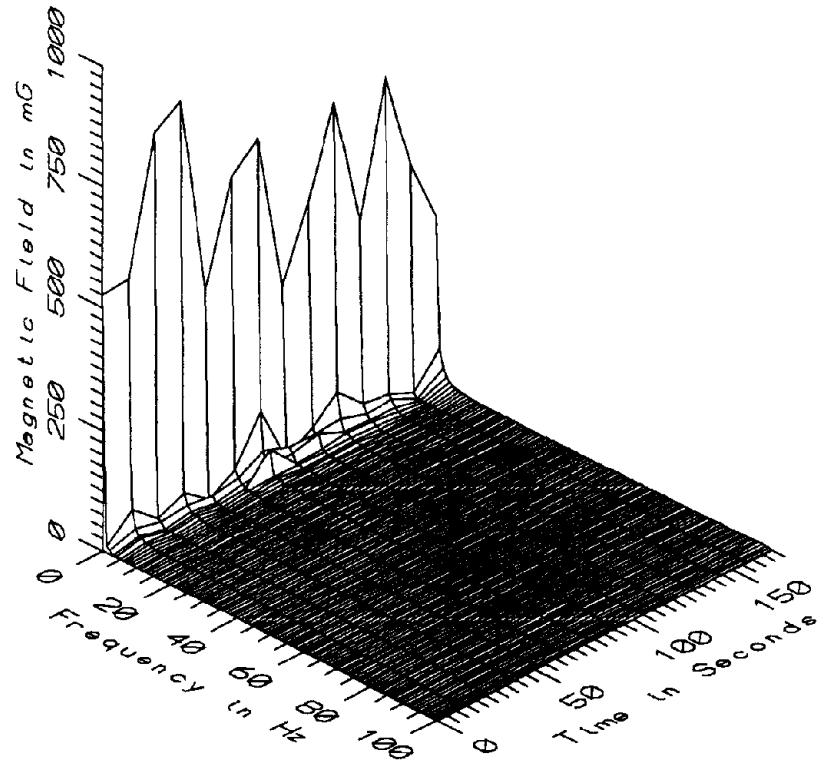
MET002 - 10cm ABOVE FLOOR, CENTER OF AISLE, REAR OF CAR 1173



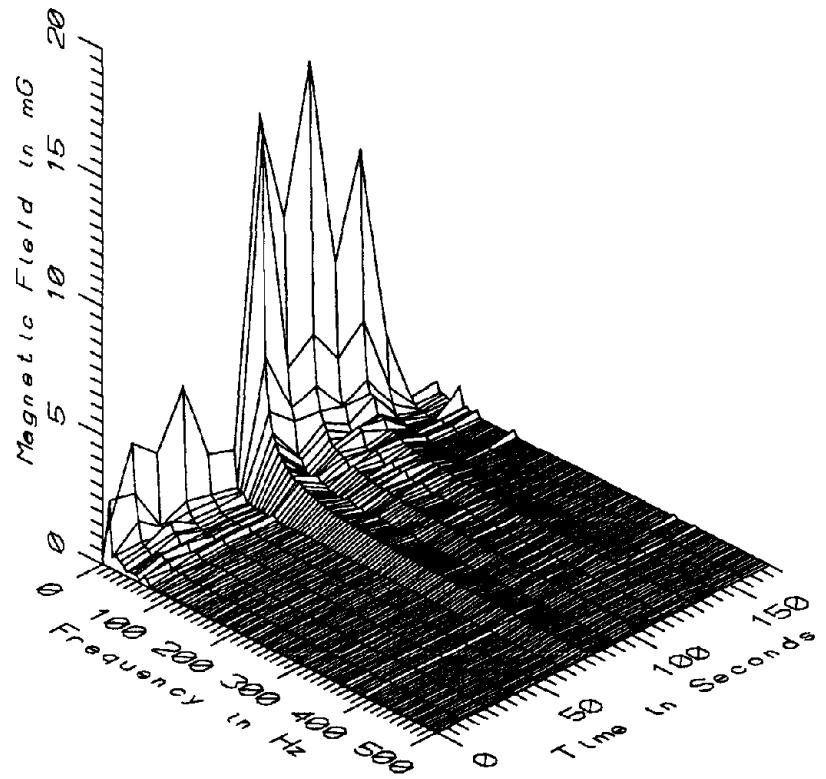
MET002 - 60cm ABOVE FLOOR, CENTER OF AISLE, REAR OF CAR 1173



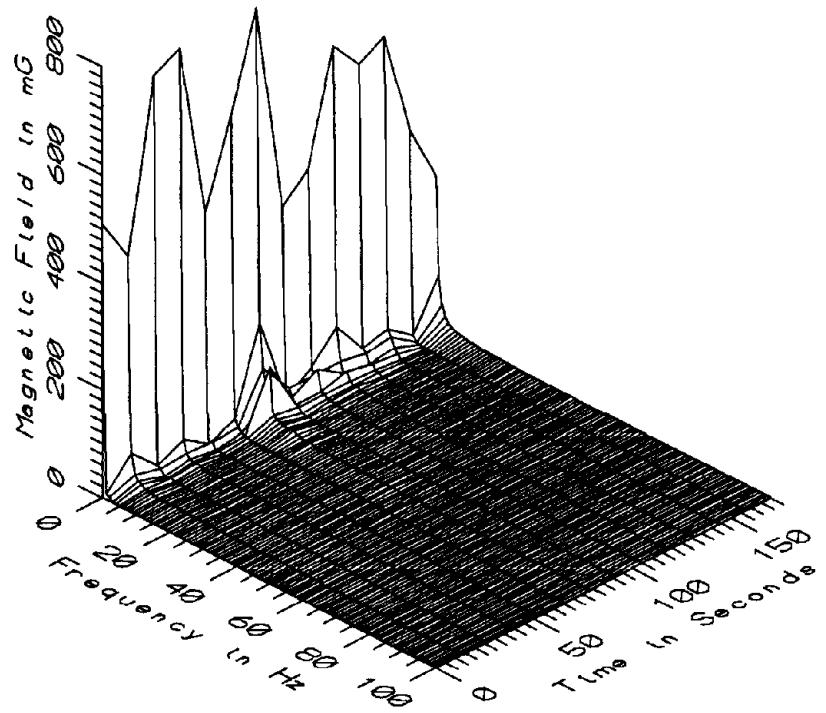
MET002 - 60cm ABOVE FLOOR, CENTER OF AISLE, REAR OF CAR 1173



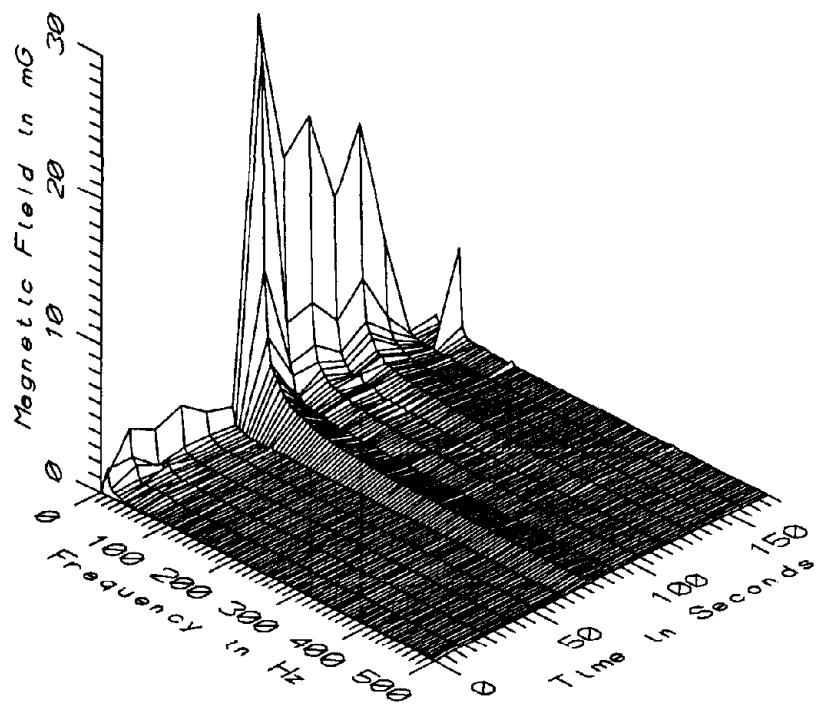
MET002 - 110cm ABOVE FLOOR, CENTER OF AISLE, REAR OF CAR 1173



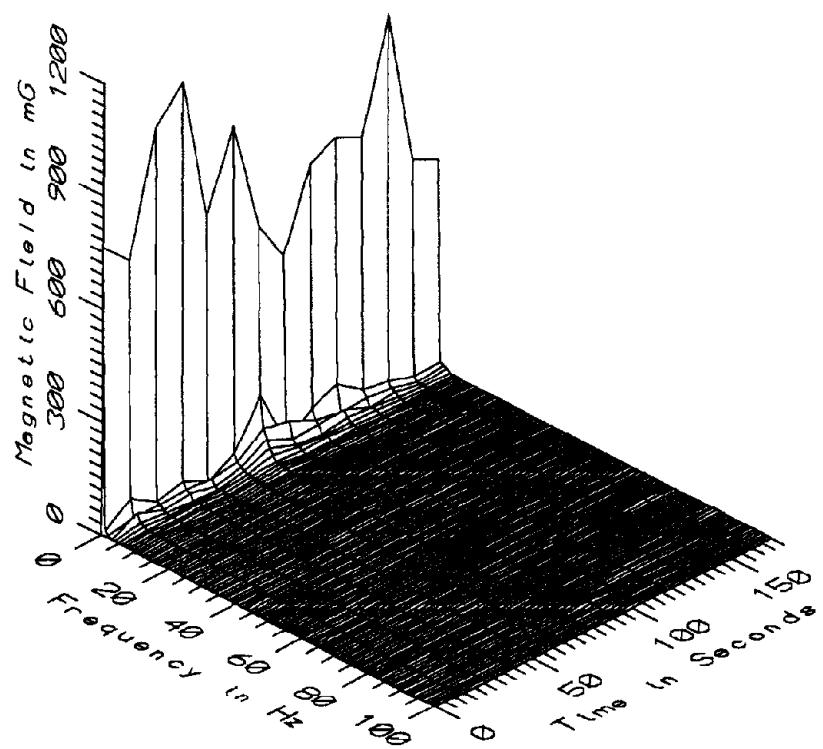
MET002 - 110cm ABOVE FLOOR, CENTER OF AISLE, REAR OF CAR 1173



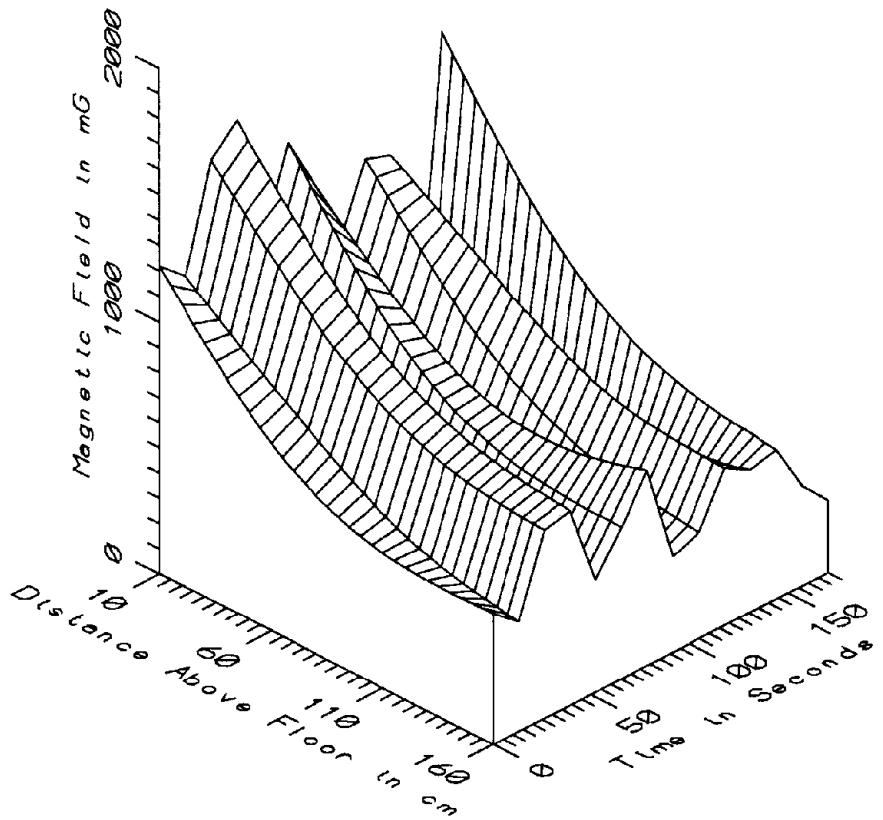
MET002 - 160cm ABOVE FLOOR, CENTER OF AISLE, REAR OF CAR 1173



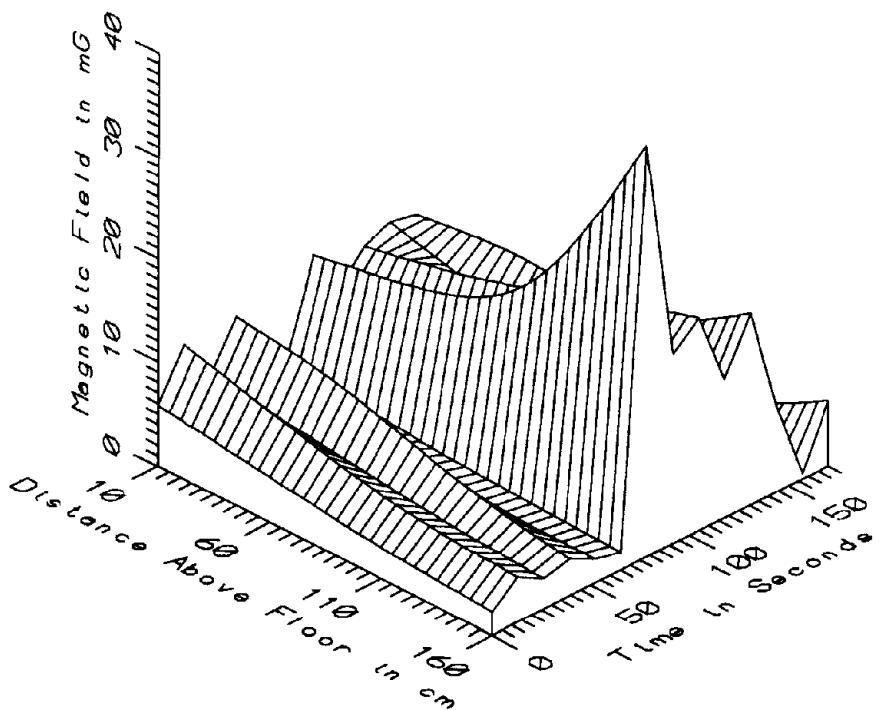
MET002 - 160cm ABOVE FLOOR, CENTER OF AISLE, REAR OF CAR 1173



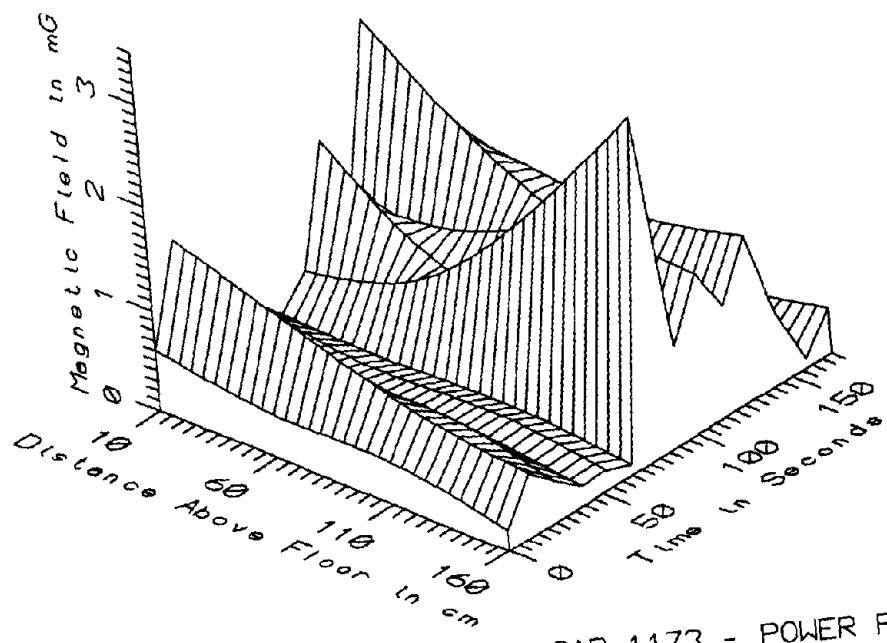
MET002 - REFERENCE PROBE - WINDOW SEAT AT REAR OF CAR 1173



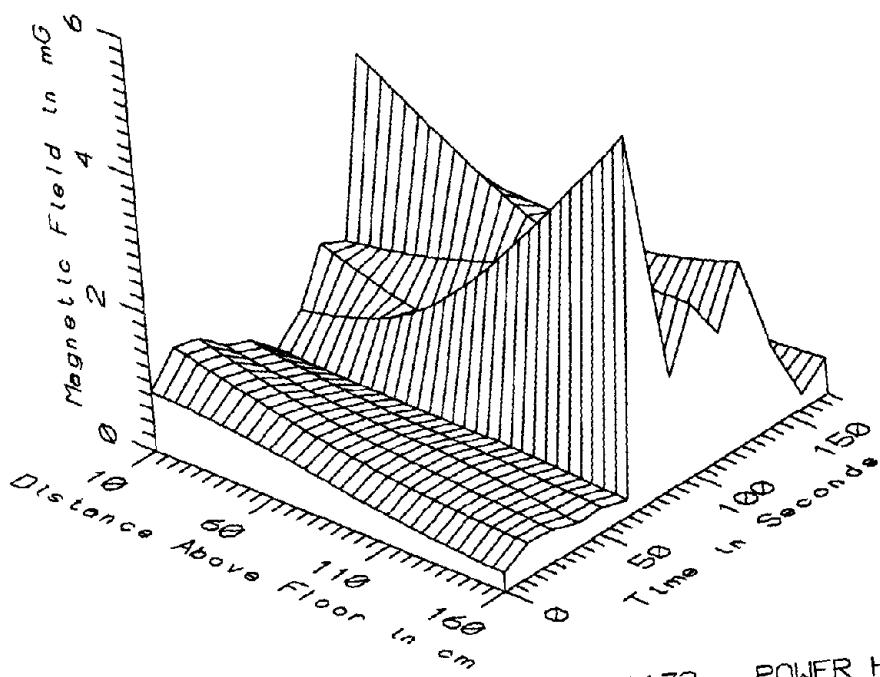
MET002 - CENTER OF AISLE, REAR OF CAR 1173 - STATIC



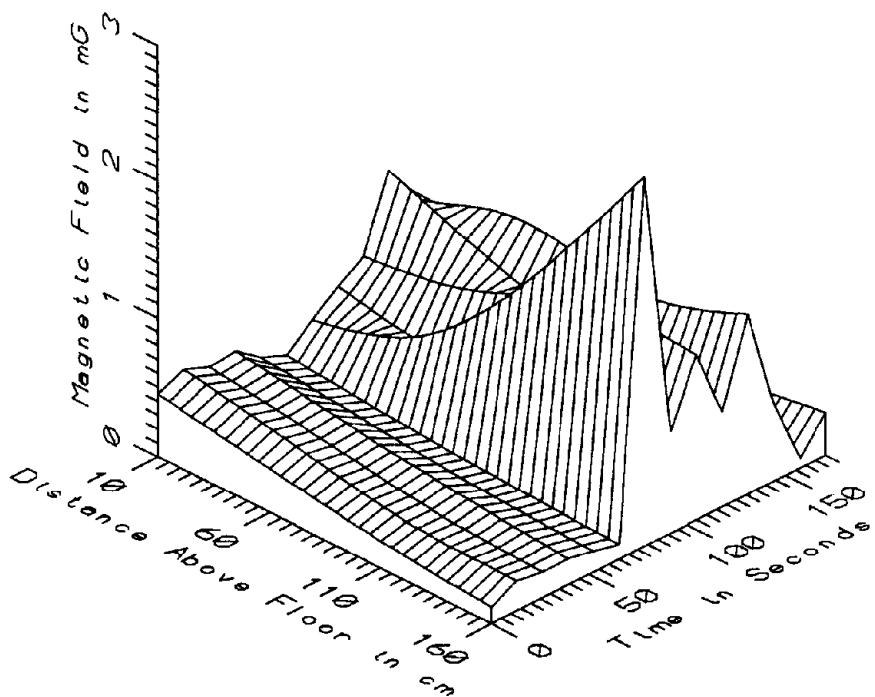
MET002 - CENTER OF AISLE, REAR OF CAR 1173 - LOW FREQ, 5-45Hz



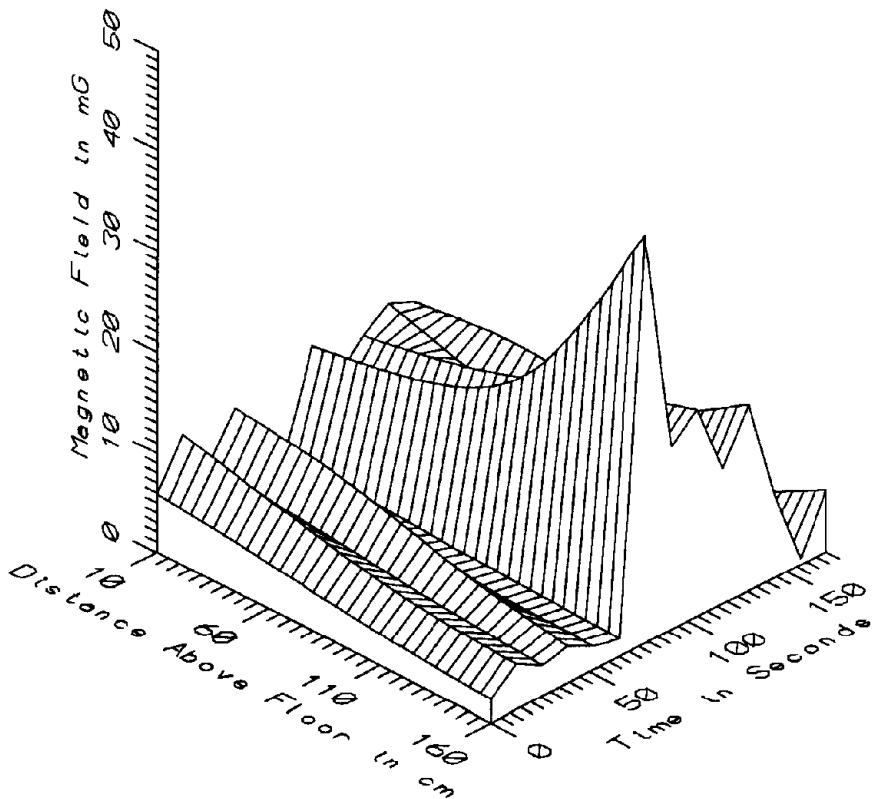
MET002 - CENTER OF AISLE, REAR OF CAR 1173 - POWER FREQ. 50-60Hz



MET002 - CENTER OF AISLE, REAR OF CAR 1173 - POWER HARM. 65-300Hz



MET002 - CENTER OF AISLE, REAR OF CAR 1173 - HIGH FREQ, 305-2560Hz



MET002 - CENTER OF AISLE, REAR OF CAR 1173 - ALL FREQ, 5-2560Hz

MET002 - CENTER OF AISLE, REAR OF CAR #1173						TOTAL OF 14 SAMPLES		
FREQUENCY BAND	HEIGHT ABOVE FLOOR (cm)	MINIMUM MAGNETIC FIELD (mG)	MAXIMUM MAGNETIC FIELD (mG)	AVERAGE MAGNETIC FIELD (mG)	STANDARD DEVIATION (mG)	COEFFICIENT OF VARIATION (%)		
STATIC	10	428.08	1637.63	1147.56	371.76	32.40		
	60	263.70	1133.03	762.76	241.95	31.72		
	110	339.92	846.04	565.79	160.71	28.41		
	160	286.04	765.78	533.94	152.66	28.59		
5-45Hz LOW FREQ	10	1.22	12.82	7.50	4.05	53.94		
	60	0.78	14.92	6.73	4.67	69.45		
	110	0.64	21.33	7.12	6.33	88.89		
	160	0.60	39.95	10.19	11.01	108.02		
50-60Hz PWR FREQ	10	0.21	2.50	0.88	0.68	78.08		
	60	0.14	1.68	0.67	0.51	76.83		
	110	0.21	1.92	0.74	0.55	74.72		
	160	0.10	3.34	0.82	0.88	108.43		
65-300Hz PWR HARM	10	0.31	3.81	1.12	0.89	79.99		
	60	0.29	2.75	0.99	0.76	77.18		
	110	0.23	3.09	1.06	0.92	86.99		
	160	0.22	5.29	1.25	1.42	113.15		
305-2560Hz HIGH FREQ	10	0.16	1.22	0.51	0.28	53.97		
	60	0.11	1.16	0.47	0.31	67.11		
	110	0.08	1.55	0.49	0.46	93.11		
	160	0.08	2.68	0.61	0.72	117.74		
5-2560Hz ALL FREQ	10	1.30	13.09	7.69	4.14	53.87		
	60	0.91	15.02	6.87	4.73	68.92		
	110	0.75	21.69	7.26	6.42	88.39		
	160	0.65	40.53	10.32	11.15	108.03		

APPENDIX D

DATASET MET003 IN FRONT OF OPERATOR'S SEAT, CAR #1173

Measurement Setup Code: Staff: 8 Reference: 10,11
Drawing: A-1

Vehicle Status: Traveling on the Red Line

Measurement Date: May 19, 1992

Measurement Time: Start: 08:35:36
End: 08:39:42

Number of Samples: 27

Programmed Sample Interval: 5 sec

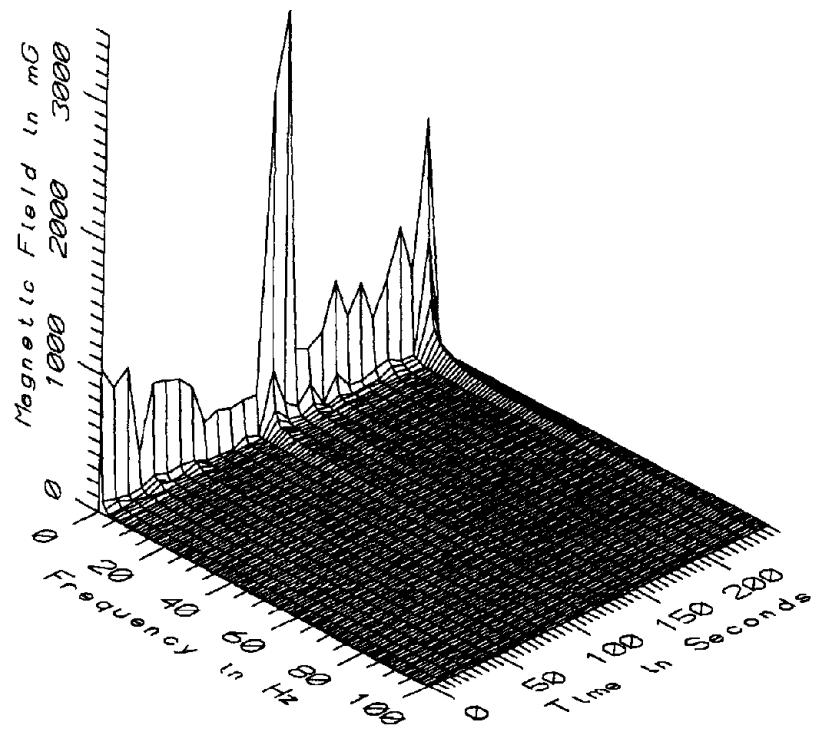
Actual Sample Interval: 9.5 sec

Frequency Spectrum Parameters

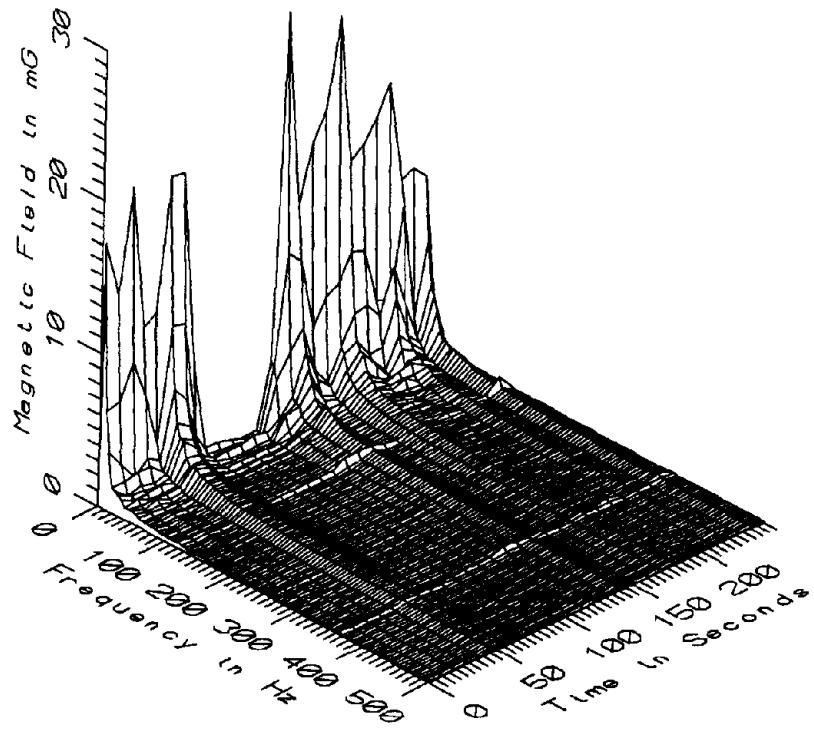
<u>Probe Type:</u>	<u>Wideband</u>	<u>Static</u>
Maximum Frequency (Hz)	2560	100
Minimum Frequency (Hz)	5	0
Spectral Bandwidth (Hz)	5	1

Missing Data: Wideband data from the reference probe

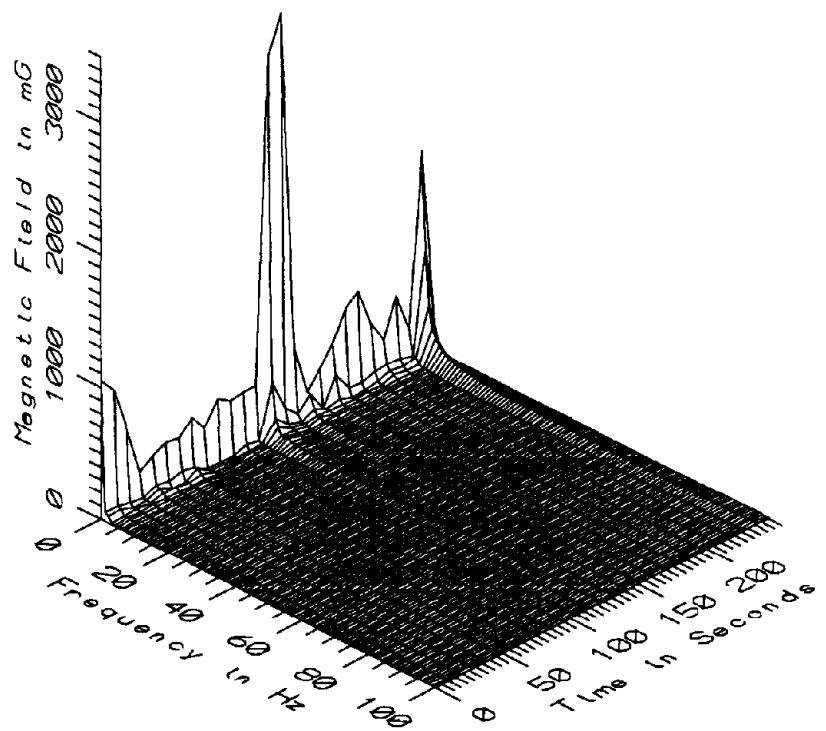
Saturated Data - Wideband:	<u>Sensor</u>	<u>Sample</u>	<u>Time (sec)</u>
	10cm	26	238
	110cm	25	228
	160cm	26	238



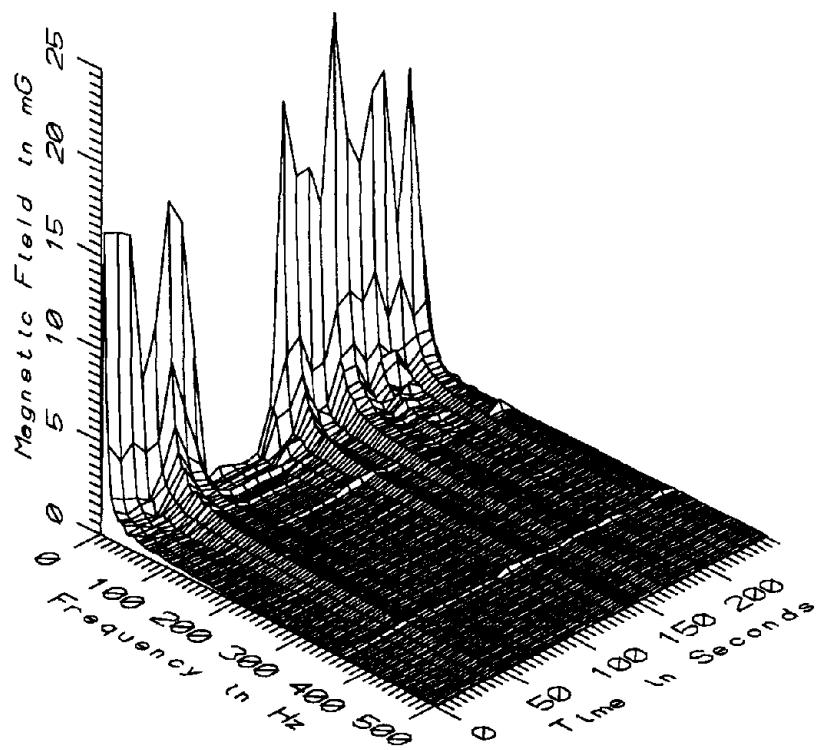
MET003 - 10cm ABOVE FLOOR, IN FRONT OF OPERATOR'S SEAT, CAR 1173



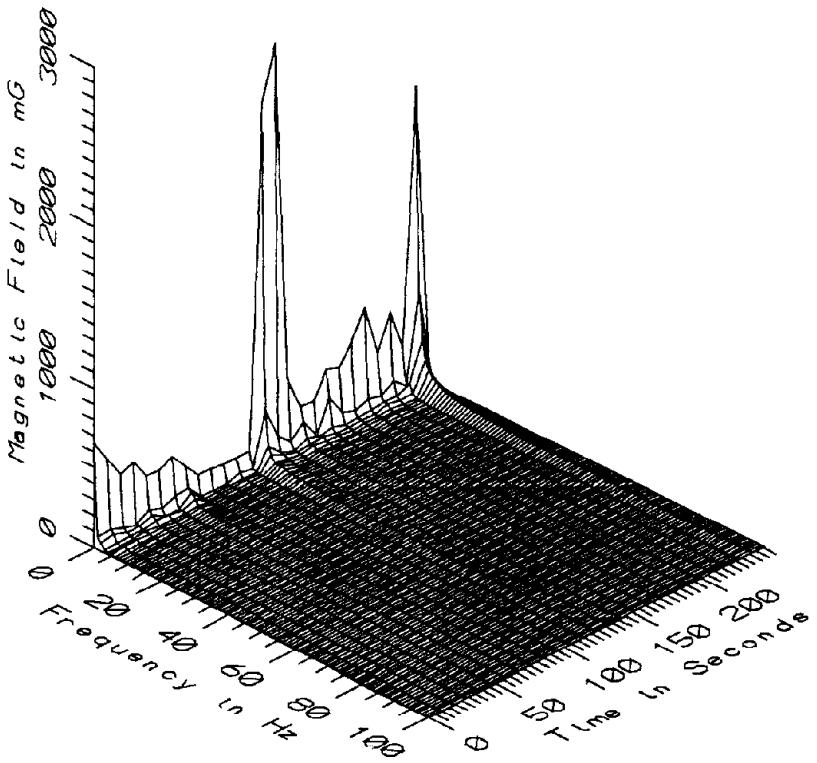
MET003 - 10cm ABOVE FLOOR, IN FRONT OF OPERATOR'S SEAT, CAR 1173



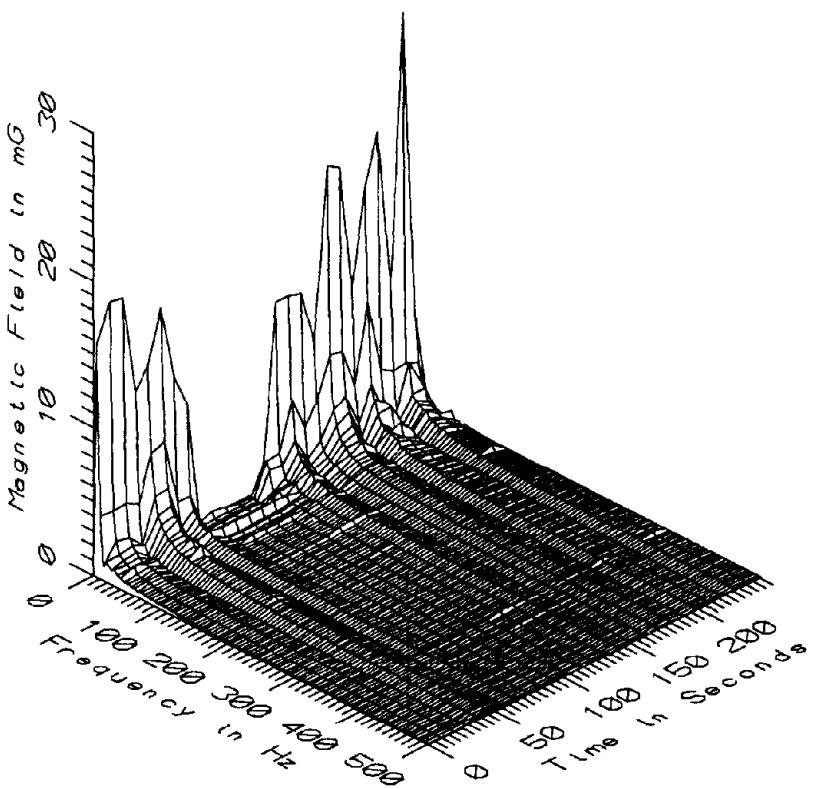
MET003 - 60cm ABOVE FLOOR, IN FRONT OF OPERATOR'S SEAT, CAR 1173



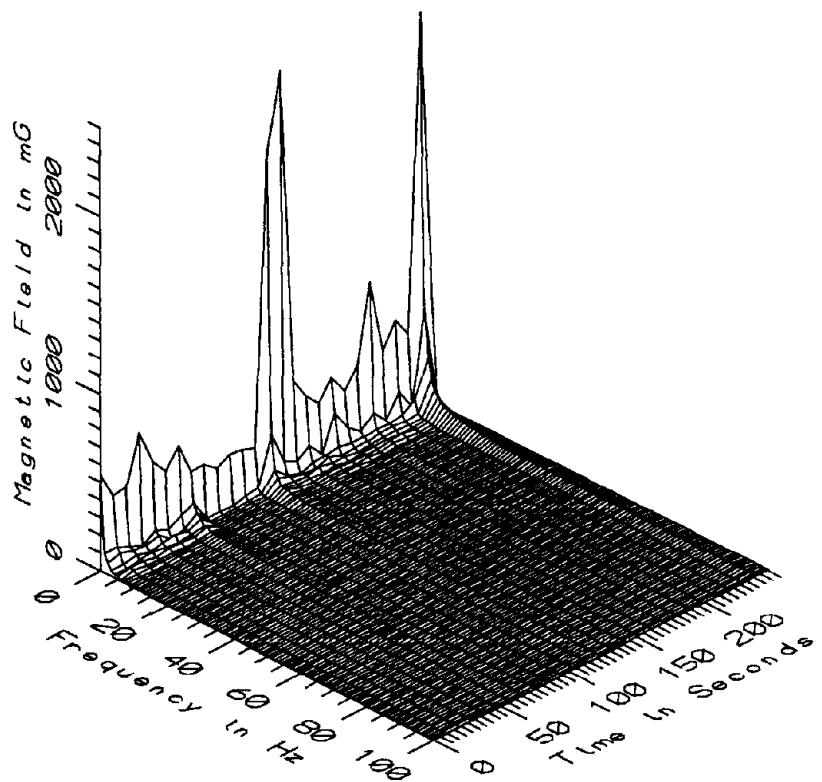
MET003 - 60cm ABOVE FLOOR, IN FRONT OF OPERATOR'S SEAT, CAR 1173



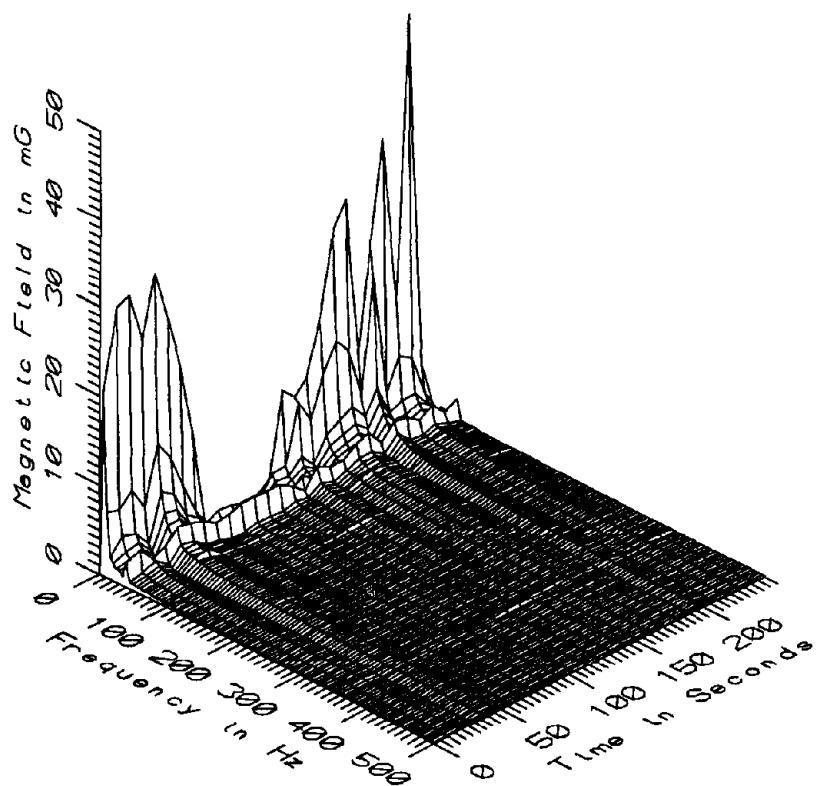
MET003 - 110cm ABOVE FLOOR, IN FRONT OF OPERATOR'S SEAT, CAR 1173



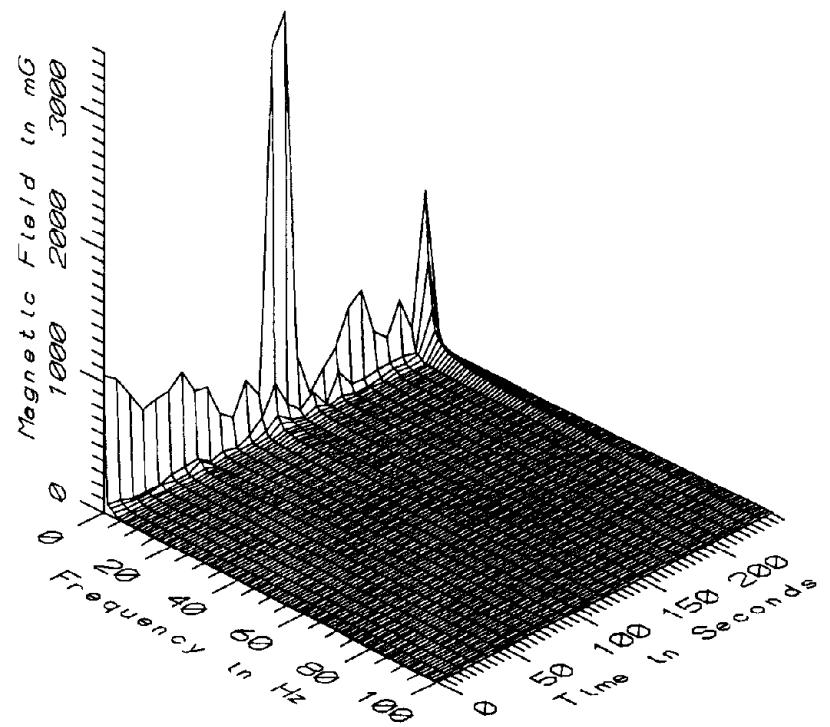
MET003 - 110cm ABOVE FLOOR, IN FRONT OF OPERATOR'S SEAT, CAR 1173



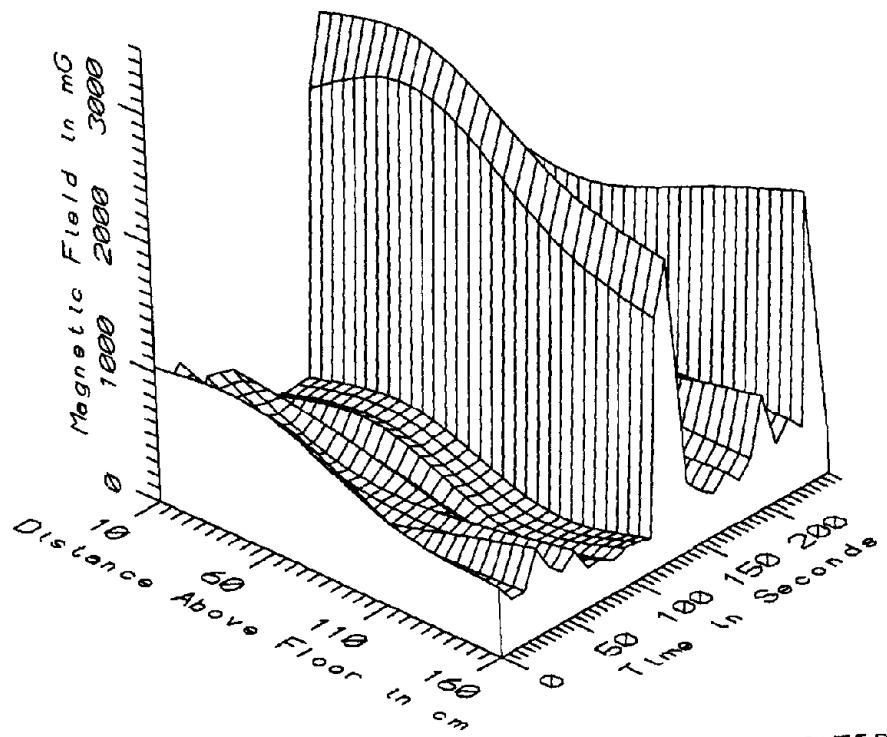
MET003 - 160cm ABOVE FLOOR, IN FRONT OF OPERATOR'S SEAT, CAR 1173



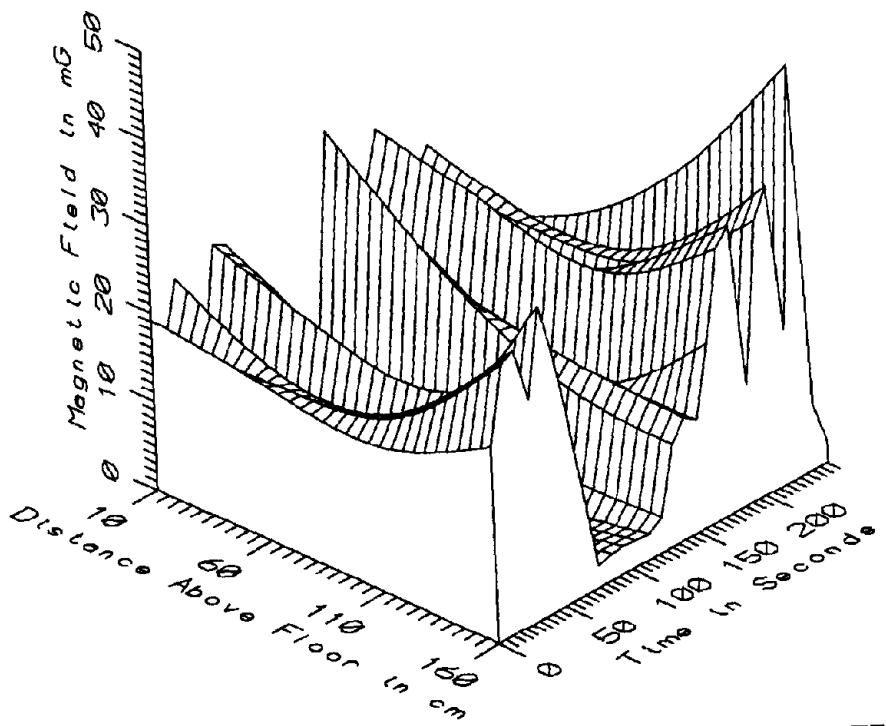
MET003 - 160cm ABOVE FLOOR, IN FRONT OF OPERATOR'S SEAT, CAR 1173



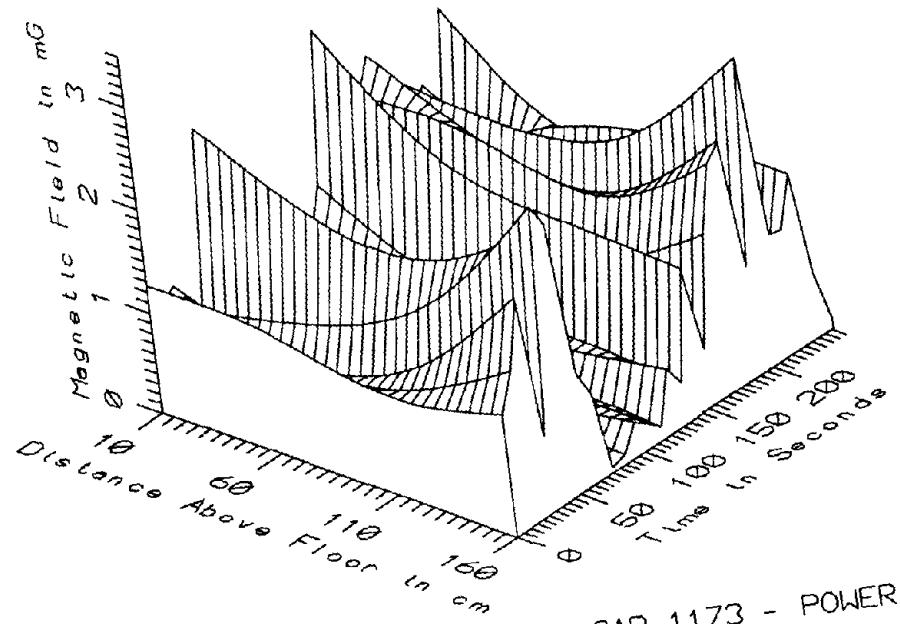
MET003 - REFERENCE PROBE - WINDOW SEAT AT REAR OF CAR 1173



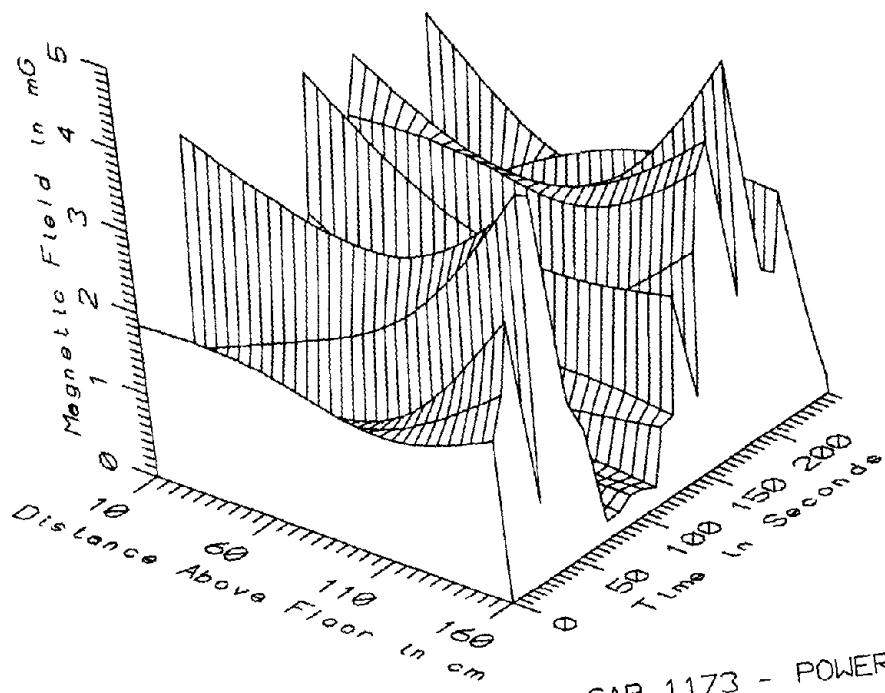
MET003 - IN FRONT OF OPERATOR'S SEAT, CAR 1173 - STATIC



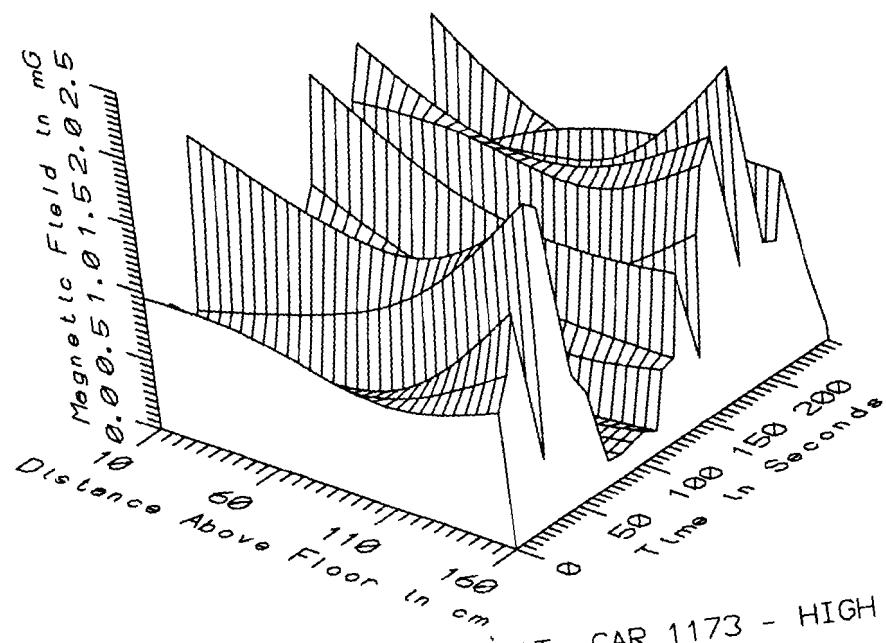
MET003 - IN FRONT OF OPERATOR'S SEAT, CAR 1173 - LOW FREQ, 5-45Hz



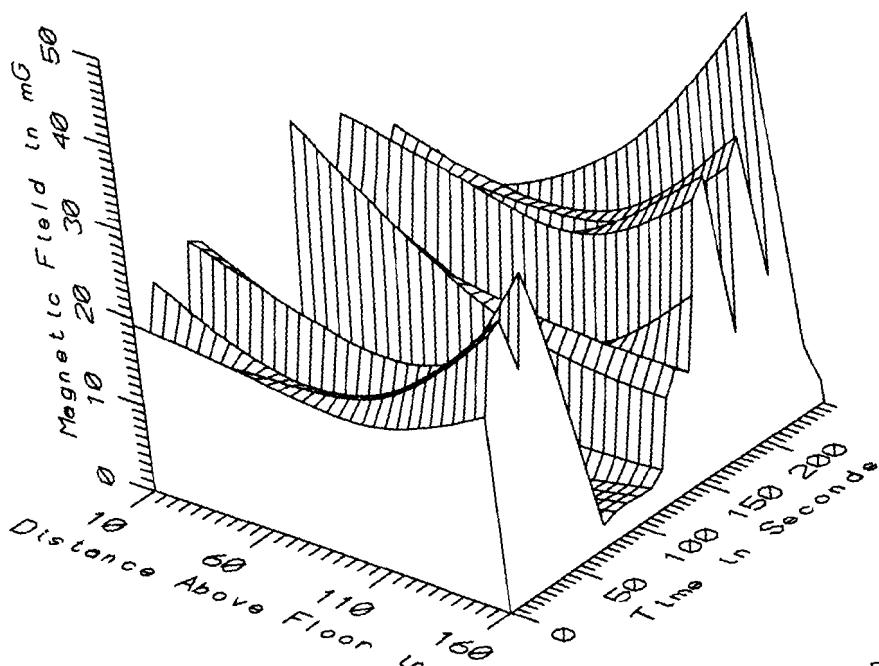
MET003 - IN FRONT OF OPERATOR'S SEAT, CAR 1173 - POWER FREQ, 50-60Hz



MET003 - IN FRONT OF OPERATOR'S SEAT, CAR 1173 - POWER HARM, 65-300Hz



MET003 - IN FRONT OF OPERATOR'S SEAT, CAR 1173 - HIGH FREQ, 305-2560Hz



MET003 - IN FRONT OF OPERATOR'S SEAT, CAR 1173 - ALL FREQ, 5-2560Hz

MET003 - IN FRONT OF OPERATORS SEAT, CAR #1173						TOTAL OF 27 SAMPLES	
FREQUENCY BAND	HEIGHT ABOVE FLOOR (cm)	MINIMUM MAGNETIC FIELD (mG)	MAXIMUM MAGNETIC FIELD (mG)	AVERAGE MAGNETIC FIELD (mG)	STANDARD DEVIATION (mG)	COEFFICIENT OF VARIATION (%)	
STATIC	10	274.28	3042.39	805.31	655.14	81.35	
	60	169.70	3148.44	680.01	734.84	108.06	
	110	114.25	2582.07	540.46	637.31	117.92	
	160	249.88	2310.96	616.54	571.48	92.69	
5-45HZ LOW FREQ	10	0.62	29.66	14.33	8.90	62.13	
	60	0.45	23.60	11.78	7.32	62.19	
	110	0.69	28.68	12.07	8.02	66.46	
	160	2.44	46.79	18.53	12.88	69.52	
50-60HZ PWR FREQ	10	0.19	2.58	1.06	0.71	67.36	
	60	0.06	1.90	0.82	0.55	67.58	
	110	0.17	1.93	0.87	0.57	66.32	
	160	0.06	3.05	1.21	0.90	74.91	
65-300HZ PWR HARM	10	0.16	3.68	1.55	1.09	70.12	
	60	0.19	3.16	1.30	0.86	66.22	
	110	0.16	3.22	1.32	0.94	71.32	
	160	0.21	4.59	1.88	1.40	74.34	
305-2560HZ HIGH FREQ	10	0.12	1.87	0.82	0.53	64.63	
	60	0.11	1.57	0.69	0.42	61.05	
	110	0.09	1.55	0.67	0.48	71.61	
	160	0.12	2.32	0.98	0.69	70.54	
5-2560HZ ALL FREQ	10	0.74	29.76	14.51	8.96	61.75	
	60	0.53	23.85	11.92	7.37	61.85	
	110	0.76	28.87	12.21	8.07	66.08	
	160	2.46	46.91	18.71	12.97	69.36	

APPENDIX E

**DATASET MET004
CENTER OF AISLE, CENTER OF CAR #3012**

Measurement Setup Code: Staff: 1 Reference: -
Drawing: A-1

Vehicle Status: Traveling on the Red Line

Measurement Date: May 19, 1992

Measurement Time: Start: 09:59:55
End: 10:00:08

Number of Samples: 2

Programmed Sample Interval: 5 sec

Actual Sample Interval: 13.0 sec

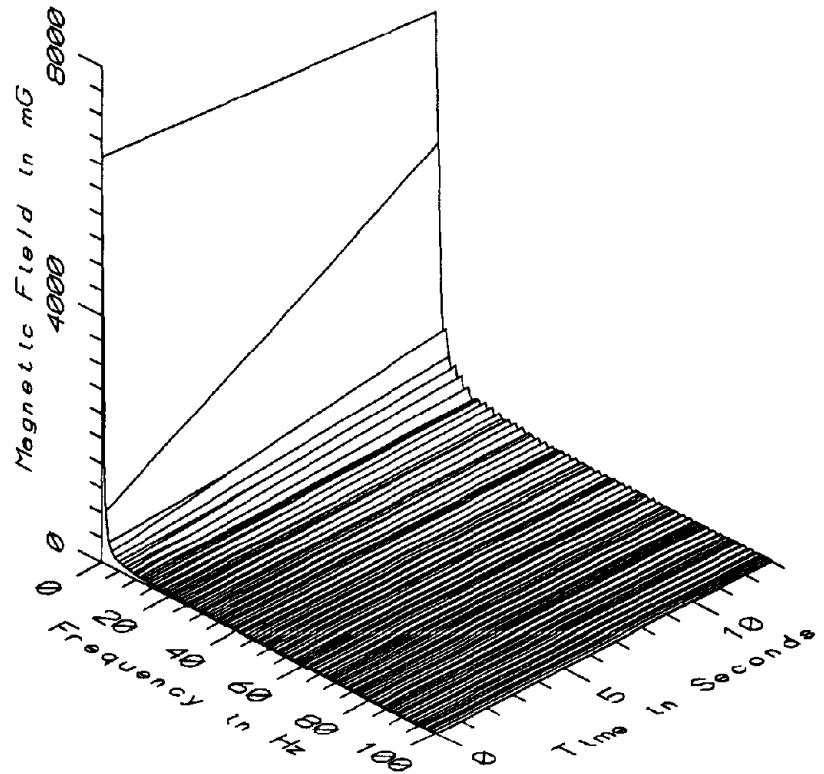
Frequency Spectrum Parameters

<u>Probe Type:</u>	<u>Wideband</u>	<u>Static</u>
Maximum Frequency (Hz)	2560	100
Minimum Frequency (Hz)	5	0
Spectral Bandwidth (Hz)	5	1

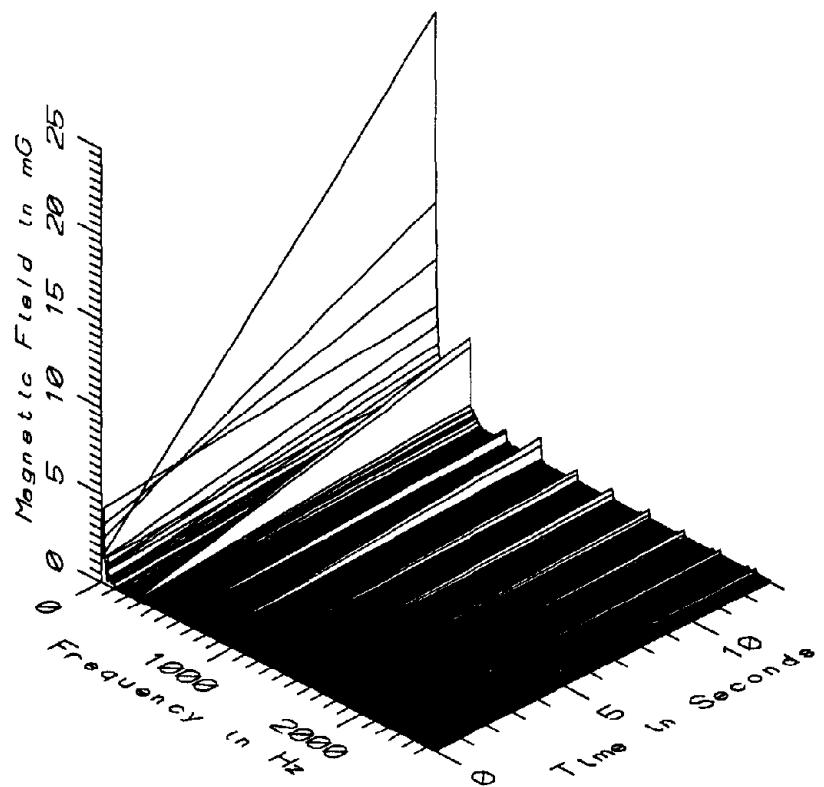
Missing Data: No reference probe

Saturated Data - Wideband:	<u>Sensor</u>	<u>Sample</u>	<u>Time (sec)</u>
	10cm	1	0
	10cm	2	13
	60cm	2	13

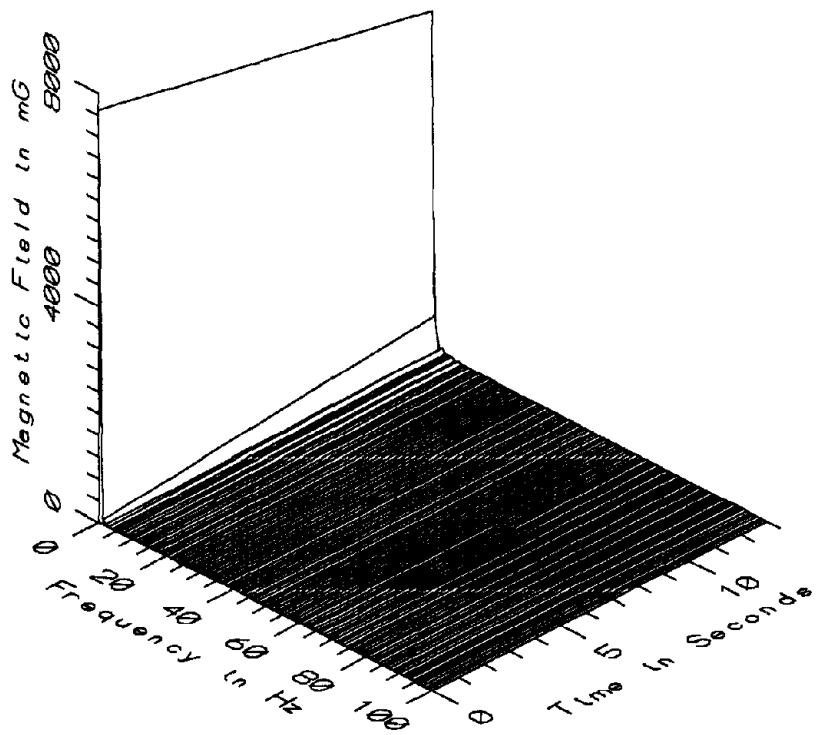
Saturated Data - Static:	<u>Sensor</u>	<u>Sample</u>	<u>Time (sec)</u>
	10cm	1	0
	10cm	2	13
	60cm	1	0
	60cm	2	13
	110cm	1	0



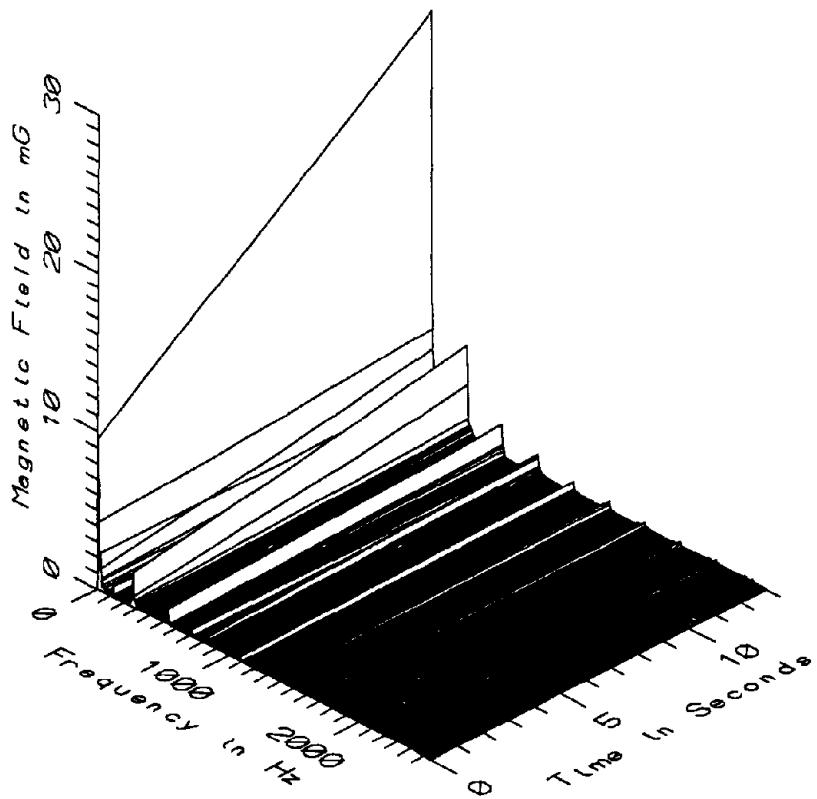
MET004 - 10cm ABOVE FLOOR, CENTER OF AISLE, CENTER OF CAR 3012



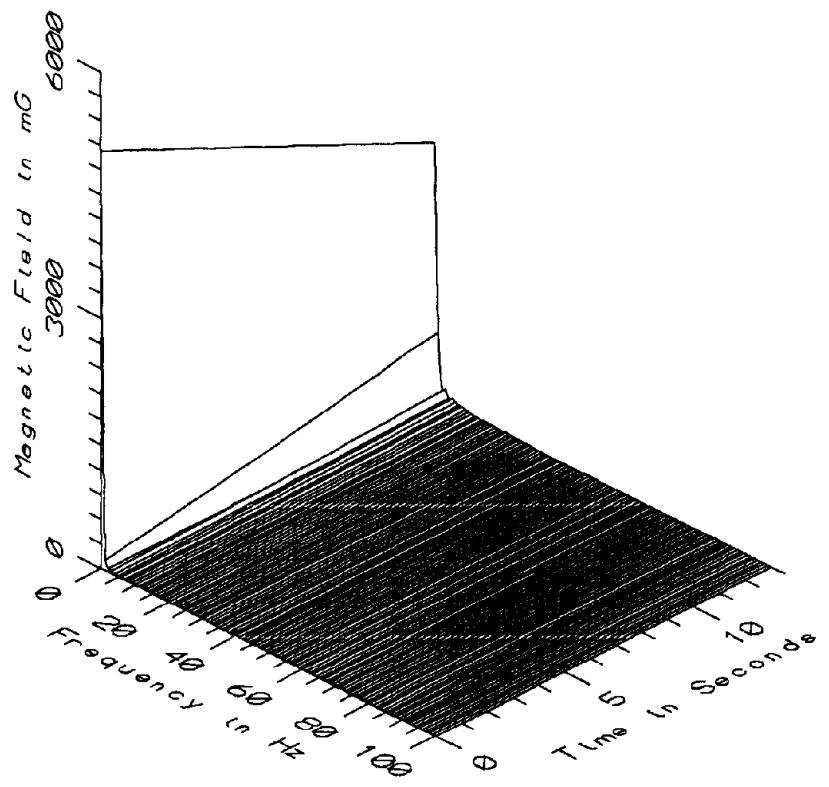
MET004 - 10cm ABOVE FLOOR, CENTER OF AISLE, CENTER OF CAR 3012



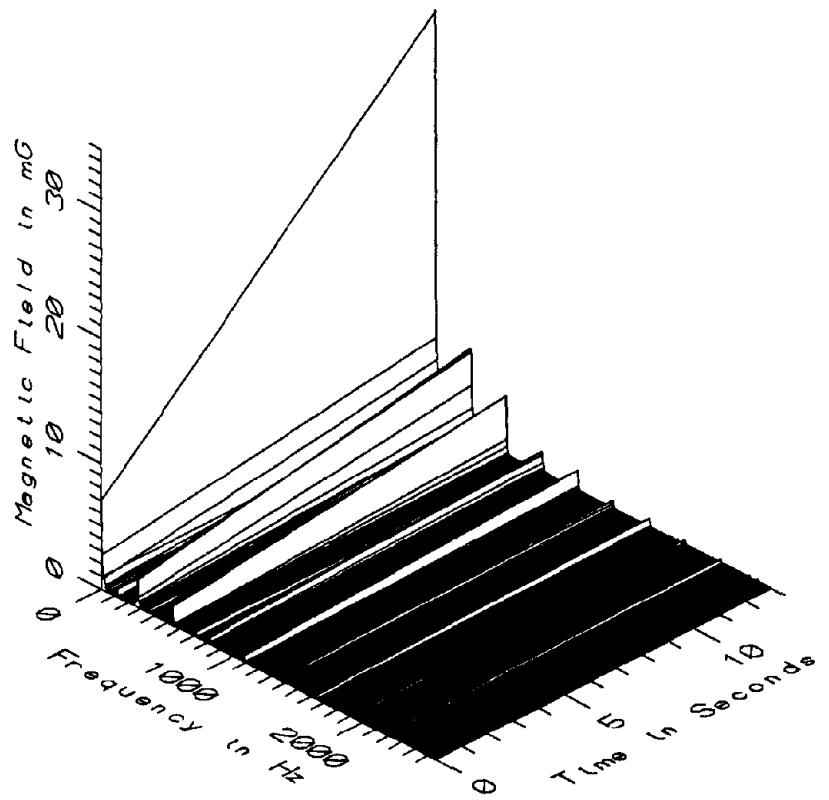
MET004 - 60cm ABOVE FLOOR, CENTER OF AISLE, CENTER OF CAR 3012



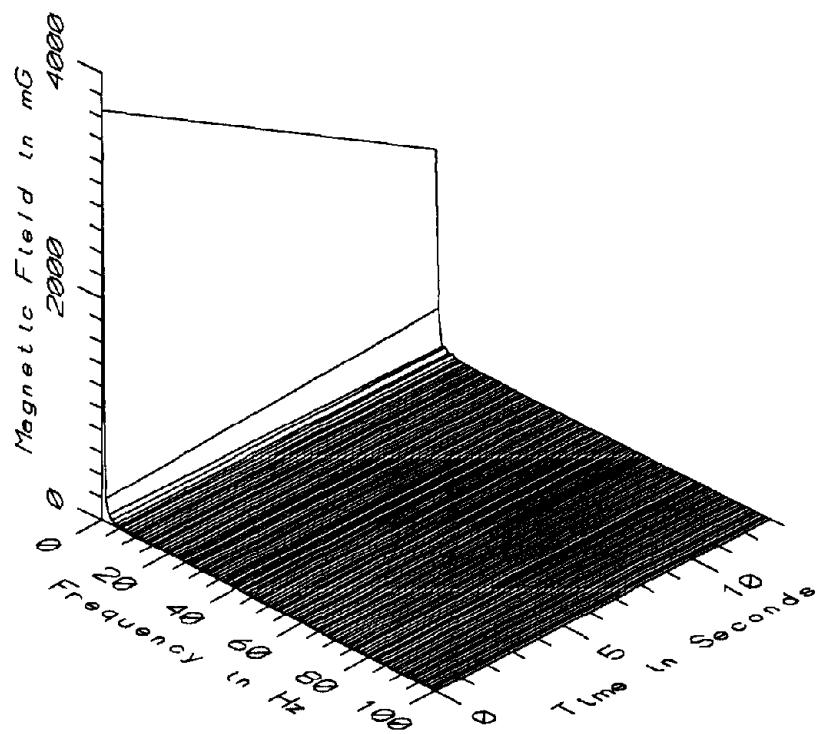
MET004 - 60cm ABOVE FLOOR, CENTER OF AISLE, CENTER OF CAR 3012



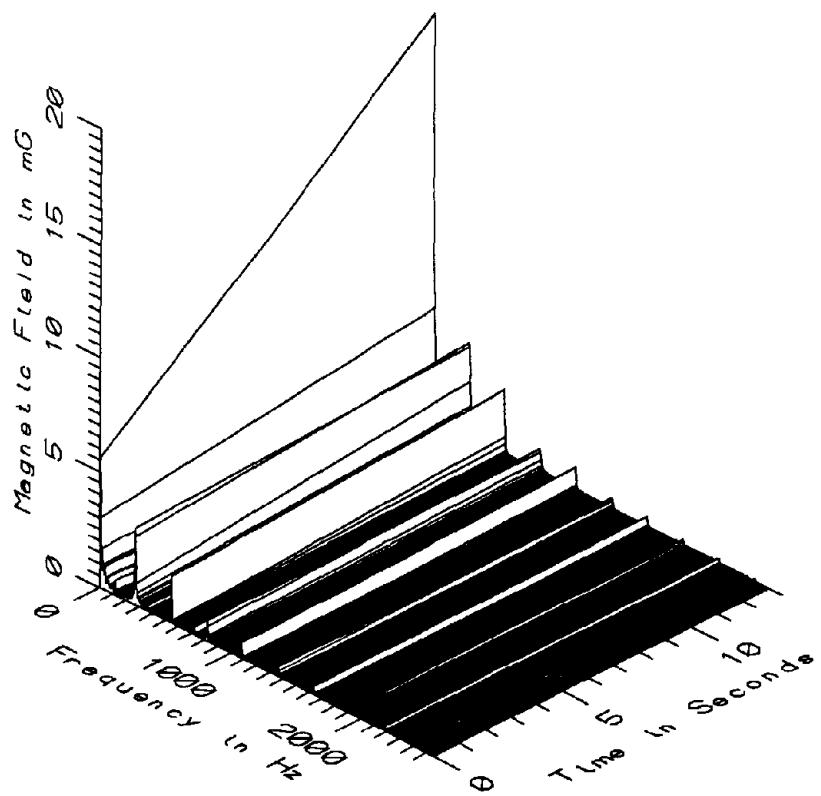
MET004 - 110cm ABOVE FLOOR, CENTER OF AISLE, CENTER OF CAR 3012



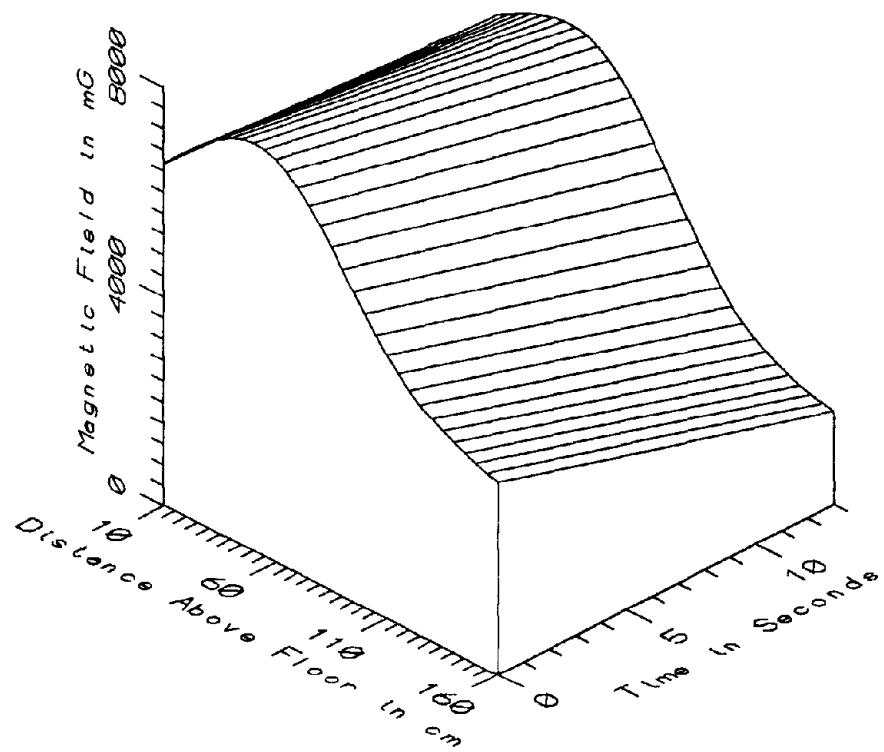
MET004 - 110cm ABOVE FLOOR, CENTER OF AISLE, CENTER OF CAR 3012



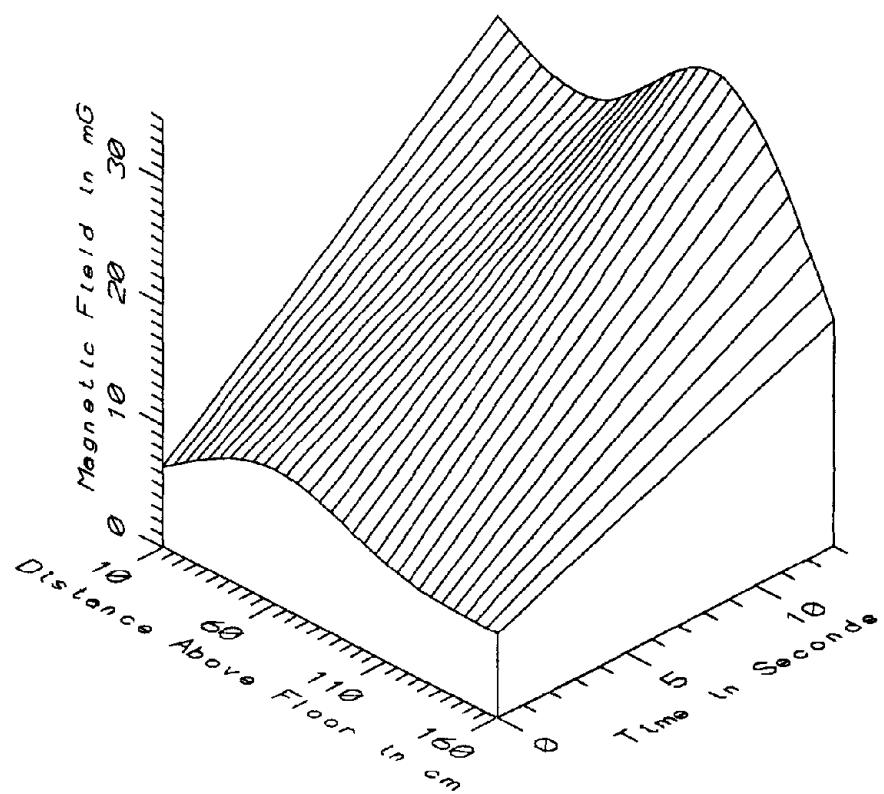
MET004 - 160cm ABOVE FLOOR, CENTER OF AISLE, CENTER OF CAR 3012



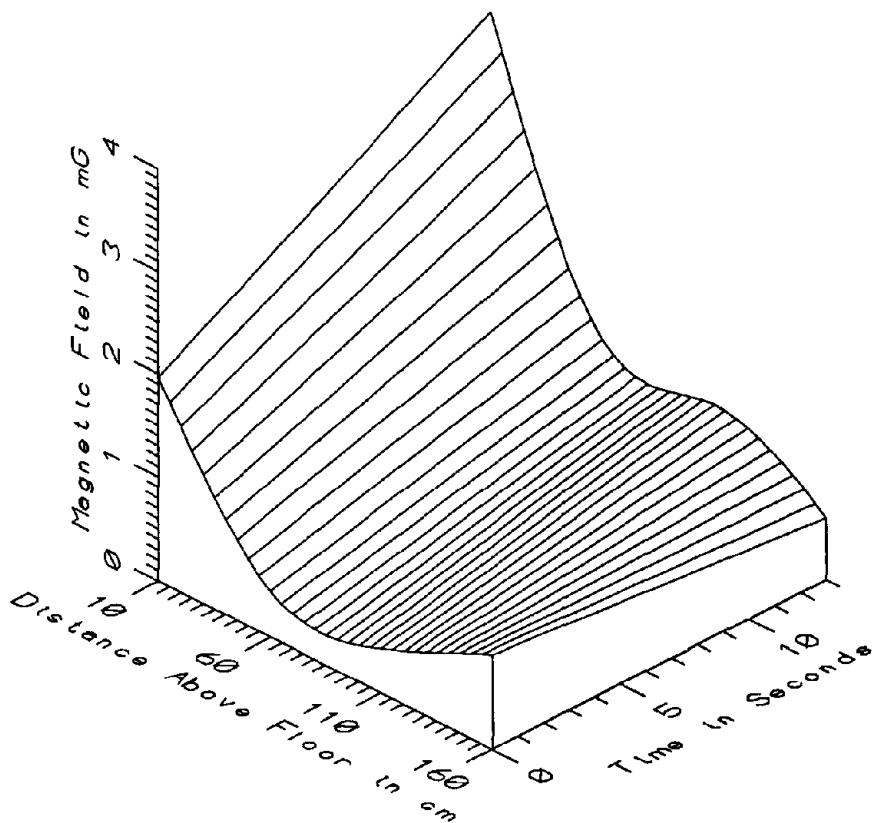
MET004 - 160cm ABOVE FLOOR, CENTER OF AISLE, CENTER OF CAR 3012



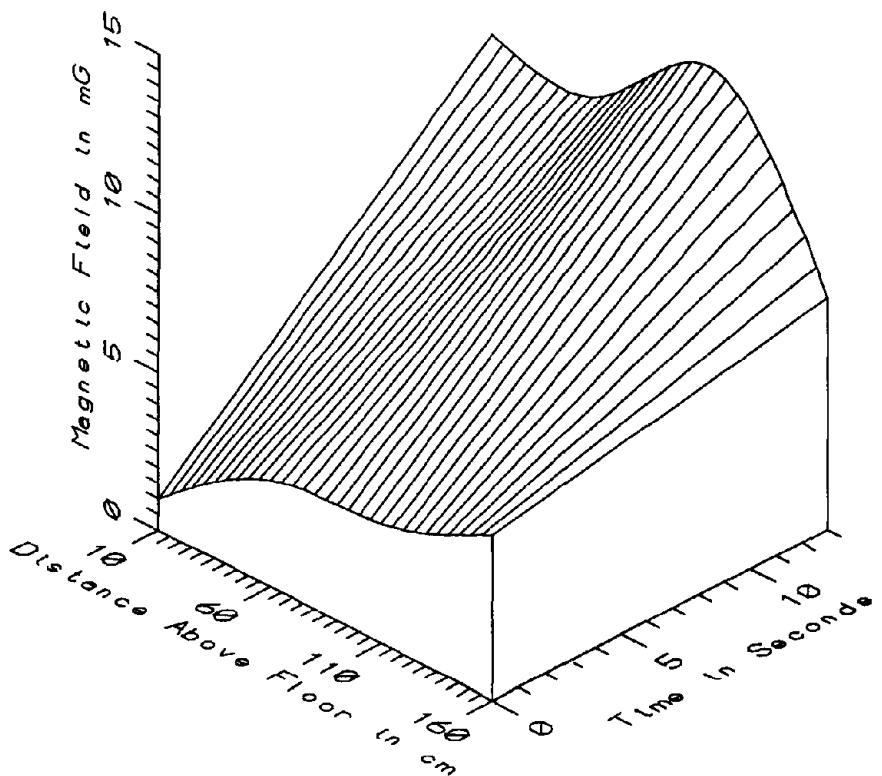
MET004 - CENTER OF AISLE, CENTER OF CAR 3012 - STATIC



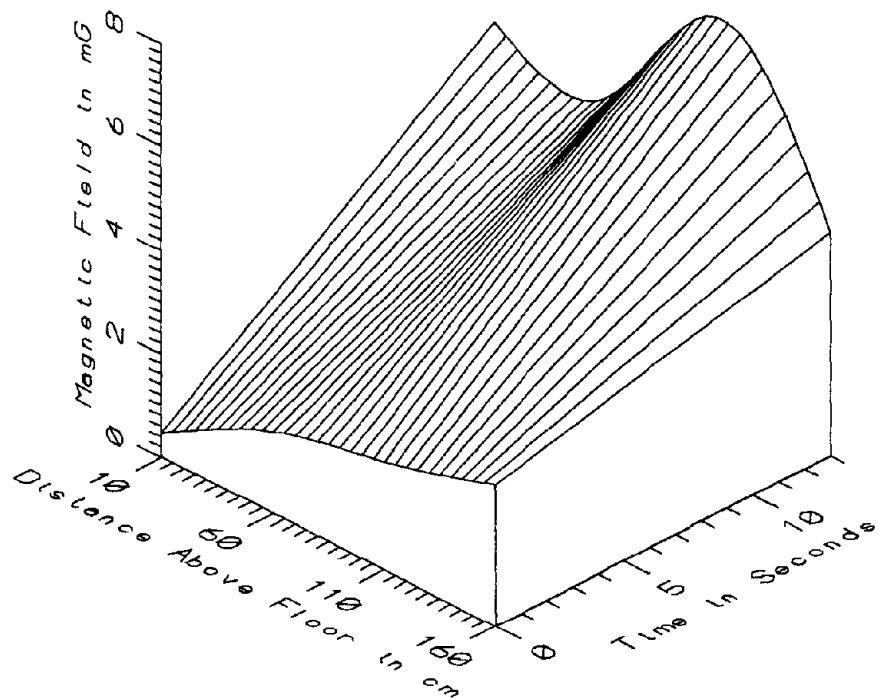
MET004 - CENTER OF AISLE, CENTER OF CAR 3012 - LOW FREQ, 5-45Hz



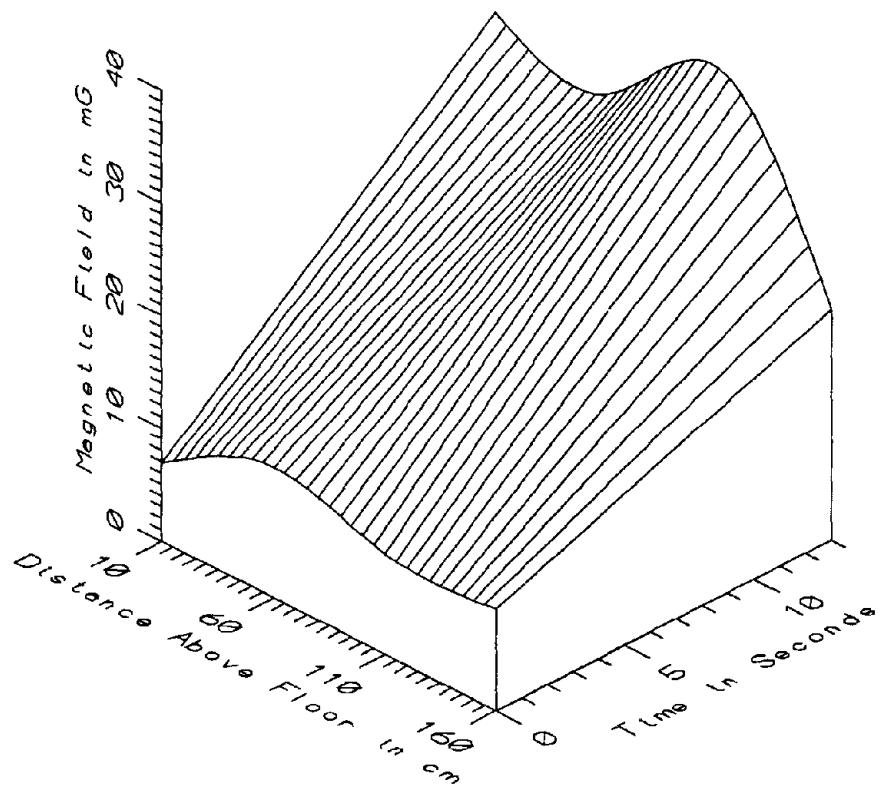
MET004 - CENTER OF AISLE, CENTER OF CAR 3012 - POWER FREQ, 50-60Hz



MET004 - CENTER OF AISLE, CENTER OF CAR 3012 - POWER HARM, 65-300Hz



MET004 - CENTER OF AISLE, CENTER OF CAR 3012 - HIGH FREQ, 305-2560Hz



MET004 - CENTER OF AISLE, CENTER OF CAR 3012 - ALL FREQ, 5-2560Hz

MET004 - CENTER OF AISLE, CENTER OF CAR 3012						TOTAL OF 2 SAMPLES		
FREQUENCY BAND	HEIGHT ABOVE FLOOR (cm)	MINIMUM MAGNETIC FIELD (mG)	MAXIMUM MAGNETIC FIELD (mG)	AVERAGE MAGNETIC FIELD (mG)	STANDARD DEVIATION (mG)	COEFFICIENT OF VARIATION (%)		
STATIC	10	49926.00	131469.00	90697.50	57659.61	63.57		
	60	9012.00	23732.00	16372.00	10408.61	63.58		
	110	3093.52	8038.00	5565.76	3496.28	62.82		
	160	1803.03	3666.61	2734.82	1317.75	48.18		
5-45Hz LOW FREQ	10	6.53	29.46	17.99	16.22	90.13		
	60	10.94	27.26	19.10	11.54	60.42		
	110	7.83	33.80	20.82	18.36	88.20		
	160	6.89	18.56	12.73	8.25	64.82		
50-60Hz PWR FREQ	10	1.97	3.86	2.91	1.34	45.93		
	60	0.45	1.24	0.84	0.56	65.93		
	110	0.43	1.14	0.79	0.50	64.23		
	160	0.59	0.92	0.76	0.23	30.23		
65-300Hz PWR HARM	10	1.01	10.32	5.66	6.58	116.27		
	60	3.36	10.10	6.73	4.77	70.85		
	110	3.74	12.71	8.23	6.34	77.05		
	160	5.17	7.32	6.24	1.52	24.38		
305-2560Hz HIGH FREQ	10	0.47	5.14	2.81	3.30	117.55		
	60	1.59	4.75	3.17	2.24	70.64		
	110	2.09	7.40	4.75	3.76	79.20		
	160	2.73	4.32	3.52	1.12	31.88		
5-2560Hz ALL FREQ	10	6.91	31.87	19.39	17.65	91.04		
	60	11.56	29.48	20.52	12.67	61.75		
	110	8.94	36.88	22.91	19.75	86.22		
	160	9.08	20.42	14.75	8.02	54.35		

APPENDIX F

DATASET MET006 CENTER OF AISLE, CENTER OF CAR #3012

Measurement Setup Code: Staff: 1 Reference: 9
Drawing: A-1

Vehicle Status: Traveling on the Red Line

Measurement Date: May 19, 1992

Measurement Time: Start: 10:04:26
End: 10:05:24

Number of Samples: 10

Programmed Sample Interval: 5 sec

Actual Sample Interval: 6.4 sec

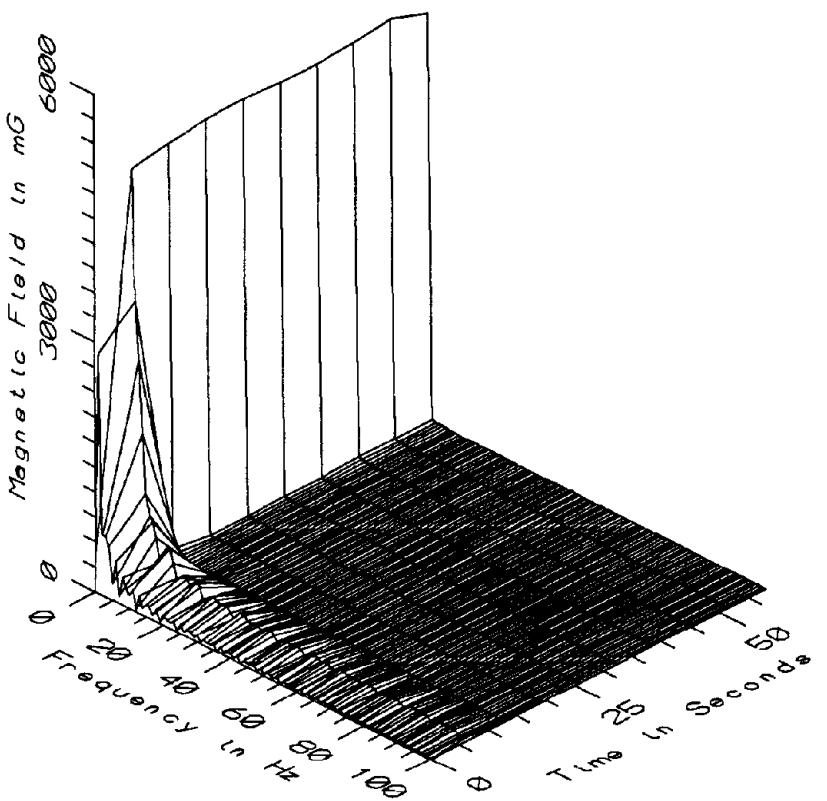
Frequency Spectrum Parameters

<u>Probe Type:</u>	<u>Wideband</u>	<u>Static</u>
Maximum Frequency (Hz)	2560	100
Minimum Frequency (Hz)	5	0
Spectral Bandwidth (Hz)	5	1

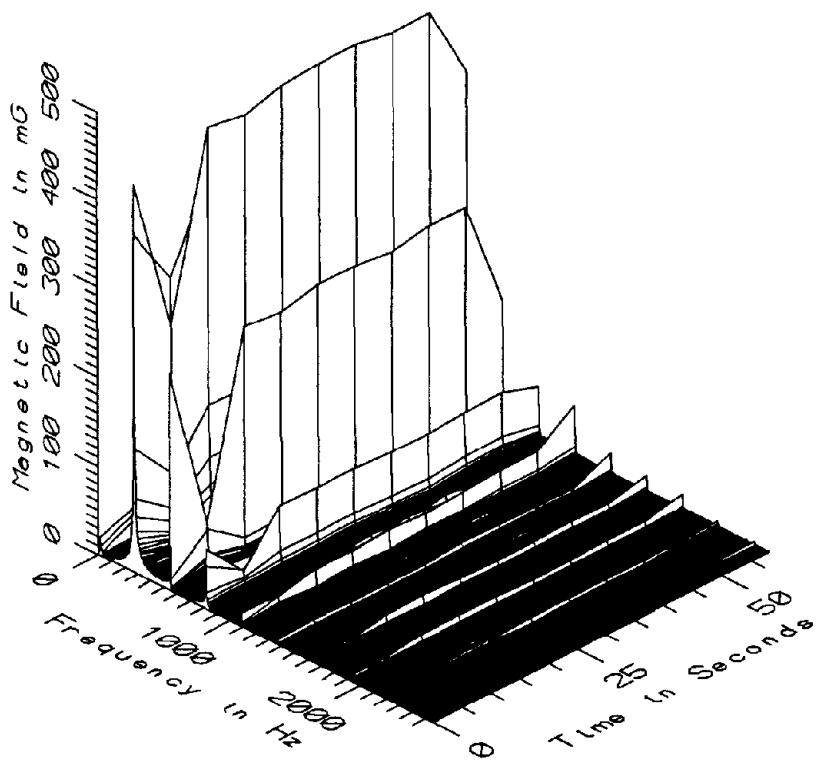
Missing Data: Wideband data from the reference probe

Saturated Data - Wideband:	<u>Sensor</u>	<u>Sample</u>	<u>Time (sec)</u>
	10cm	10	58
	60cm	10	58

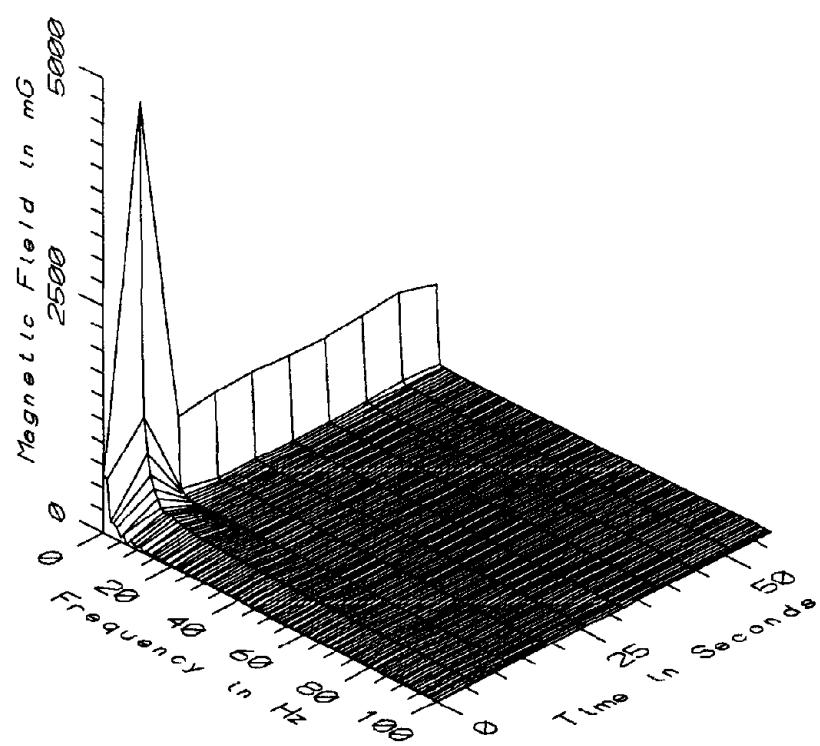
Saturated Data - Static:	<u>Sensor</u>	<u>Sample</u>	<u>Time (sec)</u>
	10cm	2	13
	60cm	2	13



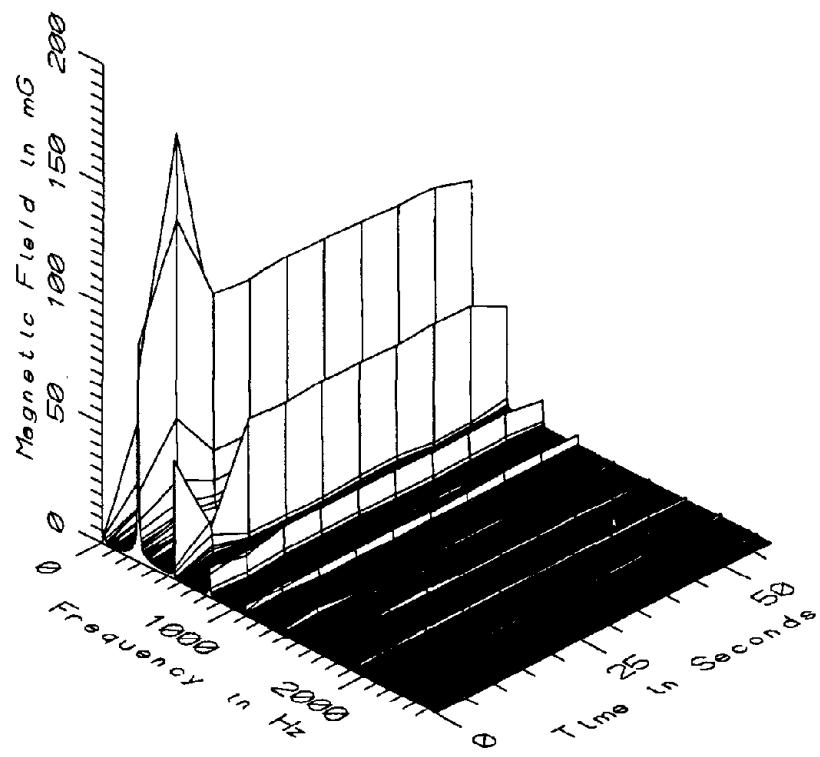
MET006 - 10cm ABOVE FLOOR, CENTER OF AISLE, CENTER OF CAR 3012



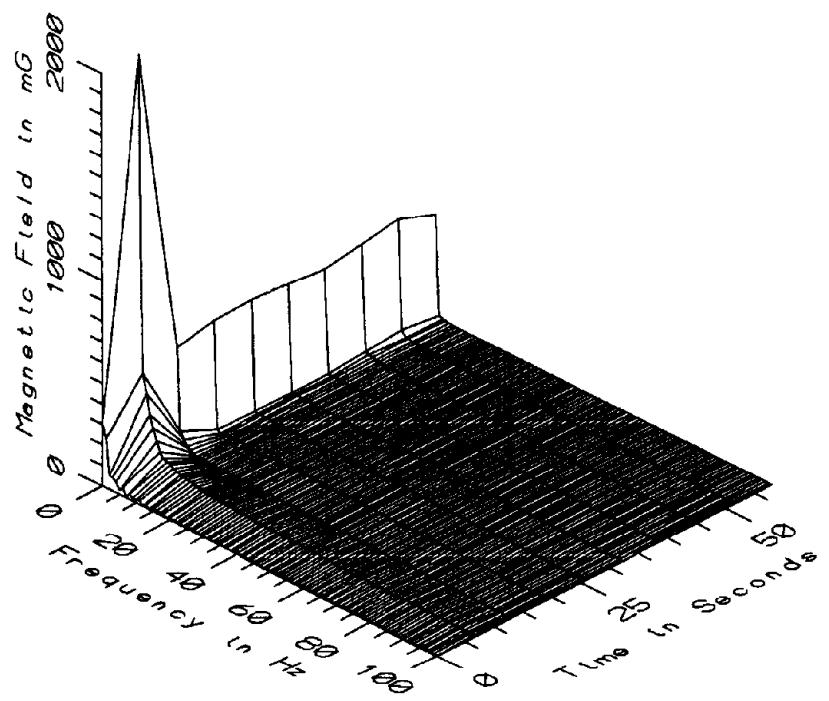
MET006 - 10cm ABOVE FLOOR, CENTER OF AISLE, CENTER OF CAR 3012



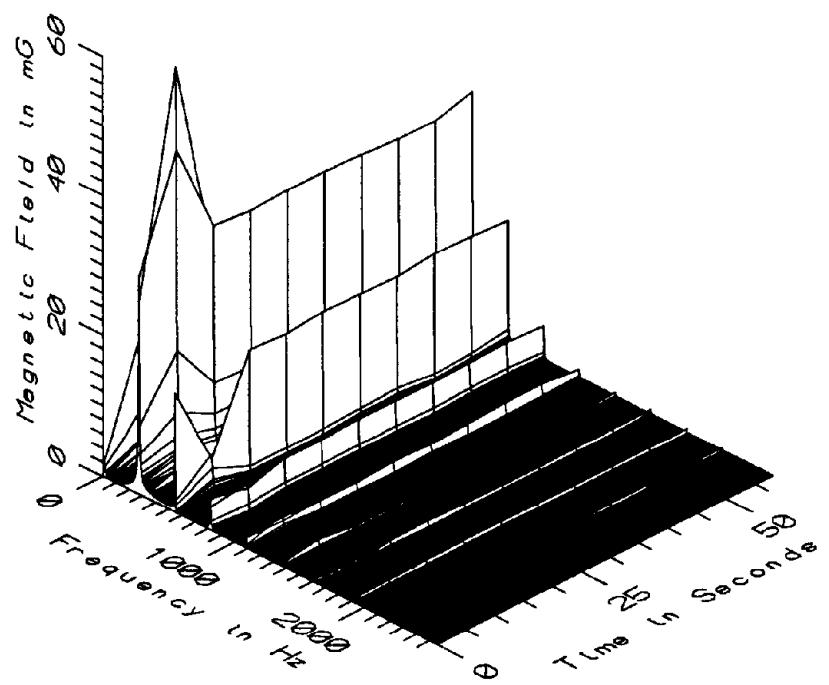
MET006 - 60cm ABOVE FLOOR, CENTER OF AISLE, CENTER OF CAR 3012



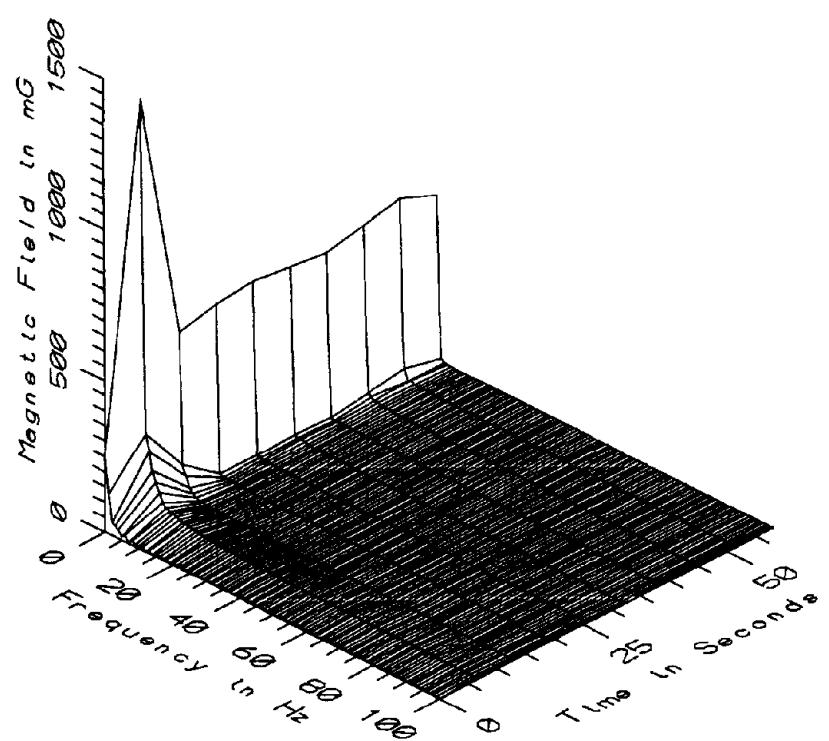
MET006 - 60cm ABOVE FLOOR, CENTER OF AISLE, CENTER OF CAR 3012



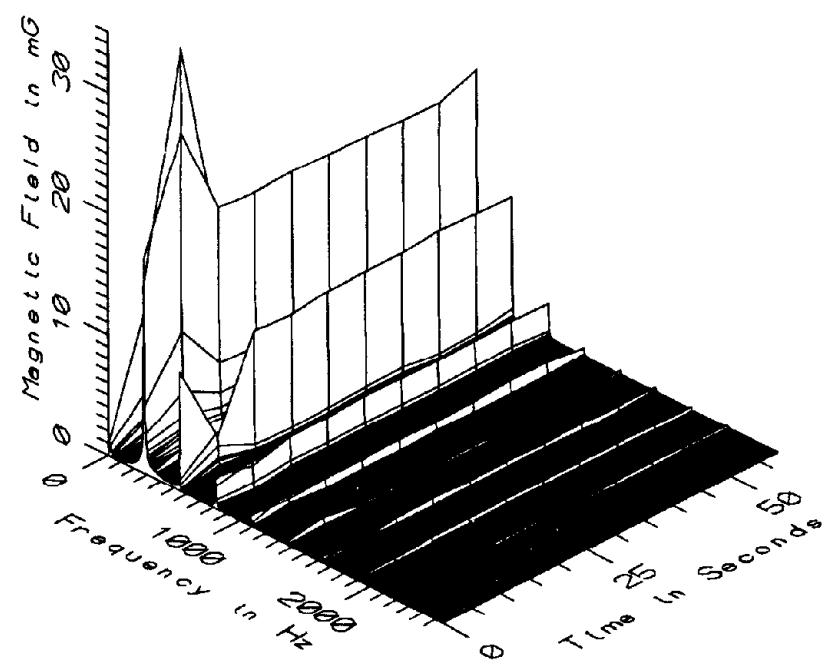
MET006 - 110cm ABOVE FLOOR, CENTER OF AISLE, CENTER OF CAR 3012



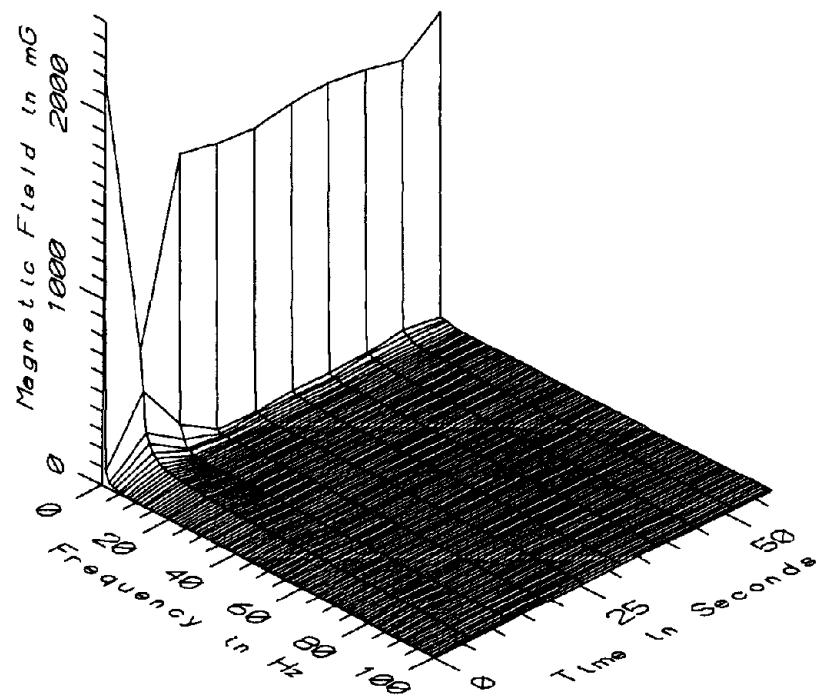
MET006 - 110cm ABOVE FLOOR, CENTER OF AISLE, CENTER OF CAR 3012



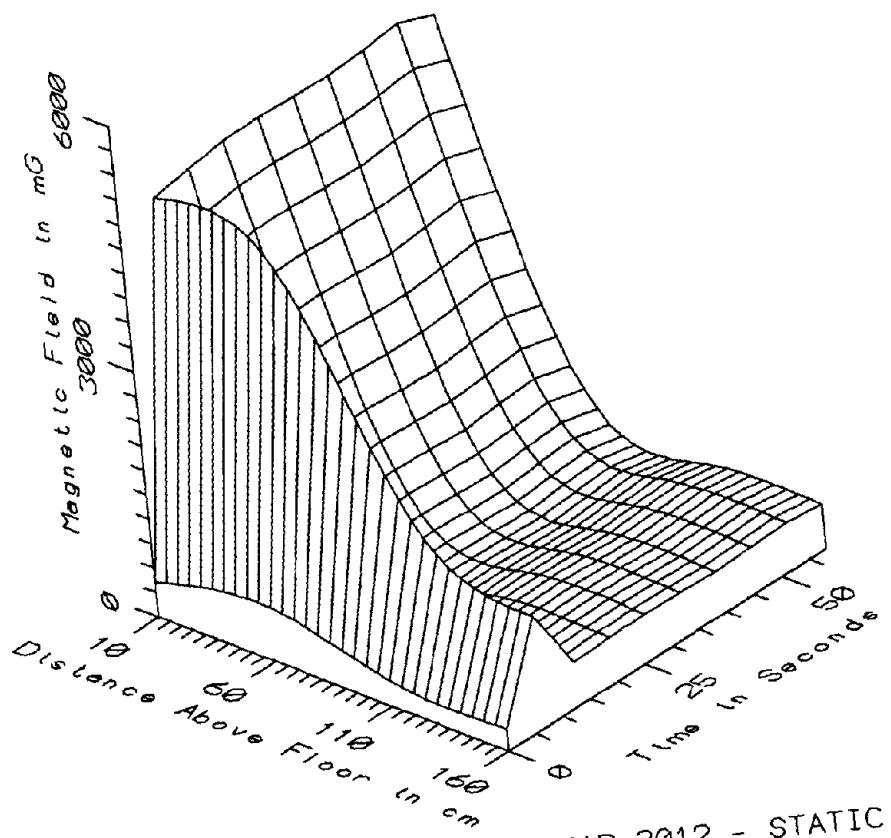
MET006 - 160cm ABOVE FLOOR, CENTER OF AISLE, CENTER OF CAR 3012



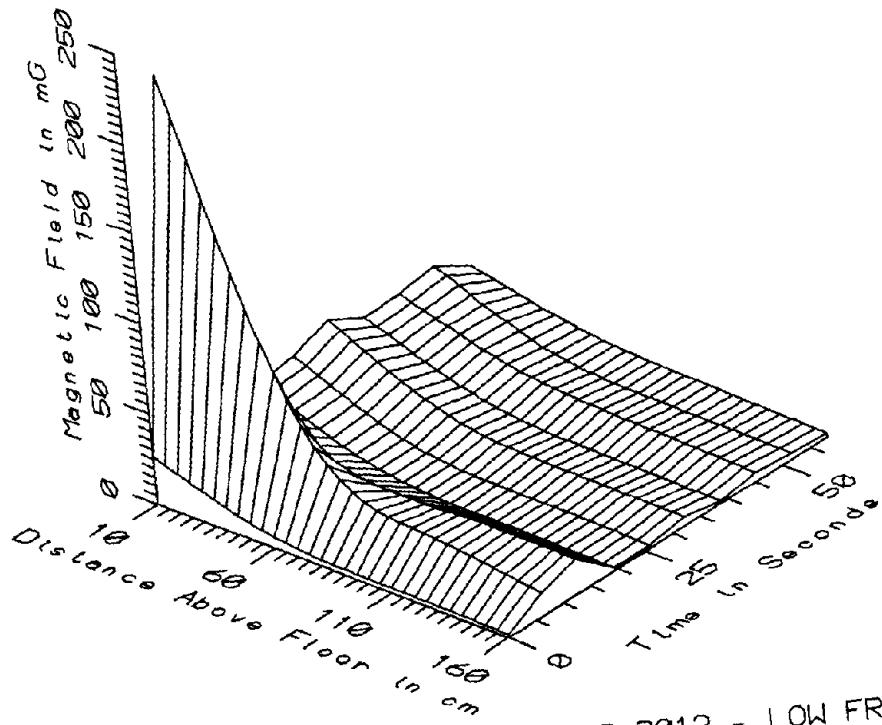
MET006 - 160cm ABOVE FLOOR, CENTER OF AISLE, CENTER OF CAR 3012



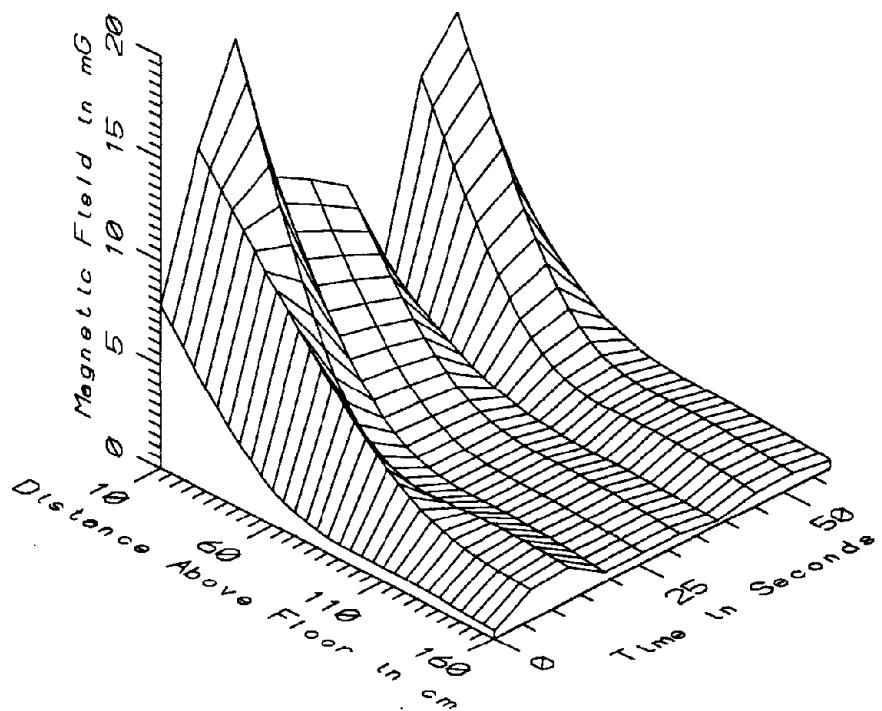
MET006 - REFERENCE PROBE - WINDOW SEAT NEAR CENTER OF CAR 3012



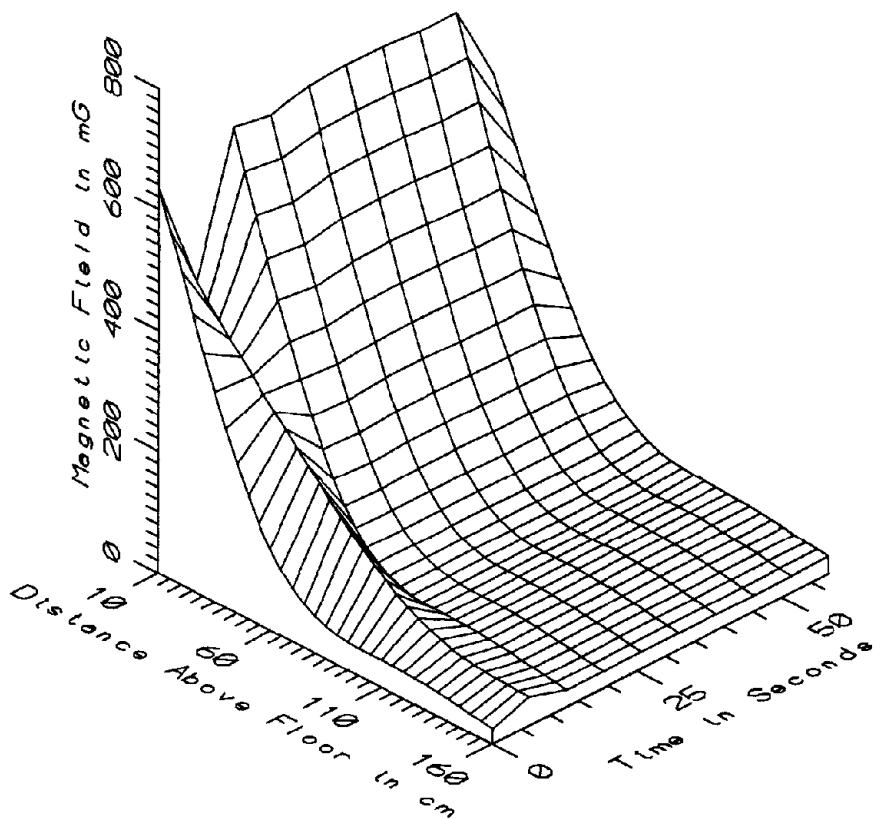
MET006 - CENTER OF AISLE, CENTER OF CAR 3012 - STATIC



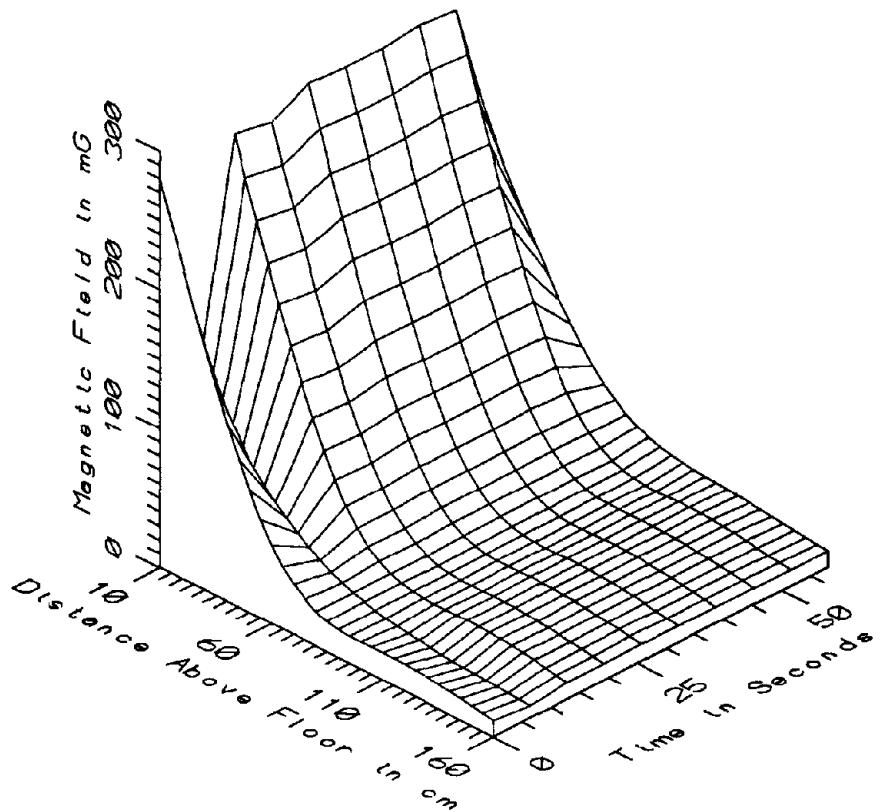
MET006 - CENTER OF AISLE, CENTER OF CAR 3012 - LOW FREQ, 5-45Hz



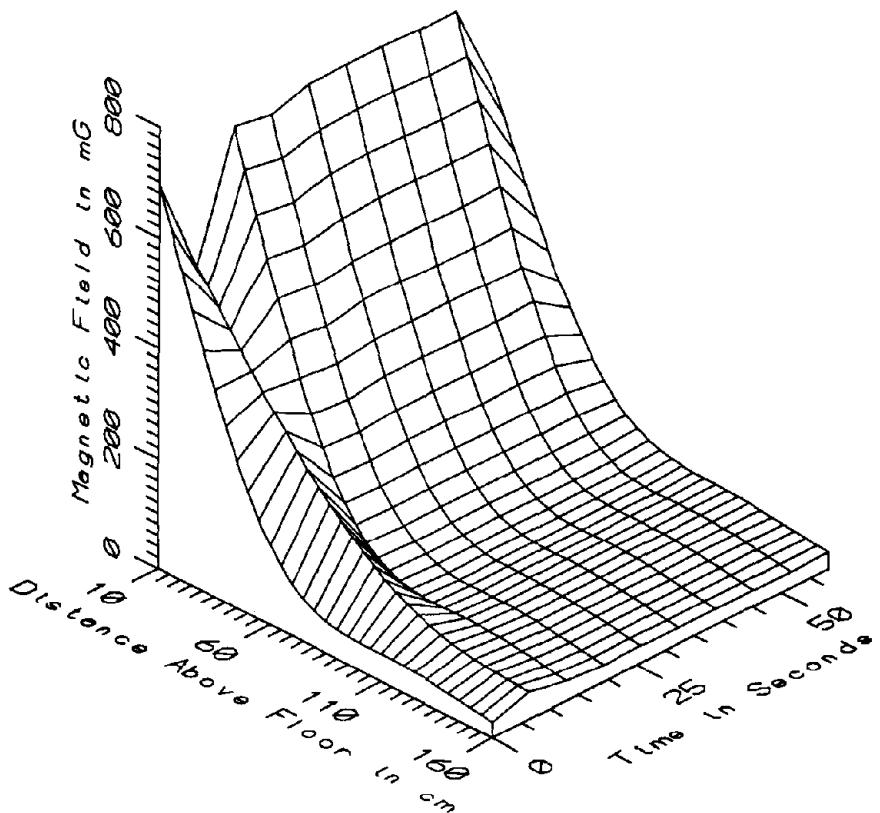
MET006 - CENTER OF AISLE, CENTER OF CAR 3012 - POWER FREQ, 50-60Hz



MET006 - CENTER OF AISLE, CENTER OF CAR 3012 - POWER HARM, 65-300Hz



MET006 - CENTER OF AISLE, CENTER OF CAR 3012 - HIGH FREQ, 305-2560Hz



MET006 - CENTER OF AISLE, CENTER OF CAR 3012 - ALL FREQ, 5-2560Hz

MET006 - CENTER OF AISLE, CENTER OF CAR 3012							TOTAL OF 10 SAMPLES		
FREQUENCY BAND	HEIGHT ABOVE FLOOR (cm)	MINIMUM MAGNETIC FIELD (mG)	MAXIMUM MAGNETIC FIELD (mG)	AVERAGE MAGNETIC FIELD (mG)	STANDARD DEVIATION (mG)	COEFFICIENT OF VARIATION (%)			
STATIC	10	435.56	31741.00	7215.32	8735.98	121.08			
	60	655.65	5712.00	1379.42	1525.10	110.56			
	110	308.10	1998.64	651.89	478.68	73.43			
	160	266.97	1368.24	613.54	281.54	45.89			
5-45Hz LOW FREQ	10	20.92	226.34	51.34	61.85	120.47			
	60	6.26	55.73	14.37	15.11	105.10			
	110	2.73	20.72	7.32	6.69	91.39			
	160	1.71	18.99	5.53	5.76	104.23			
50-60Hz PWR FREQ	10	4.51	19.02	11.13	4.30	38.64			
	60	1.18	7.55	2.90	1.82	62.92			
	110	0.45	2.57	1.11	0.62	56.00			
	160	0.24	1.63	0.69	0.46	67.13			
65-300Hz PWR HARM	10	446.70	683.69	636.14	79.01	12.42			
	60	128.80	238.26	147.74	32.05	21.70			
	110	44.82	81.29	50.64	10.82	21.36			
	160	25.80	46.72	29.04	6.24	21.49			
305-2560Hz HIGH FREQ	10	123.54	295.60	262.64	58.50	22.27			
	60	41.65	59.33	55.66	5.49	9.87			
	110	14.42	20.55	19.46	1.81	9.30			
	160	8.41	12.05	11.35	1.06	9.37			
5-2560Hz ALL FREQ	10	515.99	744.79	694.73	81.08	11.67			
	60	138.69	248.32	159.38	31.60	19.82			
	110	48.90	85.15	55.18	10.66	19.31			
	160	28.20	49.11	32.15	6.27	19.52			

APPENDIX G

DATASET MET007 CENTER OF AISLE, CENTER OF CAR #3012

Measurement Setup Code: Staff: 1 Reference: 9
Drawing: A-1

Vehicle Status: Traveling on the Red Line

Measurement Date: May 19, 1992

Measurement Time: Start: 10:06:56
End: 10:08:36

Number of Samples: 12

Programmed Sample Interval: 5 sec

Actual Sample Interval: 9.1 sec

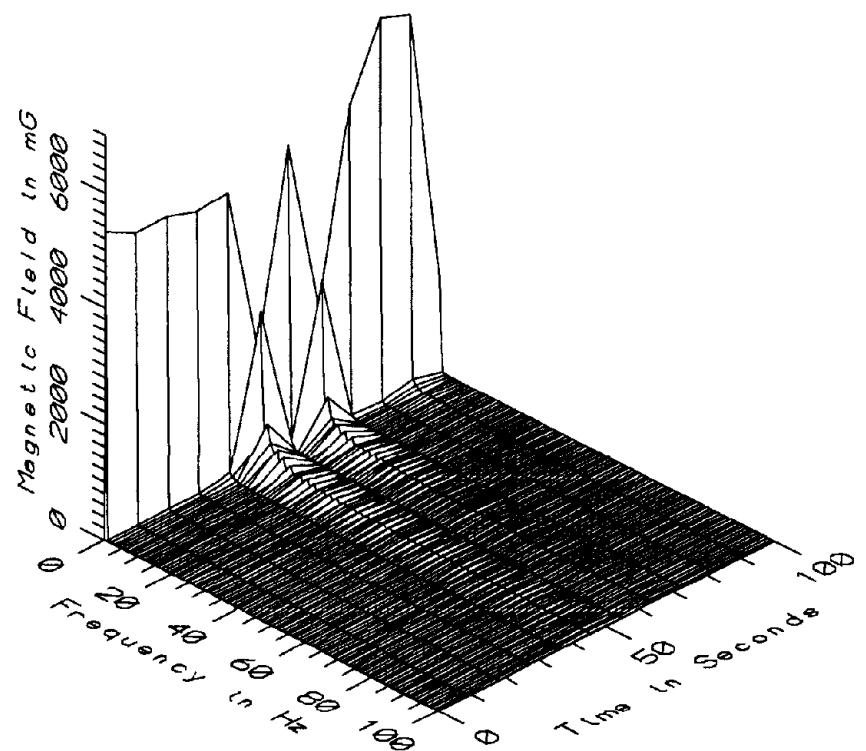
Frequency Spectrum Parameters

<u>Probe Type:</u>	<u>Wideband</u>	<u>Static</u>
Maximum Frequency (Hz)	2560	100
Minimum Frequency (Hz)	5	0
Spectral Bandwidth (Hz)	5	1

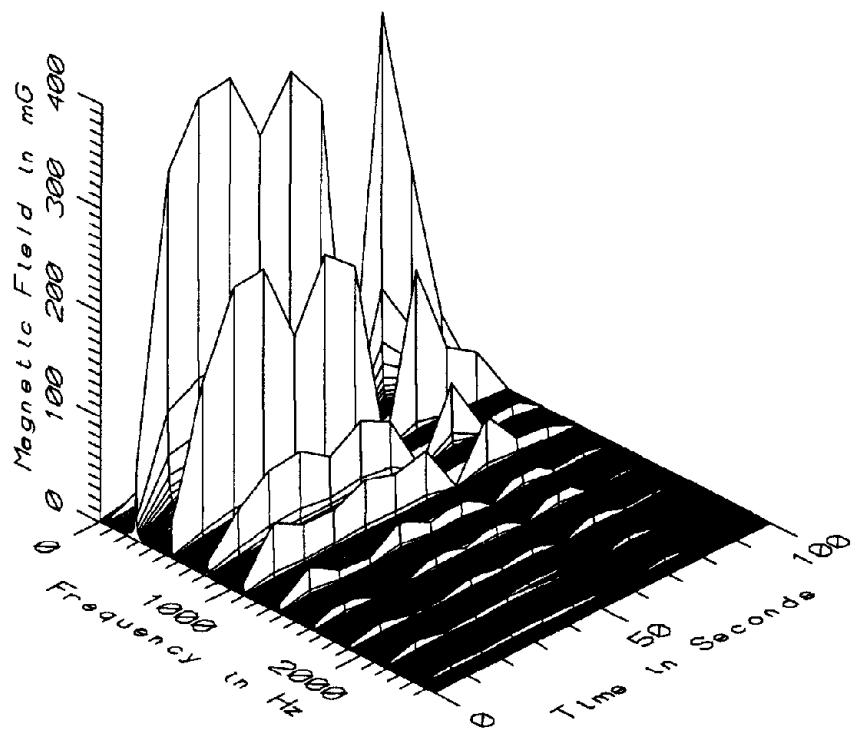
Missing Data: Wideband data from the reference probe

Saturated Data - Wideband:	<u>Sensor</u>	<u>Sample</u>	<u>Time (sec)</u>
	10cm	1	0
	10cm	2	9
	10cm	5	36
	10cm	9	73
	60cm	1	0
	60cm	9	73
	60cm	10	82
	60cm	11	91

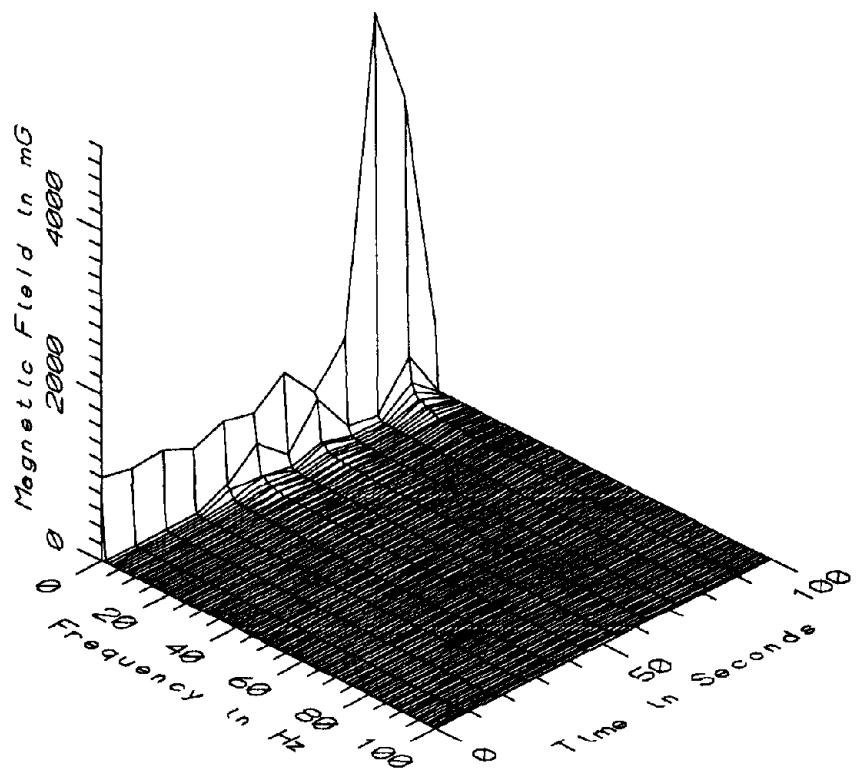
Saturated Data - Static:	<u>Sensor</u>	<u>Sample</u>	<u>Time (sec)</u>
	10cm	10	82
	10cm	11	91



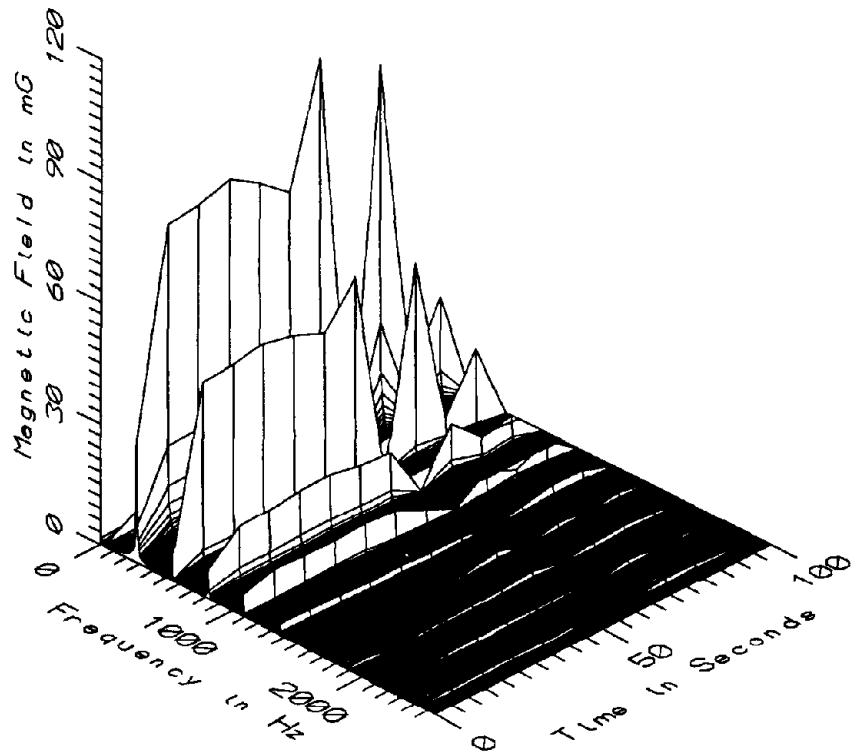
MET007 - 10cm ABOVE FLOOR, CENTER OF AISLE, CENTER OF CAR 3012



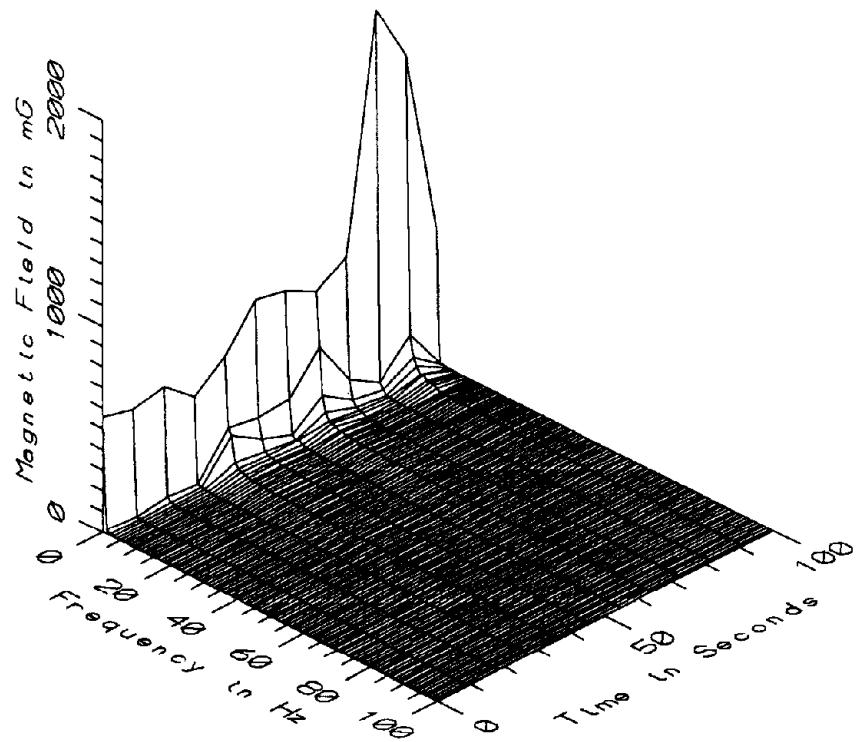
MET007 - 10cm ABOVE FLOOR, CENTER OF AISLE, CENTER OF CAR 3012



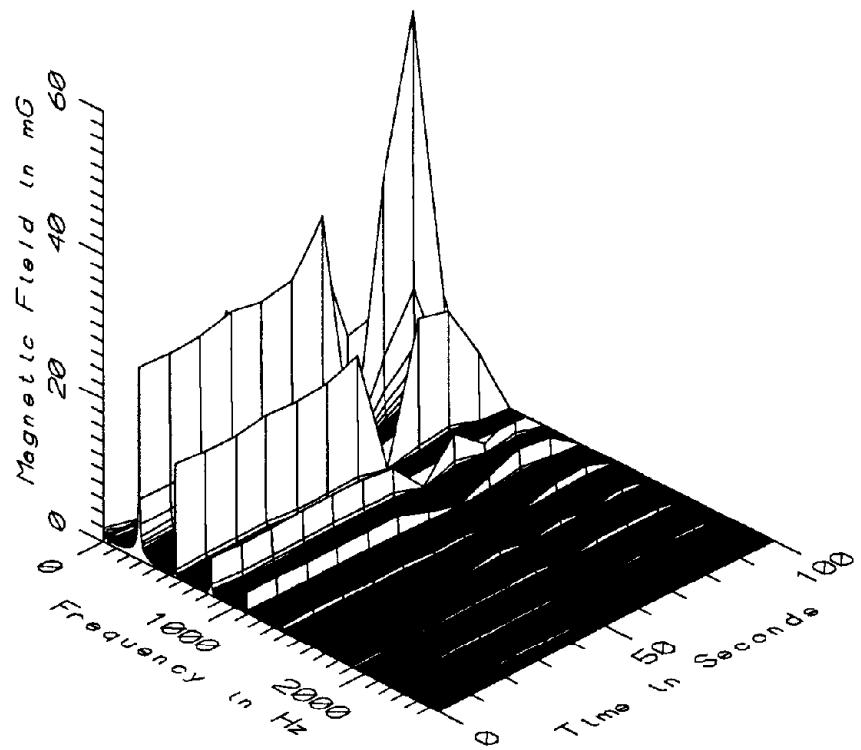
MET007 - 60cm ABOVE FLOOR, CENTER OF AISLE, CENTER OF CAR 3012



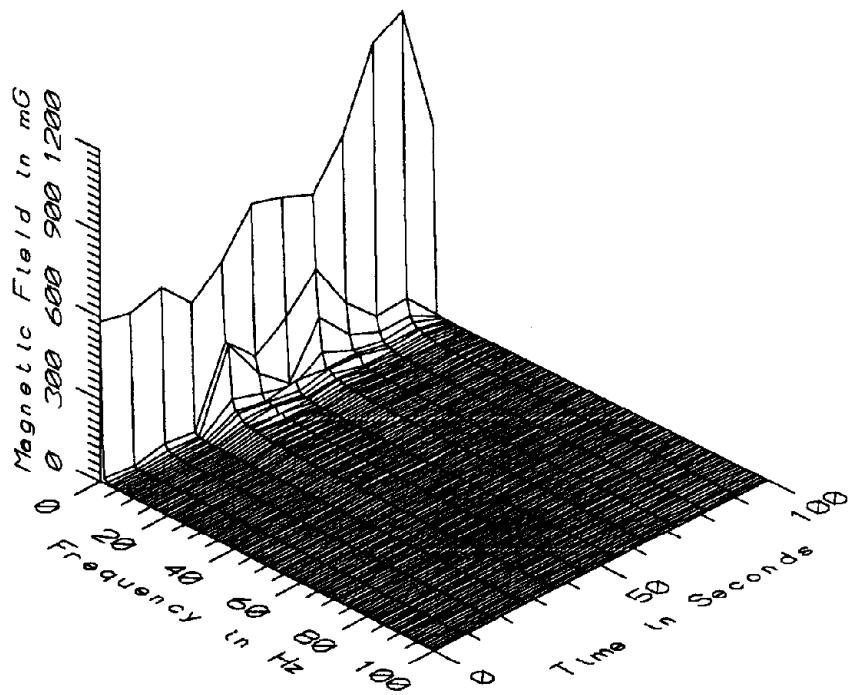
MET007 - 60cm ABOVE FLOOR, CENTER OF AISLE, CENTER OF CAR 3012



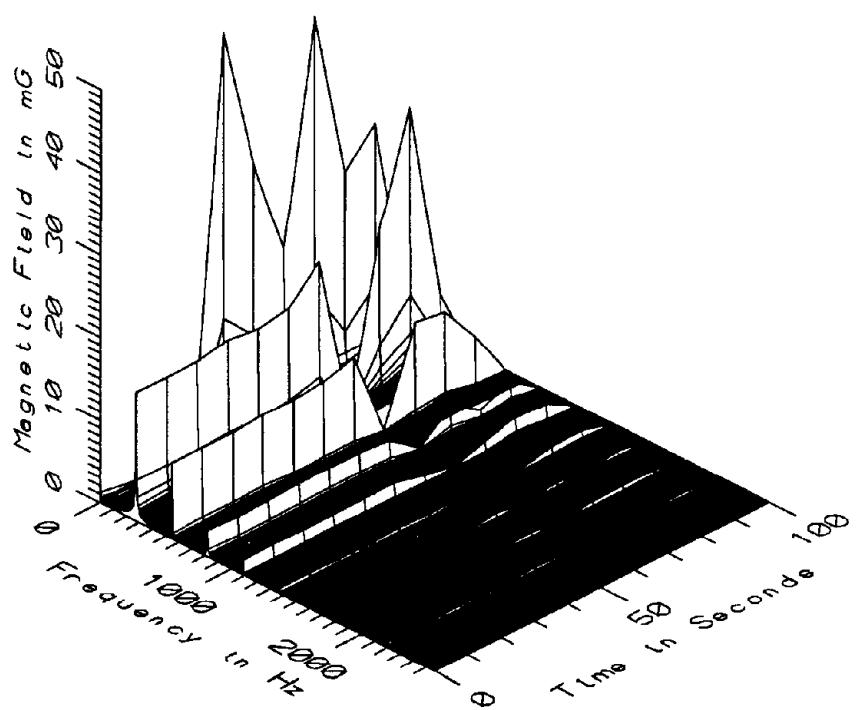
MET007 - 110cm ABOVE FLOOR, CENTER OF AISLE, CENTER OF CAR 3012



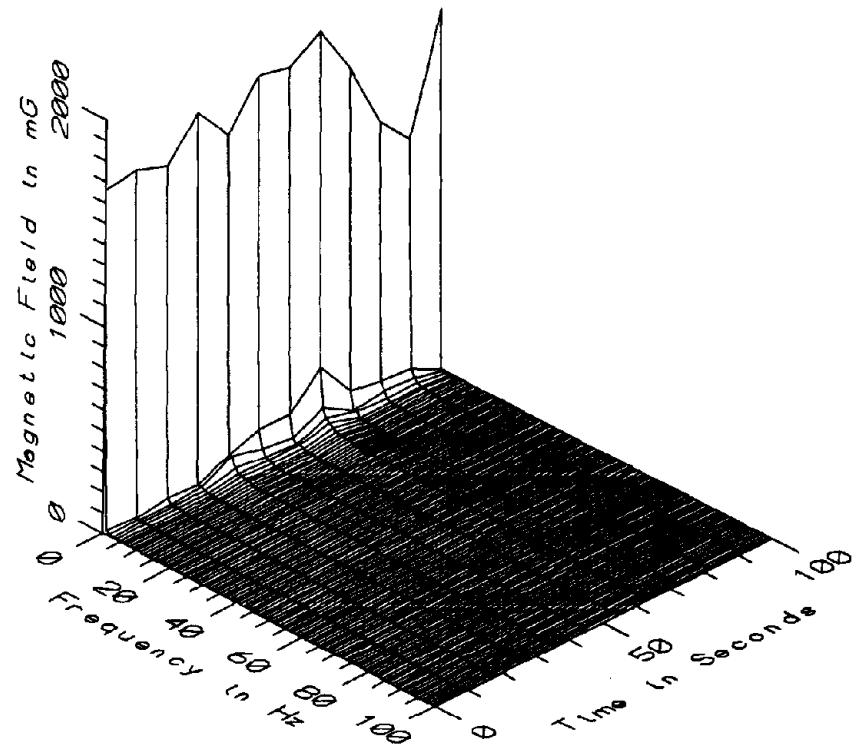
MET007 - 110cm ABOVE FLOOR, CENTER OF AISLE, CENTER OF CAR 3012



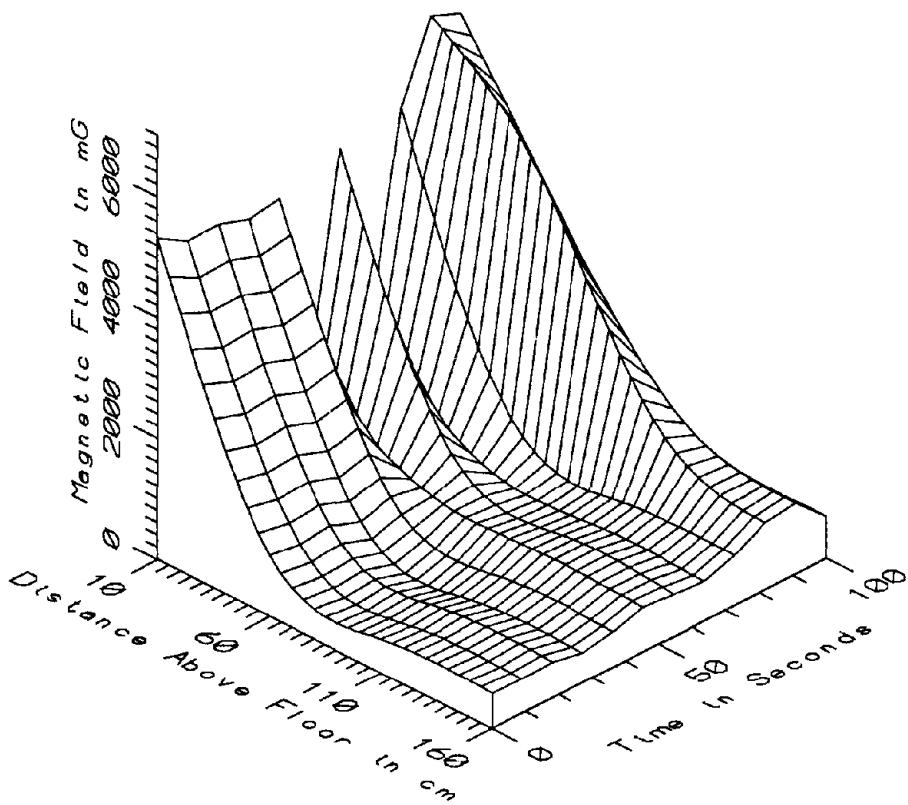
MET007 - 160cm ABOVE FLOOR, CENTER OF AISLE, CENTER OF CAR 3012



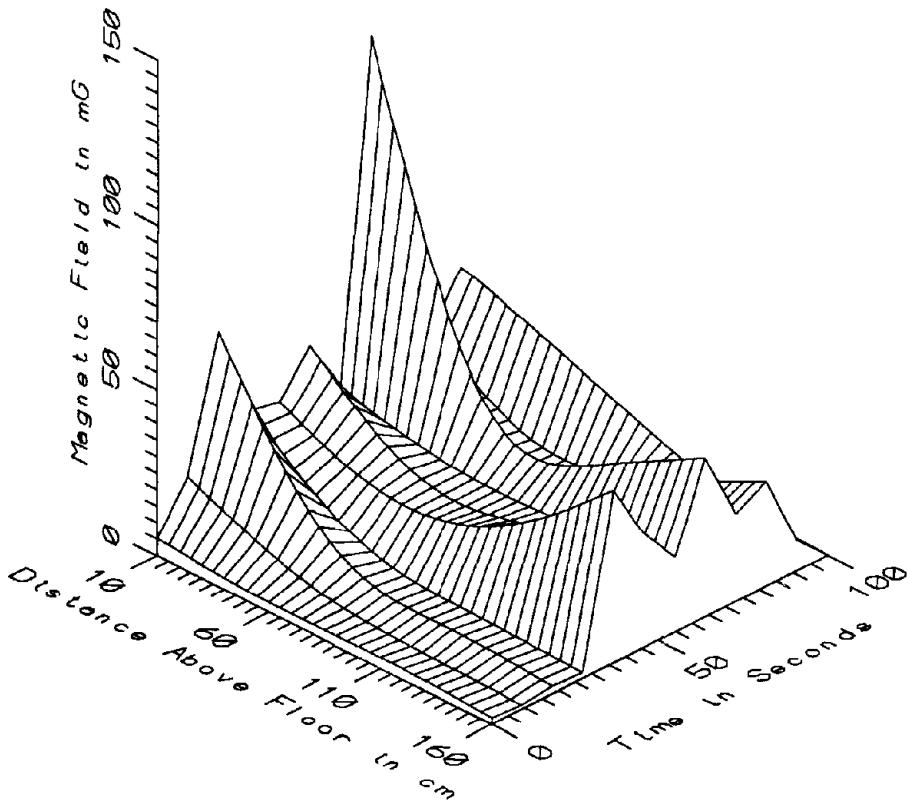
MET007 - 160cm ABOVE FLOOR, CENTER OF AISLE, CENTER OF CAR 3012



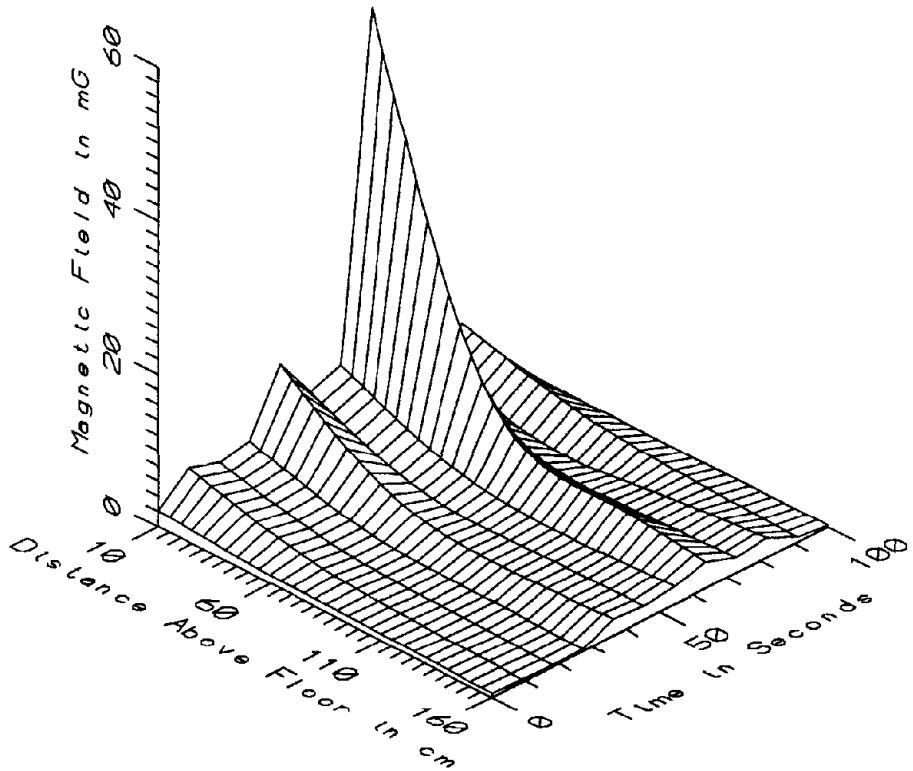
MET007 - REFERENCE PROBE - WINDOW SEAT NEAR CENTER OF CAR 3012



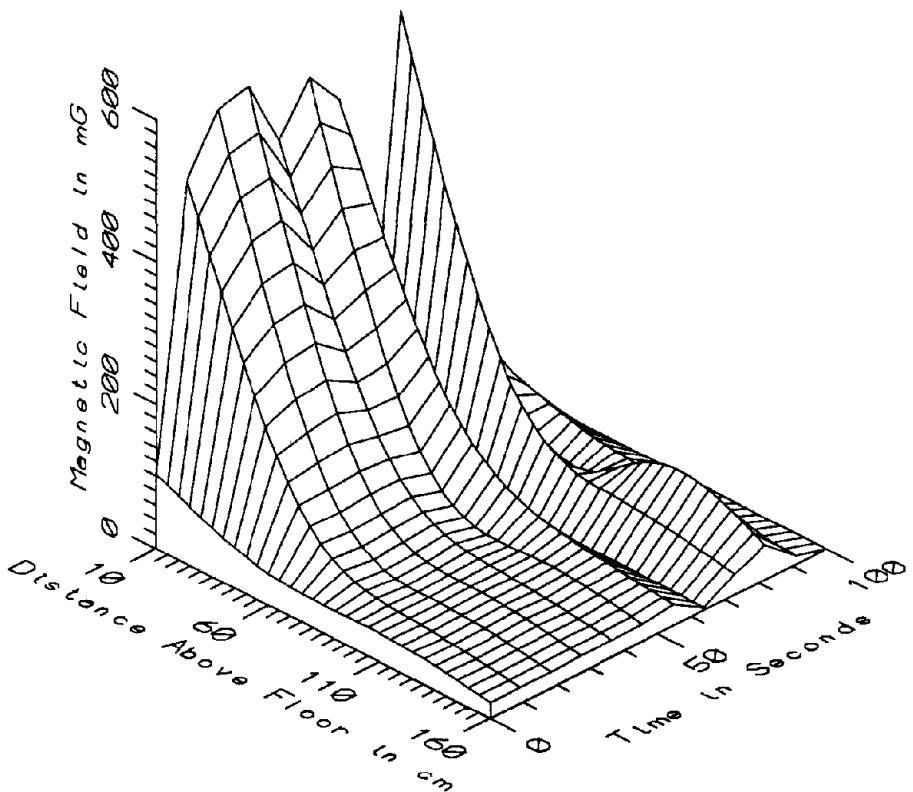
MET007 - CENTER OF AISLE, CENTER OF CAR 3012 - STATIC



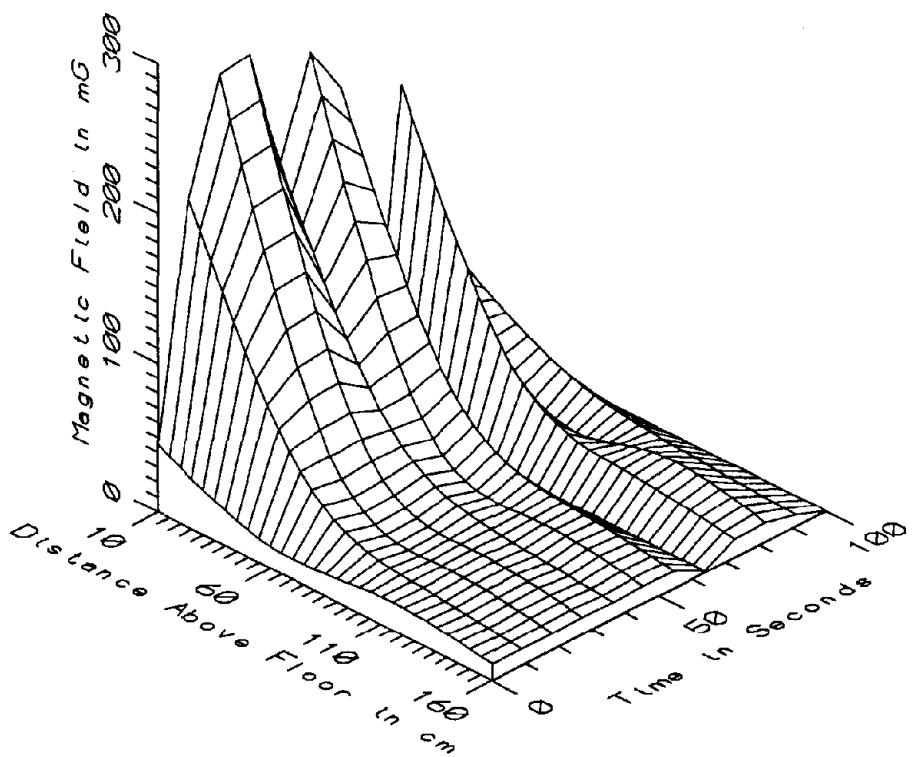
MET007 - CENTER OF AISLE, CENTER OF CAR 3012 - LOW FREQ, 5-45Hz



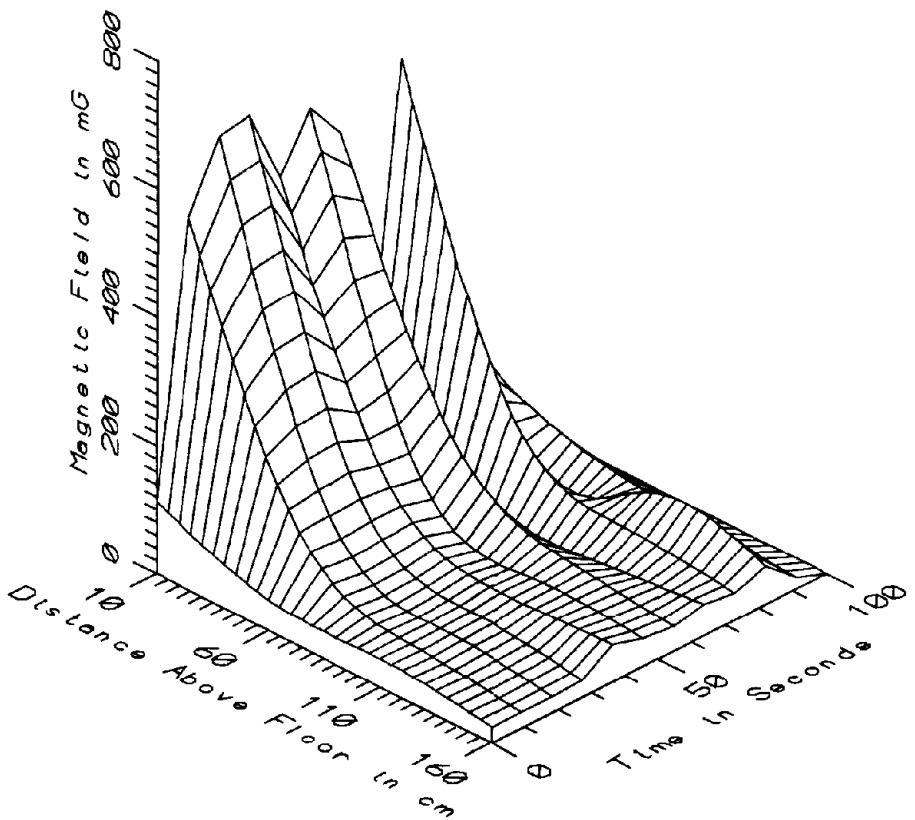
MET007 - CENTER OF AISLE, CENTER OF CAR 3012 - POWER FREQ, 50-60Hz



MET007 - CENTER OF AISLE, CENTER OF CAR 3012 - POWER HARM, 65-300Hz



MET007 - CENTER OF AISLE, CENTER OF CAR 3012 - HIGH FREQ, 305-2560Hz



MET007 - CENTER OF AISLE, CENTER OF CAR 3012 - ALL FREQ, 5-2560Hz

MET007 - CENTER OF AISLE, CENTER OF CAR 3012						TOTAL OF 12 SAMPLES	
FREQUENCY BAND	HEIGHT ABOVE FLOOR (cm)	MINIMUM MAGNETIC FIELD (mG)	MAXIMUM MAGNETIC FIELD (mG)	AVERAGE MAGNETIC FIELD (mG)	STANDARD DEVIATION (mG)	Coefficient of Variation (%)	
STATIC	10	1628.73	40471.00	9108.43	11975.14	131.47	
	60	714.34	4934.77	1490.98	1359.05	91.15	
	110	431.69	1857.24	795.86	443.11	55.68	
	160	483.10	1148.73	715.84	206.52	28.85	
5-45Hz LOW FREQ	10	0.85	124.35	35.12	31.97	91.02	
	60	0.41	32.10	12.93	9.67	74.81	
	110	0.22	28.95	12.31	9.64	78.29	
	160	0.29	52.12	19.41	19.21	98.99	
50-60Hz PWR FREQ	10	0.55	53.78	10.57	14.15	133.81	
	60	0.35	12.30	2.78	3.20	115.43	
	110	0.32	4.91	1.38	1.22	88.40	
	160	0.20	3.49	1.39	1.13	81.58	
65-300Hz PWR HARM	10	0.84	581.23	363.53	228.07	62.74	
	60	0.28	149.68	82.07	53.31	64.95	
	110	0.33	83.12	37.91	21.60	56.96	
	160	0.21	48.62	22.07	12.51	56.68	
305-2560Hz HIGH FREQ	10	1.51	275.91	152.54	103.91	68.12	
	60	0.30	58.32	36.06	23.10	64.05	
	110	0.15	22.47	15.94	7.46	46.79	
	160	0.08	13.17	9.44	4.25	44.98	
5-2560Hz ALL FREQ	10	2.00	644.11	403.00	240.57	59.69	
	60	0.68	161.50	92.77	55.20	59.50	
	110	0.53	87.48	45.02	20.45	45.42	
	160	0.44	59.68	34.30	17.42	50.78	

APPENDIX H

DATASET MET008 CENTER OF AISLE, REAR OF CAR #3012

Measurement Setup Code: Staff: 5 Reference: 11
Drawing: A-1

Vehicle Status: Traveling on the Red Line

Measurement Date: May 19, 1992

Measurement Time: Start: 10:12:21
End: 10:15:10

Number of Samples: 16

Programmed Sample Interval: 5 sec

Actual Sample Interval: 11.3 sec

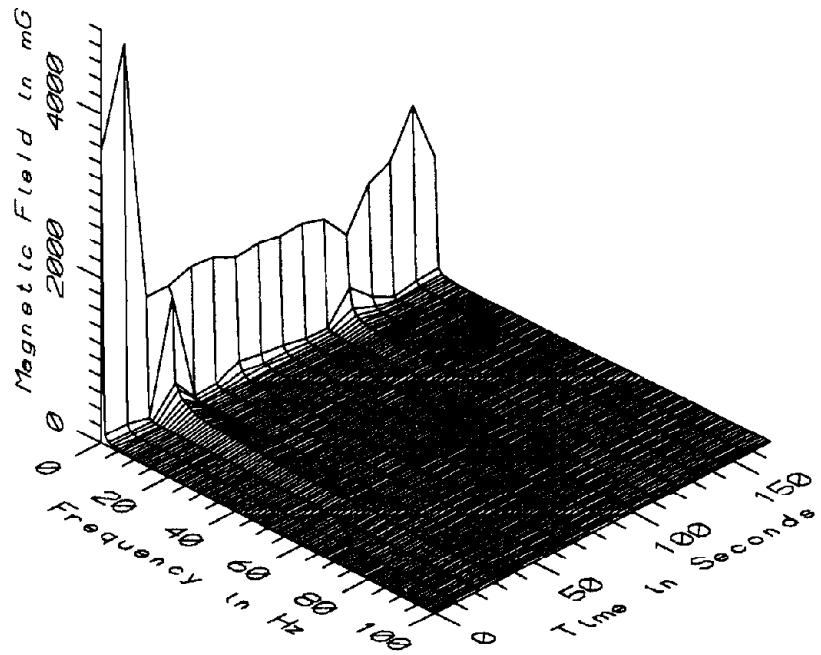
Frequency Spectrum Parameters

<u>Probe Type:</u>	<u>Wideband</u>	<u>Static</u>
Maximum Frequency (Hz)	2560	100
Minimum Frequency (Hz)	5	0
Spectral Bandwidth (Hz)	5	1

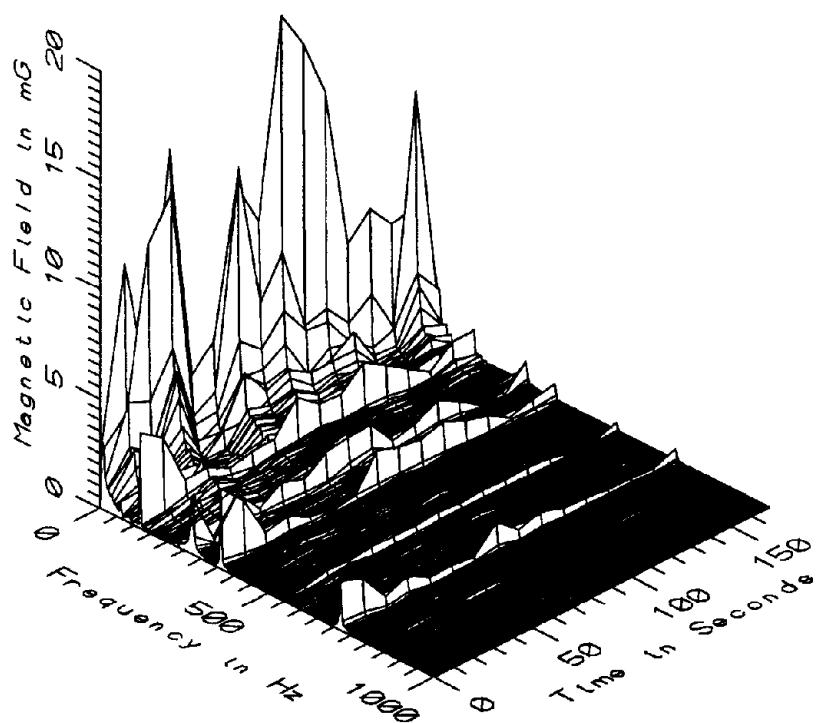
Missing Data: None

Saturated Data - Wideband:	<u>Sensor</u>	<u>Sample</u>	<u>Time (sec)</u>
	10cm	15	158
	60cm	15	158
	110cm	11	113
	Ref	8	79

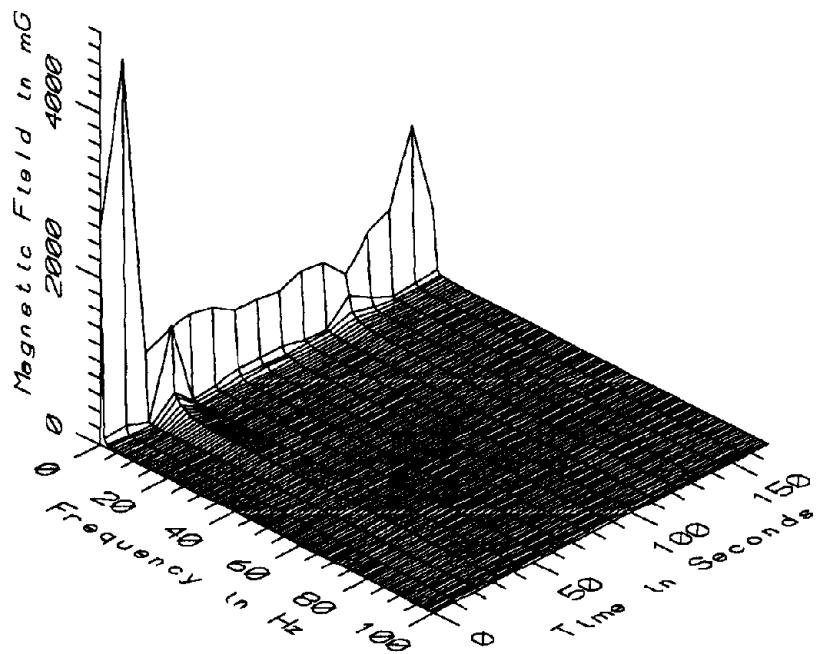
Saturated Data - Static:	<u>Sensor</u>	<u>Sample</u>	<u>Time (sec)</u>
	10cm	2	11



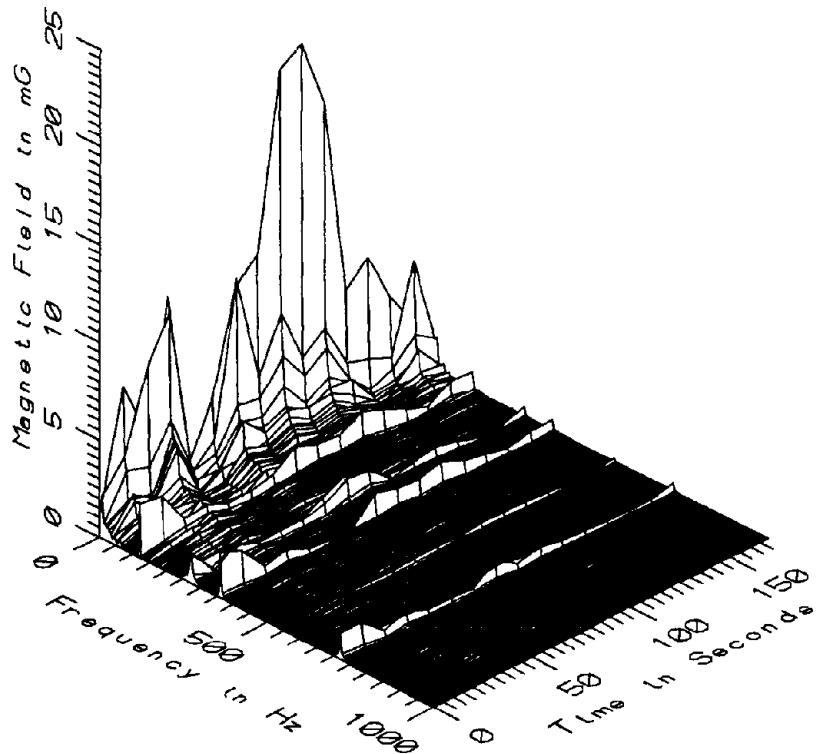
MET008 - 10cm ABOVE FLOOR, CENTER OF AISLE, REAR OF CAR 3012



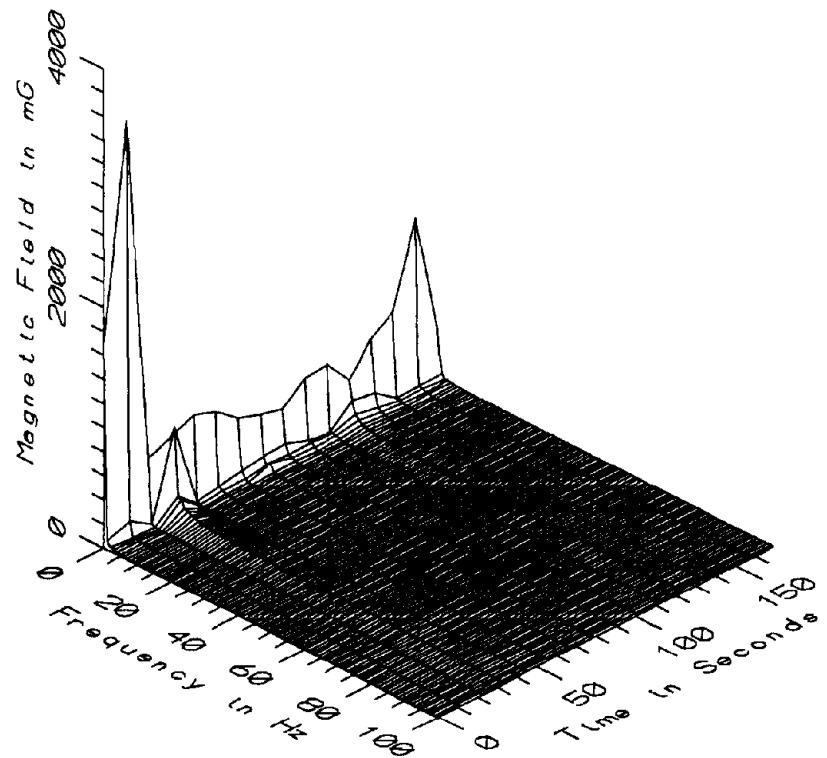
MET008 - 10cm ABOVE FLOOR, CENTER OF AISLE, REAR OF CAR 3012



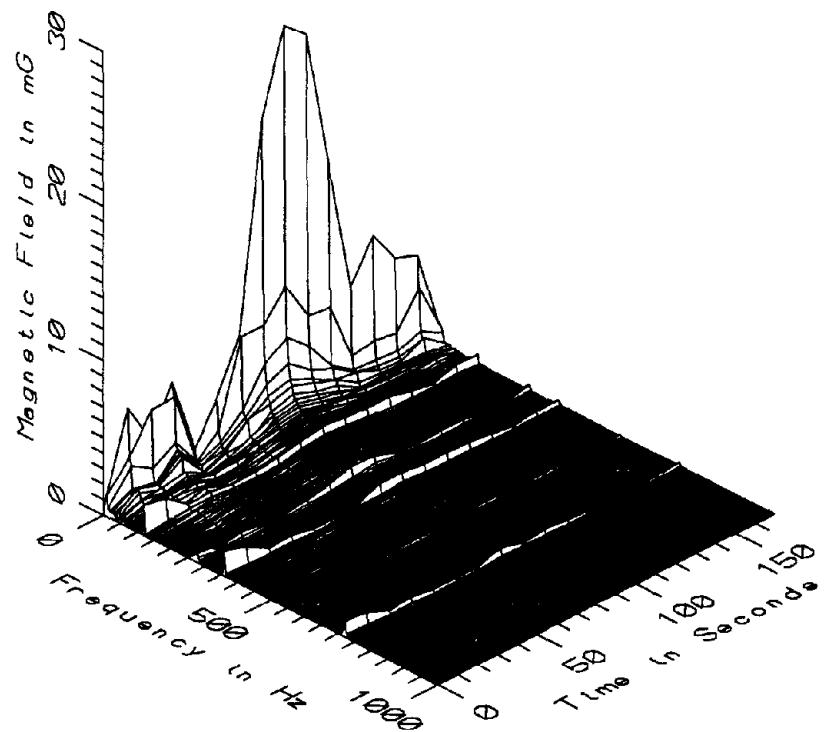
MET008 - 60cm ABOVE FLOOR, CENTER OF AISLE, REAR OF CAR 3012



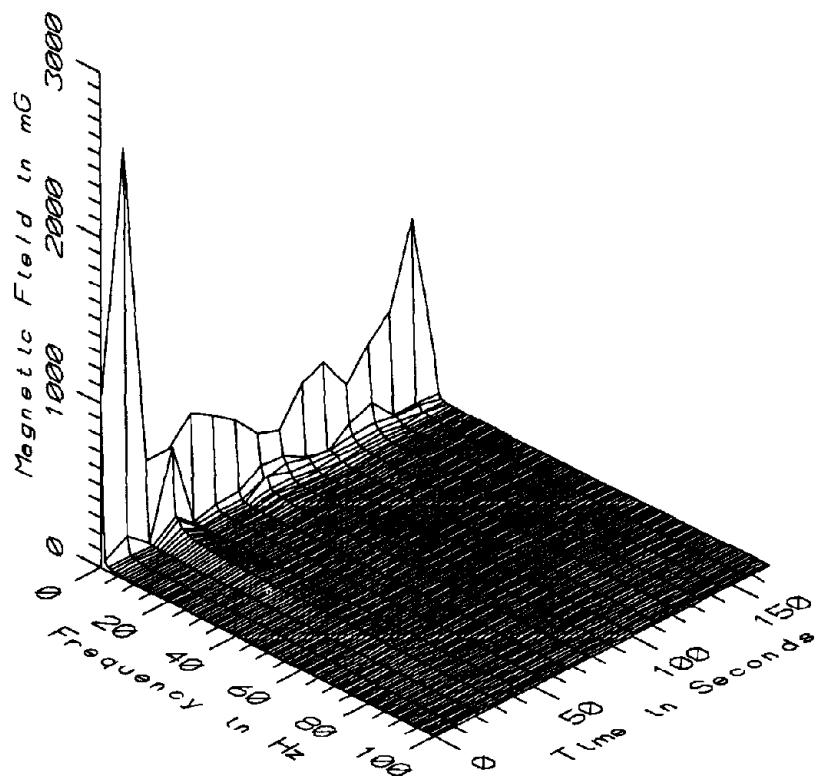
MET008 - 60cm ABOVE FLOOR, CENTER OF AISLE, REAR OF CAR 3012



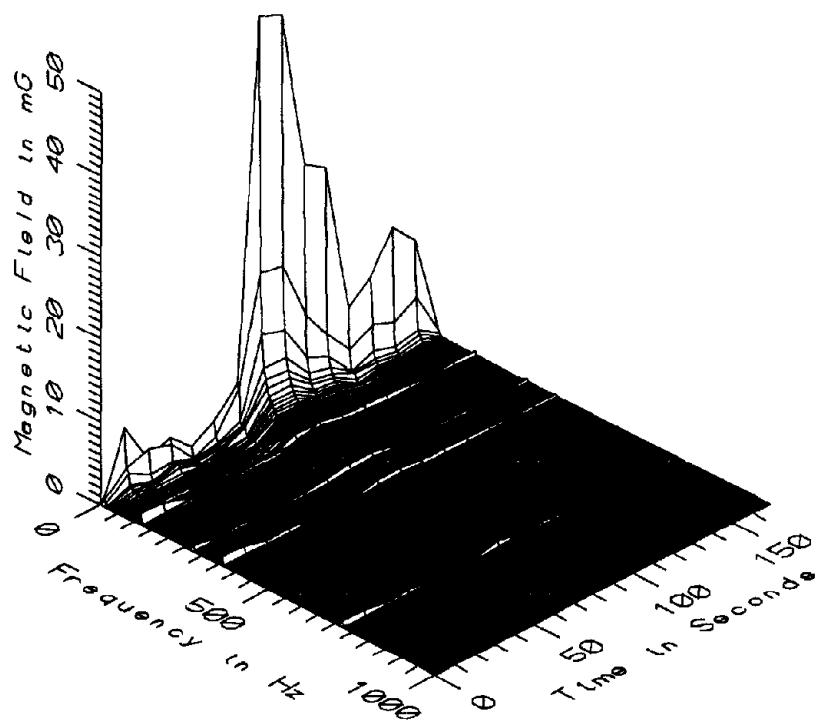
MET008 - 110cm ABOVE FLOOR, CENTER OF AISLE, REAR OF CAR 3012



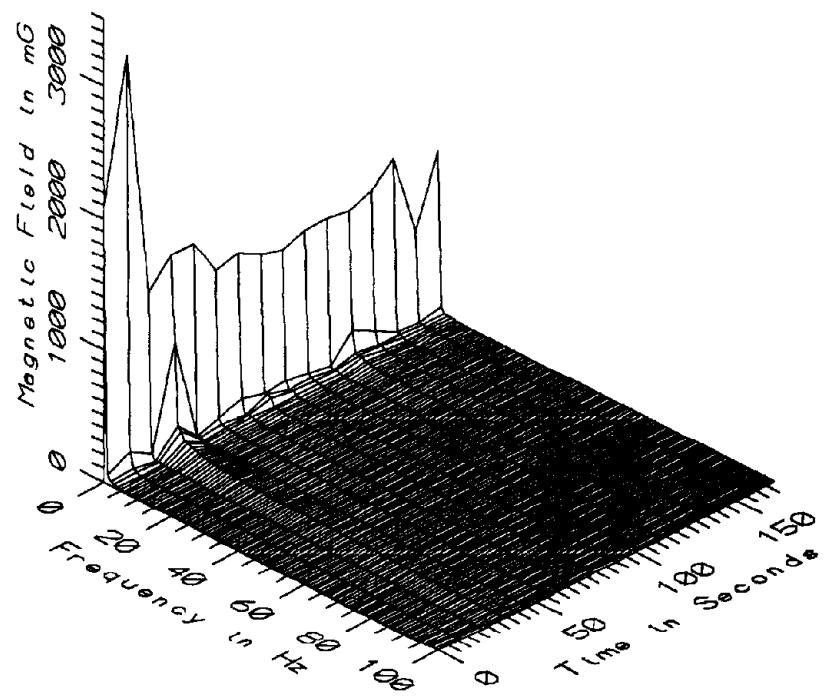
MET008 - 110cm ABOVE FLOOR, CENTER OF AISLE, REAR OF CAR 3012



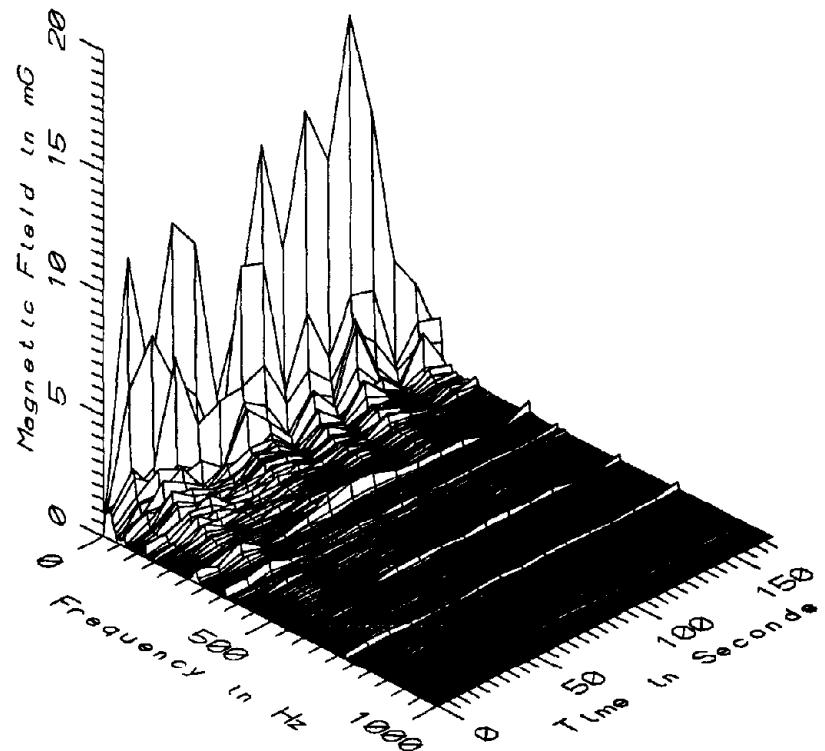
MET008 - 160cm ABOVE FLOOR, CENTER OF AISLE, REAR OF CAR 3012



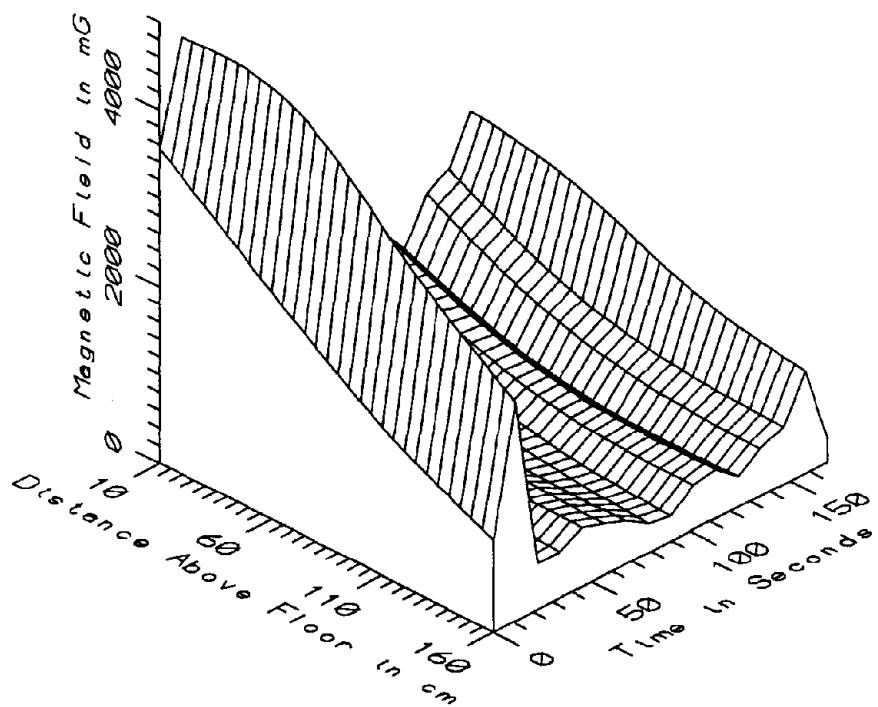
MET008 - 160cm ABOVE FLOOR, CENTER OF AISLE, REAR OF CAR 3012



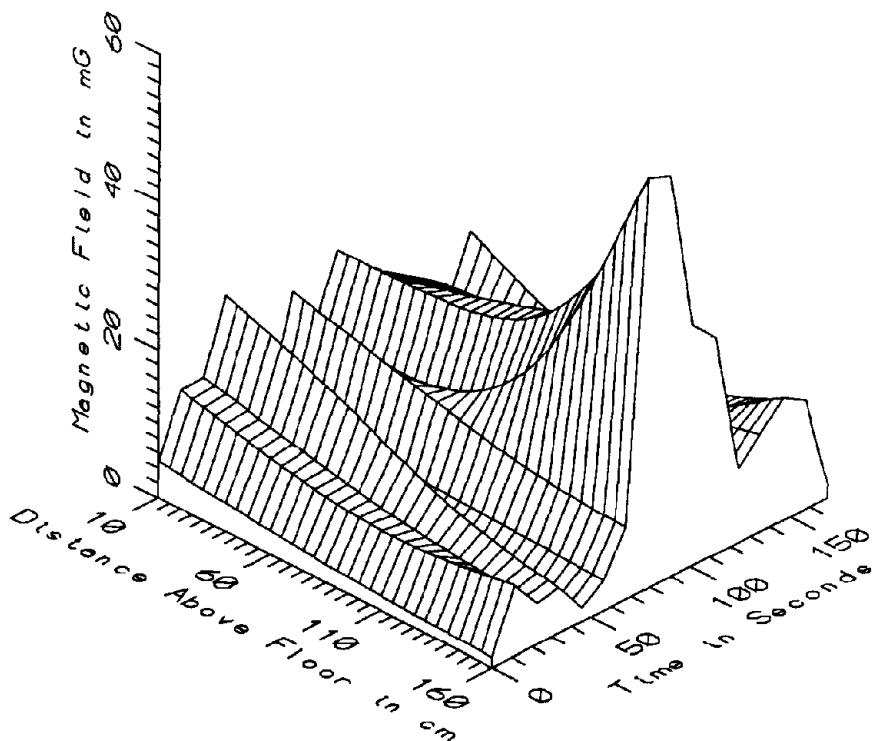
MET008 - REFERENCE PROBE - OPERATOR'S SEAT, CAR 3012



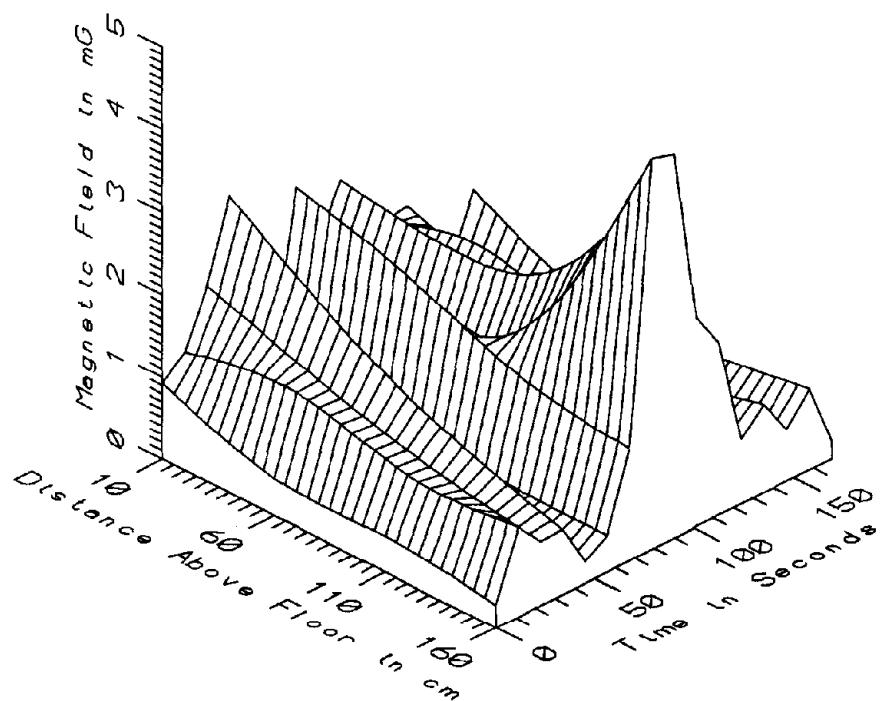
MET008 - REFERENCE PROBE - OPERATOR'S SEAT, CAR 3012



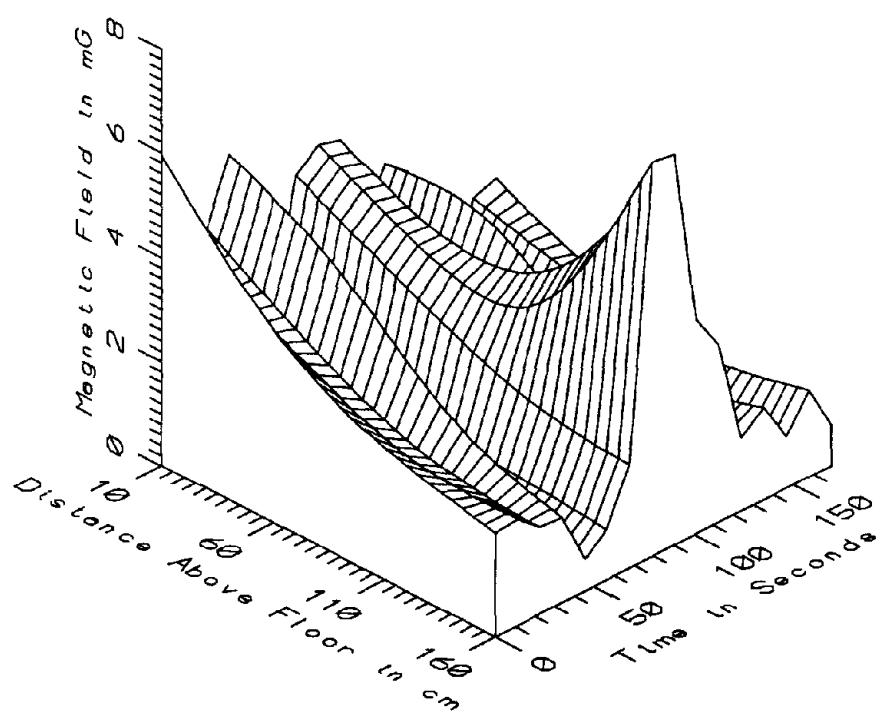
MET008 - CENTER OF AISLE, REAR OF CAR 3012 - STATIC



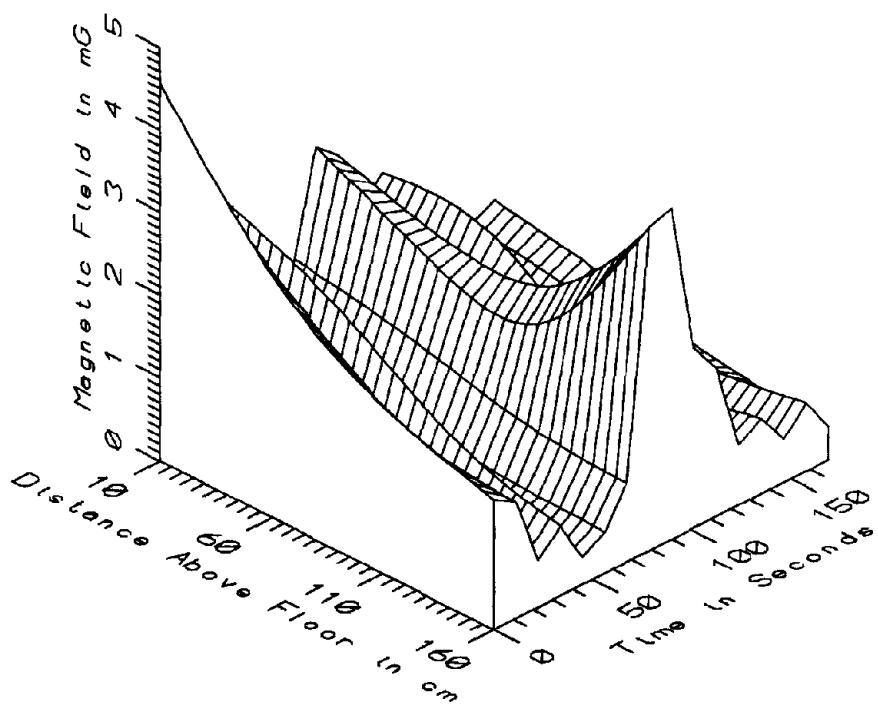
MET008 - CENTER OF AISLE, REAR OF CAR 3012 - LOW FREQ, 5-45Hz



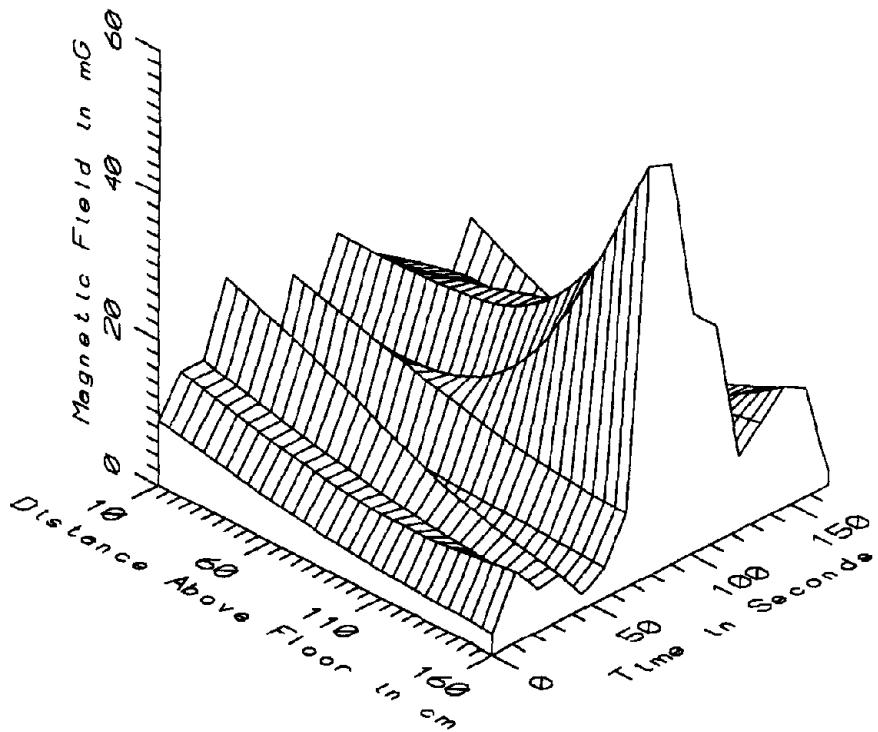
MET008 - CENTER OF AISLE, REAR OF CAR 3012 - POWER FREQ, 50-60Hz



MET008 - CENTER OF AISLE, REAR OF CAR 3012 - POWER HARM, 65-300Hz



MET008 - CENTER OF AISLE, REAR OF CAR 3012 - HIGH FREQ, 305-2560Hz



MET008 - CENTER OF AISLE, REAR OF CAR 3012 - ALL FREQ, 5-2560Hz

MET008 - CENTER OF AISLE, REAR OF CAR #3012						TOTAL OF 16 SAMPLES		
FREQUENCY BAND	HEIGHT ABOVE FLOOR (cm)	MINIMUM MAGNETIC FIELD (mG)	MAXIMUM MAGNETIC FIELD (mG)	AVERAGE MAGNETIC FIELD (mG)	STANDARD DEVIATION (mG)	COEFFICIENT OF VARIATION (%)		
STATIC	10	1026.45	4708.21	1837.37	948.33	51.61		
	60	543.36	4538.66	1254.32	1012.84	80.75		
	110	355.19	3462.37	858.29	783.37	91.27		
	160	262.81	2467.74	683.72	533.51	78.03		
5-45Hz LOW FREQ	10	4.32	22.79	12.14	5.98	49.27		
	60	2.67	21.84	10.53	6.35	60.37		
	110	1.73	28.79	10.93	8.49	77.71		
	160	1.29	55.66	16.64	17.46	104.93		
50-60Hz PWR FREQ	10	0.57	2.79	1.40	0.70	49.74		
	60	0.40	2.14	1.14	0.61	53.75		
	110	0.30	2.60	1.09	0.68	62.39		
	160	0.23	4.74	1.42	1.42	100.38		
65-300Hz PWR HARM	10	1.06	5.94	3.38	1.38	40.77		
	60	1.02	4.16	2.51	1.08	43.15		
	110	0.82	4.28	2.05	1.05	51.43		
	160	0.60	7.56	2.51	2.15	85.94		
305-2560Hz HIGH FREQ	10	0.59	4.57	1.90	1.08	56.83		
	60	0.56	2.91	1.45	0.77	52.84		
	110	0.40	2.38	1.13	0.65	57.79		
	160	0.33	3.98	1.34	1.14	85.26		
5-2560Hz ALL FREQ	10	5.03	23.72	13.01	5.84	44.85		
	60	3.06	22.36	11.10	6.29	56.60		
	110	2.00	29.32	11.34	8.46	74.61		
	160	1.97	56.50	17.04	17.58	103.16		

APPENDIX I

DATASET MET009 IN FRONT OF OPERATOR'S SEAT, CAR #3012

Measurement Setup Code: Staff: 8 Reference: 11
Drawing: A-1

Vehicle Status: Traveling on the Red Line

Measurement Date: May 19, 1992

Measurement Time: Start: 10:15:48
End: 10:17:33

Number of Samples: 10

Programmed Sample Interval: 5 sec

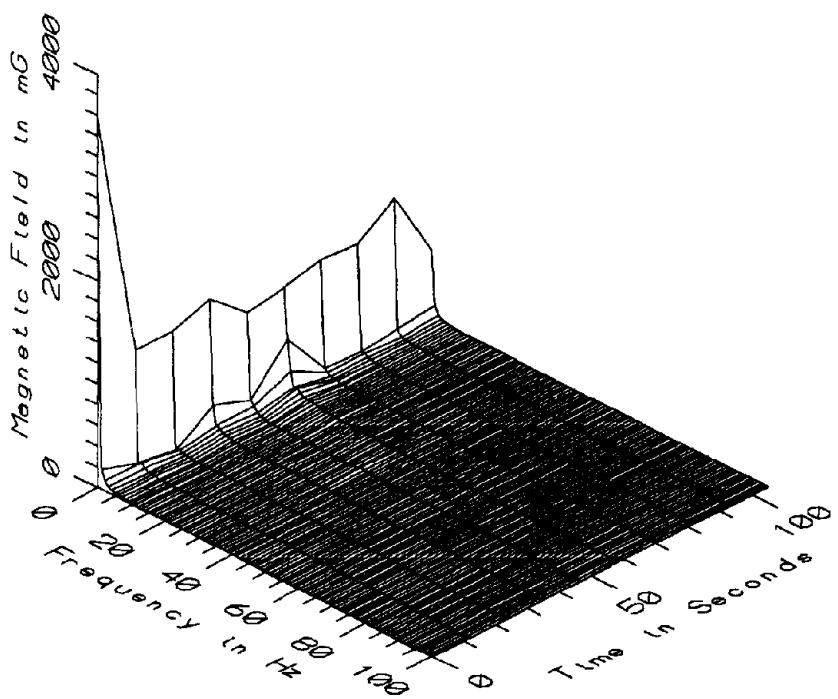
Actual Sample Interval: 11.7 sec

Frequency Spectrum Parameters

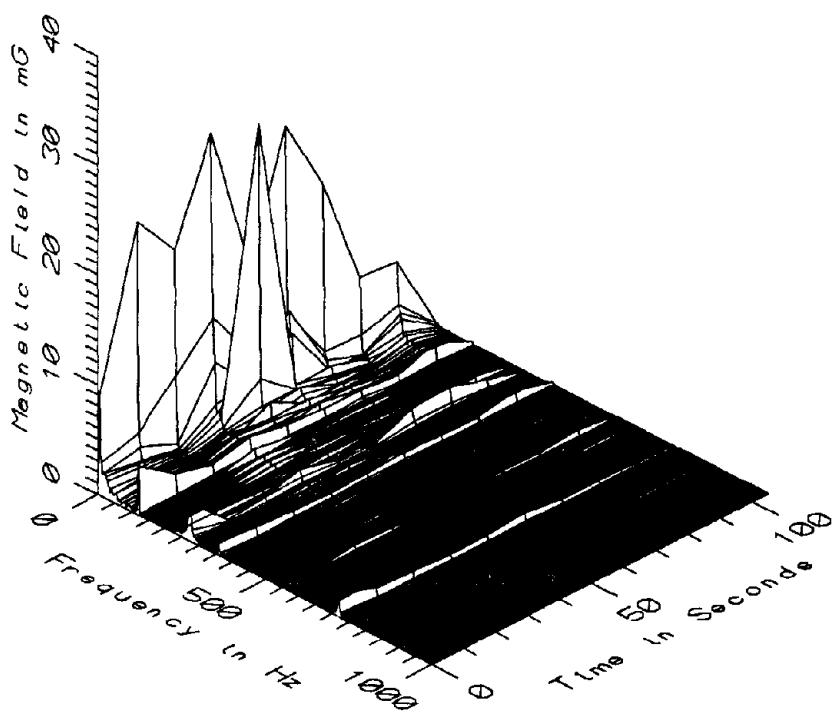
<u>Probe Type:</u>	<u>Wideband</u>	<u>Static</u>
Maximum Frequency (Hz)	2560	100
Minimum Frequency (Hz)	5	0
Spectral Bandwidth (Hz)	5	1

Missing Data: None

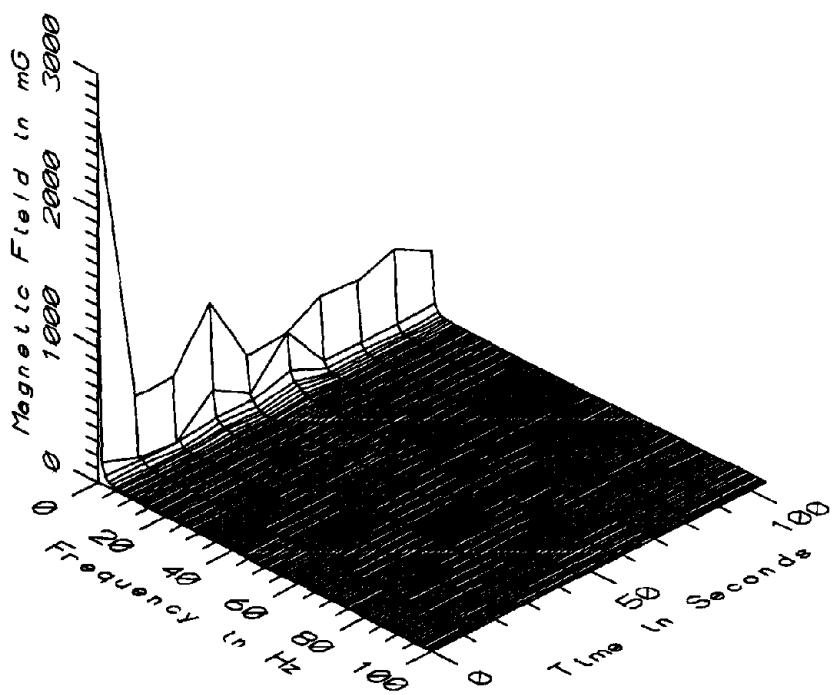
Saturated Data - Wideband:	<u>Sensor</u>	<u>Sample</u>	<u>Time (sec)</u>
	Ref	5	47
	Ref	6	59



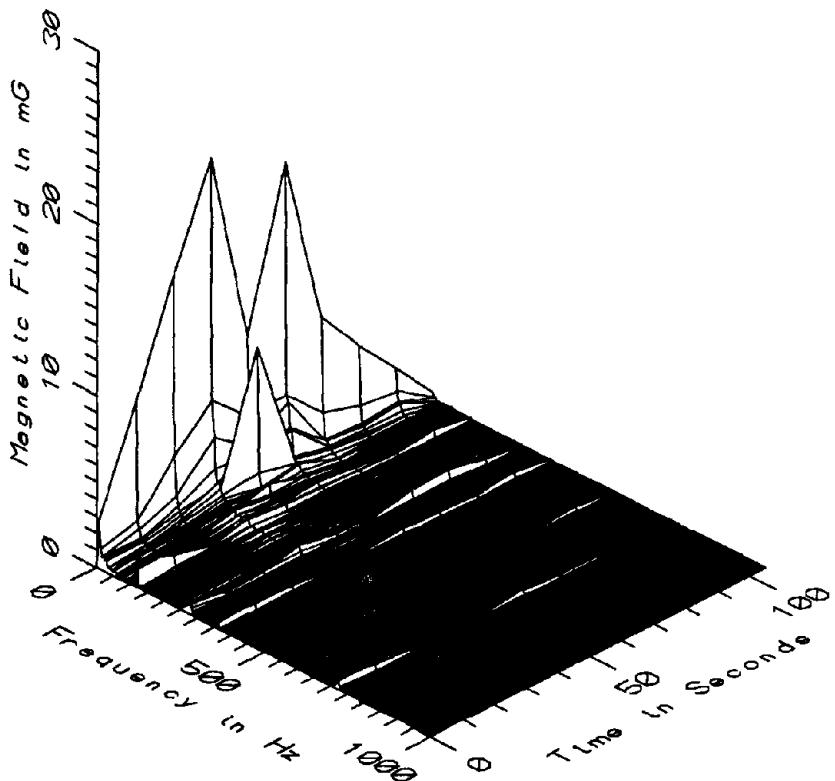
MET009 - 10cm ABOVE FLOOR, IN FRONT OF OPERATOR'S SEAT, CAR 3012



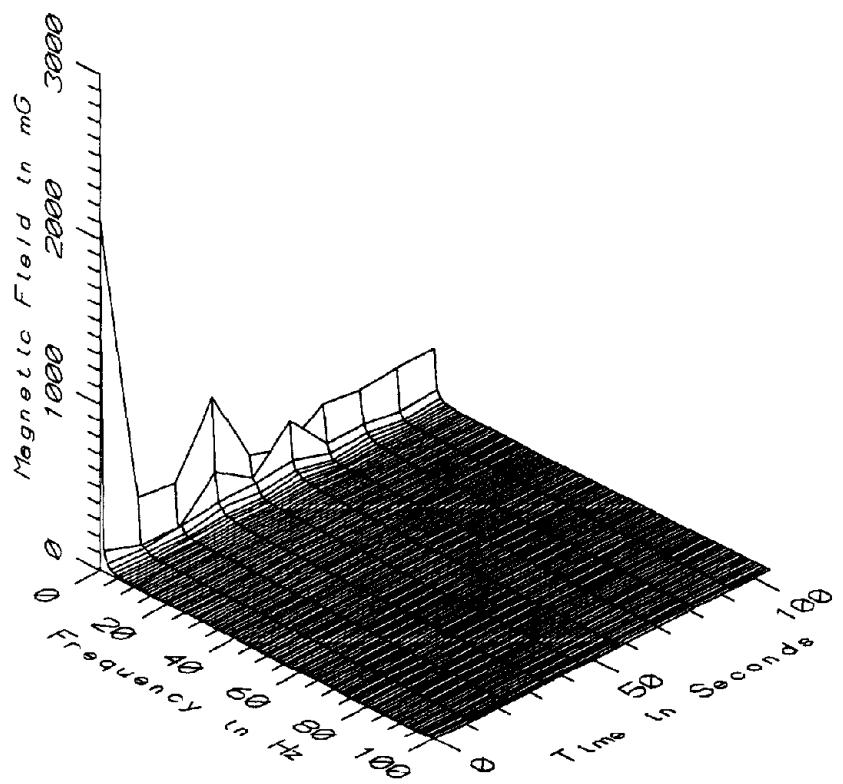
MET009 - 10cm ABOVE FLOOR, IN FRONT OF OPERATOR'S SEAT, CAR 3012



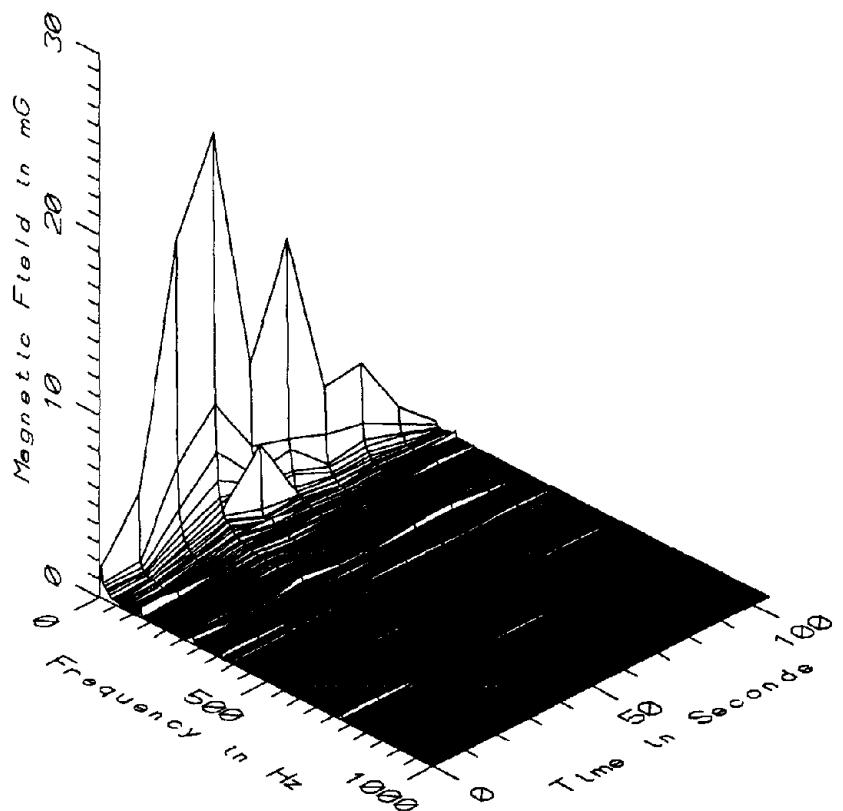
MET009 - 60cm ABOVE FLOOR, IN FRONT OF OPERATOR'S SEAT, CAR 3012



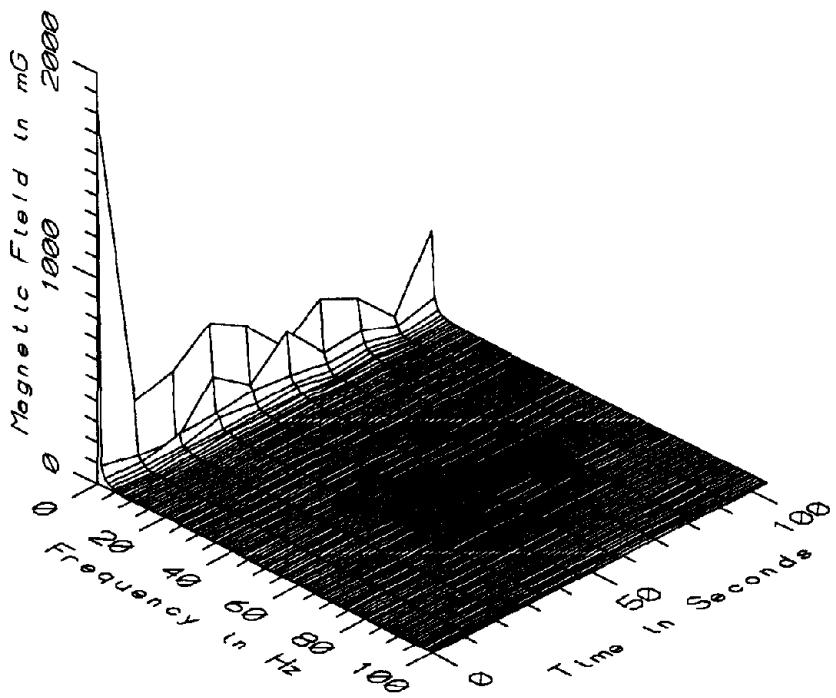
MET009 - 60cm ABOVE FLOOR, IN FRONT OF OPERATOR'S SEAT, CAR 3012



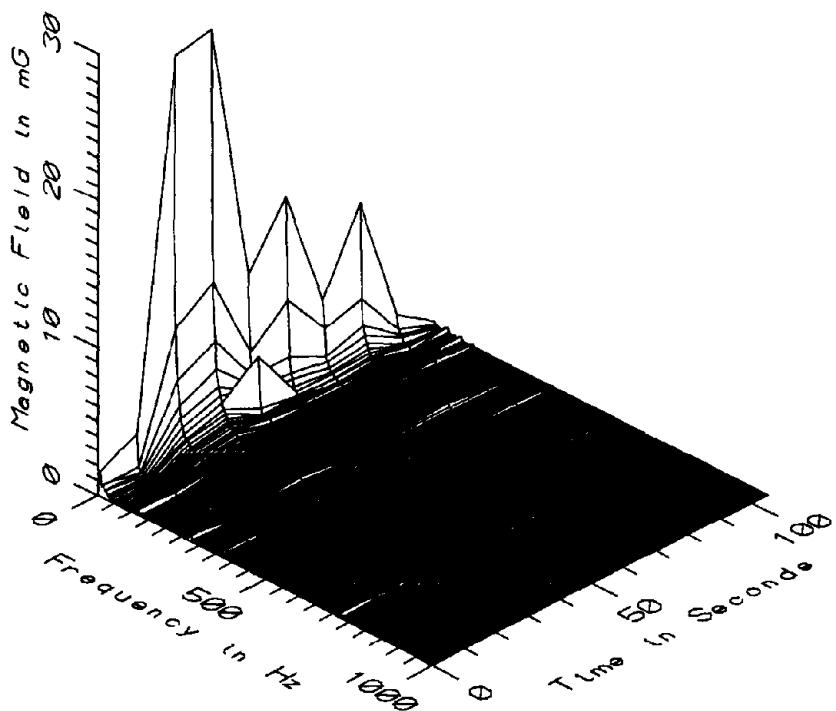
MET009 - 110cm ABOVE FLOOR, IN FRONT OF OPERATOR'S SEAT, CAR 3012



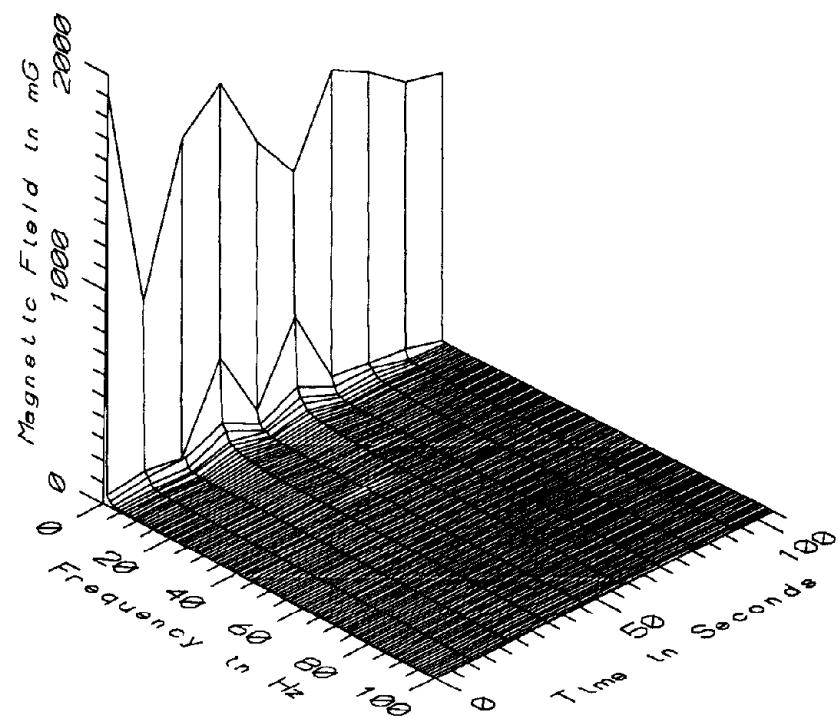
MET009 - 110cm ABOVE FLOOR, IN FRONT OF OPERATOR'S SEAT, CAR 3012



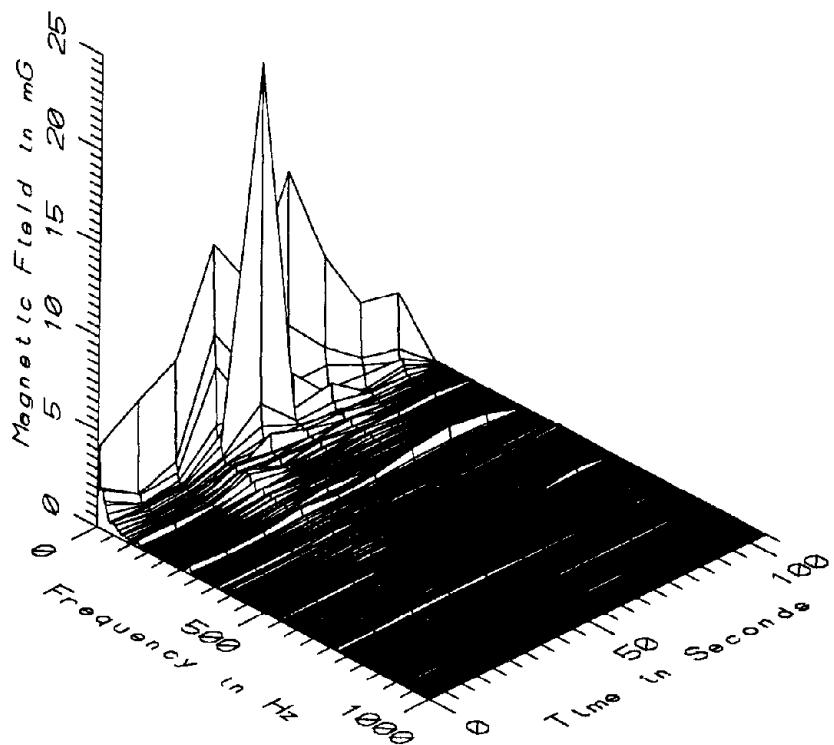
MET009 - 160cm ABOVE FLOOR, IN FRONT OF OPERATOR'S SEAT, CAR 3012



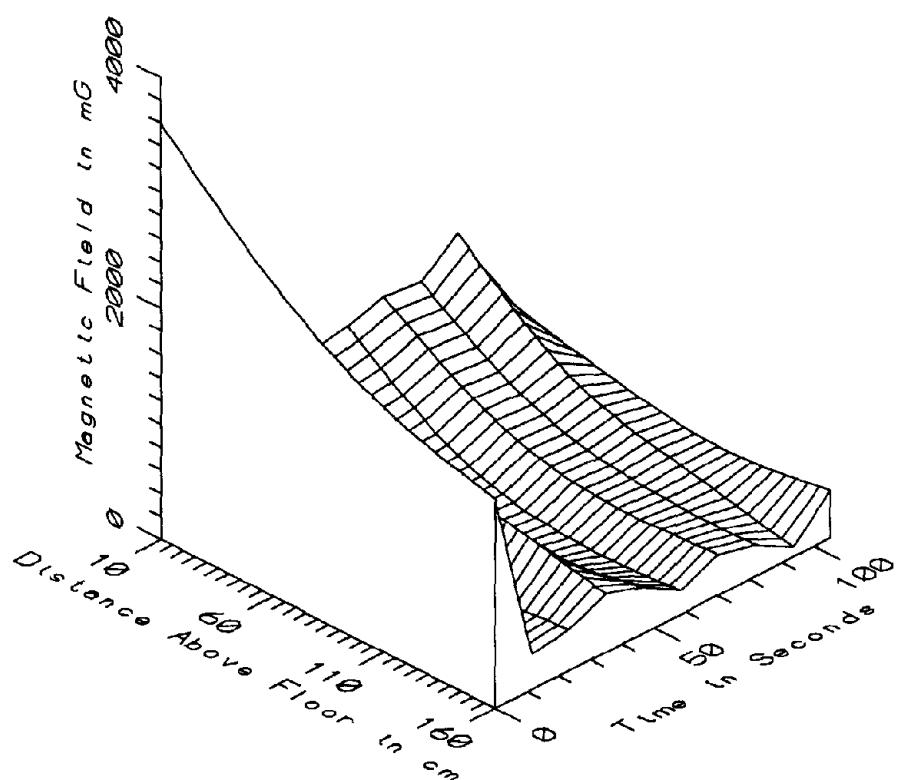
MET009 - 160cm ABOVE FLOOR, IN FRONT OF OPERATOR'S SEAT, CAR 3012



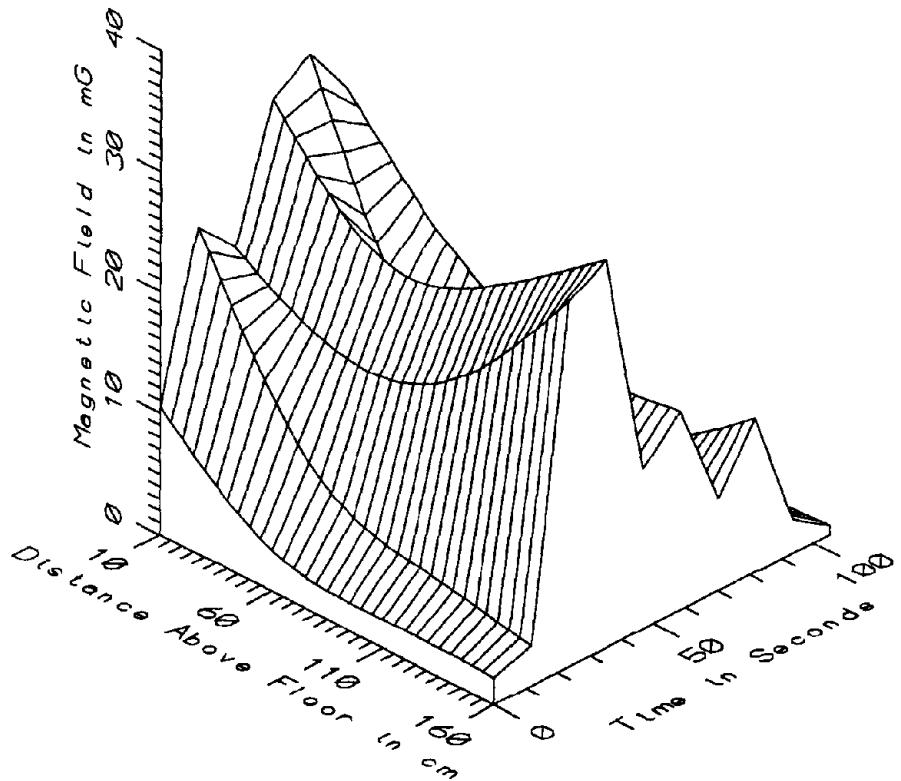
MET009 - REFERENCE PROBE - OPERATOR'S SEAT, CAR 3012



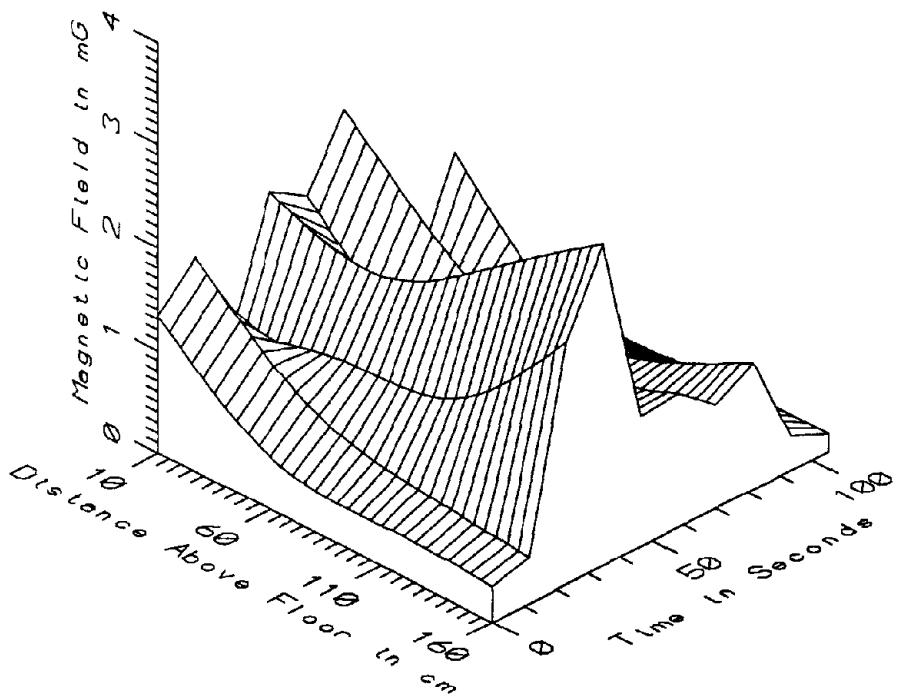
MET009 - REFERENCE PROBE - OPERATOR'S SEAT, CAR 3012



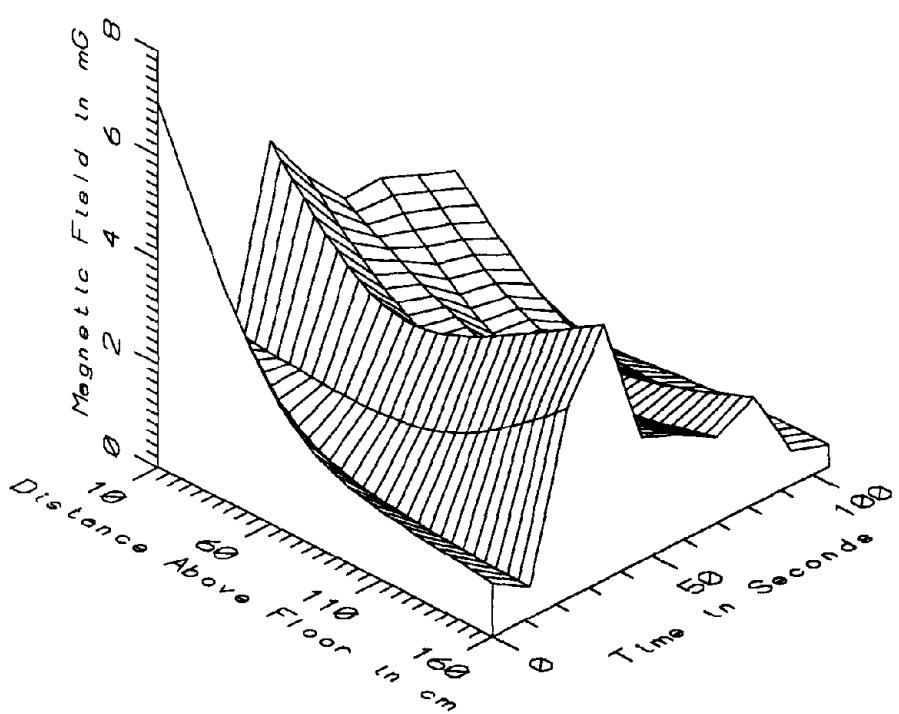
MET009 - IN FRONT OF OPERATOR'S SEAT, CAR 3012 - STATIC



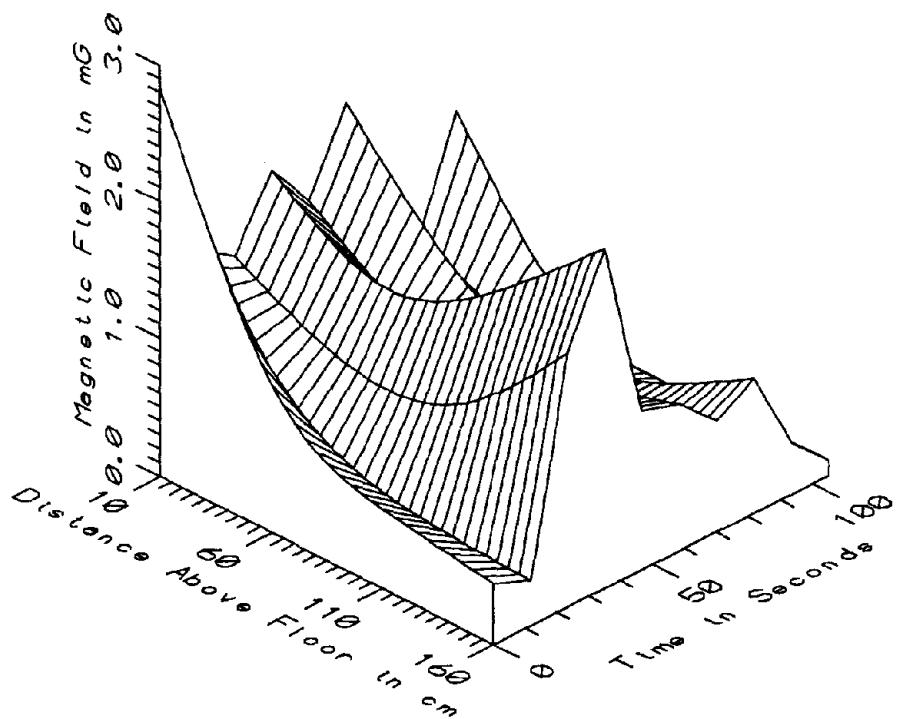
MET009 - IN FRONT OF OPERATOR'S SEAT, CAR 3012 - LOW FREQ, 5-45Hz



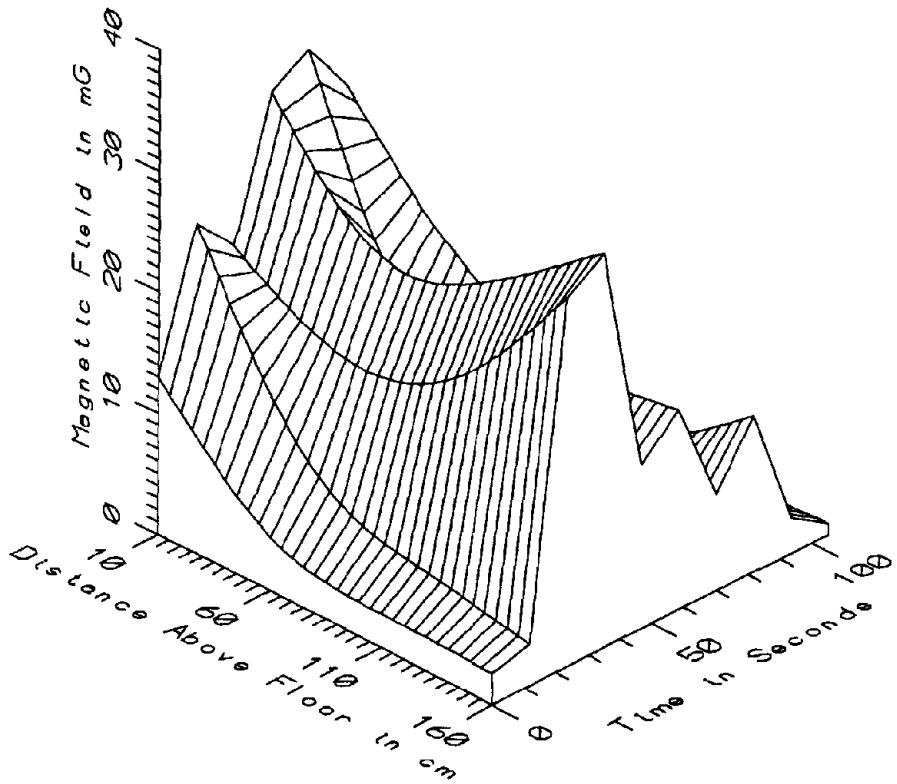
MET009 - IN FRONT OF OPERATOR'S SEAT, CAR 3012 - POWER FREQ, 50-60Hz



MET009 - IN FRONT OF OPERATOR'S SEAT, CAR 3012 - POWER HARM, 65-300Hz



MET009 - IN FRONT OF OPERATOR'S SEAT, CAR 3012 - HIGH FREQ, 305-2560Hz



MET009 - IN FRONT OF OPERATOR'S SEAT, CAR 3012 - ALL FREQ, 5-2560Hz

MET009 - IN FRONT OF OPERATOR'S SEAT, CAR #30112						TOTAL OF 10 SAMPLES	
FREQUENCY BAND	HEIGHT ABOVE FLOOR (cm)	MINIMUM MAGNETIC FIELD (mG)	MAXIMUM MAGNETIC FIELD (mG)	AVERAGE MAGNETIC FIELD (mG)	STANDARD DEVIATION (mG)	COEFFICIENT OF VARIATION (%)	
STATIC	10	661.86	3589.36	1336.16	813.27	60.87	
	60	380.00	2695.17	749.46	699.23	93.30	
	110	170.14	2107.86	507.83	579.16	114.05	
	160	85.30	1802.29	470.56	482.36	102.51	
5-45Hz LOW FREQ	10	0.73	33.48	18.59	11.06	59.48	
	60	0.54	22.48	10.38	7.44	71.66	
	110	0.44	25.08	9.47	8.11	85.64	
	160	0.79	31.74	12.05	11.21	92.98	
50-60Hz PWR FREQ	10	0.18	2.43	1.32	0.69	52.35	
	60	0.12	1.72	0.83	0.49	58.59	
	110	0.17	2.35	0.86	0.62	71.63	
	160	0.18	3.12	1.16	0.95	82.11	
65-300Hz PWR HARM	10	0.28	7.04	3.40	1.82	53.54	
	60	0.18	3.15	1.73	0.86	50.07	
	110	0.35	3.61	1.51	0.94	62.44	
	160	0.42	4.93	1.94	1.44	74.29	
305-2560Hz HIGH FREQ	10	0.35	2.83	1.49	0.68	45.67	
	60	0.11	1.37	0.79	0.39	48.53	
	110	0.09	1.74	0.72	0.47	65.27	
	160	0.12	2.47	0.96	0.73	76.54	
5-2560Hz ALL FREQ	10	0.87	33.81	19.18	10.90	56.83	
	60	0.59	22.81	10.66	7.40	69.46	
	110	0.60	25.50	9.69	8.15	84.10	
	160	0.92	32.37	12.33	11.34	91.97	

APPENDIX J

DATASET MET010 AXIAL PROFILE AT REAR OF CAR #3012

Measurement Setup Code: Staff: 6 Reference: 10
Drawing: A-1

Vehicle Status: Traveling on the Red Line

Measurement Date: May 19, 1992

Measurement Time: Start: 10:18:12
End: 10:20:18

Number of Samples: 13

Programmed Sample Interval: 5 sec

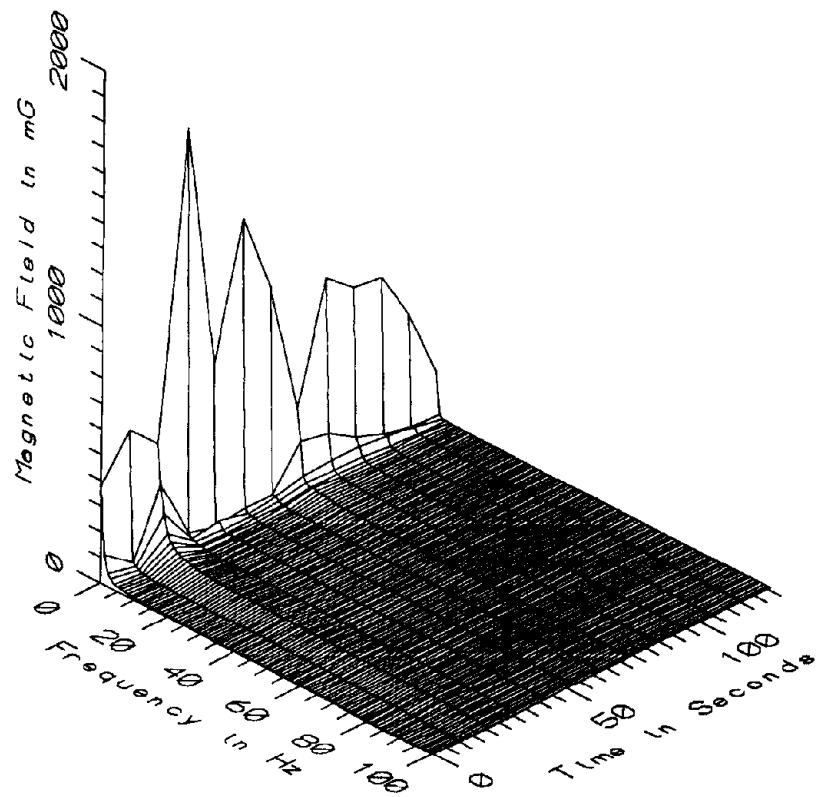
Actual Sample Interval: 10.5 sec

Frequency Spectrum Parameters

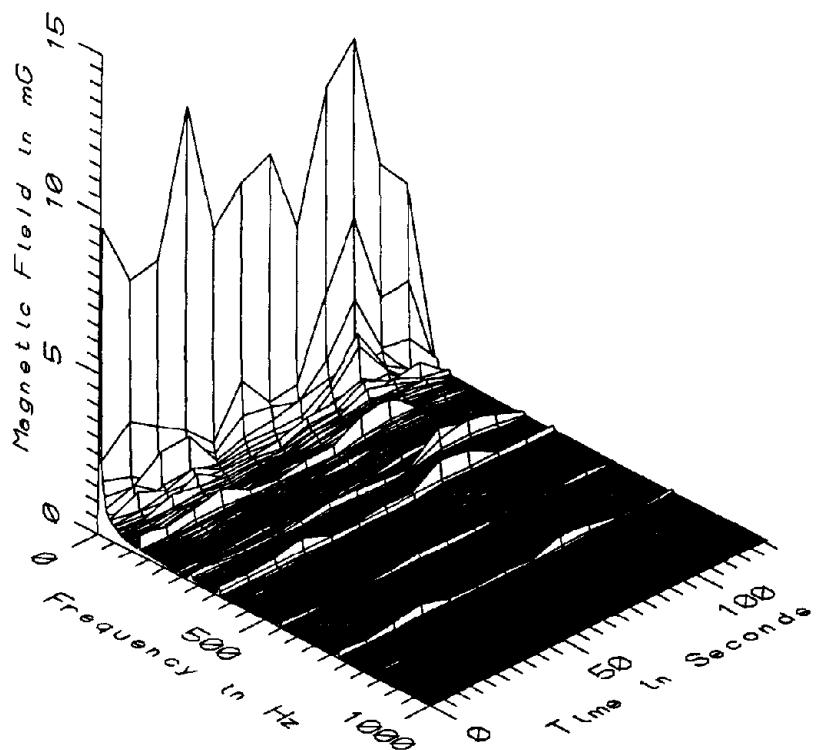
<u>Probe Type:</u>	<u>Wideband</u>	<u>Static</u>
Maximum Frequency (Hz)	2560	100
Minimum Frequency (Hz)	5	0
Spectral Bandwidth (Hz)	5	1

Missing Data: None

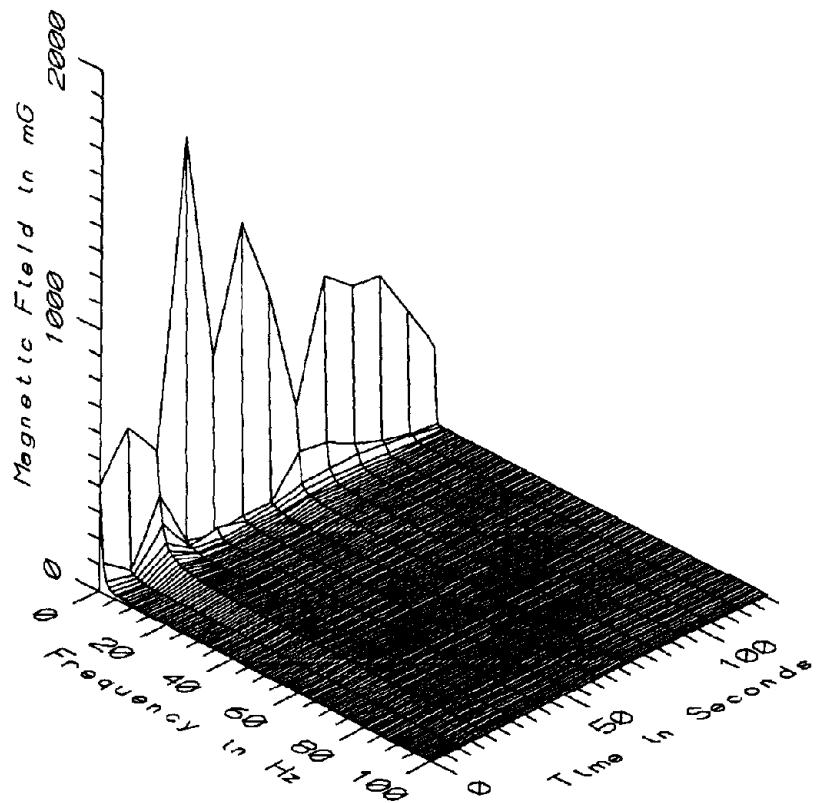
Saturated Data - Wideband:	<u>Sensor</u>	<u>Sample</u>	<u>Time (sec)</u>
	Ref	9	84



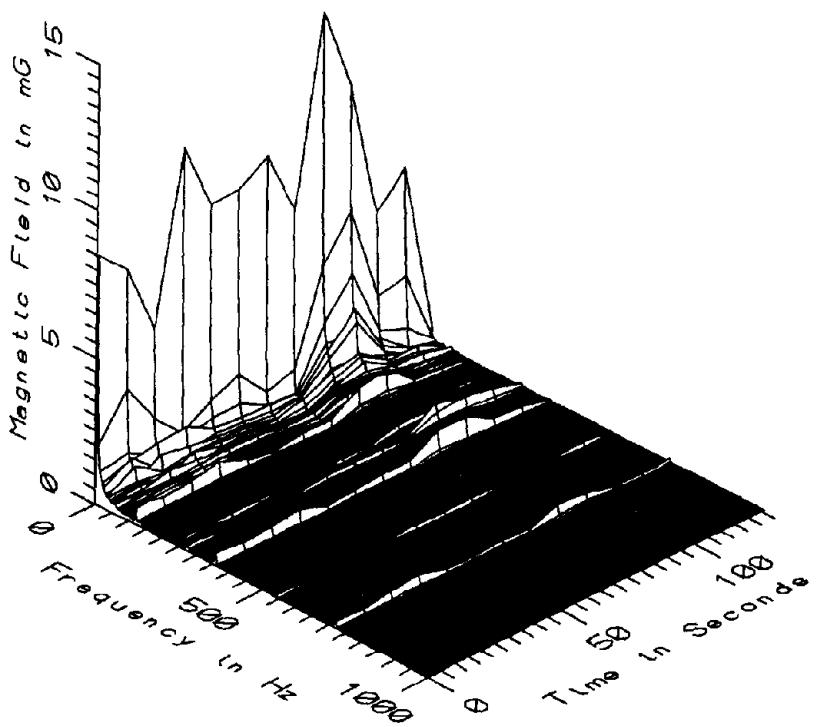
MET010 - -75cm FROM CENTERLINE OF REAR DOORS ALONG AXIS OF CAR 3012



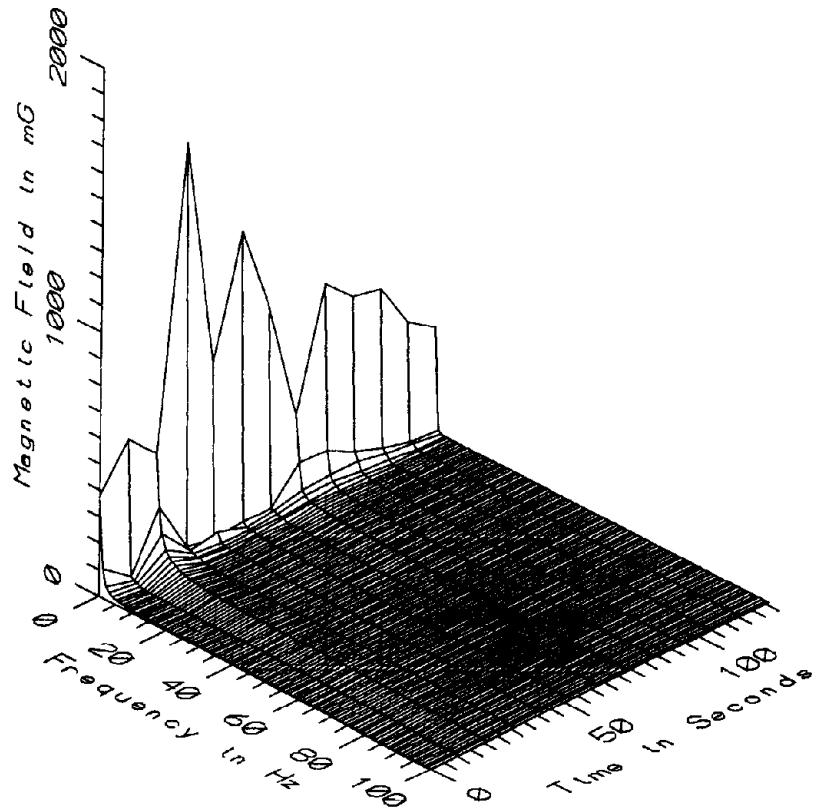
MET010 - -75cm FROM CENTERLINE OF REAR DOORS ALONG AXIS OF CAR 3012



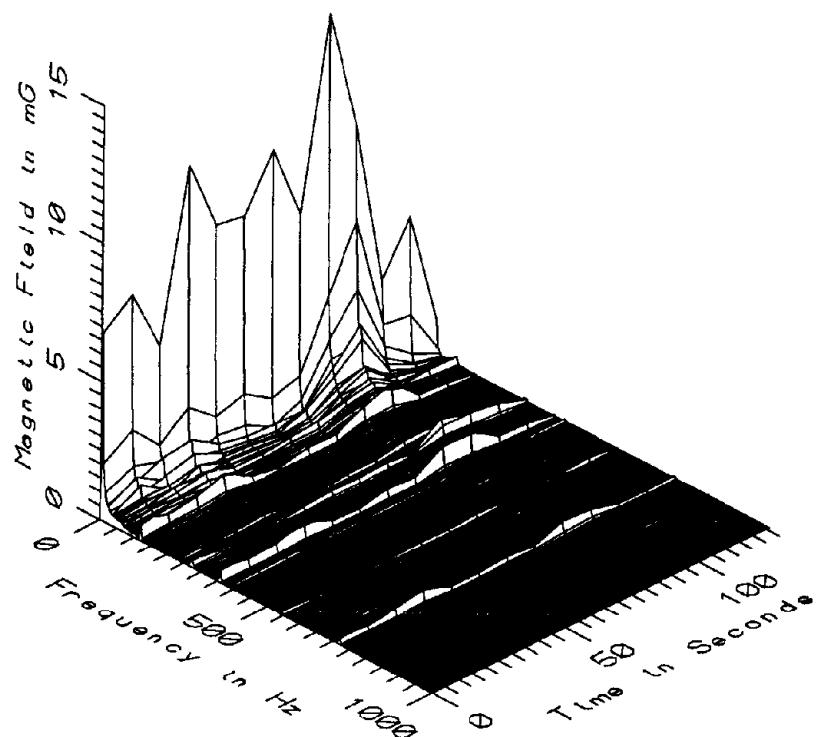
MET010 - -25cm FROM CENTERLINE OF REAR DOORS ALONG AXIS OF CAR 3012



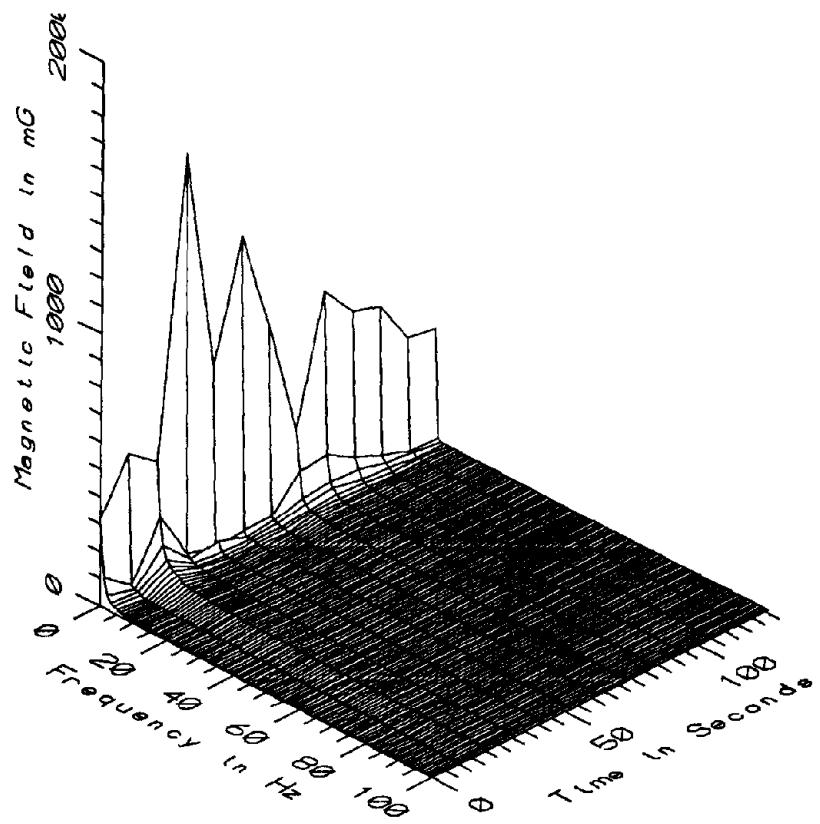
MET010 - -25cm FROM CENTERLINE OF REAR DOORS ALONG AXIS OF CAR 3012



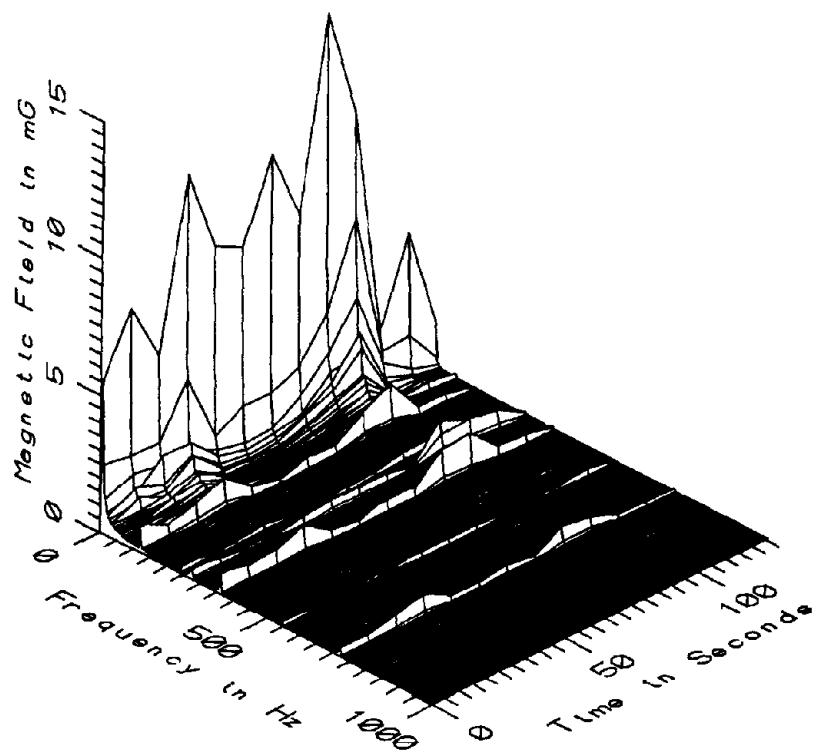
MET010 - 25cm FROM CENTERLINE OF REAR DOORS ALONG AXIS OF CAR 3012



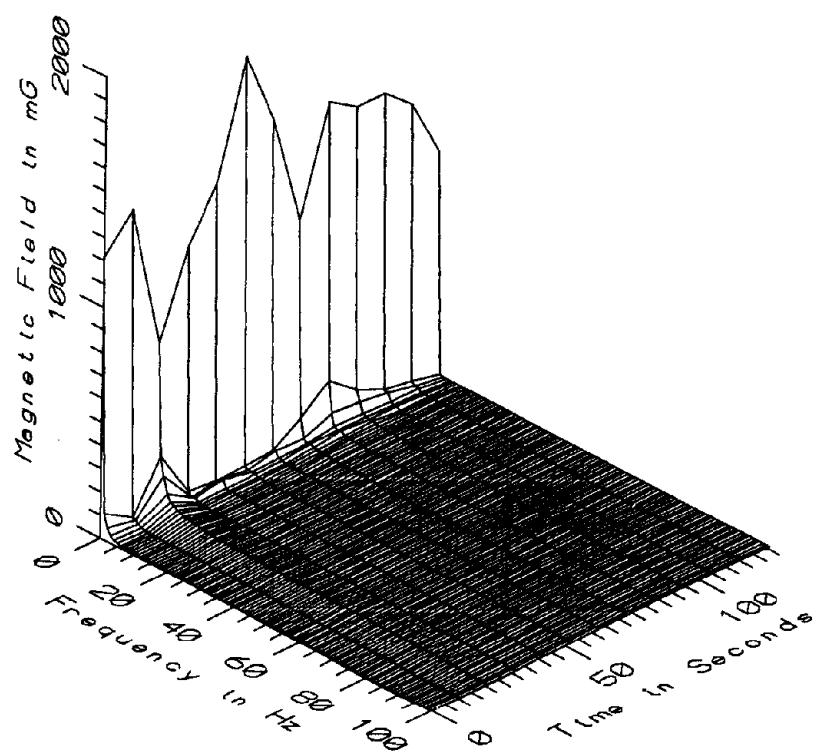
MET010 - 25cm FROM CENTERLINE OF REAR DOORS ALONG AXIS OF CAR 3012



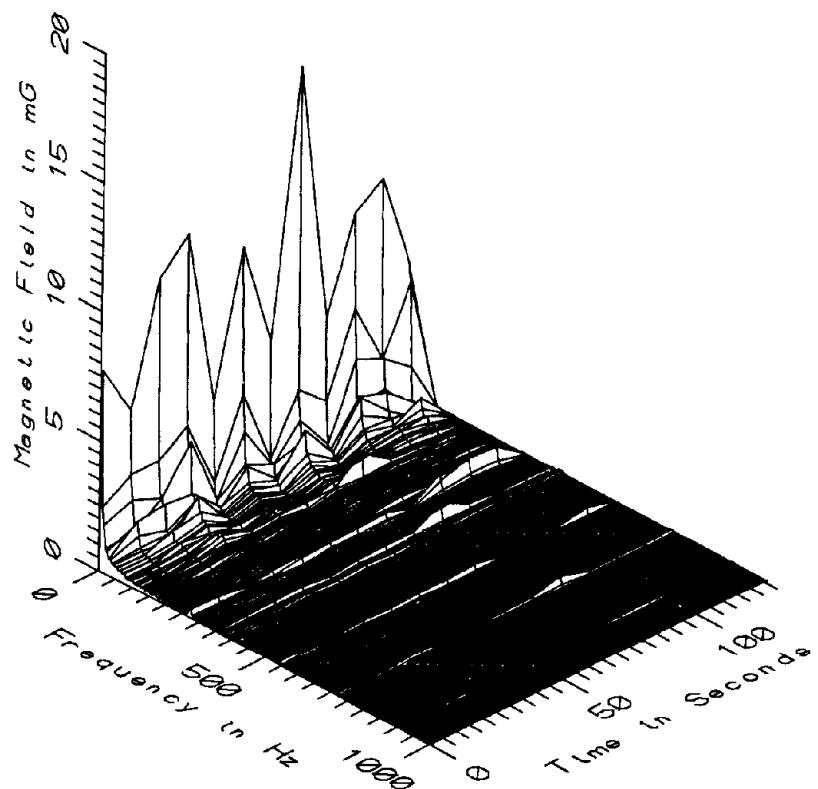
MET010 - 75cm FROM CENTERLINE OF REAR DOORS ALONG AXIS OF CAR 3012



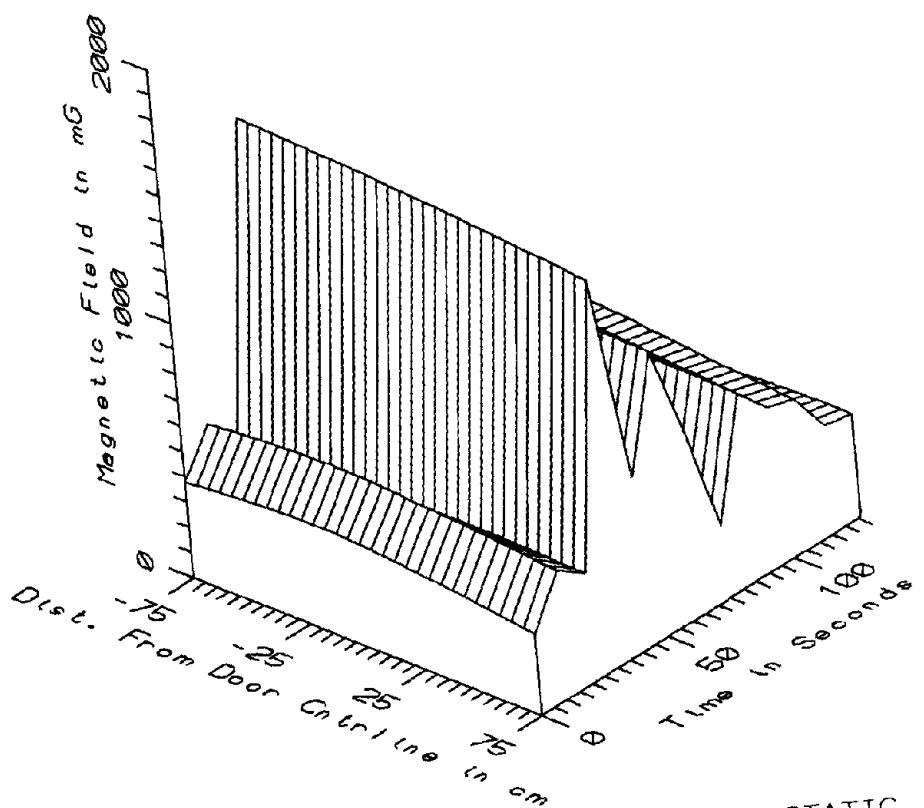
MET010 - 75cm FROM CENTERLINE OF REAR DOORS ALONG AXIS OF CAR 3012



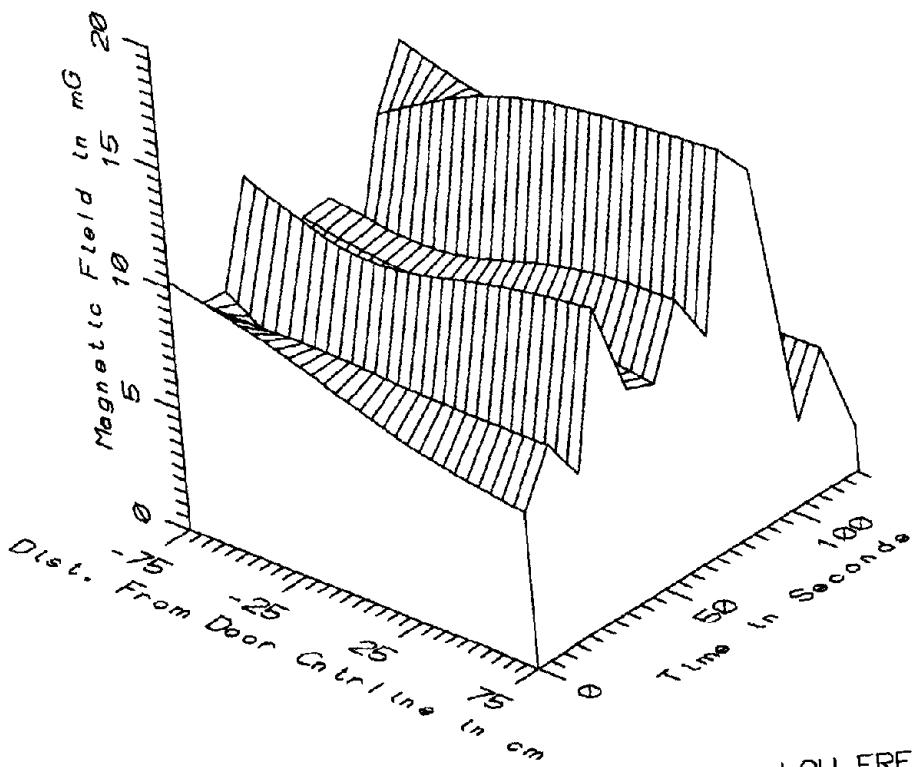
MET010 - REFERENCE PROBE - WINDOW SEAT AT REAR OF CAR 3012



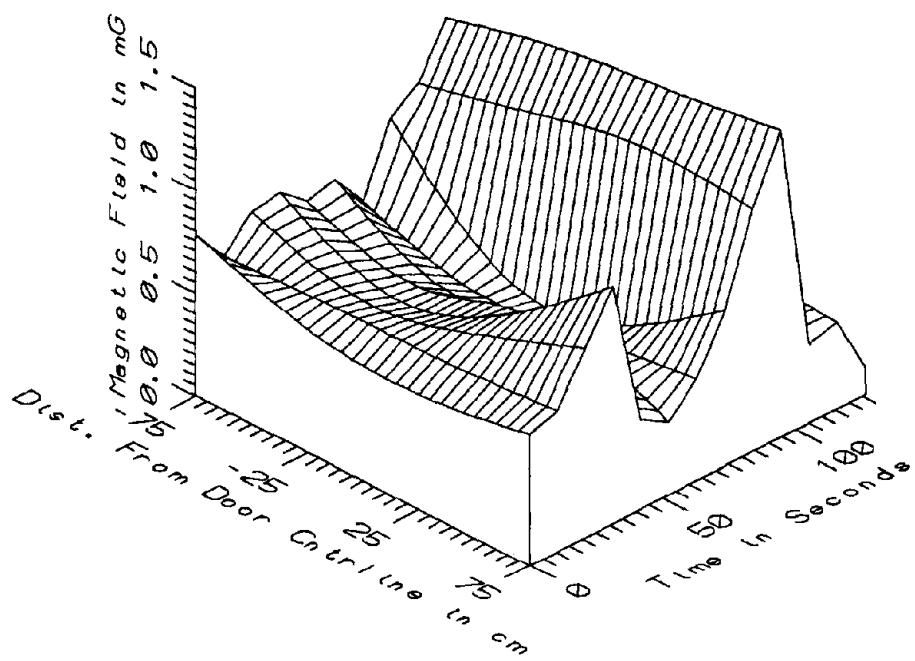
MET010 - REFERENCE PROBE - WINDOW SEAT AT REAR OF CAR 3012



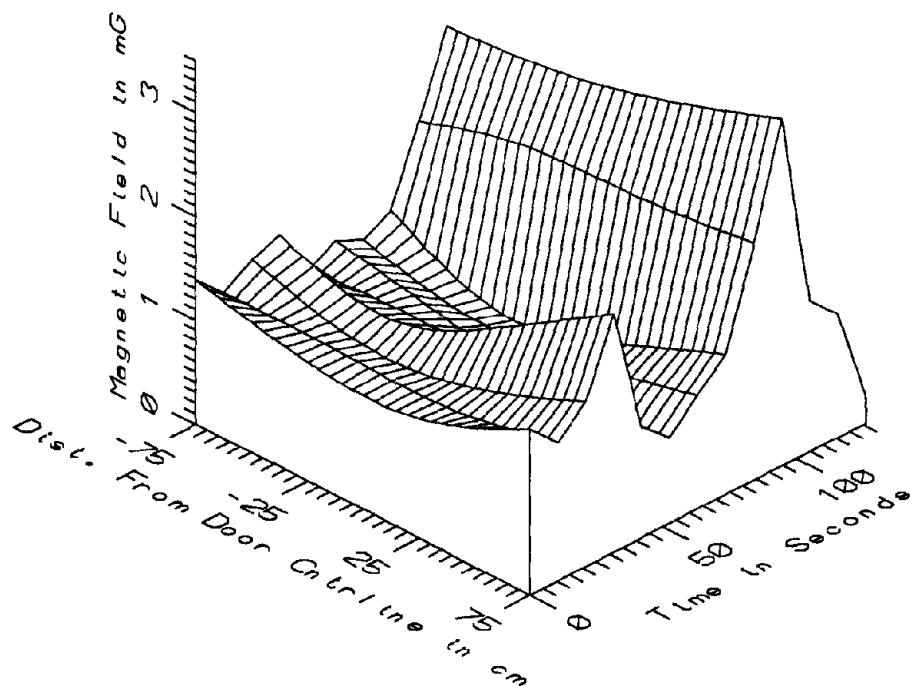
MET010 - AXIAL PROFILE AT REAR OF CAR 3012 - STATIC



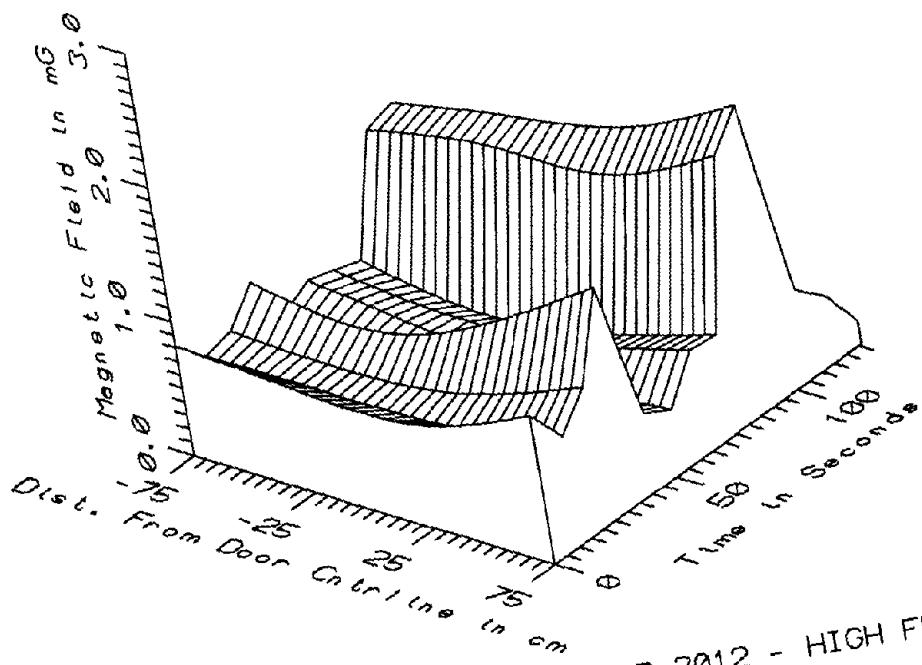
MET010 - AXIAL PROFILE AT REAR OF CAR 3012 - LOW FREQ. 5-45Hz



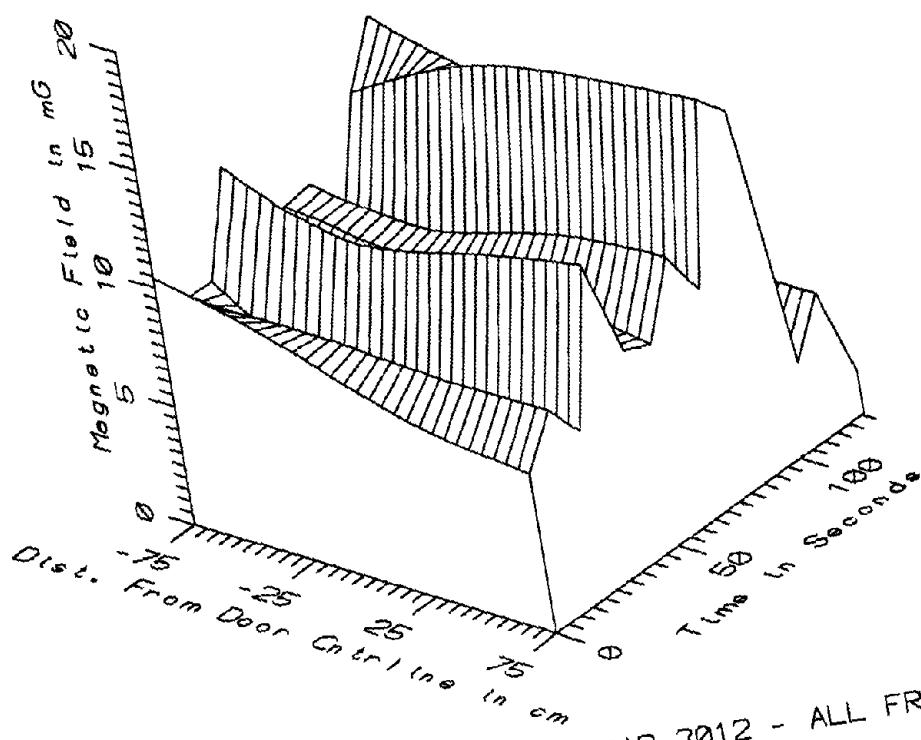
MET010 - AXIAL PROFILE AT REAR OF CAR 3012 - POWER FREQ, 50-60Hz



MET010 - AXIAL PROFILE AT REAR OF CAR 3012 - POWER HARM, 65-300Hz



MET010 - AXIAL PROFILE AT REAR OF CAR 3012 - HIGH FREQ. 305-2560Hz



MET010 - AXIAL PROFILE AT REAR OF CAR 3012 - ALL FREQ. 5-2560Hz

MET010 - AXIAL PROFILE AT REAR OF CAR 3012							TOTAL OF 13 SAMPLES	
FREQUENCY BAND	DIST ALONG STAFF (cm)	MINIMUM MAGNETIC FIELD (mG)	MAXIMUM MAGNETIC FIELD (mG)	AVERAGE MAGNETIC FIELD (mG)	STANDARD DEVIATION (mG)	COEFFICIENT OF VARIATION (%)		
STATIC	-75	172.61	1615.68	660.35	380.94	57.69		
	-25	296.89	1590.22	687.24	357.60	52.03		
	25	328.01	1557.72	673.14	341.68	50.76		
	75	291.39	1512.39	644.09	339.99	52.79		
5-45Hz LOW FREQ	-75	0.75	14.18	8.98	3.25	36.20		
	-25	0.76	14.43	8.46	3.40	40.24		
	25	1.30	15.55	8.54	3.75	43.94		
	75	1.77	16.06	8.68	4.14	47.74		
50-60Hz PWR FREQ	-75	0.20	1.22	0.75	0.27	35.40		
	-25	0.09	1.36	0.61	0.32	52.46		
	25	0.19	1.42	0.66	0.33	49.70		
	75	0.13	1.49	0.69	0.39	56.71		
65-300Hz PWR HARM	-75	0.19	2.61	1.30	0.58	44.69		
	-25	0.25	2.71	1.16	0.64	54.91		
	25	0.36	2.97	1.23	0.68	55.31		
	75	0.26	3.34	1.51	0.77	51.13		
305-2560Hz HIGH FREQ	-75	0.22	1.40	0.72	0.34	47.92		
	-25	0.15	1.58	0.69	0.42	60.65		
	25	0.17	1.75	0.74	0.46	62.51		
	75	0.18	2.19	0.98	0.60	61.78		
5-2560Hz ALL FREQ	-75	0.83	14.53	9.14	3.30	36.08		
	-25	0.82	14.70	8.60	3.47	40.29		
	25	1.37	15.82	8.70	3.81	43.82		
	75	1.81	16.38	8.92	4.22	47.29		

APPENDIX K

**DATASET MET011
TRANSVERSE PROFILE AT REAR OF CAR #3012**

Measurement Setup Code: Staff: 7 Reference: 10
Drawing: A-1

Vehicle Status: Traveling on the Red Line

Measurement Date: May 19, 1992

Measurement Time: Start: 10:20:38
End: 10:22:13

Number of Samples: 10

Programmed Sample Interval: 5 sec

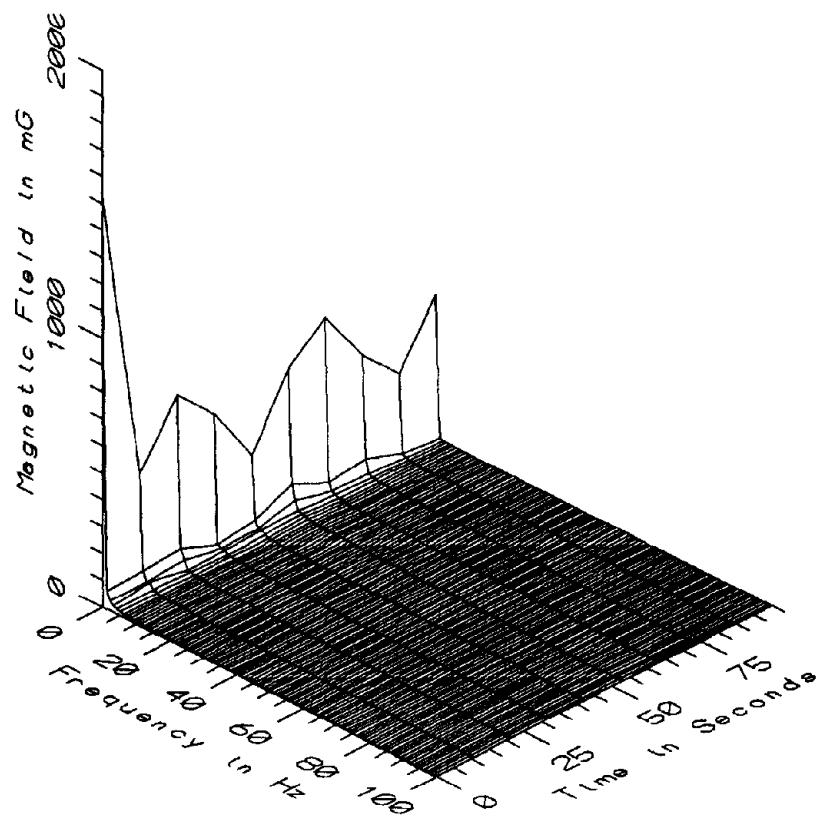
Actual Sample Interval: 10.5 sec

Frequency Spectrum Parameters

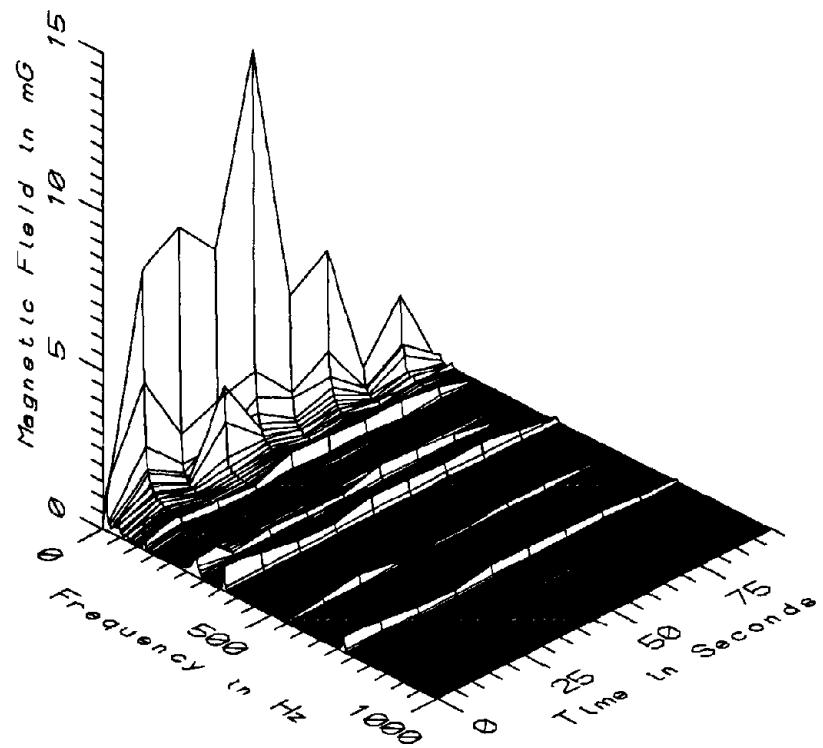
<u>Probe Type:</u>	<u>Wideband</u>	<u>Static</u>
Maximum Frequency (Hz)	2560	100
Minimum Frequency (Hz)	5	0
Spectral Bandwidth (Hz)	5	1

Missing Data: None

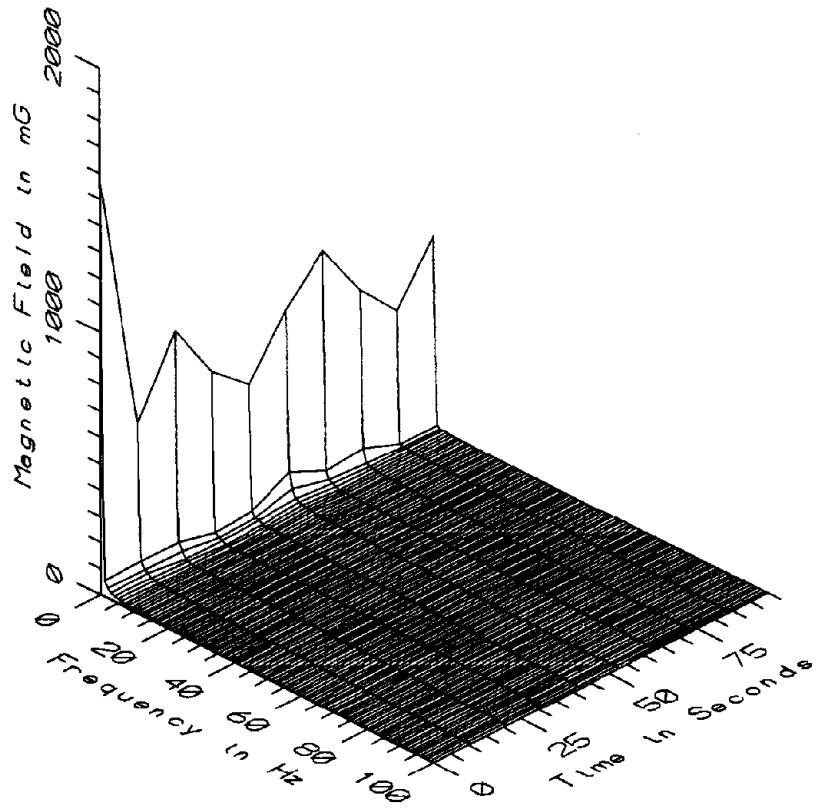
Saturated Data: None



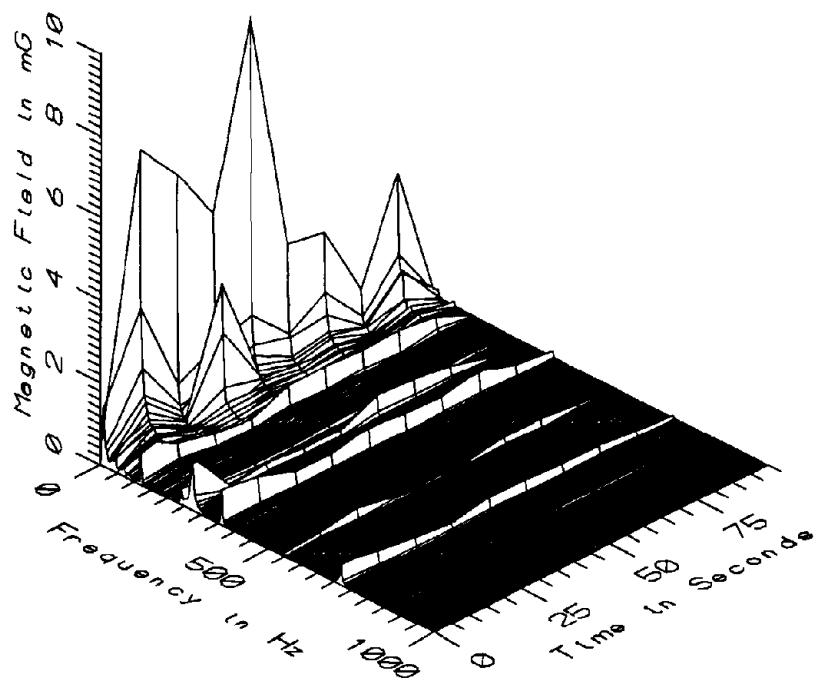
MET011 - -75cm FROM CAR CENTERLINE, REAR OF CAR 3012



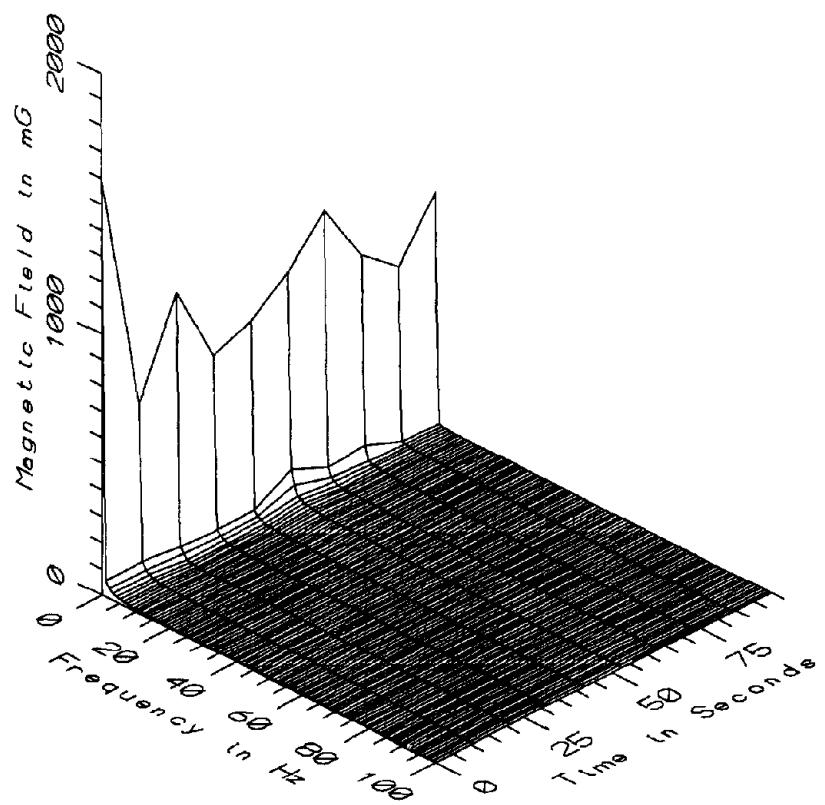
MET011 - -75cm FROM CAR CENTERLINE, REAR OF CAR 3012



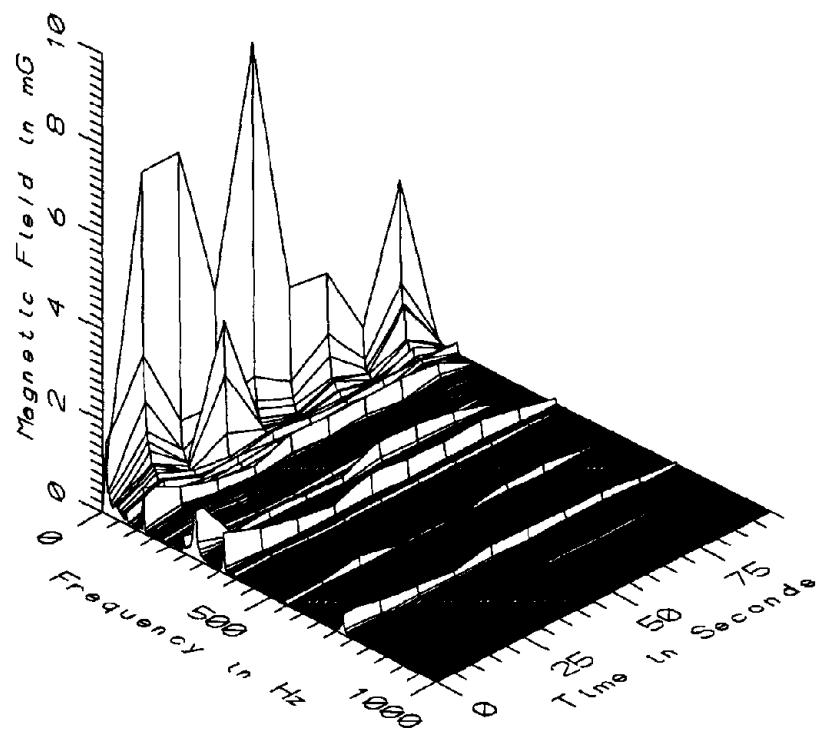
MET011 - -25cm FROM CAR CENTERLINE, REAR OF CAR 3012



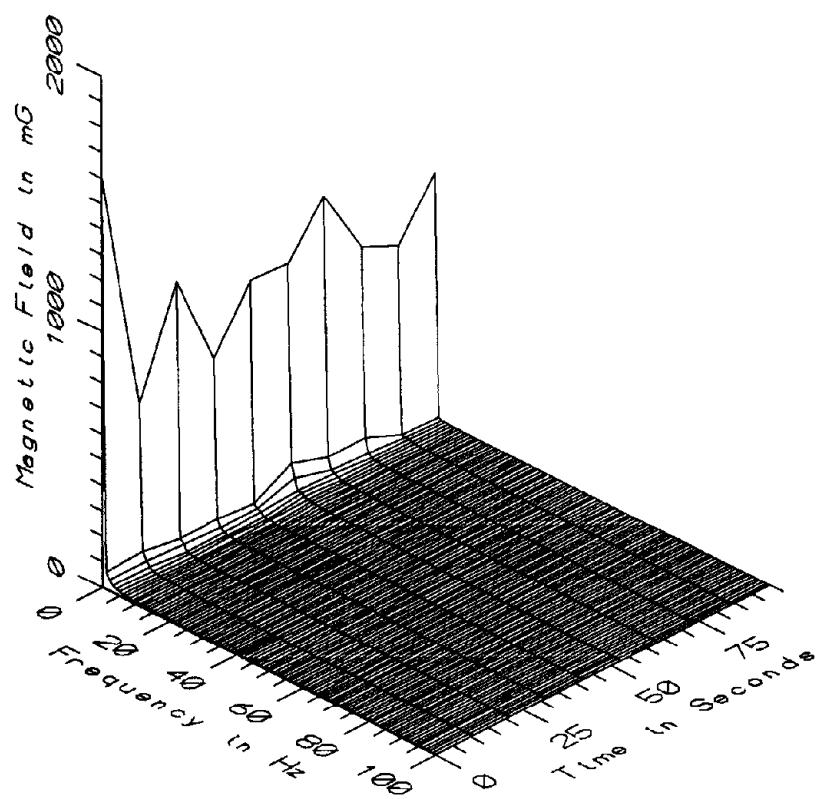
MET011 - -25cm FROM CAR CENTERLINE, REAR OF CAR 3012



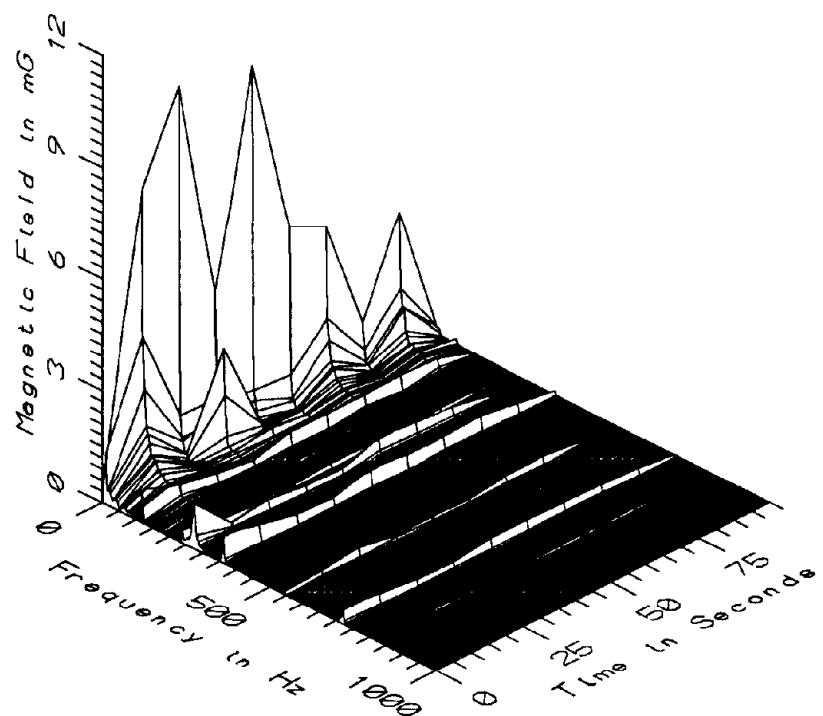
MET011 - 25cm FROM CAR CENTERLINE, REAR OF CAR 3012



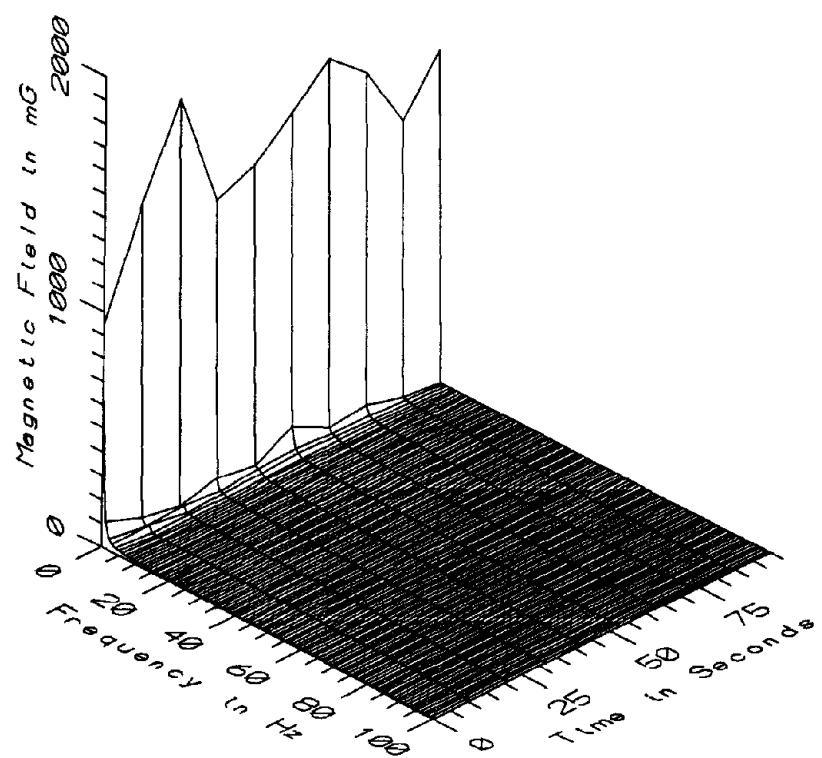
MET011 - 25cm FROM CAR CENTERLINE, REAR OF CAR 3012



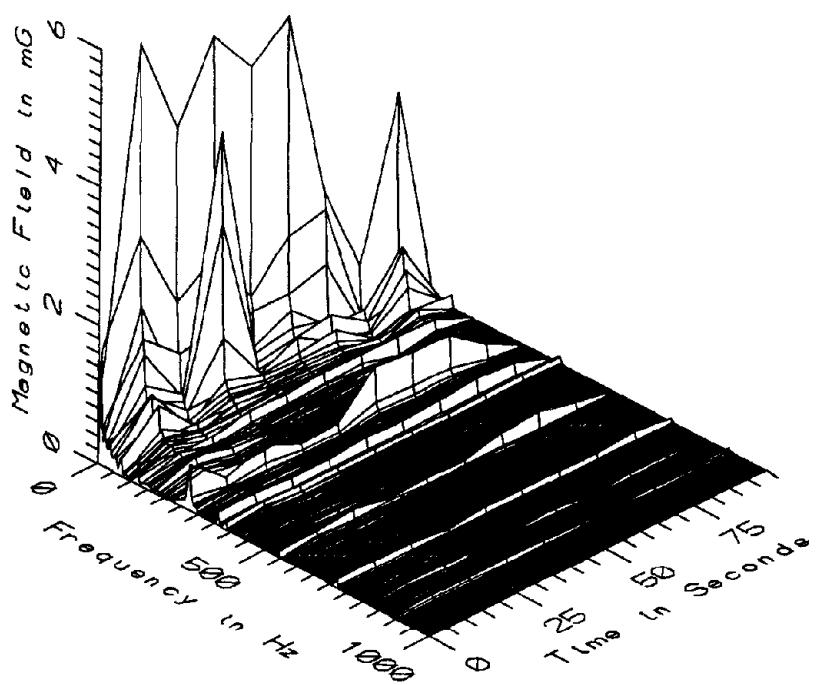
MET011 - 75cm FROM CAR CENTERLINE, REAR OF CAR 3012



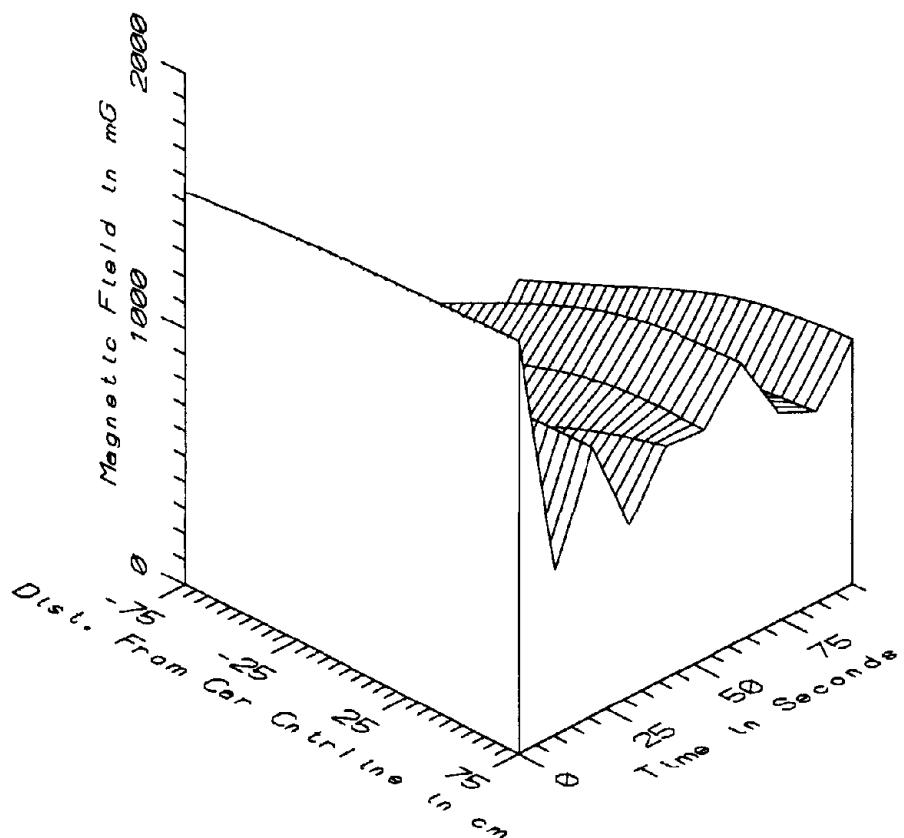
MET011 - 75cm FROM CAR CENTERLINE, REAR OF CAR 3012



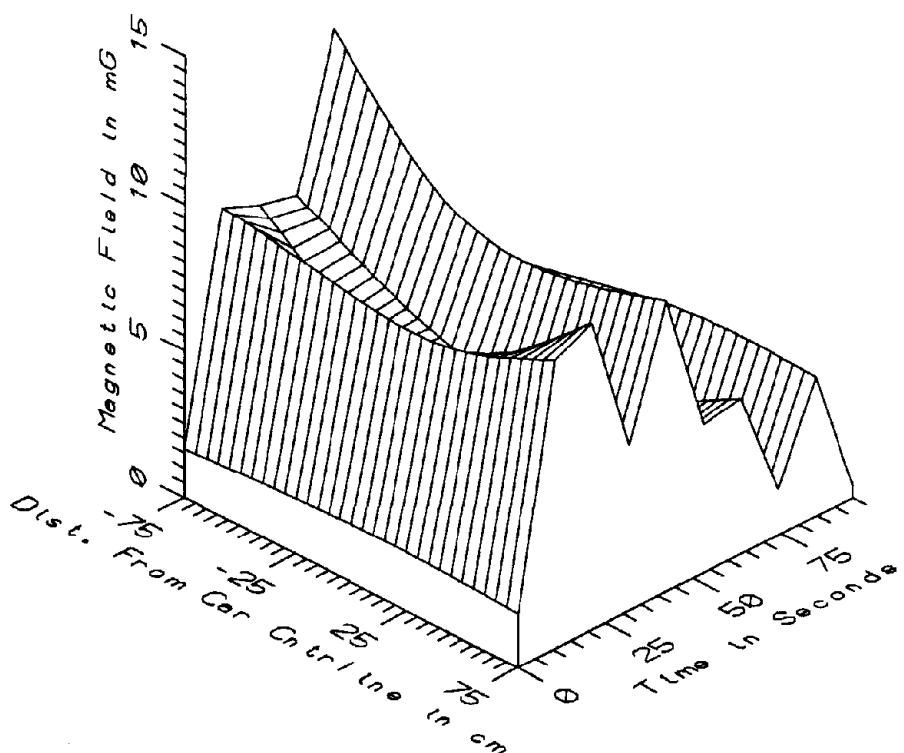
MET011 - REFERENCE PROBE - WINDOW SEAT AT REAR OF CAR 3012



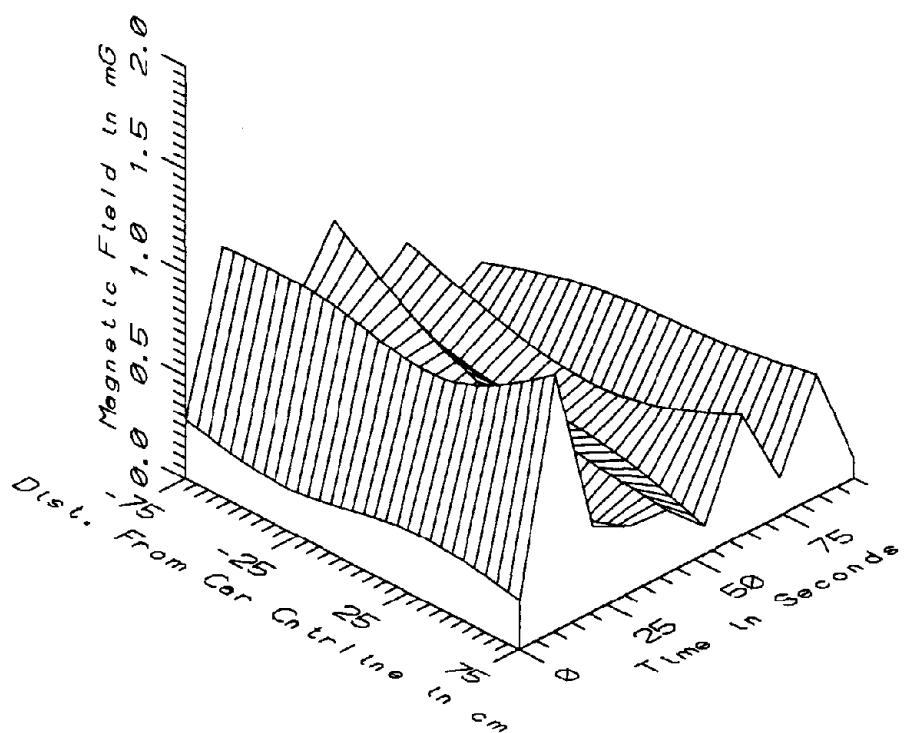
MET011 - REFERENCE PROBE - WINDOW SEAT AT REAR OF CAR 3012



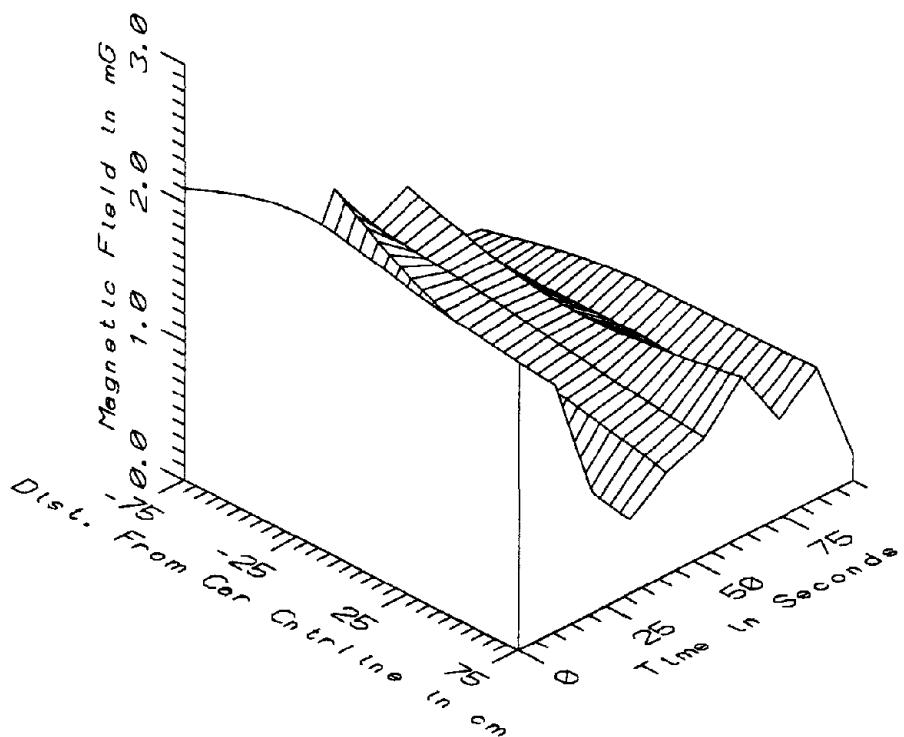
MET011 - TRANSVERSE PROFILE AT REAR OF CAR 3012 - STATIC



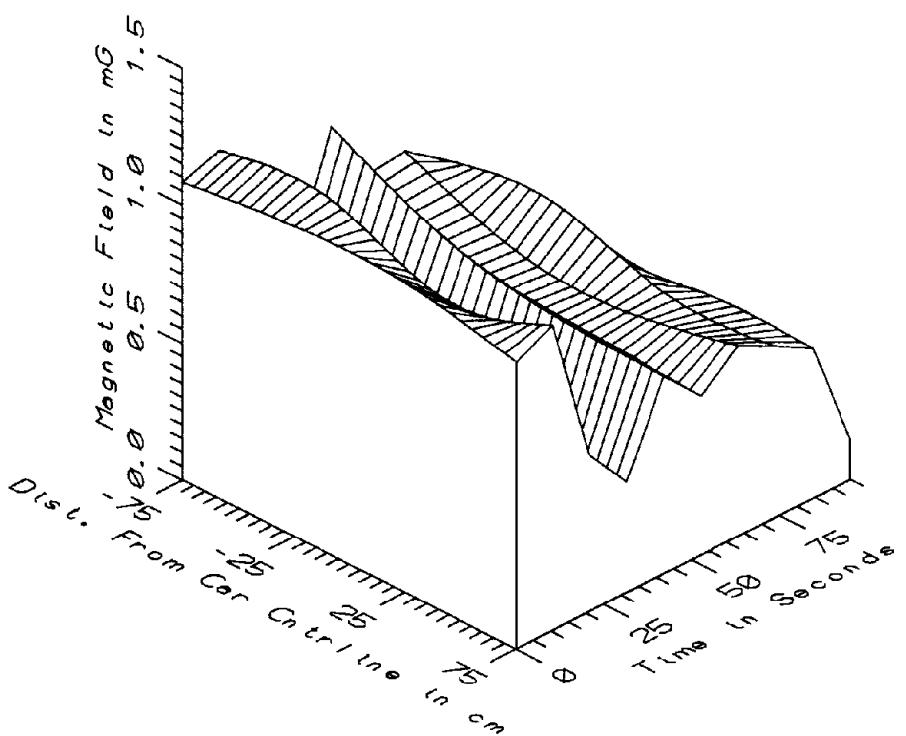
MET011 - TRANSVERSE PROFILE AT REAR OF CAR 3012 - LOW FREQ, 5-45Hz



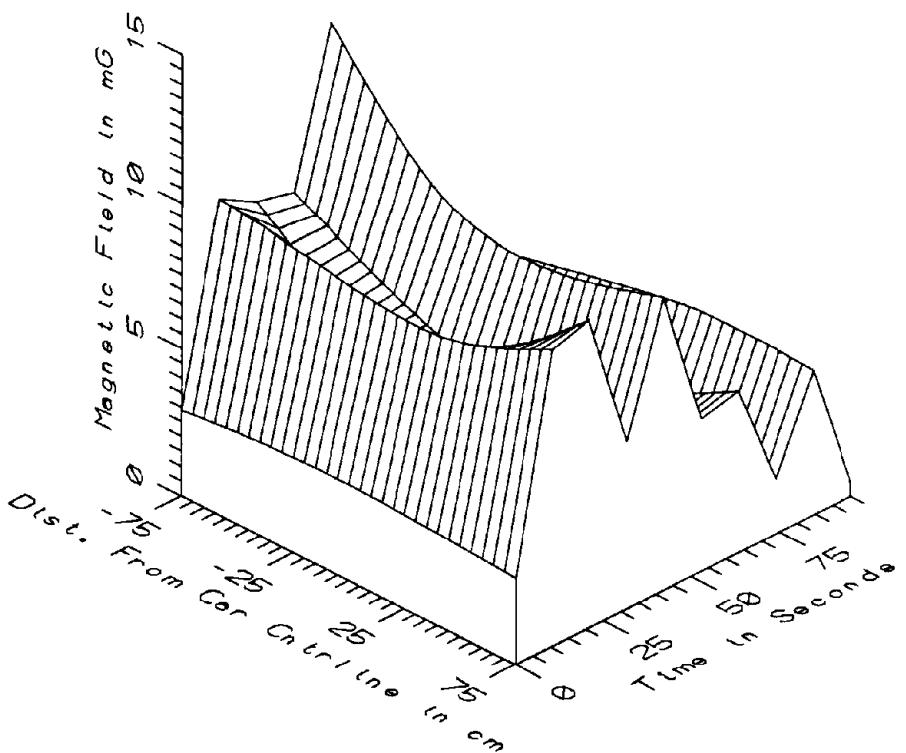
MET011 - TRANSVERSE PROFILE AT REAR OF CAR 3012 - POWER FREQ, 50-60Hz



MET011 - TRANSVERSE PROFILE AT REAR OF CAR 3012 - POWER HARM, 65-300Hz



MET011 - TRANSVERSE PROFILE AT REAR OF CAR 3012 - HIGH FREQ, 305-2560Hz



MET011 - TRANSVERSE PROFILE AT REAR OF CAR 3012 - ALL FREQ, 5-2560Hz

MET011 - TRANSVERSE PROFILE AT REAR OF CAR 3012						TOTAL OF 10 SAMPLES		
FREQUENCY BAND	DIST ALONG STAFF (cm)	MINIMUM MAGNETIC FIELD (mG)	MAXIMUM MAGNETIC FIELD (mG)	AVERAGE MAGNETIC FIELD (mG)	STANDARD DEVIATION (mG)	Coefficient of Variation (%)	(%)	
STATIC	-75	286.12	1536.70	588.10	355.63	60.47		
	-25	510.90	1571.96	766.55	309.72	40.40		
	25	663.72	1594.80	902.46	276.93	30.69		
	75	646.15	1609.41	938.63	277.86	29.60		
5-45Hz LOW FREQ	-75	0.28	13.38	5.71	4.22	73.93		
	-25	0.29	9.50	4.54	3.08	67.92		
	25	0.30	8.83	4.48	2.95	65.90		
	75	0.43	10.38	5.44	3.60	66.14		
50-60Hz PWR FREQ	-75	0.18	1.04	0.50	0.29	56.79		
	-25	0.11	1.02	0.41	0.26	64.15		
	25	0.20	0.94	0.39	0.22	56.31		
	75	0.10	1.23	0.41	0.34	82.02		
65-300Hz PWR HARM	-75	0.06	2.10	1.11	0.59	52.70		
	-25	0.15	2.34	1.04	0.59	57.04		
	25	0.27	2.21	1.00	0.54	54.32		
	75	0.19	2.08	0.99	0.56	57.00		
305-2560Hz HIGH FREQ	-75	0.23	1.13	0.75	0.28	36.94		
	-25	0.19	1.15	0.69	0.29	42.04		
	25	0.15	1.13	0.64	0.28	44.28		
	75	0.14	1.11	0.64	0.28	43.71		
5-2560Hz ALL FREQ	-75	0.41	13.54	6.00	4.09	68.21		
	-25	0.39	9.61	4.84	2.96	61.20		
	25	0.48	8.92	4.76	2.83	59.46		
	75	0.50	10.44	5.69	3.49	61.39		

APPENDIX L

DATASET MET012 TRANSVERSE PROFILE IN CENTER OF CAR #3090

Measurement Setup Code: Staff: 3 Reference: -
Drawing: A-1

Vehicle Status: Traveling on the Red Line

Measurement Date: May 19, 1992

Measurement Time: Start: 10:33:46
End: 10:34:54

Number of Samples: 9

Programmed Sample Interval: 5 sec

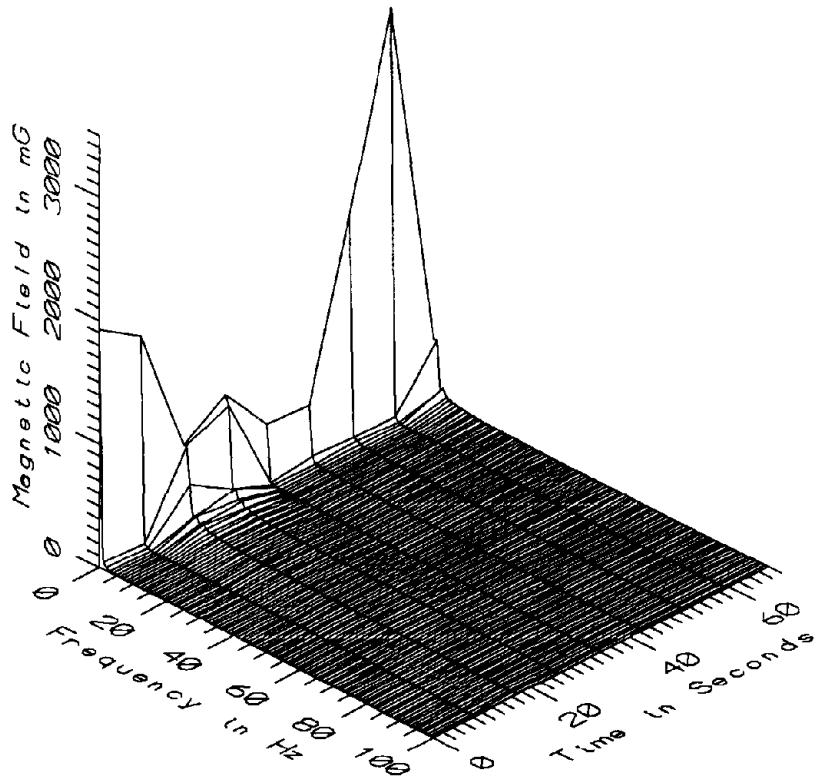
Actual Sample Interval: 8.5 sec

Frequency Spectrum Parameters

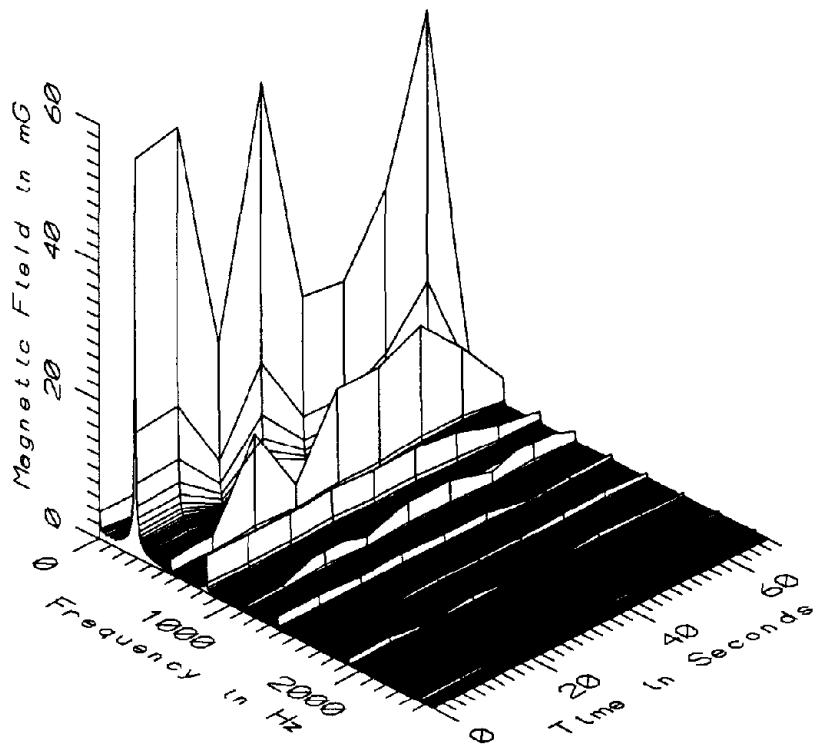
<u>Probe Type:</u>	<u>Wideband</u>	<u>Static</u>
Maximum Frequency (Hz)	2560	100
Minimum Frequency (Hz)	5	0
Spectral Bandwidth (Hz)	5	1

Missing Data: No reference probe

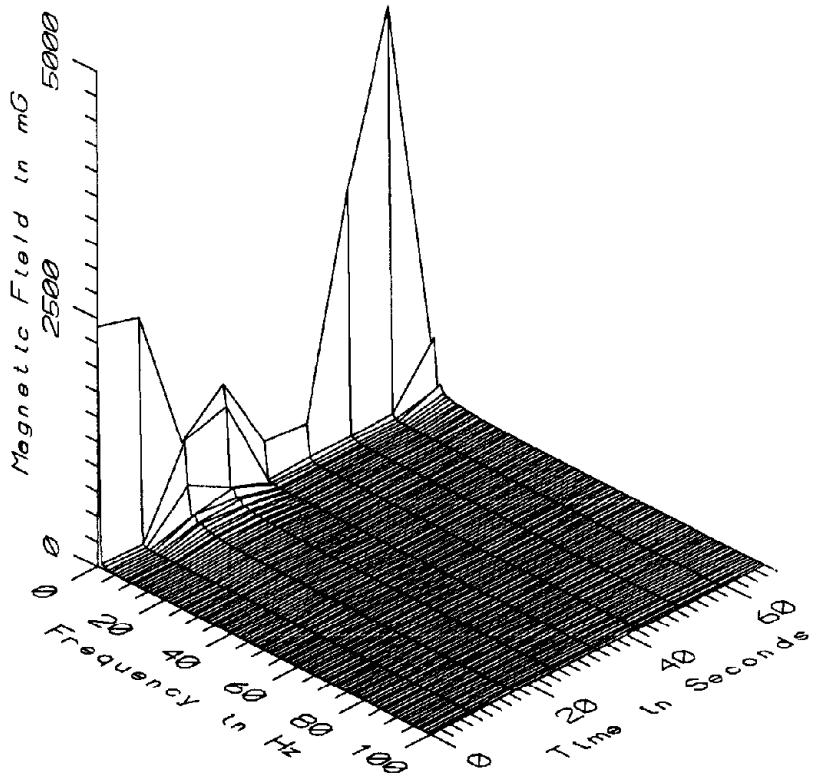
Saturated Data - Static:	<u>Sensor</u>	<u>Sample</u>	<u>Time (sec)</u>
	25cm	8	60



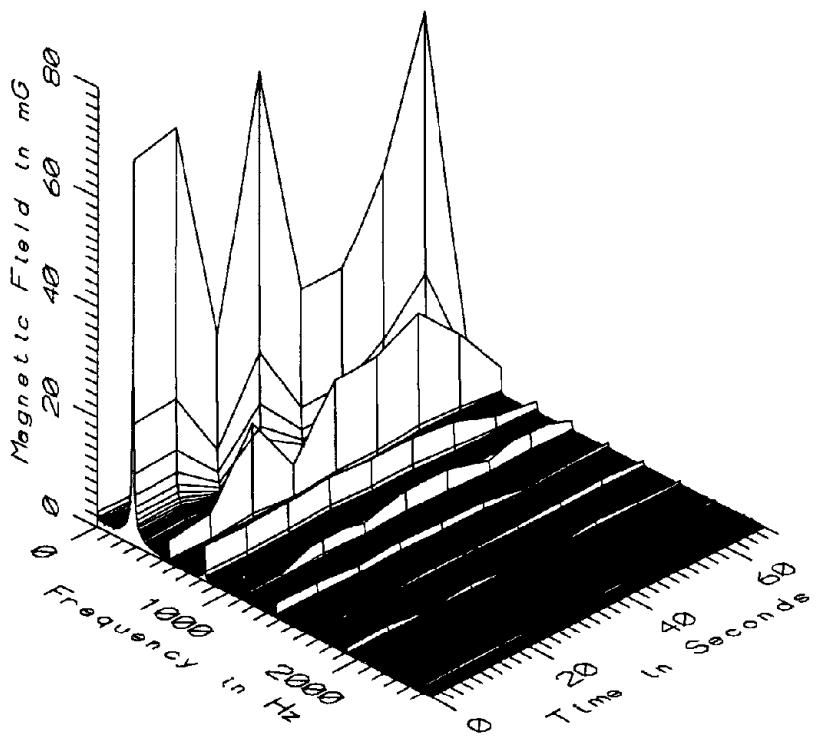
MET012 - -75cm FROM CAR CENTERLINE, CENTER OF CAR 3090



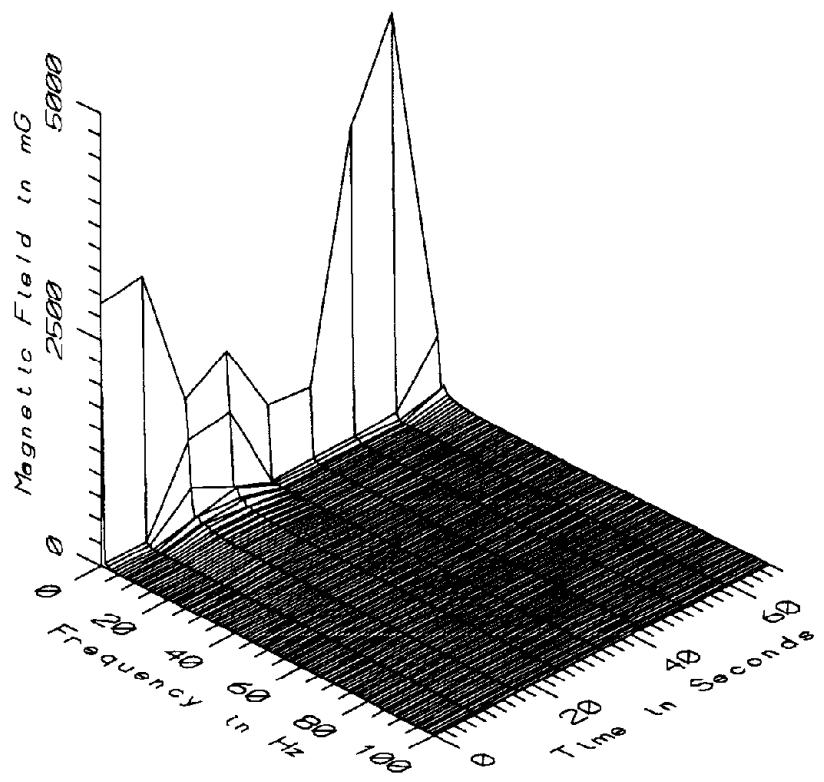
MET012 - -75cm FROM CAR CENTERLINE, CENTER OF CAR 3090



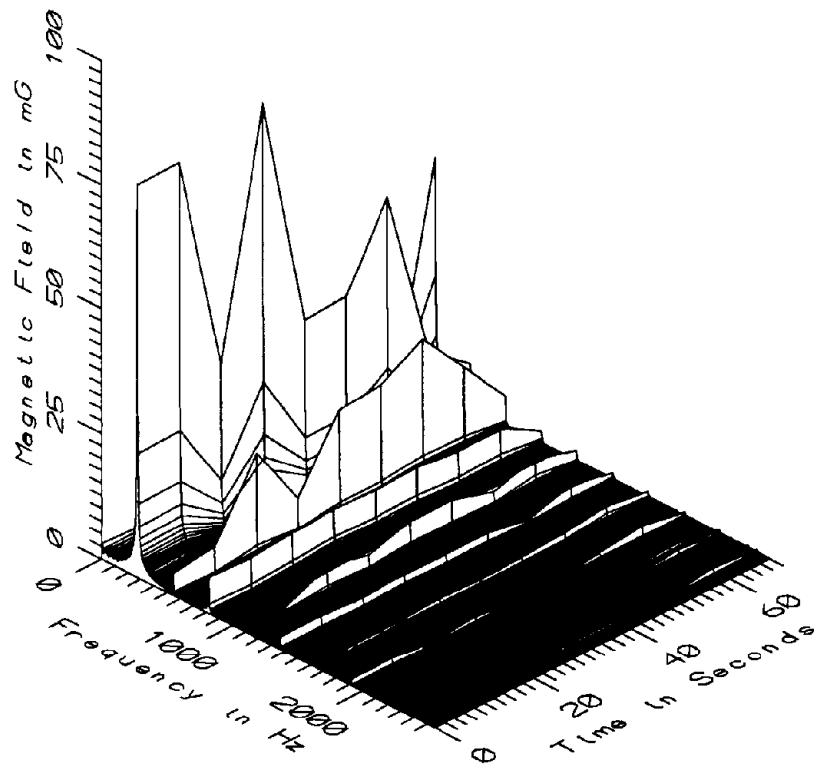
MET012 - -25cm FROM CAR CENTERLINE, CENTER OF CAR 3090



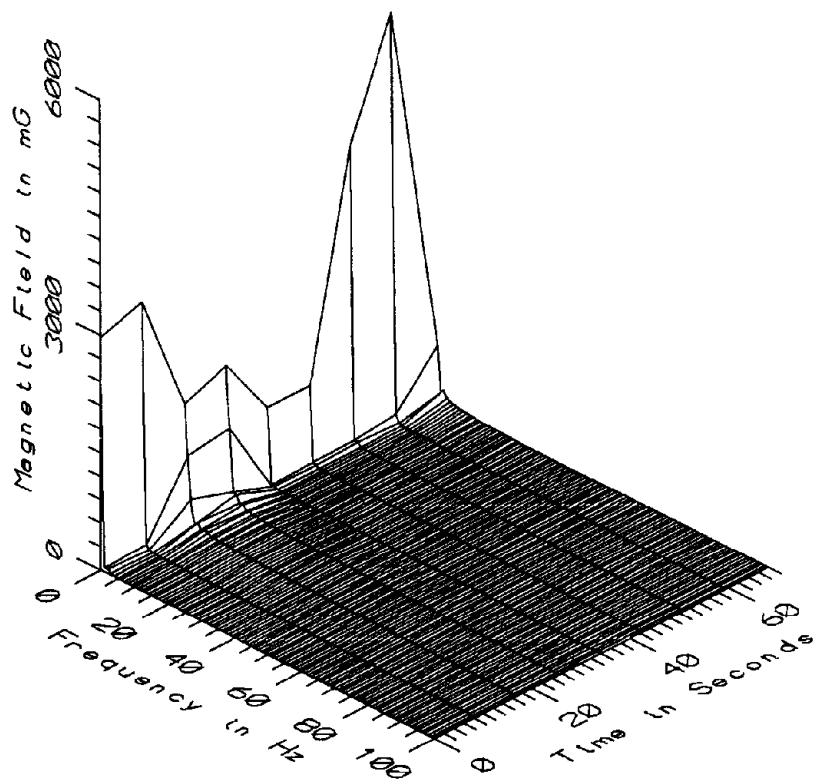
MET012 - -25cm FROM CAR CENTERLINE, CENTER OF CAR 3090



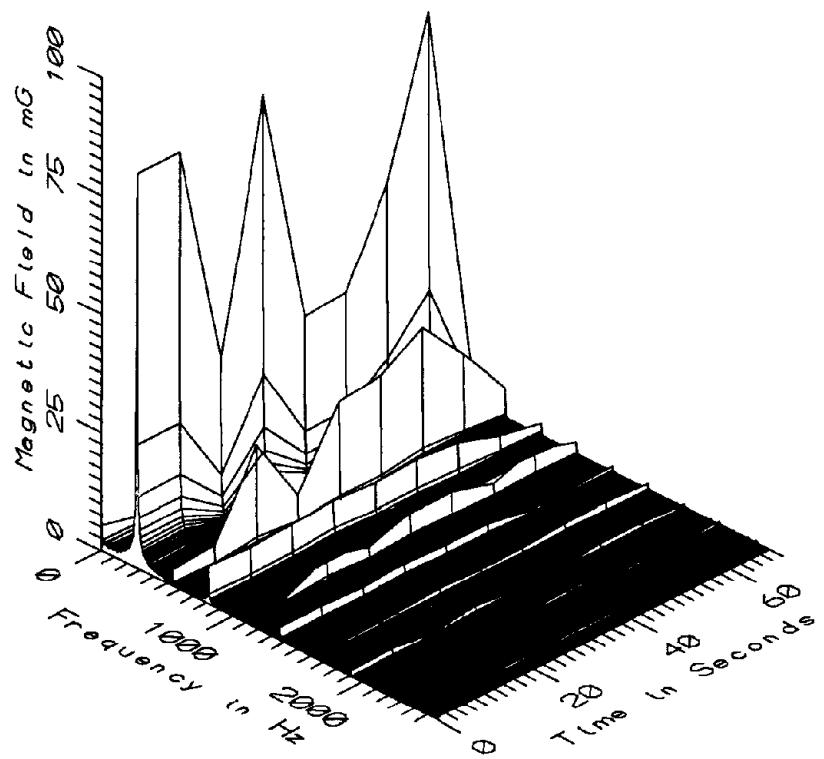
MET012 - 25cm FROM CAR CENTERLINE, CENTER OF CAR 3090



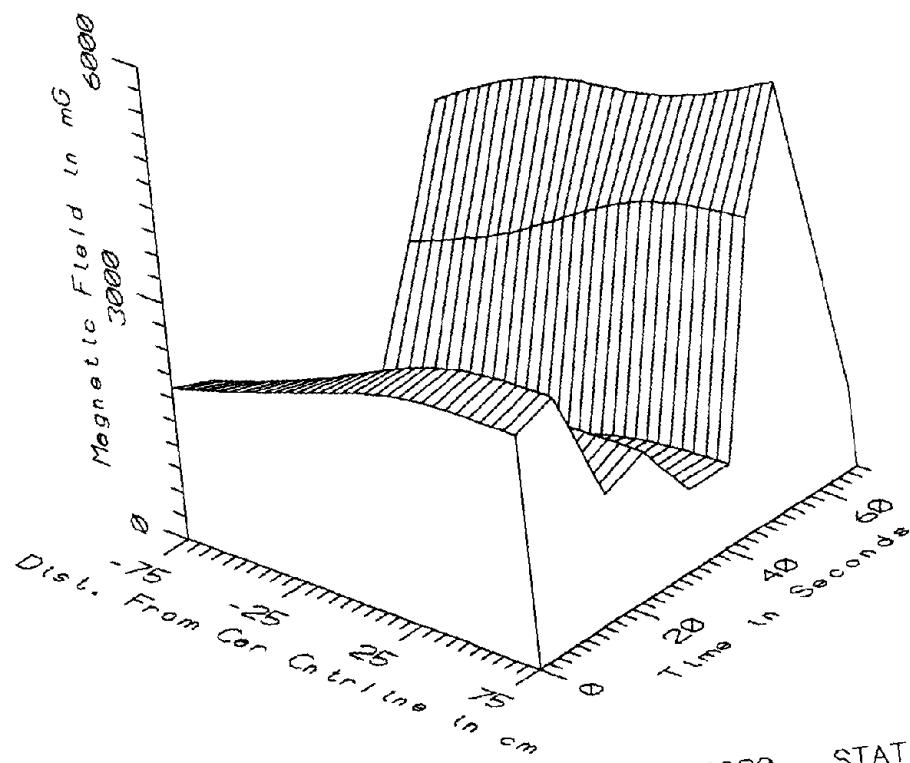
MET012 - 25cm FROM CAR CENTERLINE, CENTER OF CAR 3090



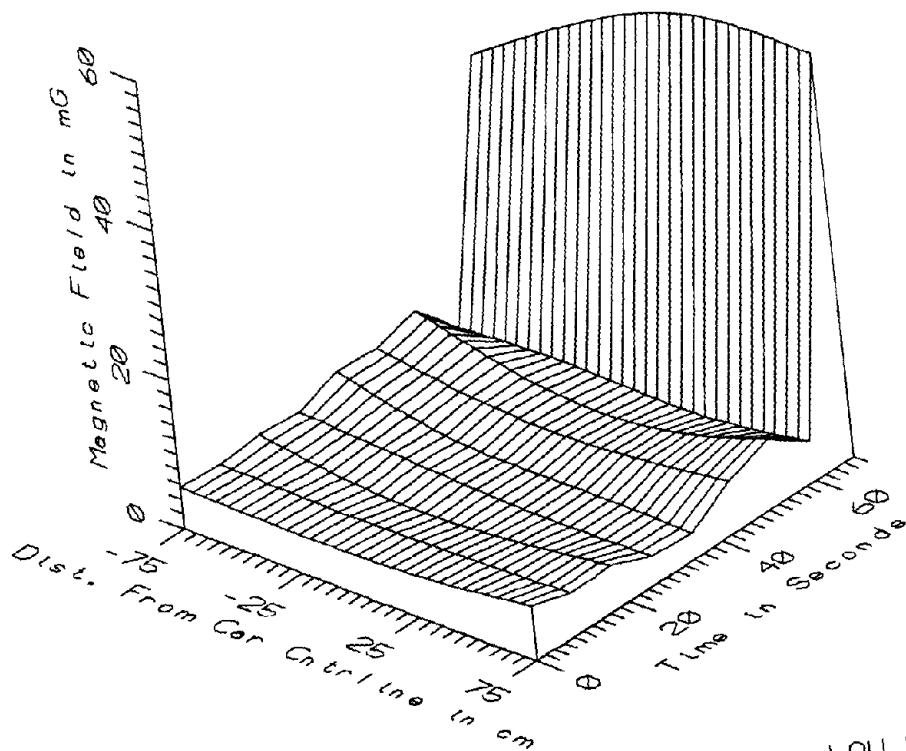
MET012 - 75cm FROM CAR CENTERLINE, CENTER OF CAR 3090



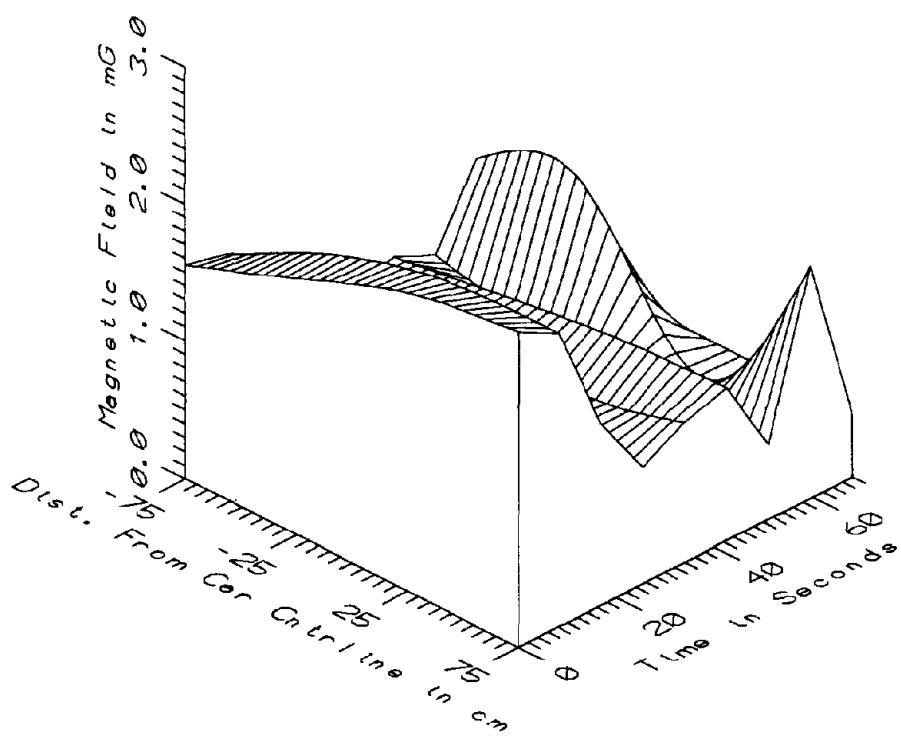
MET012 - 75cm FROM CAR CENTERLINE, CENTER OF CAR 3090



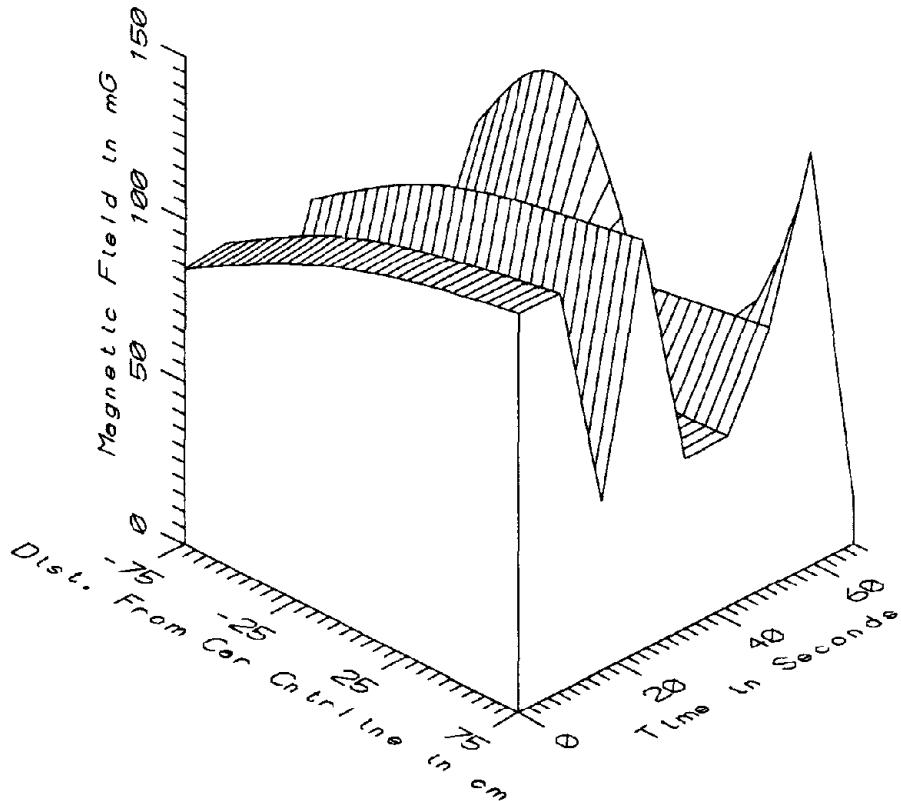
MET012 - TRANSVERSE PROFILE, CENTER OF CAR 3090 - STATIC



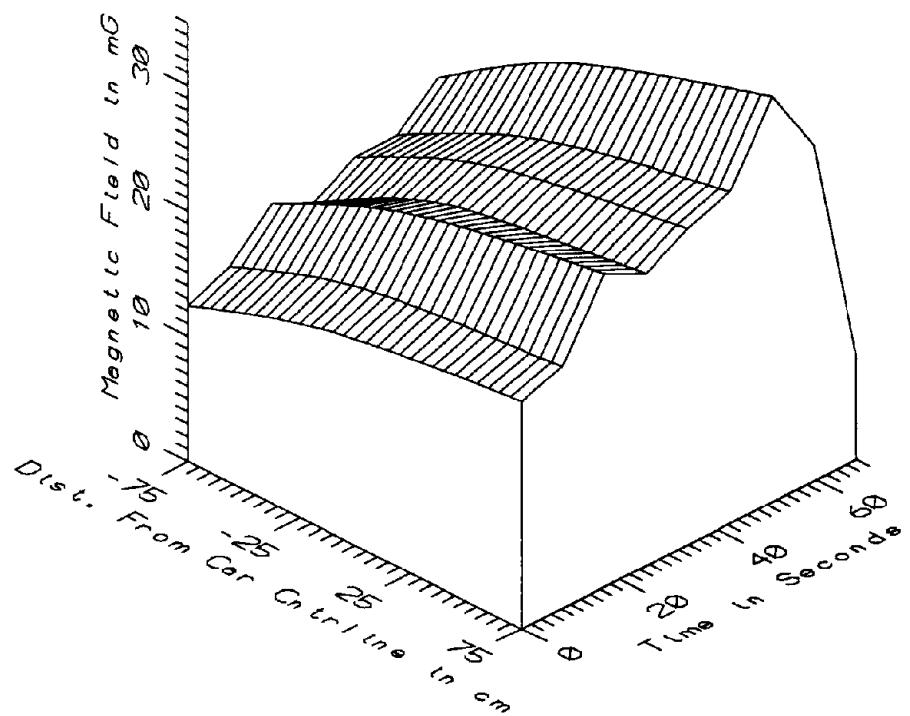
MET012 - TRANSVERSE PROFILE, CENTER OF CAR 3090 - LOW FREQ. 5-45Hz



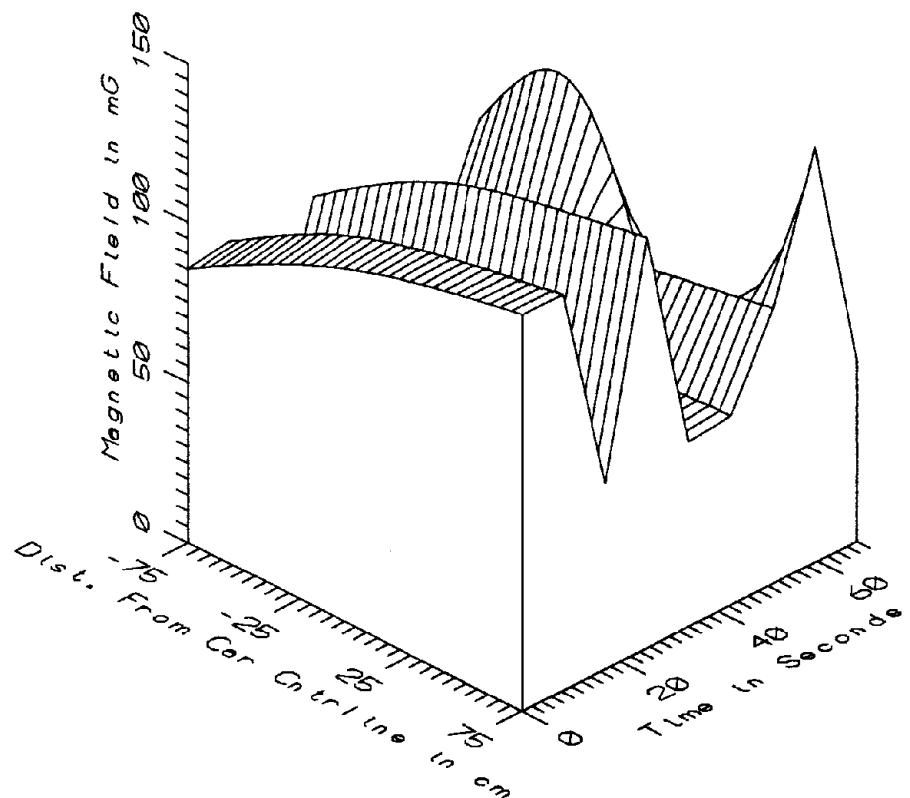
MET012 - TRANSVERSE PROFILE, CENTER OF CAR 3090 - POWER FREQ, 50-60Hz



MET012 - TRANSVERSE PROFILE, CENTER OF CAR 3090 - POWER HARM, 65-300Hz



MET012 - TRANSVERSE PROFILE, CENTER OF CAR 3090 - HIGH FREQ, 305-2560Hz



MET012 - TRANSVERSE PROFILE, CENTER OF CAR 3090 - ALL FREQ, 5-2560Hz

MET012 - TRANSVERSE PROFILE IN CENTER OF CAR 3090		TOTAL OF 9 SAMPLES		
FREQUENCY BAND	DIST ALONG STAFF (cm)	MINIMUM MAGNETIC FIELD (mG)	MAXIMUM MAGNETIC FIELD (mG)	AVERAGE MAGNETIC FIELD (mG)
STATIC	-75	466.14	3340.44	1312.90
	-25	363.45	4169.84	1637.60
	25	819.92	4487.64	2161.93
	75	994.70	5209.65	2393.14
5-45Hz LOW FREQ	-75	3.16	36.27	9.46
	-25	3.65	46.48	9.15
	25	3.49	53.25	9.86
	75	3.48	53.85	11.32
50-60Hz PWR FREQ	-75	0.56	1.55	1.03
	-25	0.50	1.87	1.14
	25	0.47	2.16	1.10
	75	0.46	2.28	1.26
65-300Hz PWR HARM	-75	9.05	86.50	56.69
	-25	11.78	108.58	70.44
	25	13.30	119.36	67.87
	75	14.16	126.89	83.09
305-2560Hz HIGH FREQ	-75	5.31	20.45	15.25
	-25	6.70	26.12	19.16
	25	7.54	29.60	20.80
	75	8.32	32.42	22.78
5-2560Hz ALL FREQ	-75	37.76	88.07	62.56
	-25	48.42	110.53	77.57
	25	30.72	121.45	76.52
	75	56.30	129.81	91.53

APPENDIX M

DATASET MET013 AXIAL PROFILE IN CENTER OF CAR #3090

Measurement Setup Code: Staff: 2 Reference: -
Drawing: A-1

Vehicle Status: Traveling on the Red Line

Measurement Date: May 19, 1992

Measurement Time: Start: 10:35:25
End: 10:37:53

Number of Samples: 18

Programmed Sample Interval: 5 sec

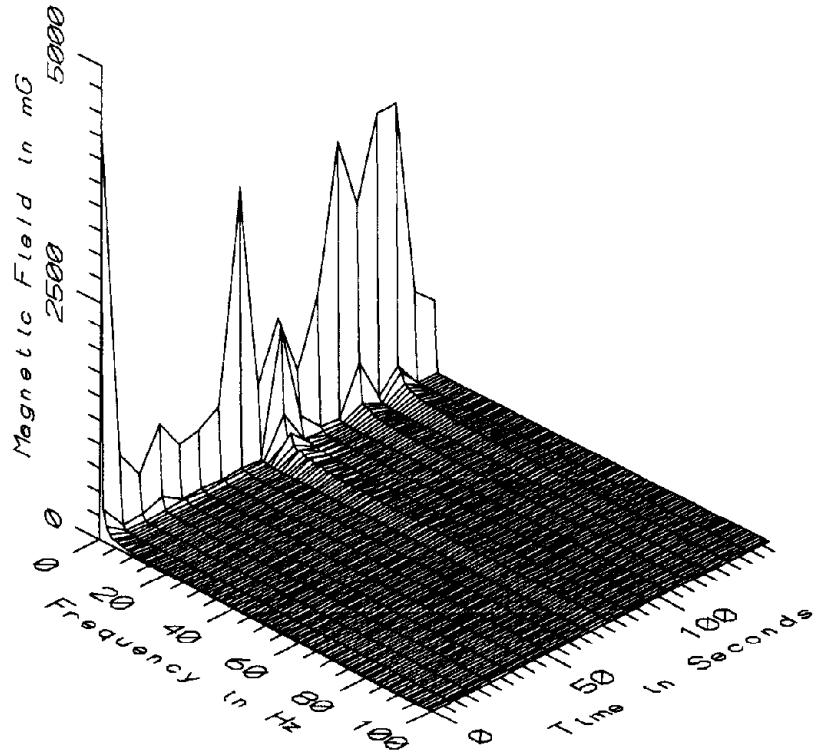
Actual Sample Interval: 8.7 sec

Frequency Spectrum Parameters

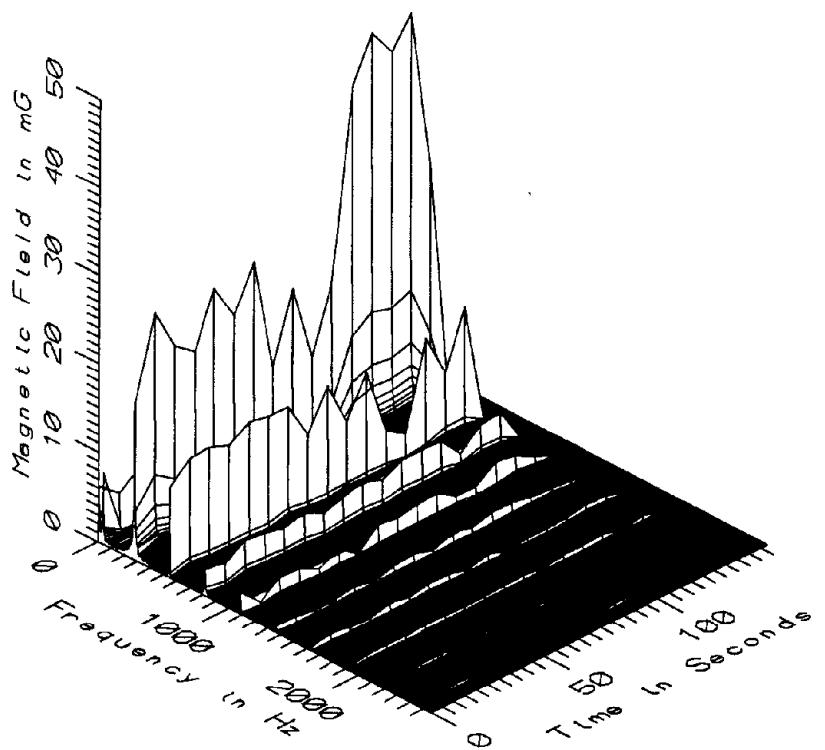
<u>Probe Type:</u>	<u>Wideband</u>	<u>Static</u>
Maximum Frequency (Hz)	2560	100
Minimum Frequency (Hz)	5	0
Spectral Bandwidth (Hz)	5	1

Missing Data: No reference probe

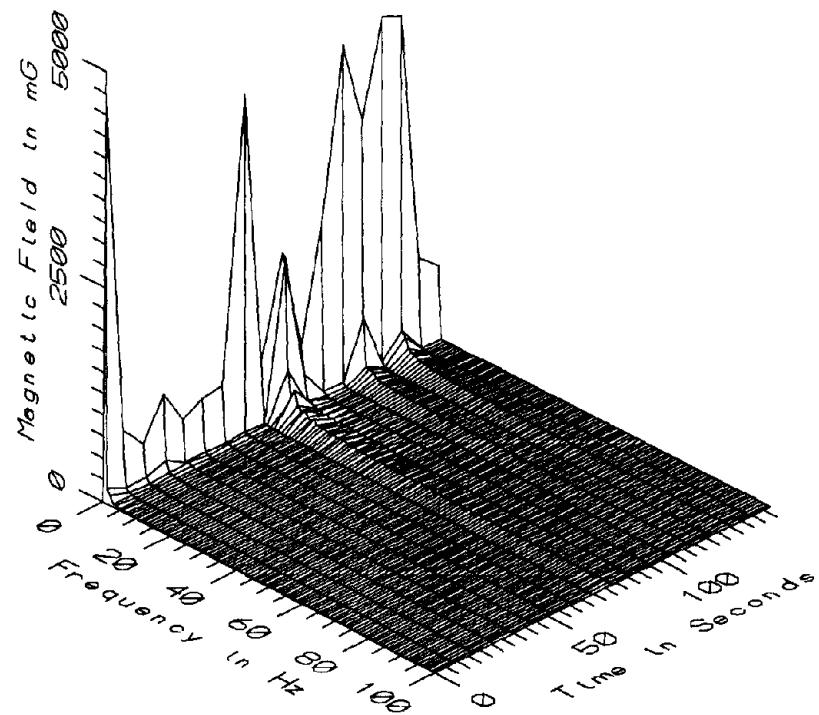
Saturated Data - Wideband:	<u>Sensor</u>	<u>Sample</u>	<u>Time (sec)</u>
	75cm	2	9
Saturated Data - Static:	<u>Sensor</u>	<u>Sample</u>	<u>Time (sec)</u>
	-25cm	1	0
	25cm	1	0
	75cm	1	0



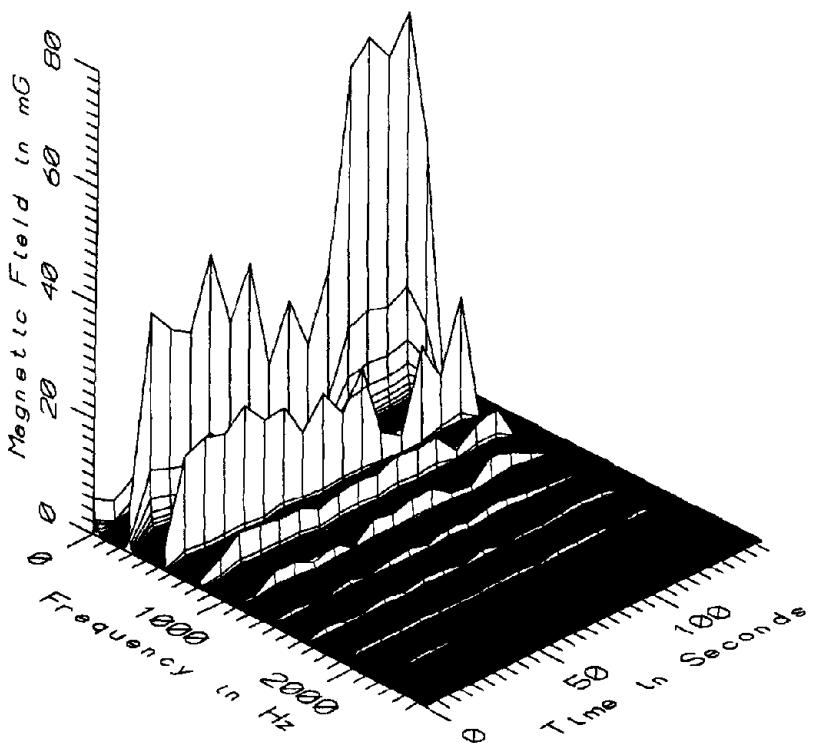
MET013 - -75cm FROM CENTERLINE OF MID DOORS ALONG AXIS OF CAR 3090



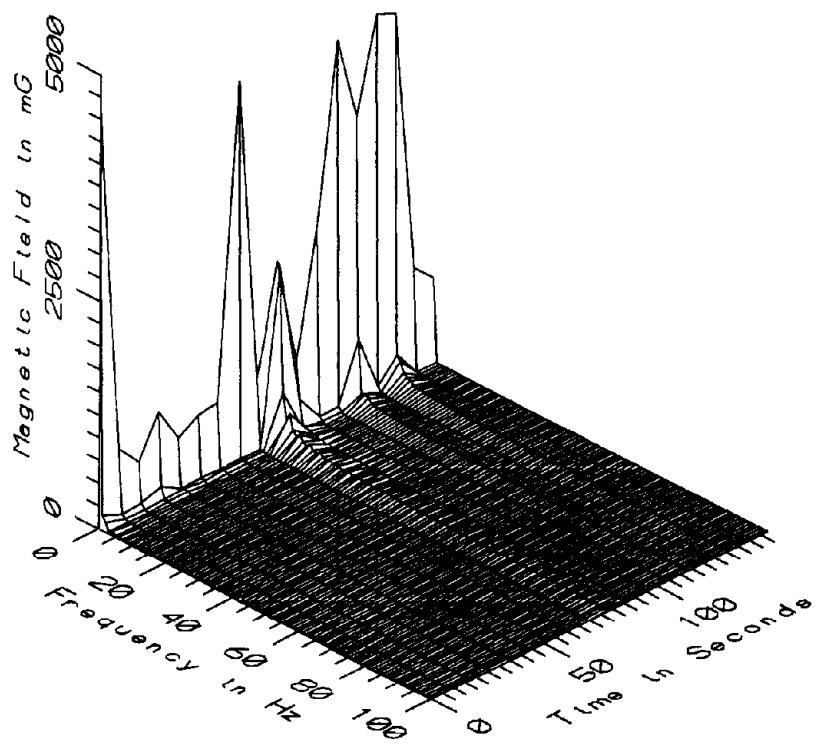
MET013 - -75cm FROM CENTERLINE OF MID DOORS ALONG AXIS OF CAR 3090



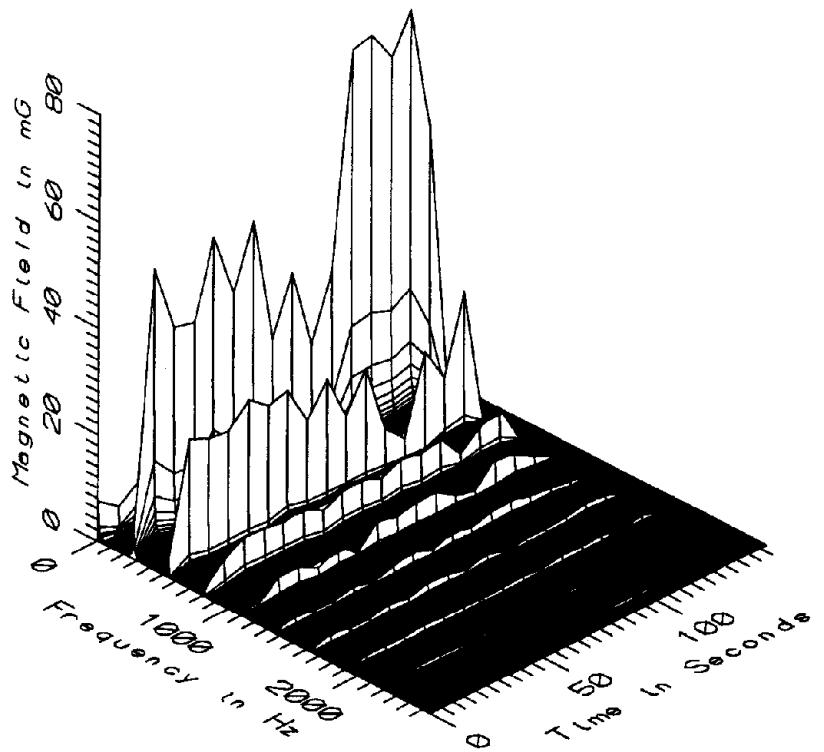
MET013 - -25cm FROM CENTERLINE OF MID DOORS ALONG AXIS OF CAR 3090



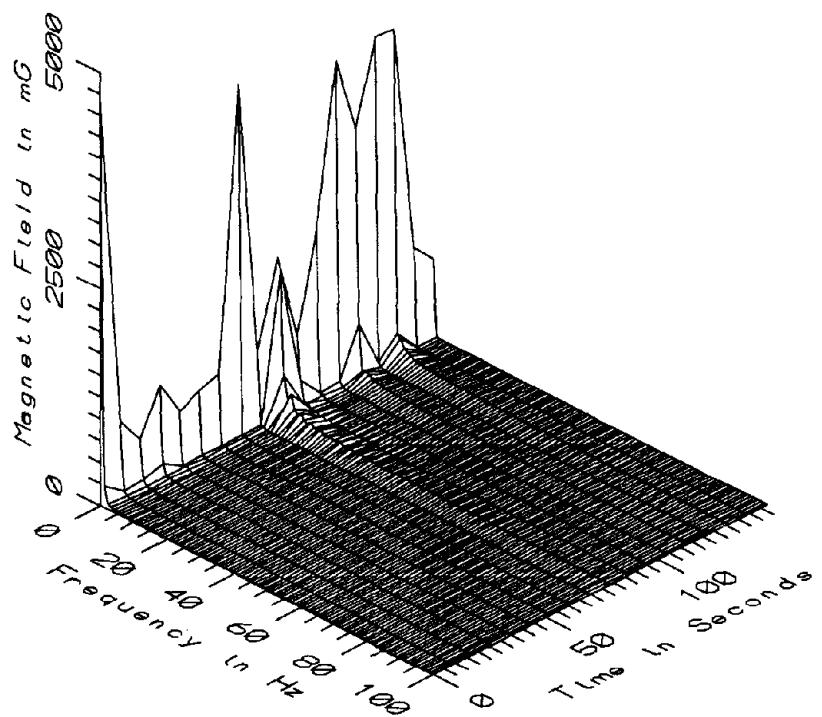
MET013 - -25cm FROM CENTERLINE OF MID DOORS ALONG AXIS OF CAR 3090



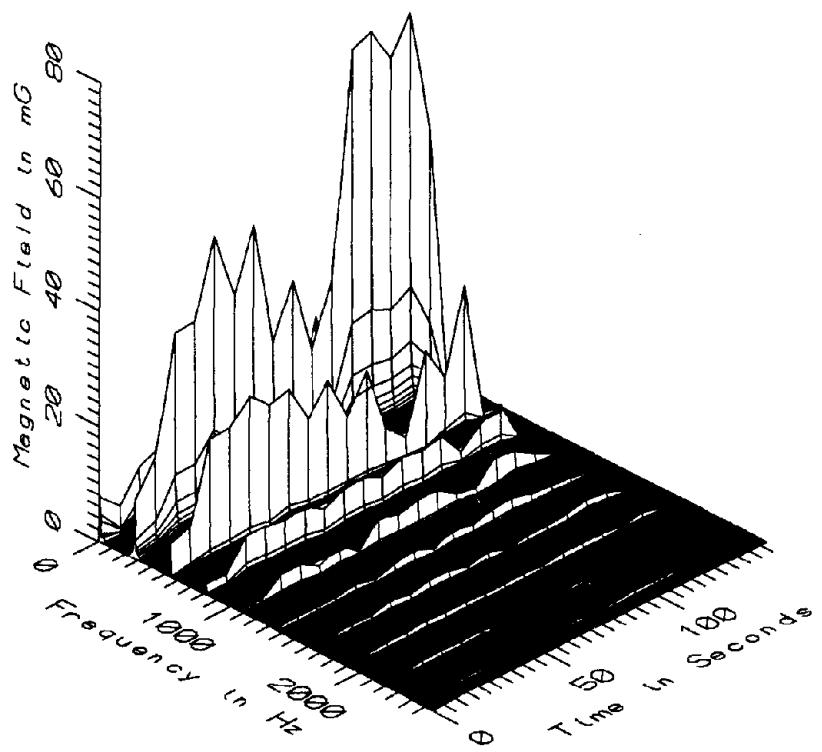
MET013 - 25cm FROM CENTERLINE OF MID DOORS ALONG AXIS OF CAR 3090



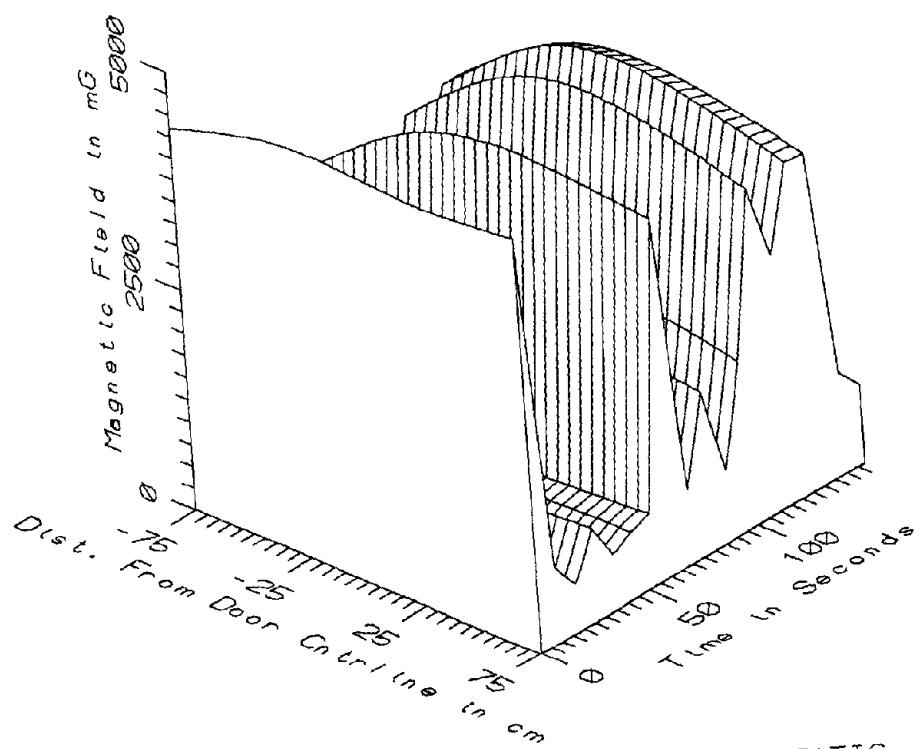
MET013 - 25cm FROM CENTERLINE OF MID DOORS ALONG AXIS OF CAR 3090



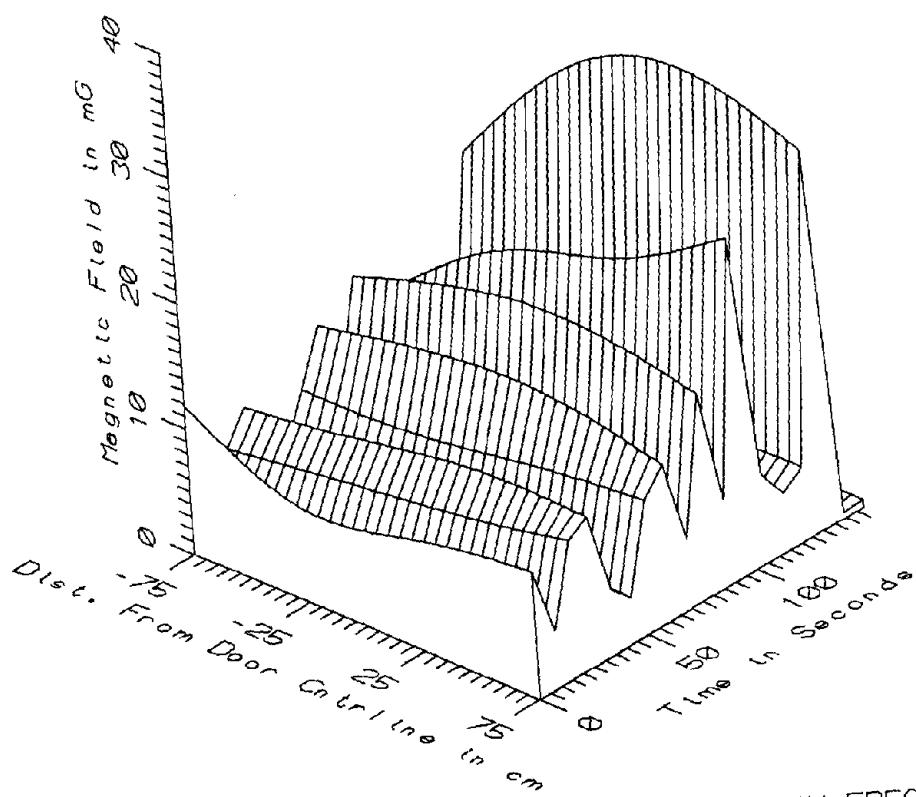
MET013 - 75cm FROM CENTERLINE OF MID DOORS ALONG AXIS OF CAR 3090



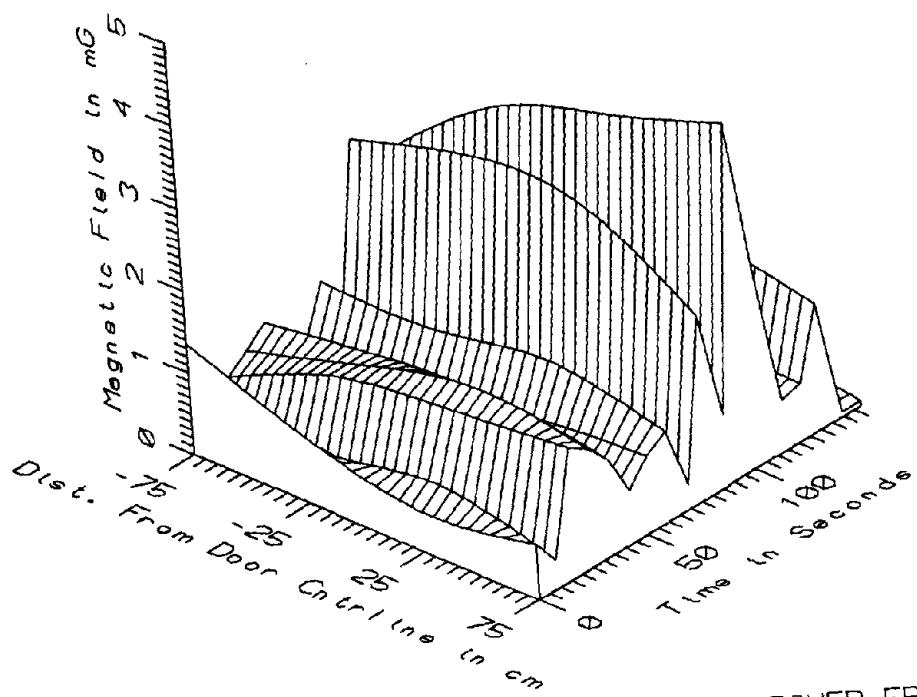
MET013 - 75cm FROM CENTERLINE OF MID DOORS ALONG AXIS OF CAR 3090



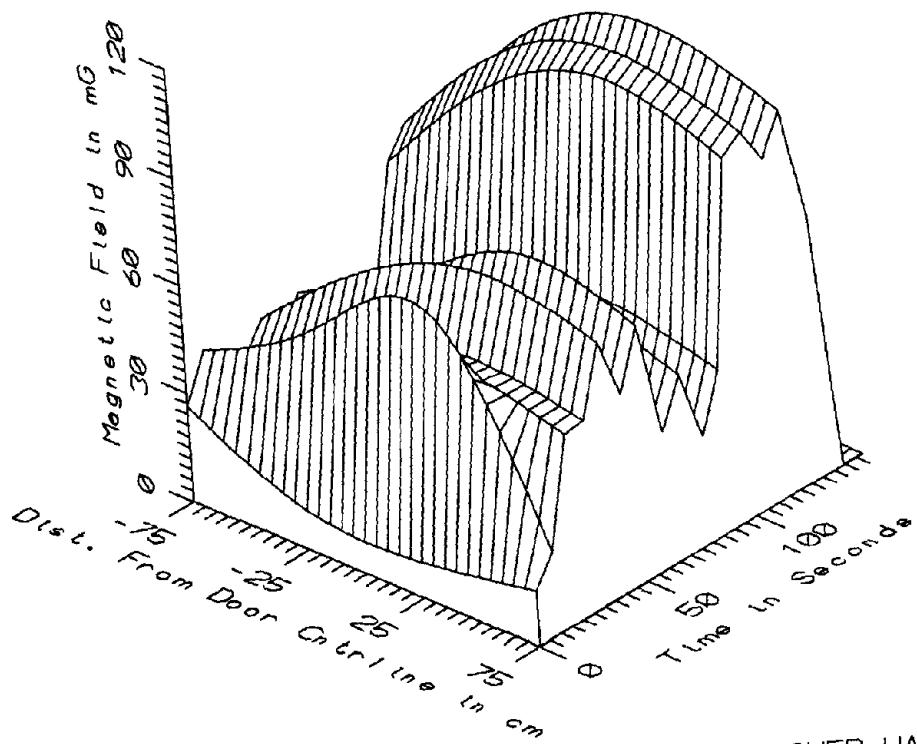
MET013 - AXIAL PROFILE, CENTER OF CAR 3090 - STATIC



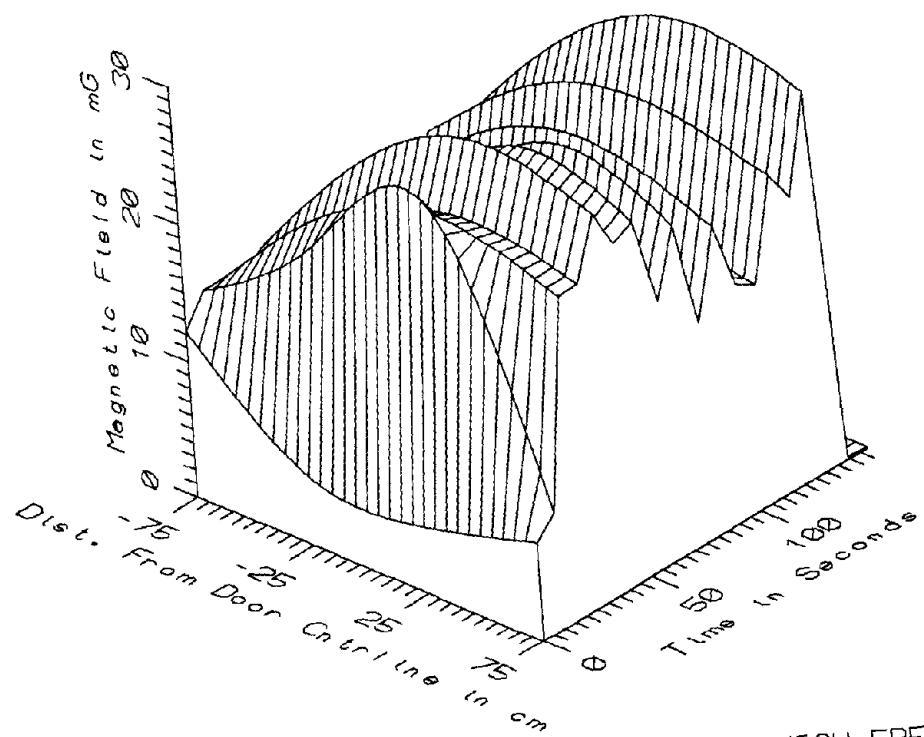
MET013 - AXIAL PROFILE, CENTER OF CAR 3090 - LOW FREQ, 5-45Hz



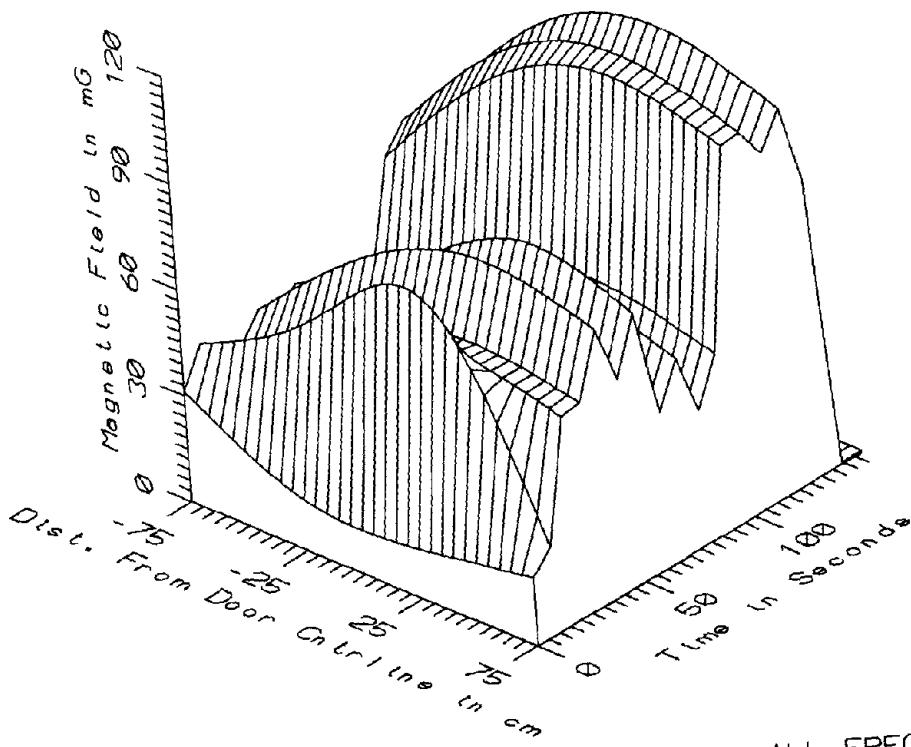
MET013 - AXIAL PROFILE, CENTER OF CAR 3090 - POWER FREQ, 50-60Hz



MET013 - AXIAL PROFILE, CENTER OF CAR 3090 - POWER HARM, 65-300Hz



MET013 - AXIAL PROFILE, CENTER OF CAR 3090 - HIGH FREQ, 305-2560Hz



MET013 - AXIAL PROFILE, CENTER OF CAR 3090 - ALL FREQ, 5-2560Hz

MET013 - AXIAL PROFILE IN CENTER OF CAR 3090						TOTAL OF 18 SAMPLES		
FREQUENCY BAND	DIST ALONG STAFF (cm)	MINIMUM MAGNETIC FIELD	MAXIMUM MAGNETIC FIELD	AVERAGE MAGNETIC FIELD	STANDARD DEVIATION	COEFFICIENT OF VARIATION (%)		
STATIC	-75	477.17	4343.61	1601.53	1175.14	73.38		
	-25	445.37	4681.48	1921.42	1543.91	80.35		
	25	516.73	4628.13	2010.27	1556.31	77.42		
	75	536.63	4722.76	1949.68	1448.61	74.30		
5-45Hz LOW FREQ	-75	0.42	18.50	7.57	4.62	61.06		
	-25	0.37	29.22	8.60	7.06	82.11		
	25	0.45	32.93	9.44	8.03	85.09		
	75	0.53	30.26	9.69	8.01	82.72		
50-60Hz PWR FREQ	-75	0.15	2.60	0.88	0.68	76.99		
	-25	0.09	3.30	1.09	0.92	84.50		
	25	0.21	3.79	1.23	1.00	81.42		
	75	0.06	4.27	1.15	1.01	88.21		
65-300Hz PWR HARM	-75	0.10	67.84	35.20	19.81	56.28		
	-25	0.16	102.44	52.61	31.77	60.38		
	25	0.20	113.89	62.02	35.83	57.77		
	75	0.22	105.21	54.45	33.58	61.68		
305-2560Hz HIGH FREQ	-75	0.09	16.02	11.81	4.70	39.81		
	-25	0.12	25.00	17.11	7.78	45.46		
	25	0.13	29.72	20.52	9.52	46.39		
	75	0.14	27.93	18.23	8.76	48.08		
5-2560Hz ALL FREQ	-75	0.47	68.93	38.53	19.62	50.92		
	-25	0.44	104.51	56.83	31.95	56.21		
	25	0.59	116.25	66.97	36.14	53.96		
	75	0.63	106.92	59.11	34.08	57.65		



APPENDIX N

**DATASET MET014
NEAR LEFT CENTER DOOR OF CAR #3090**

Measurement Setup Code: Staff: 4 Reference: -
Drawing: A-1

Vehicle Status: Traveling on the Red Line

Measurement Date: May 19, 1992

Measurement Time: Start: 10:38:48
End: 10:39:55

Number of Samples: 6

Programmed Sample Interval: 5 sec

Actual Sample Interval: 13.4 sec

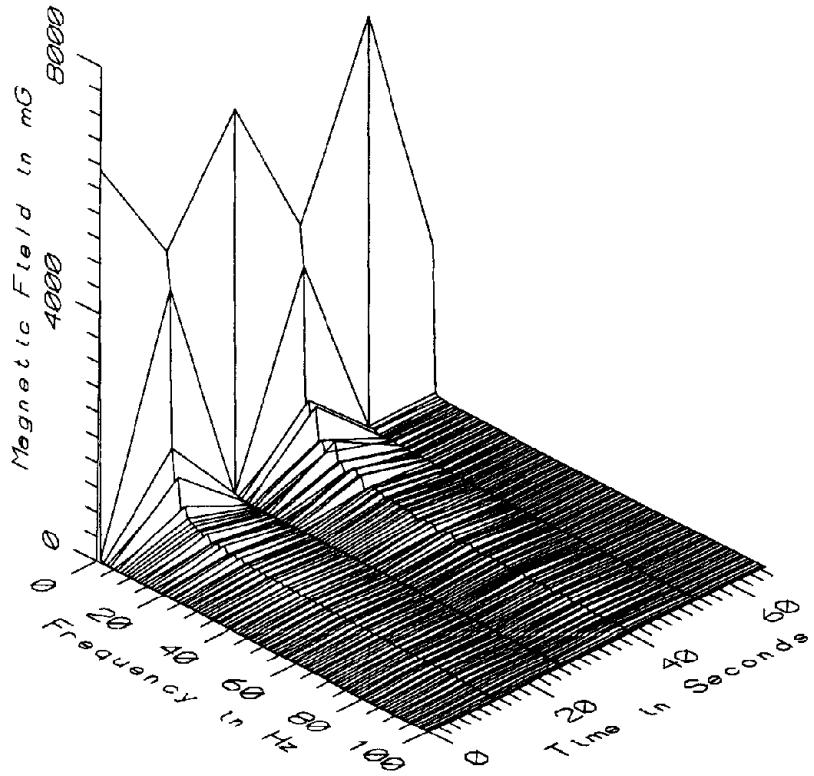
Frequency Spectrum Parameters

<u>Probe Type:</u>	<u>Wideband</u>	<u>Static</u>
Maximum Frequency (Hz)	2560	100
Minimum Frequency (Hz)	5	0
Spectral Bandwidth (Hz)	5	1

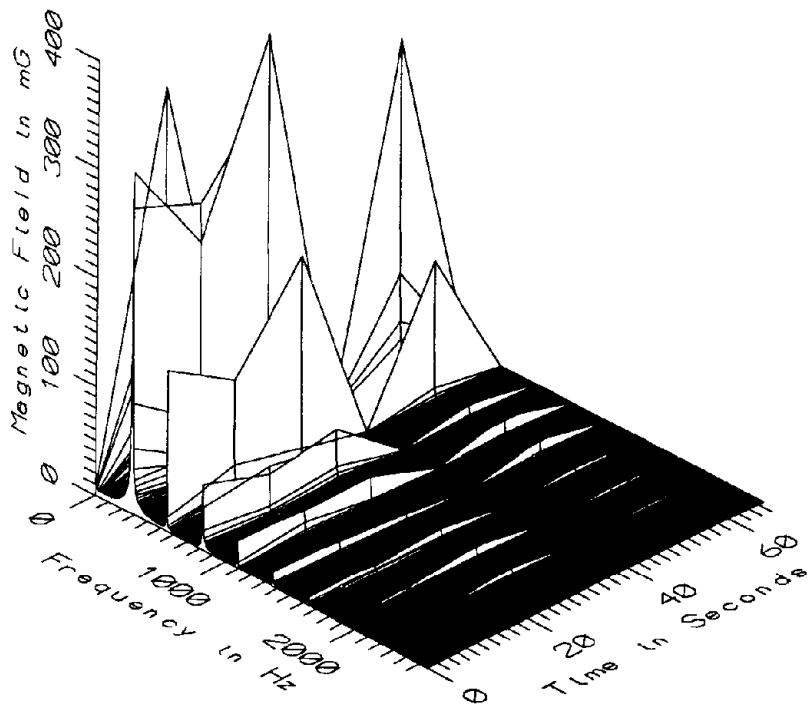
Missing Data: No reference probe

Saturated Data - Wideband:	<u>Sensor</u>	<u>Sample</u>	<u>Time (sec)</u>
	10cm	1	0
	10cm	2	13
	10cm	4	40
	60cm	4	40
	110cm	4	40

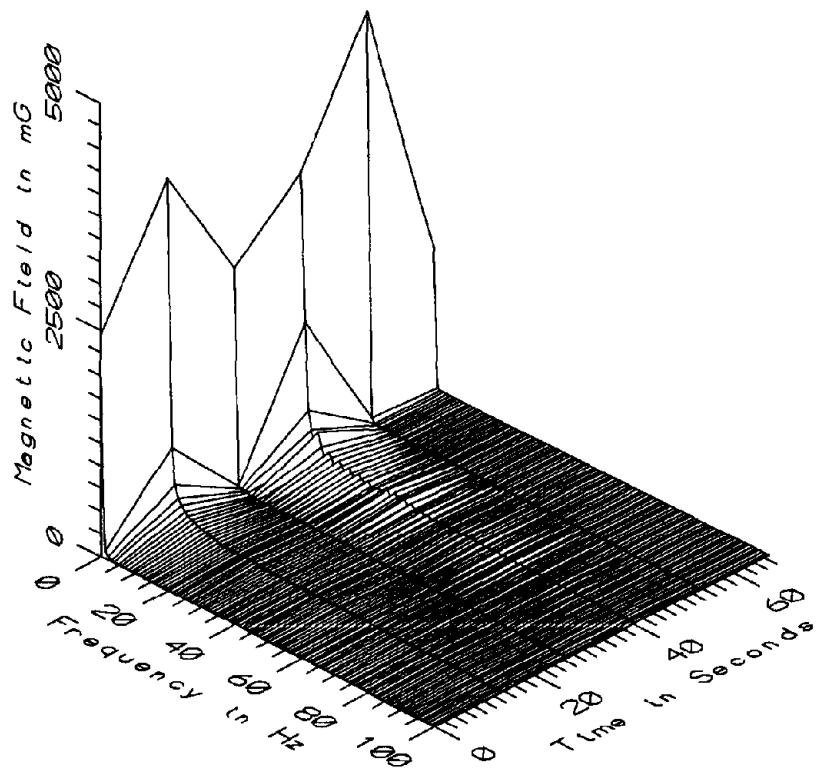
Saturated Data - Static:	<u>Sensor</u>	<u>Sample</u>	<u>Time (sec)</u>
	10cm	1	0
	10cm	2	13
	10cm	3	27
	10cm	4	40
	10cm	5	54
	60cm	2	13
	60cm	5	54



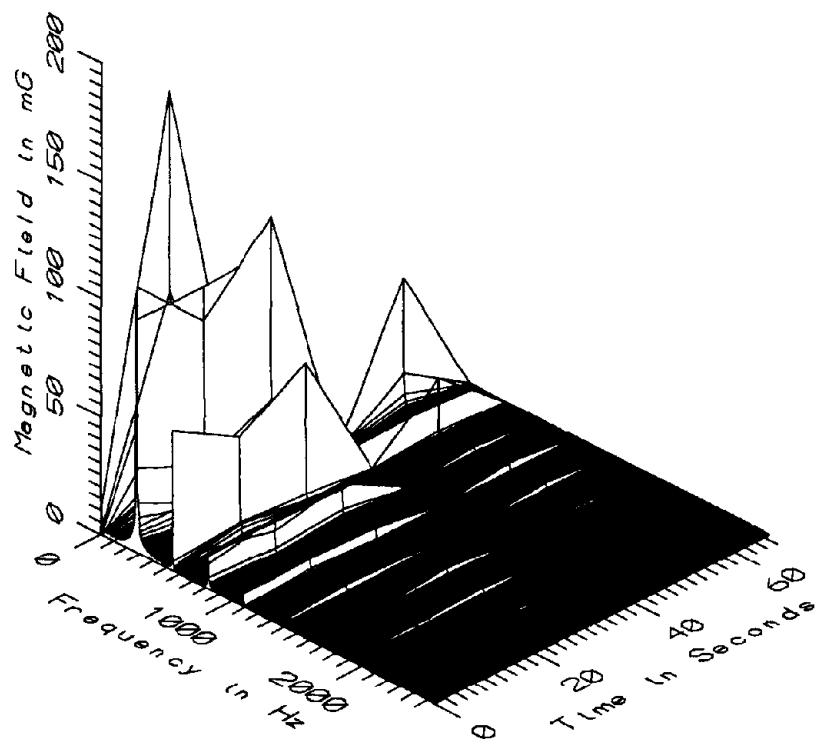
MET014 - 10cm ABOVE FLOOR, NEAR LEFT CENTER DOOR OF CAR 3090



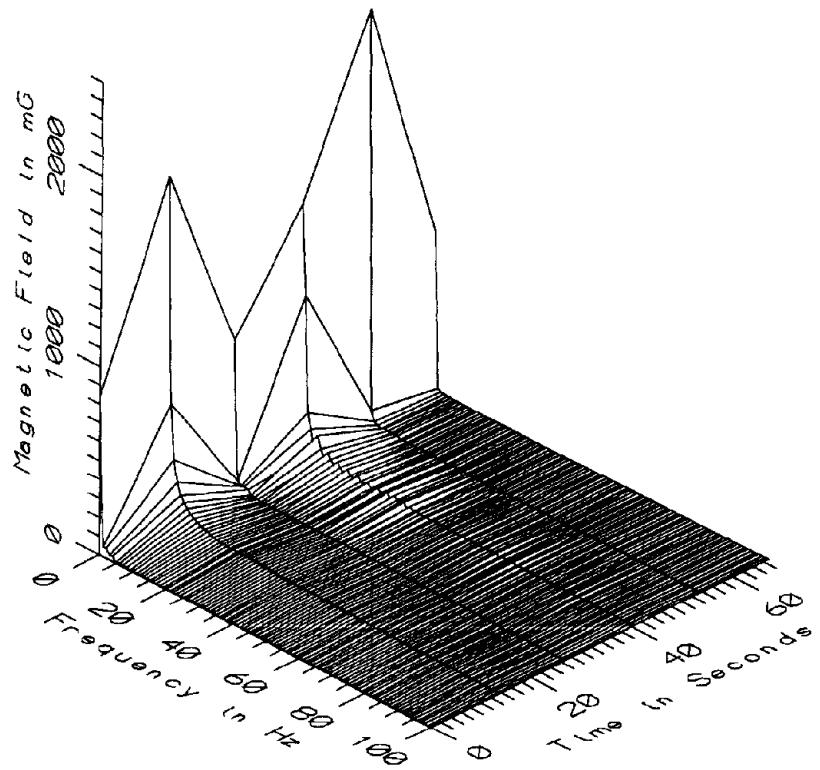
MET014 - 10cm ABOVE FLOOR, NEAR LEFT CENTER DOOR OF CAR 3090



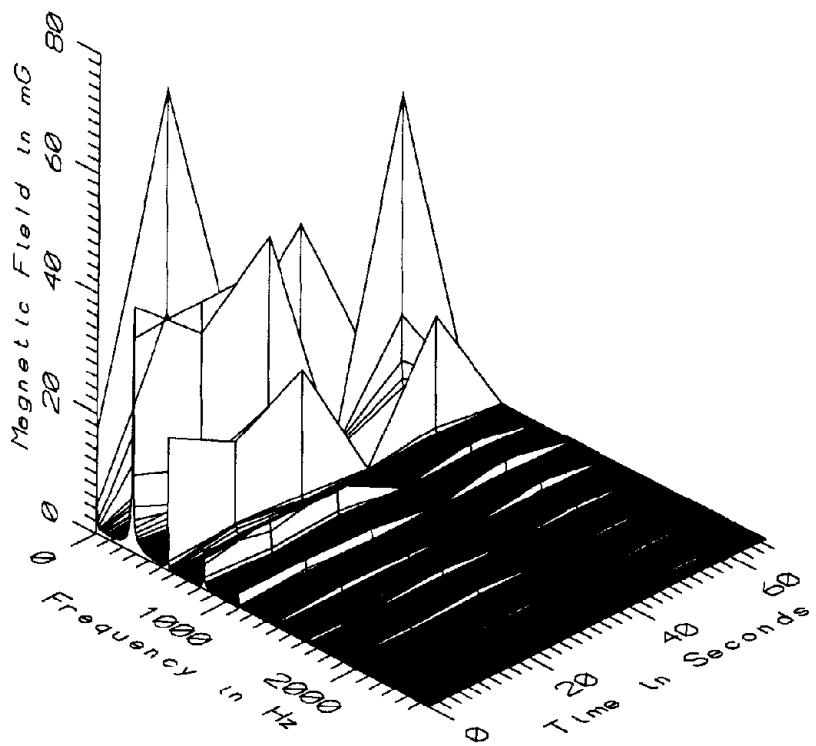
MET014 - 60cm ABOVE FLOOR, NEAR LEFT CENTER DOOR OF CAR 3090



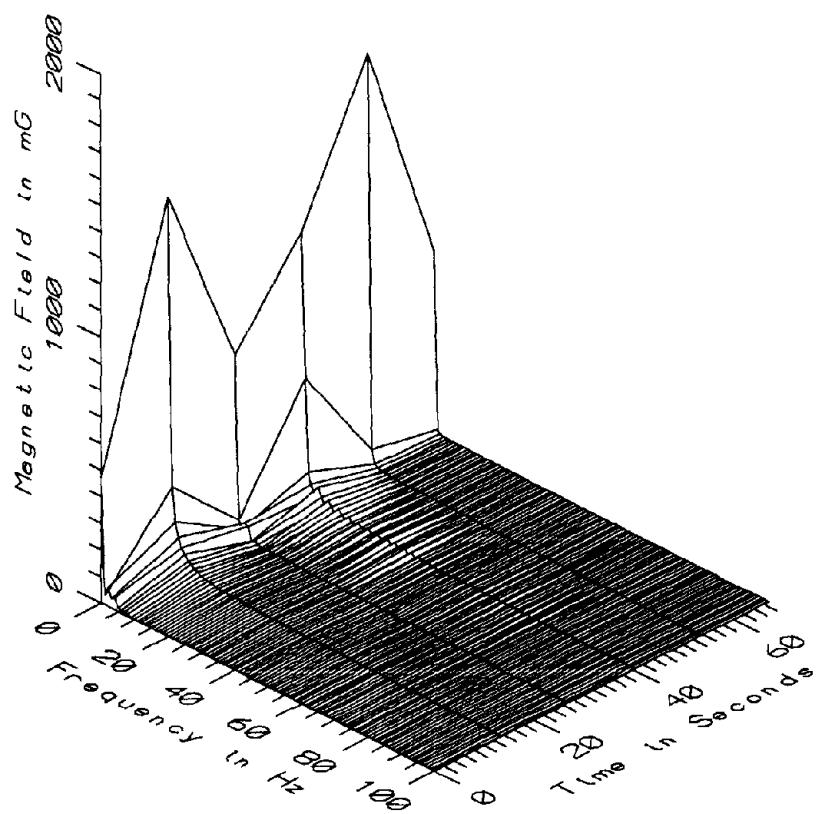
MET014 - 60cm ABOVE FLOOR, NEAR LEFT CENTER DOOR OF CAR 3090



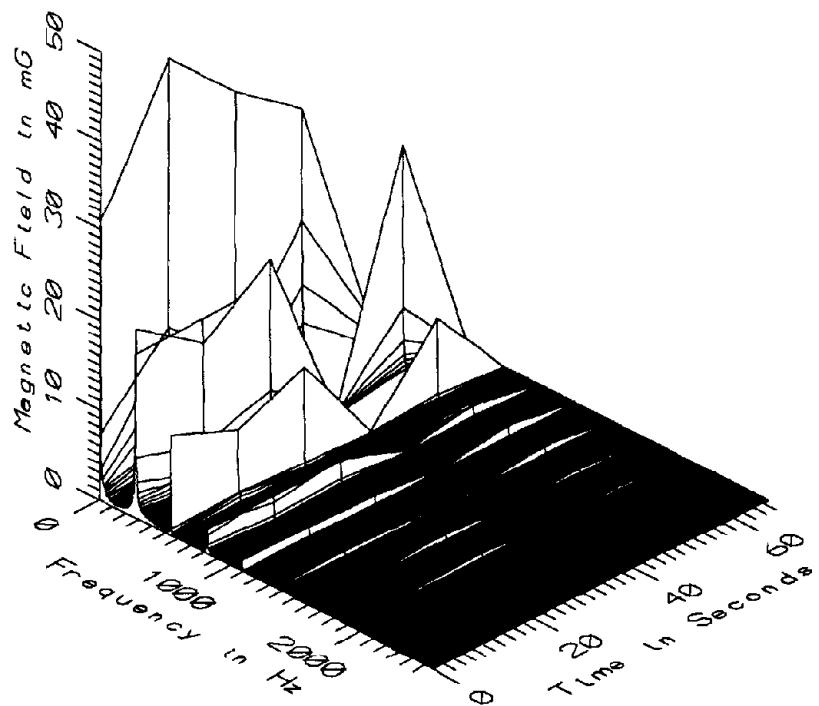
MET014 - 110cm ABOVE FLOOR, NEAR LEFT CENTER DOOR OF CAR 3090



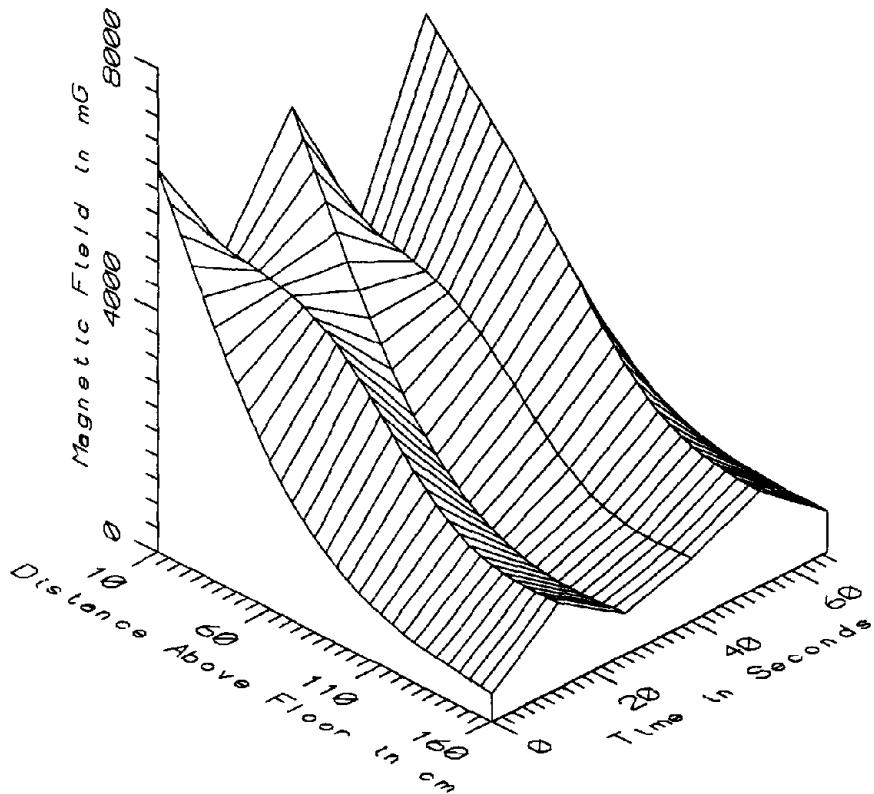
MET014 - 110cm ABOVE FLOOR, NEAR LEFT CENTER DOOR OF CAR 3090



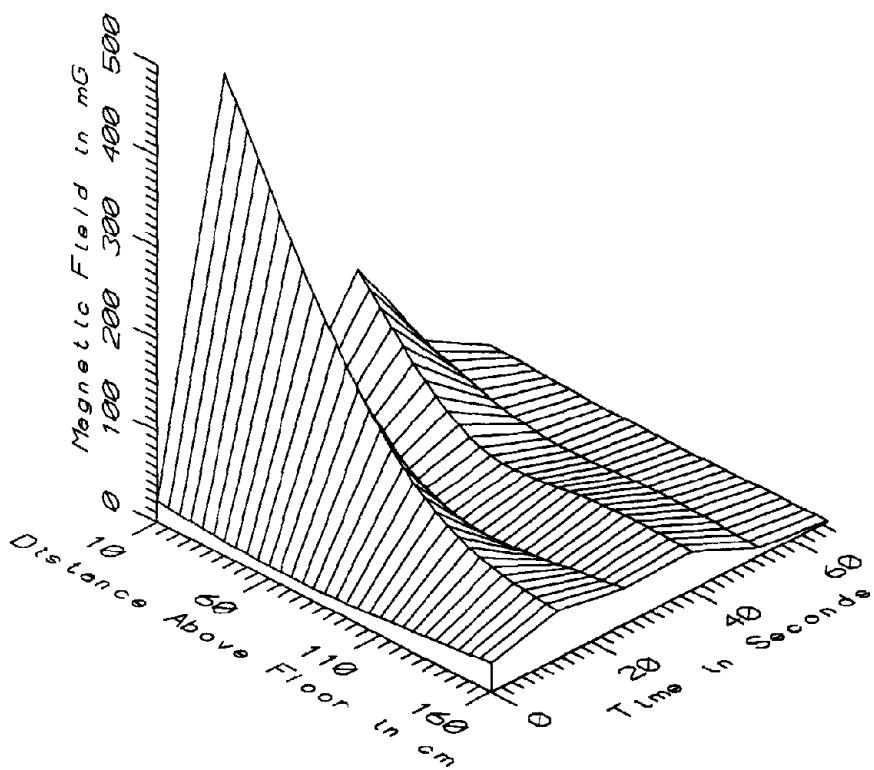
MET014 - 160cm ABOVE FLOOR, NEAR LEFT CENTER DOOR OF CAR 3090



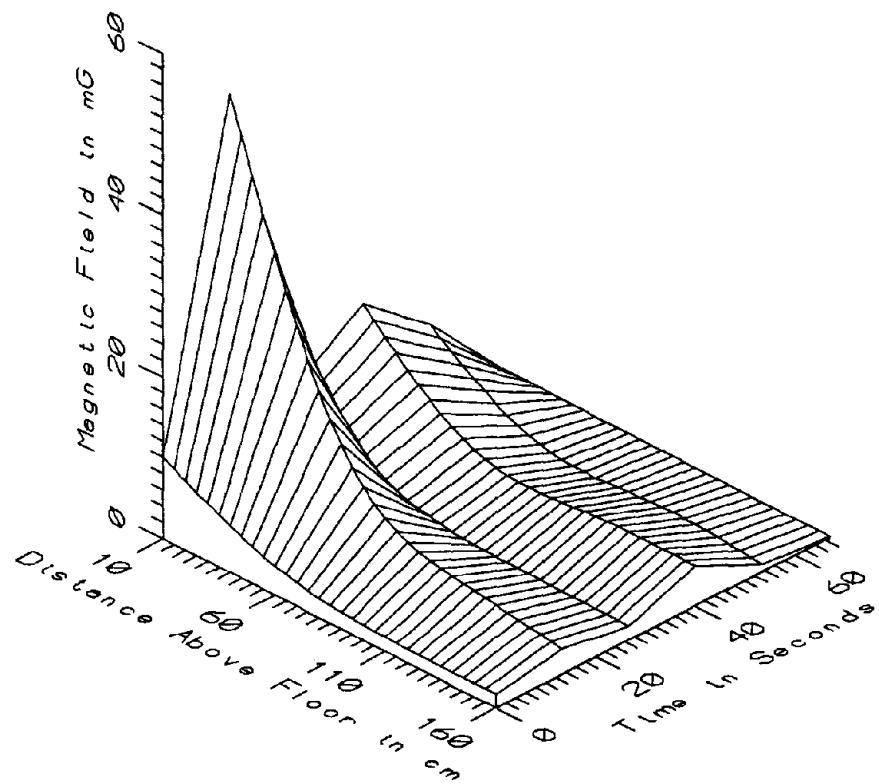
MET014 - 160cm ABOVE FLOOR, NEAR LEFT CENTER DOOR OF CAR 3090



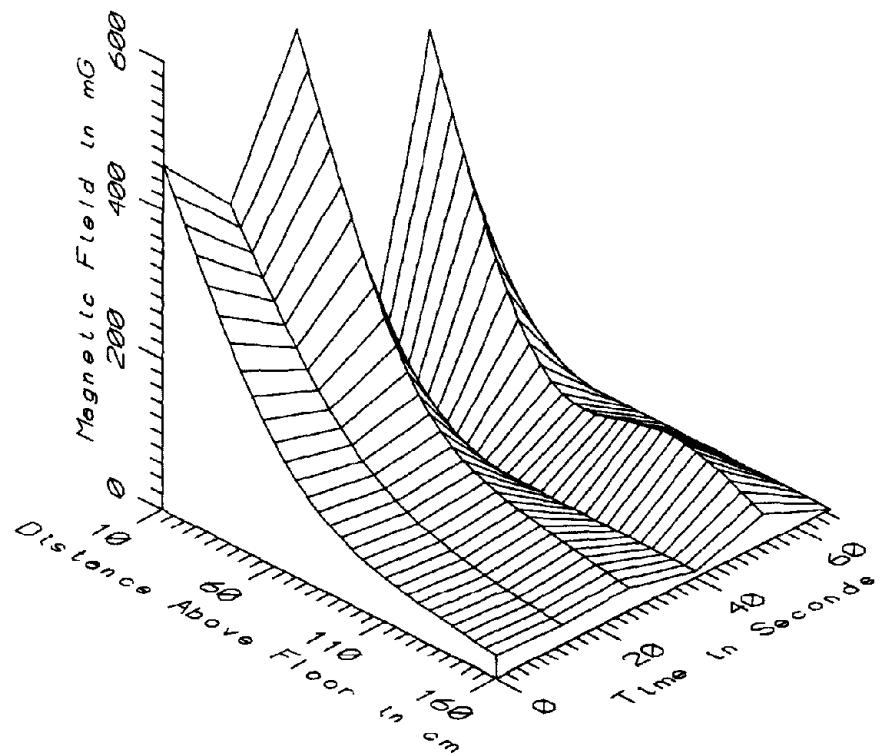
MET014 - NEAR LEFT CENTER DOOR OF CAR 3090 - STATIC



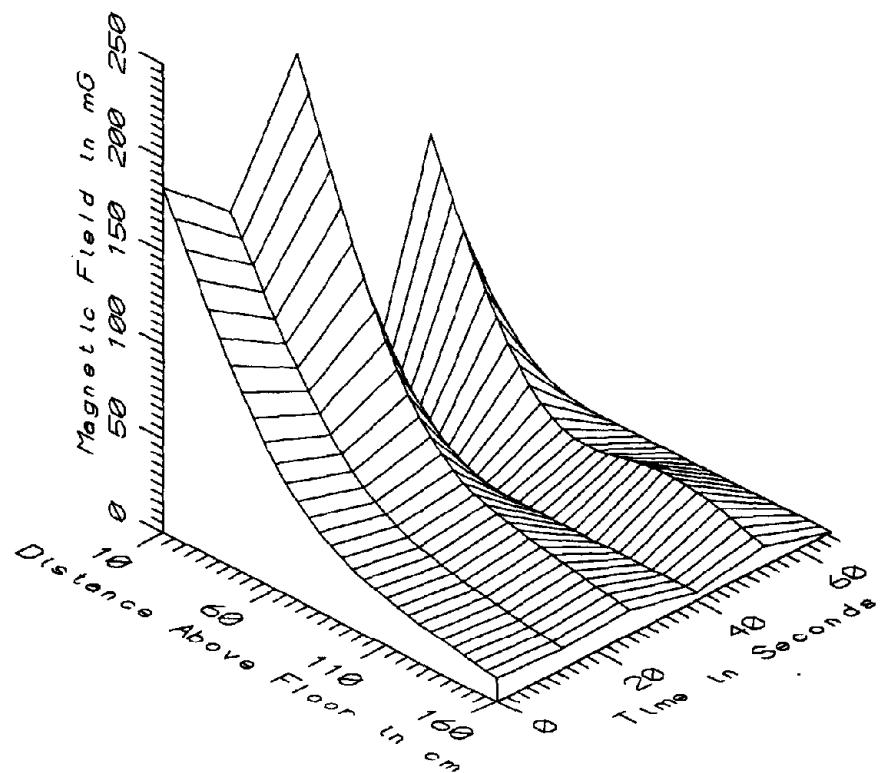
MET014 - NEAR LEFT CENTER DOOR OF CAR 3090 - LOW FREQ, 5-45Hz



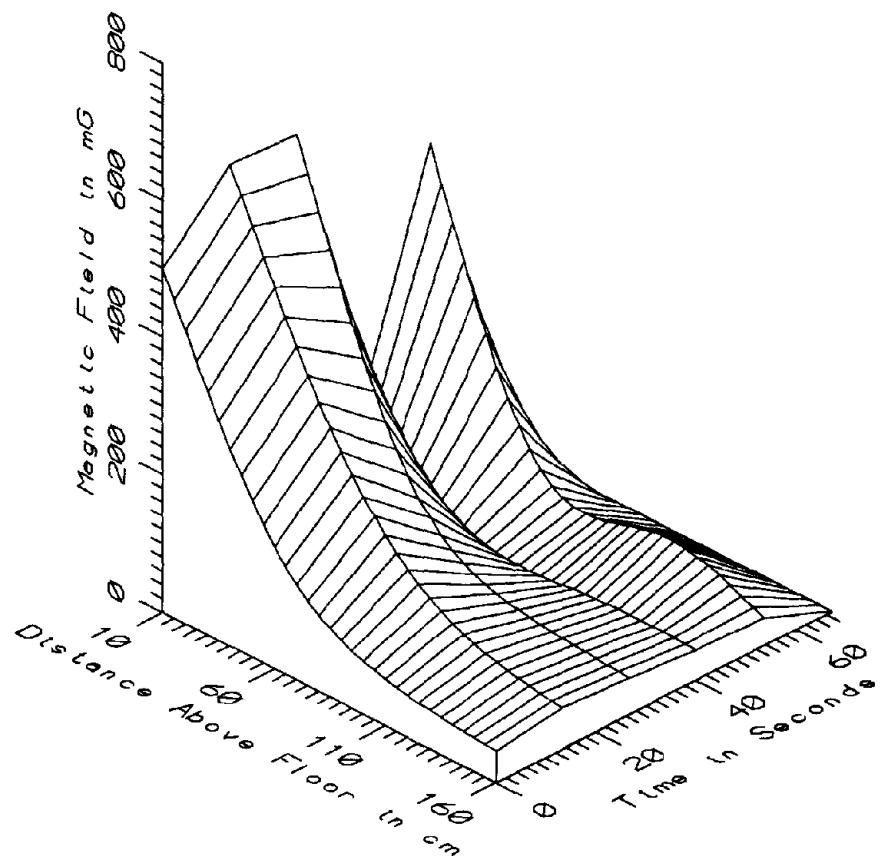
MET014 - NEAR LEFT CENTER DOOR OF CAR 3090 - POWER FREQ, 50-60Hz



MET014 - NEAR LEFT CENTER DOOR OF CAR 3090 - POWER HARM, 65-300Hz



MET014 - NEAR LEFT CENTER DOOR OF CAR 3090 - HIGH FREQ, 305-2560Hz



MET014 - NEAR LEFT CENTER DOOR OF CAR 3090 - ALL FREQ, 5-2560Hz

MET014 - NEAR LEFT CENTER DOOR OF CAR 3090							TOTAL OF 6 SAMPLES	
FREQUENCY BAND	HEIGHT ABOVE FLOOR (cm)	MINIMUM MAGNETIC FIELD (mG)	MAXIMUM MAGNETIC FIELD (mG)	AVERAGE MAGNETIC FIELD (mG)	STANDARD DEVIATION (mG)	COEFFICIENT OF VARIATION (%)		
STATIC	10	2431.74	6671.26	4991.41	1695.61	33.97		
	60	1544.30	4536.54	2982.17	1073.39	35.99		
	110	791.07	2186.02	1303.05	591.03	45.36		
	160	470.90	1565.13	971.07	438.45	45.15		
5-45Hz LOW FREQ	10	7.66	453.97	124.58	170.63	136.96		
	60	2.45	219.95	52.50	83.24	158.54		
	110	1.72	83.28	30.35	29.02	95.63		
	160	2.09	52.17	29.59	19.73	66.70		
50-60Hz PWR FREQ	10	0.68	50.74	16.39	17.58	107.24		
	60	0.38	14.35	4.81	4.97	103.21		
	110	0.22	5.10	2.54	1.91	75.13		
	160	0.15	4.91	2.06	1.69	82.36		
65-300Hz PWR HARM	10	0.82	552.39	310.79	238.88	76.86		
	60	0.48	167.92	94.50	75.08	79.45		
	110	0.35	79.75	43.21	31.65	73.25		
	160	0.30	38.89	22.57	14.90	66.01		
305-2560Hz HIGH FREQ	10	0.82	219.72	118.32	91.13	77.03		
	60	0.36	67.27	36.66	30.11	82.12		
	110	0.21	25.02	16.23	11.08	68.30		
	160	0.23	12.99	8.55	5.16	60.37		
5-2560Hz ALL FREQ	10	7.78	603.11	393.25	246.72	62.74		
	60	2.55	265.42	127.67	98.00	76.76		
	110	1.78	99.76	60.86	34.57	56.79		
	160	2.13	59.27	40.78	19.99	49.02		

APPENDIX O
DATASET MET015
GROSVENOR STATION, NORTH BOUND SIDE OF PLATFORM

Measurement Setup Code: Staff: 16 Reference: 17
Drawing: A-4

Vehicle Status: NA

Measurement Date: May 19, 1992

Measurement Time: Start: 10:55:45
End: 10:56:55

Number of Samples: 11

Programmed Sample Interval: 5 sec

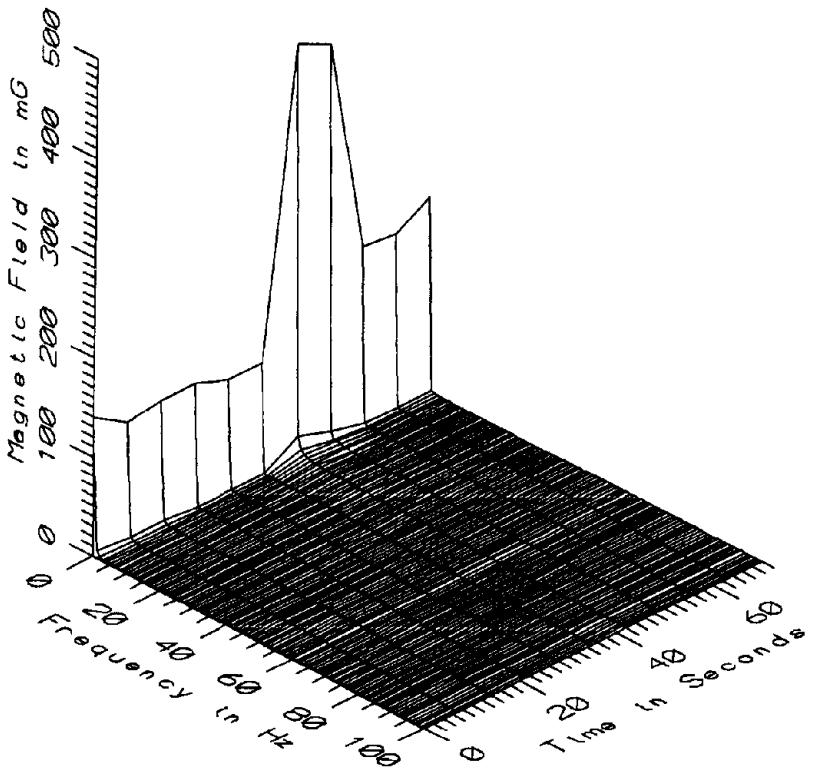
Actual Sample Interval: 7.0 sec

Frequency Spectrum Parameters

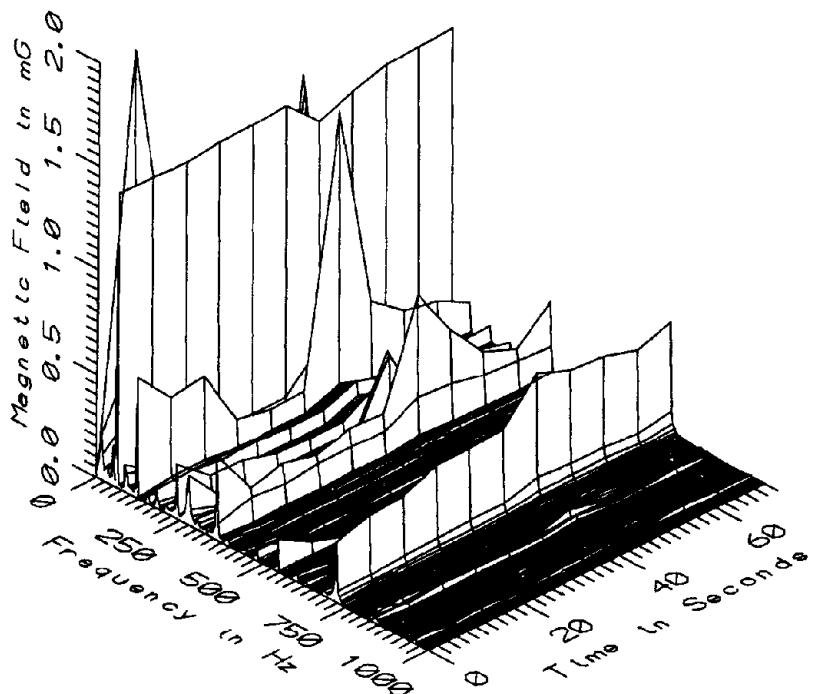
<u>Probe Type:</u>	<u>Wideband</u>	<u>Static</u>
Maximum Frequency (Hz)	2560	100
Minimum Frequency (Hz)	5	0
Spectral Bandwidth (Hz)	5	1

Missing Data: Wideband data from the reference probe

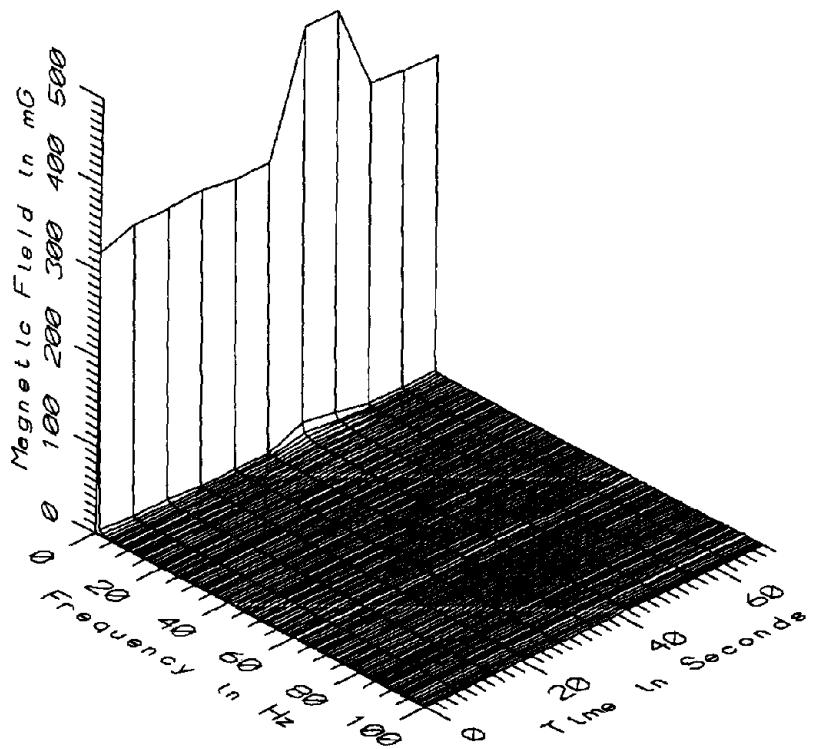
Saturated Data: None



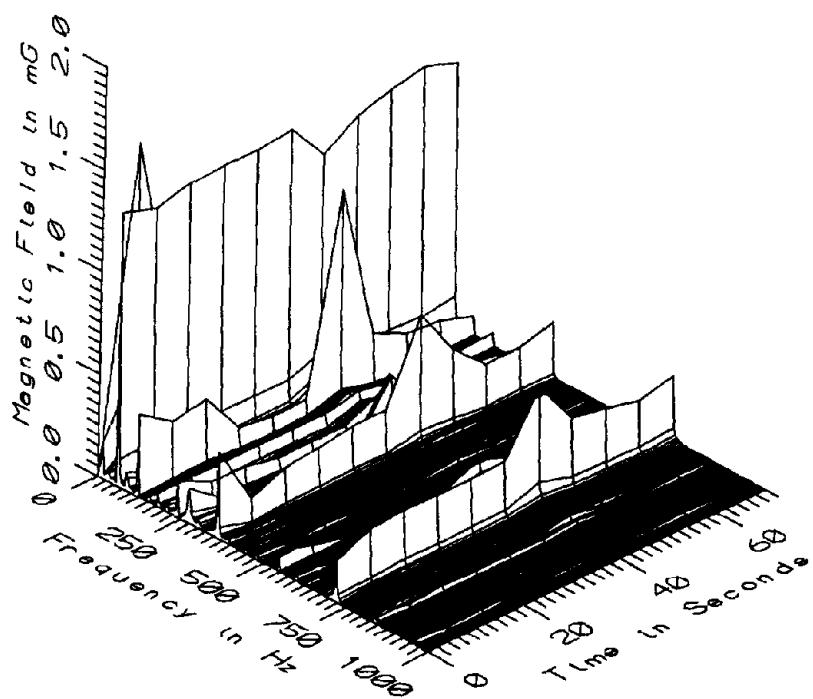
MET015 - 10cm ABOVE PLATFORM AT SAFETY LINE, NORTH BOUND SIDE



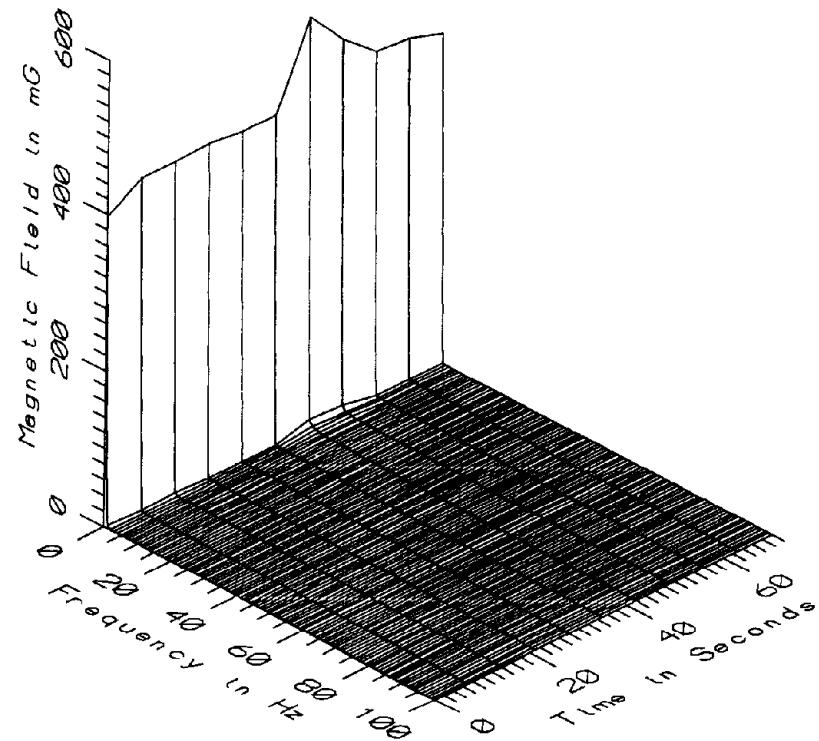
MET015 - 10cm ABOVE PLATFORM AT SAFETY LINE, NORTH BOUND SIDE



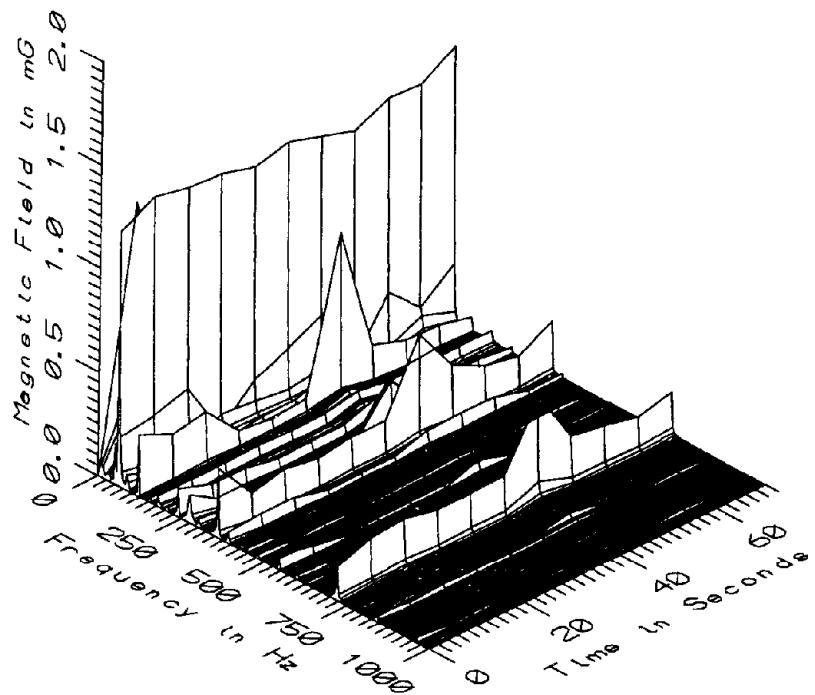
MET015 - 60cm ABOVE PLATFORM AT SAFETY LINE, NORTH BOUND SIDE



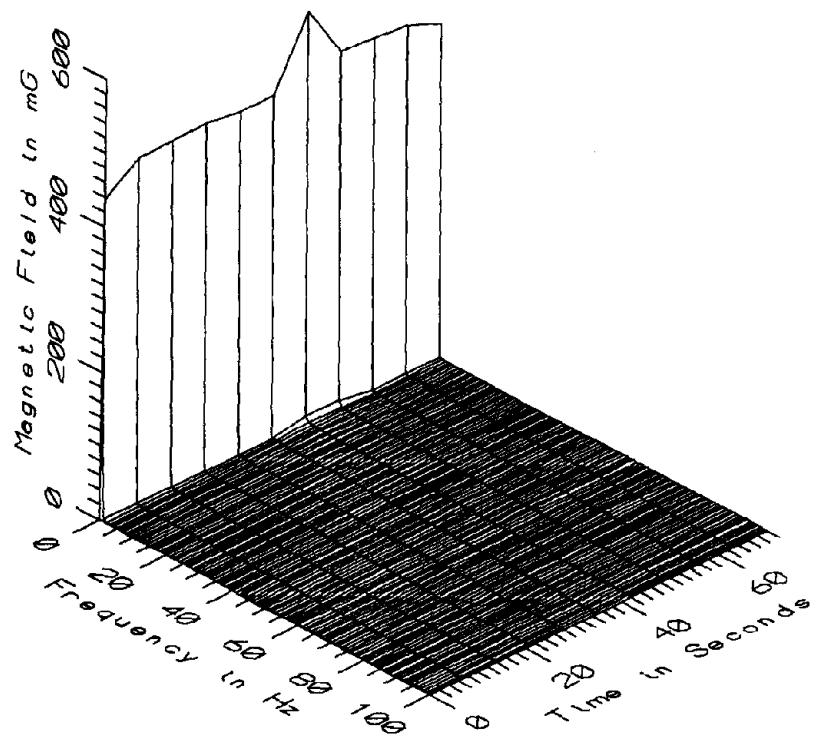
MET015 - 60cm ABOVE PLATFORM AT SAFETY LINE, NORTH BOUND SIDE



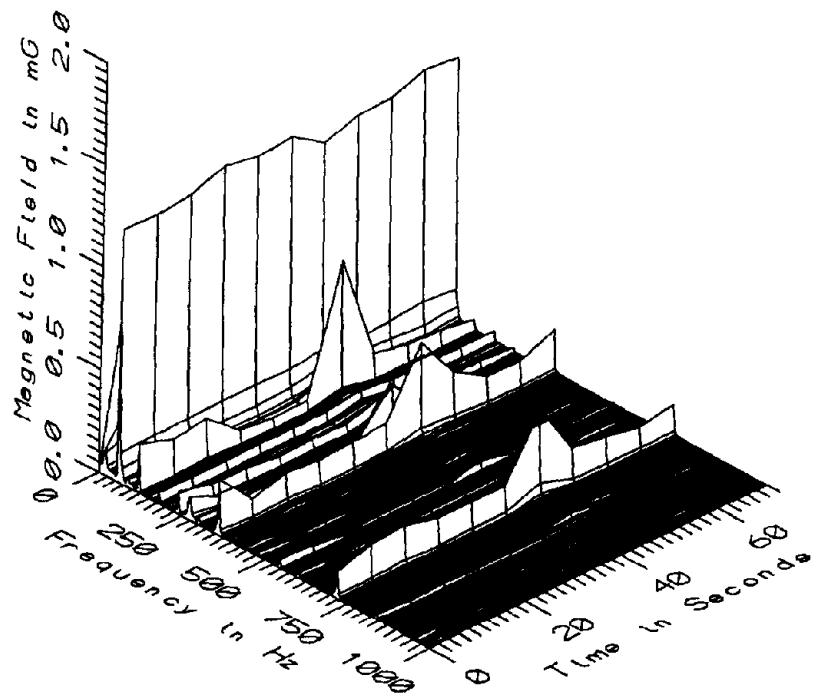
MET015 - 110cm ABOVE PLATFORM AT SAFETY LINE, NORTH BOUND SIDE



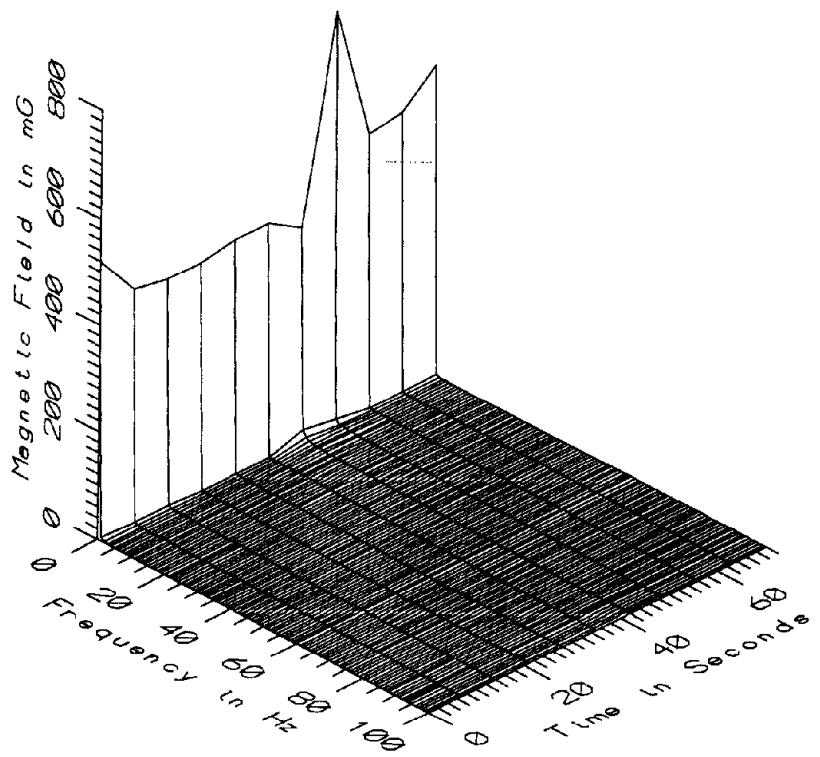
MET015 - 110cm ABOVE PLATFORM AT SAFETY LINE, NORTH BOUND SIDE



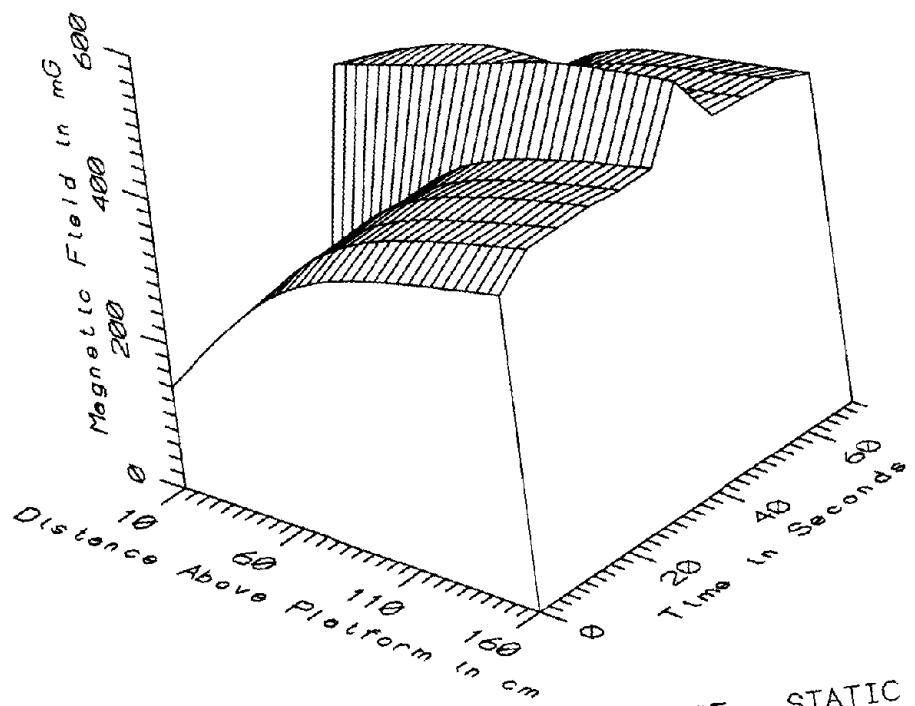
MET015 - 160cm ABOVE PLATFORM AT SAFETY LINE, NORTH BOUND SIDE



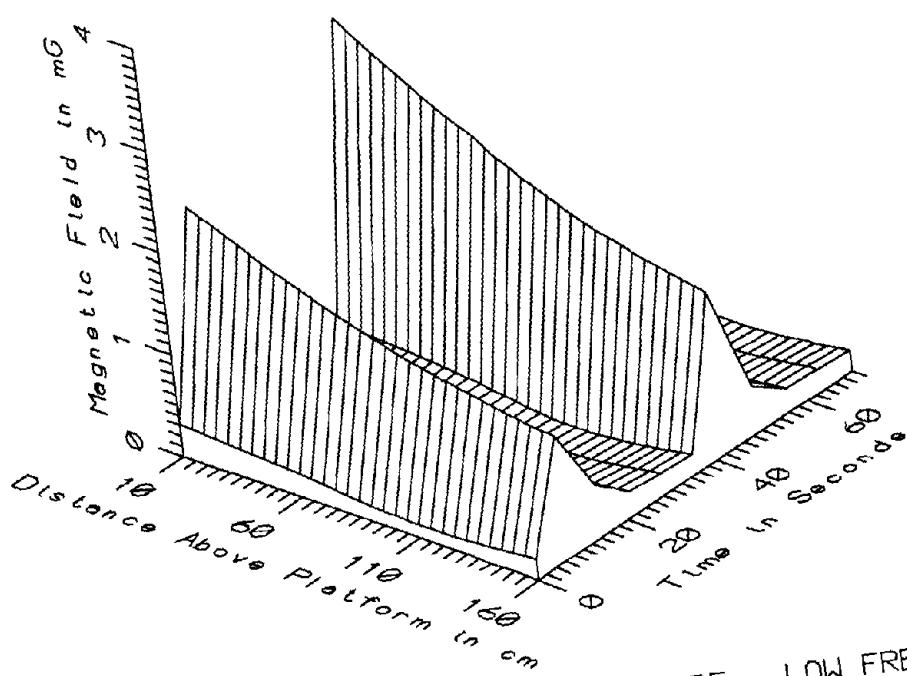
MET015 - 160cm ABOVE PLATFORM AT SAFETY LINE, NORTH BOUND SIDE



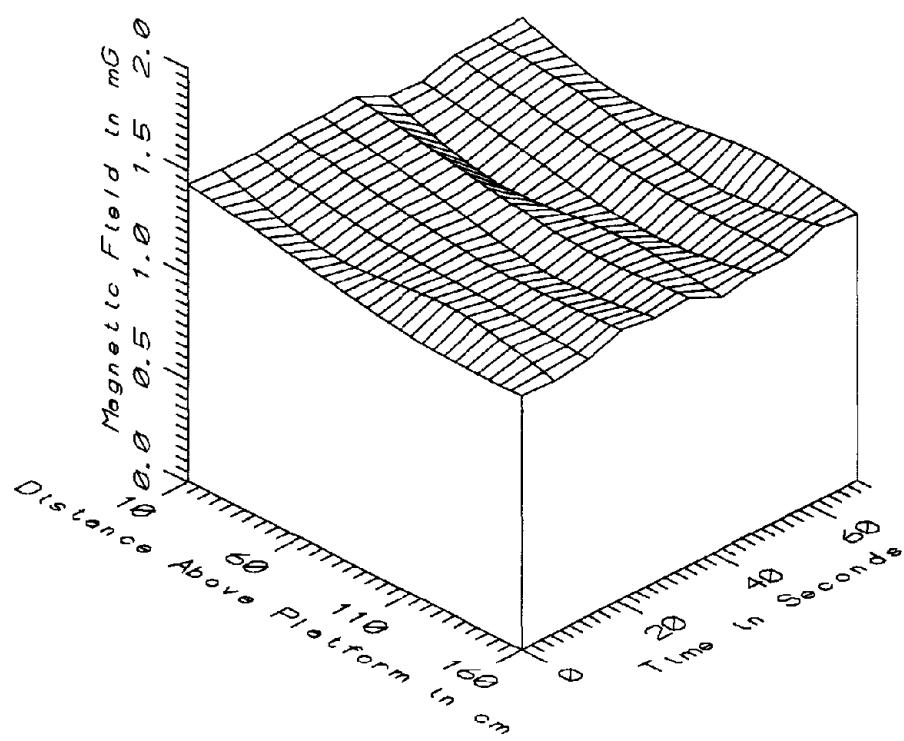
MET015 - REFERENCE PROBE - AT SAFETY LINE, NORTH BOUND SIDE



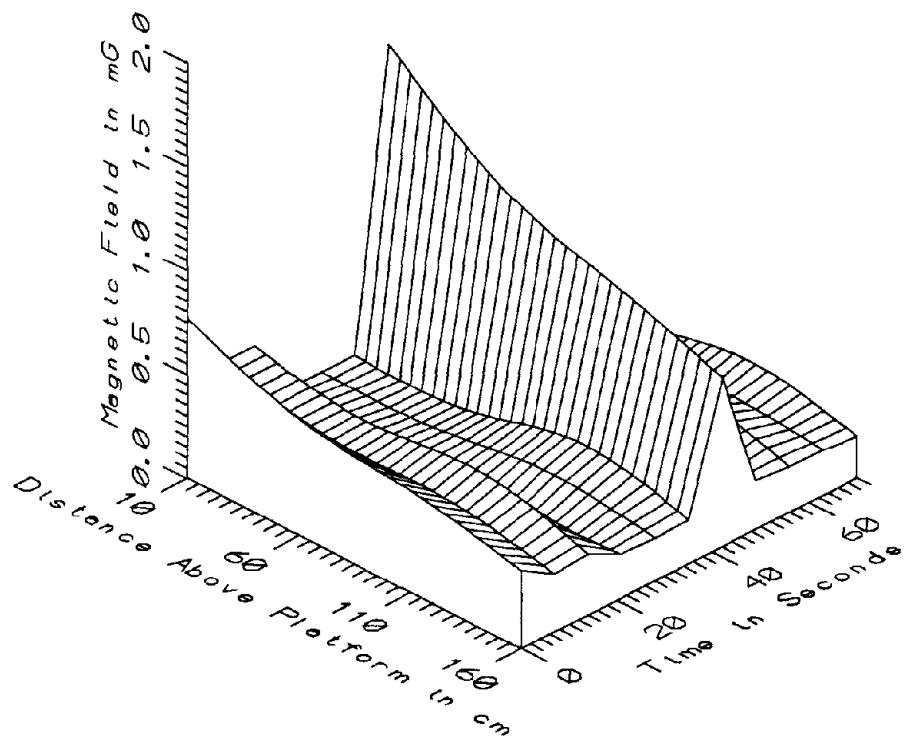
MET015 - AT SAFETY LINE, NORTH BOUND SIDE - STATIC



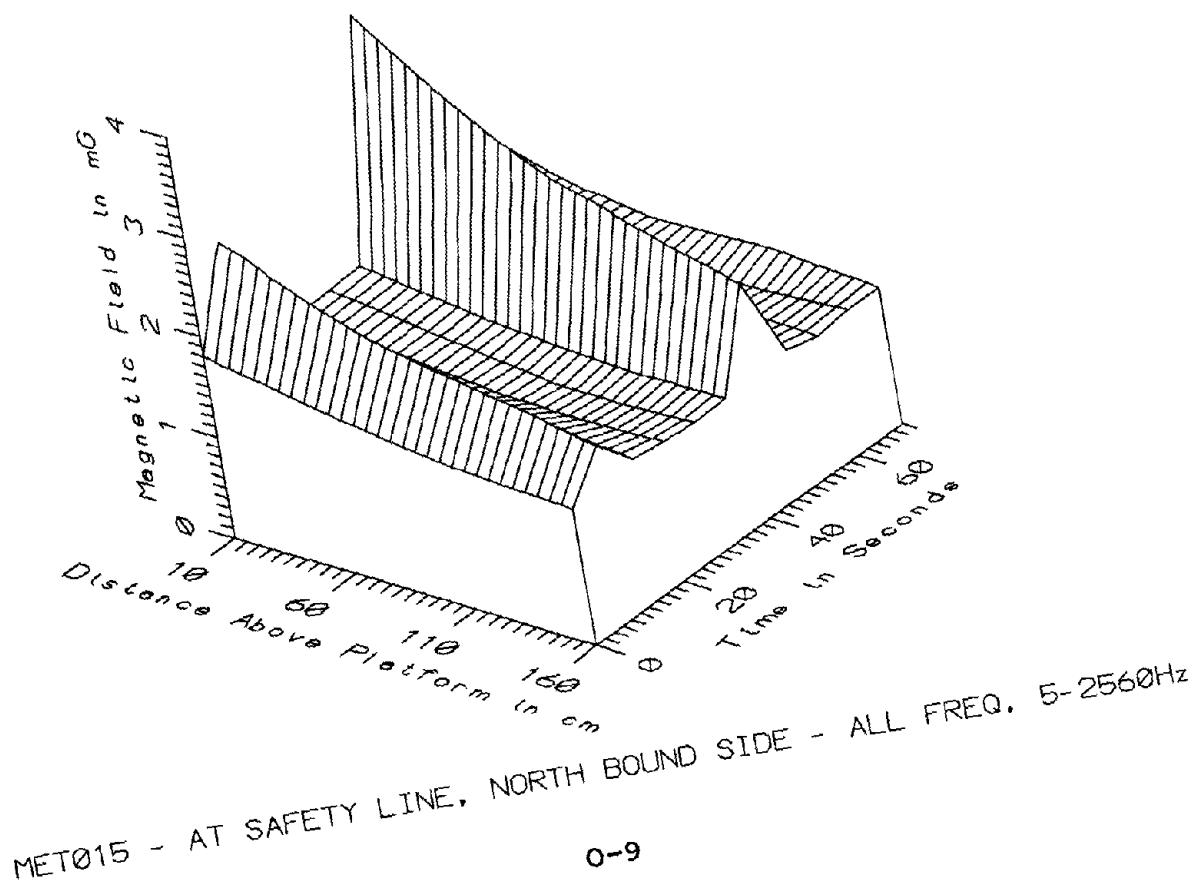
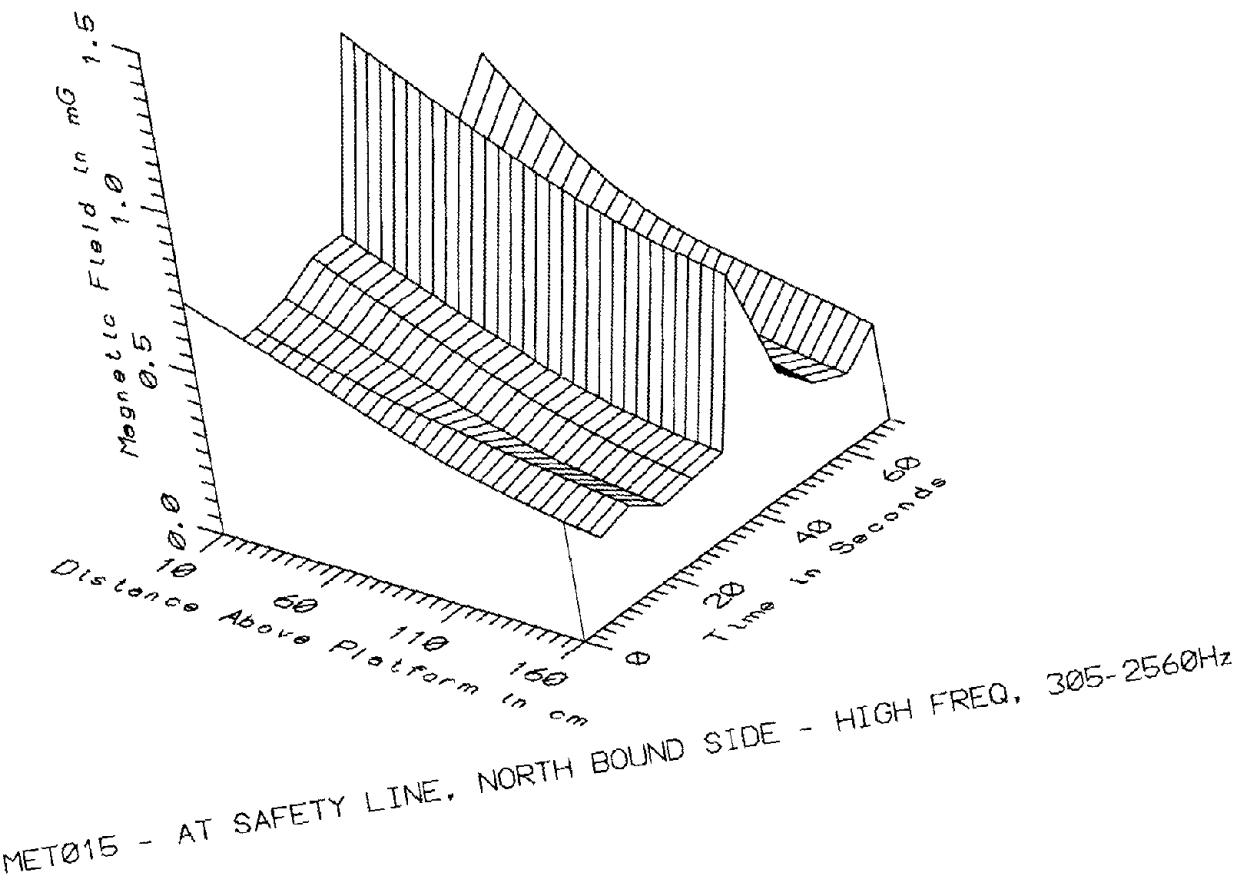
MET015 - AT SAFETY LINE, NORTH BOUND SIDE - LOW FREQ, 5-45Hz



MET015 - AT SAFETY LINE, NORTH BOUND SIDE - POWER FREQ, 50-60Hz



MET015 - AT SAFETY LINE, NORTH BOUND SIDE - POWER HARM, 65-300Hz



MET015 - GROSVENOR PLATFORM, NORTH BOUND SIDE						TOTAL OF 11 SAMPLES	
FREQUENCY BAND	HEIGHT ABOVE FLOOR (cm)	MINIMUM MAGNETIC FIELD (mG)	MAXIMUM MAGNETIC FIELD (mG)	AVERAGE MAGNETIC FIELD (mG)	STANDARD DEVIATION (mG)	Coefficient of Variation (%)	
STATIC	10	110.95	414.97	189.97	110.97	58.42	
	60	322.37	470.42	366.94	53.23	14.51	
	110	397.68	528.56	440.08	35.35	8.03	
	160	437.43	560.32	476.70	30.50	6.40	
5-45Hz LOW FREQ	10	0.24	3.07	0.86	0.96	111.99	
	60	0.18	2.40	0.65	0.75	115.31	
	110	0.07	1.88	0.48	0.61	128.01	
	160	0.20	1.59	0.48	0.47	97.24	
50-60Hz PWR FREQ	10	1.36	1.45	1.42	0.03	1.91	
	60	1.22	1.35	1.31	0.04	3.23	
	110	1.18	1.34	1.27	0.04	3.43	
	160	1.22	1.31	1.26	0.03	2.62	
65-300Hz PWR HARM	10	0.18	1.60	0.46	0.42	91.77	
	60	0.19	1.19	0.37	0.30	79.63	
	110	0.19	1.00	0.38	0.22	59.32	
	160	0.20	0.81	0.30	0.18	60.64	
305-2560Hz HIGH FREQ	10	0.49	1.15	0.69	0.19	28.00	
	60	0.36	0.96	0.50	0.17	34.12	
	110	0.27	0.81	0.38	0.15	40.37	
	160	0.21	0.72	0.31	0.15	46.87	
5-2560Hz ALL FREQ	10	1.56	3.90	2.00	0.71	35.61	
	60	1.40	3.10	1.70	0.52	30.53	
	110	1.30	2.60	1.54	0.40	25.86	
	160	1.32	2.28	1.48	0.29	19.65	

APPENDIX P

DATASET MET017 GROSVENOR STATION, SOUTH BOUND SIDE OF PLATFORM

Measurement Setup Code: Staff: 18 Reference: 19
Drawing: A-4

Vehicle Status: NA

Measurement Date: May 19, 1992

Measurement Time: Start: 10:59:44
End: 11:02:08

Number of Samples: 23

Programmed Sample Interval: 5 sec

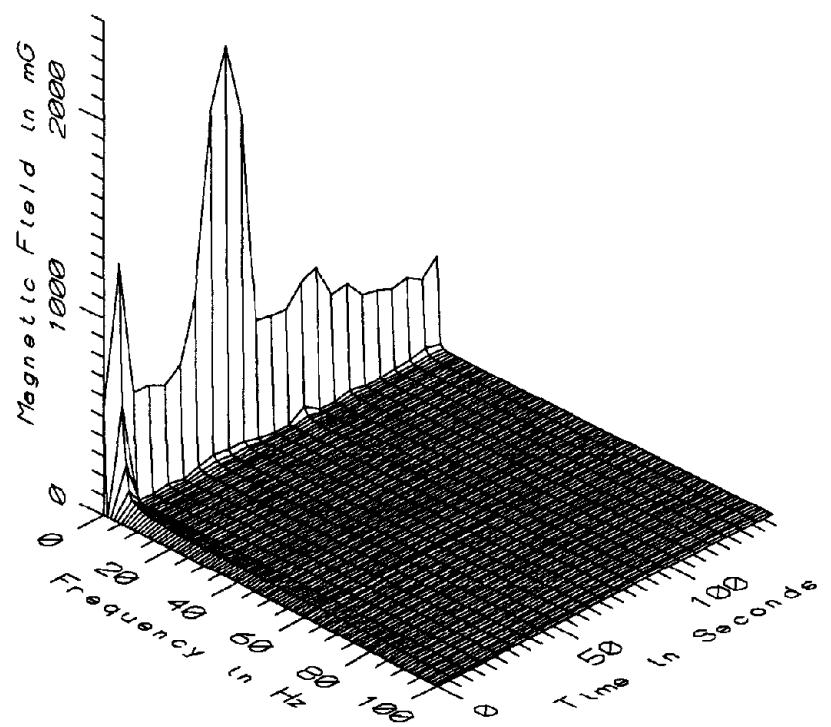
Actual Sample Interval: 6.5 sec

Frequency Spectrum Parameters

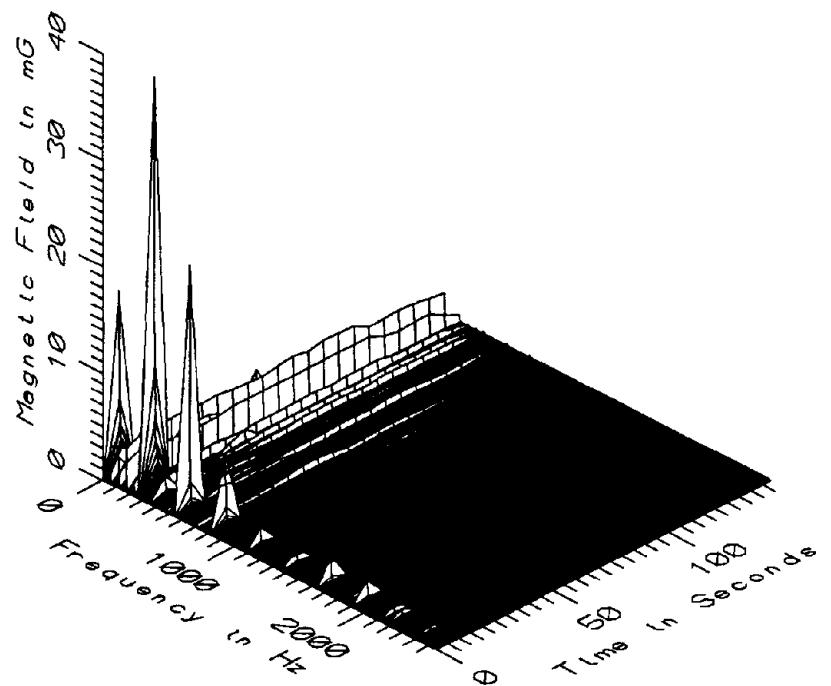
<u>Probe Type:</u>	<u>Wideband</u>	<u>Static</u>
Maximum Frequency (Hz)	2560	100
Minimum Frequency (Hz)	5	0
Spectral Bandwidth (Hz)	5	1

Missing Data: Wideband data from the reference probe

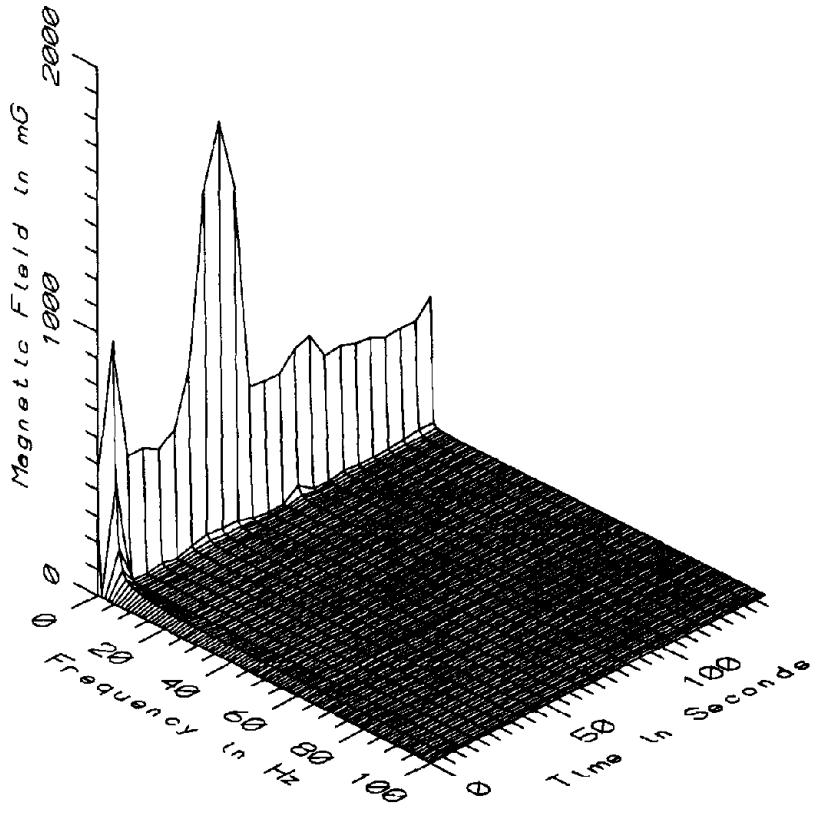
Saturated Data - Wideband:	<u>Sensor</u>	<u>Sample</u>	<u>Time (sec)</u>
	60cm	2	7
	160cm	2	7



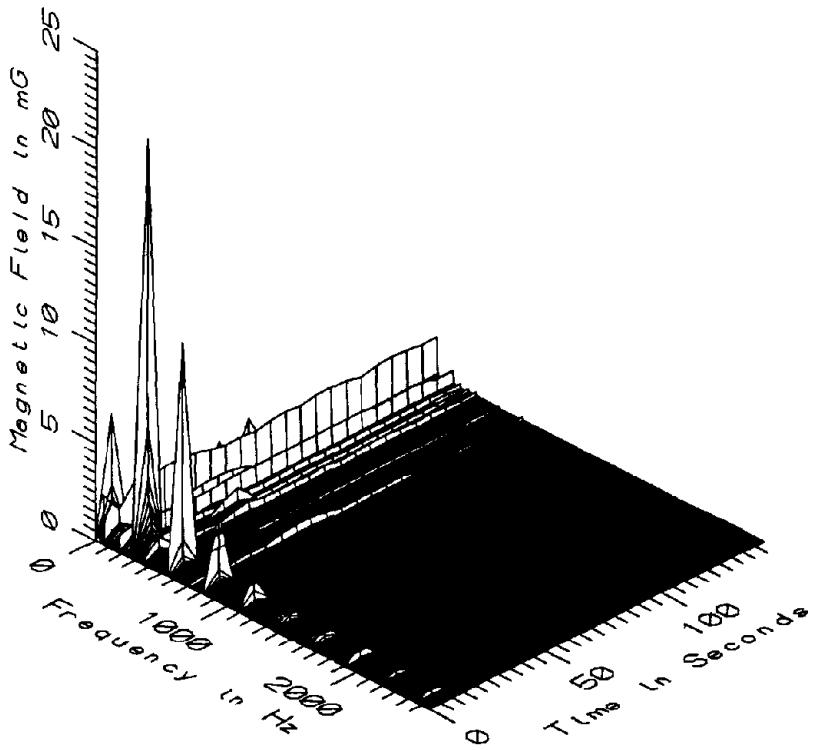
MET017 - 10cm ABOVE PLATFORM AT SAFETY LINE, SOUTH BOUND SIDE



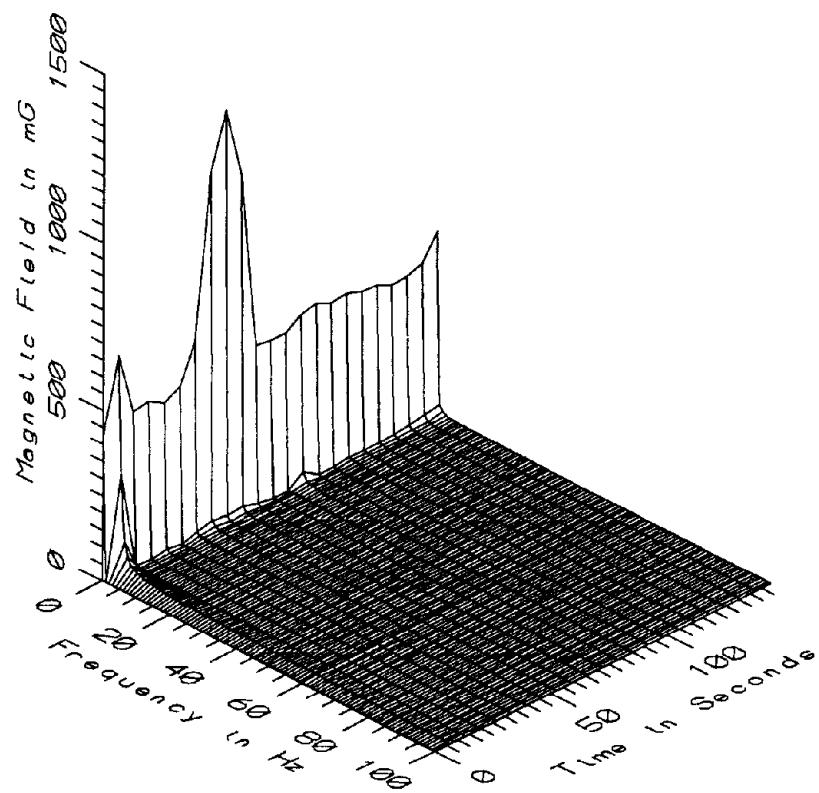
MET017 - 10cm ABOVE PLATFORM AT SAFETY LINE, SOUTH BOUND SIDE



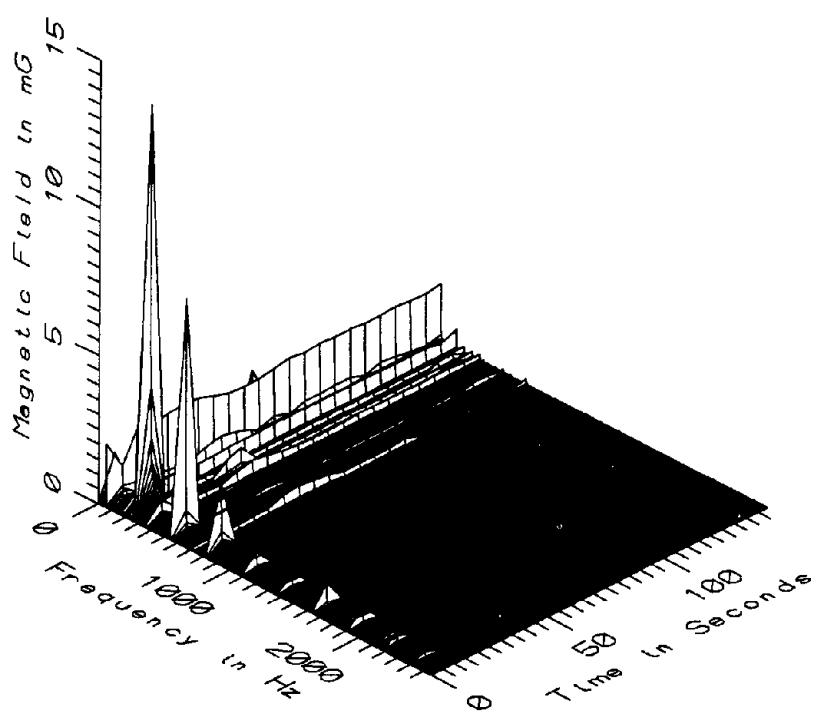
MET017 - 60cm ABOVE PLATFORM AT SAFETY LINE, SOUTH BOUND SIDE



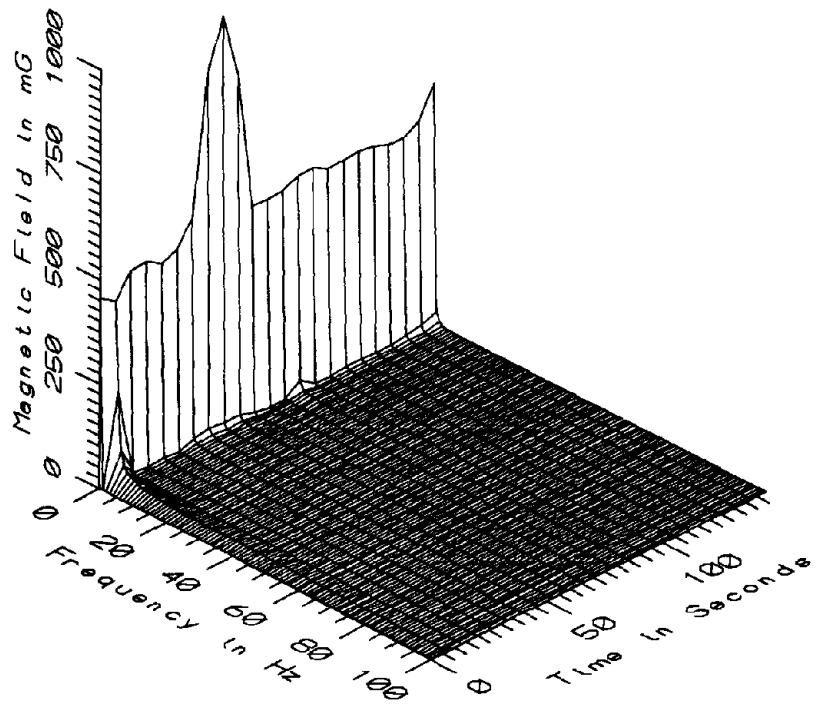
MET017 - 60cm ABOVE PLATFORM AT SAFETY LINE, SOUTH BOUND SIDE



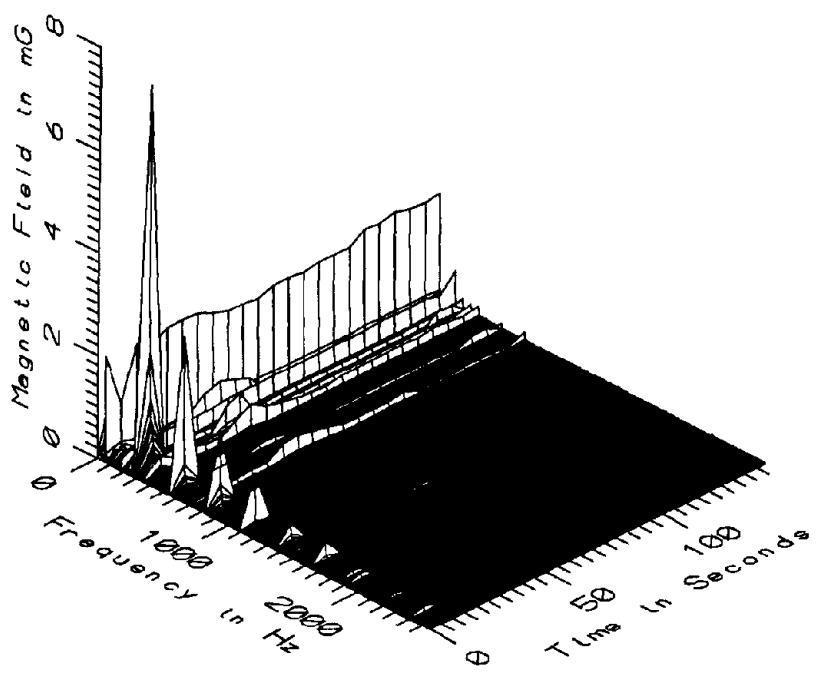
MET017 - 110cm ABOVE PLATFORM AT SAFETY LINE, SOUTH BOUND SIDE



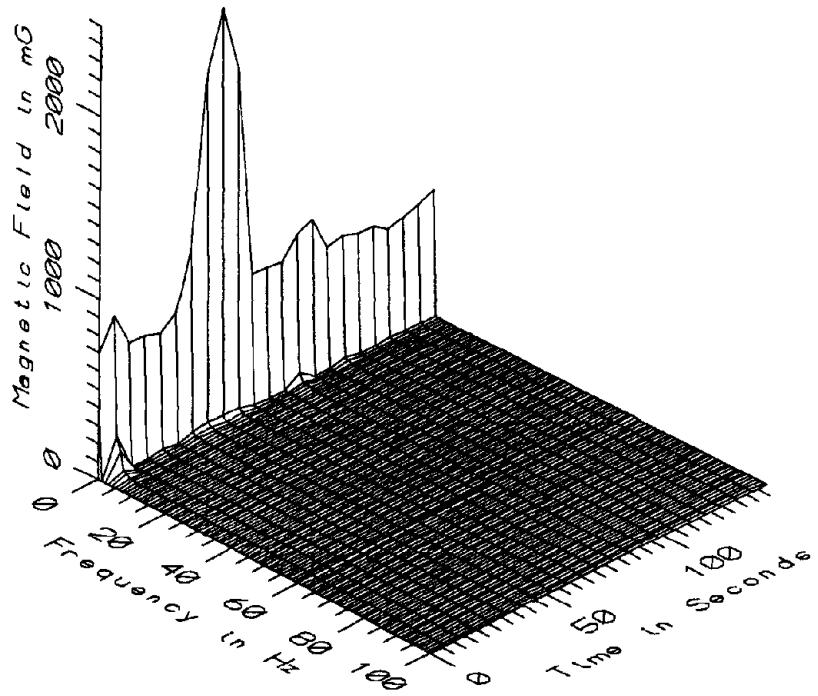
MET017 - 110cm ABOVE PLATFORM AT SAFETY LINE, SOUTH BOUND SIDE



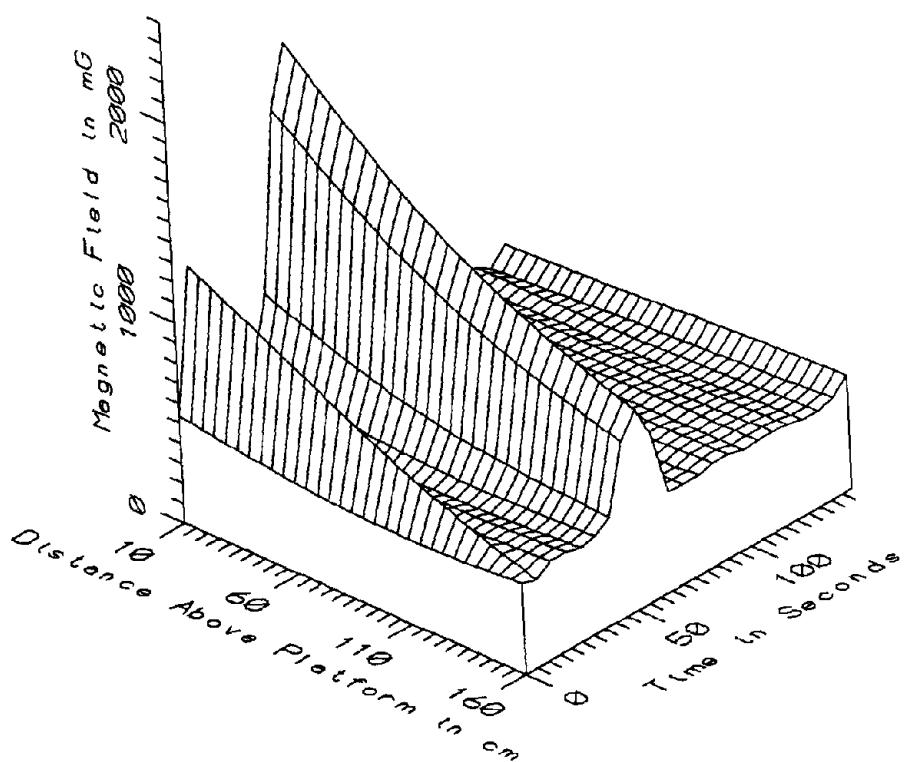
MET017 - 160cm ABOVE PLATFORM AT SAFETY LINE, SOUTH BOUND SIDE



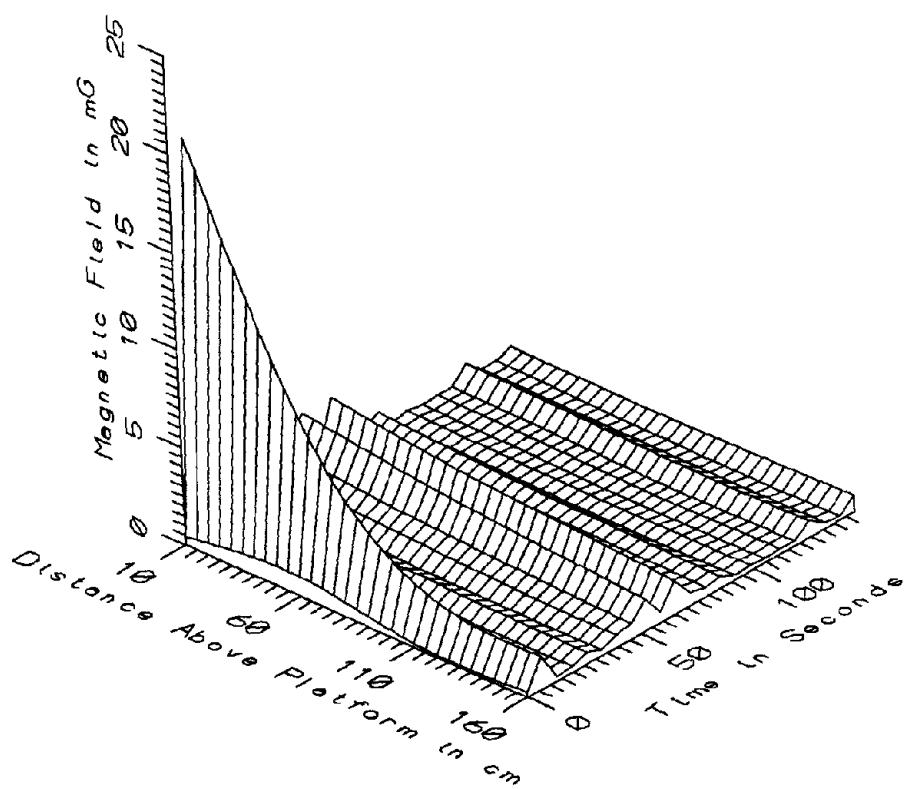
MET017 - 160cm ABOVE PLATFORM AT SAFETY LINE, SOUTH BOUND SIDE



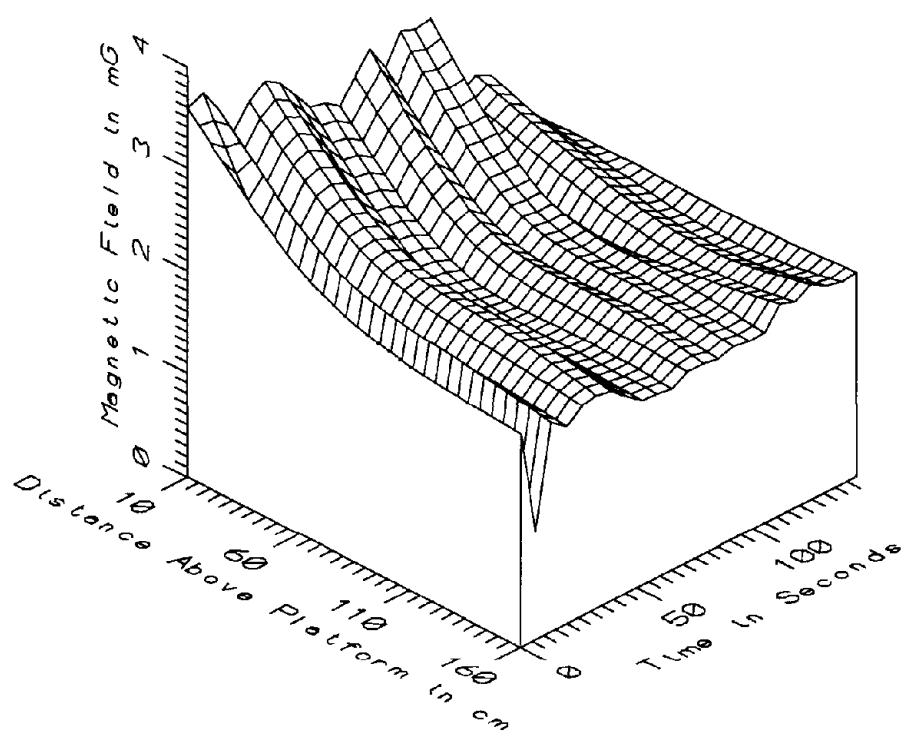
MET017 - REFERENCE PROBE - AT SAFETY LINE, SOUTH BOUND SIDE



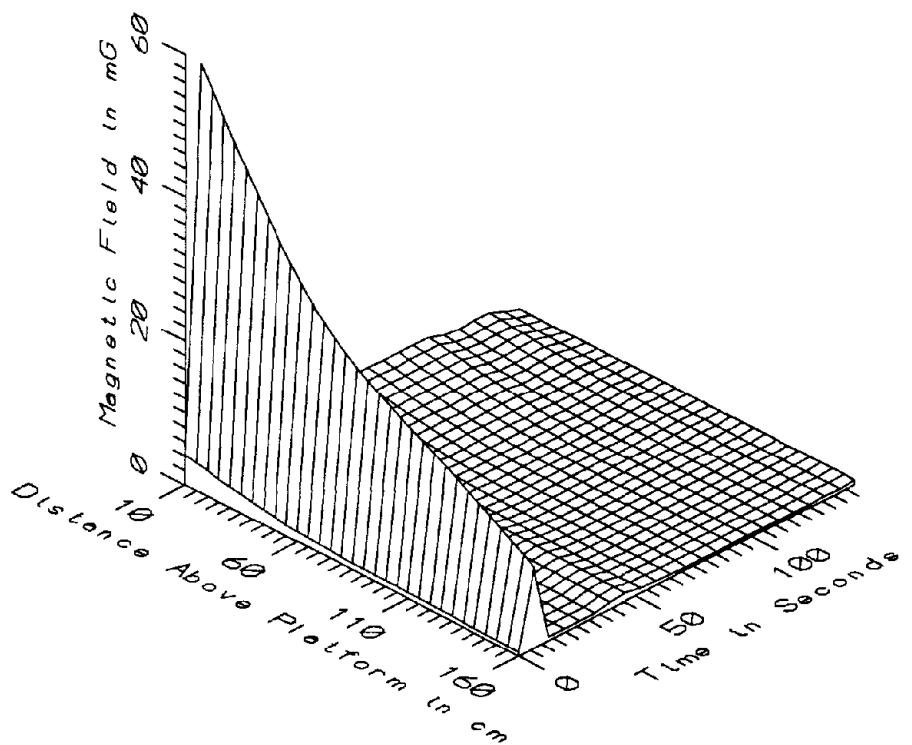
MET017 - AT SAFETY LINE, SOUTH BOUND SIDE - STATIC



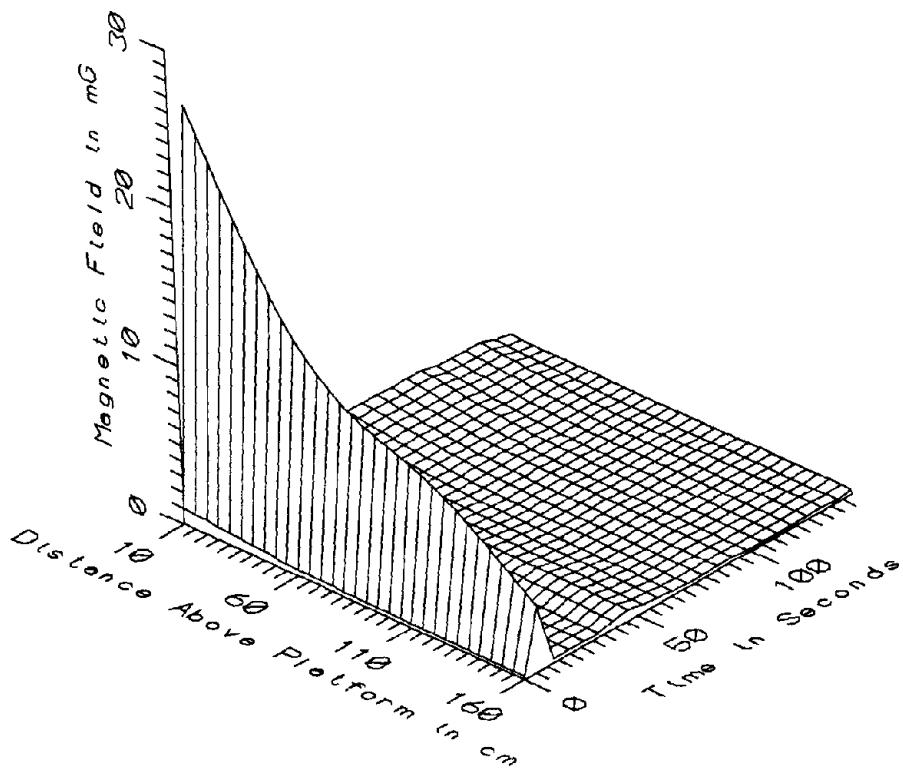
MET017 - AT SAFETY LINE, SOUTH BOUND SIDE - LOW FREQ, 5-45Hz



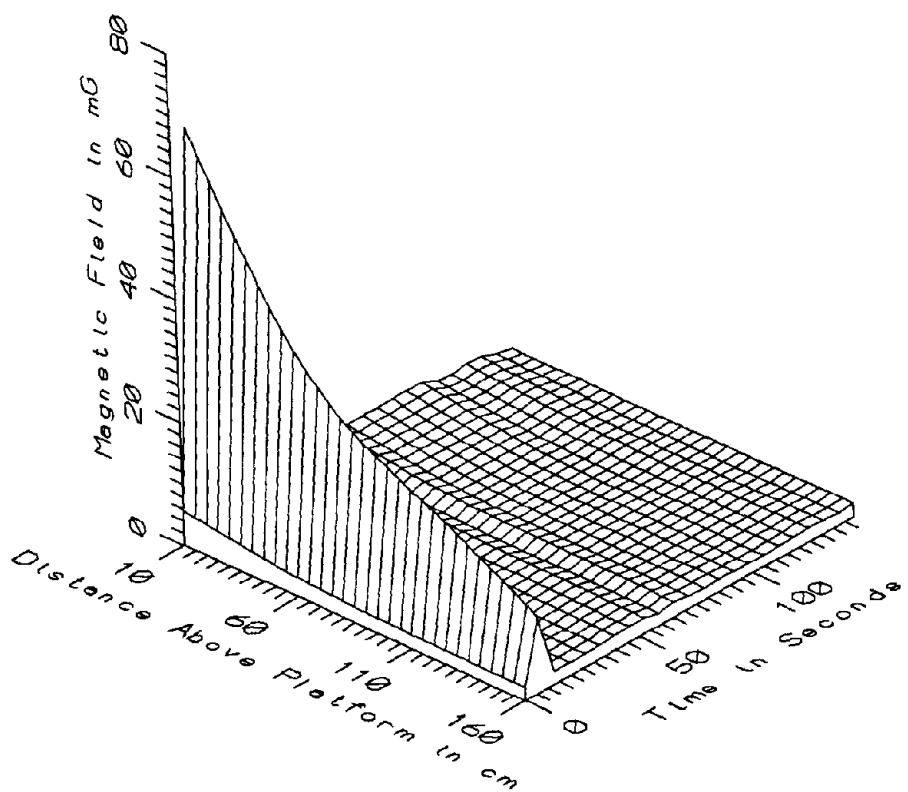
MET017 - AT SAFETY LINE, SOUTH BOUND SIDE - POWER FREQ, 50-60Hz



MET017 - AT SAFETY LINE, SOUTH BOUND SIDE - POWER HARM, 65-300Hz



MET017 - AT SAFETY LINE, SOUTH BOUND SIDE - HIGH FREQ, 305-2560Hz



MET017 - AT SAFETY LINE, SOUTH BOUND SIDE - ALL FREQ, 5-2560Hz

MET017 - GROSVENOR PLATFORM, SOUTH BOUND SIDE						TOTAL OF 23 SAMPLES	
FREQUENCY BAND	HEIGHT ABOVE FLOOR (cm)	MINIMUM MAGNETIC FIELD	MAXIMUM MAGNETIC FIELD	AVERAGE MAGNETIC FIELD	STANDARD DEVIATION	COEFFICIENT OF VARIATION (%)	
STATIC	10	384.32	2065.36	749.57	472.84	63.08	
	60	424.06	1562.41	626.72	326.61	52.11	
	110	424.42	1217.60	562.90	218.02	38.73	
	160	431.80	983.98	544.17	142.62	26.21	
5-45Hz LOW FREQ	10	0.32	20.41	1.83	4.13	226.15	
	60	0.23	7.63	1.06	1.56	147.26	
	110	0.13	2.25	0.65	0.63	95.57	
	160	0.22	1.67	0.61	0.46	75.27	
50-60Hz PWR FREQ	10	1.96	3.67	3.01	0.47	15.66	
	60	1.85	2.56	2.13	0.20	9.57	
	110	1.26	2.24	1.93	0.20	10.24	
	160	1.04	2.08	1.88	0.21	11.34	
65-300Hz PWR HARM	10	0.78	57.74	5.59	11.41	204.00	
	60	0.77	31.96	2.53	6.42	253.55	
	110	0.56	20.71	1.62	4.17	256.79	
	160	0.44	11.22	1.03	2.23	215.62	
305-2560Hz HIGH FREQ	10	0.44	25.97	2.24	5.18	230.79	
	60	0.32	13.19	1.05	2.65	252.28	
	110	0.25	9.00	0.74	1.80	242.29	
	160	0.20	4.03	0.47	0.79	167.66	
5-2560Hz ALL FREQ	10	2.28	66.62	7.41	12.95	174.62	
	60	2.16	35.45	4.11	6.84	166.33	
	110	1.96	22.73	3.16	4.27	135.32	
	160	1.92	12.08	2.58	2.08	80.76	

APPENDIX Q

DATASET MET018 GROSVENOR STATION, SOUTH BOUND SIDE OF PLATFORM

Measurement Setup Code: Staff: 20 Reference: 17
Drawing: A-4

Vehicle Status: NA

Measurement Date: May 19, 1992

Measurement Time: Start: 11:04:45
End: 11:08:20

Number of Samples: 34

Programmed Sample Interval: 5 sec

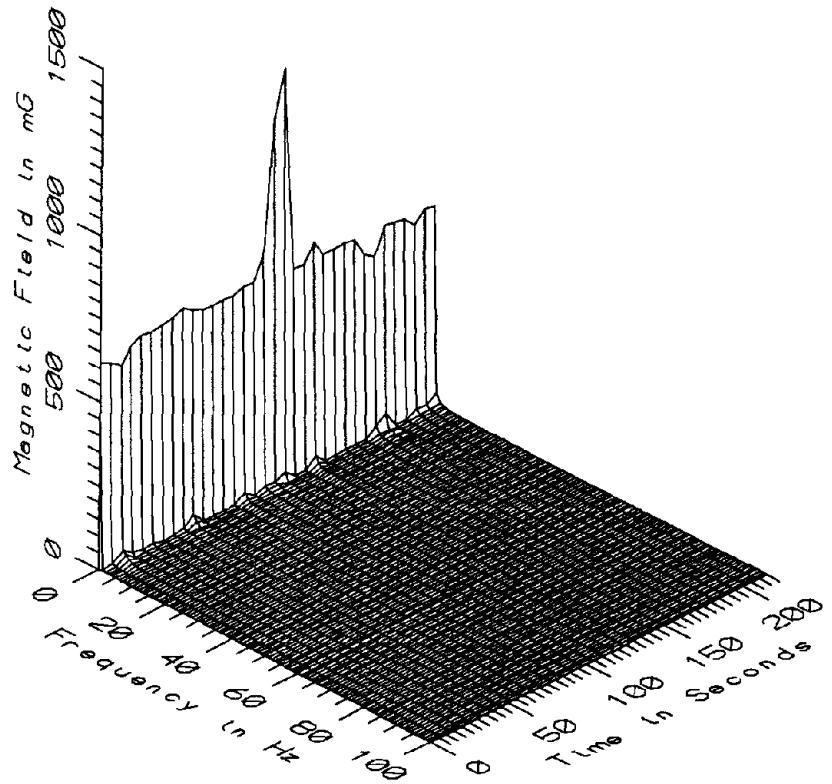
Actual Sample Interval: 6.5 sec

Frequency Spectrum Parameters

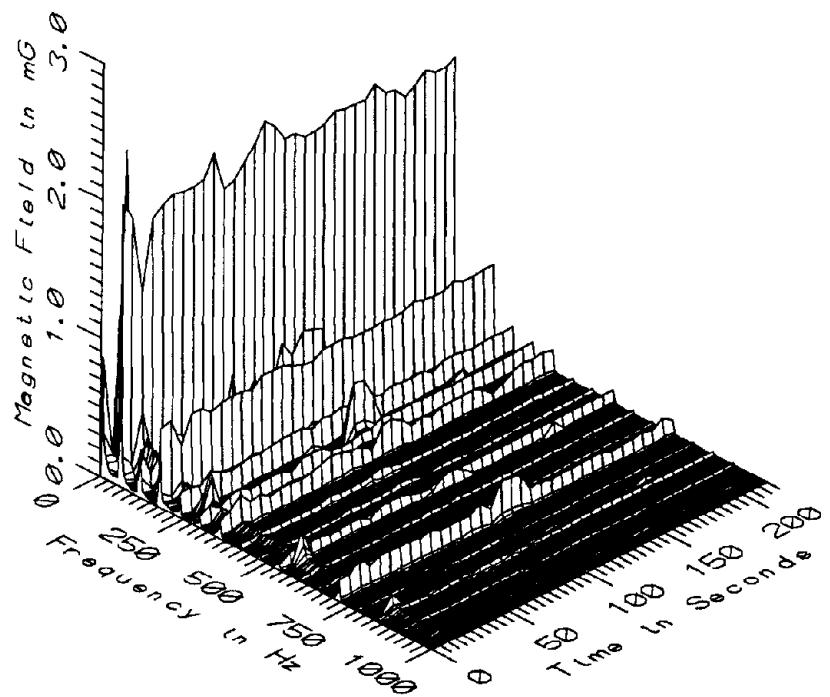
<u>Probe Type:</u>	<u>Wideband</u>	<u>Static</u>
Maximum Frequency (Hz)	2560	100
Minimum Frequency (Hz)	5	0
Spectral Bandwidth (Hz)	5	1

Missing Data: Wideband data from the reference probe

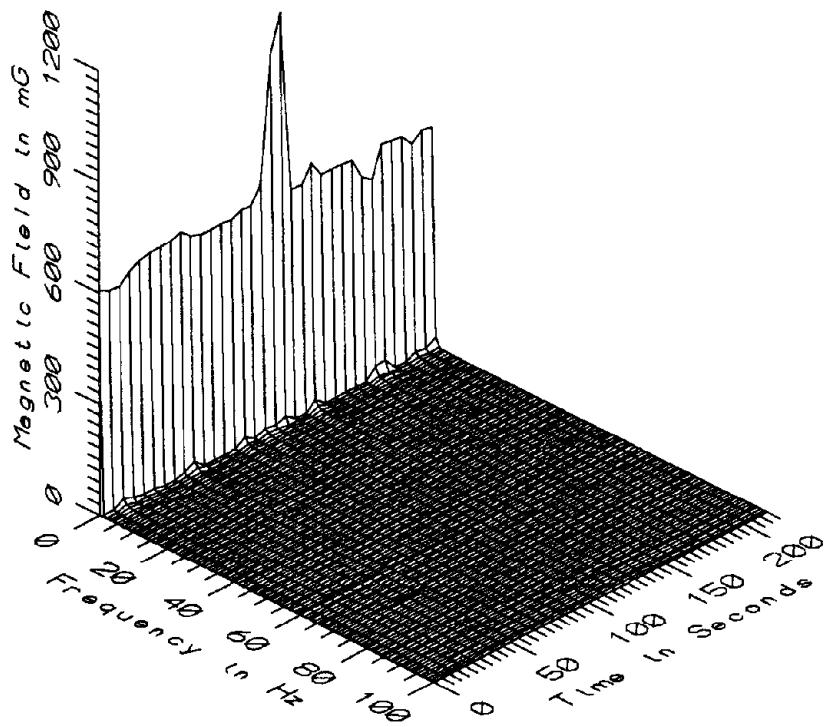
Saturated Data: None



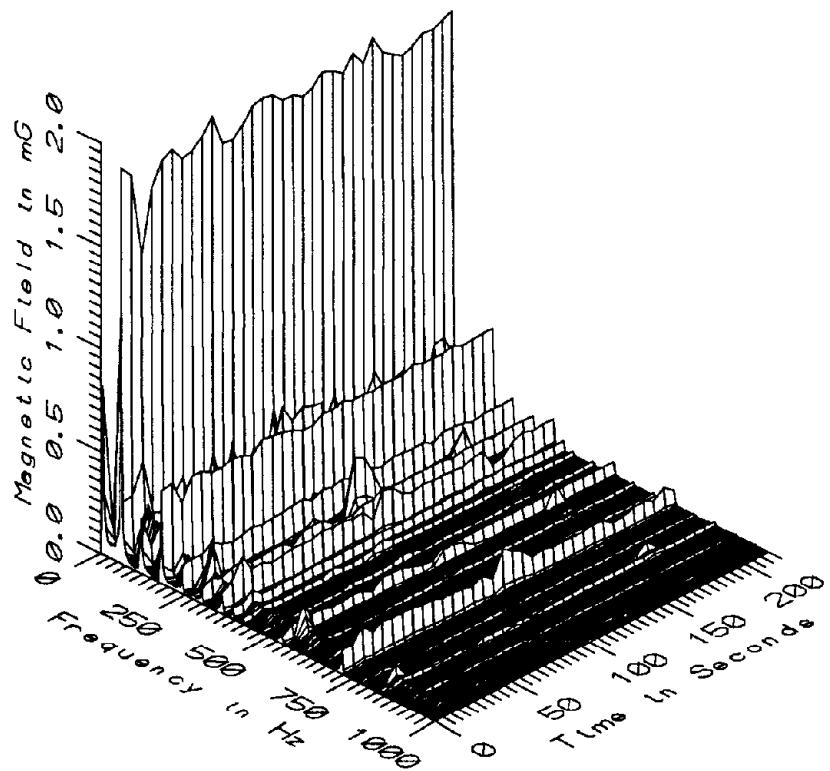
MET018 - 0cm FROM SAFETY LINE, 1M ABOVE PLATFORM, SOUTH BOUND SIDE



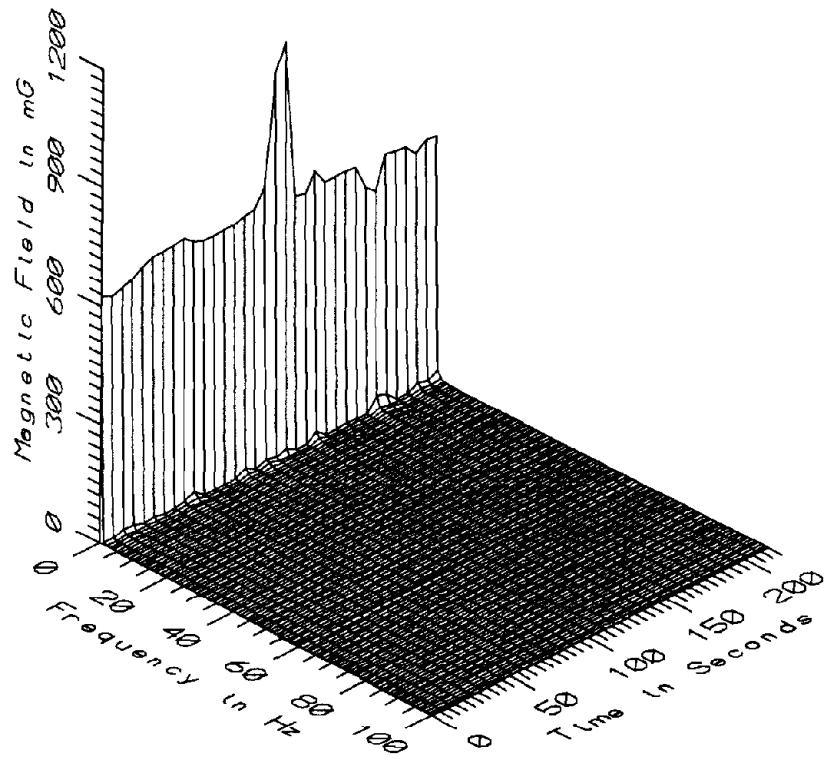
MET018 - 0cm FROM SAFETY LINE, 1M ABOVE PLATFORM, SOUTH BOUND SIDE



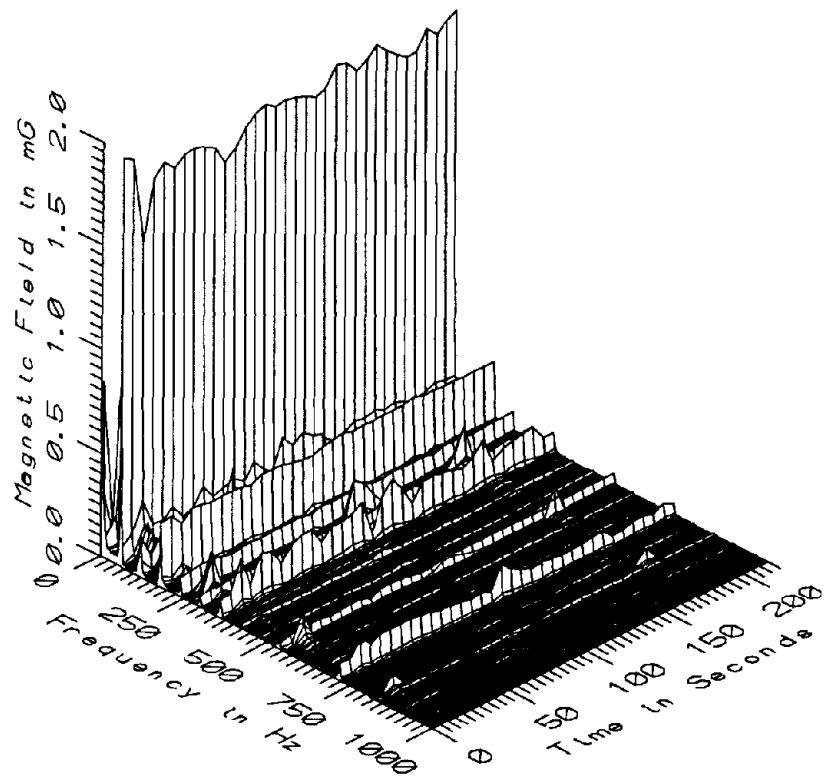
MET018 - 50cm FROM SAFETY LINE, 1M ABOVE PLATFORM, SOUTH BOUND SIDE



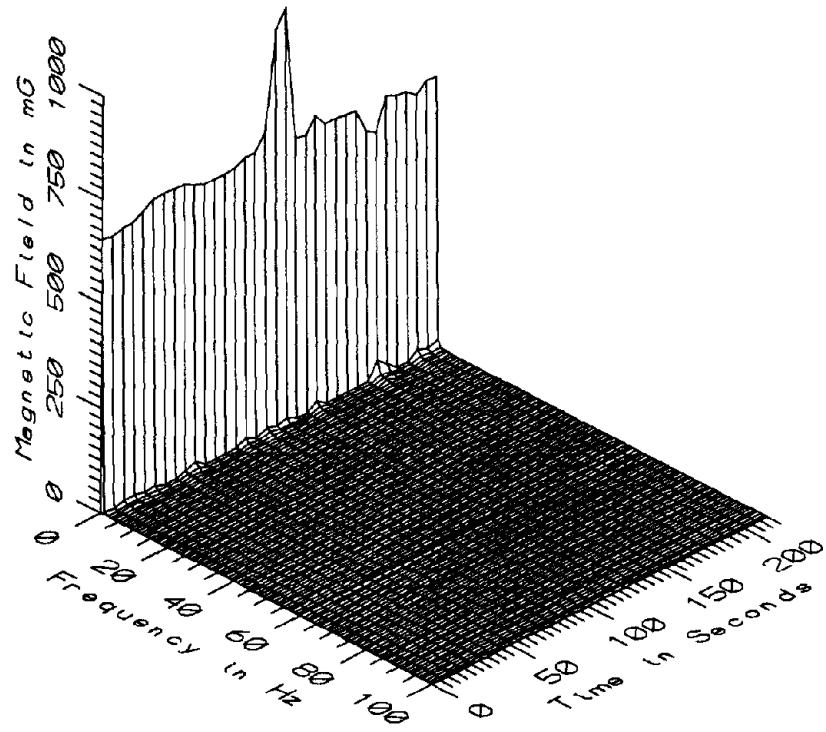
MET018 - 50cm FROM SAFETY LINE, 1M ABOVE PLATFORM, SOUTH BOUND SIDE



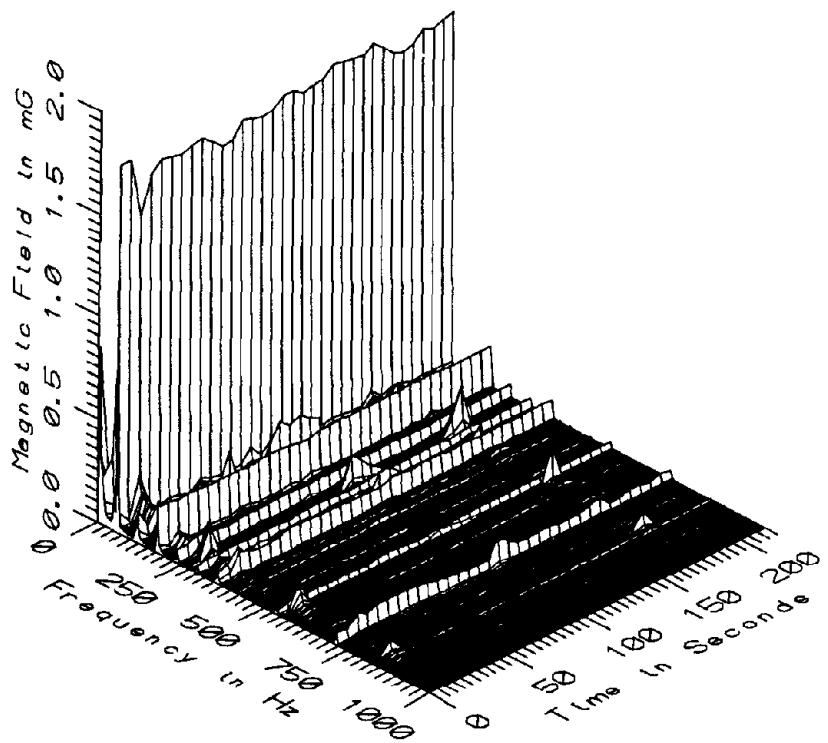
MET018 - 100cm FROM SAFETY LINE, 1M ABOVE PLATFORM, SOUTH BOUND SIDE



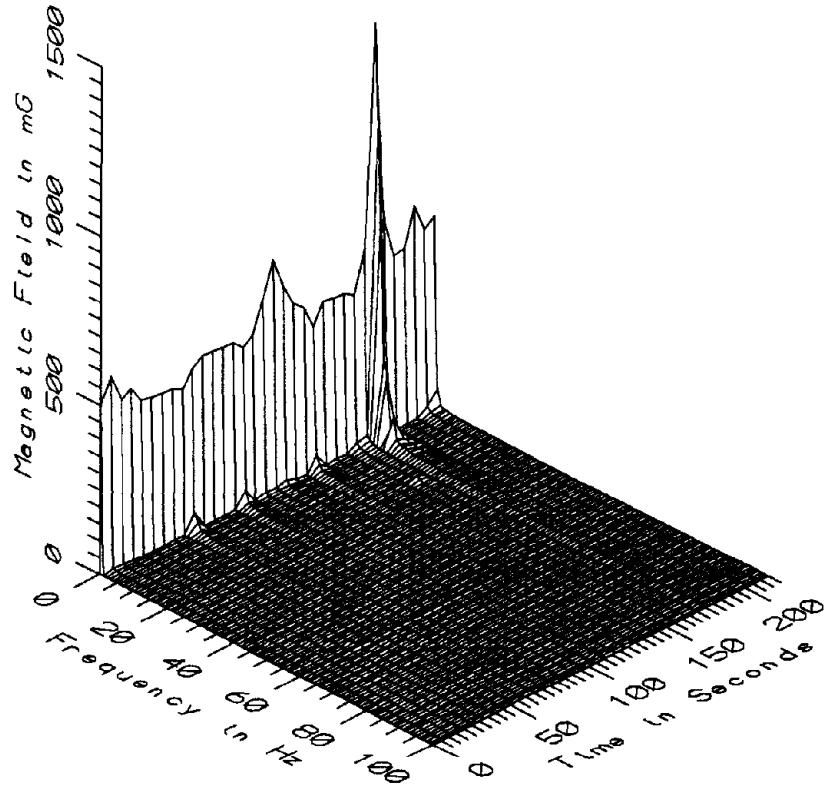
MET018 - 100cm FROM SAFETY LINE, 1M ABOVE PLATFORM, SOUTH BOUND SIDE



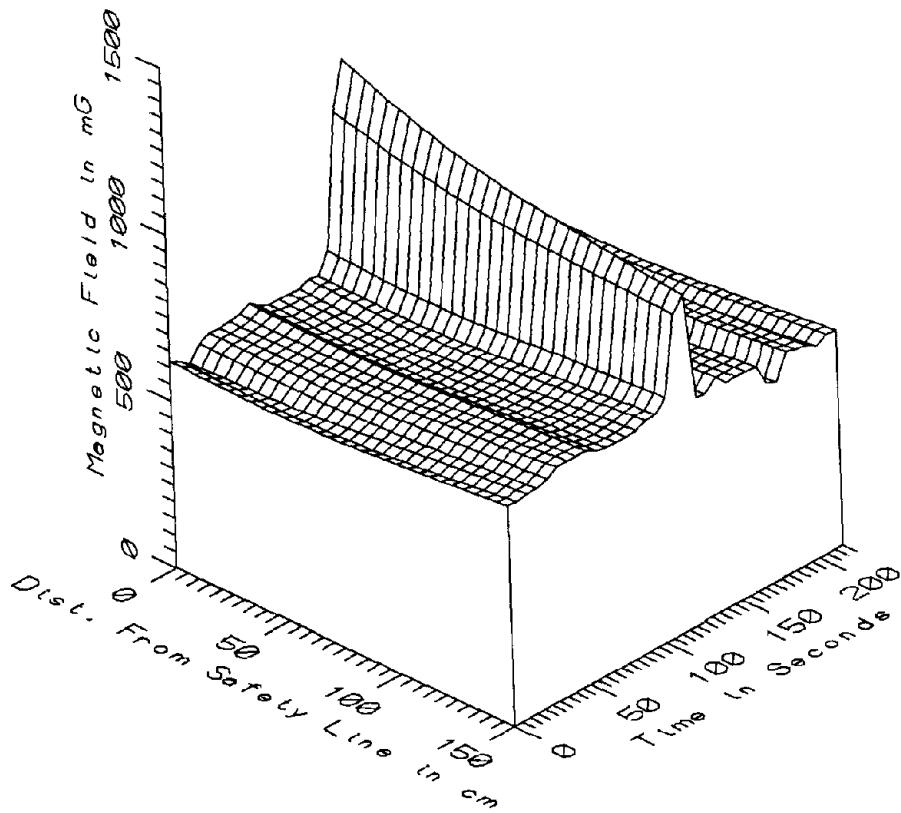
MET018 - 150cm FROM SAFETY LINE, 1M ABOVE PLATFORM, SOUTH BOUND SIDE



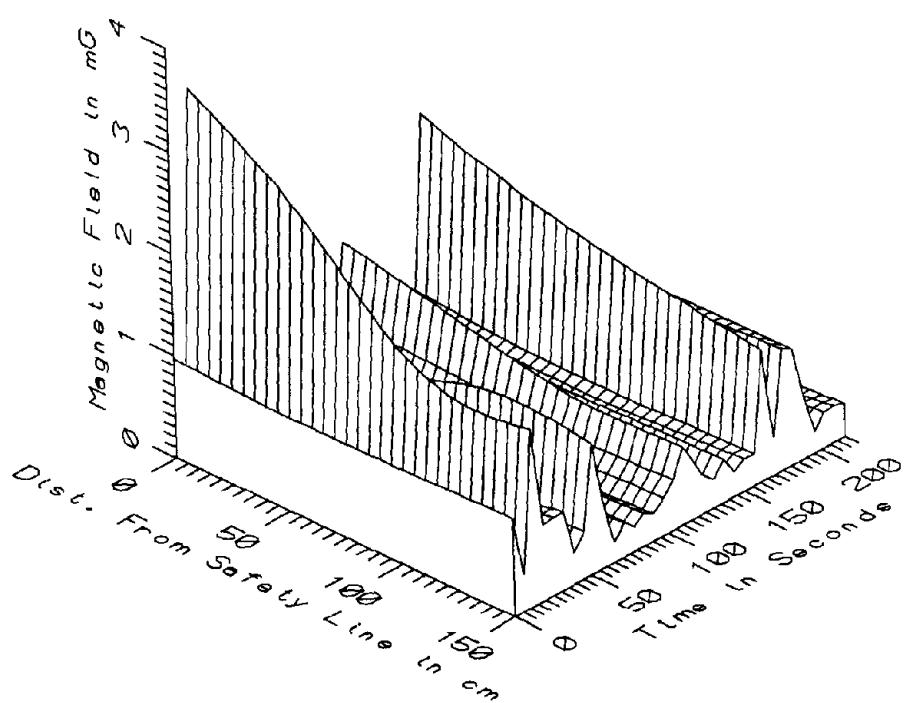
MET018 - 150cm FROM SAFETY LINE, 1M ABOVE PLATFORM, SOUTH BOUND SIDE



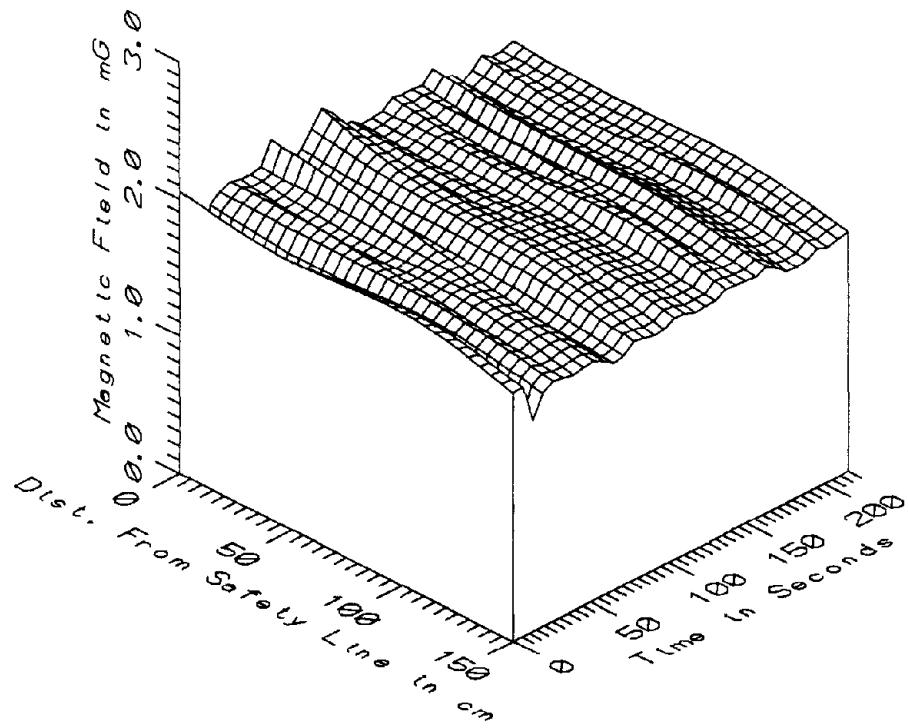
MET018 - REFERENCE PROBE - AT SAFETY LINE, NORTH BOUND SIDE



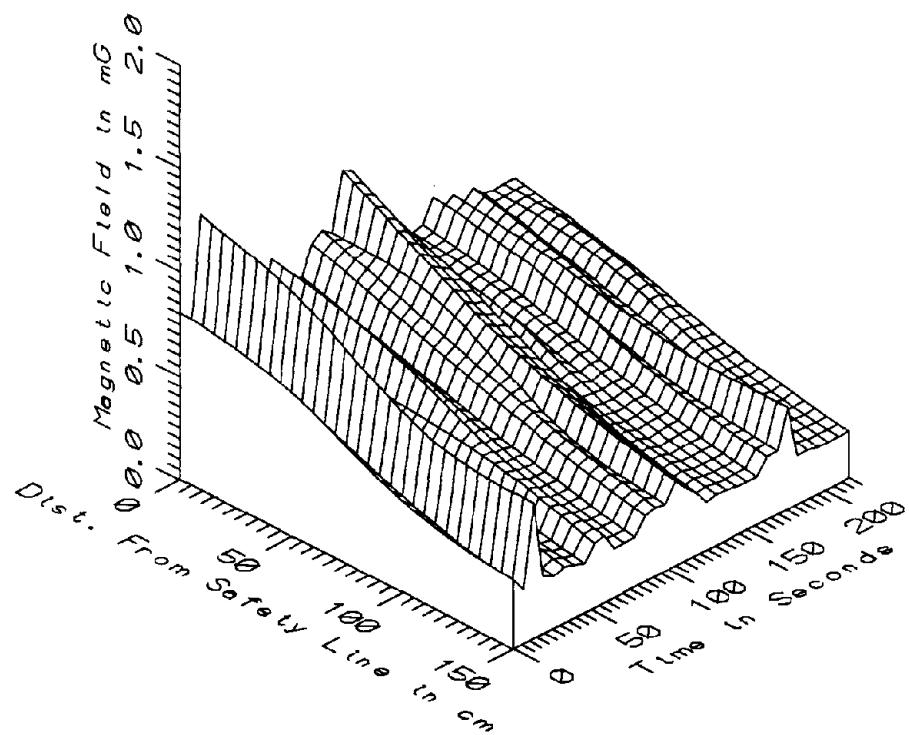
MET018 - 1M ABOVE PLATFORM, SOUTH BOUND SIDE - STATIC



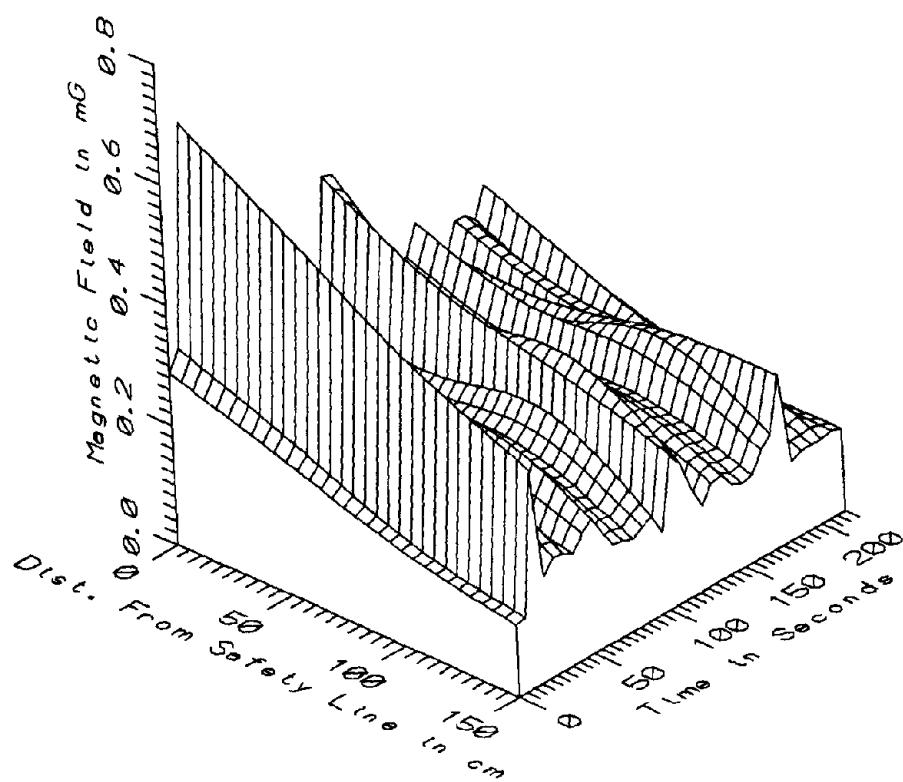
MET018 - 1M ABOVE PLATFORM, SOUTH BOUND SIDE - LOW FREQ, 5-45Hz



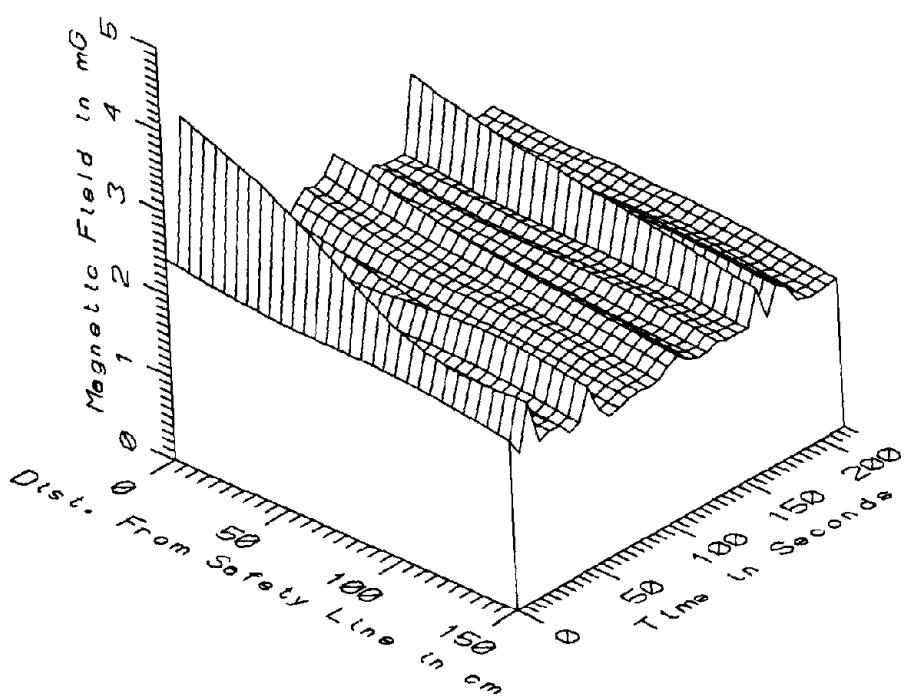
MET018 - 1M ABOVE PLATFORM, SOUTH BOUND SIDE - POWER FREQ, 50-60Hz



MET018 - 1M ABOVE PLATFORM, SOUTH BOUND SIDE - POWER HARM, 65-300Hz



MET018 - 1M ABOVE PLATFORM, SOUTH BOUND SIDE - HIGH FREQ, 305-2560Hz



MET018 - 1M ABOVE PLATFORM, SOUTH BOUND SIDE - ALL FREQ, 5-2560Hz

MET018 - GROSVENOR PLATFORM, SOUTH BOUND SIDE		TOTAL OF 34 SAMPLES			
FREQUENCY BAND	DIST FROM LINE (cm)	MINIMUM MAGNETIC FIELD (mG)	MAXIMUM MAGNETIC FIELD (mG)	AVERAGE MAGNETIC FIELD (mG)	STANDARD DEVIATION OF VARIATION (%)
STATIC	0	532.88	1233.85	650.39	134.74
	50	529.93	1105.18	639.58	110.17
	100	548.72	1041.24	656.37	93.67
	150	587.06	994.44	681.96	78.17
5-45Hz LOW FREQ	0	0.21	3.50	0.71	0.66
	50	0.08	2.75	0.56	0.54
	100	0.19	1.77	0.53	0.41
	150	0.21	1.69	0.56	0.37
50-60Hz PWR FREQ	0	1.45	2.14	1.92	0.11
	50	1.54	1.97	1.86	0.07
	100	1.55	1.98	1.84	0.07
	150	1.53	1.80	1.72	0.05
65-300Hz PWR HARM	0	0.61	1.22	0.73	0.15
	50	0.49	1.03	0.60	0.11
	100	0.34	0.72	0.41	0.08
	150	0.22	0.65	0.29	0.09
305-2560Hz HIGH FREQ	0	0.22	0.68	0.30	0.09
	50	0.16	0.56	0.24	0.07
	100	0.14	0.45	0.23	0.06
	150	0.12	0.36	0.17	0.05
5-2560Hz ALL FREQ	0	1.96	4.04	2.26	0.38
	50	1.90	3.36	2.10	0.27
	100	1.78	2.50	2.01	0.16
	150	1.68	2.40	1.87	0.16

APPENDIX R

DATASET MET019 GROSVENOR STATION, BOTTOM OF ESCALATOR

Measurement Setup Code: Staff: 21 Reference: -
Drawing: A-4

Vehicle Status: NA

Measurement Date: May 19, 1992

Measurement Time: Start: 11:10:10
End: 11:10:36

Number of Samples: 6

Programmed Sample Interval: 5 sec

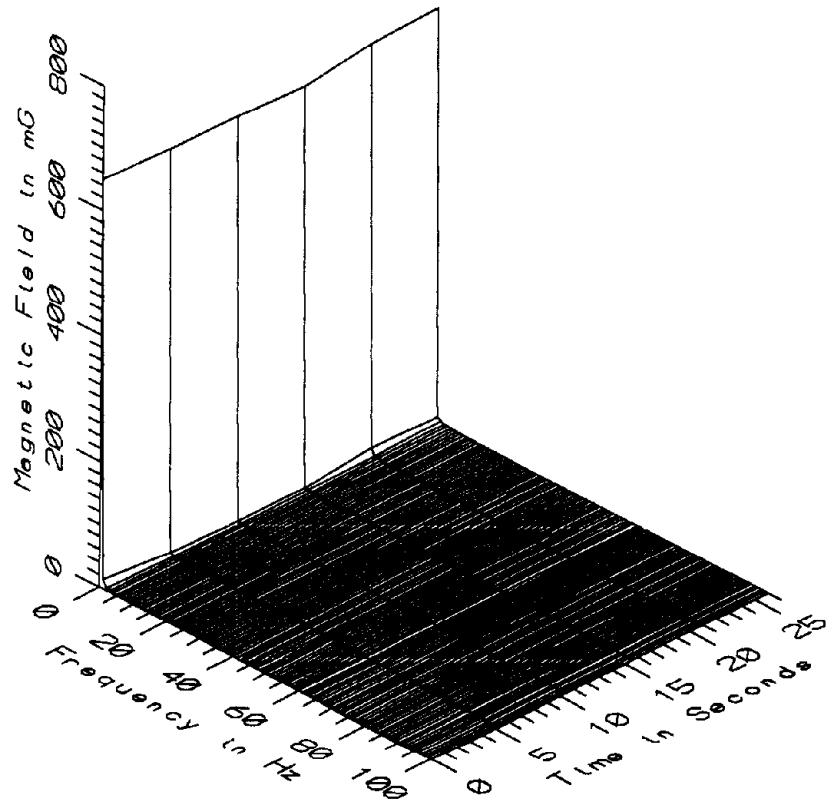
Actual Sample Interval: 5.2 sec

Frequency Spectrum Parameters

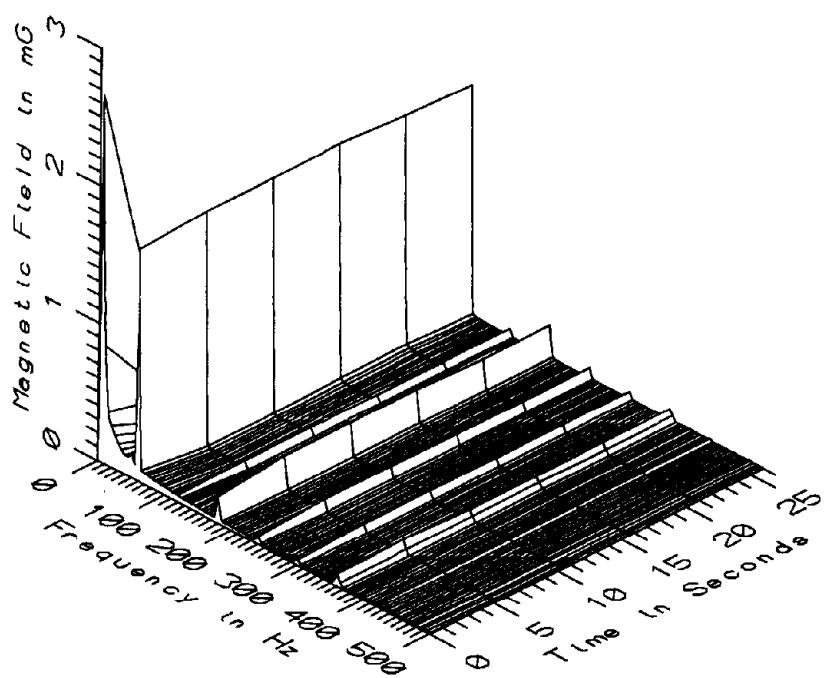
<u>Probe Type:</u>	<u>Wideband</u>	<u>Static</u>
Maximum Frequency (Hz)	2560	100
Minimum Frequency (Hz)	5	0
Spectral Bandwidth (Hz)	5	1

Missing Data: No reference probe

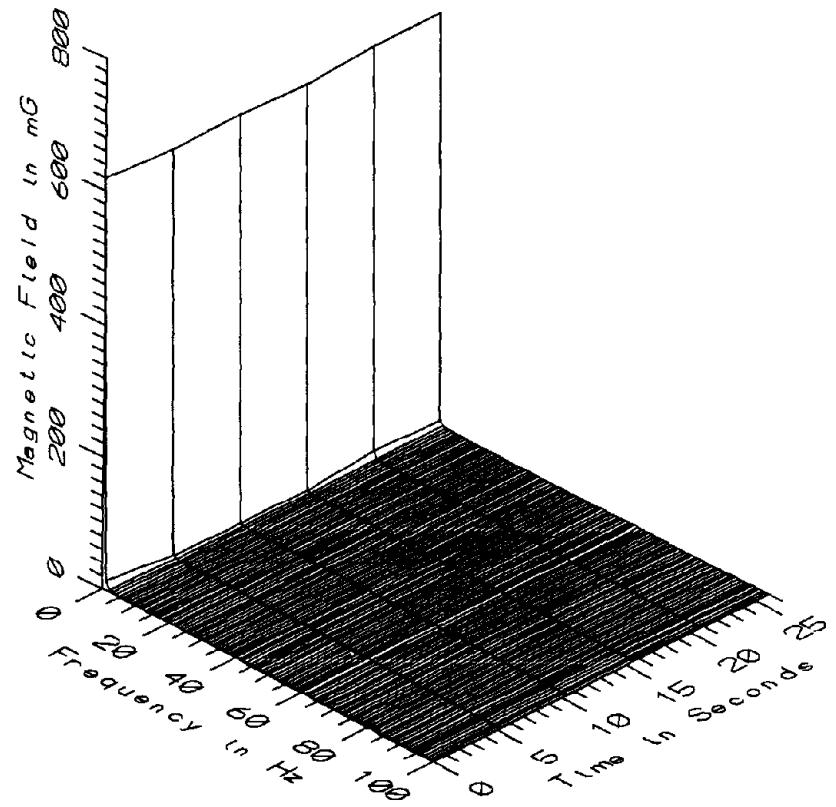
Saturated Data: None



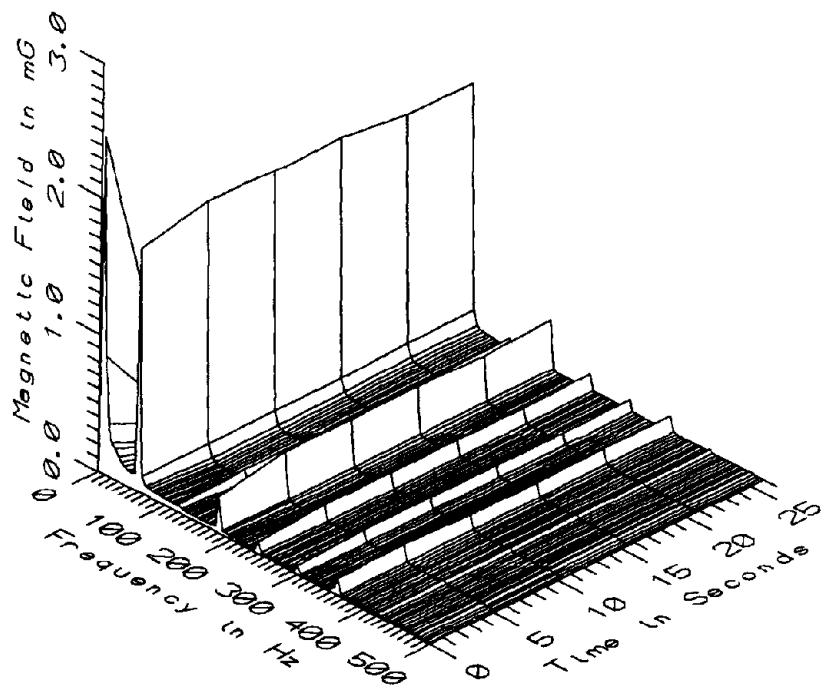
MET019 - 10cm ABOVE FLOOR, BOTTOM OF GROSVENOR STATION ESCALATOR



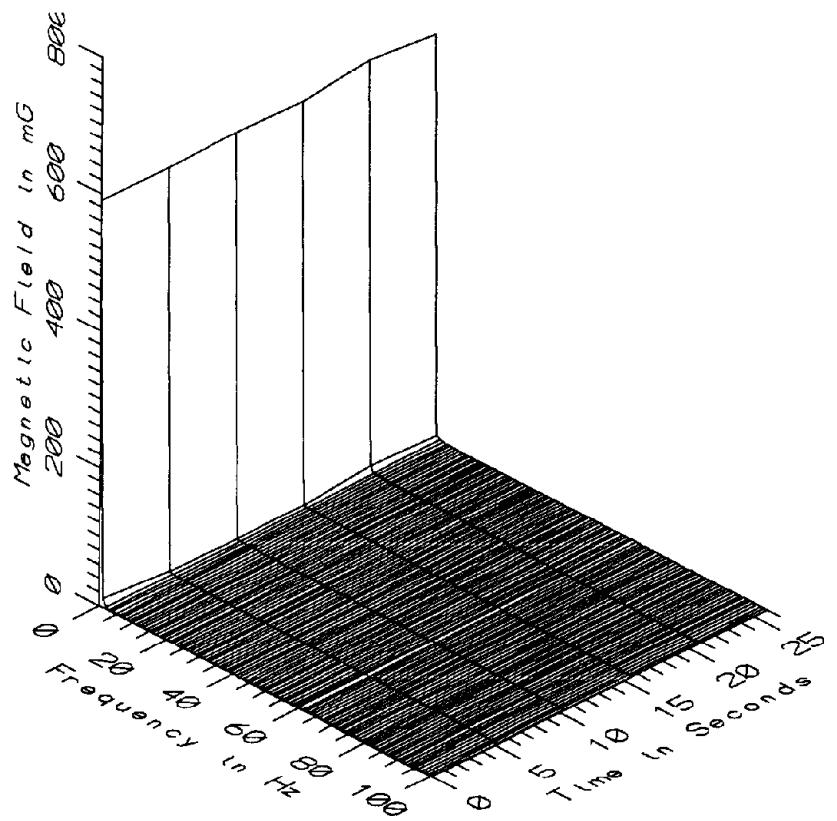
MET019 - 10cm ABOVE FLOOR, BOTTOM OF GROSVENOR STATION ESCALATOR



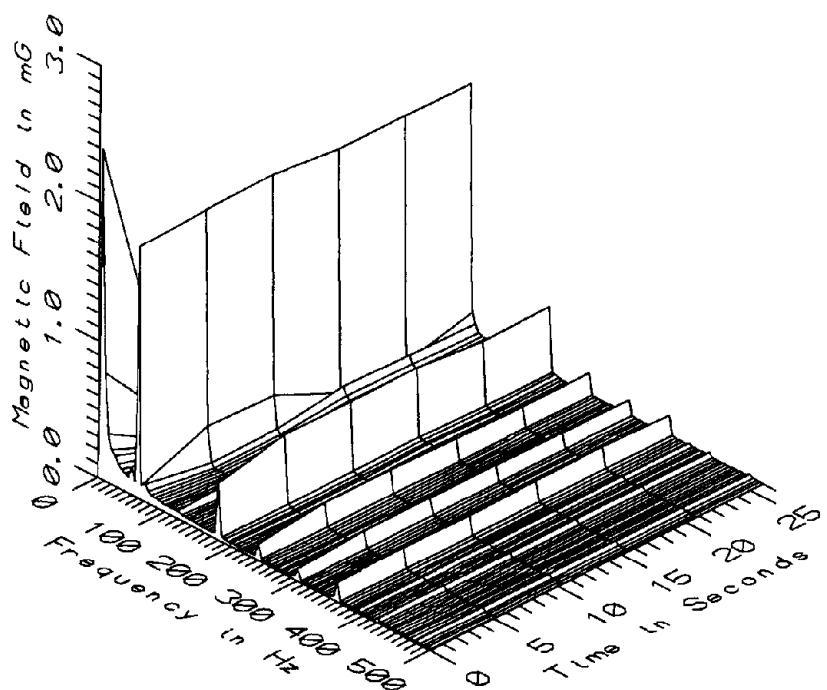
MET019 - 60cm ABOVE FLOOR, BOTTOM OF GROSVENOR STATION ESCALATOR



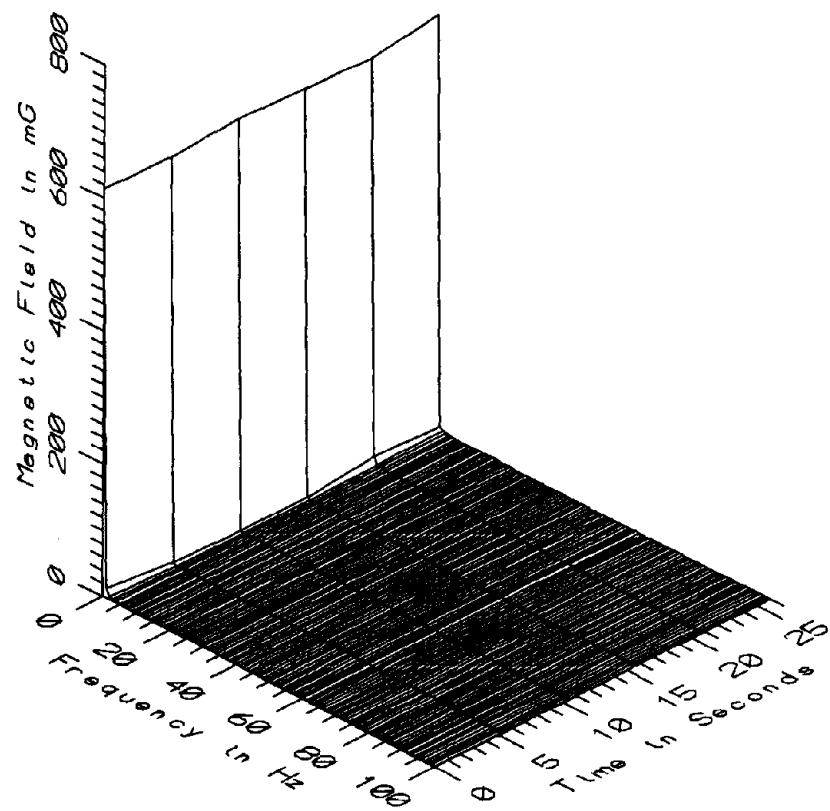
MET019 - 60cm ABOVE FLOOR, BOTTOM OF GROSVENOR STATION ESCALATOR



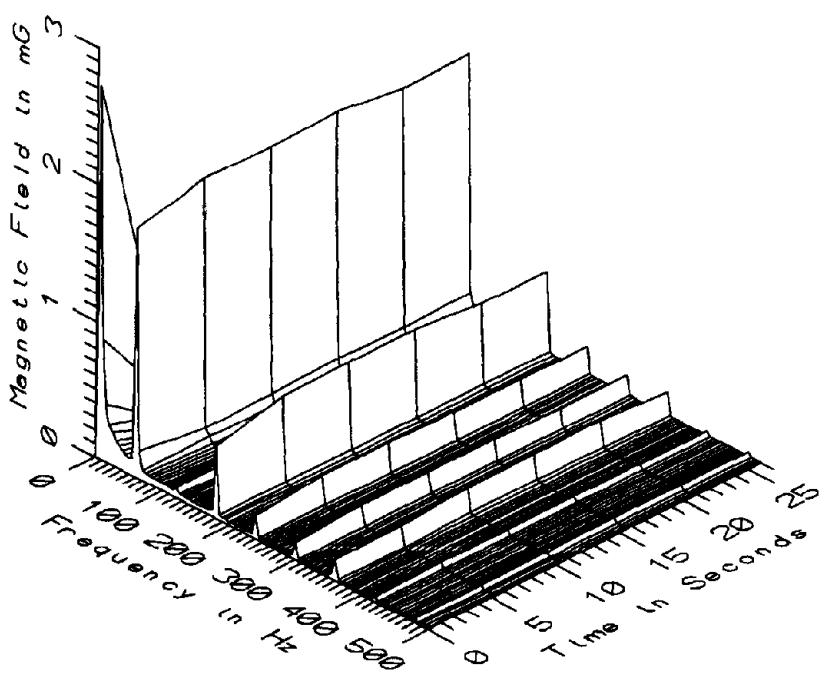
MET019 - 110cm ABOVE FLOOR, BOTTOM OF GROSVENOR STATION ESCALATOR



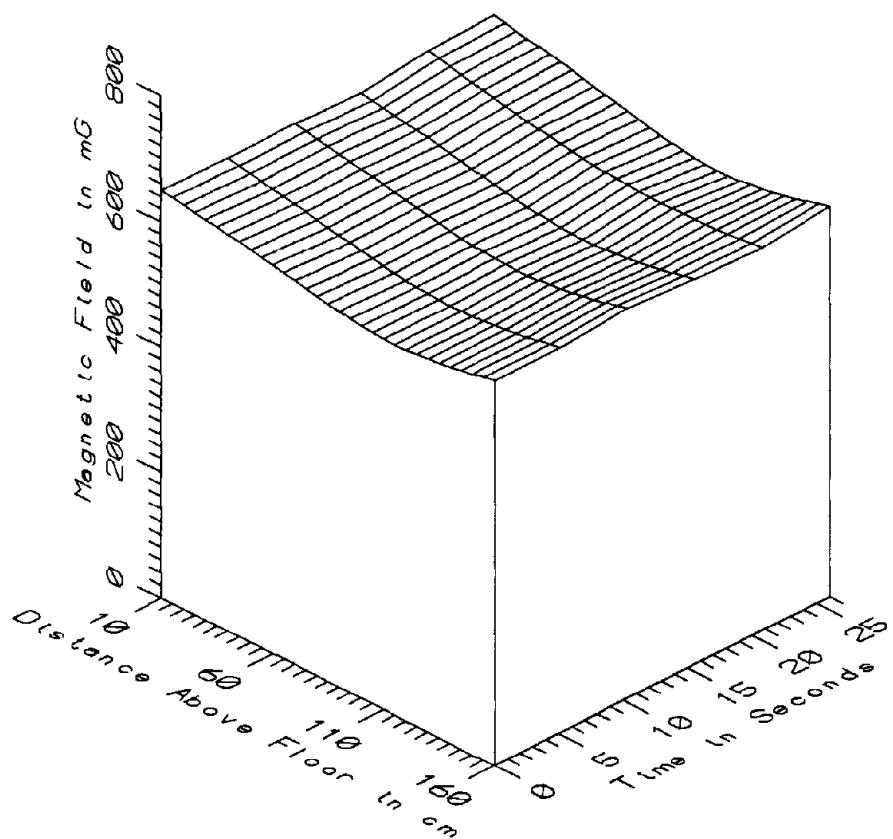
MET019 - 110cm ABOVE FLOOR, BOTTOM OF GROSVENOR STATION ESCALATOR



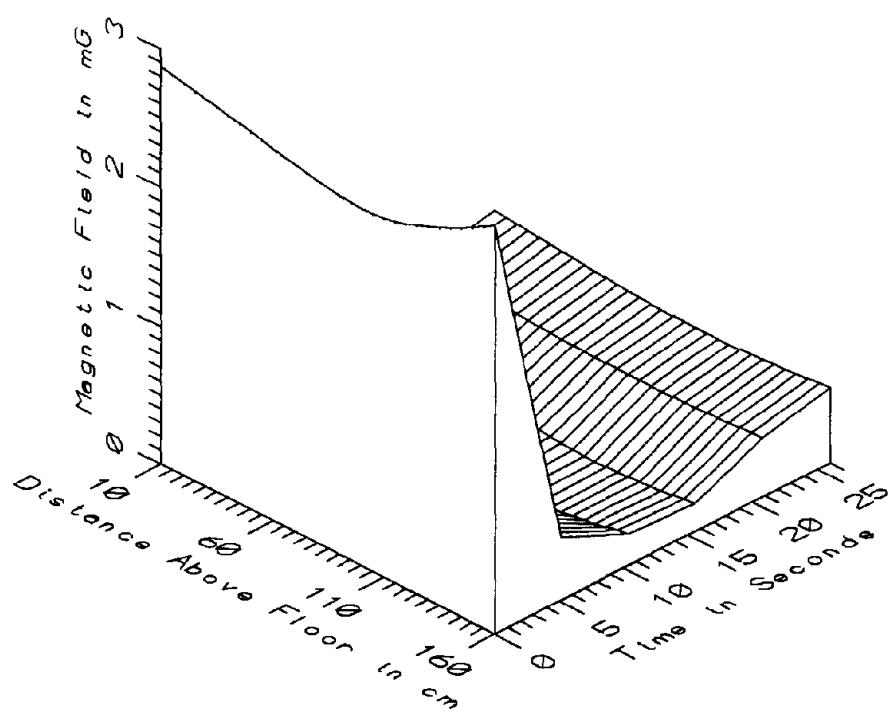
MET019 - 160cm ABOVE FLOOR, BOTTOM OF GROSVENOR STATION ESCALATOR



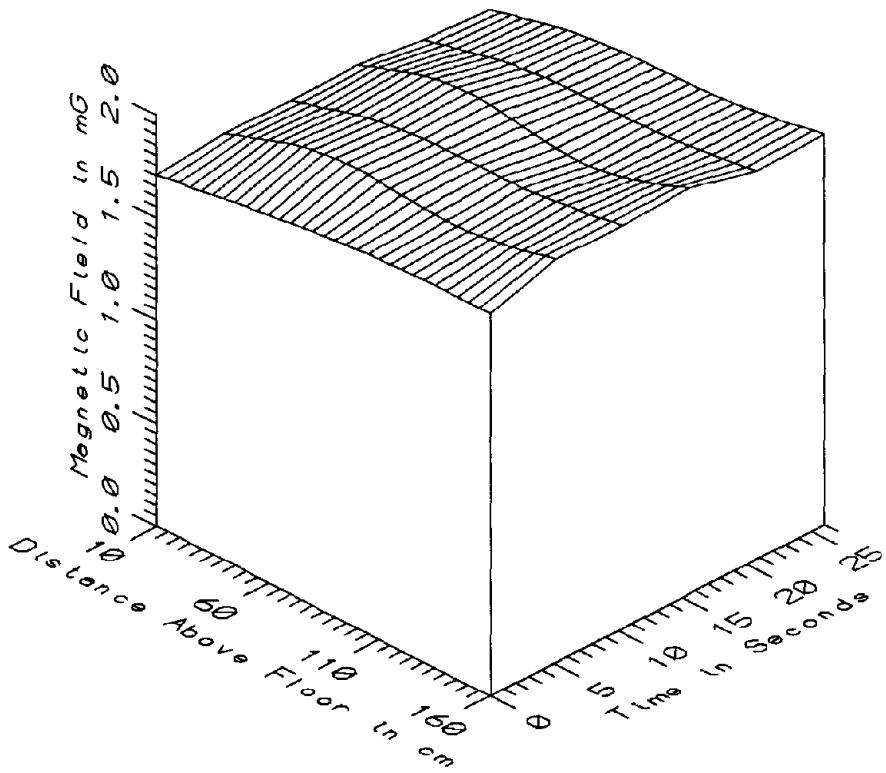
MET019 - 160cm ABOVE FLOOR, BOTTOM OF GROSVENOR STATION ESCALATOR



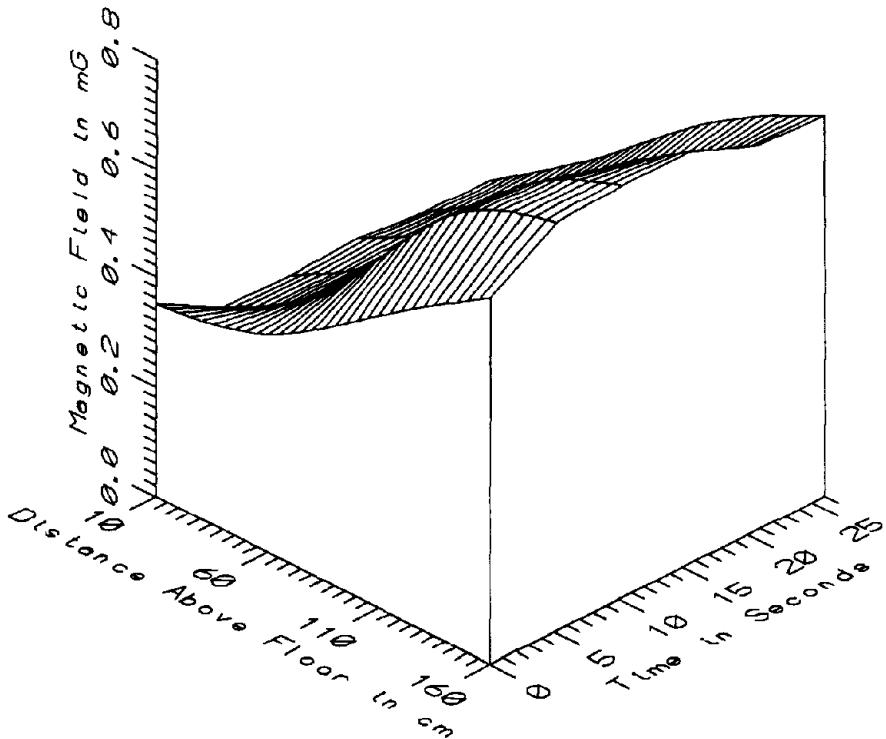
MET019 - BOTTOM OF GROSVENOR STATION ESCALATOR - STATIC



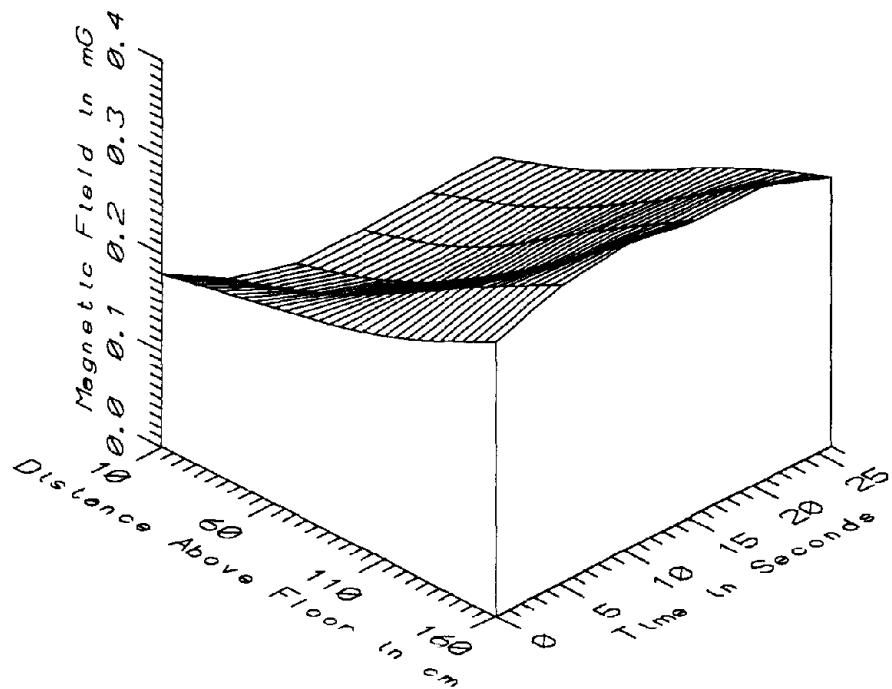
MET019 - BOTTOM OF GROSVENOR STATION ESCALATOR - LOW FREQ, 5-45Hz



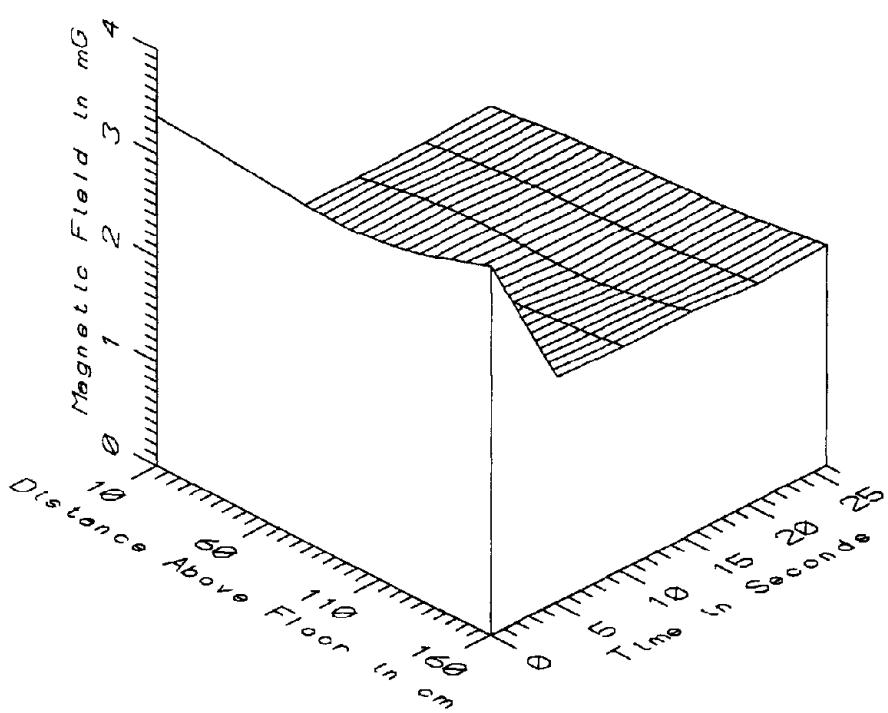
MET019 - BOTTOM OF GROSVENOR STATION ESCALATOR - POWER FREQ, 50-60Hz



MET019 - BOTTOM OF GROSVENOR STATION ESCALATOR - POWER HARM, 65-300Hz



MET019 - BOTTOM OF GROSVENOR STATION ESCALATOR - HIGH FREQ, 305-2560Hz



MET019 - BOTTOM OF GROSVENOR STATION ESCALATOR - ALL FREQ, 5-2560Hz

MET019 - BOTTOM OF ESCALATOR, GROSVENOR STATION							TOTAL OF 6 SAMPLES	
FREQUENCY BAND	HEIGHT ABOVE FLOOR (cm)	MINIMUM MAGNETIC FIELD	MAXIMUM MAGNETIC FIELD	AVERAGE MAGNETIC FIELD	STANDARD DEVIATION	COEFFICIENT OF VARIATION (%)		
STATIC	10	641.79	658.72	649.99	6.42	0.99		
	60	611.36	621.15	617.05	3.95	0.64		
	110	588.16	601.82	592.08	4.99	0.84		
	160	608.97	622.39	615.28	5.07	0.82		
5-45Hz LOW FREQ	10	0.22	2.87	0.83	1.01	122.07		
	60	0.20	2.69	0.74	0.96	129.68		
	110	0.12	2.60	0.69	0.95	136.91		
	160	0.20	2.94	0.80	1.06	132.53		
50-60Hz PWR FREQ	10	1.69	1.75	1.72	0.02	1.37		
	60	1.79	1.89	1.84	0.05	2.53		
	110	1.82	1.88	1.84	0.02	1.34		
	160	1.85	1.96	1.91	0.05	2.45		
65-300Hz PWR HARM	10	0.27	0.35	0.29	0.03	10.47		
	60	0.40	0.42	0.41	0.01	2.33		
	110	0.53	0.65	0.60	0.05	8.09		
	160	0.67	0.76	0.72	0.04	5.00		
305-2560Hz HIGH FREQ	10	0.12	0.18	0.13	0.02	17.39		
	60	0.16	0.20	0.17	0.02	9.64		
	110	0.23	0.25	0.23	0.01	2.73		
	160	0.28	0.32	0.30	0.01	4.86		
5-2560Hz ALL FREQ	10	1.79	3.36	2.07	0.64	30.74		
	60	1.92	3.26	2.16	0.54	24.85		
	110	1.94	3.24	2.19	0.51	23.33		
	160	2.08	3.55	2.36	0.58	24.75		

APPENDIX S

DATASET MET021 GROSVENOR STATION, ON THE ESCALATOR

Measurement Setup Code: Staff: 22,23 Reference: -
Drawing: A-4

Vehicle Status: NA

Measurement Date: May 19, 1992

Measurement Time: Start: 11:15:52
End: 11:17:20

Number of Samples: 13

Programmed Sample Interval: 5 sec

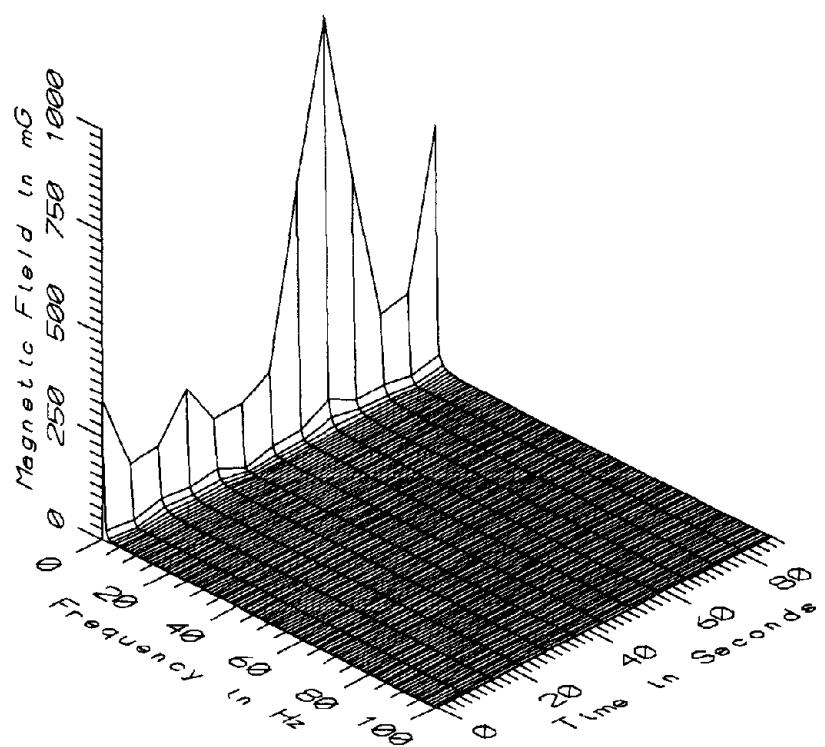
Actual Sample Interval: 7.3 sec

Frequency Spectrum Parameters

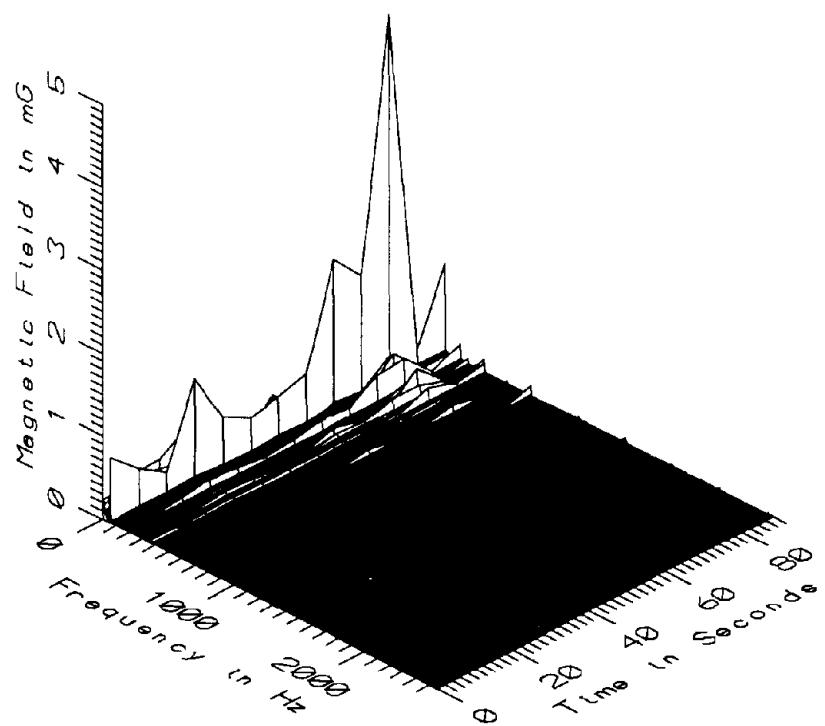
<u>Probe Type:</u>	<u>Wideband</u>	<u>Static</u>
Maximum Frequency (Hz)	2560	100
Minimum Frequency (Hz)	5	0
Spectral Bandwidth (Hz)	5	1

Missing Data: No reference probe

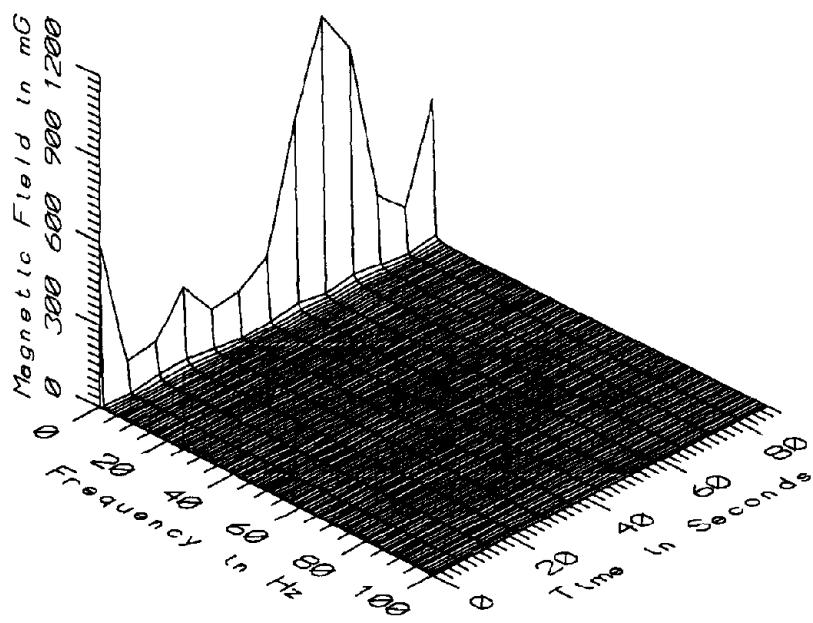
Saturated Data: None



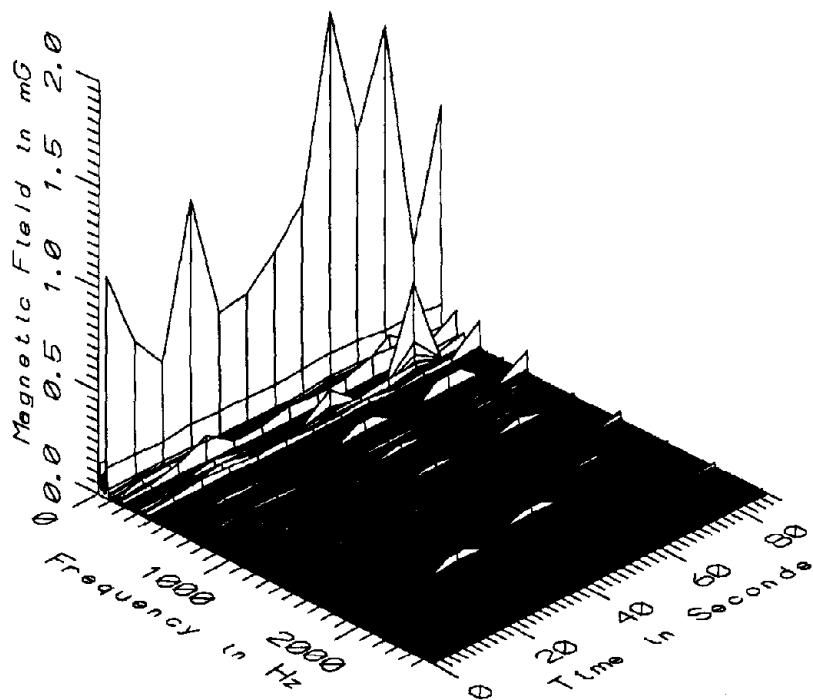
MET021 - 10cm ABOVE STEP, ESCALATOR AT GROSVENOR STATION



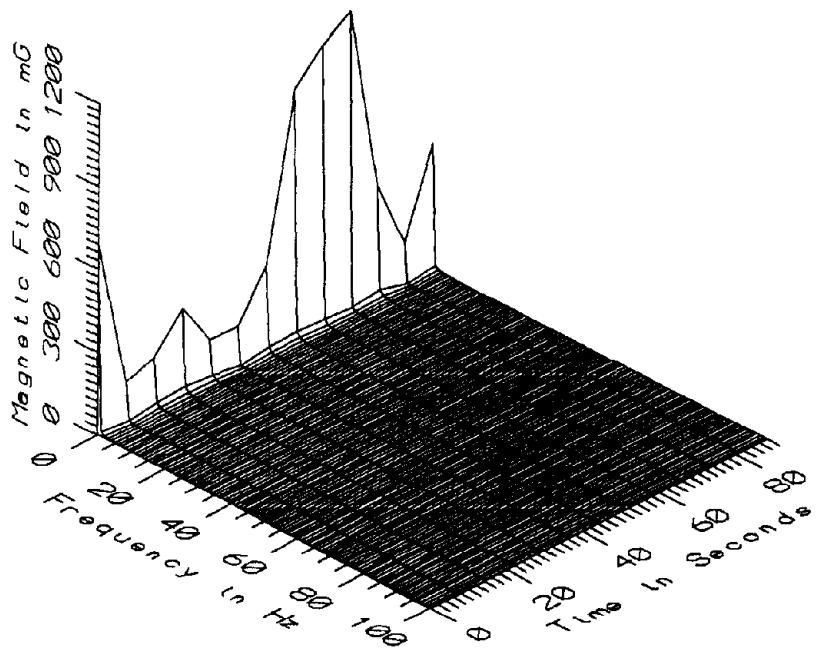
MET021 - 10cm ABOVE STEP, ESCALATOR AT GROSVENOR STATION



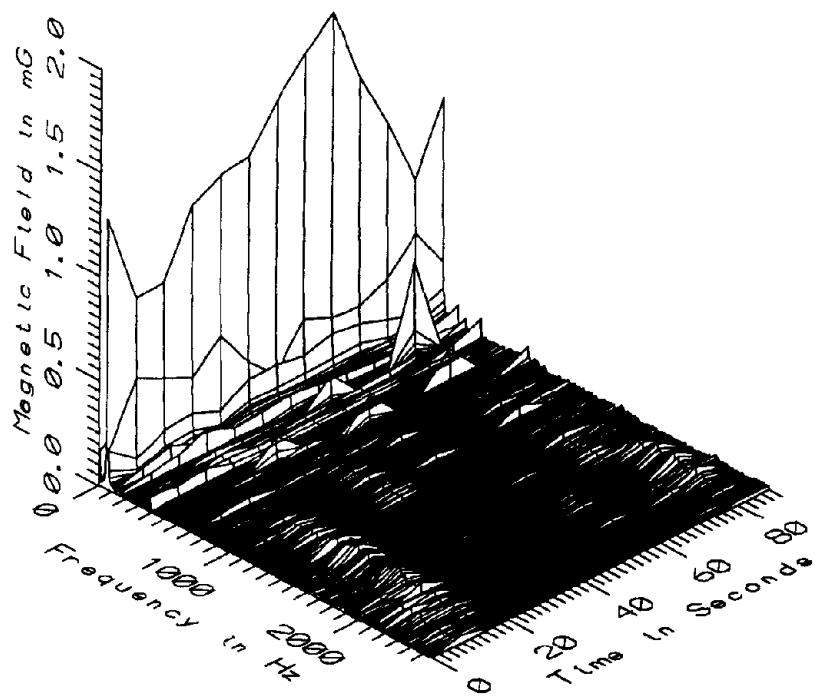
MET021 - 60cm ABOVE STEP, ESCALATOR AT GROSVENOR STATION



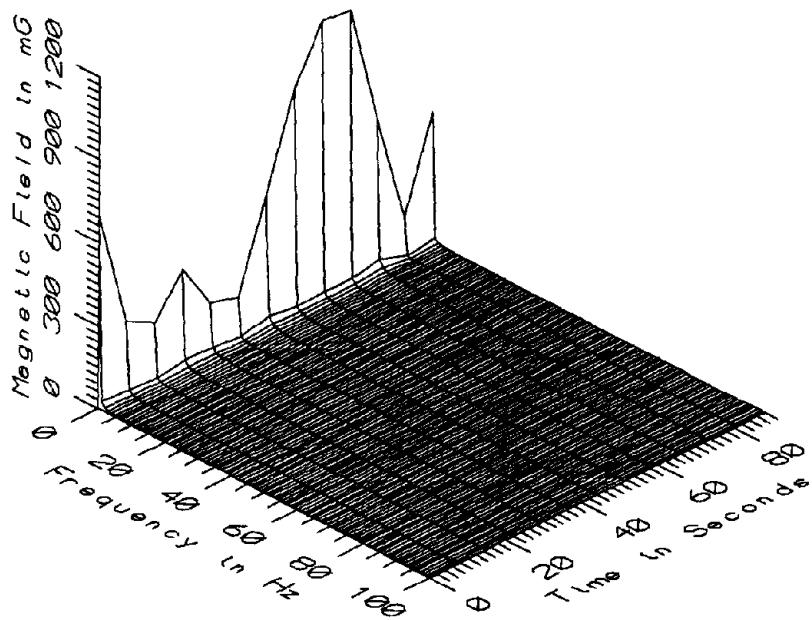
MET021 - 60cm ABOVE STEP, ESCALATOR AT GROSVENOR STATION



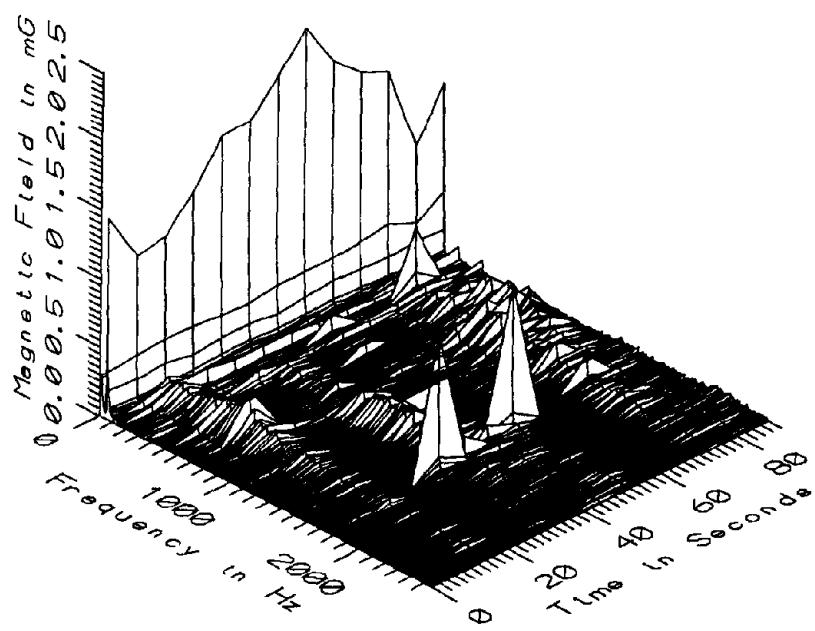
MET021 - 110cm ABOVE STEP, ESCALATOR AT GROSVENOR STATION



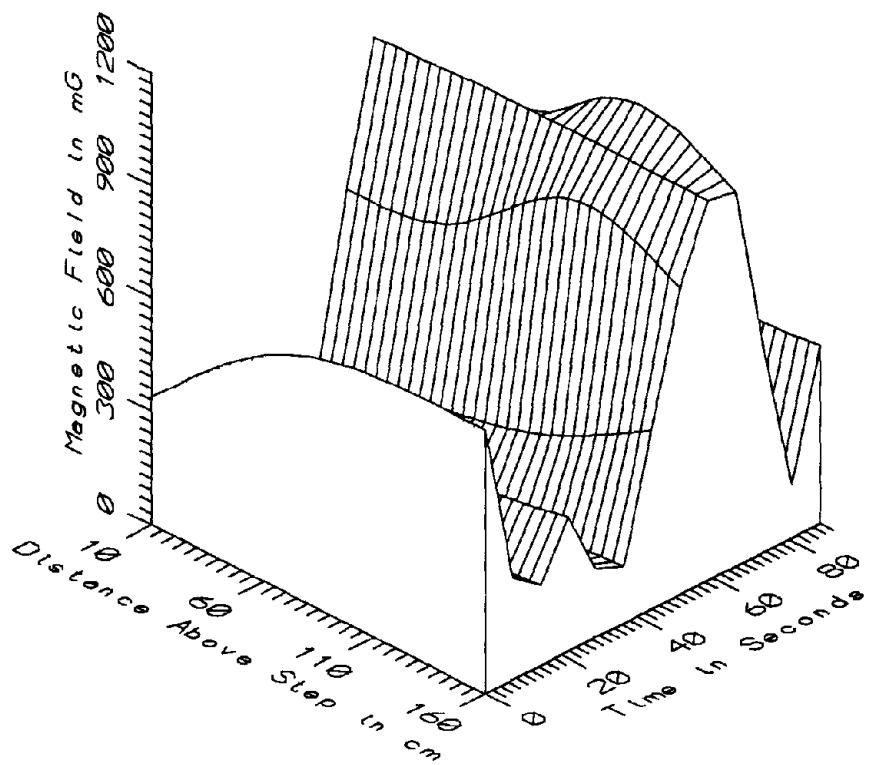
MET021 - 110cm ABOVE STEP, ESCALATOR AT GROSVENOR STATION



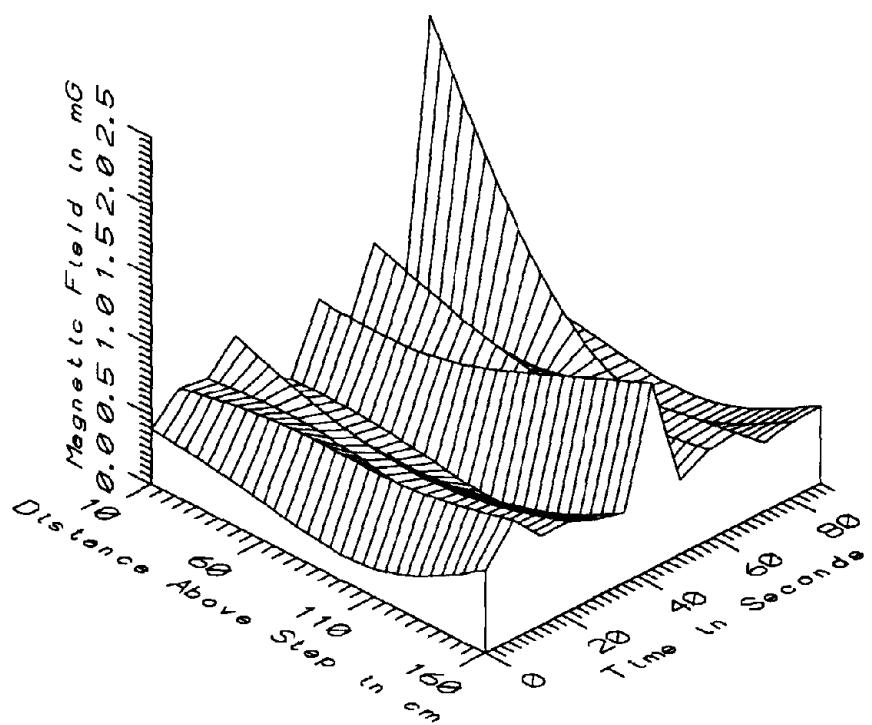
MET021 - 160cm ABOVE STEP, ESCALATOR AT GROSVENOR STATION



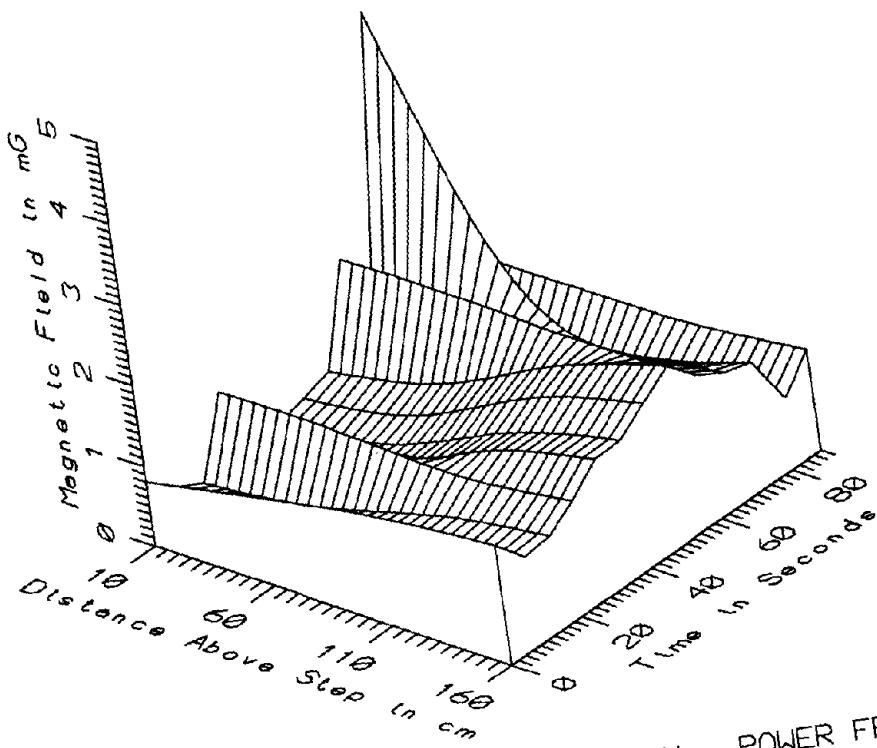
MET021 - 160cm ABOVE STEP, ESCALATOR AT GROSVENOR STATION



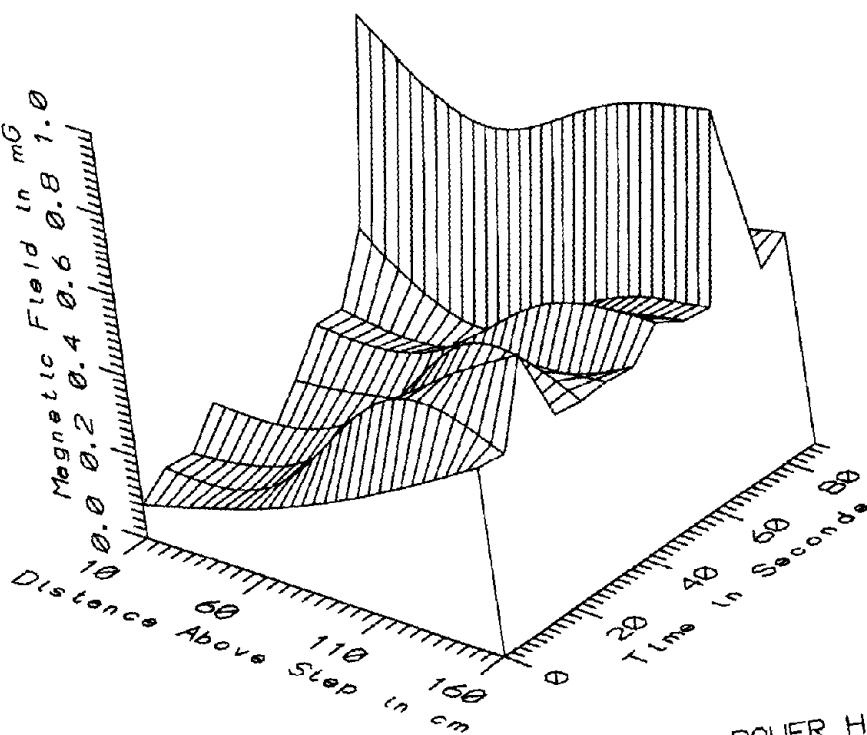
MET021 - ESCALATOR AT GROSVENOR STATION - STATIC



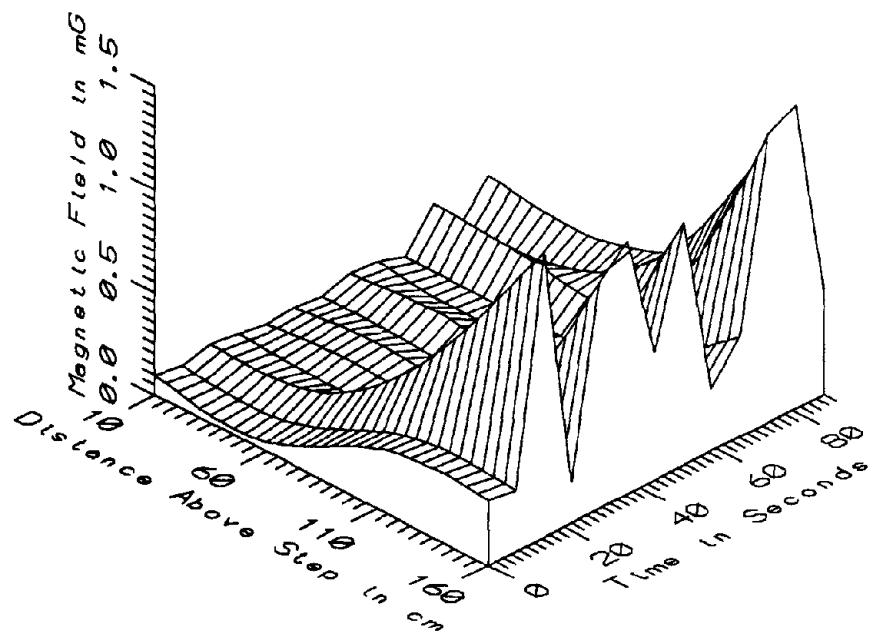
MET021 - ESCALATOR AT GROSVENOR STATION - LOW FREQ, 5-45Hz



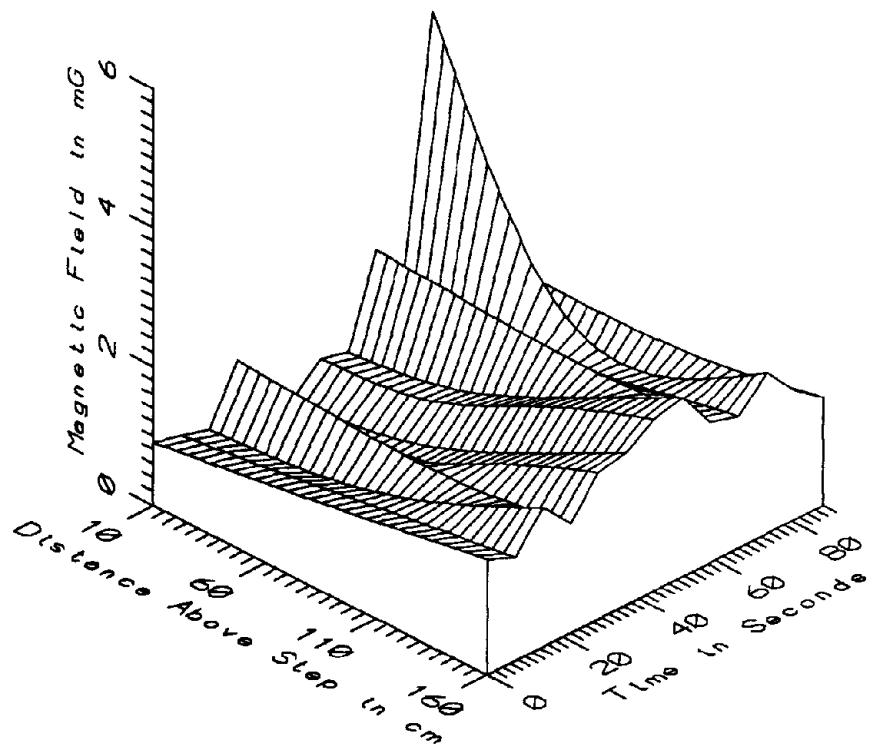
MET021 - ESCALATOR AT GROSVENOR STATION - POWER FREQ. 50-60Hz



MET021 - ESCALATOR AT GROSVENOR STATION - POWER HARM. 65-300Hz



MET021 - ESCALATOR AT GROSVENOR STATION - HIGH FREQ, 305-2560Hz



MET021 - ESCALATOR AT GROSVENOR STATION - ALL FREQ, 5-2560Hz

MET021 - ON ESCALATOR, GROSSENOOR STATION						TOTAL OF 13 SAMPLES	
FREQUENCY BAND	HEIGHT ABOVE STEP (cm)	MINIMUM MAGNETIC FIELD	MAXIMUM MAGNETIC FIELD	AVERAGE MAGNETIC FIELD	STANDARD DEVIATION	Coefficient of Variation (%)	
STATIC	10	148.19	996.22	356.64	262.65	73.65	
	60	117.78	1009.35	398.03	298.68	75.04	
	110	141.30	1089.70	455.26	350.49	76.99	
	160	142.83	1006.46	484.23	308.10	63.63	
5-45Hz	10	0.25	2.36	0.64	0.55	86.54	
	60	0.21	0.90	0.46	0.23	49.64	
	110	0.14	1.00	0.41	0.25	59.09	
	160	0.50	1.34	0.66	0.23	33.90	
50-60Hz	10	0.31	4.43	1.09	1.10	101.08	
	60	0.48	1.82	0.98	0.41	41.97	
	110	0.80	1.77	1.25	0.29	23.26	
	160	0.88	2.15	1.51	0.35	23.54	
PWR FREQ	10	0.05	0.85	0.21	0.21	97.84	
	60	0.16	0.68	0.23	0.14	58.77	
	110	0.30	0.82	0.45	0.13	29.08	
	160	0.45	0.91	0.52	0.13	25.00	
305-2560Hz	10	0.06	0.26	0.11	0.06	57.58	
	60	0.05	0.21	0.11	0.06	52.16	
	110	0.11	0.60	0.27	0.16	56.93	
	160	0.20	1.47	0.80	0.49	60.90	
ALL FREQ	10	0.51	5.09	1.32	1.22	92.45	
	60	0.59	1.98	1.14	0.43	37.69	
	110	1.11	1.91	1.46	0.24	16.47	
	160	1.50	2.56	1.98	0.34	17.38	

APPENDIX T

DATASET MET022 GROSVENOR STATION, NORTH BOUND SIDE OF PLATFORM

Measurement Setup Code: Staff: 24 Reference: 25
Drawing: A-4

Vehicle Status: NA

Measurement Date: May 19, 1992

Measurement Time: Start: 11:19:59
End: 11:20:55

Number of Samples: 11

Programmed Sample Interval: 5 sec

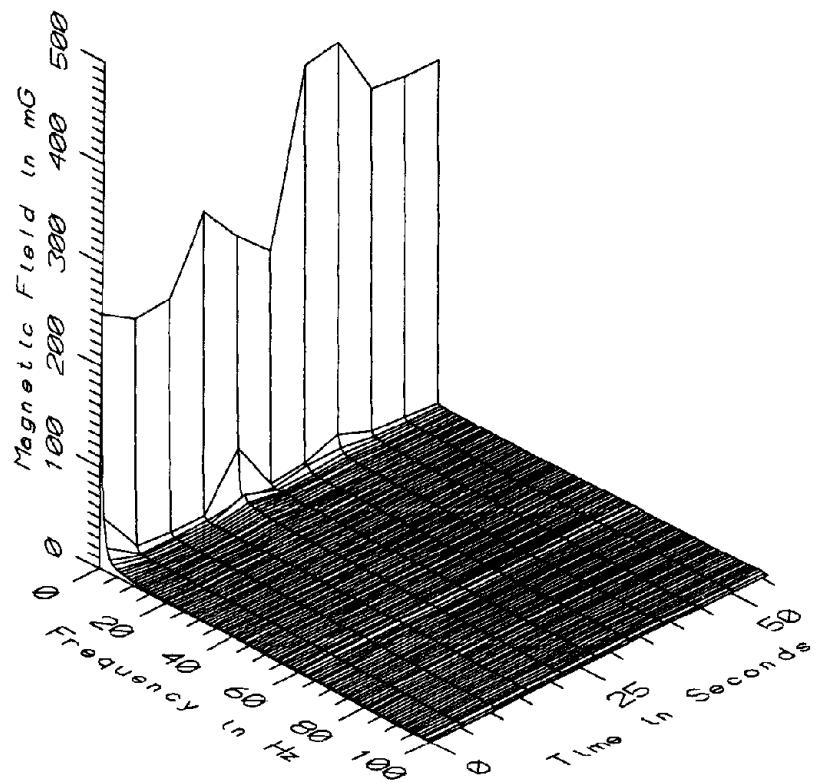
Actual Sample Interval: 5.6 sec

Frequency Spectrum Parameters

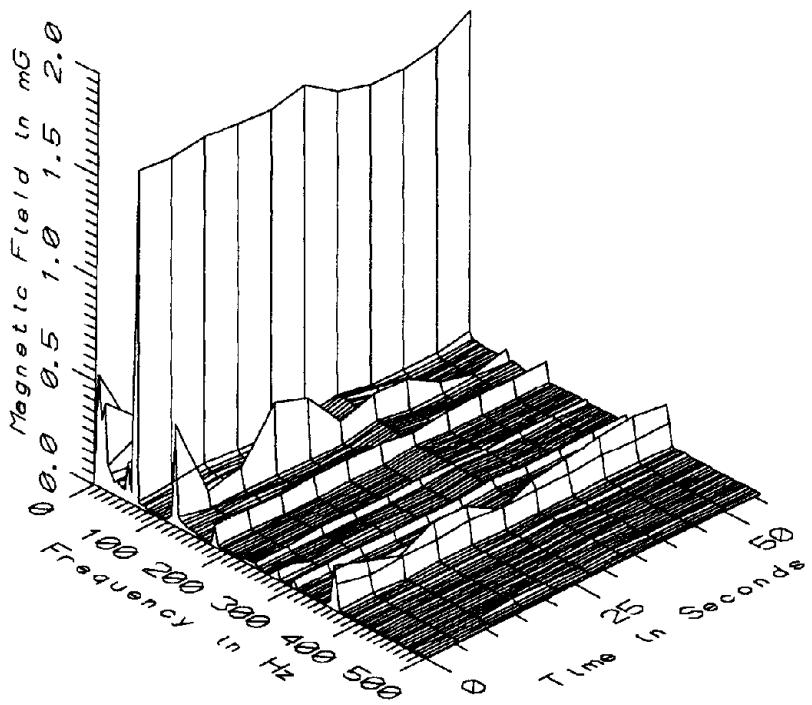
<u>Probe Type:</u>	<u>Wideband</u>	<u>Static</u>
Maximum Frequency (Hz)	2560	100
Minimum Frequency (Hz)	5	0
Spectral Bandwidth (Hz)	5	1

Missing Data: Wideband data from the reference probe

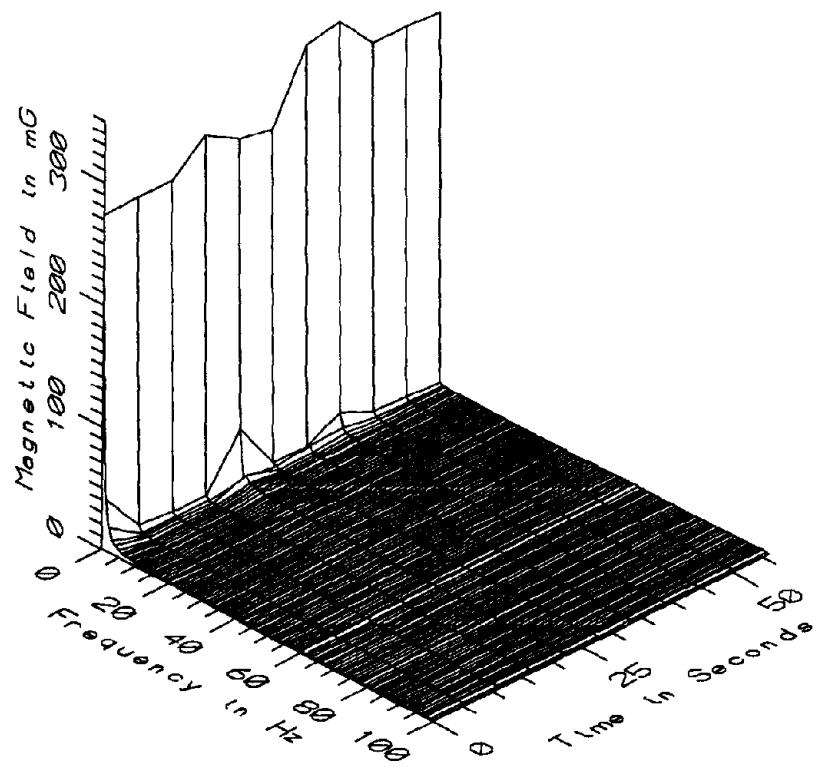
Saturated Data: None



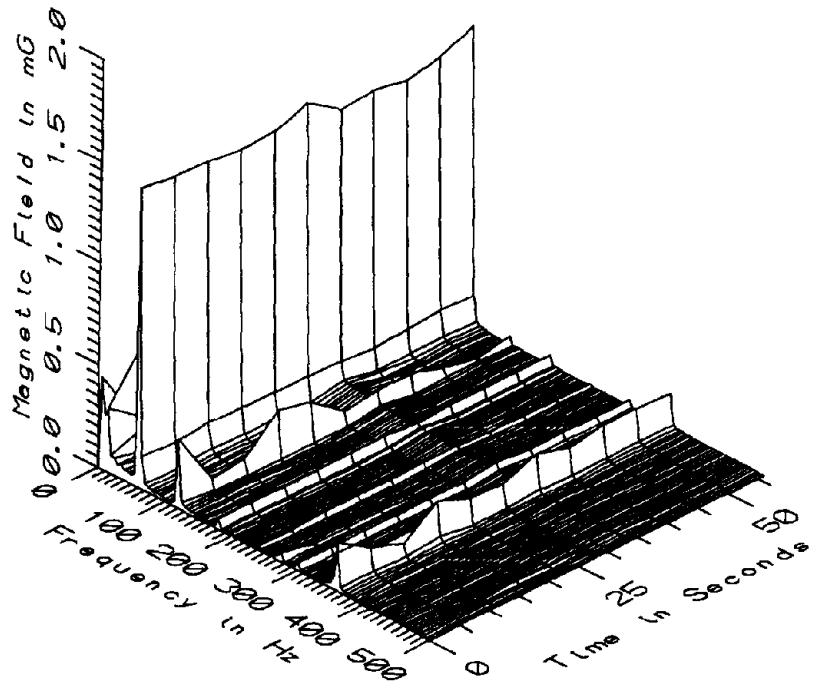
MET022 - 10cm ABOVE FLOOR, CENTER OF PLATFORM AT SAFETY LINE



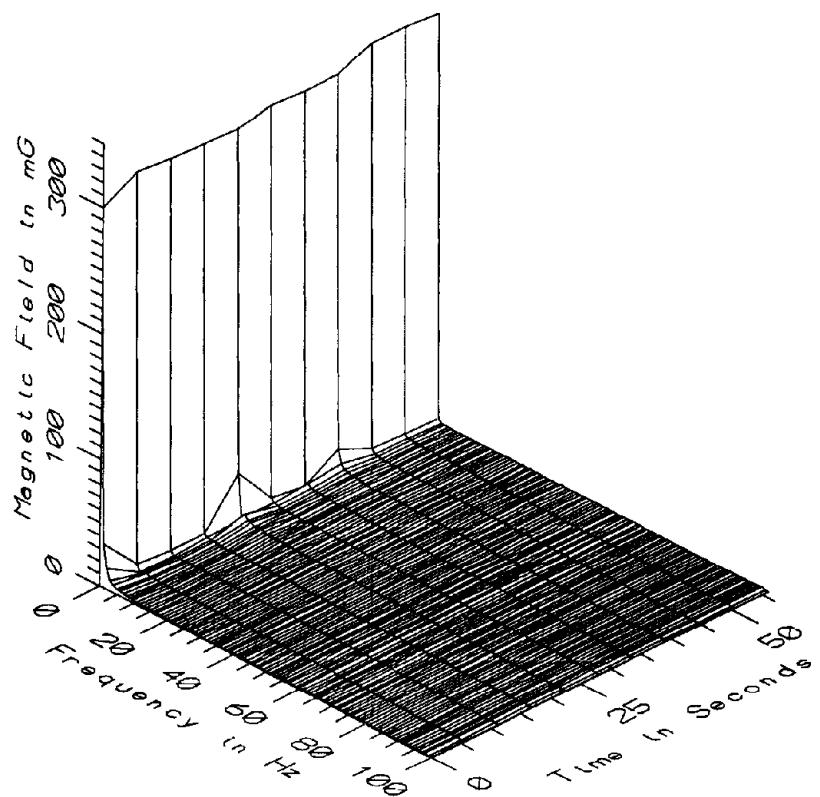
MET022 - 10cm ABOVE FLOOR, CENTER OF PLATFORM AT SAFETY LINE



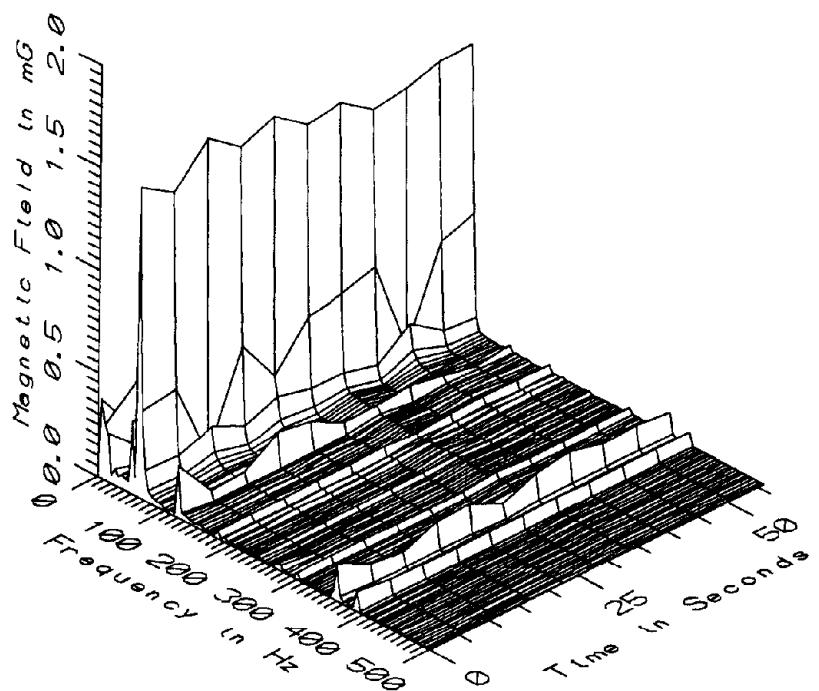
MET022 - 60cm ABOVE FLOOR, CENTER OF PLATFORM AT SAFETY LINE



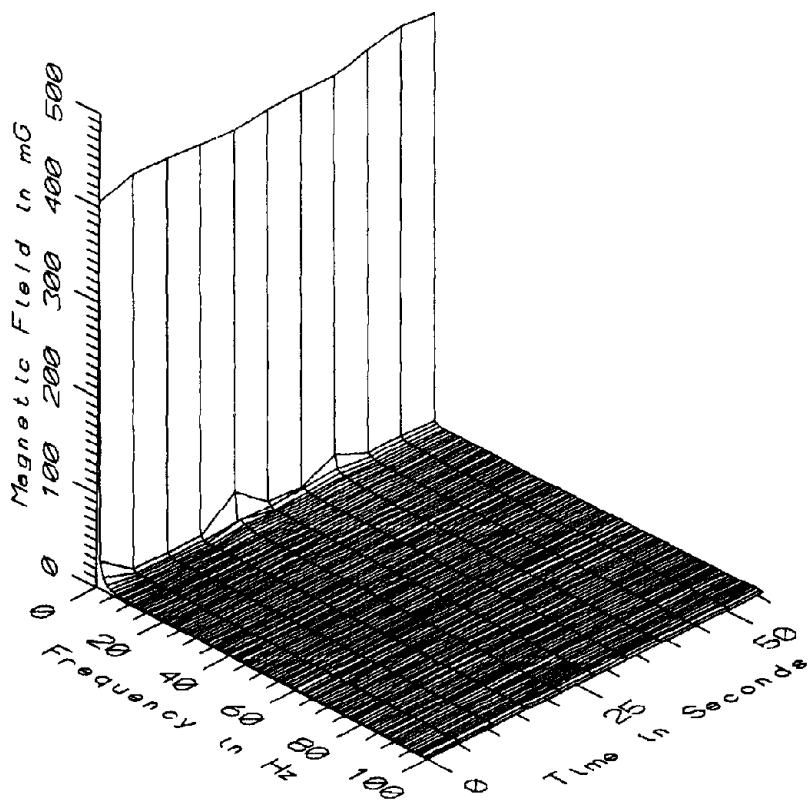
MET022 - 60cm ABOVE FLOOR, CENTER OF PLATFORM AT SAFETY LINE



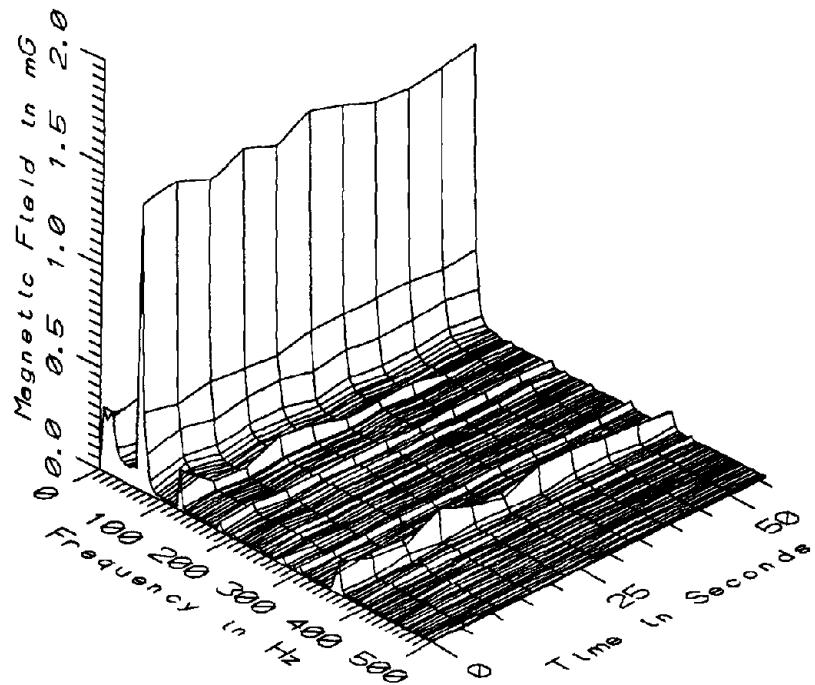
MET022 - 110cm ABOVE FLOOR, CENTER OF PLATFORM AT SAFETY LINE



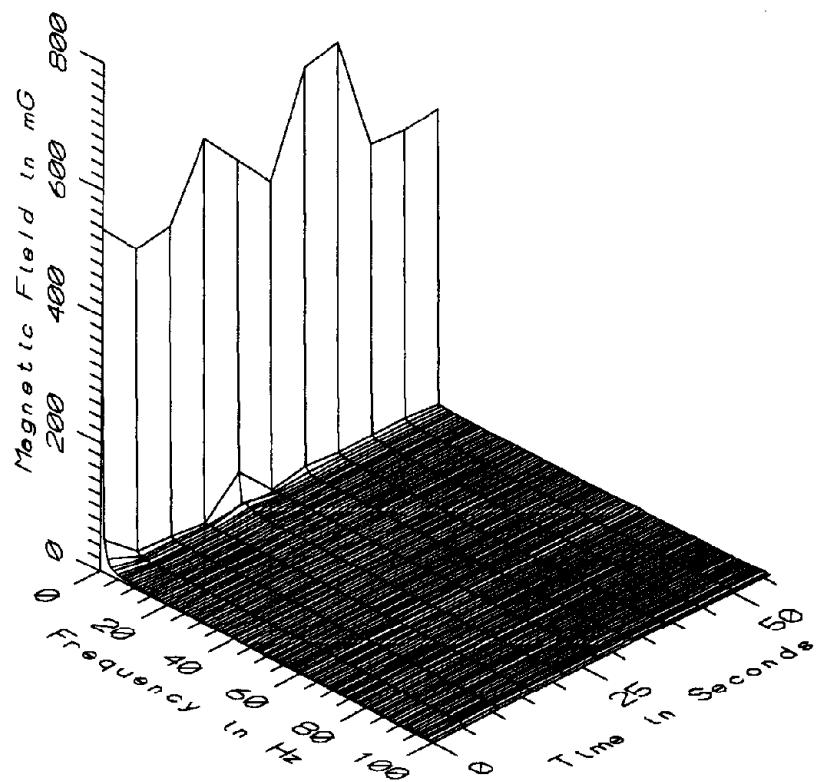
MET022 - 110cm ABOVE FLOOR, CENTER OF PLATFORM AT SAFETY LINE



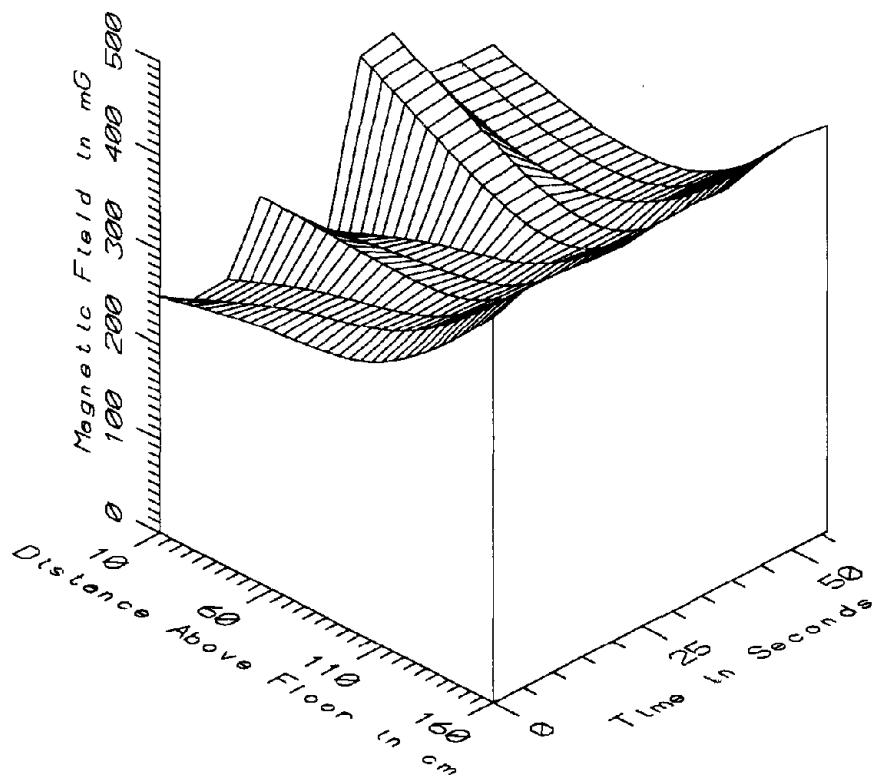
MET022 - 160cm ABOVE FLOOR, CENTER OF PLATFORM AT SAFETY LINE



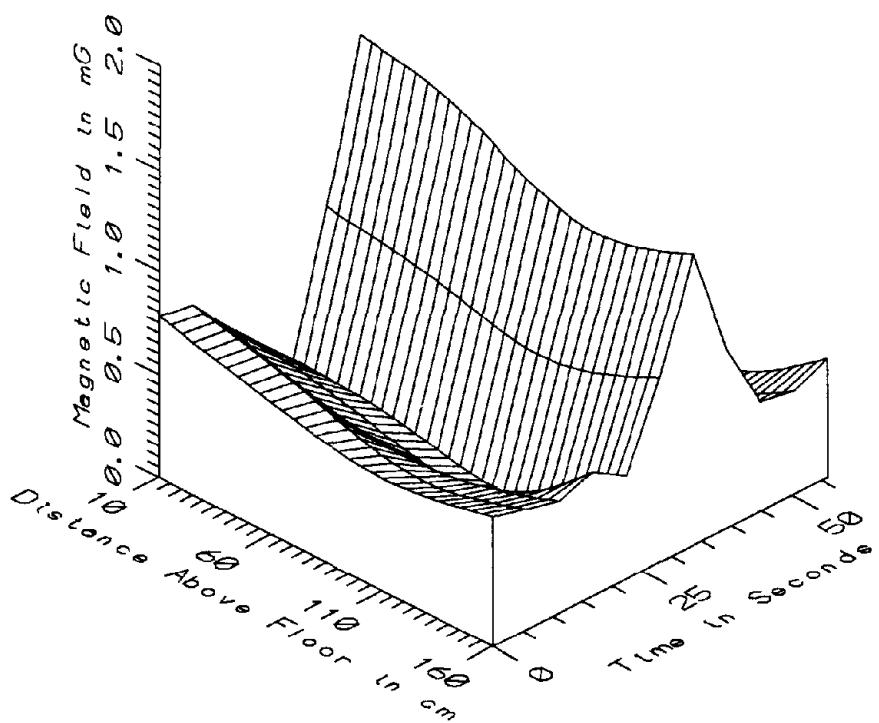
MET022 - 160cm ABOVE FLOOR, CENTER OF PLATFORM AT SAFETY LINE



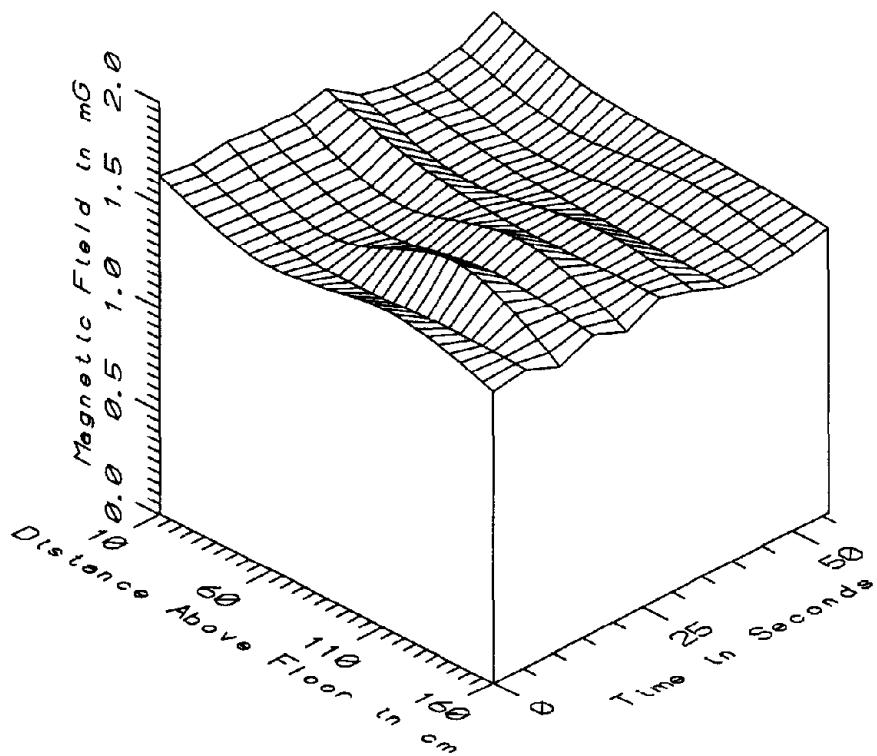
MET022 - REFERENCE PROBE - AT SAFETY LINE, NORTH BOUND SIDE



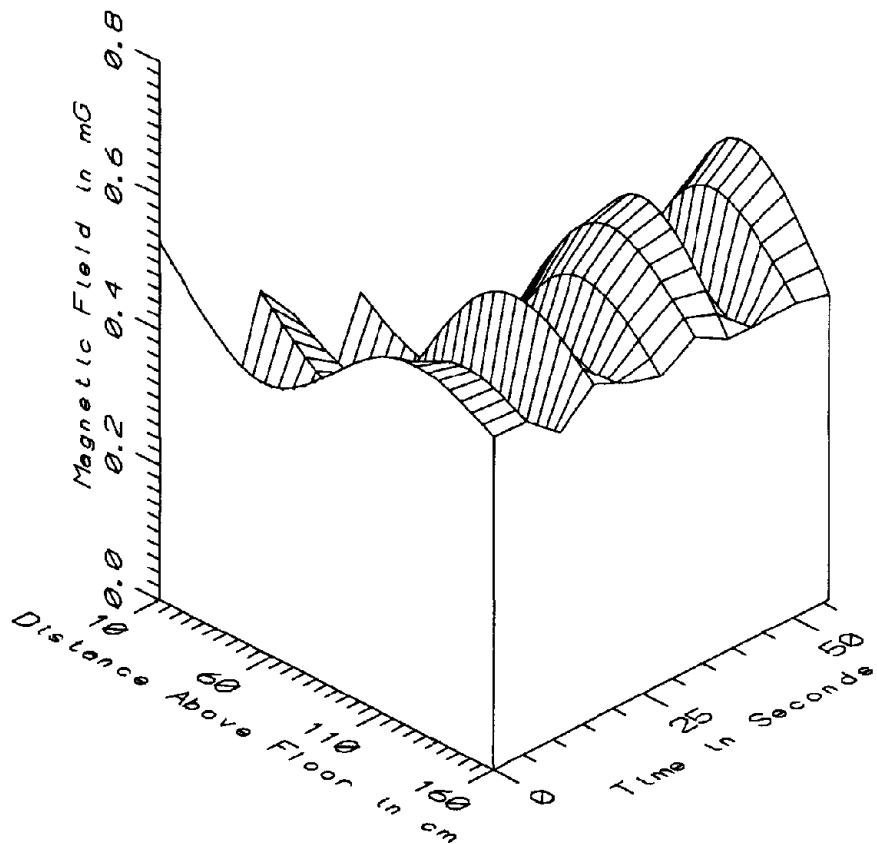
MET022 - CENTER OF PLATFORM AT SAFETY LINE - STATIC



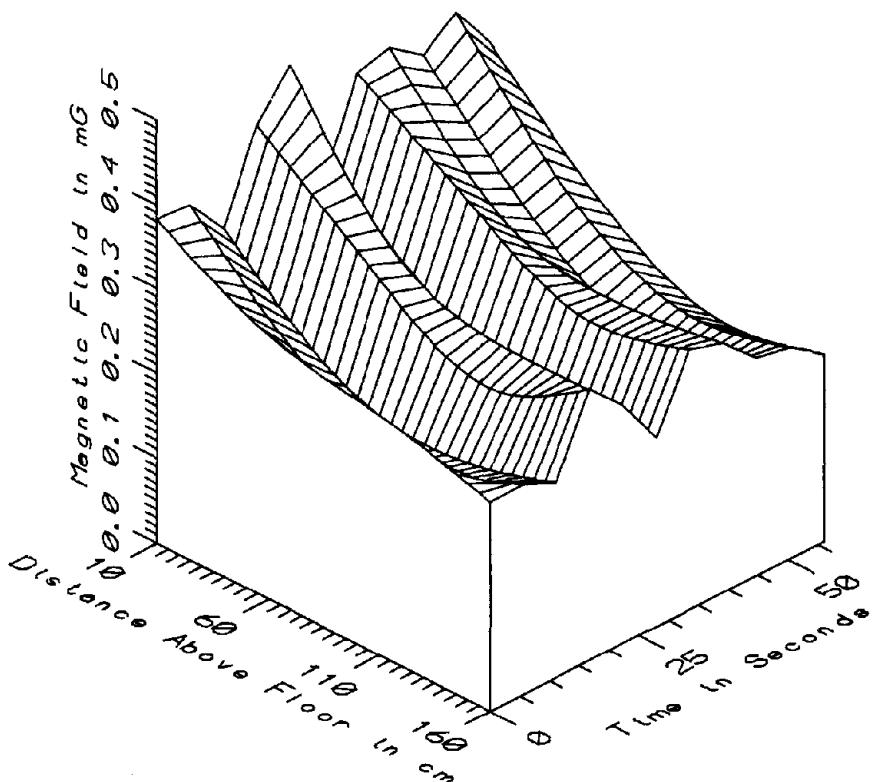
MET022 - CENTER OF PLATFORM AT SAFETY LINE - LOW FREQ. 5-45Hz



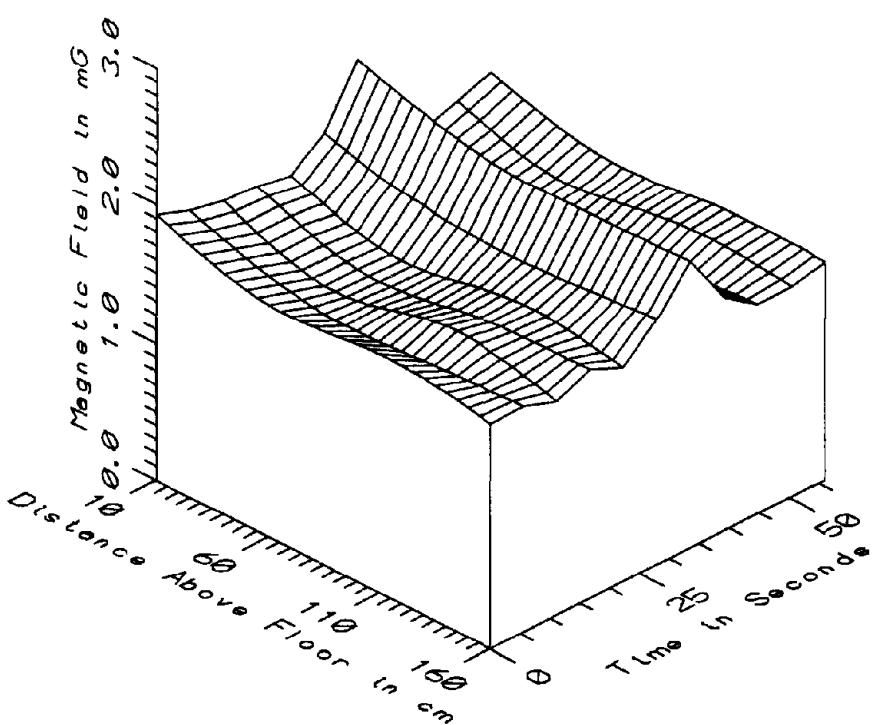
MET022 - CENTER OF PLATFORM AT SAFETY LINE - POWER FREQ, 50-60Hz



MET022 - CENTER OF PLATFORM AT SAFETY LINE - POWER HARM, 65-300Hz



MET022 - CENTER OF PLATFORM AT SAFETY LINE - HIGH FREQ, 305-2560Hz



MET022 - CENTER OF PLATFORM AT SAFETY LINE - ALL FREQ, 5-2560Hz

MET022 - CENTER OF GROSVENOR PLATFORM, N. BOUND SIDE				TOTAL OF 11 SAMPLES		
FREQUENCY BAND	HEIGHT ABOVE FLOOR (cm)	MINIMUM MAGNETIC FIELD	MAXIMUM MAGNETIC FIELD	AVERAGE MAGNETIC FIELD (mG)	STANDARD DEVIATION (mG)	Coefficient of Variation (%)
STATIC	10	230.25	405.52	303.56	66.21	21.81
	60	273.69	336.83	296.76	22.98	7.74
	110	300.04	325.96	315.15	7.56	2.40
	160	405.62	434.30	419.36	8.39	2.00
5-45Hz LOW FREQ	10	0.22	1.66	0.69	0.42	60.68
	60	0.19	1.52	0.56	0.39	69.46
	110	0.09	1.28	0.46	0.34	75.01
	160	0.50	1.41	0.69	0.27	39.50
50-60Hz PWR FREQ	10	1.49	1.65	1.59	0.06	3.76
	60	1.36	1.49	1.43	0.04	2.82
	110	1.36	1.62	1.47	0.07	5.05
	160	1.32	1.46	1.39	0.04	3.16
65-300Hz PWR HARM	10	0.12	0.53	0.25	0.13	51.08
	60	0.17	0.40	0.24	0.07	30.70
	110	0.26	0.59	0.48	0.12	24.38
	160	0.45	0.50	0.47	0.02	3.74
305-2560Hz HIGH FREQ	10	0.33	0.49	0.41	0.05	12.17
	60	0.22	0.35	0.29	0.04	13.03
	110	0.20	0.28	0.24	0.04	15.65
	160	0.22	0.32	0.26	0.03	13.06
5-2560Hz ALL FREQ	10	1.57	2.33	1.84	0.20	10.82
	60	1.42	2.11	1.61	0.19	11.66
	110	1.45	2.05	1.67	0.15	9.01
	160	1.52	2.08	1.66	0.16	9.64

APPENDIX U

**DATASET MET024
GROSVENOR STATION, NORTH BOUND SIDE OF PLATFORM**

Measurement Setup Code: Staff: 24 Reference: 25
Drawing: A-4

Vehicle Status: NA

Measurement Date: May 19, 1992

Measurement Time: Start: 11:24:16
End: 11:25:12

Number of Samples: 10

Programmed Sample Interval: 5 sec

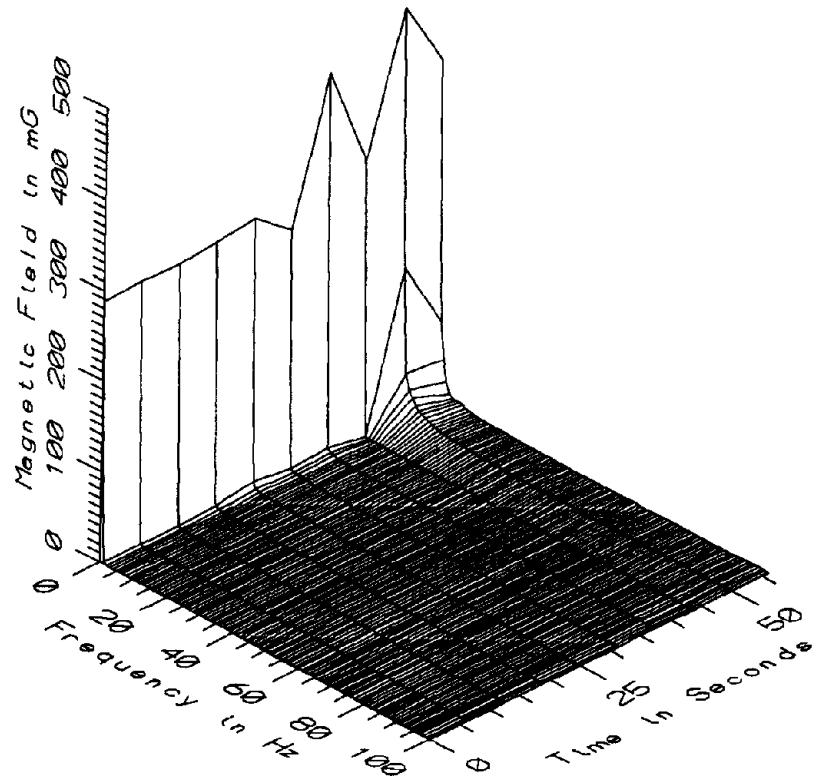
Actual Sample Interval: 6.2 sec

Frequency Spectrum Parameters

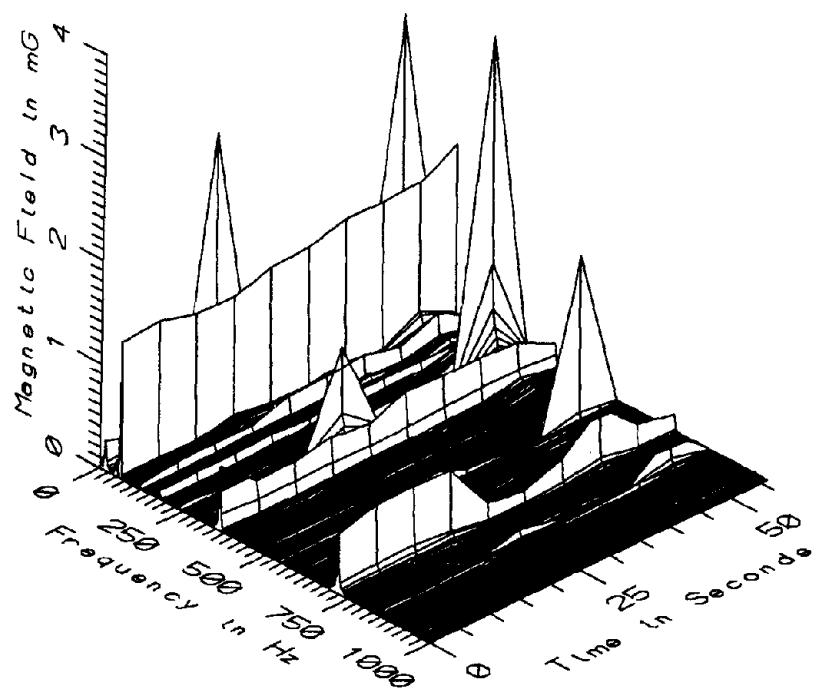
<u>Probe Type:</u>	<u>Wideband</u>	<u>Static</u>
Maximum Frequency (Hz)	2560	100
Minimum Frequency (Hz)	5	0
Spectral Bandwidth (Hz)	5	1

Missing Data: Wideband data from the reference probe

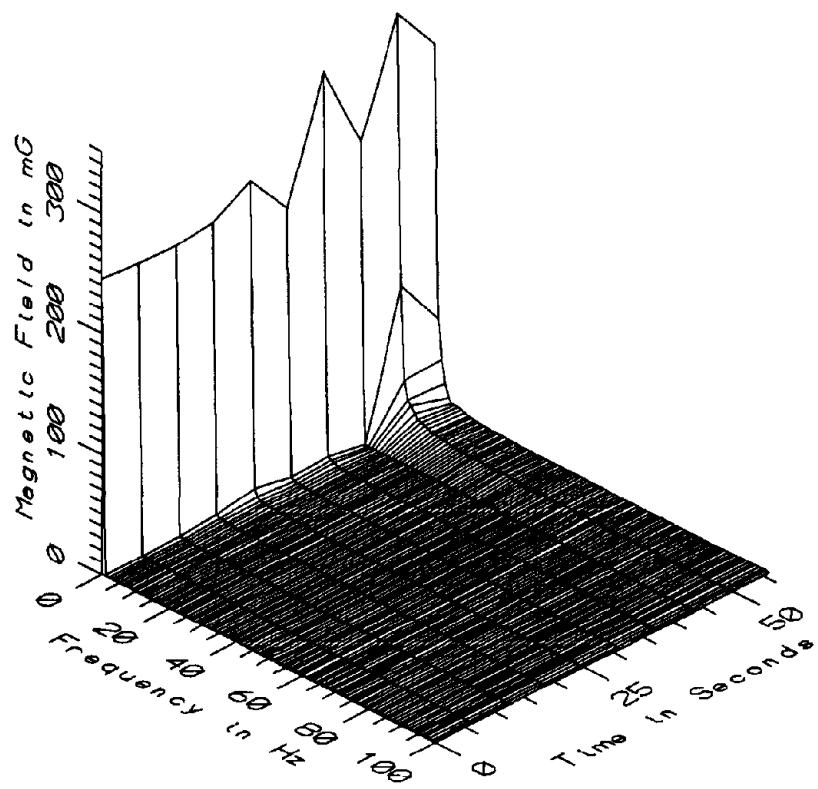
Saturated Data: None



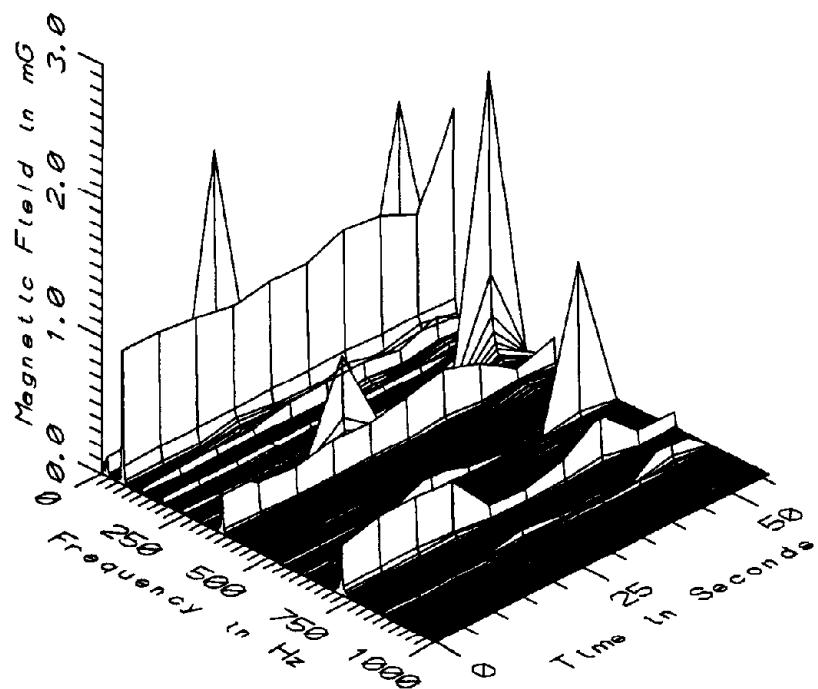
MET024 - 10cm ABOVE FLOOR, CENTER OF PLATFORM AT SAFETY LINE



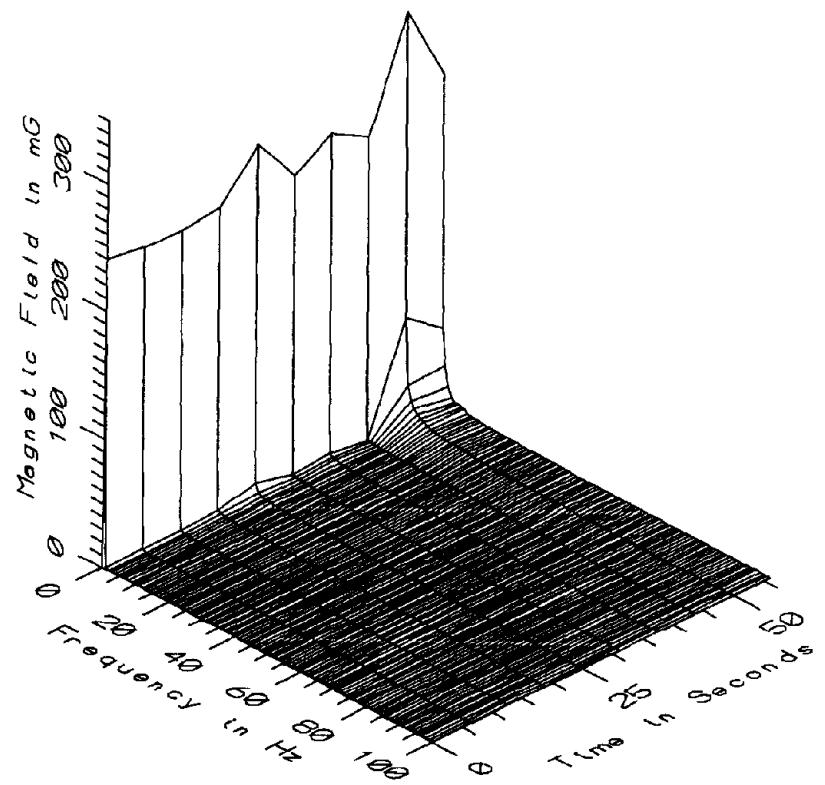
MET024 - 10cm ABOVE FLOOR, CENTER OF PLATFORM AT SAFETY LINE



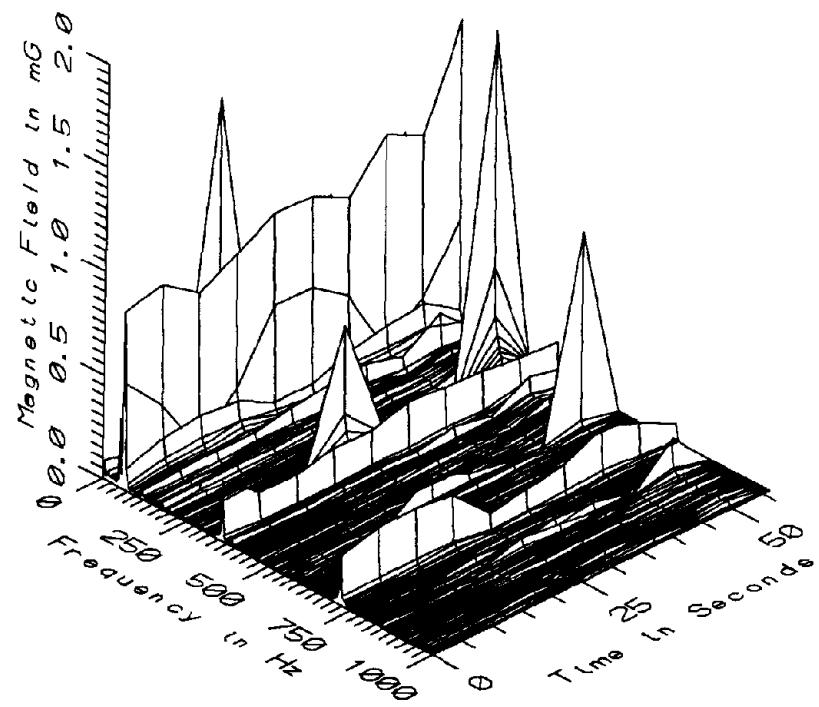
MET024 - 60cm ABOVE FLOOR, CENTER OF PLATFORM AT SAFETY LINE



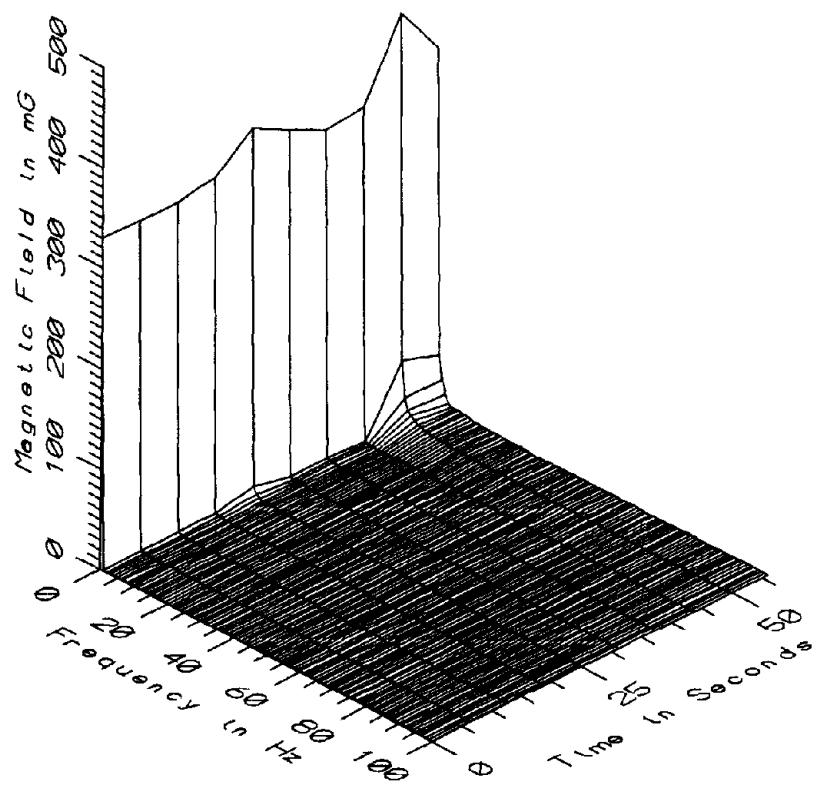
MET024 - 60cm ABOVE FLOOR, CENTER OF PLATFORM AT SAFETY LINE



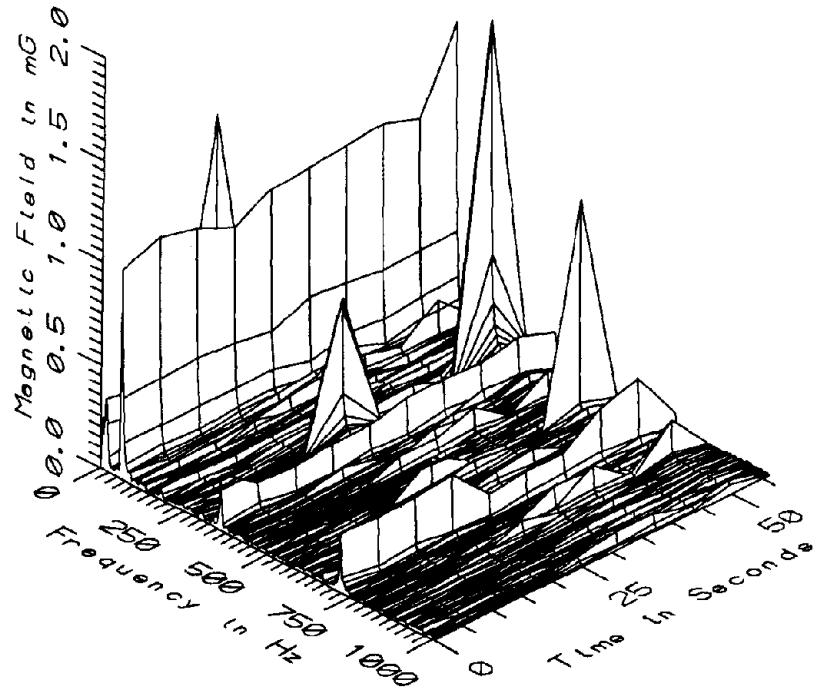
MET024 - 110cm ABOVE FLOOR, CENTER OF PLATFORM AT SAFETY LINE



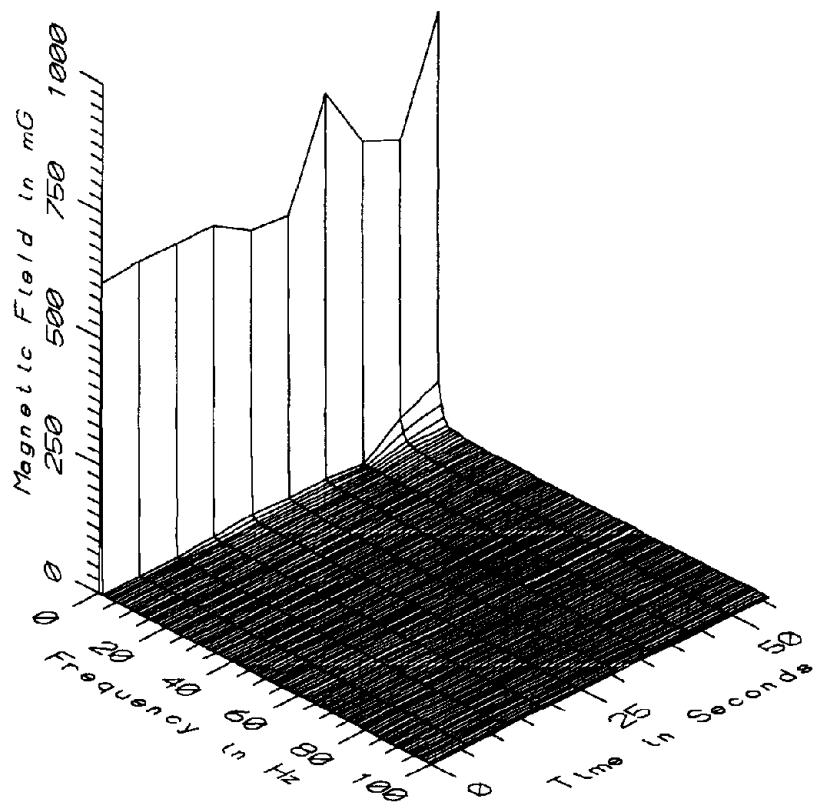
MET024 - 110cm ABOVE FLOOR, CENTER OF PLATFORM AT SAFETY LINE



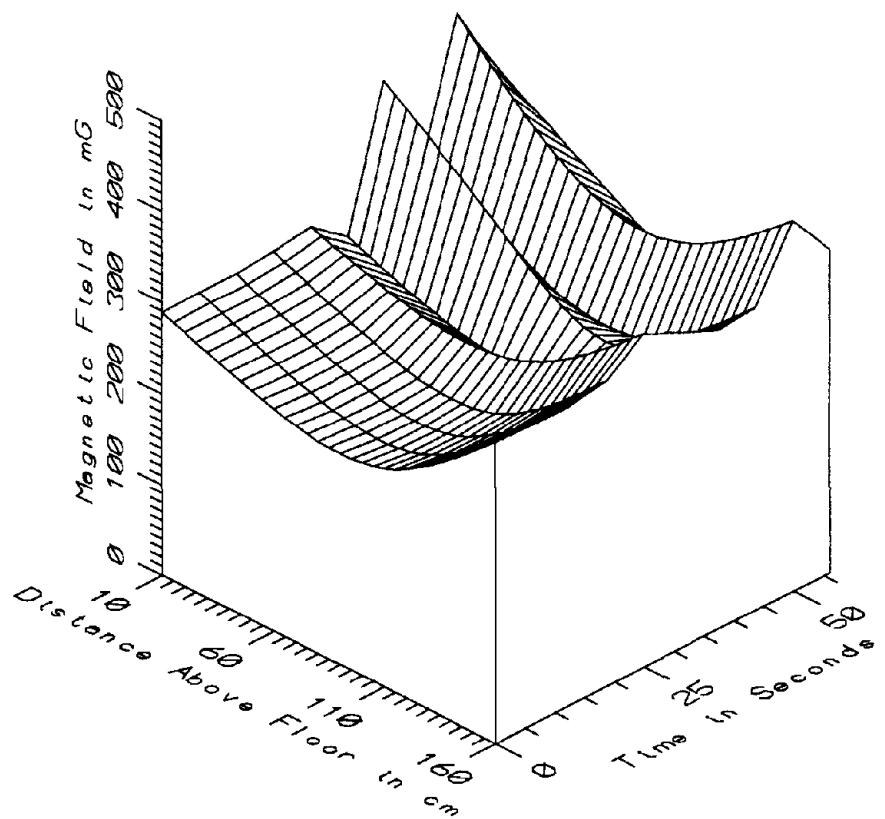
MET024 - 160cm ABOVE FLOOR, CENTER OF PLATFORM AT SAFETY LINE



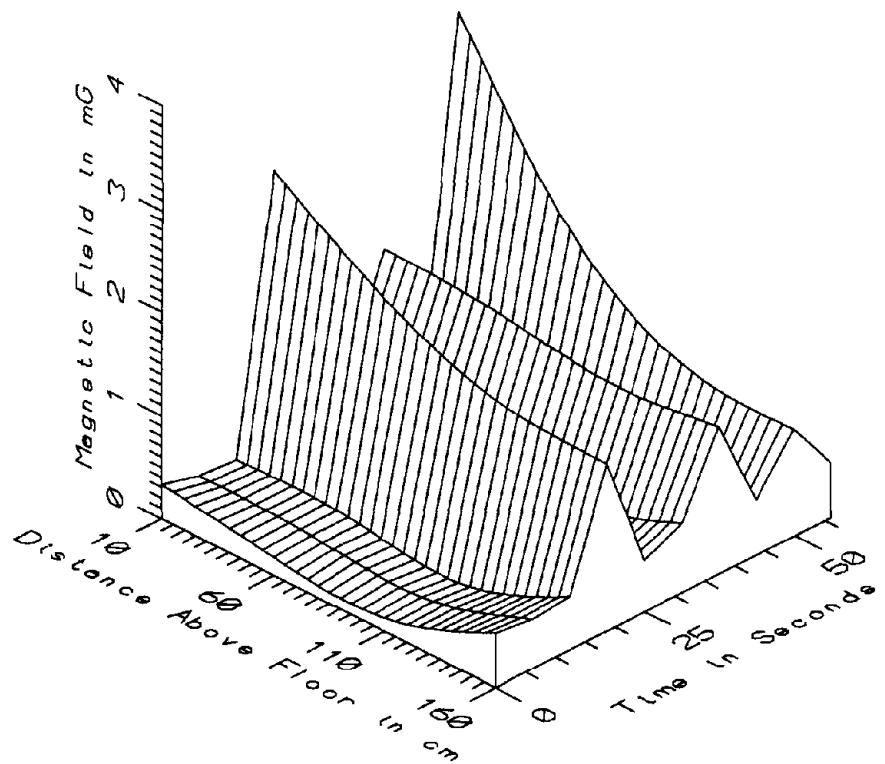
MET024 - 160cm ABOVE FLOOR, CENTER OF PLATFORM AT SAFETY LINE



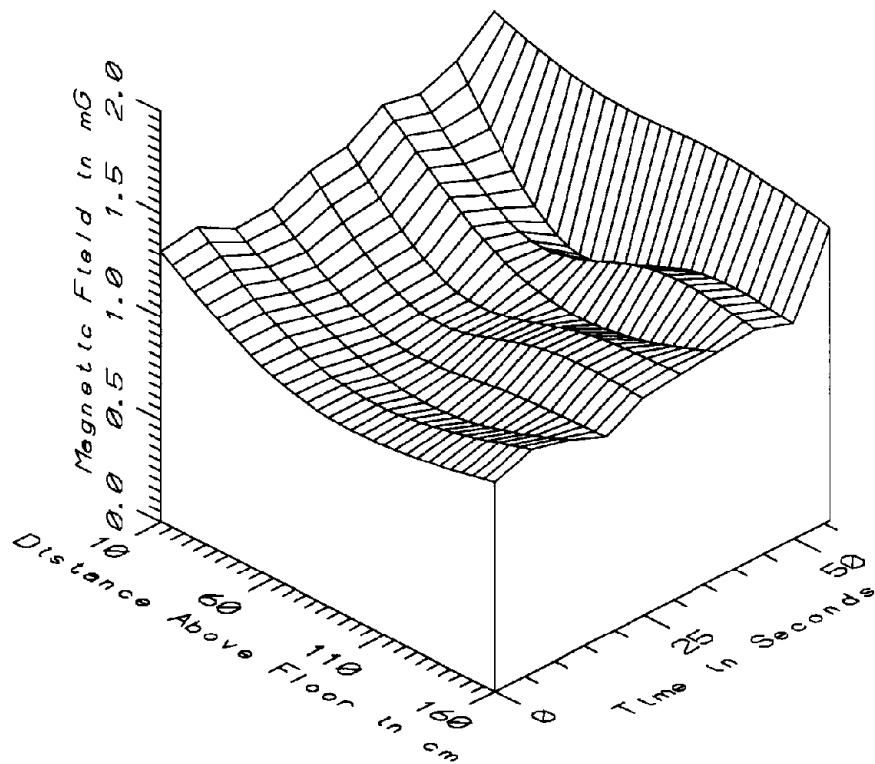
MET024 - REFERENCE PROBE - AT SAFETY LINE, NORTH BOUND SIDE



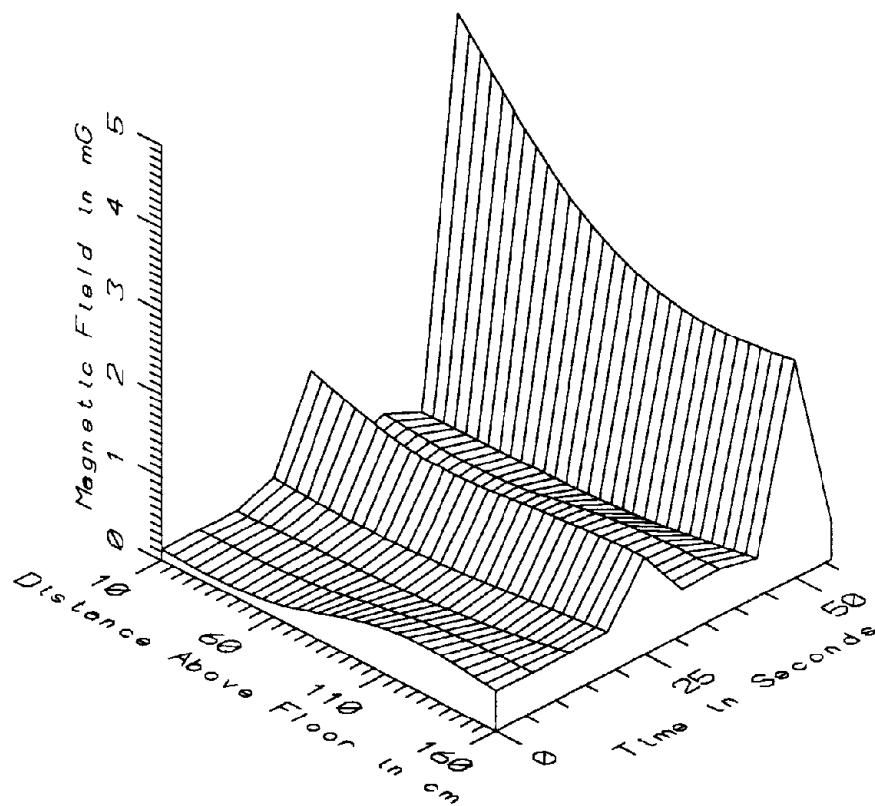
MET024 - CENTER OF PLATFORM AT SAFETY LINE - STATIC



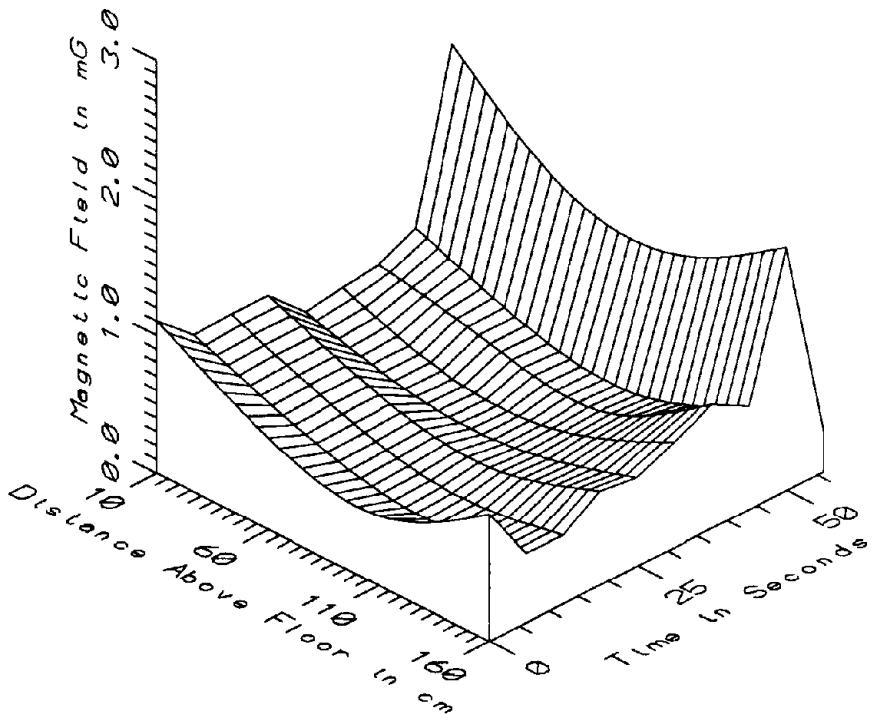
MET024 - CENTER OF PLATFORM AT SAFETY LINE - LOW FREQ, 5-45Hz



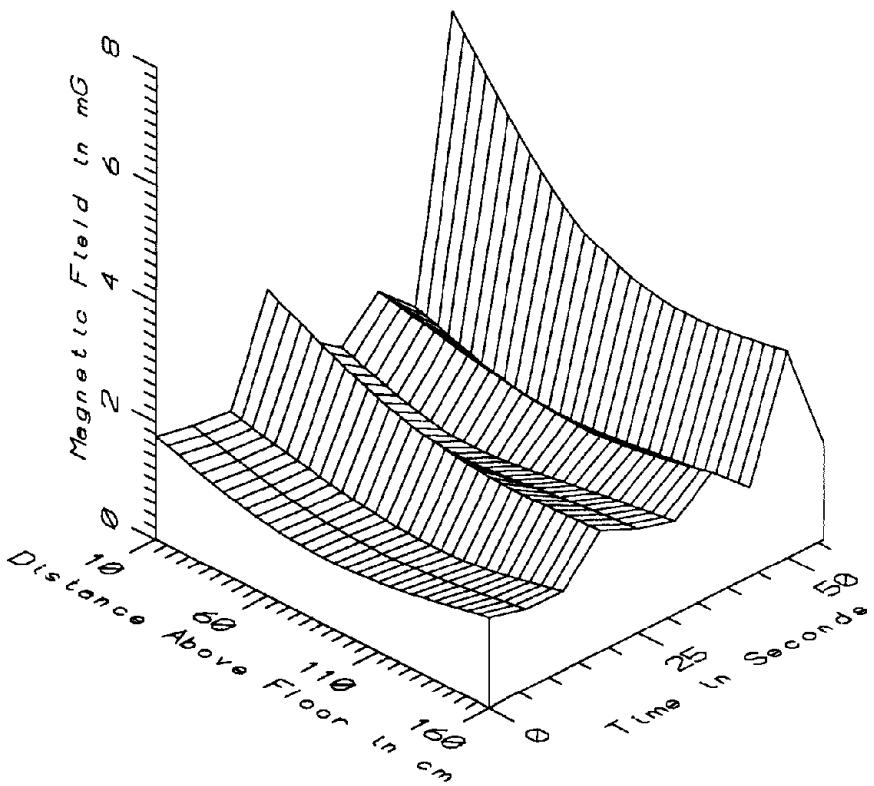
MET024 - CENTER OF PLATFORM AT SAFETY LINE - POWER FREQ, 50-60Hz



MET024 - CENTER OF PLATFORM AT SAFETY LINE - POWER HARM, 65-300Hz



MET024 - CENTER OF PLATFORM AT SAFETY LINE - HIGH FREQ, 305-2560Hz



MET024 - CENTER OF PLATFORM AT SAFETY LINE - ALL FREQ, 5-2560Hz

MET024 - CENTER OF GROSVENOR PLATFORM, N. BOUND SIDE							TOTAL OF 10 SAMPLES
FREQUENCY BAND	HEIGHT ABOVE FLOOR (cm)	MINIMUM MAGNETIC FIELD (mG)	MAXIMUM MAGNETIC FIELD (mG)	AVERAGE MAGNETIC FIELD (mG)	STANDARD DEVIATION (mG)	COEFFICIENT OF VARIATION (%)	
STATIC	10	267.75	452.42	328.23	63.87	19.46	
	60	226.00	340.70	267.73	39.35	14.70	
	110	234.84	322.10	253.65	27.38	10.80	
	160	328.16	407.32	346.02	25.13	7.26	
5-45Hz LOW FREQ	10	0.21	3.45	1.06	1.18	111.37	
	60	0.17	2.12	0.74	0.77	103.43	
	110	0.10	1.69	0.56	0.59	105.95	
	160	0.48	1.62	0.78	0.42	54.02	
50-60Hz PWR FREQ	10	1.25	1.66	1.40	0.13	9.22	
	60	0.89	1.52	1.01	0.18	18.22	
	110	0.87	1.52	1.04	0.19	18.21	
	160	0.96	1.43	1.09	0.13	11.60	
65-300Hz PWR HARM	10	0.13	4.78	0.79	1.45	182.86	
	60	0.17	3.24	0.60	0.96	159.68	
	110	0.26	2.57	0.71	0.70	97.81	
	160	0.47	2.64	0.78	0.69	88.03	
305-2560Hz HIGH FREQ	10	0.41	2.02	0.90	0.44	48.89	
	60	0.31	1.39	0.59	0.30	50.34	
	110	0.25	1.31	0.50	0.29	57.68	
	160	0.30	1.77	0.78	0.40	51.08	
5-2560Hz ALL FREQ	10	1.55	6.41	2.41	1.49	61.90	
	60	1.13	4.09	1.73	0.93	53.80	
	110	1.00	3.27	1.61	0.67	41.25	
	160	1.35	3.50	1.84	0.64	34.53	

APPENDIX V

DATASET MET025 GROSVENOR STATION, NORTH BOUND SIDE OF PLATFORM

Measurement Setup Code: Staff: 26 Reference: 27
Drawing: A-4

Vehicle Status: NA

Measurement Date: May 19, 1992

Measurement Time: Start: 11:27:03
End: 11:30:43

Number of Samples: 41

Programmed Sample Interval: 5 sec

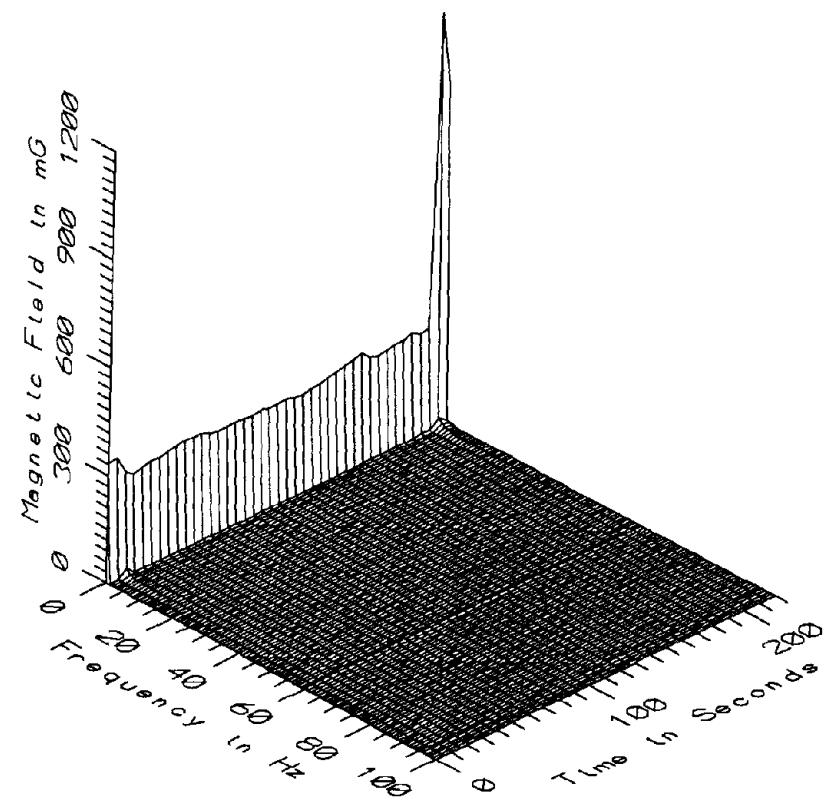
Actual Sample Interval: 5.5 sec

Frequency Spectrum Parameters

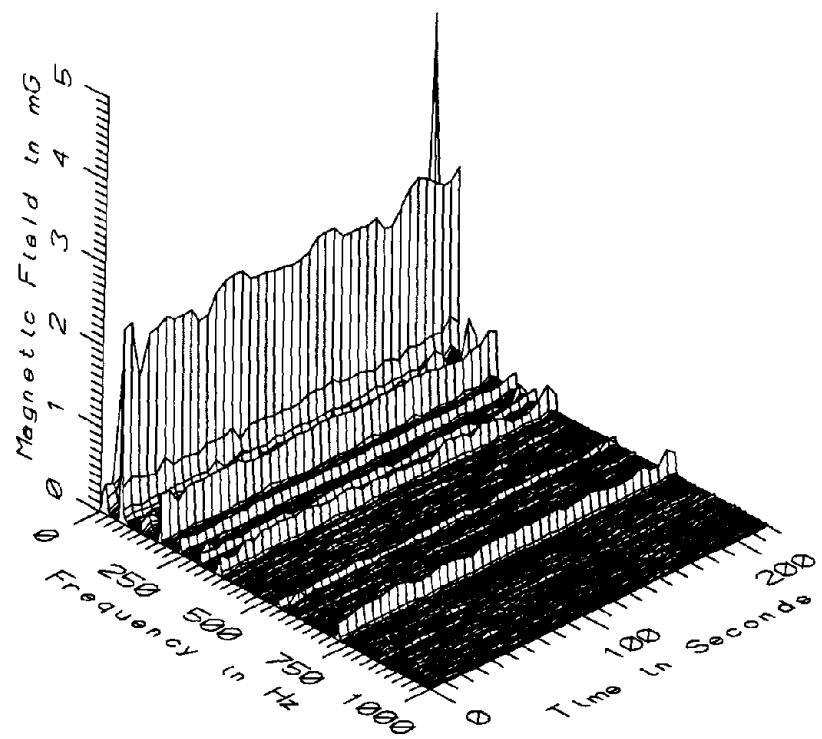
<u>Probe Type:</u>	<u>Wideband</u>	<u>Static</u>
Maximum Frequency (Hz)	2560	100
Minimum Frequency (Hz)	5	0
Spectral Bandwidth (Hz)	5	1

Missing Data: Wideband data from the reference probe

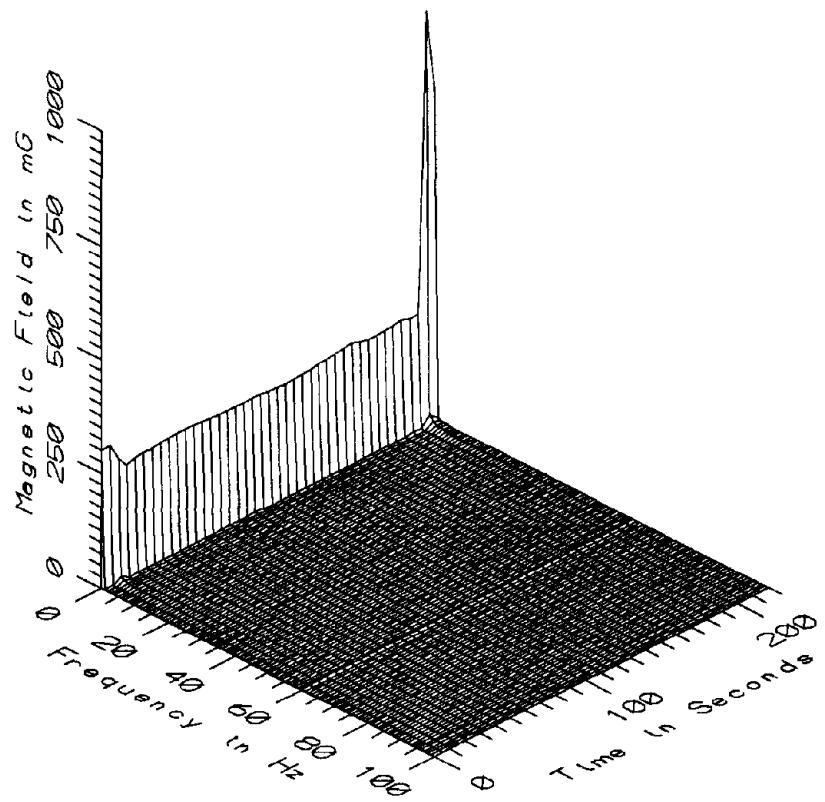
Saturated Data: None



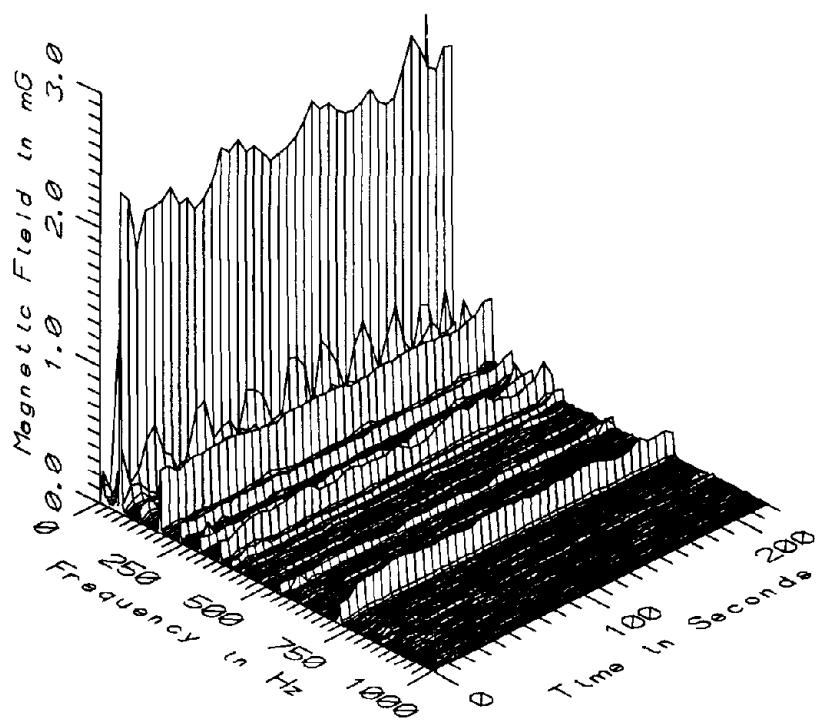
MET025 - 0cm FROM SAFETY LINE, 1M ABOVE CENTER OF PLATFORM



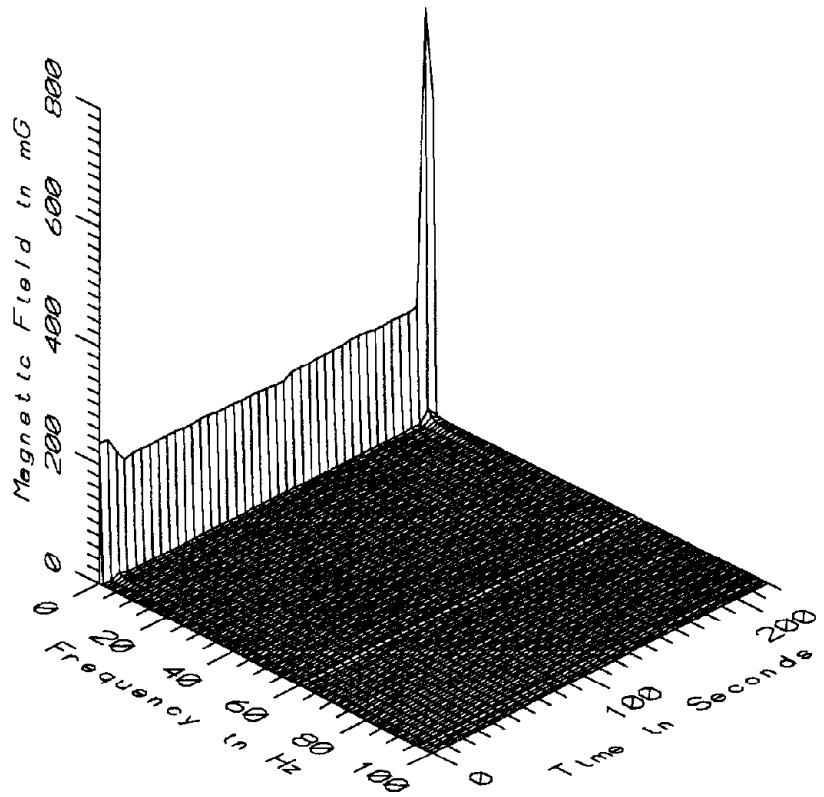
MET025 - 0cm FROM SAFETY LINE, 1M ABOVE CENTER OF PLATFORM



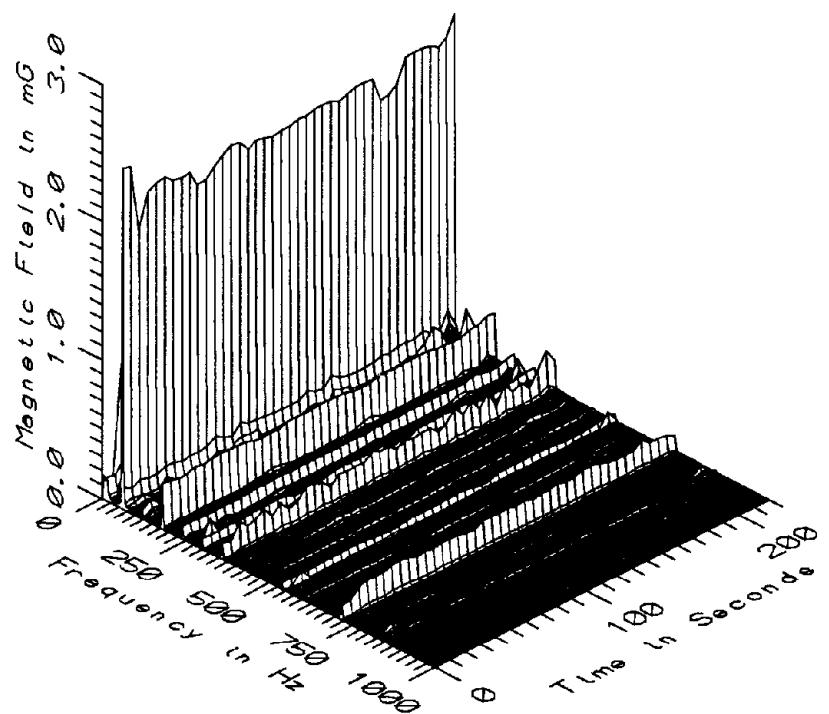
MET025 - 50cm FROM SAFETY LINE, 1M ABOVE CENTER OF PLATFORM



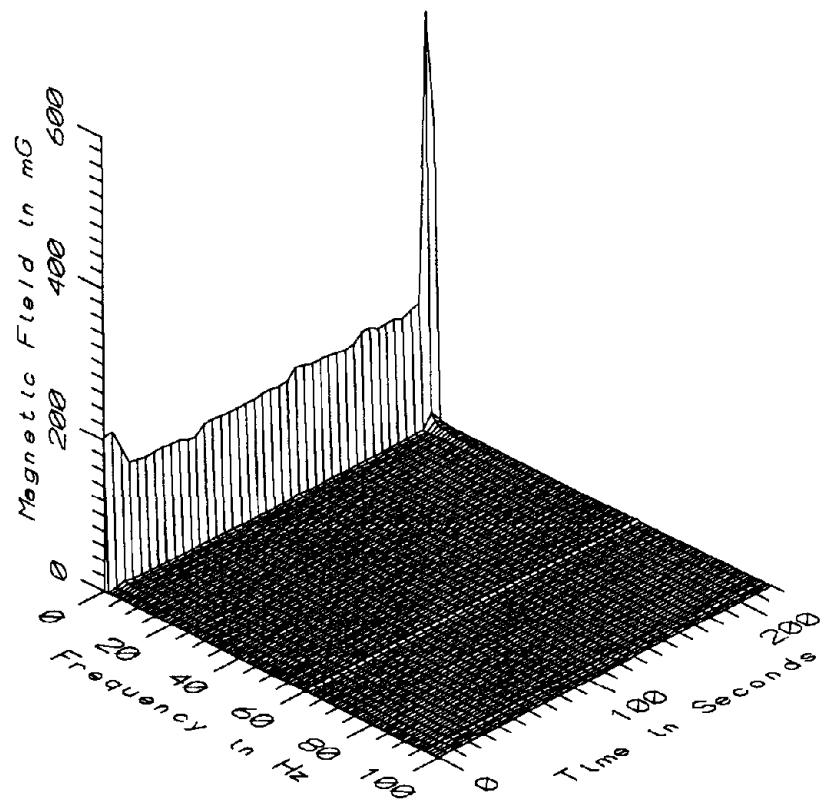
MET025 - 50cm FROM SAFETY LINE, 1M ABOVE CENTER OF PLATFORM



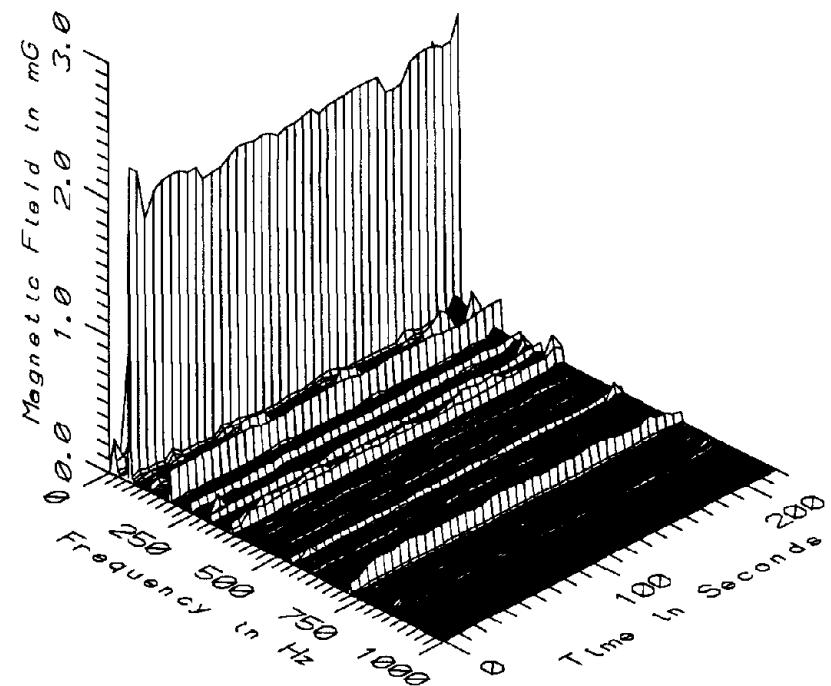
MET025 - 100cm FROM SAFETY LINE, 1M ABOVE CENTER OF PLATFORM



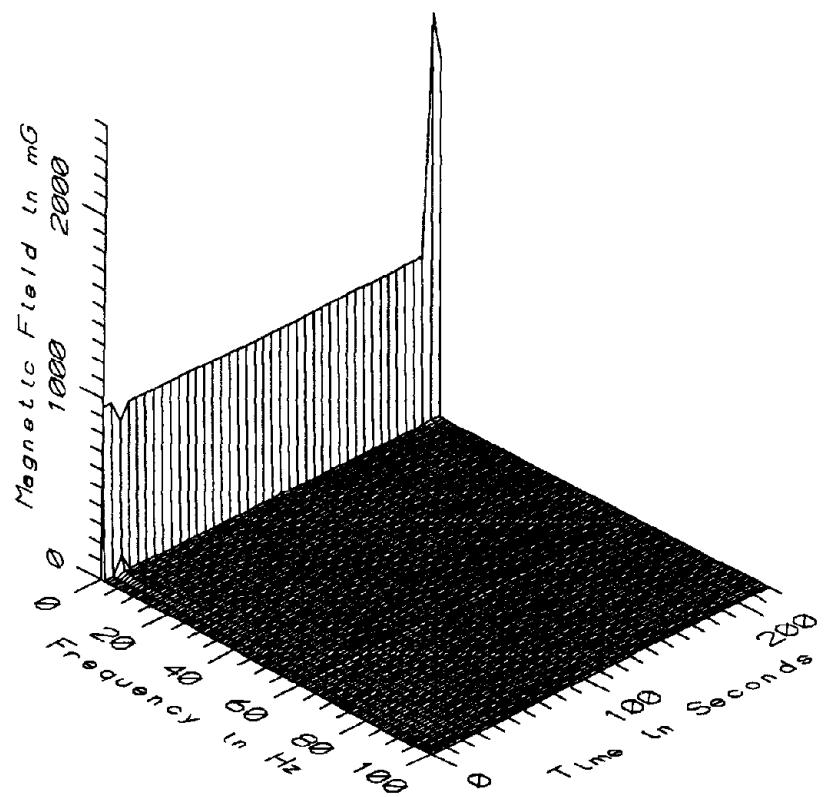
MET025 - 100cm FROM SAFETY LINE, 1M ABOVE CENTER OF PLATFORM



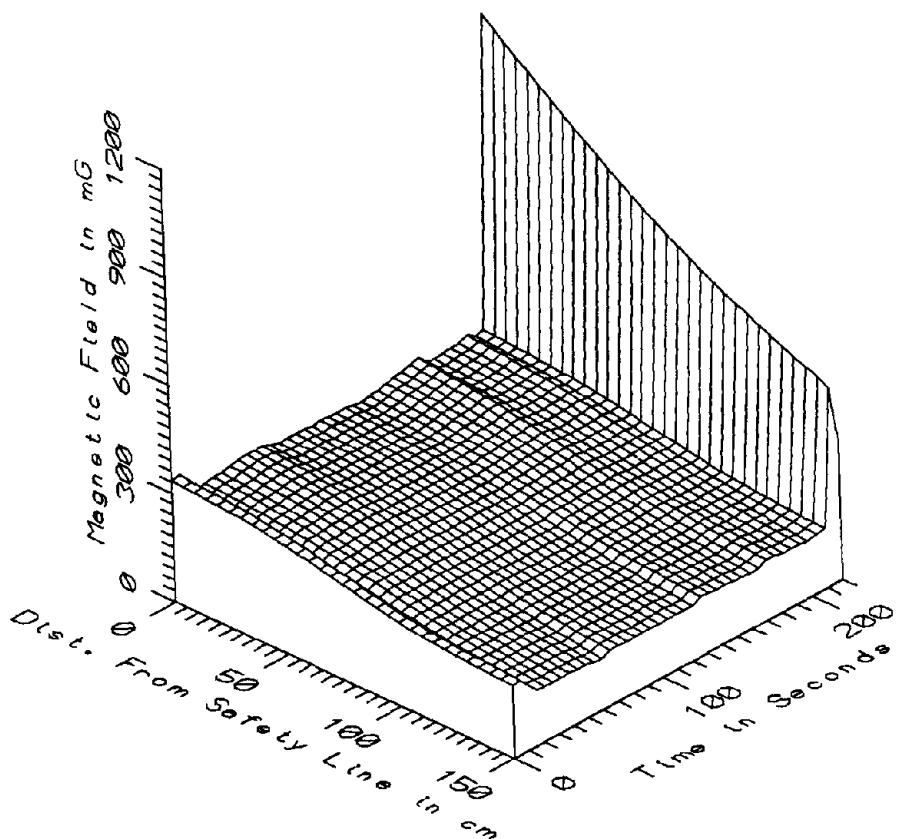
MET025 - 150cm FROM SAFETY LINE, 1M ABOVE CENTER OF PLATFORM



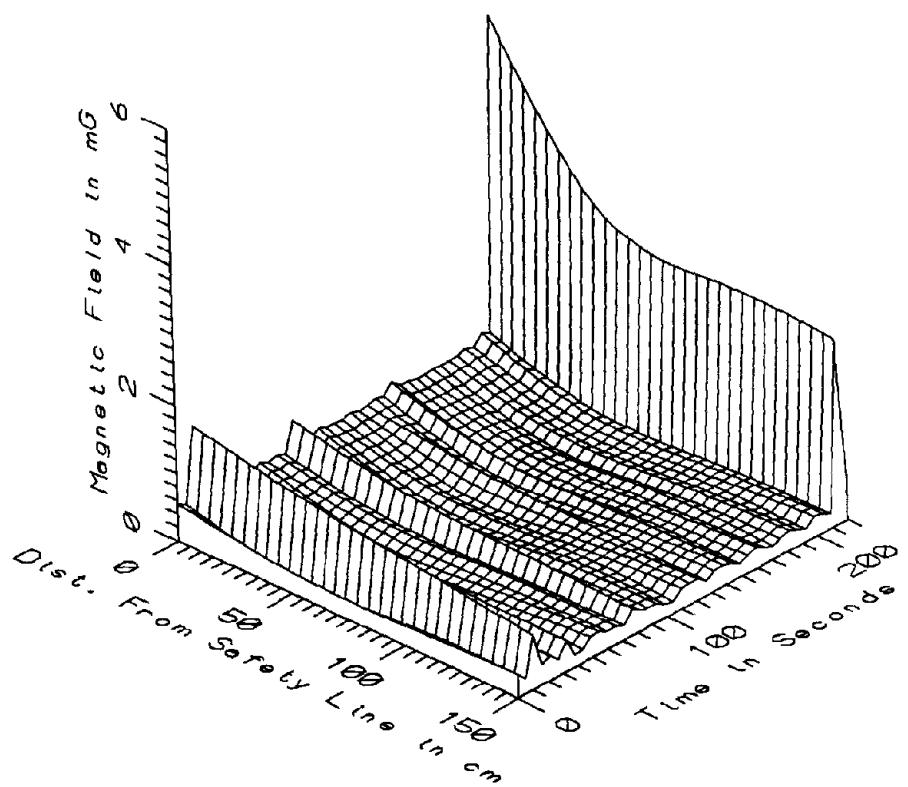
MET025 - 150cm FROM SAFETY LINE, 1M ABOVE CENTER OF PLATFORM



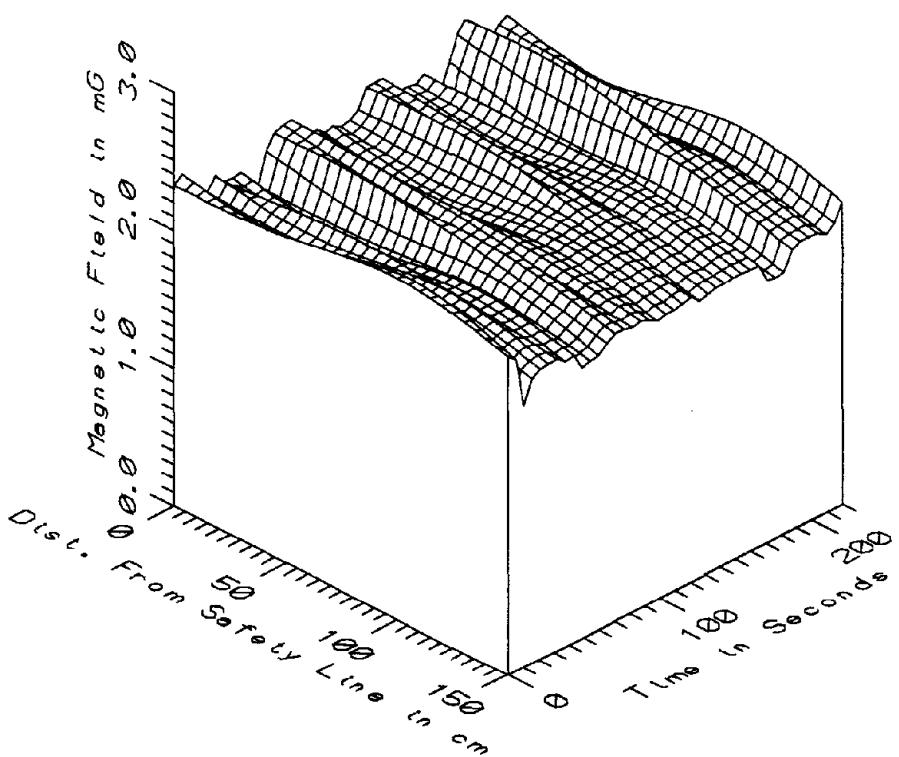
MET025 - REFERENCE PROBE - AT SAFETY LINE, SOUTH BOUND SIDE



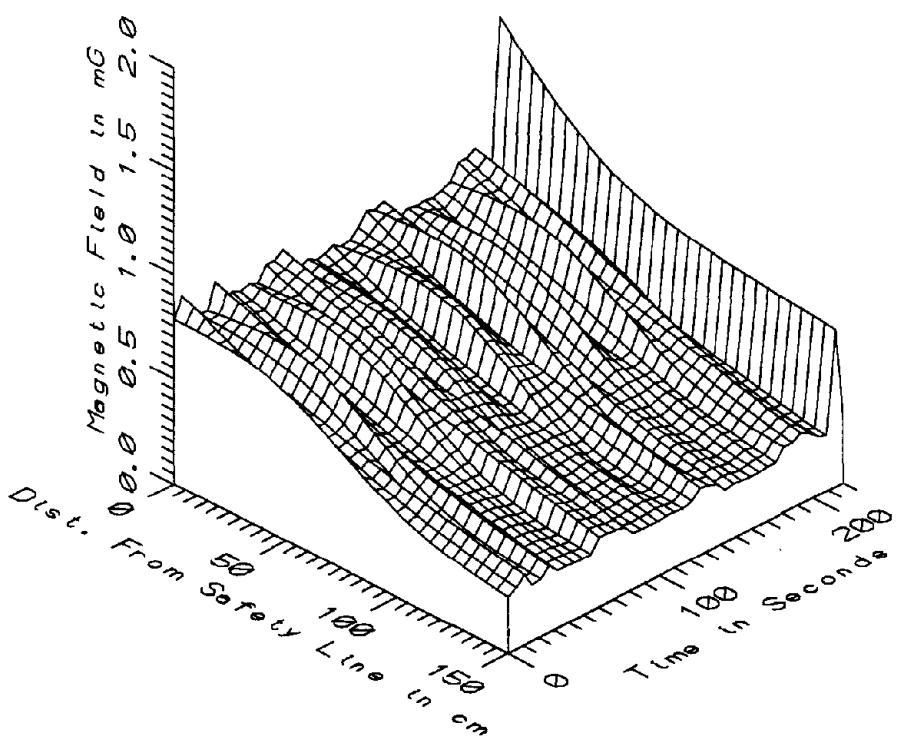
MET025 - 1M ABOVE CENTER OF PLATFORM - STATIC



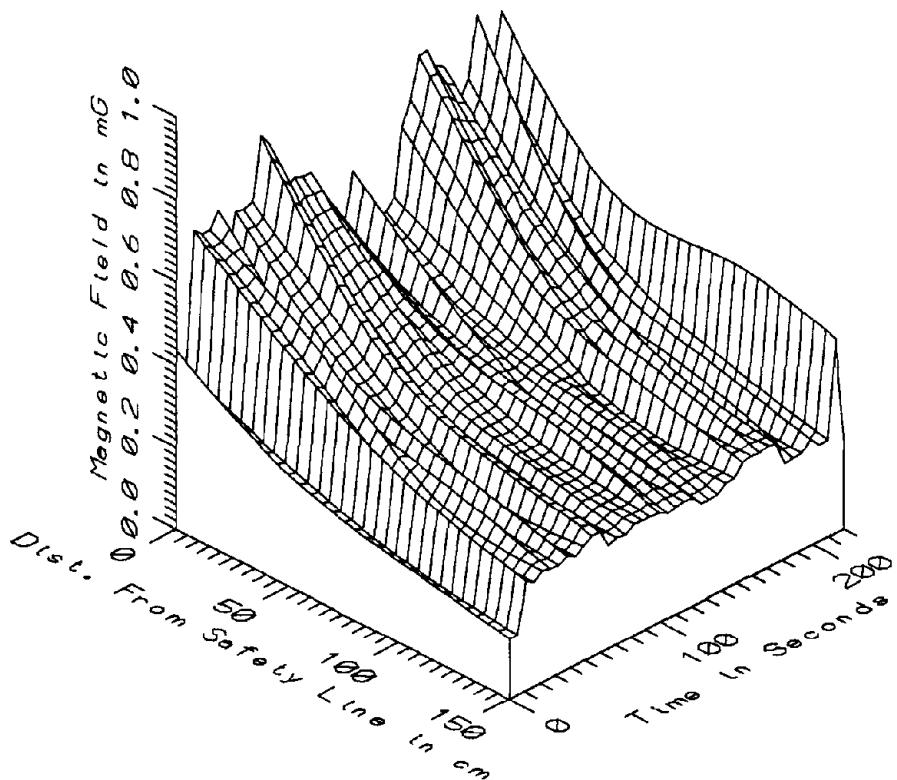
MET025 - 1M ABOVE CENTER OF PLATFORM - LOW FREQ, 5-45Hz



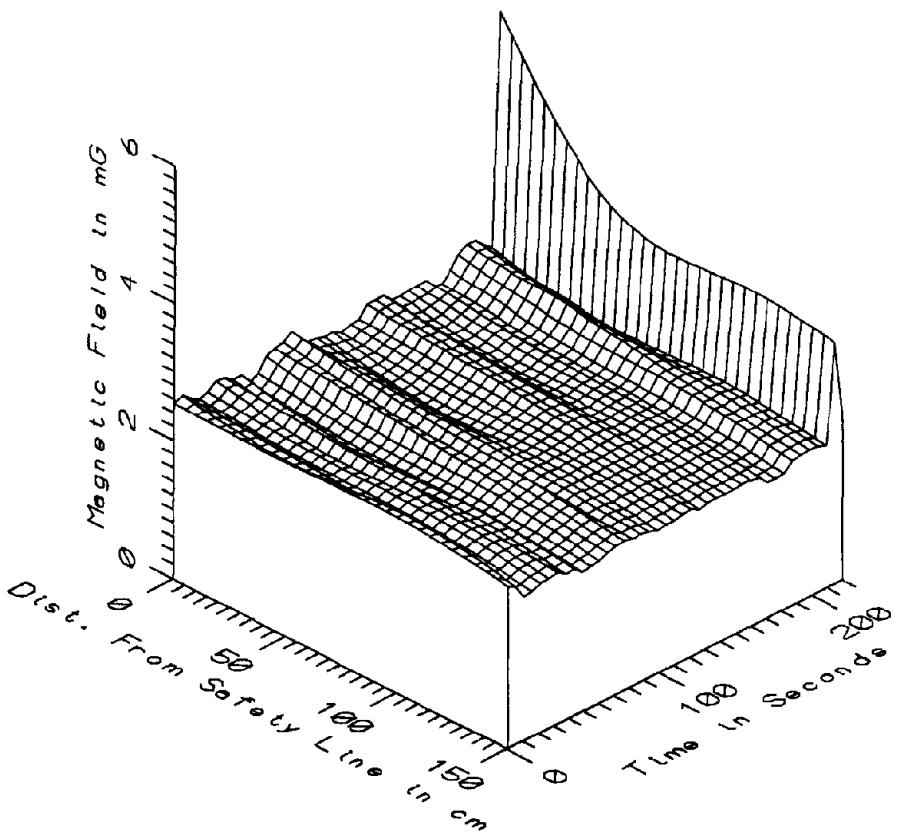
MET025 - 1M ABOVE CENTER OF PLATFORM - POWER FREQ, 50-60Hz



MET025 - 1M ABOVE CENTER OF PLATFORM - POWER HARM, 65-300Hz



MET025 - 1M ABOVE CENTER OF PLATFORM - HIGH FREQ, 305-2560Hz



MET025 - 1M ABOVE CENTER OF PLATFORM - ALL FREQ, 5-2560Hz

MET025 - CENTER OF GROSVENOR PLATFORM, N. BOUND SIDE							TOTAL OF 41 SAMPLES	
FREQUENCY BAND	DIST FROM LINE (cm)	MINIMUM MAGNETIC FIELD (mG)	MAXIMUM MAGNETIC FIELD (mG)	AVERAGE MAGNETIC FIELD (mG)	STANDARD DEVIATION (mG)	COEFFICIENT OF VARIATION (%)		
STATIC	0	264.90	1144.56	320.38	167.70	52.34		
	50	240.40	899.01	279.88	123.35	44.07		
	100	186.44	695.18	215.62	93.30	43.27		
	150	142.01	543.27	173.65	70.08	40.36		
5-45Hz	0	0.44	5.12	0.70	0.75	107.57		
LOW FREQ	50	0.05	2.93	0.29	0.49	169.56		
	100	0.16	2.73	0.32	0.42	132.83		
	150	0.17	2.70	0.35	0.39	111.73		
50-60Hz	0	1.65	2.45	2.21	0.14	6.43		
PWR FREQ	50	1.88	2.44	2.17	0.11	5.23		
	100	1.95	2.47	2.19	0.10	4.34		
	150	1.88	2.30	2.04	0.08	3.92		
65-300Hz	0	0.72	1.45	0.80	0.12	14.66		
PWR HARM	50	0.50	0.97	0.64	0.08	13.25		
	100	0.37	0.82	0.42	0.07	17.01		
	150	0.26	0.75	0.30	0.08	25.59		
305-2560Hz	0	0.39	0.88	0.68	0.12	17.66		
HIGH FREQ	50	0.26	0.56	0.43	0.06	13.88		
	100	0.18	0.53	0.31	0.05	16.83		
	150	0.14	0.47	0.26	0.05	17.91		
5-2560Hz	0	2.29	5.86	2.60	0.54	20.67		
ALL FREQ	50	2.15	3.86	2.36	0.26	11.18		
	100	2.09	3.67	2.31	0.24	10.32		
	150	1.95	3.51	2.14	0.23	10.95		

APPENDIX W

DATASET MET026 IN FRONT OF OPERATOR'S SEAT IN A 2000 SERIES CAR

Measurement Setup Code: Staff: 8 Reference: -
Drawing: A-1

Vehicle Status: Traveling on the Green Line

Measurement Date: May 19, 1992

Measurement Time: Start: 15:31:20
End: 15:32:53

Number of Samples: 9

Programmed Sample Interval: 5 sec

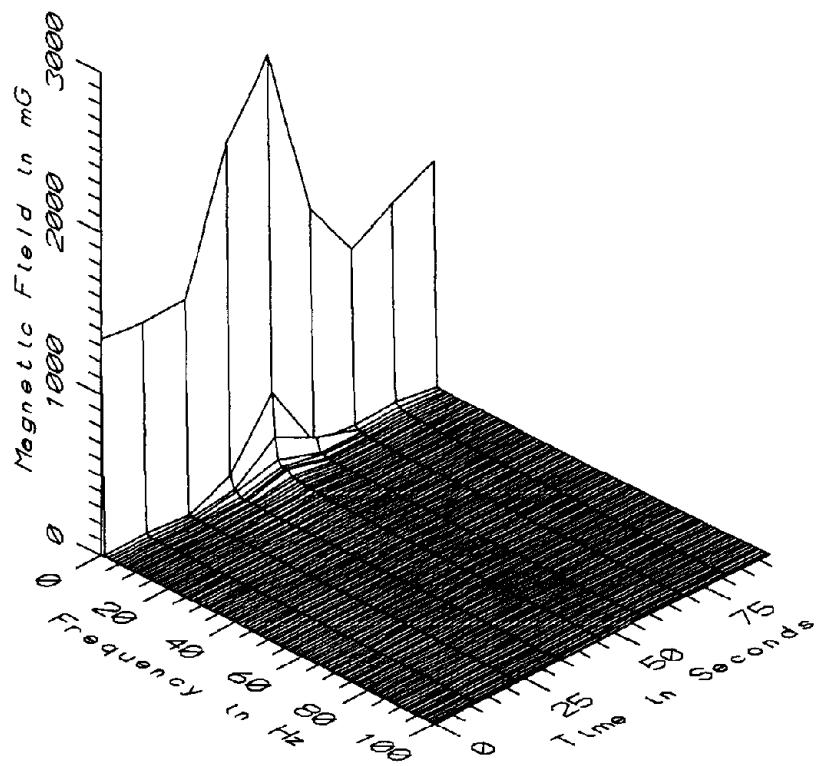
Actual Sample Interval: 11.6 sec

Frequency Spectrum Parameters

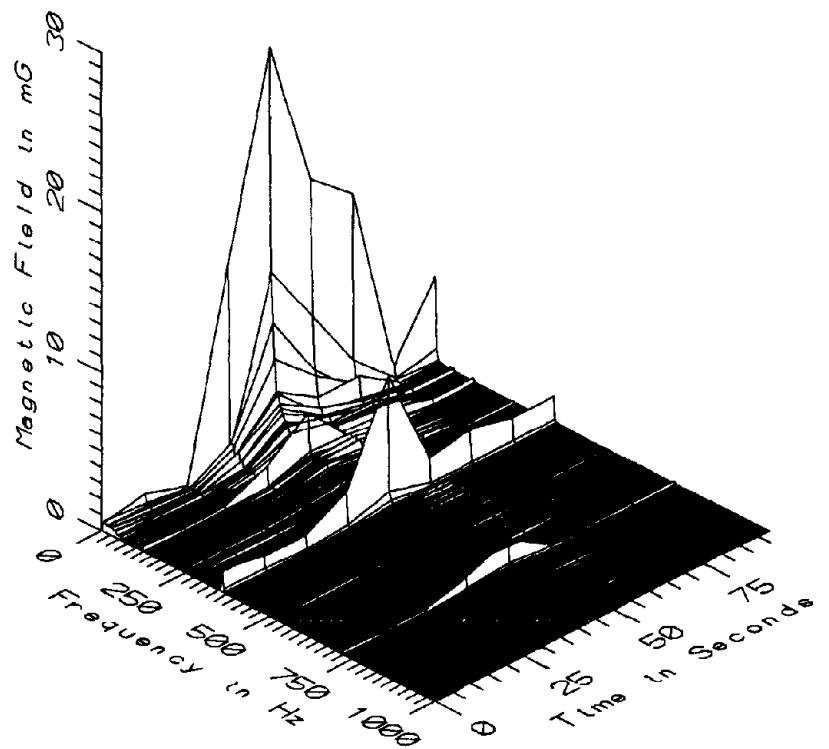
<u>Probe Type:</u>	<u>Wideband</u>	<u>Static</u>
Maximum Frequency (Hz)	2560	100
Minimum Frequency (Hz)	5	0
Spectral Bandwidth (Hz)	5	1

Missing Data: No reference probe

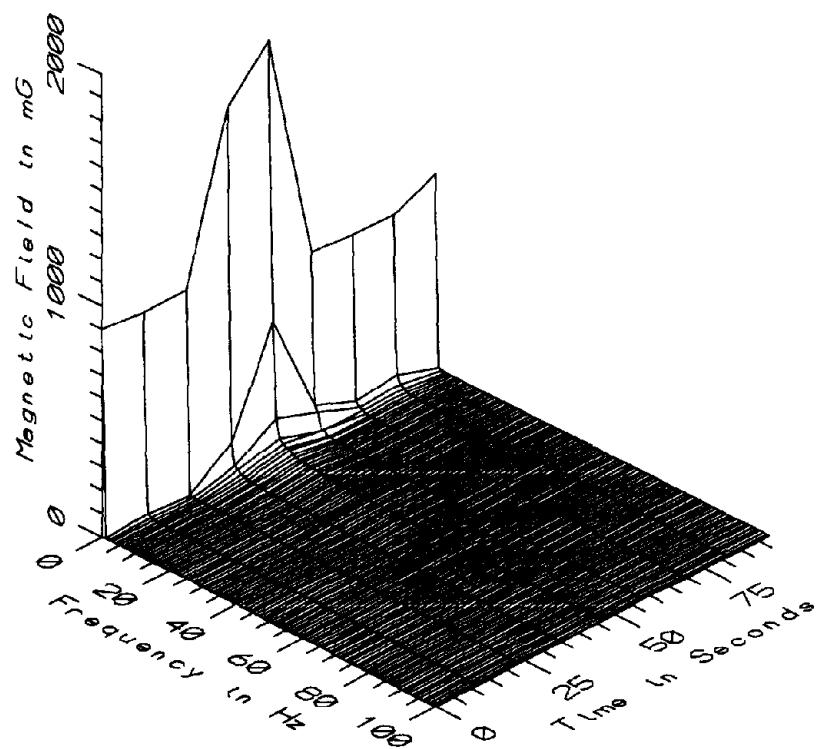
Saturated Data - Wideband:	<u>Sensor</u>	<u>Sample</u>	<u>Time (sec)</u>
	10cm	5	46
	60cm	4	35
	110cm	4	35
	160cm	4	35



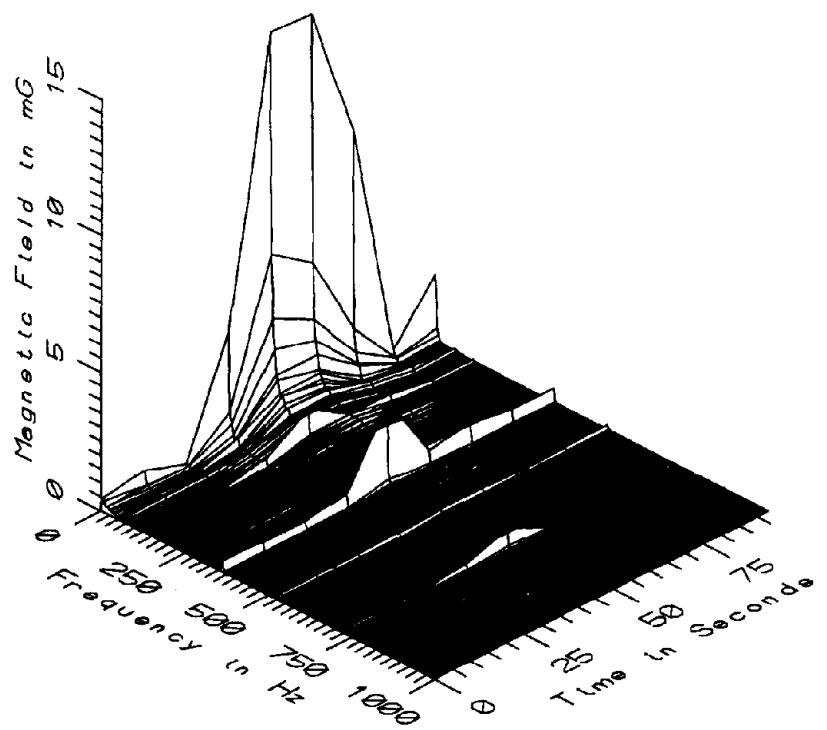
MET026 - 10cm ABOVE FLOOR, IN FRONT OF OPERATOR'S SEAT, CAR 2XXX



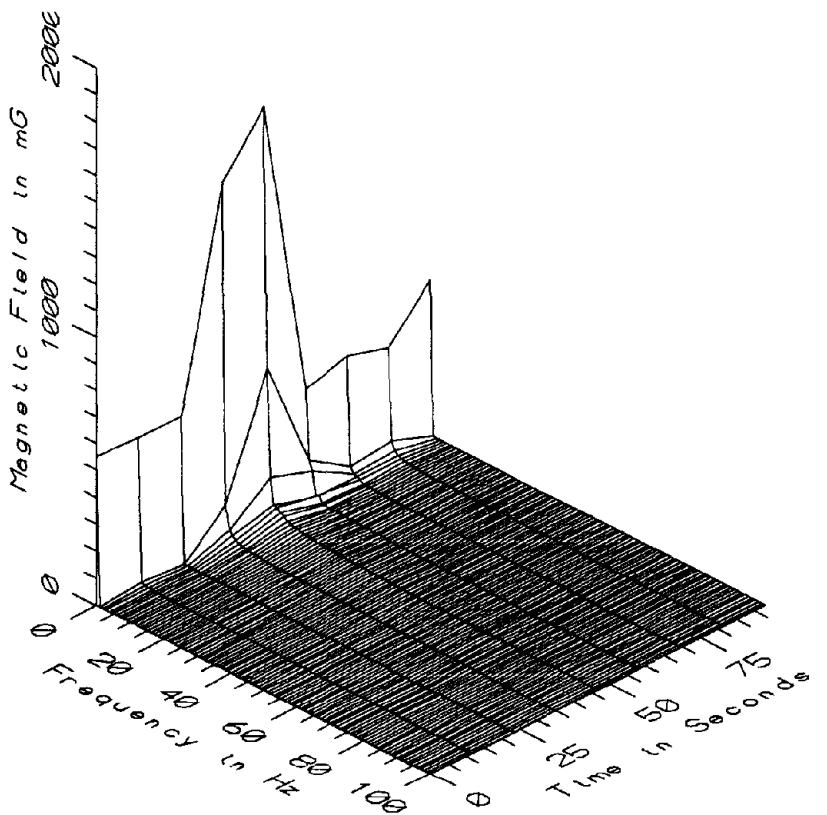
MET026 - 10cm ABOVE FLOOR, IN FRONT OF OPERATOR'S SEAT, CAR 2XXX



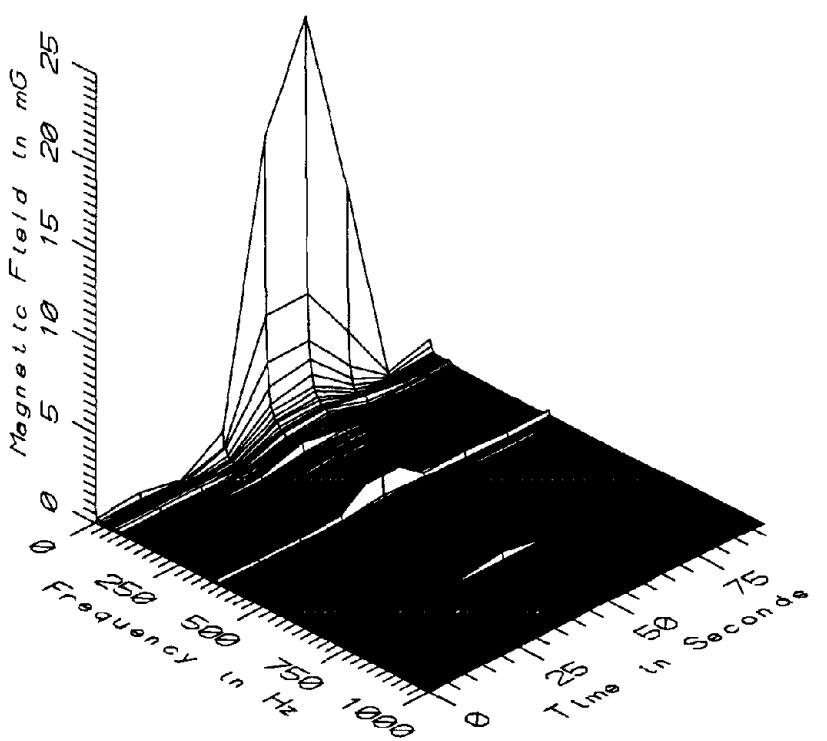
MET026 - 60cm ABOVE FLOOR, IN FRONT OF OPERATOR'S SEAT, CAR 2XXX



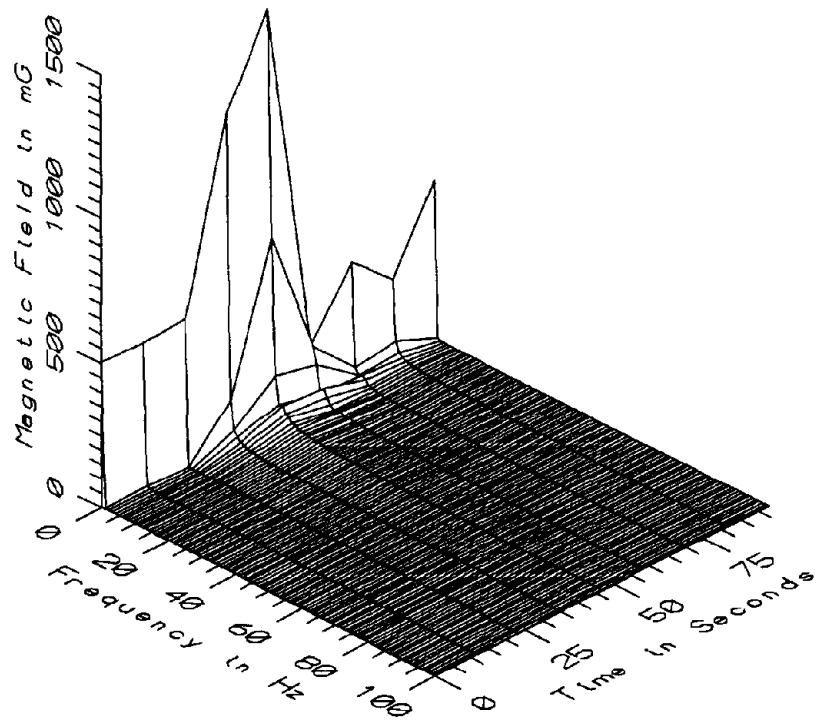
MET026 - 60cm ABOVE FLOOR, IN FRONT OF OPERATOR'S SEAT, CAR 2XXX



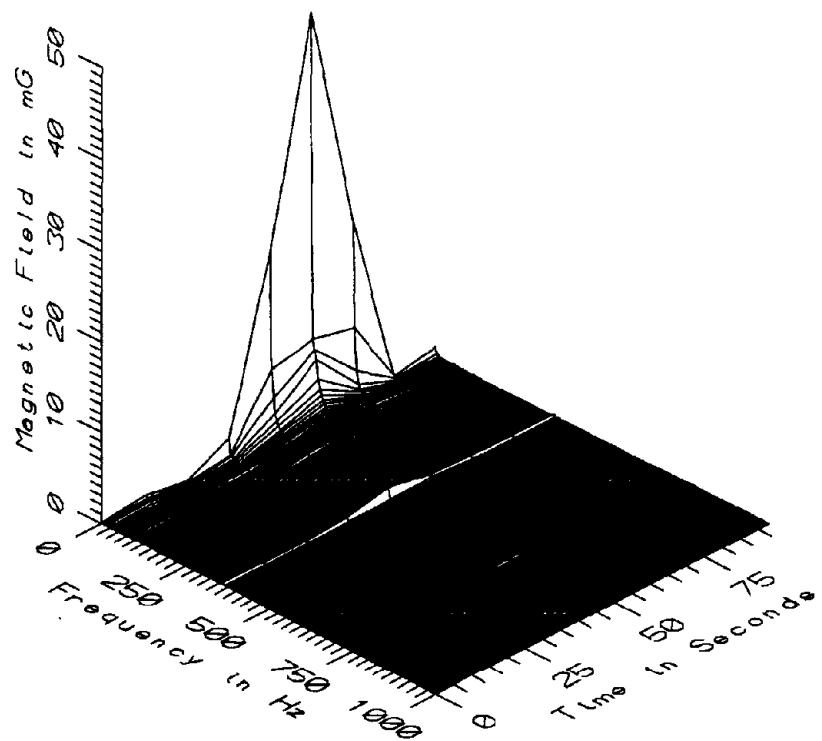
MET026 - 110cm ABOVE FLOOR, IN FRONT OF OPERATOR'S SEAT, CAR 2XXX



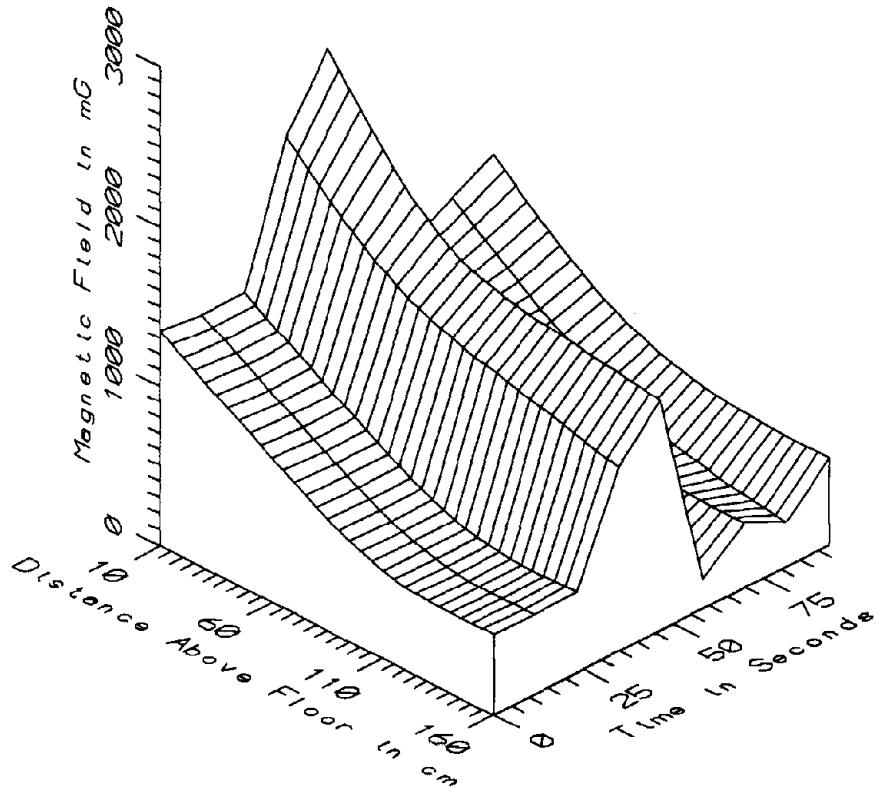
MET026 - 110cm ABOVE FLOOR, IN FRONT OF OPERATOR'S SEAT, CAR 2XXX



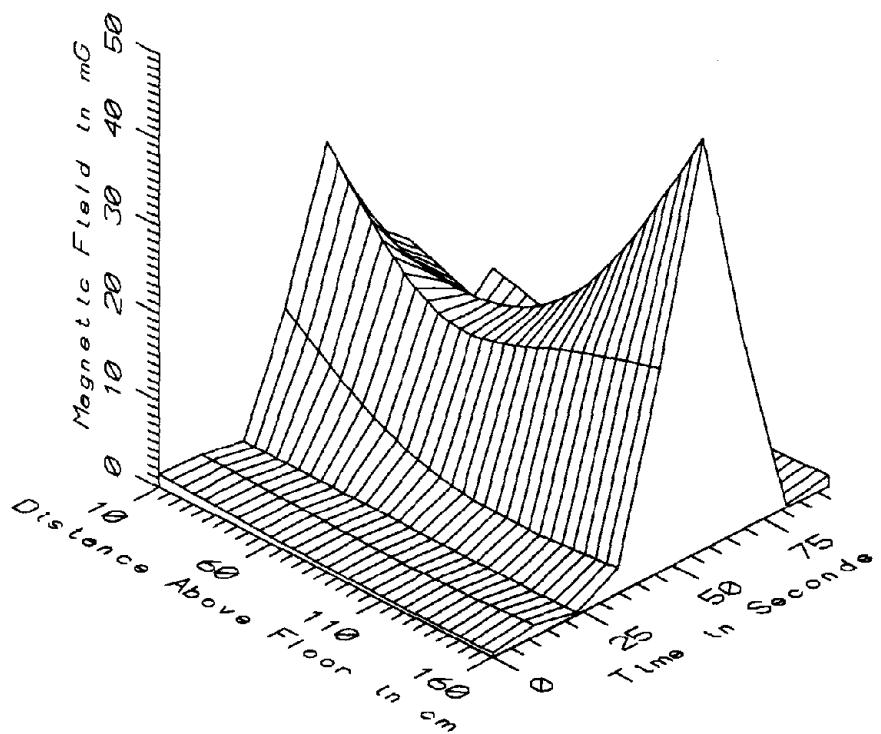
MET026 - 160cm ABOVE FLOOR, IN FRONT OF OPERATOR'S SEAT, CAR 2XXX



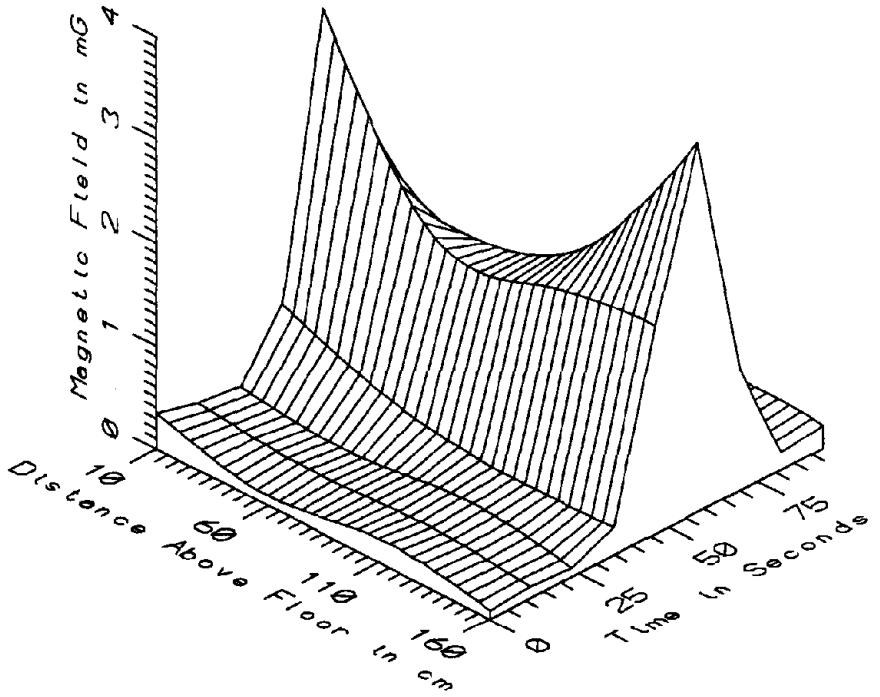
MET026 - 160cm ABOVE FLOOR, IN FRONT OF OPERATOR'S SEAT, CAR 2XXX



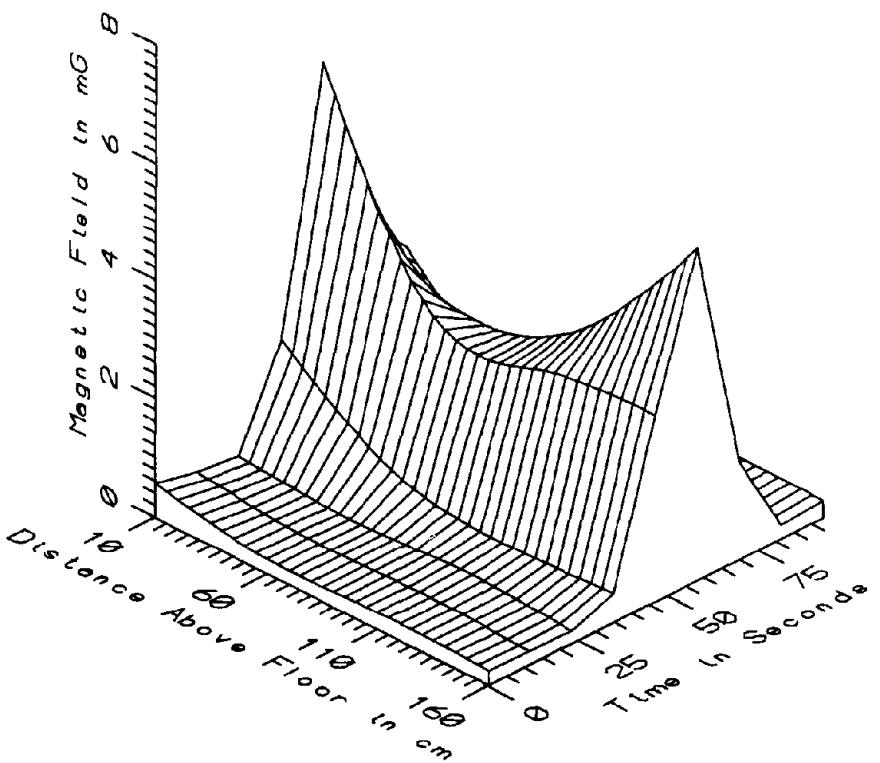
MET026 - IN FRONT OF OPERATOR'S SEAT, CAR 2XXX - STATIC



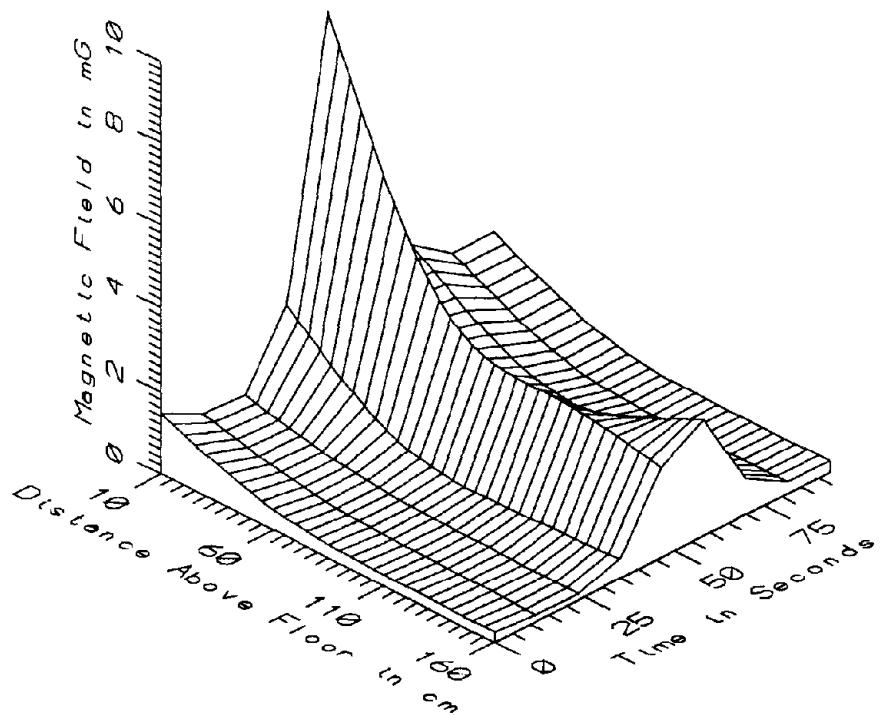
MET026 - IN FRONT OF OPERATOR'S SEAT, CAR 2XXX - LOW FREQ, 5-45Hz



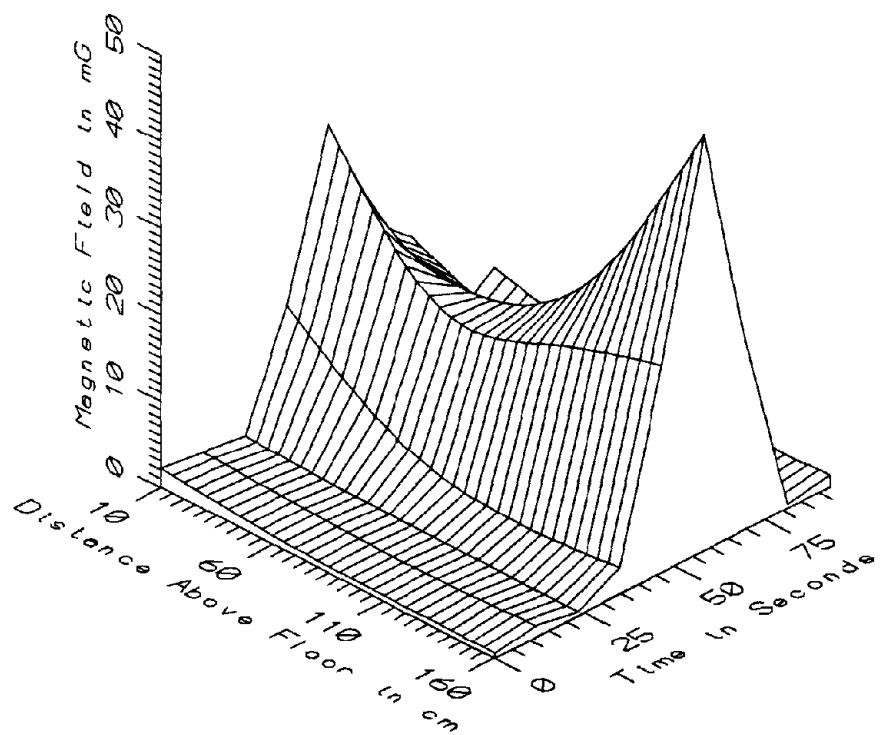
MET026 - IN FRONT OF OPERATOR'S SEAT, CAR 2XXX - POWER FREQ, 50-60Hz



MET026 - IN FRONT OF OPERATOR'S SEAT, CAR 2XXX - POWER HARM, 65-300Hz



MET026 - IN FRONT OF OPERATOR'S SEAT, CAR 2XXX - HIGH FREQ, 305-2560Hz



MET026 - IN FRONT OF OPERATOR'S SEAT, CAR 2XXX - ALL FREQ, 5-2560Hz

MET026 - IN FRONT OF OPERATOR'S SEAT IN A 2000 SERIES CAR						
						TOTAL OF 9 SAMPLES
FREQUENCY BAND	HEIGHT ABOVE FLOOR (cm)	MINIMUM MAGNETIC FIELD (mG)	MAXIMUM MAGNETIC FIELD (mG)	AVERAGE MAGNETIC FIELD (mG)	STANDARD DEVIATION (mG)	COEFFICIENT OF VARIATION (%)
STATIC	10	1110.41	2585.42	1554.05	487.82	31.39
	60	748.75	1781.85	1017.48	385.09	37.85
	110	408.40	1542.02	708.69	421.52	59.48
	160	192.13	1437.13	611.32	408.53	66.83
5-45Hz LOW FREQ	10	0.45	30.01	9.47	10.12	106.94
	60	0.32	16.87	5.83	6.72	115.33
	110	0.15	24.51	6.75	9.49	140.59
	160	0.31	47.40	11.03	16.52	149.80
50-60Hz PWR FREQ	10	0.20	3.45	0.88	1.06	119.94
	60	0.10	1.78	0.55	0.66	118.99
	110	0.18	2.03	0.68	0.74	109.73
	160	0.08	3.57	0.86	1.21	141.49
65-300Hz PWR HARM	10	0.31	6.27	1.75	1.99	113.82
	60	0.20	2.90	0.90	1.05	116.87
	110	0.23	3.31	1.01	1.22	121.45
	160	0.22	5.60	1.35	1.88	139.51
305-2560Hz HIGH FREQ	10	0.90	9.17	2.58	2.54	98.47
	60	0.35	3.48	0.96	0.99	103.27
	110	0.18	2.59	0.72	0.84	117.03
	160	0.14	2.85	0.84	0.99	118.54
5-2560Hz ALL FREQ	10	1.07	32.19	10.18	10.49	103.12
	60	0.53	17.56	6.06	6.86	113.14
	110	0.45	24.87	6.97	9.58	137.35
	160	0.41	47.94	11.21	16.67	148.68

APPENDIX X

DATASET MET027 CENTER OF AISLE, REAR OF A 2000 SERIES CAR

Measurement Setup Code: Staff: 5 Reference: -
Drawing: A-1

Vehicle Status: Traveling on the Green Line

Measurement Date: May 19, 1992

Measurement Time: Start: 15:33:35
End: 15:35:25

Number of Samples: 11

Programmed Sample Interval: 5 sec

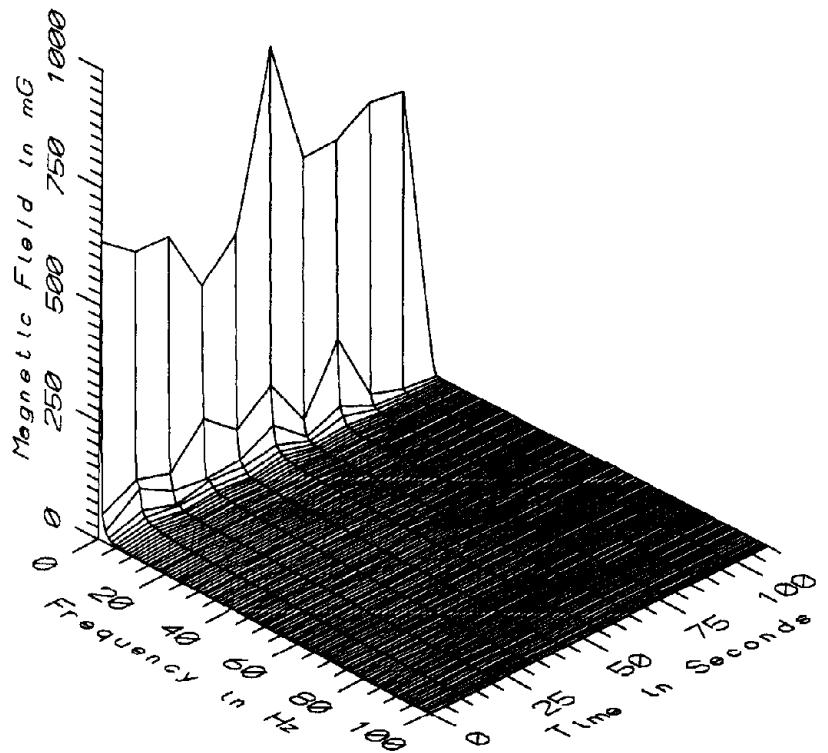
Actual Sample Interval: 11.0 sec

Frequency Spectrum Parameters

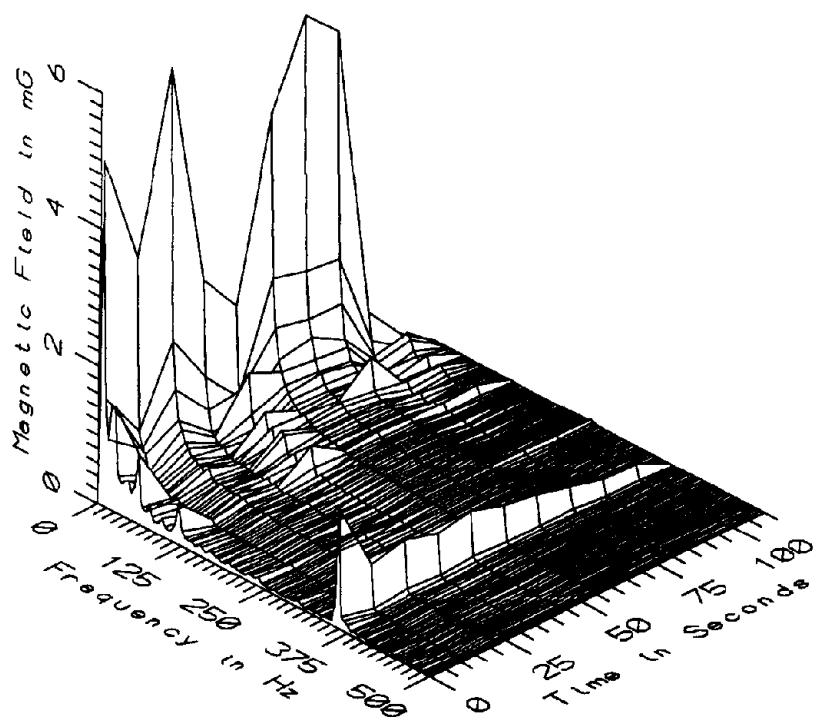
<u>Probe Type:</u>	<u>Wideband</u>	<u>Static</u>
Maximum Frequency (Hz)	2560	100
Minimum Frequency (Hz)	5	0
Spectral Bandwidth (Hz)	5	1

Missing Data: No reference probe

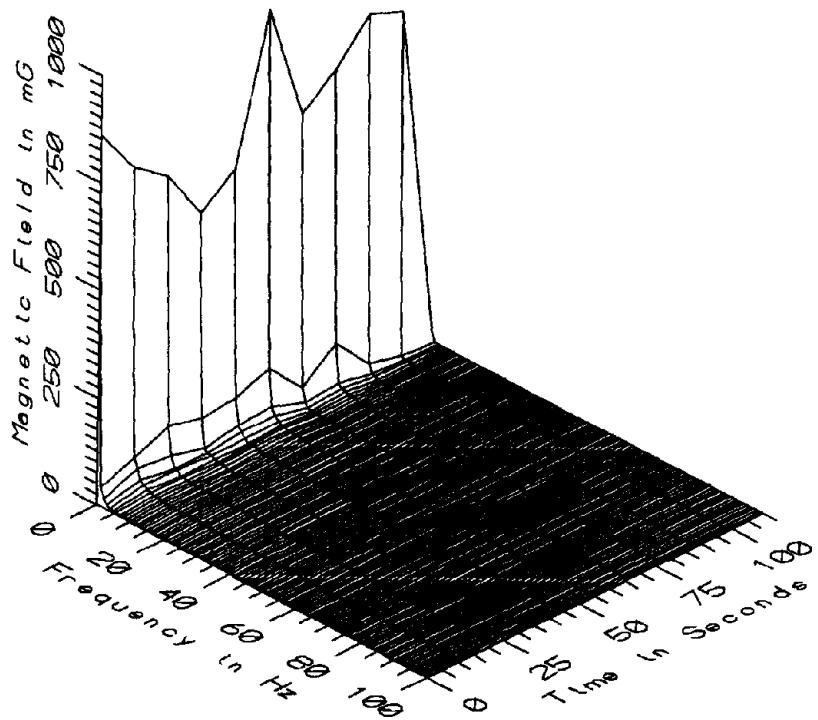
Saturated Data - Wideband:	<u>Sensor</u>	<u>Sample</u>	<u>Time (sec)</u>
	10cm	5	44
	110cm	8	77
	160cm	8	77



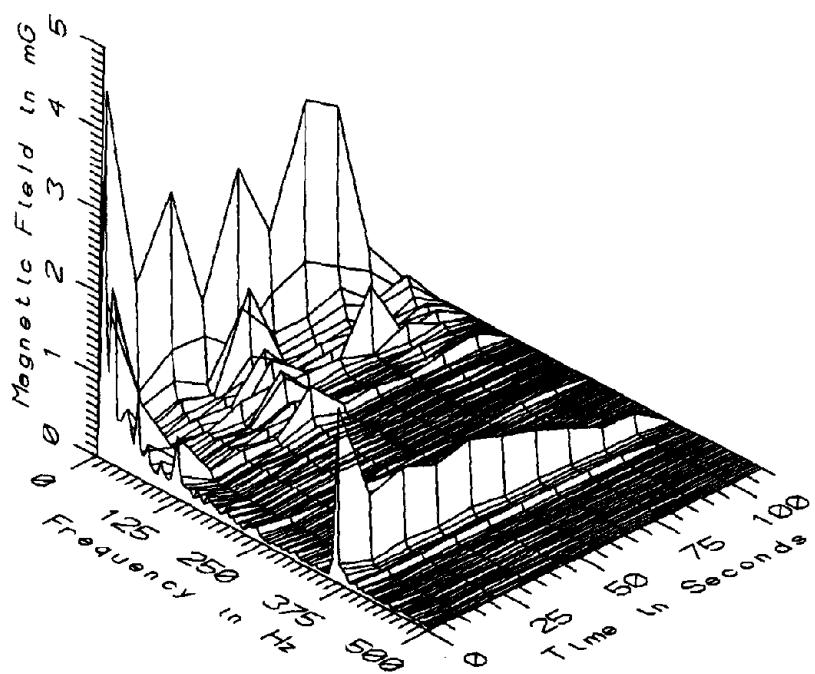
MET027 - 160cm ABOVE FLOOR, CENTER OF AISLE, REAR OF CAR 2XXX



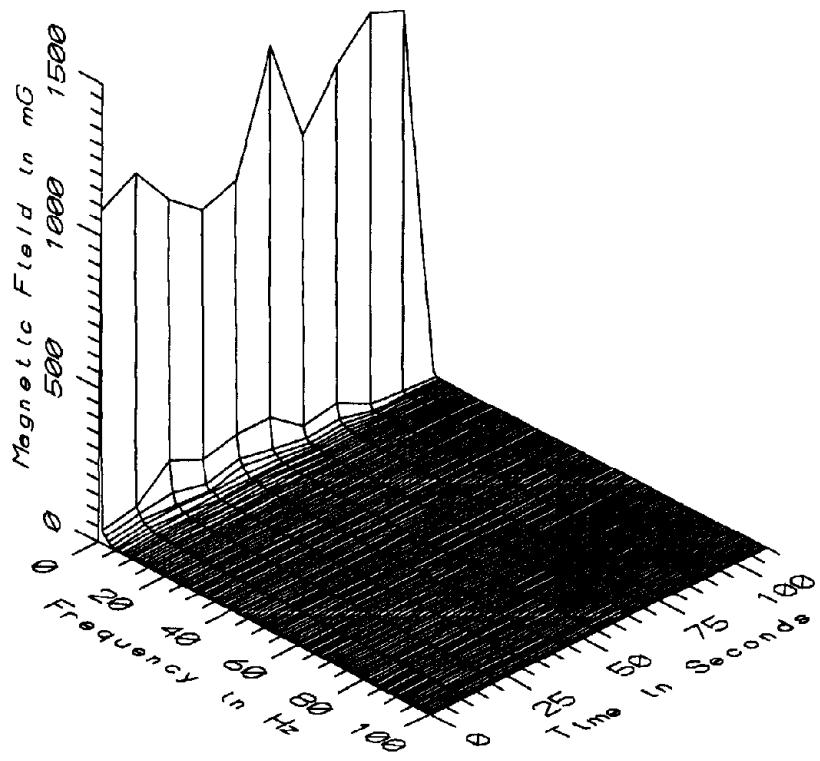
MET027 - 160cm ABOVE FLOOR, CENTER OF AISLE, REAR OF CAR 2XXX



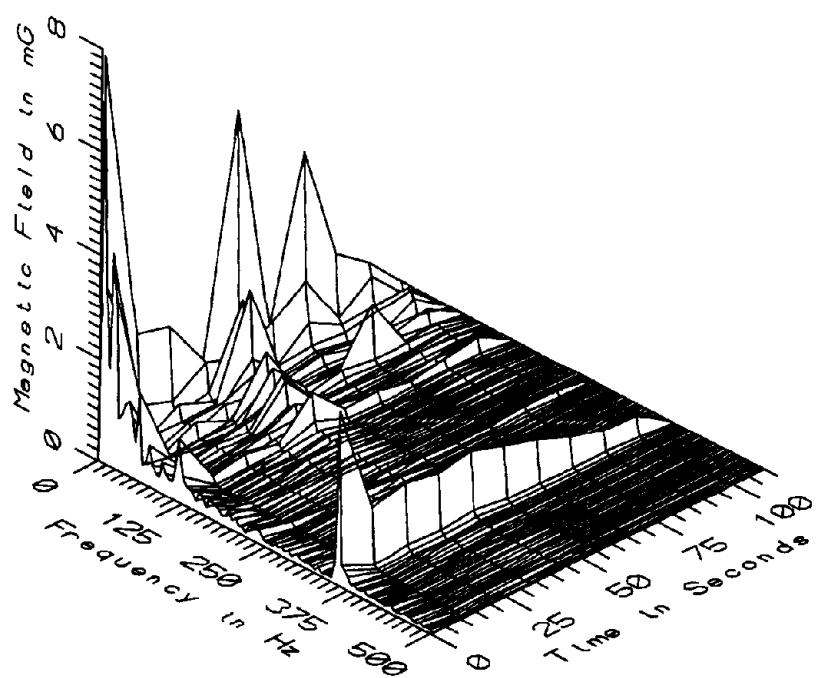
MET027 - 110cm ABOVE FLOOR, CENTER OF AISLE, REAR OF CAR 2XXX



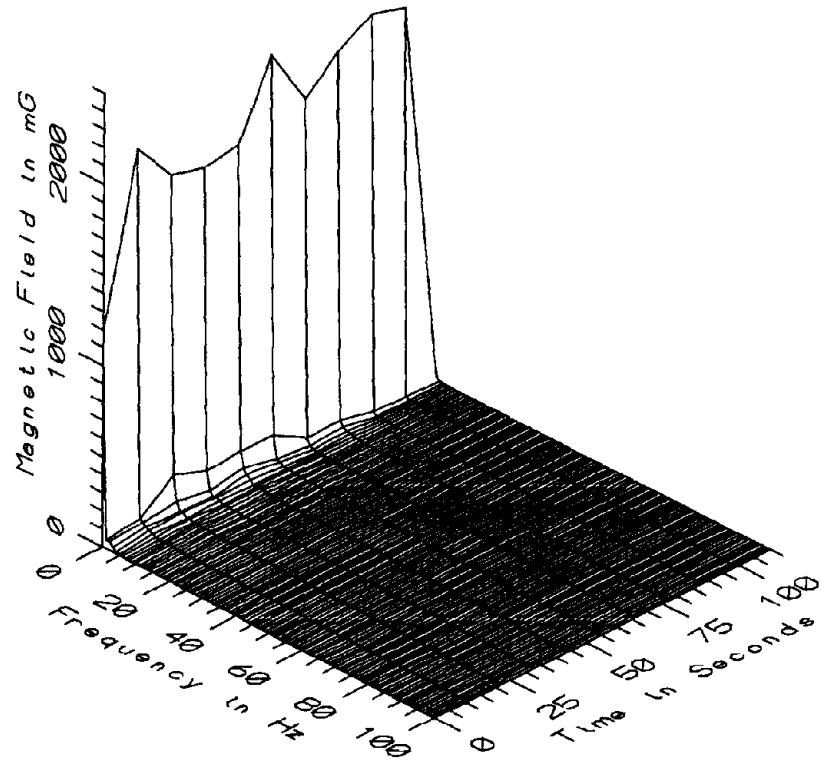
MET027 - 110cm ABOVE FLOOR, CENTER OF AISLE, REAR OF CAR 2XXX



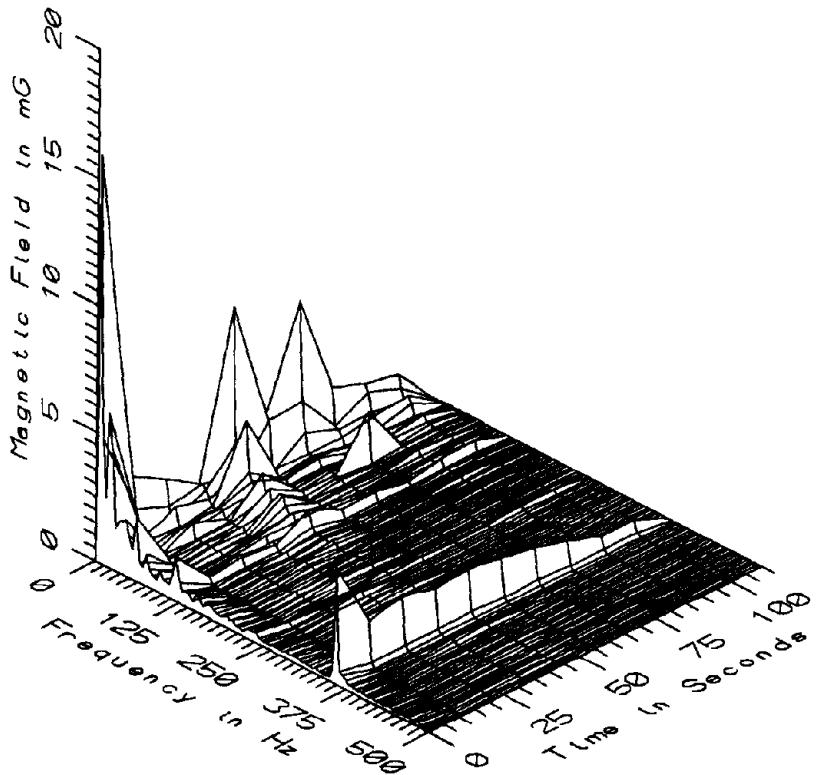
MET027 - 60cm ABOVE FLOOR, CENTER OF AISLE, REAR OF CAR 2XXX



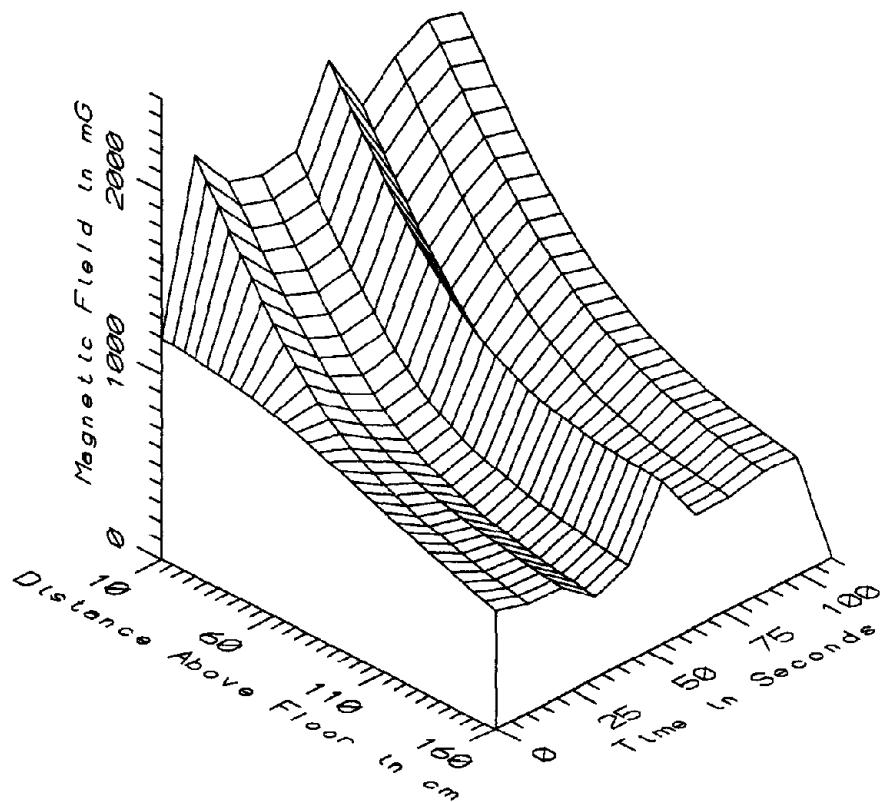
MET027 - 60cm ABOVE FLOOR, CENTER OF AISLE, REAR OF CAR 2XXX



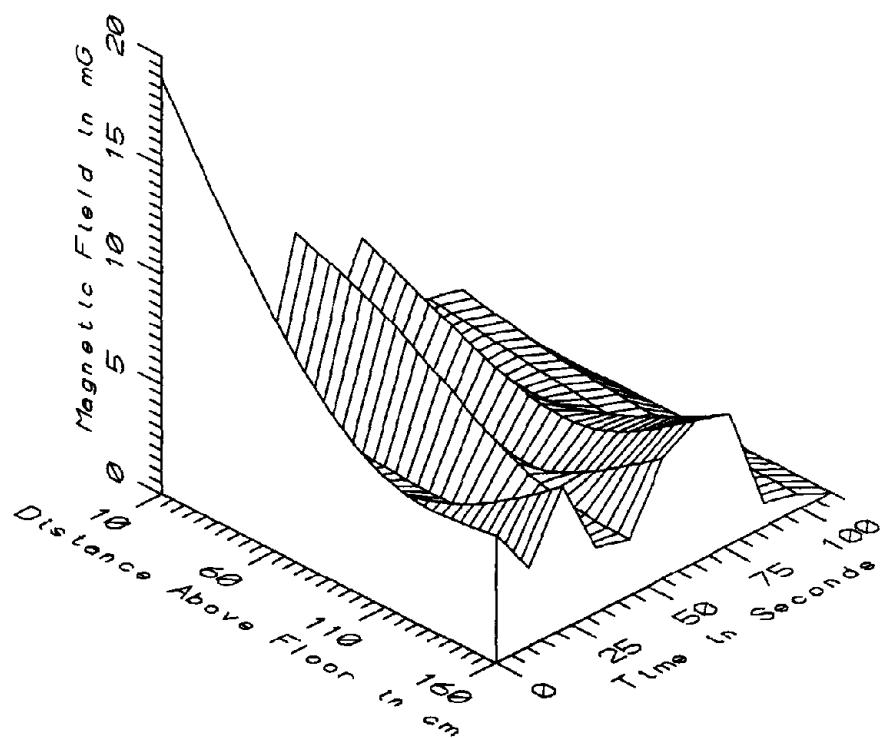
MET027 - 10cm ABOVE FLOOR, CENTER OF AISLE, REAR OF CAR 2XXX



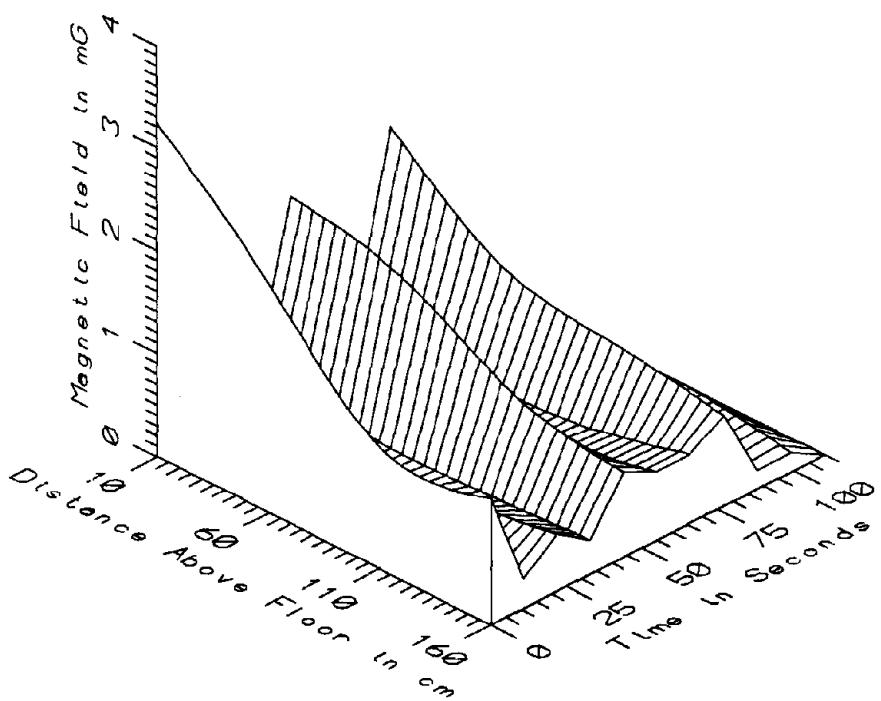
MET027 - 10cm ABOVE FLOOR, CENTER OF AISLE, REAR OF CAR 2XXX



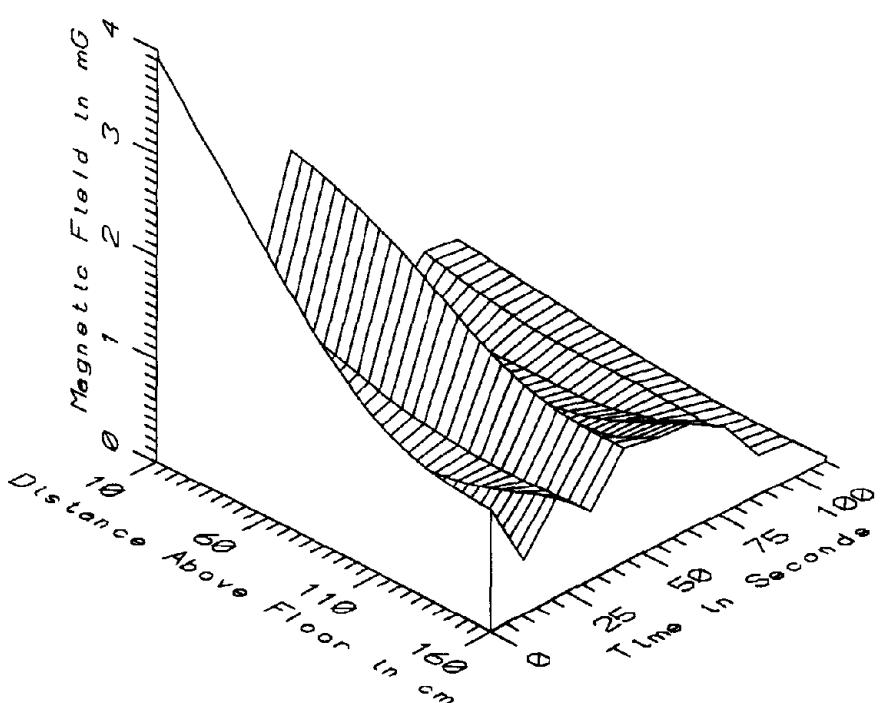
MET027 - CENTER OF AISLE, REAR OF CAR 2XXX - STATIC



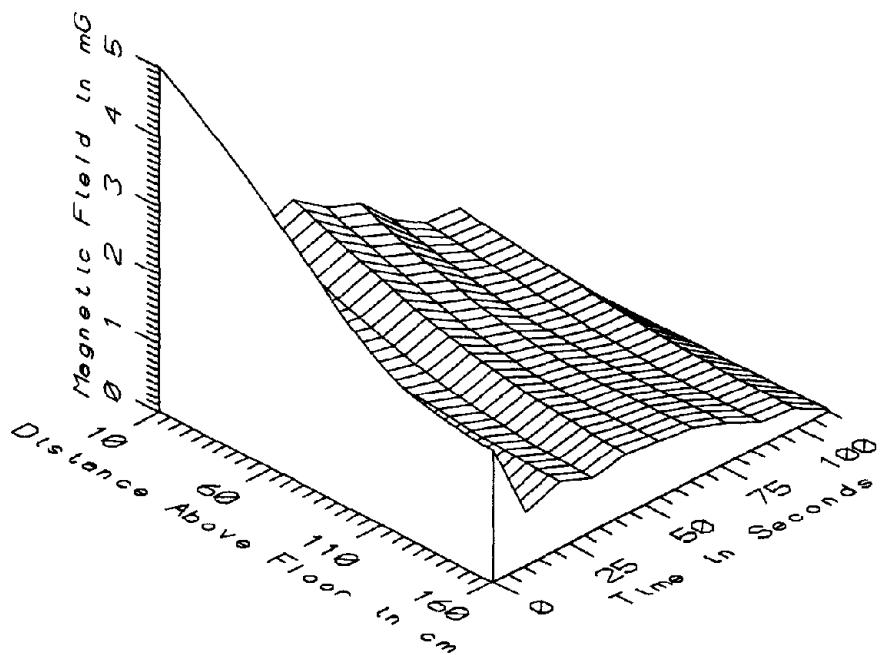
MET027 - CENTER OF AISLE, REAR OF CAR 2XXX - LOW FREQ, 5-45Hz



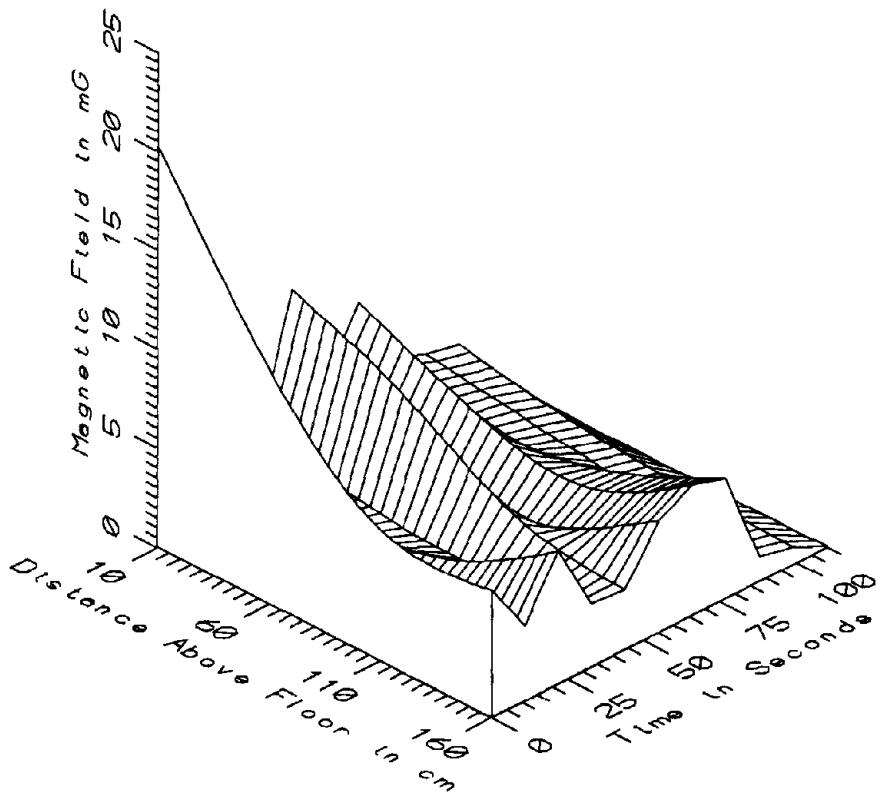
MET027 - CENTER OF AISLE, REAR OF CAR 2XXX - POWER FREQ, 50-60Hz



MET027 - CENTER OF AISLE, REAR OF CAR 2XXX - POWER HARM, 65-300Hz



MET027 - CENTER OF AISLE, REAR OF CAR 2XXX - HIGH FREQ, 305-2560Hz



MET027 - CENTER OF AISLE, REAR OF CAR 2XXX - ALL FREQ, 5-2560Hz

MET027-CENTER OF AISLE, REAR OF A 2000 SERIES CAR							TOTAL OF 11 SAMPLES
FREQUENCY BAND	HEIGHT ABOVE FLOOR (cm)	MINIMUM MAGNETIC FIELD (mG)	MAXIMUM MAGNETIC FIELD (mG)	AVERAGE MAGNETIC FIELD (mG)	STANDARD DEVIATION (mG)	COEFFICIENT OF VARIATION (%)	
STATIC	10	14.06	2249.66	1765.59	649.05	36.76	
	60	18.57	1351.63	1023.53	361.22	35.29	
	110	21.86	965.25	686.67	247.50	36.04	
	160	19.92	873.61	557.55	207.87	37.28	
5-45HZ LOW FREQ	10	0.01	18.95	4.93	5.23	105.98	
	60	0.00	10.66	3.22	3.01	93.33	
	110	0.02	5.91	2.53	1.59	62.94	
	160	0.00	6.51	3.75	2.43	64.80	
50-60HZ PWR FREQ	10	0.00	3.23	0.91	1.01	111.18	
	60	0.00	2.22	0.63	0.72	113.85	
	110	0.00	1.18	0.52	0.38	74.25	
	160	0.00	1.22	0.52	0.37	69.92	
65-300HZ PWR HARM	10	0.01	3.94	1.12	1.11	99.12	
	60	0.00	2.56	0.81	0.75	92.01	
	110	0.01	1.46	0.62	0.41	65.40	
	160	0.05	1.16	0.74	0.37	49.81	
305-2560HZ HIGH FREQ	10	0.04	5.00	1.74	1.28	73.15	
	60	0.02	3.74	1.20	0.95	79.42	
	110	0.03	2.31	0.84	0.59	70.14	
	160	0.03	1.90	0.73	0.48	64.99	
5-2560HZ ALL FREQ	10	0.04	20.25	5.54	5.47	98.65	
	60	0.02	11.79	3.65	3.25	89.17	
	110	0.04	6.62	2.81	1.74	62.14	
	160	0.06	6.68	3.96	2.47	62.37	

APPENDIX Y

DATASET MET028 CENTER OF AISLE, CENTER OF A 2000 SERIES CAR

Measurement Setup Code: Staff: 1 Reference: -
Drawing: A-1

Vehicle Status: Traveling on the Green Line

Measurement Date: May 19, 1992

Measurement Time: Start: 15:37:44
End: 15:40:33

Number of Samples: 24

Programmed Sample Interval: 5 sec

Actual Sample Interval: 7.3 sec

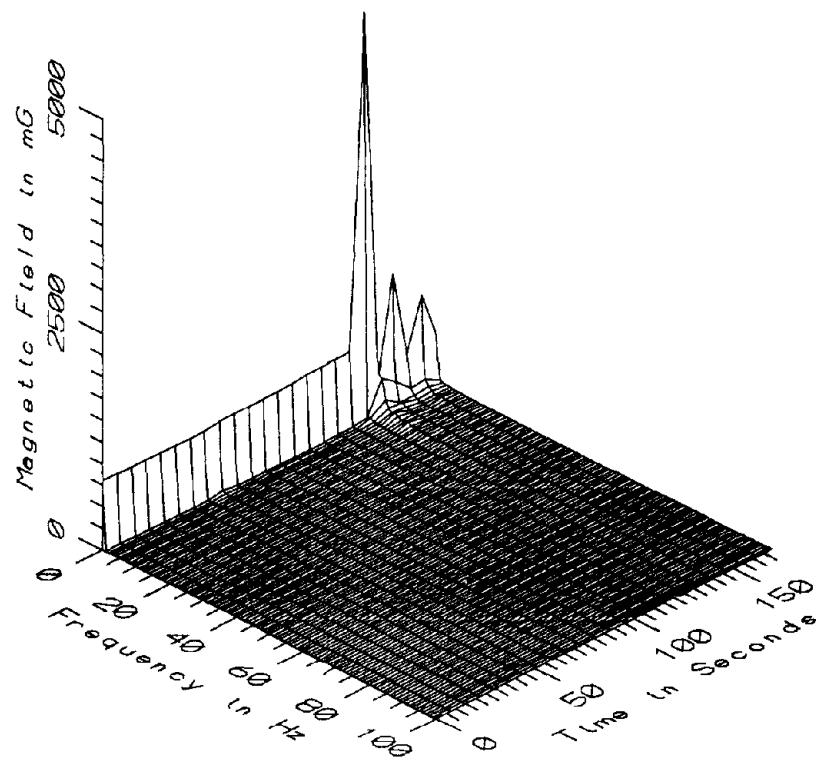
Frequency Spectrum Parameters

<u>Probe Type:</u>	<u>Wideband</u>	<u>Static</u>
Maximum Frequency (Hz)	2560	100
Minimum Frequency (Hz)	5	0
Spectral Bandwidth (Hz)	5	1

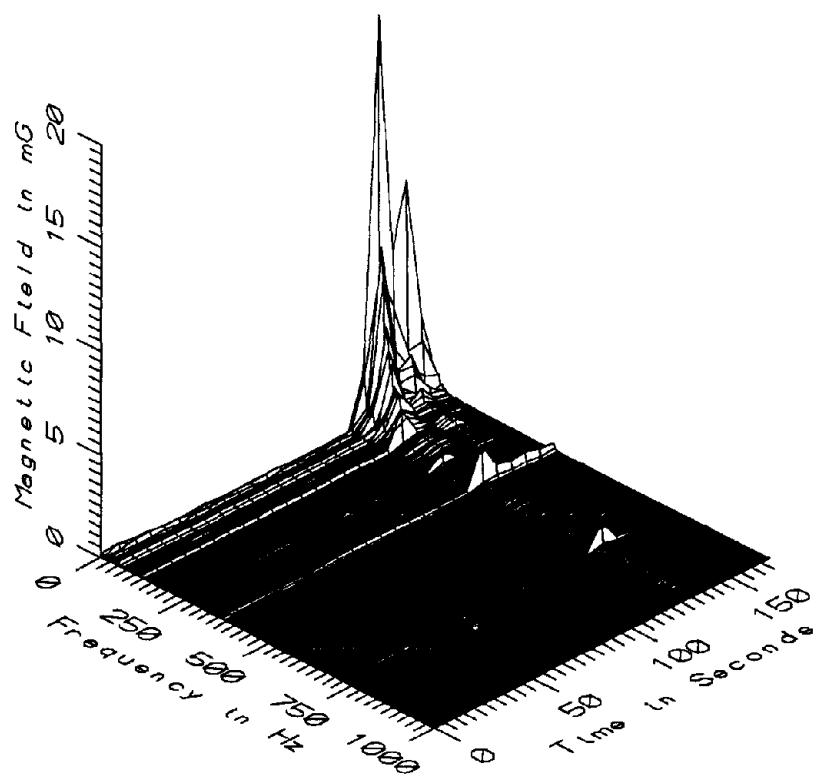
Missing Data: No reference probe

Saturated Data - Wideband:	<u>Sensor</u>	<u>Sample</u>	<u>Time (sec)</u>
	10cm	19	131
	10cm	21	146
	60cm	19	131
	110cm	19	131
	160cm	19	131

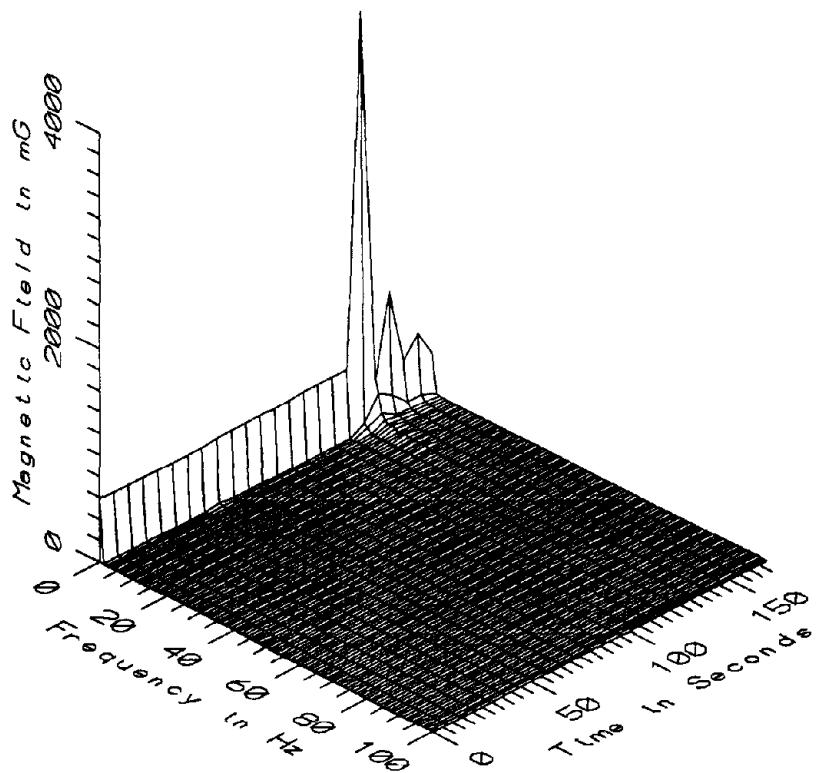
Saturated Data - Static:	<u>Sensor</u>	<u>Sample</u>	<u>Time (sec)</u>
	10cm	19	131



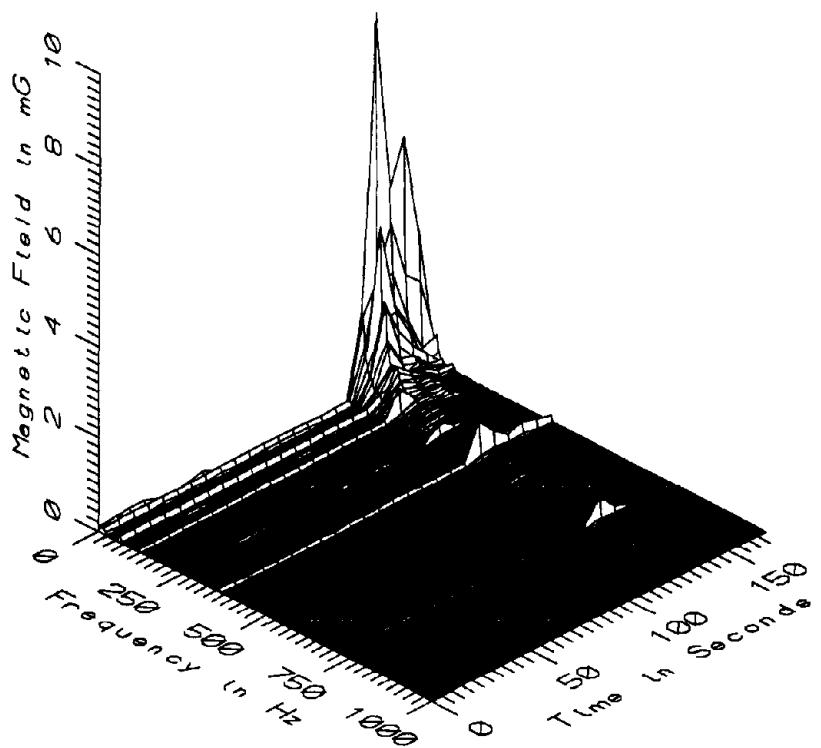
MET028 - 10cm ABOVE FLOOR, CENTER OF AISLE, CENTER OF CAR 2XXX



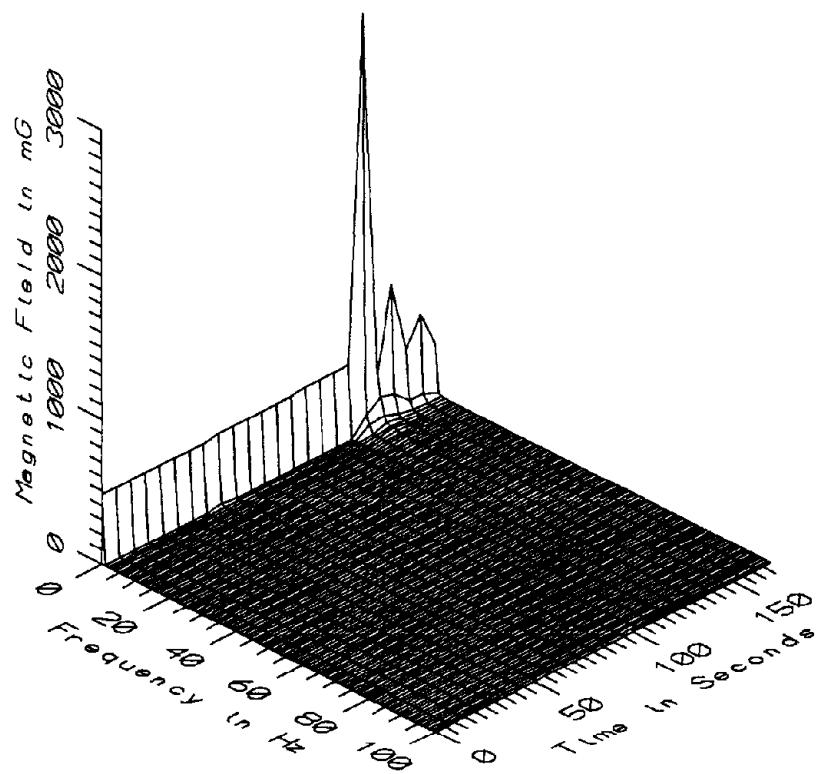
MET028 - 10cm ABOVE FLOOR, CENTER OF AISLE, CENTER OF CAR 2XXX



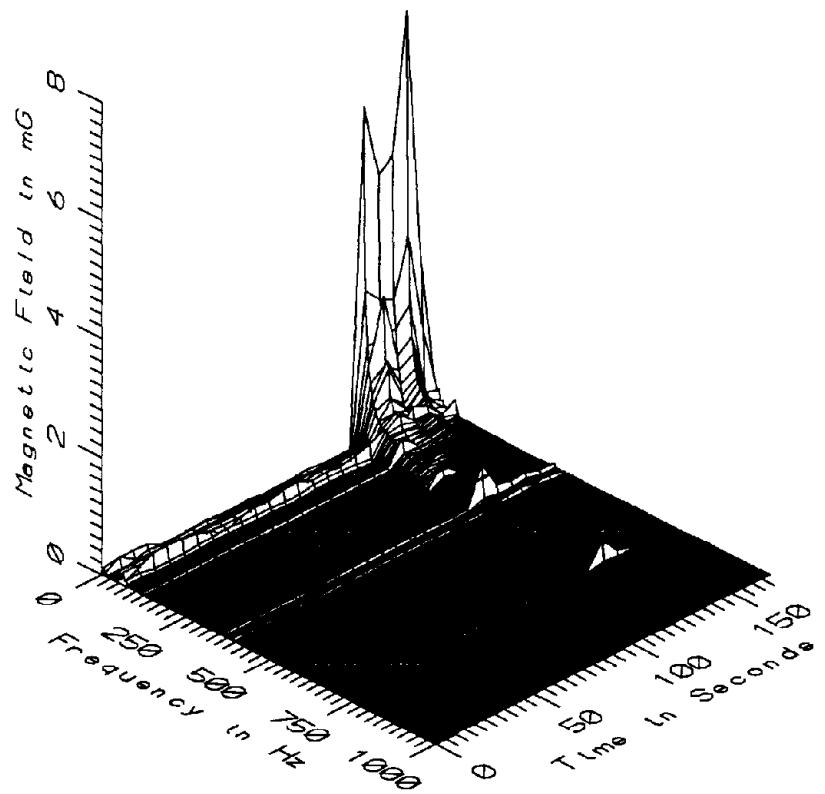
MET028 - 60cm ABOVE FLOOR, CENTER OF AISLE, CENTER OF CAR 2XXX



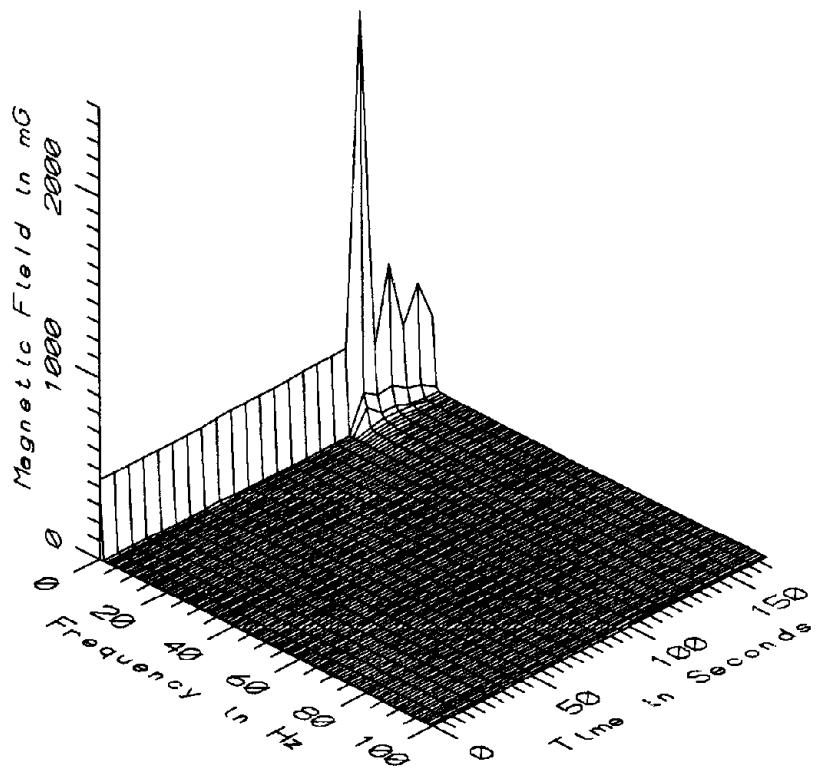
MET028 - 60cm ABOVE FLOOR, CENTER OF AISLE, CENTER OF CAR 2XXX



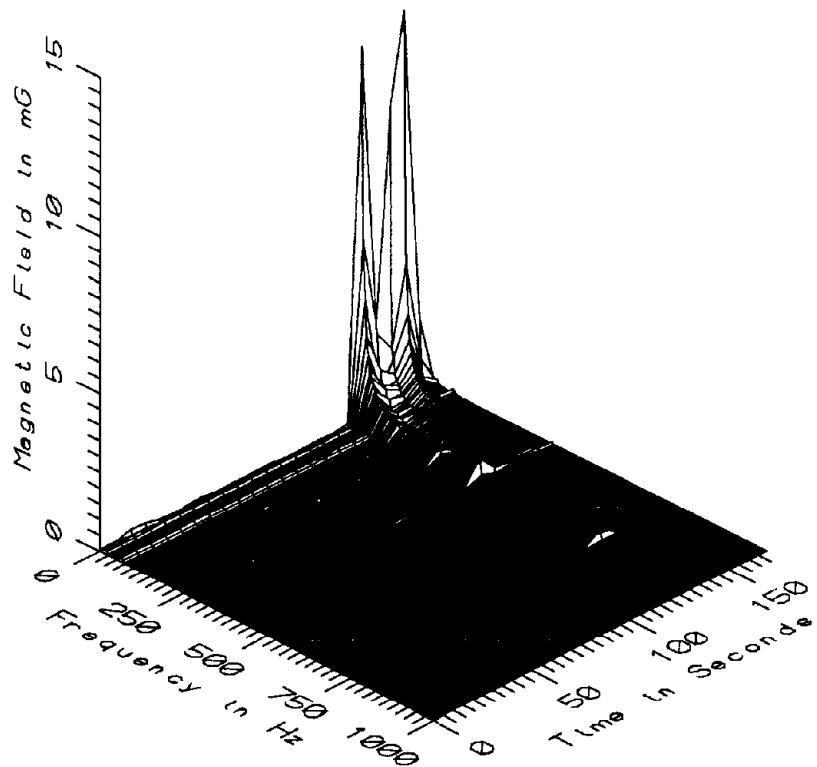
MET028 - 110cm ABOVE FLOOR, CENTER OF AISLE, CENTER OF CAR 2XXX



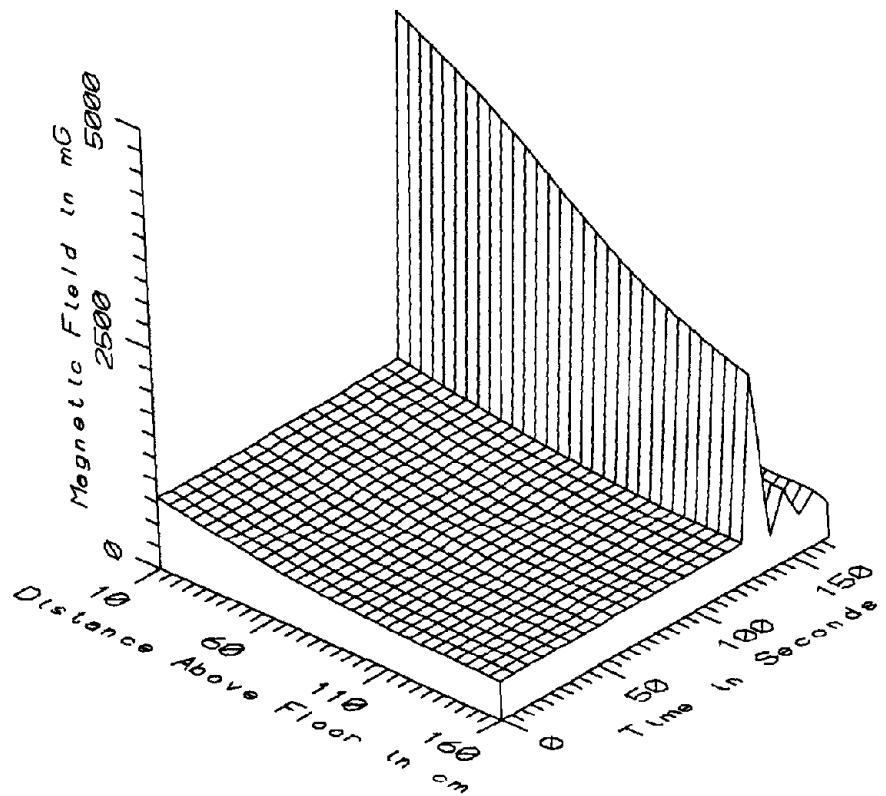
MET028 - 110cm ABOVE FLOOR, CENTER OF AISLE, CENTER OF CAR 2XXX



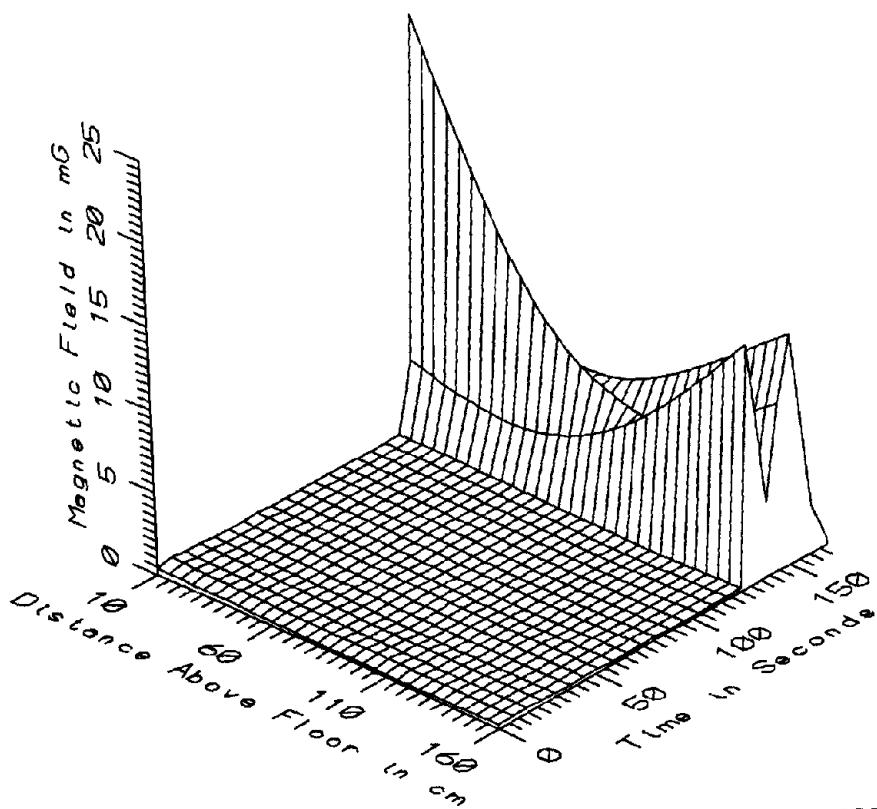
MET028 - 160cm ABOVE FLOOR, CENTER OF AISLE, CENTER OF CAR 2XXX



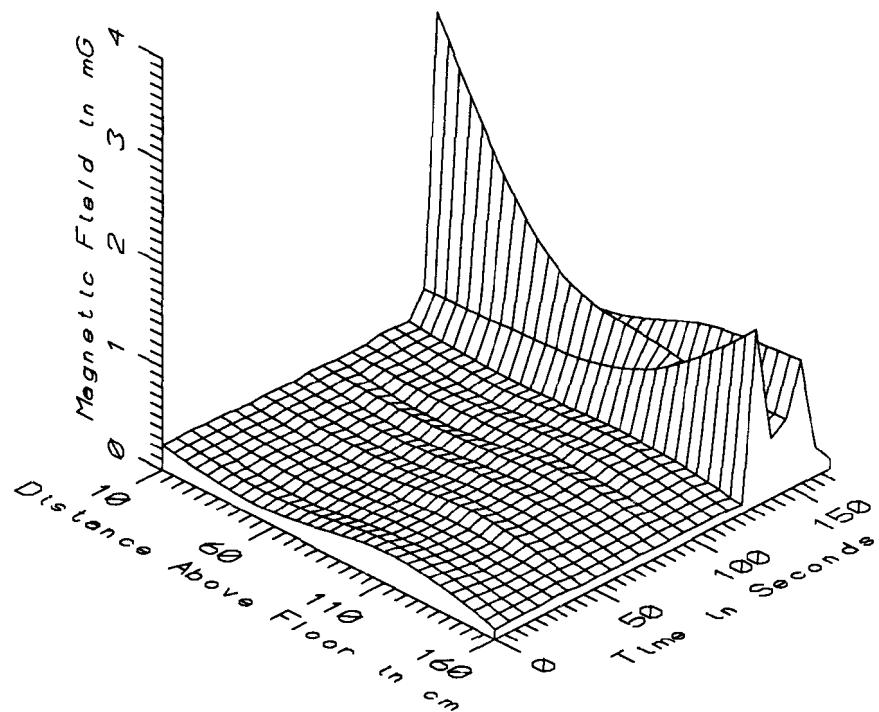
MET028 - 160cm ABOVE FLOOR, CENTER OF AISLE, CENTER OF CAR 2XXX



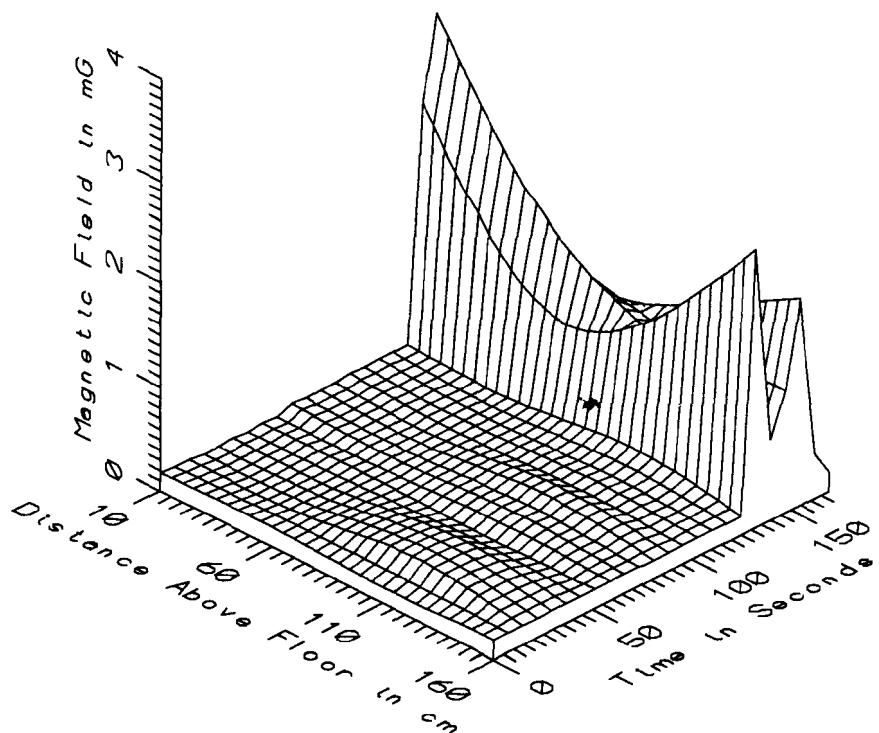
MET028 - CENTER OF AISLE, CENTER OF CAR 2XXX - STATIC



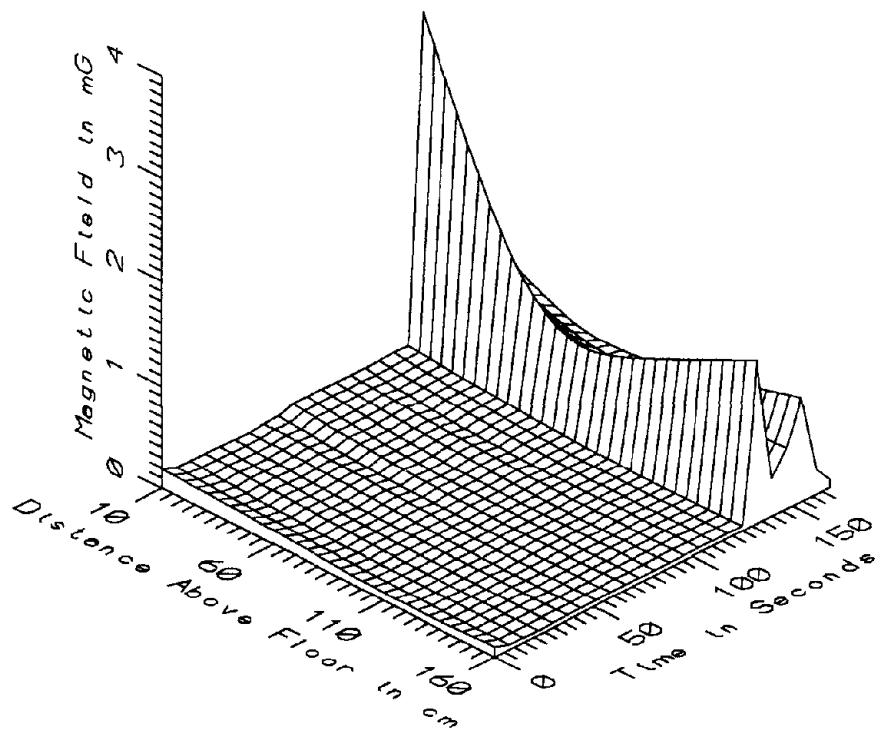
MET028 - CENTER OF AISLE, CENTER OF CAR 2XXX - LOW FREQ. 5-45Hz



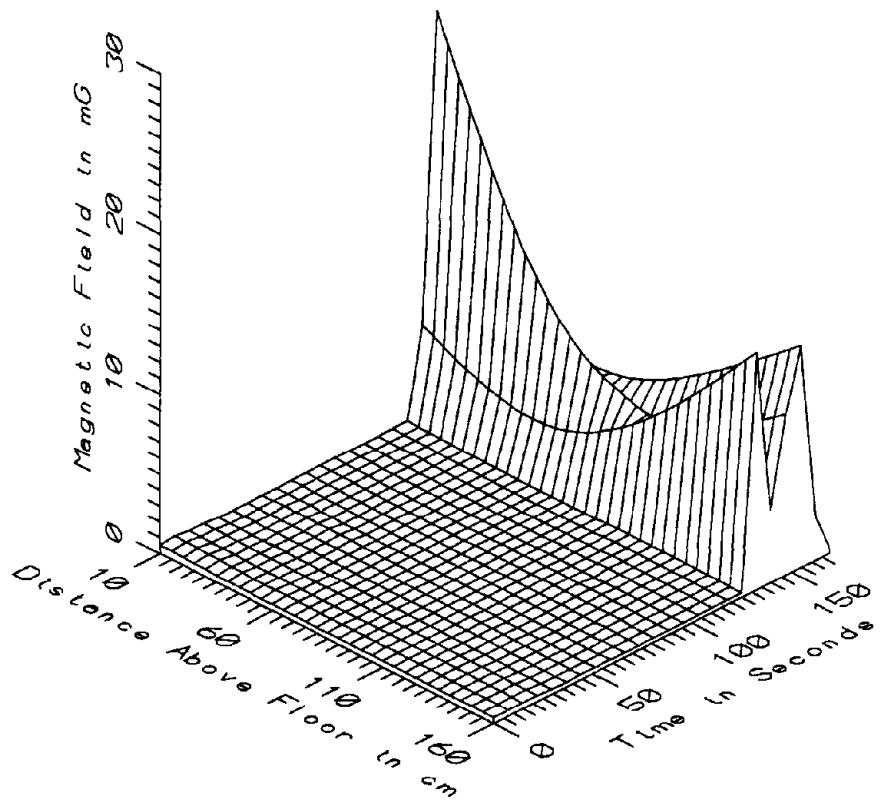
MET028 - CENTER OF AISLE, CENTER OF CAR 2XXX - POWER FREQ, 50-60Hz



MET028 - CENTER OF AISLE, CENTER OF CAR 2XXX - POWER HARM, 65-300Hz



MET028 - CENTER OF AISLE, CENTER OF CAR 2XXX - HIGH FREQ, 305-2560Hz



MET028 - CENTER OF AISLE, CENTER OF CAR 2XXX - ALL FREQ, 5-2560Hz

MET028 - CENTER OF A 2000 SERIES CAR - ALL SAMPLES		TOTAL OF 24 SAMPLES		
FREQUENCY BAND	HEIGHT ABOVE FLOOR (cm)	MINIMUM MAGNETIC FIELD (mG)	MAXIMUM MAGNETIC FIELD (mG)	AVERAGE MAGNETIC FIELD (mG)
				STANDARD DEVIATION OF VARIATION (mG)
STATIC	10	415.08	4713.82	971.54
	60	370.75	3912.45	744.70
	110	357.05	2890.56	596.59
	160	382.52	2293.28	545.88
5-45Hz LOW FREQ	10	0.23	24.73	2.68
	60	0.18	10.45	1.47
	110	0.03	8.27	1.36
	160	0.18	14.50	2.08
50-60Hz PWR FREQ	10	0.19	3.09	0.46
	60	0.12	1.27	0.27
	110	0.17	1.02	0.34
	160	0.09	1.70	0.27
65-300Hz PWR HARM	10	0.14	3.29	0.59
	60	0.17	1.80	0.39
	110	0.16	1.42	0.43
	160	0.18	2.68	0.44
305-2560Hz HIGH FREQ	10	0.12	3.35	0.44
	60	0.06	1.11	0.22
	110	0.04	1.06	0.17
	160	0.04	1.59	0.20
5-2560Hz ALL FREQ	10	0.41	25.16	2.91
	60	0.31	10.71	1.61
	110	0.32	8.48	1.60
	160	0.29	14.93	2.19

MET028 - CENTER OF A 2000 SERIES CAR - NOT MOVING						TOTAL OF 18 SAMPLES	
FREQUENCY	HEIGHT BAND	MINIMUM MAGNETIC FIELD	MAXIMUM MAGNETIC FIELD	AVERAGE MAGNETIC FIELD	STANDARD DEVIATION	COEFFICIENT OF VARIATION	(%)
		(mG)	(mG)	(mG)	(mG)		
STATIC	10	786.70	843.74	809.20	19.36	2.39	
	60	584.86	639.02	607.25	19.71	3.25	
	110	471.65	508.49	487.62	14.21	2.91	
	160	440.57	469.90	452.60	10.54	2.33	
5-45HZ LOW FREQ	10	0.23	0.58	0.33	0.08	24.25	
	60	0.18	0.34	0.22	0.05	20.74	
	110	0.03	0.28	0.11	0.06	58.36	
	160	0.18	0.31	0.23	0.04	16.72	
50-60HZ PWR FREQ	10	0.21	0.25	0.23	0.01	4.43	
	60	0.12	0.19	0.16	0.02	13.31	
	110	0.20	0.31	0.24	0.03	11.08	
	160	0.09	0.12	0.10	0.01	6.99	
65-300HZ PWR HARM	10	0.14	0.21	0.18	0.02	13.15	
	60	0.17	0.20	0.18	0.01	4.15	
	110	0.16	0.32	0.25	0.05	20.88	
	160	0.18	0.19	0.19	0.00	1.72	
305-2560HZ HIGH FREQ	10	0.12	0.19	0.15	0.03	16.59	
	60	0.06	0.14	0.08	0.02	23.21	
	110	0.04	0.07	0.05	0.01	15.56	
	160	0.04	0.10	0.05	0.01	23.00	
5-2560HZ ALL FREQ	10	0.41	0.66	0.47	0.06	12.42	
	60	0.31	0.43	0.34	0.03	9.35	
	110	0.32	0.45	0.37	0.04	10.23	
	160	0.29	0.38	0.32	0.03	9.12	

MET028 - CENTER OF A 2000 SERIES CAR - IN MOTION		TOTAL OF 6 SAMPLES		
FREQUENCY BAND	HEIGHT ABOVE FLOOR (cm)	MINIMUM MAGNETIC FIELD (mG)	MAXIMUM MAGNETIC FIELD (mG)	AVERAGE MAGNETIC FIELD (mG)
				STANDARD DEVIATION (mG)
STATIC	10	415.08	4713.82	1458.56
	60	370.75	3912.45	1157.03
	110	357.05	2890.56	923.47
	160	382.52	2293.28	825.69
5-45Hz LOW FREQ	10	1.57	24.73	9.74
	60	1.02	10.45	5.24
	110	0.53	8.27	5.11
	160	0.40	14.50	7.64
50-60Hz PWR FREQ	10	0.19	3.09	1.14
	60	0.14	1.27	0.59
	110	0.17	1.02	0.65
	160	0.11	1.70	0.76
65-300Hz PWR HARM	10	0.38	3.29	1.83
	60	0.29	1.80	1.02
	110	0.33	1.42	0.99
	160	0.19	2.68	1.21
305-2560Hz HIGH FREQ	10	0.44	3.35	1.31
	60	0.18	1.11	0.63
	110	0.09	1.06	0.54
	160	0.08	1.59	0.65
5-2560Hz ALL FREQ	10	1.68	25.16	10.24
	60	1.09	10.71	5.43
	110	0.65	8.48	5.28
	160	0.46	14.93	7.81

APPENDIX Z

DATASET MET029 AXIAL PROFILE IN CENTER OF A 2000 SERIES CAR

Measurement Setup Code: Staff: 2 Reference: -
Drawing: A-1

Vehicle Status: Traveling on the Green Line

Measurement Date: May 19, 1992

Measurement Time: Start: 15:41:09
End: 15:42:09

Number of Samples: 7

Programmed Sample Interval: 5 sec

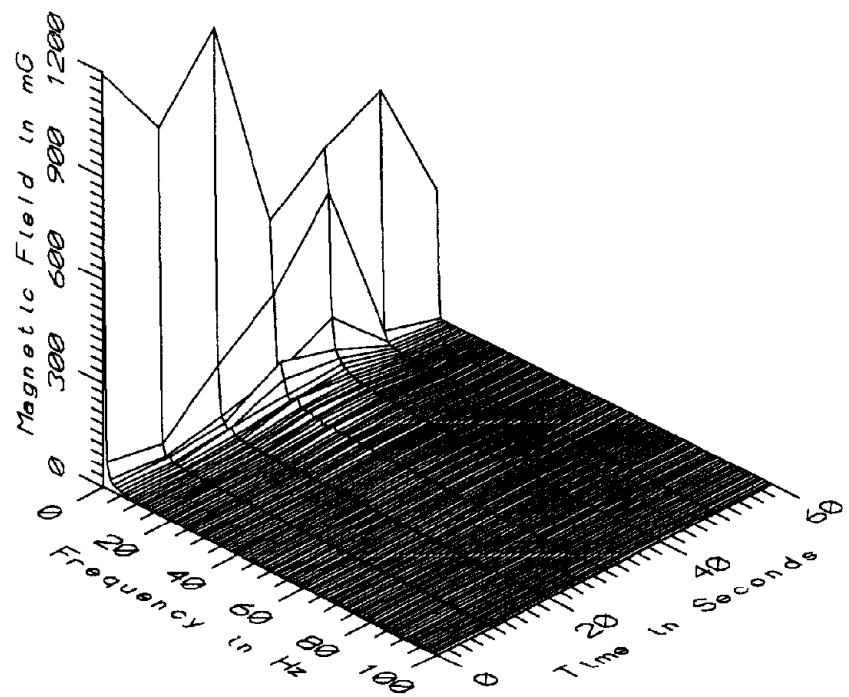
Actual Sample Interval: 10.0 sec

Frequency Spectrum Parameters

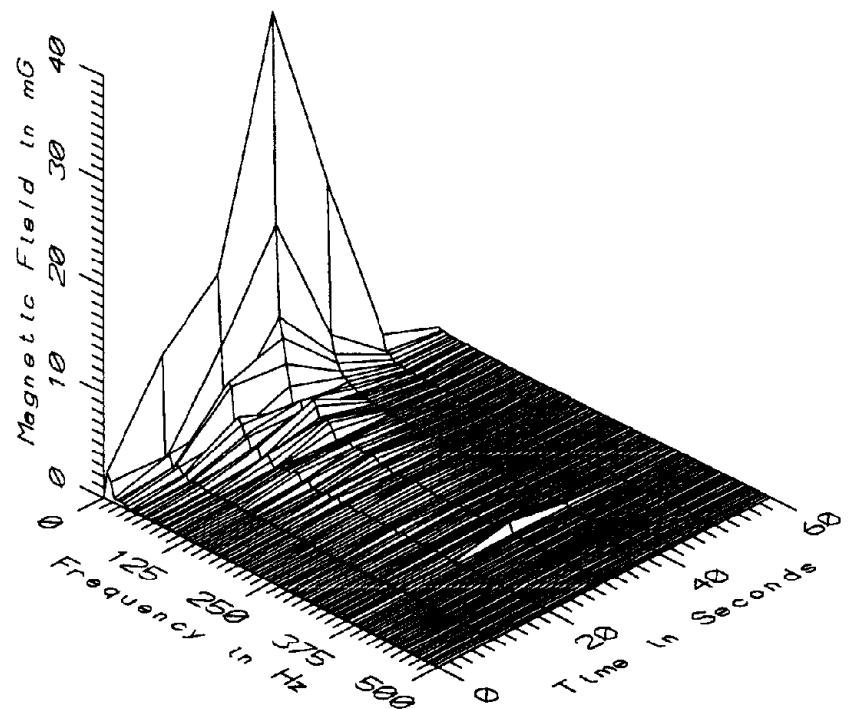
<u>Probe Type:</u>	<u>Wideband</u>	<u>Static</u>
Maximum Frequency (Hz)	2560	100
Minimum Frequency (Hz)	5	0
Spectral Bandwidth (Hz)	5	1

Missing Data: No reference probe

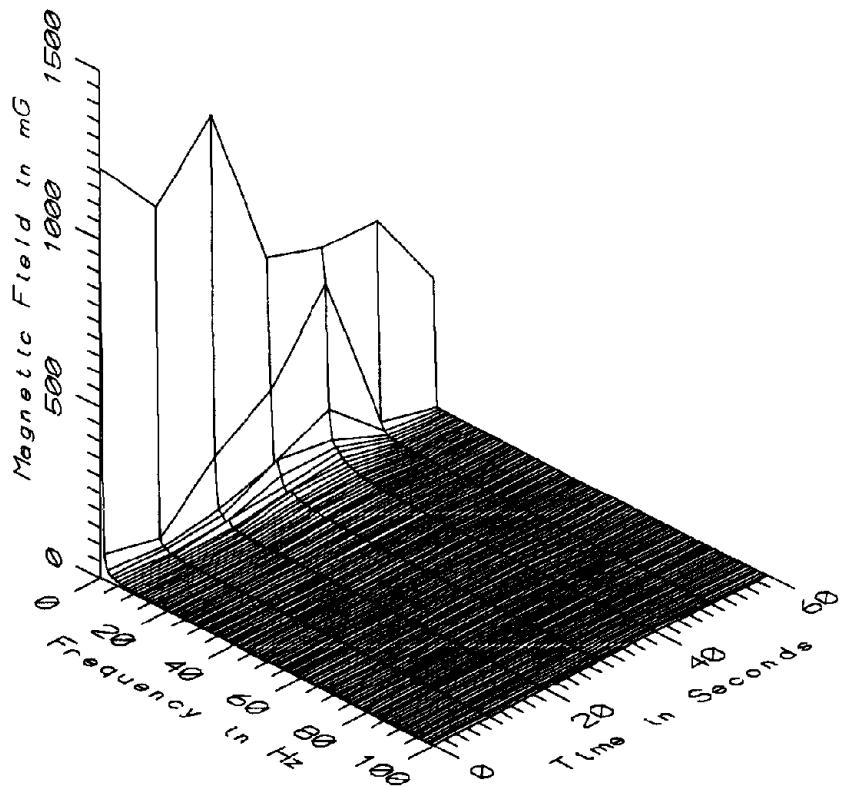
Saturated Data - Wideband:	<u>Sensor</u>	<u>Sample</u>	<u>Time (sec)</u>
	60cm	6	50



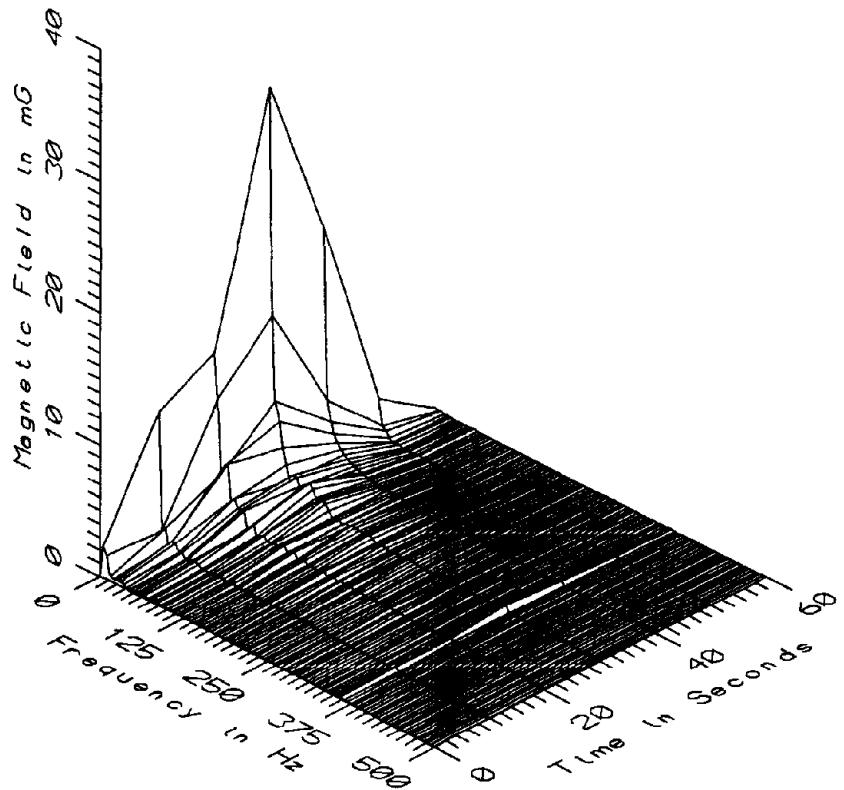
MET029 - -75cm FROM CENTERLINE OF MID DOORS ALONG AXIS OF CAR 2XXX



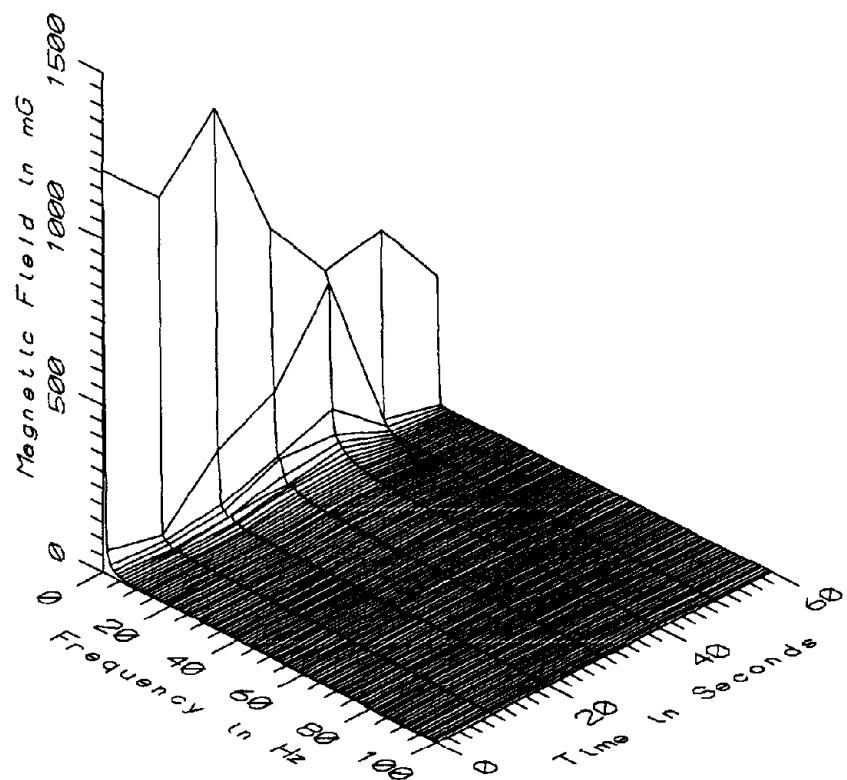
MET029 - -75cm FROM CENTERLINE OF MID DOORS ALONG AXIS OF CAR 2XXX



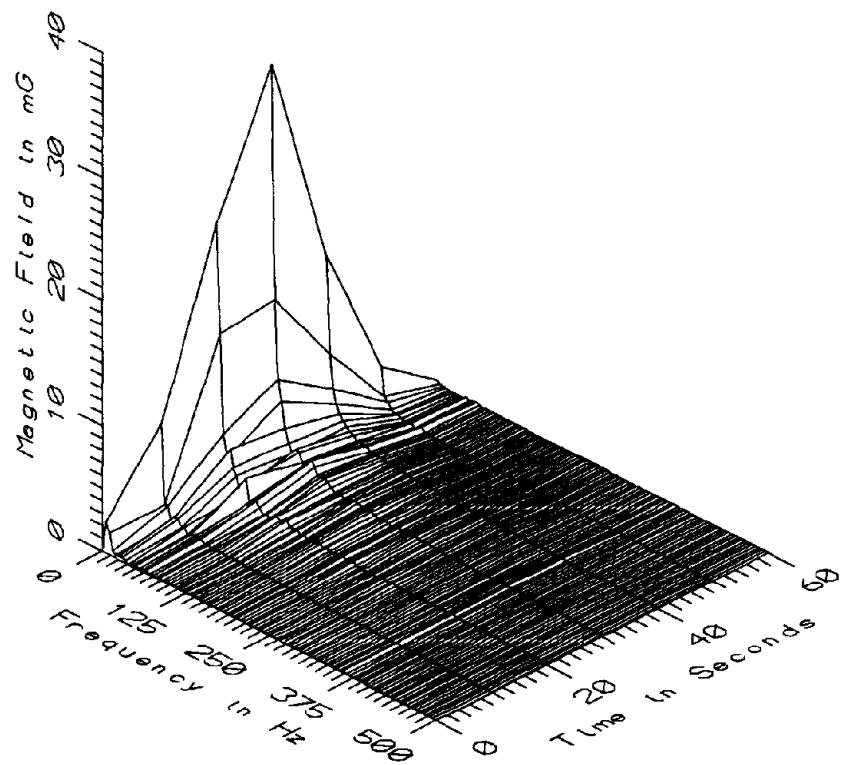
MET029 - -25cm FROM CENTERLINE OF MID DOORS ALONG AXIS OF CAR 2XXX



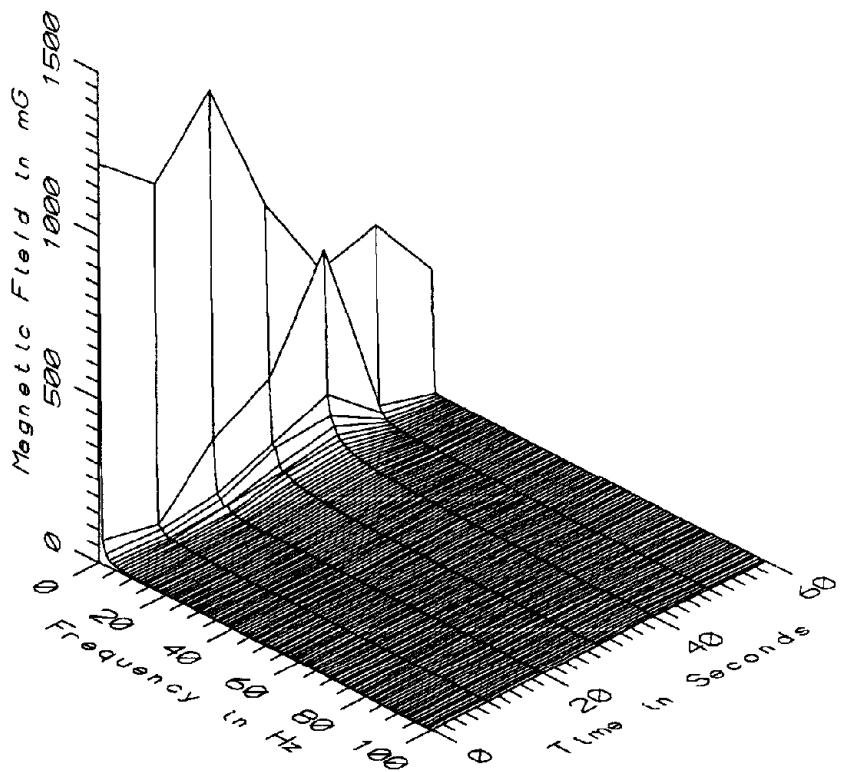
MET029 - -25cm FROM CENTERLINE OF MID DOORS ALONG AXIS OF CAR 2XXX



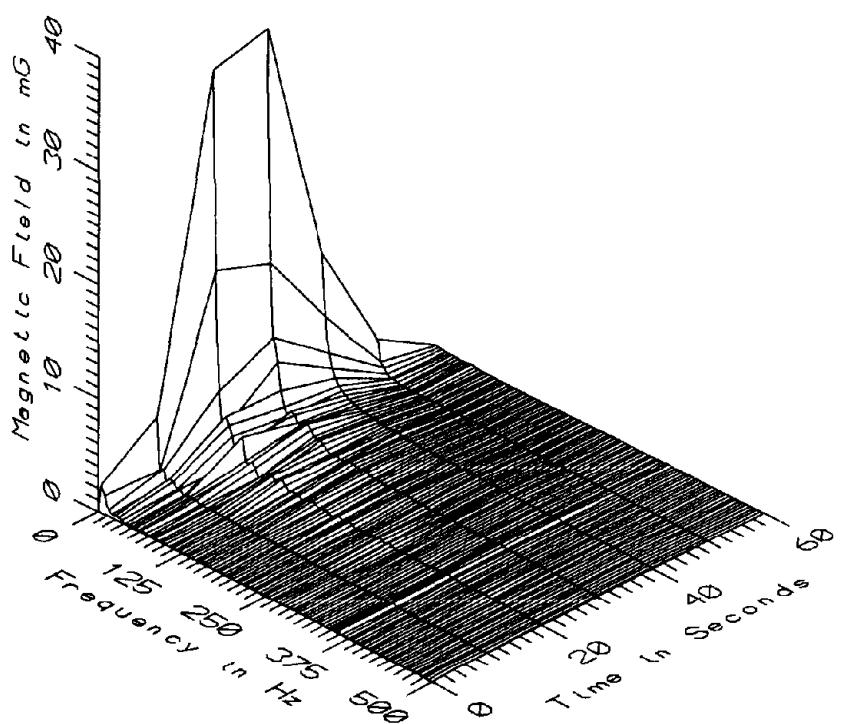
MET029 - 25cm FROM CENTERLINE OF MID DOORS ALONG AXIS OF CAR 2XXX



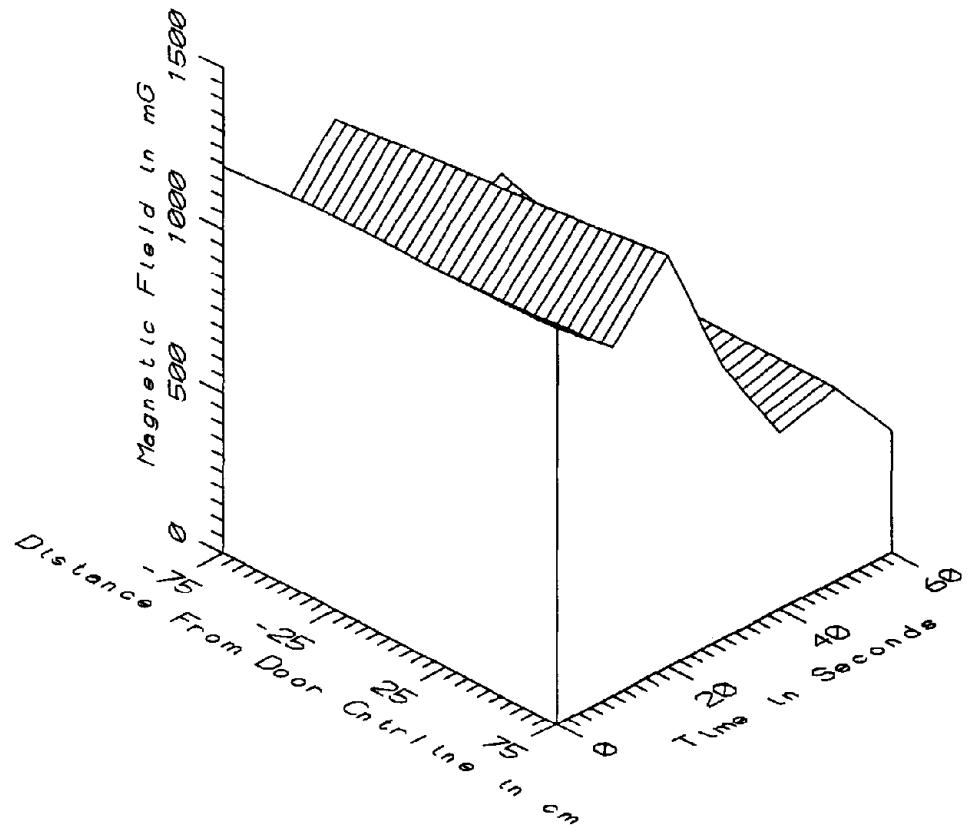
MET029 - 25cm FROM CENTERLINE OF MID DOORS ALONG AXIS OF CAR 2XXX



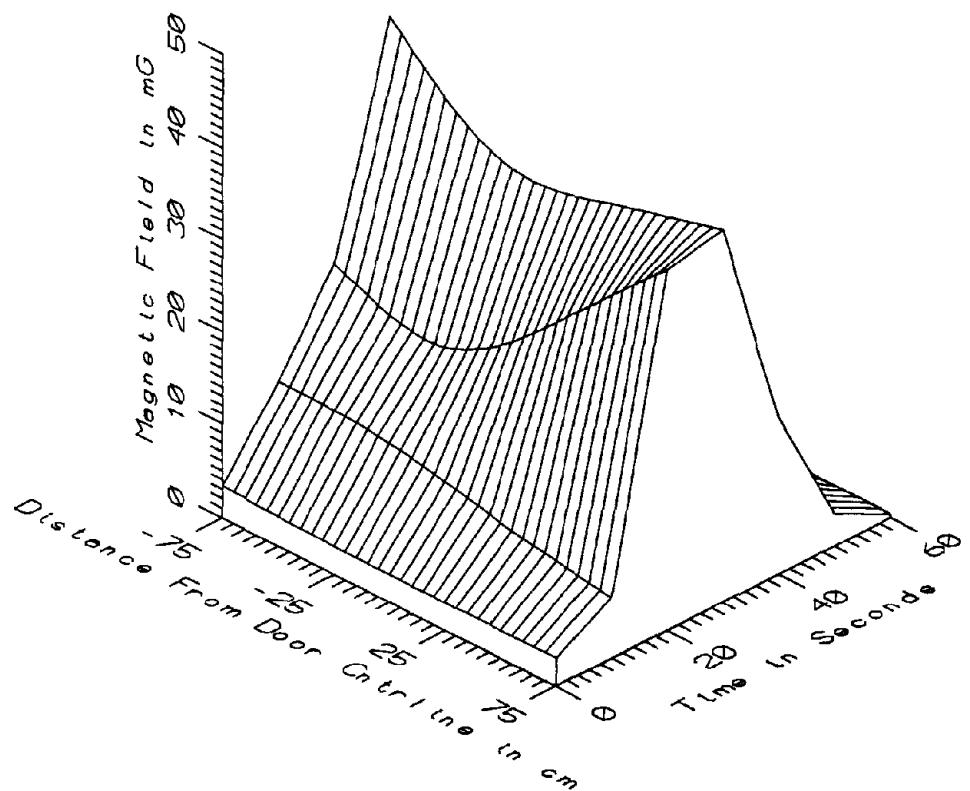
MET029 - 75cm FROM CENTERLINE OF MID DOORS ALONG AXIS OF CAR 2XXX



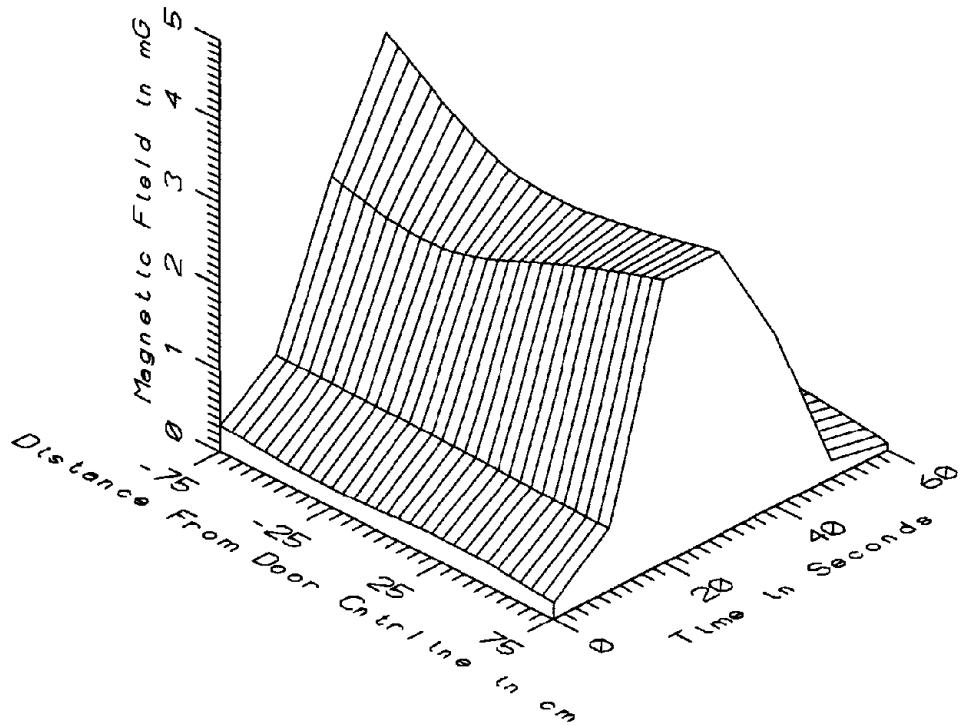
MET029 - 75cm FROM CENTERLINE OF MID DOORS ALONG AXIS OF CAR 2XXX



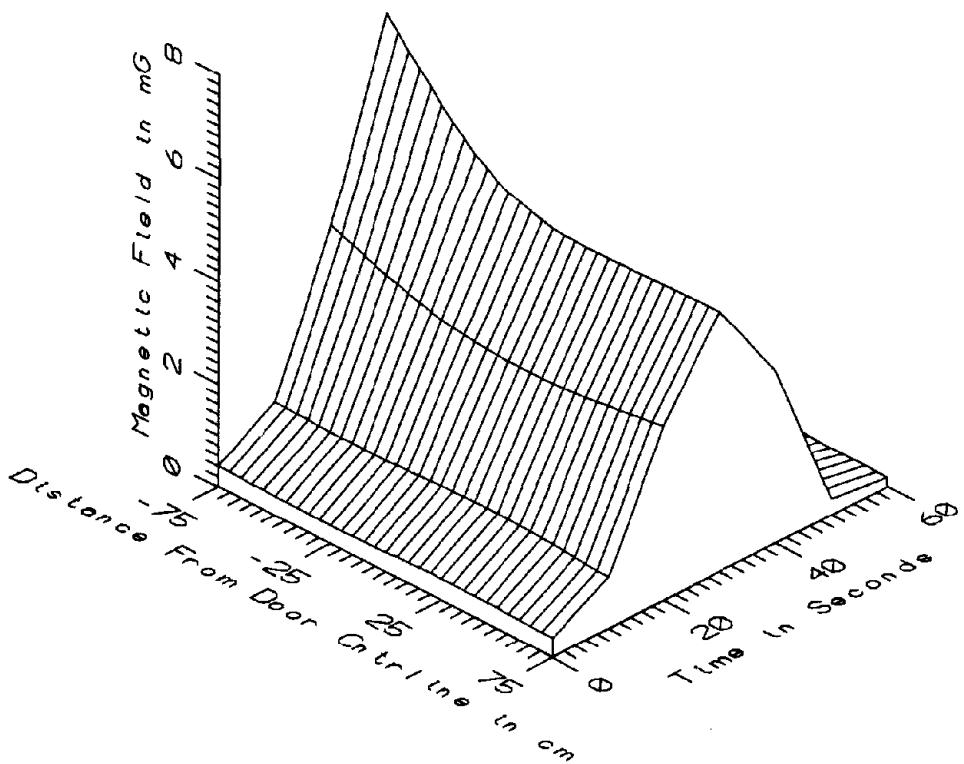
MET029 - AXIAL PROFILE, CENTER OF CAR 2XXX - STATIC



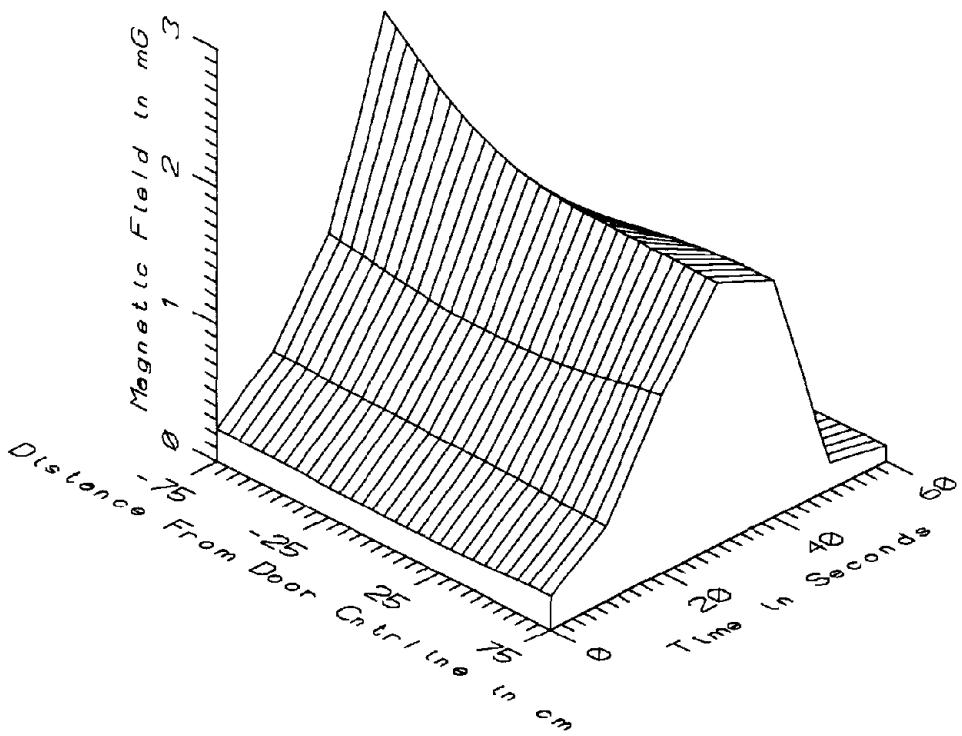
MET029 - AXIAL PROFILE, CENTER OF CAR 2XXX - LOW FREQ, 5-45Hz



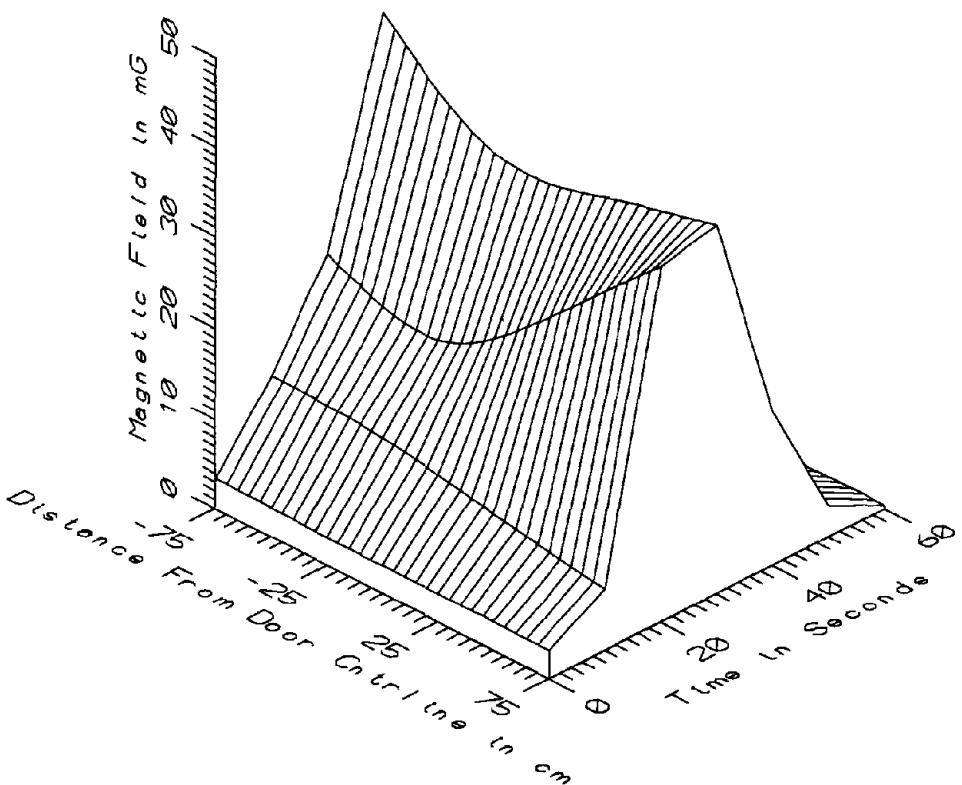
MET029 - AXIAL PROFILE, CENTER OF CAR 2XXX - POWER FREQ, 50-60Hz



MET029 - AXIAL PROFILE, CENTER OF CAR 2XXX - POWER HARM, 65-300Hz



MET029 - AXIAL PROFILE, CENTER OF CAR 2XXX - HIGH FREQ, 305-2560Hz



MET029 - AXIAL PROFILE, CENTER OF CAR 2XXX - ALL FREQ, 5-2560Hz

MET029 - AXIAL PROFILE IN CENTER OF A 2000 SERIES CAR						TOTAL OF 7 SAMPLES
FREQUENCY BAND	DIST ALONG STAFF (cm)	MINIMUM MAGNETIC FIELD (mG)	MAXIMUM MAGNETIC FIELD (mG)	AVERAGE MAGNETIC FIELD (mG)	STANDARD DEVIATION (mG)	COEFFICIENT OF VARIATION (%)
STATIC	-75	372.09	1192.37	802.14	314.76	39.24
	-25	381.65	1212.93	825.17	319.58	38.73
	25	385.69	1229.15	831.38	333.36	40.10
	75	378.94	1269.17	846.68	350.47	41.39
5-45Hz LOW FREQ	-75	0.50	44.84	15.04	15.69	104.33
	-25	0.38	35.55	13.07	12.50	95.64
	25	0.38	36.94	14.03	13.81	98.43
	75	0.36	40.15	15.64	17.17	109.80
50-60Hz PWR FREQ	-75	0.20	4.07	1.41	1.47	103.66
	-25	0.07	3.16	1.25	1.22	97.70
	25	0.23	3.12	1.39	1.27	90.95
	75	0.09	3.42	1.45	1.50	103.37
65-300Hz PWR HARM	-75	0.10	7.56	2.30	2.73	118.73
	-25	0.19	5.40	1.93	1.97	102.18
	25	0.23	4.99	1.95	1.84	94.07
	75	0.19	5.06	1.94	1.95	100.65
305-2560Hz HIGH FREQ	-75	0.12	2.66	0.92	0.93	100.59
	-25	0.11	2.07	0.83	0.75	91.11
	25	0.10	1.93	0.83	0.75	90.34
	75	0.12	1.91	0.86	0.77	88.82
5-2560Hz ALL FREQ	-75	0.56	45.73	15.32	16.00	104.47
	-25	0.45	36.15	13.30	12.72	95.61
	25	0.51	37.46	14.27	13.98	97.99
	75	0.43	40.65	15.87	17.34	109.24

APPENDIX AA

DATASET MET030 TRANSVERSE PROFILE IN CENTER OF A 2000 SERIES CAR

Measurement Setup Code: Staff: 3 Reference: -
Drawing: A-1

Vehicle Status: Traveling on the Green Line

Measurement Date: May 19, 1992

Measurement Time: Start: 15:42:41
End: 15:43:27

Number of Samples: 4

Programmed Sample Interval: 5 sec

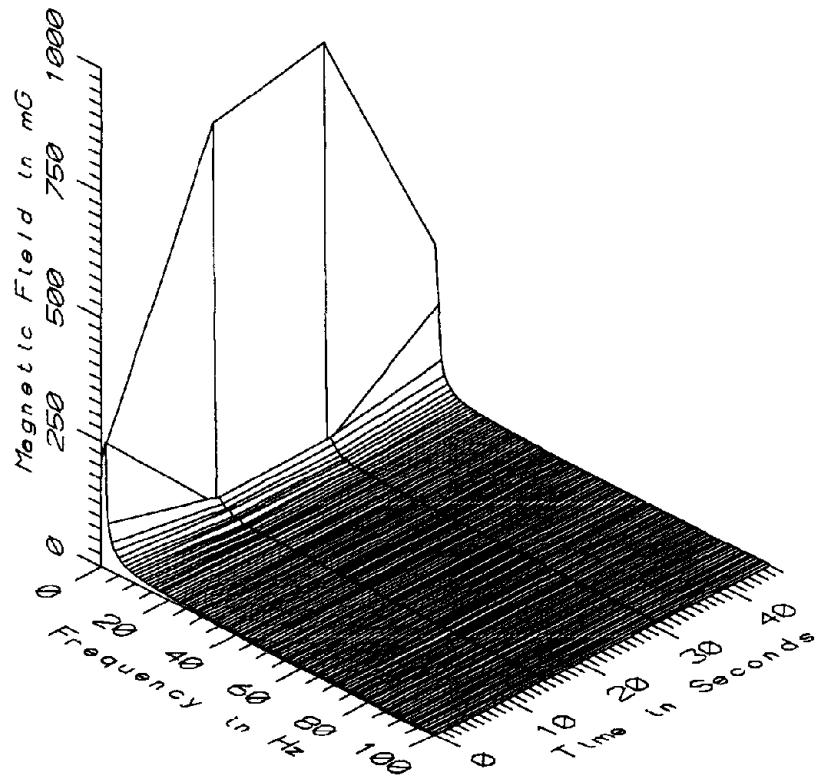
Actual Sample Interval: 15.3 sec

Frequency Spectrum Parameters

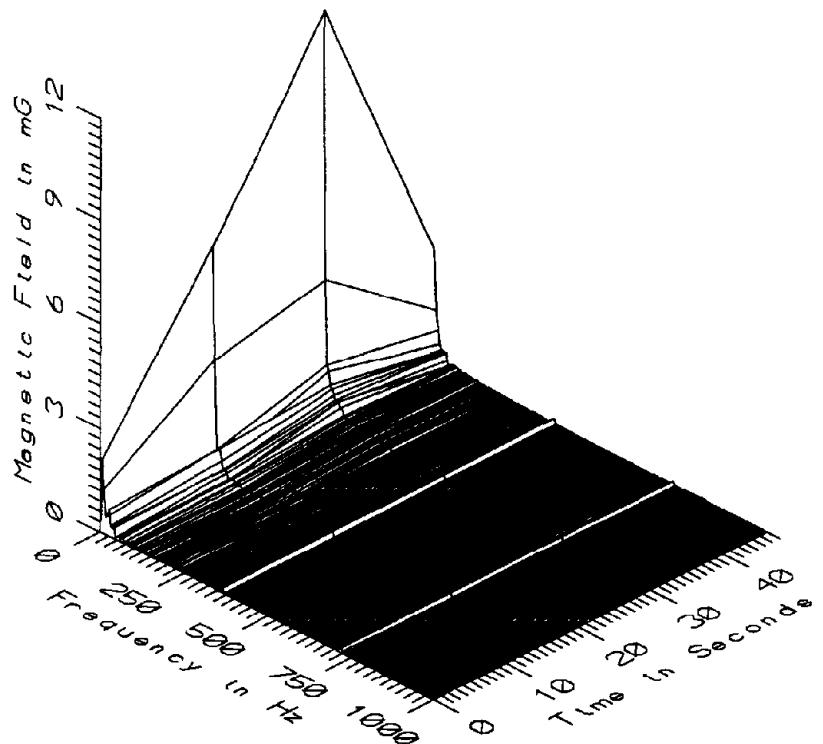
<u>Probe Type:</u>	<u>Wideband</u>	<u>Static</u>
Maximum Frequency (Hz)	2560	100
Minimum Frequency (Hz)	5	0
Spectral Bandwidth (Hz)	5	1

Missing Data: No reference probe

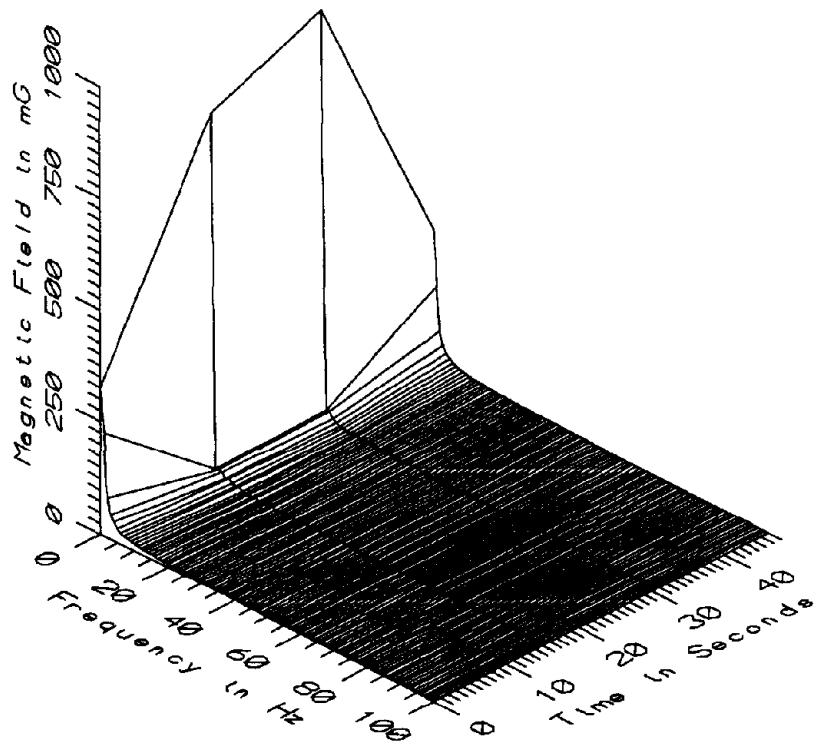
Saturated Data: None



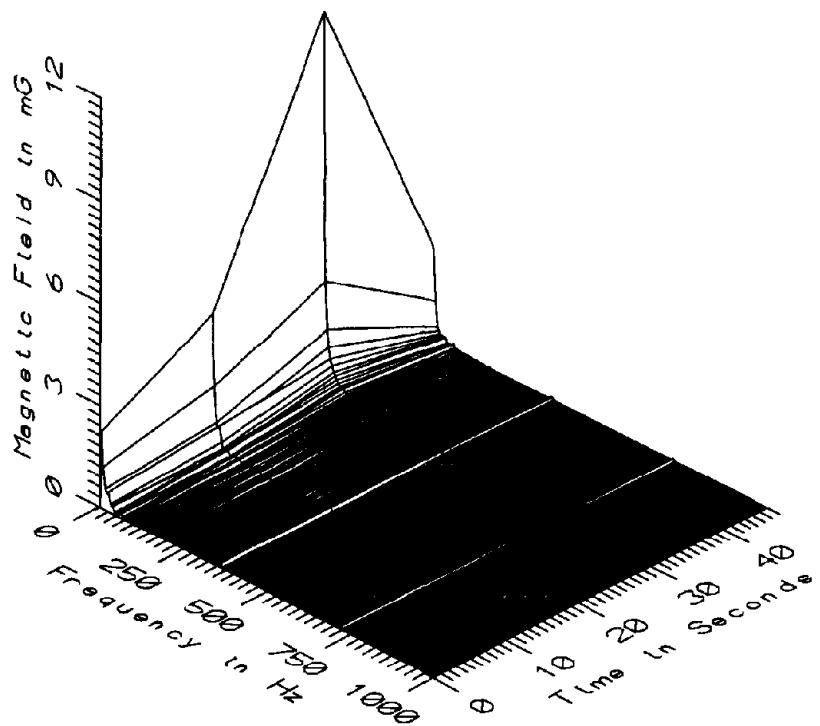
MET030 - -75cm FROM CAR CENTERLINE, CENTER OF CAR 2XXX



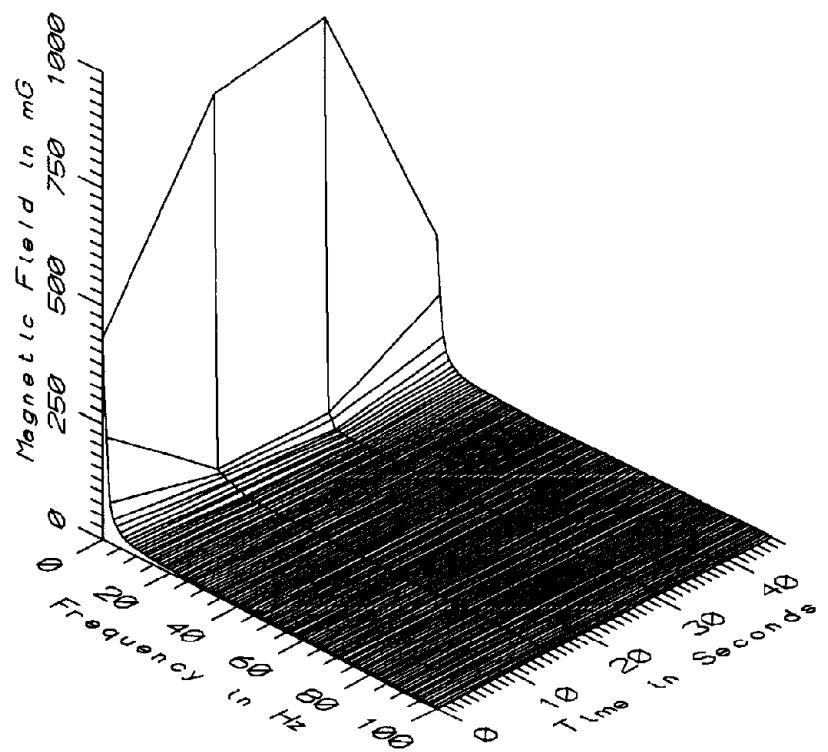
MET030 - -75cm FROM CAR CENTERLINE, CENTER OF CAR 2XXX



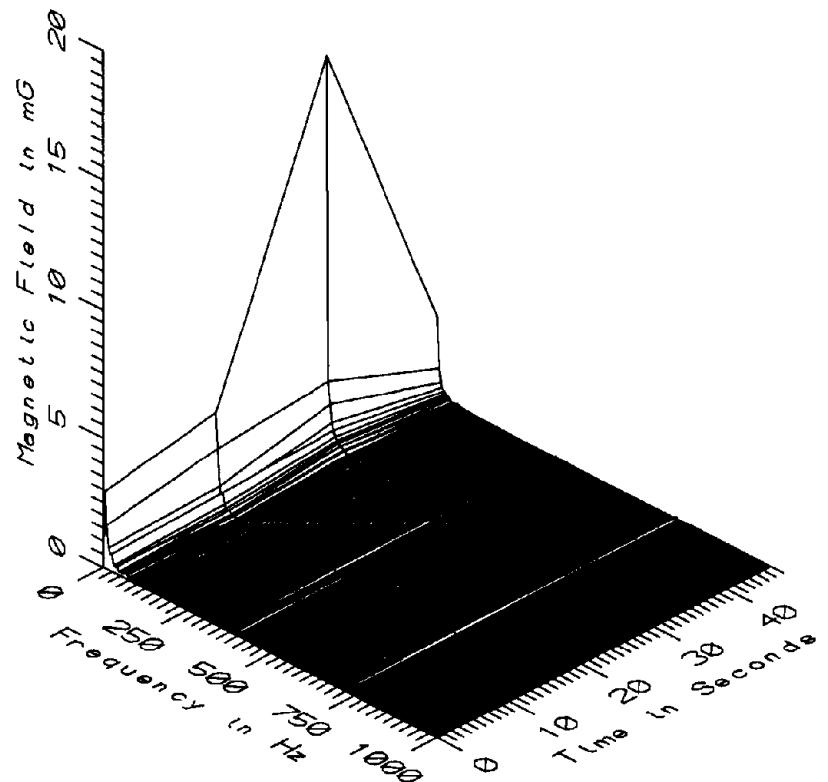
MET030 - -25cm FROM CAR CENTERLINE, CENTER OF CAR 2XXX



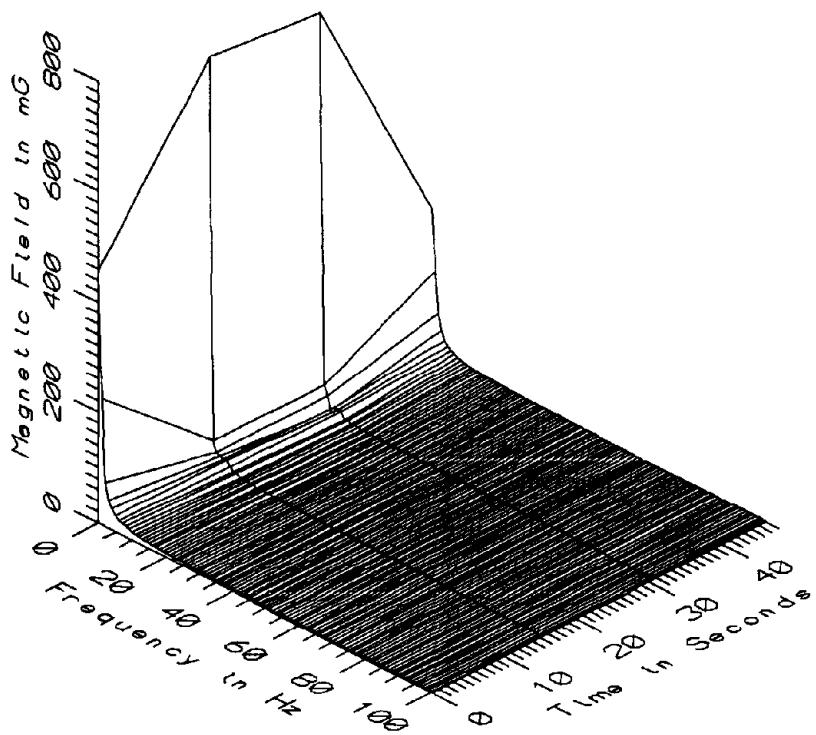
MET030 - -25cm FROM CAR CENTERLINE, CENTER OF CAR 2XXX



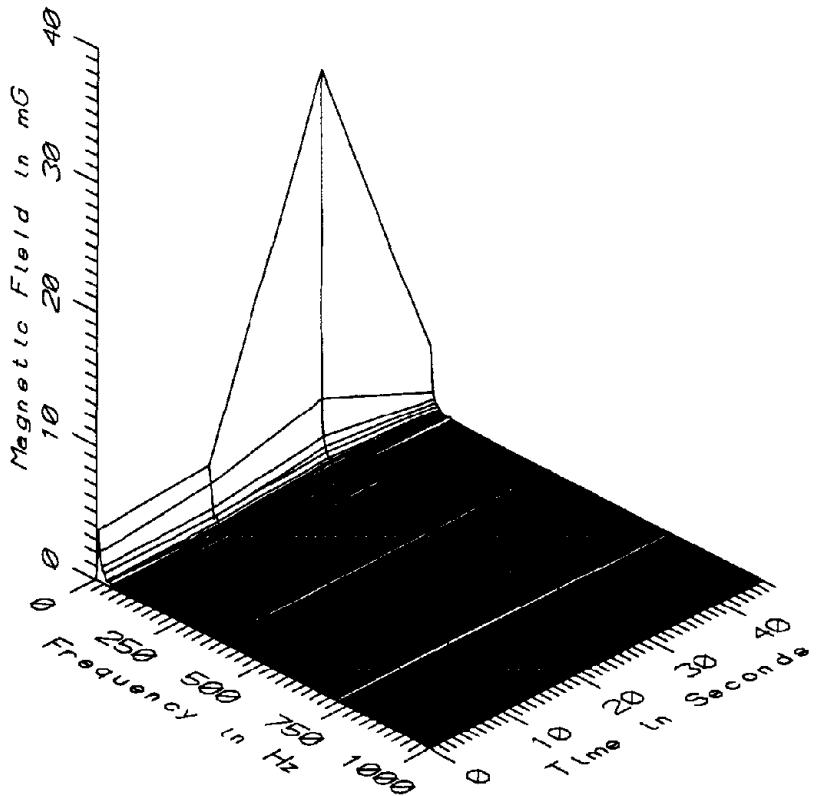
MET030 - 25cm FROM CAR CENTERLINE, CENTER OF CAR 2XXX



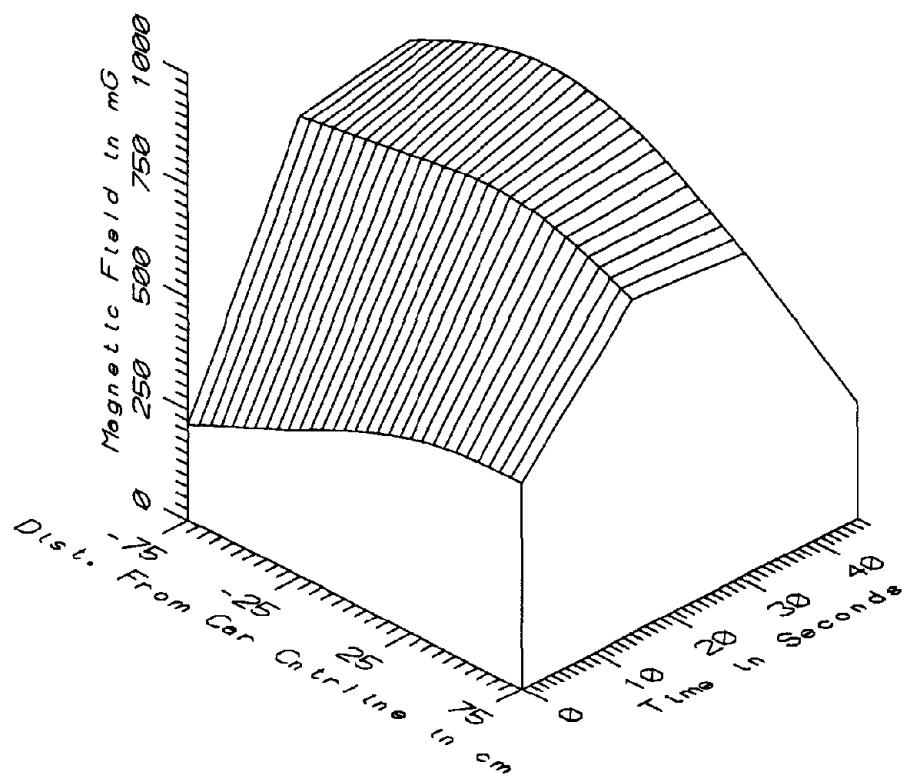
MET030 - 25cm FROM CAR CENTERLINE, CENTER OF CAR 2XXX



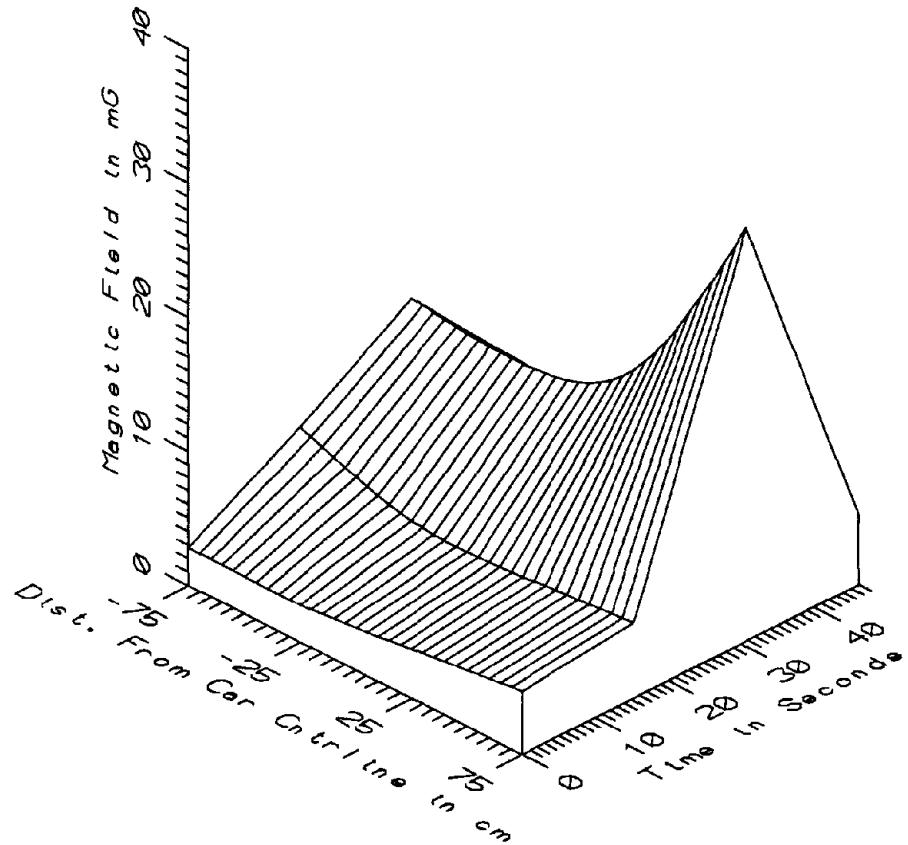
MET030 - 75cm FROM CAR CENTERLINE, CENTER OF CAR 2XXX



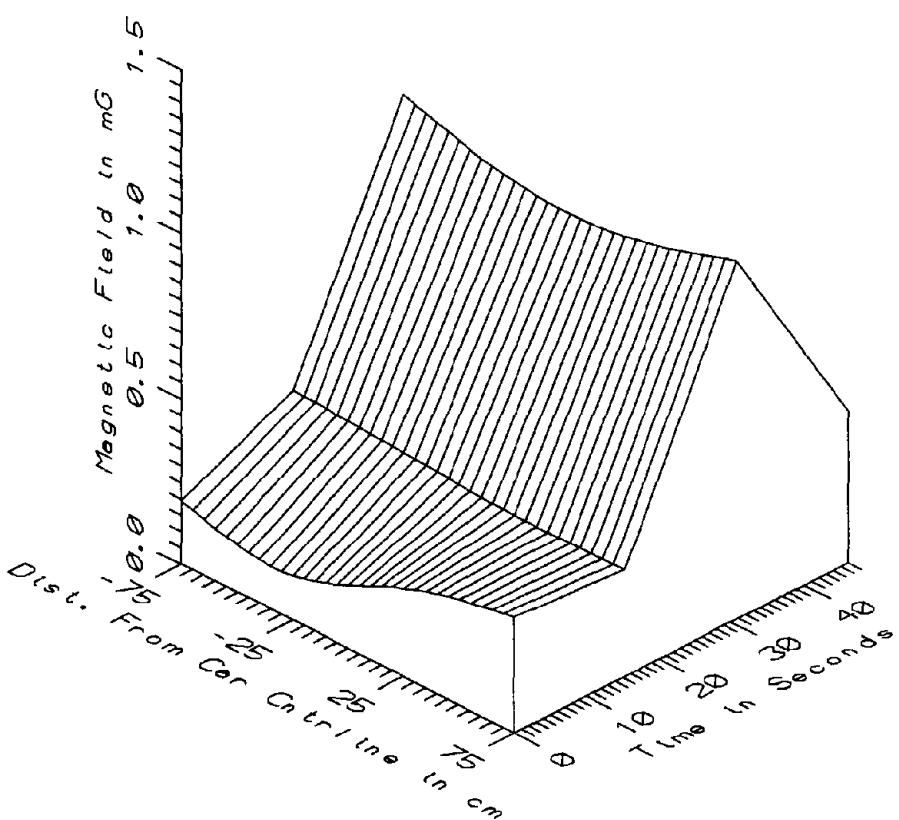
MET030 - 75cm FROM CAR CENTERLINE, CENTER OF CAR 2XXX



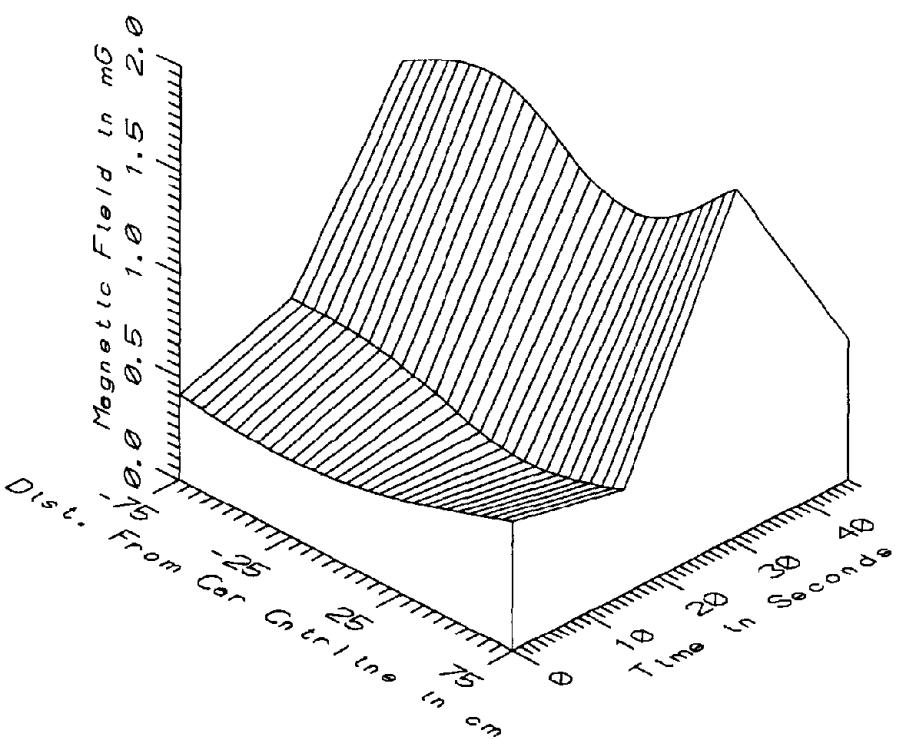
MET030 - TRANSVERSE PROFILE, CENTER OF CAR 2XXX - STATIC



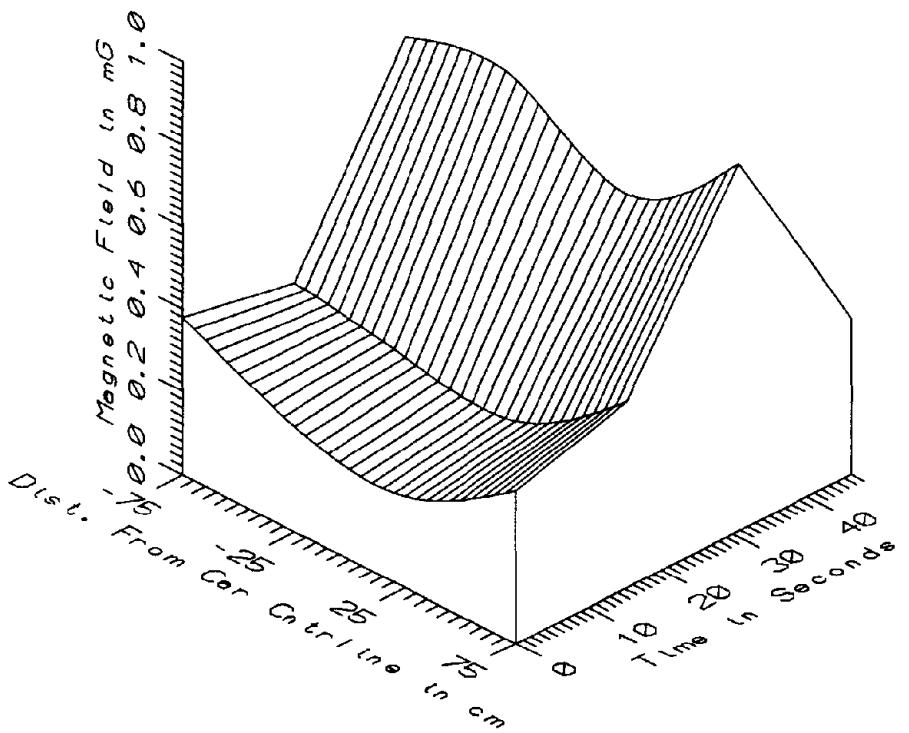
MET030 - TRANSVERSE PROFILE, CENTER OF CAR 2XXX - LOW FREQ, 5-45Hz



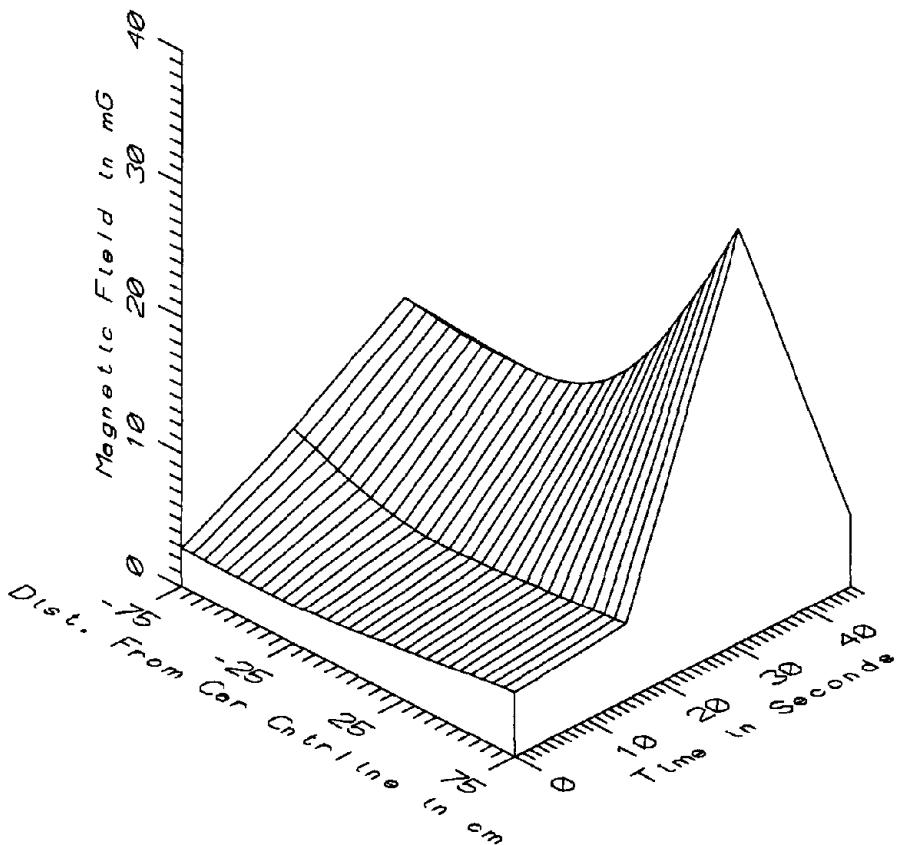
MET030 - TRANSVERSE PROFILE, CENTER OF CAR 2XXX - POWER FREQ, 50-60Hz



MET030 - TRANSVERSE PROFILE, CENTER OF CAR 2XXX - POWER HARM, 65-300Hz



MET030 - TRANSVERSE PROFILE, CENTER OF CAR 2XXX - HIGH FREQ, 305-2560Hz



MET030 - TRANSVERSE PROFILE, CENTER OF CAR 2XXX - ALL FREQ, 5-2560Hz

MET030 - TRANSVERSE PROFILE, CENTER OF 2000 SERIES CAR						TOTAL OF 4 SAMPLES
FREQUENCY BAND	DIST ALONG STAFF (cm)	MINIMUM MAGNETIC FIELD (mG)	MAXIMUM MAGNETIC FIELD (mG)	AVERAGE MAGNETIC FIELD (mG)	STANDARD DEVIATION OF MAGNETIC FIELD (mG)	COEFFICIENT OF VARIATION (%)
STATIC	-75	215.23	824.96	531.60	314.30	59.12
	-25	303.18	916.72	590.73	321.34	54.40
	25	289.63	877.98	607.99	291.77	47.99
	75	262.17	743.91	546.49	229.38	41.97
5-45Hz LOW FREQ	-75	2.81	12.91	6.80	4.55	66.93
	-25	2.80	12.26	5.73	4.43	77.33
	25	3.64	16.04	7.05	6.01	85.24
	75	4.74	30.79	11.61	12.79	110.20
50-60Hz PWR FREQ	-75	0.20	1.09	0.48	0.41	84.28
	-25	0.14	0.99	0.43	0.38	87.79
	25	0.27	0.99	0.46	0.35	76.54
	75	0.32	1.09	0.55	0.36	64.79
65-300Hz PWR HARM	-75	0.41	1.49	0.79	0.48	60.30
	-25	0.37	1.62	0.76	0.58	75.40
	25	0.39	1.32	0.68	0.43	63.69
	75	0.50	1.68	0.87	0.55	62.79
305-2560Hz HIGH FREQ	-75	0.33	0.79	0.48	0.21	44.02
	-25	0.25	0.82	0.41	0.27	66.07
	25	0.22	0.68	0.37	0.21	57.62
	75	0.37	0.89	0.52	0.25	47.70
5-2560Hz ALL FREQ	-75	2.87	13.06	6.89	4.59	66.61
	-25	2.84	12.43	5.82	4.49	77.25
	25	3.70	16.14	7.11	6.04	84.88
	75	4.80	30.87	11.68	12.80	109.61

APPENDIX AB

DATASET MET031 GALLERY PLACE PLATFORM, SOUTH BOUND SIDE

Measurement Setup Code: Staff: 28 Reference: -
Drawing: A-5

Vehicle Status: NA

Measurement Date: May 19, 1992

Measurement Time: Start: 15:48:49
End: 15:51:20

Number of Samples: 26

Programmed Sample Interval: 5 sec

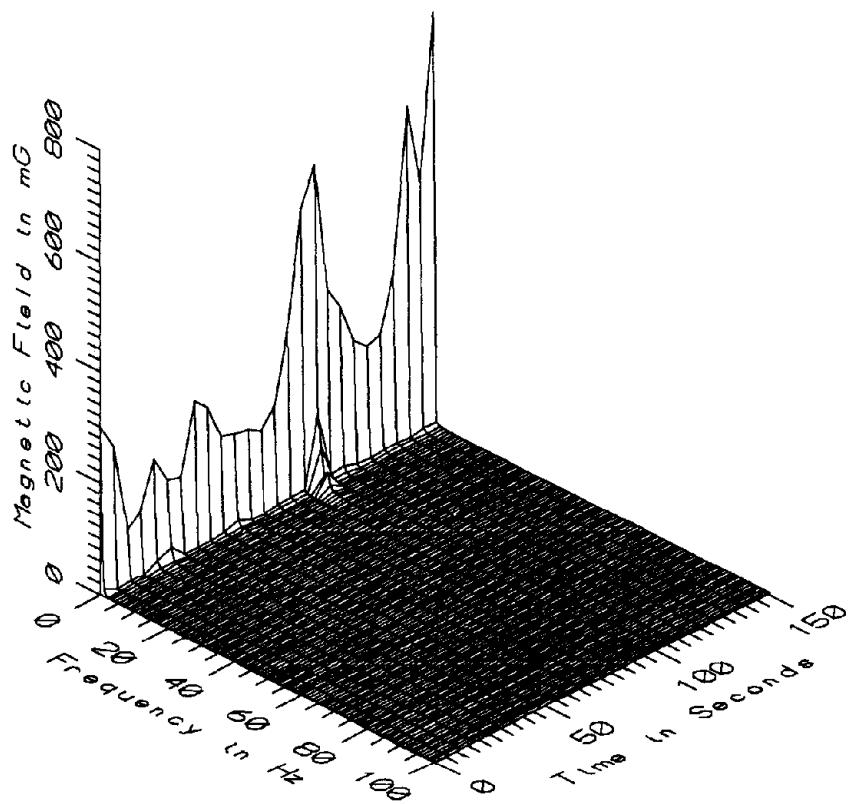
Actual Sample Interval: 6.0 sec

Frequency Spectrum Parameters

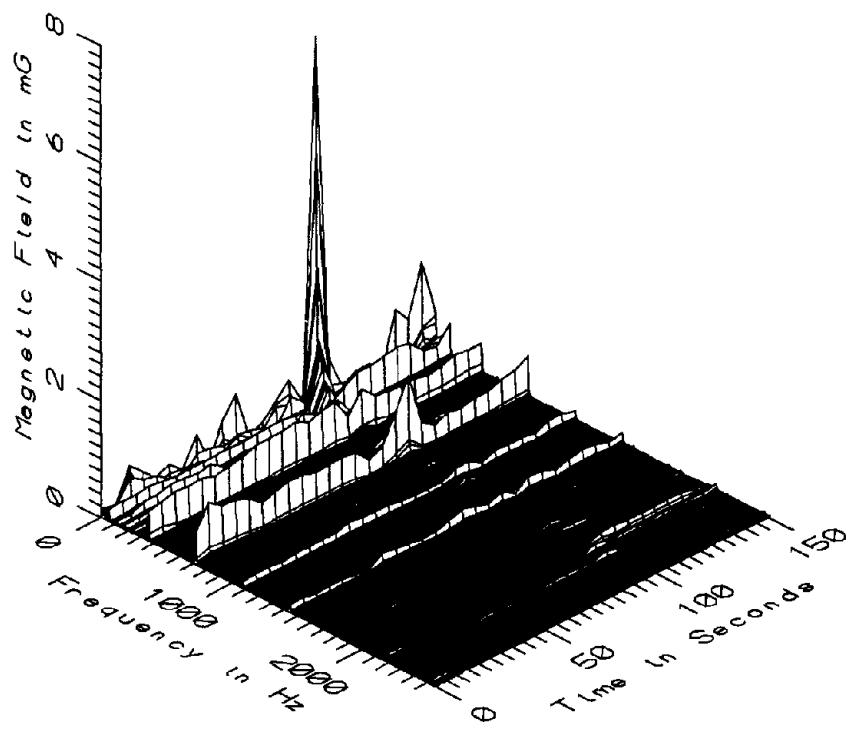
<u>Probe Type:</u>	<u>Wideband</u>	<u>Static</u>
Maximum Frequency (Hz)	2560	100
Minimum Frequency (Hz)	5	0
Spectral Bandwidth (Hz)	5	1

Missing Data: No reference probe

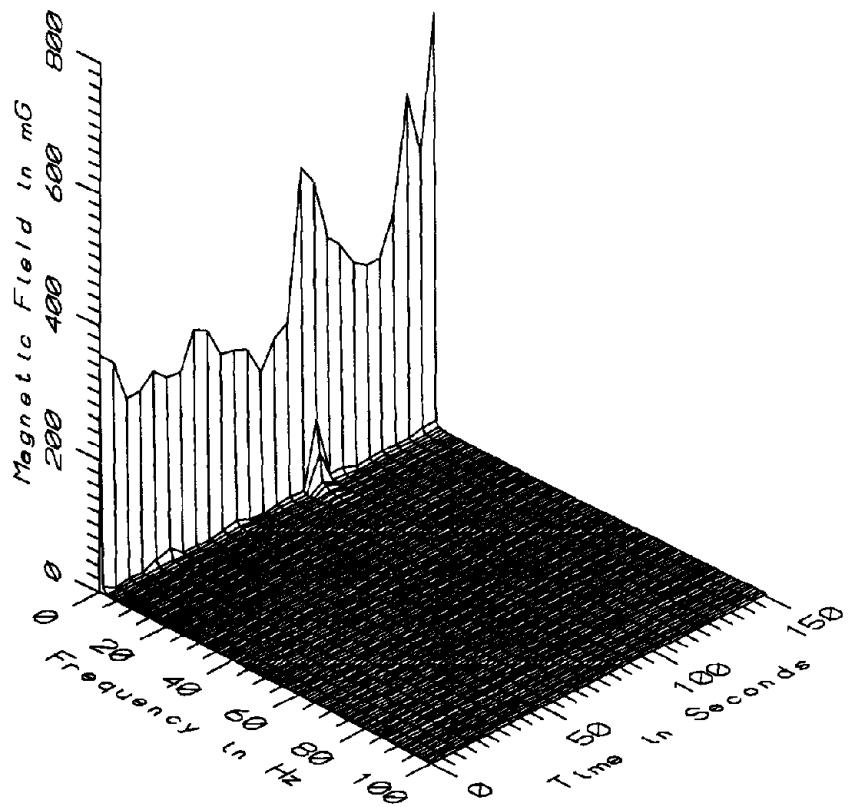
Saturated Data: None



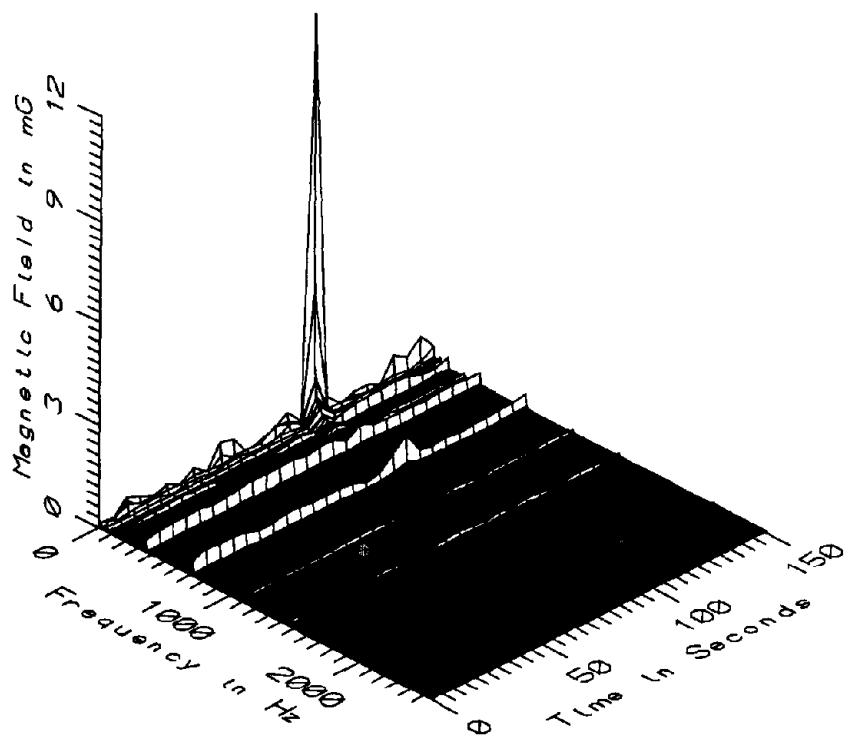
MET031 - 10cm ABOVE PLATFORM AT SAFETY LINE, SOUTH BOUND SIDE



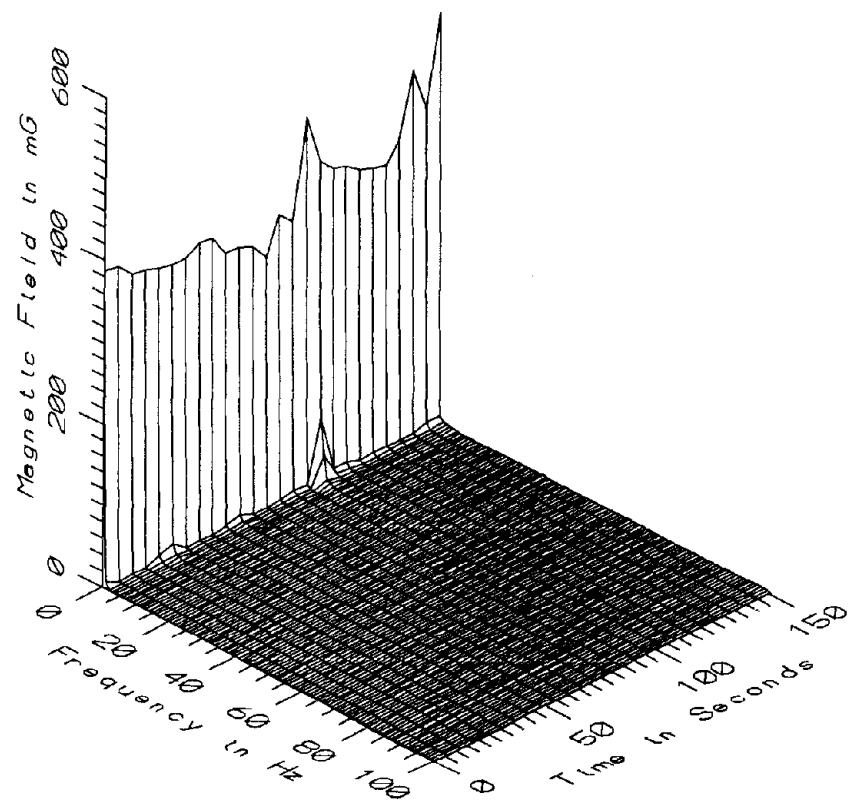
MET031 - 10cm ABOVE PLATFORM AT SAFETY LINE, SOUTH BOUND SIDE



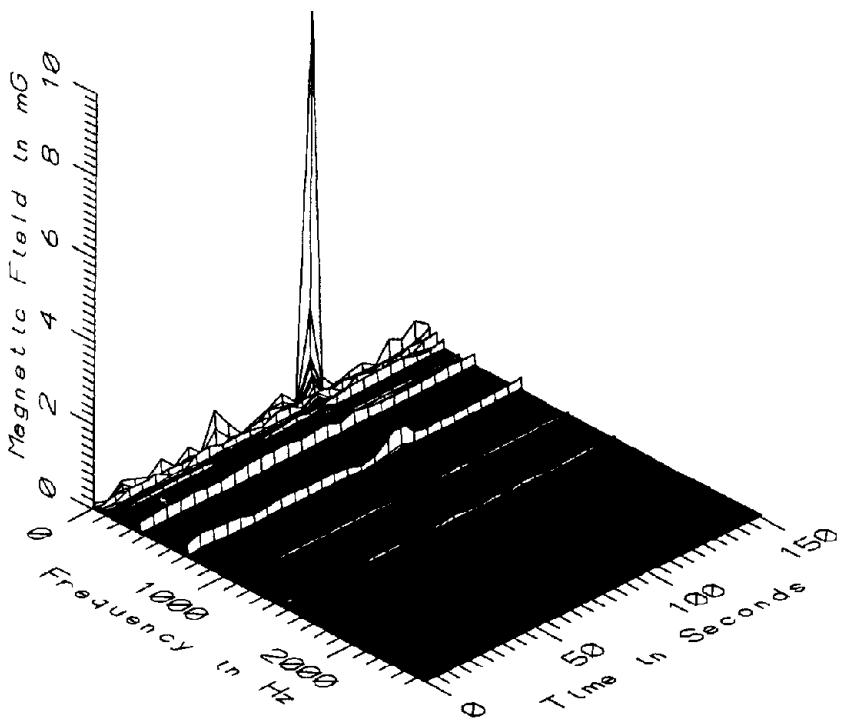
MET031 - 60cm ABOVE PLATFORM AT SAFETY LINE, SOUTH BOUND SIDE



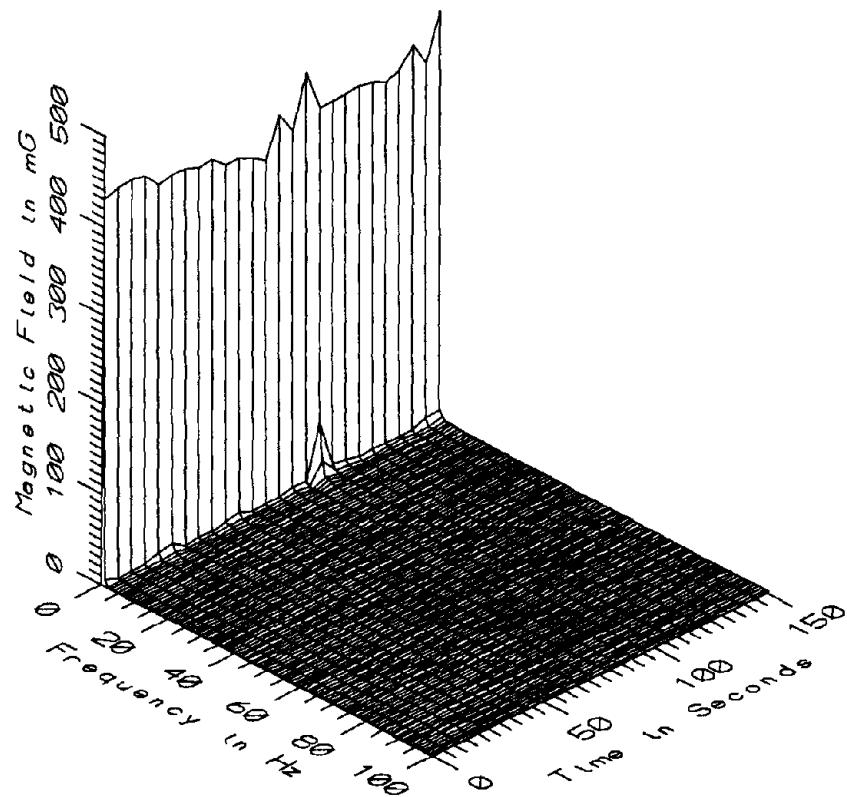
MET031 - 60cm ABOVE PLATFORM AT SAFETY LINE, SOUTH BOUND SIDE



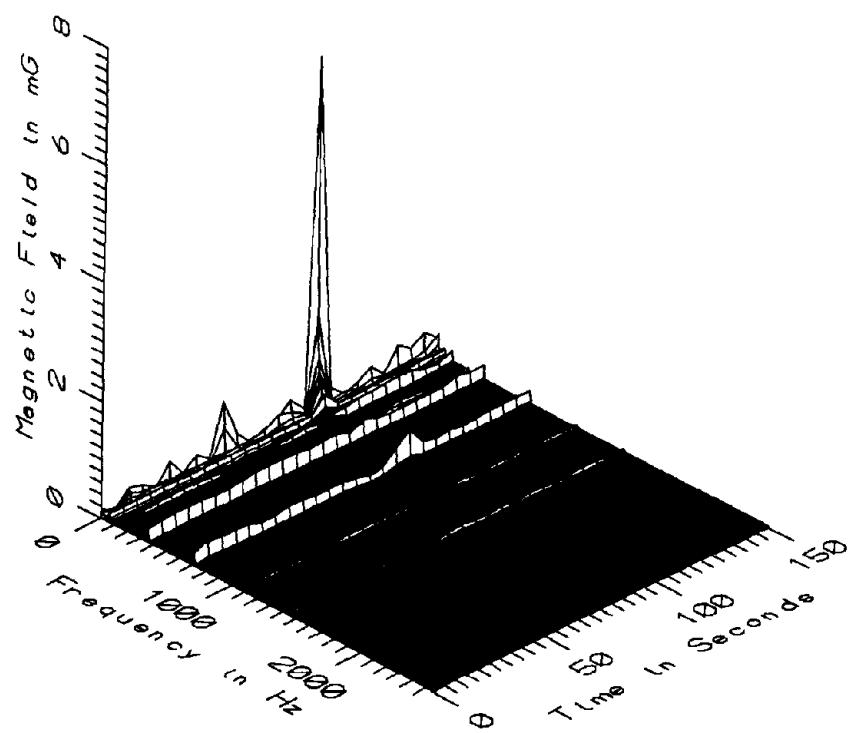
MET031 - 110cm ABOVE PLATFORM AT SAFETY LINE, SOUTH BOUND SIDE



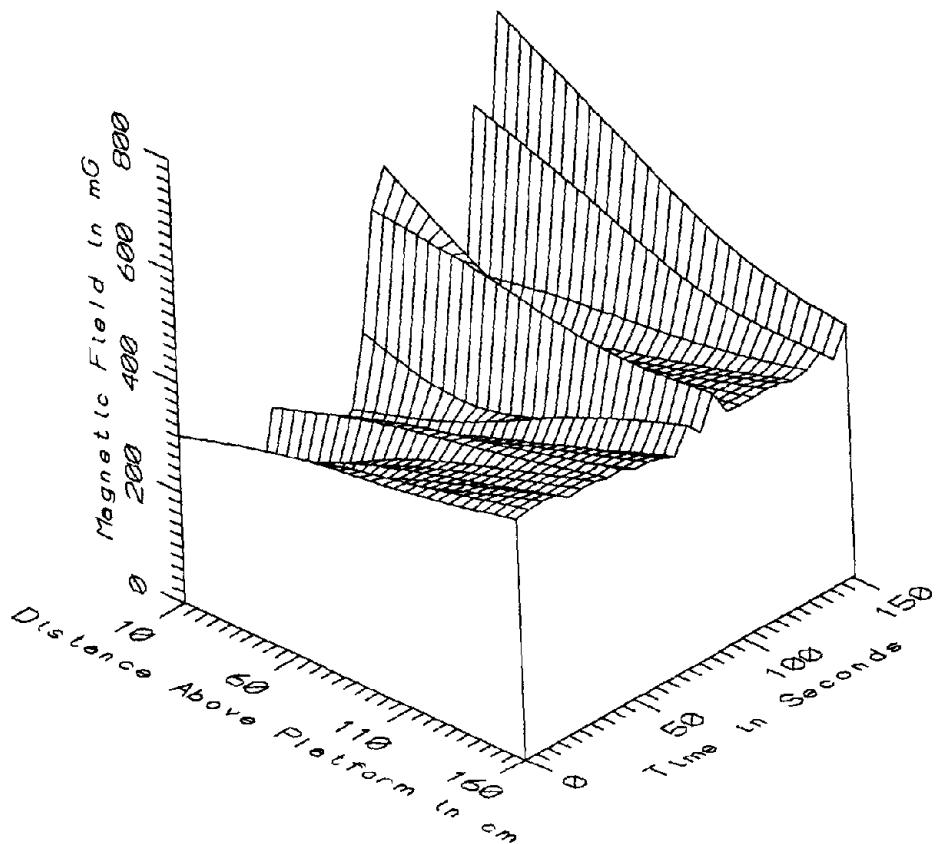
MET031 - 110cm ABOVE PLATFORM AT SAFETY LINE, SOUTH BOUND SIDE



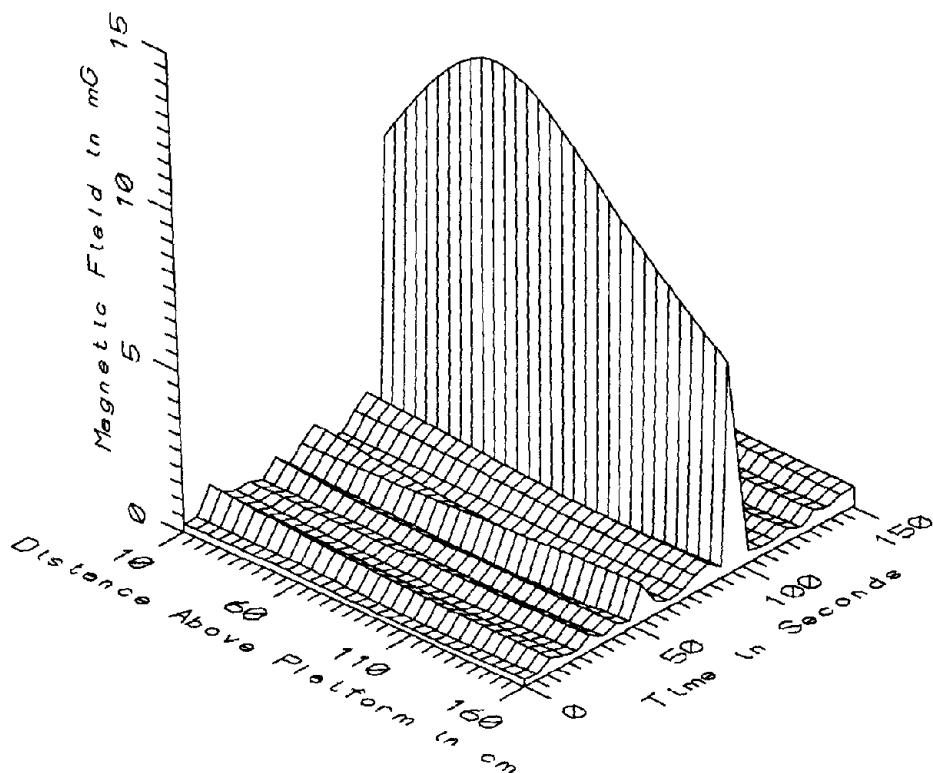
MET031 - 160cm ABOVE PLATFORM AT SAFETY LINE, SOUTH BOUND SIDE



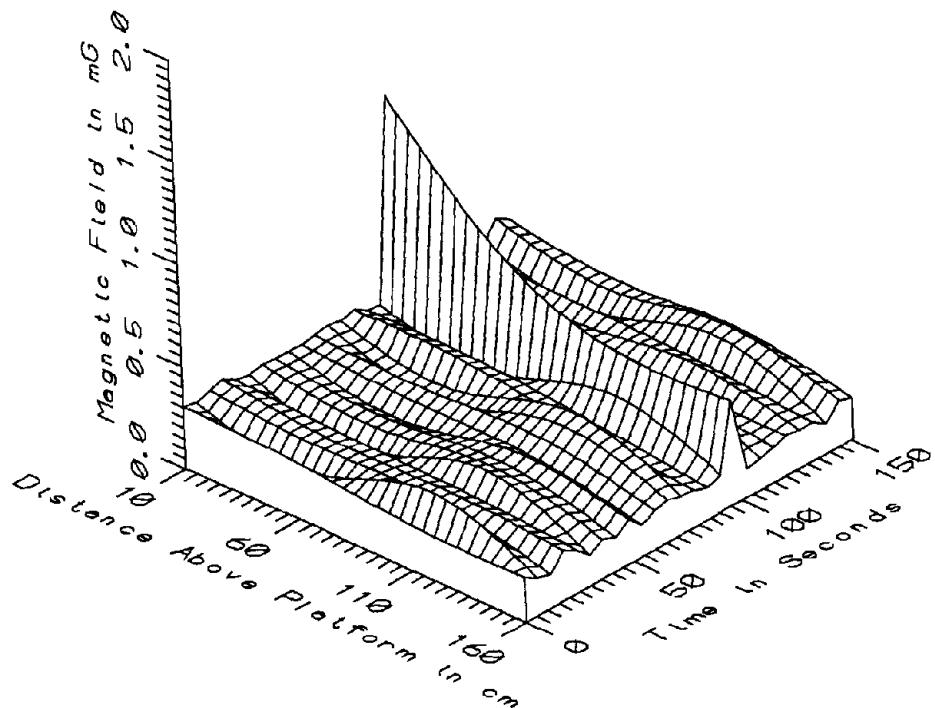
MET031 - 160cm ABOVE PLATFORM AT SAFETY LINE, SOUTH BOUND SIDE



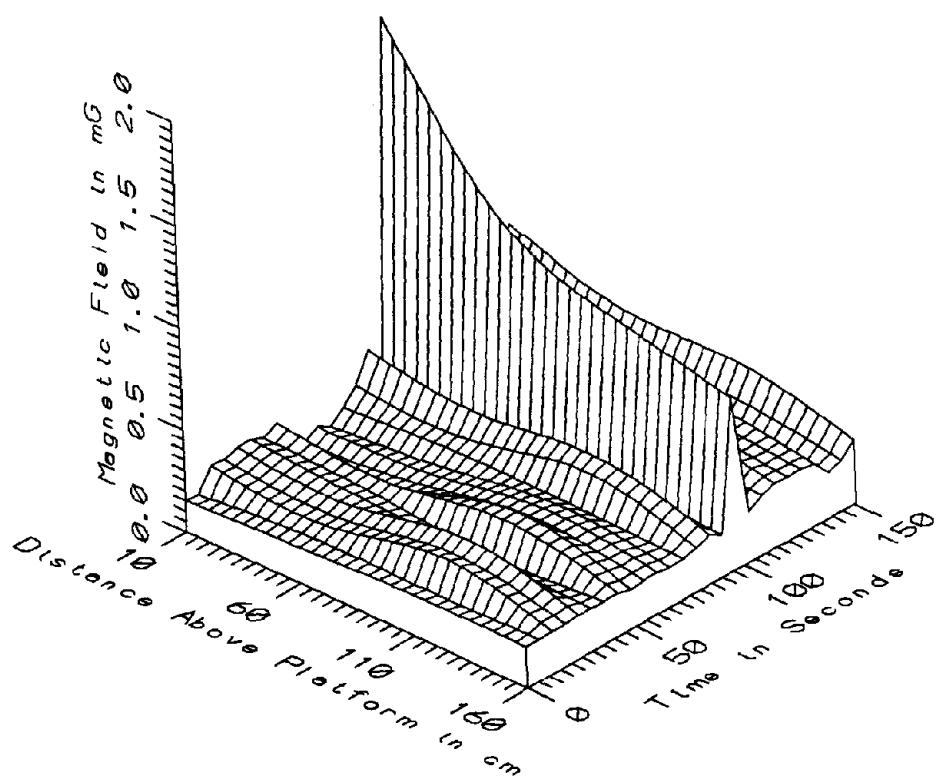
MET031 - AT SAFETY LINE, SOUTH BOUND SIDE - STATIC



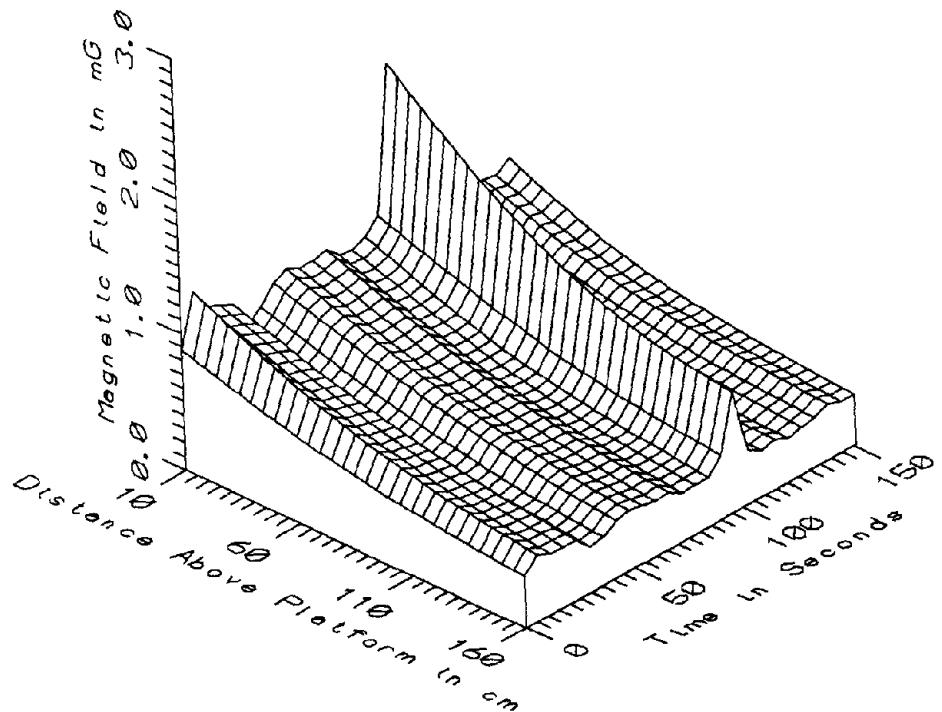
MET031 - AT SAFETY LINE, SOUTH BOUND SIDE - LOW FREQ, 5-45Hz



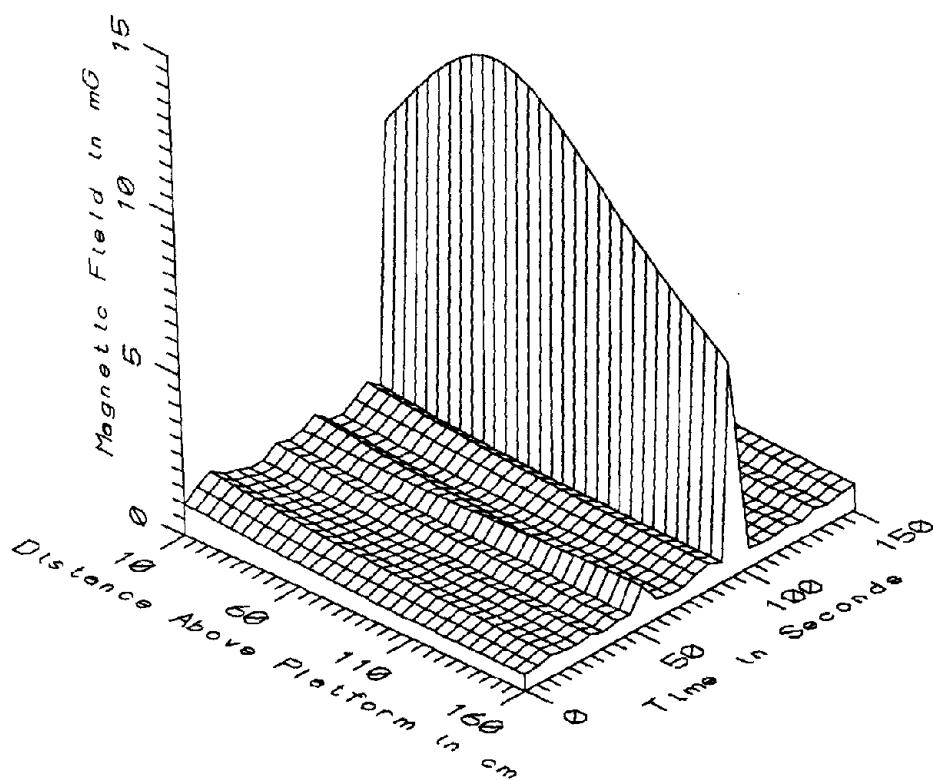
MET031 - AT SAFETY LINE, SOUTH BOUND SIDE - POWER FREQ, 50-60Hz



MET031 - AT SAFETY LINE, SOUTH BOUND SIDE - POWER HARM, 65-300Hz



MET031 - AT SAFETY LINE, SOUTH BOUND SIDE - HIGH FREQ, 305-2560Hz



MET031 - AT SAFETY LINE, SOUTH BOUND SIDE - ALL FREQ, 5-2560Hz

MET031 - GALLERY PLACE PLATFORM, SOUTH BOUND SIDE						TOTAL OF 26 SAMPLES	
FREQUENCY BAND	HEIGHT ABOVE FLOOR (cm)	MINIMUM MAGNETIC FIELD (mG)	MAXIMUM MAGNETIC FIELD (mG)	AVERAGE MAGNETIC FIELD (mG)	STANDARD DEVIATION (mG)	COEFFICIENT OF VARIATION (%)	
STATIC	10	93.73	741.39	282.52	165.78	58.68	
	60	210.80	620.25	333.30	96.01	28.81	
	110	306.48	503.00	370.97	41.70	11.24	
	160	384.51	459.93	418.56	17.12	4.09	
5-45Hz LOW FREQ	10	0.25	8.74	0.97	1.63	167.94	
	60	0.18	12.74	0.97	2.41	247.99	
	110	0.07	9.89	0.75	1.88	251.60	
	160	0.18	6.52	0.65	1.21	188.14	
50-60Hz PWR FREQ	10	0.26	1.26	0.33	0.19	57.41	
	60	0.16	0.71	0.26	0.10	39.57	
	110	0.22	0.50	0.30	0.06	20.43	
	160	0.14	0.51	0.20	0.07	35.67	
65-300Hz PWR HARM	10	0.12	1.94	0.40	0.37	90.94	
	60	0.17	1.21	0.32	0.21	66.84	
	110	0.17	0.97	0.32	0.15	46.92	
	160	0.19	0.84	0.25	0.13	50.02	
305-2560Hz HIGH FREQ	10	0.73	2.13	0.98	0.26	26.68	
	60	0.52	1.48	0.69	0.18	26.32	
	110	0.37	1.04	0.50	0.12	24.85	
	160	0.31	0.86	0.40	0.10	25.81	
5-2560Hz ALL FREQ	10	0.98	9.29	1.59	1.59	99.96	
	60	0.73	12.90	1.40	2.35	167.73	
	110	0.57	10.01	1.13	1.82	161.15	
	160	0.50	6.64	0.88	1.18	134.29	

APPENDIX AC

**DATASET MET032
GALLERY PLACE PLATFORM, SOUTH BOUND SIDE**

Measurement Setup Code: Staff: 30 Reference: -
Drawing: A-5

Vehicle Status: NA

Measurement Date: May 19, 1992

Measurement Time: Start: 15:51:47
End: 15:53:15

Number of Samples: 15

Programmed Sample Interval: 5 sec

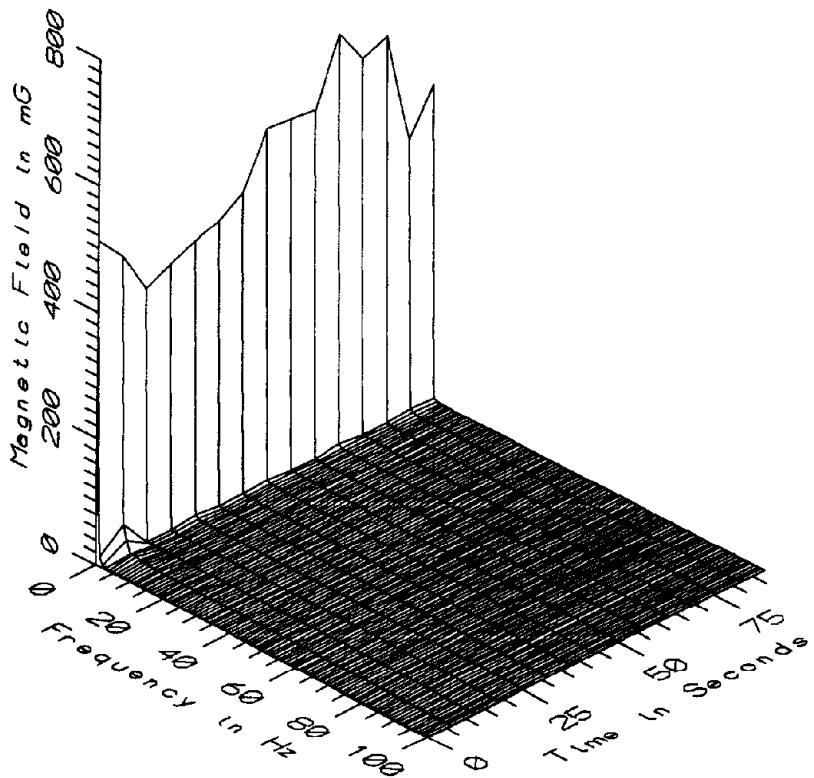
Actual Sample Interval: 6.3 sec

Frequency Spectrum Parameters

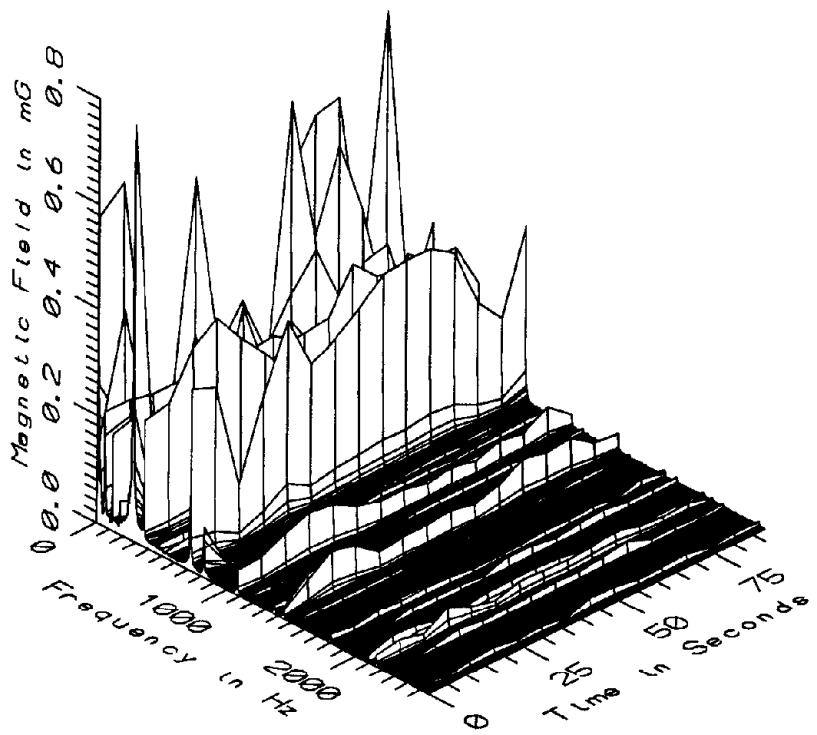
<u>Probe Type:</u>	<u>Wideband</u>	<u>Static</u>
Maximum Frequency (Hz)	2560	100
Minimum Frequency (Hz)	5	0
Spectral Bandwidth (Hz)	5	1

Missing Data: No reference probe

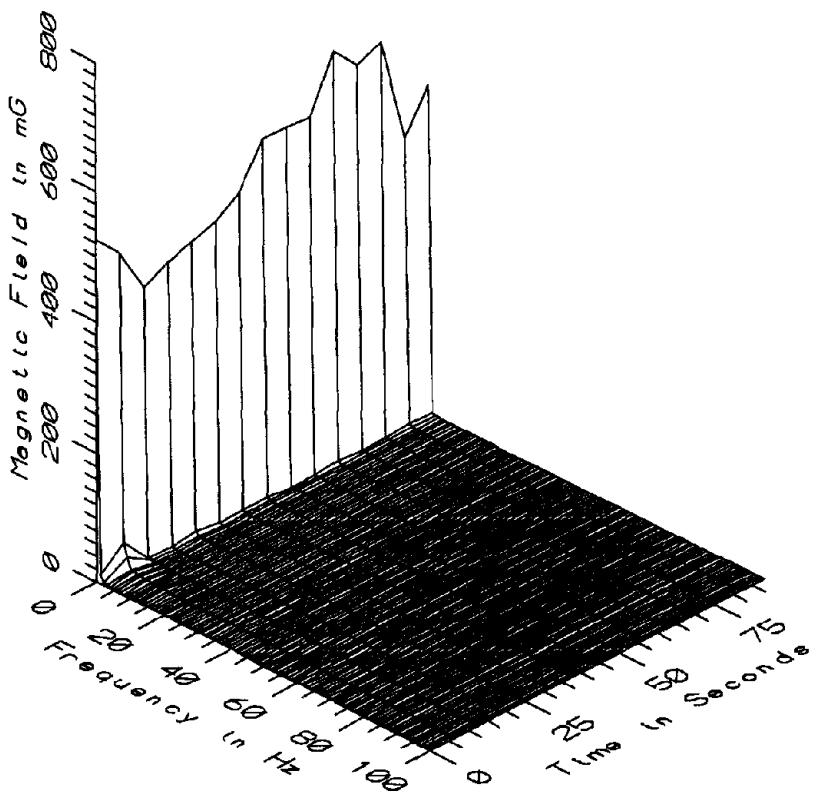
Saturated Data: None



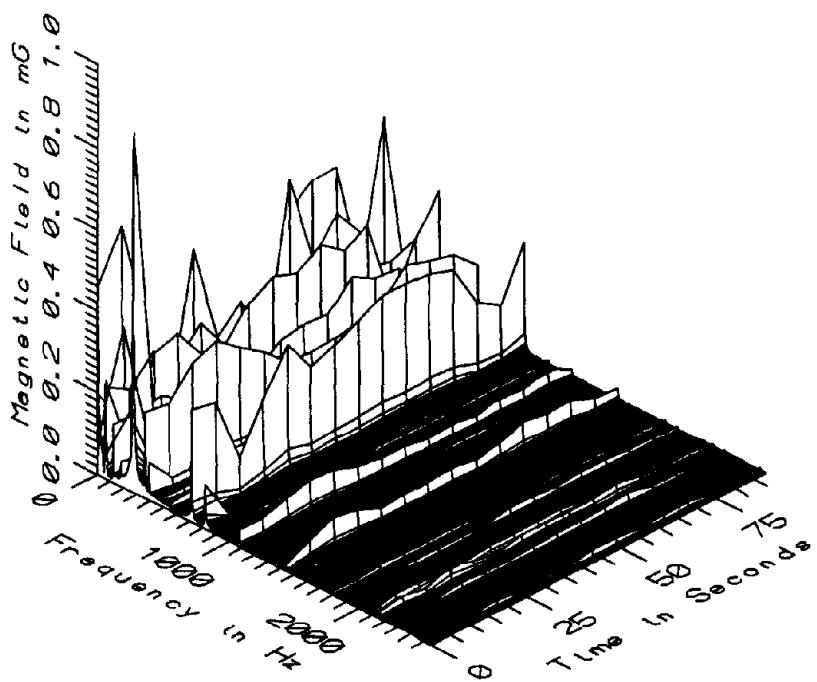
MET032 - 0cm FROM SAFETY LINE, 1M ABOVE PLATFORM, SOUTH BOUND SIDE



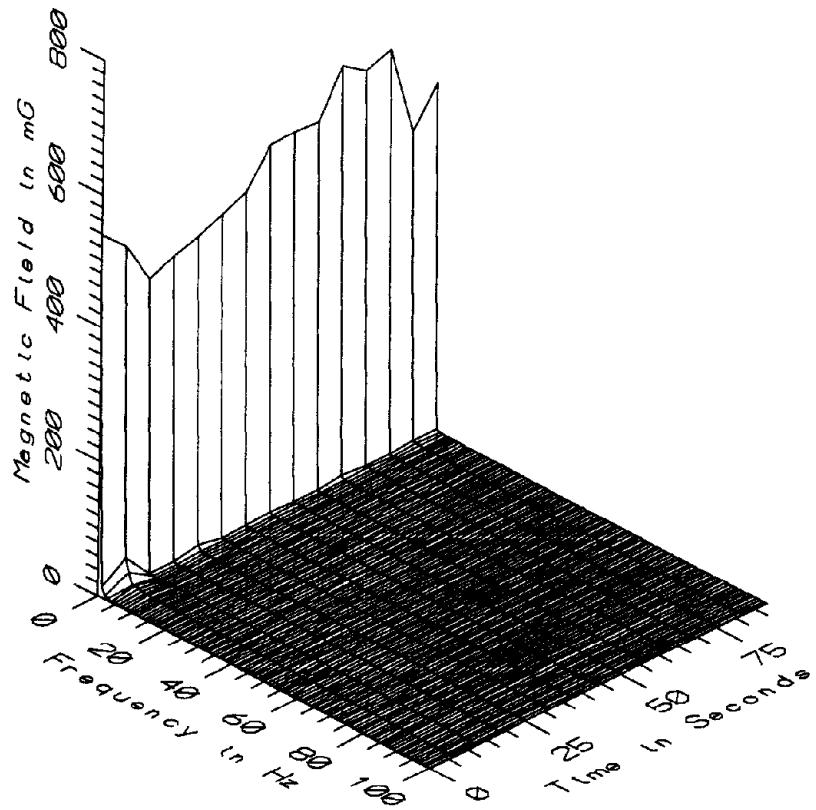
MET032 - 0cm FROM SAFETY LINE, 1M ABOVE PLATFORM, SOUTH BOUND SIDE



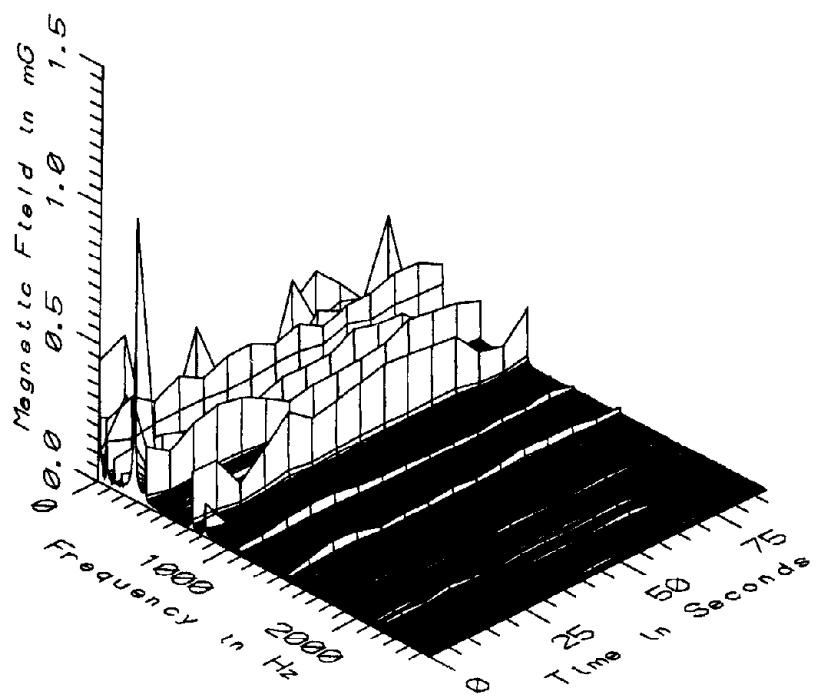
MET032 - 50cm FROM SAFETY LINE, 1M ABOVE PLATFORM, SOUTH BOUND SIDE



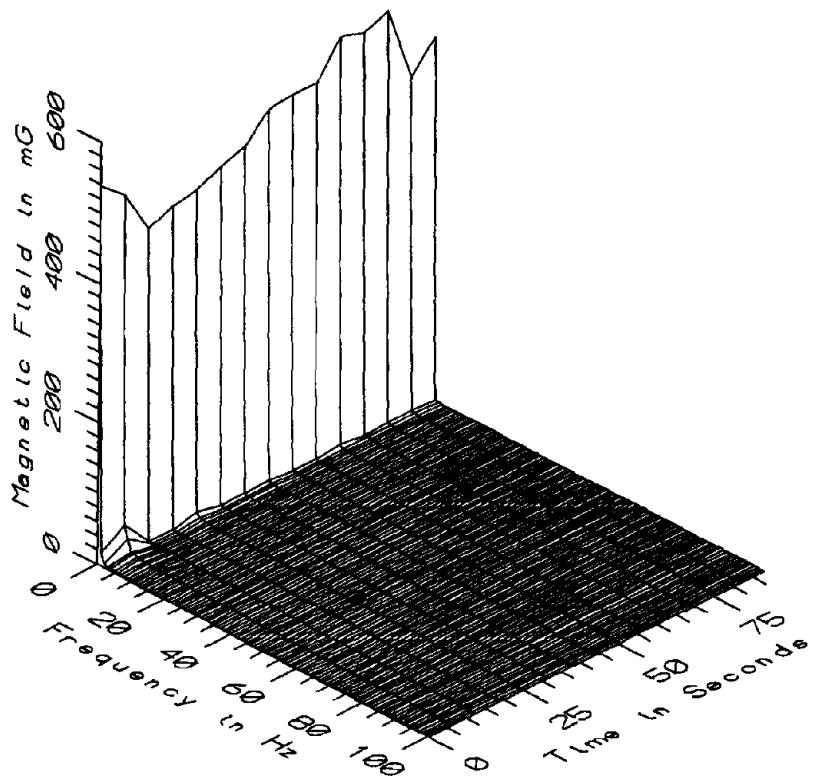
MET032 - 50cm FROM SAFETY LINE, 1M ABOVE PLATFORM, SOUTH BOUND SIDE



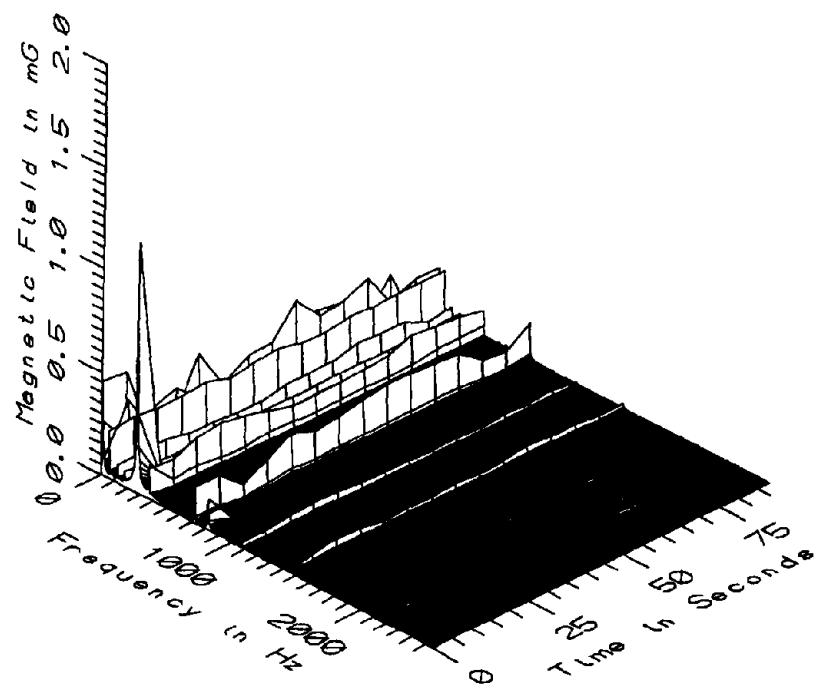
MET032 - 100cm FROM SAFETY LINE, 1M ABOVE PLATFORM, SOUTH BOUND SIDE



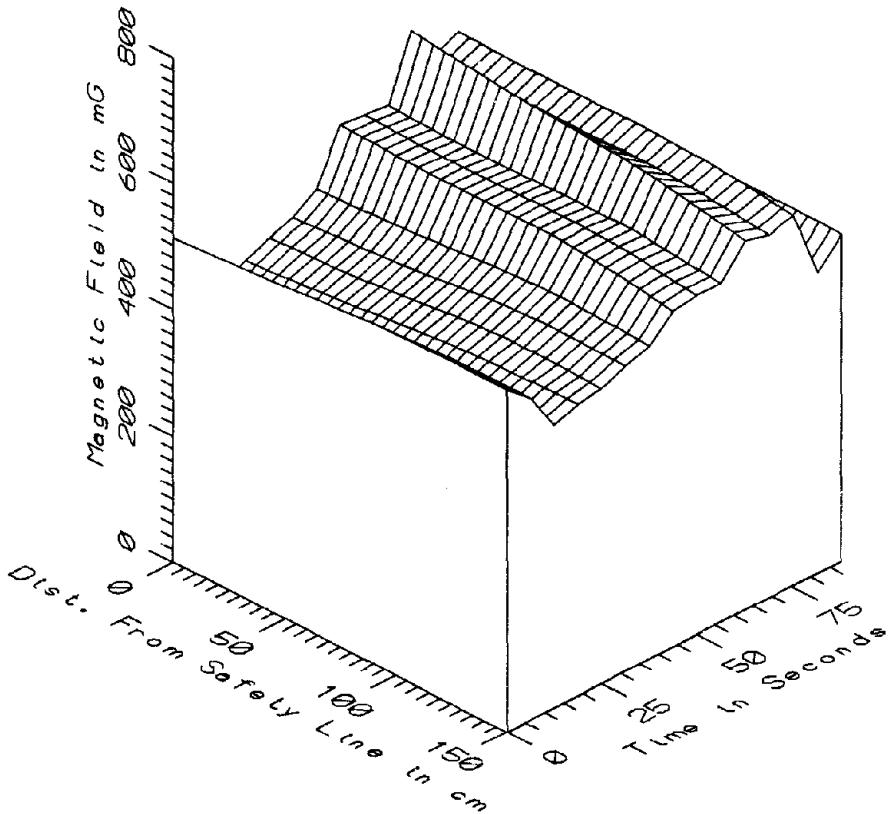
MET032 - 100cm FROM SAFETY LINE, 1M ABOVE PLATFORM, SOUTH BOUND SIDE



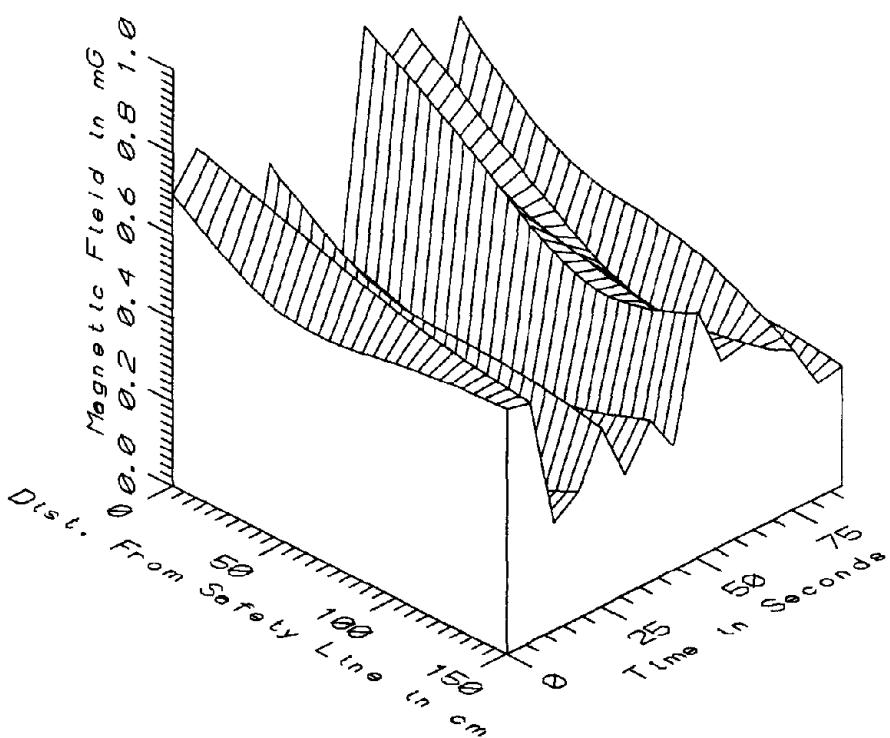
MET032 - 150cm FROM SAFETY LINE, 1M ABOVE PLATFORM, SOUTH BOUND SIDE



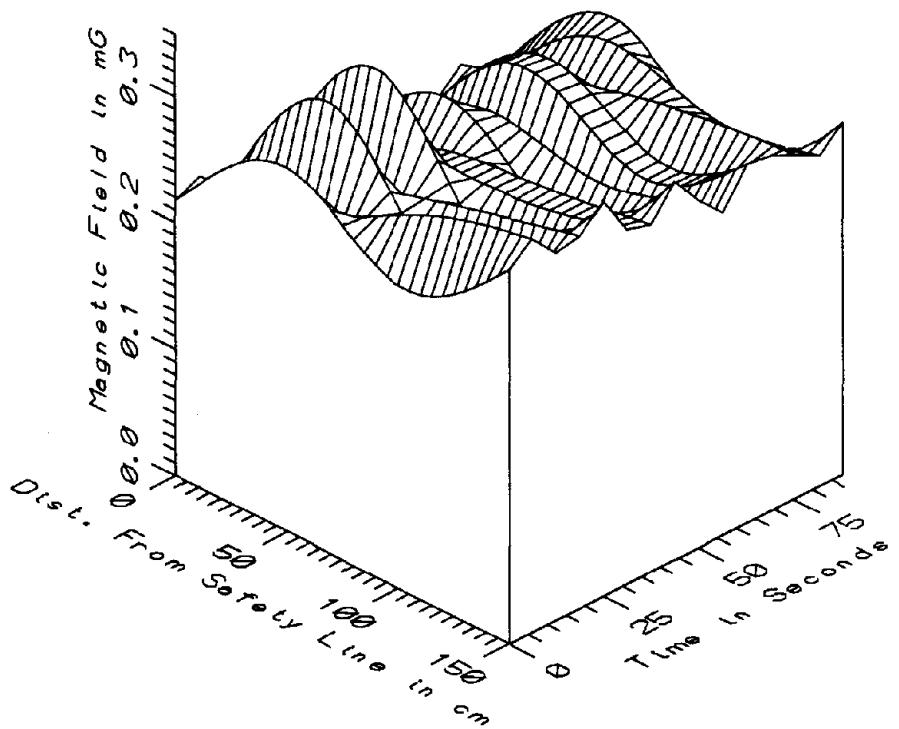
MET032 - 150cm FROM SAFETY LINE, 1M ABOVE PLATFORM, SOUTH BOUND SIDE



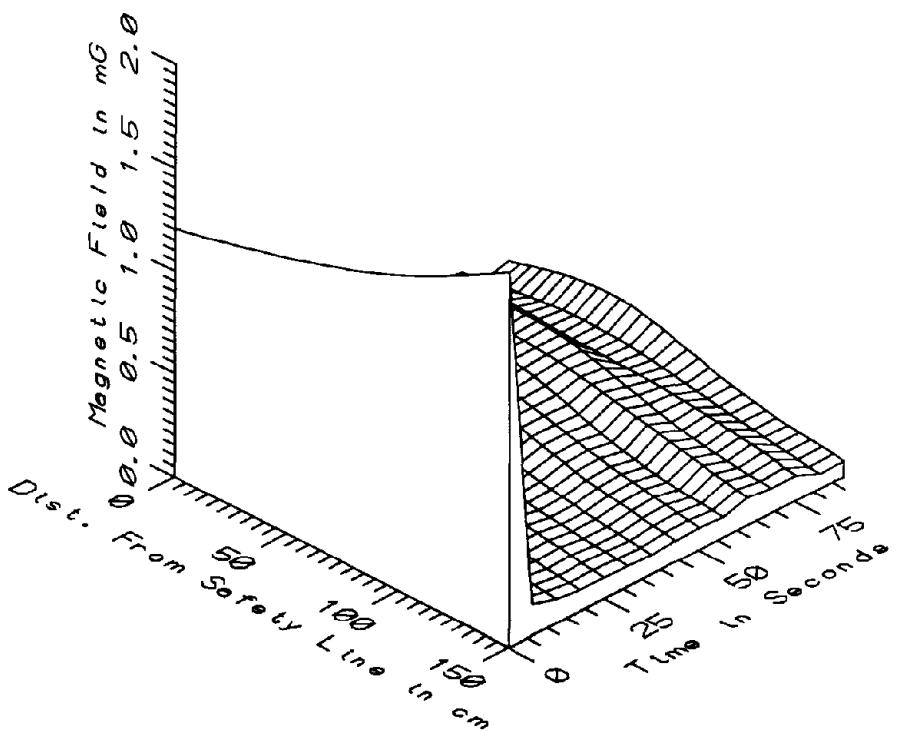
MET032 - 1M ABOVE PLATFORM, SOUTH BOUND SIDE - STATIC



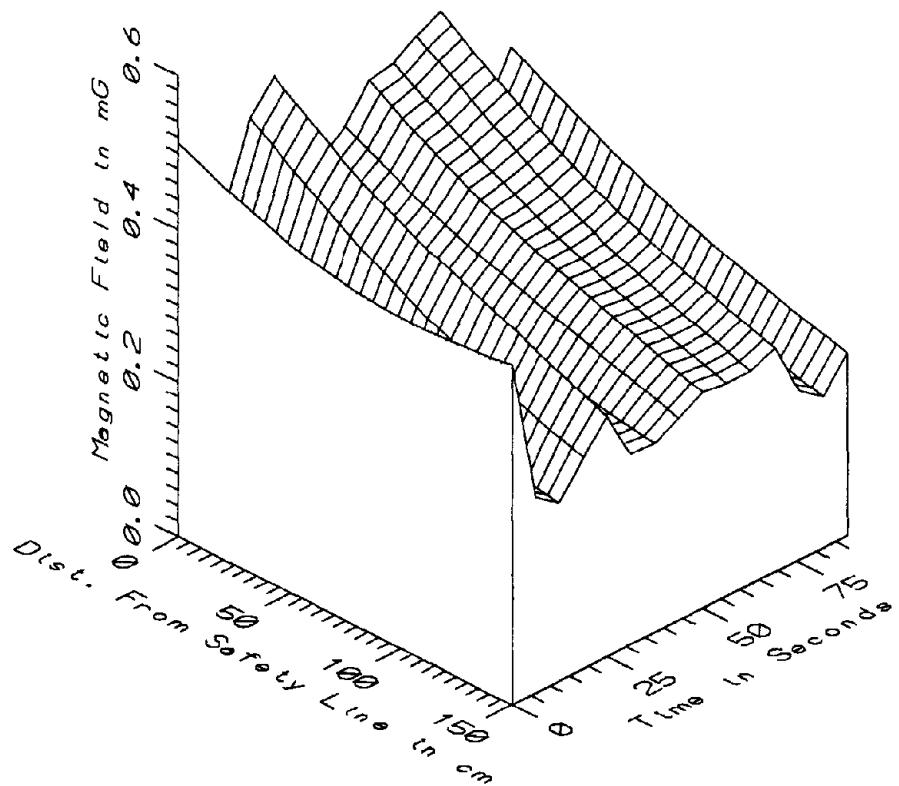
MET032 - 1M ABOVE PLATFORM, SOUTH BOUND SIDE - LOW FREQ, 5-45Hz



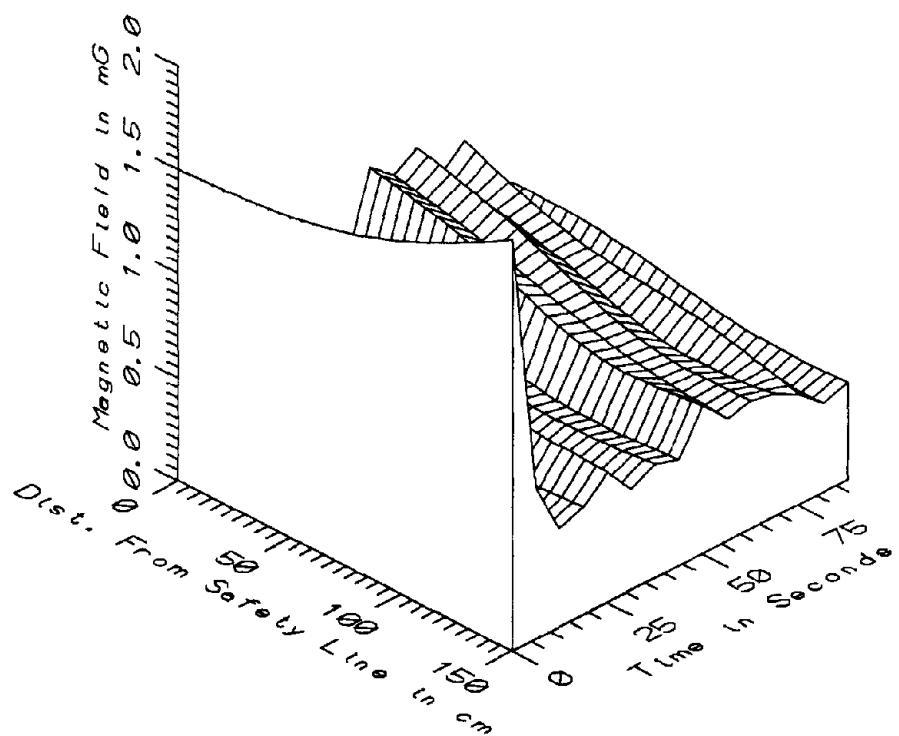
MET032 - 1M ABOVE PLATFORM, SOUTH BOUND SIDE - POWER FREQ, 50-60Hz



MET032 - 1M ABOVE PLATFORM, SOUTH BOUND SIDE - POWER HARM, 65-300Hz



MET032 - 1M ABOVE PLATFORM, SOUTH BOUND SIDE - HIGH FREQ, 305-2560Hz



MET032 - 1M ABOVE PLATFORM, SOUTH BOUND SIDE - ALL FREQ, 5-2560Hz

MET032 - GALLERY PLACE PLATFORM, SOUTH BOUND SIDE							TOTAL OF 15 SAMPLES
FREQUENCY BAND	DIST FROM LINE (cm)	MINIMUM MAGNETIC FIELD (mG)	MAXIMUM MAGNETIC FIELD (mG)	AVERAGE MAGNETIC FIELD (mG)	STANDARD DEVIATION (mG)	COEFFICIENT OF VARIATION (%)	
STATIC	0	400.02	652.89	507.87	77.06	15.17	
	50	415.95	630.68	512.51	66.60	13.00	
	100	437.19	615.78	522.46	55.98	10.71	
	150	445.39	585.30	515.23	44.54	8.65	
5-45Hz LOW FREQ	0	0.19	0.87	0.53	0.25	47.26	
	50	0.06	0.70	0.39	0.23	58.21	
	100	0.17	0.62	0.37	0.15	40.93	
	150	0.26	0.59	0.40	0.12	29.18	
50-60Hz PWR FREQ	0	0.16	0.23	0.20	0.02	8.21	
	50	0.22	0.33	0.27	0.03	10.55	
	100	0.20	0.29	0.24	0.02	10.09	
	150	0.26	0.31	0.28	0.02	5.69	
65-300Hz PWR HARM	0	0.20	1.21	0.33	0.25	74.74	
	50	0.24	1.34	0.37	0.27	73.92	
	100	0.16	1.53	0.28	0.34	122.05	
	150	0.07	1.81	0.22	0.44	200.26	
305-2560Hz HIGH FREQ	0	0.36	0.54	0.45	0.05	11.99	
	50	0.29	0.45	0.37	0.05	12.78	
	100	0.24	0.43	0.31	0.05	15.75	
	150	0.20	0.44	0.27	0.06	20.78	
5-2560Hz ALL FREQ	0	0.50	1.50	0.82	0.26	32.17	
	50	0.47	1.54	0.74	0.26	35.05	
	100	0.42	1.70	0.65	0.31	47.71	
	150	0.43	1.97	0.65	0.38	57.71	

APPENDIX AD

**DATASET MET033
GALLERY PLACE PLATFORM, NORTH BOUND SIDE**

Measurement Setup Code: Staff: 31 Reference: -
Drawing: A-5

Vehicle Status: NA

Measurement Date: May 19, 1992

Measurement Time: Start: 15:56:28
End: 15:57:46

Number of Samples: 11

Programmed Sample Interval: 5 sec

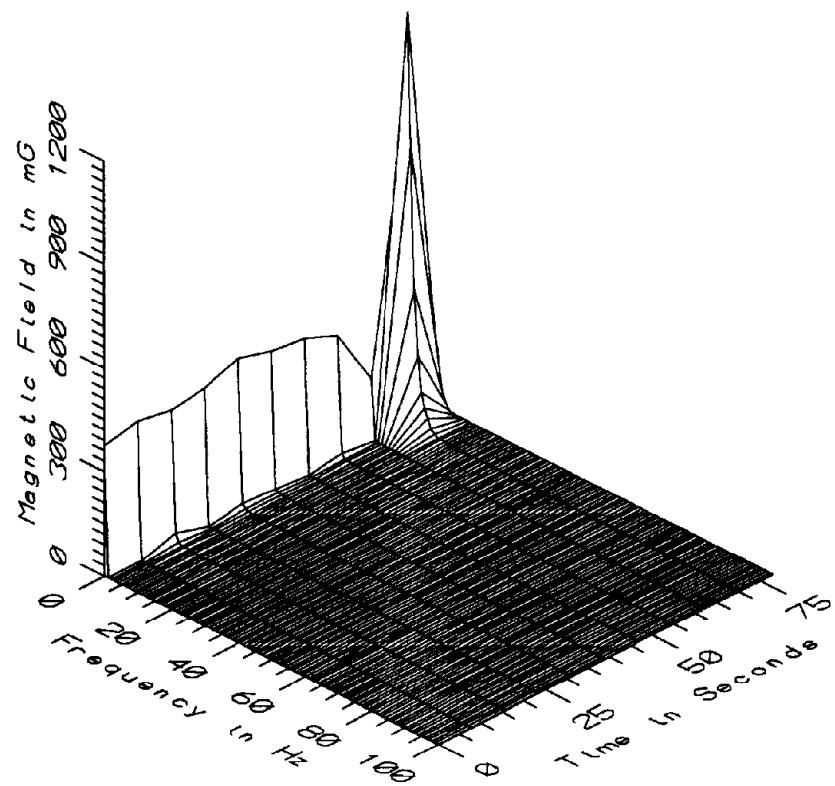
Actual Sample Interval: 7.8 sec

Frequency Spectrum Parameters

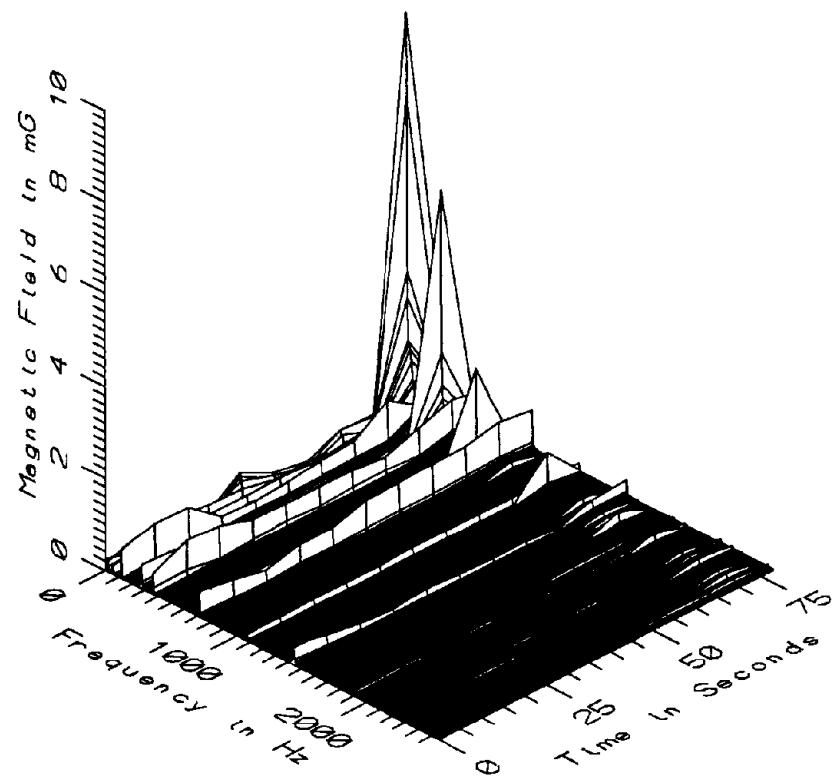
<u>Probe Type:</u>	<u>Wideband</u>	<u>Static</u>
Maximum Frequency (Hz)	2560	100
Minimum Frequency (Hz)	5	0
Spectral Bandwidth (Hz)	5	1

Missing Data: No reference probe

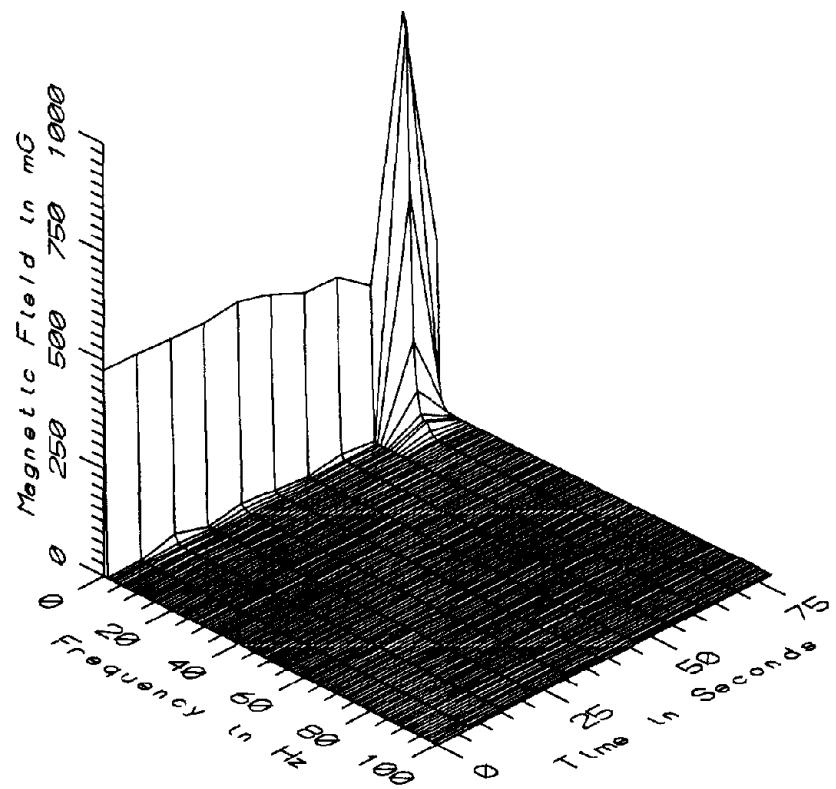
Saturated Data: None



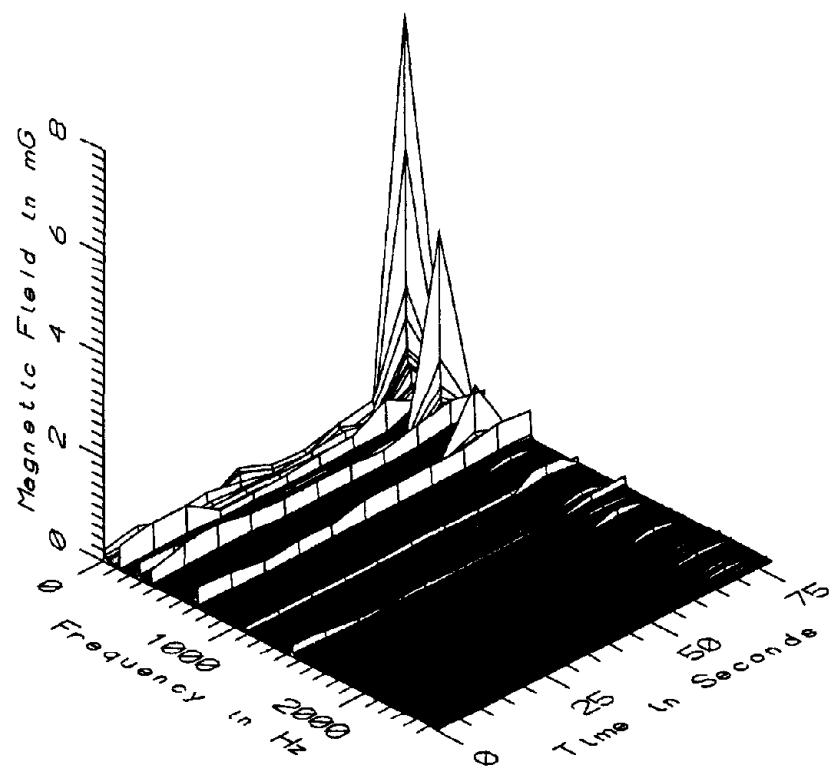
MET033 - 10cm ABOVE PLATFORM AT SAFETY LINE, NORTH BOUND SIDE



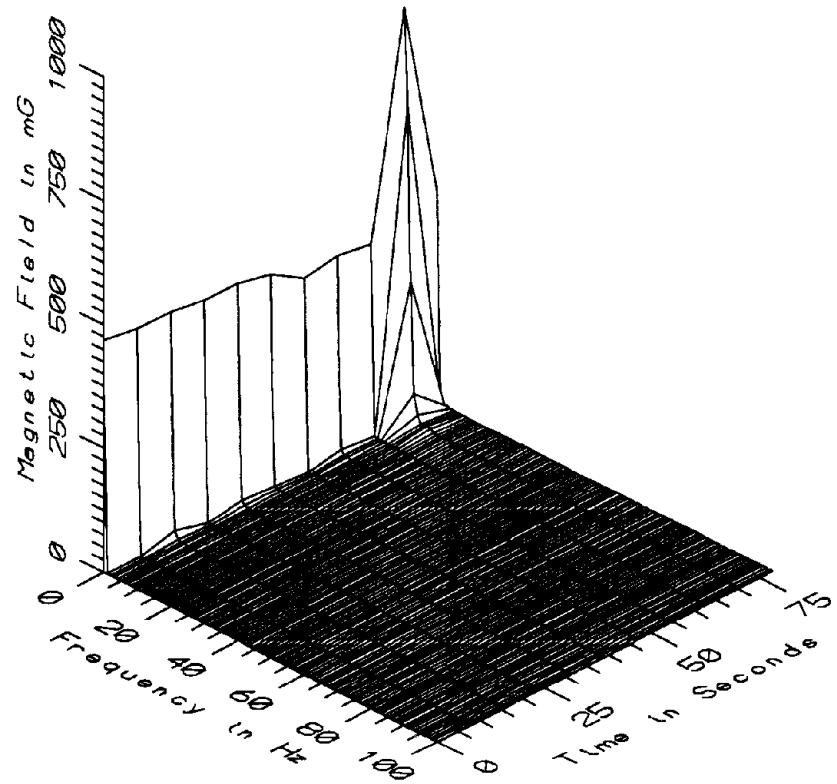
MET033 - 10cm ABOVE PLATFORM AT SAFETY LINE, NORTH BOUND SIDE



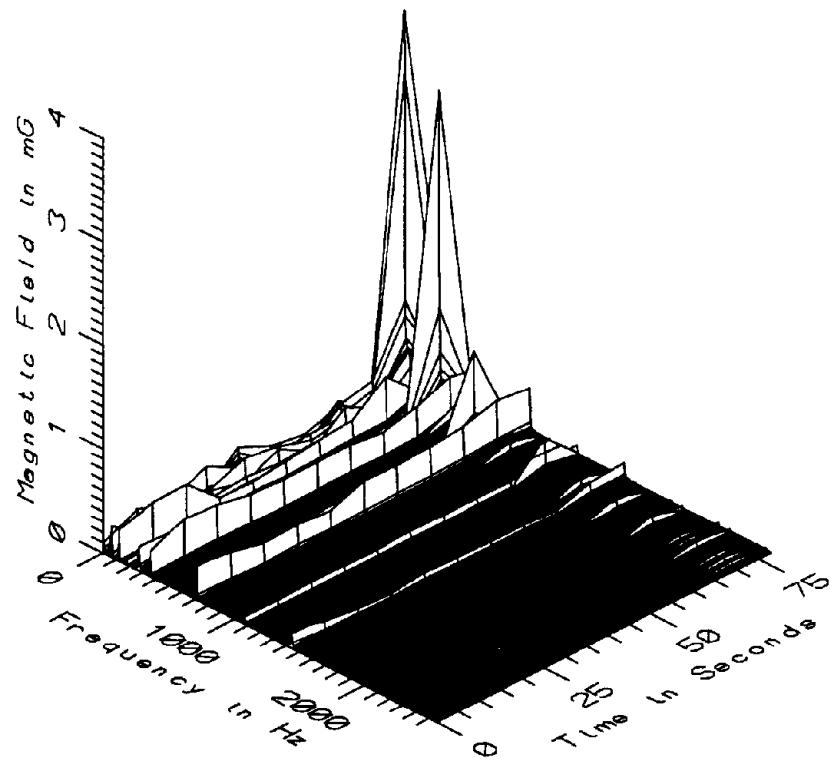
MET033 - 60cm ABOVE PLATFORM AT SAFETY LINE, NORTH BOUND SIDE



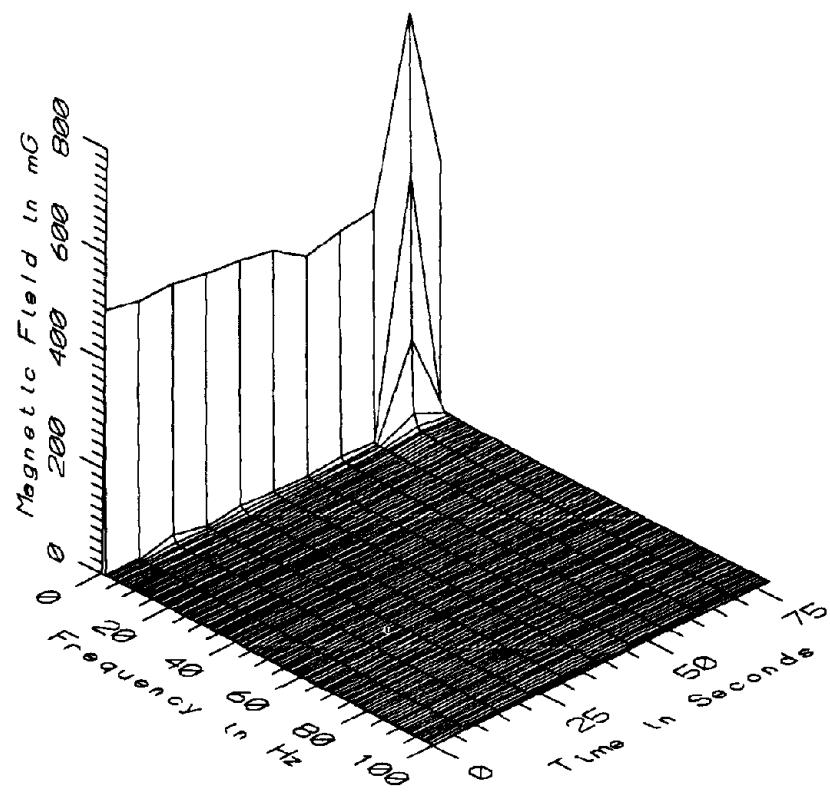
MET033 - 60cm ABOVE PLATFORM AT SAFETY LINE, NORTH BOUND SIDE



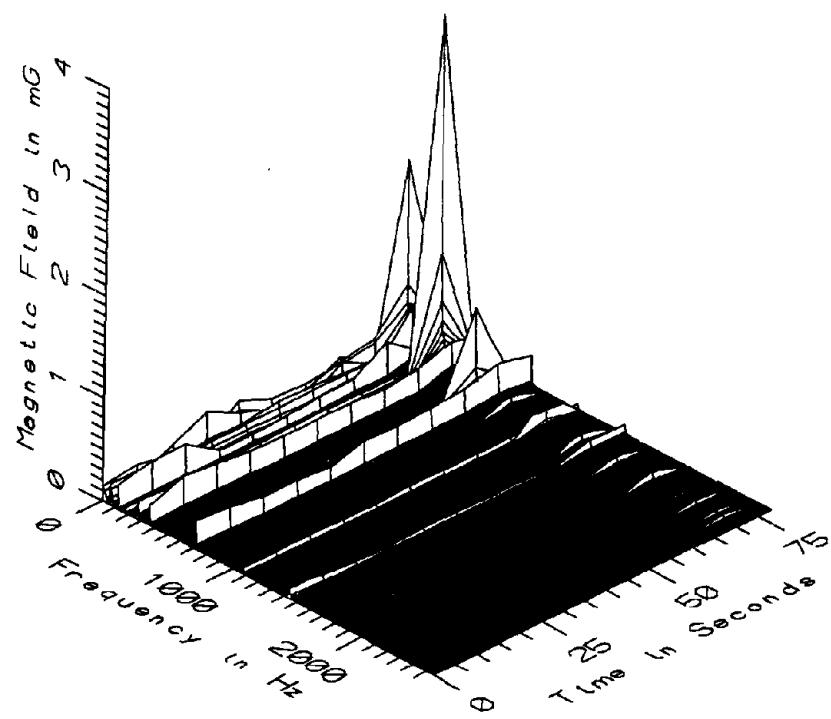
MET033 - 110cm ABOVE PLATFORM AT SAFETY LINE, NORTH BOUND SIDE



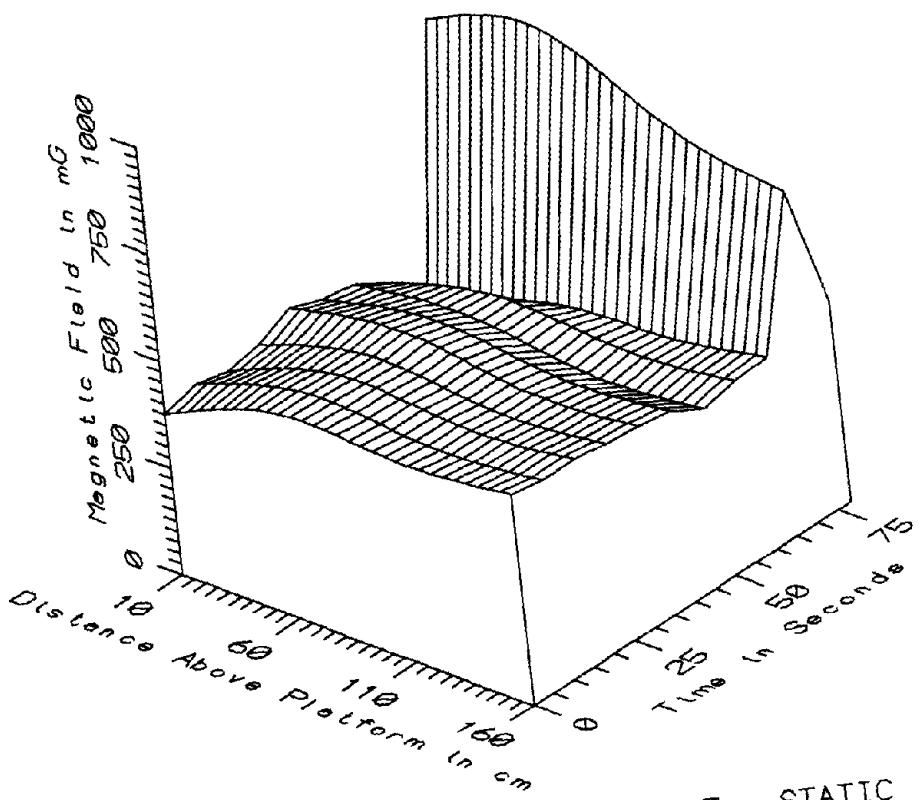
MET033 - 110cm ABOVE PLATFORM AT SAFETY LINE, NORTH BOUND SIDE



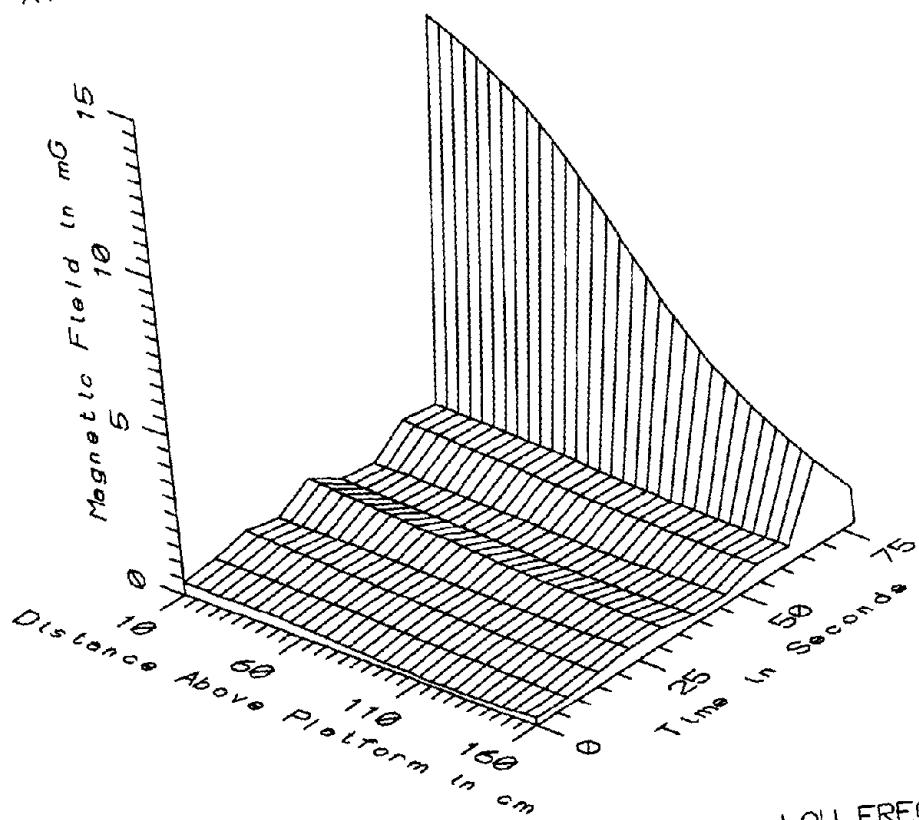
MET033 - 160cm ABOVE PLATFORM AT SAFETY LINE, NORTH BOUND SIDE



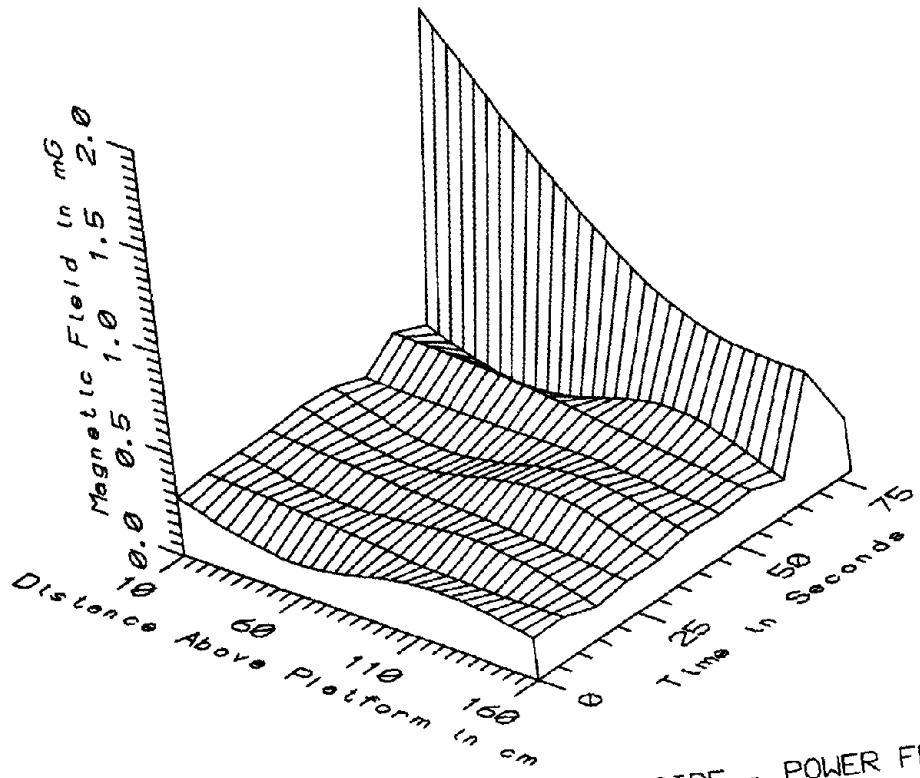
MET033 - 160cm ABOVE PLATFORM AT SAFETY LINE, NORTH BOUND SIDE



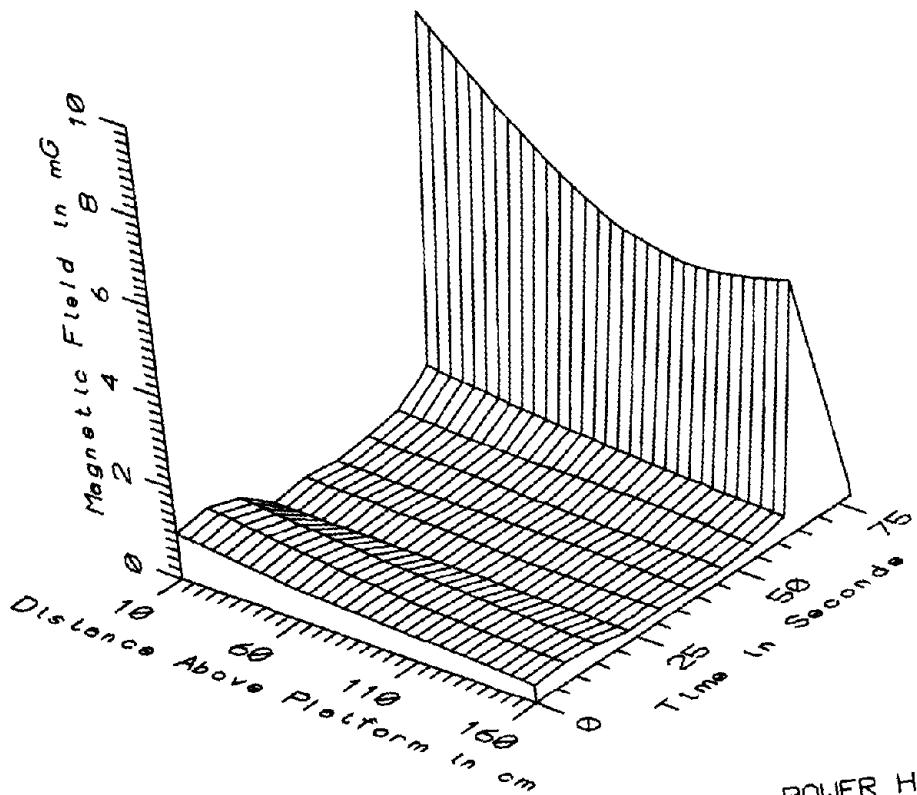
MET033 - AT SAFETY LINE, NORTH BOUND SIDE - STATIC



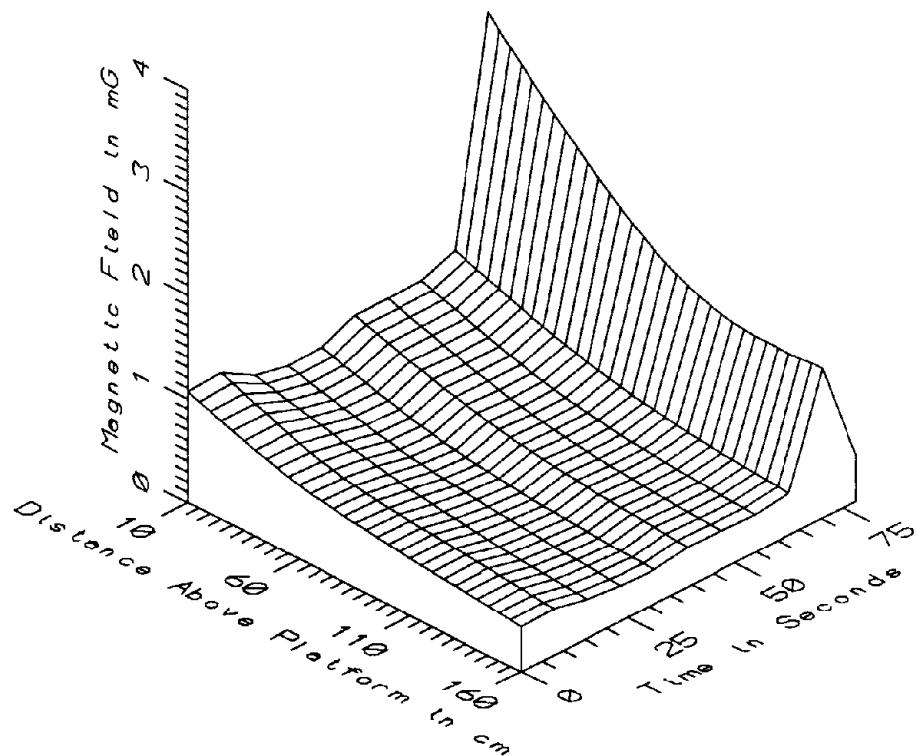
MET033 - AT SAFETY LINE, NORTH BOUND SIDE - LOW FREQ., 5-45Hz



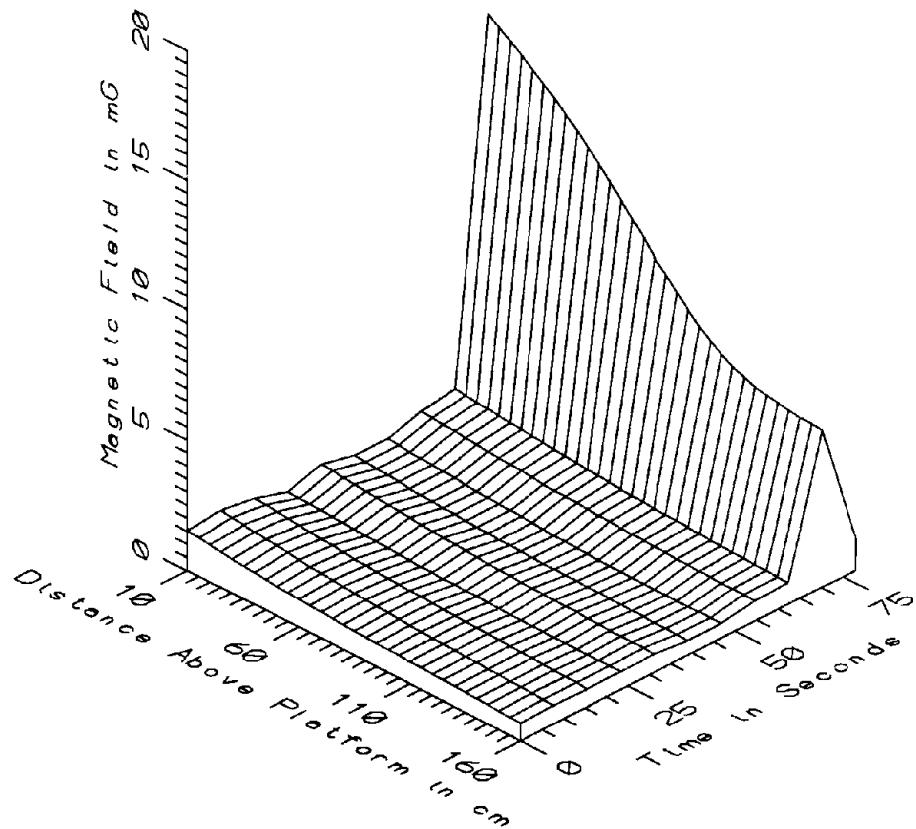
MET033 - AT SAFETY LINE, NORTH BOUND SIDE - POWER FREQ. 50-60Hz



MET033 - AT SAFETY LINE, NORTH BOUND SIDE - POWER HARM. 65-300Hz



MET033 - AT SAFETY LINE, NORTH BOUND SIDE - HIGH FREQ, 305-2560Hz



MET033 - AT SAFETY LINE, NORTH BOUND SIDE - ALL FREQ, 5-2560Hz

MET033 - GALLERY PLACE PLATFORM, NORTH BOUND SIDE		TOTAL OF 101 SAMPLES			
FREQUENCY BAND	HEIGHT ABOVE FLOOR (cm)	MINIMUM MAGNETIC FIELD (mG)	MAXIMUM MAGNETIC FIELD (mG)	AVERAGE MAGNETIC FIELD (mG)	STANDARD DEVIATION OF VARIATION (mG)
STATIC	10	165.35	874.66	395.61	182.65
	60	360.46	952.79	488.25	159.30
	110	389.32	833.28	467.95	124.35
	160	410.11	775.02	486.88	98.84
5-45Hz LOW FREQ	10	0.30	12.53	1.87	3.58
	60	0.27	9.97	1.49	2.83
	110	0.15	5.21	0.91	1.46
	160	0.24	2.61	0.67	0.69
50-60Hz PWR FREQ	10	0.27	1.77	0.45	0.44
	60	0.16	1.13	0.32	0.28
	110	0.20	0.68	0.31	0.13
	160	0.15	0.59	0.23	0.12
65-300Hz PWR HARM	10	0.28	8.41	1.34	2.37
	60	0.26	6.06	0.98	1.70
	110	0.24	4.80	0.79	1.34
	160	0.23	5.21	0.76	1.48
305-2560Hz HIGH FREQ	10	0.83	3.27	1.22	0.69
	60	0.55	2.21	0.82	0.47
	110	0.40	1.51	0.59	0.31
	160	0.33	1.45	0.49	0.32
5-2560Hz ALL FREQ	10	1.05	15.54	2.82	4.24
	60	0.81	11.92	2.10	3.27
	110	0.61	7.28	1.46	1.94
	160	0.56	6.03	1.22	1.60

APPENDIX AE

DATASET MET034 GALLERY PLACE PLATFORM, NORTH BOUND SIDE

Measurement Setup Code: Staff: 33 Reference: -
Drawing: A-5

Vehicle Status: NA

Measurement Date: May 19, 1992

Measurement Time: Start: 15:59:29
End: 16:01:08

Number of Samples: 16

Programmed Sample Interval: 5 sec

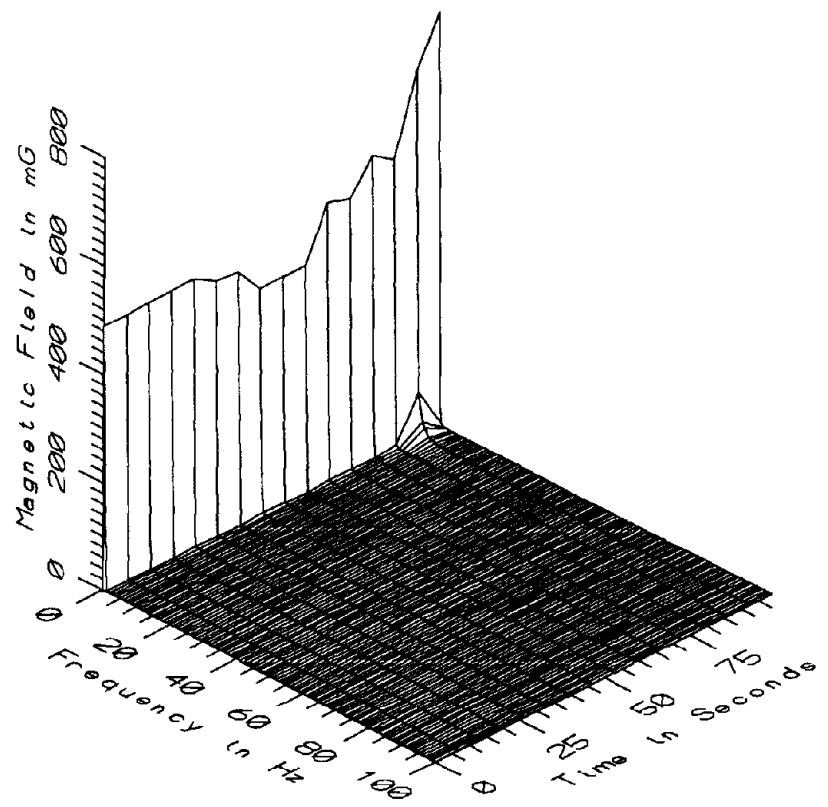
Actual Sample Interval: 6.6 sec

Frequency Spectrum Parameters

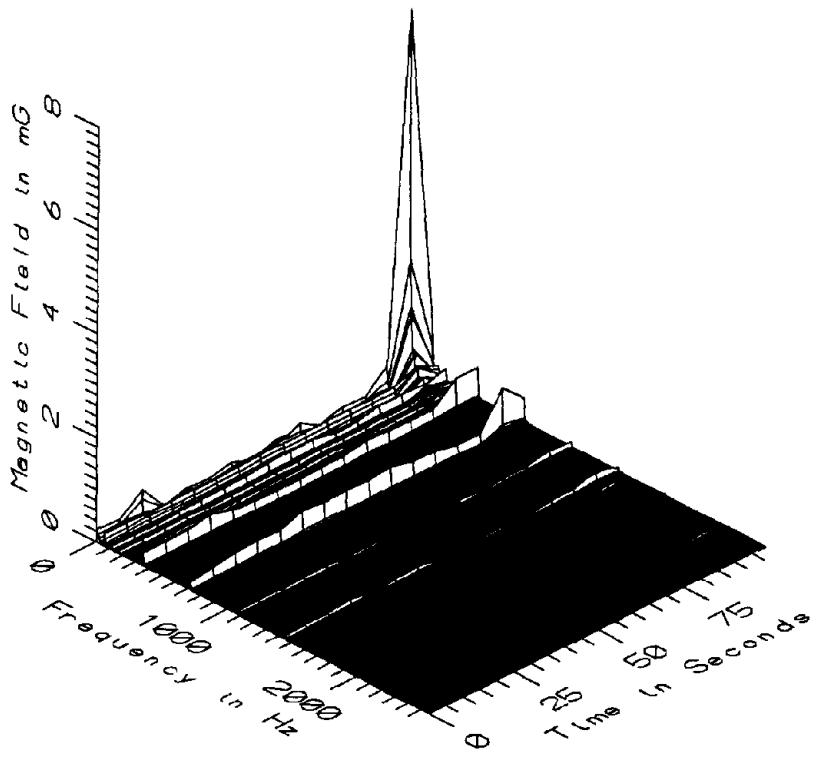
<u>Probe Type:</u>	<u>Wideband</u>	<u>Static</u>
Maximum Frequency (Hz)	2560	100
Minimum Frequency (Hz)	5	0
Spectral Bandwidth (Hz)	5	1

Missing Data: No reference probe

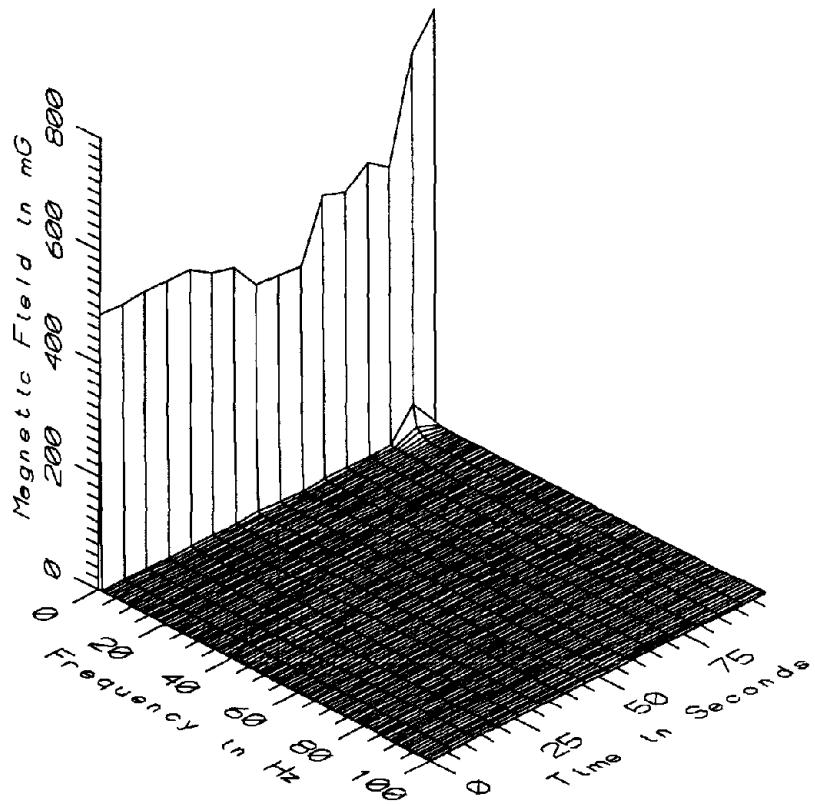
Saturated Data: None



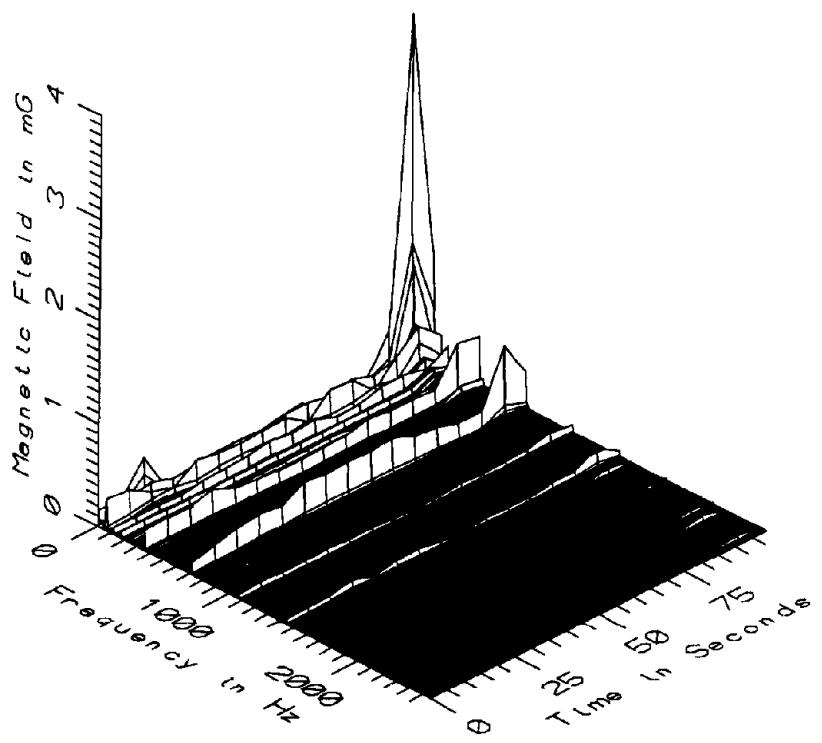
MET034 - 0cm FROM SAFETY LINE, 1M ABOVE PLATFORM, NORTH BOUND SIDE



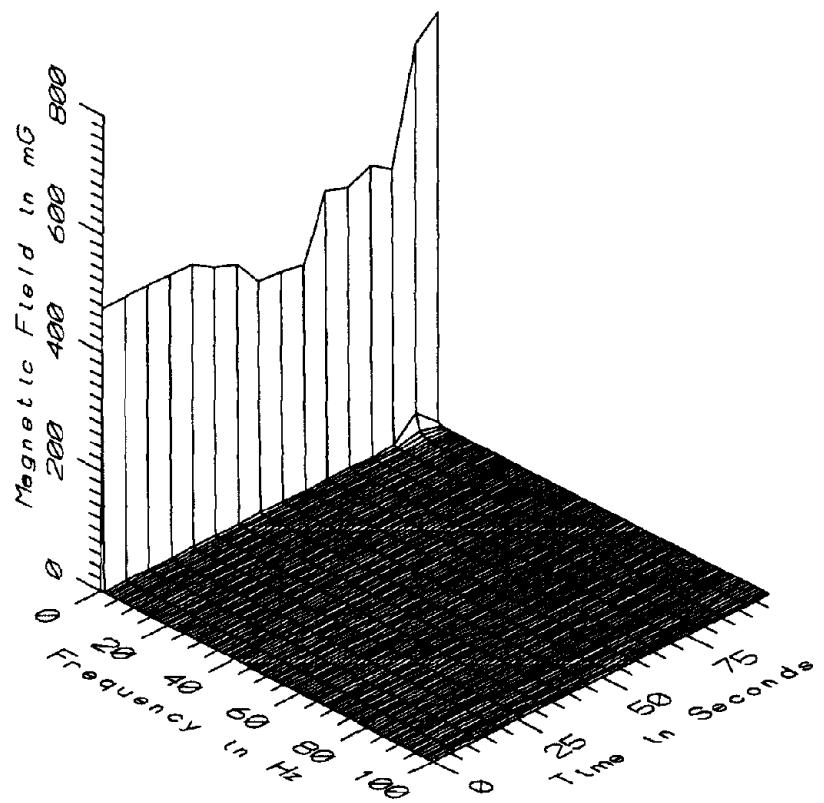
MET034 - 0cm FROM SAFETY LINE, 1M ABOVE PLATFORM, NORTH BOUND SIDE



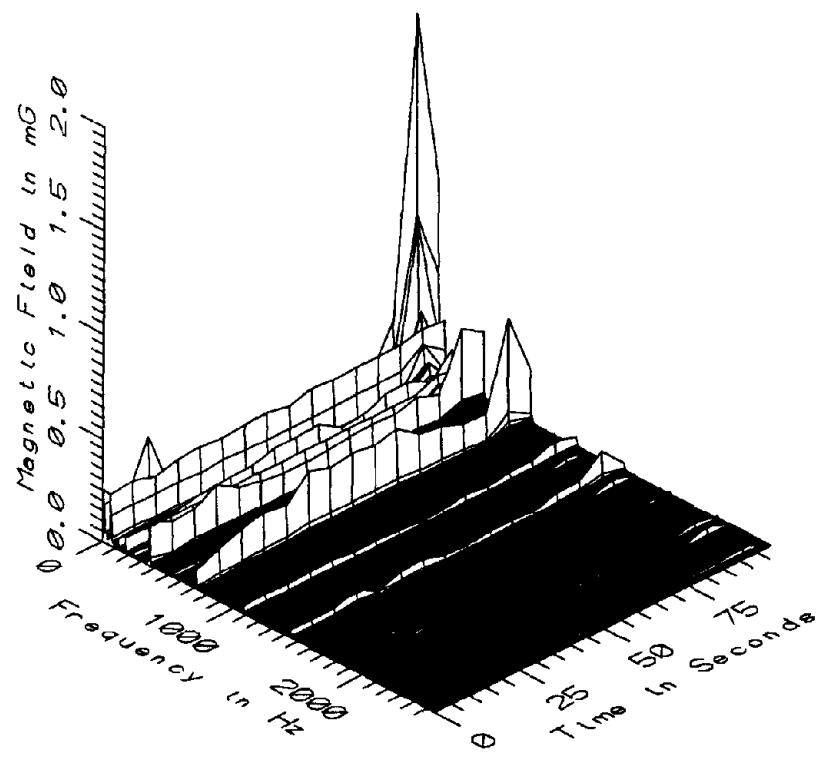
MET034 - 50cm FROM SAFETY LINE, 1M ABOVE PLATFORM, NORTH BOUND SIDE



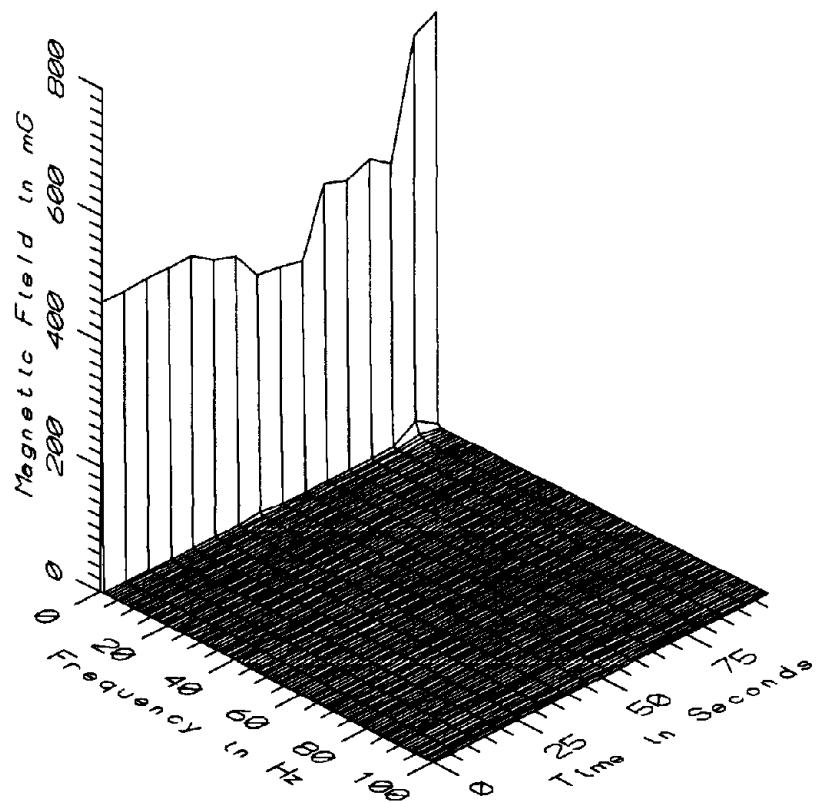
MET034 - 50cm FROM SAFETY LINE, 1M ABOVE PLATFORM, NORTH BOUND SIDE



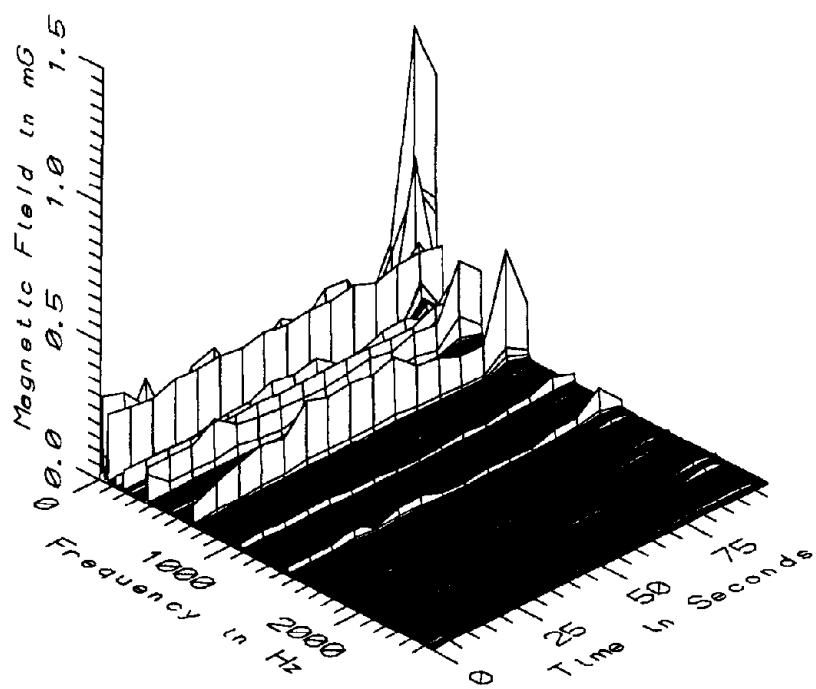
MET034 - 100cm FROM SAFETY LINE, 1M ABOVE PLATFORM, NORTH BOUND SIDE



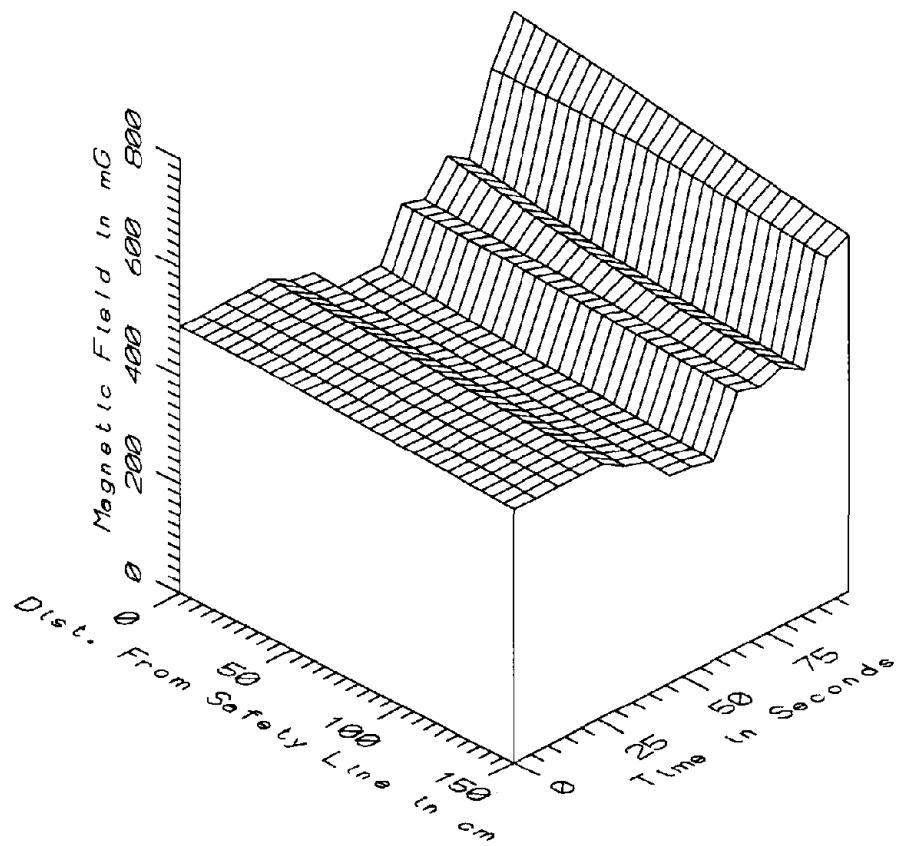
MET034 - 100cm FROM SAFETY LINE, 1M ABOVE PLATFORM, NORTH BOUND SIDE



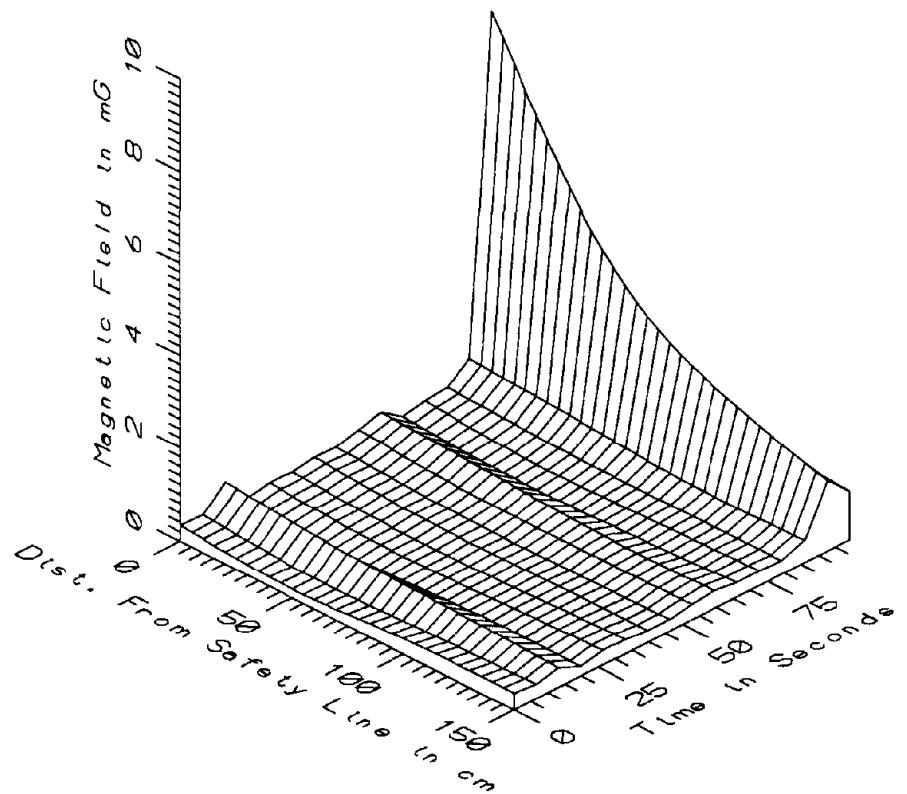
MET034 - 150cm FROM SAFETY LINE, 1M ABOVE PLATFORM, NORTH BOUND SIDE



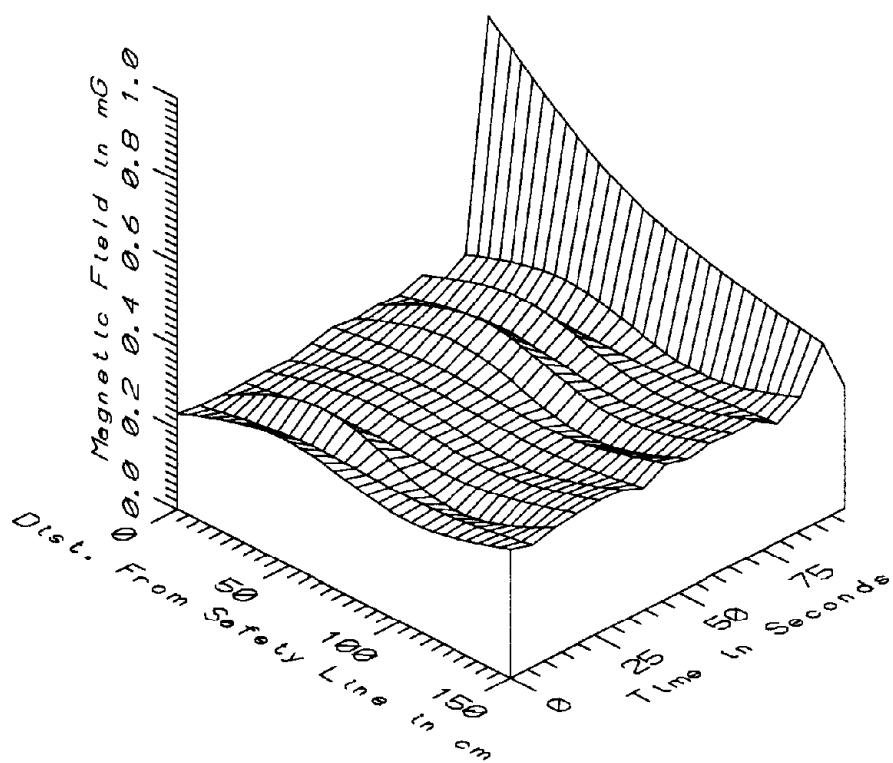
MET034 - 150cm FROM SAFETY LINE, 1M ABOVE PLATFORM, NORTH BOUND SIDE



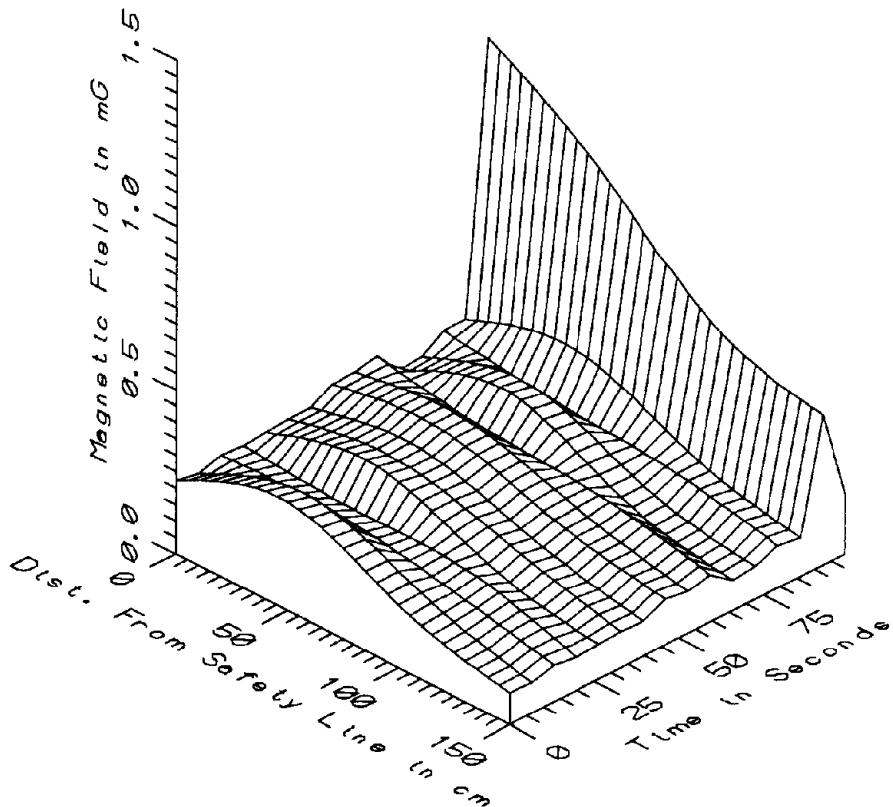
MET034 - 1M ABOVE PLATFORM, NORTH BOUND SIDE - STATIC



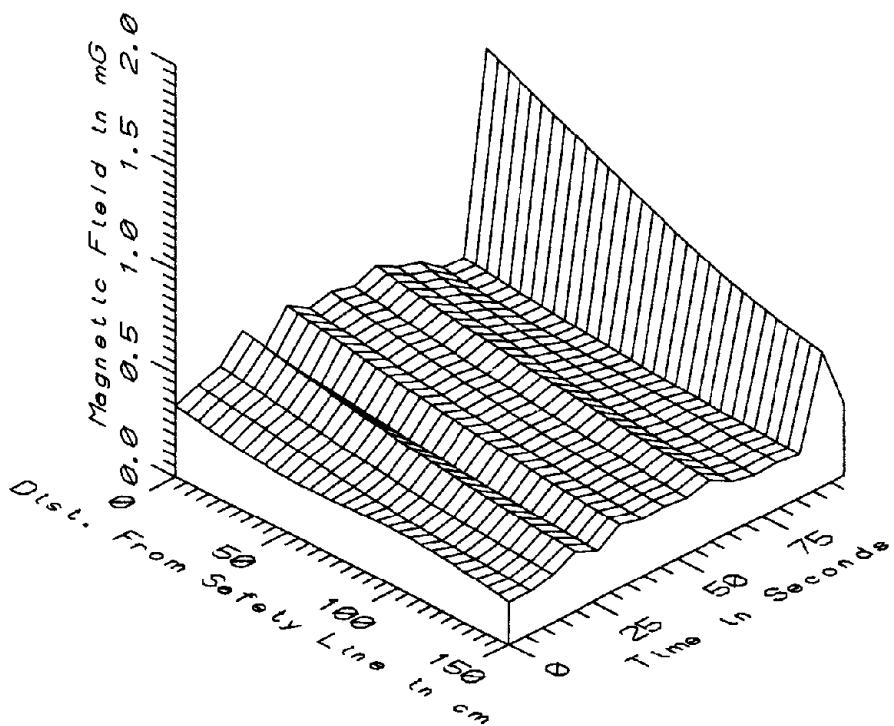
MET034 - 1M ABOVE PLATFORM, NORTH BOUND SIDE - LOW FREQ, 5-45Hz



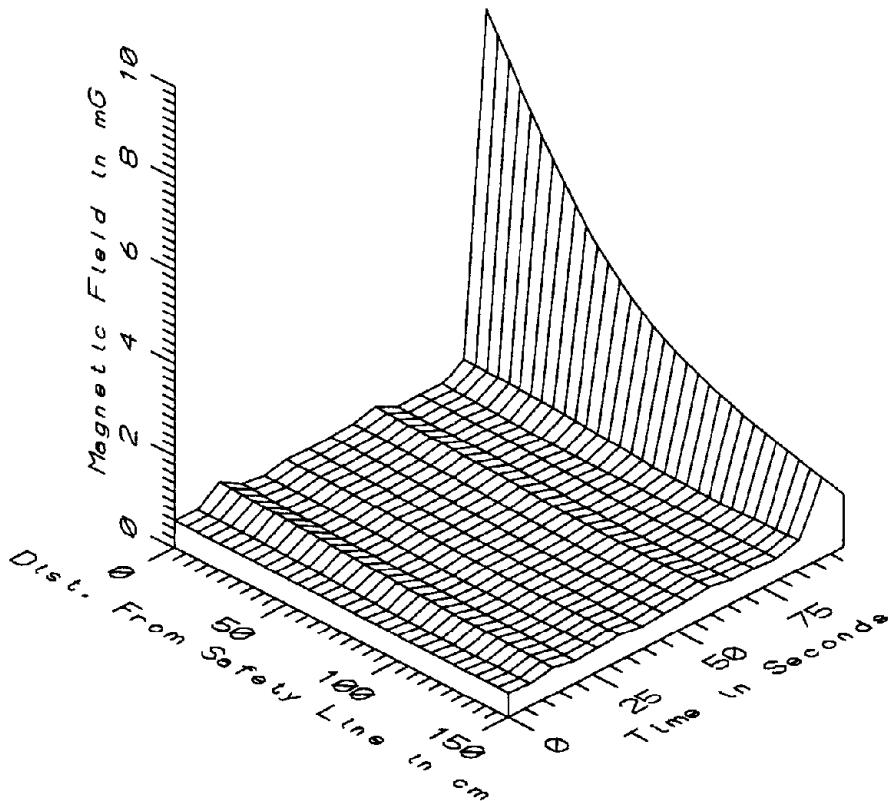
MET034 - 1M ABOVE PLATFORM, NORTH BOUND SIDE - POWER FREQ, 50-60Hz



MET034 - 1M ABOVE PLATFORM, NORTH BOUND SIDE - POWER HARM, 65-300Hz



MET034 - 1M ABOVE PLATFORM, NORTH BOUND SIDE - HIGH FREQ, 305-2560Hz



MET034 - 1M ABOVE PLATFORM, NORTH BOUND SIDE - ALL FREQ, 5-2560Hz

MET034 - GALLERY PLACE PLATFORM, NORTH BOUND SIDE		TOTAL OF 16 SAMPLES		
FREQUENCY BAND	DIST FROM LINE (cm)	MINIMUM MAGNETIC FIELD (mG)	MAXIMUM MAGNETIC FIELD (mG)	AVERAGE MAGNETIC FIELD (mG)
				STANDARD DEVIATION (mG)
STATIC	0	414.31	762.19	510.76
	50	394.79	730.03	496.88
	100	379.77	693.58	480.98
	150	366.89	656.77	466.23
5-45Hz LOW FREQ	0	0.20	8.03	0.92
	50	0.10	4.07	0.55
	100	0.19	2.31	0.46
	150	0.22	1.51	0.45
50-60Hz PWR FREQ	0	0.23	0.82	0.28
	50	0.26	0.60	0.32
	100	0.23	0.49	0.28
	150	0.29	0.43	0.32
65-300Hz PWR HARM	0	0.21	1.09	0.31
	50	0.20	0.87	0.33
	100	0.17	0.57	0.22
	150	0.09	0.46	0.14
305-2560Hz HIGH FREQ	0	0.34	1.31	0.52
	50	0.27	1.06	0.42
	100	0.24	0.81	0.34
	150	0.20	0.65	0.28
5-2560Hz ALL FREQ	0	0.58	8.25	1.23
	50	0.53	4.33	0.91
	100	0.47	2.56	0.70
	150	0.49	1.76	0.65

APPENDIX AF
DATASET MET035
ON MEZZANINE AT GALLERY PLACE STATION

Measurement Setup Code: Staff: 34 Reference: -
Drawing: A-5

Vehicle Status: NA

Measurement Date: May 19, 1992

Measurement Time: Start: 16:04:58
End: 16:05:24

Number of Samples: 4

Programmed Sample Interval: 5 sec

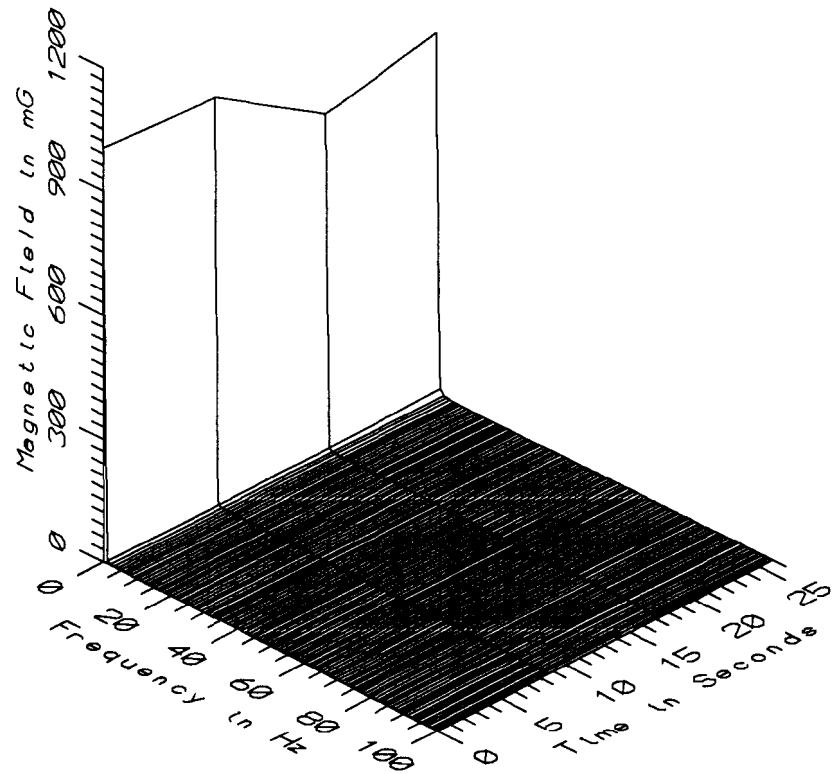
Actual Sample Interval: 8.7 sec

Frequency Spectrum Parameters

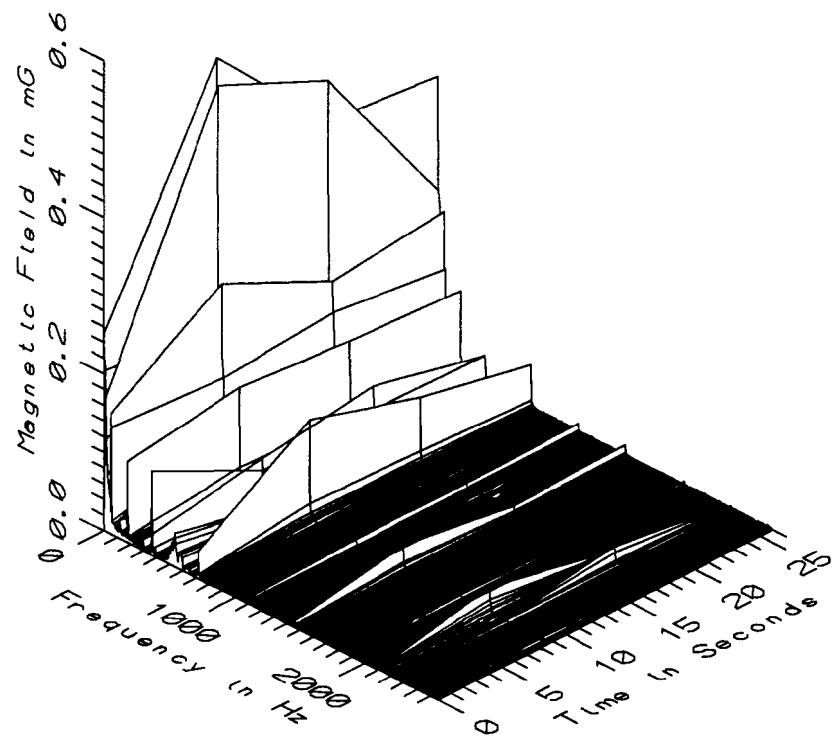
<u>Probe Type:</u>	<u>Wideband</u>	<u>Static</u>
Maximum Frequency (Hz)	2560	100
Minimum Frequency (Hz)	5	0
Spectral Bandwidth (Hz)	5	1

Missing Data: No reference probe

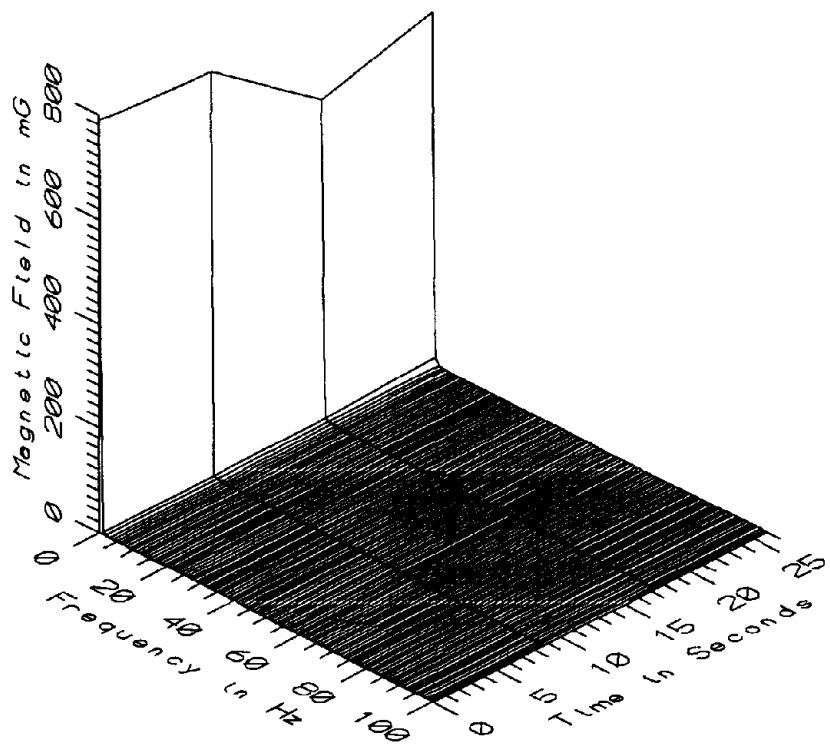
Saturated Data: None



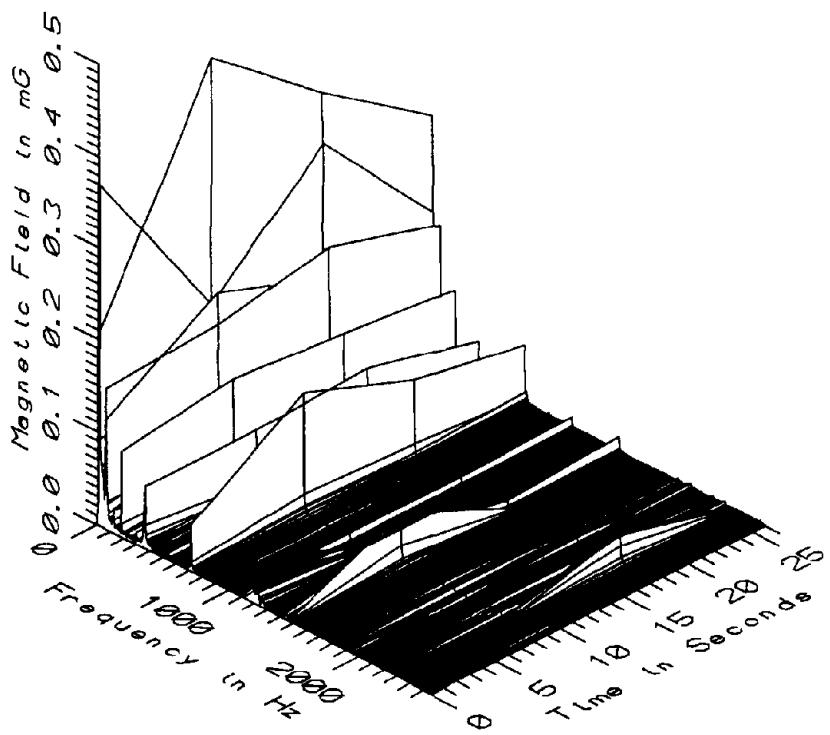
MET035 - 10cm ABOVE FLOOR OF MEZZANINE AT GALLERY PLACE



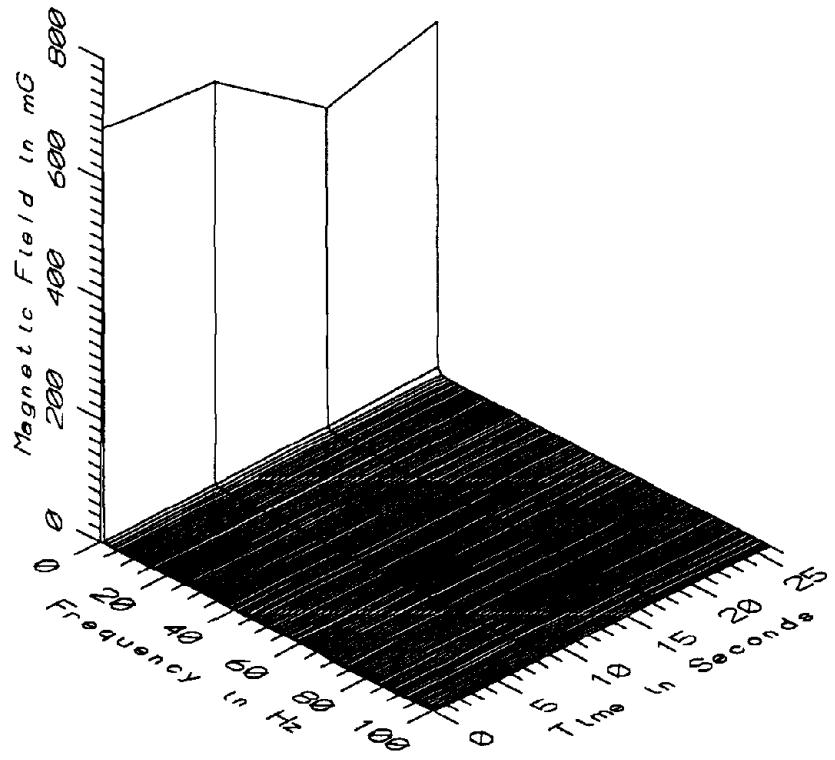
MET035 - 10cm ABOVE FLOOR OF MEZZANINE AT GALLERY PLACE



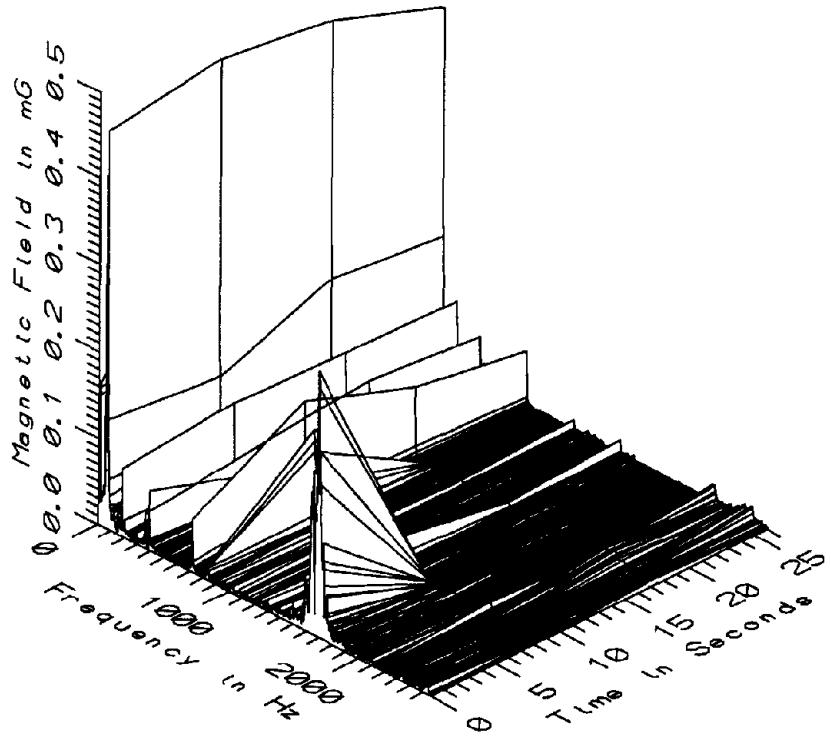
MET035 - 60cm ABOVE FLOOR OF MEZZANINE AT GALLERY PLACE



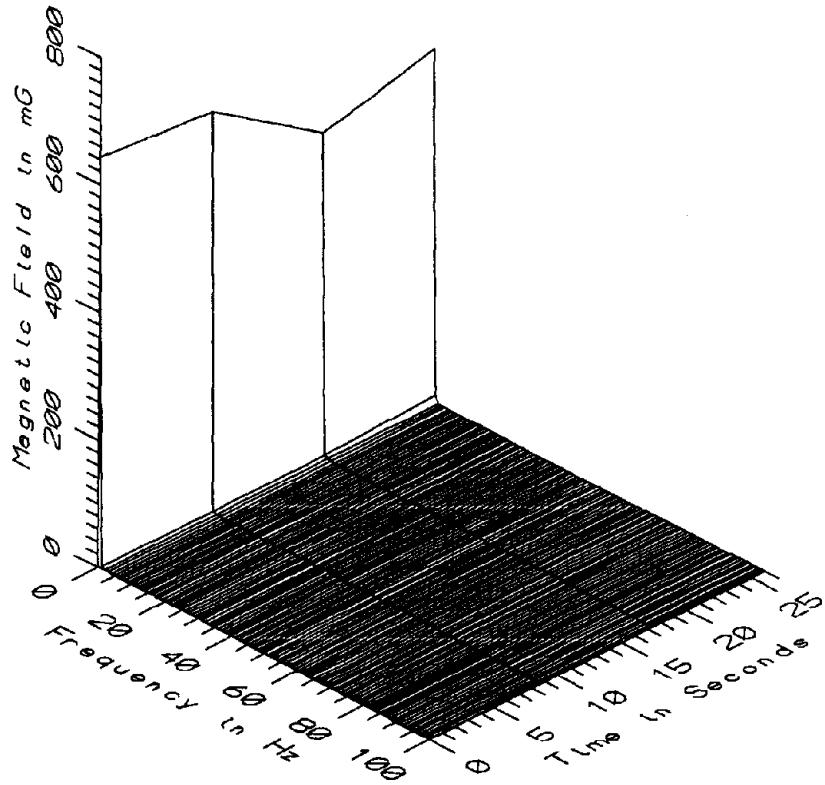
MET035 - 60cm ABOVE FLOOR OF MEZZANINE AT GALLERY PLACE



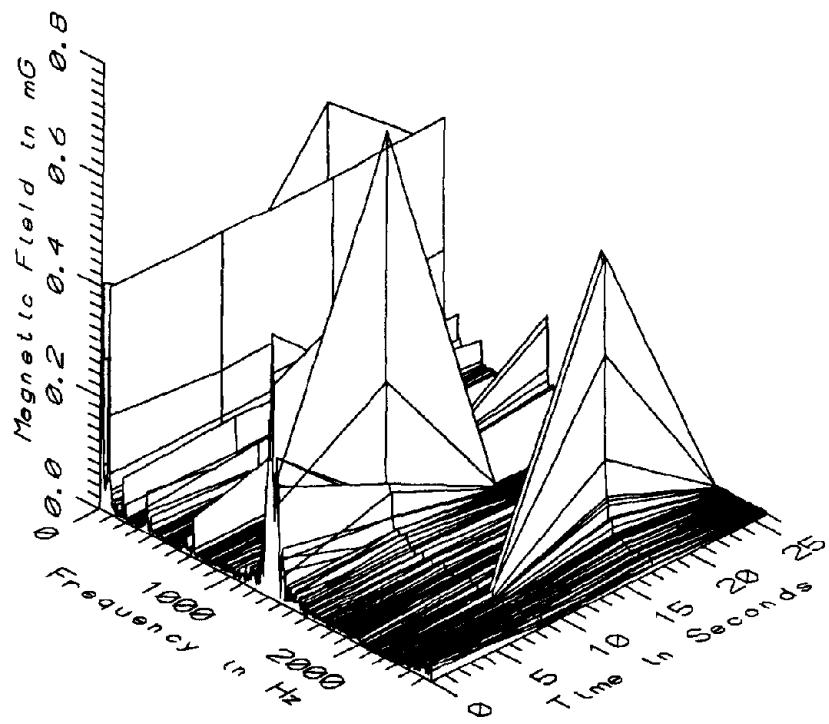
MET035 - 110cm ABOVE FLOOR OF MEZZANINE AT GALLERY PLACE



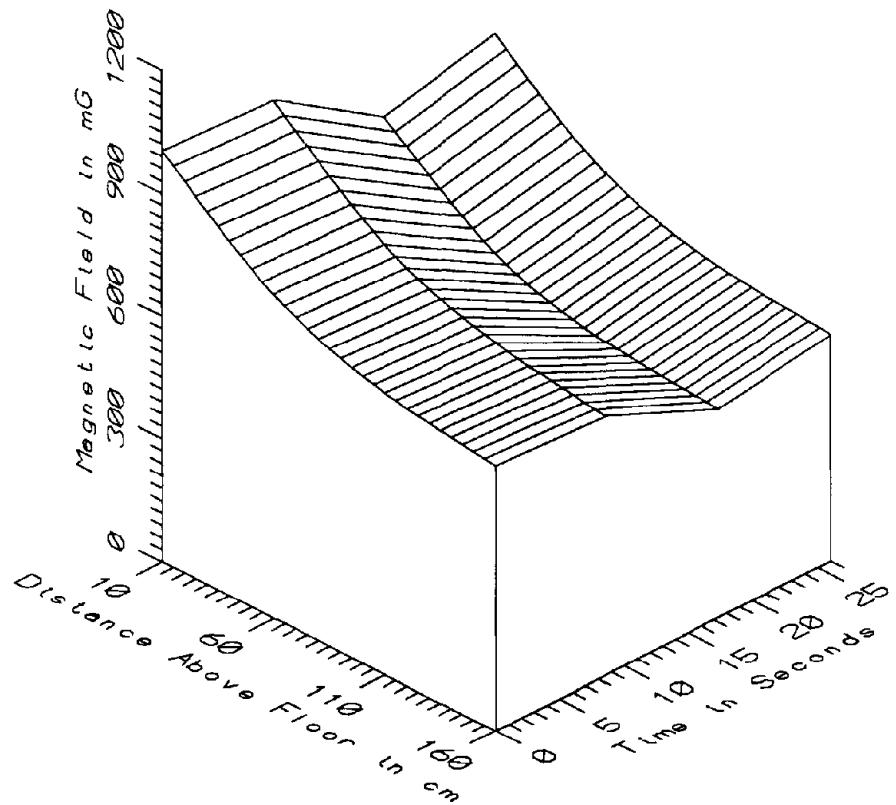
MET035 - 110cm ABOVE FLOOR OF MEZZANINE AT GALLERY PLACE



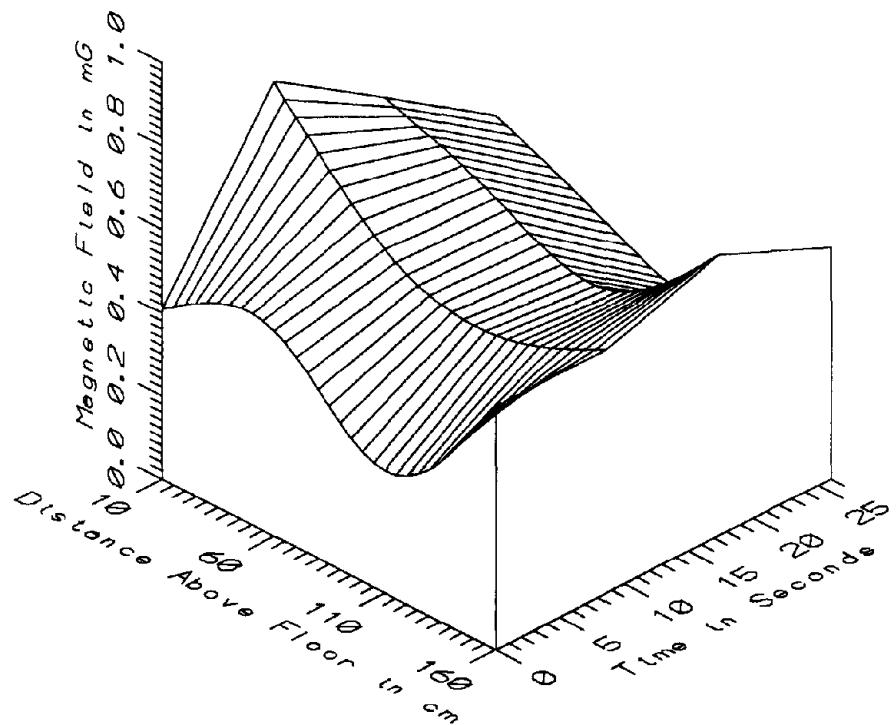
MET035 - 160cm ABOVE FLOOR OF MEZZANINE AT GALLERY PLACE



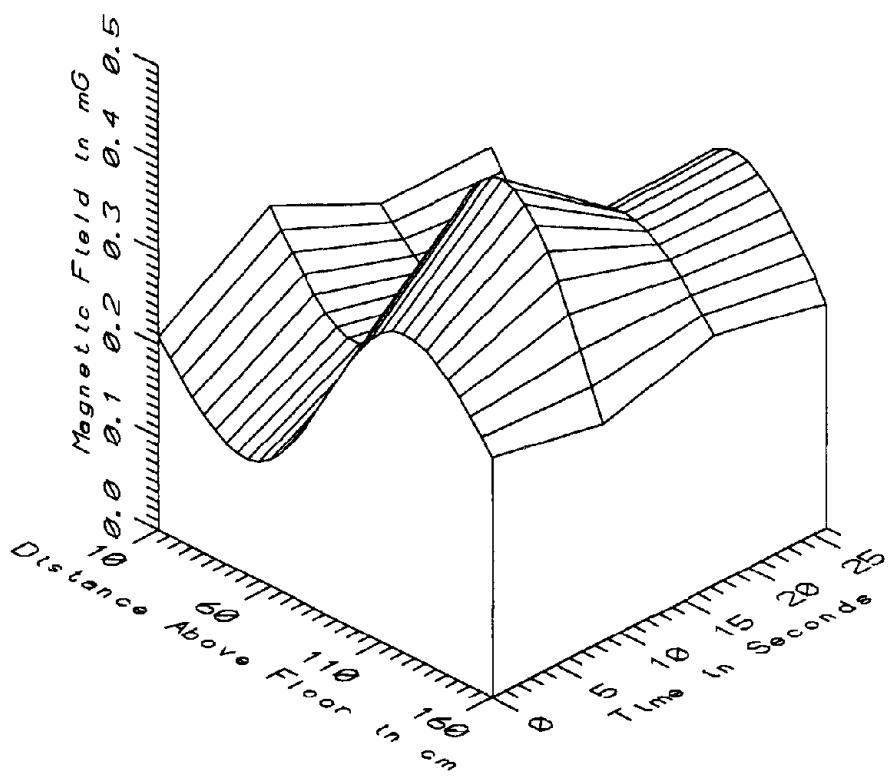
MET035 - 160cm ABOVE FLOOR OF MEZZANINE AT GALLERY PLACE



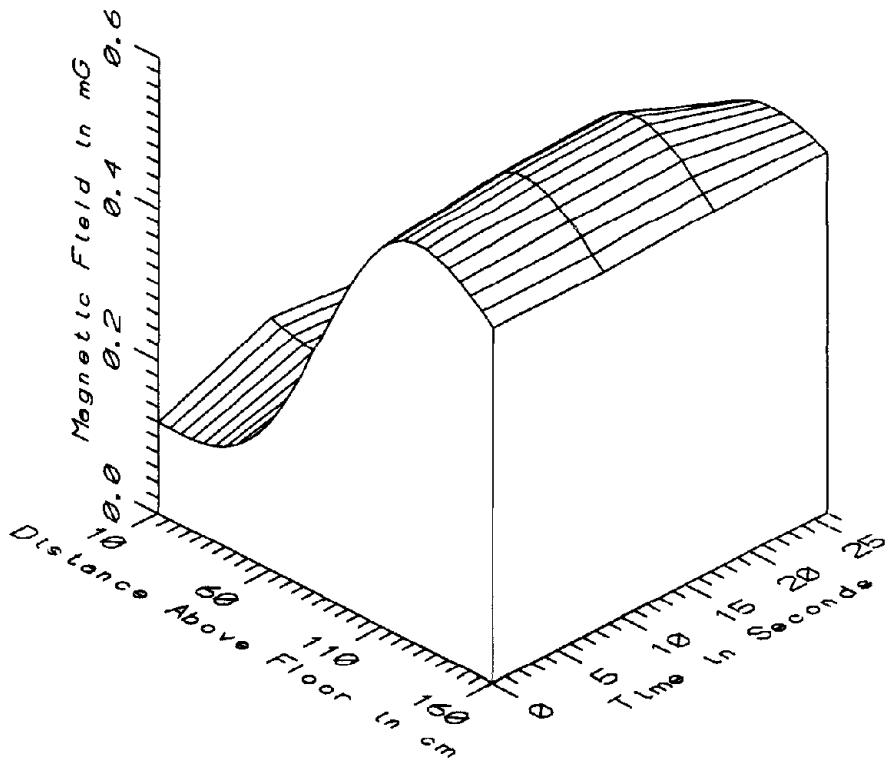
MET035 - ON MEZZANINE AT GALLERY PLACE - STATIC



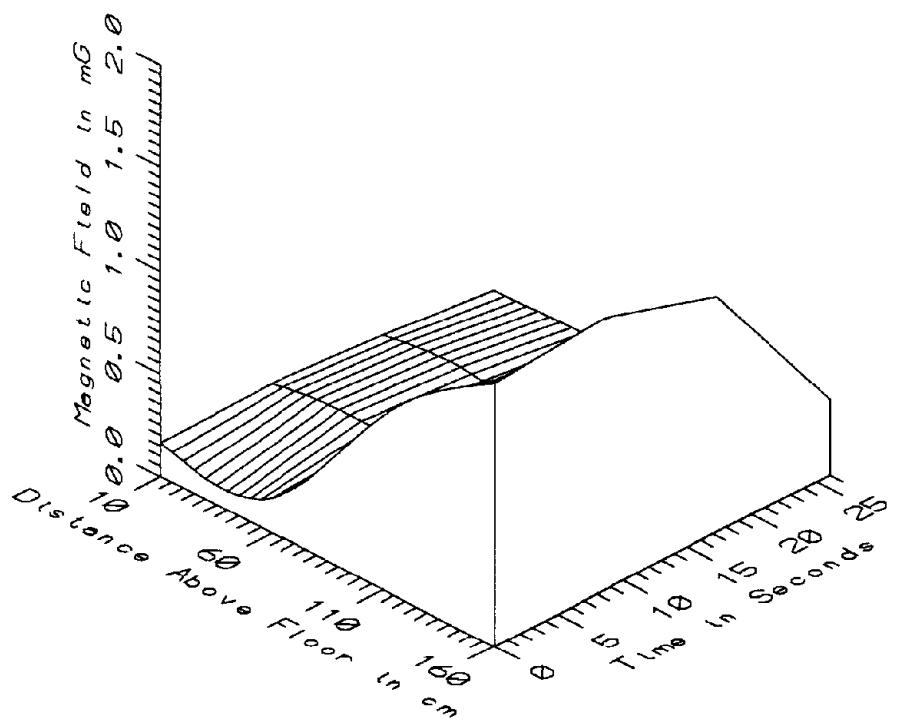
MET035 - ON MEZZANINE AT GALLERY PLACE - LOW FREQ, 5-45Hz



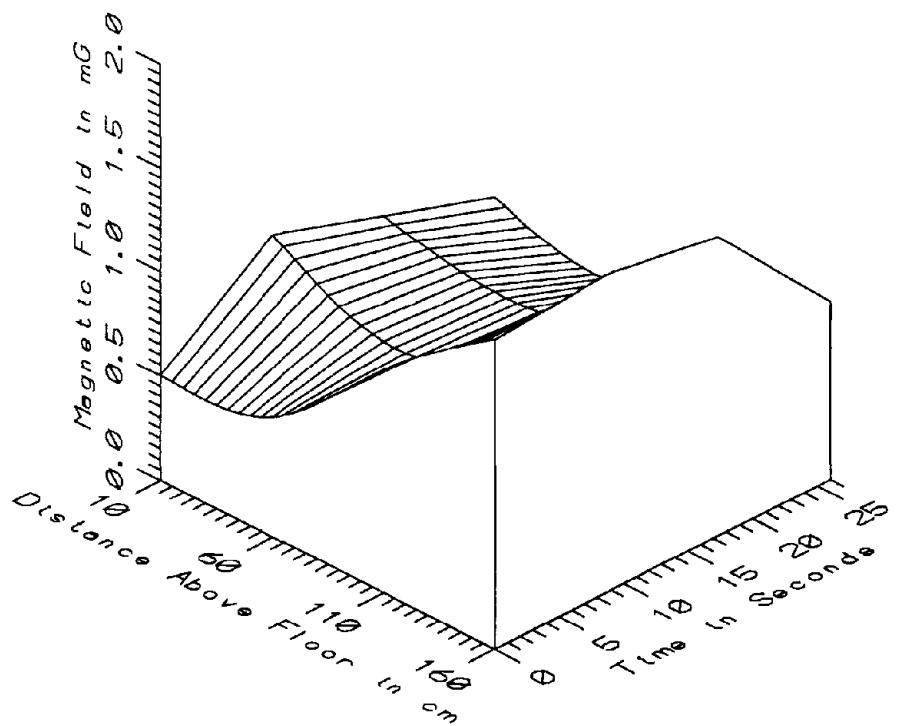
MET035 - ON MEZZANINE AT GALLERY PLACE - POWER FREQ, 50-60Hz



MET035 - ON MEZZANINE AT GALLERY PLACE - POWER HARM, 65-300Hz



MET035 - ON MEZZANINE AT GALLERY PLACE - HIGH FREQ, 305-2560Hz



MET035 - ON MEZZANINE AT GALLERY PLACE - ALL FREQ, 5-2560Hz

MET035 - ON MEZZANINE AT GALLERY PLACE						TOTAL OF 4 SAMPLES
FREQUENCY BAND	HEIGHT ABOVE FLOOR (cm)	MINIMUM MAGNETIC FIELD (mG)	MAXIMUM MAGNETIC FIELD (mG)	AVERAGE MAGNETIC FIELD (mG)	STANDARD DEVIATION (mG)	COEFFICIENT OF VARIATION (%)
STATIC	10	812.51	1003.71	920.69	92.12	10.01
	60	615.16	789.56	712.99	83.47	11.71
	110	535.44	685.80	619.15	71.48	11.54
	160	508.85	643.94	583.72	63.76	10.92
5-45Hz LOW FREQ	10	0.41	0.82	0.58	0.19	31.86
	60	0.34	0.55	0.48	0.10	19.97
	110	0.28	0.48	0.38	0.11	28.04
	160	0.56	0.68	0.60	0.05	8.65
50-60Hz PWR FREQ	10	0.21	0.29	0.24	0.03	14.52
	60	0.14	0.20	0.16	0.03	20.06
	110	0.33	0.44	0.37	0.05	13.73
	160	0.23	0.27	0.25	0.02	6.36
65-300Hz PWR HARM	10	0.11	0.18	0.15	0.03	23.27
	60	0.18	0.24	0.21	0.03	13.18
	110	0.46	0.52	0.50	0.03	5.95
	160	0.46	0.47	0.47	0.01	1.21
305-2560Hz HIGH FREQ	10	0.09	0.18	0.14	0.04	28.79
	60	0.10	0.20	0.15	0.04	29.06
	110	0.12	0.84	0.35	0.34	97.10
	160	0.37	1.31	1.02	0.44	43.16
5-2560Hz ALL FREQ	10	0.50	0.91	0.67	0.19	27.89
	60	0.42	0.66	0.57	0.11	18.77
	110	0.65	1.07	0.85	0.18	20.84
	160	0.85	1.53	1.33	0.32	23.90

APPENDIX AG

DATASET MET037 ON MEZZANINE AT GALLERY PLACE STATION

Measurement Setup Code: Staff: 35 Reference: -
Drawing: A-5

Vehicle Status: NA

Measurement Date: May 19, 1992

Measurement Time: Start: 16:11:13
End: 16:12:45

Number of Samples: 18

Programmed Sample Interval: 5 sec

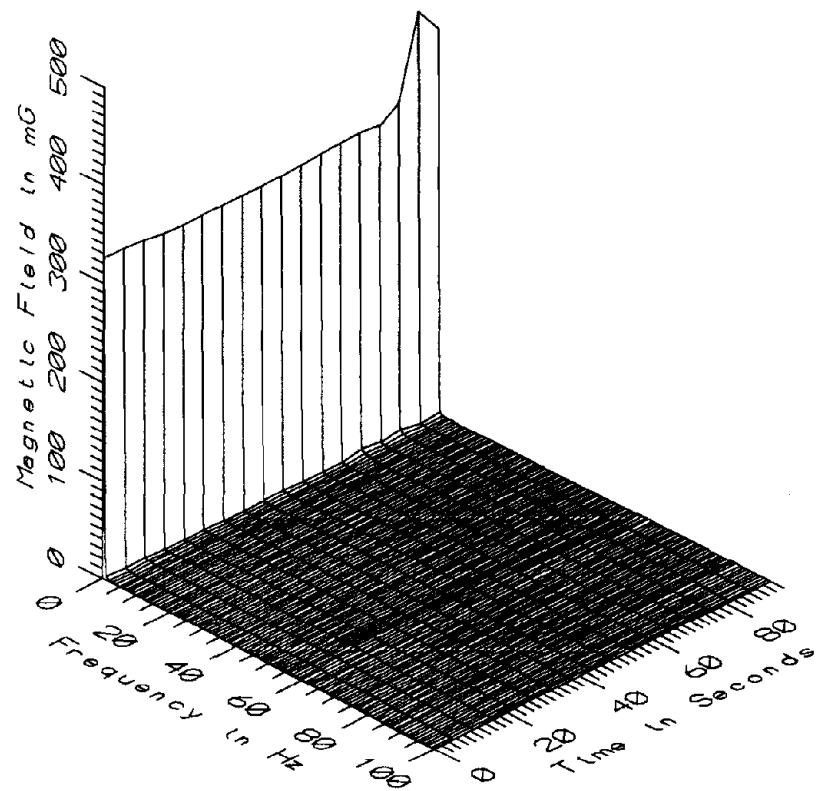
Actual Sample Interval: 5.4 sec

Frequency Spectrum Parameters

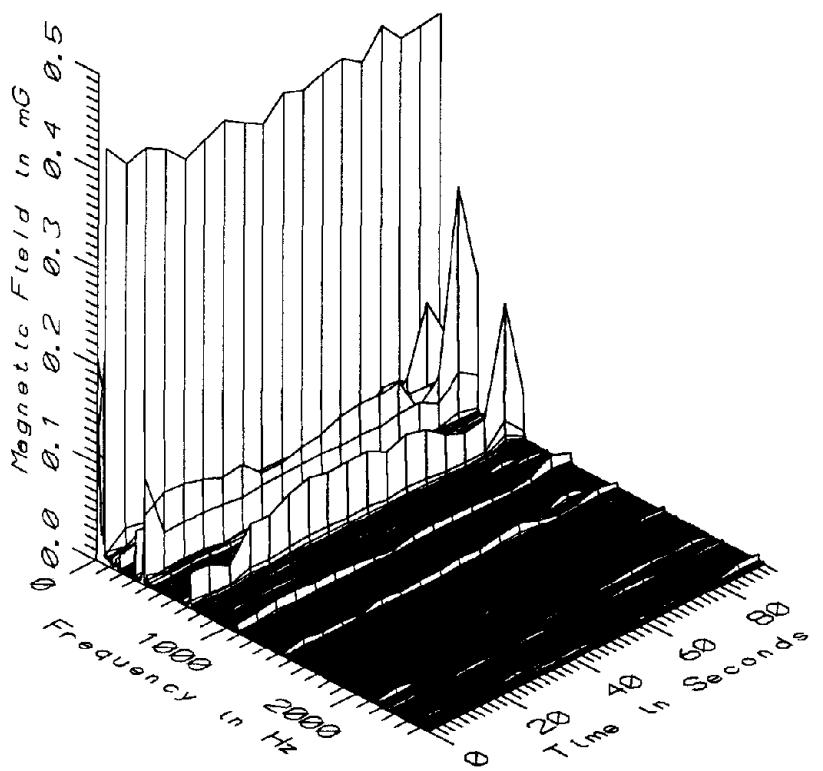
<u>Probe Type:</u>	<u>Wideband</u>	<u>Static</u>
Maximum Frequency (Hz)	2560	100
Minimum Frequency (Hz)	5	0
Spectral Bandwidth (Hz)	5	1

Missing Data: No reference probe

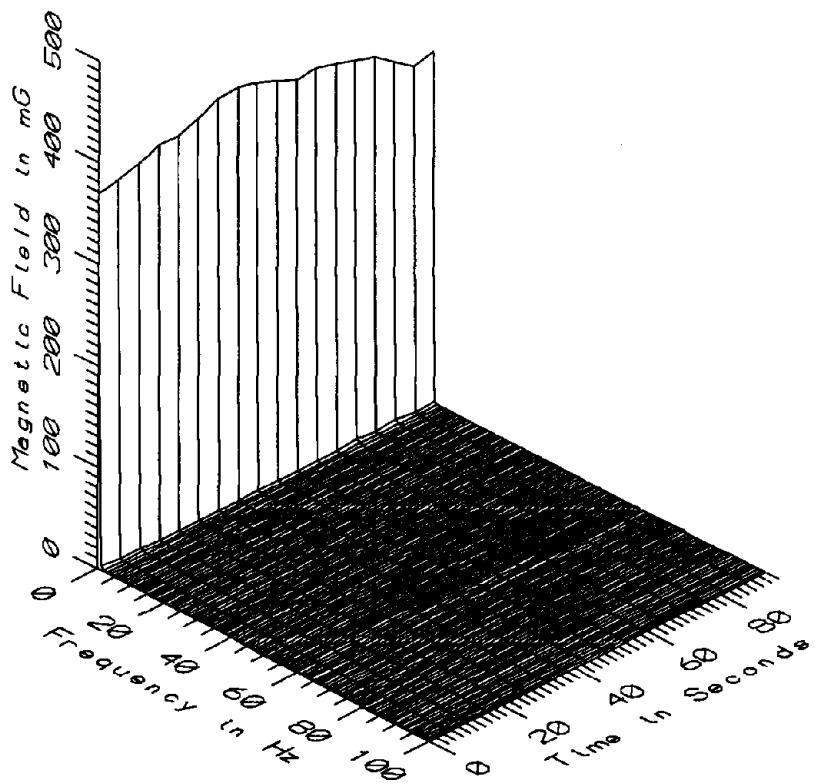
Saturated Data: None



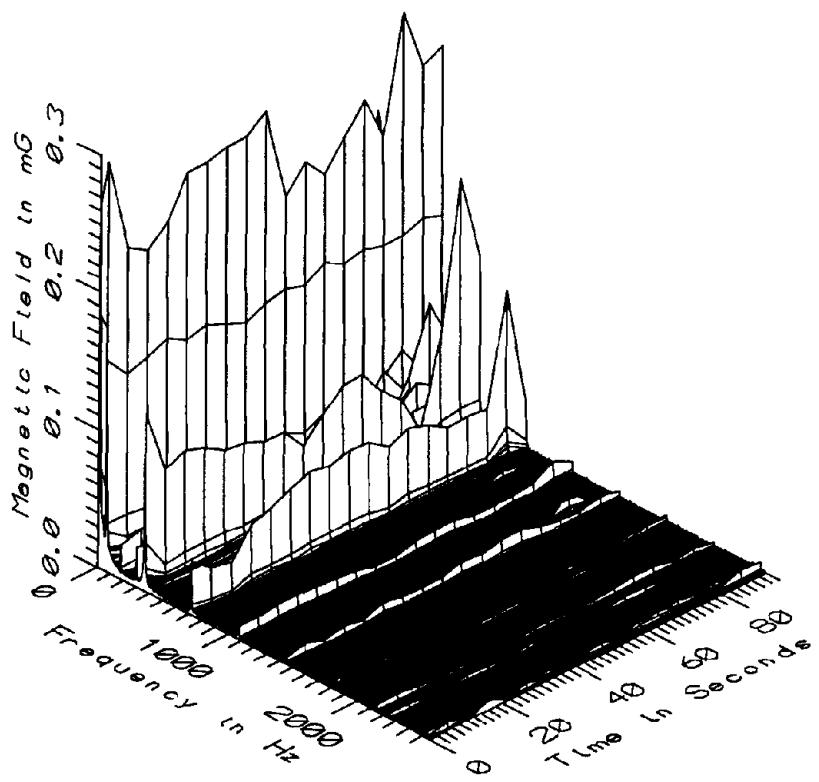
MET037 - 10cm ABOVE FLOOR OF MEZZANINE AT GALLERY PLACE



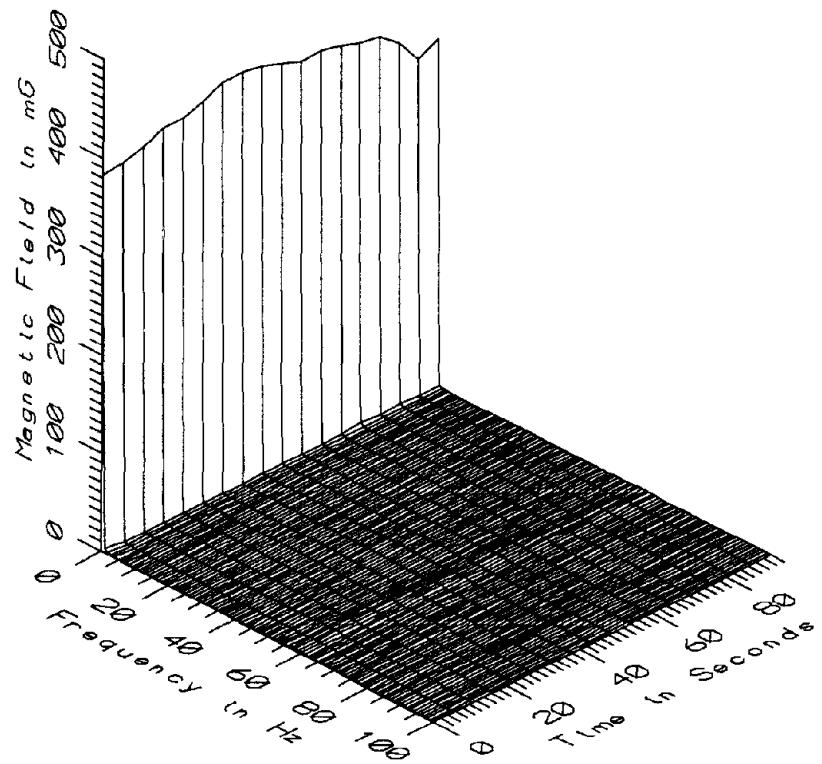
MET037 - 10cm ABOVE FLOOR OF MEZZANINE AT GALLERY PLACE



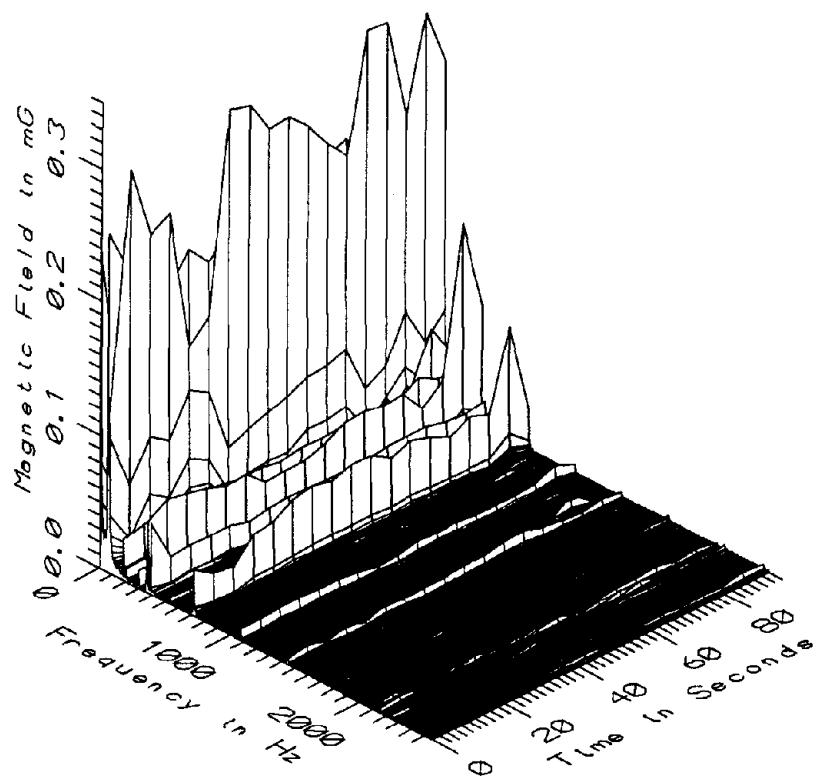
MET037 - 60cm ABOVE FLOOR OF MEZZANINE AT GALLERY PLACE



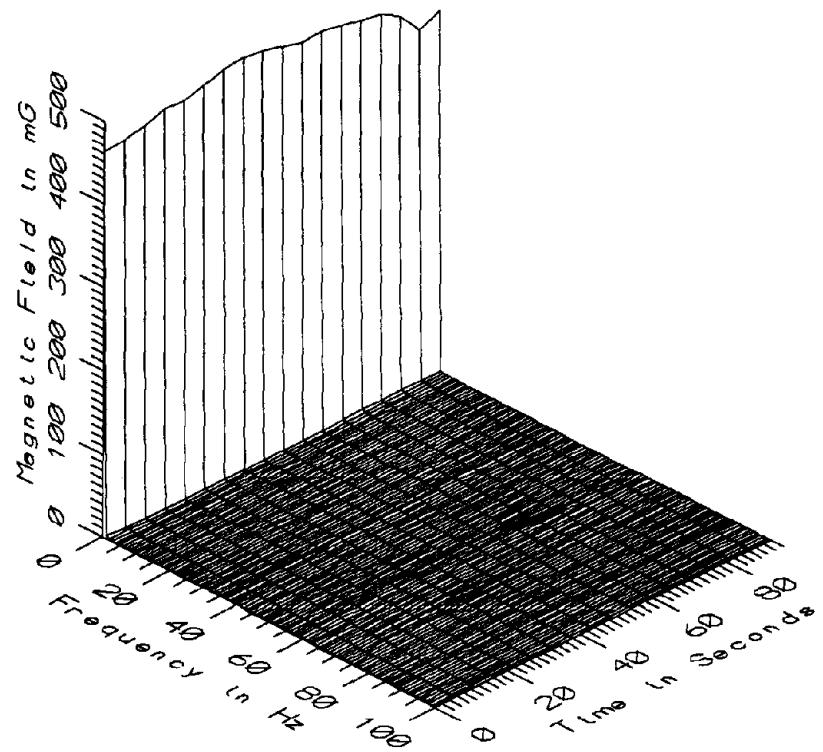
MET037 - 60cm ABOVE FLOOR OF MEZZANINE AT GALLERY PLACE



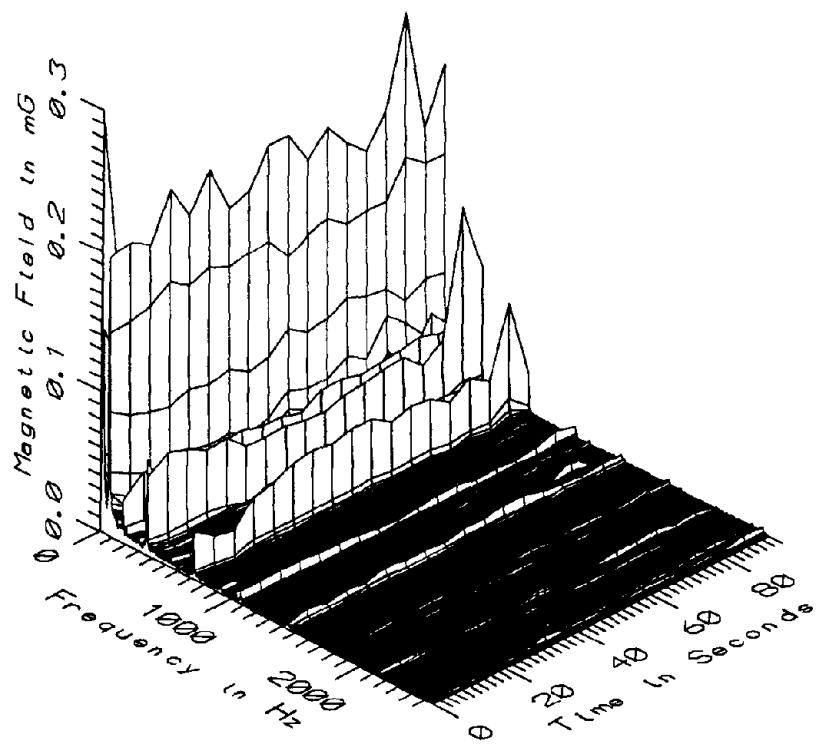
MET037 - 110cm ABOVE FLOOR OF MEZZANINE AT GALLERY PLACE



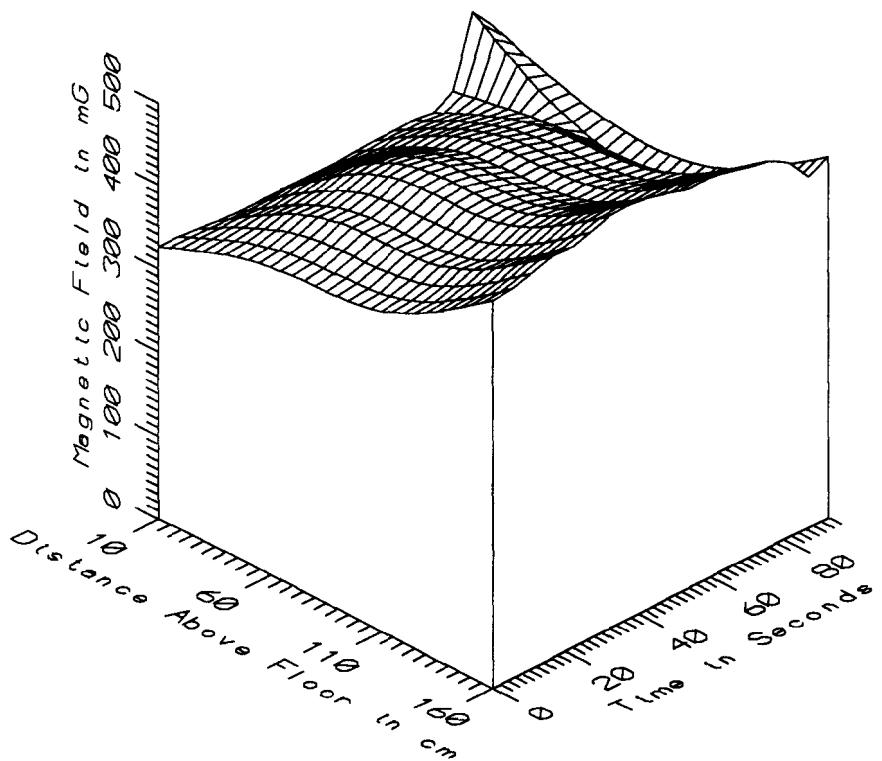
MET037 - 110cm ABOVE FLOOR OF MEZZANINE AT GALLERY PLACE



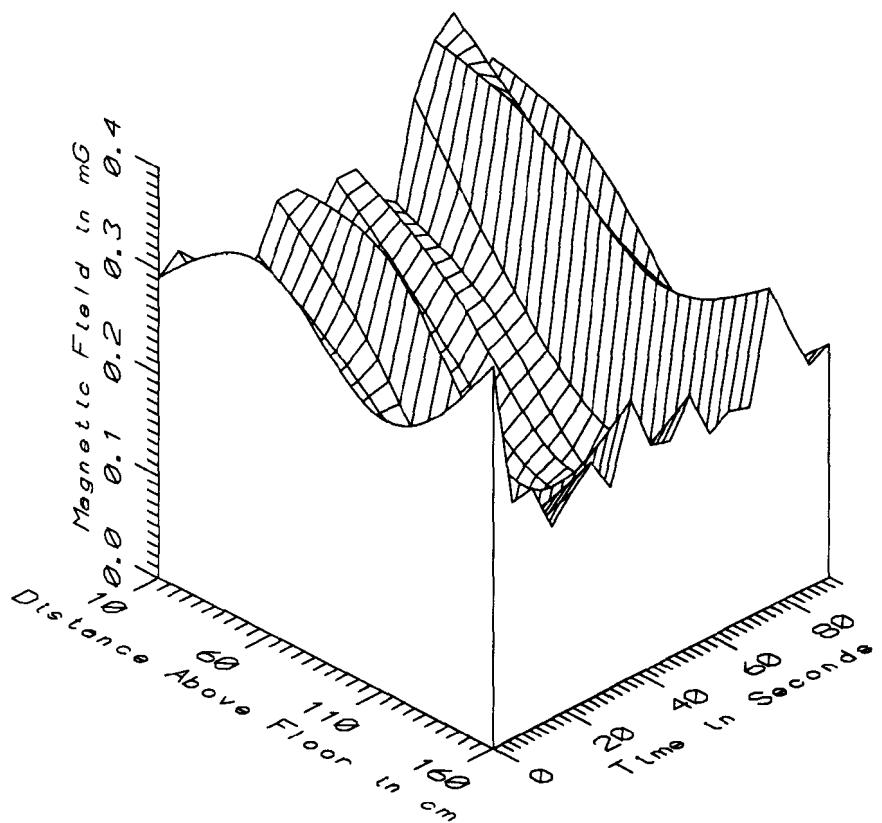
MET037 - 160cm ABOVE FLOOR OF MEZZANINE AT GALLERY PLACE



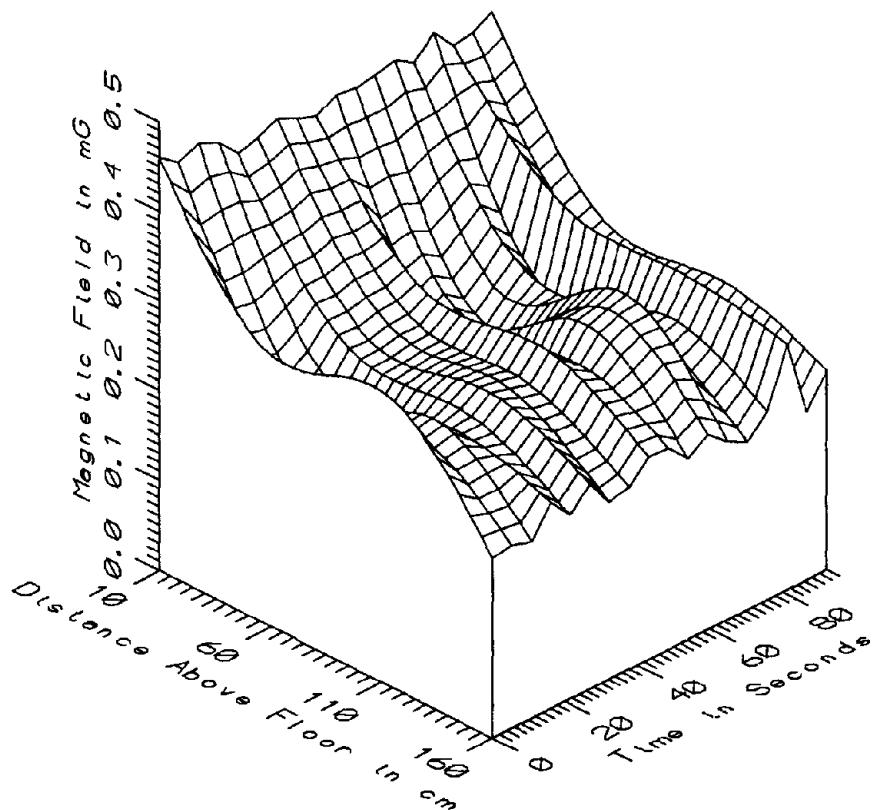
MET037 - 160cm ABOVE FLOOR OF MEZZANINE AT GALLERY PLACE



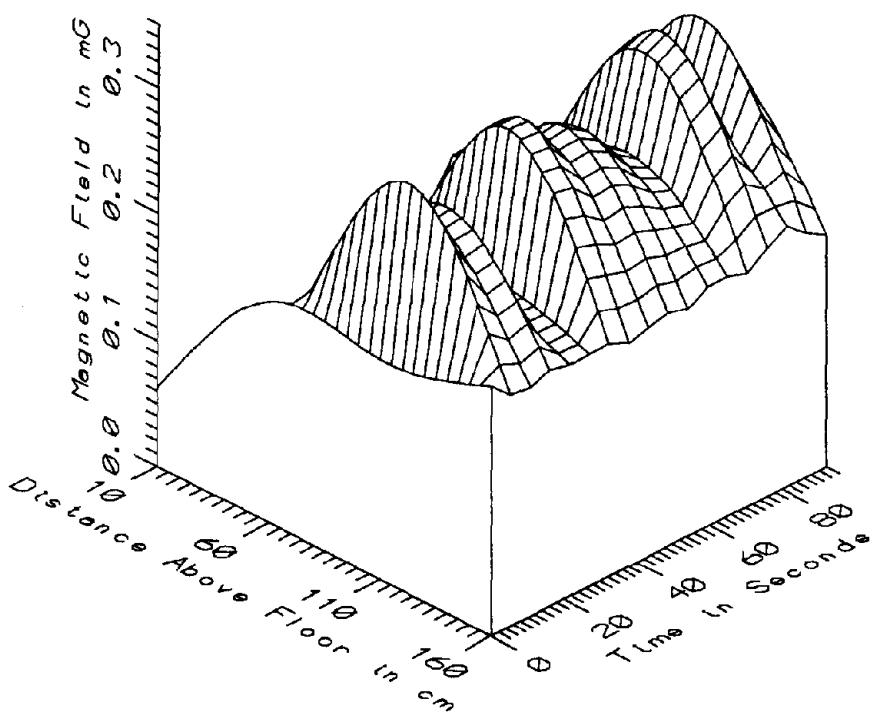
MET037 - ON MEZZANINE AT GALLERY PLACE - STATIC



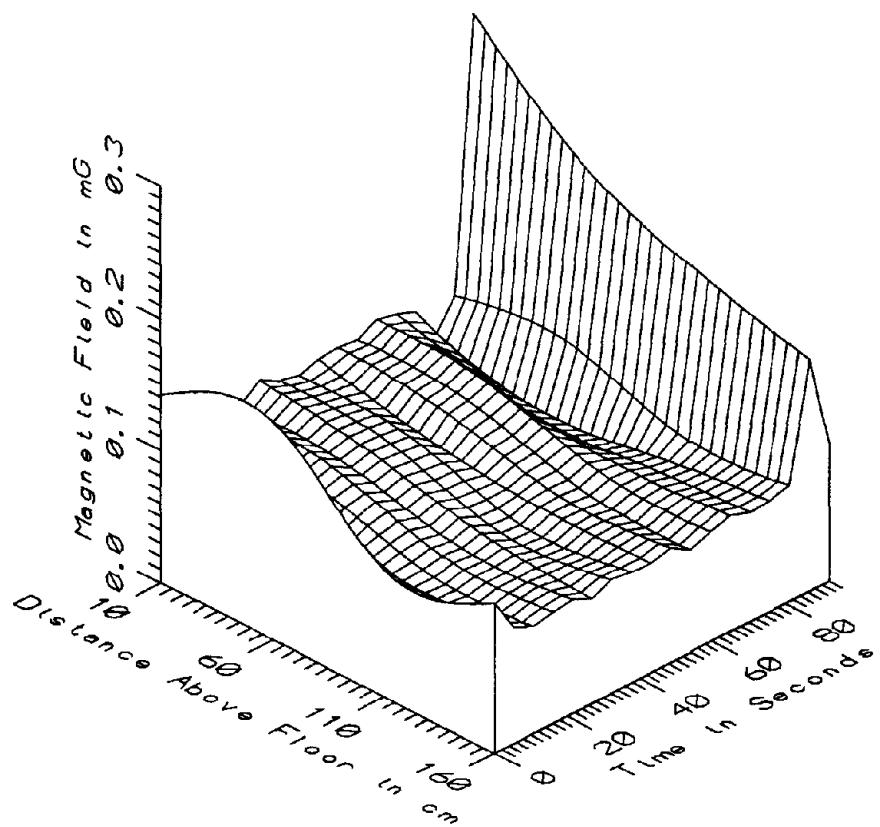
MET037 - ON MEZZANINE AT GALLERY PLACE - LOW FREQ, 5-45Hz



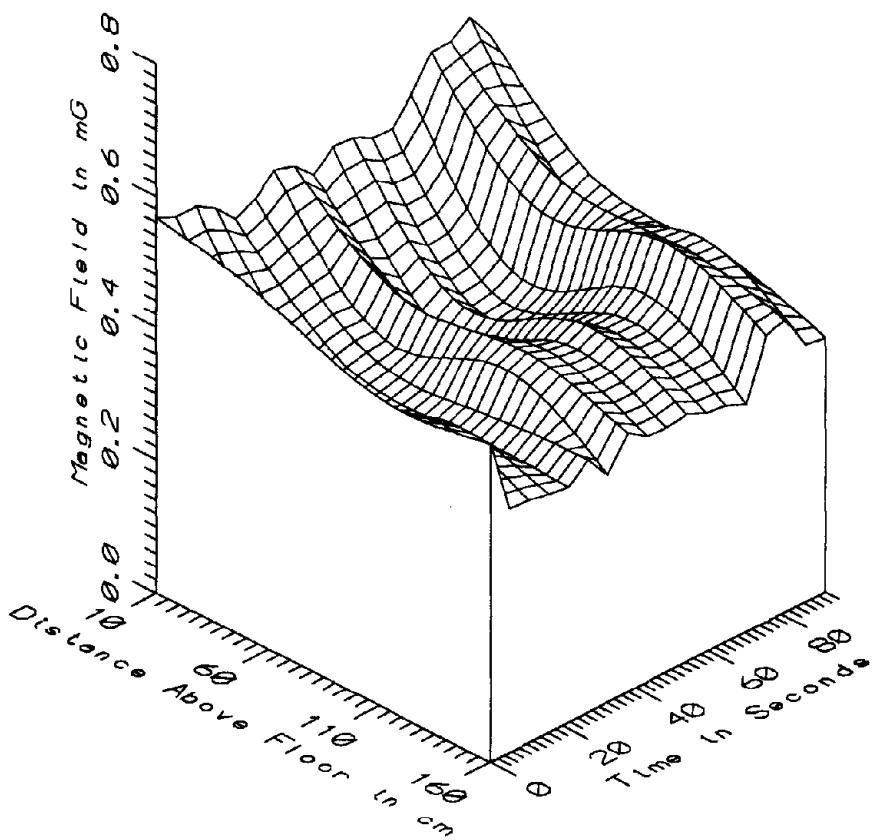
MET037 - ON MEZZANINE AT GALLERY PLACE - POWER FREQ, 50-60Hz



MET037 - ON MEZZANINE AT GALLERY PLACE - POWER HARM, 65-300Hz

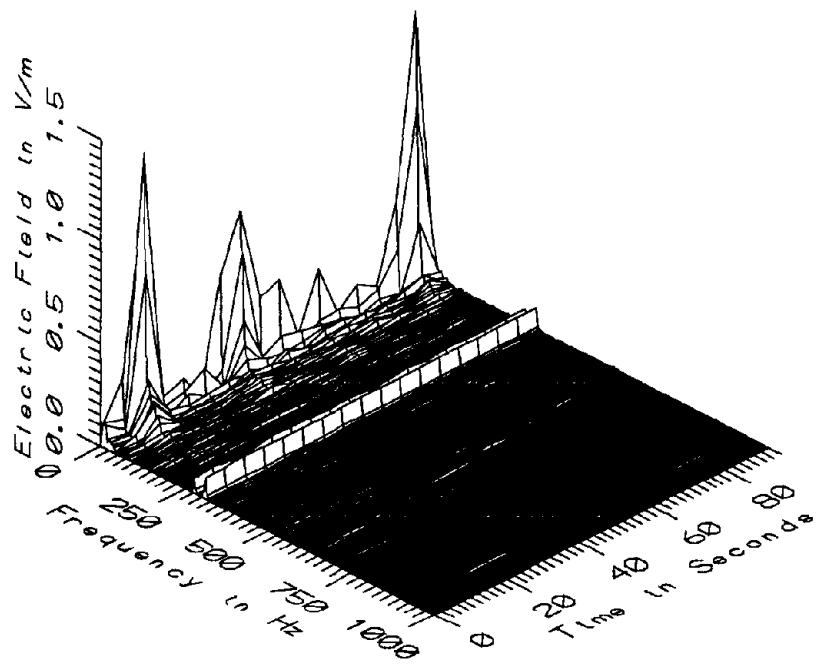


MET037 - ON MEZZANINE AT GALLERY PLACE - HIGH FREQ, 305-2560Hz



MET037 - ON MEZZANINE AT GALLERY PLACE - ALL FREQ, 5-2560Hz

MET037 - ON MEZZANINE AT GALLERY PLACE						TOTAL OF 4 SAMPLES
FREQUENCY BAND	HEIGHT ABOVE FLOOR (cm)	MINIMUM MAGNETIC FIELD (mG)	MAXIMUM MAGNETIC FIELD (mG)	AVERAGE MAGNETIC FIELD (mG)	STANDARD DEVIATION (mG)	COEFFICIENT OF VARIATION (%)
STATIC	10	318.95	417.47	331.28	27.14	8.19
	60	340.37	406.92	380.05	19.19	5.05
	110	341.50	418.42	391.86	20.94	5.34
	160	420.70	494.63	470.40	19.64	4.17
5-45HZ LOW FREQ	10	0.25	0.41	0.30	0.04	14.35
	60	0.17	0.35	0.22	0.06	27.90
	110	0.06	0.27	0.13	0.07	51.56
	160	0.19	0.37	0.24	0.05	19.35
50-60HZ PWR FREQ	10	0.42	0.46	0.43	0.01	2.82
	60	0.21	0.30	0.25	0.03	11.00
	110	0.25	0.32	0.28	0.02	7.31
	160	0.19	0.27	0.21	0.02	9.63
65-300HZ PWR HARM	10	0.06	0.13	0.08	0.02	31.44
	60	0.15	0.18	0.16	0.01	6.86
	110	0.17	0.33	0.27	0.04	15.75
	160	0.18	0.21	0.19	0.01	3.79
305-2560HZ HIGH FREQ	10	0.08	0.31	0.12	0.05	39.97
	60	0.07	0.24	0.11	0.04	34.11
	110	0.07	0.20	0.09	0.03	32.07
	160	0.08	0.18	0.09	0.02	25.26
5-2560HZ ALL FREQ	10	0.51	0.63	0.55	0.04	6.35
	60	0.34	0.52	0.39	0.05	13.91
	110	0.36	0.50	0.42	0.04	8.31
	160	0.34	0.48	0.38	0.04	9.39



MET037 - ELECTRIC FIELD ON MEZZANINE AT GALLERY PLACE

APPENDIX AH

**DATASET MET038
AT TRACTION POWER SUPPLY STATION SOUTH OF SHADY GROVE**

Measurement Setup Code: Staff: 36 Reference: -
Drawing: A-6

Vehicle Status: NA

Measurement Date: May 20, 1992

Measurement Time: Start: 08:38:58
End: 08:42:06

Number of Samples: 38

Programmed Sample Interval: 5 sec

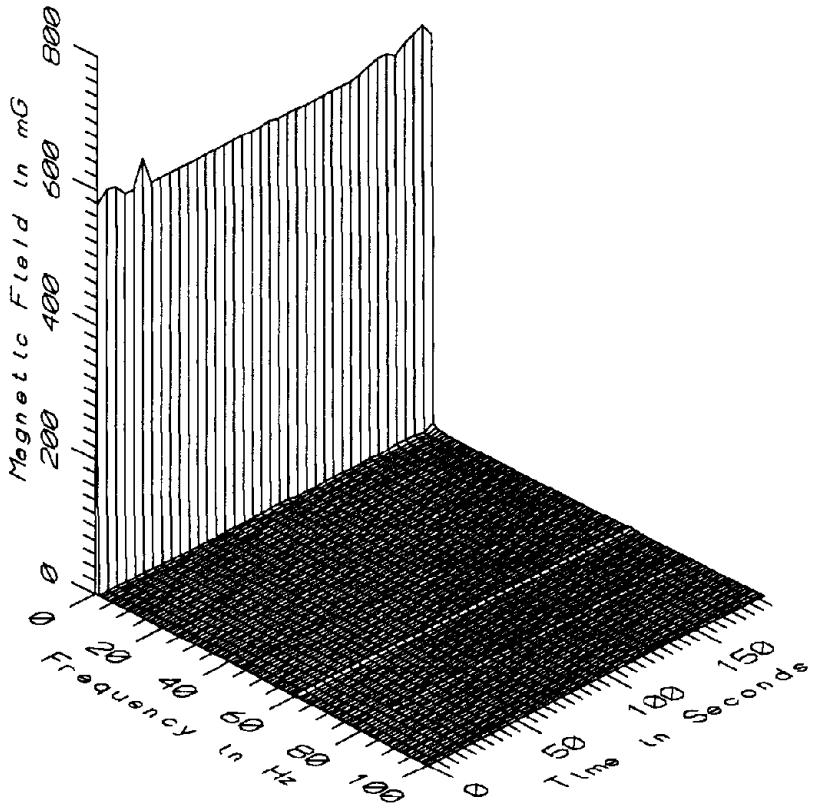
Actual Sample Interval: 5.1 sec

Frequency Spectrum Parameters

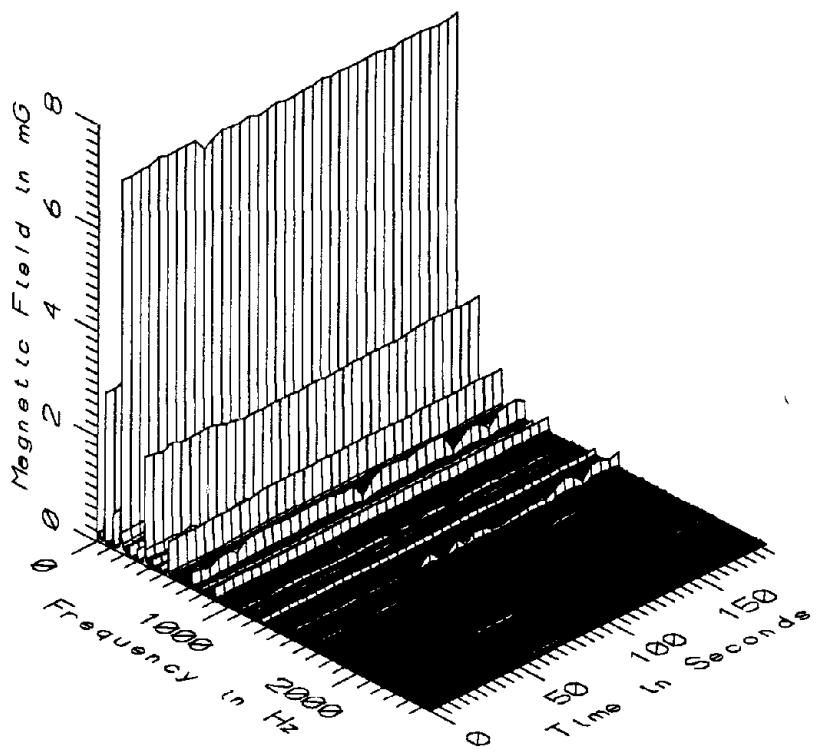
<u>Probe Type:</u>	<u>Wideband</u>	<u>Static</u>
Maximum Frequency (Hz)	2560	100
Minimum Frequency (Hz)	5	0
Spectral Bandwidth (Hz)	5	1

Missing Data: No reference probe

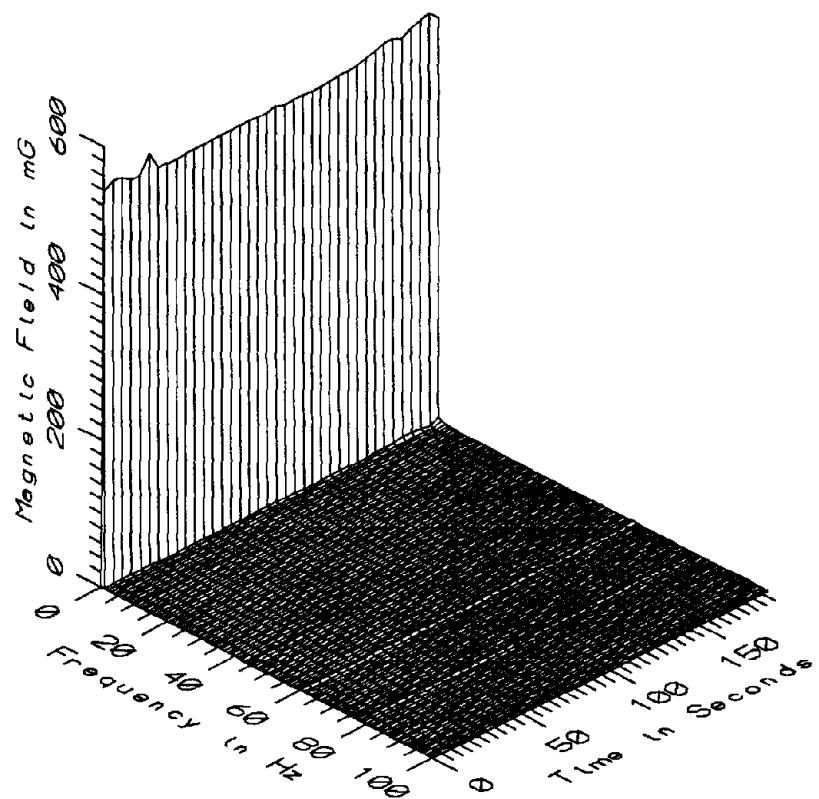
Saturated Data: None



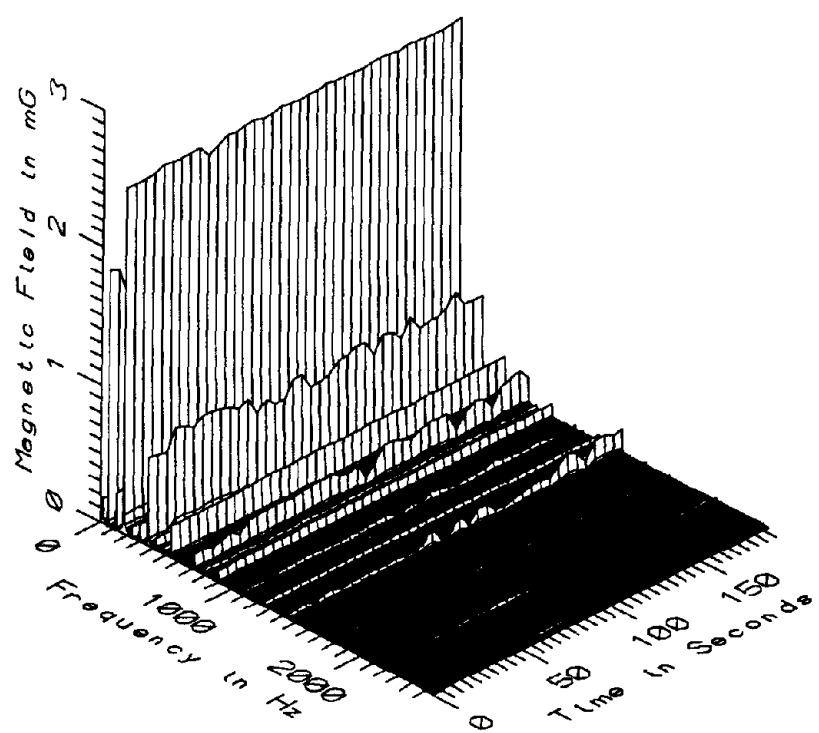
MET038 - 10cm FROM NORTH WALL OF TRACTION POWER SUPPLY STATION



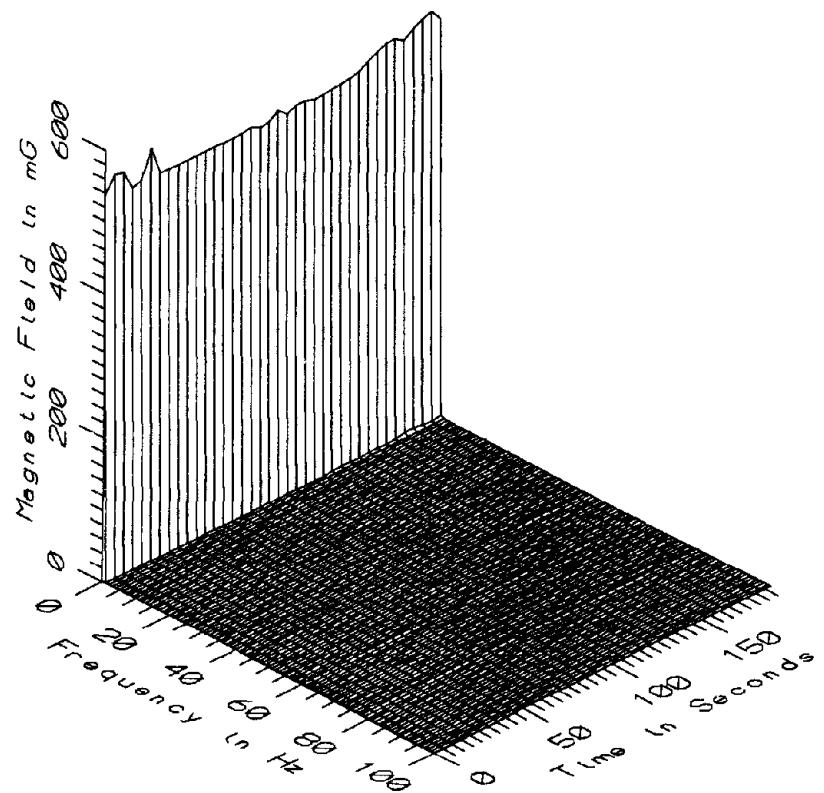
MET038 - 10cm FROM NORTH WALL OF TRACTION POWER SUPPLY STATION



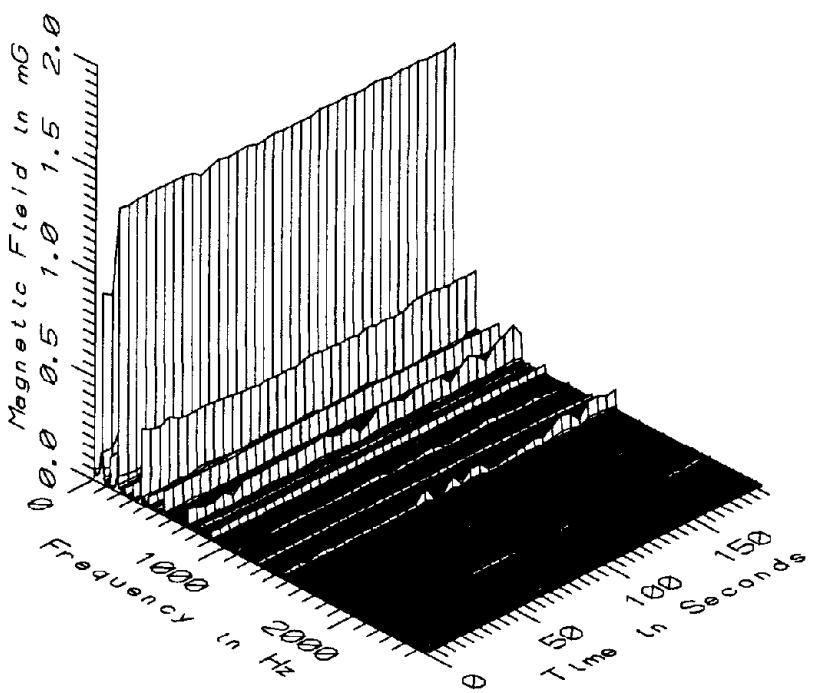
MET038 - 60cm FROM NORTH WALL OF TRACTION POWER SUPPLY STATION



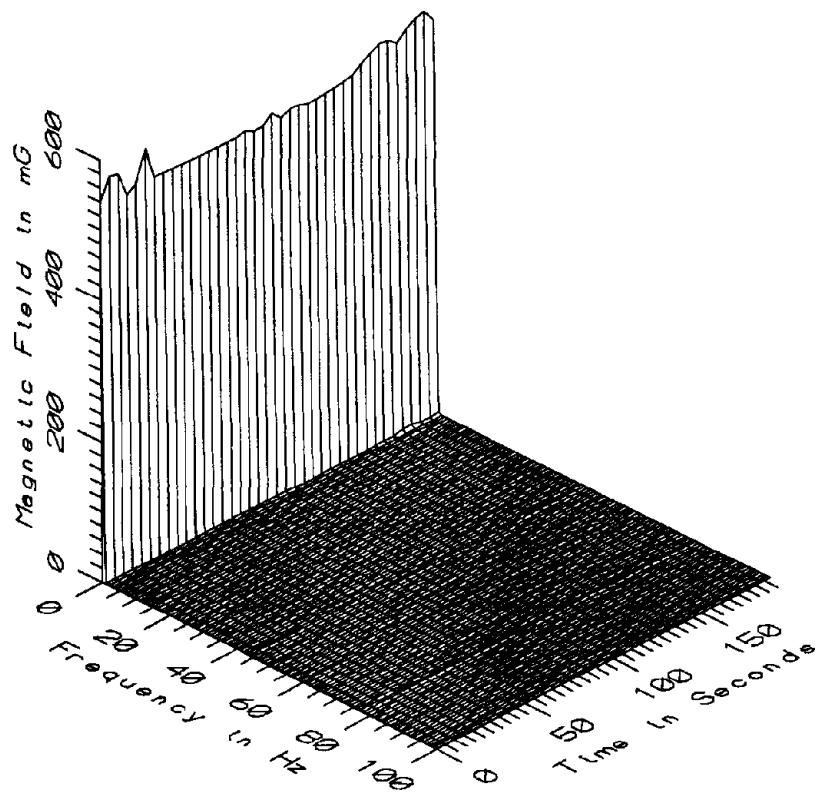
MET038 - 60cm FROM NORTH WALL OF TRACTION POWER SUPPLY STATION



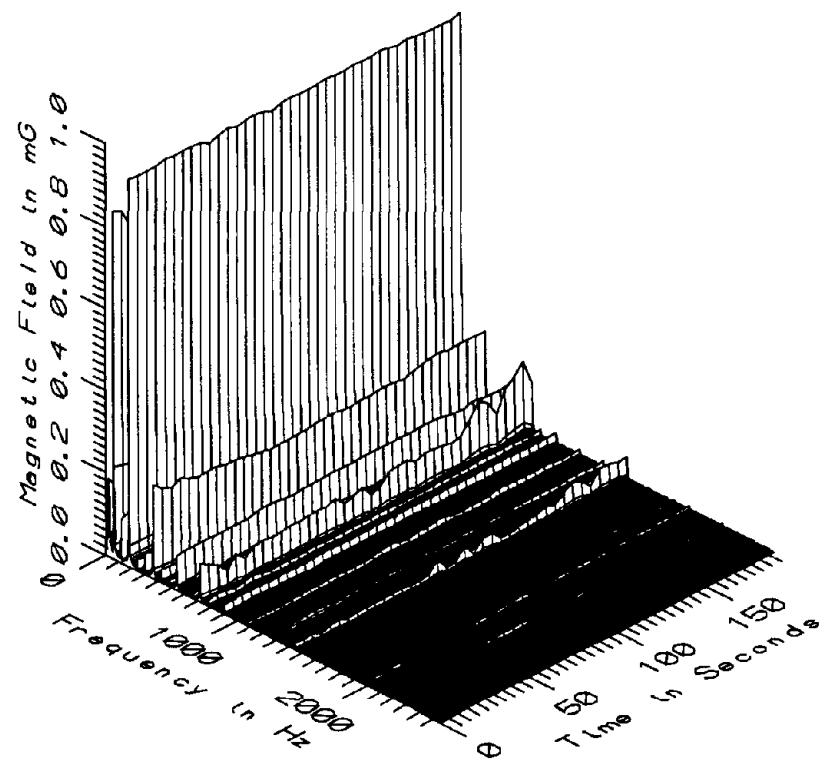
MET038 - 110cm FROM NORTH WALL OF TRACTION POWER SUPPLY STATION



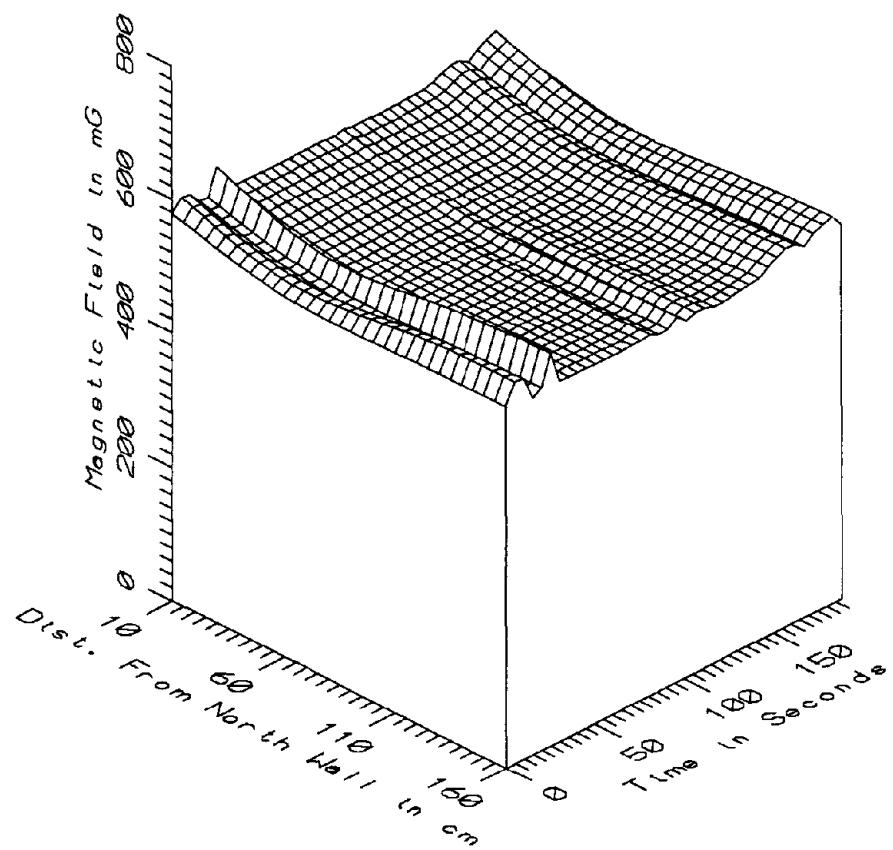
MET038 - 110cm FROM NORTH WALL OF TRACTION POWER SUPPLY STATION



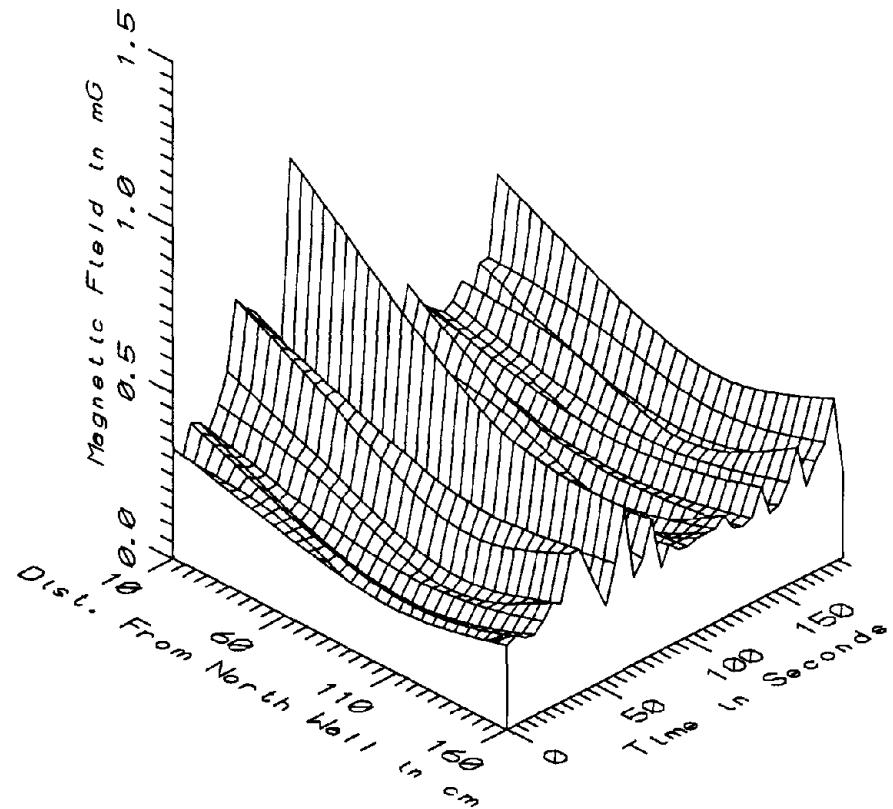
MET038 - 160cm FROM NORTH WALL OF TRACTION POWER SUPPLY STATION



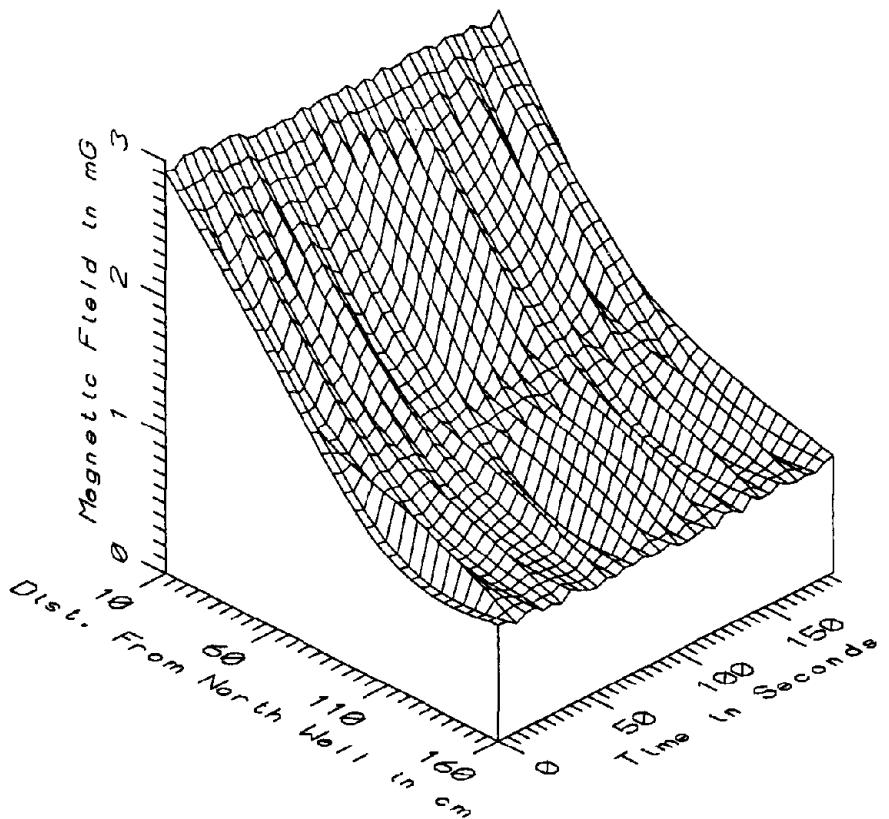
MET038 - 160cm FROM NORTH WALL OF TRACTION POWER SUPPLY STATION



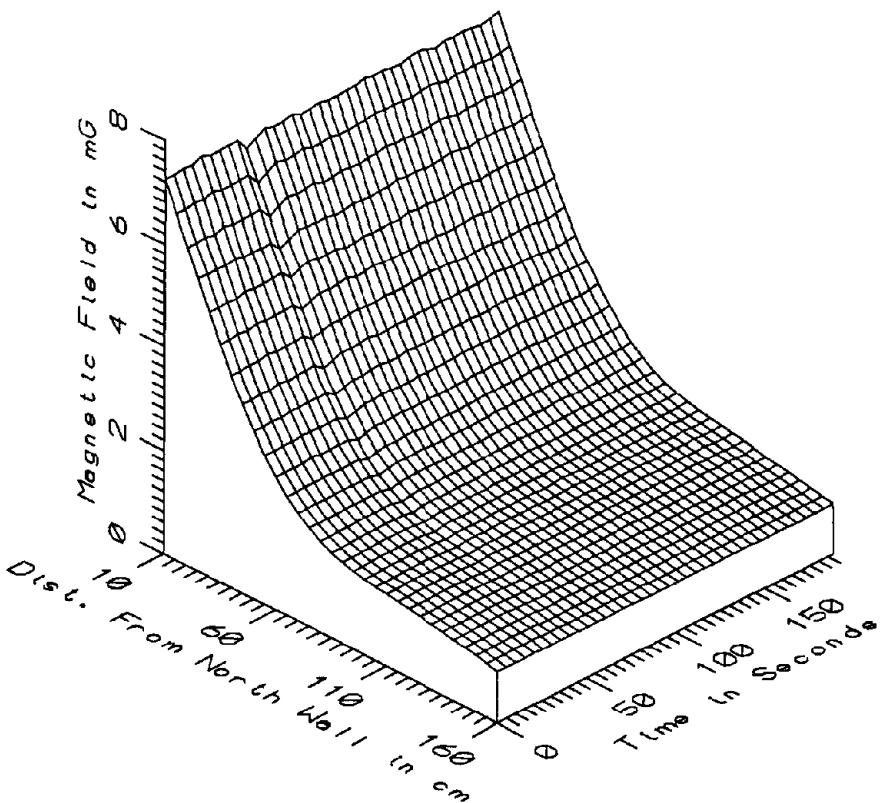
MET038 - TRACTION POWER SUPPLY STATION - STATIC



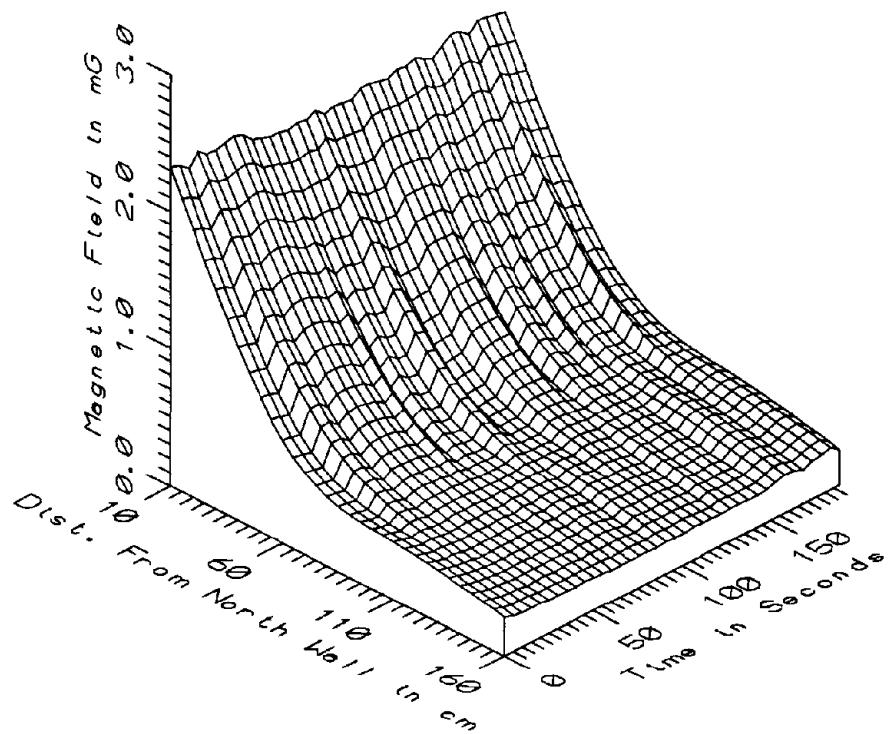
MET038 - TRACTION POWER SUPPLY STATION - LOW FREQ, 5-45Hz



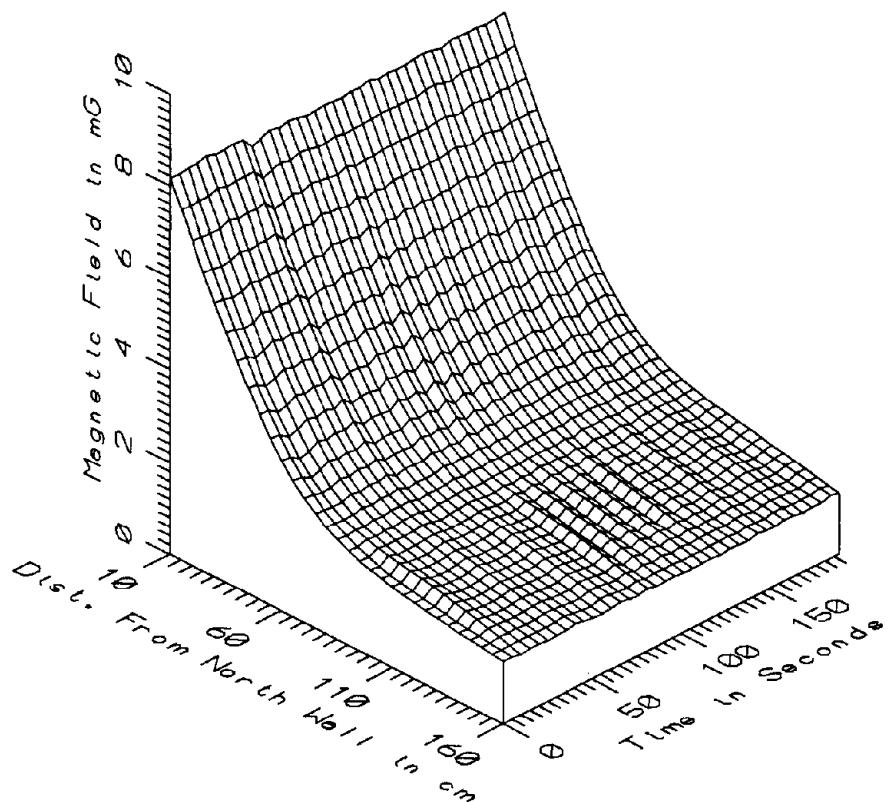
MET038 - TRACTION POWER SUPPLY STATION - POWER FREQ, 50-60Hz



MET038 - TRACTION POWER SUPPLY STATION - POWER HARM, 65-300Hz

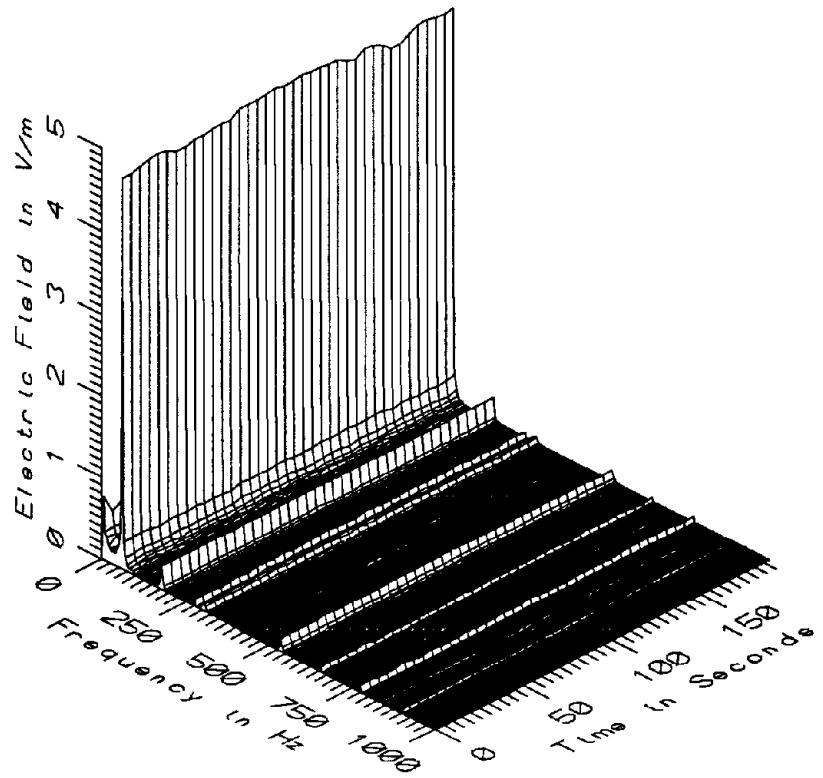


MET038 - TRACTION POWER SUPPLY STATION - HIGH FREQ, 305-2560Hz



MET038 - TRACTION POWER SUPPLY STATION - ALL FREQ, 5-2560Hz

METT038 - T.P.S.S. SOUTH OF SHADY GROVE, FROM NORTH WALL TOTAL OF 38 SAMPLES						
FREQUENCY BAND	DIST FROM WALL (cm)	MINIMUM MAGNETIC FIELD (mG)	MAXIMUM MAGNETIC FIELD (mG)	AVERAGE MAGNETIC FIELD (mG)	STANDARD DEVIATION (mG)	COEFFICIENT OF VARIATION (%)
STATIC	10	572.41	614.11	579.22	10.41	1.80
	60	534.24	562.01	540.66	7.91	1.46
	110	526.56	572.97	538.86	13.13	2.44
	160	529.74	583.83	544.10	15.50	2.85
5-45Hz LOW FREQ	10	0.29	1.03	0.44	0.14	33.02
	60	0.18	0.73	0.30	0.11	36.43
	110	0.12	0.51	0.23	0.08	36.39
	160	0.22	0.49	0.30	0.07	22.65
50-60Hz PWR FREQ	10	2.79	2.97	2.87	0.04	1.52
	60	1.52	1.86	1.71	0.11	6.48
	110	0.89	1.20	1.02	0.09	8.58
	160	0.75	0.85	0.80	0.03	3.32
65-300Hz PWR HARM	10	7.04	7.34	7.22	0.05	0.73
	60	2.50	2.61	2.58	0.02	0.69
	110	1.38	1.42	1.40	0.01	0.78
	160	0.96	0.98	0.97	0.01	0.60
305-2560Hz HIGH FREQ	10	2.15	2.34	2.23	0.05	2.38
	60	0.70	0.91	0.80	0.06	7.39
	110	0.37	0.45	0.40	0.02	5.61
	160	0.23	0.31	0.24	0.02	8.26
5-2560Hz ALL FREQ	10	7.95	8.25	8.10	0.07	0.81
	60	3.10	3.31	3.21	0.06	1.96
	110	1.71	1.90	1.79	0.05	2.80
	160	1.28	1.39	1.32	0.03	2.02



MET038 - ELECTRIC FIELD AT TRACTION POWER SUPPLY STATION

APPENDIX AI

DATASET MET039 AT TRACTION POWER SUPPLY STATION SOUTH OF SHADY GROVE

Measurement Setup Code: Staff: 38 Reference: -
Drawing: A-6

Vehicle Status: NA

Measurement Date: May 20, 1992

Measurement Time: Start: 08:44:29
End: 08:47:56

Number of Samples: 38

Programmed Sample Interval: 5 sec

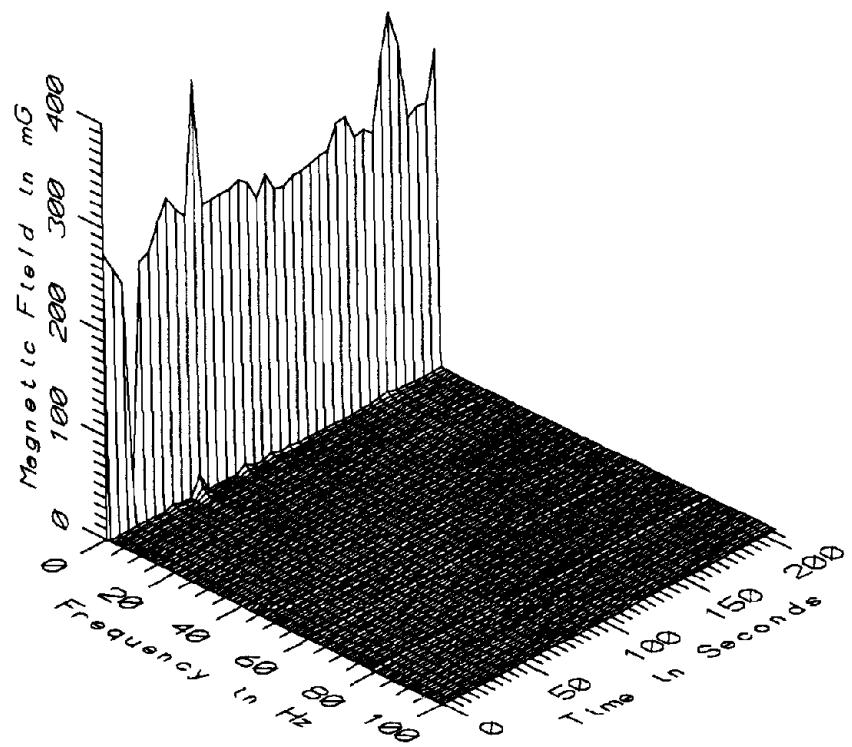
Actual Sample Interval: 5.6 sec

Frequency Spectrum Parameters

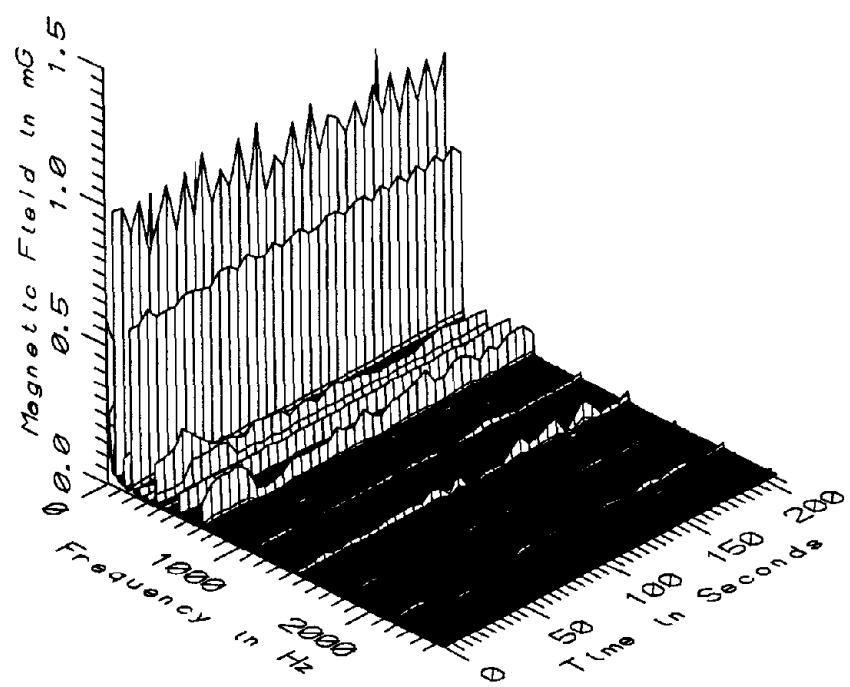
<u>Probe Type:</u>	<u>Wideband</u>	<u>Static</u>
Maximum Frequency (Hz)	2560	100
Minimum Frequency (Hz)	5	0
Spectral Bandwidth (Hz)	5	1

Missing Data: No reference probe

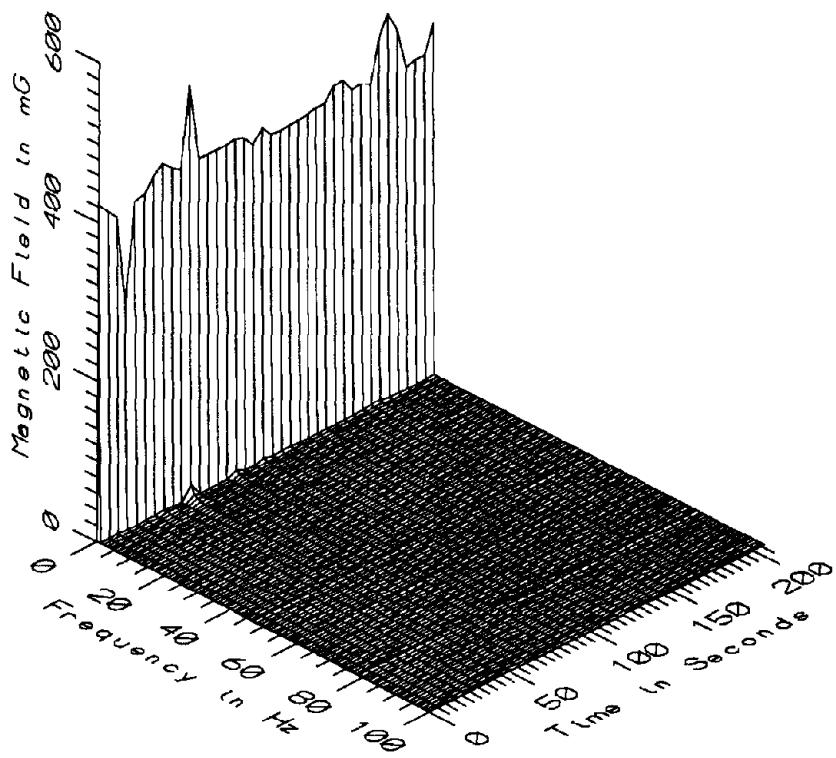
Saturated Data: None



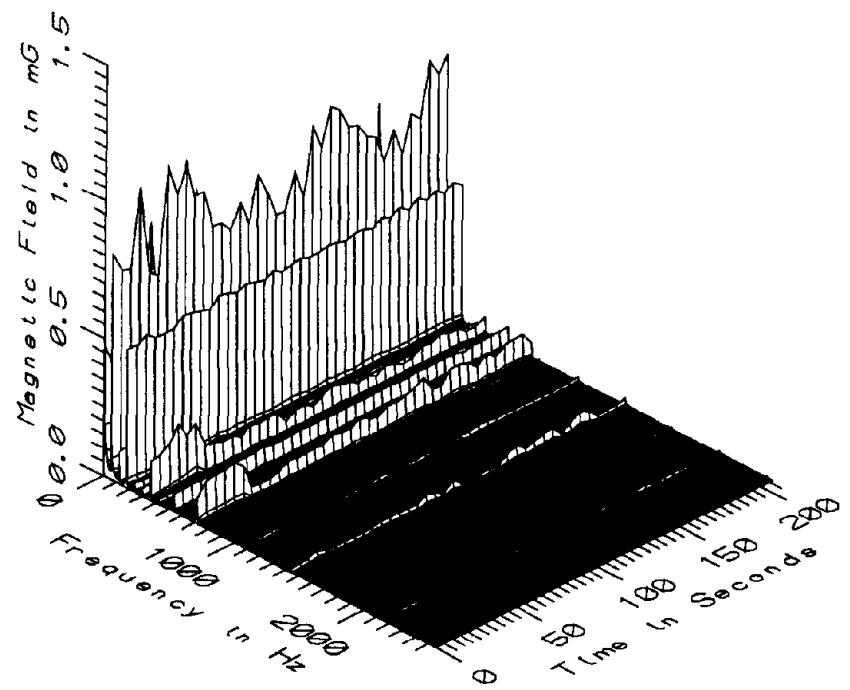
MET039 - 10cm FROM WEST WALL OF TRACTION POWER SUPPLY STATION



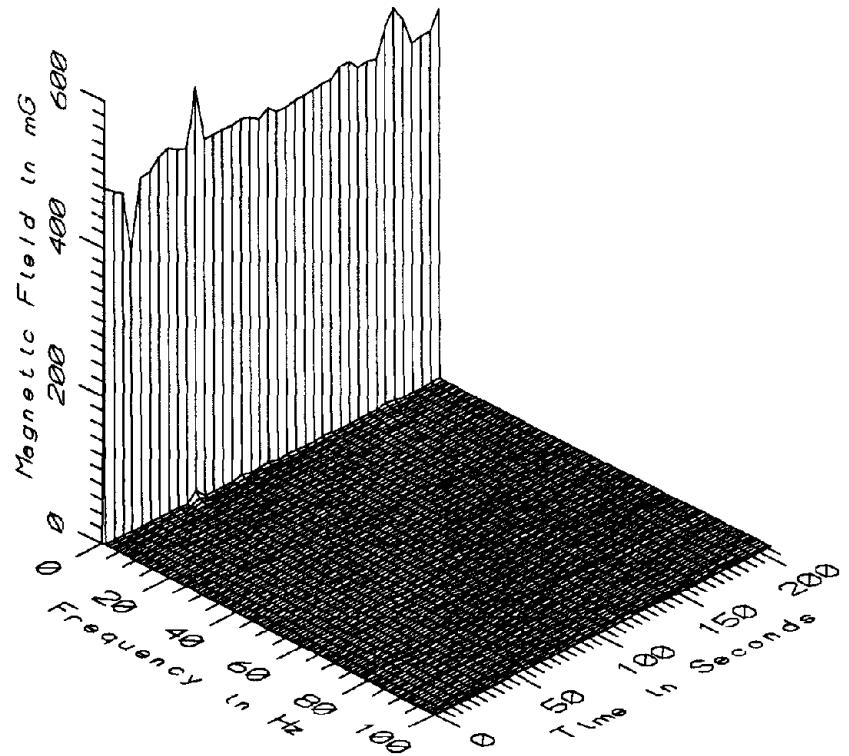
MET039 - 10cm FROM WEST WALL OF TRACTION POWER SUPPLY STATION



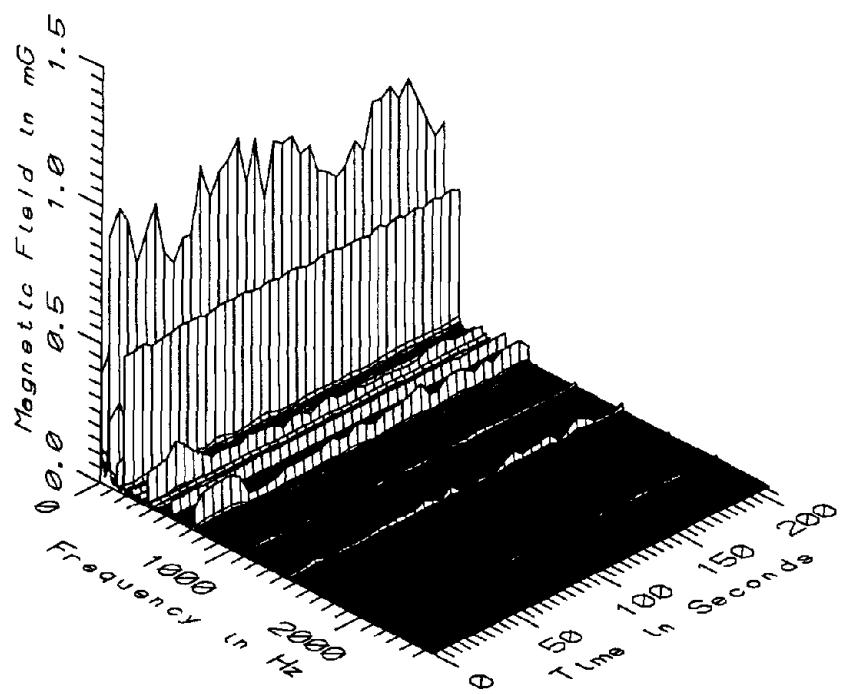
MET039 - 60cm FROM WEST WALL OF TRACTION POWER SUPPLY STATION



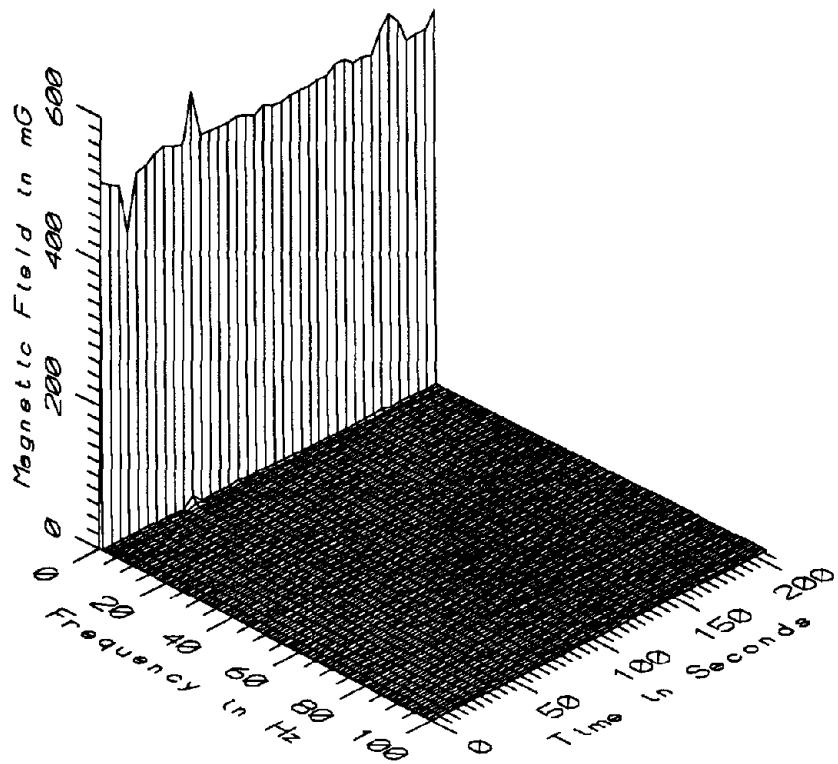
MET039 - 60cm FROM WEST WALL OF TRACTION POWER SUPPLY STATION



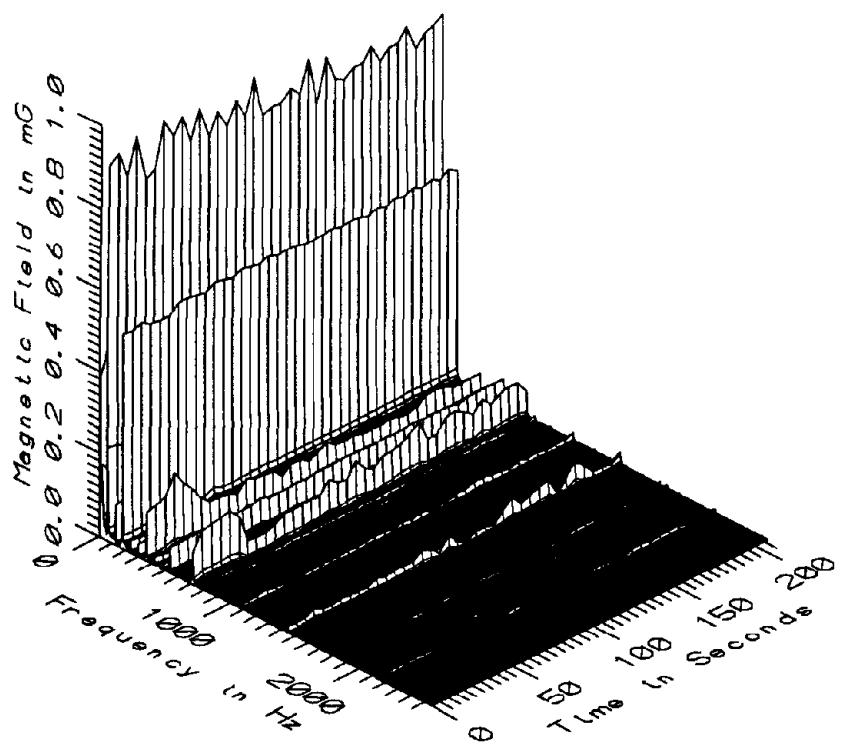
MET039 - 110cm FROM WEST WALL OF TRACTION POWER SUPPLY STATION



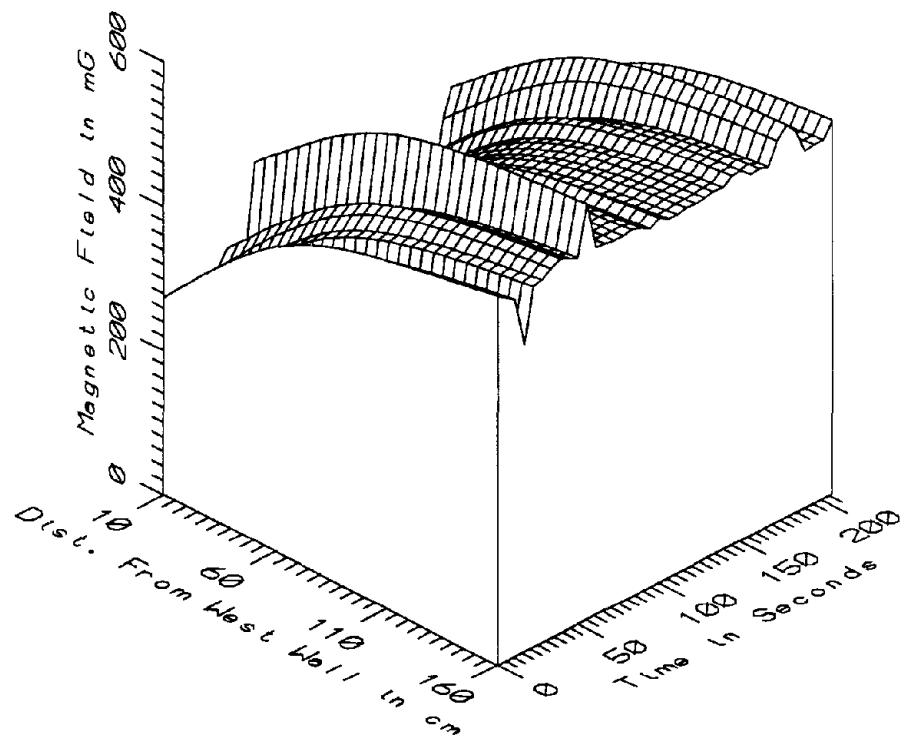
MET039 - 110cm FROM WEST WALL OF TRACTION POWER SUPPLY STATION



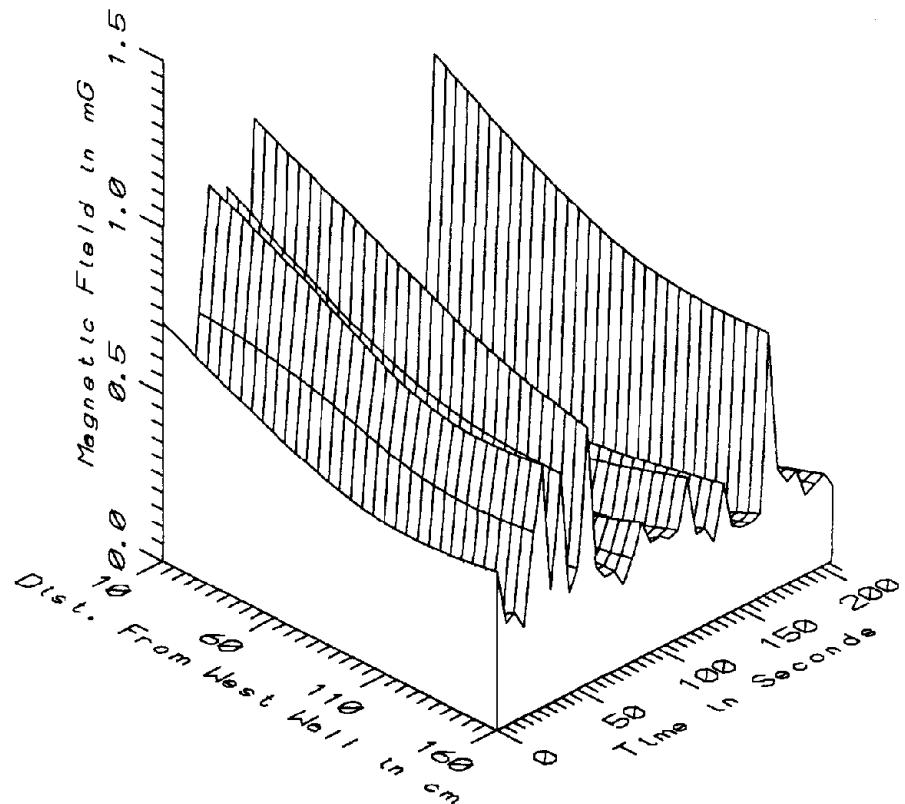
MET039 - 160cm FROM WEST WALL OF TRACTION POWER SUPPLY STATION



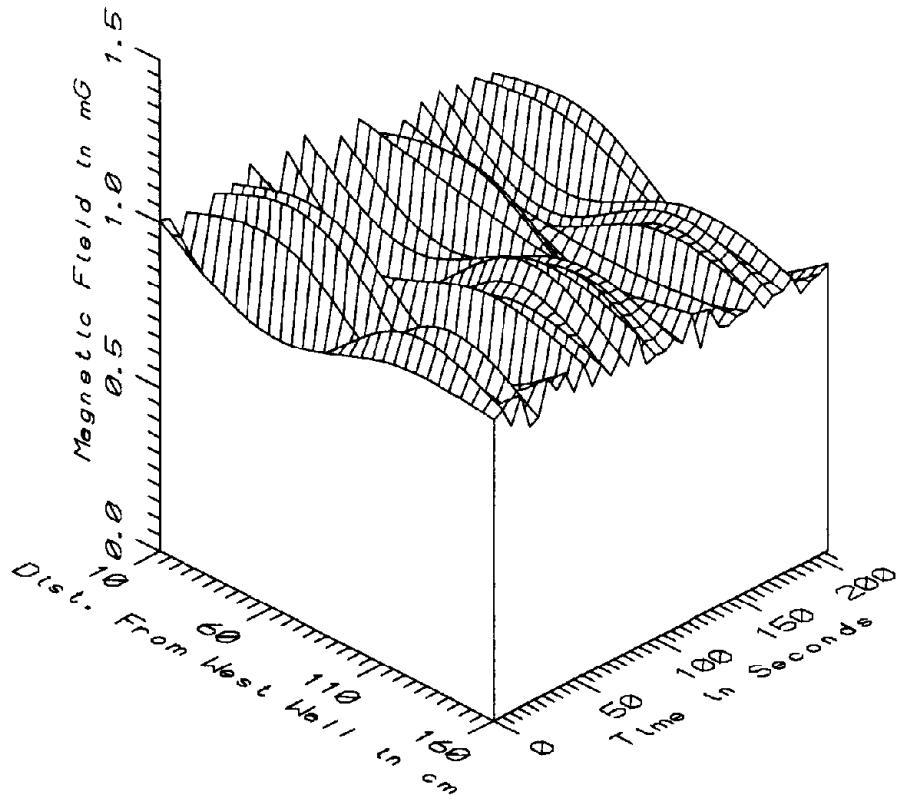
MET039 - 160cm FROM WEST WALL OF TRACTION POWER SUPPLY STATION



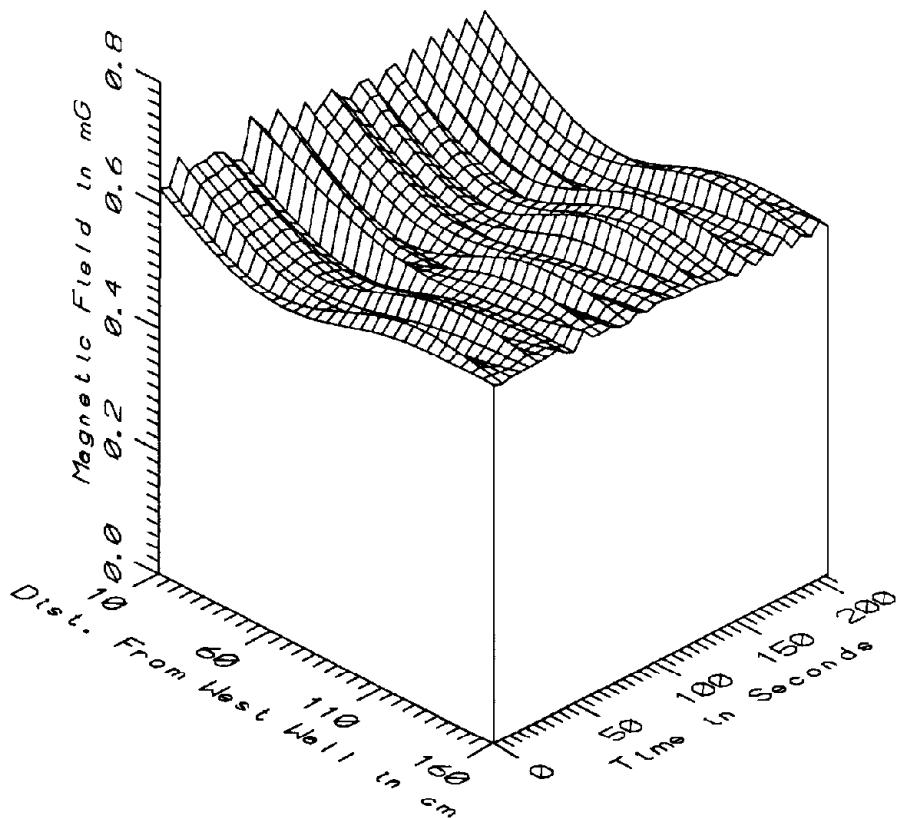
MET039 - TRACTION POWER SUPPLY STATION - STATIC



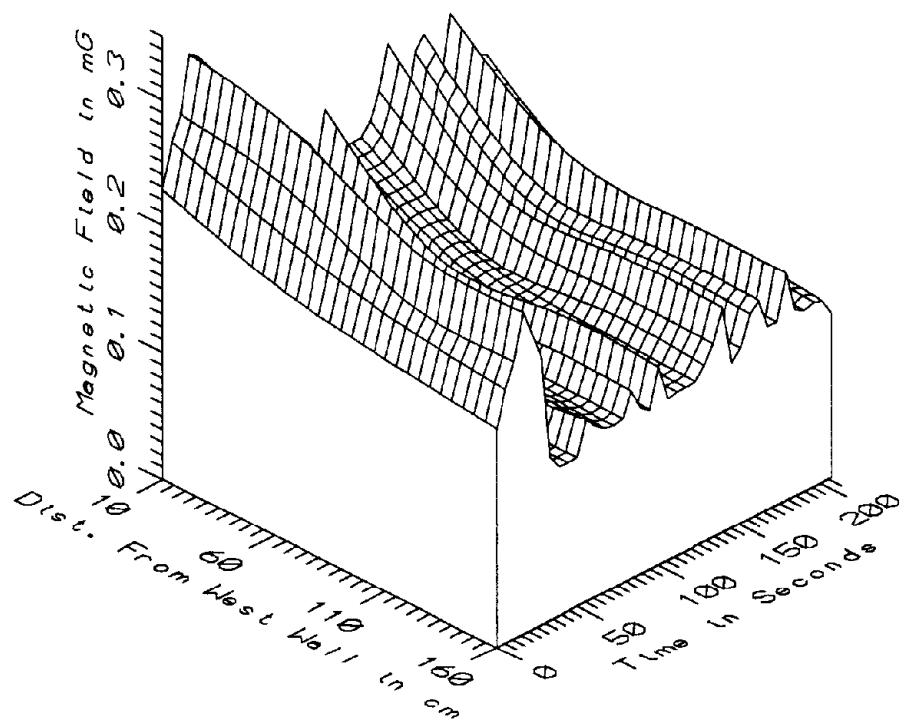
MET039 - TRACTION POWER SUPPLY STATION - LOW FREQ., 5-45Hz



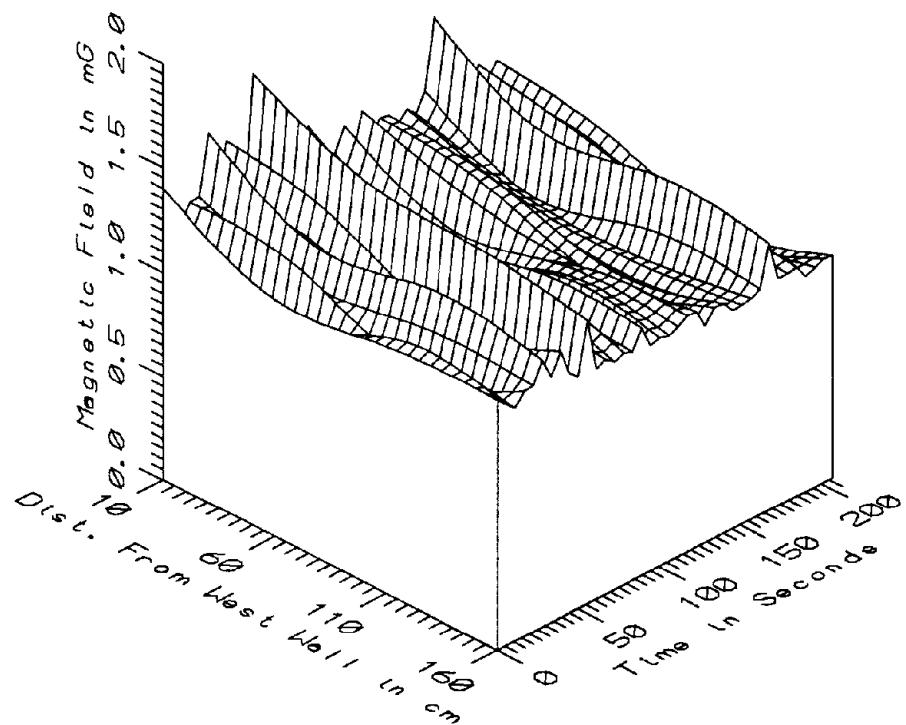
MET039 - TRACTION POWER SUPPLY STATION - POWER FREQ, 50-60Hz



MET039 - TRACTION POWER SUPPLY STATION - POWER HARM, 65-300Hz

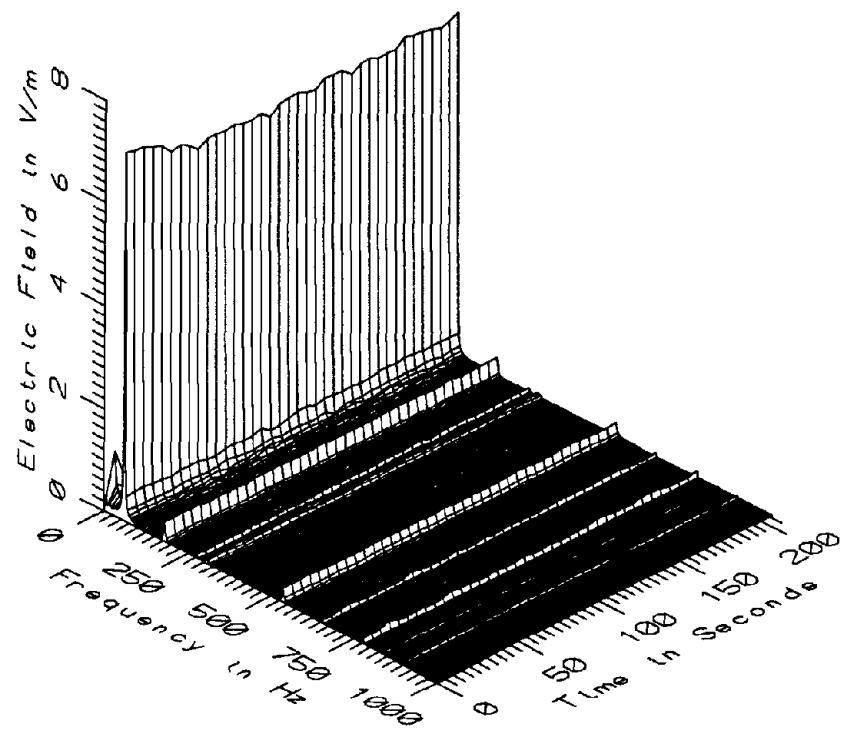


MET039 - TRACTION POWER SUPPLY STATION - HIGH FREQ, 305-2560Hz



MET039 - TRACTION POWER SUPPLY STATION - ALL FREQ, 5-2560Hz

MET039 - T.P.S.S. SOUTH OF SHADY GROVE, FROM WEST WALL		TOTAL OF 38 SAMPLES		
FREQUENCY BAND	DIST FROM WALL (cm)	MINIMUM MAGNETIC FIELD (mG)	MAXIMUM MAGNETIC FIELD (mG)	AVERAGE MAGNETIC FIELD (mG)
STATIC	10	42.32	396.79	269.43
	60	280.45	516.33	416.59
	110	380.67	558.55	481.01
	160	423.29	572.71	504.95
5-45Hz LOW FREQ	10	0.31	1.19	0.49
	60	0.21	1.03	0.37
	110	0.14	0.87	0.30
	160	0.22	0.78	0.36
50-60Hz PWR FREQ	10	0.80	1.05	0.91
	60	0.67	1.05	0.82
	110	0.70	1.04	0.87
	160	0.81	0.96	0.88
65-300Hz PWR HARM	10	0.61	0.67	0.63
	60	0.51	0.58	0.53
	110	0.53	0.59	0.56
	160	0.56	0.60	0.58
305-2560Hz HIGH FREQ	10	0.17	0.33	0.22
	60	0.12	0.30	0.16
	110	0.12	0.26	0.15
	160	0.12	0.25	0.15
5-2560Hz ALL FREQ	10	1.11	1.73	1.25
	60	0.91	1.49	1.07
	110	0.92	1.44	1.10
	160	1.04	1.36	1.13



MET039 - ELECTRIC FIELD AT TRACTION POWER SUPPLY STATION

APPENDIX AJ

DATASET MET040 AT TRACTION POWER SUPPLY STATION SOUTH OF SHADY GROVE

Measurement Setup Code: Staff: 40 Reference: -
Drawing: A-6

Vehicle Status: NA

Measurement Date: May 20, 1992

Measurement Time: Start: 08:49:40
End: 08:55:56

Number of Samples: 62

Programmed Sample Interval: 5 sec

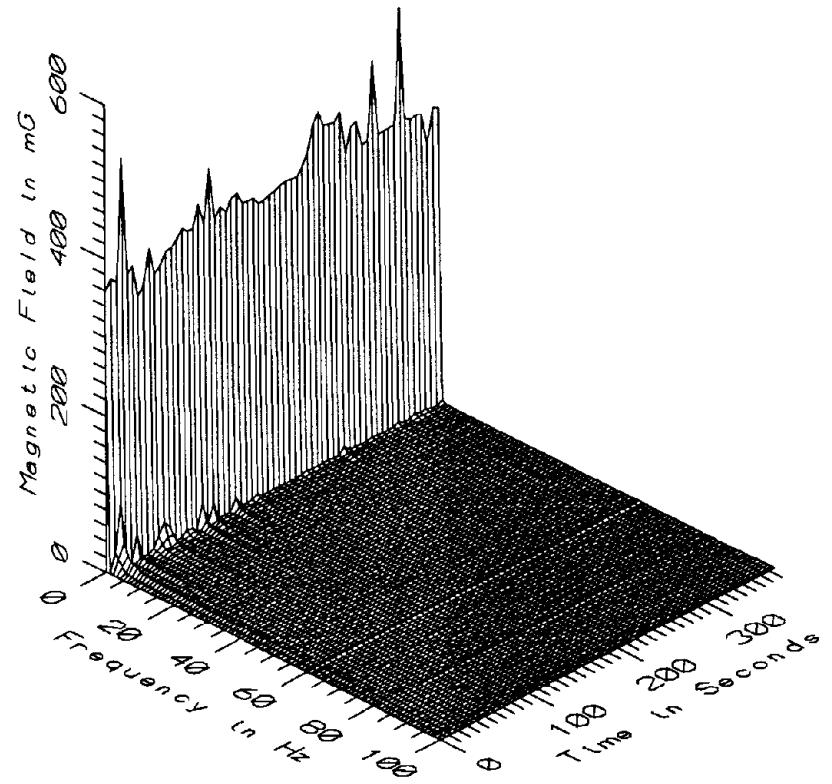
Actual Sample Interval: 6.2 sec

Frequency Spectrum Parameters

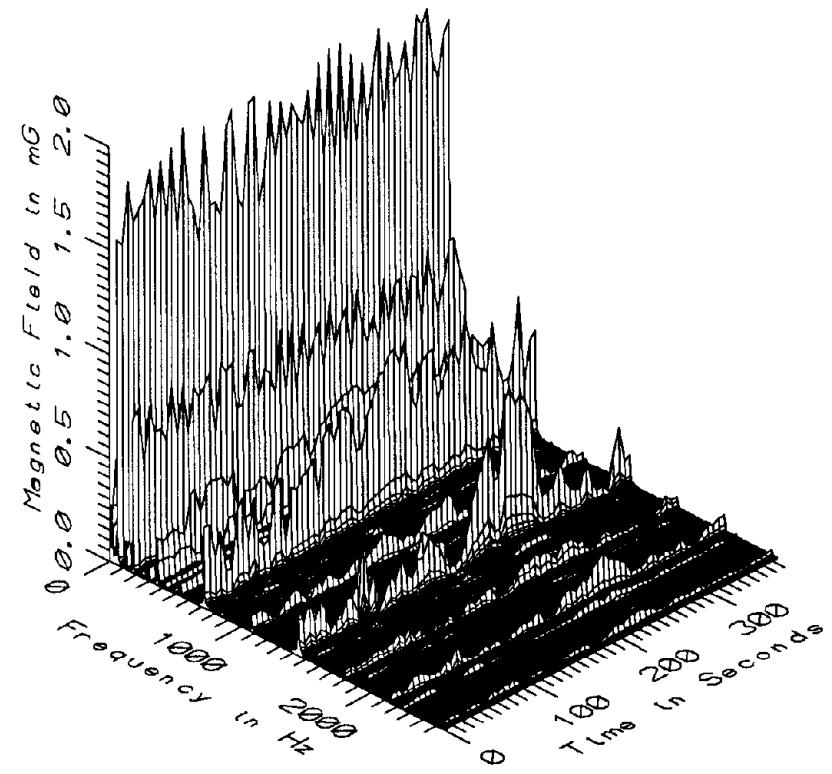
<u>Probe Type:</u>	<u>Wideband</u>	<u>Static</u>
Maximum Frequency (Hz)	2560	100
Minimum Frequency (Hz)	5	0
Spectral Bandwidth (Hz)	5	1

Missing Data: No reference probe

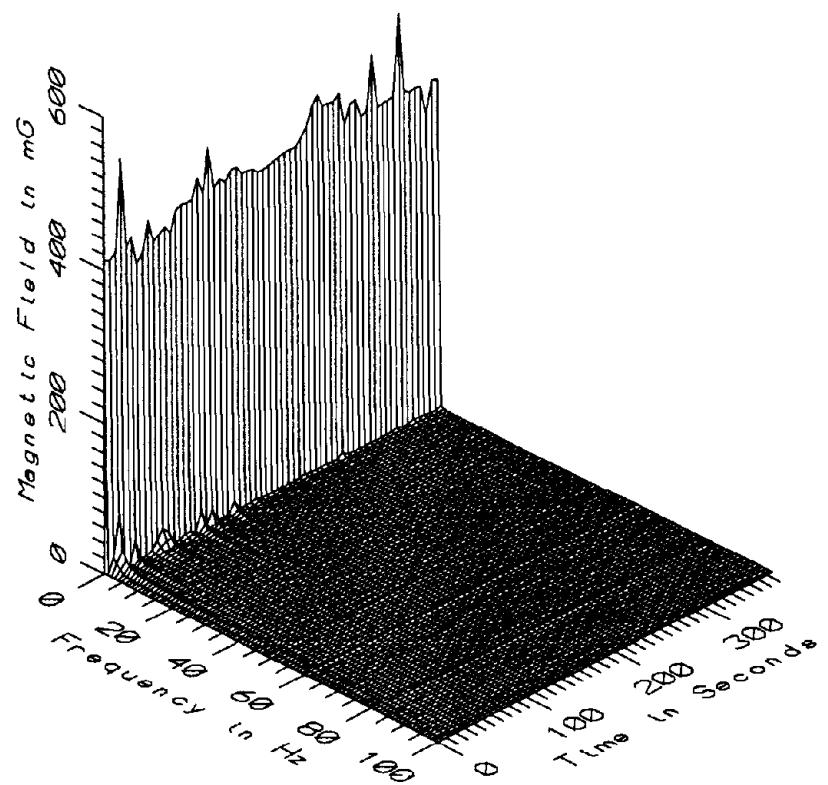
Saturated Data: None



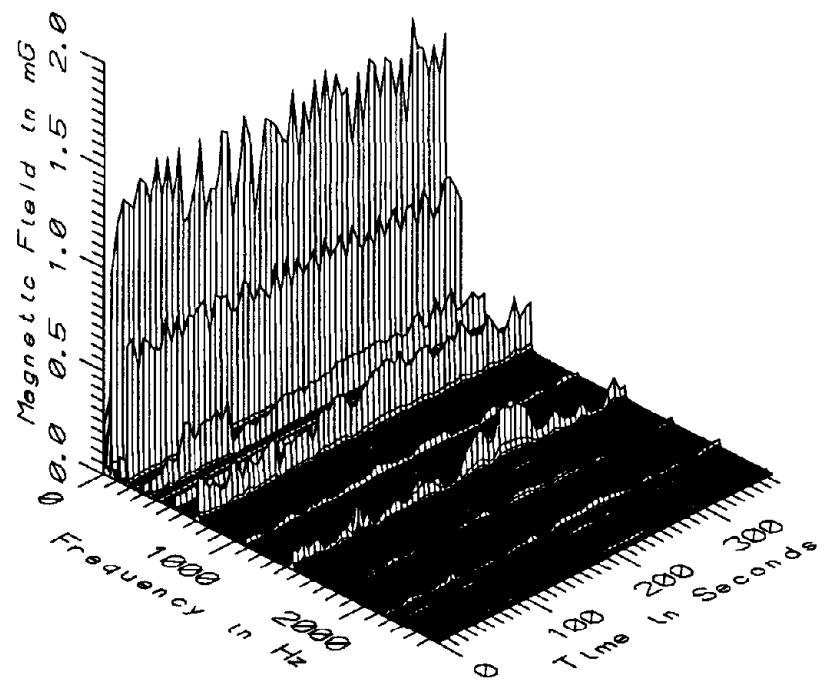
MET040 - 10cm FROM WEST WALL OF TRACTION POWER SUPPLY STATION



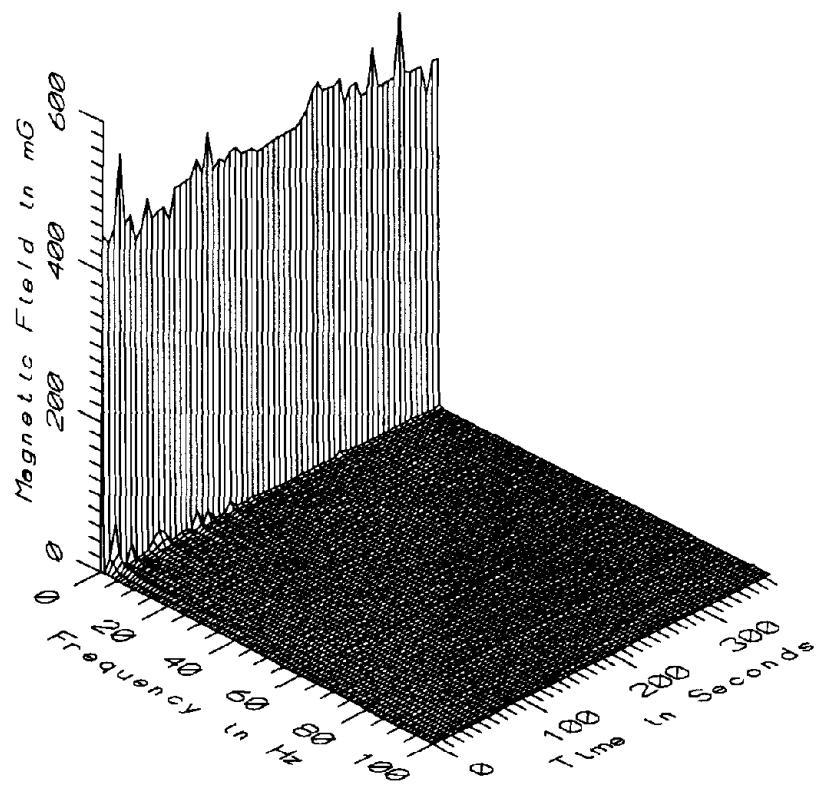
MET040 - 10cm FROM WEST WALL OF TRACTION POWER SUPPLY STATION



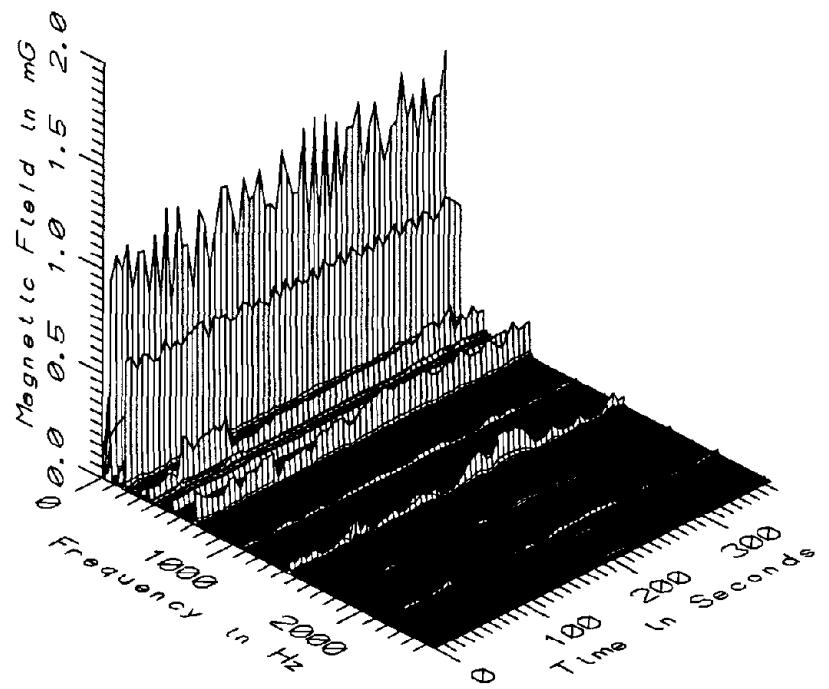
MET040 - 60cm FROM WEST WALL OF TRACTION POWER SUPPLY STATION



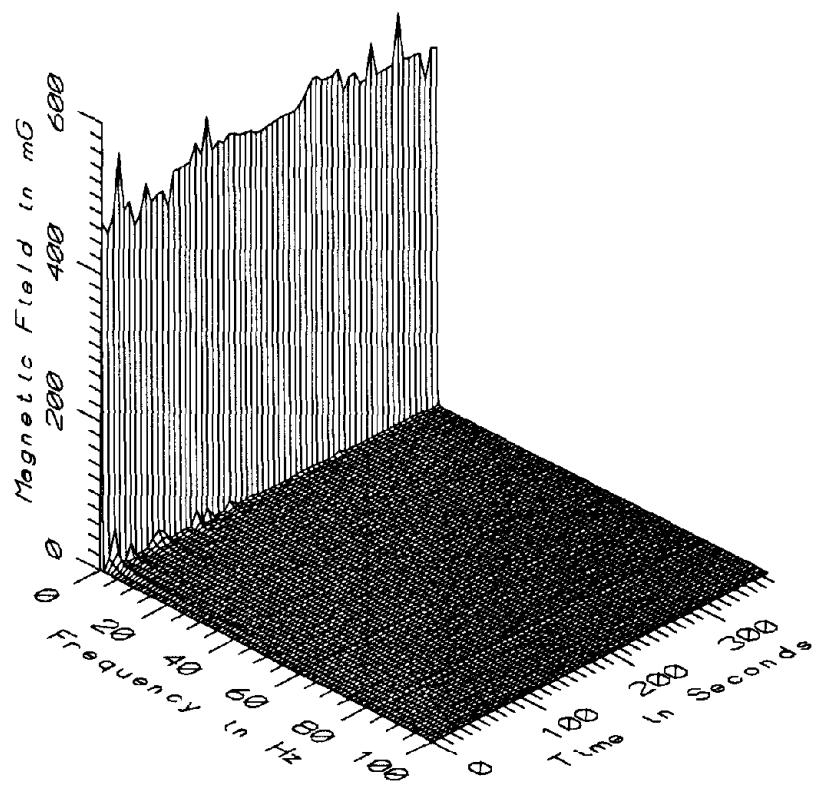
MET040 - 60cm FROM WEST WALL OF TRACTION POWER SUPPLY STATION



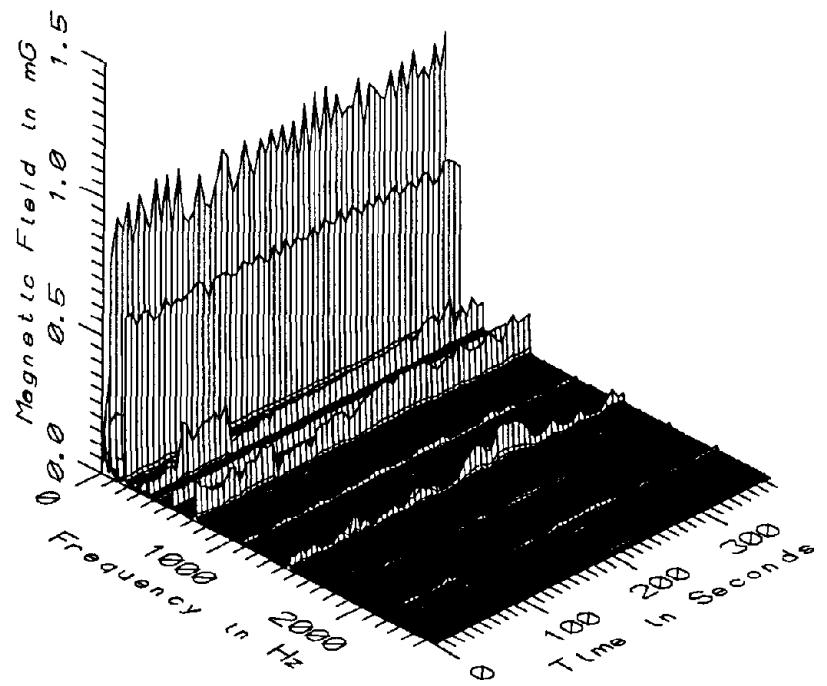
MET040 - 110cm FROM WEST WALL OF TRACTION POWER SUPPLY STATION



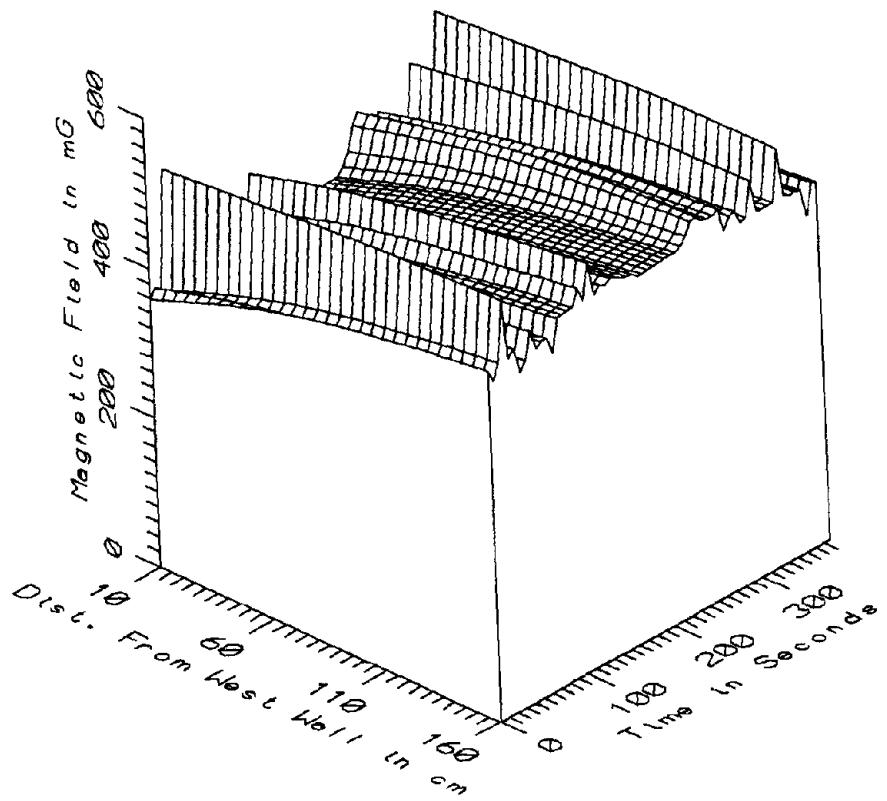
MET040 - 110cm FROM WEST WALL OF TRACTION POWER SUPPLY STATION



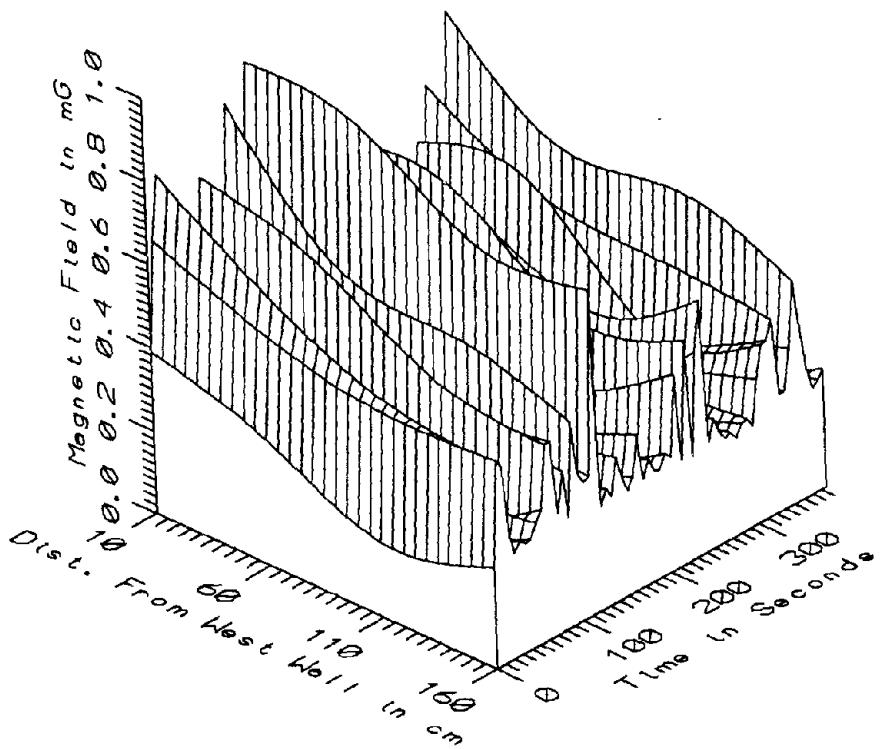
MET040 - 160cm FROM WEST WALL OF TRACTION POWER SUPPLY STATION



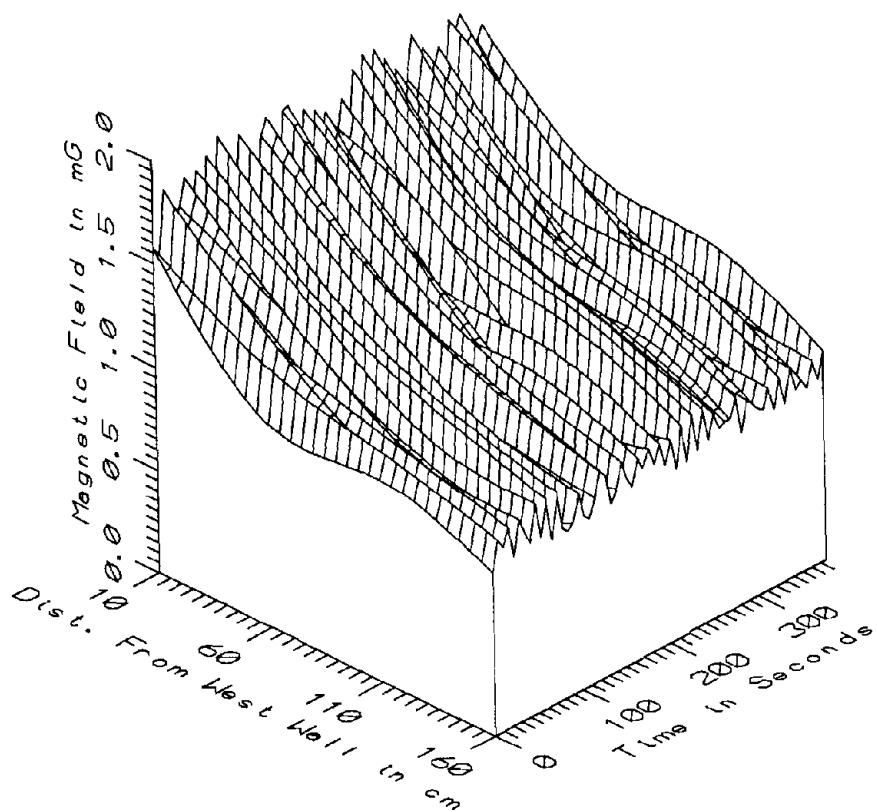
MET040 - 160cm FROM WEST WALL OF TRACTION POWER SUPPLY STATION



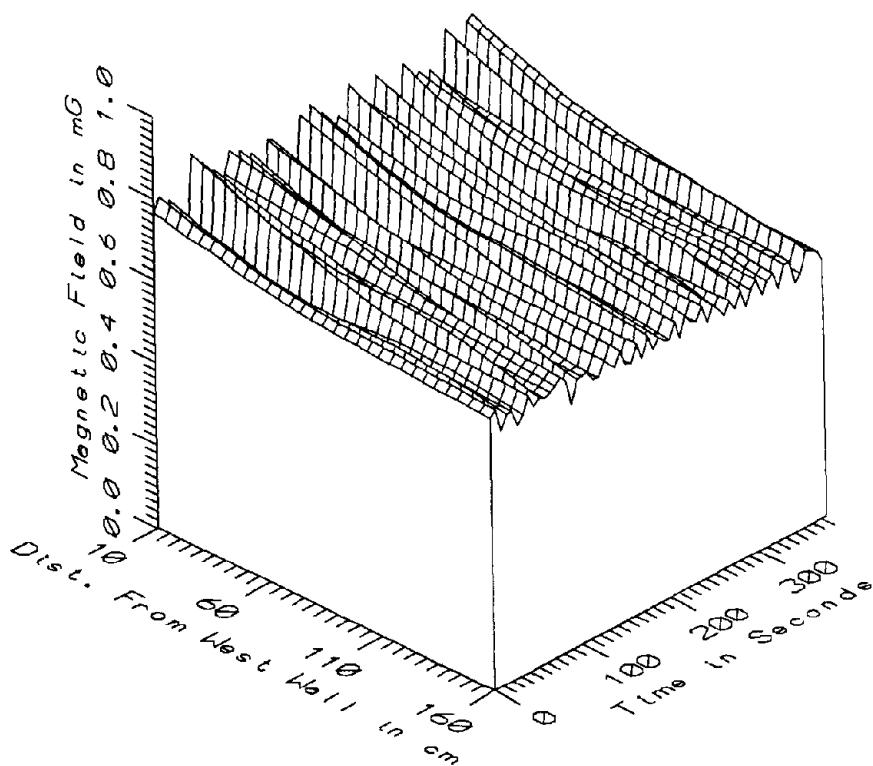
MET040 - TRACTION POWER SUPPLY STATION - STATIC



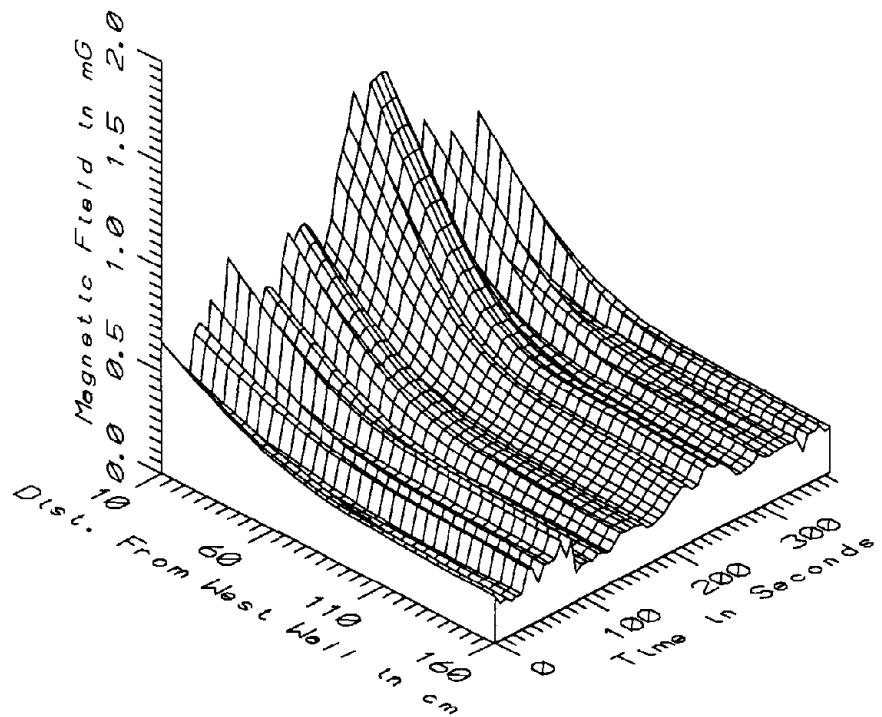
MET040 - TRACTION POWER SUPPLY STATION - LOW FREQ. 5-45Hz



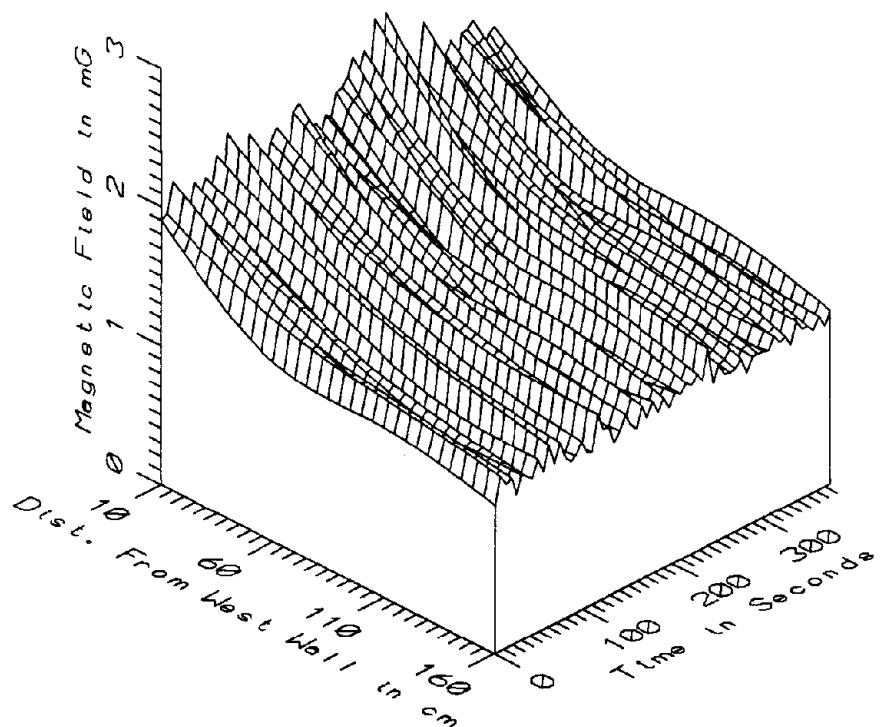
MET040 - TRACTION POWER SUPPLY STATION - POWER FREQ, 50-60Hz



MET040 - TRACTION POWER SUPPLY STATION - POWER HARM, 65-300Hz

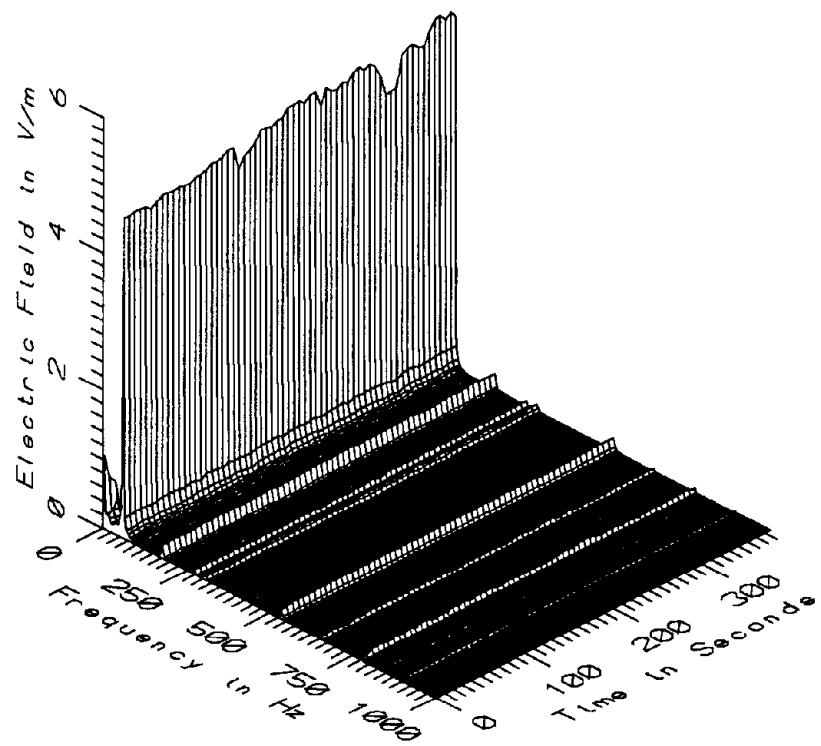


MET040 - TRACTION POWER SUPPLY STATION - HIGH FREQ, 305-2560Hz



MET040 - TRACTION POWER SUPPLY STATION - ALL FREQ, 5-2560Hz

MET040 - T.P.S.S. SOUTH OF SHADY GROVE, FROM WEST WALL		TOTAL OF 62 SAMPLES		
FREQUENCY BAND	DIST FROM WALL (cm)	MINIMUM MAGNETIC FIELD (mG)	MAXIMUM MAGNETIC FIELD (mG)	AVERAGE MAGNETIC FIELD (mG)
				STANDARD DEVIATION (mG)
STATIC	10	331.72	529.01	391.90
	60	387.63	539.44	439.28
	110	421.59	548.71	469.60
	160	442.89	551.05	489.73
5-45Hz	10	0.30	0.95	0.45
LOW FREQ	60	0.21	0.92	0.34
	110	0.15	0.76	0.27
	160	0.24	0.78	0.34
50-60Hz	10	1.35	1.97	1.69
PWR FREQ	60	0.94	1.50	1.27
	110	0.71	1.28	1.03
	160	0.78	1.04	0.91
65-300Hz	10	0.51	0.86	0.69
PWR HARM	60	0.56	0.75	0.66
	110	0.58	0.71	0.65
	160	0.59	0.67	0.63
305-2560Hz	10	0.28	1.40	0.79
HIGH FREQ	60	0.15	0.56	0.37
	110	0.14	0.38	0.26
	160	0.14	0.33	0.23
5-2560Hz	10	1.72	2.58	2.07
ALL FREQ	60	1.20	1.81	1.53
	110	1.05	1.55	1.29
	160	1.07	1.41	1.19



MET040 - ELECTRIC FIELD AT TRACTION POWER SUPPLY STATION

APPENDIX AK

DATASET MET041 AT TRACTION POWER SUPPLY STATION SOUTH OF SHADY GROVE

Measurement Setup Code: Staff: 42 Reference: -
Drawing: A-6

Vehicle Status: NA

Measurement Date: May 20, 1992

Measurement Time: Start: 08:58:42
End: 09:02:21

Number of Samples: 39

Programmed Sample Interval: 5 sec

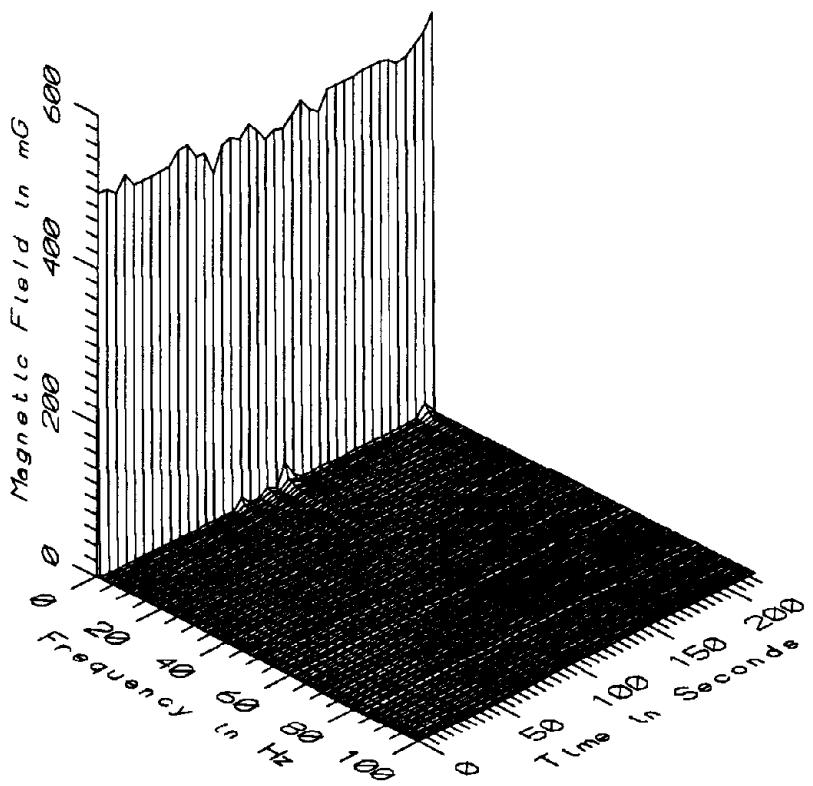
Actual Sample Interval: 5.6 sec

Frequency Spectrum Parameters

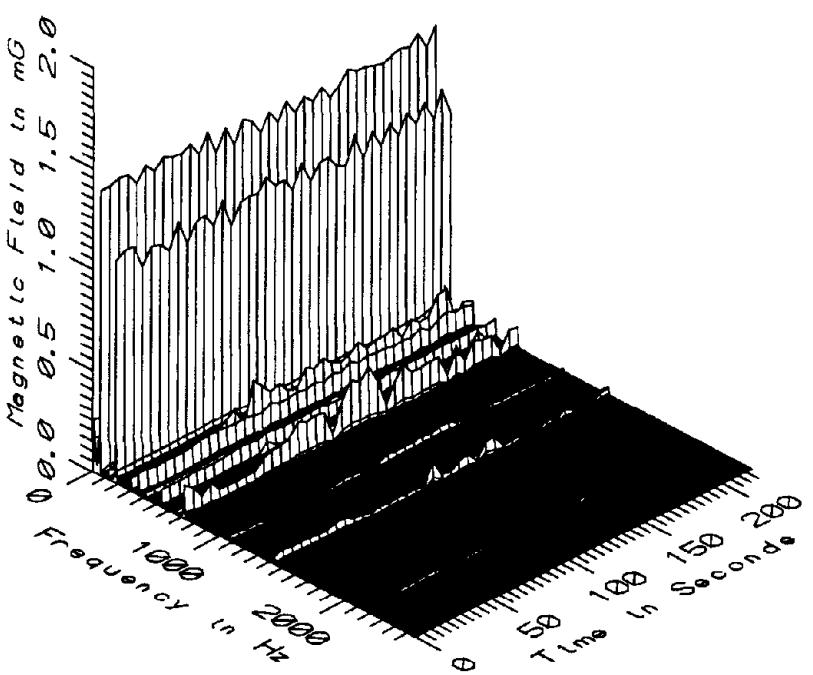
<u>Probe Type:</u>	<u>Wideband</u>	<u>Static</u>
Maximum Frequency (Hz)	2560	100
Minimum Frequency (Hz)	5	0
Spectral Bandwidth (Hz)	5	1

Missing Data: No reference probe

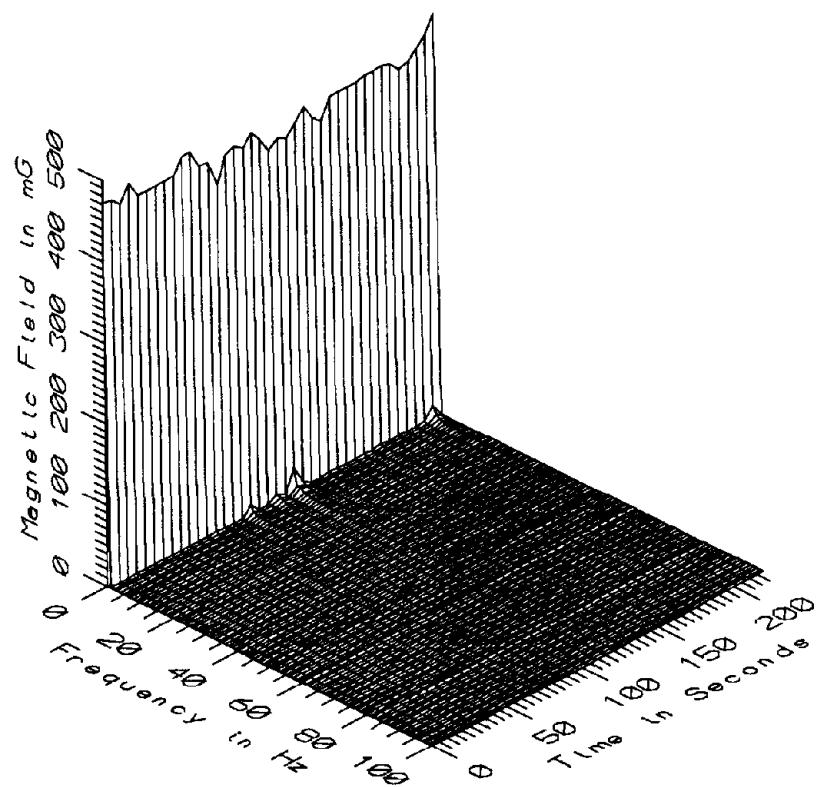
Saturated Data: None



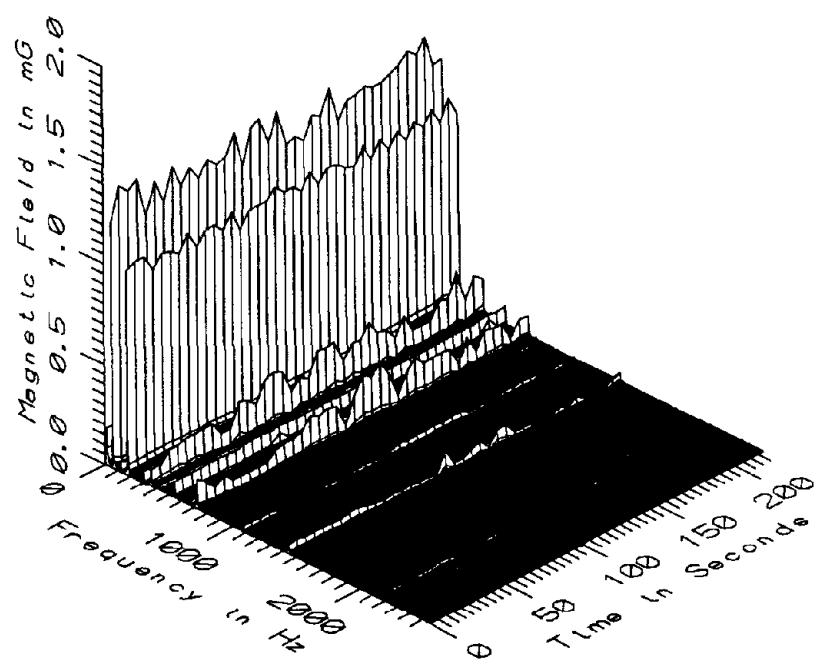
MET041 - 10cm FROM WEST WALL OF TRACTION POWER SUPPLY STATION



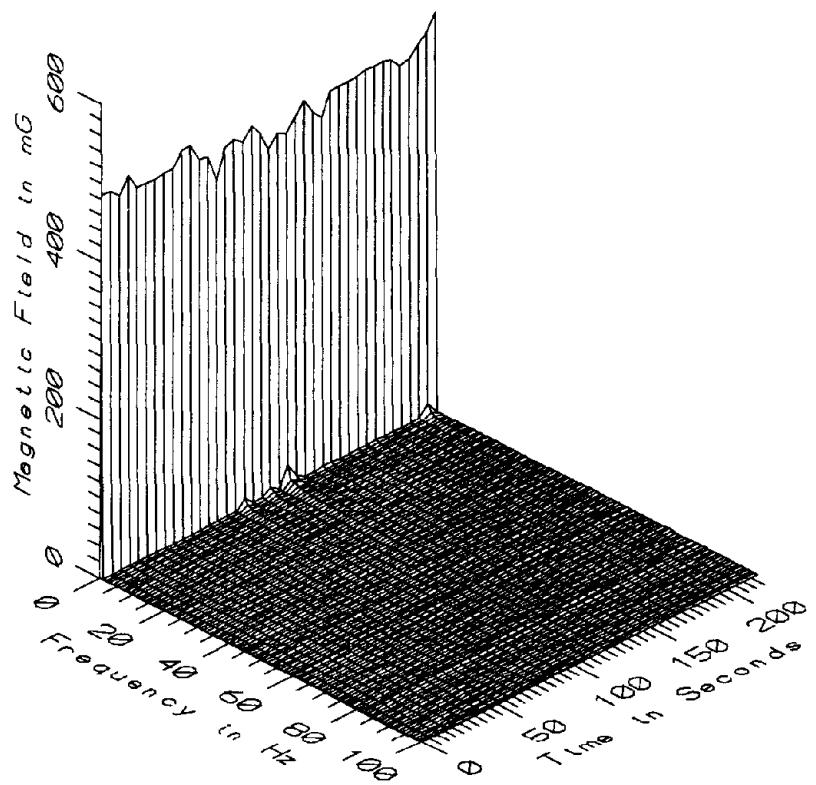
MET041 - 10cm FROM WEST WALL OF TRACTION POWER SUPPLY STATION



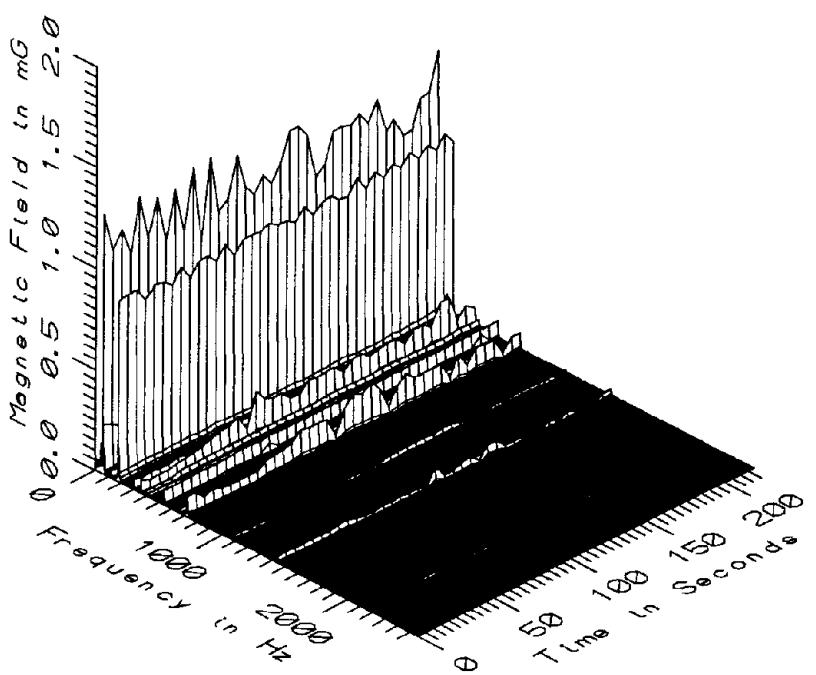
MET041 - 60cm FROM WEST WALL OF TRACTION POWER SUPPLY STATION



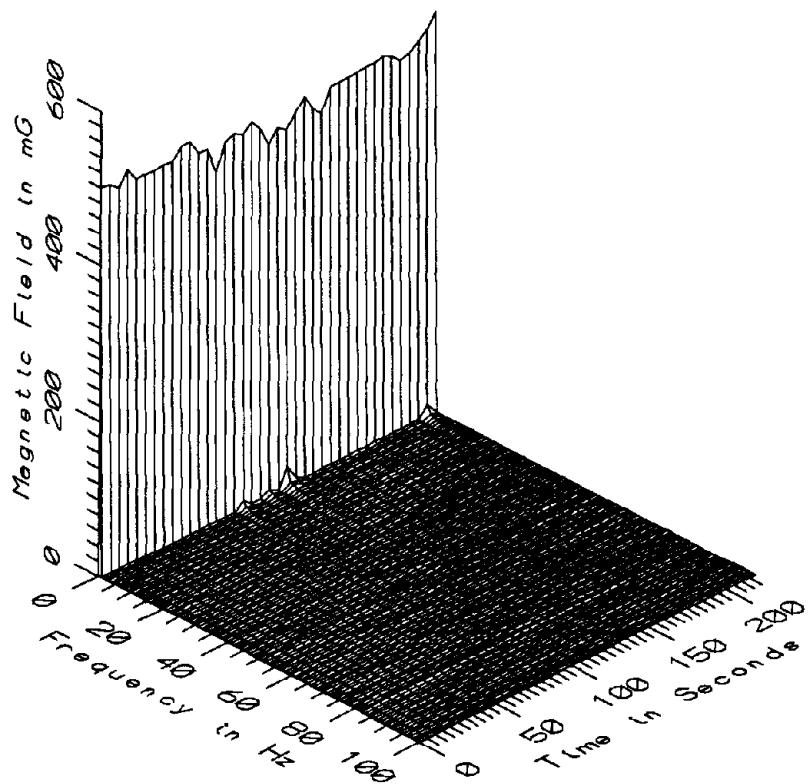
MET041 - 60cm FROM WEST WALL OF TRACTION POWER SUPPLY STATION



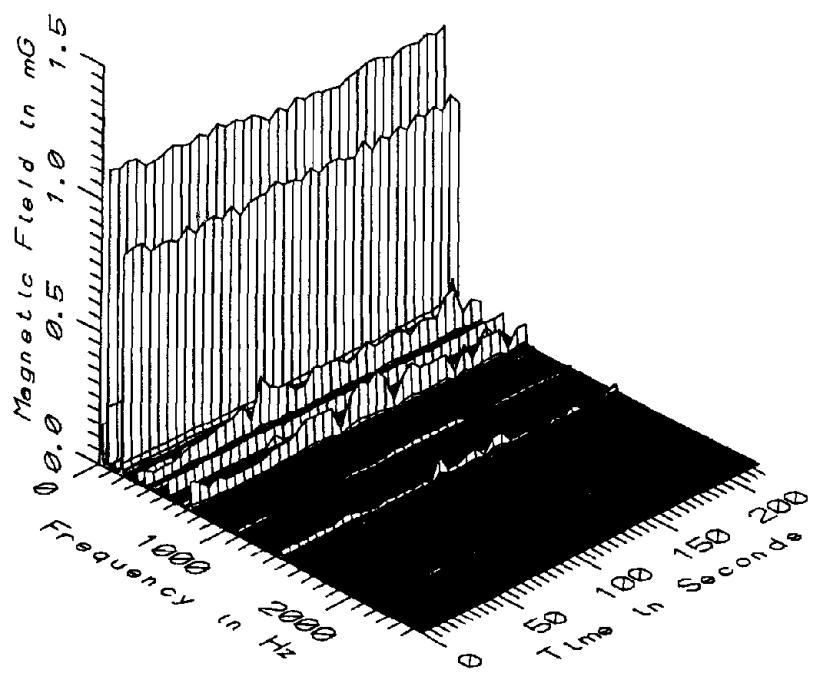
MET041 - 110cm FROM WEST WALL OF TRACTION POWER SUPPLY STATION



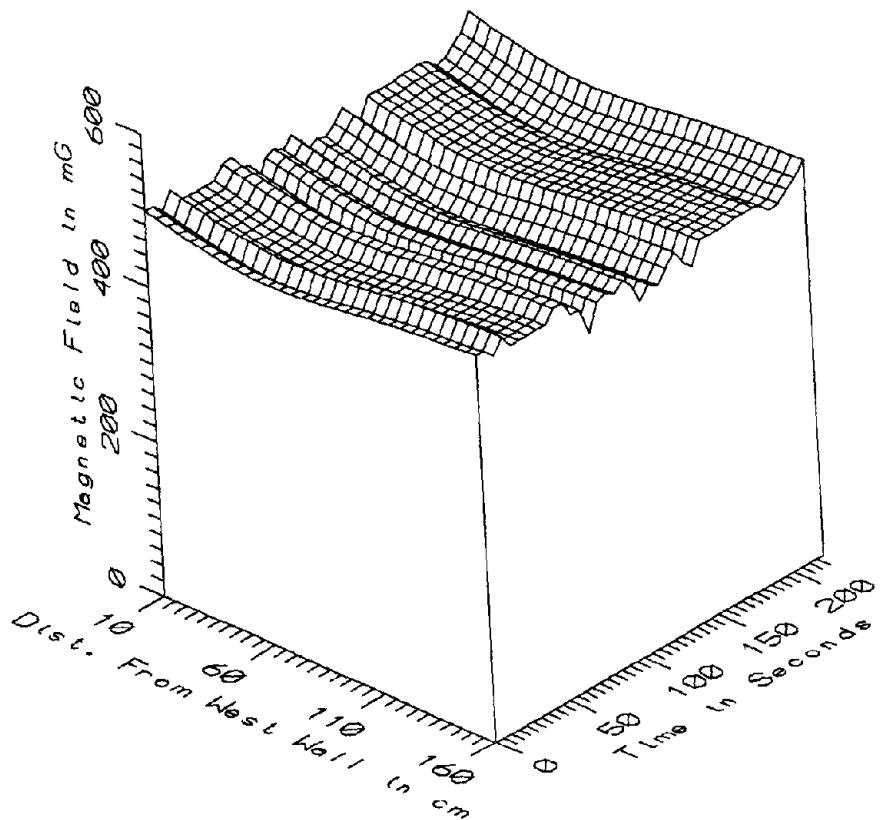
MET041 - 110cm FROM WEST WALL OF TRACTION POWER SUPPLY STATION



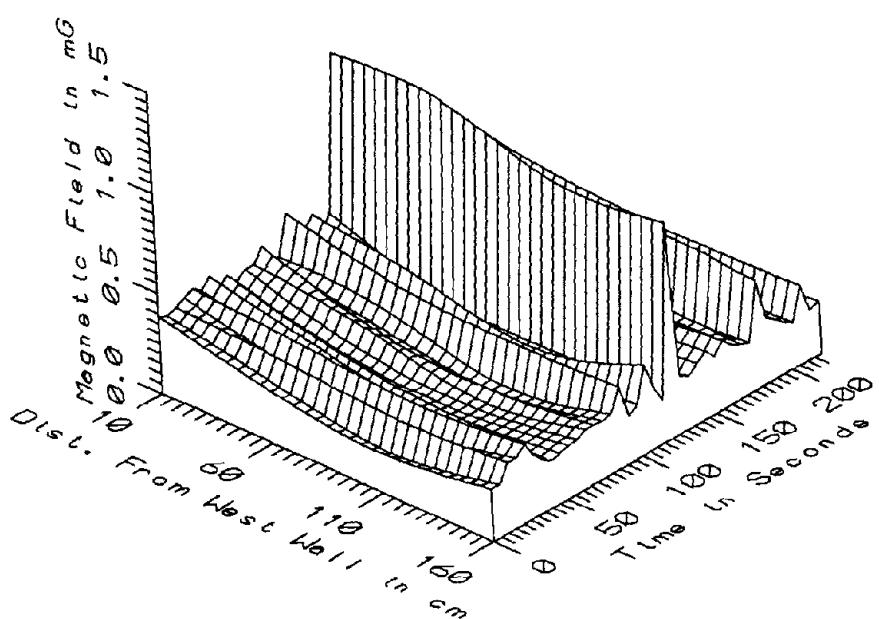
MET041 - 160cm FROM WEST WALL OF TRACTION POWER SUPPLY STATION



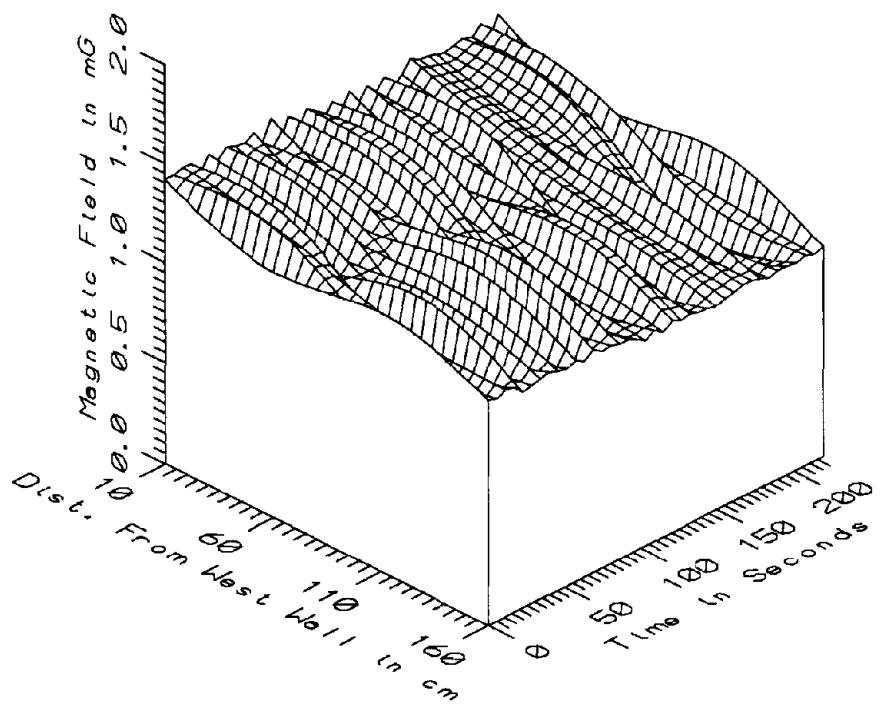
MET041 - 160cm FROM WEST WALL OF TRACTION POWER SUPPLY STATION



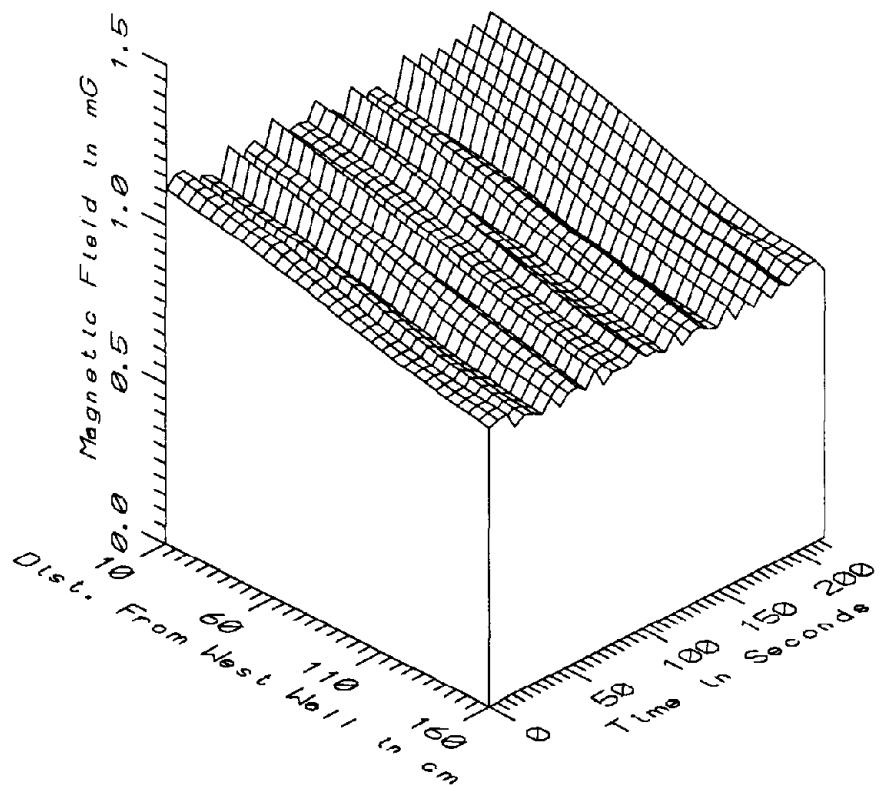
MET041 - TRACTION POWER SUPPLY STATION - STATIC



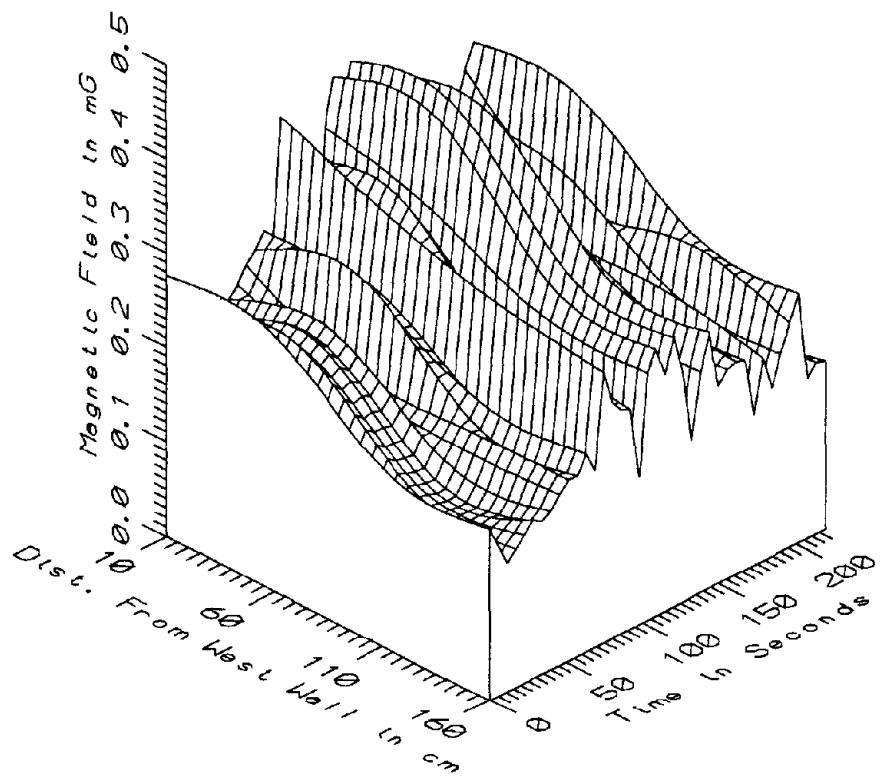
MET041 - TRACTION POWER SUPPLY STATION - LOW FREQ, 5-45Hz



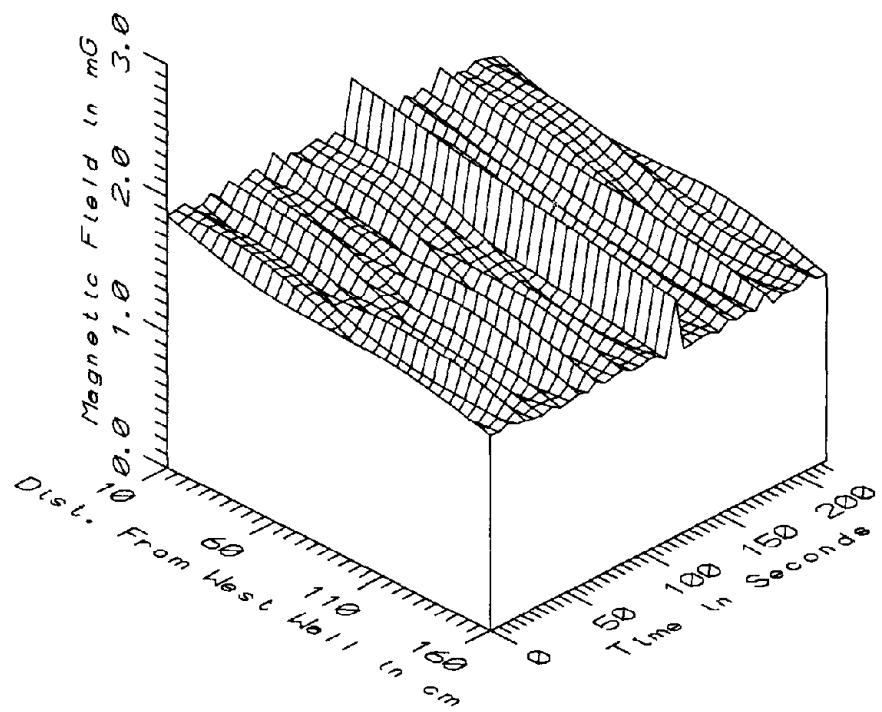
MET041 - TRACTION POWER SUPPLY STATION - POWER FREQ, 50-60Hz



MET041 - TRACTION POWER SUPPLY STATION - POWER HARM, 65-300Hz

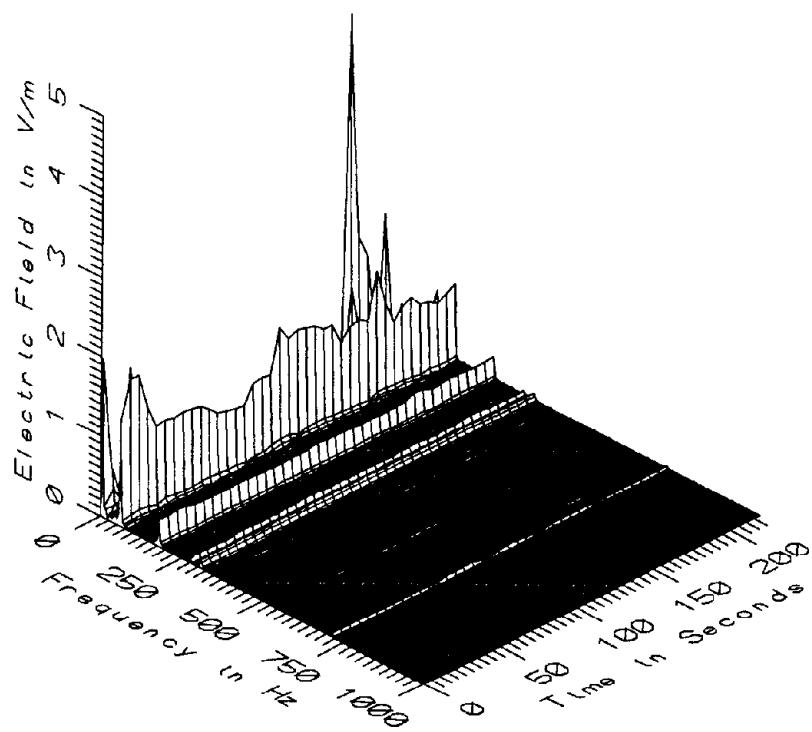


MET041 - TRACTION POWER SUPPLY STATION - HIGH FREQ, 305-2560Hz



MET041 - TRACTION POWER SUPPLY STATION - ALL FREQ, 5-2560Hz

MET041 - T.P.S.S. SOUTH OF SHADY GROVE, FROM WEST WALL						
	DIST FROM WALL (cm)	MINIMUM MAGNETIC FIELD	MAXIMUM MAGNETIC FIELD	AVERAGE MAGNETIC FIELD	STANDARD DEVIATION (mG)	TOTAL OF 39 SAMPLES (%)
STATIC	10	450.14	517.88	483.97	13.24	2.73
	60	421.26	490.41	456.48	13.86	3.04
	110	432.24	503.75	470.15	14.75	3.14
	160	447.02	512.36	483.73	14.36	2.97
5-45Hz LOW FREQ	10	0.31	1.18	0.43	0.14	33.05
	60	0.20	1.19	0.31	0.16	52.72
	110	0.17	1.03	0.26	0.15	57.04
	160	0.21	1.07	0.32	0.14	44.29
50-60Hz PWR FREQ	10	1.31	1.46	1.38	0.04	2.99
	60	1.15	1.39	1.26	0.07	5.46
	110	0.92	1.32	1.11	0.11	10.18
	160	1.01	1.13	1.06	0.03	3.26
65-300Hz PWR HARM	10	1.01	1.16	1.09	0.05	4.52
	60	0.96	1.07	1.02	0.03	3.43
	110	0.87	0.96	0.92	0.02	2.60
	160	0.82	0.89	0.85	0.02	2.30
305-2560Hz HIGH FREQ	10	0.20	0.41	0.28	0.06	21.16
	60	0.17	0.41	0.27	0.06	22.25
	110	0.14	0.30	0.21	0.05	22.86
	160	0.14	0.28	0.20	0.04	20.68
5-2560Hz ALL FREQ	10	1.72	2.19	1.83	0.08	4.11
	60	1.55	2.03	1.68	0.08	4.99
	110	1.33	1.90	1.49	0.11	7.48
	160	1.35	1.76	1.42	0.07	4.62



MET041 - ELECTRIC FIELD AT TRACTION POWER SUPPLY STATION

APPENDIX AL

DATASET MET042 AT TRACTION POWER SUPPLY STATION SOUTH OF SHADY GROVE

Measurement Setup Code: Staff: 44 Reference: -
Drawing: A-6

Vehicle Status: NA

Measurement Date: May 20, 1992

Measurement Time: Start: 09:05:11
End: 09:08:36

Number of Samples: 37

Programmed Sample Interval: 5 sec

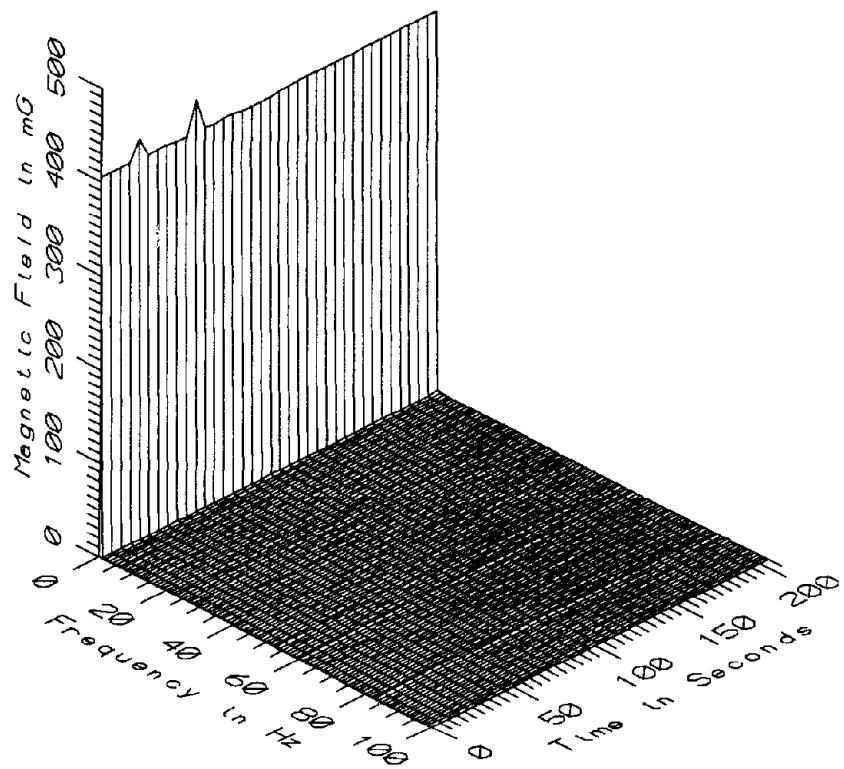
Actual Sample Interval: 5.7 sec

Frequency Spectrum Parameters

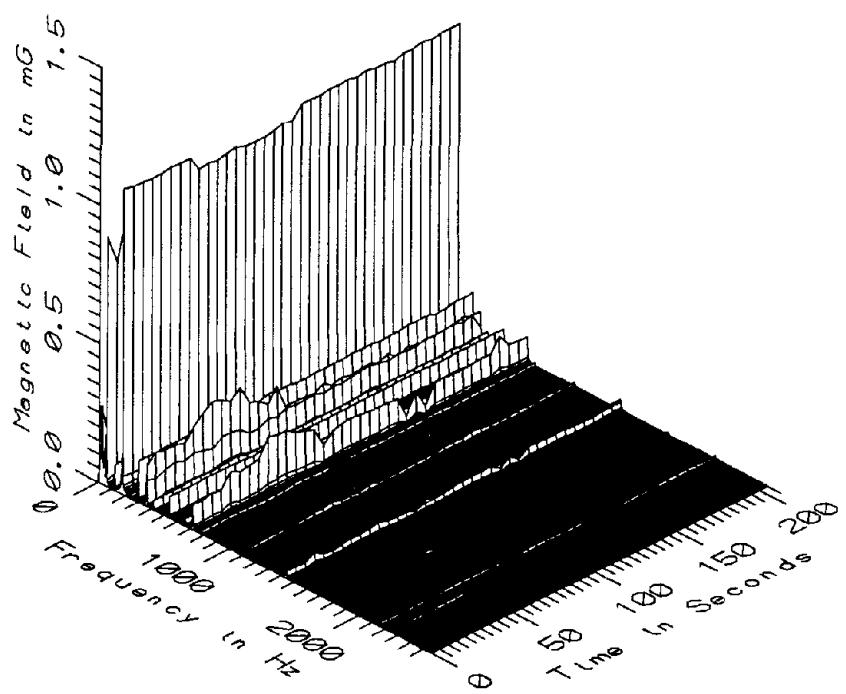
<u>Probe Type:</u>	<u>Wideband</u>	<u>Static</u>
Maximum Frequency (Hz)	2560	100
Minimum Frequency (Hz)	5	0
Spectral Bandwidth (Hz)	5	1

Missing Data: No reference probe

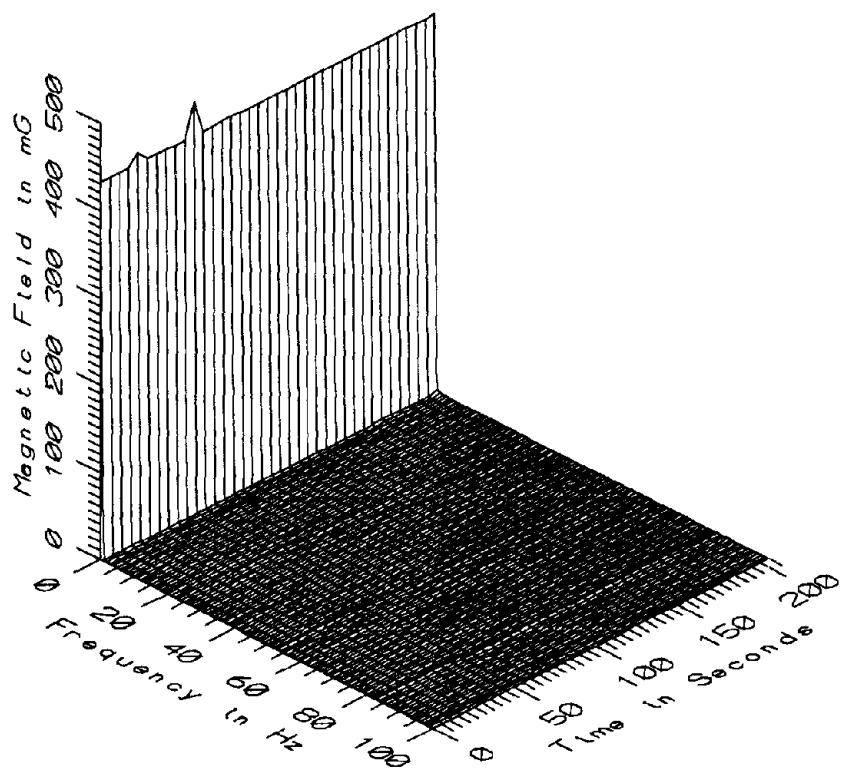
Saturated Data: None



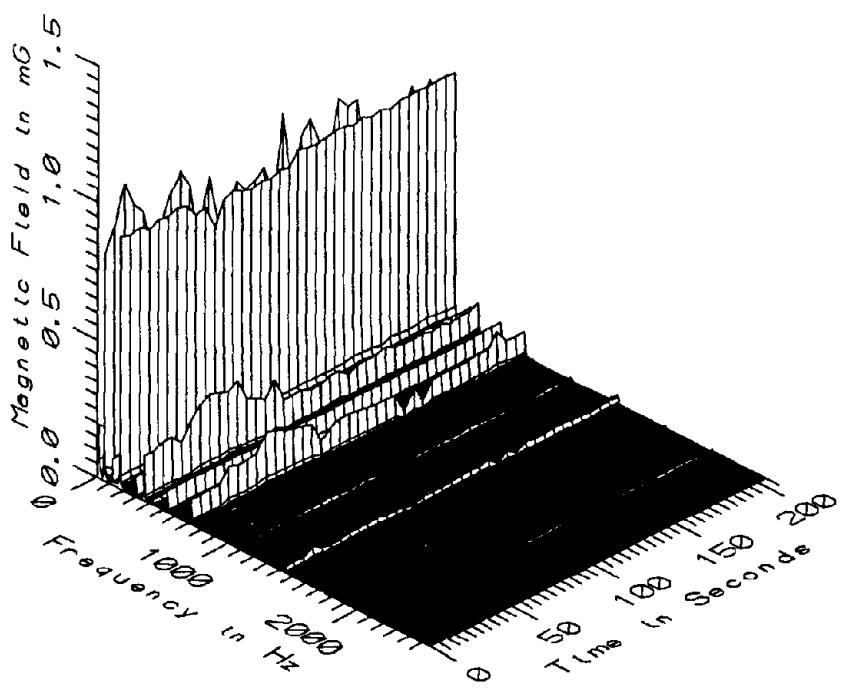
MET042 - 10cm FROM SOUTH WALL OF TRACTION POWER SUPPLY STATION



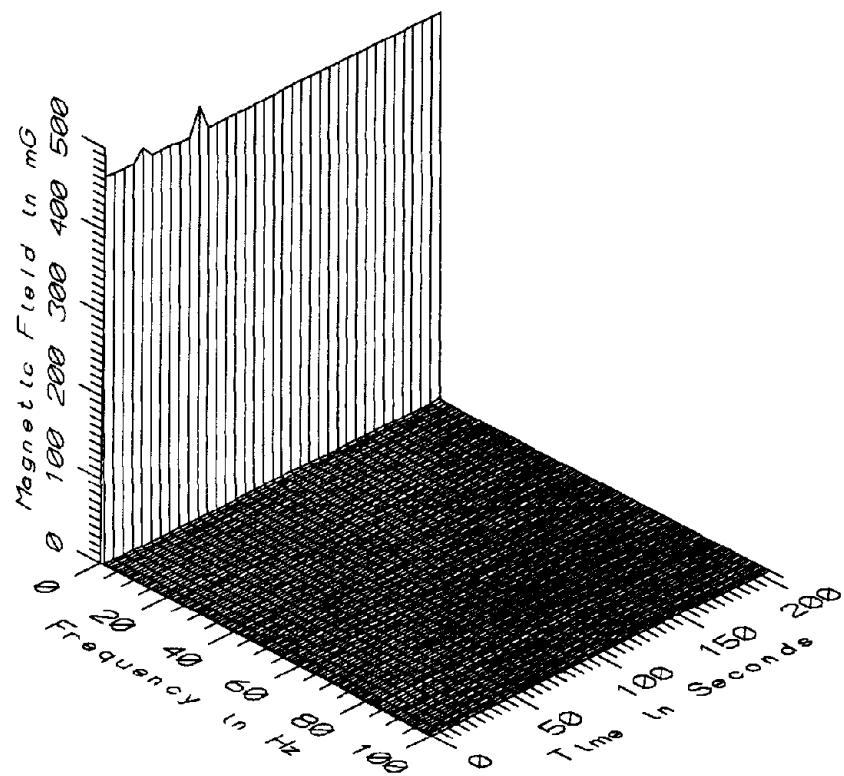
MET042 - 10cm FROM SOUTH WALL OF TRACTION POWER SUPPLY STATION



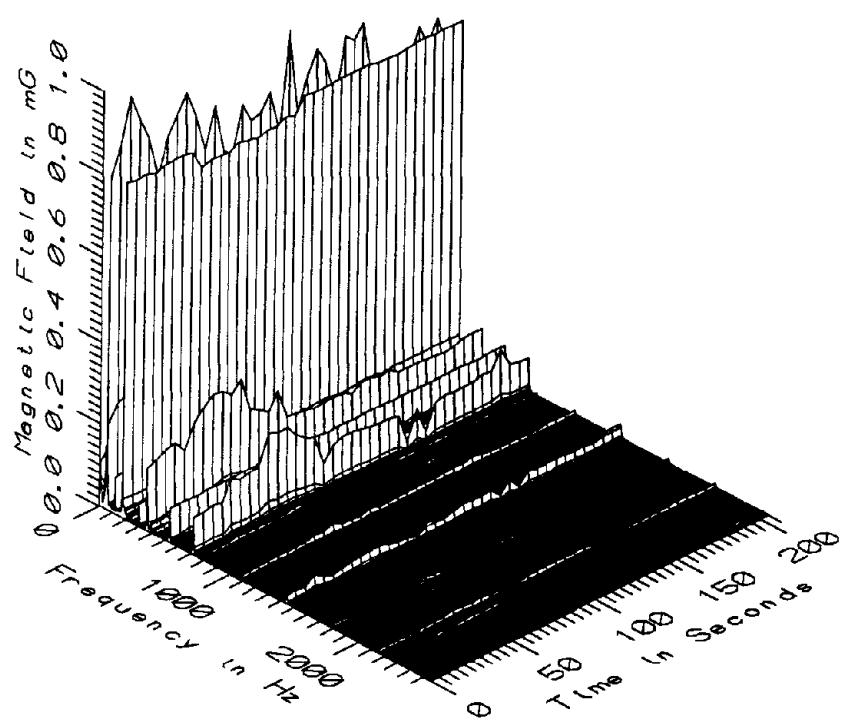
MET042 - 60cm FROM SOUTH WALL OF TRACTION POWER SUPPLY STATION



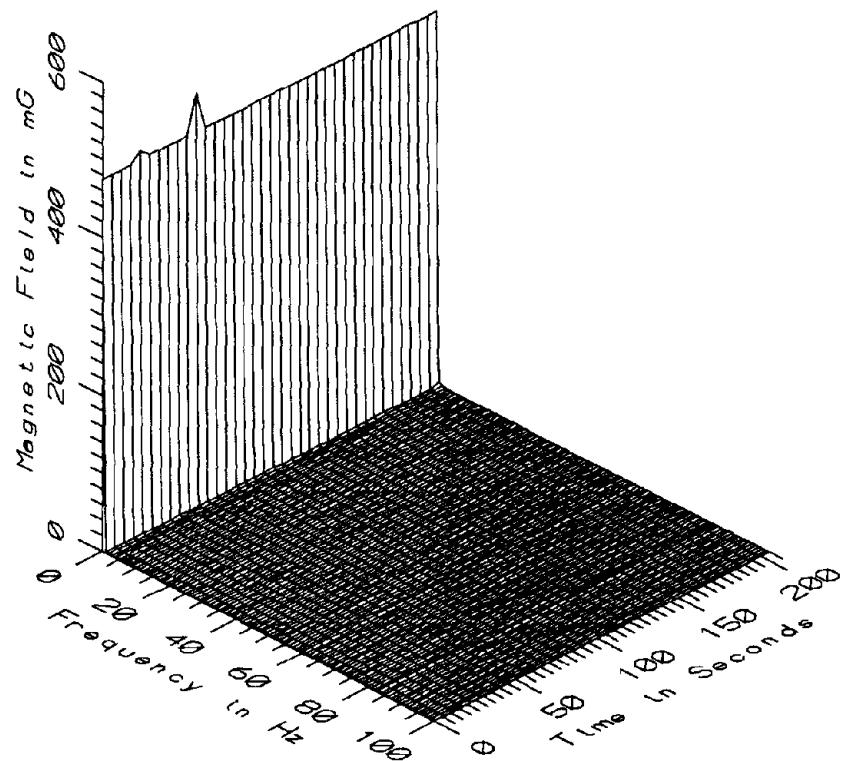
MET042 - 60cm FROM SOUTH WALL OF TRACTION POWER SUPPLY STATION



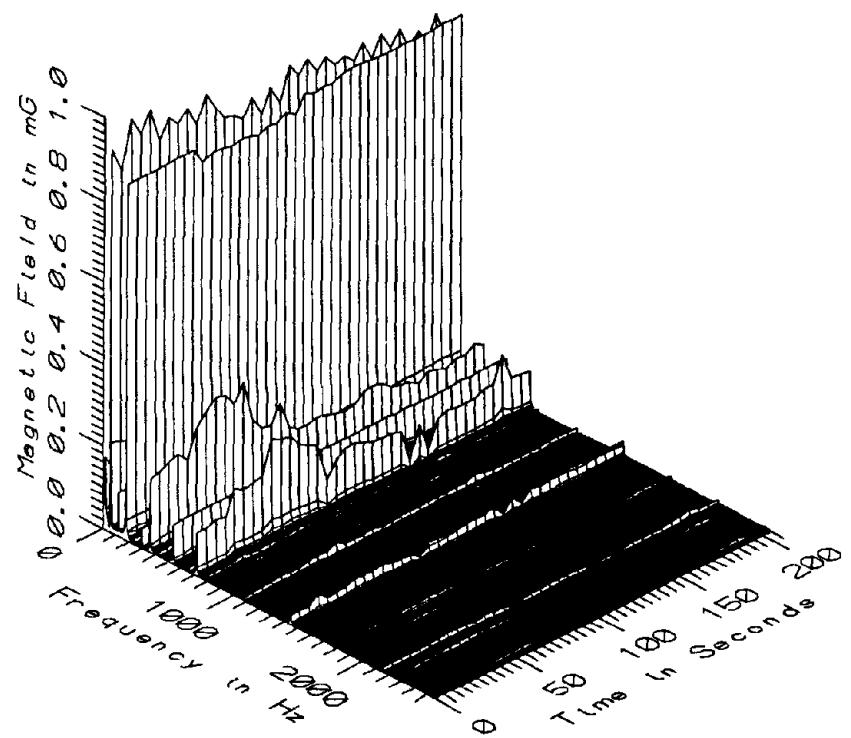
MET042 - 110cm FROM SOUTH WALL OF TRACTION POWER SUPPLY STATION



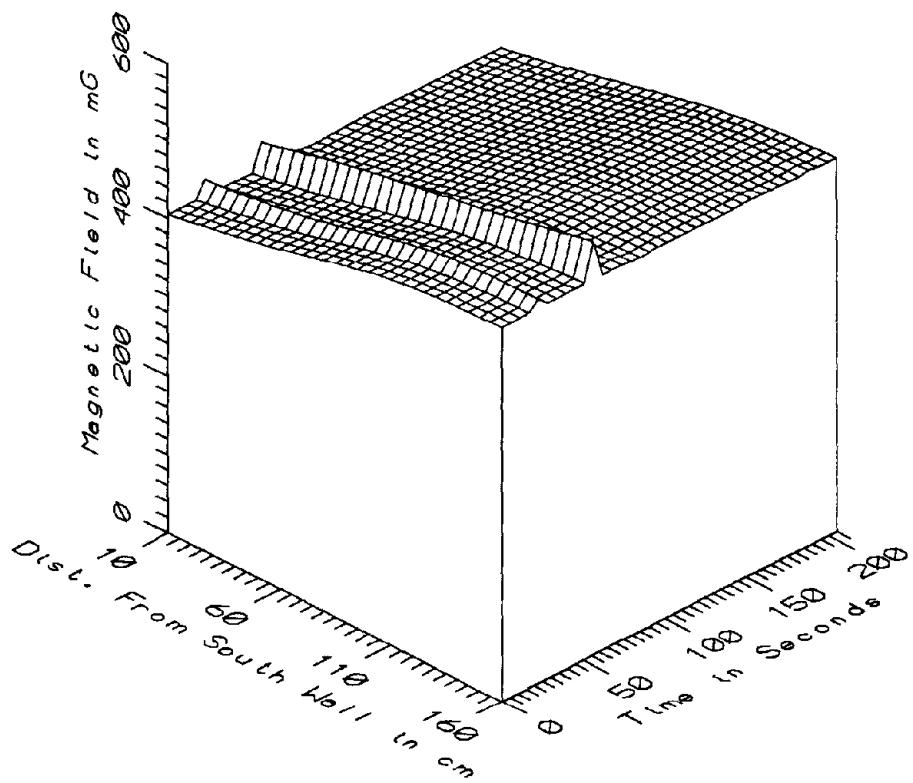
MET042 - 110cm FROM SOUTH WALL OF TRACTION POWER SUPPLY STATION



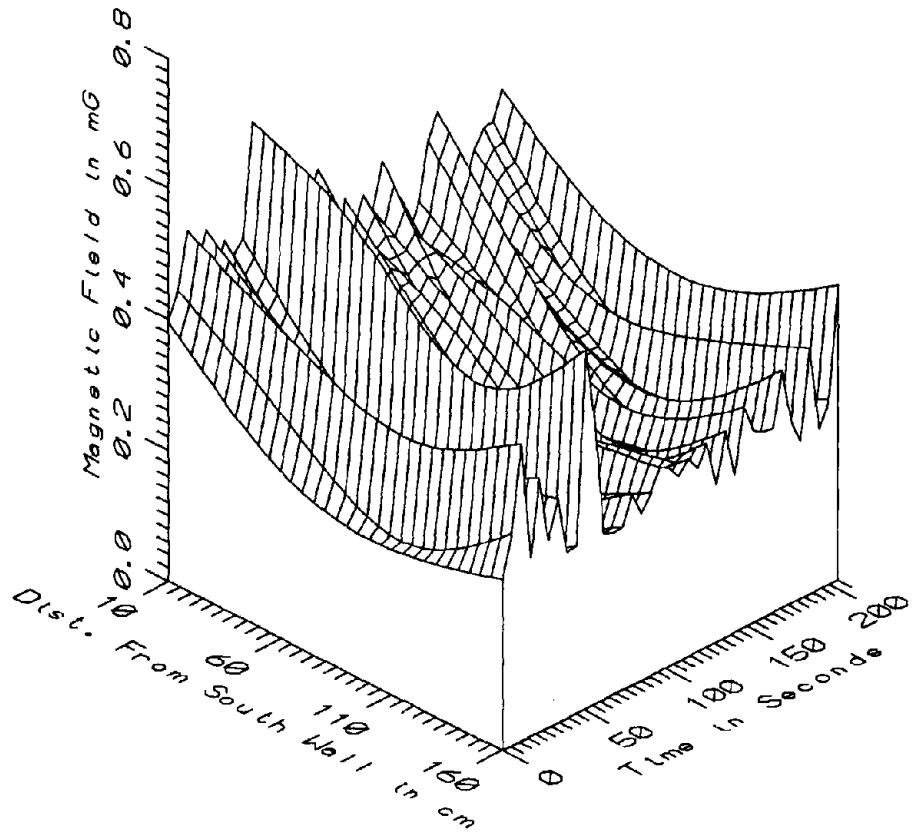
MET042 - 160cm FROM SOUTH WALL OF TRACTION POWER SUPPLY STATION



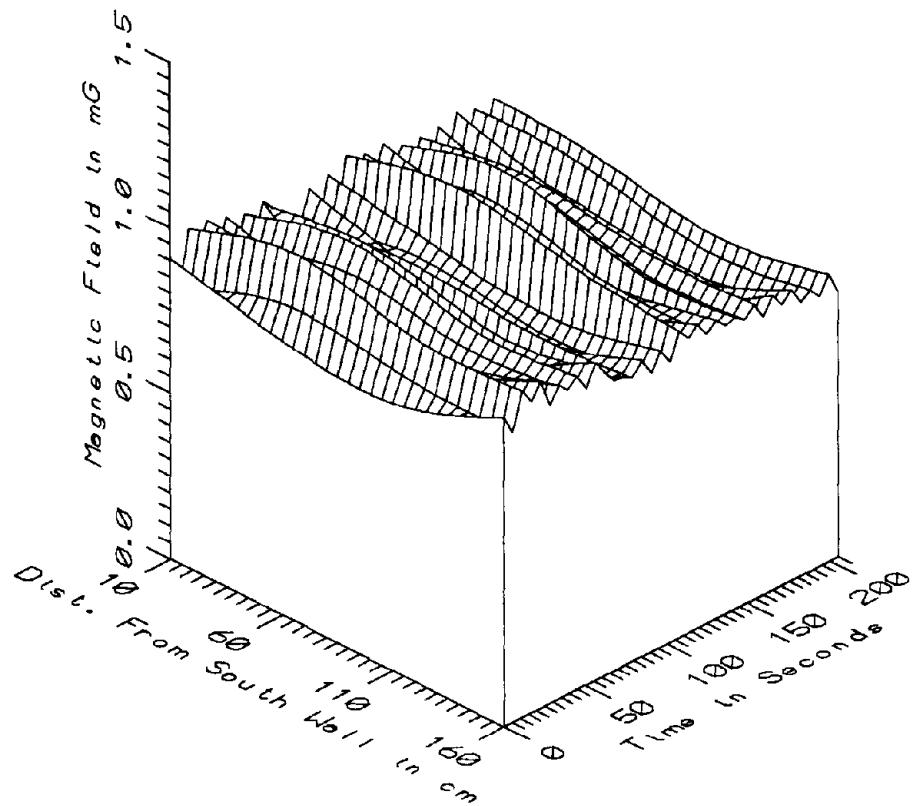
MET042 - 160cm FROM SOUTH WALL OF TRACTION POWER SUPPLY STATION



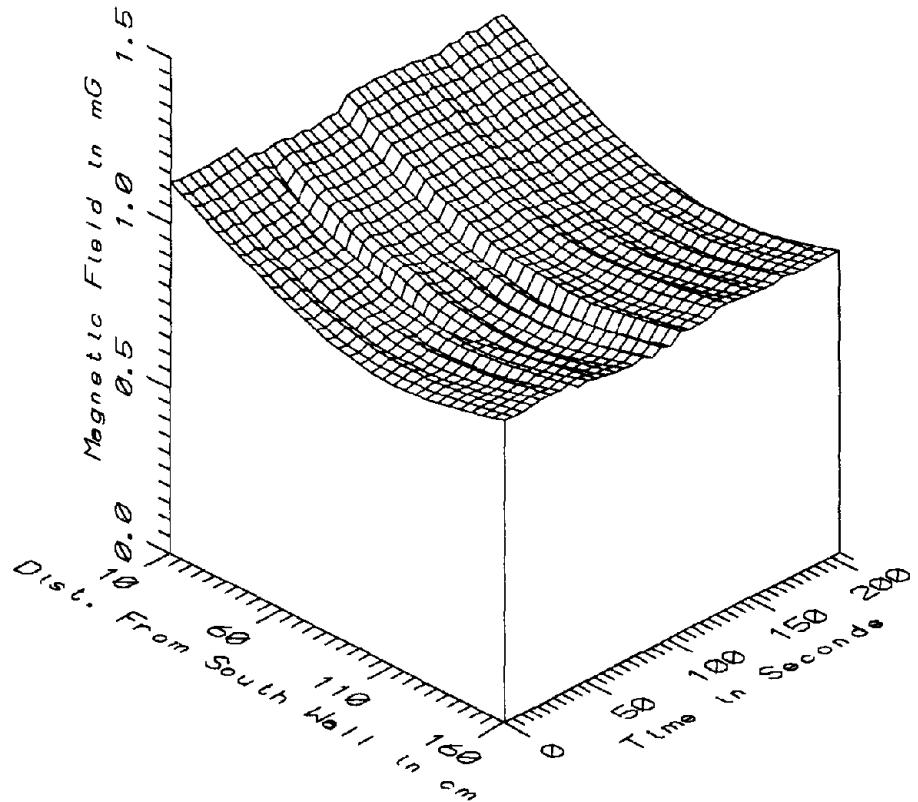
MET042 - TRACTION POWER SUPPLY STATION - STATIC



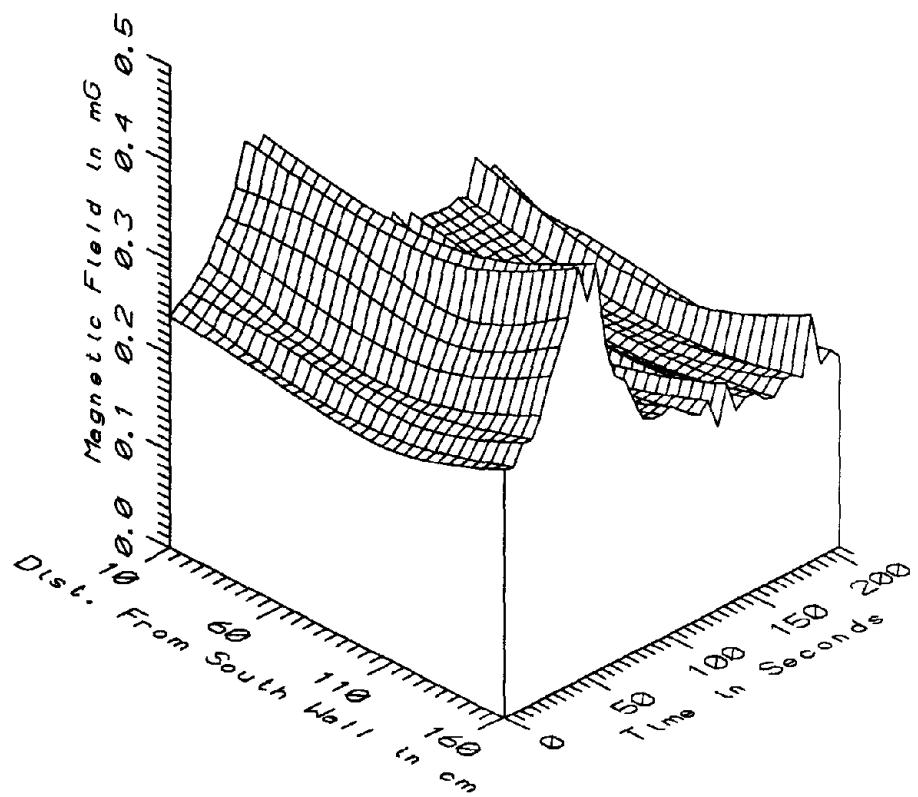
MET042 - TRACTION POWER SUPPLY STATION - LOW FREQ, 5-45Hz



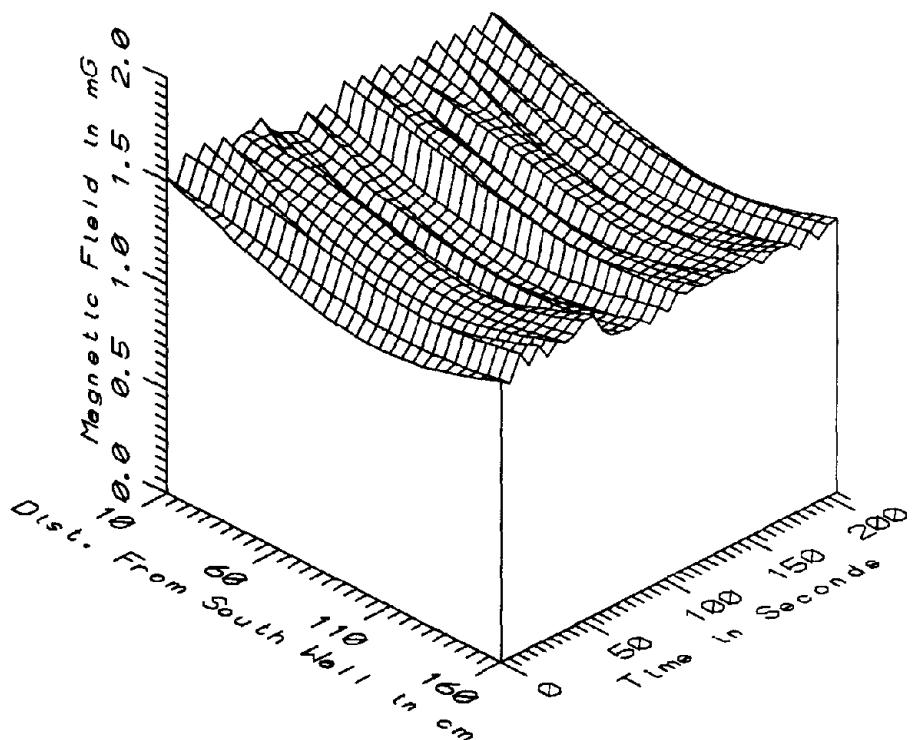
MET042 - TRACTION POWER SUPPLY STATION - POWER FREQ, 50-60Hz



MET042 - TRACTION POWER SUPPLY STATION - POWER HARM, 65-300Hz

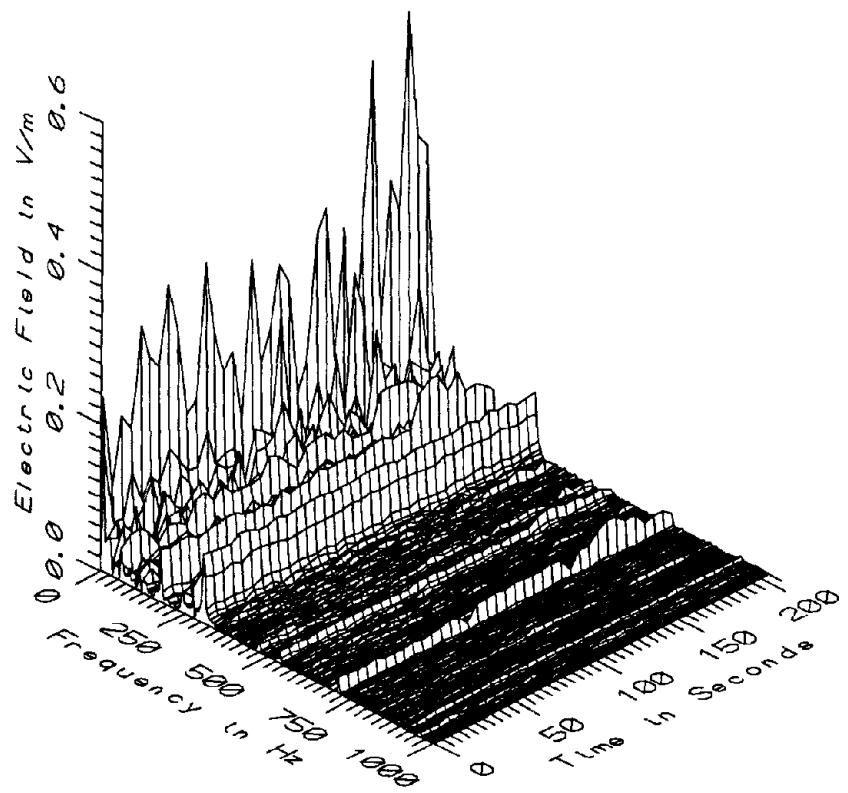


MET042 - TRACTION POWER SUPPLY STATION - HIGH FREQ, 305-2560Hz



MET042 - TRACTION POWER SUPPLY STATION - ALL FREQ, 5-2560Hz

MET042 - T.P.S.S. SOUTH OF SHADY GROVE, FROM SOUTH WALL		TOTAL OF 37 SAMPLES	
FREQUENCY BAND	DIST FROM WALL (cm)	MINIMUM MAGNETIC FIELD (mG)	MAXIMUM MAGNETIC FIELD (mG)
		AVERAGE MAGNETIC FIELD (mG)	STANDARD DEVIATION (mG)
STATIC	10	401.87	437.92
	60	431.43	470.47
	110	462.77	495.08
	160	474.40	525.21
5-45Hz LOW FREQ	10	0.33	0.64
	60	0.21	0.54
	110	0.16	0.41
	160	0.24	0.55
50-60Hz PWR FREQ	10	0.76	0.97
	60	0.70	1.05
	110	0.69	0.98
	160	0.80	0.98
65-300Hz PWR HARM	10	1.07	1.13
	60	0.82	0.94
	110	0.81	0.87
	160	0.88	0.92
305-2560Hz HIGH FREQ	10	0.19	0.38
	60	0.16	0.37
	110	0.15	0.37
	160	0.19	0.43
5-2560Hz ALL FREQ	10	1.39	1.59
	60	1.19	1.49
	110	1.13	1.38
	160	1.26	1.44



MET042 - ELECTRIC FIELD AT TRACTION POWER SUPPLY STATION

APPENDIX AM

DATASET MET043 AT SHADY GROVE TRACTION POWER SUPPLY STATION

Measurement Setup Code: Staff: 46 Reference: -
Drawing: A-7

Vehicle Status: NA

Measurement Date: May 20, 1992

Measurement Time: Start: 09:41:33
End: 09:44:53

Number of Samples: 38

Programmed Sample Interval: 5 sec

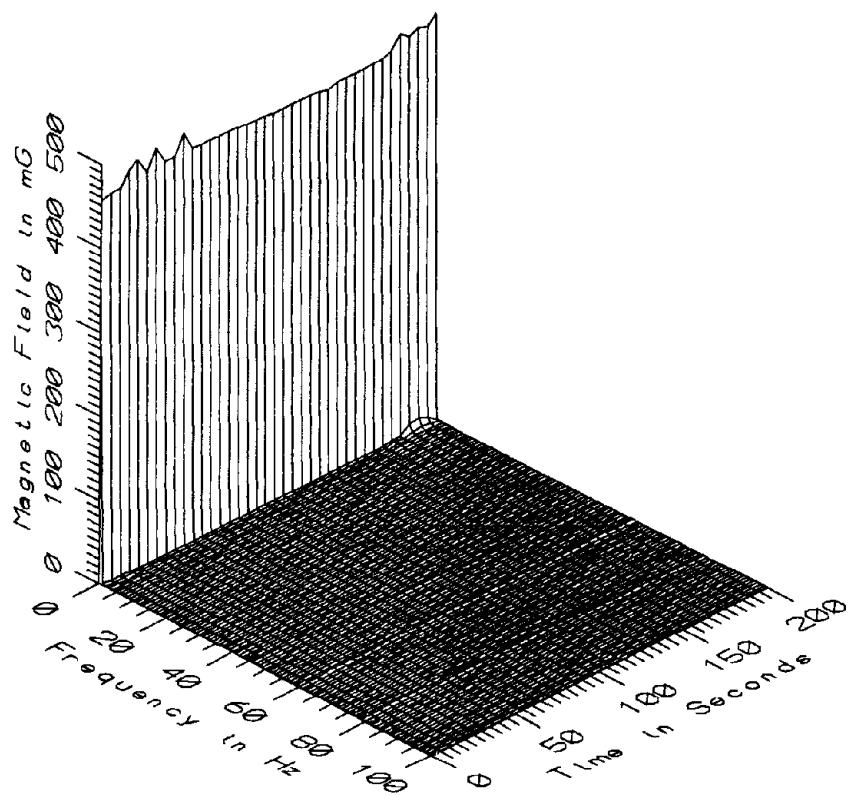
Actual Sample Interval: 5.4 sec

Frequency Spectrum Parameters

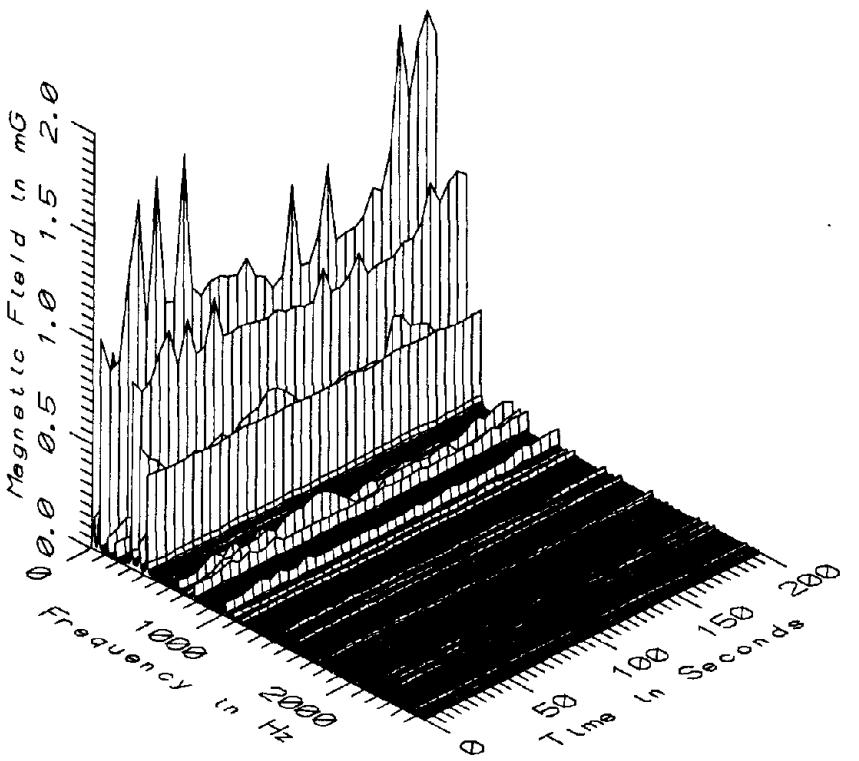
<u>Probe Type:</u>	<u>Wideband</u>	<u>Static</u>
Maximum Frequency (Hz)	2560	100
Minimum Frequency (Hz)	5	0
Spectral Bandwidth (Hz)	5	1

Missing Data: No reference probe

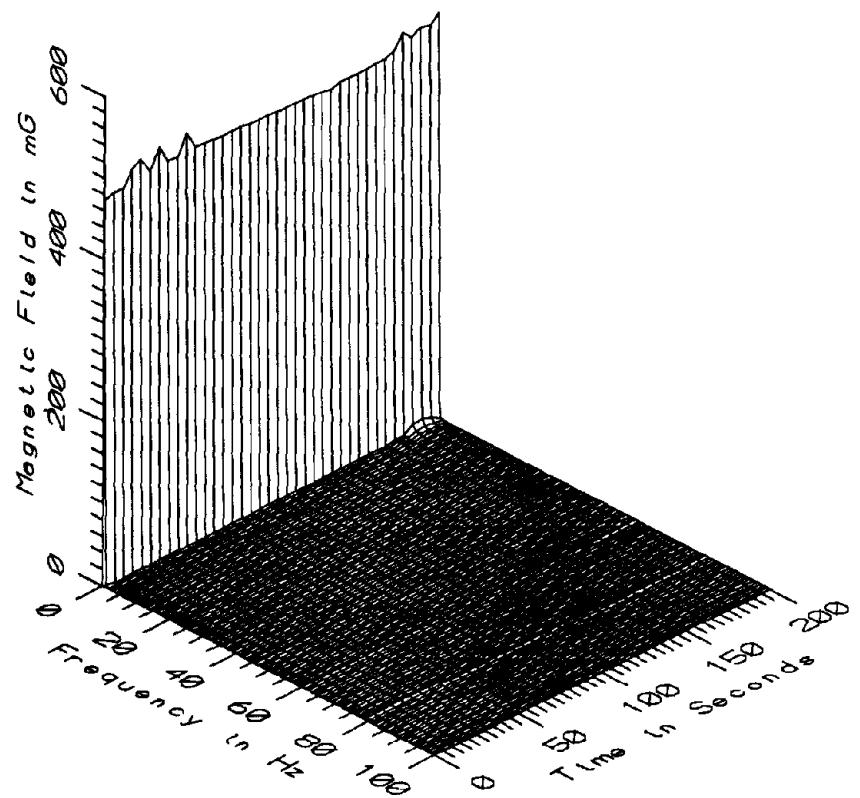
Saturated Data: None



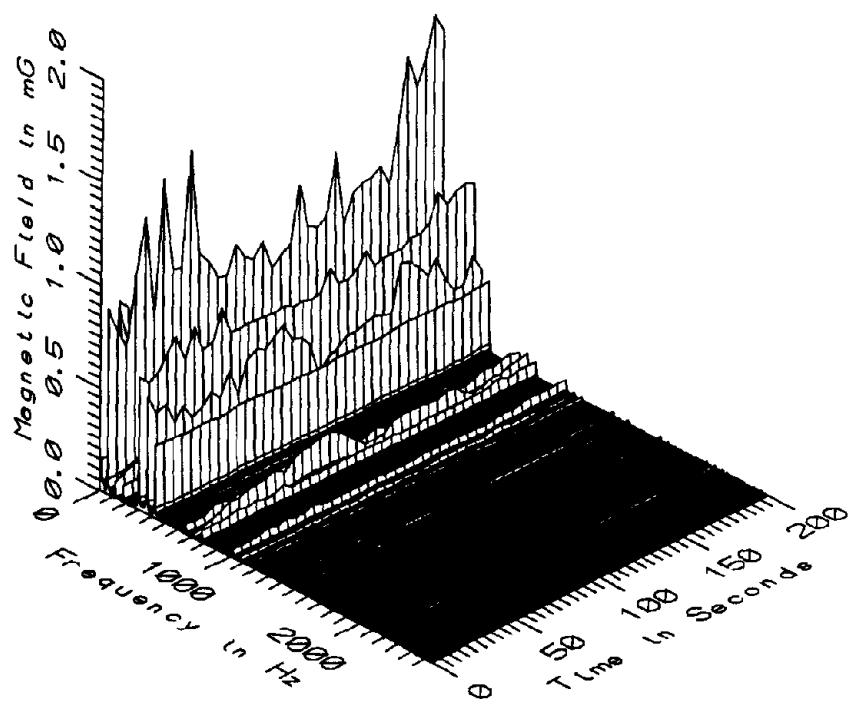
MET043 - 10cm FROM SOUTH FENCE OF TRACTION POWER SUPPLY STATION



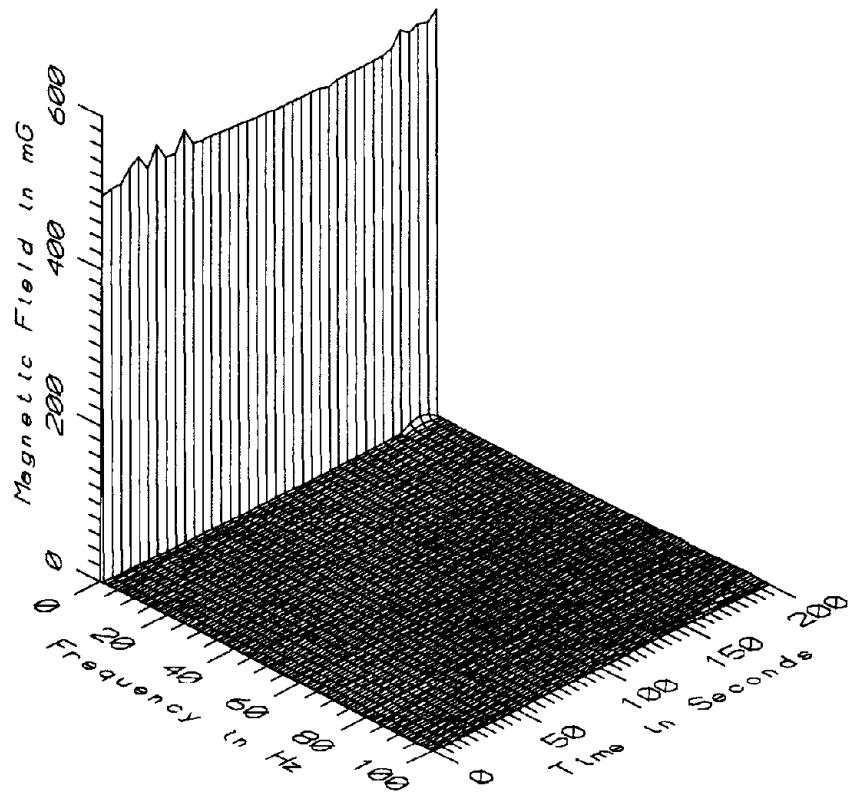
MET043 - 10cm FROM SOUTH FENCE OF TRACTION POWER SUPPLY STATION



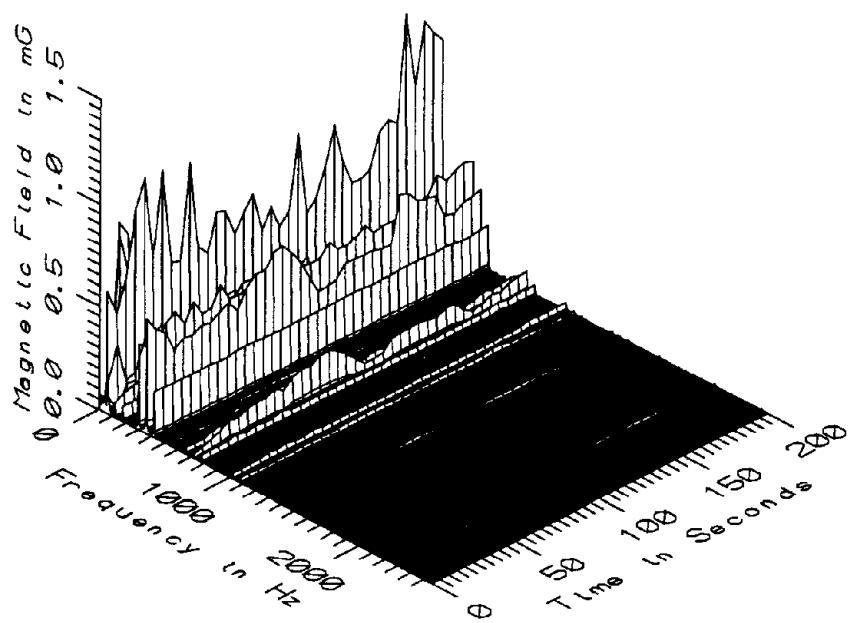
MET043 - 60cm FROM SOUTH FENCE OF TRACTION POWER SUPPLY STATION



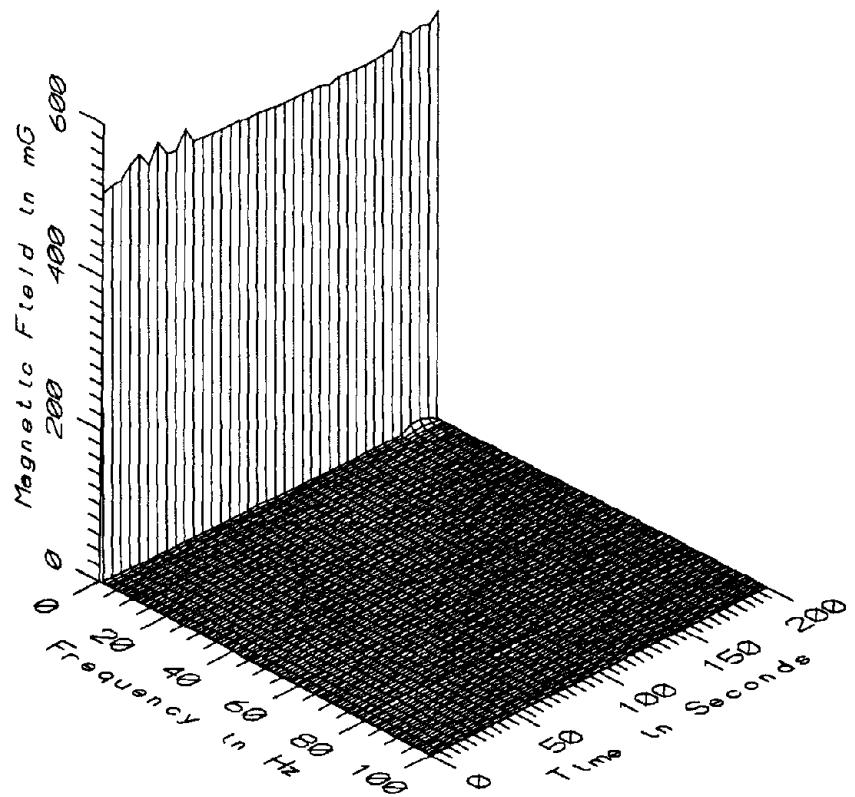
MET043 - 60cm FROM SOUTH FENCE OF TRACTION POWER SUPPLY STATION



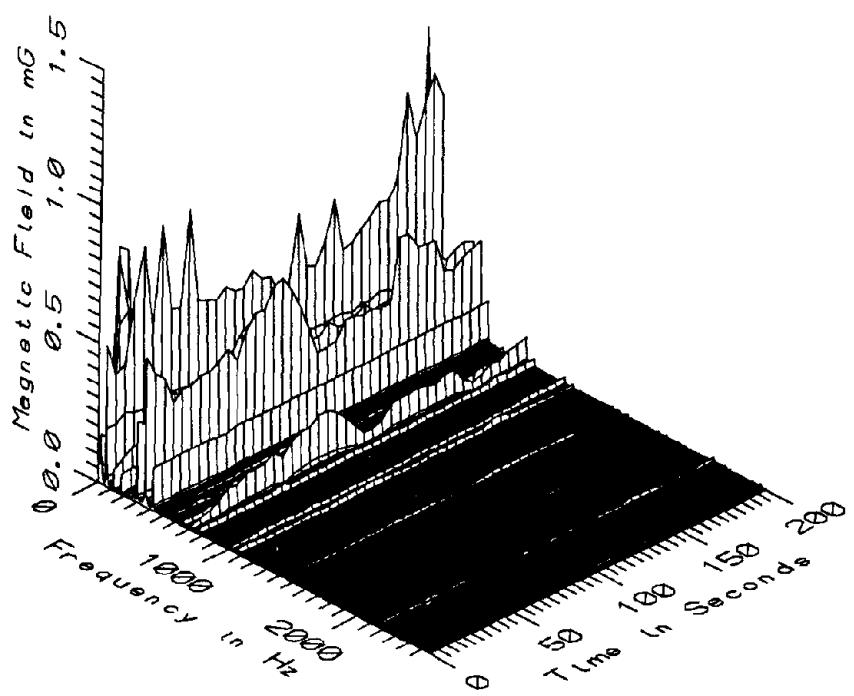
MET043 - 110cm FROM SOUTH FENCE OF TRACTION POWER SUPPLY STATION



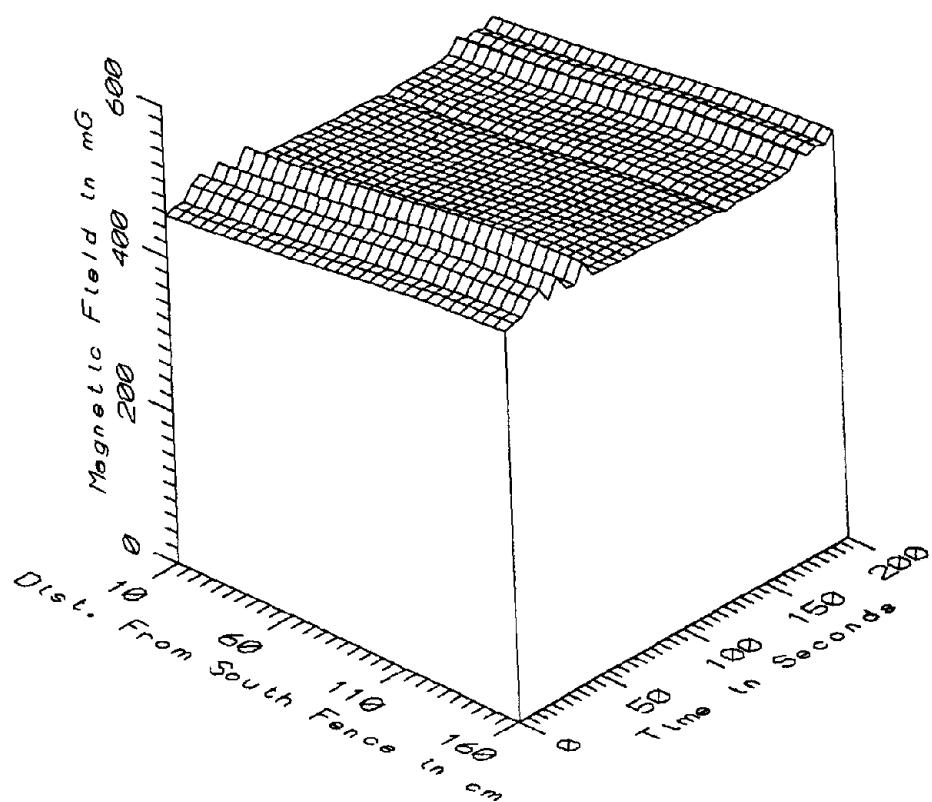
MET043 - 110cm FROM SOUTH FENCE OF TRACTION POWER SUPPLY STATION



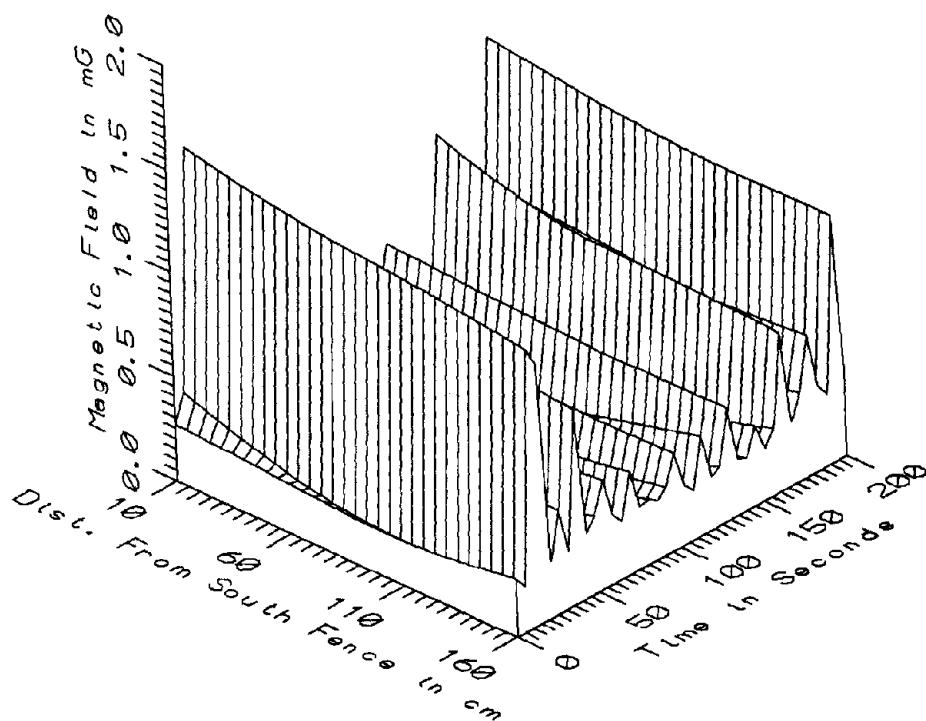
MET043 - 160cm FROM SOUTH FENCE OF TRACTION POWER SUPPLY STATION



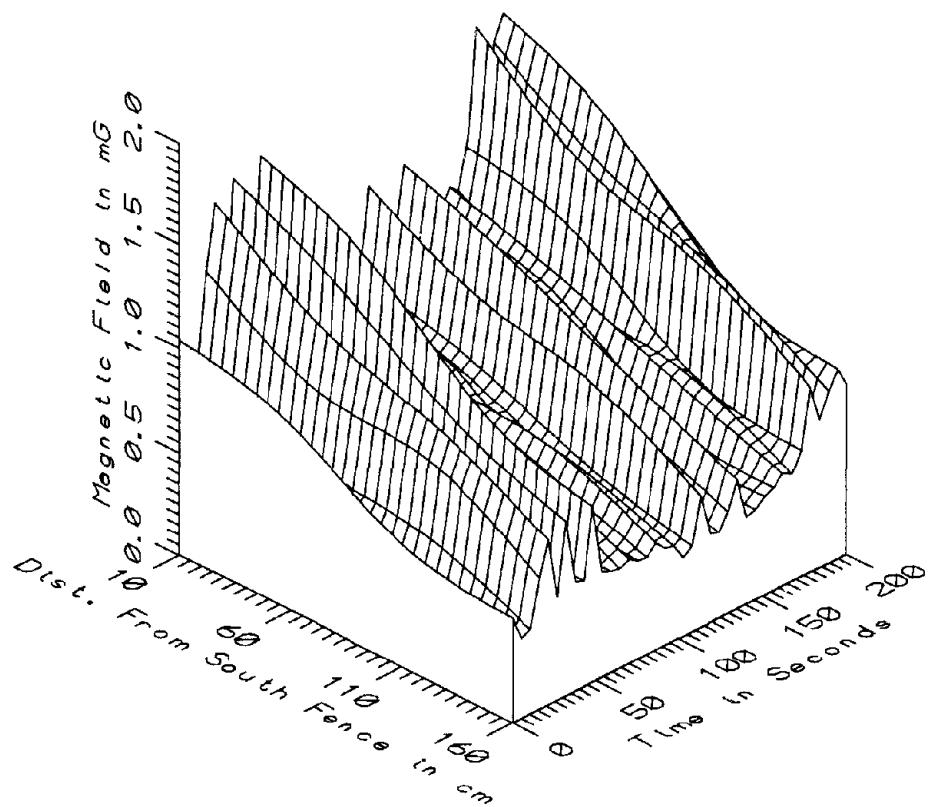
MET043 - 160cm FROM SOUTH FENCE OF TRACTION POWER SUPPLY STATION



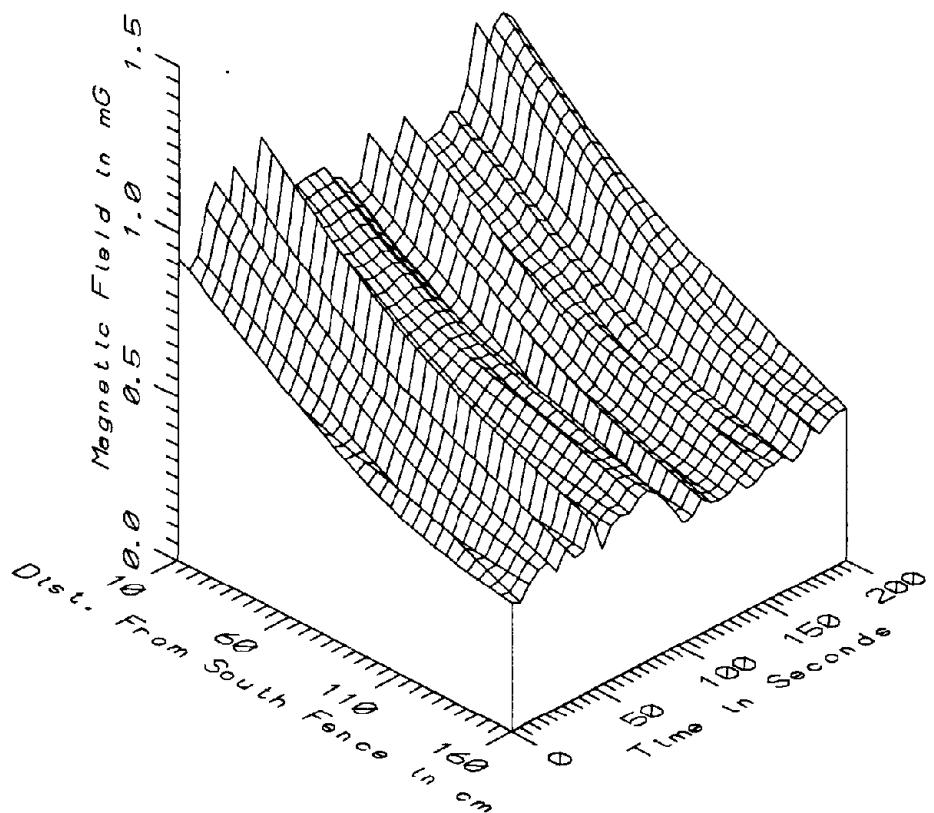
MET043 - TRACTION POWER SUPPLY STATION - STATIC



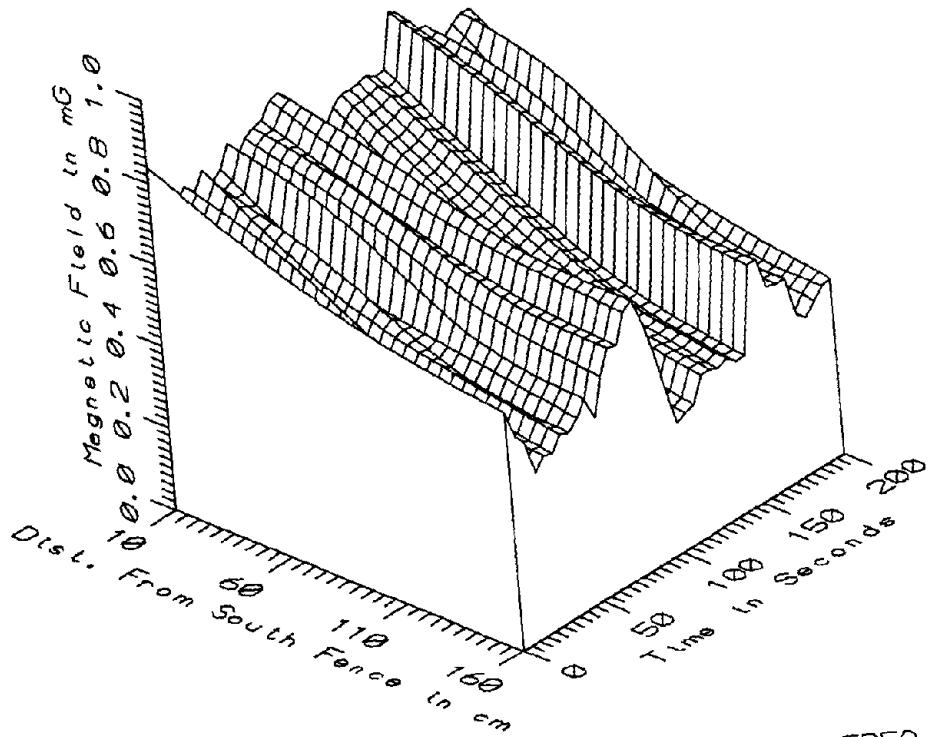
MET043 - TRACTION POWER SUPPLY STATION - LOW FREQ, 5-45Hz



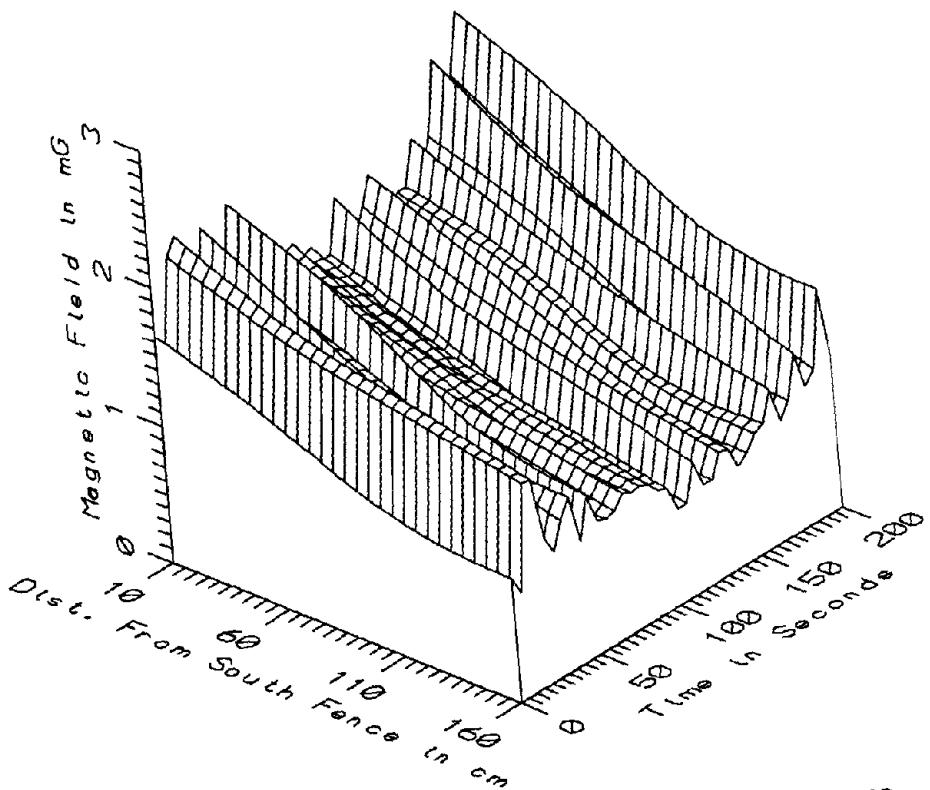
MET043 - TRACTION POWER SUPPLY STATION - POWER FREQ, 50-60Hz



MET043 - TRACTION POWER SUPPLY STATION - POWER HARM, 65-300Hz

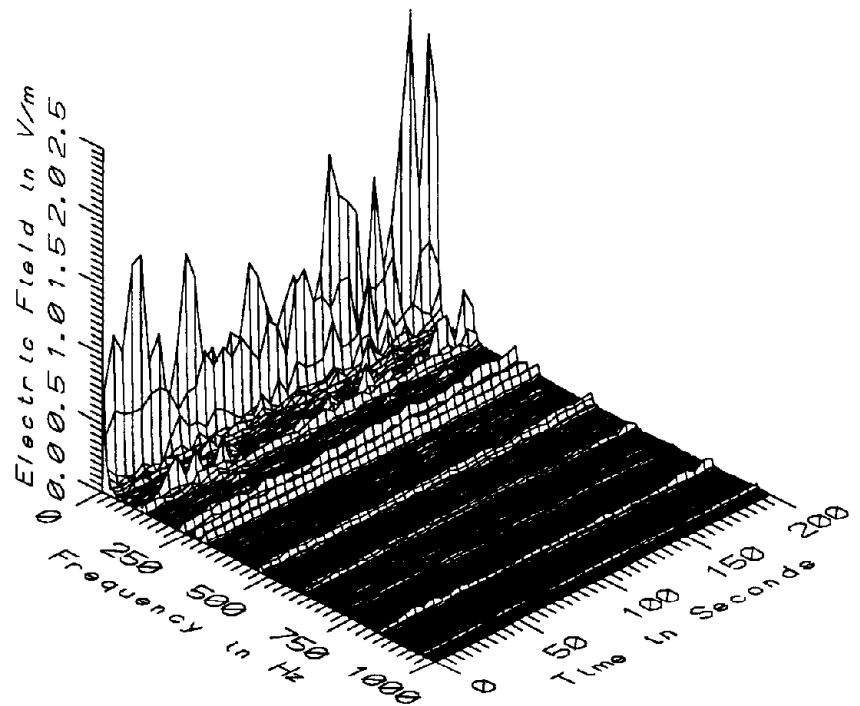


MET043 - TRACTION POWER SUPPLY STATION - HIGH FREQ, 305-2560Hz



MET043 - TRACTION POWER SUPPLY STATION - ALL FREQ, 5-2560Hz

MET043 - SHADY GROVE T.P.S.S, FROM SOUTH EDGE OF FENCE		TOTAL OF 38 SAMPLES		
FREQUENCY BAND	DIST FROM FENCE (cm)	MINIMUM MAGNETIC FIELD (mG)	MAXIMUM MAGNETIC FIELD (mG)	AVERAGE MAGNETIC FIELD (mG)
				STANDARD DEVIATION (mG)
STATIC	10	454.21	488.25	465.31
	60	469.67	505.41	481.33
	110	492.07	529.30	504.21
	160	505.80	540.88	517.57
5-45Hz	10	0.27	1.56	0.51
LOW FREQ	60	0.20	1.45	0.43
	110	0.10	1.40	0.38
	160	0.22	1.33	0.45
50-60Hz	10	0.87	1.83	1.18
PWR FREQ	60	0.69	1.55	0.98
	110	0.48	1.22	0.74
	160	0.39	0.92	0.57
65-300Hz	10	0.85	1.18	0.97
PWR HARM	60	0.63	0.86	0.73
	110	0.45	0.65	0.54
	160	0.36	0.52	0.43
305-2560Hz	10	0.67	0.85	0.75
HIGH FREQ	60	0.47	0.76	0.62
	110	0.37	0.68	0.51
	160	0.31	0.66	0.46
5-2560Hz	10	1.44	2.63	1.81
ALL FREQ	60	1.11	2.25	1.47
	110	0.82	1.75	1.15
	160	0.68	1.62	0.99



MET043 - ELECTRIC FIELD AT TRACTION POWER SUPPLY STATION

APPENDIX AN
DATASET MET044
AT SHADY GROVE TRACTION POWER SUPPLY STATION

Measurement Setup Code: Staff: 48 Reference: -
Drawing: A-7

Vehicle Status: NA

Measurement Date: May 20, 1992

Measurement Time: Start: 09:52:56
End: 09:56:56

Number of Samples: 38

Programmed Sample Interval: 5 sec

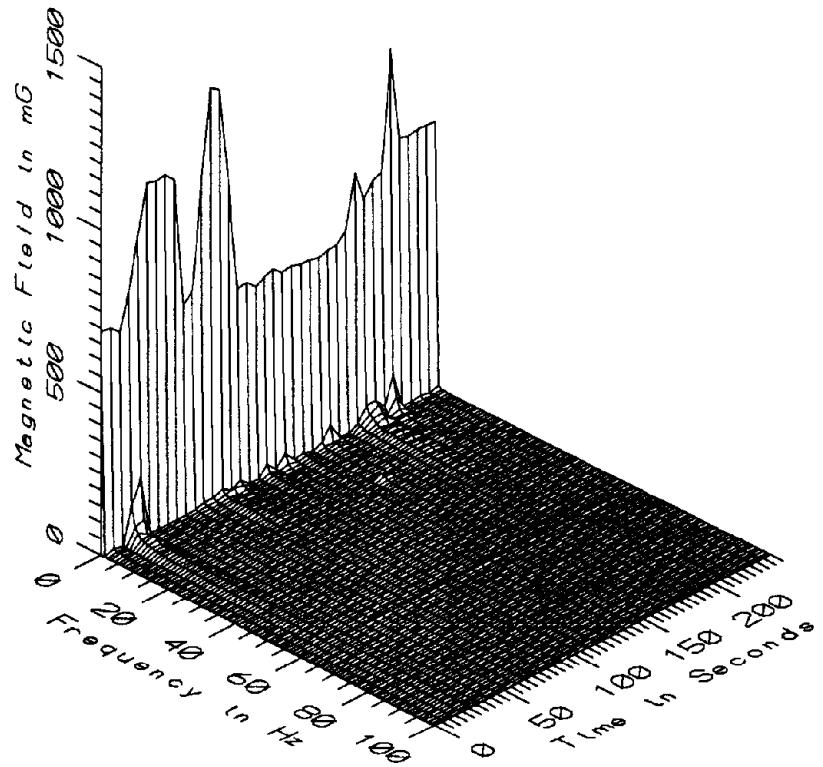
Actual Sample Interval: 6.5 sec

Frequency Spectrum Parameters

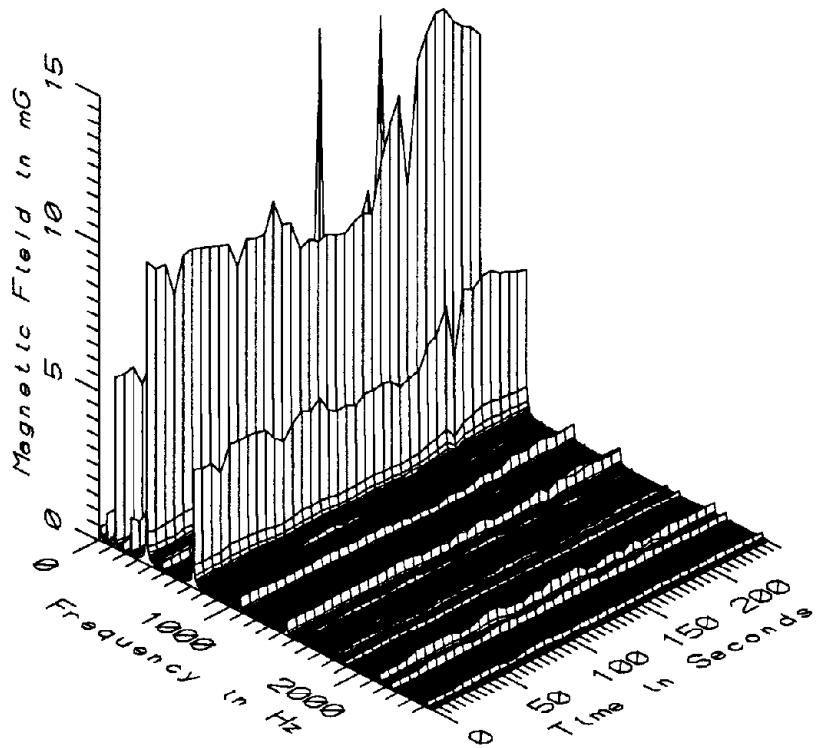
<u>Probe Type:</u>	<u>Wideband</u>	<u>Static</u>
Maximum Frequency (Hz)	2560	100
Minimum Frequency (Hz)	5	0
Spectral Bandwidth (Hz)	5	1

Missing Data: No reference probe

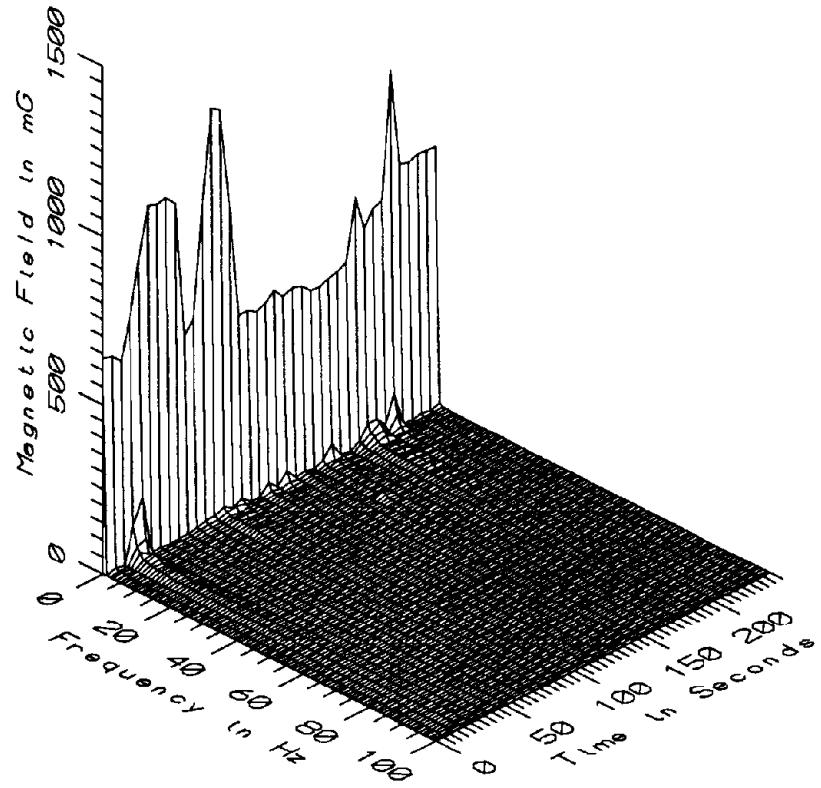
Saturated Data: None



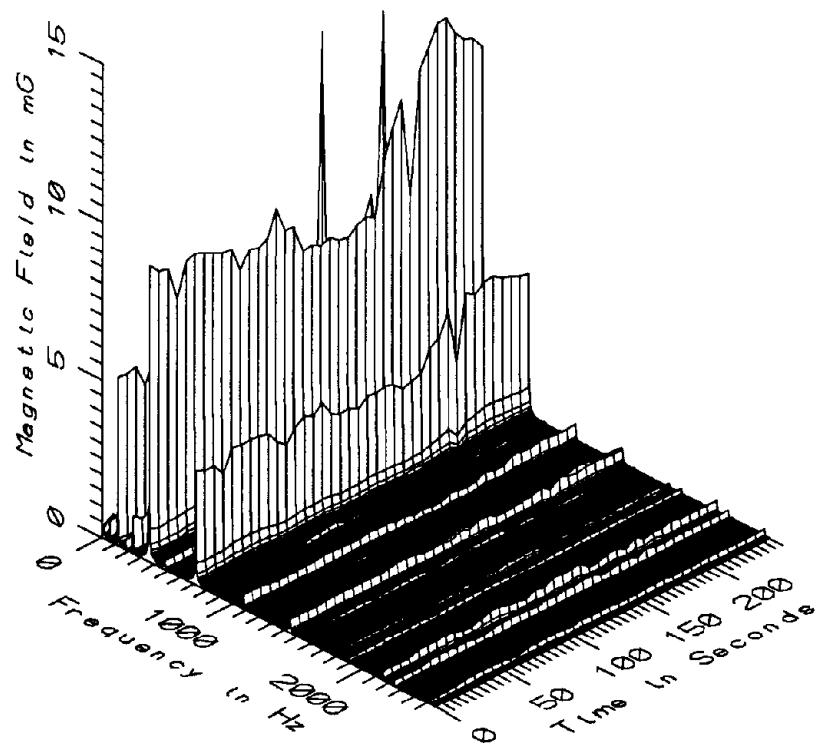
MET044 - 10cm FROM SOUTH WALL OF TRACTION POWER SUPPLY STATION



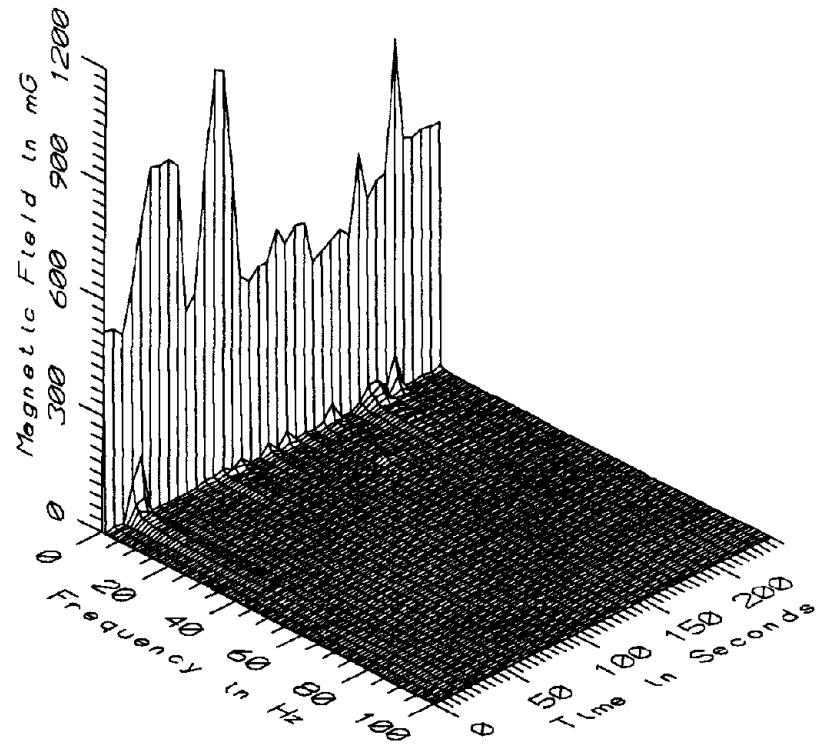
MET044 - 10cm FROM SOUTH WALL OF TRACTION POWER SUPPLY STATION



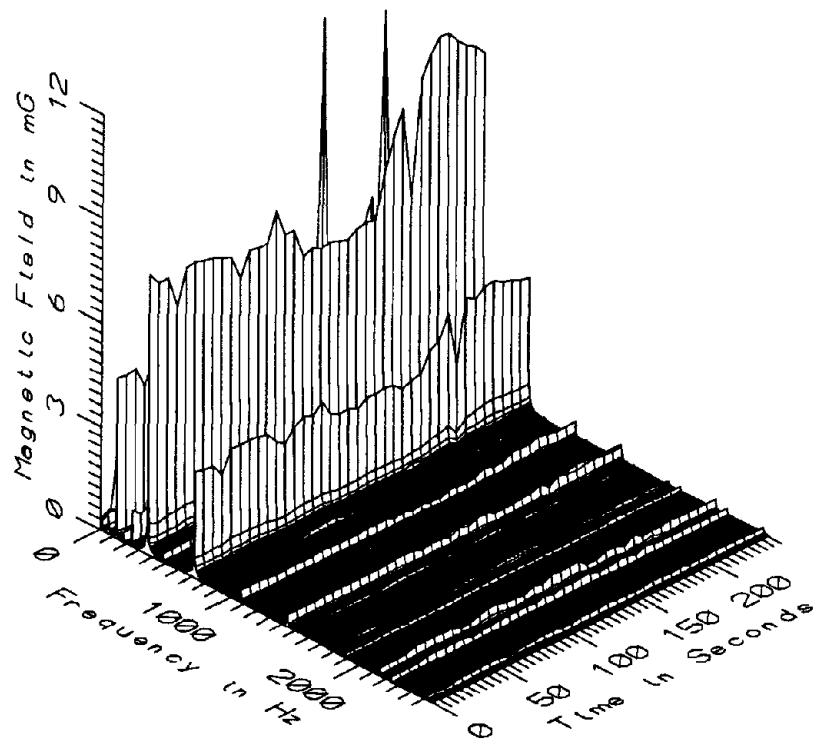
MET044 - 60cm FROM SOUTH WALL OF TRACTION POWER SUPPLY STATION



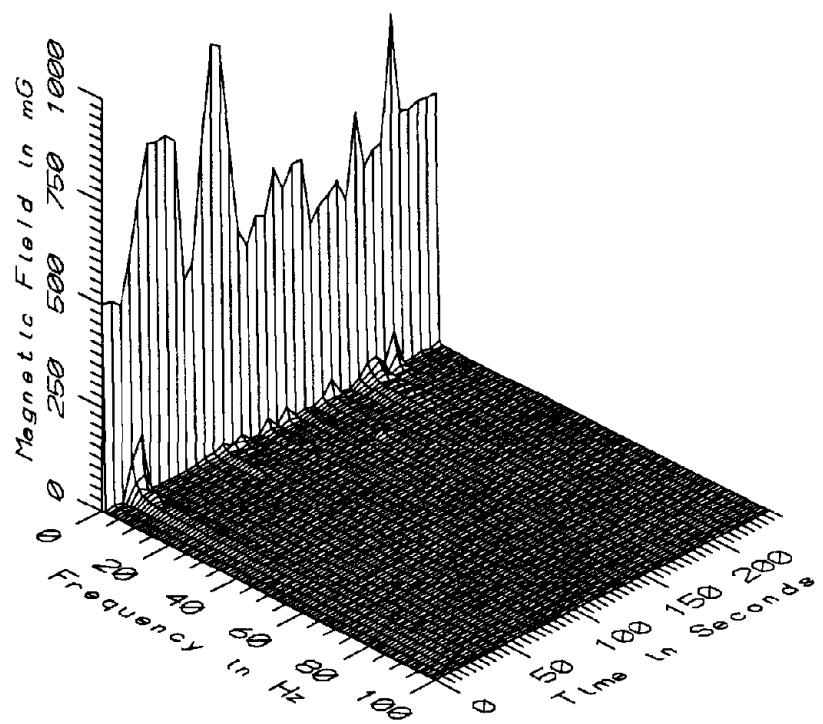
MET044 - 60cm FROM SOUTH WALL OF TRACTION POWER SUPPLY STATION



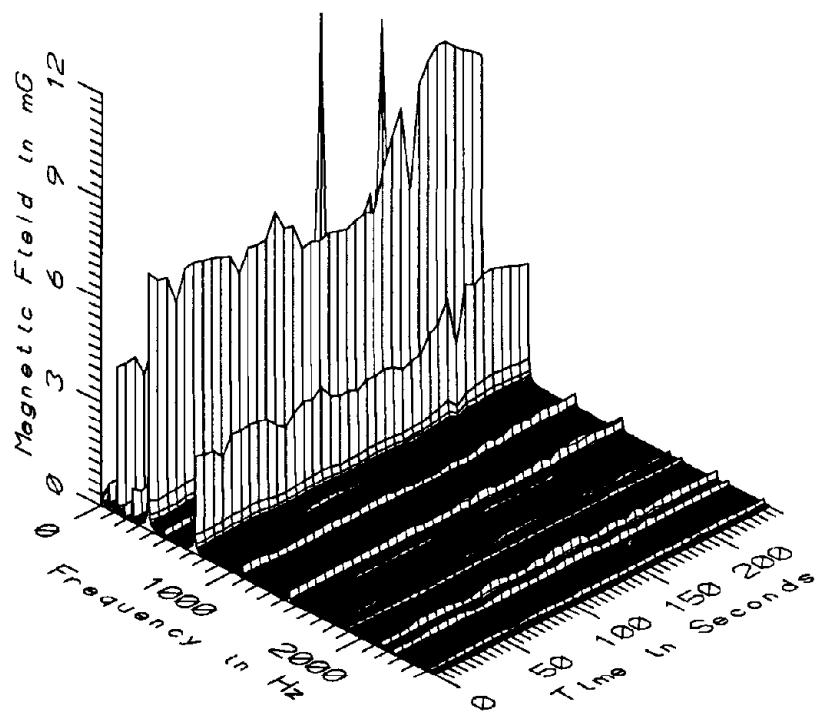
MET044 - 110cm FROM SOUTH WALL OF TRACTION POWER SUPPLY STATION



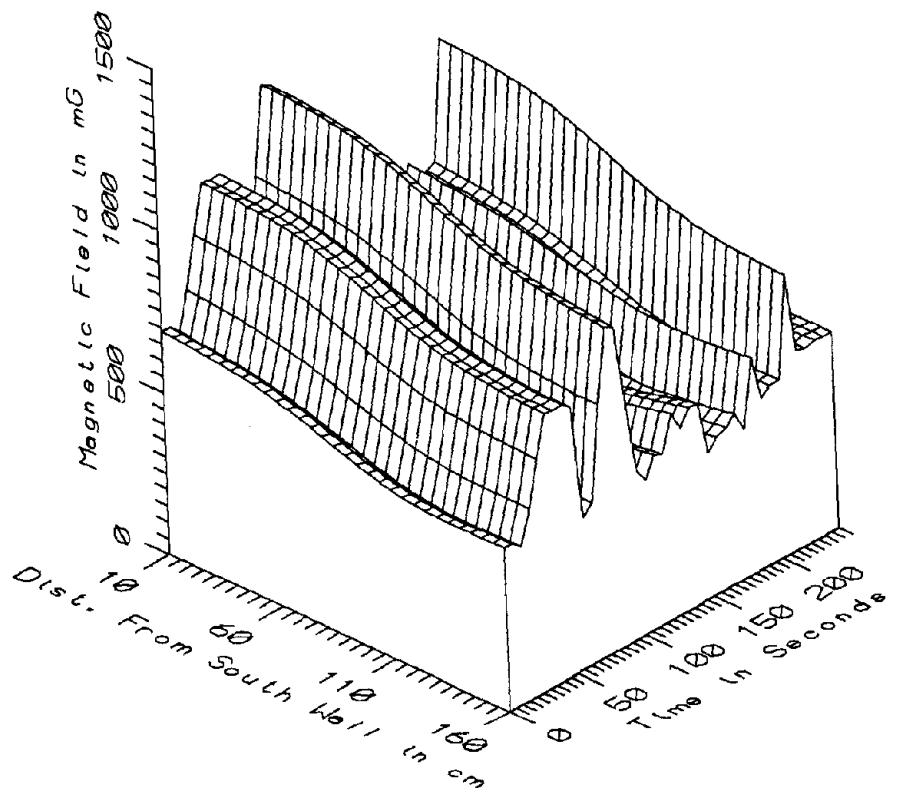
MET044 - 110cm FROM SOUTH WALL OF TRACTION POWER SUPPLY STATION



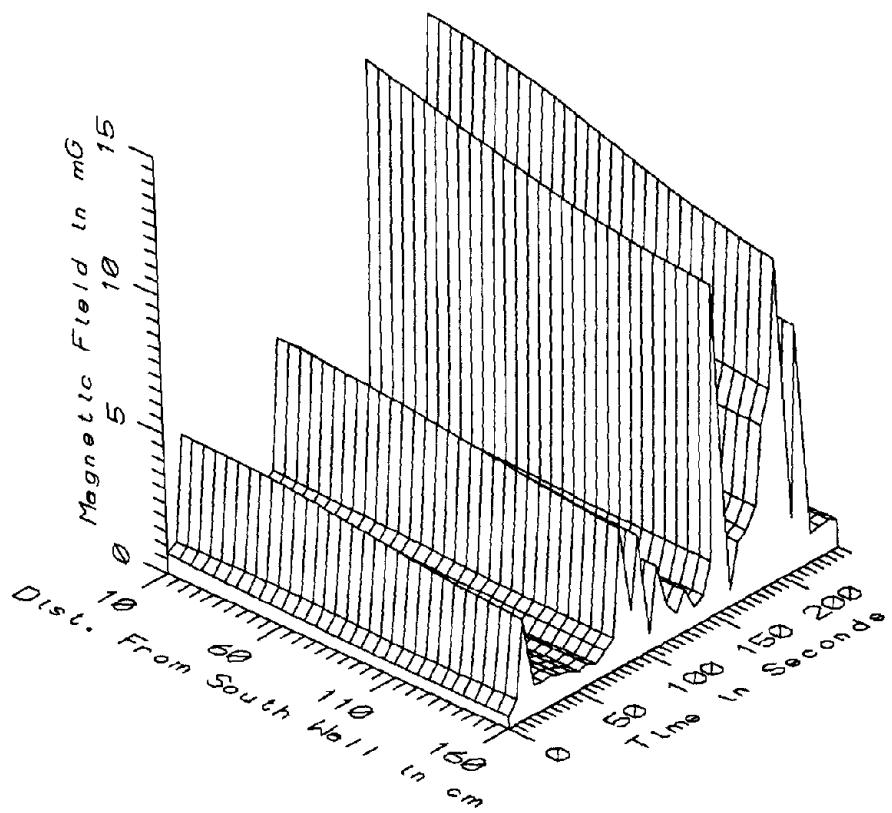
MET044 - 160cm FROM SOUTH WALL OF TRACTION POWER SUPPLY STATION



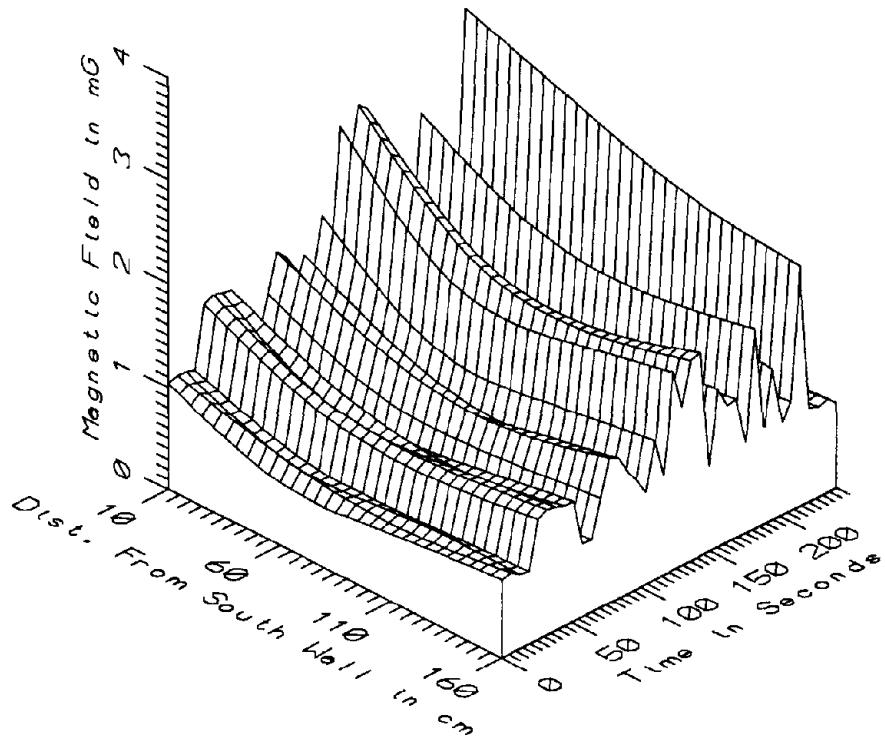
MET044 - 160cm FROM SOUTH WALL OF TRACTION POWER SUPPLY STATION



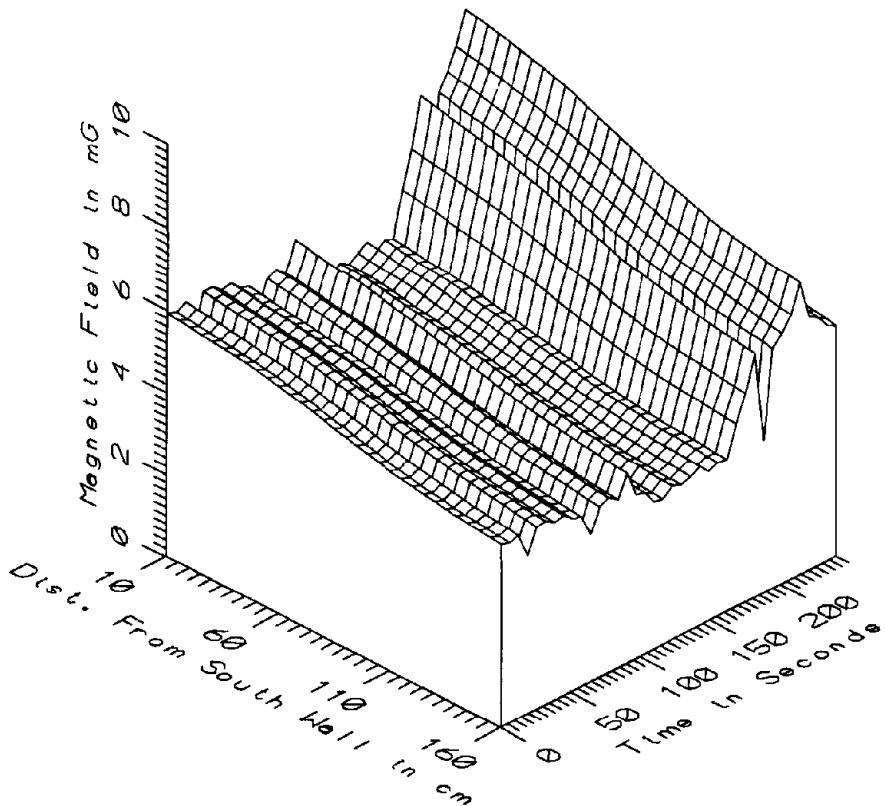
MET044 - TRACTION POWER SUPPLY STATION - STATIC



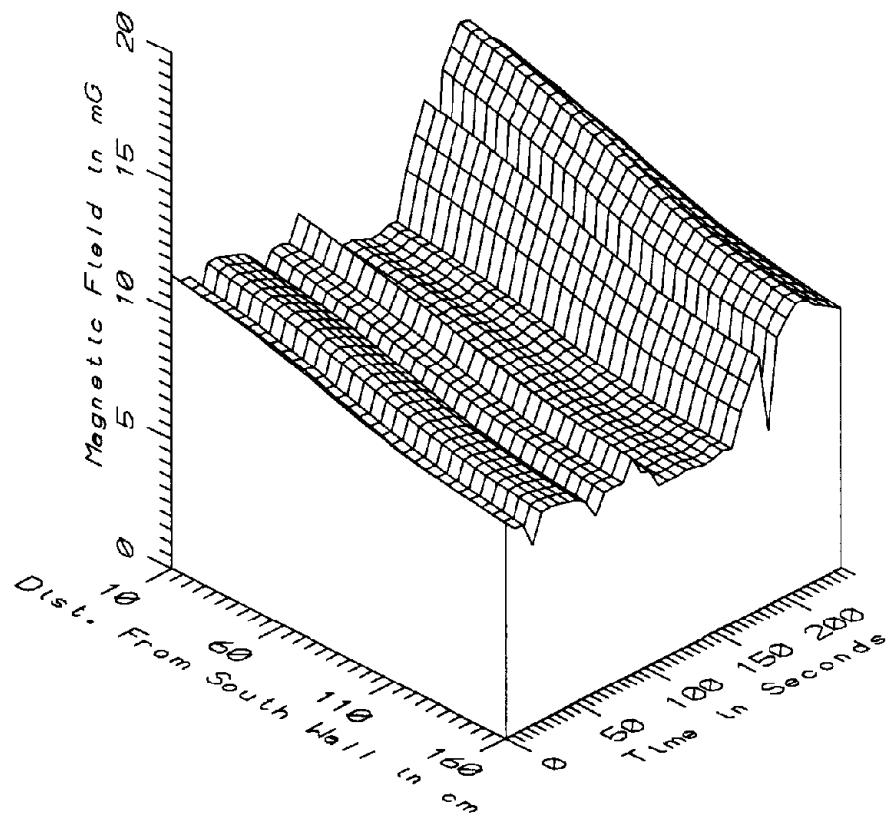
MET044 - TRACTION POWER SUPPLY STATION - LOW FREQ, 5-45Hz



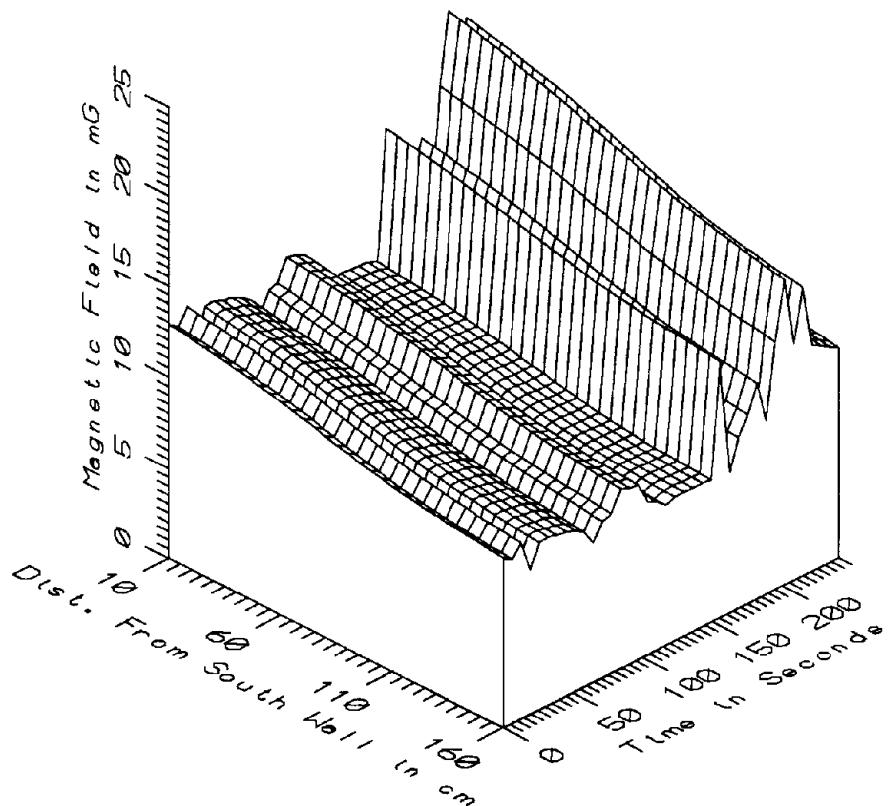
MET044 - TRACTION POWER SUPPLY STATION - POWER FREQ, 50-60Hz



MET044 - TRACTION POWER SUPPLY STATION - POWER HARM, 65-300Hz

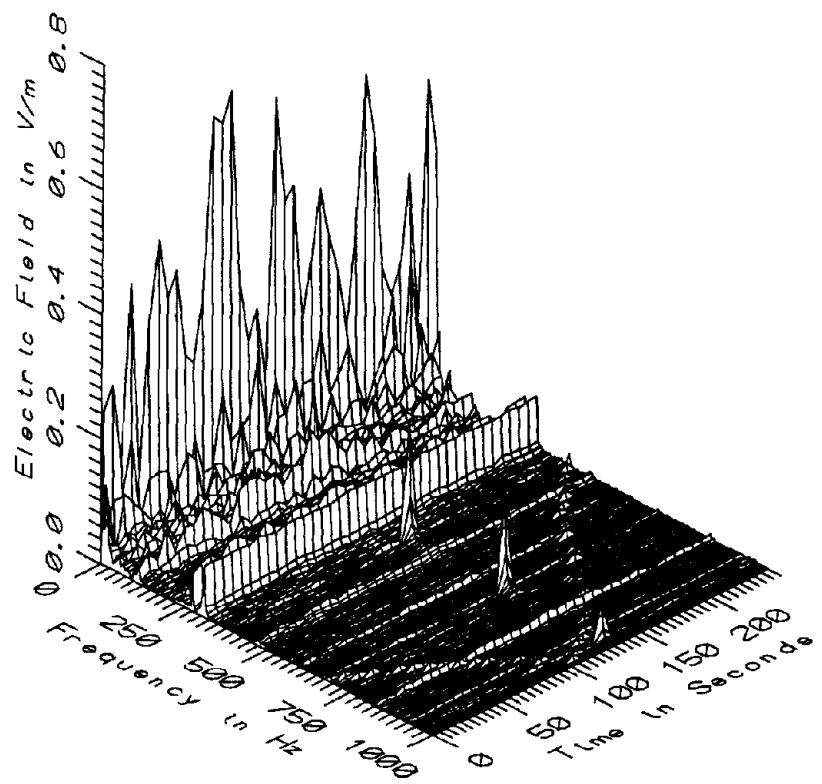


MET044 - TRACTION POWER SUPPLY STATION - HIGH FREQ, 305-2560Hz



MET044 - TRACTION POWER SUPPLY STATION - ALL FREQ, 5-2560Hz

MET044 - SHADY GROVE T.P.S.S., FROM SOUTH WALL						TOTAL OF 38 SAMPLES	
FREQUENCY BAND	DIST FROM WALL (cm)	MINIMUM MAGNETIC FIELD (mG)	MAXIMUM MAGNETIC FIELD (mG)	AVERAGE MAGNETIC FIELD (mG)	STANDARD DEVIATION (mG)	COEFFICIENT OF VARIATION (%)	
STATIC	10	578.03	1270.14	780.40	201.12	25.77	
	60	522.05	1213.19	728.07	200.85	27.59	
	110	433.06	1062.49	626.71	174.35	27.82	
	160	443.10	1000.07	617.99	150.22	24.31	
5-45Hz LOW FREQ	10	0.56	14.65	3.11	3.61	116.27	
	60	0.58	13.85	2.94	3.39	115.35	
	110	0.48	12.48	2.65	3.08	116.54	
	160	0.47	11.73	2.49	2.87	114.97	
50-60Hz PWR FREQ	10	0.95	3.21	1.64	0.54	33.16	
	60	0.62	2.82	1.13	0.44	39.23	
	110	0.64	2.47	1.08	0.39	36.64	
	160	0.70	2.34	1.19	0.41	34.80	
65-300Hz PWR HARM	10	4.78	9.61	6.14	1.32	21.54	
	60	4.40	8.87	5.66	1.22	21.54	
	110	3.83	7.72	4.95	1.07	21.63	
	160	3.50	7.08	4.52	0.98	21.66	
305-2560Hz HIGH FREQ	10	8.92	15.52	11.19	2.05	18.30	
	60	8.17	14.07	10.18	1.83	17.95	
	110	7.14	12.26	8.88	1.61	18.18	
	160	6.64	11.14	8.14	1.46	17.87	
5-2560Hz ALL FREQ	10	10.53	22.46	13.60	3.06	22.48	
	60	9.58	20.69	12.40	2.83	22.85	
	110	8.38	18.42	10.88	2.54	23.33	
	160	7.71	16.85	10.01	2.32	23.21	



MET044 - ELECTRIC FIELD AT TRACTION POWER SUPPLY STATION

APPENDIX A0

DATASET MET045 AT SHADY GROVE TRACTION POWER SUPPLY STATION

Measurement Setup Code: Staff: 50 Reference: -
Drawing: A-7

Vehicle Status: NA

Measurement Date: May 20, 1992

Measurement Time: Start: 10:00:56
End: 10:04:58

Number of Samples: 43

Programmed Sample Interval: 5 sec

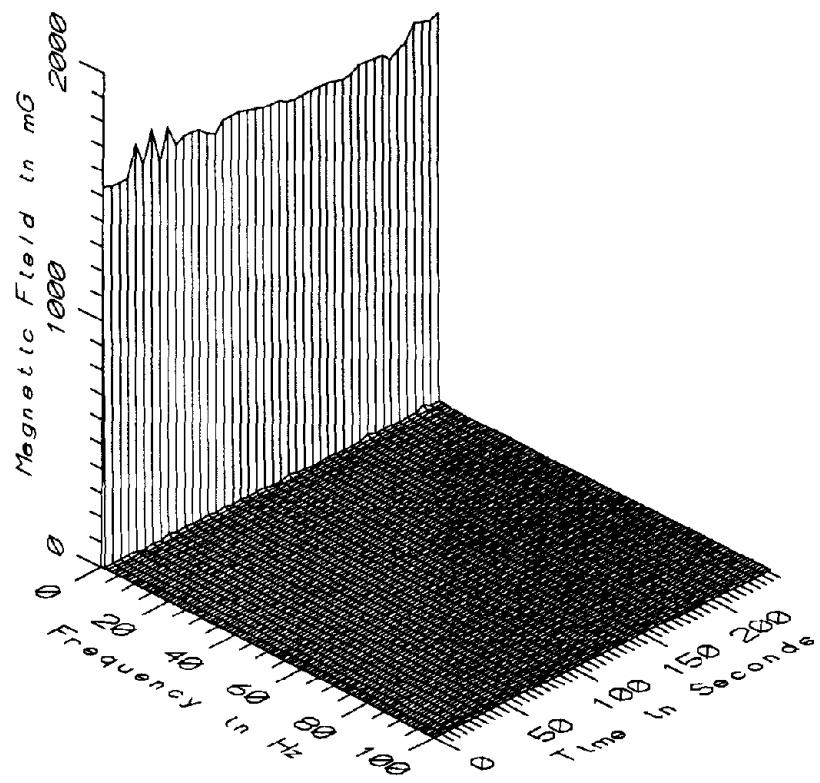
Actual Sample Interval: 5.8 sec

Frequency Spectrum Parameters

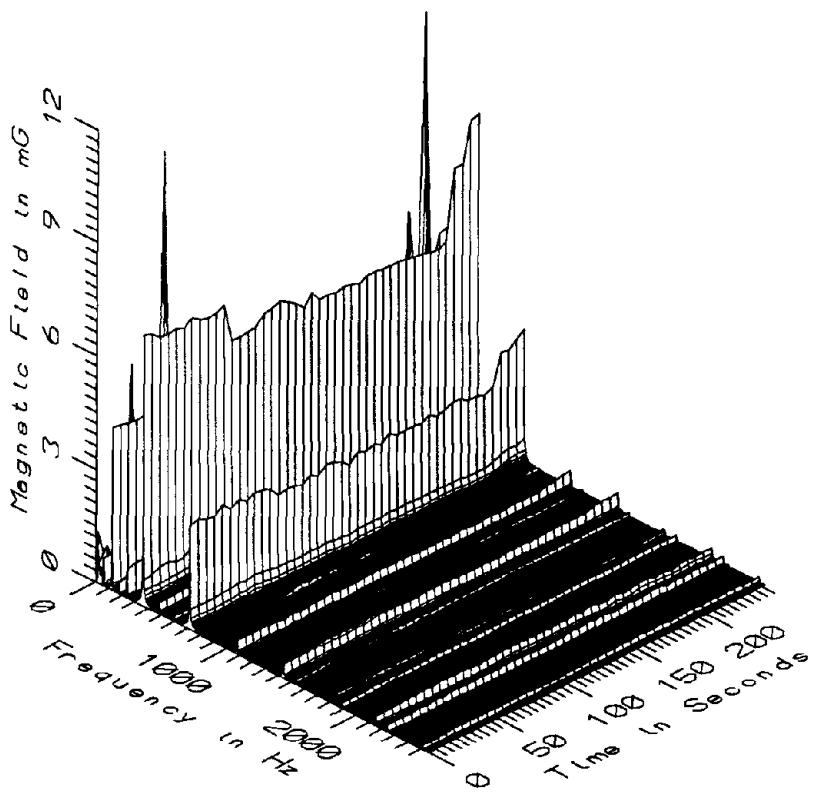
<u>Probe Type:</u>	<u>Wideband</u>	<u>Static</u>
Maximum Frequency (Hz)	2560	100
Minimum Frequency (Hz)	5	0
Spectral Bandwidth (Hz)	5	1

Missing Data: No reference probe

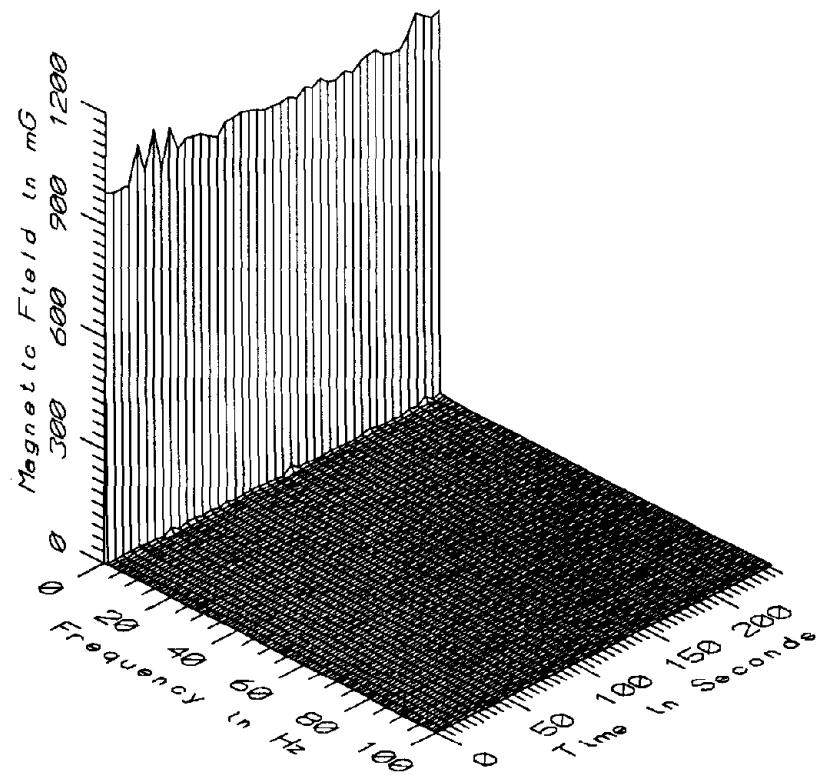
Saturated Data: None



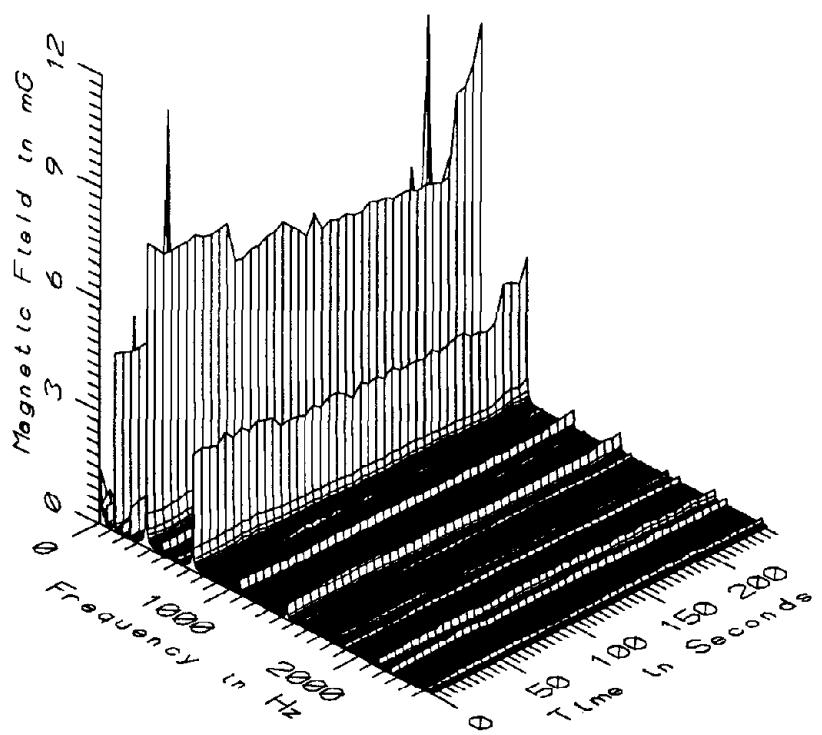
MET045 - 10cm FROM WEST WALL OF TRACTION POWER SUPPLY STATION



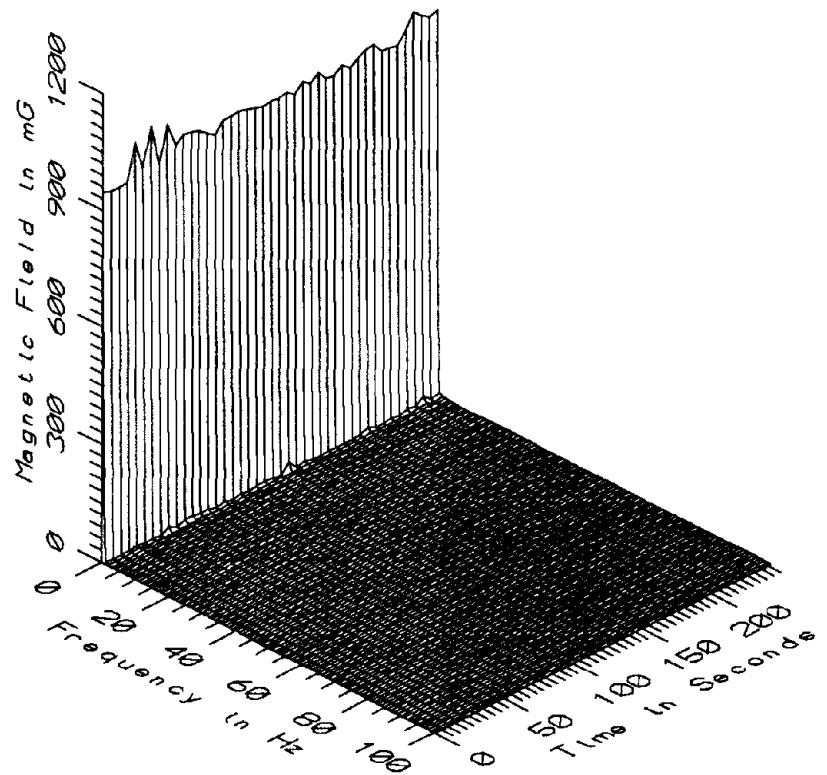
MET045 - 10cm FROM WEST WALL OF TRACTION POWER SUPPLY STATION



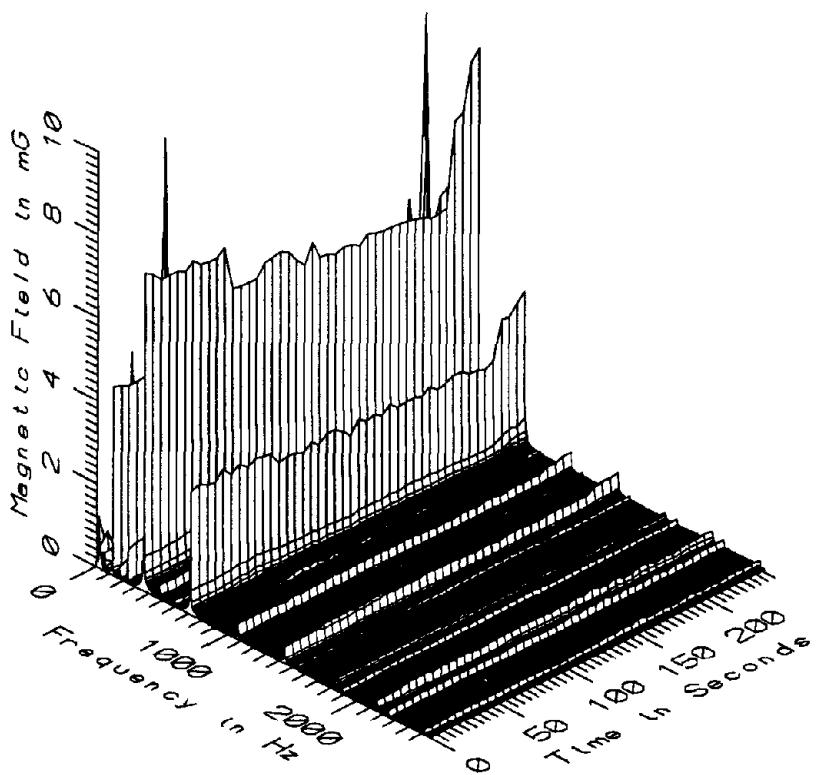
MET045 - 60cm FROM WEST WALL OF TRACTION POWER SUPPLY STATION



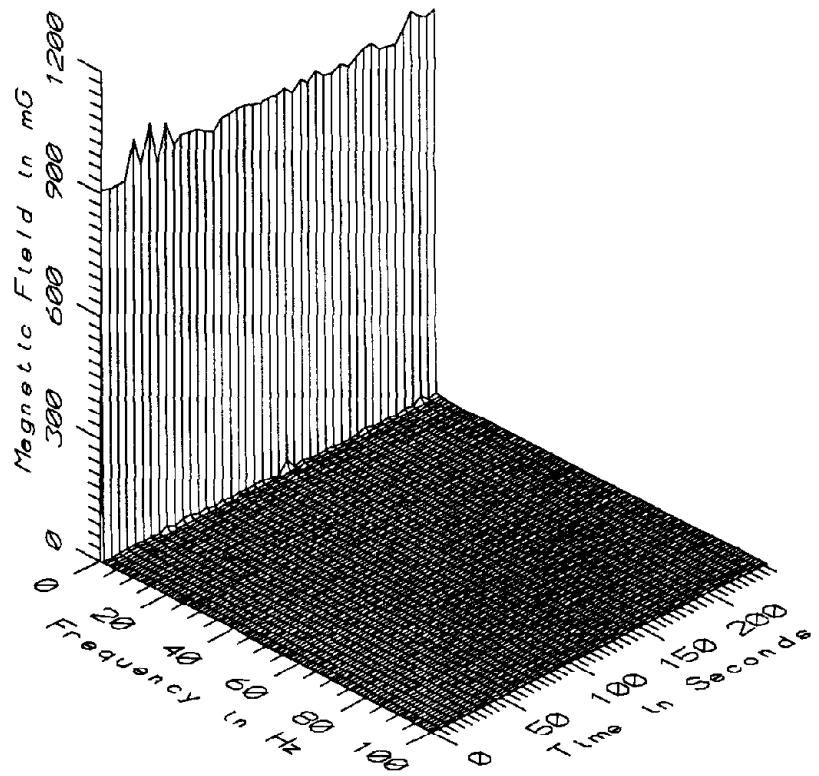
MET045 - 60cm FROM WEST WALL OF TRACTION POWER SUPPLY STATION



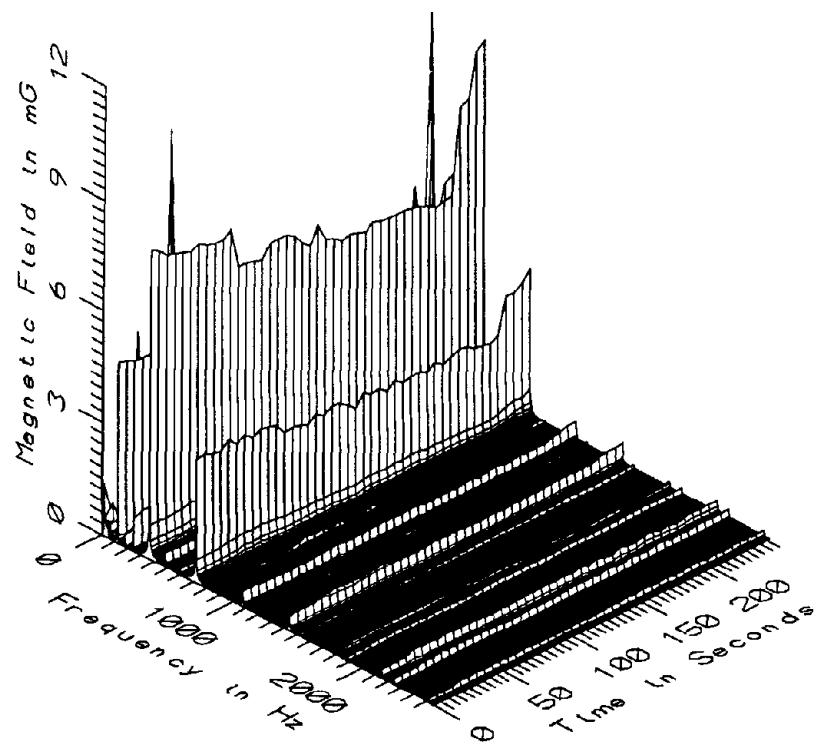
MET045 - 110cm FROM WEST WALL OF TRACTION POWER SUPPLY STATION



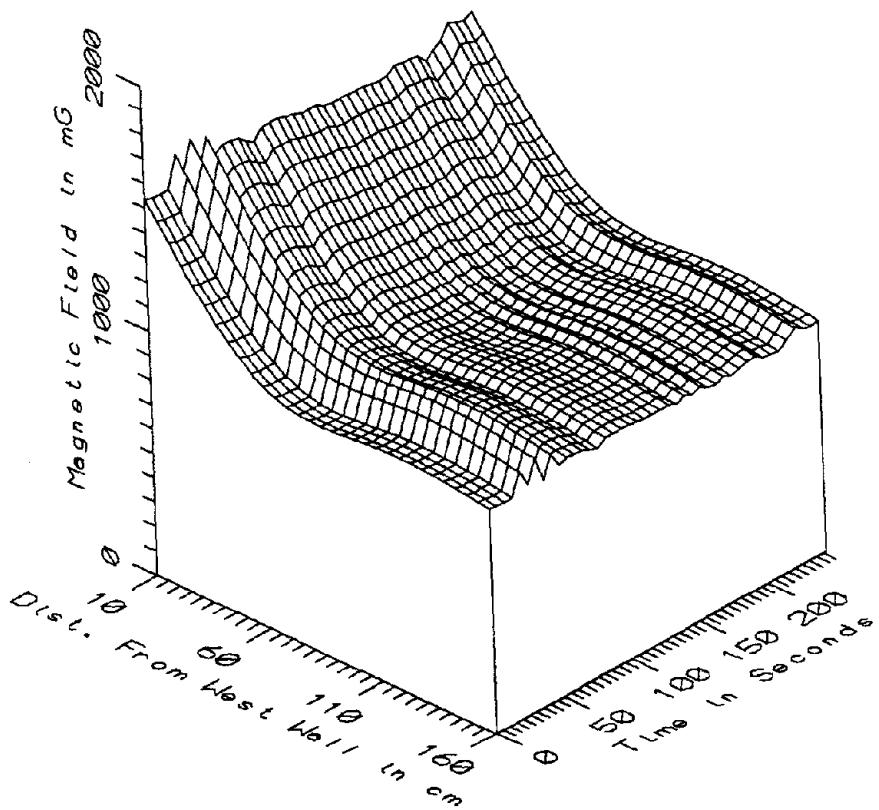
MET045 - 110cm FROM WEST WALL OF TRACTION POWER SUPPLY STATION



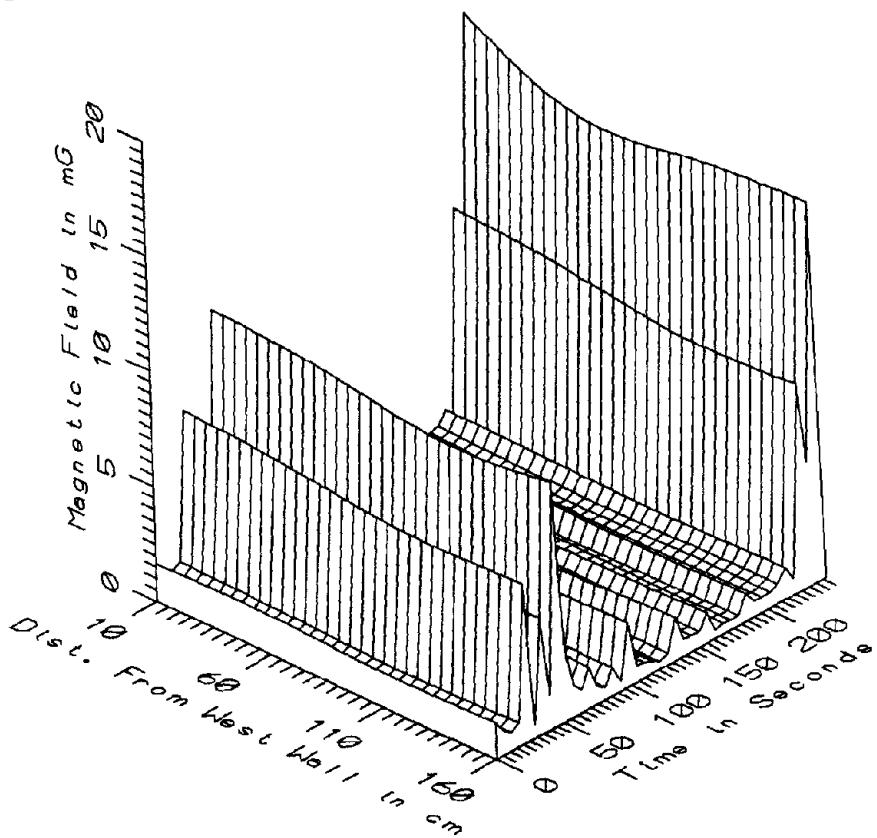
MET045 - 160cm FROM WEST WALL OF TRACTION POWER SUPPLY STATION



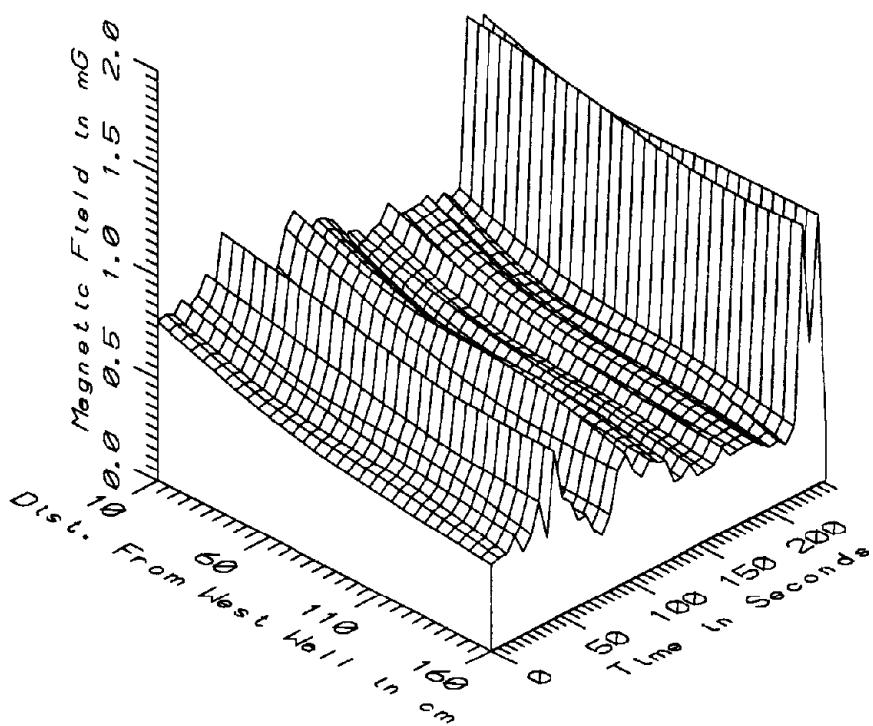
MET045 - 160cm FROM WEST WALL OF TRACTION POWER SUPPLY STATION



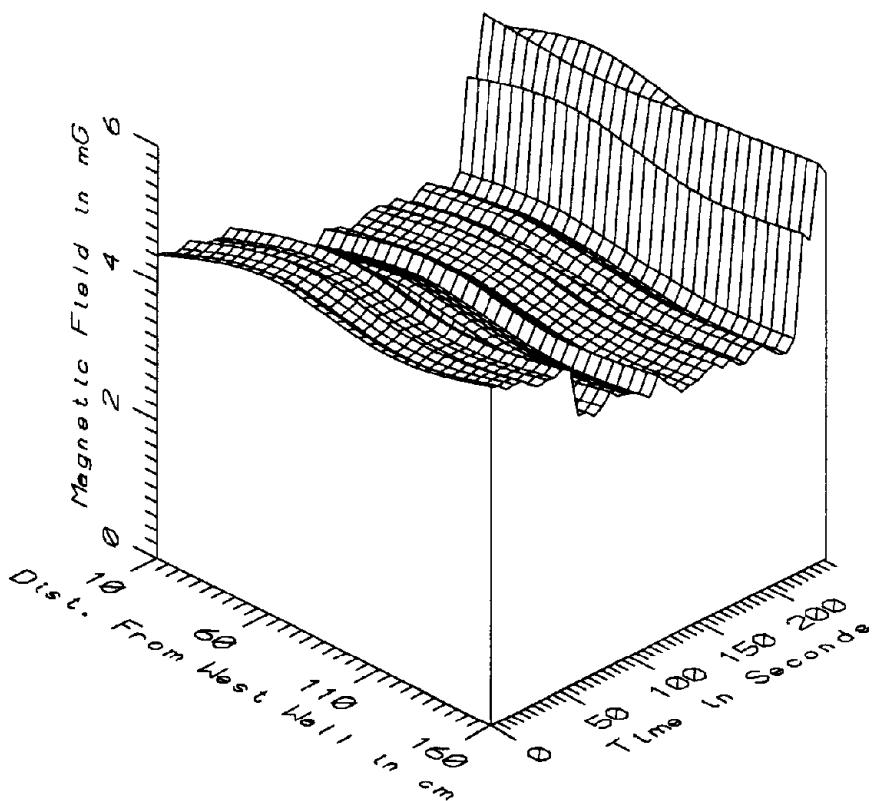
MET045 - TRACTION POWER SUPPLY STATION - STATIC



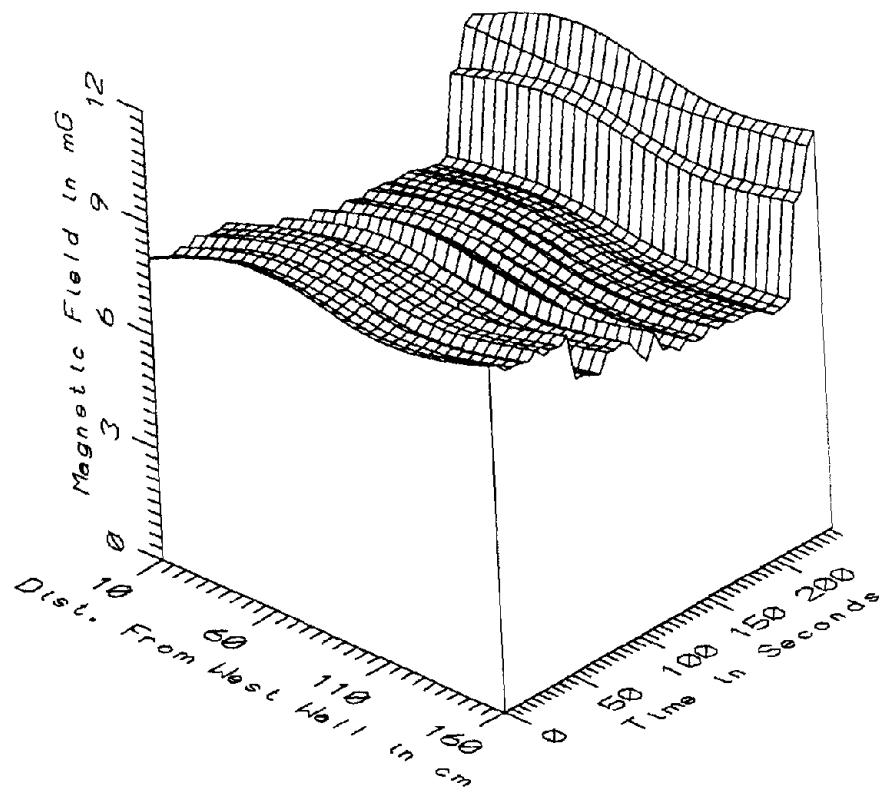
MET045 - TRACTION POWER SUPPLY STATION - LOW FREQ, 5-45Hz



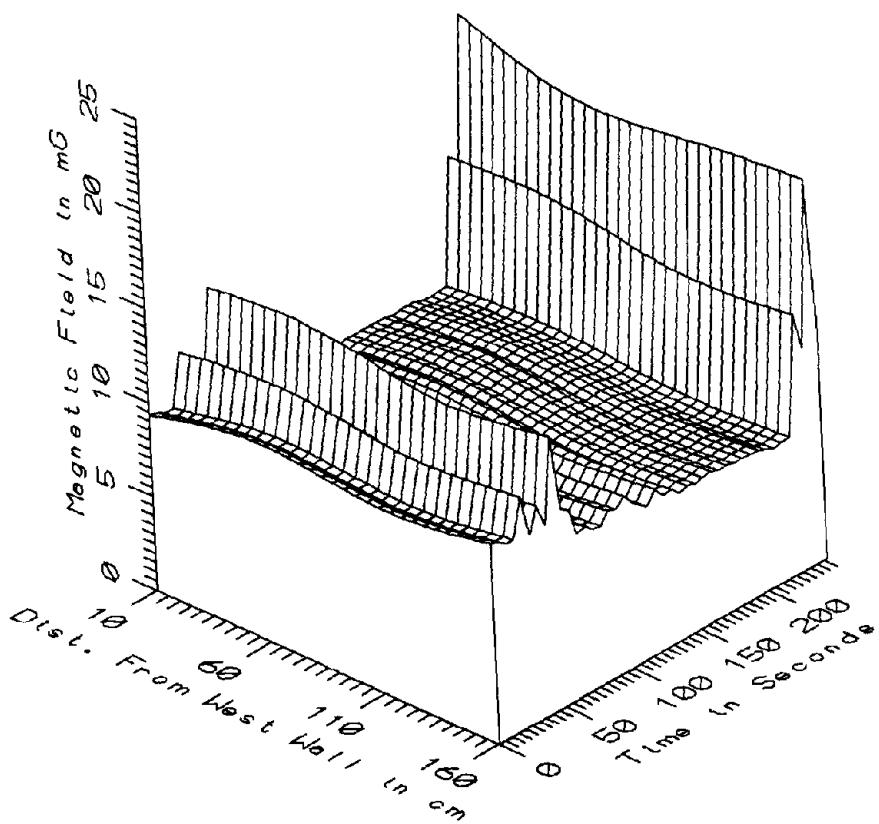
MET045 - TRACTION POWER SUPPLY STATION - POWER FREQ, 50-60Hz



MET045 - TRACTION POWER SUPPLY STATION - POWER HARM, 65-300Hz

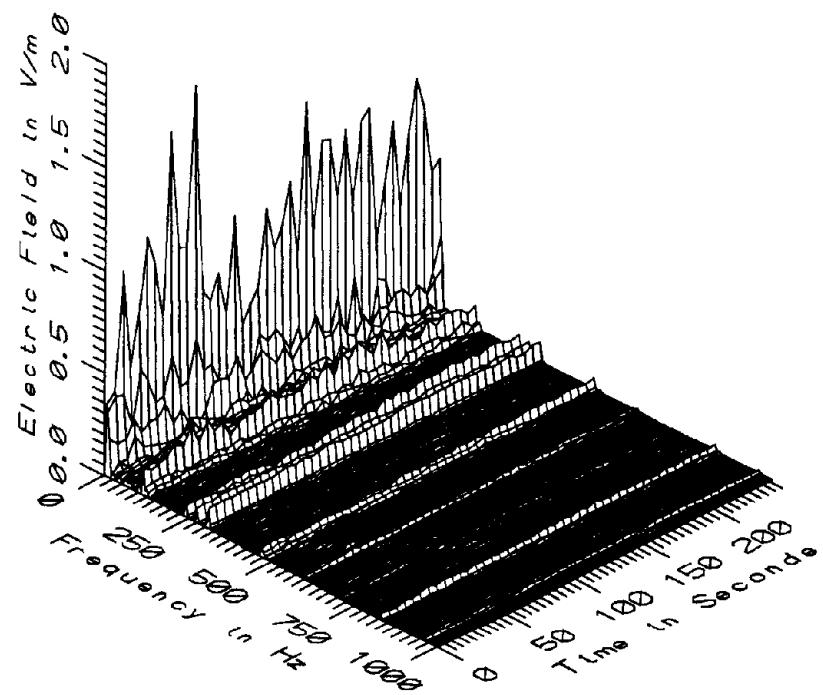


MET045 - TRACTION POWER SUPPLY STATION - HIGH FREQ, 305-2560Hz



MET045 - TRACTION POWER SUPPLY STATION - ALL FREQ, 5-2560Hz

MET045 - SHADY GROVE T.P.S.S, FROM WEST WALL		TOTAL OF 43 SAMPLES			
FREQUENCY BAND	DIST FROM WALL (cm)	MINIMUM MAGNETIC FIELD (mG)	MAXIMUM MAGNETIC FIELD (mG)	AVERAGE MAGNETIC FIELD (mG)	STANDARD DEVIATION OF VARIATION (%)
STATIC	10	1473.28	1675.71	1541.76	42.20
	60	973.29	1093.30	1005.66	27.55
	110	939.32	1054.16	971.62	25.26
	160	901.08	1012.87	931.88	24.09
5-45Hz	10	0.34	17.90	2.16	3.47
	60	0.32	15.71	2.02	3.18
	110	0.25	16.10	1.99	3.11
	160	0.35	16.50	2.08	3.19
LOW FREQ	10	0.65	1.51	0.82	0.18
	60	0.42	1.42	0.62	0.20
	110	0.35	1.31	0.55	0.20
	160	0.28	1.32	0.47	0.22
50-60Hz	10	3.22	5.54	3.82	0.55
	60	3.39	5.75	4.11	0.60
	110	3.18	5.62	3.90	0.61
	160	3.27	5.80	4.07	0.65
65-300Hz	10	6.21	9.65	7.13	0.85
	60	6.57	10.73	7.78	0.96
	110	6.20	10.15	7.39	0.98
	160	6.43	10.57	7.80	1.09
PWR HARM	10	7.16	21.07	8.79	2.56
	60	7.52	19.22	9.38	2.30
	110	7.07	19.73	8.91	2.35
	160	7.30	20.34	9.37	2.44
HIGH FREQ	10	7.16	21.07	8.79	2.56
	60	7.52	19.22	9.38	2.30
	110	7.07	19.73	8.91	2.35
	160	7.30	20.34	9.37	2.44
ALL FREQ	10	7.16	21.07	8.79	2.56
	60	7.52	19.22	9.38	2.30
	110	7.07	19.73	8.91	2.35
	160	7.30	20.34	9.37	2.44



MET045 - ELECTRIC FIELD AT TRACTION POWER SUPPLY STATION

APPENDIX AP

**DATASET MET046
SHADY GROVE DISPATCHER'S ROOM, AT DISPATCHER'S CHAIR**

Measurement Setup Code: Staff: 52 Reference: -
 Drawing: A-8

Vehicle Status: NA

Measurement Date: May 20, 1992

Measurement Time: Start: 11:10:47
 End: 11:12:16

Number of Samples: 19

Programmed Sample Interval: 5 sec

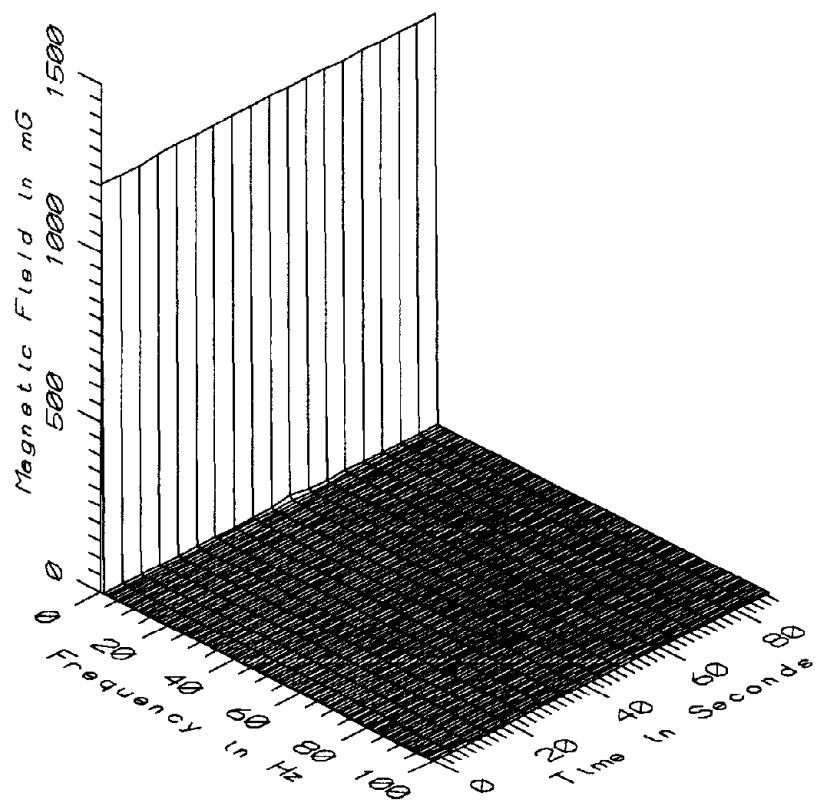
Actual Sample Interval: 4.9 sec

Frequency Spectrum Parameters

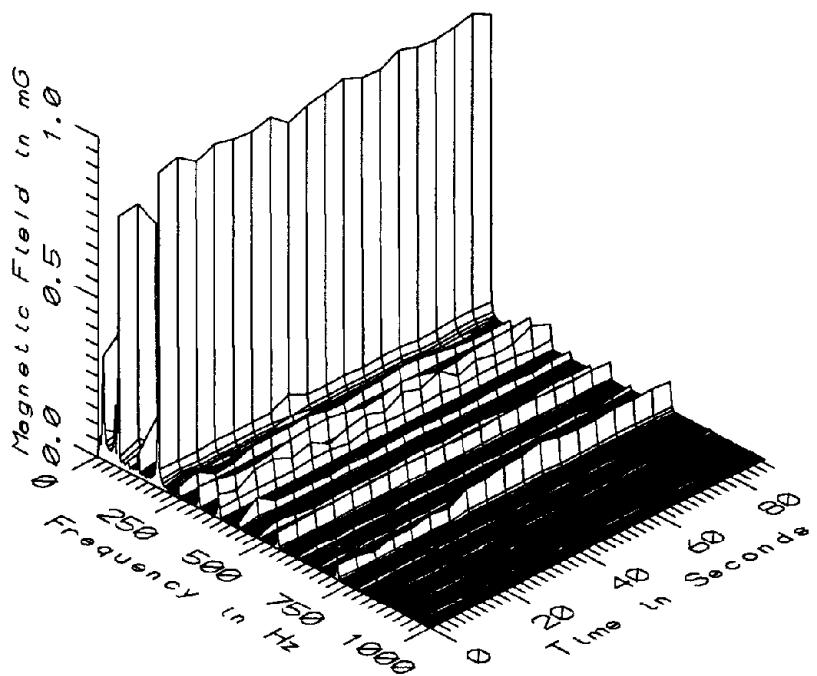
<u>Probe Type:</u>	<u>Wideband</u>	<u>Static</u>
Maximum Frequency (Hz)	2560	100
Minimum Frequency (Hz)	5	0
Spectral Bandwidth (Hz)	5	1

Missing Data: No reference probe

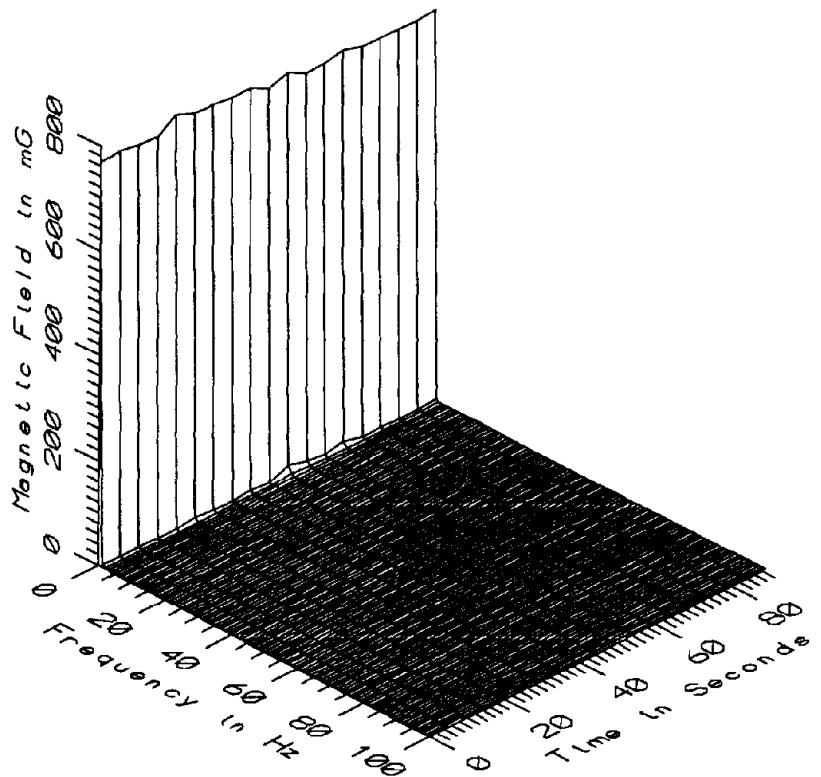
Saturated Data: None



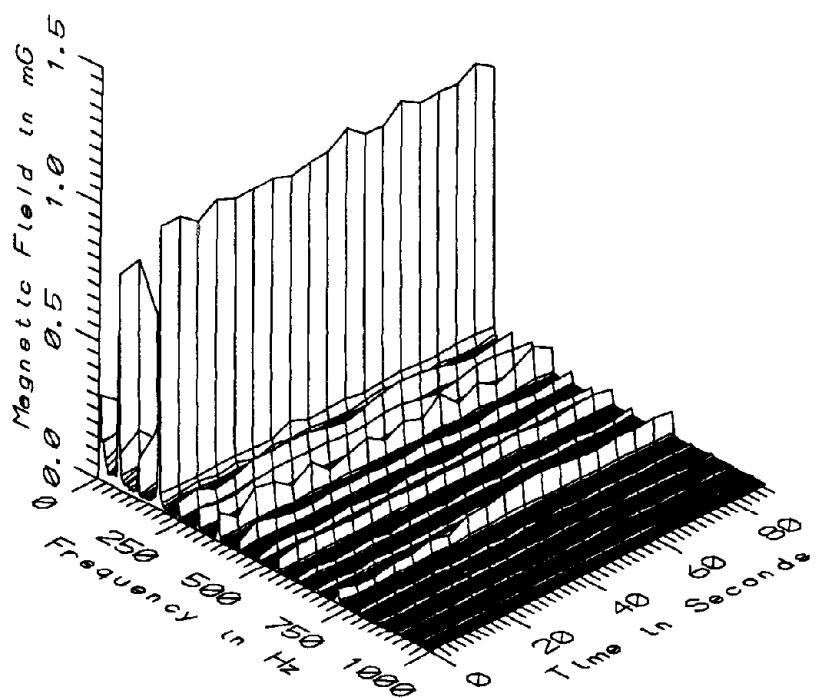
MET046 - 10cm ABOVE FLOOR AT SHADY GROVE DISPATCHER'S SEAT



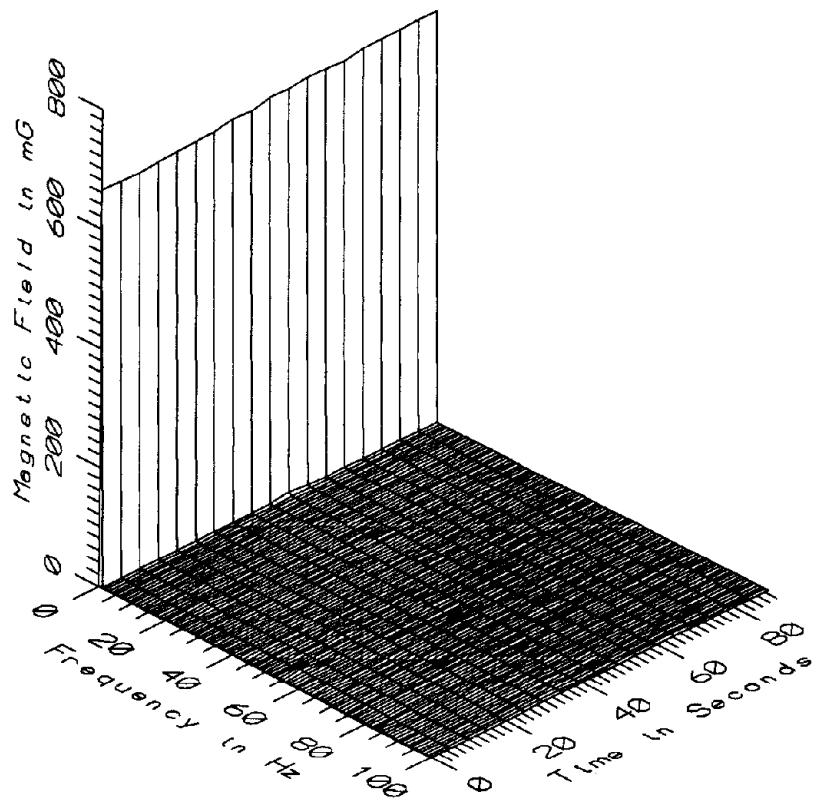
MET046 - 10cm ABOVE FLOOR AT SHADY GROVE DISPATCHER'S SEAT



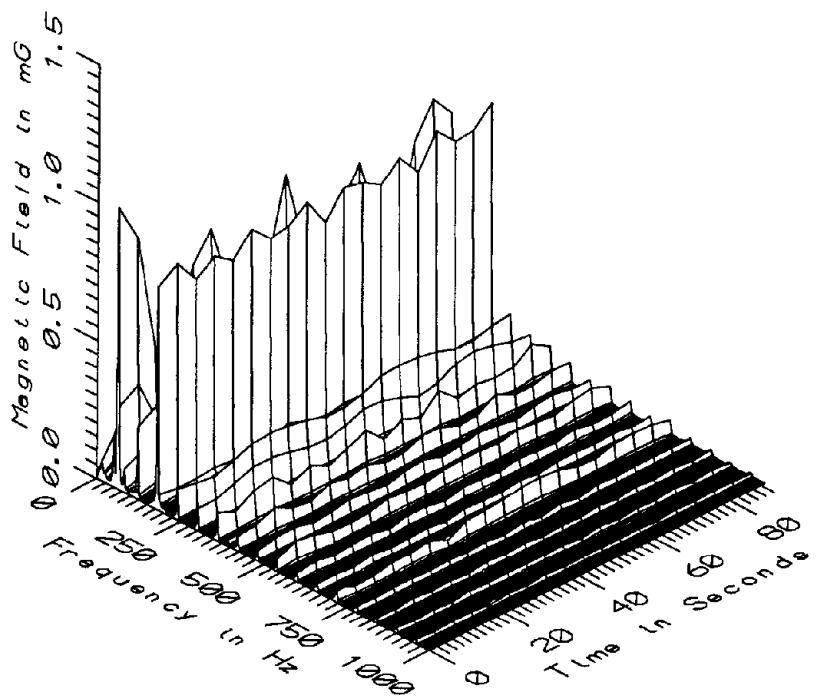
MET046 - 60cm ABOVE FLOOR AT SHADY GROVE DISPATCHER'S SEAT



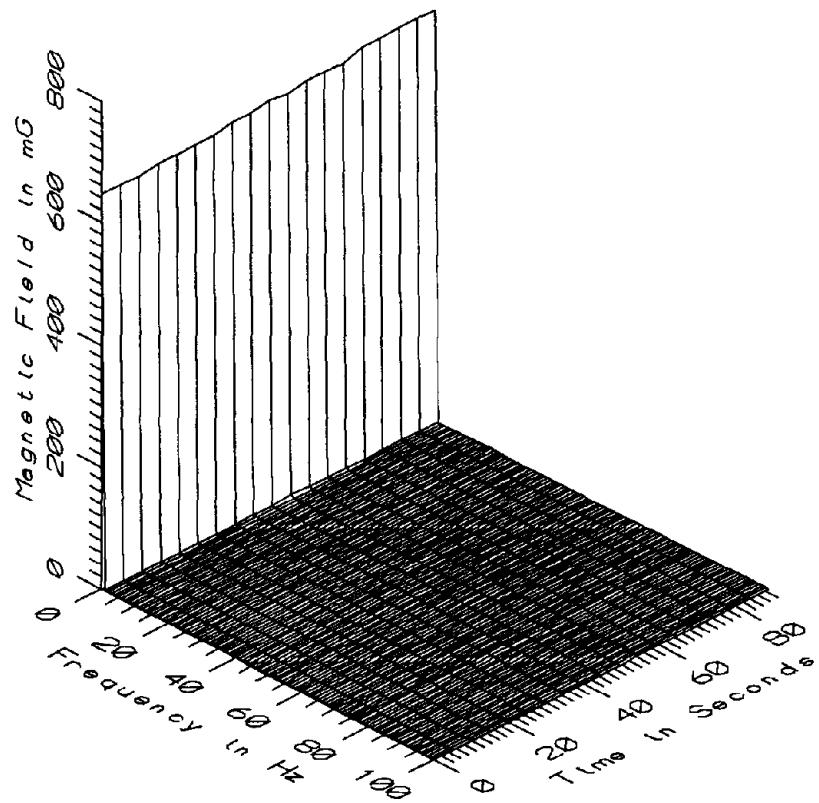
MET046 - 60cm ABOVE FLOOR AT SHADY GROVE DISPATCHER'S SEAT



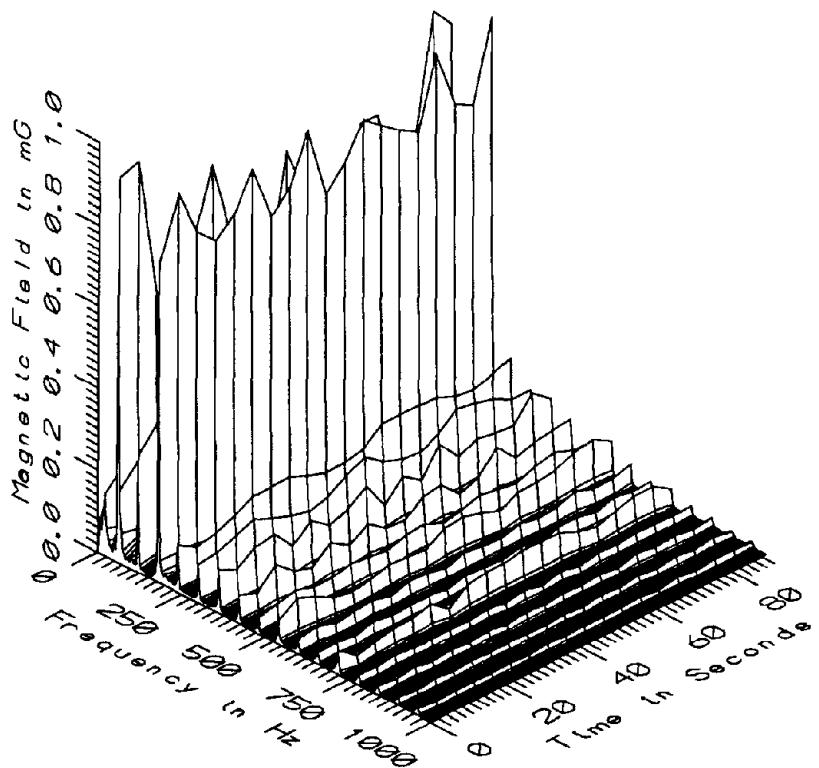
MET046 - 110cm ABOVE FLOOR AT SHADY GROVE DISPATCHER'S SEAT



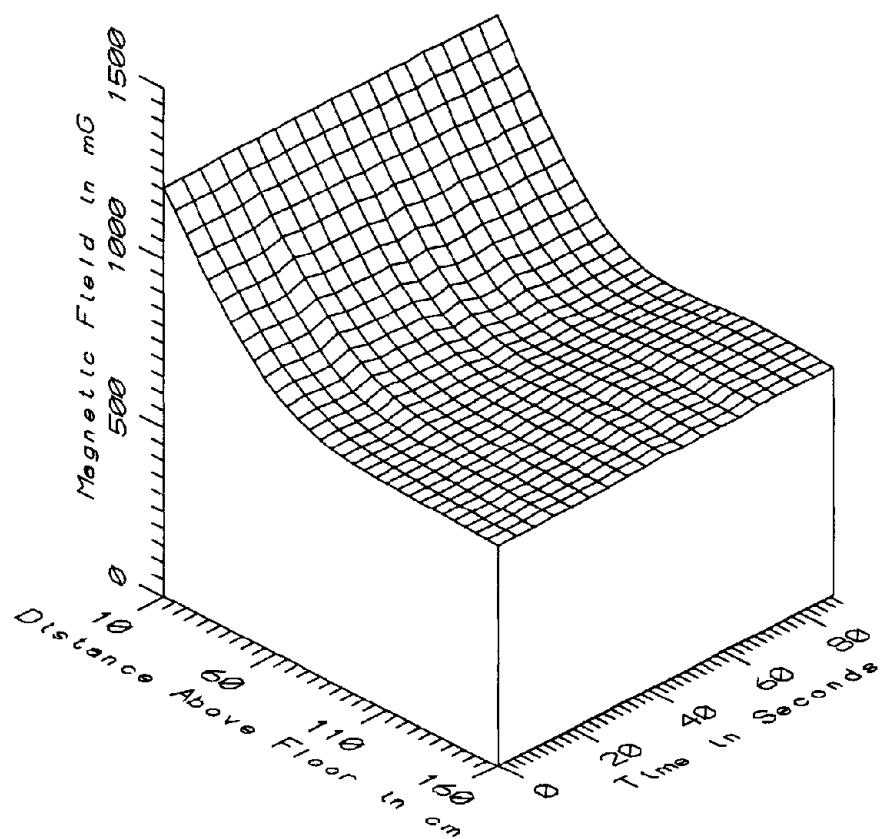
MET046 - 110cm ABOVE FLOOR AT SHADY GROVE DISPATCHER'S SEAT



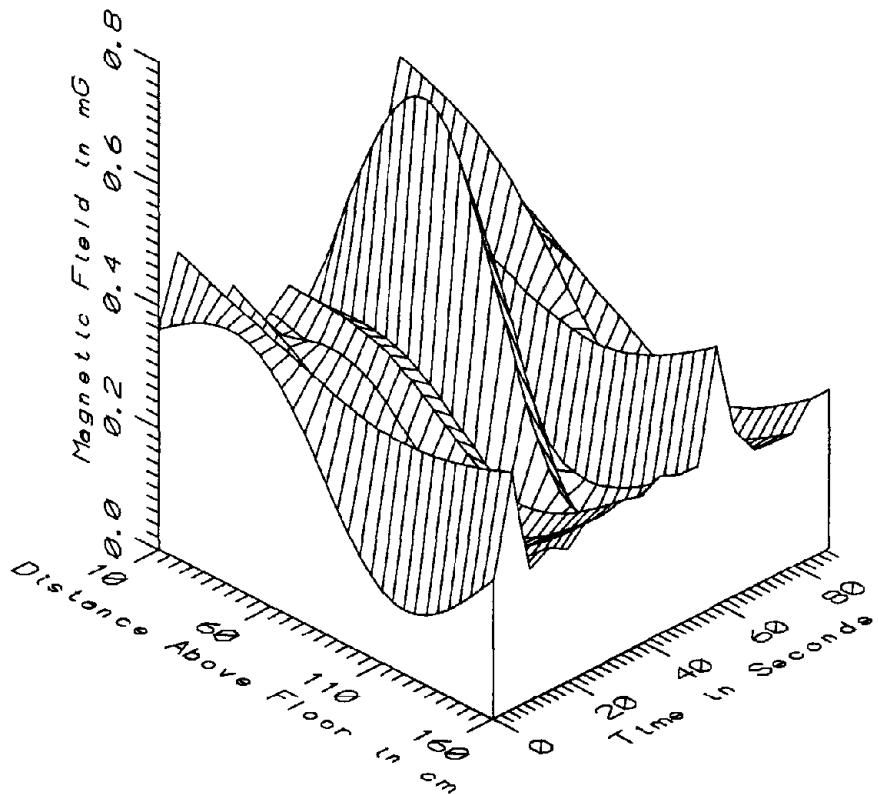
MET046 - 160cm ABOVE FLOOR AT SHADY GROVE DISPATCHER'S SEAT



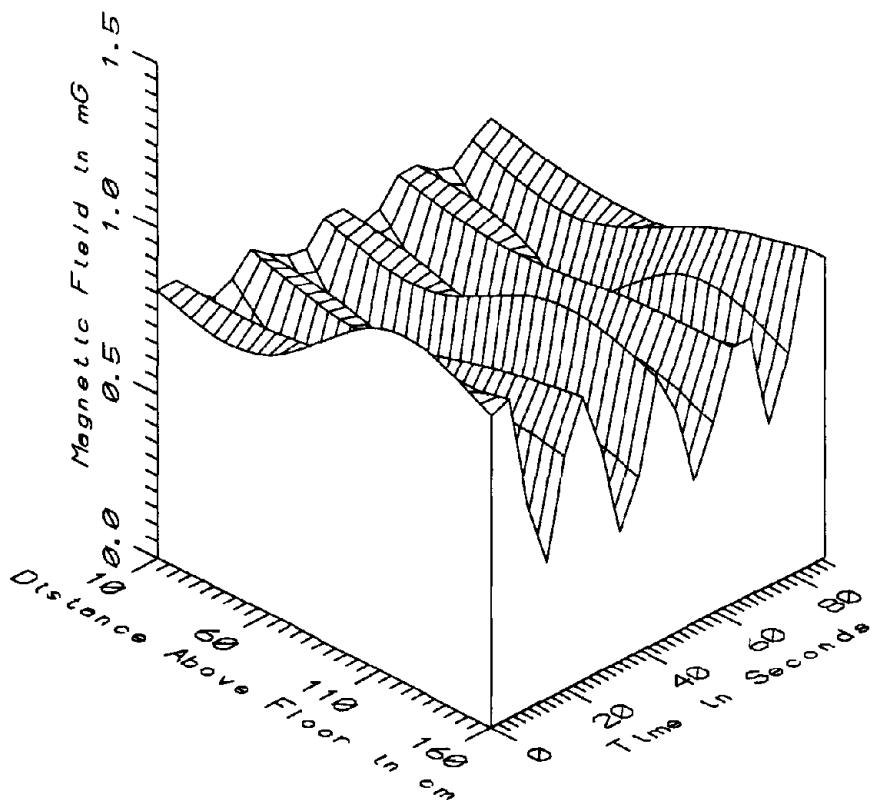
MET046 - 160cm ABOVE FLOOR AT SHADY GROVE DISPATCHER'S SEAT



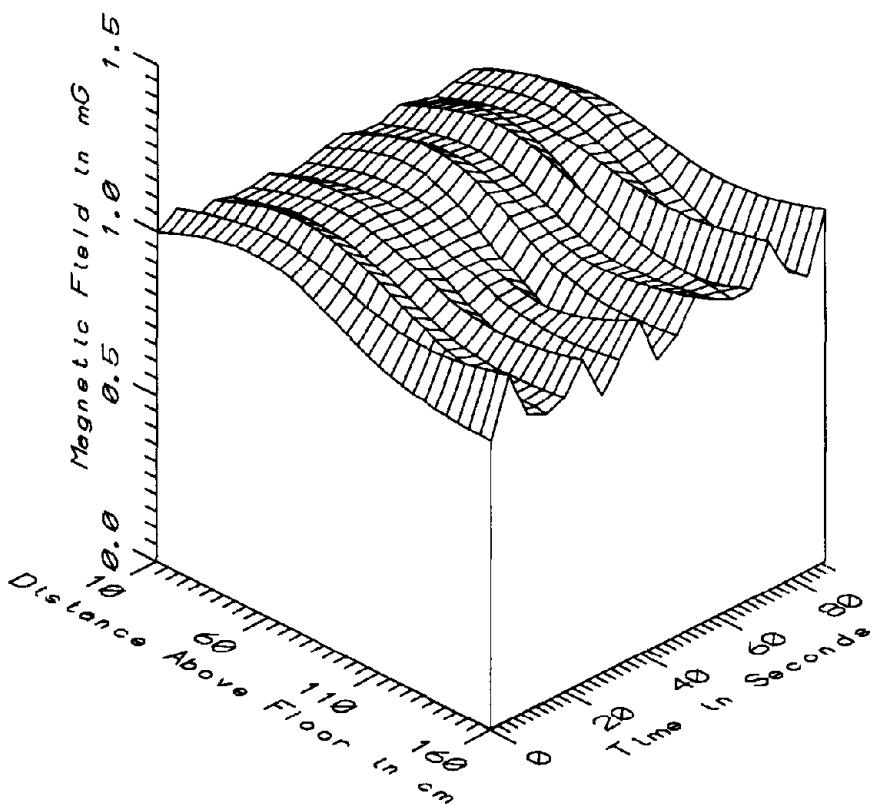
MET046 - SHADY GROVE DISPATCHER'S SEAT - STATIC



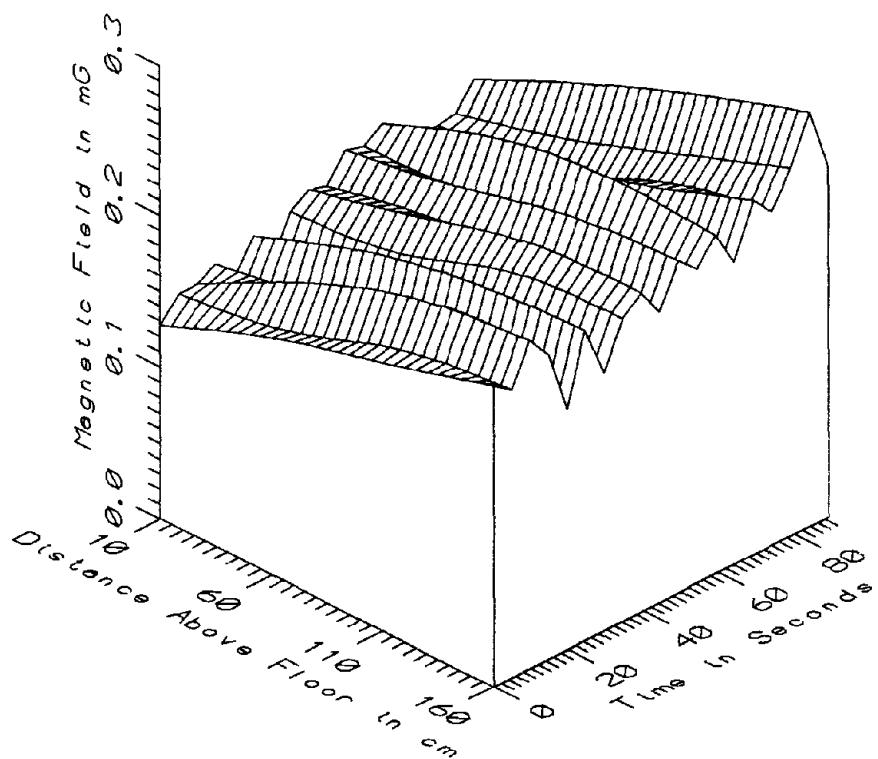
MET046 - SHADY GROVE DISPATCHER'S SEAT - LOW FREQ, 5-45Hz



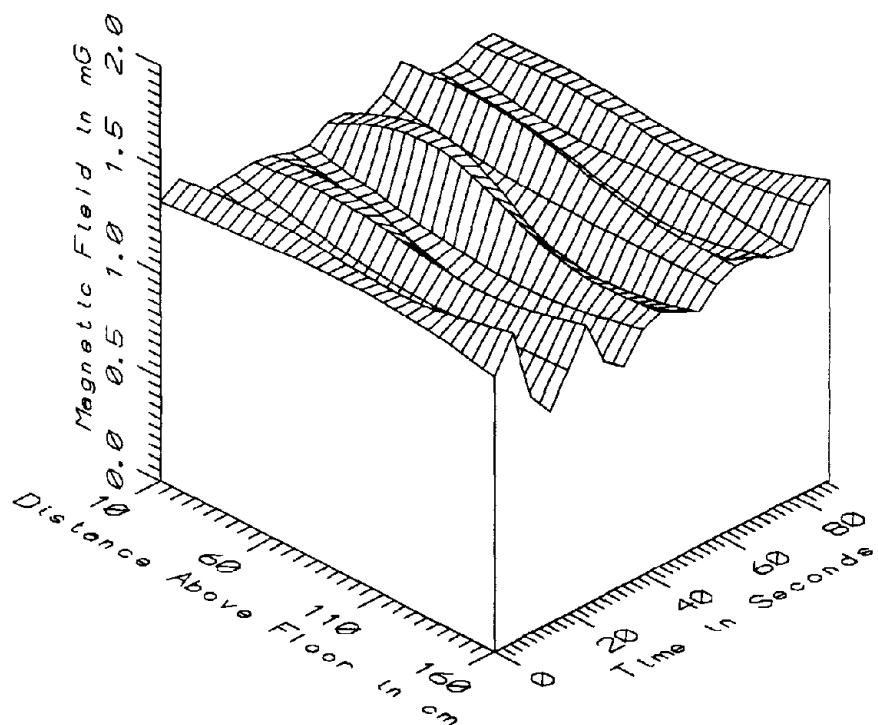
MET046 - SHADY GROVE DISPATCHER'S SEAT - POWER FREQ, 50-60Hz



MET046 - SHADY GROVE DISPATCHER'S SEAT - POWER HARM, 65-300Hz

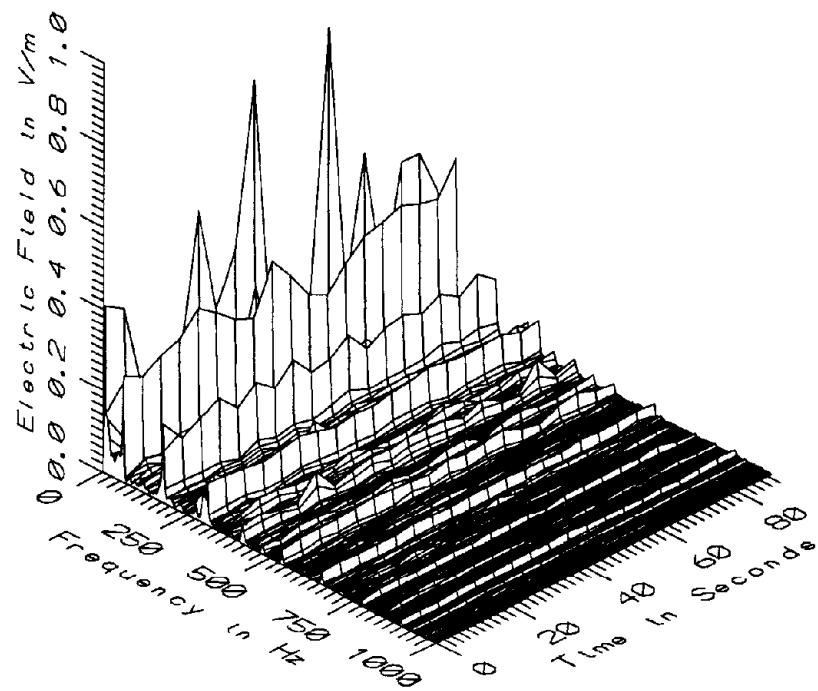


MET046 - SHADY GROVE DISPATCHER'S SEAT - HIGH FREQ, 305-2560Hz



MET046 - SHADY GROVE DISPATCHER'S SEAT - ALL FREQ, 5-2560Hz

MET046 - IN DISPATCHER'S ROOM AT DISPATCHER'S CHAIR						TOTAL OF 19 SAMPLES
FREQUENCY BAND	HEIGHT ABOVE FLOOR (cm)	MINIMUM MAGNETIC FIELD (mG)	MAXIMUM MAGNETIC FIELD (mG)	AVERAGE MAGNETIC FIELD (mG)	STANDARD DEVIATION (mG)	COEFFICIENT OF VARIATION (%)
STATIC	10	1204.53	1218.24	1212.62	3.80	0.31
	60	739.08	788.72	758.94	14.83	1.95
	110	662.31	687.19	675.98	8.99	1.33
	160	644.72	674.94	660.16	10.60	1.61
5-45Hz LOW FREQ	10	0.26	0.61	0.35	0.09	24.70
	60	0.21	0.67	0.32	0.13	41.58
	110	0.10	0.35	0.16	0.07	44.27
	160	0.22	0.42	0.26	0.05	21.35
50-60Hz PWR FREQ	10	0.70	0.82	0.76	0.04	5.31
	60	0.23	0.81	0.60	0.17	27.79
	110	0.33	1.04	0.65	0.19	29.65
	160	0.39	0.96	0.69	0.19	27.03
65-300Hz PWR HARM	10	0.97	1.04	0.99	0.02	1.62
	60	1.02	1.10	1.06	0.02	2.25
	110	0.85	1.00	0.93	0.05	5.02
	160	0.84	1.06	0.94	0.07	7.24
305-2560Hz HIGH FREQ	10	0.13	0.19	0.16	0.02	11.32
	60	0.14	0.22	0.18	0.02	11.84
	110	0.16	0.25	0.20	0.02	10.51
	160	0.16	0.27	0.21	0.03	12.35
5-2560Hz ALL FREQ	10	1.25	1.43	1.31	0.05	3.56
	60	1.13	1.46	1.28	0.11	8.45
	110	1.00	1.41	1.17	0.12	10.65
	160	1.01	1.48	1.22	0.12	10.05



MET046 - ELECTRIC FIELD AT SHADY GROVE DISPATCHER'S SEAT

APPENDIX AQ

**DATASET MET047
SHADY GROVE DISPATCHER'S ROOM, FROM MONITORS**

Measurement Setup Code: Staff: 53 Reference: -
Drawing: A-8

Vehicle Status: NA

Measurement Date: May 20, 1992

Measurement Time: Start: 11:13:11
End: 11:14:41

Number of Samples: 19

Programmed Sample Interval: 5 sec

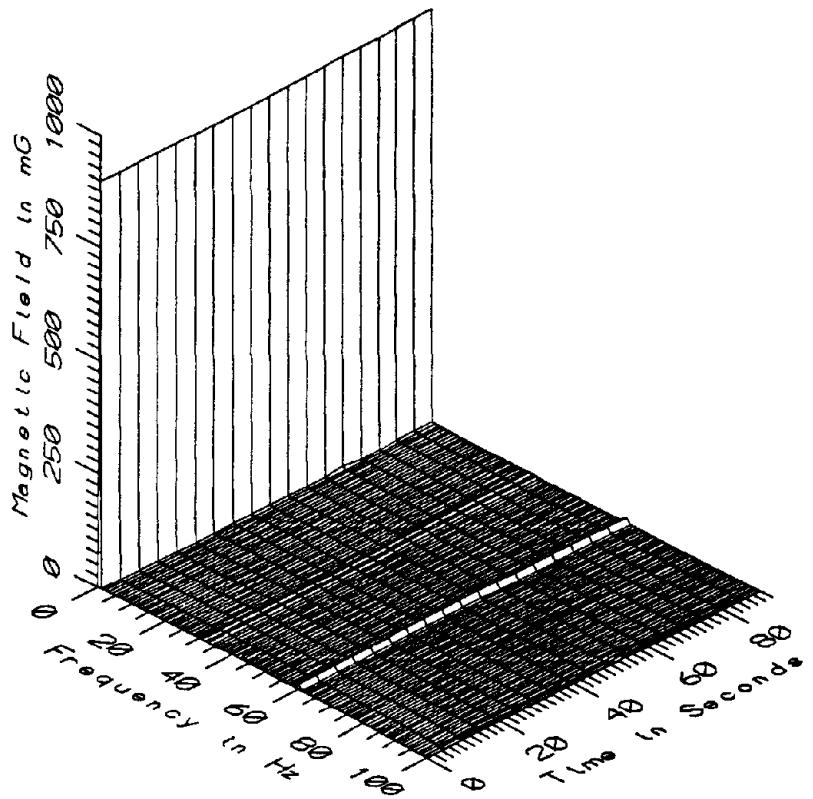
Actual Sample Interval: 5.0 sec

Frequency Spectrum Parameters

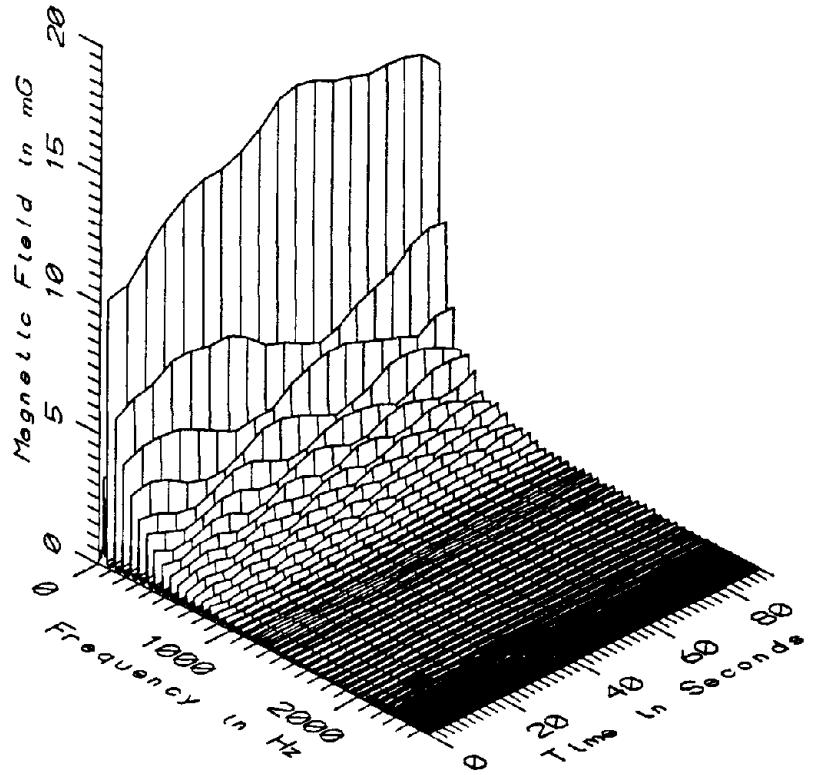
<u>Probe Type:</u>	<u>Wideband</u>	<u>Static</u>
Maximum Frequency (Hz)	2560	100
Minimum Frequency (Hz)	5	0
Spectral Bandwidth (Hz)	5	1

Missing Data: No reference probe

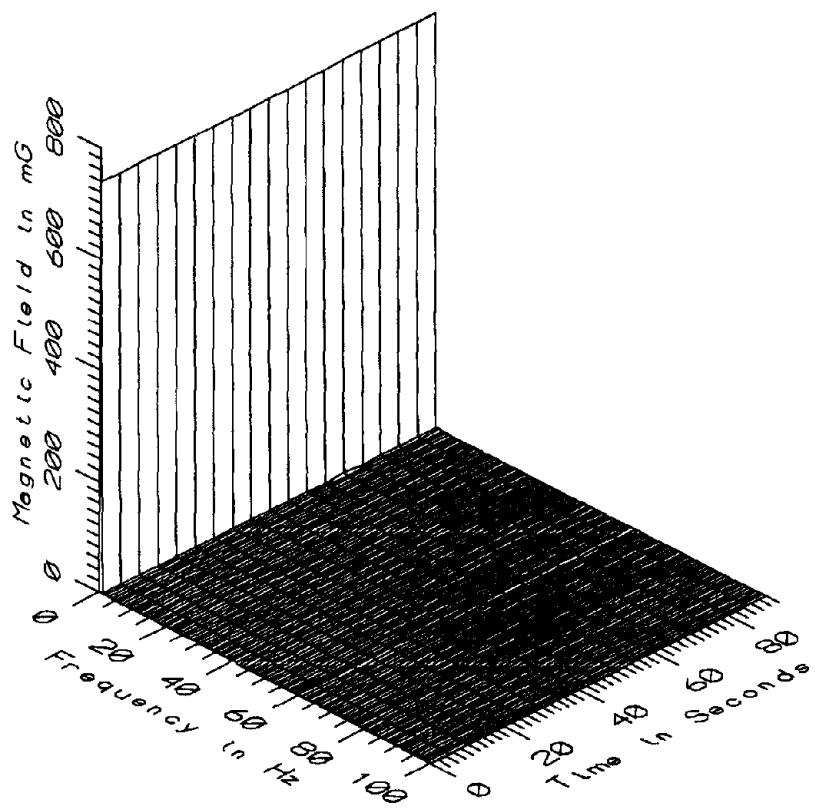
Saturated Data: None



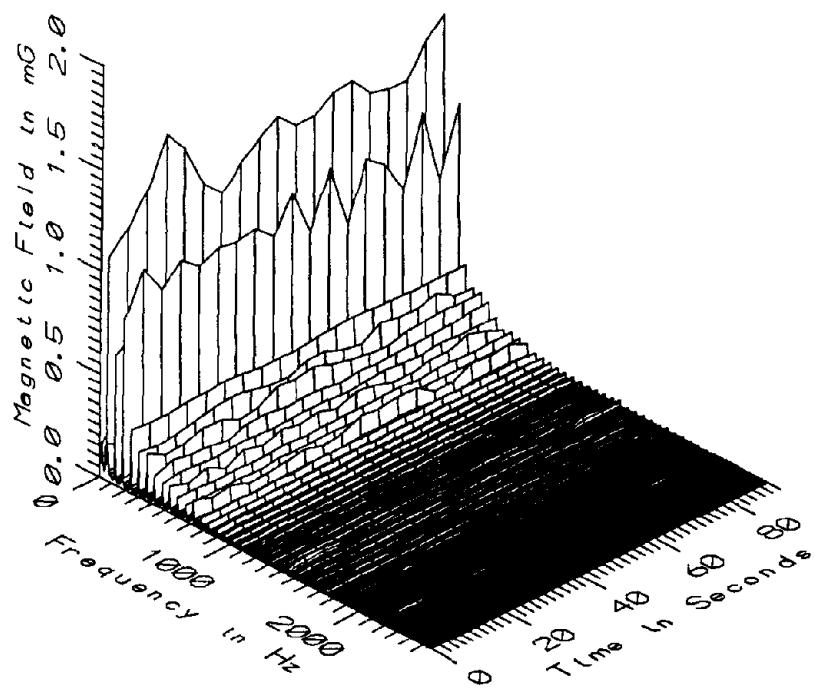
MET047 - 10cm FROM DISPATCHER'S MONITORS, 1.25M ABOVE FLOOR



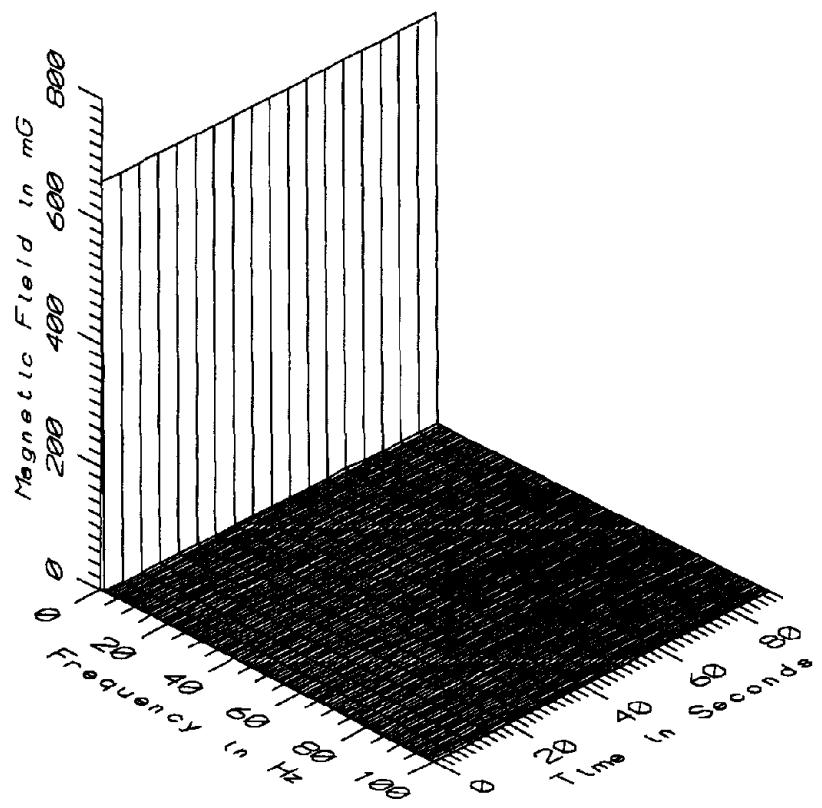
MET047 - 10cm FROM DISPATCHER'S MONITORS, 1.25M ABOVE FLOOR



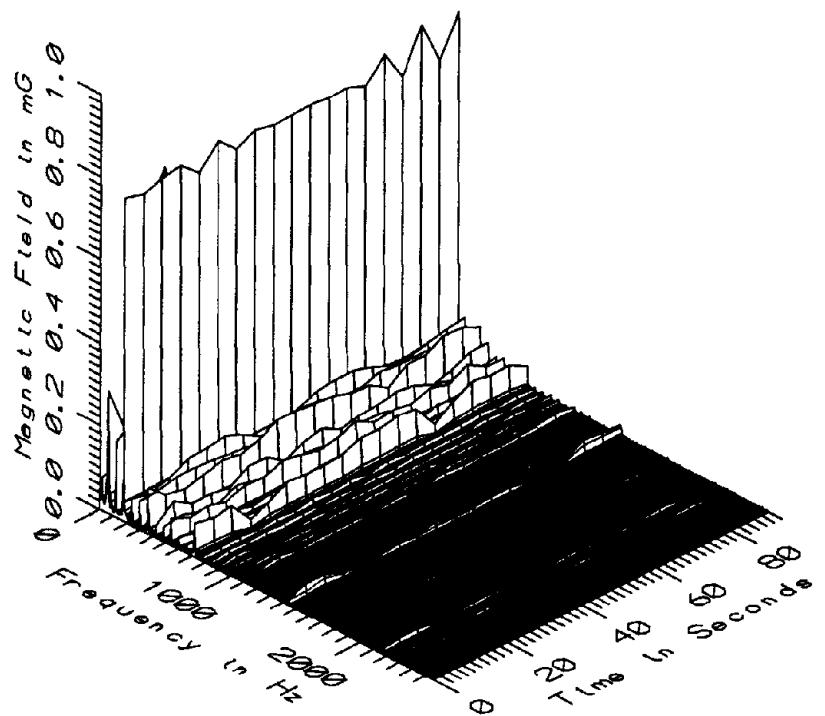
MET047 - 60cm FROM DISPATCHER'S MONITORS, 1.25M ABOVE FLOOR



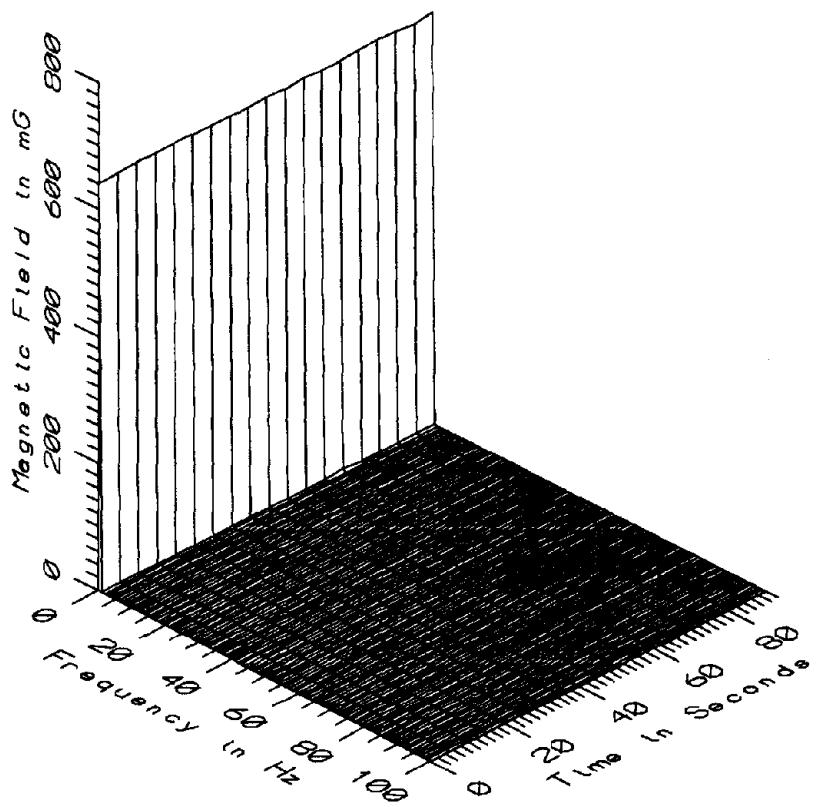
MET047 - 60cm FROM DISPATCHER'S MONITORS, 1.25M ABOVE FLOOR



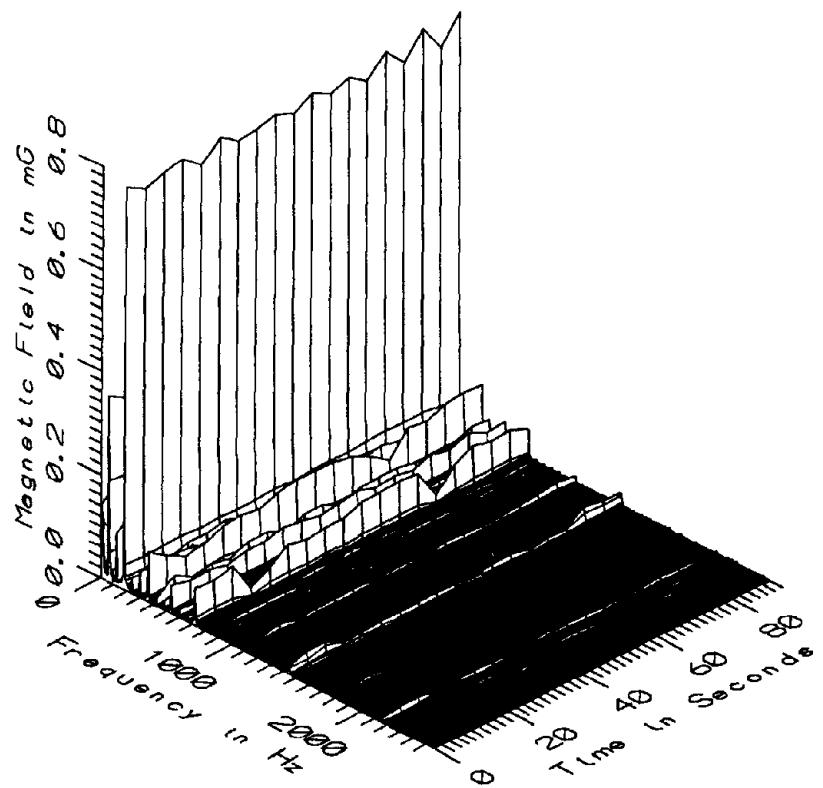
MET047 - 110cm FROM DISPATCHER'S MONITORS, 1.25M ABOVE FLOOR



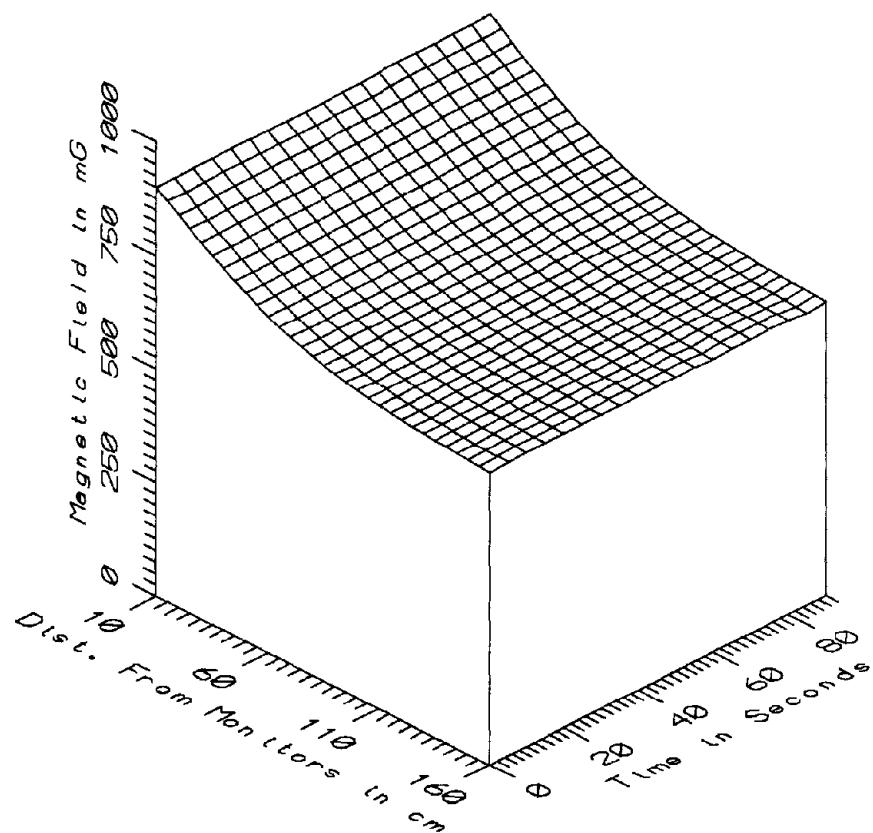
MET047 - 110cm FROM DISPATCHER'S MONITORS, 1.25M ABOVE FLOOR



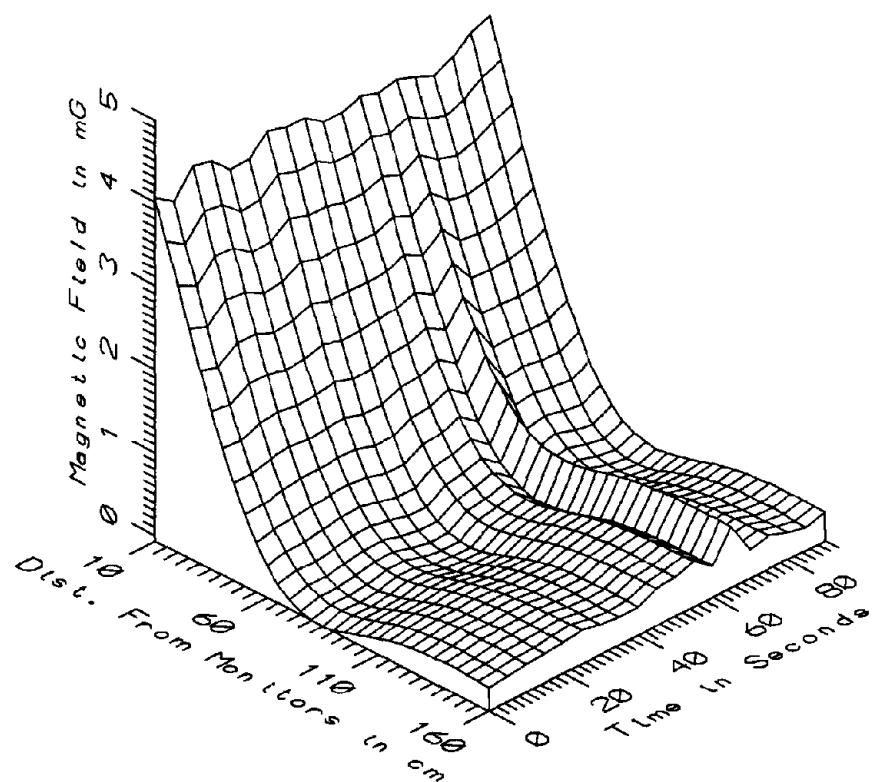
MET047 - 160cm FROM DISPATCHER'S MONITORS, 1.25M ABOVE FLOOR



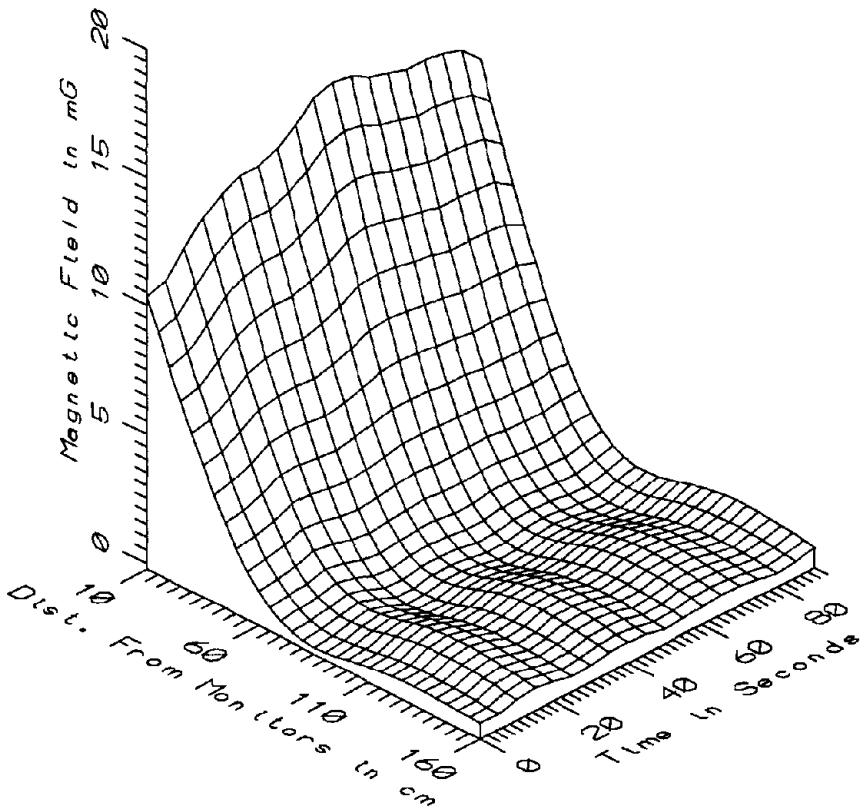
MET047 - 160cm FROM DISPATCHER'S MONITORS, 1.25M ABOVE FLOOR



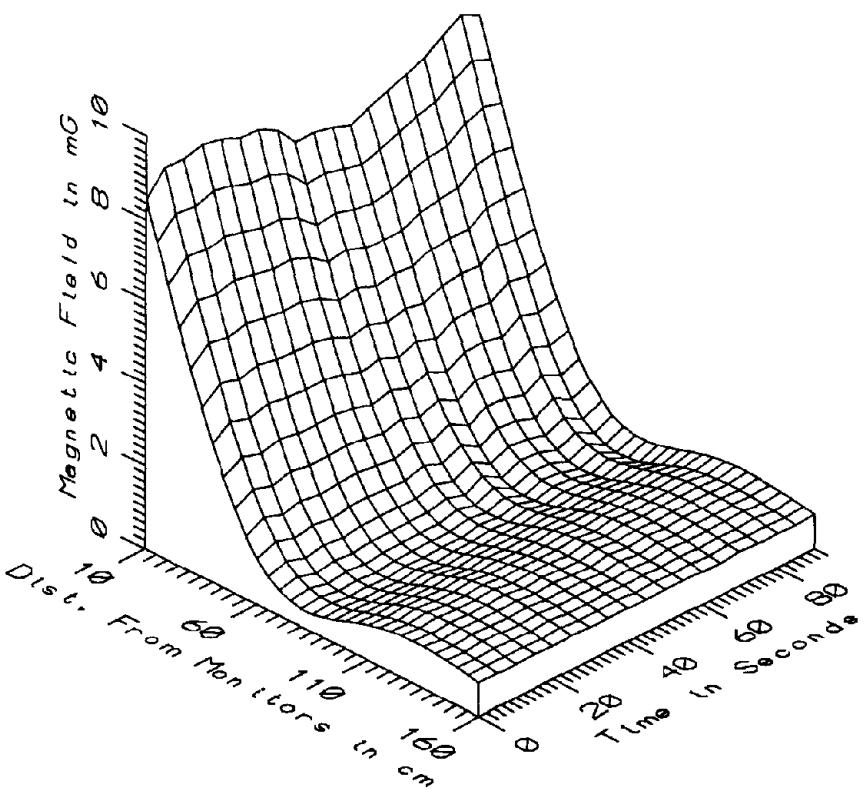
MET047 - IN DISPATCHER'S ROOM, 1.25M ABOVE FLOOR - STATIC



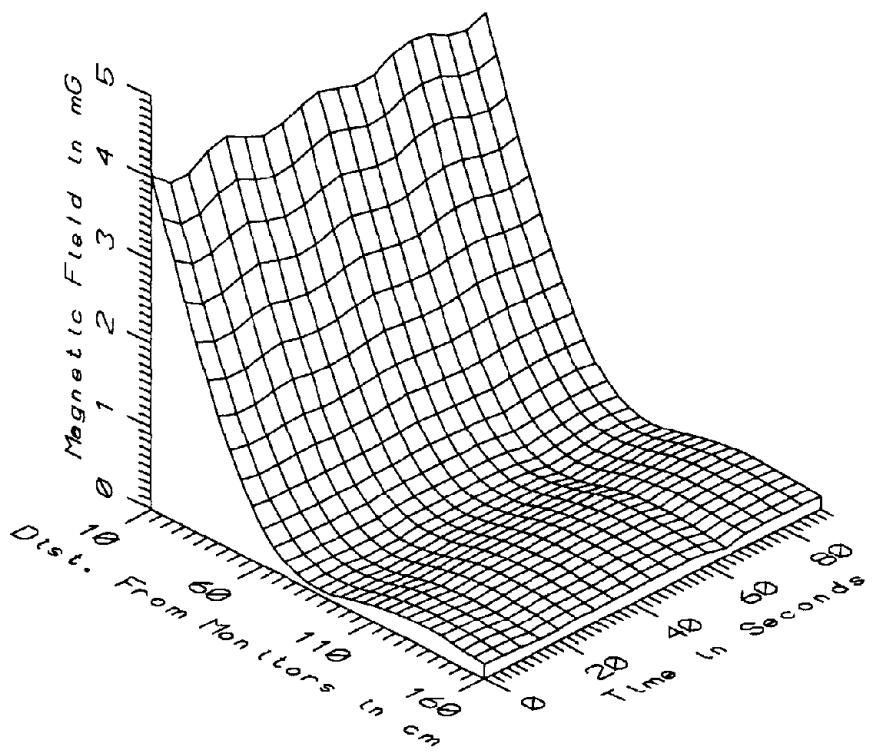
MET047 - IN DISPATCHER'S ROOM, 1.25M ABOVE FLOOR - LOW FREQ, 5-45Hz



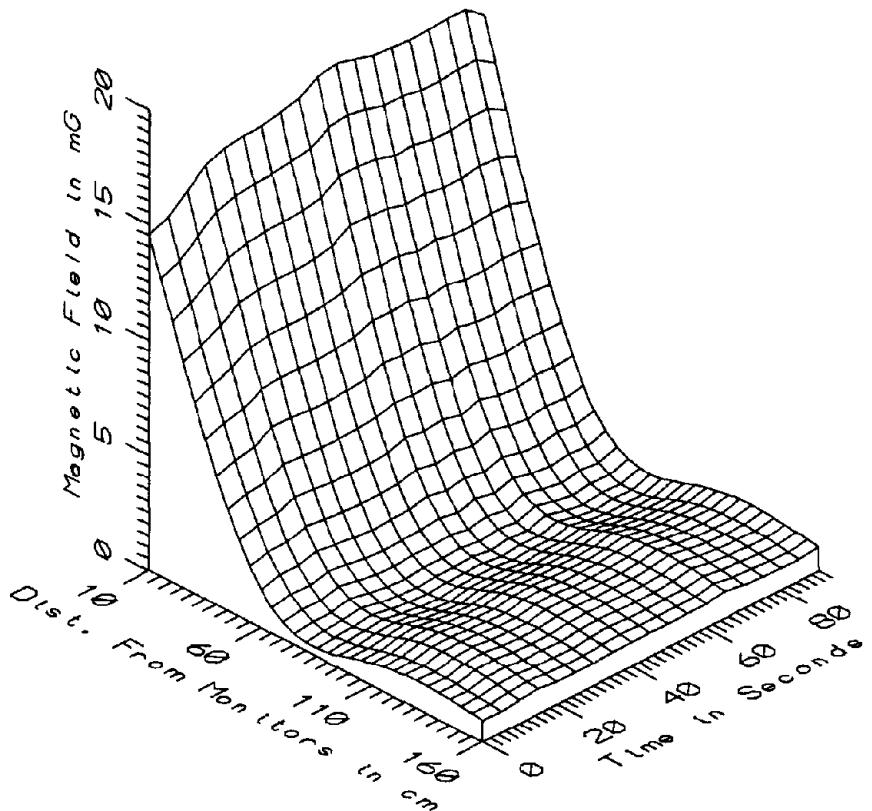
MET047 - IN DISPATCHER'S ROOM, 1.25M ABOVE FLOOR - POWER FREQ, 50-60Hz



MET047 - IN DISPATCHER'S ROOM, 1.25M ABOVE FLOOR - POWER HARM, 65-300Hz



MET047 - IN DISPATCHER'S ROOM, 1.25M ABOVE FLOOR - HIGH FREQ, 305-2560Hz



MET047 - IN DISPATCHER'S ROOM, 1.25M ABOVE FLOOR - ALL FREQ, 5-2560Hz

MET047 - IN DISPATCHER'S ROOM, FROM MONITORS						TOTAL OF 19 SAMPLES
FREQUENCY BAND	DIST FROM VDT (cm)	MINIMUM MAGNETIC FIELD (mG)	MAXIMUM MAGNETIC FIELD (mG)	AVERAGE MAGNETIC FIELD (mG)	STANDARD DEVIATION (mG)	COEFFICIENT OF VARIATION (%)
STATIC	10	897.84	908.63	902.55	3.11	0.34
	60	738.00	742.75	740.12	1.62	0.22
	110	664.29	669.23	666.57	1.40	0.21
	160	641.62	647.56	645.00	1.52	0.24
5-45Hz LOW FREQ	10	3.84	4.22	4.04	0.11	2.84
	60	0.31	0.82	0.43	0.12	26.52
	110	0.12	0.60	0.22	0.11	48.47
	160	0.21	0.67	0.32	0.11	33.59
50-60Hz PWR FREQ	10	10.32	15.07	13.38	1.38	10.29
	60	1.09	1.56	1.31	0.11	8.77
	110	0.21	0.78	0.50	0.17	34.33
	160	0.33	0.63	0.45	0.09	20.87
65-300Hz PWR HARM	10	7.75	9.12	8.53	0.45	5.26
	60	1.09	1.37	1.23	0.09	7.22
	110	0.81	0.91	0.86	0.03	3.09
	160	0.79	0.84	0.82	0.02	1.86
305-2560Hz HIGH FREQ	10	3.82	4.09	3.95	0.09	2.17
	60	0.38	0.45	0.42	0.02	4.01
	110	0.13	0.20	0.17	0.02	11.40
	160	0.09	0.16	0.14	0.02	12.86
5-2560Hz ALL FREQ	10	14.53	17.92	16.88	0.93	5.53
	60	1.66	2.11	1.90	0.12	6.15
	110	0.93	1.25	1.05	0.09	9.03
	160	0.92	1.18	1.01	0.06	6.19

APPENDIX AR

**DATASET MET048
SHADY GROVE DISPATCHER'S ROOM, FROM MOCK-UP PANEL**

Measurement Setup Code: Staff: 54 Reference: -
Drawing: A-8

Vehicle Status: NA

Measurement Date: May 20, 1992

Measurement Time: Start: 11:15:21
End: 11:16:46

Number of Samples: 18

Programmed Sample Interval: 5 sec

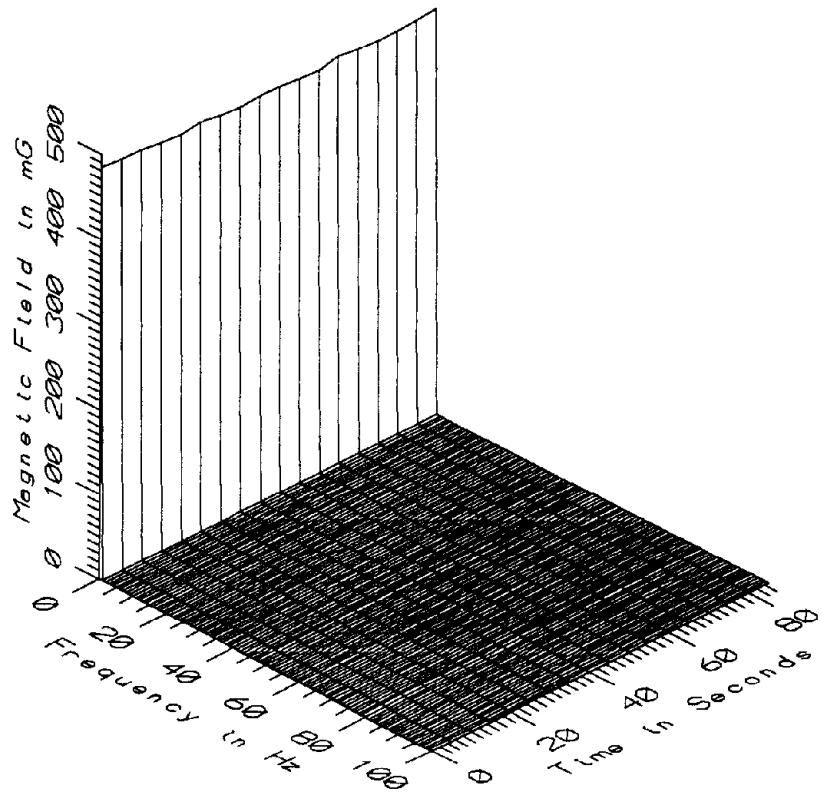
Actual Sample Interval: 5.0 sec

Frequency Spectrum Parameters

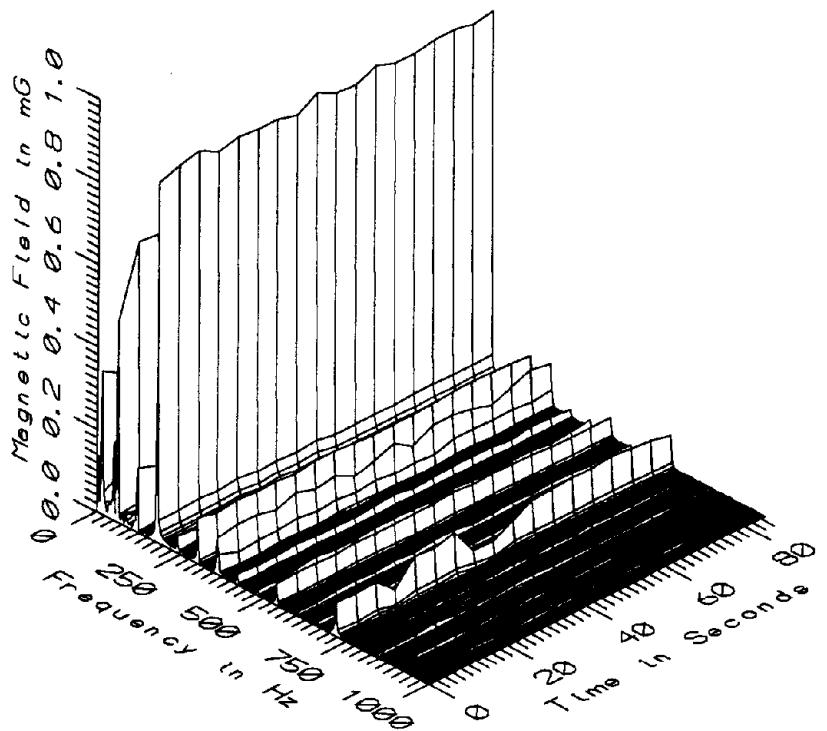
<u>Probe Type:</u>	<u>Wideband</u>	<u>Static</u>
Maximum Frequency (Hz)	2560	100
Minimum Frequency (Hz)	5	0
Spectral Bandwidth (Hz)	5	1

Missing Data: No reference probe

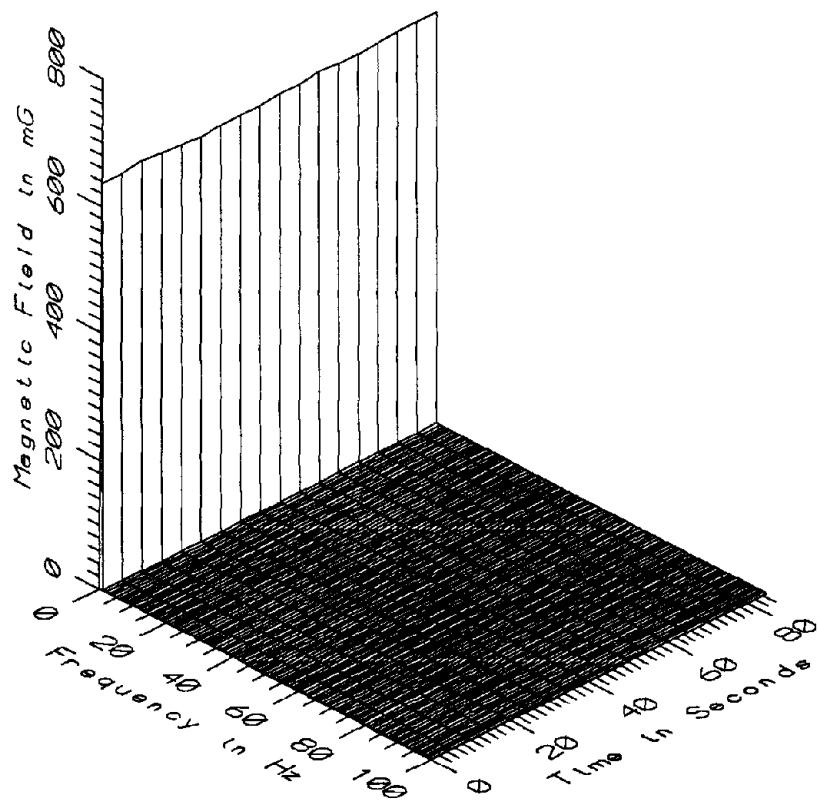
Saturated Data: None



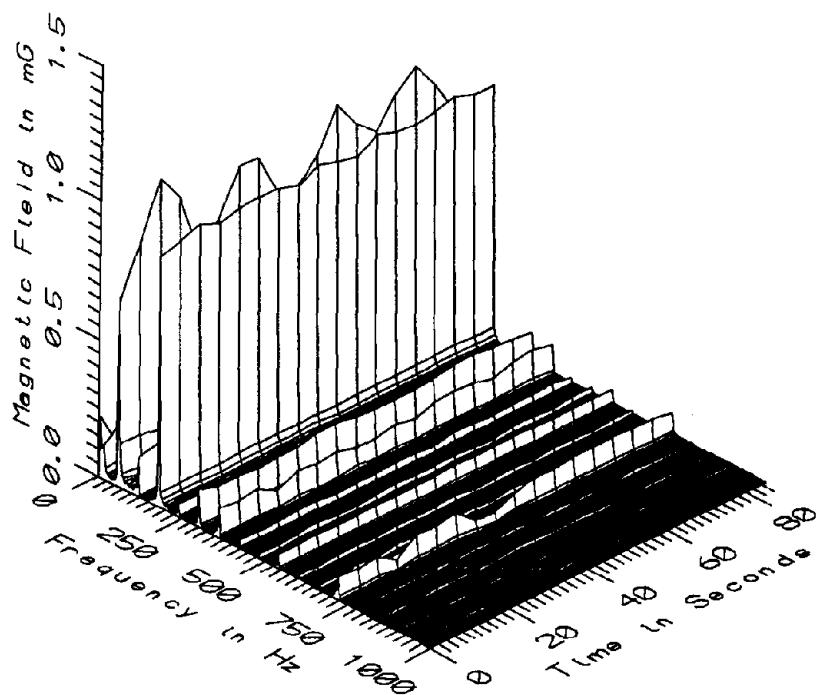
MET048 - 10cm FROM DISPATCHER'S MOCK-UP PANEL, 1.25M ABOVE FLOOR



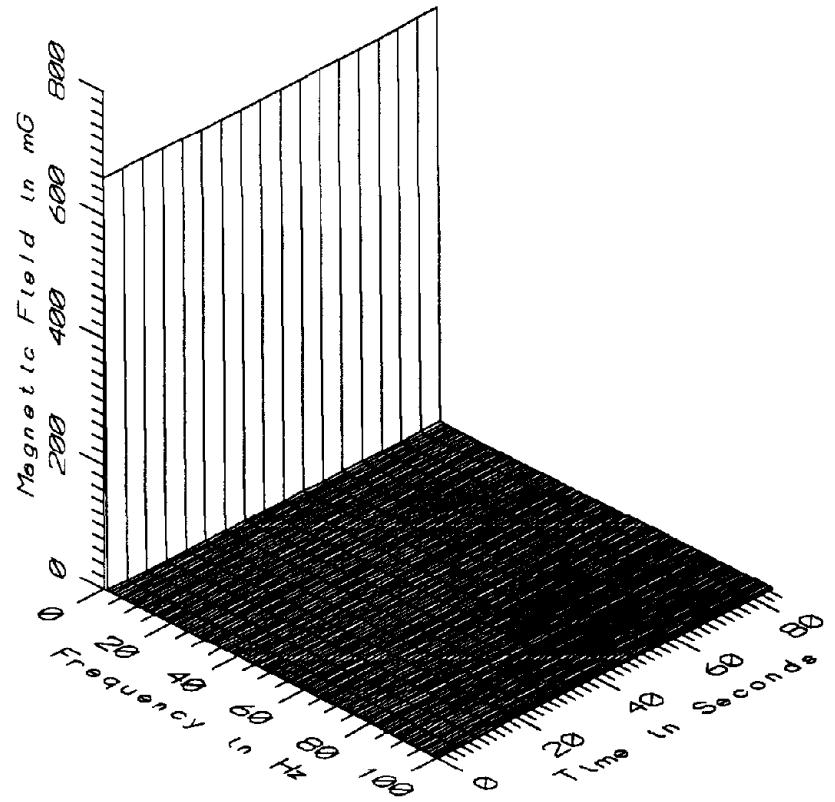
MET048 - 10cm FROM DISPATCHER'S MOCK-UP PANEL, 1.25M ABOVE FLOOR



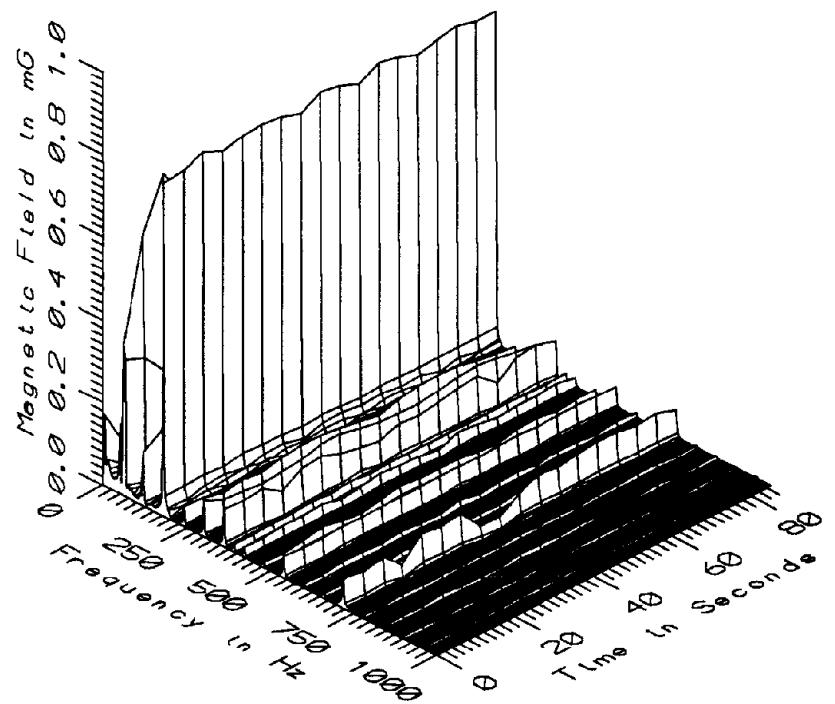
MET048 - 60cm FROM DISPATCHER'S MOCK-UP PANEL, 1.25M ABOVE FLOOR



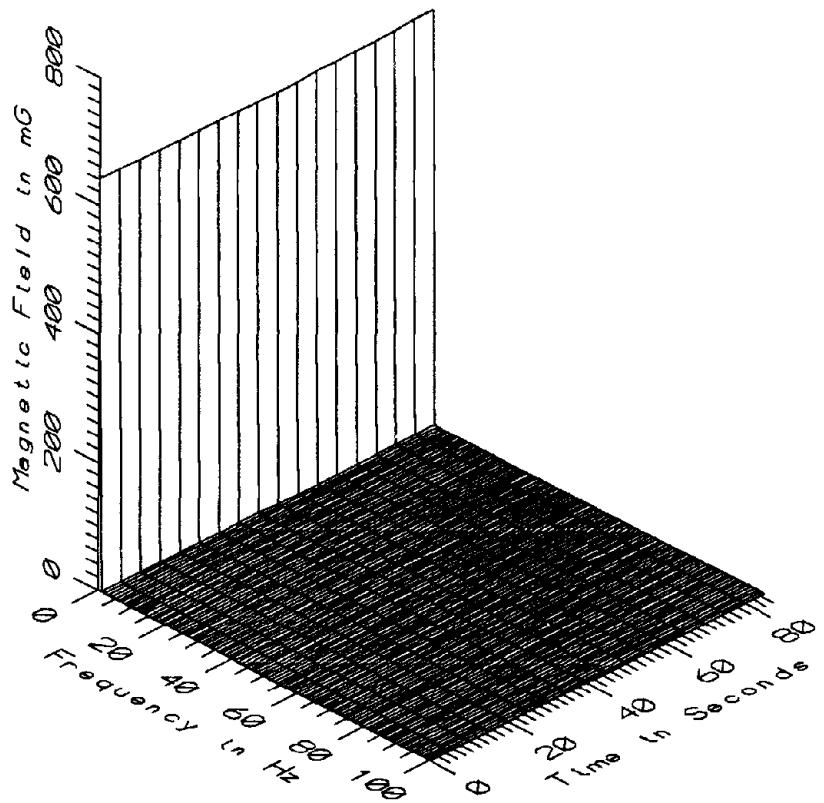
MET048 - 60cm FROM DISPATCHER'S MOCK-UP PANEL, 1.25M ABOVE FLOOR



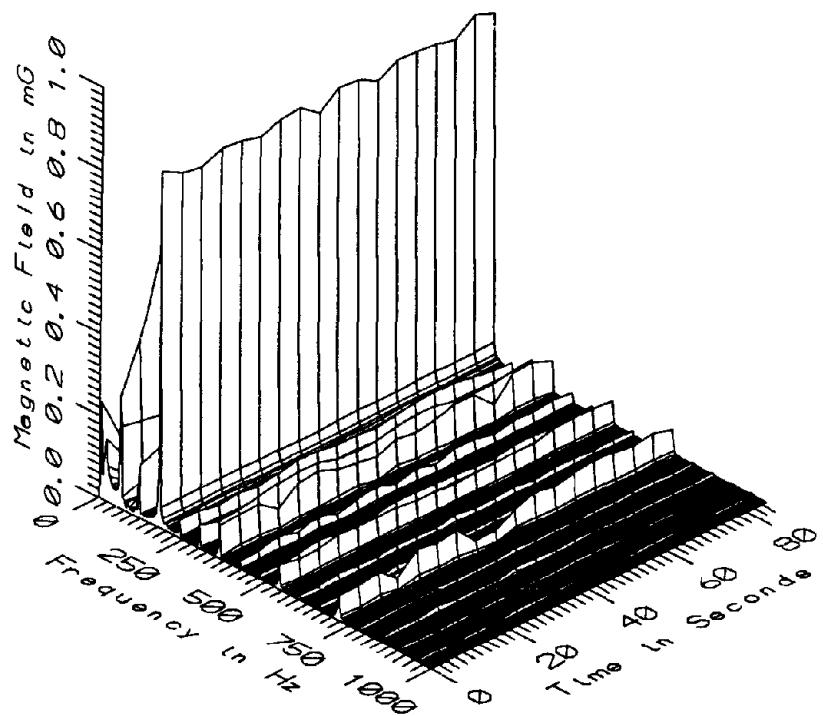
MET048 - 110cm FROM DISPATCHER'S MOCK-UP PANEL, 1.25M ABOVE FLOOR



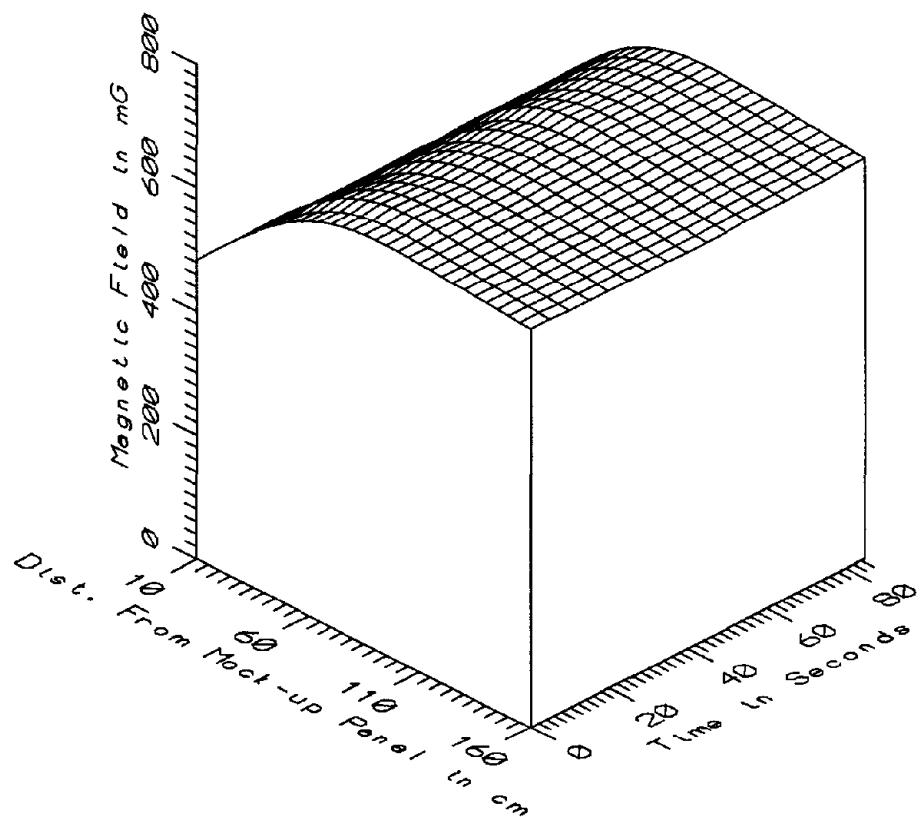
MET048 - 110cm FROM DISPATCHER'S MOCK-UP PANEL, 1.25M ABOVE FLOOR



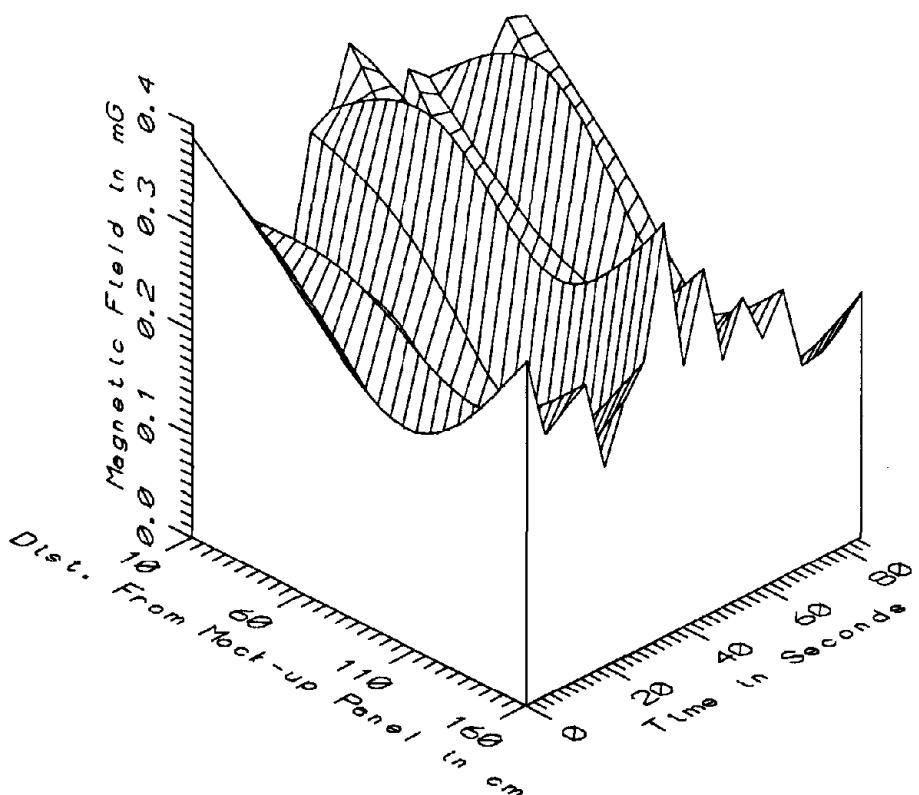
MET048 - 160cm FROM DISPATCHER'S MOCK-UP PANEL, 1.25M ABOVE FLOOR



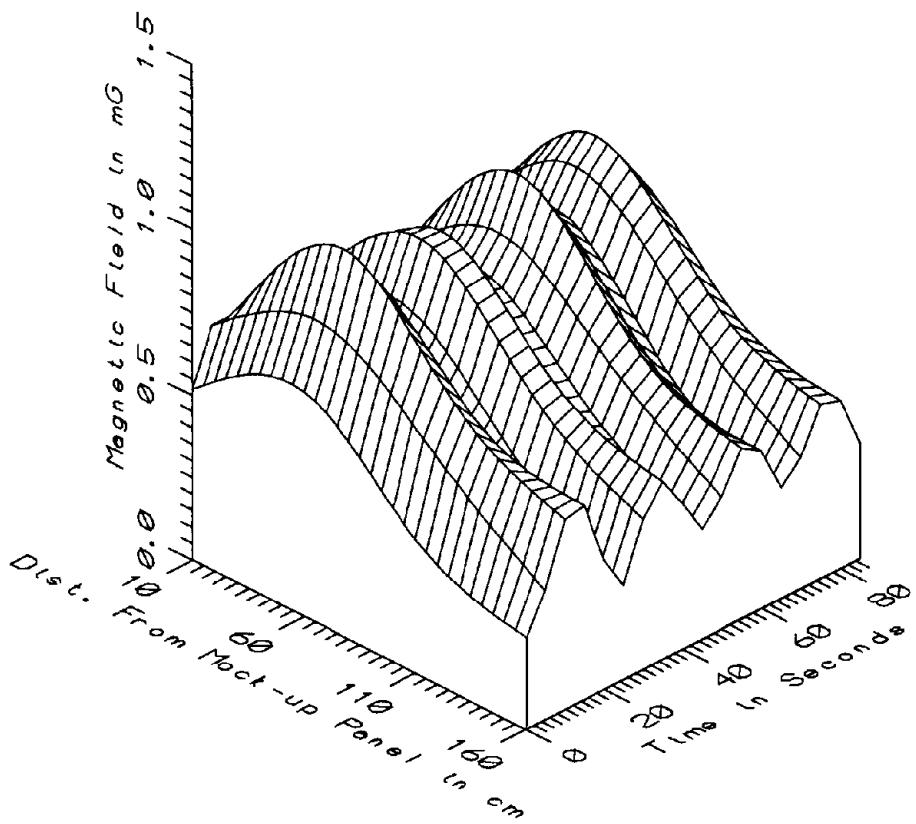
MET048 - 160cm FROM DISPATCHER'S MOCK-UP PANEL, 1.25M ABOVE FLOOR



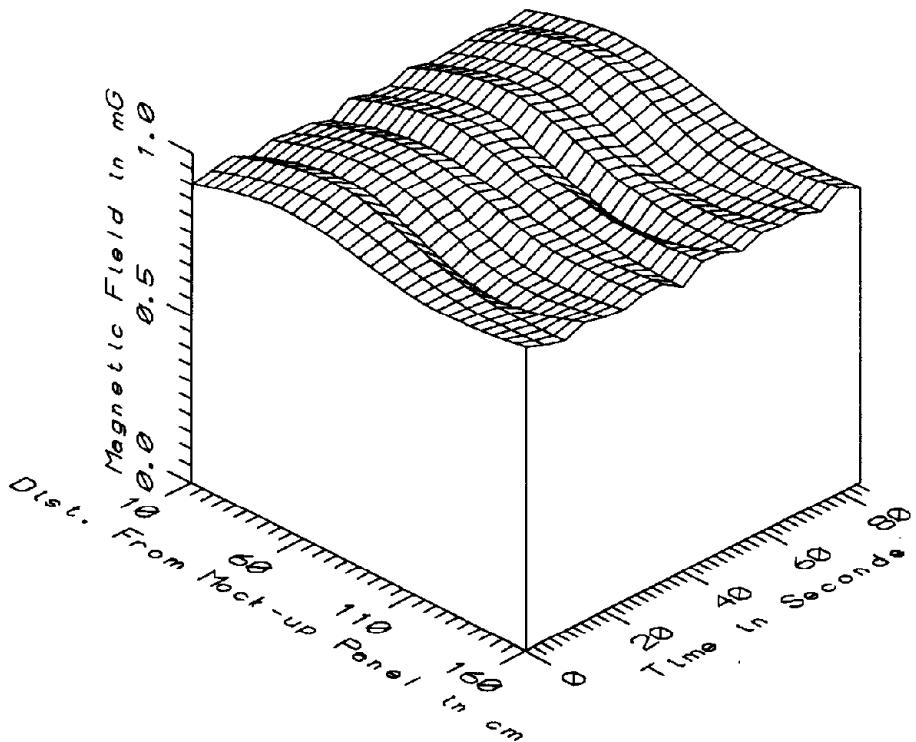
MET048 - IN DISPATCHER'S ROOM, 1.25M ABOVE FLOOR - STATIC



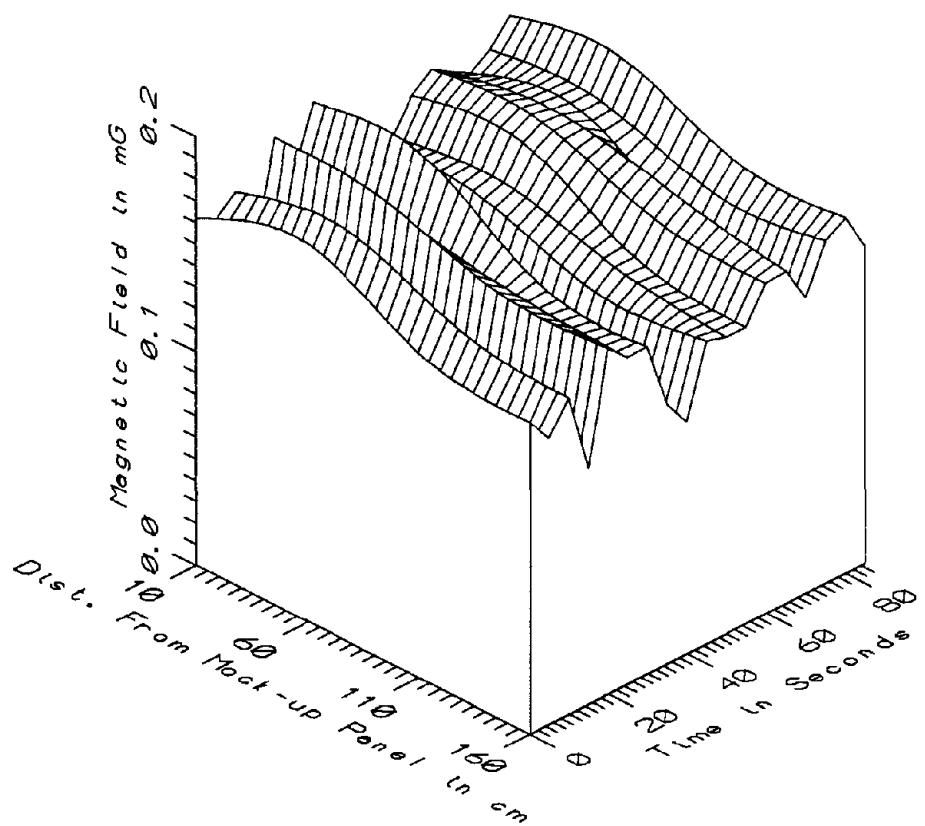
MET048 - IN DISPATCHER'S ROOM, 1.25M ABOVE FLOOR - LOW FREQ, 5-45Hz



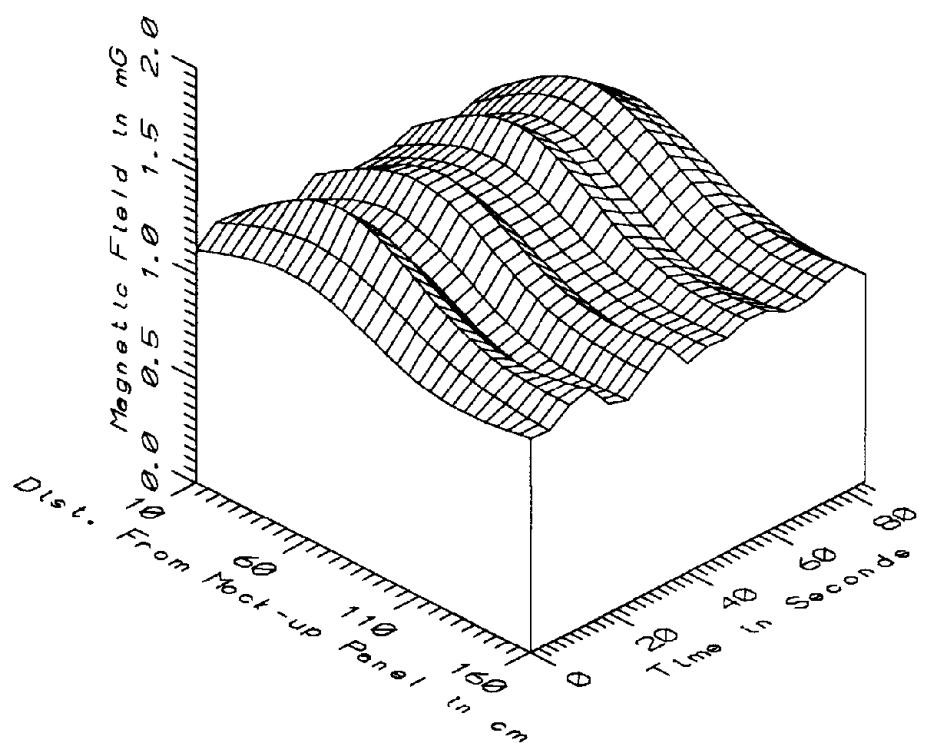
MET048 - IN DISPATCHER'S ROOM, 1.25M ABOVE FLOOR - POWER FREQ, 50-60Hz



MET048 - IN DISPATCHER'S ROOM, 1.25M ABOVE FLOOR - POWER HARM, 65-300Hz



MET048 - IN DISPATCHER'S ROOM, 1.25M ABOVE FLOOR - HIGH FREQ, 305-2560Hz



MET048 - IN DISPATCHER'S ROOM, 1.25M ABOVE FLOOR - ALL FREQ, 5-2560Hz

MET048 - IN DISPATCHER'S ROOM, FROM MOCK-UP PANEL						TOTAL OF 18 SAMPLES	
FREQUENCY BAND	DIST FROM PANEL (cm)	MINIMUM MAGNETIC FIELD	MAXIMUM MAGNETIC FIELD	AVERAGE MAGNETIC FIELD	STANDARD DEVIATION	COEFFICIENT OF VARIATION (%)	
STATIC	10	472.87	484.39	477.36	3.53	0.74	
	60	632.81	644.55	639.02	3.38	0.53	
	110	657.27	662.33	659.47	1.28	0.19	
	160	639.81	645.17	641.71	1.46	0.23	
5-45Hz LOW FREQ	10	0.22	0.40	0.32	0.06	17.48	
	60	0.19	0.39	0.25	0.06	22.22	
	110	0.08	0.29	0.16	0.06	37.00	
	160	0.20	0.40	0.26	0.05	20.33	
50-60Hz PWR FREQ	10	0.46	0.68	0.57	0.07	12.44	
	60	0.68	1.05	0.87	0.10	11.89	
	110	0.40	0.75	0.59	0.09	15.96	
	160	0.28	0.58	0.43	0.10	22.19	
65-300Hz PWR HARM	10	0.89	0.93	0.91	0.01	1.14	
	60	0.96	1.01	0.98	0.01	1.48	
	110	0.84	0.90	0.88	0.02	2.33	
	160	0.86	0.92	0.89	0.02	1.77	
305-2560Hz HIGH FREQ	10	0.12	0.19	0.16	0.02	10.57	
	60	0.12	0.19	0.16	0.02	11.82	
	110	0.11	0.17	0.15	0.02	11.56	
	160	0.11	0.17	0.14	0.02	11.52	
5-2560Hz ALL FREQ	10	1.07	1.21	1.14	0.04	3.38	
	60	1.22	1.47	1.35	0.07	5.22	
	110	1.00	1.19	1.09	0.05	4.86	
	160	0.97	1.12	1.04	0.04	4.15	

APPENDIX AS

**DATASET MET049
CENTER OF AISLE, CENTER OF A 3000 SERIES CAR**

Measurement Setup Code: Staff: 1 Reference: -
Drawing: A-1

Vehicle Status: Traveling on the Red Line

Measurement Date: May 20, 1992

Measurement Time: Start: 12:04:30
End: 12:07:15

Number of Samples: 34

Programmed Sample Interval: 5 sec

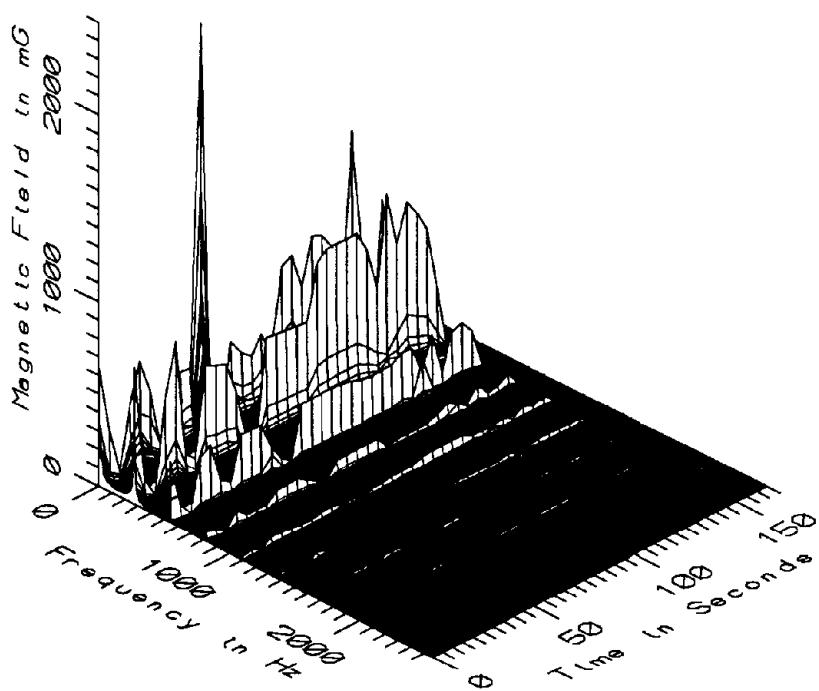
Actual Sample Interval: 5.0 sec

Frequency Spectrum Parameters

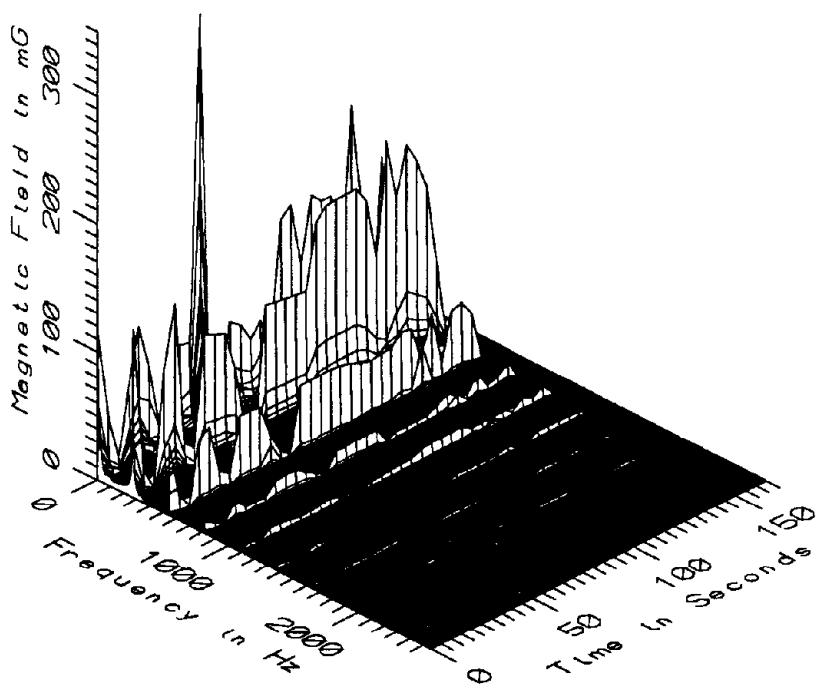
<u>Probe Type:</u>	<u>Wideband</u>	<u>Static</u>
Maximum Frequency (Hz)	2560	NA
Minimum Frequency (Hz)	5	NA
Spectral Bandwidth (Hz)	5	NA

Missing Data: No reference probe

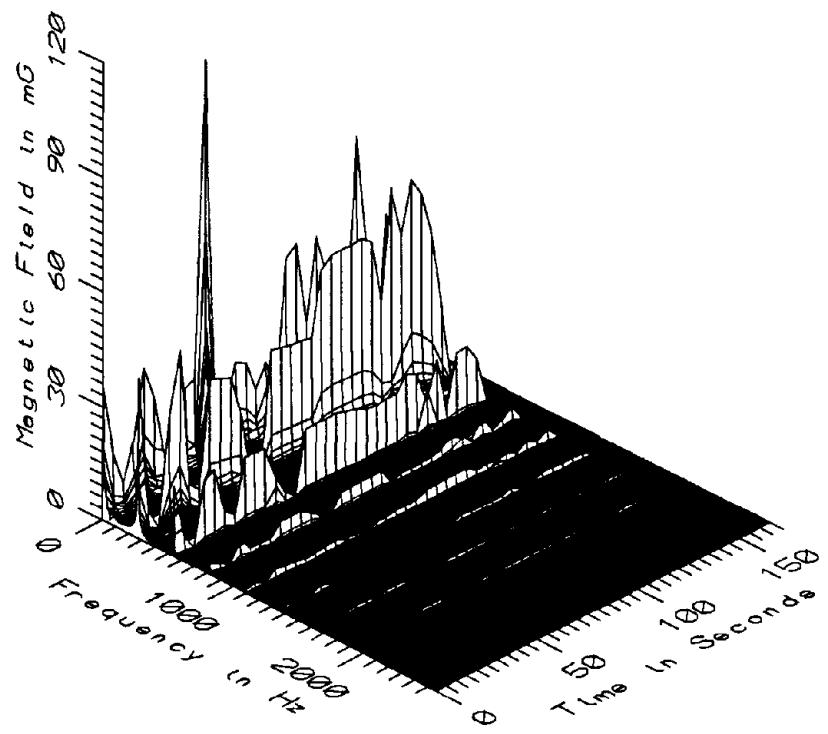
Saturated Data: None



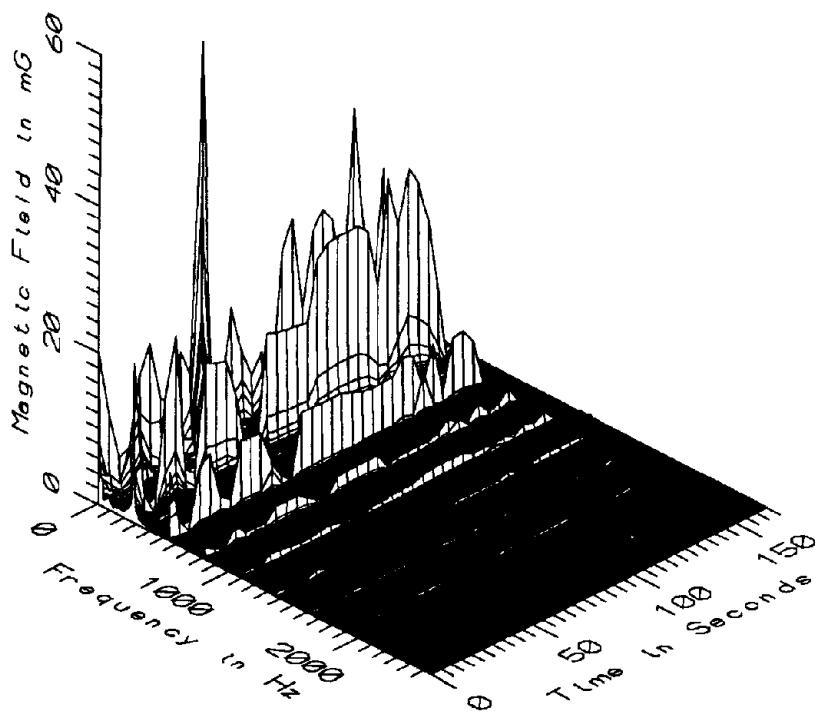
MET049 - 10cm ABOVE FLOOR, CENTER OF AISLE, CENTER OF CAR 3XXX



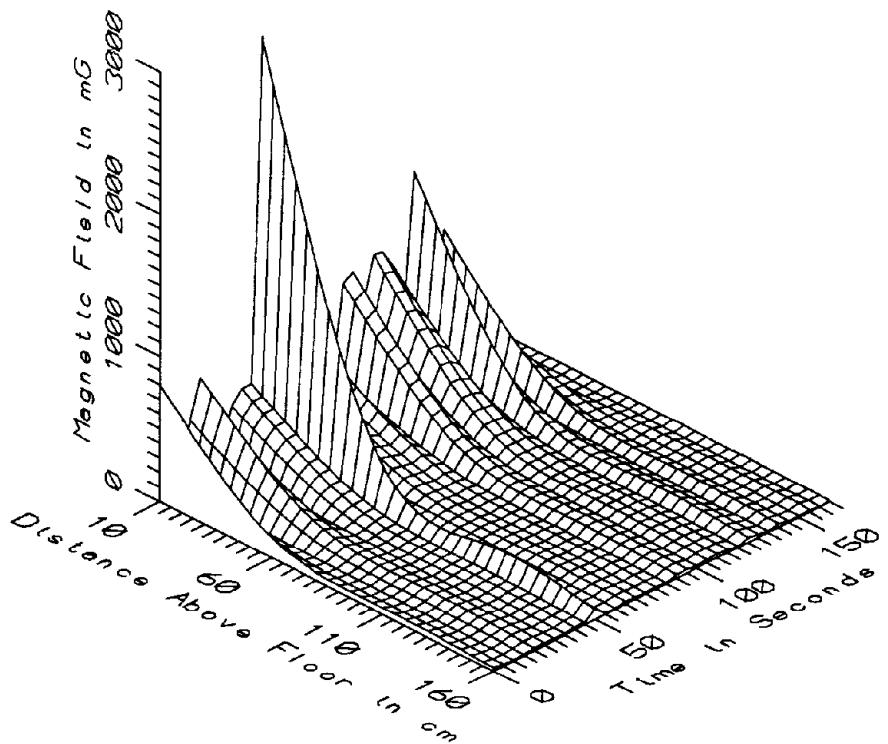
MET049 - 60cm ABOVE FLOOR, CENTER OF AISLE, CENTER OF CAR 3XXX



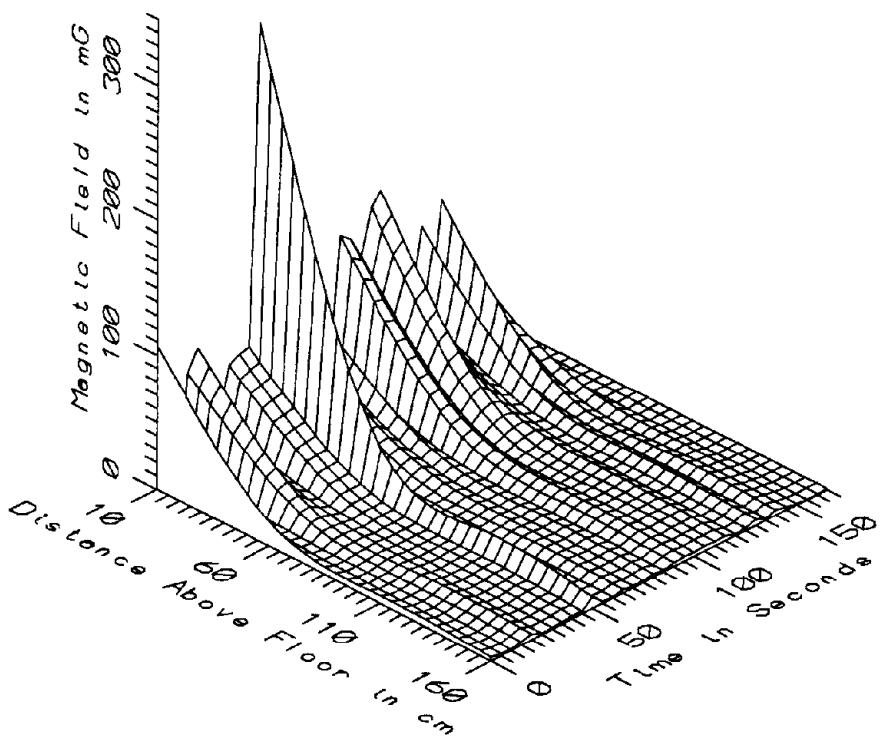
MET049 - 110cm ABOVE FLOOR, CENTER OF AISLE, CENTER OF CAR 3XXX



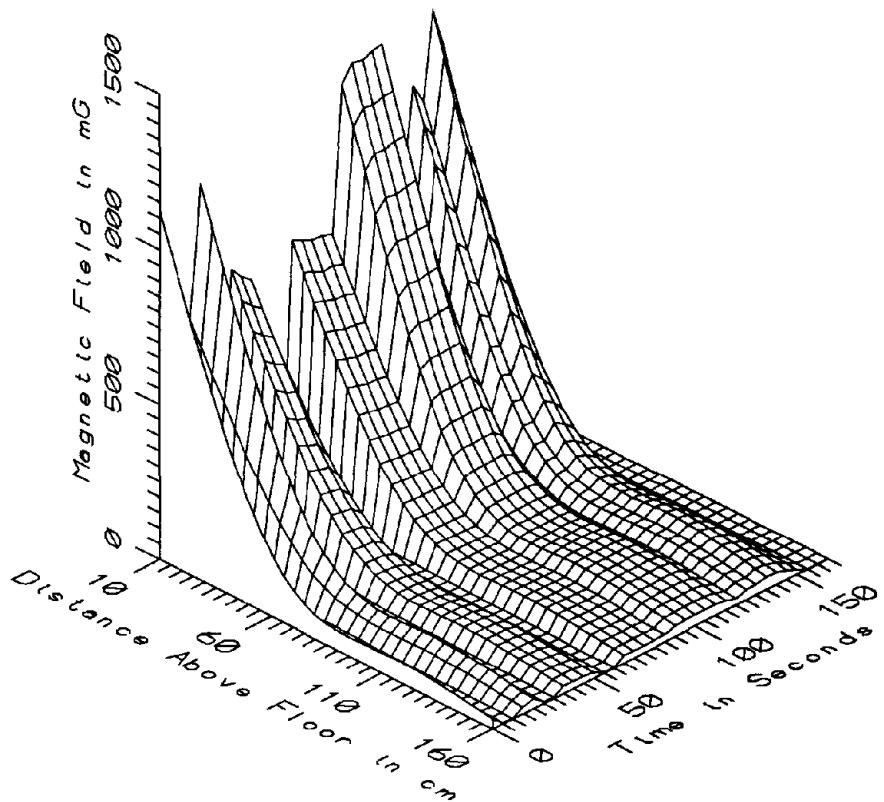
MET049 - 160cm ABOVE FLOOR, CENTER OF AISLE, CENTER OF CAR 3XXX



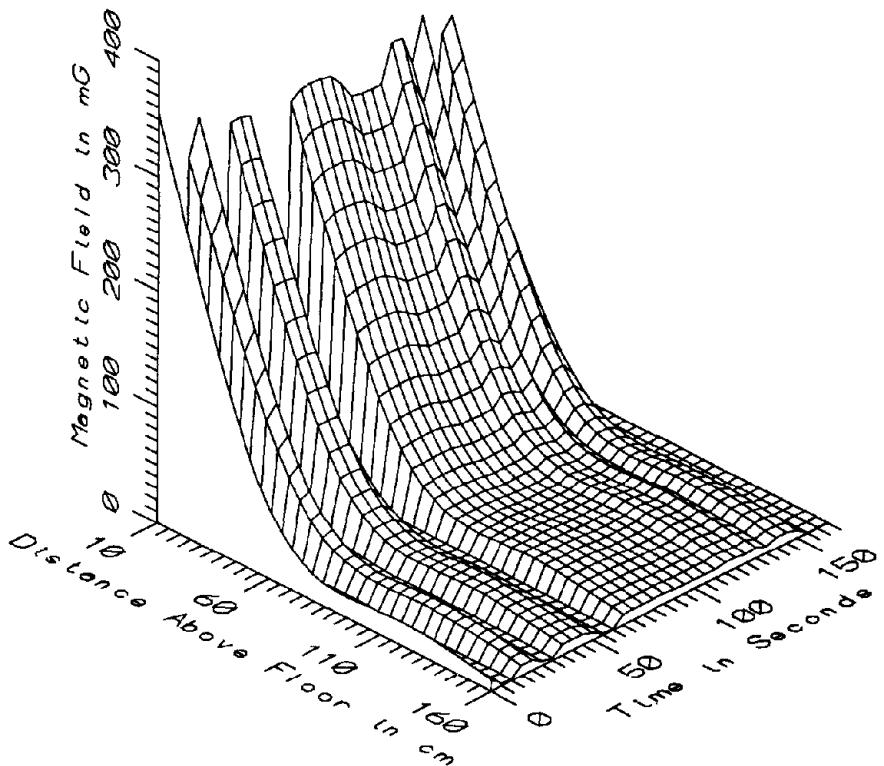
MET049 - CENTER OF AISLE, CENTER OF CAR 3XXX - LOW FREQ, 5-45Hz



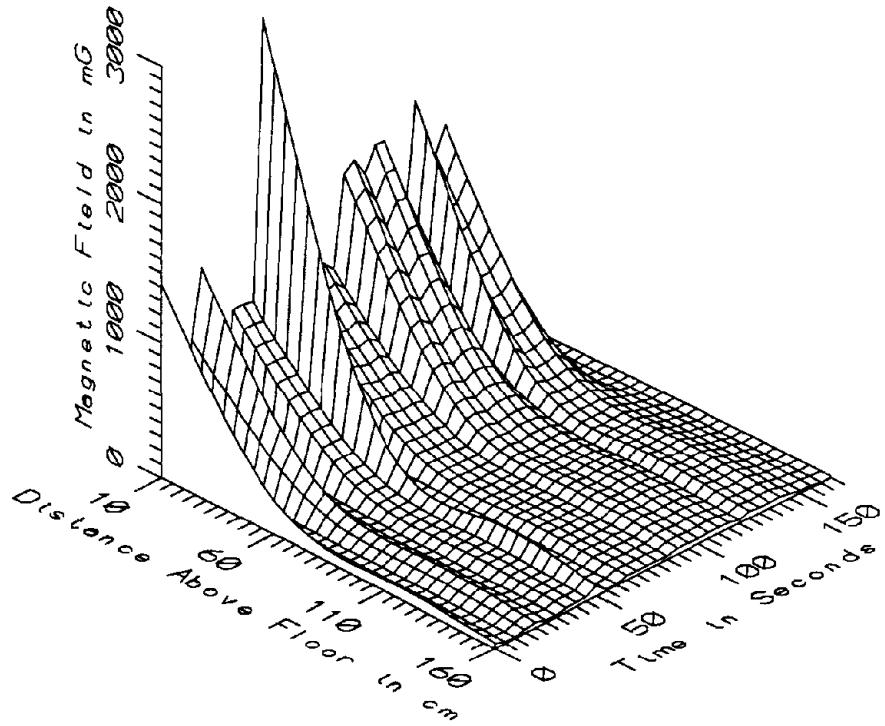
MET049 - CENTER OF AISLE, CENTER OF CAR 3XXX - POWER FREQ, 50-60Hz



MET049 - CENTER OF AISLE, CENTER OF CAR 3XXX - POWER HARM, 65-300Hz



MET049 - CENTER OF AISLE, CENTER OF CAR 3XXX - HIGH FREQ, 305-2560Hz



MET049 - CENTER OF AISLE, CENTER OF CAR 3XXX - ALL FREQ, 5-2560Hz

MET049 - CENTER OF AISLE, CENTER OF CAR 3XXX						TOTAL OF 34 SAMPLES	
FREQUENCY BAND	HEIGHT ABOVE FLOOR (cm)	MINIMUM MAGNETIC FIELD (mG)	MAXIMUM MAGNETIC FIELD (mG)	AVERAGE MAGNETIC FIELD (mG)	STANDARD DEVIATION (mG)	COEFFICIENT OF VARIATION (%)	
5-45Hz LOW FREQ	10	6.10	2892.17	562.16	532.03	94.64	
	60	4.76	423.92	98.53	80.03	81.23	
	110	4.06	139.46	33.88	24.93	73.58	
	160	5.70	71.44	18.56	12.52	67.47	
50-60Hz PWR FREQ	10	1.23	309.21	70.29	56.62	80.54	
	60	1.05	50.82	12.59	9.18	72.90	
	110	0.91	16.27	4.37	2.93	66.96	
	160	0.66	8.32	2.35	1.57	66.88	
65-300Hz PWR HARM	10	1.36	1326.18	738.81	456.98	61.85	
	60	1.53	248.63	133.47	81.88	61.35	
	110	1.51	86.06	44.17	26.89	60.88	
	160	1.21	43.11	22.03	13.28	60.30	
305-2560Hz HIGH FREQ	10	1.11	355.32	230.90	121.29	52.53	
	60	1.06	61.60	41.19	21.28	51.68	
	110	0.99	19.92	13.65	6.82	49.96	
	160	0.77	9.91	6.84	3.32	48.56	
5-2560Hz ALL FREQ	10	7.13	2986.99	997.97	657.03	65.84	
	60	5.31	443.59	177.78	106.55	59.94	
	110	4.55	145.92	60.23	32.66	54.23	
	160	6.00	74.62	31.32	15.64	49.94	



APPENDIX AT

**DATASET MET050
AXIAL PROFILE IN CENTER OF A 3000 SERIES CAR,
FLOOR LEVEL**

Measurement Setup Code: Staff: 2 Reference: -
Drawing: A-1

Vehicle Status: Traveling on the Red Line

Measurement Date: May 20, 1992

Measurement Time: Start: 12:07:32
End: 12:08:20

Number of Samples: 11

Programmed Sample Interval: 5 sec

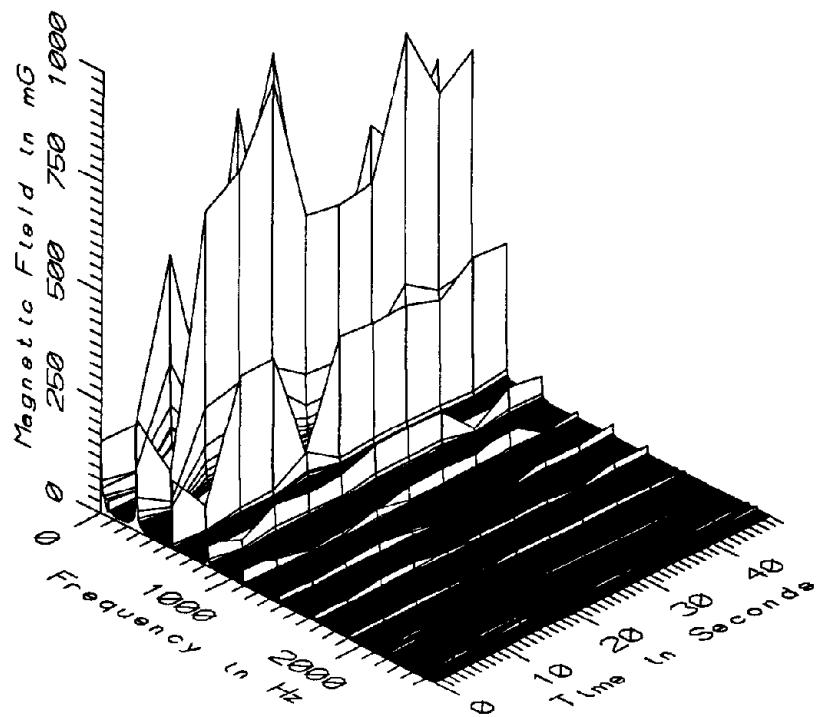
Actual Sample Interval: 4.8 sec

Frequency Spectrum Parameters

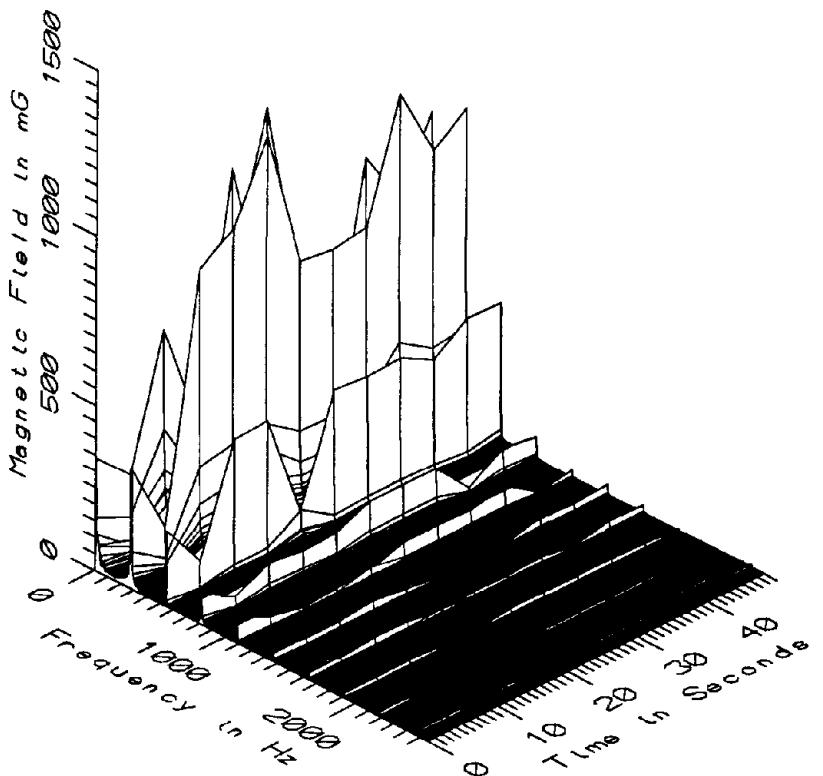
<u>Probe Type:</u>	<u>Wideband</u>	<u>Static</u>
Maximum Frequency (Hz)	2560	NA
Minimum Frequency (Hz)	5	NA
Spectral Bandwidth (Hz)	5	NA

Missing Data: No reference probe

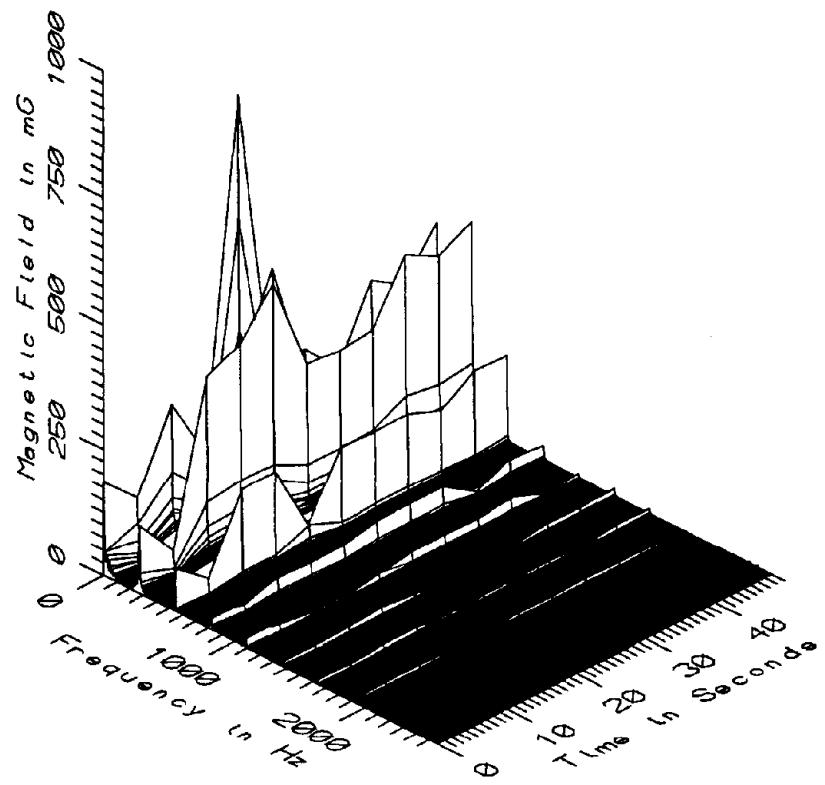
Saturated Data: None



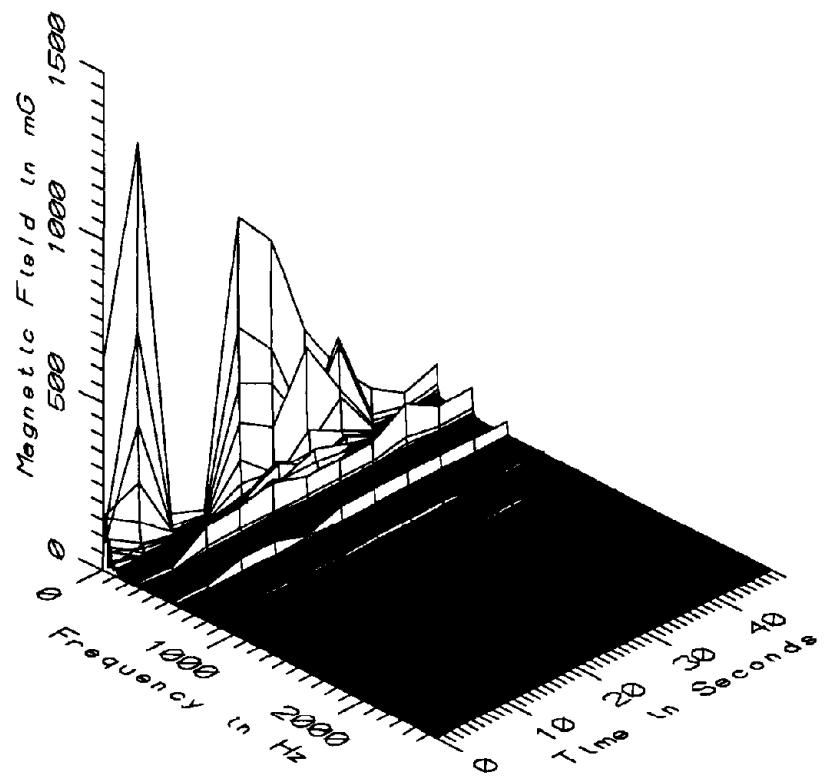
MET050 - -50cm FROM CENTER OF CAR 3XXX ALONG AXIS, FLOOR LEVEL



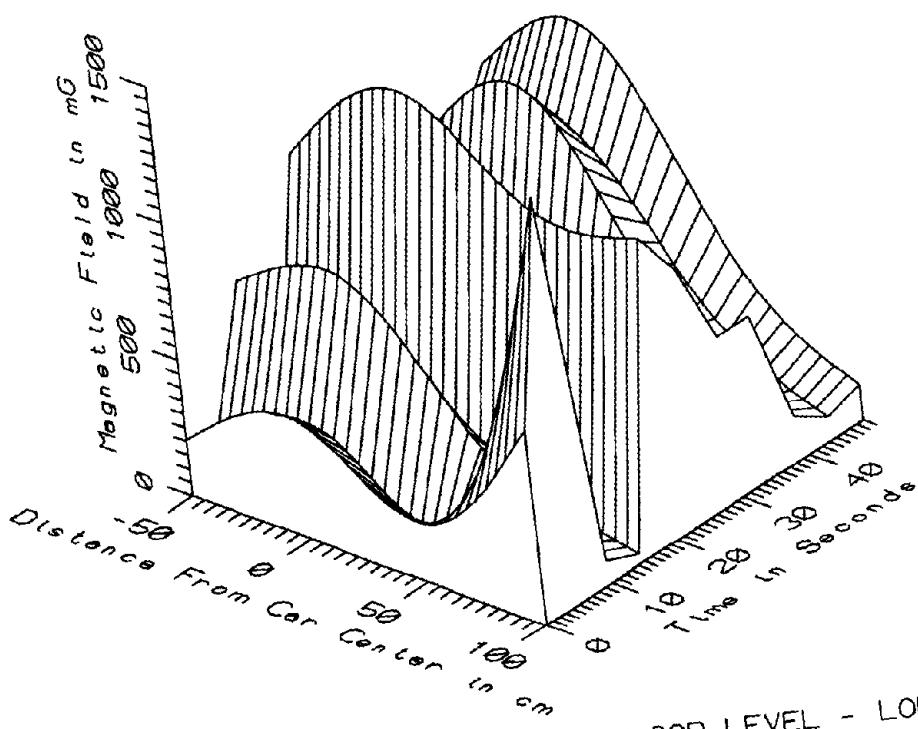
MET050 - 0cm FROM CENTER OF CAR 3XXX ALONG AXIS, FLOOR LEVEL



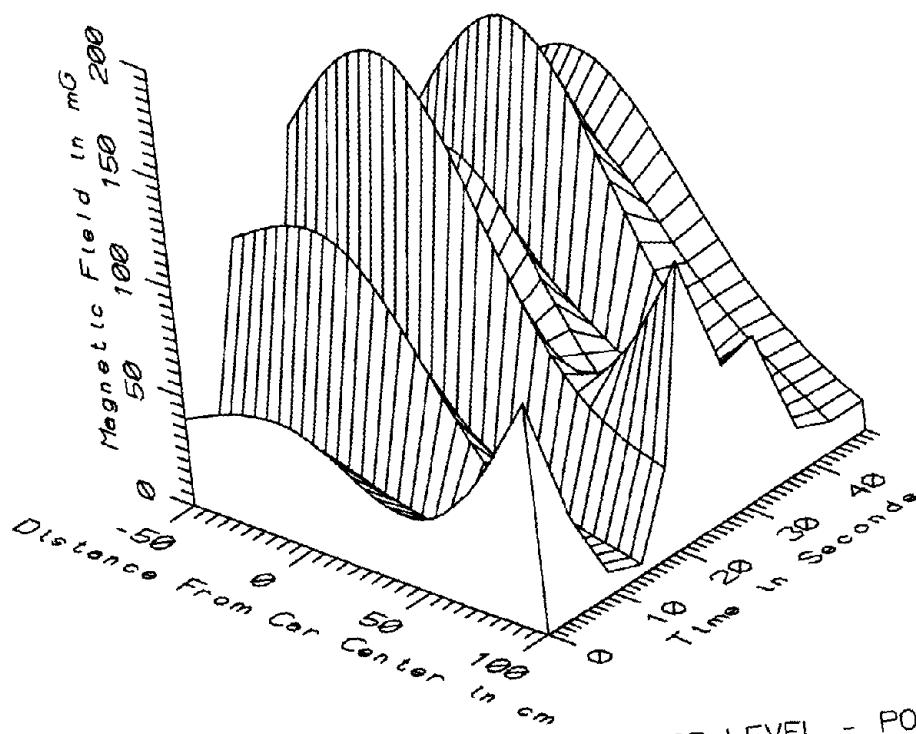
MET050 - 50cm FROM CENTER OF CAR 3XXX ALONG AXIS, FLOOR LEVEL



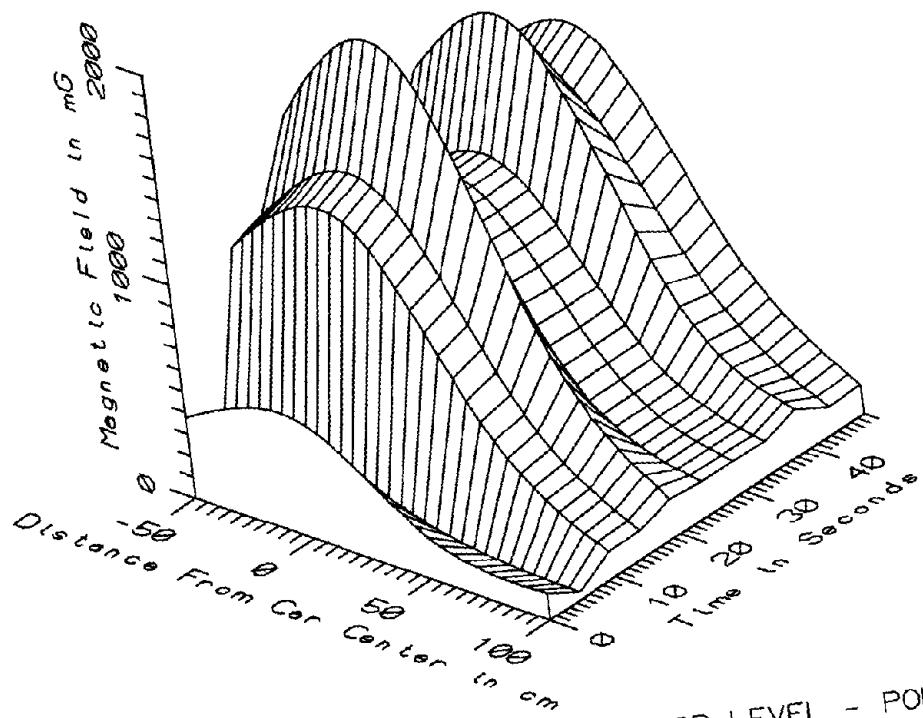
MET050 - 100cm FROM CENTER OF CAR 3XXX ALONG AXIS, FLOOR LEVEL



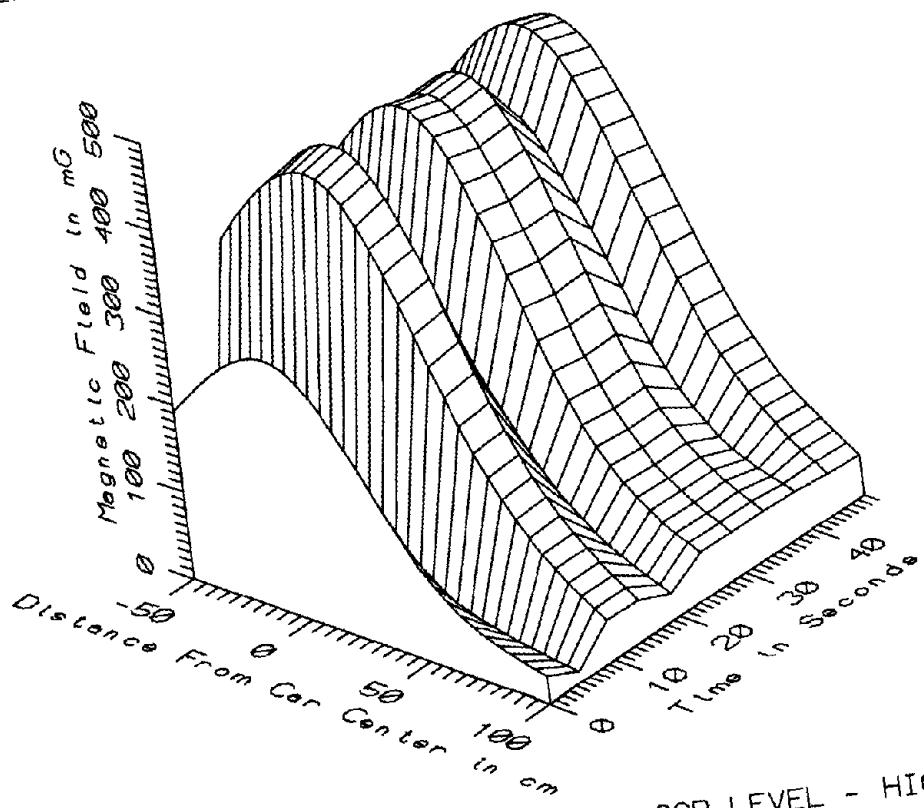
MET050 - AXIAL AT CENTER OF CAR 3XXX, FLOOR LEVEL - LOW FREQ. 5-45Hz



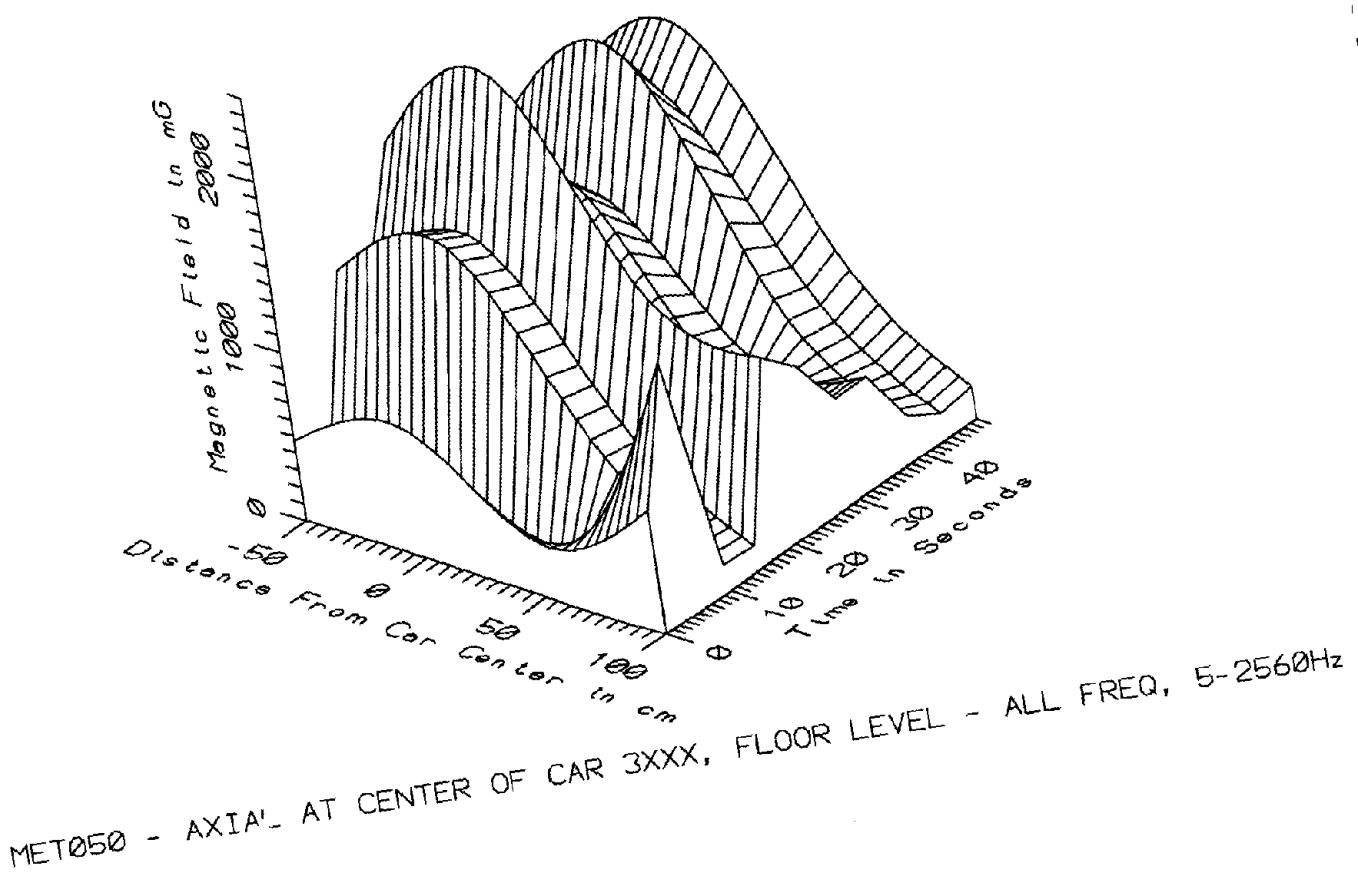
MET050 - AXIAL AT CENTER OF CAR 3XXX, FLOOR LEVEL - POWER FREQ. 50-60Hz



MET050 - AXIAL AT CENTER OF CAR 3XXX, FLOOR LEVEL - POWER HARM, 65-300Hz



MET050 - AXIAL AT CENTER OF CAR 3XXX, FLOOR LEVEL - HIGH FREQ, 305-2560Hz



AT-6

MET050 - AXIAL AT CENTER OF CAR 3XXX, FLOOR LEVEL						TOTAL OF 11 SAMPLES	
FREQUENCY BAND	DIST FROM CENTER (cm)	MINIMUM MAGNETIC FIELD	MAXIMUM MAGNETIC FIELD	AVERAGE MAGNETIC FIELD	STANDARD DEVIATION	COEFFICIENT OF VARIATION (%)	
5-45Hz LOW FREQ	-50	185.54	952.82	507.20	269.83	53.20	
	0	288.56	1342.63	736.54	346.60	47.06	
	50	150.33	1084.48	373.23	253.93	68.04	
	100	34.97	1484.10	540.20	487.56	90.26	
50-60Hz PWR FREQ	-50	31.07	136.52	75.90	35.46	46.72	
	0	30.43	184.10	102.43	47.75	46.61	
	50	18.24	81.77	45.36	18.63	41.09	
	100	4.95	124.72	46.95	40.83	86.97	
65-300Hz PWR HARM	-50	144.72	1415.77	869.31	362.81	41.74	
	0	203.73	1892.81	1167.86	468.00	40.07	
	50	78.40	784.70	478.06	197.01	41.21	
	100	34.86	217.35	144.72	46.69	32.26	
305-2560Hz HIGH FREQ	-50	78.39	349.58	286.46	86.28	30.12	
	0	110.88	454.00	382.54	109.91	28.73	
	50	43.42	194.36	156.59	47.97	30.63	
	100	12.92	53.87	43.04	13.03	30.29	
5-2560Hz ALL FREQ	-50	251.16	1726.84	1062.75	426.16	40.10	
	0	371.48	2346.56	1454.09	545.19	37.49	
	50	175.96	1346.70	641.34	295.56	46.08	
	100	143.93	1485.29	590.96	453.96	76.82	



APPENDIX AU

DATASET MET051

**TRANSVERSE PROFILE IN CENTER OF A 3000 SERIES CAR,
FLOOR LEVEL**

Measurement Setup Code: Staff: 3 Reference: -
Drawing: A-1

Vehicle Status: Traveling on the Red Line

Measurement Date: May 20, 1992

Measurement Time: Start: 12:09:43
End: 12:10:25

Number of Samples: 9

Programmed Sample Interval: 5 sec

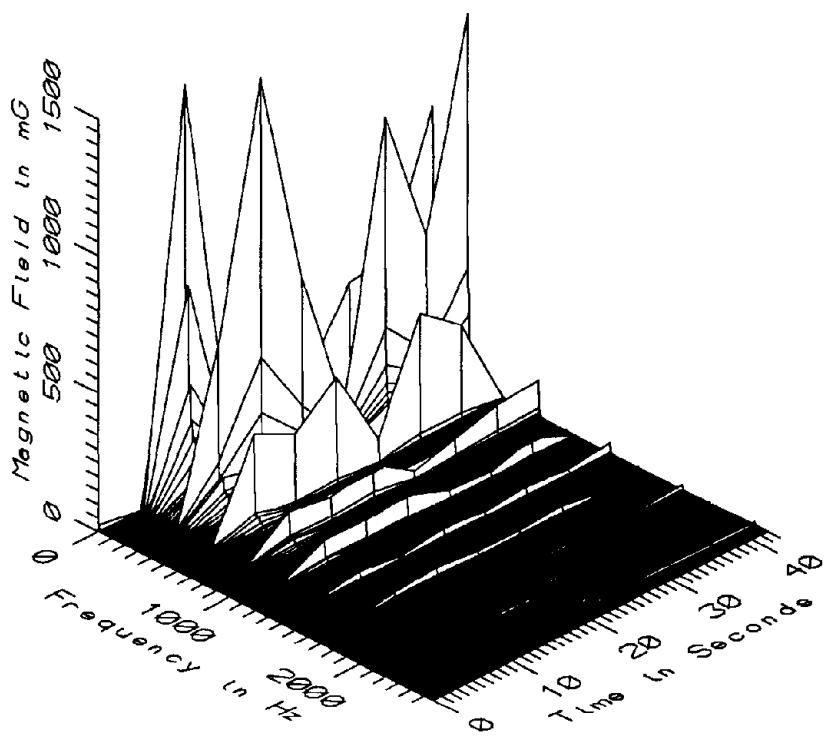
Actual Sample Interval: 5.3 sec

Frequency Spectrum Parameters

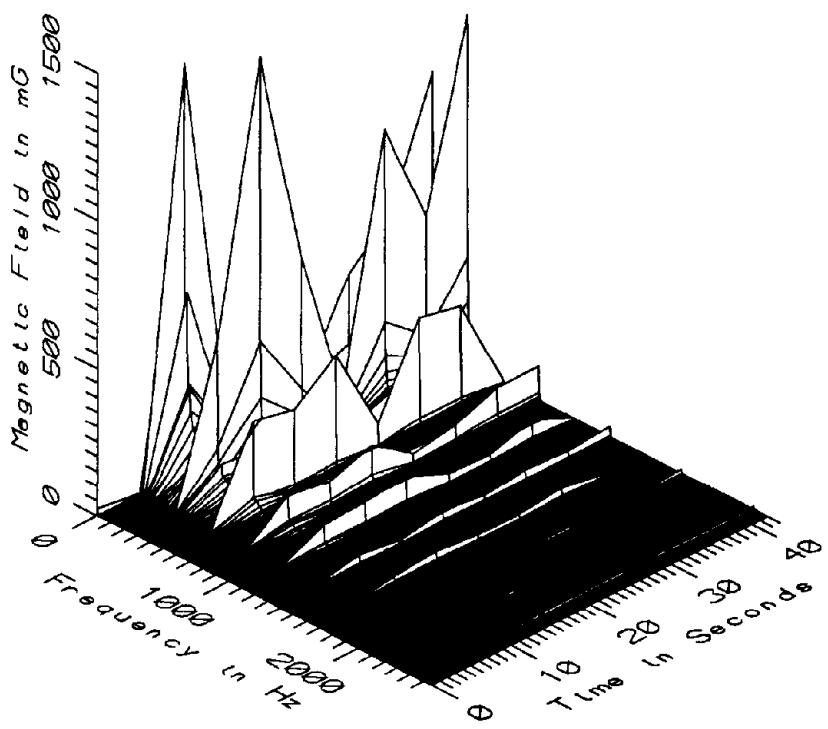
<u>Probe Type:</u>	<u>Wideband</u>	<u>Static</u>
Maximum Frequency (Hz)	2560	NA
Minimum Frequency (Hz)	5	NA
Spectral Bandwidth (Hz)	5	NA

Missing Data: No reference probe

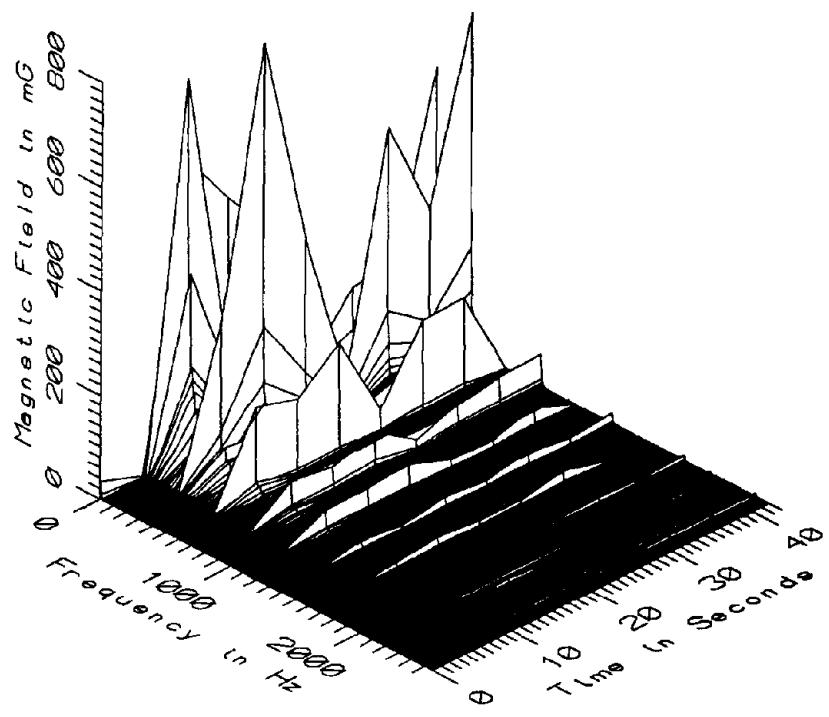
Saturated Data - Wideband:	<u>Sensor</u>	<u>Sample</u>	<u>Time (sec)</u>
	100cm	7	32



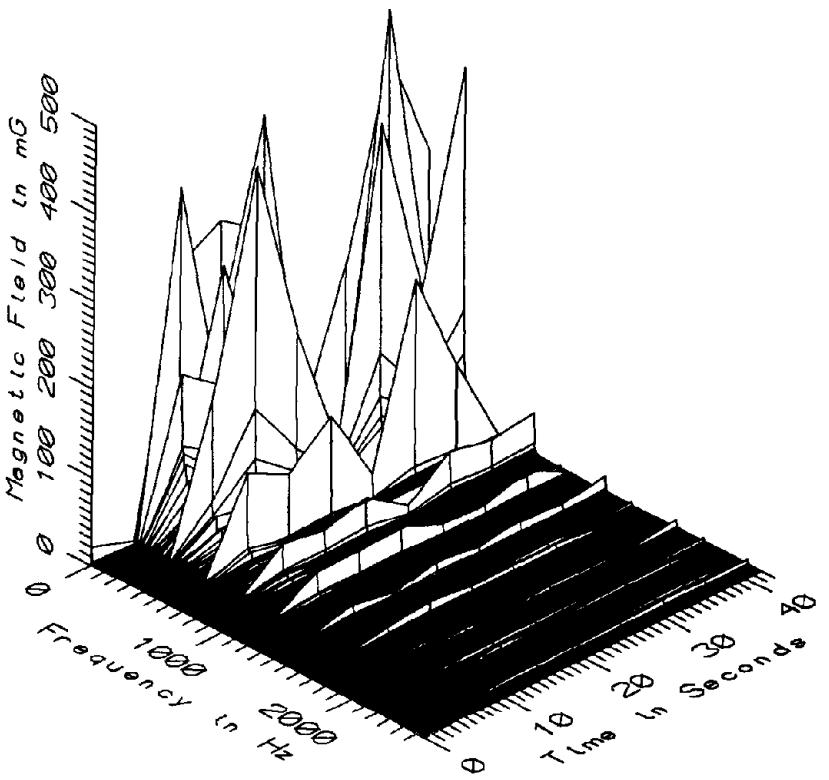
MET051 - -50cm FROM CENTERLINE, CENTER OF CAR 3XXX, FLOOR LEVEL



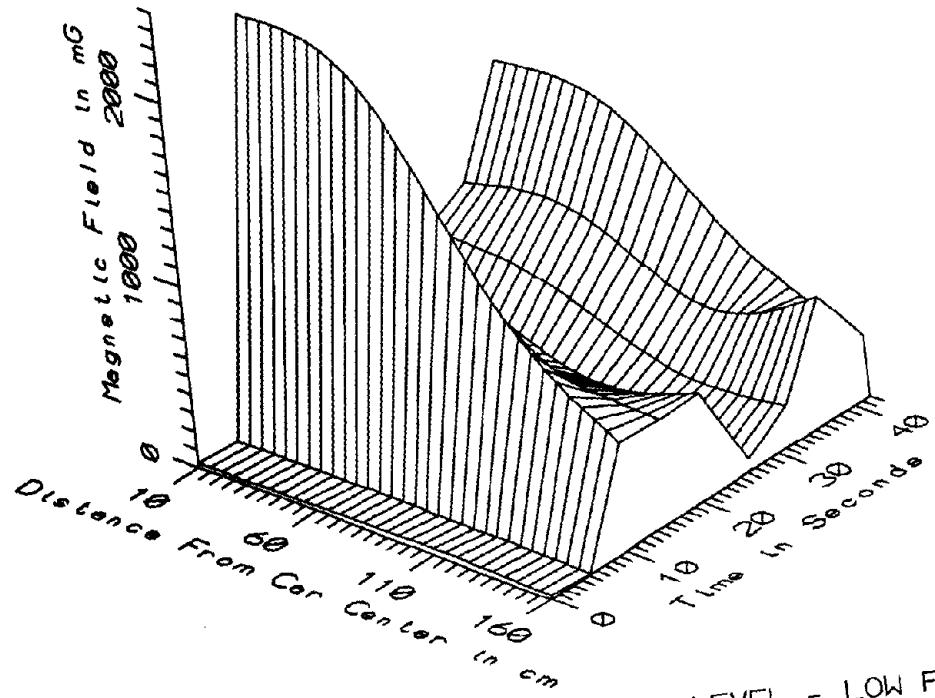
MET051 - 0cm FROM CENTERLINE, CENTER OF CAR 3XXX, FLOOR LEVEL



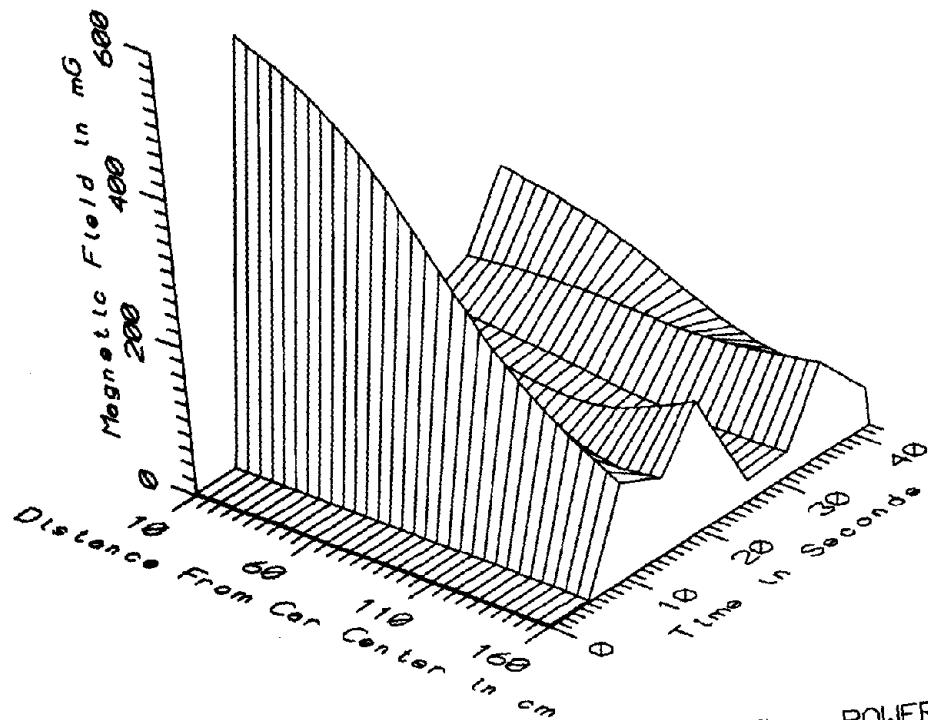
MET051 - 50cm FROM CENTERLINE, CENTER OF CAR 3XXX, FLOOR LEVEL



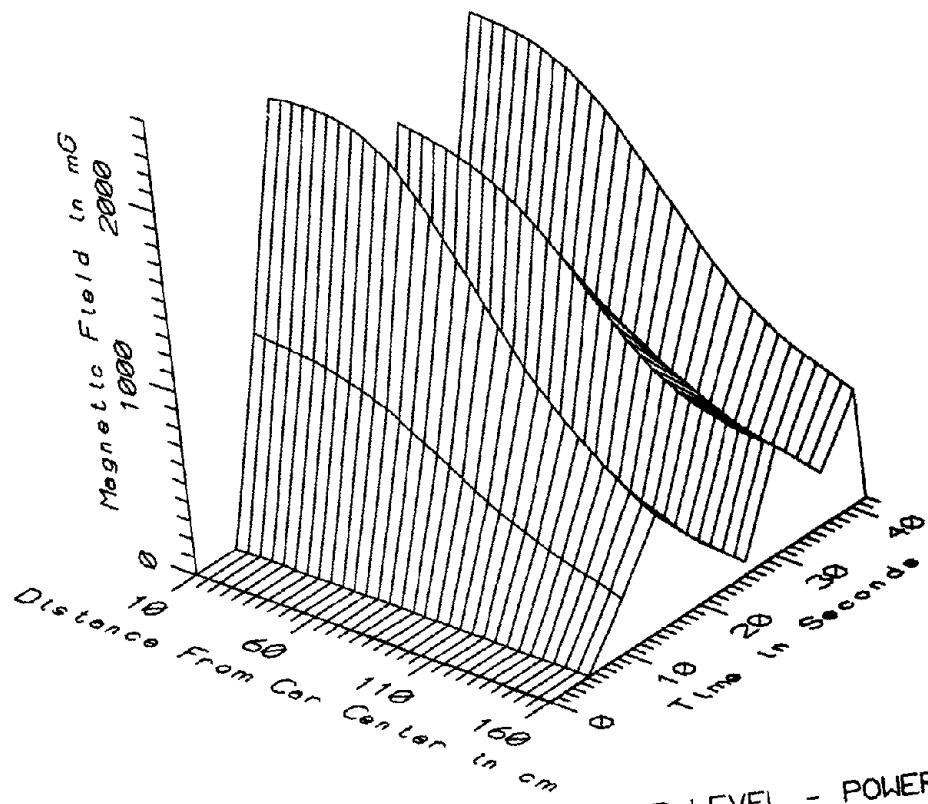
MET051 - 100cm FROM CENTERLINE, CENTER OF CAR 3XXX, FLOOR LEVEL



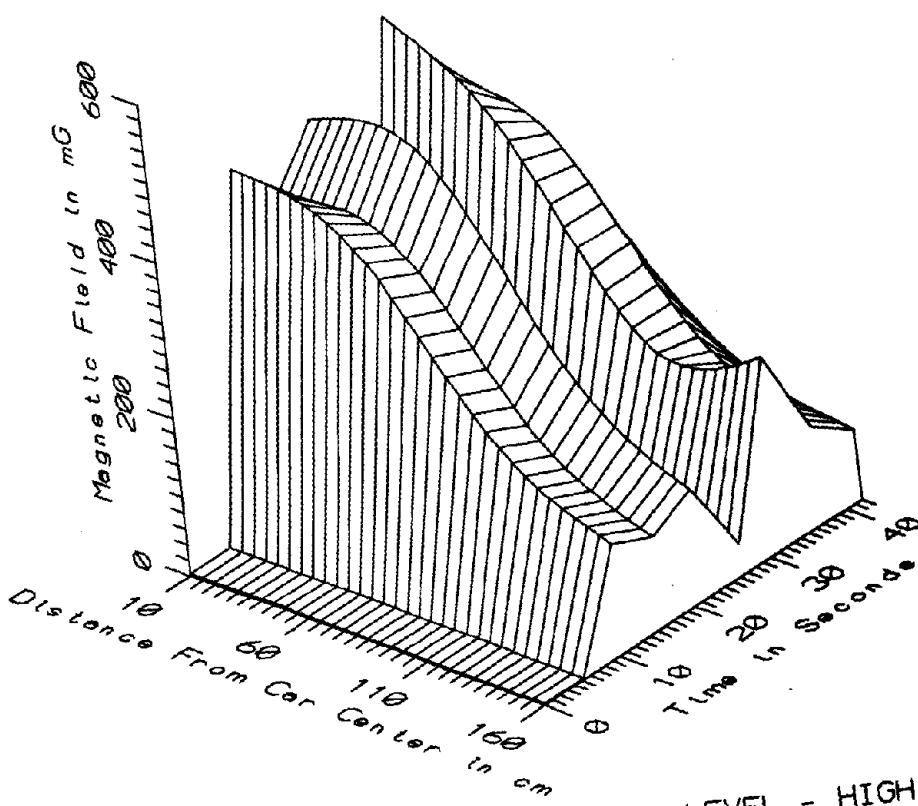
MET051 - TRANS. CENTER OF CAR 3XXX, FLOOR LEVEL - LOW FREQ, 5-45Hz



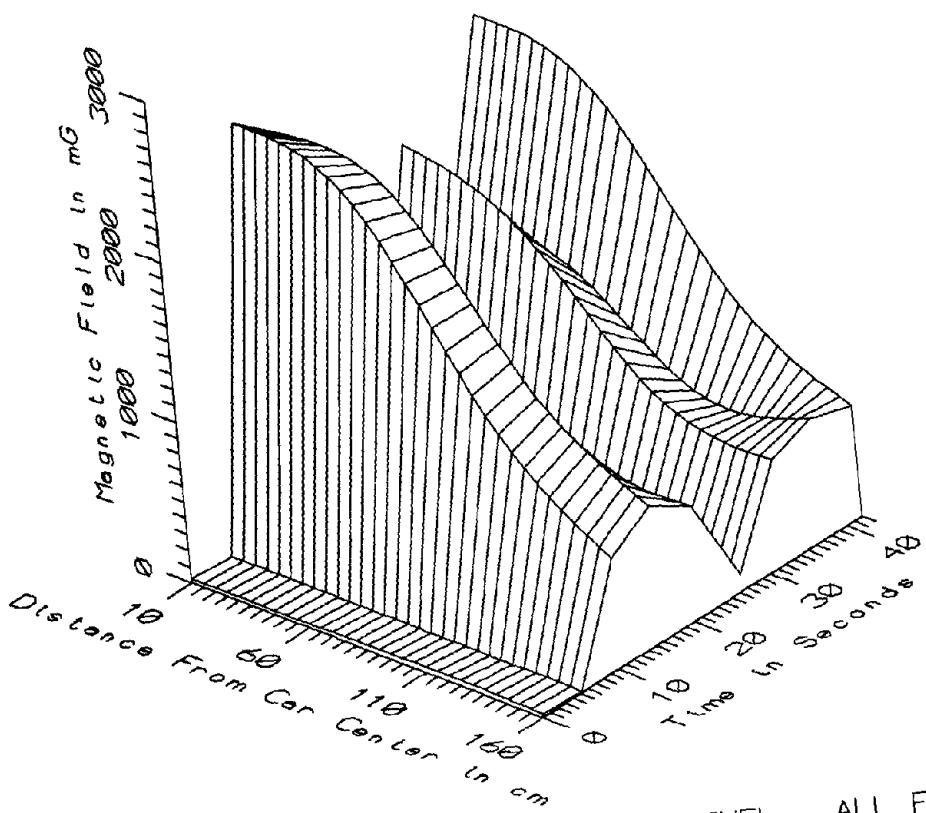
MET051 - TRANS. CENTER OF CAR 3XXX, FLOOR LEVEL - POWER FREQ, 50-60Hz



MET051 - TRANS. CENTER OF CAR 3XXX, FLOOR LEVEL - POWER HARM. 65-300Hz



MET051 - TRANS. CENTER OF CAR 3XXX, FLOOR LEVEL - HIGH FREQ. 305-2560Hz



MET051 - TRANS, CENTER OF CAR 3XXX, FLOOR LEVEL - ALL FREQ, 5-2560Hz

MET051 - TRANSVERSE, CENTER OF CAR 3XXX, FLOOR LEVEL							TOTAL OF 9 SAMPLES
FREQUENCY BAND	DIST FROM CENTER (cm)	MINIMUM MAGNETIC FIELD (mG)	MAXIMUM MAGNETIC FIELD (mG)	AVERAGE MAGNETIC FIELD (mG)	STANDARD DEVIATION (mG)	COEFFICIENT OF VARIATION (%)	
5-45Hz LOW FREQ	-50	5.87	2213.33	674.12	675.36	100.18	
	0	7.01	2049.32	643.20	634.05	98.58	
	50	5.21	1117.23	389.93	355.36	91.13	
	100	5.07	688.05	339.99	270.08	79.44	
50-60Hz PWR FREQ	-50	2.45	556.24	127.62	169.13	132.52	
	0	2.14	454.09	112.23	137.59	122.60	
	50	2.80	250.03	73.33	77.29	105.41	
	100	2.51	168.70	69.96	60.38	86.29	
65-300Hz PWR HARM	-50	1.99	2204.69	1003.82	824.08	82.09	
	0	2.22	2082.19	910.59	750.95	82.47	
	50	1.79	1176.80	510.57	417.22	81.72	
	100	1.55	606.44	302.57	245.50	81.14	
305-2560Hz HIGH FREQ	-50	2.93	516.05	288.77	200.13	69.31	
	0	2.55	453.08	266.15	183.80	69.06	
	50	1.90	247.04	142.66	97.95	68.66	
	100	1.65	244.98	99.79	77.45	77.62	
5-2560Hz ALL FREQ	-50	7.35	2552.22	1317.77	1003.63	76.16	
	0	8.08	2323.89	1213.59	924.04	76.14	
	50	6.47	1343.72	691.28	521.14	75.39	
	100	6.09	843.43	494.59	342.64	69.28	

APPENDIX AV

DATASET MET052

**TRANSVERSE PROFILE IN CENTER OF A 3000 SERIES CAR,
1 m (3.3 ft) ABOVE FLOOR**

Measurement Setup Code: Staff: 3 Reference: -
Drawing: A-1

Vehicle Status: Traveling on the Red Line

Measurement Date: May 20, 1992

Measurement Time: Start: 12:10:45
End: 12:10:55

Number of Samples: 3

Programmed Sample Interval: 5 sec

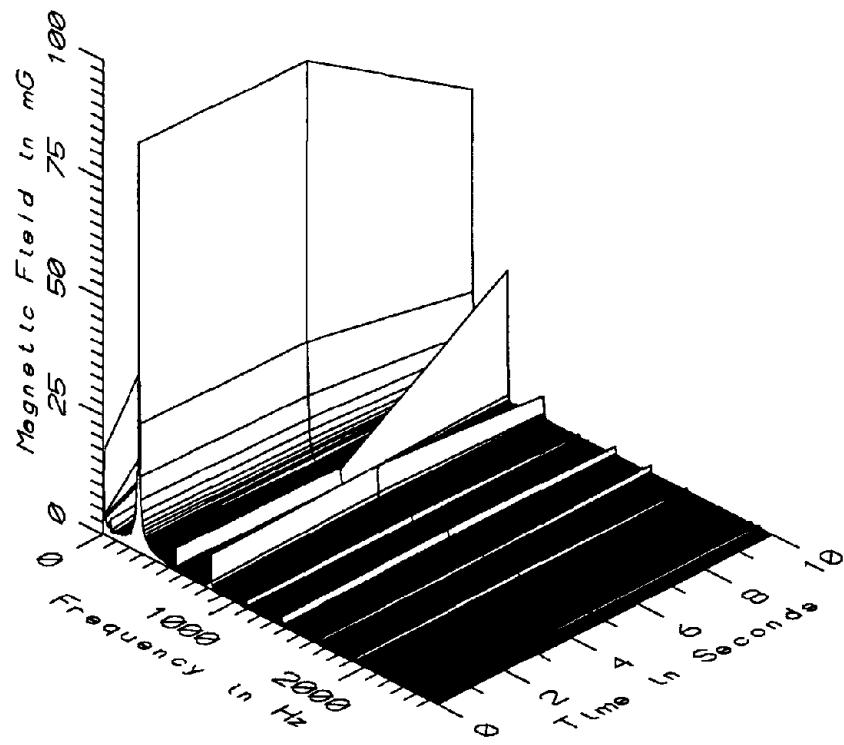
Actual Sample Interval: 5.0 sec

Frequency Spectrum Parameters

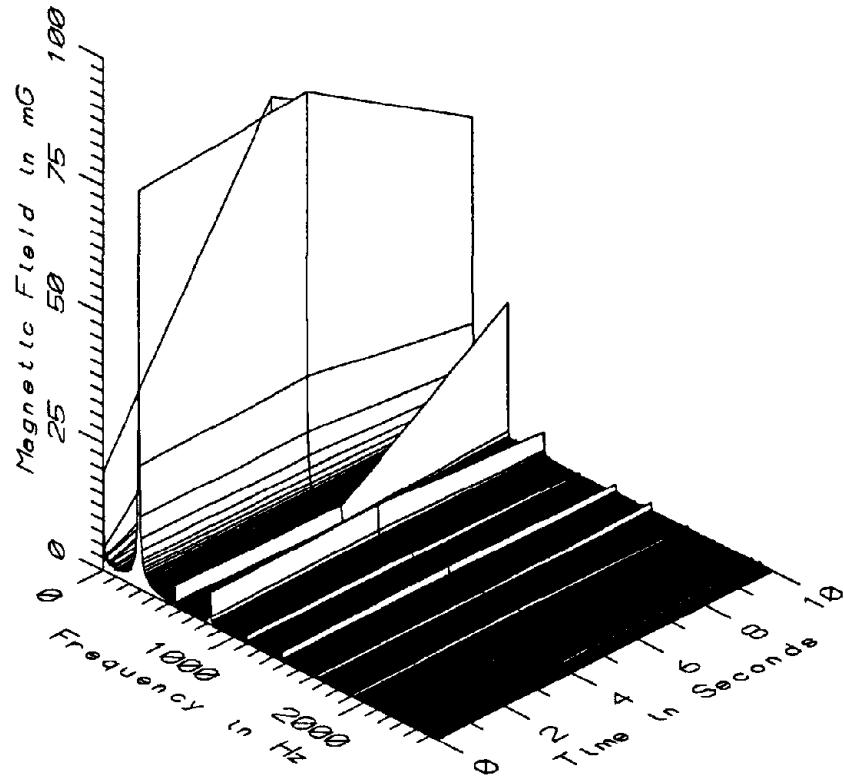
<u>Probe Type:</u>	<u>Wideband</u>	<u>Static</u>
Maximum Frequency (Hz)	2560	NA
Minimum Frequency (Hz)	5	NA
Spectral Bandwidth (Hz)	5	NA

Missing Data: No reference probe

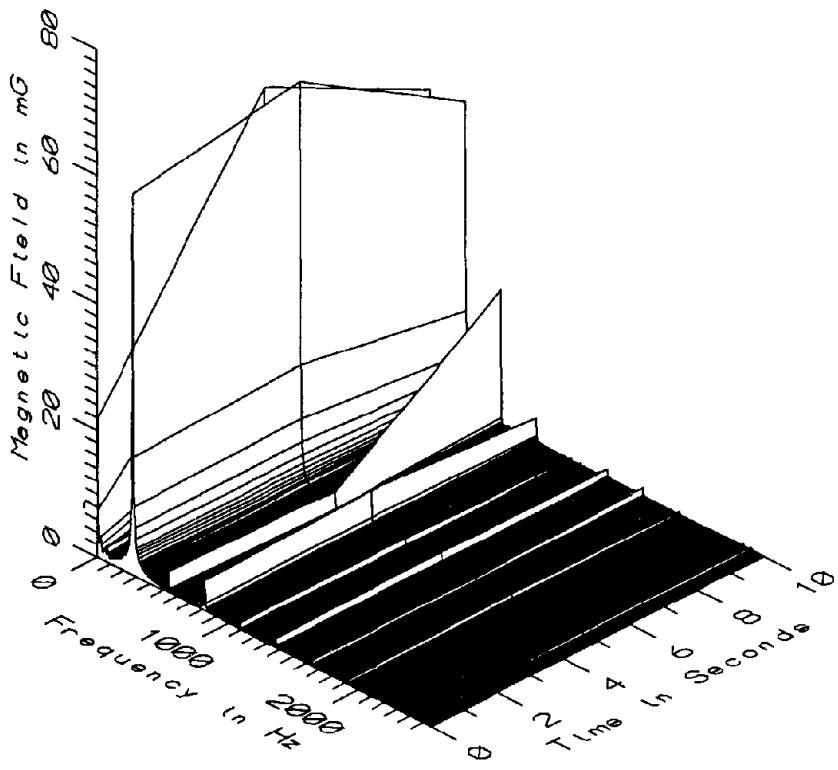
Saturated Data: None



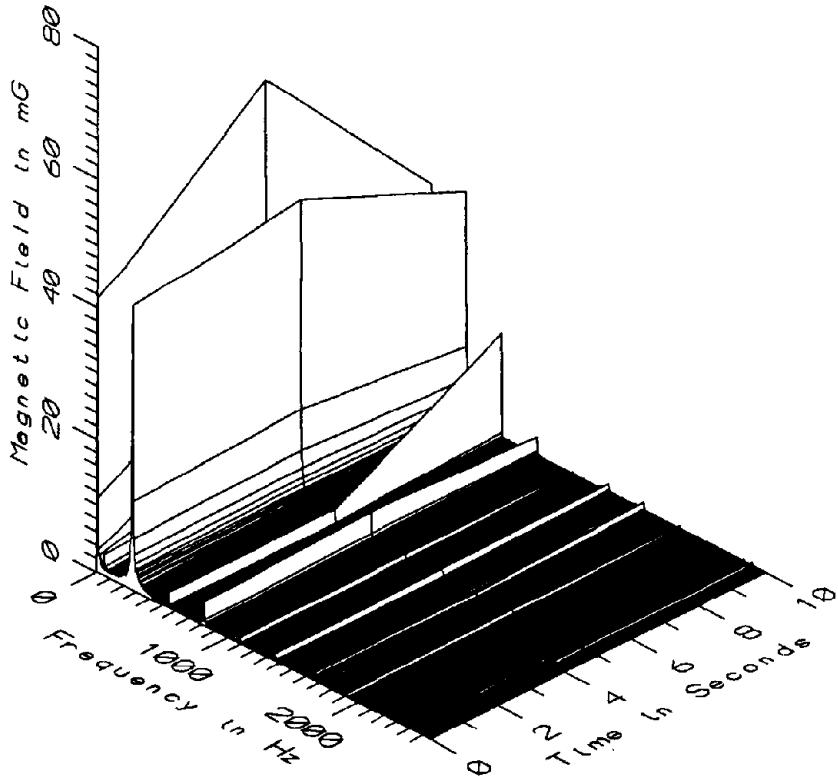
MET052 - -50cm FROM CENTERLINE, CENTER OF CAR 3XXX, 1M ABOVE FLOOR



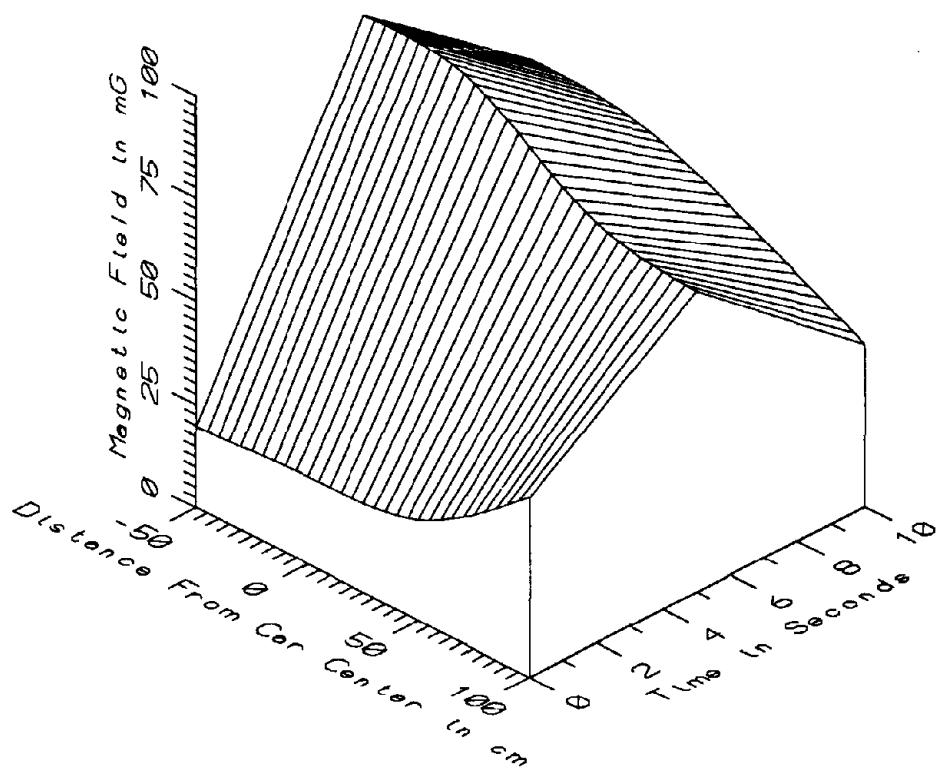
MET052 - 0cm FROM CENTERLINE, CENTER OF CAR 3XXX, 1M ABOVE FLOOR



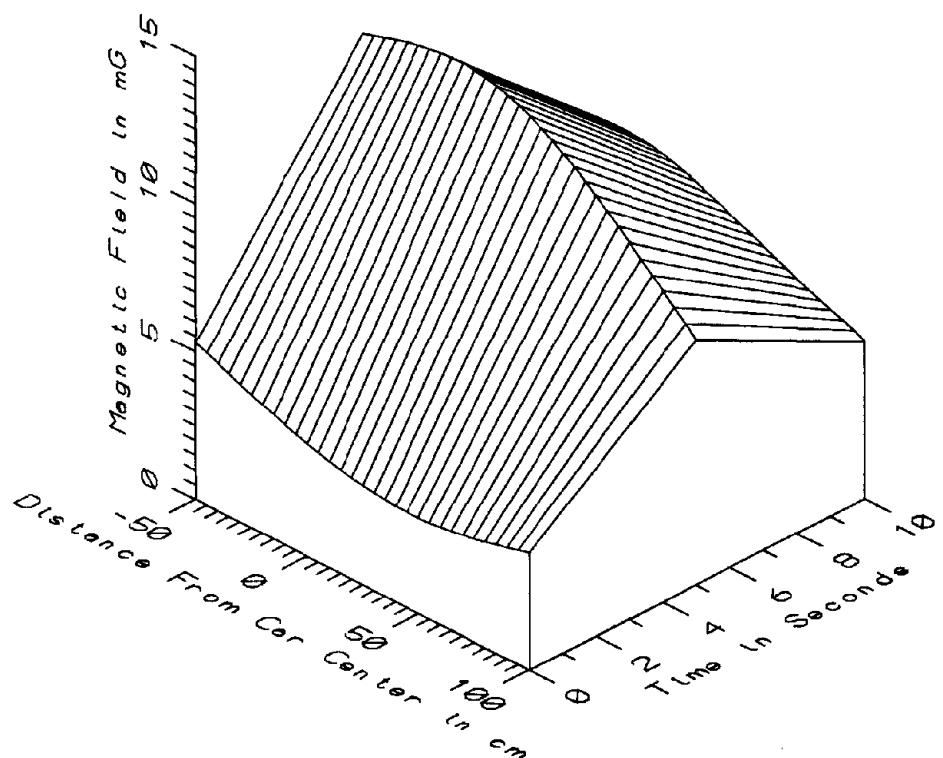
MET052 - 50cm FROM CENTERLINE, CENTER OF CAR 3XXX, 1M ABOVE FLOOR



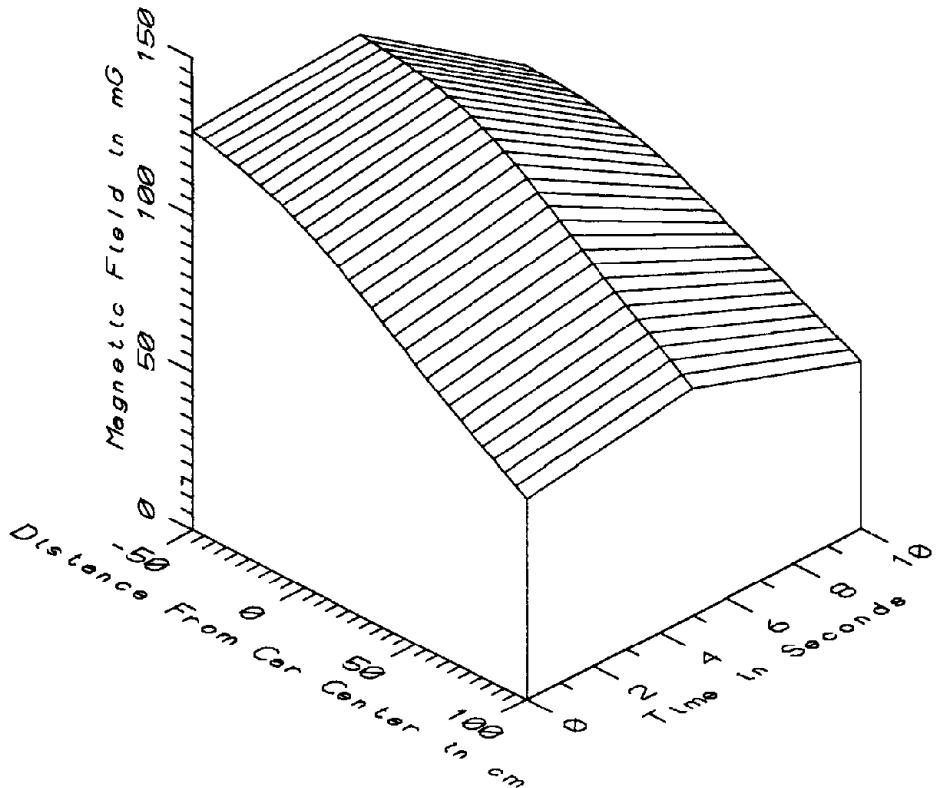
MET052 - 100cm FROM CENTERLINE, CENTER OF CAR 3XXX, 1M ABOVE FLOOR



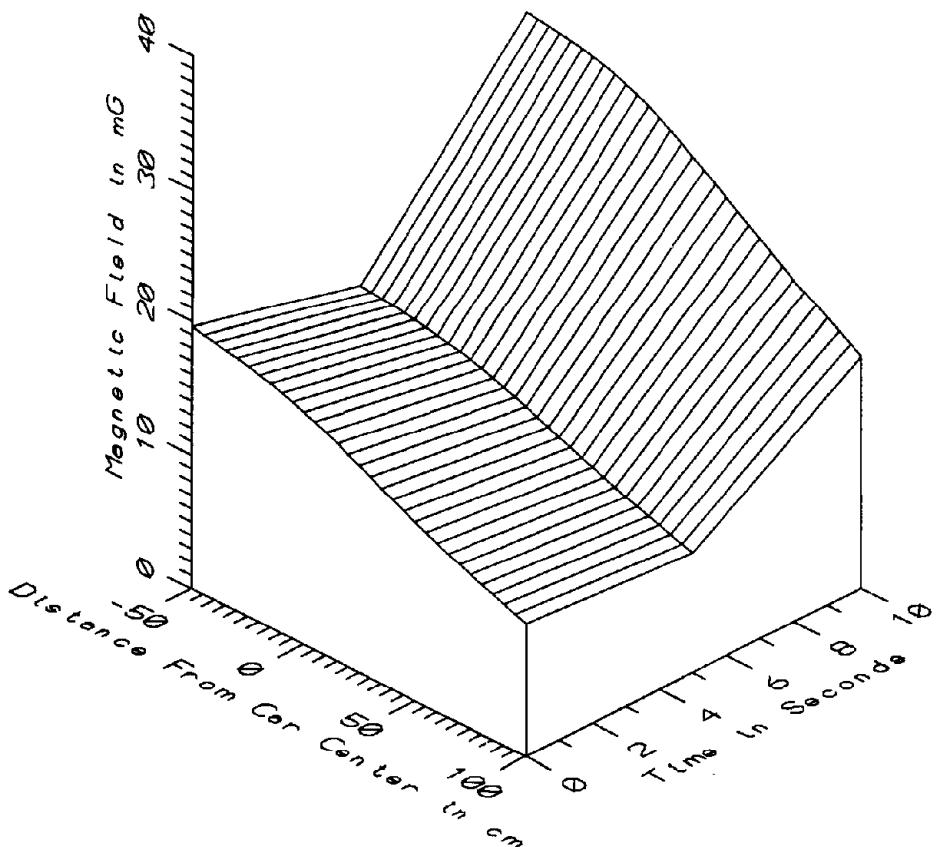
MET052 - TRANS, CENTER OF CAR 3XXX, 1M ABOVE FLOOR - LOW FREQ, 5-45Hz



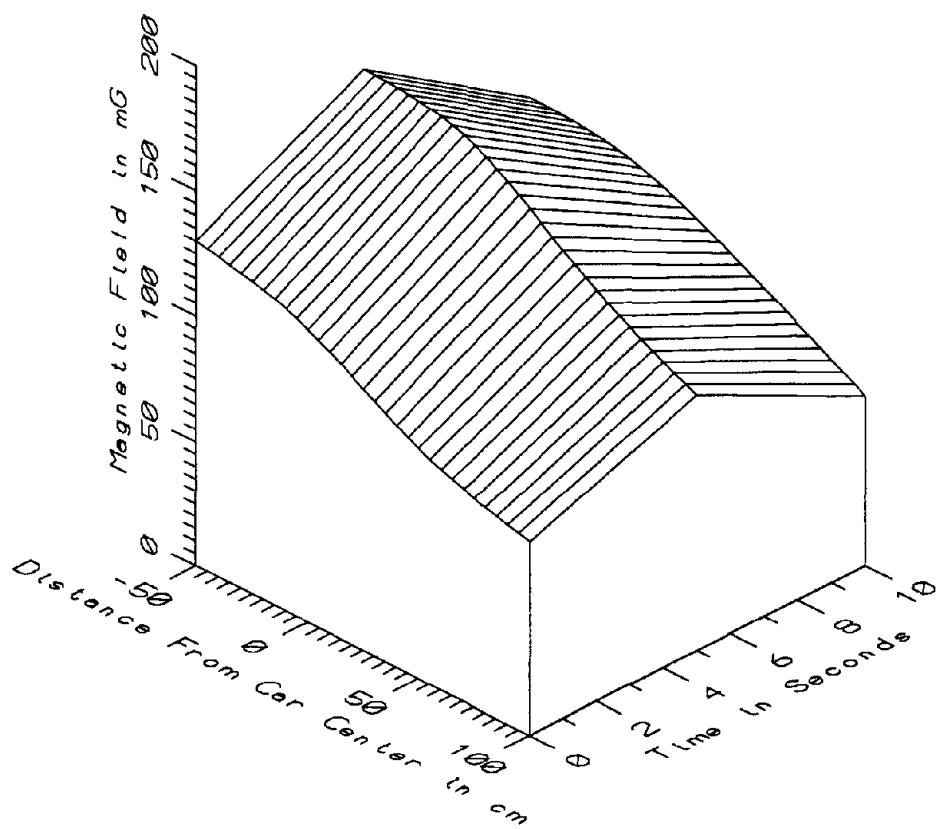
MET052 - TRANS, CENTER OF CAR 3XXX, 1M ABOVE FLOOR - POWER FREQ, 50-60Hz



MET052 - TRANS, CENTER OF CAR 3XXX, 1M ABOVE FLOOR - POWER HARM, 65-300Hz



MET052 - TRANS, CENTER OF CAR 3XXX, 1M ABOVE FLOOR - HIGH FREQ, 305-2560Hz



MET052 - TRANS, CENTER OF CAR 3XXX, 1M ABOVE FLOOR - ALL FREQ, 5-2560Hz

MET052 - TRANSVERSE, CENTER OF CAR 3XXX, 1M ABOVE FLOOR						TOTAL OF 3 SAMPLES	
FREQUENCY BAND	DIST FROM CENTER (cm)	MINIMUM MAGNETIC FIELD (mG)	MAXIMUM MAGNETIC FIELD (mG)	AVERAGE MAGNETIC FIELD (mG)	STANDARD DEVIATION (mG)	COEFFICIENT OF VARIATION (%)	
5-45Hz LOW FREQ	-50	19.63	99.09	62.30	40.06	64.30	
	0	21.26	96.02	60.96	37.59	61.66	
	50	24.27	78.35	52.13	27.08	51.94	
	100	39.19	72.60	51.73	18.19	35.17	
50-60Hz PWR FREQ	-50	5.31	12.89	8.66	3.87	44.65	
	0	3.80	13.57	8.57	4.89	57.00	
	50	3.19	11.68	7.28	4.25	58.43	
	100	3.93	8.23	5.83	2.19	37.53	
65-300Hz PWR HARM	-50	93.60	130.23	116.87	20.23	17.31	
	0	88.67	122.29	108.25	17.48	16.15	
	50	72.29	98.04	86.05	12.97	15.07	
	100	52.80	71.12	62.30	9.18	14.74	
305-2560Hz HIGH FREQ	-50	16.44	30.55	22.20	7.40	33.34	
	0	14.97	28.62	20.34	7.28	35.79	
	50	11.90	23.09	16.14	6.07	37.59	
	100	8.99	17.31	12.09	4.55	37.62	
5-2560Hz ALL FREQ	-50	120.02	164.96	138.30	23.62	17.08	
	0	114.26	156.79	129.39	23.77	18.37	
	50	92.17	126.61	104.01	19.57	18.82	
	100	68.21	102.36	82.60	17.70	21.43	

APPENDIX AW

DATASET MET053 AXIAL PROFILE IN CENTER OF A 3000 SERIES CAR, 1 m (3.3 ft) ABOVE FLOOR

Measurement Setup Code: Staff: 2 Reference: -
Drawing: A-1

Vehicle Status: Traveling on the Red Line

Measurement Date: May 20, 1992

Measurement Time: Start: 12:11:16
End: 12:13:30

Number of Samples: 28

Programmed Sample Interval: 5 sec

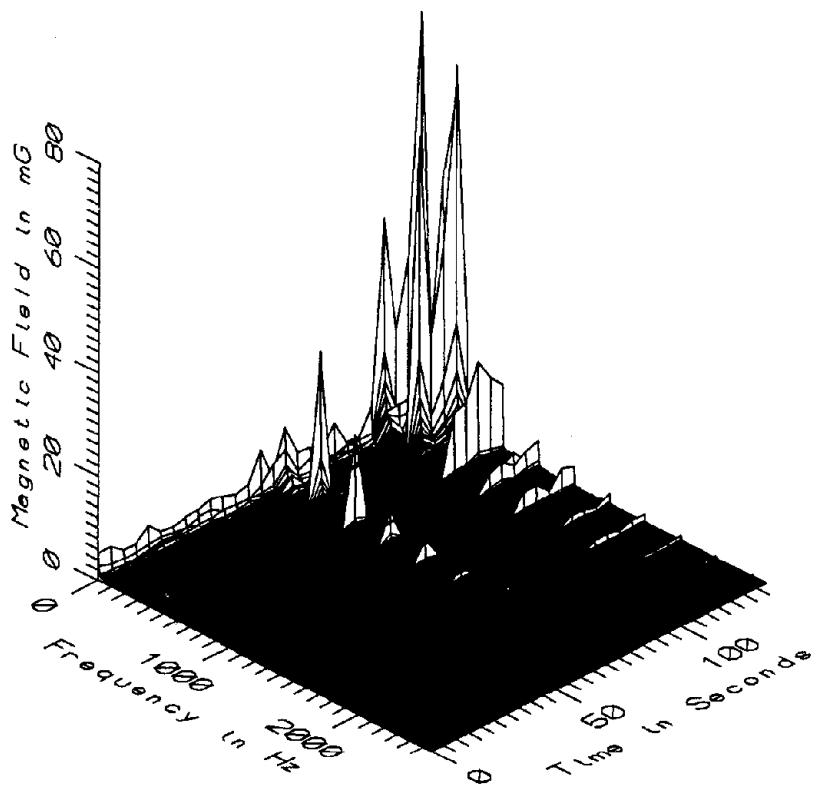
Actual Sample Interval: 5.0 sec

Frequency Spectrum Parameters

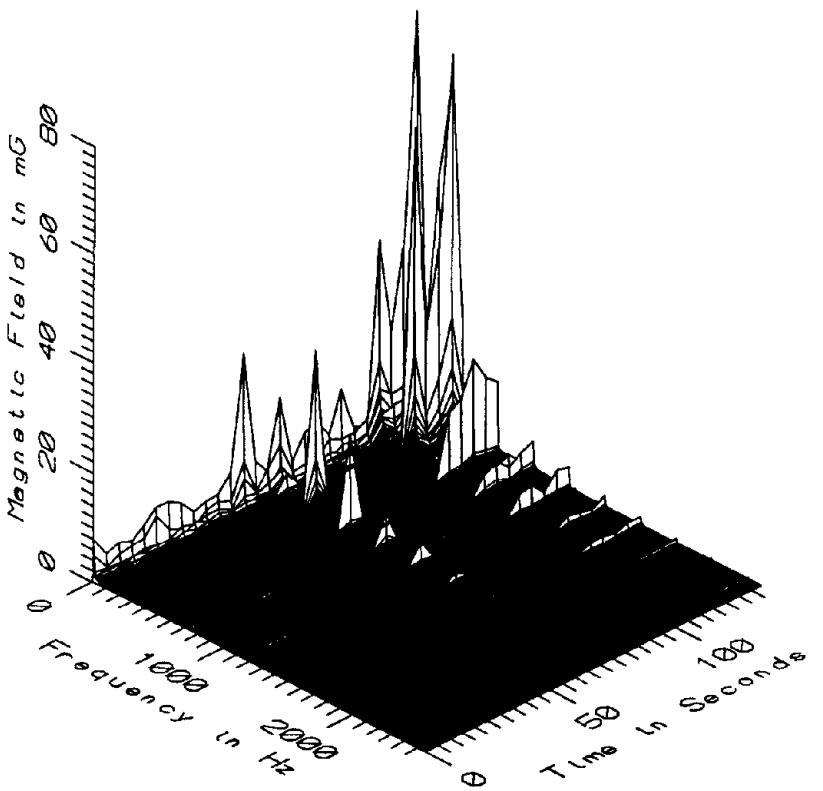
<u>Probe Type:</u>	<u>Wideband</u>	<u>Static</u>
Maximum Frequency (Hz)	2560	NA
Minimum Frequency (Hz)	5	NA
Spectral Bandwidth (Hz)	5	NA

Missing Data: No reference probe

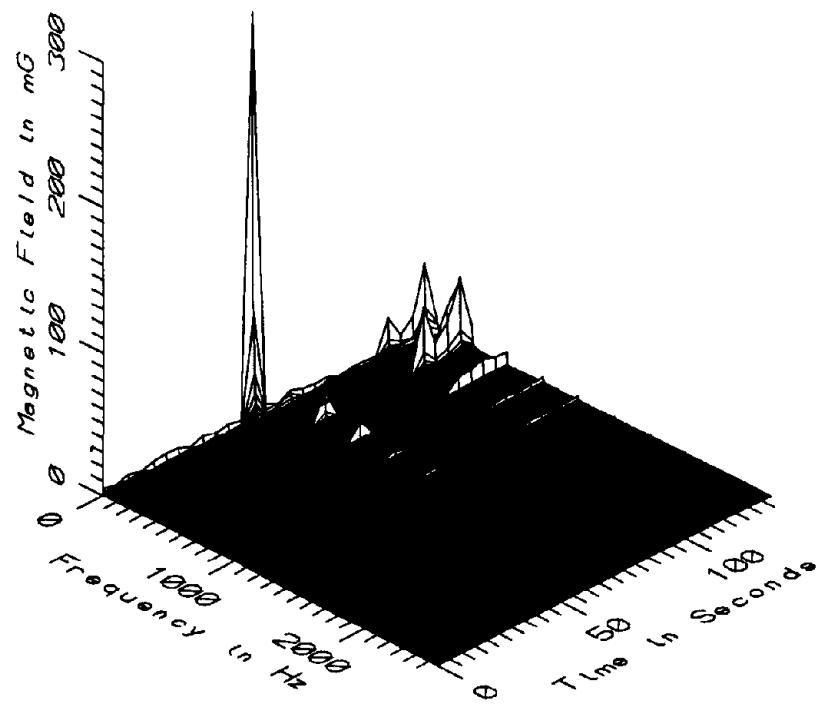
Saturated Data: None



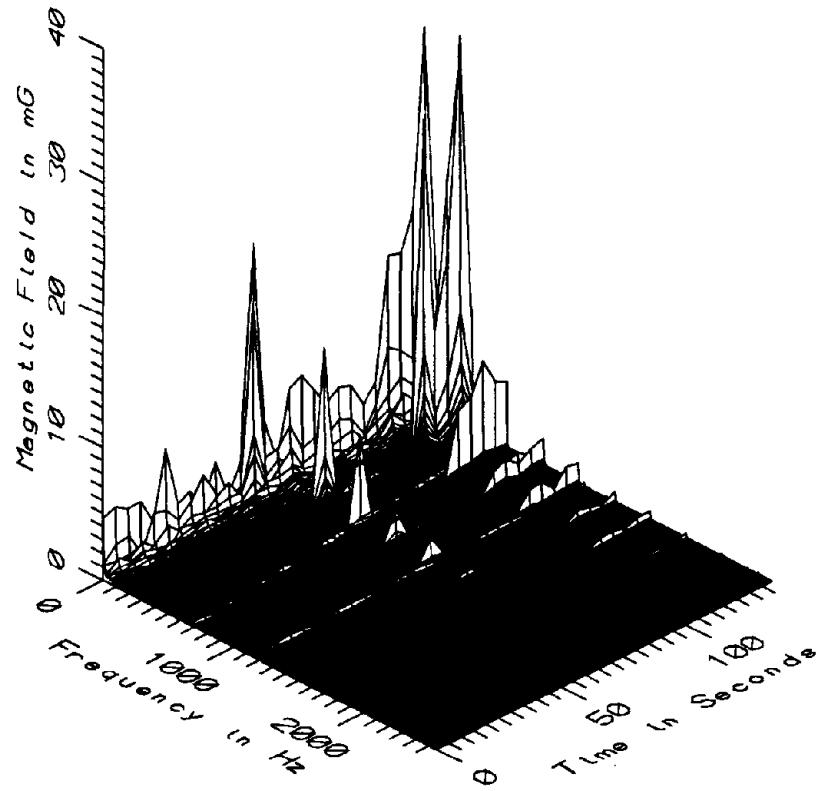
MET053 - -50cm FROM CENTER OF CAR 3XXX ALONG AXIS, 1M ABOVE FLOOR



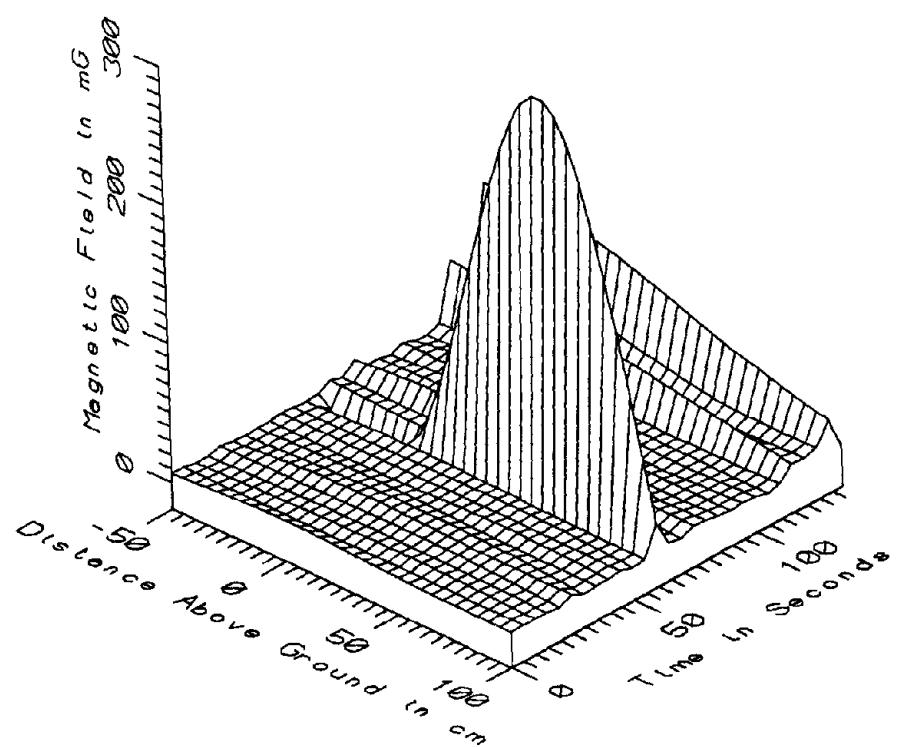
MET053 - 0cm FROM CENTER OF CAR 3XXX ALONG AXIS, 1M ABOVE FLOOR



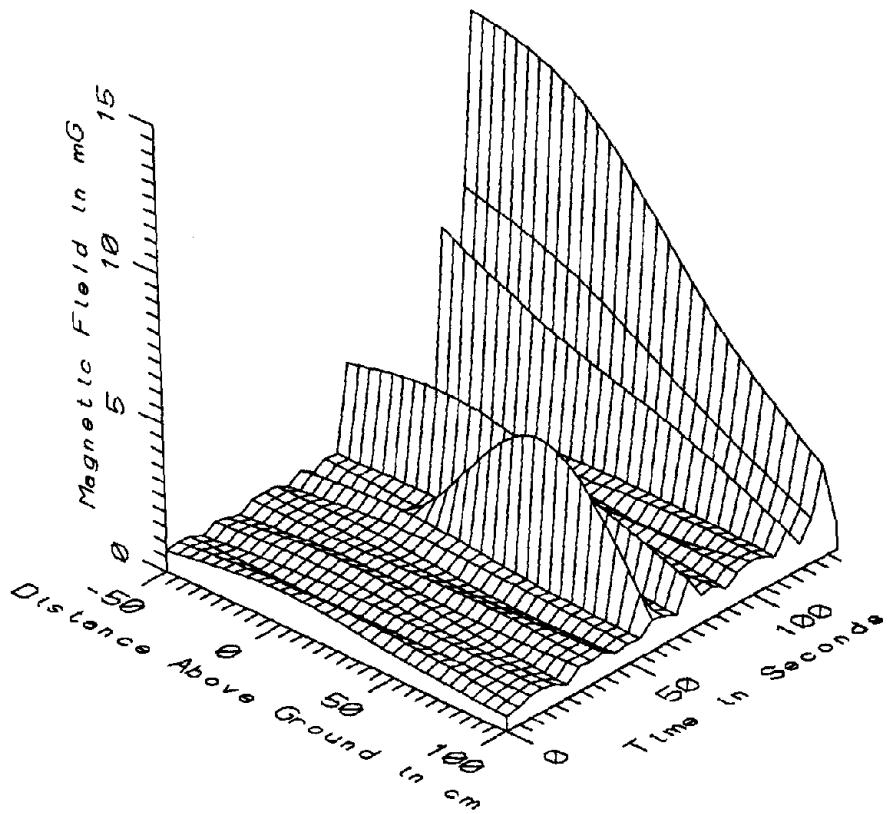
MET053 - 50cm FROM CENTER OF CAR 3XXX ALONG AXIS, 1M ABOVE FLOOR



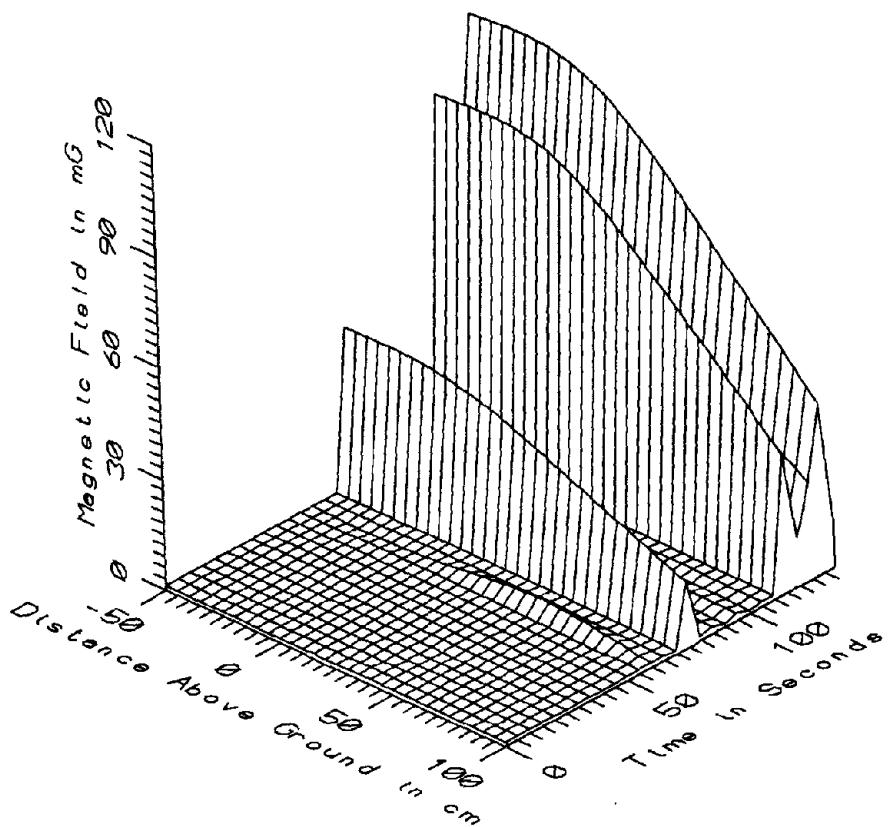
MET053 - 100cm FROM CENTER OF CAR 3XXX ALONG AXIS, 1M ABOVE FLOOR



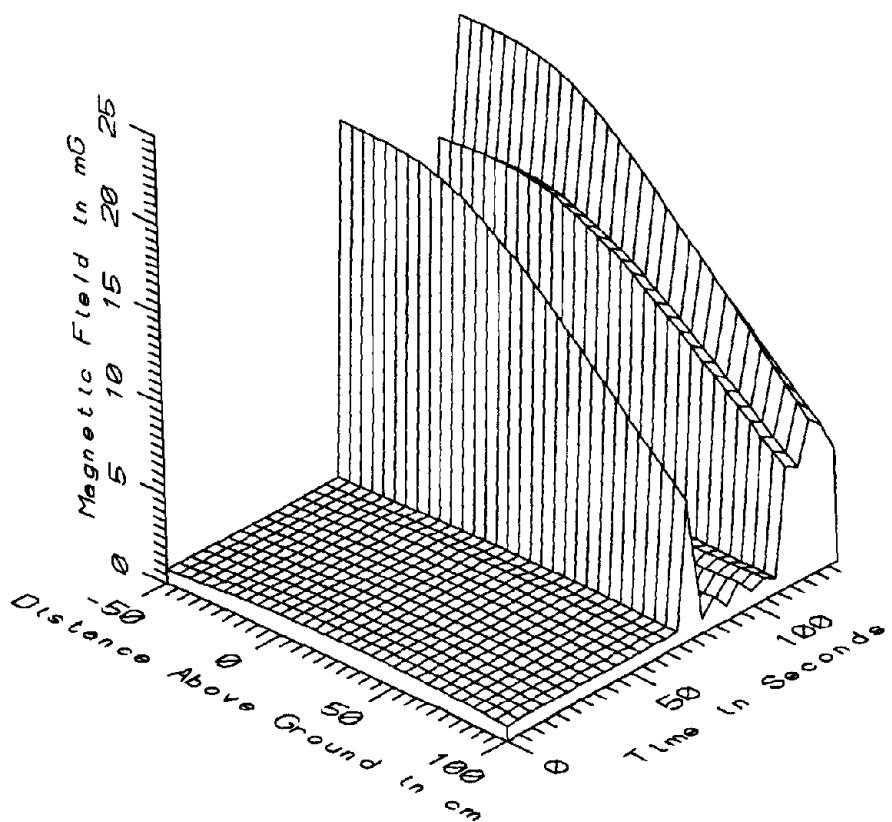
MET053 - AXIAL, CENTER OF CAR 3XXX, 1M ABOVE FLOOR - LOW FREQ, 5-45Hz



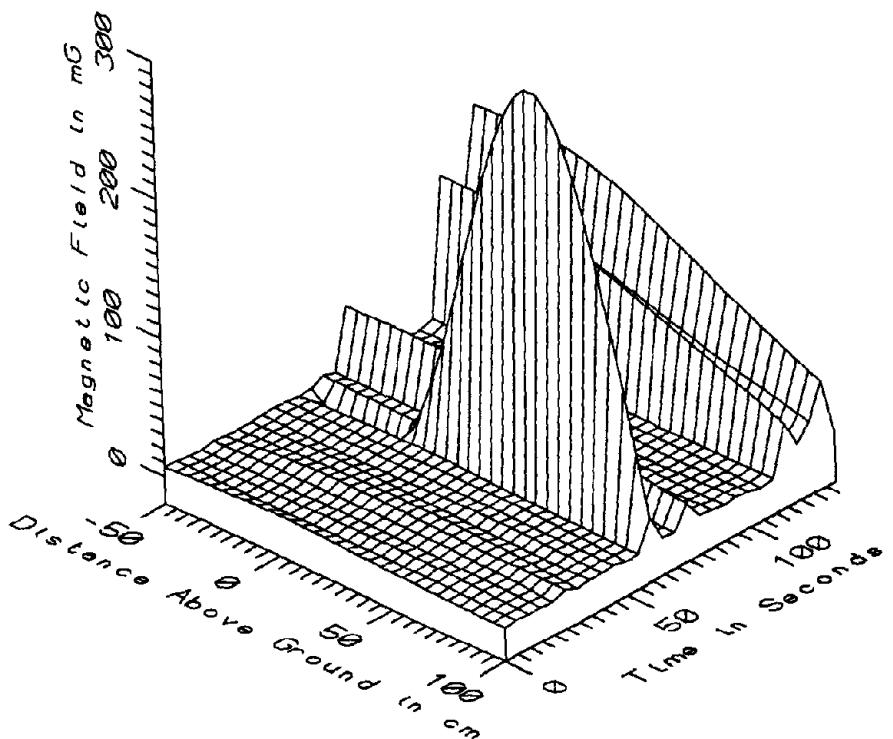
MET053 - AXIAL, CENTER OF CAR 3XXX, 1M ABOVE FLOOR - POWER FREQ, 50-60Hz



MET053 - AXIAL, CENTER OF CAR 3XXX, 1M ABOVE FLOOR - POWER HARM, 65-300Hz



MET053 - AXIAL, CENTER OF CAR 3XXX, 1M ABOVE FLOOR - HIGH FREQ., 305-2560Hz



MET053 - AXIAL, CENTER OF CAR 3XXX, 1M ABOVE FLOOR - ALL FREQ, 5-2560Hz

MET053 - AXIAL AT CENTER OF CAR 3XXX, 1M ABOVE FLOOR						TOTAL OF 28 SAMPLES
FREQUENCY BAND	DIST FROM CENTER (cm)	MINIMUM MAGNETIC FIELD (mG)	MAXIMUM MAGNETIC FIELD (mG)	AVERAGE MAGNETIC FIELD (mG)	STANDARD DEVIATION (mG)	COEFFICIENT OF VARIATION (%)
5-45Hz LOW FREQ	-50	4.19	90.75	12.86	18.49	143.80
	0	5.17	85.59	14.79	16.89	114.22
	50	4.63	296.84	21.21	55.03	259.46
	100	3.96	33.44	9.05	7.01	77.43
50-60Hz PWR FREQ	-50	0.53	13.08	1.92	2.78	144.75
	0	0.66	11.53	1.84	2.31	125.19
	50	0.48	6.74	1.53	1.53	99.62
	100	0.44	3.05	0.97	0.51	52.18
65-300Hz PWR HARM	-50	1.04	108.82	14.55	29.35	201.79
	0	1.27	106.89	14.40	28.65	198.99
	50	1.28	80.59	11.13	21.20	190.38
	100	0.99	45.83	6.49	11.74	180.91
305-2560Hz HIGH FREQ	-50	0.72	22.40	4.64	7.43	160.07
	0	0.98	21.49	4.75	7.06	148.49
	50	1.01	15.62	3.74	5.07	135.44
	100	0.80	8.64	2.30	2.71	118.02
5-2560Hz ALL FREQ	-50	4.64	143.70	21.49	34.71	161.48
	0	5.54	138.77	23.23	32.72	140.88
	50	5.47	296.93	27.80	57.58	207.11
	100	4.29	57.36	12.44	13.01	104.61

APPENDIX AX

DATASET MET054 BENEATH METRORAIL AT HIGHWAY UNDERPASS

Measurement Setup Code: Staff: 12 Reference: -
Drawing: A-2

Vehicle Status: NA

Measurement Date: May 20, 1992

Measurement Time: Start: 14:16:36
End: 14:27:46

Number of Samples: 133

Programmed Sample Interval: 5 sec

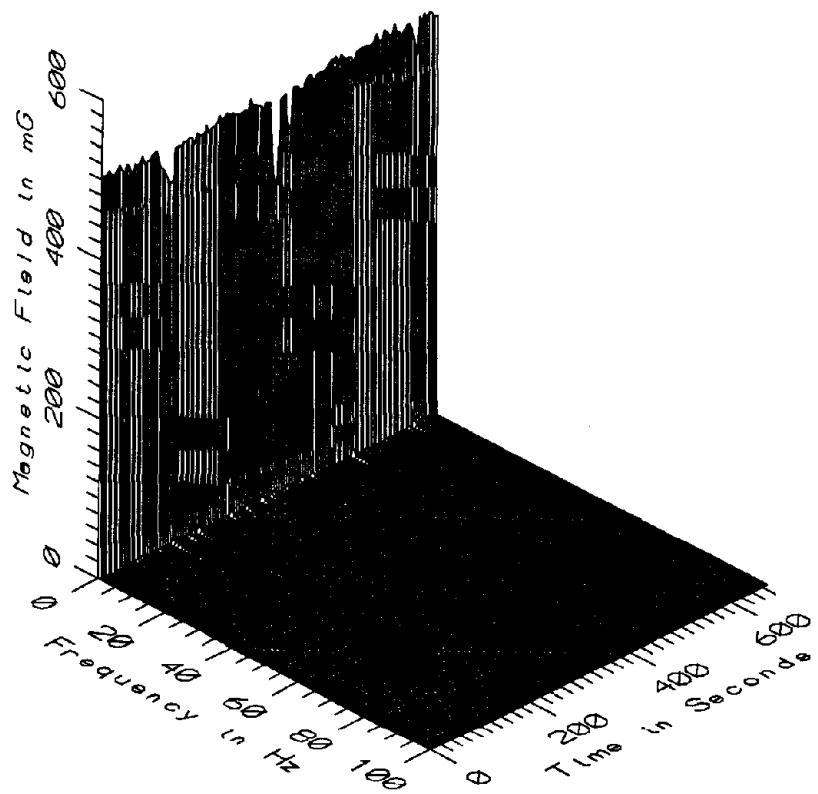
Actual Sample Interval: 5.1 sec

Frequency Spectrum Parameters

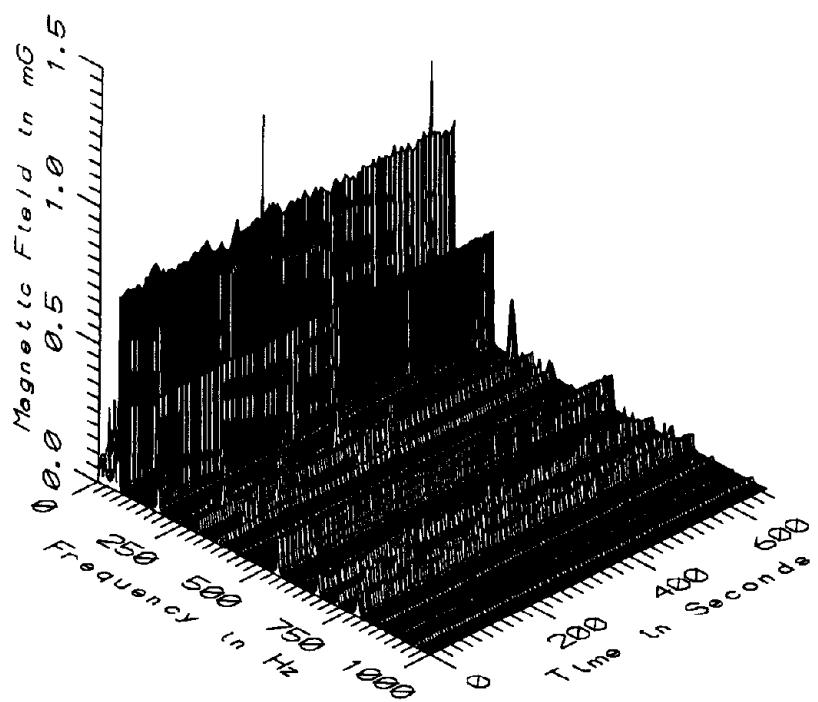
<u>Probe Type:</u>	<u>Wideband</u>	<u>Static</u>
Maximum Frequency (Hz)	2560	100
Minimum Frequency (Hz)	5	0
Spectral Bandwidth (Hz)	5	1

Missing Data: No reference probe

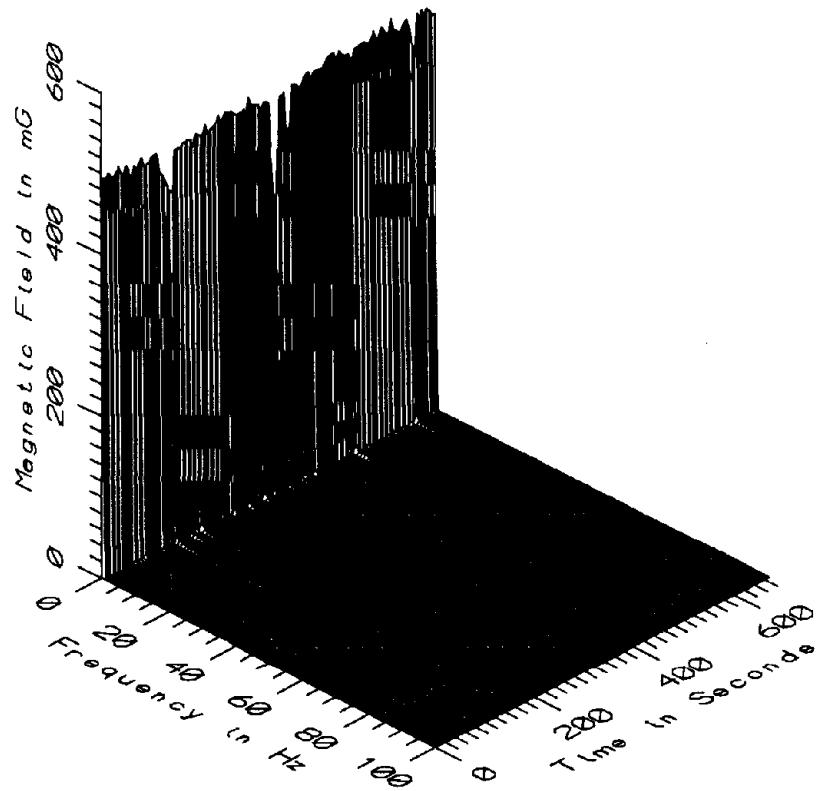
Saturated Data: None



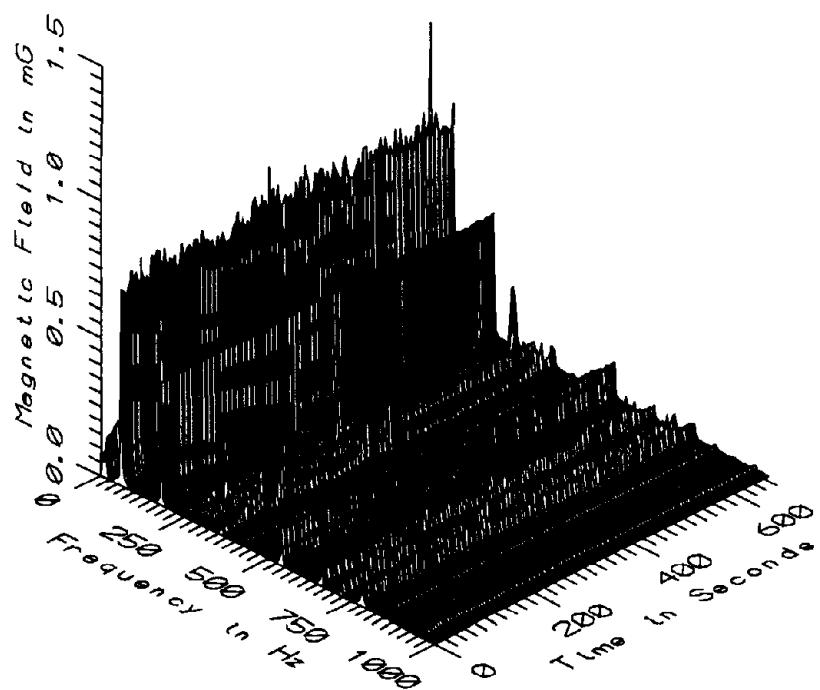
MET054 - 10cm ABOVE GROUND, BENEATH METRORAIL IN UNDERPASS



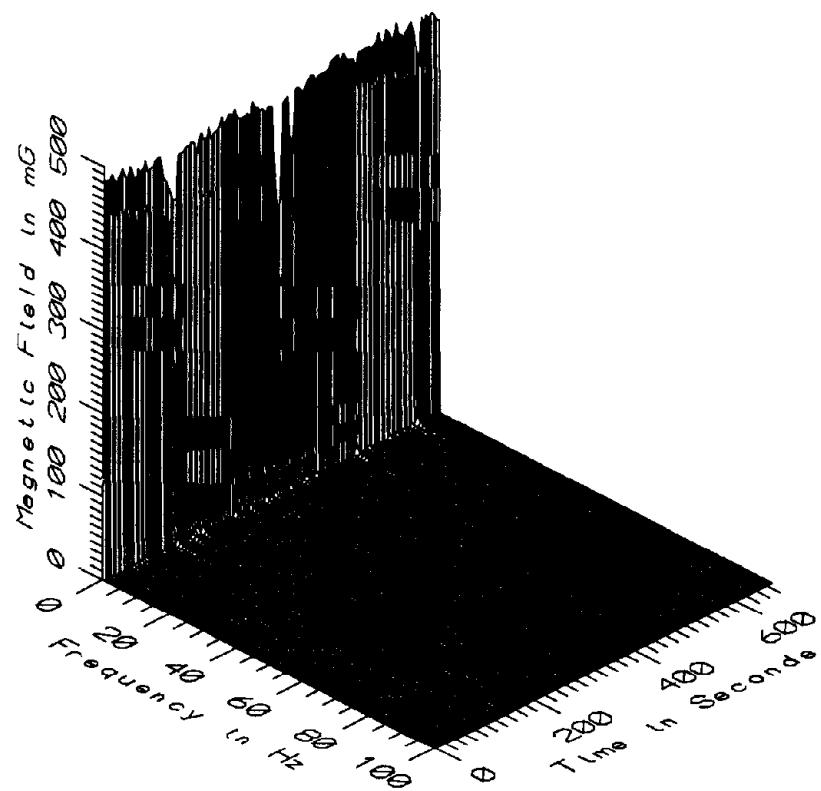
MET054 - 10cm ABOVE GROUND, BENEATH METRORAIL IN UNDERPASS



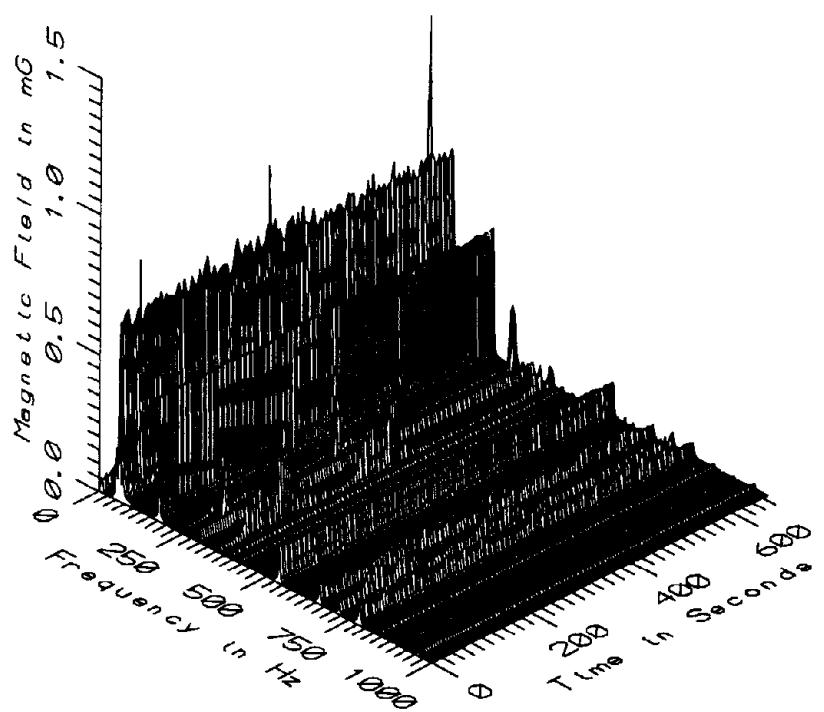
MET054 - 60cm ABOVE GROUND, BENEATH METRORAIL IN UNDERPASS



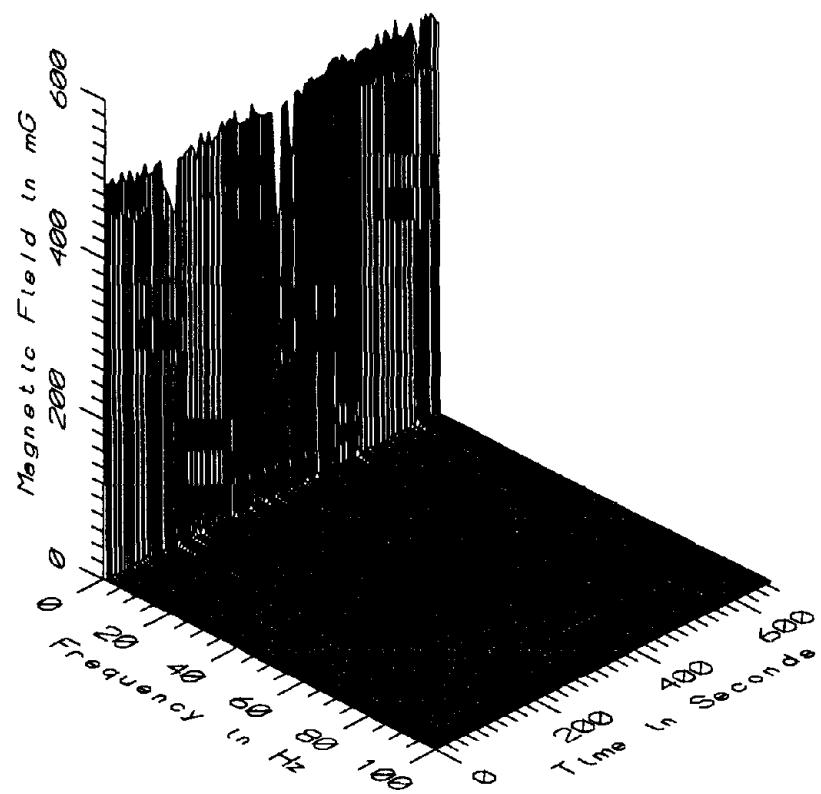
MET054 - 60cm ABOVE GROUND, BENEATH METRORAIL IN UNDERPASS



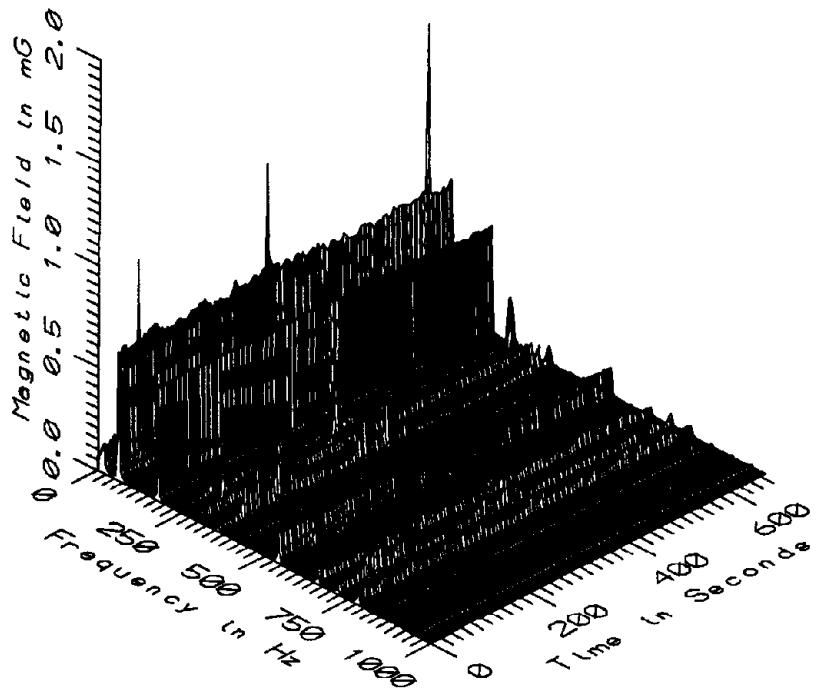
MET054 - 110cm ABOVE GROUND, BENEATH METRORAIL IN UNDERPASS



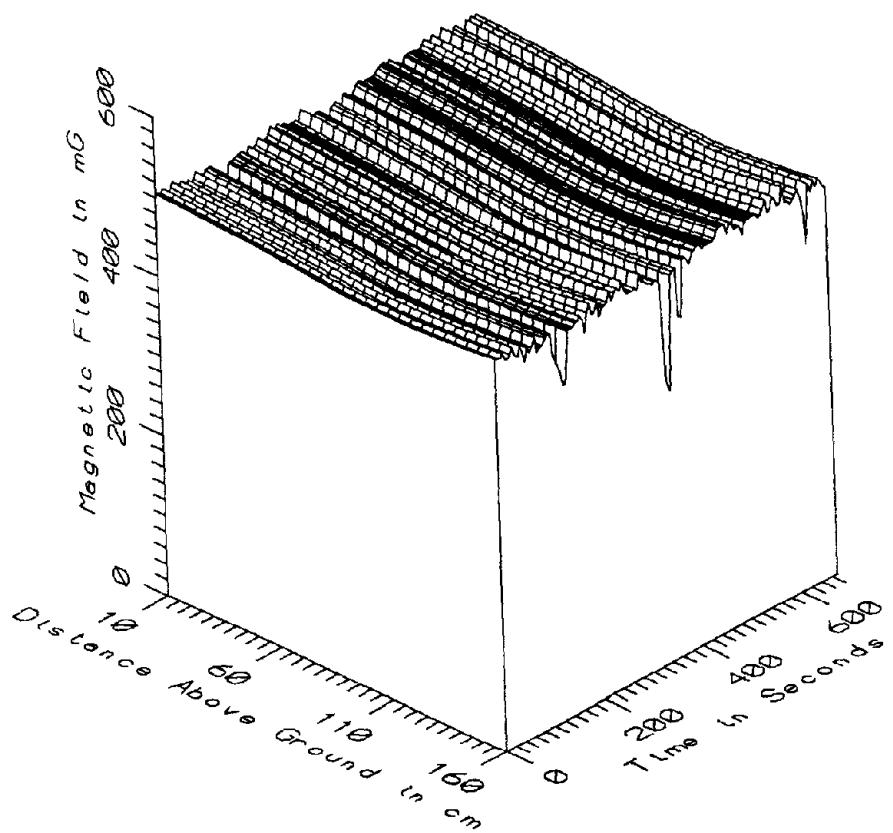
MET054 - 110cm ABOVE GROUND, BENEATH METRORAIL IN UNDERPASS



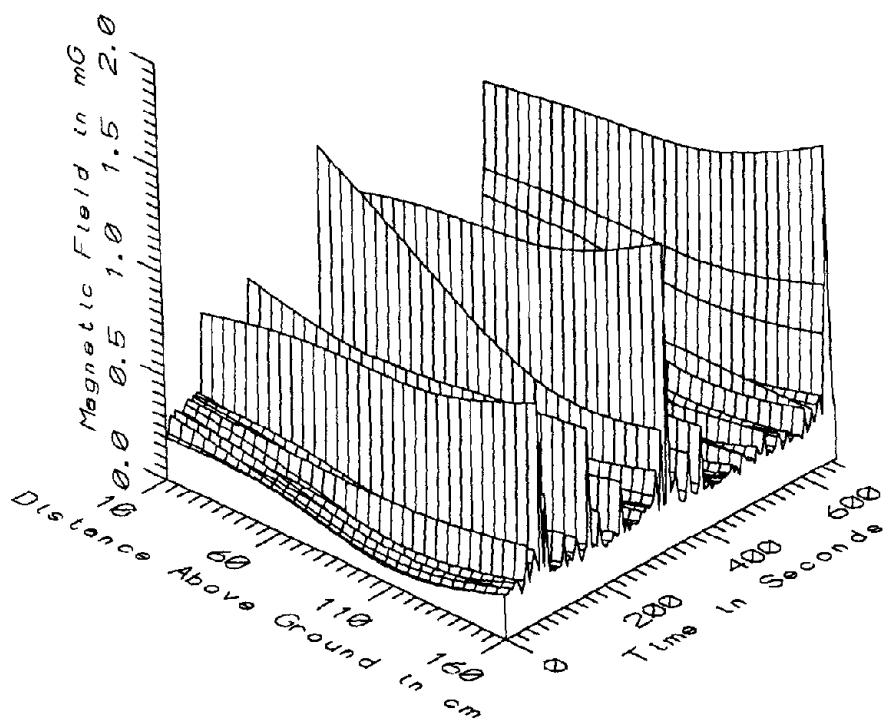
MET054 - 160cm ABOVE GROUND, BENEATH METRORAIL IN UNDERPASS



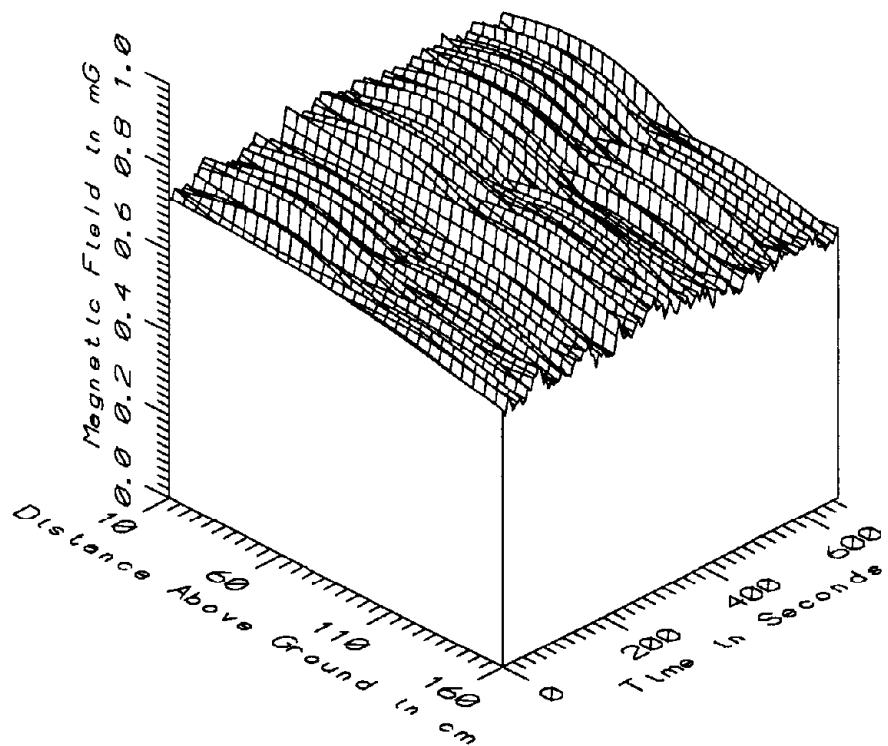
MET054 - 160cm ABOVE GROUND, BENEATH METRORAIL IN UNDERPASS



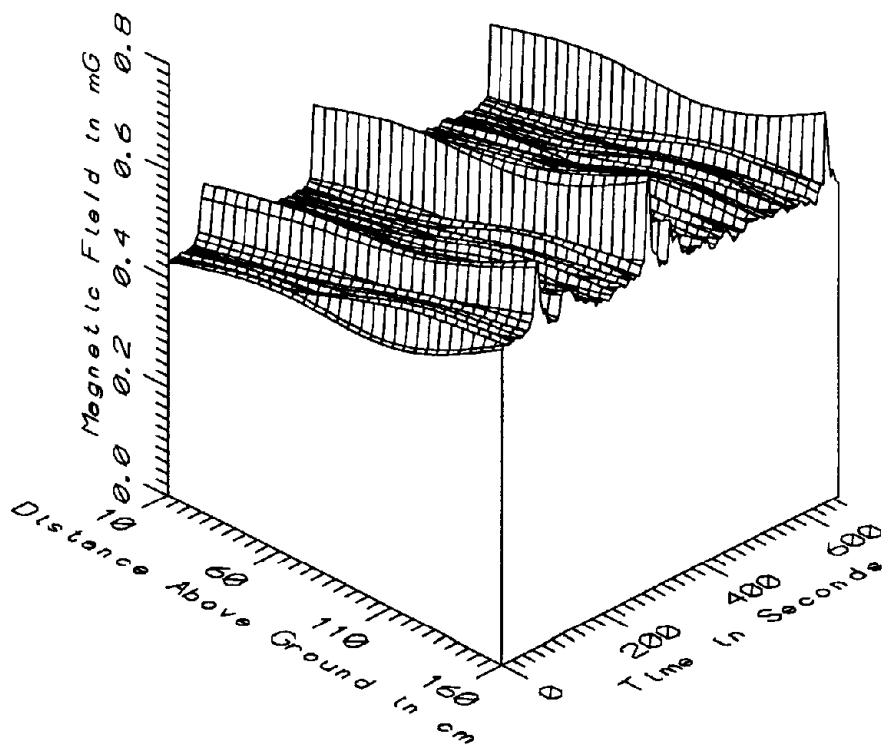
MET054 - BENEATH METRORAIL IN UNDERPASS - STATIC



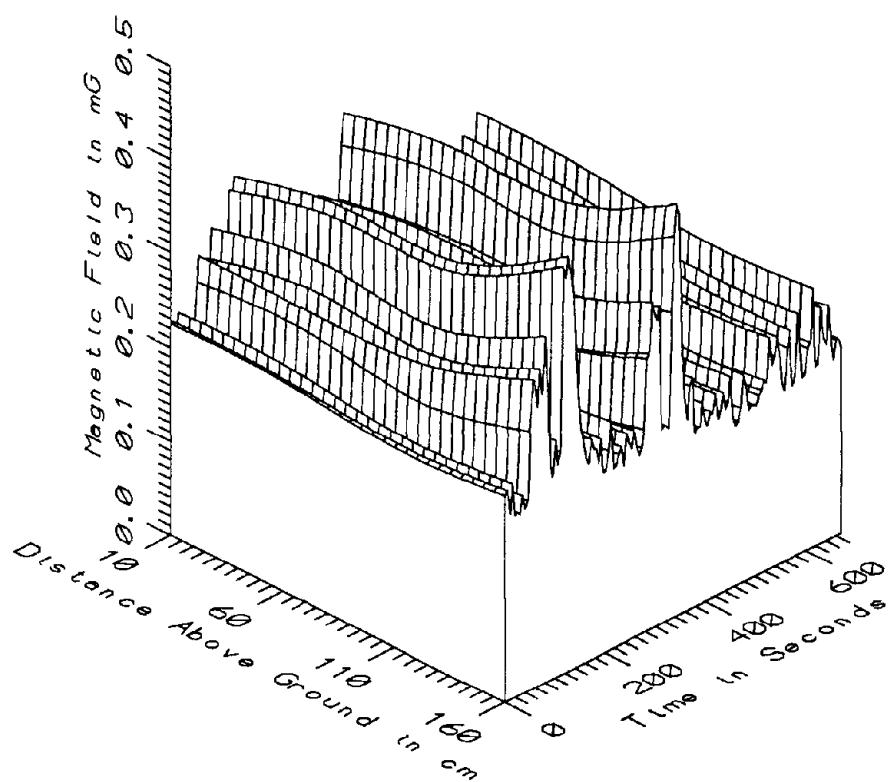
MET054 - BENEATH METRORAIL IN UNDERPASS - LOW FREQ, 5-45Hz



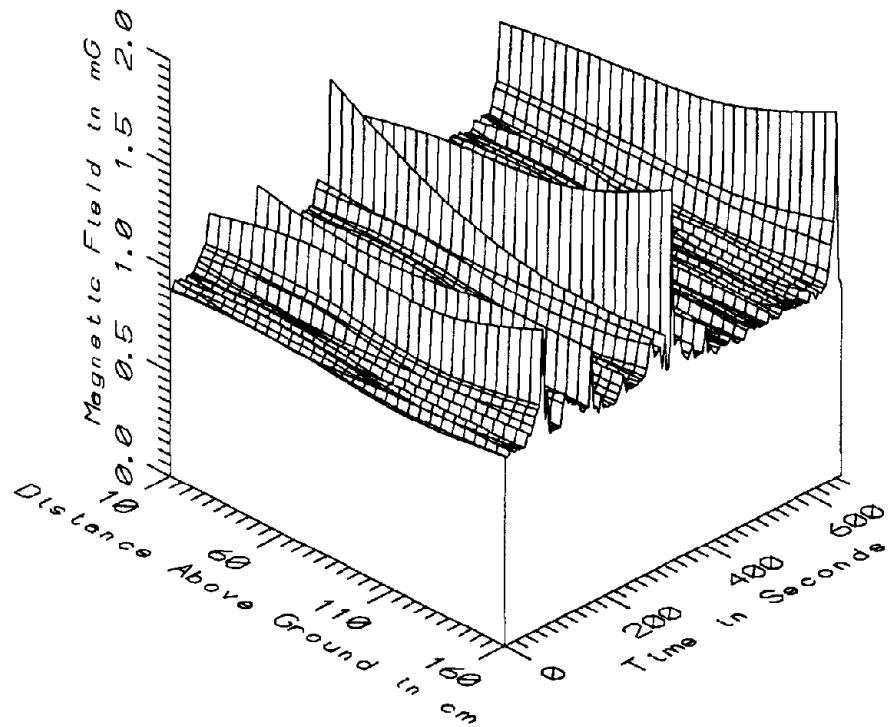
MET054 - BENEATH METRORAIL IN UNDERPASS - POWER FREQ, 50-60Hz



MET054 - BENEATH METRORAIL IN UNDERPASS - POWER HARM, 65-300Hz

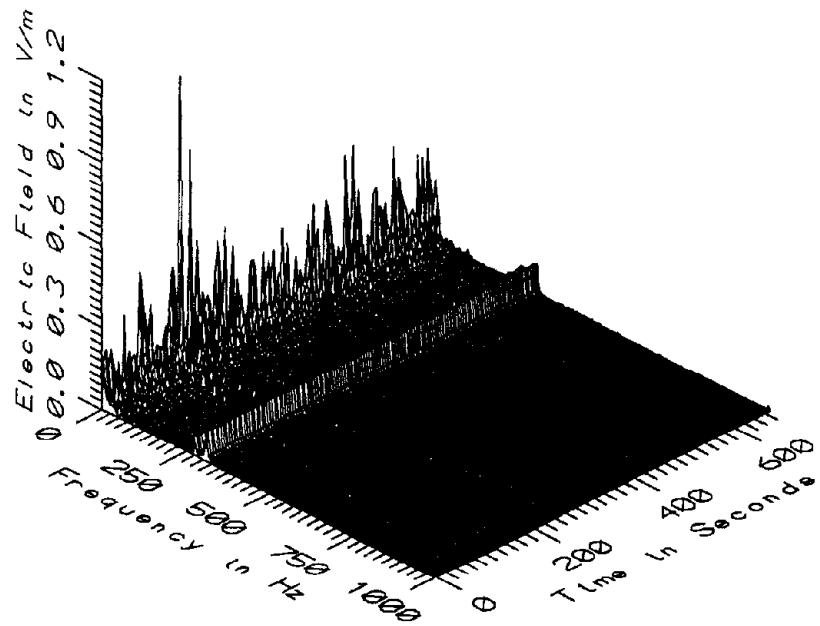


MET054 - BENEATH METRORAIL IN UNDERPASS - HIGH FREQ, 305-2560Hz



MET054 - BENEATH METRORAIL IN UNDERPASS - ALL FREQ, 5-2560Hz

MET054 - BENEATH METRORAIL AT HIGHWAY UNDERPASS							TOTAL OF 133 SAMPLES
FREQUENCY BAND	HEIGHT ABOVE GROUND (cm)	MINIMUM MAGNETIC FIELD (mG)	MAXIMUM MAGNETIC FIELD (mG)	AVERAGE MAGNETIC FIELD (mG)	STANDARD DEVIATION (mG)	COEFFICIENT OF VARIATION (%)	
STATIC	10	383.81	516.00	496.05	18.52	3.73	
	60	353.78	509.88	485.42	21.71	4.47	
	110	339.19	498.41	473.48	23.05	4.87	
	160	335.90	515.14	483.63	26.39	5.46	
5-45Hz LOW FREQ	10	0.19	1.19	0.31	0.15	46.73	
	60	0.15	1.15	0.25	0.16	63.70	
	110	0.04	1.24	0.16	0.18	115.36	
	160	0.17	1.52	0.28	0.20	70.74	
50-60Hz PWR FREQ	10	0.70	0.80	0.75	0.02	2.45	
	60	0.66	0.83	0.74	0.04	5.09	
	110	0.63	0.77	0.69	0.03	4.27	
	160	0.60	0.71	0.65	0.02	3.13	
65-300Hz PWR HARM	10	0.43	0.59	0.44	0.03	6.05	
	60	0.47	0.64	0.49	0.03	5.69	
	110	0.48	0.67	0.54	0.03	6.50	
	160	0.56	0.77	0.60	0.03	5.50	
305-2560Hz HIGH FREQ	10	0.17	0.36	0.22	0.04	18.42	
	60	0.17	0.38	0.23	0.05	20.68	
	110	0.16	0.38	0.22	0.05	22.60	
	160	0.17	0.44	0.24	0.06	26.92	
5-2560Hz ALL FREQ	10	0.89	1.52	0.96	0.08	8.73	
	60	0.86	1.48	0.96	0.09	9.29	
	110	0.83	1.54	0.93	0.10	10.48	
	160	0.88	1.78	0.97	0.13	12.94	



MET054 - ELECTRIC FIELD AT METRORAIL HIGHWAY UNDERPASS

APPENDIX AY

DATASET MET055 BENEATH METRORAIL AT HIGHWAY UNDERPASS

Measurement Setup Code: Staff: 12 Reference: -
Drawing: A-2

Vehicle Status: NA

Measurement Date: May 20, 1992

Measurement Time: Start: 14:32:30
End: 14:33:01

Number of Samples: 6

Programmed Sample Interval: 5 sec

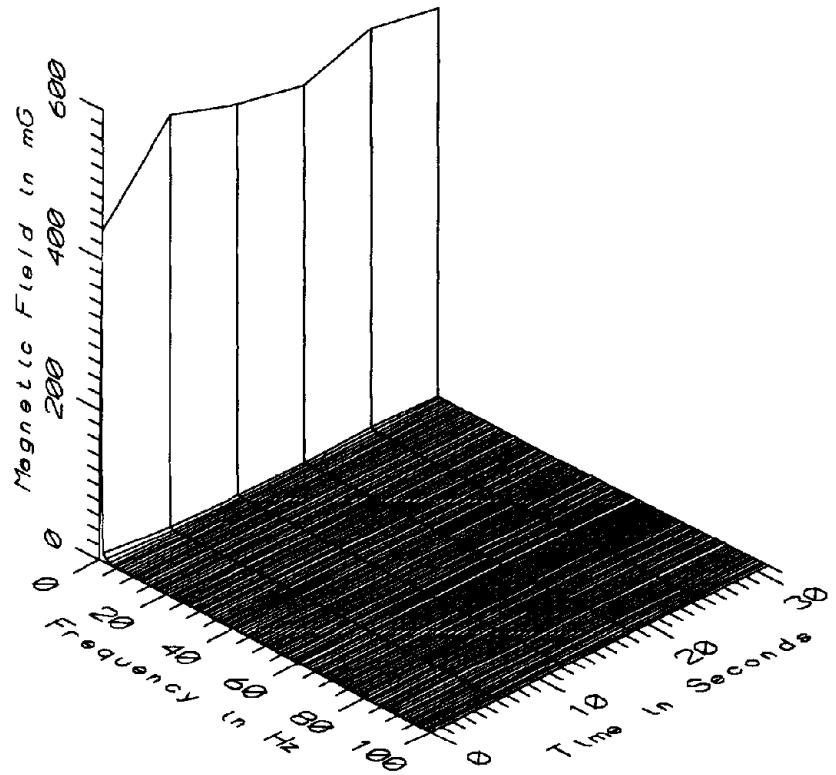
Actual Sample Interval: 6.2 sec

Frequency Spectrum Parameters

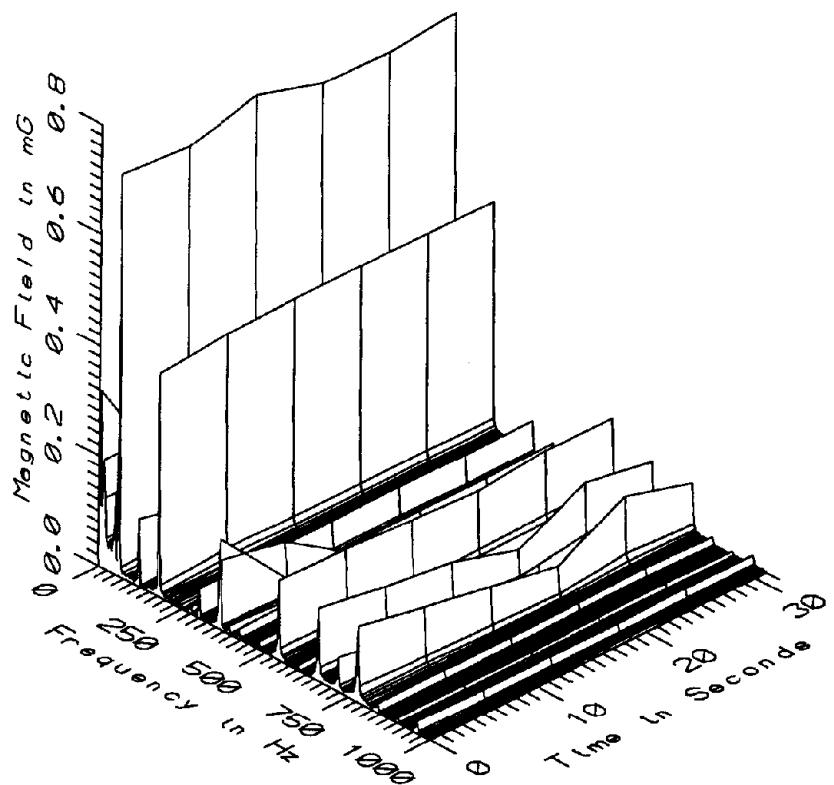
<u>Probe Type:</u>	<u>Wideband</u>	<u>Static</u>
Maximum Frequency (Hz)	2560	100
Minimum Frequency (Hz)	5	0
Spectral Bandwidth (Hz)	5	1

Missing Data: No reference probe

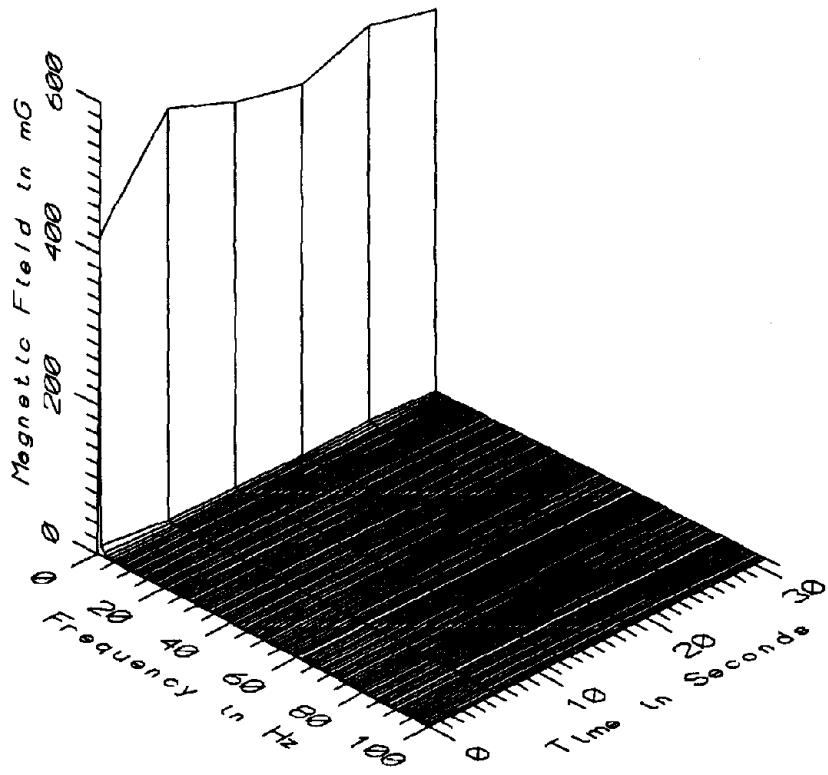
Saturated Data: None



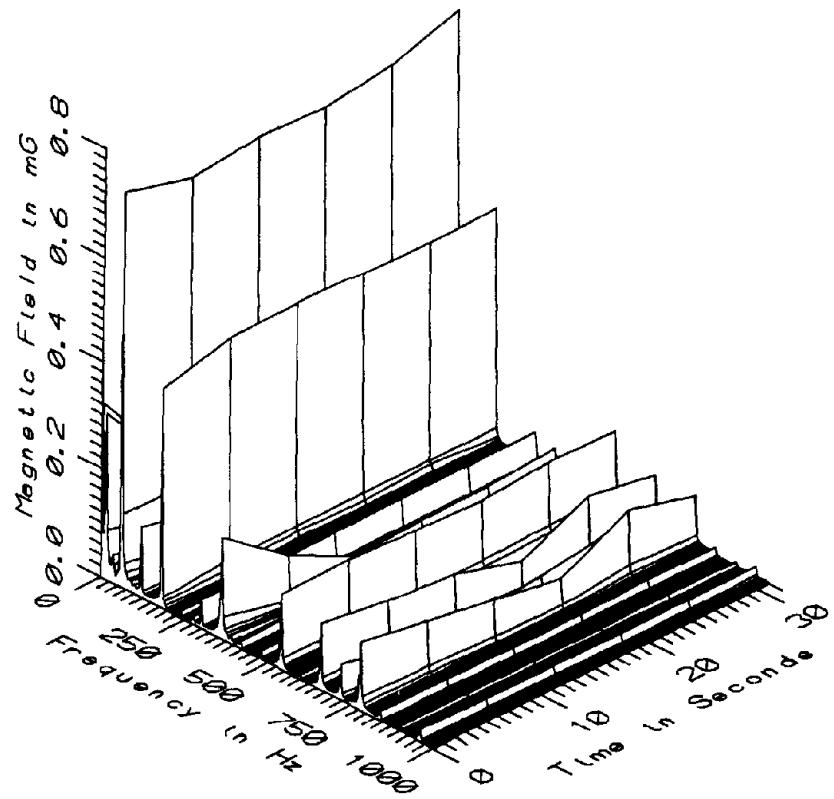
MET055 - 10cm ABOVE GROUND, BENEATH METRORAIL IN UNDERPASS



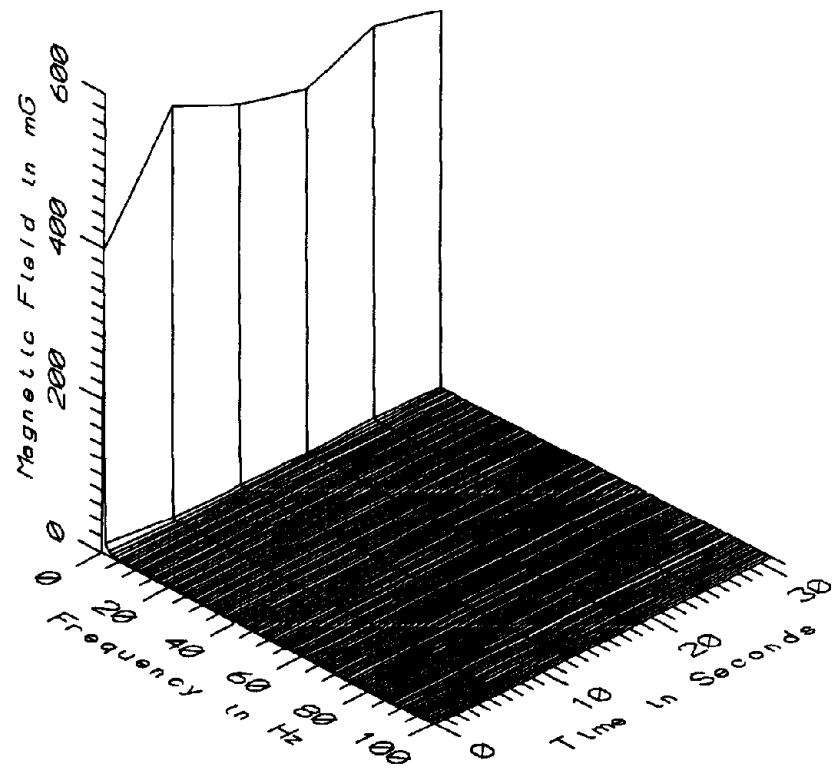
MET055 - 10cm ABOVE GROUND, BENEATH METRORAIL IN UNDERPASS



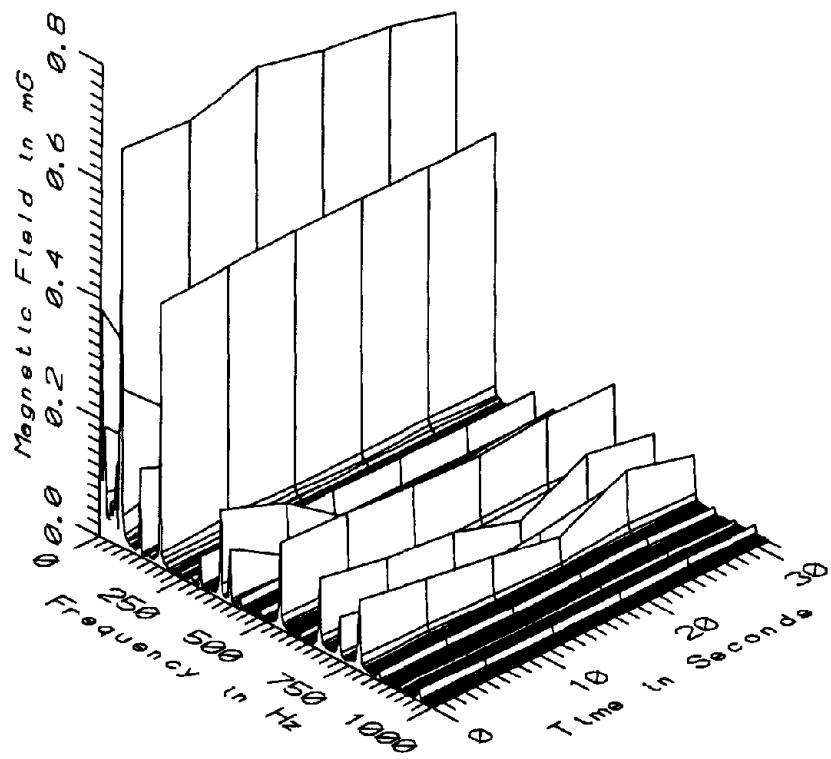
MET055 - 60cm ABOVE GROUND, BENEATH METRORAIL IN UNDERPASS



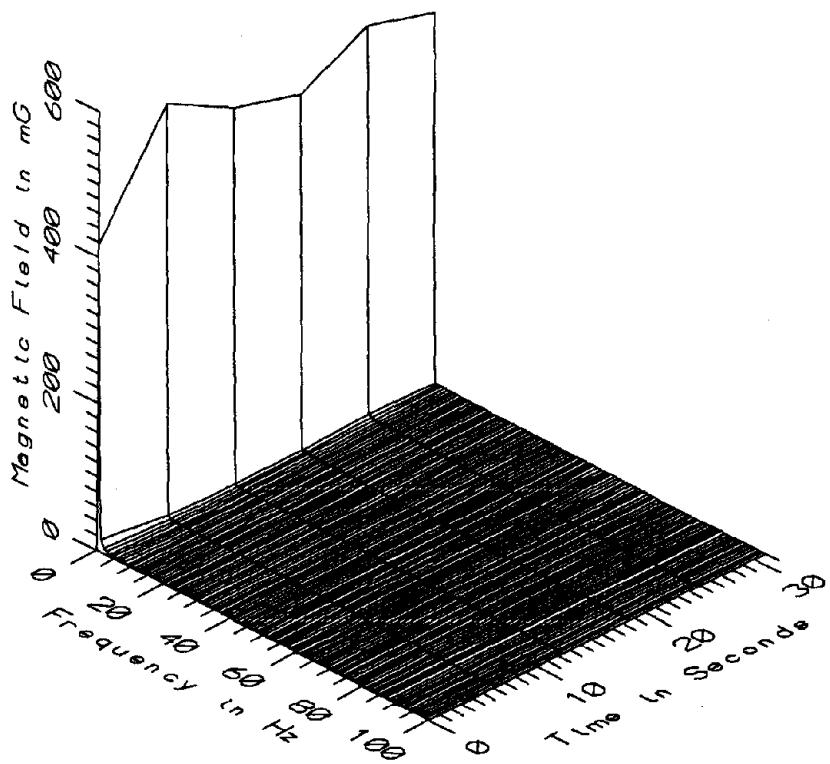
MET055 - 60cm ABOVE GROUND, BENEATH METRORAIL IN UNDERPASS



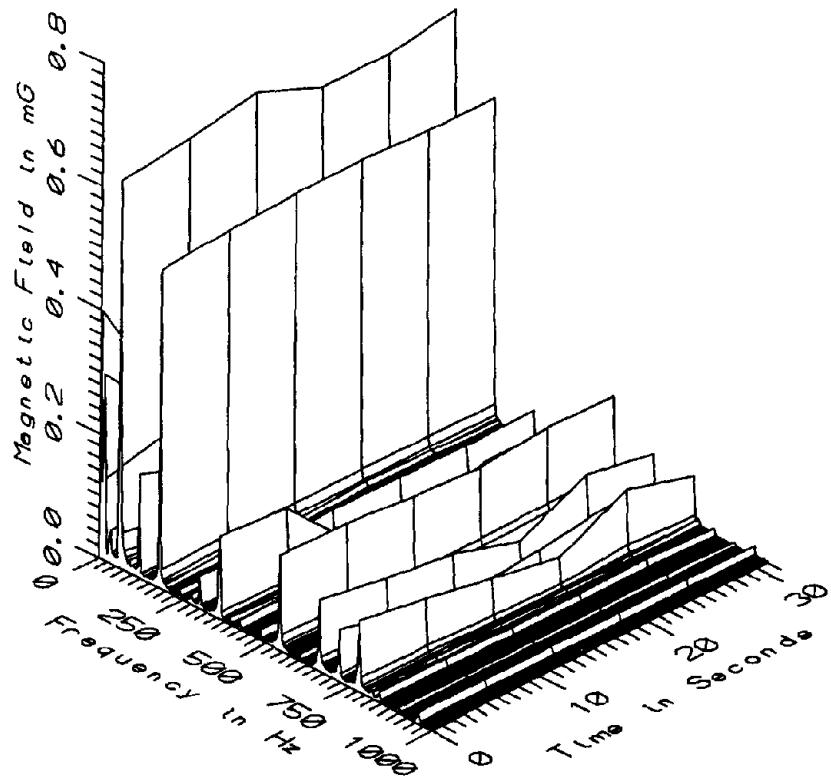
MET055 - 110cm ABOVE GROUND, BENEATH METRORAIL IN UNDERPASS



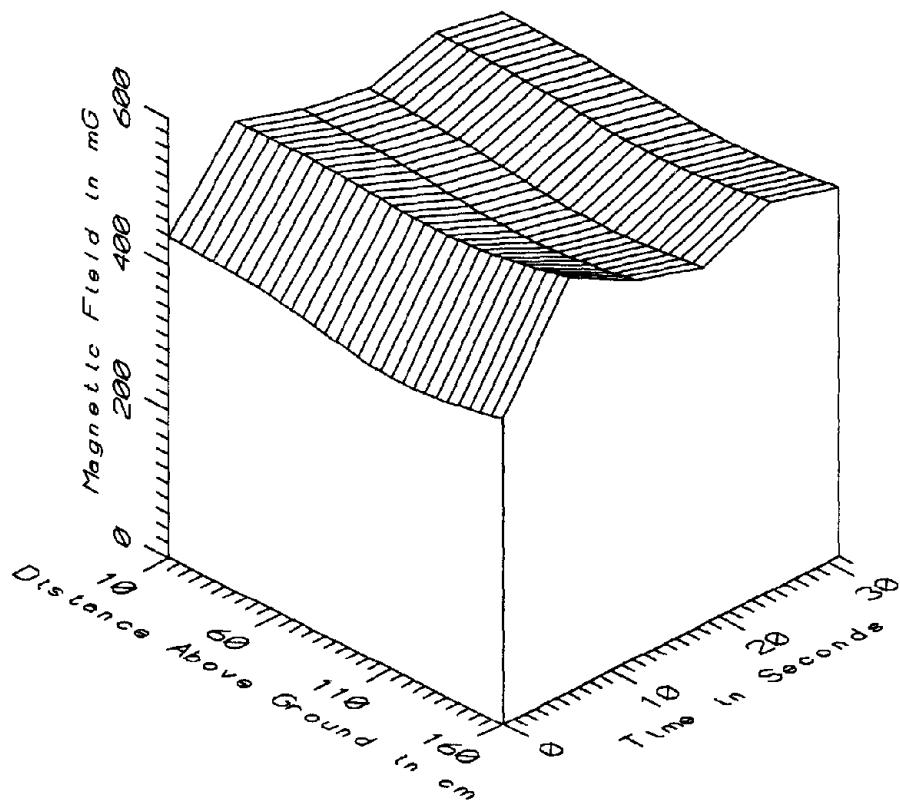
MET055 - 110cm ABOVE GROUND, BENEATH METRORAIL IN UNDERPASS



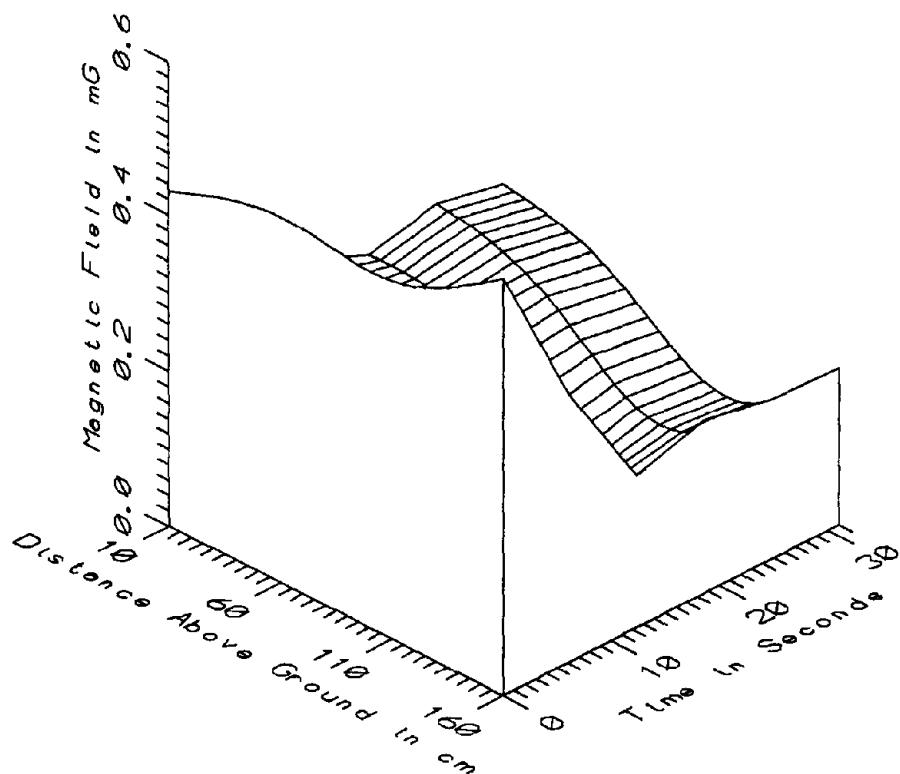
MET055 - 160cm ABOVE GROUND, BENEATH METRORAIL IN UNDERPASS



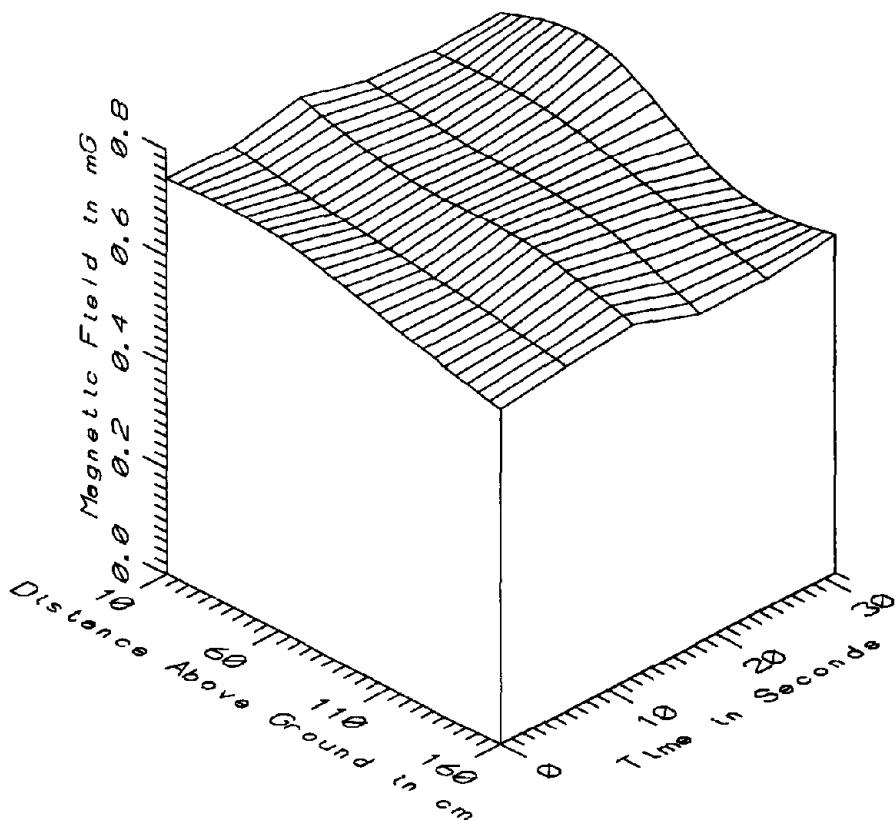
MET055 - 160cm ABOVE GROUND, BENEATH METRORAIL IN UNDERPASS



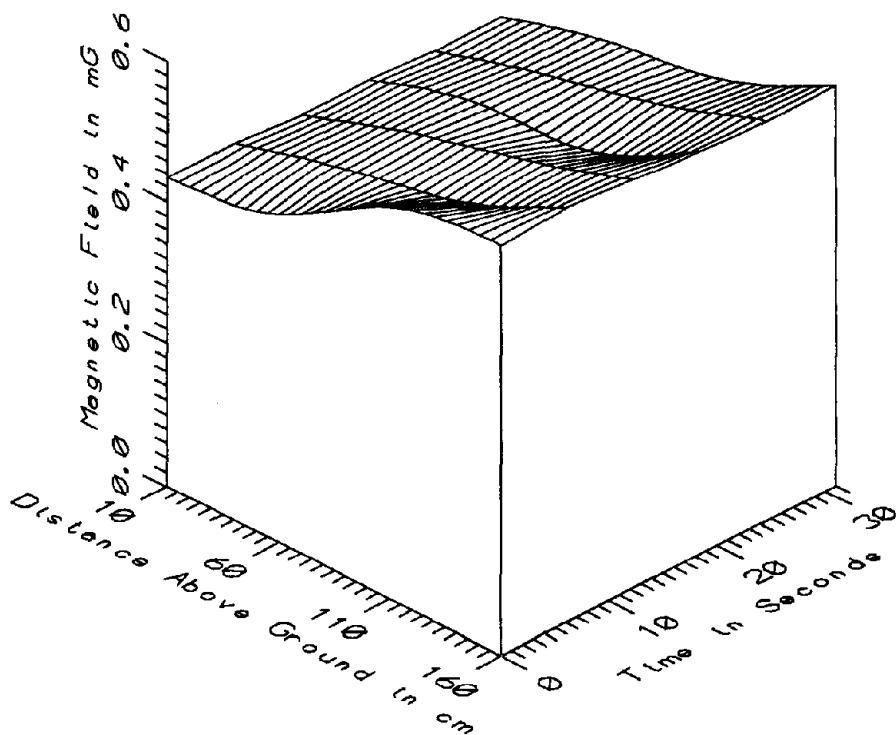
MET055 - BENEATH METRORAIL IN UNDERPASS - STATIC



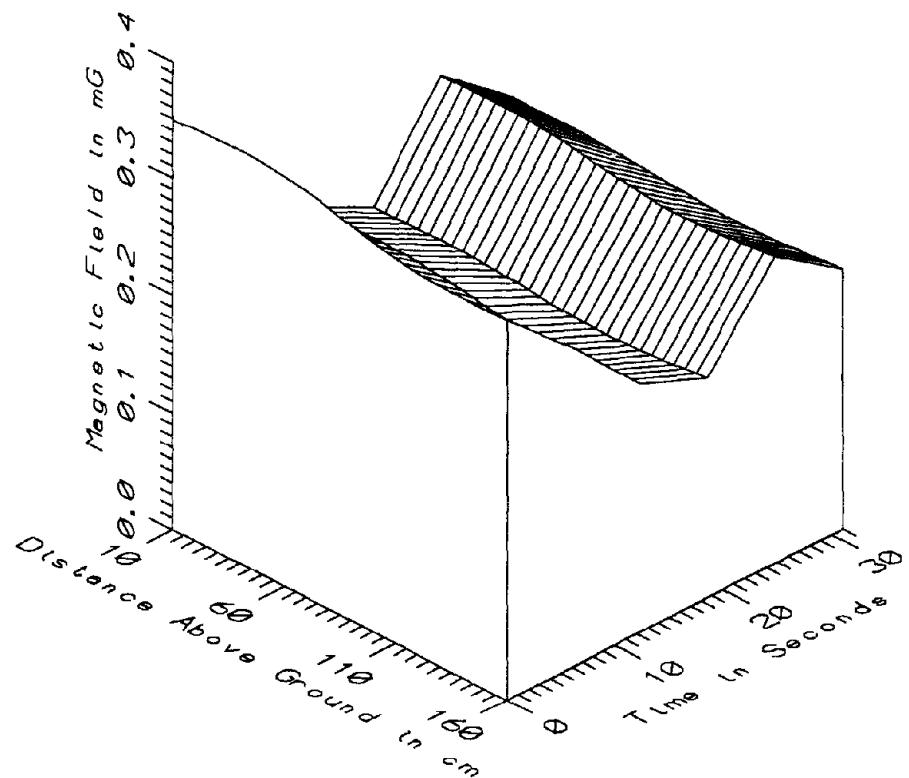
MET055 - BENEATH METRORAIL IN UNDERPASS - LOW FREQ, 5-45Hz



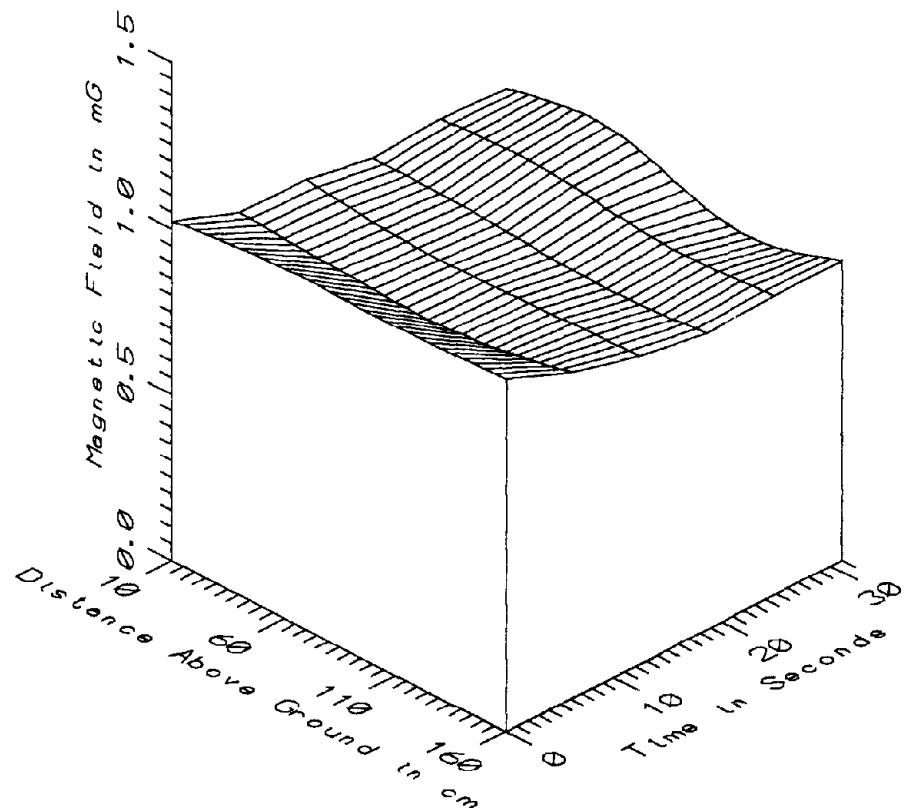
MET055 - BENEATH METRORAIL IN UNDERPASS - POWER FREQ, 50-60Hz



MET055 - BENEATH METRORAIL IN UNDERPASS - POWER HARM, 65-300Hz



MET055 - BENEATH METRORAIL IN UNDERPASS - HIGH FREQ, 305-2560Hz



MET055 - BENEATH METRORAIL IN UNDERPASS - ALL FREQ, 5-2560Hz

MET055 - BENEATH METRO RAIL AT HIGHWAY UNDERPASS							TOTAL OF 6 SAMPLES
FREQUENCY BAND	HEIGHT ABOVE GROUND (cm)	MINIMUM MAGNETIC FIELD	MAXIMUM MAGNETIC FIELD	AVERAGE MAGNETIC FIELD	STANDARD DEVIATION	COEFFICIENT OF VARIATION (%)	
STATIC	10	437.31	549.51	508.55	38.57	7.58	
	60	423.89	548.08	500.95	42.41	8.47	
	110	397.30	540.35	486.62	48.96	10.06	
	160	417.78	565.60	503.80	49.89	9.90	
5-45HZ LOW FREQ	10	0.22	0.43	0.27	0.08	29.34	
	60	0.17	0.47	0.24	0.12	48.17	
	110	0.08	0.46	0.18	0.15	84.51	
	160	0.20	0.54	0.29	0.14	47.28	
50-60HZ PWR FREQ	10	0.73	0.77	0.74	0.01	1.77	
	60	0.71	0.77	0.73	0.02	3.13	
	110	0.64	0.71	0.68	0.03	3.73	
	160	0.62	0.66	0.64	0.02	2.64	
65-300HZ PWR HARM	10	0.42	0.44	0.43	0.01	1.34	
	60	0.46	0.48	0.47	0.01	1.74	
	110	0.49	0.55	0.51	0.02	4.35	
	160	0.56	0.58	0.57	0.01	1.25	
305-2560HZ HIGH FREQ	10	0.19	0.35	0.25	0.06	22.30	
	60	0.19	0.35	0.25	0.06	22.33	
	110	0.18	0.33	0.24	0.05	21.27	
	160	0.19	0.32	0.25	0.05	19.84	
5-2560HZ ALL FREQ	10	0.90	1.02	0.94	0.04	4.67	
	60	0.90	1.05	0.94	0.06	5.94	
	110	0.84	1.05	0.91	0.07	7.75	
	160	0.89	1.06	0.94	0.06	6.77	

APPENDIX AZ

**DATASET MET056
ALONG WAYSIDE SOUTH OF SHADY GROVE**

Measurement Setup Code: Staff: 14 Reference: -
Drawing: A-3

Vehicle Status: NA

Measurement Date: May 20, 1992

Measurement Time: Start: 14:52:42
End: 14:56:41

Number of Samples: 15

Programmed Sample Interval: 5 sec

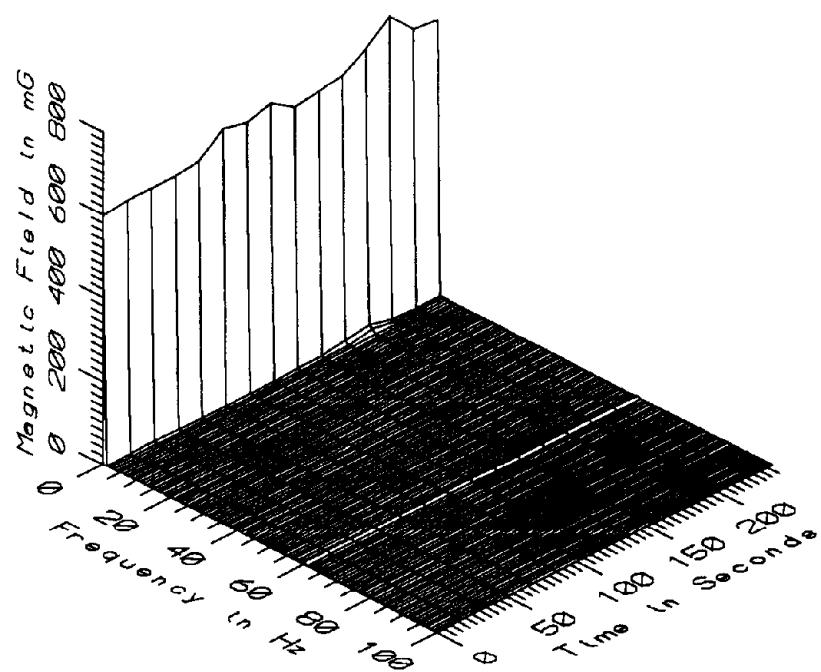
Actual Sample Interval: 17.1 sec

Frequency Spectrum Parameters

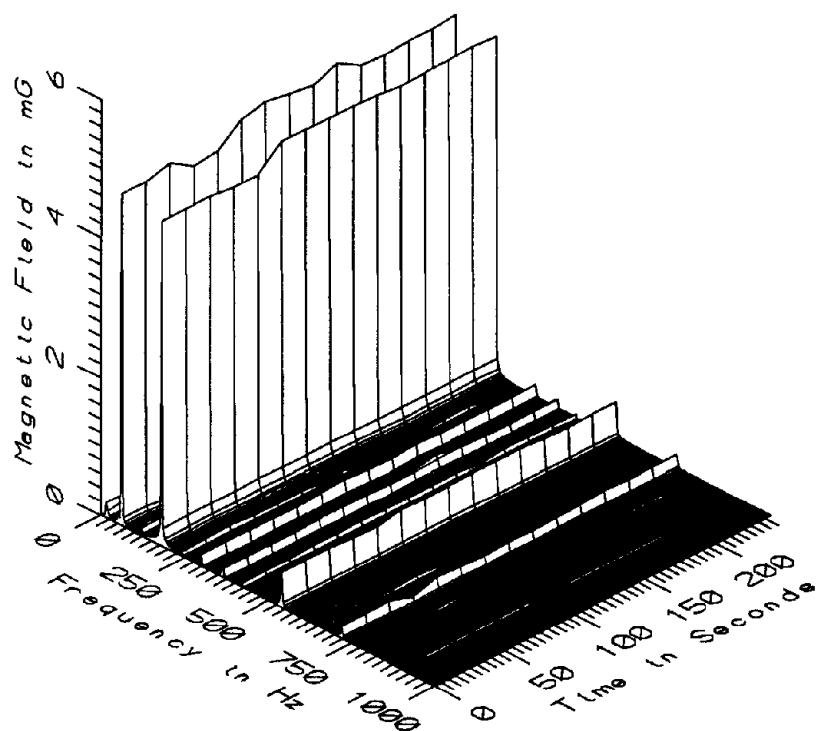
<u>Probe Type:</u>	<u>Wideband</u>	<u>Static</u>
Maximum Frequency (Hz)	2560	100
Minimum Frequency (Hz)	5	0
Spectral Bandwidth (Hz)	5	1

Missing Data: No reference probe

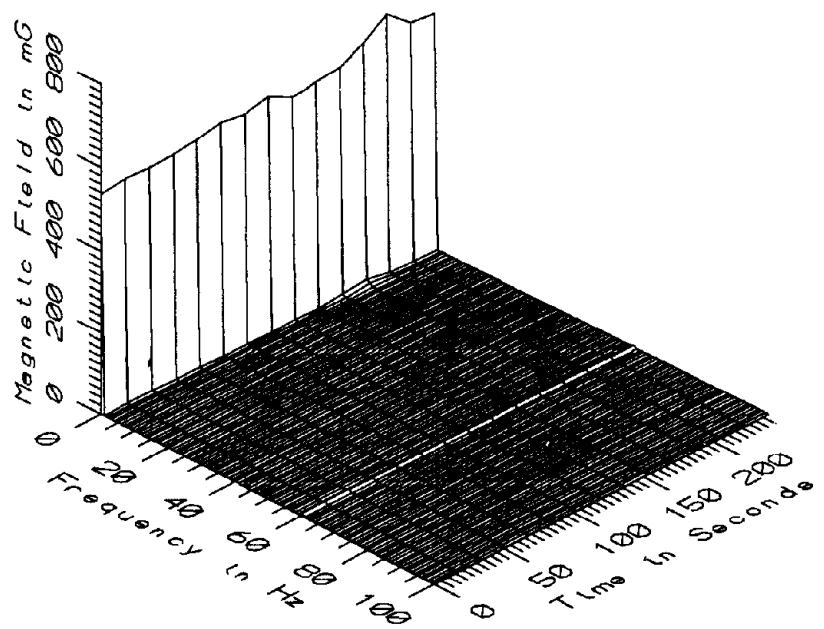
Saturated Data: None



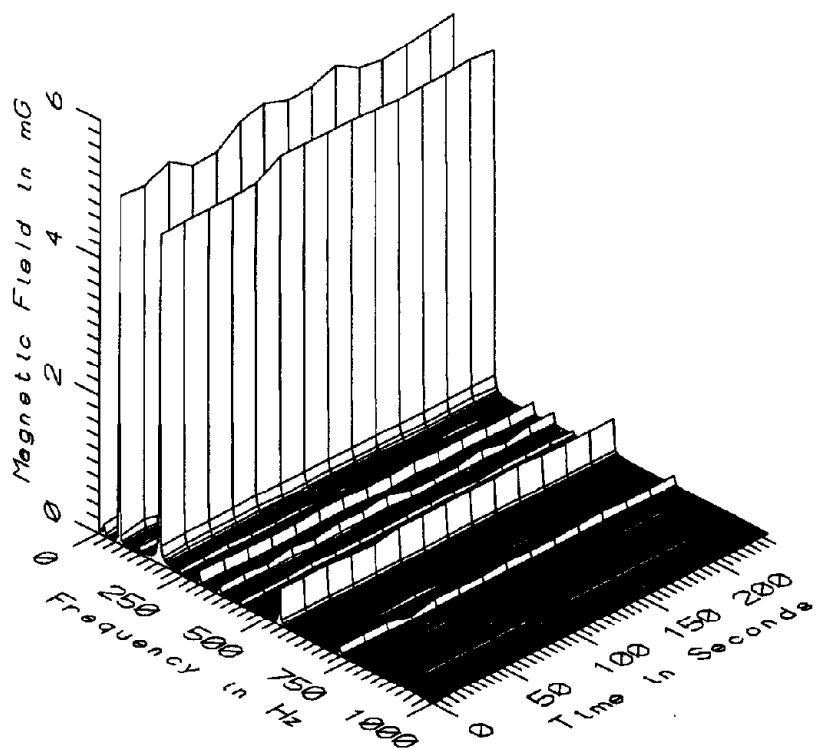
MET056 - 10cm FROM FENCE, WAYSIDE MEASUREMENT, 1M ABOVE GROUND



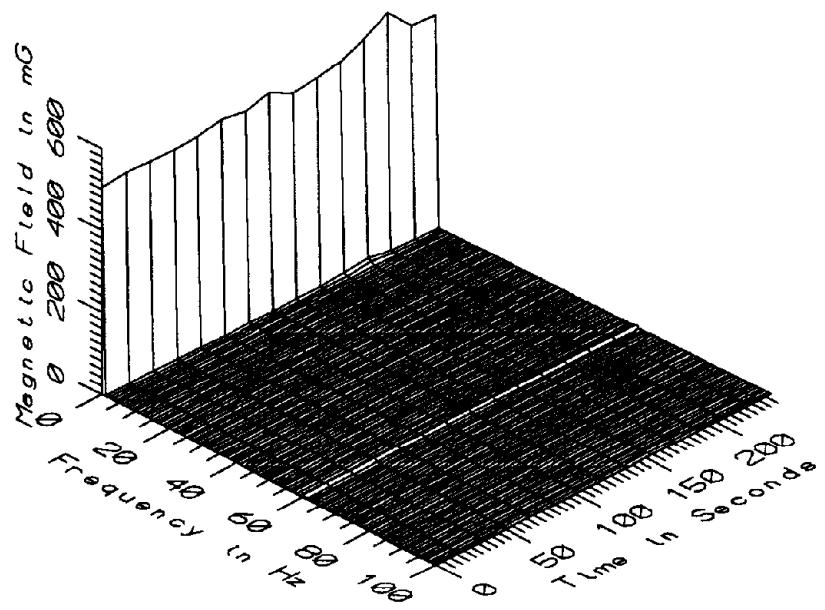
MET056 - 10cm FROM FENCE, WAYSIDE MEASUREMENT, 1M ABOVE GROUND



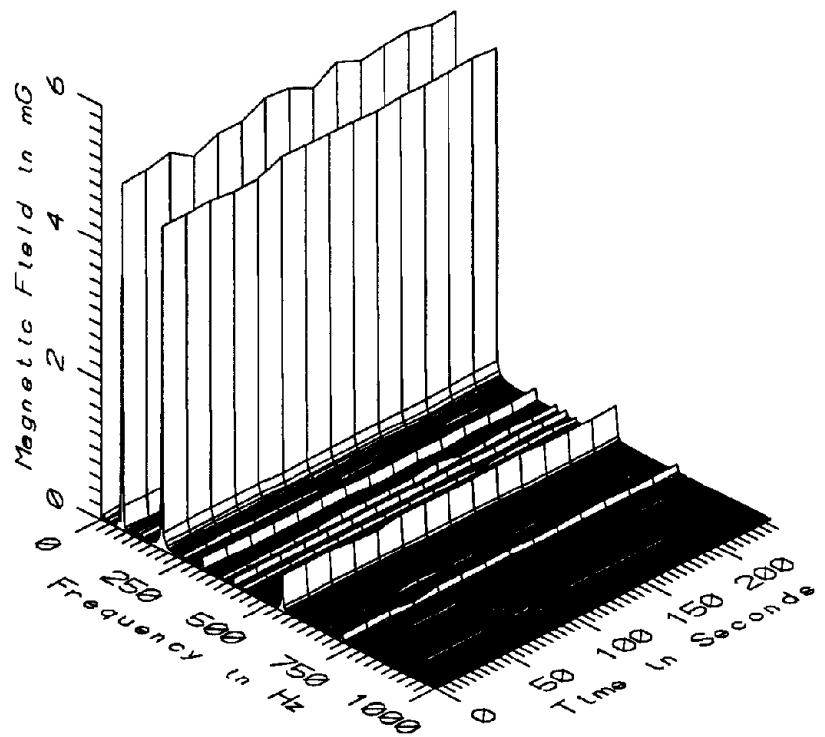
MET056 - 60cm FROM FENCE, WAYSIDE MEASUREMENT, 1M ABOVE GROUND



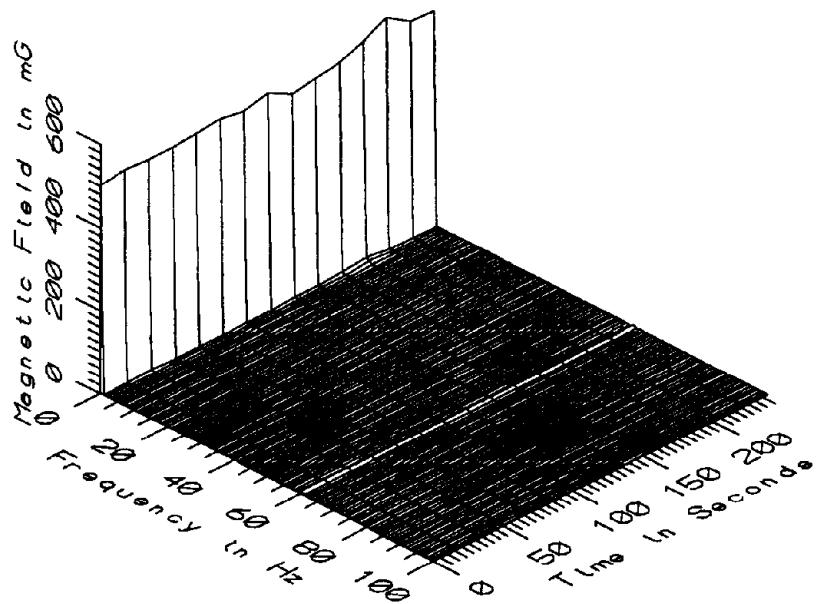
MET056 - 60cm FROM FENCE, WAYSIDE MEASUREMENT, 1M ABOVE GROUND



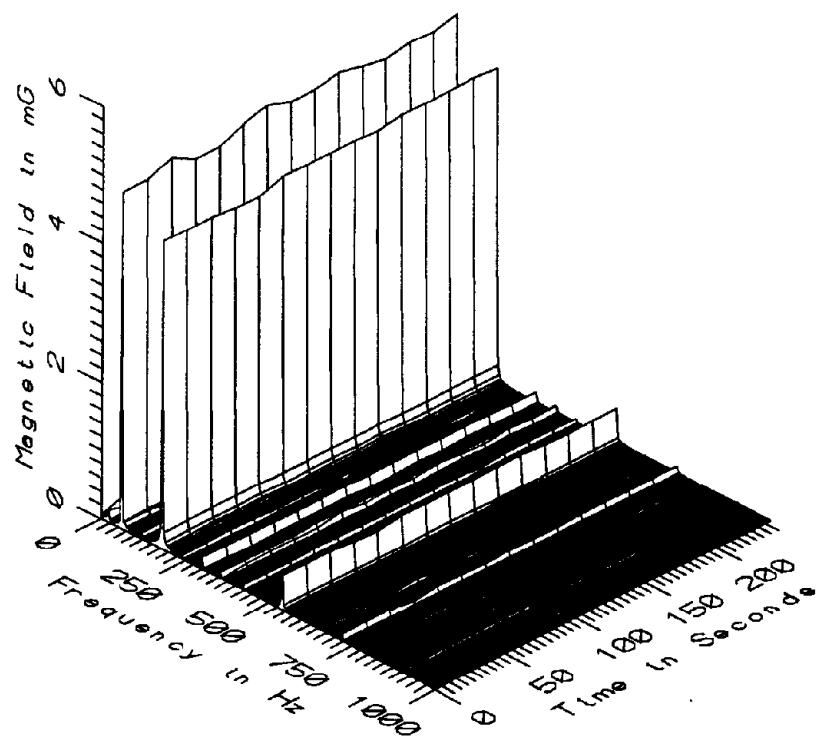
MET056 - 110cm FROM FENCE, WAYSIDE MEASUREMENT, 1M ABOVE GROUND



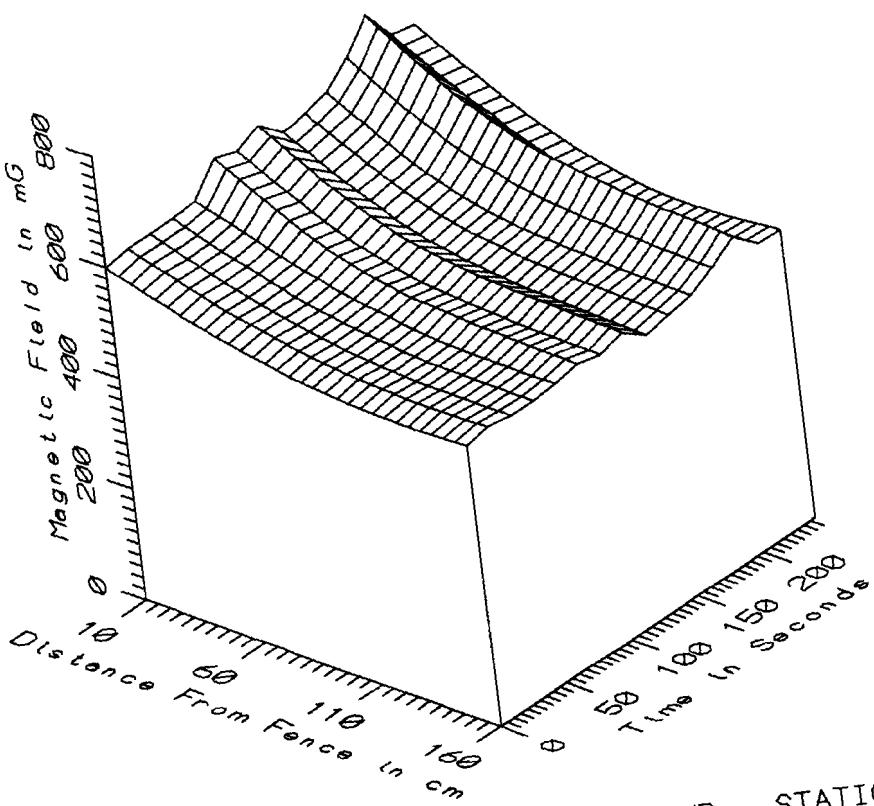
MET056 - 110cm FROM FENCE, WAYSIDE MEASUREMENT, 1M ABOVE GROUND



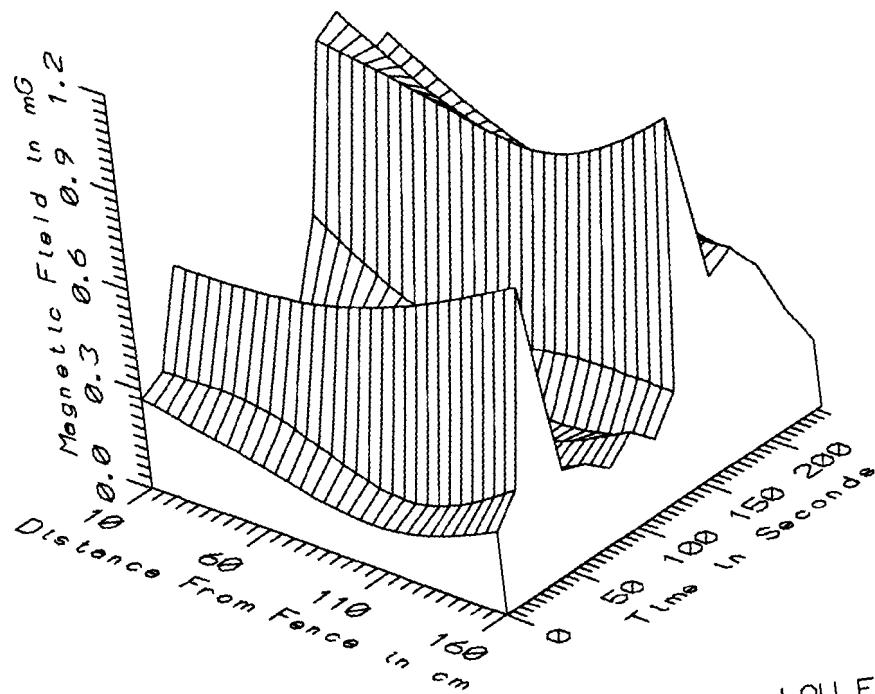
MET056 - 160cm FROM FENCE, WAYSIDE MEASUREMENT, 1M ABOVE GROUND



MET056 - 160cm FROM FENCE, WAYSIDE MEASUREMENT, 1M ABOVE GROUND

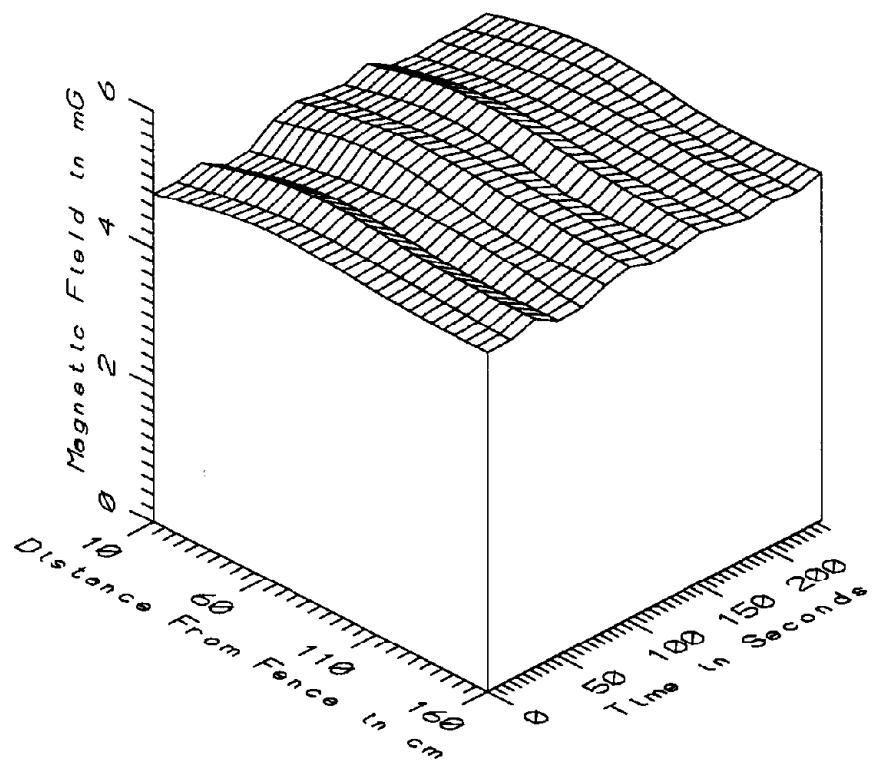


MET056 - WAYSIDE MEASUREMENT, 1M ABOVE GROUND - STATIC

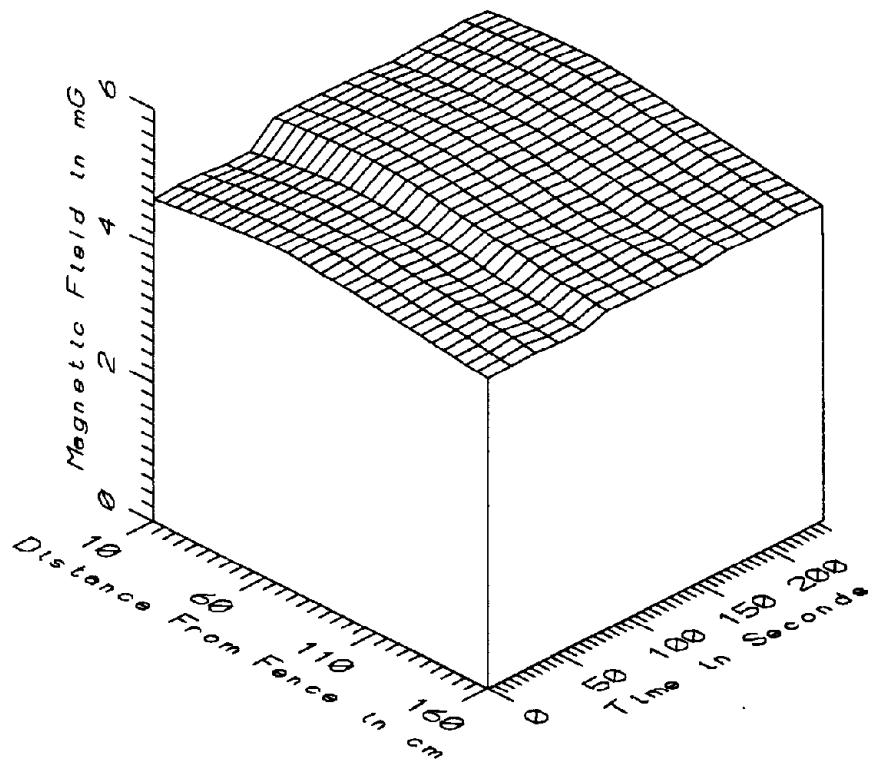


MET056 - WAYSIDE MEASUREMENT, 1M ABOVE GROUND - LOW FREQ, 5-45Hz

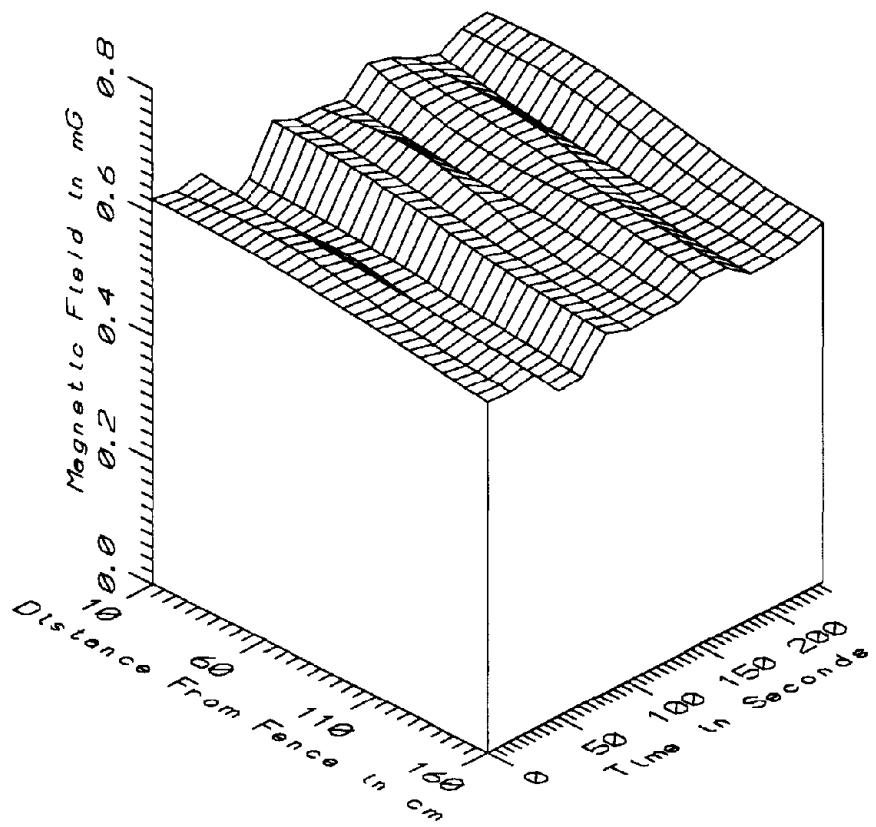
AZ-6



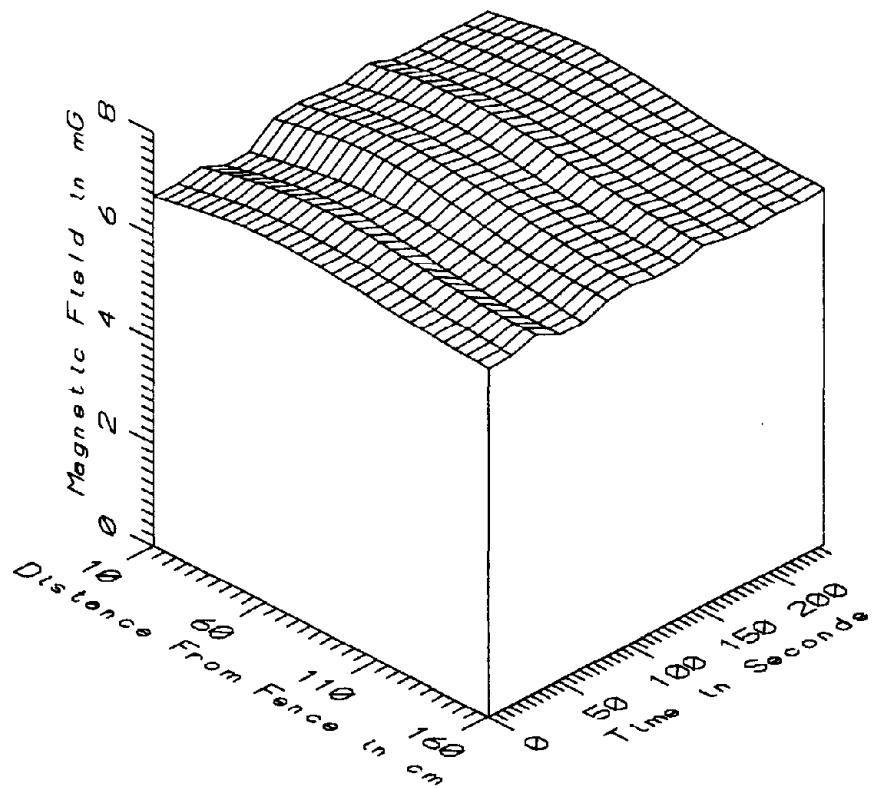
MET056 - WAYSIDE MEASUREMENT, 1M ABOVE GROUND - POWER FREQ, 50-60Hz



MET056 - WAYSIDE MEASUREMENT, 1M ABOVE GROUND - POWER HARM, 65-300Hz

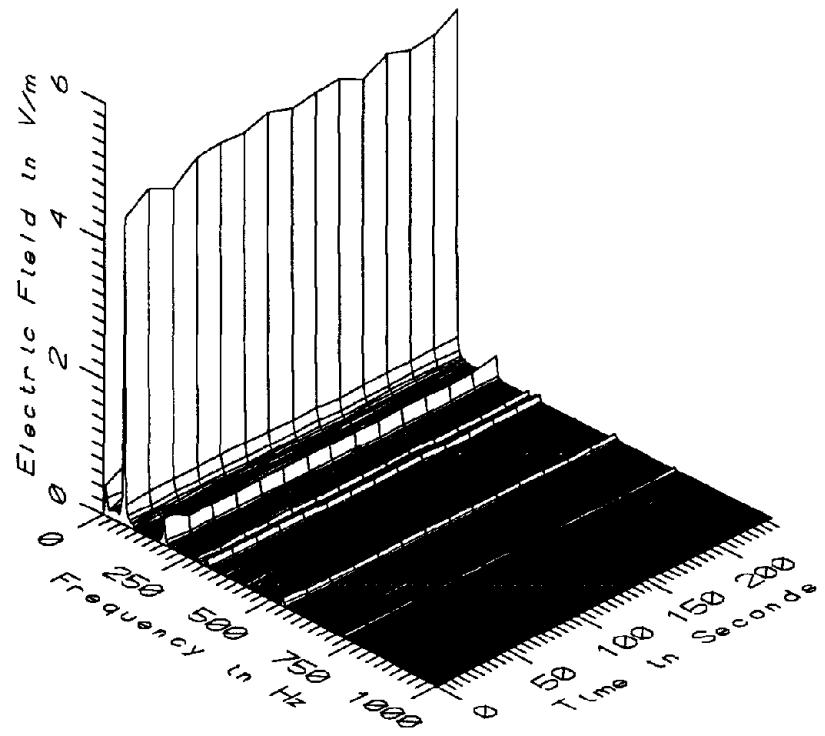


MET056 - WAYSIDE MEASUREMENT, 1M ABOVE GROUND - HIGH FREQ, 305-2560Hz



MET056 - WAYSIDE MEASUREMENT, 1M ABOVE GROUND - ALL FREQ, 5-2560Hz

		TOTAL OF 15 SAMPLES			
FREQUENCY BAND	DIST FROM FENCE (cm)	MINIMUM MAGNETIC FIELD (mG)	MAXIMUM MAGNETIC FIELD (mG)	AVERAGE MAGNETIC FIELD (mG)	STANDARD DEVIATION OF VARIATION (mG)
STATIC	10	597.88	733.42	645.14	37.30
	60	535.13	618.28	556.34	21.25
	110	499.94	575.45	519.16	18.87
	160	490.08	560.47	514.22	16.44
5-45Hz LOW FREQ	10	0.22	1.00	0.48	0.28
	60	0.19	0.89	0.40	0.25
	110	0.11	0.87	0.36	0.26
	160	0.20	1.10	0.43	0.27
50-60Hz PWR FREQ	10	4.67	5.10	4.90	0.12
	60	4.99	5.36	5.17	0.11
	110	4.87	5.21	5.06	0.09
	160	4.86	5.11	4.99	0.08
65-300Hz PWR HARM	10	4.68	5.00	4.88	0.13
	60	4.86	5.10	5.00	0.10
	110	4.69	4.88	4.80	0.07
	160	4.48	4.64	4.57	0.05
305-2560Hz HIGH FREQ	10	0.55	0.67	0.63	0.03
	60	0.57	0.65	0.61	0.02
	110	0.54	0.61	0.59	0.02
	160	0.52	0.59	0.56	0.02
5-2560Hz ALL FREQ	10	6.64	7.21	6.96	0.18
	60	7.00	7.45	7.24	0.14
	110	6.79	7.16	7.02	0.10
	160	6.65	6.94	6.80	0.09



MET056 - ELECTRIC FIELD AT WAYSIDE SOUTH OF SHADY GROVE

