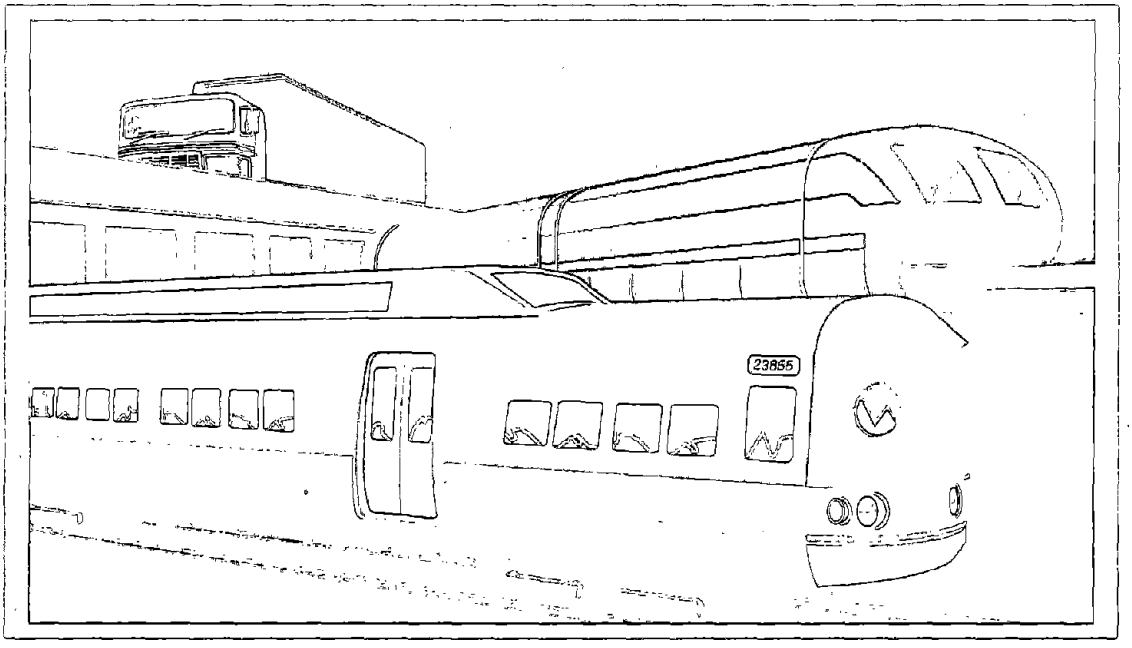
U. S. Department
of Transportation
**Federal Railroad
Administration**

Safety of High Speed Guided Ground Transportation Systems

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

Magnetic and Electric Field Testing of the Massachusetts Bay Transportation Authority (MBTA) Urban Transit System

Volume II: Appendices



DOT/FRA/ORD-93/05.II
DOT-VNTSC-FRA-93-6.II

Final Report
June 1993

NOTICE

This document is disseminated under the sponsorship of the Department of Transportation in the interest of information exchange. The United States Government assumes no liability for its contents or use thereof.

NOTICE

The United States Government does not endorse products or manufacturers. Trade or manufacturers' names appear herein solely because they are considered essential to the object of this report.

NOTICE

In places, this report discusses whether various aspects of the technology that is the subject of this report comply with Federal safety laws and regulations. Those discussions, which reflect the seasoned judgement of commentators qualified in their fields, do not constitute rulings by the Federal Railroad Administration's Office of Safety or its Office of Chief Counsel concerning compliance with the law.

REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

1. 
PB93-227627

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 theMassachusetts Bay Transportation Authority (MBTA) Urban Transit System Volume II - Appendices

5. FUNDING NUMBERS
R3010/RR393

6. AUTHOR(S)
William L. Jacobs, David C. Robertson, George A. Steiner *

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-93-6.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-93/05.II

11. SUPPLEMENTARY NOTES
* Under contract to: U.S. Department of Transportation
Research and Special Programs Administration
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 projects (e.g. in Orlando, FL and Pittsburgh, PA) and high speed rail (the French Train a Grande Vitesse (TGV) in the Texas Triangle).

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 MBTA transit system was performed, as part of a comprehensive comparative EMF 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 electrotechnologies used in this transit system (3rd rail dc, catenary with pantograph, trolley bus). Each electrotechnology has specific EMF frequency signatures. EMF data represent a range of system operating conditions and locations (in vehicles, stations and waysides), as well as 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. Both dc magnetic fields and EMF ELF field levels for the MBTA system are comparable to those produced by common environmental sources at home, work, and under power lines, but they are more variable in time.

14. SUBJECT TERMS Electric and Magnetic Fields (EMF); Static (dc) Magnetic Field; Alternating (ac) Field; Extreme Low Frequency (ELF); MBTA; Transit System; Rapid Rail Transit System; Trolley; Bus; Third Rail; Catenary; Traffic Control Center; Transit 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
630

16. PRICE CODE

17. SECURITY CLASSIFICATION OF REPORT	18. SECURITY CLASSIFICATION OF THIS PAGE	19. SECURITY CLASSIFICATION OF ABSTRACT	20. LIMITATION OF ABSTRACT
Unclassified	Unclassified	Unclassified	

SYSTÈME INTERNATIONAL (SI) UNIT DEFINITIONS AND CONVERSIONS USED IN THIS REPORT

DISTANCE (ENGLISH-TO-SI CONVERSION):

1 inch (in)	= 2.54 centimeters (cm)	= 0.025 meters (m)
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 (μT)
1 milliGauss (mG)	= .1 microTesla (μT)
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 extremely 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 emgineering and related 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 Massachusetts Bay Transportation Authority (MBTA), or Boston "T" system. Volume I, Analysis presents a summary of representative EMF data on various types of 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 fields 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 by location, time, and frequency range, as well as statistics.

This report was prepared by a team of Electric Research and Management, Inc. (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 Extreme Low Frequency (ELF) Electric and Magnetic Fields (EMF) for rail technologies was Dr. Aviva Brecher of the DOT/RSPA John A. Volpe National Transportation Systems Center (VNTSC), who manages the FRA's EMF Research Program. Guidance and program support was provided by Robert Dorer, the HSGGT Safety Program Manager at VNTSC. Professor Ross Holmstrom of University of Masachussetts and VNTSC, assisted both in planning the measurements and review of 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 Mr. 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. John Lewis, Manager, and Ms. Rachel Durkee, Signal Engineer, Mr. George Dennison, Power System and Equipment, and several other MBTA engineering staff members.

VOLUME I

TABLE OF CONTENTS

VOLUME I

TABLE OF CONTENTS (CONT'D)

VOLUME I

TABLE OF CONTENTS (CONT'D)

VOLUME I

TABLE OF CONTENTS (CONT'D)

VOLUME I

TABLE OF CONTENTS (CONT'D)

VOLUME I

LIST OF FIGURES

LIST OF FIGURES (CONT'D)

LIST OF FIGURES (CONT'D)

LIST OF FIGURES (CONT'D)

LIST OF FIGURES (CONT'D)

LIST OF FIGURES (CONT'D)

LIST OF FIGURES (CONT'D)

LIST OF FIGURES (CONT'D)

LIST OF FIGURES (CONT'D)

LIST OF FIGURES (CONT'D)

VOLUME I

LIST OF TABLES

VOLUME I

LIST OF TABLES (CONT'D)

LIST OF TABLES (CONT'D)

LIST OF TABLES (CONT'D)

VOLUME II

TABLE OF CONTENTS

VOLUME II

TABLE OF CONTENTS (CONT'D)

VOLUME II

TABLE OF CONTENTS (CONT'D)

VOLUME II

TABLE OF CONTENTS (CONT'D)

VOLUME II

LIST OF FIGURES

VOLUME II

LIST OF TABLES

APPENDIX A

DESCRIPTION OF APPENDED DATA

The following 50 appendices contain a detailed reporting of the magnetic field characteristics measured onboard the Massachusetts Bay Transit Authority (MBTA) Mass Transit System 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 50 repetitive waveform datasets collected during the June 9, 10 and 11, 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-10.) 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 *MultiWave*™ 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 - MBTA MASS TRANSIT SYSTEM
JUNE 9-11, 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
		JUN 9						
BOS001	B	09:58-09:59	7-1	46	47	5	13	NEAR RECTIFIER IN HIGH STREET TRACTION POWER SUPPLY STATION. STAFF IN VERTICAL POSITION
BOS002	C	10:00-10:03	7-1	46	47	5	37	SAME AS BOS001
BOS003	D	10:16-10:18	7-1	48	49	5	25	NEAR DC SWITCHGEAR IN HIGH STREET TRACTION POWER SUPPLY STATION. STAFF IN VERTICAL POSITION
BOS004	E	10:45-10:46	8-1	63	65	5	14	IN ORANGE LINE DISPATCHER'S ROOM, AT DISPATCHER'S SEAT. STAFF IN VERTICAL POSITION
BOS005	F	10:52-10:54	8-1	64	65	5	13	IN ORANGE LINE DISPATCHER'S ROOM WITH STAFF IN HORIZONTAL POSITION FROM COMPUTER MONITORS, 1 M (3.3 FT) ABOVE FLOOR
BOS006	G	11:24-11:26	7-2	50	51	5	25	NEAR MAIN CONTROL BOARD IN SOUTH BOSTON TRACTION POWER SUPPLY STATION. STAFF IN VERTICAL POSITION

TABLE A-1.

INDEX OF REPETITIVE WAVEFORM DATA - MBTA MASS TRANSIT SYSTEM
JUNE 9-11, 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
BOS007	H	11:35-11:37	7-2	52	53	5	25	IN BUS ROOM B IN SOUTH BOSTON TRACTION POWER SUPPLY STATION. STAFF IN VERTICAL POSITION
BOS008	I	13:32-13:35	7-3	54	56	5	25	BETWEEN AC SWITCHGEAR AND RECTIFIERS IN BENNETT STREET TRACTION POWER SUPPLY STATION. STAFF IN VERTICAL POSITION
BOS009	J	13:36-13:38	7-3	55	56	5	25	BETWEEN AC SWITCHGEAR AND RECTIFIERS IN BENNETT STREET TRACTION POWER SUPPLY STATION. STAFF IN HORIZONTAL POSITION, 1 M (3.3 FT) ABOVE GROUND, FROM RECTIFIER CABINET
BOS010	K	13:43-13:45	7-3	57	58	5	25	IN FRONT OF DC SWITCHGEAR IN BENNETT STREET TRACTION POWER SUPPLY STATION. STAFF IN VERTICAL POSITION
BOS011	L	13:59-14:01	7-3	59	60	5	25	ON BENNETT ALLEY SIDEWALK OUTSIDE BENNETT STREET TRACTION POWER SUPPLY STATION. STAFF IN VERTICAL POSITION
BOS012	M	14:08-14:10	7-3	61	62	5	26	ON BENNETT STREET SIDEWALK OUTSIDE BENNETT STREET TRACTION POWER SUPPLY STATION. STAFF IN VERTICAL POSITION

TABLE A-1.

INDEX OF REPETITIVE WAVEFORM DATA - MBTA MASS TRANSIT SYSTEM
JUNE 9-11, 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
BOS013	N	14:31-14:33	5-1	30	31	5	25	TROLLEY BUS WAYSIDE ON CONCORD AVENUE IN FRONT OF HARVARD ASTROPHYSICAL LAB. STAFF IN VERTICAL POSITION
BOS014	O	14:48-14:49	5-1	30	31	5	15	SAME AS BOS013
		JUN 10						
BOS015	P	11:23-11:25	3-1	1	2	5	25	AT OPERATOR'S LEFT SHOULDER IN BLUE LINE CAR. STAFF IN VERTICAL POSITION
BOS016	Q	11:28-11:30	3-1	1	2	5	19	SAME AS BOS015
BOS017	R	11:31-11:32	3-1	3	2	5	10	AT CENTERLINE OF BLUE LINE CAR, BETWEEN REAR DOORS. STAFF IN VERTICAL POSITION
BOS018	S	11:34-11:35	3-1	4	2	5	14	IN FRONT OF OPERATOR'S SEAT OF BLUE LINE CAR. STAFF IN VERTICAL POSITION
BOS019	T	11:40-11:45	3-1	1	2	5	51	AT LEFT SHOULDER OF OPERATOR IN BLUE LINE CAR. STAFF IN VERTICAL POSITION. CHANGE FROM CATENARY TO THIRD RAIL
BOS020	U	12:23-12:25	3-1	4	5	5	26	IN FRONT OF OPERATOR'S SEAT IN ORANGE LINE CAR. STAFF IN VERTICAL POSITION

TABLE A-1.

INDEX OF REPETITIVE WAVEFORM DATA - MBTA MASS TRANSIT SYSTEM
JUNE 9-11, 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
BOS021	V	12:26-12:29	3-1	3	5	5	40	IN PASSENGER AREA OF ORANGE LINE CAR. STAFF IN VERTICAL POSITION IN CENTER OF CAR ABOVE TRUCK
BOS022	W	13:00-13:02	6-1	36	37	5	25	ORANGE LINE STATION AT DOWNTOWN CROSSING. ON THE DEPARTING END OF THE SOUTH BOUND SIDE OF PLATFORM. STAFF IN VERTICAL POSITION
BOS023	X	13:09-13:12	6-1	66	67	5	25	ORANGE LINE STATION AT DOWNTOWN CROSSING. ON THE ARRIVING END OF THE SOUTH BOUND SIDE OF PLATFORM. STAFF IN VERTICAL POSITION
BOS024	Y	14:10-14:10	6-1	32	33	5	3	RED LINE STATION AT DOWNTOWN CROSSING. ON THE ARRIVING END OF THE SOUTH BOUND SIDE OF PLATFORM. STAFF IN VERTICAL POSITION
BOS025	Z	14:10-14:11	6-1	32	33	5	8	SAME AS BOS024.
BOS026	AA	14:19-14:23	6-1	34	35	5	27	RED LINE STATION AT DOWNTOWN CROSSING. ON THE DEPARTING END OF THE SOUTH BOUND SIDE OF PLATFORM. STAFF IN VERTICAL POSITION
BOS027	AB	14:43-14:45	3-1	6	7	5	15	IN FRONT OF OPERATOR'S SEAT IN RED LINE CAR. STAFF IN VERTICAL POSITION

TABLE A-1.

INDEX OF REPETITIVE WAVEFORM DATA - MBTA MASS TRANSIT SYSTEM
JUNE 9-11, 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
BOS028	AC	14:46-14:48	3-1	8	7	5	20	IN PASSENGER AREA OF RED LINE CAR. STAFF IN VERTICAL POSITION IN CENTER OF CAR, MIDDLE OF FRONT DOORS OVER TRUCK
BOS029	AD	14:50-14:53	3-1	9	7	5	19	IN PASSENGER AREA OF RED LINE CAR. STAFF IN VERTICAL POSITION AT CENTERLINE OF CAR, FOUR FEED BEHIND MIDDLE OF THE FRONT DOORS
BOS030	AE	15:11-15:14	3-2	15	16	5	29	ON HIGH SPEED TROLLEY AT MATTAPAN STATION. STAFF IN VERTICAL POSITION NEAR OPERATOR'S RIGHT SHOULDER. TROLLEY IS STATIONARY
BOS031	AF	15:15-15:16	3-2	15	16	5	12	ON HIGH SPEED TROLLEY. STAFF IN VERTICAL POSITION NEAR OPERATOR'S RIGHT SHOULDER. TROLLEY IS MOVING
BOS032	AG	15:18-15:20	3-2	17	16	5	14	ON HIGH SPEED TROLLEY. STAFF IN VERTICAL POSITION IN CENTER OF CAR
		JUN 11						
BOS033	AH	09:18-09:21	3-1	10	-	5	20	ON KINKI-SHARYOU GREEN LINE CAR. STAFF IN VERTICAL POSITION ON CENTERLINE OF CAR JUST FORWARD OF REAR DOORS

TABLE A-1.

INDEX OF REPETITIVE WAVEFORM DATA - MBTA MASS TRANSIT SYSTEM
JUNE 9-11, 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
BOS034	AI	09:21-09:23	3-1	11	-	5	15	ON KINKI-SHARYOU GREEN LINE CAR. STAFF IN VERTICAL POSITION IN CENTER OF CAR
BOS035	AJ	09:24-09:25	3-1	12	-	5	7	ON KINKI-SHARYOU GREEN LINE CAR. STAFF IN VERTICAL POSITION AT REAR OF CAR, NOT ON THE CENTERLINE
BOS036	AK	09:26-09:27	3-1	13	-	5	13	ON KINKI-SHARYOU GREEN LINE CAR. STAFF IN VERTICAL POSITION ON THE CENTERLINE AT REAR OF CAR
BOS037	AL	09:32-09:35	6-3	45	-	5	26	GREEN LINE STATION AT GOVERNMENT CENTER. ON ARRIVING END OF WEST BOUND SIDE OF PLATFORM. STAFF IN VERTICAL POSITION
BOS038	AM	09:37-09:43	6-3	44	-	5	60	GREEN LINE STATION AT GOVERNMENT CENTER. ON DEPARTING END OF WEST BOUND SIDE OF PLATFORM. STAFF IN VERTICAL POSITION
BOS039	AN	09:46-09:47	6-2	43	-	5	10	BLUE LINE STATION AT GOVERNMENT CENTER. ON DEPARTING END OF EAST BOUND SIDE OF PLATFORM. STAFF IN VERTICAL POSITION

TABLE A-1.

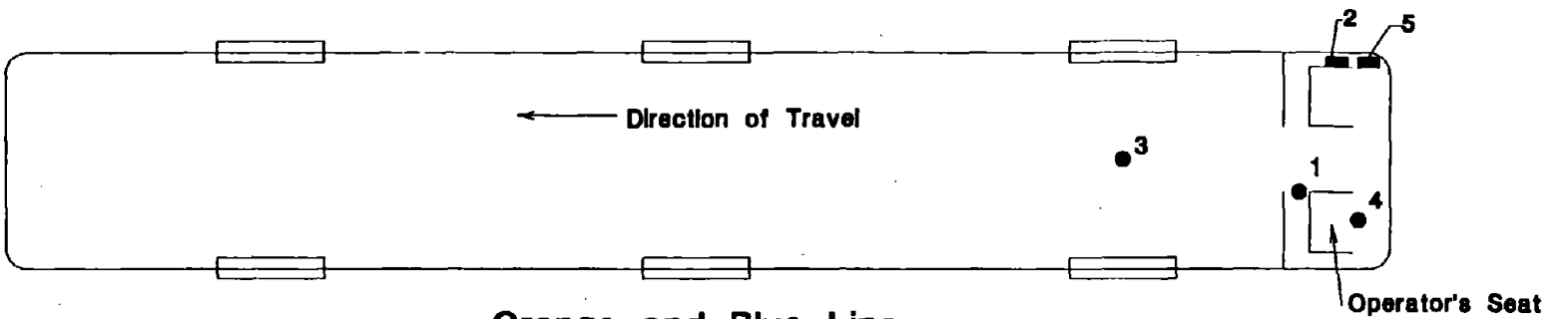
INDEX OF REPETITIVE WAVEFORM DATA - MBTA MASS TRANSIT SYSTEM
JUNE 9-11, 1992 (CONT'D)

DATA FILE NUMBER	APPENDIX CONTAINING DATA	DATE/ TIME	PROBE LOCATION FIG.	STAFF	REF.	SAMPLE INTERVAL, SECONDS	NUMBER OF SAMPLES	LOCATION AND TYPE OF MEASUREMENT
BOS040	AO	09:51-09:52	6-2	42	-	5	8	BLUE LINE STATION AT GOVERNMENT CENTER. ON ARRIVING END OF EAST BOUND SIDE OF PLATFORM. STAFF IN VERTICAL POSITION
BOS041	AP	10:27-10:29	3-1	14	-	5	18	ON BOEING GREEN LINE CAR. STAFF IN VERTICAL POSITION IN FRONT OF OPERATOR'S SEAT
BOS042	AQ	10:29-10:31	3-1	14	-	5	17	SAME AS BOS041
BOS043	AR	11:24-11:29	3-2	18	19	5	31	IN CENTER AT REAR OF A TROLLEY BUS, 1.2 M (4 FT) BEHIND REAR AXLE. STAFF IN VERTICAL POSITION
BOS044	AS	11:29-11:32	3-2	20	19	5	25	IN CENTER OF A TROLLEY BUS IN LINE WITH REAR DOORS. STAFF IN VERTICAL POSITION
BOS045	AT	11:33-11:34	3-2	21	19	5	13	1.2 M (4 FT) BEHIND REAR AXLE OF TROLLEY BUS. STAFF IN HORIZONTAL POSITION 1 M (3.3 FT) ABOVE FLOOR WITH LEFT WINDOW AS REFERENCE
BOS046	AU	11:42-11:44	3-2	22	23	5	25	ON TROLLEY BUS. STAFF IN VERTICAL POSITION AT OPERATOR'S RIGHT SHOULDER

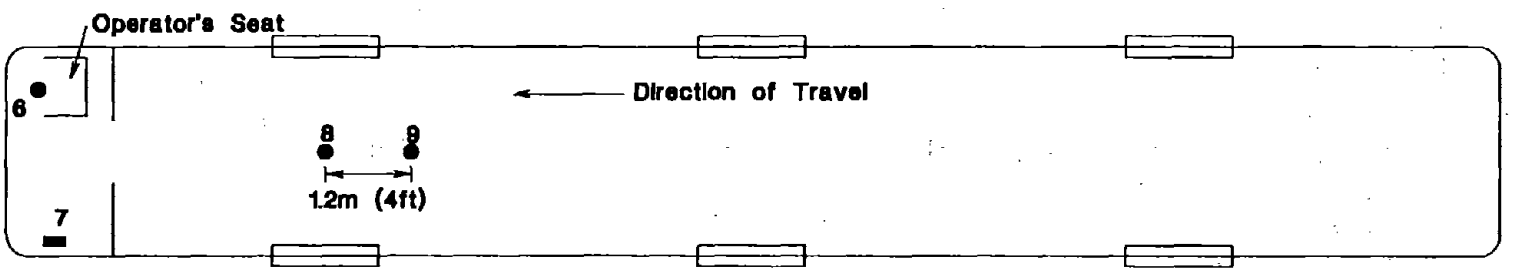
TABLE A-1.

INDEX OF REPETITIVE WAVEFORM DATA - MBTA MASS TRANSIT SYSTEM
JUNE 9-11, 1992 (CONT'D)

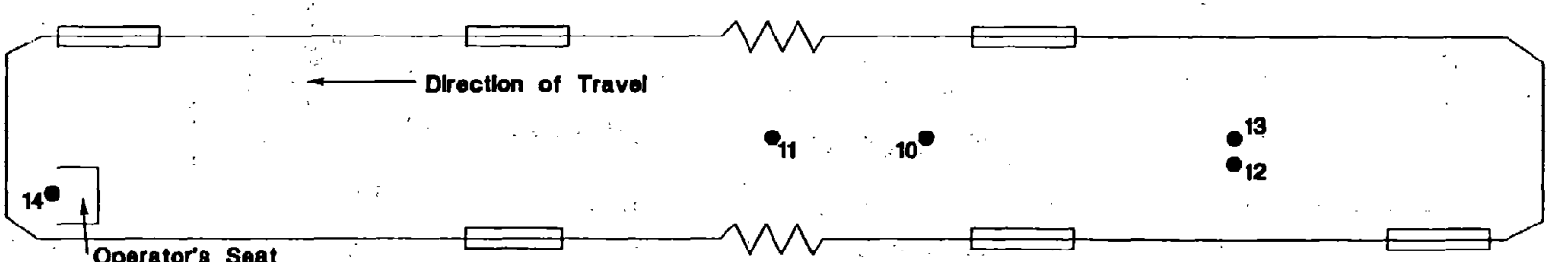
DATA FILE NUMBER	APPENDIX CONTAINING DATA	DATE/ TIME	PROBE LOCATION FIG.	STAFF	REF.	SAMPLE INTERVAL, SECONDS	NUMBER OF SAMPLES	LOCATION AND TYPE OF MEASUREMENT
BOS047	AV	13:21-13:22	5-1	28	29	5	14	GREEN LINE WAYSIDE AT BEACON STREET. STAFF IN VERTICAL POSITION 4.6 M (15 FT) FROM NEAR TRACK
BOS048	AW	13:45-13:47	5-1	26	27	5	16	BLUE LINE WAYSIDE 30.5 M (100 FT) FROM WOOD ISLAND STATION. STAFF IN VERTICAL POSITION 4.6 M (15 FT) FROM NEAR TRACK
BOS049	AX	14:01-14:02	6-2	40	41	5	7	WOOD ISLAND STATION ON BLUE LINE. DEPARTING END OF EAST BOUND SIDE OF PLATFORM. STAFF IN VERTICAL POSITION AT YELLOW SAFETY LINE
BOS050	AY	14:09-14:10	6-2	38	39	5	5	WOOD ISLAND STATION ON BLUE LINE. ARRIVING END OF EAST BOUND SIDE OF PLATFORM. STAFF IN VERTICAL POSITION AT YELLOW SAFETY LINE



Orange and Blue Line
4th Car (last)



Red Line
3rd Car (next to last)



Green Line
Last Car

FIGURE A-1. MEASUREMENT LOCATIONS WITHIN THE ORANGE, BLUE, RED, AND GREEN LINE CARS

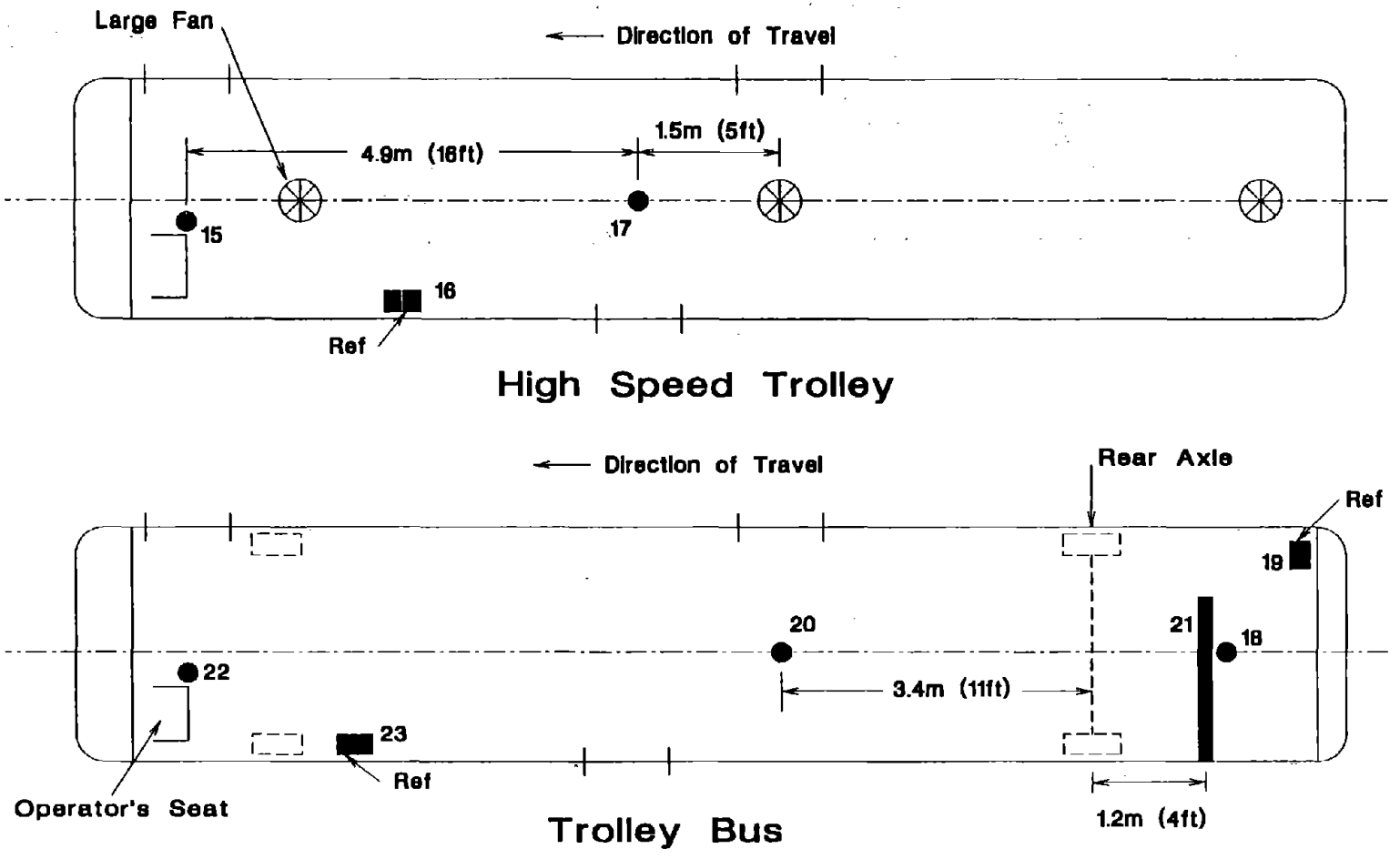
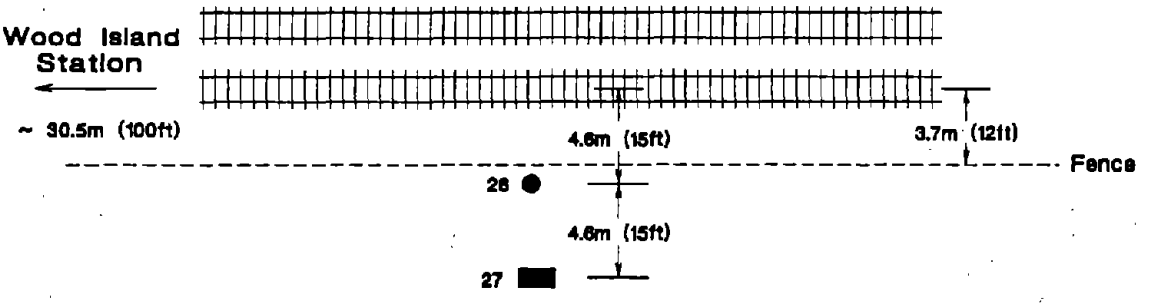
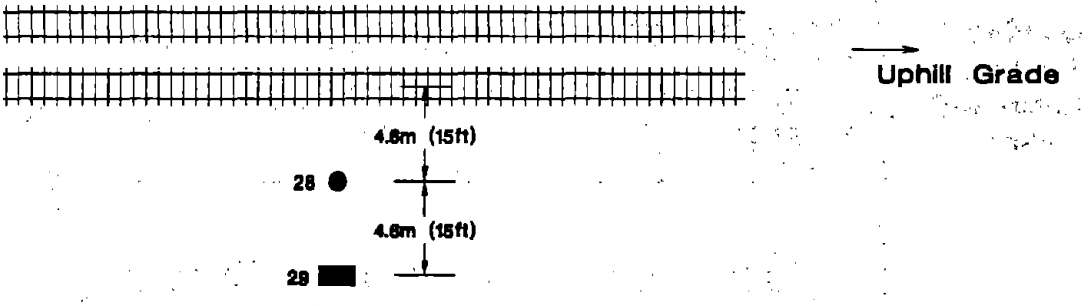


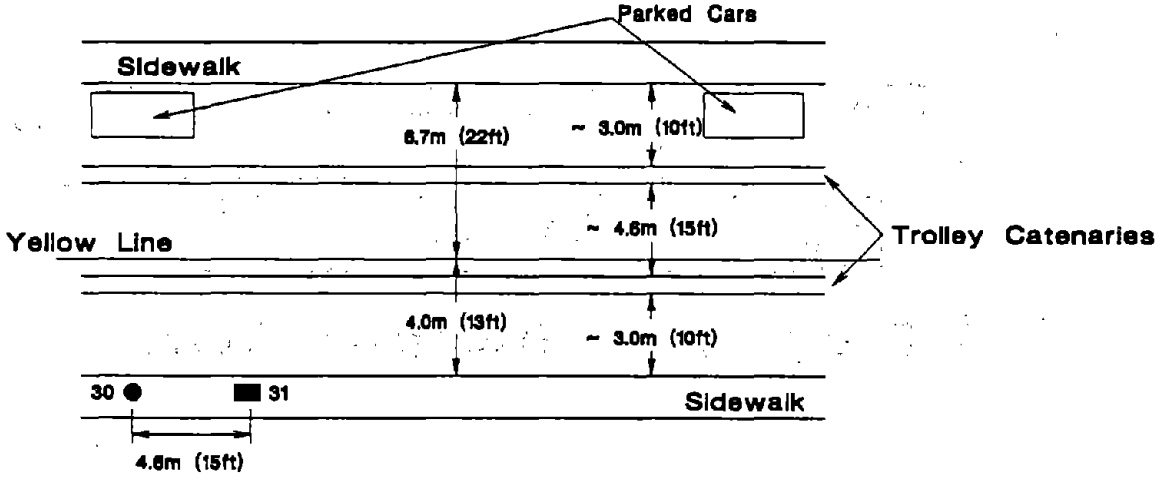
FIGURE A-2. MEASUREMENT LOCATIONS WITHIN THE MATTAPAN HIGH SPEED TROLLEY AND THE TROLLEY BUS



Wayside - Wood Island Station - Blue Line

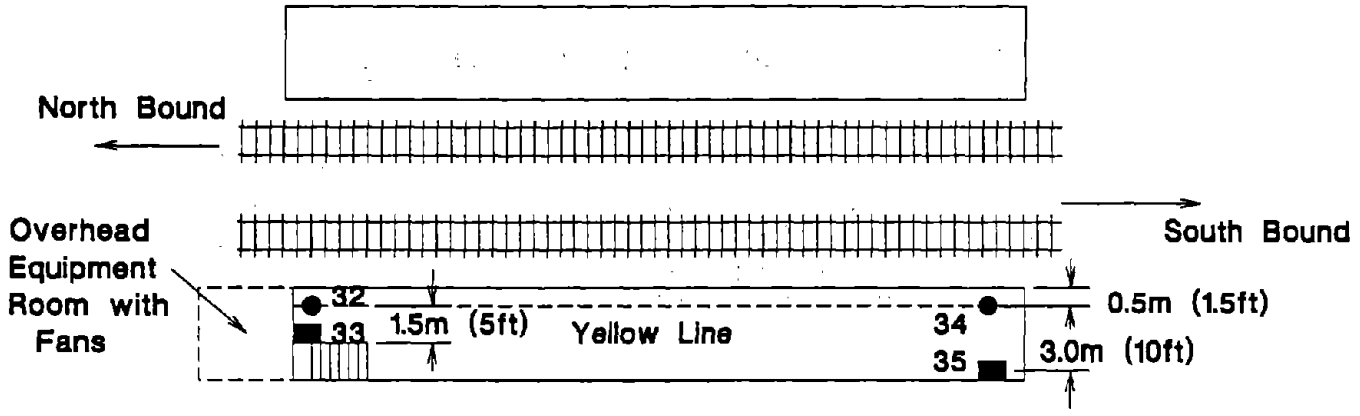


Wayside - Beacon Street - Green Line

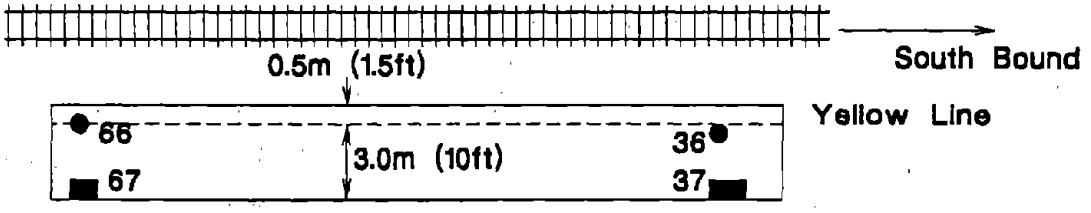


Wayside - Concord Ave - Trolley Bus Line

FIGURE A-3. MEASUREMENT LOCATIONS AT WAYSIDE ON THE BLUE LINE (WOOD ISLAND STATION), THE GREEN LINE (BEACON STREET), AND THE TROLLEY BUS (CONCORD AVENUE)

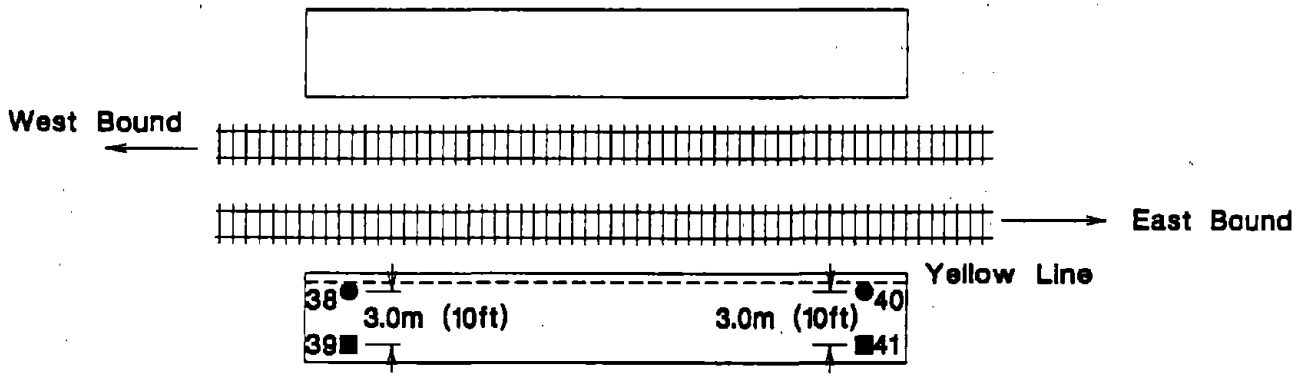


Red Line - Downtown Crossing

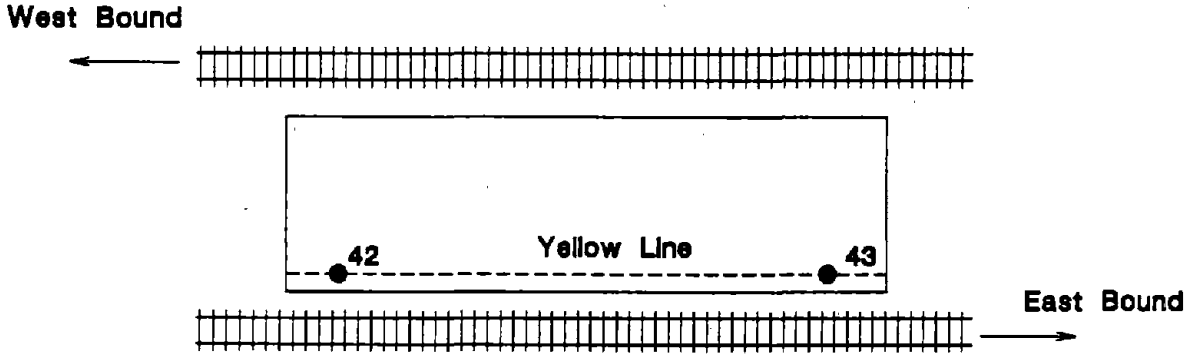


Orange Line - Downtown Crossing

FIGURE A-4. MEASUREMENT LOCATIONS ON THE RED LINE AND ORANGE LINE PASSENGER PLATFORMS AT DOWNTOWN CROSSINGS



Blue Line - Wood Island Station



Blue Line - Government Center

FIGURE A-5. MEASUREMENT LOCATIONS ON THE BLUE LINE PLATFORMS AT WOOD ISLAND STATION AND GOVERNMENT CENTER

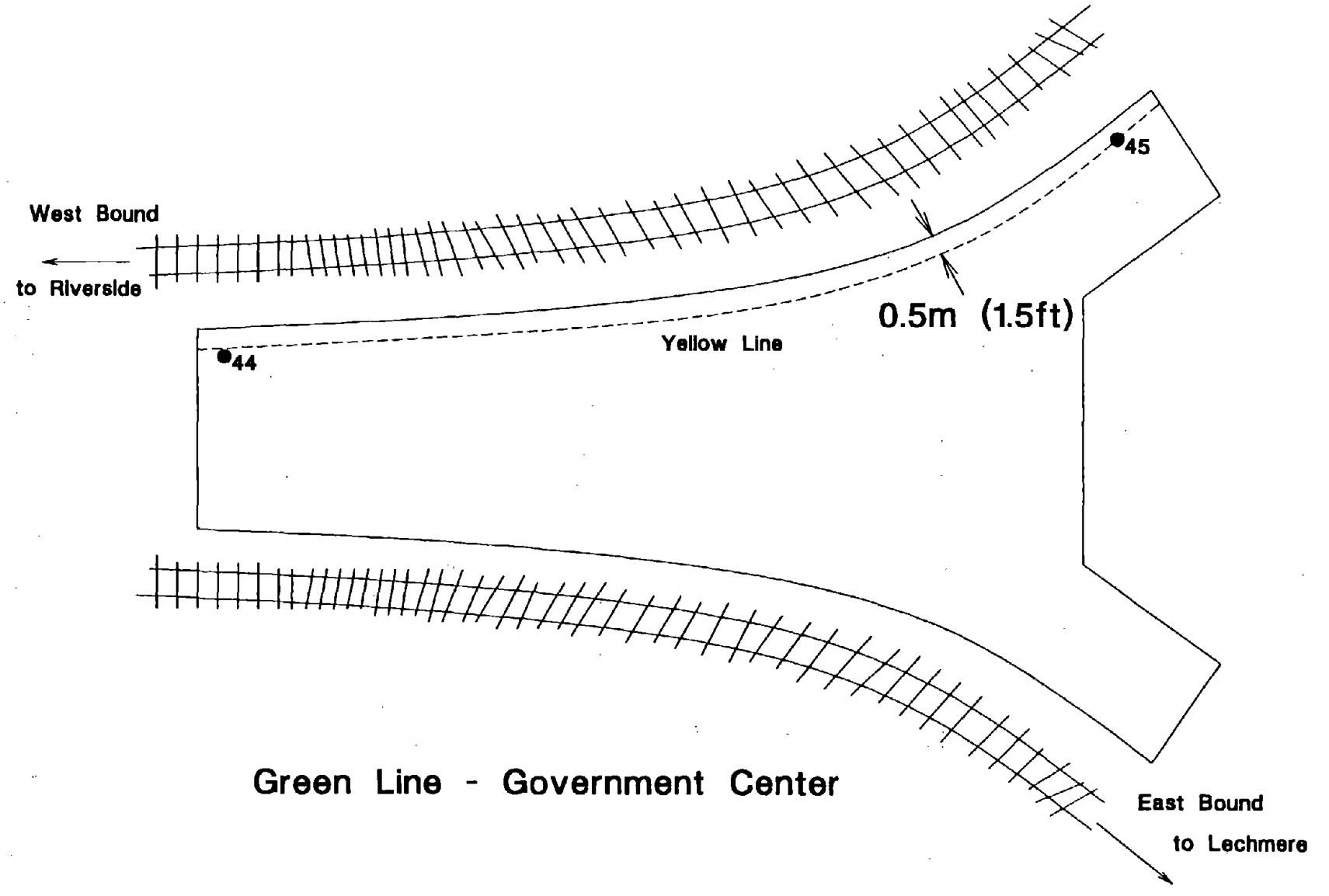
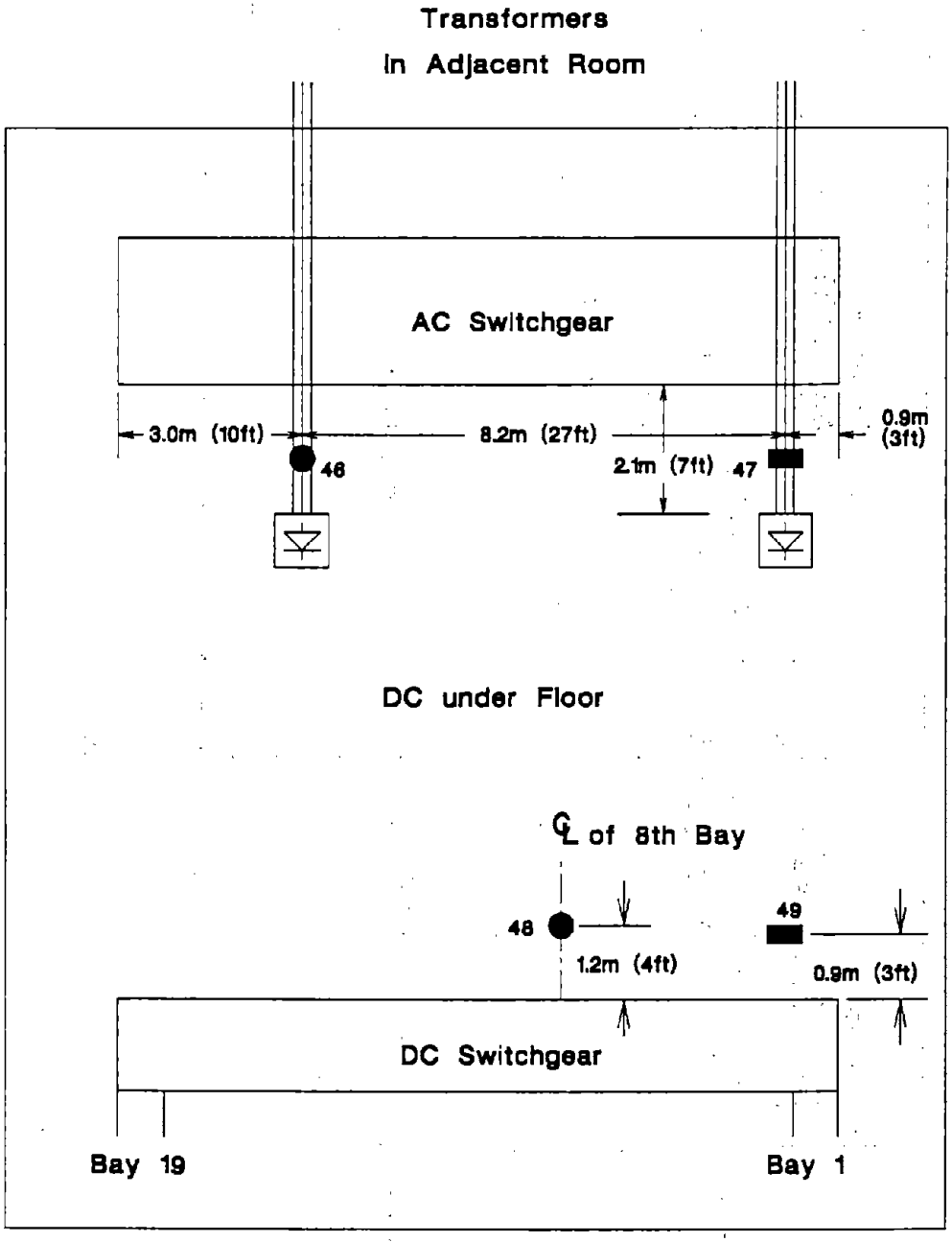
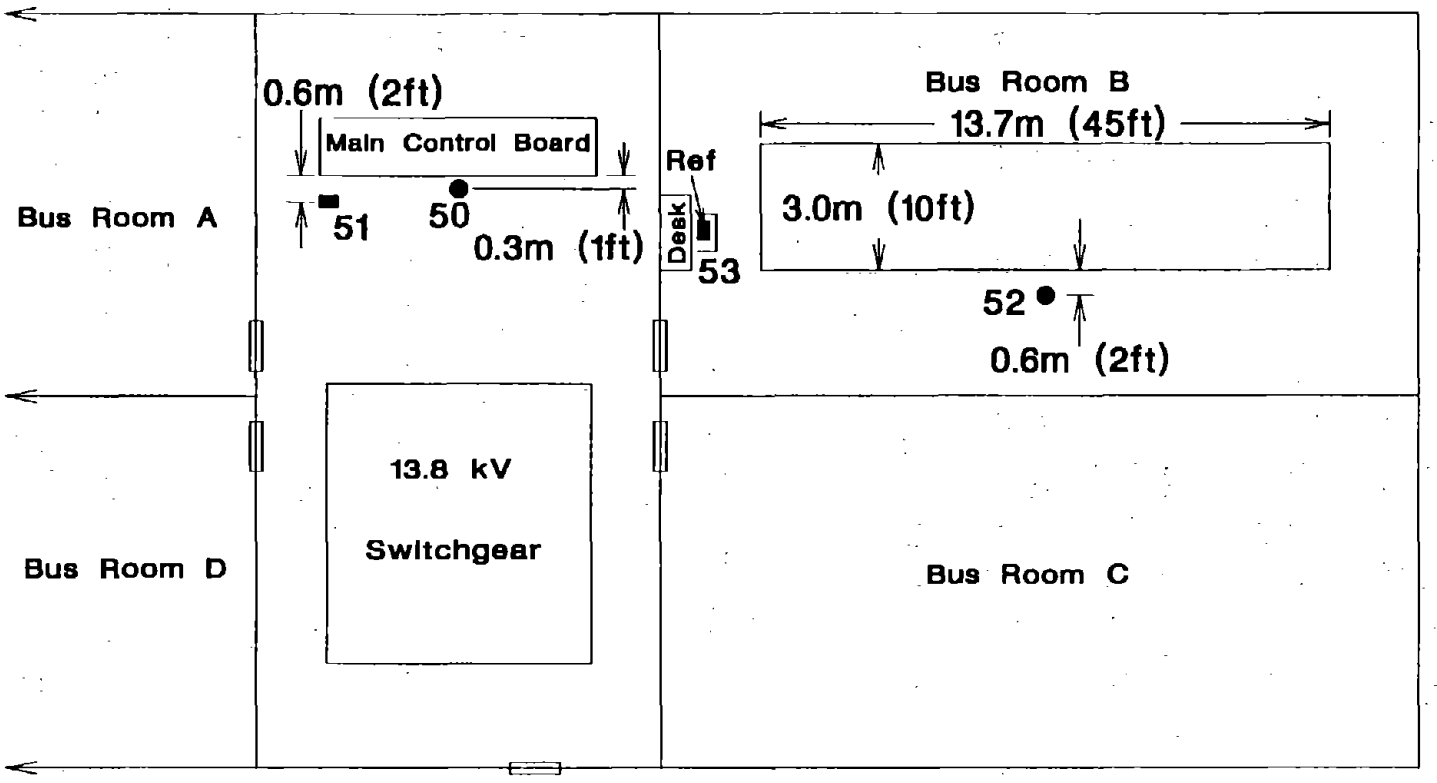


FIGURE A-6. MEASUREMENT LOCATIONS ON THE GREEN LINE PASSENGER PLATFORM AT GOVERNMENT CENTER



High Street Traction Power Supply Station

FIGURE A-7. MEASUREMENT LOCATIONS AT THE HIGH STREET TRACTION POWER SUPPLY STATION



South Boston TPSS

FIGURE A-8. MEASUREMENT LOCATIONS AT THE SOUTH BOSTON TRACTION POWER SUPPLY STATION

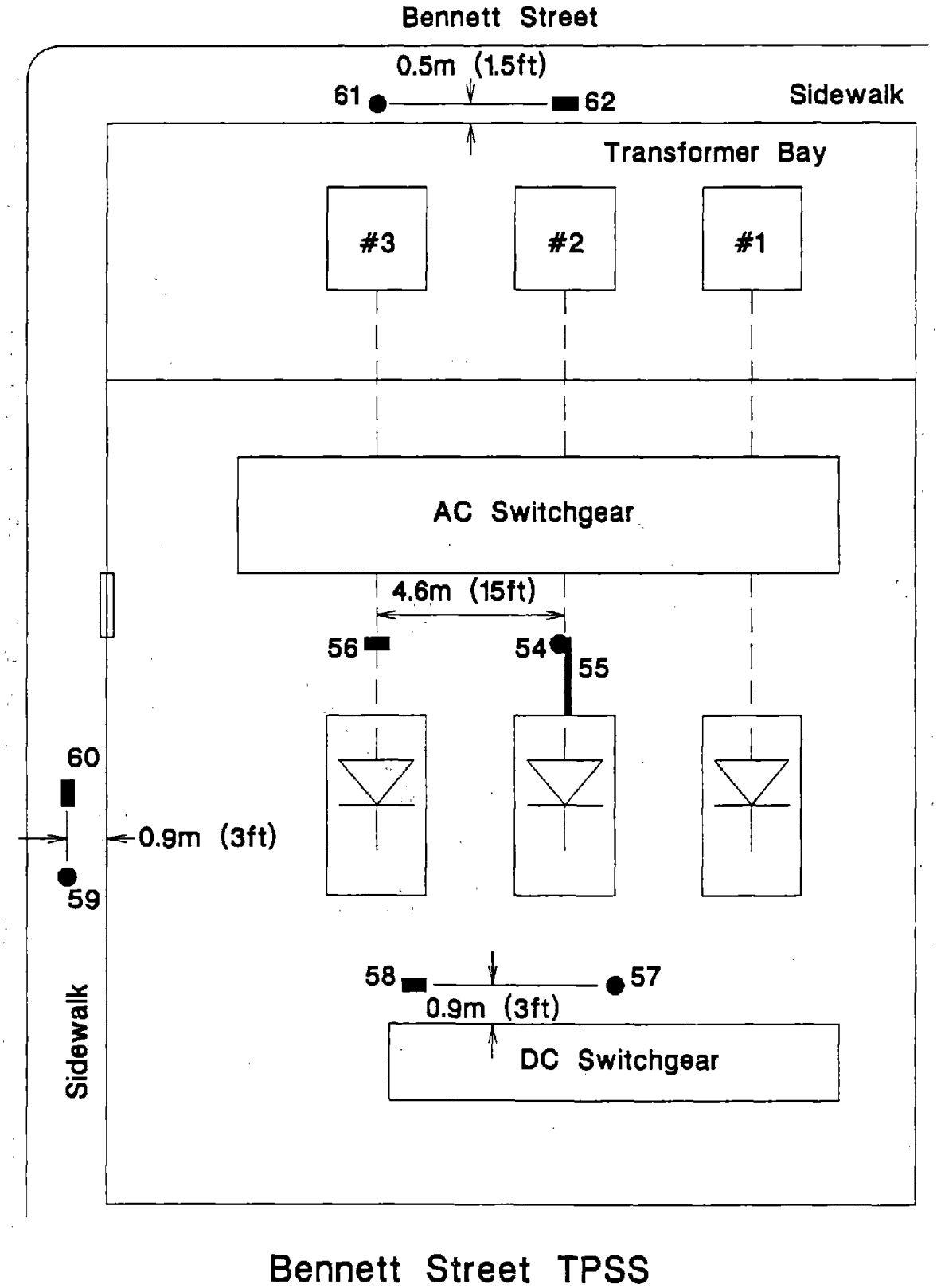


FIGURE A-9. MEASUREMENT LOCATIONS AT THE BENNETT STREET TRACTION POWER SUPPLY STATION

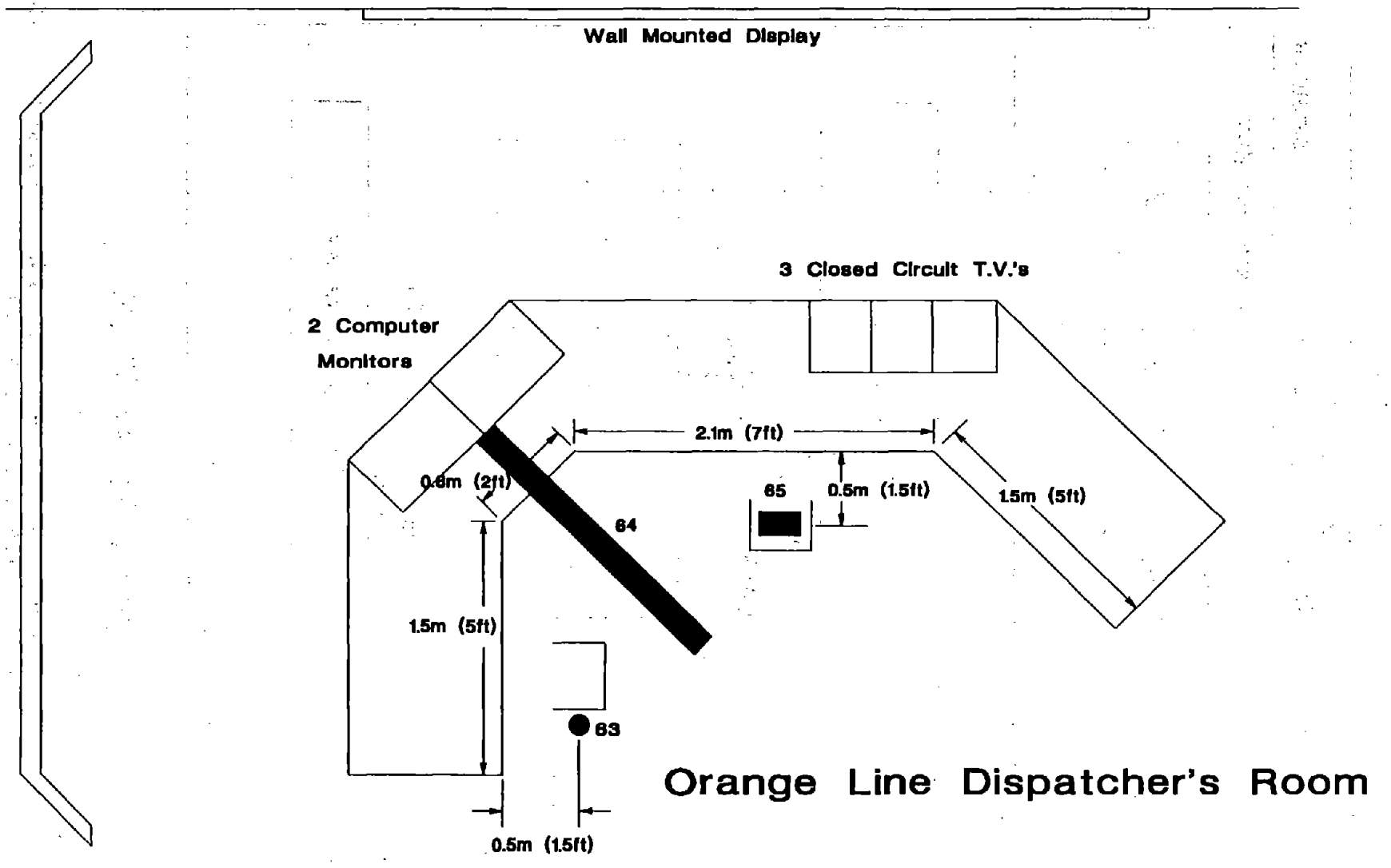


FIGURE A-10. MEASUREMENT LOCATIONS INSIDE THE ORANGE LINE DISPATCHER'S ROOM AT THE BOSTON SOUTH STATION ON HIGH STREET

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 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."

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 sketch of sensor locations in each 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

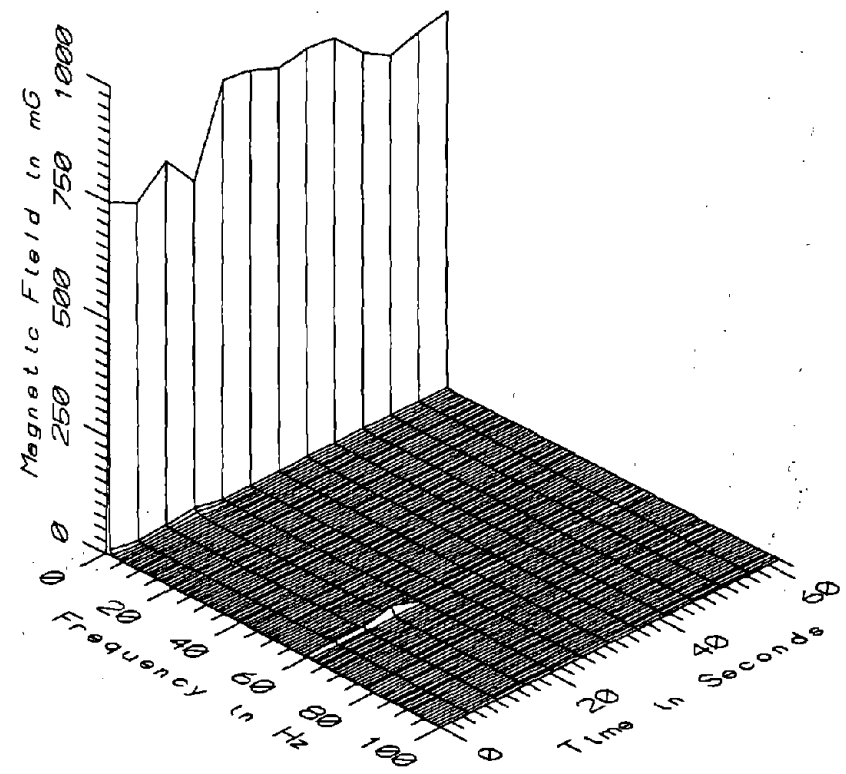
DATASET BOS001
NEAR RECTIFIER IN HIGH STREET TRACTION POWER SUPPLY STATION

Measurement Setup Code:	Staff: 46 Reference: 47 Drawing: A-7
Vehicle Status:	NA
Measurement Date:	June 9, 1992
Measurement Time:	Start: 09:58:03 End: 09:59:05
Number of Samples:	13
Programmed Sample Interval:	5 sec
Actual Sample Interval:	5.2 sec

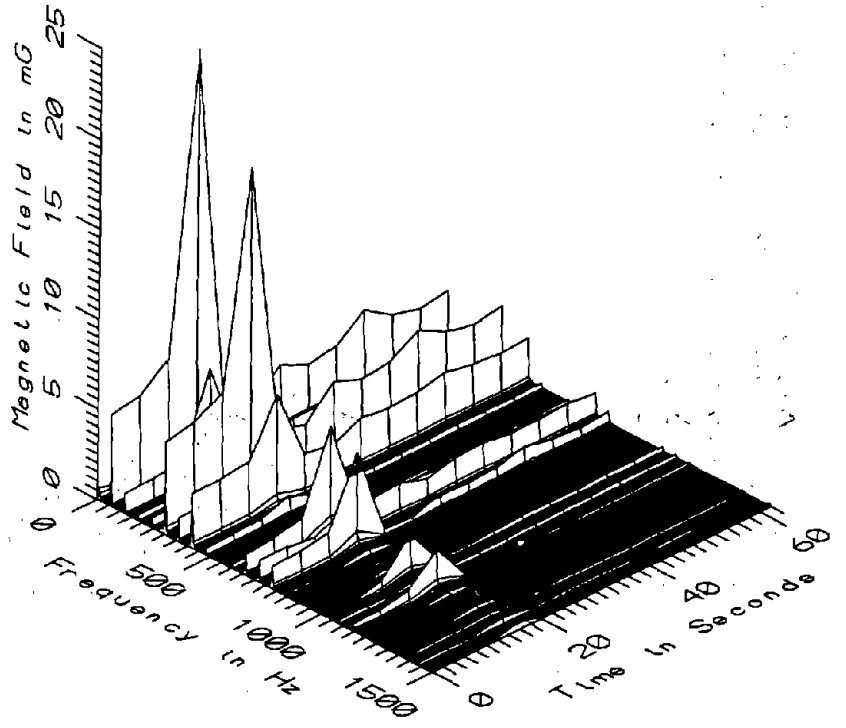
Frequency Spectrum Parameters

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

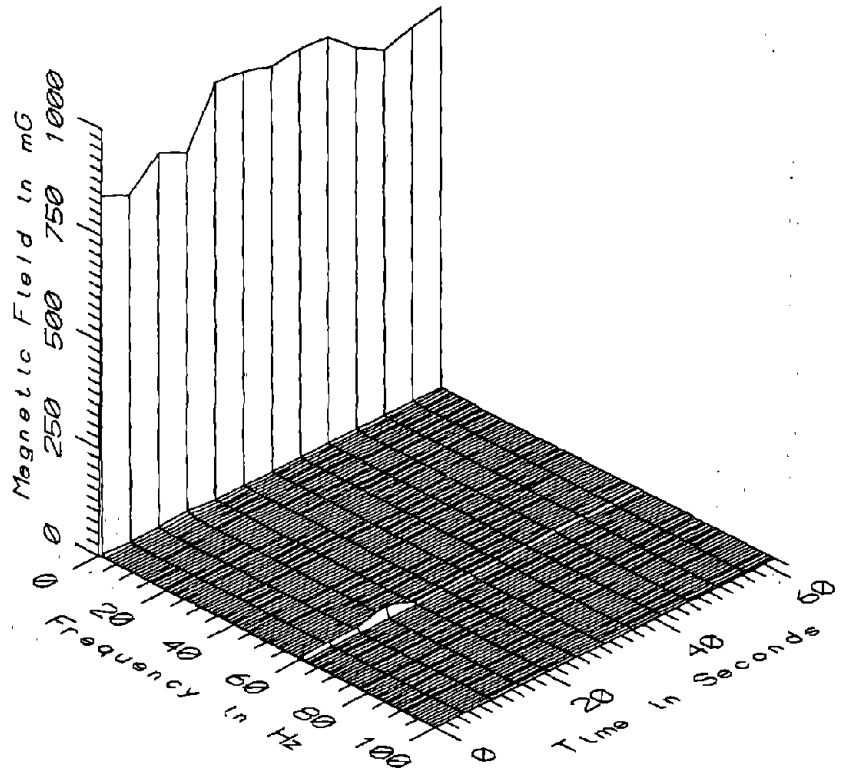
Missing Data: None



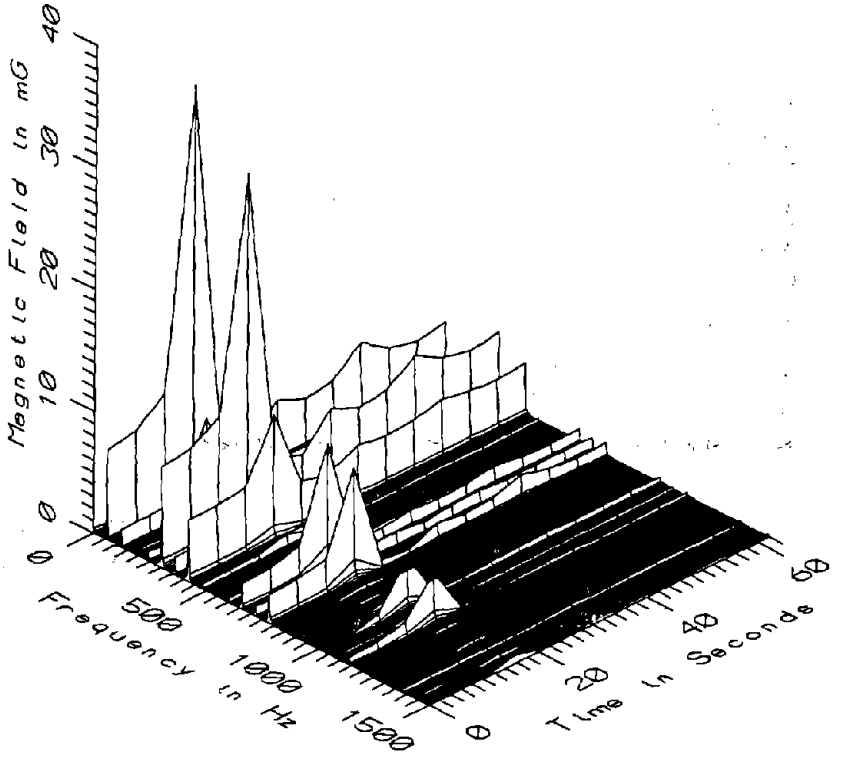
BOS001 - 10cm ABOVE GROUND NEAR RECTIFIER IN HIGH STREET T.P.S.S.



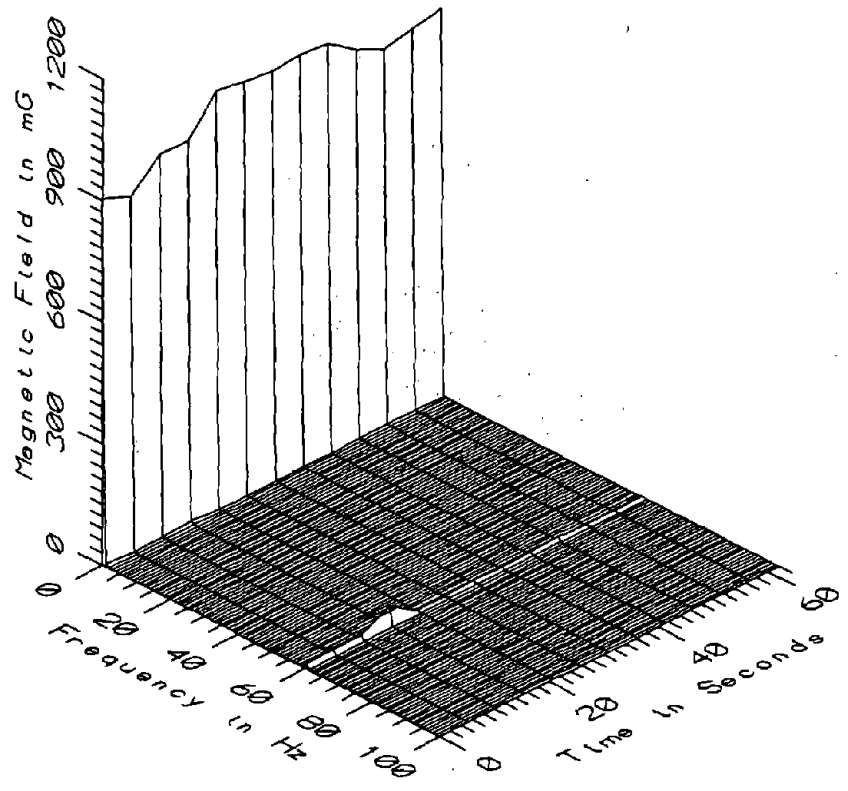
BOS001 - 10cm ABOVE GROUND NEAR RECTIFIER IN HIGH STREET T.P.S.S.



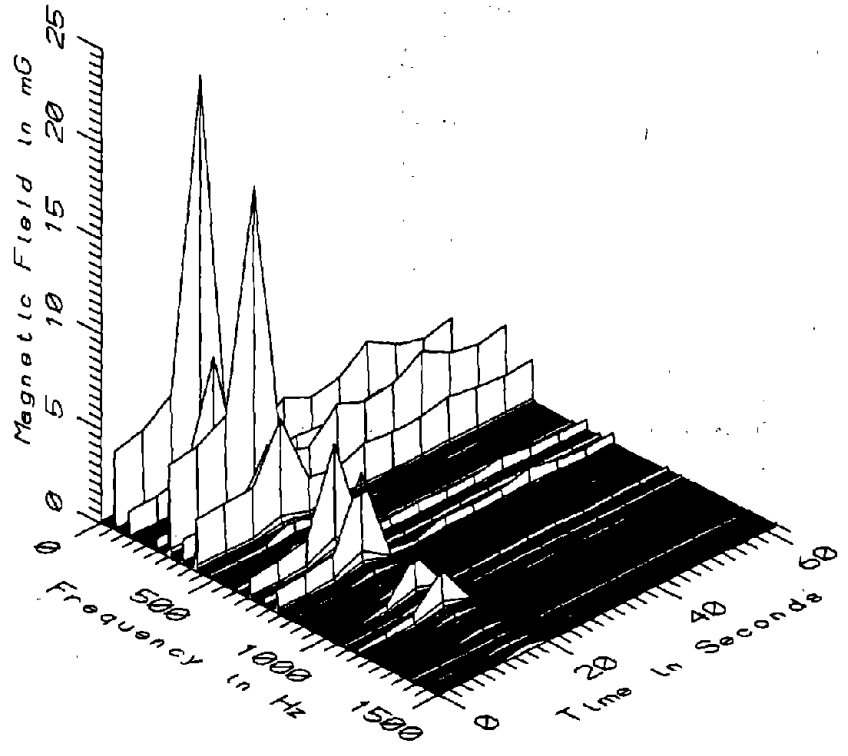
BOS001 - 60cm ABOVE GROUND NEAR RECTIFIER IN HIGH STREET T.P.S.S.



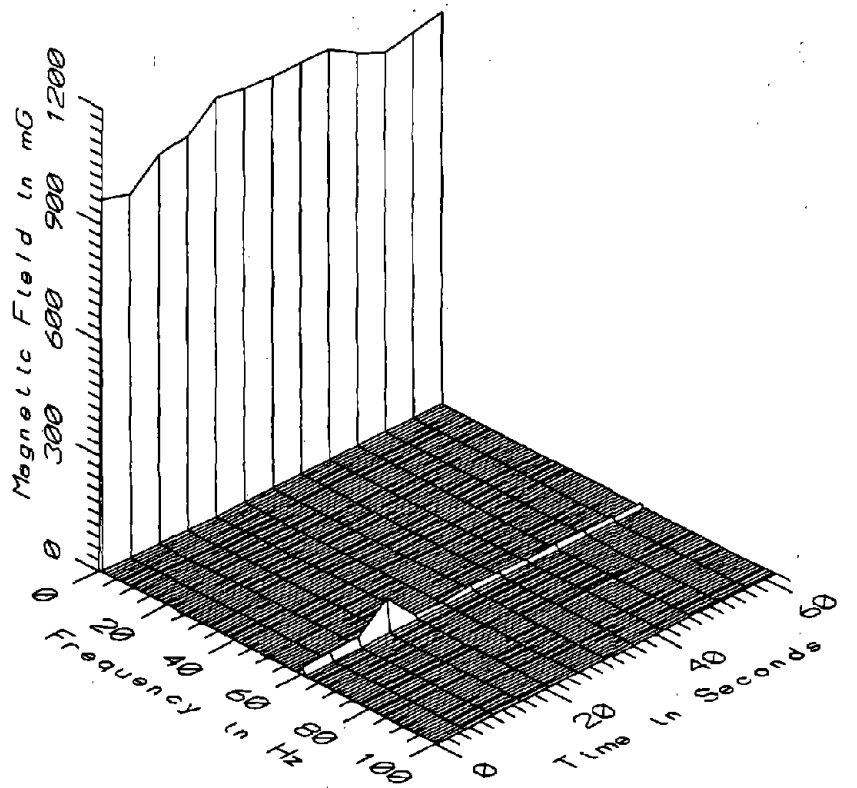
BOS001 - 60cm ABOVE GROUND NEAR RECTIFIER IN HIGH STREET T.P.S.S.



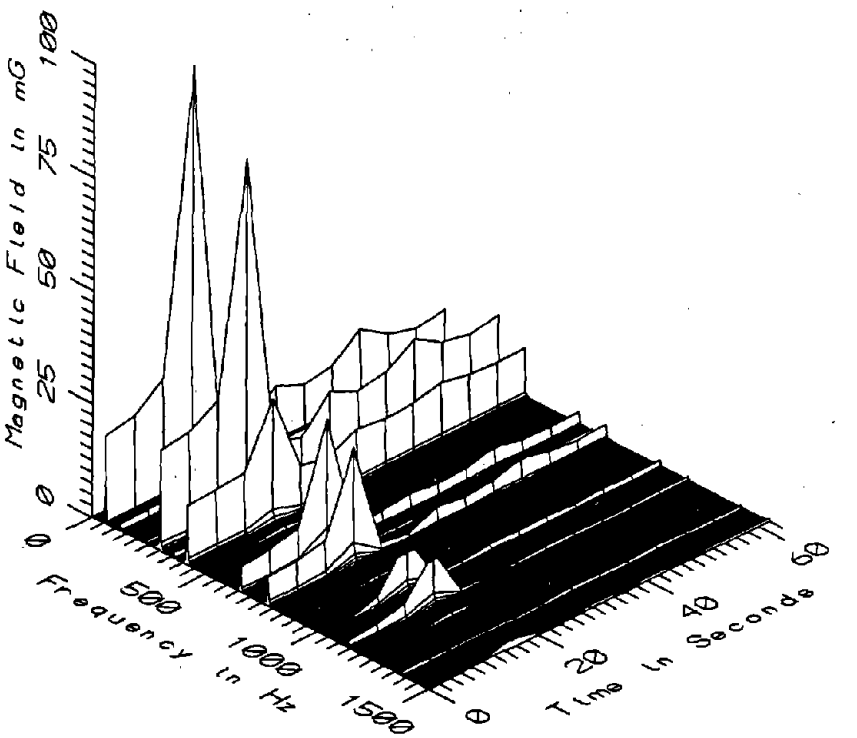
BOS001 - 110cm ABOVE GROUND NEAR RECTIFIER IN HIGH STREET T.P.S.S.



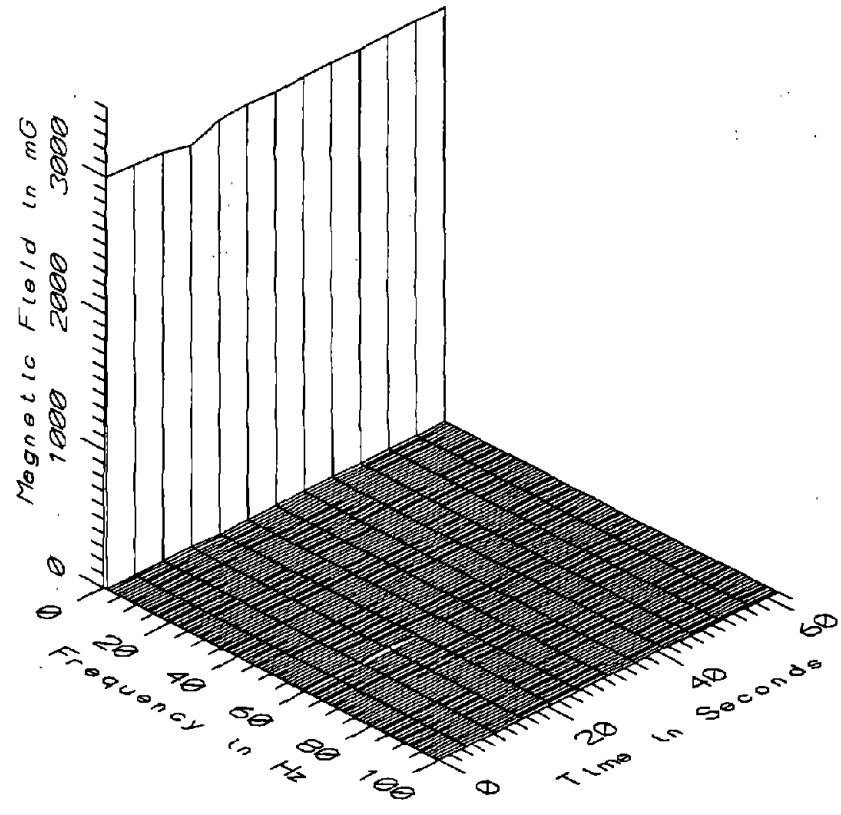
BOS001 - 110cm ABOVE GROUND NEAR RECTIFIER IN HIGH STREET T.P.S.S.



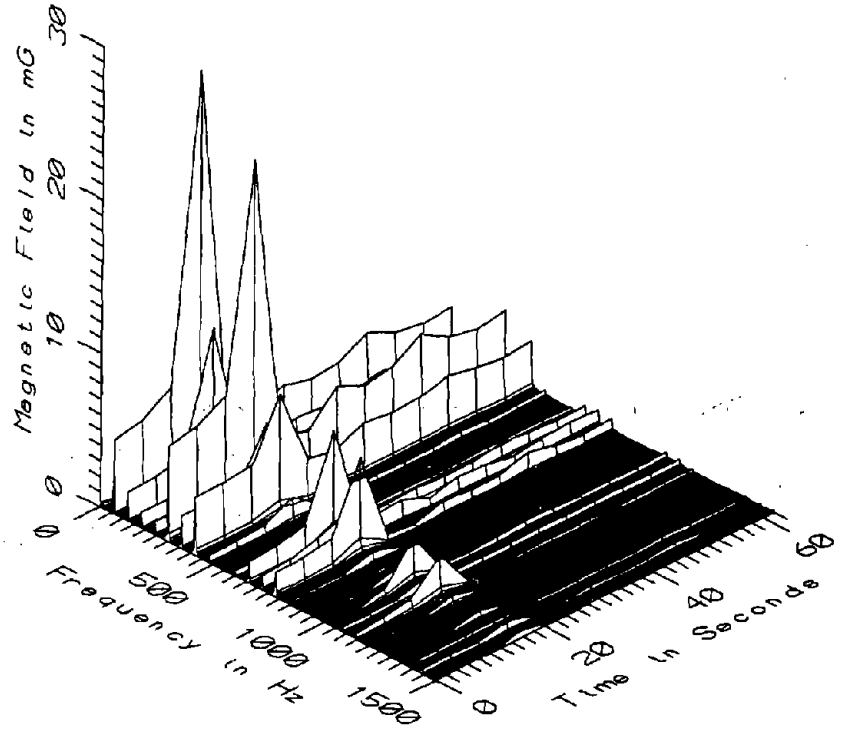
BOS001 - 160cm ABOVE GROUND NEAR RECTIFIER IN HIGH STREET T.P.S.S.



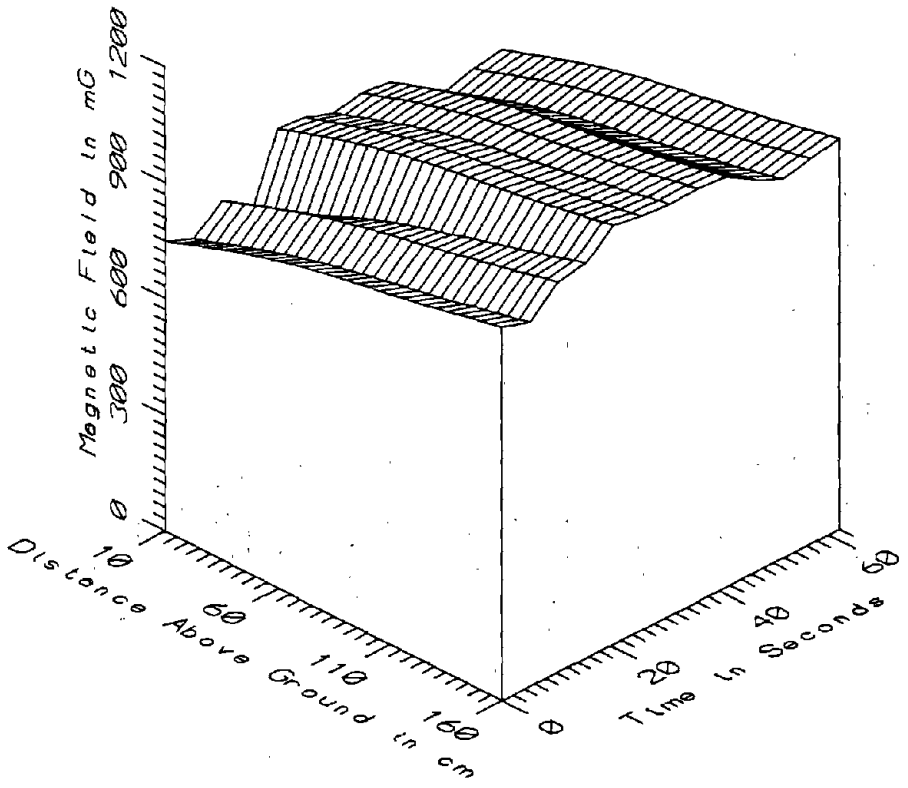
BOS001 - 160cm ABOVE GROUND NEAR RECTIFIER IN HIGH STREET T.P.S.S.



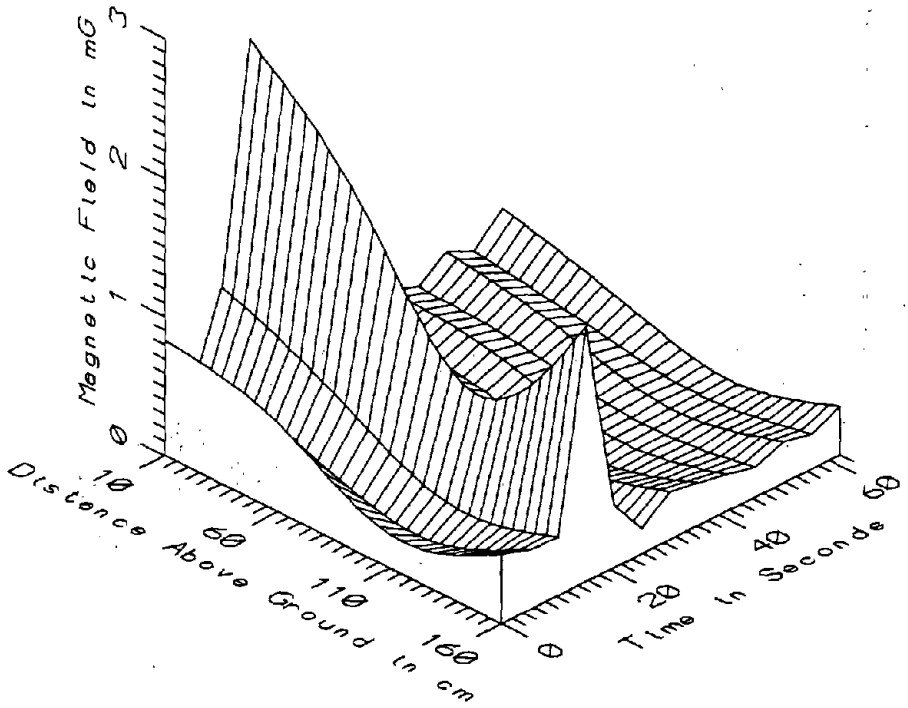
BOS001 - REFERENCE PROBE - NEAR RECTIFIER IN HIGH STREET T.P.S.S.



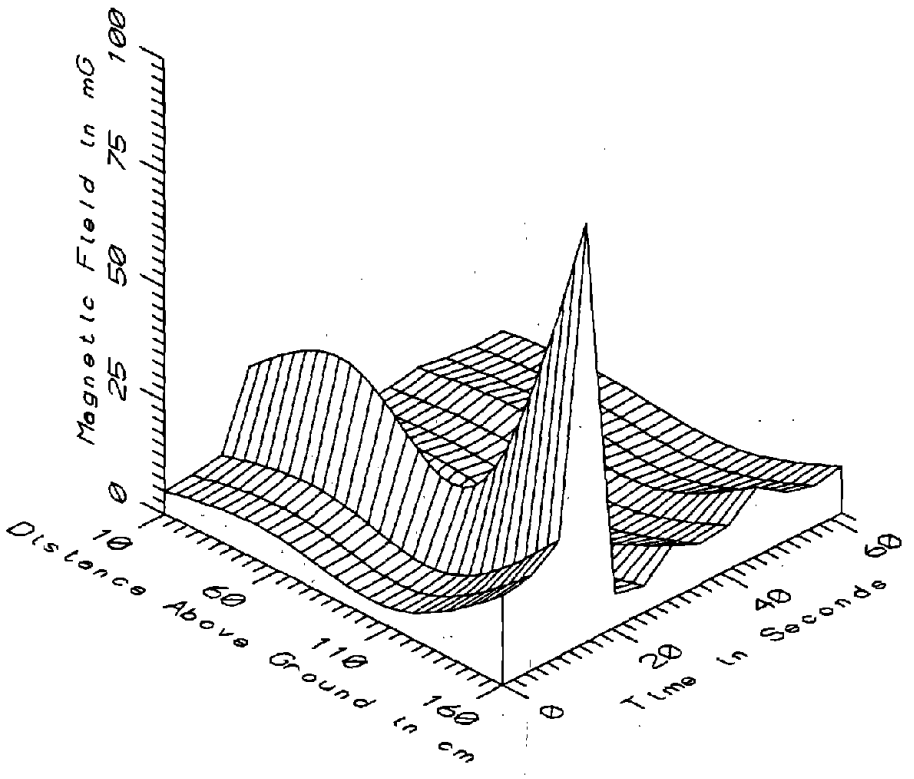
BOS001 - REFERENCE PROBE - NEAR RECTIFIER IN HIGH STREET T.P.S.S.



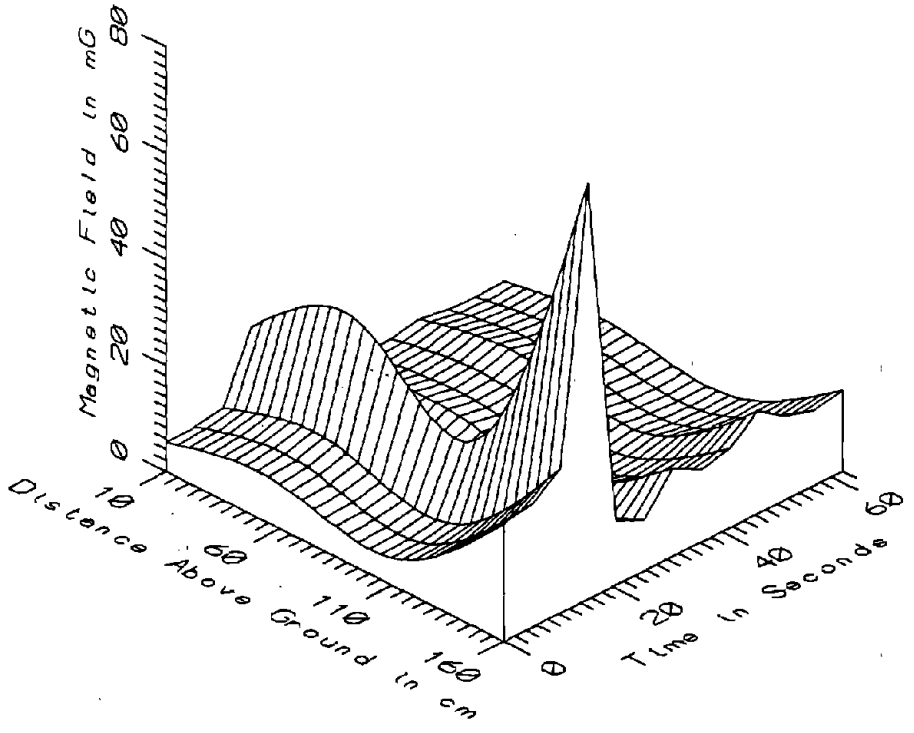
BOS001 - NEAR RECTIFIER IN HIGH STREET T.P.S.S. - STATIC



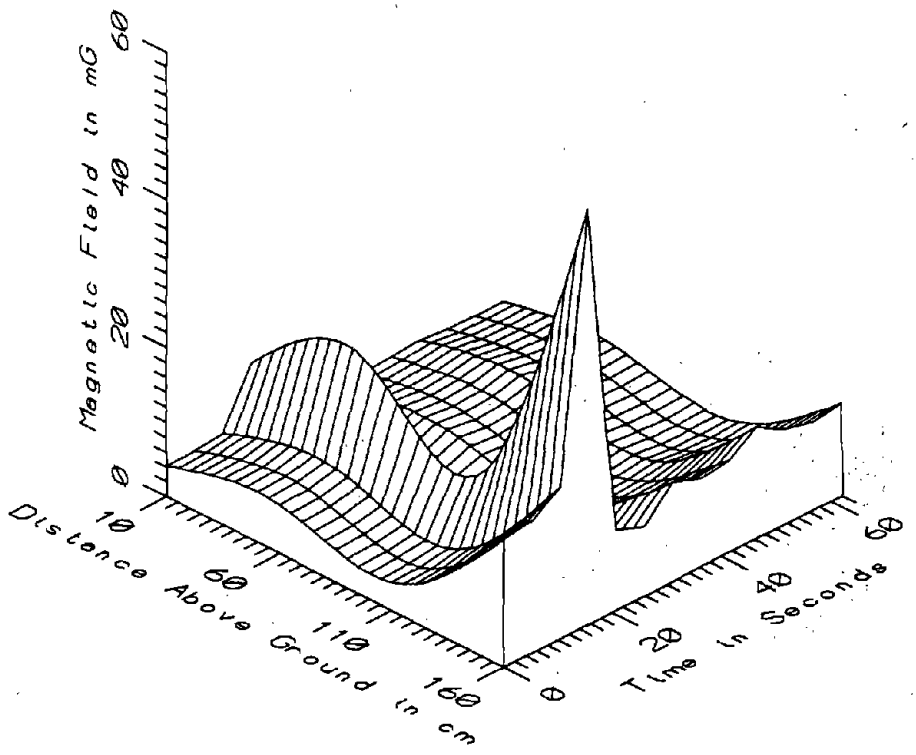
BOS001 - NEAR RECTIFIER IN HIGH STREET T.P.S.S. - LOW FREQ, 5-45Hz



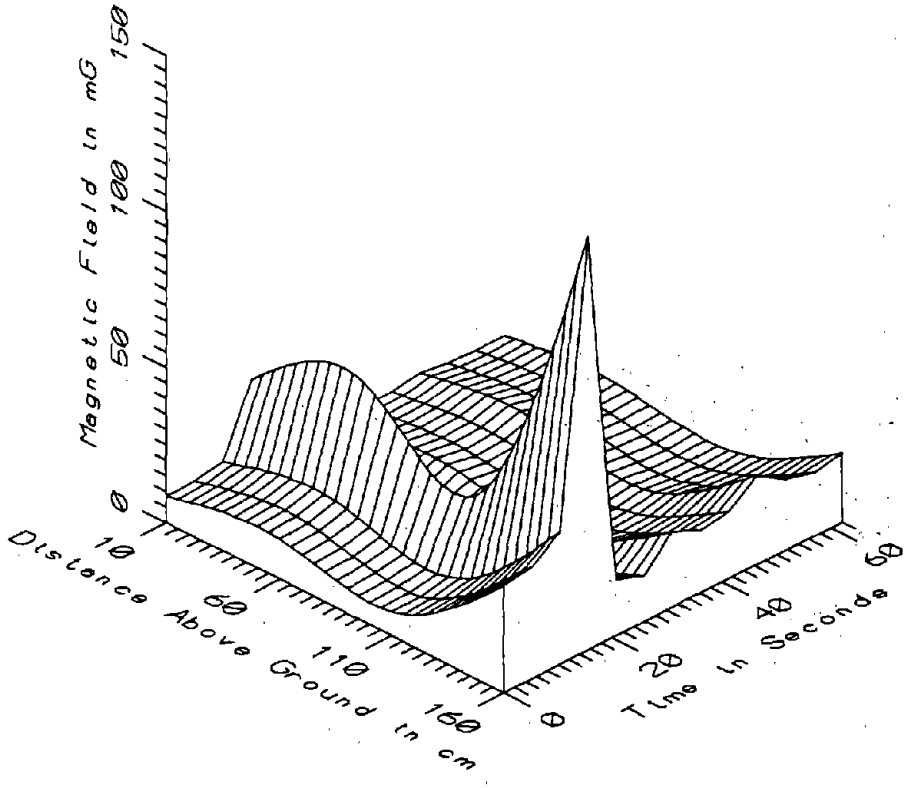
BOS001 - NEAR RECTIFIER IN HIGH STREET T.P.S.S. - POWER FREQ, 50-60Hz



BOS001 - NEAR RECTIFIER IN HIGH STREET T.P.S.S. - POWER HARM, 65-300Hz

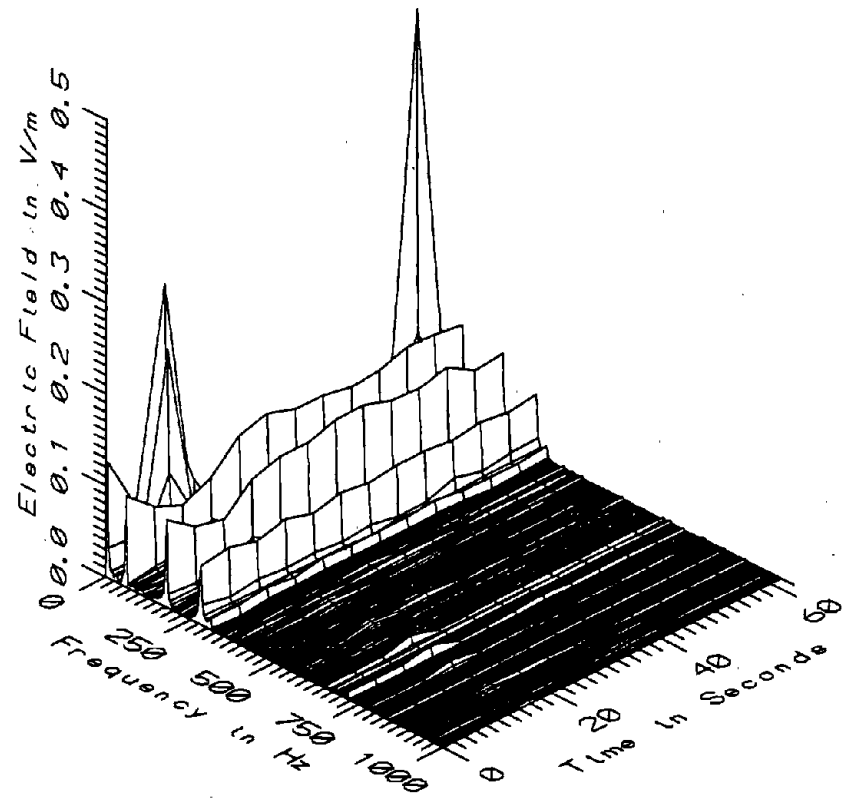


BOS001 - NEAR RECTIFIER IN HIGH STREET T.P.S.S. - HIGH FREQ, 305-2560Hz



BOS001 - NEAR RECTIFIER IN HIGH STREET T.P.S.S. - ALL FREQ, 5-2560Hz

BOS001 - NEAR RECTIFIER IN HIGH STREET T.P.S.S.					TOTAL OF 13 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	705.50	894.22	807.69	63.15	7.82
	60	812.31	980.51	902.74	55.77	6.18
	110	875.19	1029.54	961.21	48.89	5.09
	160	940.81	1082.97	1021.76	44.61	4.37
5-45Hz LOW FREQ	10	0.30	2.69	0.67	0.64	95.74
	60	0.19	1.89	0.47	0.45	96.87
	110	0.09	0.96	0.22	0.23	104.89
	160	0.19	1.85	0.46	0.43	94.17
50-60Hz PWR FREQ	10	1.74	22.97	4.97	5.59	112.40
	60	2.46	33.98	7.30	8.29	113.65
	110	1.16	21.75	4.25	5.42	127.53
	160	6.02	91.99	19.05	22.66	118.97
65-300Hz PWR HARM	10	2.38	19.21	5.24	4.36	83.21
	60	3.67	30.06	8.25	6.81	82.59
	110	2.25	19.15	5.08	4.38	86.12
	160	9.74	78.41	21.78	17.71	81.31
305-2560Hz HIGH FREQ	10	2.97	12.29	4.30	2.45	57.11
	60	3.74	20.48	6.51	4.33	66.61
	110	1.96	12.30	3.67	2.68	72.98
	160	9.25	55.76	17.00	12.04	70.86
5-2560Hz ALL FREQ	10	4.20	32.48	8.52	7.42	87.11
	60	5.79	49.81	12.89	11.47	88.98
	110	3.20	31.49	7.65	7.39	96.60
	160	14.72	133.13	33.83	30.86	91.23



BOS001 - ELECTRIC FIELD NEAR RECTIFIER IN HIGH STREET T.P.S.S.

APPENDIX C

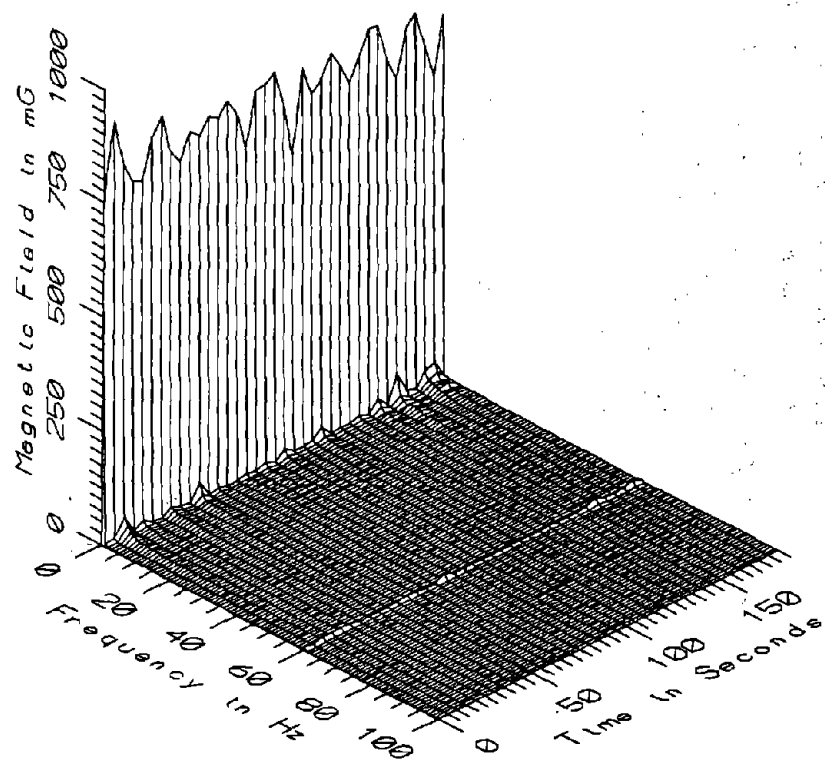
DATASET BOS002
NEAR RECTIFIER IN HIGH STREET TRACTION POWER SUPPLY STATION

Measurement Setup Code:	Staff: 46 Reference: 47 Drawing: A-7
Vehicle Status:	NA
Measurement Date:	June 9, 1992
Measurement Time:	Start: 10:00:10 End: 10:03:10
Number of Samples:	37
Programmed Sample Interval:	5 sec
Actual Sample Interval:	5.0 sec

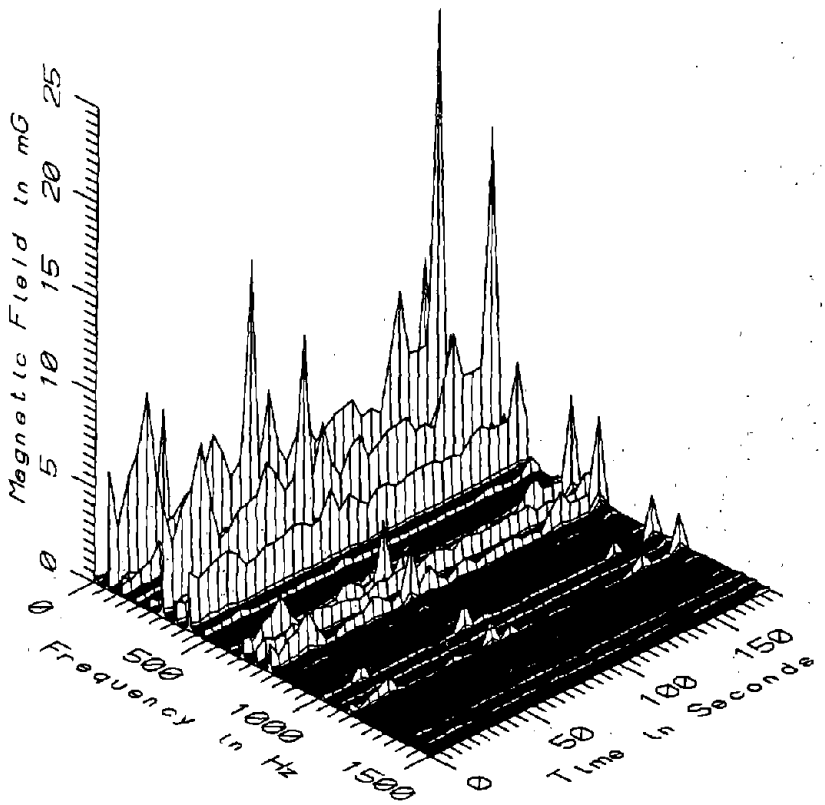
Frequency Spectrum Parameters

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

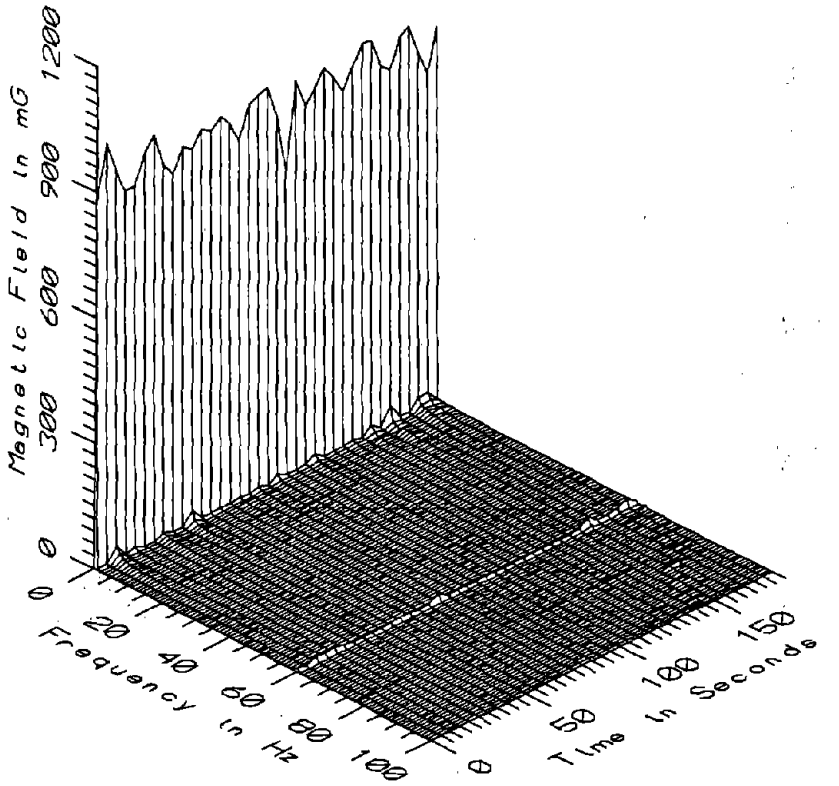
Missing Data: None



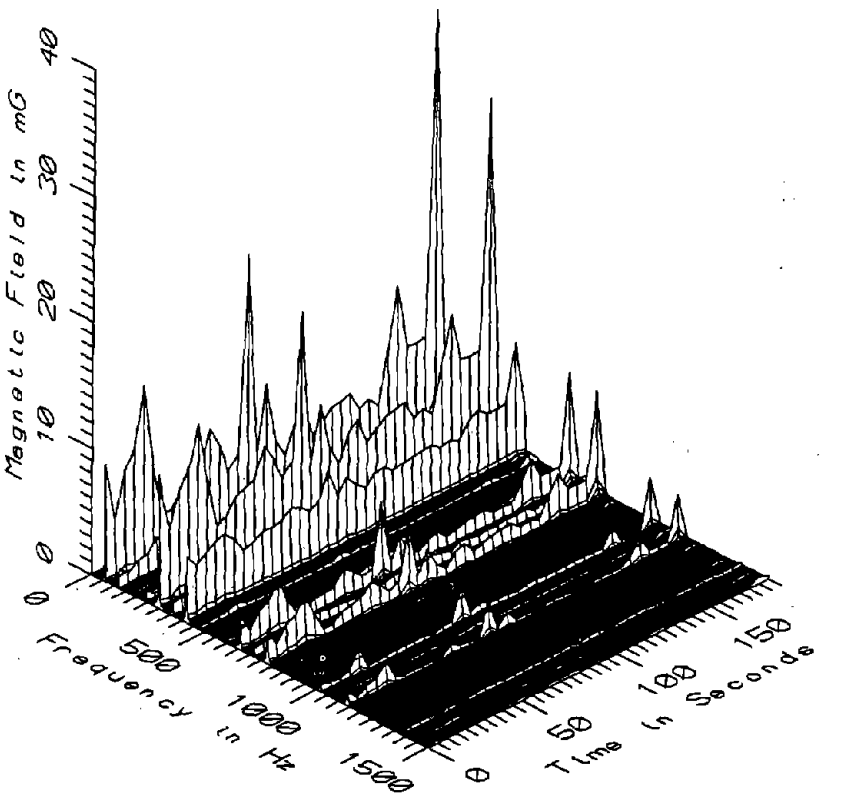
BOS002 - 10cm ABOVE GROUND NEAR RECTIFIER IN HIGH STREET T.P.S.S.



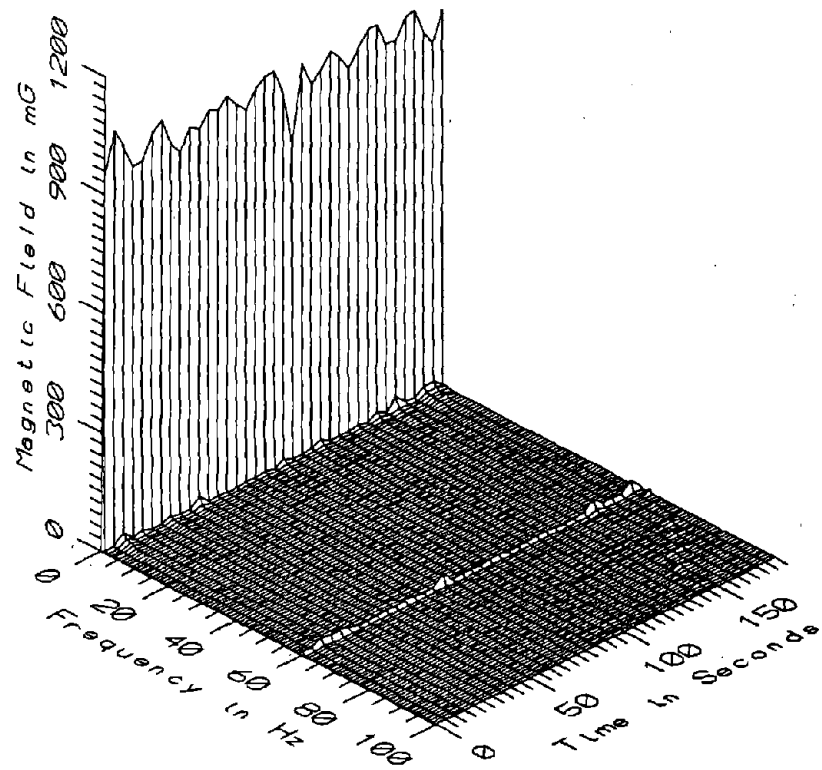
BOS002 - 10cm ABOVE GROUND NEAR RECTIFIER IN HIGH STREET T.P.S.S.



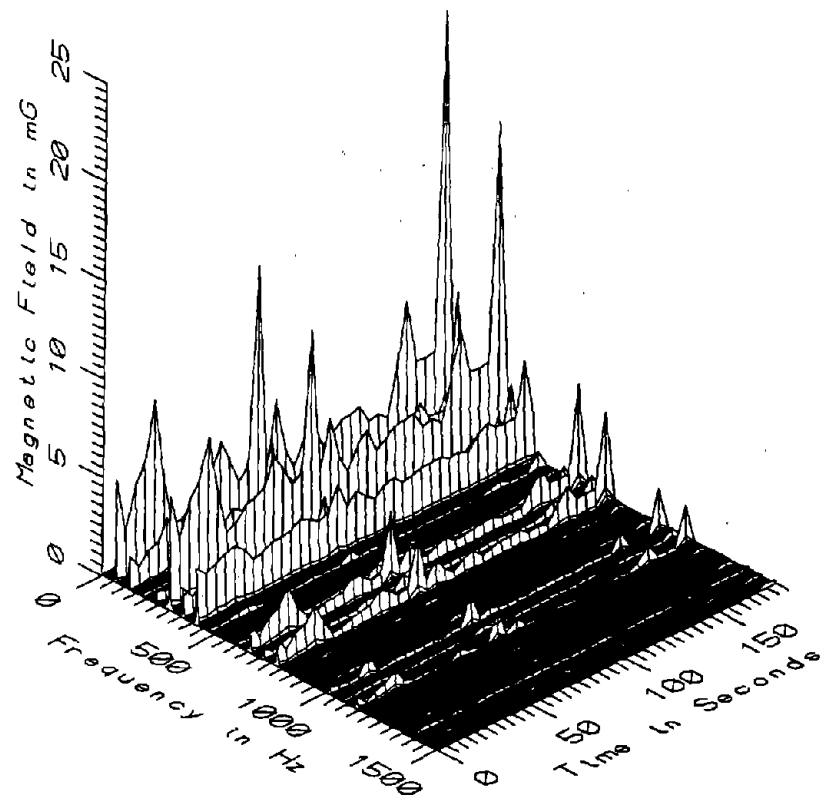
BOS002 - 60cm ABOVE GROUND NEAR RECTIFIER IN HIGH STREET T.P.S.S.



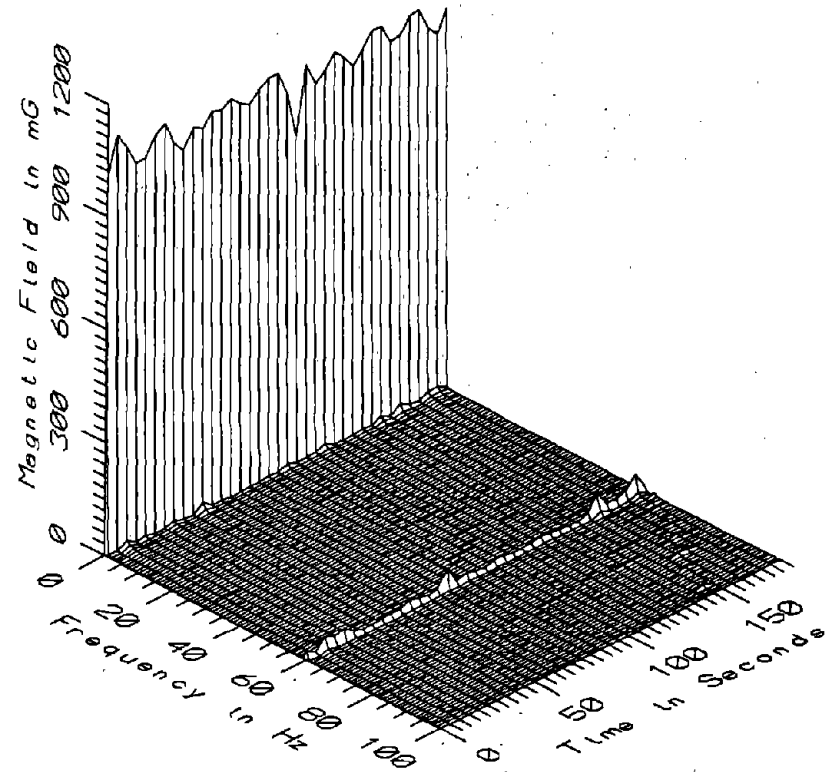
BOS002 - 60cm ABOVE GROUND NEAR RECTIFIER IN HIGH STREET T.P.S.S.



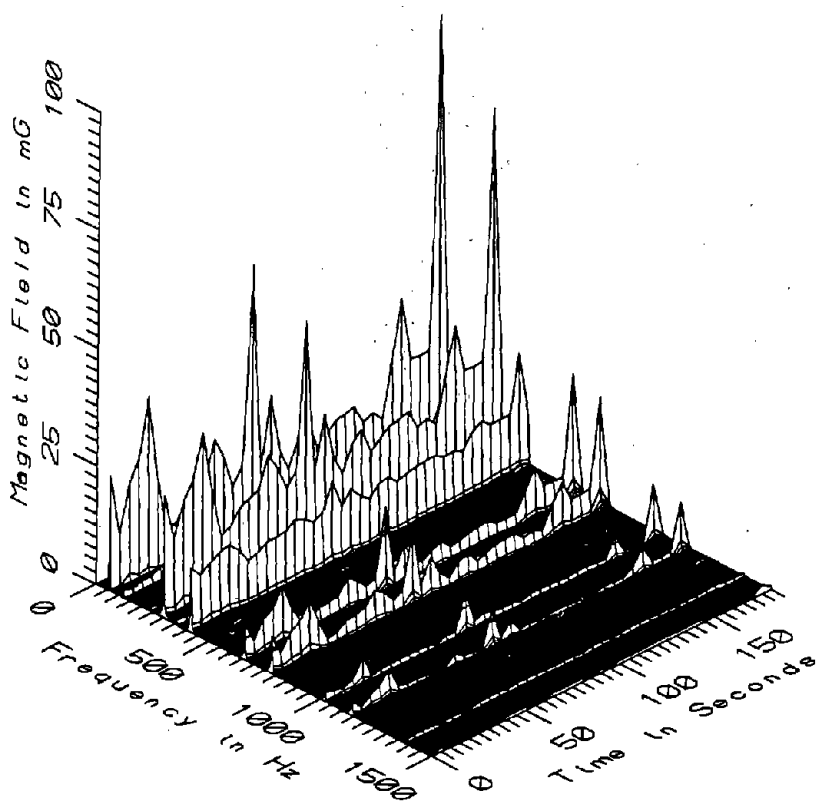
BOS002 - 110cm ABOVE GROUND NEAR RECTIFIER IN HIGH STREET T.P.S.S.



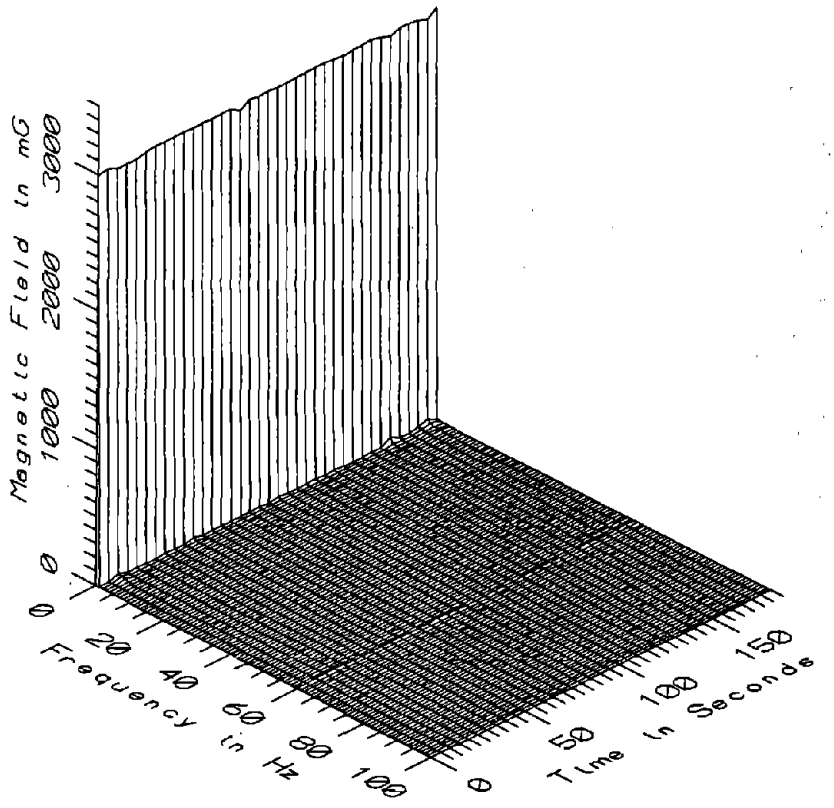
BOS002 - 110cm ABOVE GROUND NEAR RECTIFIER IN HIGH STREET T.P.S.S.



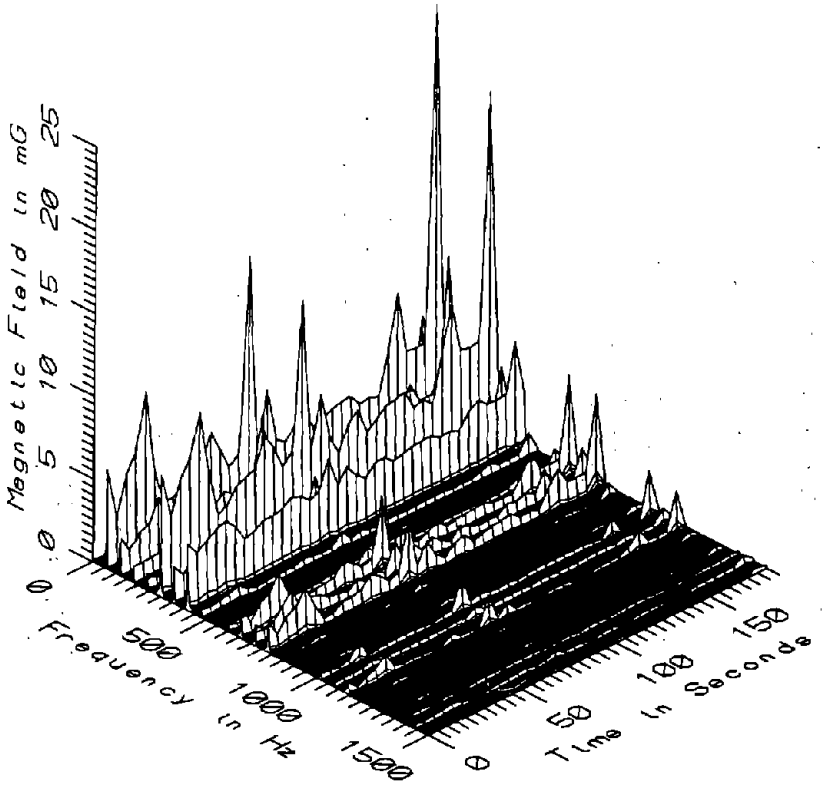
BOS002 - 160cm ABOVE GROUND NEAR RECTIFIER IN HIGH STREET T.P.S.S.



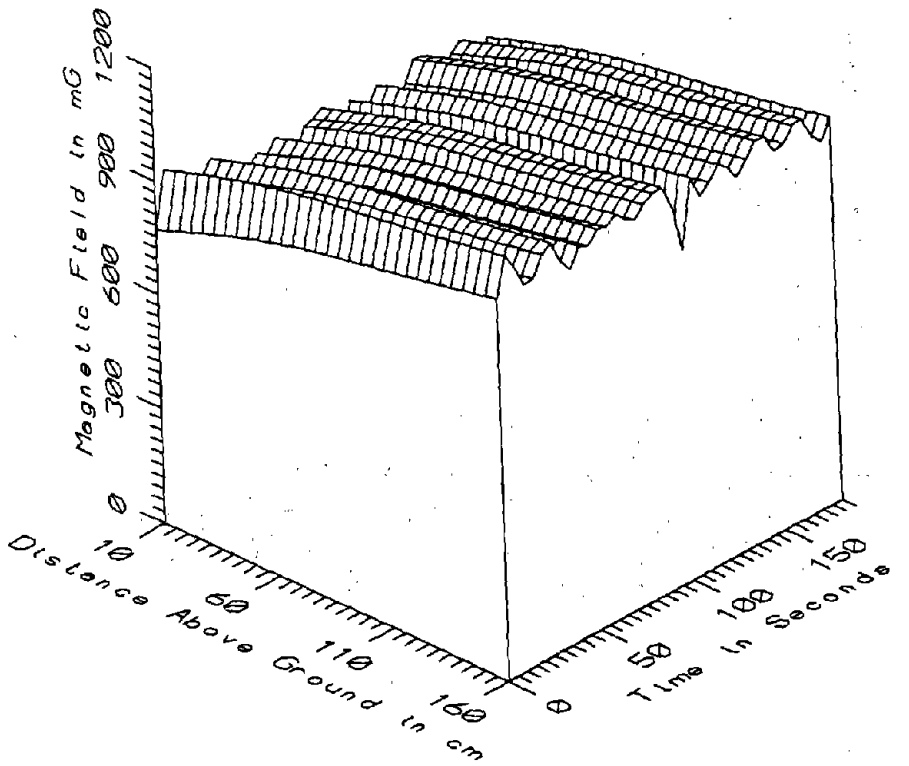
BOS002 - 160cm ABOVE GROUND NEAR RECTIFIER IN HIGH STREET T.P.S.S.



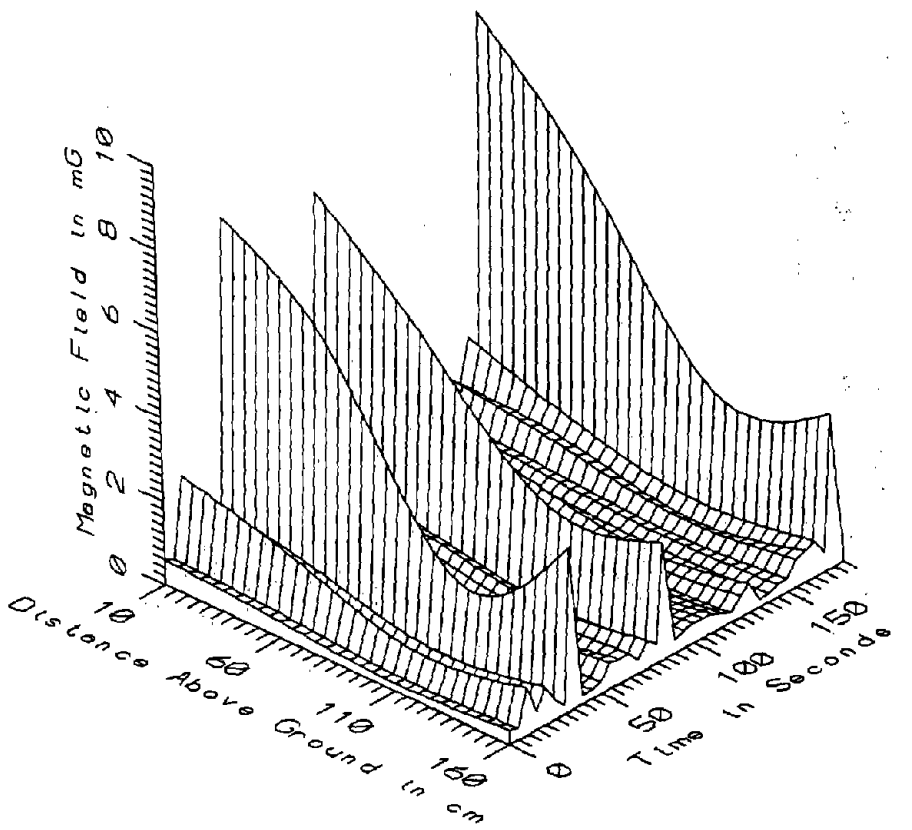
BOS002 - REFERENCE PROBE - NEAR RECTIFIER IN HIGH STREET T.P.S.S.



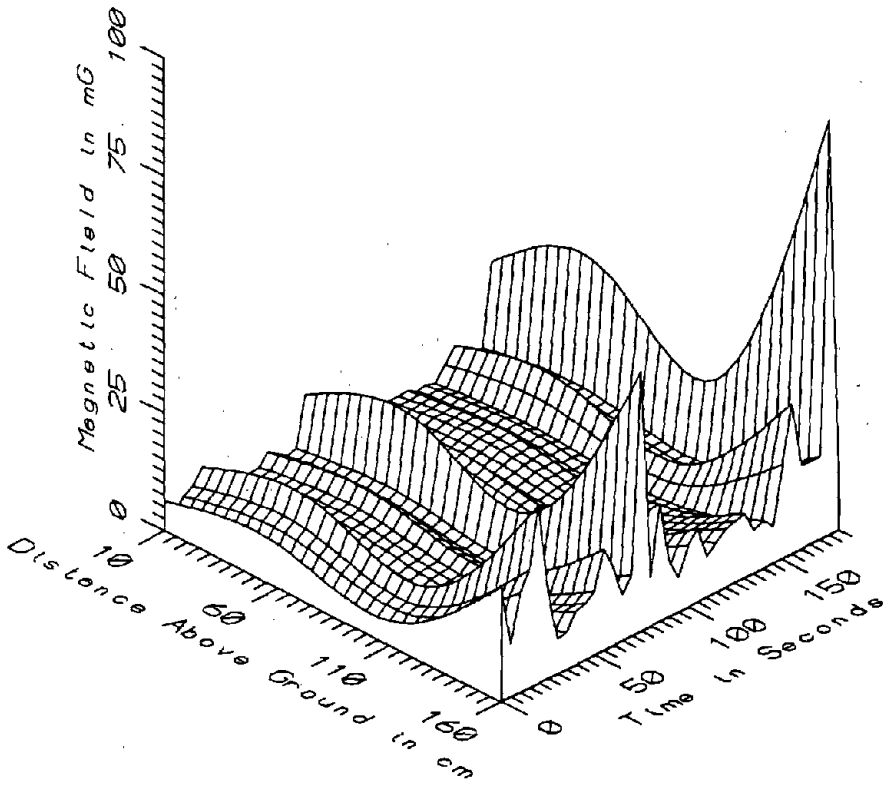
BOS002 - REFERENCE PROBE - NEAR RECTIFIER IN HIGH STREET T.P.S.S.



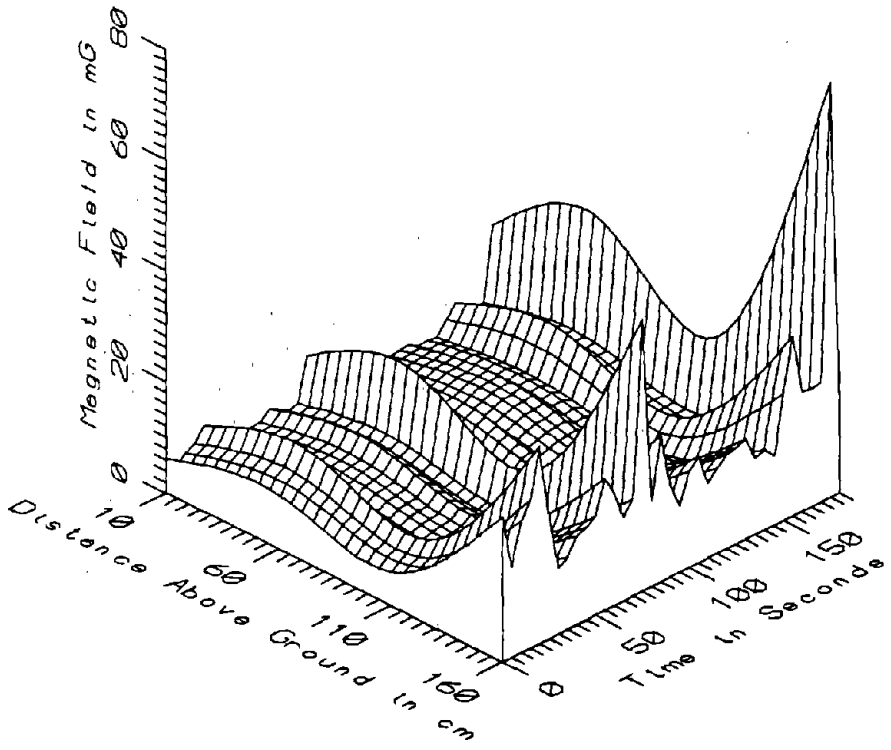
BOS002 - NEAR RECTIFIER IN HIGH STREET T.P.S.S. - STATIC



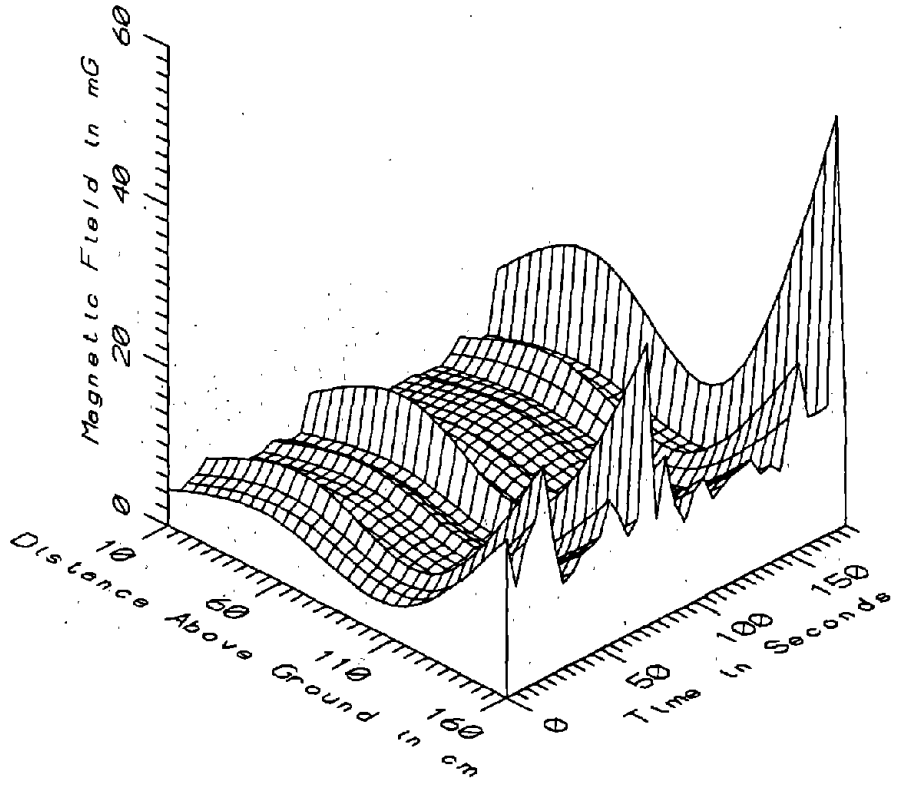
BOS002 - NEAR RECTIFIER IN HIGH STREET T.P.S.S. - LOW FREQ, 5-45Hz



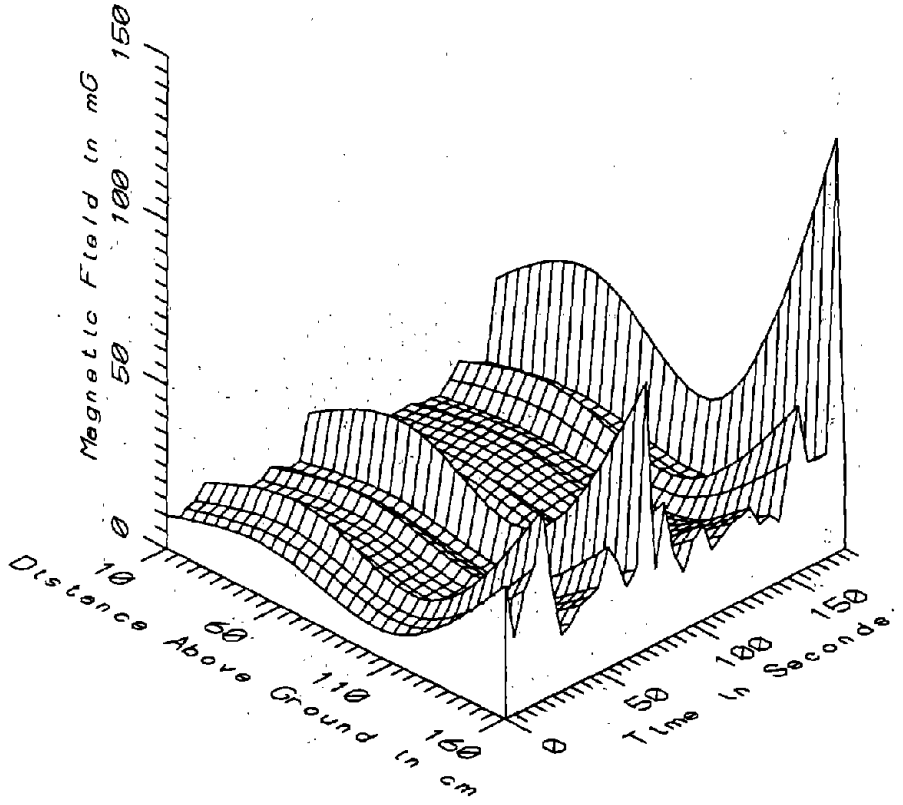
BOS002 - NEAR RECTIFIER IN HIGH STREET T.P.S.S. - POWER FREQ, 50-60Hz



BOS002 - NEAR RECTIFIER IN HIGH STREET T.P.S.S. - POWER HARM, 65-300Hz

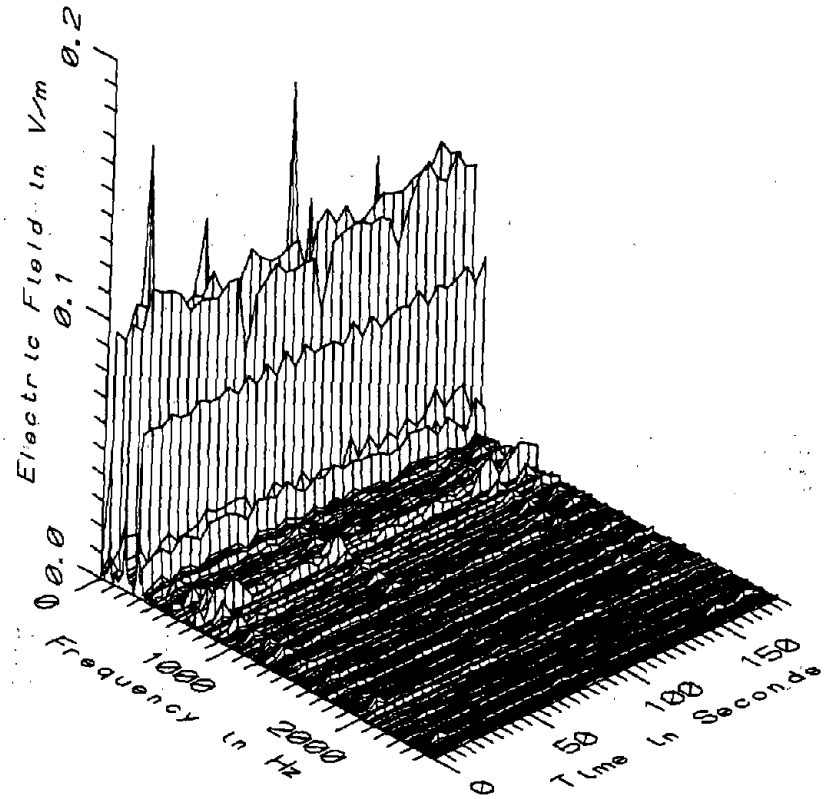


BOS002 - NEAR RECTIFIER IN HIGH STREET T.P.S.S. - HIGH FREQ, 305-2560Hz



BOS002 - NEAR RECTIFIER IN HIGH STREET T.P.S.S. - ALL FREQ, 5-2560Hz

BOS002 - NEAR RECTIFIER IN HIGH STREET T.P.S.S.					TOTAL OF 37 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	645.47	917.65	795.31	54.53	6.86
	60	725.82	1004.75	896.75	50.42	5.62
	110	795.88	1052.41	959.07	44.58	4.65
	160	866.21	1105.60	1020.95	40.60	3.98
5-45Hz LOW FREQ	10	0.24	9.48	1.42	2.12	149.56
	60	0.19	6.49	0.96	1.46	152.21
	110	0.07	2.91	0.41	0.61	149.21
	160	0.19	3.85	0.71	0.85	121.01
50-60Hz PWR FREQ	10	2.07	21.98	4.77	3.72	77.88
	60	2.97	32.42	6.98	5.51	78.95
	110	1.46	20.82	3.98	3.58	89.92
	160	7.28	87.44	18.16	15.00	82.58
65-300Hz PWR HARM	10	2.80	18.33	5.11	2.84	55.56
	60	4.44	28.72	8.12	4.45	54.79
	110	2.70	18.41	4.98	2.87	57.54
	160	11.79	74.91	21.48	11.59	53.95
305-2560Hz HIGH FREQ	10	3.01	11.39	4.03	1.56	38.74
	60	4.17	19.00	6.29	2.76	43.85
	110	2.25	11.38	3.58	1.70	47.39
	160	10.51	51.86	16.51	7.70	46.65
5-2560Hz ALL FREQ	10	4.65	32.23	8.39	5.04	60.00
	60	6.78	47.74	12.58	7.53	59.90
	110	3.82	30.17	7.39	4.83	65.39
	160	17.40	126.34	32.81	20.16	61.44



BOS002 - ELECTRIC FIELD NEAR RECTIFIER IN HIGH STREET T.P.S.S.

APPENDIX D

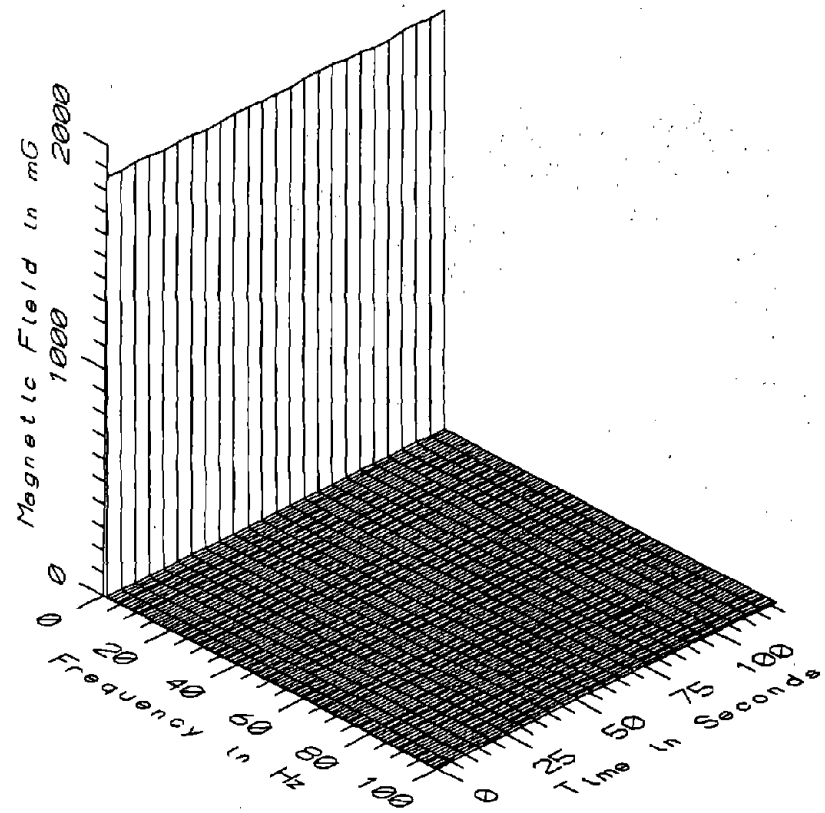
DATASET BOS003
NEAR DC SWITCHGEAR IN HIGH STREET TRACTION POWER SUPPLY STATION

Measurement Setup Code:	Staff: 48 Reference: 49 Drawing: A-7
Vehicle Status:	NA
Measurement Date:	June 9, 1992
Measurement Time:	Start: 10:16:08 End: 10:18:10
Number of Samples:	25
Programmed Sample Interval:	5 sec
Actual Sample Interval:	5.1 sec

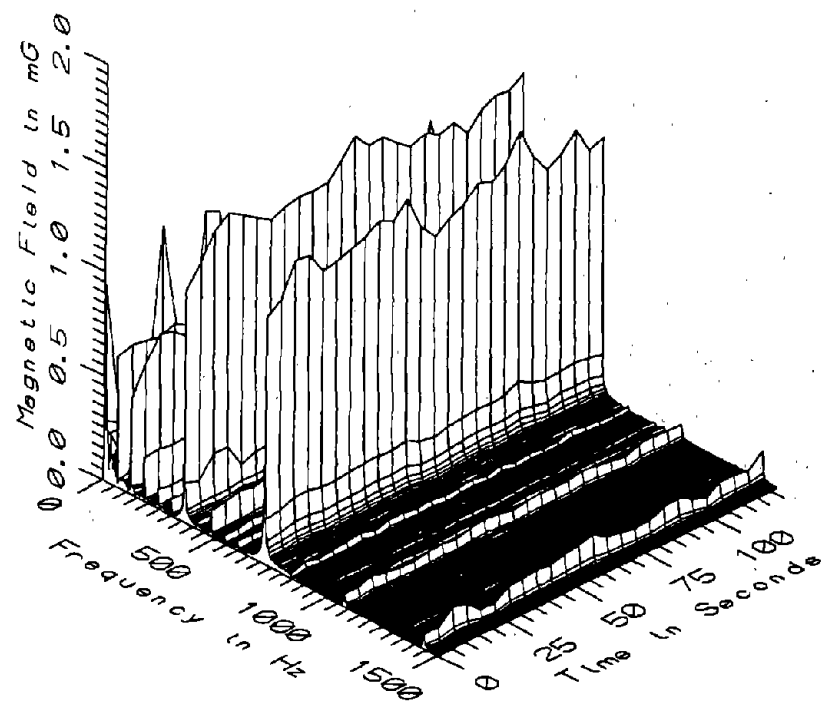
Frequency Spectrum Parameters

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

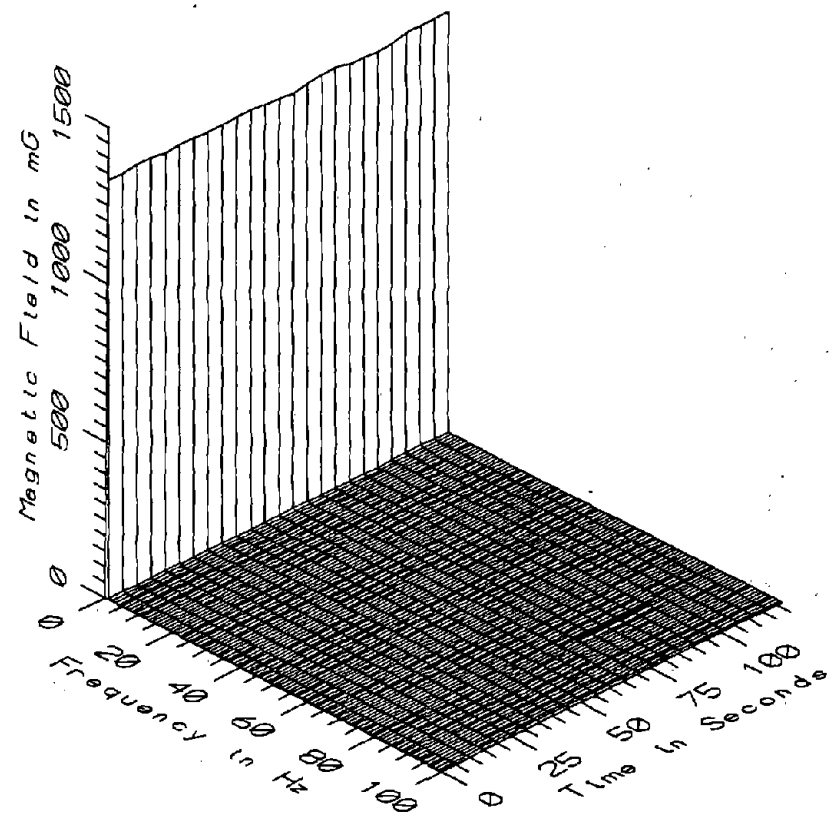
Missing Data: None



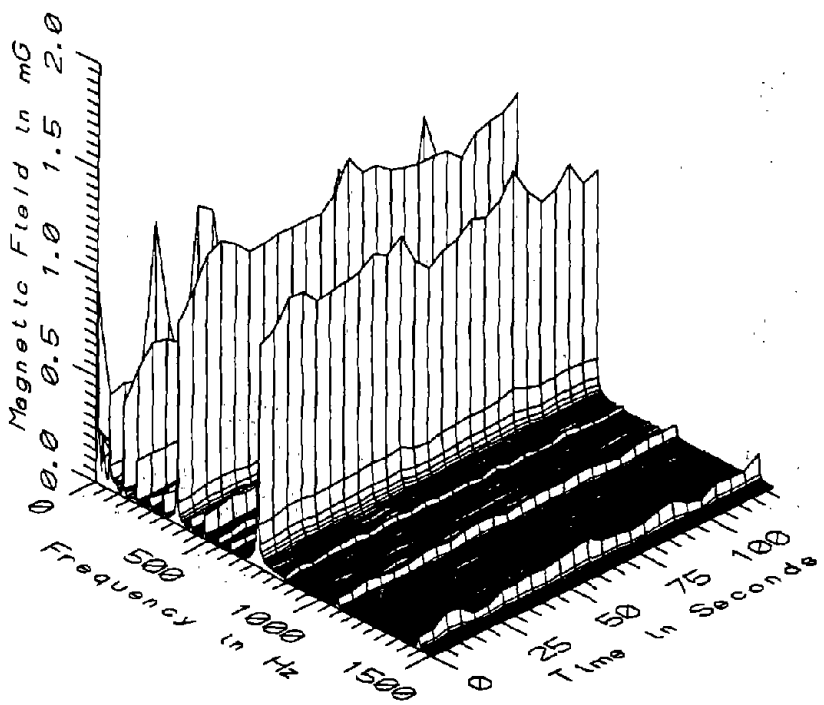
BOS003 - 10cm ABOVE GROUND NEAR DC SWITCHGEAR IN HIGH ST. T.P.S.S.



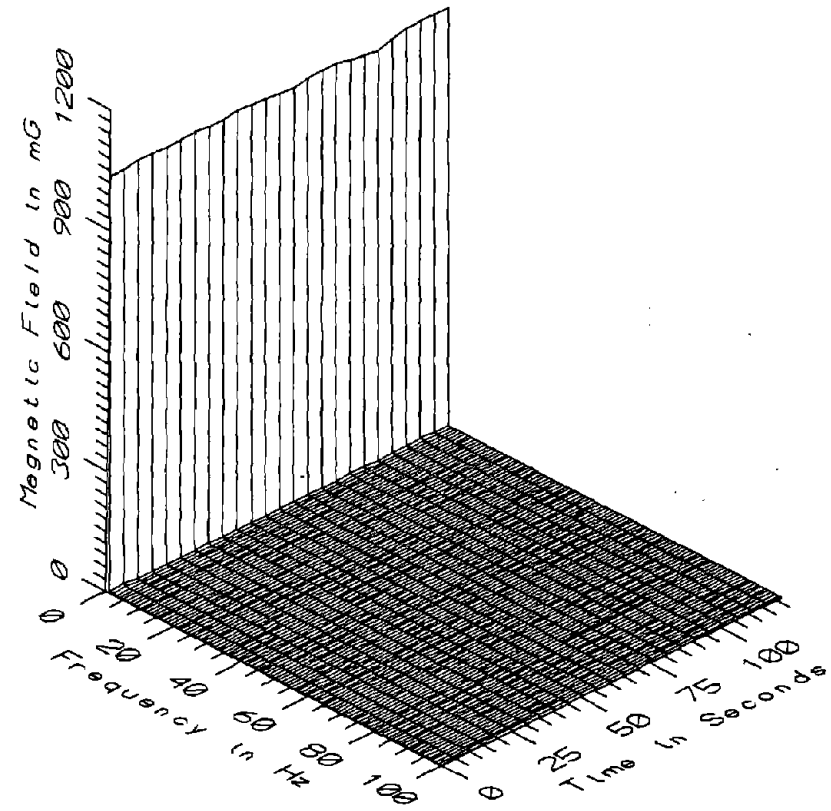
BOS003 - 10cm ABOVE GROUND NEAR DC SWITCHGEAR IN HIGH ST. T.P.S.S.



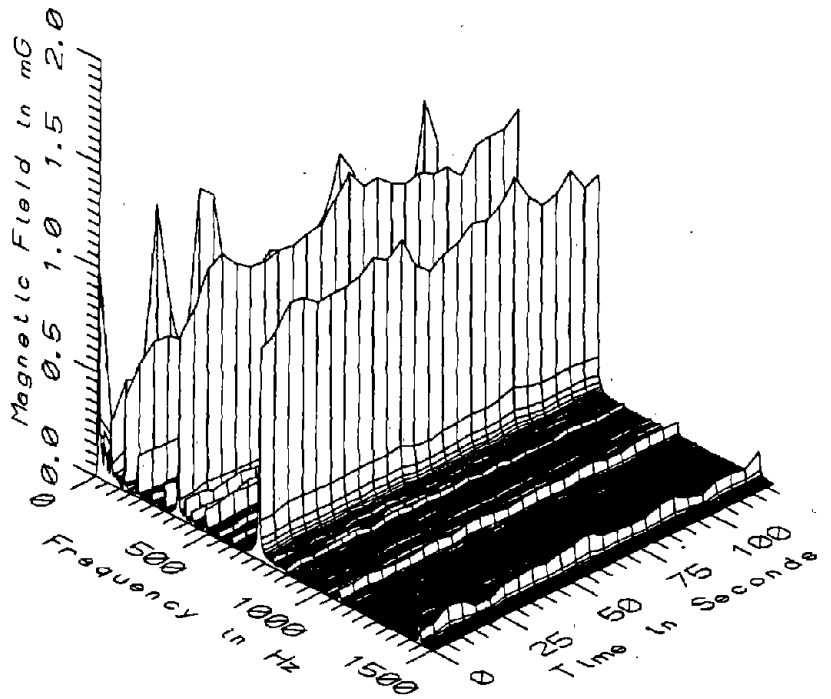
BOS003 - 60cm ABOVE GROUND NEAR DC SWITCHGEAR IN HIGH ST. T.P.S.S.



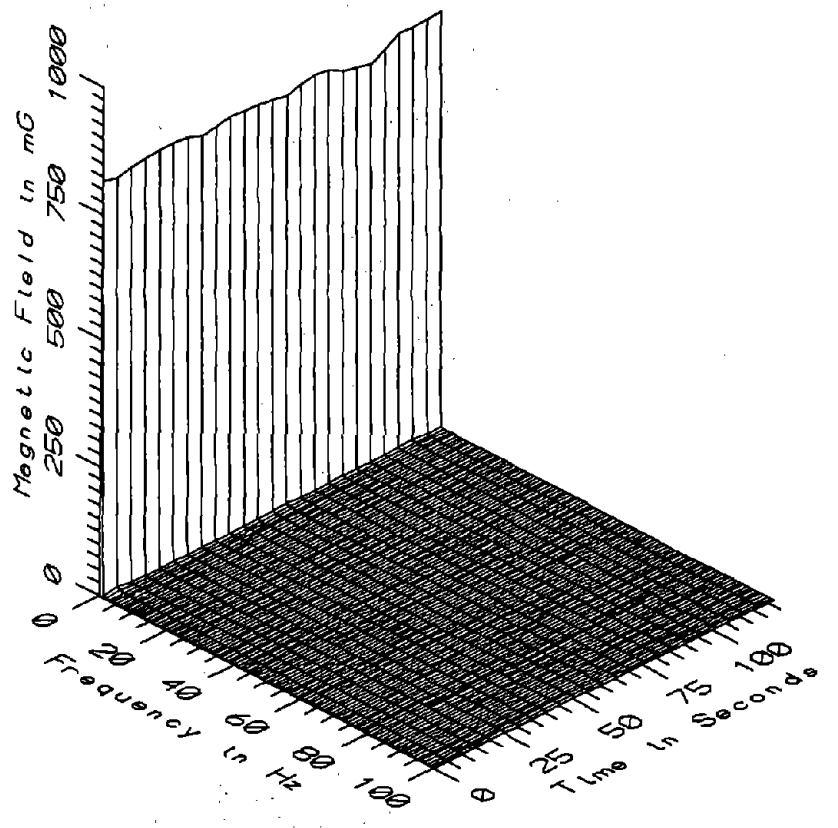
BOS003 - 60cm ABOVE GROUND NEAR DC SWITCHGEAR IN HIGH ST. T.P.S.S.



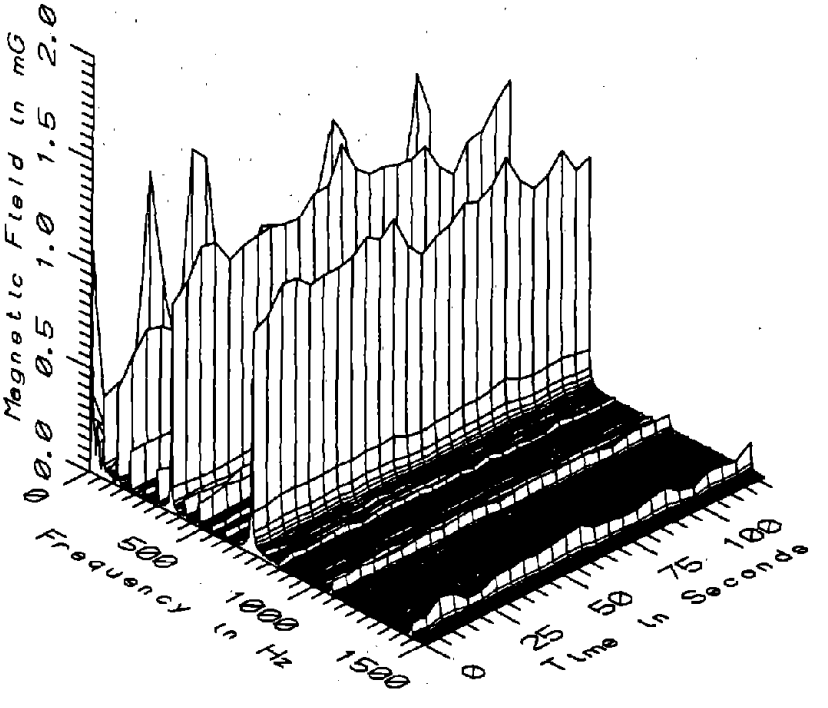
BOS003 - 110cm ABOVE GROUND NEAR DC SWITCHGEAR IN HIGH ST. T.P.S.S.



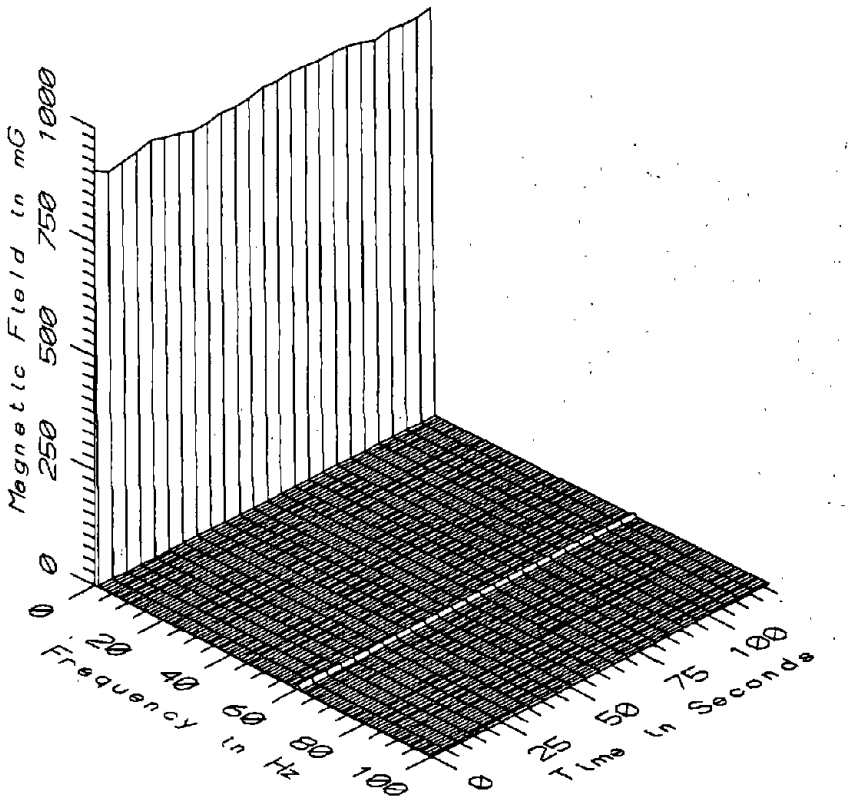
BOS003 - 110cm ABOVE GROUND NEAR DC SWITCHGEAR IN HIGH ST. T.P.S.S.



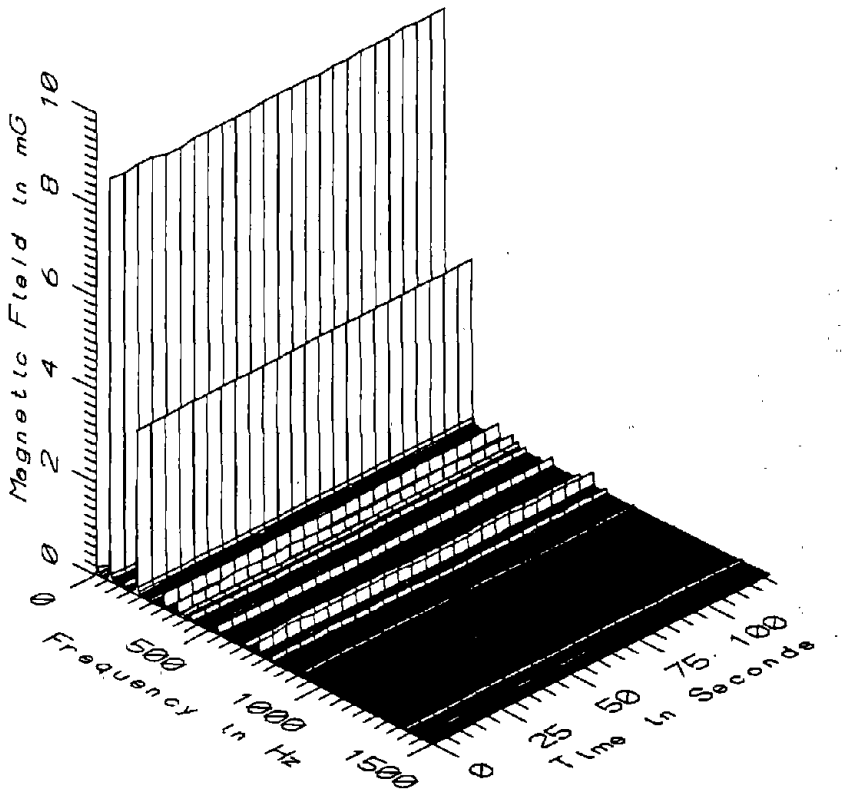
BOS003 - 160cm ABOVE GROUND NEAR DC SWITCHGEAR IN HIGH ST. T.P.S.S.



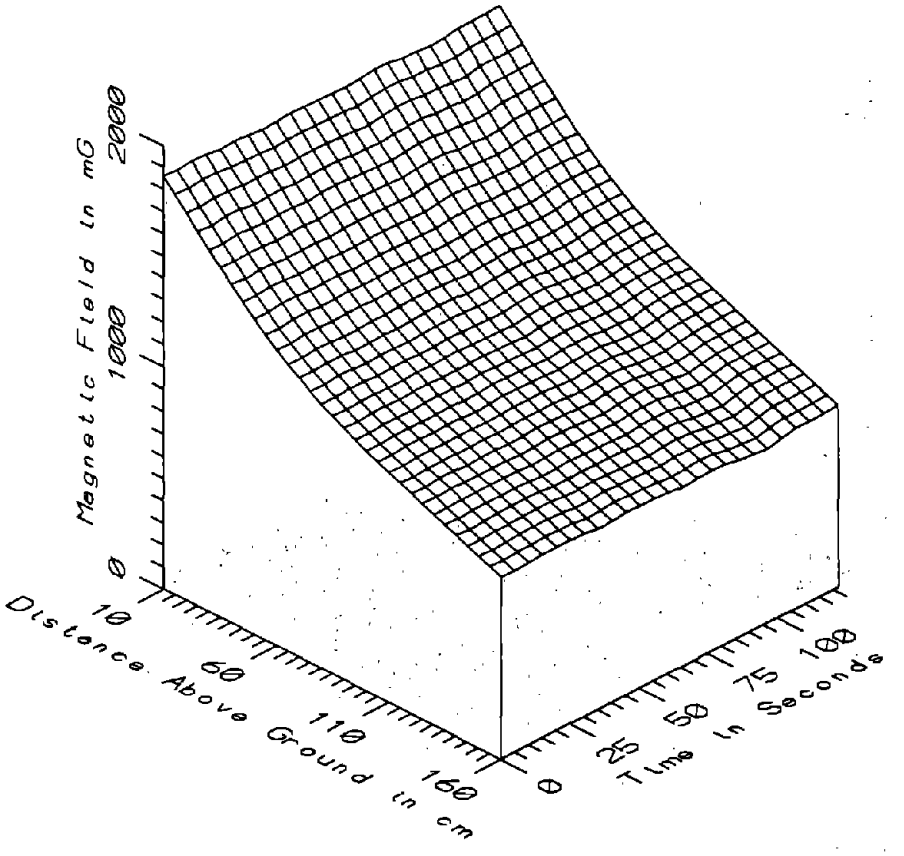
BOS003 - 160cm ABOVE GROUND NEAR DC SWITCHGEAR IN HIGH ST. T.P.S.S.



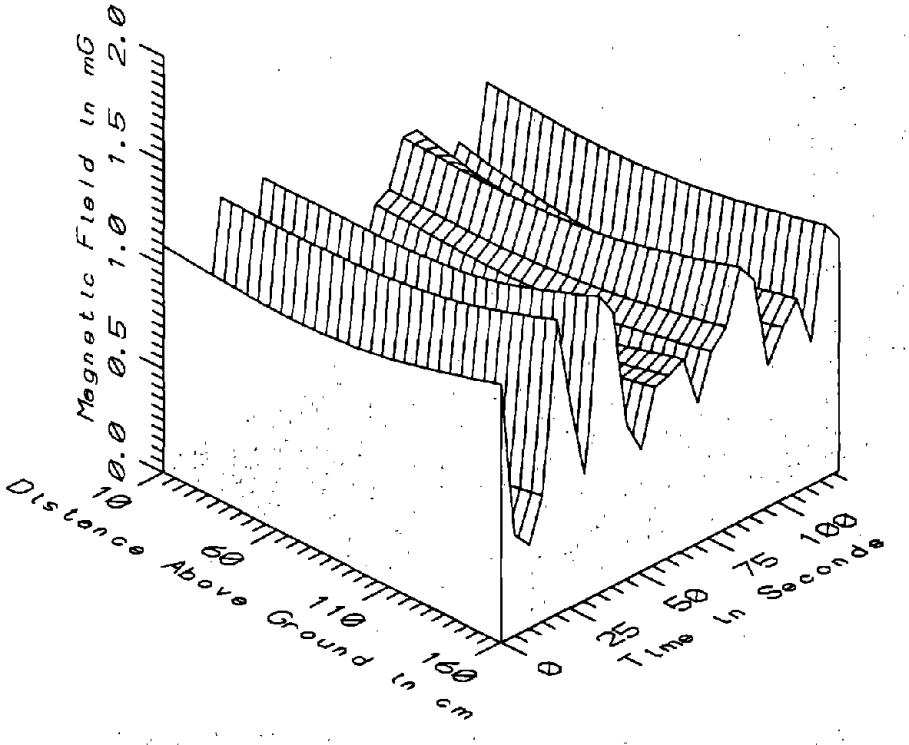
BOS003 - REFERENCE PROBE - NEAR AC RELAY BAYS IN HIGH ST. T.P.S.S.



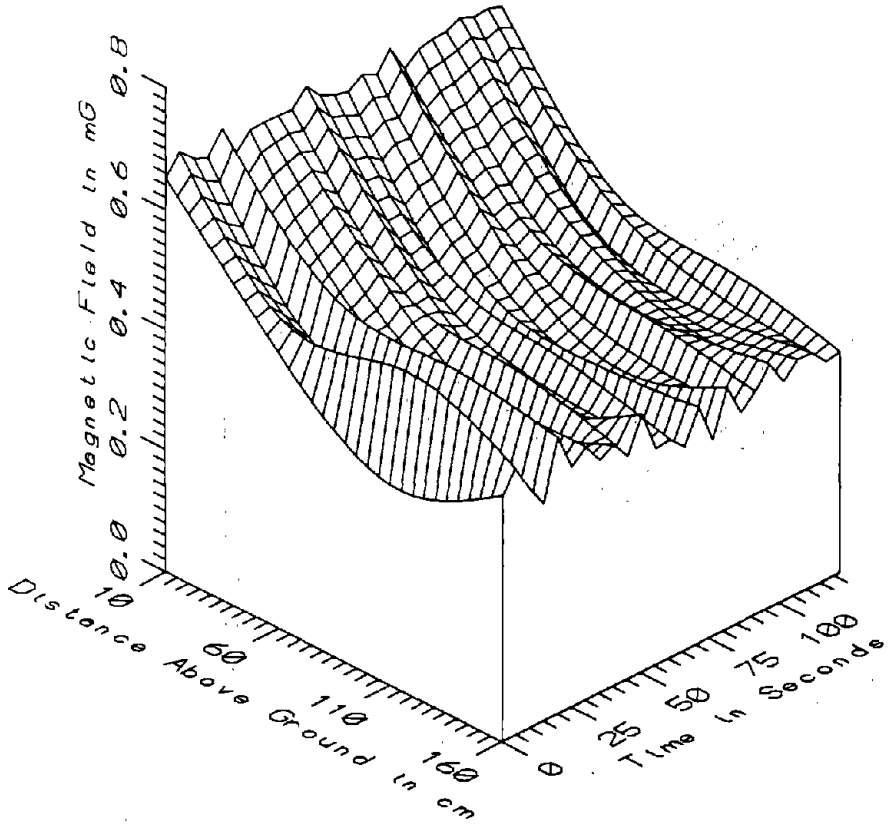
BOS003 - REFERENCE PROBE - NEAR AC RELAY BAYS IN HIGH ST. T.P.S.S.



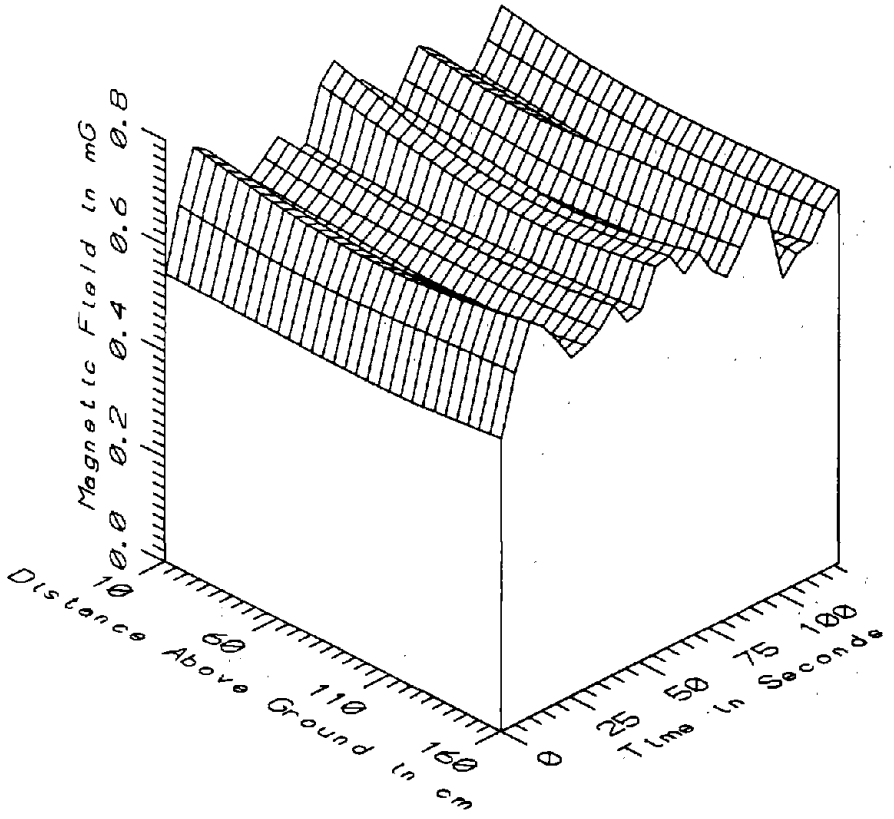
BOS003 - NEAR DC SWITCHGEAR IN HIGH ST. T.P.S.S. - STATIC



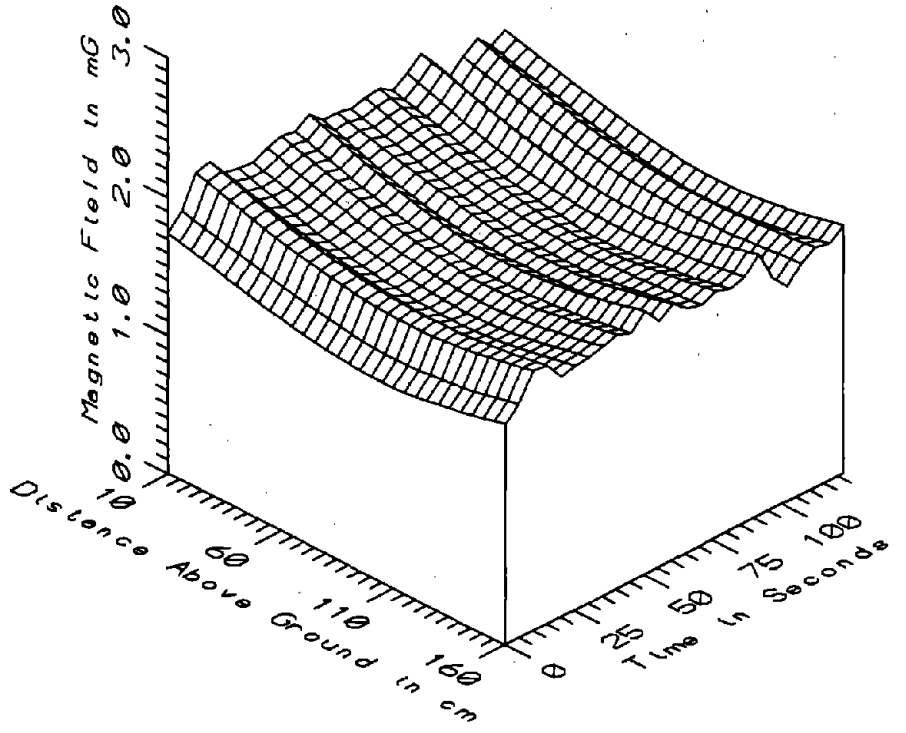
BOS003 - NEAR DC SWITCHGEAR IN HIGH ST. T.P.S.S. - LOW FREQ. 5-45Hz



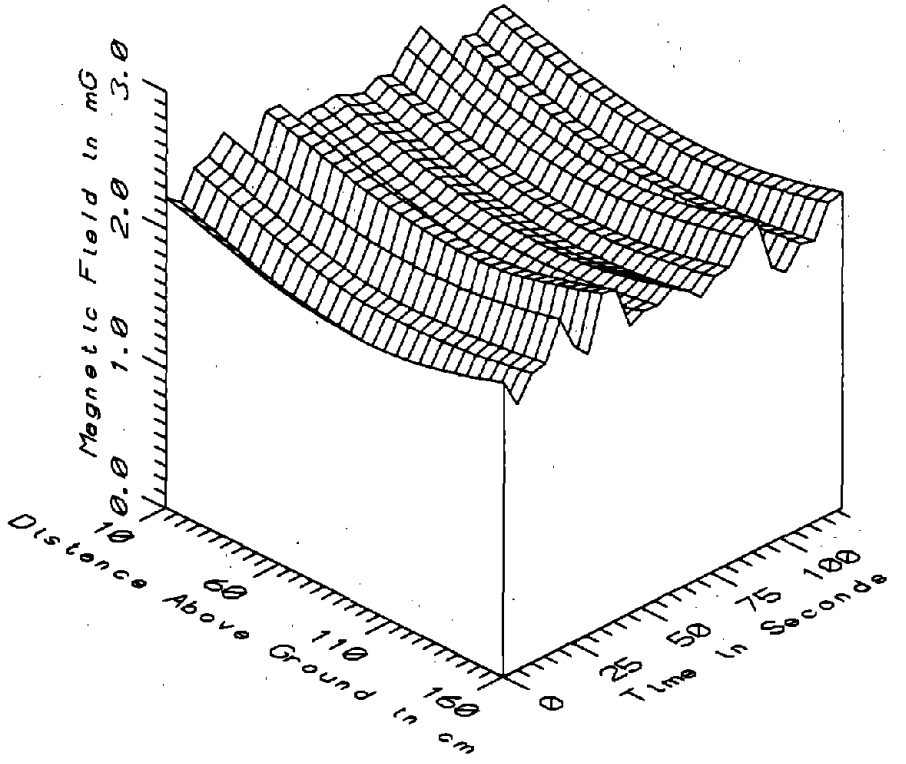
BOS003 - NEAR DC SWITCHGEAR IN HIGH ST. T.P.S.S. - POWER FREQ, 50-60Hz



BOS003 - NEAR DC SWITCHGEAR IN HIGH ST. T.P.S.S. - POWER HARM, 65-300Hz

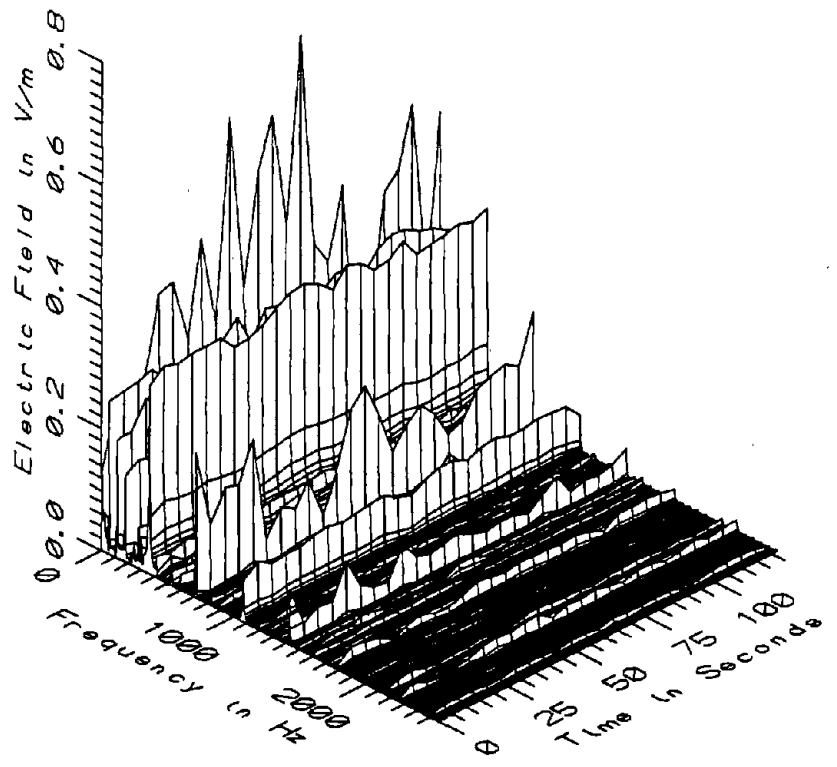


BOS003 - NEAR DC SWITCHGEAR IN HIGH ST. T.P.S.S. - HIGH FREQ, 305-2560Hz



BOS003 - NEAR DC SWITCHGEAR IN HIGH ST. T.P.S.S. - ALL FREQ, 5-2560Hz

BOS003 - NEAR DC SWITCHGEAR IN HIGH STREET T.P.S.S.				TOTAL OF 25 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	1841.10	1865.01	1855.30	6.08	0.33
	60	1314.82	1334.71	1327.70	4.97	0.37
	110	1017.26	1041.33	1034.86	6.15	0.59
	160	784.31	822.00	811.53	9.31	1.15
5-45Hz LOW FREQ	10	0.42	1.19	0.78	0.24	30.60
	60	0.36	1.19	0.77	0.24	31.53
	110	0.34	1.24	0.79	0.26	32.97
	160	0.41	1.42	0.91	0.29	31.79
50-60Hz PWR FREQ	10	0.63	0.69	0.66	0.01	2.10
	60	0.39	0.50	0.44	0.02	5.00
	110	0.31	0.51	0.38	0.05	12.58
	160	0.32	0.45	0.38	0.03	8.24
65-300Hz PWR HARM	10	0.55	0.79	0.68	0.06	8.52
	60	0.54	0.73	0.66	0.05	7.23
	110	0.54	0.73	0.66	0.05	6.99
	160	0.56	0.75	0.68	0.05	6.98
305-2560Hz HIGH FREQ	10	1.75	2.11	1.98	0.08	4.10
	60	1.53	1.87	1.75	0.07	4.16
	110	1.44	1.76	1.66	0.07	4.43
	160	1.56	1.90	1.76	0.08	4.73
5-2560Hz ALL FREQ	10	2.14	2.55	2.34	0.10	4.44
	60	1.88	2.28	2.08	0.11	5.22
	110	1.80	2.23	2.00	0.12	5.83
	160	1.90	2.41	2.14	0.14	6.60



BOS003 - ELECTRIC FIELD NEAR DC SWITCHGEAR IN HIGH STREET T.P.S.S.

APPENDIX E

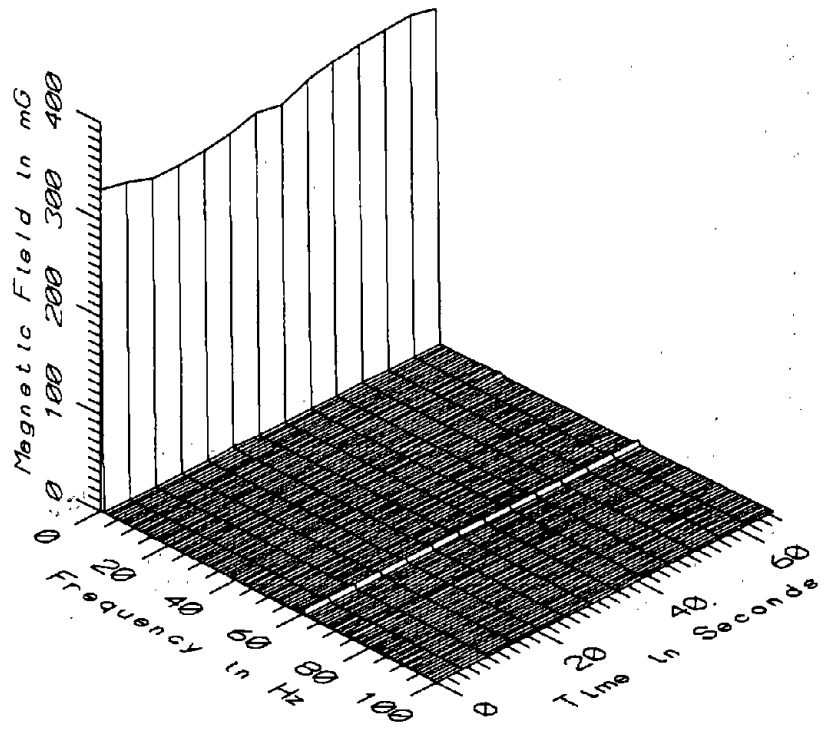
DATASET BOS004
IN ORANGE LINE DISPATCH ROOM, AT DISPATCHER'S SEAT

Measurement Setup Code:	Staff: 63 Reference: 65 Drawing: A-10
Vehicle Status:	NA
Measurement Date:	June 9, 1992
Measurement Time:	Start: 10:44:43 End: 10:45:50
Number of Samples:	14
Programmed Sample Interval:	5 sec
Actual Sample Interval:	5.2 sec

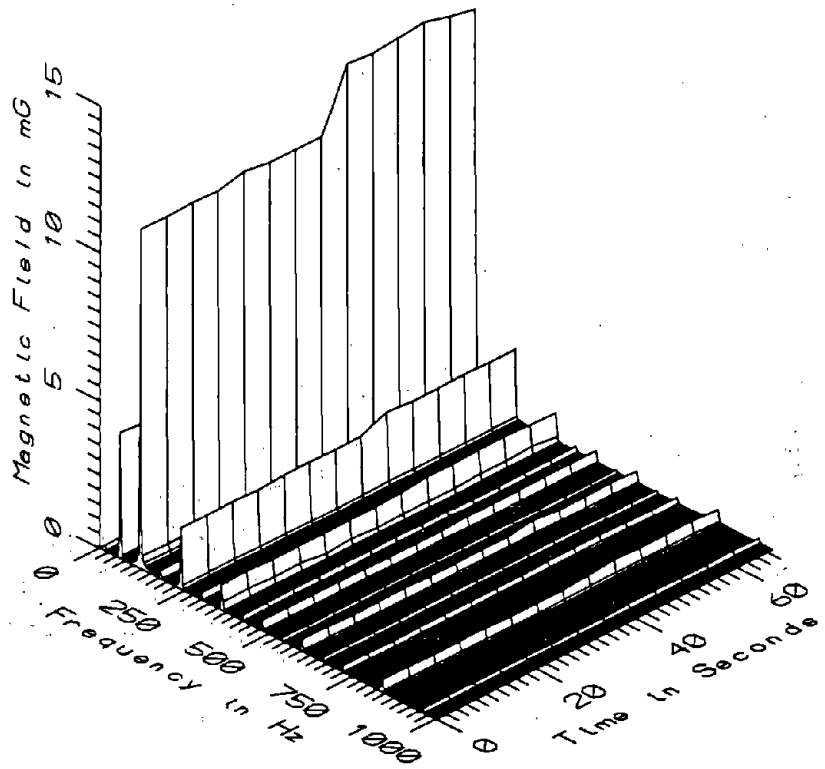
Frequency Spectrum Parameters

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

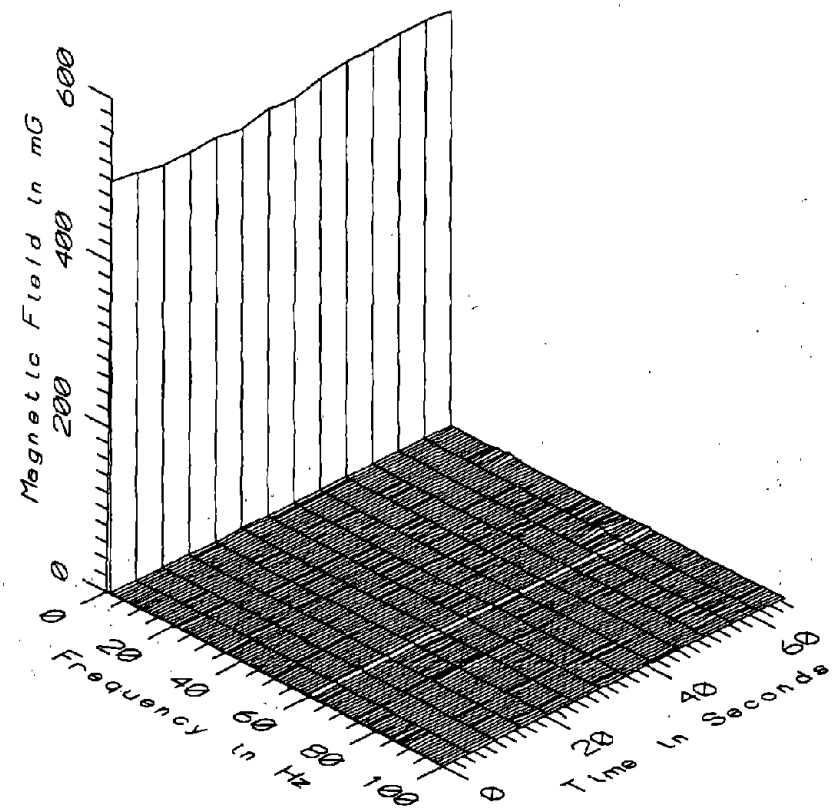
Missing Data: None



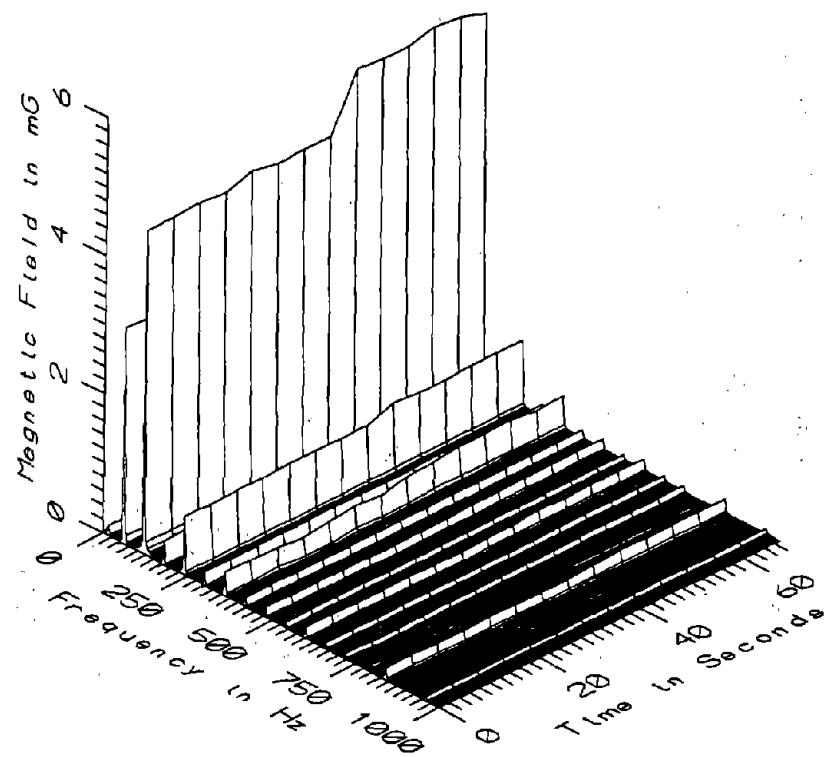
BOS004 - 10cm ABOVE FLOOR AT ORANGE LINE DISPATCHER'S SEAT



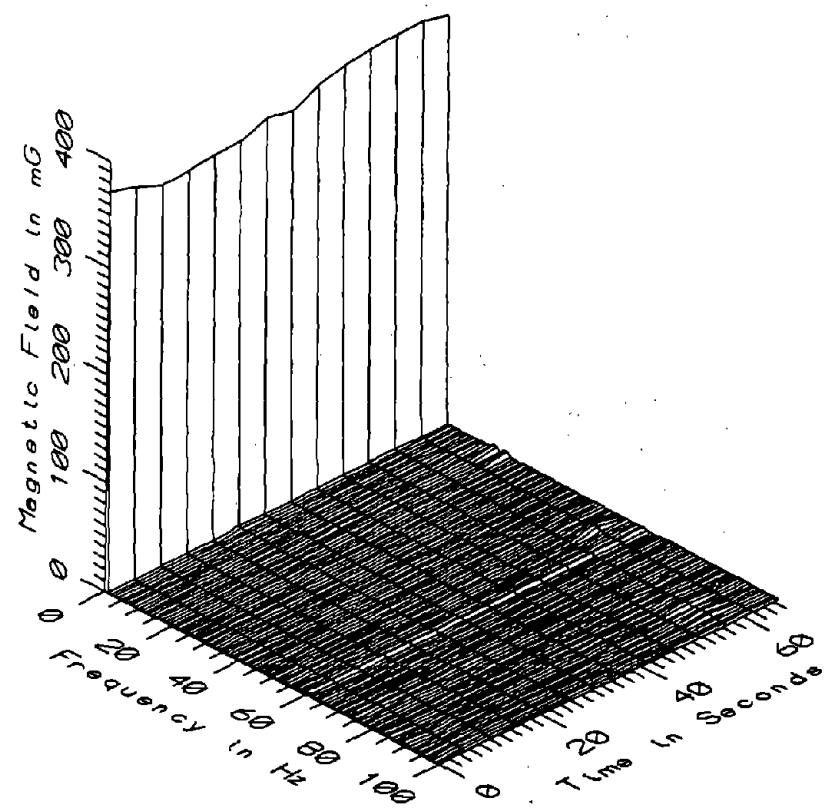
BOS004 - 10cm ABOVE FLOOR AT ORANGE LINE DISPATCHER'S SEAT



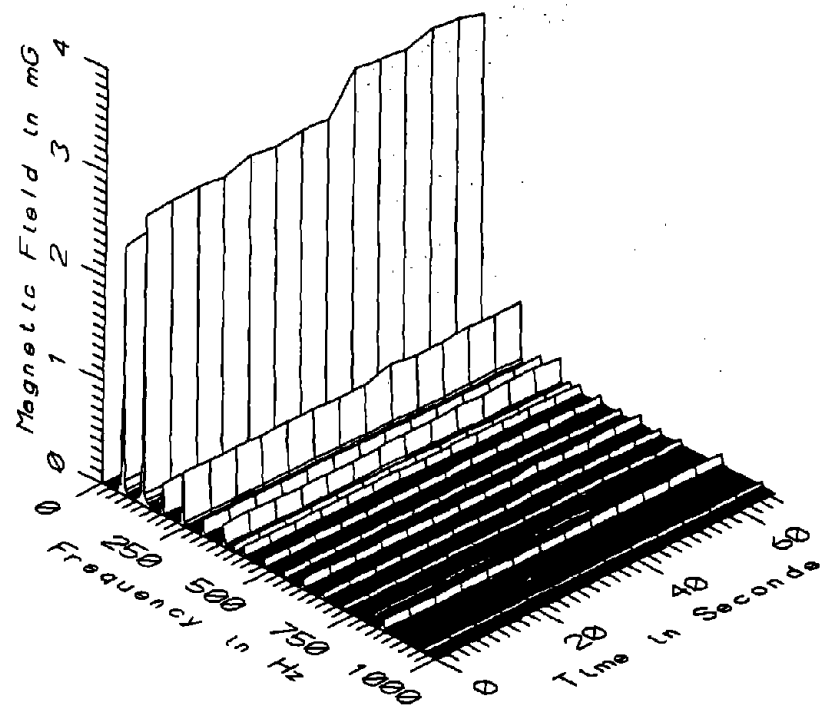
BOS004 - 60cm ABOVE FLOOR AT ORANGE LINE DISPATCHER'S SEAT



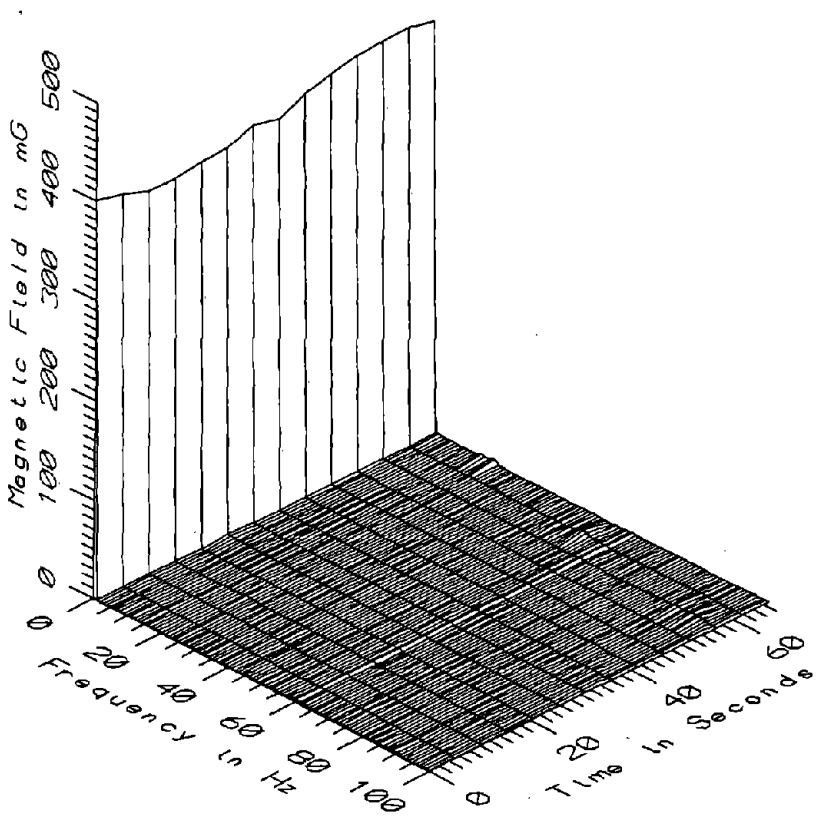
BOS004 - 60cm ABOVE FLOOR AT ORANGE LINE DISPATCHER'S SEAT



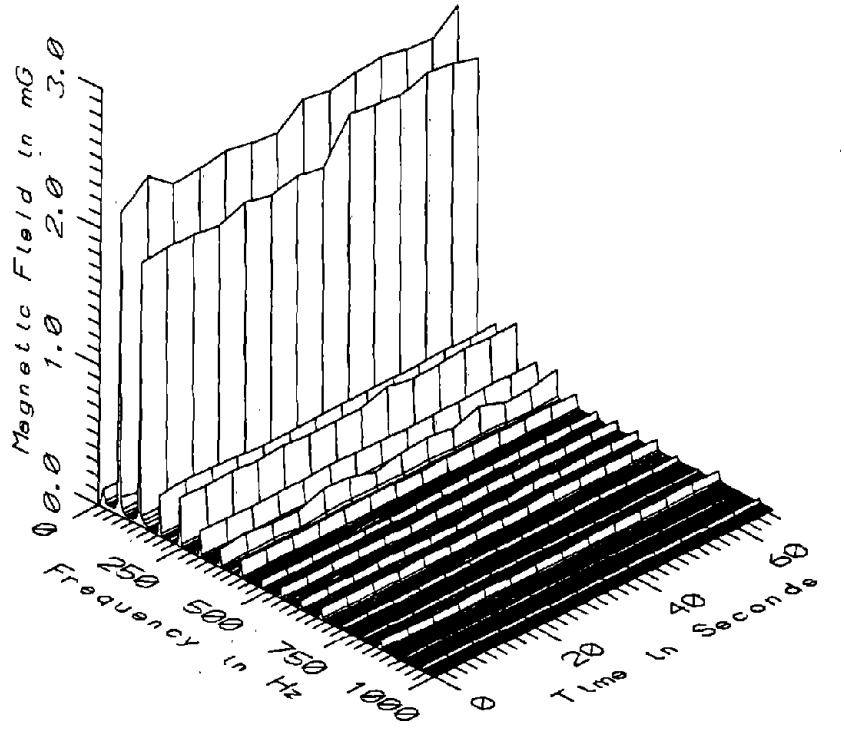
BOS004 - 110cm ABOVE FLOOR AT ORANGE LINE DISPATCHER'S SEAT



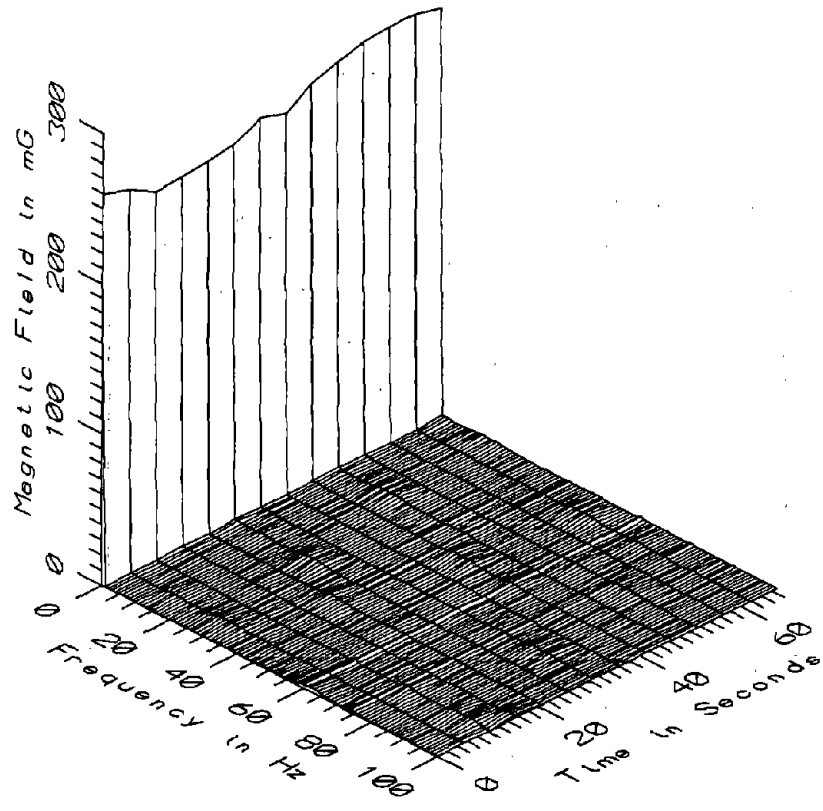
BOS004 - 110cm ABOVE FLOOR AT ORANGE LINE DISPATCHER'S SEAT



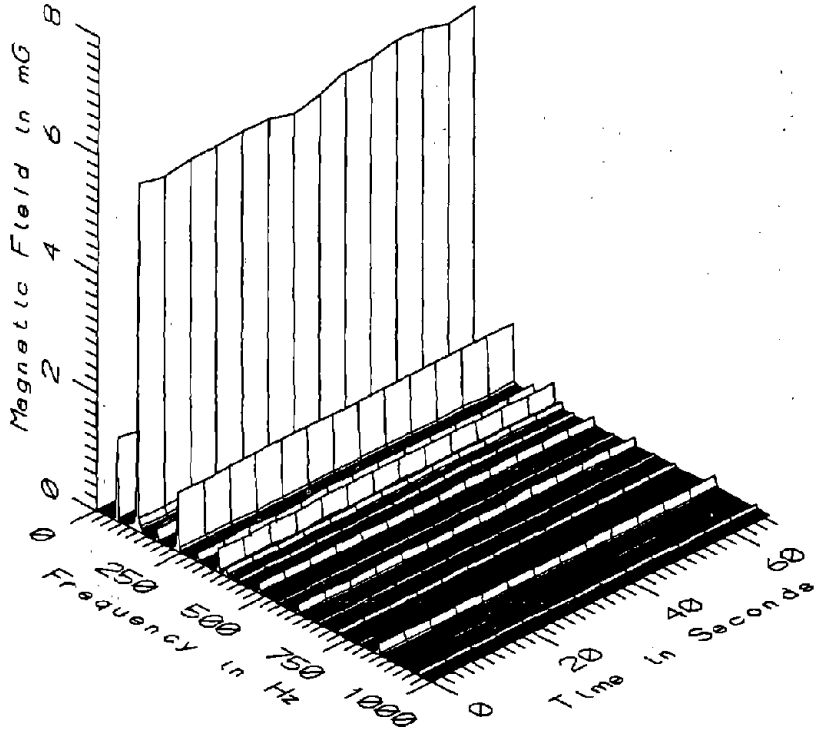
BOS004 - 160cm ABOVE FLOOR AT ORANGE LINE DISPATCHER'S SEAT



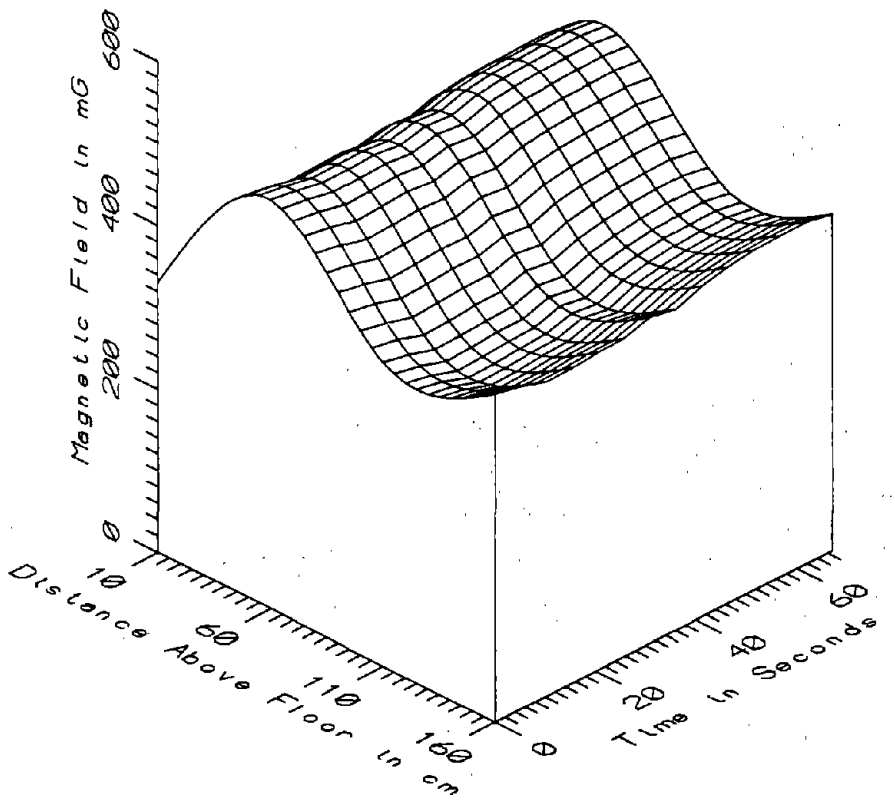
BOS004 - 160cm ABOVE FLOOR AT ORANGE LINE DISPATCHER'S SEAT



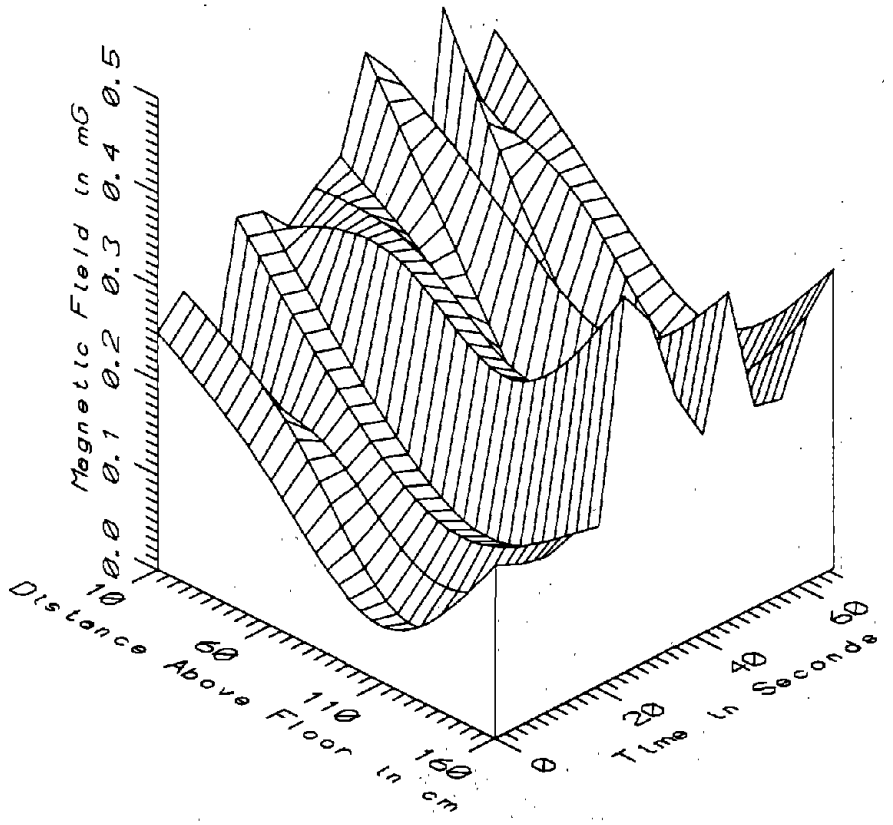
BOS004 - REFERENCE PROBE - ON CHAIR IN ORANGE LINE DISPATCHER'S ROOM



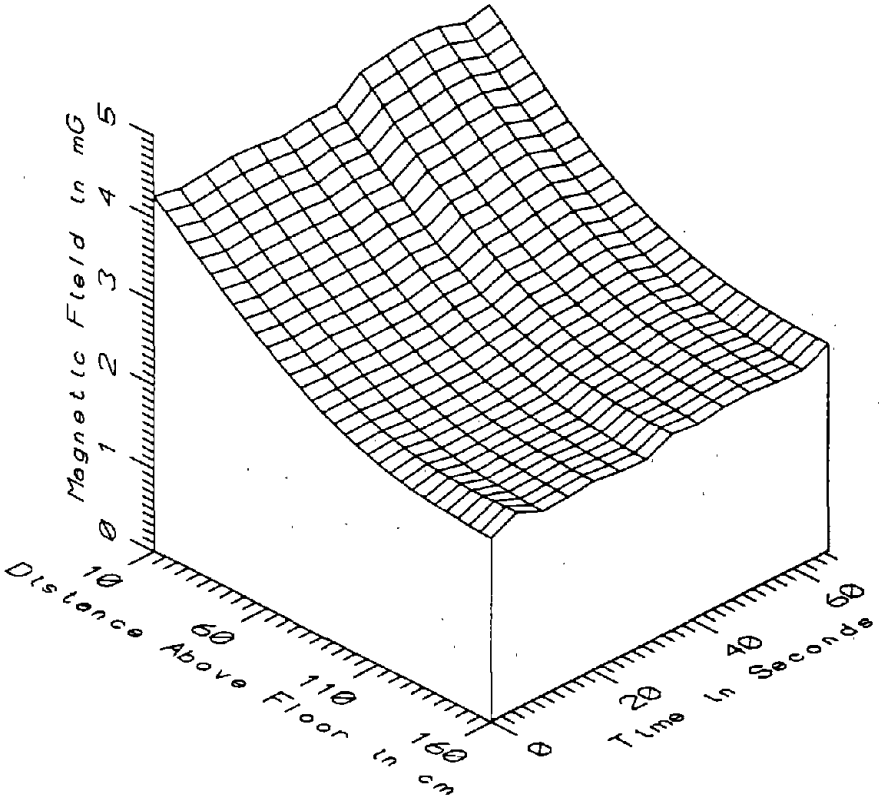
BOS004 - REFERENCE PROBE - ON CHAIR IN ORANGE LINE DISPATCHER'S ROOM



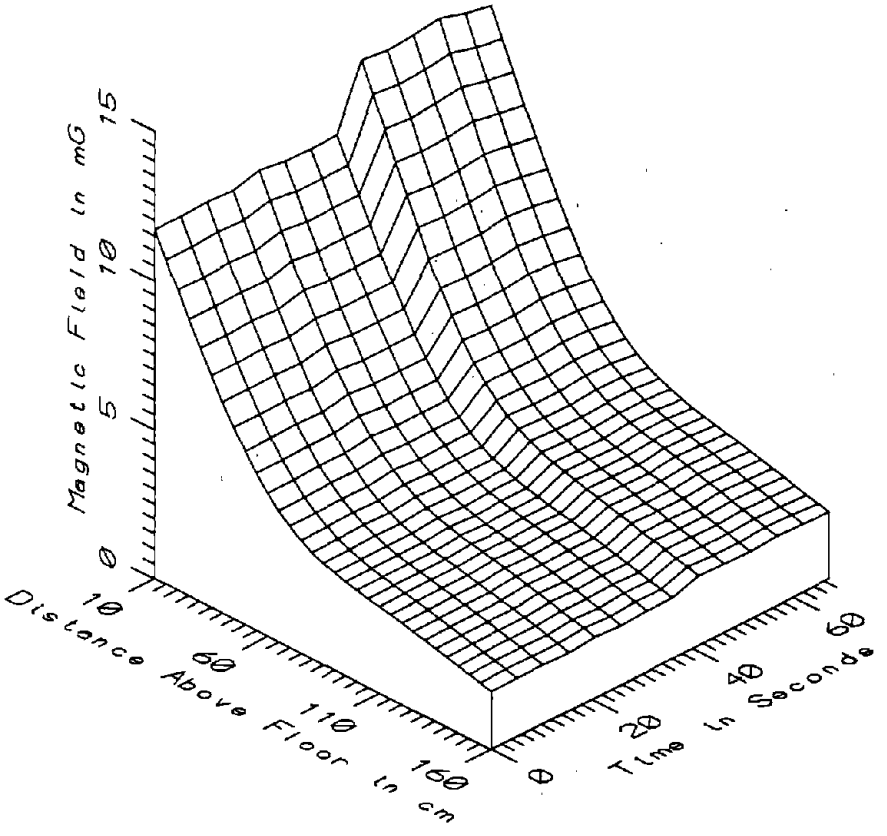
BOS004 - AT ORANGE LINE DISPATCHER'S SEAT - STATIC



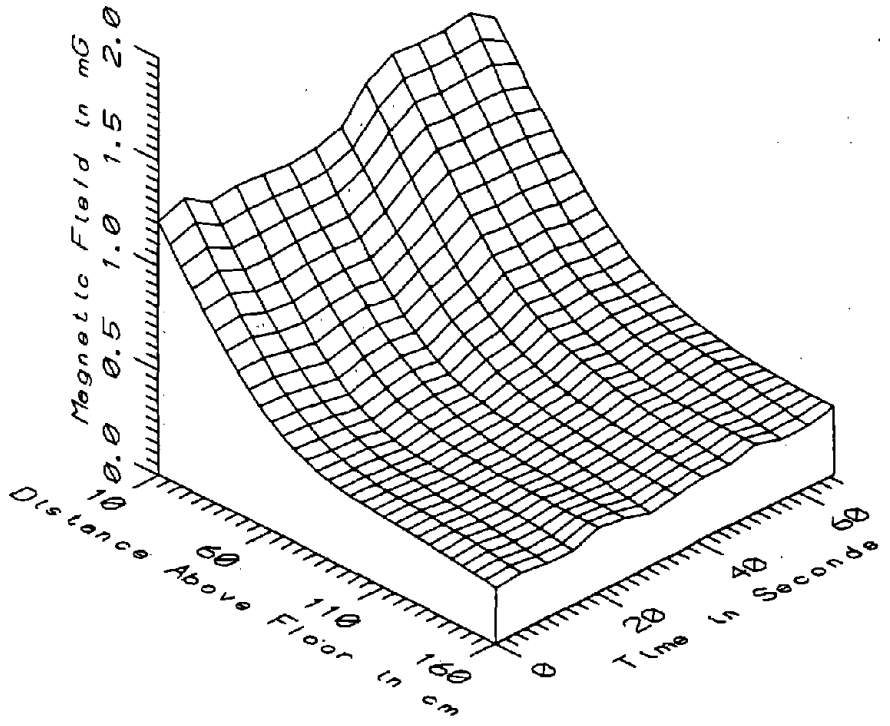
BOS004 - AT ORANGE LINE DISPATCHER'S SEAT - LOW FREQ, 5-45Hz



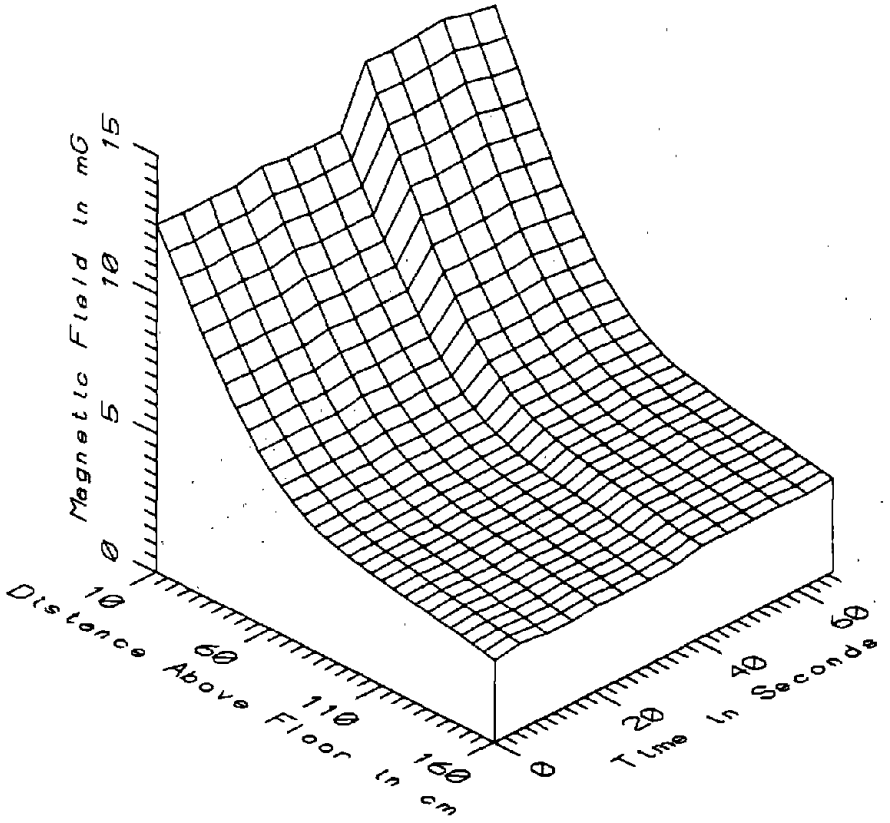
BOS004 - AT ORANGE LINE DISPATCHER'S SEAT - POWER FREQ, 50-60Hz



BOS004 - AT ORANGE LINE DISPATCHER'S SEAT - POWER HARM, 65-300Hz

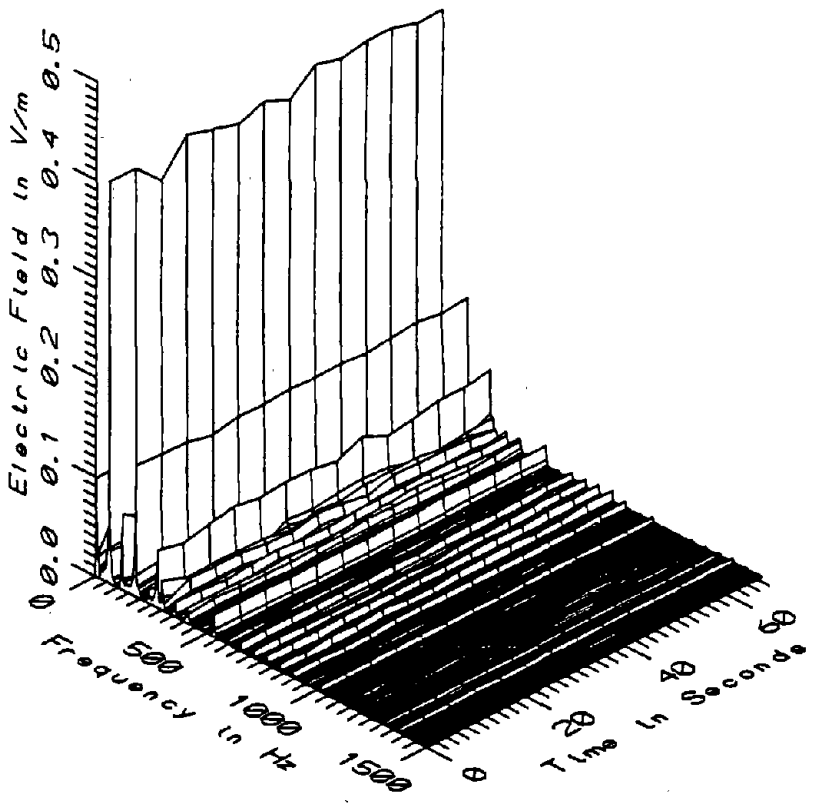


BOS004 - AT ORANGE LINE DISPATCHER'S SEAT - HIGH FREQ, 305-2560Hz



BOS004 - AT ORANGE LINE DISPATCHER'S SEAT - ALL FREQ, 5-2560Hz

BOS004 - AT ORANGE LINE DISPATCHER'S SEAT					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	315.34	349.77	331.94	12.42	3.74
	60	486.40	507.33	496.99	7.63	1.54
	110	354.75	387.86	371.17	12.01	3.24
	160	383.47	418.19	400.73	12.58	3.14
5-45Hz LOW FREQ	10	0.15	0.44	0.32	0.08	26.37
	60	0.15	0.32	0.23	0.06	24.46
	110	0.05	0.25	0.14	0.07	49.97
	160	0.17	0.40	0.25	0.08	32.31
50-60Hz PWR FREQ	10	4.19	4.60	4.36	0.16	3.61
	60	3.06	3.36	3.18	0.11	3.39
	110	2.40	2.63	2.49	0.09	3.53
	160	2.20	2.48	2.30	0.08	3.61
65-300Hz PWR HARM	10	11.69	13.97	12.63	1.04	8.26
	60	4.78	5.70	5.17	0.41	7.90
	110	2.89	3.35	3.08	0.19	6.32
	160	1.97	2.32	2.12	0.15	6.90
305-2560Hz HIGH FREQ	10	1.17	1.46	1.30	0.12	9.20
	60	0.47	0.67	0.57	0.07	12.97
	110	0.32	0.40	0.35	0.03	7.55
	160	0.26	0.33	0.29	0.02	8.06
5-2560Hz ALL FREQ	10	12.48	14.78	13.43	1.04	7.77
	60	5.71	6.65	6.10	0.41	6.68
	110	3.78	4.27	3.98	0.20	5.12
	160	2.97	3.37	3.16	0.15	4.70



BOS004 - ELECTRIC FIELD AT ORANGE LINE DISPATCHER'S SEAT

APPENDIX F

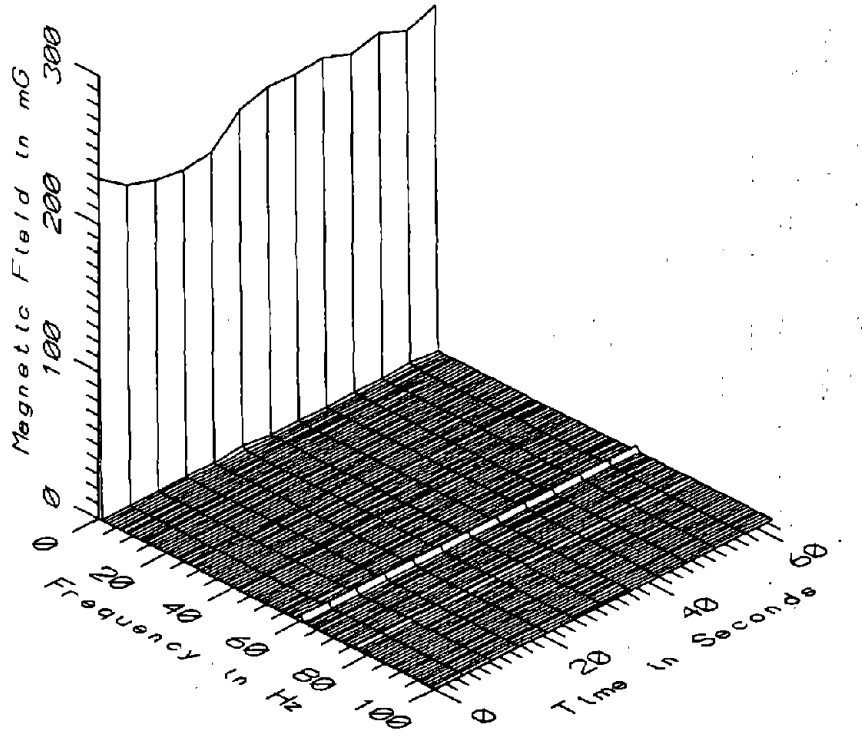
DATASET BOS005
IN ORANGE LINE DISPATCH ROOM, FROM DISPATCHER'S MONITORS

Measurement Setup Code:	Staff: 64 Reference: 65 Drawing: A-10
Vehicle Status:	NA
Measurement Date:	June 9, 1992
Measurement Time:	Start: 10:52:27 End: 10:53:30
Number of Samples:	13
Programmed Sample Interval:	5 sec
Actual Sample Interval:	5.3 sec

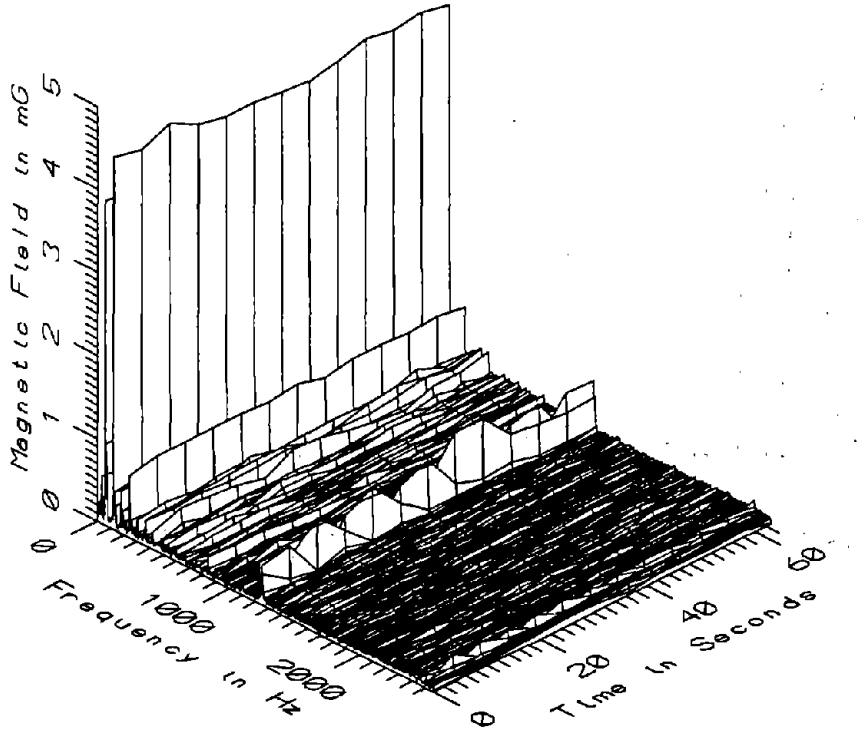
Frequency Spectrum Parameters

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

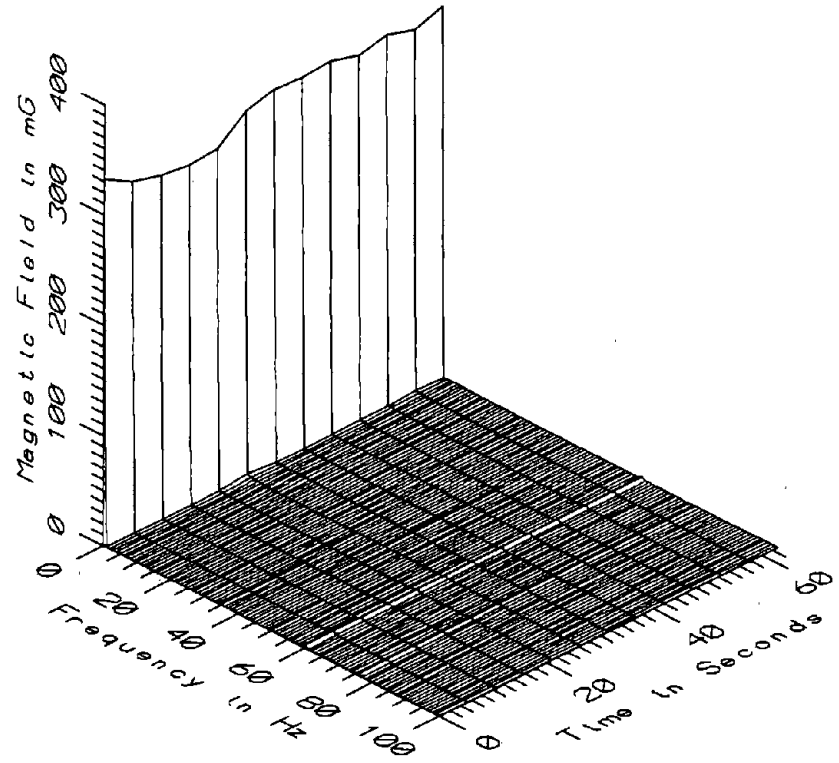
Missing Data: None



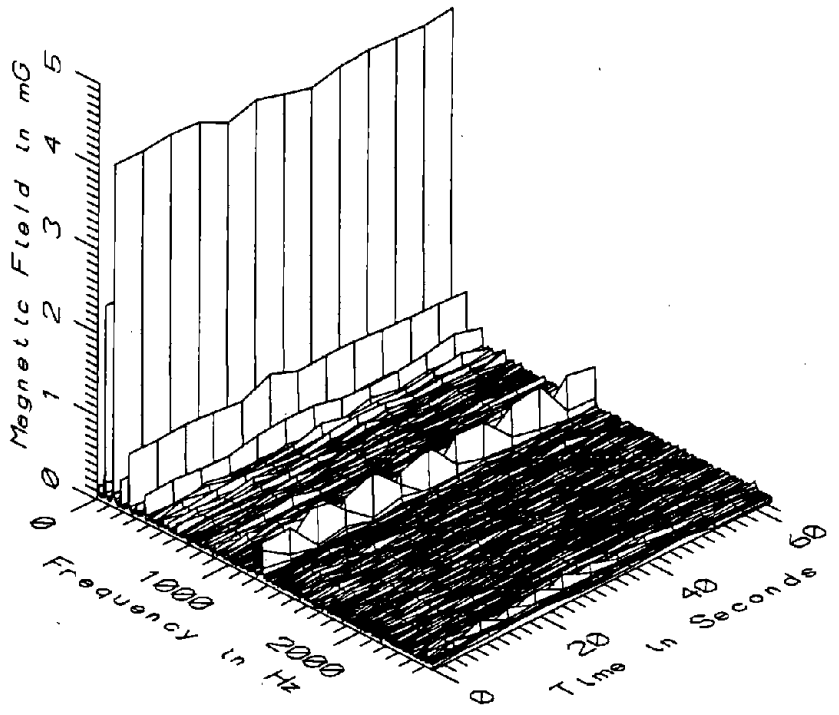
BOS005 - 10cm FROM MONITORS IN ORANGE LINE DISPATCHER'S ROOM



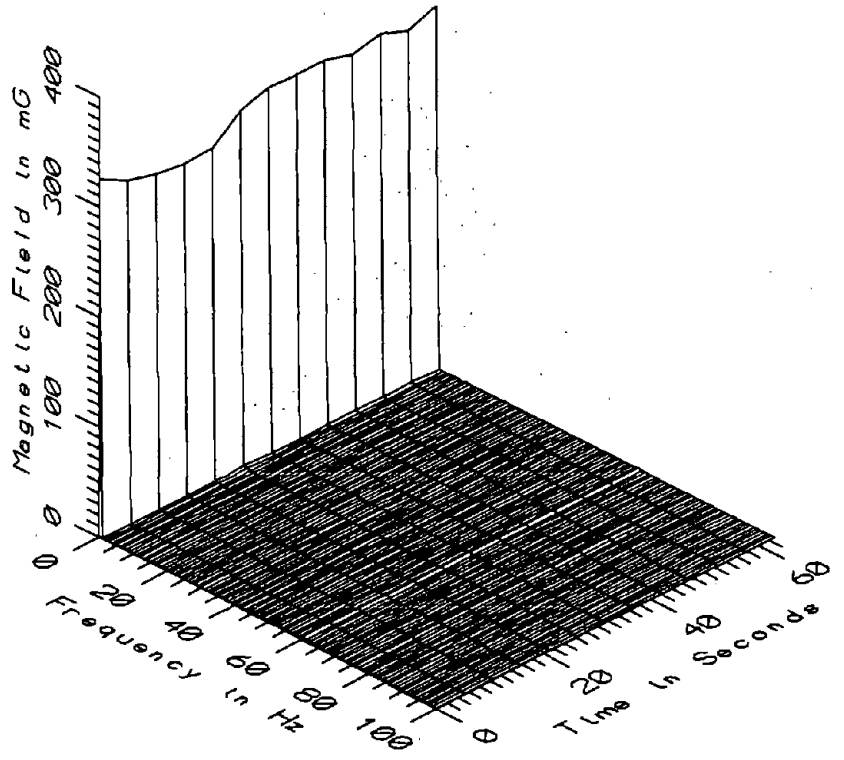
BOS005 - 10cm FROM MONITORS IN ORANGE LINE DISPATCHER'S ROOM



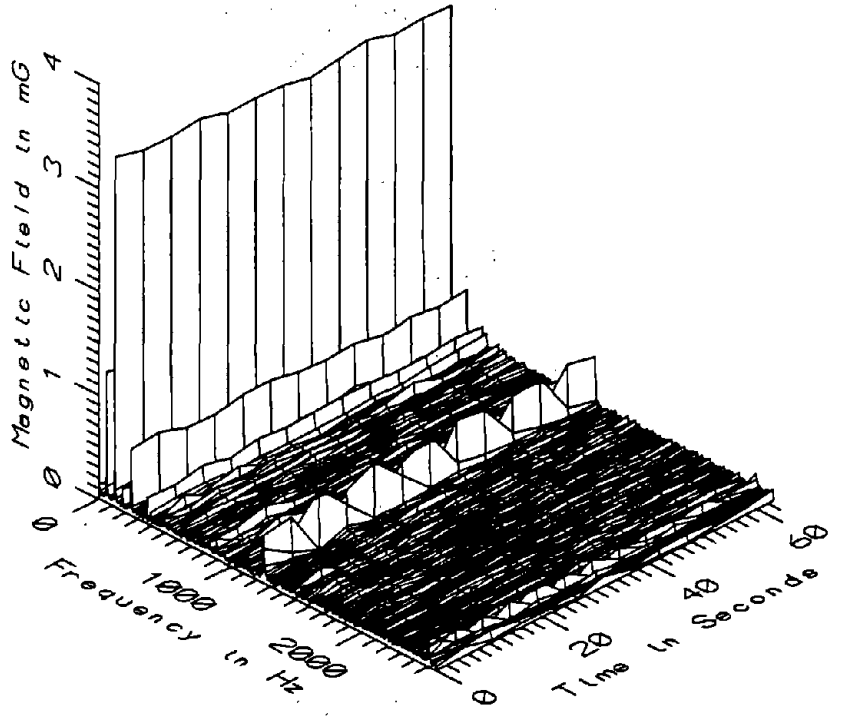
BOS005 - 60cm FROM MONITORS IN ORANGE LINE DISPATCHER'S ROOM



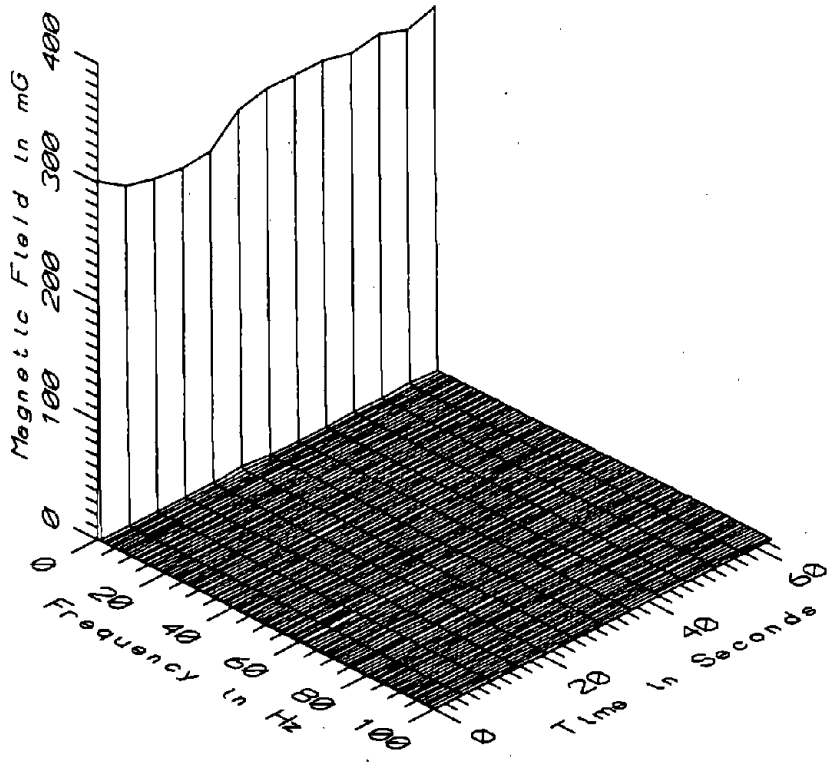
BOS005 - 60cm FROM MONITORS IN ORANGE LINE DISPATCHER'S ROOM



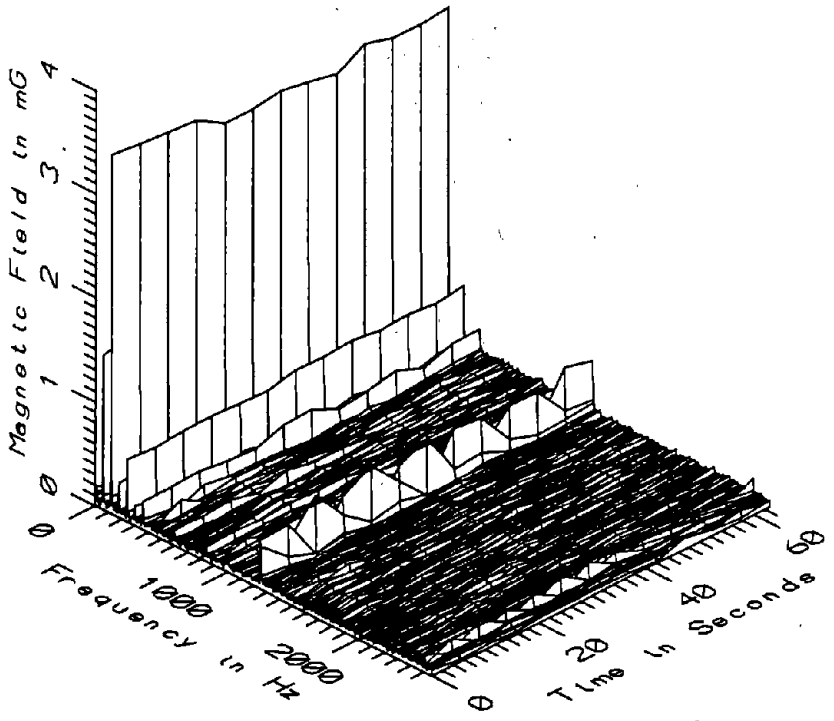
BOS005 - 110cm FROM MONITORS IN ORANGE LINE DISPATCHER'S ROOM



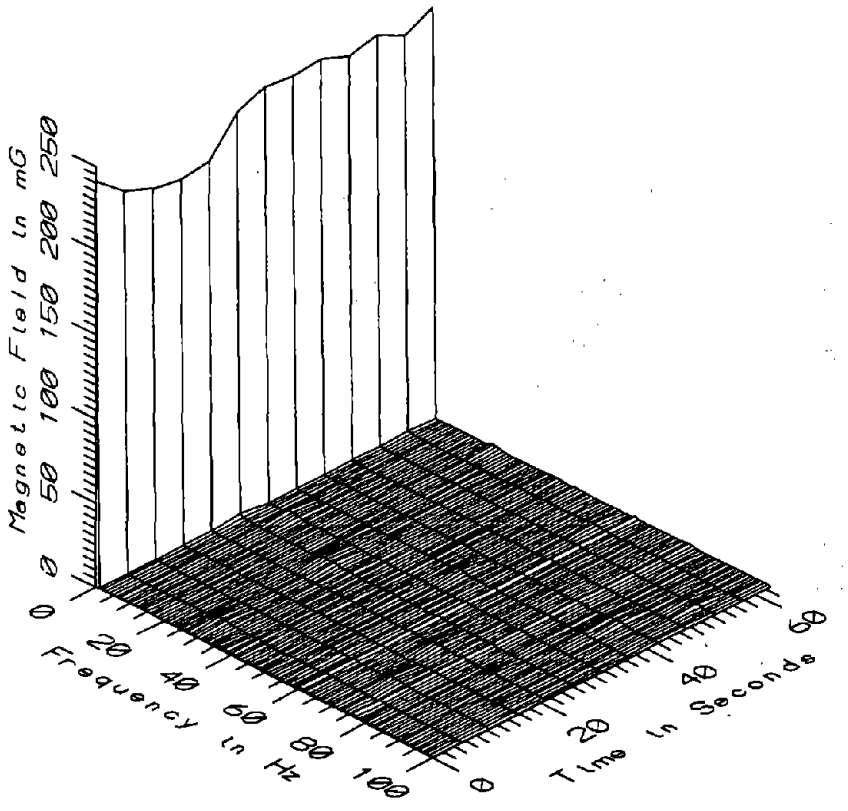
BOS005 - 110cm FROM MONITORS IN ORANGE LINE DISPATCHER'S ROOM



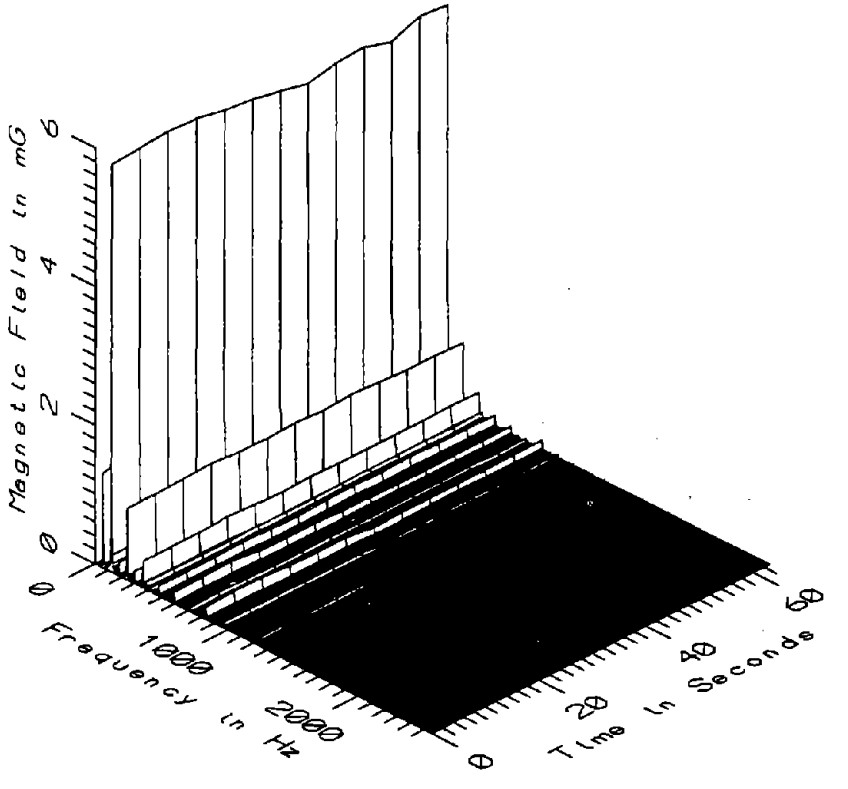
BOS005 - 160cm FROM MONITORS IN ORANGE LINE DISPATCHER'S ROOM



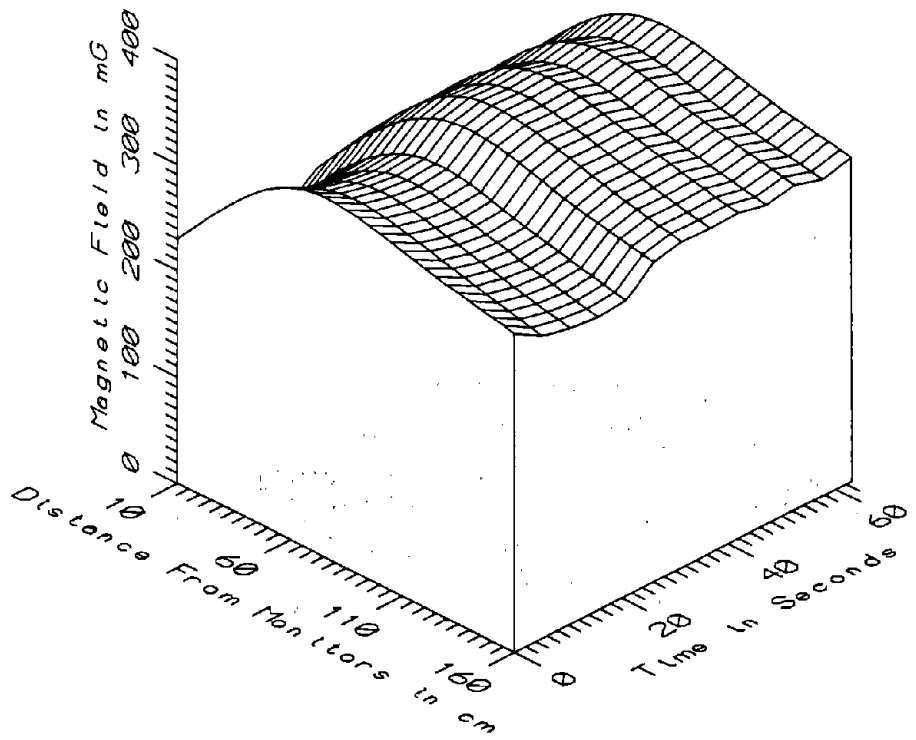
BOS005 - 160cm FROM MONITORS IN ORANGE LINE DISPATCHER'S ROOM



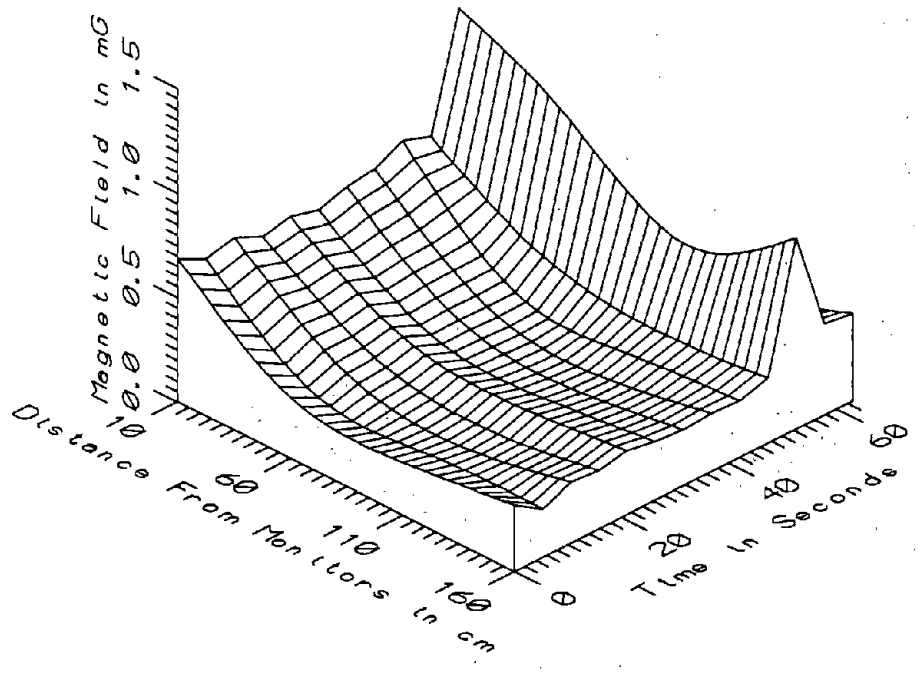
BOS005 - REFERENCE PROBE - ON CHAIR IN ORANGE LINE DISPATCHER'S ROOM



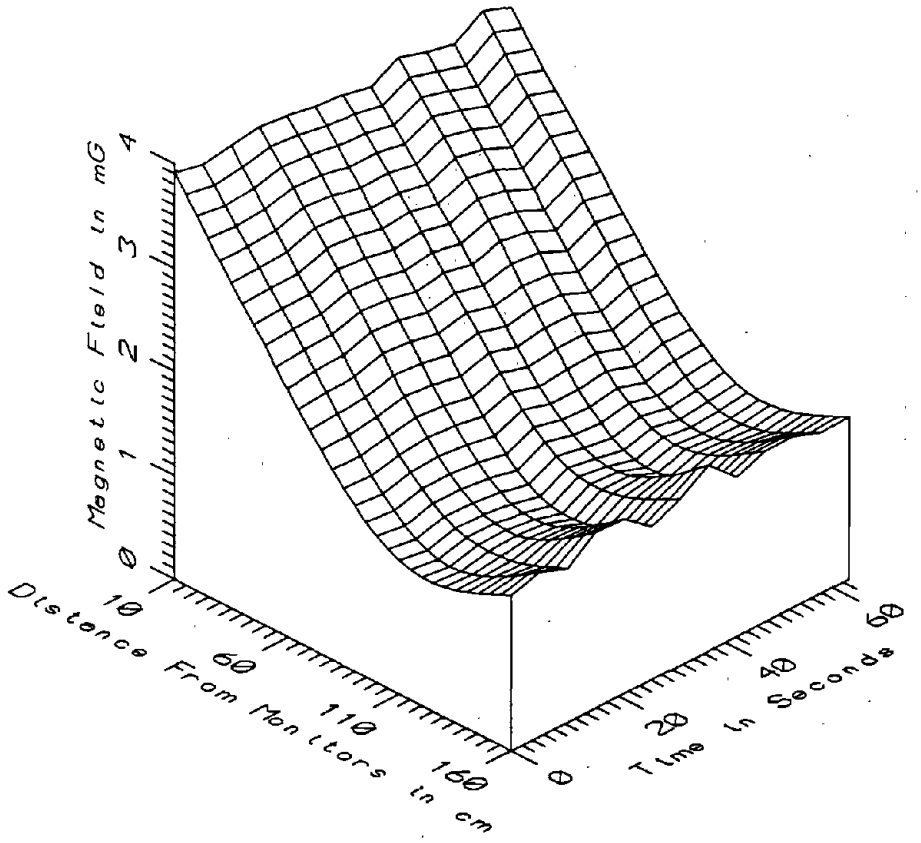
BOS005 - REFERENCE PROBE - ON CHAIR IN ORANGE LINE DISPATCHER'S ROOM



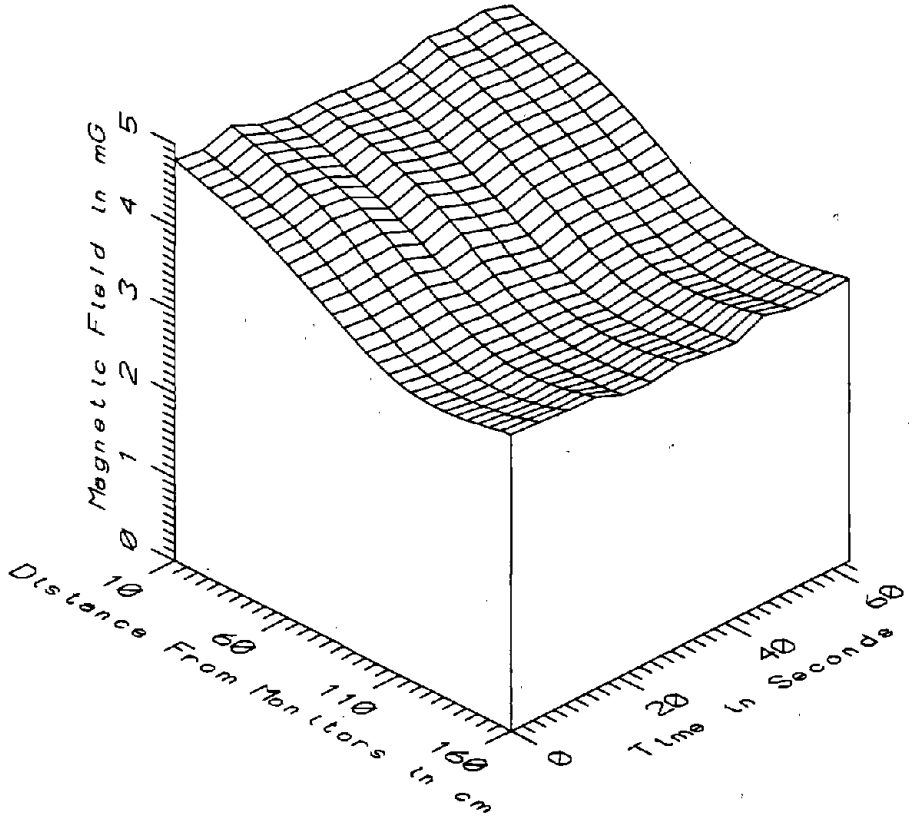
BOS005 - IN ORANGE LINE DISPATCHER'S ROOM - STATIC



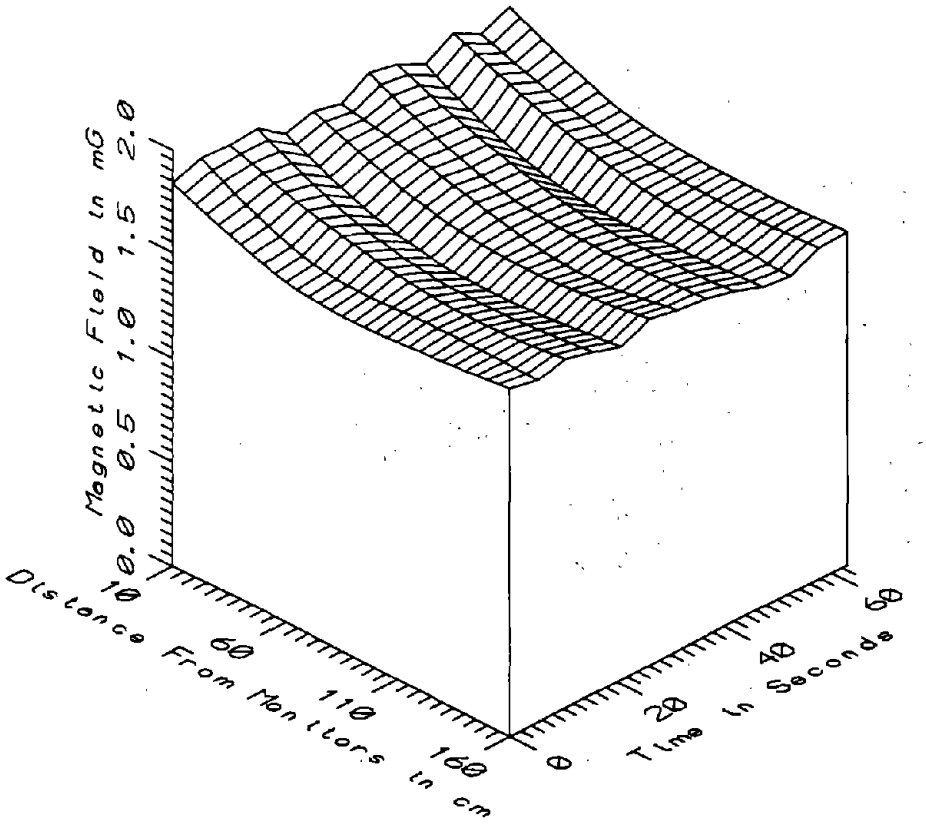
BOS005 - IN ORANGE LINE DISPATCHER'S ROOM - LOW FREQ. 5-45Hz



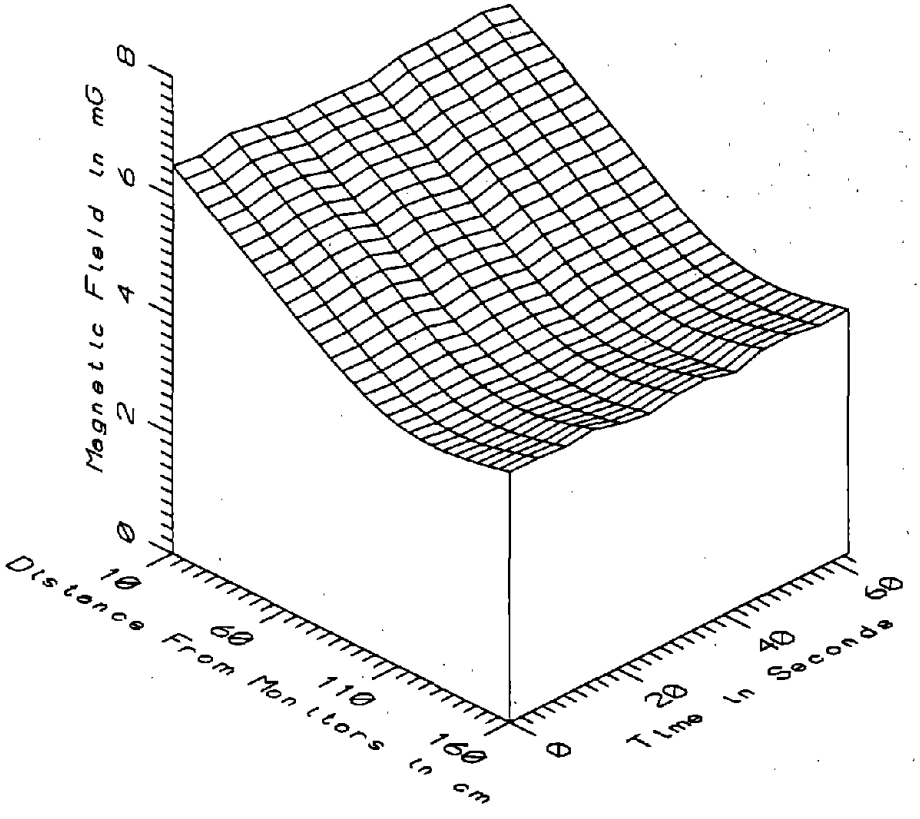
BOS005 - IN ORANGE LINE DISPATCHER'S ROOM - POWER FREQ, 50-60Hz



BOS005 - IN ORANGE LINE DISPATCHER'S ROOM - POWER HARM, 65-300Hz

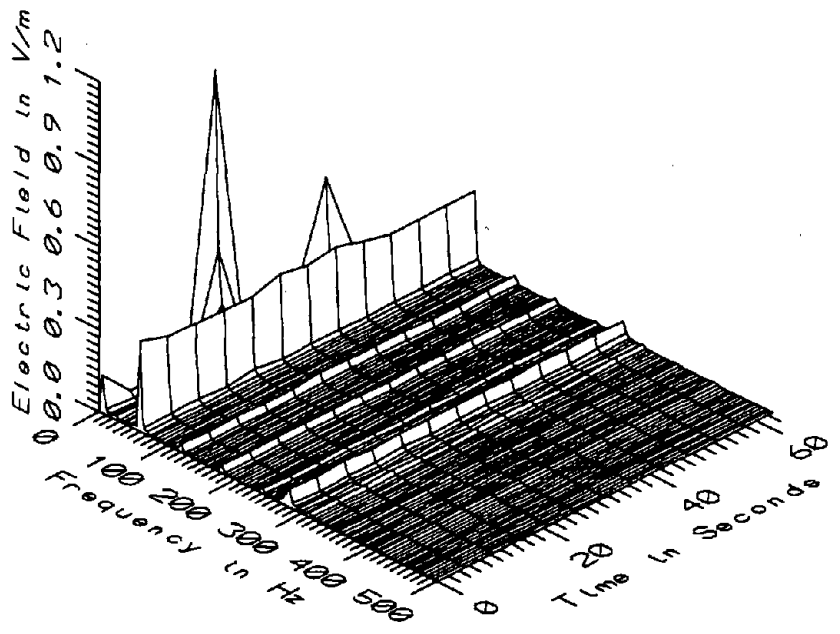


BOS005 - IN ORANGE LINE DISPATCHER'S ROOM - HIGH FREQ, 305-2560Hz



BOS005 - IN ORANGE LINE DISPATCHER'S ROOM - ALL FREQ, 5-2560Hz

BOS005 - FROM MONITOR'S IN ORANGE LINE DISPATCH ROOM					TOTAL OF 13 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	207.63	236.20	225.57	10.44	4.63
	60	306.94	337.46	326.54	11.40	3.49
	110	301.01	331.75	320.36	11.39	3.56
	160	276.27	307.23	296.29	11.93	4.03
5-45Hz	10	0.58	1.21	0.68	0.16	23.48
LOW FREQ	60	0.23	0.93	0.34	0.18	54.43
	110	0.20	0.63	0.27	0.11	42.62
	160	0.23	0.92	0.36	0.18	50.21
50-60Hz	10	3.79	3.97	3.88	0.06	1.43
PWR FREQ	60	2.35	2.52	2.45	0.05	2.09
	110	1.21	1.35	1.28	0.04	3.30
	160	1.45	1.78	1.58	0.09	5.89
65-300Hz	10	4.59	4.89	4.71	0.09	1.83
PWR HARM	60	3.99	4.28	4.14	0.09	2.12
	110	3.29	3.48	3.37	0.05	1.58
	160	3.29	3.56	3.41	0.09	2.57
305-2560Hz	10	1.80	1.90	1.85	0.04	1.99
HIGH FREQ	60	1.56	1.72	1.65	0.04	2.48
	110	1.51	1.65	1.59	0.04	2.30
	160	1.52	1.67	1.61	0.05	2.91
5-2560Hz	10	6.28	6.57	6.42	0.08	1.24
ALL FREQ	60	4.97	5.23	5.10	0.07	1.37
	110	3.88	4.05	3.95	0.05	1.17
	160	3.97	4.22	4.11	0.08	1.88



BOS005 - ELECTRIC FIELD 170cm FROM ORANGE LINE DISPATCHER'S MONITORS

APPENDIX G

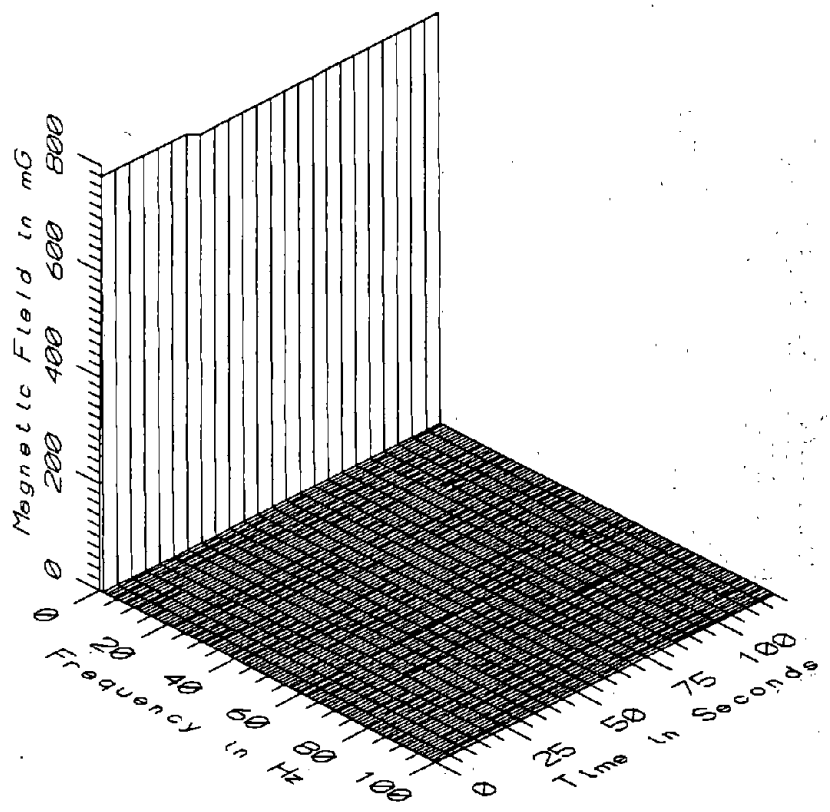
DATASET BOS006
NEAR MAIN CONTROL BOARD, SOUTH BOSTON
TRACTION POWER SUPPLY STATION

Measurement Setup Code:	Staff: 50 Reference: 51 Drawing: A-8
Vehicle Status:	NA
Measurement Date:	June 9, 1992
Measurement Time:	Start: 11:24:20 End: 11:26:20
Number of Samples:	25
Programmed Sample Interval:	5 sec
Actual Sample Interval:	5.0 sec

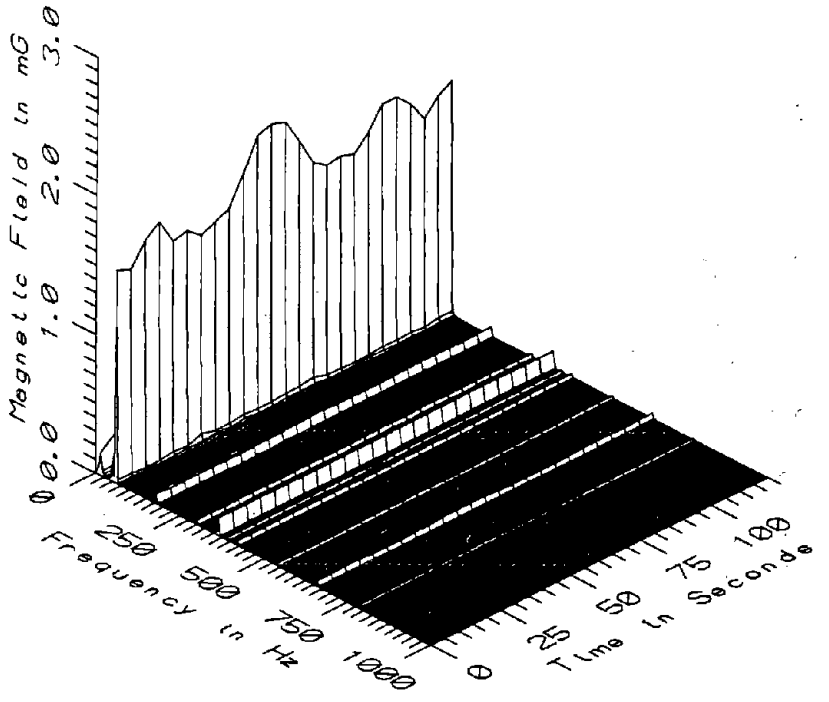
Frequency Spectrum Parameters

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

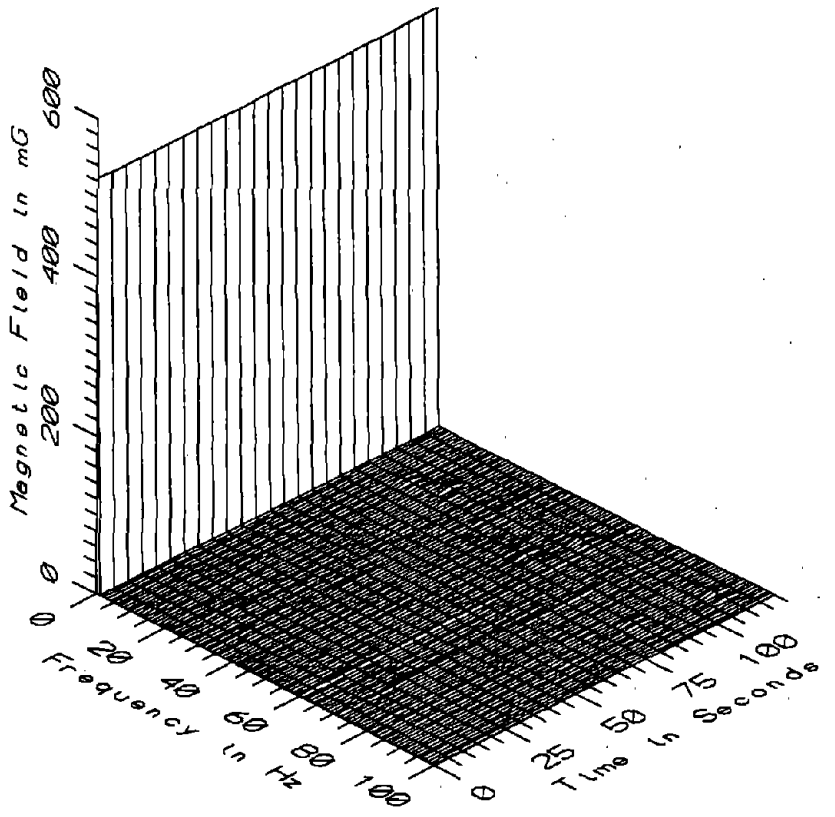
Missing Data: None



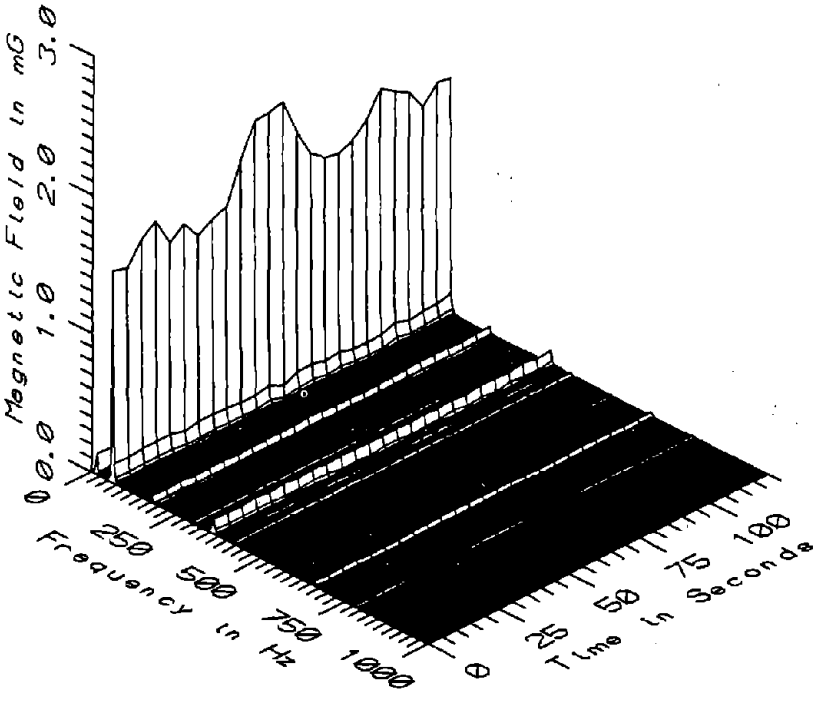
BOS006 - 10cm ABOVE GROUND NEAR MAIN CONTROL BOARD, S. BOSTON T.P.S.S.



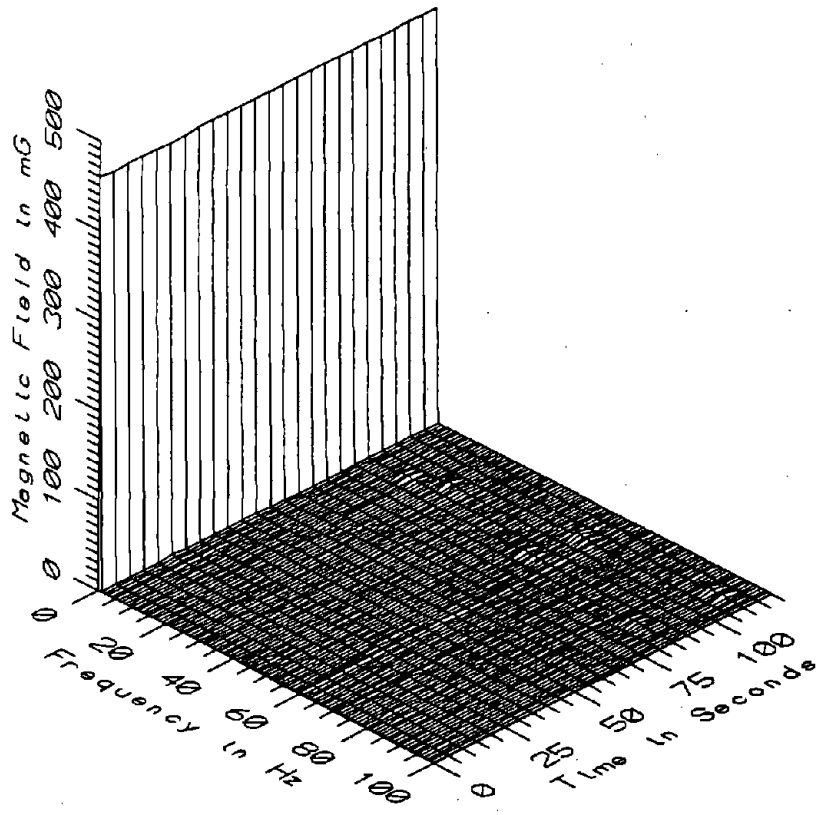
BOS006 - 10cm ABOVE GROUND NEAR MAIN CONTROL BOARD, S. BOSTON T.P.S.S.



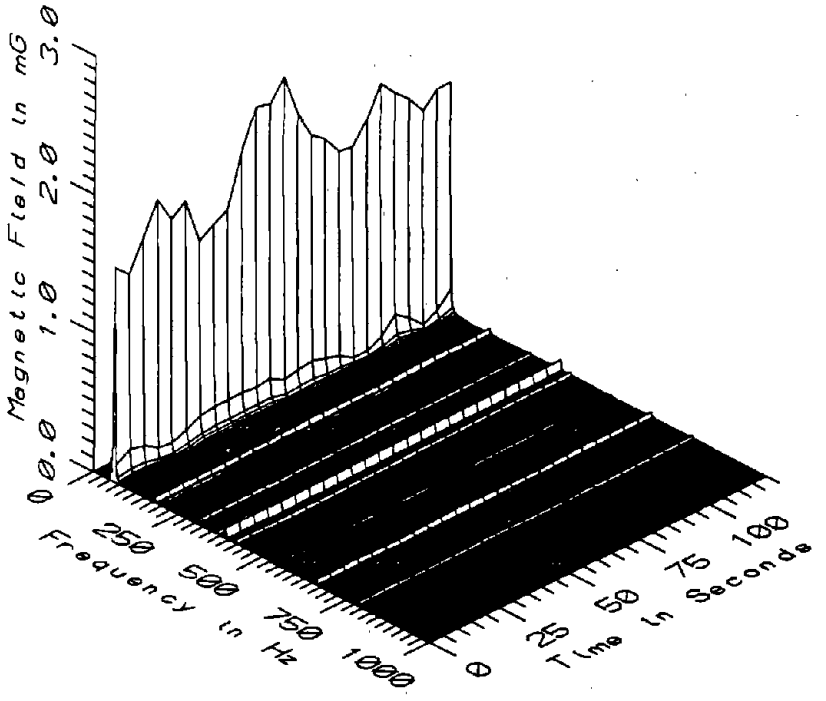
BOS006 - 60cm ABOVE GROUND NEAR MAIN CONTROL BOARD, S. BOSTON T.P.S.S.



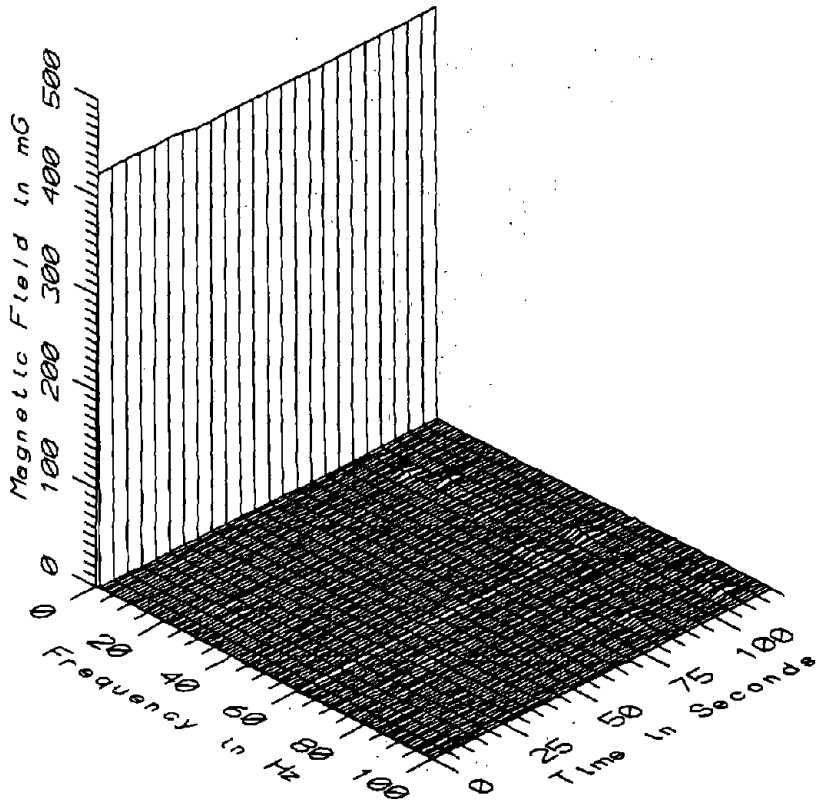
BOS006 - 60cm ABOVE GROUND NEAR MAIN CONTROL BOARD, S. BOSTON T.P.S.S.



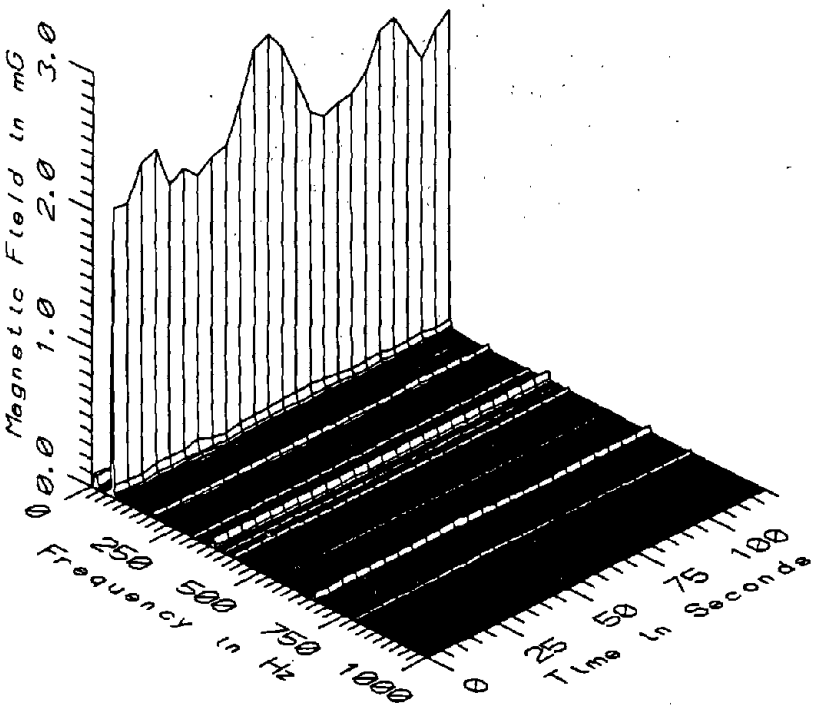
BOS006 - 110cm ABOVE GROUND NEAR MAIN CONTROL BOARD, S. BOSTON T.P.S.S.



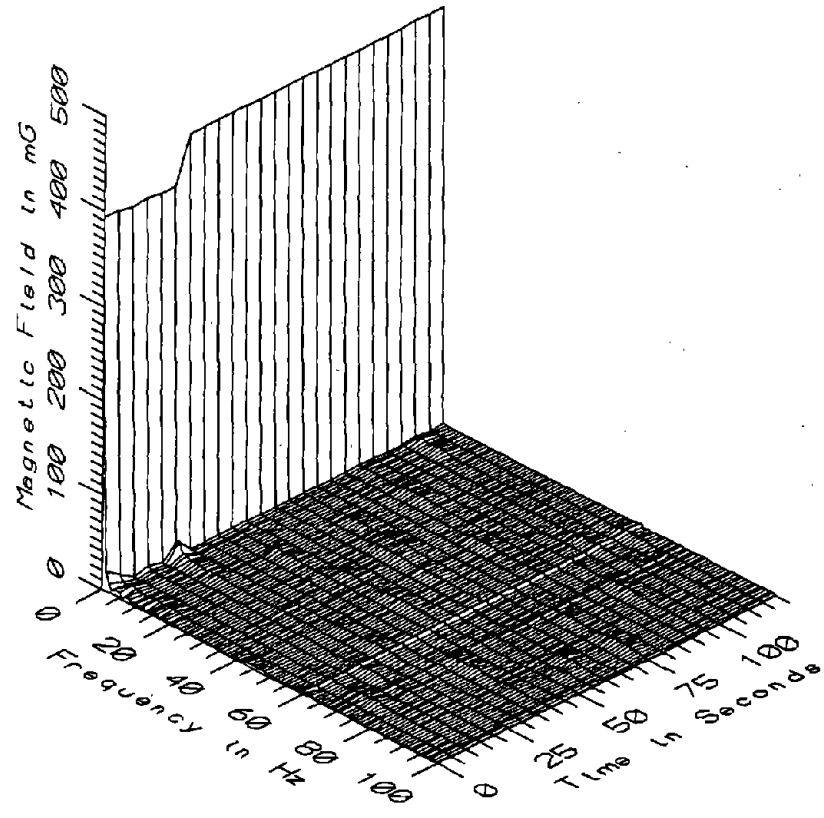
BOS006 - 110cm ABOVE GROUND NEAR MAIN CONTROL BOARD, S. BOSTON T.P.S.S.



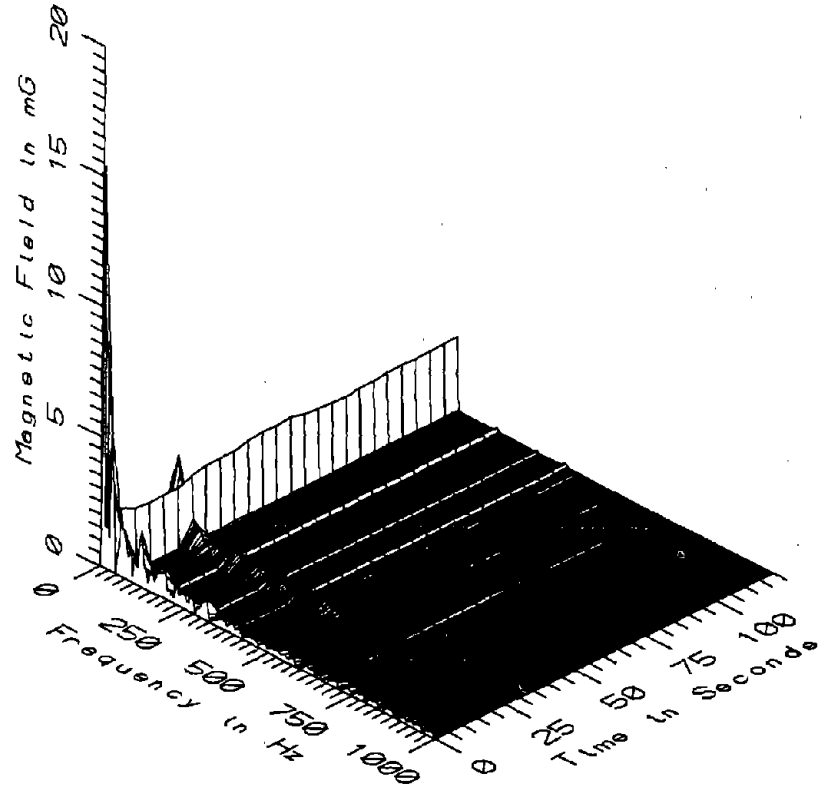
BOS006 - 160cm ABOVE GROUND NEAR MAIN CONTROL BOARD, S. BOSTON T.P.S.S.



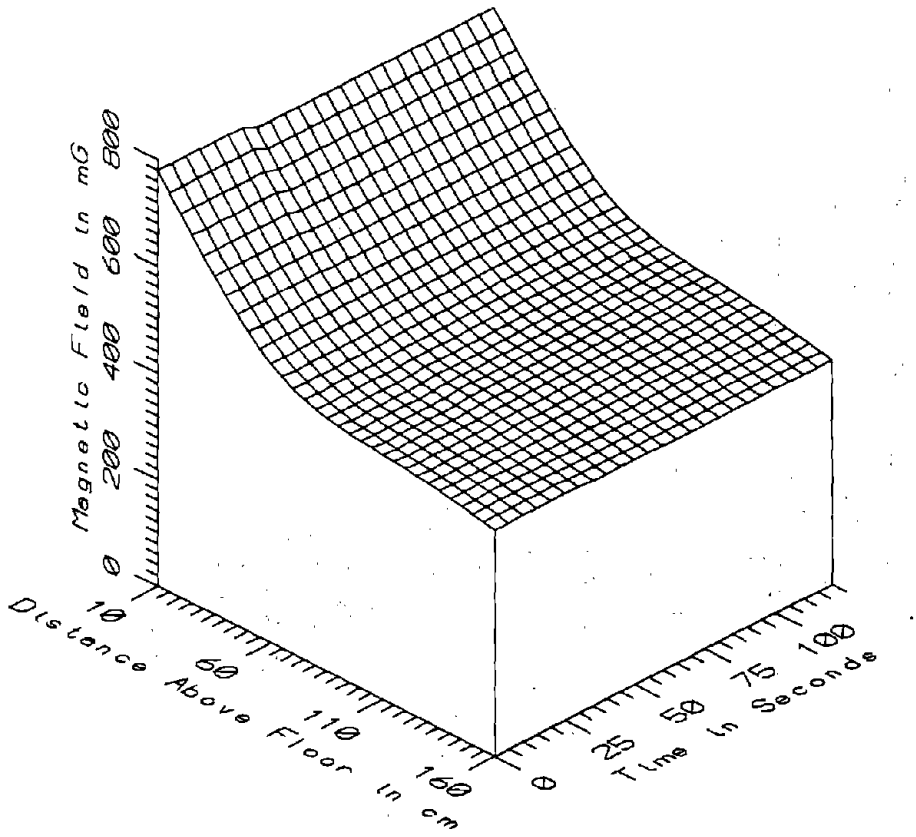
BOS006 - 160cm ABOVE GROUND NEAR MAIN CONTROL BOARD, S. BOSTON T.P.S.S.



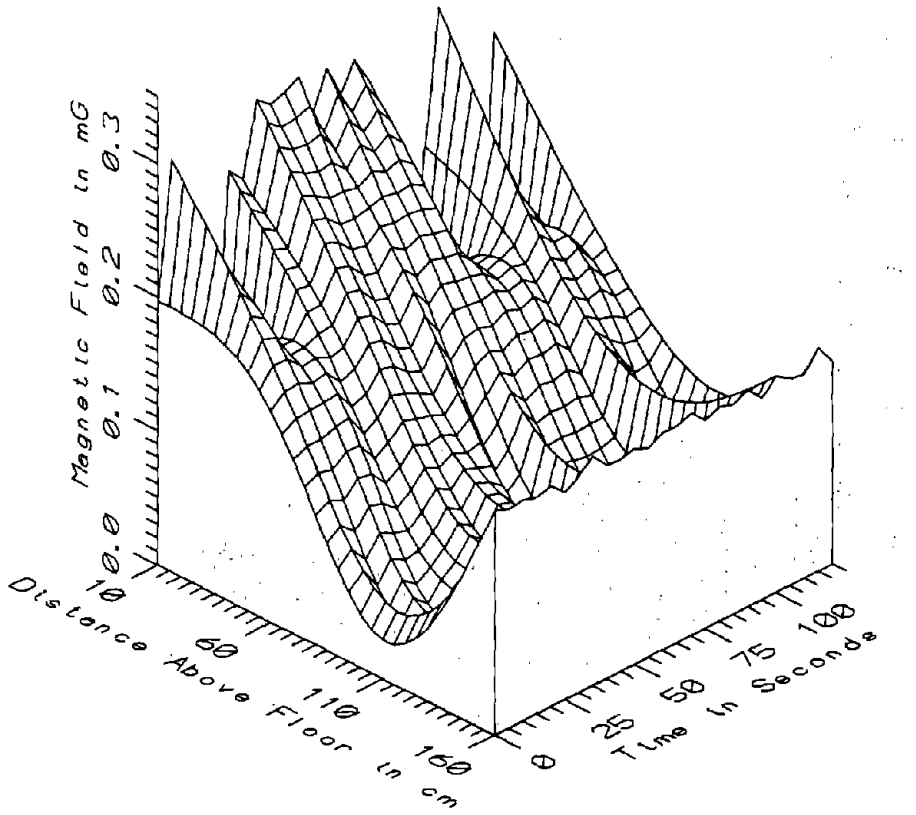
BOS006 - REFERENCE PROBE - NEAR MAIN CONTROL BOARD, S. BOSTON T.P.S.S.



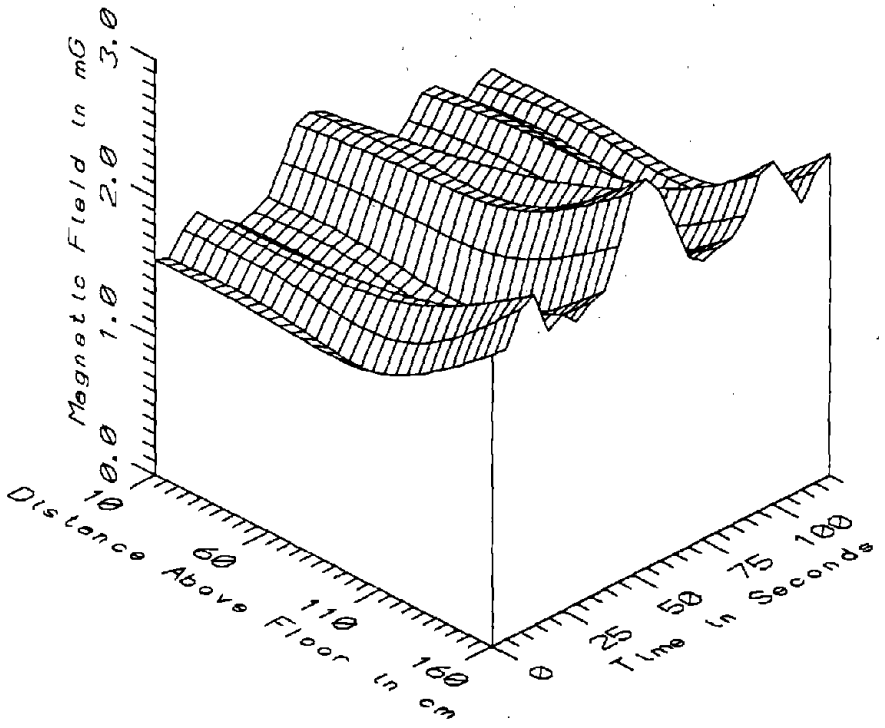
BOS006 - REFERENCE PROBE - NEAR MAIN CONTROL BOARD. S. BOSTON T.P.S.S.



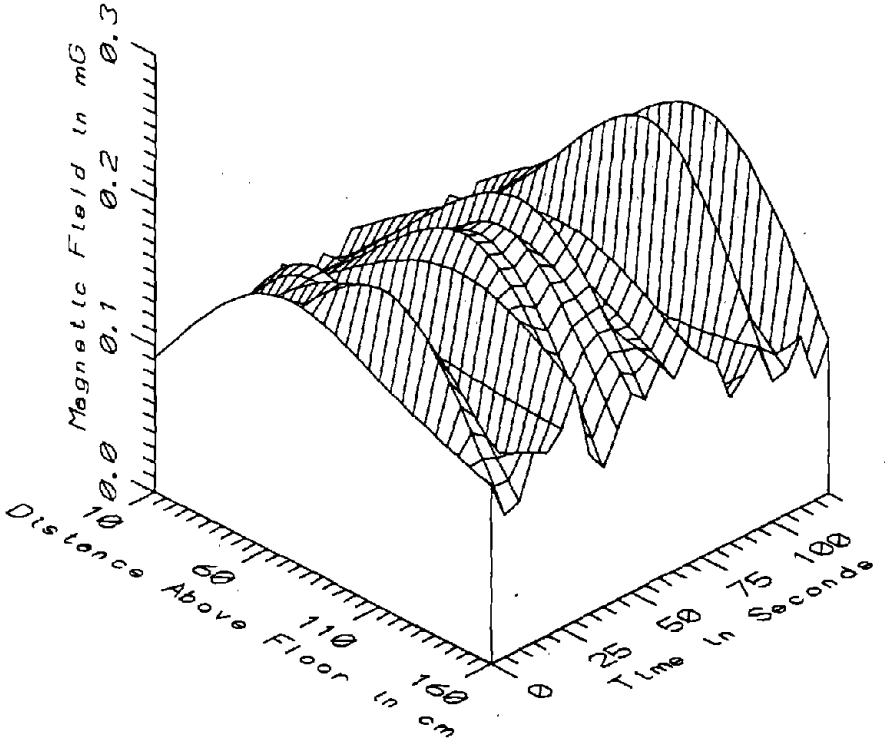
BOS006 - NEAR MAIN CONTROL BOARD, S. BOSTON T.P.S.S. - STATIC



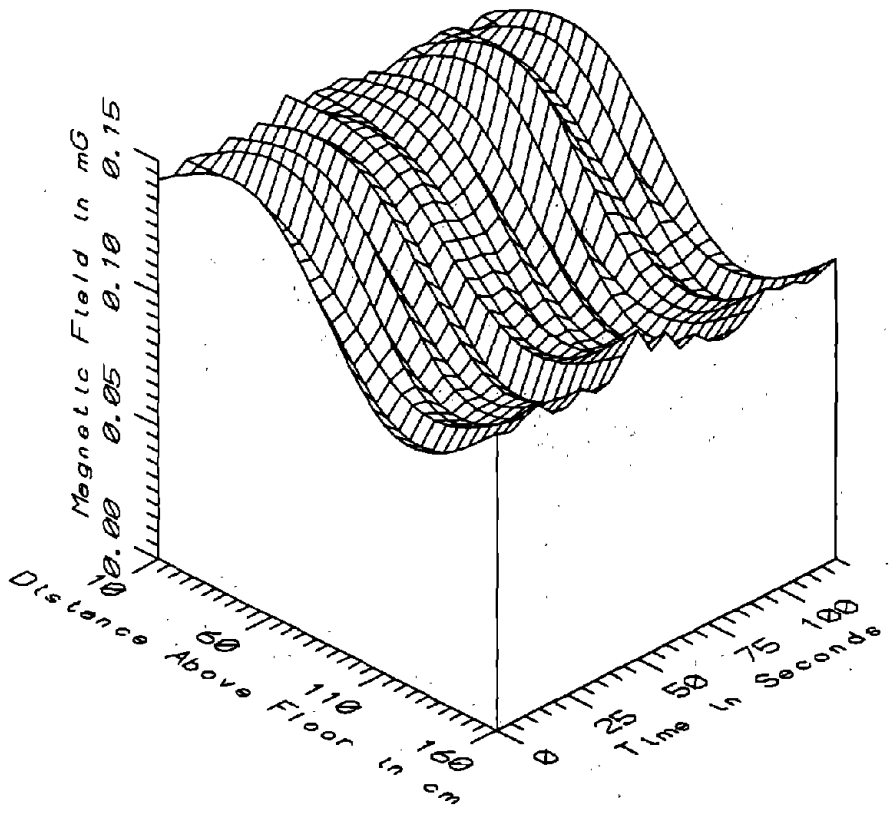
BOS006 - NEAR MAIN CONTROL BOARD, S. BOSTON T.P.S.S. - LOW FREQ, 5-45Hz



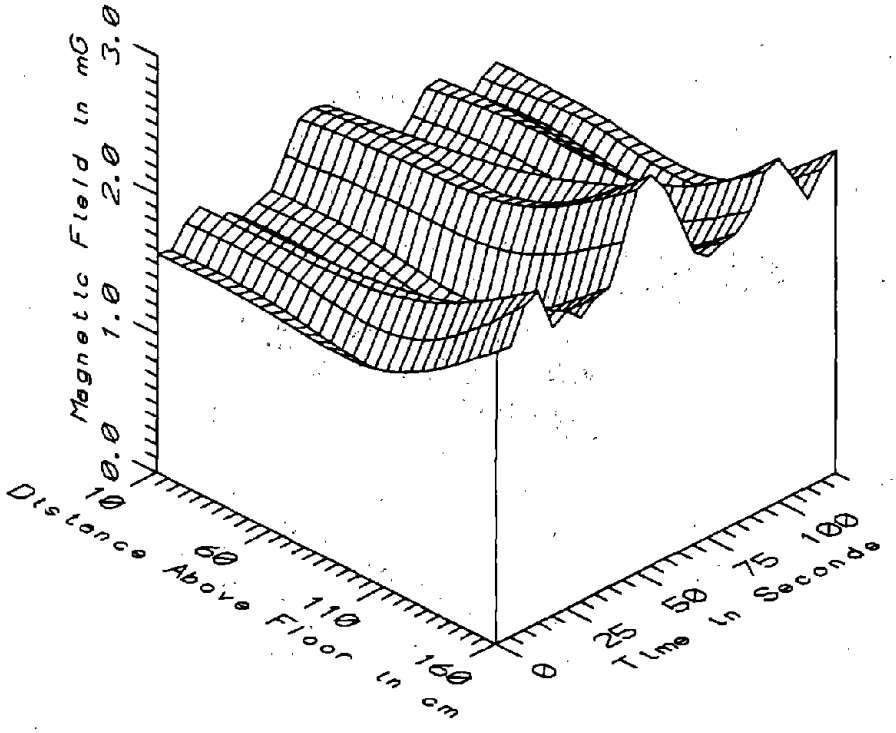
BOS006 - NEAR MAIN CONTROL BOARD, S. BOSTON T.P.S.S. - POWER FREQ, 50-60Hz



BOS006 - NEAR MAIN CONTROL BOARD, S. BOSTON T.P.S.S.-POWER HARM, 65-300Hz

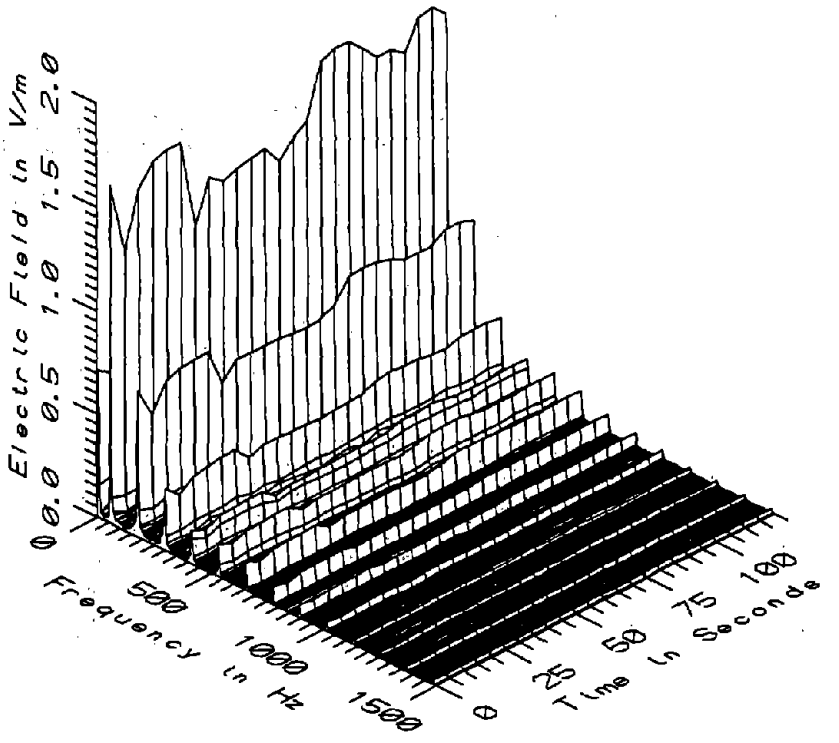


BOS006 - NEAR MAIN CONTROL BOARD, S. BOSTON T.P.S.S.-HIGH FREQ, 305-2560Hz



BOS006 - NEAR MAIN CONTROL BOARD, S. BOSTON T.P.S.S. - ALL FREQ, 5-2560Hz

BOS006 - NEAR MAIN CONTROL BOARD, SOUTH BOSTON T.P.S.S. TOTAL OF 25 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	766.46	780.69	770.55	6.09	0.79
	60	523.46	524.71	524.11	0.32	0.06
	110	457.63	462.05	460.45	1.07	0.23
	160	420.76	424.59	422.29	1.13	0.27
5-45Hz LOW FREQ	10	0.09	0.31	0.23	0.08	33.80
	60	0.15	0.17	0.16	0.01	3.98
	110	0.02	0.10	0.05	0.02	42.91
	160	0.15	0.17	0.16	0.01	3.26
50-60Hz PWR FREQ	10	1.50	2.04	1.68	0.16	9.57
	60	1.48	2.13	1.71	0.19	11.00
	110	1.44	2.32	1.76	0.23	13.26
	160	2.00	2.80	2.26	0.23	10.03
65-300Hz PWR HARM	10	0.08	0.11	0.09	0.01	11.00
	60	0.12	0.18	0.15	0.02	11.70
	110	0.06	0.23	0.16	0.05	34.12
	160	0.08	0.16	0.12	0.02	16.43
305-2560Hz HIGH FREQ	10	0.14	0.15	0.14	0.00	1.78
	60	0.13	0.15	0.14	0.01	5.09
	110	0.09	0.10	0.09	0.00	3.87
	160	0.10	0.12	0.11	0.00	3.70
5-2560Hz ALL FREQ	10	1.53	2.07	1.70	0.16	9.52
	60	1.51	2.15	1.73	0.19	10.74
	110	1.46	2.33	1.77	0.23	13.13
	160	2.02	2.81	2.27	0.23	9.94



BOS006 - ELECTRIC FIELD NEAR MAIN CONTROL BOARD, S. BOSTON T.P.S.S.

APPENDIX H

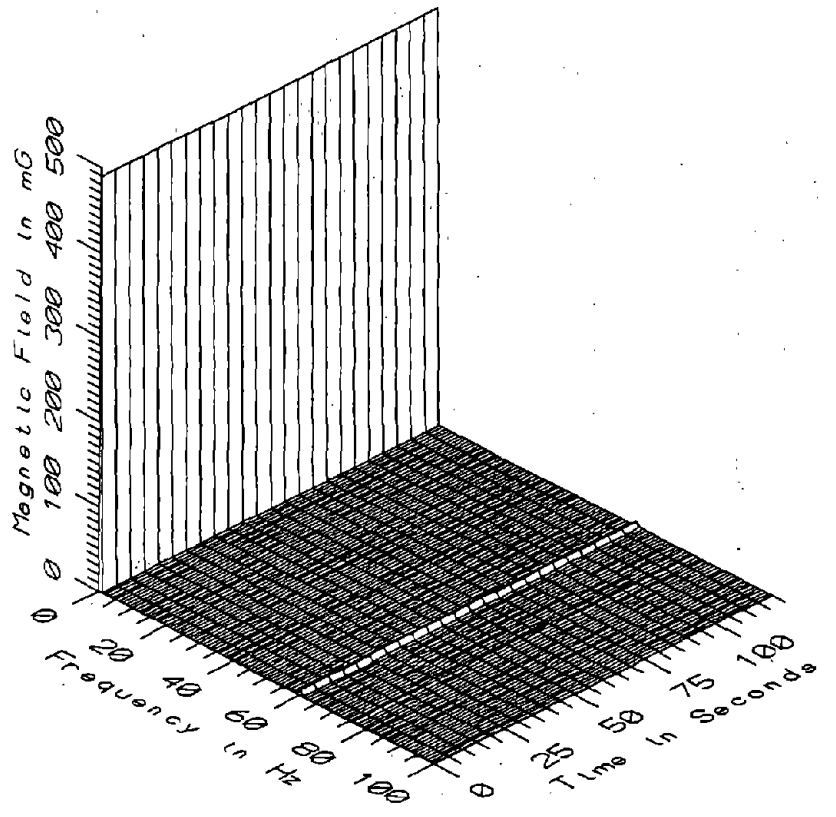
DATASET BOS007
IN BUS ROOM B, SOUTH BOSTON TRACTION POWER SUPPLY STATION

Measurement Setup Code:	Staff: 52 Reference: 53 Drawing: A-8
Vehicle Status:	NA
Measurement Date:	June 9, 1992
Measurement Time:	Start: 11:35:20 End: 11:37:20
Number of Samples:	25
Programmed Sample Interval:	5 sec
Actual Sample Interval:	5.0 sec

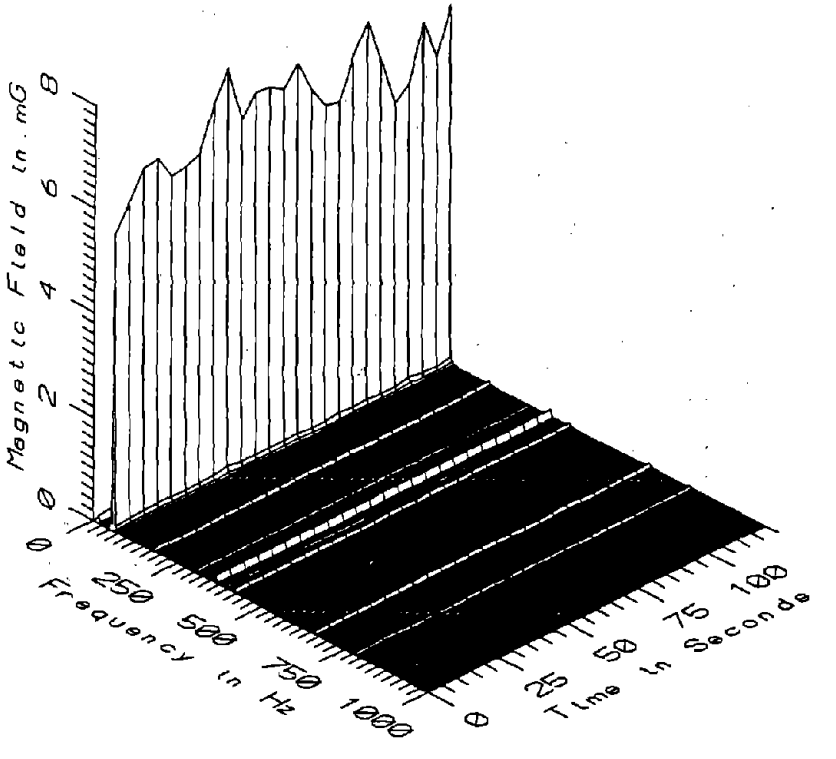
Frequency Spectrum Parameters

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

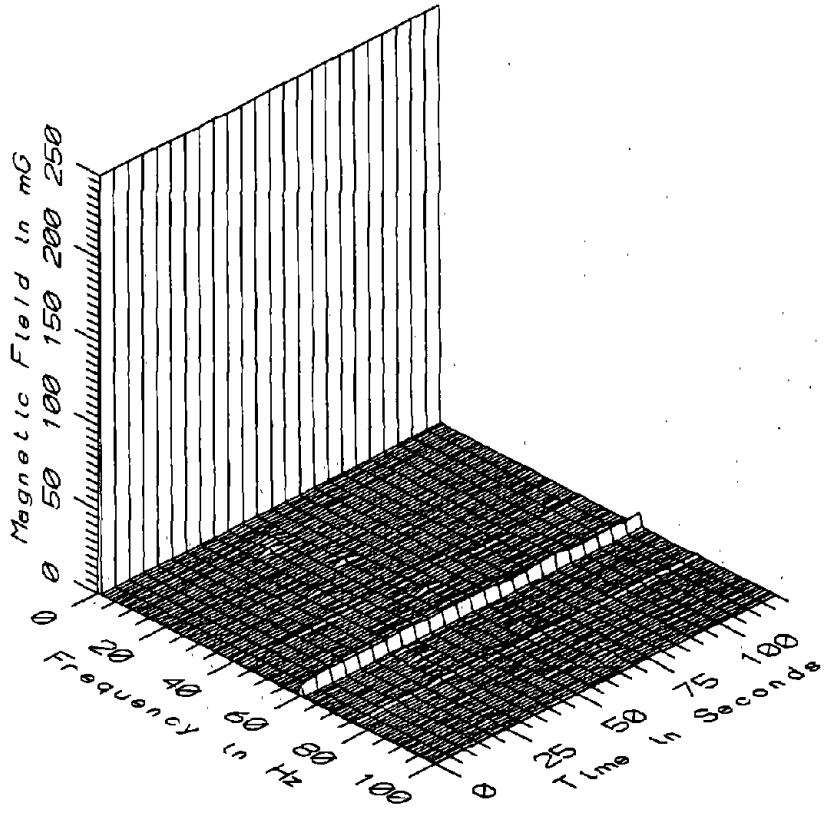
Missing Data: None



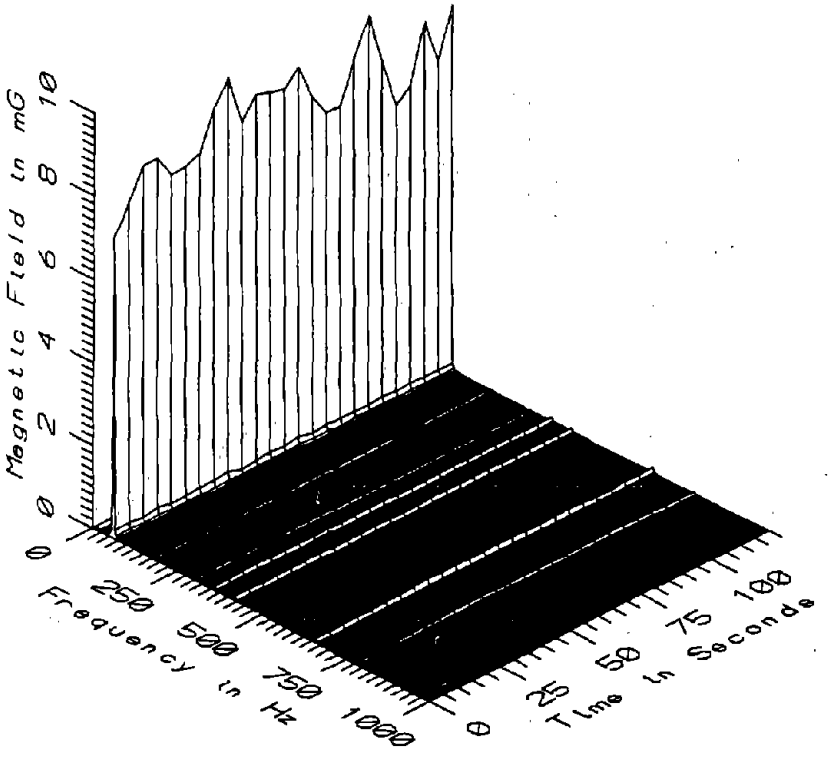
BOS007 - 10cm ABOVE GROUND IN BUS ROOM B, S. BOSTON T.P.S.S.



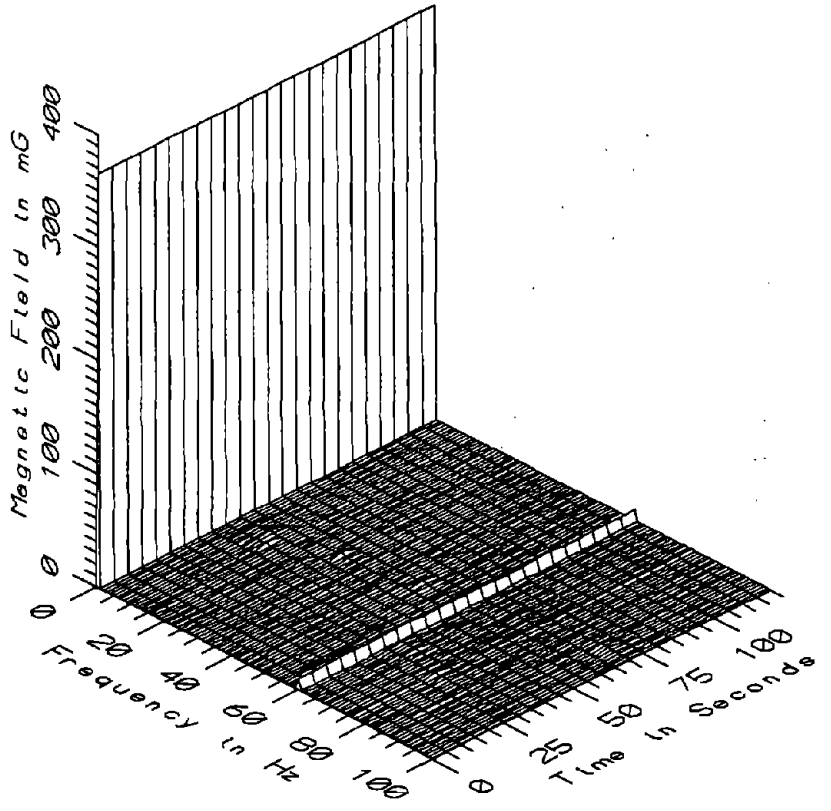
BOS007 - 10cm ABOVE GROUND IN BUS ROOM B, S. BOSTON T.P.S.S.



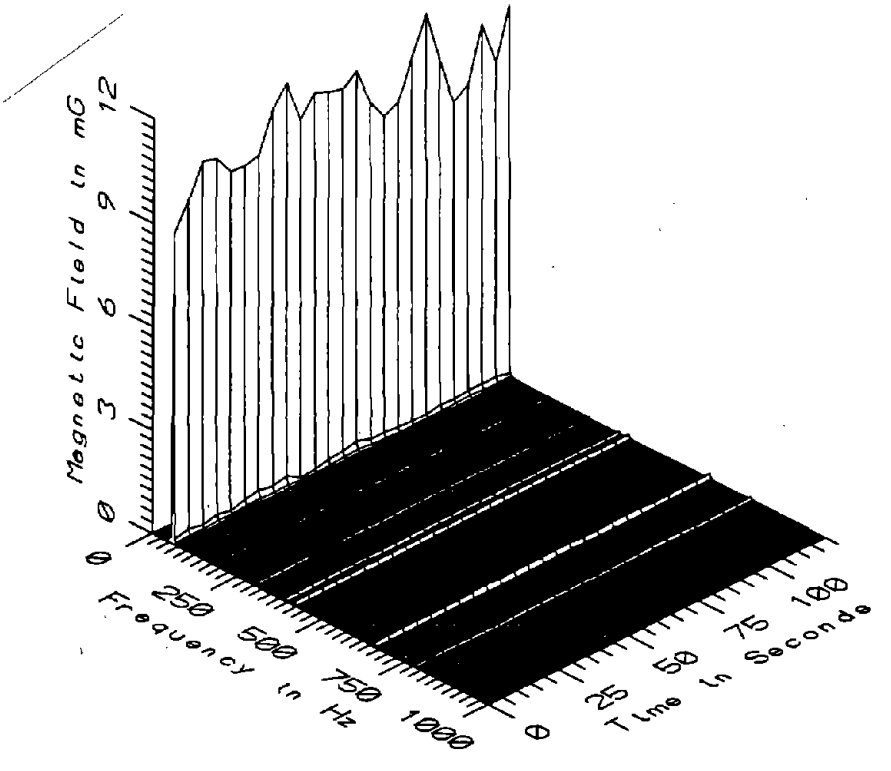
BOS007 - 60cm ABOVE GROUND IN BUS ROOM B, S. BOSTON T.P.S.S.



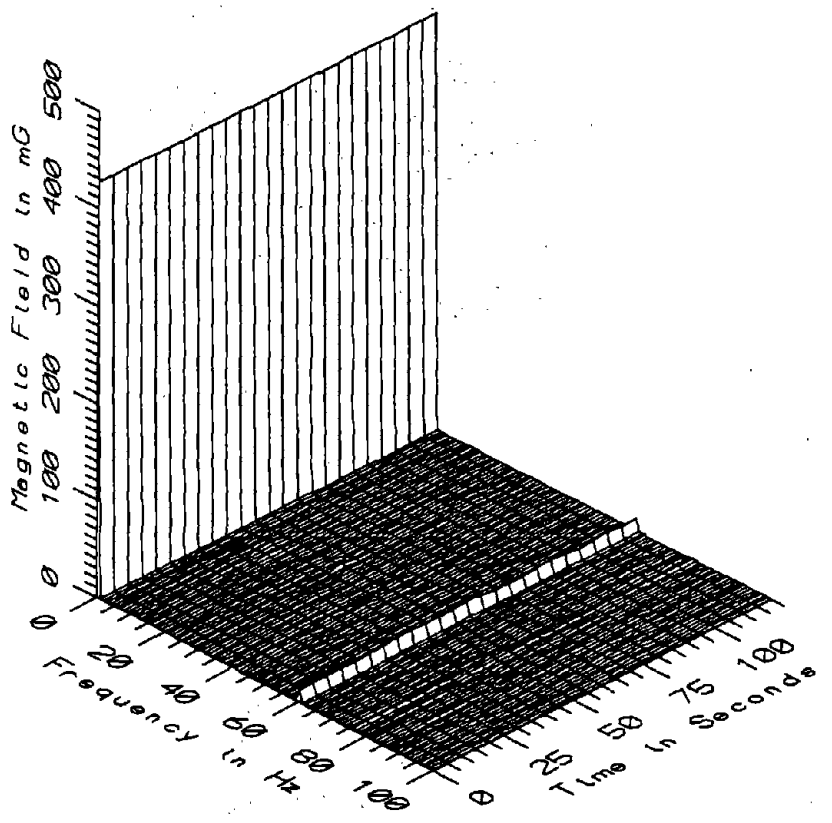
BOS007 - 60cm ABOVE GROUND IN BUS ROOM B, S. BOSTON T.P.S.S.



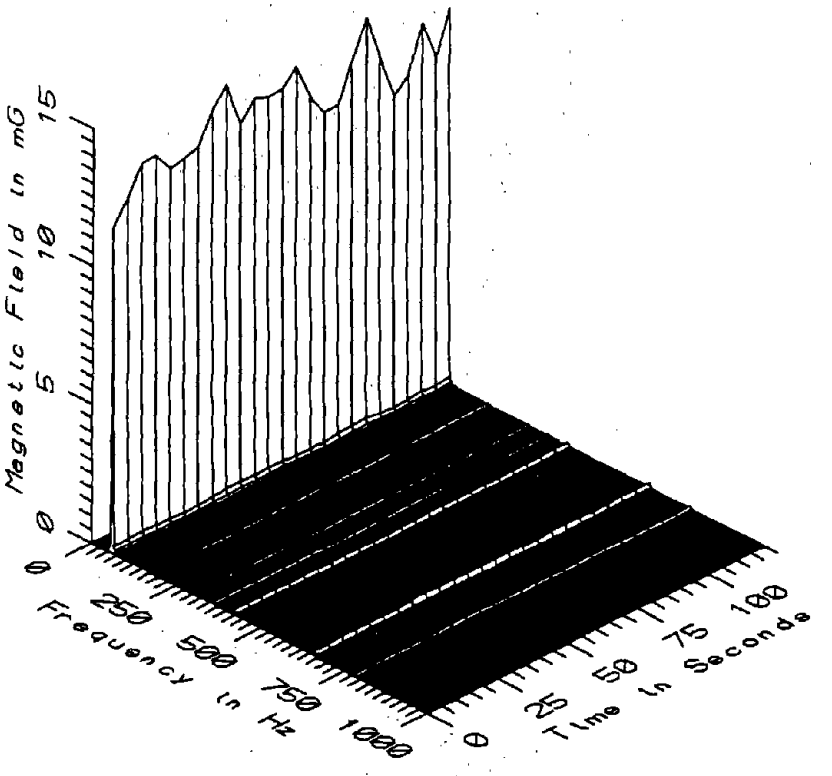
BOS007 - 110cm ABOVE GROUND IN BUS ROOM B, S. BOSTON T.P.S.S.



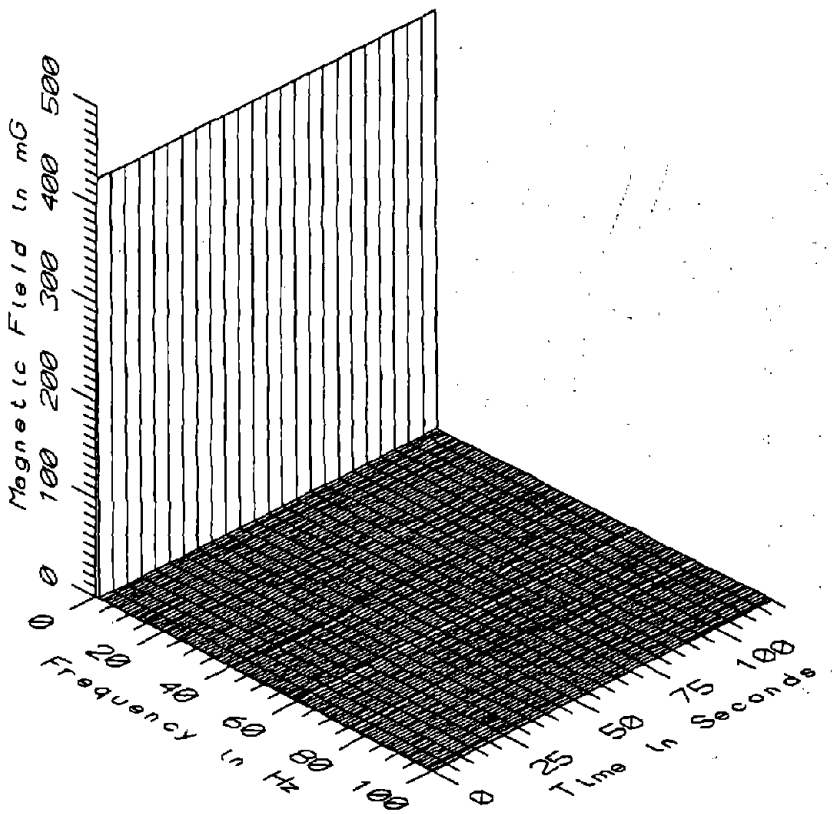
BOS007 - 110cm ABOVE GROUND IN BUS ROOM B, S. BOSTON T.P.S.S.



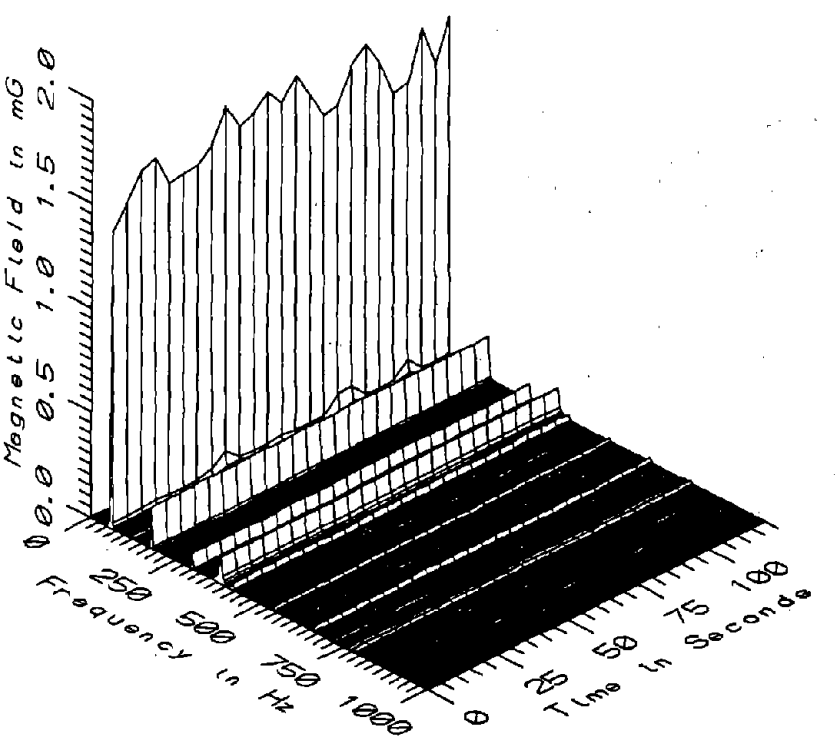
BOS007 - 160cm ABOVE GROUND IN BUS ROOM B, S. BOSTON T.P.S.S.



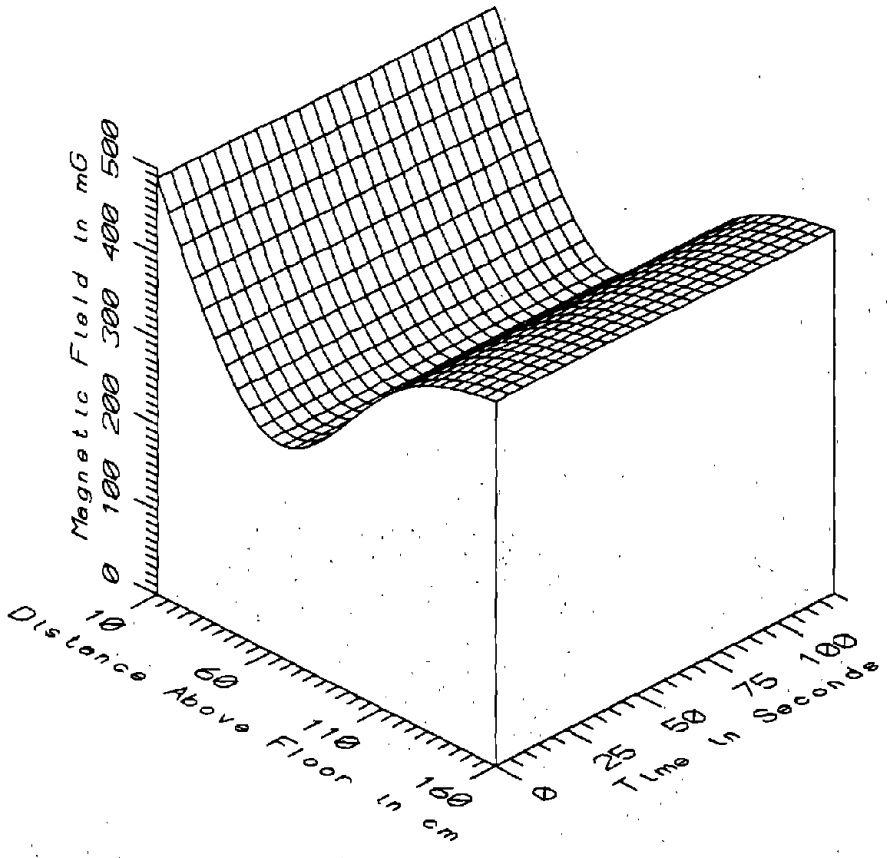
BOS007 - 160cm ABOVE GROUND IN BUS ROOM B, S. BOSTON T.P.S.S.



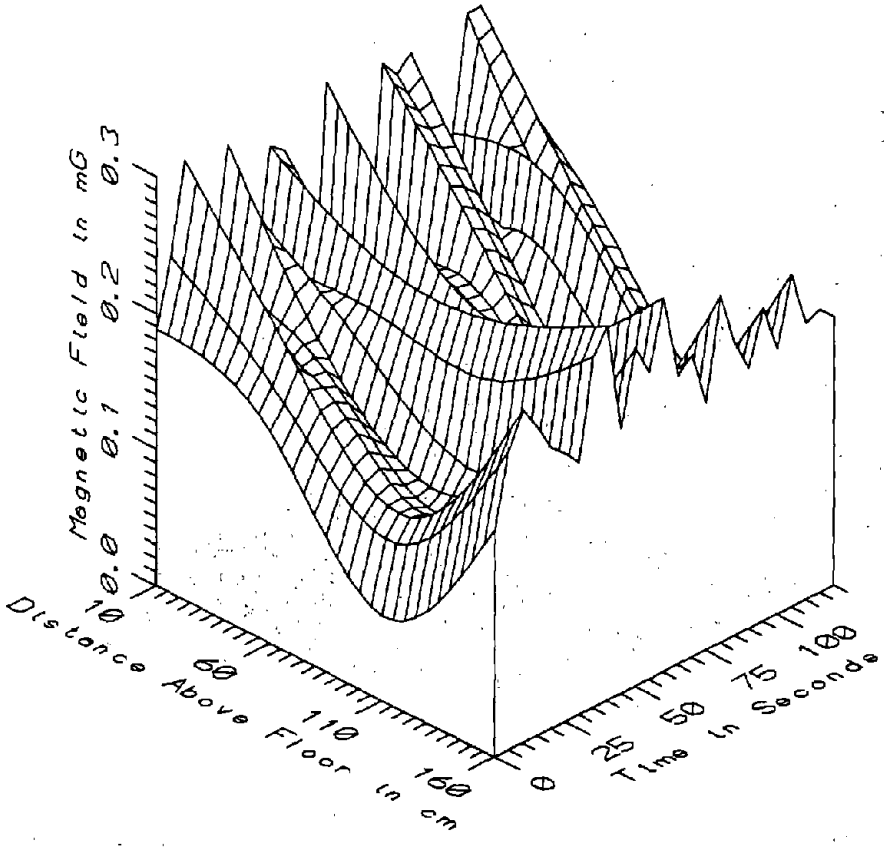
BOS007 - REFERENCE PROBE - ON CHAIR IN BUS ROOM B, S. BOSTON T.P.S.S.



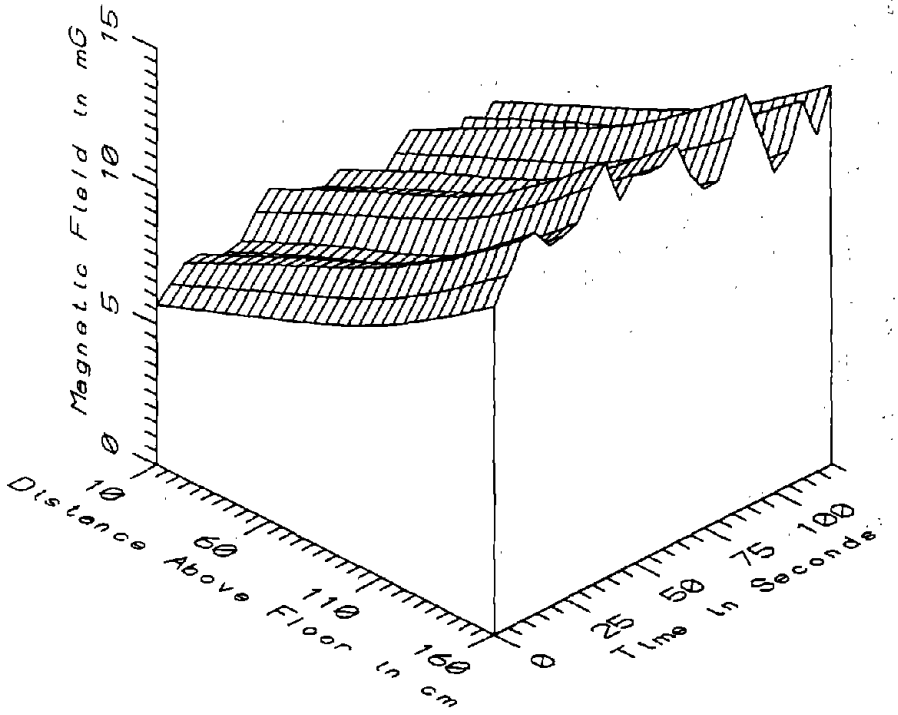
BOS007 - REFERENCE PROBE - ON CHAIR IN BUS ROOM B, S. BOSTON T.P.S.S.



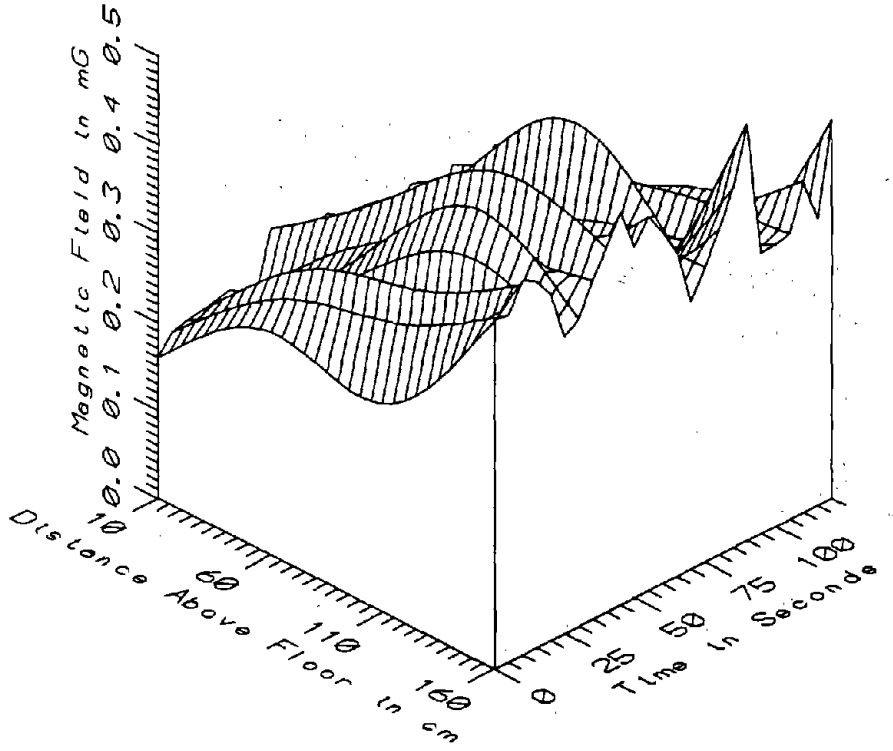
BOS007 - IN BUS ROOM B, S. BOSTON T.P.S.S. - STATIC



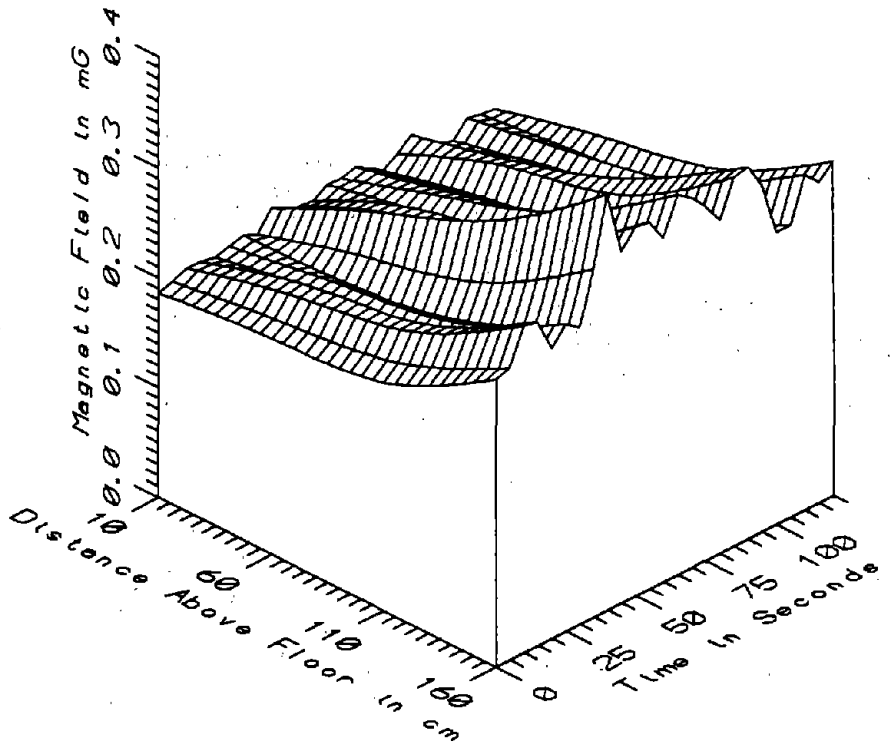
BOS007 - IN BUS ROOM B, S. BOSTON T.P.S.S. - LOW FREQ, 5-45Hz



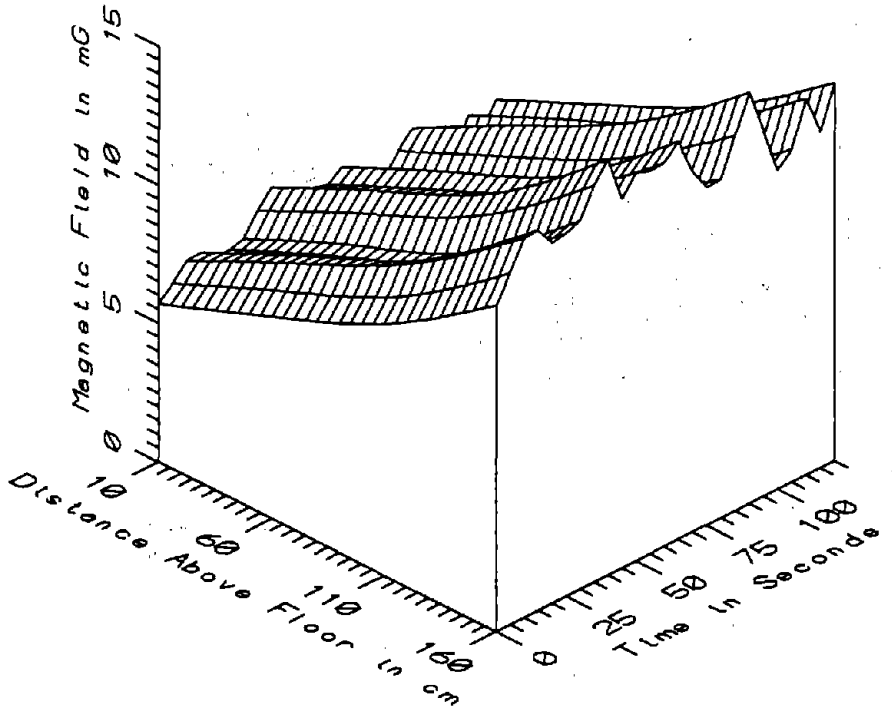
BOS007 - IN BUS ROOM B, S. BOSTON T.P.S.S. - POWER FREQ, 50-60Hz



BOS007 - IN BUS ROOM B, S. BOSTON T.P.S.S. - POWER HARM, 65-300Hz

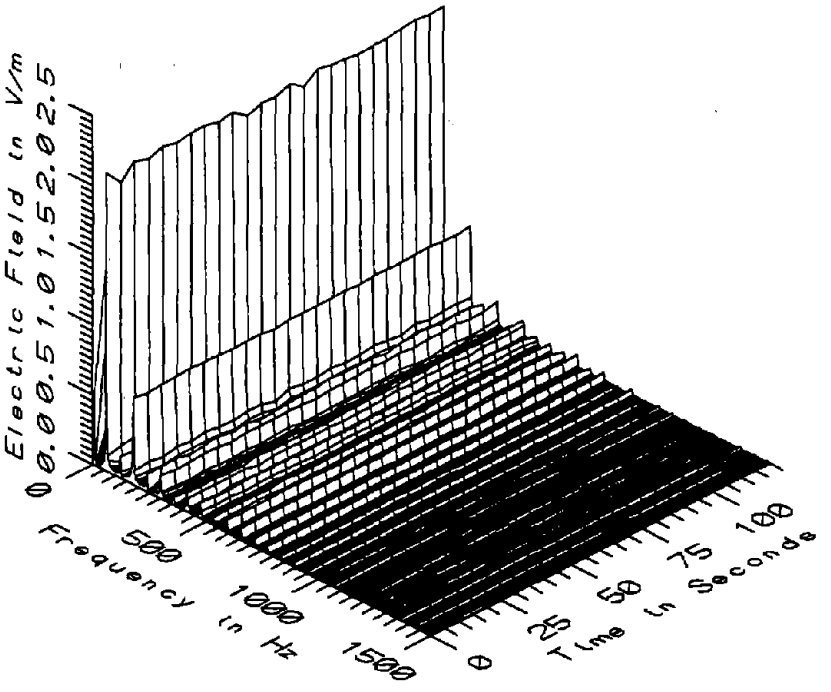


BOS007 - IN BUS ROOM B, S. BOSTON T.P.S.S. - HIGH FREQ, 305-2560Hz



BOS007 - IN BUS ROOM B, S. BOSTON T.P.S.S. - ALL FREQ, 5-2560Hz

BOS007 - IN BUS ROOM B, SOUTH BOSTON T.P.S.S.					TOTAL OF 25 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	487.76	489.66	488.71	0.47	0.10
	60	249.39	250.35	249.93	0.23	0.09
	110	365.12	366.41	365.80	0.41	0.11
	160	426.21	427.44	426.89	0.32	0.07
5-45Hz	10	0.11	0.31	0.23	0.06	27.57
LOW FREQ	60	0.16	0.24	0.18	0.02	10.08
	110	0.06	0.24	0.12	0.04	32.37
	160	0.17	0.27	0.22	0.03	13.27
50-60Hz	10	5.55	7.85	6.62	0.56	8.49
PWR FREQ	60	7.05	9.76	8.40	0.70	8.29
	110	8.73	11.72	10.27	0.81	7.88
	160	11.49	14.93	13.23	0.92	6.94
65-300Hz	10	0.16	0.24	0.19	0.02	10.91
PWR HARM	60	0.22	0.34	0.27	0.03	11.06
	110	0.19	0.45	0.30	0.07	23.71
	160	0.30	0.47	0.38	0.04	11.77
305-2560Hz	10	0.19	0.21	0.20	0.01	3.55
HIGH FREQ	60	0.20	0.26	0.22	0.02	6.84
	110	0.21	0.30	0.25	0.02	9.38
	160	0.26	0.38	0.31	0.03	10.08
5-2560Hz	10	5.56	7.86	6.63	0.56	8.48
ALL FREQ	60	7.06	9.77	8.41	0.70	8.29
	110	8.74	11.74	10.28	0.81	7.88
	160	11.50	14.95	13.24	0.92	6.94



BOS007 - ELECTRIC FIELD IN BUS ROOM B, S. BOSTON T.P.S.S.

APPENDIX I

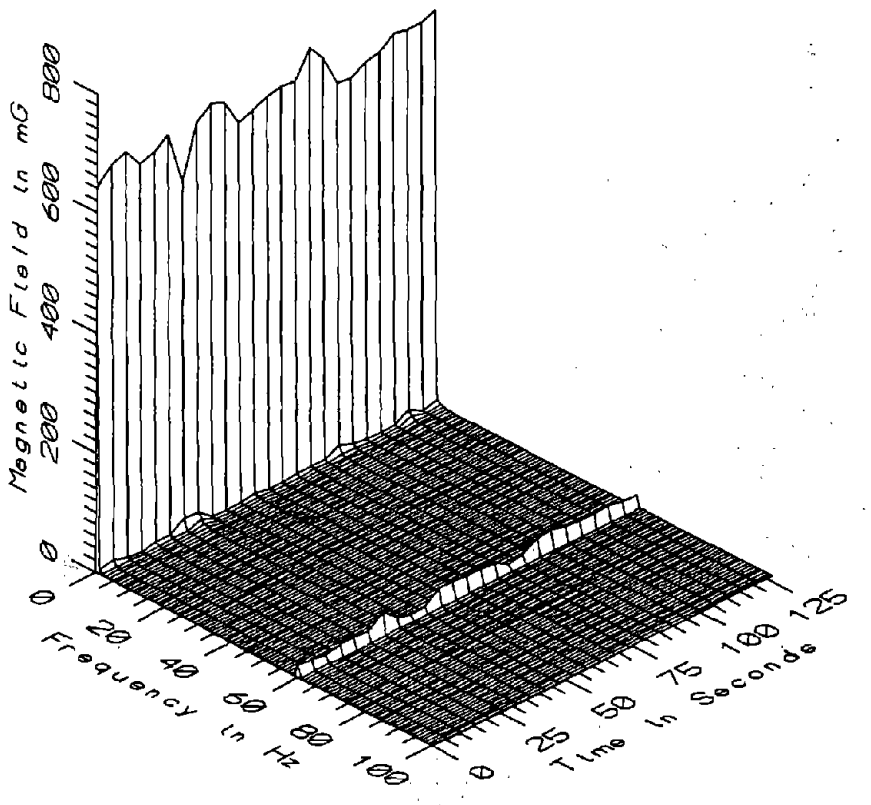
DATASET BOS008
NEAR RECTIFIER IN BENNETT STREET
TRACTION POWER SUPPLY STATION

Measurement Setup Code:	Staff: 54 Reference: 56 Drawing: A-9
Vehicle Status:	NA
Measurement Date:	June 9, 1992
Measurement Time:	Start: 13:32:28 End: 13:34:35
Number of Samples:	25
Programmed Sample Interval:	5 sec
Actual Sample Interval:	5.3 sec

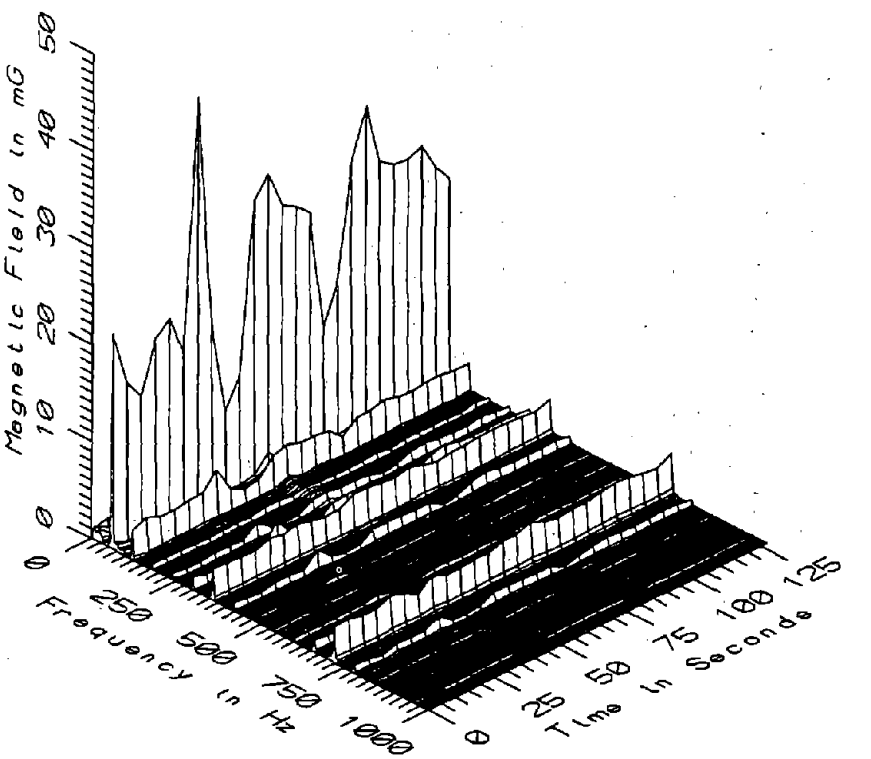
Frequency Spectrum Parameters

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

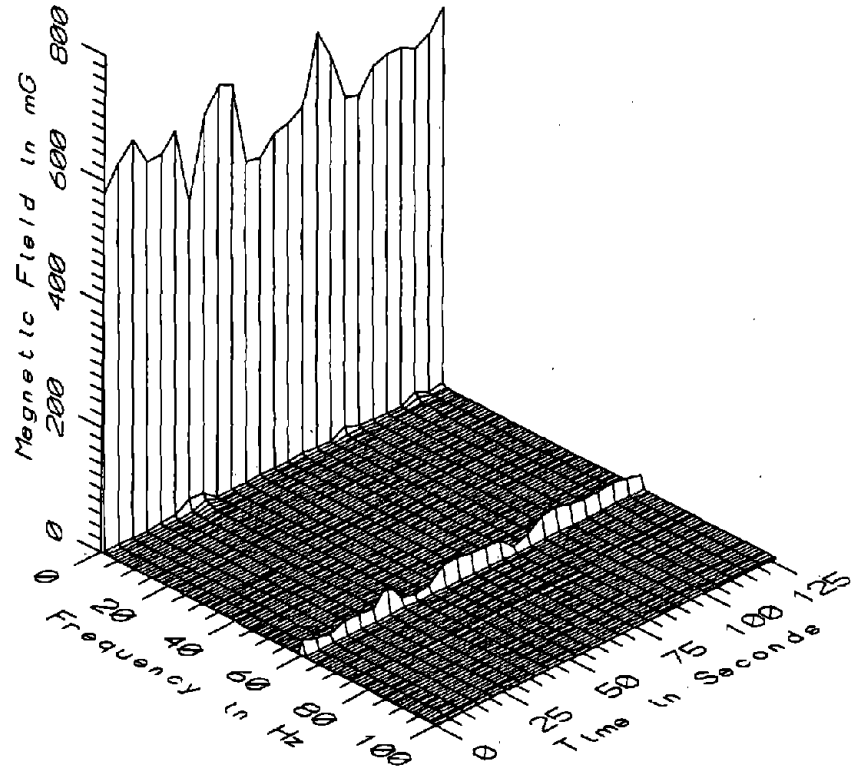
Missing Data: None



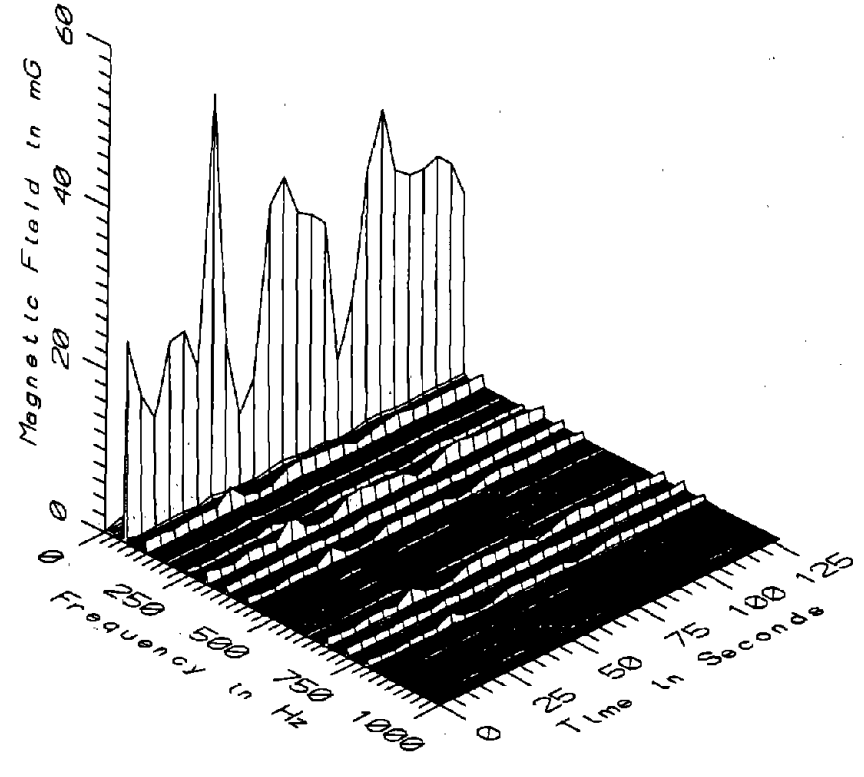
BOS008 - 10cm ABOVE GROUND NEAR RECTIFIER IN BENNETT ST. T.P.S.S.



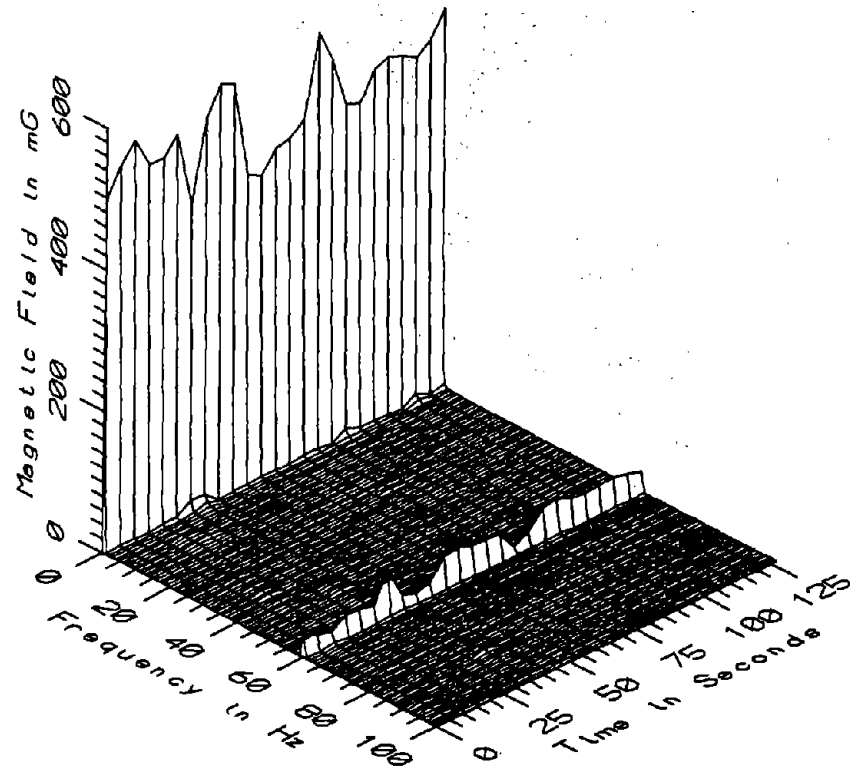
BOS008 - 10cm ABOVE GROUND NEAR RECTIFIER IN BENNETT ST. T.P.S.S.



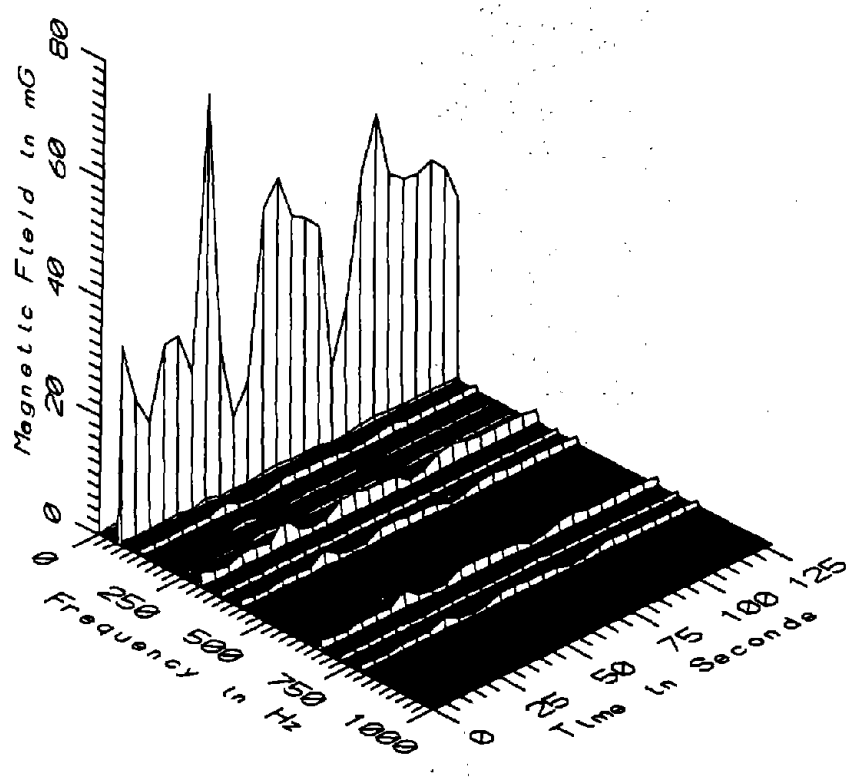
BOS008 - 60cm ABOVE GROUND NEAR RECTIFIER IN BENNETT ST. T.P.S.S.



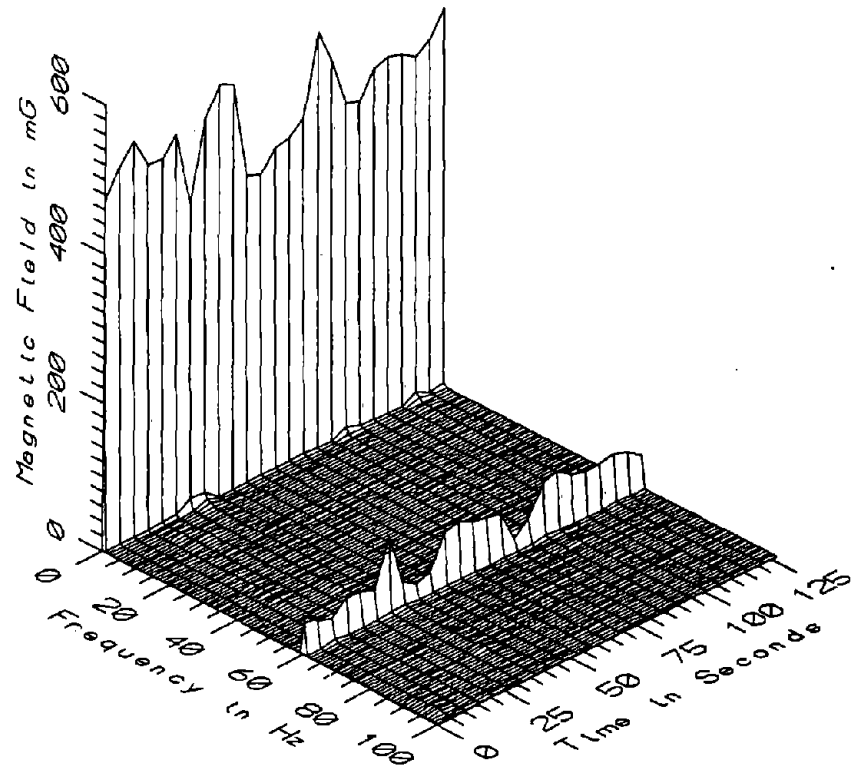
BOS008 - 60cm ABOVE GROUND NEAR RECTIFIER IN BENNETT ST. T.P.S.S.



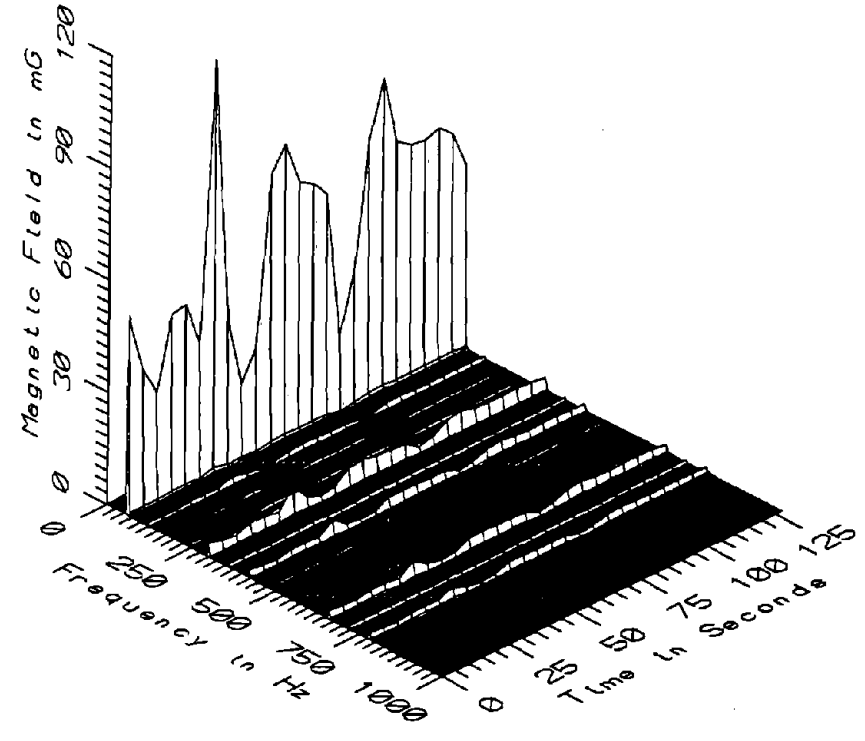
BOS008 - 110cm ABOVE GROUND NEAR RECTIFIER IN BENNETT ST. T.P.S.S.



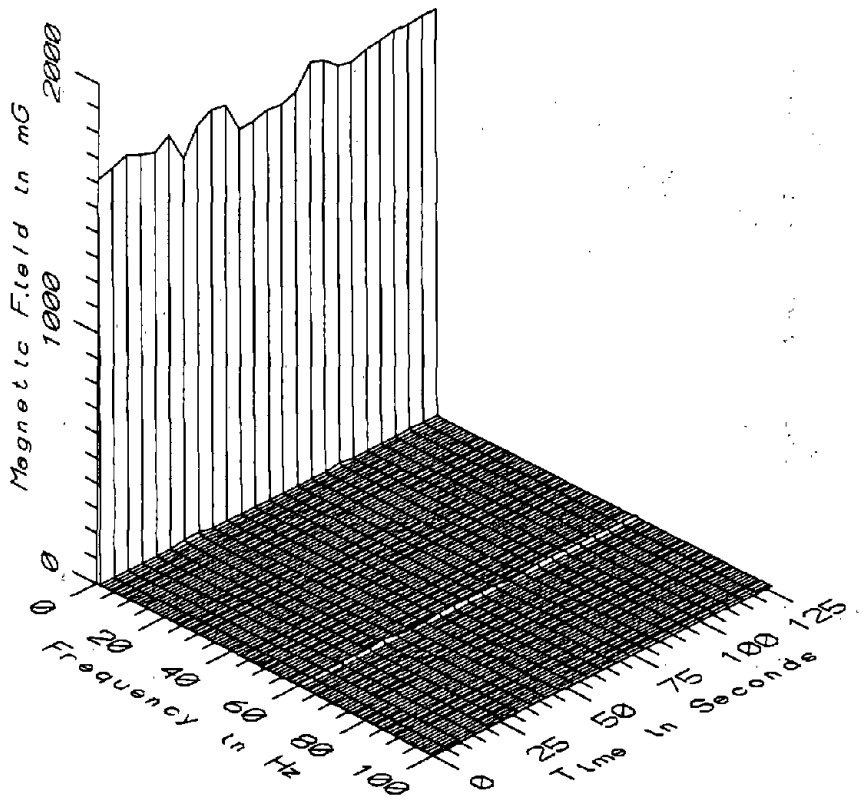
BOS008 - 110cm ABOVE GROUND NEAR RECTIFIER IN BENNETT ST. T.P.S.S.



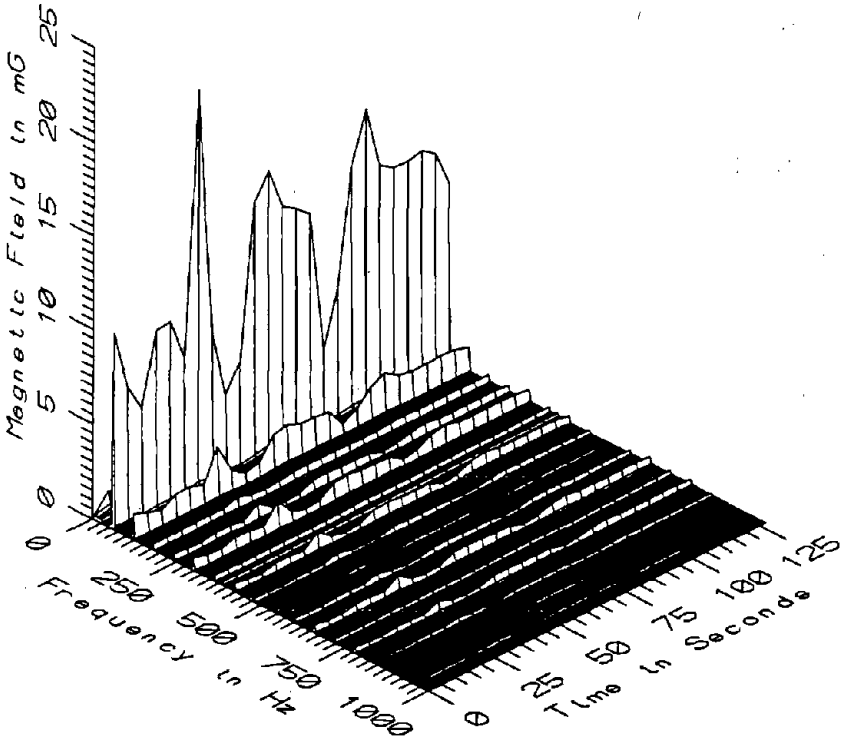
BOS008 - 160cm ABOVE GROUND NEAR RECTIFIER IN BENNETT ST. T.P.S.S.



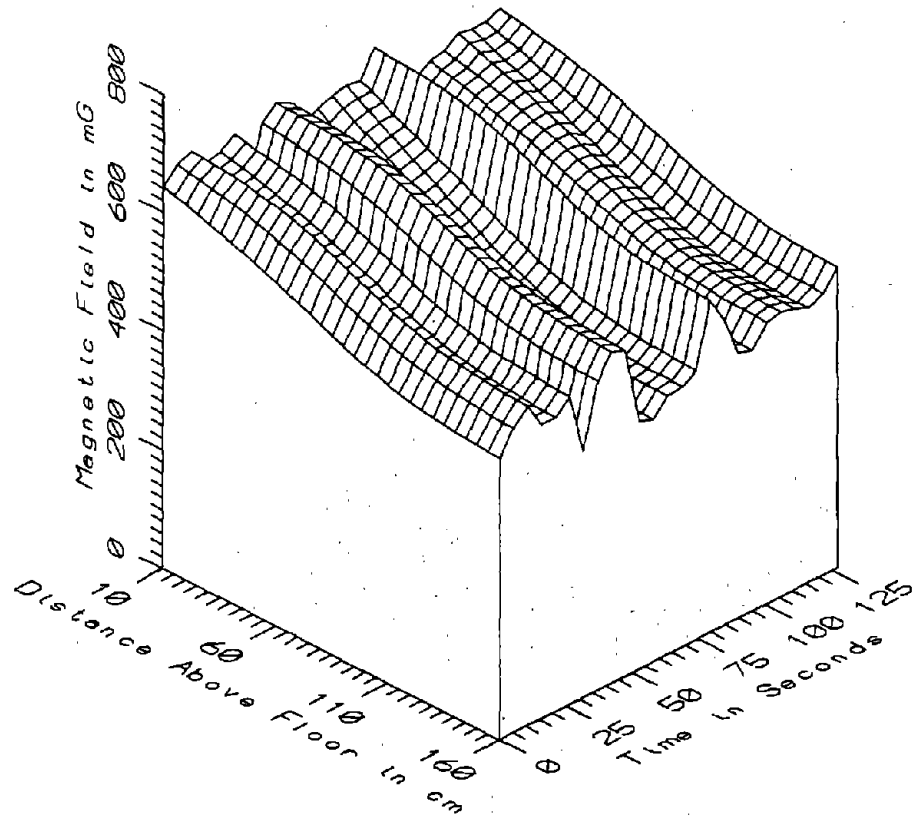
BOS008 - 160cm ABOVE GROUND NEAR RECTIFIER IN BENNETT ST. T.P.S.S.



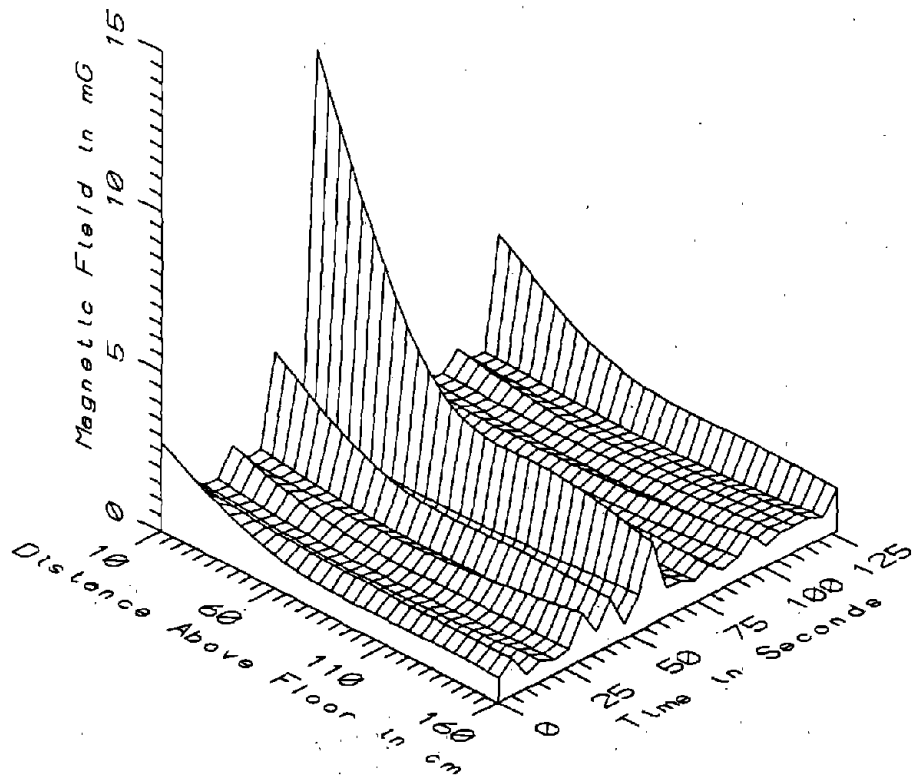
BOS008 - REFERENCE PROBE - NEAR RECTIFIER IN BENNETT ST. T.P.S.S.



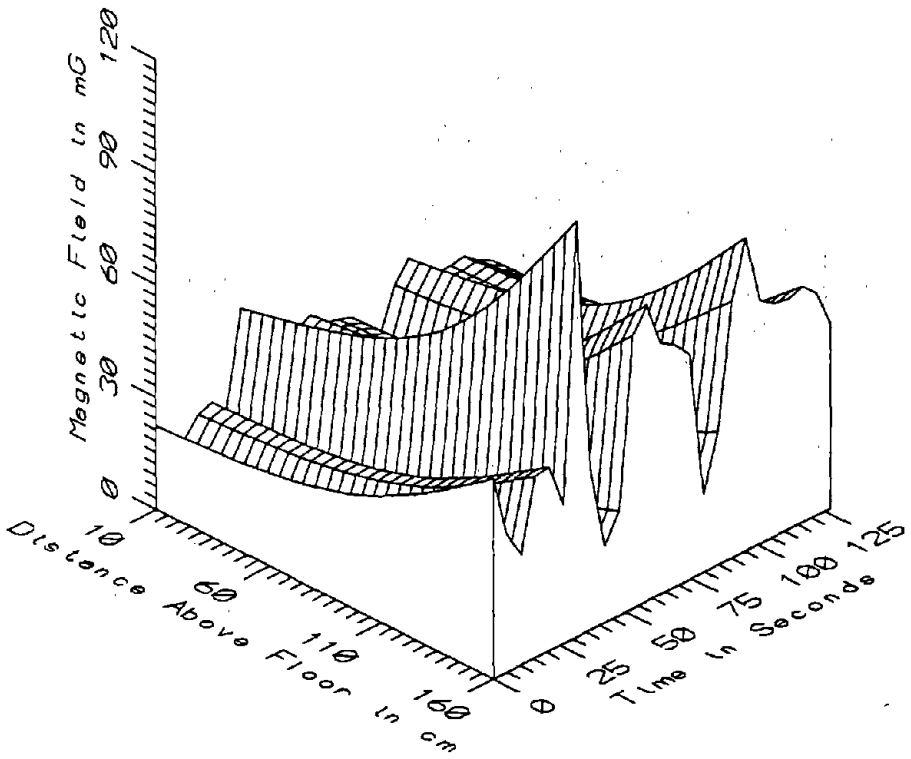
BOS008 - REFERENCE PROBE - NEAR RECTIFIER IN BENNETT ST. T.P.S.S.



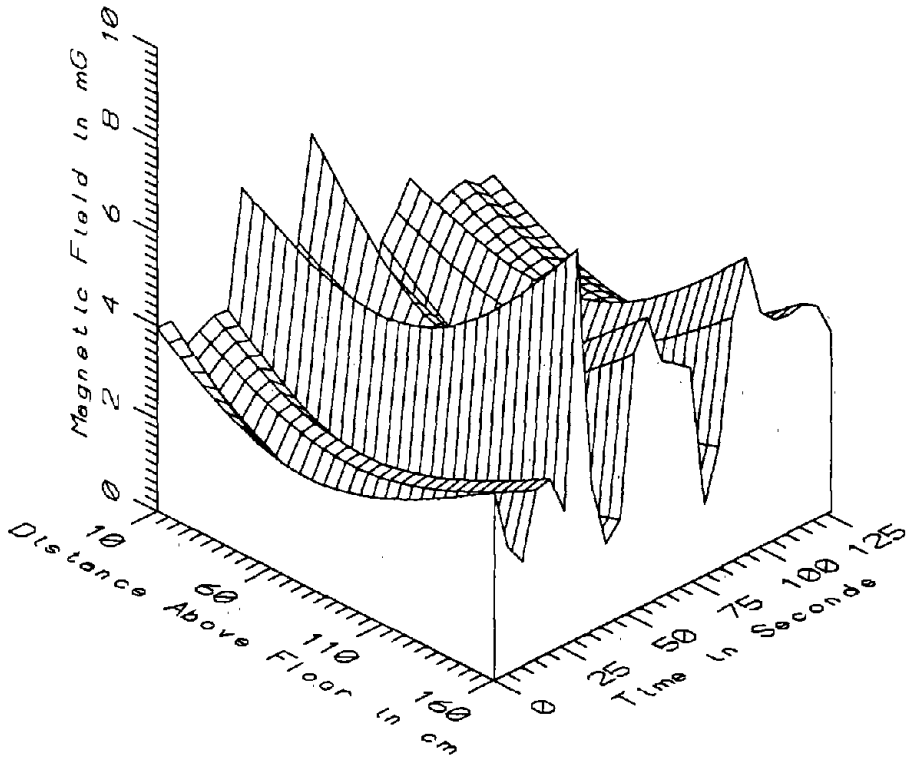
BOS008 - NEAR RECTIFIER IN BENNETT ST. T.P.S.S. - STATIC



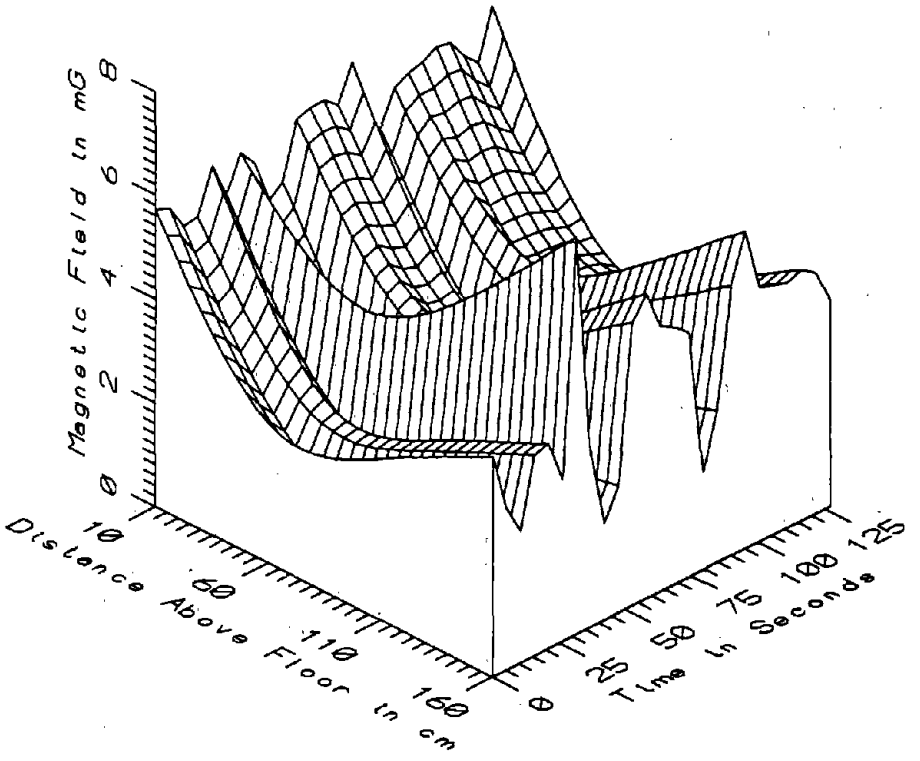
BOS008 - NEAR RECTIFIER IN BENNETT ST. T.P.S.S. - LOW FREQ. 5-45Hz



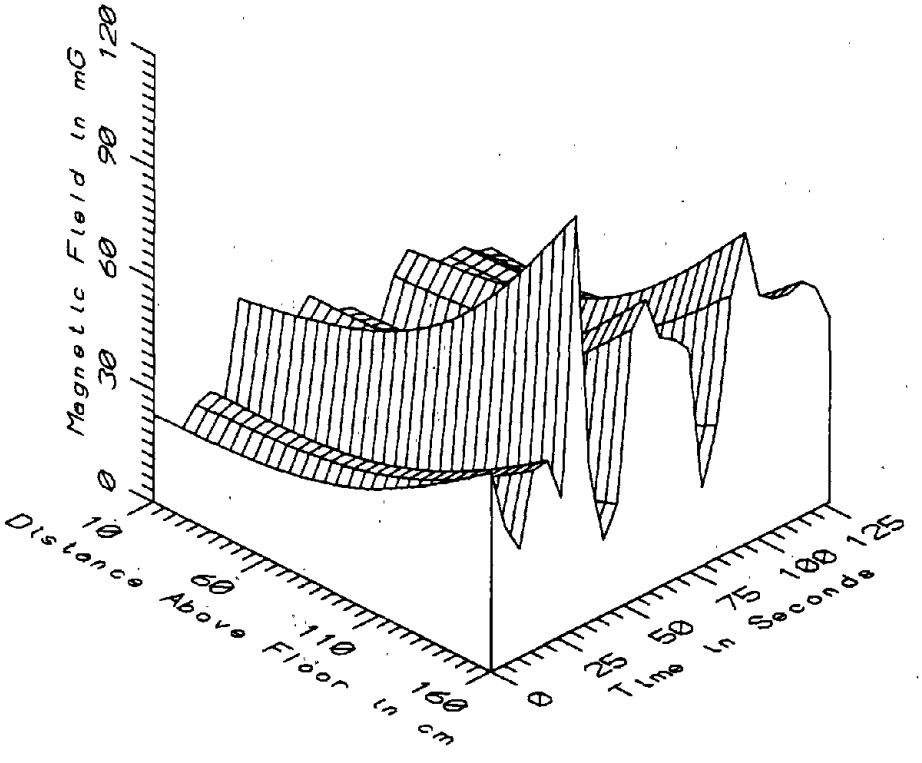
BOS008 - NEAR RECTIFIER IN BENNETT ST. T.P.S.S. - POWER FREQ, 50-60Hz



BOS008 - NEAR RECTIFIER IN BENNETT ST. T.P.S.S. - POWER HARM, 65-300Hz

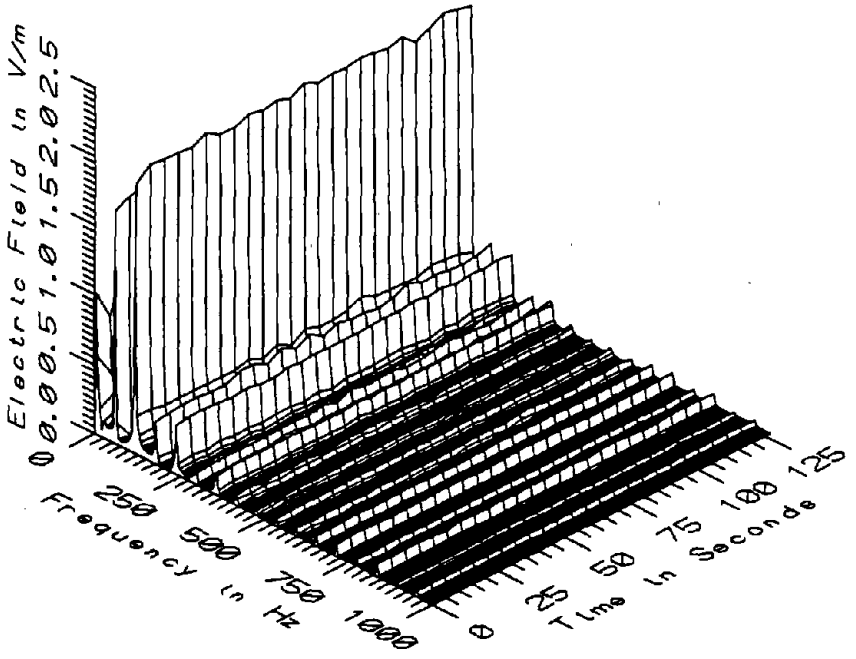


BOS008 - NEAR RECTIFIER IN BENNETT ST. T.P.S.S. - HIGH FREQ, 305-2560Hz



BOS008 - NEAR RECTIFIER IN BENNETT ST. T.P.S.S. - ALL FREQ, 5-2560Hz

BOS008 - NEAR RECTIFIER IN BENNETT STREET T.P.S.S.					TOTAL OF 25 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	580.83	699.47	652.19	25.45	3.90
	60	497.11	670.46	585.07	47.47	8.11
	110	426.19	588.81	505.54	47.40	9.38
	160	405.23	557.81	479.72	44.41	9.26
5-45Hz LOW FREQ	10	0.36	12.60	1.67	2.48	148.26
	60	0.24	4.35	0.83	0.84	101.18
	110	0.26	3.19	0.77	0.60	77.90
	160	0.42	2.51	0.91	0.44	48.79
50-60Hz PWR FREQ	10	8.46	42.33	22.47	7.50	33.40
	60	8.99	50.19	24.95	9.47	37.97
	110	12.42	69.13	34.20	13.11	38.33
	160	20.29	110.67	54.56	21.01	38.50
65-300Hz PWR HARM	10	1.90	6.47	3.71	1.01	27.33
	60	1.07	4.86	2.51	0.86	34.20
	110	1.08	5.60	2.80	1.04	37.20
	160	1.54	8.40	4.19	1.60	38.18
305-2560Hz HIGH FREQ	10	4.77	6.65	5.73	0.47	8.20
	60	1.66	4.20	2.72	0.60	21.99
	110	1.55	5.35	3.11	0.91	29.09
	160	1.86	7.62	4.24	1.38	32.51
5-2560Hz ALL FREQ	10	10.62	43.19	23.71	7.44	31.38
	60	9.37	50.61	25.26	9.51	37.66
	110	12.66	69.57	34.47	13.17	38.21
	160	20.50	111.25	54.90	21.11	38.45



BOS008 - ELECTRIC FIELD NEAR RECTIFIER IN BENNETT ST. T.P.S.S.

APPENDIX J

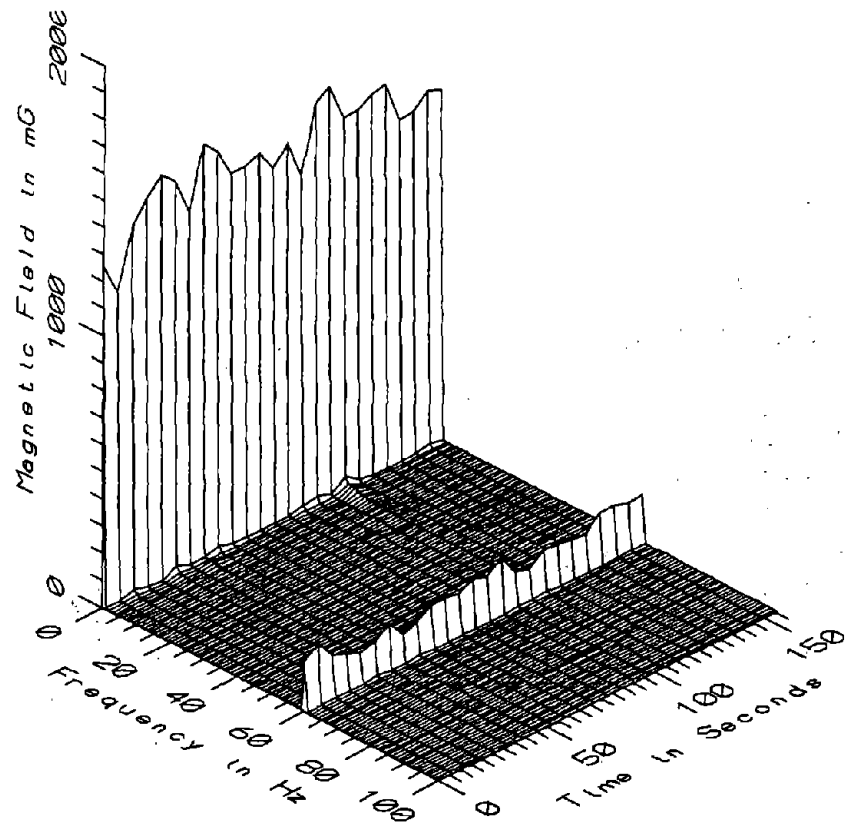
DATASET BOS009
FROM RECTIFIER IN BENNETT STREET
TRACTION POWER SUPPLY STATION

Measurement Setup Code:	Staff: 55 Reference: 56 Drawing: A-9
Vehicle Status:	NA
Measurement Date:	June 9, 1992
Measurement Time:	Start: 13:35:49 End: 13:38:25
Number of Samples:	25
Programmed Sample Interval:	5 sec
Actual Sample Interval:	6.24 sec

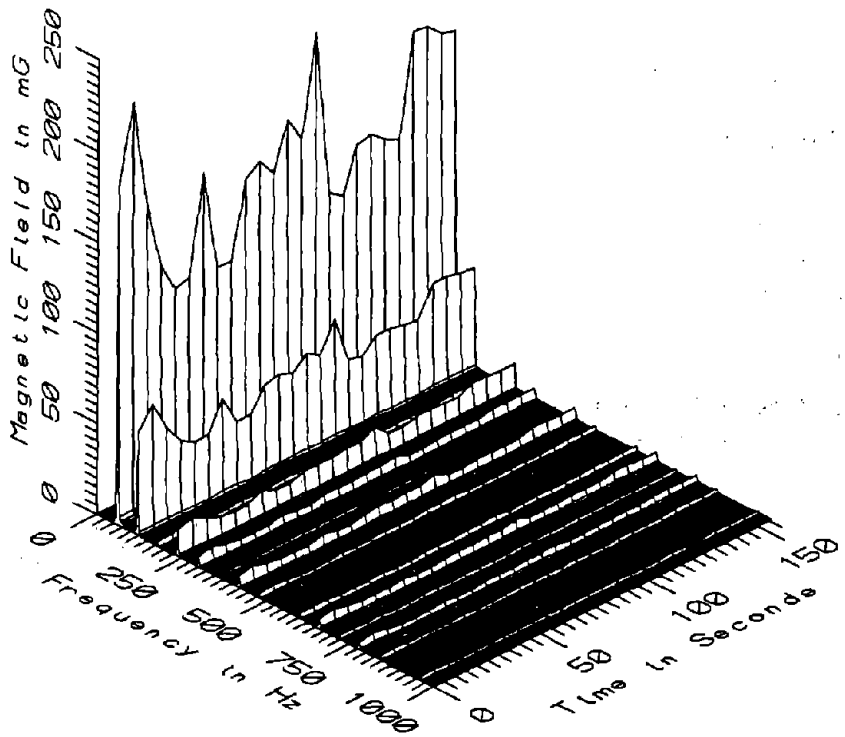
Frequency Spectrum Parameters

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

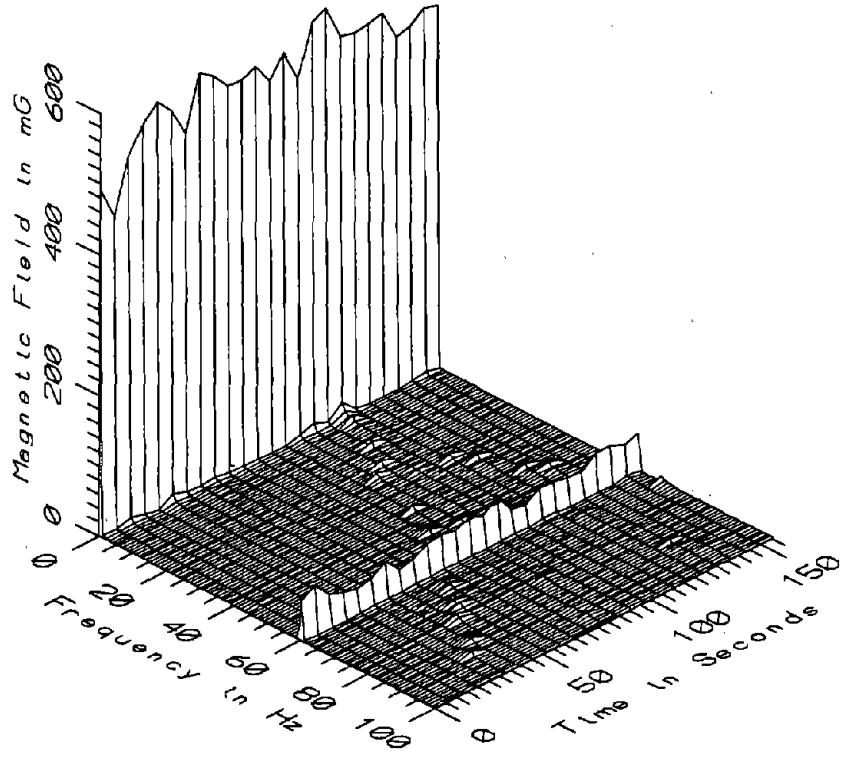
Missing Data: None



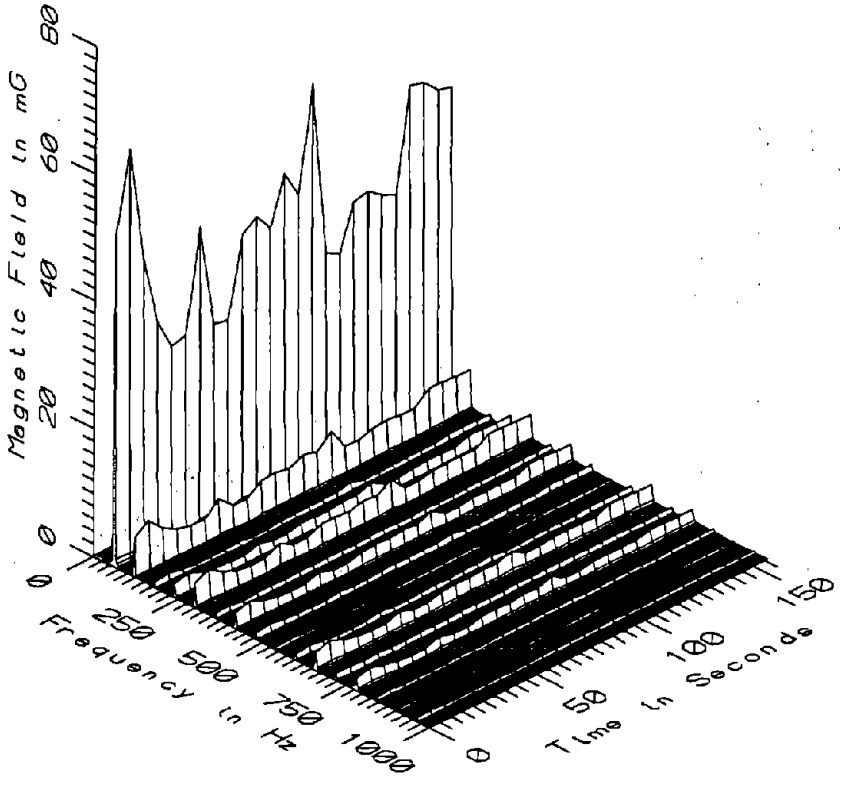
BOS009 - 10cm FROM RECTIFIER, 1M ABOVE GROUND IN BENNETT ST. T.P.S.S.



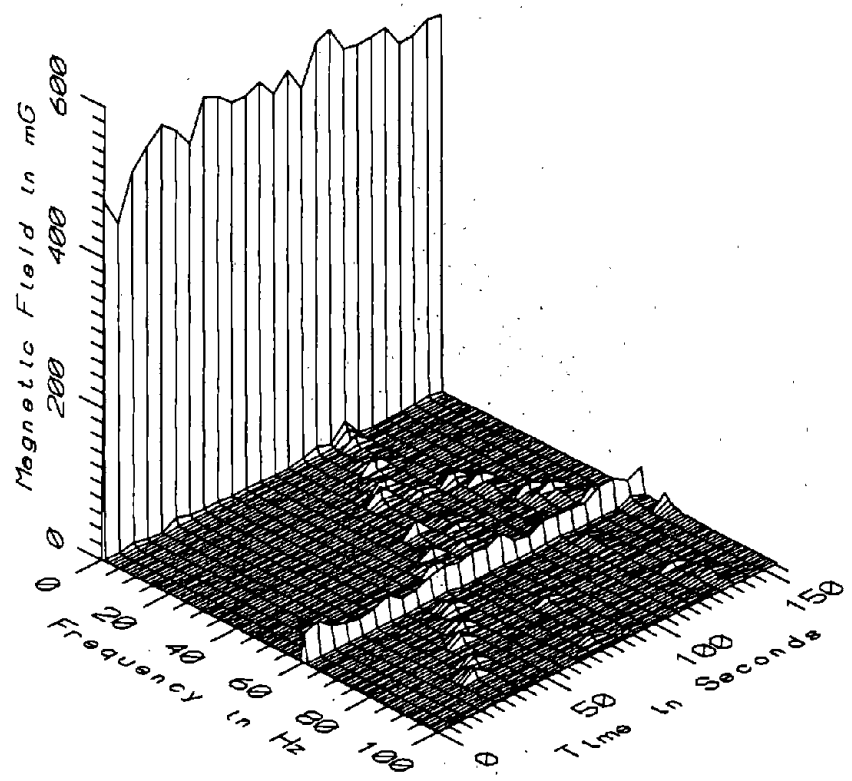
BOS009 - 10cm FROM RECTIFIER, 1M ABOVE GROUND IN BENNETT ST. T.P.S.S.



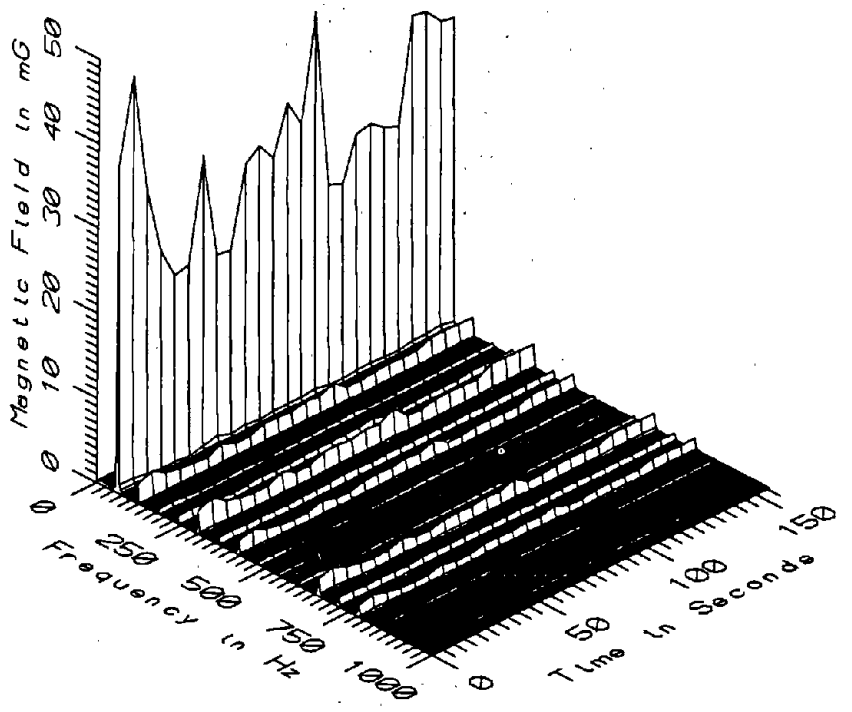
BOS009 - 60cm FROM RECTIFIER, 1M ABOVE GROUND IN BENNETT ST. T.P.S.S.



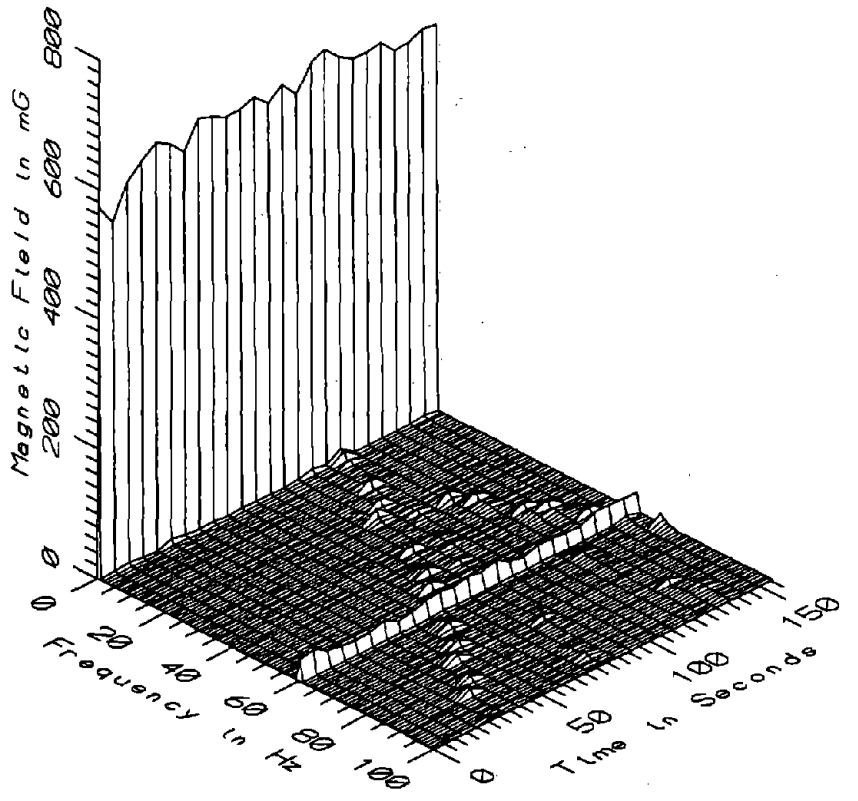
BOS009 - 60cm FROM RECTIFIER, 1M ABOVE GROUND IN BENNETT ST. T.P.S.S.



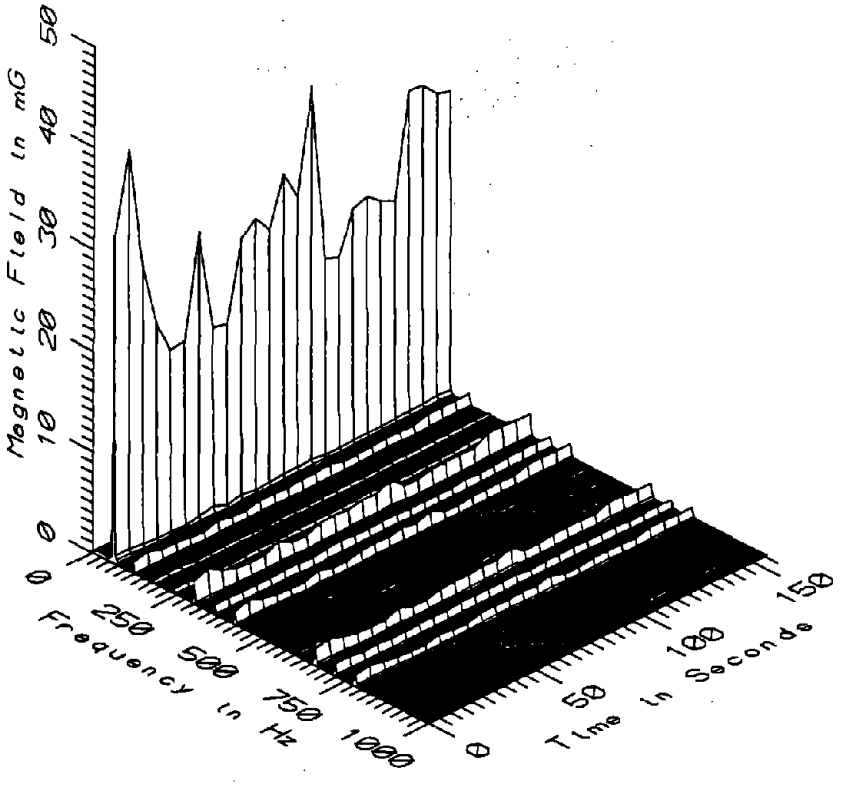
BOS009 - 110cm FROM RECTIFIER, 1M ABOVE GROUND IN BENNETT ST. T.P.S.S.



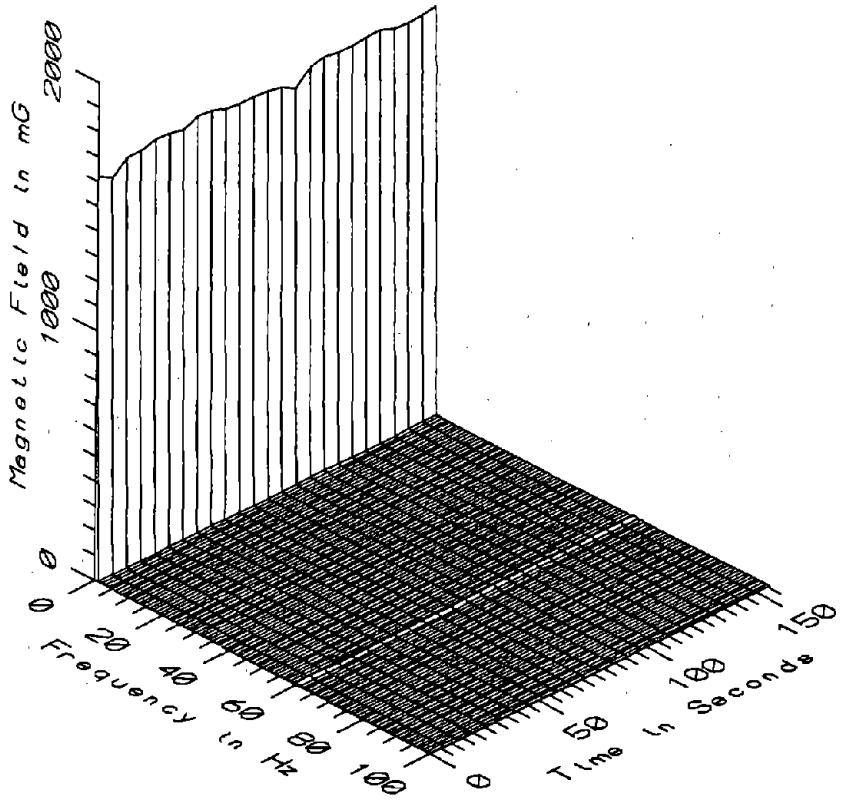
BOS009 - 110cm FROM RECTIFIER, 1M ABOVE GROUND IN BENNETT ST. T.P.S.S.



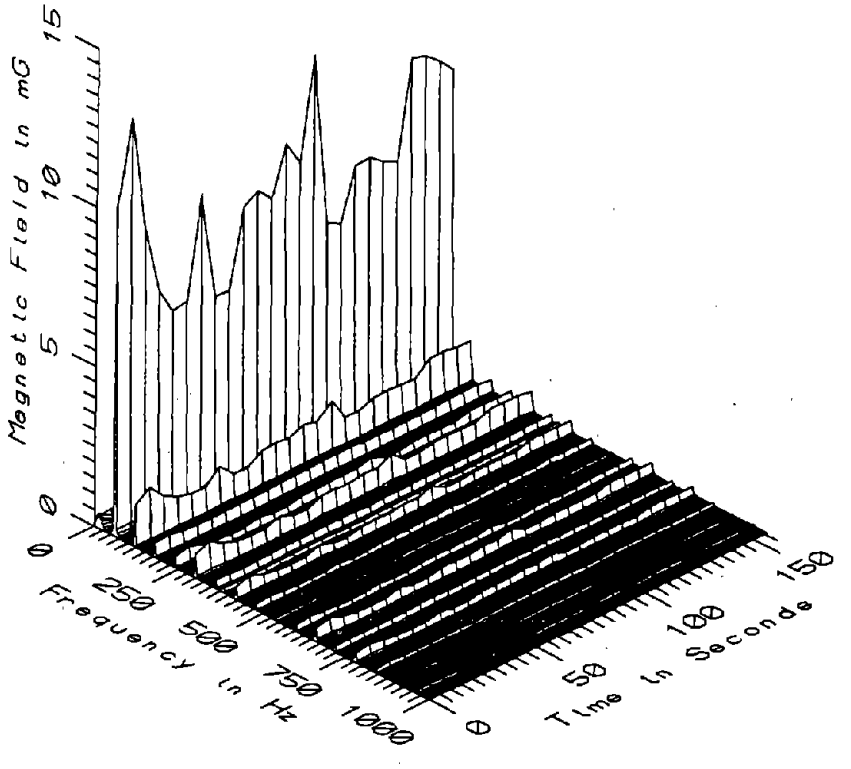
BOS009 - 160cm FROM RECTIFIER, 1M ABOVE GROUND IN BENNETT ST. T.P.S.S.



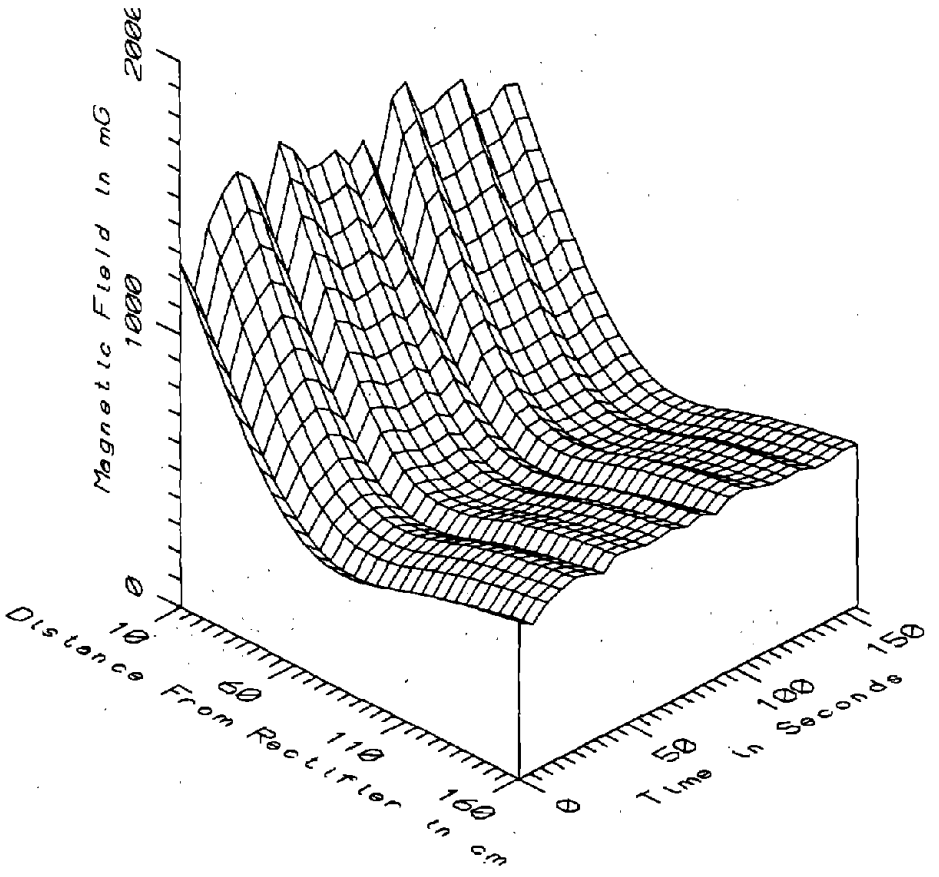
BOS009 - 160cm FROM RECTIFIER, 1M ABOVE GROUND IN BENNETT ST. T.P.S.S.



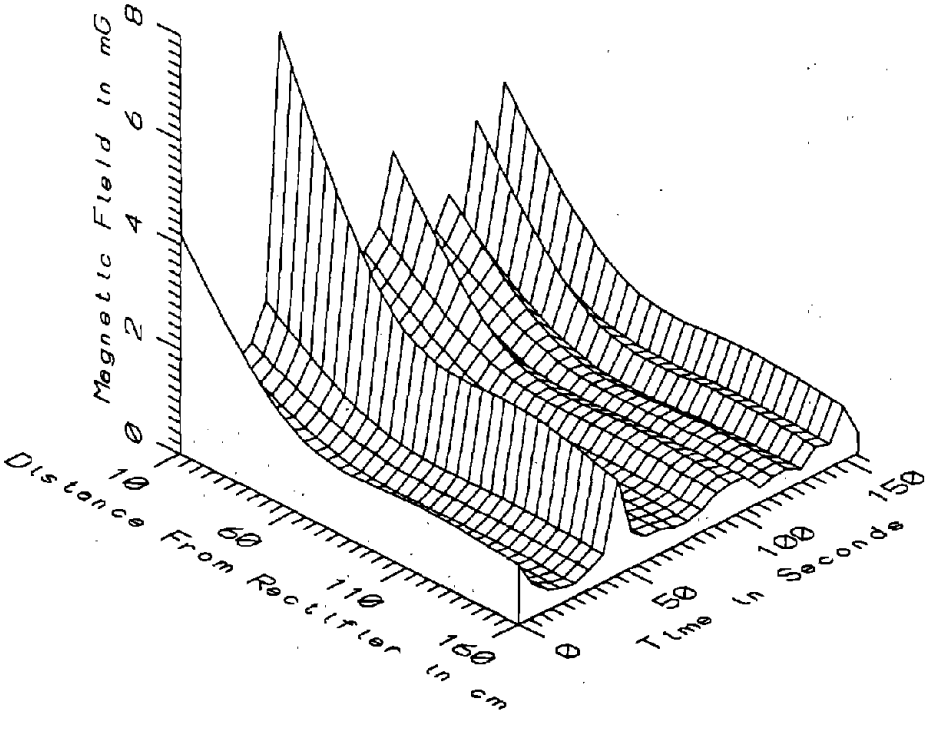
BOS009 - REFERENCE PROBE - NEAR RECTIFIER IN BENNETT ST. T.P.S.S.



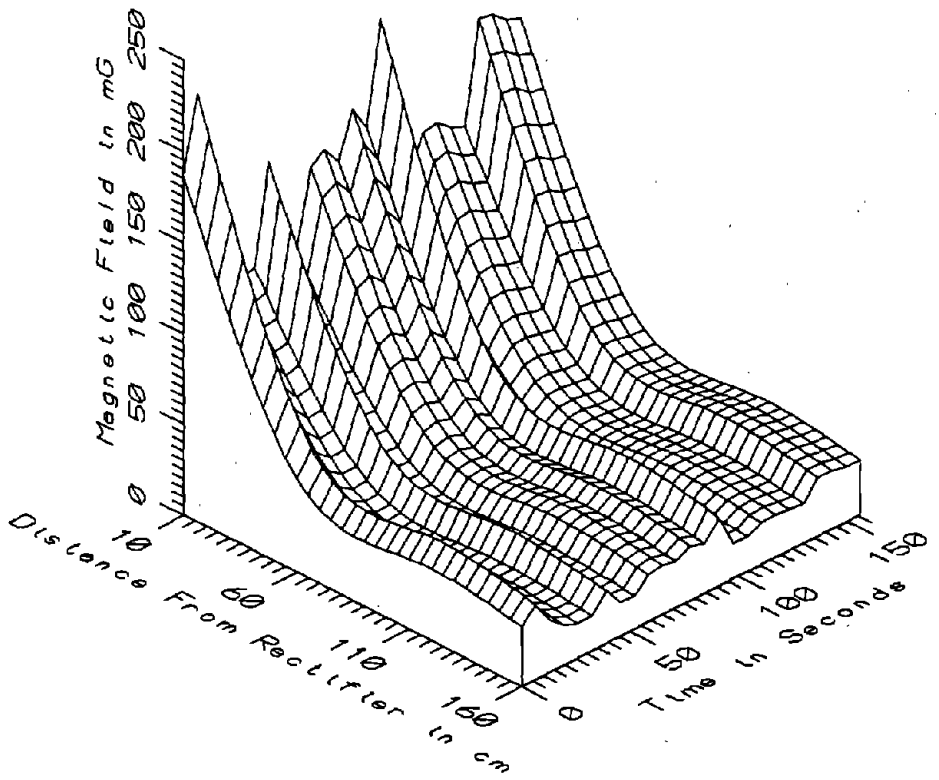
BOS009 - REFERENCE PROBE - NEAR RECTIFIER IN BENNETT ST. T.P.S.S.



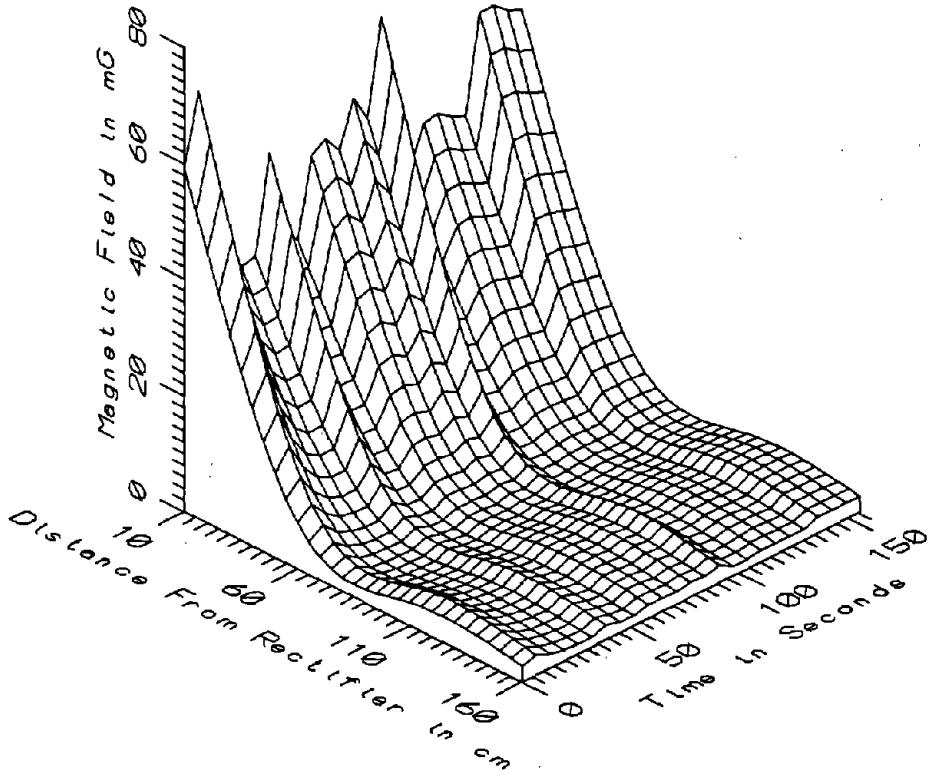
BOS009 - IN BENNETT ST. T.P.S.S., 1M ABOVE GROUND - STATIC



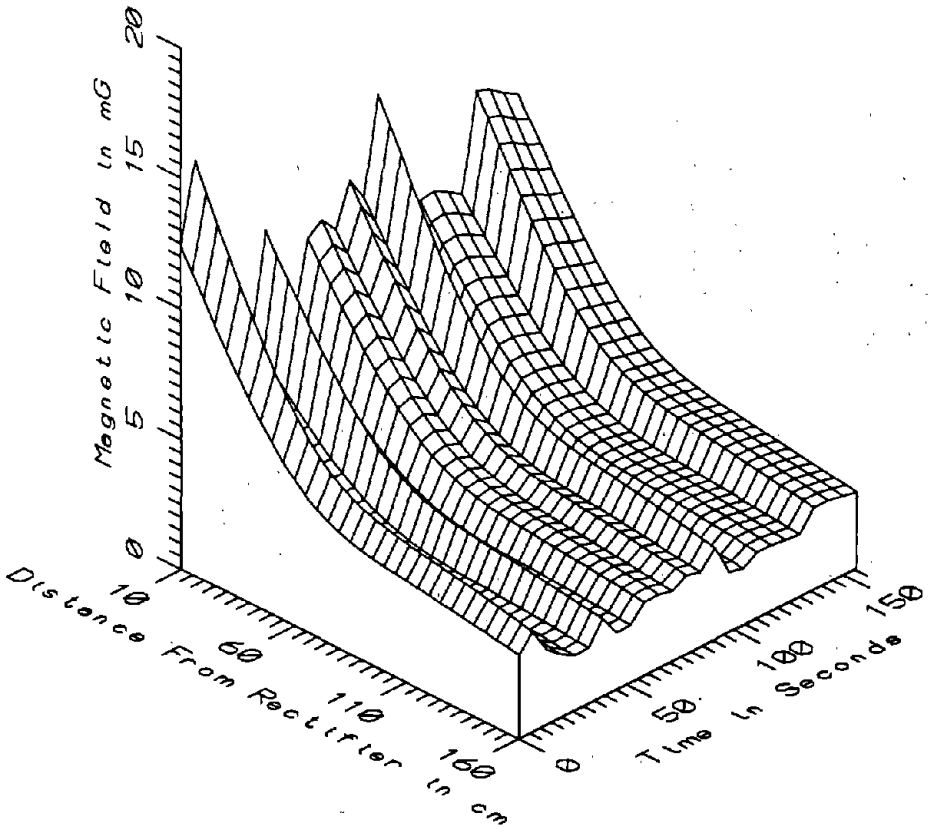
BOS009 - IN BENNETT ST. T.P.S.S., 1M ABOVE GROUND - LOW FREQ, 5-45Hz



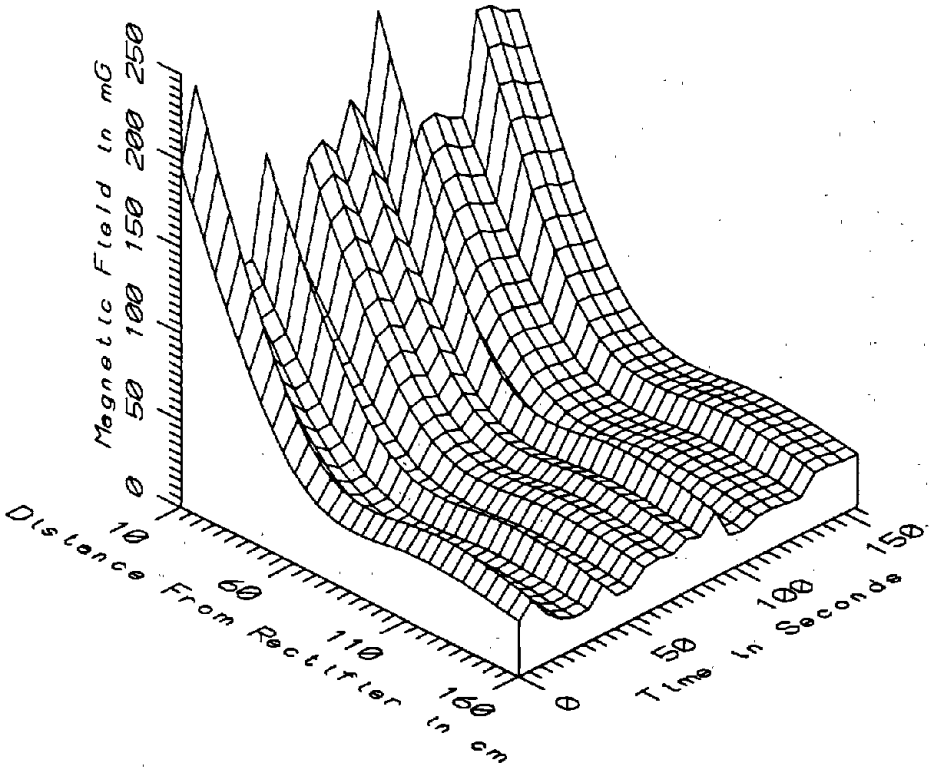
BOS009 - IN BENNETT ST. T.P.S.S., 1M ABOVE GROUND - POWER FREQ, 50-60Hz



BOS009 - IN BENNETT ST. T.P.S.S., 1M ABOVE GROUND - POWER HARM, 65-300Hz

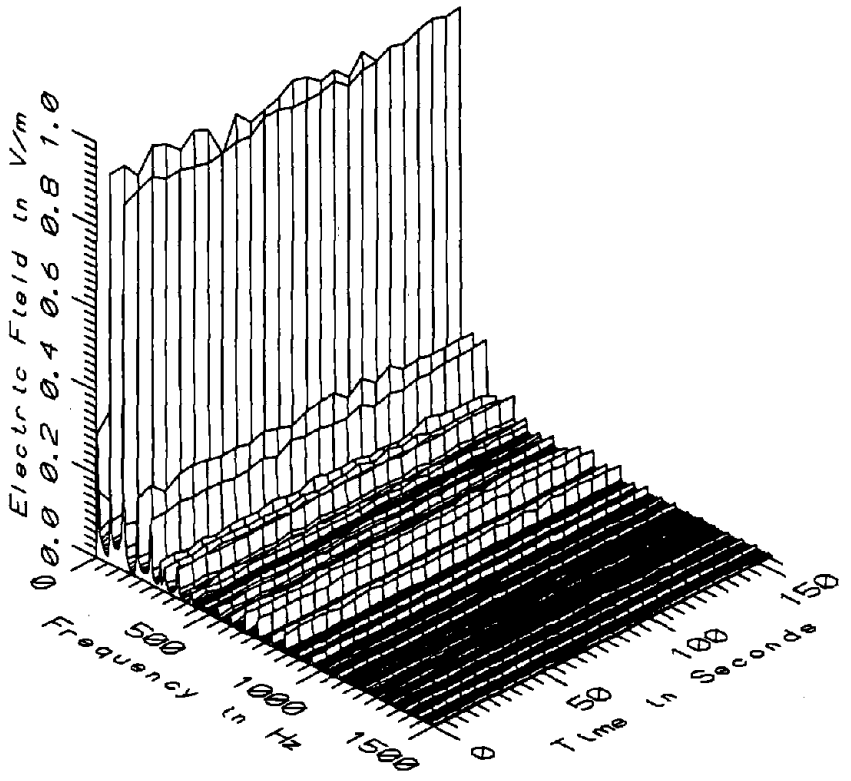


BOS009 - IN BENNETT ST. T.P.S.S., 1M ABOVE GROUND - HIGH FREQ, 305-2560Hz



BOS009 - IN BENNETT ST. T.P.S.S., 1M ABOVE GROUND - ALL FREQ, 5-2560Hz

BOS009 - IN BENNETT STREET T.P.S.S., 1M ABOVE GROUND					TOTAL OF 25 SAMPLES	
FREQUENCY BAND	DIST. FROM RECT. (cm)	MINIMUM MAGNETIC FIELD (mG)	MAXIMUM MAGNETIC FIELD (mG)	AVERAGE MAGNETIC FIELD (mG)	STANDARD DEVIATION (mG)	COEFFICIENT OF VARIATION (%)
STATIC	10	1136.32	1527.59	1363.88	95.83	7.03
	60	443.86	590.57	536.88	34.07	6.35
	110	436.11	553.06	512.56	25.94	5.06
	160	537.27	641.71	606.38	22.76	3.75
5-45Hz	10	1.25	7.12	2.53	1.27	50.32
LOW FREQ	60	0.35	2.83	0.81	0.52	64.50
	110	0.23	2.27	0.64	0.43	66.97
	160	0.24	1.82	0.56	0.34	61.37
50-60Hz	10	114.12	228.13	156.92	32.14	20.49
PWR FREQ	60	29.84	64.41	42.46	9.58	22.57
	110	22.03	48.36	31.60	7.27	23.00
	160	18.20	40.08	26.06	6.08	23.33
65-300Hz	10	37.20	71.23	50.27	9.75	19.40
PWR HARM	60	4.63	9.94	6.58	1.50	22.87
	110	2.25	4.93	3.25	0.75	22.95
	160	1.61	3.45	2.29	0.51	22.19
305-2560Hz	10	7.45	15.39	10.35	2.18	21.04
HIGH FREQ	60	3.44	6.91	4.70	0.95	20.19
	110	2.46	4.71	3.27	0.61	18.72
	160	2.12	3.85	2.74	0.45	16.59
5-2560Hz	10	120.32	239.50	165.13	33.65	20.38
ALL FREQ	60	30.41	65.55	43.24	9.74	22.52
	110	22.30	48.85	31.95	7.32	22.93
	160	18.41	40.41	26.31	6.11	23.22



BOS009 - ELECTRIC FIELD 170cm FROM RECTIFIER IN BENNETT ST. T.P.S.S.

APPENDIX K

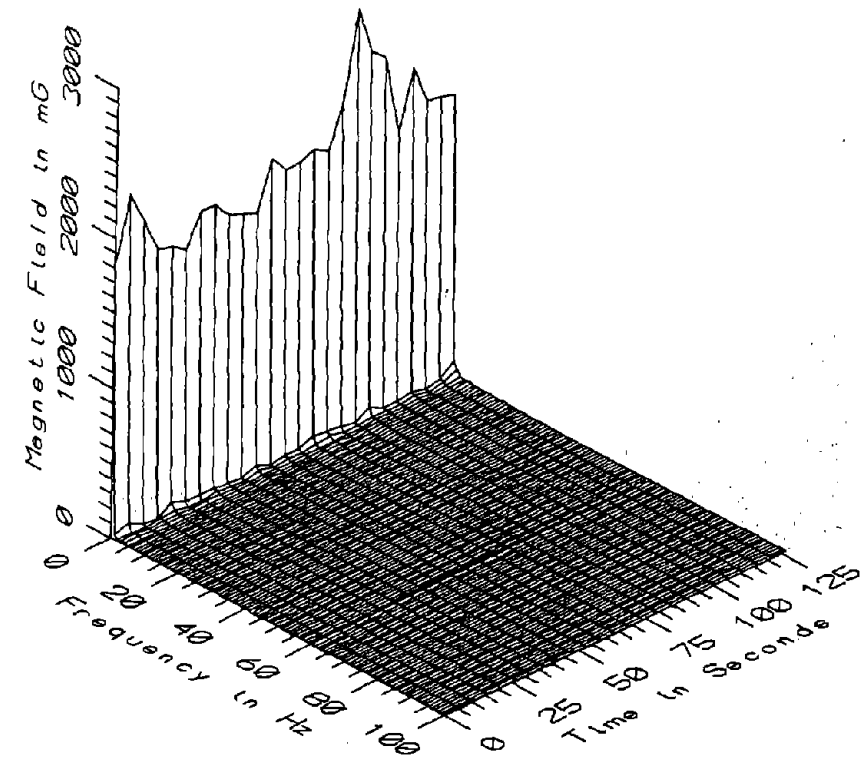
DATASET BOS010
NEAR DC SWITCHGEAR IN BENNETT STREET
TRACTION POWER SUPPLY STATION

Measurement Setup Code:	Staff: 57 Reference: 58 Drawing: A-9
Vehicle Status:	NA
Measurement Date:	June 9, 1992
Measurement Time:	Start: 13:42:38 End: 13:44:45
Number of Samples:	25
Programmed Sample Interval:	5 sec
Actual Sample Interval:	5.3 sec

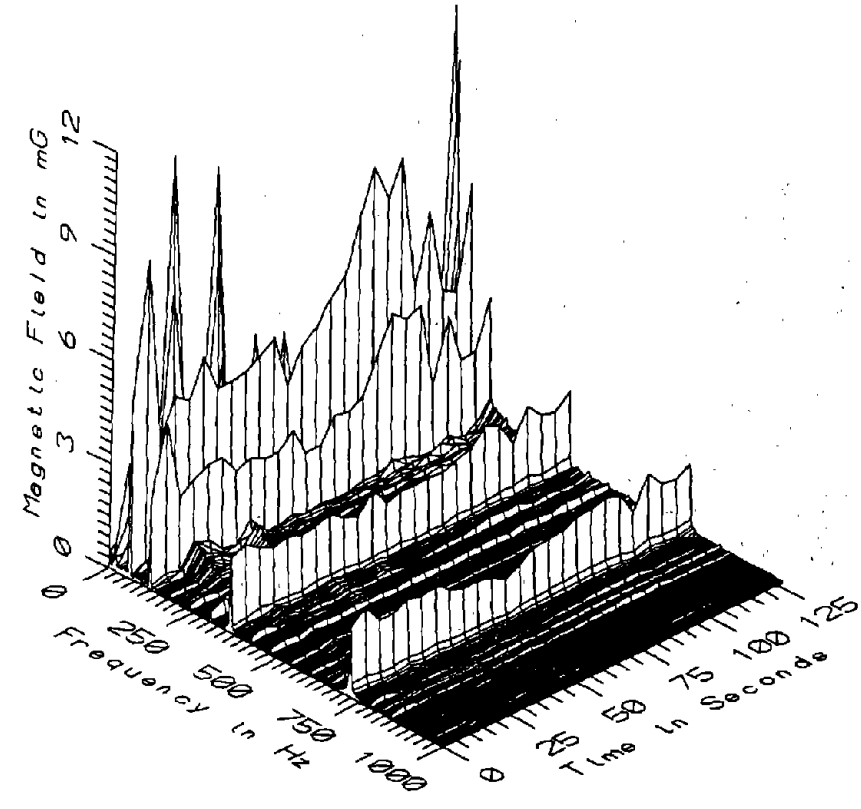
Frequency Spectrum Parameters

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

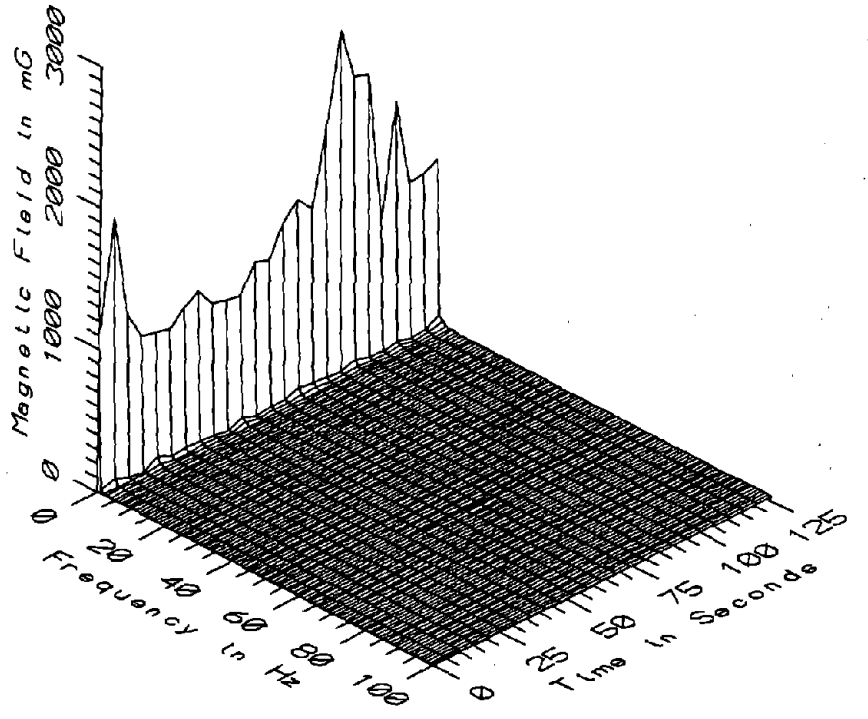
Missing Data: None



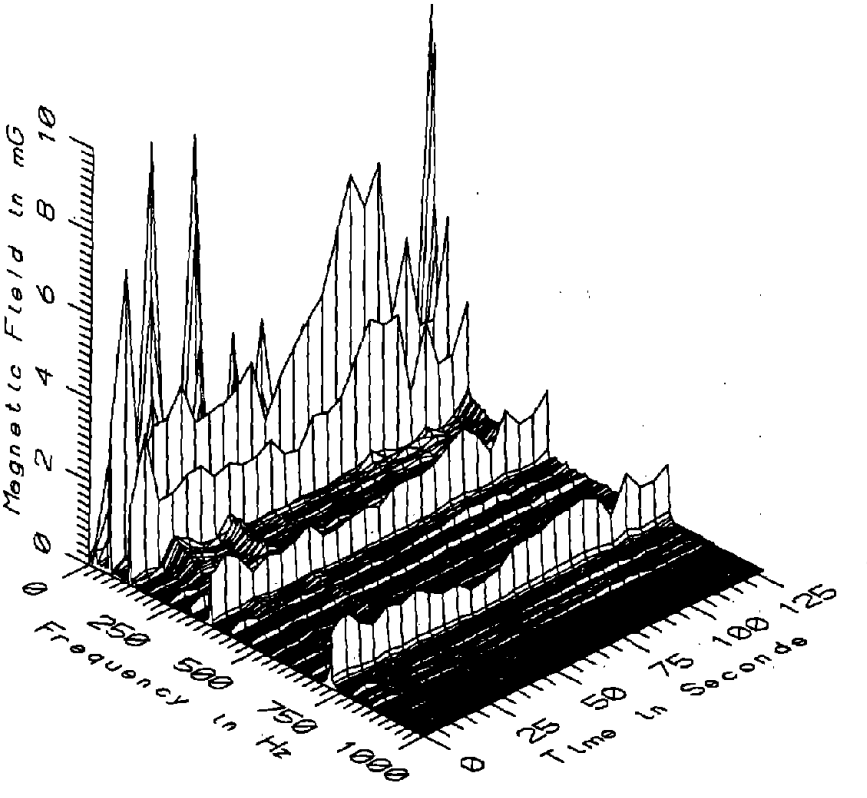
BOS010 - 10cm ABOVE GROUND NEAR DC SWITCHGEAR IN BENNETT ST. T,P.S.S.



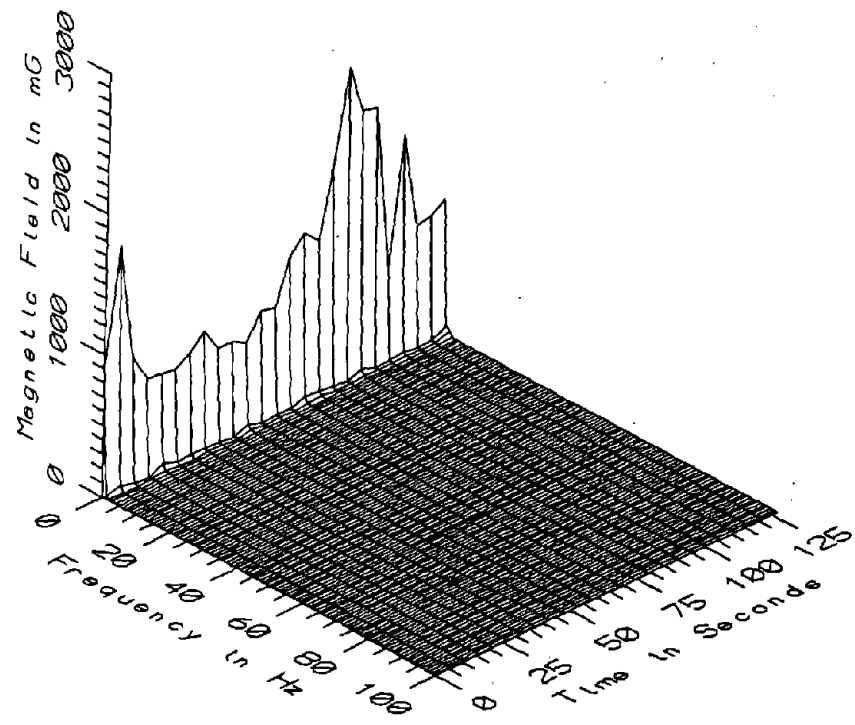
BOS010 - 10cm ABOVE GROUND NEAR DC SWITCHGEAR IN BENNETT ST. T,P.S.S.



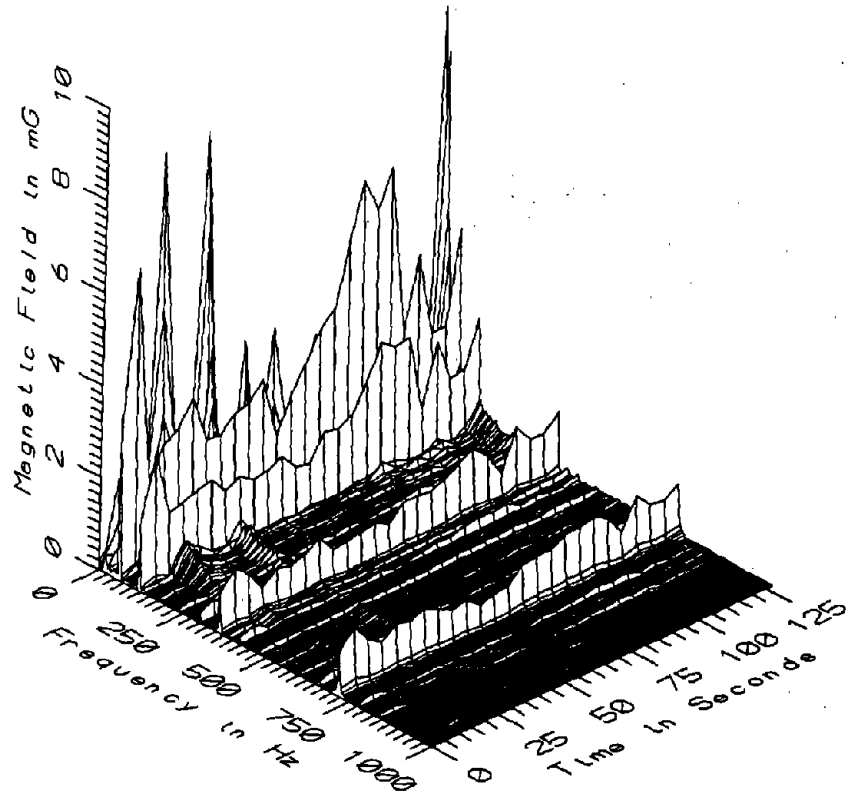
BOS010 - 60cm ABOVE GROUND NEAR DC SWITCHGEAR IN BENNETT ST. T,P.S.S.



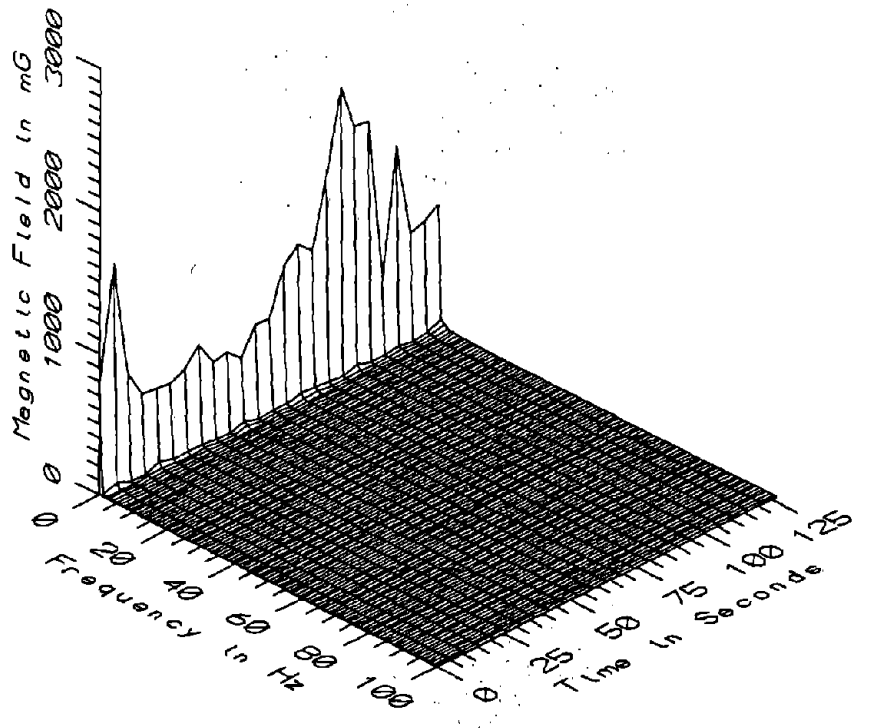
BOS010 - 60cm ABOVE GROUND NEAR DC SWITCHGEAR IN BENNETT ST. T,P.S.S.



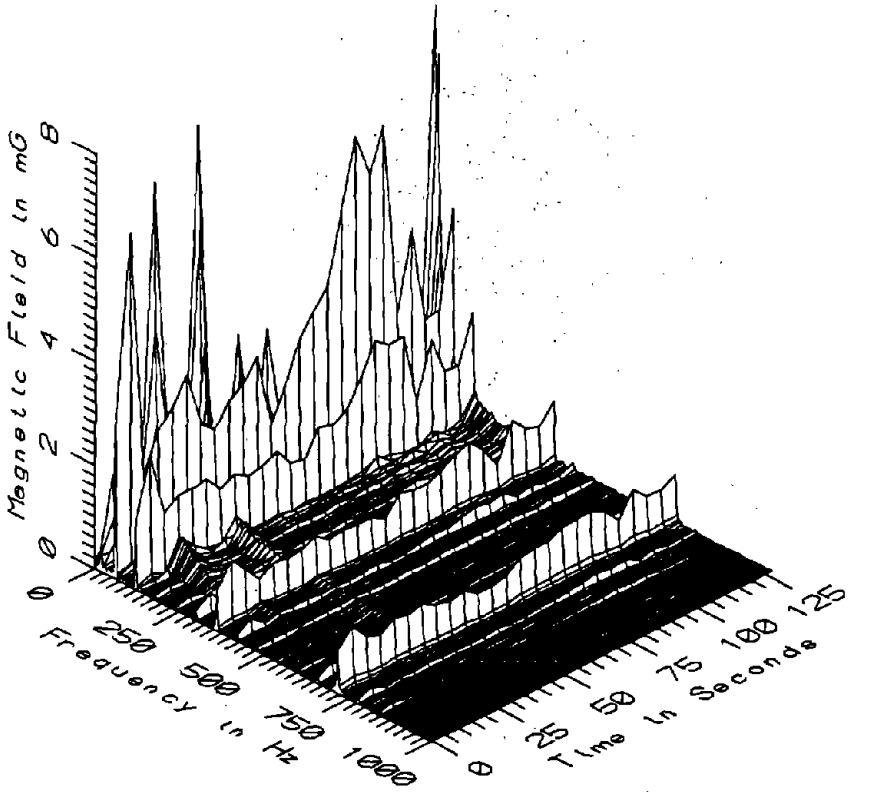
BOS010 - 110cm ABOVE GROUND NEAR DC SWITCHGEAR IN BENNETT ST. T,P.S.S.



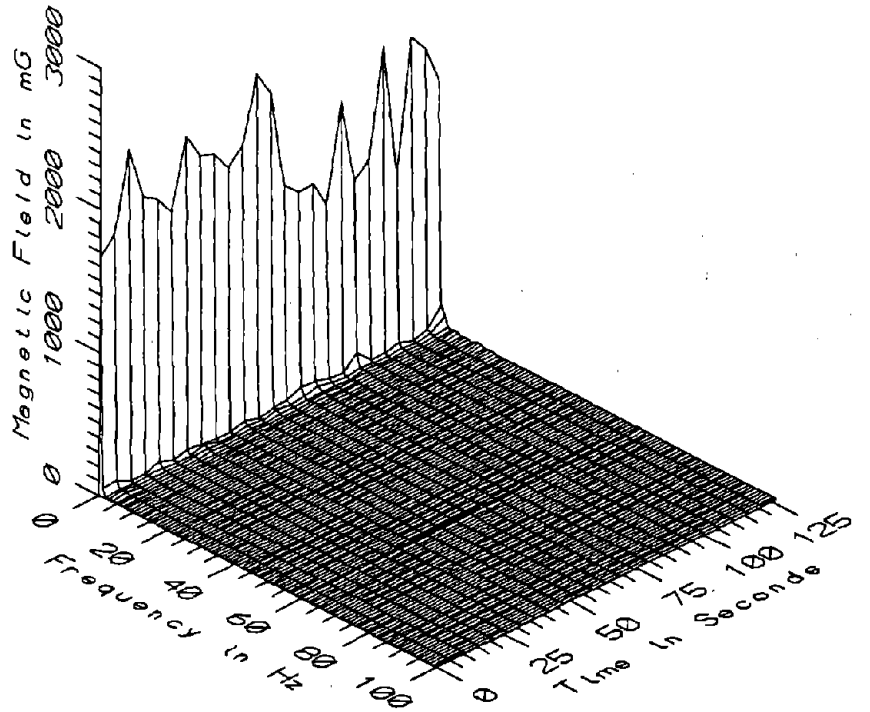
BOS010 - 110cm ABOVE GROUND NEAR DC SWITCHGEAR IN BENNETT ST. T,P.S.S.



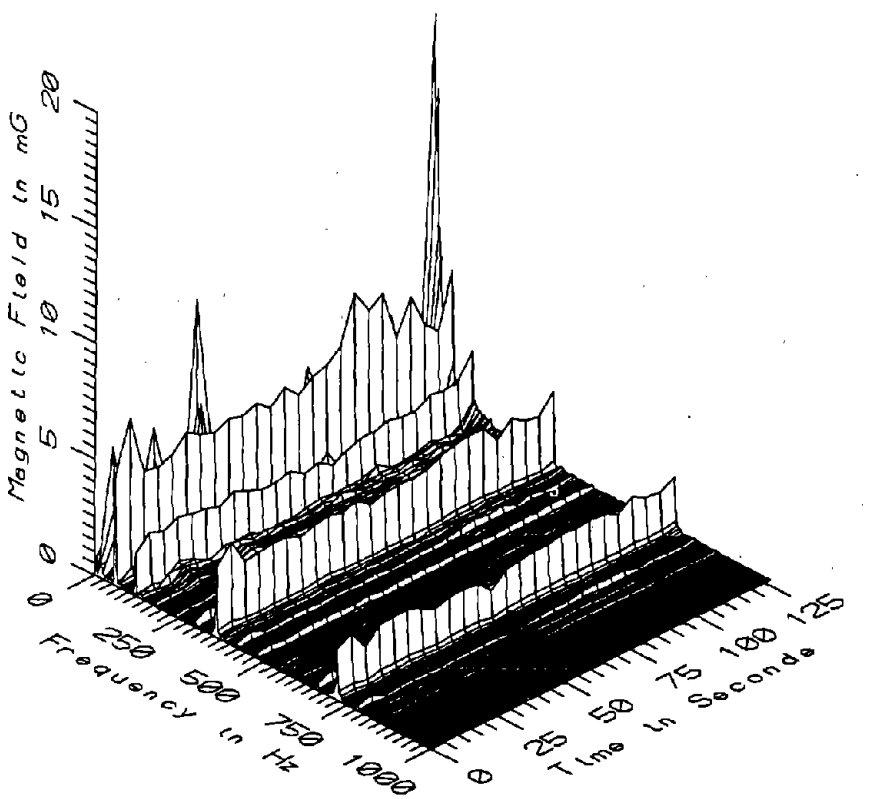
BOS010 - 160cm ABOVE GROUND NEAR DC SWITCHGEAR IN BENNETT ST. T,P.S.S.



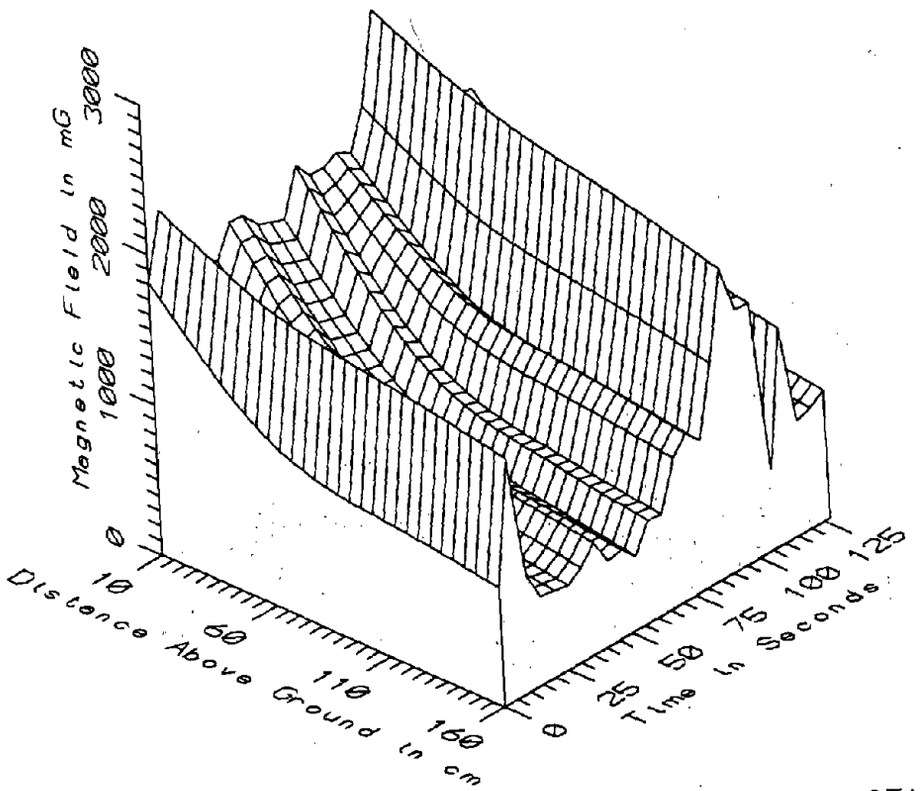
BOS010 - 160cm ABOVE GROUND NEAR DC SWITCHGEAR IN BENNETT ST. T.P.S.S.



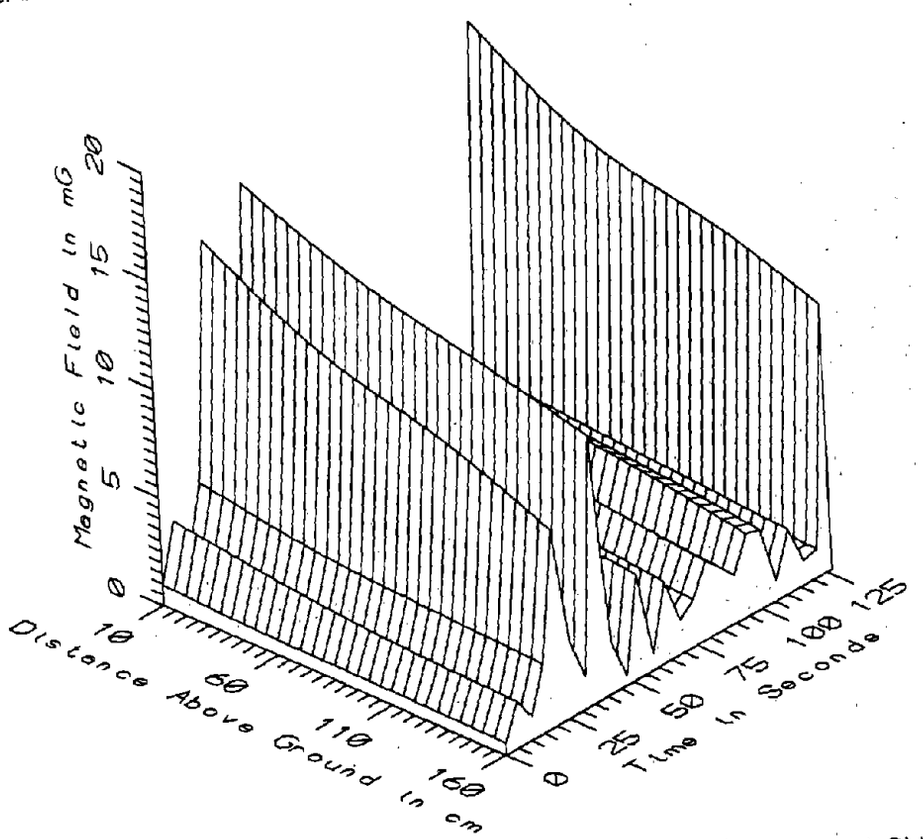
BOS010 - REFERENCE PROBE - NEAR DC SWITCHGEAR IN BENNETT ST. T.P.S.S.



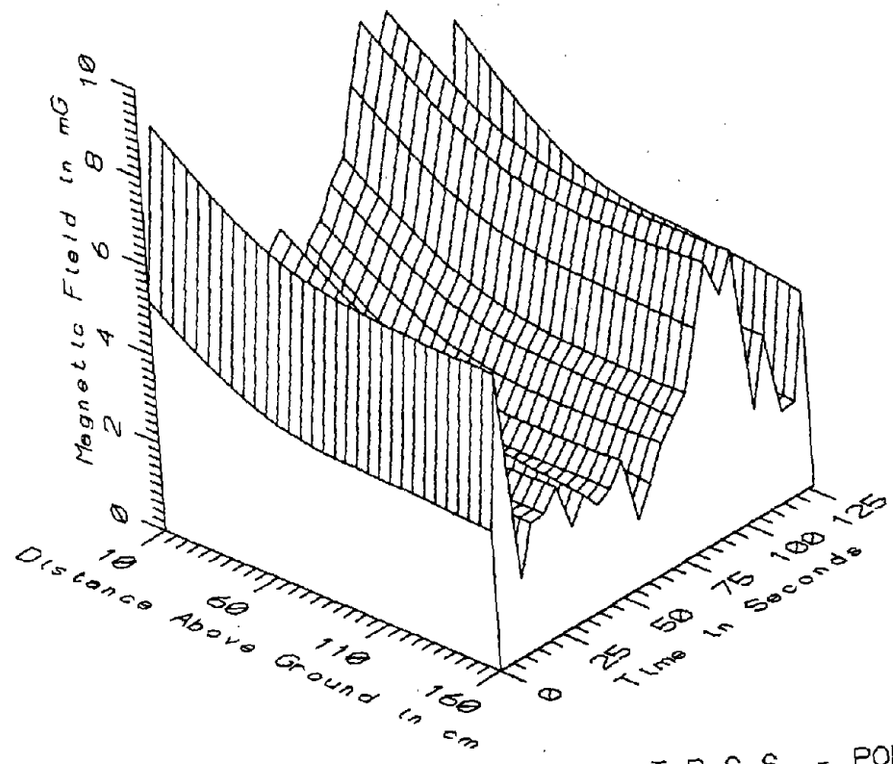
BOS010 - REFERENCE PROBE - NEAR DC SWITCHGEAR IN BENNETT ST. T.P.S.S.



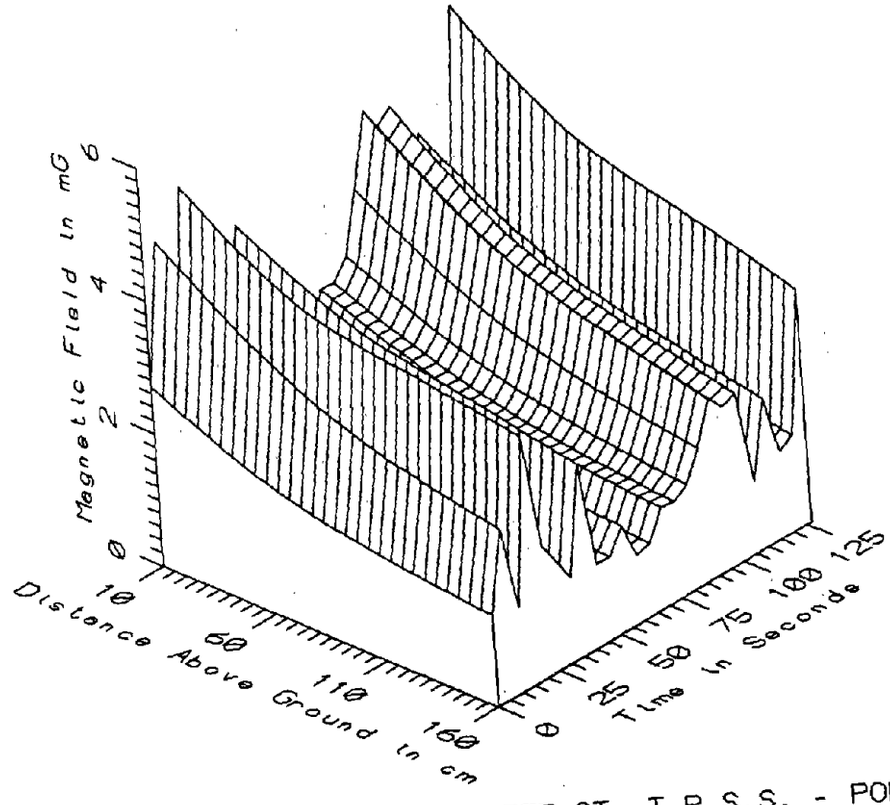
BOS010 - NEAR DC SWITCHGEAR IN BENNETT ST. T,P.S.S. - STATIC



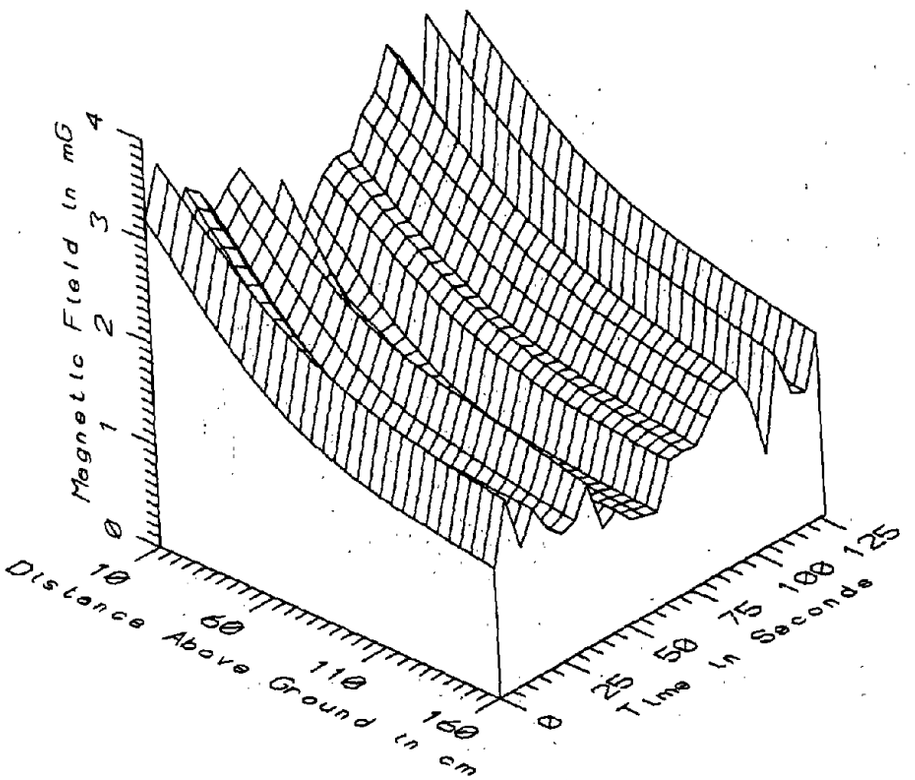
BOS010 - NEAR DC SWITCHGEAR IN BENNETT ST. T,P.S.S. - LOW FREQ. 5-45Hz



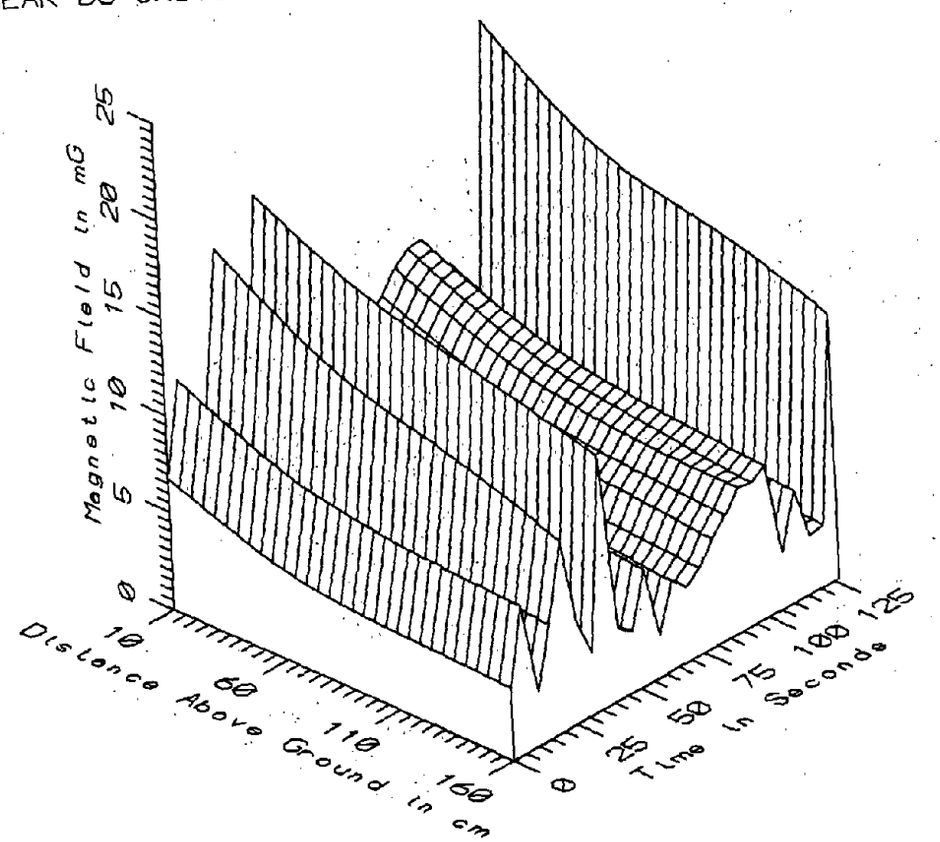
BOS010 - NEAR DC SWITCHGEAR IN BENNETT ST. T,P.S.S. - POWER FREQ, 50-60Hz



BOS010 - NEAR DC SWITCHGEAR IN BENNETT ST. T,P.S.S. - POWER HARM, 65-300Hz

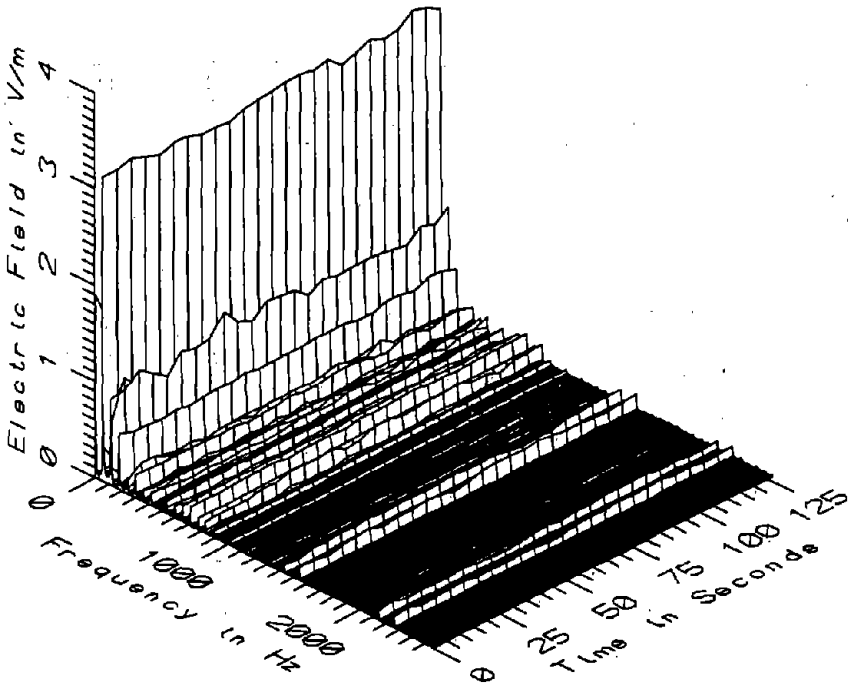


BOS010 - NEAR DC SWITCHGEAR IN BENNETT ST. T.P.S.S.-HIGH FREQ, 305-2560Hz



BOS010 - NEAR DC SWITCHGEAR IN BENNETT ST. T.P.S.S. - ALL FREQ, 5-2560Hz

BOS010 - NEAR DC SWITCHGEAR IN BENNETT STREET T.P.S.S. TOTAL OF 25 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	1697.05	2750.43	1976.58	251.05	12.70
	60	890.08	2419.79	1276.51	431.02	33.77
	110	604.80	2230.59	1055.69	468.57	44.39
	160	472.10	2023.73	929.47	447.30	48.12
5-45Hz LOW FREQ	10	0.79	18.39	5.23	4.82	92.14
	60	0.58	15.32	4.34	4.06	93.51
	110	0.50	14.02	3.87	3.69	95.38
	160	0.46	12.26	3.35	3.21	95.78
50-60Hz PWR FREQ	10	3.45	9.00	5.54	1.61	28.99
	60	1.87	7.16	3.90	1.52	39.03
	110	1.54	6.63	3.45	1.45	41.95
	160	1.51	6.54	3.38	1.45	43.08
65-300Hz PWR HARM	10	1.88	5.64	3.37	1.15	34.08
	60	1.38	4.49	2.52	0.94	37.46
	110	1.14	3.99	2.11	0.85	40.02
	160	1.01	3.73	1.86	0.76	41.06
305-2560Hz HIGH FREQ	10	2.18	3.69	2.99	0.41	13.70
	60	1.35	2.62	1.96	0.40	20.40
	110	0.99	2.11	1.56	0.35	22.37
	160	0.90	1.88	1.38	0.28	20.61
5-2560Hz ALL FREQ	10	4.63	20.89	9.38	4.16	44.40
	60	2.89	16.98	7.08	3.71	52.48
	110	2.36	15.46	6.20	3.42	55.07
	160	2.20	13.58	5.65	2.99	52.90



BOS010 - ELECTRIC FIELD NEAR DC SWITCHGEAR IN BENNETT ST. T.P.S.S.

APPENDIX L

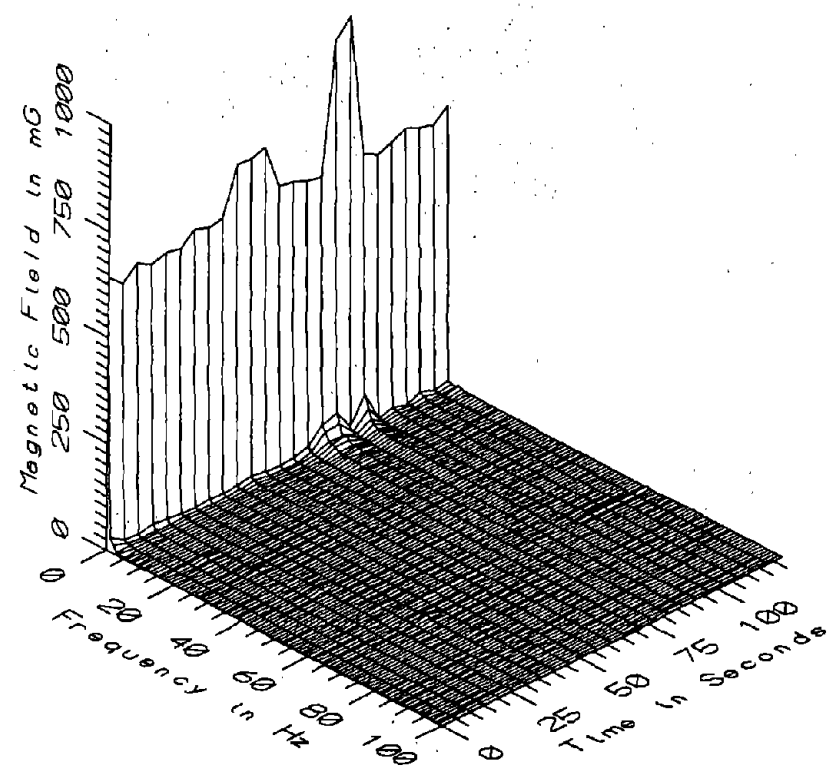
DATASET BOS011
ON BENNETT ALLEY OUTSIDE BENNETT STREET
TRACTION POWER SUPPLY STATION

Measurement Setup Code:	Staff: 59 Reference: 60 Drawing: A-9
Vehicle Status:	NA
Measurement Date:	June 9, 1992
Measurement Time:	Start: 13:59:12 End: 14:01:15
Number of Samples:	25
Programmed Sample Interval:	5 sec
Actual Sample Interval:	5.1 sec

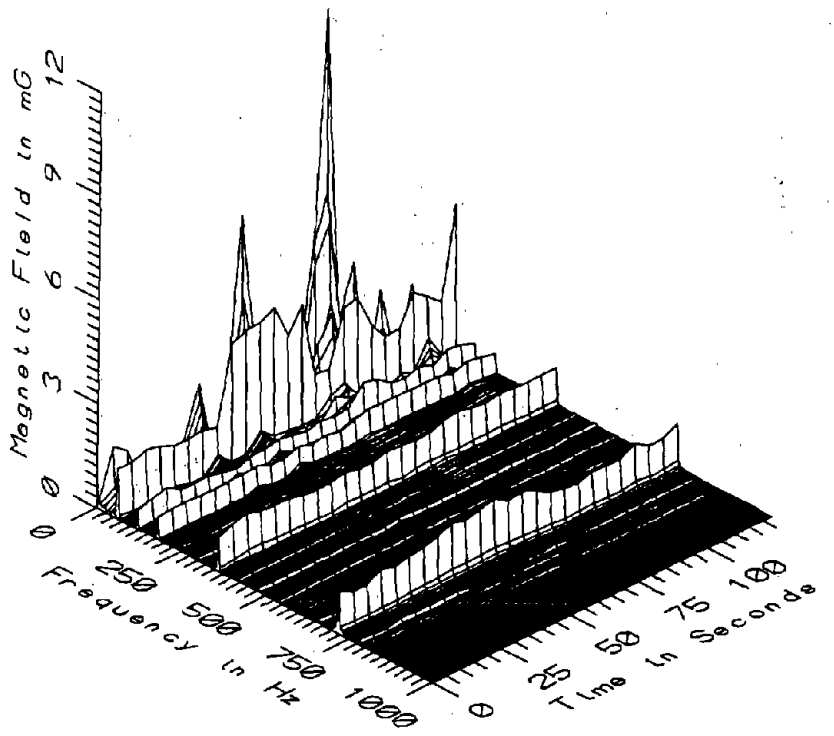
Frequency Spectrum Parameters

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

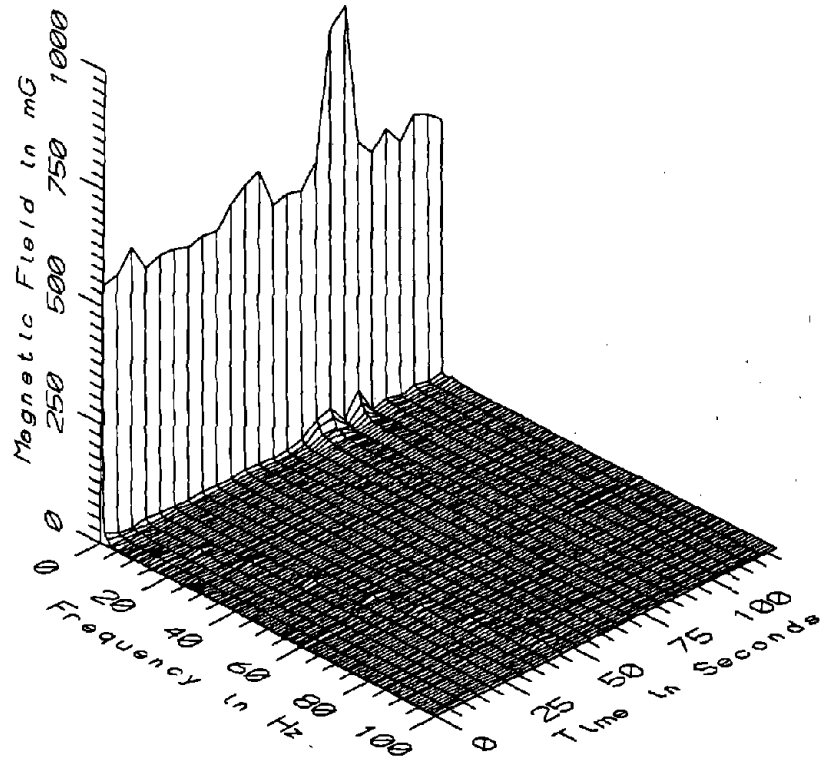
Missing Data: None



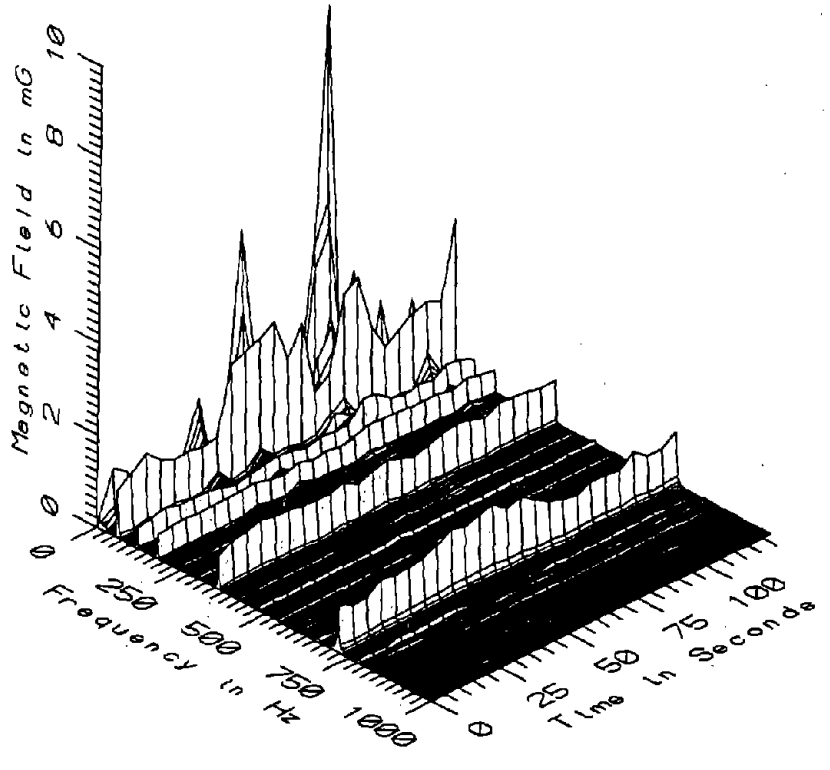
BOS011 - 10cm ABOVE SIDEWALK ON BENNETT ALLEY, BENNETT ST. T.P.S.S.



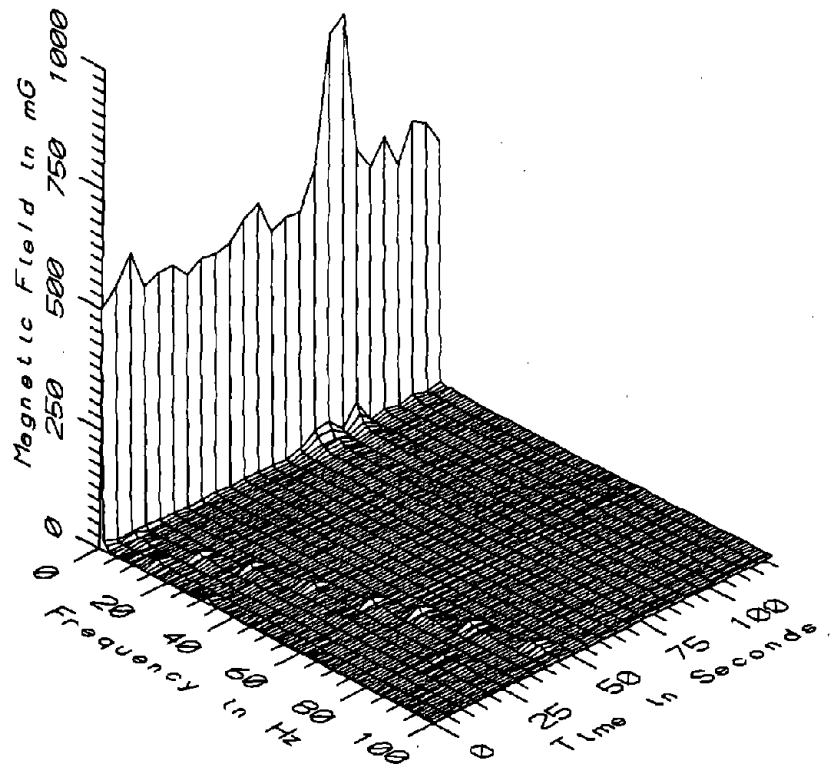
BOS011 - 10cm ABOVE SIDEWALK ON BENNETT ALLEY, BENNETT ST. T.P.S.S.



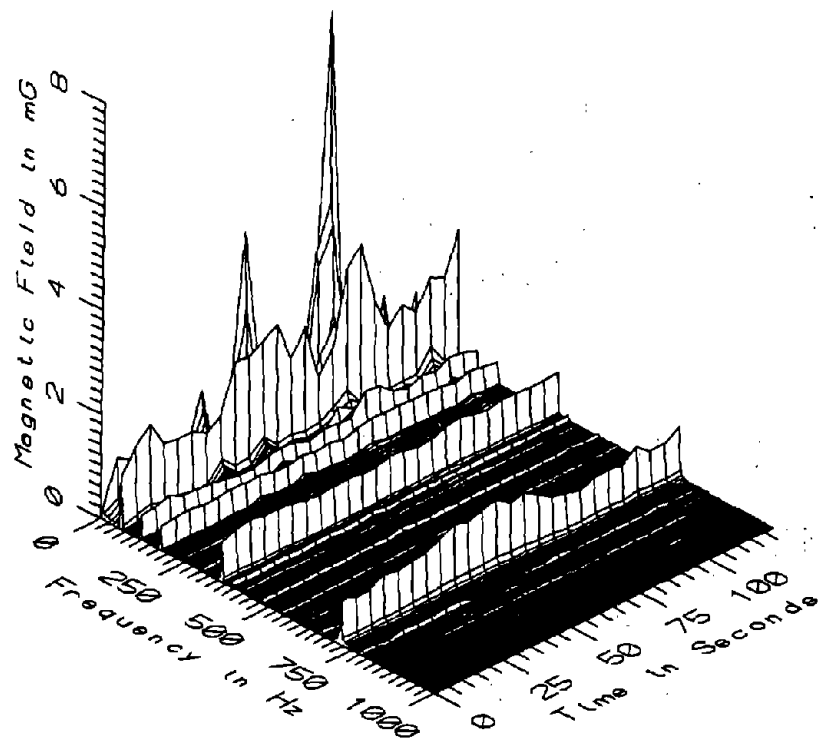
BOS011 - 60cm ABOVE SIDEWALK ON BENNETT ALLEY, BENNETT ST. T.P.S.S.



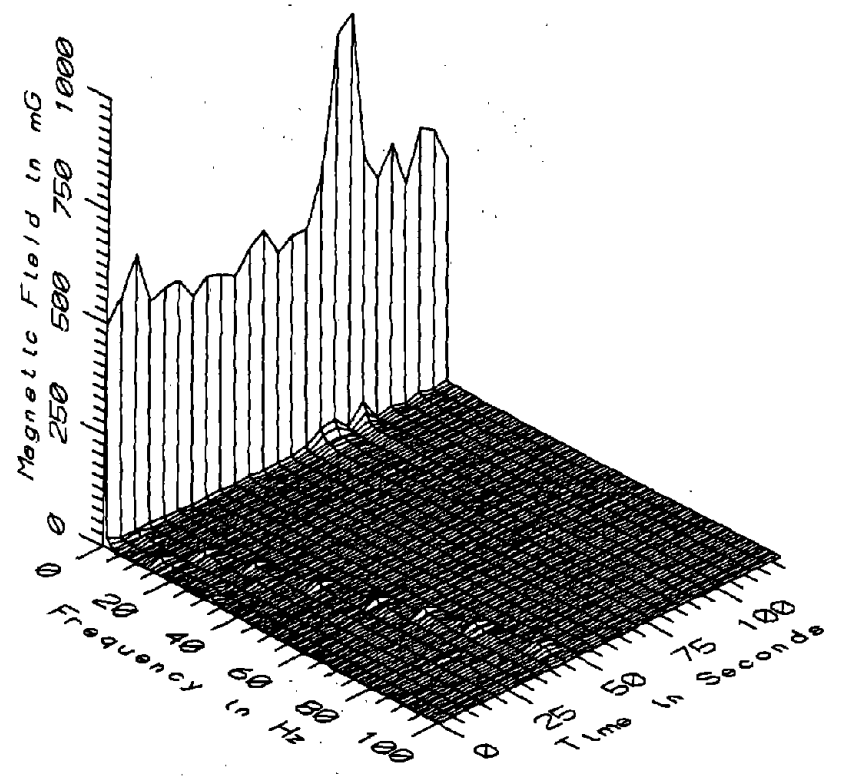
BOS011 - 60cm ABOVE SIDEWALK ON BENNETT ALLEY, BENNETT ST. T.P.S.S.



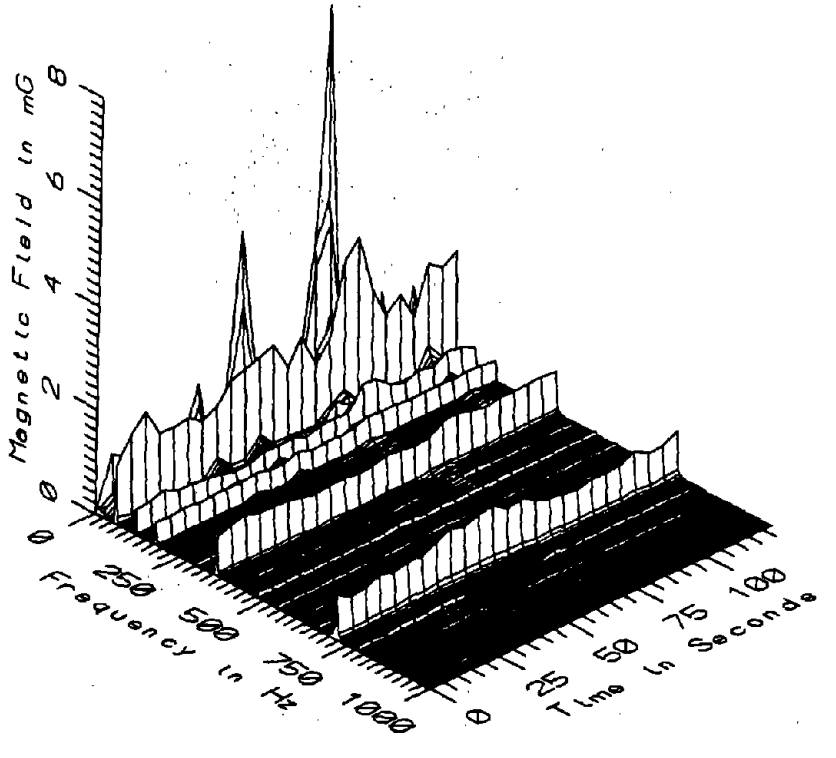
BOS011 - 110cm ABOVE SIDEWALK ON BENNETT ALLEY, BENNETT ST. T.P.S.S.



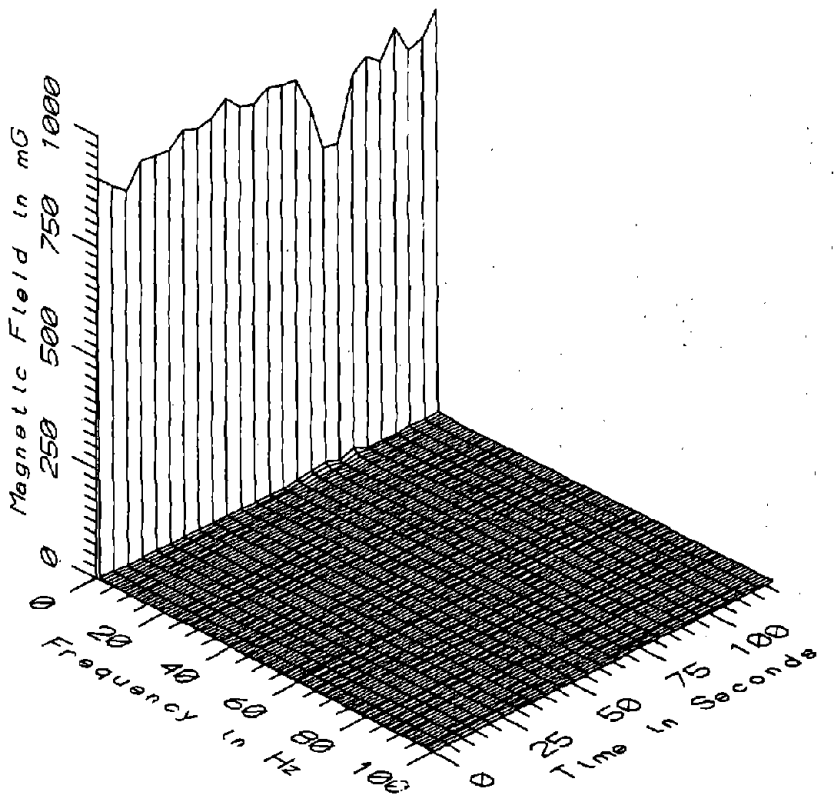
BOS011 - 110cm ABOVE SIDEWALK ON BENNETT ALLEY, BENNETT ST. T.P.S.S.



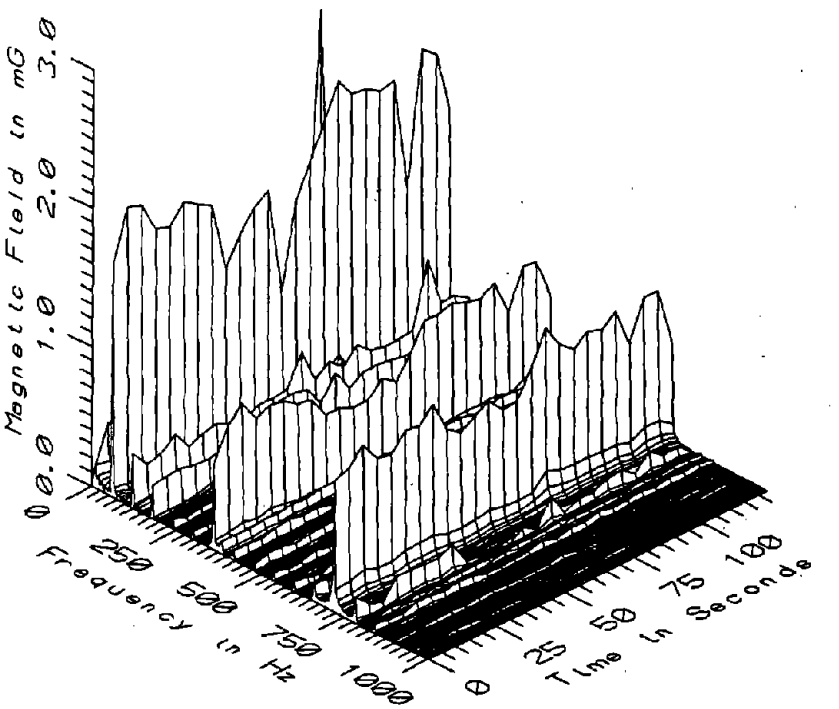
BOS011 - 160cm ABOVE SIDEWALK ON BENNETT ALLEY, BENNETT ST. T.P.S.S.



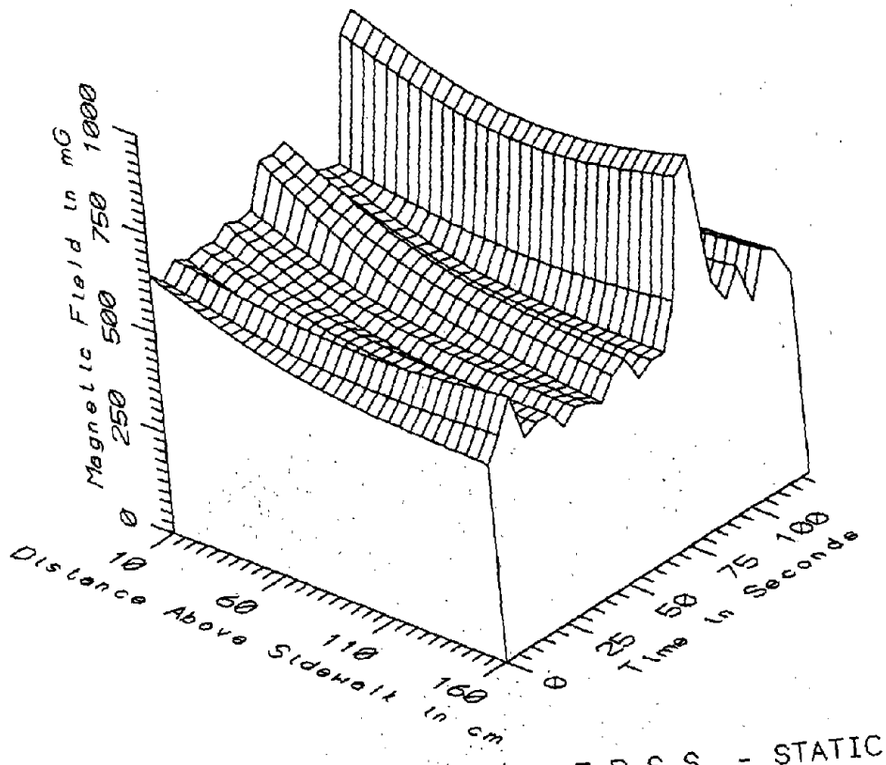
BOS011 - 160cm ABOVE SIDEWALK ON BENNETT ALLEY, BENNETT ST. T.P.S.S.



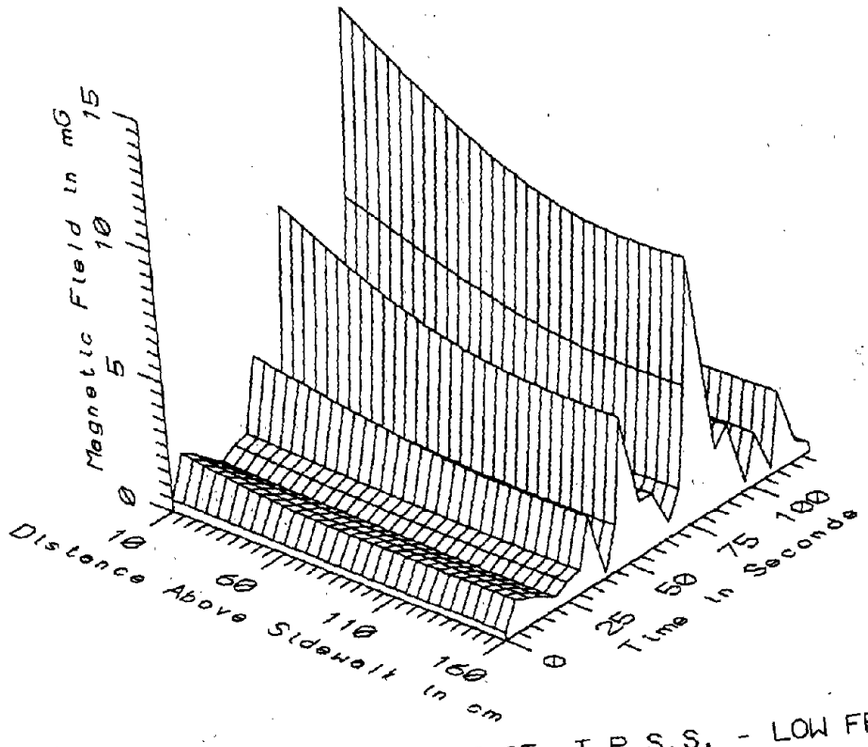
BOS011 - REFERENCE PROBE - BENNETT ALLEY SIDEWALK, BENNETT ST. T.P.S.S.



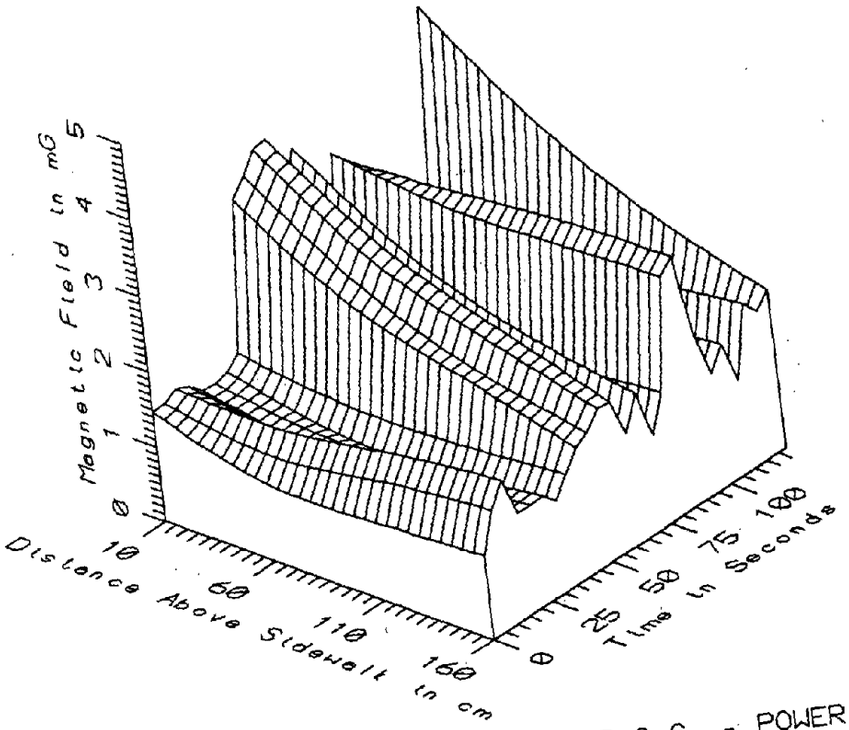
BOS011 - REFERENCE PROBE - BENNETT ALLEY SIDEWALK, BENNETT ST. T.P.S.S.



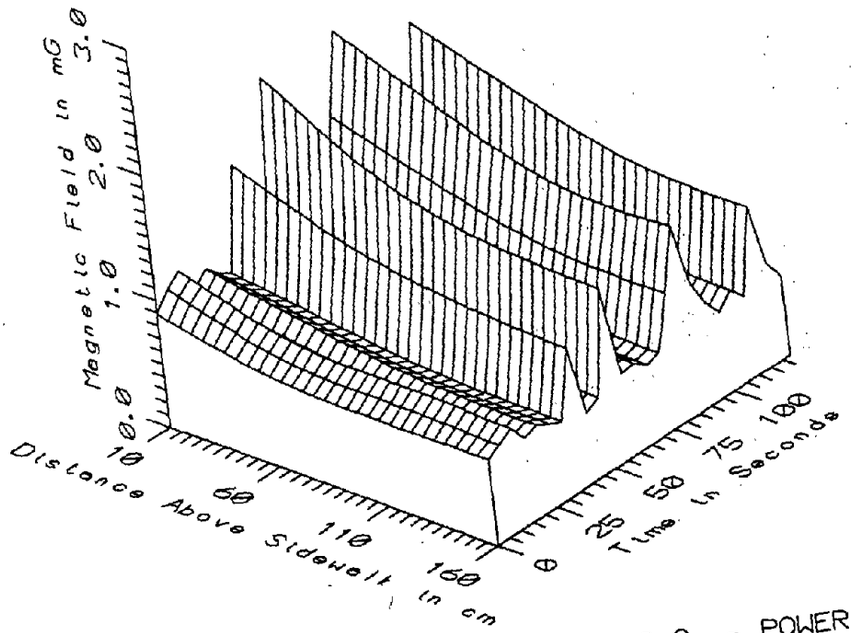
BOS011 - BENNETT ALLEY, BENNETT ST. T.P.S.S. - STATIC



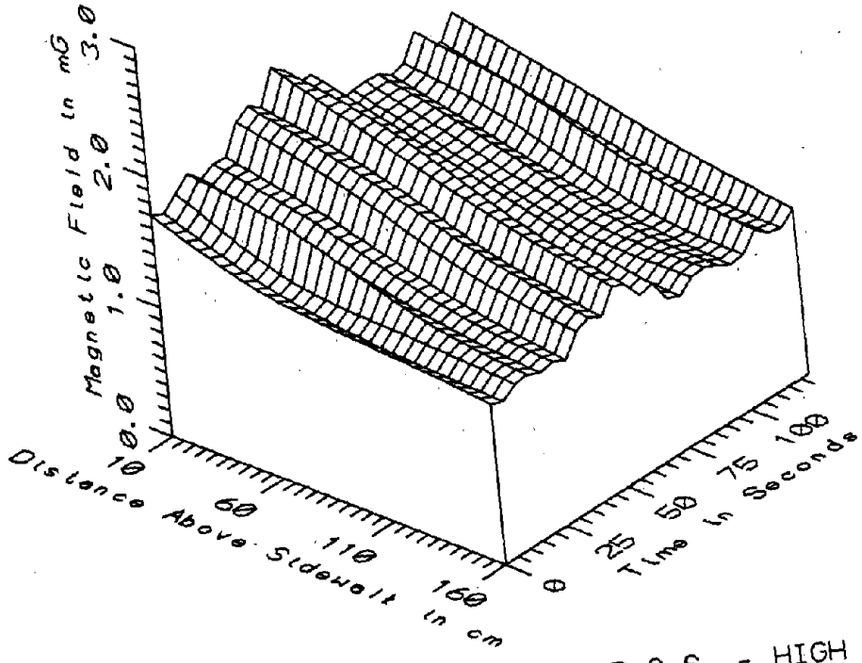
BOS011 - BENNETT ALLEY, BENNETT ST. T.P.S.S. - LOW FREQ, 5-45Hz



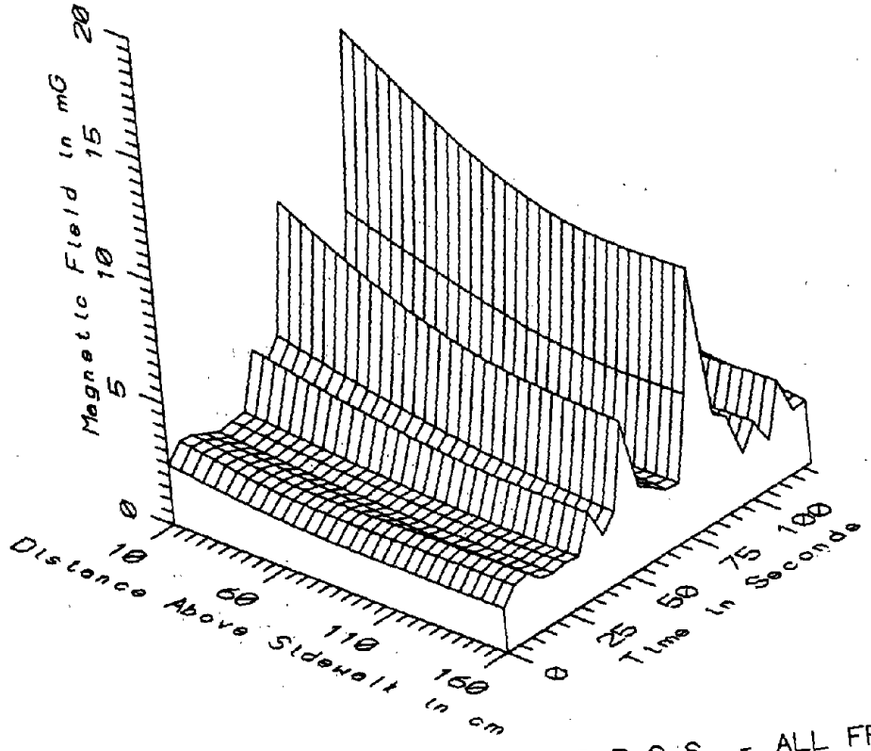
BOS011 - BENNETT ALLEY, BENNETT ST. T.P.S.S. - POWER FREQ. 50-60Hz



BOS011 - BENNETT ALLEY, BENNETT ST. T.P.S.S. - POWER HARM. 65-300Hz

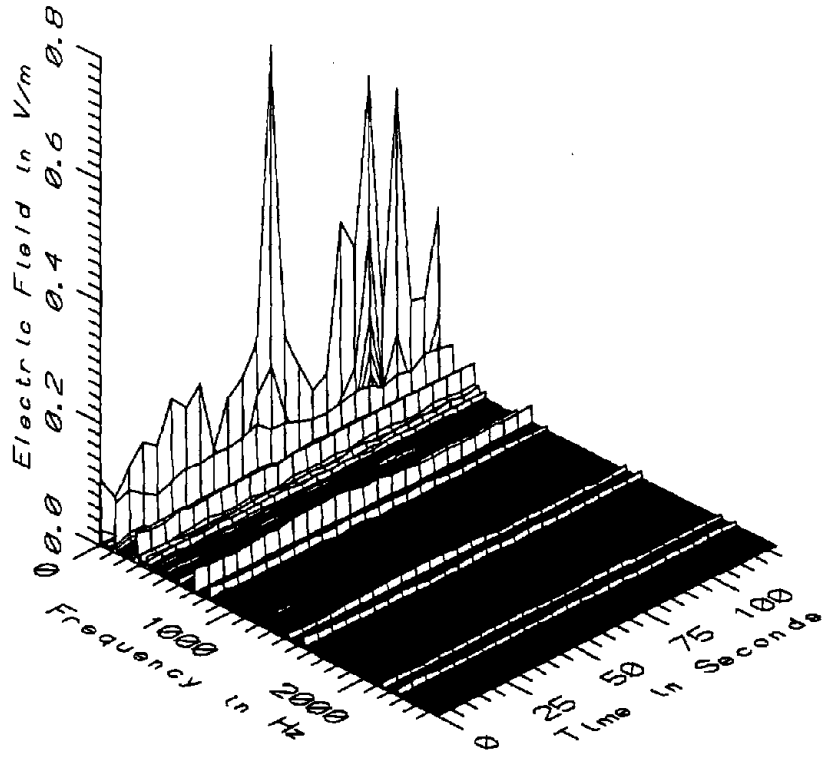


BOS011 - BENNETT ALLEY, BENNETT ST. T.P.S.S. - HIGH FREQ. 305-2560Hz



BOS011 - BENNETT ALLEY, BENNETT ST. T.P.S.S. - ALL FREQ. 5-2560Hz

BOS011 - BENNETT ALLEY OUTSIDE BENNETT STREET T.P.S.S.		TOTAL OF 25 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	611.72	975.63	677.65	93.80	13.84
	60	535.36	884.90	586.99	88.79	15.13
	110	485.27	871.63	554.28	96.42	17.40
	160	469.00	932.14	558.51	117.02	20.95
5-45Hz LOW FREQ	10	0.32	14.57	2.86	3.23	112.90
	60	0.24	11.61	2.27	2.57	113.34
	110	0.18	9.93	1.95	2.20	112.84
	160	0.20	9.92	1.94	2.18	112.47
50-60Hz PWR FREQ	10	1.31	4.29	2.29	1.01	44.27
	60	1.03	3.26	1.90	0.77	40.49
	110	1.03	3.25	1.80	0.61	34.05
	160	1.11	3.29	1.78	0.53	29.99
65-300Hz PWR HARM	10	0.77	2.15	1.13	0.41	36.01
	60	0.64	1.79	0.94	0.32	34.13
	110	0.57	1.53	0.84	0.27	31.68
	160	0.55	1.52	0.81	0.27	32.70
305-2560Hz HIGH FREQ	10	1.63	2.24	1.82	0.17	9.44
	60	1.36	1.98	1.61	0.18	11.01
	110	1.24	1.71	1.39	0.14	10.08
	160	1.15	1.53	1.28	0.10	7.82
5-2560Hz ALL FREQ	10	2.44	15.16	4.64	2.83	60.95
	60	1.93	12.22	3.80	2.24	58.80
	110	1.83	10.58	3.36	1.90	56.41
	160	1.83	10.58	3.27	1.90	58.01



BOS011 - ELECTRIC FIELD IN BENNETT ALLEY, BENNETT ST. T.P.S.S.

APPENDIX M

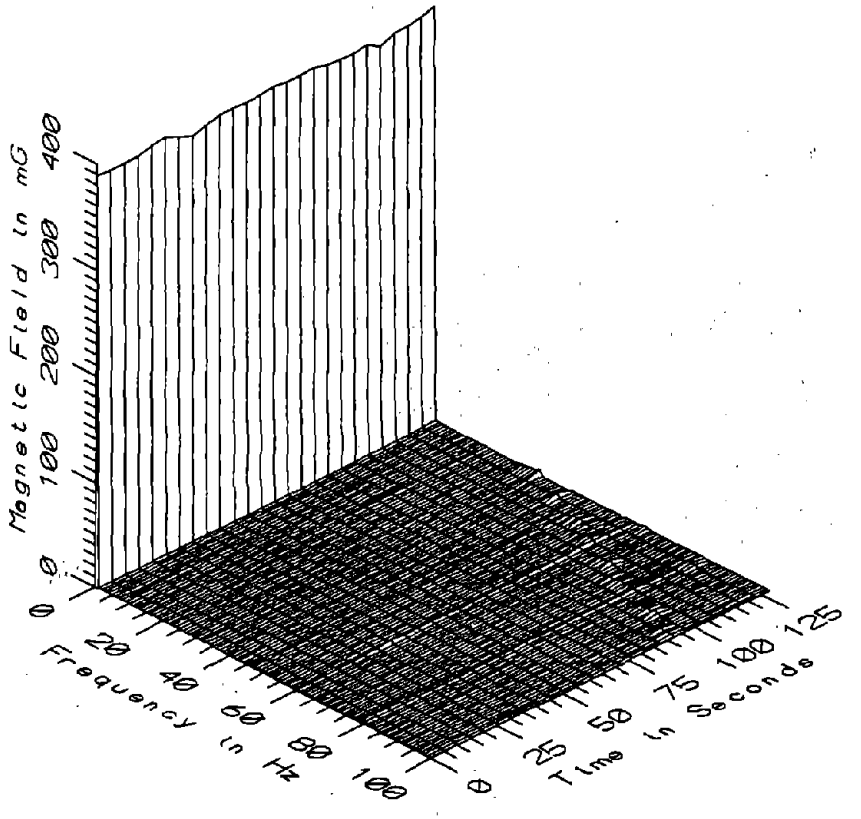
DATASET BOS012
ON BENNETT STREET OUTSIDE BENNETT STREET
TRACTION POWER SUPPLY STATION

Measurement Setup Code:	Staff: 61 Reference: 62 Drawing: A-9
Vehicle Status:	NA
Measurement Date:	June 9, 1992
Measurement Time:	Start: 14:07:52 End: 14:10:00
Number of Samples:	26
Programmed Sample Interval:	5 sec
Actual Sample Interval:	5.1 sec

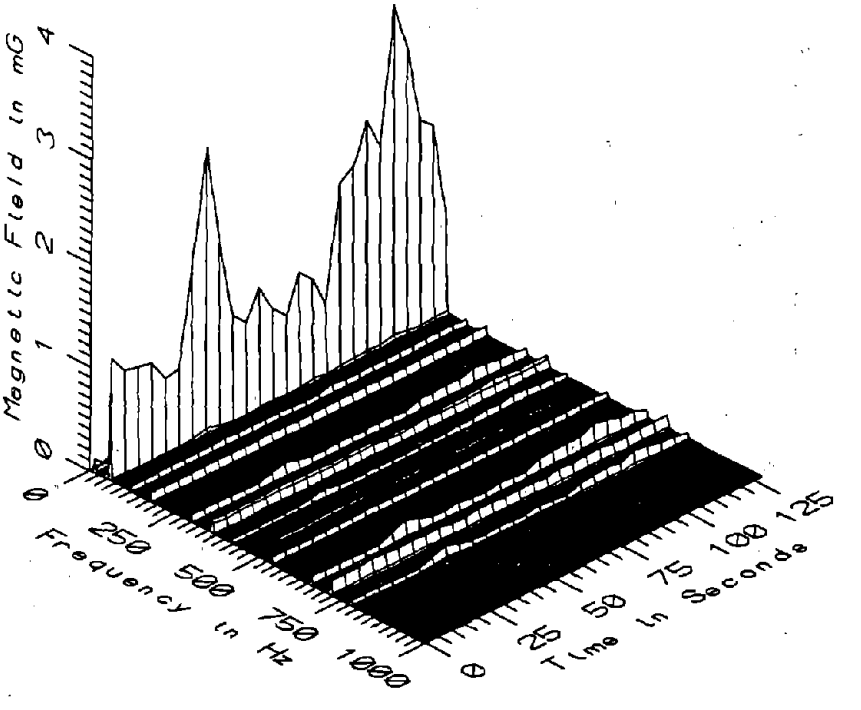
Frequency Spectrum Parameters

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

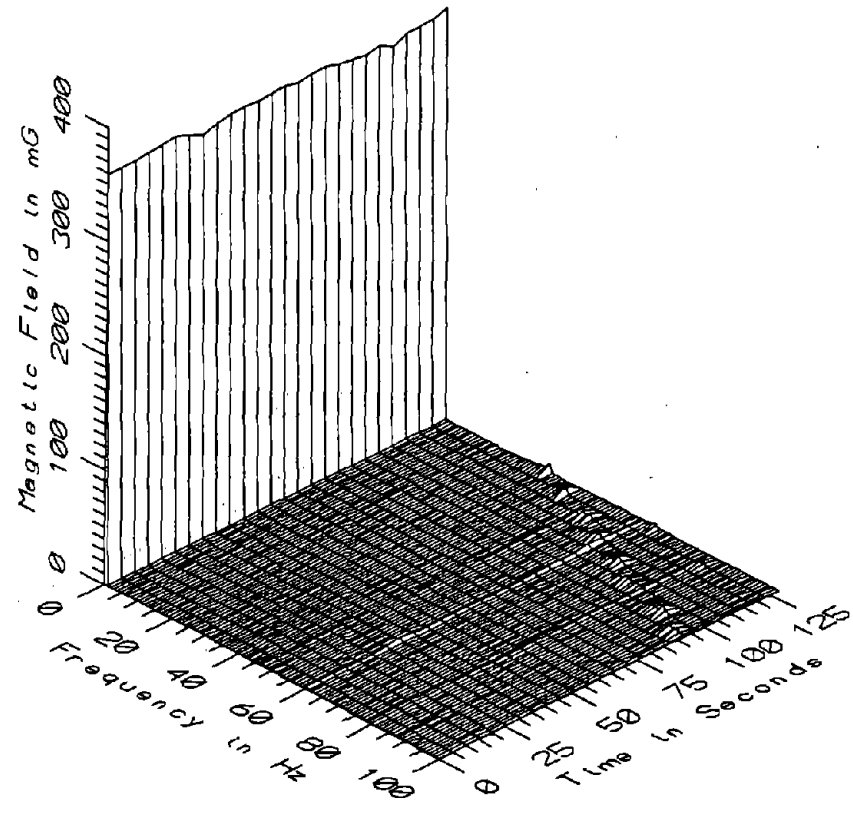
Missing Data: None



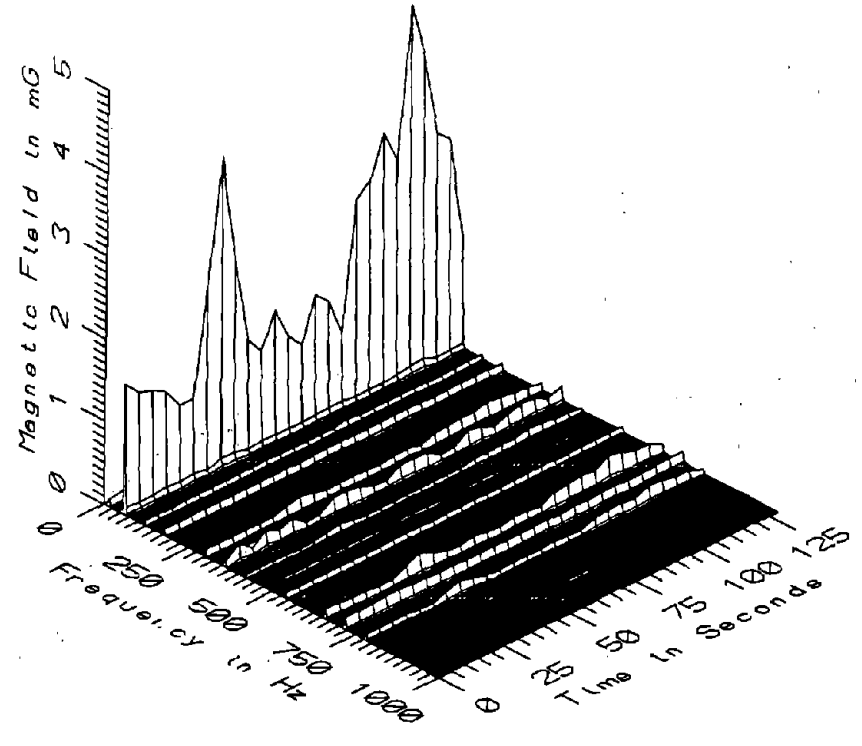
BOS012 - 10cm ABOVE SIDEWALK ON BENNETT STREET, BENNETT ST. T.P.S.S.



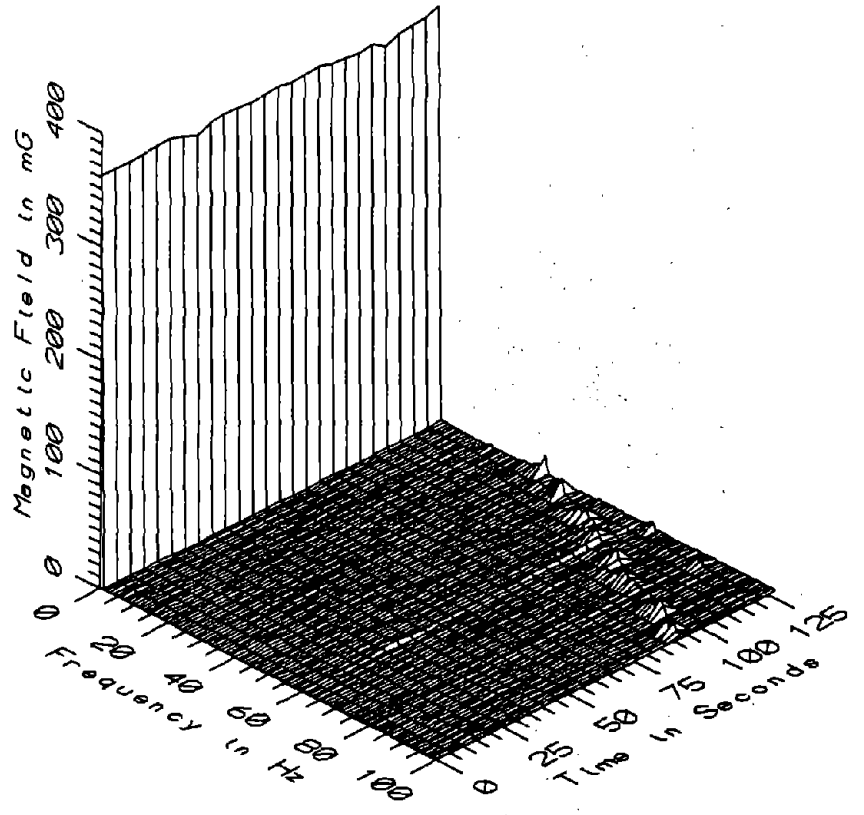
BOS012 - 10cm ABOVE SIDEWALK ON BENNETT STREET, BENNETT ST. T.P.S.S.



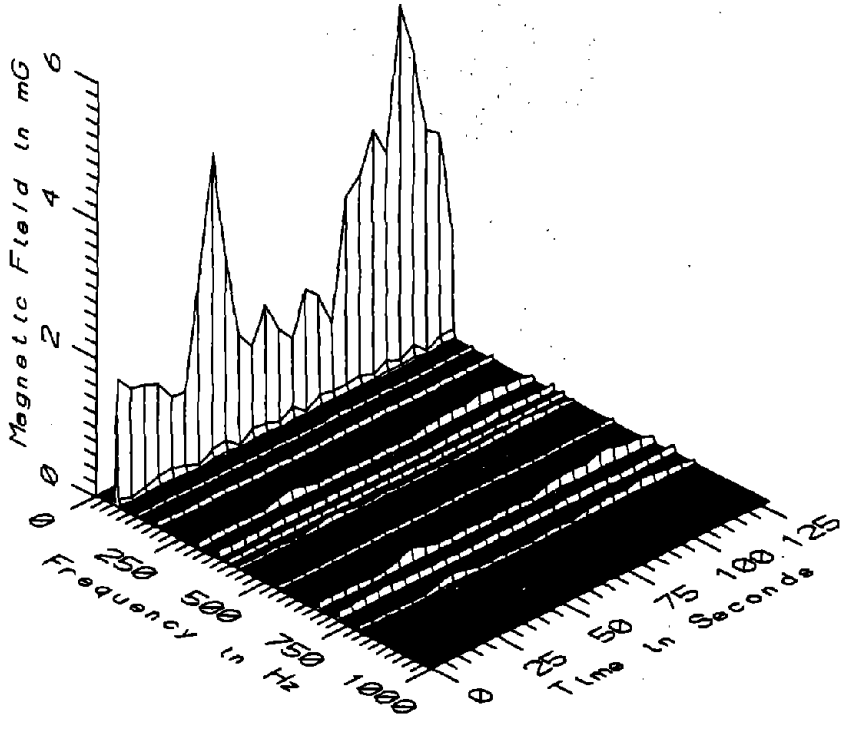
BOS012 - 60cm ABOVE SIDEWALK ON BENNETT STREET, BENNETT ST. T.P.S.S.



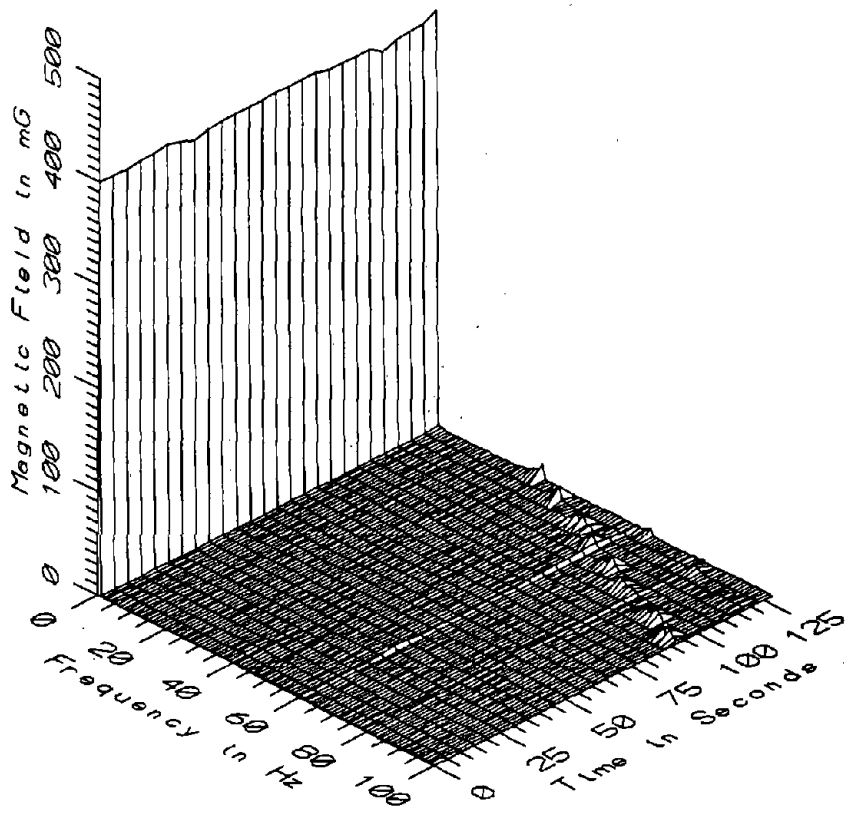
BOS012 - 60cm ABOVE SIDEWALK ON BENNETT STREET, BENNETT ST. T.P.S.S.



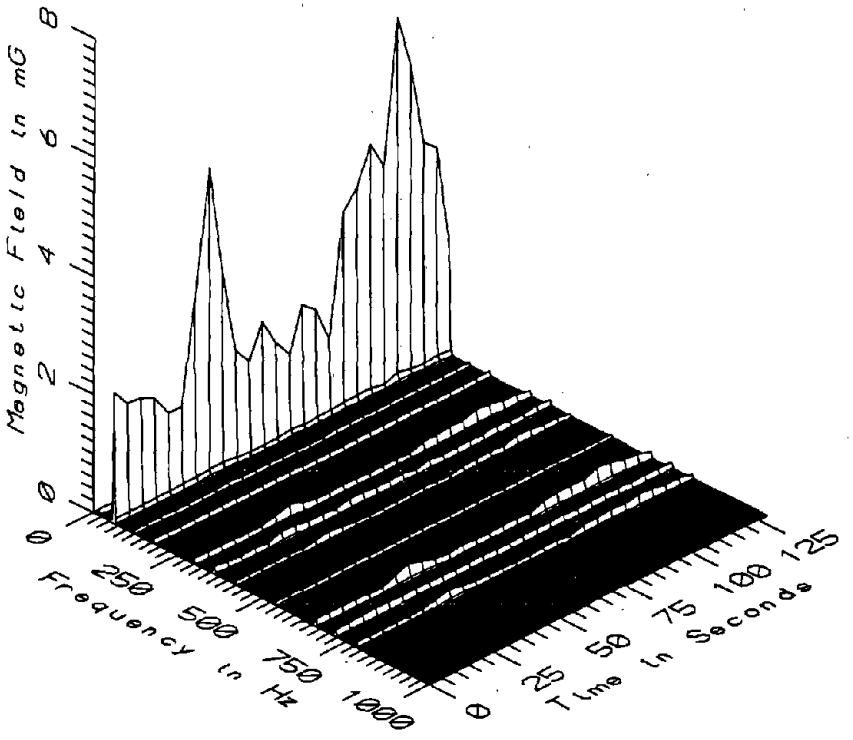
BOS012 - 110cm ABOVE SIDEWALK ON BENNETT STREET, BENNETT ST. T.P.S.S.



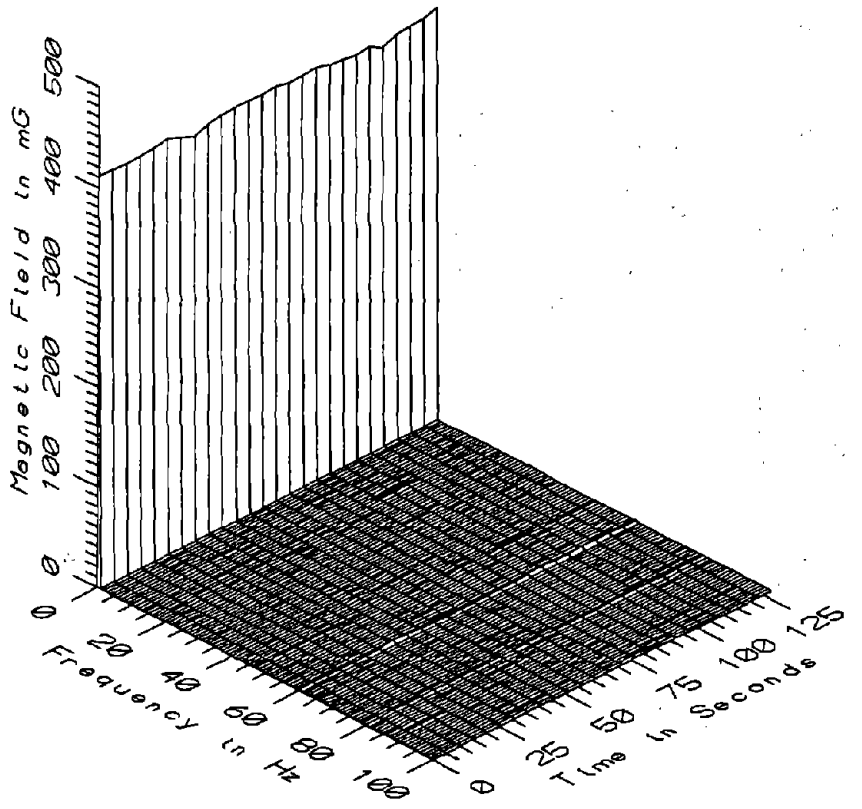
BOS012 - 110cm ABOVE SIDEWALK ON BENNETT STREET, BENNETT ST. T.P.S.S.



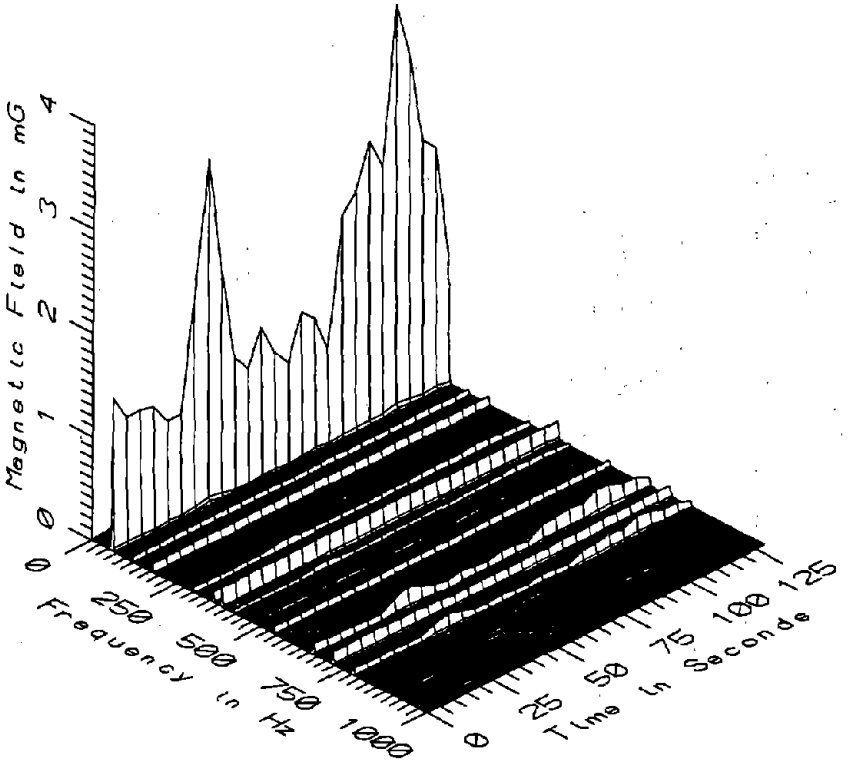
BOS012 - 160cm ABOVE SIDEWALK ON BENNETT STREET, BENNETT ST. T.P.S.S.



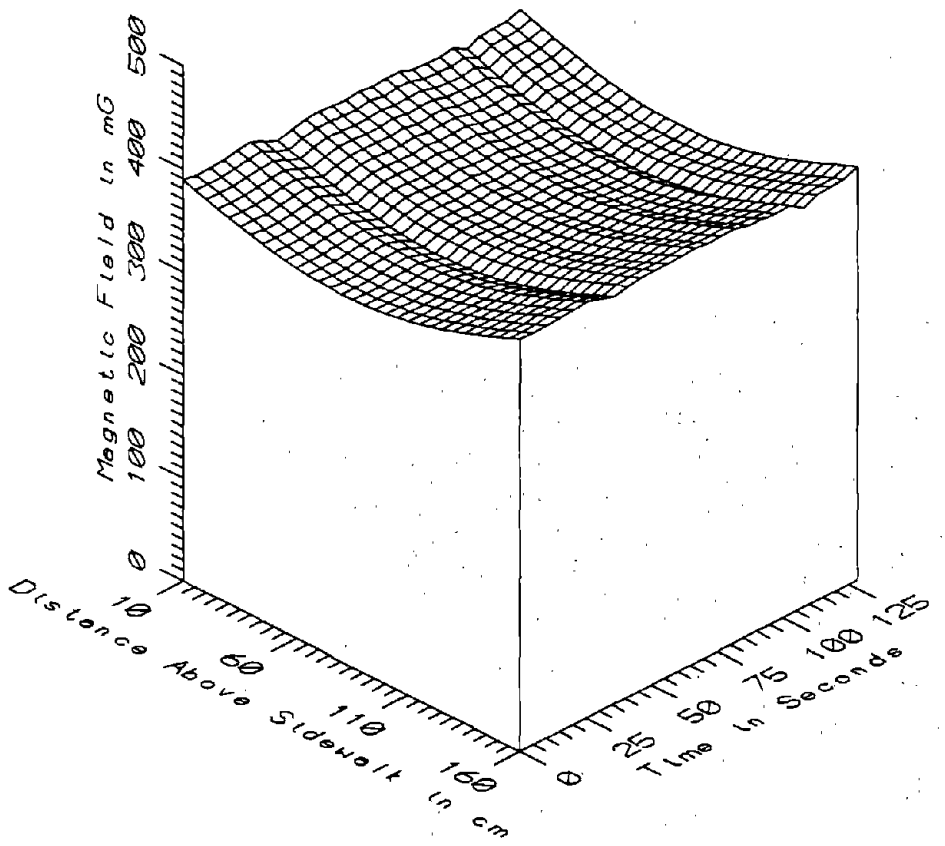
BOS012 - 160cm ABOVE SIDEWALK ON BENNETT STREET, BENNETT ST. T.P.S.S.



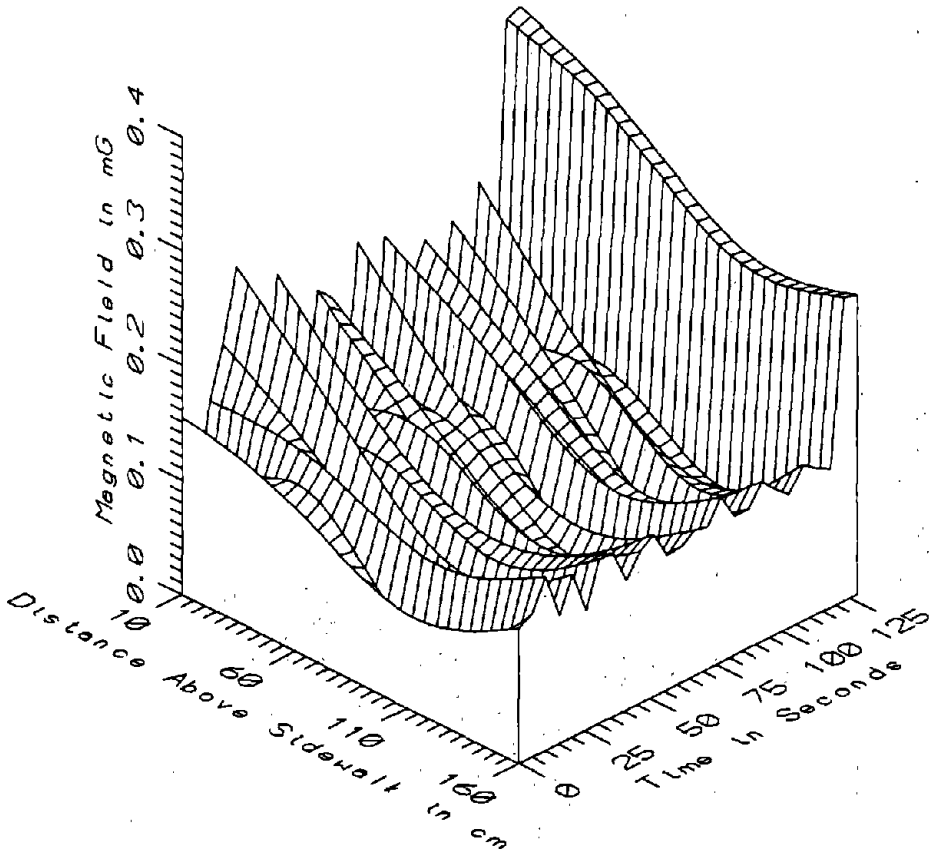
BOS012 - REFERENCE PROBE - BENNETT STREET SIDEWALK, BENNETT ST. T.P.S.S.



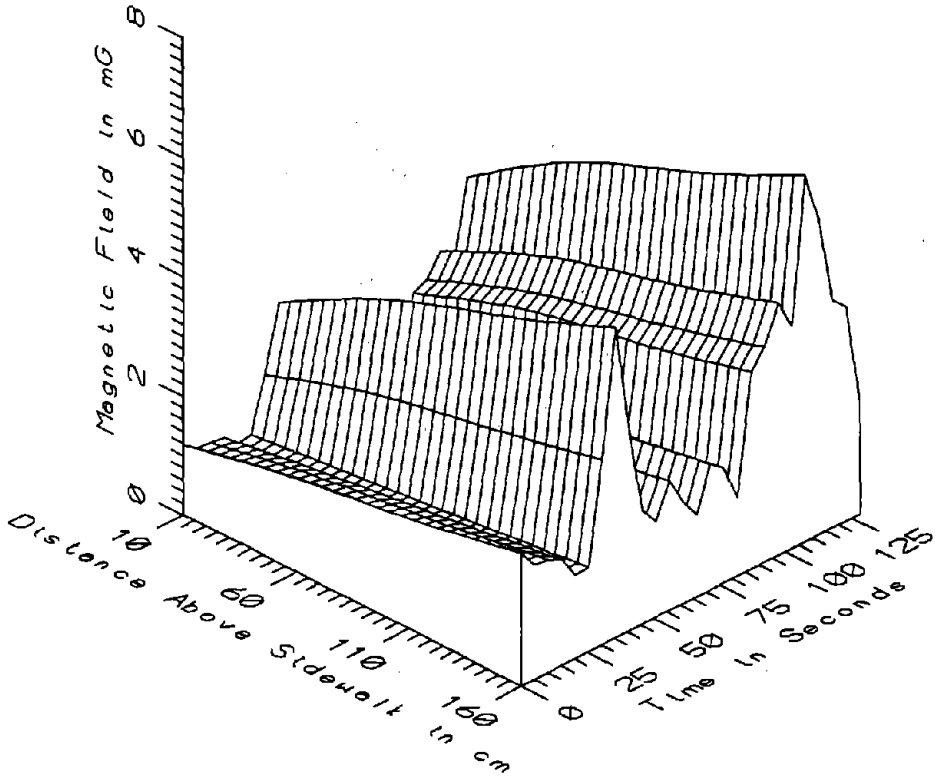
BOS012 - REFERENCE PROBE - BENNETT STREET SIDEWALK, BENNETT ST. T.P.S.S.



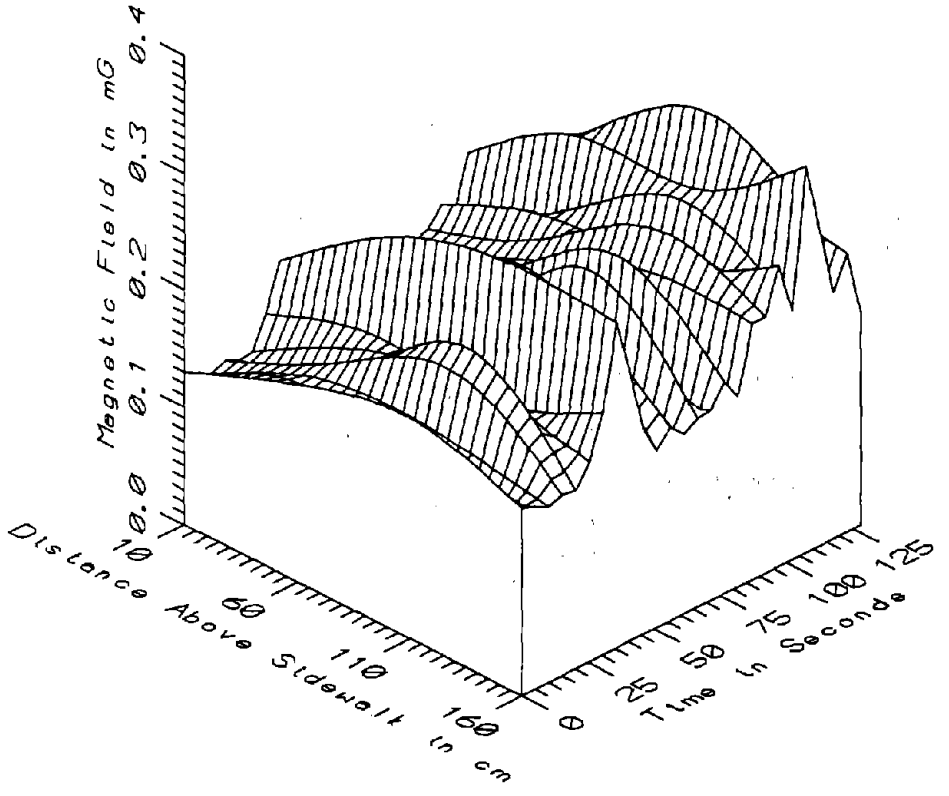
BOS012 - BENNETT STREET, BENNETT ST. T.P.S.S. - STATIC



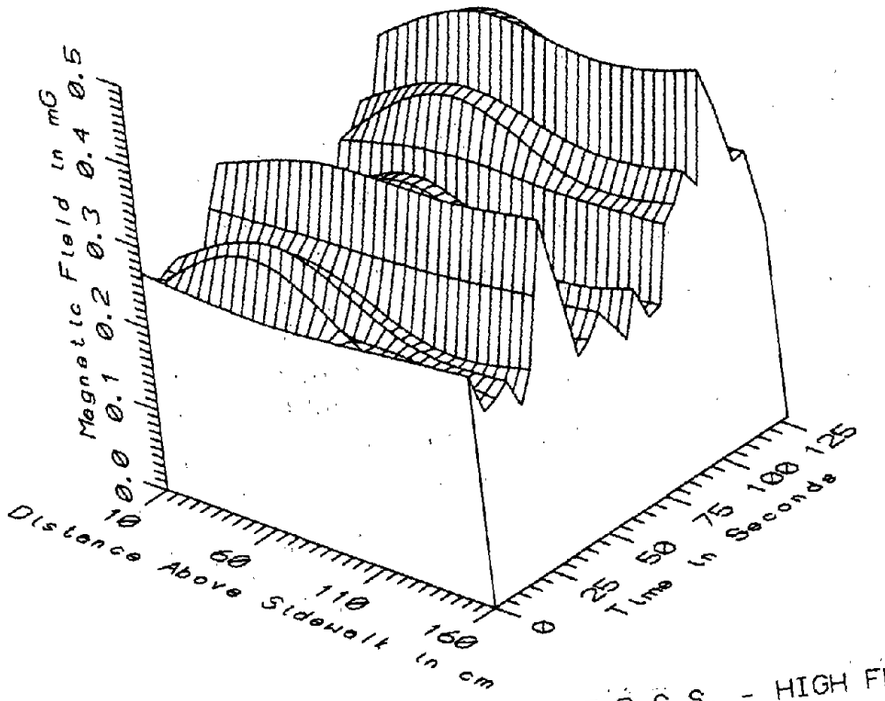
BOS012 - BENNETT STREET, BENNETT ST. T.P.S.S. - LOW FREQ, 5-45Hz



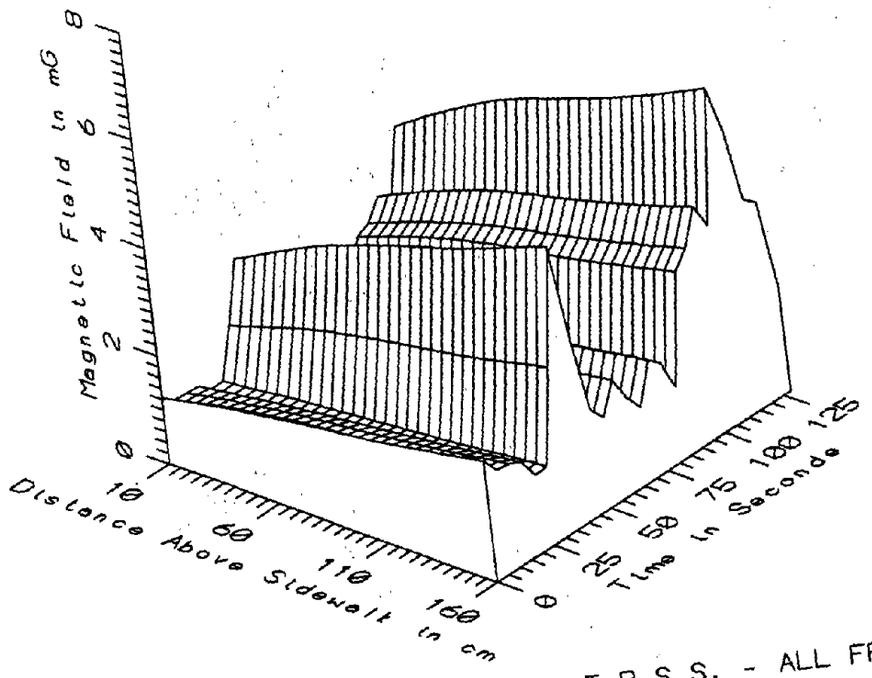
BOS012 - BENNETT STREET, BENNETT ST. T.P.S.S. - POWER FREQ, 50-60Hz



BOS012 - BENNETT STREET, BENNETT ST. T.P.S.S. - POWER HARM, 65-300Hz

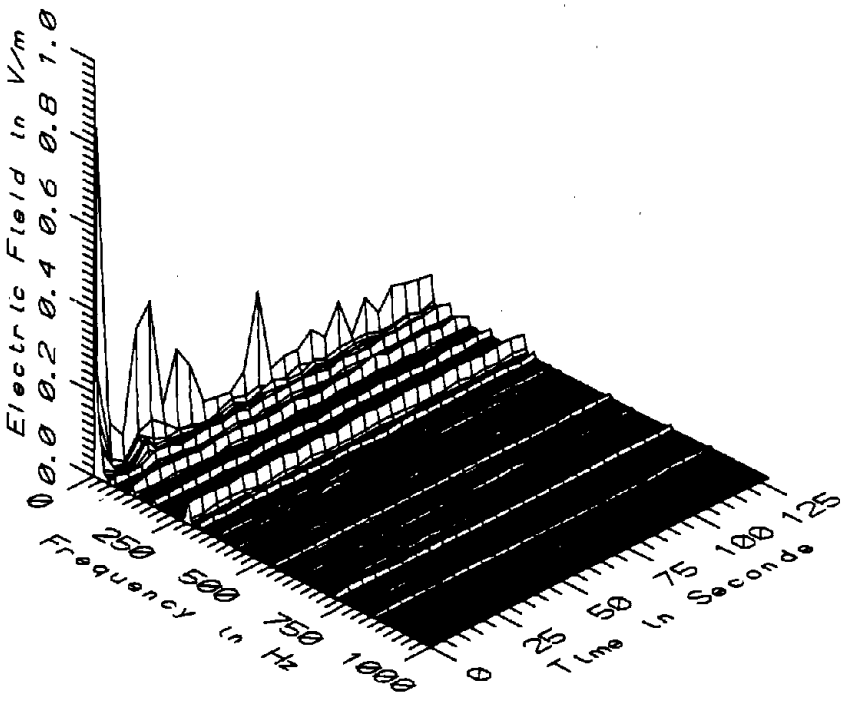


BOS012 - BENNETT STREET, BENNETT ST. T.P.S.S. - HIGH FREQ, 305-2560Hz



BOS012 - BENNETT STREET, BENNETT ST. T.P.S.S. - ALL FREQ, 5-2560Hz

BOS012 - BENNETT STREET OUTSIDE BENNETT STREET T.P.S.S. TOTAL OF 26 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	377.37	393.28	387.00	3.41	0.88
	60	348.46	363.05	357.77	3.32	0.93
	110	350.84	364.61	360.73	3.21	0.89
	160	387.89	403.04	398.45	3.29	0.83
5-45Hz LOW FREQ	10	0.06	0.36	0.17	0.08	47.34
	60	0.11	0.32	0.14	0.05	36.96
	110	0.03	0.25	0.08	0.05	64.09
	160	0.11	0.27	0.14	0.04	27.62
50-60Hz PWR FREQ	10	0.70	3.26	1.47	0.72	48.67
	60	0.93	4.47	2.00	0.99	49.43
	110	1.12	5.24	2.35	1.16	49.33
	160	1.33	6.14	2.77	1.36	49.02
65-300Hz PWR HARM	10	0.11	0.20	0.14	0.02	16.17
	60	0.15	0.26	0.18	0.03	17.16
	110	0.13	0.32	0.21	0.05	23.06
	160	0.15	0.33	0.20	0.05	24.18
305-2560Hz HIGH FREQ	10	0.20	0.37	0.26	0.04	16.13
	60	0.20	0.44	0.31	0.06	19.61
	110	0.20	0.43	0.28	0.06	22.38
	160	0.21	0.47	0.29	0.07	23.90
5-2560Hz ALL FREQ	10	0.76	3.28	1.52	0.71	46.47
	60	0.97	4.50	2.04	0.98	48.05
	110	1.15	5.27	2.38	1.16	48.53
	160	1.36	6.17	2.80	1.36	48.47



BOS012 - ELECTRIC FIELD ON BENNETT STREET, BENNETT ST. T.P.S.S.

APPENDIX N

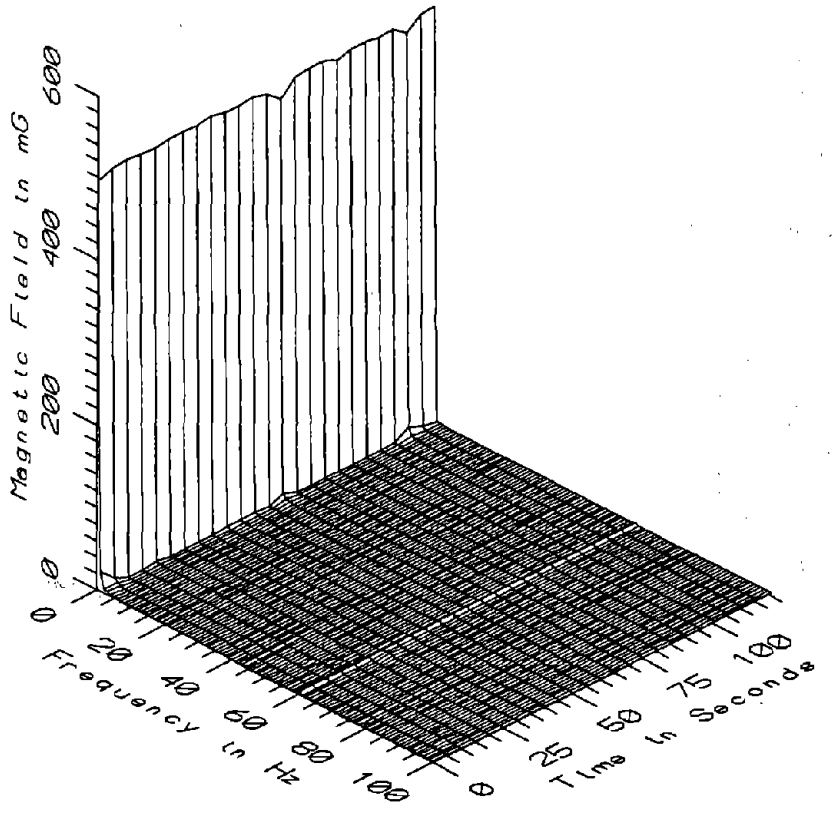
DATASET BOS013
TROLLEY BUS WAYSIDE ON CONCORD AVENUE

Measurement Setup Code:	Staff: 30 Reference: 31 Drawing: A-3
Vehicle Status:	NA
Measurement Date:	June 9, 1992
Measurement Time:	Start: 14:30:54 End: 14:32:55
Number of Samples:	25
Programmed Sample Interval:	5 sec
Actual Sample Interval:	5.0 sec

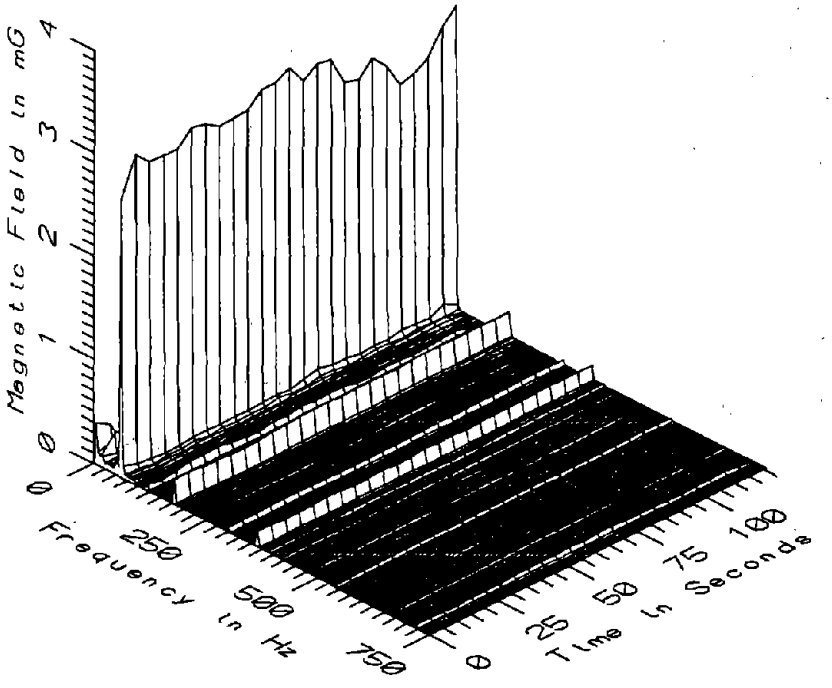
Frequency Spectrum Parameters

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

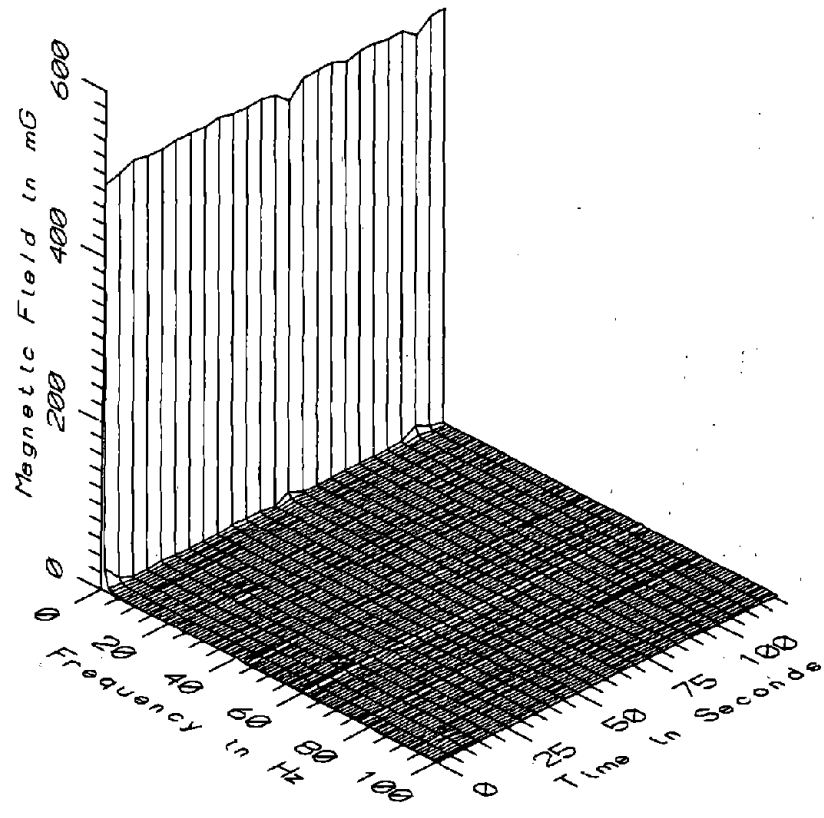
Missing Data: None



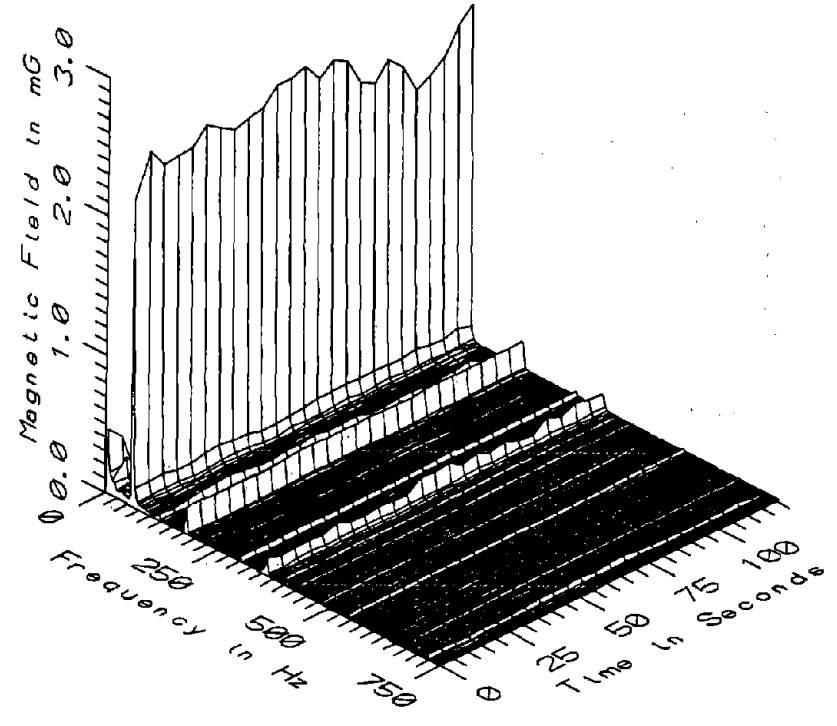
BOS013 - 10cm ABOVE GROUND, TROLLEY BUS WAYSIDE ON CONCORD AVE.



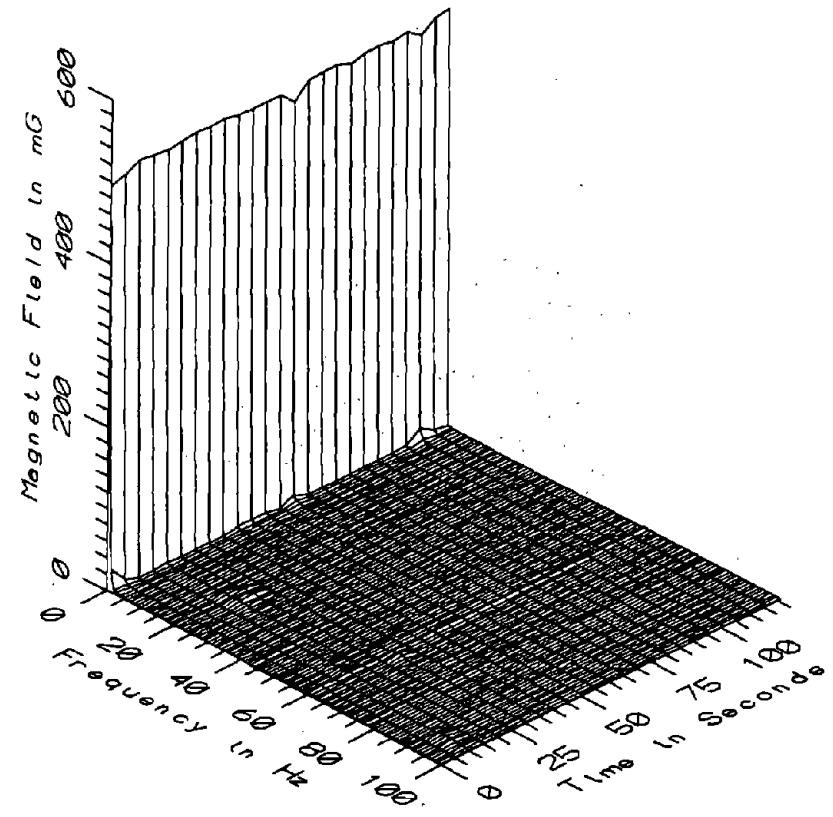
BOS013 - 10cm ABOVE GROUND, TROLLEY BUS WAYSIDE ON CONCORD AVE.



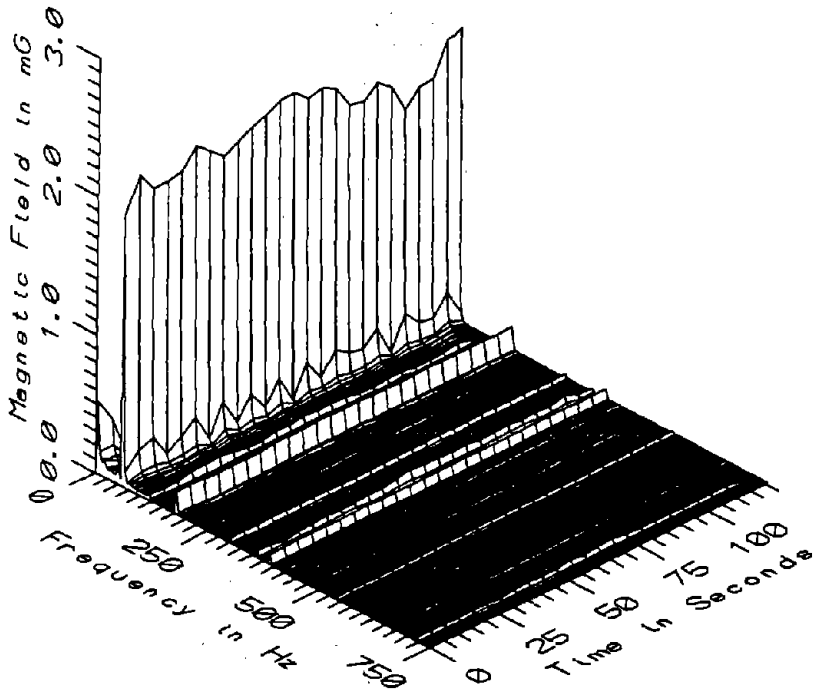
BOS013 -- 60cm ABOVE GROUND, TROLLEY BUS WAYSIDE ON CONCORD AVE.



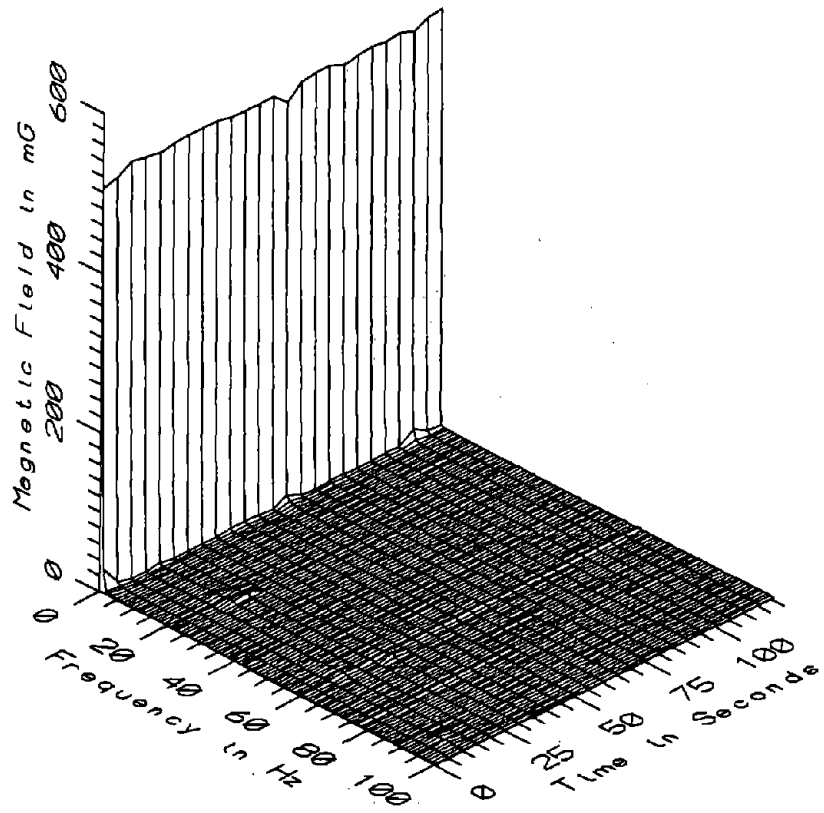
BOS013 - 60cm ABOVE GROUND, TROLLEY BUS WAYSIDE ON CONCORD AVE.



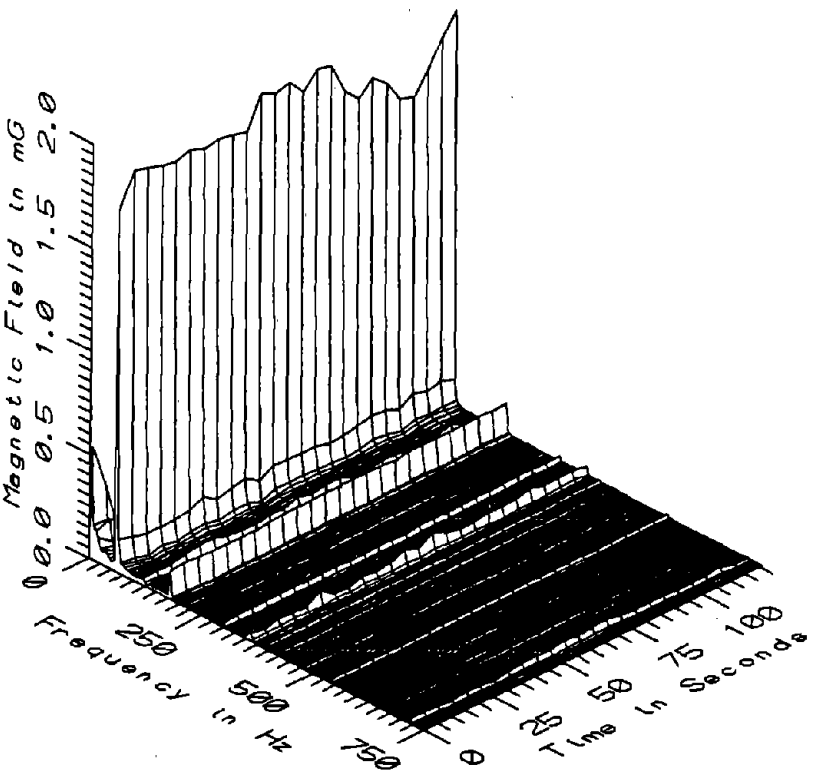
BOS013 - 110cm ABOVE GROUND, TROLLEY BUS WAYSIDE ON CONCORD AVE.



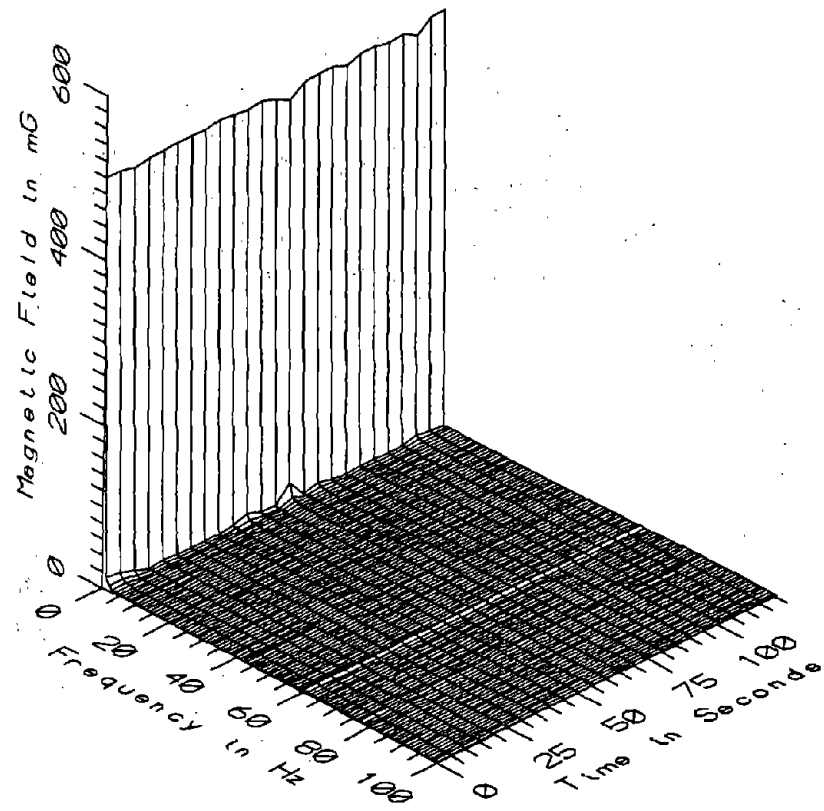
BOS013 - 110cm ABOVE GROUND, TROLLEY BUS WAYSIDE ON CONCORD AVE.



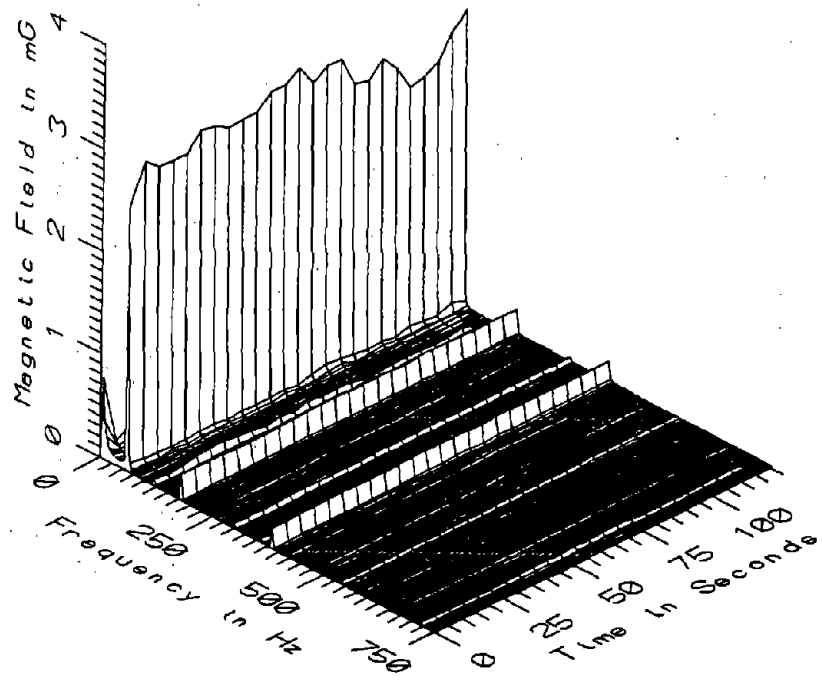
BOS013 - 160cm ABOVE GROUND, TROLLEY BUS WAYSIDE ON CONCORD AVE.



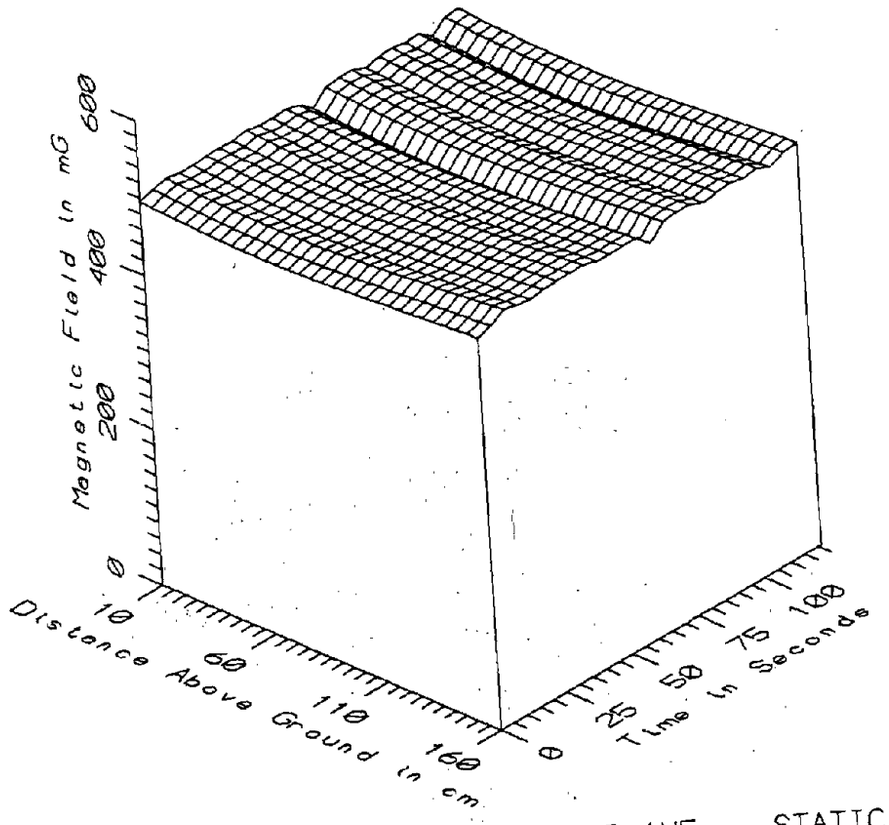
BOS013 - 160cm ABOVE GROUND, TROLLEY BUS WAYSIDE ON CONCORD AVE.



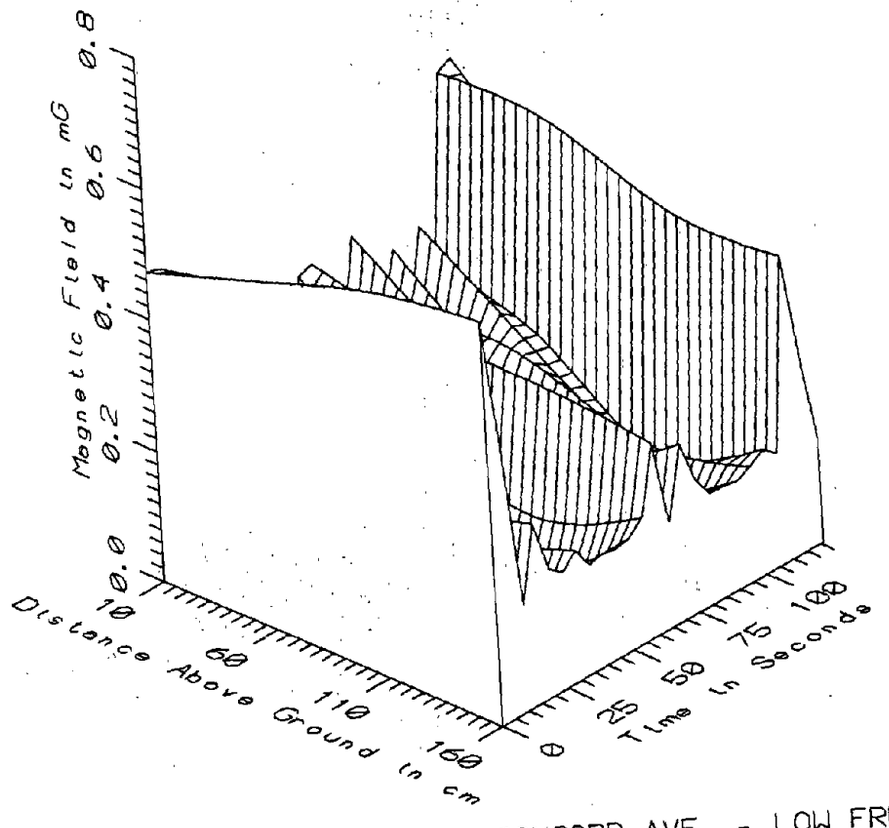
BOS013 - REFERENCE PROBE - TROLLEY BUS WAYSIDE ON CONCORD AVE.



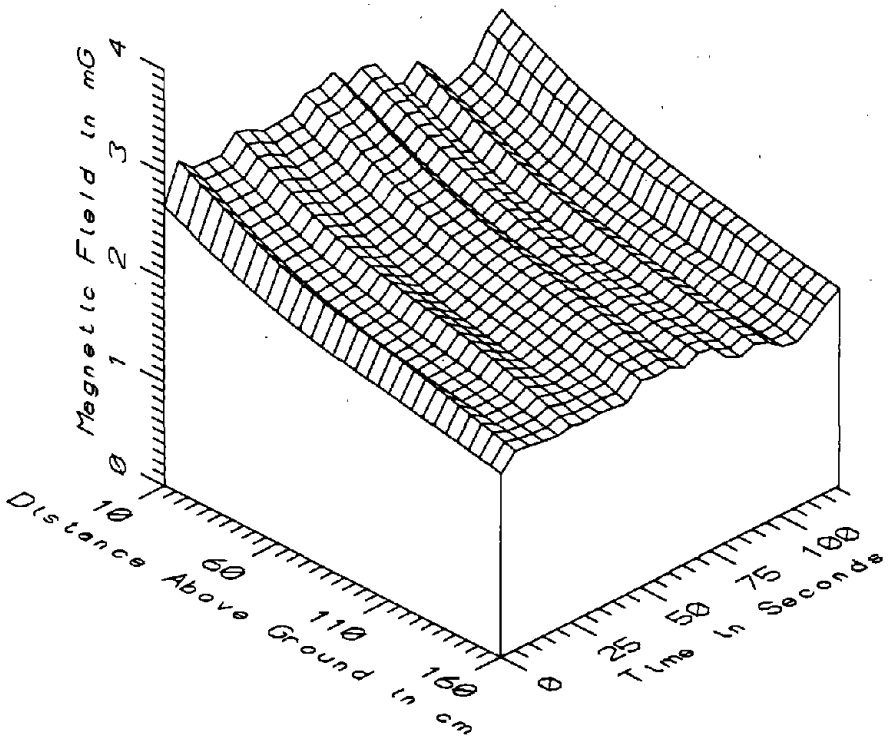
BOS013 - REFERENCE PROBE - TROLLEY BUS WAYSIDE ON CONCORD AVE.



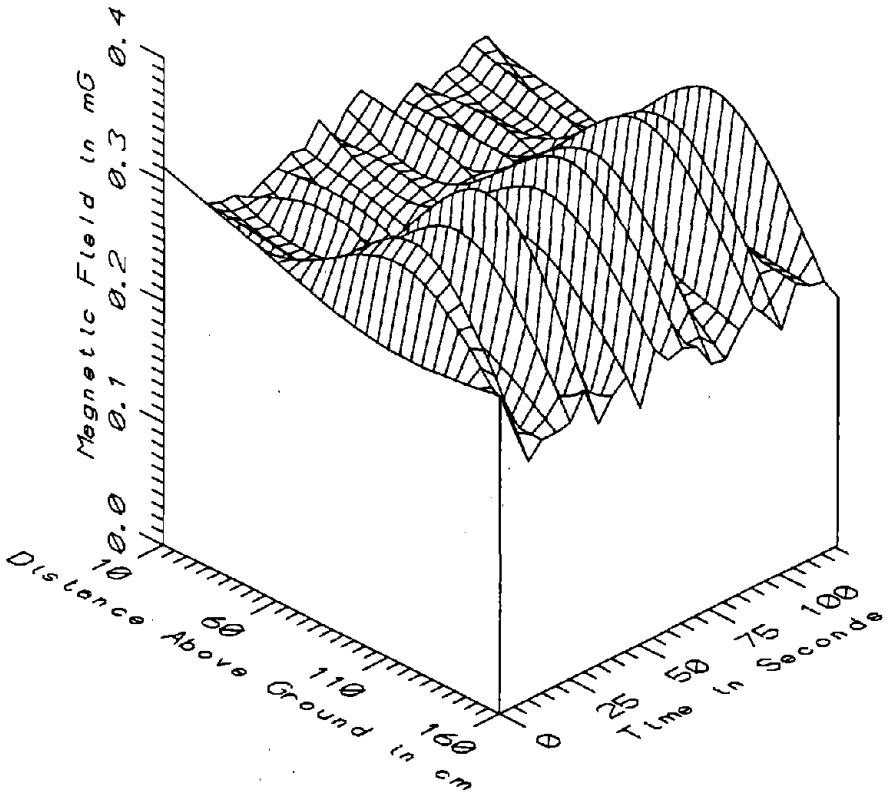
BOS013 - TROLLEY BUS WAYSIDE ON CONCORD AVE. - STATIC



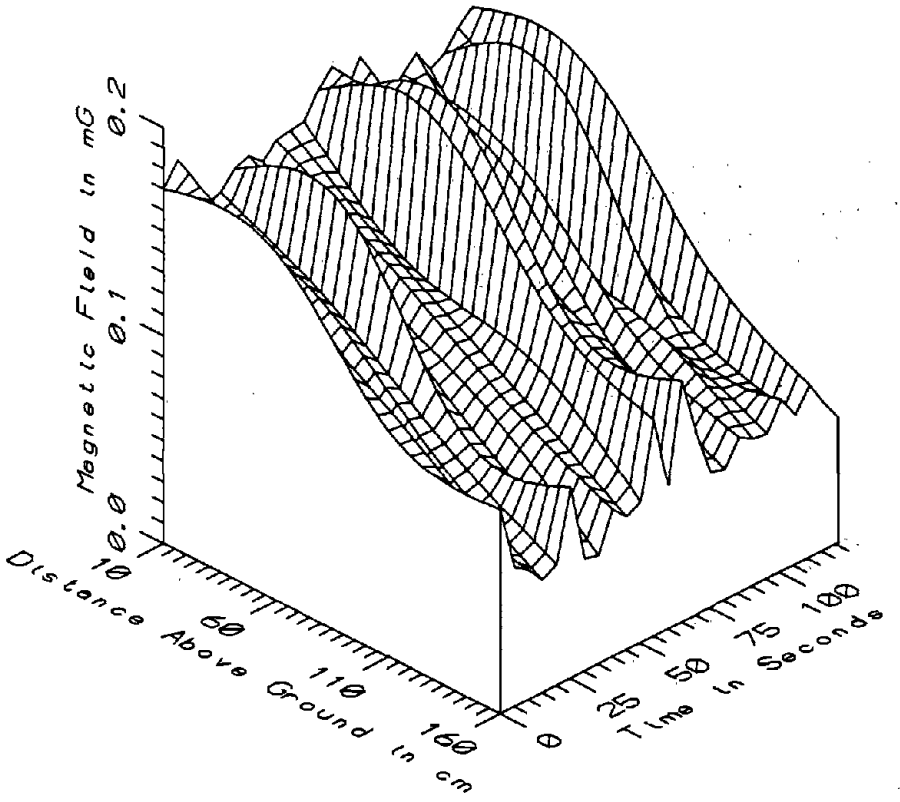
BOS013 - TROLLEY BUS WAYSIDE ON CONCORD AVE. - LOW FREQ. 5-45Hz



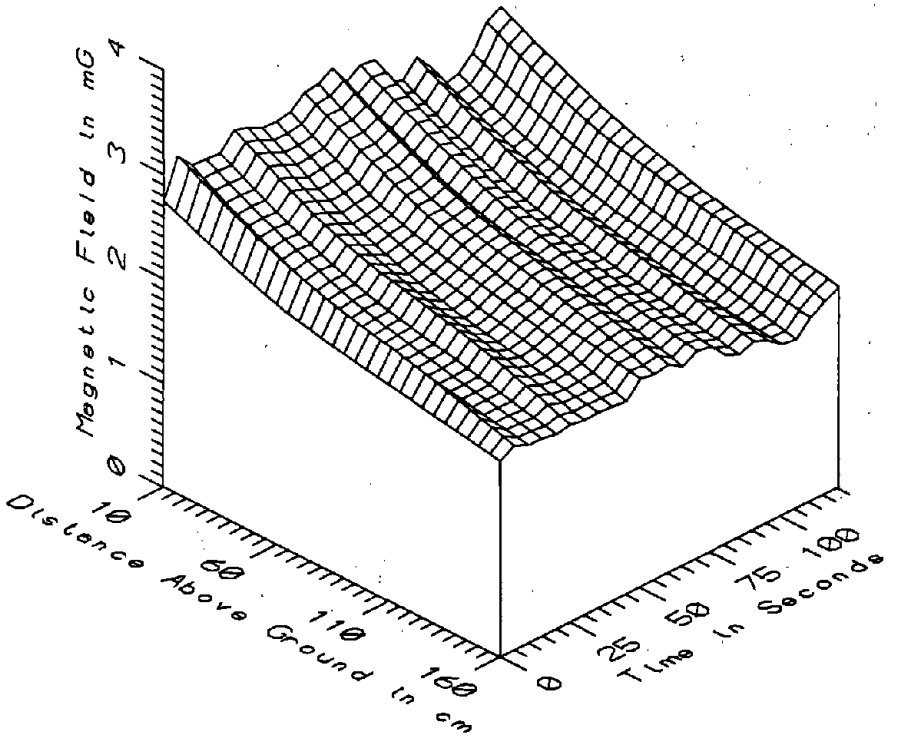
BOS013 - TROLLEY BUS WAYSIDE ON CONCORD AVE. - POWER FREQ, 50-60Hz



BOS013 - TROLLEY BUS WAYSIDE ON CONCORD AVE. - POWER HARM, 65-300Hz

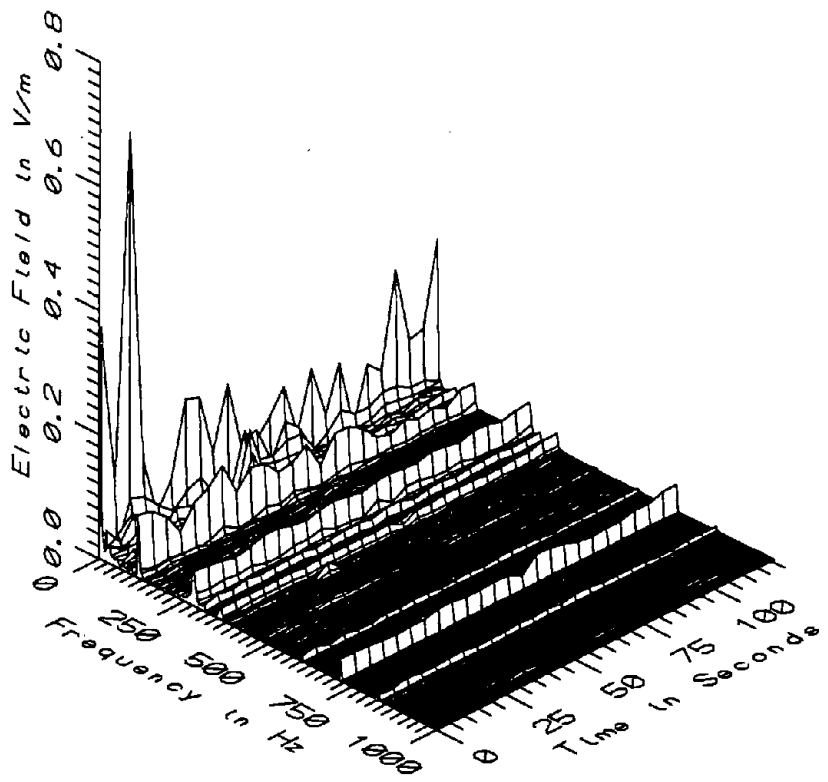


BOS013 - TROLLEY BUS WAYSIDE ON CONCORD AVE. - HIGH FREQ, 305-2560Hz



BOS013 - TROLLEY BUS WAYSIDE ON CONCORD AVE. - ALL FREQ, 5-2560Hz

BOS013 - TROLLEY BUS WAYSIDE ON CONCORD AVENUE					TOTAL OF 25 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	486.45	507.63	502.30	4.99	0.99
	60	479.40	501.57	495.76	5.29	1.07
	110	488.01	509.37	503.87	5.19	1.03
	160	500.56	522.35	516.51	5.20	1.01
5-45Hz LOW FREQ	10	0.07	0.53	0.29	0.12	41.59
	60	0.16	0.53	0.24	0.12	49.23
	110	0.03	0.59	0.17	0.14	86.63
	160	0.16	0.62	0.23	0.11	48.67
50-60Hz PWR FREQ	10	2.46	3.17	2.89	0.19	6.53
	60	2.01	2.58	2.37	0.15	6.43
	110	1.75	2.26	2.08	0.13	6.37
	160	1.59	1.97	1.83	0.10	5.64
65-300Hz PWR HARM	10	0.25	0.31	0.27	0.01	5.07
	60	0.24	0.28	0.26	0.01	4.13
	110	0.18	0.34	0.27	0.06	21.84
	160	0.19	0.26	0.22	0.02	7.23
305-2560Hz HIGH FREQ	10	0.15	0.19	0.17	0.01	6.86
	60	0.11	0.20	0.15	0.02	16.64
	110	0.08	0.13	0.10	0.01	12.67
	160	0.05	0.12	0.07	0.02	21.94
5-2560Hz ALL FREQ	10	2.50	3.20	2.92	0.18	6.30
	60	2.04	2.62	2.40	0.15	6.19
	110	1.79	2.30	2.11	0.13	6.13
	160	1.62	2.00	1.86	0.10	5.41



BOS013 - ELECTRIC FIELD AT TROLLEY BUS WAYSIDE ON CONCORD AVENUE

APPENDIX O

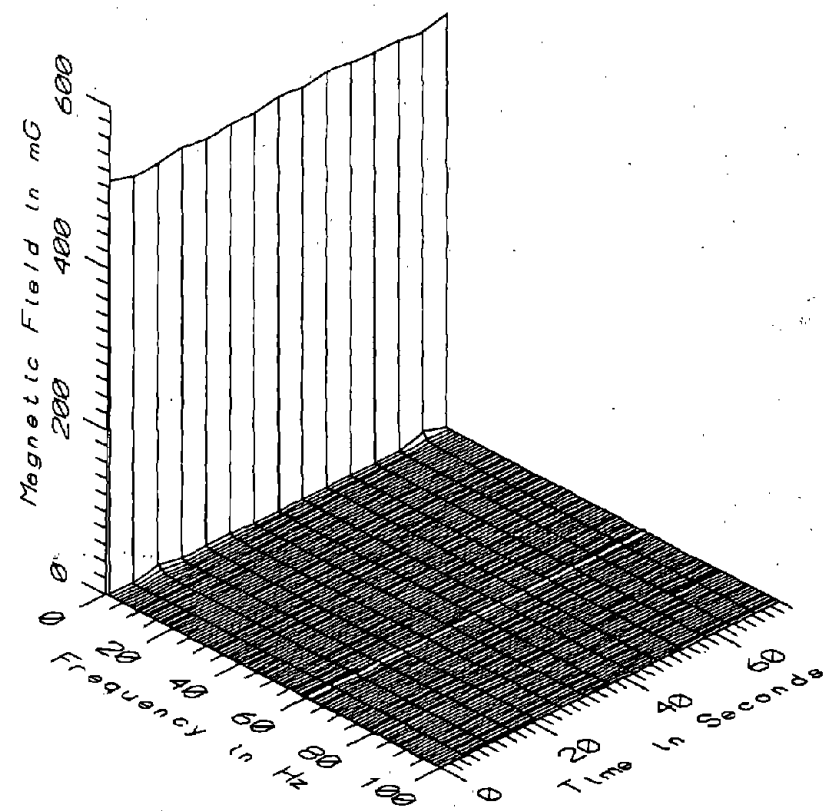
DATASET BOS014
TROLLEY BUS WAYSIDE ON CONCORD AVENUE

Measurement Setup Code:	Staff: 30 Reference: 31 Drawing: A-3
Vehicle Status:	NA
Measurement Date:	June 9, 1992
Measurement Time:	Start: 14:48:01 End: 14:49:15
Number of Samples:	15
Programmed Sample Interval:	5 sec
Actual Sample Interval:	5.3 sec

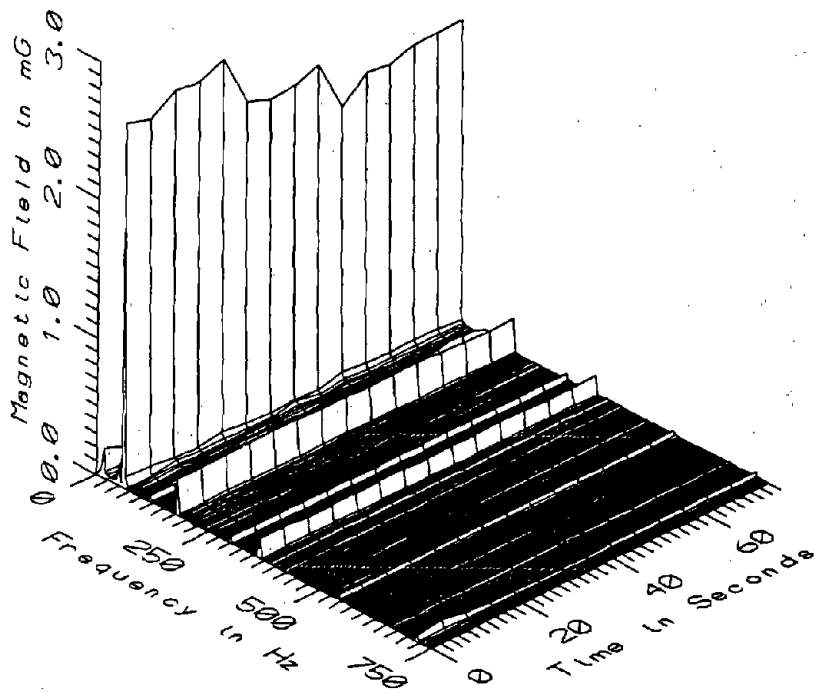
Frequency Spectrum Parameters

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

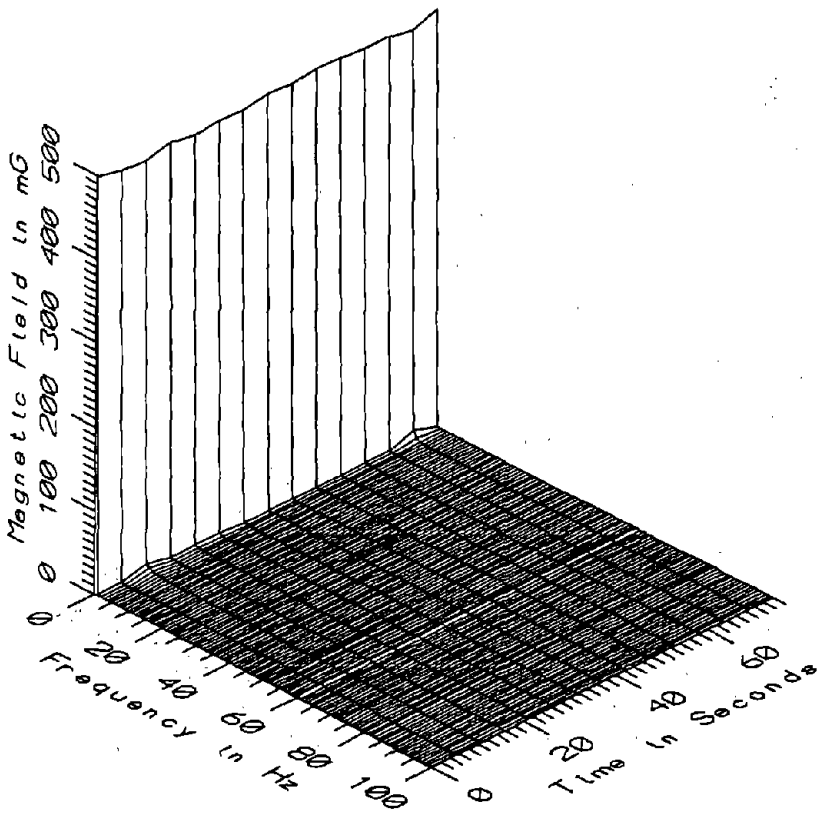
Missing Data: None



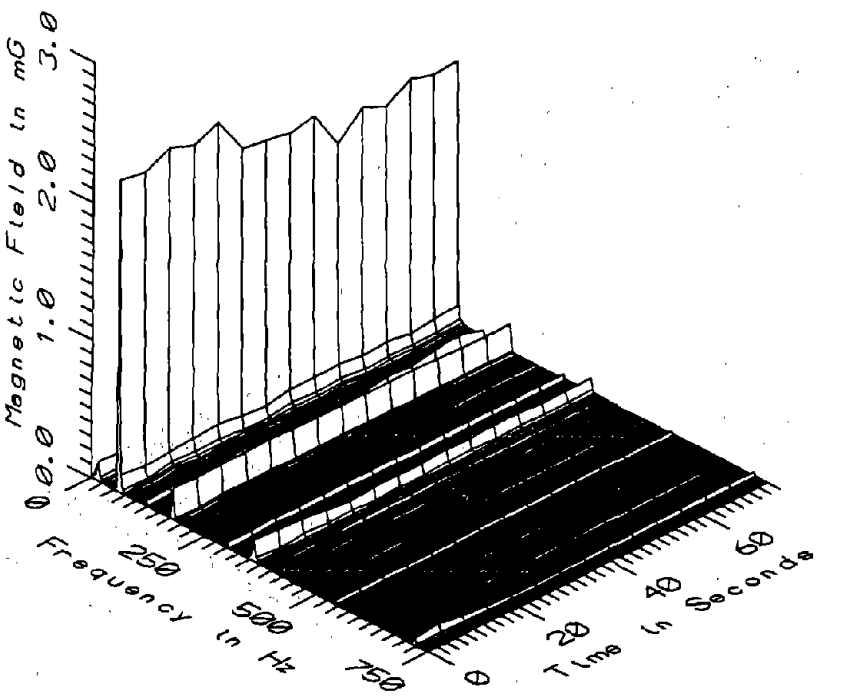
BOS014 - 10cm ABOVE GROUND, TROLLEY BUS WAYSIDE ON CONCORD AVE.



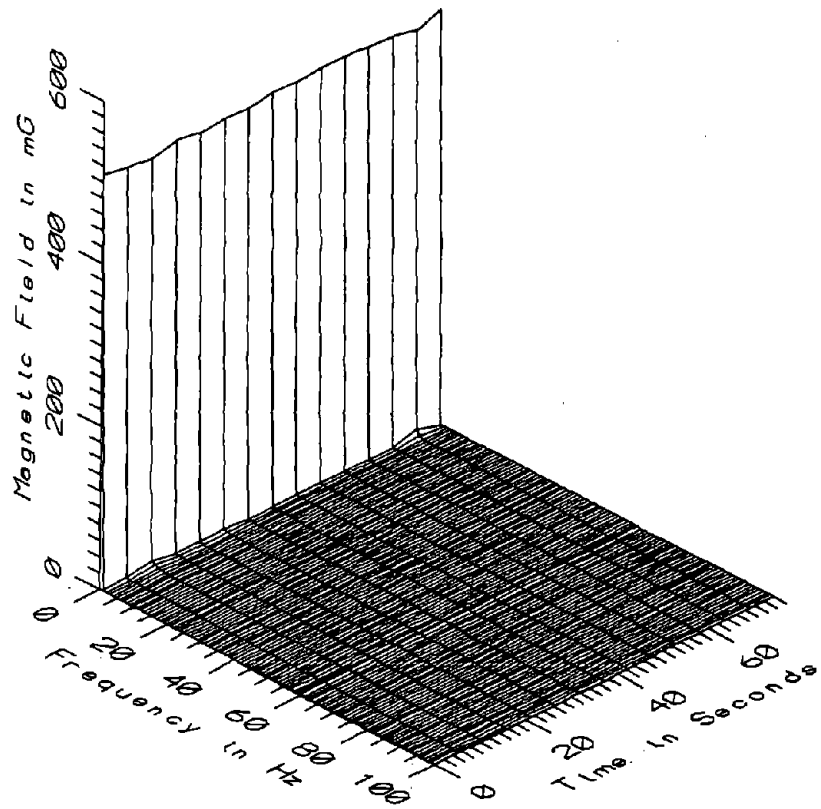
BOS014 - 10cm ABOVE GROUND, TROLLEY BUS WAYSIDE ON CONCORD AVE.



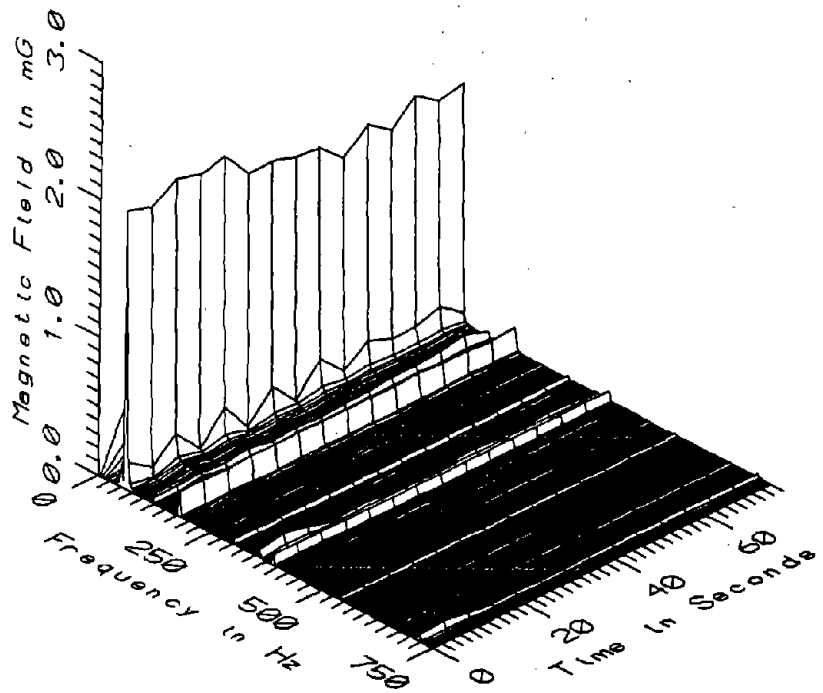
BOS014 - 60cm ABOVE GROUND, TROLLEY BUS WAYSIDE ON CONCORD AVE.



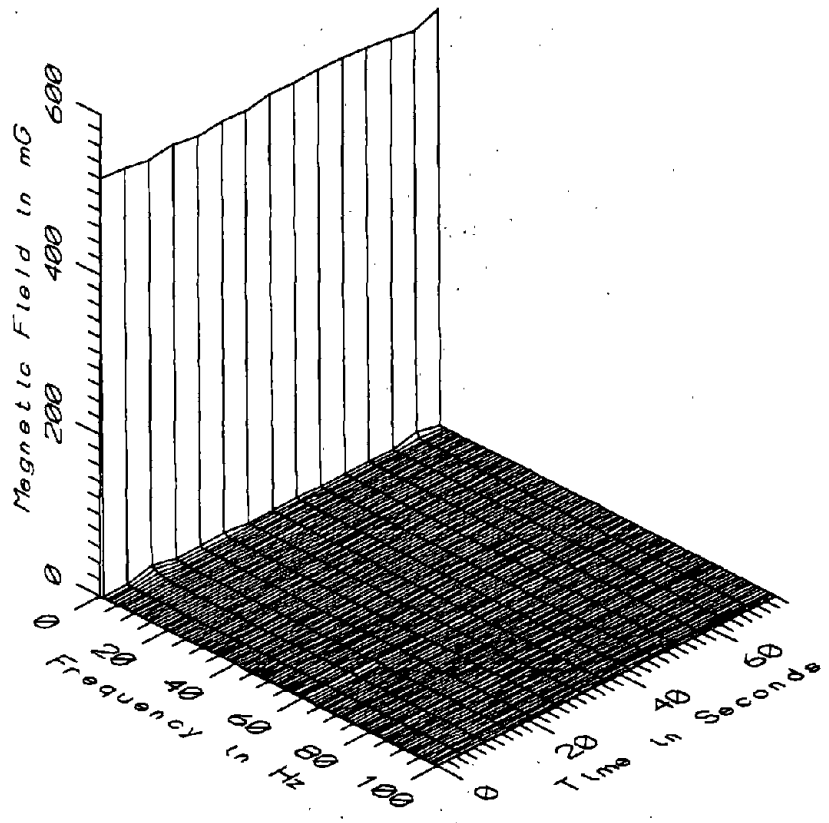
BOS014 - 60cm ABOVE GROUND, TROLLEY BUS WAYSIDE ON CONCORD AVE.



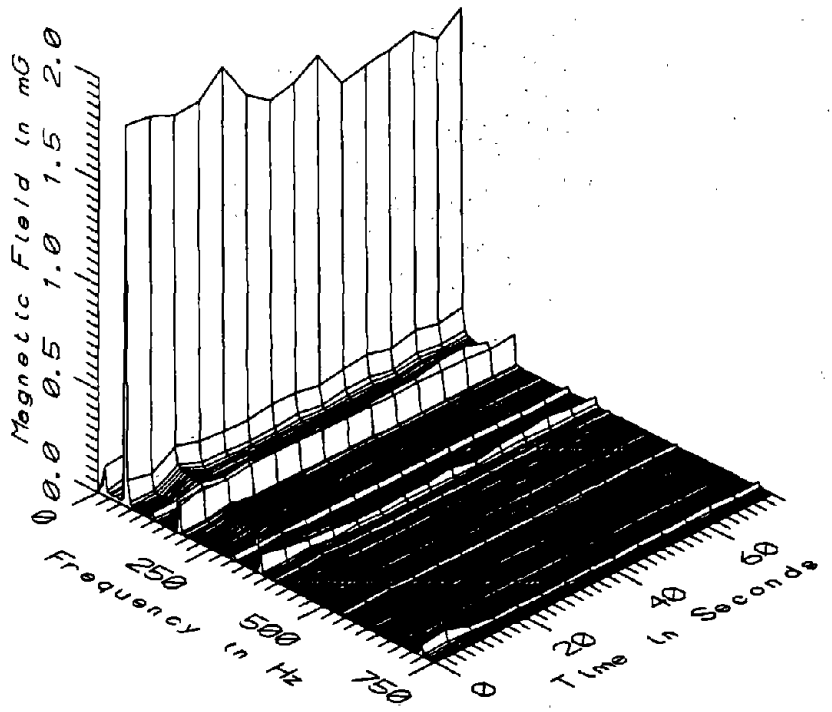
BOS014 - 110cm ABOVE GROUND, TROLLEY BUS WAYSIDE ON CONCORD AVE.



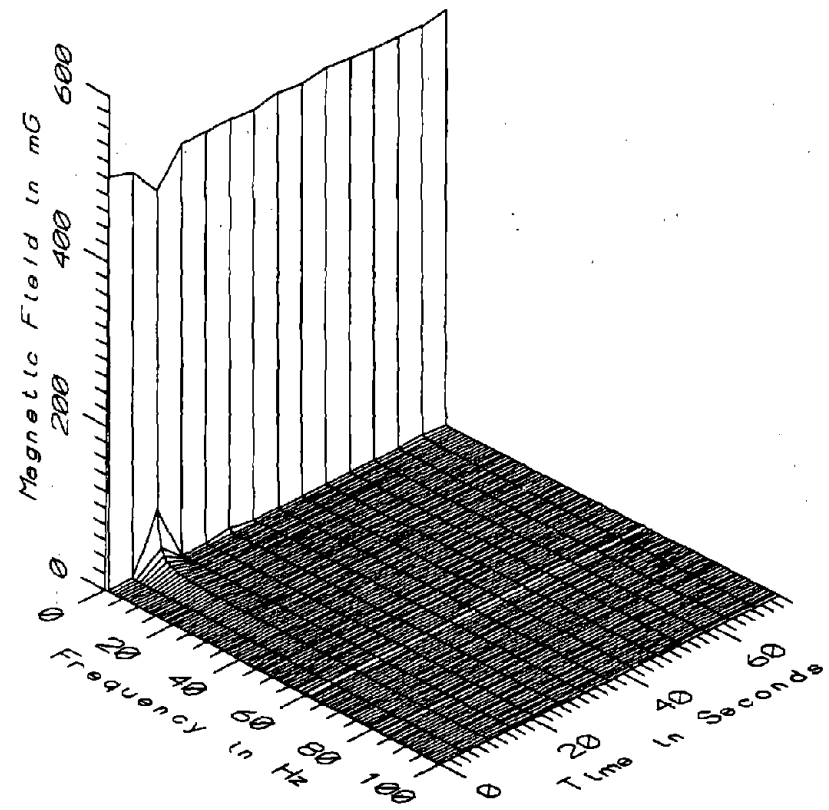
BOS014 - 110cm ABOVE GROUND, TROLLEY BUS WAYSIDE ON CONCORD AVE.



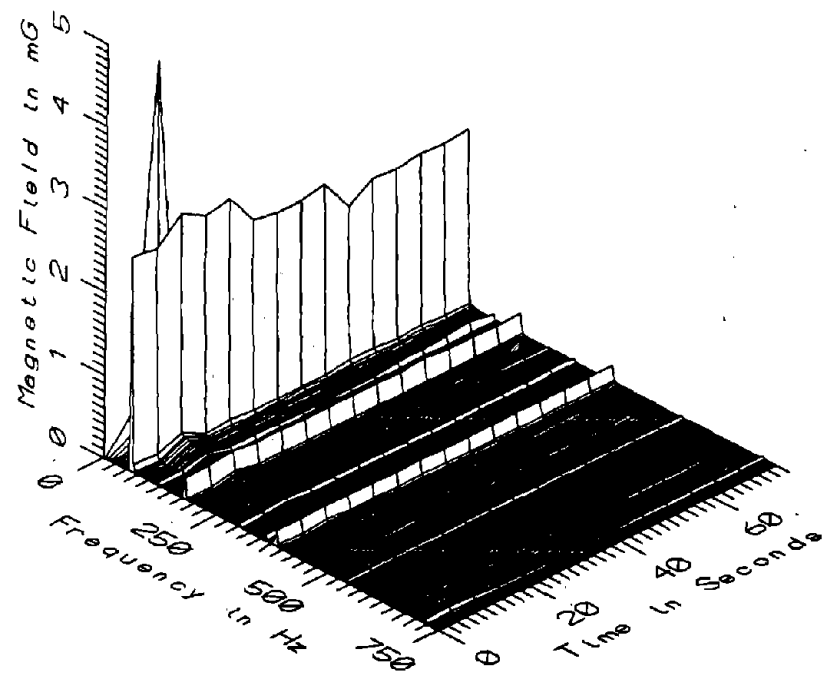
BOS014 - 160cm ABOVE GROUND, TROLLEY BUS WAYSIDE ON CONCORD AVE.



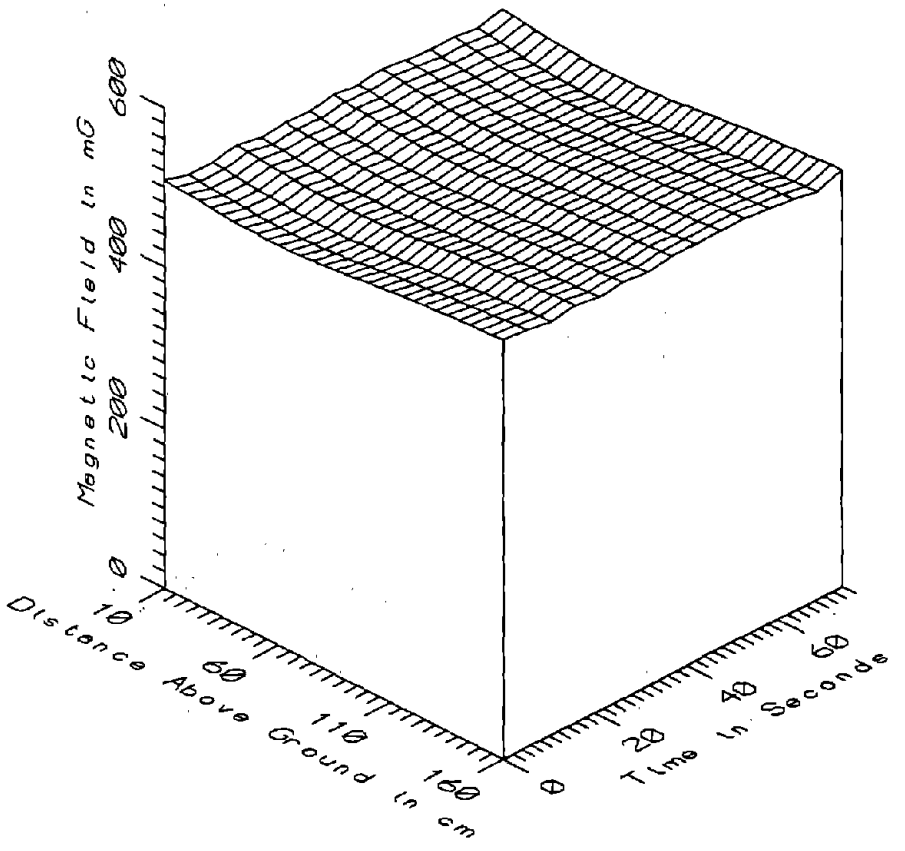
BOS014 - 160cm ABOVE GROUND, TROLLEY BUS WAYSIDE ON CONCORD AVE.



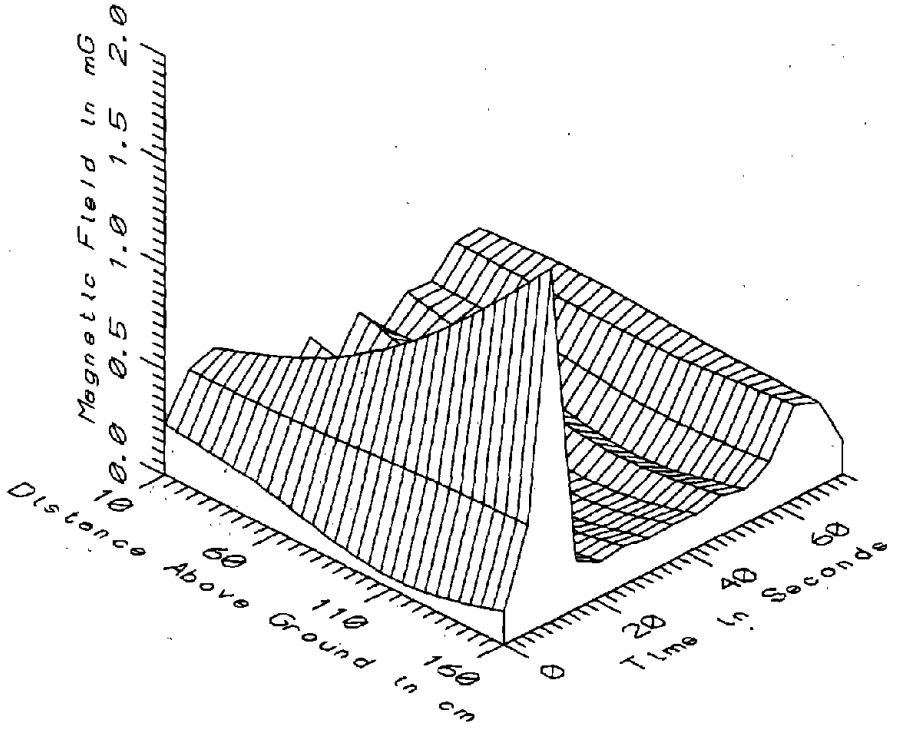
BOS014 - REFERENCE PROBE - TROLLEY BUS WAYSIDE ON CONCORD AVE.



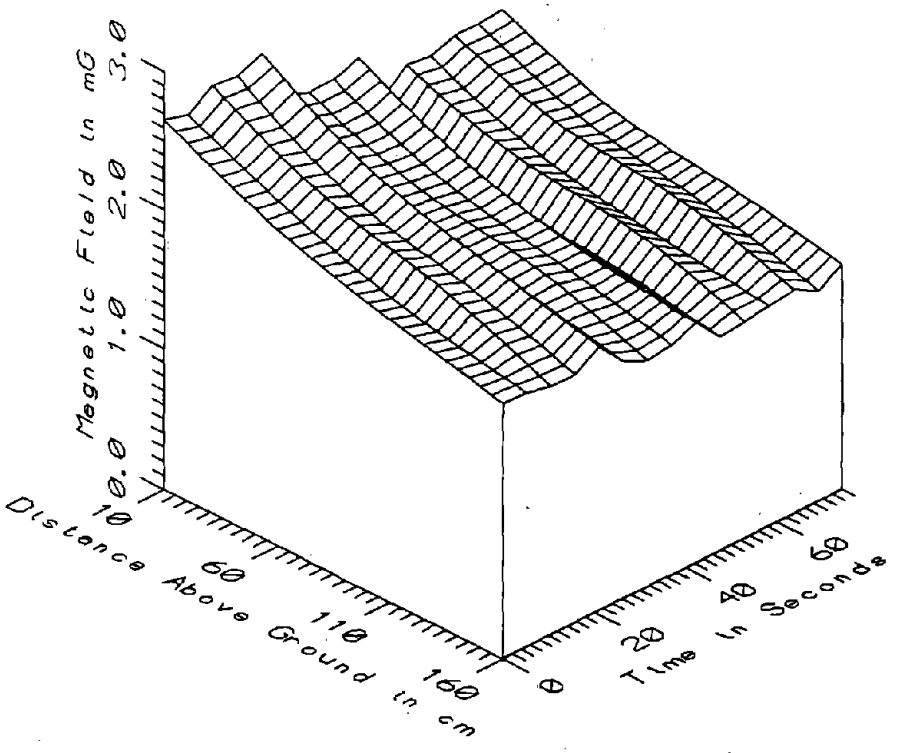
BOS014 - REFERENCE PROBE - TROLLEY BUS WAYSIDE ON CONCORD AVE.



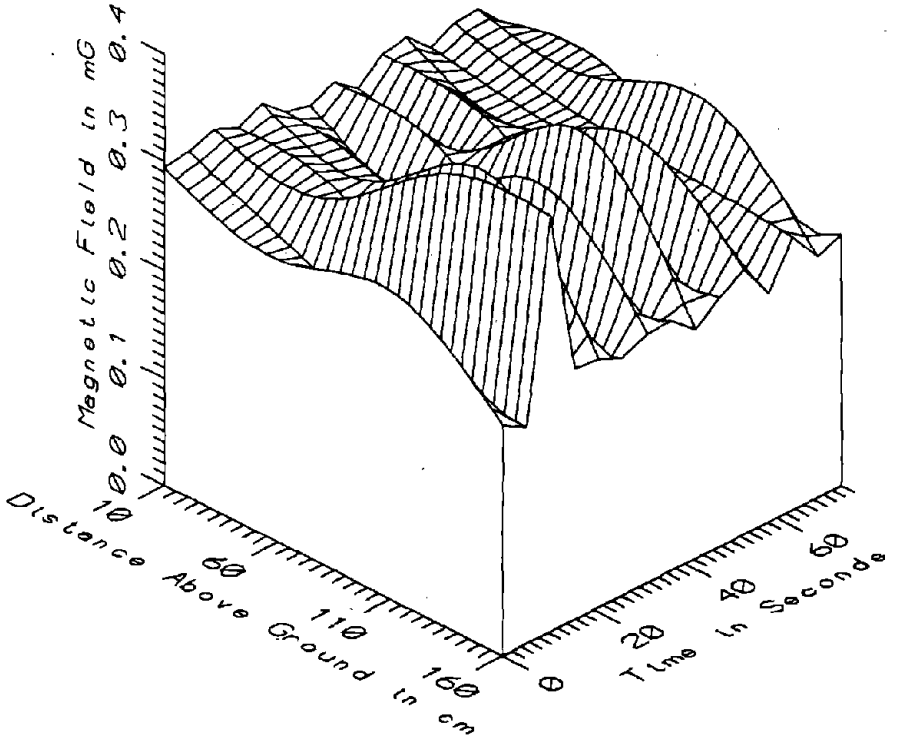
BOS014 - TROLLEY BUS WAYSIDE ON CONCORD AVE. - STATIC



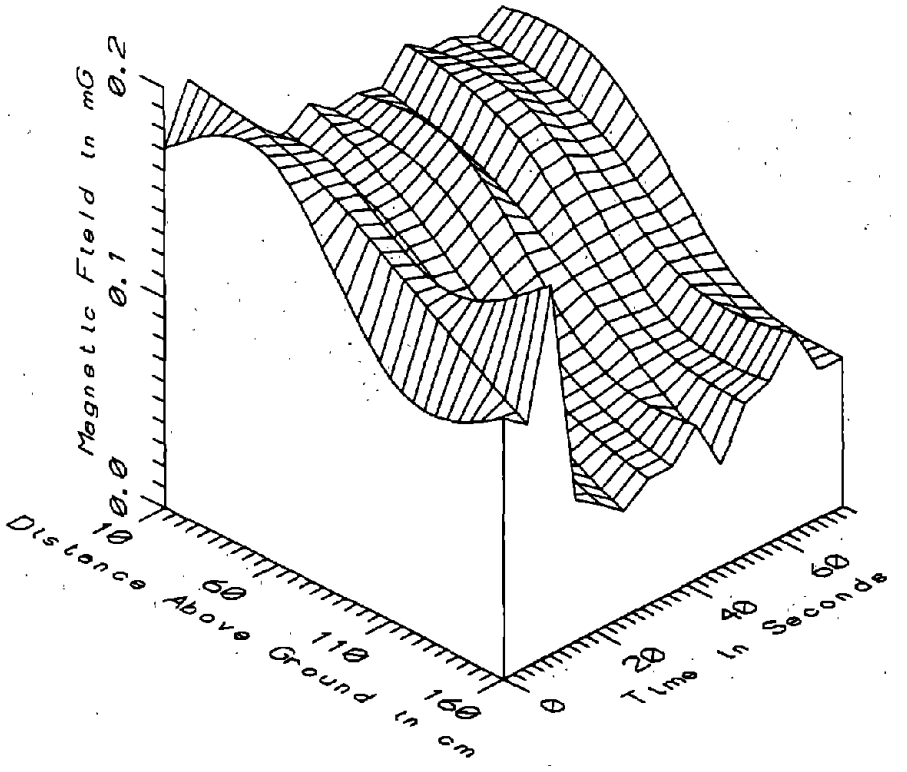
BOS014 - TROLLEY BUS WAYSIDE ON CONCORD AVE. - LOW FREQ. 5-45Hz



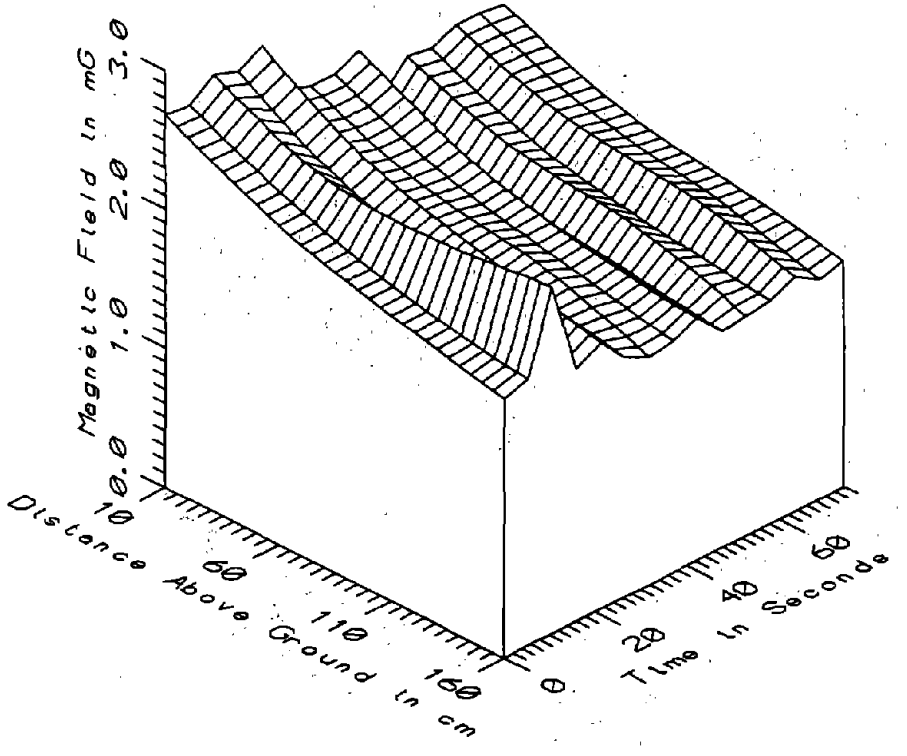
BOS014 - TROLLEY BUS WAYSIDE ON CONCORD AVE. - POWER FREQ, 50-60Hz



BOS014 - TROLLEY BUS WAYSIDE ON CONCORD AVE. - POWER HARM, 65-300Hz

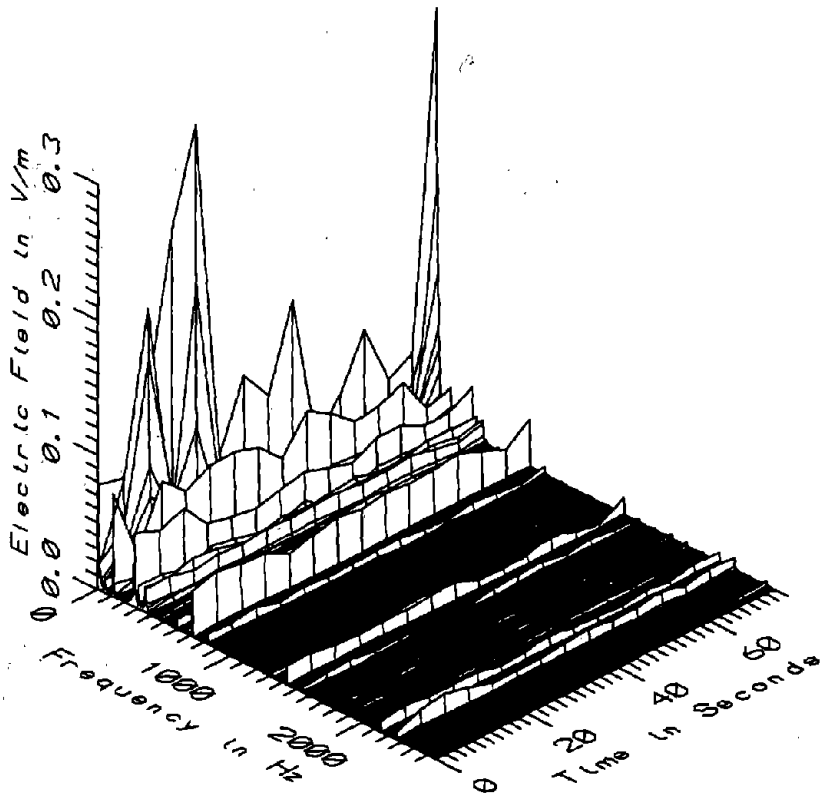


BOS014 - TROLLEY BUS WAYSIDE ON CONCORD AVE. - HIGH FREQ. 305-2560Hz



BOS014 - TROLLEY BUS WAYSIDE ON CONCORD AVE. - ALL FREQ. 5-2560Hz

BOS014 - TROLLEY BUS WAYSIDE ON CONCORD AVENUE					TOTAL OF 15 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	500.27	511.48	505.91	3.42	0.68
	60	487.66	499.88	494.64	3.68	0.74
	110	497.31	510.10	505.82	3.75	0.74
	160	507.75	520.64	516.59	3.58	0.69
5-45Hz LOW FREQ	10	0.11	0.49	0.28	0.12	44.16
	60	0.15	0.71	0.27	0.16	60.78
	110	0.05	1.11	0.23	0.28	120.48
	160	0.16	1.68	0.34	0.39	115.98
50-60Hz PWR FREQ	10	2.01	2.78	2.39	0.24	10.21
	60	1.74	2.33	2.05	0.19	9.13
	110	1.64	2.09	1.87	0.14	7.68
	160	1.50	1.89	1.67	0.12	7.41
65-300Hz PWR HARM	10	0.27	0.31	0.29	0.01	3.51
	60	0.25	0.30	0.27	0.01	4.56
	110	0.20	0.37	0.27	0.06	22.19
	160	0.20	0.39	0.24	0.04	18.01
305-2560Hz HIGH FREQ	10	0.15	0.20	0.16	0.01	8.34
	60	0.12	0.19	0.15	0.02	14.72
	110	0.08	0.15	0.10	0.02	23.68
	160	0.05	0.18	0.08	0.03	41.43
5-2560Hz ALL FREQ	10	2.04	2.82	2.43	0.24	10.07
	60	1.78	2.45	2.09	0.20	9.34
	110	1.67	2.40	1.92	0.19	9.72
	160	1.55	2.48	1.75	0.23	13.40



BOS014 - ELECTRIC FIELD AT TROLLEY BUS WAYSIDE ON CONCORD AVENUE

APPENDIX P

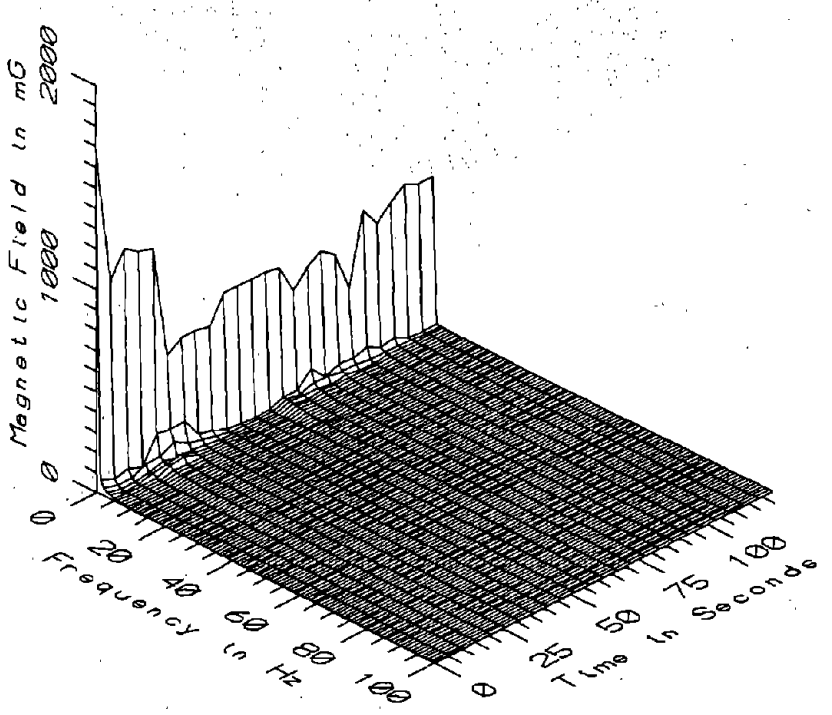
DATASET BOS015
AT OPERATOR'S LEFT SHOULDER, BLUE LINE CAR

Measurement Setup Code:	Staff: 1 Reference: 2 Drawing: A-1
Vehicle Status:	Travelling between Revere Beach and Wonderland stations
Measurement Date:	June 10, 1992
Measurement Time:	Start: 11:22:31 End: 11:24:35
Number of Samples:	25
Programmed Sample Interval:	5 sec
Actual Sample Interval:	5.2 sec

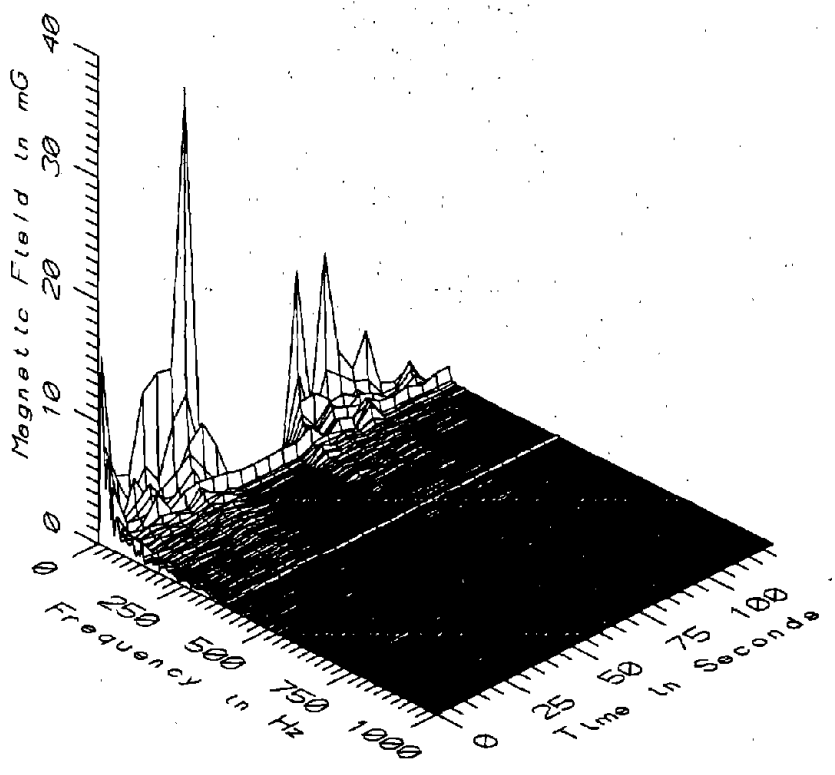
Frequency Spectrum Parameters

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

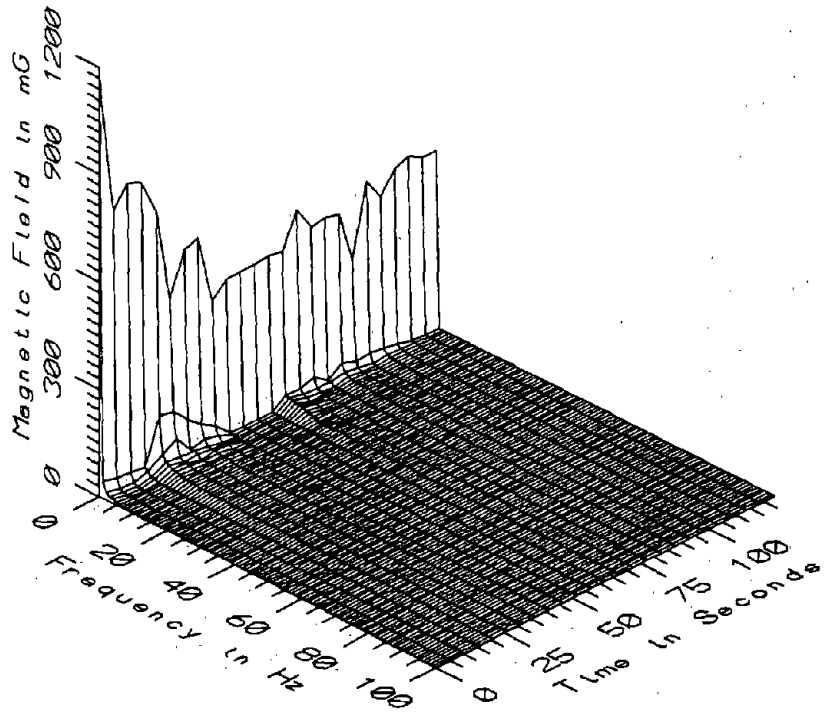
Missing Data: None



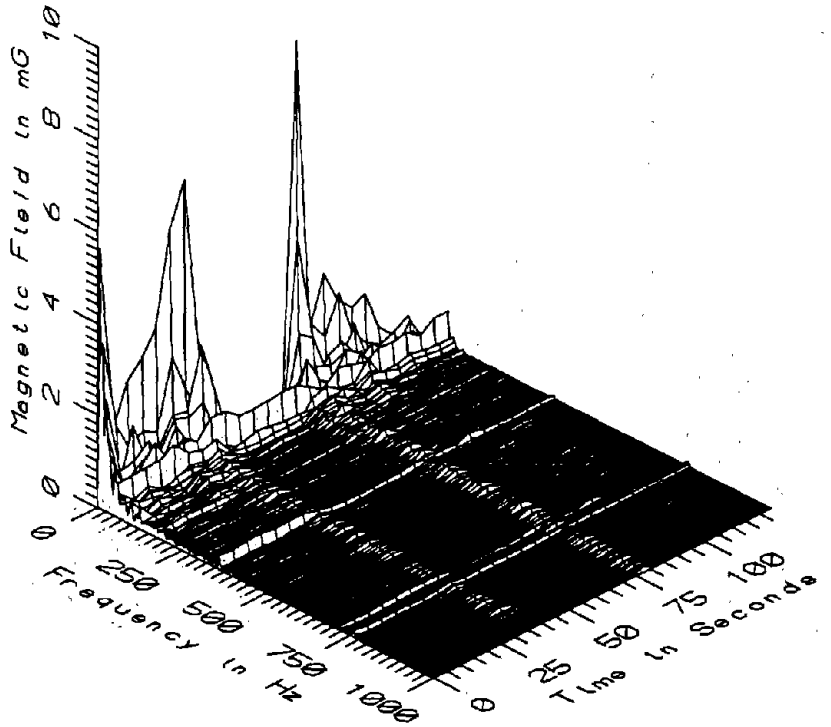
BOS015 - 10cm ABOVE FLOOR AT OPERATOR'S LEFT SHOULDER, BLUE LINE CAR



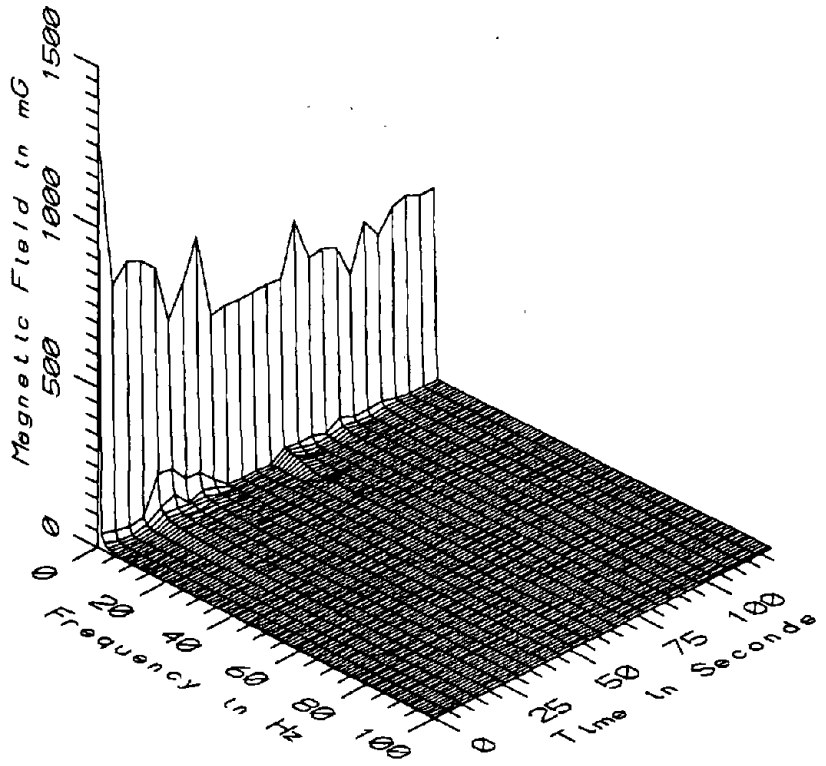
BOS015 - 10cm ABOVE FLOOR AT OPERATOR'S LEFT SHOULDER, BLUE LINE CAR



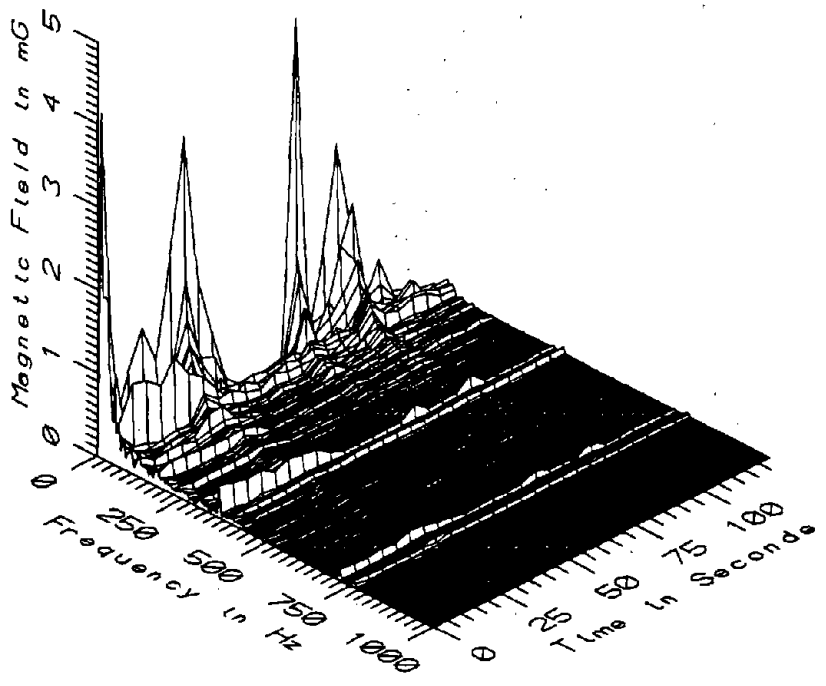
BOS015 - 60cm ABOVE FLOOR AT OPERATOR'S LEFT SHOULDER, BLUE LINE CAR



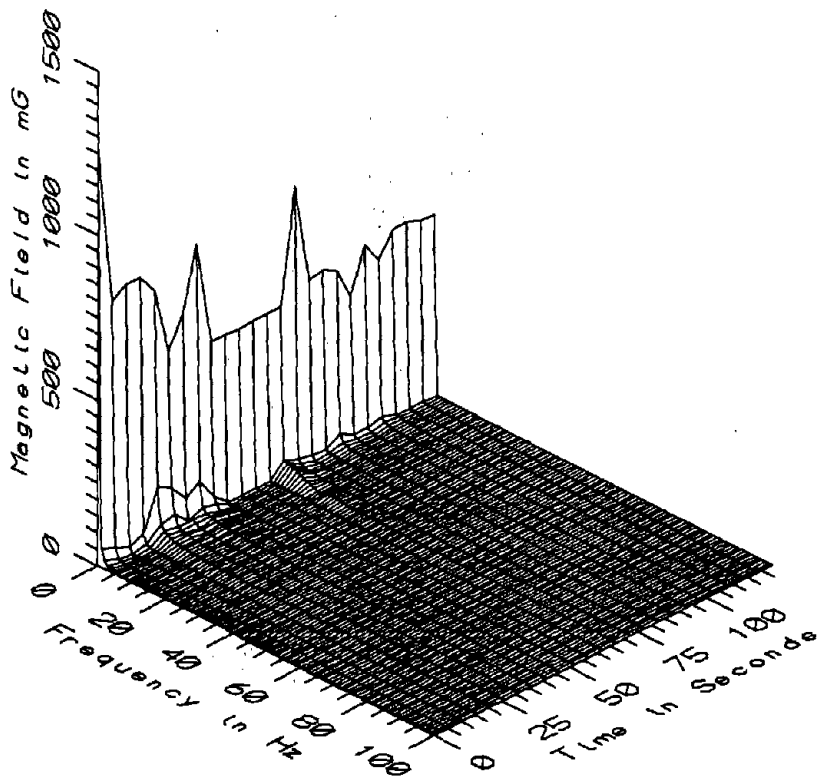
BOS015 - 60cm ABOVE FLOOR AT OPERATOR'S LEFT SHOULDER, BLUE LINE CAR



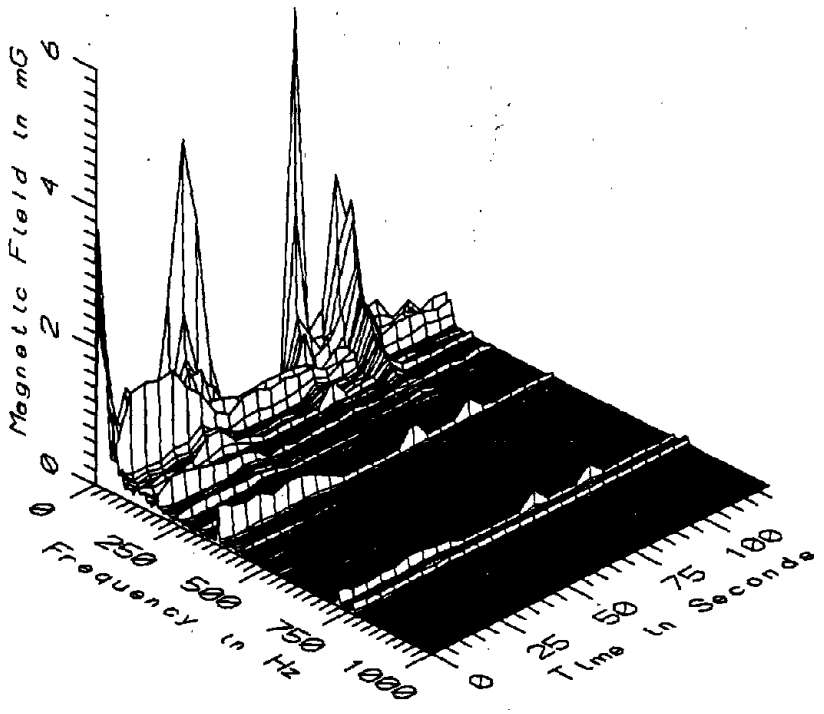
BOS015 - 110cm ABOVE FLOOR AT OPERATOR'S LEFT SHOULDER, BLUE LINE CAR



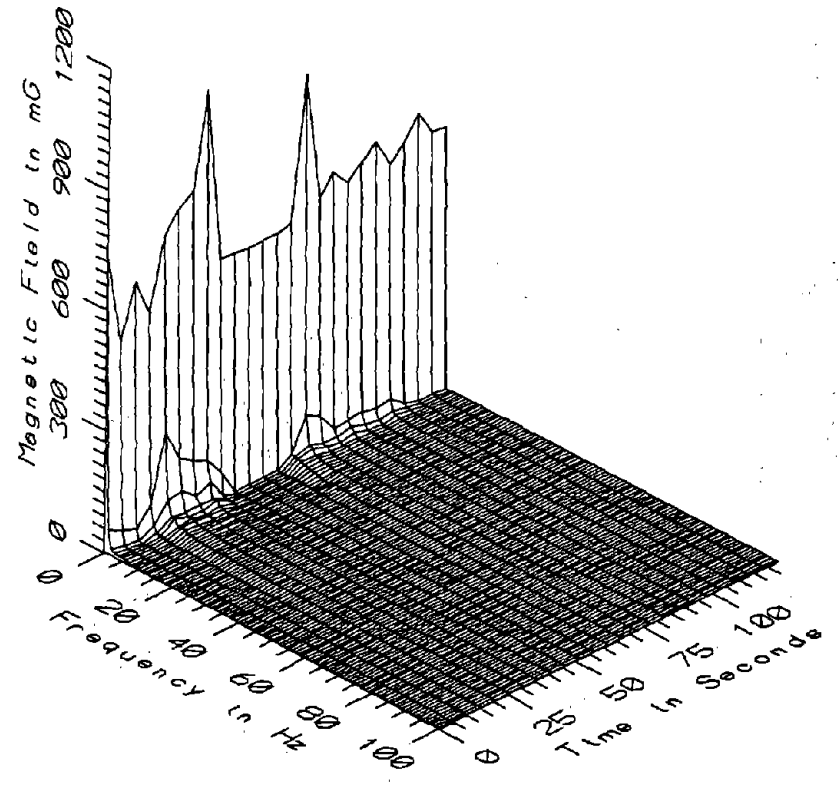
BOS015 - 110cm ABOVE FLOOR AT OPERATOR'S LEFT SHOULDER, BLUE LINE CAR



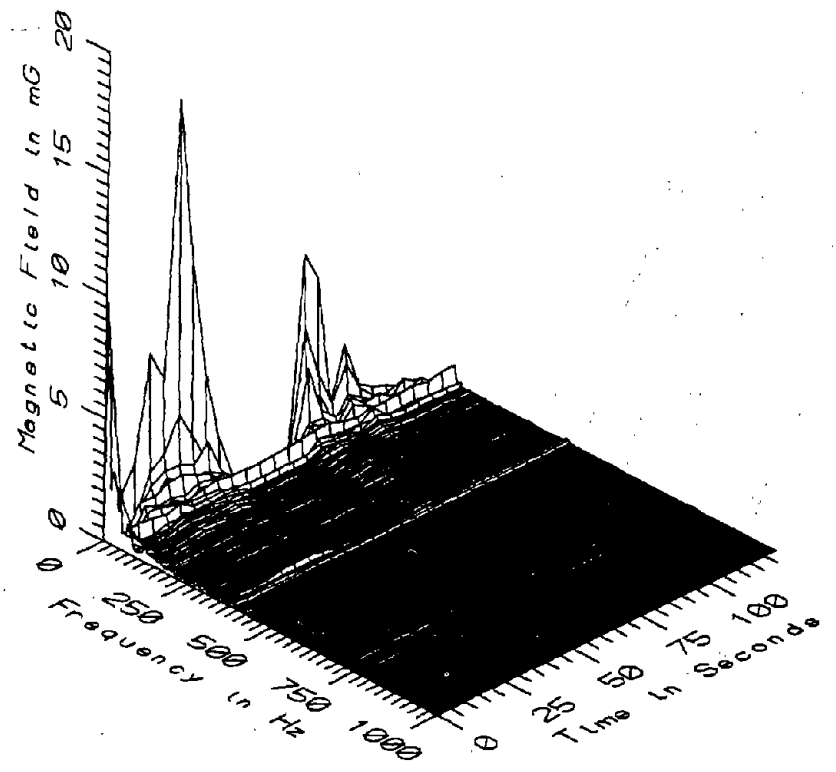
BOS015 - 160cm ABOVE FLOOR AT OPERATOR'S LEFT SHOULDER, BLUE LINE CAR



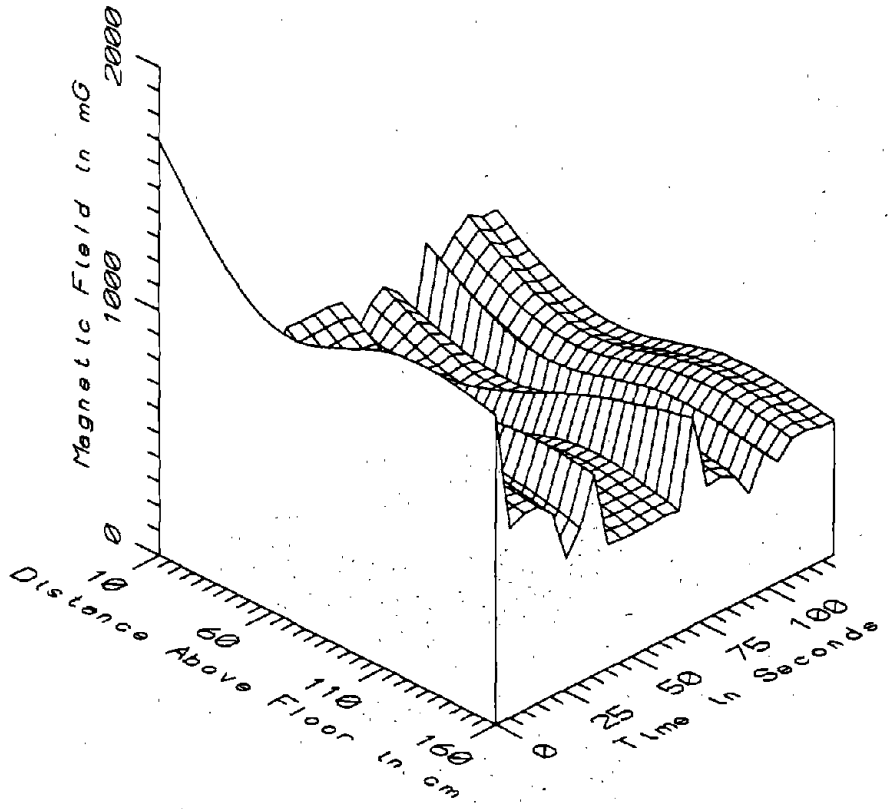
BOS015 - 160cm ABOVE FLOOR AT OPERATOR'S LEFT SHOULDER, BLUE LINE CAR



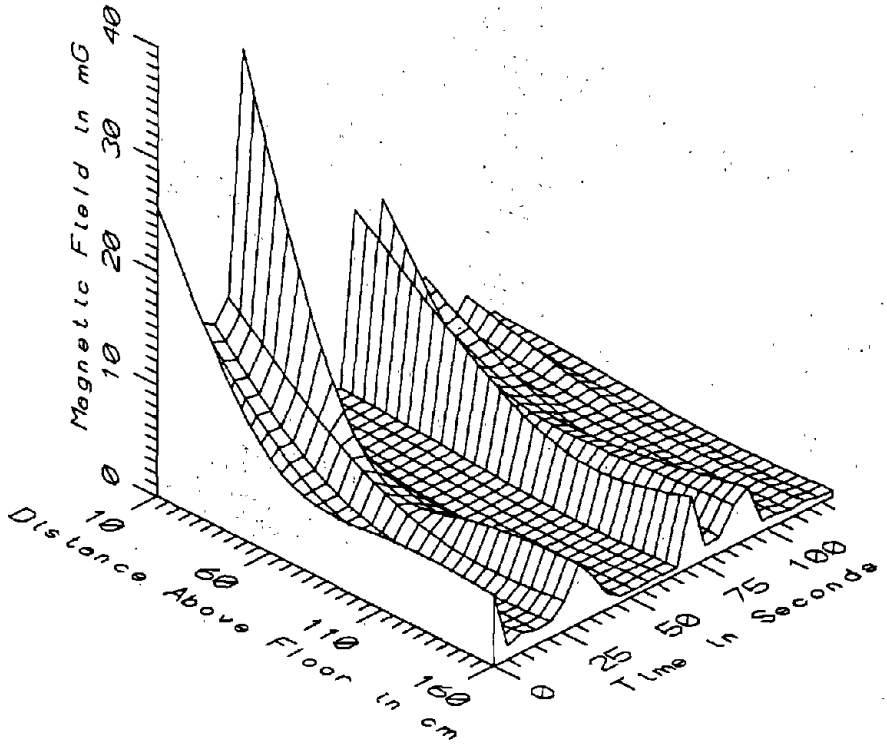
BOS015 - REFERENCE PROBE - ON WINDOW LEDGE, FRONT OF BLUE LINE CAR



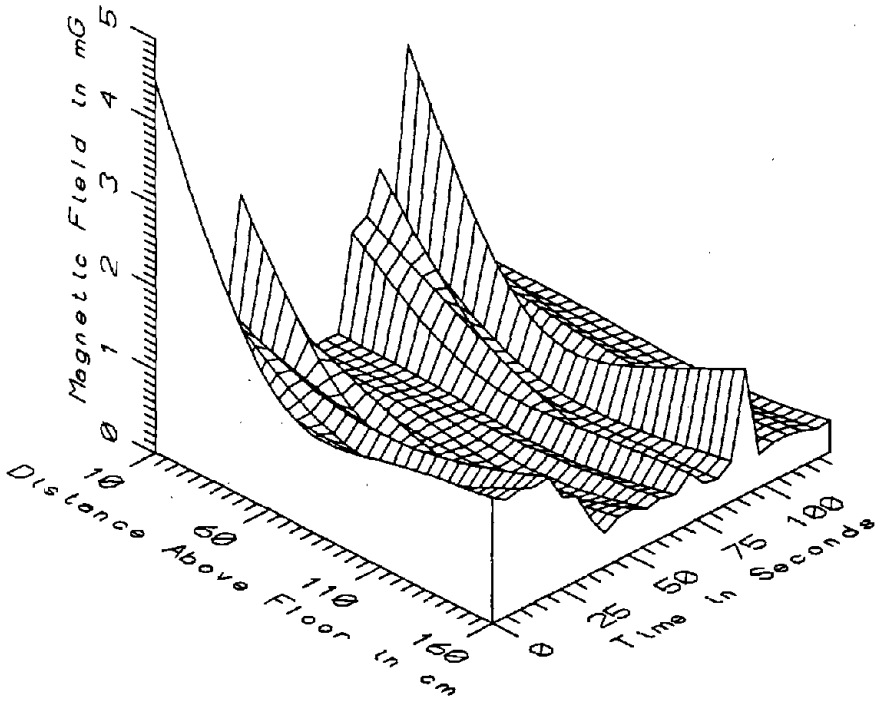
BOS015 - REFERENCE PROBE - ON WINDOW LEDGE, FRONT OF BLUE LINE CAR



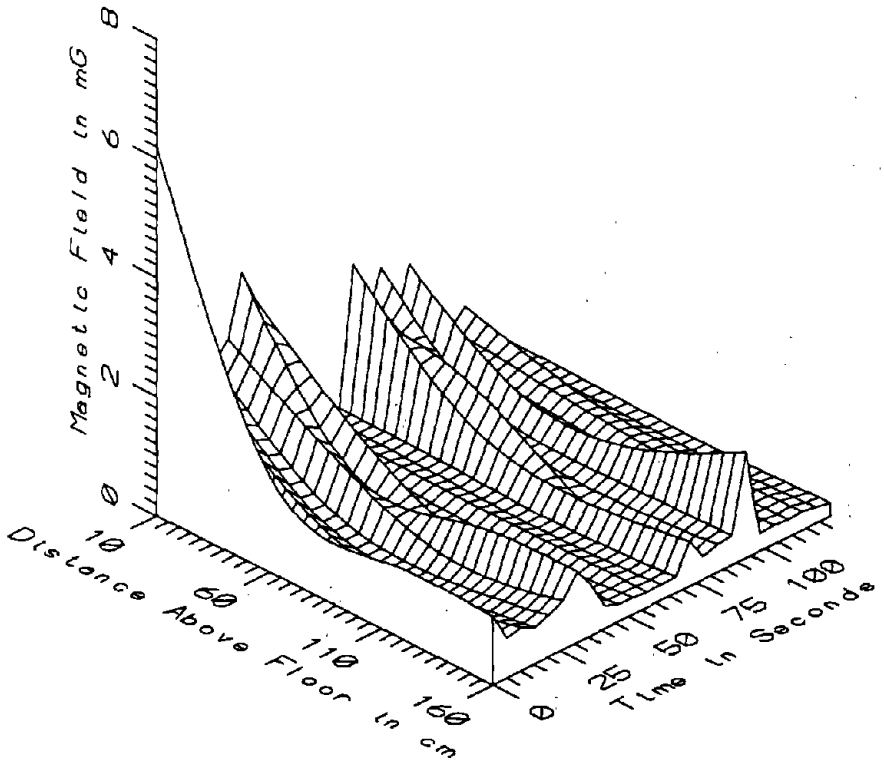
BOS015 - AT OPERATOR'S LEFT SHOULDER, BLUE LINE CAR - STATIC



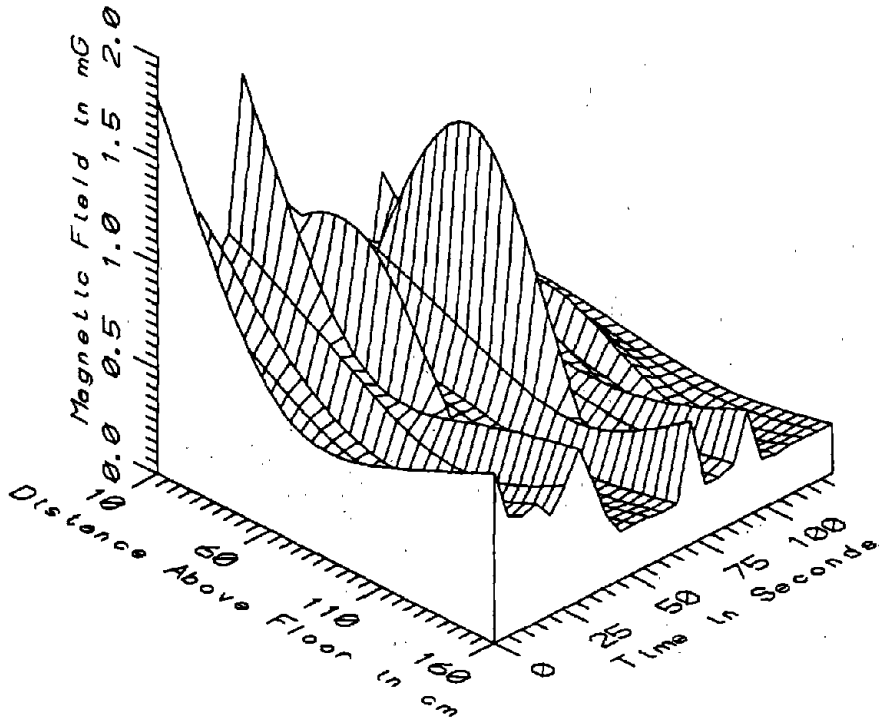
BOS015 - AT OPERATOR'S LEFT SHOULDER, BLUE LINE CAR - LOW FREQ, 5-45Hz



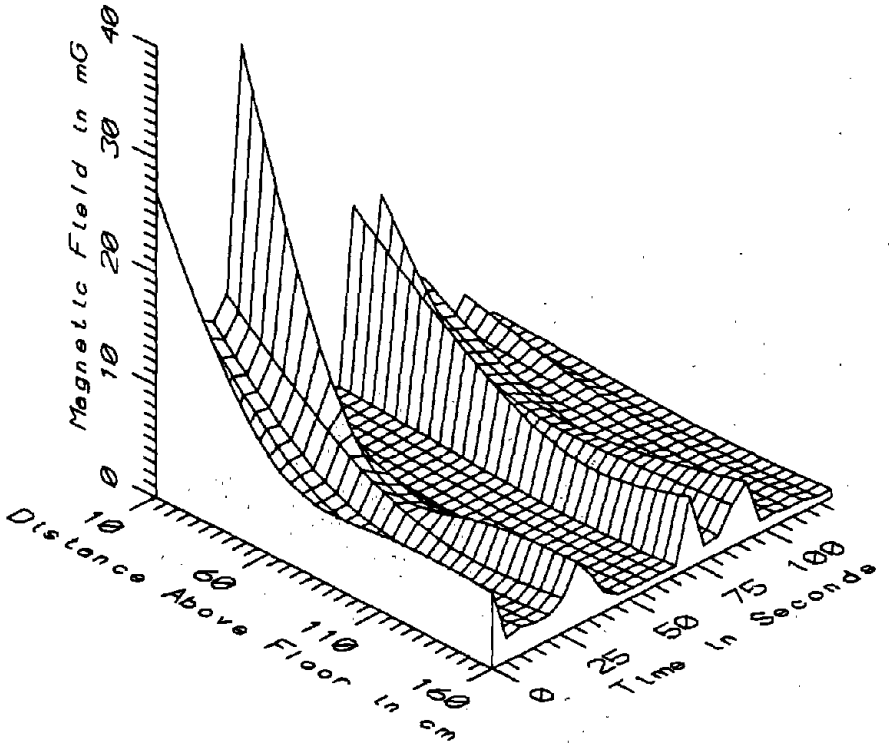
BOS015 - AT OPERATOR'S LEFT SHOULDER, BLUE LINE CAR - POWER FREQ, 50-60Hz



BOS015 - AT OPERATOR'S LEFT SHOULDER, BLUE LINE CAR - POWER HARM, 65-300Hz

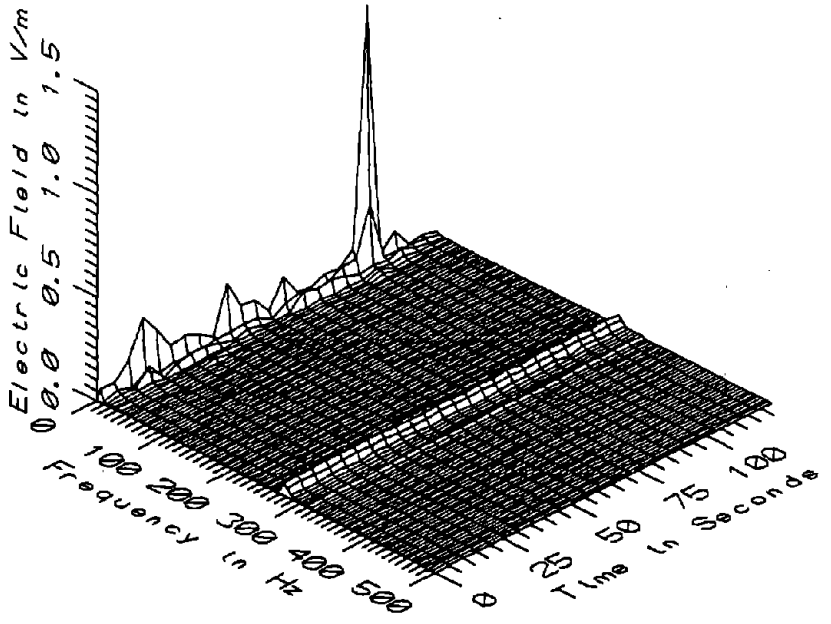


BOS015 - AT OPERATOR'S LEFT SHOULDER, BLUE LINE CAR-HIGH FREQ, 305-2560Hz



BOS015 - AT OPERATOR'S LEFT SHOULDER, BLUE LINE CAR - ALL FREQ, 5-2560Hz

BOS015 - AT OPERATOR'S LEFT SHOULDER, BLUE LINE CAR					TOTAL OF 25 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	376.60	1695.45	734.57	274.83	37.41
	60	305.77	1168.24	543.92	186.21	34.24
	110	457.74	1297.67	657.00	171.30	26.07
	160	427.69	1267.27	624.86	182.89	29.27
5-45Hz LOW FREQ	10	1.37	36.11	8.63	8.48	98.30
	60	0.81	9.21	3.04	2.40	78.81
	110	0.22	6.49	1.49	1.59	106.70
	160	0.57	6.33	2.01	1.85	92.00
50-60Hz PWR FREQ	10	0.28	4.47	1.26	1.04	82.61
	60	0.25	1.51	0.59	0.32	53.78
	110	0.19	1.27	0.49	0.31	63.81
	160	0.36	1.52	0.74	0.44	58.77
65-300Hz PWR HARM	10	0.21	6.20	1.57	1.38	87.63
	60	0.19	1.62	0.64	0.41	63.76
	110	0.15	1.14	0.41	0.27	64.62
	160	0.23	1.78	0.57	0.38	66.50
305-2560Hz HIGH FREQ	10	0.25	1.79	0.62	0.44	70.13
	60	0.21	1.39	0.44	0.29	65.84
	110	0.14	0.59	0.25	0.14	54.41
	160	0.23	0.82	0.39	0.19	47.87
5-2560Hz ALL FREQ	10	1.44	36.41	8.93	8.62	96.52
	60	0.90	9.28	3.22	2.43	75.31
	110	0.37	6.73	1.70	1.60	94.25
	160	0.76	6.66	2.32	1.86	80.13



BOS015 - ELECTRIC FIELD AT OPERATOR'S LEFT SHOULDER, BLUE LINE CAR

APPENDIX Q

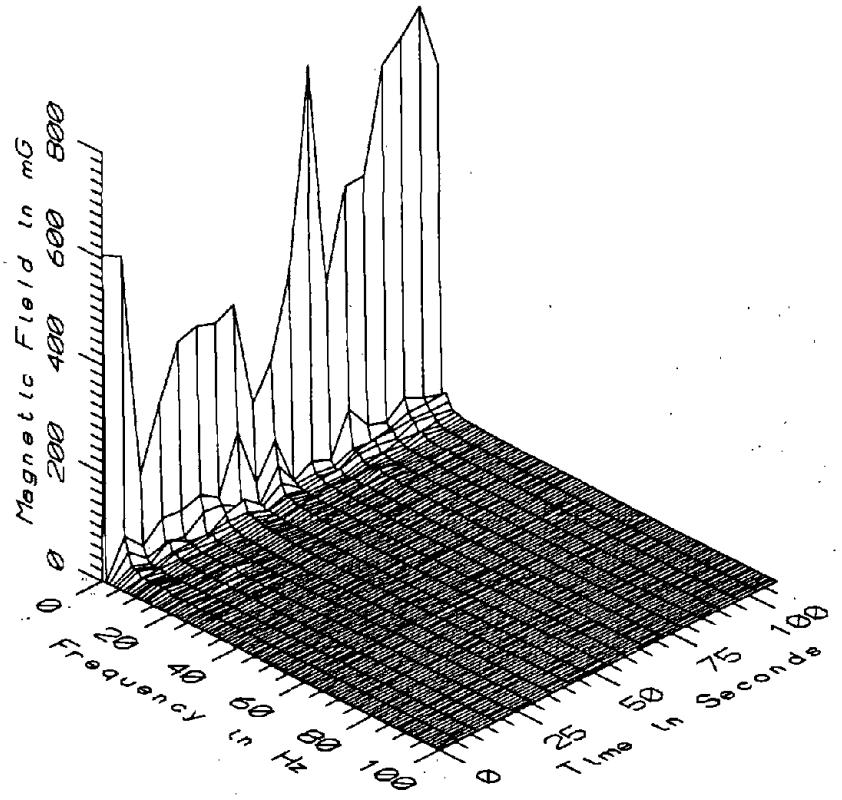
DATASET BOS016
AT OPERATOR'S LEFT SHOULDER, BLUE LINE CAR

Measurement Setup Code:	Staff: 1 Reference: 2 Drawing: A-1
Vehicle Status:	Travelling between Wonderland and Beachmont stations
Measurement Date:	June 10, 1992
Measurement Time:	Start: 11:28:01 End: 11:29:50
Number of Samples:	19
Programmed Sample Interval:	5 sec
Actual Sample Interval:	6.1 sec

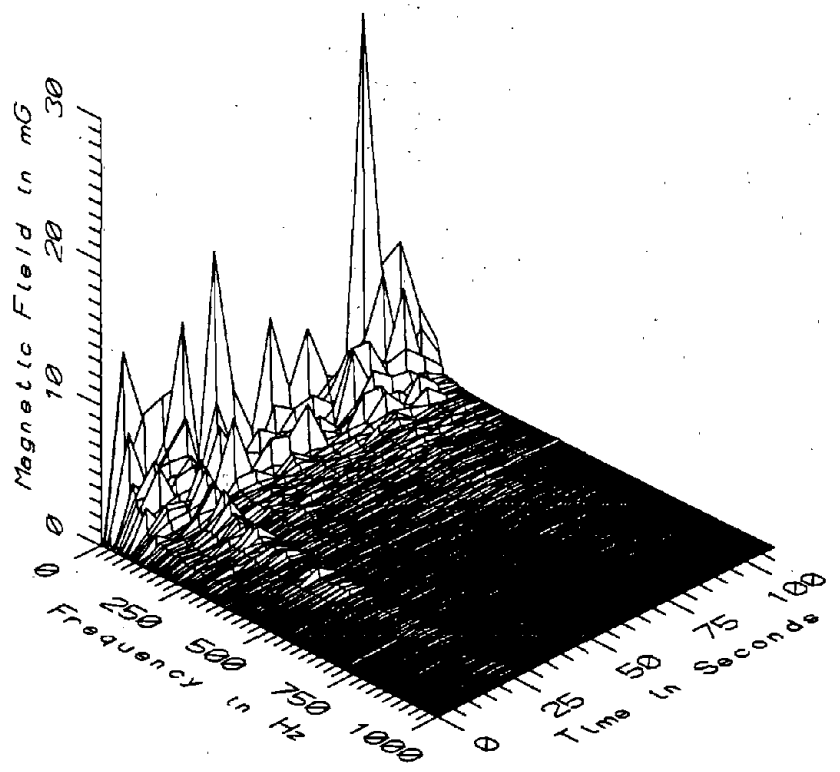
Frequency Spectrum Parameters

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

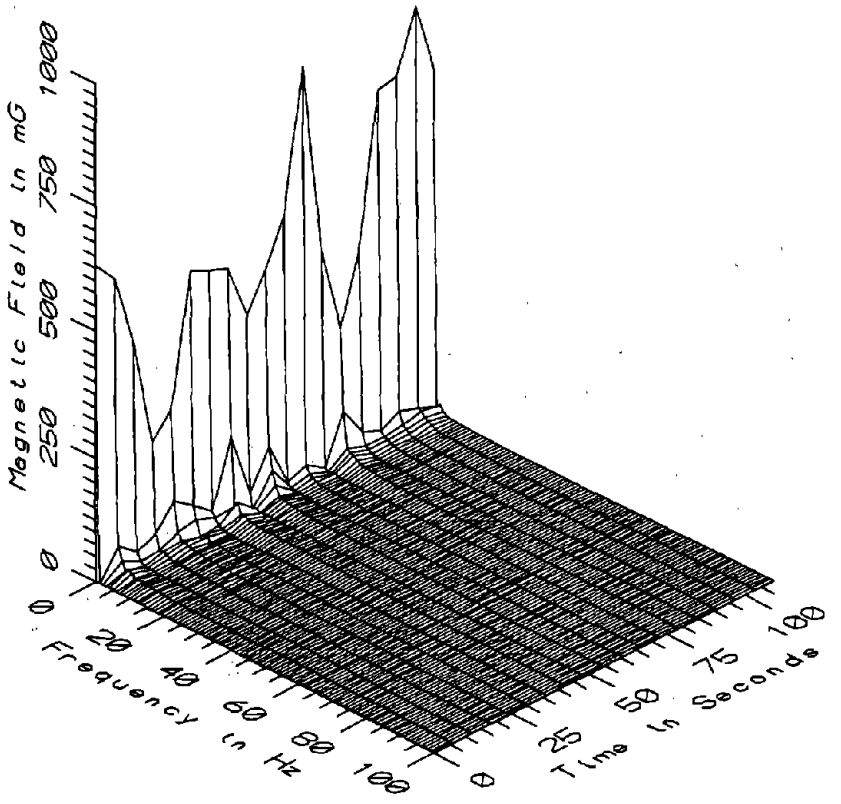
Missing Data: None



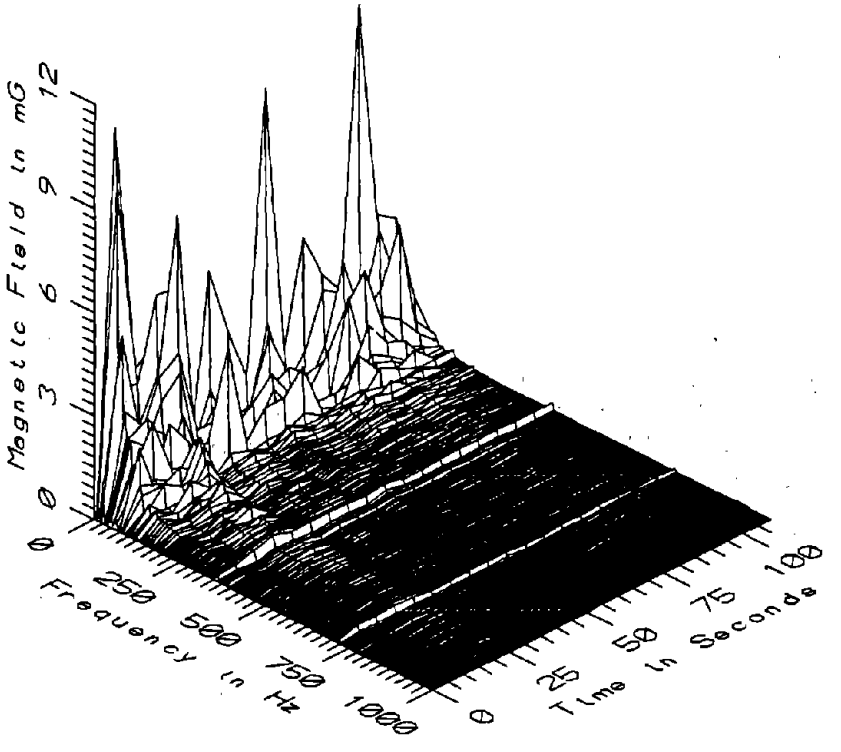
BOS016 - 10cm ABOVE FLOOR AT OPERATOR'S LEFT SHOULDER, BLUE LINE CAR



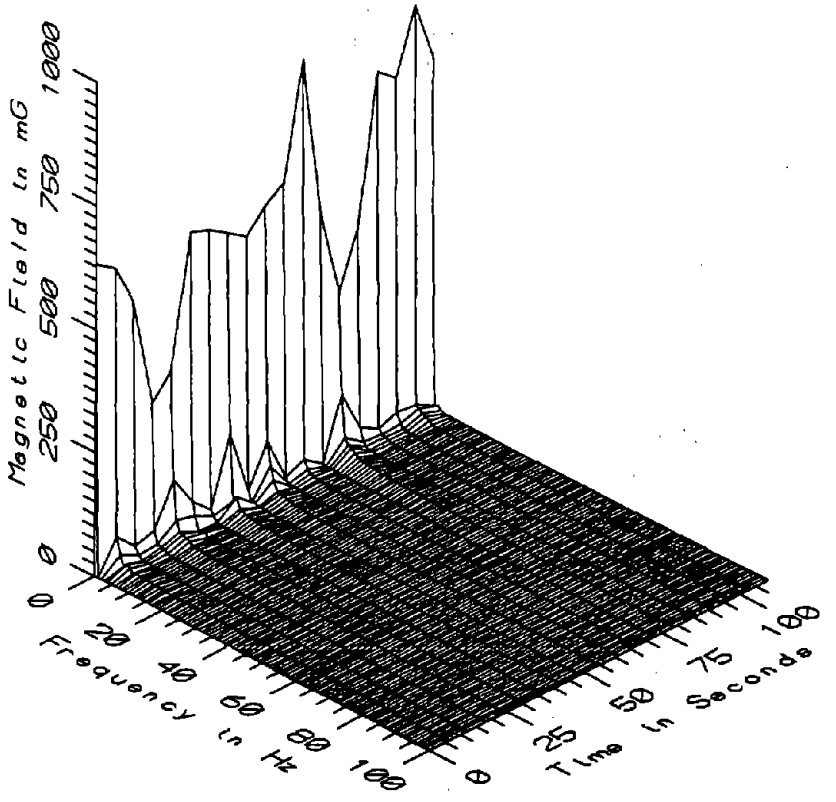
BOS016 - 10cm ABOVE FLOOR AT OPERATOR'S LEFT SHOULDER, BLUE LINE CAR



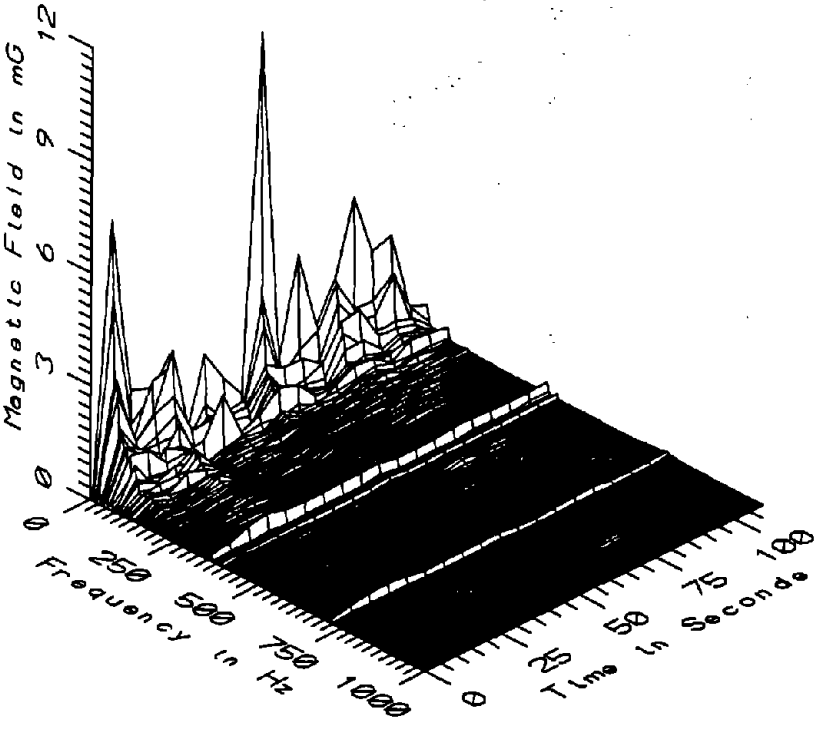
BOS016 - 60cm ABOVE FLOOR AT OPERATOR'S LEFT SHOULDER, BLUE LINE CAR



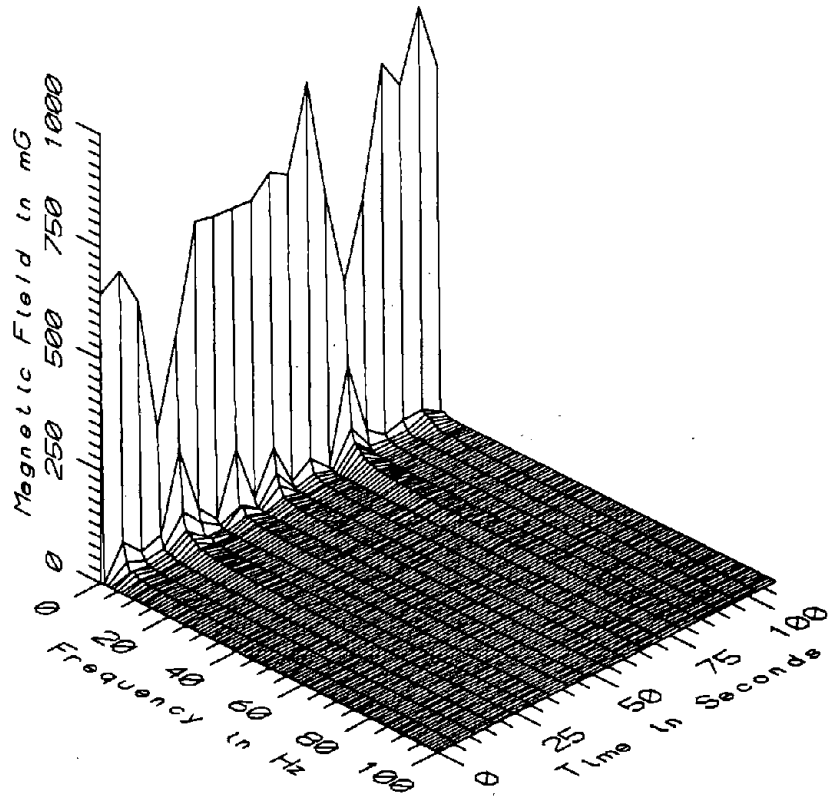
BOS016 - 60cm ABOVE FLOOR AT OPERATOR'S LEFT SHOULDER, BLUE LINE CAR



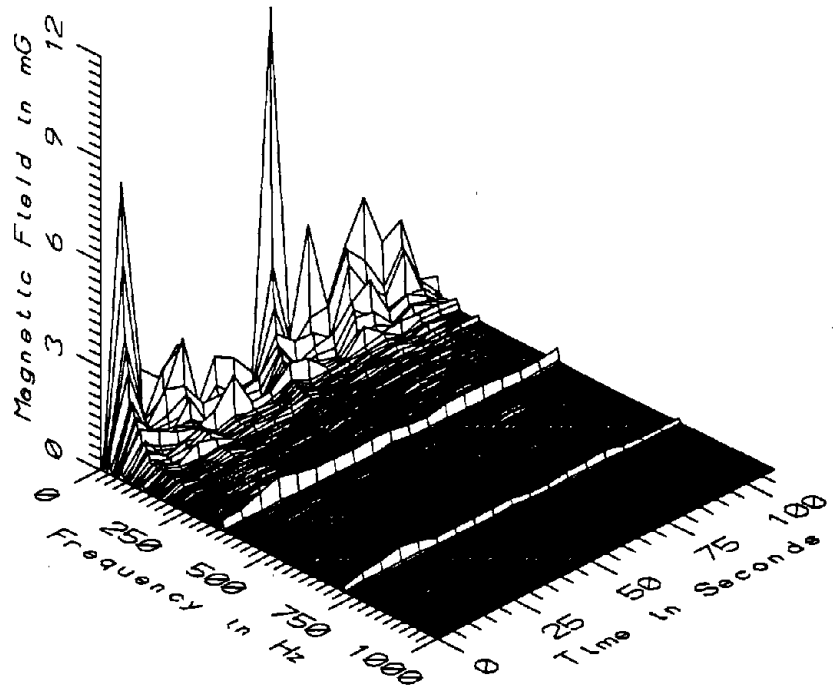
BOS016 - 110cm ABOVE FLOOR AT OPERATOR'S LEFT SHOULDER, BLUE LINE CAR



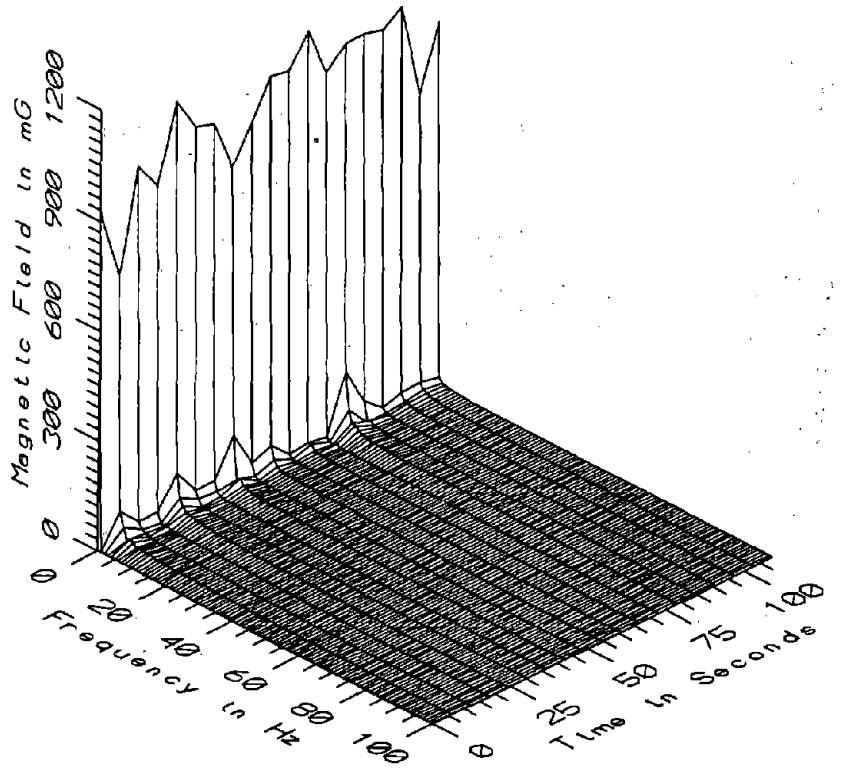
BOS016 - 110cm ABOVE FLOOR AT OPERATOR'S LEFT SHOULDER, BLUE LINE CAR



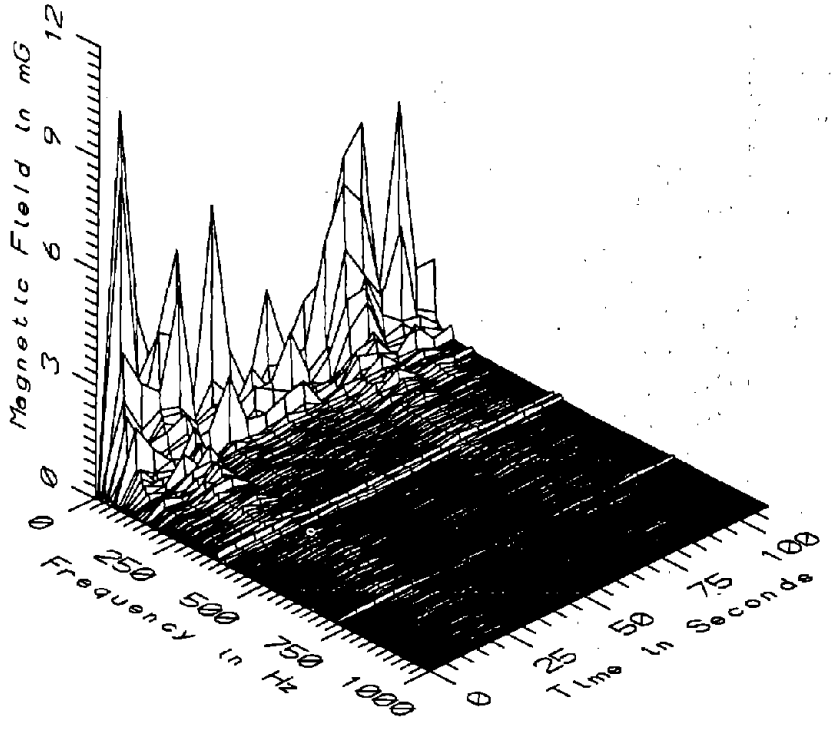
BOS016 - 160cm ABOVE FLOOR AT OPERATOR'S LEFT SHOULDER, BLUE LINE CAR



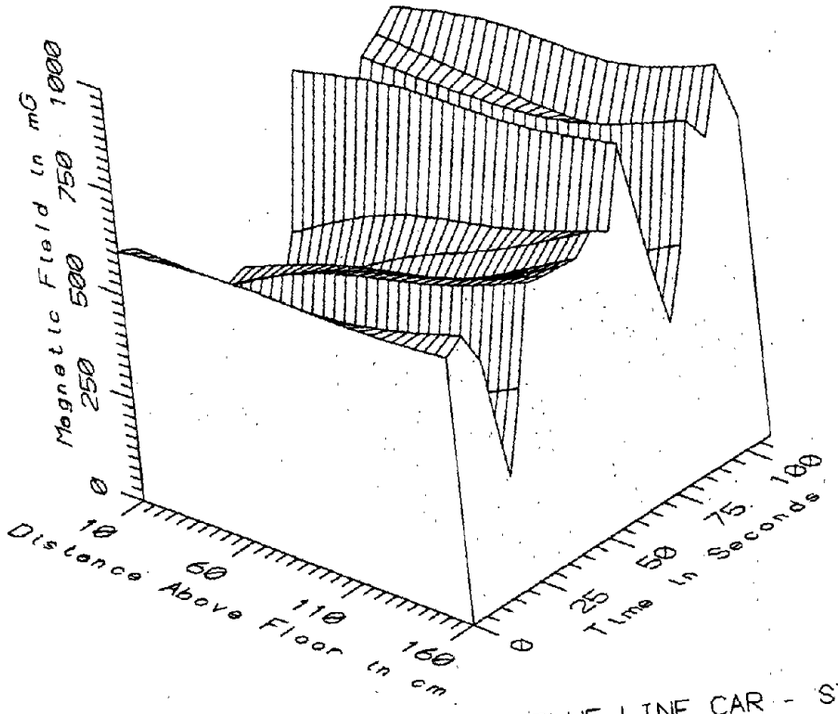
BOS016 - 160cm ABOVE FLOOR AT OPERATOR'S LEFT SHOULDER, BLUE LINE CAR



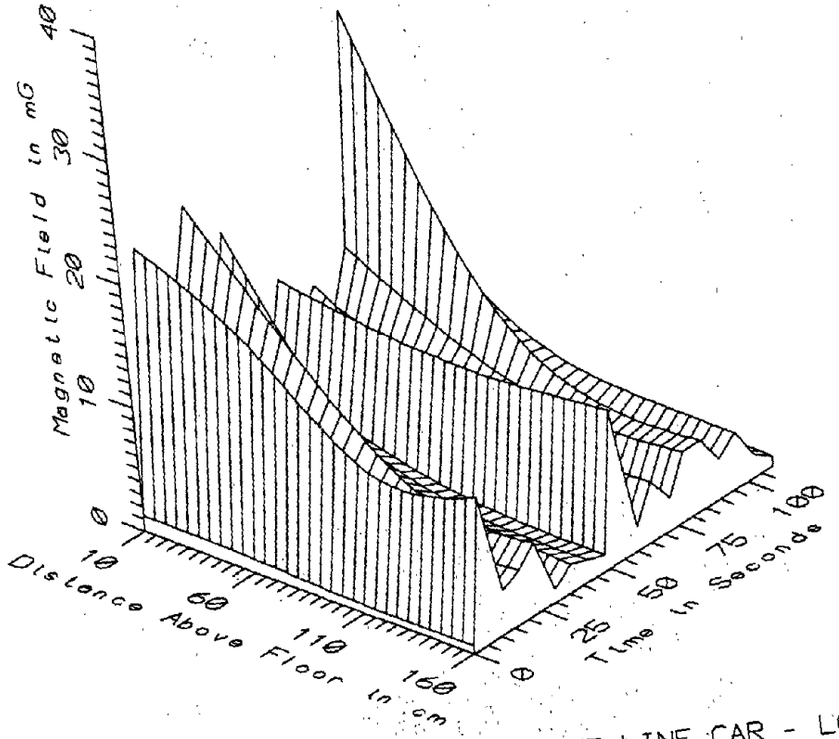
BOS016 - REFERENCE PROBE - ON WINDOW LEDGE, FRONT OF BLUE LINE CAR



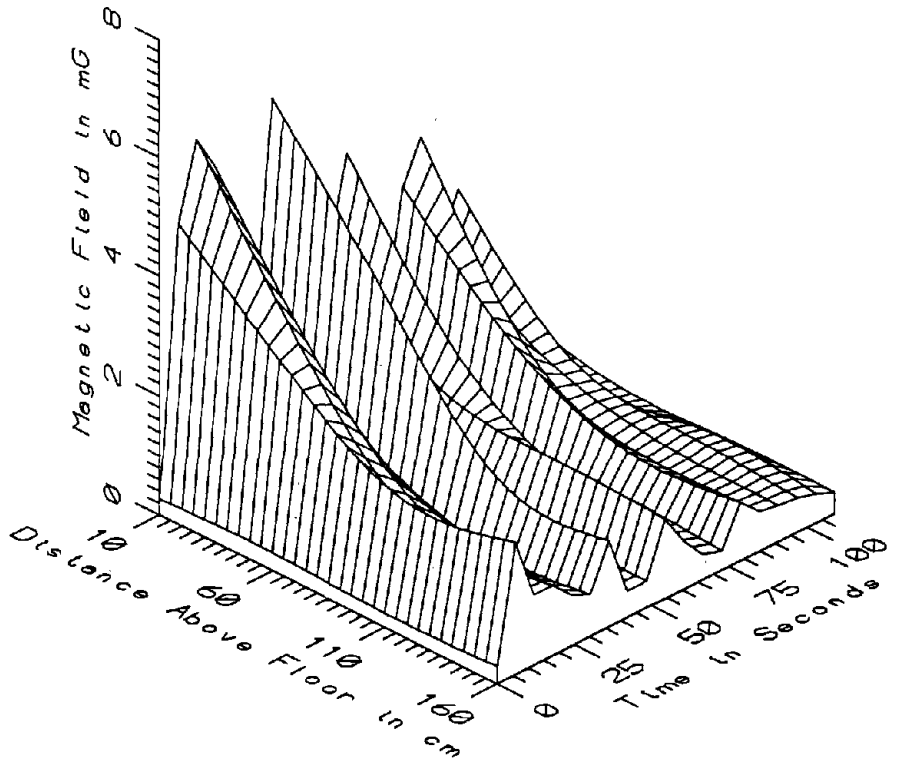
BOS016 - REFERENCE PROBE - ON WINDOW LEDGE, FRONT OF BLUE LINE CAR



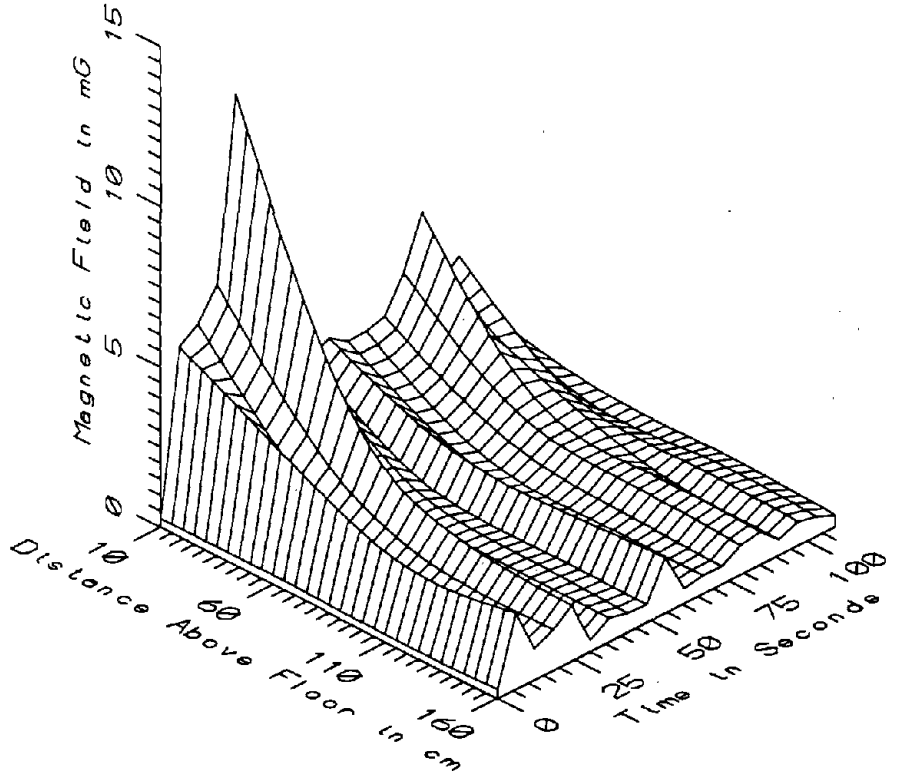
BOS016 - AT OPERATOR'S LEFT SHOULDER, BLUE LINE CAR - STATIC



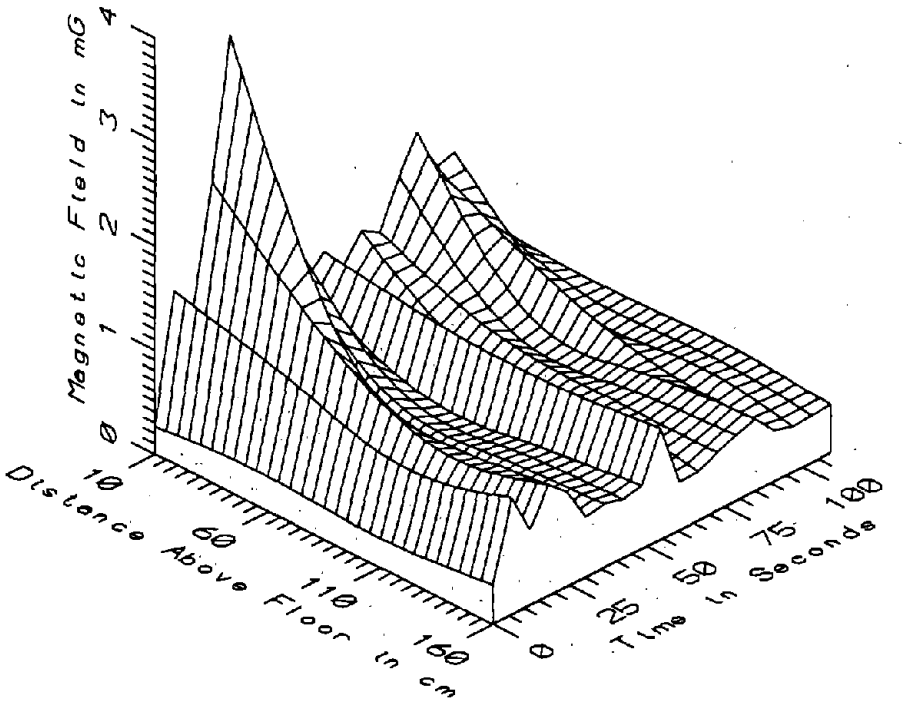
BOS016 - AT OPERATOR'S LEFT SHOULDER, BLUE LINE CAR - LOW FREQ, 5-45Hz



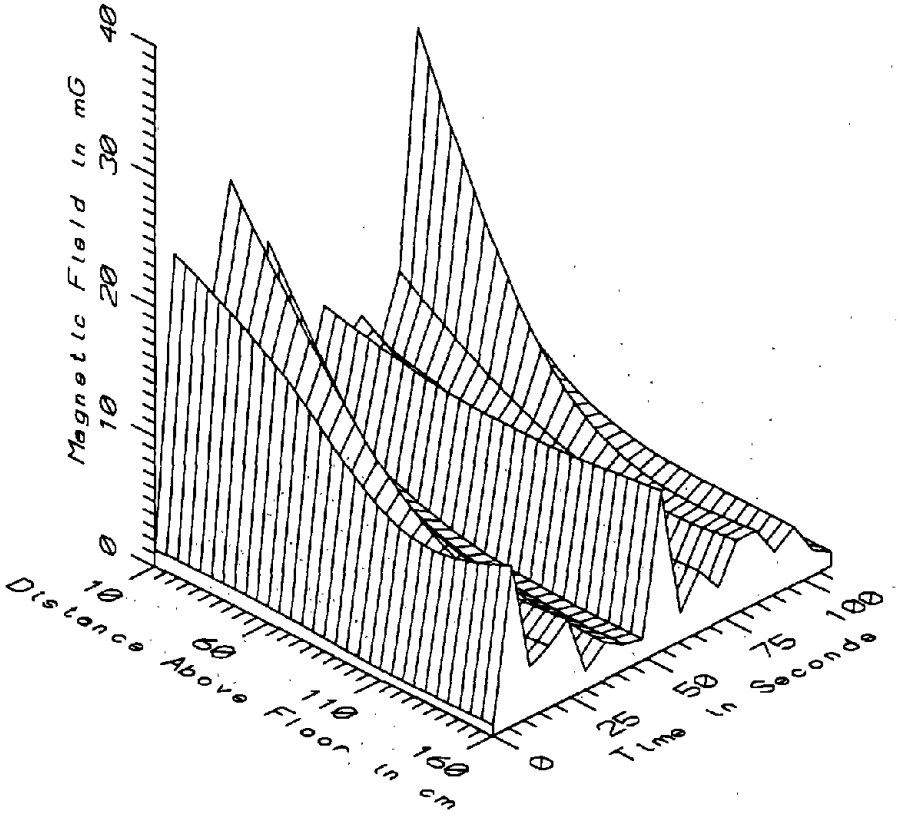
BOS016 - AT OPERATOR'S LEFT SHOULDER, BLUE LINE CAR - POWER FREQ, 50-60Hz



BOS016 - AT OPERATOR'S LEFT SHOULDER, BLUE LINE CAR - POWER HARM, 65-300Hz

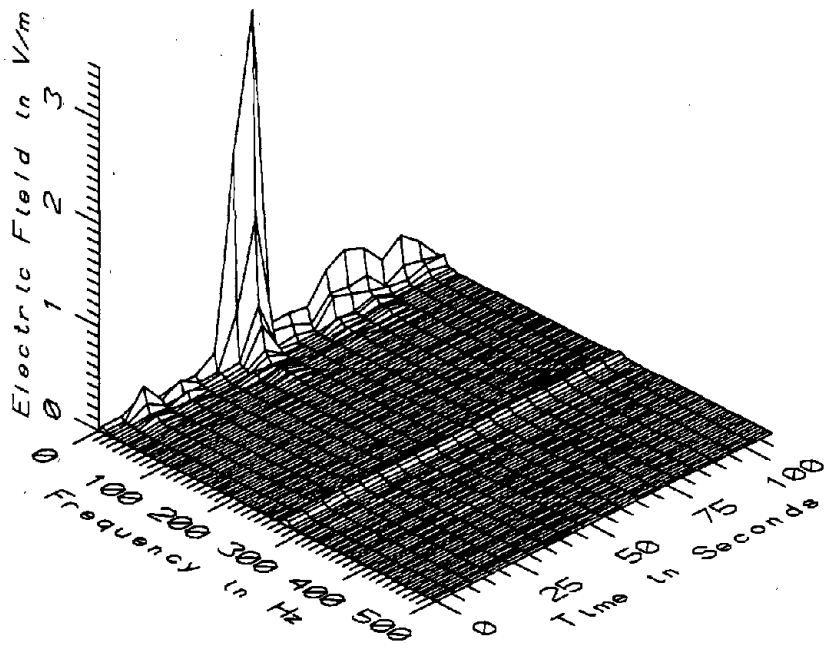


BOS016 - AT OPERATOR'S LEFT SHOULDER, BLUE LINE CAR-HIGH FREQ, 305-2560Hz



BOS016 - AT OPERATOR'S LEFT SHOULDER, BLUE LINE CAR - ALL FREQ, 5-2560Hz

BOS016 - AT OPERATOR'S LEFT SHOULDER, BLUE LINE CAR					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	161.18	772.04	472.06	194.15	41.13
	60	226.73	829.11	520.81	178.28	34.23
	110	294.27	839.78	577.92	153.75	26.60
	160	281.11	925.09	665.61	158.66	23.84
5-45Hz LOW FREQ	10	1.22	30.35	12.69	7.41	58.44
	60	0.96	17.26	6.91	4.44	64.33
	110	0.69	11.29	3.98	2.92	73.47
	160	0.67	12.15	3.95	3.28	82.92
50-60Hz PWR FREQ	10	0.27	6.05	3.18	1.72	53.89
	60	0.31	3.70	1.54	1.03	67.25
	110	0.23	2.00	0.86	0.46	53.83
	160	0.29	2.23	0.81	0.49	60.47
65-300Hz PWR HARM	10	0.26	12.33	4.00	2.57	64.27
	60	0.28	4.33	1.54	1.04	67.45
	110	0.23	2.08	0.92	0.50	54.73
	160	0.29	2.37	0.86	0.55	64.11
305-2560Hz HIGH FREQ	10	0.27	3.66	1.37	0.72	53.00
	60	0.33	1.40	0.68	0.30	44.08
	110	0.28	0.95	0.59	0.17	28.36
	160	0.38	1.12	0.65	0.23	35.52
5-2560Hz ALL FREQ	10	1.30	31.20	13.88	7.82	56.34
	60	1.23	17.92	7.35	4.56	62.05
	110	0.81	11.52	4.26	2.94	69.08
	160	0.87	12.39	4.23	3.30	78.06



BOS016 - ELECTRIC FIELD AT OPERATOR'S LEFT SHOULDER, BLUE LINE CAR

APPENDIX R

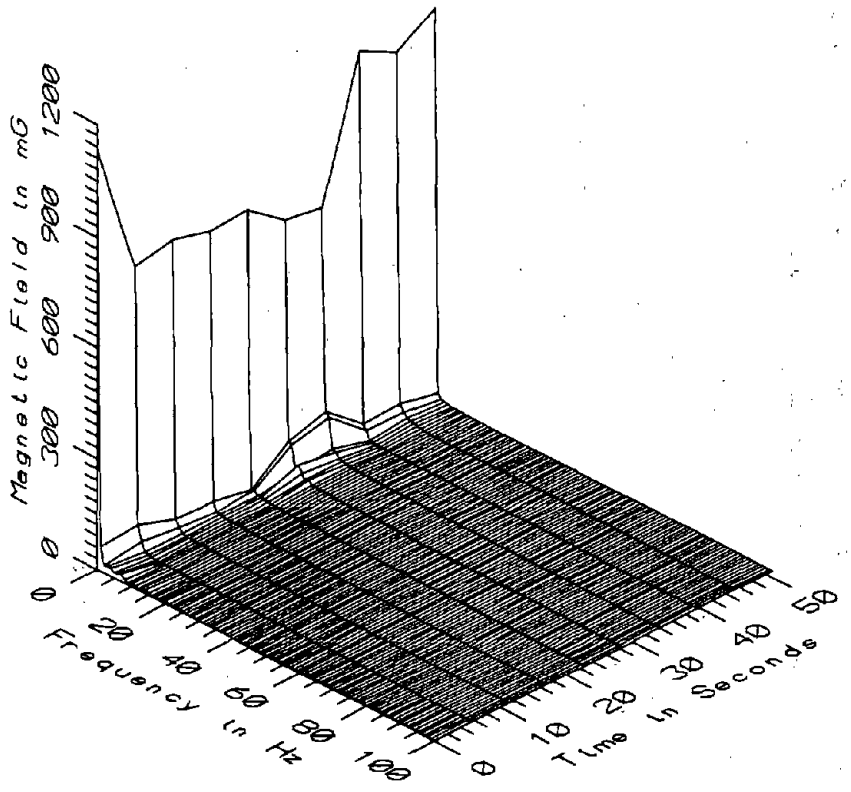
DATASET BOS017
ON CENTERLINE AT REAR DOORS OF BLUE LINE CAR

Measurement Setup Code:	Staff: 3 Reference: 2 Drawing: A-1
Vehicle Status:	Travelling between Beachmont and Orient Heights stations
Measurement Date:	June 10, 1992
Measurement Time:	Start: 11:30:44 End: 11:31:55
Number of Samples:	10
Programmed Sample Interval:	5 sec
Actual Sample Interval:	5.7 sec

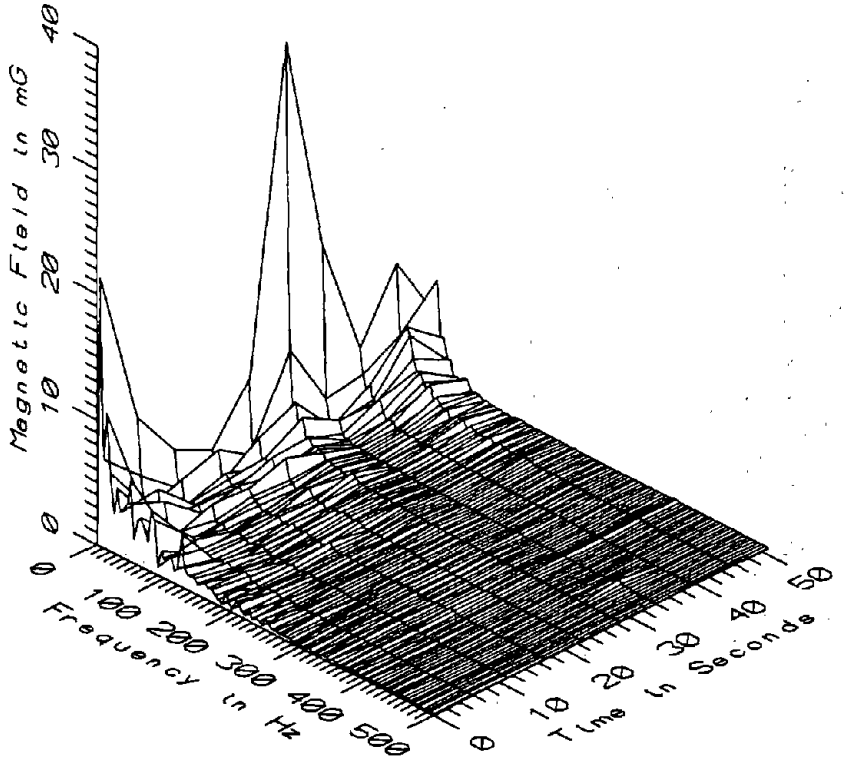
Frequency Spectrum Parameters

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

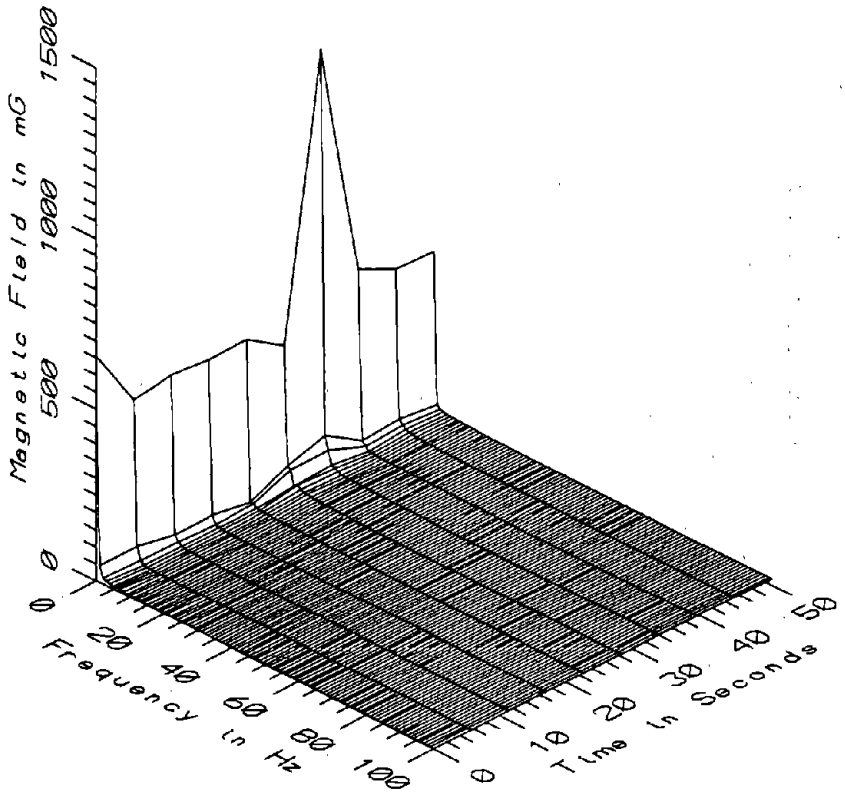
Missing Data: None



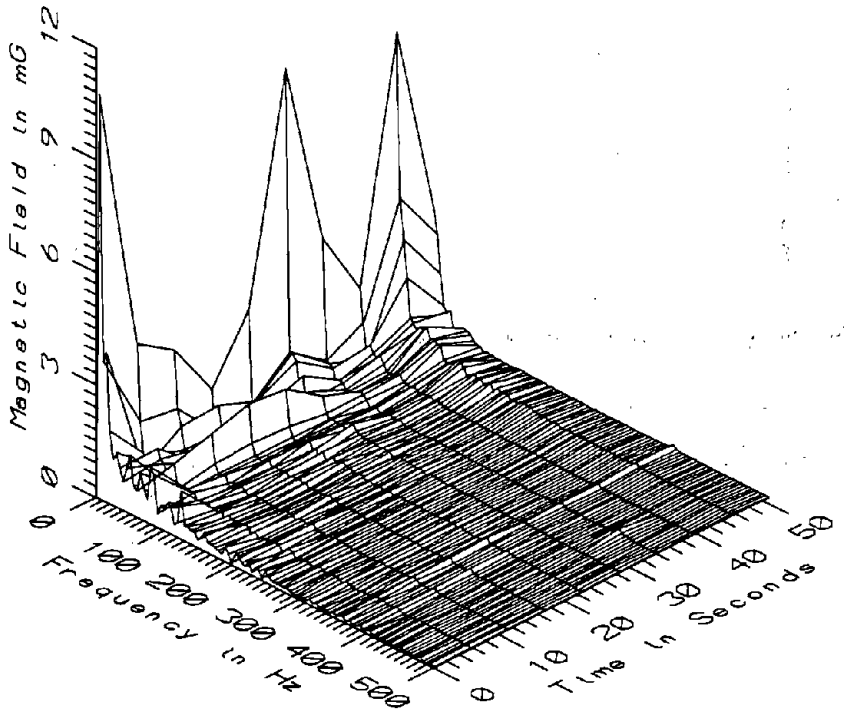
BOS017 - 10cm ABOVE FLOOR ON AXIS OF BLUE LINE CAR, AT REAR DOORS



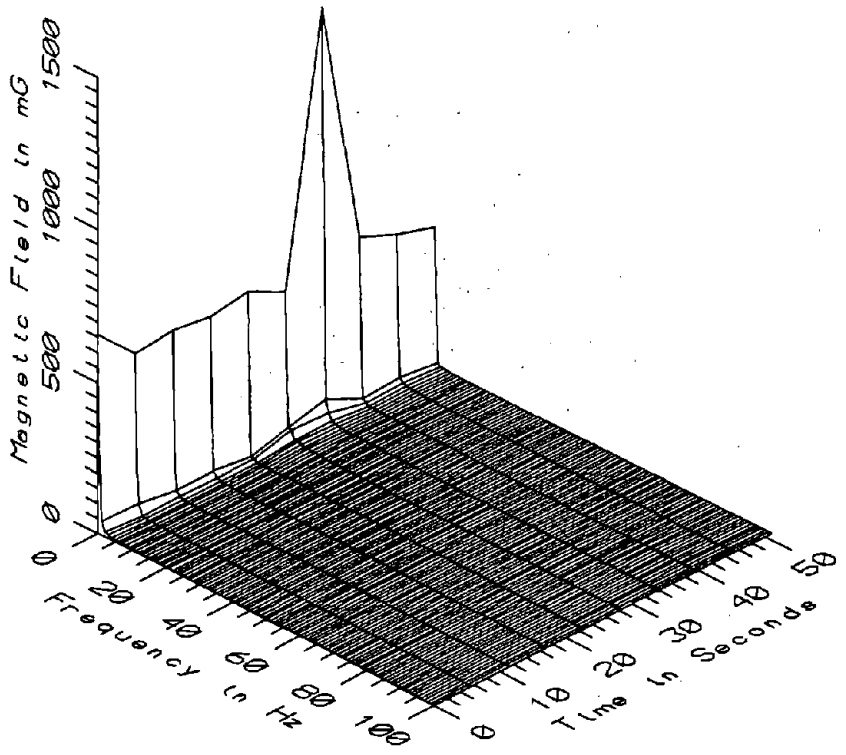
BOS017 - 10cm ABOVE FLOOR ON AXIS OF BLUE LINE CAR, AT REAR DOORS



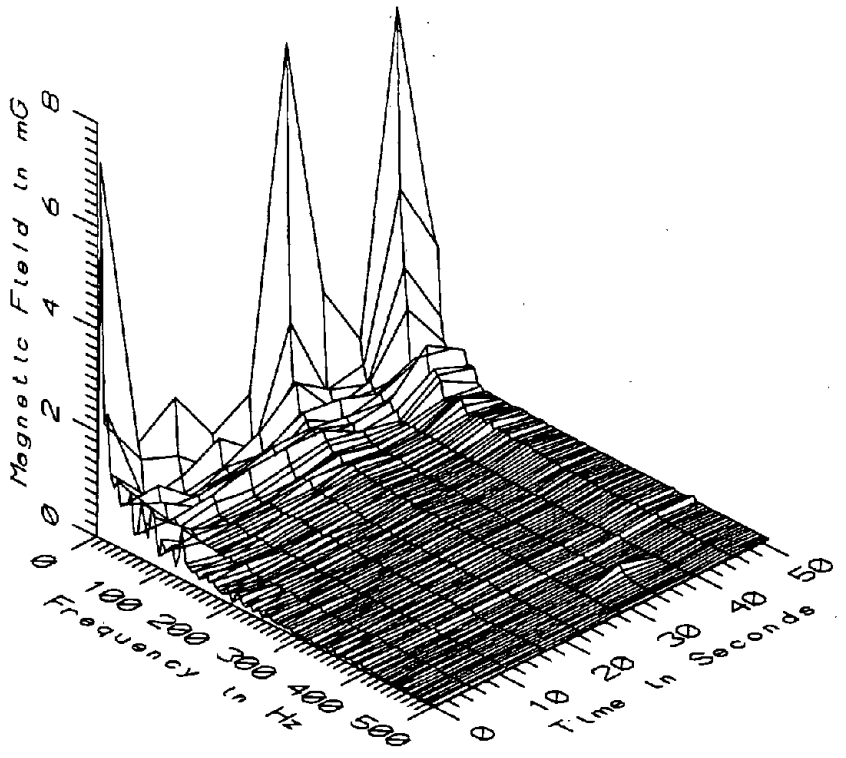
BOS017 - 60cm ABOVE FLOOR ON AXIS OF BLUE LINE CAR, AT REAR DOORS



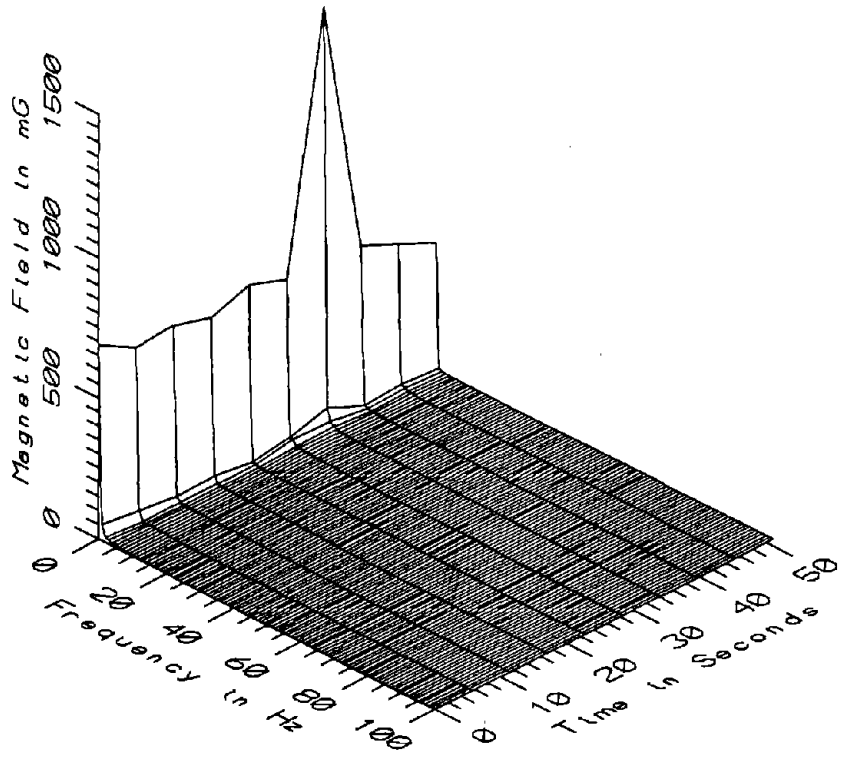
BOS017 - 60cm ABOVE FLOOR ON AXIS OF BLUE LINE CAR, AT REAR DOORS



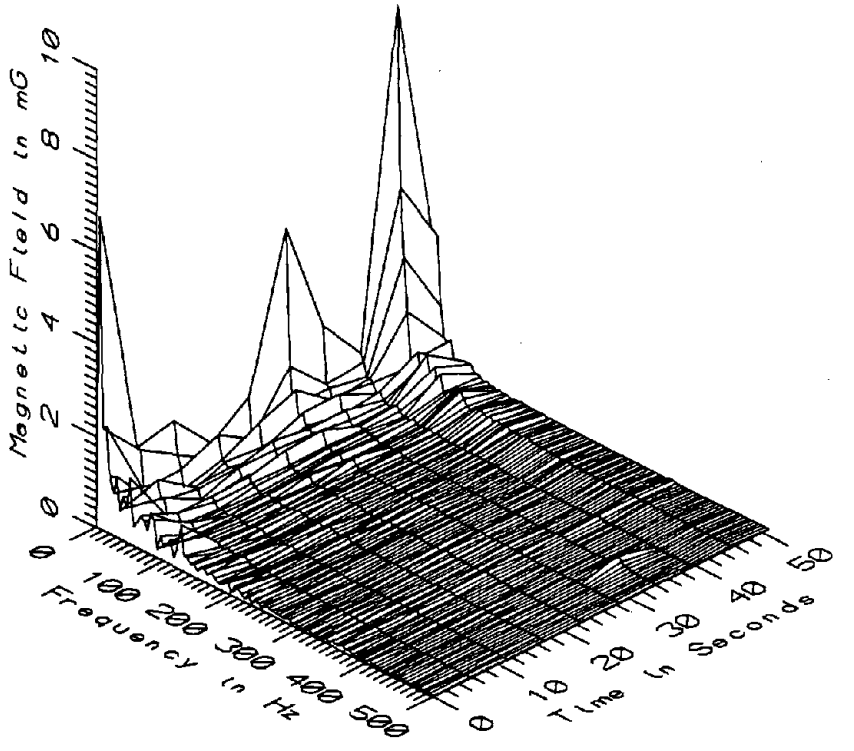
BOS017 - 110cm ABOVE FLOOR ON AXIS OF BLUE LINE CAR, AT REAR DOORS



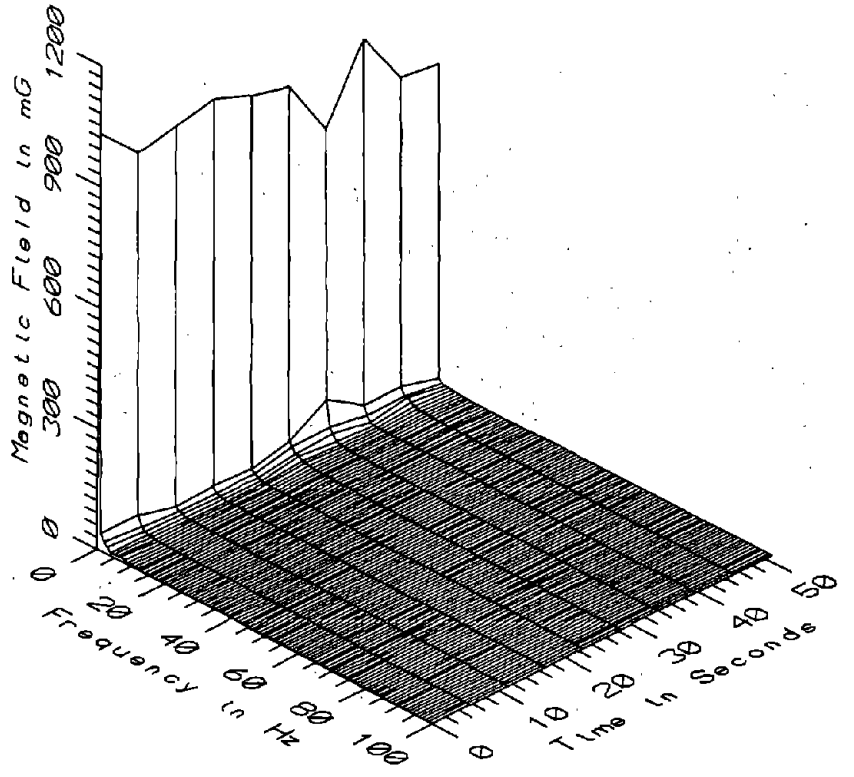
BOS017 - 110cm ABOVE FLOOR ON AXIS OF BLUE LINE CAR, AT REAR DOORS



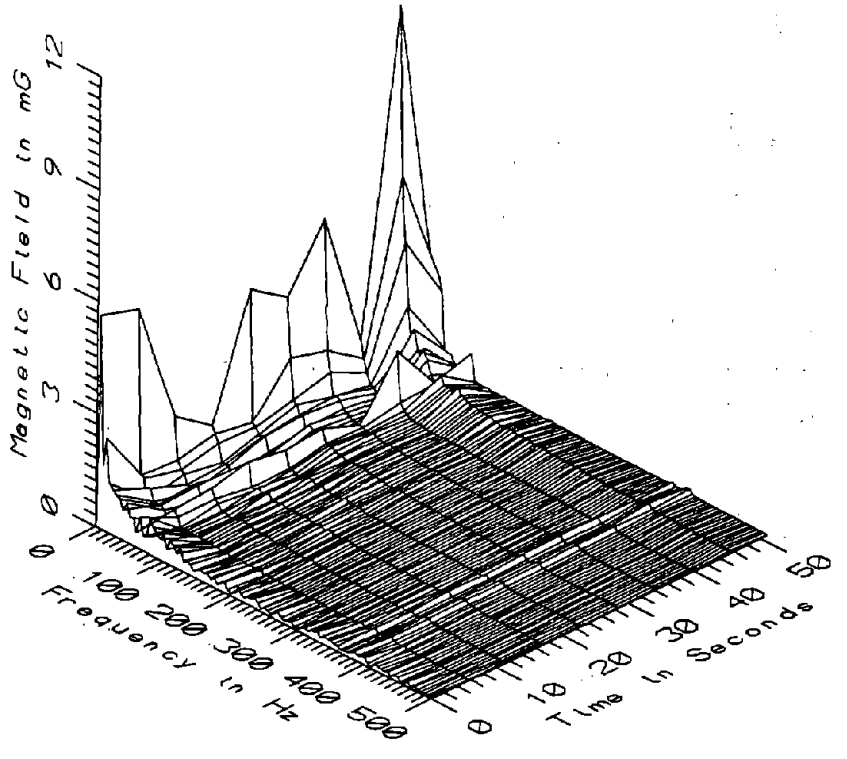
BOS017 - 160cm ABOVE FLOOR ON AXIS OF BLUE LINE CAR, AT REAR DOORS



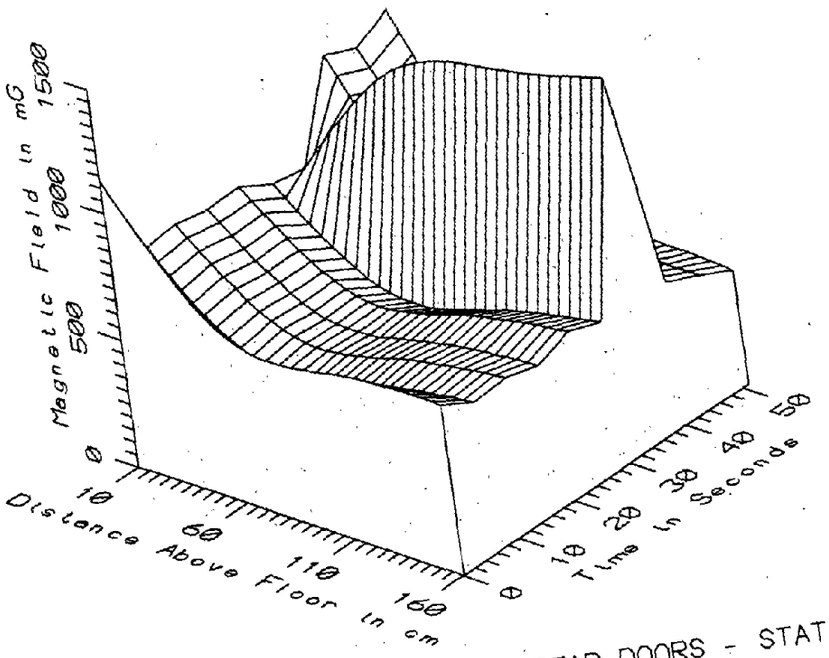
BOS017 - 160cm ABOVE FLOOR ON AXIS OF BLUE LINE CAR, AT REAR DOORS



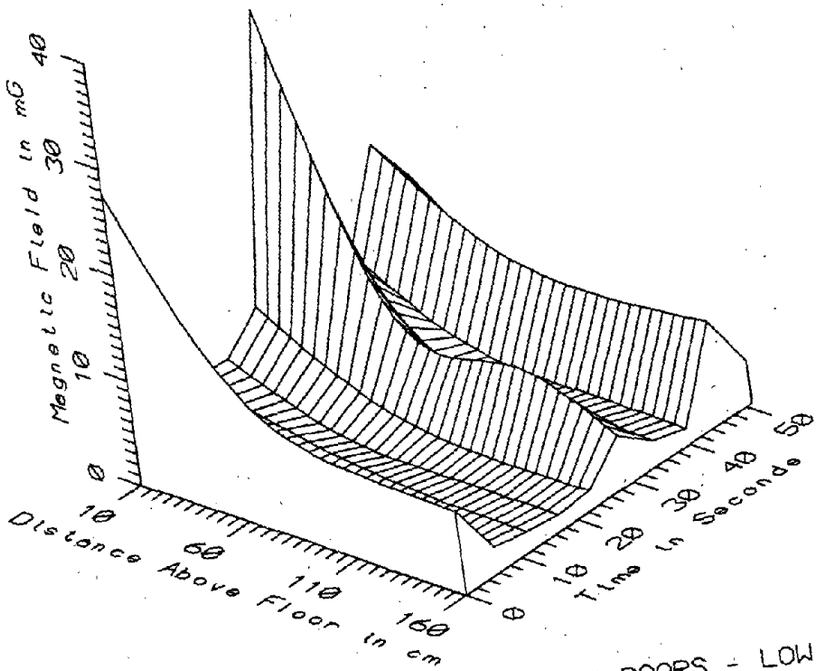
BOS017 - REFERENCE PROBE - ON WINDOW LEDGE, FRONT OF BLUE LINE CAR



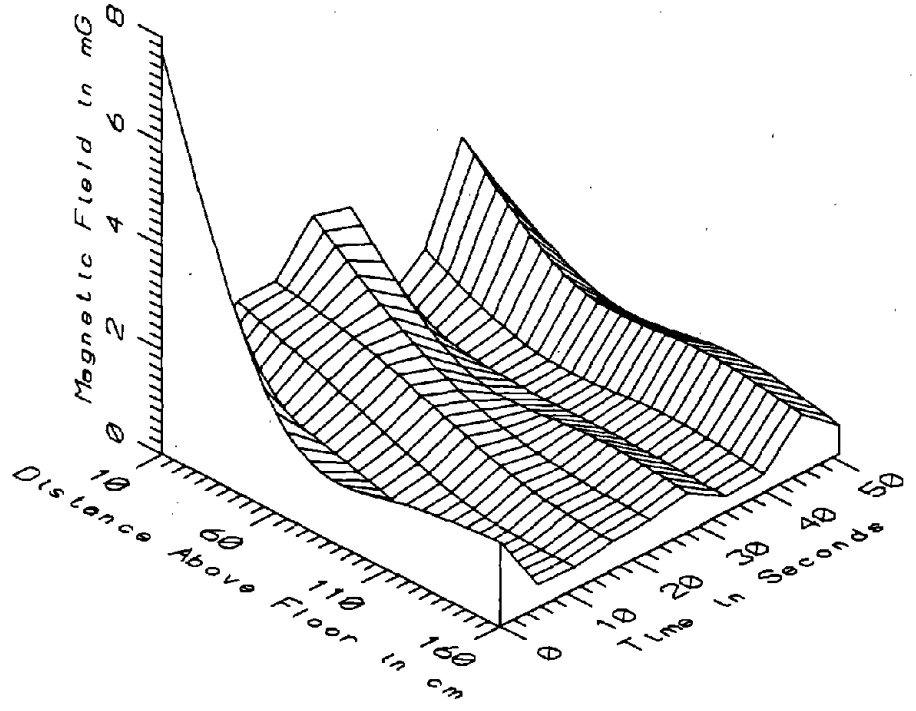
BOS017 - REFERENCE PROBE - ON WINDOW LEDGE, FRONT OF BLUE LINE CAR



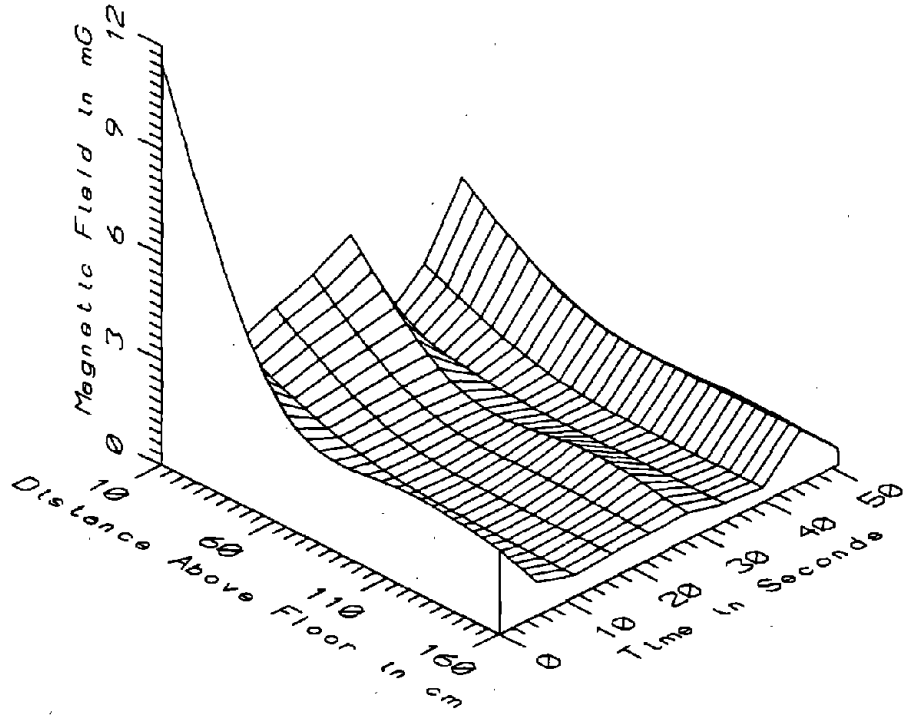
BOS017 - ON AXIS OF BLUE LINE CAR, AT REAR DOORS - STATIC



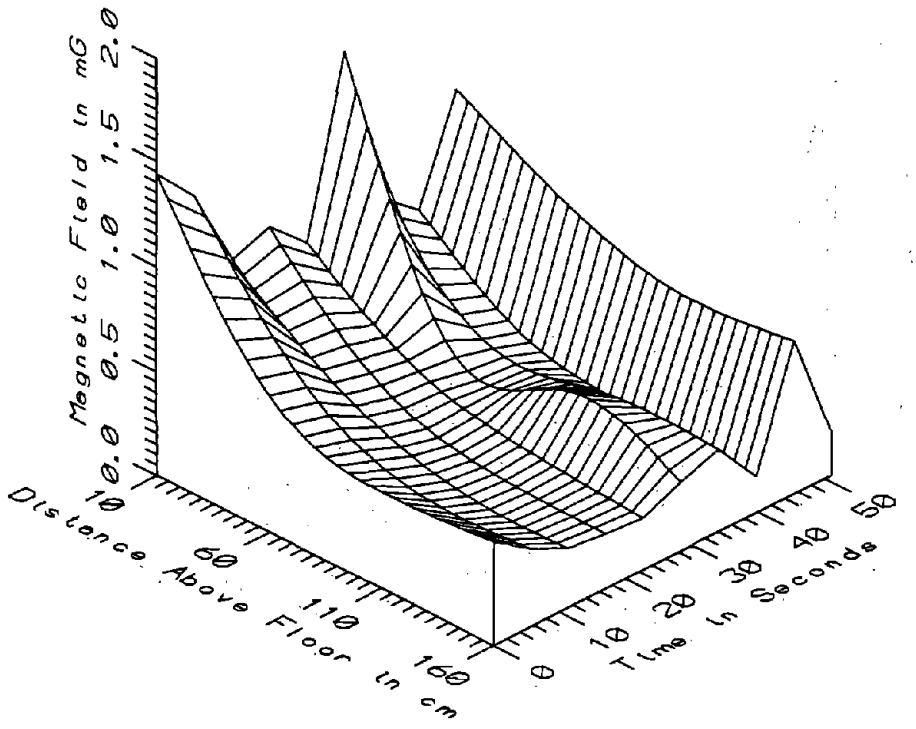
BOS017 - ON AXIS OF BLUE LINE CAR, AT REAR DOORS - LOW FREQ. 5-45Hz



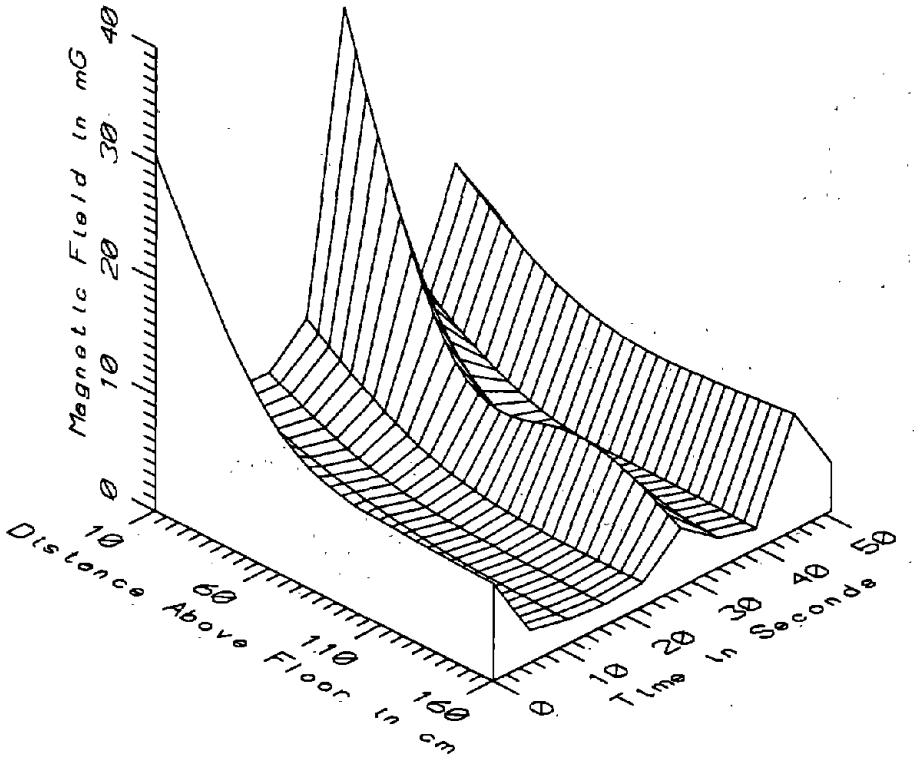
BOS017 - ON AXIS OF BLUE LINE CAR, AT REAR DOORS - POWER FREQ, 50-60Hz



BOS017 - ON AXIS OF BLUE LINE CAR, AT REAR DOORS - POWER HARM, 65-300Hz

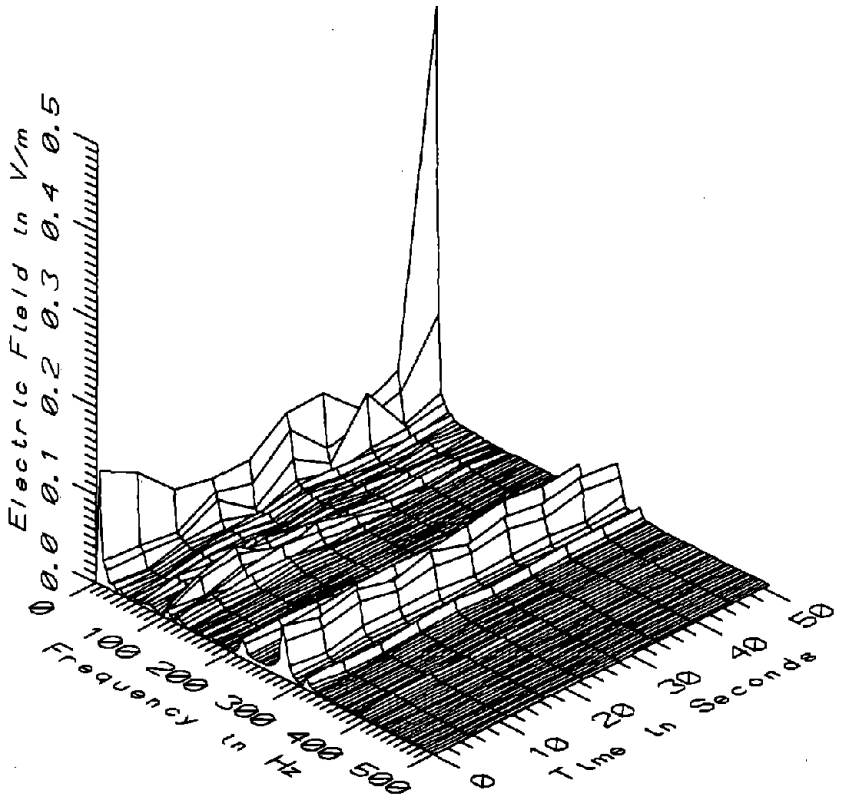


BOS017 - ON AXIS OF BLUE LINE CAR, AT REAR DOORS - HIGH FREQ, 305-2560Hz



BOS017 - ON AXIS OF BLUE LINE CAR, AT REAR DOORS - ALL FREQ, 5-2560Hz

BOS017 - ON AXIS AT REAR DOORS OF BLUE LINE CAR					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	674.47	1128.48	867.86	167.40	19.29
	60	408.24	1217.46	565.36	237.96	42.09
	110	449.22	1360.97	615.37	267.79	43.52
	160	450.93	1473.08	674.66	287.93	42.68
5-45Hz LOW FREQ	10	5.96	34.95	14.65	9.56	65.24
	60	2.15	12.51	5.75	3.59	62.56
	110	1.58	8.94	4.24	3.07	72.36
	160	1.55	9.80	3.90	2.88	73.81
50-60Hz PWR FREQ	10	0.77	7.70	2.69	1.93	71.88
	60	0.43	1.90	1.15	0.51	44.02
	110	0.39	1.38	0.81	0.33	41.39
	160	0.30	1.62	0.67	0.41	61.28
65-300Hz PWR HARM	10	1.05	11.48	3.64	2.94	80.79
	60	0.53	3.62	1.32	0.90	68.72
	110	0.43	2.73	1.01	0.69	68.69
	160	0.44	2.45	0.93	0.63	67.32
305-2560Hz HIGH FREQ	10	0.63	1.58	1.00	0.33	32.65
	60	0.28	0.84	0.47	0.18	37.93
	110	0.21	0.69	0.37	0.15	39.68
	160	0.18	0.74	0.35	0.17	47.06
5-2560Hz ALL FREQ	10	7.05	35.32	15.55	9.86	63.38
	60	2.93	13.18	6.10	3.61	59.12
	110	1.95	9.21	4.49	3.11	69.13
	160	1.79	10.01	4.11	2.94	71.60



BOS017 - ELECTRIC FIELD 170cm ABOVE AXIS OF BLUE LINE CAR, AT REAR DOORS

APPENDIX S

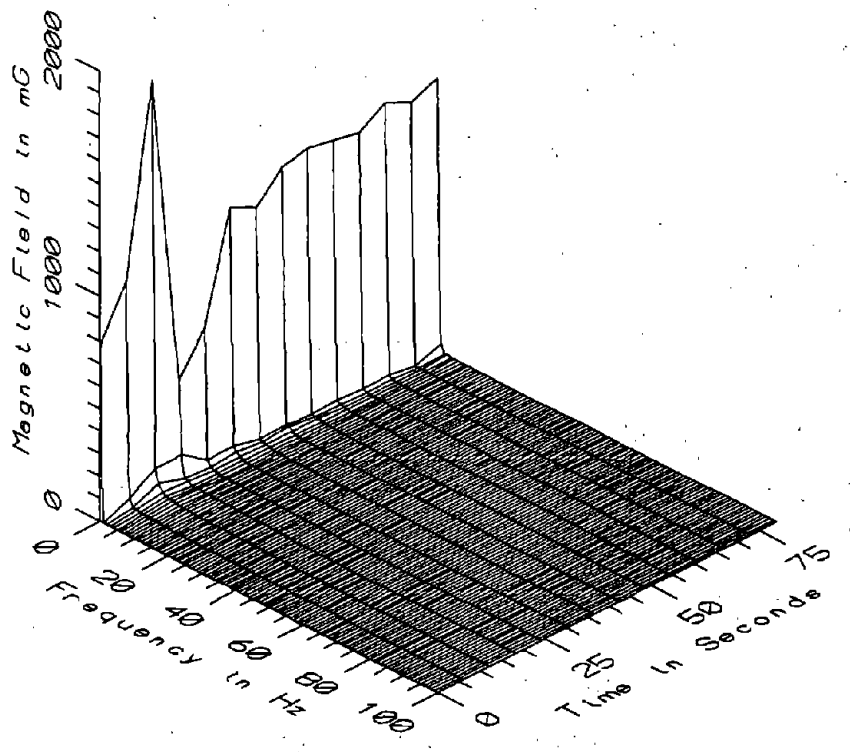
DATASET BOS018
IN FRONT OF OPERATOR'S SEAT, BLUE LINE CAR

Measurement Setup Code:	Staff: 4 Reference: 2 Drawing: A-1
Vehicle Status:	Travelling between Orient Heights and Airport stations
Measurement Date:	June 10, 1992
Measurement Time:	Start: 11:33:51 End: 11:35:10
Number of Samples:	14
Programmed Sample Interval:	5 sec
Actual Sample Interval:	6.1 sec

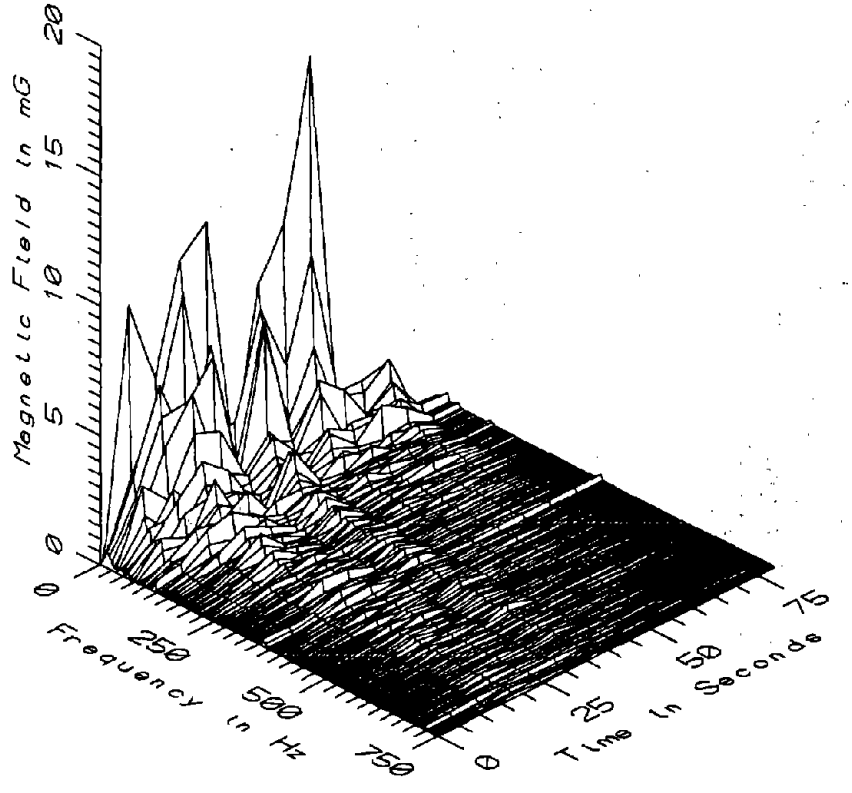
Frequency Spectrum Parameters

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

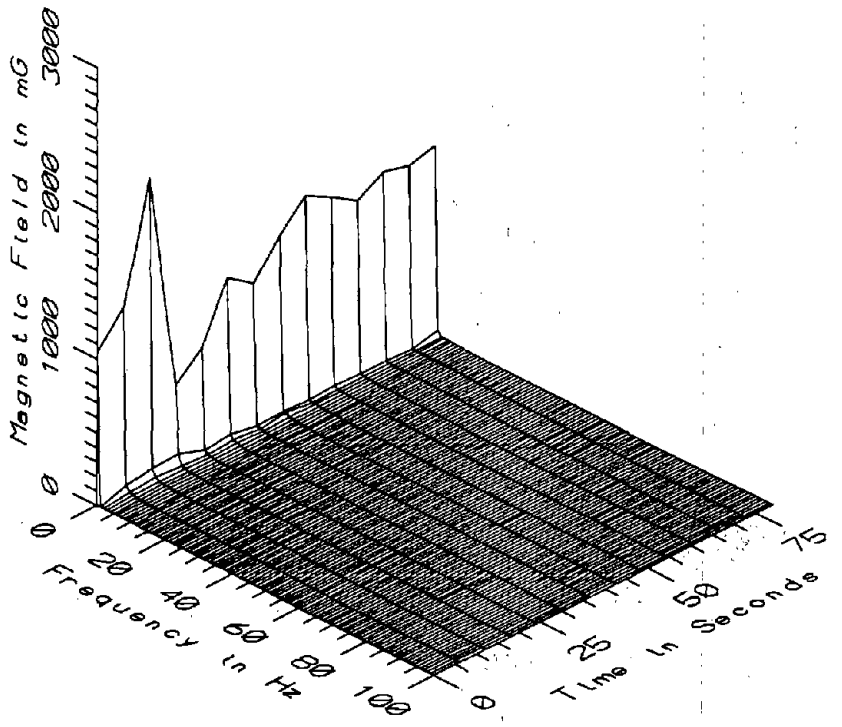
Missing Data: None



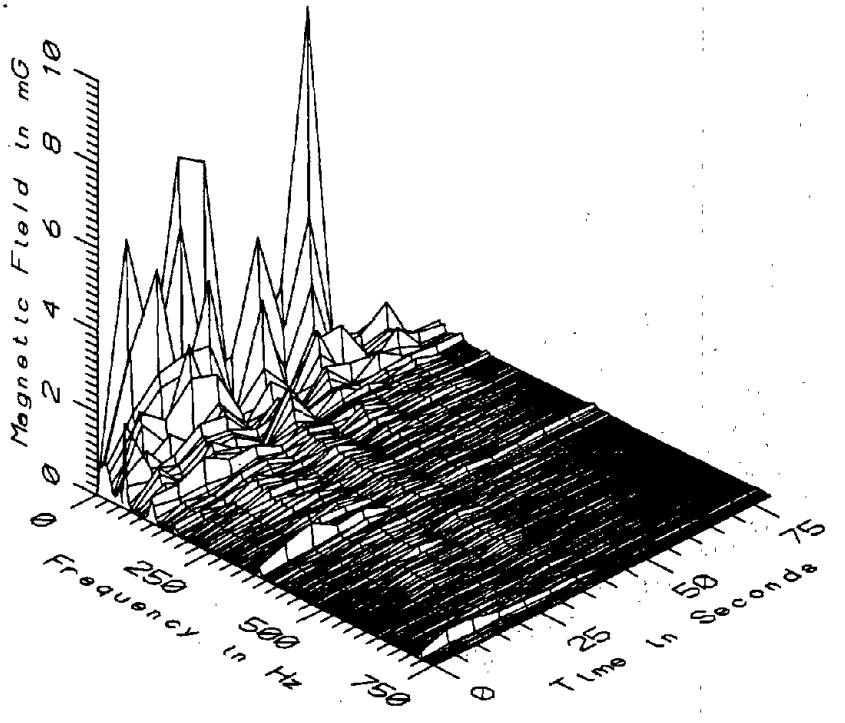
BOS018 - 10cm ABOVE FLOOR IN FRONT OF OPERATOR'S SEAT, BLUE LINE CAR



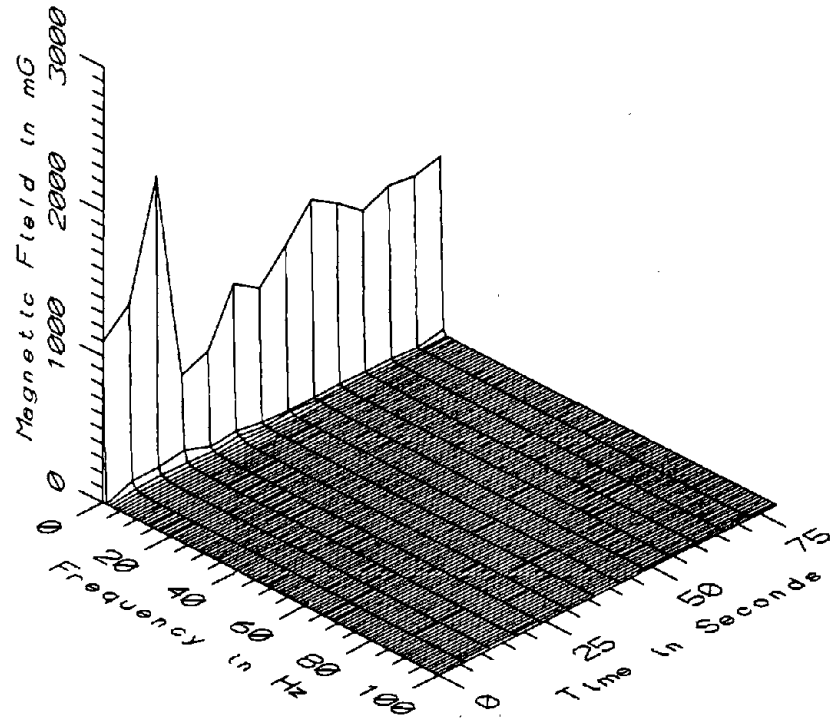
BOS018 - 10cm ABOVE FLOOR IN FRONT OF OPERATOR'S SEAT, BLUE LINE CAR



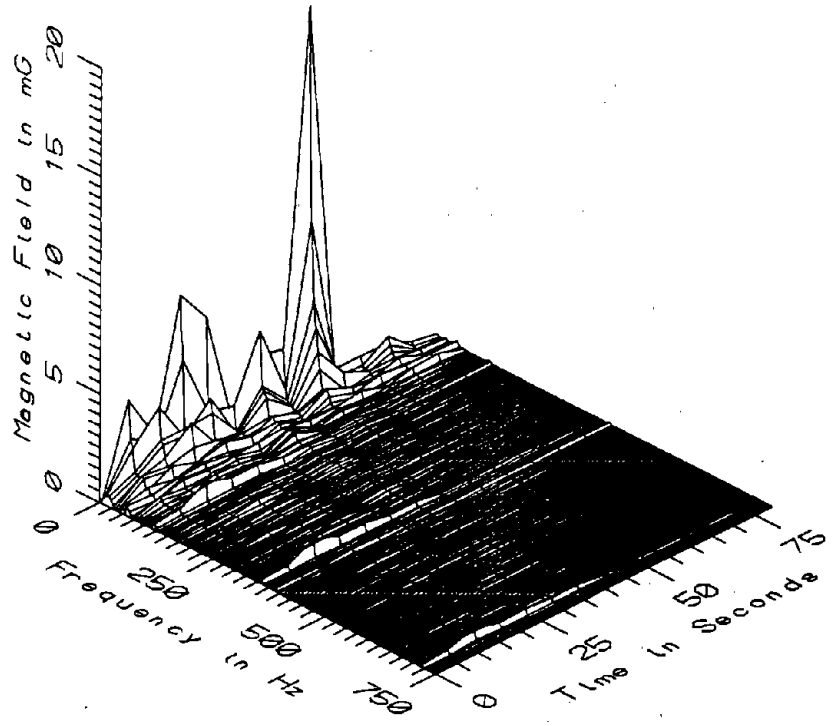
BOS018 - 60cm ABOVE FLOOR IN FRONT OF OPERATOR'S SEAT, BLUE LINE CAR



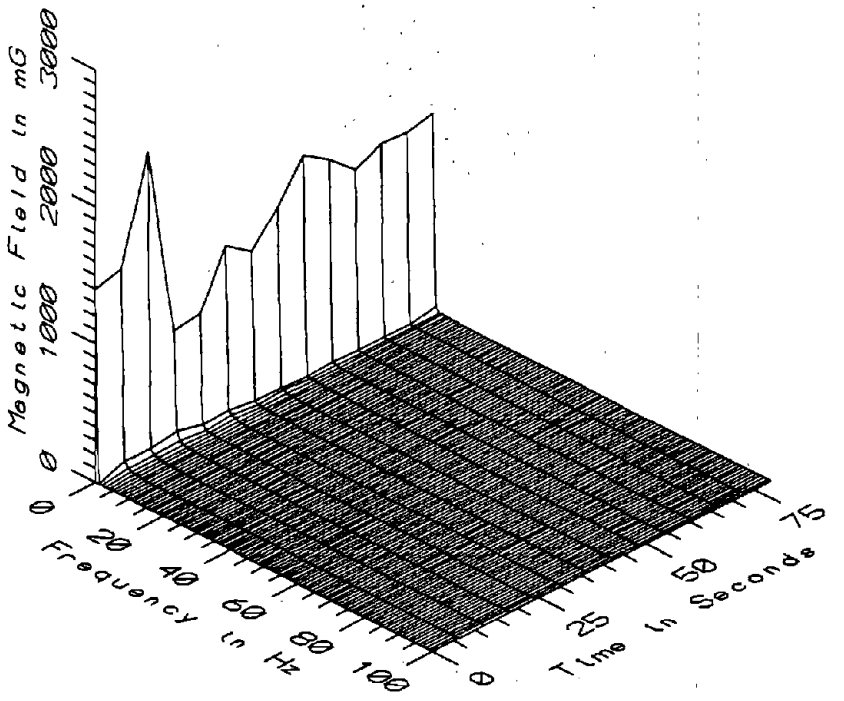
BOS018 - 60cm ABOVE FLOOR IN FRONT OF OPERATOR'S SEAT, BLUE LINE CAR



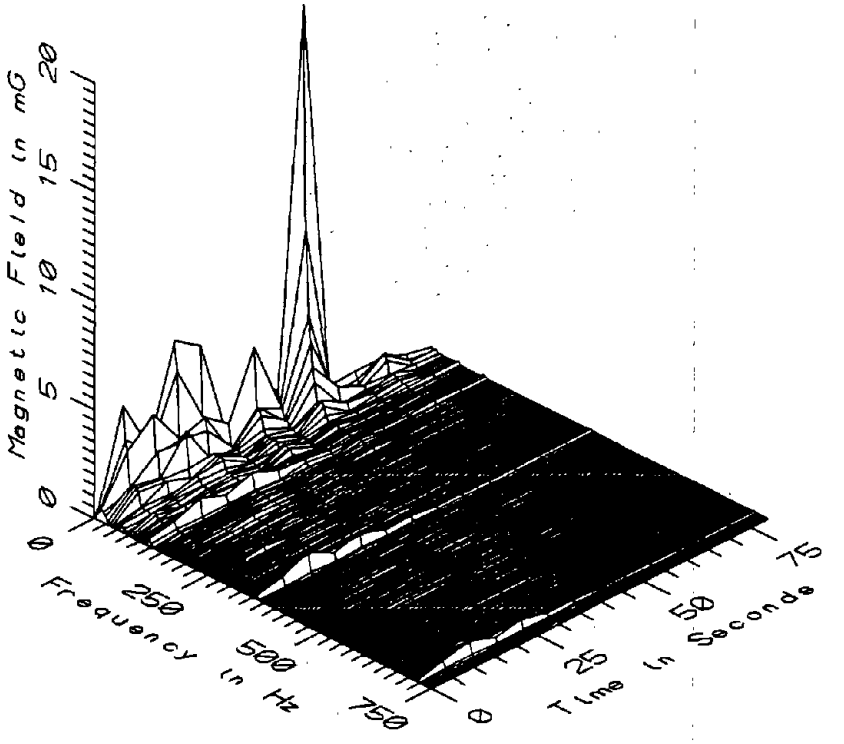
BOS018 - 110cm ABOVE FLOOR IN FRONT OF OPERATOR'S SEAT, BLUE LINE CAR



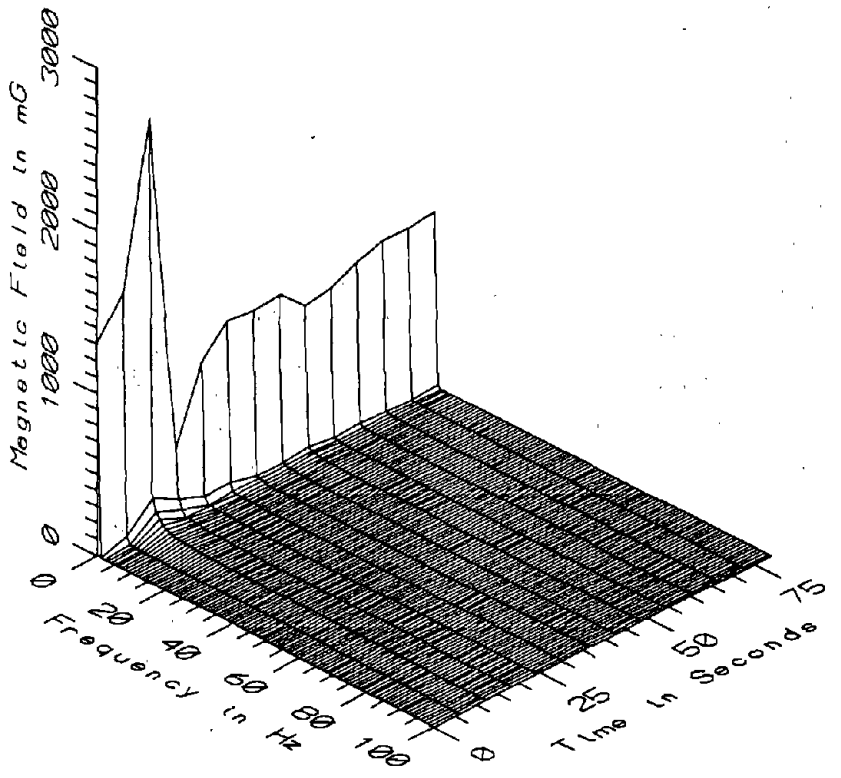
BOS018 - 110cm ABOVE FLOOR IN FRONT OF OPERATOR'S SEAT, BLUE LINE CAR



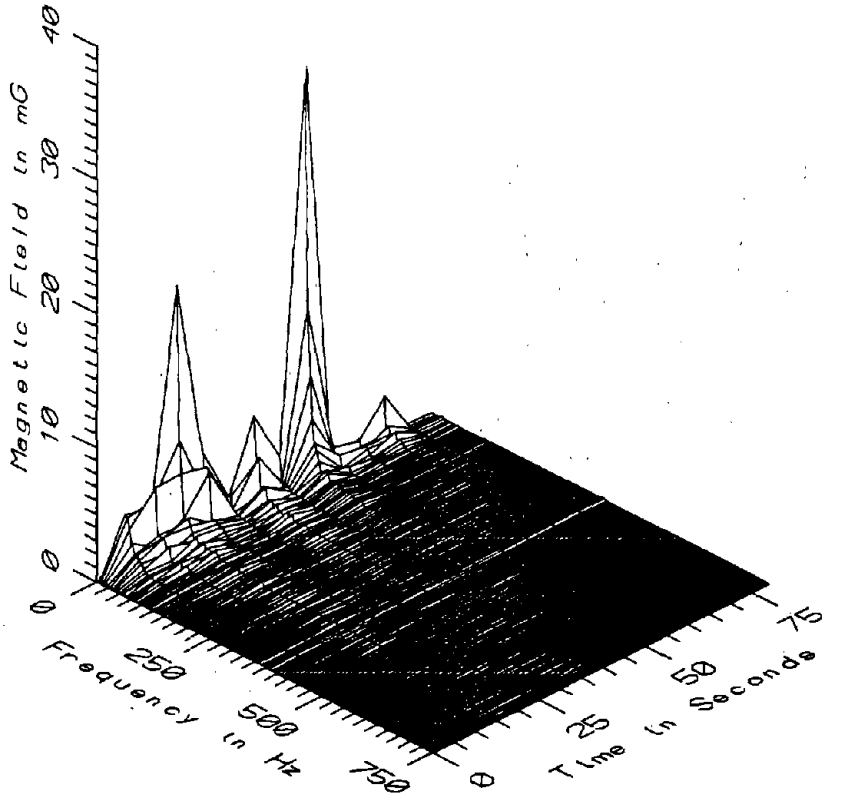
BOS018 - 160cm ABOVE FLOOR IN FRONT OF OPERATOR'S SEAT, BLUE LINE CAR



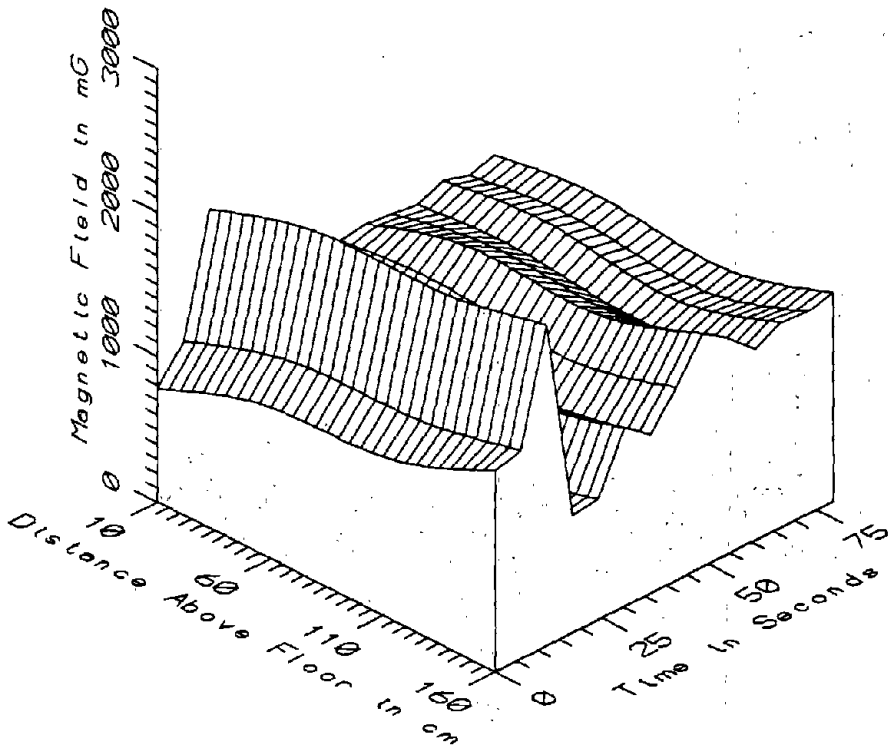
BOS018 - 160cm ABOVE FLOOR IN FRONT OF OPERATOR'S SEAT, BLUE LINE CAR



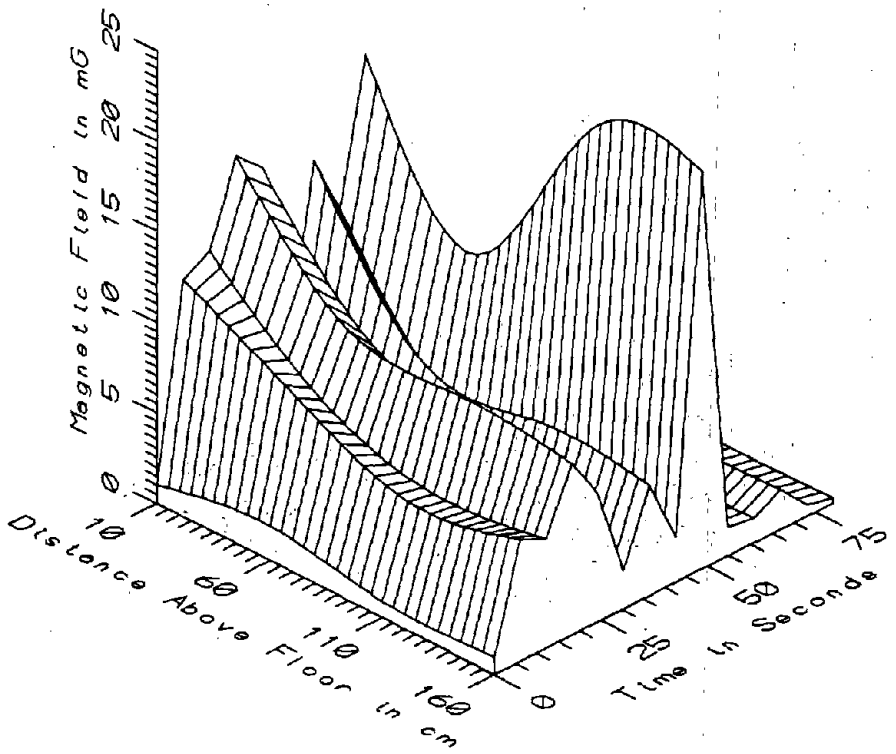
BOS018 - REFERENCE PROBE - ON WINDOW LEDGE, FRONT OF BLUE LINE CAR



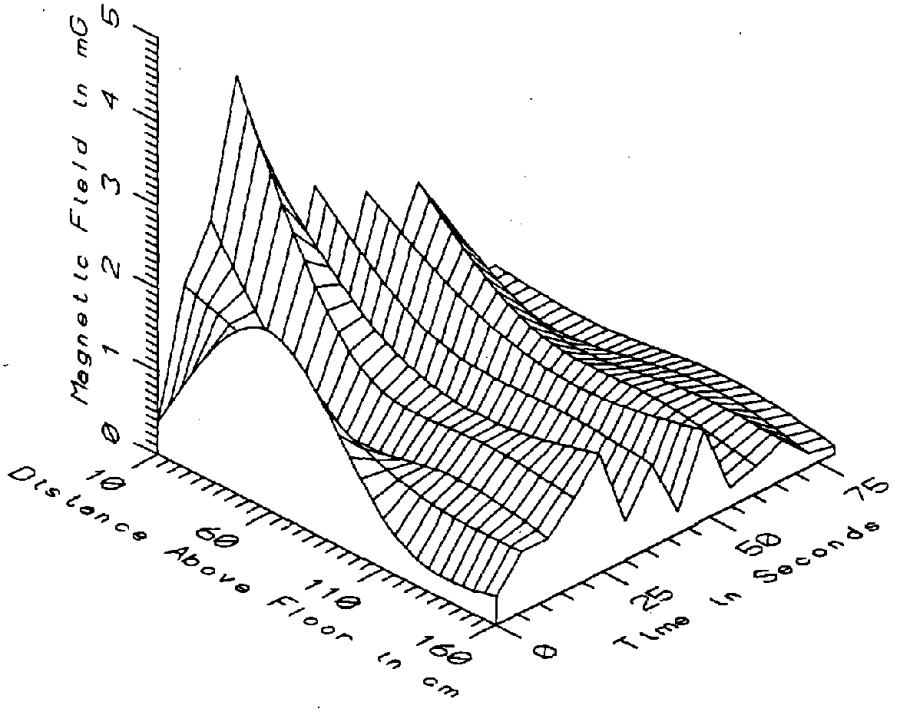
BOS018 - REFERENCE PROBE - ON WINDOW LEDGE, FRONT OF BLUE LINE CAR



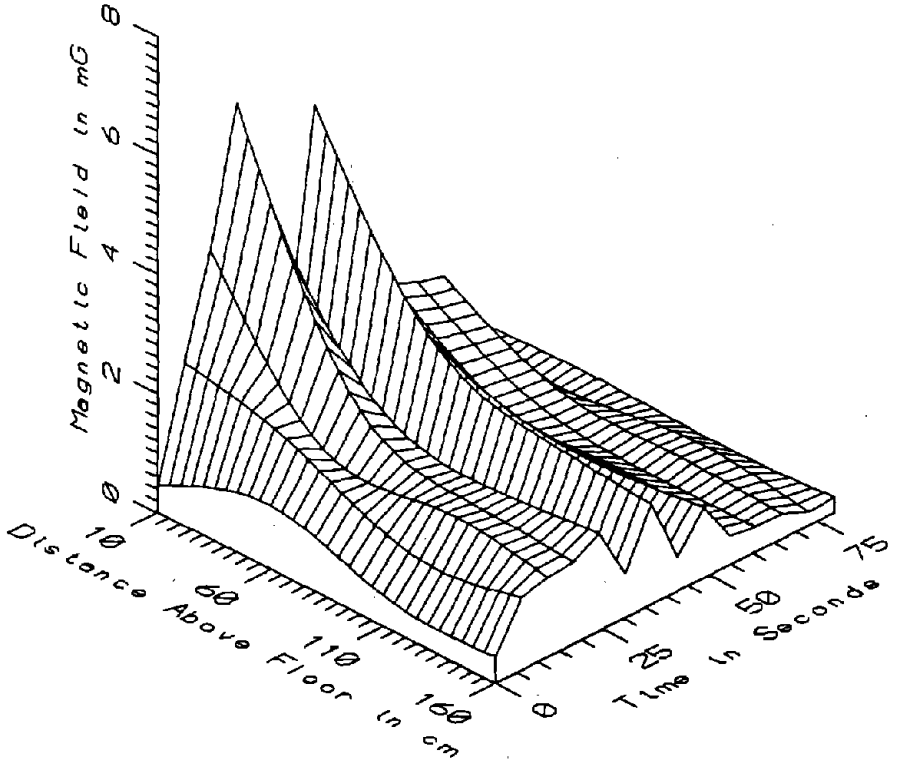
BOS018 - IN FRONT OF OPERATOR'S SEAT, BLUE LINE CAR - STATIC



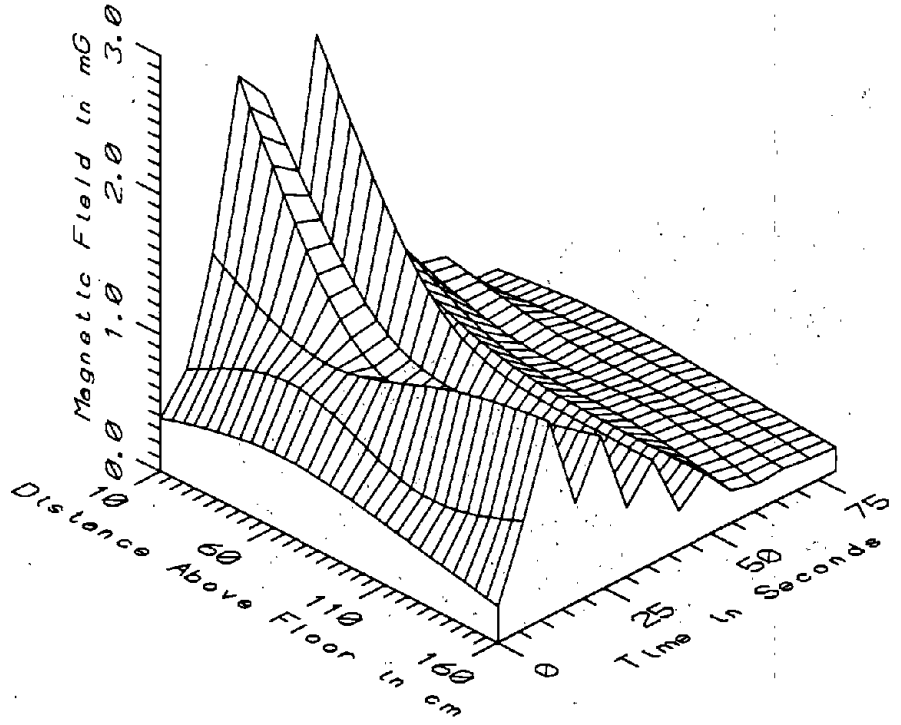
BOS018 - IN FRONT OF OPERATOR'S SEAT, BLUE LINE CAR - LOW FREQ. 5-45Hz



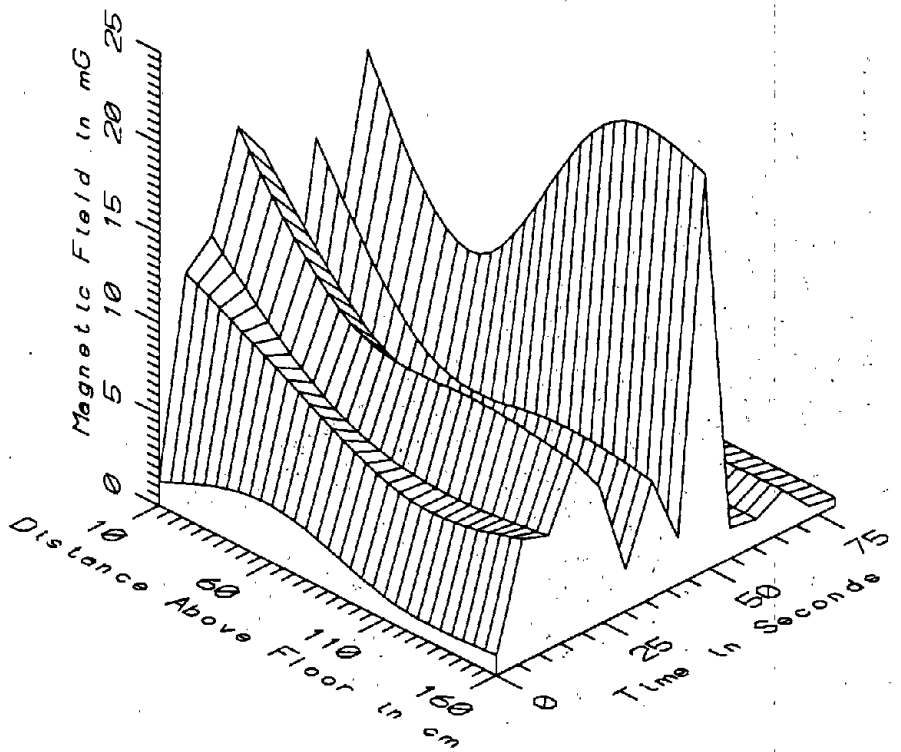
BOS018 - IN FRONT OF OPERATOR'S SEAT, BLUE LINE CAR - POWER FREQ, 50-60Hz



BOS018 - IN FRONT OF OPERATOR'S SEAT, BLUE LINE CAR - POWER HARM, 65-300Hz

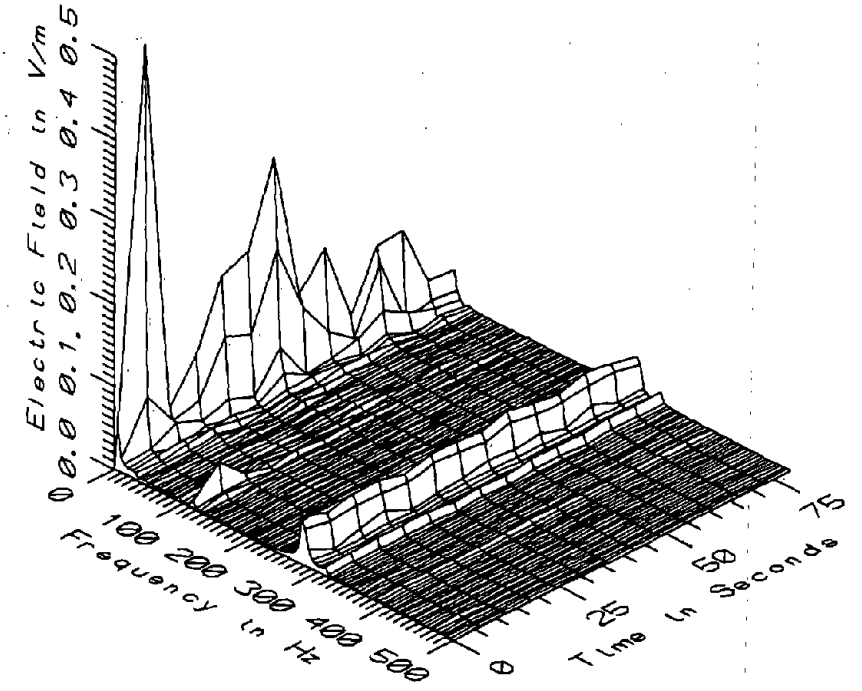


BOS018 - IN FRONT OF OPERATOR'S SEAT, BLUE LINE CAR-HIGH FREQ, 305-2560Hz



BOS018 - IN FRONT OF OPERATOR'S SEAT, BLUE LINE CAR - ALL FREQ, 5-2560Hz

BOS018 - IN FRONT OF OPERATOR'S SEAT, BLUE LINE CAR					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	454.46	1837.45	1080.00	320.95	29.72
	60	557.65	2056.81	1187.23	342.82	28.88
	110	597.69	2066.26	1158.68	340.75	29.41
	160	808.08	2211.41	1358.53	338.04	24.88
5-45Hz LOW FREQ	10	0.45	19.06	8.73	6.48	74.25
	60	0.36	11.06	4.84	3.78	78.21
	110	0.23	21.07	4.86	5.52	113.56
	160	0.33	21.90	4.92	5.67	115.44
50-60Hz PWR FREQ	10	0.22	4.08	1.56	1.13	72.14
	60	0.14	2.15	0.86	0.62	71.80
	110	0.28	1.16	0.69	0.30	43.01
	160	0.10	1.42	0.60	0.41	68.12
65-300Hz PWR HARM	10	0.18	6.23	2.48	1.89	76.16
	60	0.25	2.65	1.20	0.76	63.54
	110	0.19	1.88	0.91	0.52	56.79
	160	0.24	1.69	0.86	0.52	60.56
305-2560Hz HIGH FREQ	10	0.24	2.59	1.10	0.83	74.81
	60	0.32	1.15	0.66	0.32	48.60
	110	0.25	1.24	0.56	0.29	51.37
	160	0.17	1.40	0.52	0.38	74.23
5-2560Hz ALL FREQ	10	0.60	19.32	9.35	6.79	72.60
	60	0.56	11.21	5.19	3.80	73.35
	110	0.48	21.11	5.11	5.47	107.04
	160	0.47	21.97	5.10	5.68	111.35



BOS018 - ELECTRIC FIELD IN FRONT OF OPERATOR'S SEAT, BLUE LINE CAR

APPENDIX T

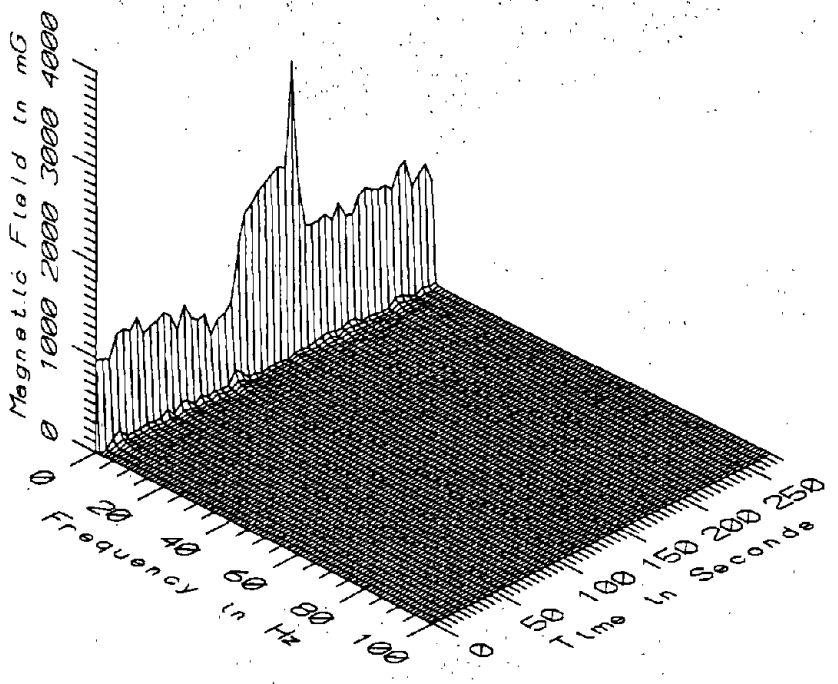
DATASET BOS019
AT OPERATOR'S LEFT SHOULDER, BLUE LINE CAR

Measurement Setup Code:	Staff: 1 Reference: 2 Drawing: A-1
Vehicle Status:	Travelling between Airport and Aquarium stations with a stop at Maverick station
Measurement Date:	June 10, 1992
Measurement Time:	Start: 11:40:00 End: 11:44:30
Number of Samples:	51
Programmed Sample Interval:	5 sec
Actual Sample Interval:	5.4 sec

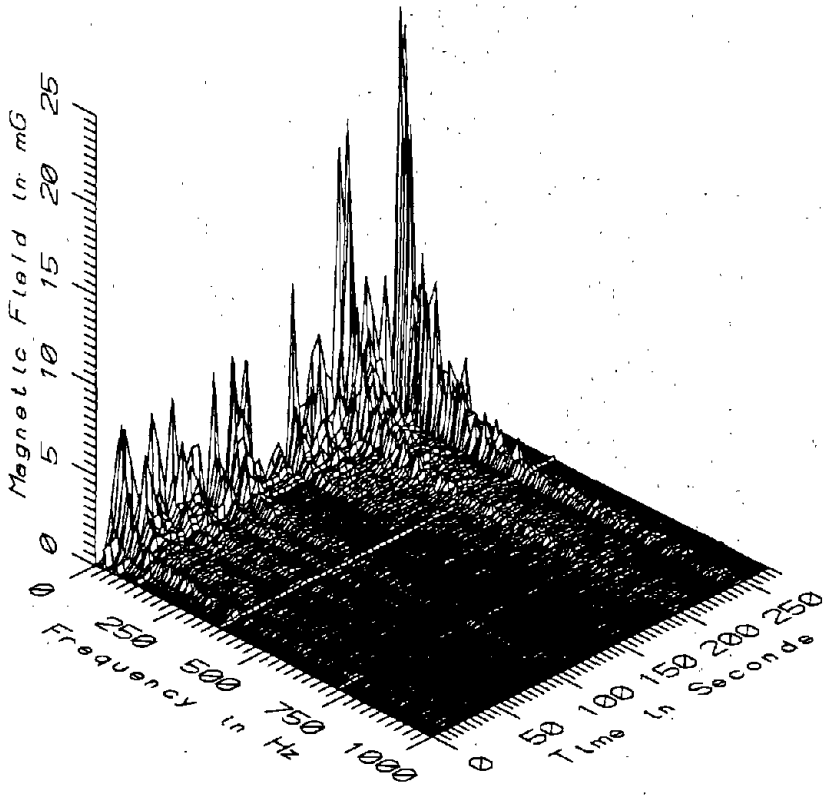
Frequency Spectrum Parameters

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

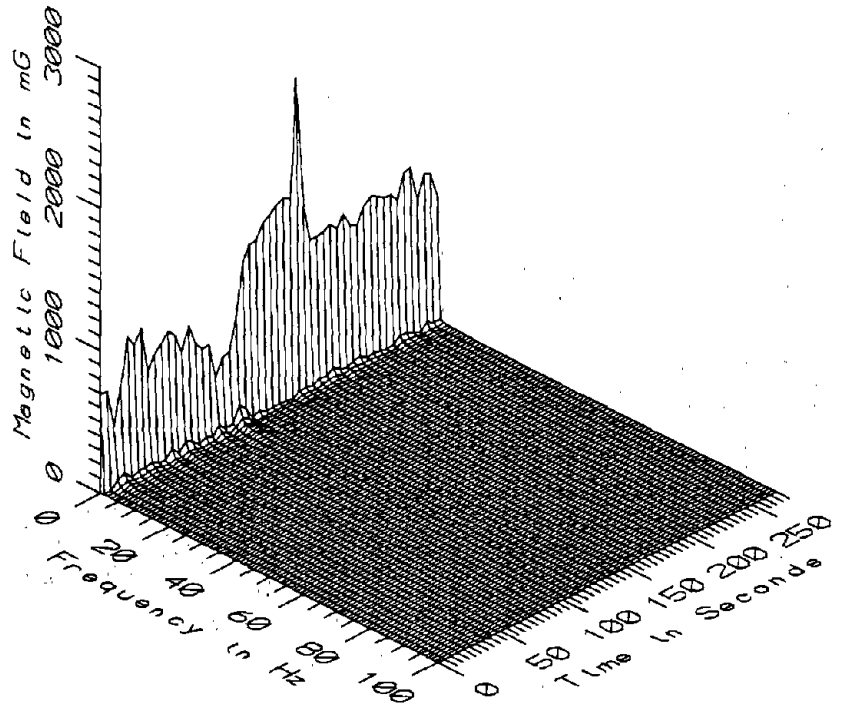
Missing Data: None



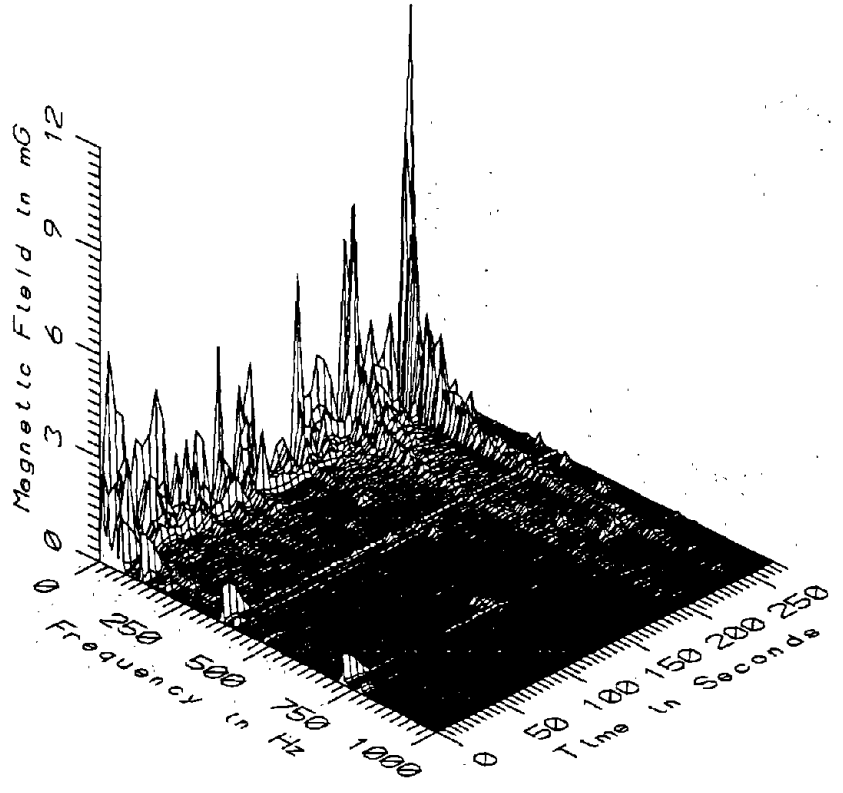
BOS019 - 10cm ABOVE FLOOR AT OPERATOR'S LEFT SHOULDER, BLUE LINE CAR



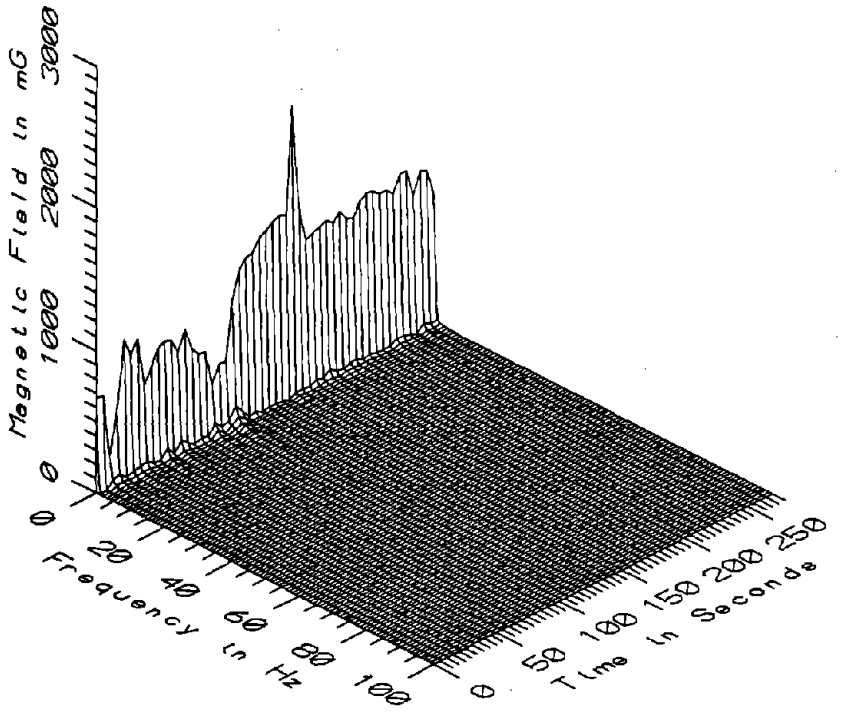
BOS019 - 10cm ABOVE FLOOR AT OPERATOR'S LEFT SHOULDER, BLUE LINE CAR



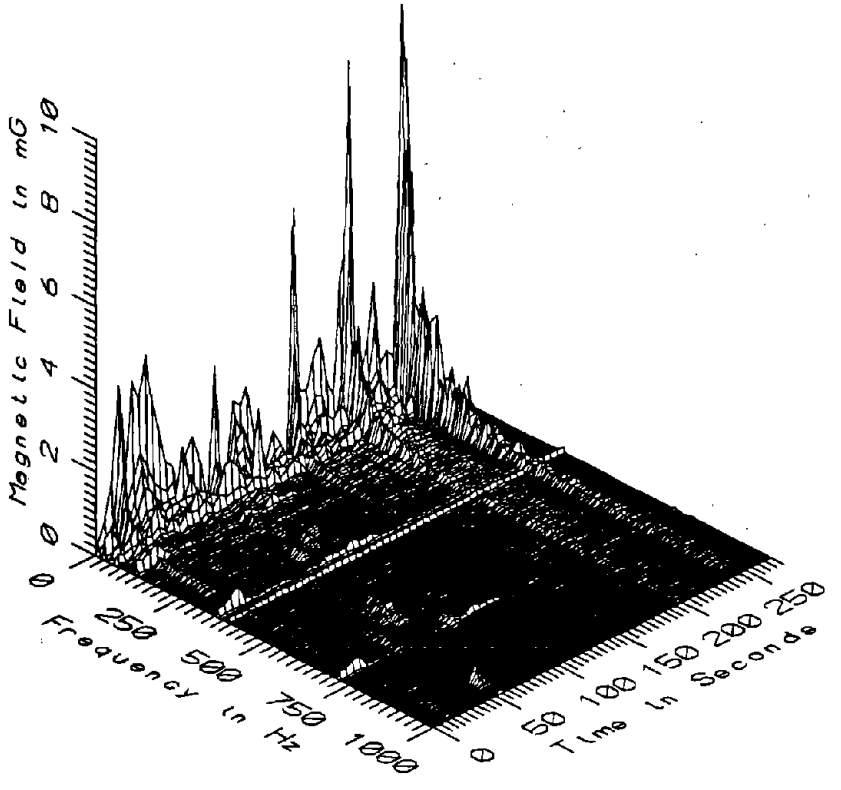
BOS019 - 60cm ABOVE FLOOR AT OPERATOR'S LEFT SHOULDER, BLUE LINE CAR



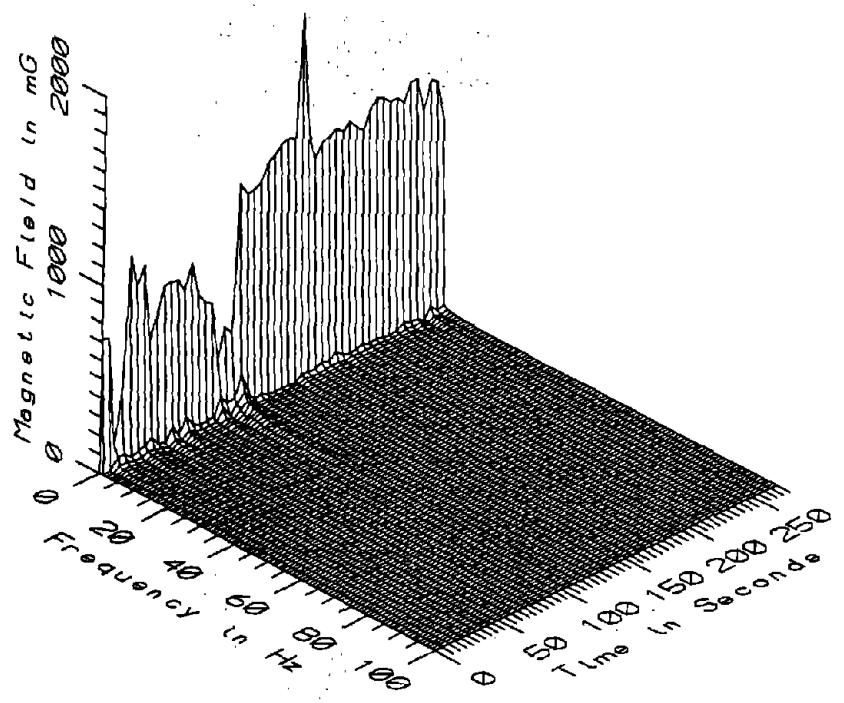
BOS019 - 60cm ABOVE FLOOR AT OPERATOR'S LEFT SHOULDER, BLUE LINE CAR



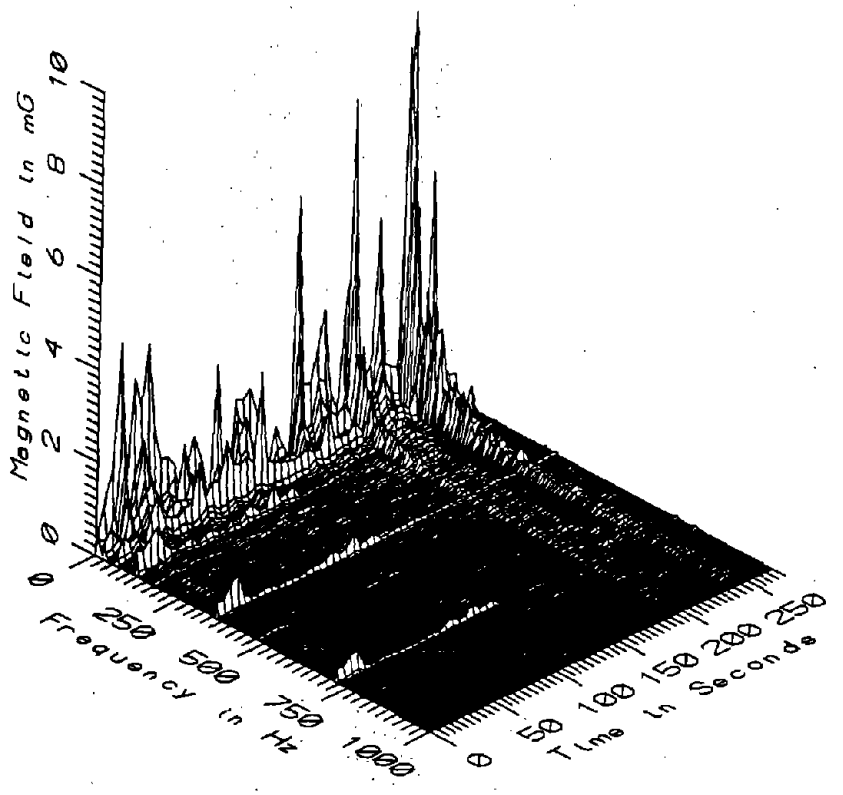
BOS019 - 110cm ABOVE FLOOR AT OPERATOR'S LEFT SHOULDER, BLUE LINE CAR



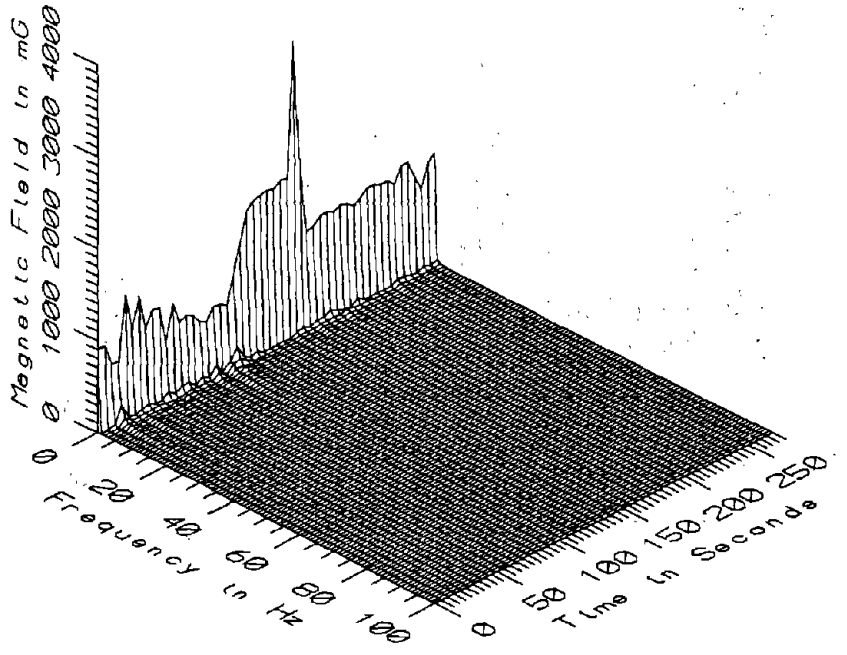
BOS019 - 110cm ABOVE FLOOR AT OPERATOR'S LEFT SHOULDER, BLUE LINE CAR



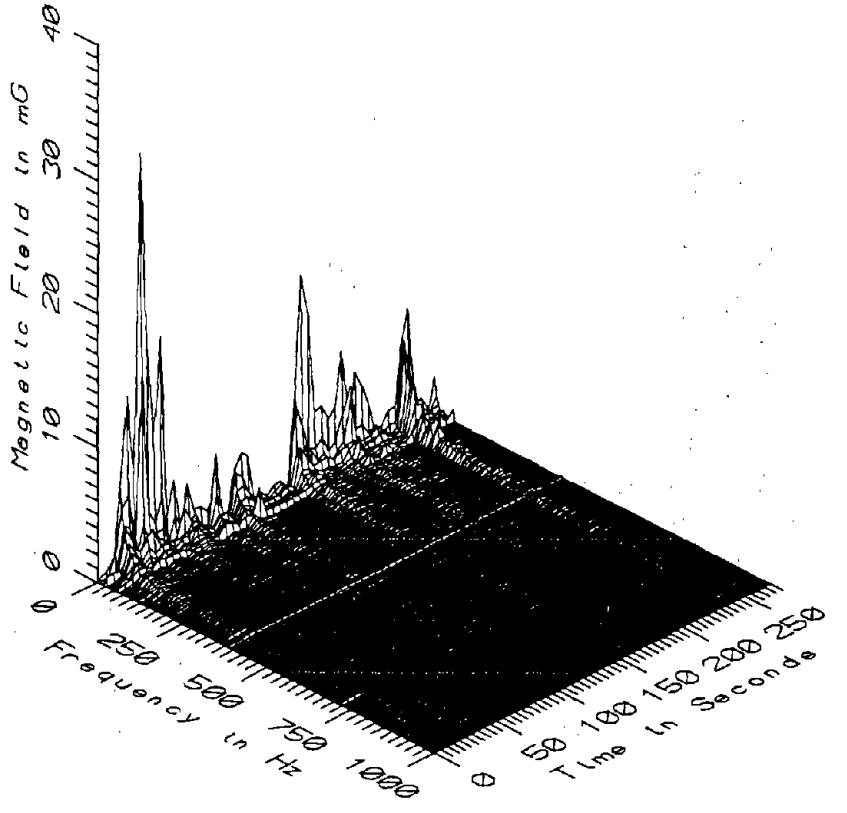
BOS019 - 160cm ABOVE FLOOR AT OPERATOR'S LEFT SHOULDER, BLUE LINE CAR



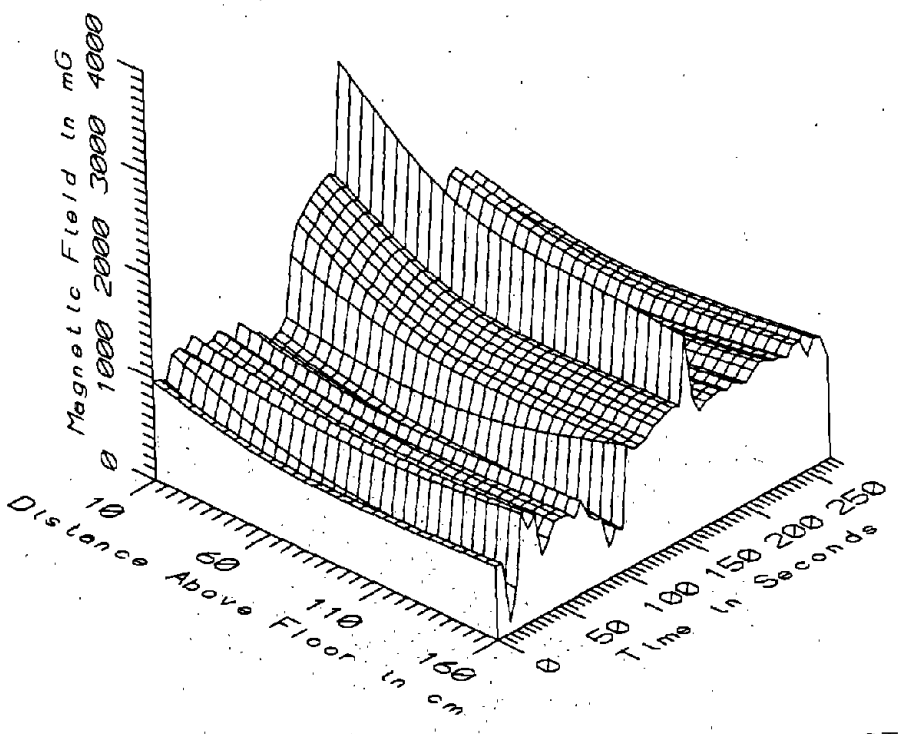
BOS019 - 160cm ABOVE FLOOR AT OPERATOR'S LEFT SHOULDER, BLUE LINE CAR



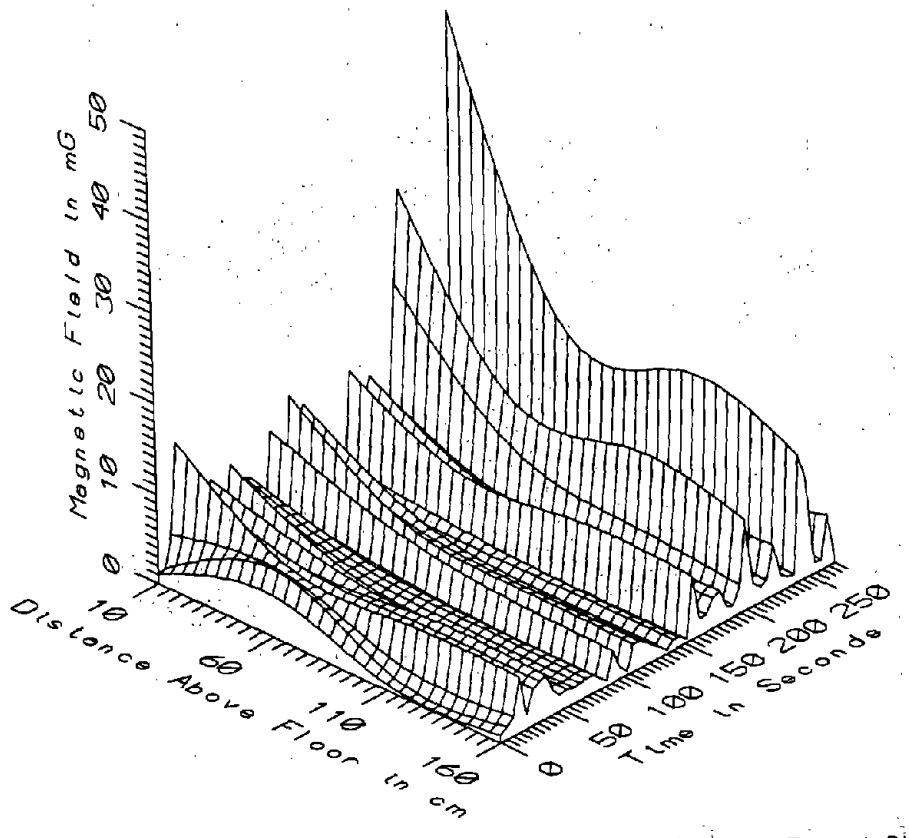
BOS019 - REFERENCE PROBE - ON WINDOW LEDGE, FRONT OF BLUE LINE CAR



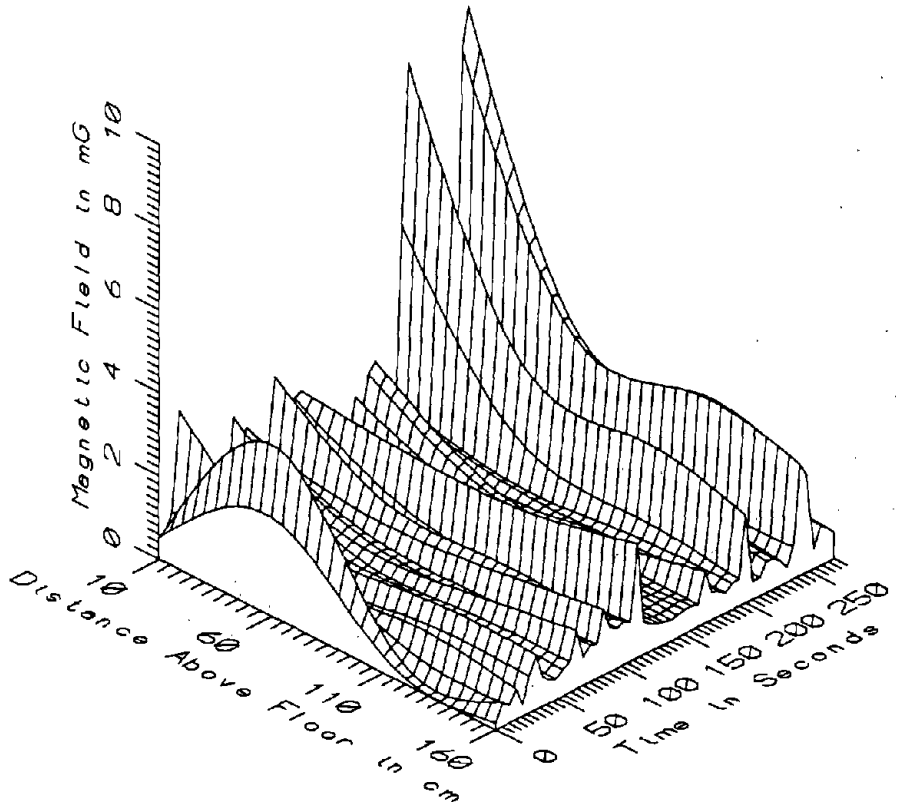
BOS019 - REFERENCE PROBE - ON WINDOW LEDGE, FRONT OF BLUE LINE CAR



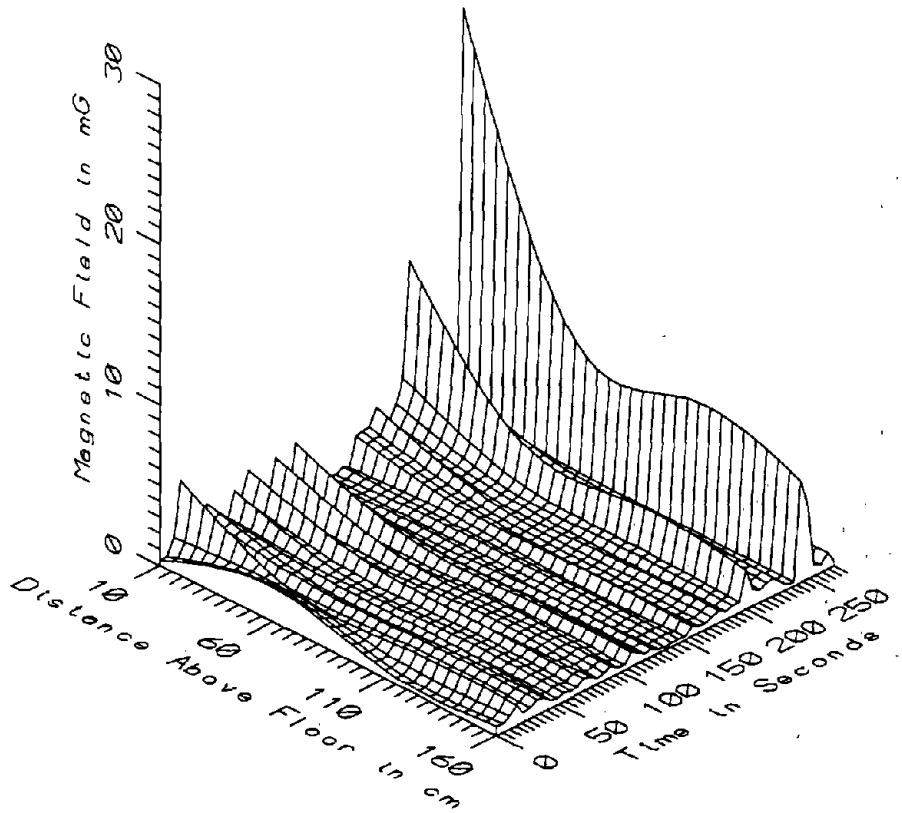
BOS019 - AT OPERATOR'S LEFT SHOULDER, BLUE LINE CAR - STATIC



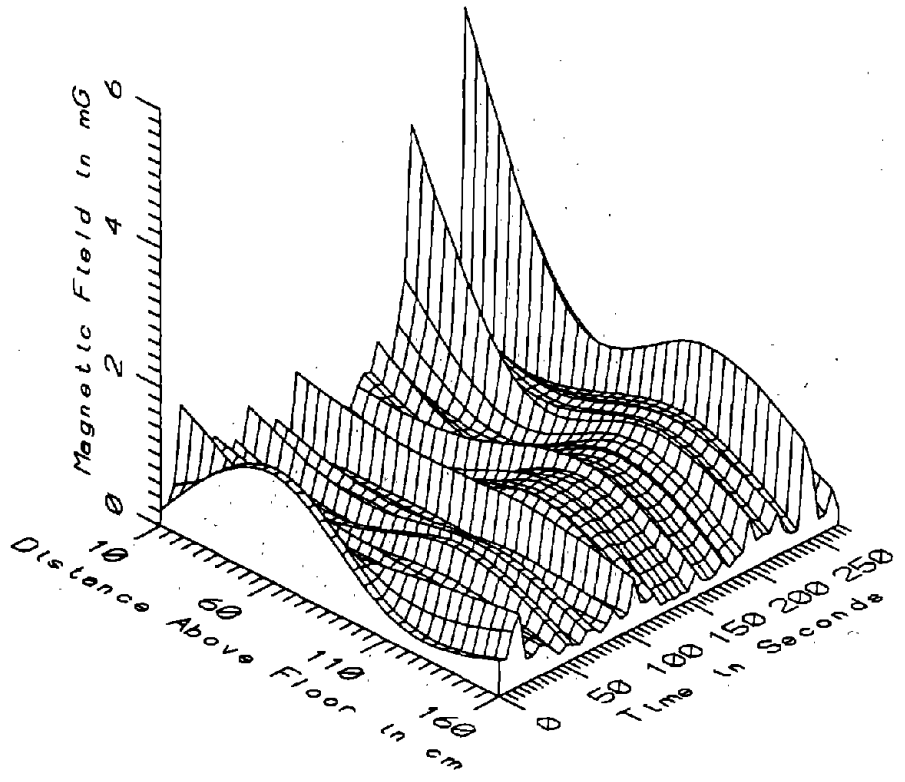
BOS019 - AT OPERATOR'S LEFT SHOULDER, BLUE LINE CAR - LOW FREQ. 5-45Hz



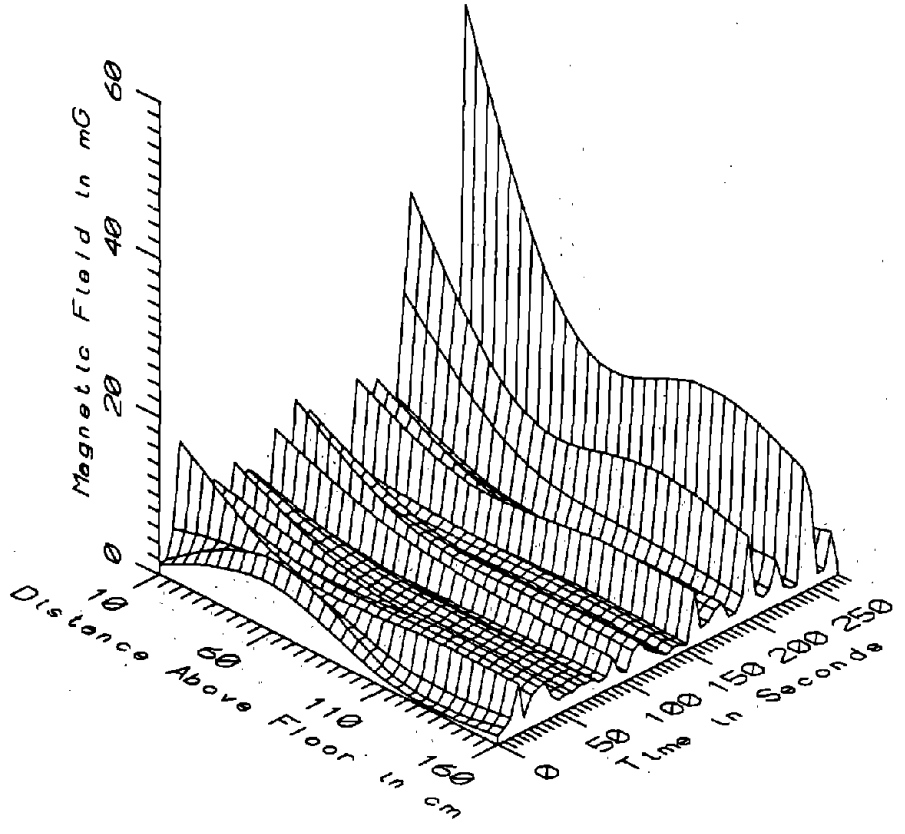
BOS019 - AT OPERATOR'S LEFT SHOULDER, BLUE LINE CAR - POWER FREQ, 50-60Hz



BOS019 - AT OPERATOR'S LEFT SHOULDER, BLUE LINE CAR - POWER HARM, 65-300Hz

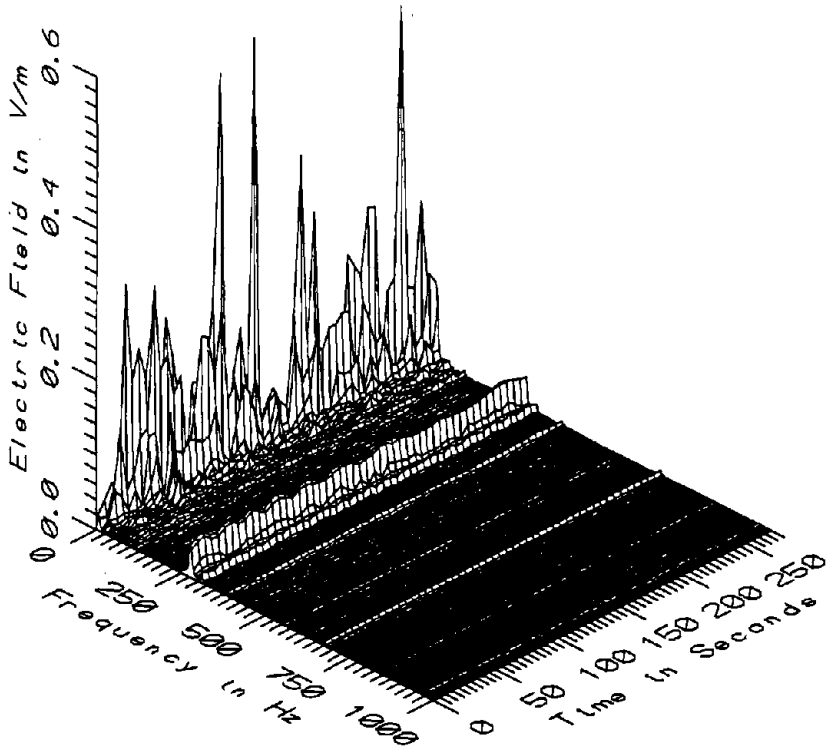


BOS019 - AT OPERATOR'S LEFT SHOULDER, BLUE LINE CAR-HIGH FREQ, 305-2560Hz



BOS019 - AT OPERATOR'S LEFT SHOULDER, BLUE LINE CAR - ALL FREQ, 5-2560Hz

BOS019 - AT OPERATOR'S LEFT SHOULDER, BLUE LINE CAR					TOTAL OF 51 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	636.61	3078.42	1285.12	425.89	33.14
	60	403.54	2220.04	984.66	306.02	31.08
	110	196.40	2029.19	951.12	302.57	31.81
	160	114.44	1939.80	1020.54	335.19	32.84
5-45Hz LOW FREQ	10	0.45	45.38	8.11	8.09	99.75
	60	0.36	15.59	3.68	3.07	83.51
	110	0.27	17.42	3.00	3.16	105.50
	160	0.38	13.94	2.84	2.72	95.75
50-60Hz PWR FREQ	10	0.30	9.50	2.05	2.09	102.15
	60	0.27	3.92	0.97	0.82	84.45
	110	0.36	3.07	0.84	0.60	71.58
	160	0.15	2.71	0.83	0.55	66.33
65-300Hz PWR HARM	10	0.16	25.18	2.89	4.33	150.04
	60	0.25	8.01	1.07	1.34	124.64
	110	0.09	7.92	0.97	1.31	134.06
	160	0.19	6.35	0.83	1.05	126.88
305-2560Hz HIGH FREQ	10	0.21	5.27	0.97	1.03	105.59
	60	0.17	1.54	0.53	0.36	67.89
	110	0.24	2.08	0.88	0.38	42.93
	160	0.12	1.45	0.37	0.27	71.70
5-2560Hz ALL FREQ	10	0.66	52.86	9.03	9.35	103.45
	60	0.76	17.85	4.06	3.37	83.10
	110	0.98	19.49	3.50	3.36	95.94
	160	0.70	15.62	3.17	2.89	90.98



BOS019 - ELECTRIC FIELD AT OPERATOR'S LEFT SHOULDER, BLUE LINE CAR

APPENDIX U

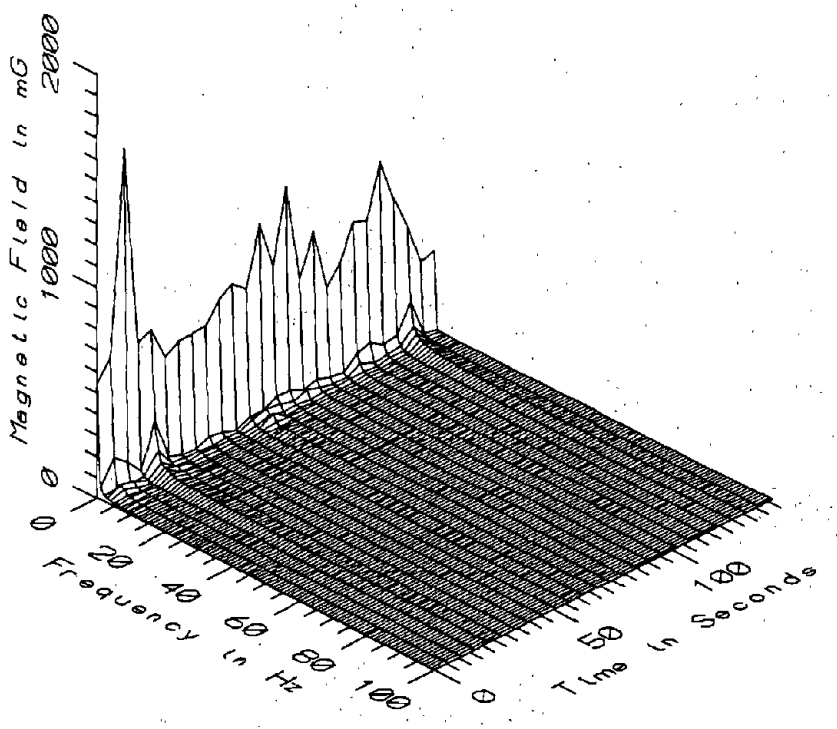
DATASET BOS020
IN FRONT OF OPERATOR'S SEAT, ORANGE LINE CAR

Measurement Setup Code:	Staff: 4 Reference: 5 Drawing: A-1
Vehicle Status:	Travelling between Sullivan Square and Wellington stations
Measurement Date:	June 10, 1992
Measurement Time:	Start: 12:22:58 End: 12:25:20
Number of Samples:	26
Programmed Sample Interval:	5 sec
Actual Sample Interval:	5.7 sec

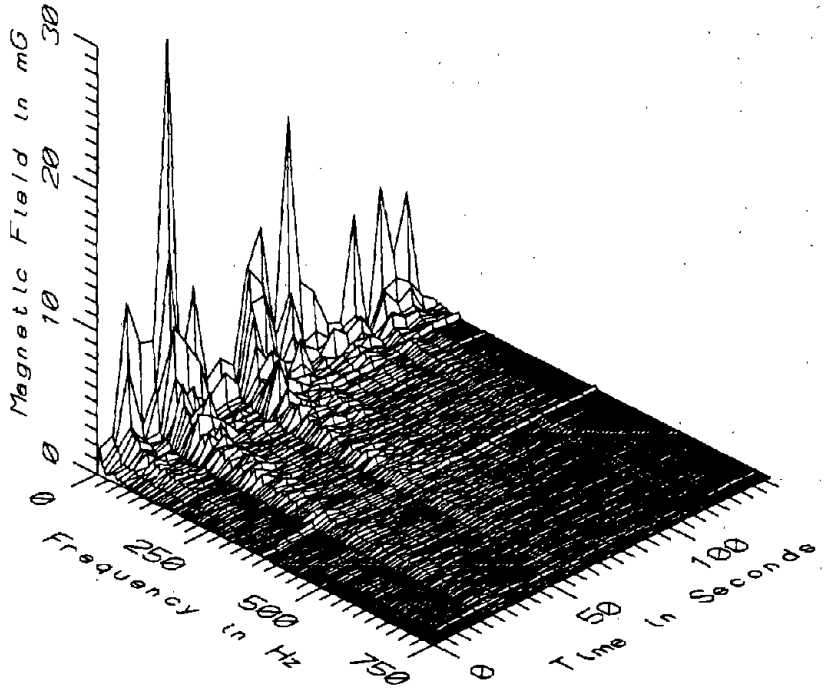
Frequency Spectrum Parameters

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

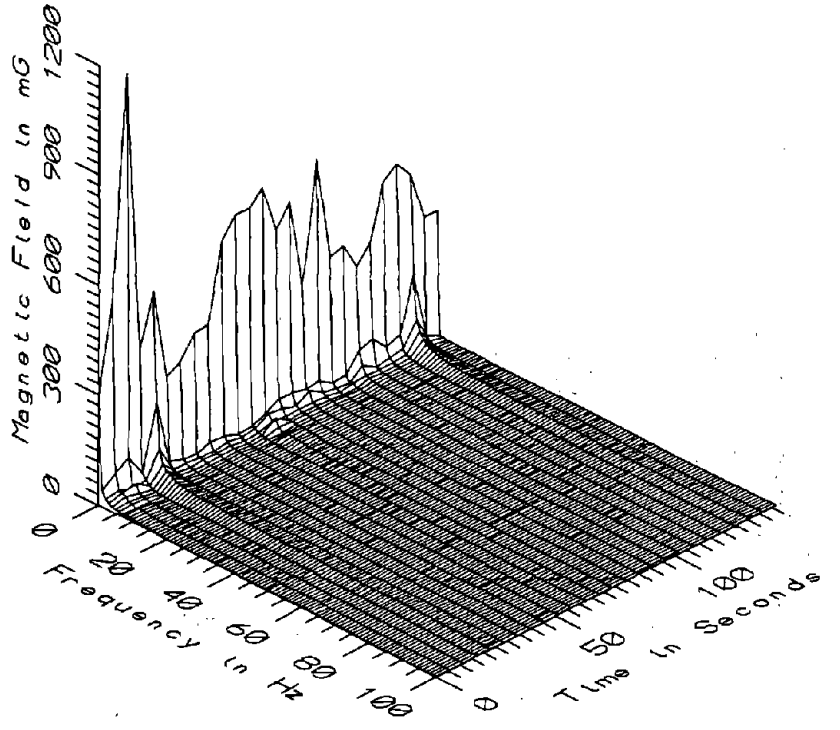
Missing Data: None



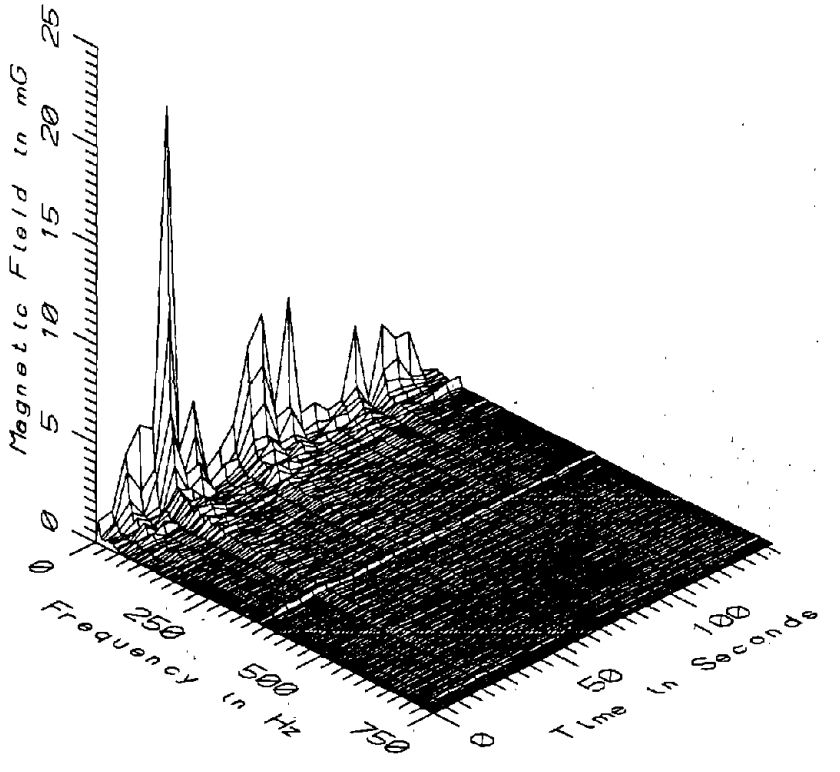
BOS020 - 10cm ABOVE FLOOR, IN FRONT OF OPERATOR'S SEAT, ORANGE LINE CAR.



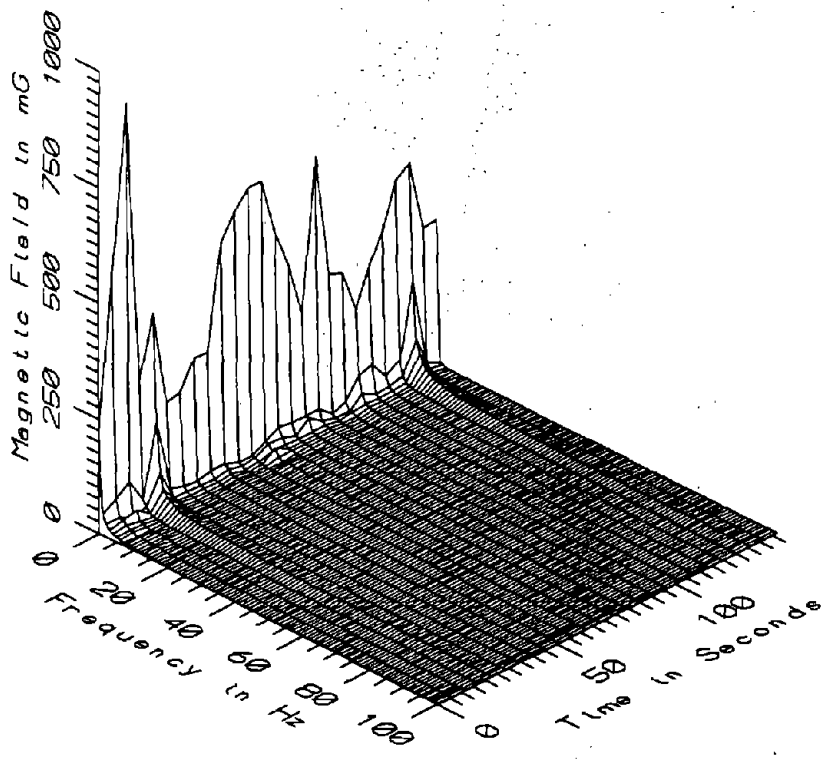
BOS020 - 10cm ABOVE FLOOR, IN FRONT OF OPERATOR'S SEAT, ORANGE LINE CAR.



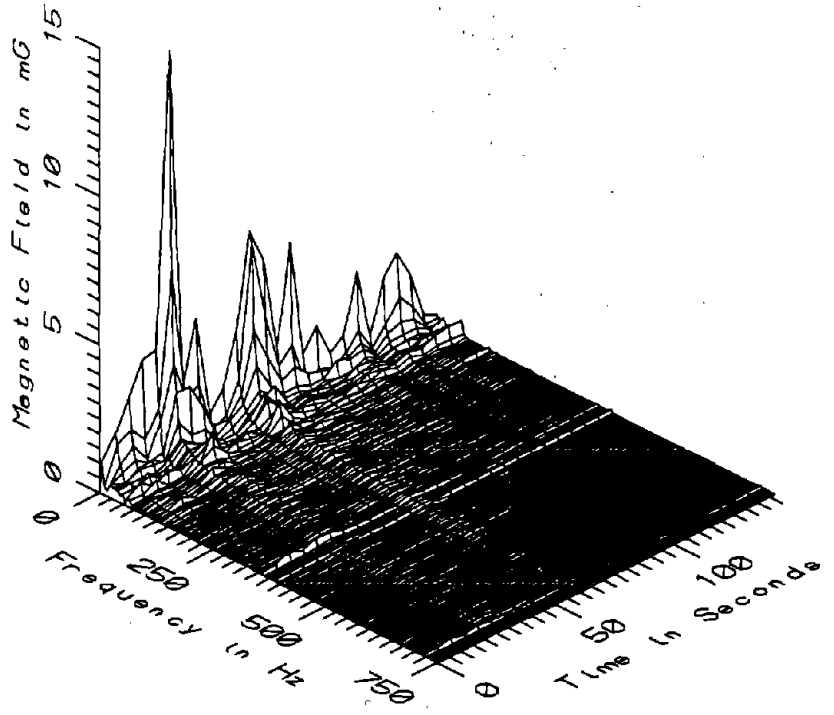
BOS020 - 60cm ABOVE FLOOR, IN FRONT OF OPERATOR'S SEAT, ORANGE LINE CAR.



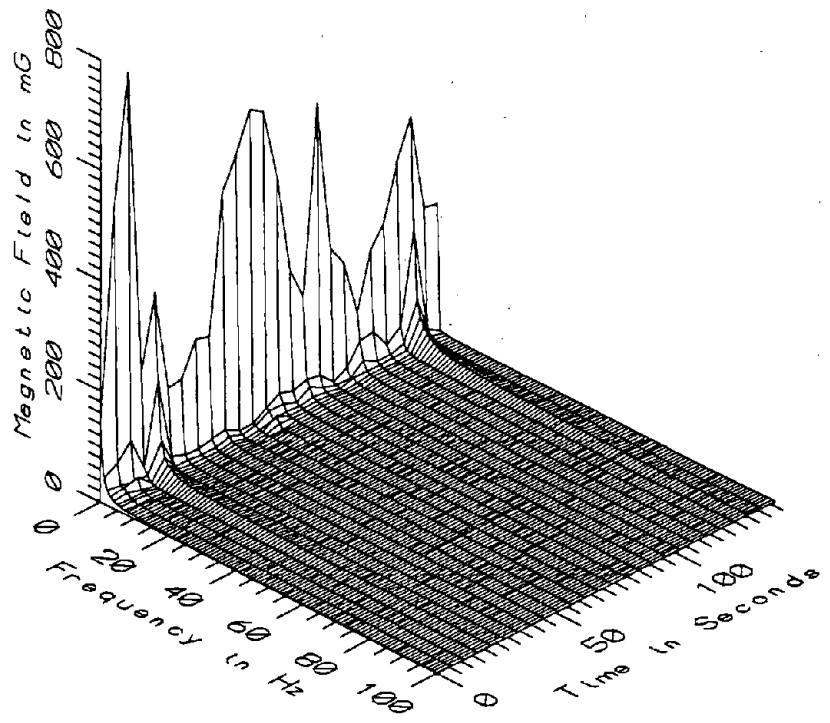
BOS020 - 60cm ABOVE FLOOR, IN FRONT OF OPERATOR'S SEAT, ORANGE LINE CAR.



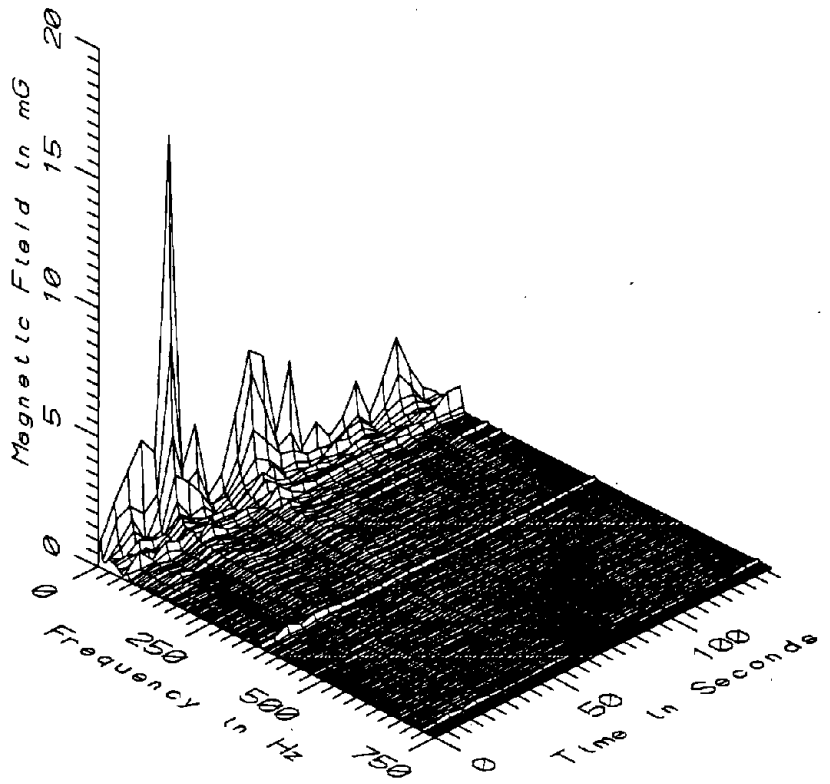
BOS020 - 110cm ABOVE FLOOR, IN FRONT OF OPERATOR'S SEAT, ORANGE LINE CAR.



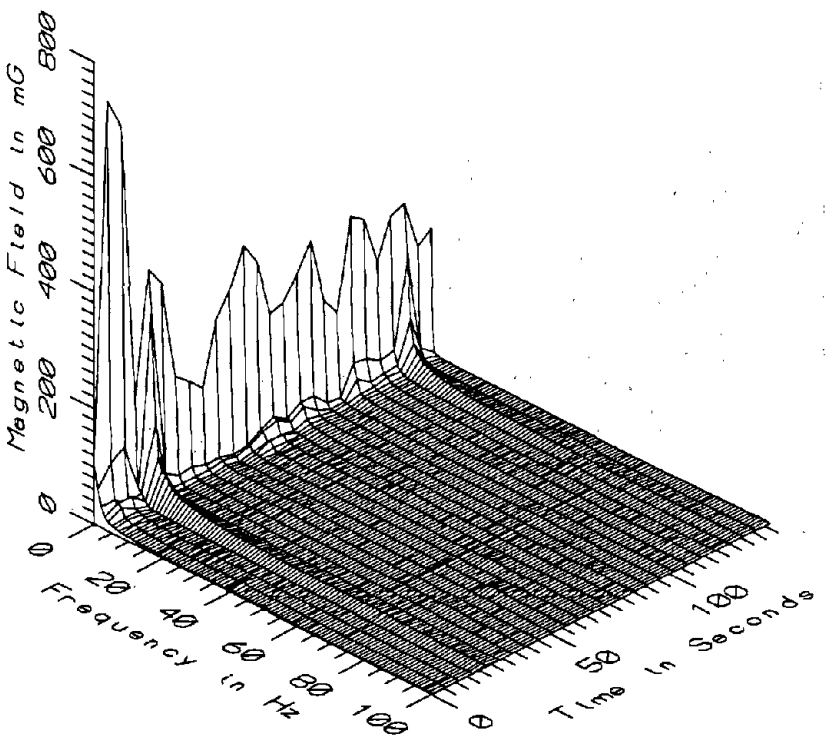
BOS020 - 110cm ABOVE FLOOR, IN FRONT OF OPERATOR'S SEAT, ORANGE LINE CAR.



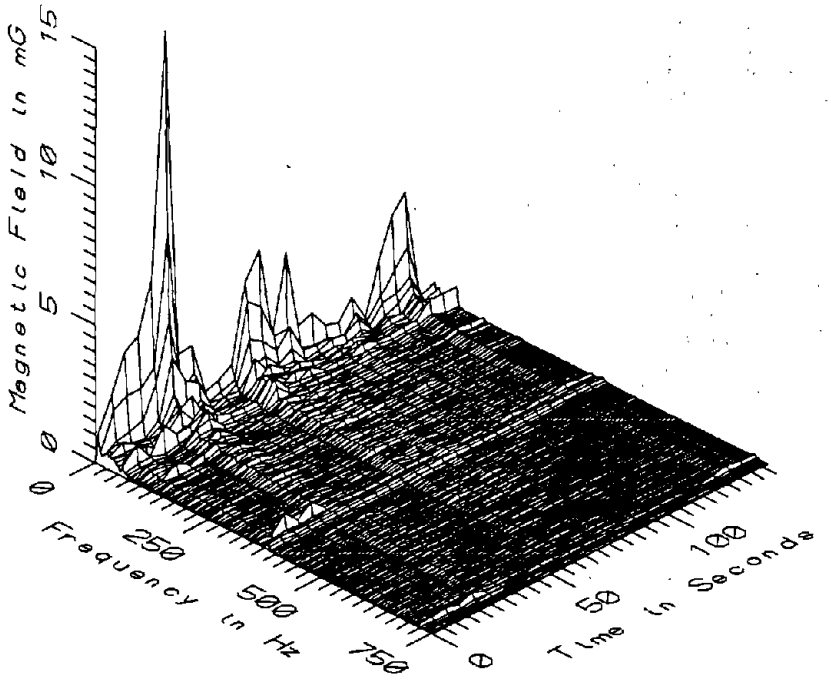
BOS020 - 160cm ABOVE FLOOR, IN FRONT OF OPERATOR'S SEAT, ORANGE LINE CAR.



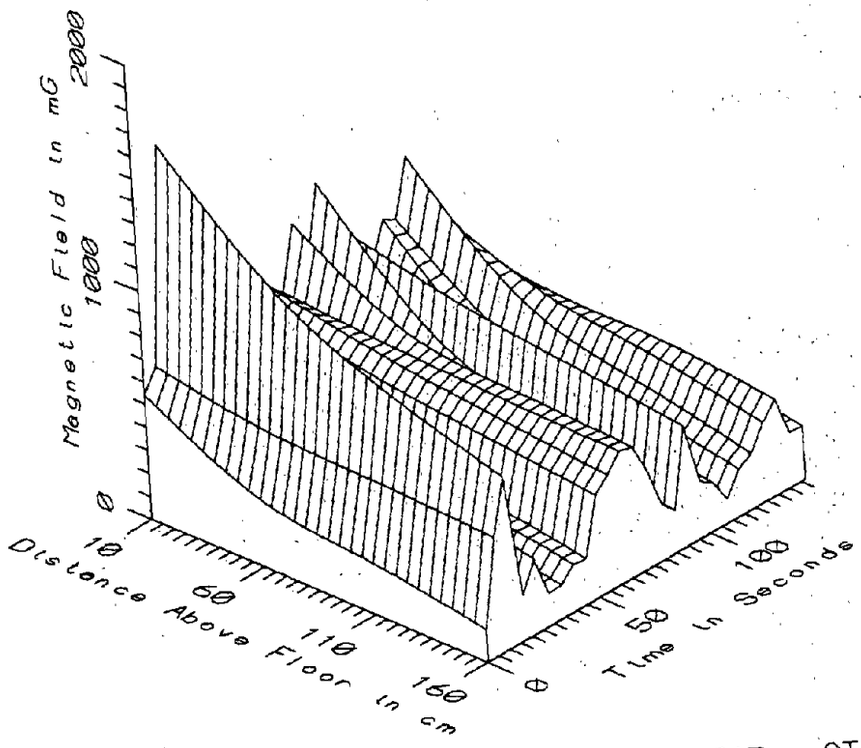
BOS020 - 160cm ABOVE FLOOR, IN FRONT OF OPERATOR'S SEAT, ORANGE LINE CAR.



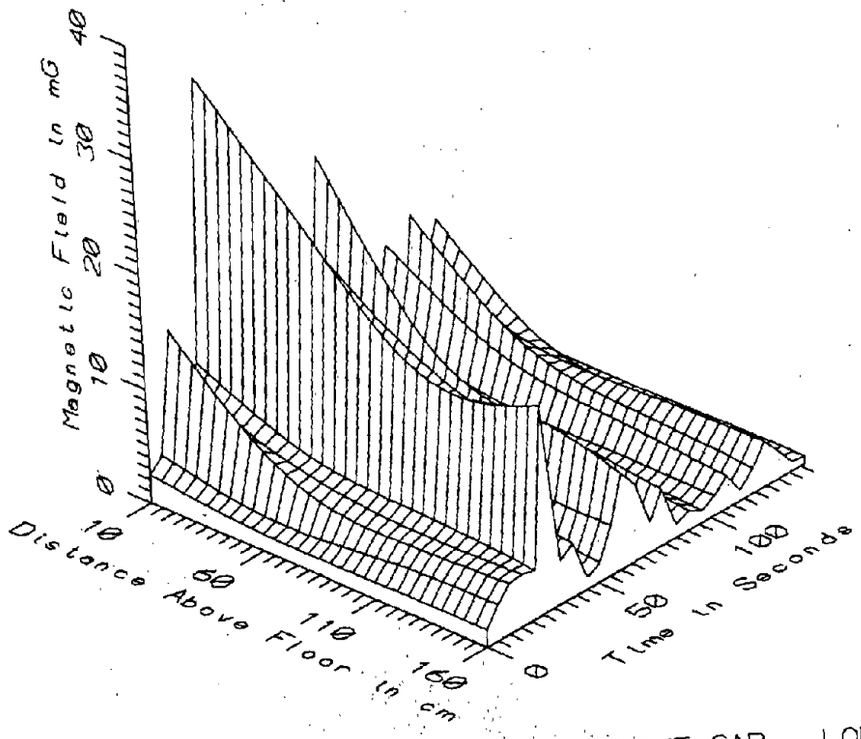
BOS020 - REFERENCE PROBE - ON STEEL CABINET, FRONT OF ORANGE LINE CAR



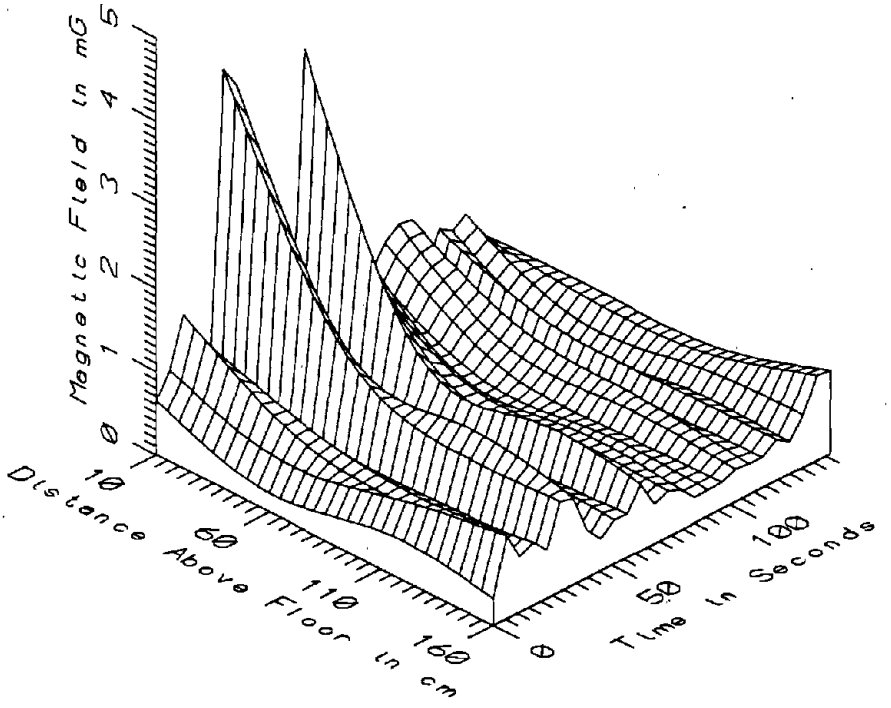
BOS020 - REFERENCE PROBE - ON STEEL CABINET, FRONT OF ORANGE LINE CAR



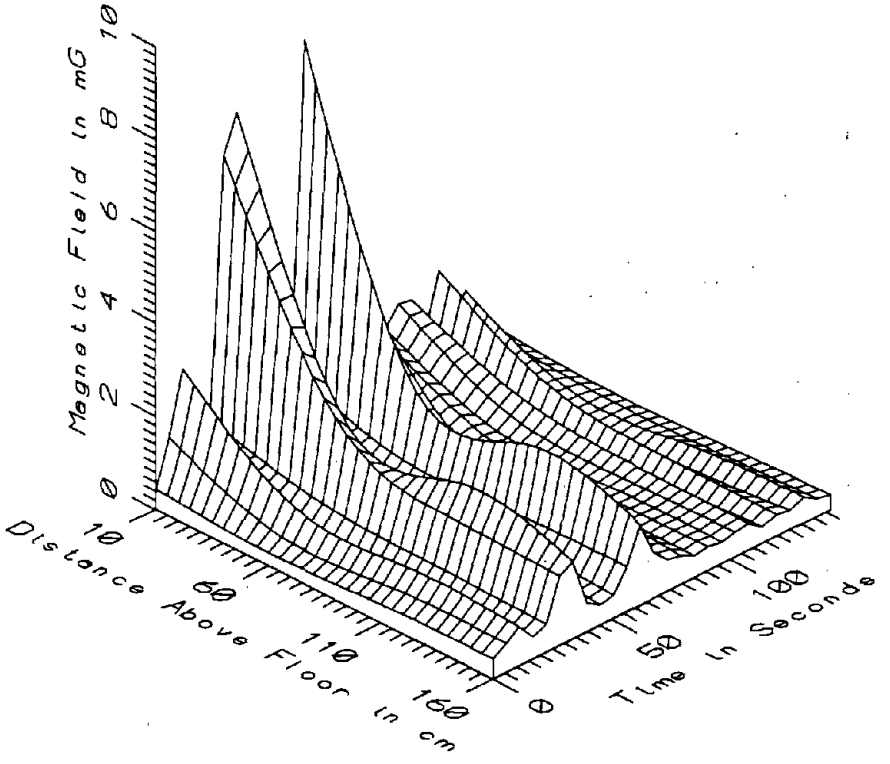
BOS020 - FRONT OF OPERATOR'S SEAT, ORANGE LINE CAR - STATIC



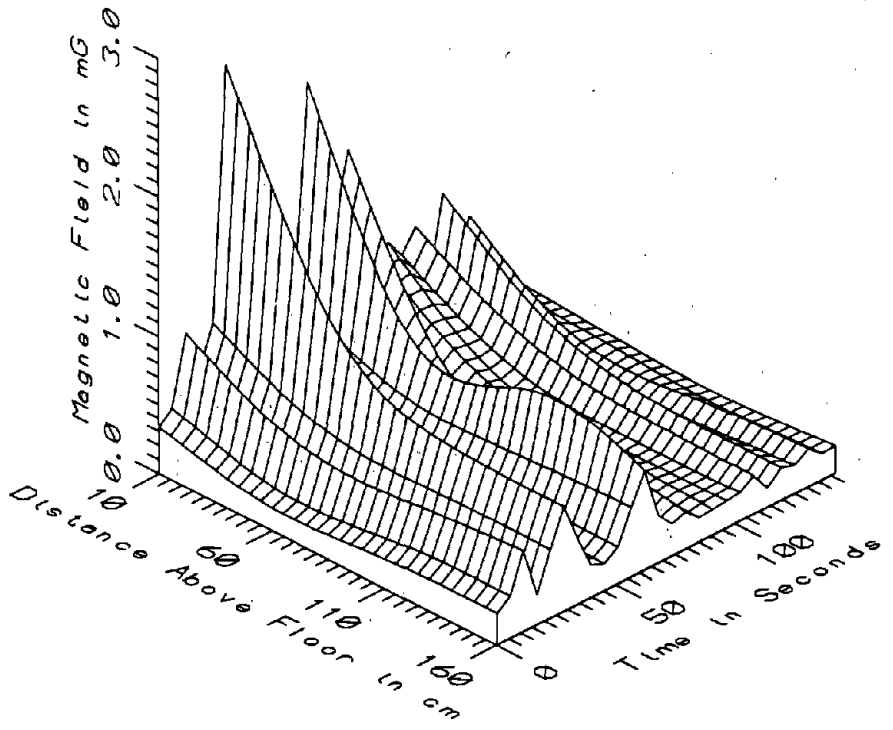
BOS020 - FRONT OF OPERATOR'S SEAT, ORANGE LINE CAR - LOW FREQ. 5-45Hz



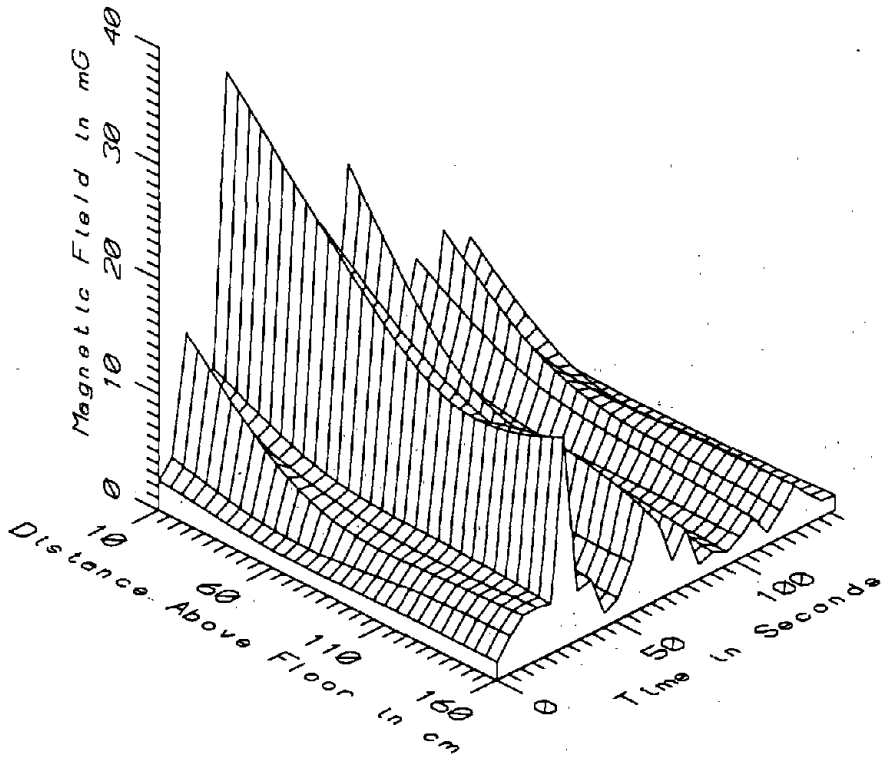
BOS020 - FRONT OF OPERATOR'S SEAT, ORANGE LINE CAR - POWER FREQ, 50-60Hz



BOS020 - FRONT OF OPERATOR'S SEAT, ORANGE LINE CAR - POWER HARM, 65-300Hz

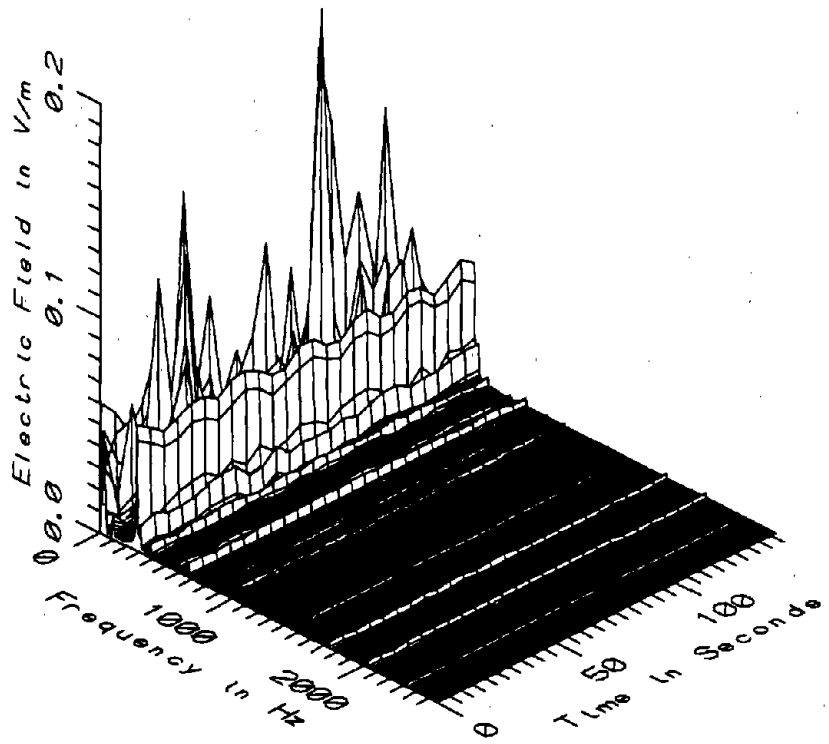


BOS020 - FRONT OF OPERATOR'S SEAT, ORANGE LINE CAR - HIGH FREQ, 305-2560Hz



BOS020 - FRONT OF OPERATOR'S SEAT, ORANGE LINE CAR - ALL FREQ, 5-2560Hz

BOS020 - IN FRONT OF OPERATOR'S SEAT, ORANGE LINE					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	357.57	1585.74	671.86	241.36	35.92
	60	257.48	1141.57	465.01	184.53	39.68
	110	205.39	902.34	393.60	163.04	41.42
	160	109.55	752.56	321.91	169.15	52.55
5-45Hz LOW FREQ	10	1.21	34.00	9.14	7.24	79.25
	60	0.56	23.84	4.46	4.70	105.36
	110	0.61	15.94	3.71	3.25	87.54
	160	0.65	17.89	3.54	3.47	98.08
50-60Hz PWR FREQ	10	0.51	4.21	1.46	1.07	73.19
	60	0.20	1.67	0.59	0.34	58.42
	110	0.28	1.23	0.55	0.22	40.25
	160	0.31	1.07	0.59	0.25	43.10
65-300Hz PWR HARM	10	0.28	8.52	2.44	2.18	89.42
	60	0.14	2.46	0.77	0.60	78.63
	110	0.23	2.23	0.70	0.52	73.90
	160	0.33	1.73	0.68	0.38	56.04
305-2560Hz HIGH FREQ	10	0.26	2.71	0.96	0.61	63.57
	60	0.17	1.16	0.37	0.21	56.49
	110	0.14	0.88	0.32	0.19	59.26
	160	0.14	0.75	0.31	0.17	53.93
5-2560Hz ALL FREQ	10	1.39	35.06	9.73	7.52	77.29
	60	0.72	24.06	4.62	4.71	101.83
	110	0.90	16.07	3.87	3.25	84.09
	160	1.07	18.00	3.72	3.44	92.48



BOS020 - ELECTRIC FIELD IN FRONT OF OPERATOR'S SEAT, ORANGE LINE CAR

APPENDIX V

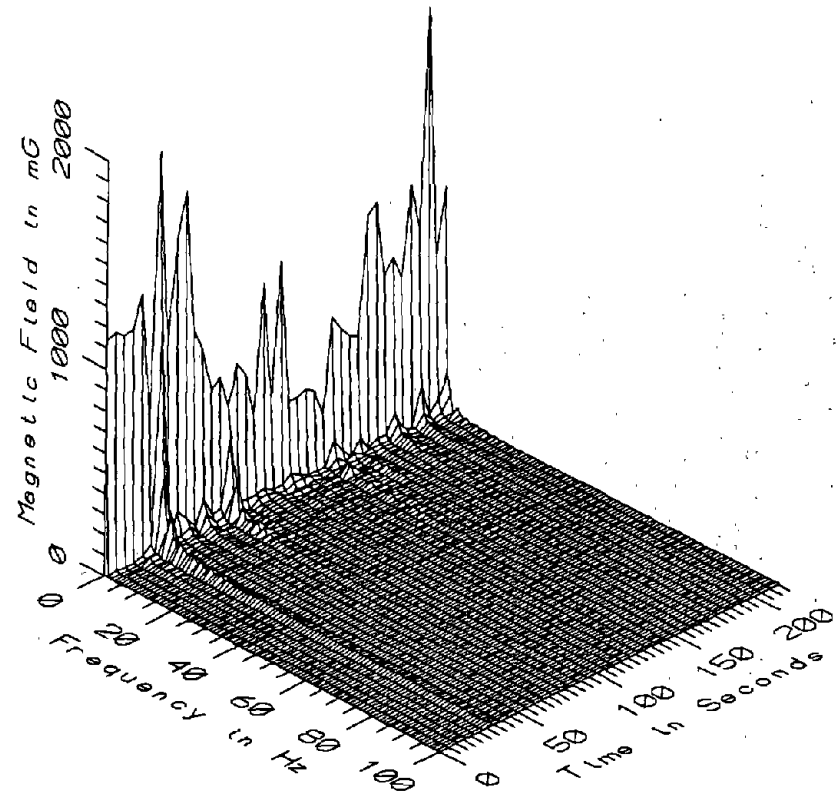
DATASET BOS021
IN CENTER OF ORANGE LINE CAR, ABOVE TRUCK

Measurement Setup Code:	Staff: 3 Reference: 5 Drawing: A-1
Vehicle Status:	Travelling between Wellington and Malden Center stations
Measurement Date:	June 10, 1992
Measurement Time:	Start: 12:25:49 End: 12:29:25
Number of Samples:	40
Programmed Sample Interval:	5 sec
Actual Sample Interval:	5.5 sec

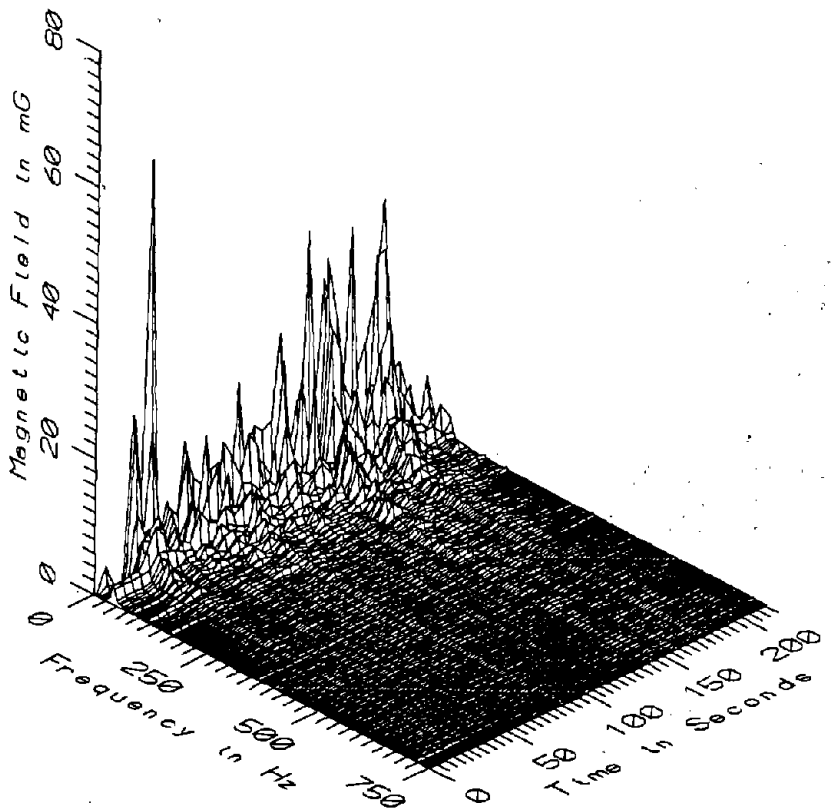
Frequency Spectrum Parameters

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

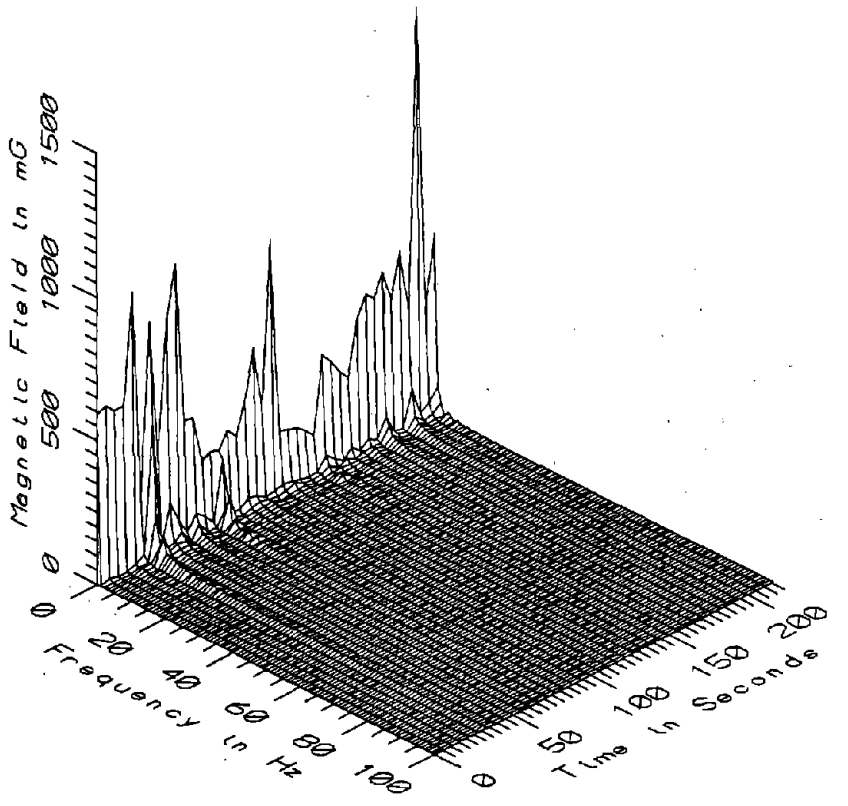
Missing Data: None



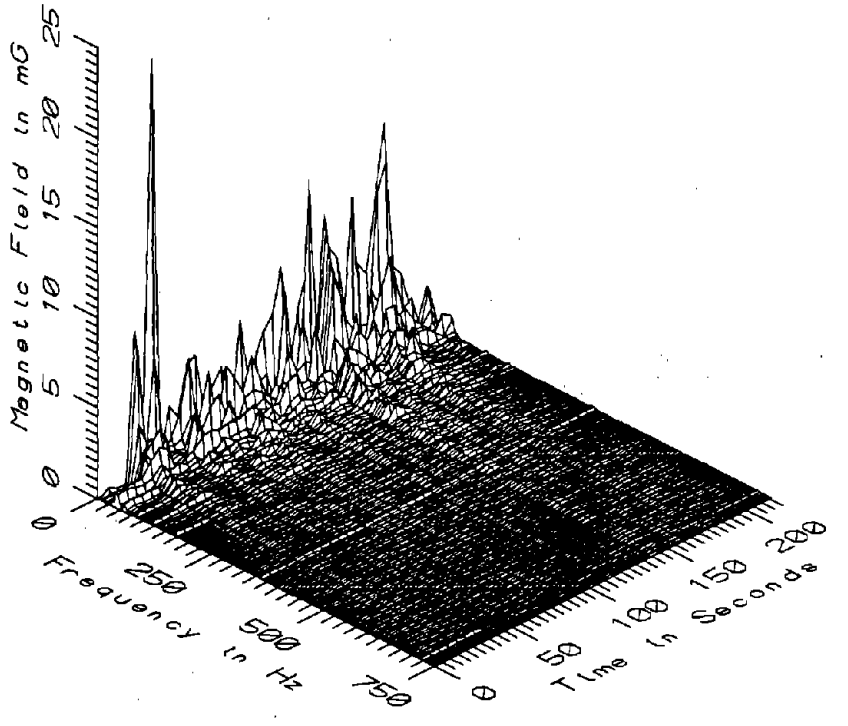
BOS021 - 10cm ABOVE FLOOR IN CENTER OF ORANGE LINE CAR, ABOVE TRUCK



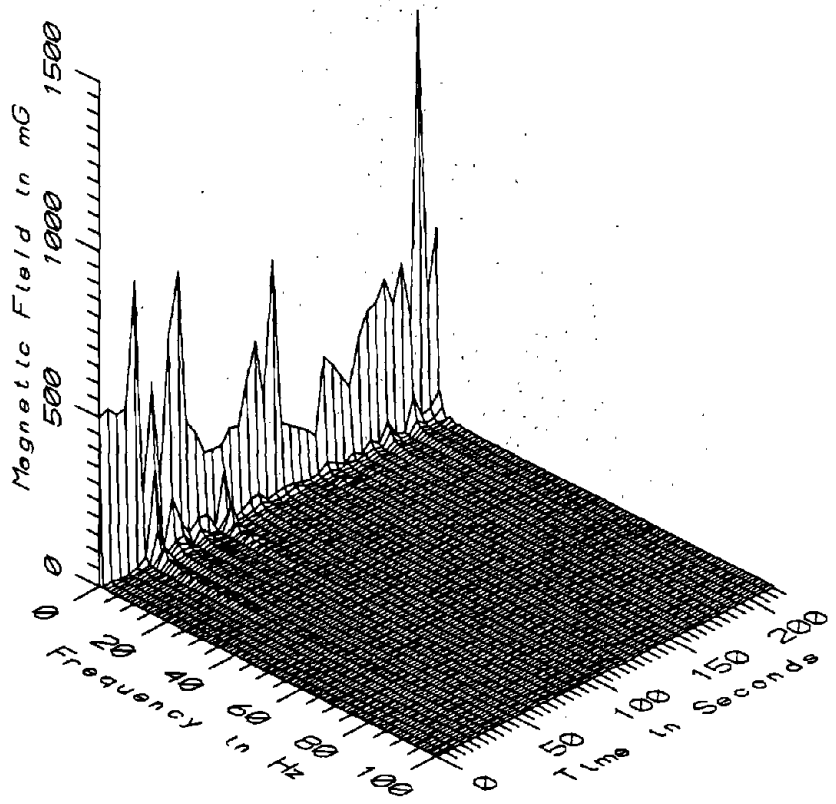
BOS021 - 10cm ABOVE FLOOR IN CENTER OF ORANGE LINE CAR, ABOVE TRUCK



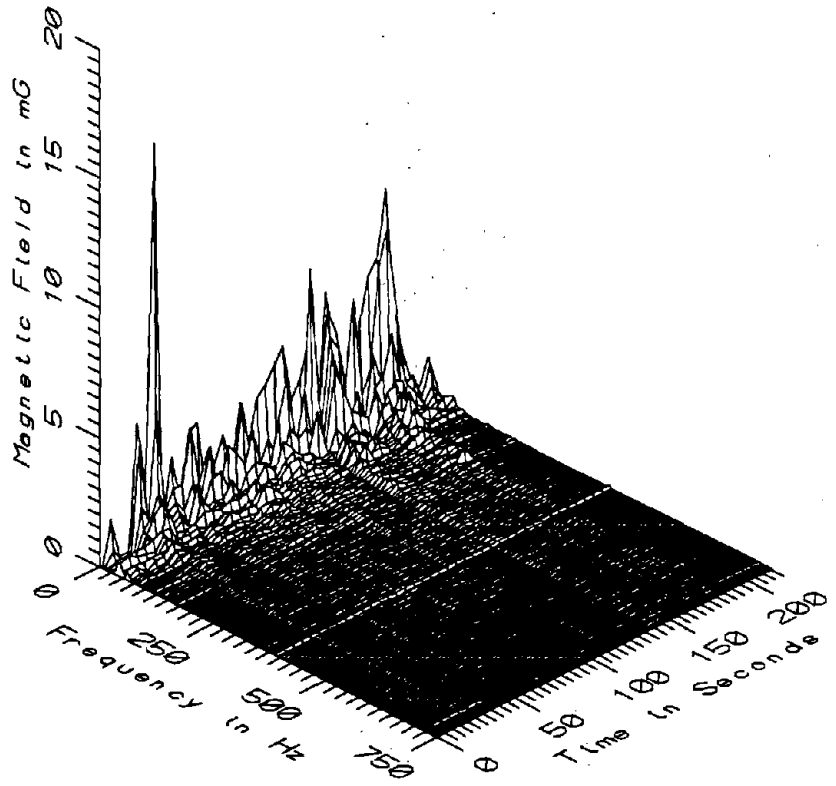
BOS021 - 60cm ABOVE FLOOR IN CENTER OF ORANGE LINE CAR, ABOVE TRUCK



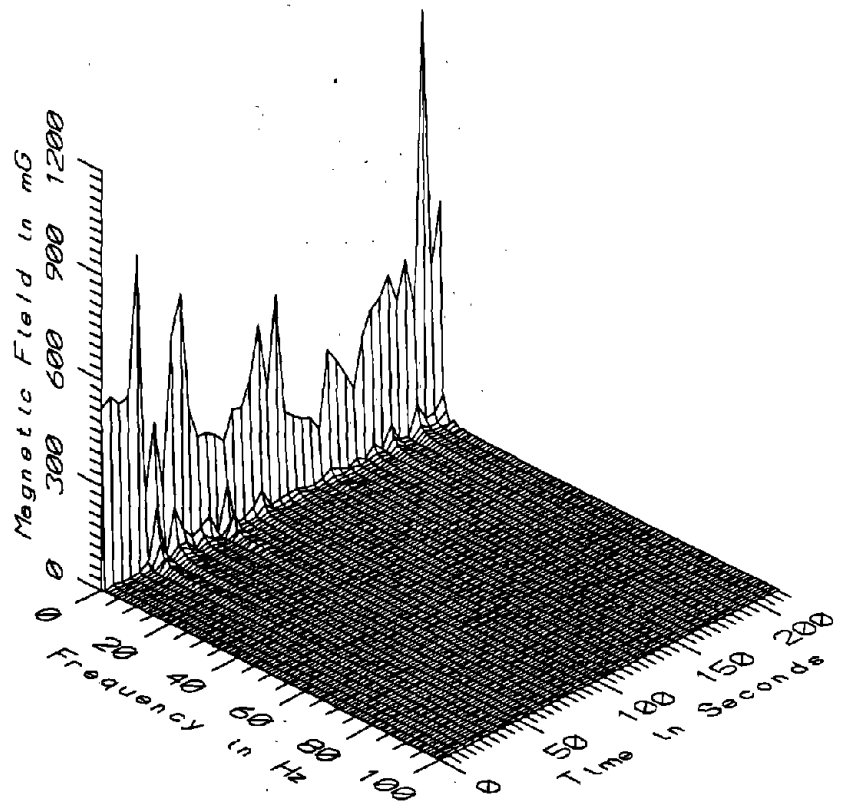
BOS021 - 60cm ABOVE FLOOR IN CENTER OF ORANGE LINE CAR, ABOVE TRUCK



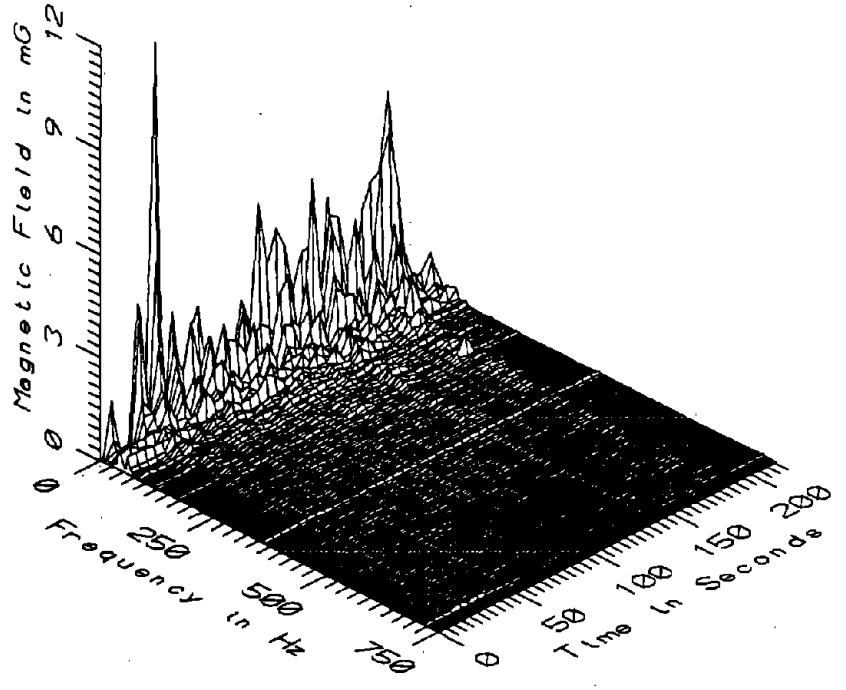
BOS021 - 110cm ABOVE FLOOR IN CENTER OF ORANGE LINE CAR, ABOVE TRUCK



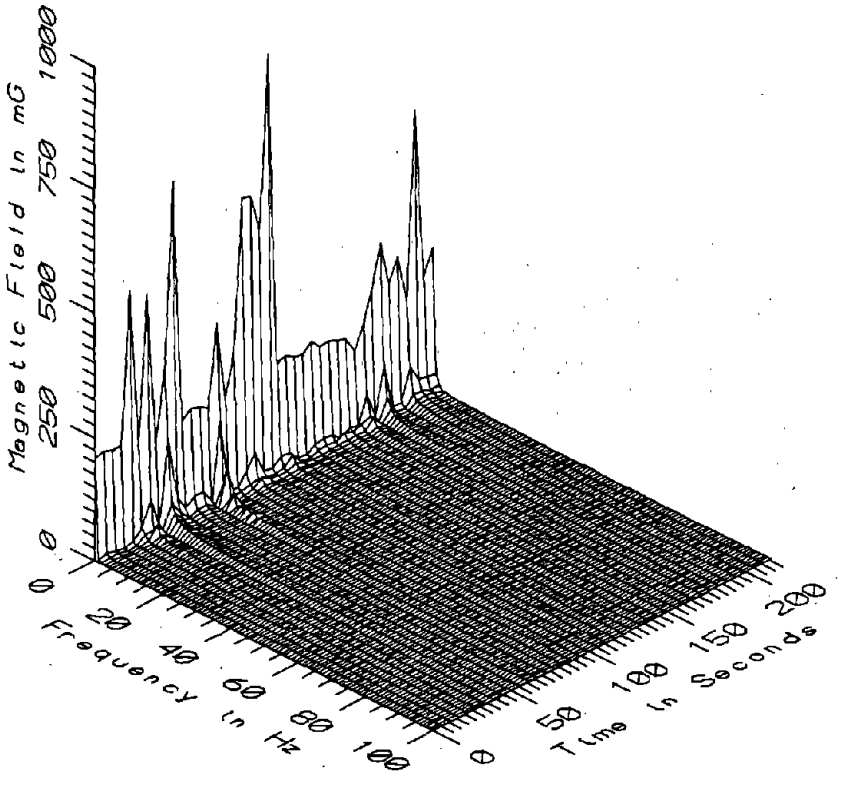
BOS021 - 110cm ABOVE FLOOR IN CENTER OF ORANGE LINE CAR, ABOVE TRUCK



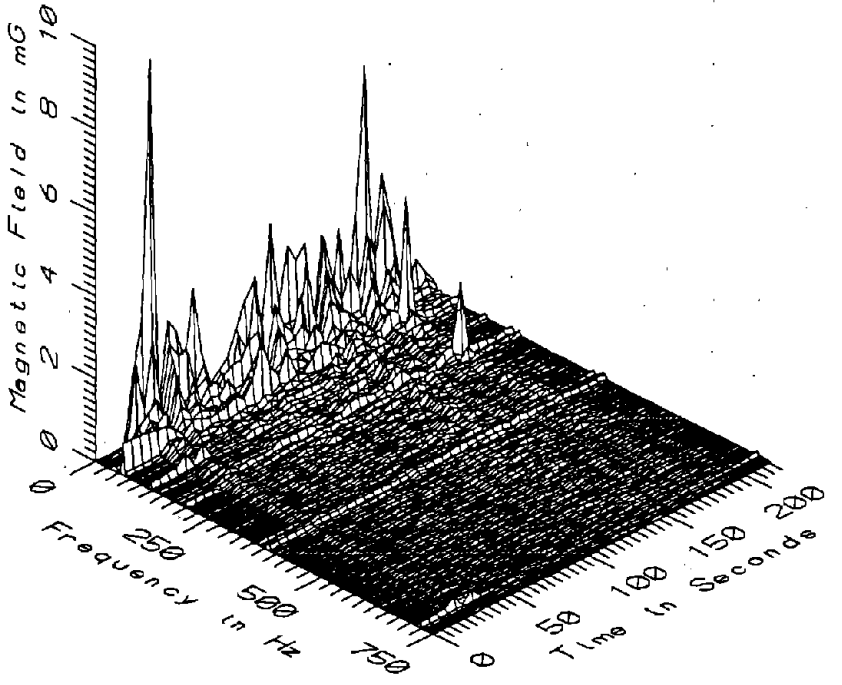
BOS021 - 160cm ABOVE FLOOR IN CENTER OF ORANGE LINE CAR, ABOVE TRUCK



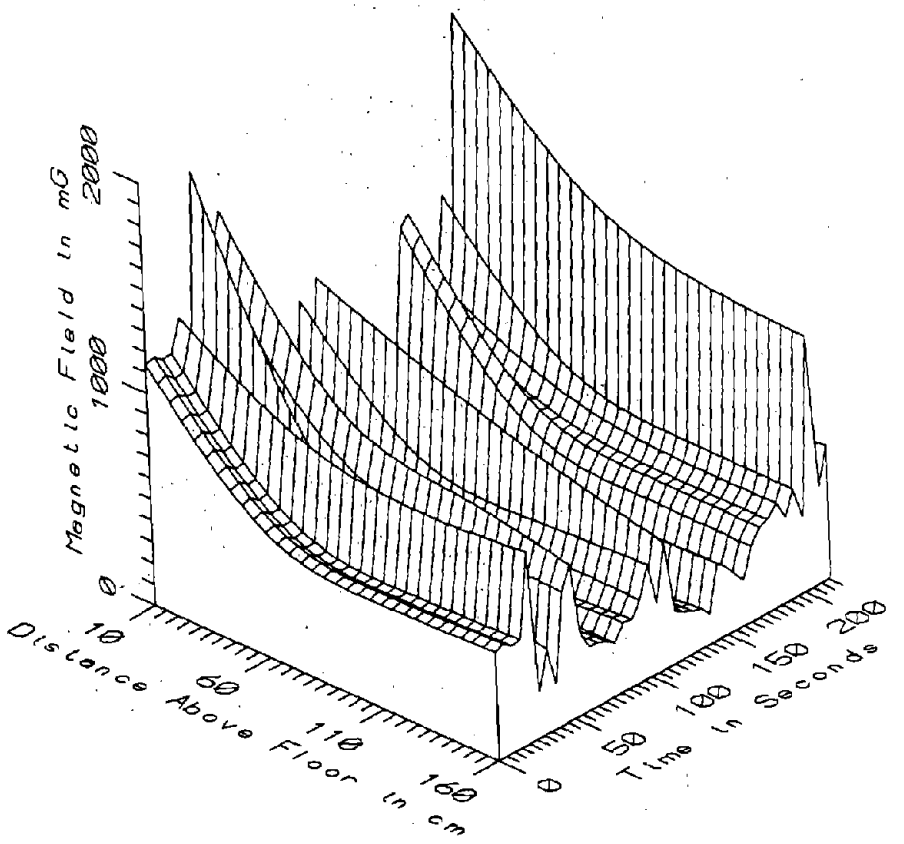
BOS021 - 160cm ABOVE FLOOR IN CENTER OF ORANGE LINE CAR, ABOVE TRUCK



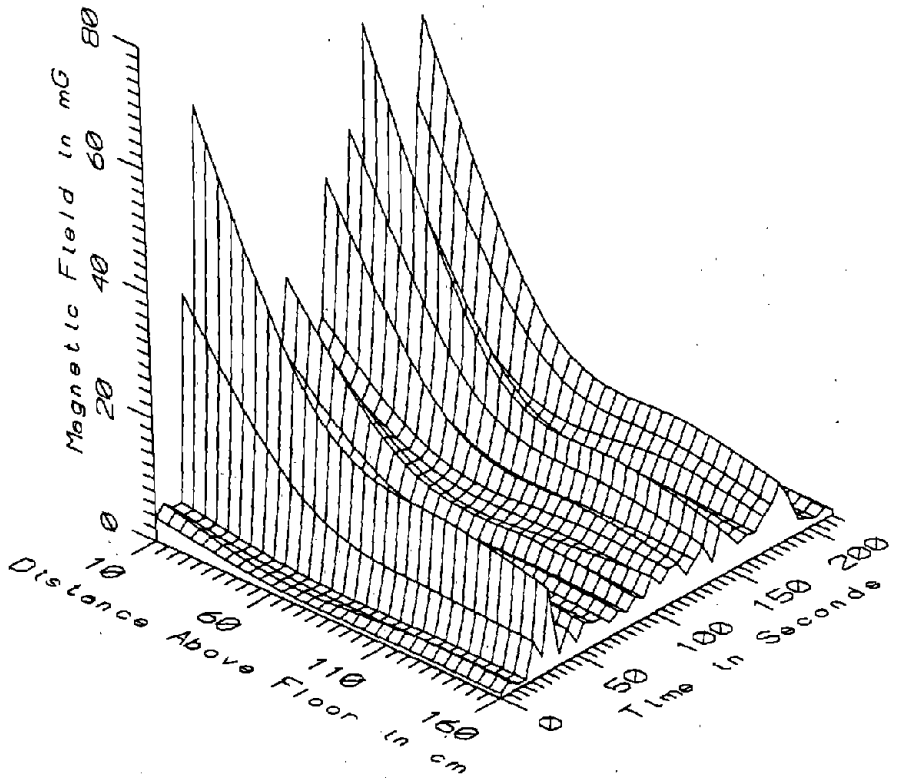
BOS021 - REFERENCE PROBE - ON STEEL CABINET, FRONT OF ORANGE LINE CAR



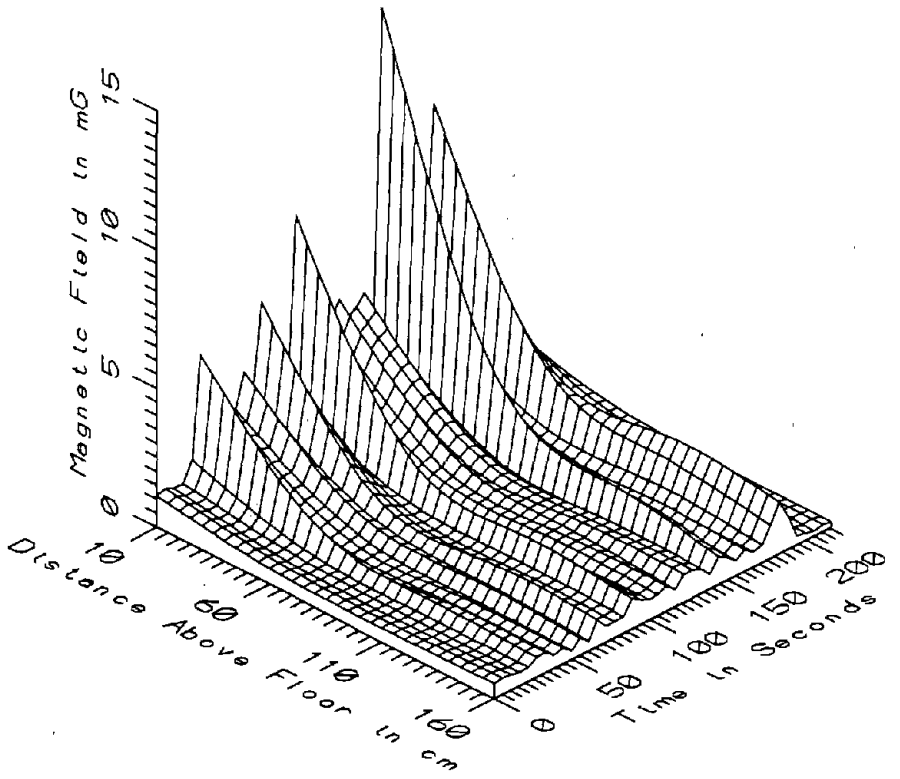
BOS021 - REFERENCE PROBE - ON STEEL CABINET, FRONT OF ORANGE LINE CAR



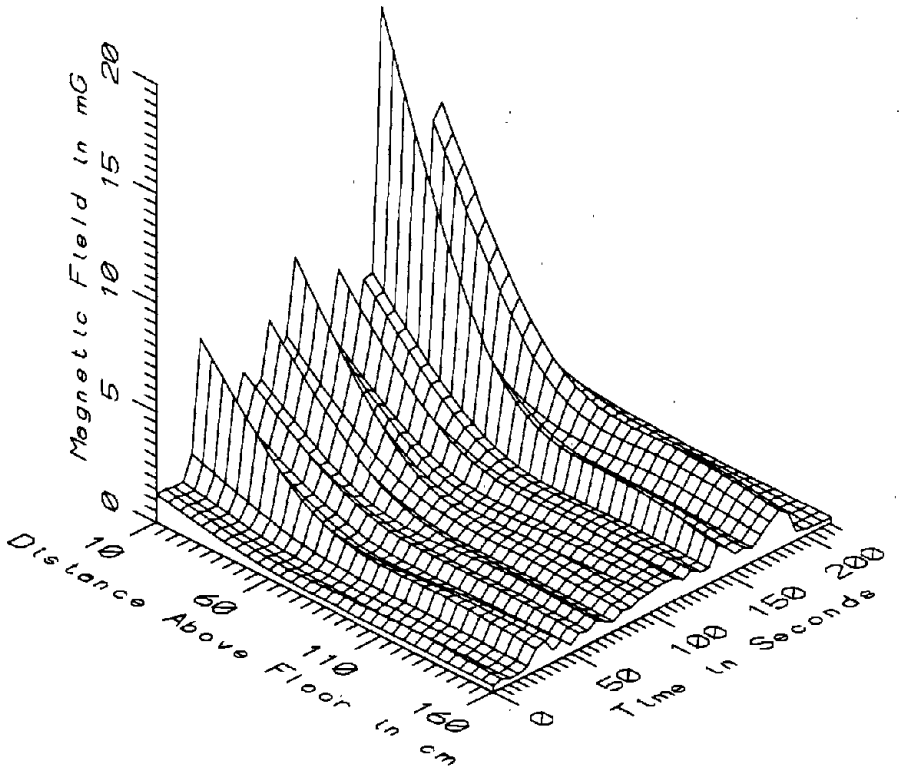
BOS021 - CENTER OF ORANGE LINE CAR, ABOVE TRUCK - STATIC



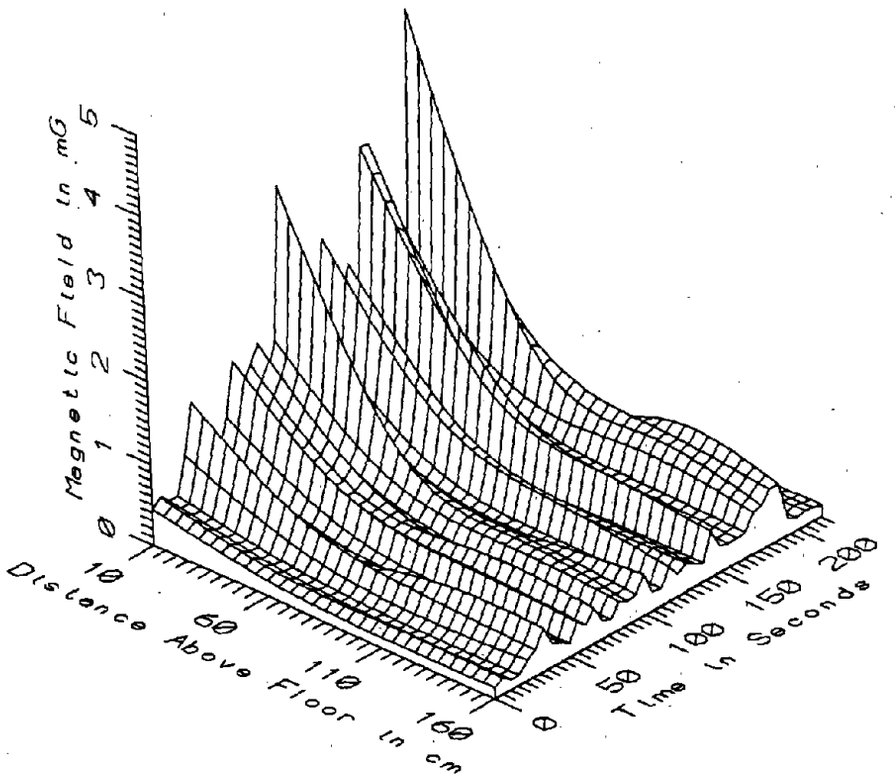
BOS021 - CENTER OF ORANGE LINE CAR, ABOVE TRUCK - LOW FREQ. 5-45Hz



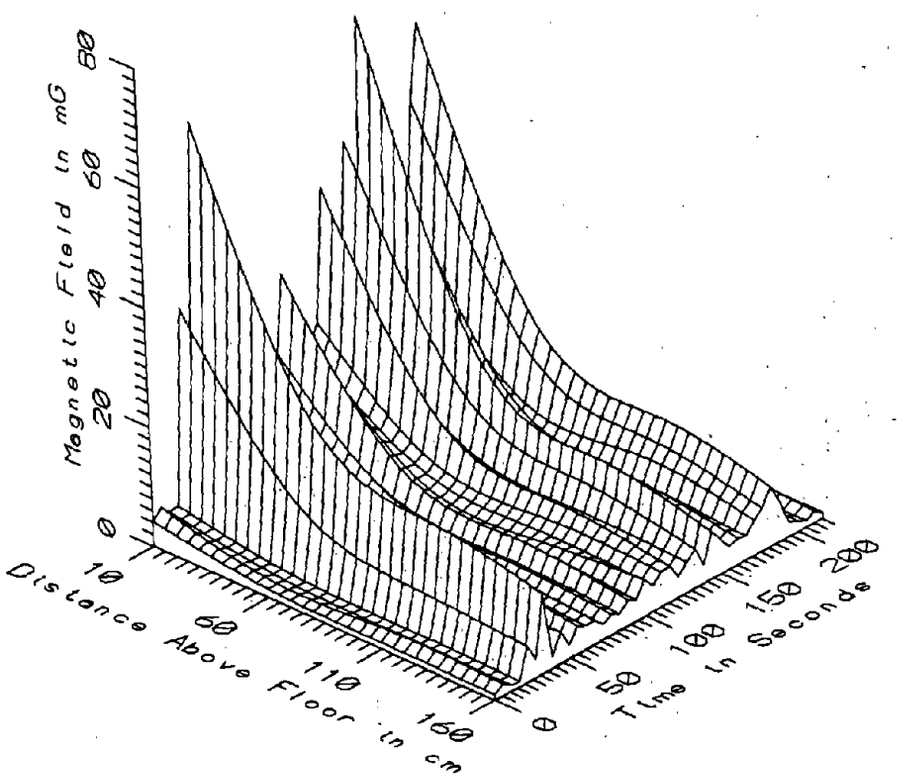
BOS021 - CENTER OF ORANGE LINE CAR, ABOVE TRUCK - POWER FREQ, 50-60Hz



BOS021 - CENTER OF ORANGE LINE CAR, ABOVE TRUCK - POWER HARM, 65-300Hz

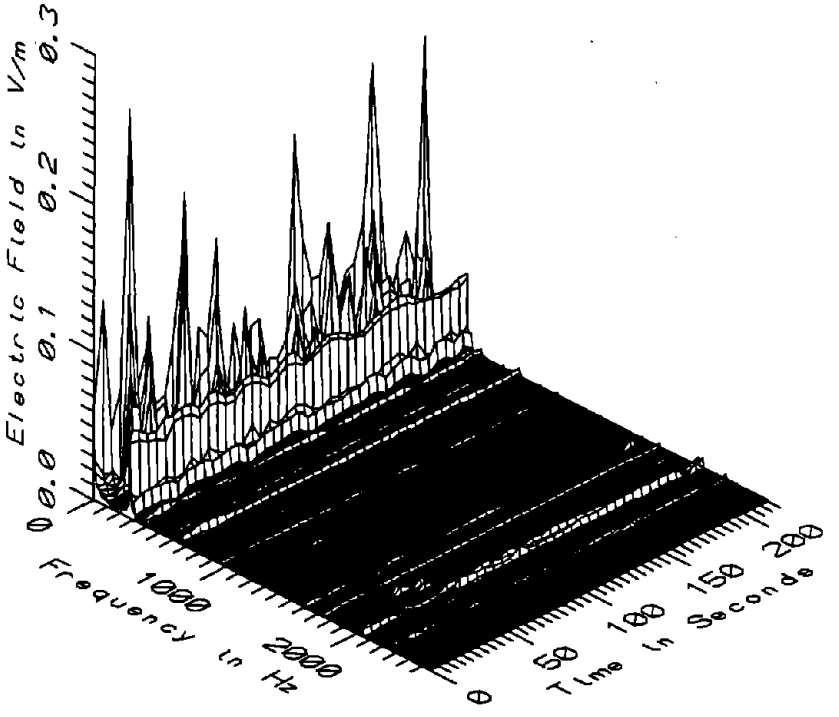


BOS021 - CENTER OF ORANGE LINE CAR, ABOVE TRUCK - HIGH FREQ, 305-2560Hz



BOS021 - CENTER OF ORANGE LINE CAR, ABOVE TRUCK - ALL FREQ, 5-2560Hz

BOS021 - IN CENTER OF ORANGE LINE CAR, ABOVE TRUCK					TOTAL OF 40 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	278.12	1981.24	893.99	399.31	44.67
	60	134.11	1446.00	478.55	268.27	56.06
	110	123.19	1233.66	406.24	220.20	54.21
	160	146.95	1189.42	415.77	203.84	49.03
5-45Hz LOW FREQ	10	3.79	66.00	24.72	16.64	67.34
	60	1.14	24.36	7.42	5.24	70.56
	110	0.81	16.65	5.17	3.44	66.55
	160	0.73	13.06	4.09	2.55	62.26
50-60Hz PWR FREQ	10	1.08	14.65	4.35	2.86	65.80
	60	0.45	3.56	1.12	0.68	60.45
	110	0.23	2.18	0.78	0.42	54.13
	160	0.18	1.85	0.68	0.32	47.33
65-300Hz PWR HARM	10	1.22	18.34	5.36	3.66	68.24
	60	0.40	4.67	1.42	0.92	65.04
	110	0.21	2.31	0.91	0.52	56.65
	160	0.26	1.78	0.78	0.39	50.65
305-2560Hz HIGH FREQ	10	0.44	4.70	1.61	1.00	62.21
	60	0.19	1.23	0.52	0.28	52.79
	110	0.11	0.86	0.34	0.20	58.16
	160	0.12	0.69	0.31	0.15	47.95
5-2560Hz ALL FREQ	10	4.17	68.36	25.84	17.12	66.28
	60	1.33	24.41	7.69	5.31	69.03
	110	0.98	16.71	5.34	3.48	65.05
	160	0.92	13.14	4.25	2.56	60.33



BOS021 - ELECTRIC FIELD ABOVE CENTER OF ORANGE LINE CAR, ABOVE TRUCK

APPENDIX W

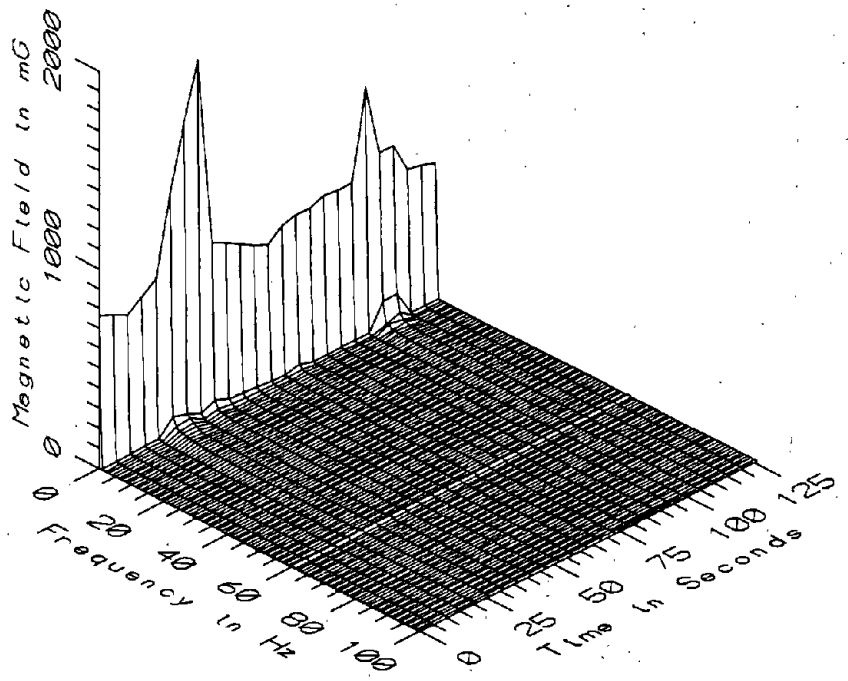
DATASET BOS022
ON DOWNTOWN CROSSING PLATFORM, ORANGE LINE

Measurement Setup Code:	Staff: 36 Reference: 37 Drawing: A-4
Vehicle Status:	NA
Measurement Date:	June 10, 1992
Measurement Time:	Start: 13:00:19 End: 13:02:25
Number of Samples:	25
Programmed Sample Interval:	5 sec
Actual Sample Interval:	5.0 sec

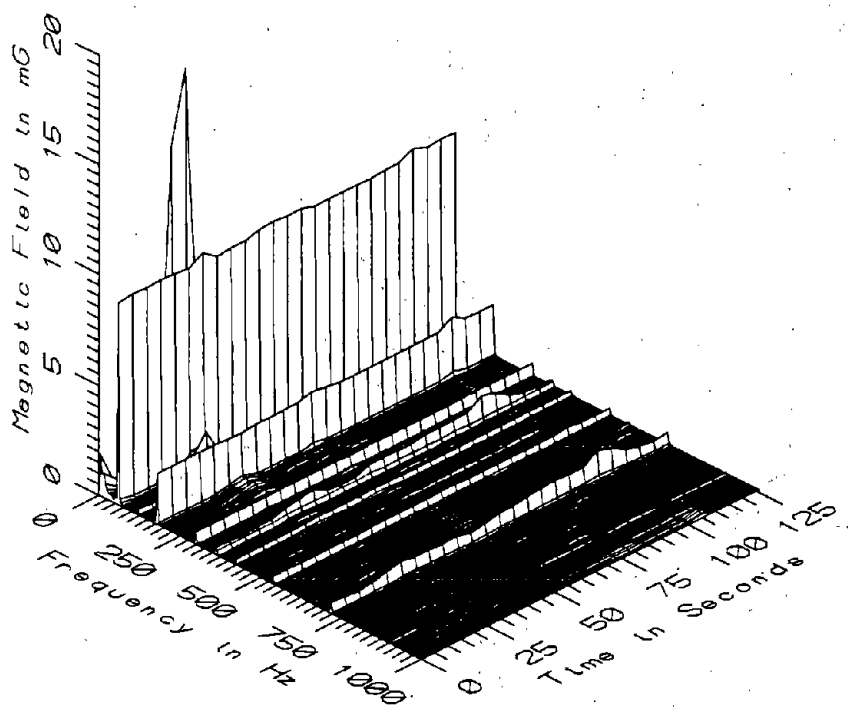
Frequency Spectrum Parameters

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

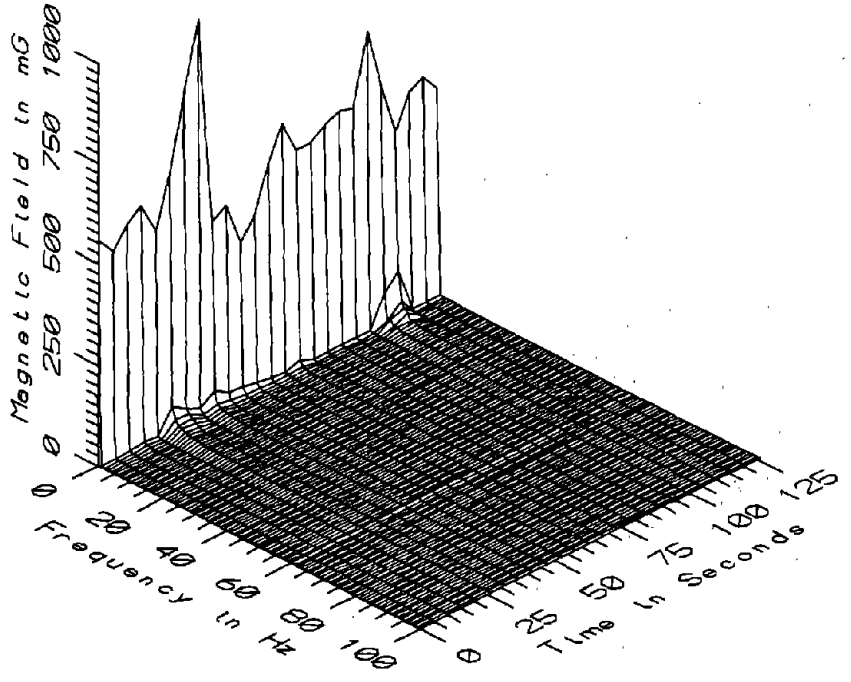
Missing Data: None



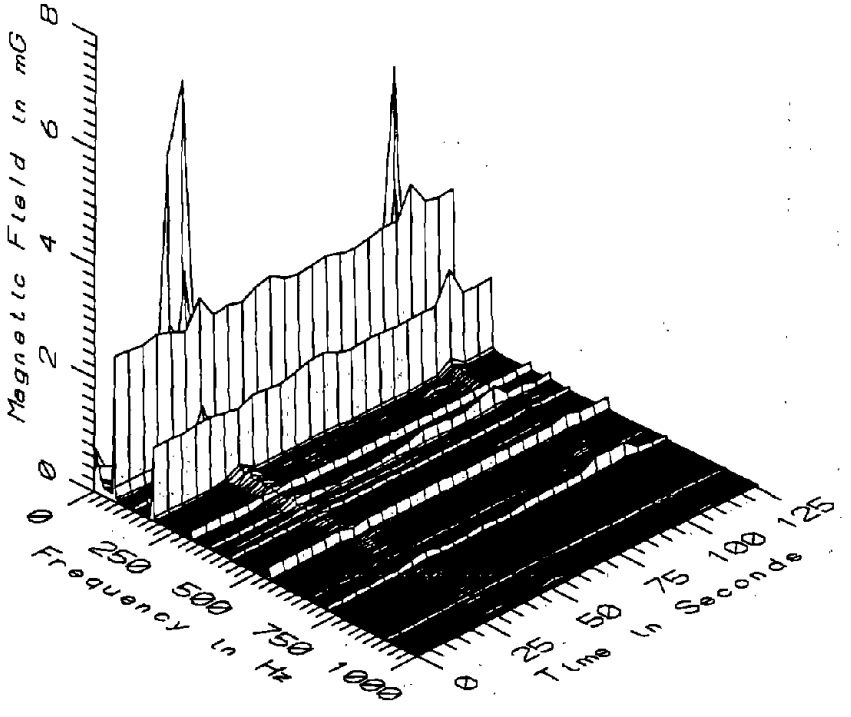
BOS022 - 10cm ABOVE PLATFORM AT DOWNTOWN CROSSING, ORANGE LINE



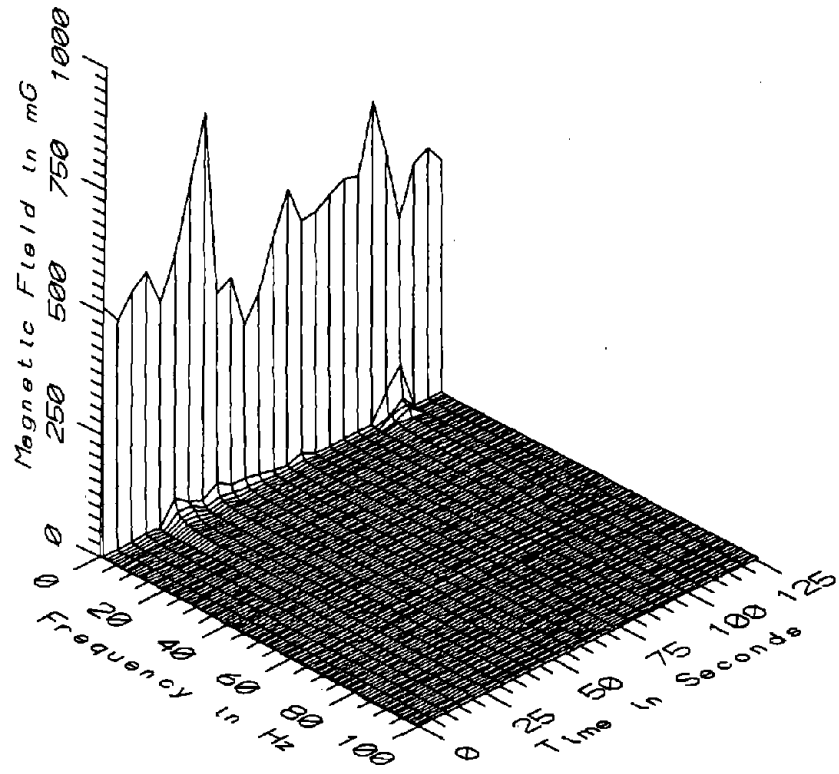
BOS022 - 10cm ABOVE PLATFORM AT DOWNTOWN CROSSING, ORANGE LINE



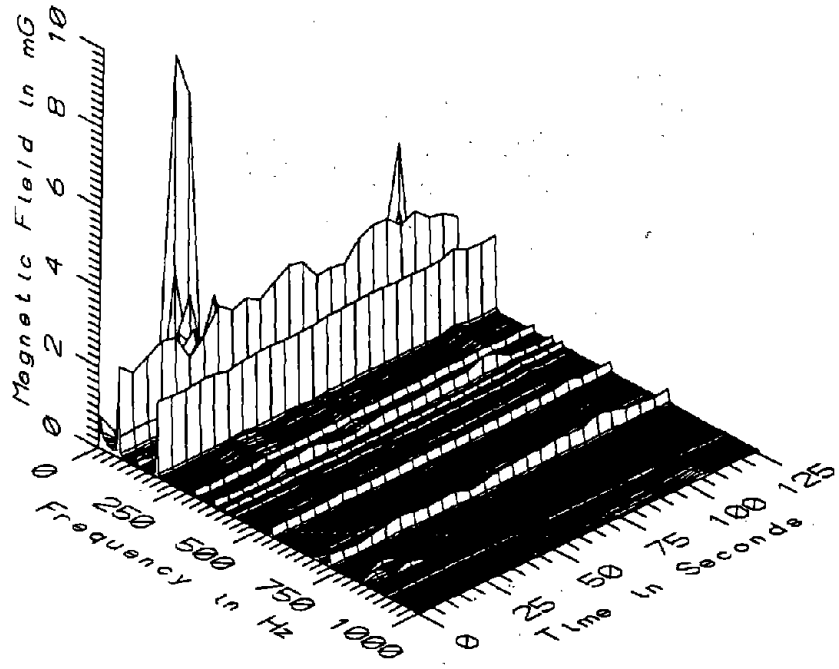
BOS022 - 60cm ABOVE PLATFORM AT DOWNTOWN CROSSING, ORANGE LINE



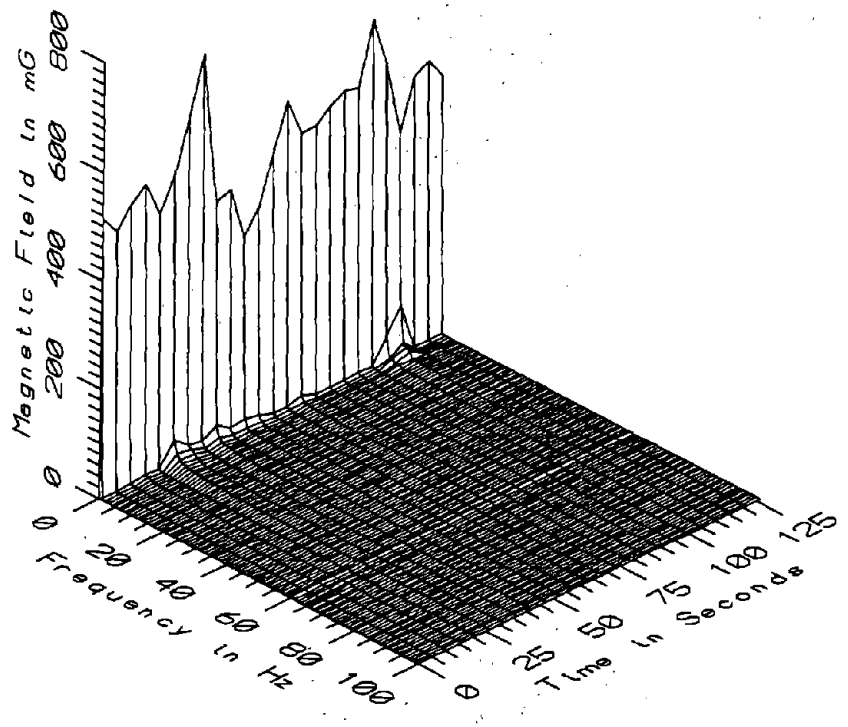
BOS022 - 60cm ABOVE PLATFORM AT DOWNTOWN CROSSING, ORANGE LINE



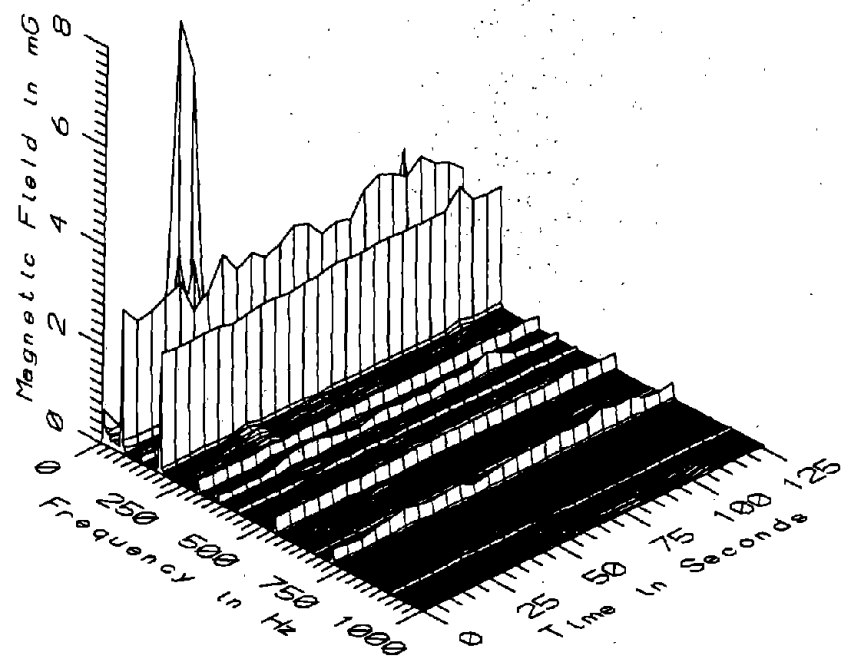
BOS022 - 110cm ABOVE PLATFORM AT DOWNTOWN CROSSING, ORANGE LINE



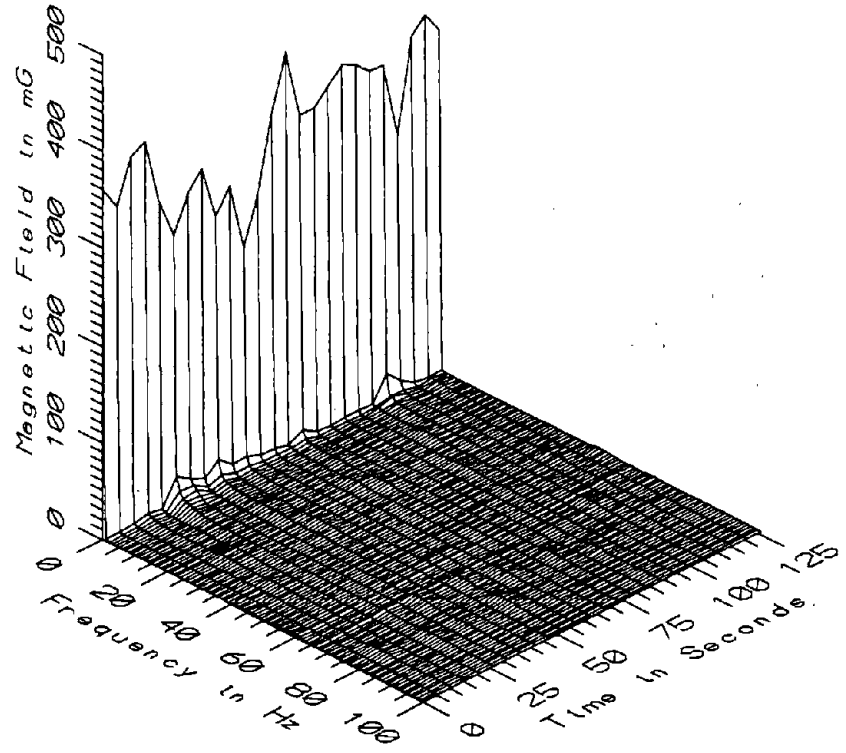
BOS022 - 110cm ABOVE PLATFORM AT DOWNTOWN CROSSING, ORANGE LINE



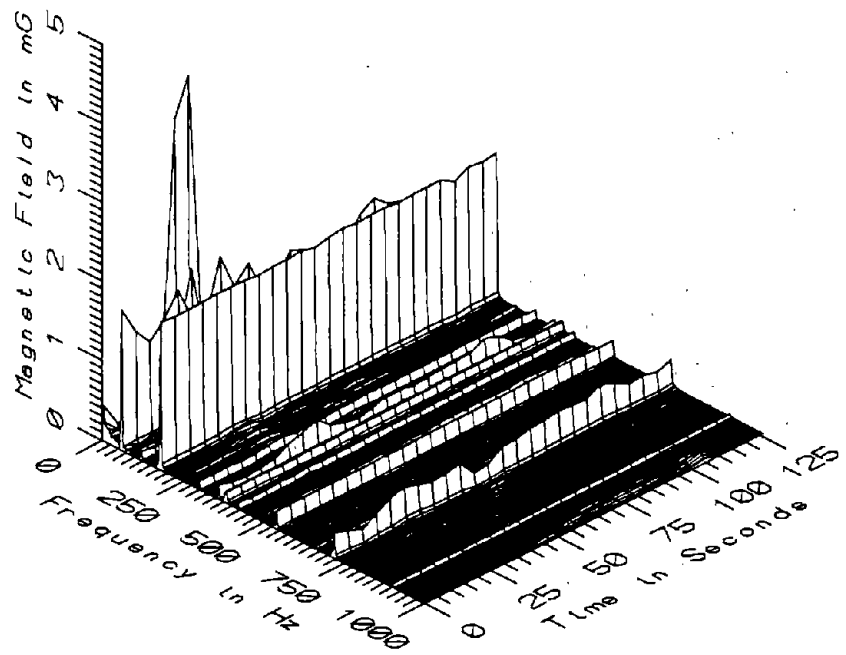
BOS022 - 160cm ABOVE PLATFORM AT DOWNTOWN CROSSING, ORANGE LINE



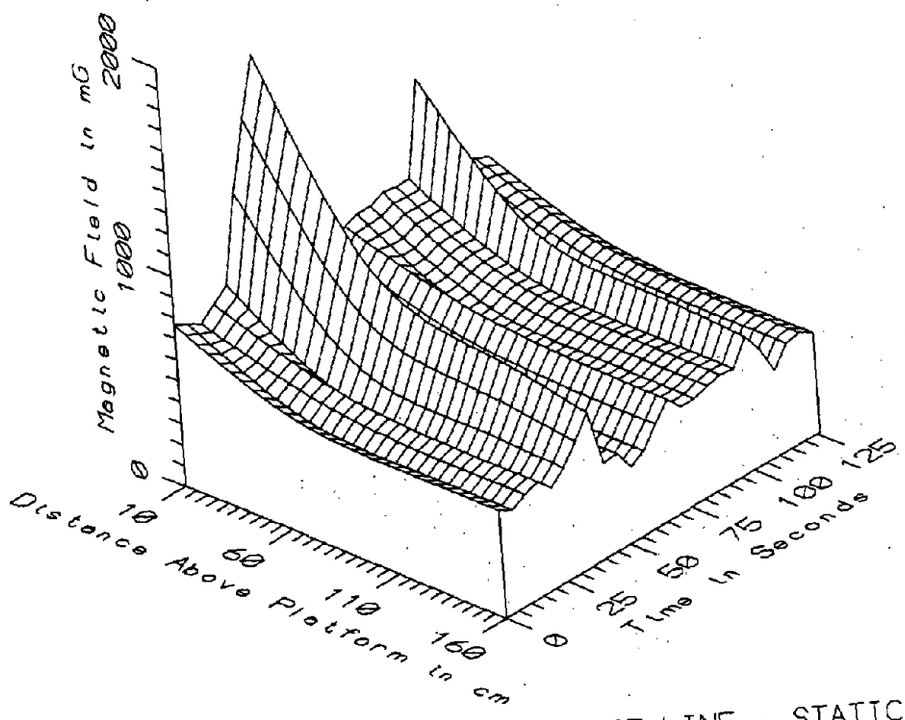
BOS022 - 160cm ABOVE PLATFORM AT DOWNTOWN CROSSING, ORANGE LINE



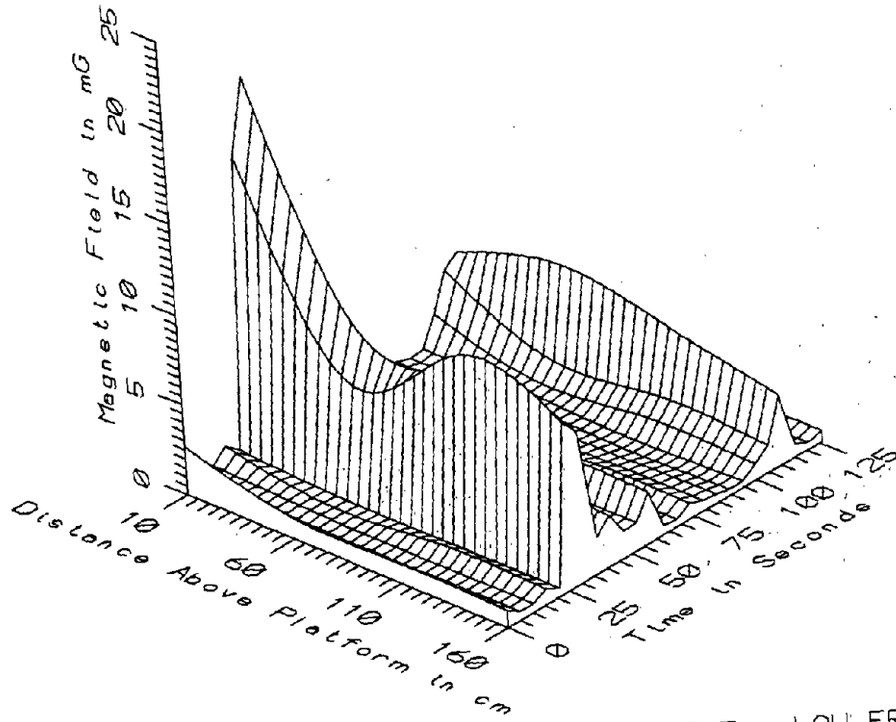
BOS022 - REFERENCE PROBE - ON DOWNTOWN CROSSING PLATFORM, ORANGE LINE



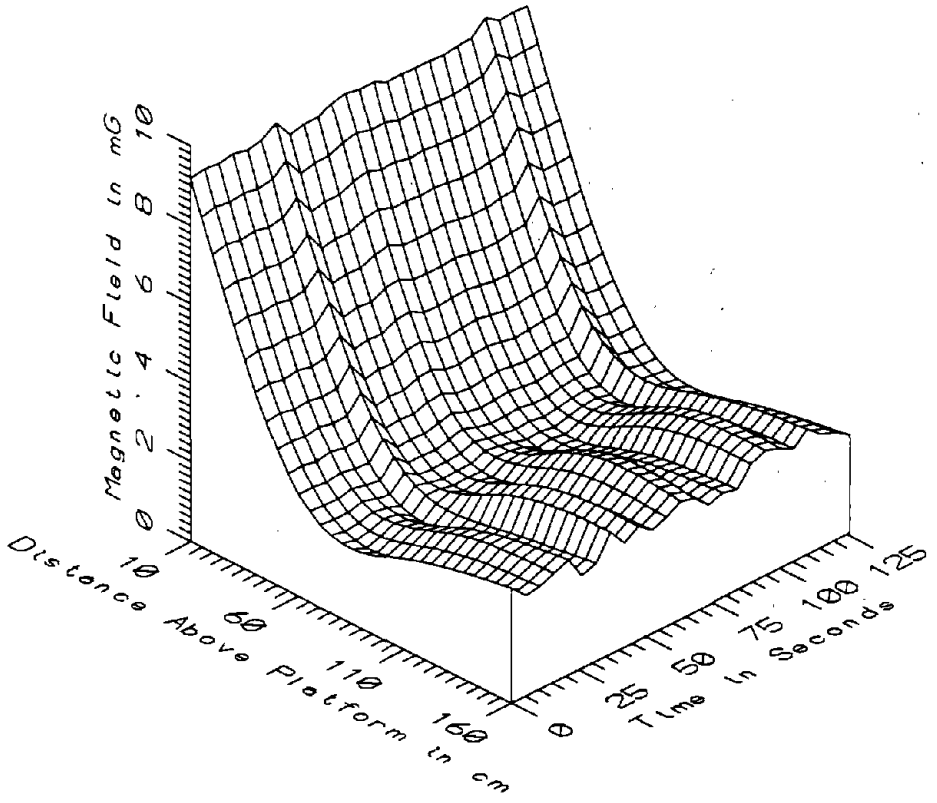
BOS022 - REFERENCE PROBE - ON DOWNTOWN CROSSING PLATFORM, ORANGE LINE



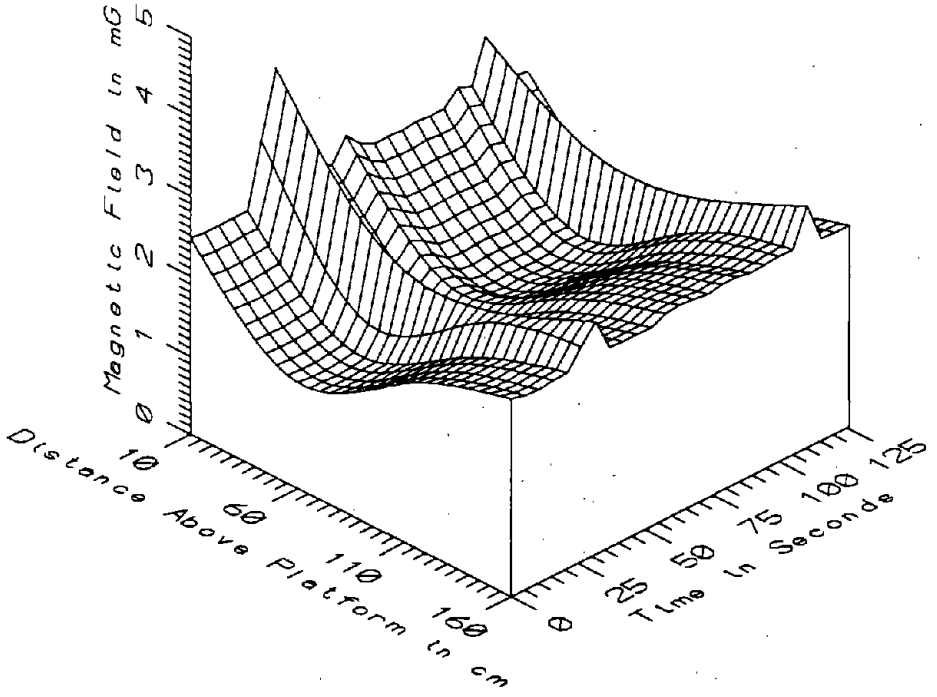
BOS022 - AT DOWNTOWN CROSSING, ORANGE LINE - STATIC



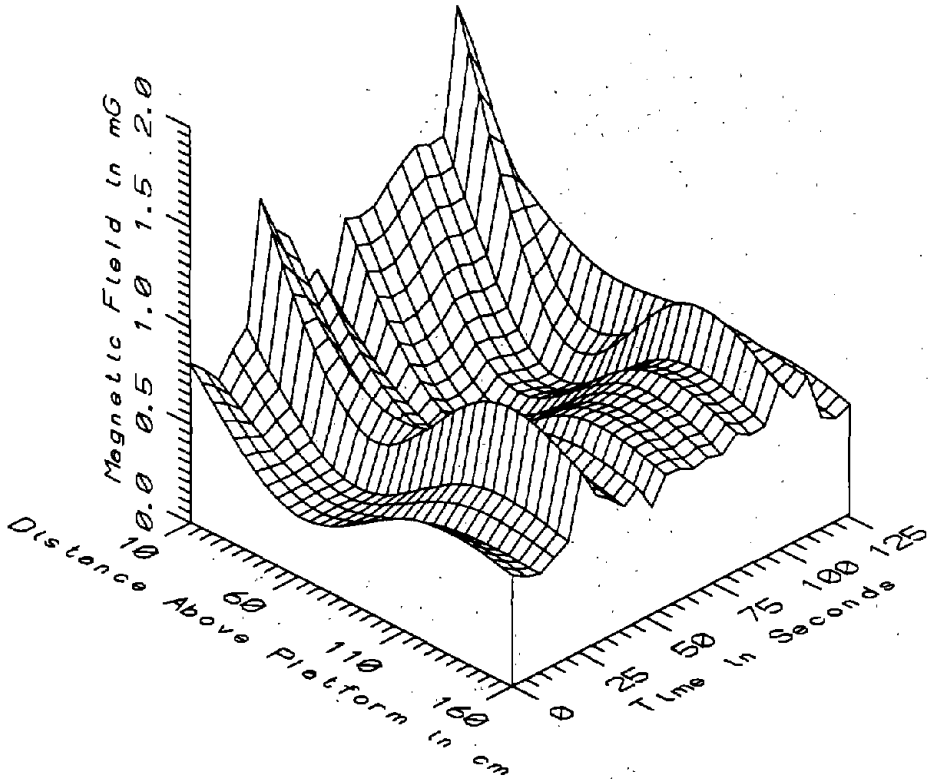
BOS022 - AT DOWNTOWN CROSSING, ORANGE LINE - LOW FREQ. 5-45Hz



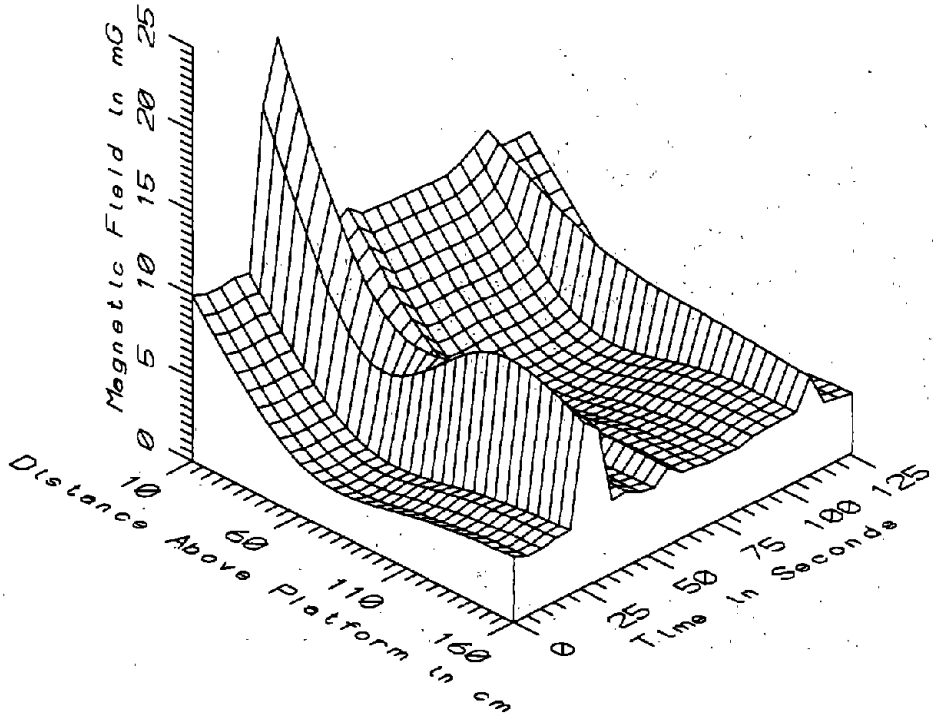
BOS022 - AT DOWNTOWN CROSSING, ORANGE LINE - POWER FREQ, 50-60Hz



BOS022 - AT DOWNTOWN CROSSING, ORANGE LINE - POWER HARM, 65-300Hz

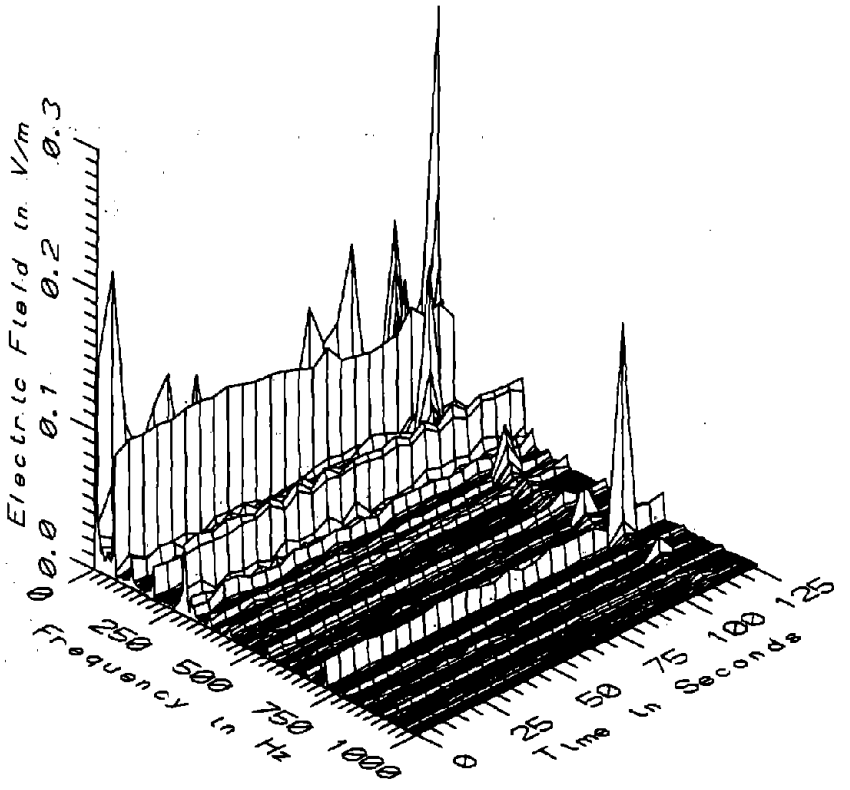


BOS022 - AT DOWNTOWN CROSSING, ORANGE LINE - HIGH FREQ, 305-2560Hz



BOS022 - AT DOWNTOWN CROSSING, ORANGE LINE - ALL FREQ, 5-2560Hz

BOS022 - ON DOWNTOWN CROSSING PLATFORM, ORANGE LINE		TOTAL OF 25 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	685.00	1804.73	879.82	276.31	31.40
	60	375.08	987.82	570.72	125.51	21.99
	110	337.45	810.82	514.09	97.09	18.88
	160	354.30	727.01	510.12	77.20	15.13
5-45Hz LOW FREQ	10	0.30	20.52	3.09	4.86	157.12
	60	0.34	8.65	1.58	2.20	139.25
	110	0.22	10.52	1.84	2.66	144.78
	160	0.34	9.22	1.72	2.31	133.88
50-60Hz PWR FREQ	10	9.04	9.51	9.21	0.12	1.27
	60	2.35	3.03	2.51	0.15	5.85
	110	1.90	2.79	2.35	0.27	11.30
	160	2.35	3.13	2.75	0.22	8.13
65-300Hz PWR HARM	10	2.43	4.08	2.63	0.36	13.82
	60	1.34	2.49	1.49	0.29	19.62
	110	1.96	2.46	2.07	0.13	6.20
	160	2.45	3.04	2.59	0.14	5.25
305-2560Hz HIGH FREQ	10	0.66	1.94	1.10	0.32	28.97
	60	0.31	0.84	0.42	0.13	30.55
	110	0.47	0.98	0.69	0.14	19.67
	160	0.49	0.89	0.64	0.11	16.30
5-2560Hz ALL FREQ	10	9.50	23.02	10.75	3.20	29.73
	60	2.77	9.46	3.63	1.70	46.72
	110	2.89	10.98	4.08	2.02	49.45
	160	3.62	9.94	4.52	1.60	35.33



BOS022 - ELECTRIC FIELD AT DOWNTOWN CROSSING, ORANGE LINE

APPENDIX X

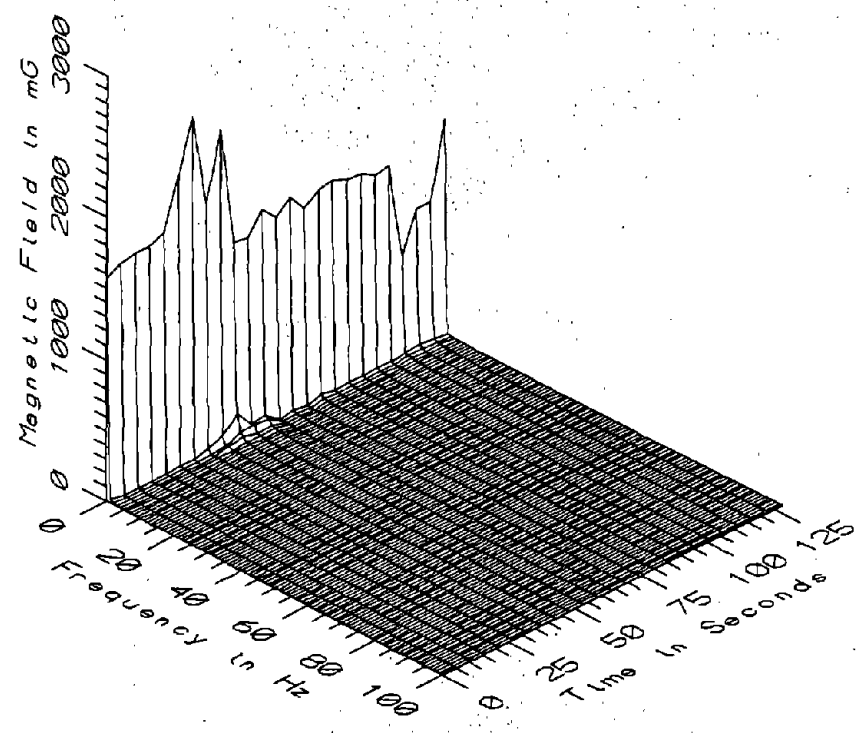
DATASET BOS023
ON DOWNTOWN CROSSING PLATFORM, ORANGE LINE

Measurement Setup Code:	Staff: 66 Reference: 67 Drawing: A-4
Vehicle Status:	NA
Measurement Date:	June 10, 1992
Measurement Time:	Start: 13:09:22 End: 13:11:30
Number of Samples:	25
Programmed Sample Interval:	5 sec
Actual Sample Interval:	5.3 sec

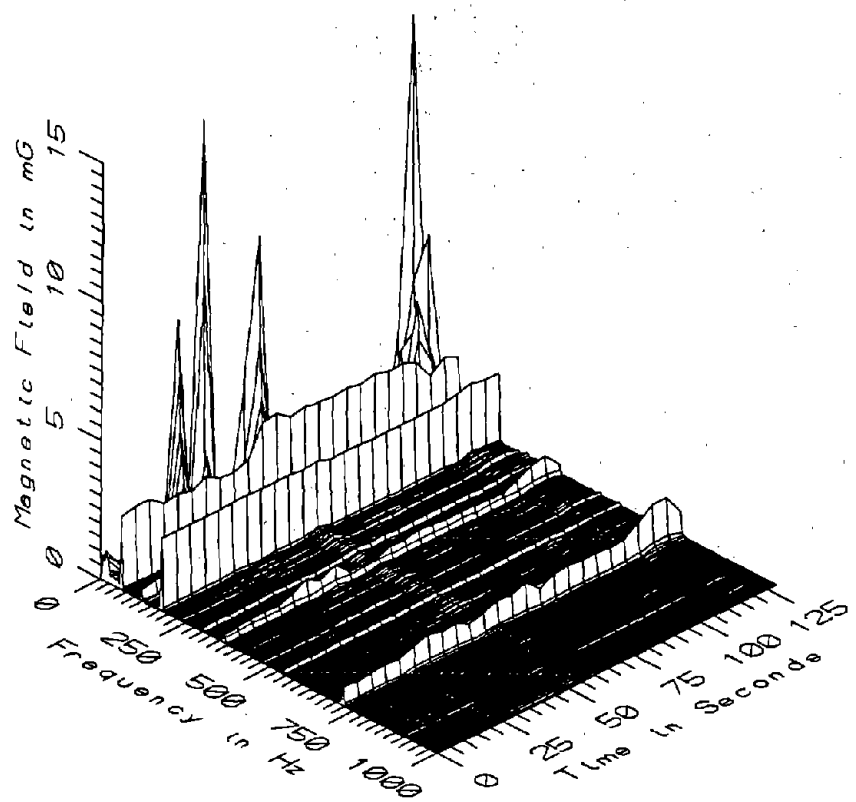
Frequency Spectrum Parameters

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

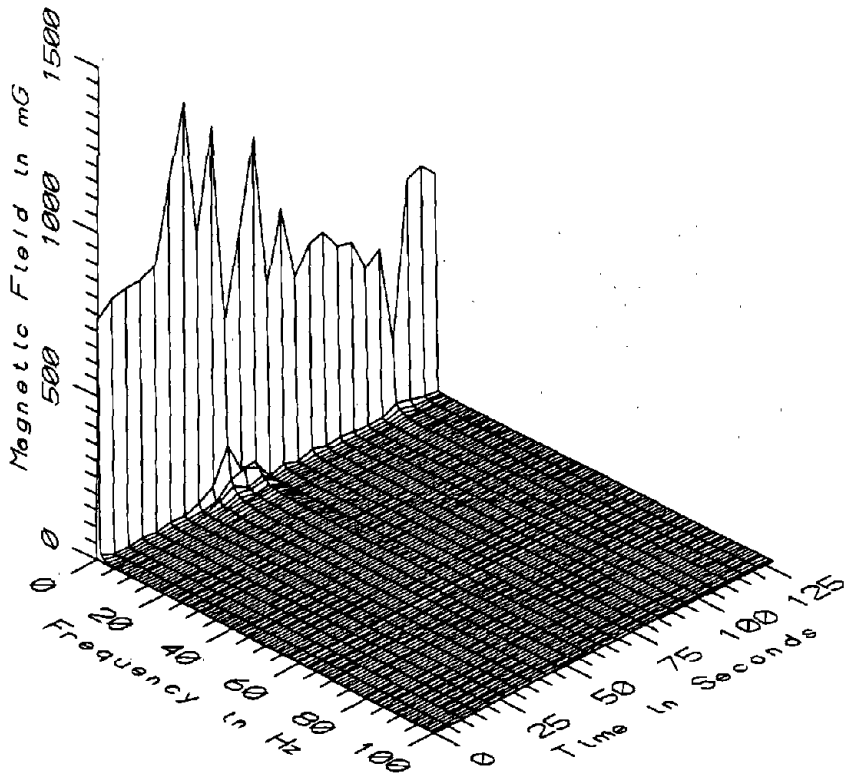
Missing Data: None



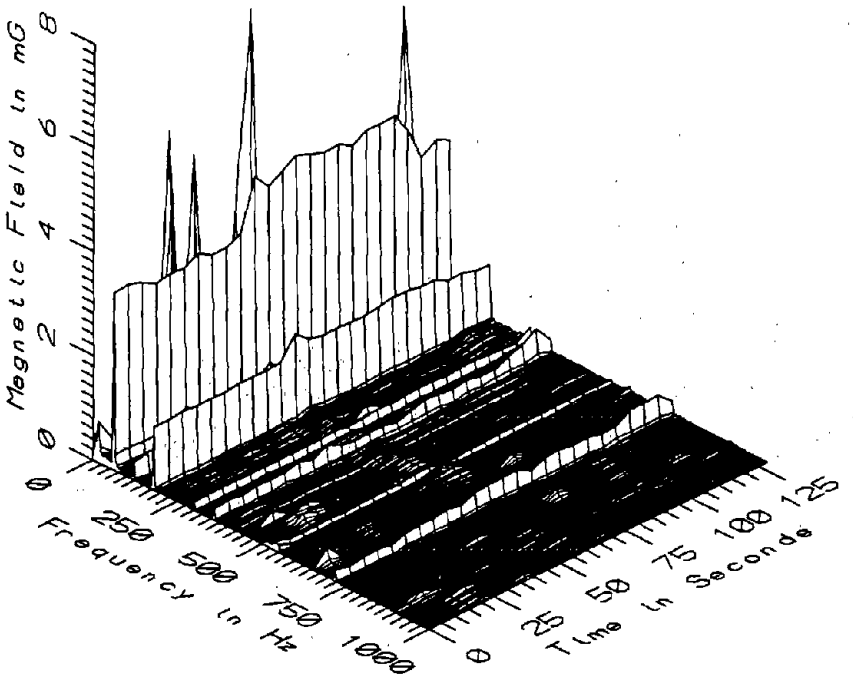
BOS023 - 10cm ABOVE PLATFORM AT DOWNTOWN CROSSING, ORANGE LINE



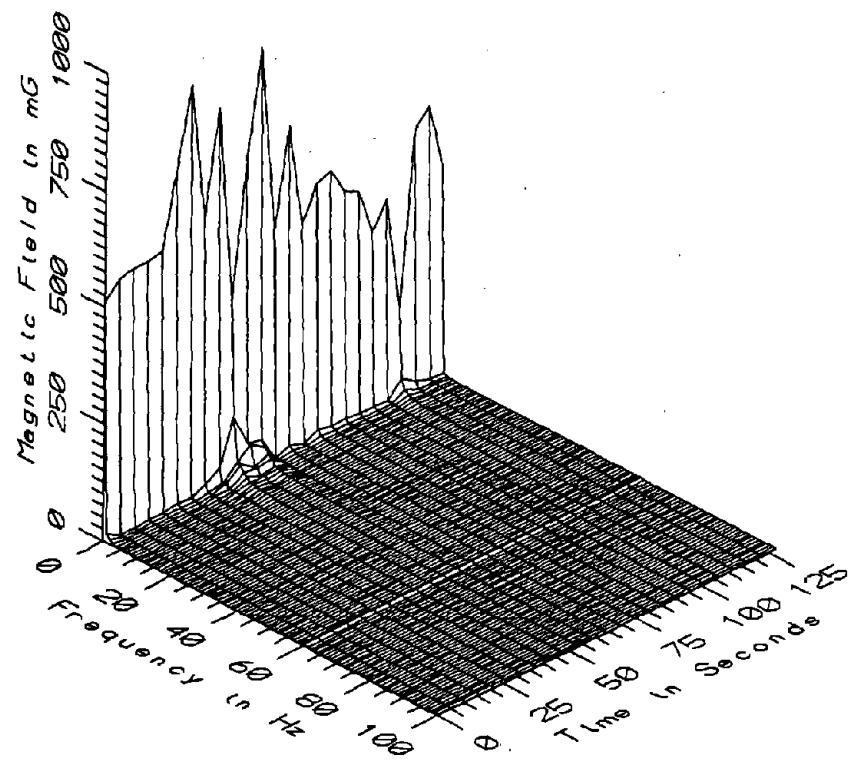
BOS023 - 10cm ABOVE PLATFORM AT DOWNTOWN CROSSING, ORANGE LINE



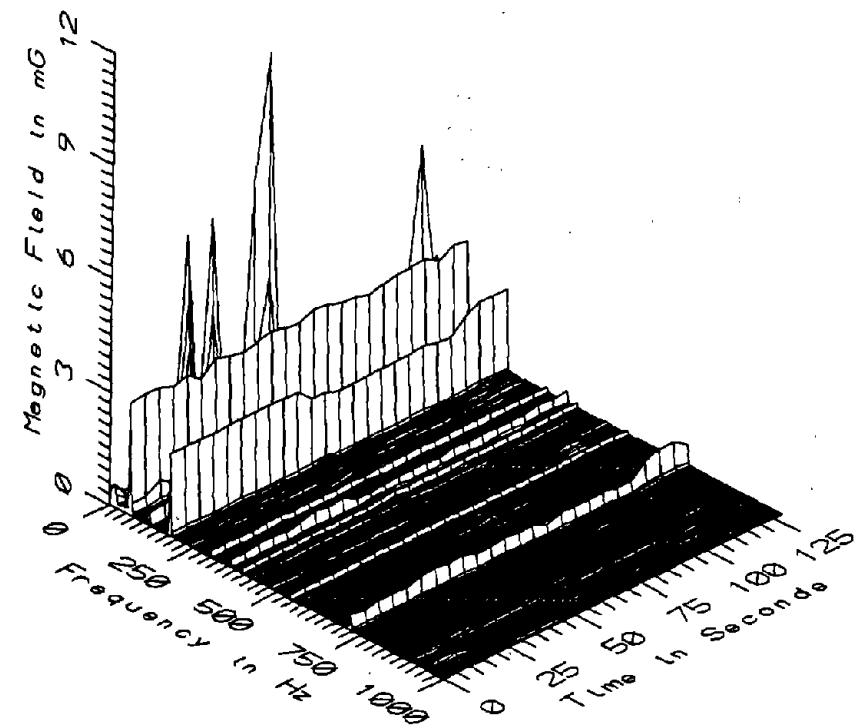
BOS023 - 60cm ABOVE PLATFORM AT DOWNTOWN CROSSING, ORANGE LINE



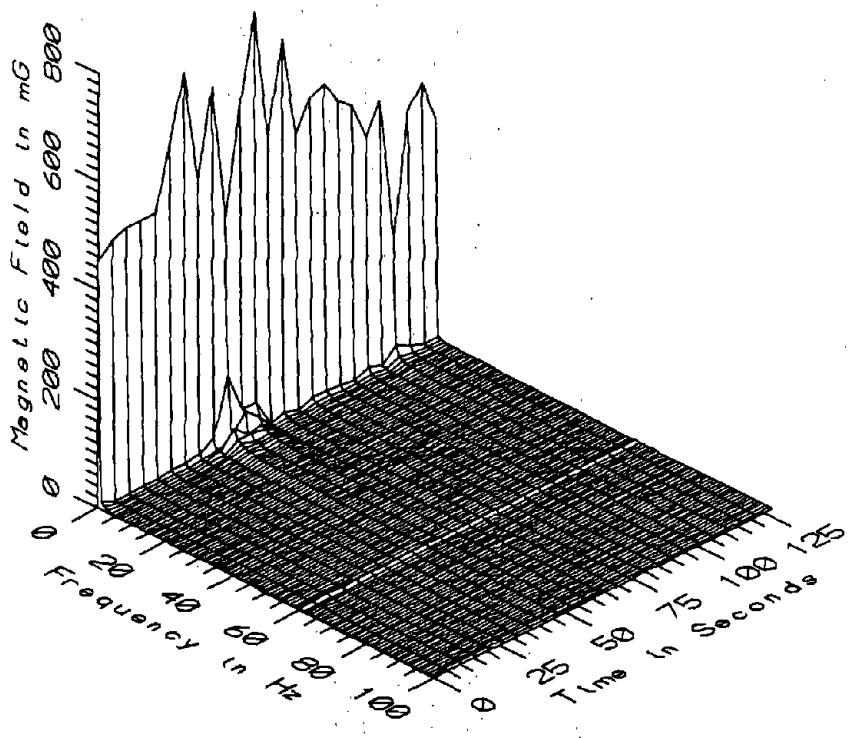
BOS023 - 60cm ABOVE PLATFORM AT DOWNTOWN CROSSING, ORANGE LINE



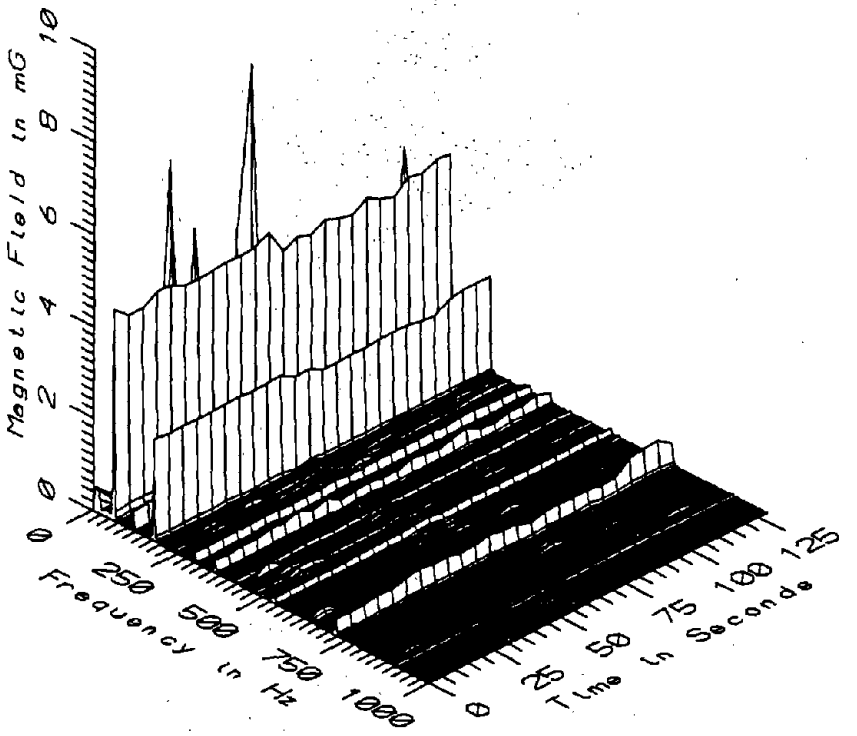
BOS023 - 110cm ABOVE PLATFORM AT DOWNTOWN CROSSING, ORANGE LINE



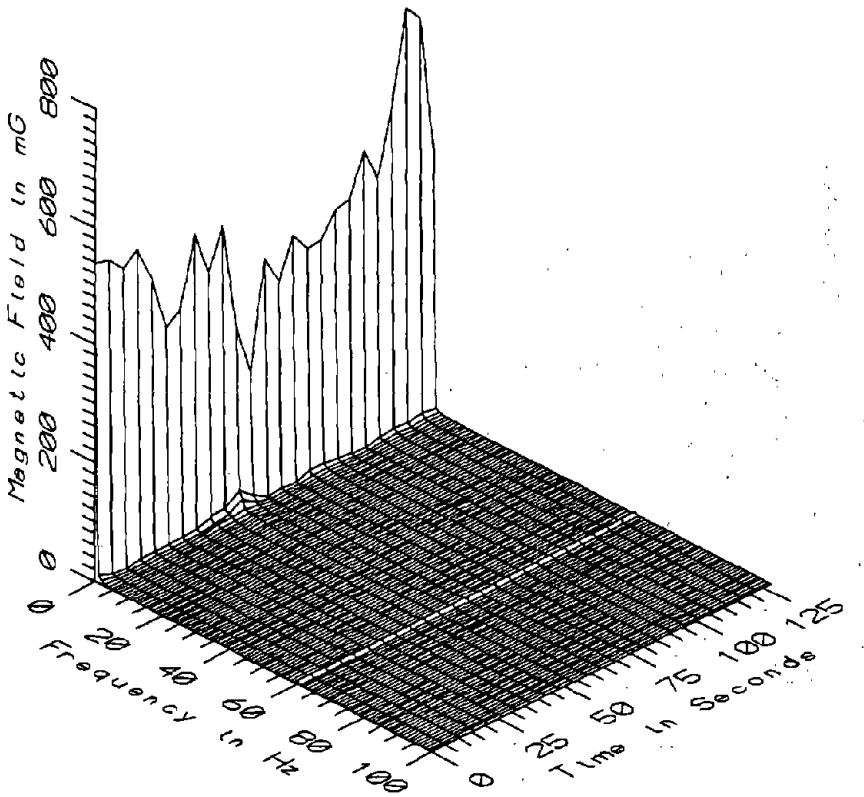
BOS023 - 110cm ABOVE PLATFORM AT DOWNTOWN CROSSING, ORANGE LINE



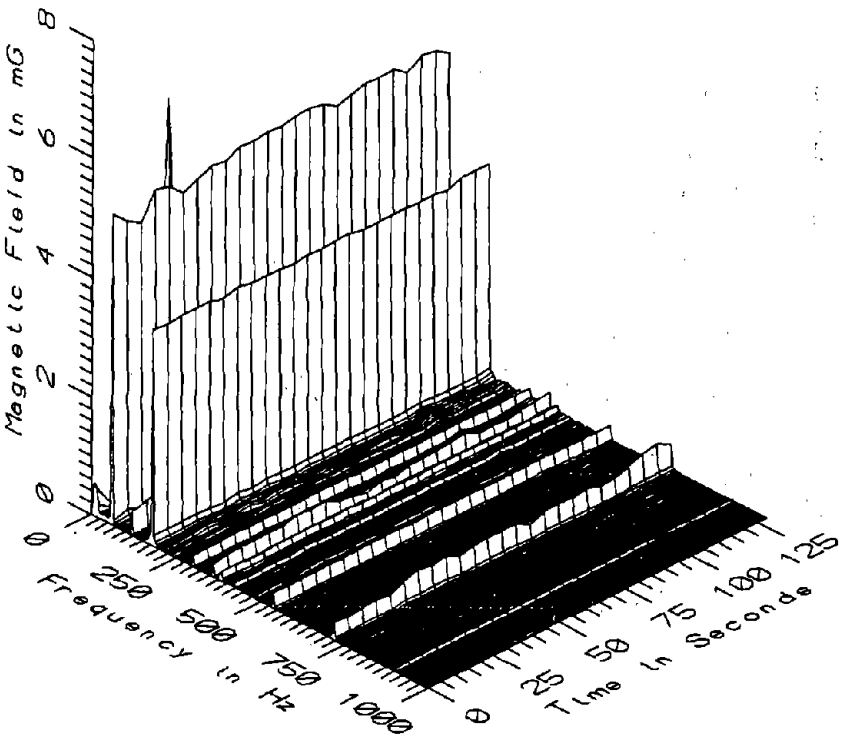
BOS023 - 160cm ABOVE PLATFORM AT DOWNTOWN CROSSING, ORANGE LINE



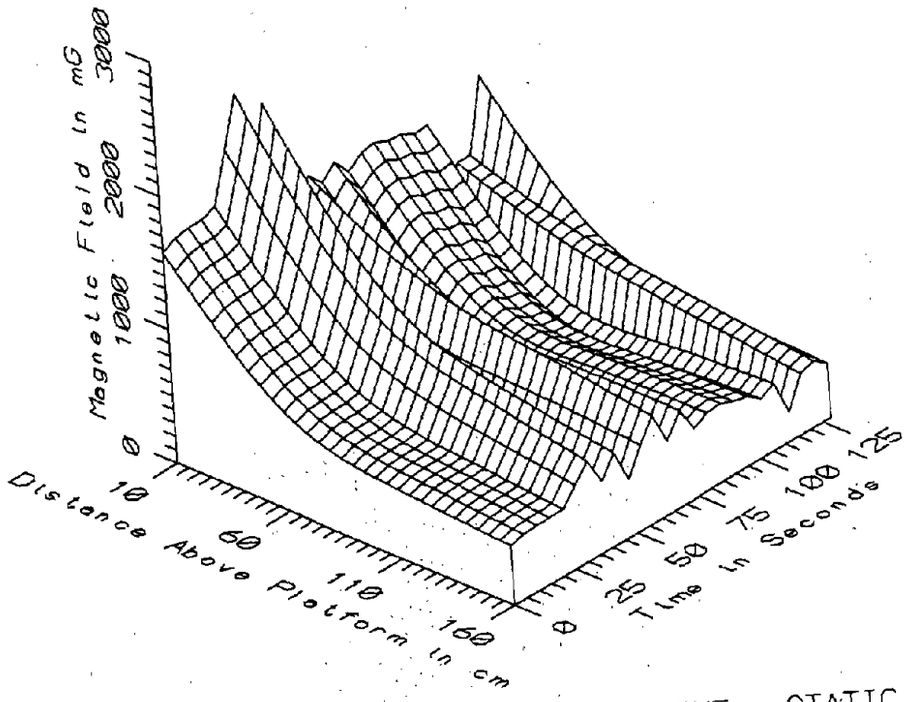
BOS023 - 160cm ABOVE PLATFORM AT DOWNTOWN CROSSING, ORANGE LINE



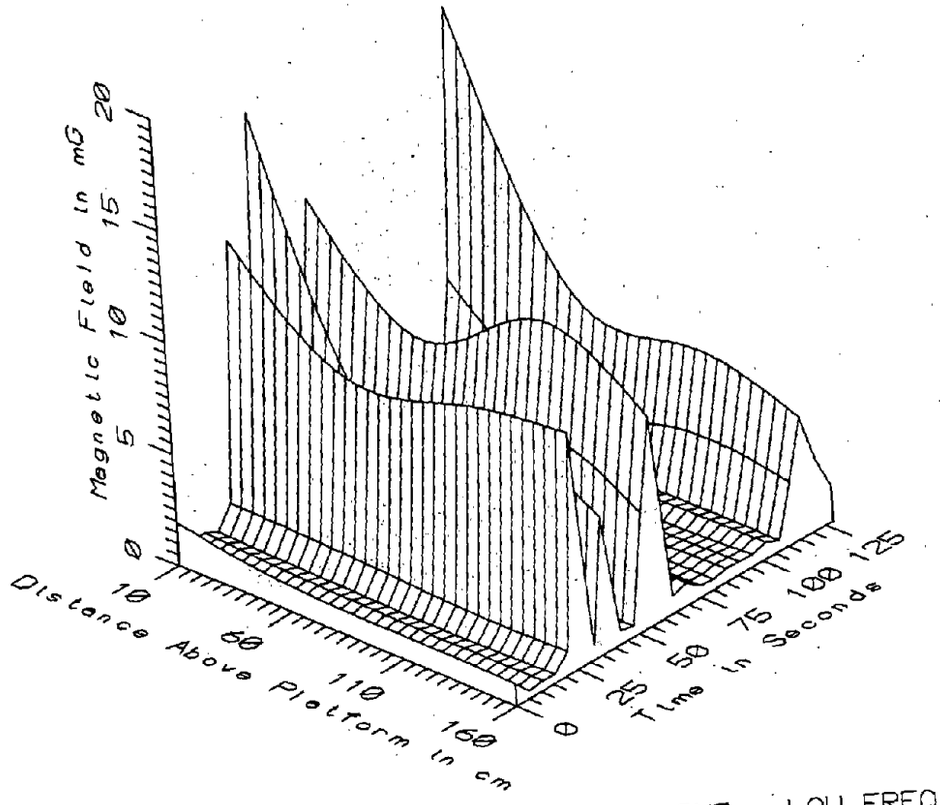
BOS023 - REFERENCE PROBE - ON DOWNTOWN CROSSING PLATFORM, ORANGE LINE



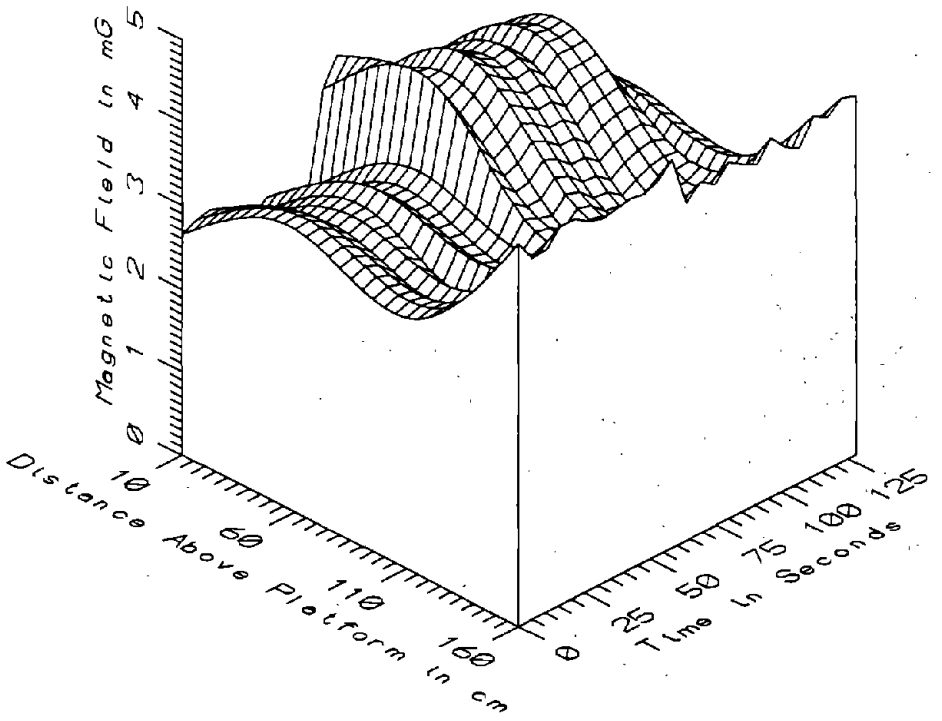
BOS023 - REFERENCE PROBE - ON DOWNTOWN CROSSING PLATFORM, ORANGE LINE



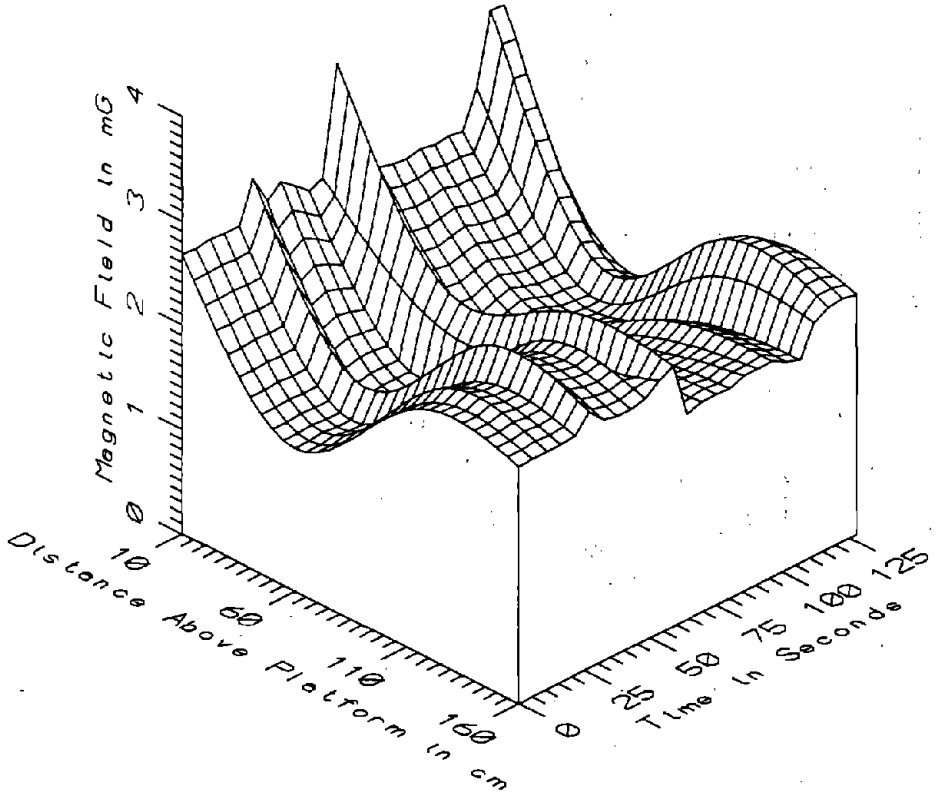
BOS023 - AT DOWNTOWN CROSSING, ORANGE LINE - STATIC



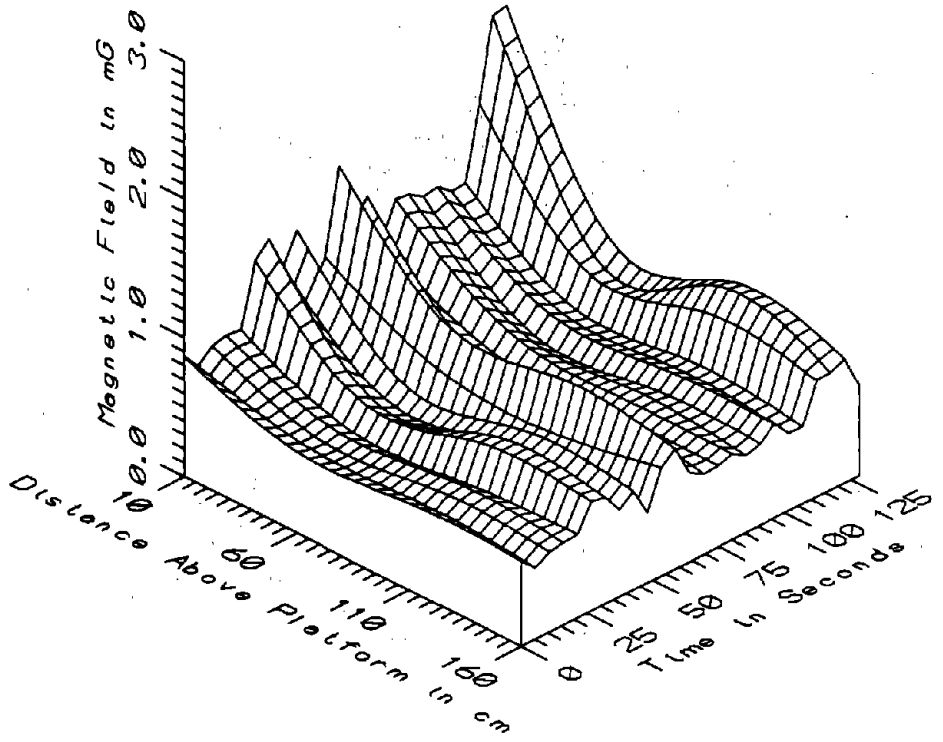
BOS023 - AT DOWNTOWN CROSSING, ORANGE LINE - LOW FREQ. 5-45Hz



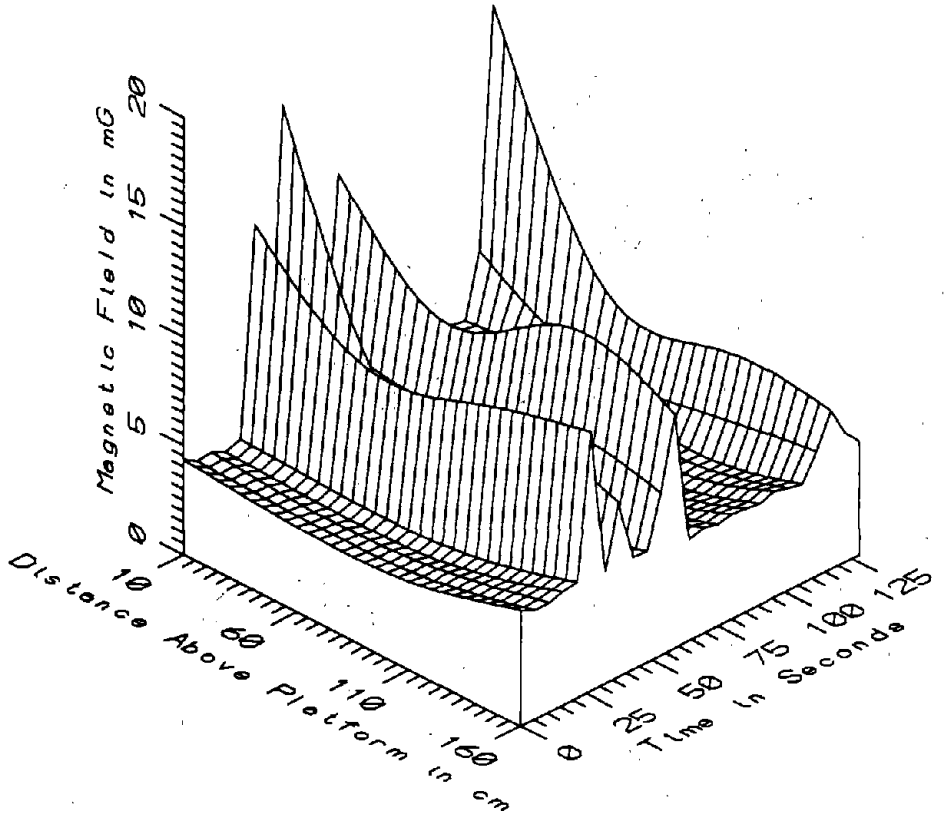
BOS023 - AT DOWNTOWN CROSSING, ORANGE LINE - POWER FREQ, 50-60Hz



BOS023 - AT DOWNTOWN CROSSING, ORANGE LINE - POWER HARM, 65-300Hz

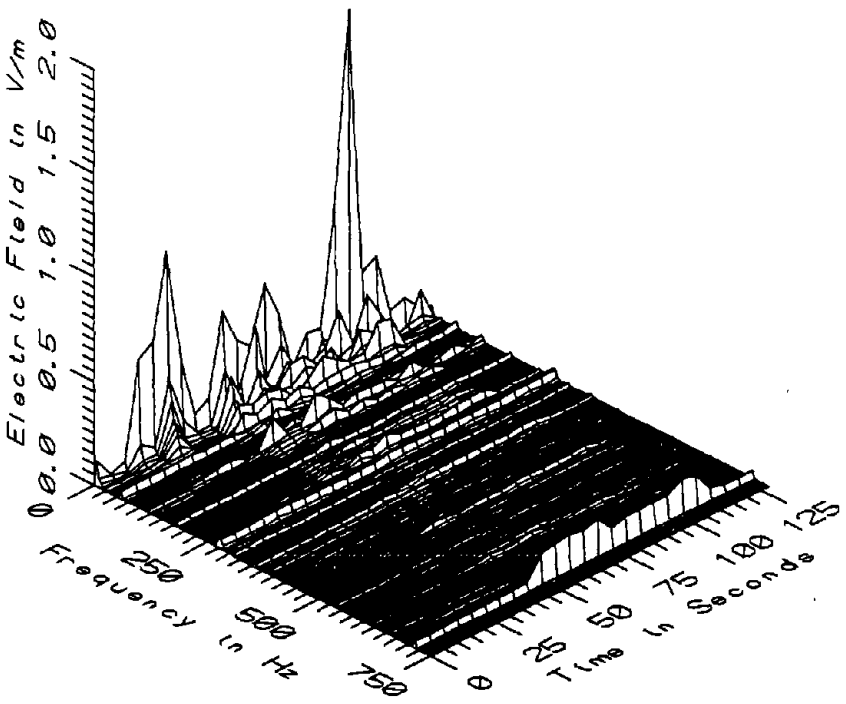


BOS023 - AT DOWNTOWN CROSSING, ORANGE LINE - HIGH FREQ, 305-2560Hz



BOS023 - AT DOWNTOWN CROSSING, ORANGE LINE - ALL FREQ, 5-2560Hz

BOS023 - ON DOWNTOWN CROSSING PLATFORM, ORANGE LINE		TOTAL OF 25 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	686.46	2411.25	1511.49	362.31	23.97
	60	217.62	1265.73	731.63	225.07	30.76
	110	182.56	892.05	561.30	157.13	27.99
	160	219.21	771.46	523.48	114.91	21.95
5-45Hz LOW FREQ	10	0.49	17.85	4.00	5.41	135.44
	60	0.32	8.78	2.06	2.63	127.73
	110	0.27	11.45	2.43	3.29	135.54
	160	0.35	10.58	2.20	2.87	130.47
50-60Hz PWR FREQ	10	2.25	3.86	2.89	0.44	15.06
	60	3.08	4.28	3.65	0.44	12.12
	110	2.75	3.11	2.95	0.10	3.40
	160	4.01	4.65	4.32	0.17	3.99
65-300Hz PWR HARM	10	2.50	3.76	2.78	0.34	12.26
	60	1.36	2.10	1.49	0.17	11.40
	110	1.76	2.55	2.13	0.26	12.04
	160	1.94	2.50	2.21	0.16	7.43
305-2560Hz HIGH FREQ	10	0.75	2.23	1.22	0.38	31.10
	60	0.43	0.91	0.63	0.11	17.21
	110	0.55	1.06	0.71	0.15	20.81
	160	0.51	0.89	0.66	0.11	17.24
5-2560Hz ALL FREQ	10	3.70	18.27	6.55	4.47	68.30
	60	3.51	9.53	4.91	1.72	35.05
	110	3.39	12.15	4.96	2.40	48.34
	160	4.52	11.75	5.78	1.87	32.29



BOS023 - ELECTRIC FIELD AT DOWNTOWN CROSSING, ORANGE LINE

APPENDIX Y

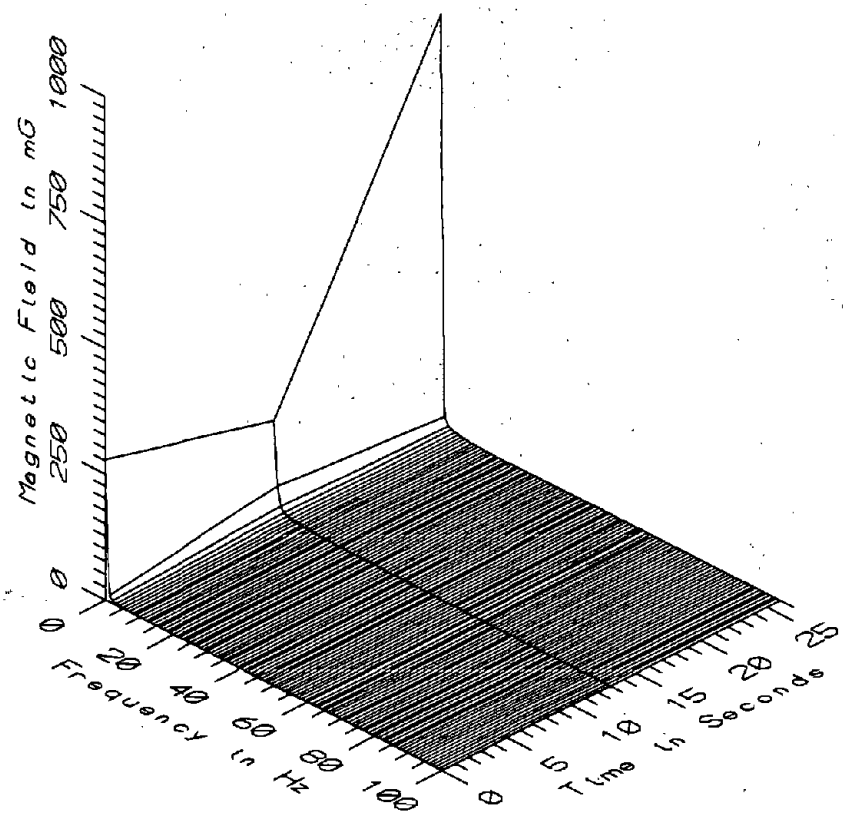
DATASET BOS024
ON DOWNTOWN CROSSING PLATFORM, RED LINE

Measurement Setup Code:	Staff: 32 Reference: 33 Drawing: A-4
Vehicle Status:	NA
Measurement Date:	June 10, 1992
Measurement Time:	Start: 14:09:32 End: 14:09:58
Number of Samples:	3
Programmed Sample Interval:	5 sec
Actual Sample Interval:	13 sec

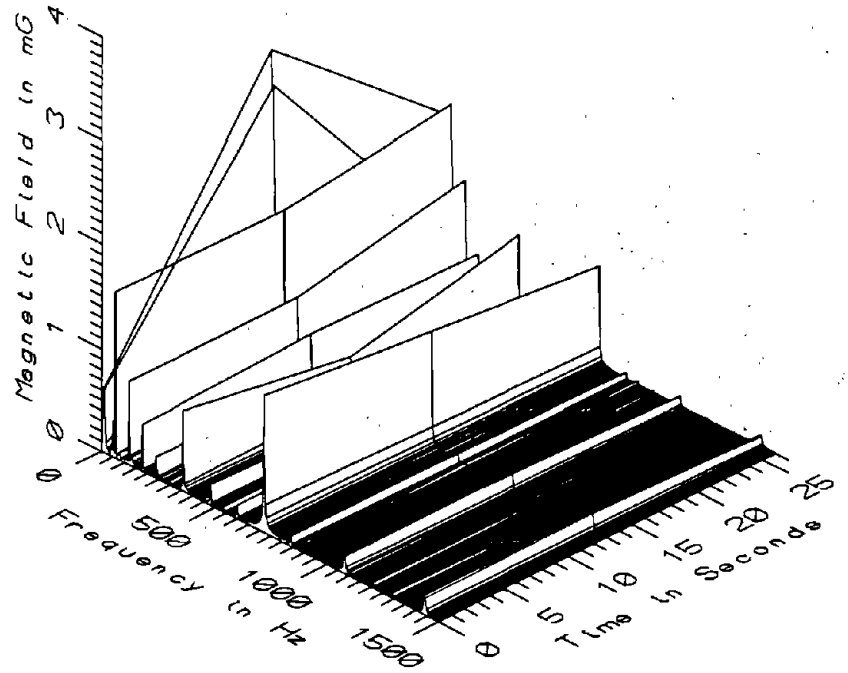
Frequency Spectrum Parameters

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

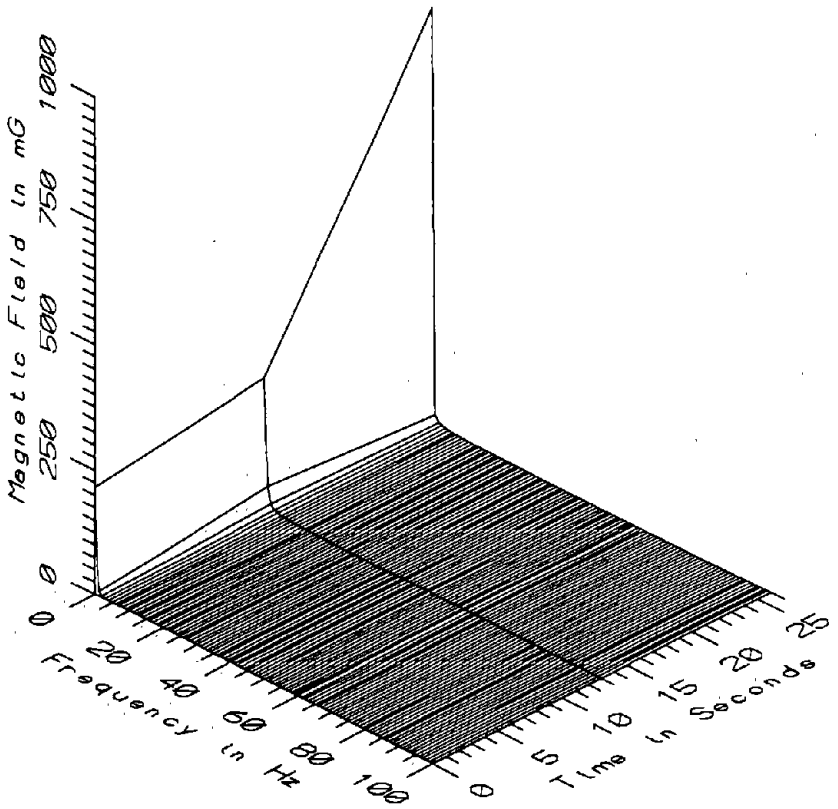
Missing Data: None



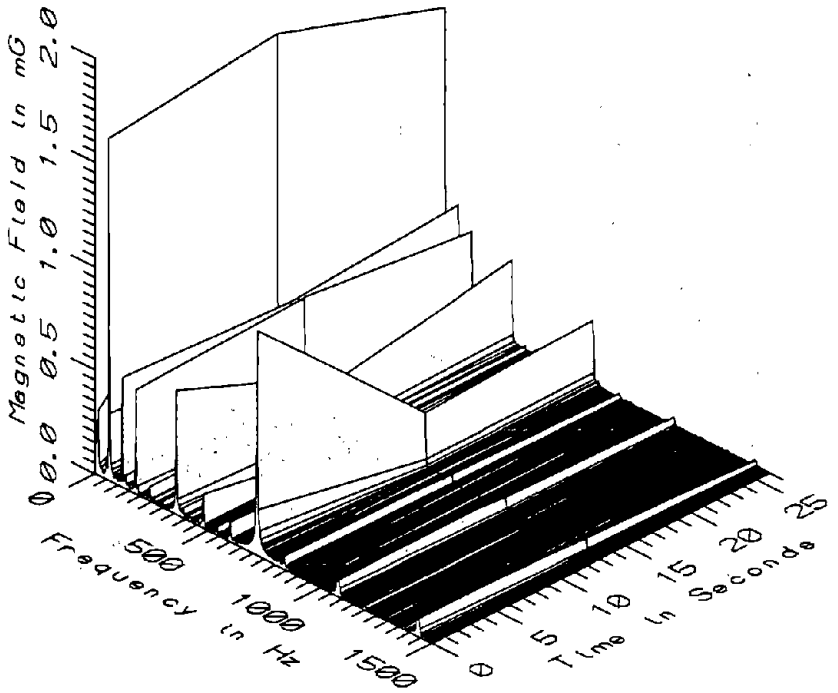
BOS024 - 10cm ABOVE PLATFORM AT DOWNTOWN CROSSING, RED LINE



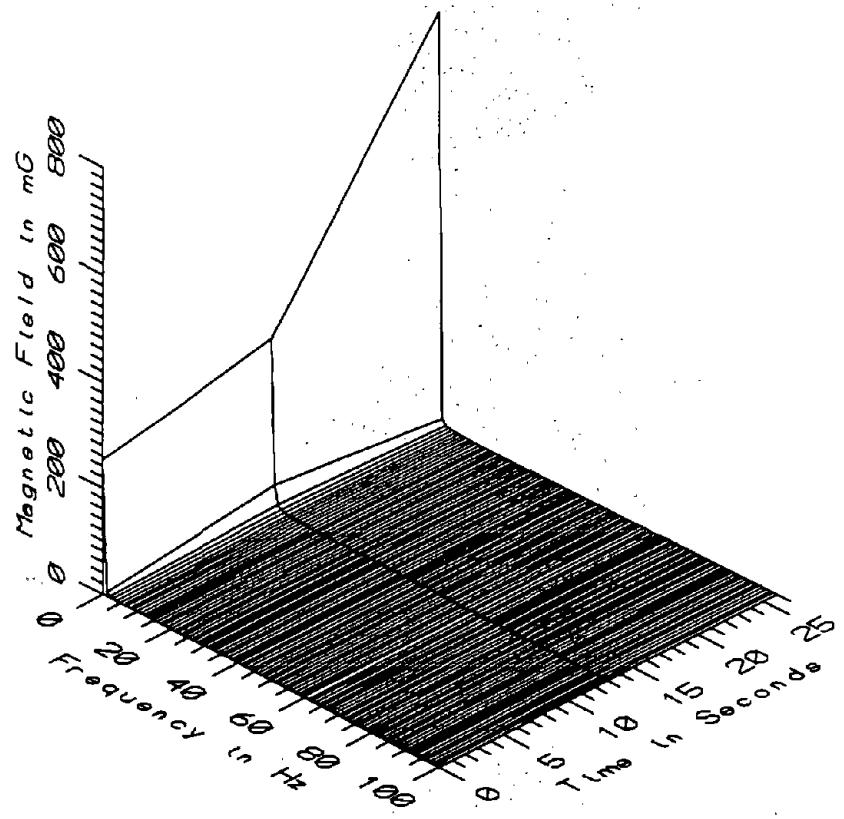
BOS024 - 10cm ABOVE PLATFORM AT DOWNTOWN CROSSING, RED LINE



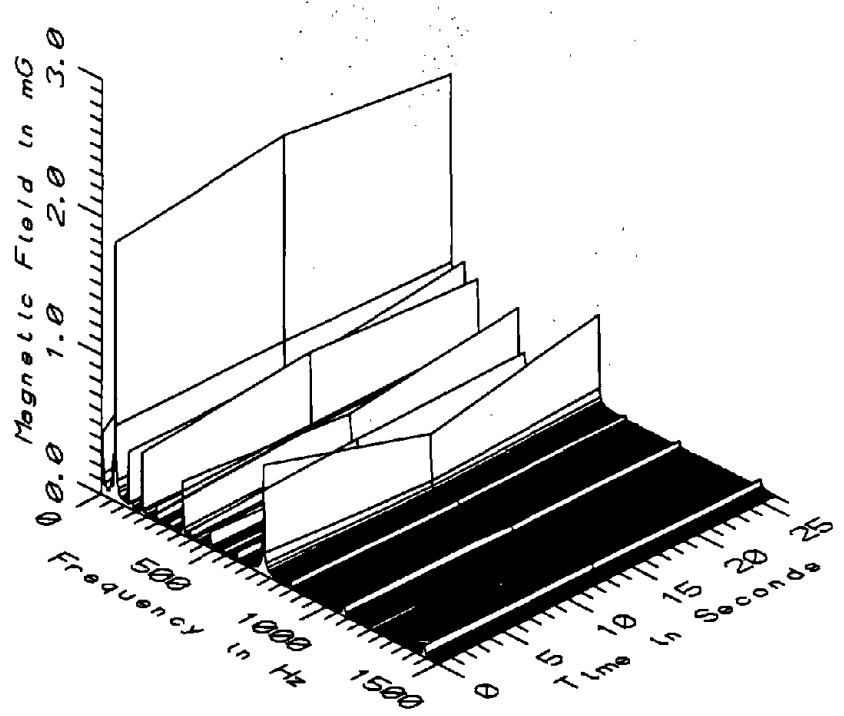
BOS024 - 60cm ABOVE PLATFORM AT DOWNTOWN CROSSING, RED LINE



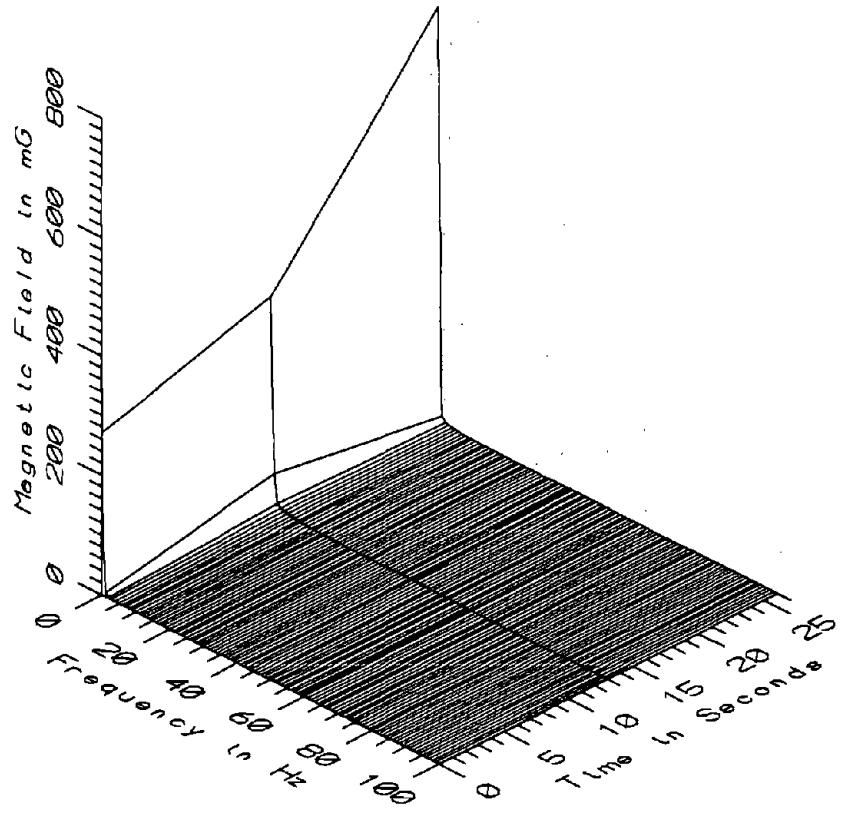
BOS024 - 60cm ABOVE PLATFORM AT DOWNTOWN CROSSING, RED LINE



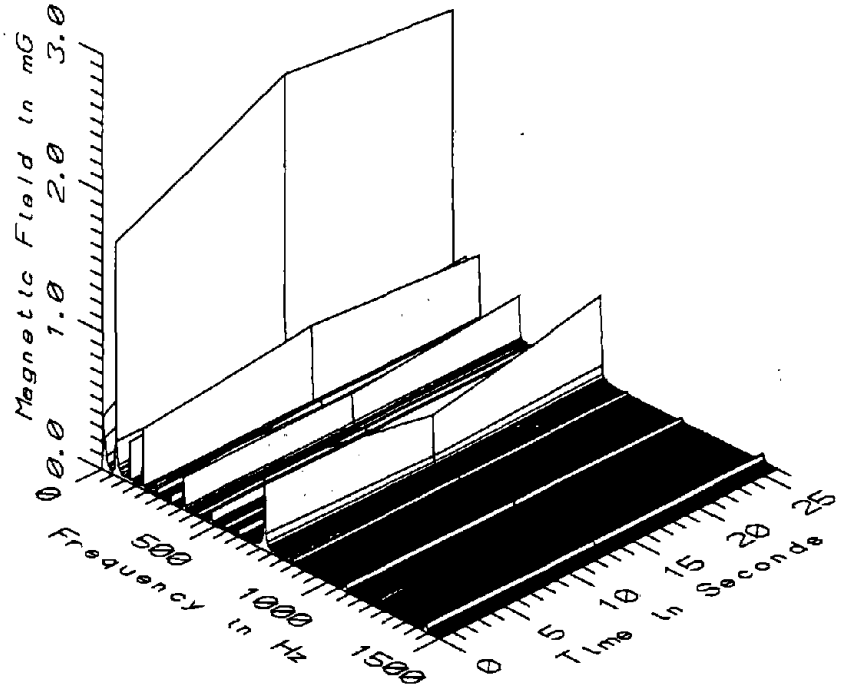
BOS024 - 110cm ABOVE PLATFORM AT DOWNTOWN CROSSING, RED LINE



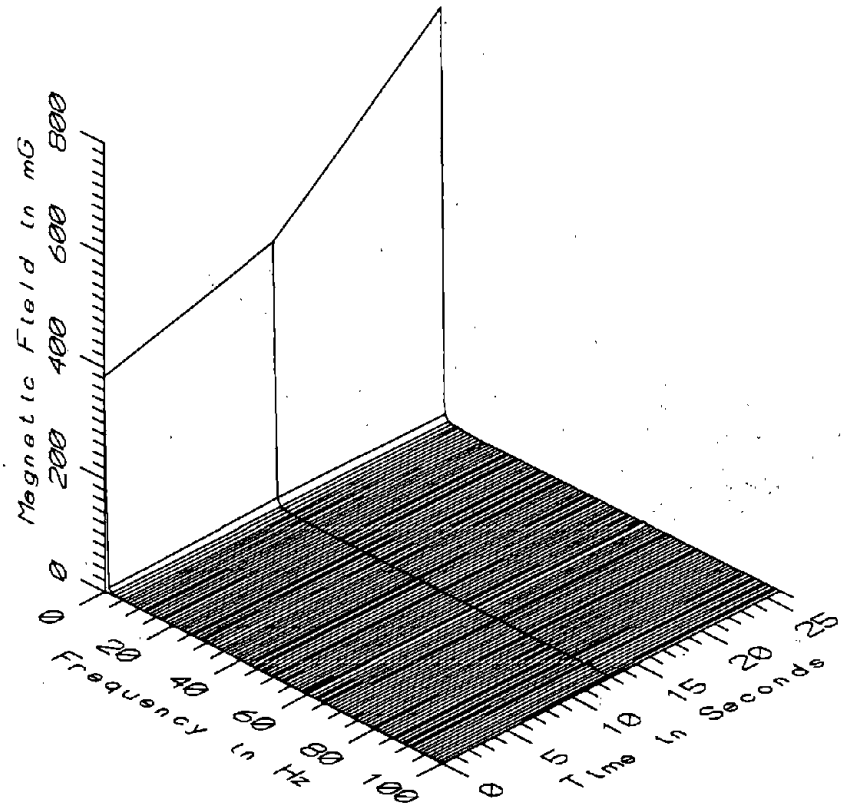
BOS024 - 110cm ABOVE PLATFORM AT DOWNTOWN CROSSING, RED LINE



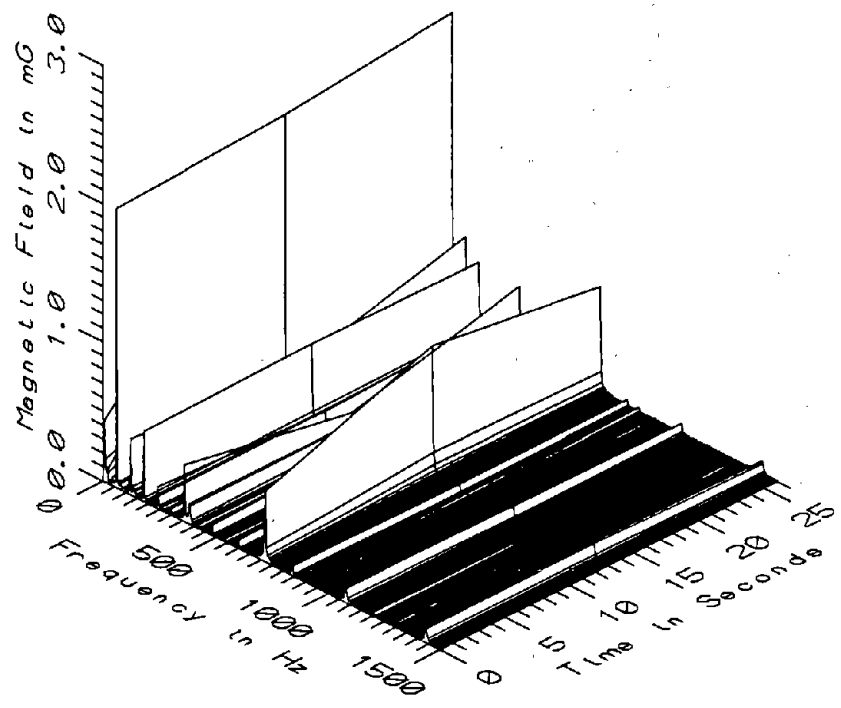
BOS024 - 160cm ABOVE PLATFORM AT DOWNTOWN CROSSING, RED LINE



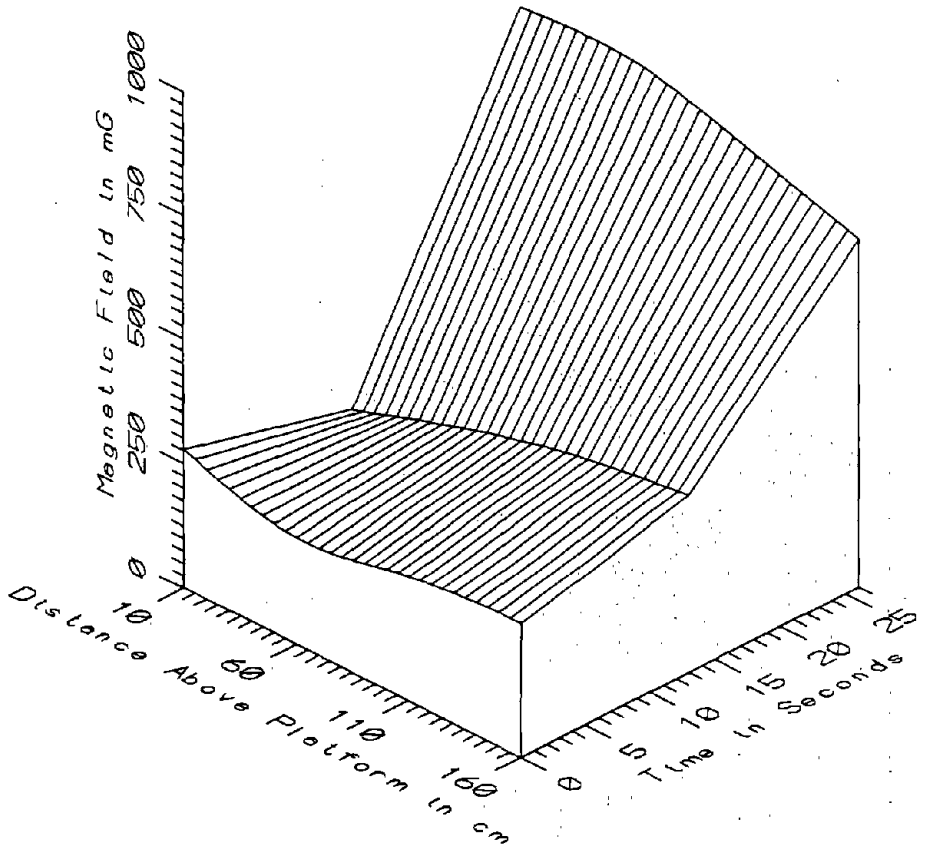
BOS024 - 160cm ABOVE PLATFORM AT DOWNTOWN CROSSING, RED LINE



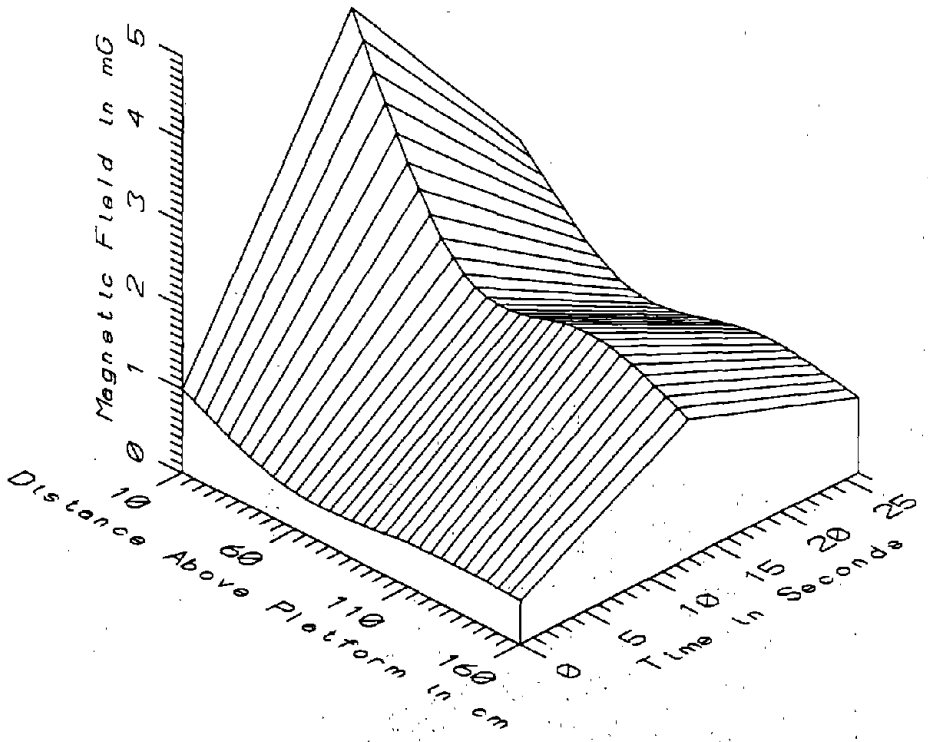
BOS024 - REFERENCE PROBE - ON DOWNTOWN CROSSING PLATFORM, RED LINE



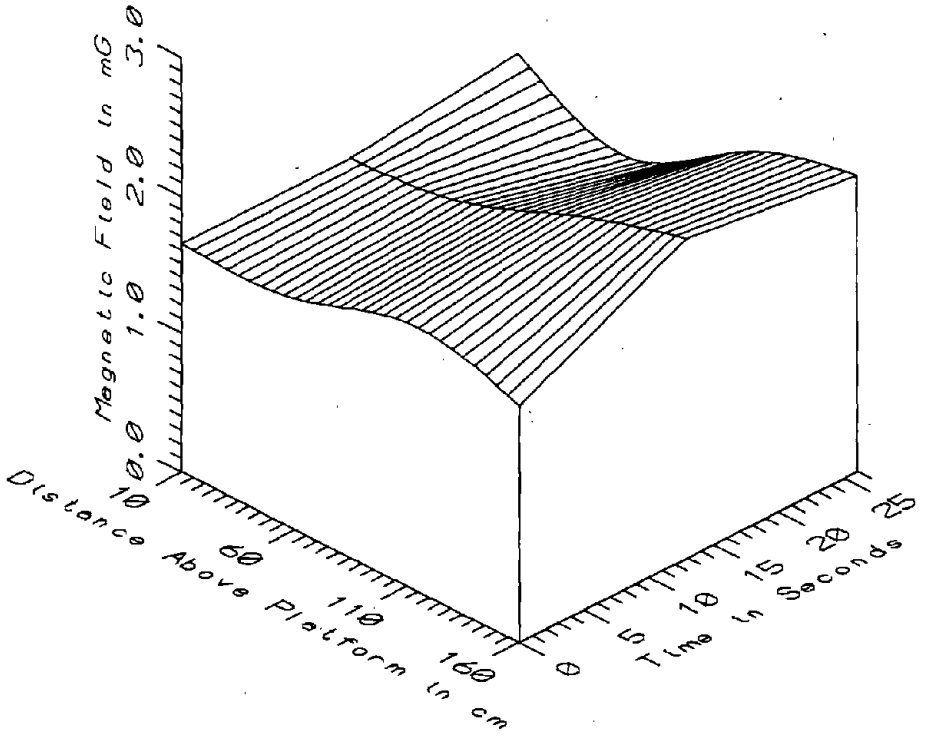
BOS024 - REFERENCE PROBE - ON DOWNTOWN CROSSING PLATFORM, RED LINE



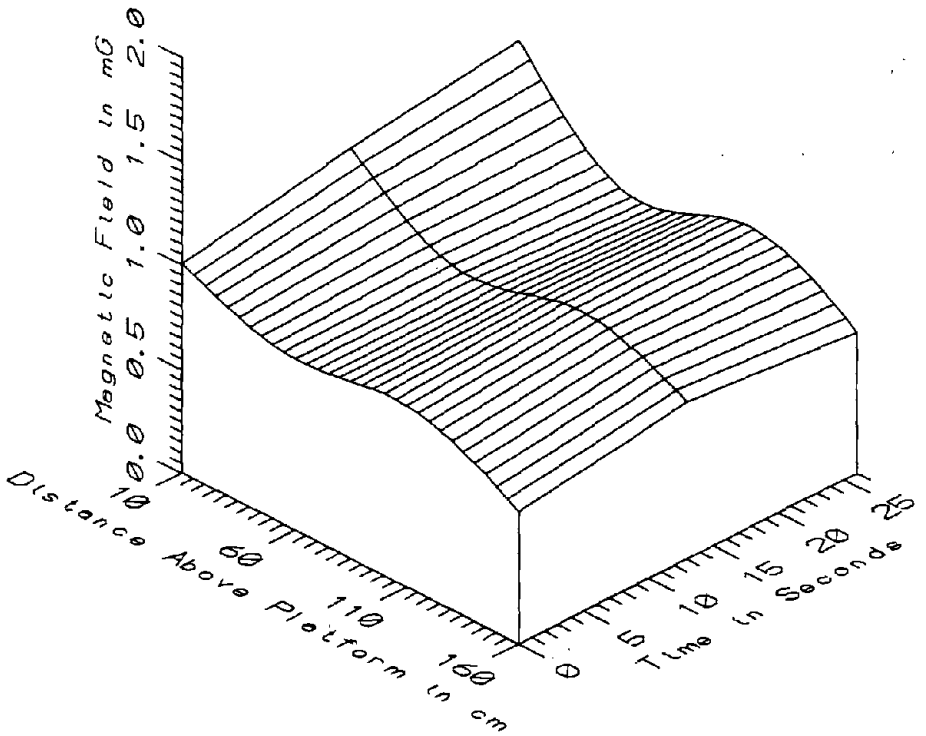
BOS024 - AT DOWNTOWN CROSSING, RED LINE - STATIC



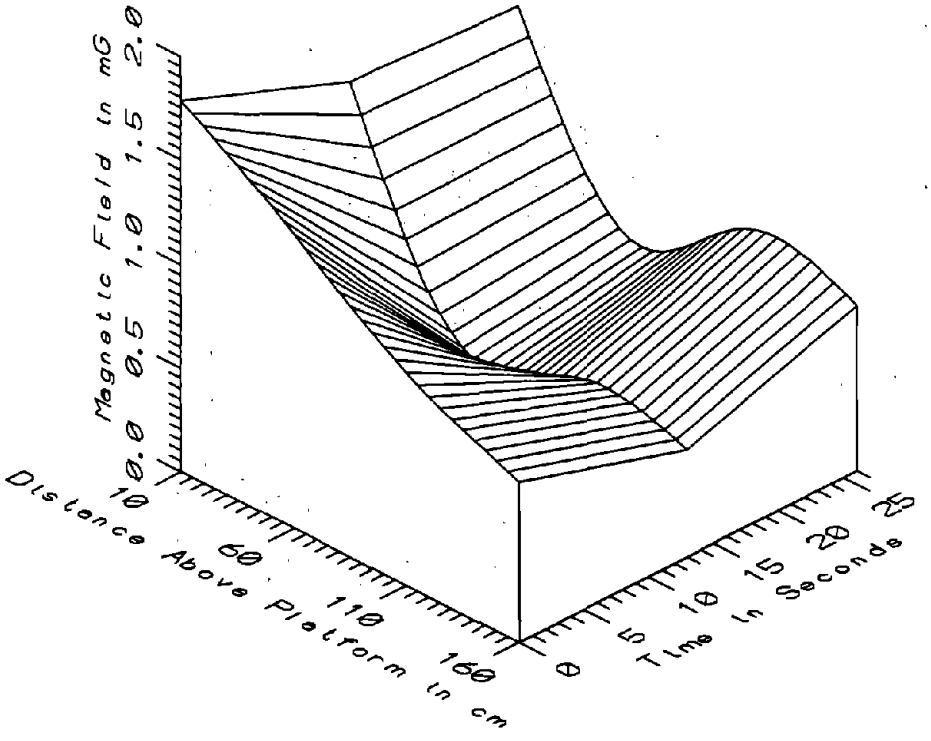
BOS024 - AT DOWNTOWN CROSSING, RED LINE - LOW FREQ, 5-45Hz



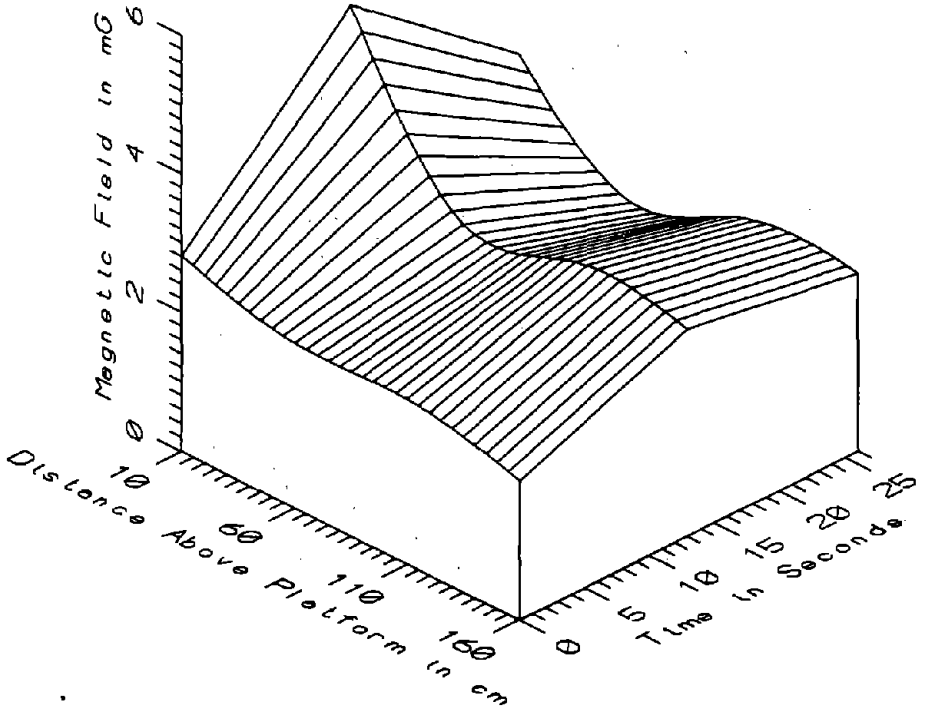
BOS024 - AT DOWNTOWN CROSSING, RED LINE - POWER FREQ, 50-60Hz



BOS024 - AT DOWNTOWN CROSSING, RED LINE - POWER HARM, 65-300Hz

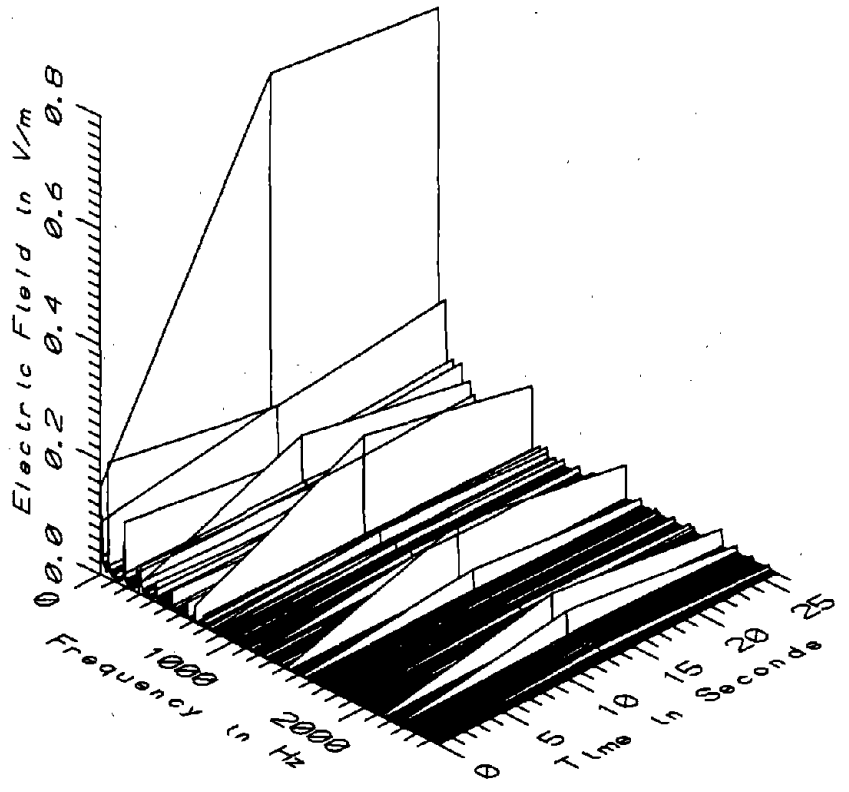


BOS024 - AT DOWNTOWN CROSSING, RED LINE - HIGH FREQ, 305-2560Hz



BOS024 - AT DOWNTOWN CROSSING, RED LINE - ALL FREQ, 5-2560Hz

BOS024 - ON DOWNTOWN CROSSING PLATFORM, RED LINE				TOTAL OF 3 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	185.02	826.66	430.04	346.64	80.61
	60	216.20	833.00	436.96	343.73	78.66
	110	251.99	775.47	449.84	284.17	63.17
	160	270.52	698.99	442.13	226.60	51.25
5-45Hz LOW FREQ	10	0.99	4.58	2.51	1.85	73.82
	60	0.44	2.05	1.11	0.84	75.34
	110	0.52	2.08	1.22	0.79	65.30
	160	0.52	1.66	1.03	0.58	56.76
50-60Hz PWR FREQ	10	1.65	1.80	1.71	0.08	4.88
	60	1.46	1.76	1.62	0.15	9.23
	110	1.89	2.06	1.96	0.09	4.67
	160	1.70	2.30	2.05	0.31	15.36
65-300Hz PWR HARM	10	1.01	1.27	1.15	0.13	11.54
	60	0.79	0.83	0.82	0.02	2.73
	110	0.88	0.93	0.91	0.03	3.64
	160	0.63	0.76	0.69	0.06	9.29
305-2560Hz HIGH FREQ	10	1.43	1.79	1.56	0.20	12.62
	60	0.46	1.42	0.82	0.52	63.86
	110	0.59	1.02	0.84	0.22	26.27
	160	0.51	0.80	0.69	0.16	22.72
5-2560Hz ALL FREQ	10	2.81	5.22	3.77	1.28	33.85
	60	1.95	2.86	2.39	0.46	19.13
	110	2.38	3.13	2.68	0.40	14.77
	160	2.03	2.98	2.53	0.48	18.83



BOS024 - ELECTRIC FIELD AT DOWNTOWN CROSSING, RED LINE

APPENDIX Z

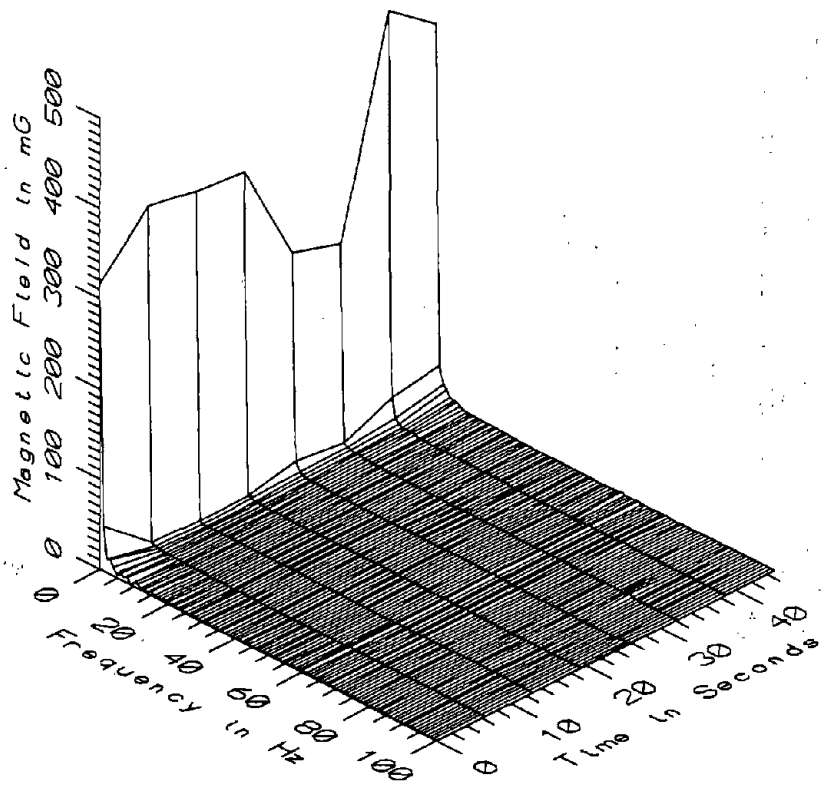
DATASET BOS025
ON DOWNTOWN CROSSING PLATFORM, RED LINE

Measurement Setup Code:	Staff: 32 Reference: 33 Drawing: A-4
Vehicle Status:	NA
Measurement Date:	June 10, 1992
Measurement Time:	Start: 14:10:21 End: 14:11:06
Number of Samples:	8
Programmed Sample Interval:	5 sec
Actual Sample Interval:	5.4 sec

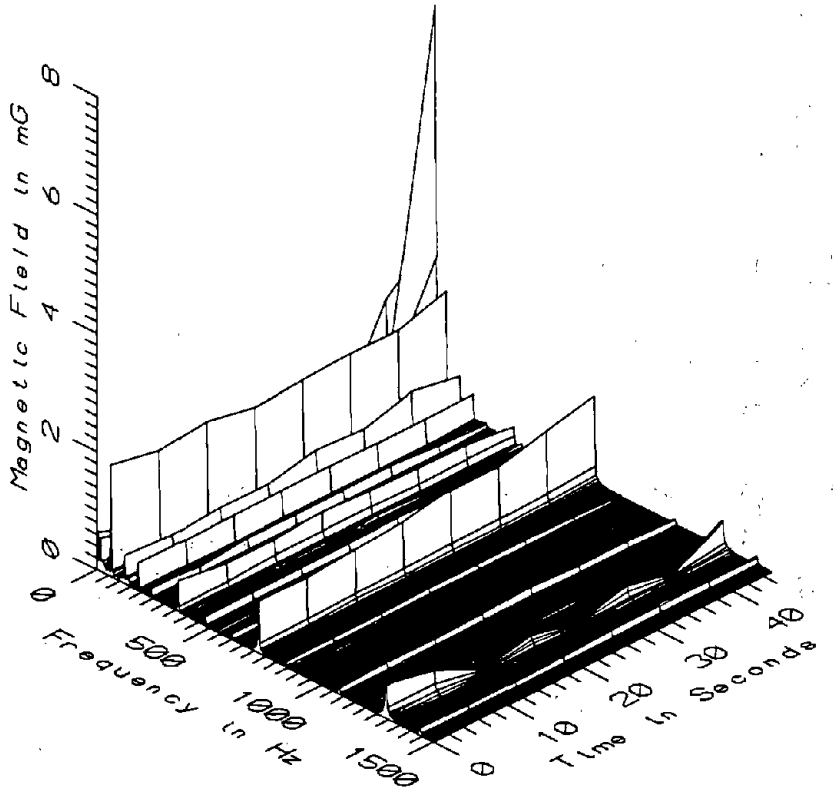
Frequency Spectrum Parameters

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

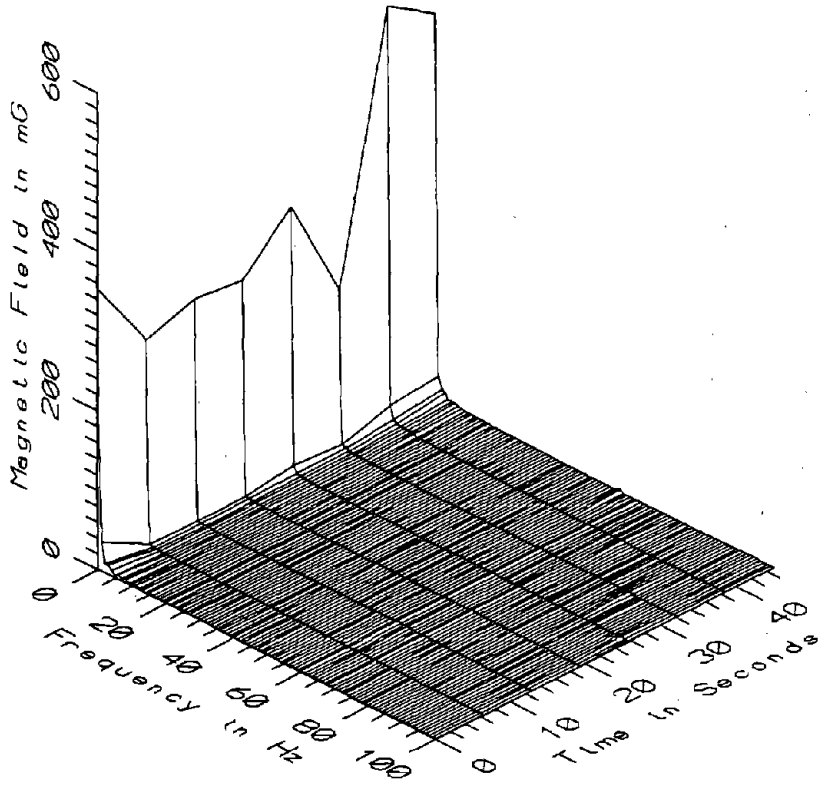
Missing Data: None



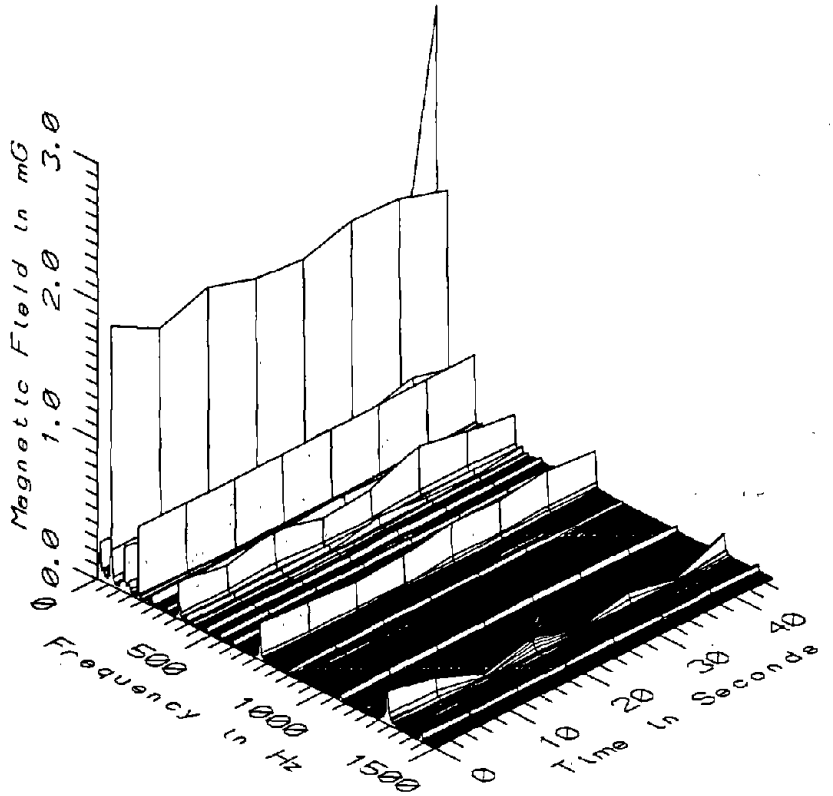
BOS025 - 10cm ABOVE PLATFORM AT DOWNTOWN CROSSING, RED LINE



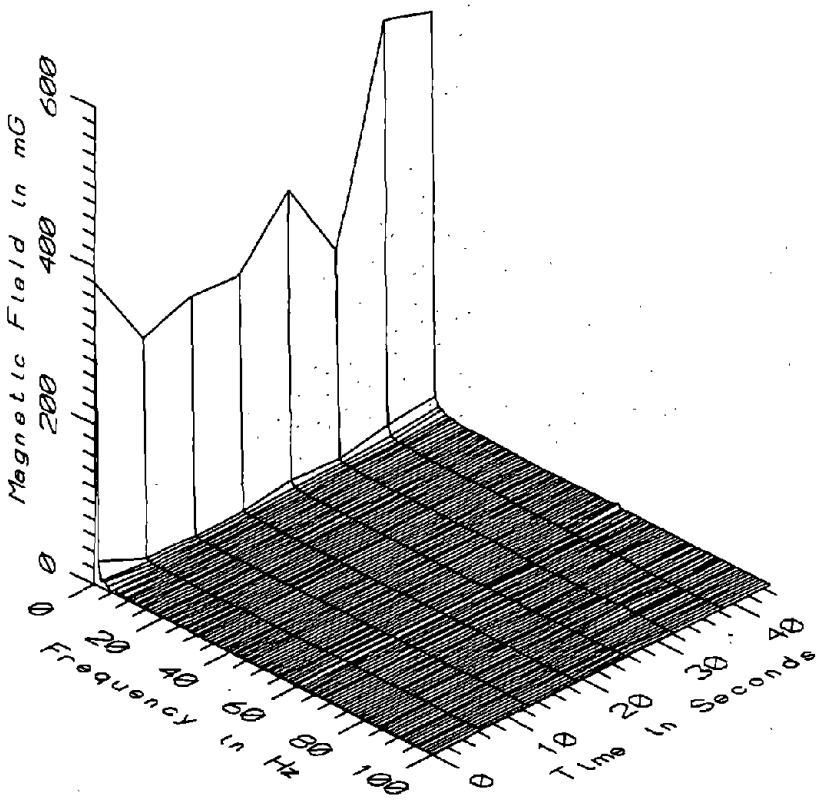
BOS025 - 10cm ABOVE PLATFORM AT DOWNTOWN CROSSING, RED LINE



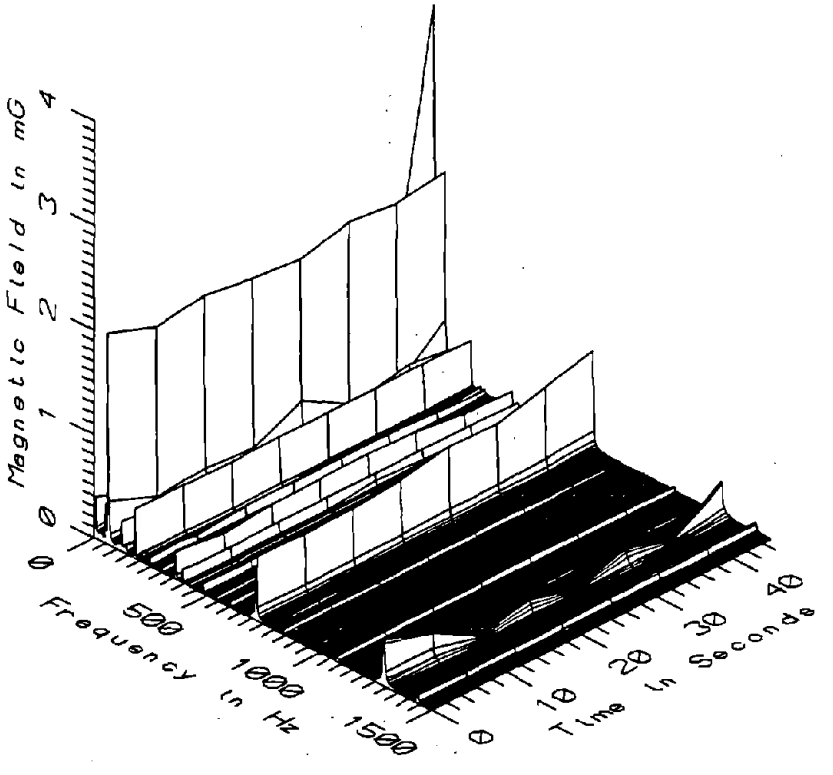
BOS025 - 60cm ABOVE PLATFORM AT DOWNTOWN CROSSING, RED LINE



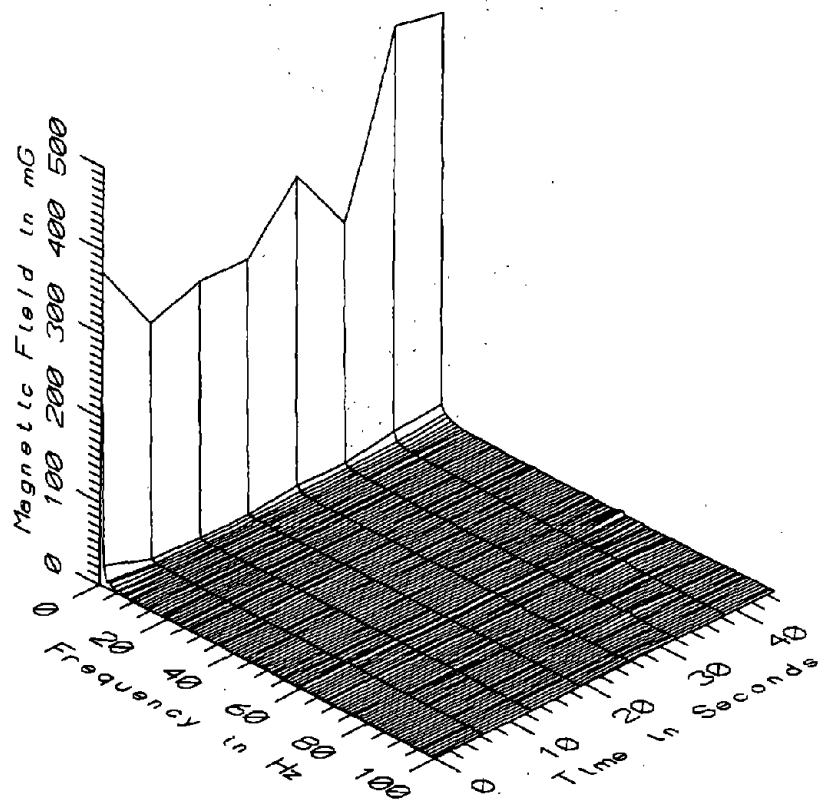
BOS025 - 60cm ABOVE PLATFORM AT DOWNTOWN CROSSING, RED LINE



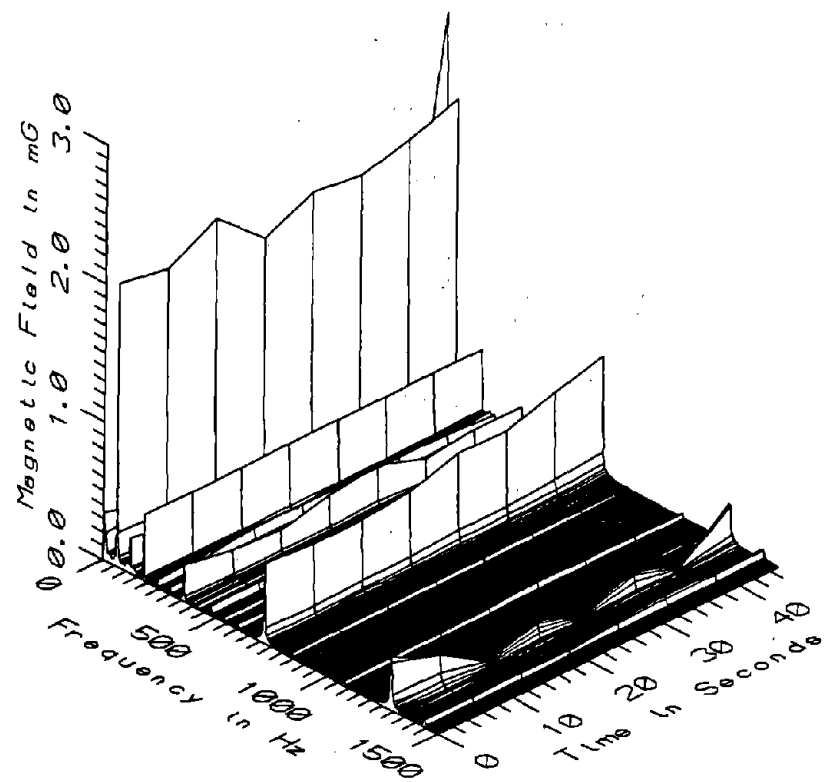
BOS025 - 110cm ABOVE PLATFORM AT DOWNTOWN CROSSING, RED LINE



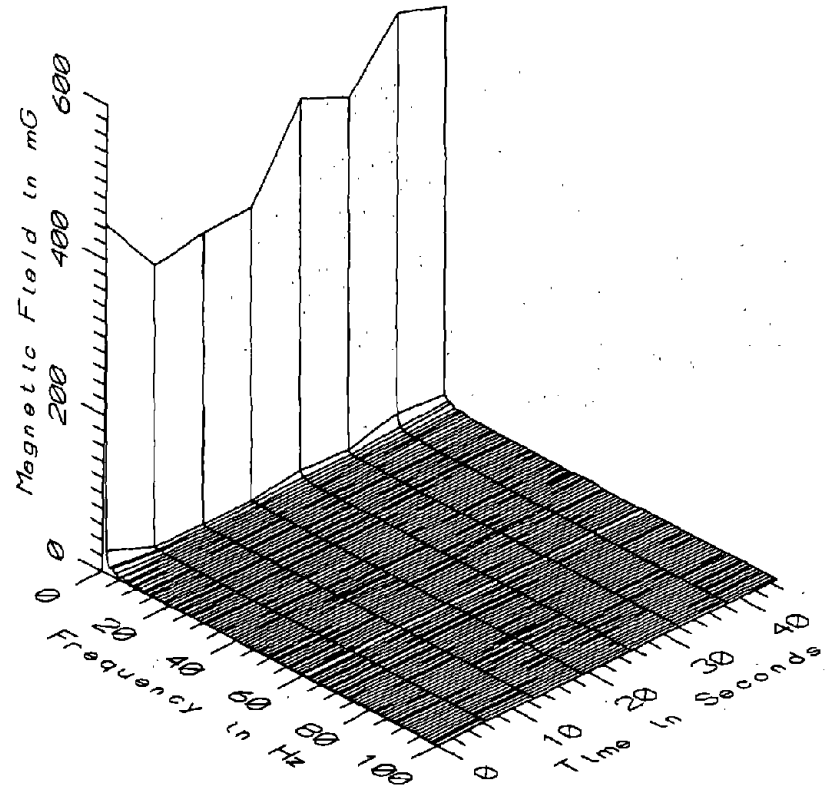
BOS025 - 110cm ABOVE PLATFORM AT DOWNTOWN CROSSING, RED LINE



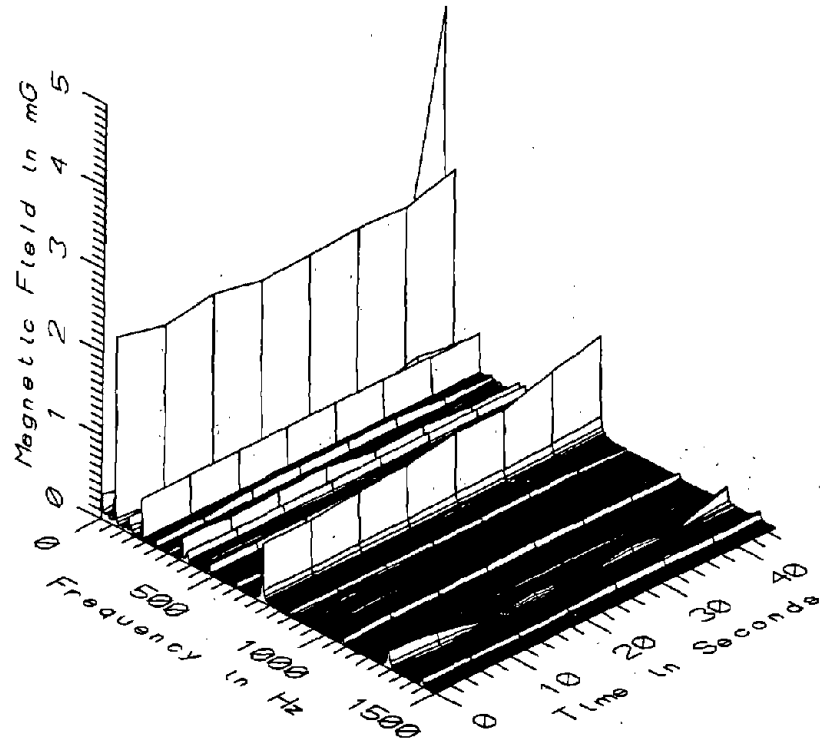
BOS025 - 160cm ABOVE PLATFORM AT DOWNTOWN CROSSING, RED LINE



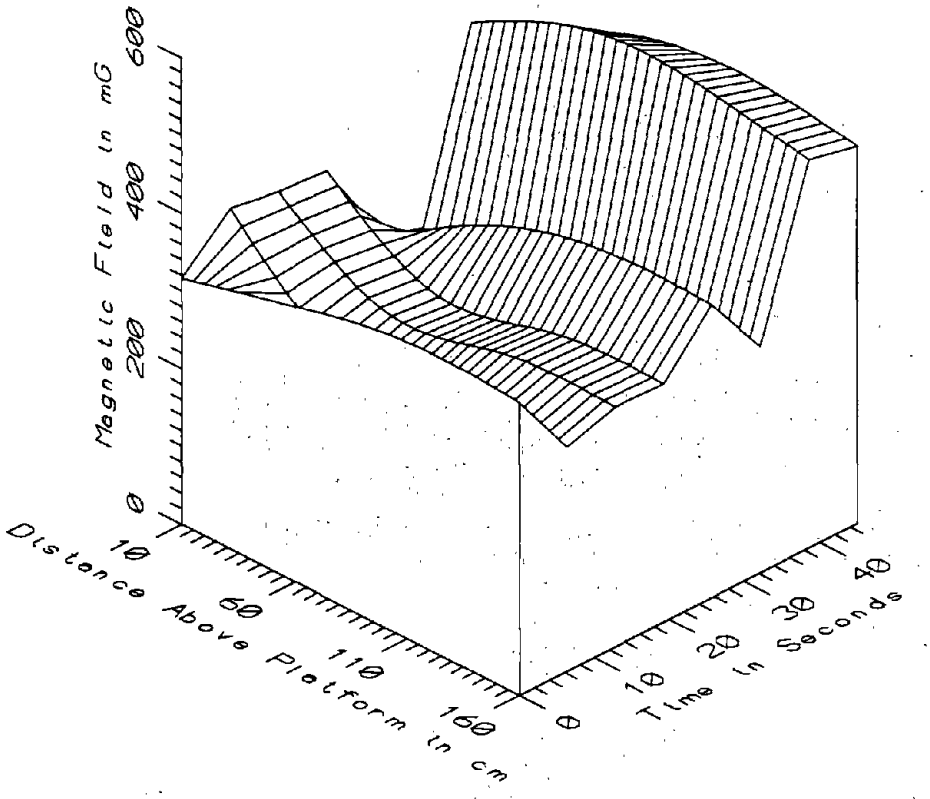
BOS025 - 160cm ABOVE PLATFORM AT DOWNTOWN CROSSING, RED LINE



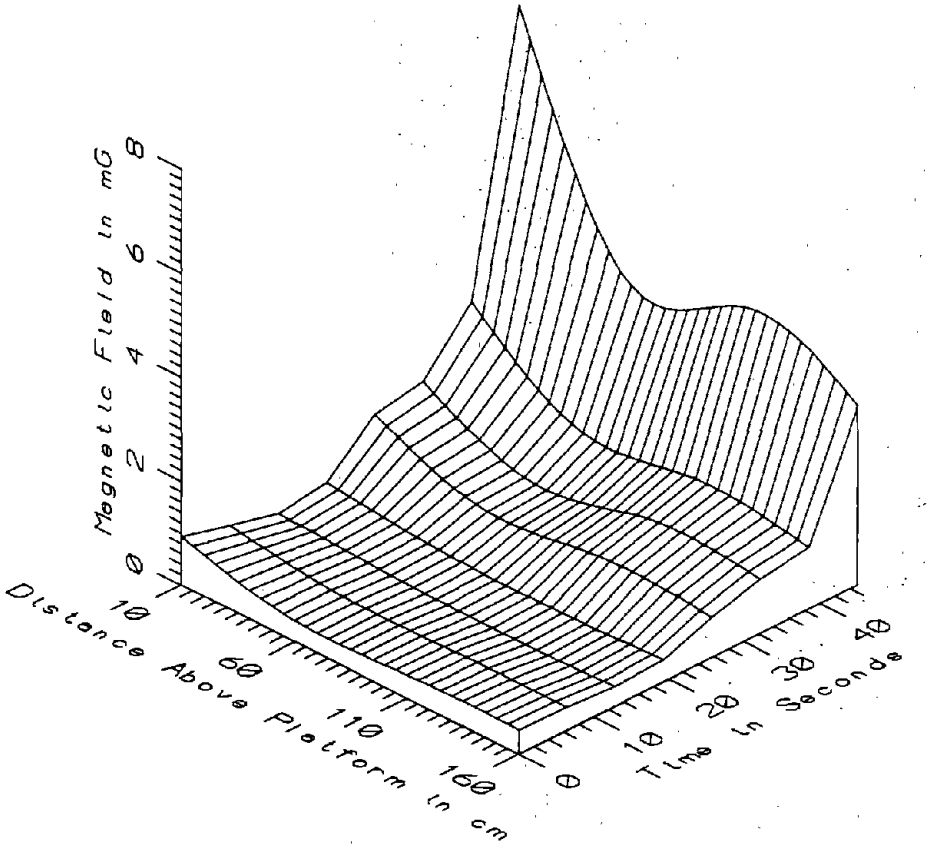
BOS025 - REFERENCE PROBE - ON DOWNTOWN CROSSING PLATFORM, RED LINE



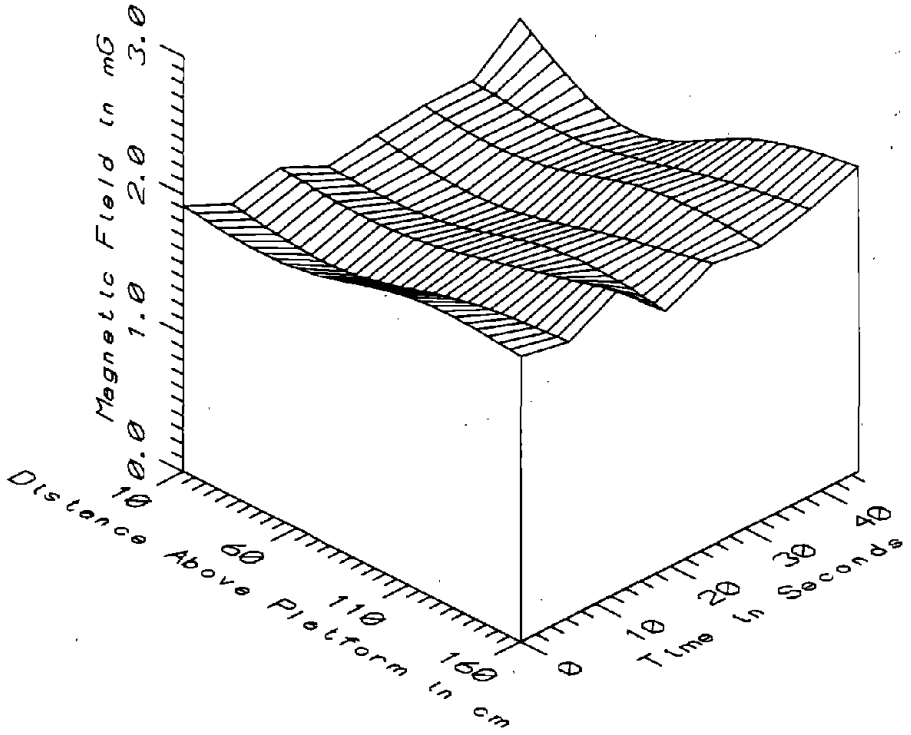
BOS025 - REFERENCE PROBE - ON DOWNTOWN CROSSING PLATFORM, RED LINE



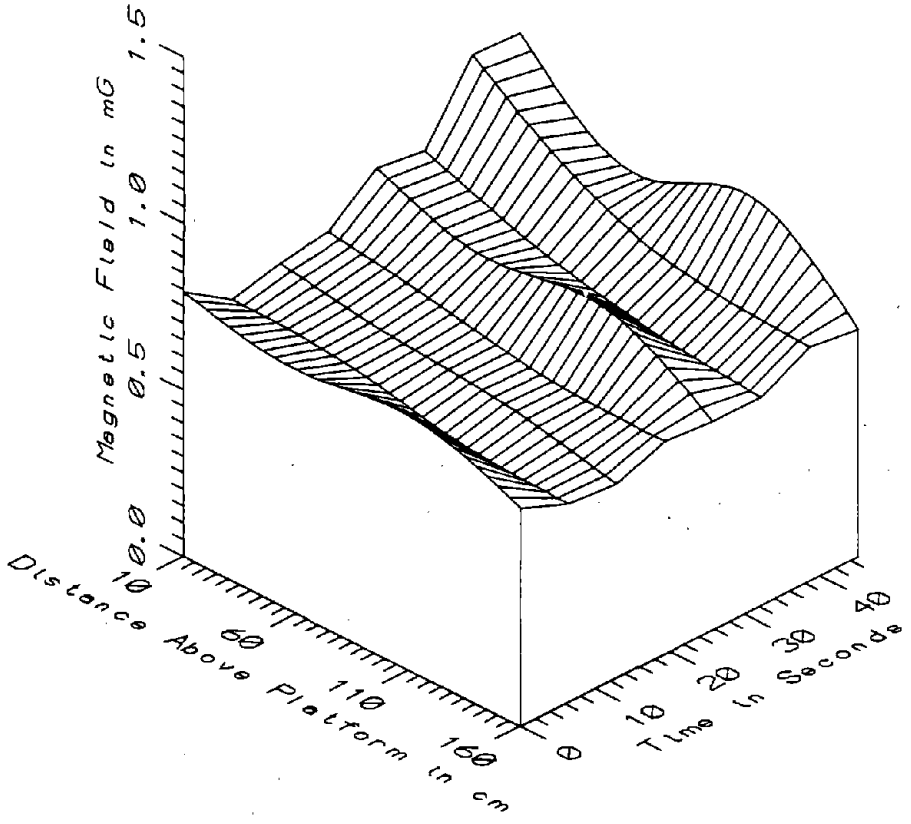
BOS025 - AT DOWNTOWN CROSSING, RED LINE - STATIC



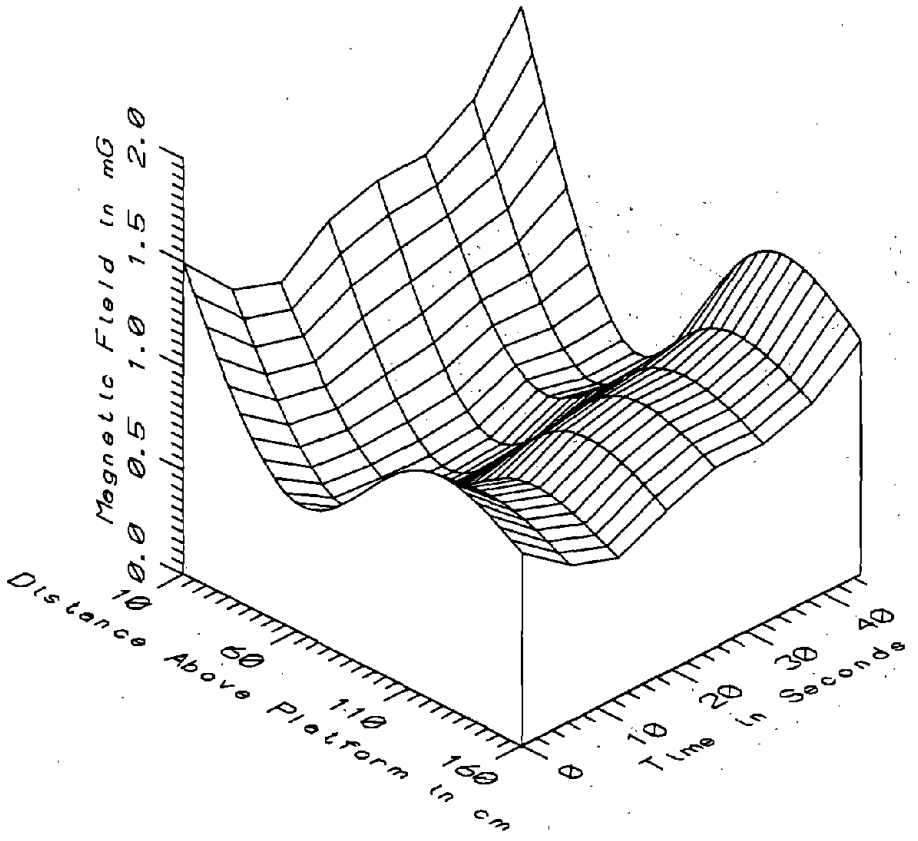
BOS025 - AT DOWNTOWN CROSSING, RED LINE - LOW FREQ, 5-45Hz



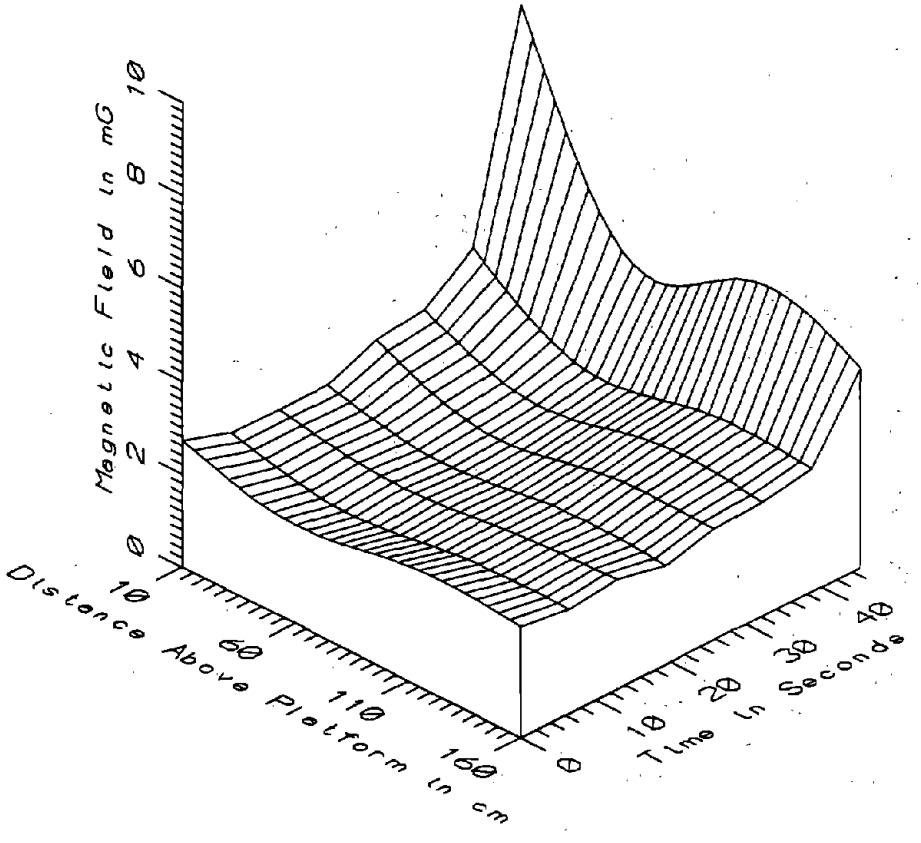
BOS025 - AT DOWNTOWN CROSSING, RED LINE - POWER FREQ, 50-60Hz



BOS025 - AT DOWNTOWN CROSSING, RED LINE - POWER HARM, 65-300Hz

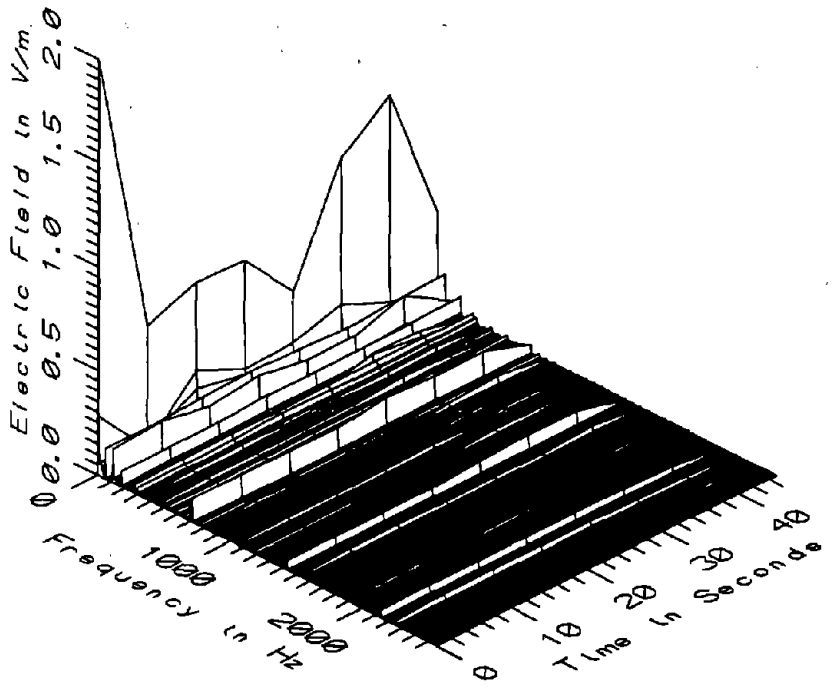


BOS025 - AT DOWNTOWN CROSSING, RED LINE - HIGH FREQ, 305-2560Hz



BOS025 - AT DOWNTOWN CROSSING, RED LINE - ALL FREQ, 5-2560Hz

BOS025 - ON DOWNTOWN CROSSING PLATFORM, RED LINE					TOTAL OF 8 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	226.82	459.09	345.72	80.09	23.17
	60	199.39	523.61	337.75	113.07	33.48
	110	267.42	525.77	366.20	100.75	27.51
	160	284.61	497.79	364.50	85.65	23.50
5-45Hz LOW FREQ	10	0.46	7.90	2.03	2.48	121.87
	60	0.35	3.58	0.96	1.10	114.37
	110	0.31	4.27	1.15	1.32	114.79
	160	0.39	3.46	1.03	1.03	100.50
50-60Hz PWR FREQ	10	1.68	2.04	1.81	0.12	6.39
	60	1.65	1.87	1.73	0.08	4.54
	110	1.84	2.08	1.95	0.08	3.86
	160	1.86	2.20	2.04	0.11	5.33
65-300Hz PWR HARM	10	0.70	1.07	0.86	0.14	16.67
	60	0.68	0.84	0.75	0.06	7.87
	110	0.62	0.92	0.73	0.10	14.12
	160	0.58	0.71	0.64	0.04	6.50
305-2560Hz HIGH FREQ	10	1.17	1.91	1.45	0.23	15.65
	60	0.44	0.61	0.51	0.06	12.08
	110	0.77	1.26	0.96	0.15	15.41
	160	0.67	1.13	0.86	0.14	16.43
5-2560Hz ALL FREQ	10	2.35	8.44	3.46	2.06	59.67
	60	1.92	4.06	2.31	0.72	31.12
	110	2.20	4.97	2.72	0.93	34.10
	160	2.16	4.31	2.63	0.69	26.36



BOS025 - ELECTRIC FIELD AT DOWNTOWN CROSSING, RED LINE

APPENDIX AA

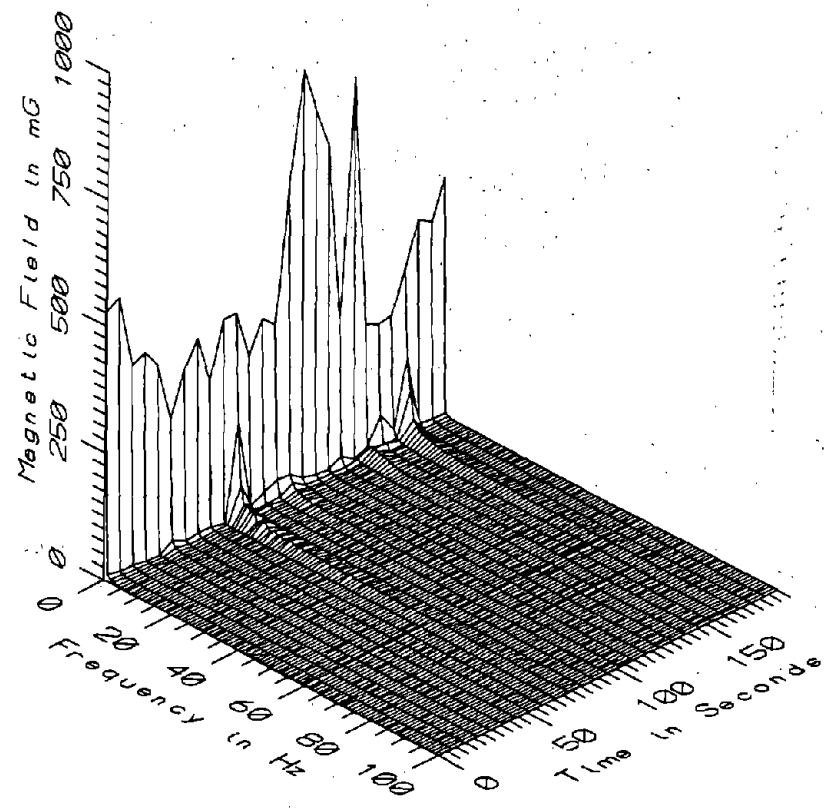
DATASET BOS026
ON DOWNTOWN CROSSING PLATFORM, RED LINE

Measurement Setup Code:	Staff: 34 Reference: 35 Drawing: A-4
Vehicle Status:	NA
Measurement Date:	June 10, 1992
Measurement Time:	Start: 14:19:25 End: 14:22:35
Number of Samples:	27
Programmed Sample Interval:	5 sec
Actual Sample Interval:	7.3 sec

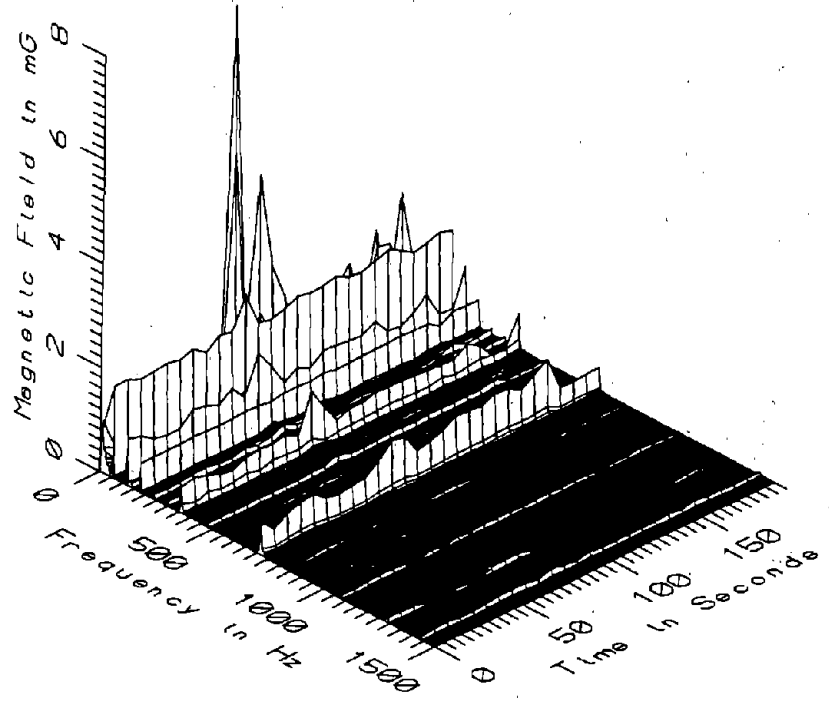
Frequency Spectrum Parameters

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

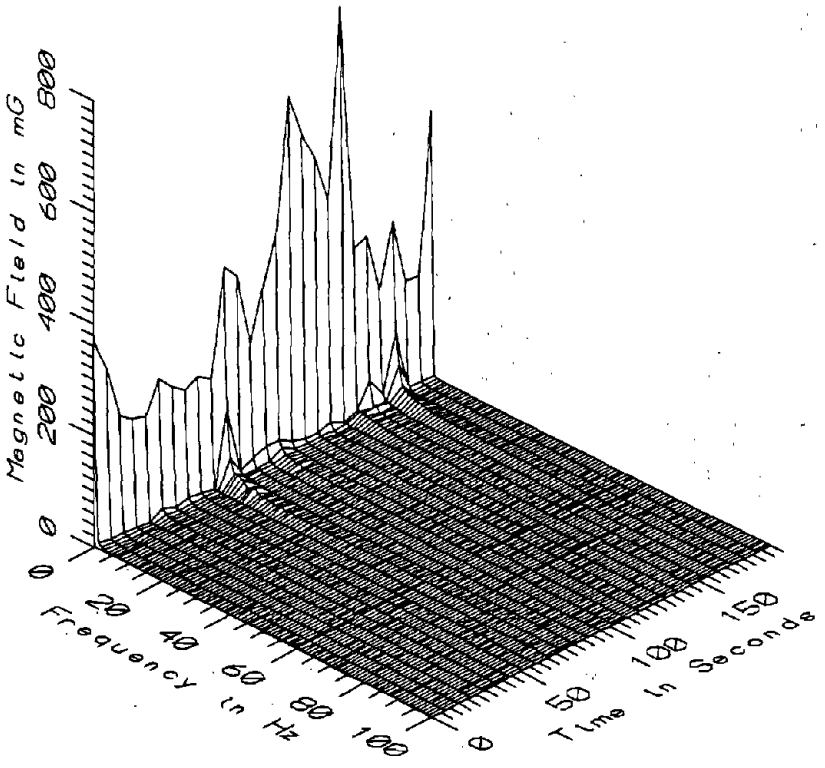
Missing Data: None



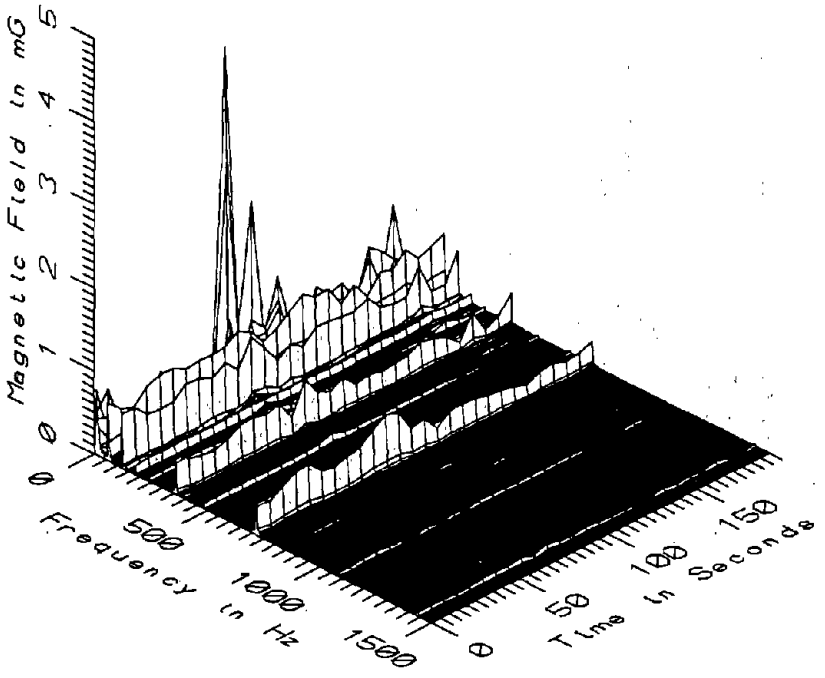
BOS026 - 10cm ABOVE PLATFORM AT DOWNTOWN CROSSING, RED LINE



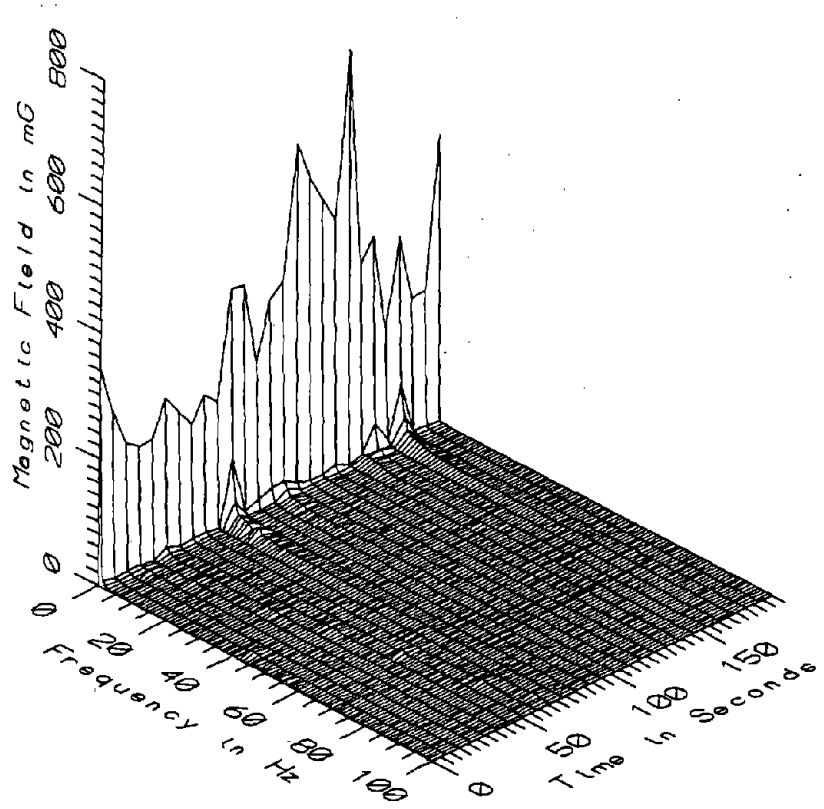
BOS026 - 10cm ABOVE PLATFORM AT DOWNTOWN CROSSING, RED LINE



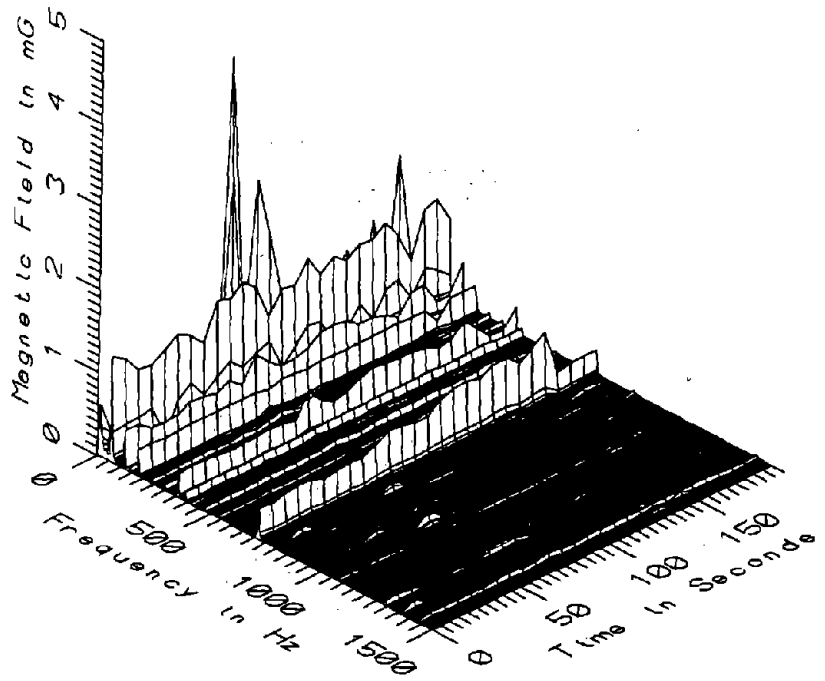
BOS026 - 60cm ABOVE PLATFORM AT DOWNTOWN CROSSING, RED LINE



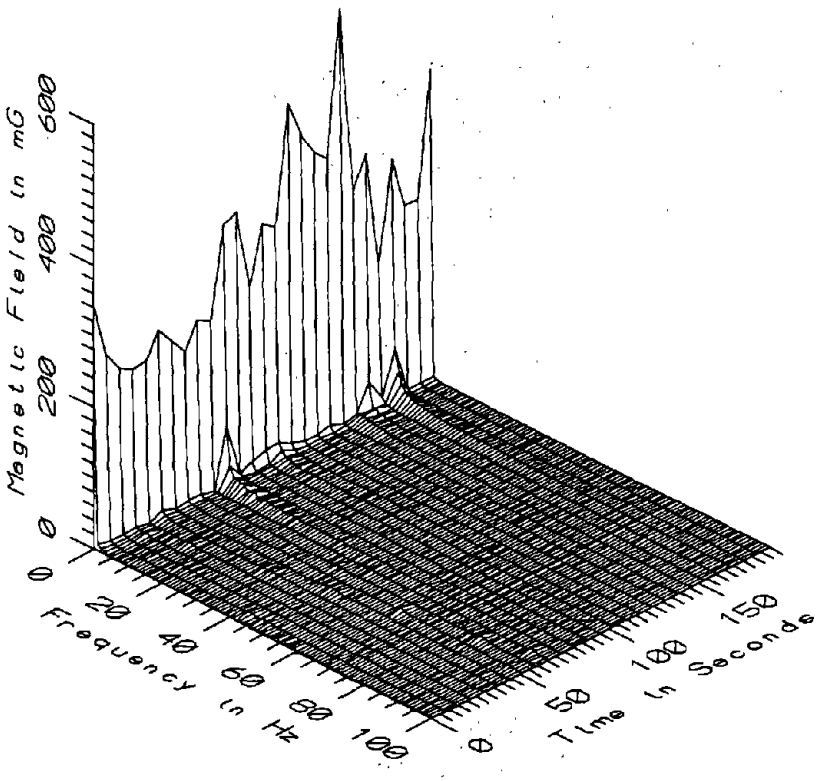
BOS026 - 60cm ABOVE PLATFORM AT DOWNTOWN CROSSING, RED LINE



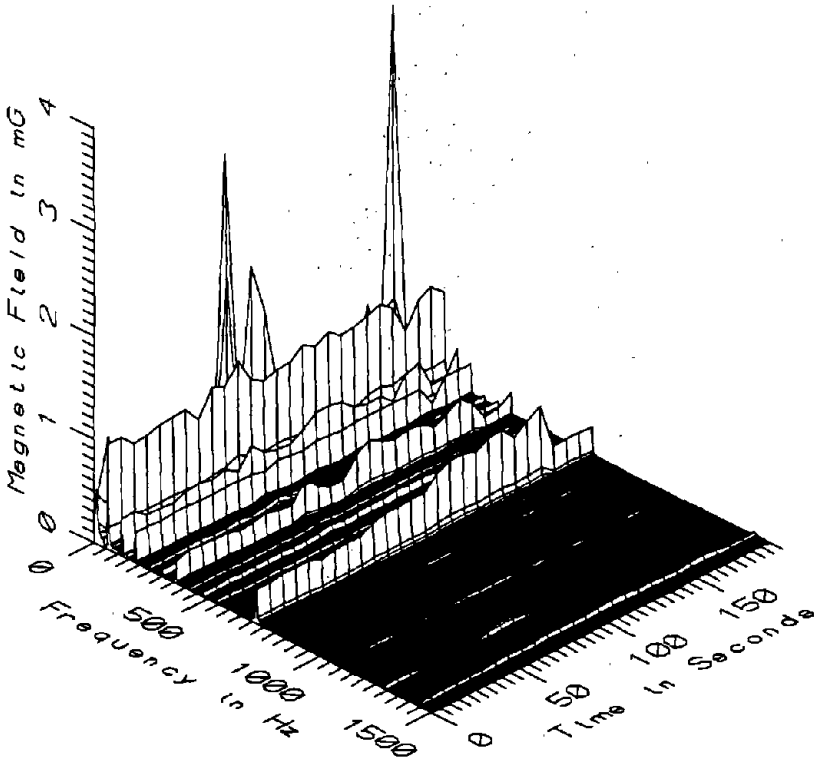
BOS026 - 110cm ABOVE PLATFORM AT DOWNTOWN CROSSING, RED LINE



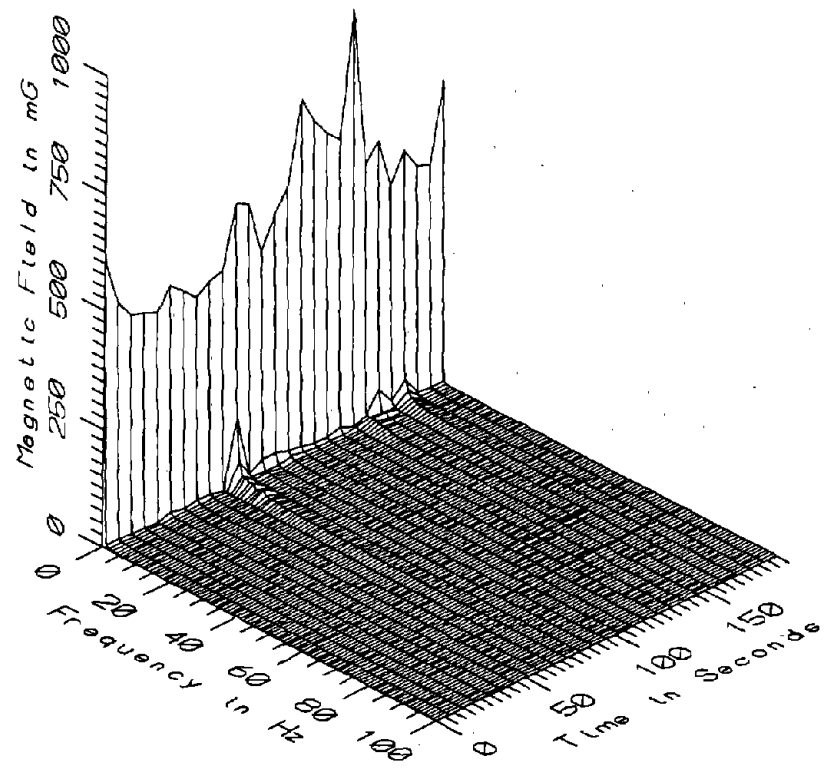
BOS026 - 110cm ABOVE PLATFORM AT DOWNTOWN CROSSING, RED LINE



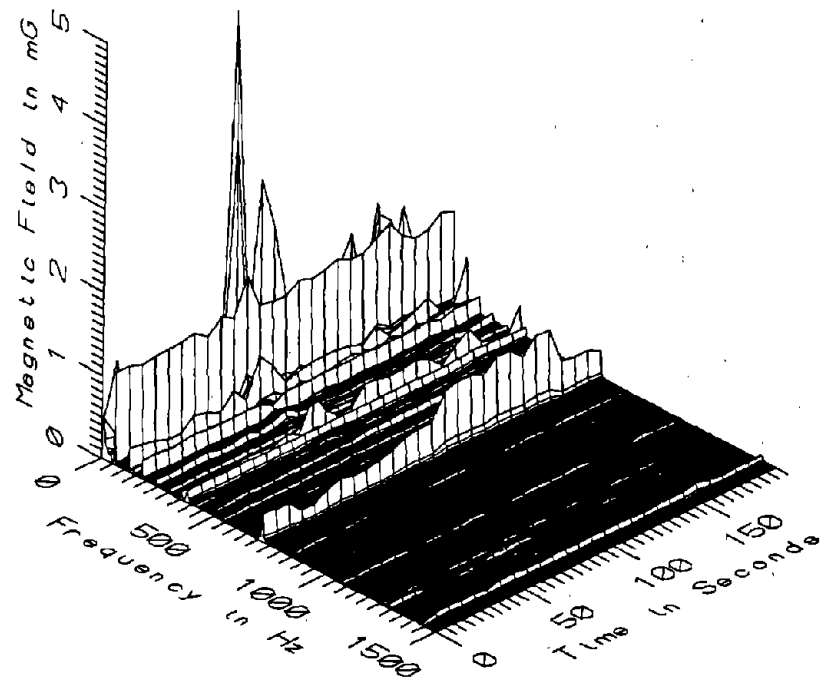
BOS026 - 160cm ABOVE PLATFORM AT DOWNTOWN CROSSING, RED LINE



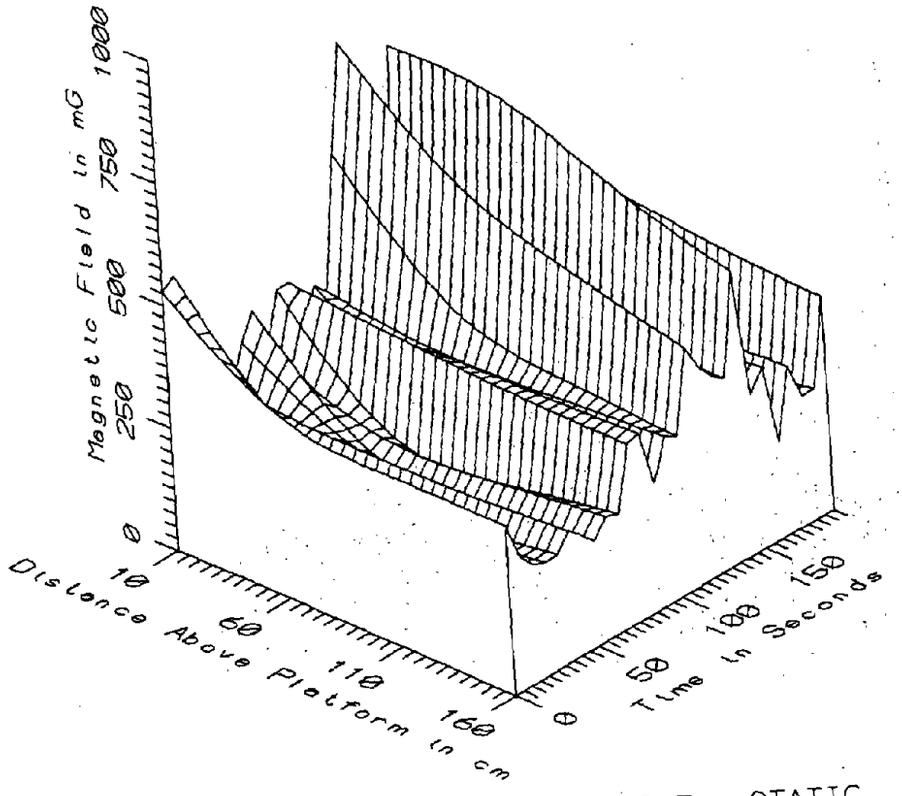
BOS026 - 160cm ABOVE PLATFORM AT DOWNTOWN CROSSING, RED LINE



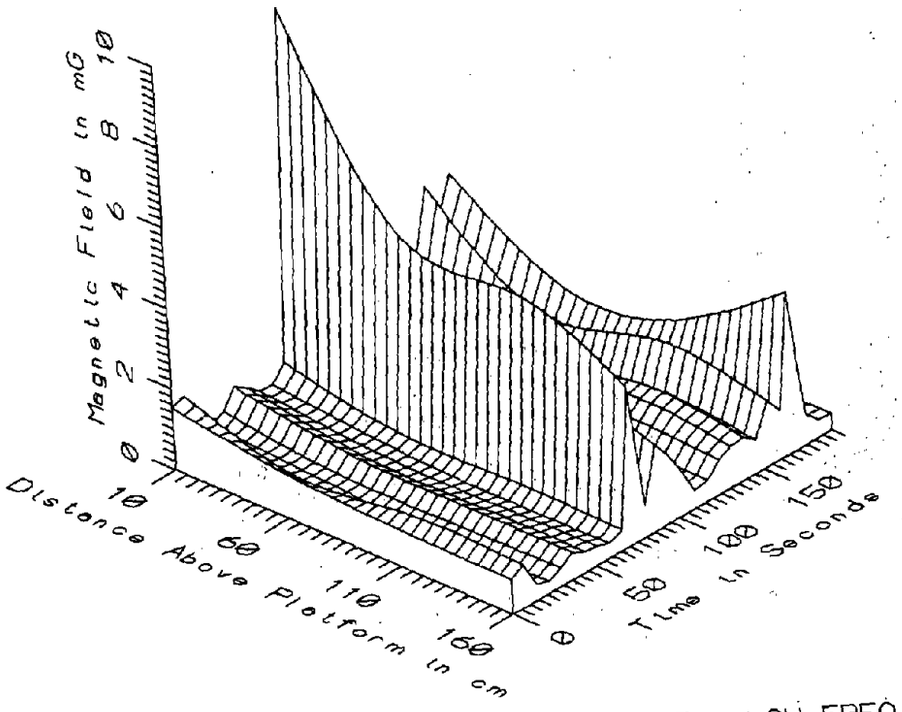
BOS026 - REFERENCE PROBE - ON DOWNTOWN CROSSING PLATFORM, RED LINE



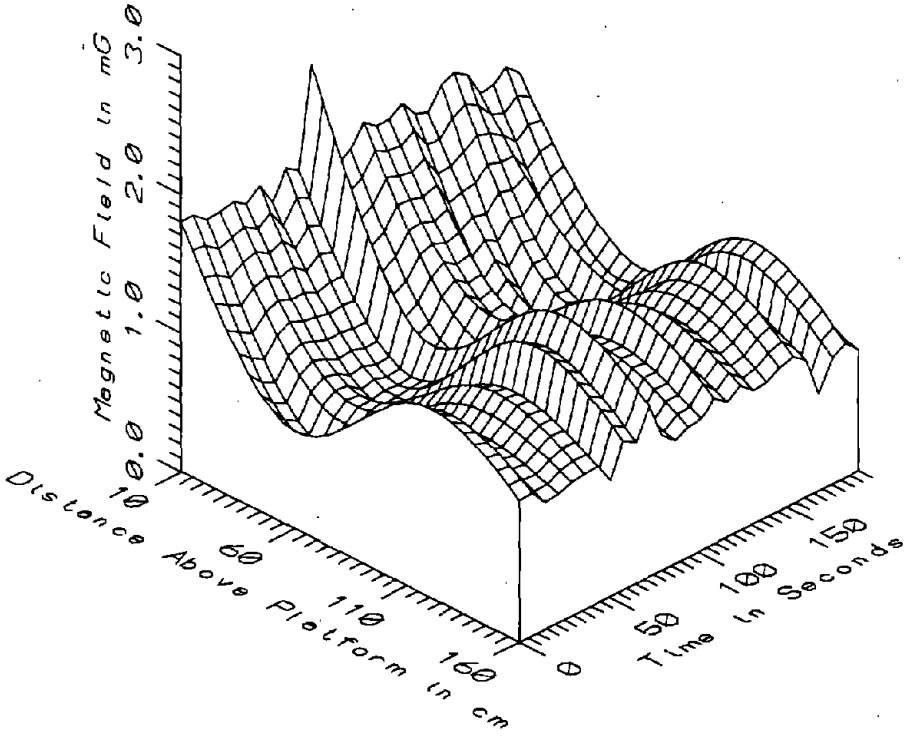
BOS026 - REFERENCE PROBE - ON DOWNTOWN CROSSING PLATFORM, RED LINE



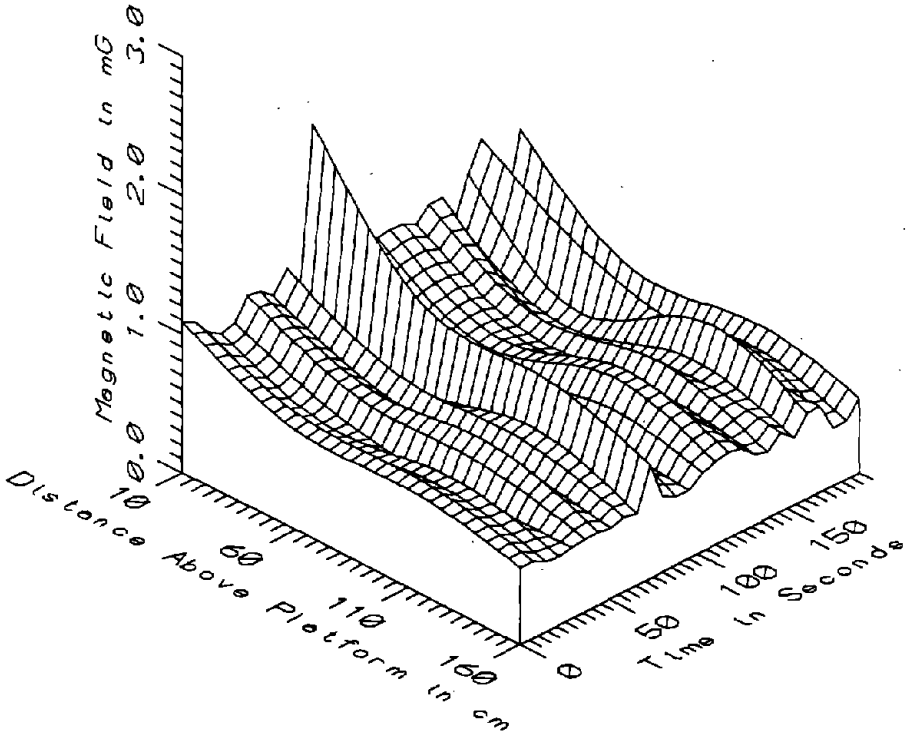
BOS026 - AT DOWNTOWN CROSSING, RED LINE - STATIC



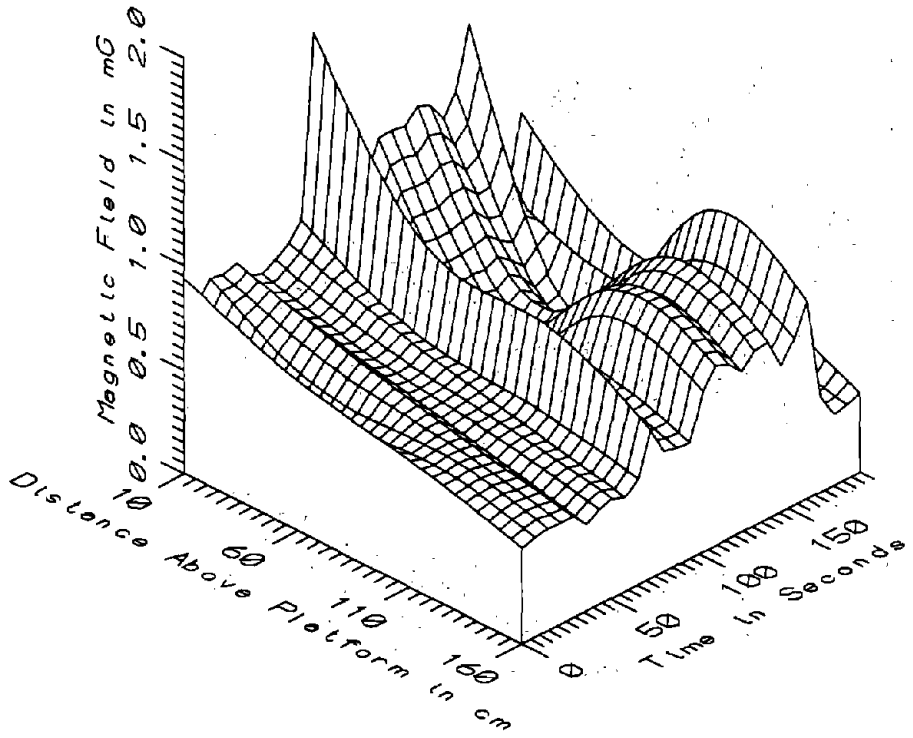
BOS026 - AT DOWNTOWN CROSSING, RED LINE - LOW FREQ. 5-45Hz



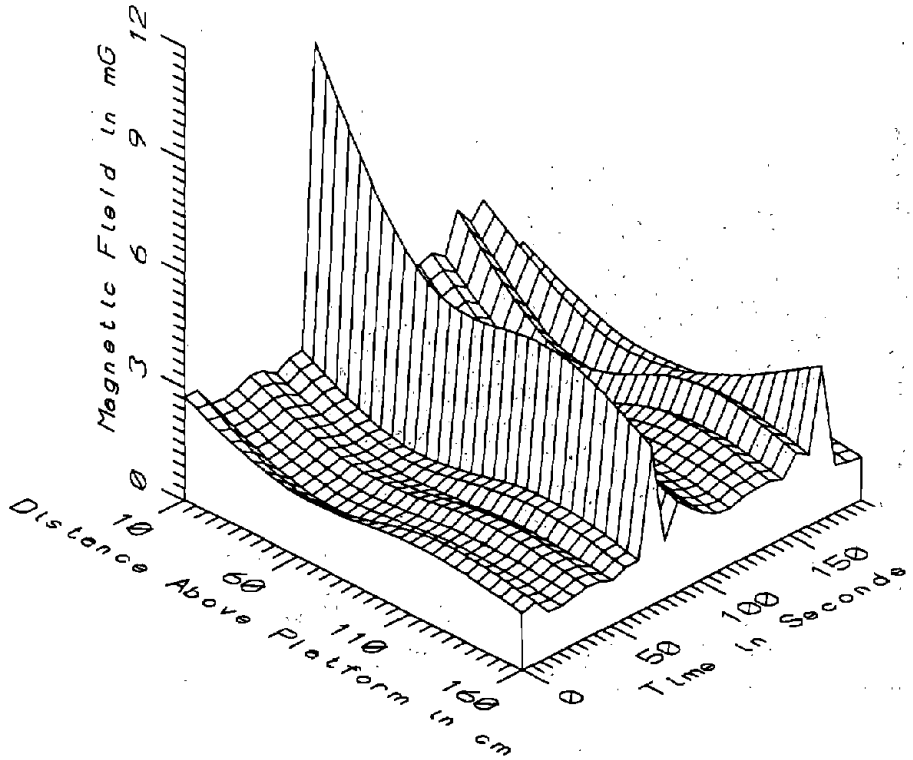
BOS026 - AT DOWNTOWN CROSSING, RED LINE - POWER FREQ, 50-60Hz



BOS026 - AT DOWNTOWN CROSSING, RED LINE - POWER HARM, 65-300Hz

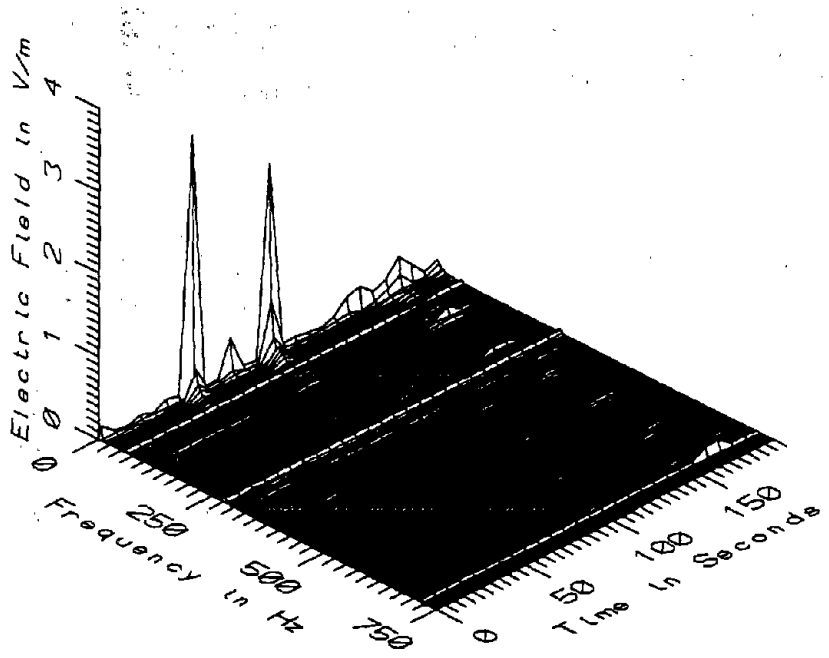


BOS026 - AT DOWNTOWN CROSSING, RED LINE - HIGH FREQ, 305-2560Hz



BOS026 - AT DOWNTOWN CROSSING, RED LINE - ALL FREQ, 5-2560Hz

BOS026 - ON DOWNTOWN CROSSING PLATFORM, RED LINE					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	242.12	819.99	426.90	161.54	37.84
	60	187.94	745.82	327.80	147.95	45.13
	110	184.02	658.57	313.37	122.97	39.24
	160	197.53	587.76	320.10	94.85	29.63
5-45Hz LOW FREQ	10	0.56	9.73	1.96	1.86	94.75
	60	0.40	5.25	0.98	0.96	97.88
	110	0.23	5.05	1.10	1.00	91.12
	160	0.30	3.95	1.04	0.94	89.67
50-60Hz PWR FREQ	10	1.61	2.46	1.77	0.16	8.80
	60	0.47	0.88	0.65	0.10	15.43
	110	0.81	1.50	1.18	0.16	13.38
	160	0.70	1.23	0.97	0.09	9.73
65-300Hz PWR HARM	10	0.76	2.04	1.03	0.24	23.52
	60	0.36	1.13	0.62	0.15	24.40
	110	0.50	1.06	0.71	0.11	15.66
	160	0.42	0.81	0.54	0.08	14.29
305-2560Hz HIGH FREQ	10	0.55	1.80	0.98	0.27	27.49
	60	0.28	1.05	0.55	0.18	32.18
	110	0.43	1.09	0.71	0.19	26.59
	160	0.35	0.95	0.59	0.18	30.57
5-2560Hz ALL FREQ	10	2.10	10.40	3.16	1.61	50.96
	60	0.89	5.54	1.52	0.87	57.18
	110	1.33	5.46	2.01	0.79	39.53
	160	1.17	4.21	1.73	0.76	44.09



BOS026 - ELECTRIC FIELD AT DOWNTOWN CROSSING, RED LINE

APPENDIX AB

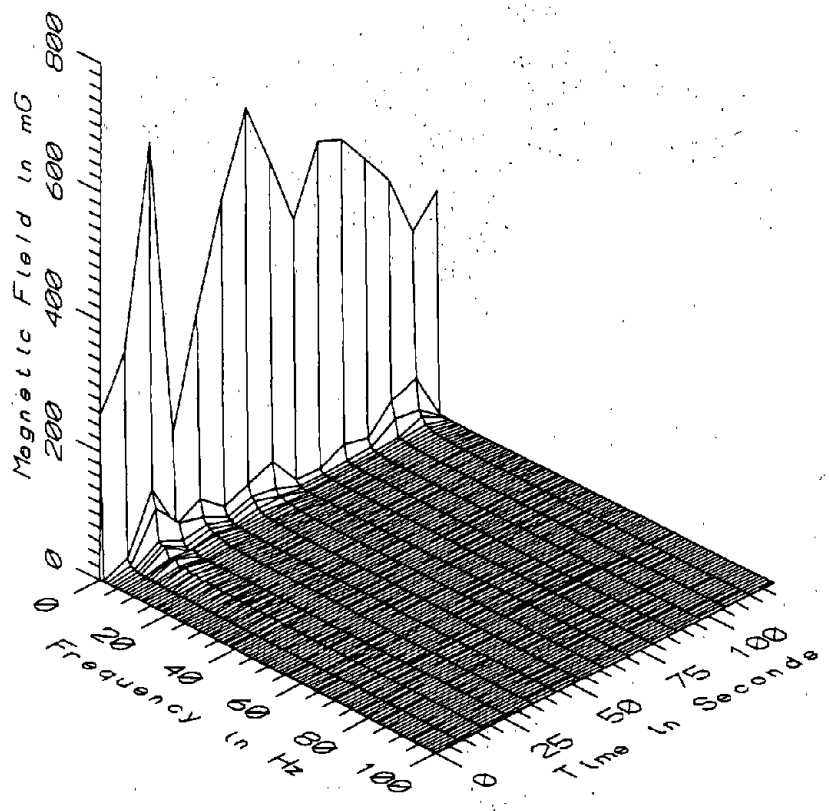
DATASET BOS027
IN FRONT OF OPERATOR'S SEAT, RED LINE CAR

Measurement Setup Code:	Staff: 6 Reference: 7 Drawing: A-1
Vehicle Status:	Travelling between Andrew and JFK/UMass stations
Measurement Date:	June 10, 1992
Measurement Time:	Start: 14:42:43 End: 14:44:47
Number of Samples:	15
Programmed Sample Interval:	5 sec
Actual Sample Interval:	8.9 sec

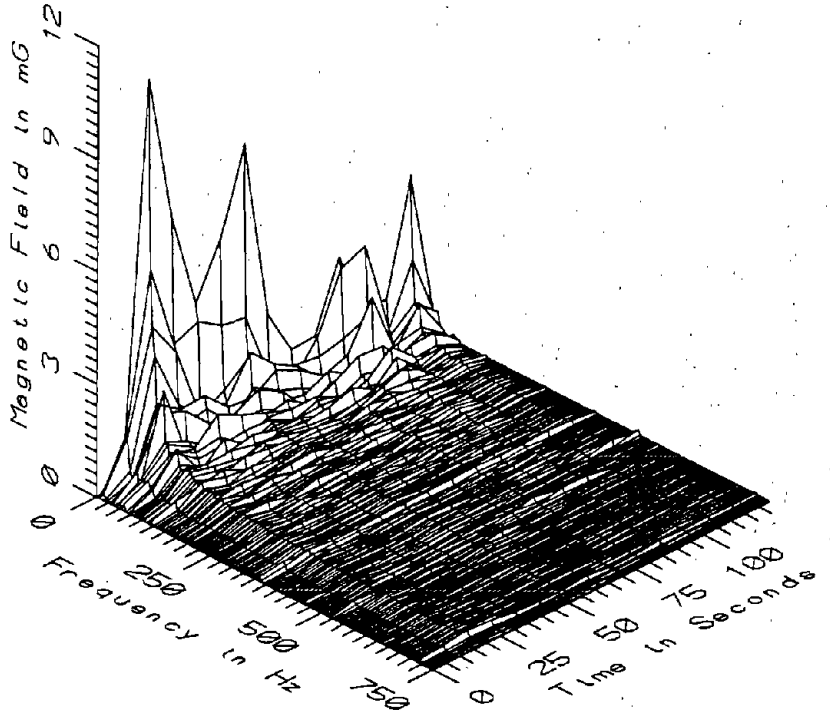
Frequency Spectrum Parameters

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

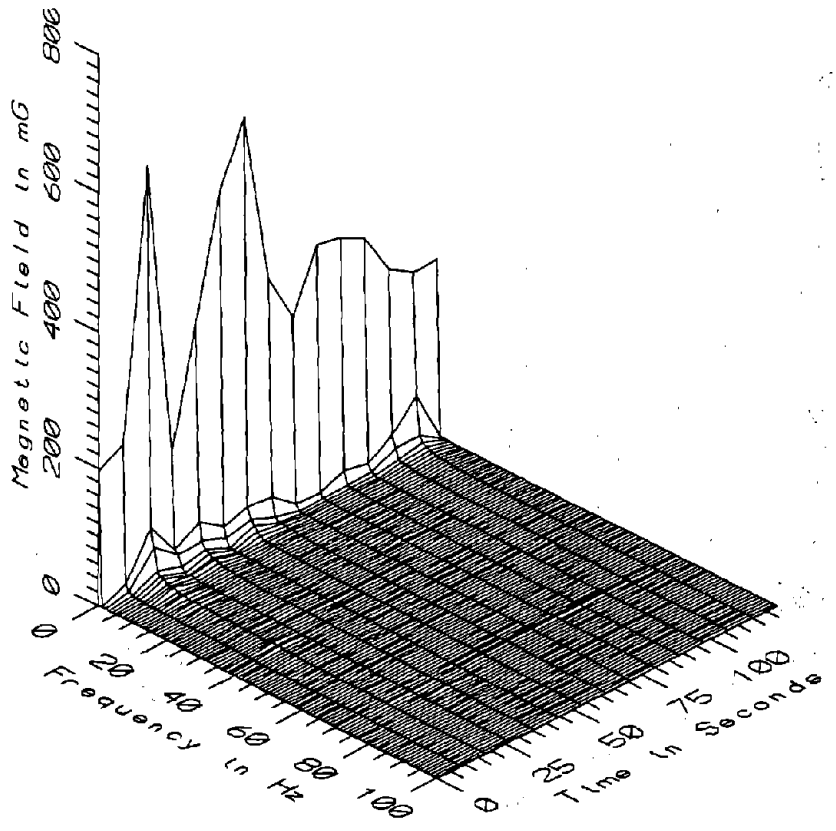
Missing Data: None



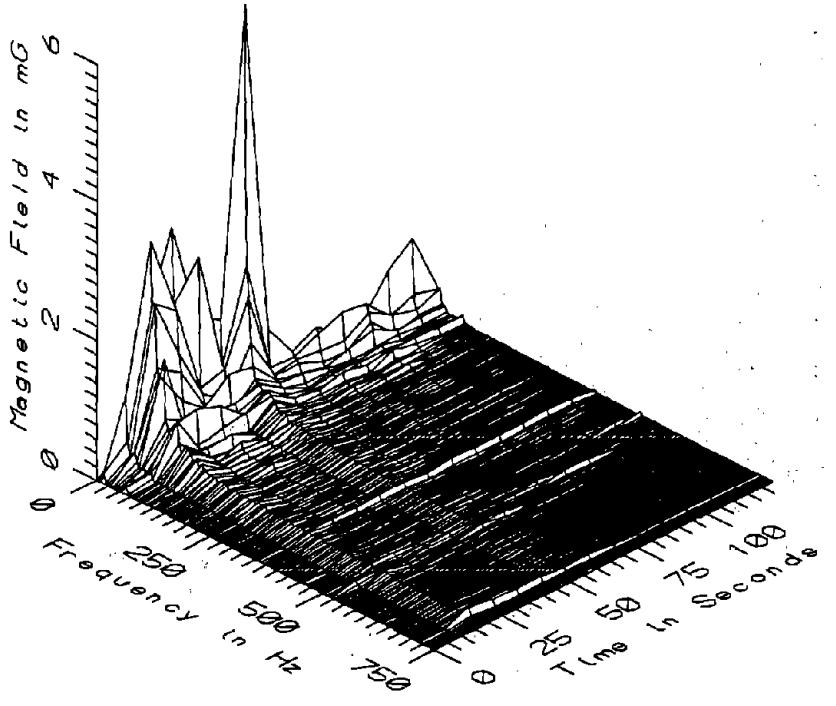
BOS027 - 10cm ABOVE FLOOR, IN FRONT OF OPERATOR'S SEAT, RED LINE CAR



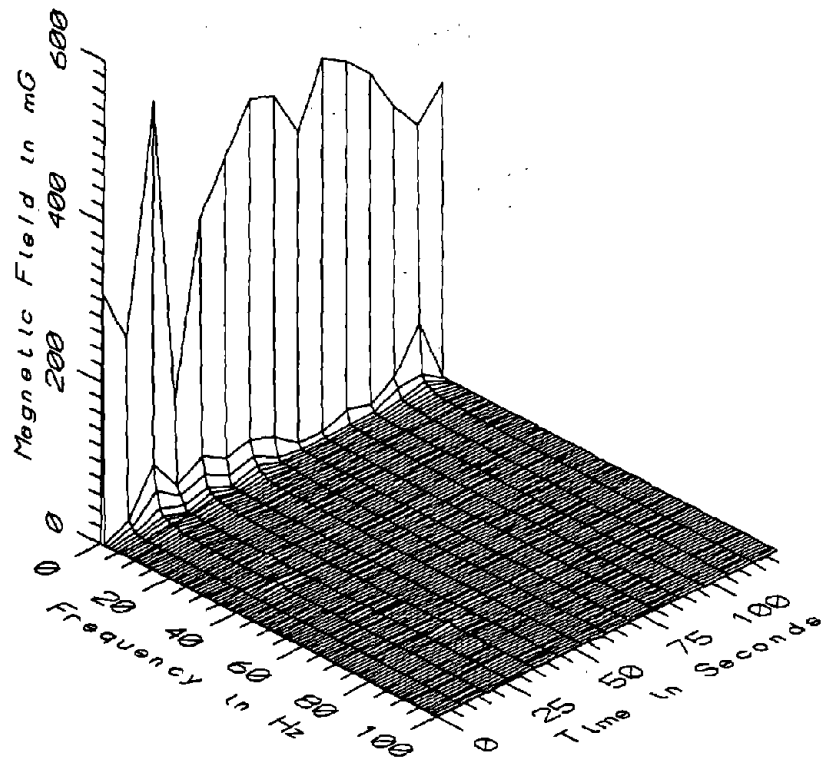
BOS027 - 10cm ABOVE FLOOR, IN FRONT OF OPERATOR'S SEAT, RED LINE CAR



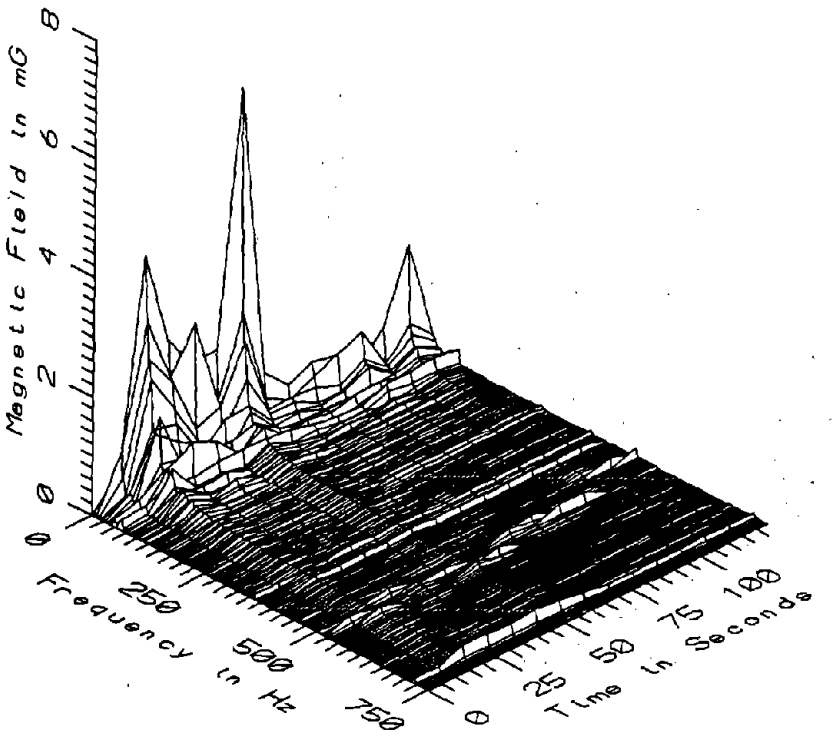
BOS027 - 60cm ABOVE FLOOR, IN FRONT OF OPERATOR'S SEAT, RED LINE CAR



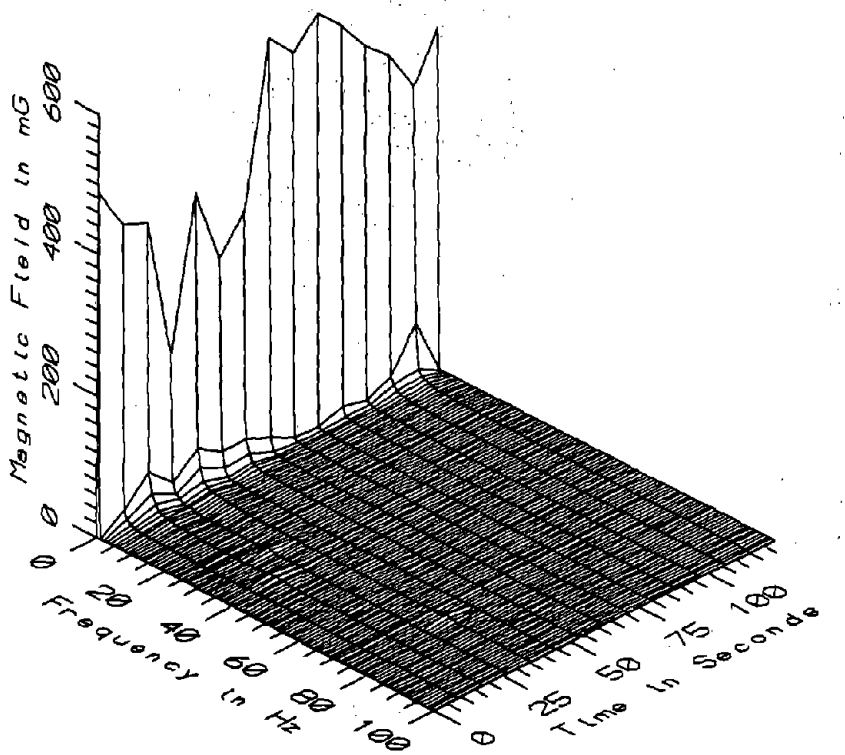
BOS027 - 60cm ABOVE FLOOR, IN FRONT OF OPERATOR'S SEAT, RED LINE CAR



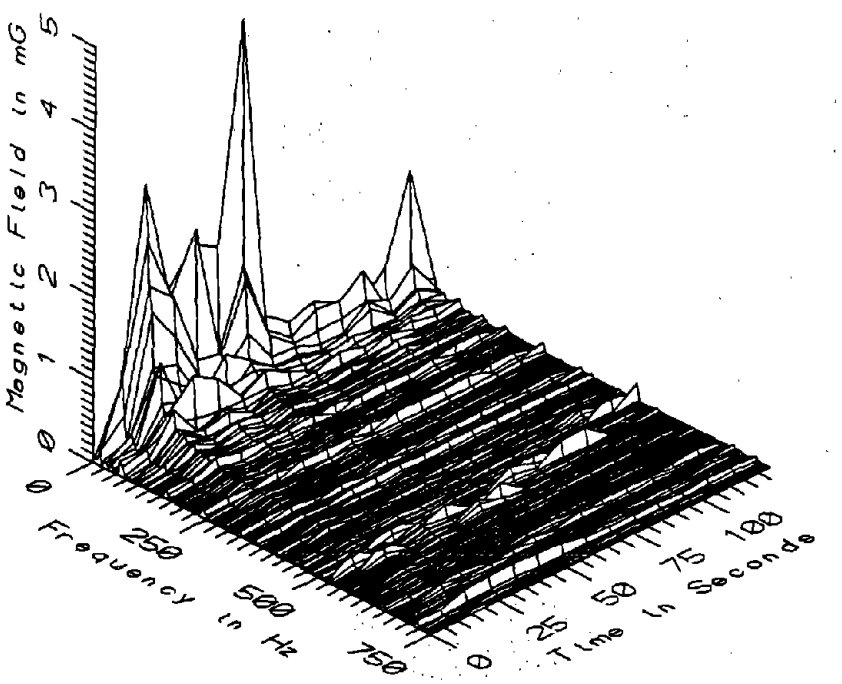
BOS027 - 110cm ABOVE FLOOR, IN FRONT OF OPERATOR'S SEAT, RED LINE CAR



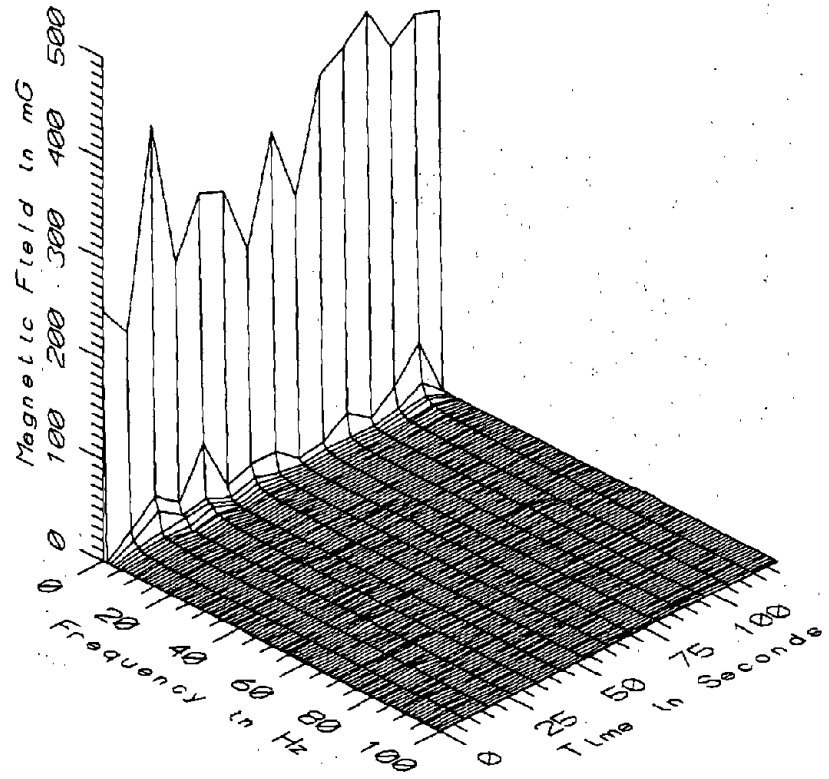
BOS027 - 110cm ABOVE FLOOR, IN FRONT OF OPERATOR'S SEAT, RED LINE CAR



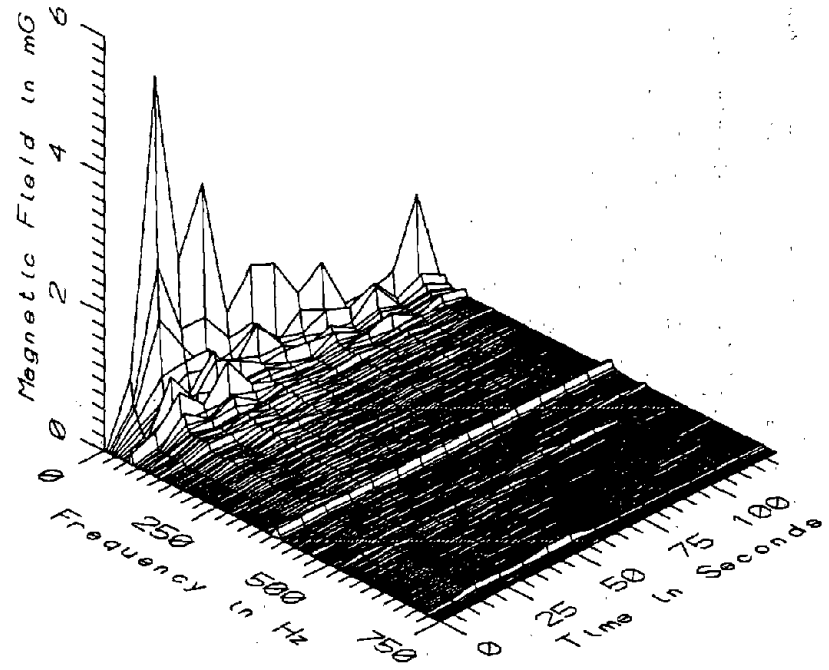
BOS027 - 160cm ABOVE FLOOR, IN FRONT OF OPERATOR'S SEAT, RED LINE CAR



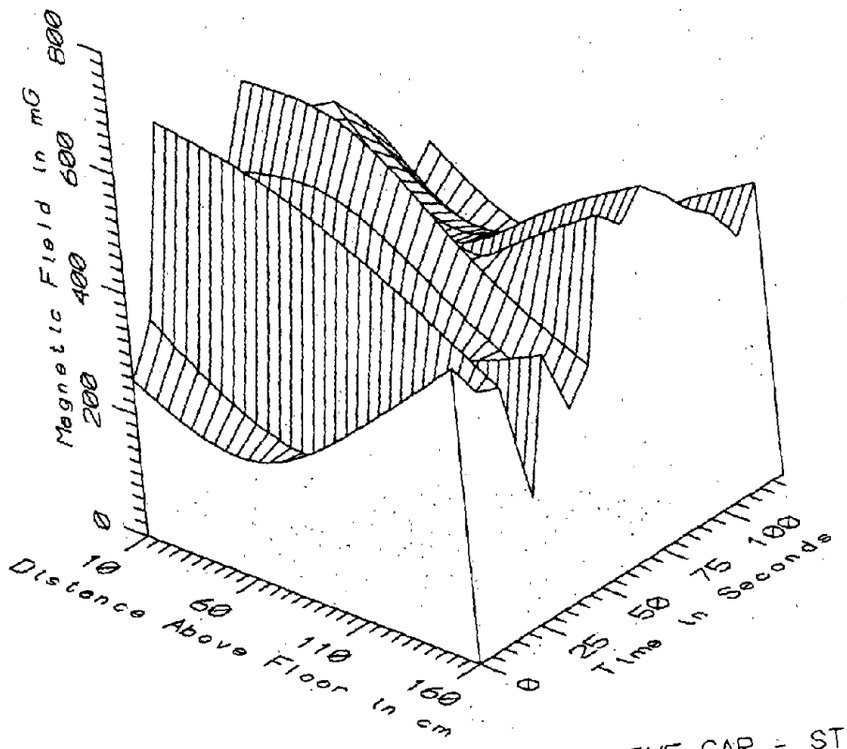
BOS027 - 160cm ABOVE FLOOR, IN FRONT OF OPERATOR'S SEAT, RED LINE CAR



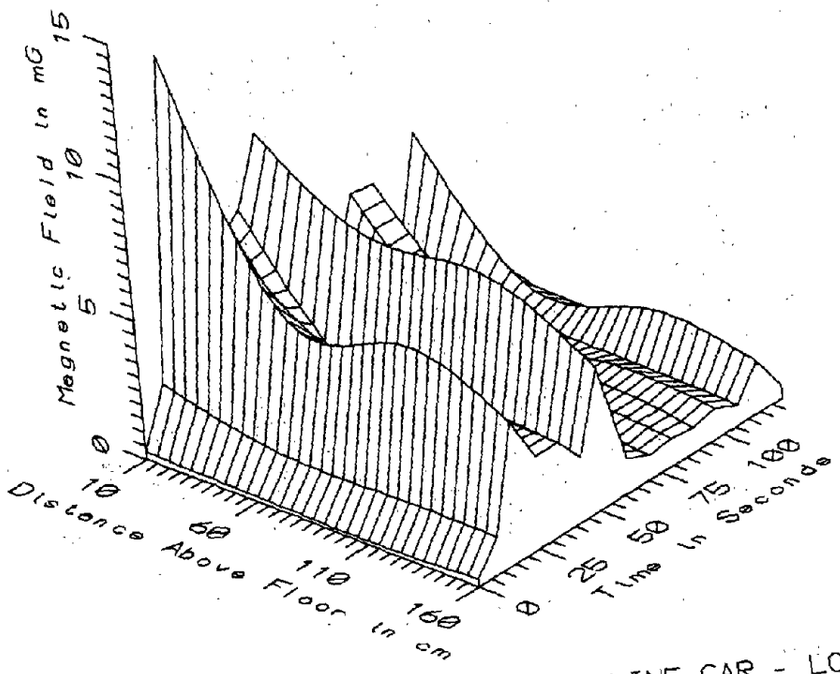
BOS027 - REFERENCE PROBE - ON STEEL CABINET, FRONT OF RED LINE CAR



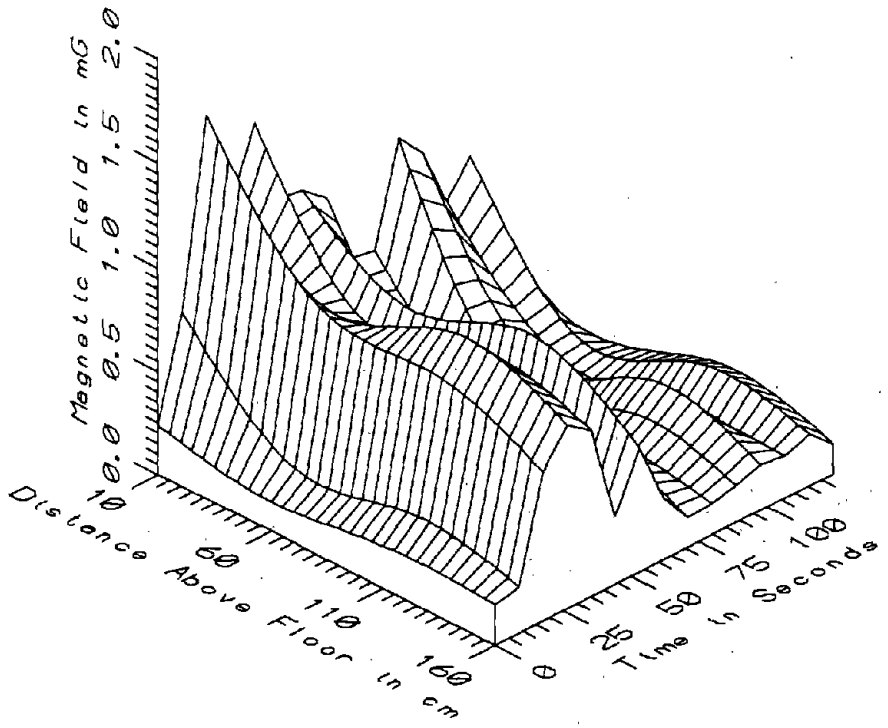
BOS027 - REFERENCE PROBE - ON STEEL CABINET, FRONT OF RED LINE CAR



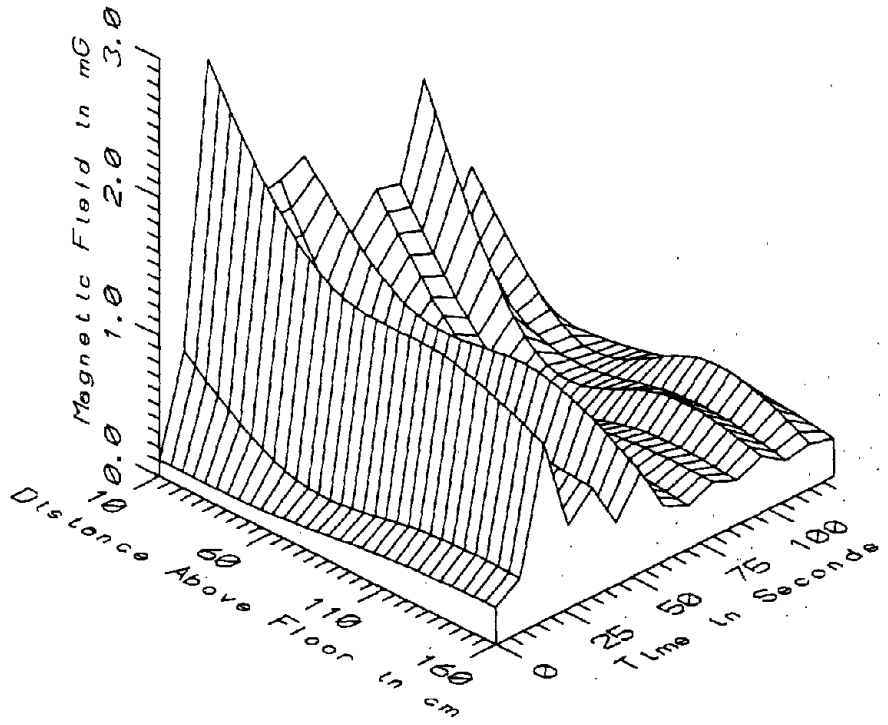
BOS027 - IN FRONT OF OPERATOR'S SEAT, RED LINE CAR - STATIC



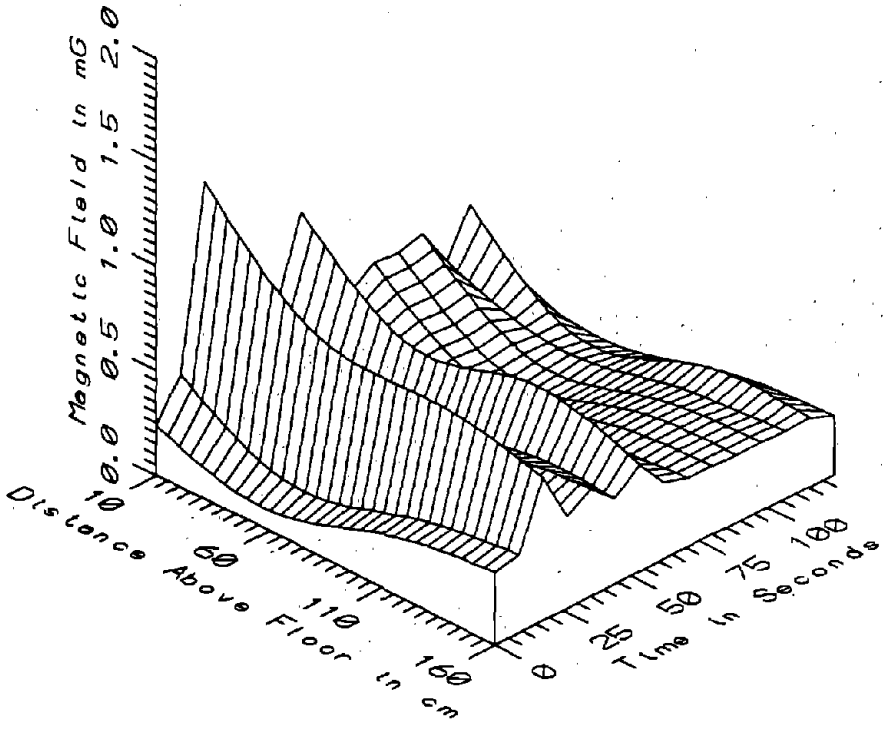
BOS027 - IN FRONT OF OPERATOR'S SEAT, RED LINE CAR - LOW FREQ. 5-45Hz



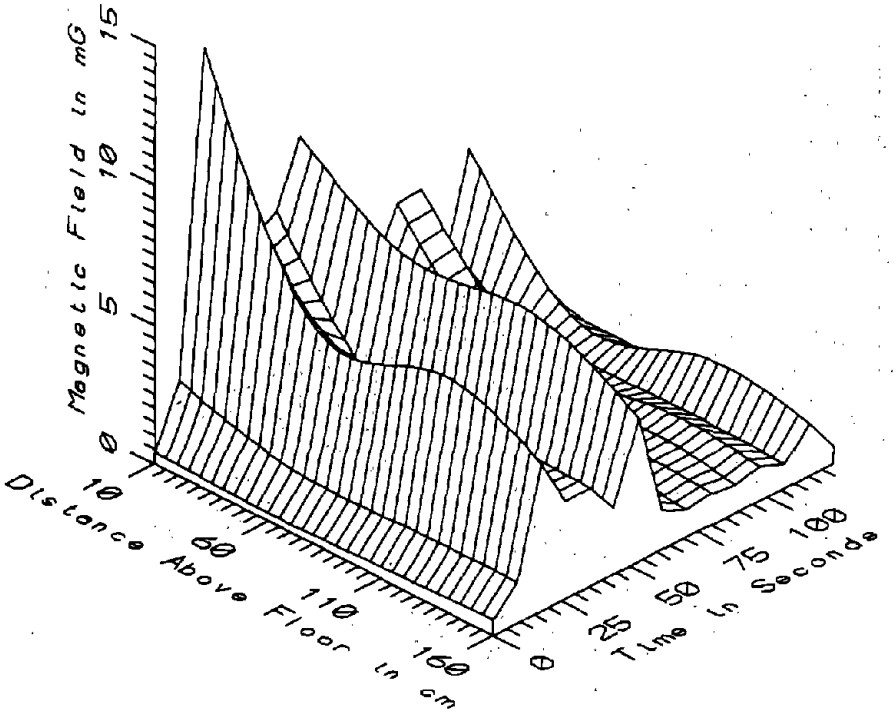
BOS027 - IN FRONT OF OPERATOR'S SEAT, RED LINE CAR - POWER FREQ, 50-60Hz



BOS027 - IN FRONT OF OPERATOR'S SEAT, RED LINE CAR - POWER HARM, 65-300Hz

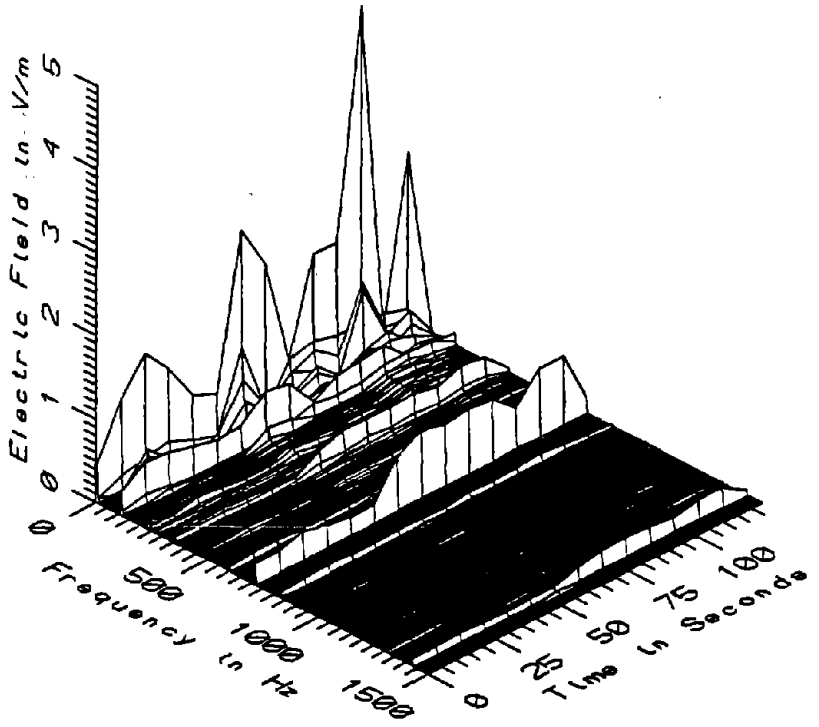


BOS027 - IN FRONT OF OPERATOR'S SEAT, RED LINE CAR - HIGH FREQ, 305-2560Hz



BOS027 - IN FRONT OF OPERATOR'S SEAT, RED LINE CAR - ALL FREQ, 5-2560Hz

BOS027 - IN FRONT OF OPERATOR'S SEAT, RED LINE CAR					TOTAL OF 15 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	174.80	640.39	418.71	131.06	31.30
	60	172.59	604.31	342.66	135.30	39.48
	110	133.10	520.89	378.19	99.18	26.22
	160	207.57	589.94	452.18	105.85	23.41
5-45Hz LOW FREQ	10	0.26	13.62	4.82	3.52	73.08
	60	0.17	6.57	2.12	1.97	92.59
	110	0.12	6.90	2.29	2.03	88.58
	160	0.28	5.05	1.91	1.55	81.28
50-60Hz PWR FREQ	10	0.23	1.61	0.85	0.39	45.48
	60	0.08	0.97	0.34	0.31	90.51
	110	0.19	1.06	0.46	0.31	68.16
	160	0.14	0.88	0.35	0.26	72.23
65-300Hz PWR HARM	10	0.11	2.82	1.26	0.69	54.74
	60	0.14	1.68	0.45	0.41	90.66
	110	0.23	1.55	0.56	0.35	62.93
	160	0.27	1.28	0.48	0.27	56.22
305-2560Hz HIGH FREQ	10	0.20	1.28	0.53	0.27	50.04
	60	0.09	0.81	0.24	0.19	77.29
	110	0.22	0.79	0.36	0.16	43.27
	160	0.29	0.69	0.40	0.11	26.78
5-2560Hz ALL FREQ	10	0.44	14.06	5.12	3.57	69.85
	60	0.28	6.71	2.22	2.03	91.21
	110	0.42	7.07	2.45	2.05	83.76
	160	0.56	5.25	2.07	1.56	75.68



BOS027 - ELECTRIC FIELD IN FRONT OF OPERATOR'S SEAT, RED LINE CAR

APPENDIX AC

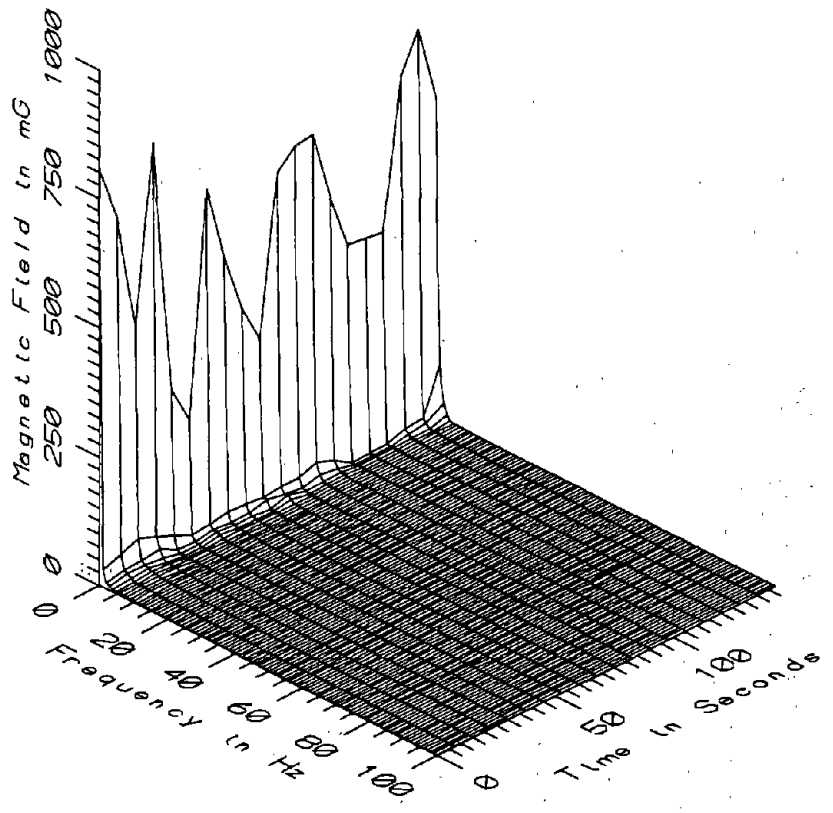
DATASET BOS028
ON AXIS AT FRONT DOORS OF RED LINE CAR

Measurement Setup Code:	Staff: 8 Reference: 7 Drawing: A-1
Vehicle Status:	Travelling between JFK/UMass and Savin Hill stations
Measurement Date:	June 10, 1992
Measurement Time:	Start: 14:45:39 End: 14:48:02
Number of Samples:	20
Programmed Sample Interval:	5 sec
Actual Sample Interval:	7.5 sec

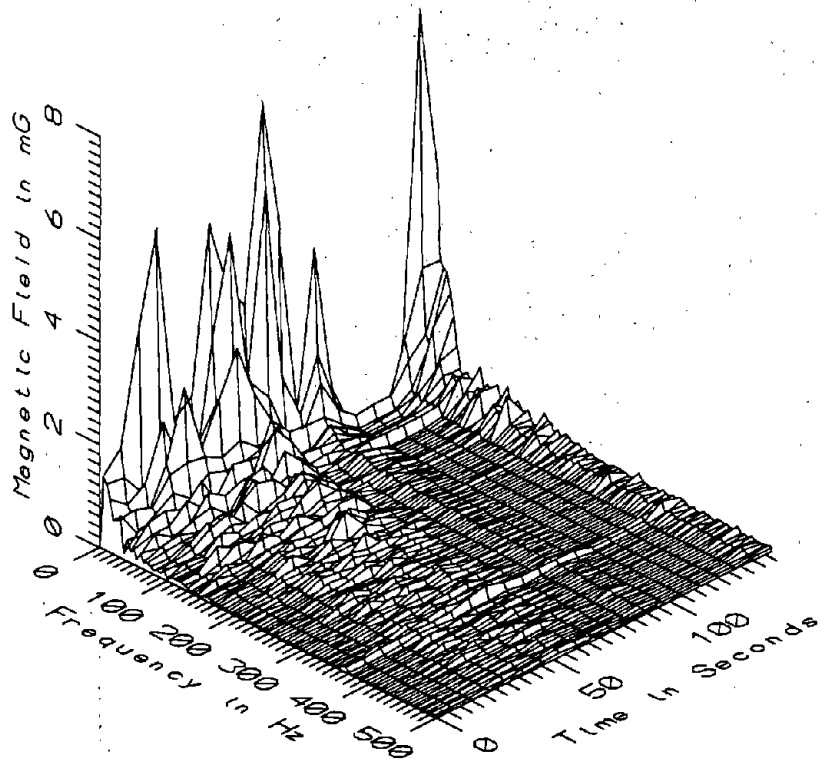
Frequency Spectrum Parameters

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

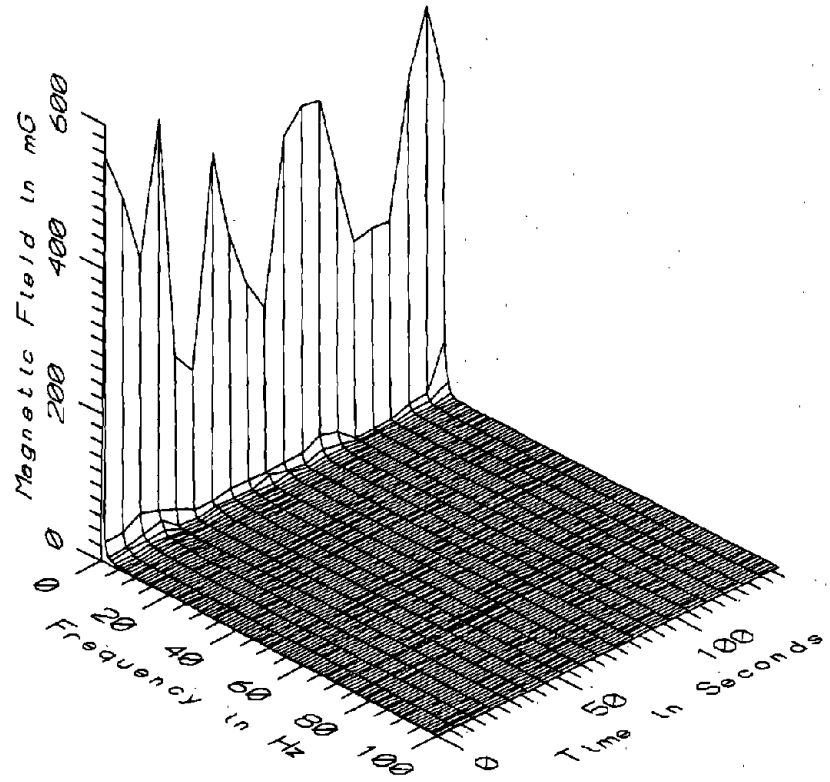
Missing Data: None



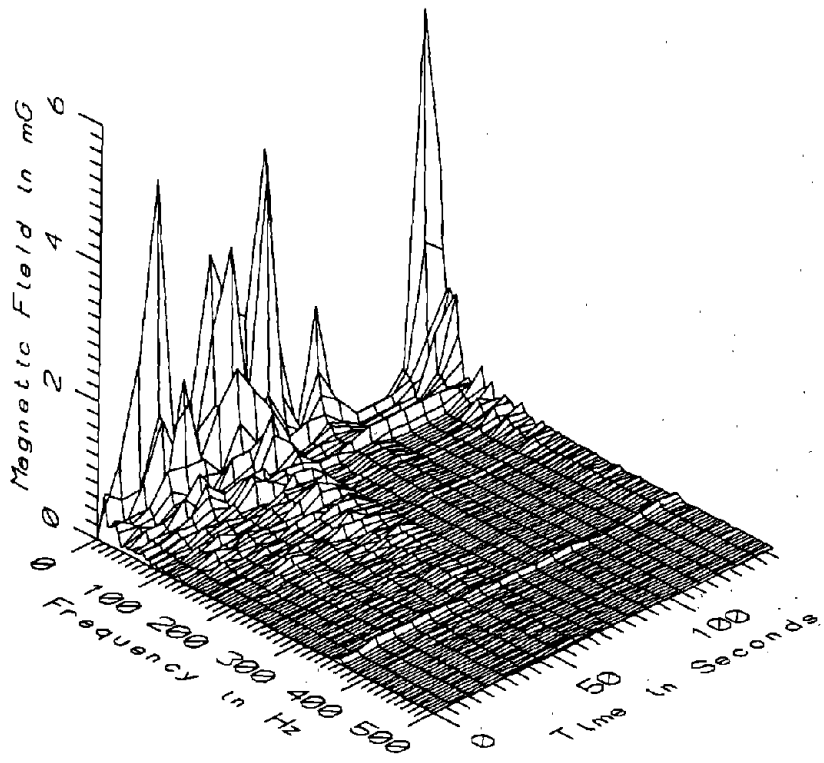
BOS028 - 10cm ABOVE FLOOR ON AXIS OF RED LINE CAR, AT FRONT DOORS



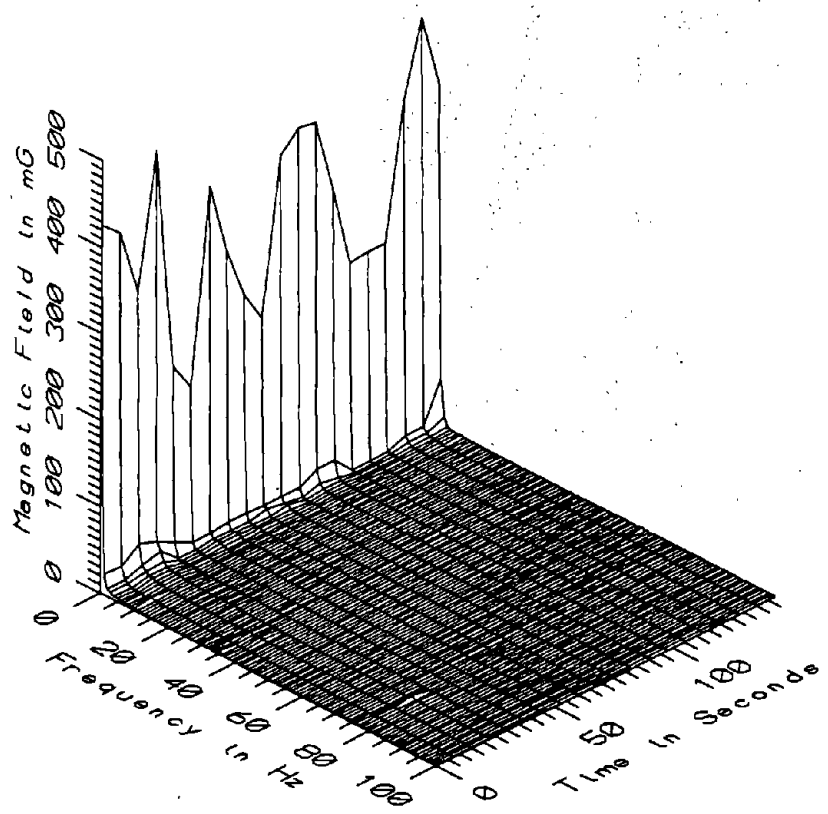
BOS028 - 10cm ABOVE FLOOR ON AXIS OF RED LINE CAR, AT FRONT DOORS



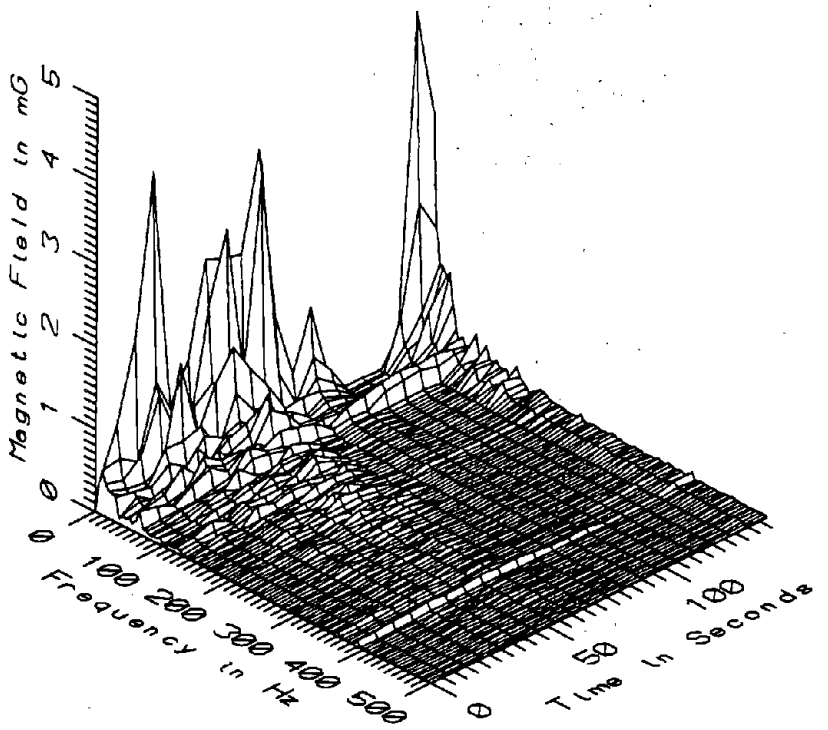
BOS028 - 60cm ABOVE FLOOR ON AXIS OF RED LINE CAR, AT FRONT DOORS



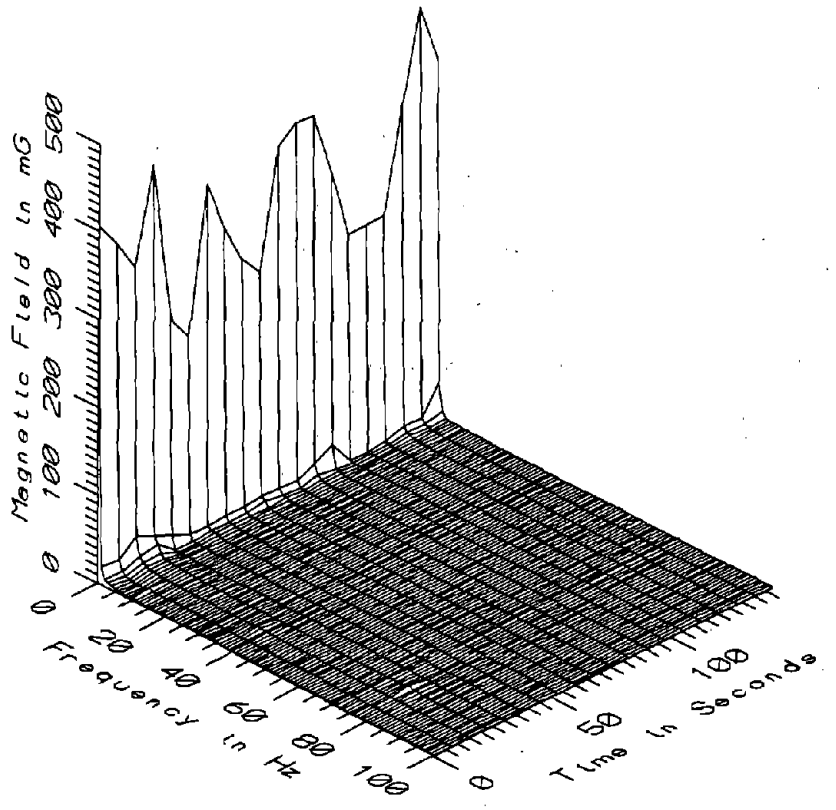
BOS028 - 60cm ABOVE FLOOR ON AXIS OF RED LINE CAR, AT FRONT DOORS



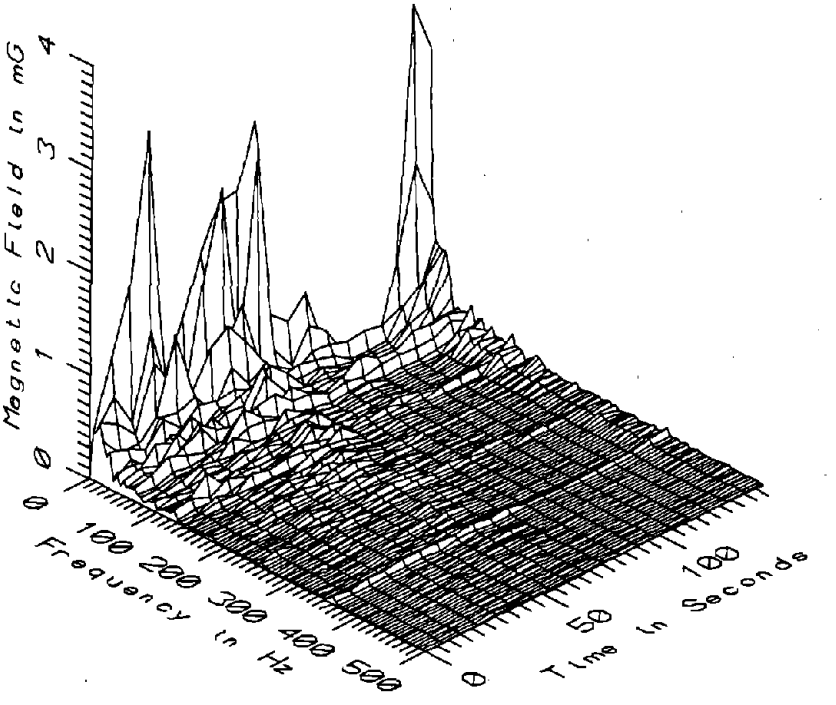
BOS028 - 110cm ABOVE FLOOR ON AXIS OF RED LINE CAR, AT FRONT DOORS



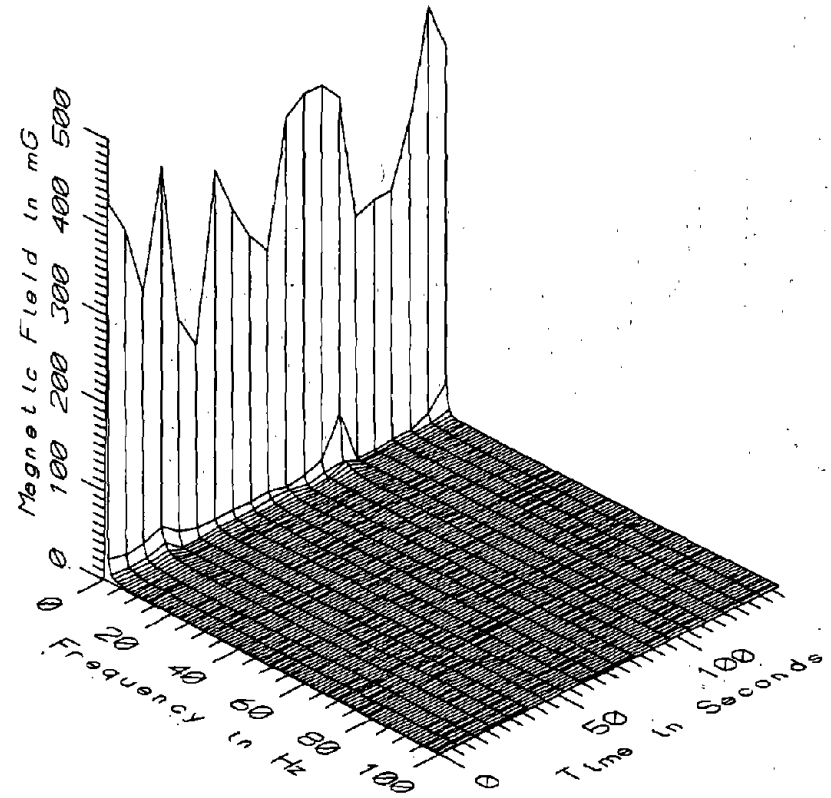
BOS028 - 110cm ABOVE FLOOR ON AXIS OF RED LINE CAR, AT FRONT DOORS



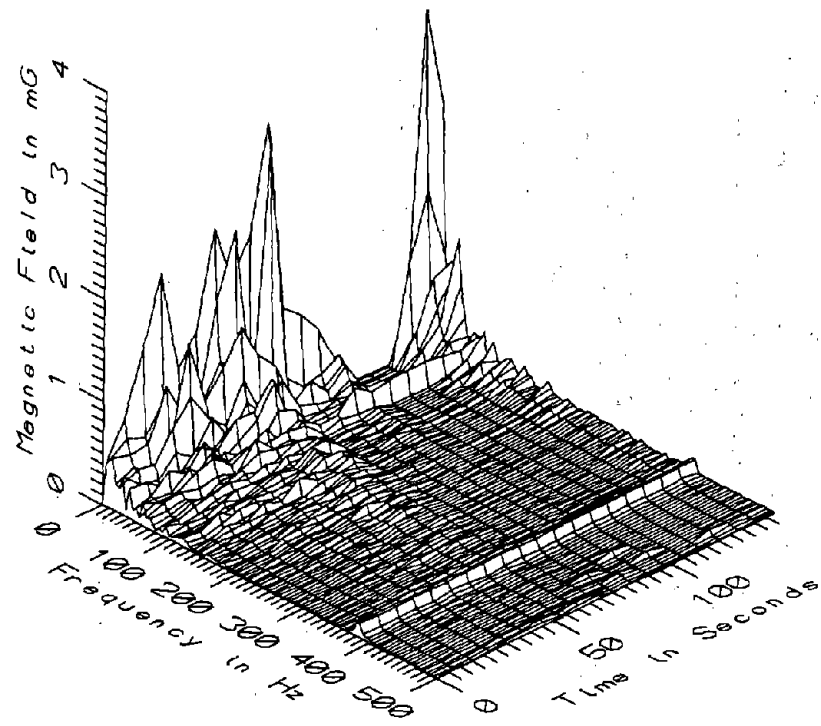
BOS028 - 160cm ABOVE FLOOR ON AXIS OF RED LINE CAR, AT FRONT DOORS



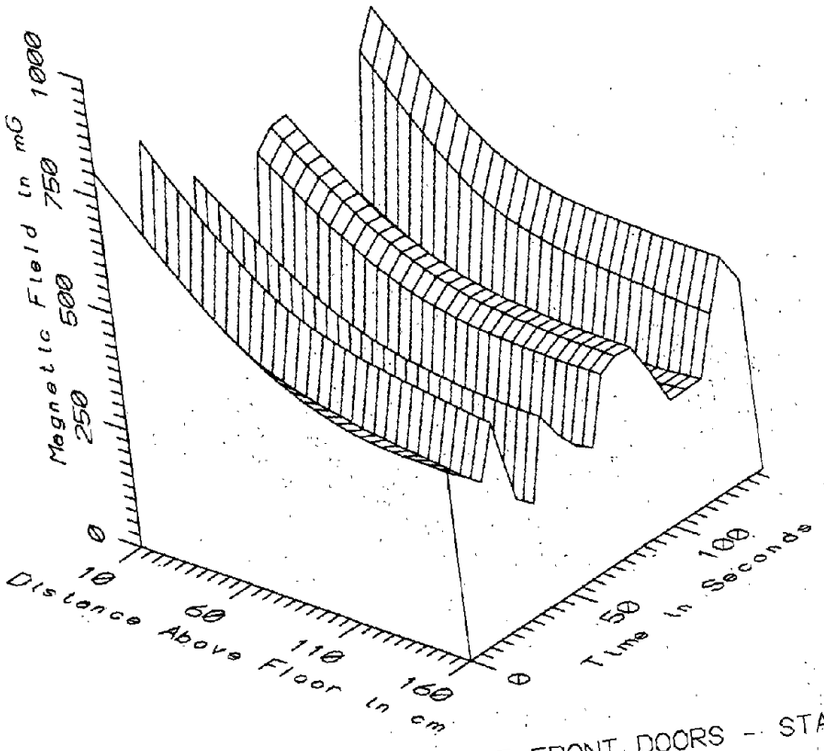
BOS028 - 160cm ABOVE FLOOR ON AXIS OF RED LINE CAR, AT FRONT DOORS



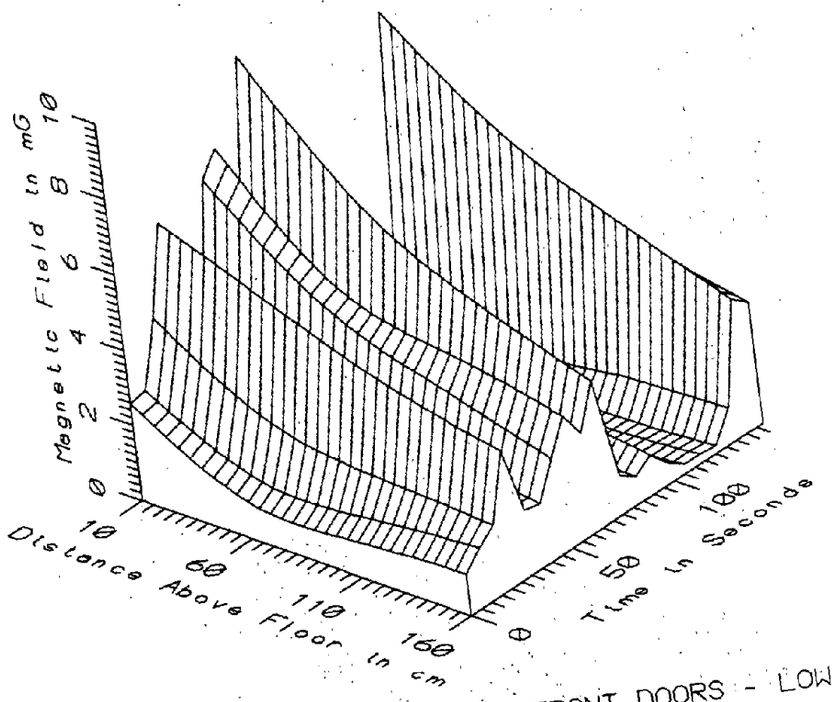
BOS028 - REFERENCE PROBE - ON STEEL CABINET, FRONT OF RED LINE CAR



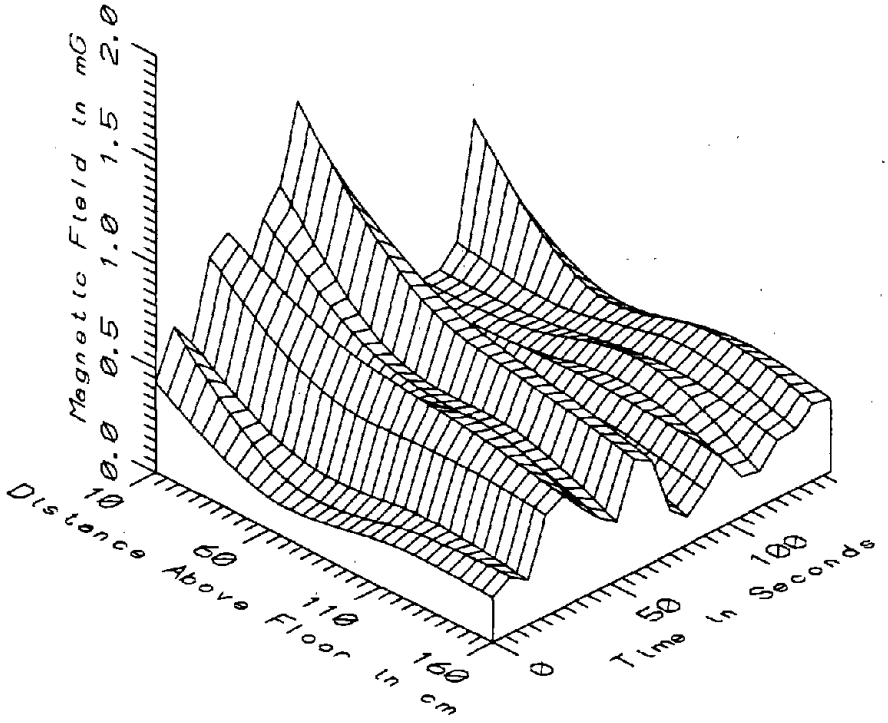
BOS028 - REFERENCE PROBE - ON STEEL CABINET, FRONT OF RED LINE CAR



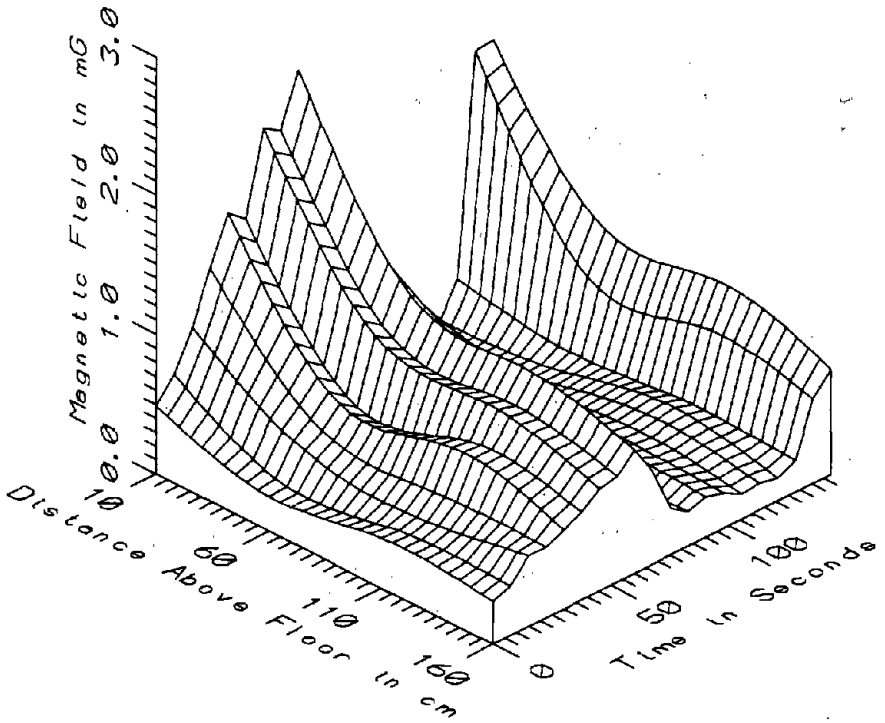
BOS028 - ON AXIS OF RED LINE CAR, AT FRONT DOORS - STATIC



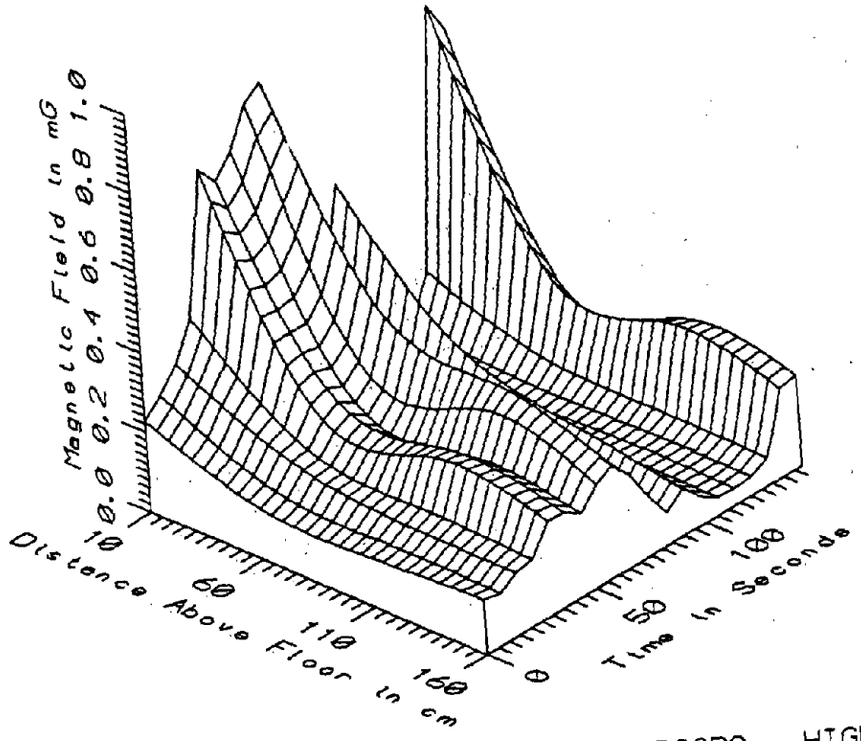
BOS028 - ON AXIS OF RED LINE CAR, AT FRONT DOORS - LOW FREQ. 5-45Hz



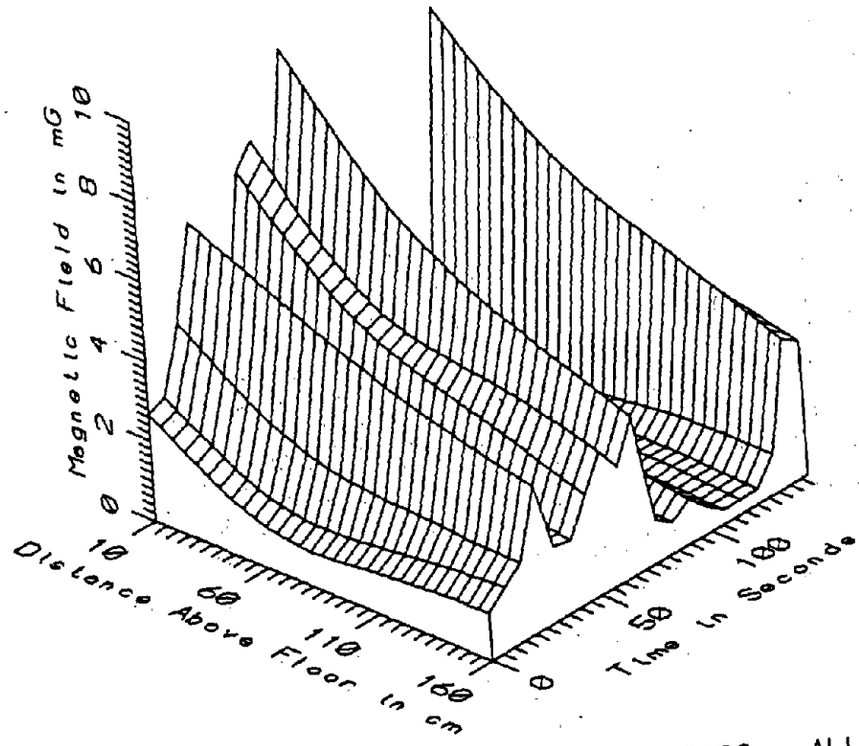
BOS028 - ON AXIS OF RED LINE CAR, AT FRONT DOORS - POWER FREQ, 50-60Hz



BOS028 - ON AXIS OF RED LINE CAR, AT FRONT DOORS - POWER HARM, 65-300Hz

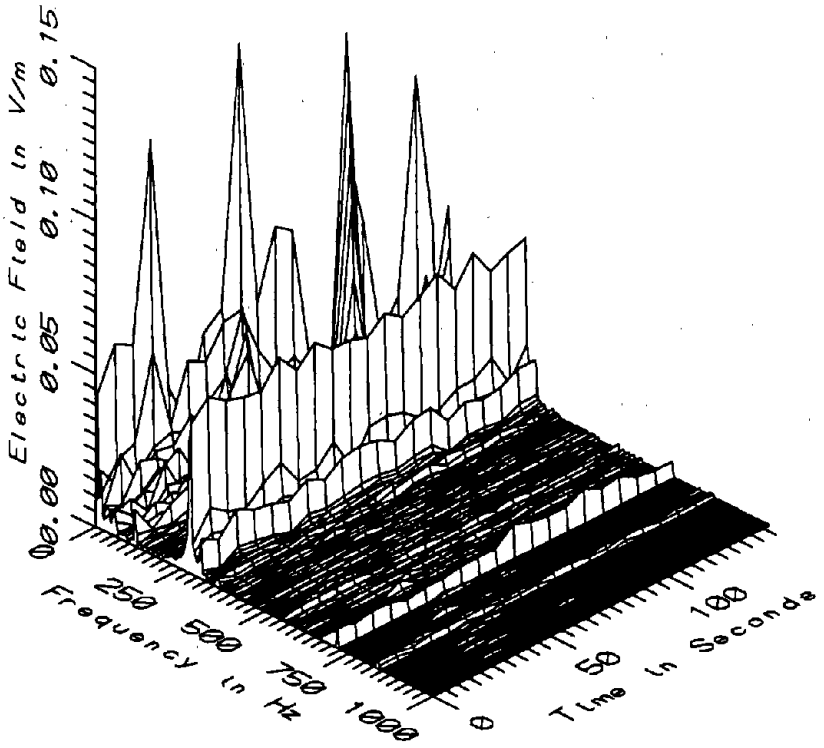


BOS028 - ON AXIS OF RED LINE CAR, AT FRONT DOORS - HIGH FREQ, 305-2560Hz



BOS028 - ON AXIS OF RED LINE CAR, AT FRONT DOORS - ALL FREQ, 5-2560Hz

BOS028 - ON AXIS AT FRONT DOORS, RED LINE CAR					TOTAL OF 20 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	235.74	804.96	551.39	172.19	31.23
	60	199.89	570.48	394.24	119.67	30.36
	110	186.82	480.79	342.80	93.62	27.31
	160	231.16	474.42	346.40	73.94	21.35
5-45Hz LOW FREQ	10	0.31	9.37	4.10	2.75	67.09
	60	0.16	6.43	2.57	2.05	79.81
	110	0.07	4.88	2.10	1.61	76.79
	160	0.21	3.81	1.79	1.23	68.95
50-60Hz PWR FREQ	10	0.28	1.43	0.65	0.35	53.79
	60	0.12	0.82	0.40	0.21	51.90
	110	0.22	0.65	0.42	0.14	33.96
	160	0.13	0.54	0.32	0.12	38.78
65-300Hz PWR HARM	10	0.07	2.39	1.08	0.76	70.55
	60	0.14	1.17	0.52	0.33	63.24
	110	0.22	1.07	0.54	0.28	52.21
	160	0.17	0.89	0.46	0.23	49.81
305-2560Hz HIGH FREQ	10	0.08	0.88	0.46	0.28	62.05
	60	0.04	0.41	0.19	0.09	48.82
	110	0.05	0.36	0.18	0.09	52.96
	160	0.04	0.27	0.15	0.08	49.37
5-2560Hz ALL FREQ	10	0.44	9.62	4.34	2.83	65.25
	60	0.36	6.55	2.69	2.04	75.65
	110	0.46	4.99	2.27	1.56	68.70
	160	0.37	3.90	1.90	1.23	64.83



BOS028 - ELECTRIC FIELD 170cm ABOVE FLOOR, FRONT OF RED LINE CAR

APPENDIX AD

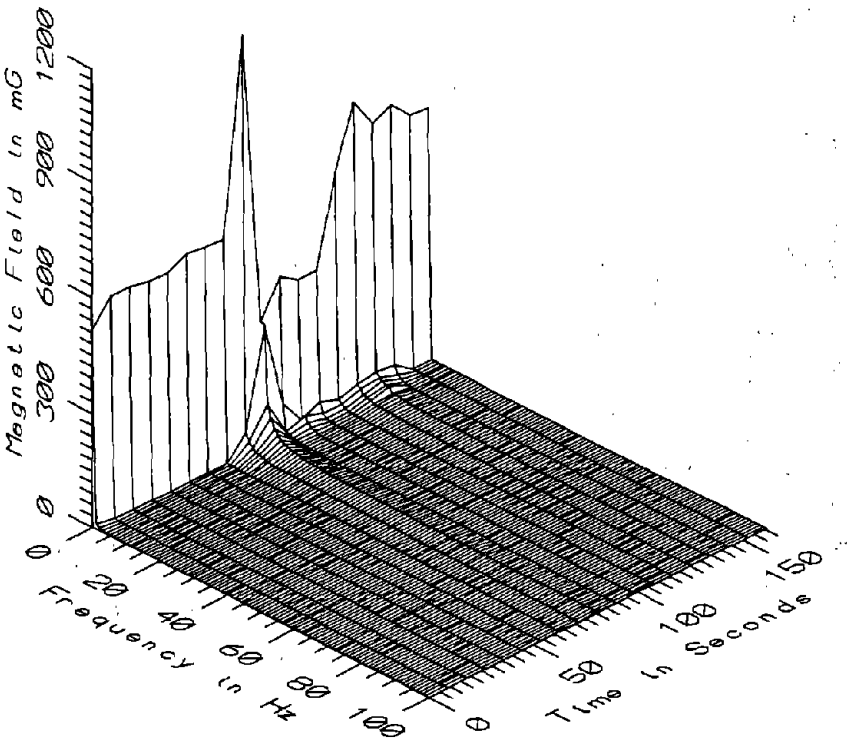
DATASET BOS029
ON AXIS BEHIND FRONT DOORS OF RED LINE CAR

Measurement Setup Code:	Staff: 9 Reference: 7 Drawing: A-1
Vehicle Status:	Travelling between Fields Corner and Shawmut stations
Measurement Date:	June 10, 1992
Measurement Time:	Start: 14:50:26 End: 14:53:07
Number of Samples:	19
Programmed Sample Interval:	5 sec
Actual Sample Interval:	8.9 sec

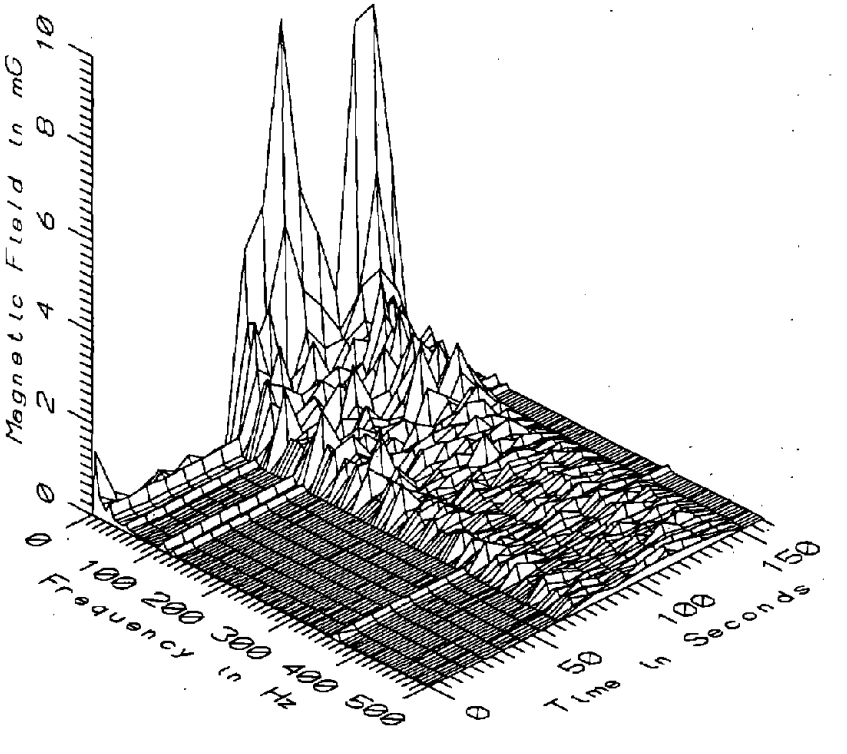
Frequency Spectrum Parameters

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

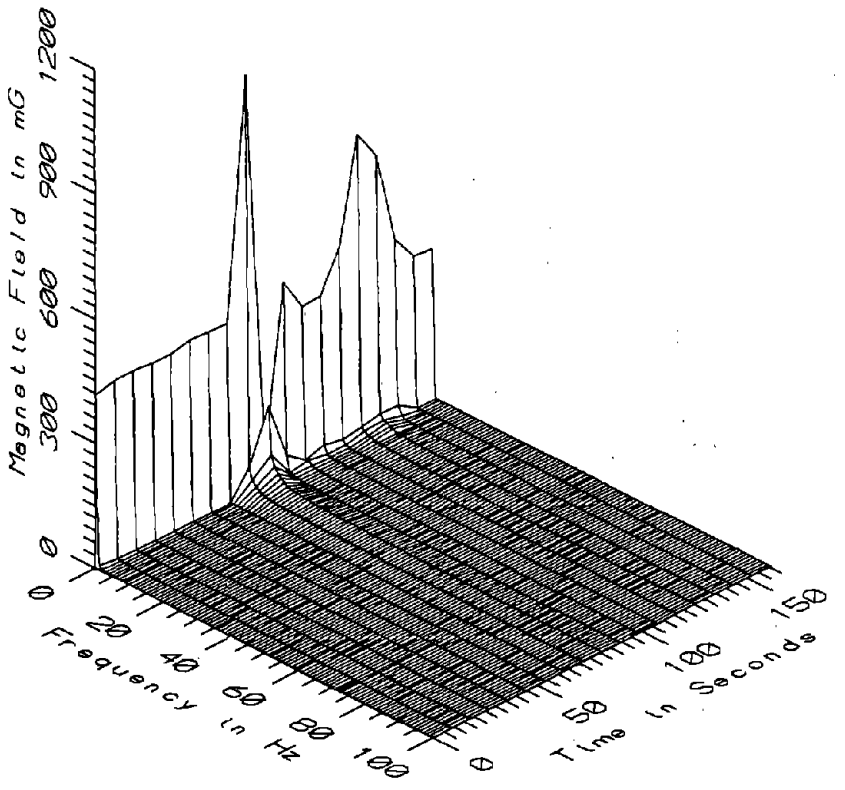
Missing Data: None



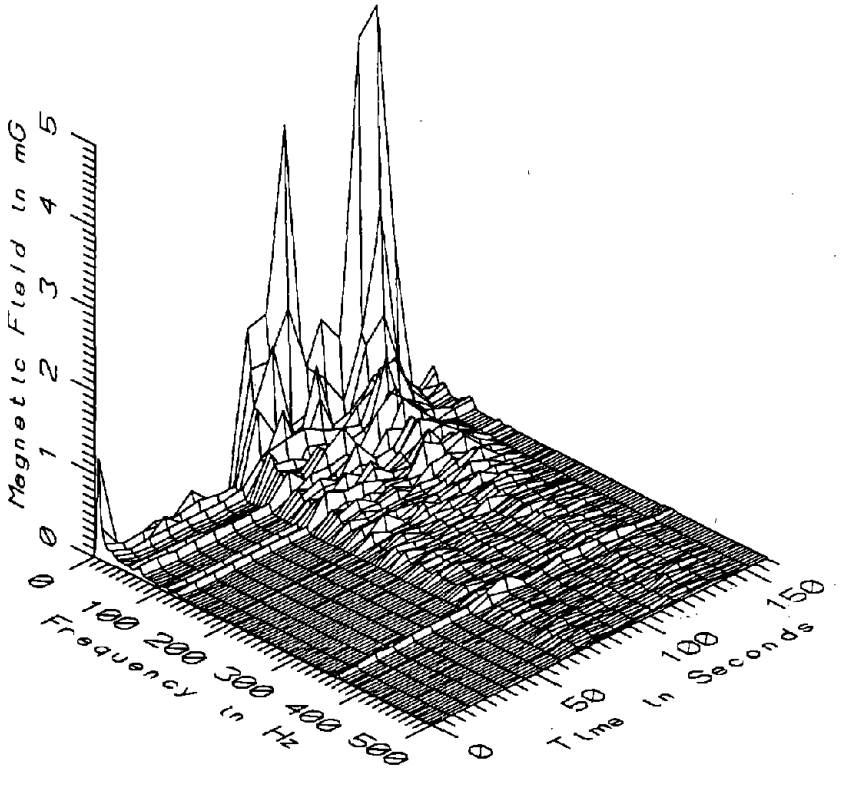
BOS029 - 10cm ABOVE FLOOR ON AXIS OF RED LINE, BEHIND FRONT DOORS



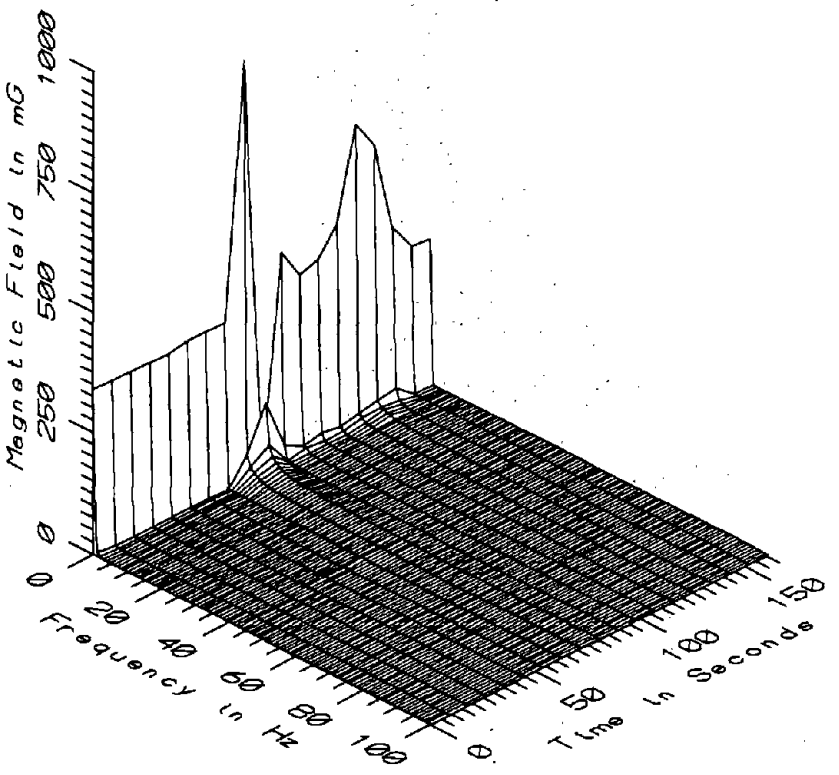
BOS029 - 10cm ABOVE FLOOR ON AXIS OF RED LINE, BEHIND FRONT DOORS



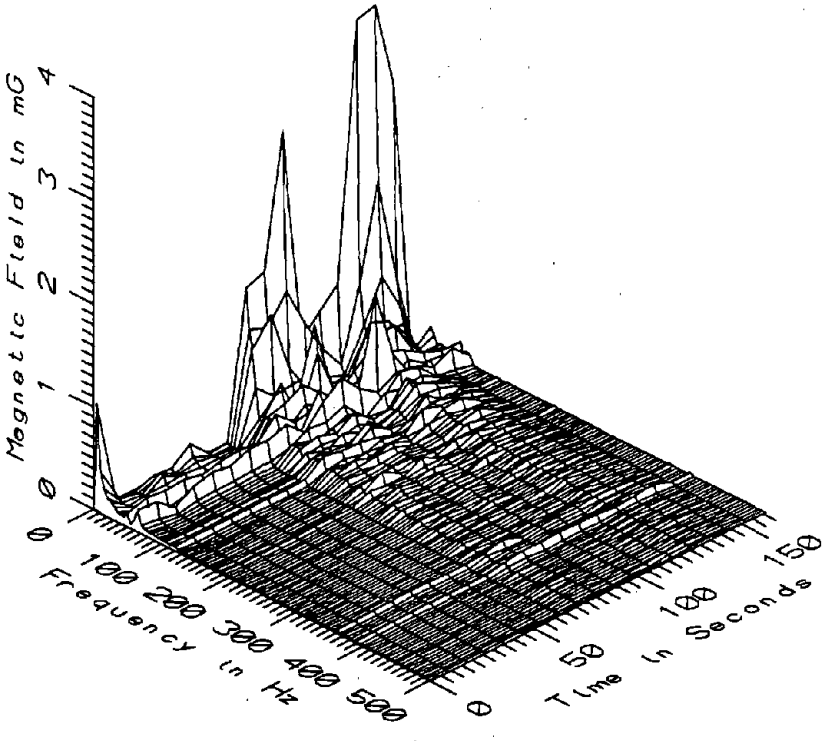
BOS029 - 60cm ABOVE FLOOR ON AXIS OF RED LINE, BEHIND FRONT DOORS



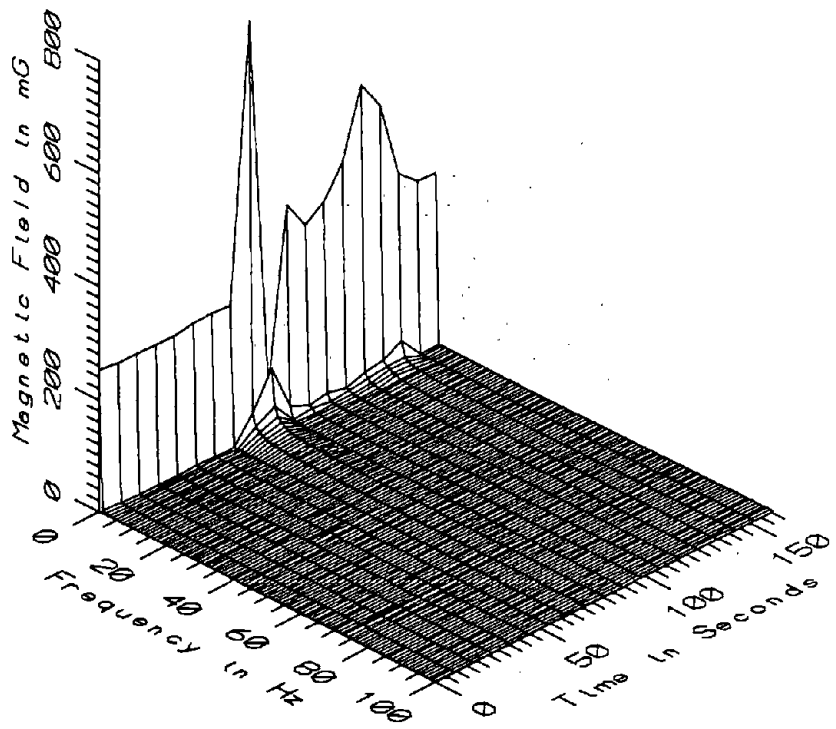
BOS029 - 60cm ABOVE FLOOR ON AXIS OF RED LINE, BEHIND FRONT DOORS



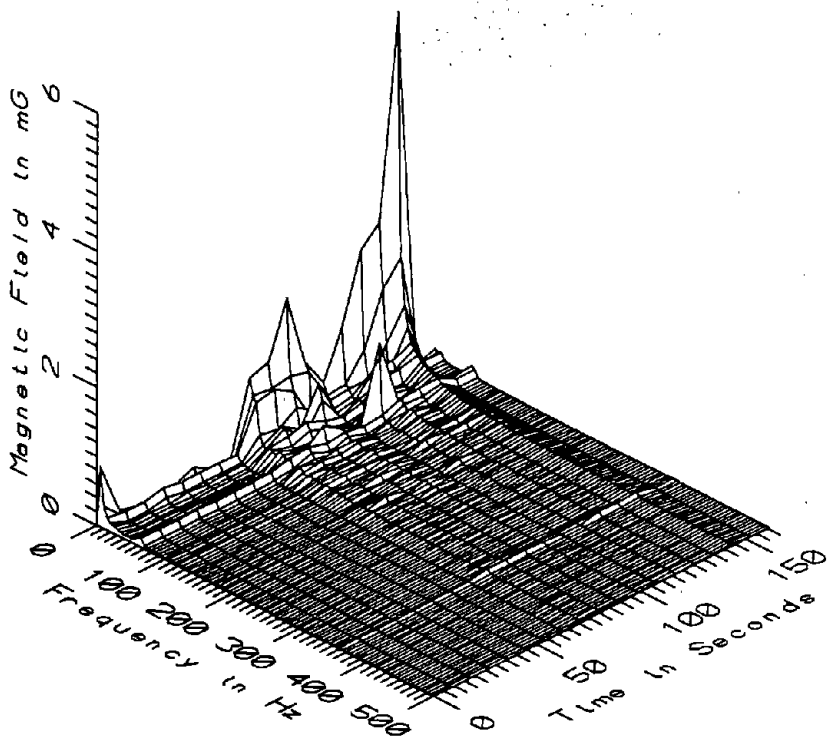
BOS029 - 110cm ABOVE FLOOR ON AXIS OF RED LINE, BEHIND FRONT DOORS



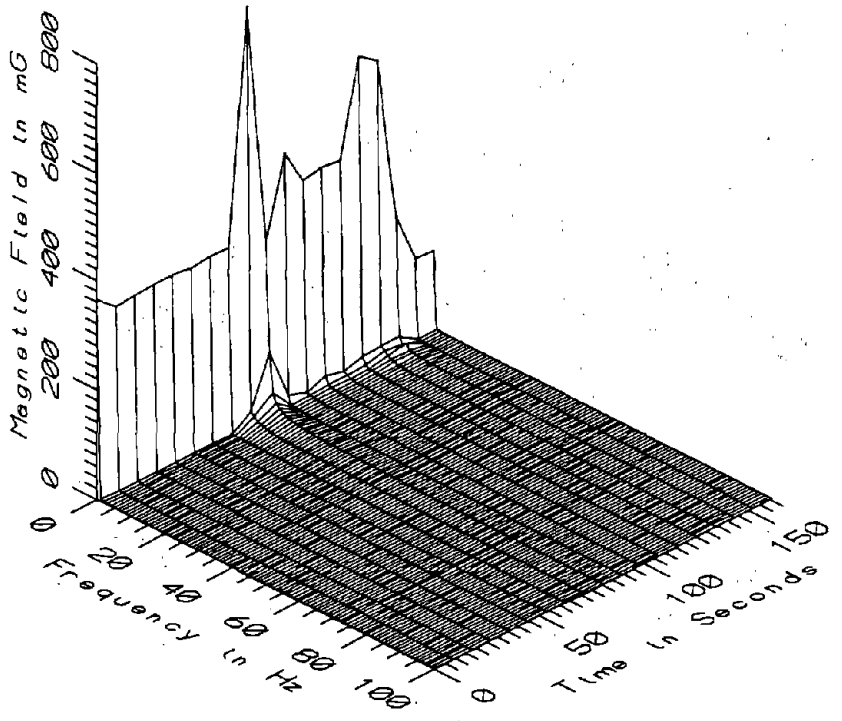
BOS029 - 110cm ABOVE FLOOR ON AXIS OF RED LINE, BEHIND FRONT DOORS



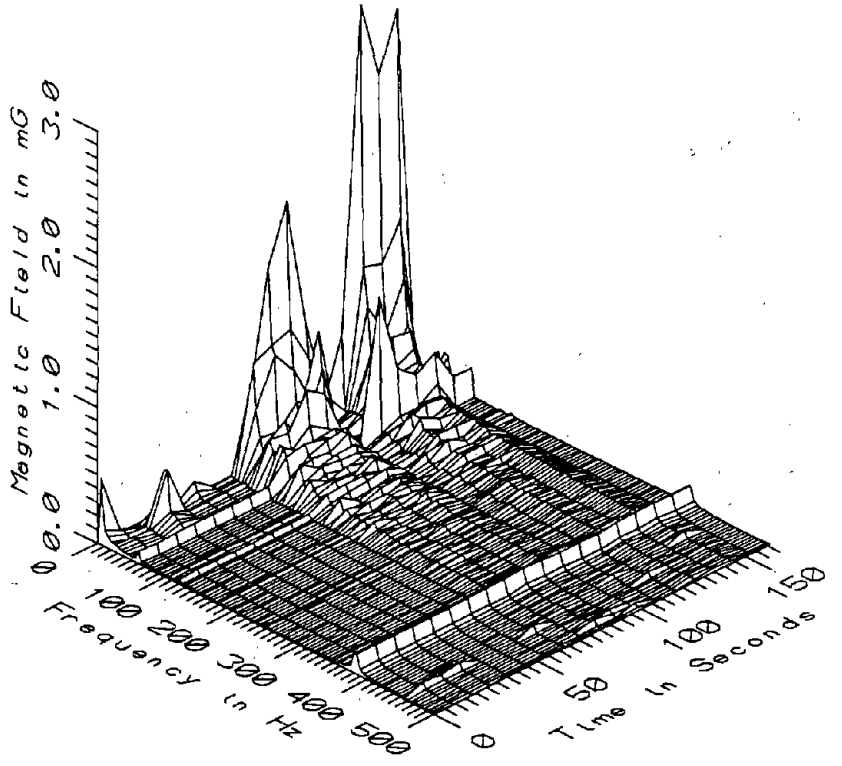
BOS029 - 160cm ABOVE FLOOR ON AXIS OF RED LINE, BEHIND FRONT DOORS



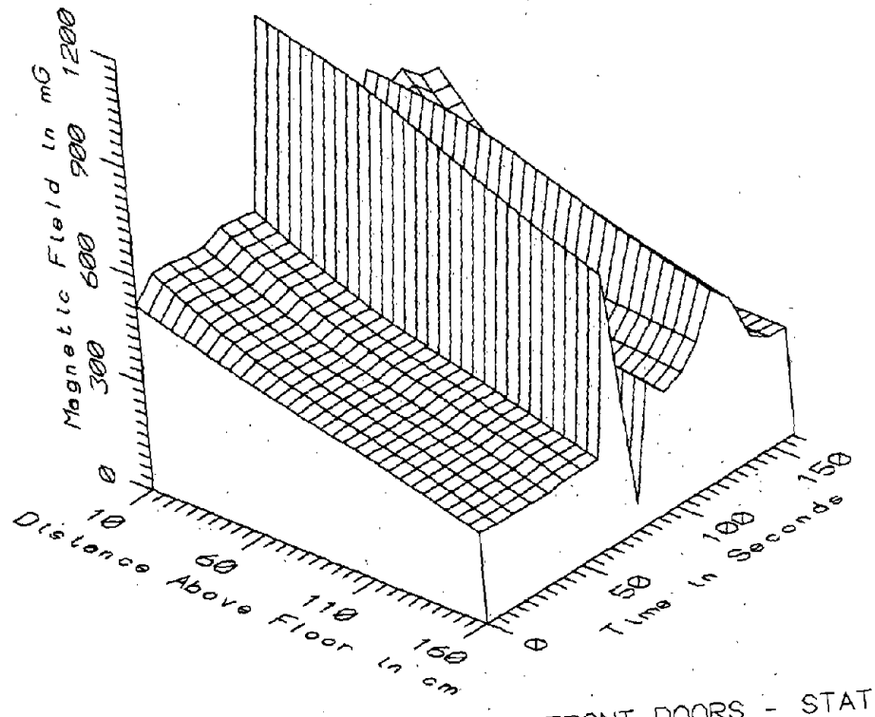
BOS029 - 160cm ABOVE FLOOR ON AXIS OF RED LINE, BEHIND FRONT DOORS



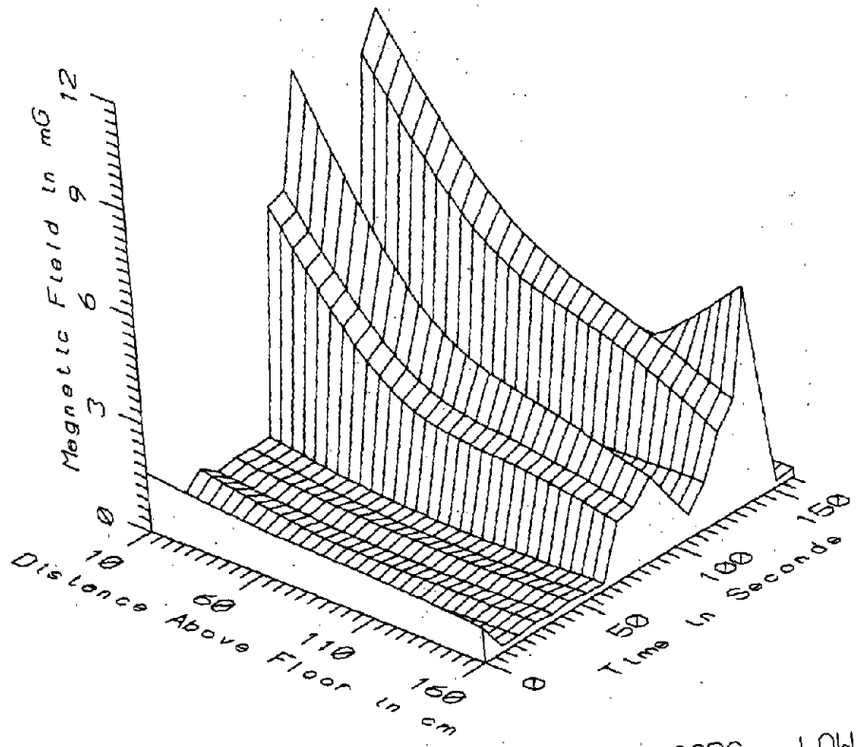
BOS029 - REFERENCE PROBE - ON STEEL CABINET, FRONT OF RED LINE CAR



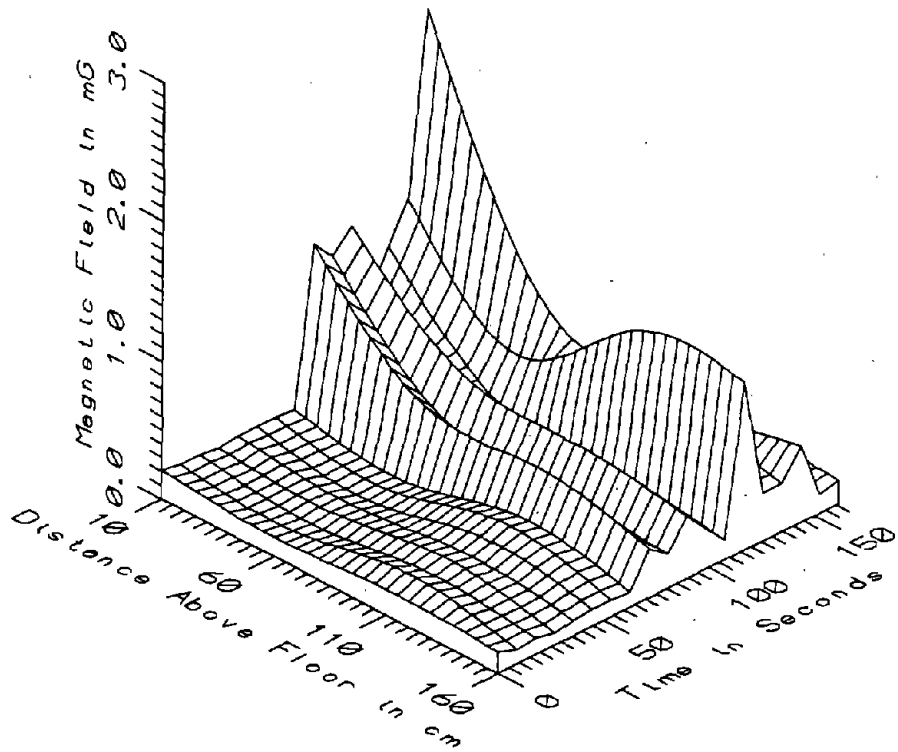
BOS029 - REFERENCE PROBE - ON STEEL CABINET, FRONT OF RED LINE CAR



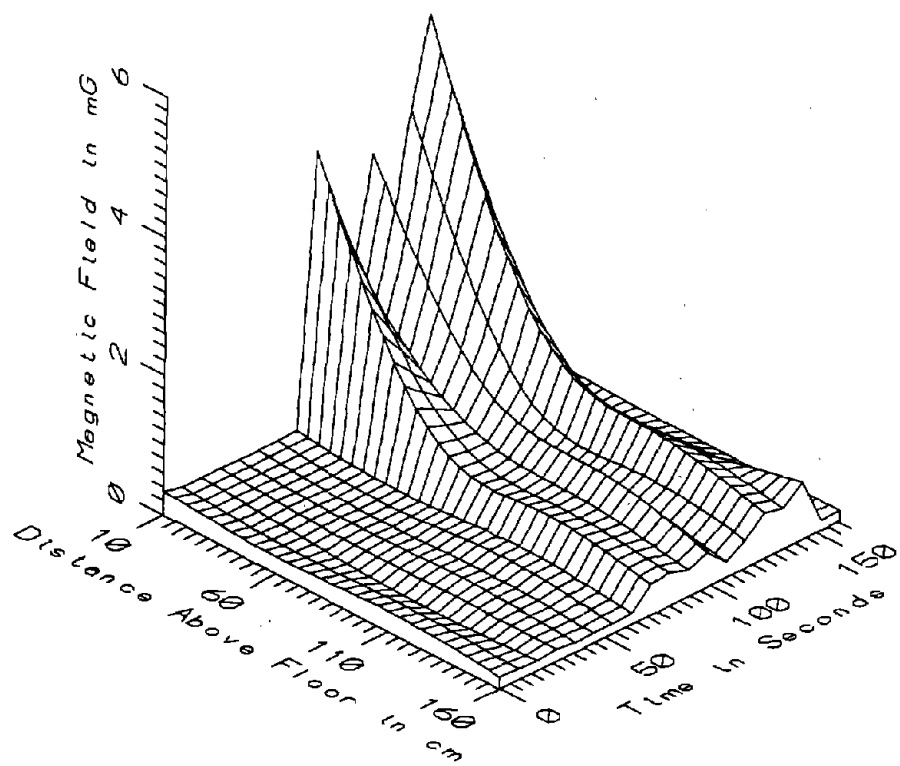
BOS029 - ON AXIS OF RED LINE, BEHIND FRONT DOORS - STATIC



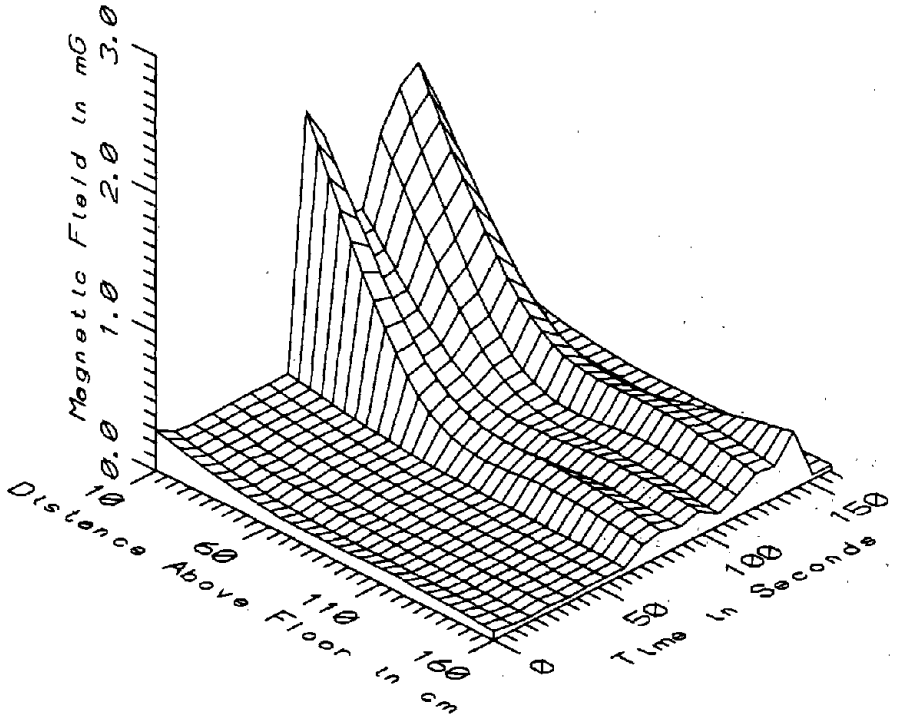
BOS029 - ON AXIS OF RED LINE, BEHIND FRONT DOORS - LOW FREQ. 5-45Hz



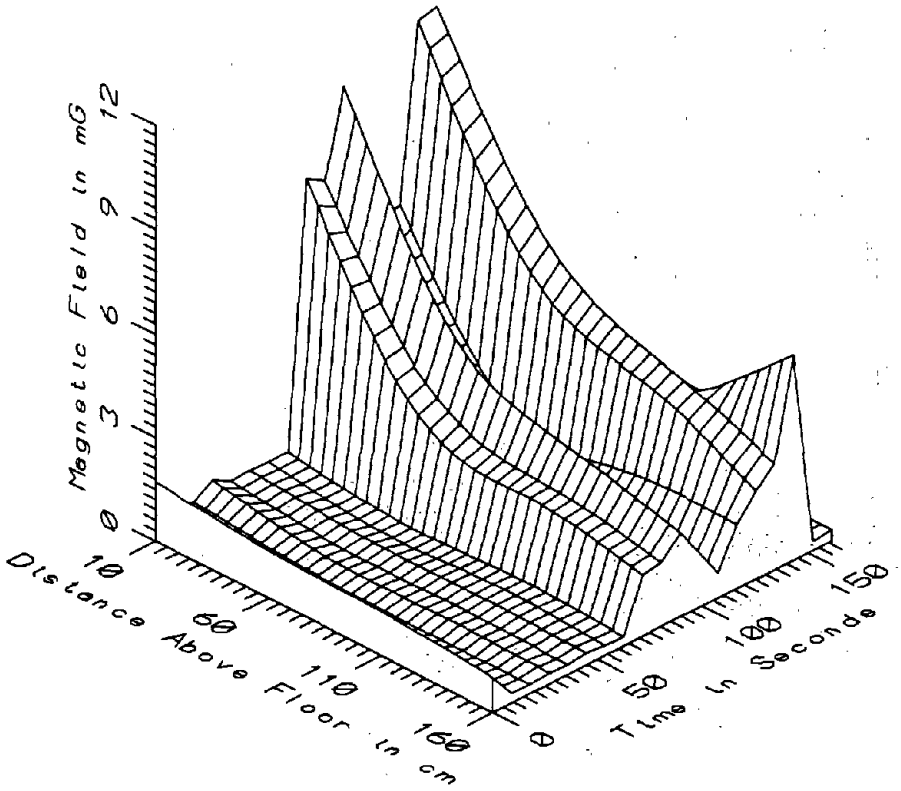
BOS029 - ON AXIS OF RED LINE, BEHIND FRONT DOORS - POWER FREQ, 50-60Hz



BOS029 - ON AXIS OF RED LINE, BEHIND FRONT DOORS - POWER HARM, 65-300Hz

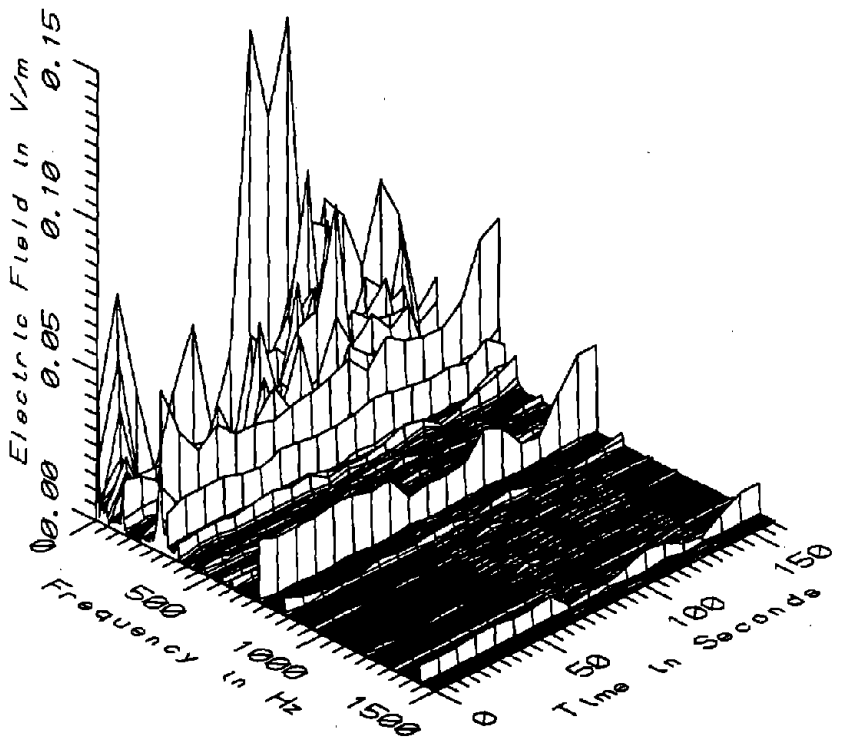


BOS029 - ON AXIS OF RED LINE, BEHIND FRONT DOORS - HIGH FREQ, 305-2560Hz



BOS029 - ON AXIS OF RED LINE, BEHIND FRONT DOORS - ALL FREQ, 5-2560Hz

BOS029 - ON AXIS BEHIND FRONT DOORS, RED LINE CAR					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	314.12	1091.21	589.39	170.71	28.96
	60	62.33	1002.23	457.41	182.38	39.87
	110	11.82	864.75	386.58	164.69	42.60
	160	71.55	737.33	325.54	139.48	42.85
5-45Hz LOW FREQ	10	0.45	10.26	3.77	3.64	96.61
	60	0.17	5.96	1.75	1.86	106.73
	110	0.07	4.28	1.33	1.42	107.14
	160	0.18	5.89	1.23	1.45	117.33
50-60Hz PWR FREQ	10	0.17	2.59	0.73	0.69	94.57
	60	0.07	0.96	0.31	0.26	83.71
	110	0.18	1.18	0.37	0.24	66.48
	160	0.09	1.22	0.27	0.27	97.71
65-300Hz PWR HARM	10	0.23	5.31	1.82	1.82	99.74
	60	0.14	1.61	0.55	0.47	84.98
	110	0.09	0.98	0.43	0.26	60.87
	160	0.14	0.82	0.32	0.21	66.12
305-2560Hz HIGH FREQ	10	0.21	2.05	0.88	0.75	85.14
	60	0.06	0.57	0.22	0.16	73.45
	110	0.04	0.37	0.14	0.10	72.84
	160	0.03	0.42	0.12	0.10	87.55
5-2560Hz ALL FREQ	10	0.59	11.34	4.40	4.14	94.08
	60	0.26	6.13	1.90	1.92	101.21
	110	0.22	4.39	1.52	1.38	90.91
	160	0.26	5.98	1.34	1.46	109.01



BOS029 - ELECTRIC FIELD 170cm ABOVE FLOOR, BEHIND FRONT DOORS OF RED CAR

APPENDIX AE

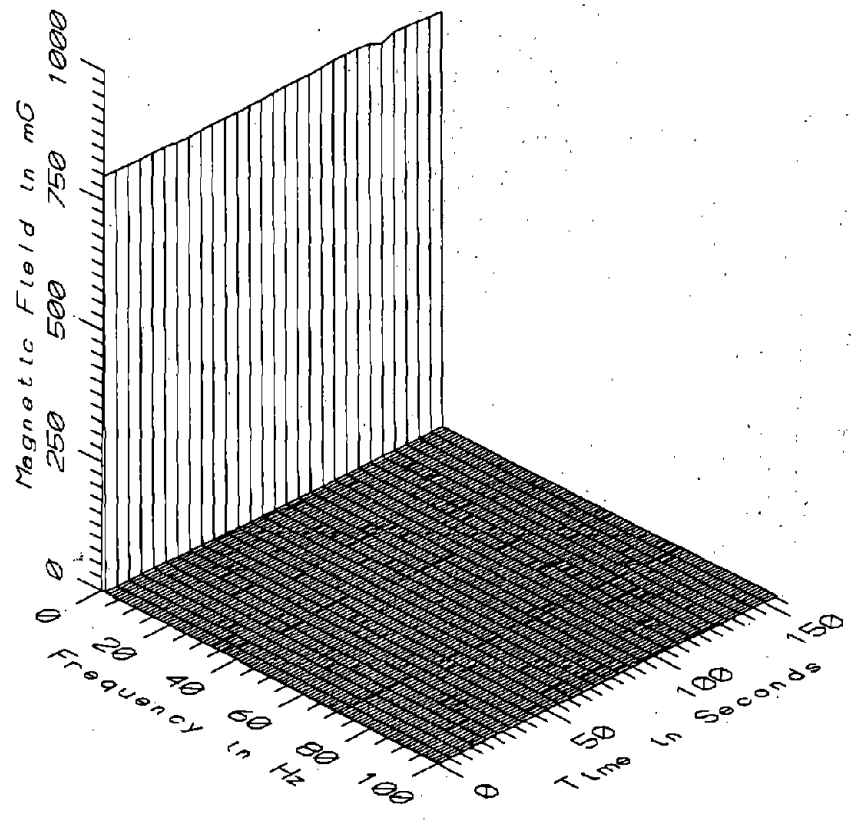
DATASET BOS030
AT OPERATOR'S RIGHT SHOULDER, TROLLEY

Measurement Setup Code:	Staff: 15 Reference: 16 Drawing: A-2
Vehicle Status:	Trolley stationary at Mattapan station
Measurement Date:	June 10, 1992
Measurement Time:	Start: 15:11:19 End: 15:13:55
Number of Samples:	29
Programmed Sample Interval:	5 sec
Actual Sample Interval:	5.6 sec

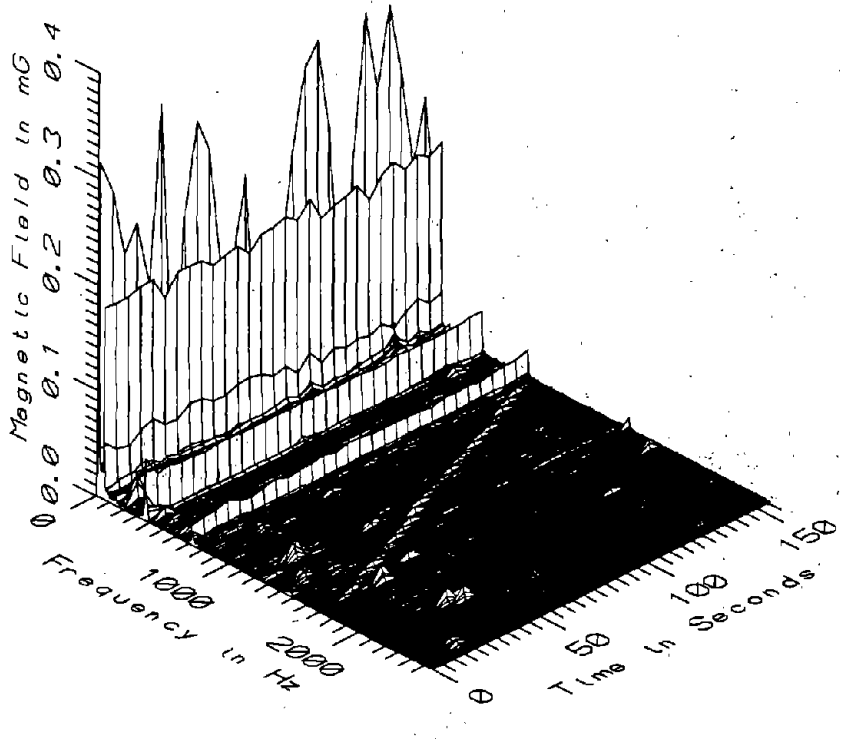
Frequency Spectrum Parameters

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

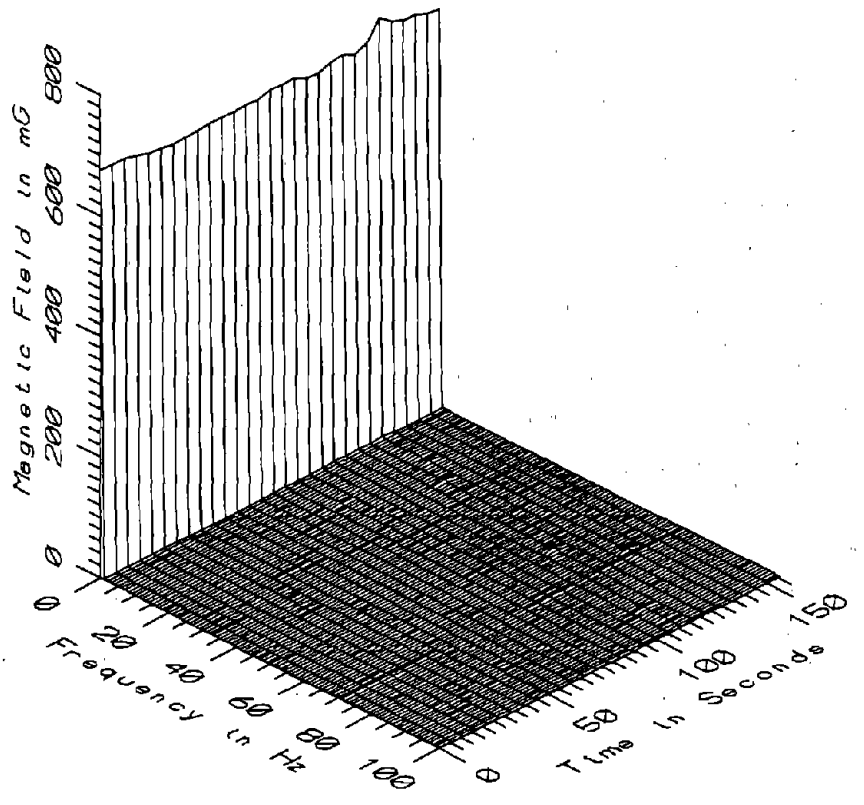
Missing Data: None



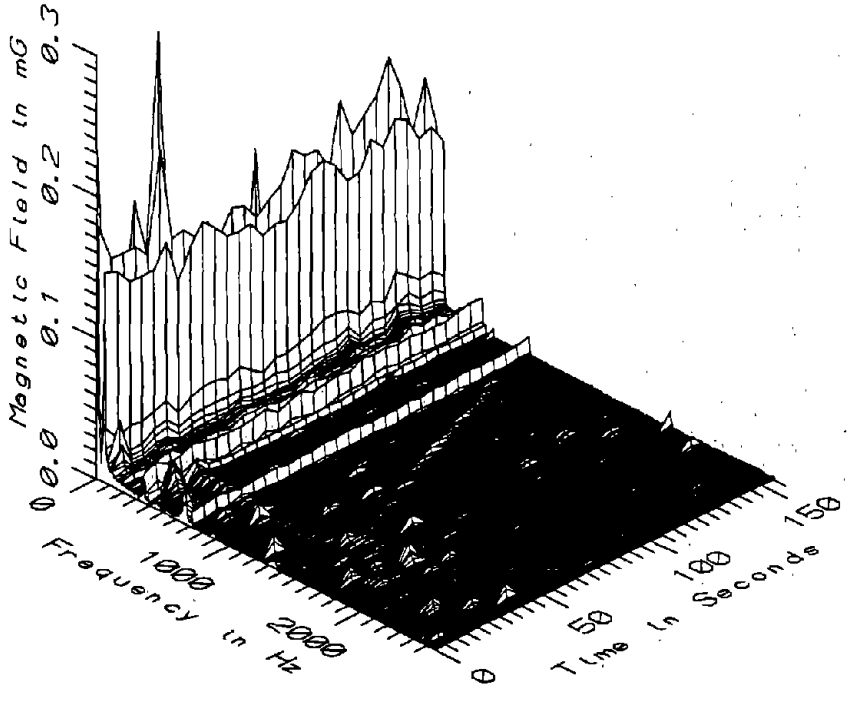
BOS030 - 10cm ABOVE FLOOR AT OPERATOR'S RIGHT SHOULDER, TROLLEY



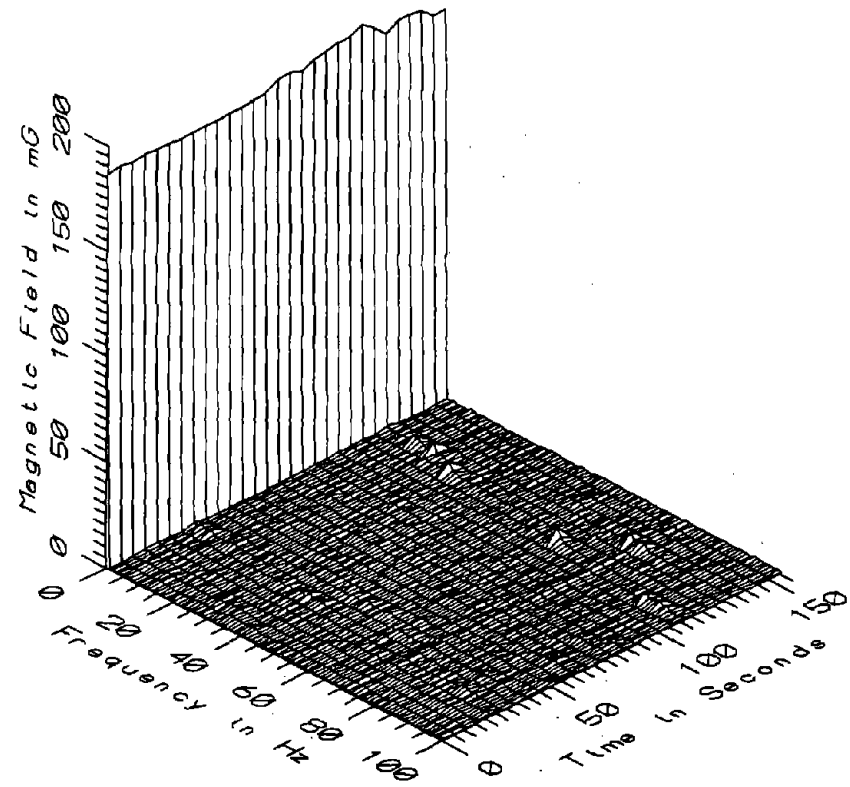
BOS030 - 10cm ABOVE FLOOR AT OPERATOR'S RIGHT SHOULDER, TROLLEY



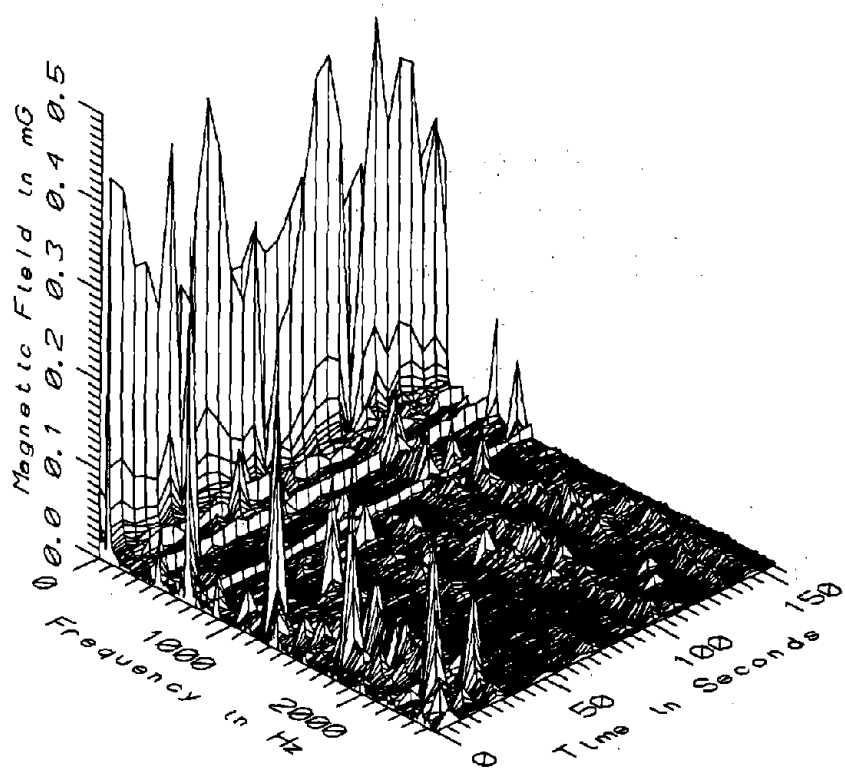
BOS030 - 60cm ABOVE FLOOR AT OPERATOR'S RIGHT SHOULDER, TROLLEY



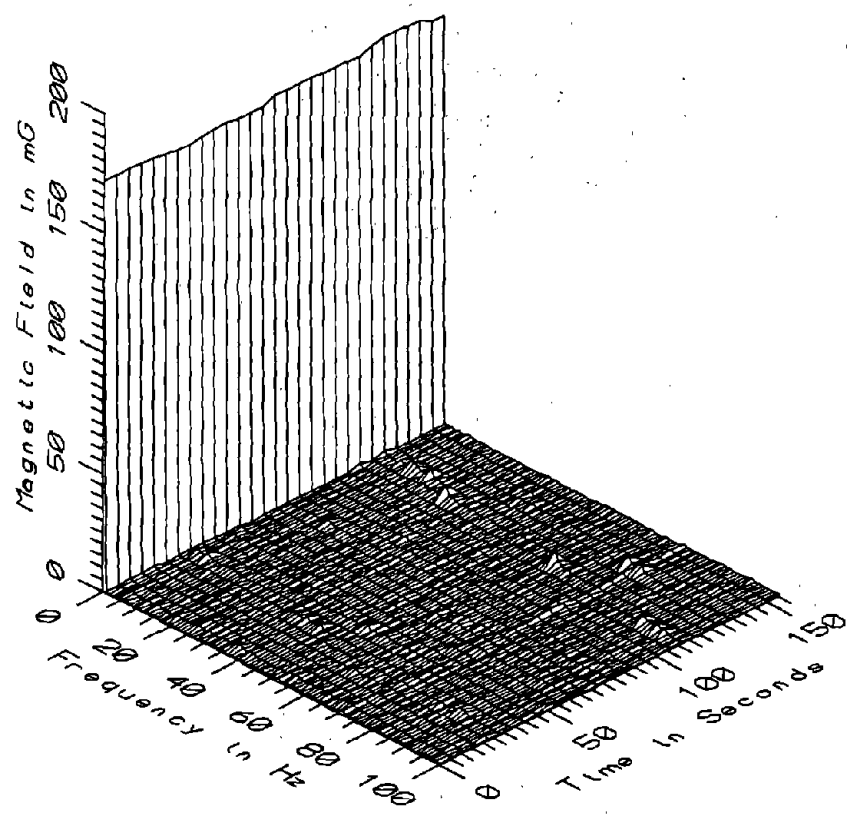
BOS030 - 60cm ABOVE FLOOR AT OPERATOR'S RIGHT SHOULDER, TROLLEY



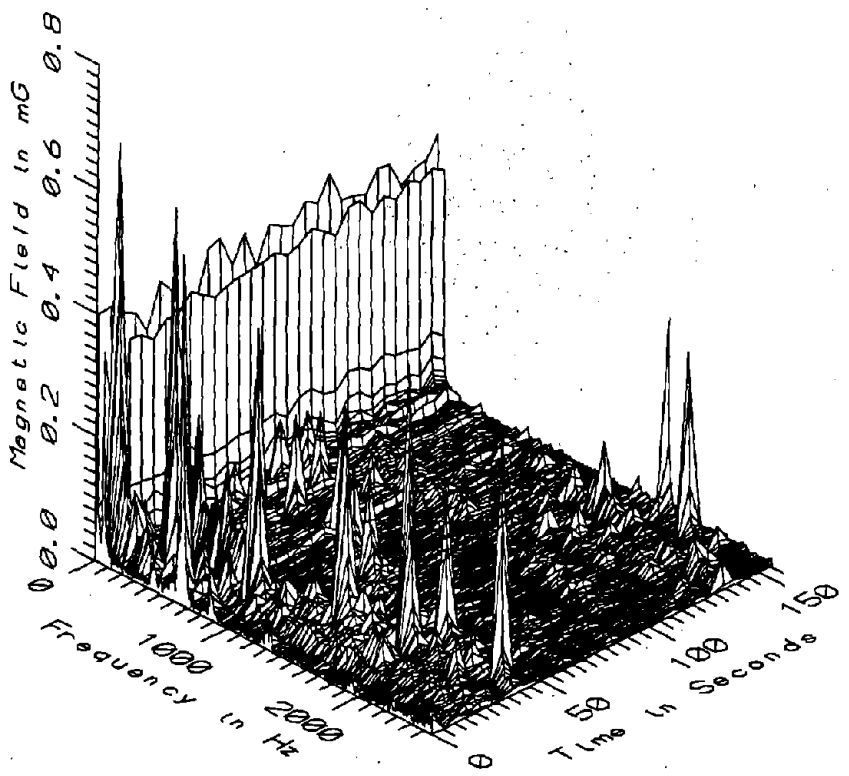
BOS030 - 110cm ABOVE FLOOR AT OPERATOR'S RIGHT SHOULDER, TROLLEY



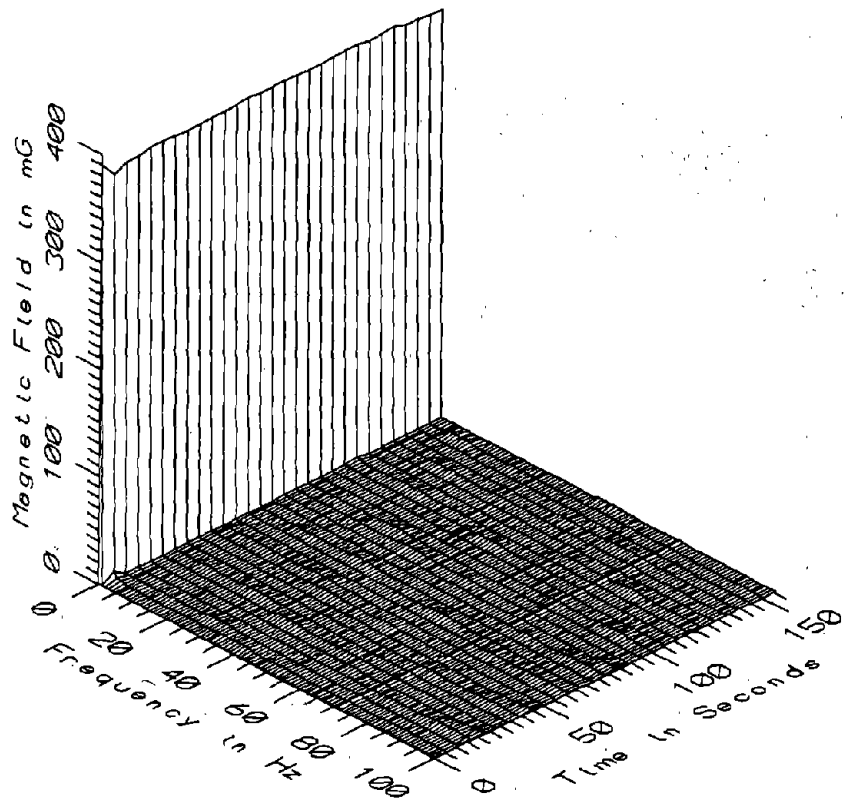
BOS030 - 110cm ABOVE FLOOR AT OPERATOR'S RIGHT SHOULDER, TROLLEY



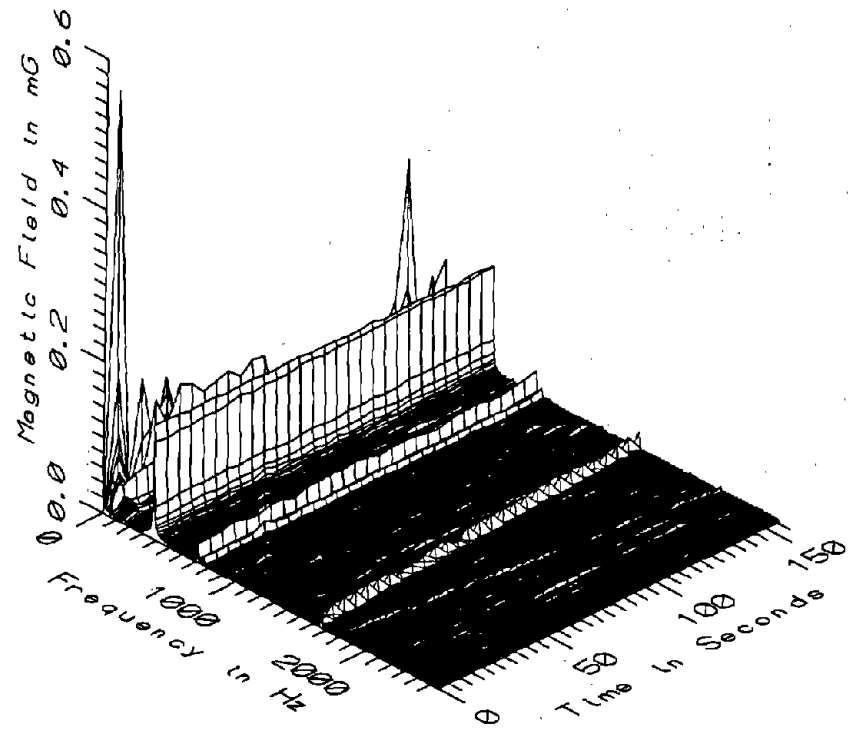
BOS030 - 160cm ABOVE FLOOR AT OPERATOR'S RIGHT SHOULDER, TROLLEY



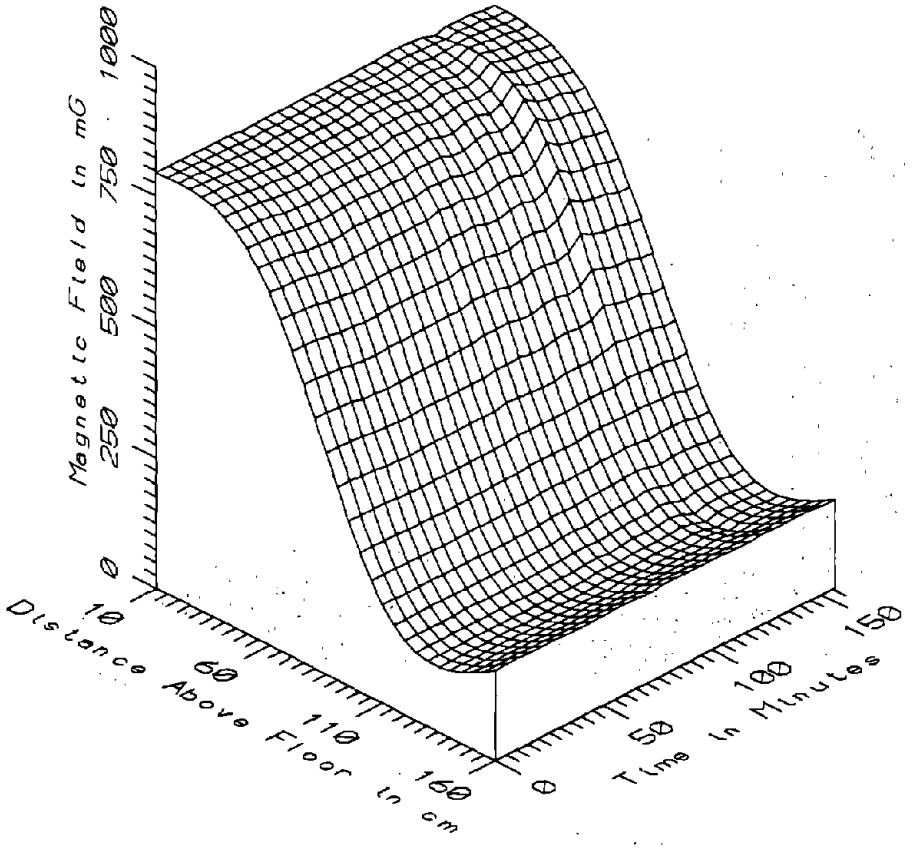
BOS030 - 160cm ABOVE FLOOR AT OPERATOR'S RIGHT SHOULDER, TROLLEY



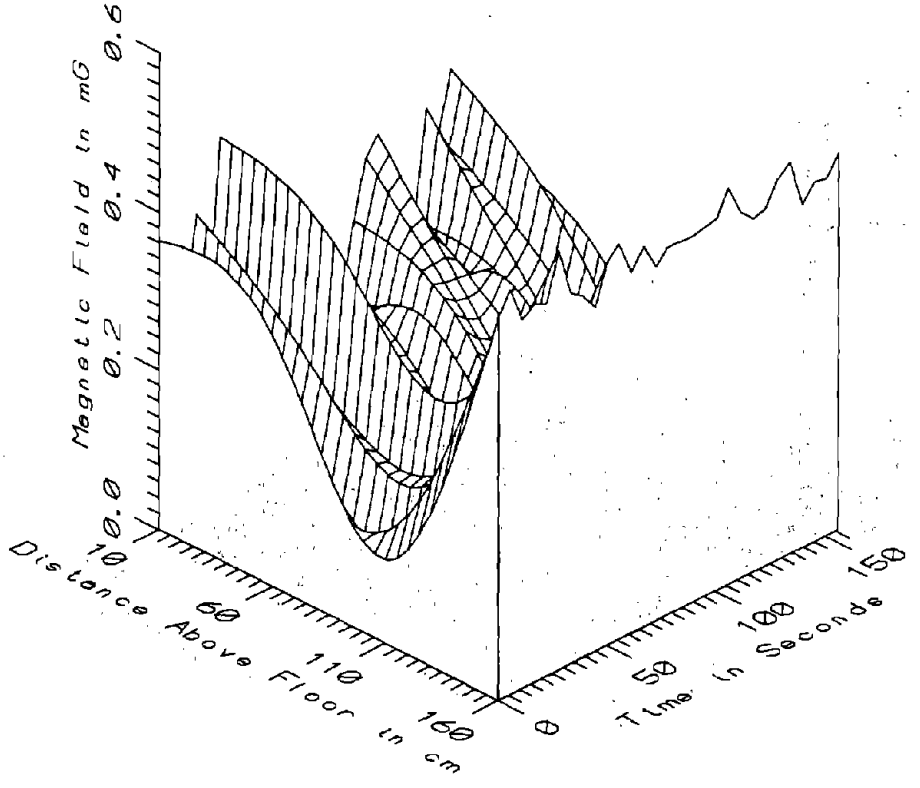
BOS030 - REFERENCE PROBE - ON WINDOW SEAT NEAR FRONT OF TROLLEY



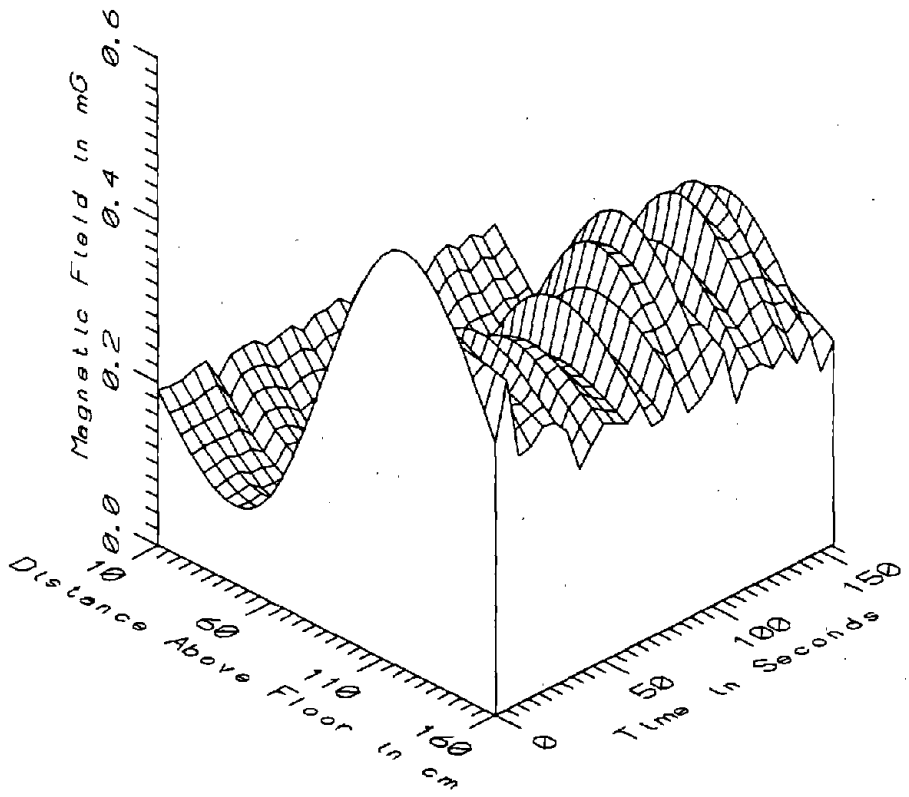
BOS030 - REFERENCE PROBE - ON WINDOW SEAT NEAR FRONT OF TROLLEY



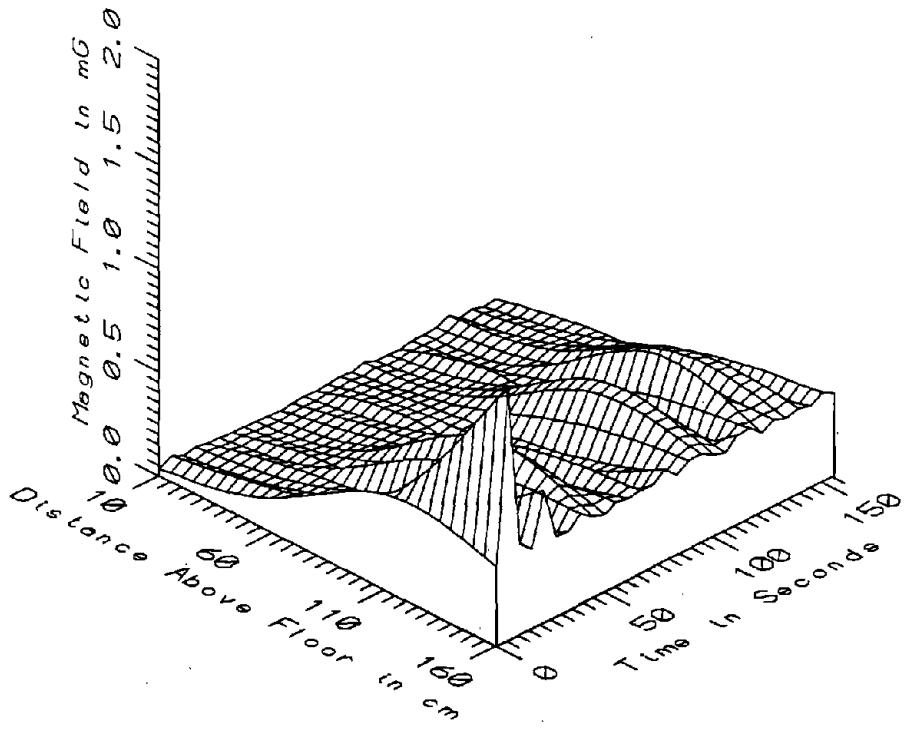
BOS030 - OPERATOR'S RIGHT SHOULDER, TROLLEY - STATIC



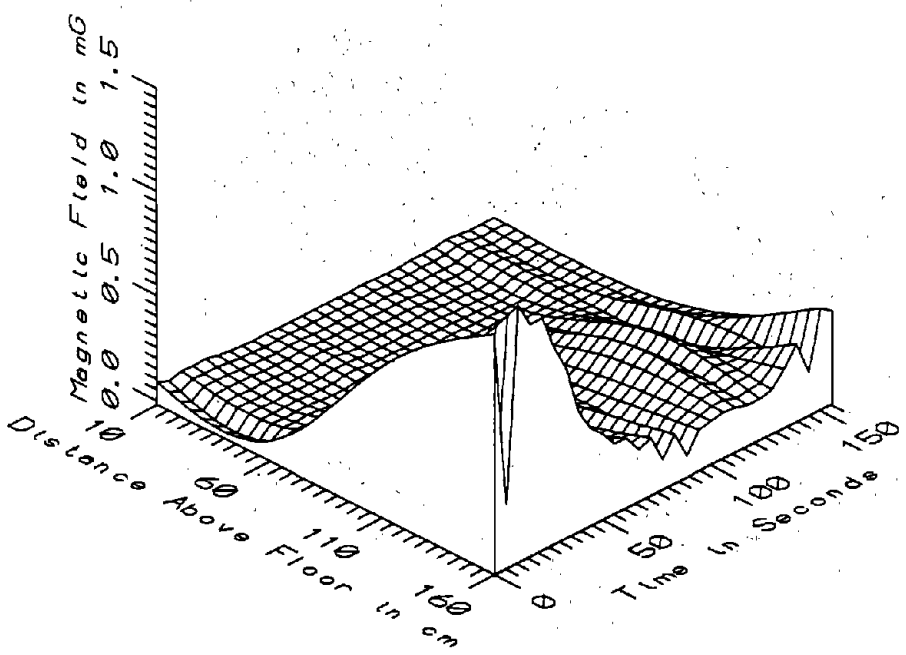
BOS030 - AT OPERATOR'S RIGHT SHOULDER, TROLLEY - LOW FREQ. 5-45Hz



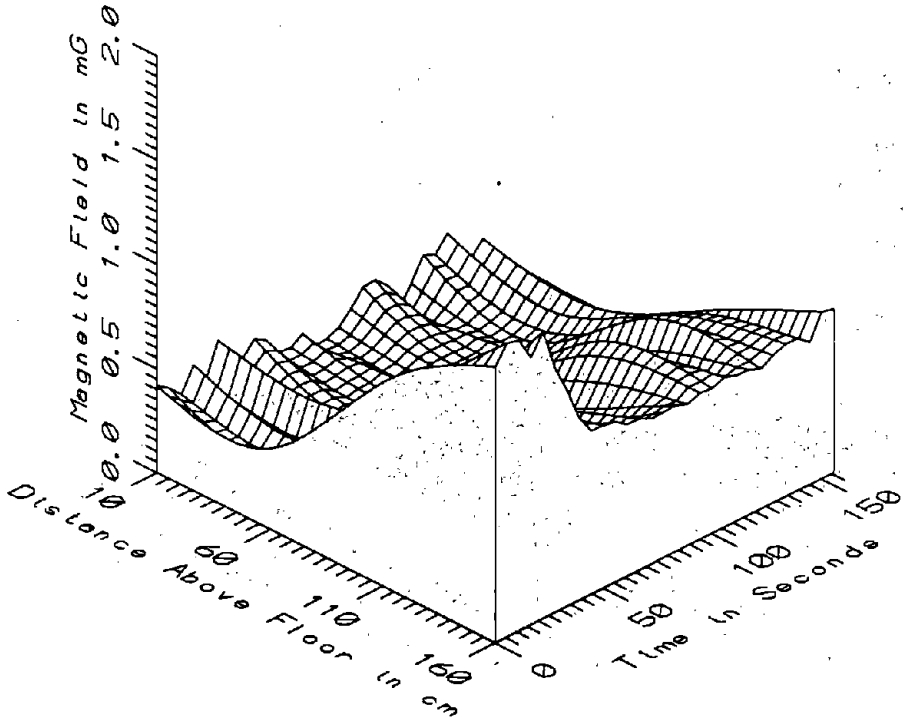
BOS030 - AT OPERATOR'S RIGHT SHOULDER, TROLLEY - POWER FREQ, 50-60Hz



BOS030 - AT OPERATOR'S RIGHT SHOULDER, TROLLEY - POWER HARM, 65-300Hz

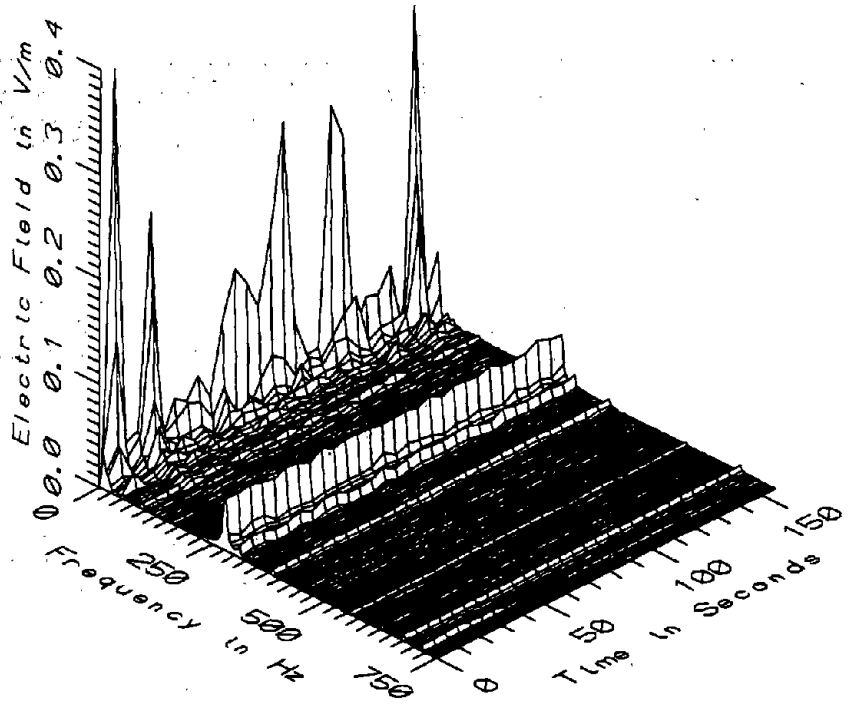


BOS030 - AT OPERATOR'S RIGHT SHOULDER, TROLLEY - HIGH FREQ, 305-2560Hz



BOS030 - AT OPERATOR'S RIGHT SHOULDER, TROLLEY - ALL FREQ, 5-2560Hz

BOS030 - AT OPERATOR'S RIGHT SHOULDER, TROLLEY					TOTAL OF 29 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	789.70	802.39	796.87	3.01	0.38
	60	654.66	694.49	664.95	8.37	1.26
	110	184.07	197.23	188.85	3.20	1.70
	160	169.46	174.03	171.55	1.26	0.73
5-45Hz LOW FREQ	10	0.09	0.46	0.27	0.09	34.07
	60	0.14	0.39	0.21	0.05	25.15
	110	0.05	0.26	0.12	0.05	38.95
	160	0.43	0.53	0.47	0.02	4.69
50-60Hz PWR FREQ	10	0.16	0.20	0.18	0.01	4.66
	60	0.07	0.13	0.09	0.02	16.53
	110	0.27	0.50	0.34	0.05	15.11
	160	0.22	0.40	0.28	0.04	13.00
65-300Hz PWR HARM	10	0.02	0.07	0.04	0.01	31.97
	60	0.12	0.17	0.15	0.01	9.11
	110	0.05	0.50	0.33	0.12	36.93
	160	0.37	1.22	0.44	0.16	36.05
305-2560Hz HIGH FREQ	10	0.05	0.09	0.06	0.01	18.17
	60	0.03	0.08	0.05	0.01	26.62
	110	0.05	0.71	0.22	0.17	77.91
	160	0.08	1.21	0.43	0.34	79.29
5-2560Hz ALL FREQ	10	0.21	0.49	0.34	0.07	21.44
	60	0.22	0.44	0.28	0.05	17.00
	110	0.31	0.98	0.56	0.15	26.66
	160	0.67	1.41	0.87	0.25	29.32



BOS030 - ELECTRIC FIELD AT OPERATOR'S RIGHT SHOULDER, TROLLEY

APPENDIX AF

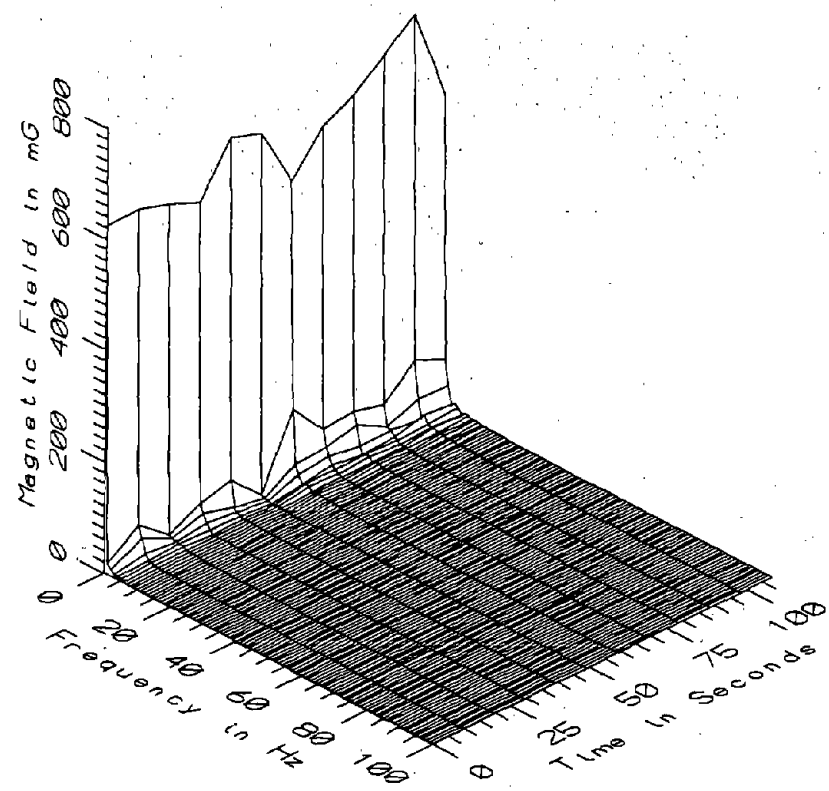
DATASET BOS031
AT OPERATOR'S RIGHT SHOULDER, TROLLEY

Measurement Setup Code:	Staff: 15 Reference: 16 Drawing: A-2
Vehicle Status:	Trolley travelling between Mattapan and Ashmont stations
Measurement Date:	June 10, 1992
Measurement Time:	Start: 15:14:33 End: 15:16:21
Number of Samples:	12
Programmed Sample Interval:	5 sec
Actual Sample Interval:	9.8 sec

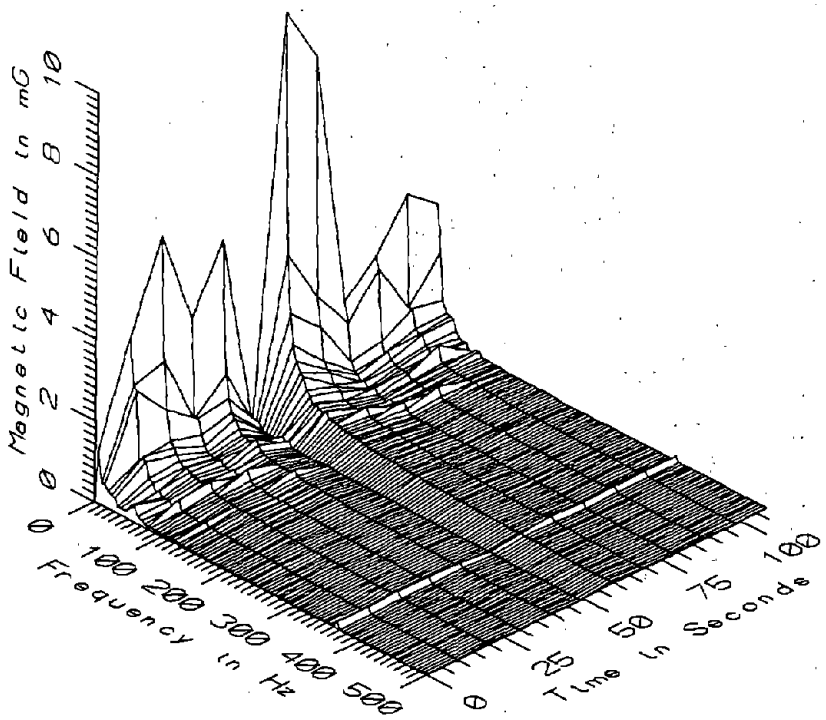
Frequency Spectrum Parameters

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

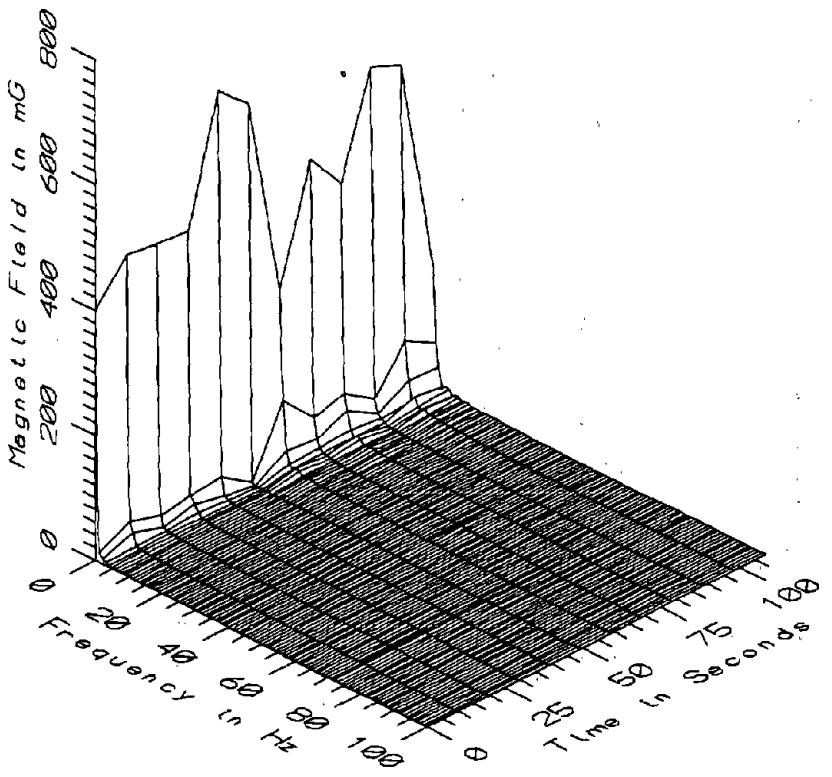
Missing Data: None



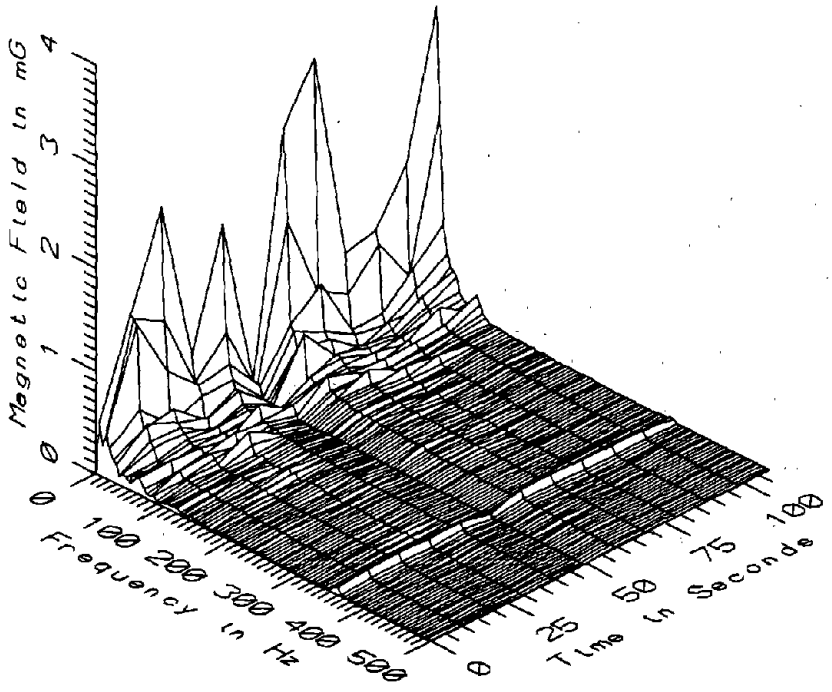
BOS031 - 10cm ABOVE FLOOR AT OPERATOR'S RIGHT SHOULDER, TROLLEY



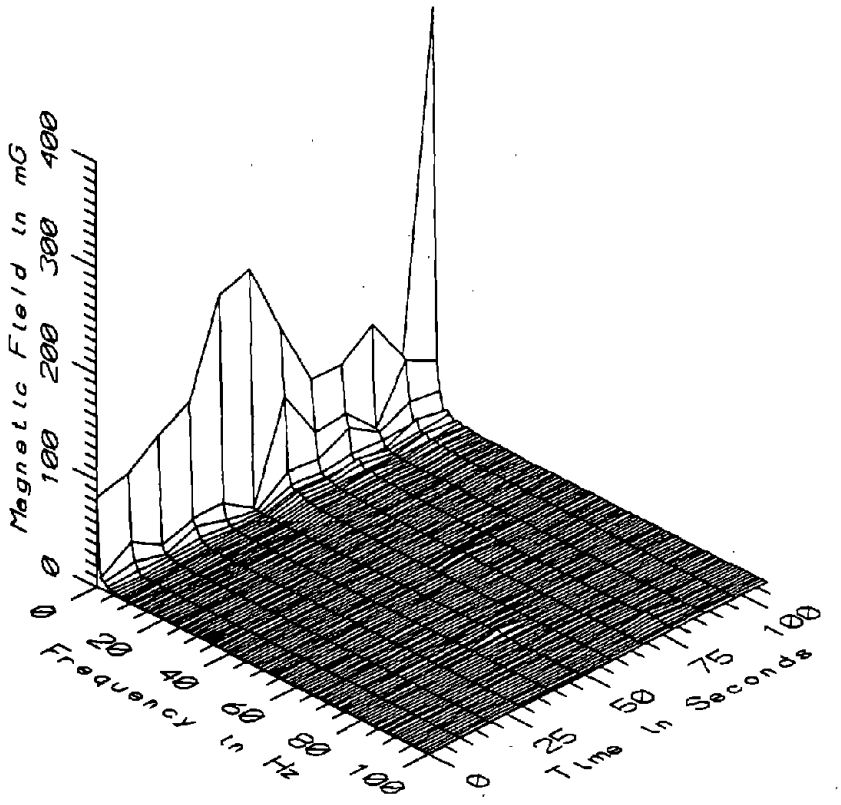
BOS031 - 10cm ABOVE FLOOR AT OPERATOR'S RIGHT SHOULDER, TROLLEY



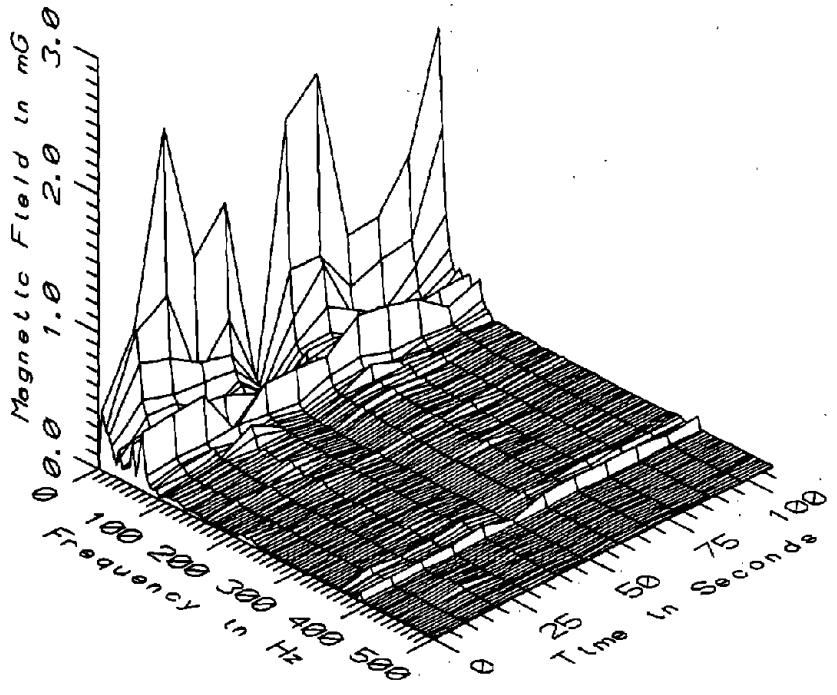
BOS031 - 60cm ABOVE FLOOR AT OPERATOR'S RIGHT SHOULDER, TROLLEY



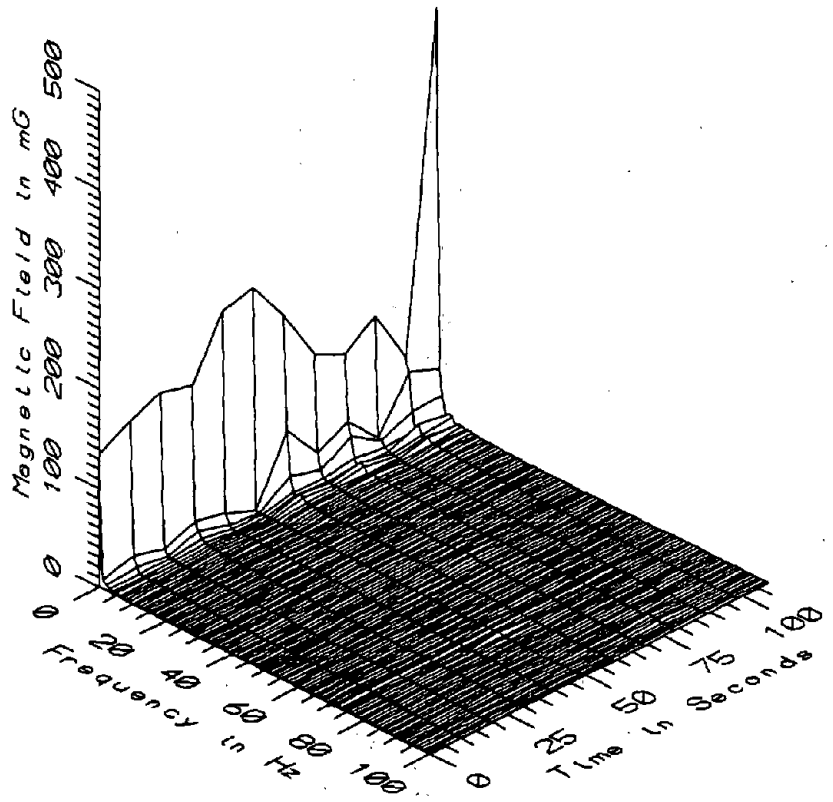
BOS031 - 60cm ABOVE FLOOR AT OPERATOR'S RIGHT SHOULDER, TROLLEY



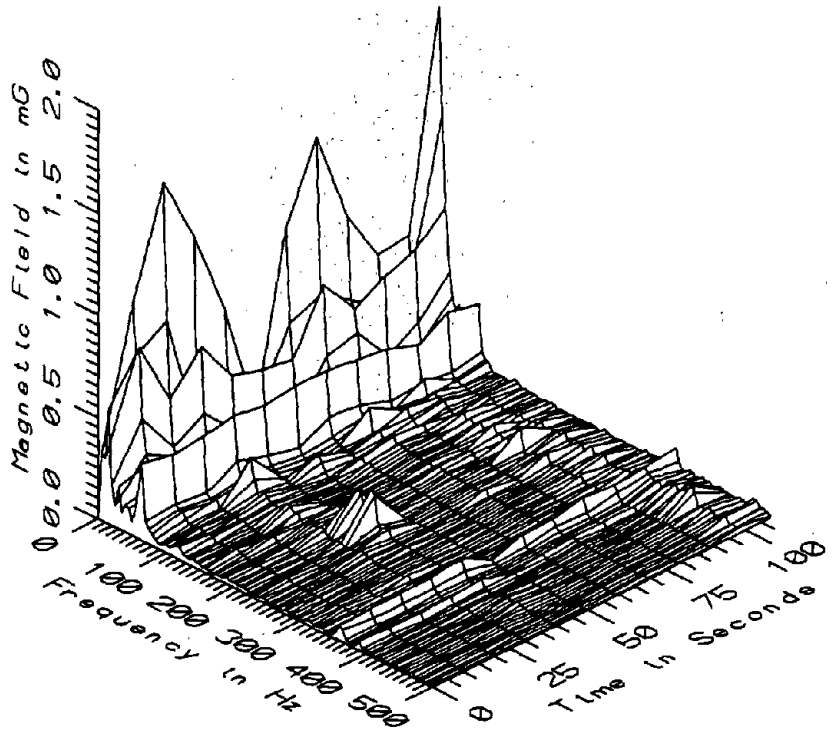
BOS031 - 110cm ABOVE FLOOR AT OPERATOR'S RIGHT SHOULDER, TROLLEY



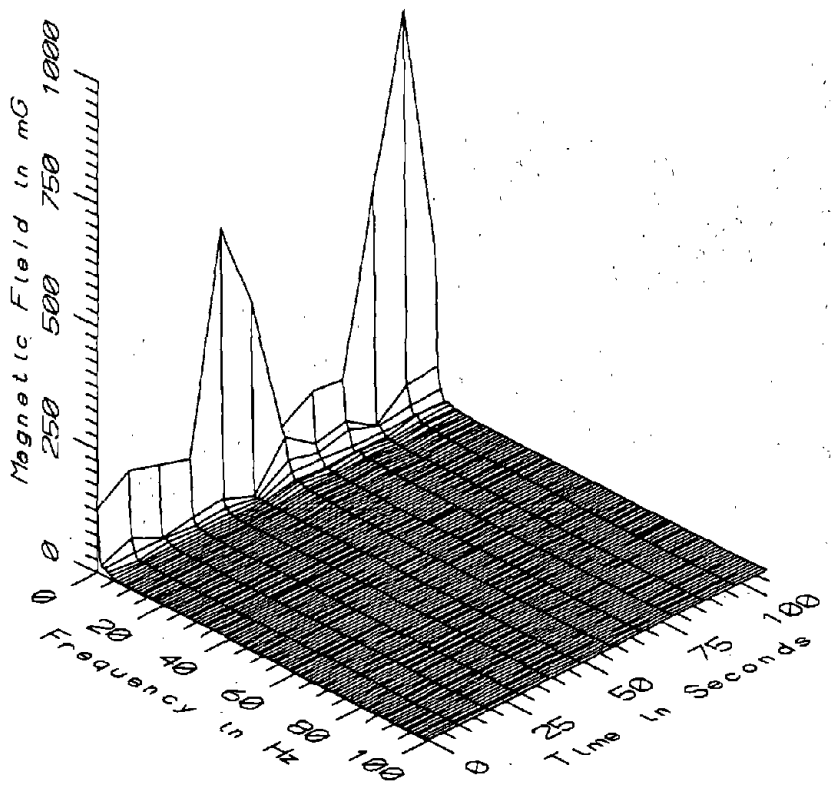
BOS031 - 110cm ABOVE FLOOR AT OPERATOR'S RIGHT SHOULDER, TROLLEY



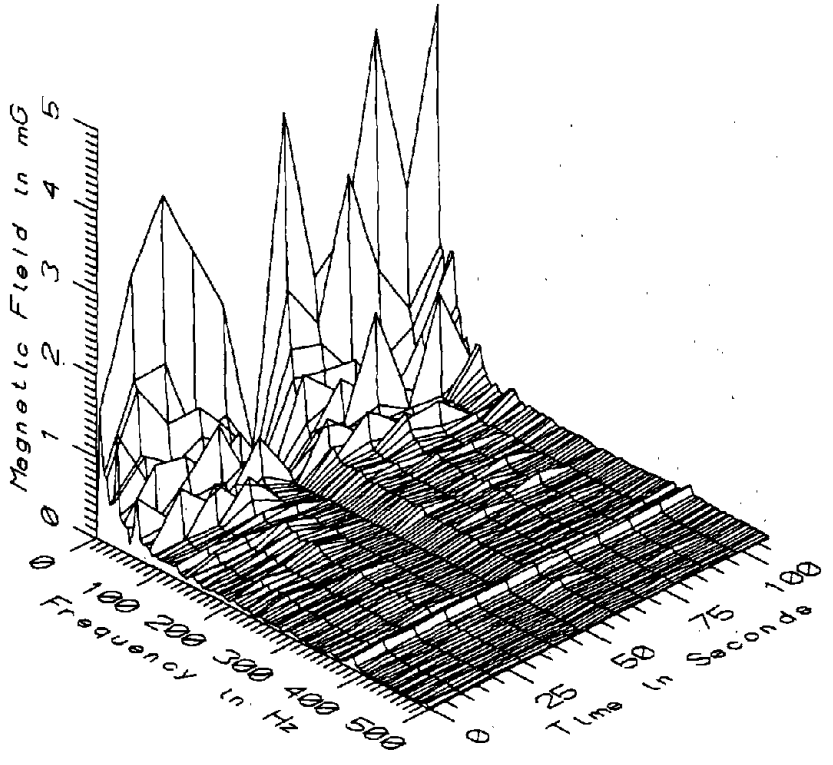
BOS031 - 160cm ABOVE FLOOR AT OPERATOR'S RIGHT SHOULDER, TROLLEY



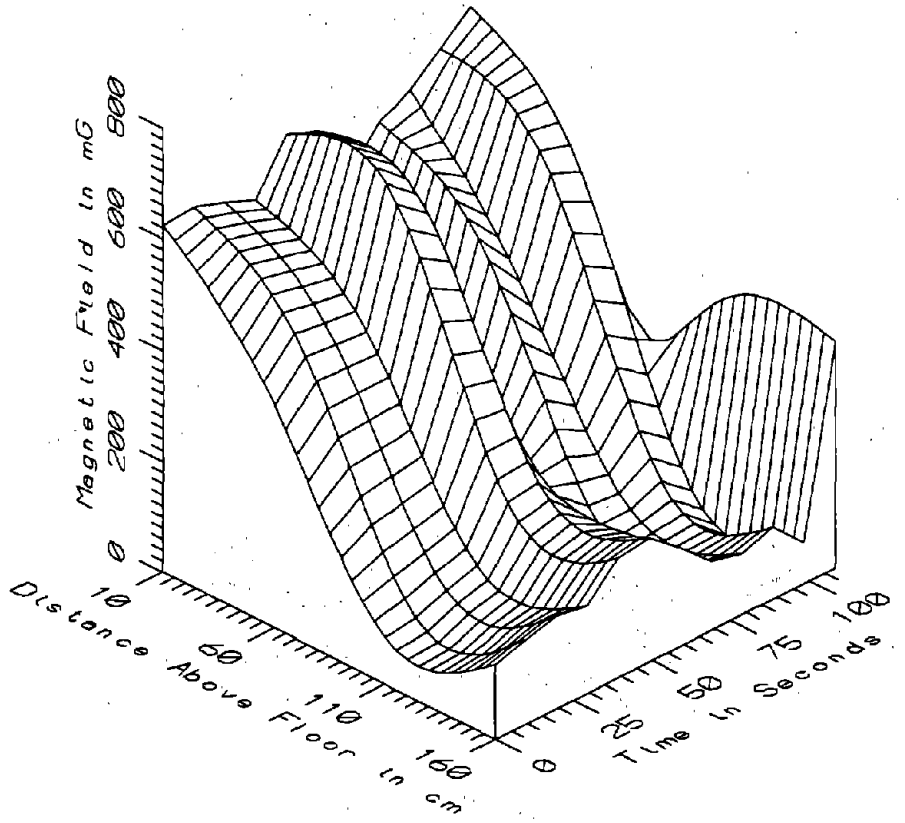
BOS031 - 160cm ABOVE FLOOR AT OPERATOR'S RIGHT SHOULDER, TROLLEY



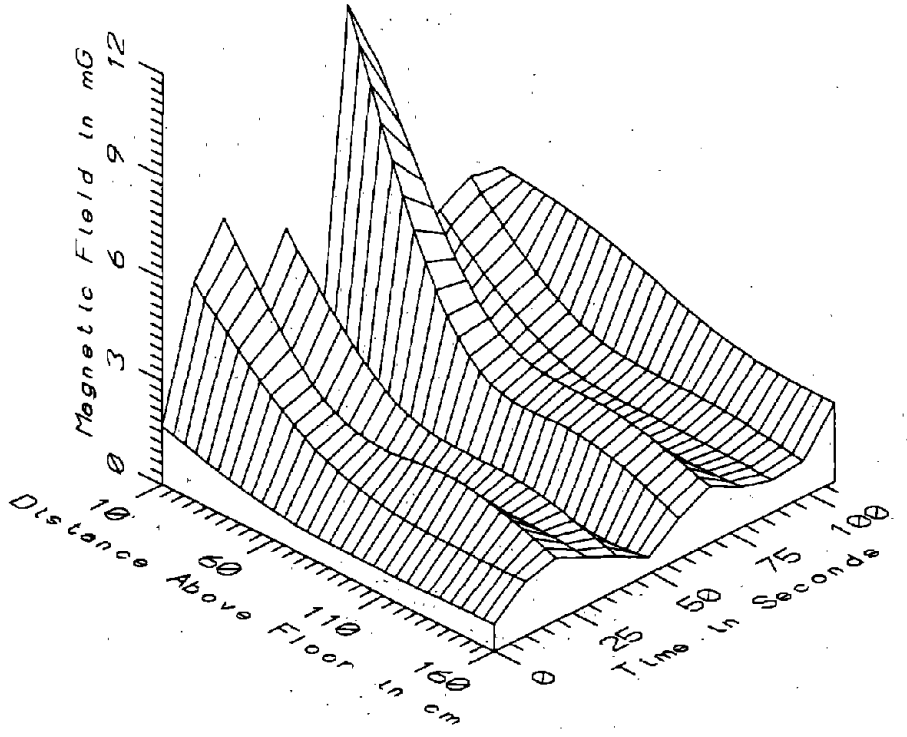
BOS031 - REFERENCE PROBE - ON WINDOW SEAT NEAR FRONT OF TROLLEY



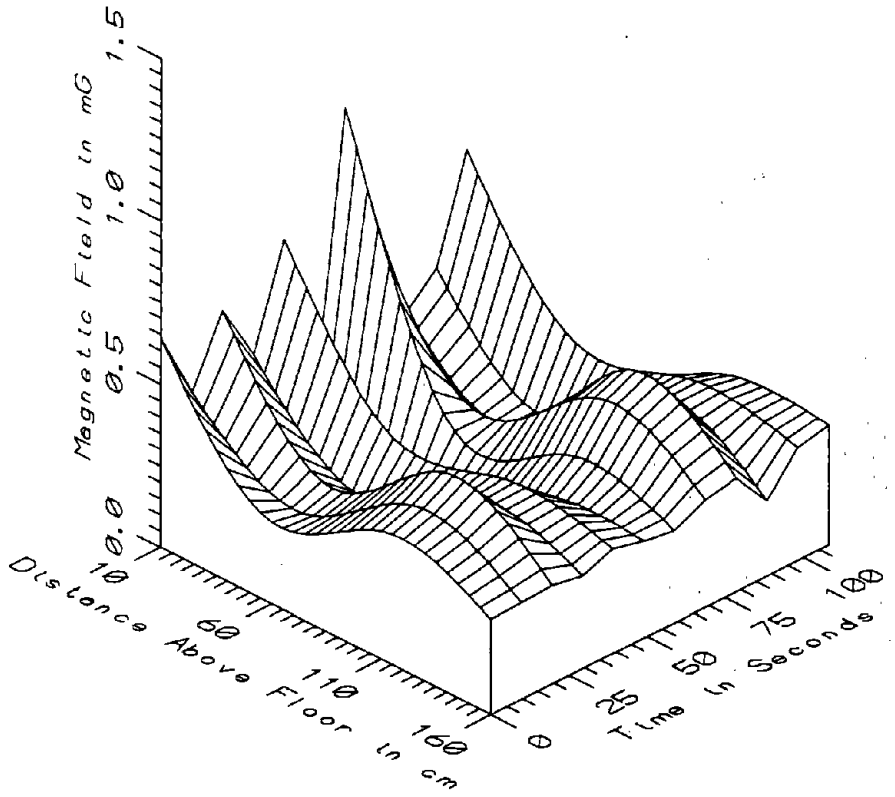
BOS031 - REFERENCE PROBE - ON WINDOW SEAT NEAR FRONT OF TROLLEY



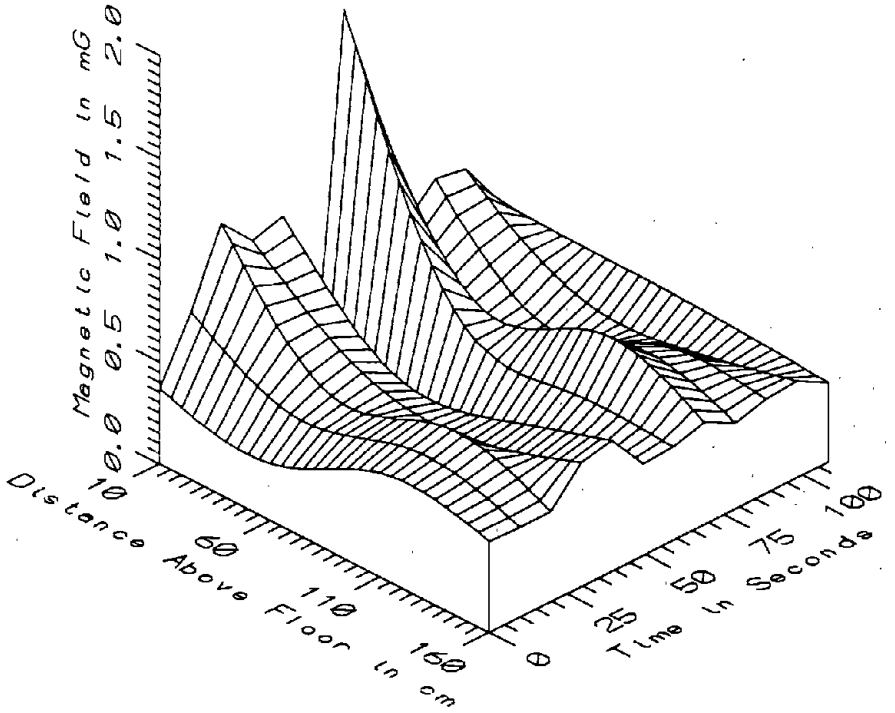
BOS031 - AT OPERATOR'S RIGHT SHOULDER, TROLLEY - STATIC



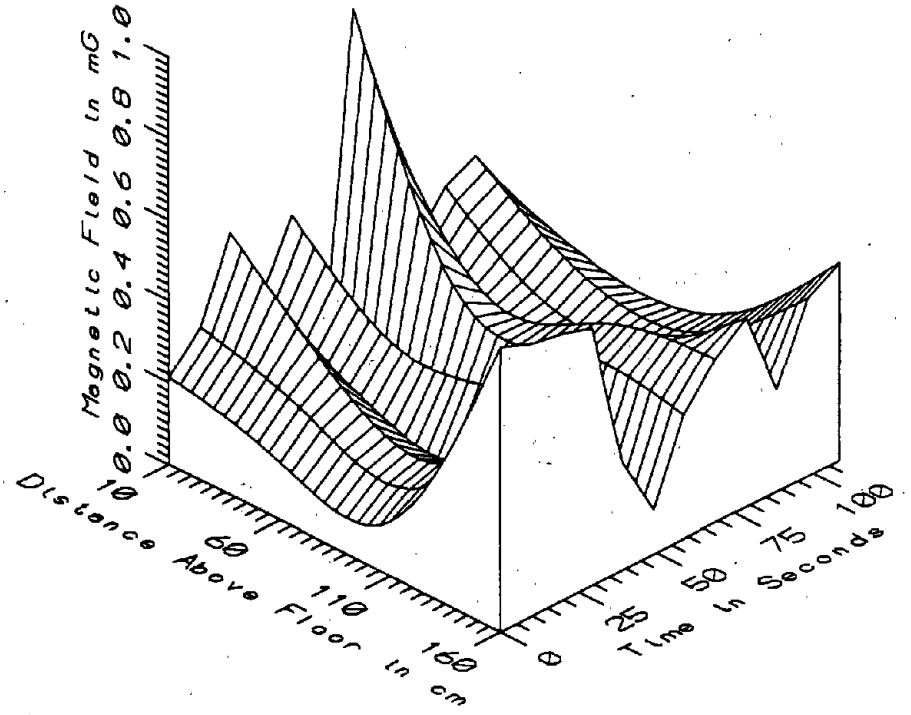
BOS031 - AT OPERATOR'S RIGHT SHOULDER, TROLLEY - LOW FREQ, 5-45Hz



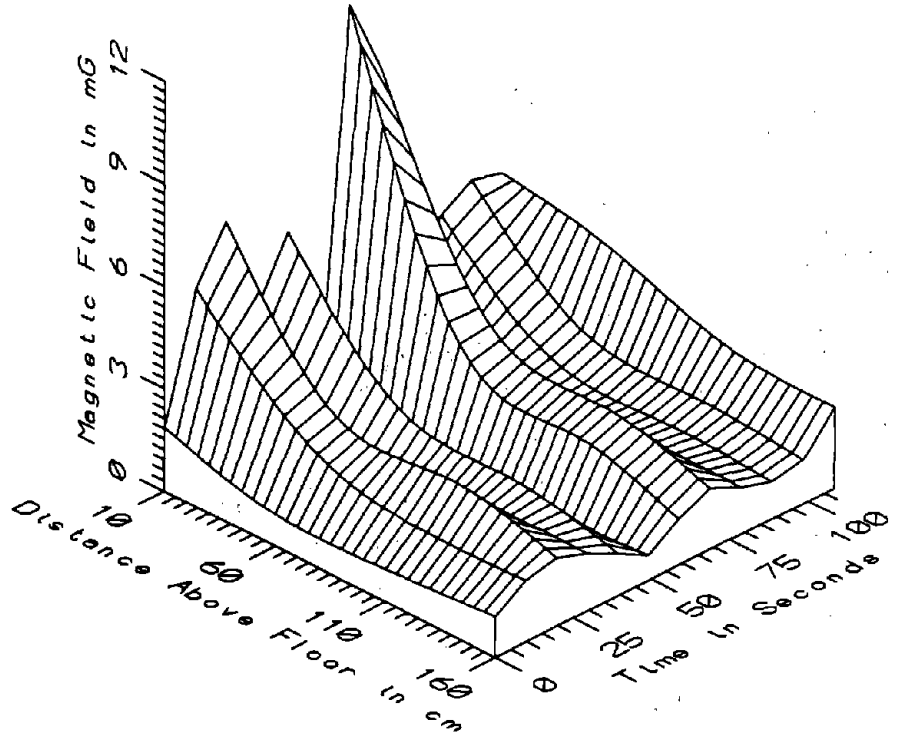
BOS031 - AT OPERATOR'S RIGHT SHOULDER, TROLLEY - POWER FREQ, 50-60Hz



BOS031 - AT OPERATOR'S RIGHT SHOULDER, TROLLEY - POWER HARM, 65-300Hz

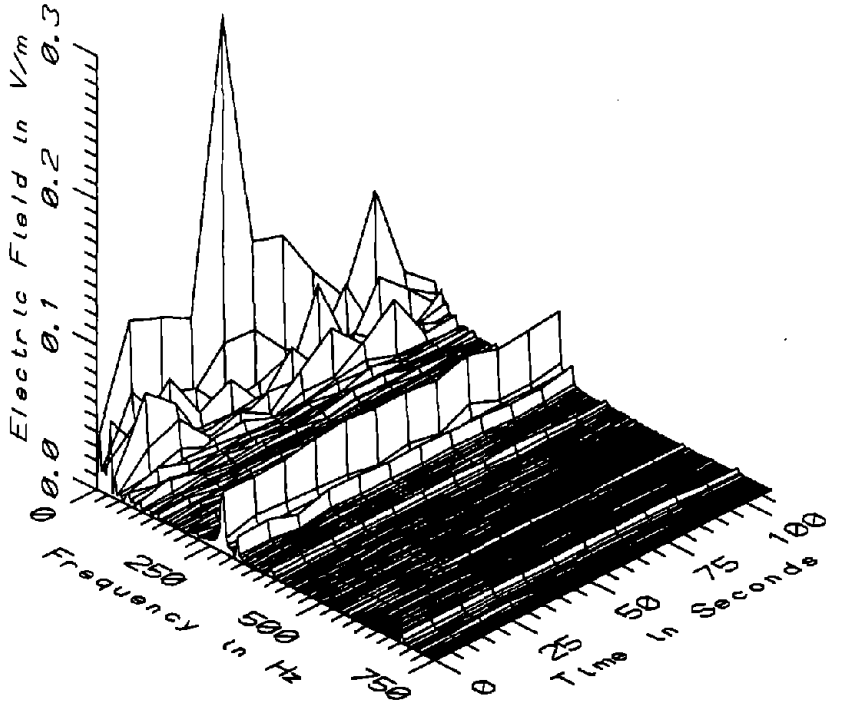


BOS031 - AT OPERATOR'S RIGHT SHOULDER, TROLLEY - HIGH FREQ, 305-2560Hz



BOS031 - AT OPERATOR'S RIGHT SHOULDER, TROLLEY - ALL FREQ, 5-2560Hz

BOS031 - AT OPERATOR'S RIGHT SHOULDER, TROLLEY					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	542.67	737.57	631.44	54.68	8.66
	60	197.33	651.35	457.33	128.72	28.15
	110	70.08	385.45	147.19	90.10	61.22
	160	75.69	411.39	173.87	85.59	49.23
5-45Hz LOW FREQ	10	0.31	11.29	4.96	3.05	61.41
	60	0.26	3.69	2.02	1.09	53.94
	110	0.16	2.66	1.58	0.78	49.23
	160	0.48	2.27	1.29	0.49	38.04
50-60Hz PWR FREQ	10	0.22	1.06	0.55	0.23	42.31
	60	0.10	0.32	0.22	0.07	30.72
	110	0.27	0.51	0.40	0.07	16.83
	160	0.23	0.37	0.31	0.04	11.96
65-300Hz PWR HARM	10	0.04	1.77	0.78	0.44	56.46
	60	0.14	0.58	0.39	0.12	31.90
	110	0.35	0.67	0.48	0.09	19.17
	160	0.39	0.64	0.48	0.07	15.14
305-2560Hz HIGH FREQ	10	0.08	0.89	0.38	0.21	55.97
	60	0.08	0.30	0.20	0.06	31.65
	110	0.11	0.35	0.22	0.07	32.86
	160	0.11	0.69	0.44	0.19	42.64
5-2560Hz ALL FREQ	10	0.39	11.52	5.08	3.07	60.44
	60	0.32	3.73	2.09	1.08	51.71
	110	0.48	2.77	1.74	0.72	41.07
	160	0.73	2.38	1.50	0.45	30.13



BOS031 - ELECTRIC FIELD AT OPERATOR'S RIGHT SHOULDER, TROLLEY

APPENDIX AG

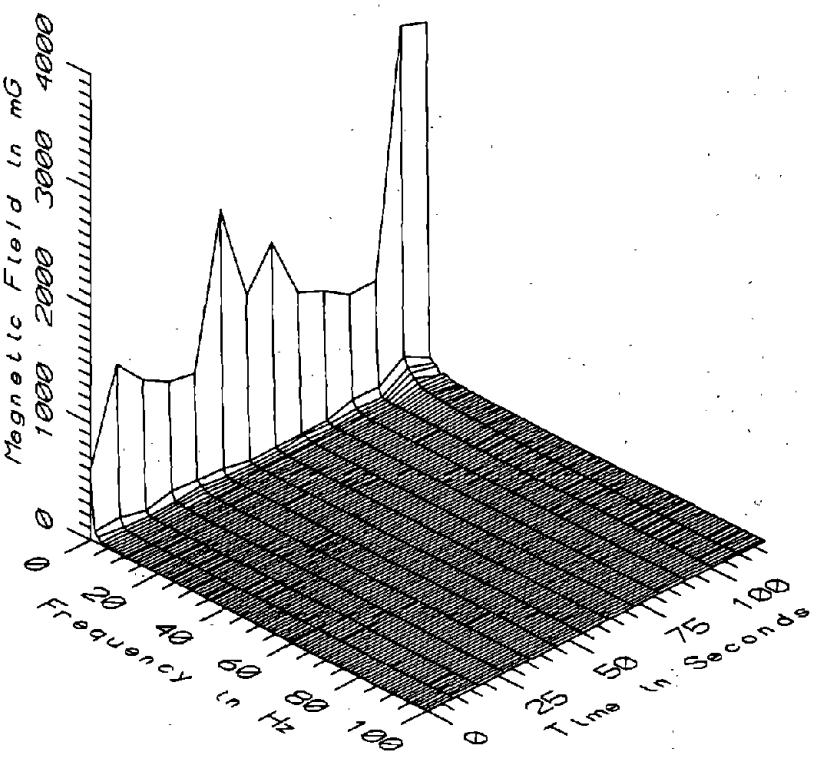
DATASET BOS032
IN CENTER OF TROLLEY

Measurement Setup Code:	Staff: 17 Reference: 16 Drawing: A-2
Vehicle Status:	Trolley travelling between Mattapan and Ashmont stations
Measurement Date:	June 10, 1992
Measurement Time:	Start: 15:17:32 End: 15:19:31
Number of Samples:	12
Programmed Sample Interval:	5 sec
Actual Sample Interval:	9.8 sec

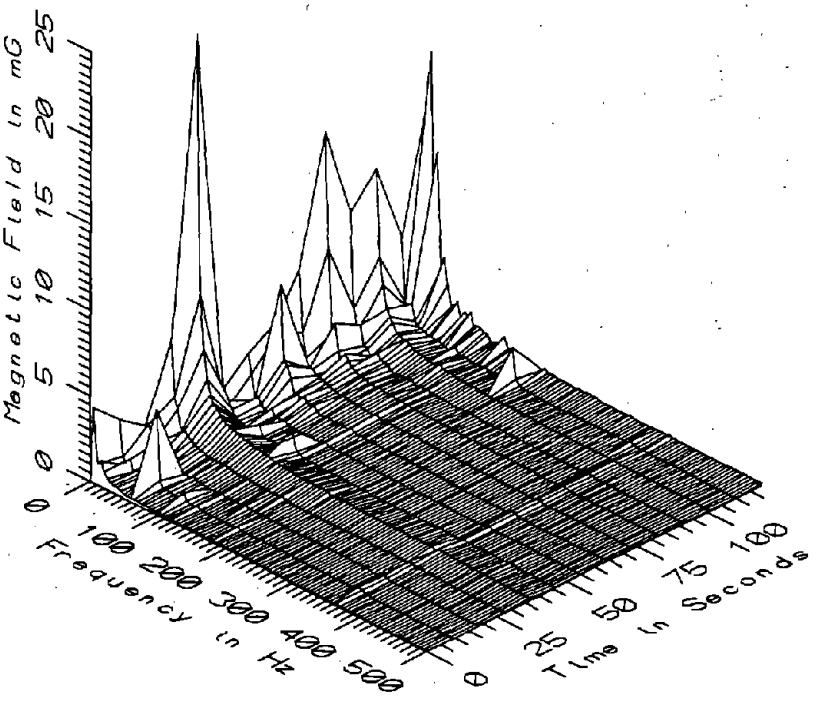
Frequency Spectrum Parameters

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

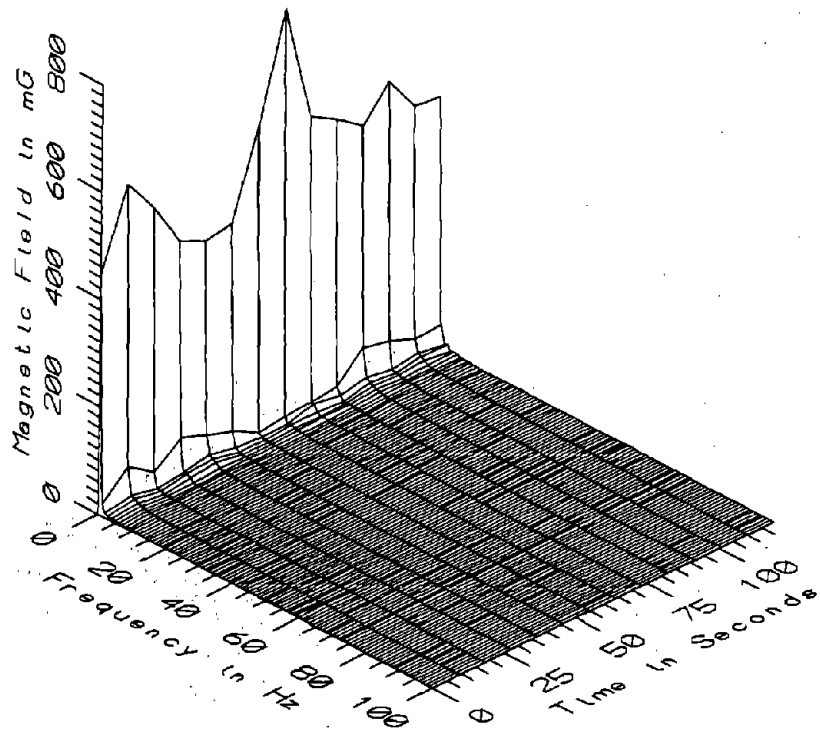
Missing Data: None



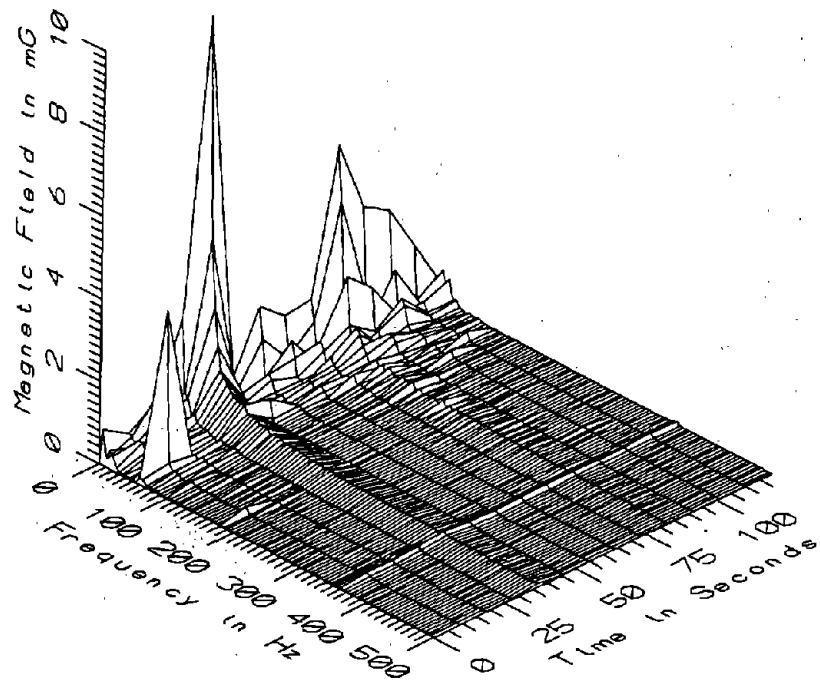
BOS032 - 10cm ABOVE FLOOR IN CENTER OF HIGH SPEED TROLLEY



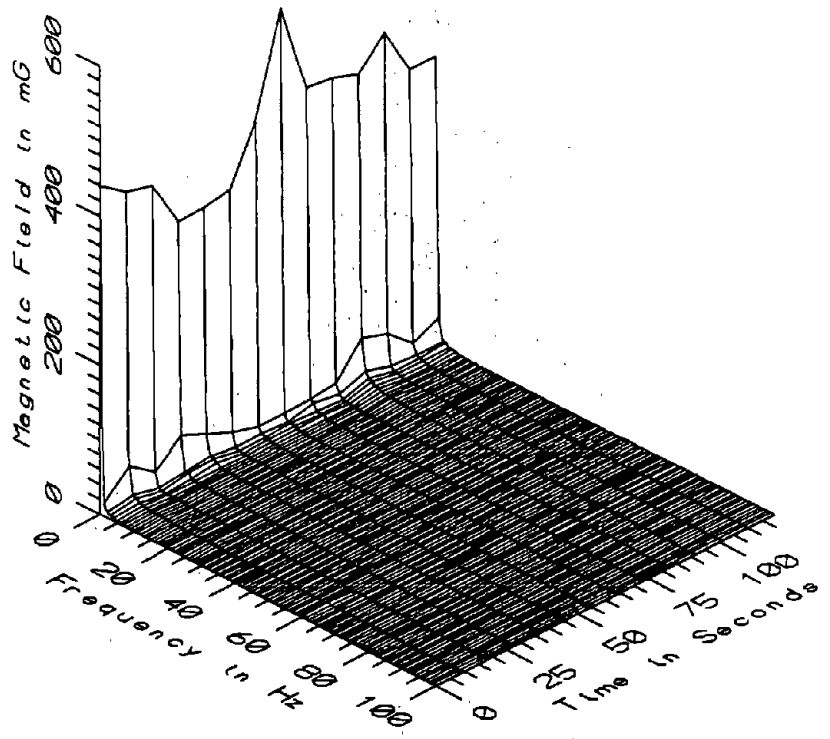
BOS032 - 10cm ABOVE FLOOR IN CENTER OF HIGH SPEED TROLLEY



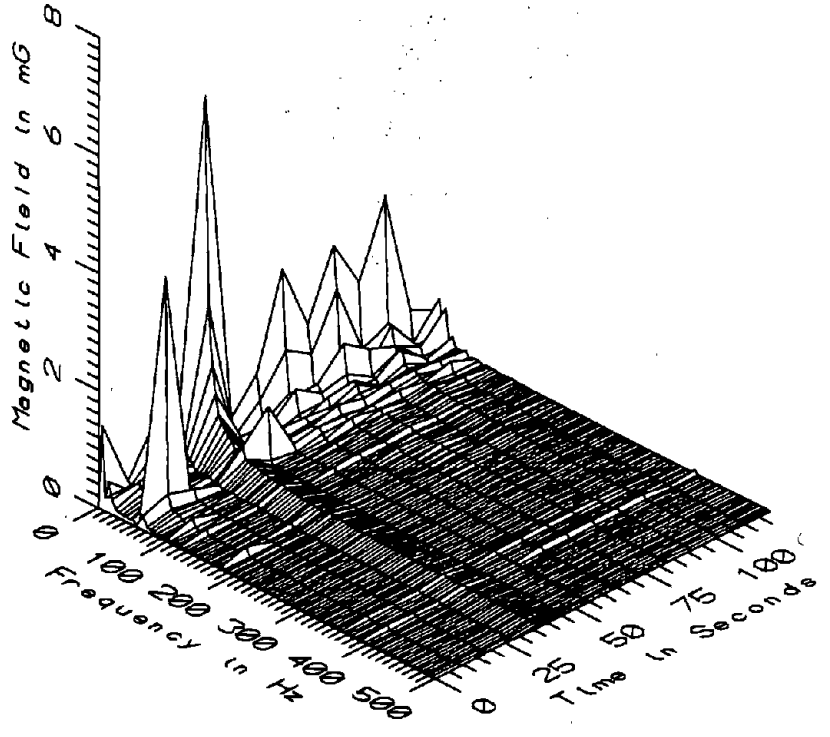
BOS032 - 60cm ABOVE FLOOR IN CENTER OF HIGH SPEED TROLLEY



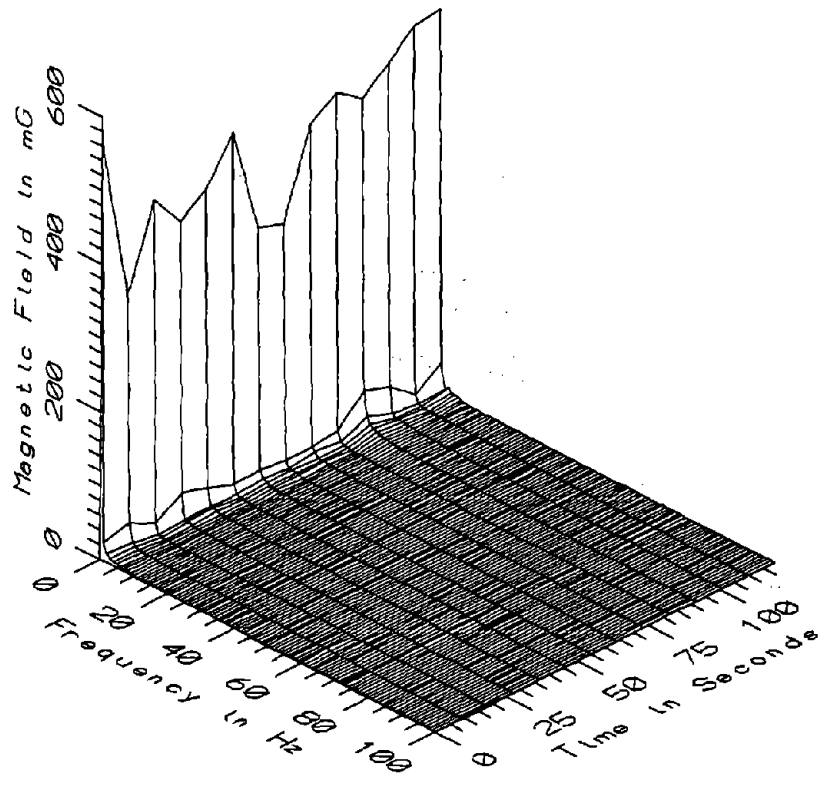
BOS032 - 60cm ABOVE FLOOR IN CENTER OF HIGH SPEED TROLLEY



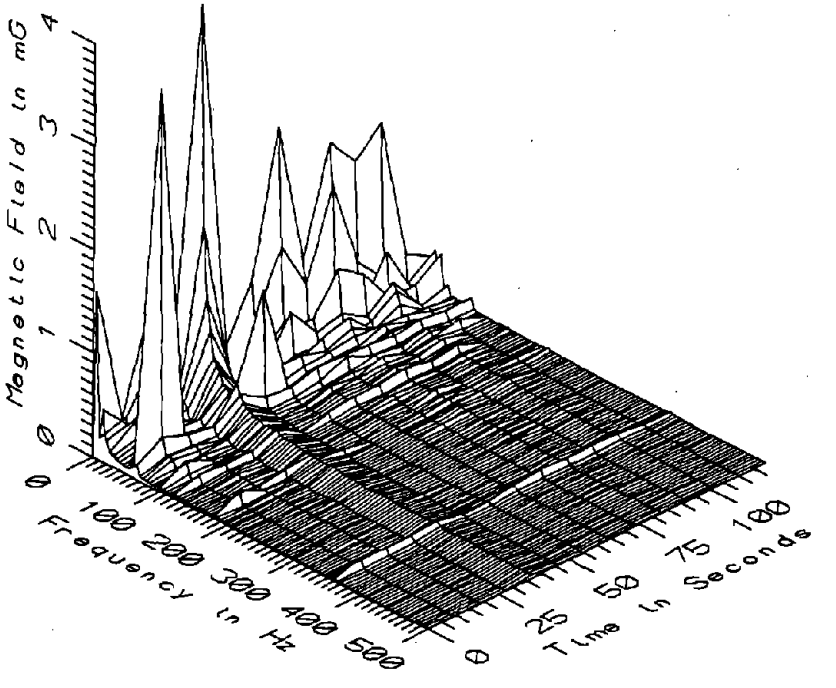
BOS032 - 110cm ABOVE FLOOR IN CENTER OF HIGH SPEED TROLLEY



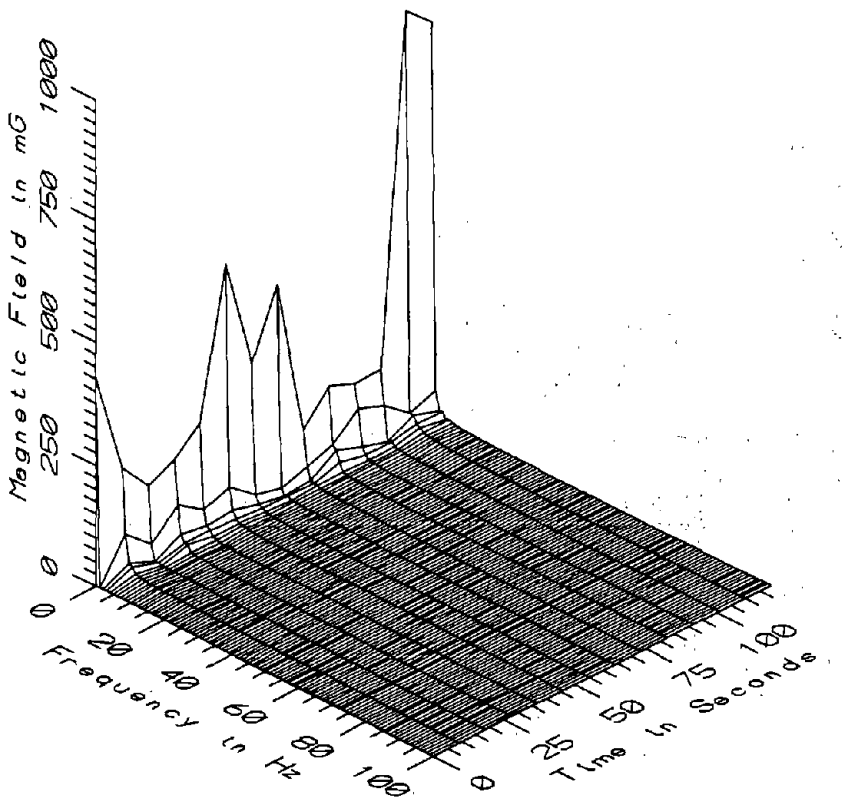
BOS032 - 110cm ABOVE FLOOR IN CENTER OF HIGH SPEED TROLLEY



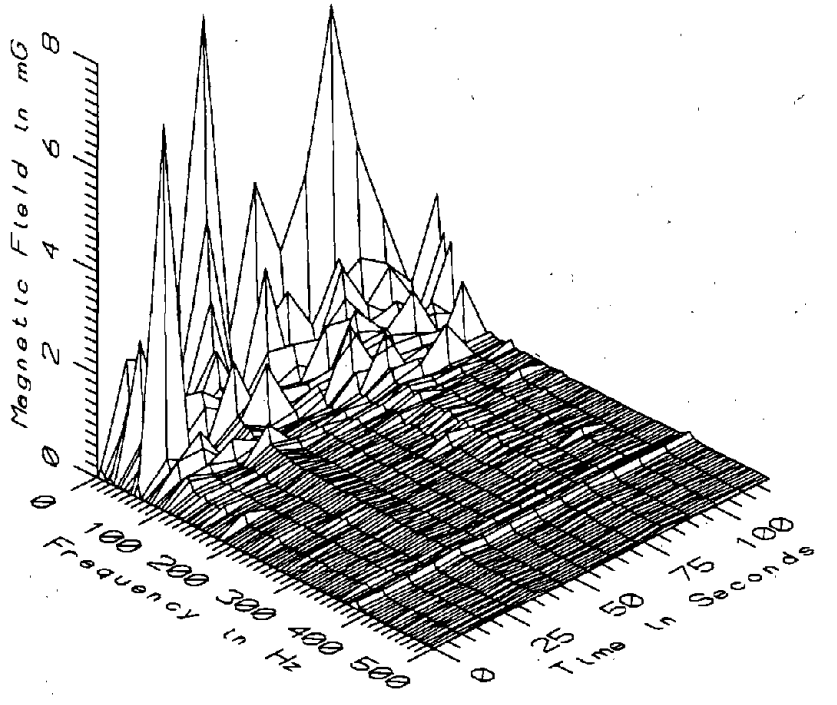
BOS032 - 160cm ABOVE FLOOR IN CENTER OF HIGH SPEED TROLLEY



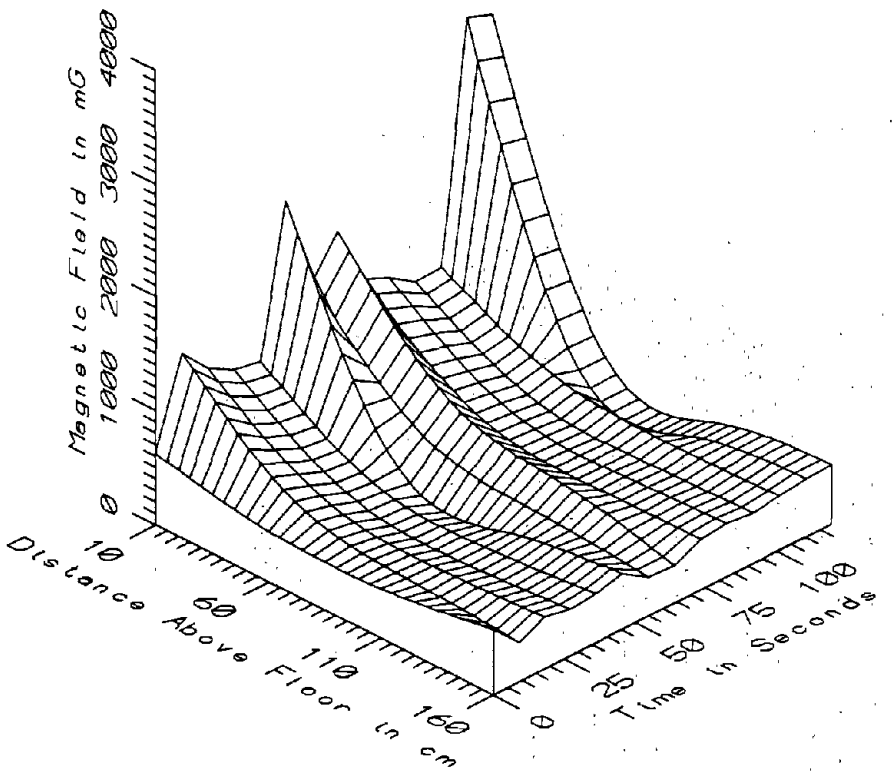
BOS032 - 160cm ABOVE FLOOR IN CENTER OF HIGH SPEED TROLLEY



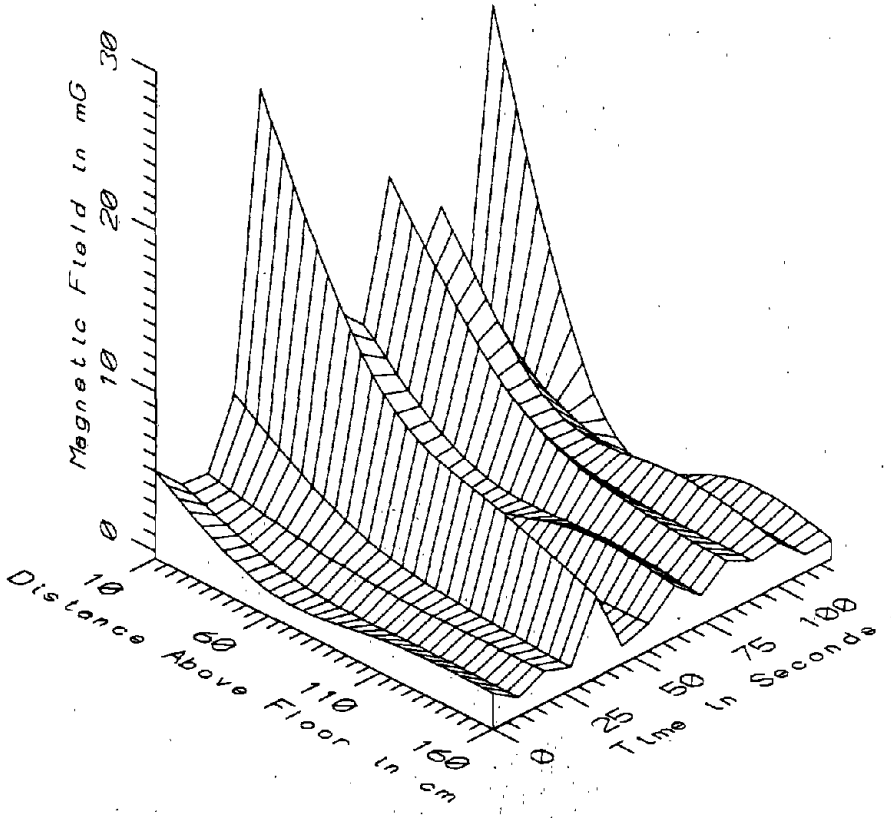
BOS032 - REFERENCE PROBE - ON WINDOW SEAT NEAR FRONT OF TROLLEY



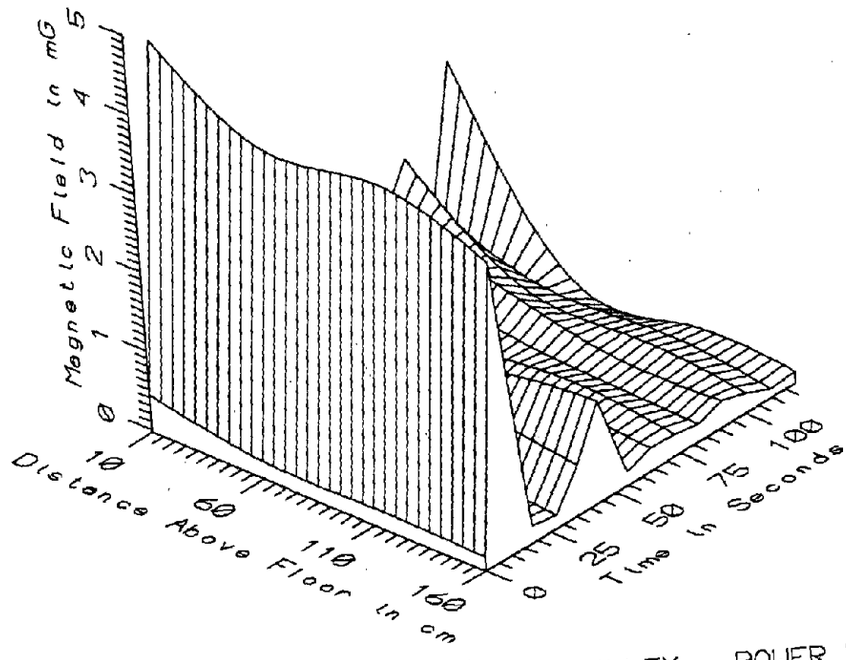
BOS032 - REFERENCE PROBE - ON WINDOW SEAT NEAR FRONT OF TROLLEY



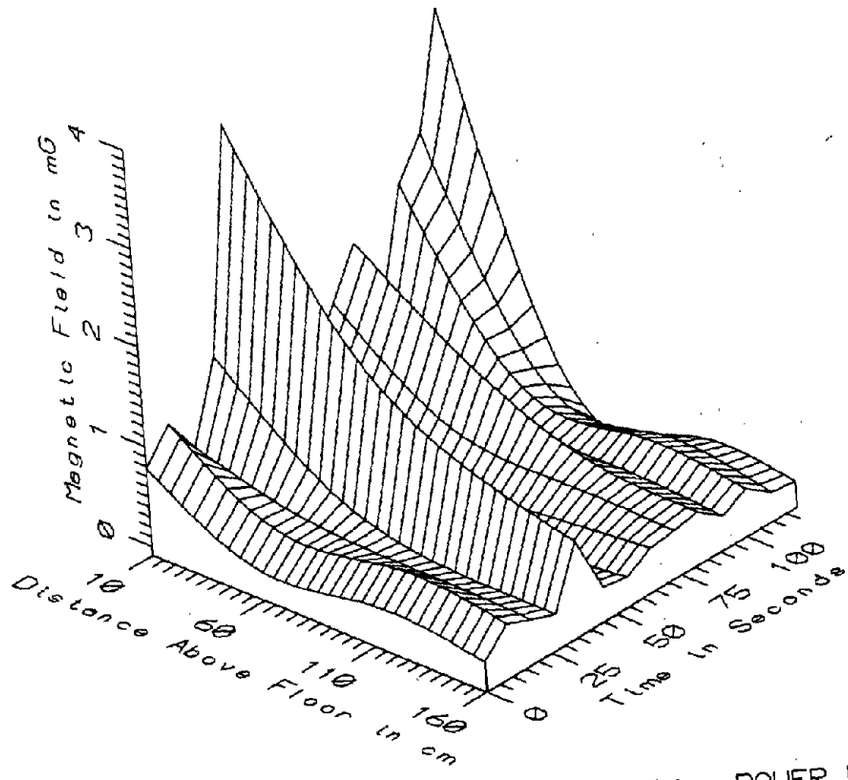
BOS032 - IN CENTER OF HIGH SPEED TROLLEY - STATIC



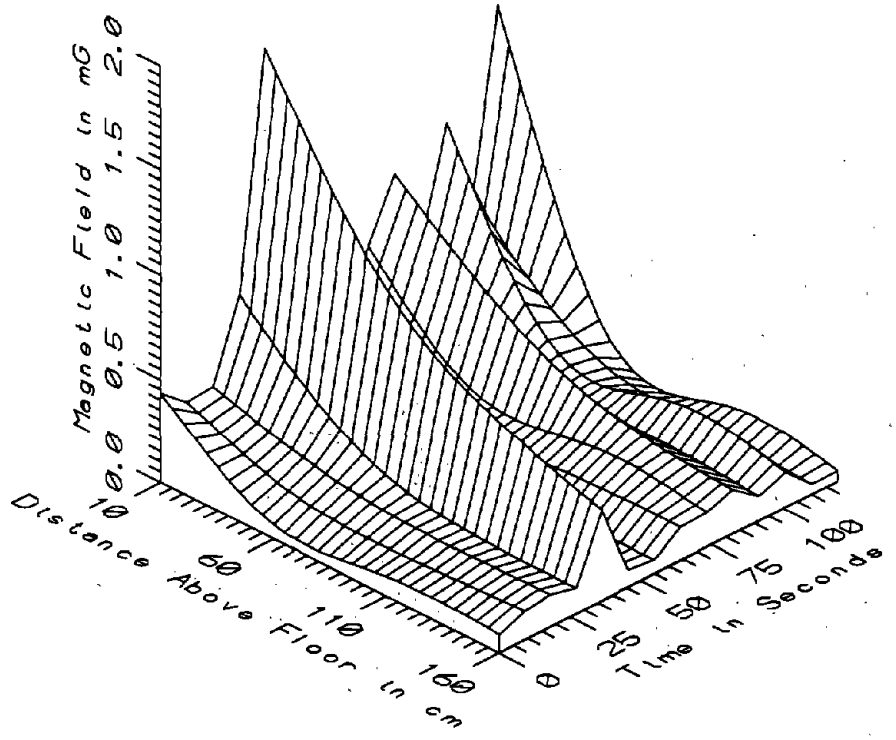
BOS032 - IN CENTER OF HIGH SPEED TROLLEY - LOW FREQ. 5-45Hz



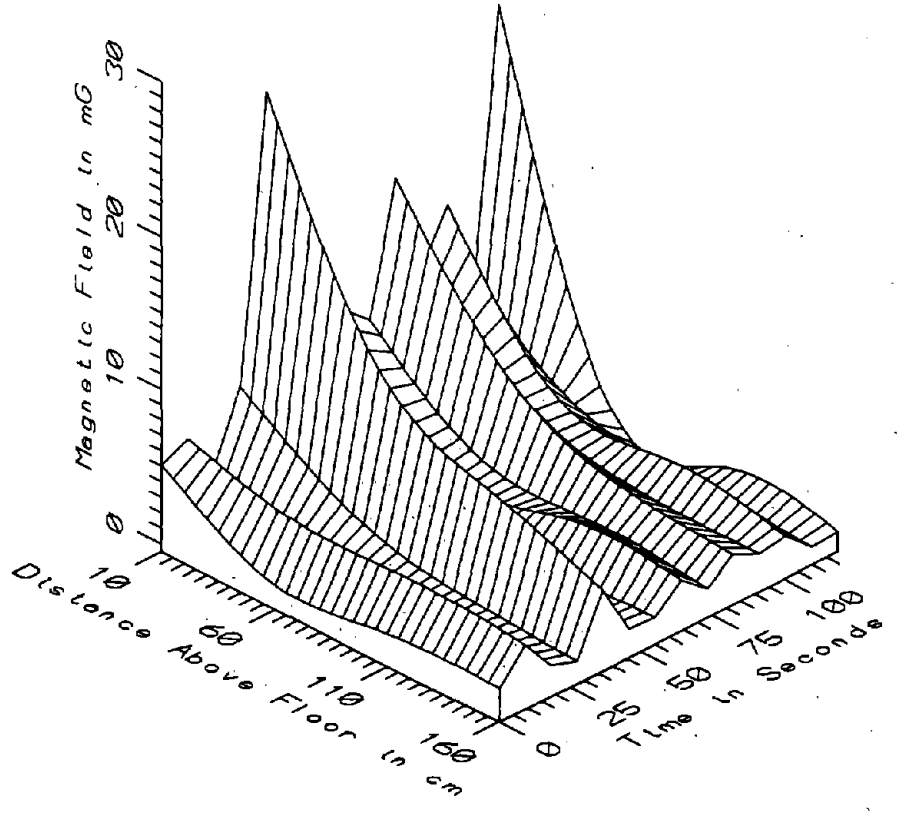
BOS032 - IN CENTER OF HIGH SPEED TROLLEY - POWER FREQ. 50-60Hz



BOS032 - IN CENTER OF HIGH SPEED TROLLEY - POWER HARM. 65-300Hz

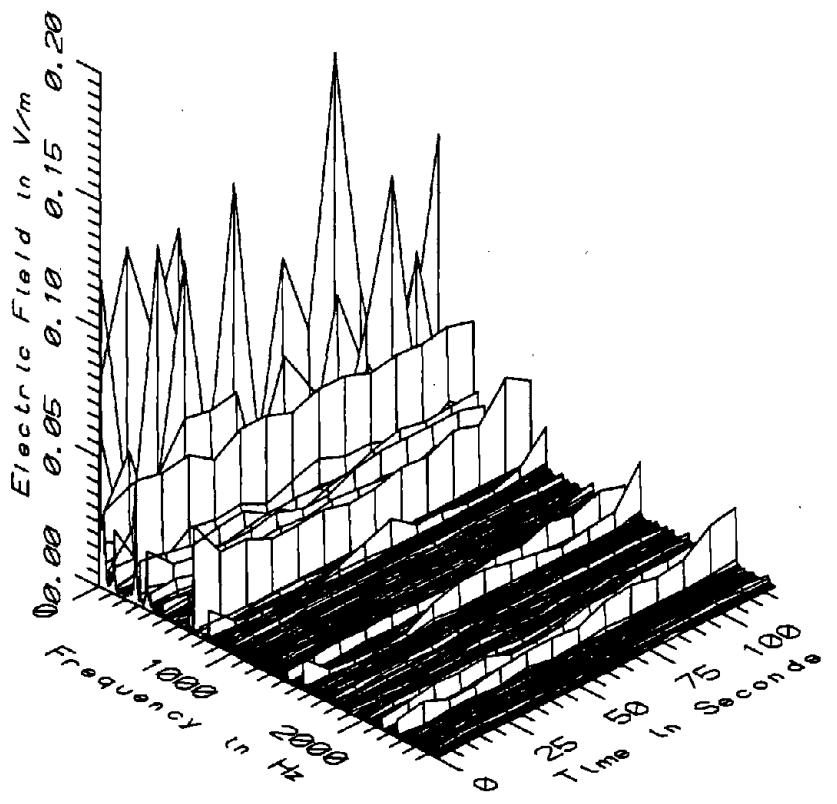


BOS032 - IN CENTER OF HIGH SPEED TROLLEY - HIGH FREQ, 305-2560Hz



BOS032 - IN CENTER OF HIGH SPEED TROLLEY - ALL FREQ, 5-2560Hz

BOS032 - IN CENTER OF HIGH SPEED TROLLEY					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	620.25	3074.28	1501.55	760.32	50.64
	60	412.95	774.53	516.87	93.79	18.15
	110	339.73	555.80	411.93	55.20	13.40
	160	331.12	563.78	446.00	70.29	15.76
5-45Hz LOW FREQ	10	2.56	25.61	9.67	7.34	75.94
	60	0.83	11.32	3.06	2.83	92.53
	110	0.60	7.17	2.13	1.71	80.15
	160	0.60	4.59	1.68	1.11	66.00
50-60Hz PWR FREQ	10	0.30	4.75	1.29	1.17	90.74
	60	0.14	3.93	0.64	0.99	155.75
	110	0.14	4.10	0.62	1.03	166.87
	160	0.08	3.66	0.53	0.95	178.35
65-300Hz PWR HARM	10	0.33	3.68	1.63	1.02	62.55
	60	0.14	1.93	0.50	0.47	92.83
	110	0.13	1.18	0.39	0.26	67.25
	160	0.17	0.87	0.35	0.18	51.36
305-2560Hz HIGH FREQ	10	0.29	1.84	0.70	0.47	67.17
	60	0.07	1.02	0.25	0.25	98.75
	110	0.06	0.63	0.17	0.15	83.95
	160	0.05	0.43	0.14	0.10	67.29
5-2560Hz ALL FREQ	10	3.32	26.03	10.09	7.25	71.85
	60	1.04	11.60	3.37	2.82	83.86
	110	1.00	7.33	2.48	1.72	69.50
	160	0.67	4.72	2.00	1.16	57.98



BOS032 - ELECRTIC FIELD 170cm ABOVE FLOOR, CENTER OF HIGH SPEED TROLLEY

APPENDIX AH

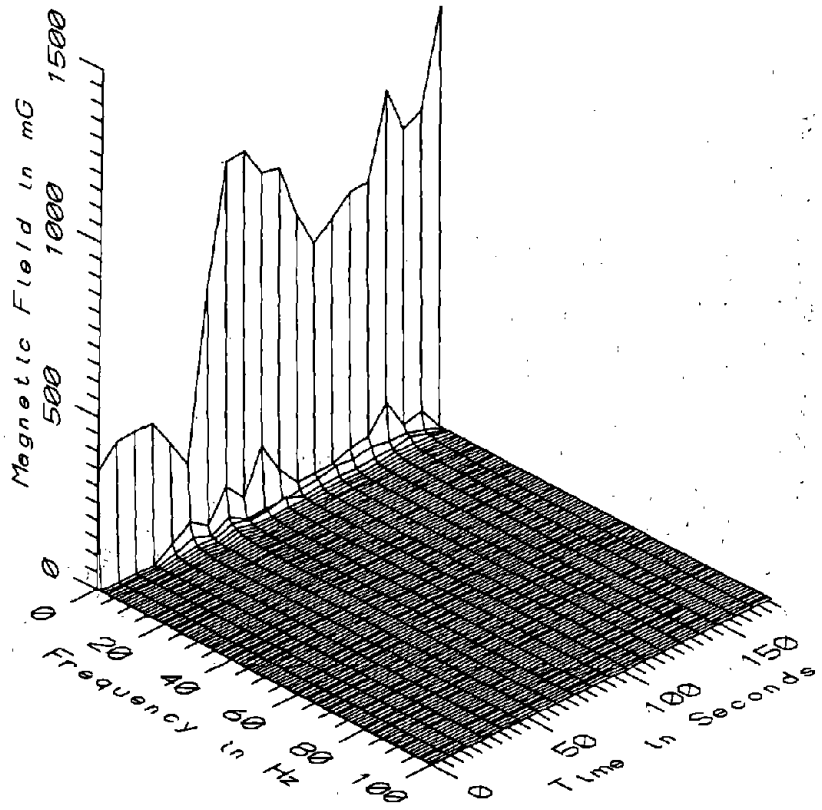
DATASET BOS033
ON CENTERLINE AT REAR DOORS OF KINKI GREEN LINE CAR

Measurement Setup Code:	Staff: 10 Reference: - Drawing: A-1
Vehicle Status:	Travelling between Lechmere and Science Park stations
Measurement Date:	June 11, 1992
Measurement Time:	Start: 09:17:52 End: 09:20:49
Number of Samples:	20
Programmed Sample Interval:	5 sec
Actual Sample Interval:	9.3 sec

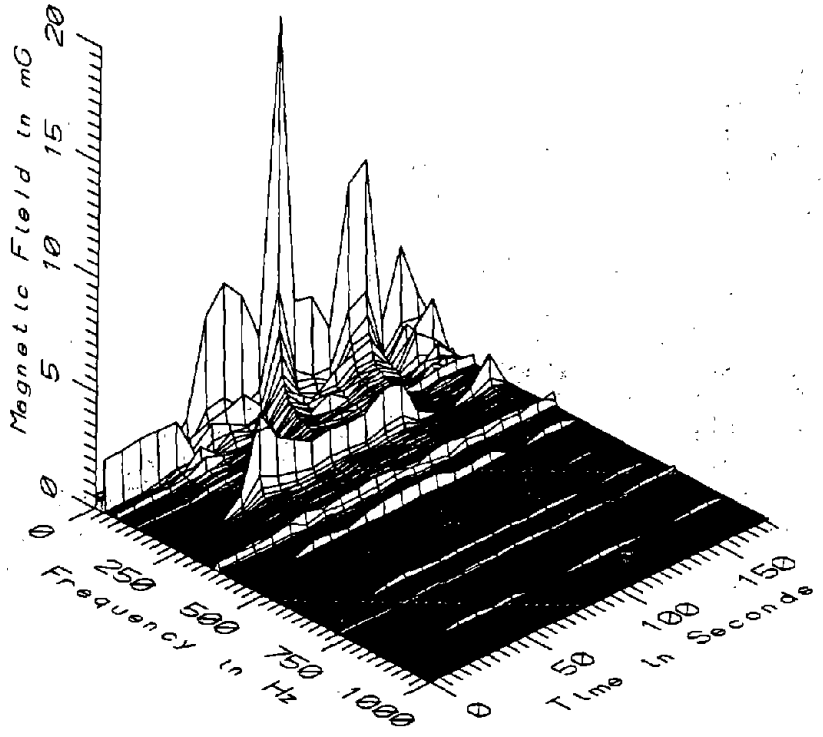
Frequency Spectrum Parameters

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

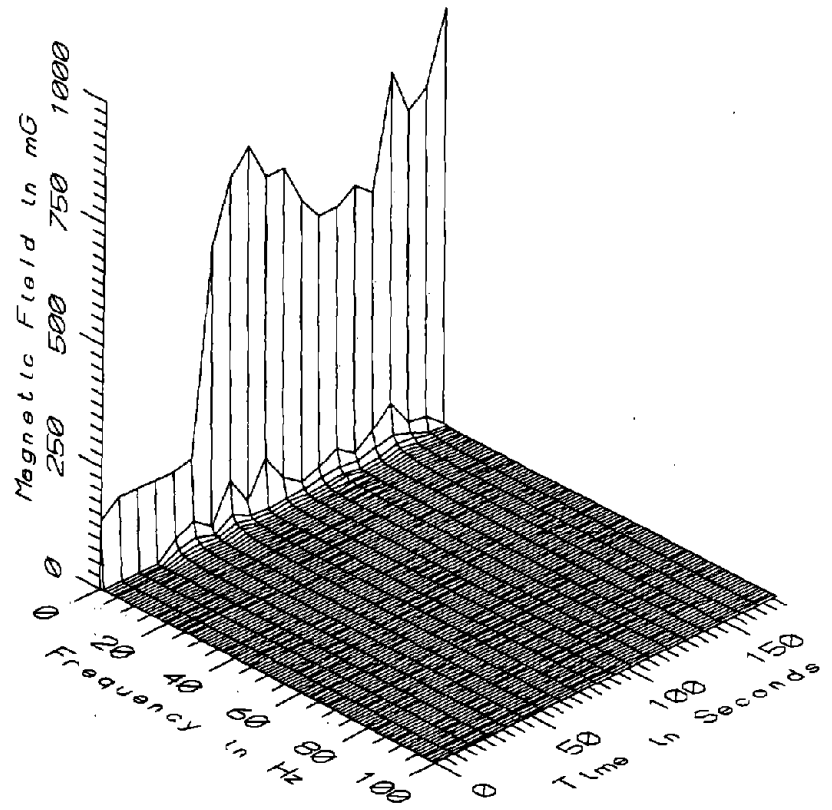
Missing Data: No reference probe



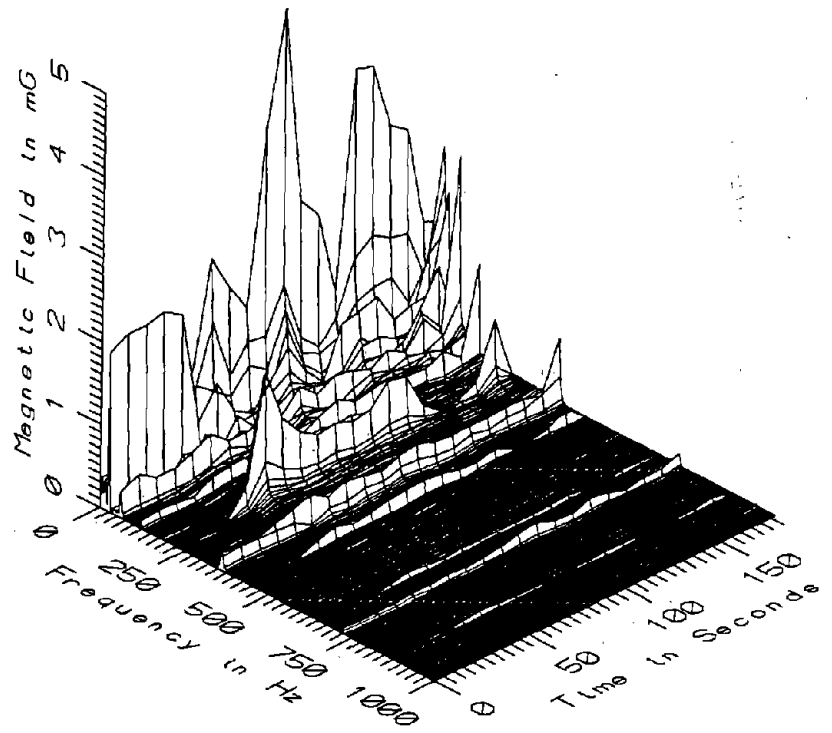
BOS033 - 10cm ABOVE FLOOR ON AXIS AT REAR DOORS, KINKI GREEN LINE CAR



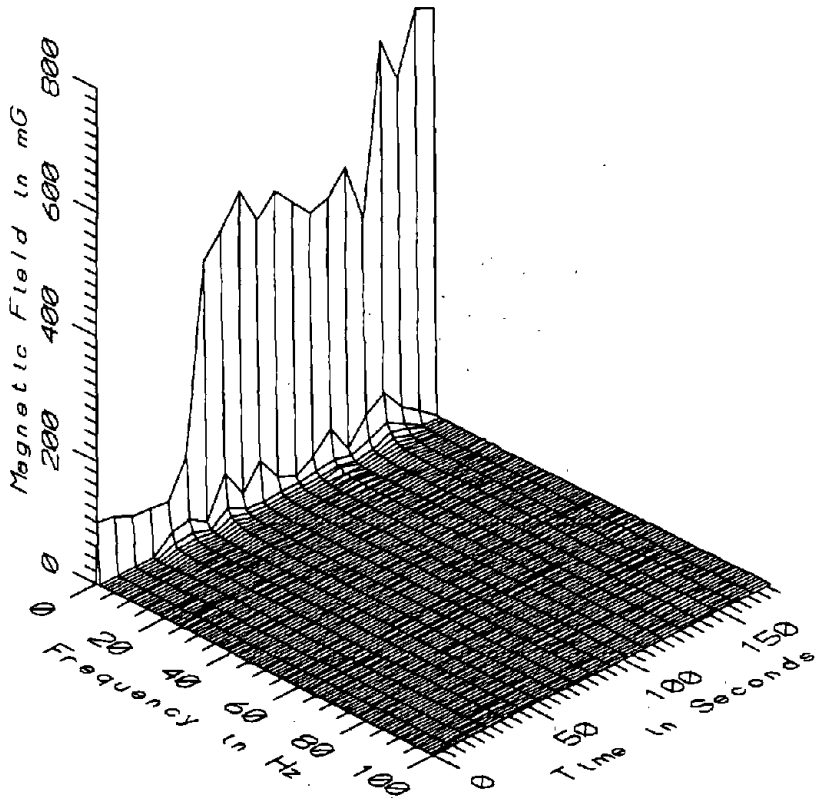
BOS033 - 10cm ABOVE FLOOR ON AXIS AT REAR DOORS, KINKI GREEN LINE CAR



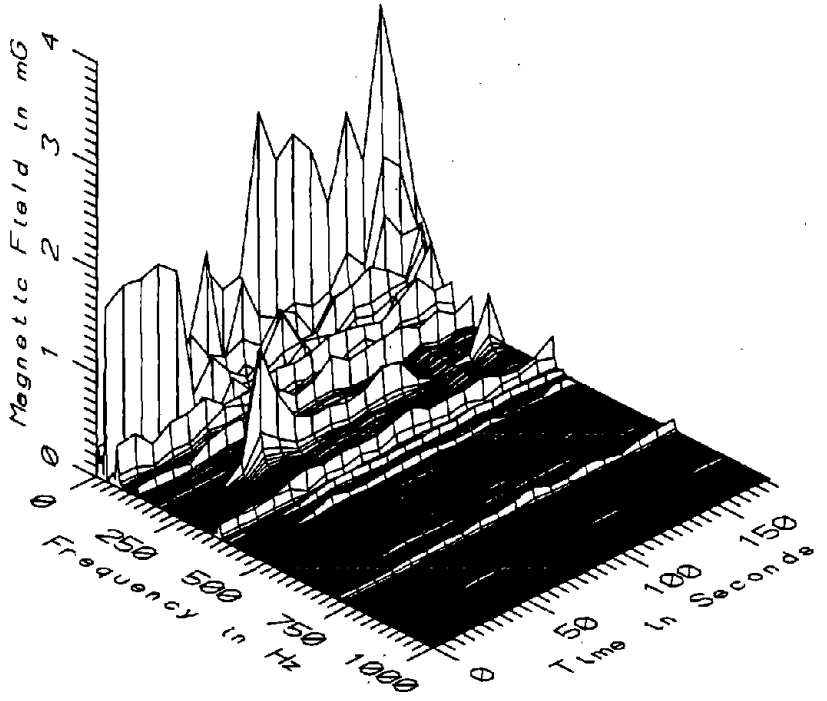
BOS033 - 60cm ABOVE FLOOR ON AXIS AT REAR DOORS, KINKI GREEN LINE CAR



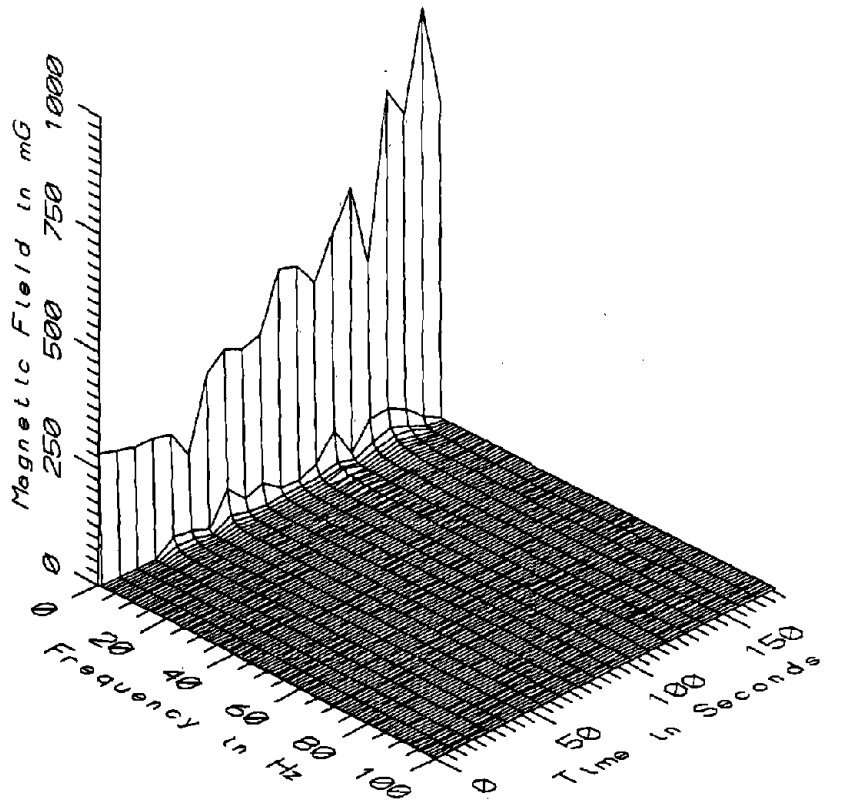
BOS033 - 60cm ABOVE FLOOR ON AXIS AT REAR DOORS, KINKI GREEN LINE CAR



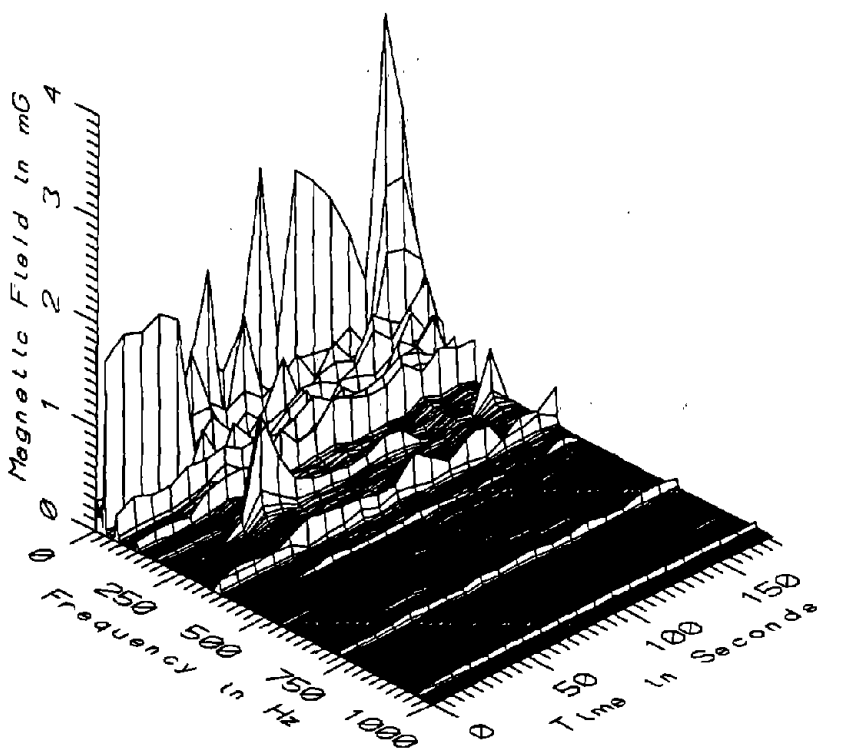
BOS033 - 110cm ABOVE FLOOR ON AXIS AT REAR DOORS, KINKI GREEN LINE CAR



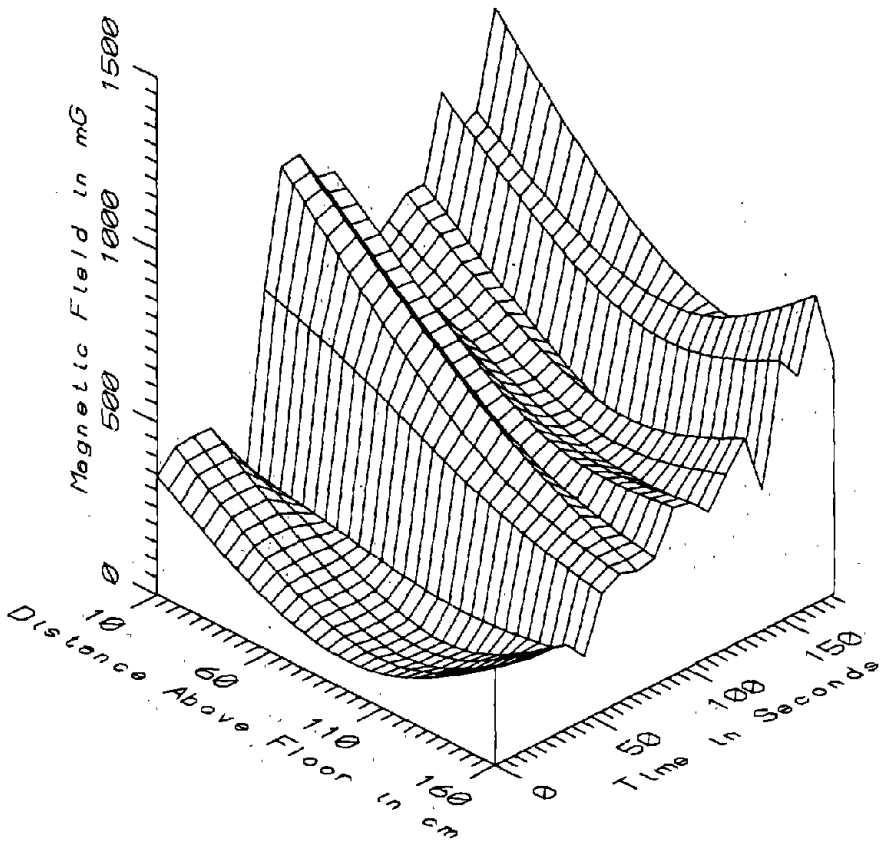
BOS033 - 110cm ABOVE FLOOR ON AXIS AT REAR DOORS, KINKI GREEN LINE CAR



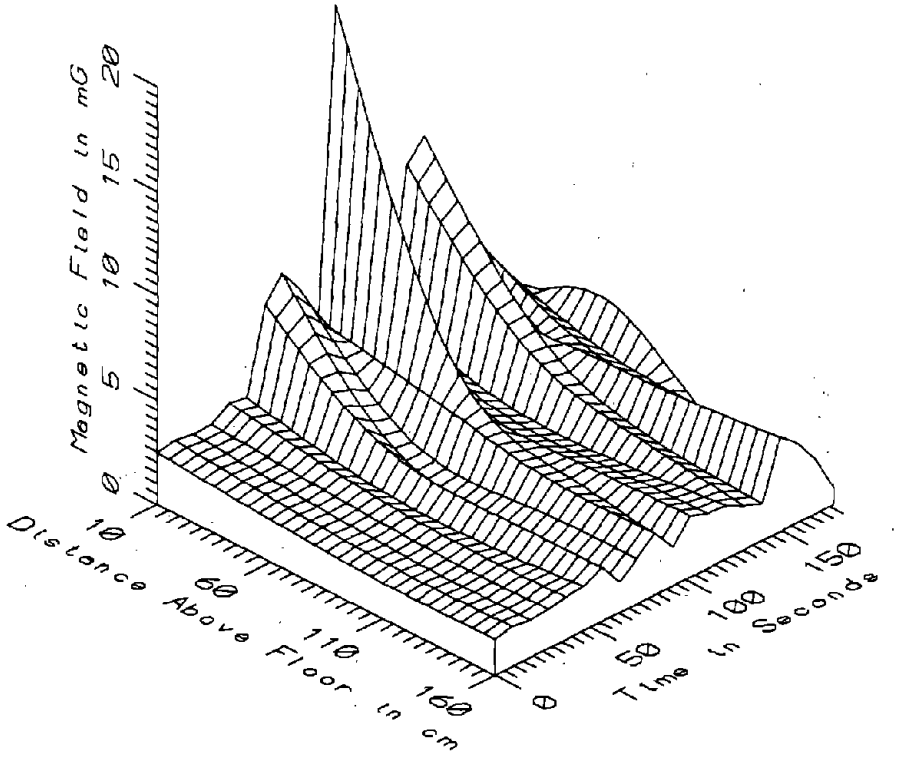
BOS033 - 160cm ABOVE FLOOR ON AXIS AT REAR DOORS, KINKI GREEN LINE CAR



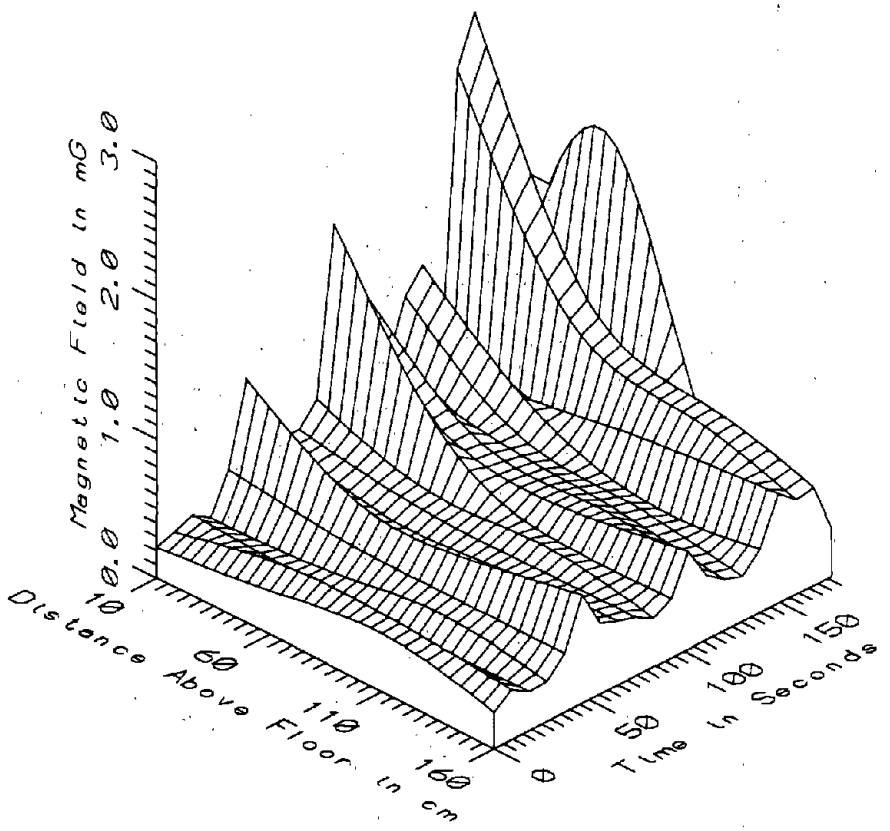
BOS033 - 160cm ABOVE FLOOR ON AXIS AT REAR DOORS, KINKI GREEN LINE CAR



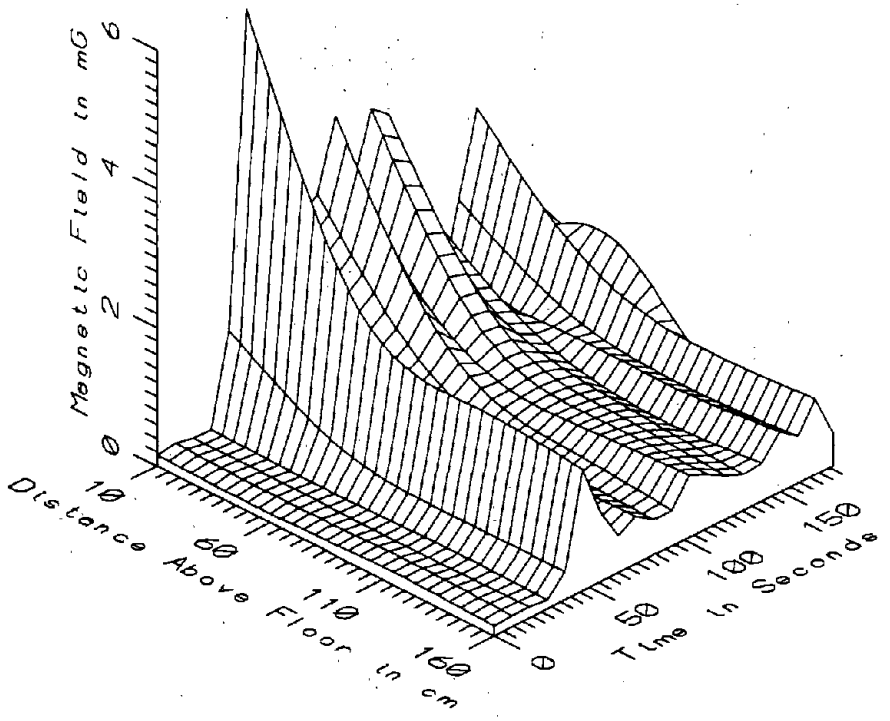
BOS033 - ON AXIS AT REAR DOORS, KINKI GREEN LINE - STATIC



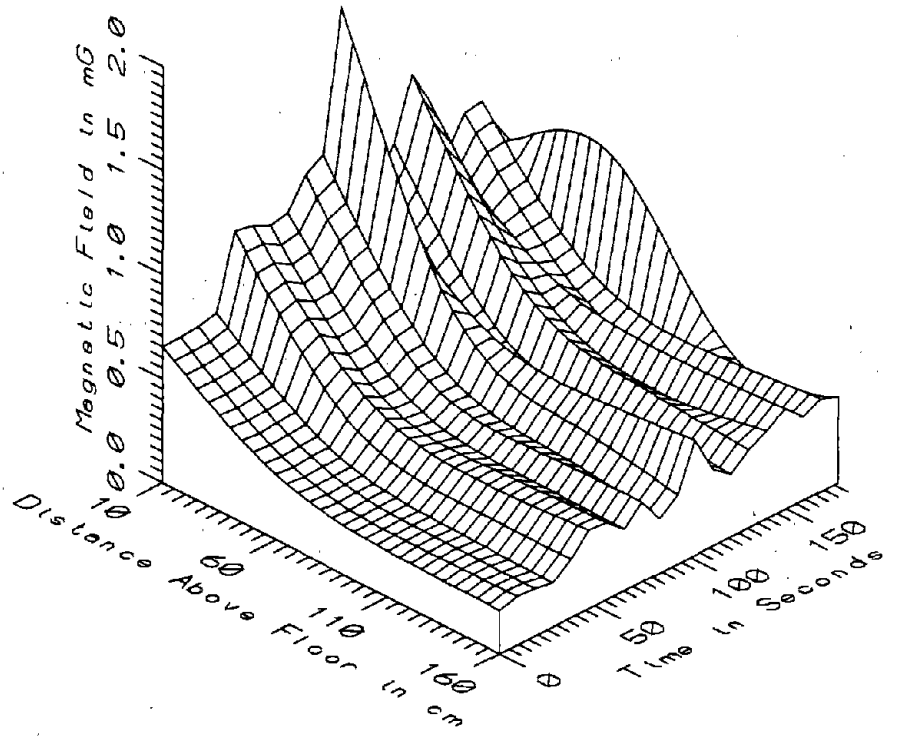
BOS033 - ON AXIS AT REAR DOORS, KINKI GREEN LINE - LOW FREQ, 5-45Hz



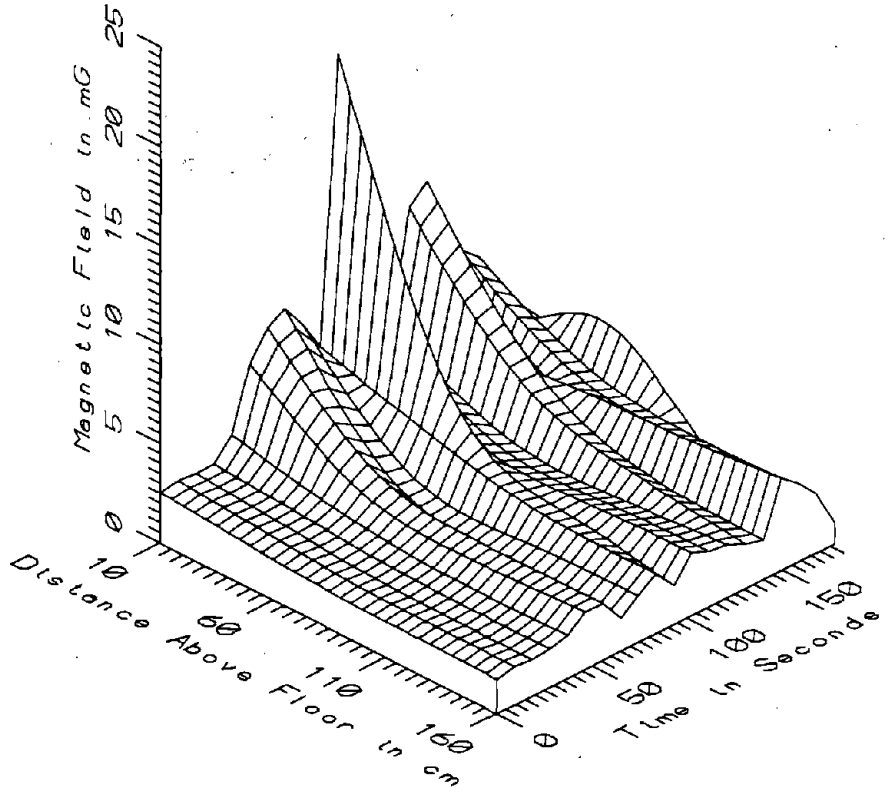
BOS033 - ON AXIS AT REAR DOORS, KINKI GREEN LINE - POWER FREQ, 50-60Hz



BOS033 - ON AXIS AT REAR DOORS, KINKI GREEN LINE - POWER HARM, 65-300Hz

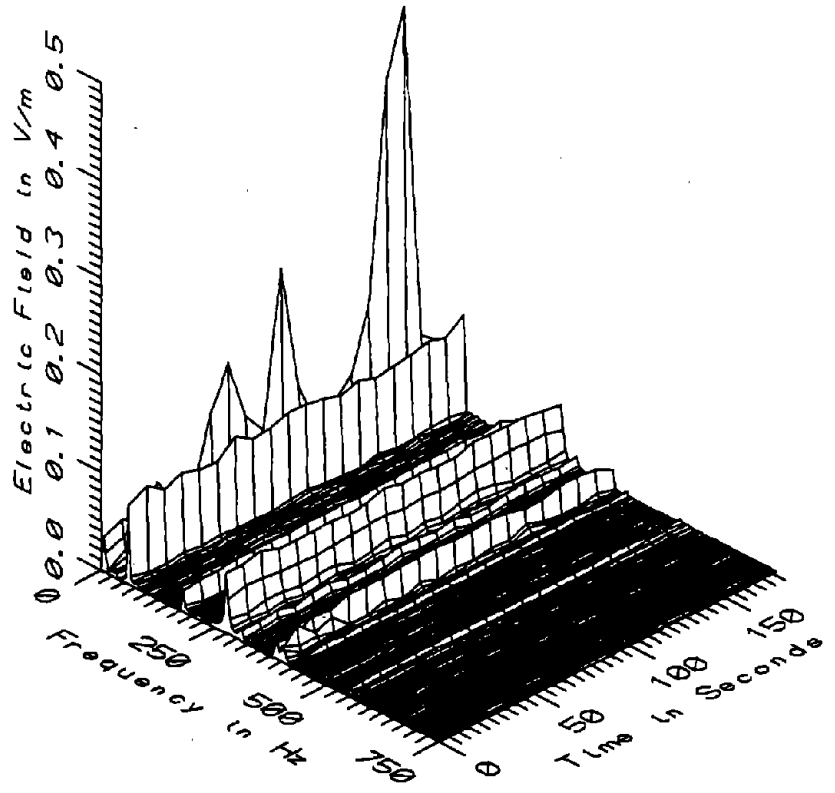


BOS033 - ON AXIS AT REAR DOORS, KINKI GREEN LINE - HIGH FREQ, 305-2560Hz



BOS033 - ON AXIS AT REAR DOORS, KINKI GREEN LINE - ALL FREQ, 5-2560Hz

BOS033 - ON AXIS AT REAR DOORS OF KINKI GREEN LINE CAR					TOTAL OF 20 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	239.56	1207.98	742.08	291.94	39.34
	60	138.52	851.40	514.19	247.42	48.12
	110	74.73	669.45	382.10	208.82	54.65
	160	185.67	891.22	440.06	191.18	43.44
5-45Hz LOW FREQ	10	1.36	19.62	5.70	4.25	74.51
	60	1.91	5.74	3.08	1.09	35.53
	110	0.82	4.01	2.27	0.69	30.25
	160	0.84	4.52	2.32	0.81	35.03
50-60Hz PWR FREQ	10	0.23	2.92	0.94	0.75	80.01
	60	0.28	2.40	0.66	0.48	73.39
	110	0.26	0.93	0.50	0.18	35.35
	160	0.26	0.79	0.47	0.17	36.19
65-300Hz PWR HARM	10	0.14	5.95	2.16	1.59	73.82
	60	0.11	2.43	0.94	0.58	61.26
	110	0.13	1.87	0.63	0.40	62.54
	160	0.13	1.75	0.63	0.39	61.47
305-2560Hz HIGH FREQ	10	0.66	1.87	1.02	0.28	27.60
	60	0.31	1.02	0.48	0.16	33.72
	110	0.22	0.50	0.34	0.08	23.59
	160	0.21	0.55	0.35	0.10	27.34
5-2560Hz ALL FREQ	10	1.68	20.16	6.48	4.26	65.70
	60	2.06	5.95	3.39	1.13	33.34
	110	1.05	4.17	2.47	0.69	27.91
	160	1.12	4.70	2.50	0.83	33.22



BOS033 - ELECTRIC FIELD 170cm ABOVE FLOOR AT REAR OF KINKI GREEN CAR

APPENDIX AI

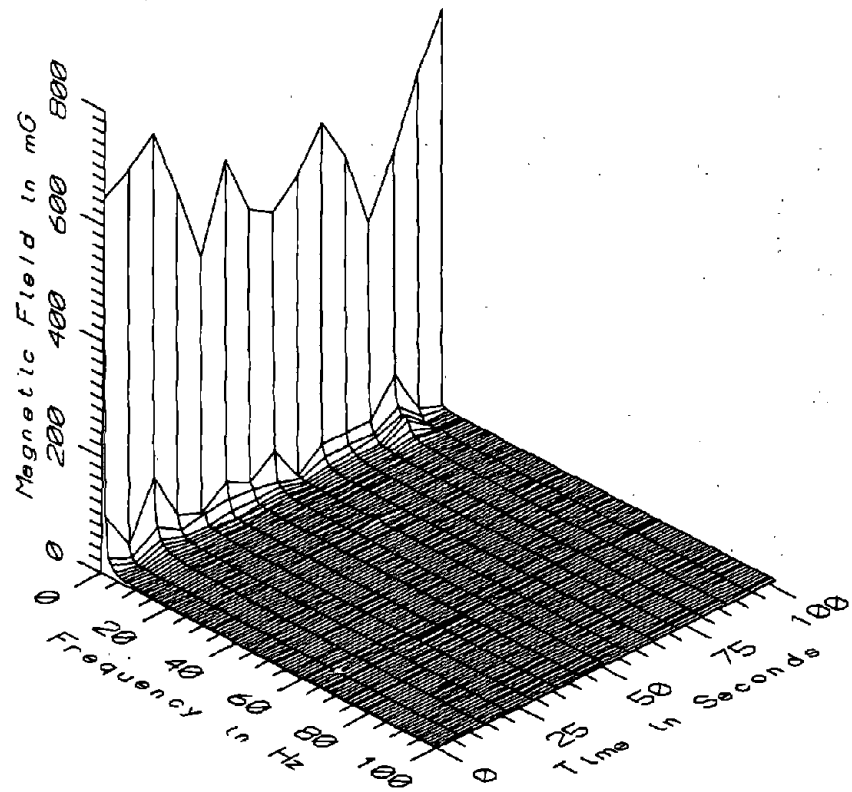
DATASET BOS034
IN CENTER OF KINKI GREEN LINE CAR

Measurement Setup Code:	Staff: 11 Reference: - Drawing: A-1
Vehicle Status:	Travelling between Science Park and North Station stations
Measurement Date:	June 11, 1992
Measurement Time:	Start: 09:21:17 End: 09:22:59
Number of Samples:	15
Programmed Sample Interval:	5 sec
Actual Sample Interval:	7.3 sec

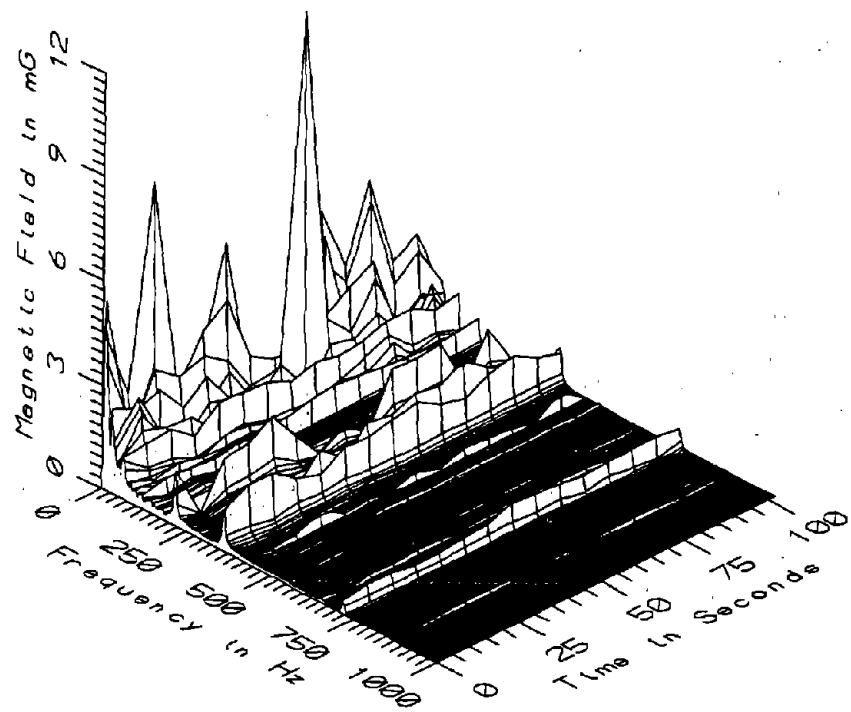
Frequency Spectrum Parameters

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

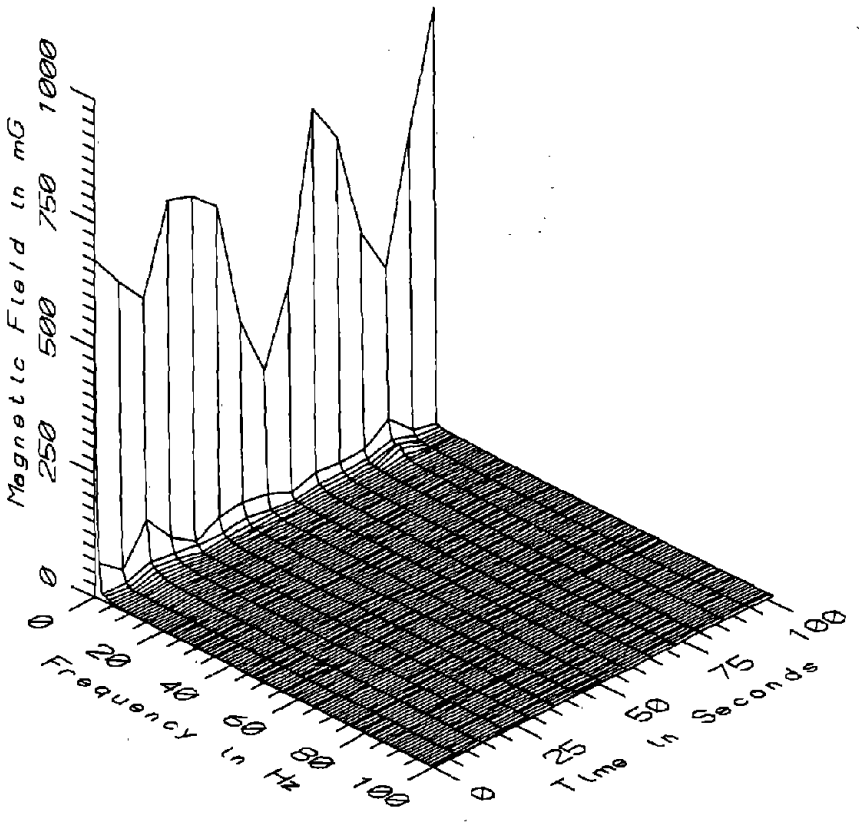
Missing Data: No reference probe



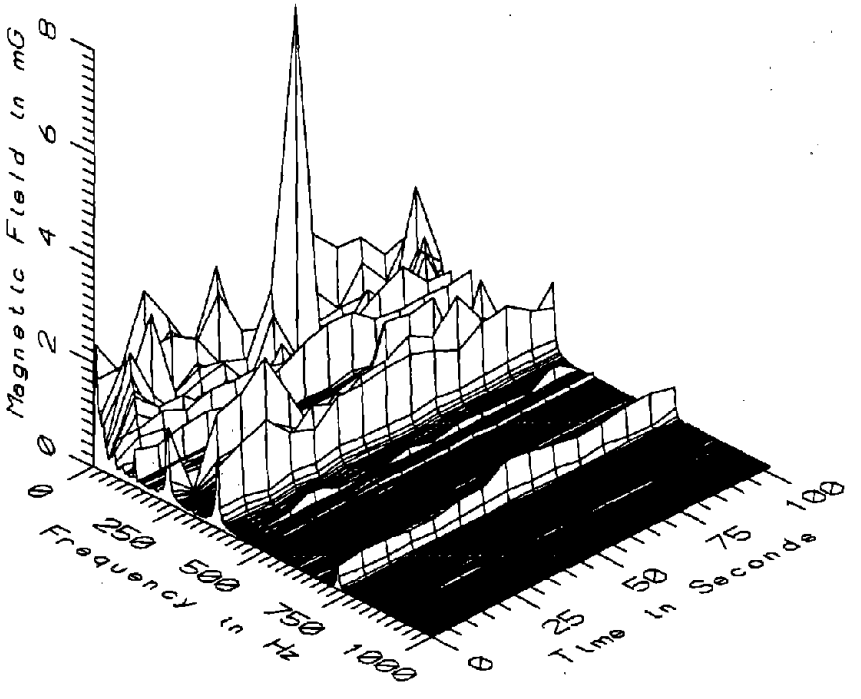
BOS034 - 10cm ABOVE FLOOR IN CENTER OF KINKI GREEN LINE CAR



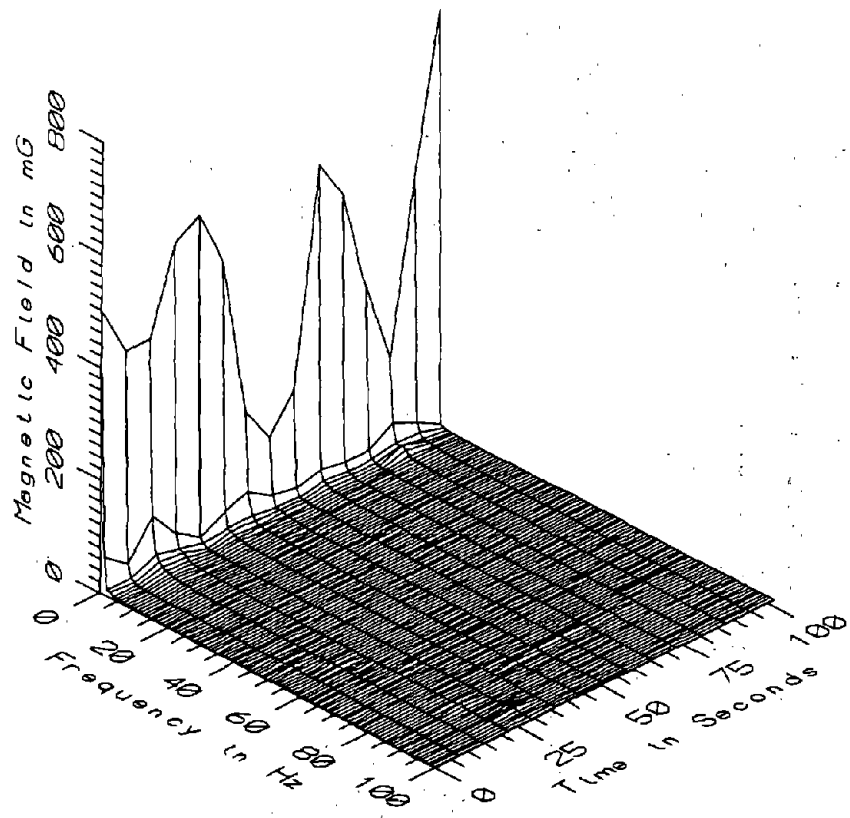
BOS034 - 10cm ABOVE FLOOR IN CENTER OF KINKI GREEN LINE CAR



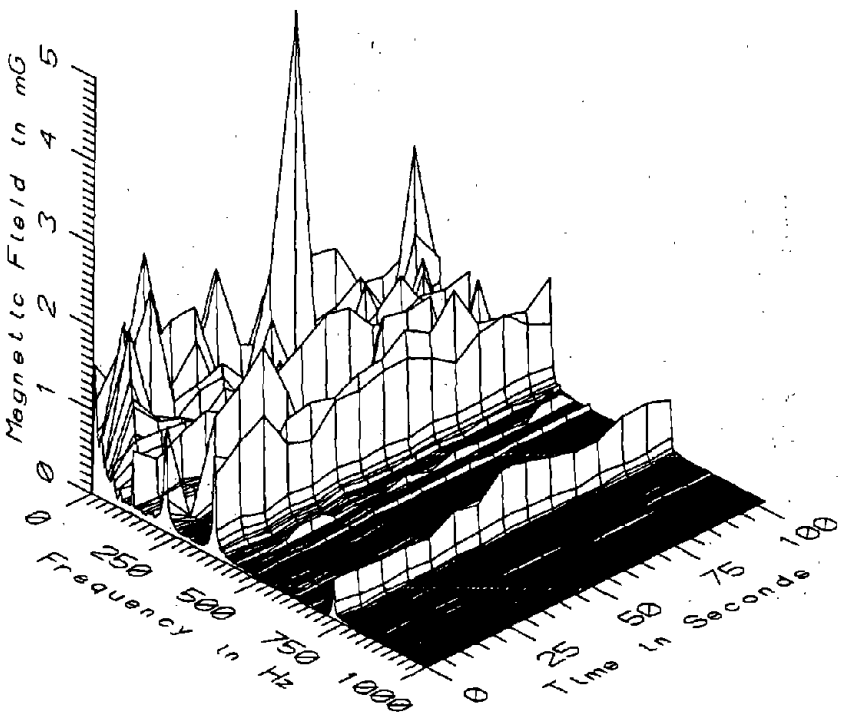
BOS034 - 60cm ABOVE FLOOR IN CENTER OF KINKI GREEN LINE CAR



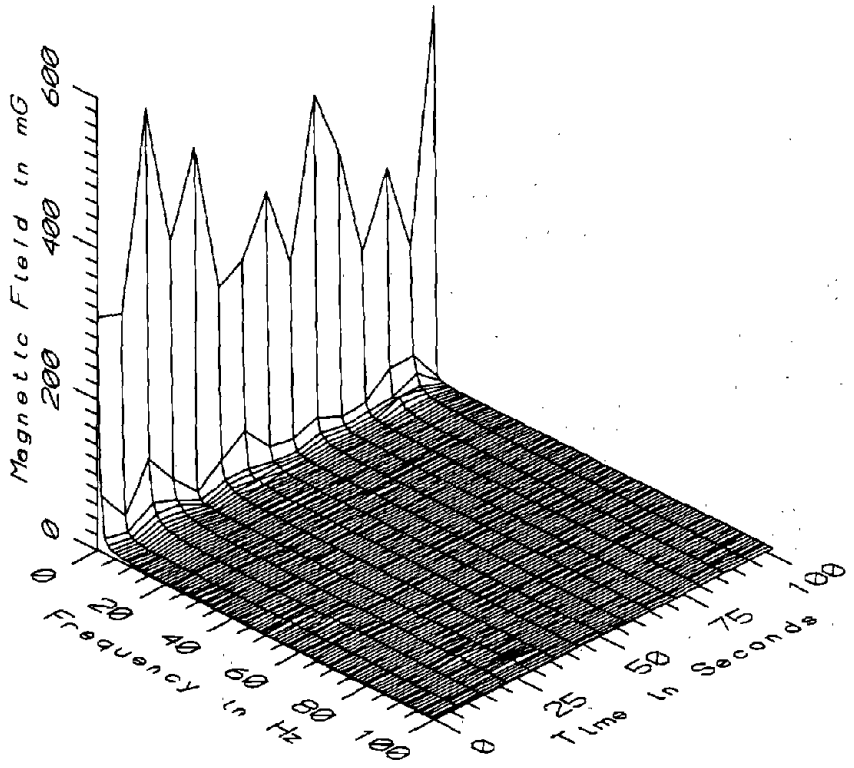
BOS034 - 60cm ABOVE FLOOR IN CENTER OF KINKI GREEN LINE CAR



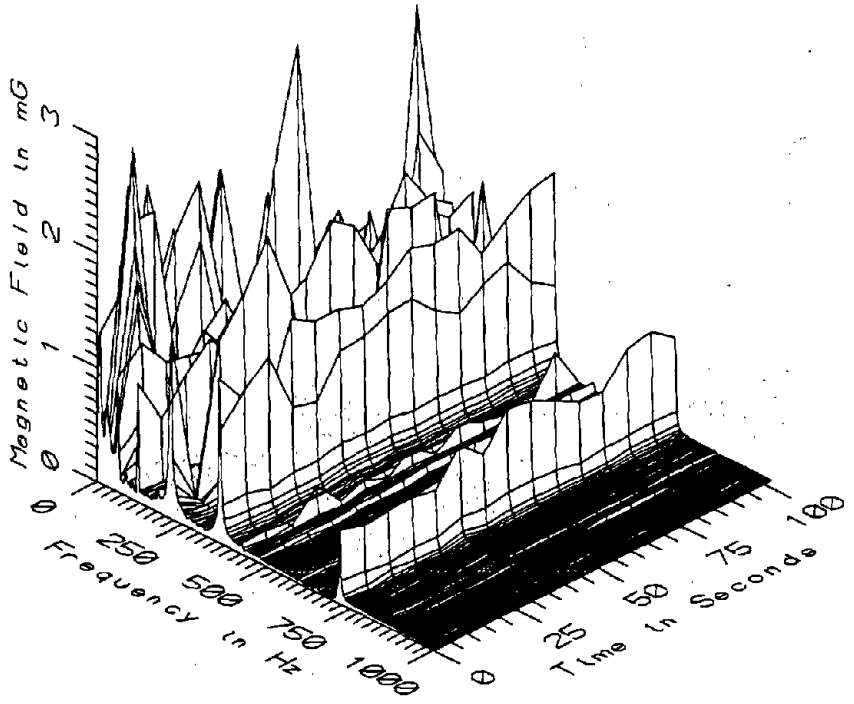
BOS034 - 110cm ABOVE FLOOR IN CENTER OF KINKI GREEN LINE CAR



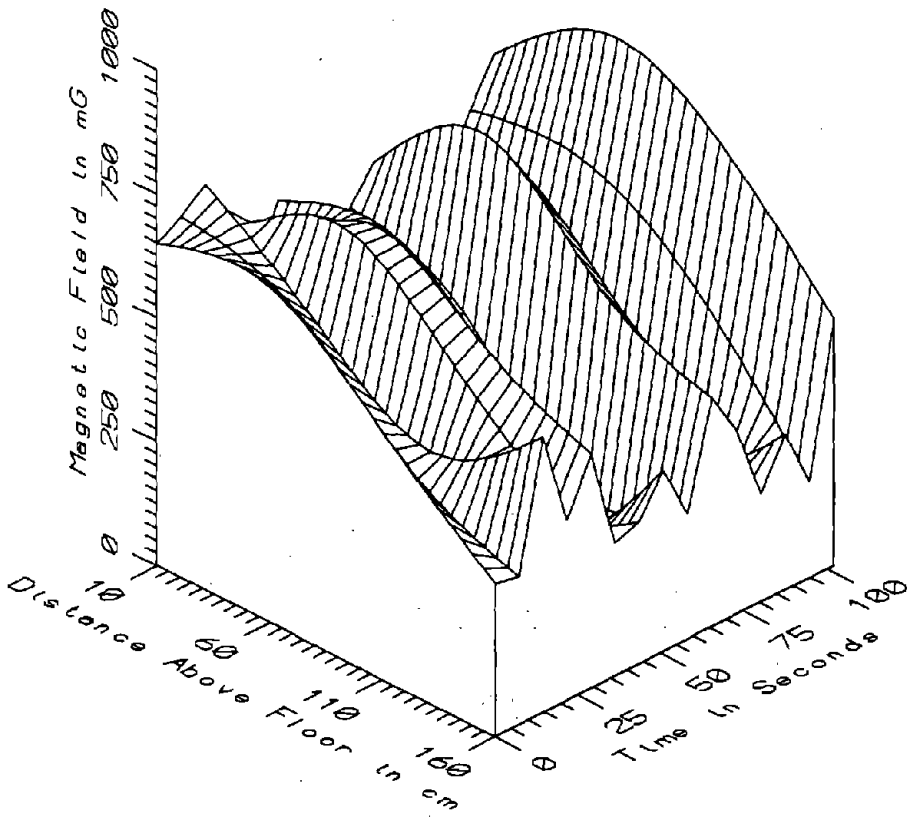
BOS034 - 110cm ABOVE FLOOR IN CENTER OF KINKI GREEN LINE CAR



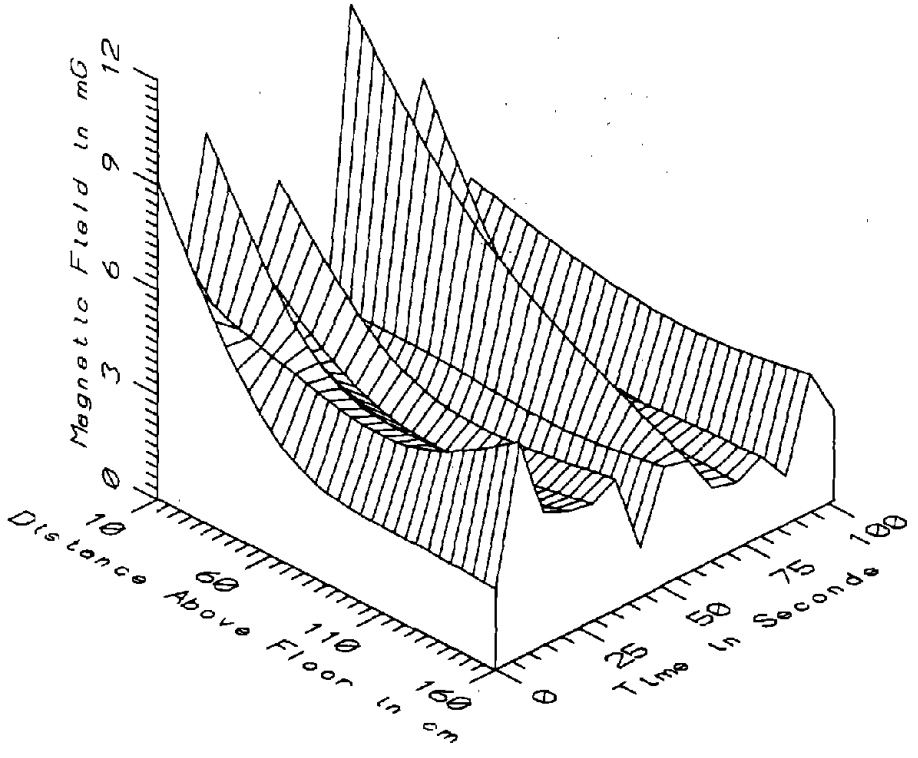
BOS034 - 160cm ABOVE FLOOR IN CENTER OF KINKI GREEN LINE CAR



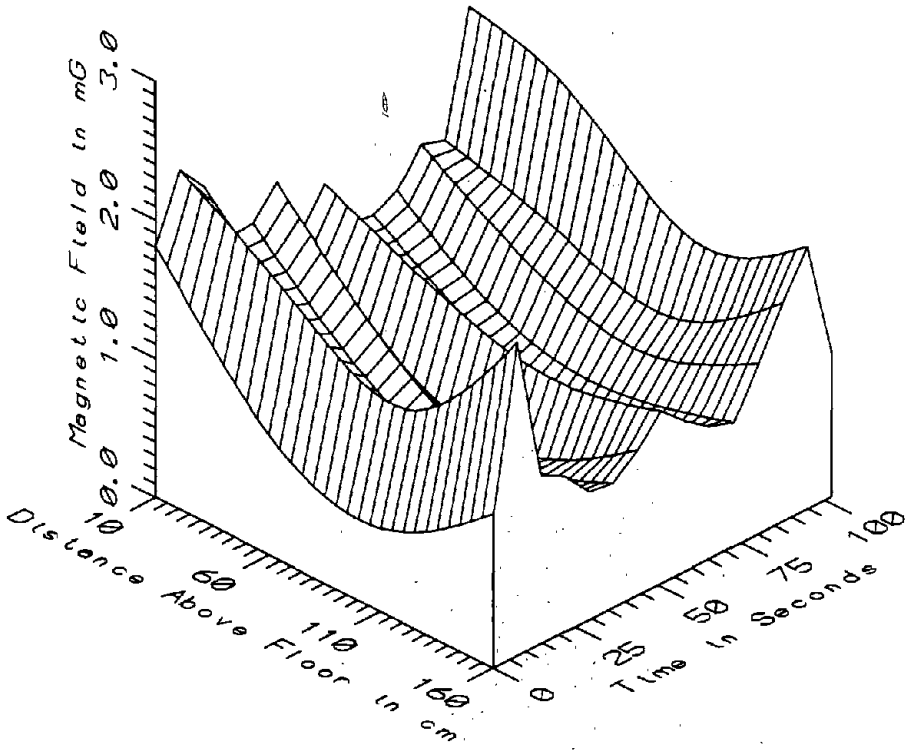
BOS034 - 160cm ABOVE FLOOR IN CENTER OF KINKI GREEN LINE CAR



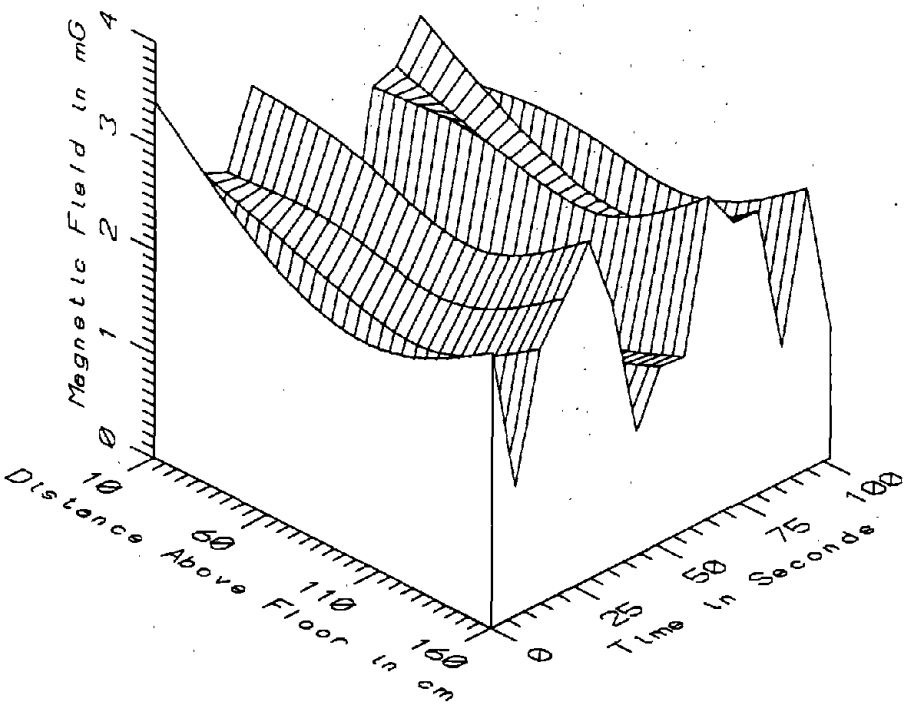
BOS034 - IN CENTER OF KINKI GREEN LINE CAR - STATIC



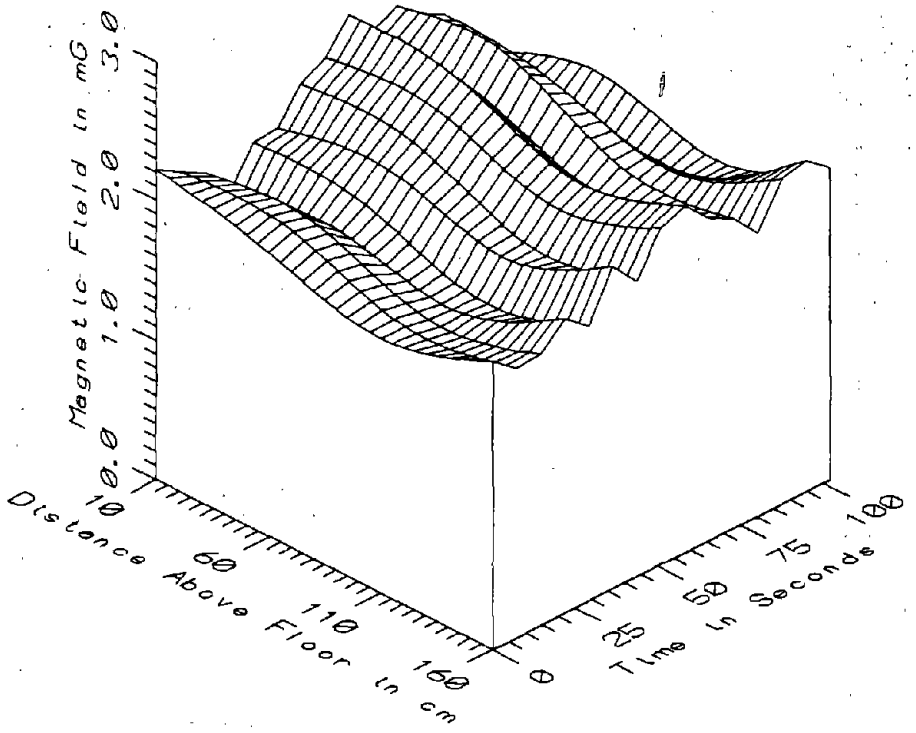
BOS034 - IN CENTER OF KINKI GREEN LINE CAR - LOW FREQ, 5-45Hz



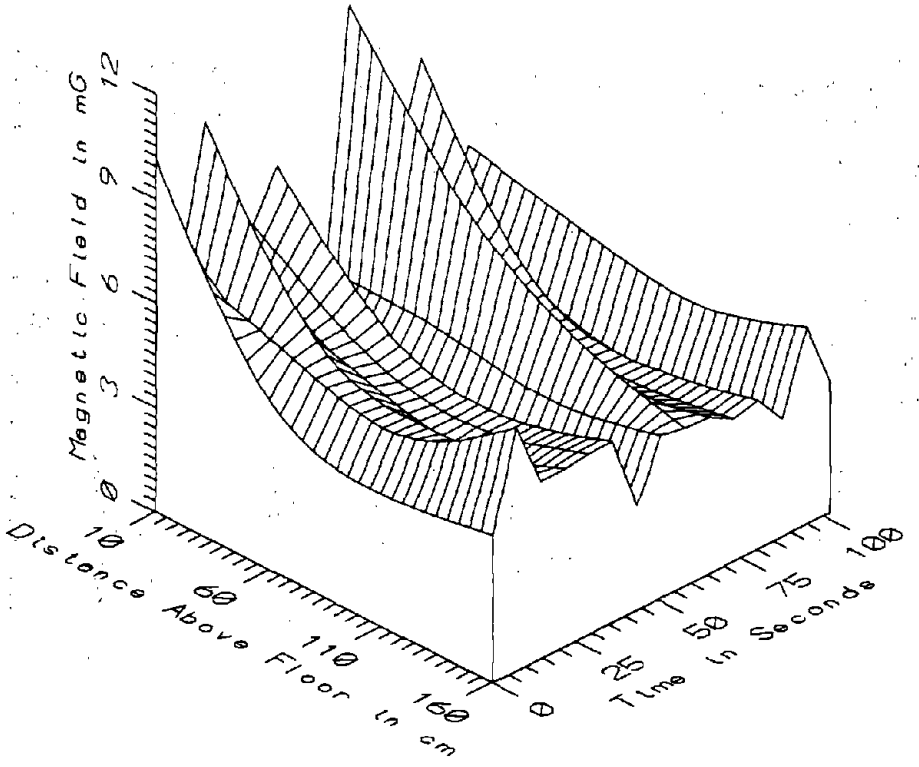
BOS034 - IN CENTER OF KINKI GREEN LINE CAR - POWER FREQ, 50-60Hz



BOS034 - IN CENTER OF KINKI GREEN LINE CAR - POWER HARM, 65-300Hz

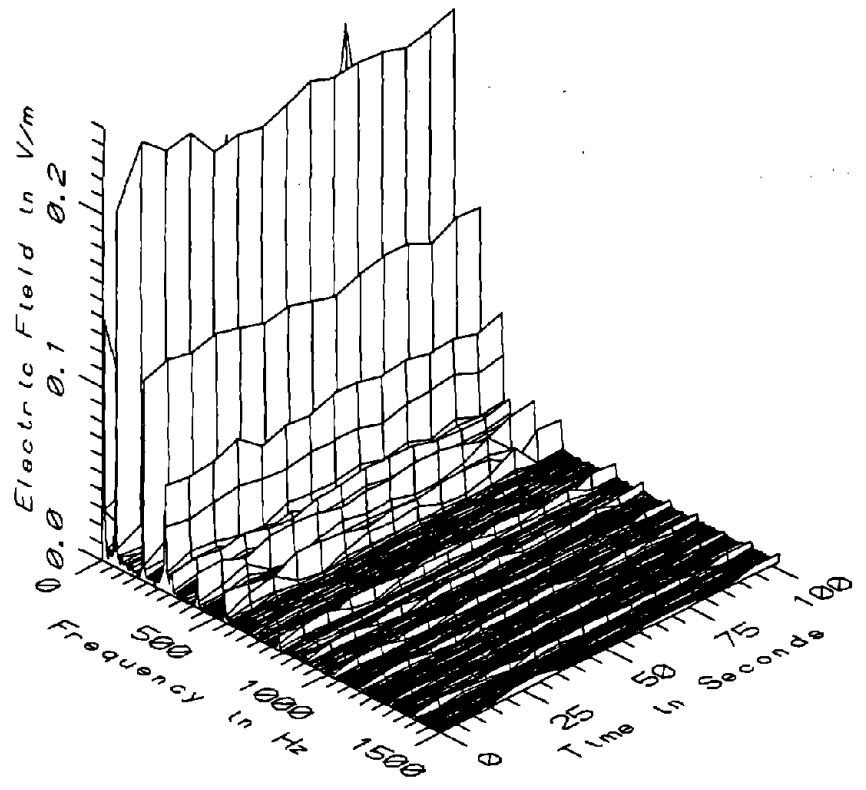


BOS034 - IN CENTER OF KINKI GREEN LINE CAR - HIGH FREQ, 305-2560Hz



BOS034 - IN CENTER OF KINKI GREEN LINE CAR - ALL FREQ. 5-2560Hz

BOS034 - IN CENTER OF KINKI GREEN LINE CAR					TOTAL OF 15 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	380.50	721.19	566.83	96.31	16.99
	60	284.47	842.26	585.28	161.91	27.66
	110	128.39	740.16	413.29	180.28	43.62
	160	192.98	552.71	347.12	106.01	30.54
5-45Hz LOW FREQ	10	2.11	11.37	6.07	2.79	46.02
	60	1.79	7.19	3.51	1.39	39.60
	110	1.39	4.85	2.86	1.05	36.66
	160	1.41	6.21	3.02	1.23	40.81
50-60Hz PWR FREQ	10	1.17	2.41	1.65	0.37	22.44
	60	0.69	2.10	1.10	0.40	36.40
	110	0.47	1.52	0.84	0.31	37.43
	160	0.89	2.25	1.23	0.39	31.83
65-300Hz PWR HARM	10	0.82	3.43	2.02	0.88	43.51
	60	0.95	2.93	1.87	0.66	35.30
	110	0.92	2.64	1.74	0.58	33.43
	160	1.20	3.26	2.23	0.74	33.16
305-2560Hz HIGH FREQ	10	1.79	2.64	2.21	0.25	11.43
	60	1.91	2.58	2.21	0.22	9.80
	110	1.77	2.27	1.96	0.16	8.20
	160	1.94	2.49	2.19	0.18	7.99
5-2560Hz ALL FREQ	10	3.14	11.78	7.10	2.60	36.60
	60	3.17	7.79	4.80	1.17	24.34
	110	2.69	5.55	4.06	0.83	20.46
	160	3.01	7.00	4.65	0.97	20.85



BOS034 - ELECTRIC FIELD 170cm ABOVE FLOOR IN CENTER OF KINKI GREEN CAR

APPENDIX AJ

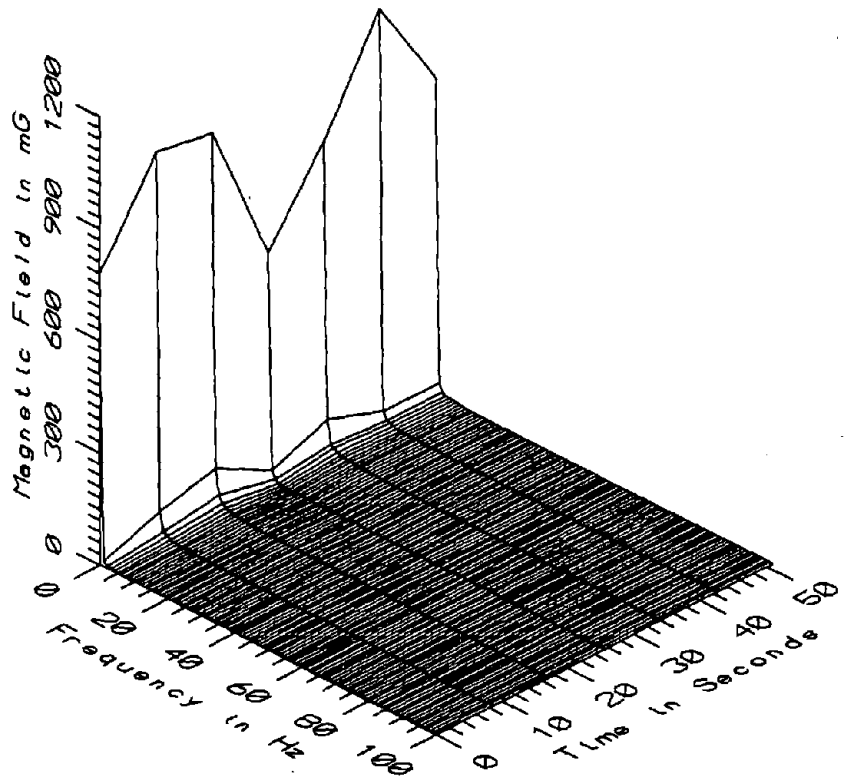
DATASET BOS035
NEAR CENTERLINE AT REAR OF KINKI GREEN LINE CAR

Measurement Setup Code:	Staff: 12 Reference: - Drawing: A-1
Vehicle Status:	Travelling between North Station and Haymarket stations
Measurement Date:	June 11, 1992
Measurement Time:	Start: 09:24:17 End: 09:25:08
Number of Samples:	7
Programmed Sample Interval:	5 sec
Actual Sample Interval:	8.5 sec

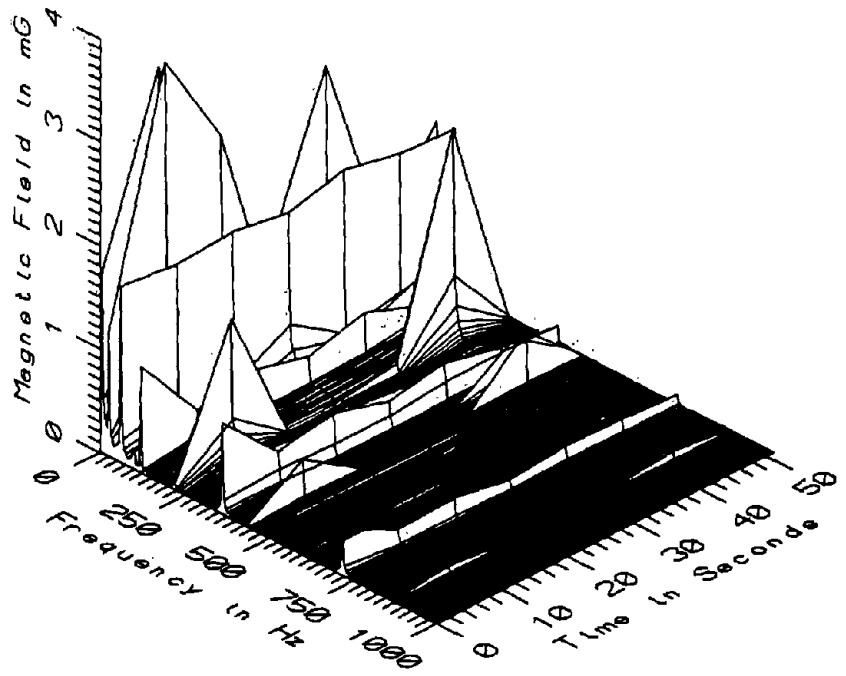
Frequency Spectrum Parameters

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

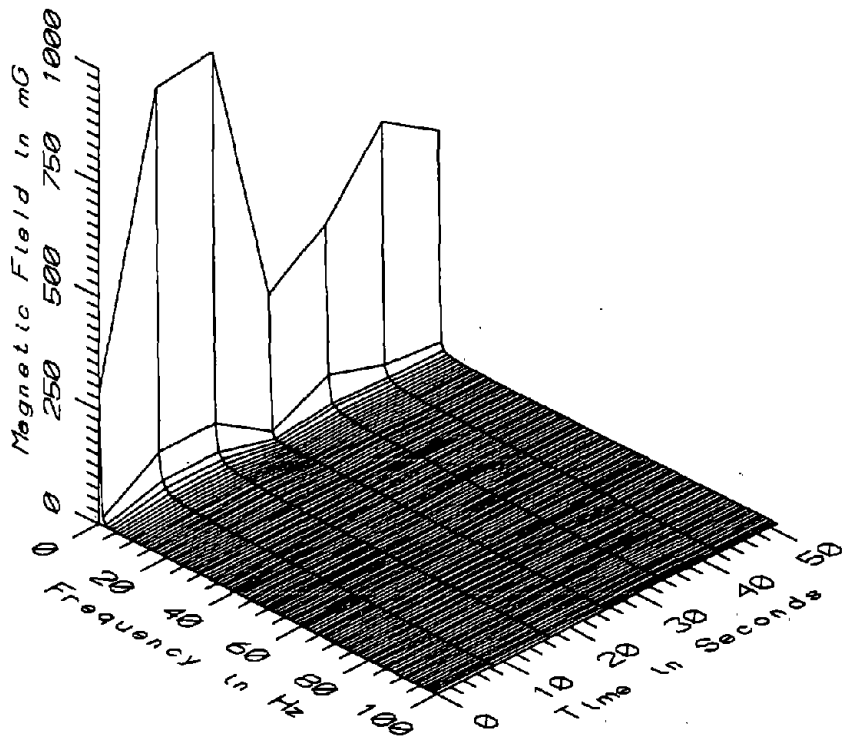
Missing Data: No reference probe



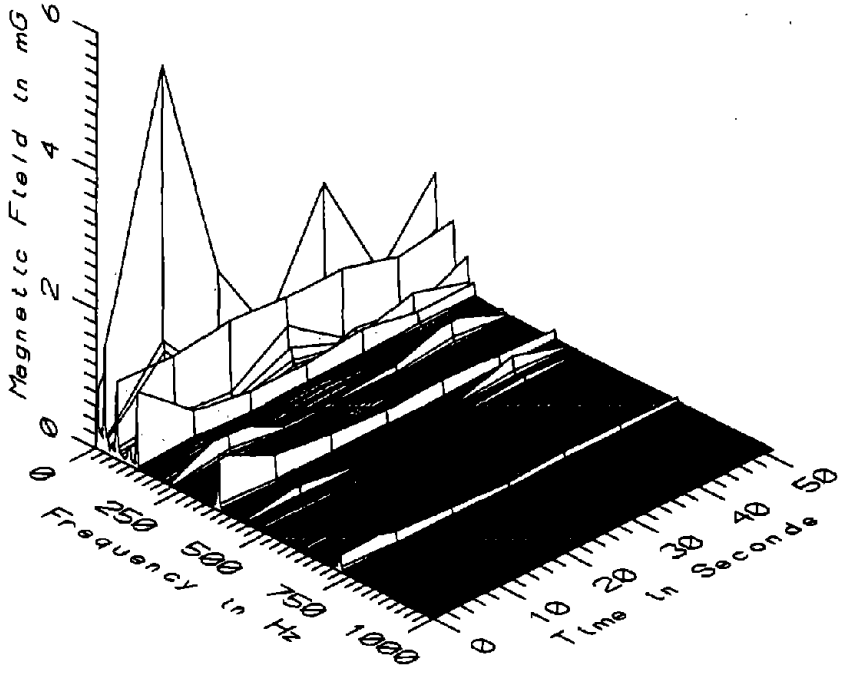
BOS035 - 10cm ABOVE FLOOR NEAR AXIS AT REAR OF KINKI GREEN LINE CAR



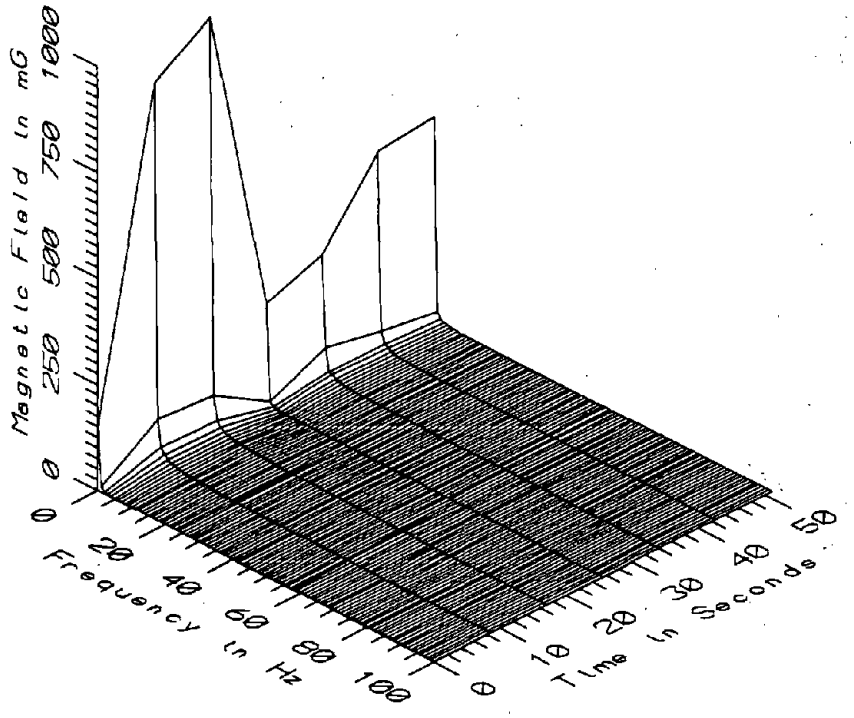
BOS035 - 10cm ABOVE FLOOR NEAR AXIS AT REAR OF KINKI GREEN LINE CAR



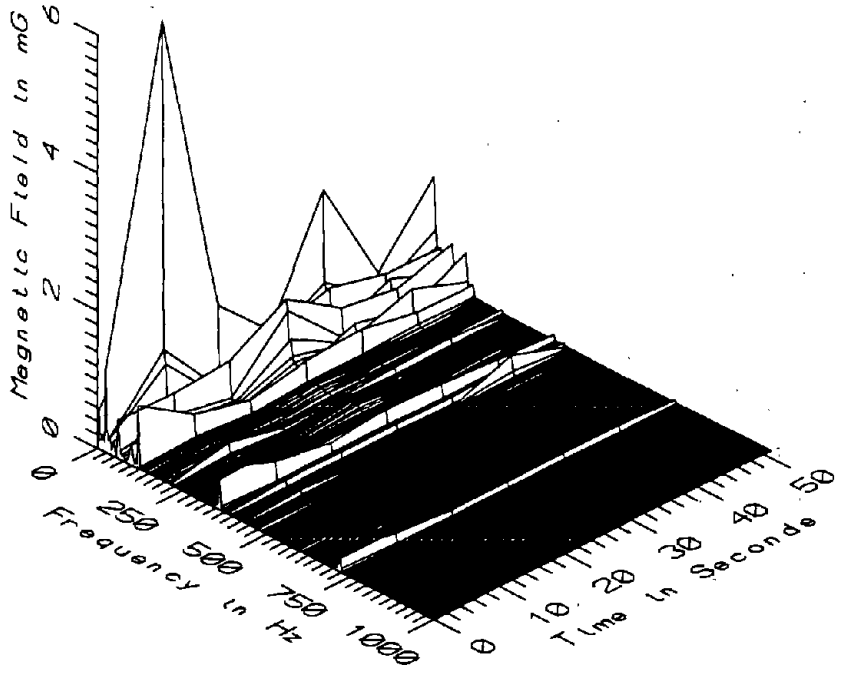
BOS035 - 60cm ABOVE FLOOR NEAR AXIS AT REAR OF KINKI GREEN LINE CAR



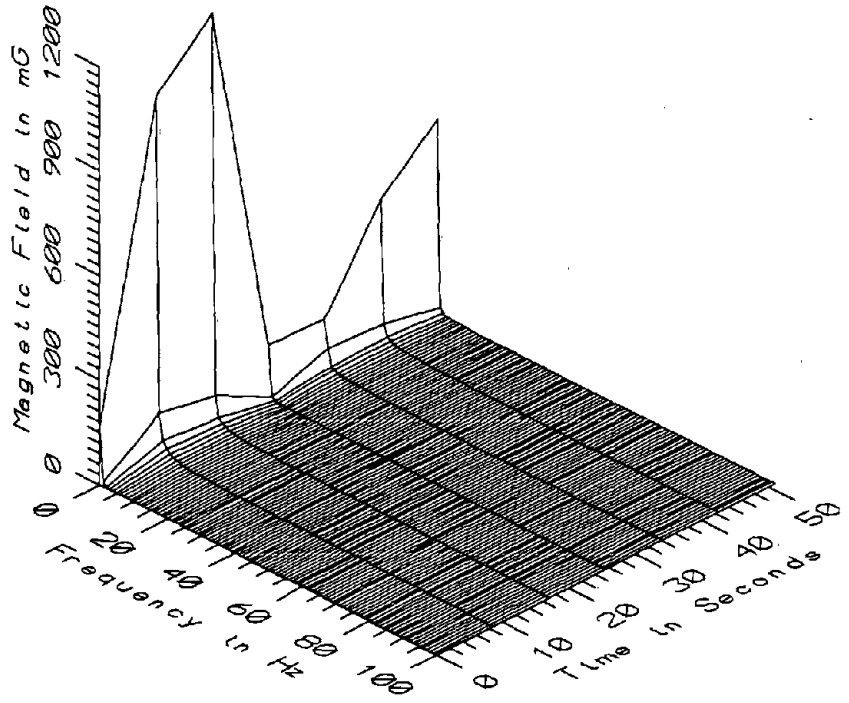
BOS035 - 60cm ABOVE FLOOR NEAR AXIS AT REAR OF KINKI GREEN LINE CAR



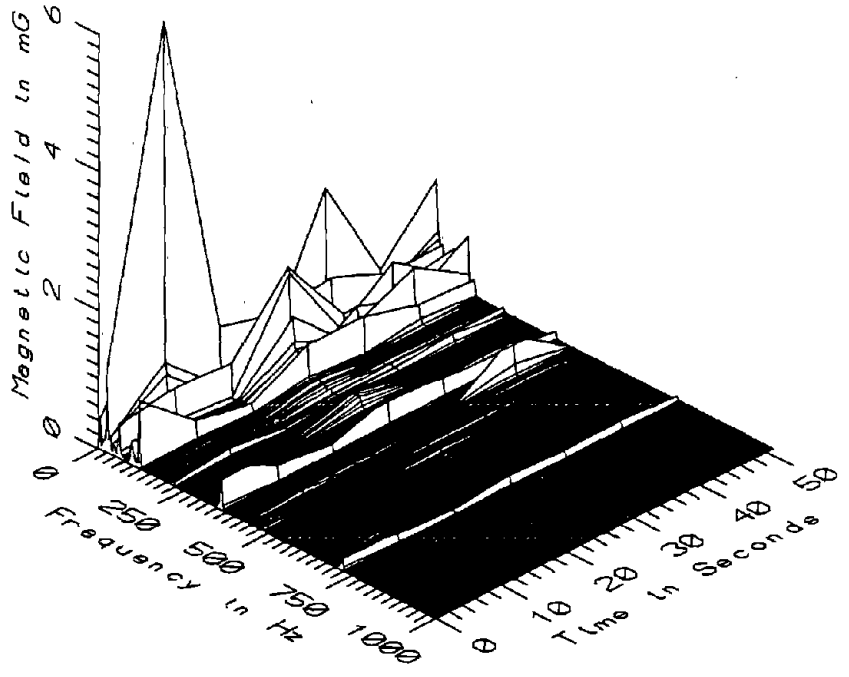
BOS035 - 110cm ABOVE FLOOR NEAR AXIS AT REAR OF KINKI GREEN LINE CAR



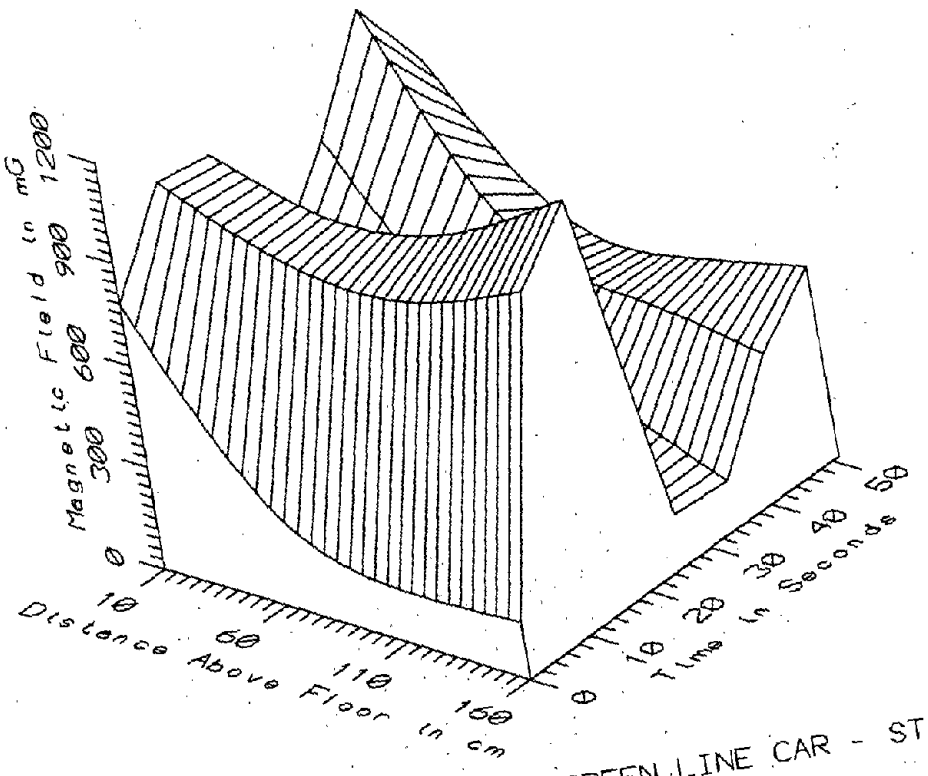
BOS035 - 110cm ABOVE FLOOR NEAR AXIS AT REAR OF KINKI GREEN LINE CAR



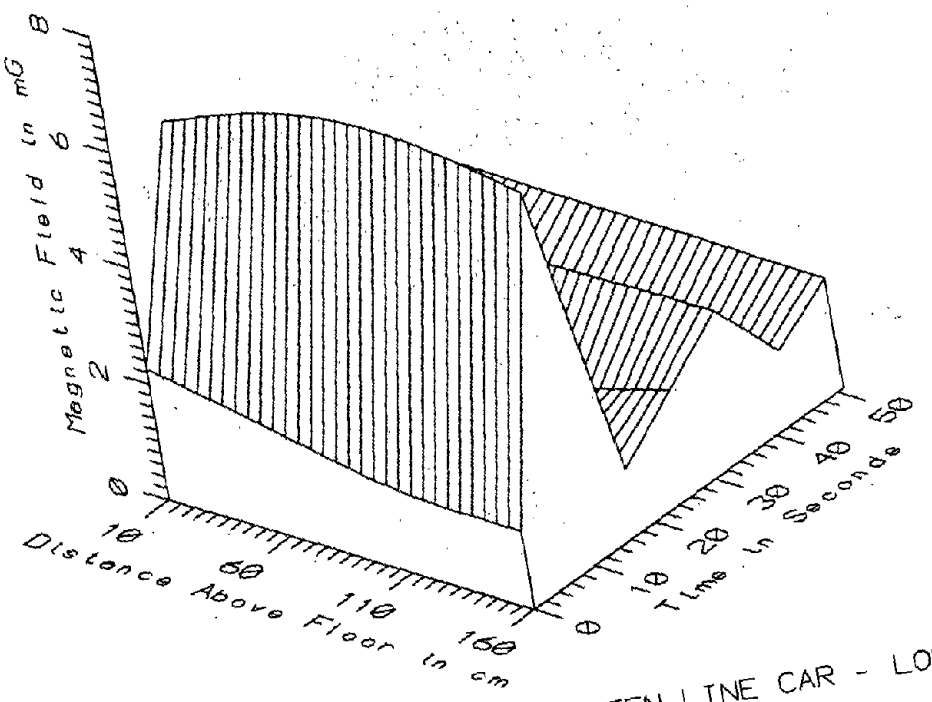
BOS035 - 160cm ABOVE FLOOR NEAR AXIS AT REAR OF KINKI GREEN LINE CAR



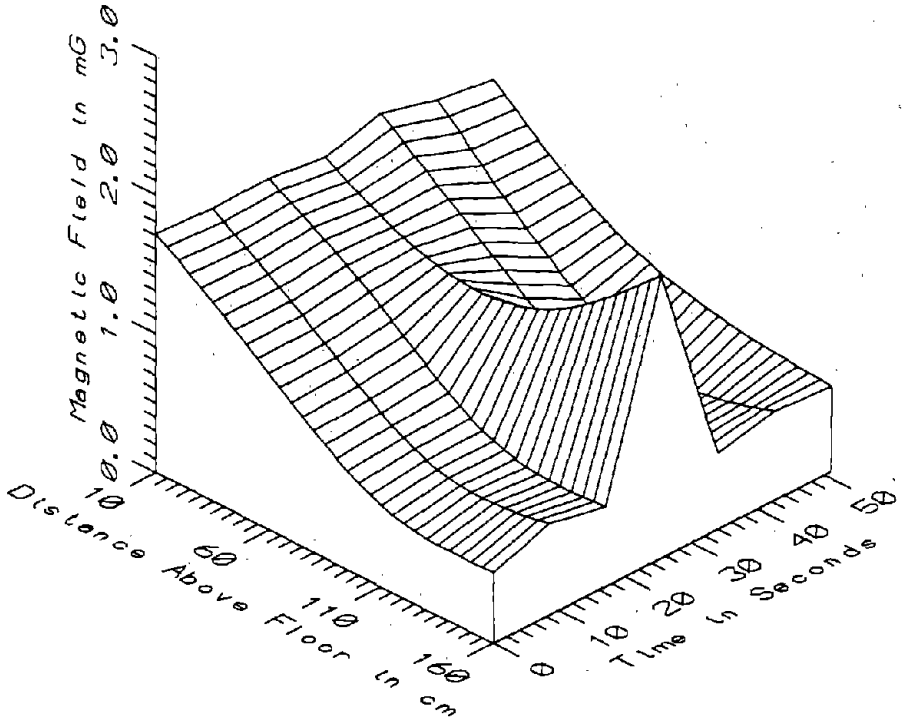
BOS035 - 160cm ABOVE FLOOR NEAR AXIS AT REAR OF KINKI GREEN LINE CAR



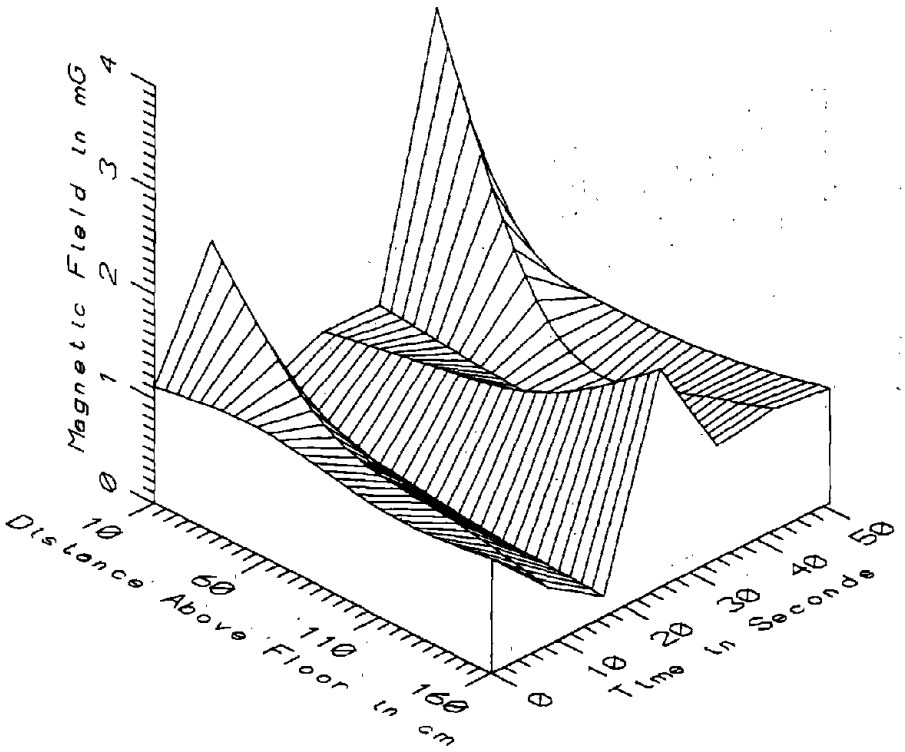
BOS035 - NEAR AXIS AT REAR OF KINKI GREEN LINE CAR - STATIC



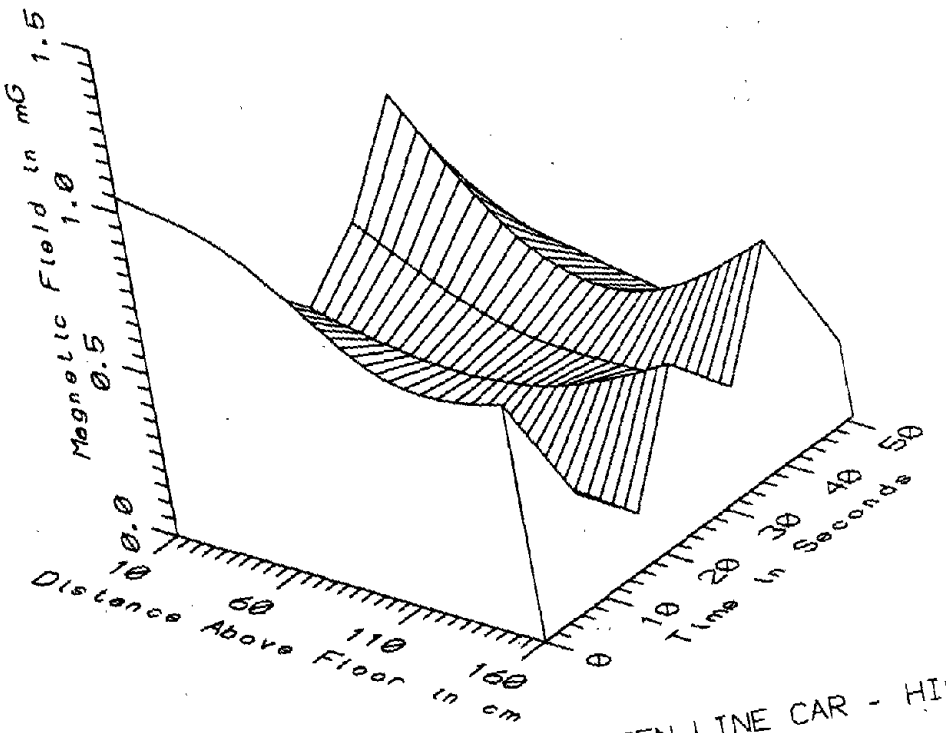
BOS035 - NEAR AXIS AT REAR OF KINKI GREEN LINE CAR - LOW FREQ. 5-45Hz



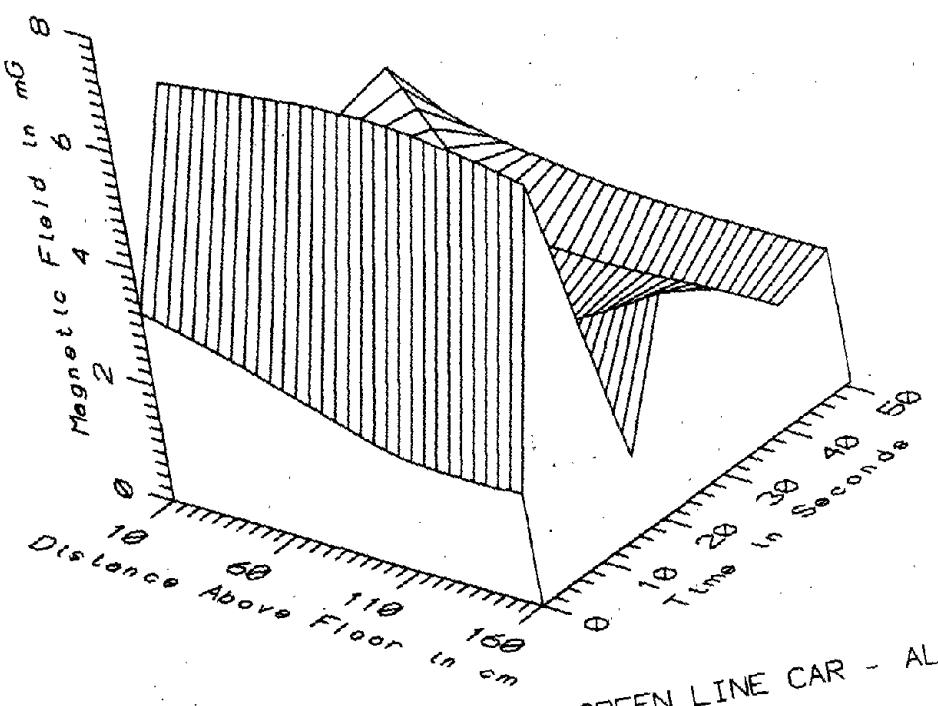
BOS035 - NEAR AXIS AT REAR OF KINKI GREEN LINE CAR - POWER FREQ, 50-60Hz



BOS035 - NEAR AXIS AT REAR OF KINKI GREEN LINE CAR - POWER HARM, 65-300Hz

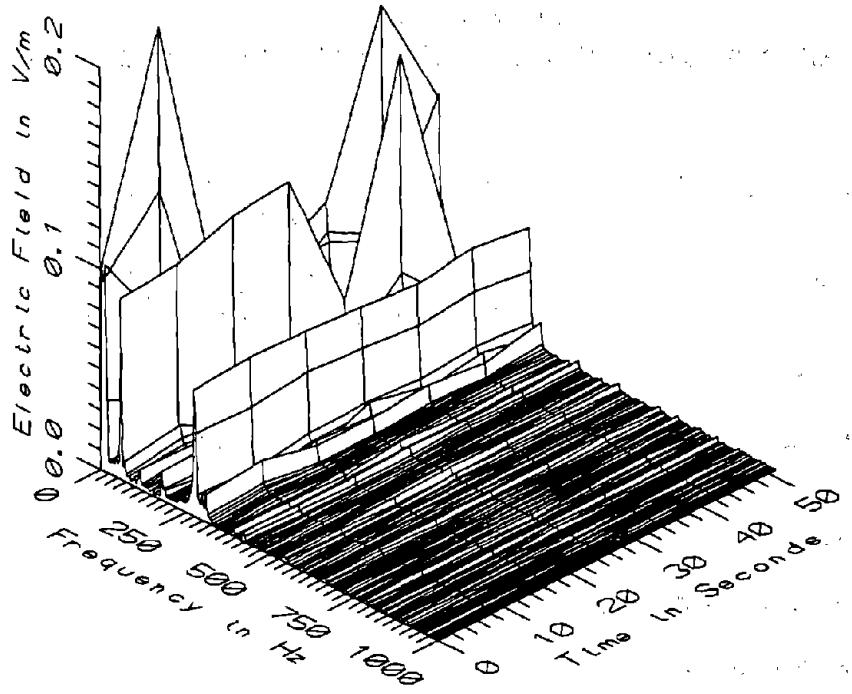


BOS035 - NEAR AXIS AT REAR OF KINKI GREEN LINE CAR - HIGH FREQ. 305-2560Hz



BOS035 - NEAR AXIS AT REAR OF KINKI GREEN LINE CAR - ALL FREQ. 5-2560Hz

BOS035 - NEAR AXIS AT REAR OF KINKI GREEN LINE CAR					TOTAL OF 7 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	606.66	1106.28	886.58	172.29	19.43
	60	285.50	913.37	554.62	258.16	46.55
	110	153.47	982.64	500.70	321.67	64.24
	160	145.45	1190.86	522.94	432.59	82.72
5-45Hz LOW FREQ	10	1.58	5.89	2.86	1.50	52.48
	60	1.15	6.67	2.50	1.91	76.44
	110	1.07	6.86	2.38	2.04	85.55
	160	1.15	6.56	2.39	1.91	79.75
50-60Hz PWR FREQ	10	1.61	1.77	1.69	0.05	3.12
	60	0.93	1.28	1.11	0.12	10.66
	110	0.51	1.37	0.72	0.29	40.34
	160	0.51	2.02	0.80	0.54	68.25
65-300Hz PWR HARM	10	0.58	3.39	1.40	1.03	73.71
	60	0.39	1.22	0.87	0.27	31.09
	110	0.25	1.33	0.83	0.33	39.35
	160	0.20	2.10	1.04	0.59	56.53
305-2560Hz HIGH FREQ	10	0.36	1.05	0.61	0.25	41.09
	60	0.28	0.94	0.45	0.23	52.10
	110	0.22	0.71	0.37	0.17	45.68
	160	0.16	0.73	0.42	0.22	50.98
5-2560Hz ALL FREQ	10	2.46	6.56	3.83	1.37	35.69
	60	1.79	6.86	3.02	1.74	57.70
	110	1.49	6.95	2.78	1.89	68.15
	160	1.31	6.63	2.94	1.78	60.48



BOS035 - ELECTRIC FIELD 170cm ABOVE FLOOR AT REAR OF KINKI GREEN CAR

APPENDIX AK

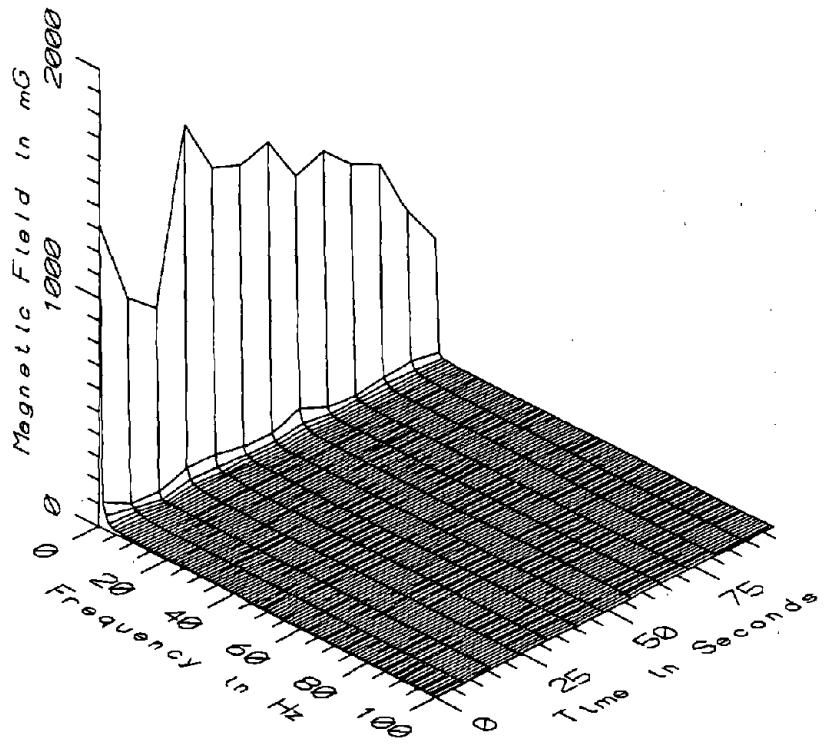
DATASET BOS036
ON CENTERLINE AT REAR OF KINKI GREEN LINE CAR

Measurement Setup Code:	Staff: 13 Reference: - Drawing: A-1
Vehicle Status:	Travelling between Haymarket and Government Center stations
Measurement Date:	June 11, 1992
Measurement Time:	Start: 09:25:41 End: 09:27:19
Number of Samples:	13
Programmed Sample Interval:	5 sec
Actual Sample Interval:	8.2 sec

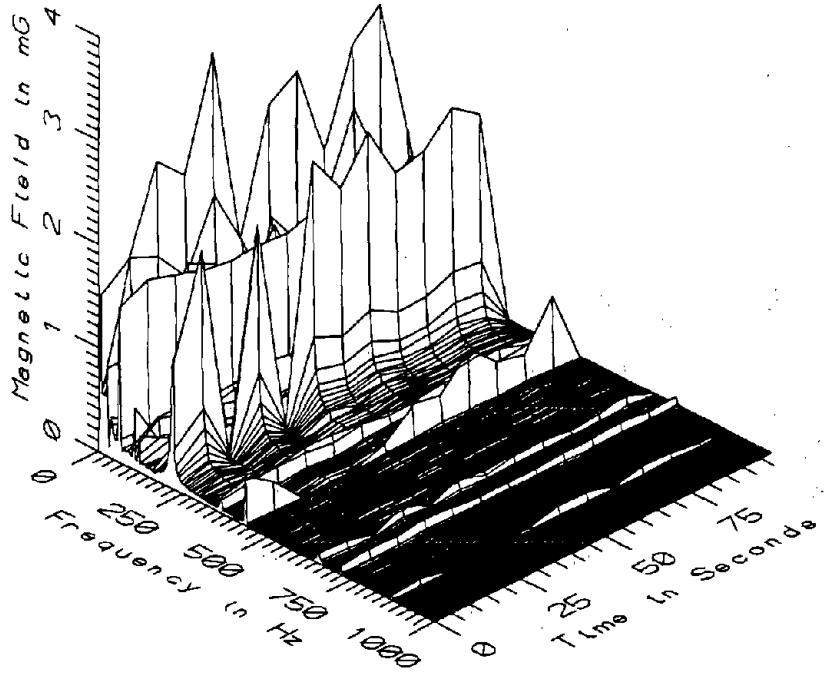
Frequency Spectrum Parameters

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

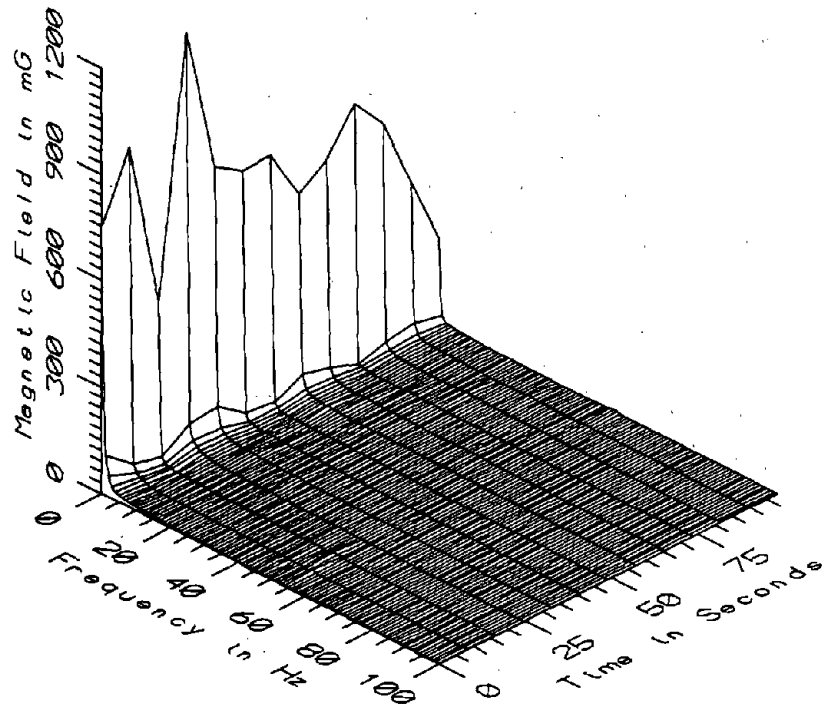
Missing Data: No reference probe



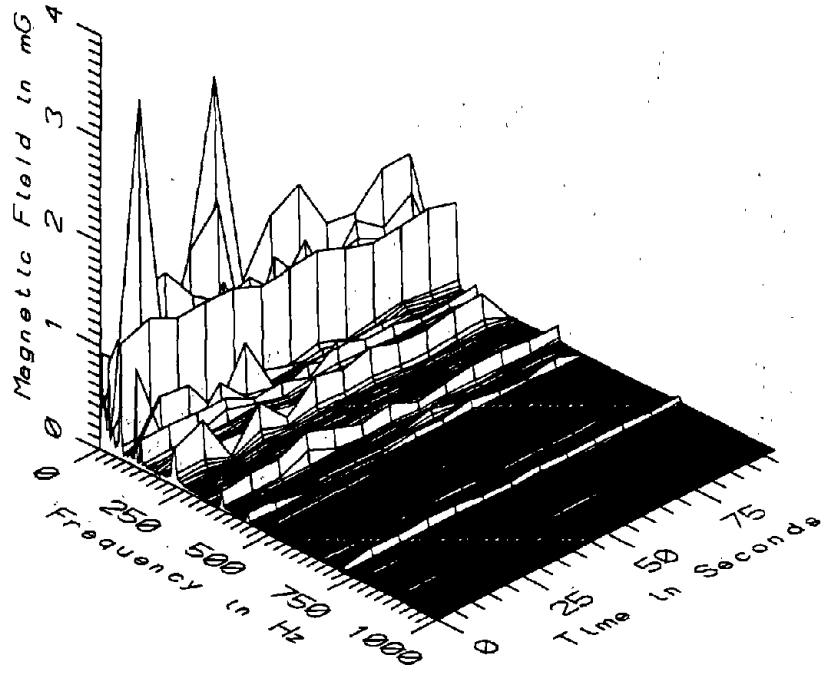
BOS036 - 10cm ABOVE FLOOR ON AXIS AT REAR OF KINKI GREEN LINE CAR



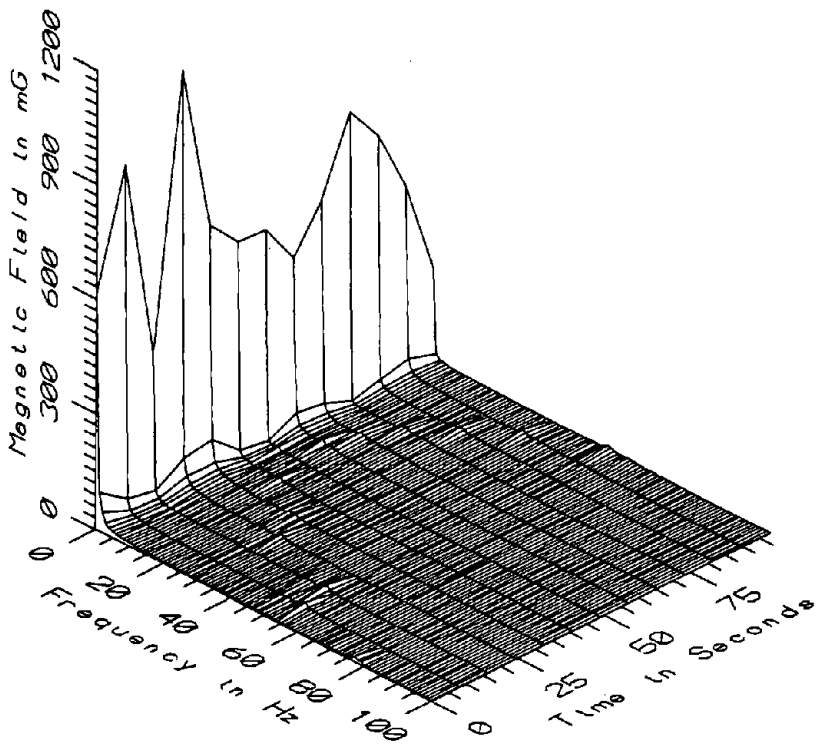
BOS036 - 10cm ABOVE FLOOR ON AXIS AT REAR OF KINKI GREEN LINE CAR



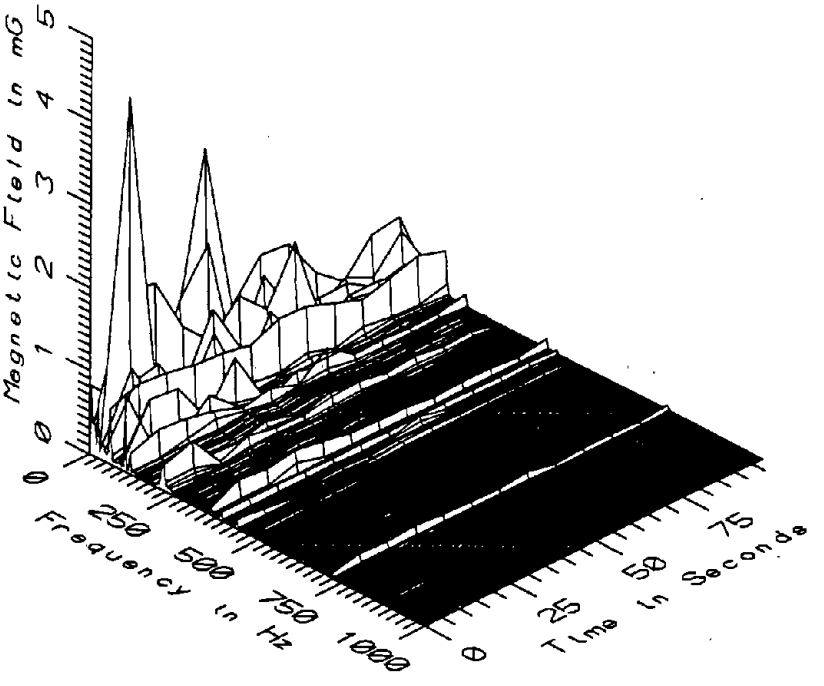
BOS036 - 60cm ABOVE FLOOR ON AXIS AT REAR OF KINKI GREEN LINE CAR



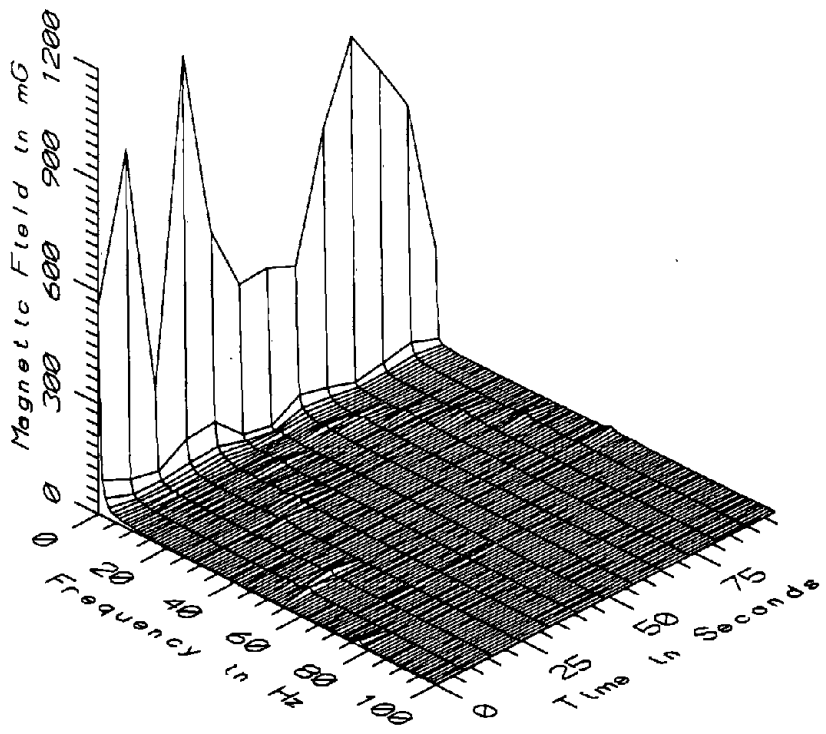
BOS036 - 60cm ABOVE FLOOR ON AXIS AT REAR OF KINKI GREEN LINE CAR



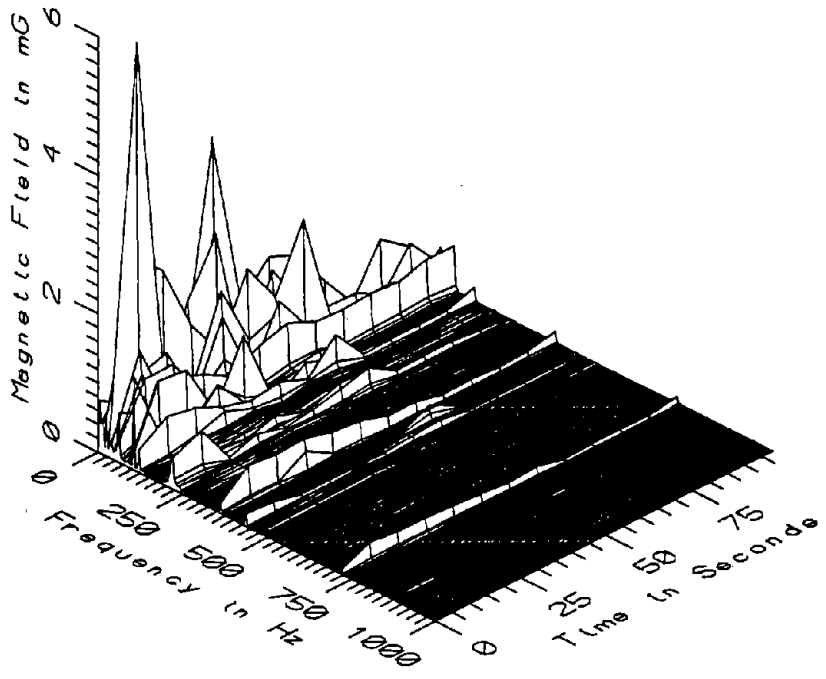
BOS036 - 110cm ABOVE FLOOR ON AXIS AT REAR OF KINKI GREEN LINE CAR



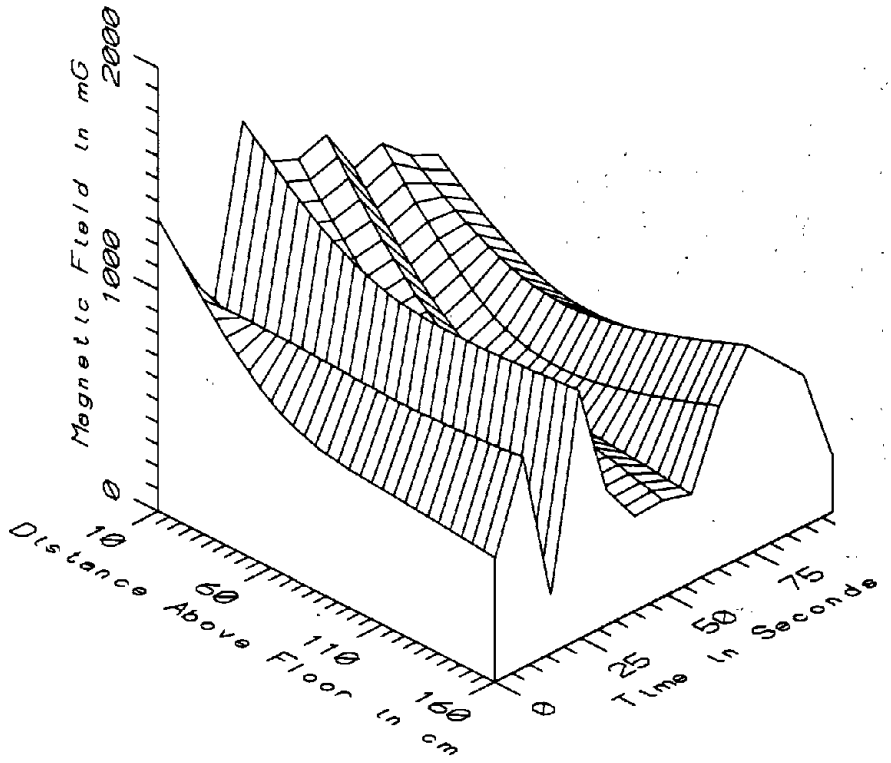
BOS036 - 110cm ABOVE FLOOR ON AXIS AT REAR OF KINKI GREEN LINE CAR



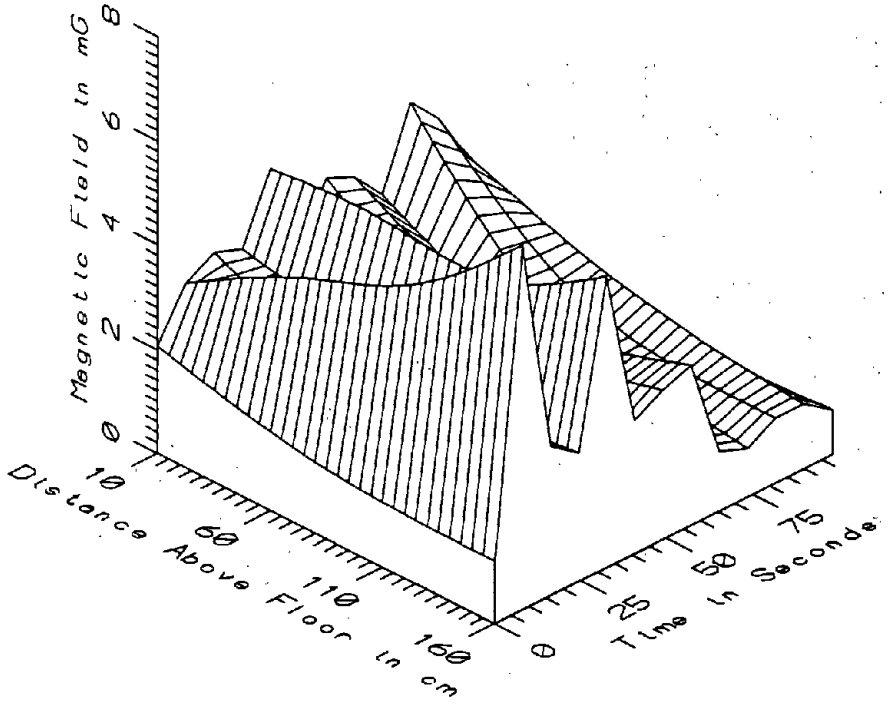
BOS036 - 160cm ABOVE FLOOR ON AXIS AT REAR OF KINKI GREEN LINE CAR



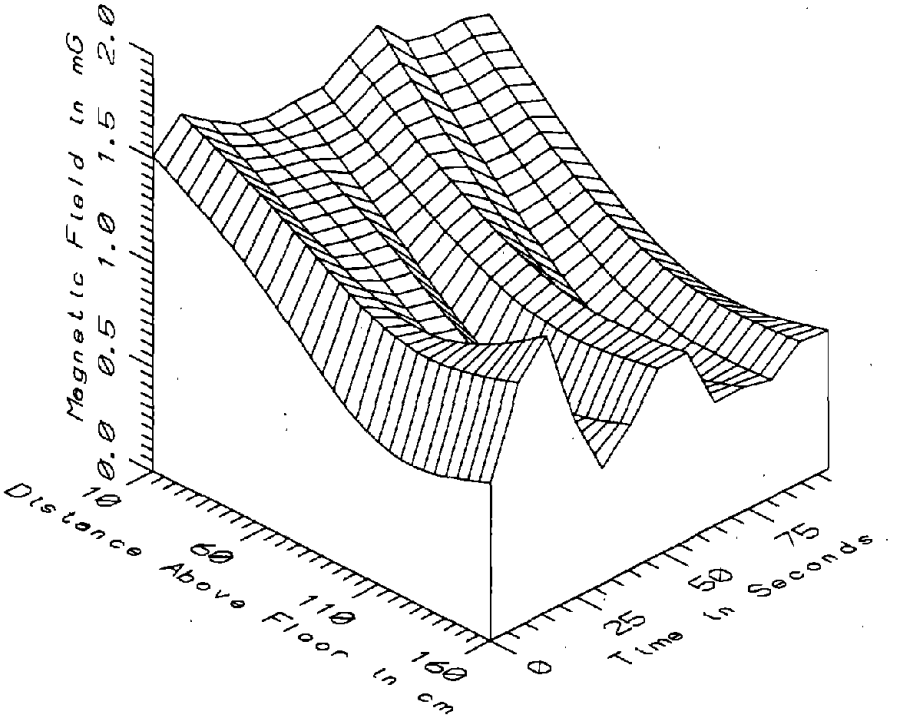
BOS036 - 160cm ABOVE FLOOR ON AXIS AT REAR OF KINKI GREEN LINE CAR



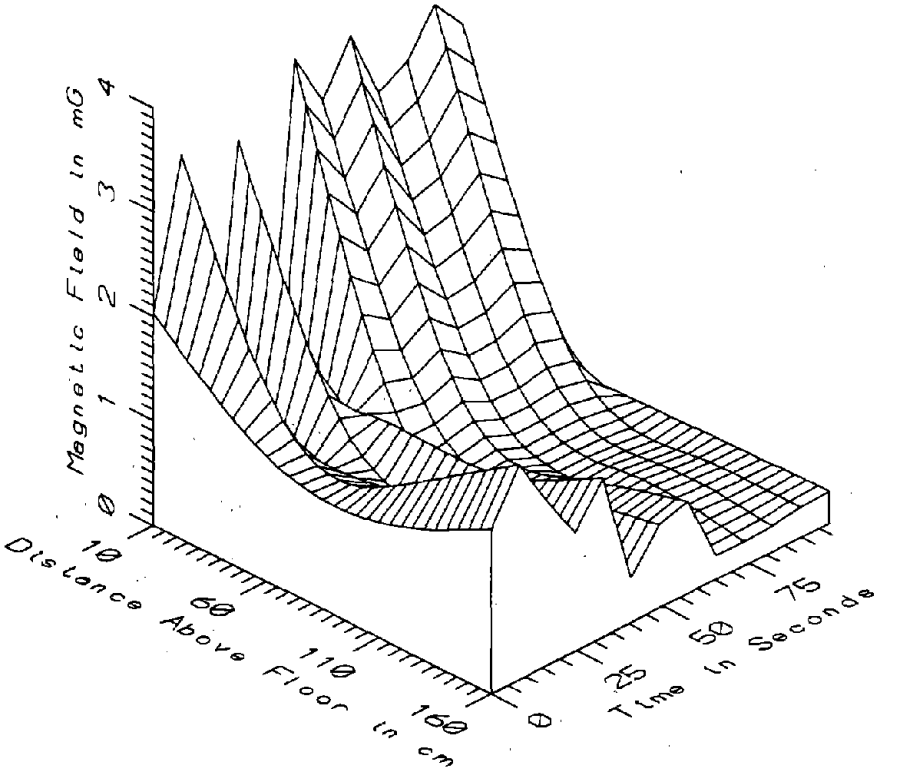
BOS036 - ON AXIS AT REAR OF KINKI GREEN LINE CAR - STATIC



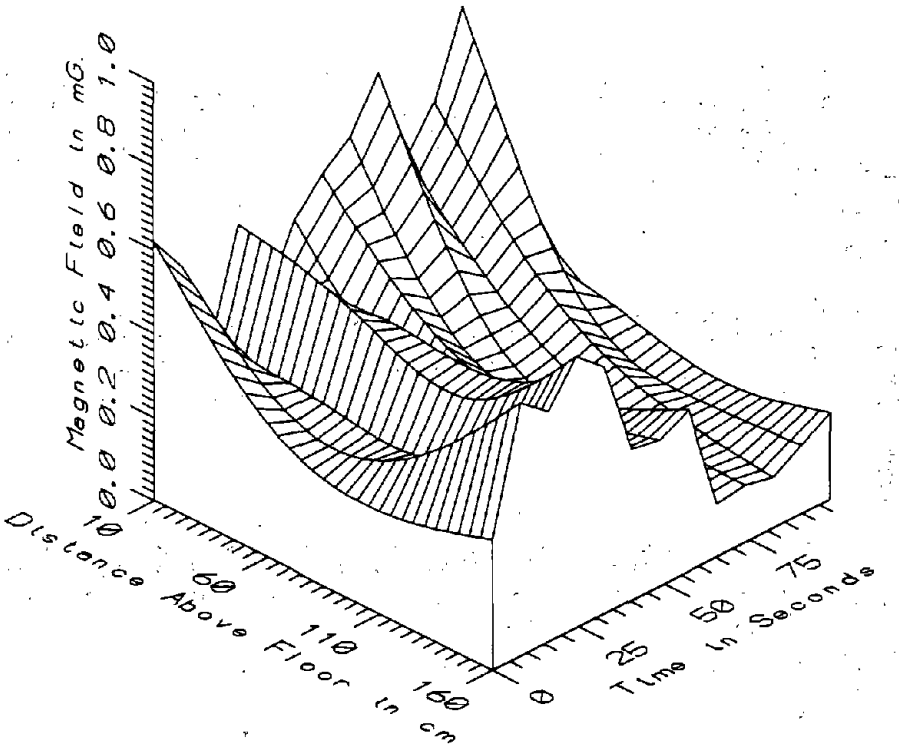
BOS036 - ON AXIS AT REAR OF KINKI GREEN LINE CAR - LOW FREQ, 5-45Hz



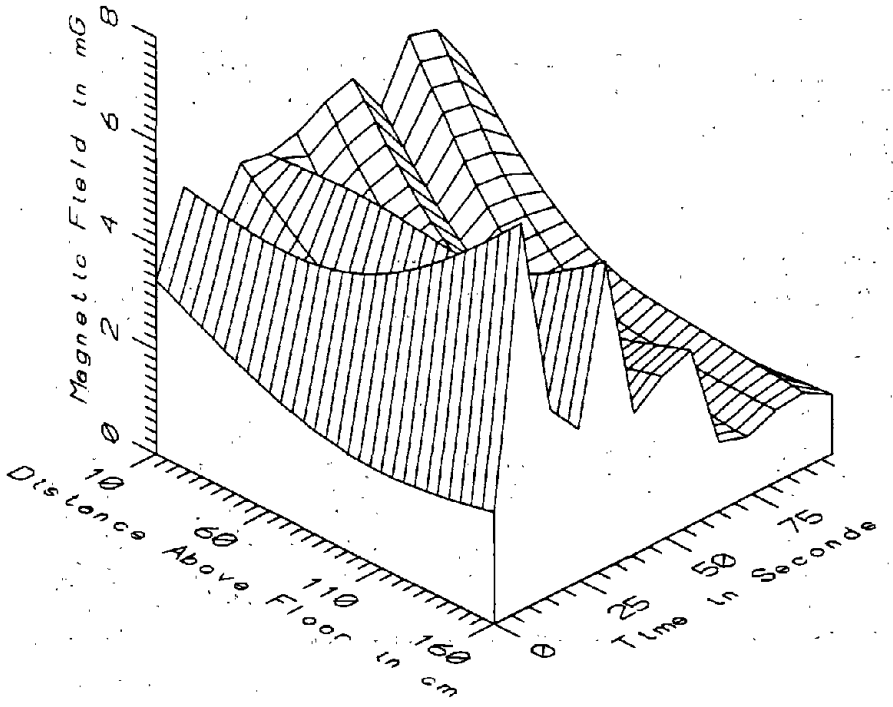
BOS036 - ON AXIS AT REAR OF KINKI GREEN LINE CAR - POWER FREQ, 50-60Hz



BOS036 - ON AXIS AT REAR OF KINKI GREEN LINE CAR - POWER HARM, 65-300Hz

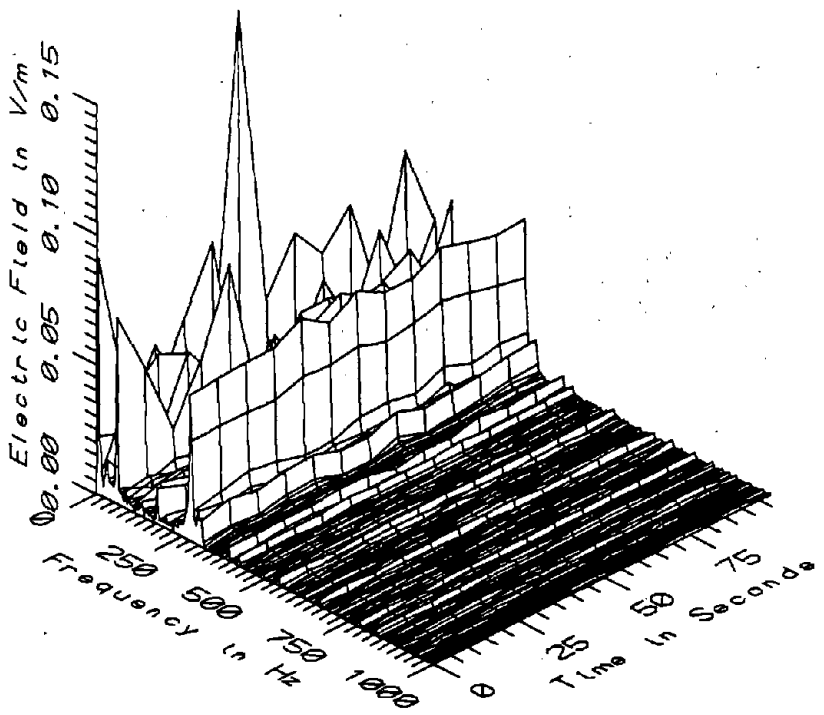


BOS036 - ON AXIS AT REAR OF KINKI GREEN LINE CAR - HIGH FREQ, 305-2560Hz



BOS036 - ON AXIS AT REAR OF KINKI GREEN LINE CAR - ALL FREQ, 5-2560Hz

BOS036 - ON AXIS AT REAR OF KINKI GREEN LINE CAR					TOTAL OF 13 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	519.31	1571.43	1081.05	290.02	26.83
	60	236.26	1180.30	672.79	232.88	34.61
	110	238.30	1090.78	610.72	221.02	36.19
	160	257.60	1122.17	630.25	273.72	43.43
5-45Hz LOW FREQ	10	0.99	4.38	3.08	0.91	29.69
	60	0.78	4.49	2.33	1.01	43.42
	110	0.75	5.15	2.17	1.29	59.41
	160	0.86	7.00	2.55	1.88	73.70
50-60Hz PWR FREQ	10	1.37	1.65	1.48	0.08	5.41
	60	0.85	1.36	1.06	0.15	13.82
	110	0.52	1.08	0.75	0.18	23.43
	160	0.55	1.32	0.79	0.24	30.06
65-300Hz PWR HARM	10	0.23	3.79	2.63	1.29	49.04
	60	0.24	1.23	0.78	0.27	34.06
	110	0.26	1.34	0.64	0.38	59.52
	160	0.24	2.07	0.88	0.65	73.90
305-2560Hz HIGH FREQ	10	0.24	0.81	0.54	0.16	30.43
	60	0.21	0.49	0.30	0.08	26.29
	110	0.15	0.43	0.25	0.10	38.76
	160	0.12	0.65	0.35	0.20	55.51
5-2560Hz ALL FREQ	10	1.72	5.58	4.49	1.04	23.25
	60	1.20	4.76	2.73	0.98	35.95
	110	1.00	5.44	2.43	1.30	53.40
	160	1.15	7.42	2.89	1.90	65.80



BOS036 - ELECTRIC FIELD 170cm ABOVE FLOOR AT REAR OF KINKI GREEN CAR

APPENDIX AL

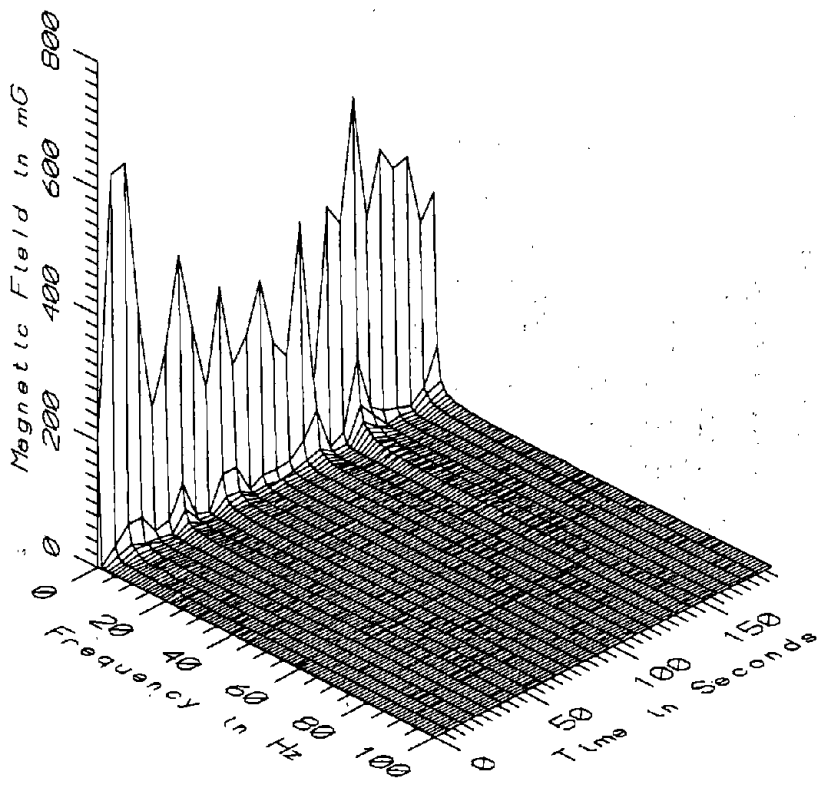
DATASET BOS037
ON GOVERNMENT CENTER PLATFORM, GREEN LINE

Measurement Setup Code:	Staff: 45 Reference: - Drawing: A-6
Vehicle Status:	NA
Measurement Date:	June 11, 1992
Measurement Time:	Start: 09:32:06 End: 09:35:15
Number of Samples:	26
Programmed Sample Interval:	5 sec
Actual Sample Interval:	7.6 sec

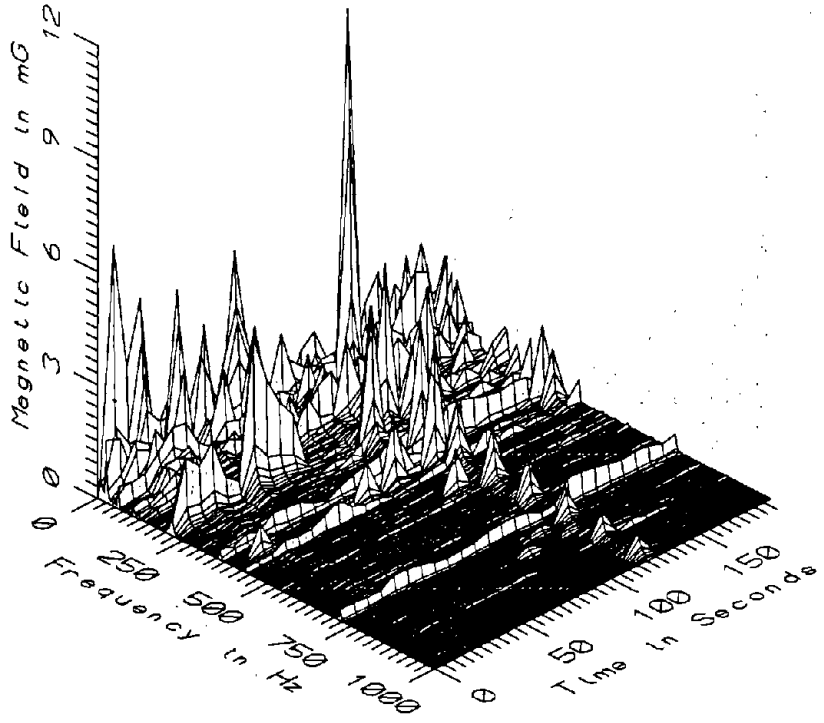
Frequency Spectrum Parameters

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

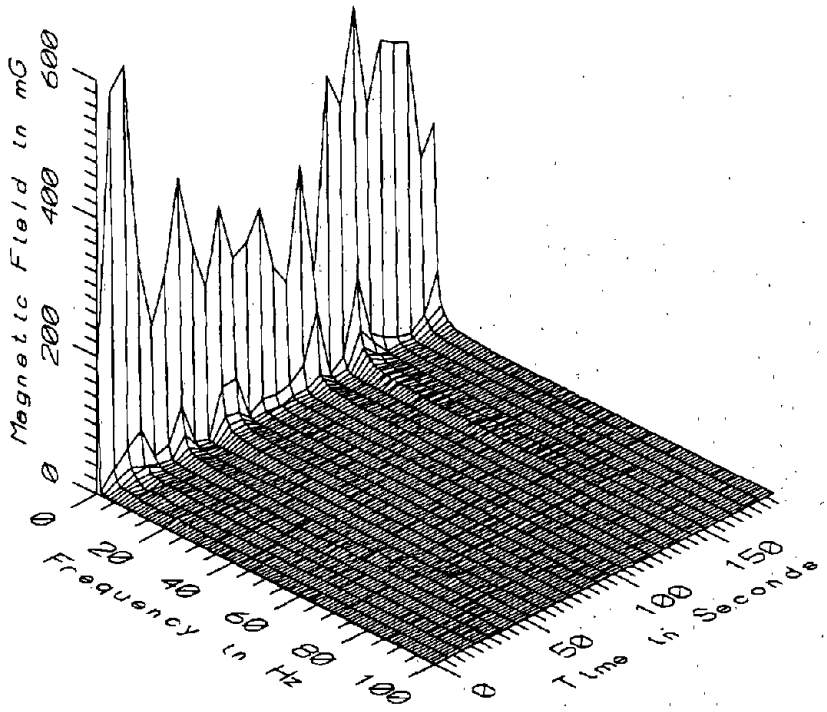
Missing Data: No reference probe



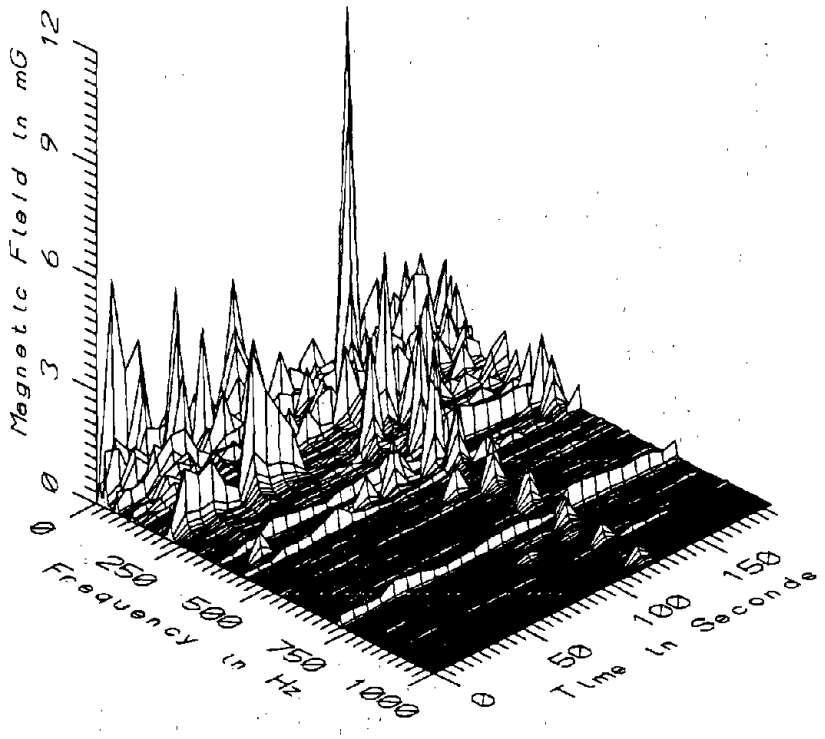
BOS037 - 10cm ABOVE PLATFORM AT GOVERNMENT CENTER, GREEN LINE



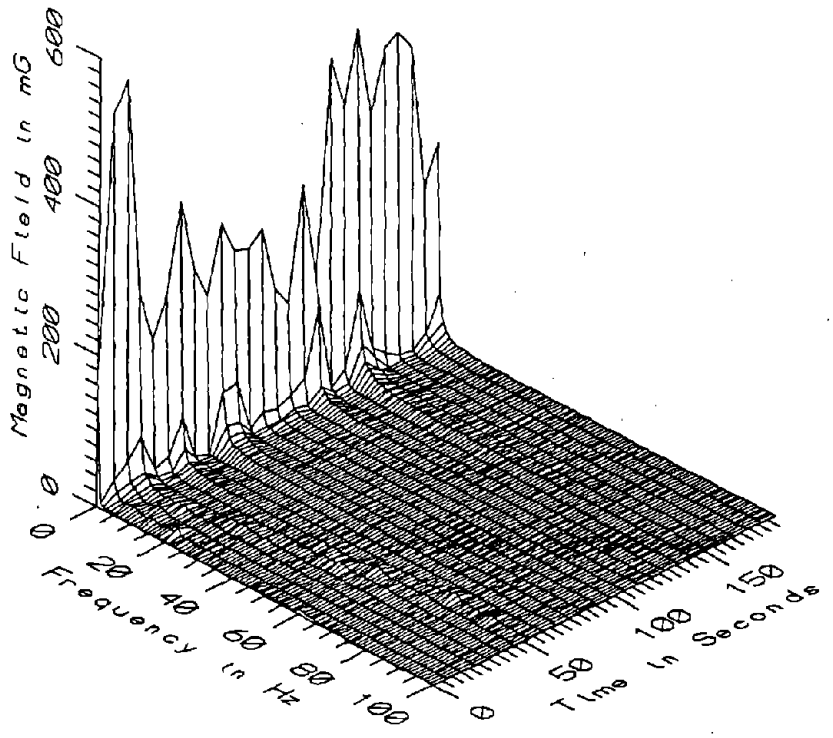
BOS037 - 10cm ABOVE PLATFORM AT GOVERNMENT CENTER, GREEN LINE



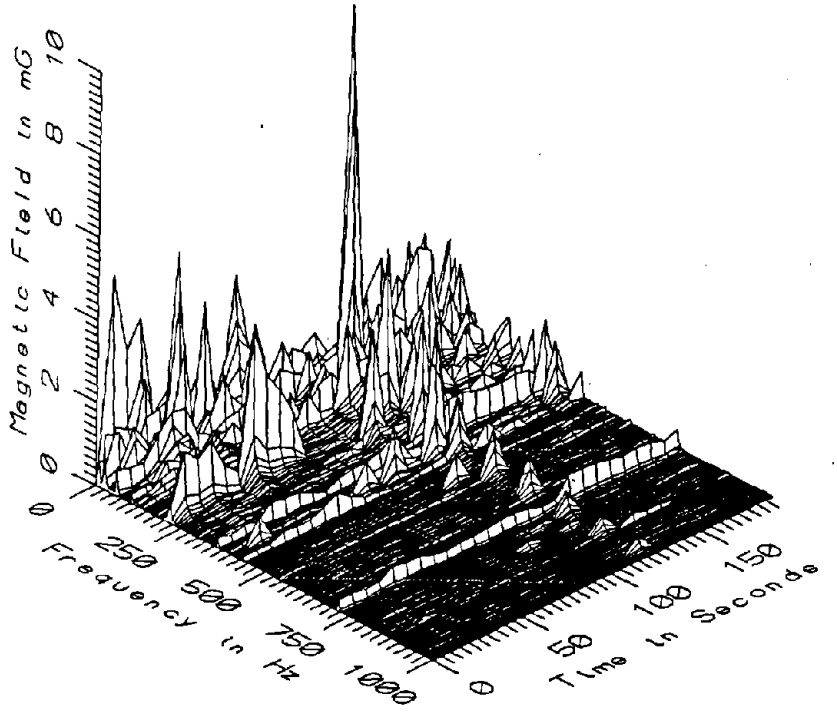
BOS037 - 60cm ABOVE PLATFORM AT GOVERNMENT CENTER; GREEN LINE



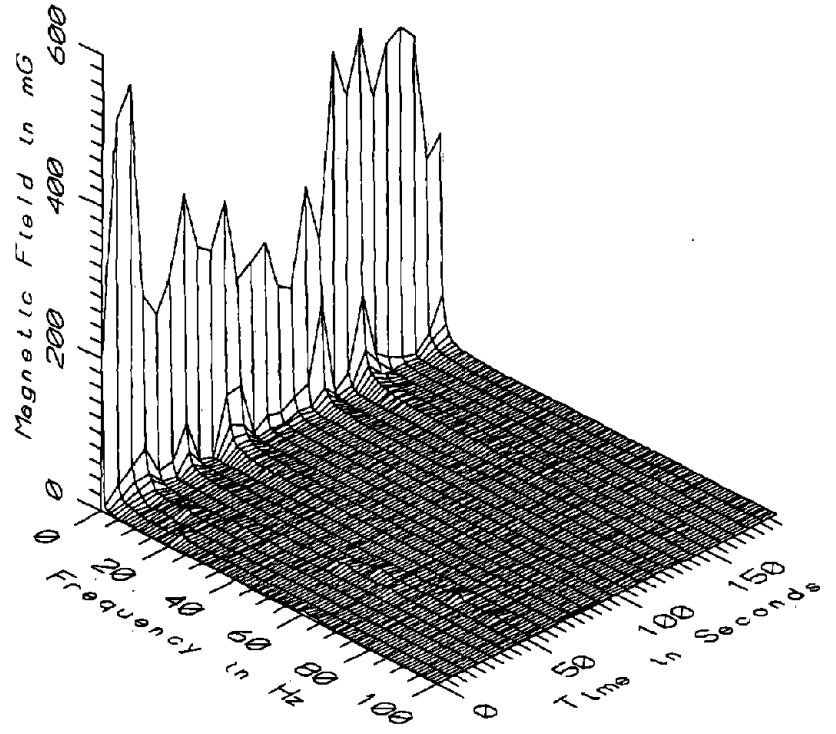
BOS037 - 60cm ABOVE PLATFORM AT GOVERNMENT CENTER, GREEN LINE



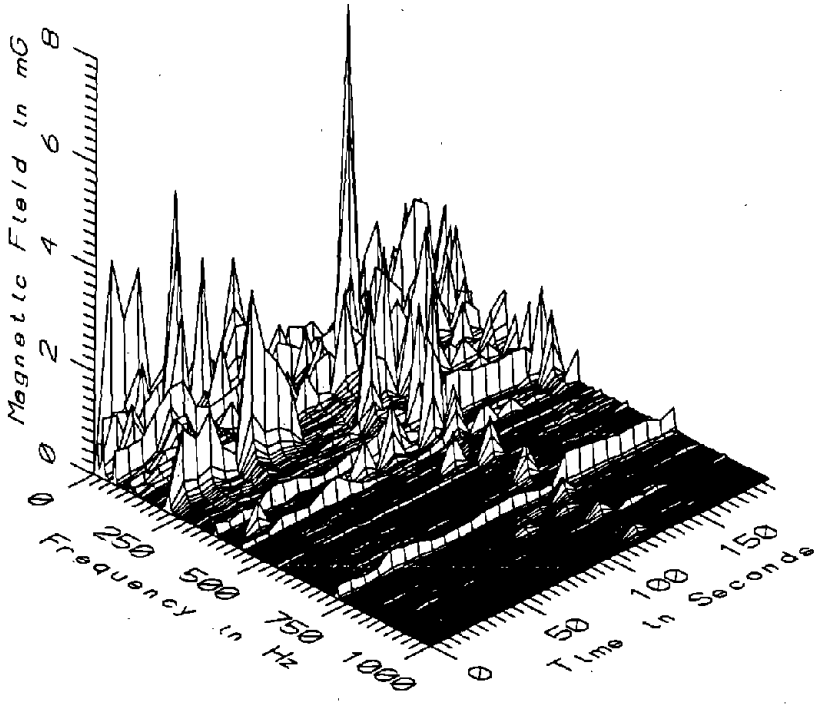
BOS037 - 110cm ABOVE PLATFORM AT GOVERNMENT CENTER, GREEN LINE



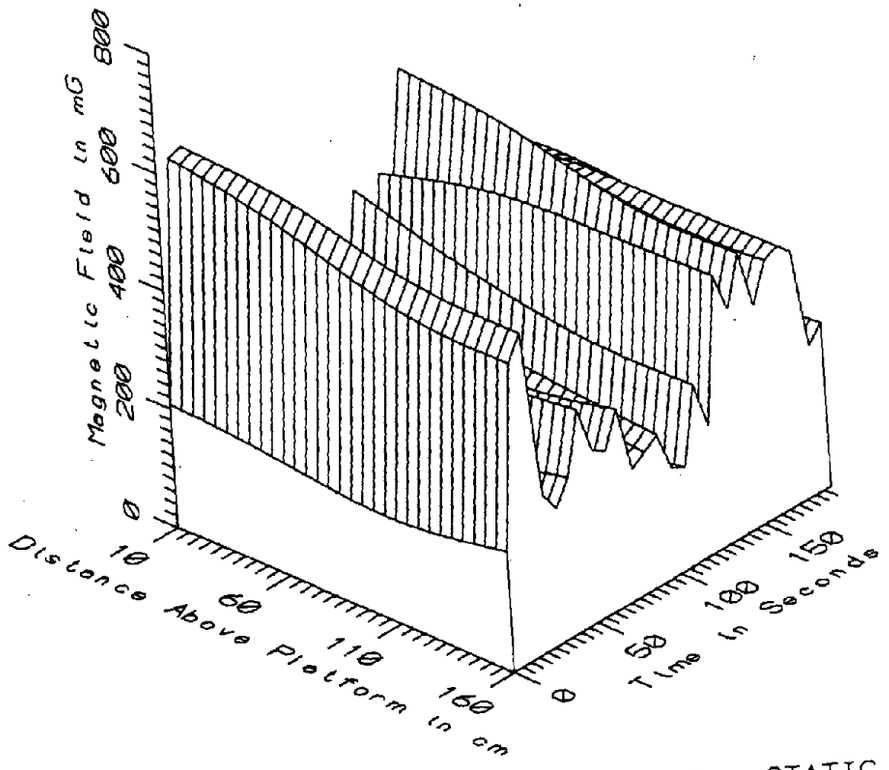
BOS037 - 110cm ABOVE PLATFORM AT GOVERNMENT CENTER, GREEN LINE



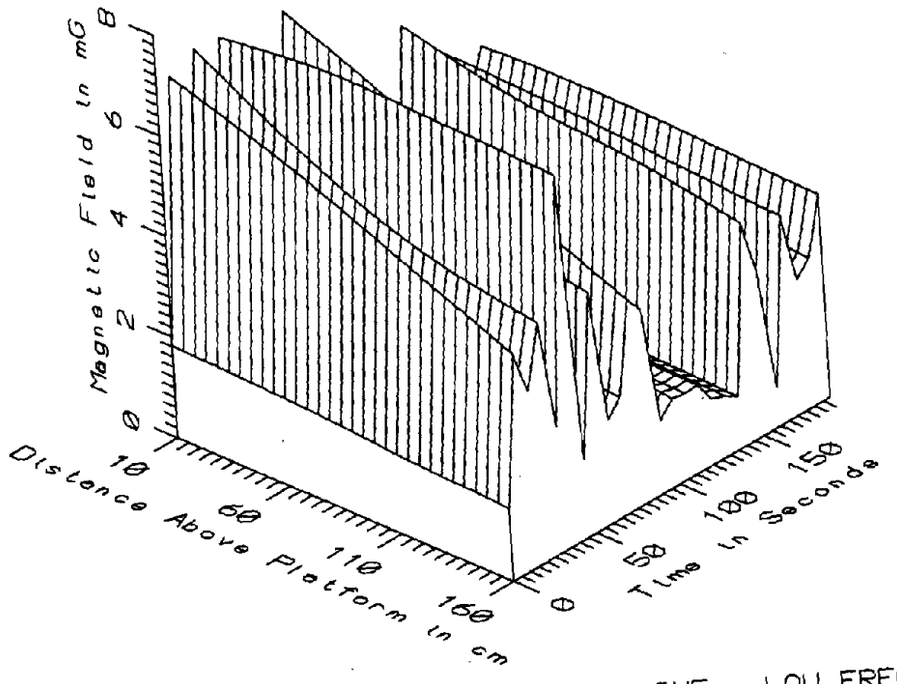
BOS037 - 160cm ABOVE PLATFORM AT GOVERNMENT CENTER, GREEN LINE



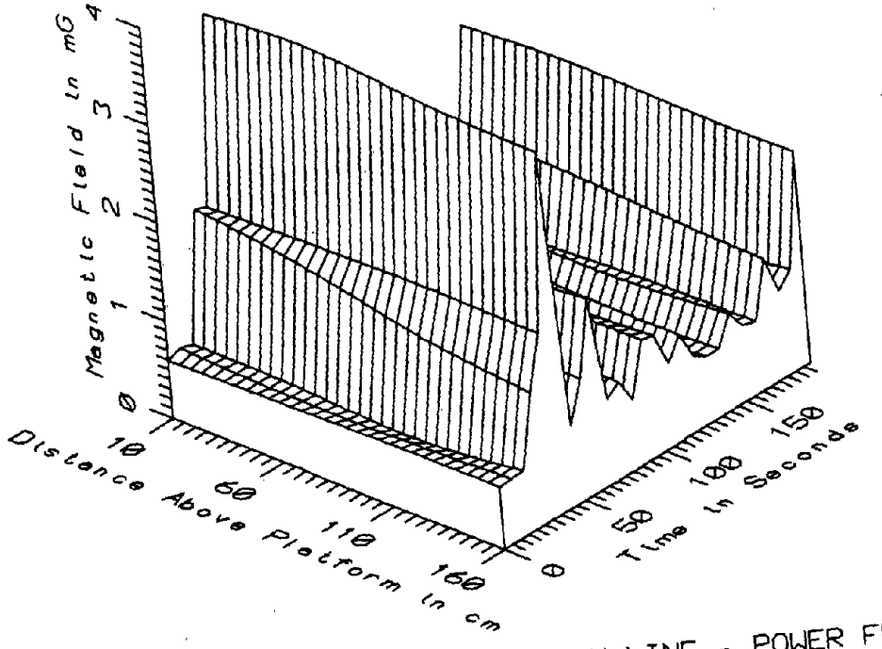
BOS037 - 160cm ABOVE PLATFORM AT GOVERNMENT CENTER, GREEN LINE



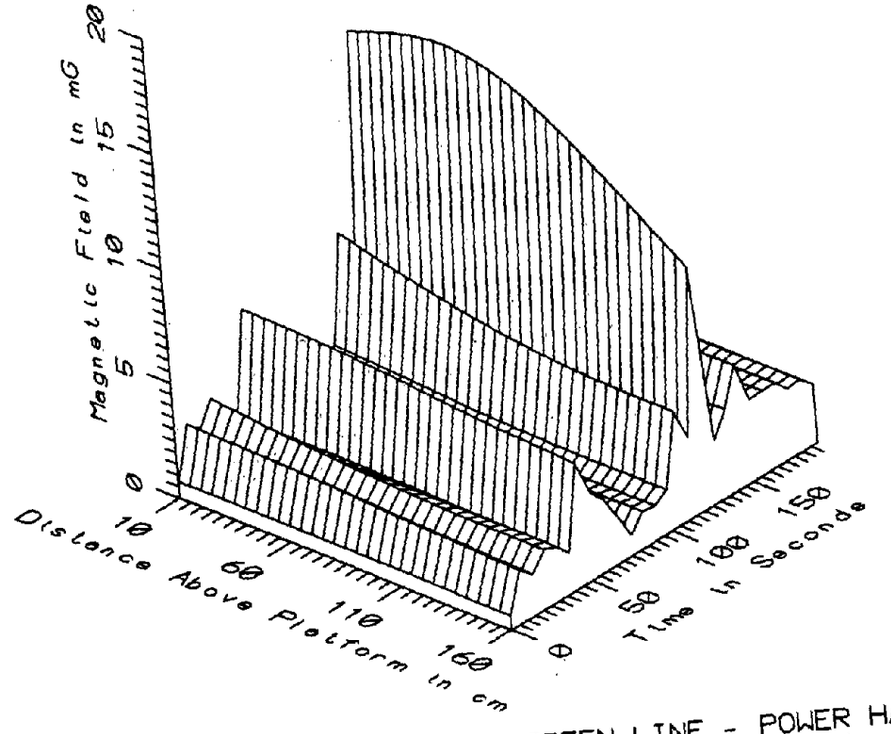
BOS037 - AT GOVERNMENT CENTER, GREEN LINE - STATIC



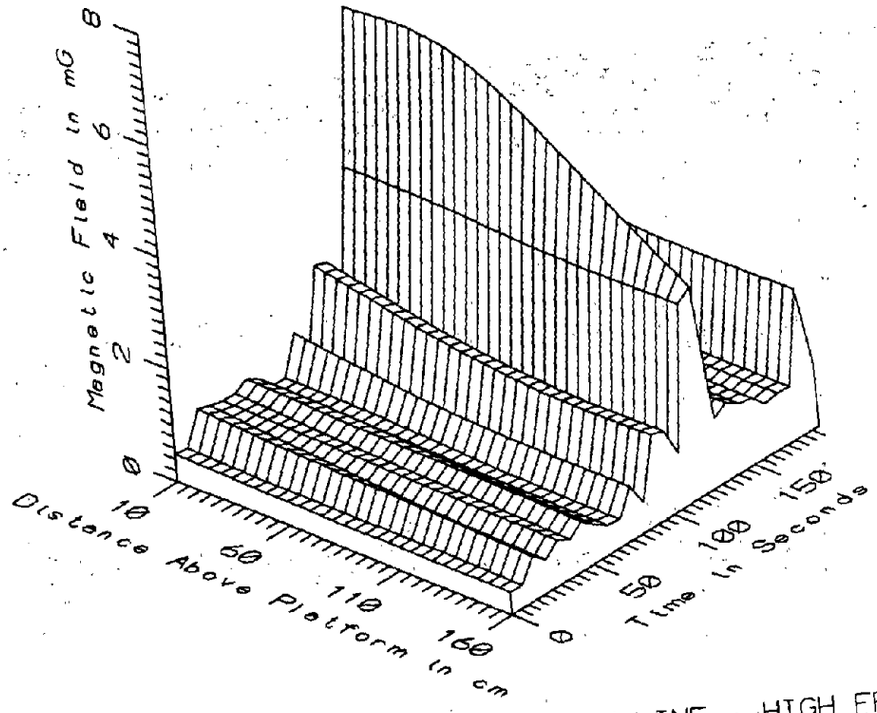
BOS037 - AT GOVERNMENT CENTER, GREEN LINE - LOW FREQ, 5-45Hz



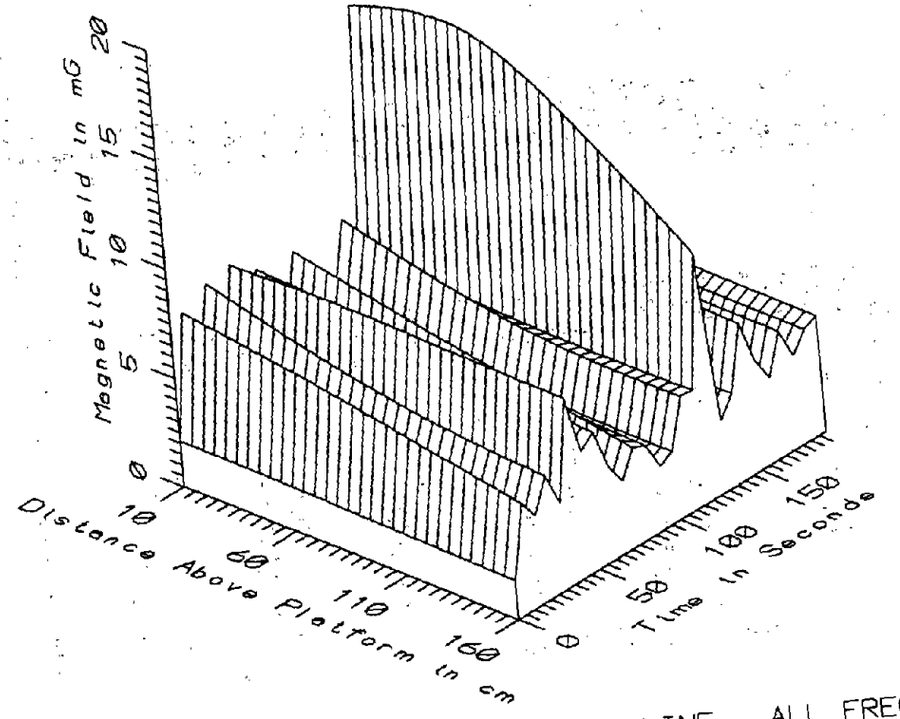
BOS037 - AT GOVERNMENT CENTER, GREEN LINE - POWER FREQ, 50-60Hz



BOS037 - AT GOVERNMENT CENTER, GREEN LINE - POWER HARM, 65-300Hz

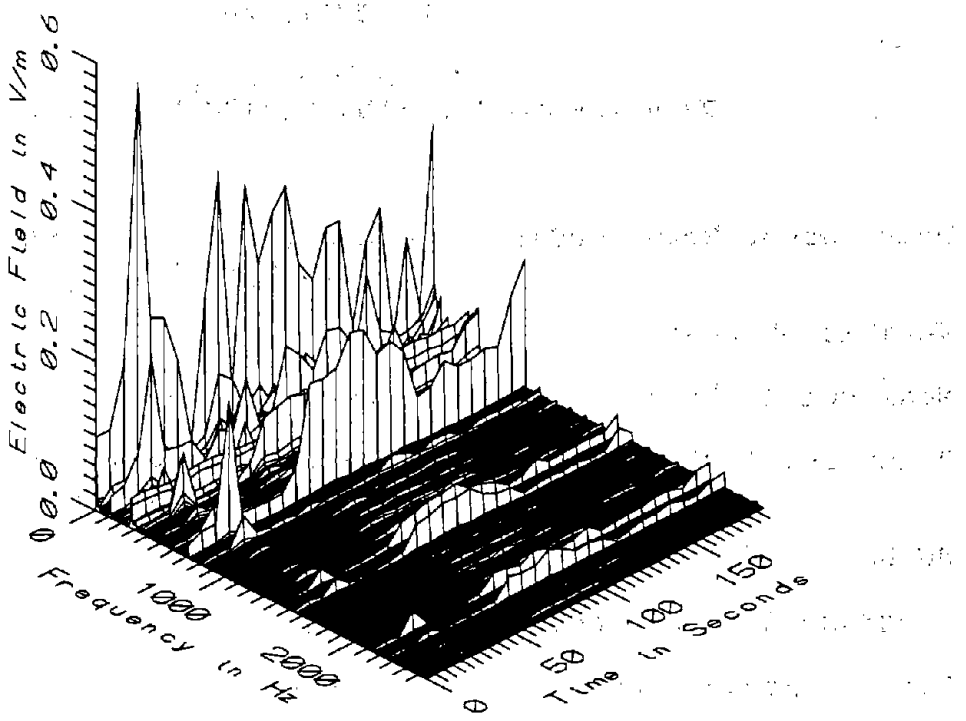


BOS037 - AT GOVERNMENT CENTER, GREEN LINE - HIGH FREQ, 305-2560Hz



BOS037 - AT GOVERNMENT CENTER, GREEN LINE - ALL FREQ, 5-2560Hz

BOS037 - ON GOVERNMENT CENTER PLATFORM, GREEN LINE				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	124.50	620.42	336.72	125.59	37.30
	60	159.25	600.76	330.82	122.10	36.91
	110	147.11	552.90	308.66	116.17	37.64
	160	168.75	544.58	319.60	107.77	33.72
5-45Hz LOW FREQ	10	0.98	7.28	3.55	1.99	56.04
	60	0.94	7.46	3.34	1.82	54.48
	110	0.86	7.42	3.09	1.67	54.13
	160	0.80	7.35	2.87	1.56	54.24
50-60Hz PWR FREQ	10	0.54	3.76	1.17	0.75	63.95
	60	0.52	3.83	1.15	0.73	63.16
	110	0.55	3.73	1.11	0.69	62.02
	160	0.65	3.68	1.14	0.67	58.15
65-300Hz PWR HARM	10	0.71	15.13	3.62	2.74	75.76
	60	0.71	16.23	3.53	2.90	82.11
	110	0.69	14.15	3.32	2.53	76.29
	160	0.64	10.56	3.13	1.95	62.15
305-2560Hz HIGH FREQ	10	0.47	6.35	1.46	1.22	84.12
	60	0.41	6.29	1.36	1.22	89.45
	110	0.41	5.08	1.24	1.03	82.74
	160	0.39	3.68	1.17	0.85	72.77
5-2560Hz ALL FREQ	10	2.09	16.60	5.90	2.77	46.97
	60	2.02	17.57	5.66	2.88	50.86
	110	1.89	15.15	5.27	2.47	46.91
	160	1.77	11.28	4.95	1.88	38.00



BOS037 - ELECTRIC FIELD AT GOVERNMENT CENTER, GREEN LINE

APPENDIX AM

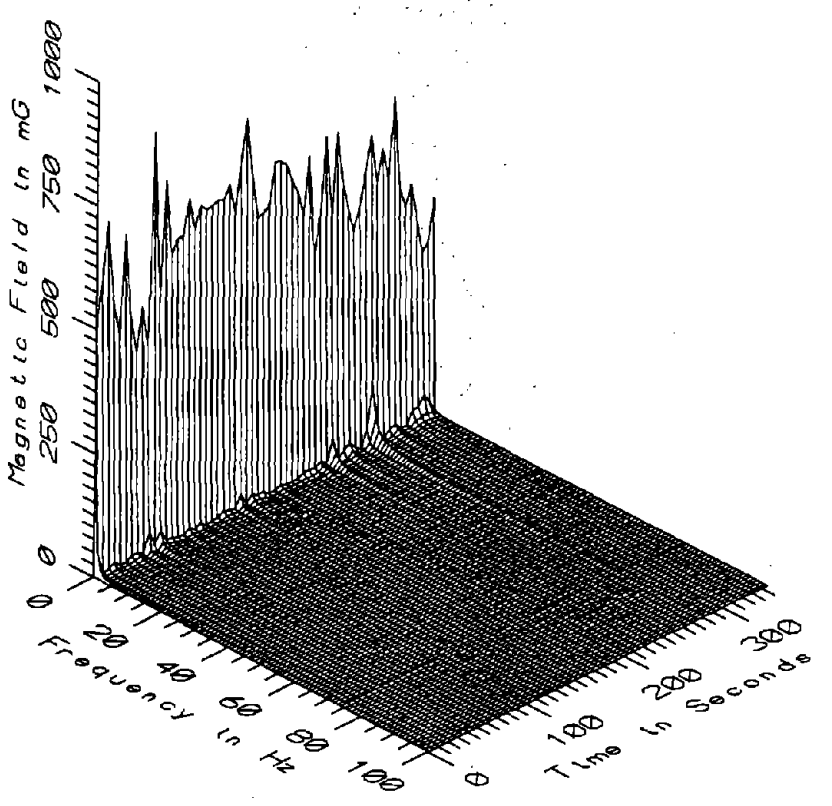
DATASET BOS038
ON GOVERNMENT CENTER PLATFORM, GREEN LINE

Measurement Setup Code:	Staff: 44 Reference: - Drawing: A-6
Vehicle Status:	NA
Measurement Date:	June 11, 1992
Measurement Time:	Start: 09:37:30 End: 09:43:16
Number of Samples:	60
Programmed Sample Interval:	5 sec
Actual Sample Interval:	5.9 sec

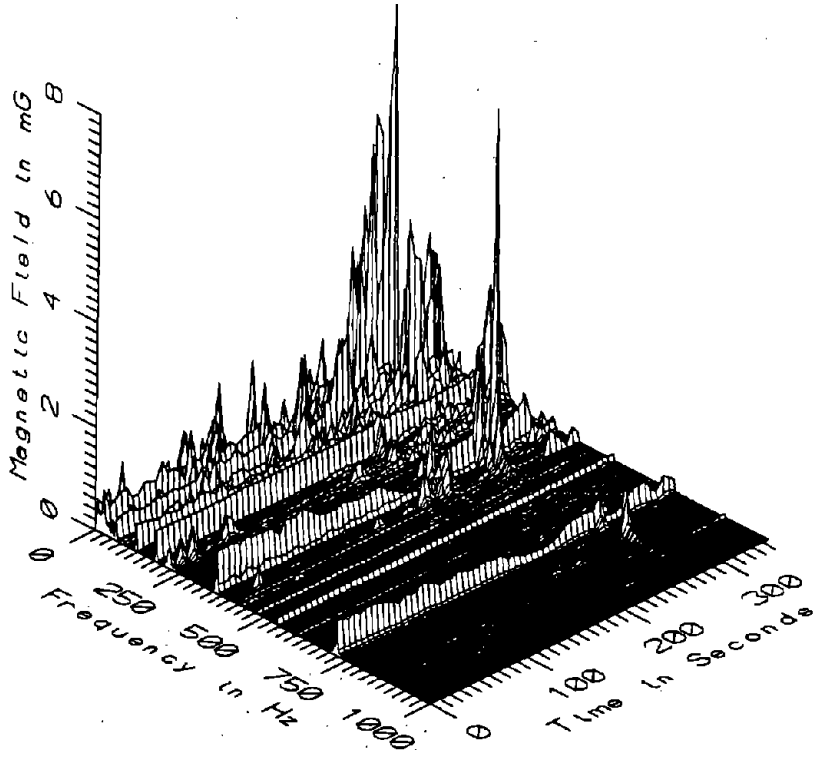
Frequency Spectrum Parameters

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

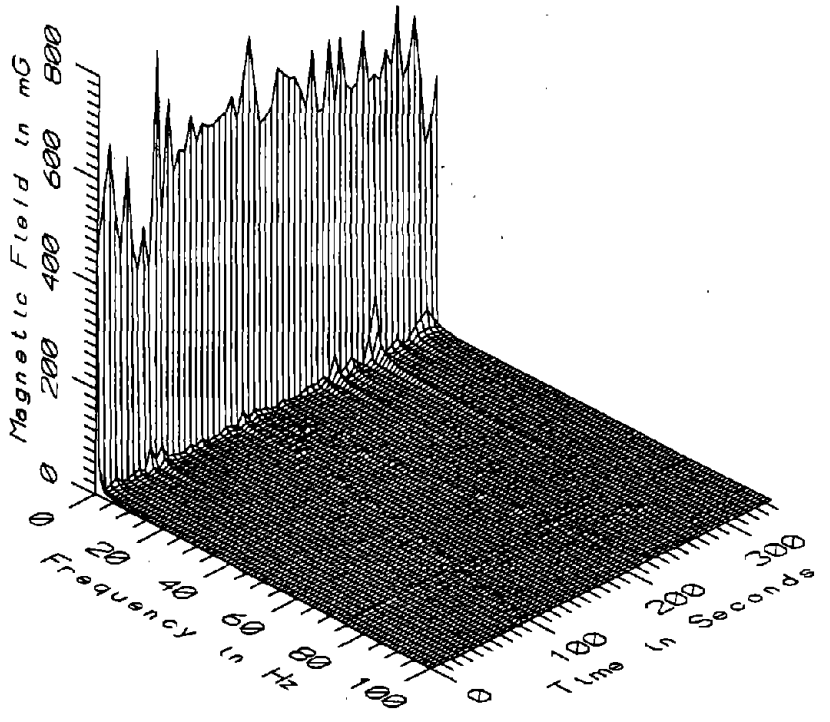
Missing Data: No reference probe



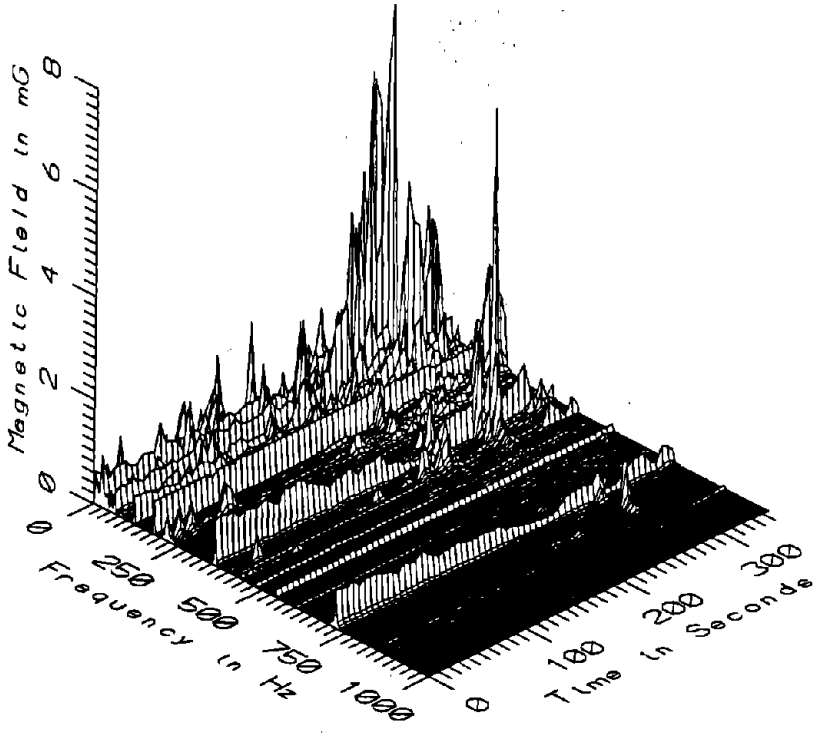
BOS038 - 10cm ABOVE PLATFORM AT GOVERNMENT CENTER, GREEN LINE



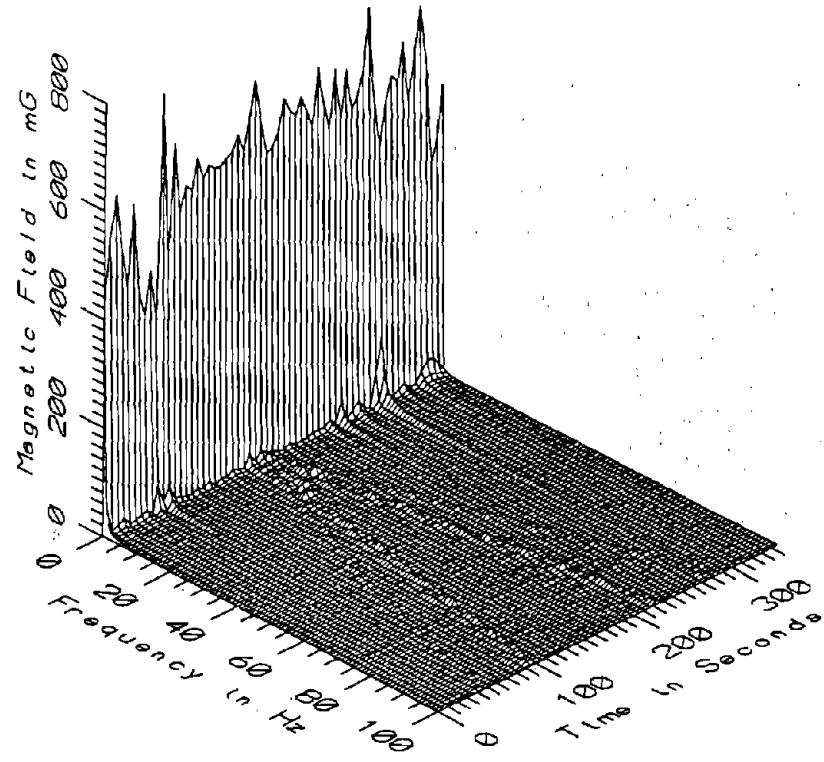
BOS038 - 10cm ABOVE PLATFORM AT GOVERNMENT CENTER, GREEN LINE



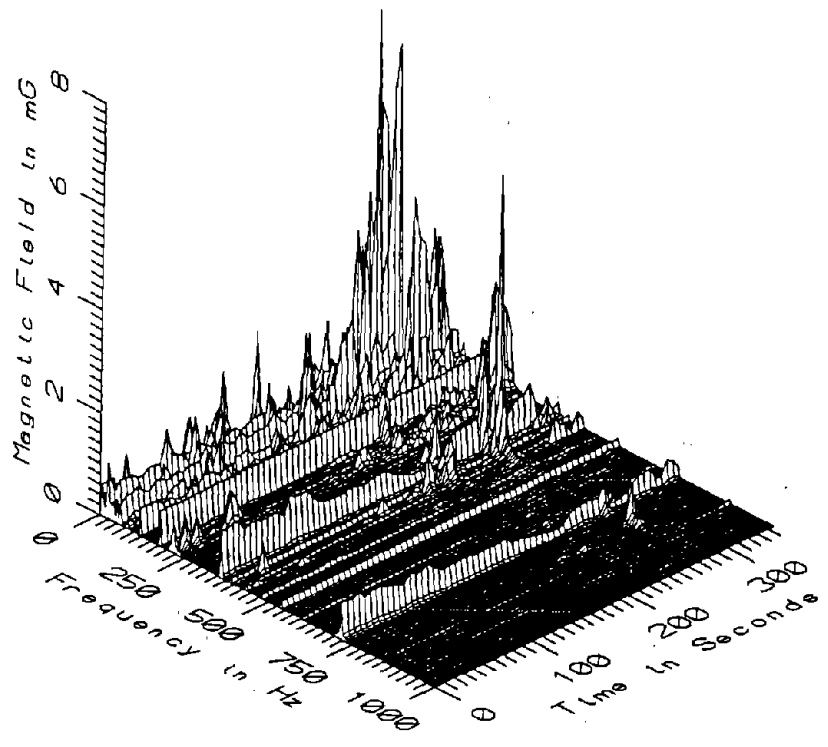
BOS038 - 60cm ABOVE PLATFORM AT GOVERNMENT CENTER, GREEN LINE



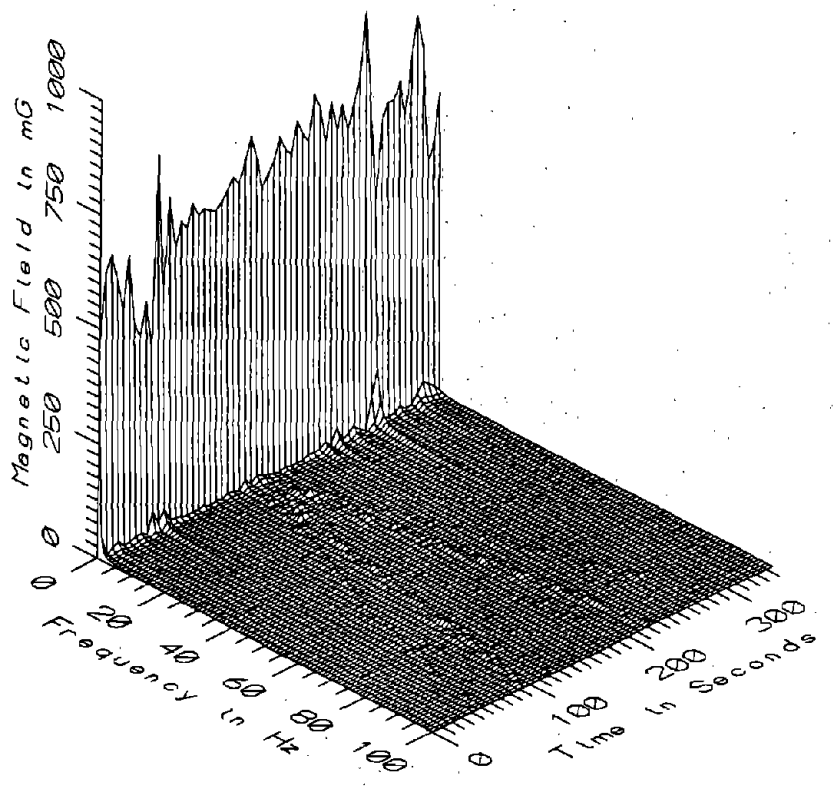
BOS038 - 60cm ABOVE PLATFORM AT GOVERNMENT CENTER, GREEN LINE



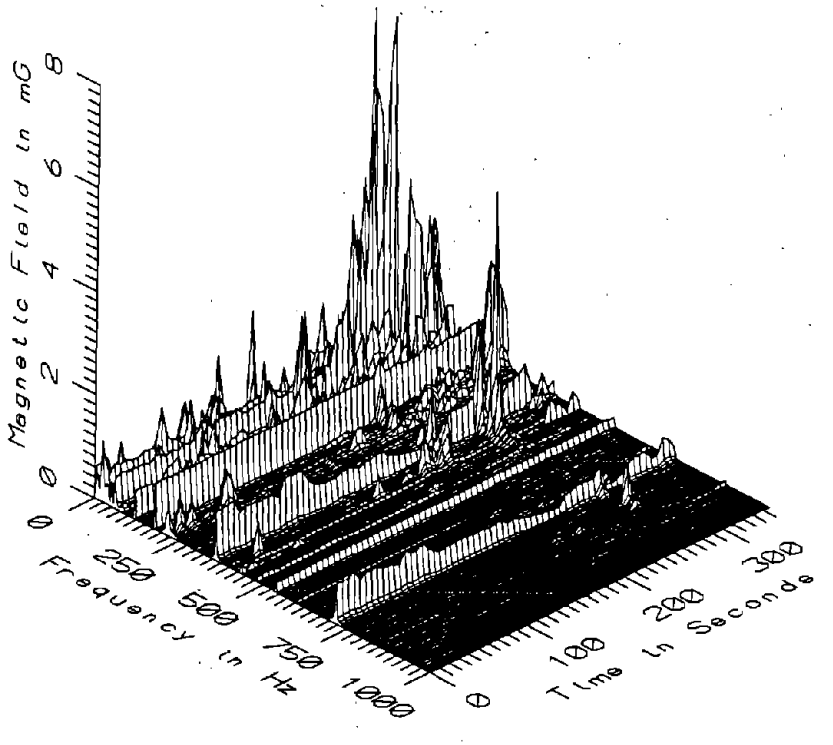
BOS038 - 110cm ABOVE PLATFORM AT GOVERNMENT CENTER, GREEN LINE



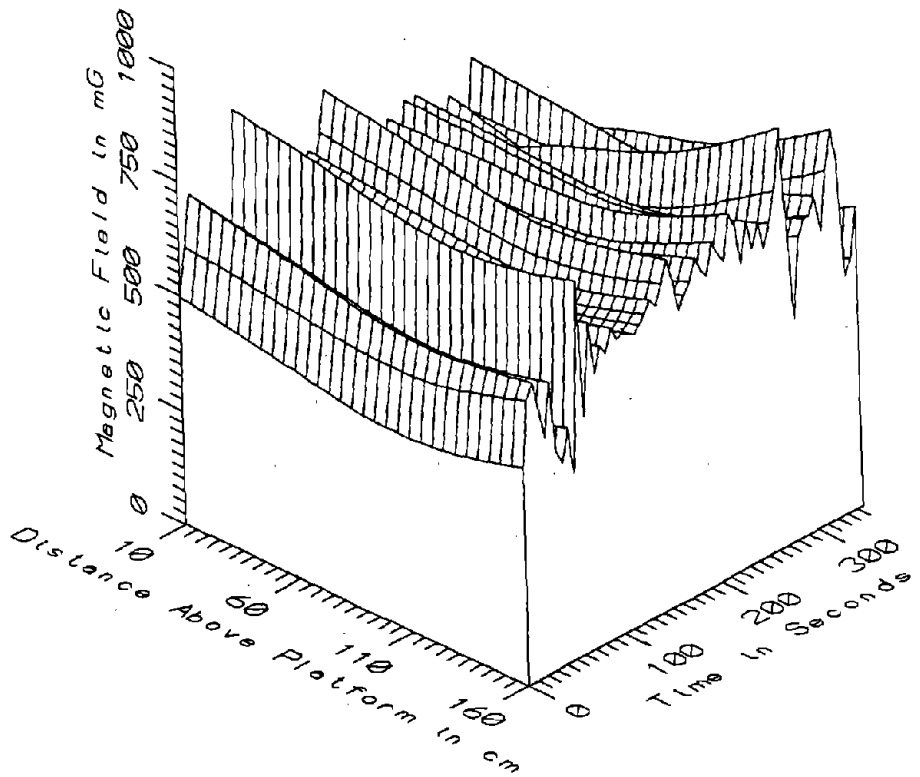
BOS038 - 110cm ABOVE PLATFORM AT GOVERNMENT CENTER, GREEN LINE



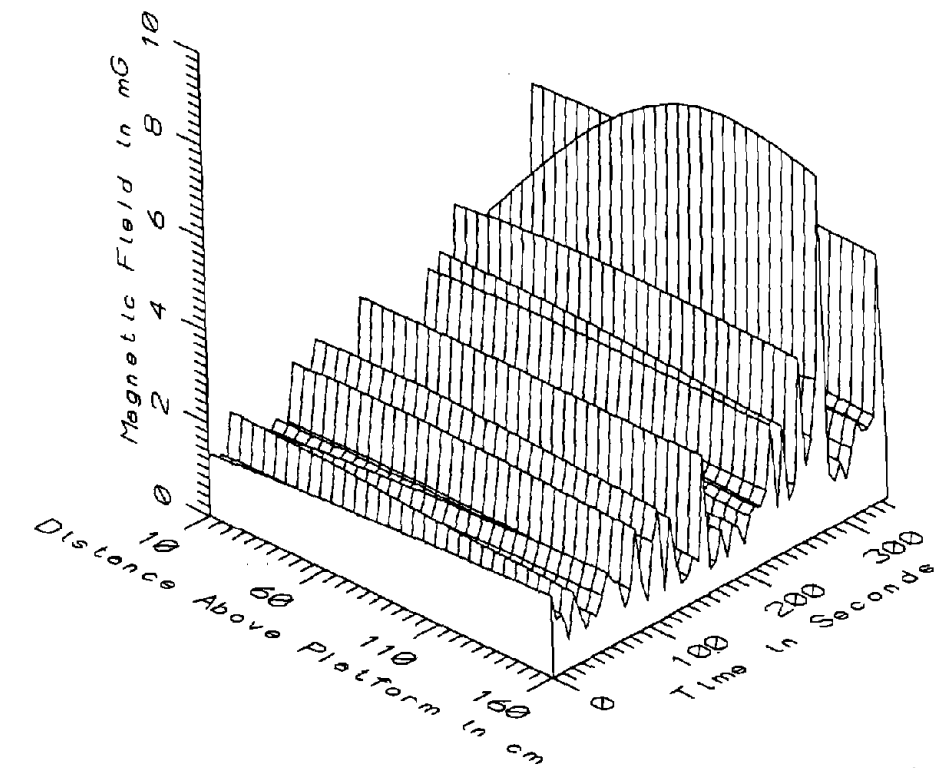
BOS038 - 160cm ABOVE PLATFORM AT GOVERNMENT CENTER, GREEN LINE



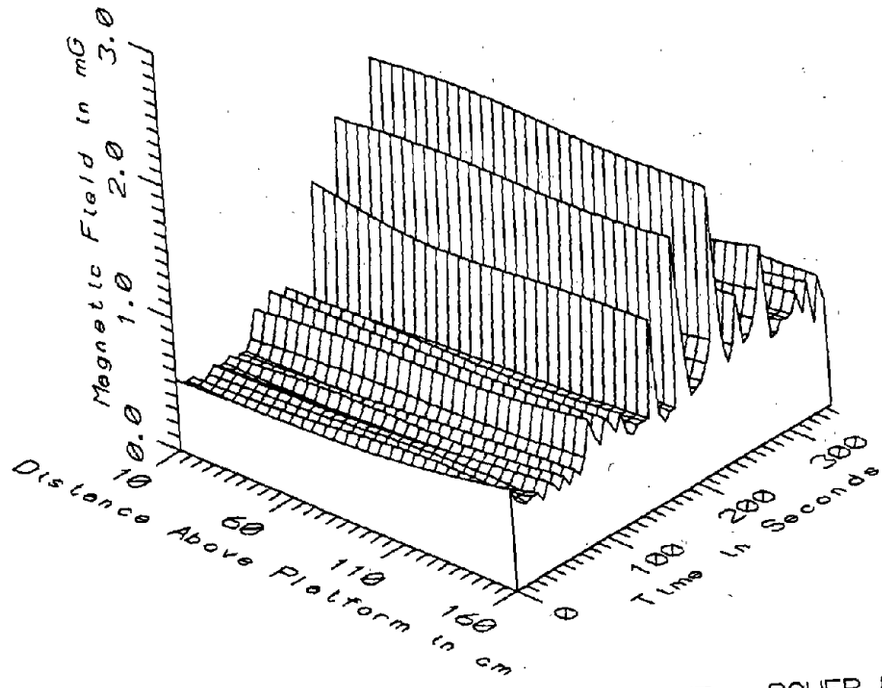
BOS038 - 160cm ABOVE PLATFORM AT GOVERNMENT CENTER, GREEN LINE



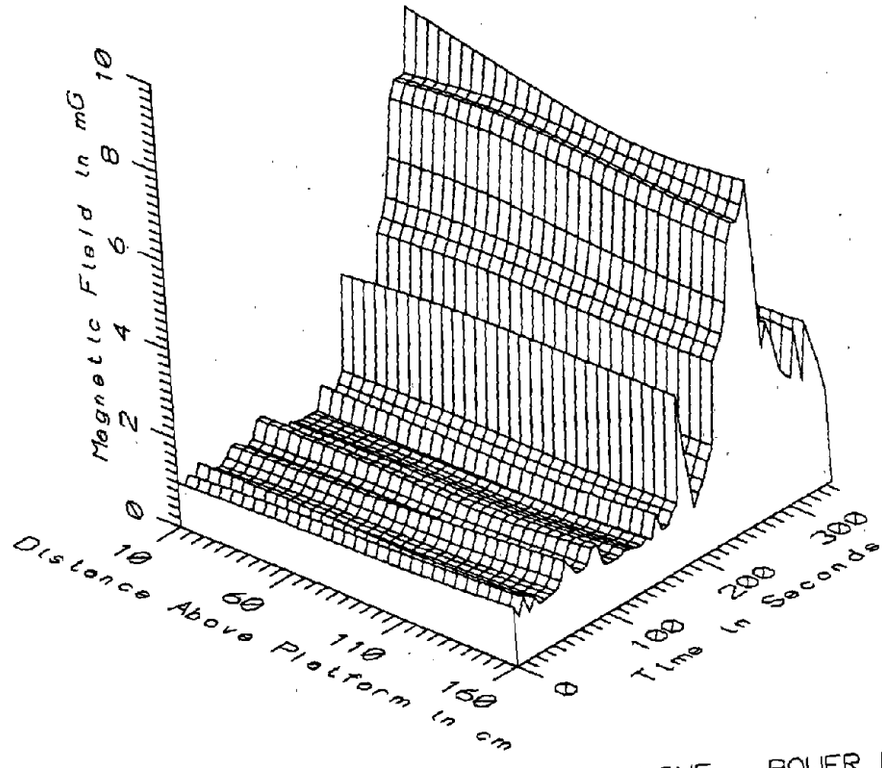
BOS038 - AT GOVERNMENT CENTER, GREEN LINE - STATIC



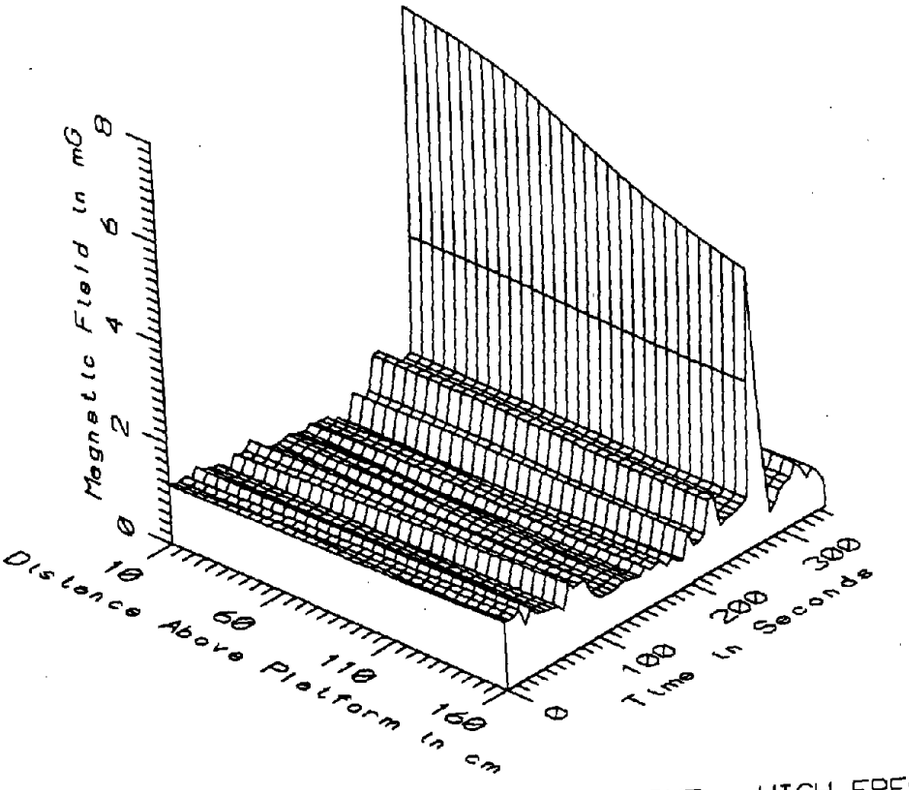
BOS038 - AT GOVERNMENT CENTER, GREEN LINE - LOW FREQ, 5-45Hz



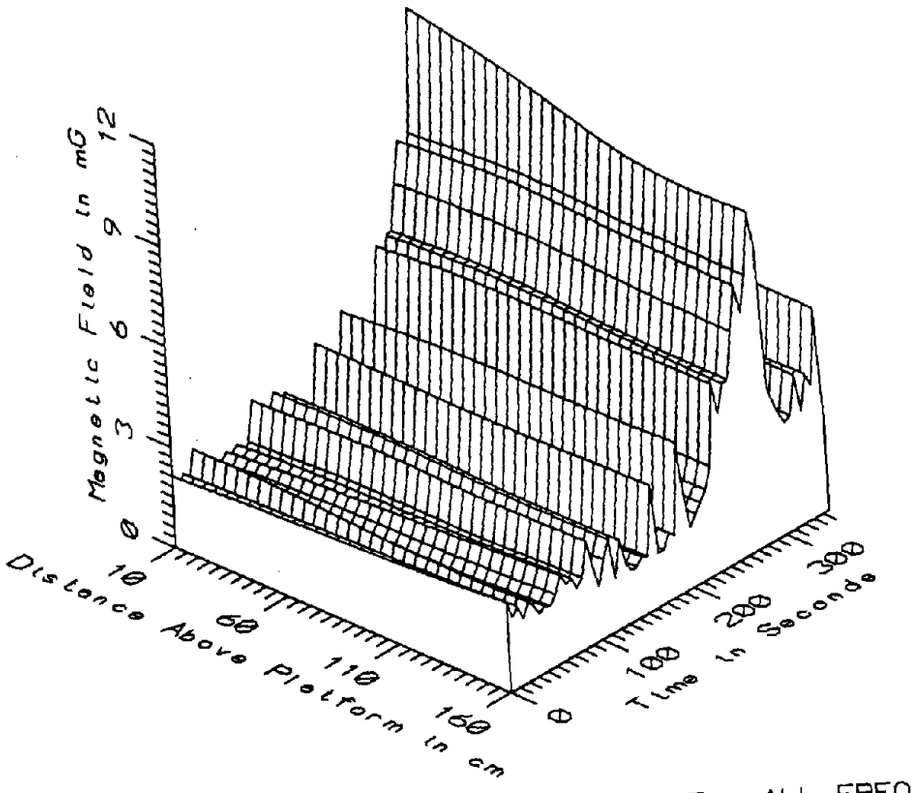
BOS038 - AT GOVERNMENT CENTER, GREEN LINE - POWER FREQ, 50-60Hz



BOS038 - AT GOVERNMENT CENTER, GREEN LINE - POWER HARM, 65-300Hz

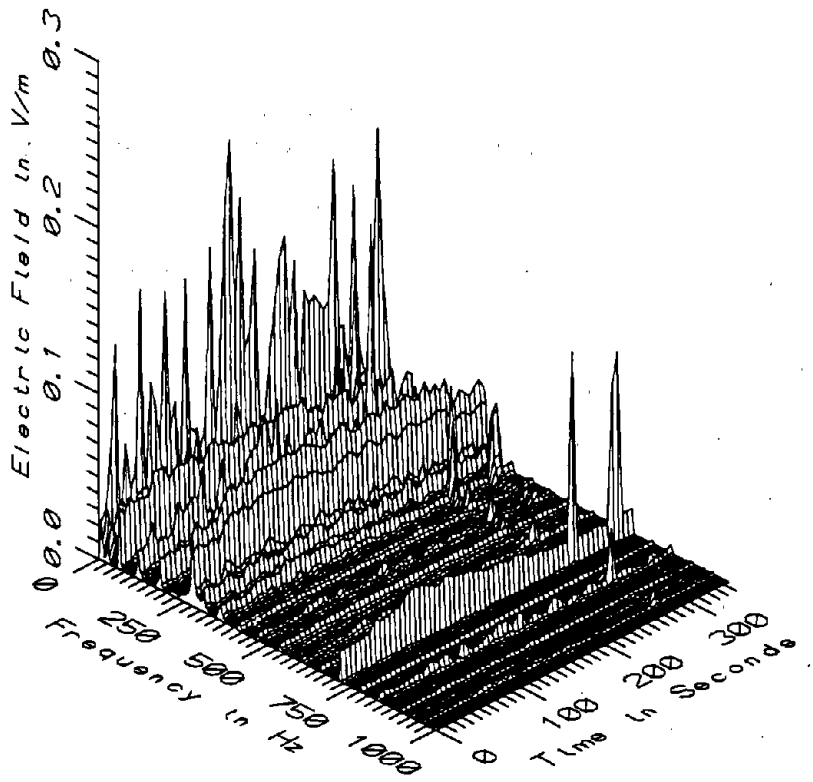


BOS038 - AT GOVERNMENT CENTER, GREEN LINE - HIGH FREQ, 305-2560Hz



BOS038 - AT GOVERNMENT CENTER, GREEN LINE - ALL FREQ, 5-2560Hz

BOS038 - ON GOVERNMENT CENTER PLATFORM, GREEN LINE					TOTAL OF 60 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	333.10	841.36	570.56	102.95	18.04
	60	358.60	795.62	567.68	83.93	14.78
	110	352.37	764.83	573.85	84.76	14.77
	160	405.89	911.91	661.96	98.21	14.84
5-45Hz LOW FREQ	10	0.49	5.53	1.48	0.92	62.33
	60	0.54	6.32	1.57	1.10	69.68
	110	0.51	7.98	1.58	1.22	77.38
	160	0.50	7.67	1.55	1.19	76.74
50-60Hz PWR FREQ	10	0.40	2.04	0.66	0.30	45.50
	60	0.41	2.11	0.69	0.31	44.55
	110	0.43	2.09	0.73	0.30	40.91
	160	0.54	2.12	0.82	0.30	35.94
65-300Hz PWR HARM	10	0.75	8.41	2.27	1.94	85.66
	60	0.82	7.86	2.34	1.93	82.33
	110	0.85	7.43	2.33	1.86	79.65
	160	1.03	7.63	2.45	1.79	73.36
305-2560Hz HIGH FREQ	10	0.40	7.84	1.05	0.98	93.88
	60	0.40	7.30	1.07	0.92	85.97
	110	0.46	6.21	1.04	0.79	76.10
	160	0.52	5.47	1.07	0.71	66.59
5-2560Hz ALL FREQ	10	1.26	11.75	3.18	2.10	66.22
	60	1.37	11.01	3.30	2.12	64.31
	110	1.39	10.11	3.29	2.09	63.40
	160	1.55	10.03	3.37	2.01	59.59



BOS038 - ELECTRIC FIELD AT GOVERNMENT CENTER, GREEN LINE

APPENDIX AN

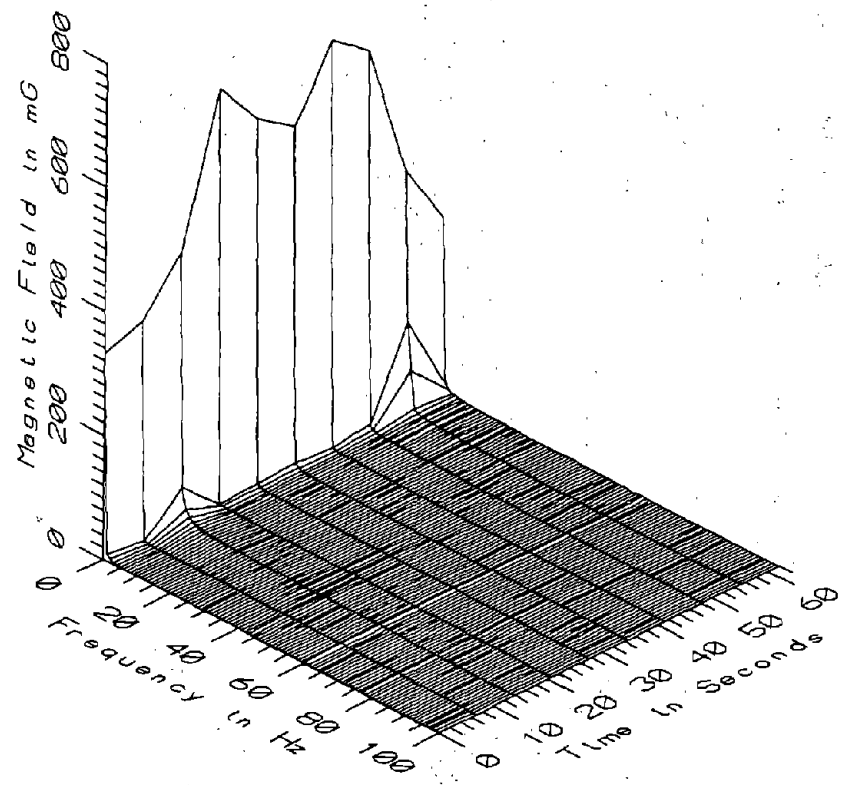
DATASET BOS039
ON GOVERNMENT CENTER PLATFORM, BLUE LINE

Measurement Setup Code:	Staff: 43 Reference: - Drawing: A-5
Vehicle Status:	NA
Measurement Date:	June 11, 1992
Measurement Time:	Start: 09:46:01 End: 09:47:03
Number of Samples:	10
Programmed Sample Interval:	5 sec
Actual Sample Interval:	6.9 sec

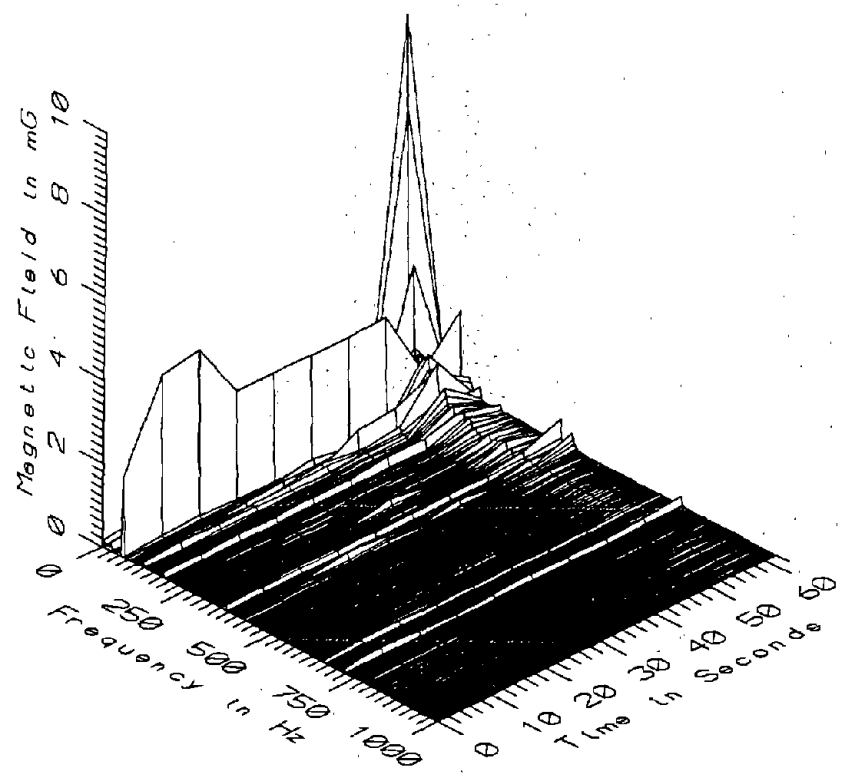
Frequency Spectrum Parameters

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

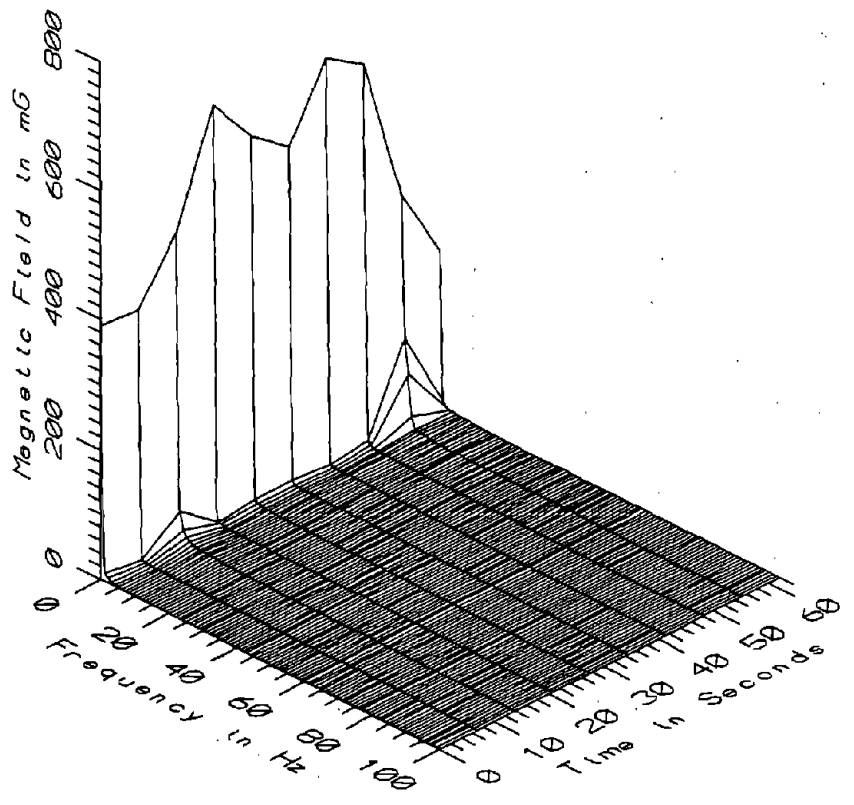
Missing Data: No reference probe



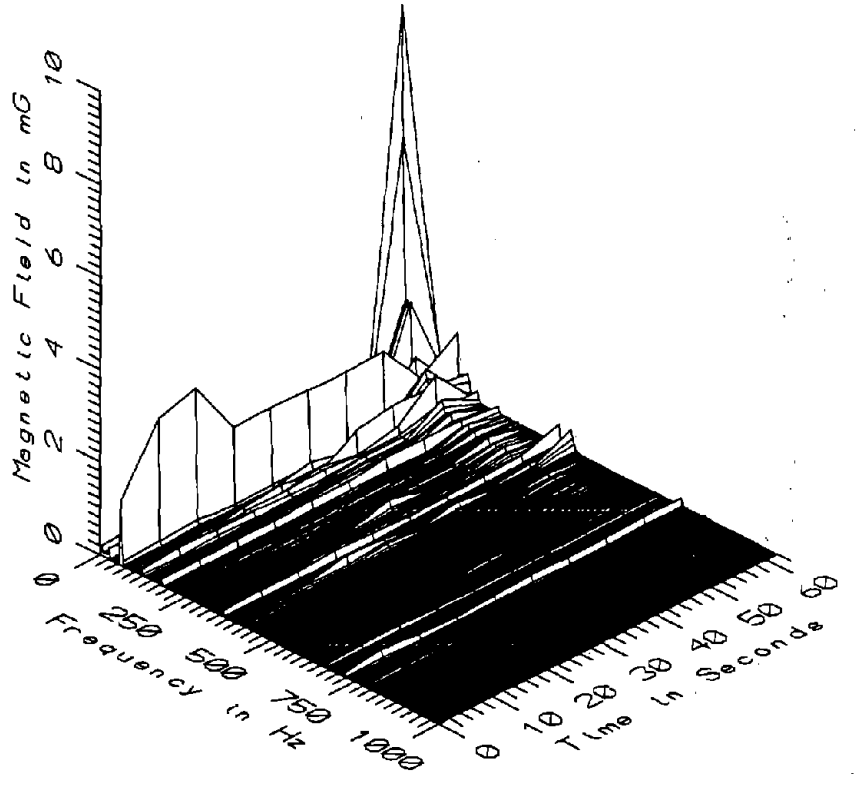
BOS039 - 10cm ABOVE PLATFORM AT GOVERNMENT CENTER, BLUE LINE



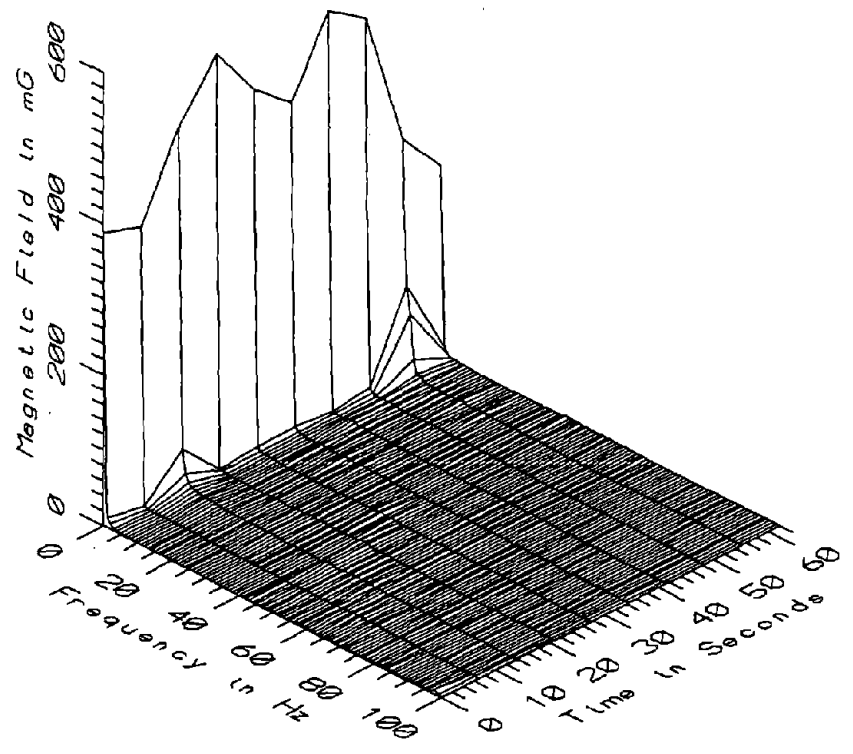
BOS039 - 10cm ABOVE PLATFORM AT GOVERNMENT CENTER, BLUE LINE



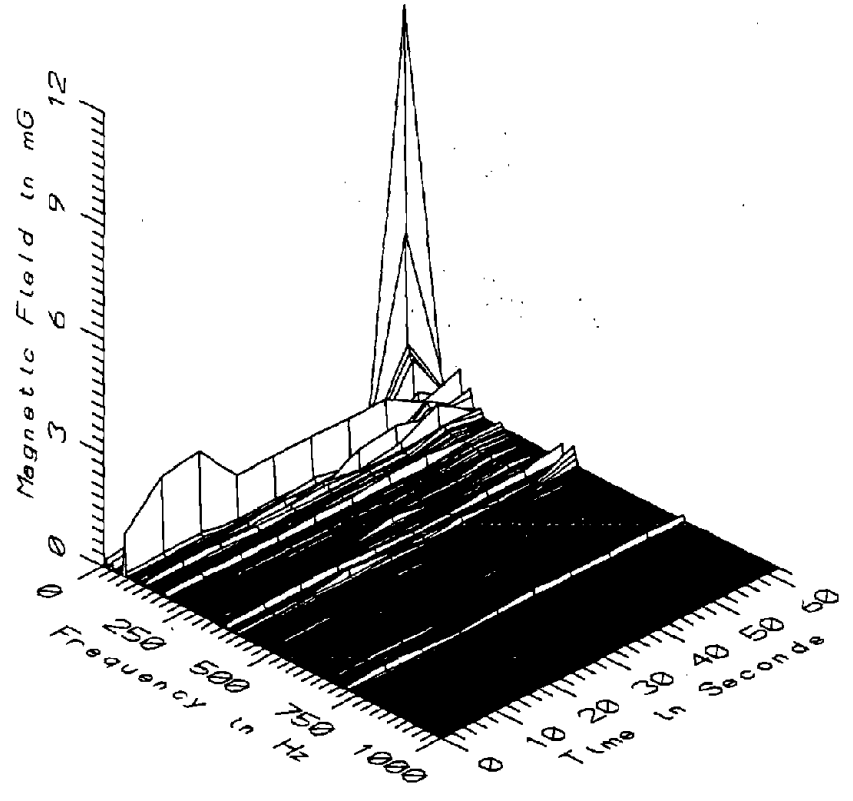
BOS039 - 60cm ABOVE PLATFORM AT GOVERNMENT CENTER, BLUE LINE



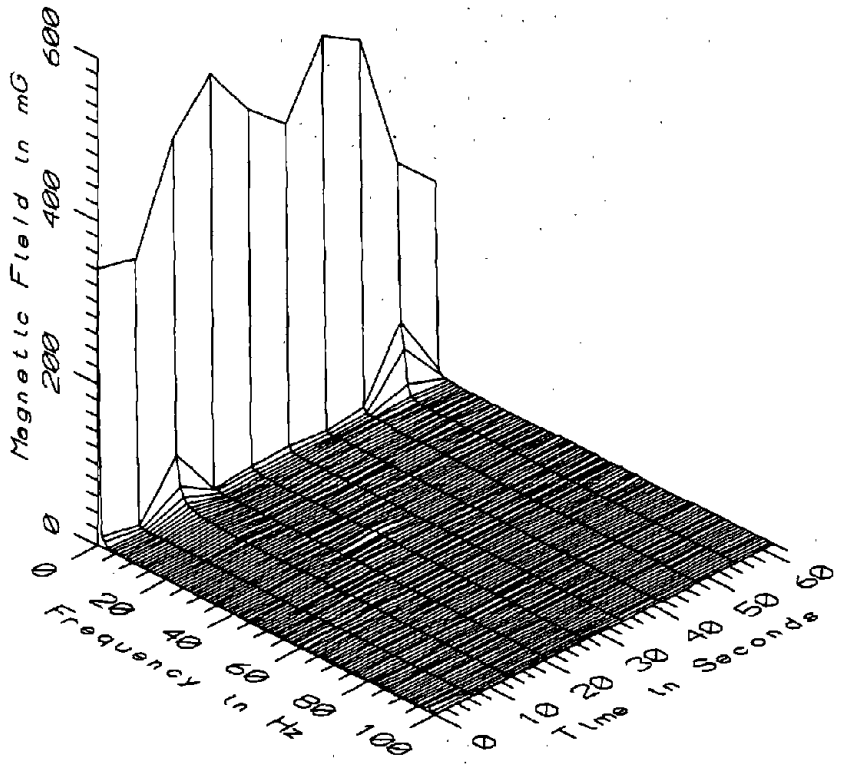
BOS039 - 60cm ABOVE PLATFORM AT GOVERNMENT CENTER, BLUE LINE



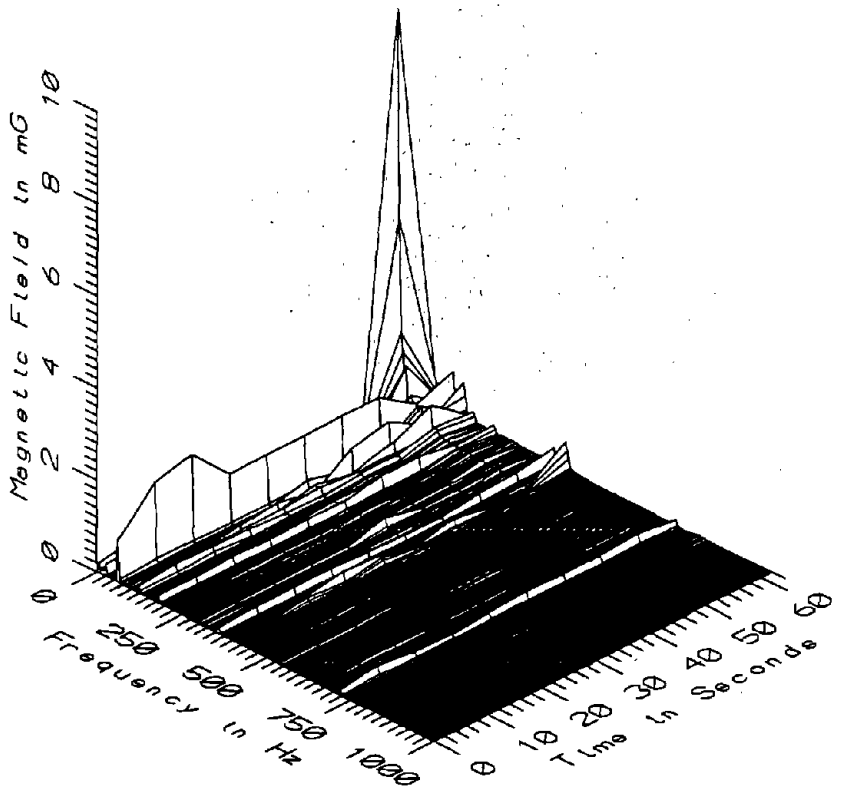
BOS039 - 110cm ABOVE PLATFORM AT GOVERNMENT CENTER, BLUE LINE



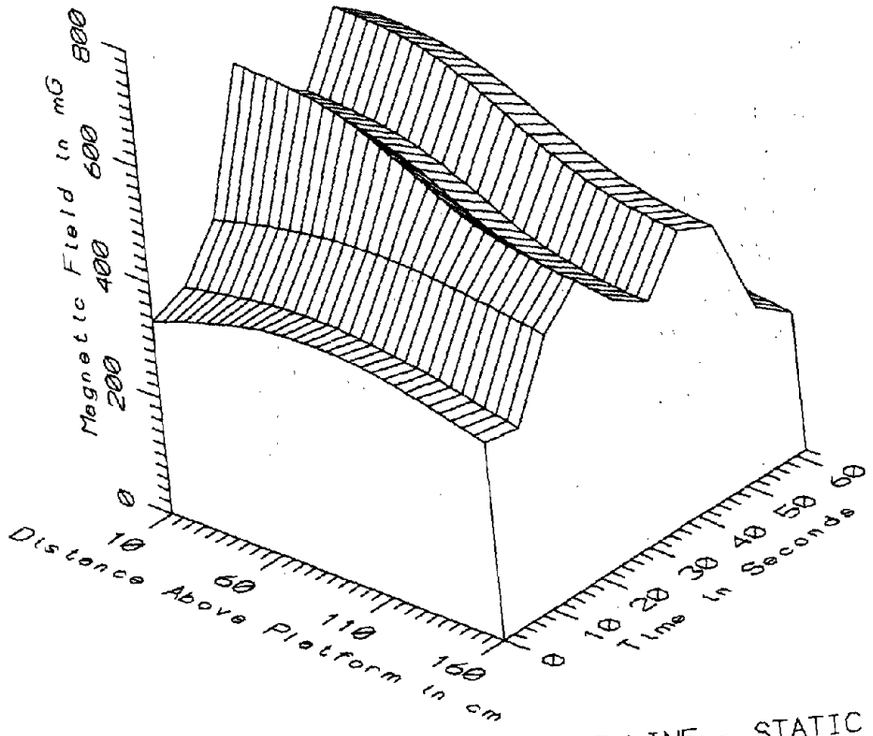
BOS039 - 110cm ABOVE PLATFORM AT GOVERNMENT CENTER, BLUE LINE



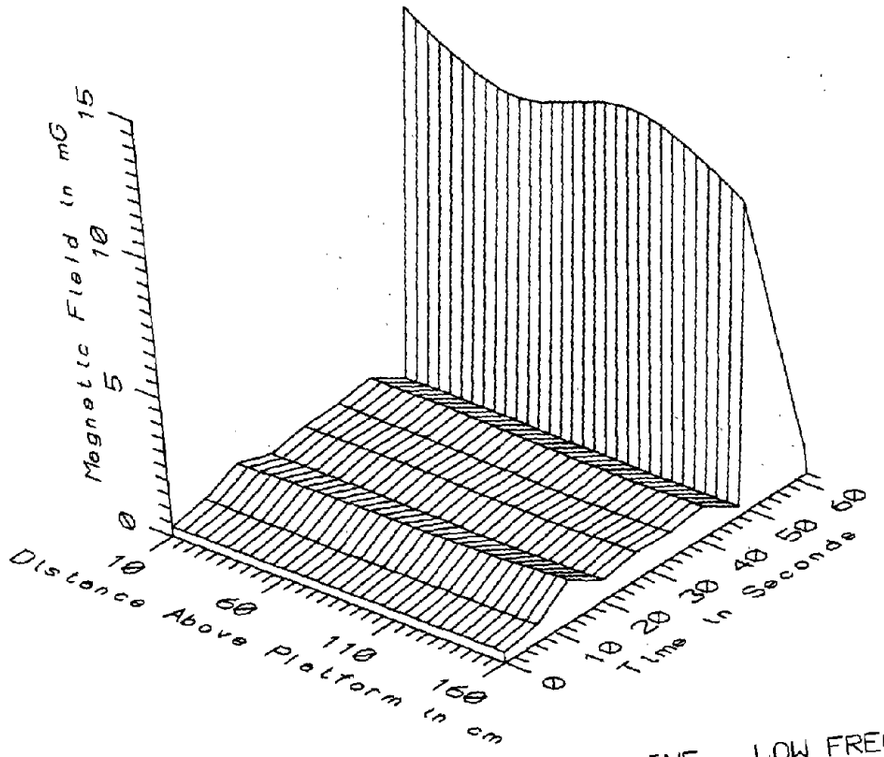
BOS039 - 160cm ABOVE PLATFORM AT GOVERNMENT CENTER, BLUE LINE



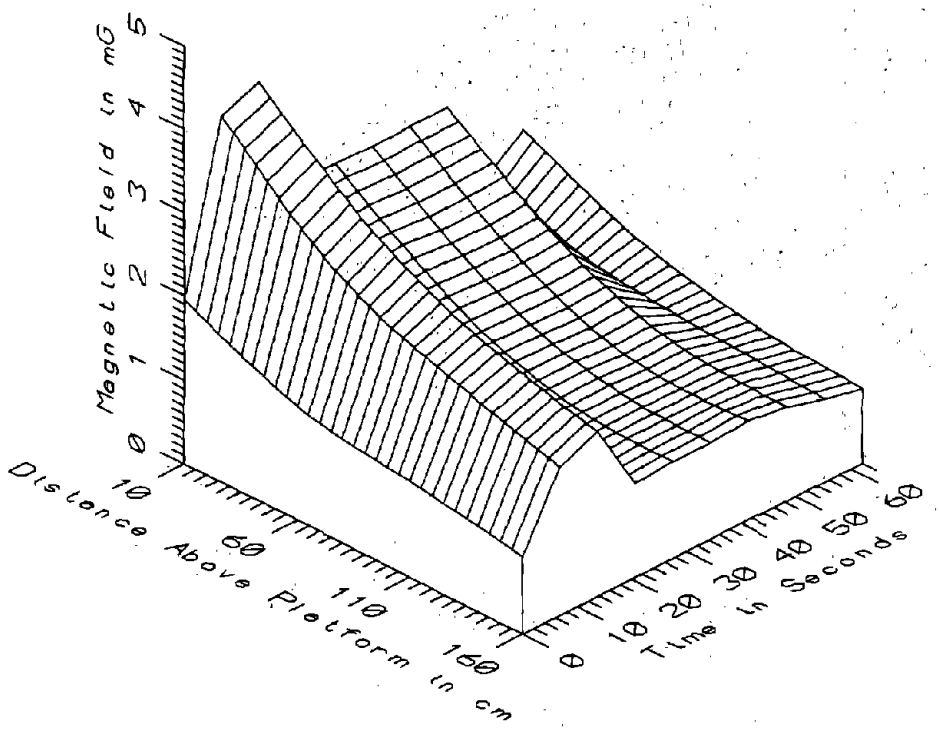
BOS039 - 160cm ABOVE PLATFORM AT GOVERNMENT CENTER, BLUE LINE



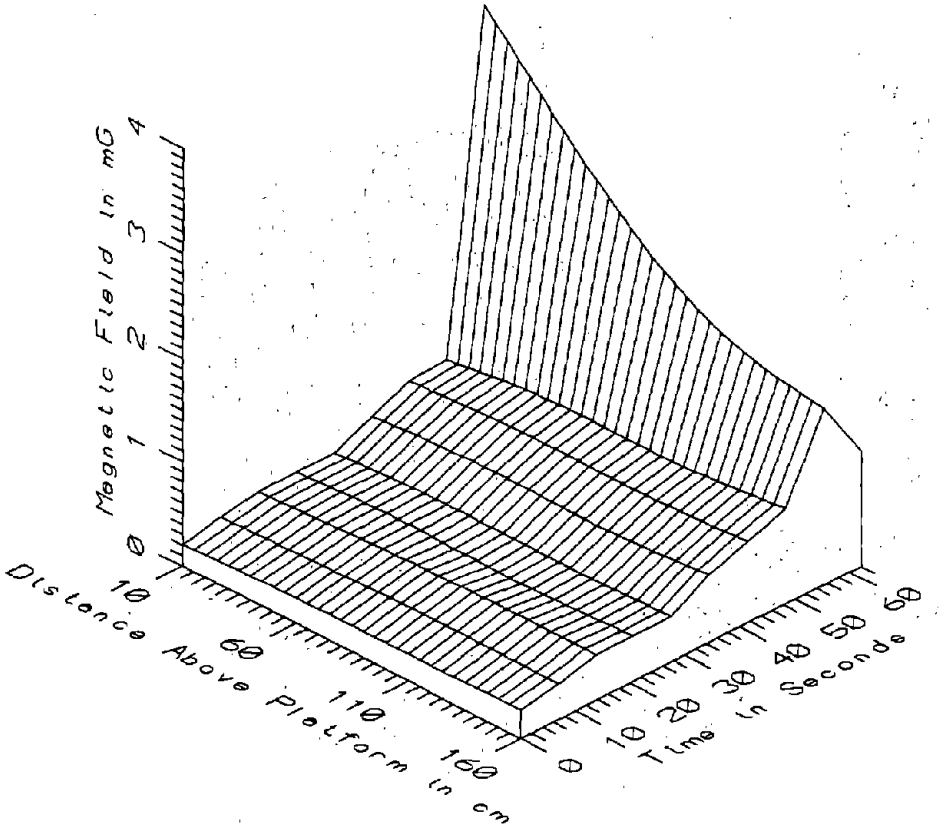
BOS039 - AT GOVERNMENT CENTER, BLUE LINE - STATIC



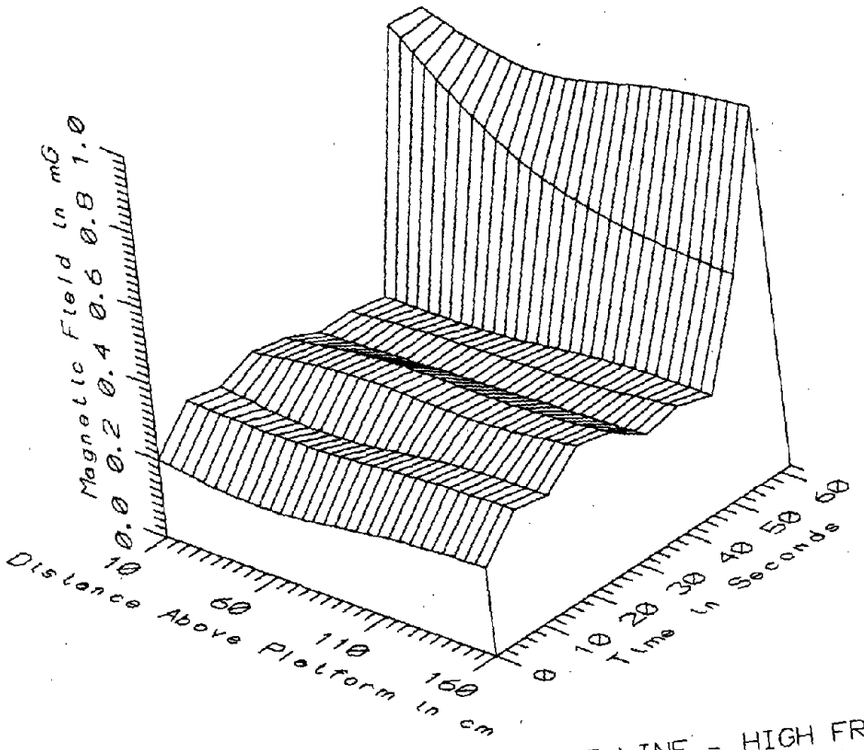
BOS039 - AT GOVERNMENT CENTER, BLUE LINE - LOW FREQ. 5-45Hz



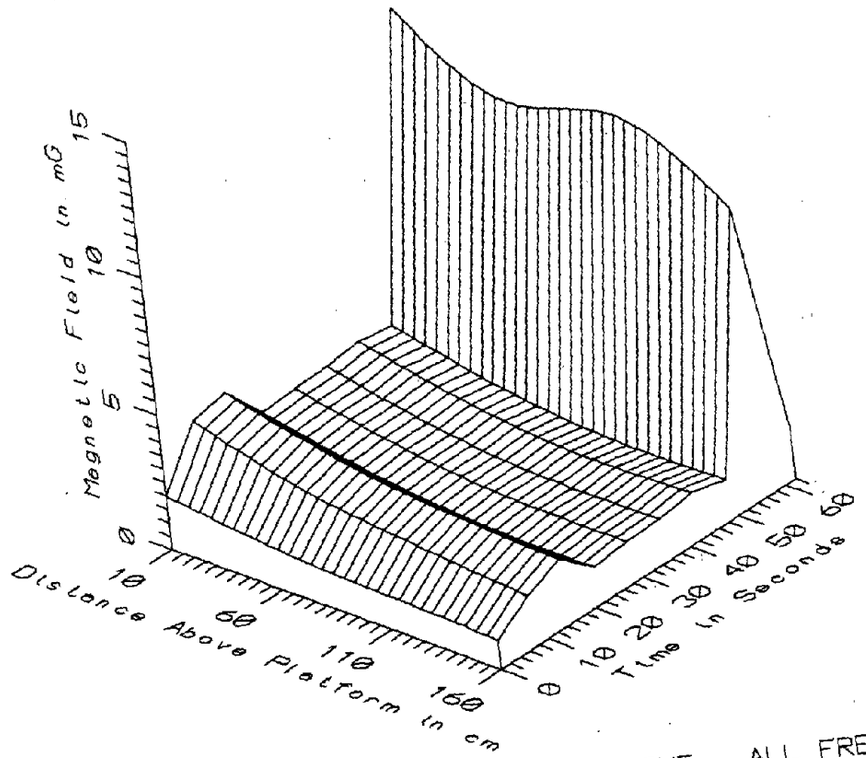
BOS039 - AT GOVERNMENT CENTER, BLUE LINE - POWER FREQ, 50-60Hz



BOS039 - AT GOVERNMENT CENTER, BLUE LINE - POWER HARM, 65-300Hz

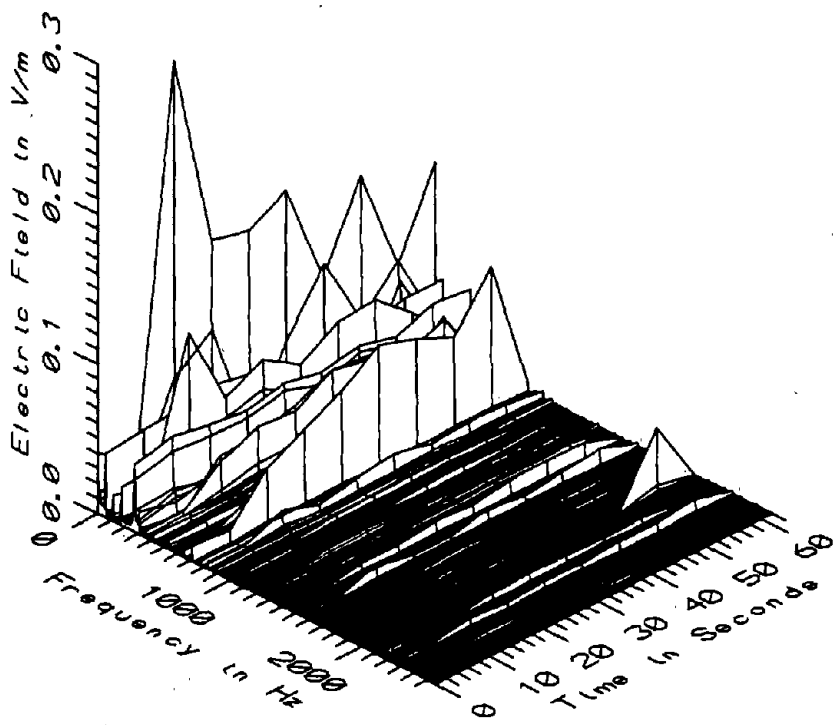


BOS039 - AT GOVERNMENT CENTER, BLUE LINE - HIGH FREQ, 305-2560Hz



BOS039 - AT GOVERNMENT CENTER, BLUE LINE - ALL FREQ, 5-2560Hz

BOS039 - ON GOVERNMENT CENTER PLATFORM, BLUE LINE		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	281.00	669.43	487.15	145.07	29.78
	60	244.09	643.66	480.74	132.82	27.63
	110	252.12	550.98	429.99	97.28	22.62
	160	239.11	512.18	395.87	92.01	23.24
5-45Hz LOW FREQ	10	0.35	13.03	2.05	3.87	188.42
	60	0.36	11.30	1.86	3.33	178.62
	110	0.31	12.46	1.95	3.71	190.58
	160	0.35	10.57	1.80	3.10	171.84
50-60Hz PWR FREQ	10	1.57	4.11	2.68	0.81	30.17
	60	1.22	3.00	1.84	0.58	31.76
	110	1.02	2.35	1.40	0.47	33.32
	160	0.91	1.98	1.24	0.36	28.77
65-300Hz PWR HARM	10	0.21	3.92	0.82	1.11	134.46
	60	0.24	2.78	0.76	0.74	97.85
	110	0.25	1.99	0.69	0.51	74.21
	160	0.28	1.71	0.71	0.44	62.72
305-2560Hz HIGH FREQ	10	0.20	0.90	0.39	0.27	67.63
	60	0.18	0.83	0.37	0.21	56.22
	110	0.21	0.89	0.39	0.20	52.71
	160	0.24	0.95	0.41	0.21	51.12
5-2560Hz ALL FREQ	10	2.01	13.72	4.10	3.44	84.01
	60	1.45	11.72	3.17	3.05	96.01
	110	1.25	12.68	2.90	3.46	119.24
	160	1.07	10.77	2.63	2.88	109.40



BOS039 - ELECTRIC FIELD AT GOVERNMENT CENTER, BLUE LINE

APPENDIX AO

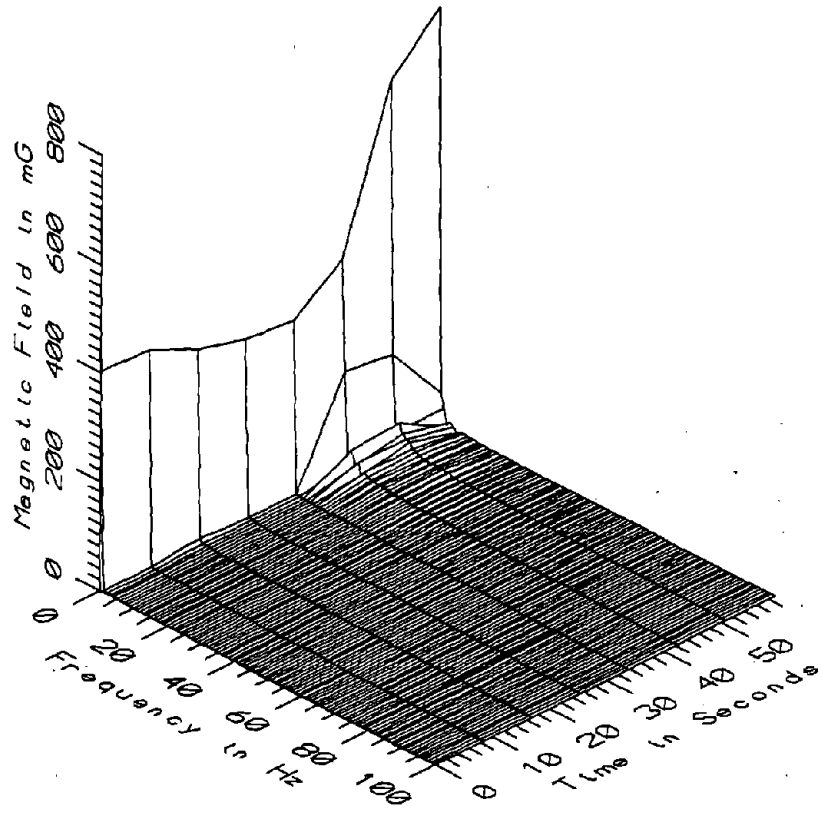
DATASET BOS040
ON GOVERNMENT CENTER PLATFORM, BLUE LINE

Measurement Setup Code:	Staff: 42 Reference: - Drawing: A-5
Vehicle Status:	NA
Measurement Date:	June 11, 1992
Measurement Time:	Start: 09:51:01 End: 09:52:00
Number of Samples:	8
Programmed Sample Interval:	5 sec
Actual Sample Interval:	8.4 sec

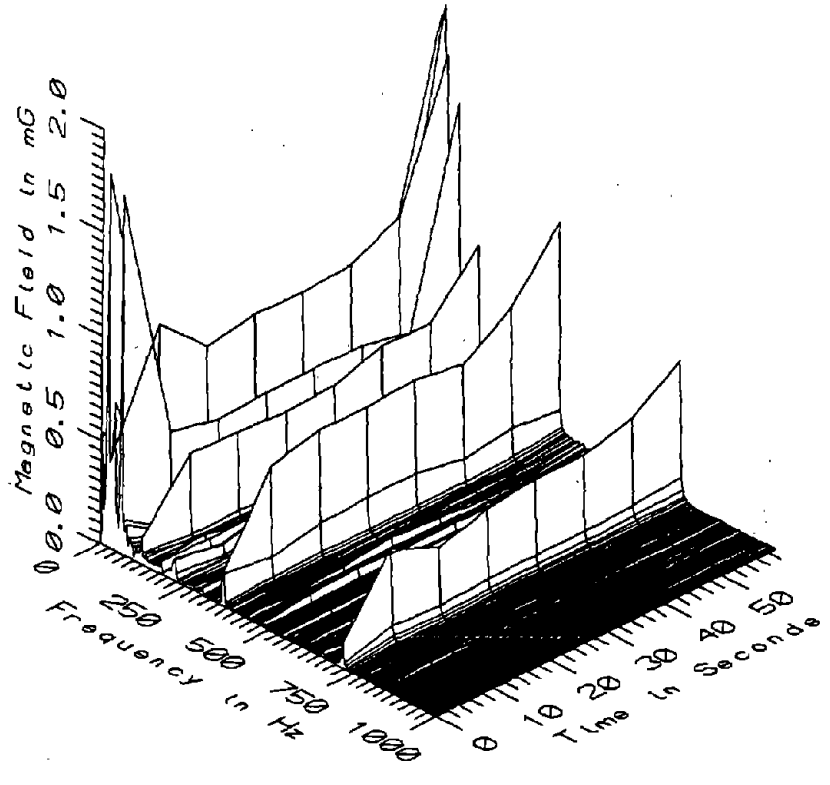
Frequency Spectrum Parameters

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

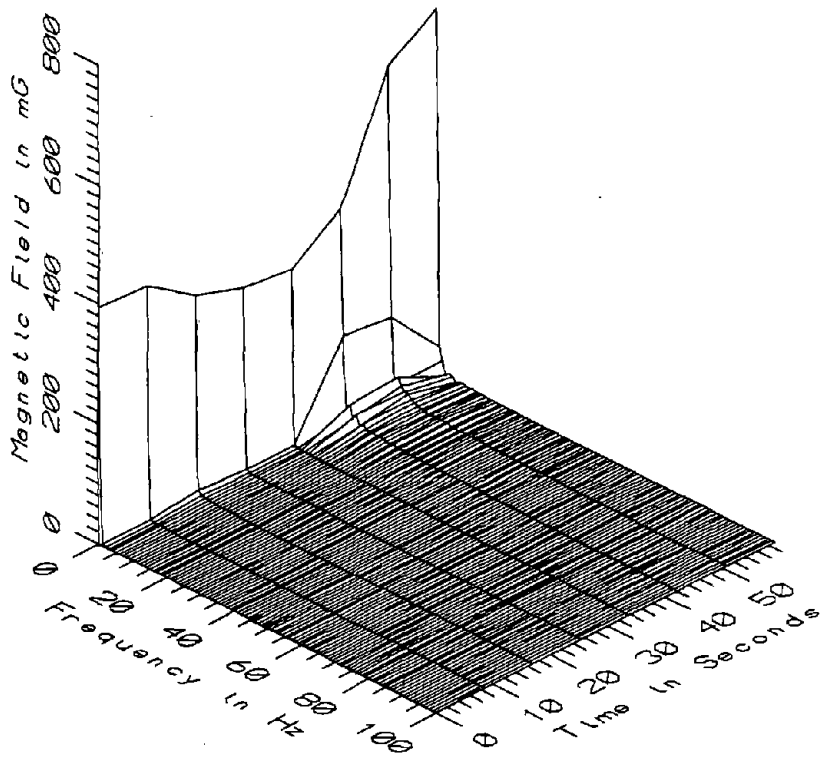
Missing Data: No reference probe



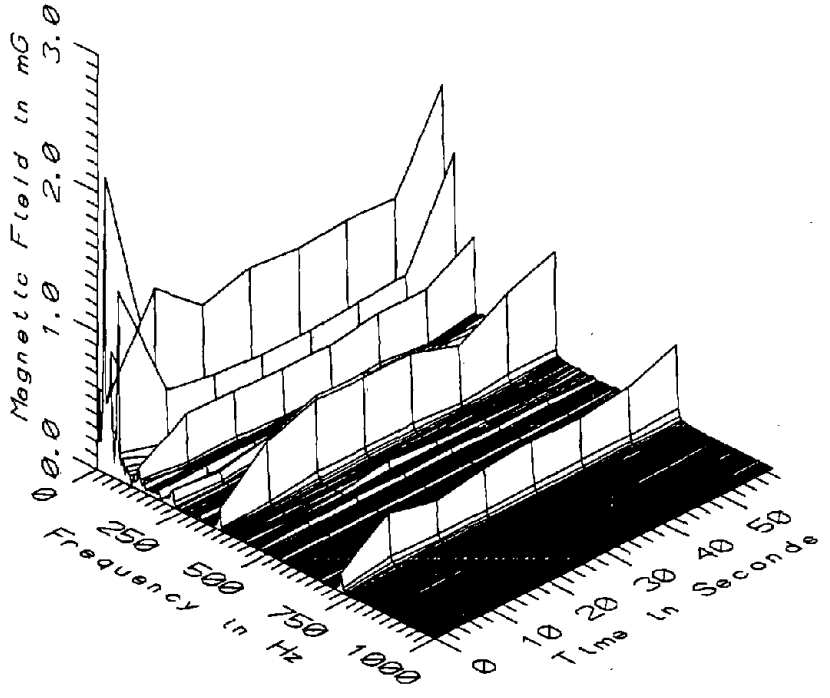
BOS040 - 10cm ABOVE PLATFORM AT GOVERNMENT CENTER, BLUE LINE



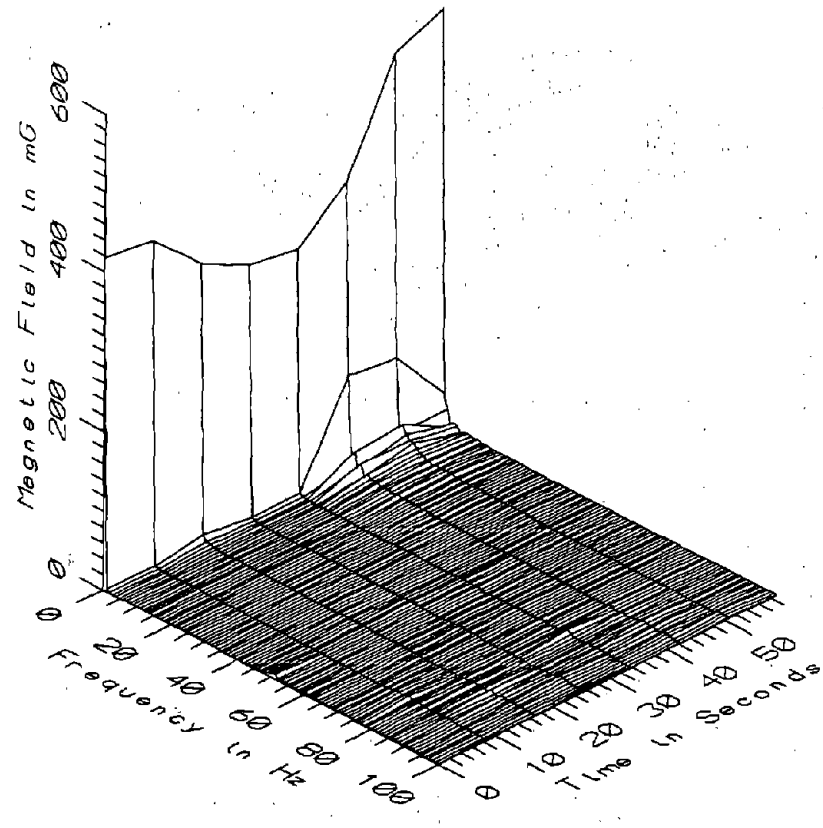
BOS040 - 10cm ABOVE PLATFORM AT GOVERNMENT CENTER, BLUE LINE



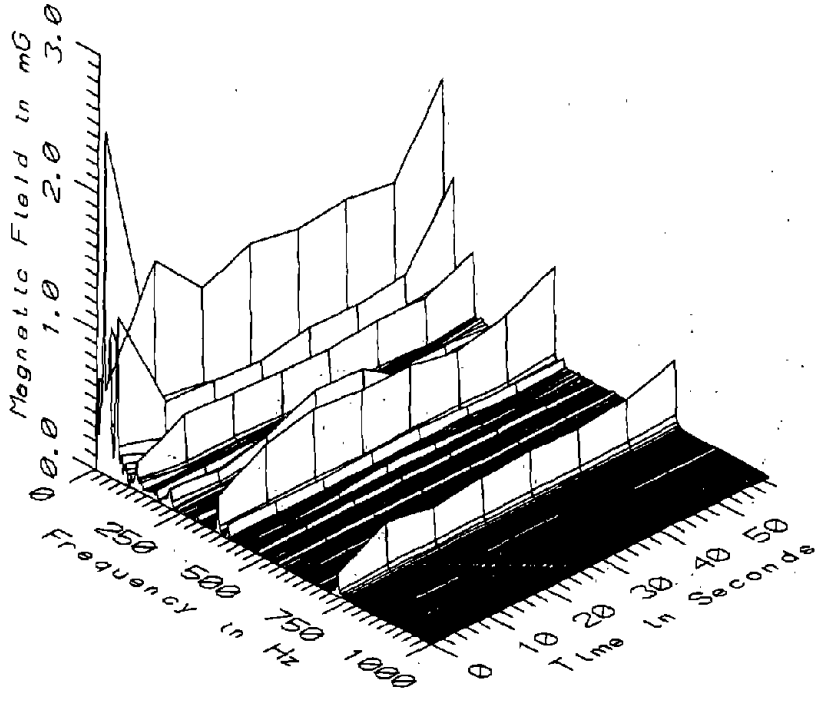
BOS040 - 60cm ABOVE PLATFORM AT GOVERNMENT CENTER, BLUE LINE



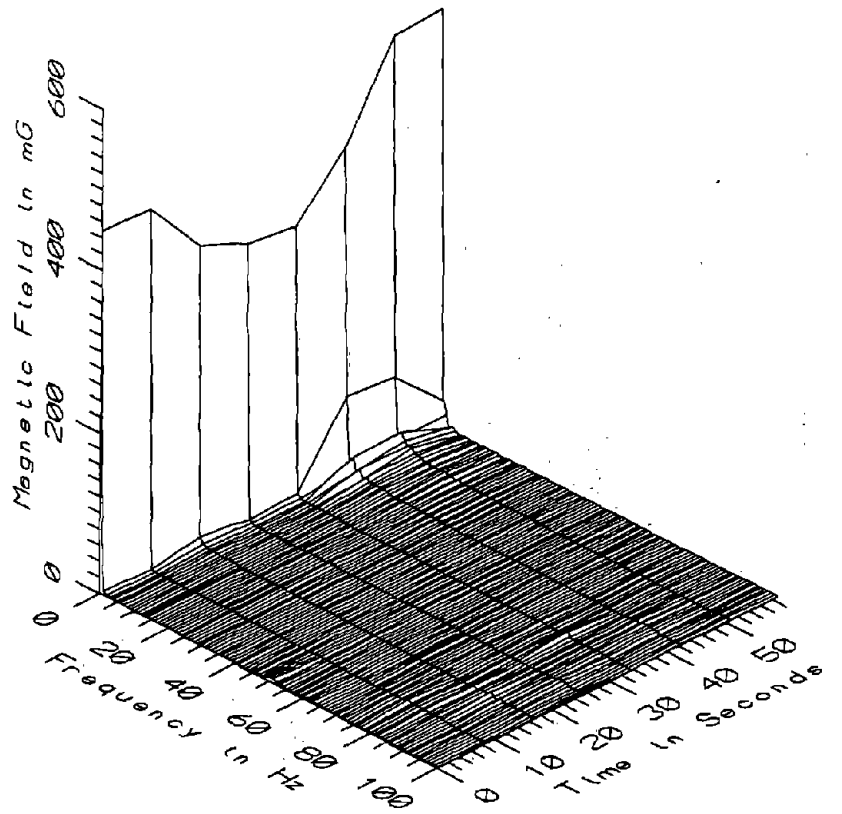
BOS040 - 60cm ABOVE PLATFORM AT GOVERNMENT CENTER, BLUE LINE



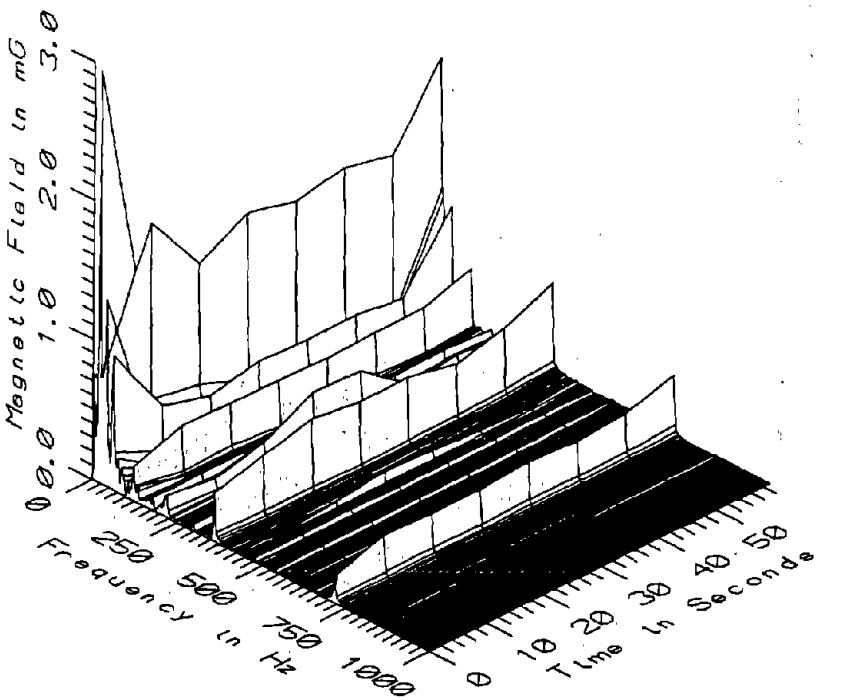
BOS040 - 110cm ABOVE PLATFORM AT GOVERNMENT CENTER, BLUE LINE



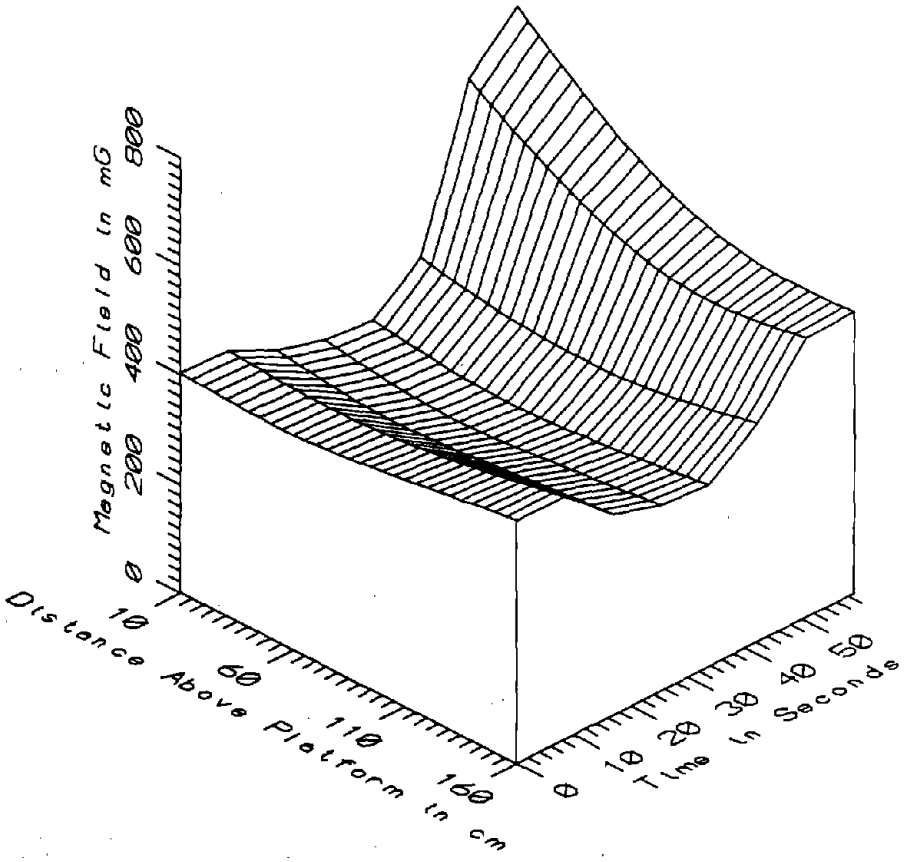
BOS040 - 110cm ABOVE PLATFORM AT GOVERNMENT CENTER, BLUE LINE



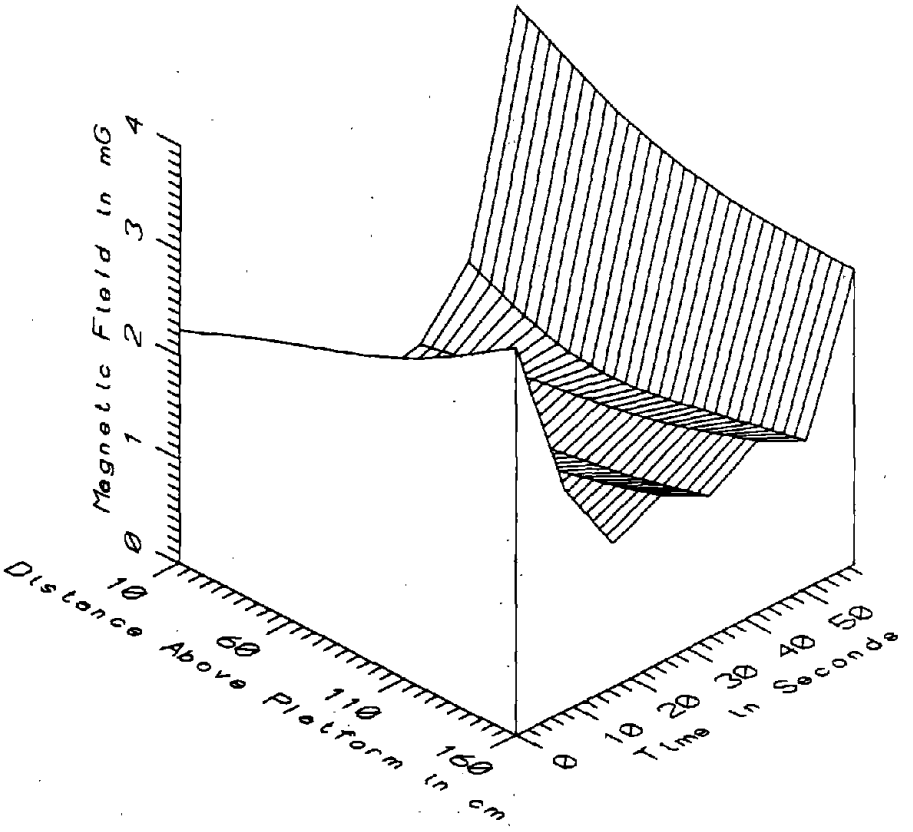
BOS040 - 160cm ABOVE PLATFORM AT GOVERNMENT CENTER, BLUE LINE



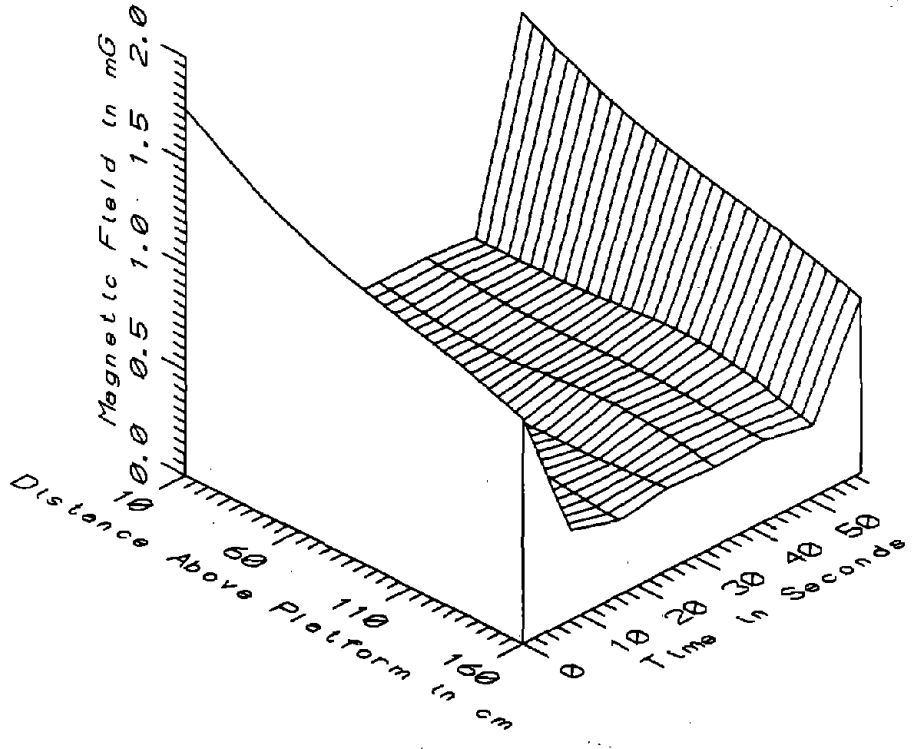
BOS040 - 160cm ABOVE PLATFORM AT GOVERNMENT CENTER, BLUE LINE



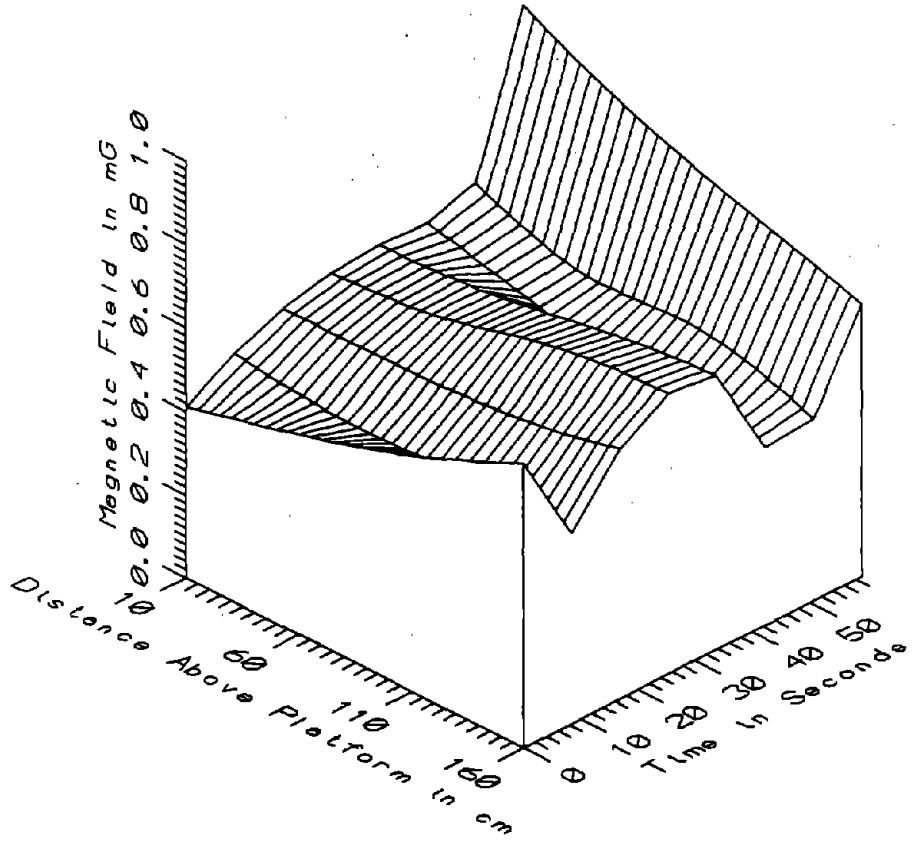
BOS040 - AT GOVERNMENT CENTER, BLUE LINE - STATIC



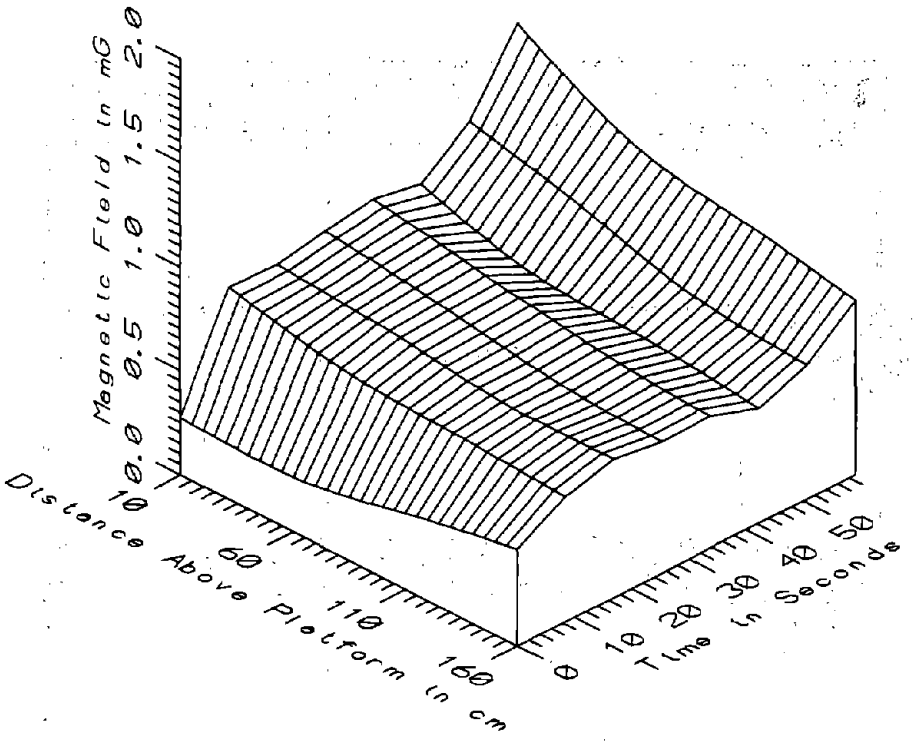
BOS040 - AT GOVERNMENT CENTER, BLUE LINE - LOW FREQ, 5-45Hz



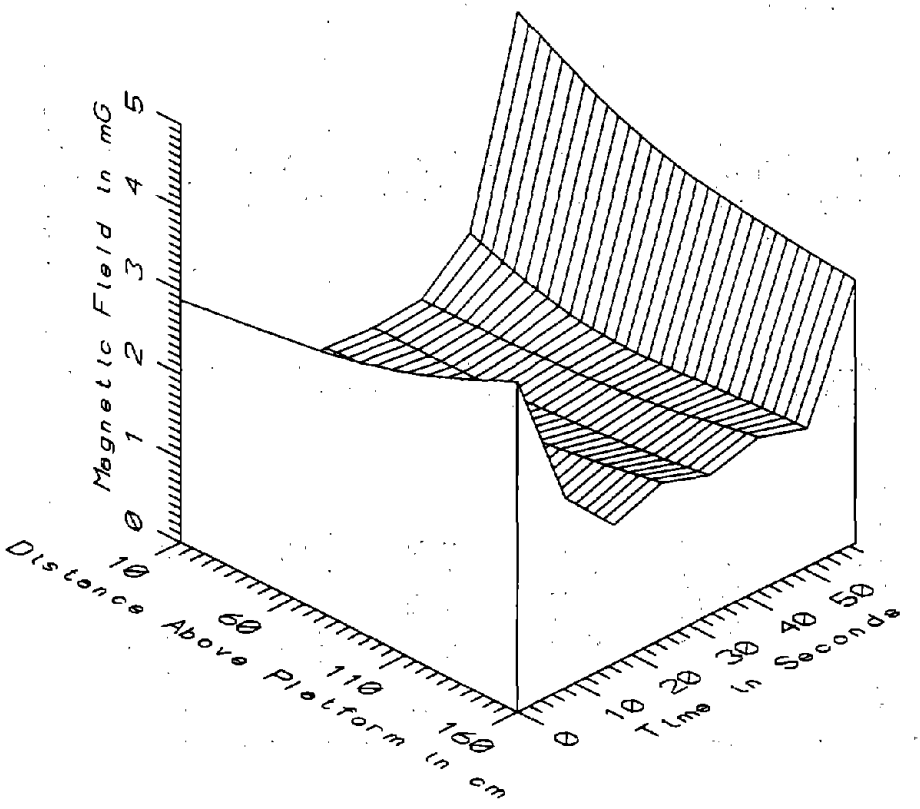
BOS040 - AT GOVERNMENT CENTER, BLUE LINE - POWER FREQ, 50-60Hz



BOS040 - AT GOVERNMENT CENTER, BLUE LINE - POWER HARM, 65-300Hz

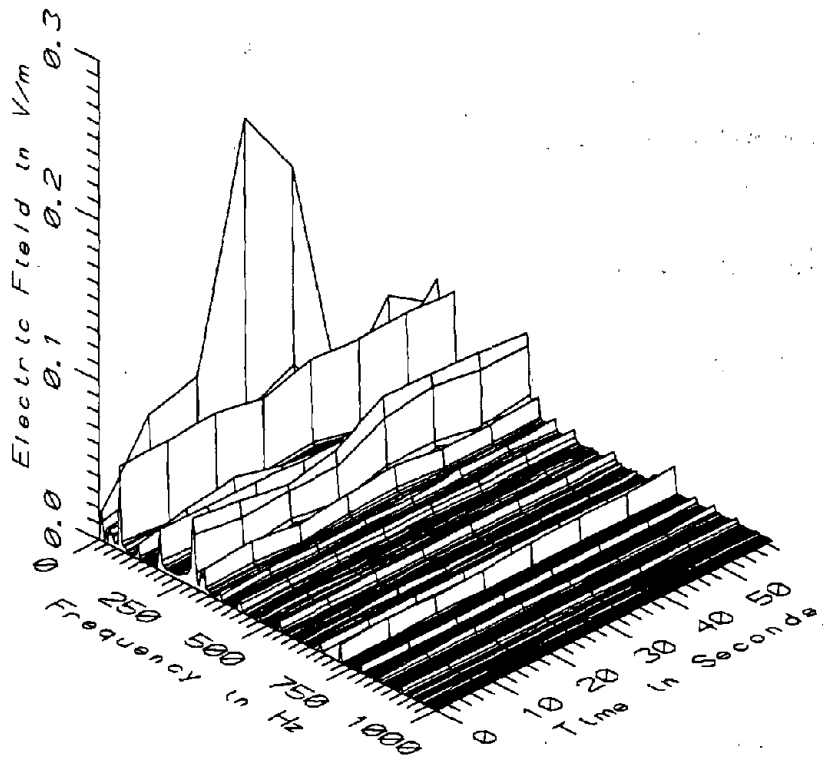


BOS040 - AT GOVERNMENT CENTER, BLUE LINE - HIGH FREQ, 305-2560Hz



BOS040 - AT GOVERNMENT CENTER, BLUE LINE - ALL FREQ, 5-2560Hz

BOS040 - ON GOVERNMENT CENTER PLATFORM, BLUE LINE					TOTAL OF 8 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	321.75	763.09	454.80	167.68	36.87
	60	297.34	610.21	405.88	115.36	28.42
	110	308.30	522.04	397.68	78.47	19.73
	160	334.80	516.27	421.94	70.82	16.78
5-45Hz LOW FREQ	10	0.83	3.72	1.54	1.00	65.10
	60	0.97	3.16	1.59	0.84	53.22
	110	1.11	3.07	1.73	0.80	46.51
	160	1.36	3.72	2.01	0.85	42.35
50-60Hz PWR FREQ	10	0.42	1.75	0.73	0.52	71.63
	60	0.39	1.42	0.64	0.40	63.30
	110	0.37	1.25	0.60	0.33	55.74
	160	0.34	1.08	0.53	0.28	52.09
65-300Hz PWR HARM	10	0.41	0.96	0.58	0.16	28.34
	60	0.45	0.83	0.56	0.12	21.72
	110	0.44	0.74	0.57	0.10	17.70
	160	0.43	0.68	0.57	0.11	19.61
305-2560Hz HIGH FREQ	10	0.27	1.35	0.83	0.30	35.51
	60	0.26	1.06	0.72	0.23	31.38
	110	0.36	0.95	0.66	0.16	24.20
	160	0.46	0.84	0.63	0.11	17.06
5-2560Hz ALL FREQ	10	1.34	4.31	2.05	1.04	50.93
	60	1.41	3.62	1.98	0.86	43.53
	110	1.47	3.39	2.05	0.81	39.32
	160	1.66	3.96	2.27	0.85	37.35



BOS040 - ELECTRIC FIELD AT GOVERNMENT CENTER, BLUE LINE

APPENDIX AP

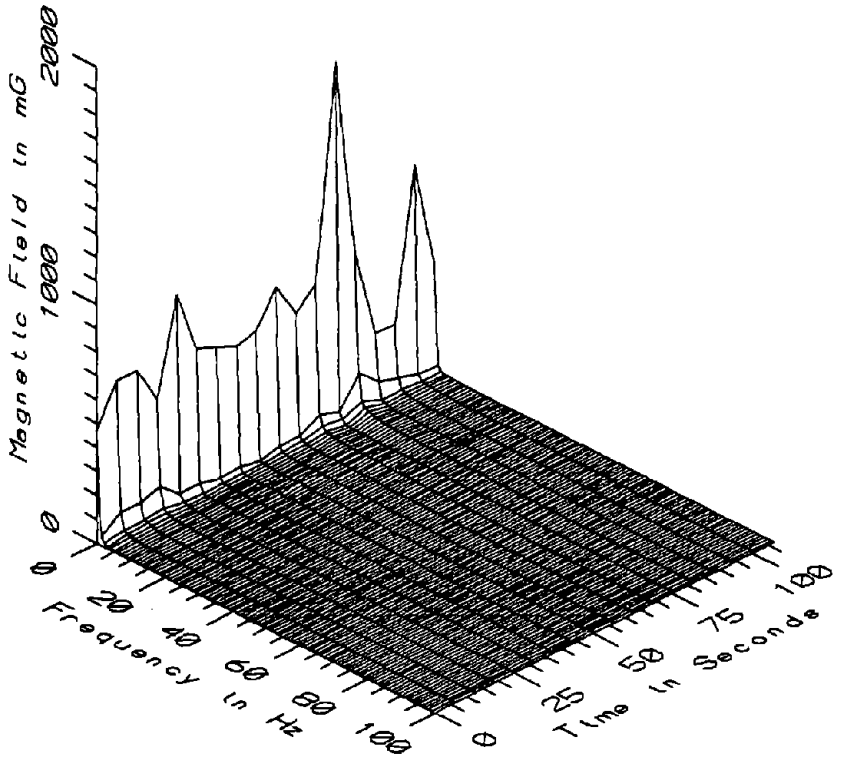
DATASET BOS041
IN FRONT OF OPERATOR'S SEAT, BOEING GREEN LINE CAR

Measurement Setup Code:	Staff: 14 Reference: - Drawing: A-1
Vehicle Status:	Travelling between Haymarket and North Station stations
Measurement Date:	June 11, 1992
Measurement Time:	Start: 10:27:03 End: 10:28:50
Number of Samples:	18
Programmed Sample Interval:	5 sec
Actual Sample Interval:	6.3 sec

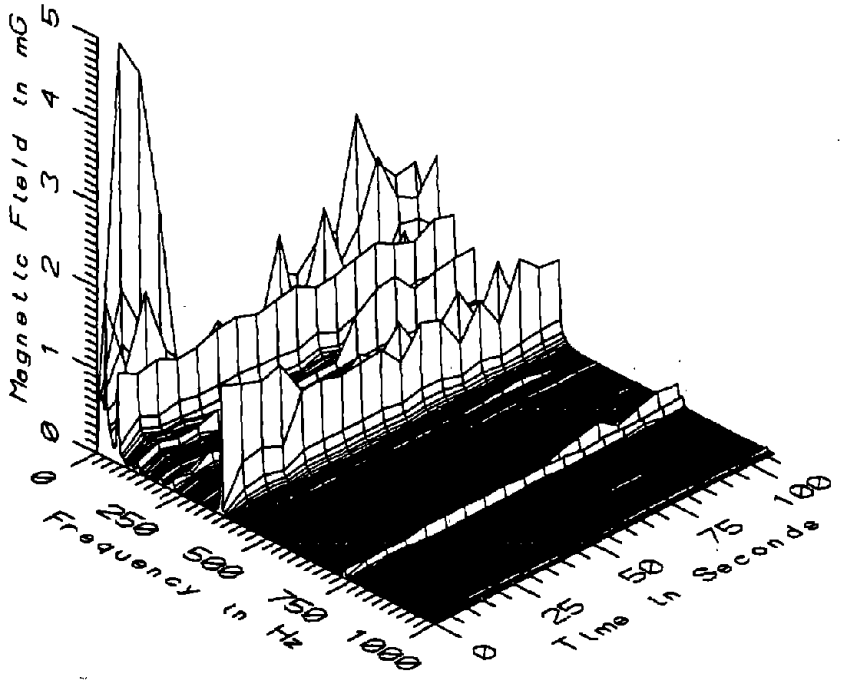
Frequency Spectrum Parameters

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

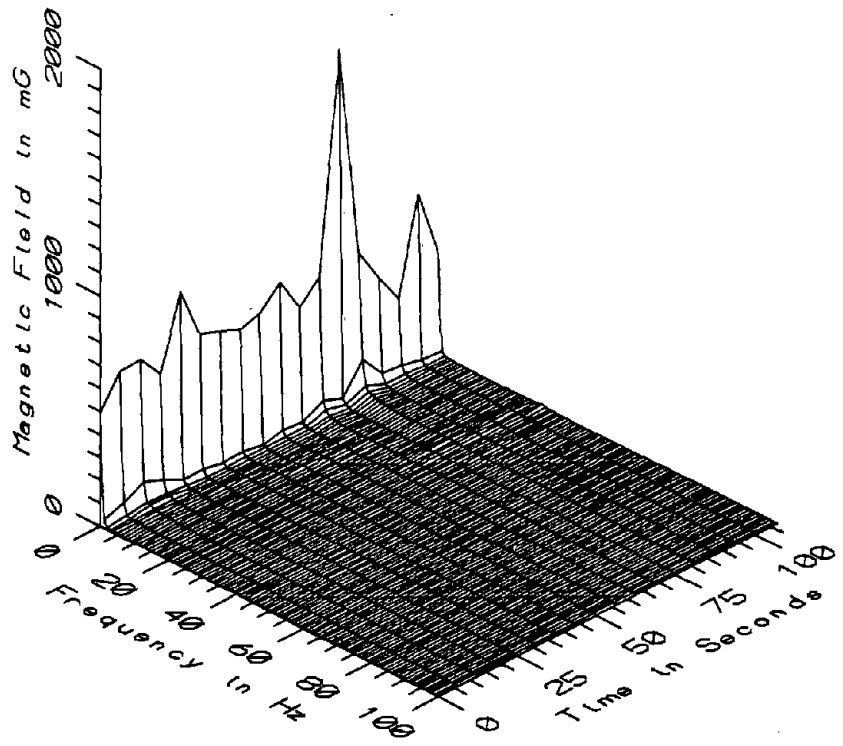
Missing Data: No reference probe



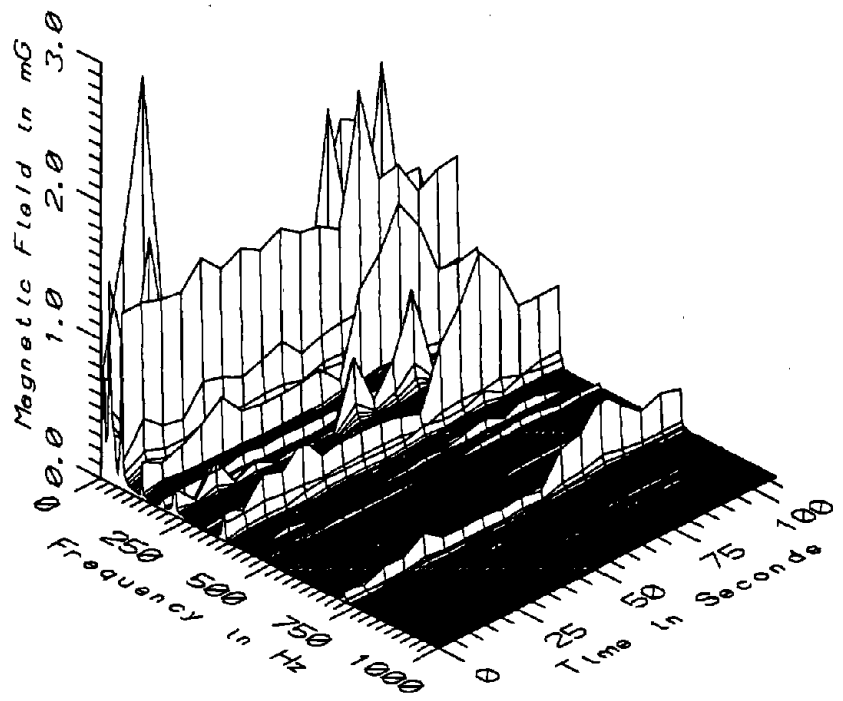
BOS041 - 10cm ABOVE FLOOR IN FRONT OF OPERATOR'S SEAT, BOEING GREEN CAR



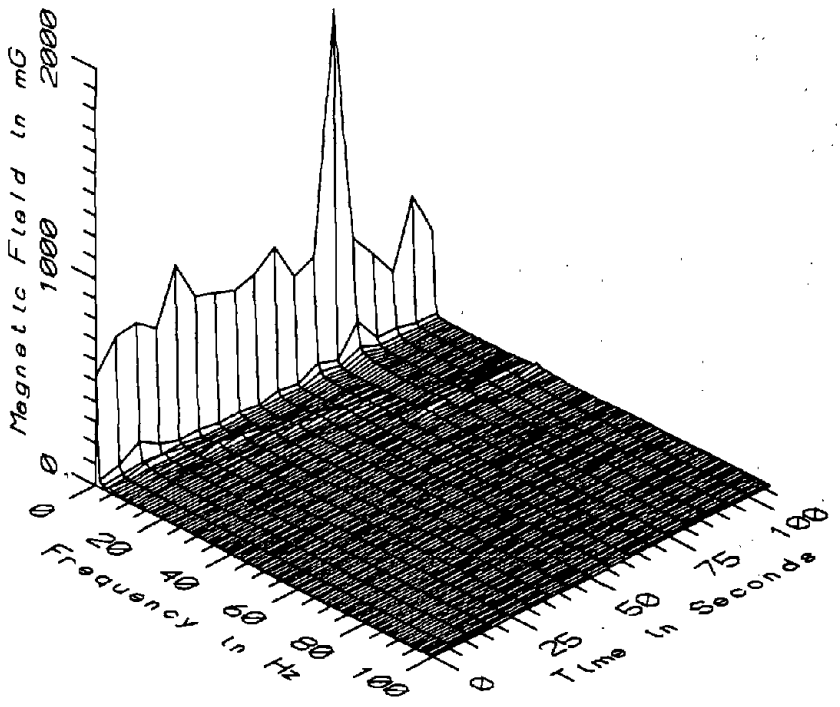
BOS041 - 10cm ABOVE FLOOR IN FRONT OF OPERATOR'S SEAT, BOEING GREEN CAR



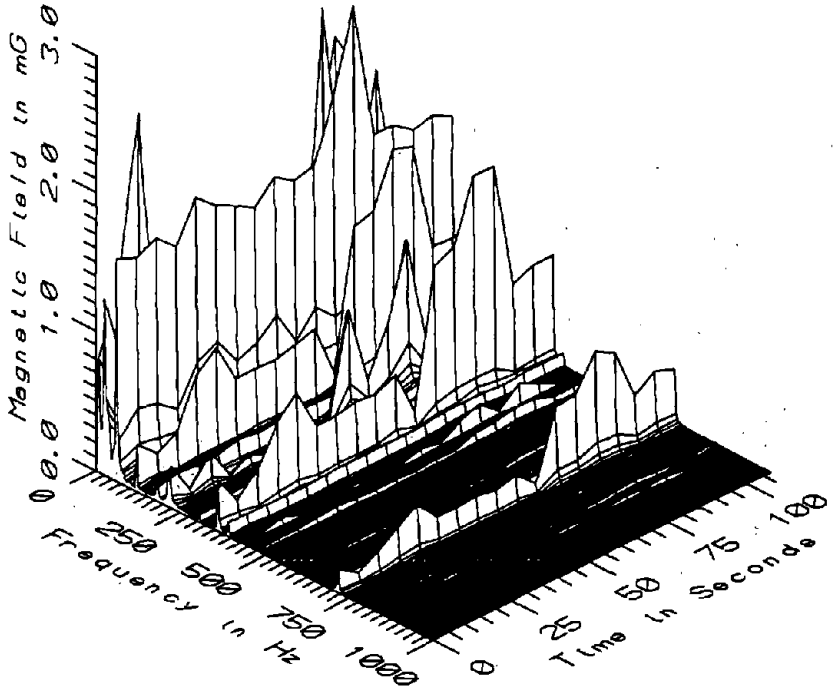
BOS041 - 60cm ABOVE FLOOR IN FRONT OF OPERATOR'S SEAT, BOEING GREEN CAR



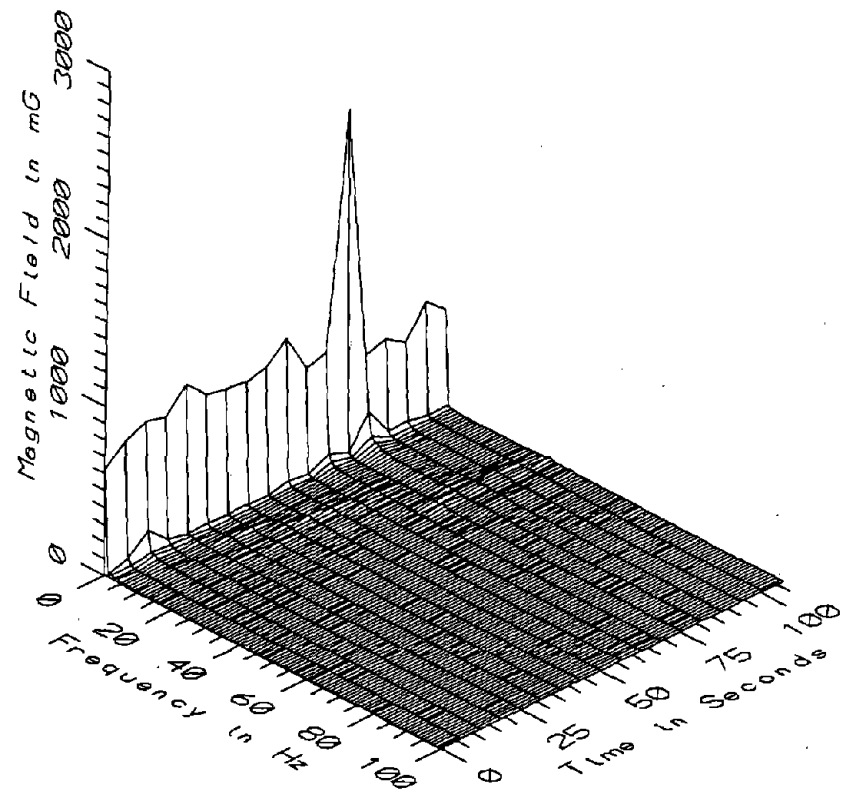
BOS041 - 60cm ABOVE FLOOR IN FRONT OF OPERATOR'S SEAT, BOEING GREEN CAR



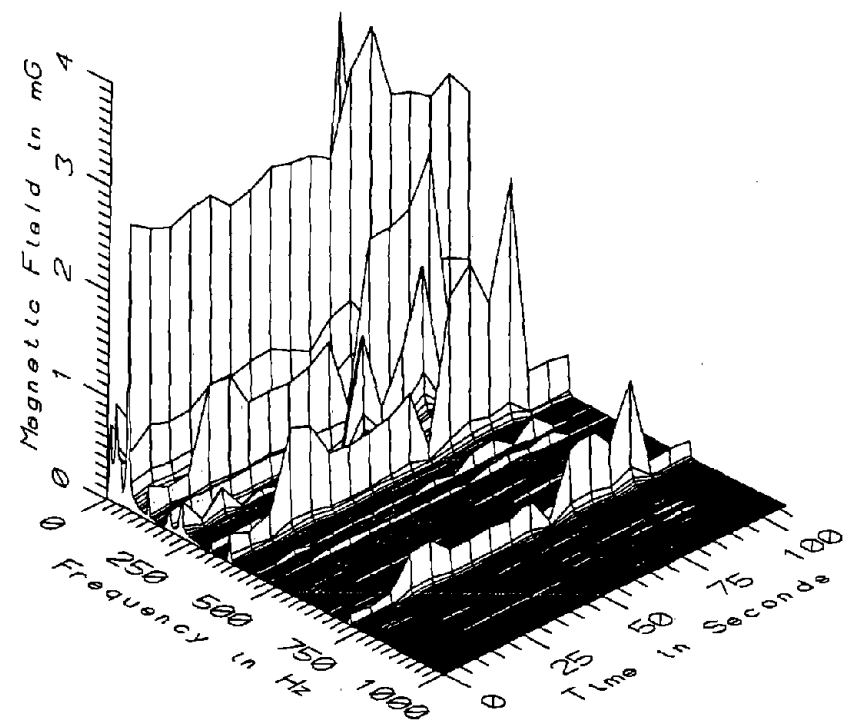
BOS041 - 110cm ABOVE FLOOR IN FRONT OF OPERATOR'S SEAT, BOEING GREEN CAR



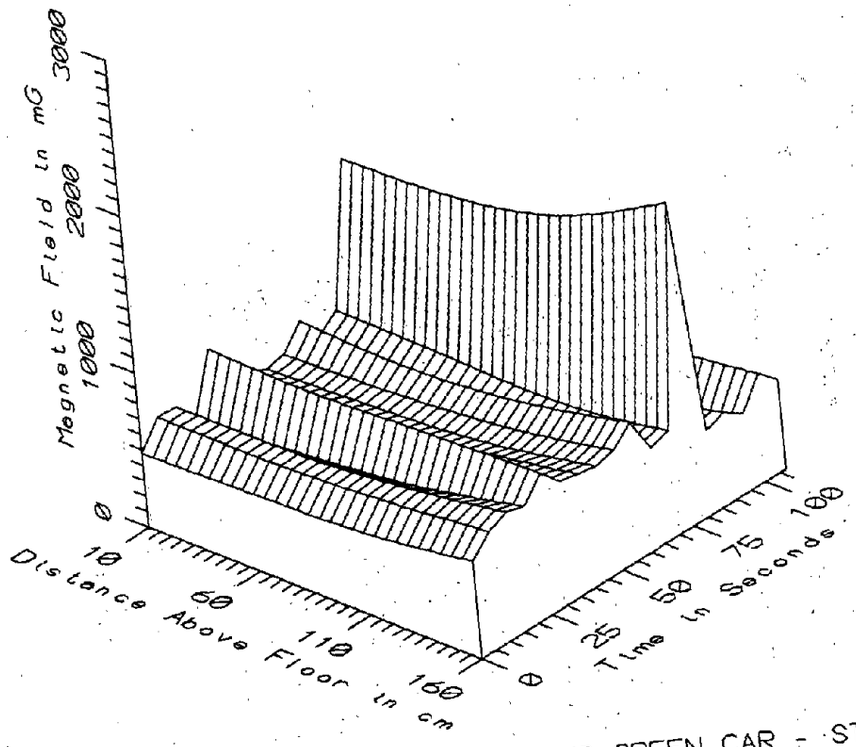
BOS041 - 110cm ABOVE FLOOR IN FRONT OF OPERATOR'S SEAT, BOEING GREEN CAR



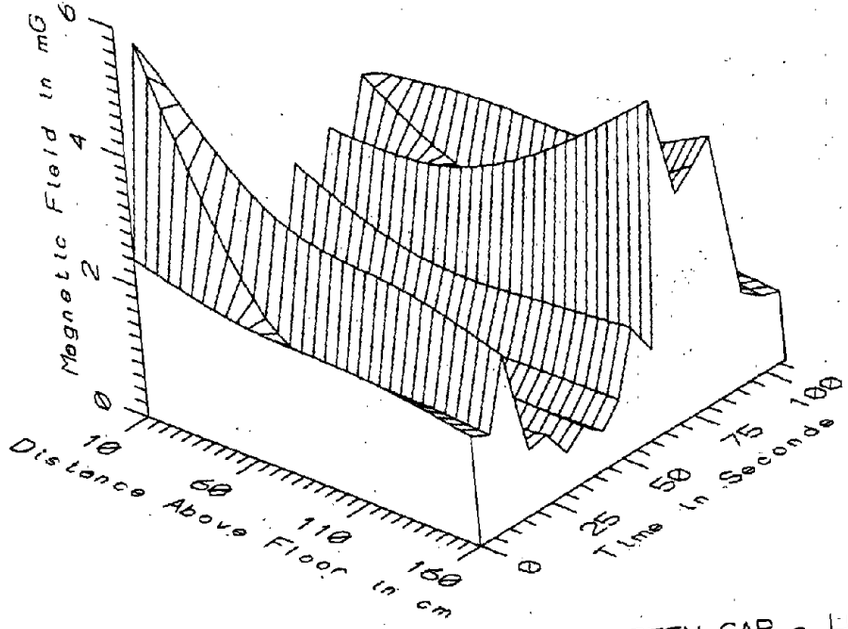
BOS041 - 160cm ABOVE FLOOR IN FRONT OF OPERATOR'S SEAT, BOEING GREEN CAR



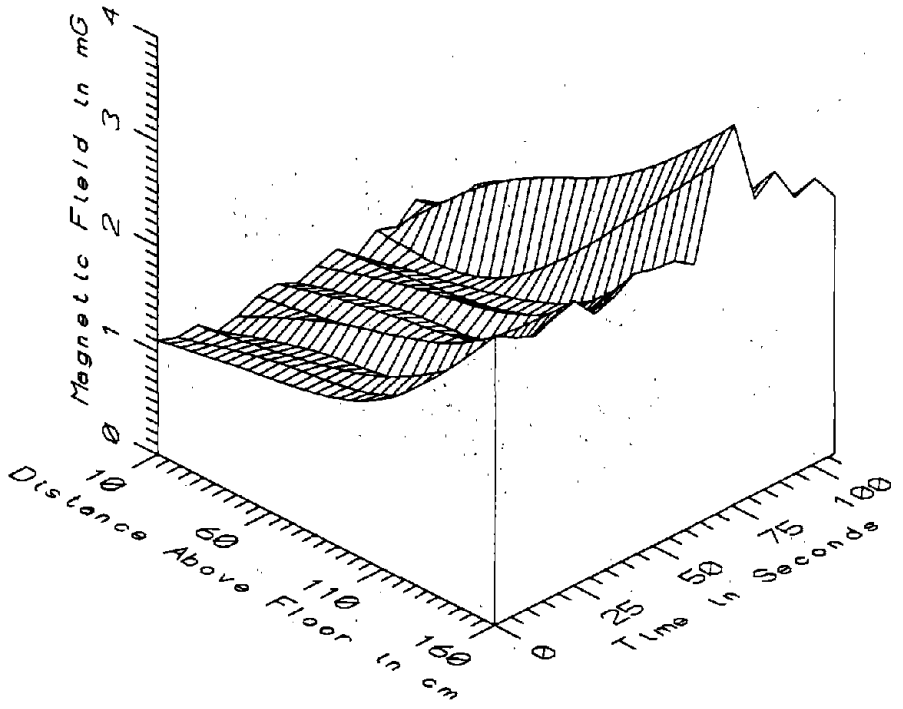
BOS041 - 160cm ABOVE FLOOR IN FRONT OF OPERATOR'S SEAT, BOEING GREEN CAR



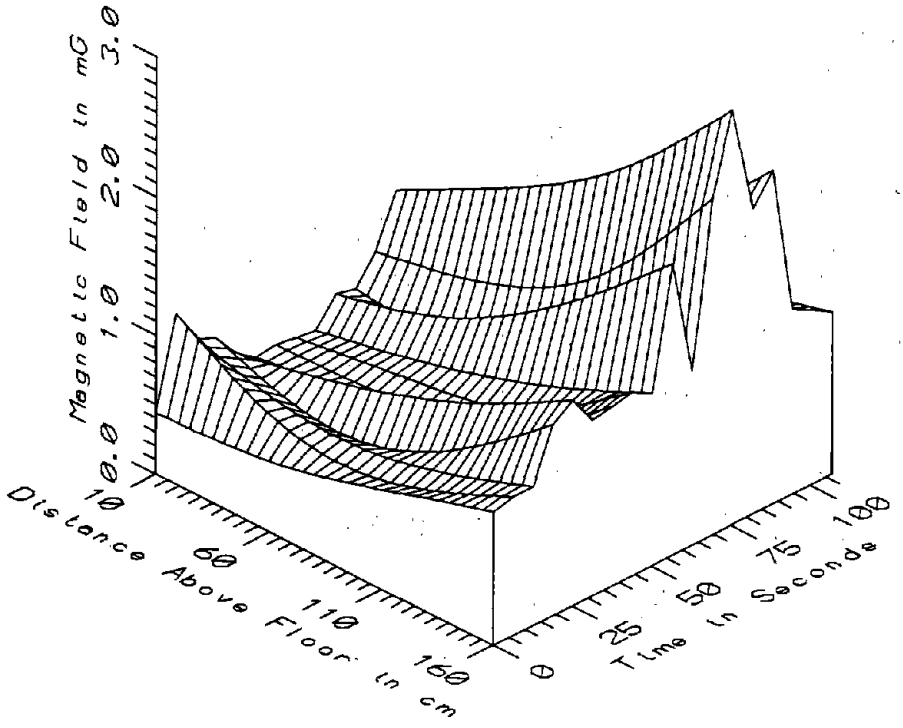
BOS041 - FRONT OF OPERATOR'S SEAT, BOEING GREEN CAR - STATIC



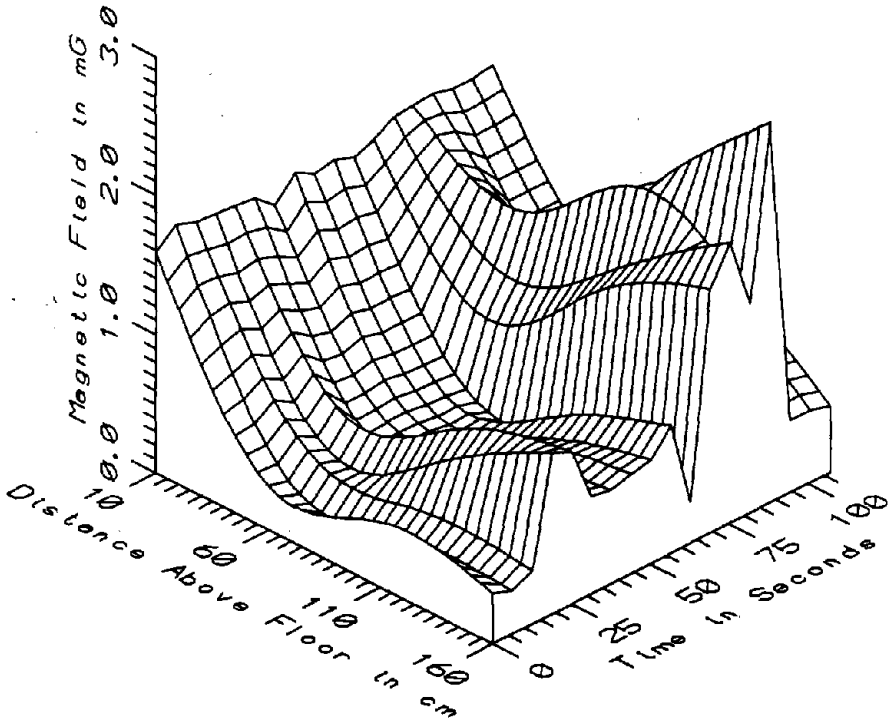
BOS041 - FRONT OF OPERATOR'S SEAT, BOEING GREEN CAR - LOW FREQ, 5-45Hz



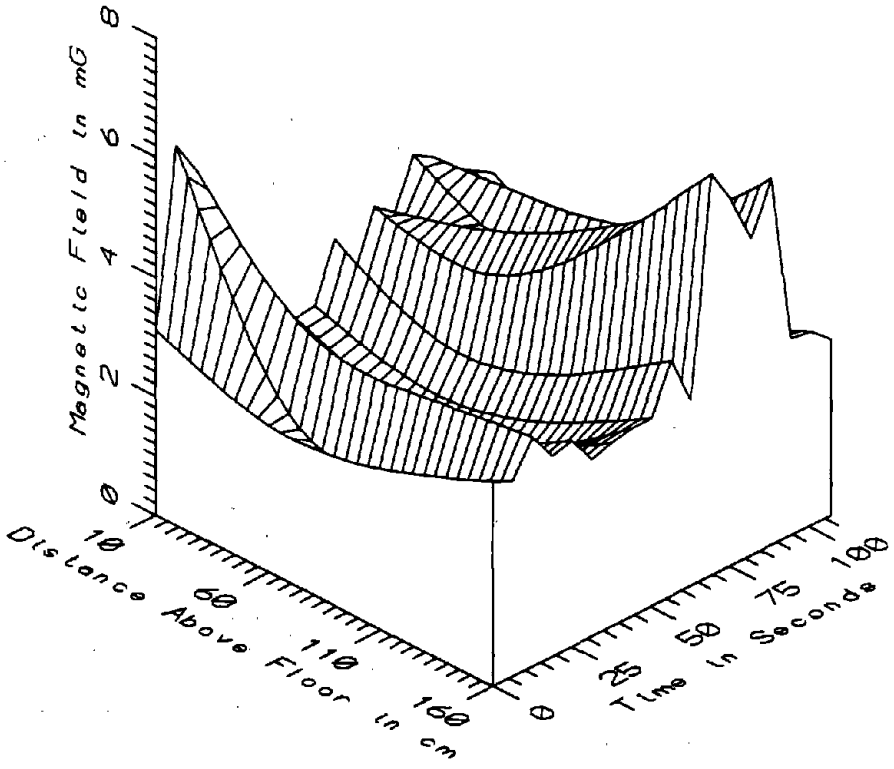
BOS041 - FRONT OF OPERATOR'S SEAT, BOEING GREEN CAR - POWER FREQ, 50-60Hz



BOS041 - FRONT OF OPERATOR'S SEAT, BOEING GREEN CAR - POWER HARM, 65-300Hz

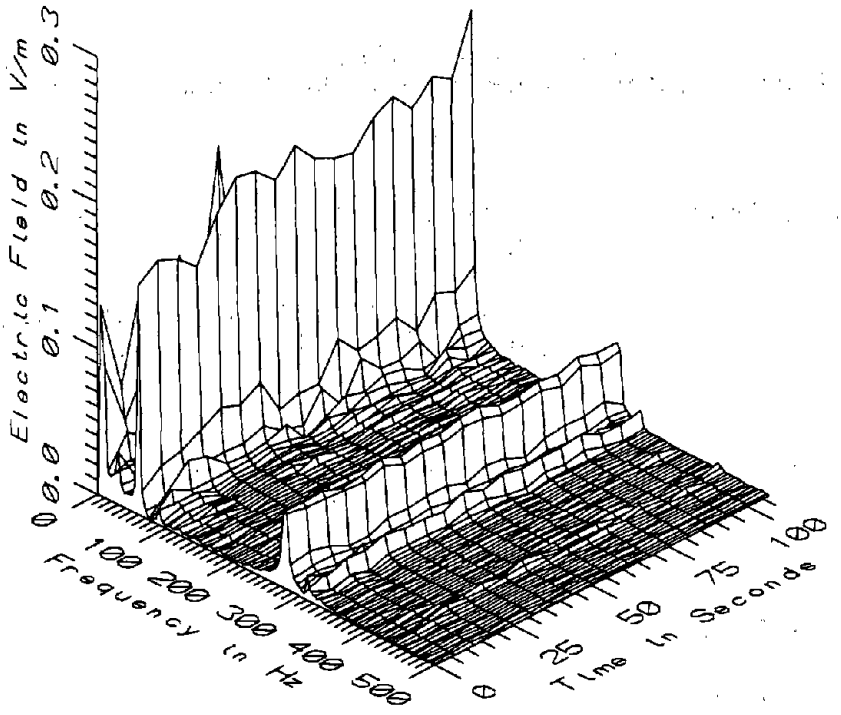


BOS041 - FRONT OF OPERATOR'S SEAT, BOEING GREEN CAR-HIGH FREQ, 305-2560Hz



BOS041 - FRONT OF OPERATOR'S SEAT, BOEING GREEN CAR - ALL FREQ, 5-2560Hz

BOS041 - IN FRONT OF OPERATOR'S SEAT, BOEING GREEN CAR		TOTAL OF 18 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	283.42	1515.55	628.38	273.87	43.58
	60	328.47	1553.20	632.12	256.59	40.59
	110	313.56	1709.49	657.37	290.66	44.22
	160	499.78	2067.94	776.36	340.40	43.85
5-45Hz LOW FREQ	10	0.83	5.59	2.35	1.32	56.10
	60	0.55	3.39	1.68	0.85	50.63
	110	0.54	3.57	1.69	0.98	57.96
	160	0.59	5.02	1.87	1.30	69.67
50-60Hz PWR FREQ	10	0.91	1.19	1.04	0.07	6.50
	60	1.14	2.02	1.31	0.20	14.97
	110	1.45	2.61	1.69	0.27	16.17
	160	2.47	3.63	2.76	0.30	10.84
65-300Hz PWR HARM	10	0.44	1.19	0.74	0.23	30.67
	60	0.50	1.61	0.80	0.31	38.45
	110	0.67	2.15	1.06	0.43	40.55
	160	0.96	2.98	1.55	0.59	38.20
305-2560Hz HIGH FREQ	10	1.49	1.72	1.64	0.06	3.85
	60	0.28	1.35	0.57	0.32	56.00
	110	0.27	1.94	0.83	0.51	61.91
	160	0.29	2.73	0.94	0.67	71.62
5-2560Hz ALL FREQ	10	2.15	6.03	3.23	1.08	33.45
	60	1.52	3.84	2.42	0.77	31.88
	110	1.85	4.77	2.83	0.98	34.47
	160	2.95	6.74	3.92	1.24	31.72



BOS041 - ELECTRIC FIELD IN FRONT OF OPERATOR'S SEAT, BOEING GREEN CAR

APPENDIX AQ

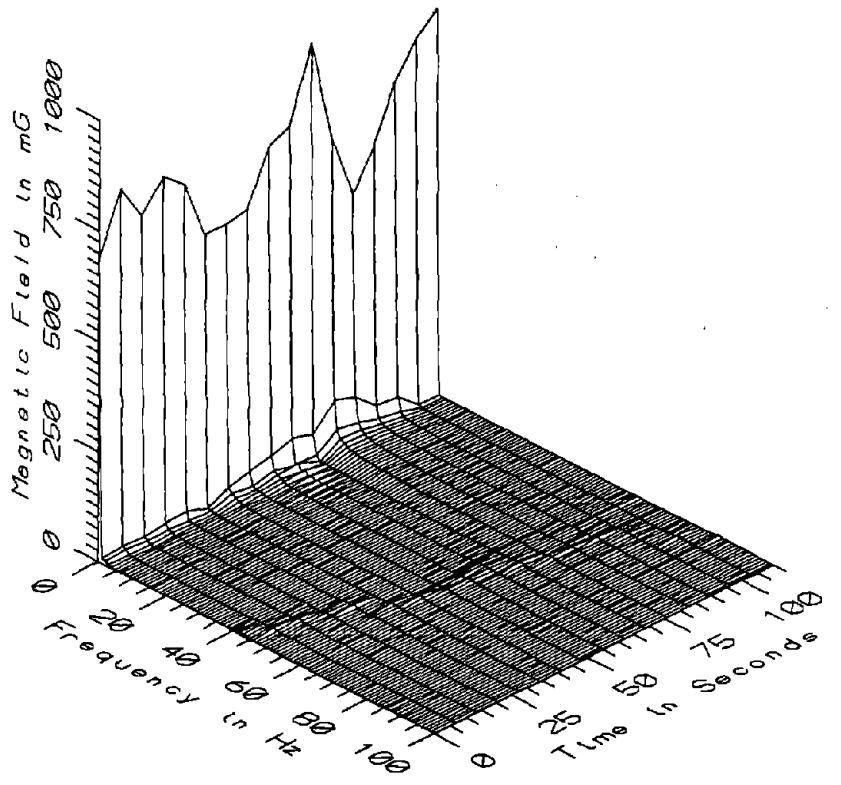
DATASET BOS042
IN FRONT OF OPERATOR'S SEAT, BOEING GREEN LINE CAR

Measurement Setup Code:	Staff: 14 Reference: - Drawing: A-1
Vehicle Status:	Travelling between North Station and Science Park stations
Measurement Date:	June 11, 1992
Measurement Time:	Start: 10:29:26 End: 10:31:16
Number of Samples:	17
Programmed Sample Interval:	5 sec
Actual Sample Interval:	6.9 sec

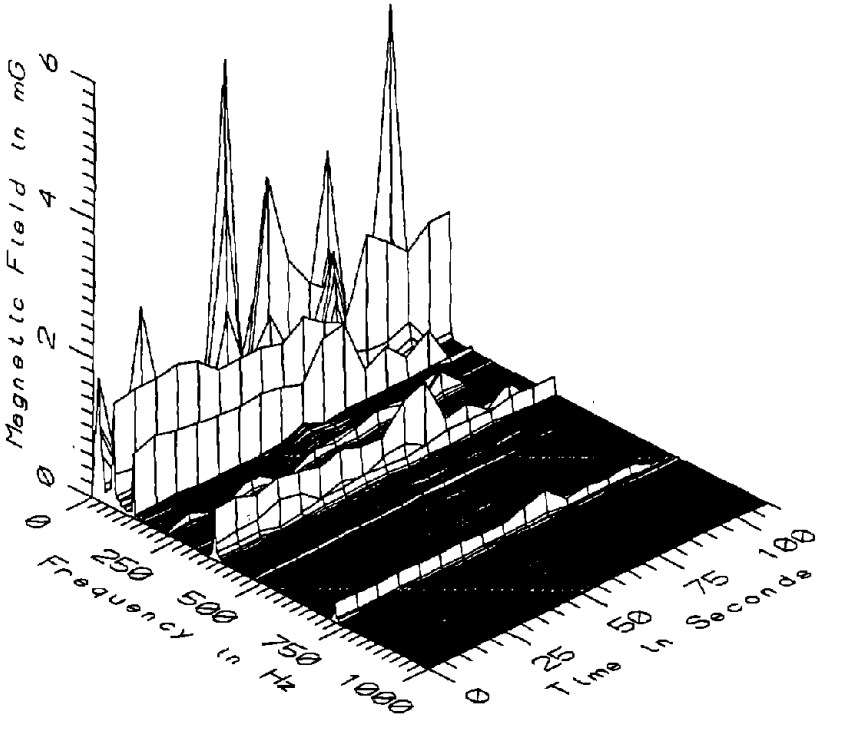
Frequency Spectrum Parameters

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

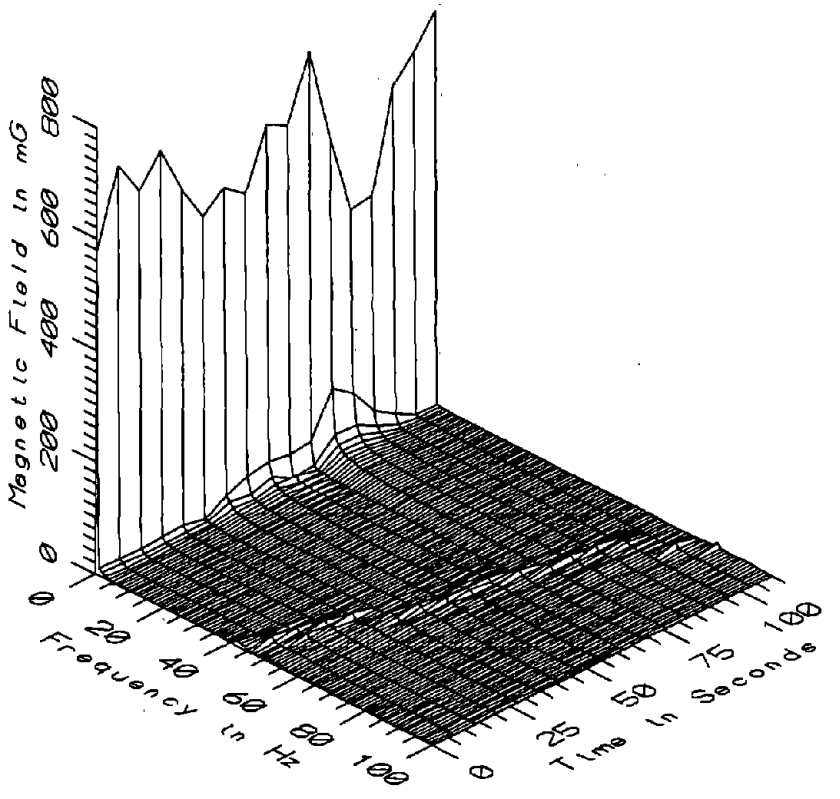
Missing Data: No reference probe



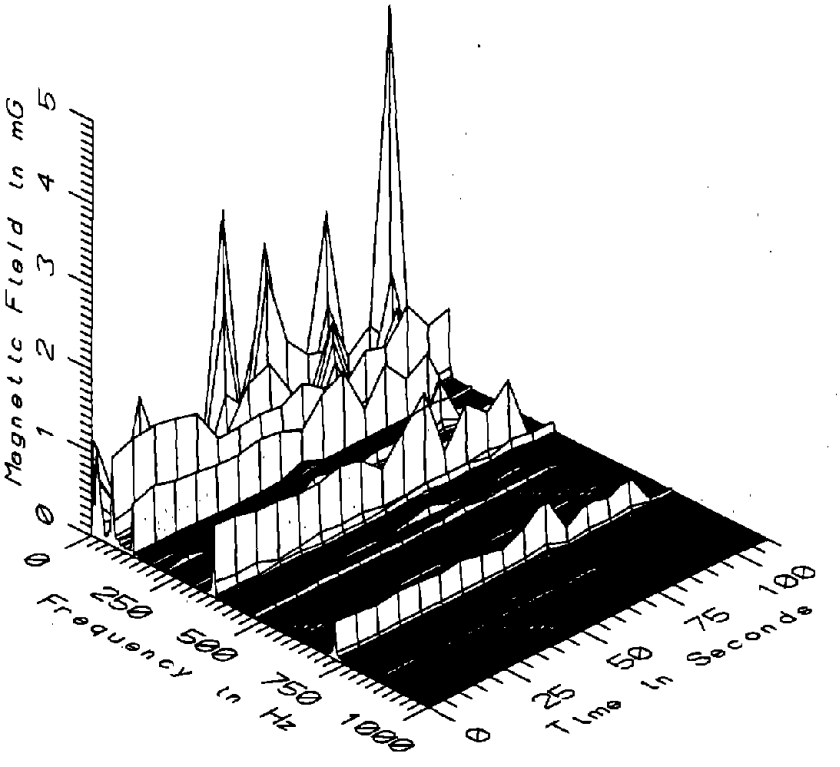
BOS042 - 10cm ABOVE FLOOR IN FRONT OF OPERATOR'S SEAT, BOEING GREEN CAR



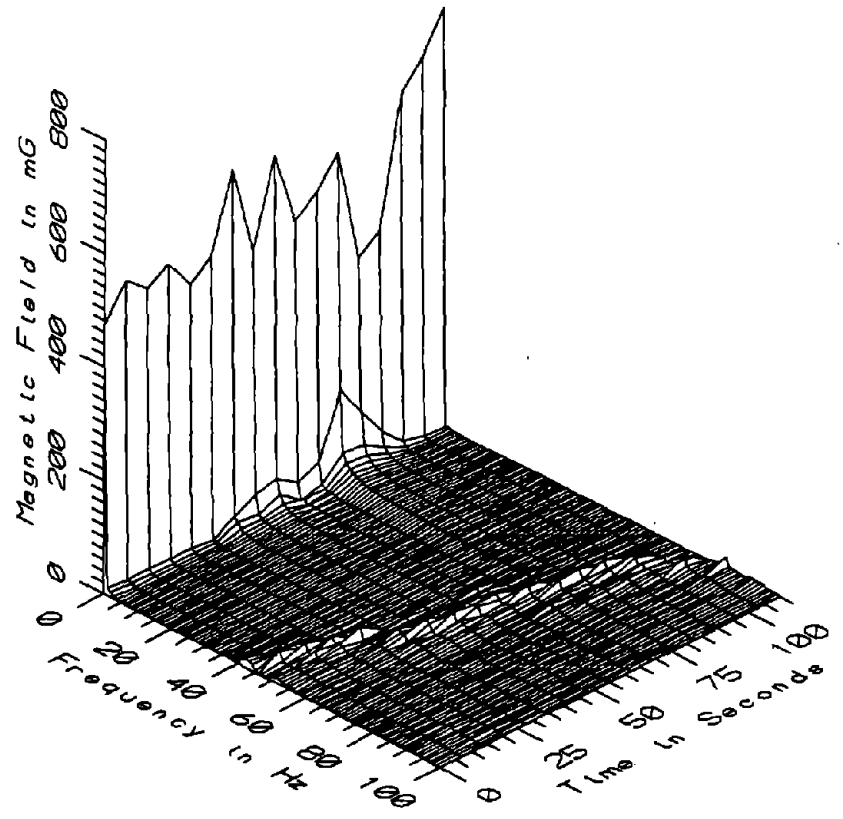
BOS042 - 10cm ABOVE FLOOR IN FRONT OF OPERATOR'S SEAT, BOEING GREEN CAR



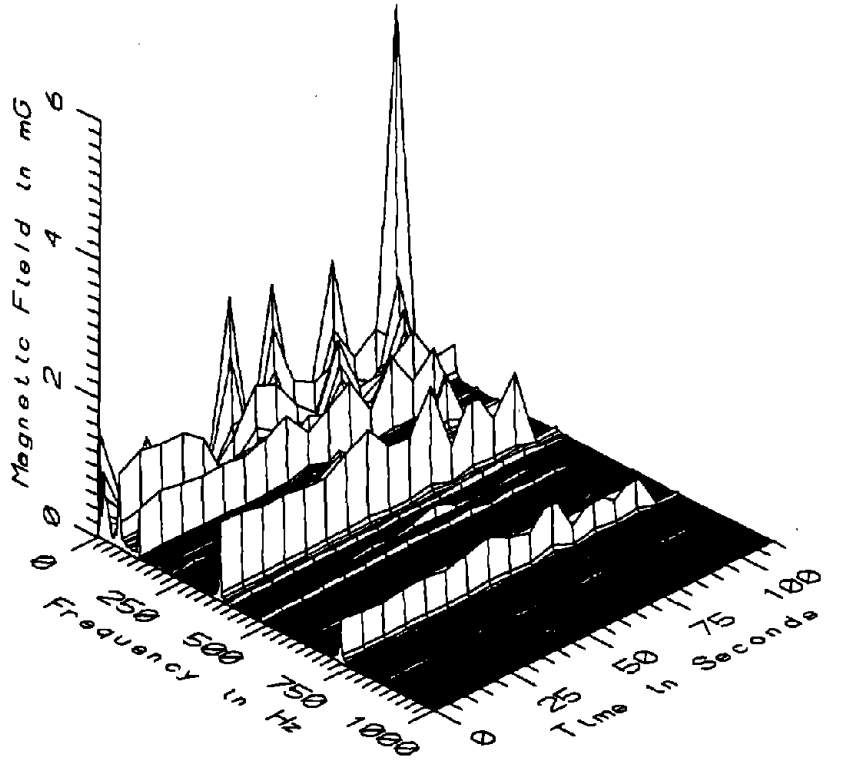
BOS042 - 60cm ABOVE FLOOR IN FRONT OF OPERATOR'S SEAT, BOEING GREEN CAR



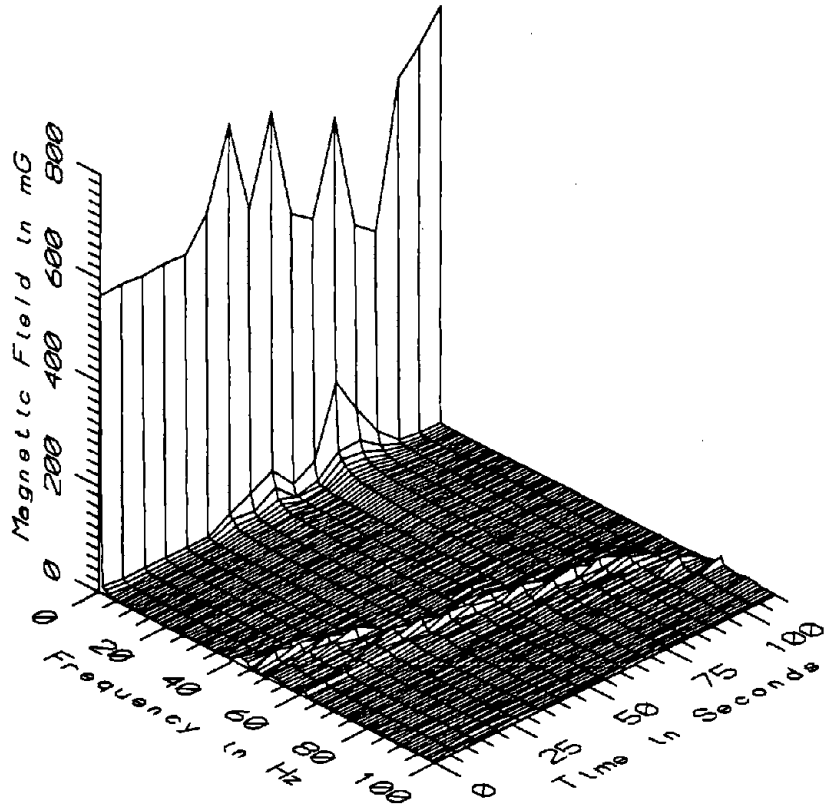
BOS042 - 60cm ABOVE FLOOR IN FRONT OF OPERATOR'S SEAT, BOEING GREEN CAR



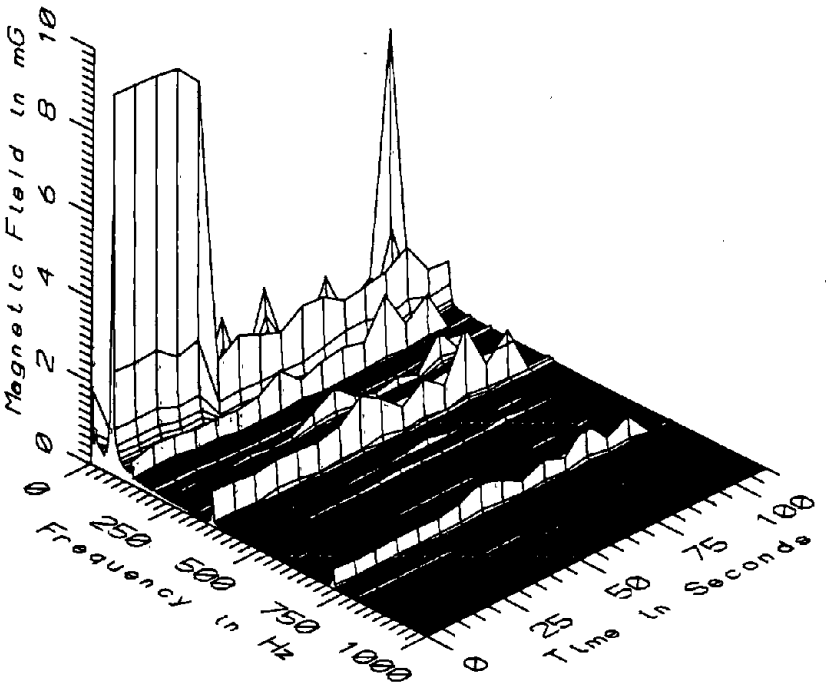
BOS042 - 110cm ABOVE FLOOR IN FRONT OF OPERATOR'S SEAT, BOEING GREEN CAR



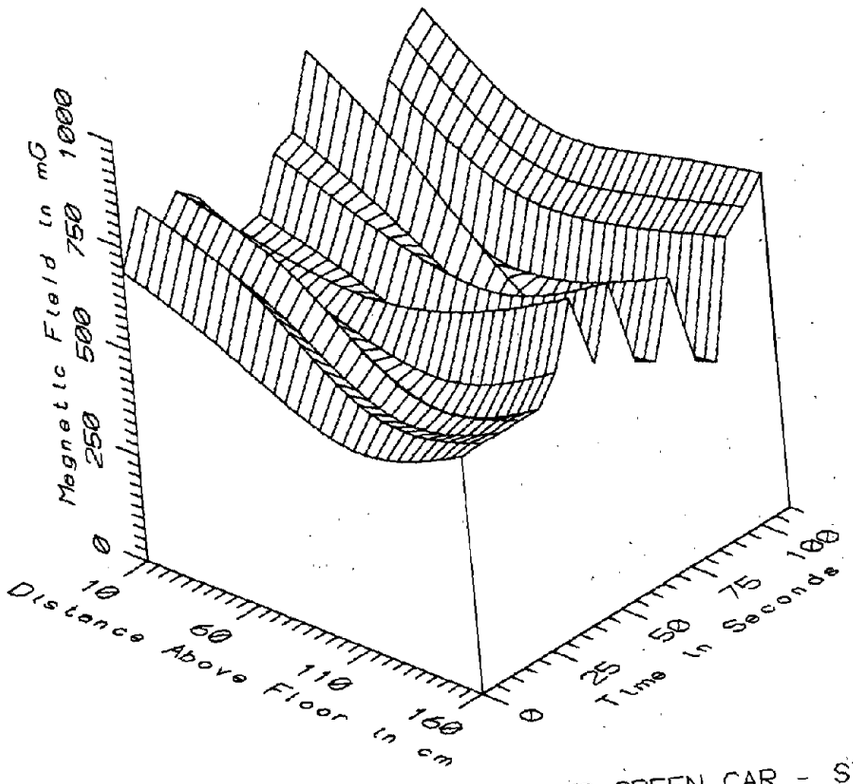
BOS042 - 110cm ABOVE FLOOR IN FRONT OF OPERATOR'S SEAT, BOEING GREEN CAR



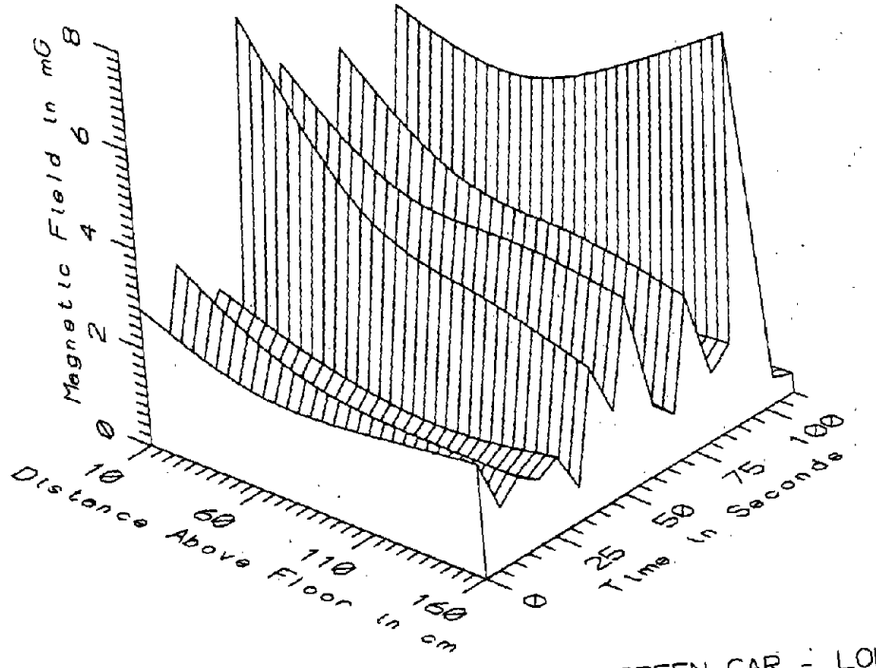
BOS042 - 160cm ABOVE FLOOR IN FRONT OF OPERATOR'S SEAT, BOEING GREEN CAR



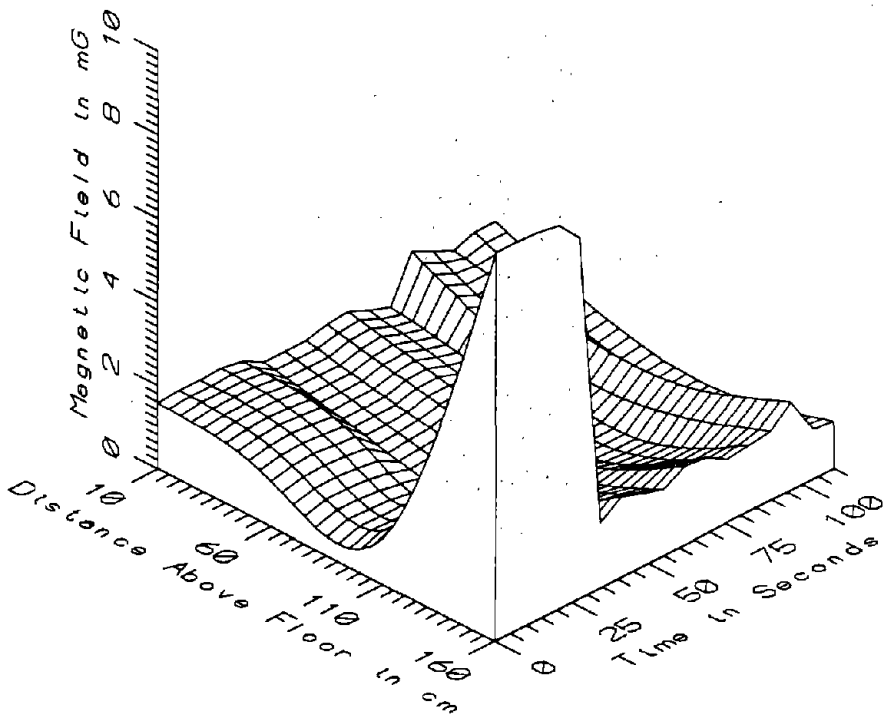
BOS042 - 160cm ABOVE FLOOR IN FRONT OF OPERATOR'S SEAT, BOEING GREEN CAR



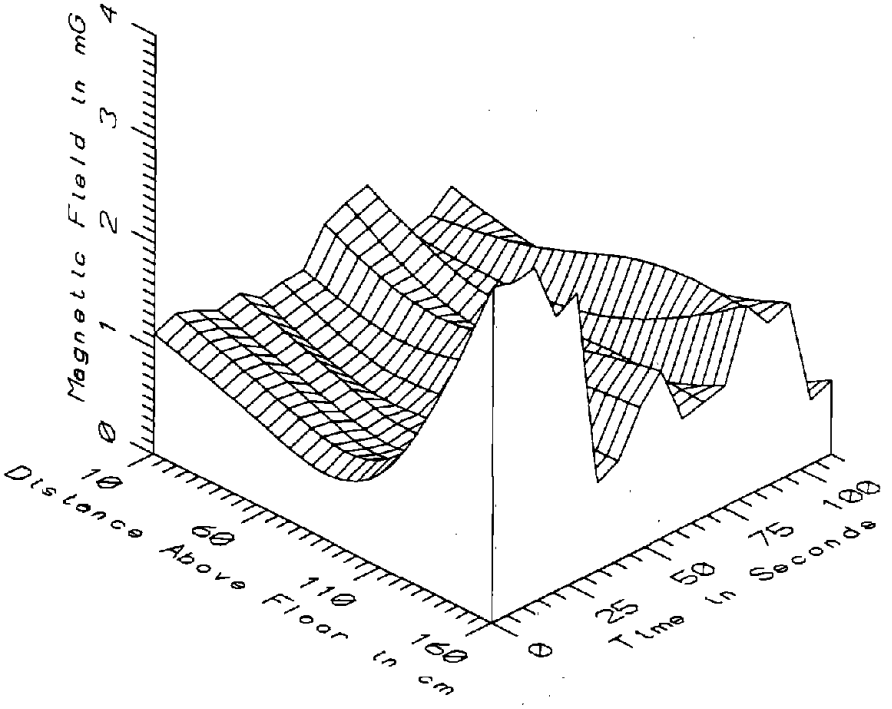
BOS042 - FRONT OF OPERATOR'S SEAT, BOEING GREEN CAR - STATIC



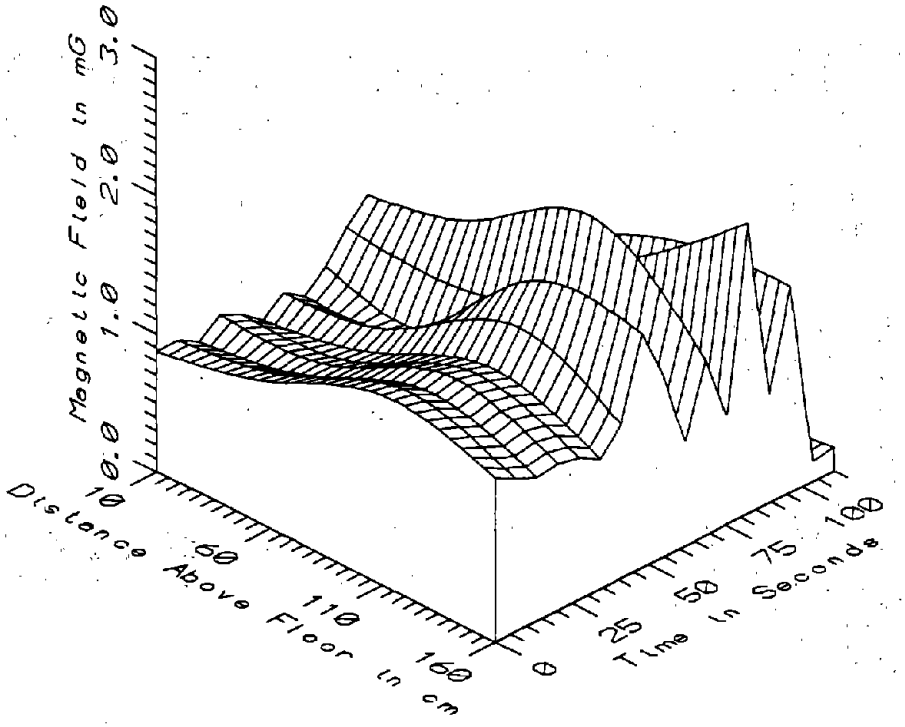
BOS042 - FRONT OF OPERATOR'S SEAT, BOEING GREEN CAR - LOW FREQ. 5-45Hz



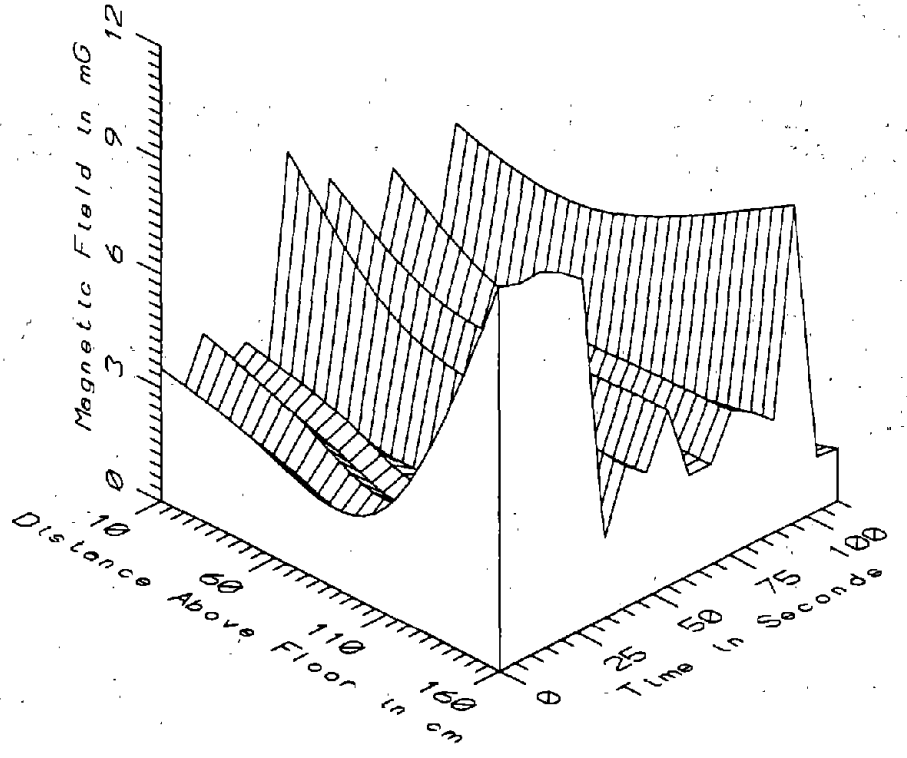
BOS042 - FRONT OF OPERATOR'S SEAT, BOEING GREEN CAR - POWER FREQ, 50-60Hz



BOS042 - FRONT OF OPERATOR'S SEAT, BOEING GREEN CAR - POWER HARM, 65-300Hz

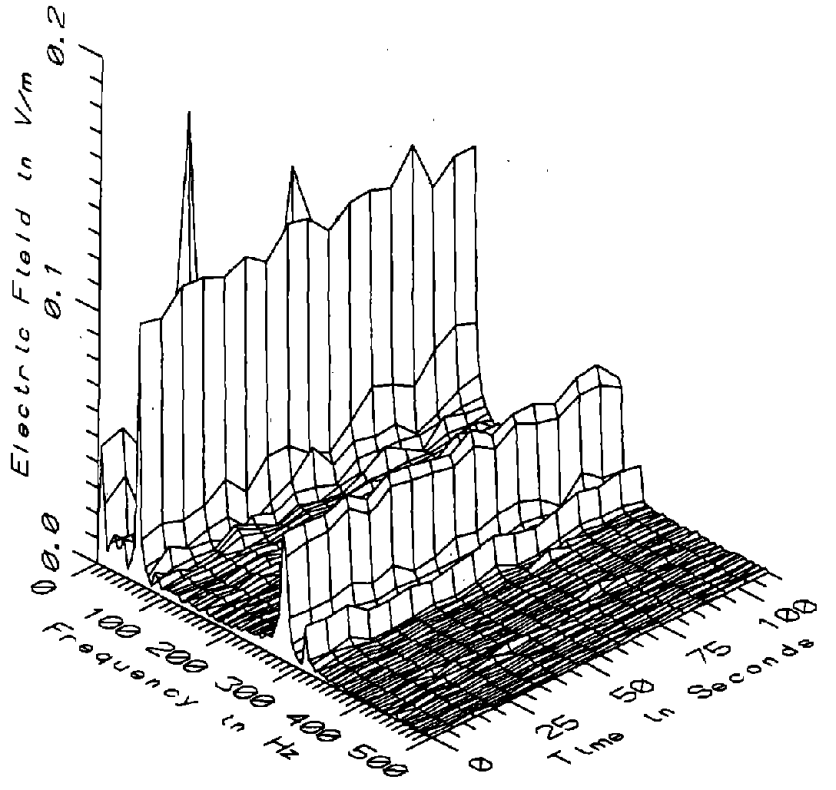


BOS042 - FRONT OF OPERATOR'S SEAT, BOEING GREEN CAR-HIGH FREQ, 305-2560Hz



BOS042 - FRONT OF OPERATOR'S SEAT, BOEING GREEN CAR - ALL FREQ, 5-2560Hz

BOS042 - IN FRONT OF OPERATOR'S SEAT, BOEING GREEN CAR TOTAL OF 17 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	544.97	938.54	734.06	102.70	13.99
	60	426.33	746.67	610.17	90.10	14.77
	110	369.33	736.71	537.26	96.21	17.91
	160	428.26	799.51	615.83	110.42	17.93
5-45Hz LOW FREQ	10	0.24	7.29	2.76	2.10	75.85
	60	0.26	5.16	1.97	1.48	75.03
	110	0.30	6.20	1.93	1.56	81.04
	160	0.38	7.78	2.03	1.75	86.11
50-60Hz PWR FREQ	10	1.07	2.17	1.56	0.28	18.30
	60	0.60	1.23	0.91	0.21	23.62
	110	0.33	1.28	0.74	0.34	46.20
	160	1.13	9.28	3.83	3.53	91.99
65-300Hz PWR HARM	10	0.19	1.54	1.02	0.36	35.46
	60	0.13	1.18	0.77	0.28	35.90
	110	0.19	1.57	0.92	0.35	38.30
	160	0.62	3.22	1.73	0.91	52.81
305-2560Hz HIGH FREQ	10	0.28	1.24	0.74	0.25	34.19
	60	0.14	1.46	0.85	0.33	38.62
	110	0.10	1.89	1.15	0.48	41.86
	160	0.15	2.10	1.06	0.47	44.99
5-2560Hz ALL FREQ	10	1.90	7.52	3.65	1.70	46.49
	60	0.89	5.49	2.60	1.28	49.24
	110	0.64	6.57	2.71	1.41	51.94
	160	1.40	10.16	5.26	3.38	64.26



BOS042 - ELECTRIC FIELD IN FRONT OF OPERATOR'S SEAT, BOEING GREEN CAR

APPENDIX AR

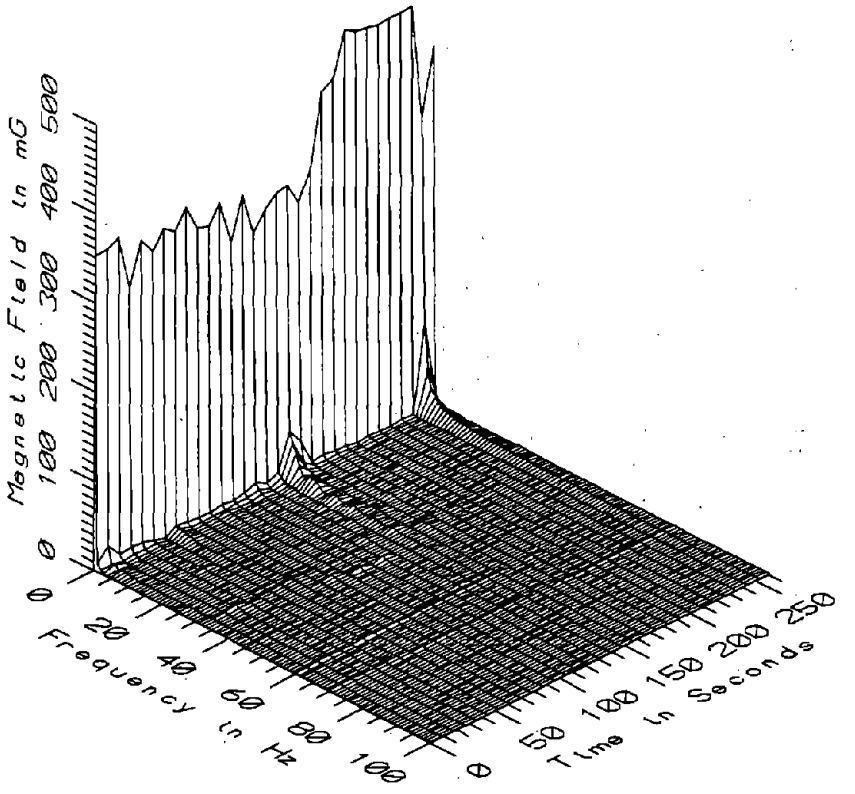
DATASET BOS043
ON CENTERLINE AT REAR OF TROLLEY BUS

Measurement Setup Code:	Staff: 18 Reference: 19 Drawing: A-2
Vehicle Status:	Travelling on a trolley bus
Measurement Date:	June 11, 1992
Measurement Time:	Start: 11:24:11 End: 11:28:32
Number of Samples:	31
Programmed Sample Interval:	5 sec
Actual Sample Interval:	8.7 sec

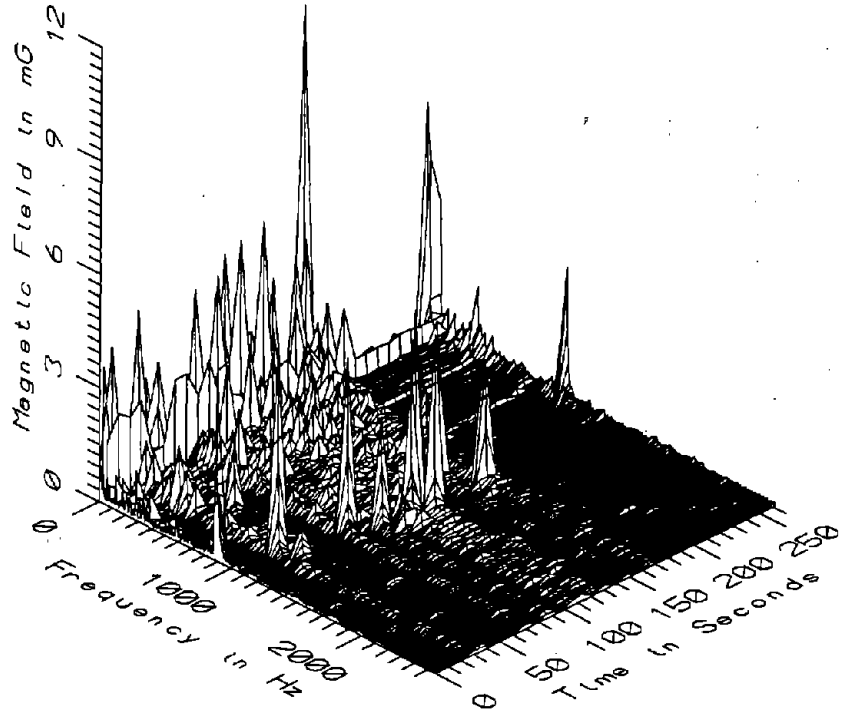
Frequency Spectrum Parameters

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

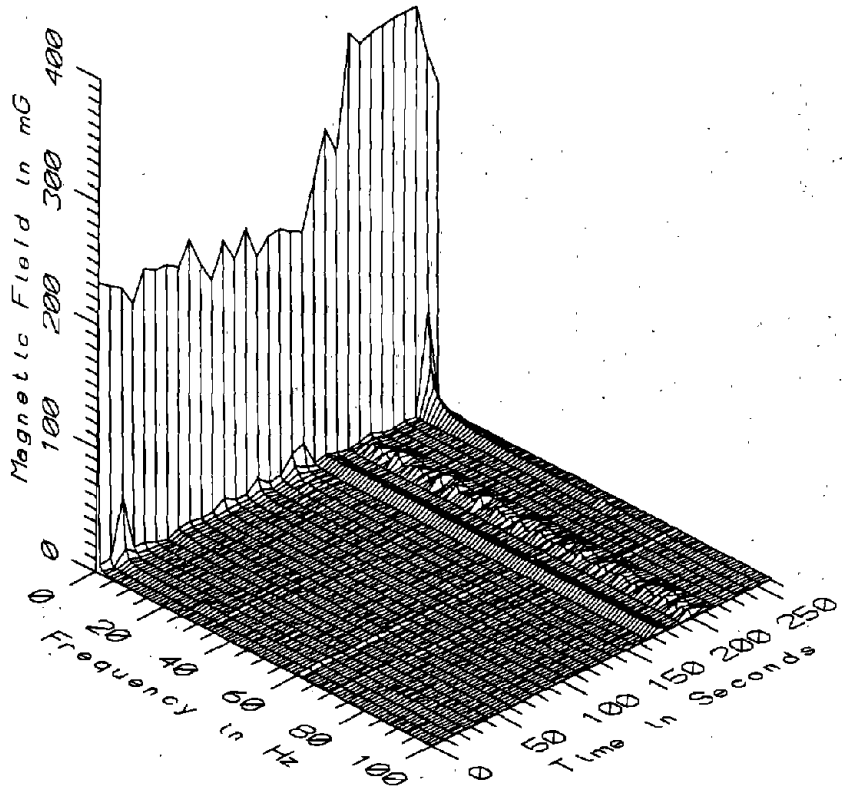
Missing Data: None



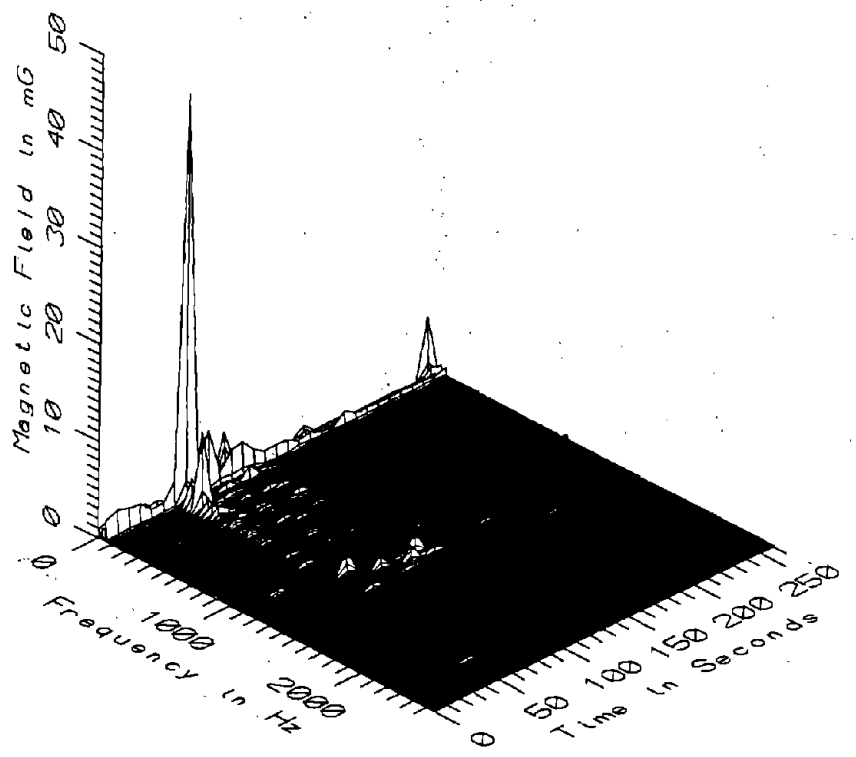
BOS043 - 10cm ABOVE FLOOR ON AXIS AT REAR OF TROLLEY BUS



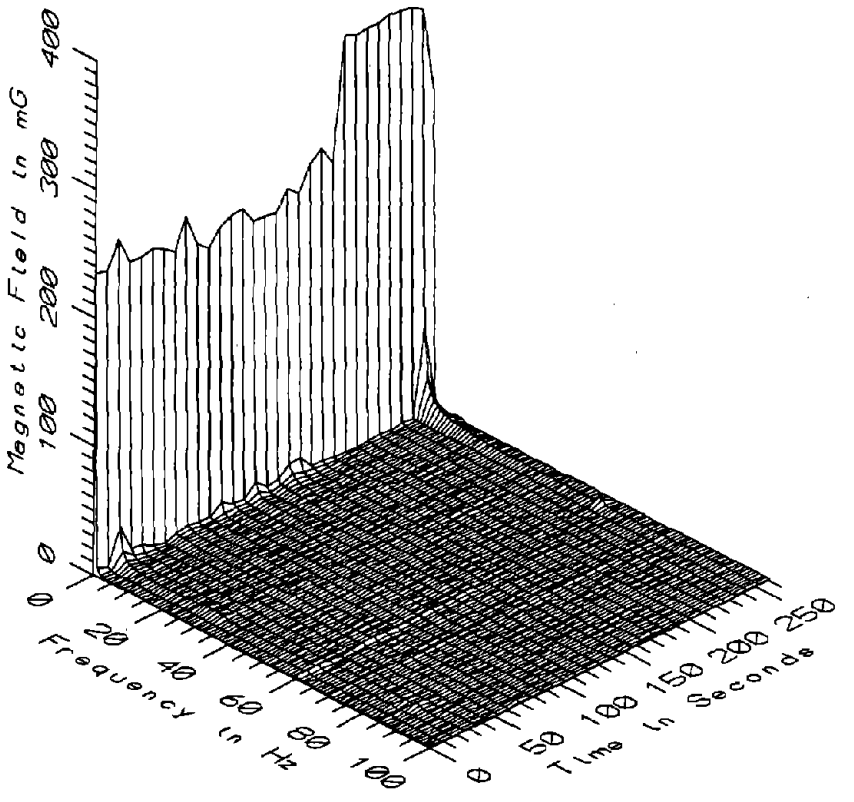
BOS043 - 10cm ABOVE FLOOR ON AXIS AT REAR OF TROLLEY BUS



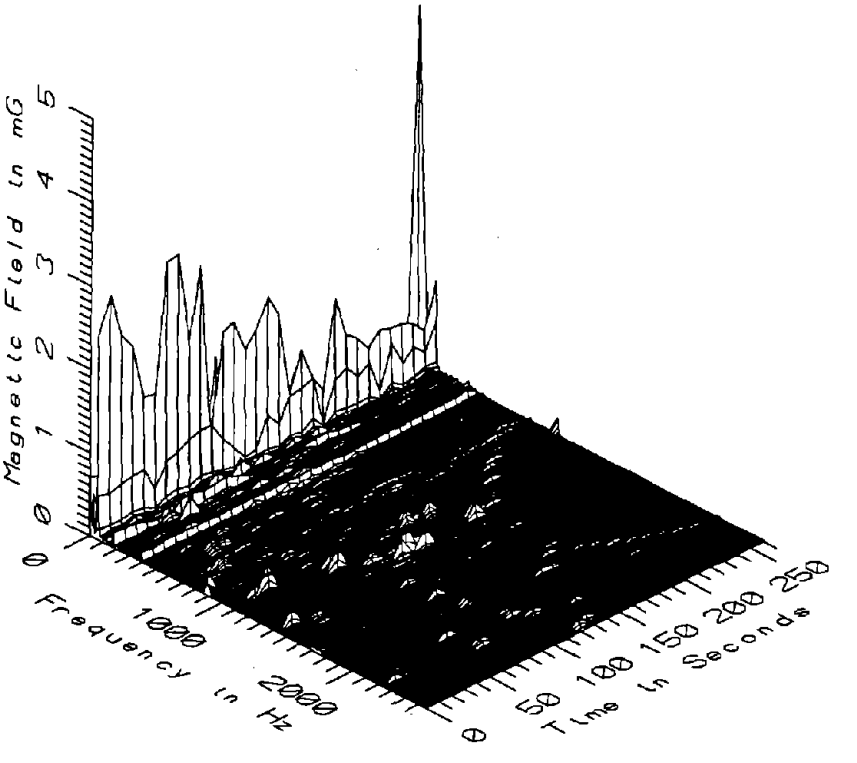
BOS043 - 60cm ABOVE FLOOR ON AXIS AT REAR OF TROLLEY BUS



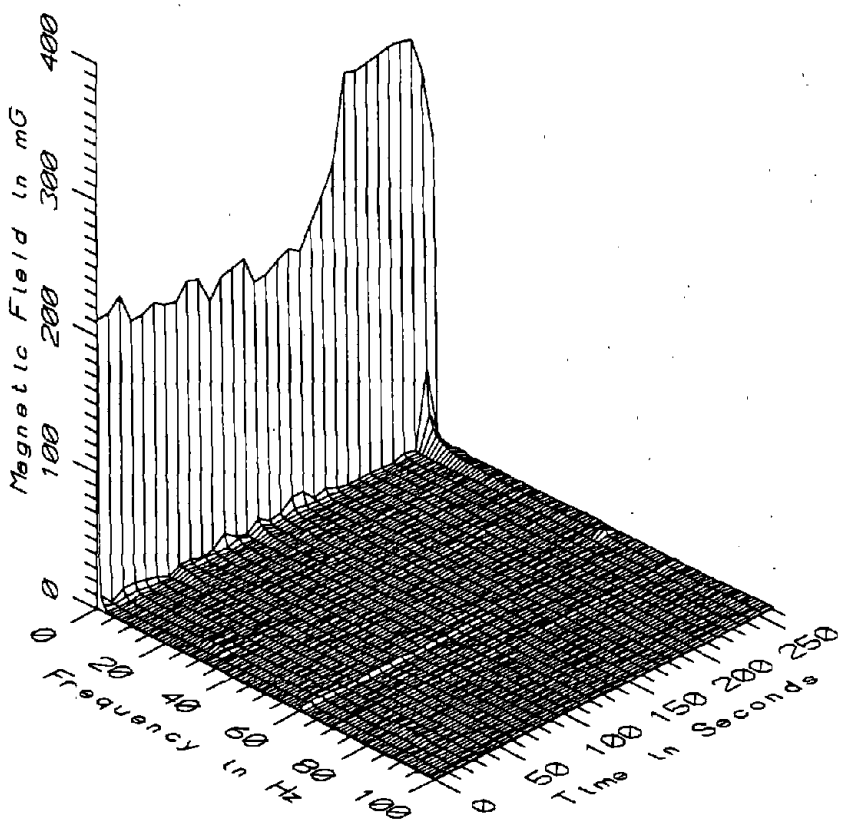
BOS043 - 60cm ABOVE FLOOR ON AXIS AT REAR OF TROLLEY BUS



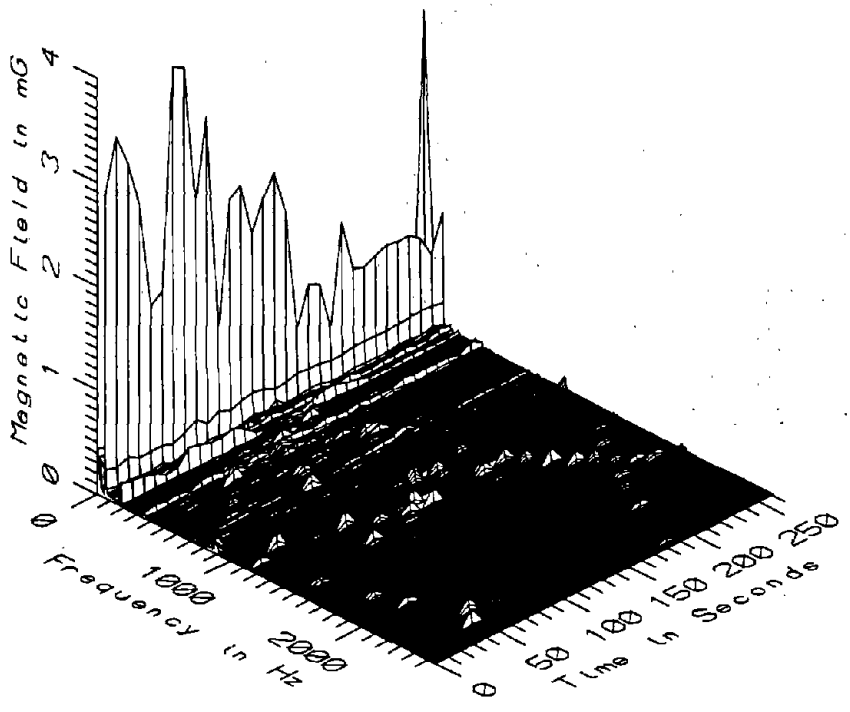
BOS043 - 110cm ABOVE FLOOR ON AXIS AT REAR OF TROLLEY BUS



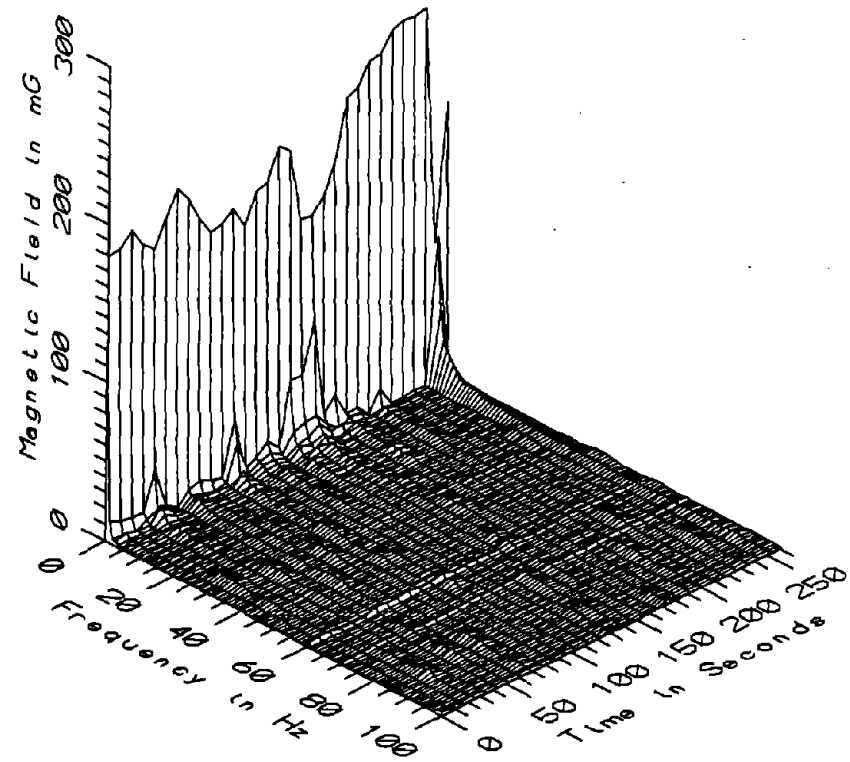
BOS043 - 110cm ABOVE FLOOR ON AXIS AT REAR OF TROLLEY BUS



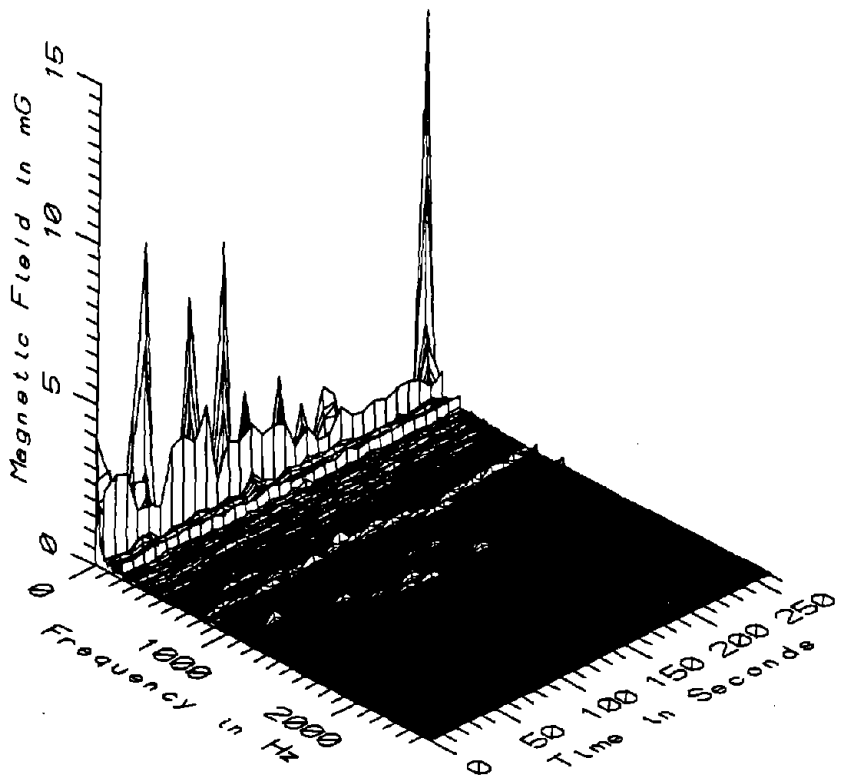
BOS043 - 160cm ABOVE FLOOR ON AXIS AT REAR OF TROLLEY BUS



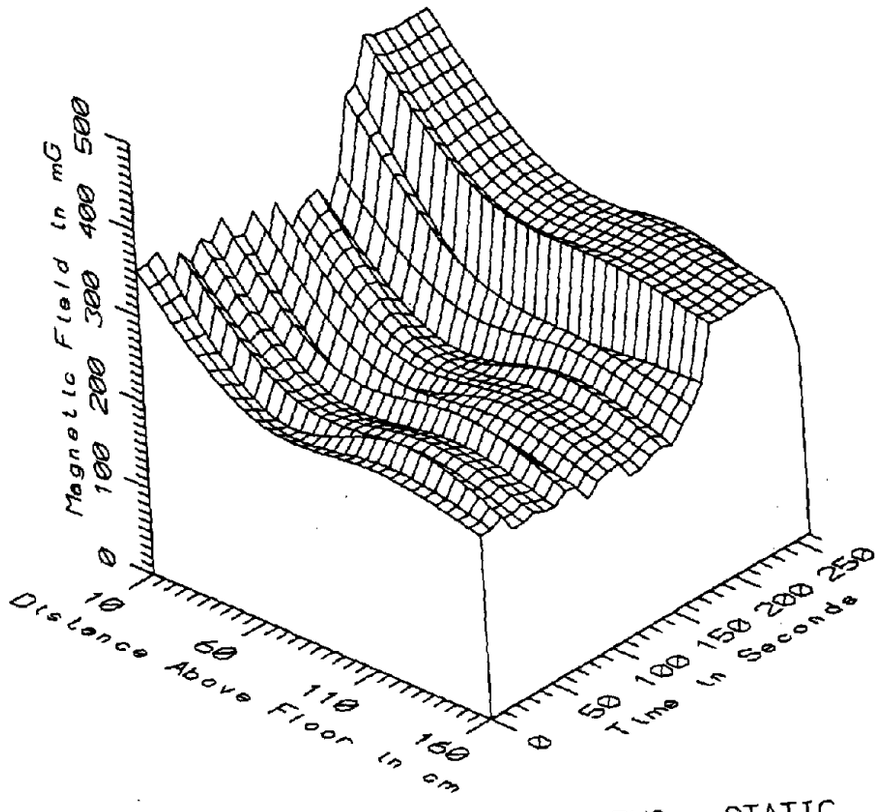
BOS043 - 160cm ABOVE FLOOR ON AXIS AT REAR OF TROLLEY BUS



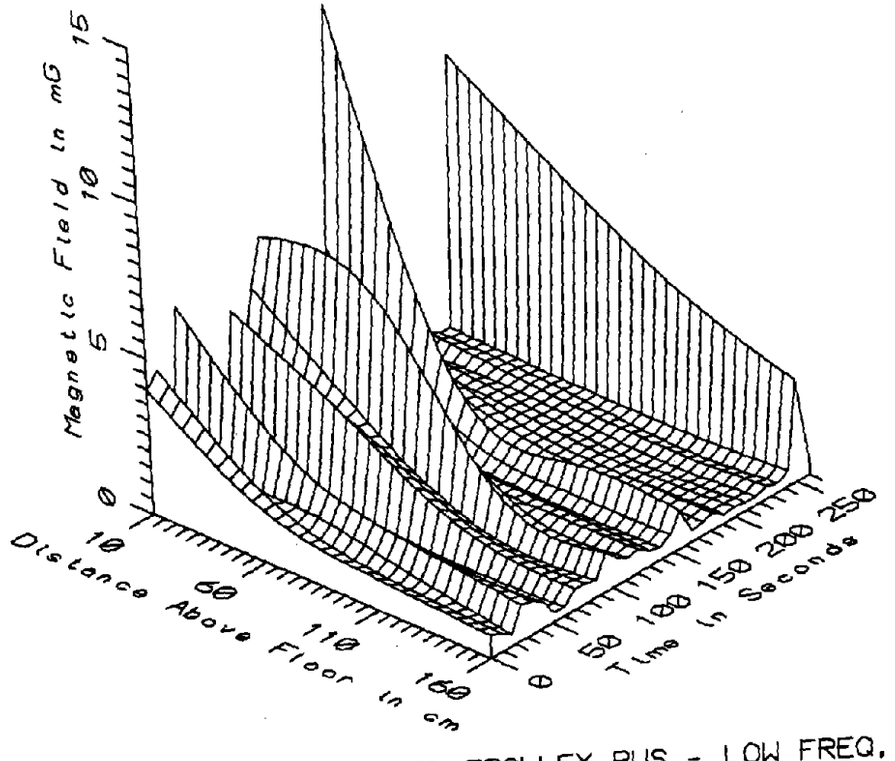
BOS043 - REFERENCE PROBE - ON RIGHT REAR WINDOW SEAT OF TROLLEY BUS



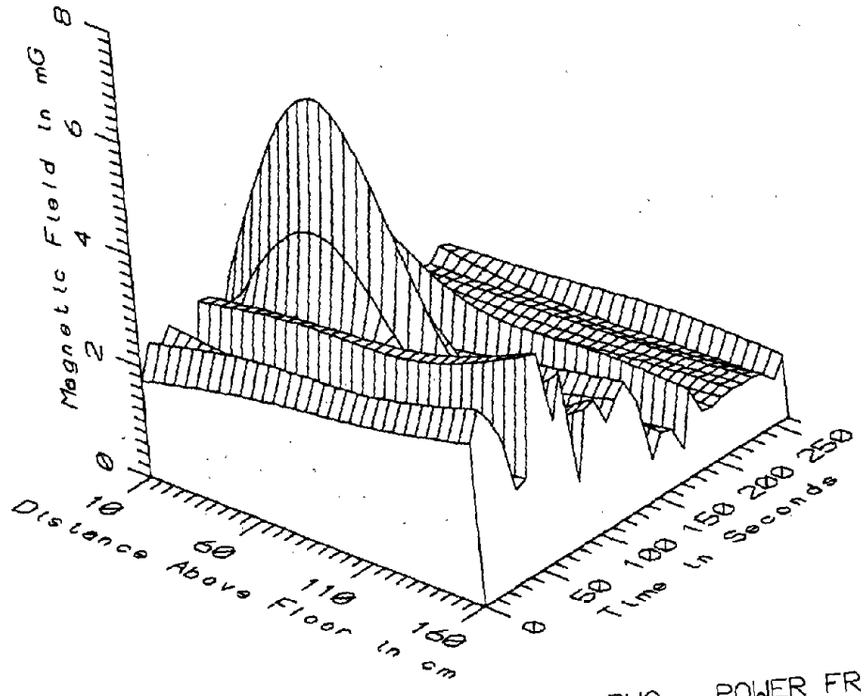
BOS043 - REFERENCE PROBE - ON RIGHT REAR WINDOW SEAT OF TROLLEY BUS



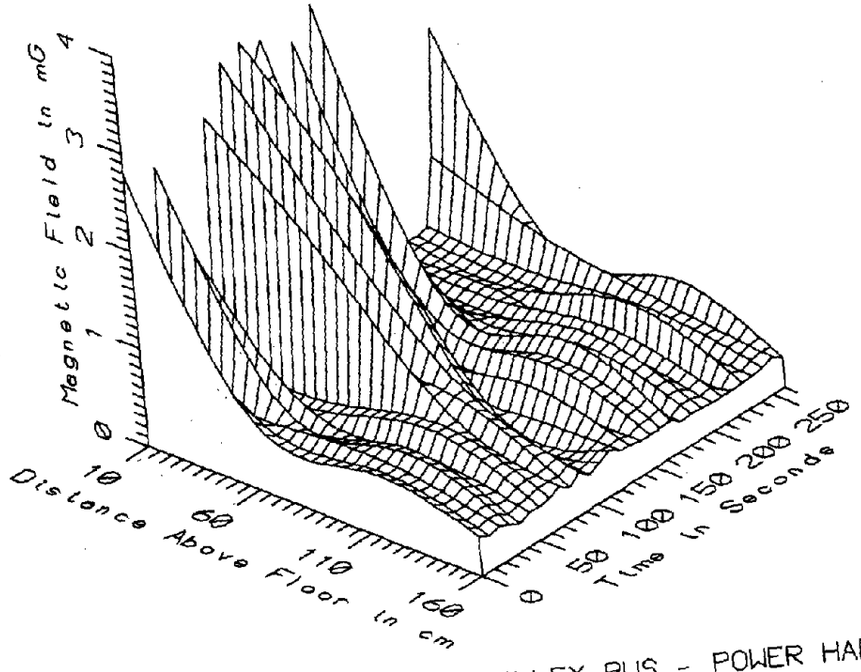
BOS043 - ON AXIS AT REAR OF TROLLEY BUS - STATIC



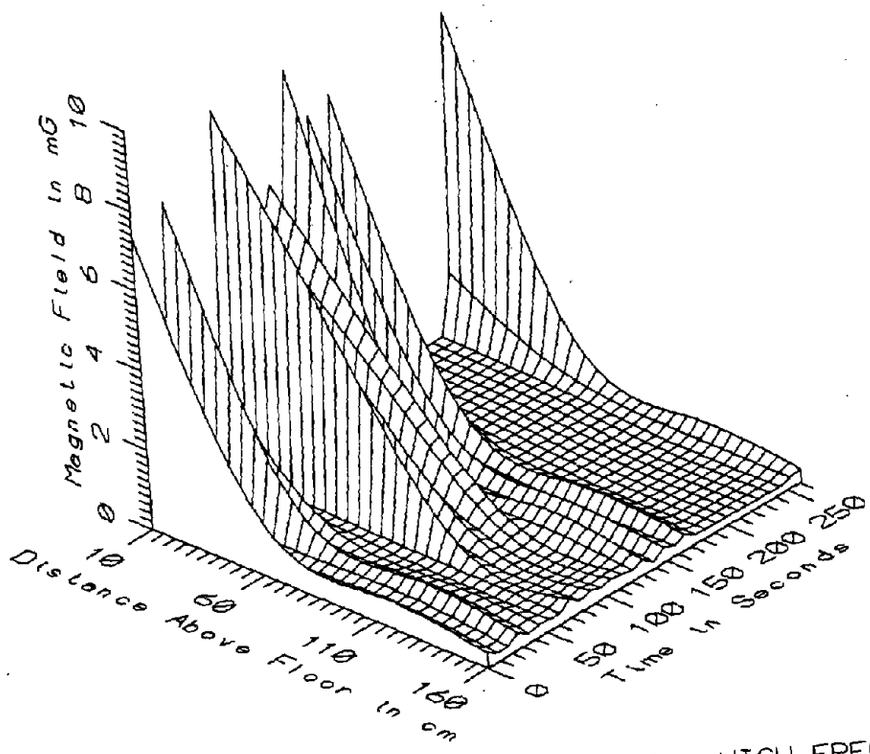
BOS043 - ON AXIS AT REAR OF TROLLEY BUS - LOW FREQ. 5-45Hz



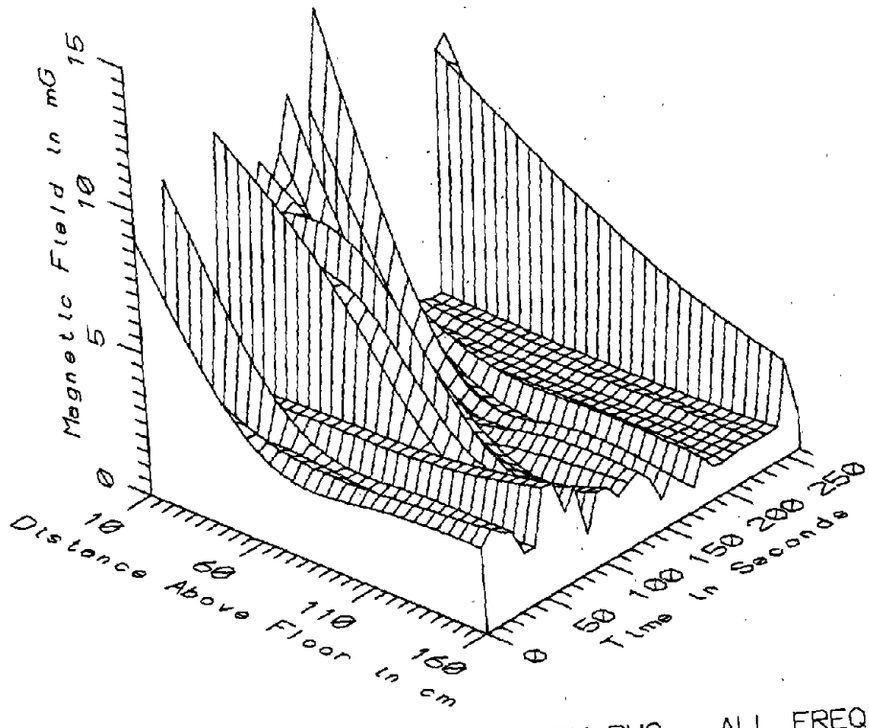
BOS043 - ON AXIS AT REAR OF TROLLEY BUS - POWER FREQ, 50-60Hz



BOS043 - ON AXIS AT REAR OF TROLLEY BUS - POWER HARM, 65-300Hz

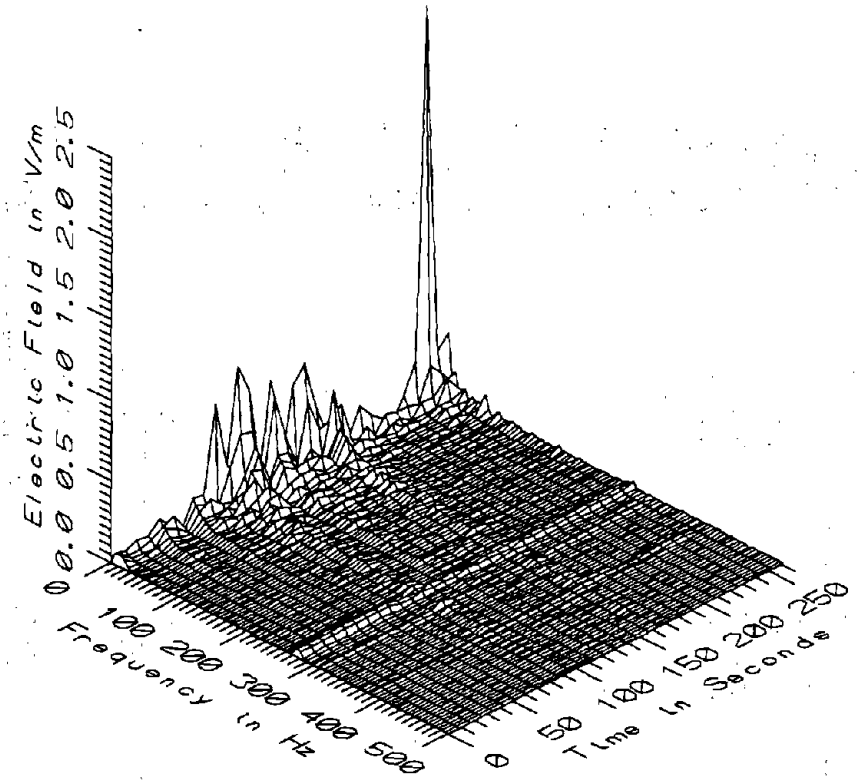


BOS043 - ON AXIS AT REAR OF TROLLEY BUS - HIGH FREQ, 305-2560Hz



BOS043 - ON AXIS AT REAR OF TROLLEY BUS - ALL FREQ, 5-2560Hz

BOS043 - ON AXIS AT REAR OF TROLLEY BUS					TOTAL OF 31 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	289.60	467.28	365.81	58.81	16.08
	60	191.70	338.98	247.53	51.31	20.73
	110	210.39	323.55	252.01	41.86	16.61
	160	182.22	304.48	227.33	44.54	19.59
5-45Hz LOW FREQ	10	0.30	12.85	3.54	2.89	81.63
	60	0.32	6.64	1.70	1.57	92.67
	110	0.10	4.54	0.77	0.82	107.09
	160	0.28	3.22	0.68	0.55	80.73
50-60Hz PWR FREQ	10	0.48	2.84	1.40	0.68	48.84
	60	0.44	6.47	1.77	1.32	74.51
	110	0.57	2.98	1.52	0.74	48.86
	160	0.57	3.82	1.83	0.96	52.54
65-300Hz PWR HARM	10	0.34	3.37	1.64	1.12	68.12
	60	0.33	2.05	0.72	0.50	68.74
	110	0.16	0.83	0.56	0.16	29.06
	160	0.28	0.45	0.35	0.04	12.79
305-2560Hz HIGH FREQ	10	0.44	9.25	3.41	3.25	95.05
	60	0.33	4.72	1.13	1.07	95.30
	110	0.19	0.73	0.39	0.17	42.41
	160	0.19	0.47	0.29	0.07	25.60
5-2560Hz ALL FREQ	10	0.96	13.24	5.88	3.83	65.14
	60	0.93	7.59	3.03	2.05	67.76
	110	0.88	4.64	1.97	0.88	44.83
	160	0.82	3.86	2.08	0.93	44.56



BOS043 - ELECTRIC FIELD 170cm ABOVE FLOOR AT REAR OF TROLLEY BUS

APPENDIX AS

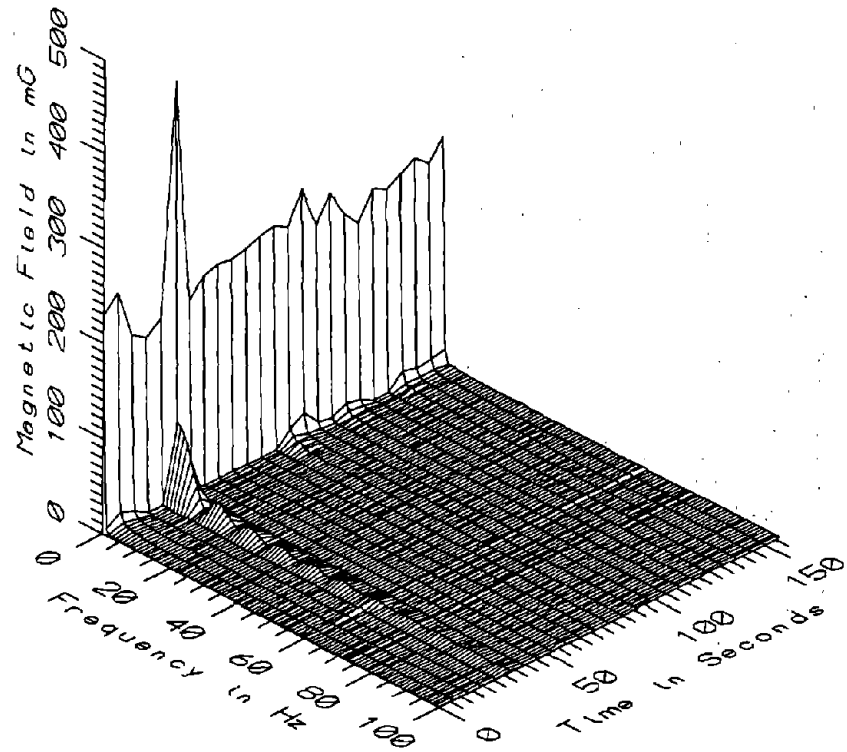
DATASET BOS044
ON CENTERLINE AT REAR DOORS OF TROLLEY BUS

Measurement Setup Code:	Staff: 20 Reference: 19 Drawing: A-2
Vehicle Status:	Travelling on a trolley bus
Measurement Date:	June 11, 1992
Measurement Time:	Start: 11:29:09 End: 11:31:46
Number of Samples:	25
Programmed Sample Interval:	5 sec
Actual Sample Interval:	6.5 sec

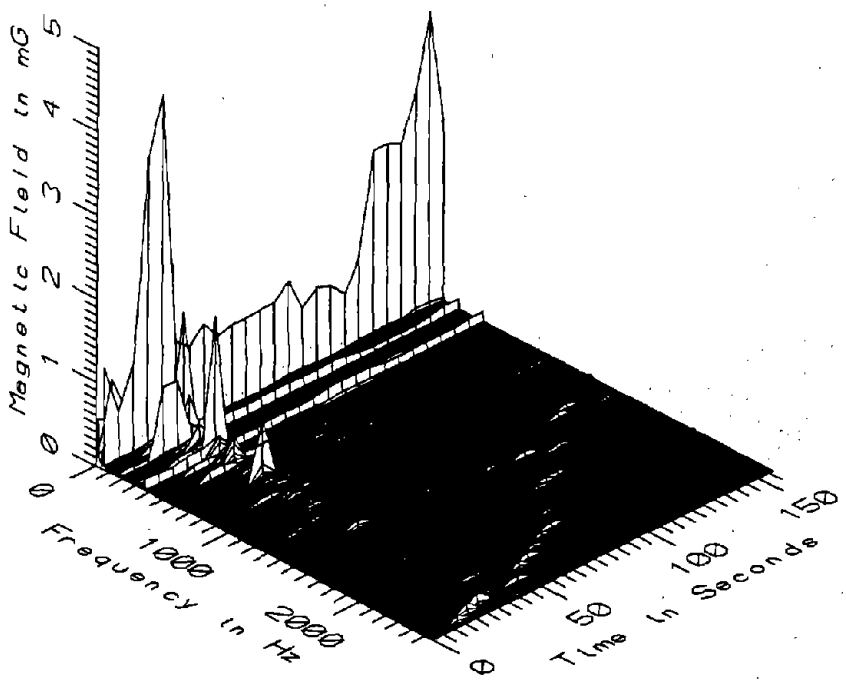
Frequency Spectrum Parameters

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

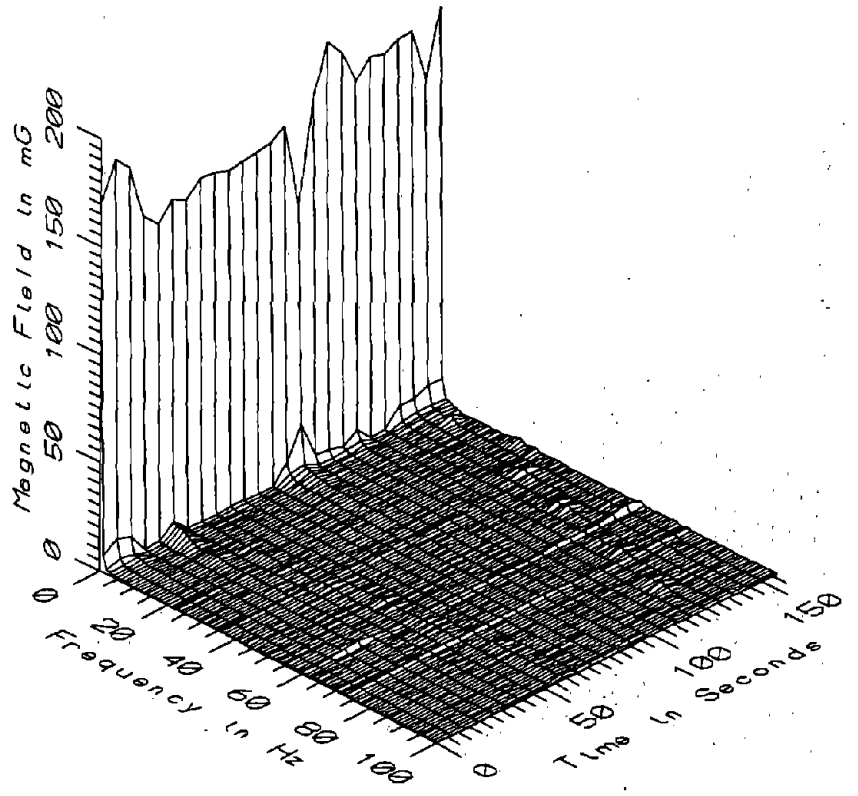
Missing Data: None



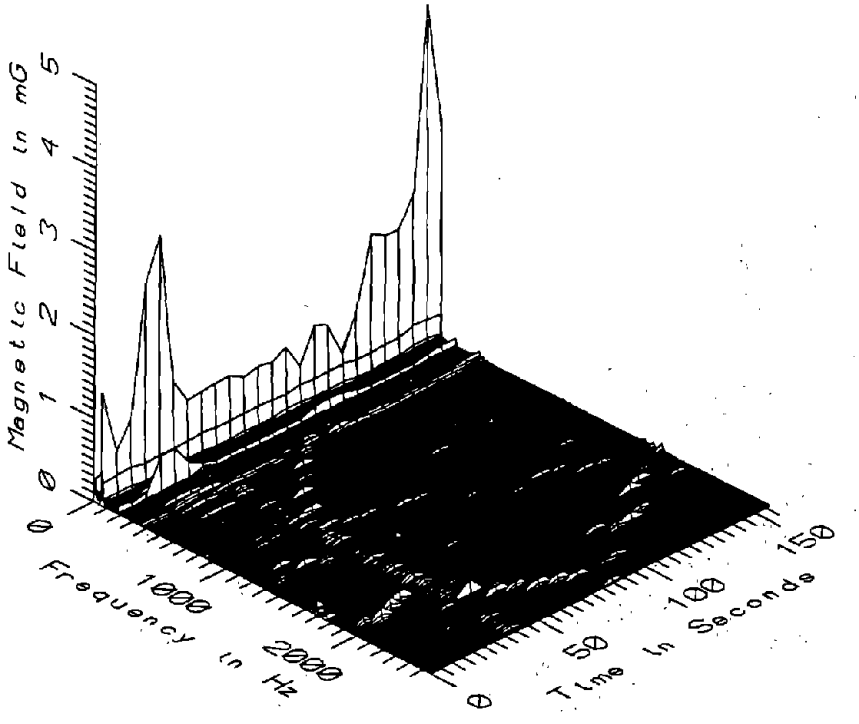
BOS044 - 10cm ABOVE FLOOR ON AXIS AT REAR DOORS OF TROLLEY BUS



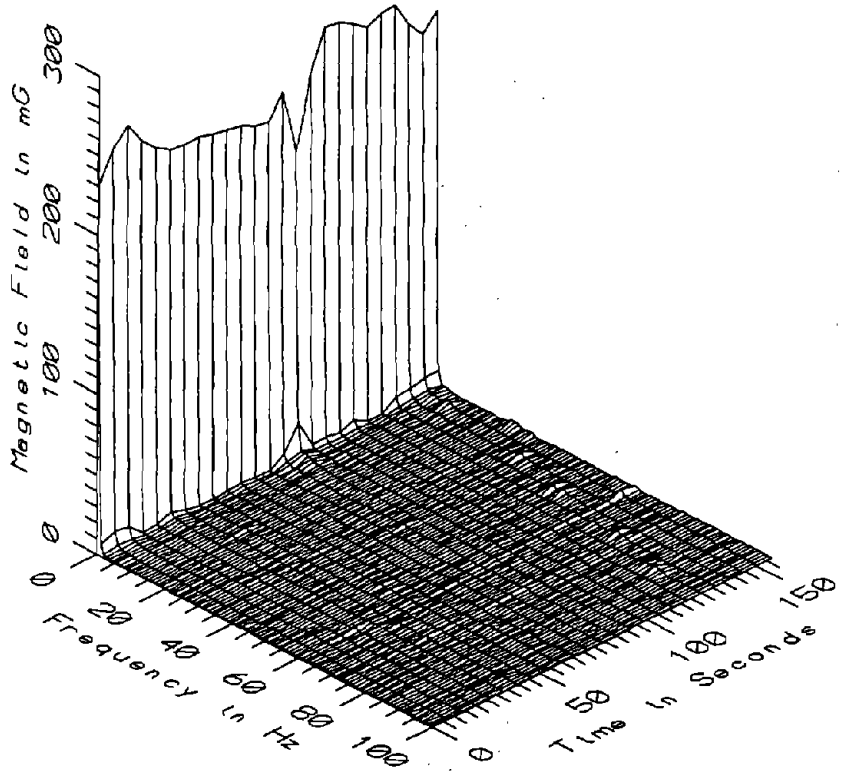
BOS044 - 10cm ABOVE FLOOR ON AXIS AT REAR DOORS OF TROLLEY BUS



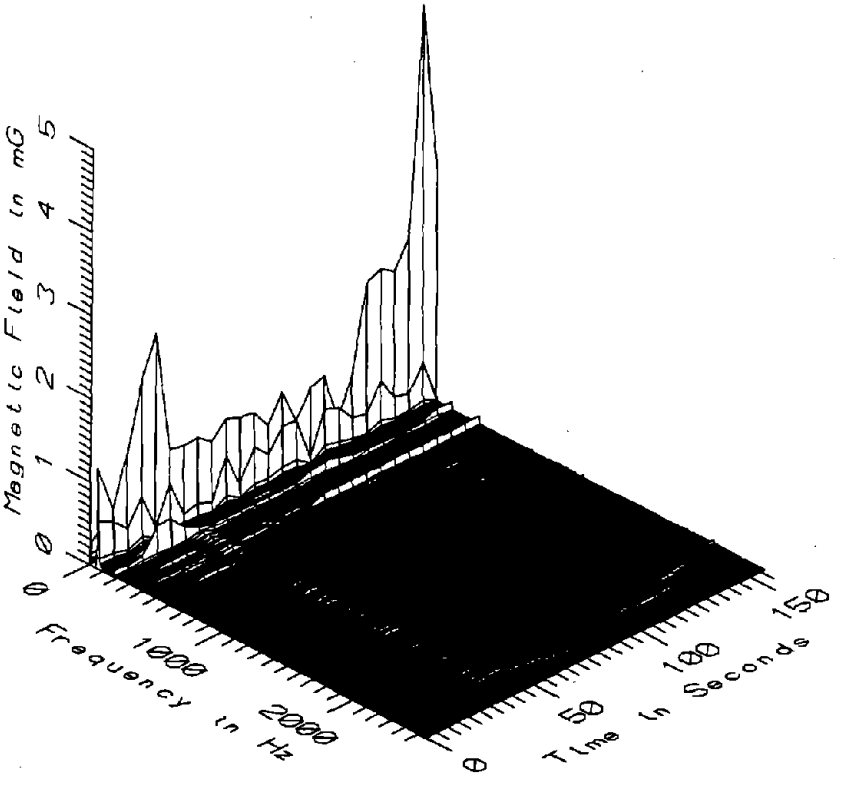
BOS044 - 60cm ABOVE FLOOR ON AXIS AT REAR DOORS OF TROLLEY BUS



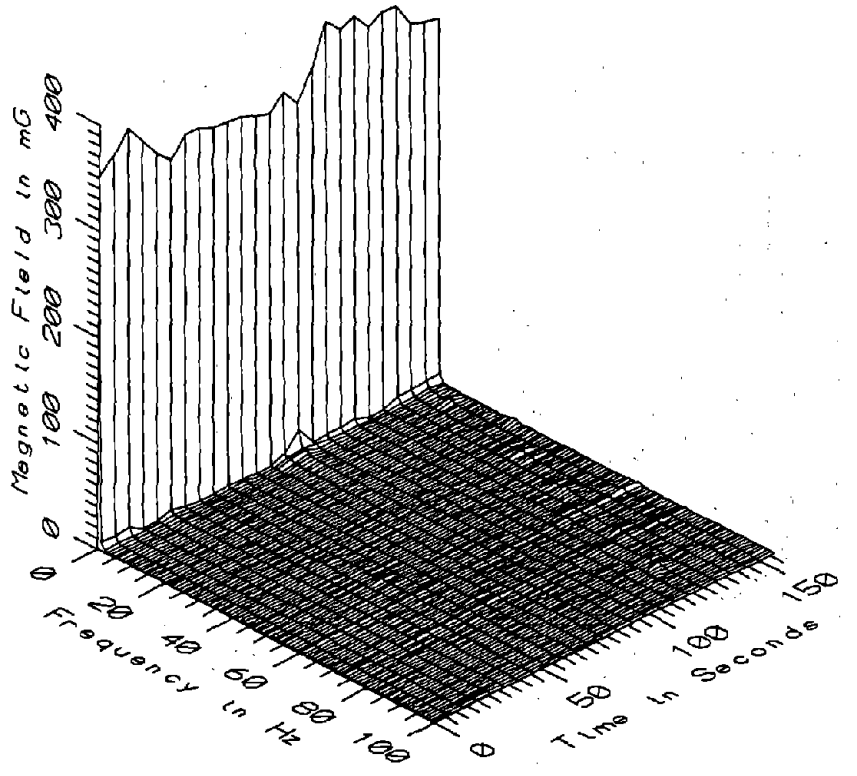
BOS044 - 60cm ABOVE FLOOR ON AXIS AT REAR DOORS OF TROLLEY BUS



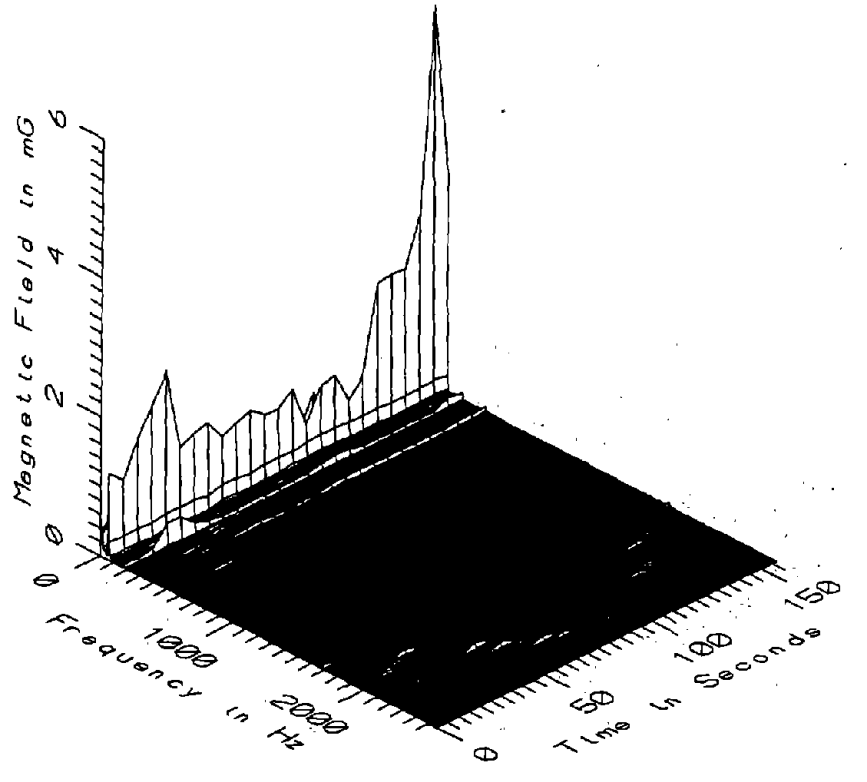
BOS044 - 110cm ABOVE FLOOR ON AXIS AT REAR DOORS OF TROLLEY BUS



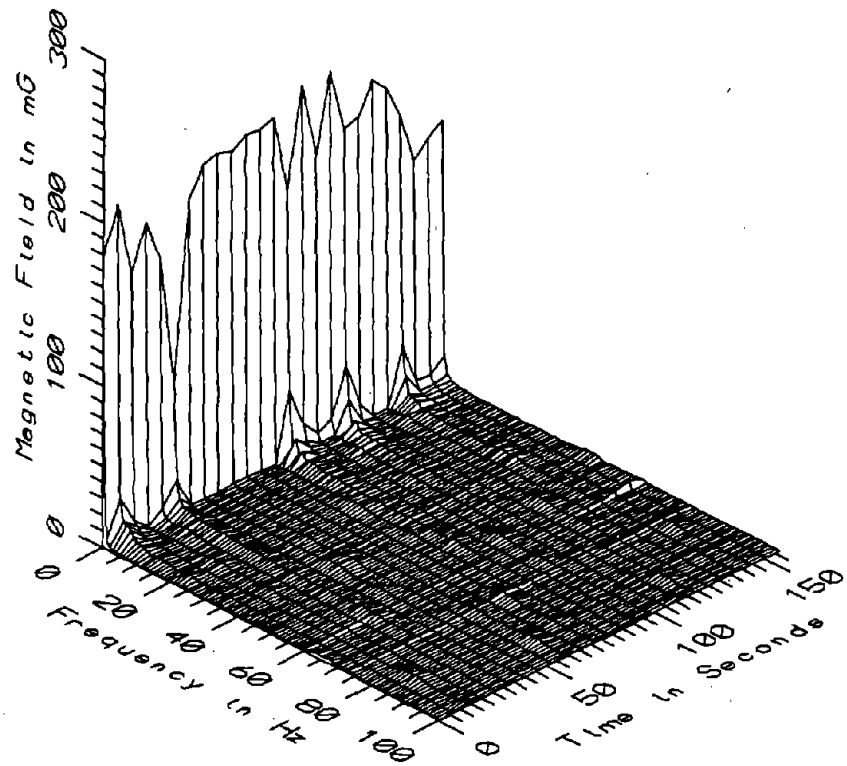
BOS044 - 110cm ABOVE FLOOR ON AXIS AT REAR DOORS OF TROLLEY BUS



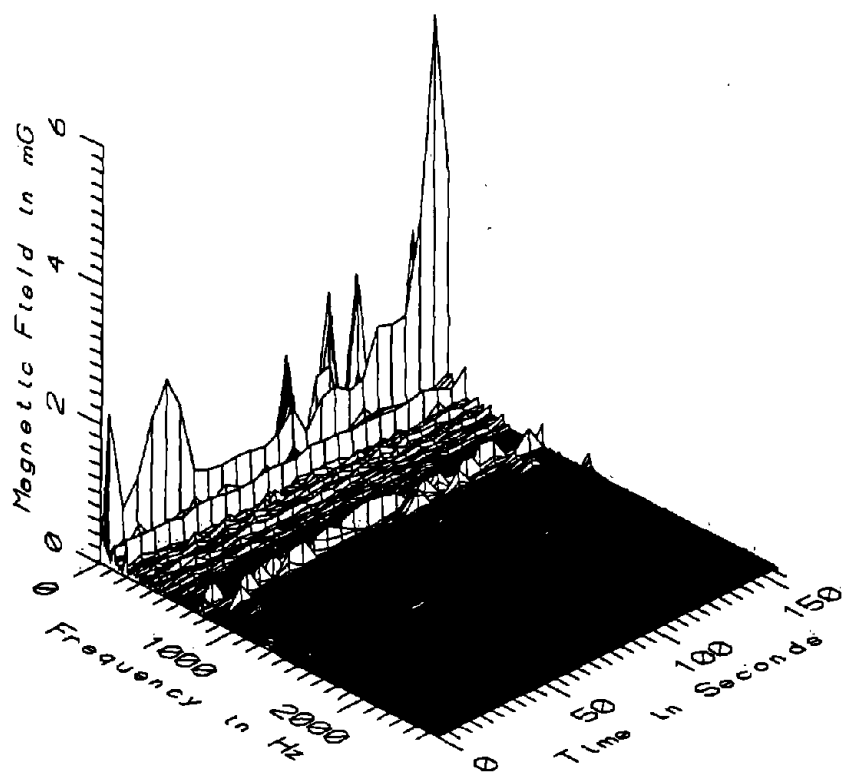
BOS044 - 160cm ABOVE FLOOR ON AXIS AT REAR DOORS OF TROLLEY BUS



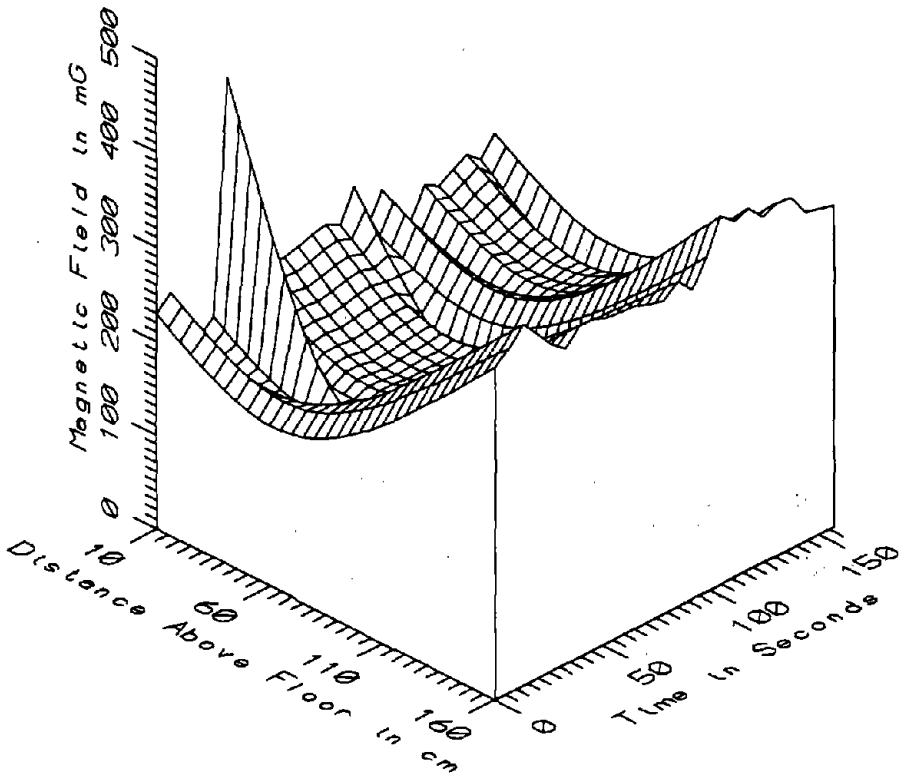
BOS044 - 160cm ABOVE FLOOR ON AXIS AT REAR DOORS OF TROLLEY BUS



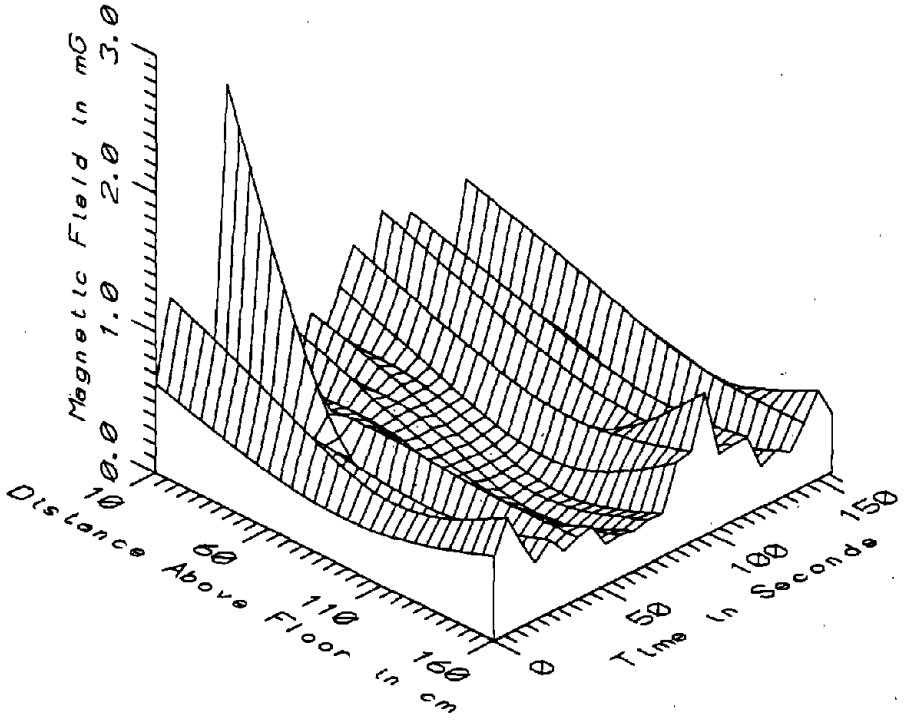
BOS044 - REFERENCE PROBE - ON RIGHT REAR WINDOW SEAT OF TROLLEY BUS



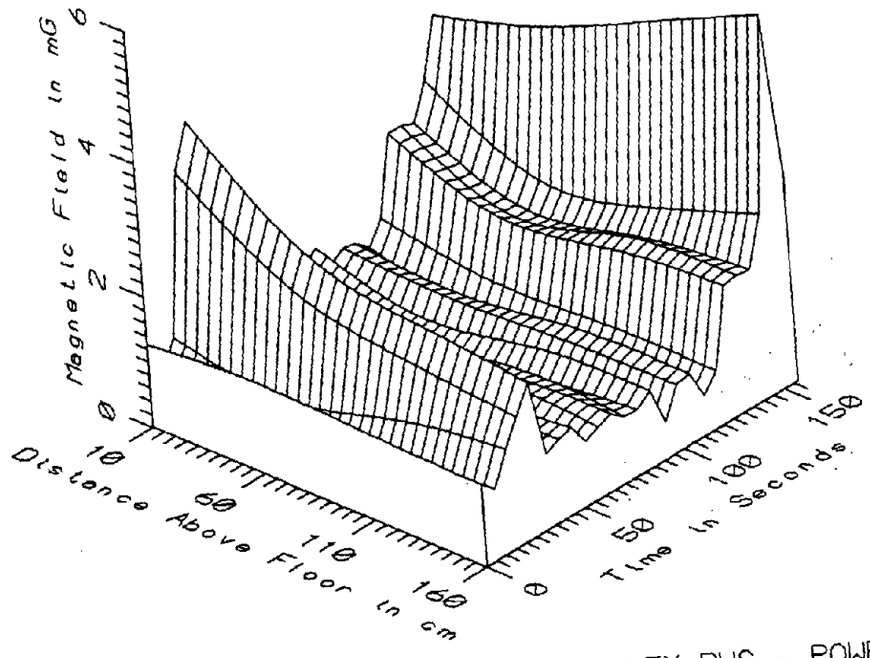
BOS044 - REFERENCE PROBE - ON RIGHT REAR WINDOW SEAT OF TROLLEY BUS



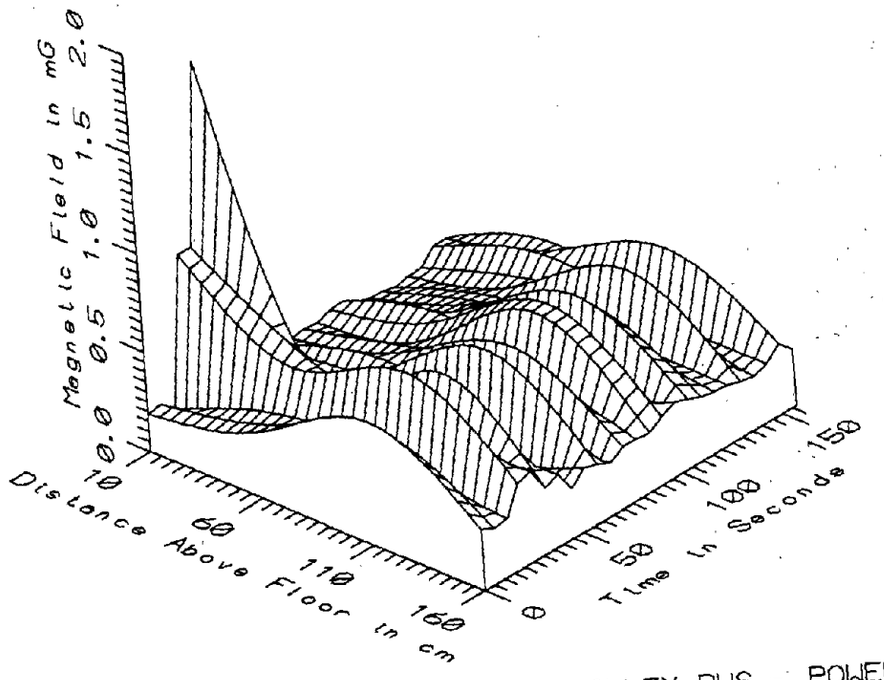
BOS044 - ON AXIS AT REAR DOORS OF TROLLEY BUS - STATIC



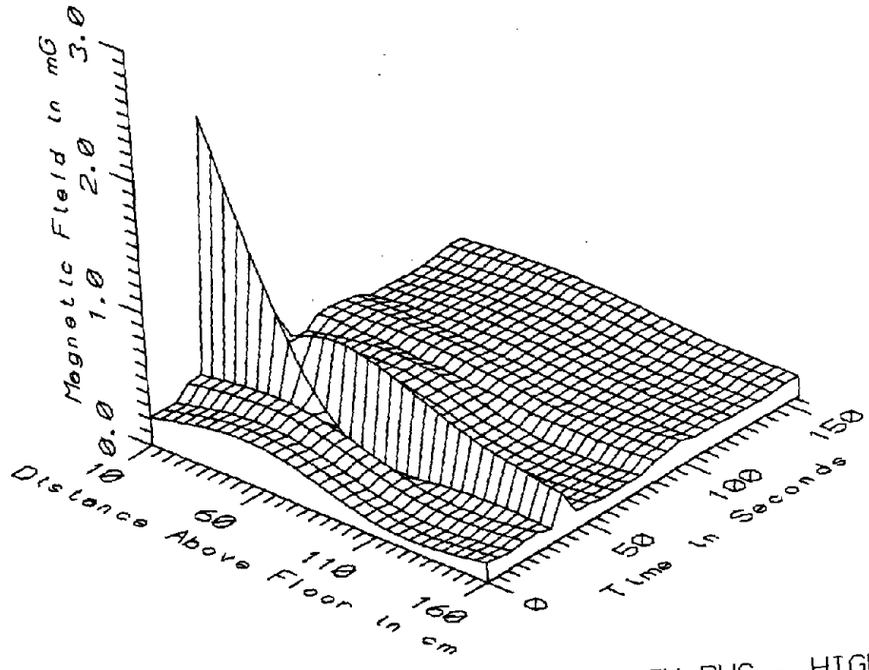
BOS044 - ON AXIS AT REAR DOORS OF TROLLEY BUS - LOW FREQ, 5-45Hz



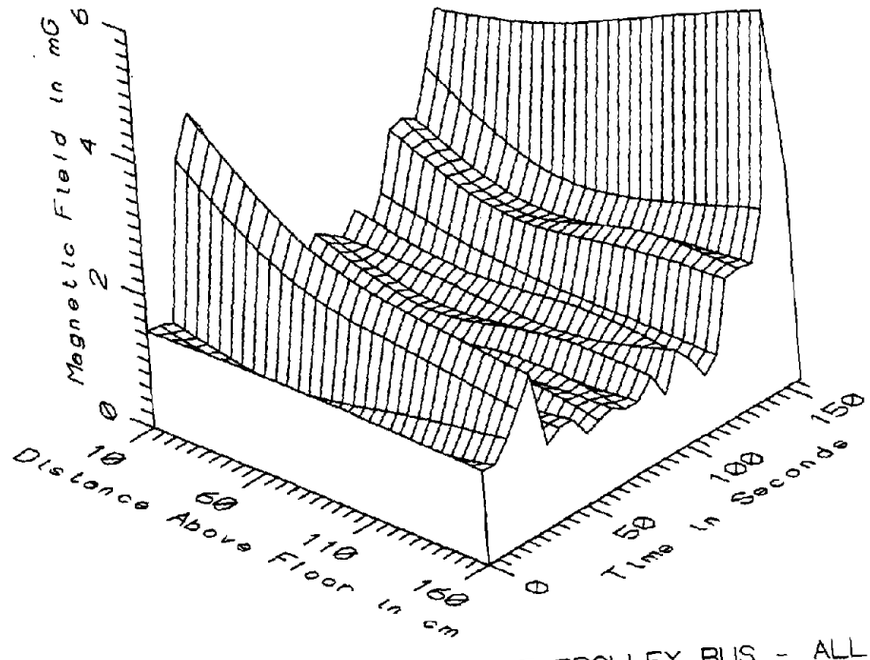
BOS044 - ON AXIS AT REAR DOORS OF TROLLEY BUS - POWER FREQ, 50-60Hz



BOS044 - ON AXIS AT REAR DOORS OF TROLLEY BUS - POWER HARM, 65-300Hz

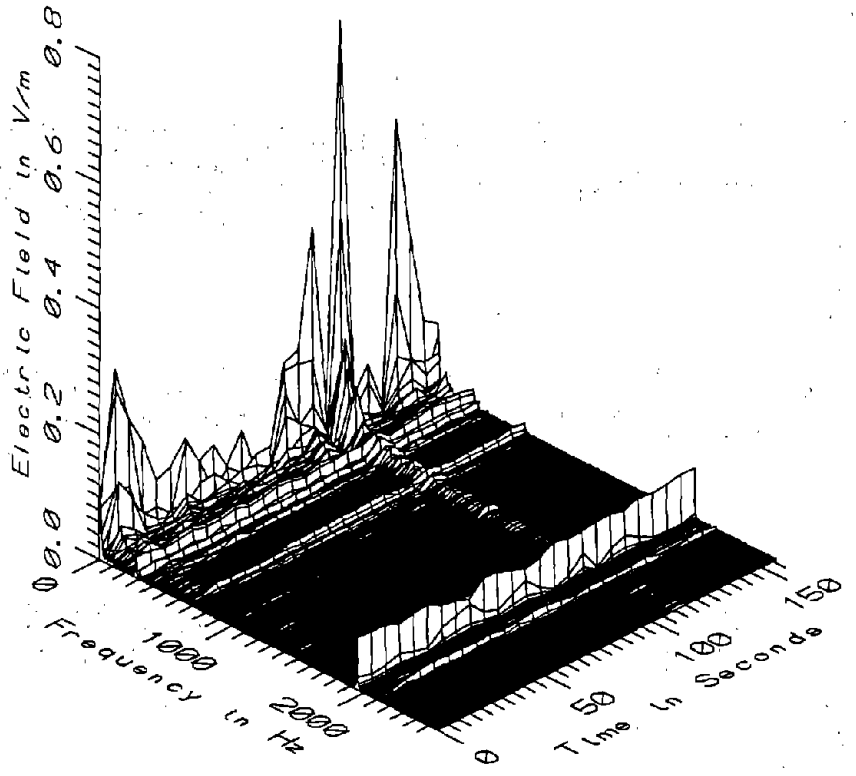


BOS044 - ON AXIS AT REAR DOORS OF TROLLEY BUS - HIGH FREQ, 305-2560Hz



BOS044 - ON AXIS AT REAR DOORS OF TROLLEY BUS - ALL FREQ, 5-2560Hz

BOS044 - ON AXIS AT REAR DOORS OF TROLLEY BUS					TOTAL OF 25 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	182.98	441.13	228.95	47.63	20.81
	60	124.19	192.82	165.74	15.27	9.21
	110	191.23	260.14	236.53	15.81	6.68
	160	328.88	391.92	355.38	17.56	4.94
5-45Hz LOW FREQ	10	0.16	2.54	0.67	0.47	70.22
	60	0.32	0.82	0.45	0.15	33.11
	110	0.07	0.54	0.27	0.16	57.95
	160	0.29	1.03	0.49	0.18	37.51
50-60Hz PWR FREQ	10	0.70	4.18	1.61	0.97	60.65
	60	0.41	4.09	1.29	0.89	68.61
	110	0.54	4.87	1.47	0.92	62.66
	160	0.55	5.67	1.59	1.07	67.50
65-300Hz PWR HARM	10	0.09	1.77	0.27	0.37	136.76
	60	0.26	0.55	0.34	0.07	21.31
	110	0.13	0.75	0.45	0.19	42.12
	160	0.25	0.45	0.31	0.05	15.26
305-2560Hz HIGH FREQ	10	0.13	2.21	0.27	0.41	149.00
	60	0.20	0.78	0.28	0.12	41.77
	110	0.07	0.52	0.14	0.09	63.23
	160	0.10	0.32	0.15	0.04	29.05
5-2560Hz ALL FREQ	10	0.98	4.29	1.90	1.02	53.58
	60	0.69	4.13	1.49	0.82	54.94
	110	0.84	4.92	1.62	0.87	53.99
	160	0.88	5.72	1.74	1.02	58.62



BOS044 - ELECTRIC FIELD 170cm ABOVE FLOOR AT REAR OF TROLLEY BUS

APPENDIX AT

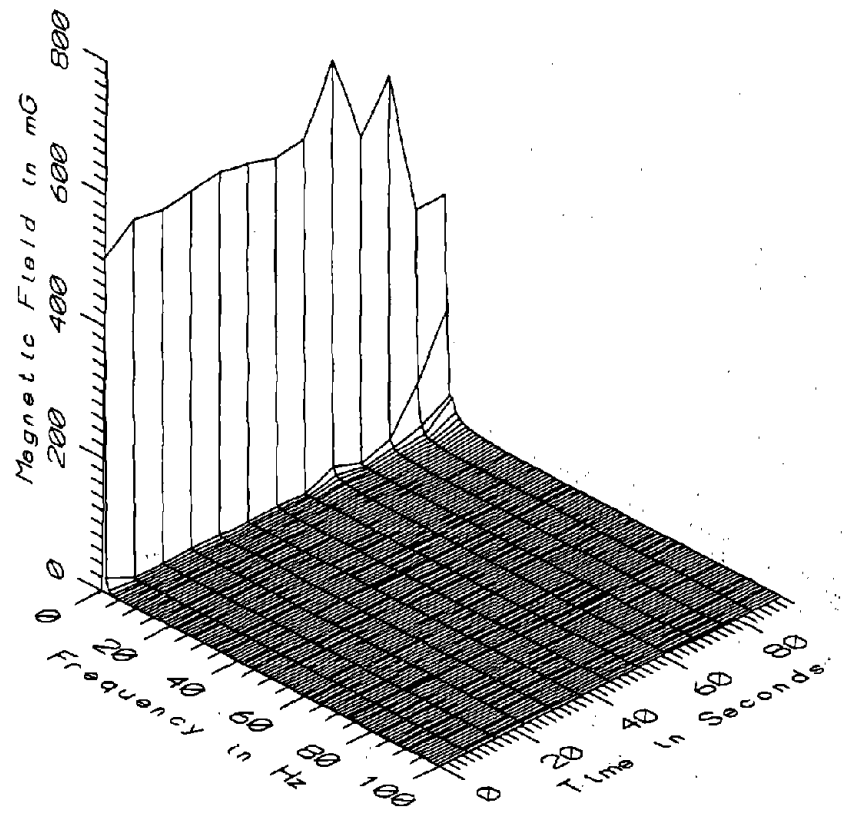
DATASET BOS045
AT REAR OF TROLLEY BUS, 1 m (3.3 ft) ABOVE FLOOR

Measurement Setup Code:	Staff: 21 Reference: 19 Drawing: A-2
Vehicle Status:	Travelling on a trolley bus
Measurement Date:	June 11, 1992
Measurement Time:	Start: 11:32:33 End: 11:34:05
Number of Samples:	13
Programmed Sample Interval:	5 sec
Actual Sample Interval:	7.7 sec

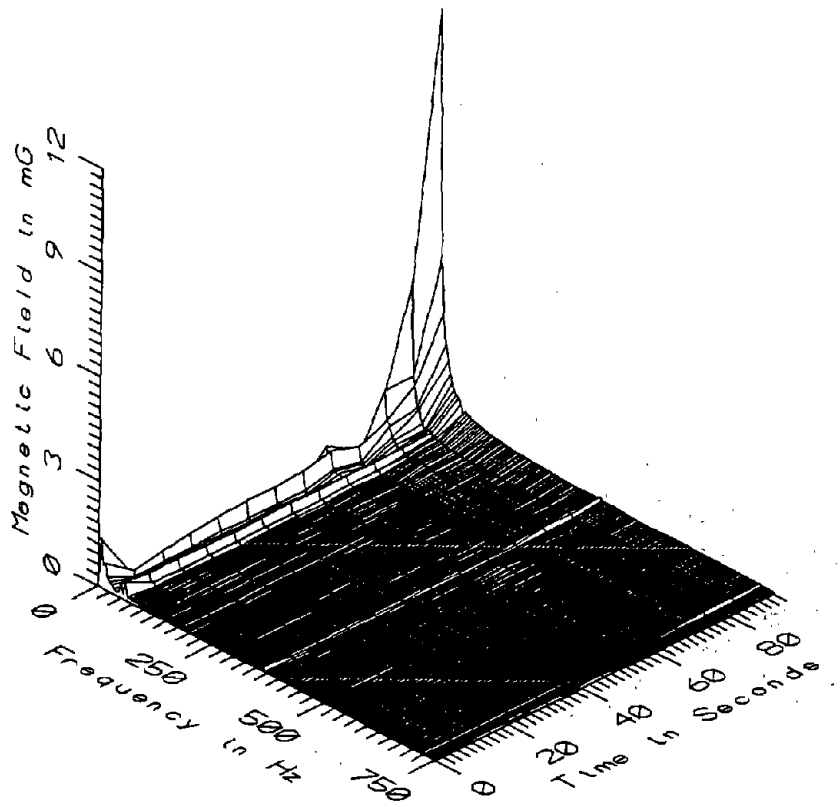
Frequency Spectrum Parameters

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

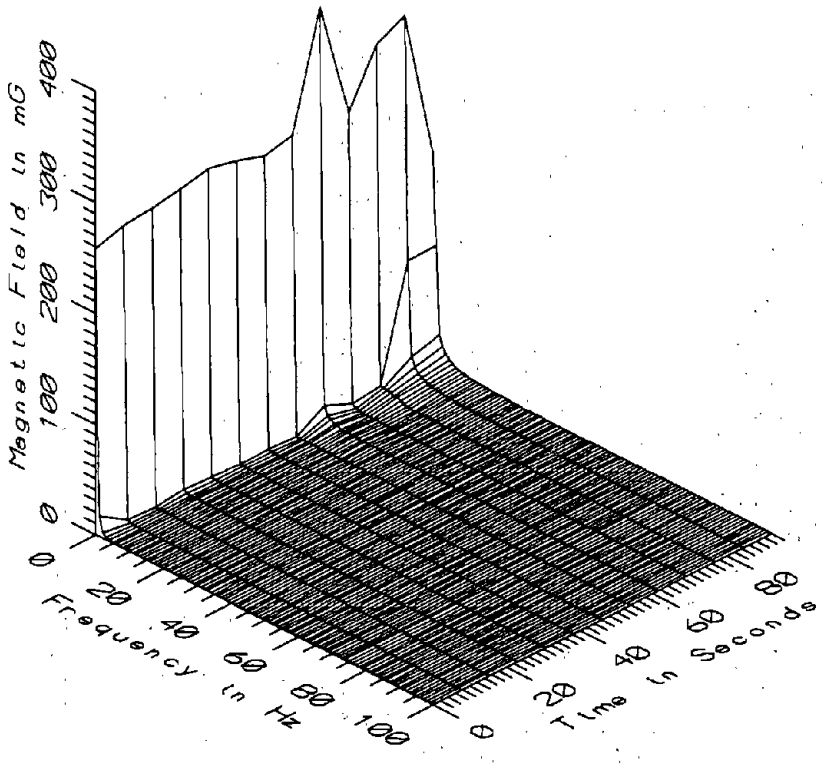
Missing Data: None



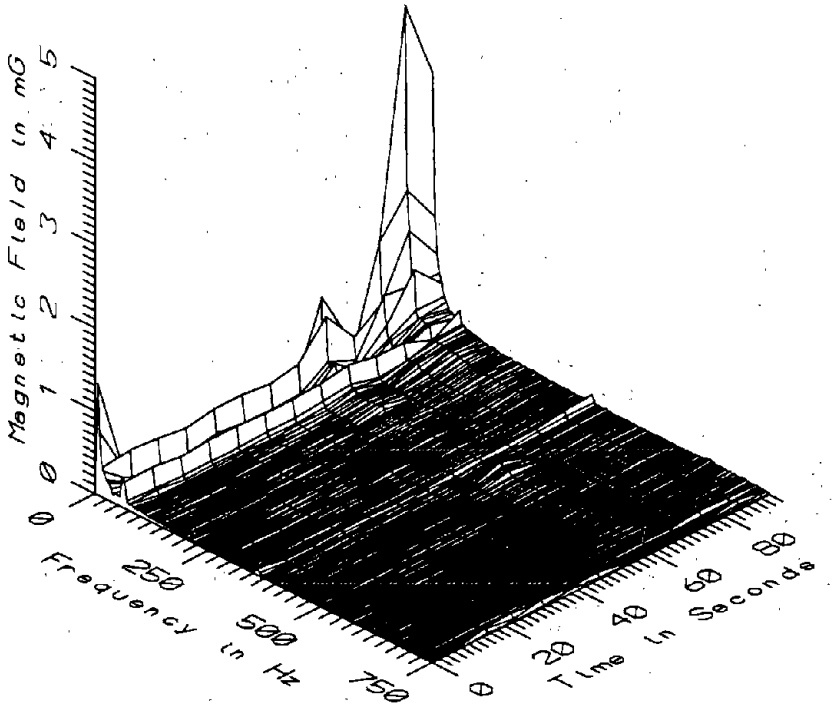
BOS045 - 10cm FROM LEFT WINDOW AT REAR OF TROLLEY BUS, 1M ABOVE FLOOR



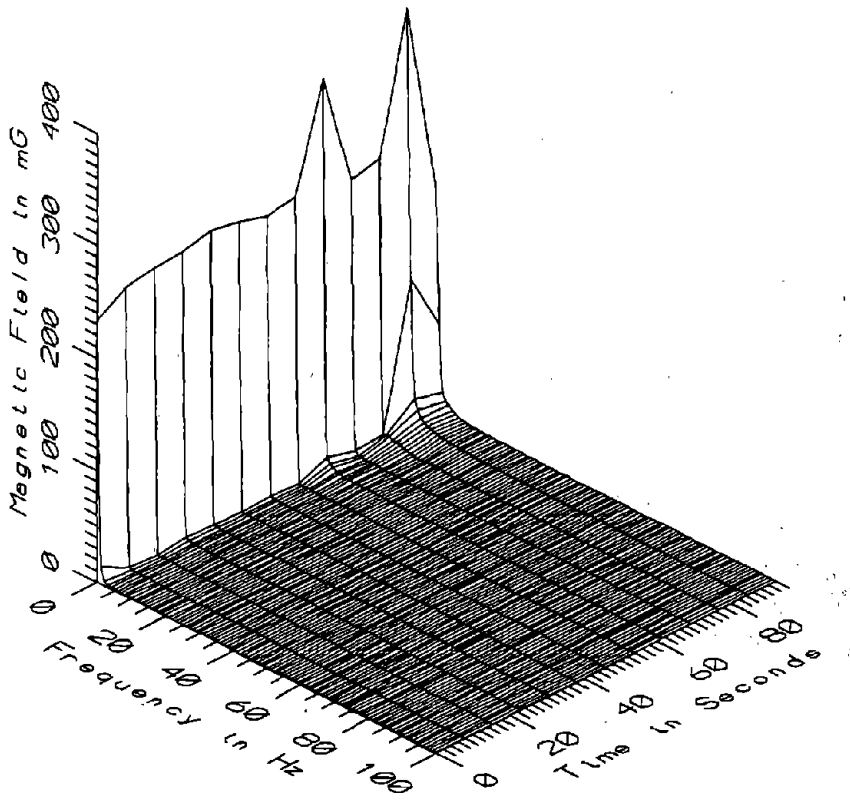
BOS045 - 10cm FROM LEFT WINDOW AT REAR OF TROLLEY BUS, 1M ABOVE FLOOR



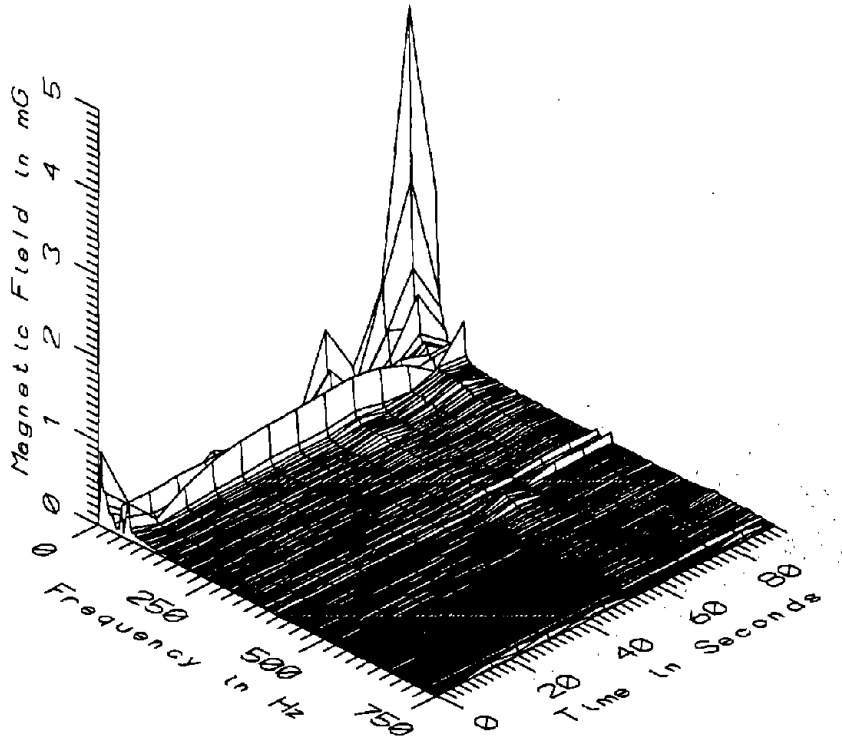
BOS045 - 60cm FROM LEFT WINDOW AT REAR OF TROLLEY BUS, 1M ABOVE FLOOR



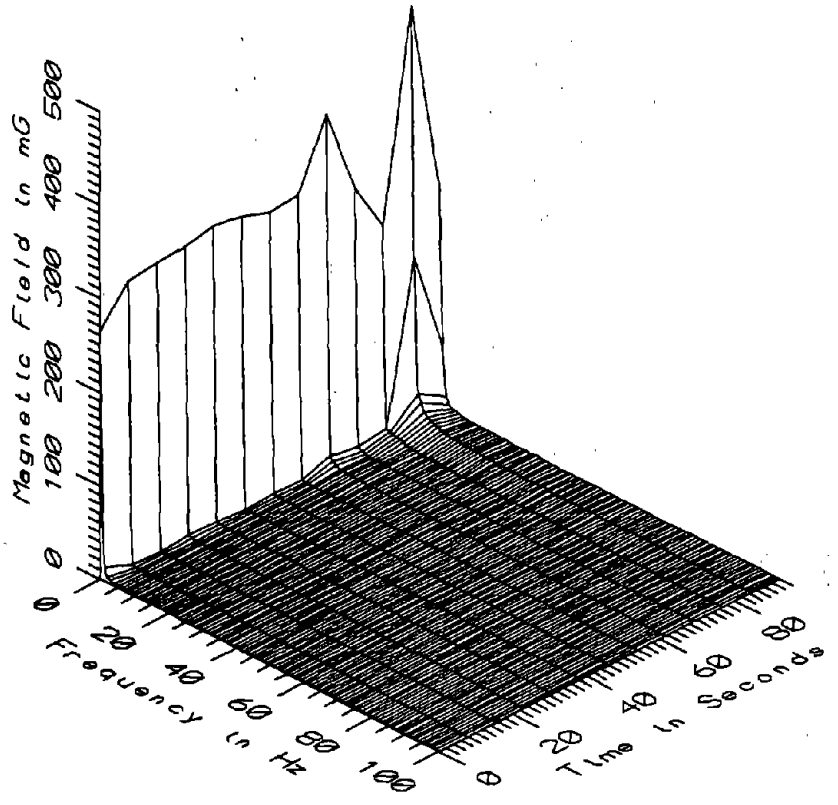
BOS045 - 60cm FROM LEFT WINDOW AT REAR OF TROLLEY BUS, 1M ABOVE FLOOR



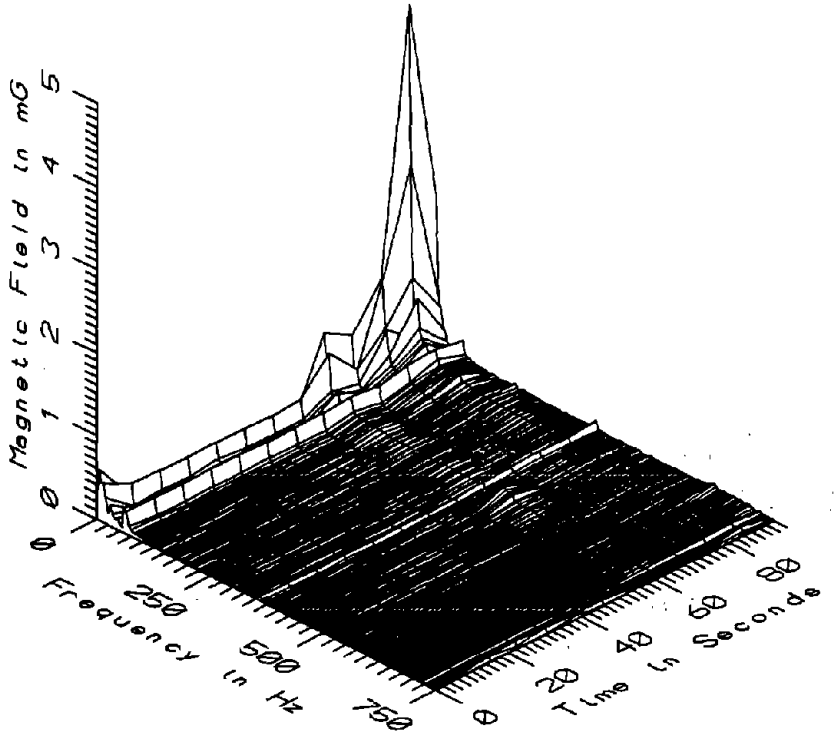
BOS045 - 110cm FROM LEFT WINDOW AT REAR OF TROLLEY BUS, 1M ABOVE FLOOR



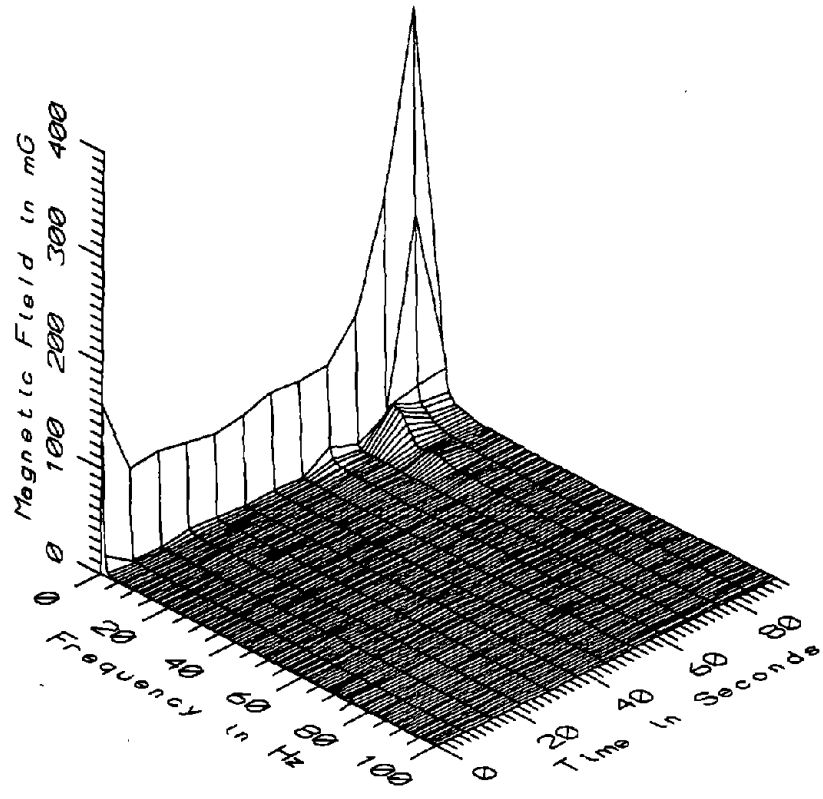
BOS045 - 110cm FROM LEFT WINDOW AT REAR OF TROLLEY BUS, 1M ABOVE FLOOR



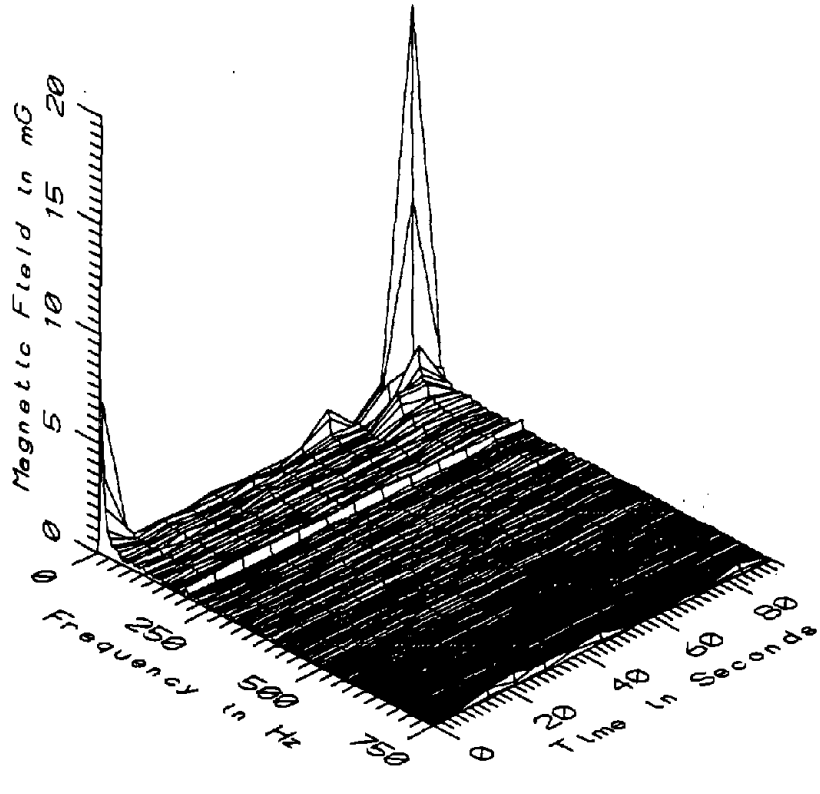
BOS045 - 160cm FROM LEFT WINDOW AT REAR OF TROLLEY BUS, 1M ABOVE FLOOR



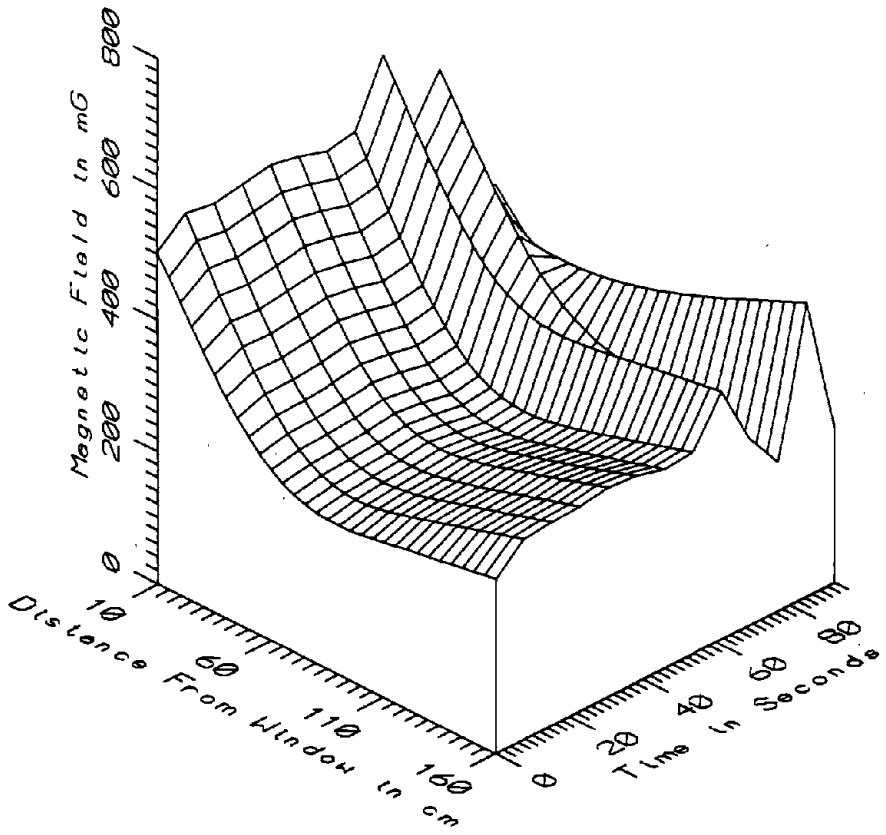
BOS045 - 160cm FROM LEFT WINDOW AT REAR OF TROLLEY BUS, 1M ABOVE FLOOR



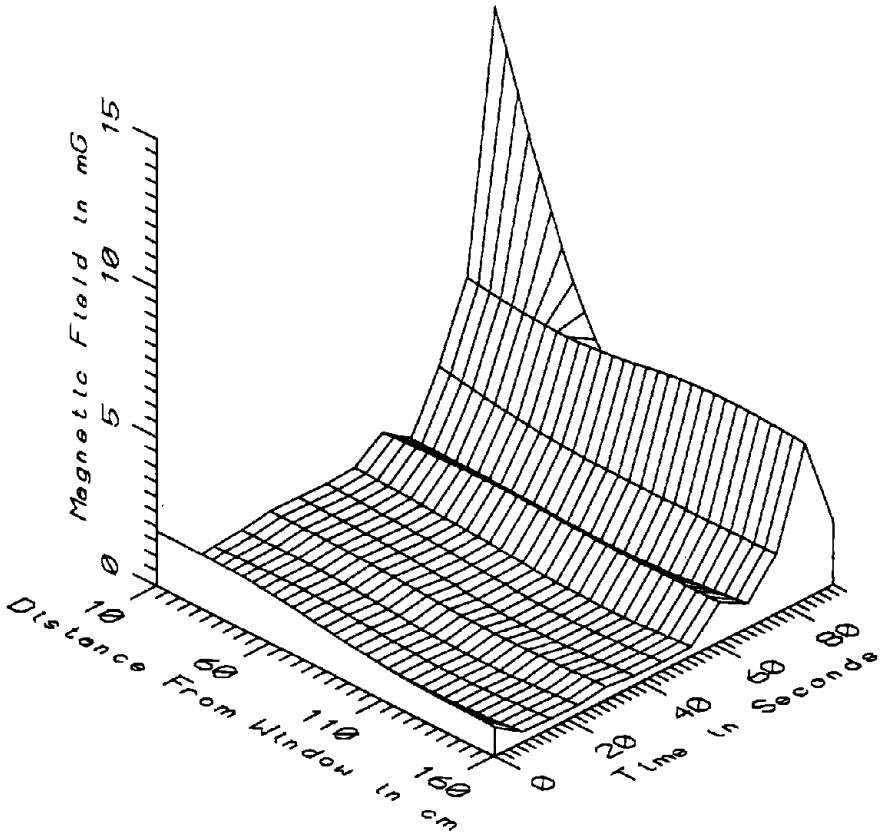
BOS045 - REFERENCE PROBE - ON RIGHT REAR WINDOW SEAT OF TROLLEY BUS



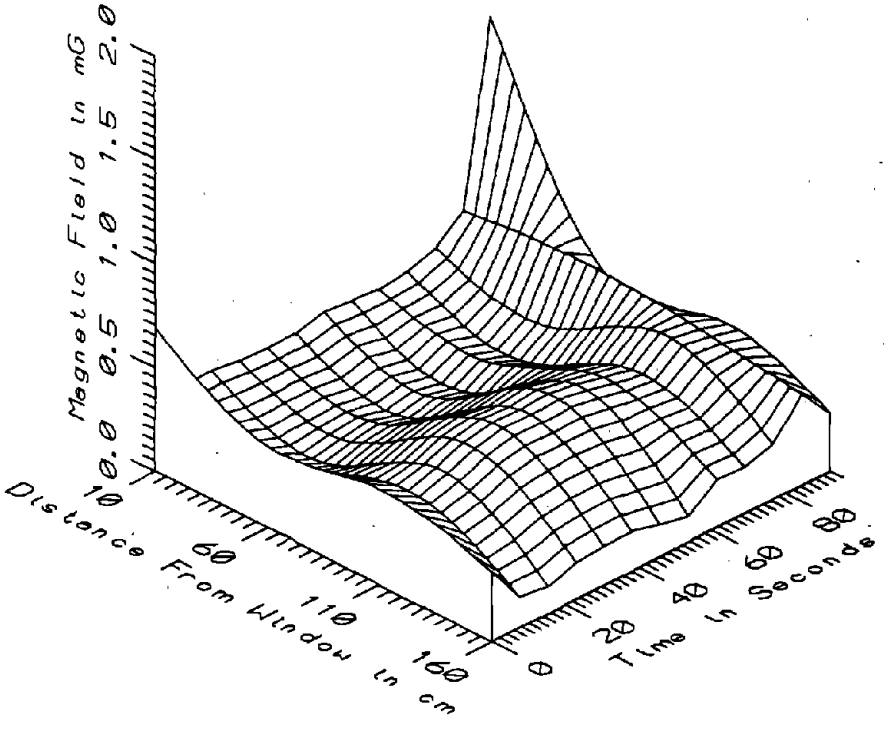
BOS045 - REFERENCE PROBE - ON RIGHT REAR WINDOW SEAT OF TROLLEY BUS



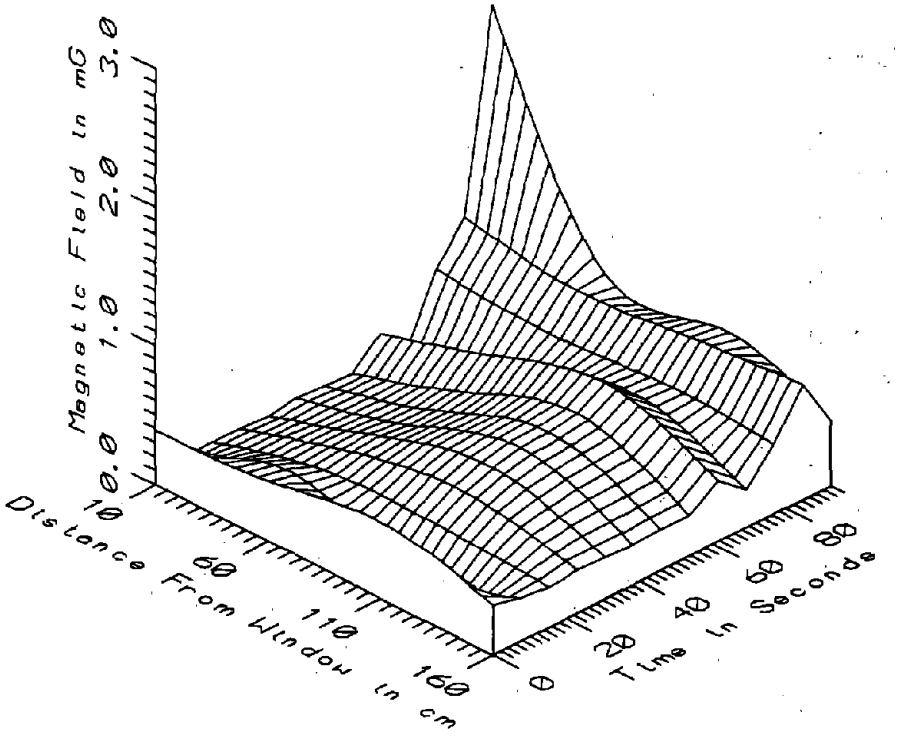
BOS045 - AT REAR OF TROLLEY BUS, 1M ABOVE FLOOR - STATIC



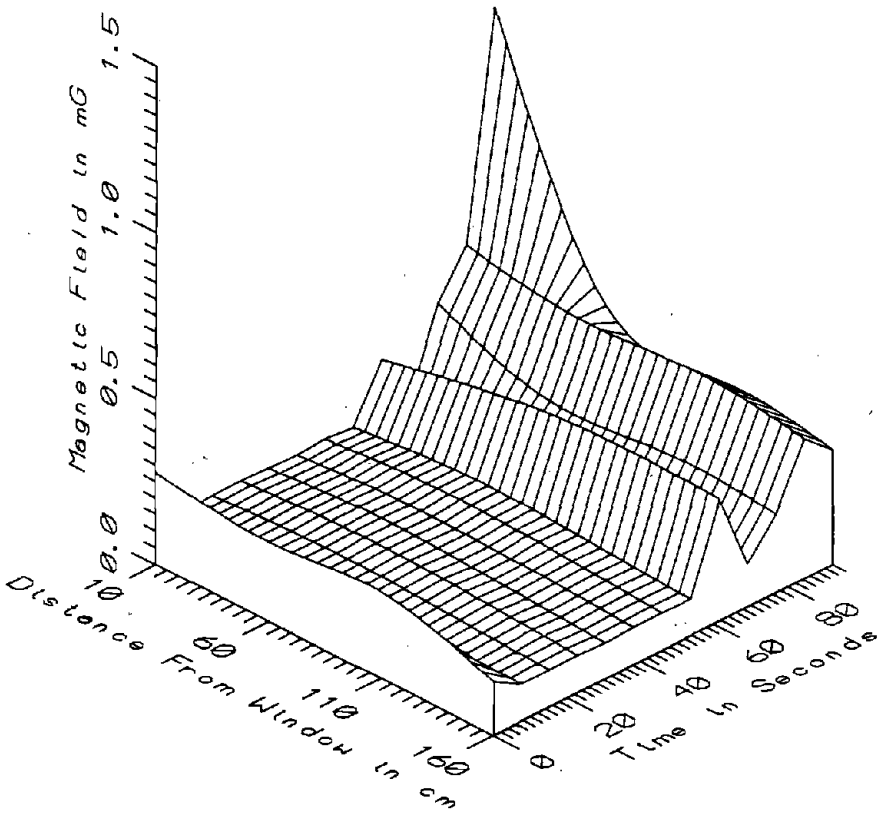
BOS045 - AT REAR OF TROLLEY BUS, 1M ABOVE FLOOR - LOW FREQ, 5-45Hz



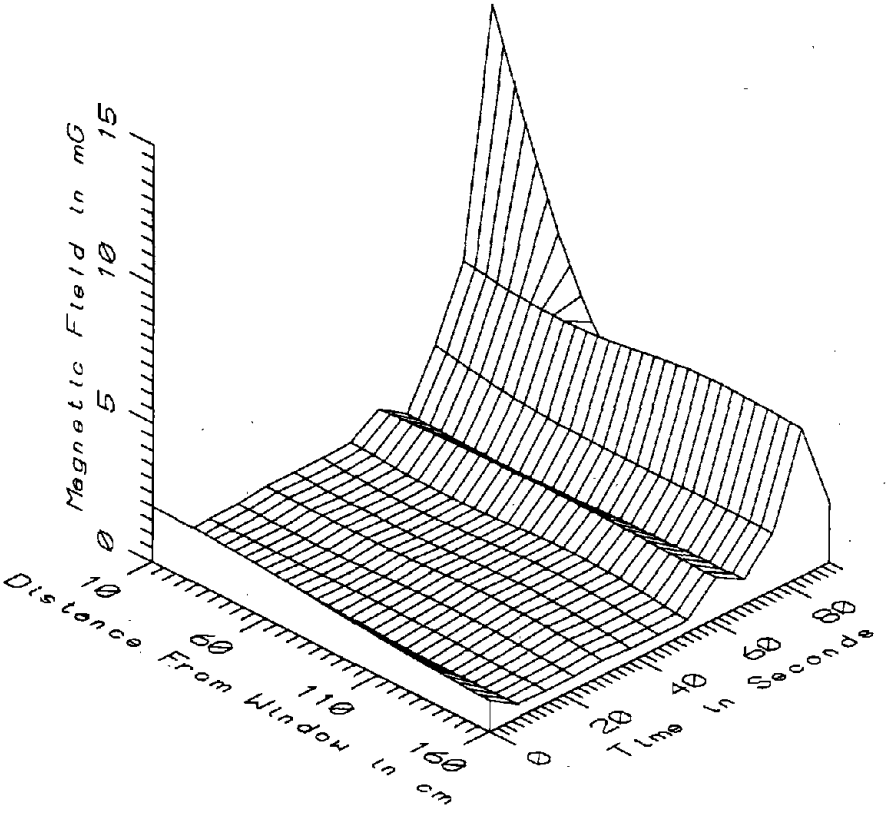
BOS045 - AT REAR OF TROLLEY BUS, 1M ABOVE FLOOR - POWER FREQ, 50-60Hz



BOS045 - AT REAR OF TROLLEY BUS, 1M ABOVE FLOOR - POWER HARM, 65-300Hz

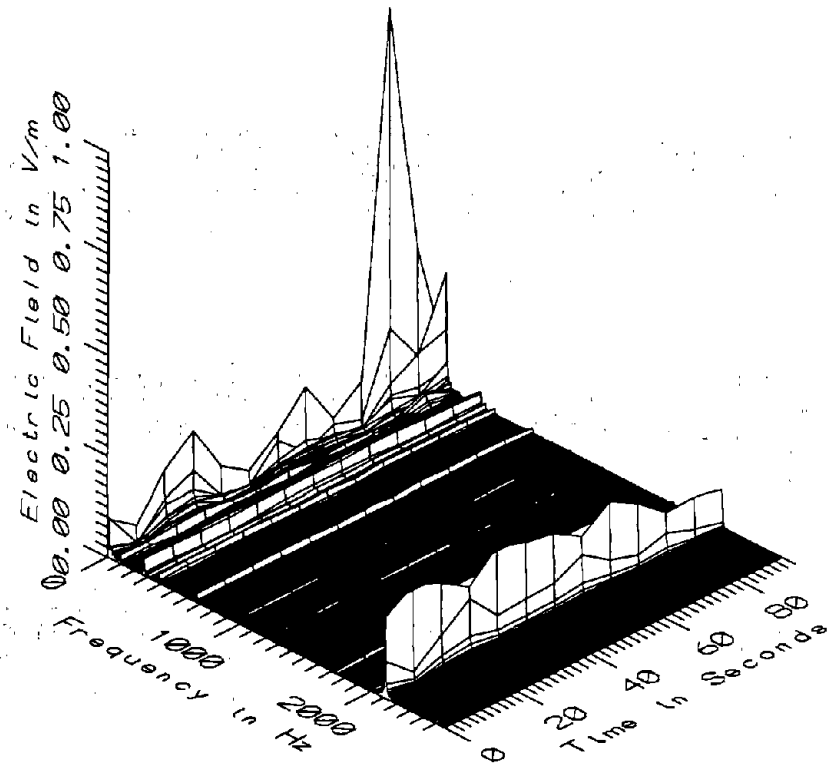


BOS045 - AT REAR OF TROLLEY BUS, 1M ABOVE FLOOR - HIGH FREQ, 305-2560Hz



BOS045 - AT REAR OF TROLLEY BUS, 1M ABOVE FLOOR - ALL FREQ, 5-2560Hz

BOS045 - AT REAR OF TROLLEY BUS, 1 METER ABOVE FLOOR					TOTAL OF 13 SAMPLES	
FREQUENCY BAND	DIST. FROM WINDOW (cm)	MINIMUM MAGNETIC FIELD (mG)	MAXIMUM MAGNETIC FIELD (mG)	AVERAGE MAGNETIC FIELD (mG)	STANDARD DEVIATION (mG)	COEFFICIENT OF VARIATION (%)
STATIC	10	343.25	632.53	512.31	81.11	15.83
	60	190.13	373.50	279.17	42.40	15.19
	110	198.40	371.37	264.10	45.58	17.26
	160	225.18	446.25	306.15	56.93	18.60
5-45Hz LOW FREQ	10	0.20	13.71	2.21	3.71	168.11
	60	0.36	4.80	1.32	1.42	107.95
	110	0.11	5.32	1.05	1.49	141.38
	160	0.30	5.23	1.14	1.39	121.14
50-60Hz PWR FREQ	10	0.32	1.37	0.46	0.29	63.46
	60	0.18	0.55	0.27	0.11	41.74
	110	0.39	0.53	0.47	0.04	9.09
	160	0.12	0.44	0.22	0.09	41.29
65-300Hz PWR HARM	10	0.08	2.24	0.39	0.60	155.53
	60	0.31	0.71	0.43	0.14	32.15
	110	0.13	0.76	0.55	0.17	31.12
	160	0.28	0.83	0.38	0.16	40.82
305-2560Hz HIGH FREQ	10	0.12	1.17	0.27	0.30	108.45
	60	0.14	0.44	0.22	0.12	54.33
	110	0.12	0.46	0.21	0.12	57.22
	160	0.11	0.42	0.19	0.12	61.79
5-2560Hz ALL FREQ	10	0.42	14.00	2.35	3.75	159.83
	60	0.55	4.90	1.47	1.40	95.22
	110	0.45	5.42	1.45	1.34	92.97
	160	0.46	5.33	1.27	1.37	107.41



BOS045 - ELECTRIC FIELD 1M ABOVE FLOOR AT REAR OF TROLLEY BUS

APPENDIX AU

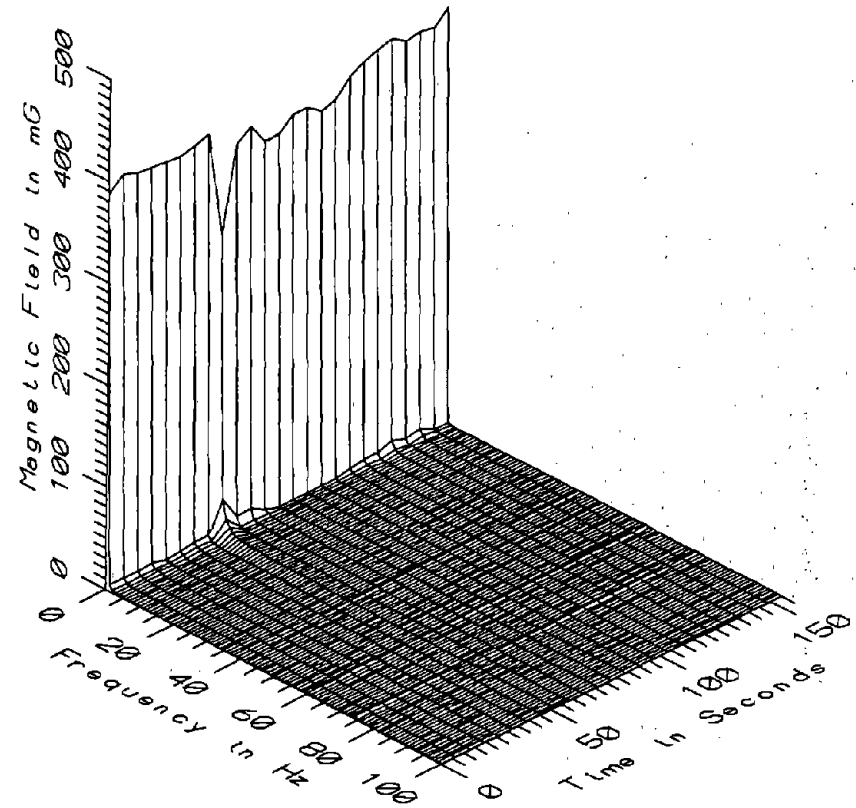
DATASET BOS046
AT OPERATOR'S RIGHT SHOULDER, TROLLEY BUS

Measurement Setup Code:	Staff: 22 Reference: 23 Drawing: A-2
Vehicle Status:	Travelling on a trolley bus
Measurement Date:	June 11, 1992
Measurement Time:	Start: 11:41:50 End: 11:44:25
Number of Samples:	25
Programmed Sample Interval:	5 sec
Actual Sample Interval:	6.5 sec

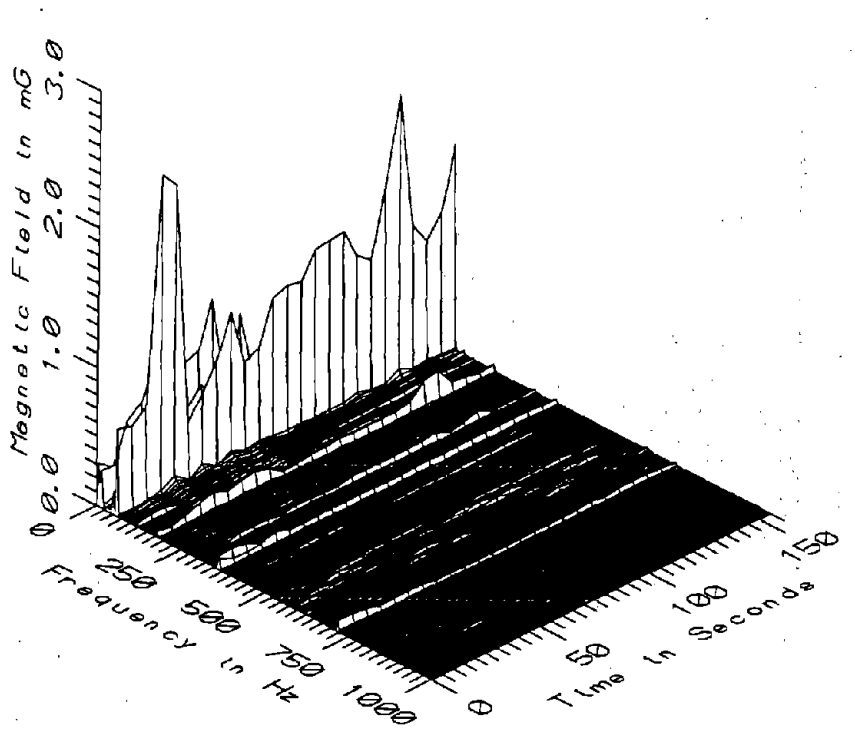
Frequency Spectrum Parameters

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

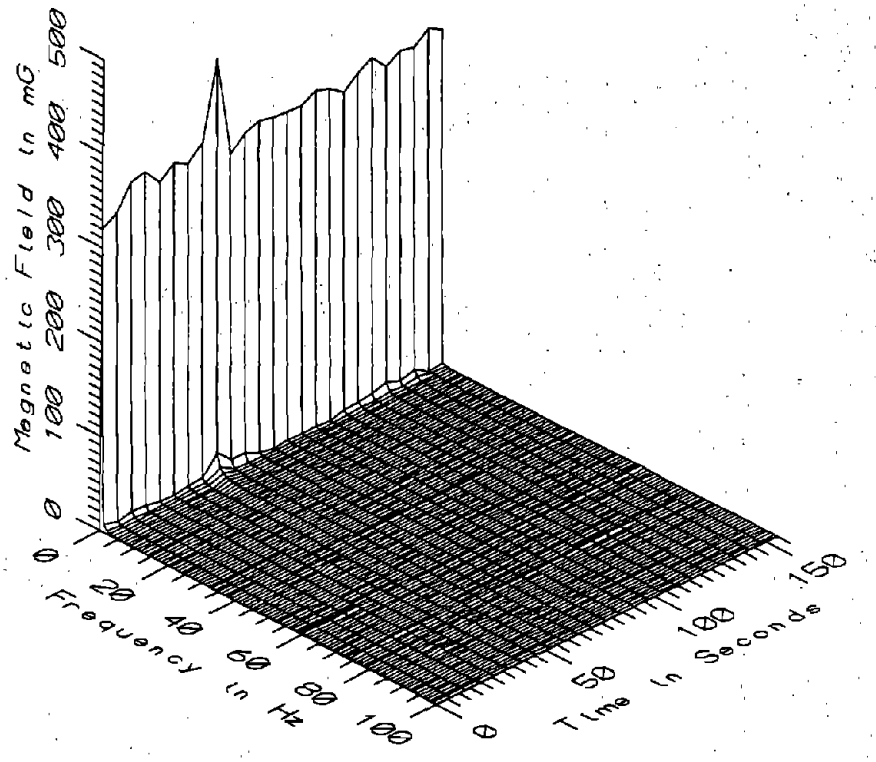
Missing Data: None



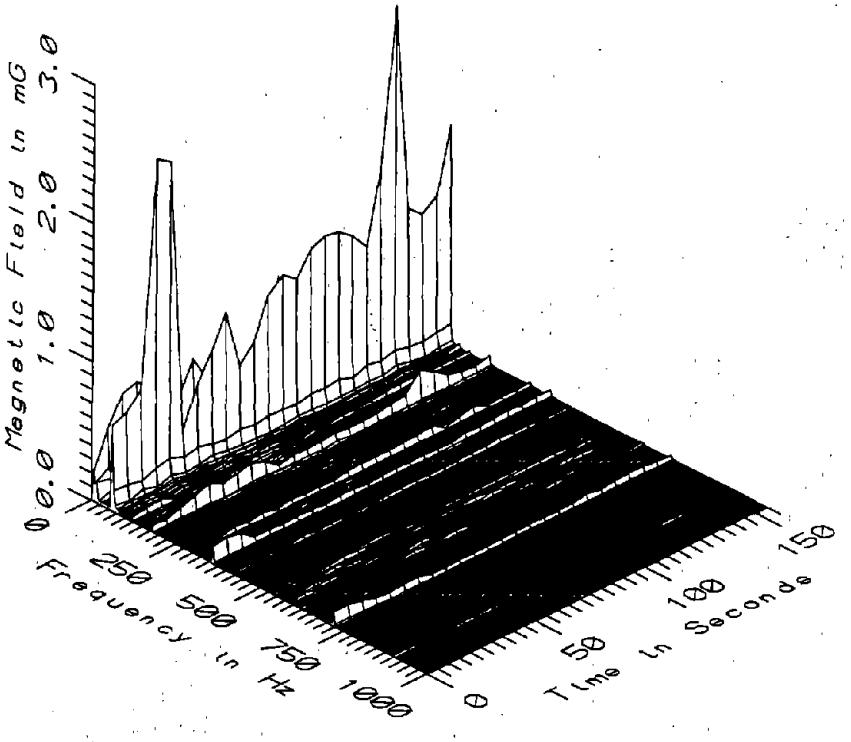
BOS046 - 10cm ABOVE FLOOR AT OPERATOR'S RIGHT SHOULDER, TROLLEY BUS



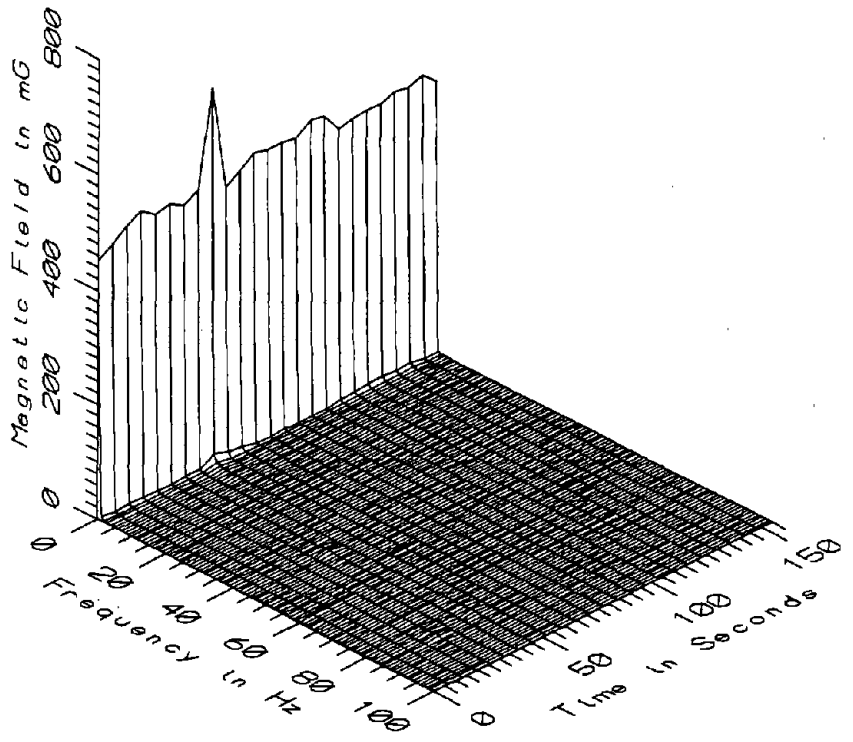
BOS046 - 10cm ABOVE FLOOR AT OPERATOR'S RIGHT SHOULDER, TROLLEY BUS



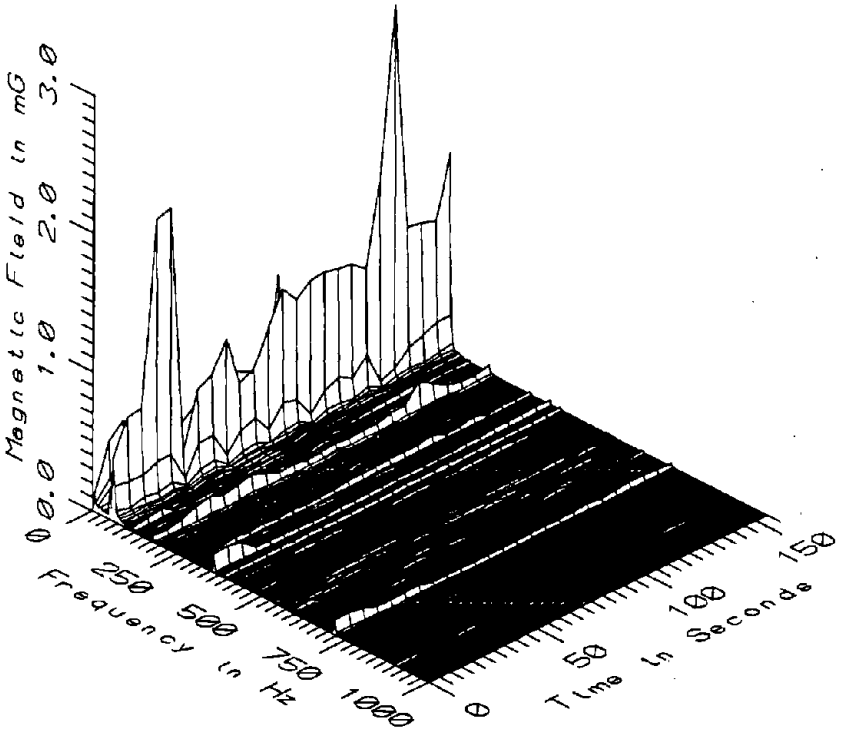
BOS046 - 60cm ABOVE FLOOR AT OPERATOR'S RIGHT SHOULDER, TROLLEY BUS



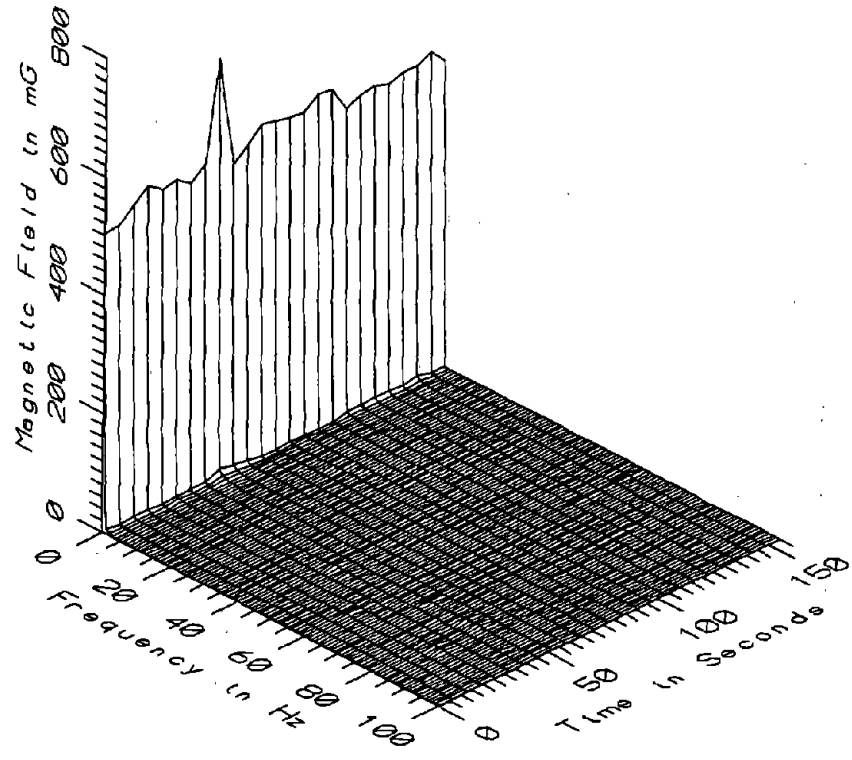
BOS046 - 60cm ABOVE FLOOR AT OPERATOR'S RIGHT SHOULDER, TROLLEY BUS



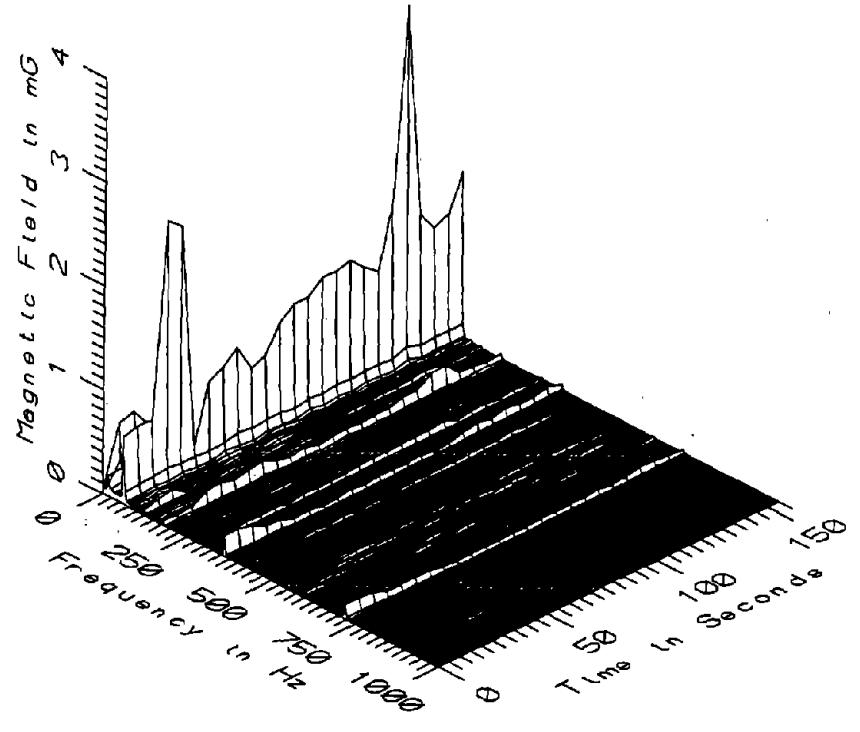
BOS046 - 110cm ABOVE FLOOR AT OPERATOR'S RIGHT SHOULDER, TROLLEY BUS



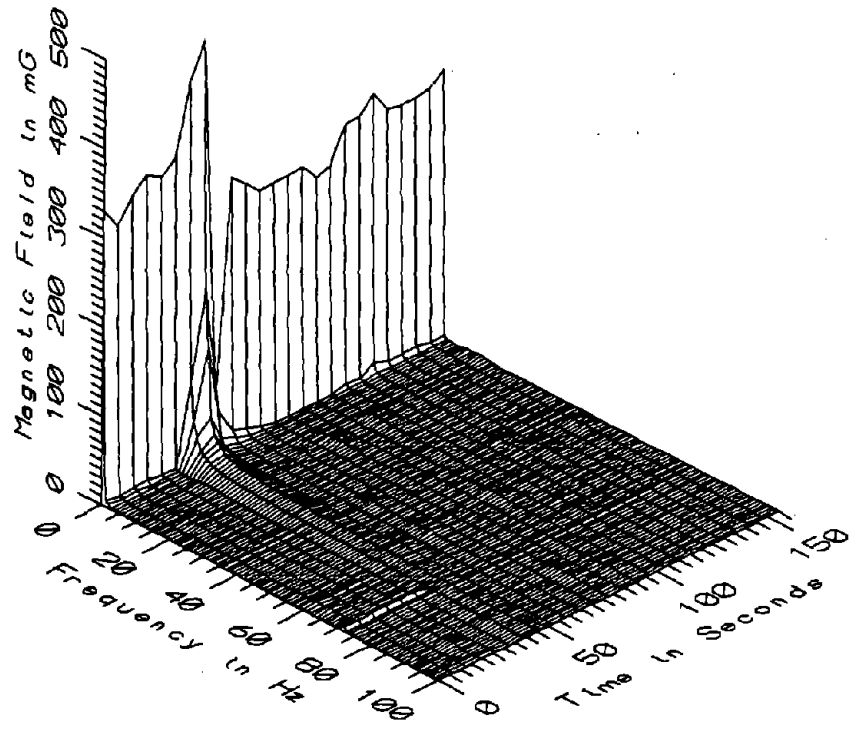
BOS046 - 110cm ABOVE FLOOR AT OPERATOR'S RIGHT SHOULDER, TROLLEY BUS



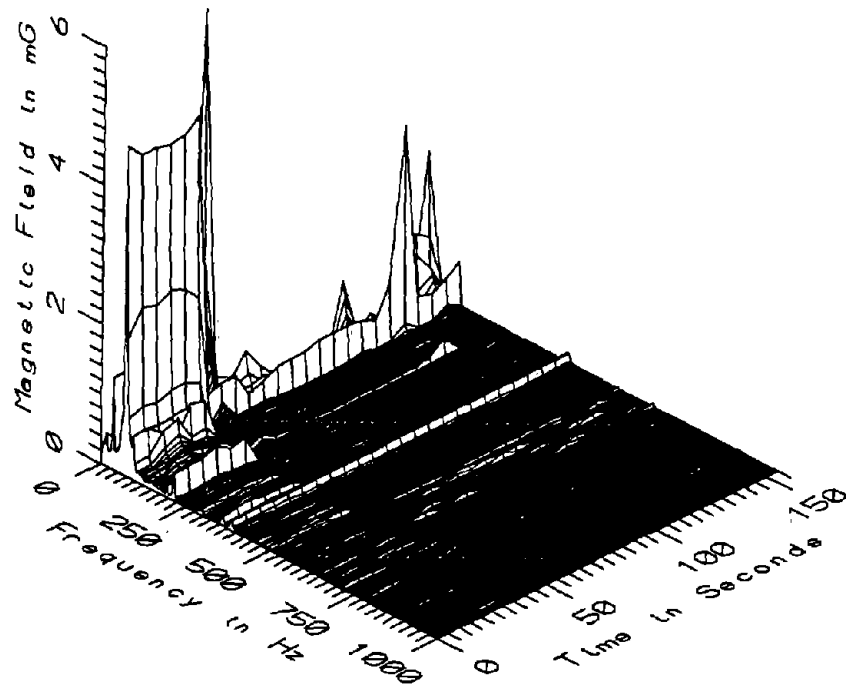
BOS046 - 160cm ABOVE FLOOR AT OPERATOR'S RIGHT SHOULDER, TROLLEY BUS



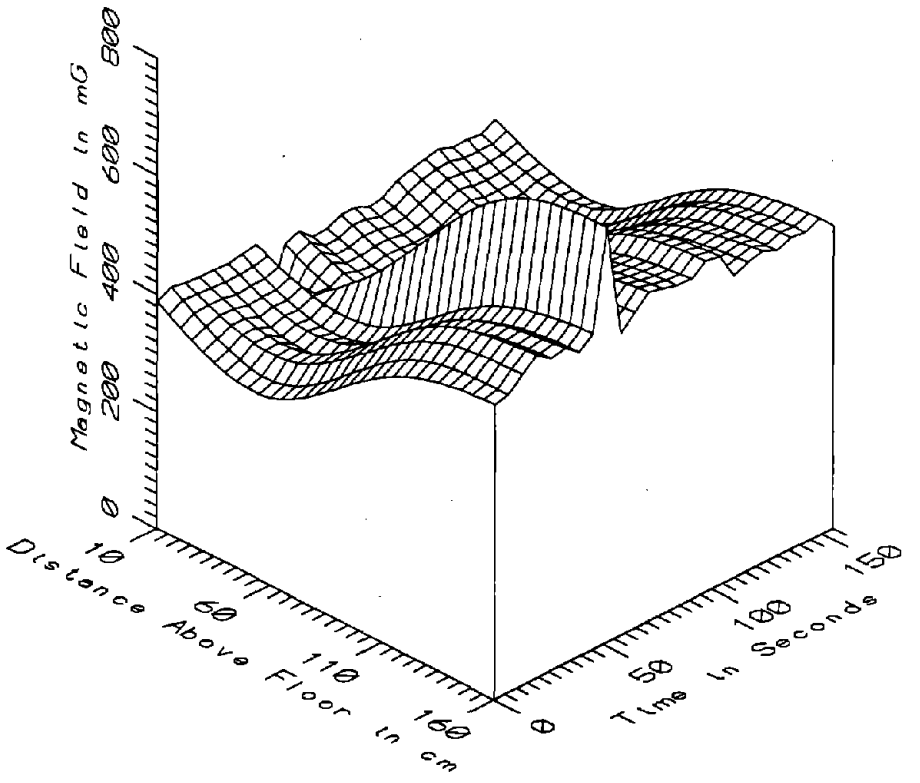
BOS046 - 160cm ABOVE FLOOR AT OPERATOR'S RIGHT SHOULDER, TROLLEY BUS



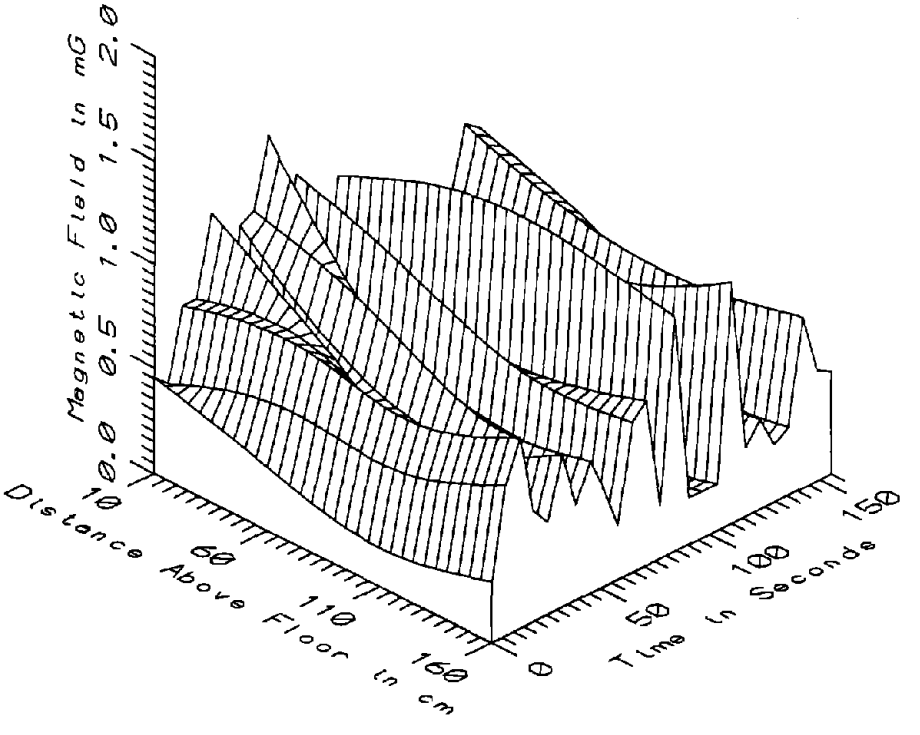
BOS046 - REFERENCE PROBE - ON WINDOW SEAT AT LEFT FRONT OF TROLLEY BUS



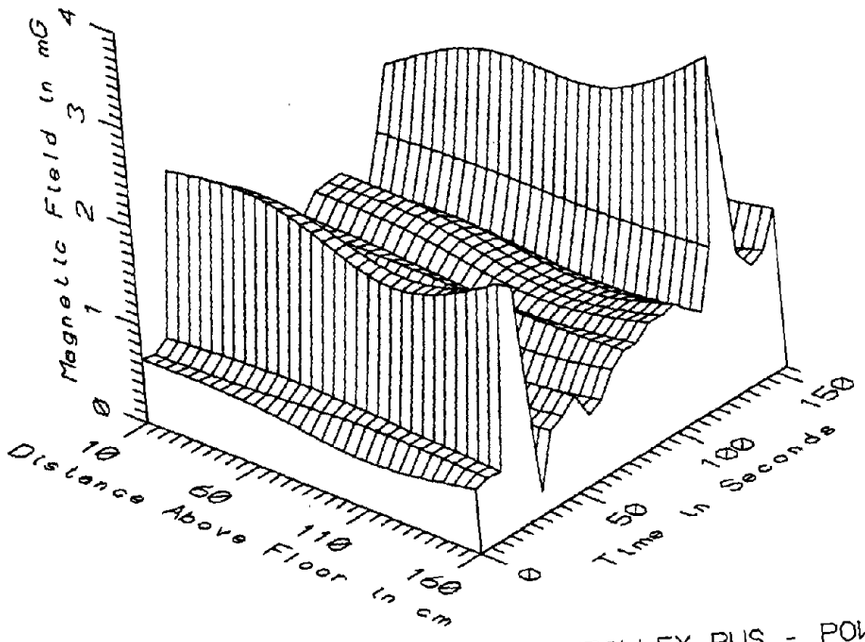
BOS046 - REFERENCE PROBE - ON WINDOW SEAT AT LEFT FRONT OF TROLLEY BUS



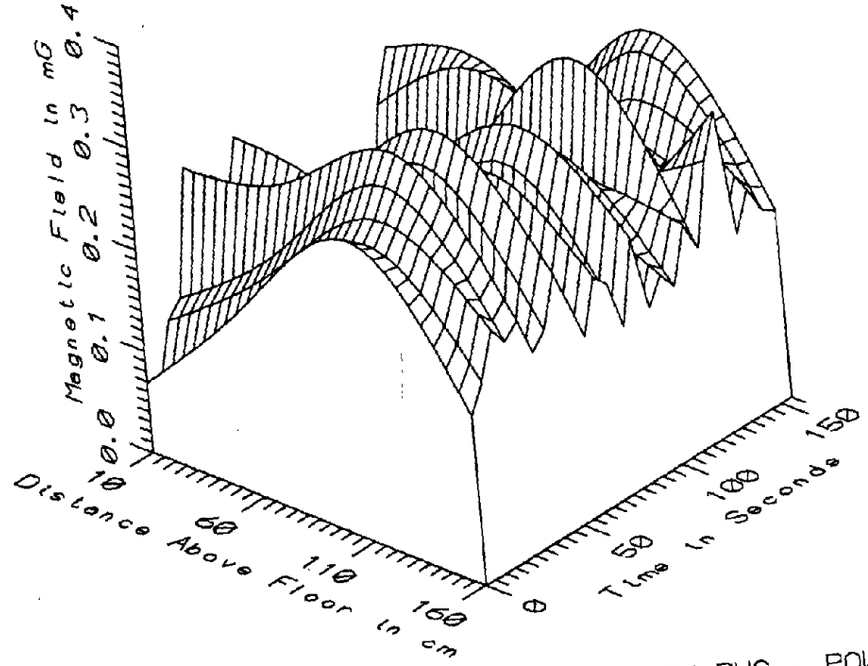
BOS046 - AT OPERATOR'S RIGHT SHOULDER, TROLLEY BUS - STATIC



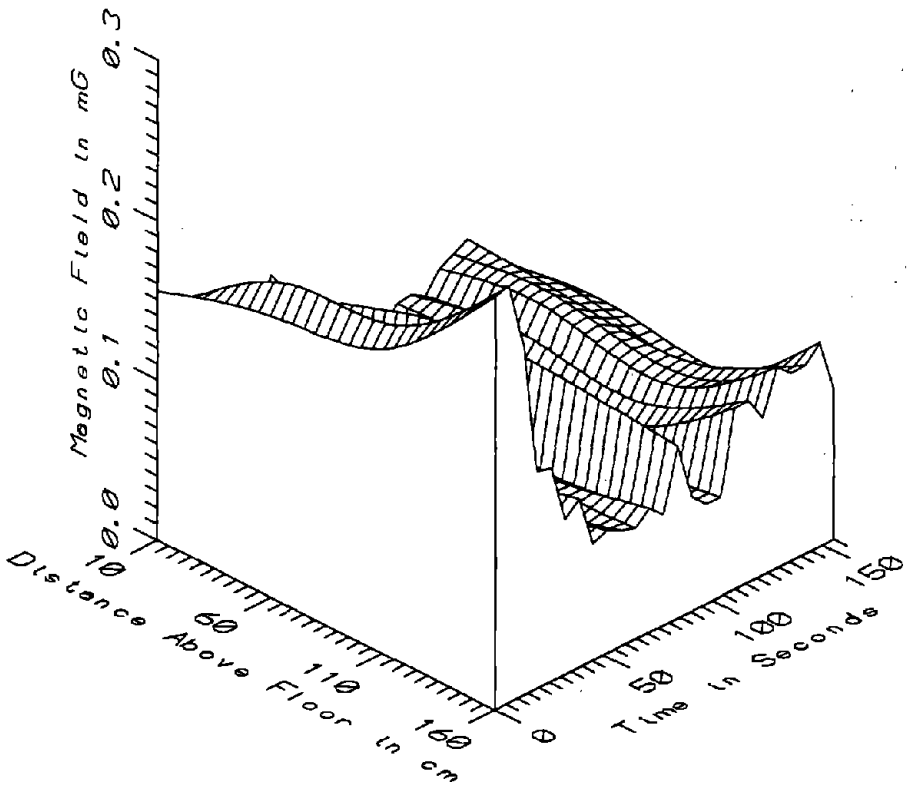
BOS046 - AT OPERATOR'S RIGHT SHOULDER, TROLLEY BUS - LOW FREQ, 5-45Hz



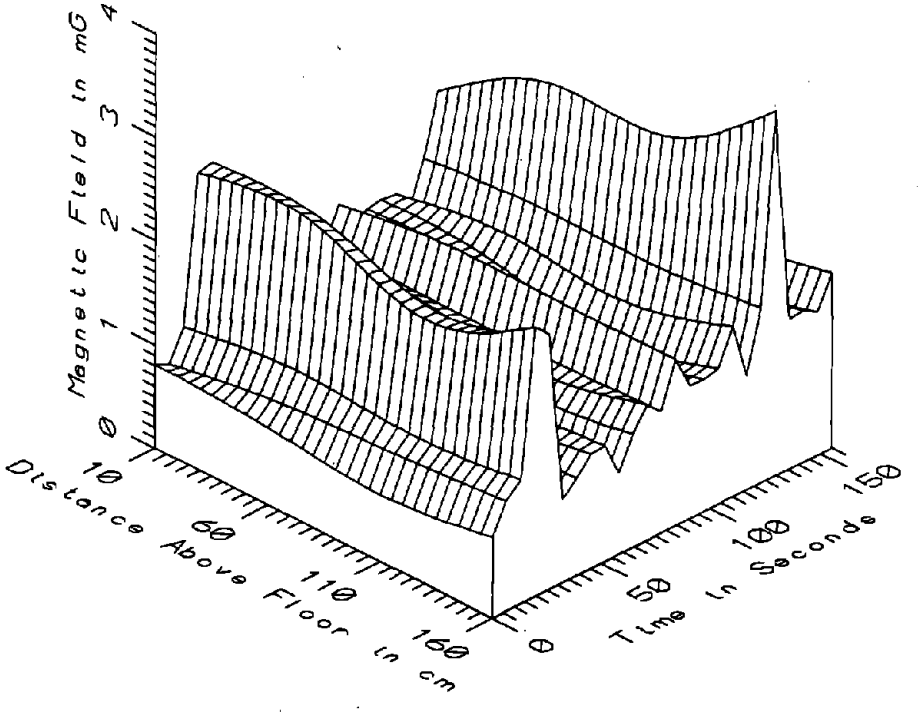
BOS046 - AT OPERATOR'S RIGHT SHOULDER, TROLLEY BUS - POWER FREQ, 50-60Hz



BOS046 - AT OPERATOR'S RIGHT SHOULDER, TROLLEY BUS - POWER HARM, 65-300Hz

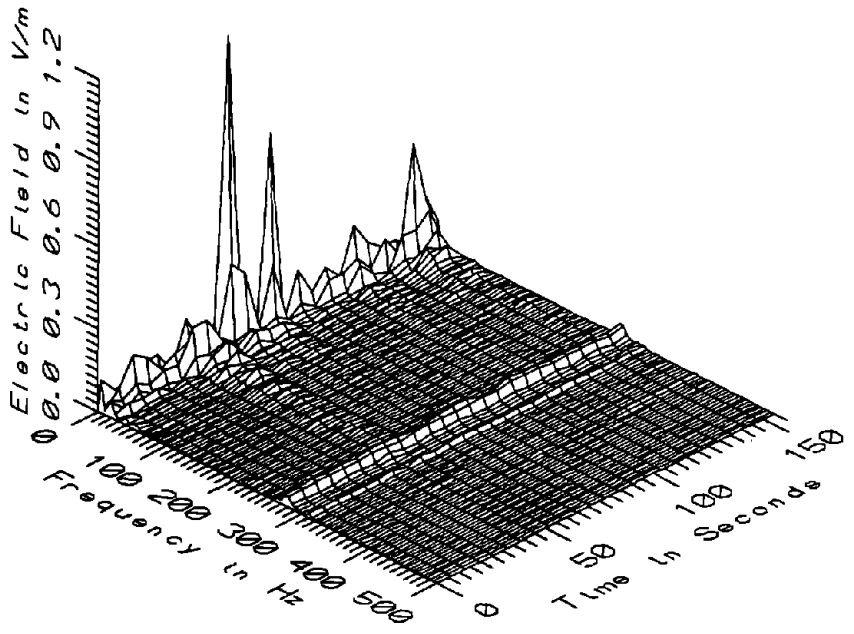


BOS046 - AT OPERATOR'S RIGHT SHOULDER, TROLLEY BUS-HIGH FREQ, 305-2560Hz



BOS046 - AT OPERATOR'S RIGHT SHOULDER, TROLLEY BUS - ALL FREQ, 5-2560Hz

BOS046 - AT OPERATOR'S RIGHT SHOULDER, TROLLEY BUS					TOTAL OF 25 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	293.83	407.60	384.36	22.54	5.87
	60	320.46	441.97	352.55	21.16	6.00
	110	452.35	654.01	491.74	36.38	7.40
	160	502.31	705.51	540.82	38.11	7.05
5-45Hz LOW FREQ	10	0.11	1.35	0.63	0.34	54.31
	60	0.22	1.19	0.57	0.25	44.42
	110	0.10	1.22	0.45	0.27	60.47
	160	0.23	1.15	0.54	0.27	51.10
50-60Hz PWR FREQ	10	0.46	2.33	1.12	0.49	43.43
	60	0.33	2.66	1.16	0.57	49.21
	110	0.29	2.72	1.07	0.54	50.38
	160	0.23	3.49	1.25	0.69	55.29
65-300Hz PWR HARM	10	0.06	0.25	0.13	0.06	45.83
	60	0.17	0.28	0.20	0.03	17.01
	110	0.10	0.35	0.26	0.07	26.70
	160	0.16	0.31	0.21	0.04	17.07
305-2560Hz HIGH FREQ	10	0.06	0.16	0.09	0.03	31.27
	60	0.06	0.19	0.09	0.03	37.38
	110	0.06	0.20	0.09	0.04	46.32
	160	0.06	0.26	0.11	0.06	48.33
5-2560Hz ALL FREQ	10	0.55	2.48	1.34	0.46	34.42
	60	0.65	2.70	1.35	0.52	38.78
	110	0.60	2.74	1.24	0.50	39.90
	160	0.78	3.52	1.44	0.62	43.23



BOS046 - ELECTRIC FIELD AT OPERATOR'S RIGHT SHOULDER, TROLLEY BUS

APPENDIX AV

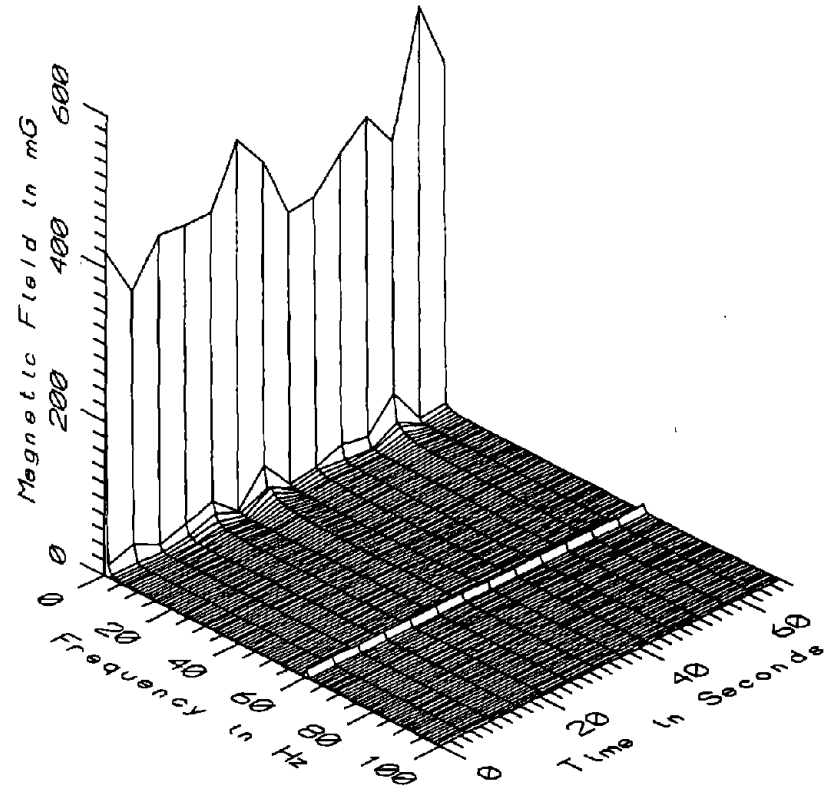
DATASET BOS047
GREEN LINE WAYSIDE AT BEACON STREET

Measurement Setup Code:	Staff: 28 Reference: 29 Drawing: A-3
Vehicle Status:	NA
Measurement Date:	June 11, 1992
Measurement Time:	Start: 13:20:32 End: 13:21:40
Number of Samples:	14
Programmed Sample Interval:	5 sec
Actual Sample Interval:	5.2 sec

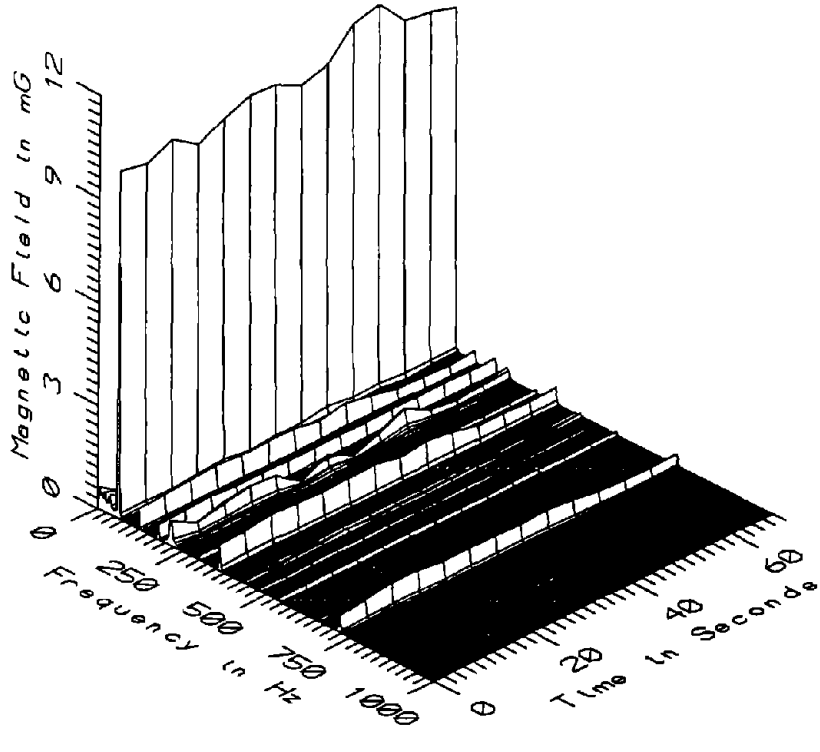
Frequency Spectrum Parameters

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

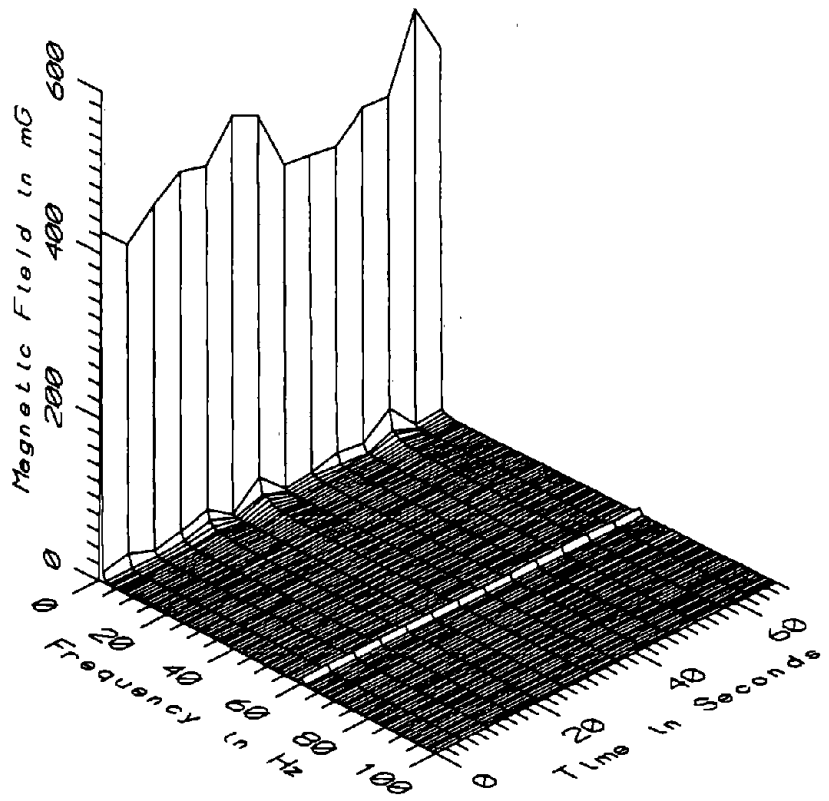
Missing Data: None



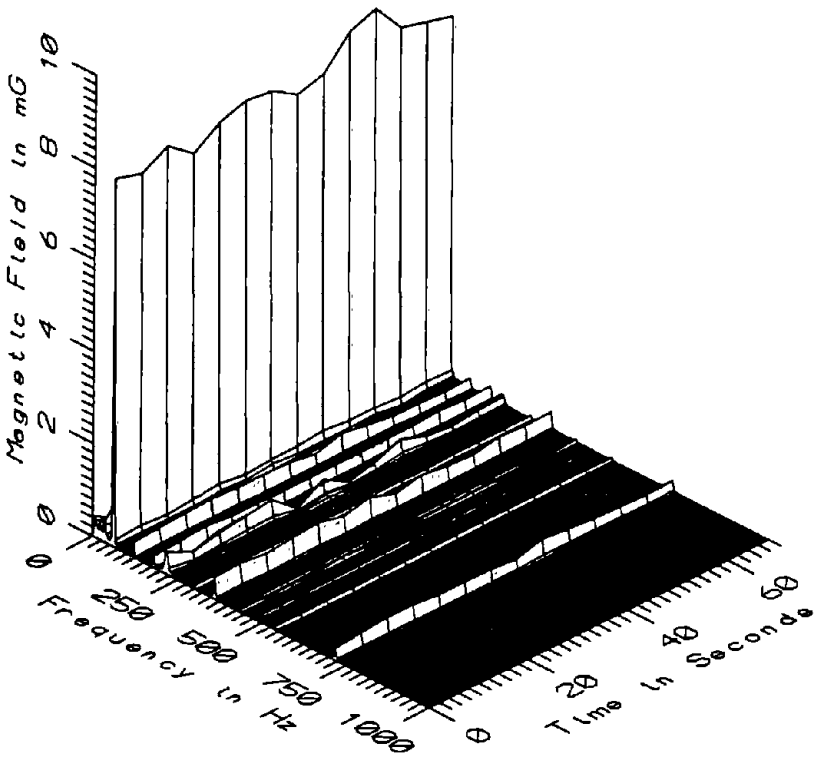
BOS047 - 10cm ABOVE GROUND, GREEN LINE WAYSIDE AT BEACON STREET



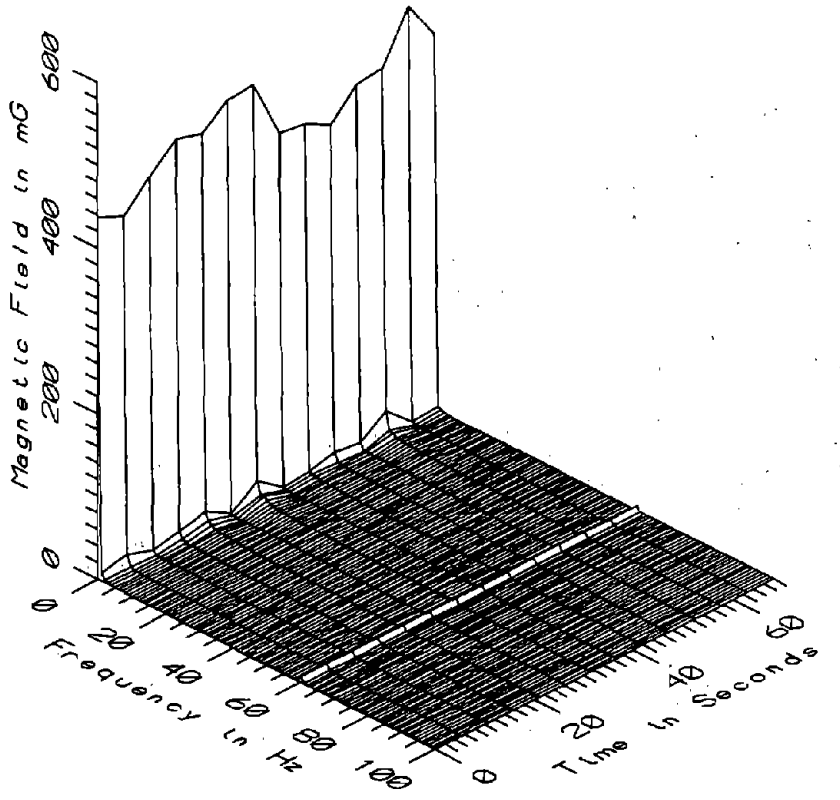
BOS047 - 10cm ABOVE GROUND, GREEN LINE WAYSIDE AT BEACON STREET



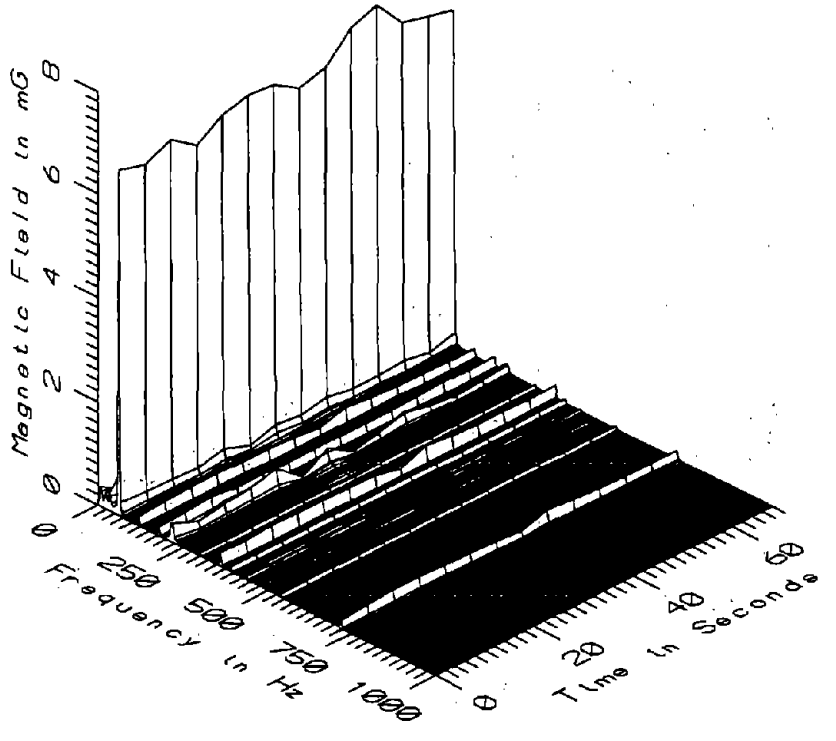
BOS047 - 60cm ABOVE GROUND, GREEN LINE WAYSIDE AT BEACON STREET



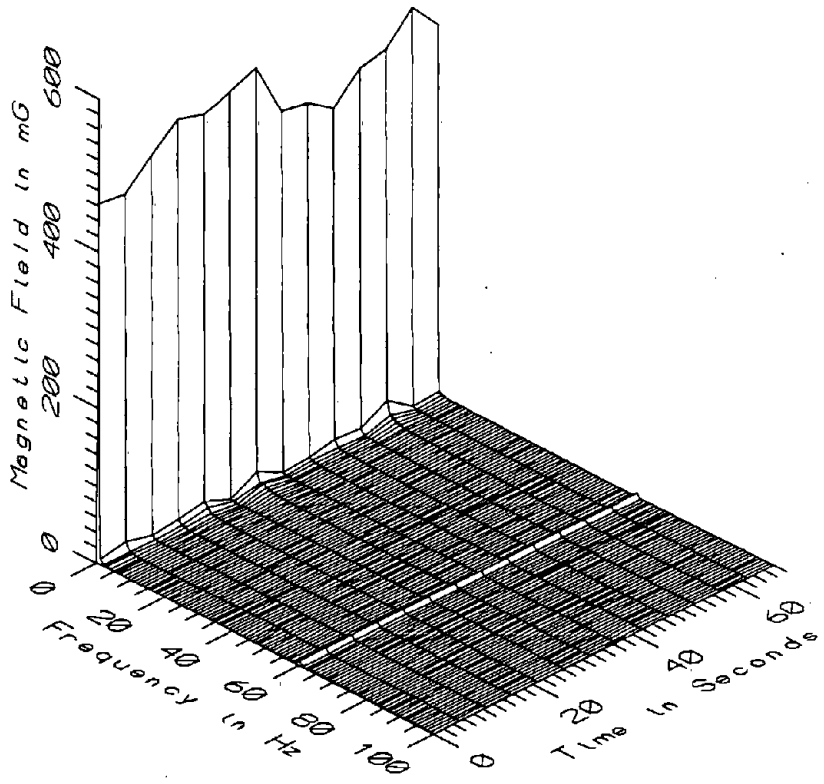
BOS047 - 60cm ABOVE GROUND, GREEN LINE WAYSIDE AT BEACON STREET



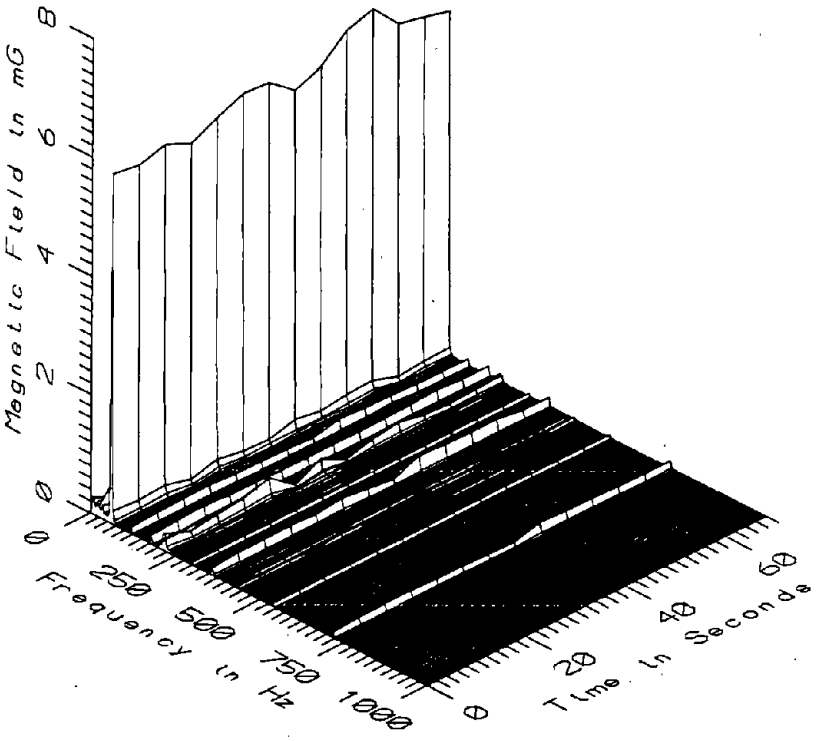
BOS047 - 110cm ABOVE GROUND, GREEN LINE WAYSIDE AT BEACON STREET



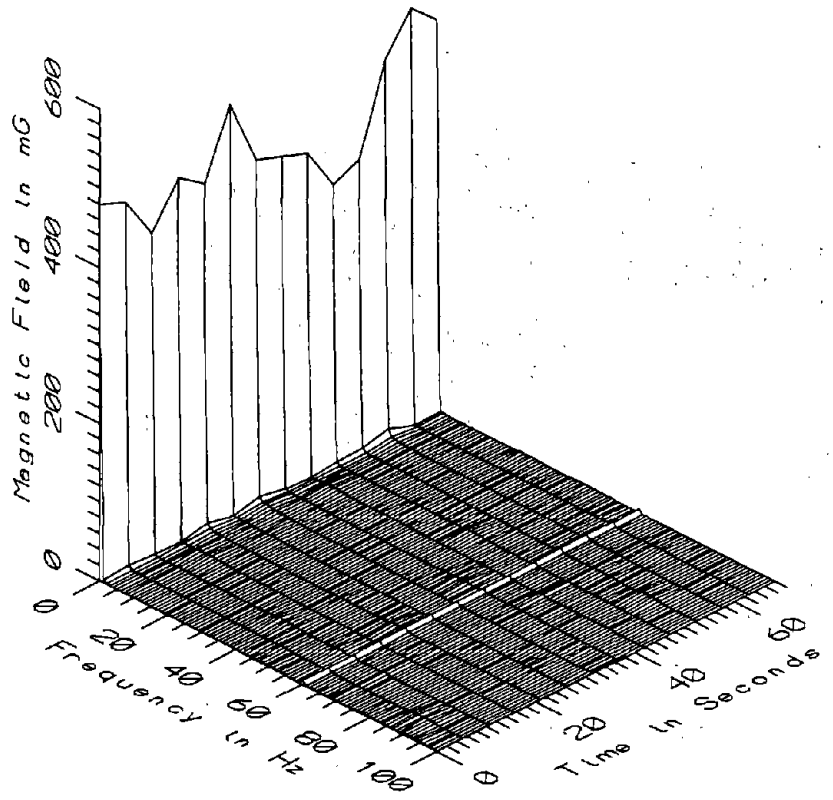
BOS047 - 110cm ABOVE GROUND, GREEN LINE WAYSIDE AT BEACON STREET



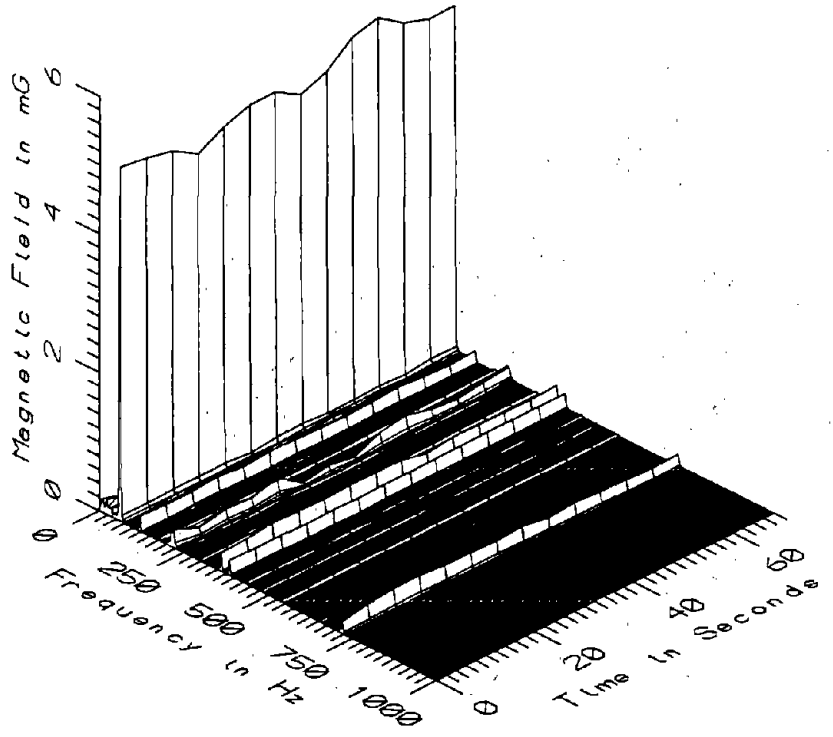
BOS047 - 160cm ABOVE GROUND, GREEN LINE WAYSIDE AT BEACON STREET



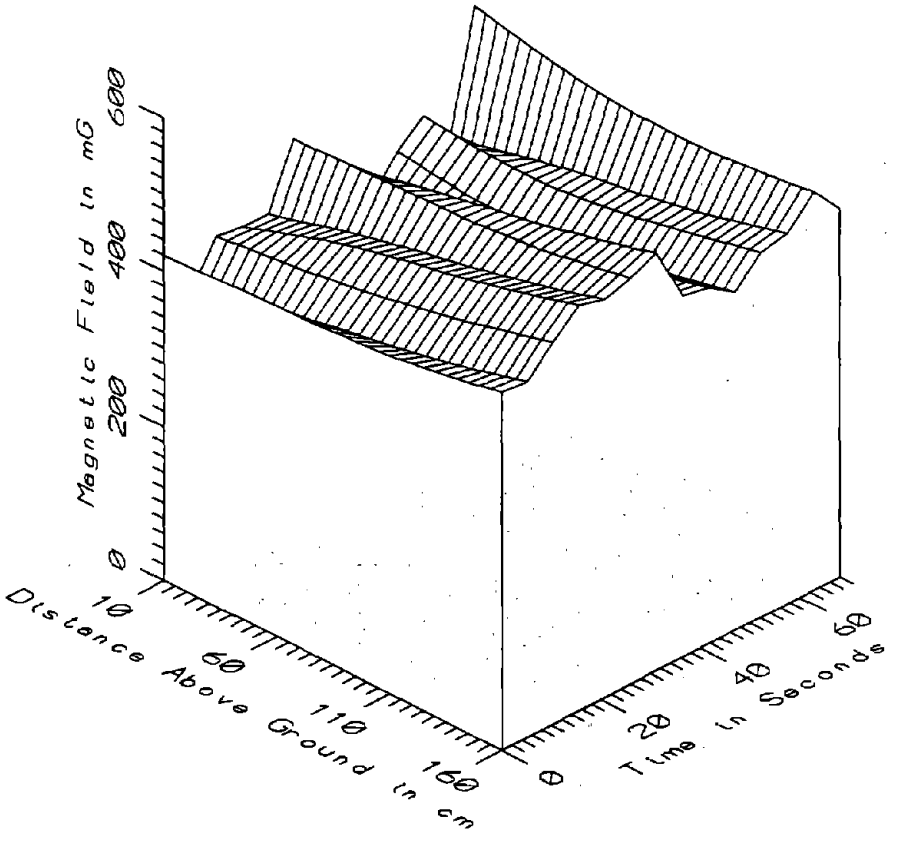
BOS047 - 160cm ABOVE GROUND, GREEN LINE WAYSIDE AT BEACON STREET



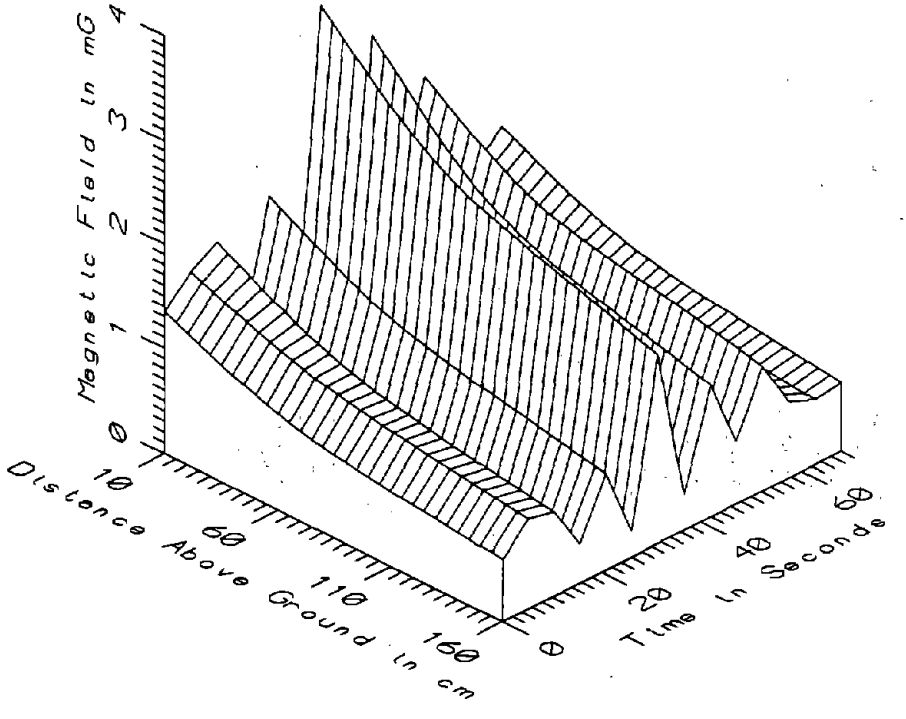
BOS047 - REF. PROBE - 15' FROM STAFF, GREEN LINE WAYSIDE AT BEACON STREET



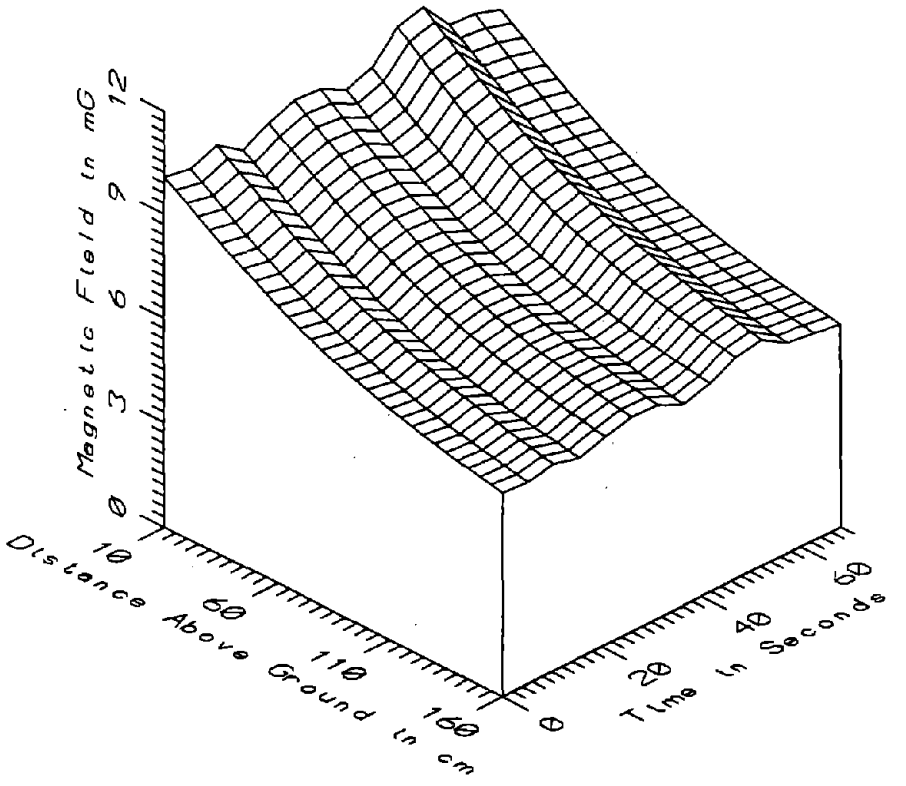
BOS047 - REF. PROBE - 15' FROM STAFF, GREEN LINE WAYSIDE AT BEACON STREET



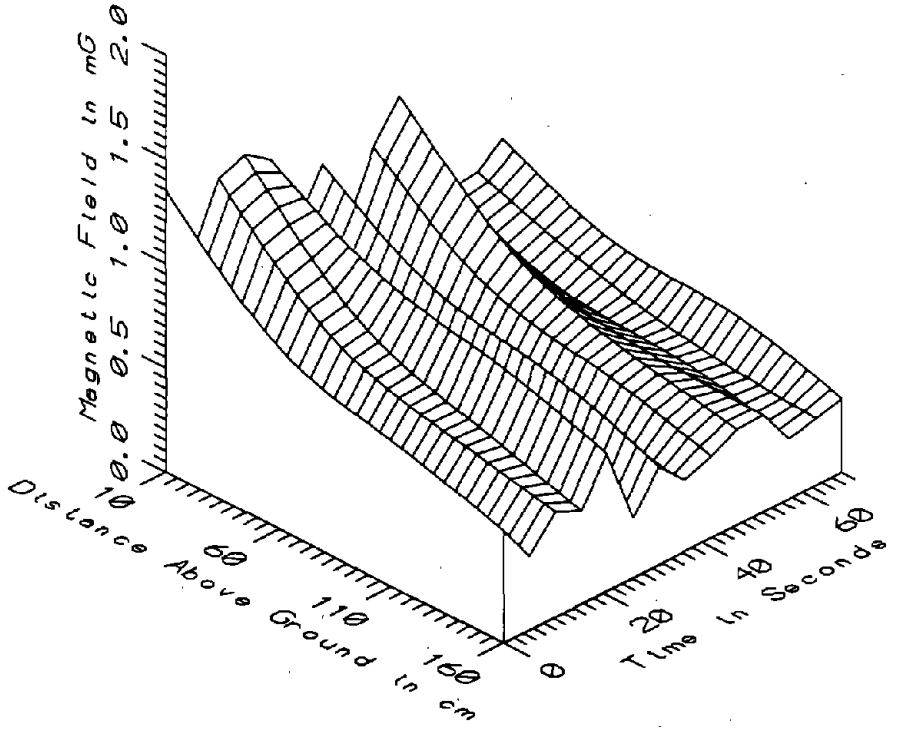
BOS047 - GREEN LINE WAYSIDE AT BEACON STREET - STATIC



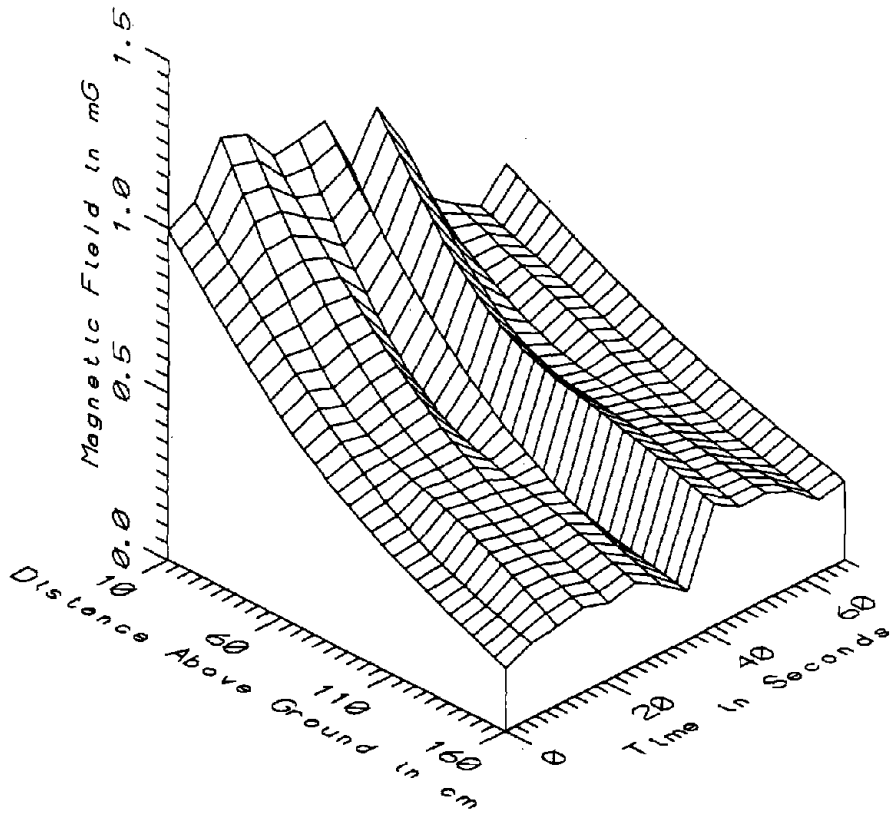
BOS047 - GREEN LINE WAYSIDE AT BEACON STREET - LOW FREQ, 5-45Hz



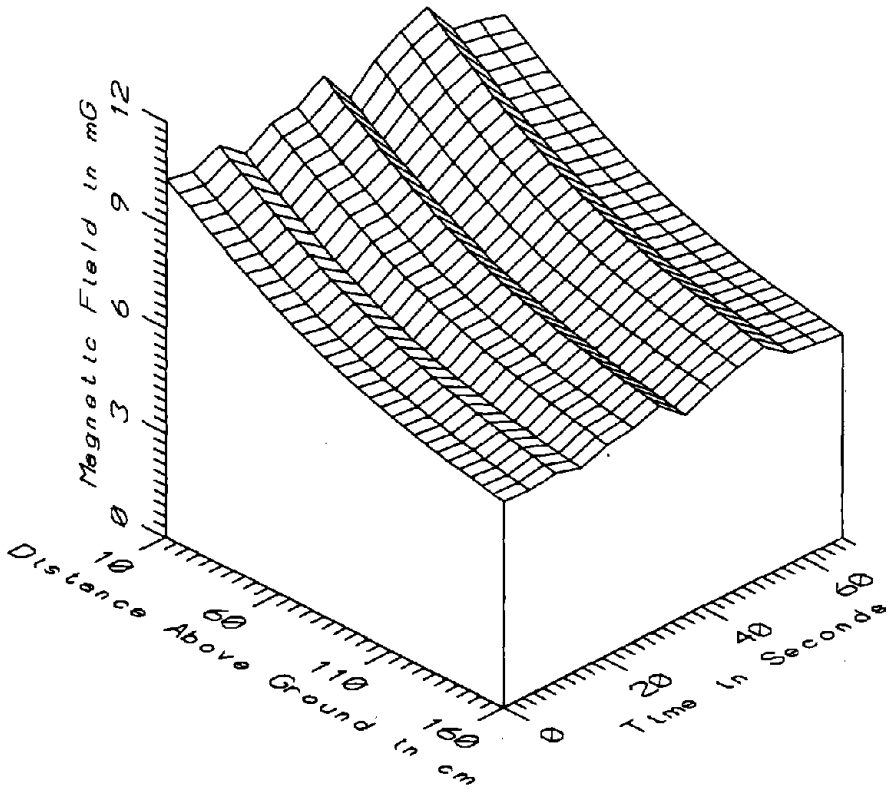
BOS047 - GREEN LINE WAYSIDE AT BEACON STREET - POWER FREQ, 50-60Hz



BOS047 - GREEN LINE WAYSIDE AT BEACON STREET - POWER HARM, 65-300Hz

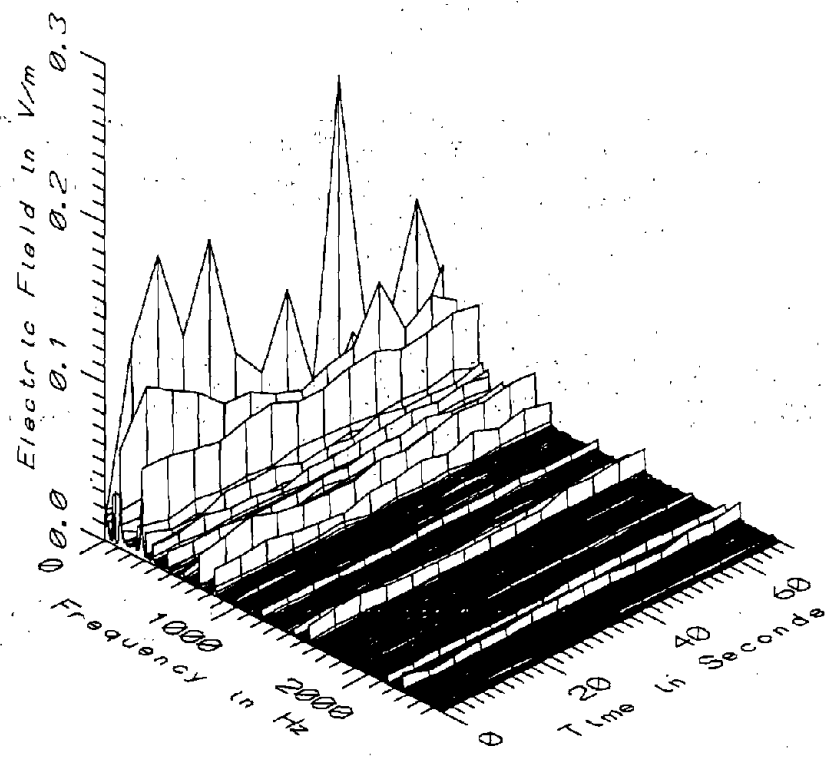


BOS047 - GREEN LINE WAYSIDE AT BEACON STREET - HIGH FREQ, 305-2560Hz



BOS047 - GREEN LINE WAYSIDE AT BEACON STREET - ALL FREQ, 5-2560Hz

BOS047 - GREEN LINE WAYSIDE AT BEACON STREET					TOTAL OF 14 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	351.39	539.44	417.09	51.63	12.38
	60	388.47	510.53	435.09	37.68	8.66
	110	406.63	502.76	455.13	32.31	7.10
	160	437.11	538.46	487.14	30.73	6.31
5-45Hz LOW FREQ	10	0.49	3.53	1.66	0.85	51.00
	60	0.35	2.60	1.17	0.61	52.14
	110	0.26	2.15	0.94	0.51	54.11
	160	0.25	1.80	0.79	0.41	52.36
50-60Hz PWR FREQ	10	9.74	11.20	10.28	0.40	3.86
	60	7.69	8.86	8.12	0.32	3.90
	110	6.39	7.36	6.74	0.26	3.87
	160	5.76	6.49	6.00	0.22	3.61
65-300Hz PWR HARM	10	0.67	1.35	1.01	0.25	24.61
	60	0.45	0.95	0.67	0.16	24.20
	110	0.35	0.83	0.54	0.14	25.94
	160	0.28	0.66	0.42	0.10	24.96
305-2560Hz HIGH FREQ	10	0.59	1.19	0.93	0.20	21.47
	60	0.42	0.65	0.55	0.08	14.42
	110	0.22	0.47	0.36	0.06	15.30
	160	0.14	0.36	0.25	0.06	23.13
5-2560Hz ALL FREQ	10	9.94	11.49	10.54	0.45	4.26
	60	7.78	9.05	8.27	0.35	4.25
	110	6.45	7.52	6.86	0.30	4.32
	160	5.79	6.62	6.09	0.25	4.08



BOS047 - ELECTRIC FIELD AT GREEN LINE WAYSIDE AT BEACON STREET

APPENDIX AW

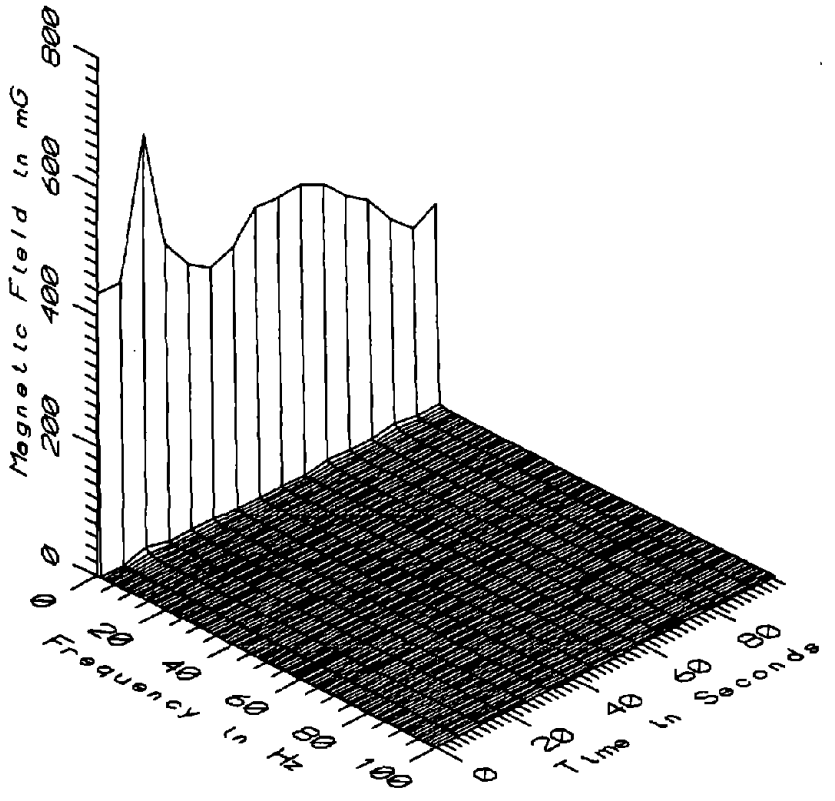
DATASET BOS048
BLUE LINE WAYSIDE NEAR WOOD ISLAND STATION

Measurement Setup Code:	Staff: 26 Reference: 27 Drawing: A-3
Vehicle Status:	NA
Measurement Date:	June 11, 1992
Measurement Time:	Start: 13:45:16 End: 13:46:55
Number of Samples:	16
Programmed Sample Interval:	5 sec
Actual Sample Interval:	6.6 sec

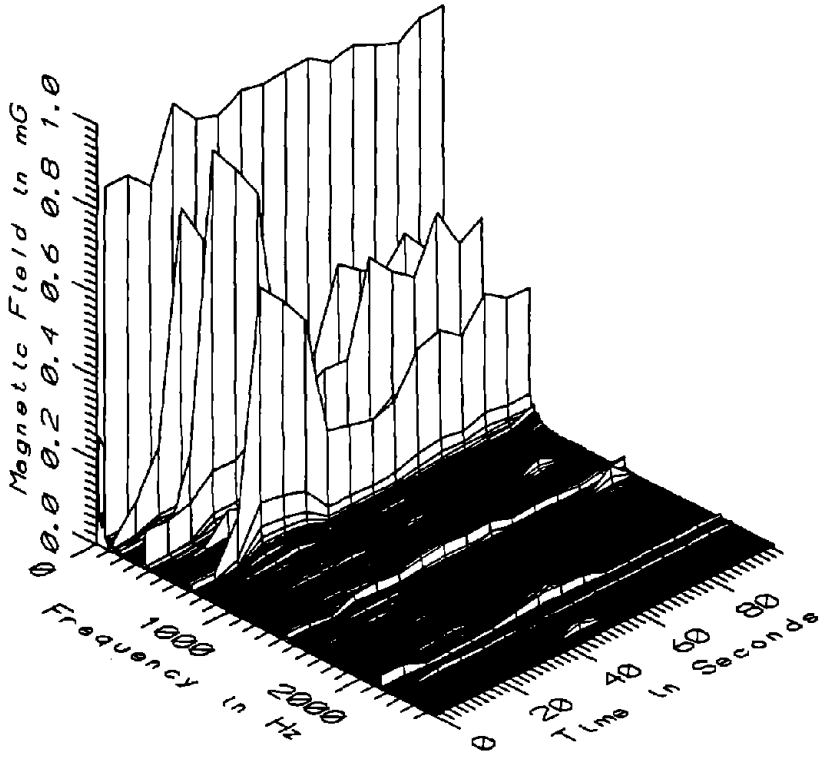
Frequency Spectrum Parameters

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

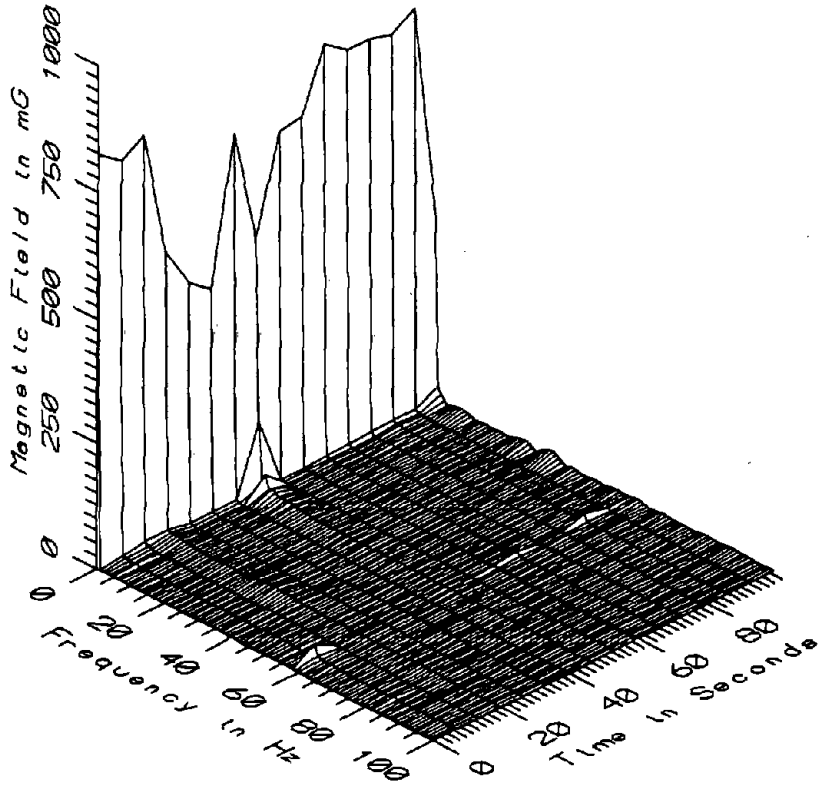
Missing Data: None



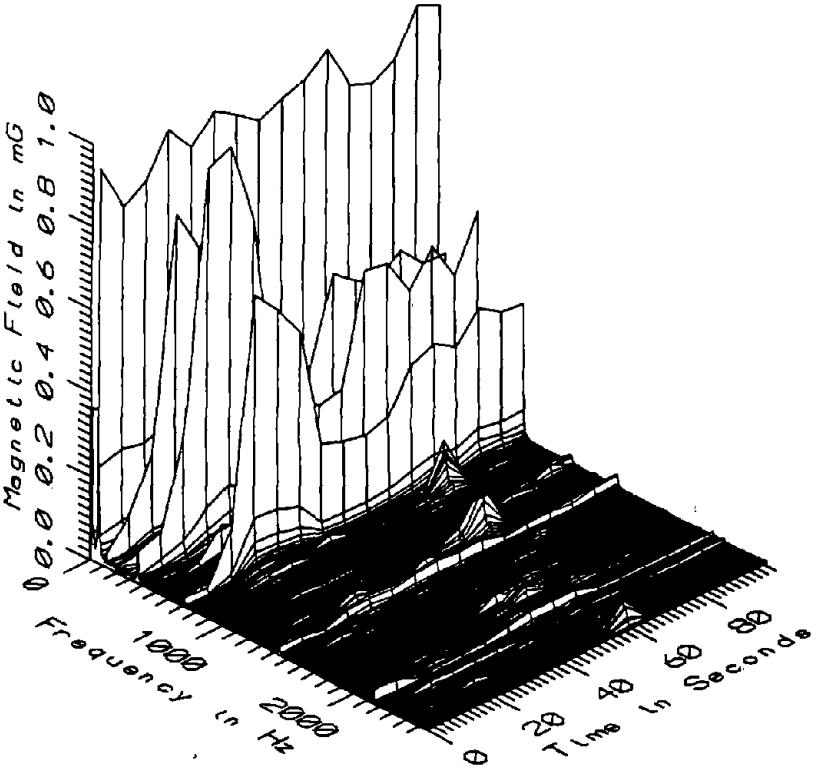
BOS048 - 10cm ABOVE GROUND, BLUE LINE WAYSIDE NEAR WOOD ISLAND STATION



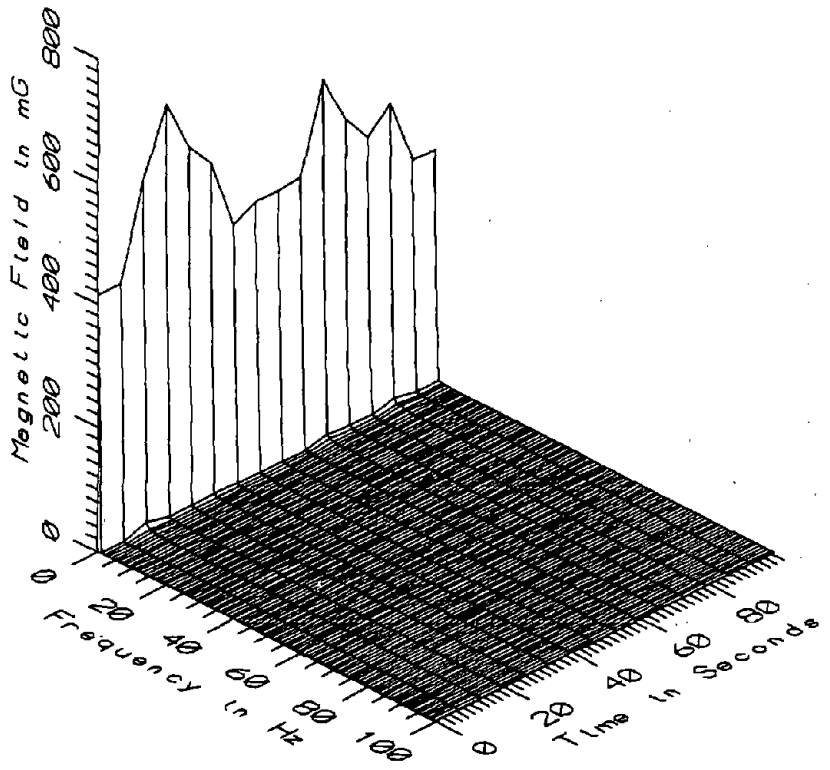
BOS048 - 10cm ABOVE GROUND, BLUE LINE WAYSIDE NEAR WOOD ISLAND STATION



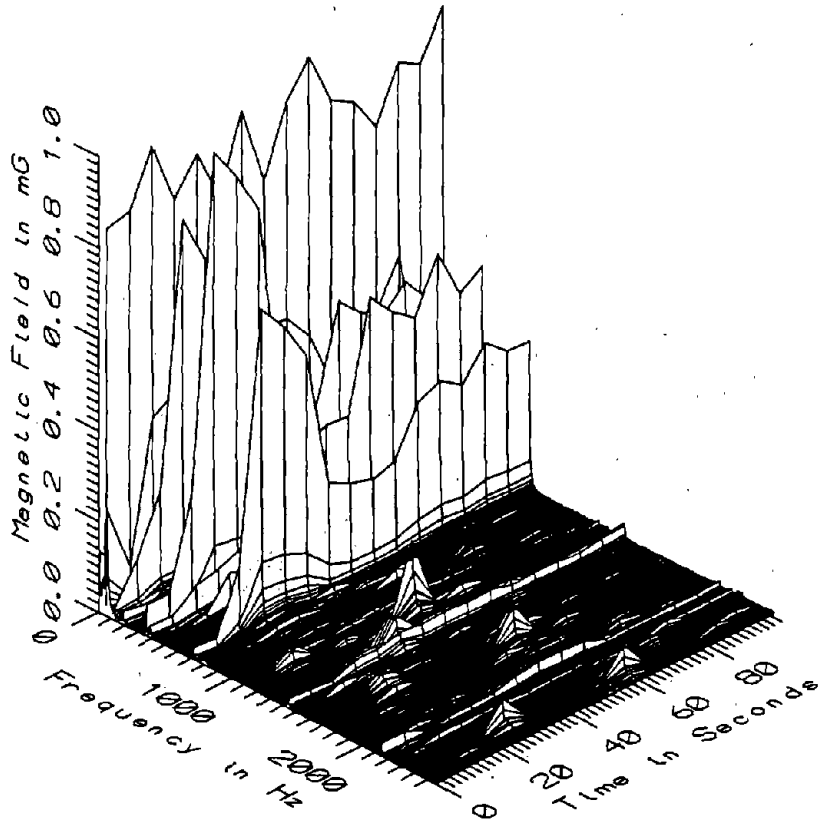
BOS048 - 60cm ABOVE GROUND, BLUE LINE WAYSIDE NEAR WOOD ISLAND STATION



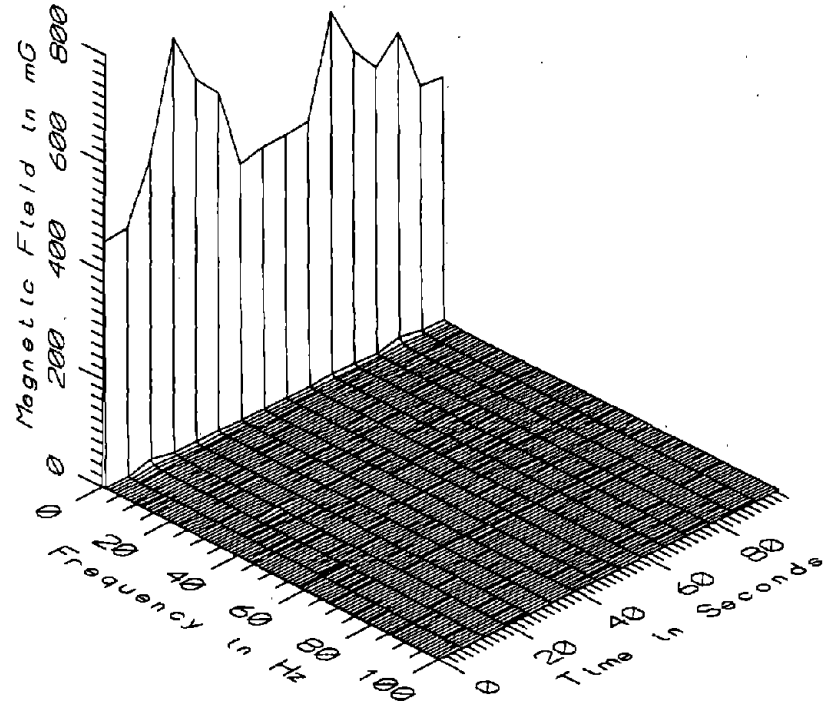
BOS048 - 60cm ABOVE GROUND, BLUE LINE WAYSIDE NEAR WOOD ISLAND STATION



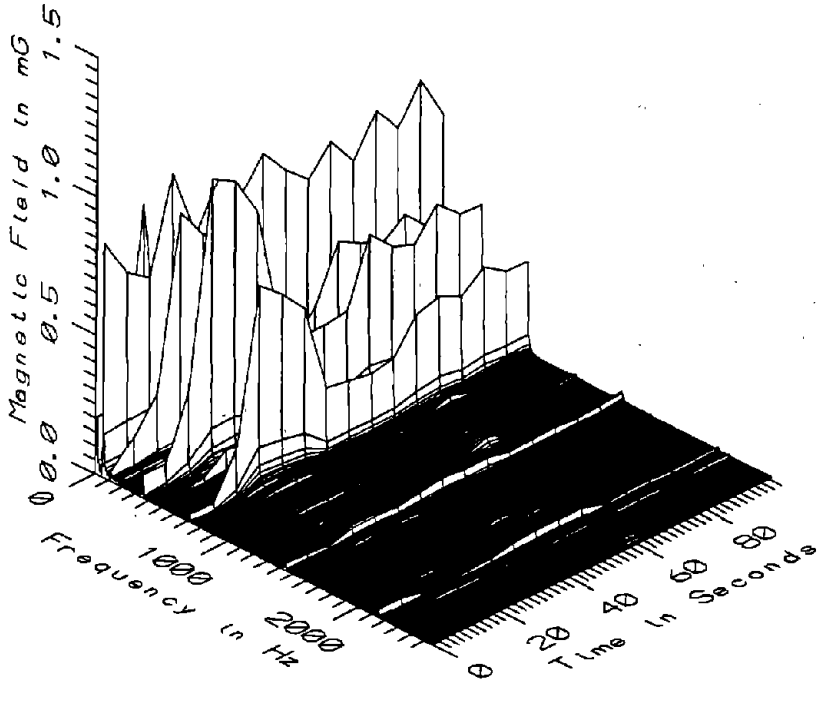
BOS048 - 110cm ABOVE GROUND, BLUE LINE WAYSIDE NEAR WOOD ISLAND STATION



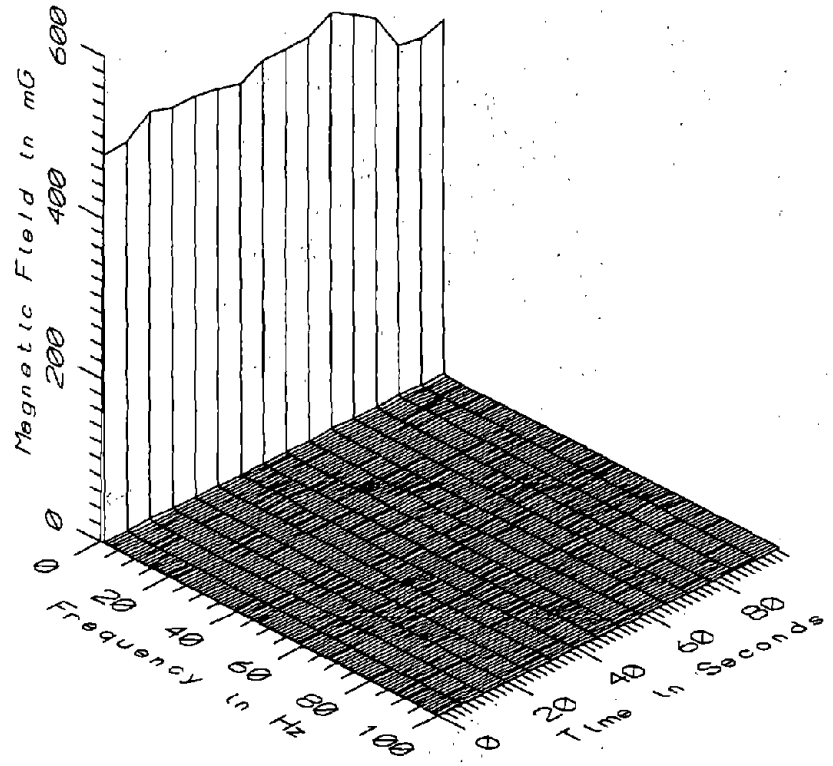
BOS048 - 110cm ABOVE GROUND, BLUE LINE WAYSIDE NEAR WOOD ISLAND STATION



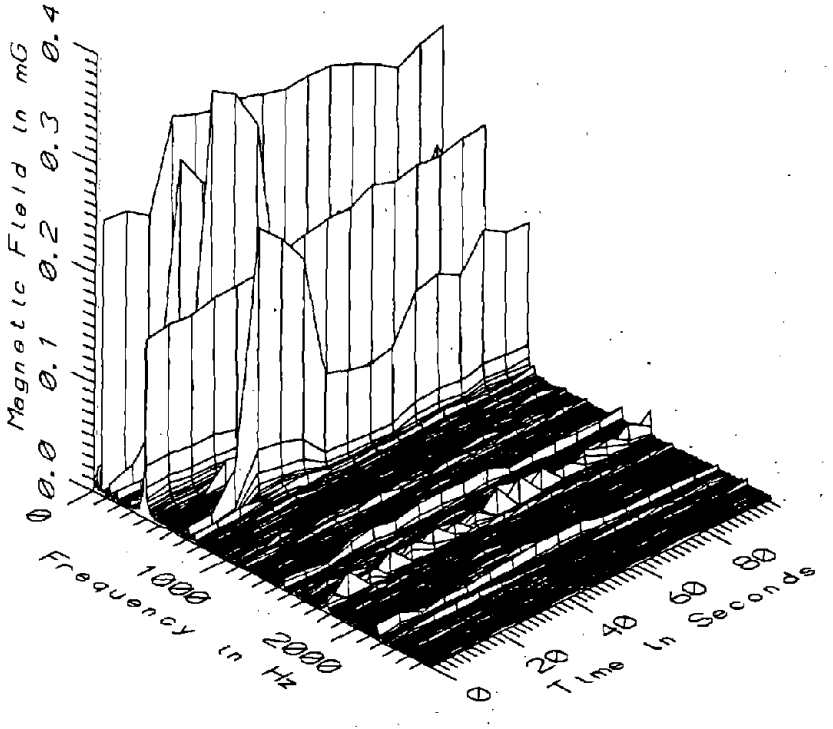
BOS048 - 160cm ABOVE GROUND, BLUE LINE WAYSIDE NEAR WOOD ISLAND STATION



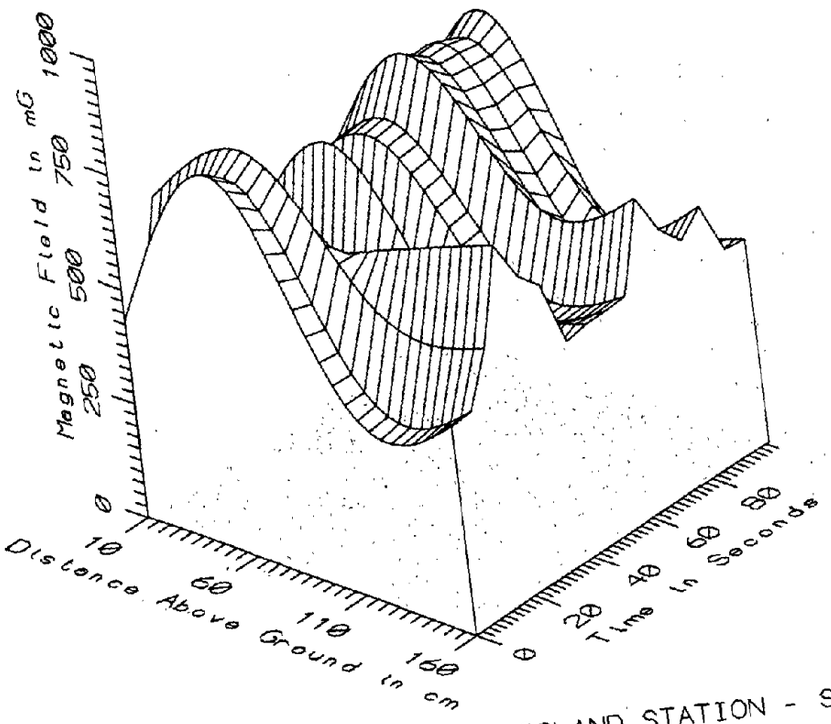
BOS048 - 160cm ABOVE GROUND, BLUE LINE WAYSIDE NEAR WOOD ISLAND STATION



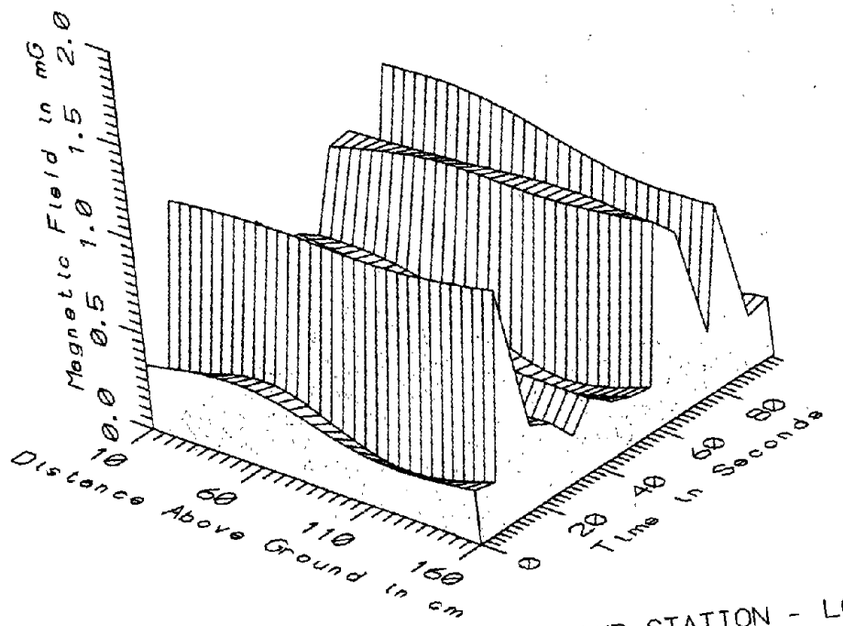
BOS048 - REF. PROBE - 15' FROM STAFF, BLUE LINE WAYSIDE NEAR WOOD ISLAND



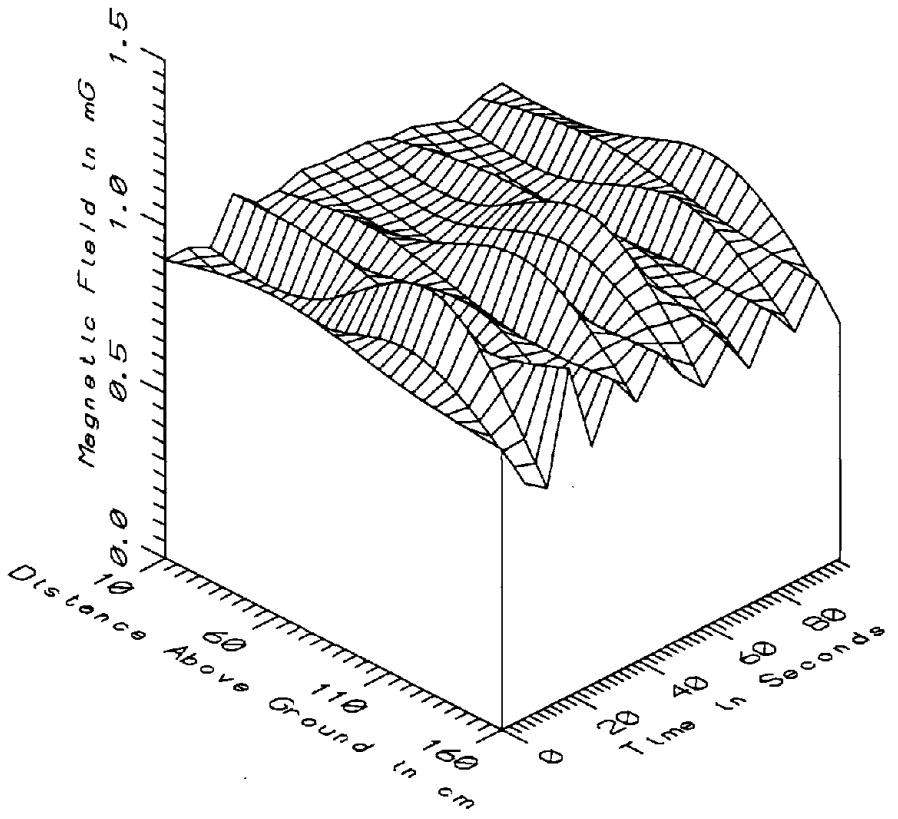
BOS048 - REF. PROBE - 15' FROM STAFF, BLUE LINE WAYSIDE NEAR WOOD ISLAND



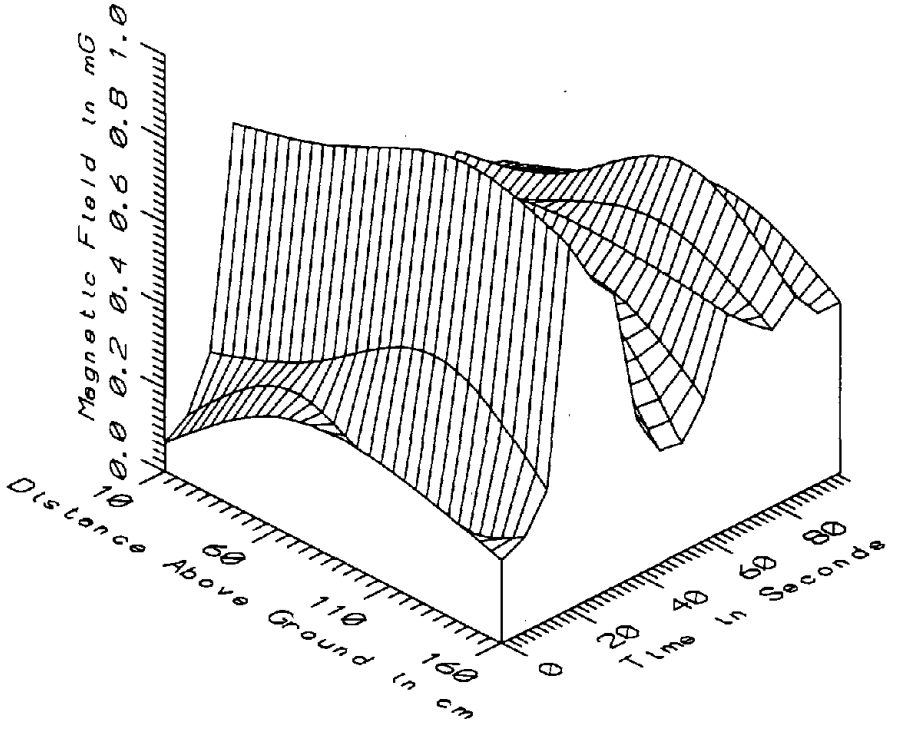
BOS048 - BLUE LINE WAYSIDE NEAR WOOD ISLAND STATION - STATIC



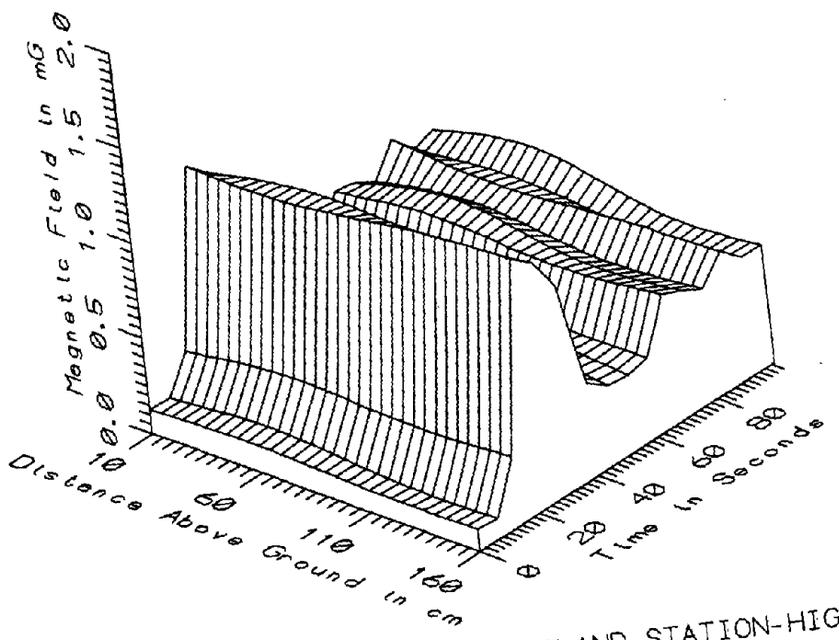
BOS048 - BLUE LINE WAYSIDE NEAR WOOD ISLAND STATION - LOW FREQ. 5-45Hz



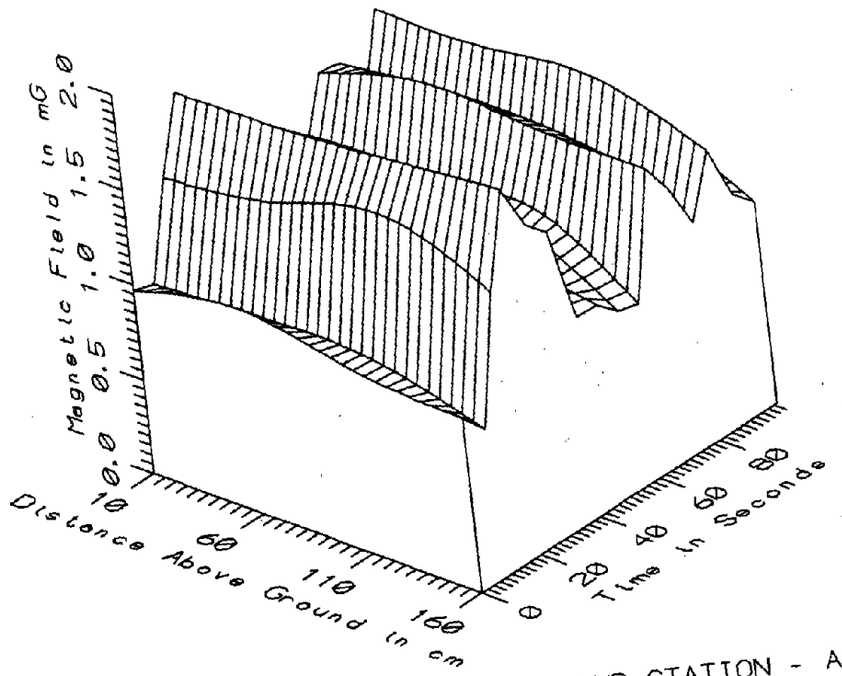
BOS048 - BLUE LINE WAYSIDE NEAR WOOD ISLAND STATION - POWER FREQ, 50-60Hz



BOS048 - BLUE LINE WAYSIDE NEAR WOOD ISLAND STATION - POWER HARM, 65-300Hz

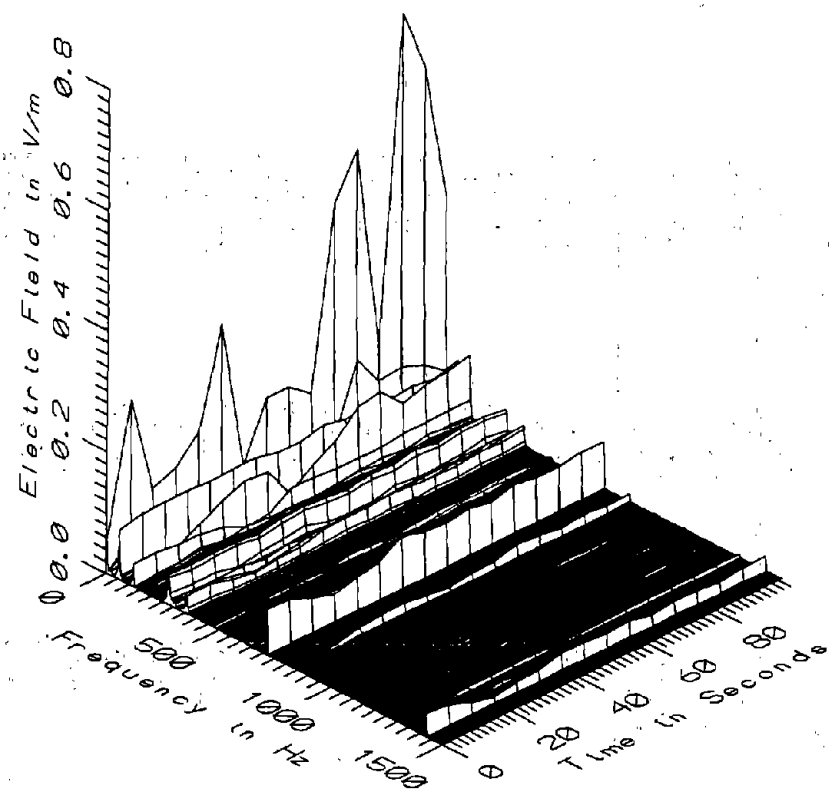


BOS048 - BLUE LINE WAYSIDE NEAR WOOD ISLAND STATION-HIGH FREQ. 305-2560Hz



BOS048 - BLUE LINE WAYSIDE NEAR WOOD ISLAND STATION - ALL FREQ. 5-2560Hz

BOS048 - BLUE LINE WAYSIDE NEAR WOOD ISLAND STATION					TOTAL OF 16 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	289.39	646.00	413.35	80.96	19.59
	60	362.39	823.32	679.64	154.31	22.70
	110	378.64	673.07	483.62	85.07	17.59
	160	446.96	768.91	545.90	97.22	17.81
5-45Hz LOW FREQ	10	0.19	1.07	0.55	0.27	49.85
	60	0.36	1.12	0.56	0.27	49.05
	110	0.12	1.12	0.43	0.34	78.98
	160	0.23	1.21	0.48	0.33	68.33
50-60Hz PWR FREQ	10	0.87	0.99	0.92	0.03	3.57
	60	0.84	0.97	0.91	0.05	5.12
	110	0.84	1.07	0.95	0.07	7.67
	160	0.66	0.98	0.79	0.09	11.16
65-300Hz PWR HARM	10	0.07	0.76	0.35	0.19	54.81
	60	0.27	0.84	0.47	0.16	34.60
	110	0.15	0.94	0.53	0.18	34.27
	160	0.20	0.87	0.44	0.19	44.18
305-2560Hz HIGH FREQ	10	0.12	1.20	0.56	0.31	56.30
	60	0.14	1.21	0.59	0.32	54.20
	110	0.11	1.30	0.60	0.34	56.02
	160	0.11	1.35	0.62	0.35	57.09
5-2560Hz ALL FREQ	10	0.93	1.81	1.32	0.25	18.89
	60	0.97	1.83	1.36	0.26	19.44
	110	0.96	1.87	1.38	0.28	20.03
	160	0.80	1.93	1.26	0.33	25.73



BOS048 - ELECTRIC FIELD AT BLUE LINE WAYSIDE NEAR WOOD ISLAND STATION

APPENDIX AX

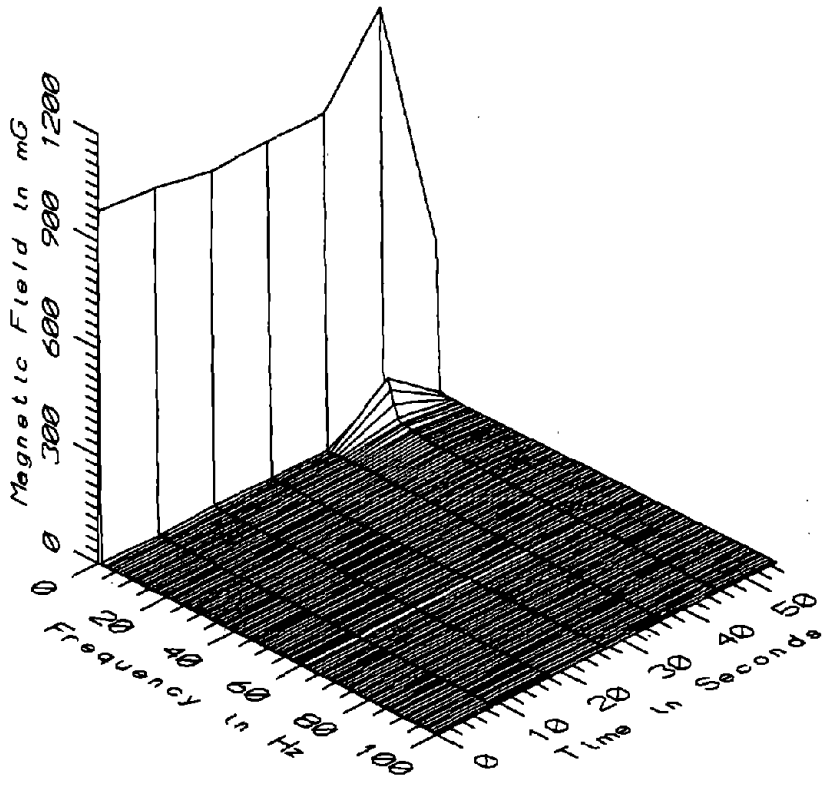
DATASET BOS049
ON WOOD ISLAND STATION PLATFORM, BLUE LINE

Measurement Setup Code:	Staff: 40 Reference: 41 Drawing: A-5
Vehicle Status:	NA
Measurement Date:	June 11, 1992
Measurement Time:	Start: 14:00:58 End: 14:01:53
Number of Samples:	7
Programmed Sample Interval:	5 sec
Actual Sample Interval:	9.2 sec

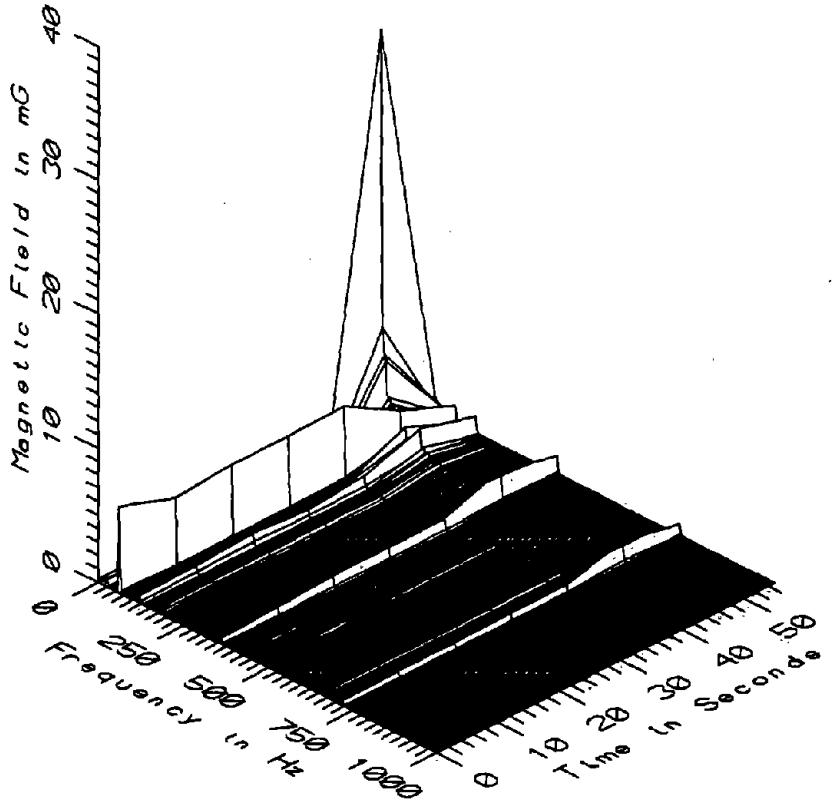
Frequency Spectrum Parameters

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

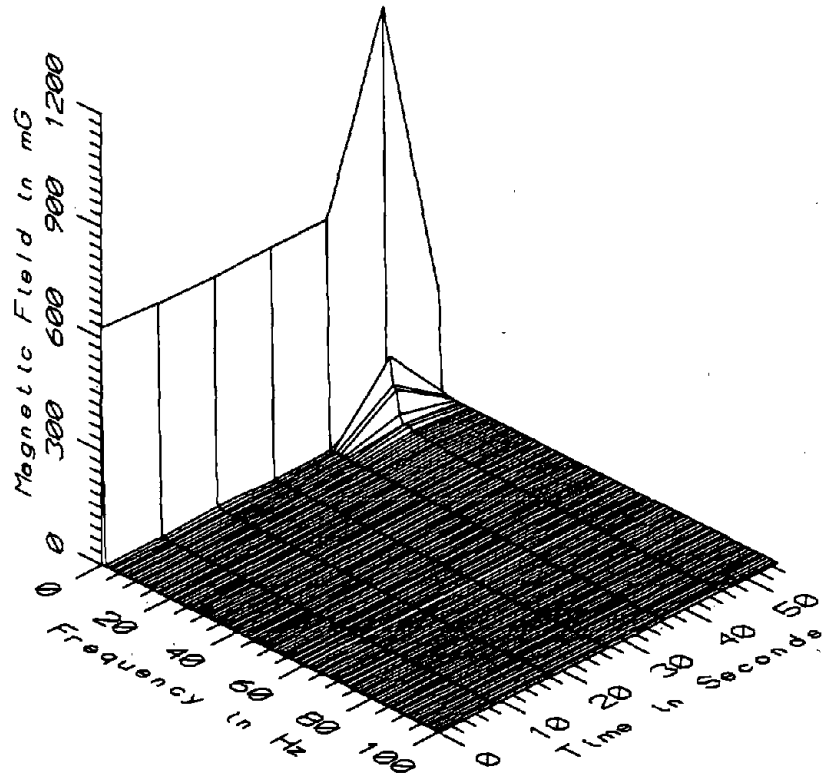
Missing Data: None



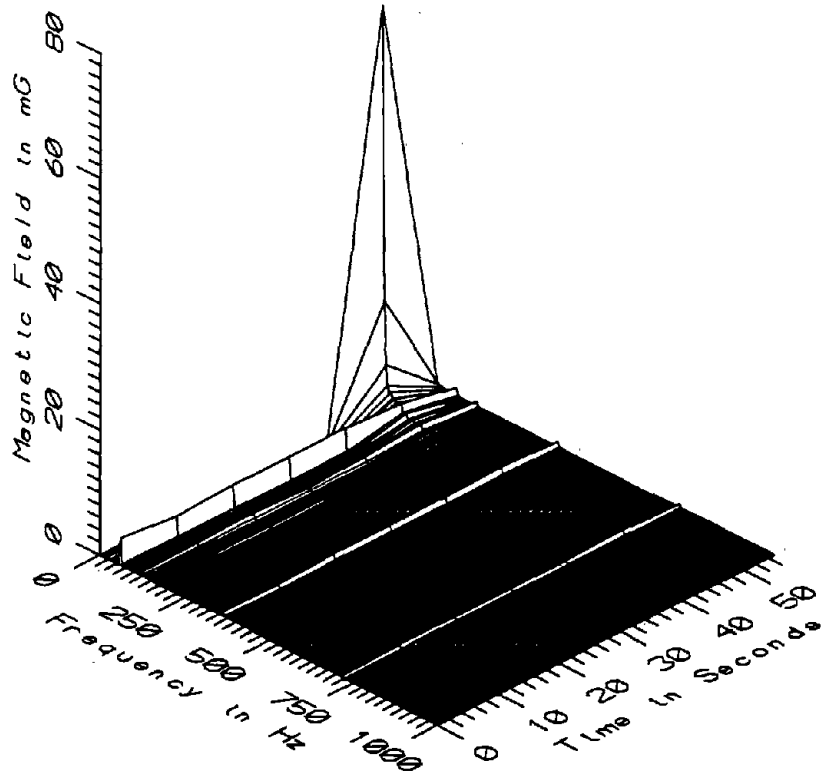
BOS049 - 10cm ABOVE PLATFORM AT WOOD ISLAND STATION, BLUE LINE



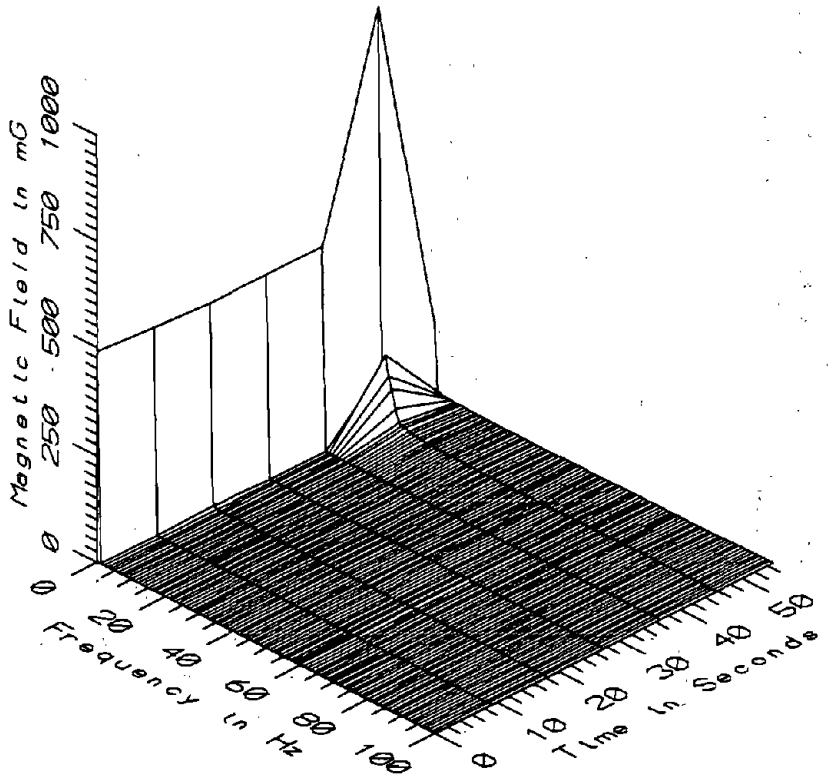
BOS049 - 10cm ABOVE PLATFORM AT WOOD ISLAND STATION, BLUE LINE



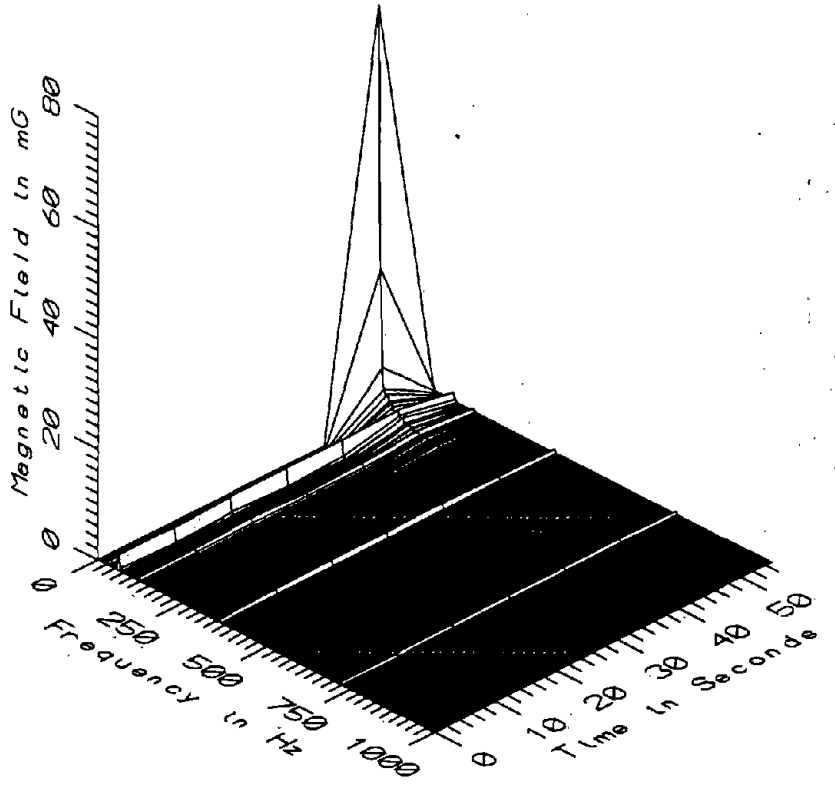
BOS049 - 60cm ABOVE PLATFORM AT WOOD ISLAND STATION, BLUE LINE



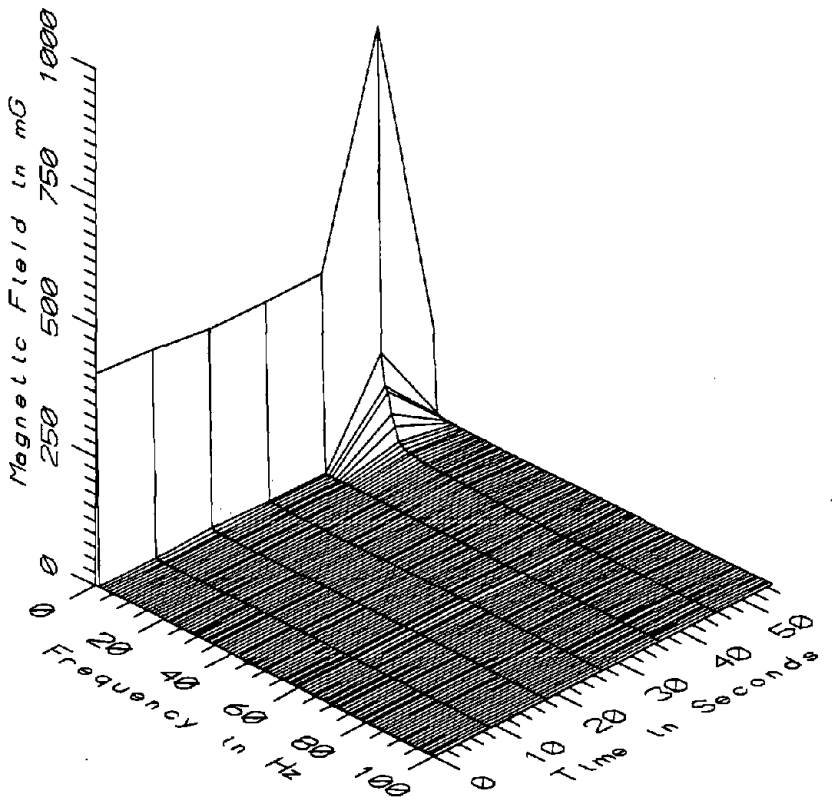
BOS049 - 60cm ABOVE PLATFORM AT WOOD ISLAND STATION, BLUE LINE



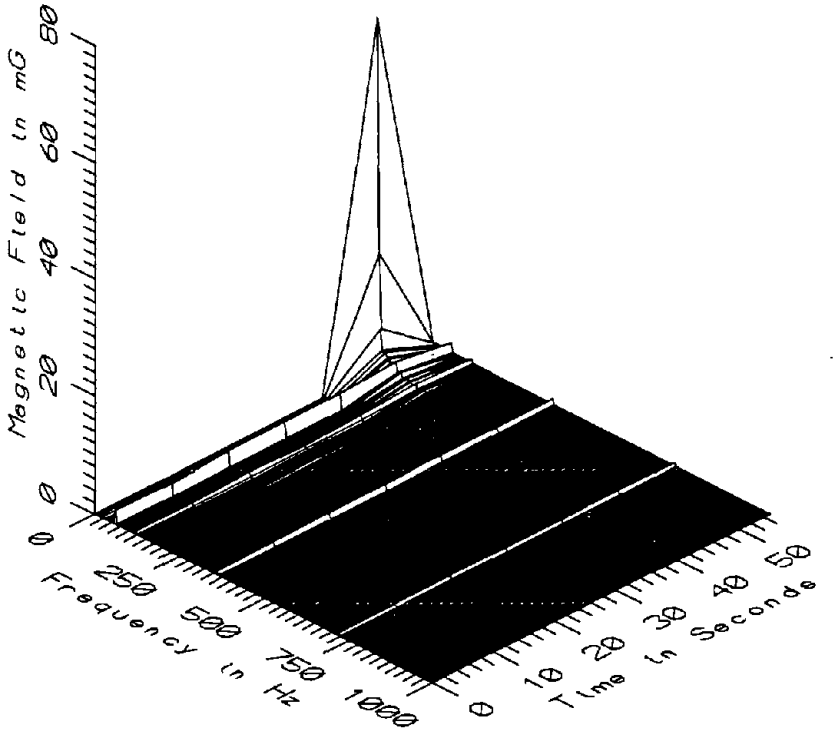
BOS049 - 110cm ABOVE PLATFORM AT WOOD ISLAND STATION, BLUE LINE



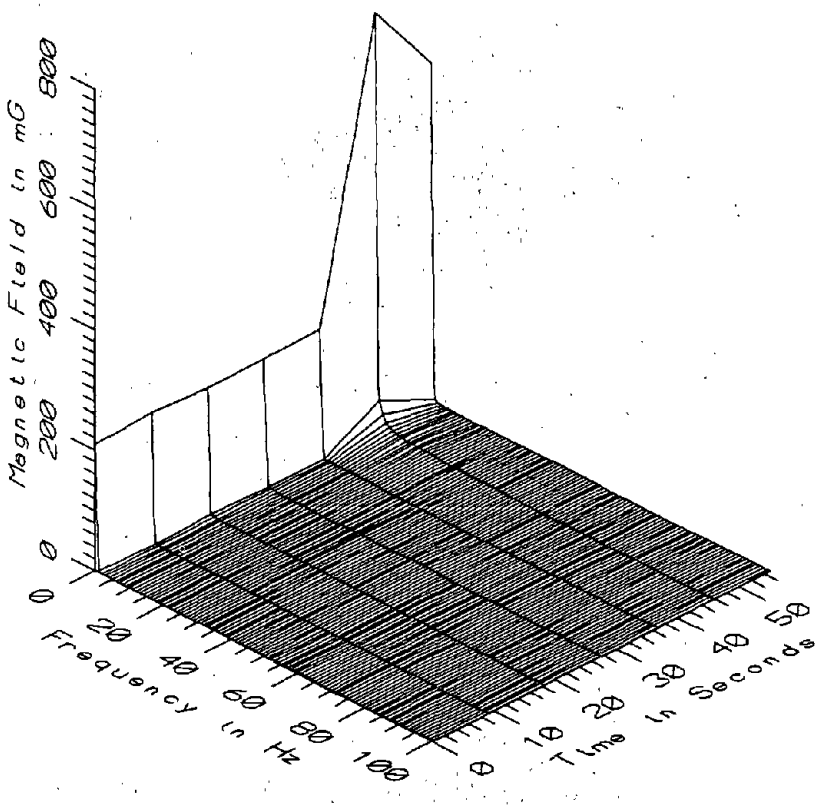
BOS049 - 110cm ABOVE PLATFORM AT WOOD ISLAND STATION, BLUE LINE



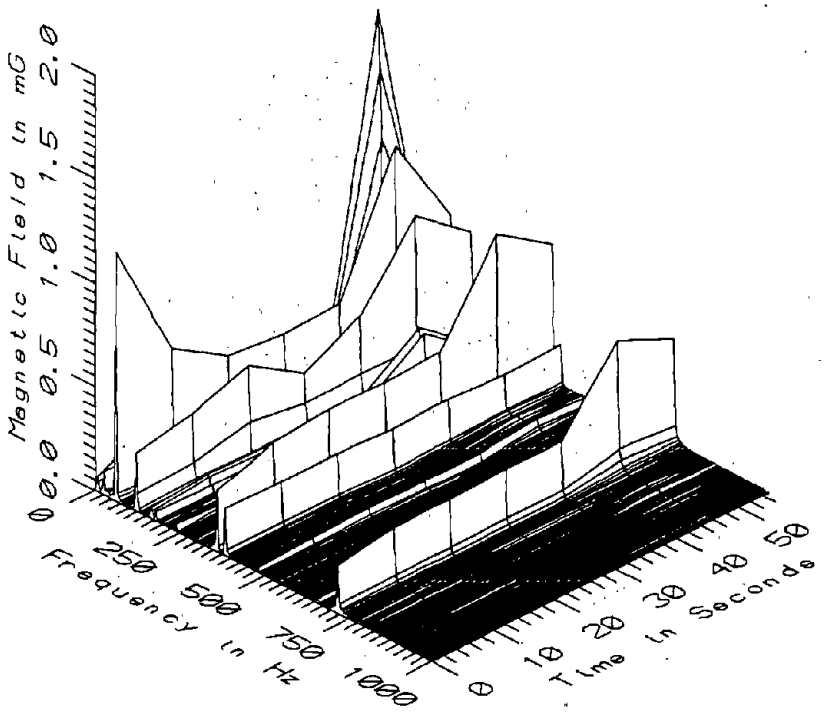
BOS049 - 160cm ABOVE PLATFORM AT WOOD ISLAND STATION, BLUE LINE



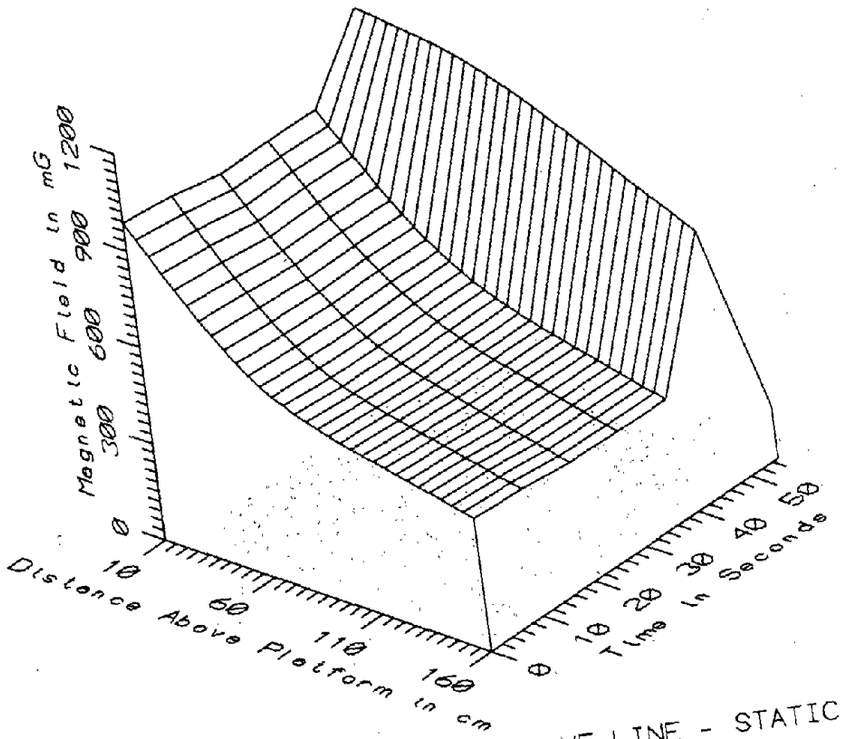
BOS049 - 160cm ABOVE PLATFORM AT WOOD ISLAND STATION, BLUE LINE



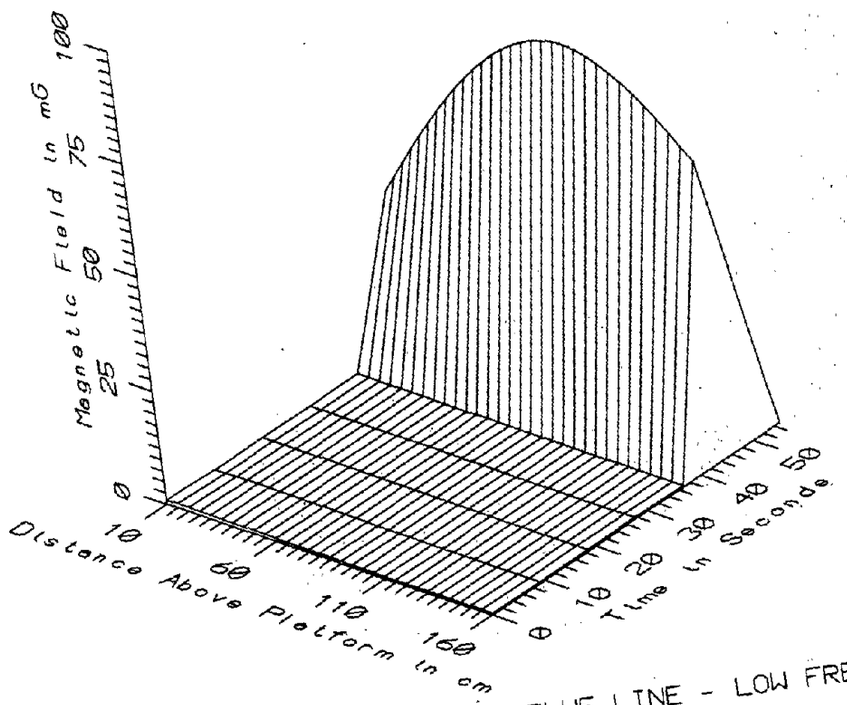
BOS049 - REFERENCE PROBE - ON WOOD ISLAND STATION PLATFORM, BLUE LINE



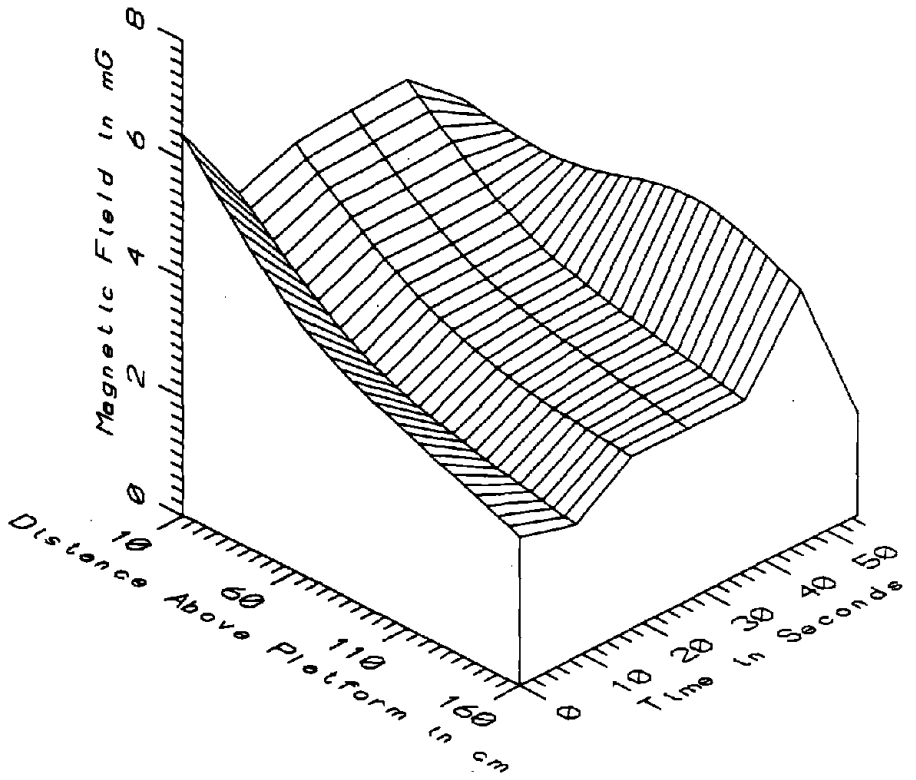
BOS049 - REFERENCE PROBE - ON WOOD ISLAND STATION PLATFORM, BLUE LINE



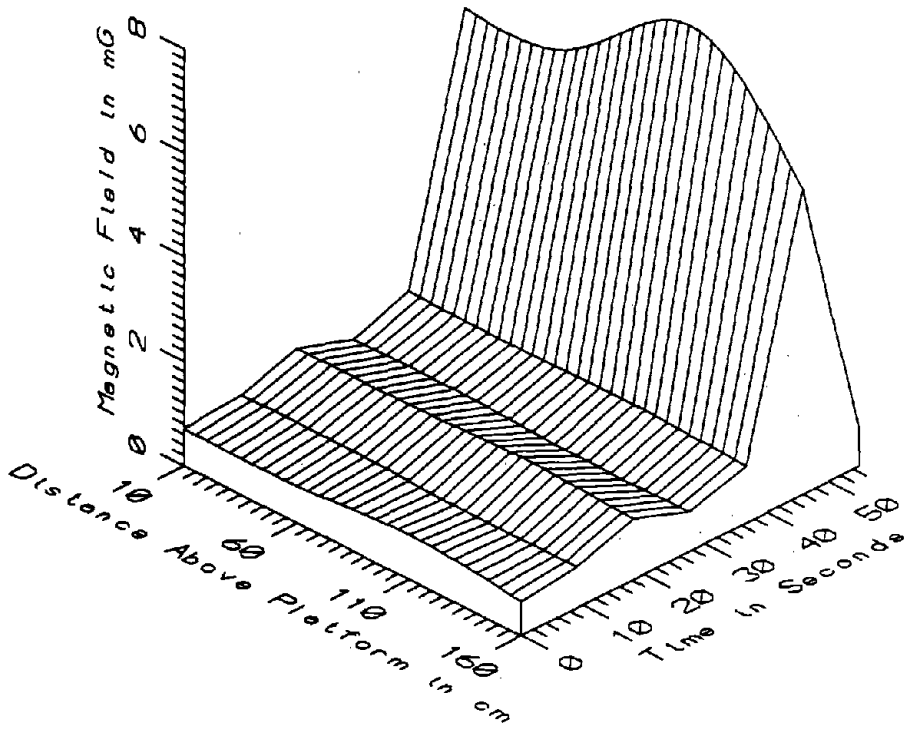
BOS049 - AT WOOD ISLAND STATION, BLUE LINE - STATIC



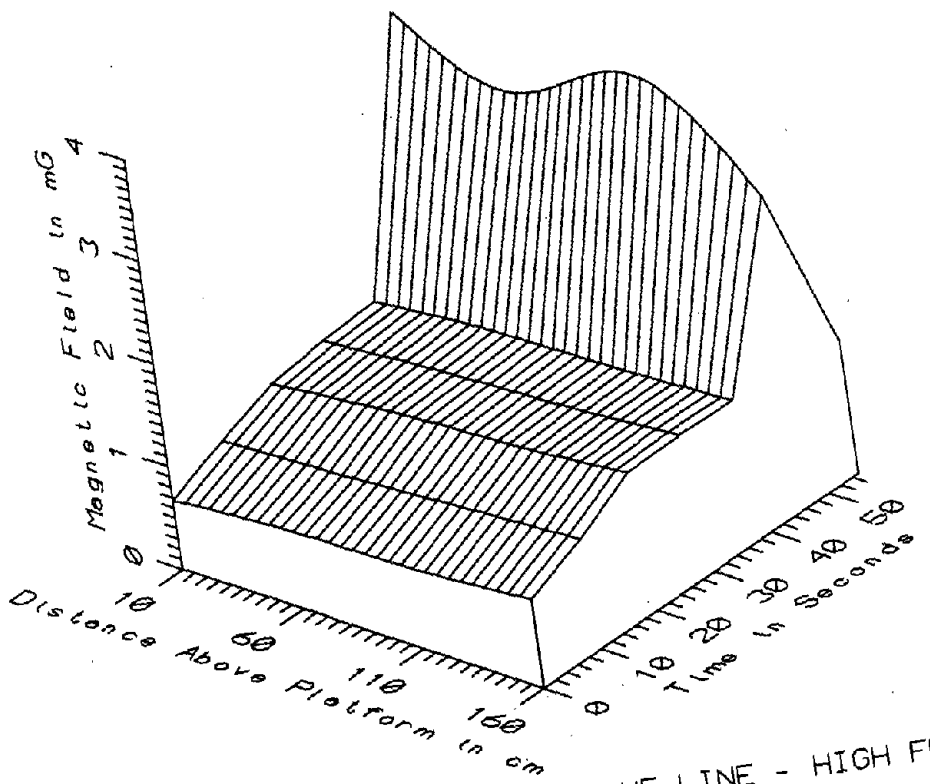
BOS049 - AT WOOD ISLAND STATION, BLUE LINE - LOW FREQ. 5-45Hz



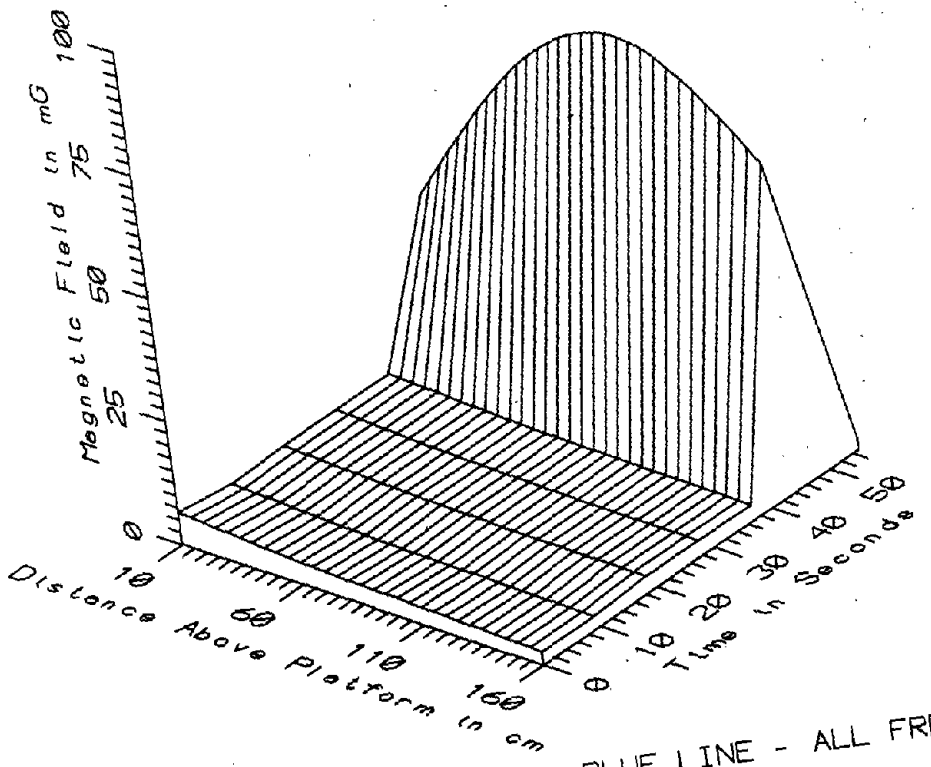
BOS049 - AT WOOD ISLAND STATION, BLUE LINE - POWER FREQ, 50-60Hz



BOS049 - AT WOOD ISLAND STATION, BLUE LINE - POWER HARM, 65-300Hz

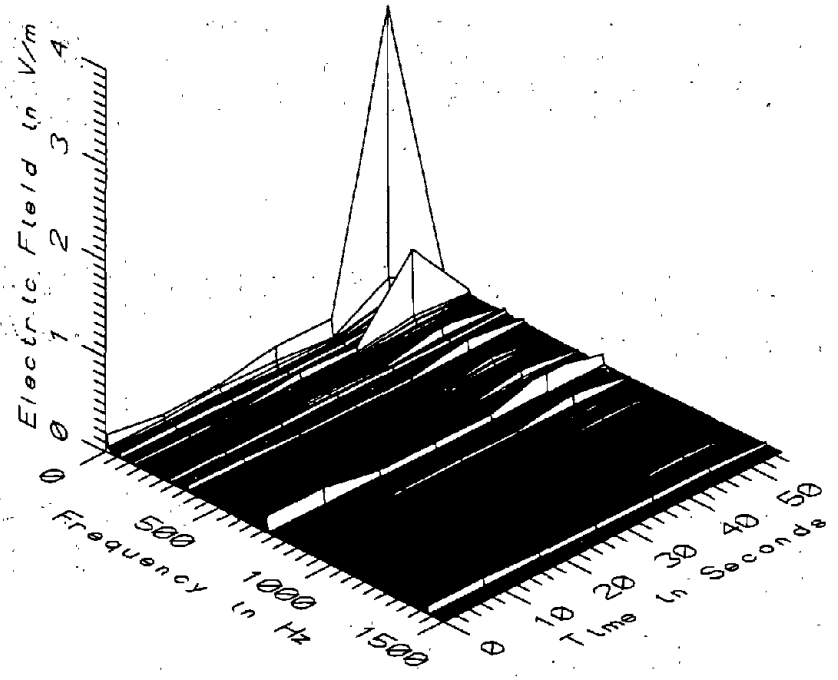


BOS049 - AT WOOD ISLAND STATION, BLUE LINE - HIGH FREQ, 305-2560Hz



BOS049 - AT WOOD ISLAND STATION, BLUE LINE - ALL FREQ, 5-2560Hz

BOS049 - ON WOOD ISLAND STATION PLATFORM, BLUE LINE					TOTAL OF 7 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	420.65	1156.46	906.47	227.86	25.14
	60	264.65	1105.57	636.93	245.02	38.47
	110	169.25	970.47	504.45	235.66	46.72
	160	164.84	808.29	420.52	191.47	45.53
5-45Hz LOW FREQ	10	0.57	33.92	5.52	12.52	226.74
	60	0.50	68.77	10.31	25.78	250.04
	110	0.30	81.41	11.97	30.62	255.91
	160	0.34	65.04	9.65	24.42	253.20
50-60Hz PWR FREQ	10	1.35	6.42	4.78	1.61	33.68
	60	1.38	4.48	3.61	1.04	28.86
	110	1.66	4.92	3.18	0.97	30.52
	160	1.71	4.26	2.77	0.79	28.56
65-300Hz PWR HARM	10	0.71	6.07	1.71	1.93	112.70
	60	0.71	6.36	1.69	2.07	122.05
	110	0.74	7.92	1.94	2.64	136.37
	160	0.65	5.86	1.58	1.89	119.47
305-2560Hz HIGH FREQ	10	0.67	3.71	1.49	1.02	68.65
	60	0.76	3.30	1.42	0.85	59.62
	110	0.78	3.88	1.53	1.05	68.66
	160	0.87	3.06	1.51	0.71	47.03
5-2560Hz ALL FREQ	10	2.78	34.96	9.48	11.30	119.15
	60	2.06	69.29	13.19	24.75	187.66
	110	2.15	82.03	14.54	29.77	204.76
	160	2.30	65.51	11.92	23.63	198.27



BOS049 - ELECTRIC FIELD AT WOOD ISLAND STATION, BLUE LINE

APPENDIX AY

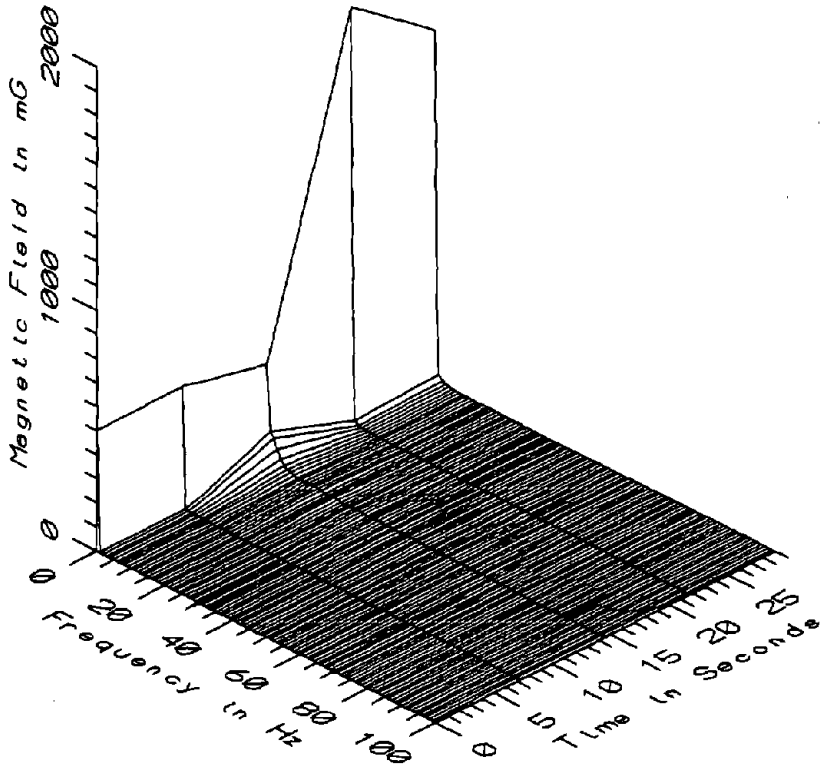
DATASET BOS050
ON WOOD ISLAND STATION PLATFORM, BLUE LINE

Measurement Setup Code:	Staff: 38 Reference: 39 Drawing: A-5
Vehicle Status:	NA
Measurement Date:	June 11, 1992
Measurement Time:	Start: 14:09:04 End: 14:09:33
Number of Samples:	5
Programmed Sample Interval:	5 sec
Actual Sample Interval:	7.3 sec

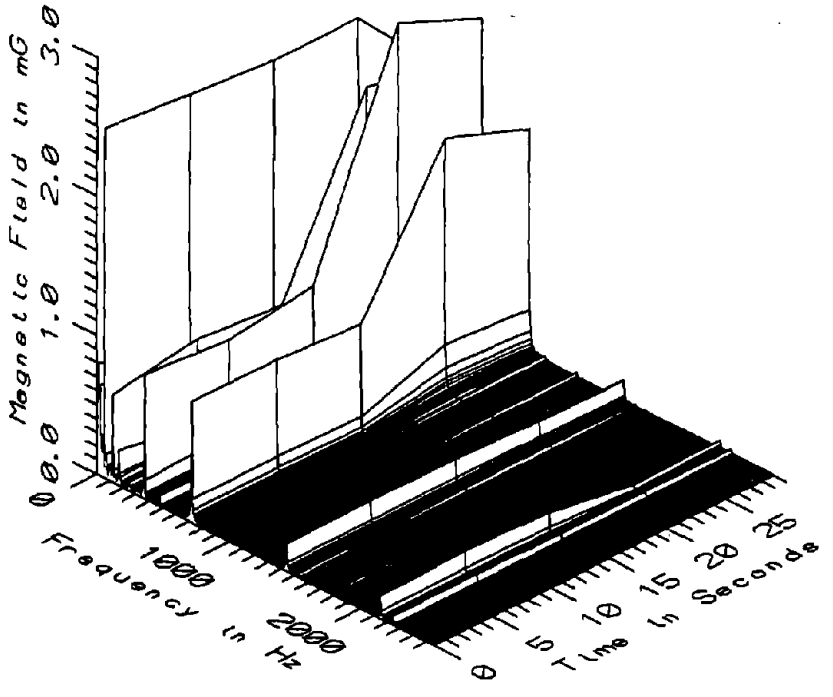
Frequency Spectrum Parameters

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

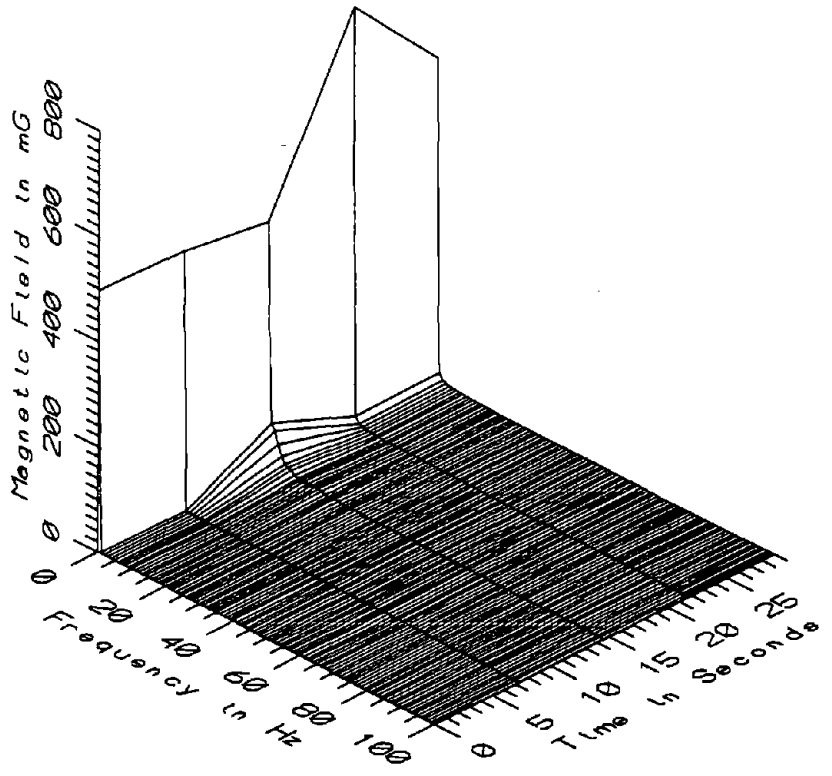
Missing Data: None



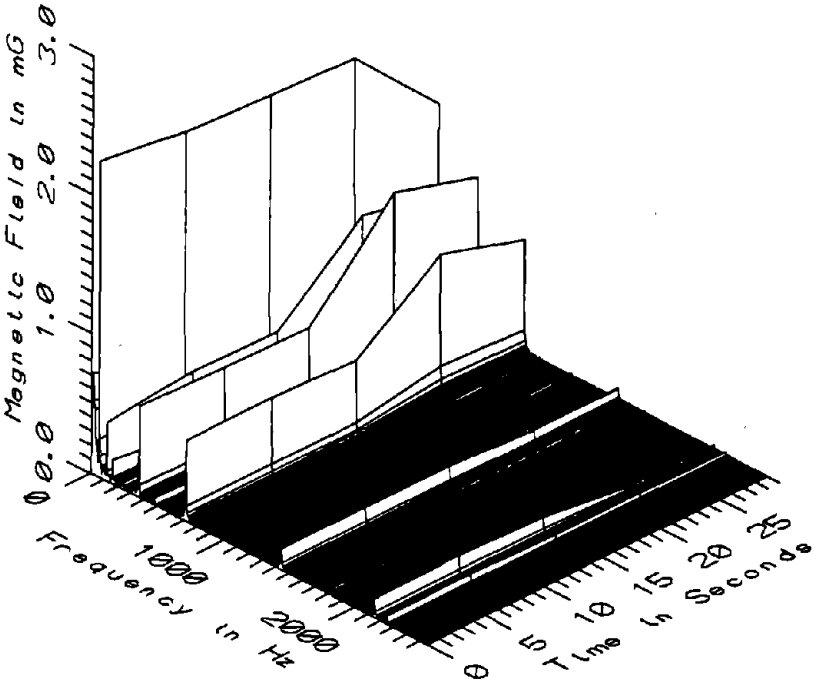
BOS050 - 10cm ABOVE PLATFORM AT WOOD ISLAND STATION, BLUE LINE



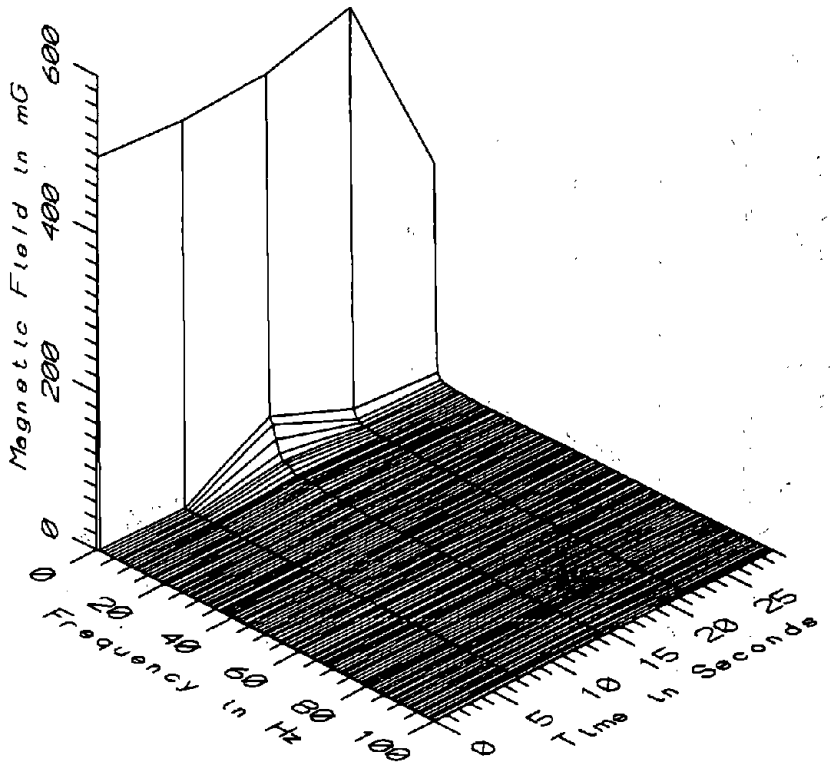
BOS050 - 10cm ABOVE PLATFORM AT WOOD ISLAND STATION, BLUE LINE



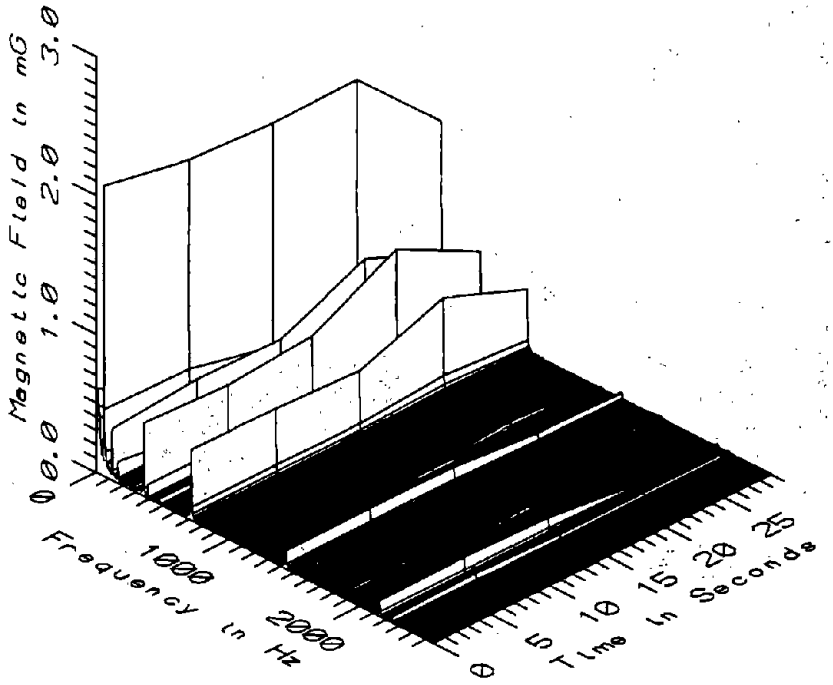
BOS050 - 60cm ABOVE PLATFORM AT WOOD ISLAND STATION, BLUE LINE



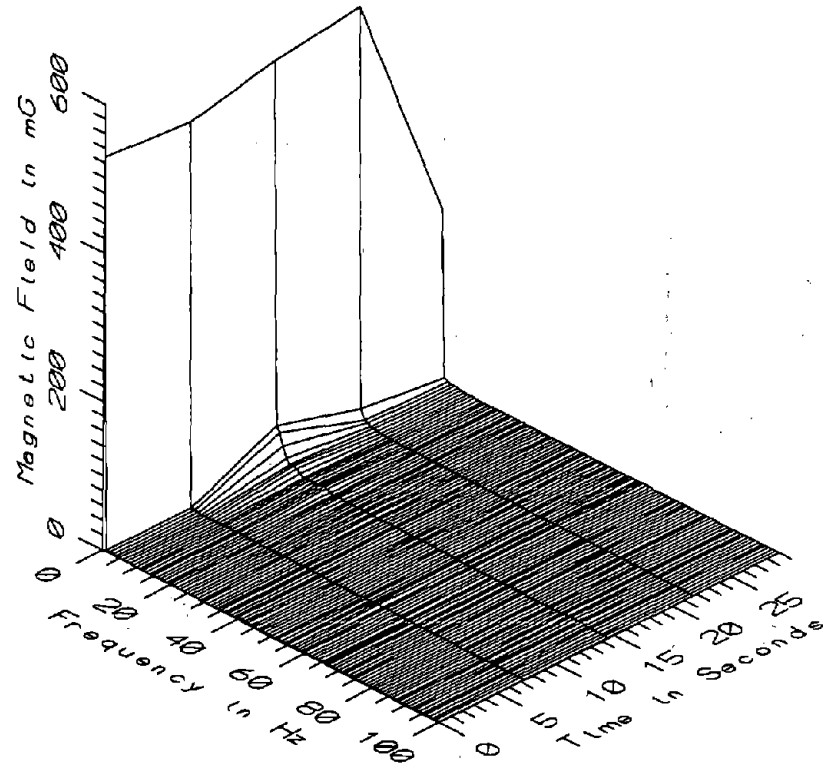
BOS050 - 60cm ABOVE PLATFORM AT WOOD ISLAND STATION, BLUE LINE



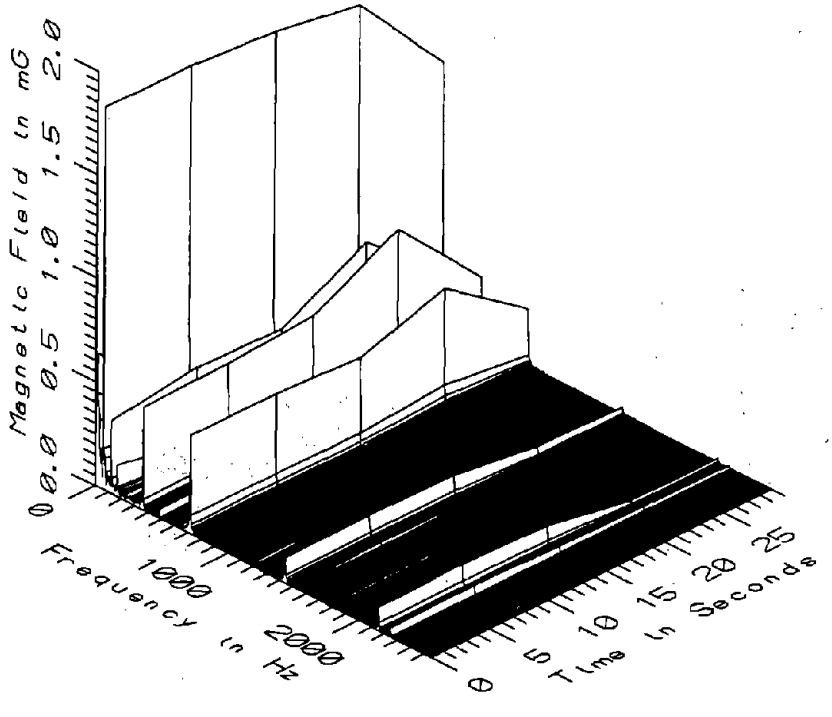
BOS050 - 110cm ABOVE PLATFORM AT WOOD ISLAND STATION, BLUE LINE



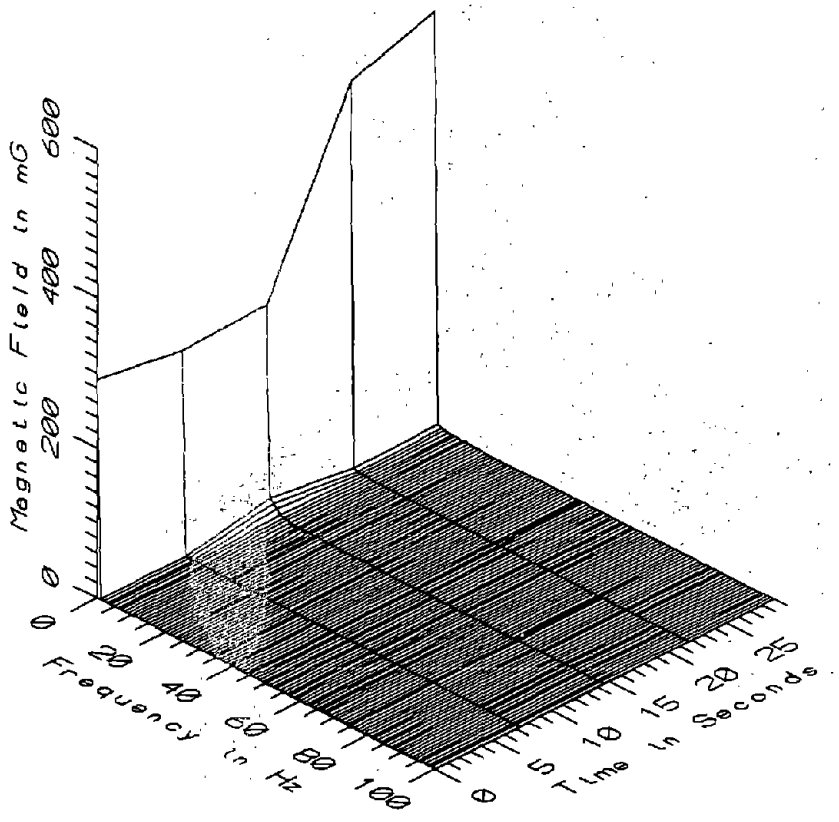
BOS050 - 110cm ABOVE PLATFORM AT WOOD ISLAND STATION, BLUE LINE



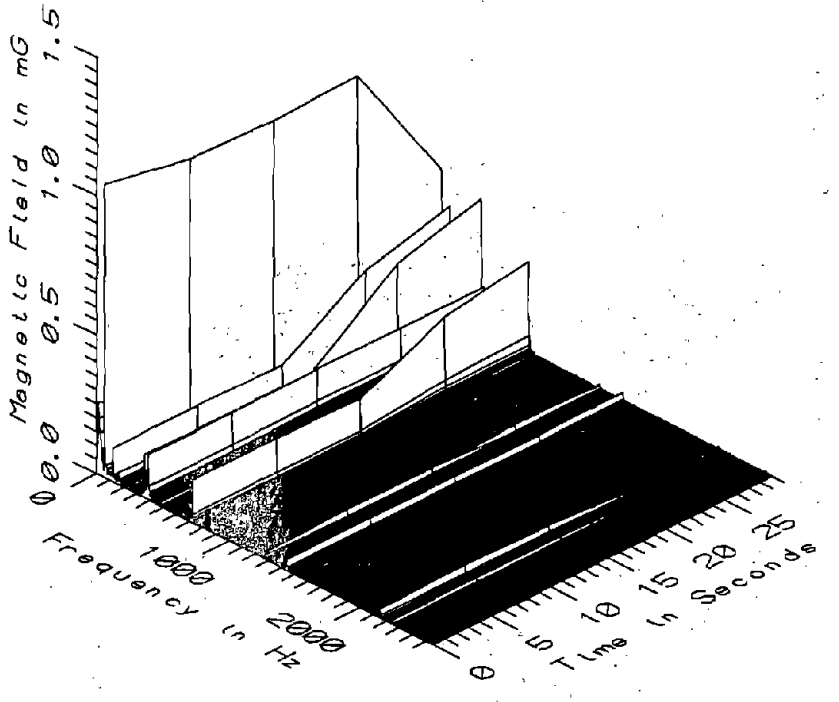
BOS050 - 160cm ABOVE PLATFORM AT WOOD ISLAND STATION, BLUE LINE



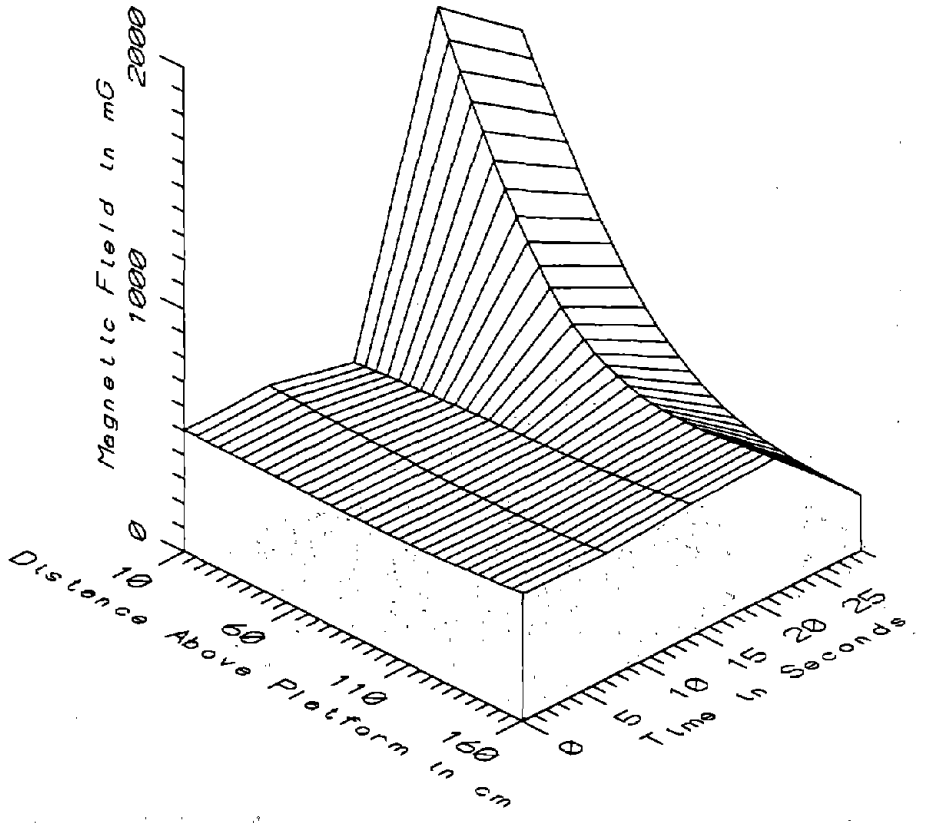
BOS050 - 160cm ABOVE PLATFORM AT WOOD ISLAND STATION, BLUE LINE



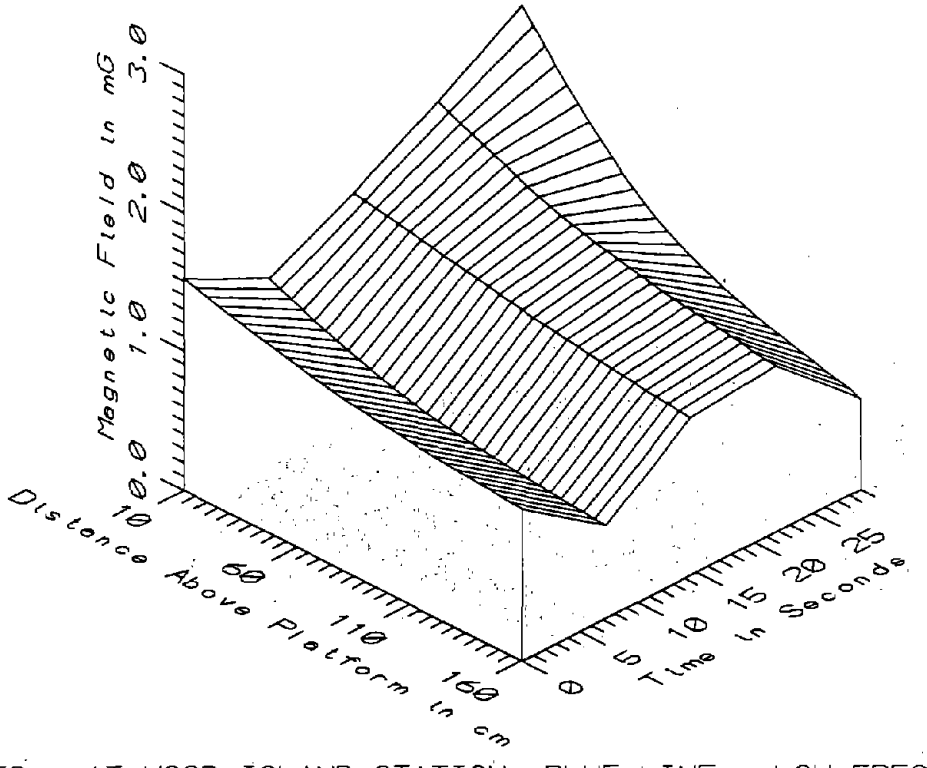
BOS050 - REFERENCE PROBE - ON WOOD ISLAND STATION PLATFORM, BLUE LINE



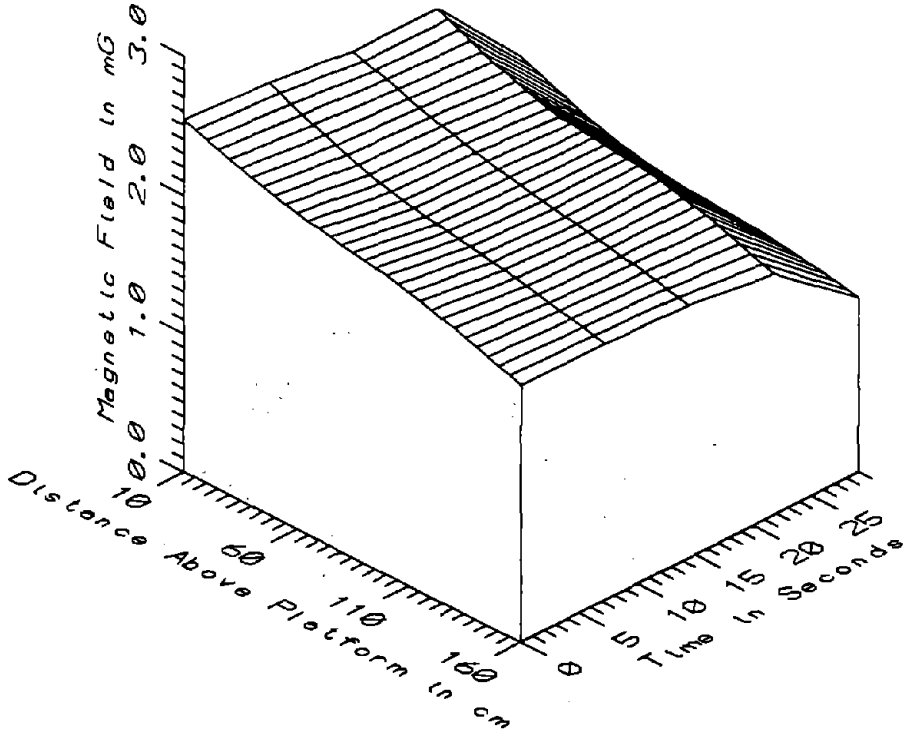
BOS050 - REFERENCE PROBE - ON WOOD ISLAND STATION PLATFORM, BLUE LINE



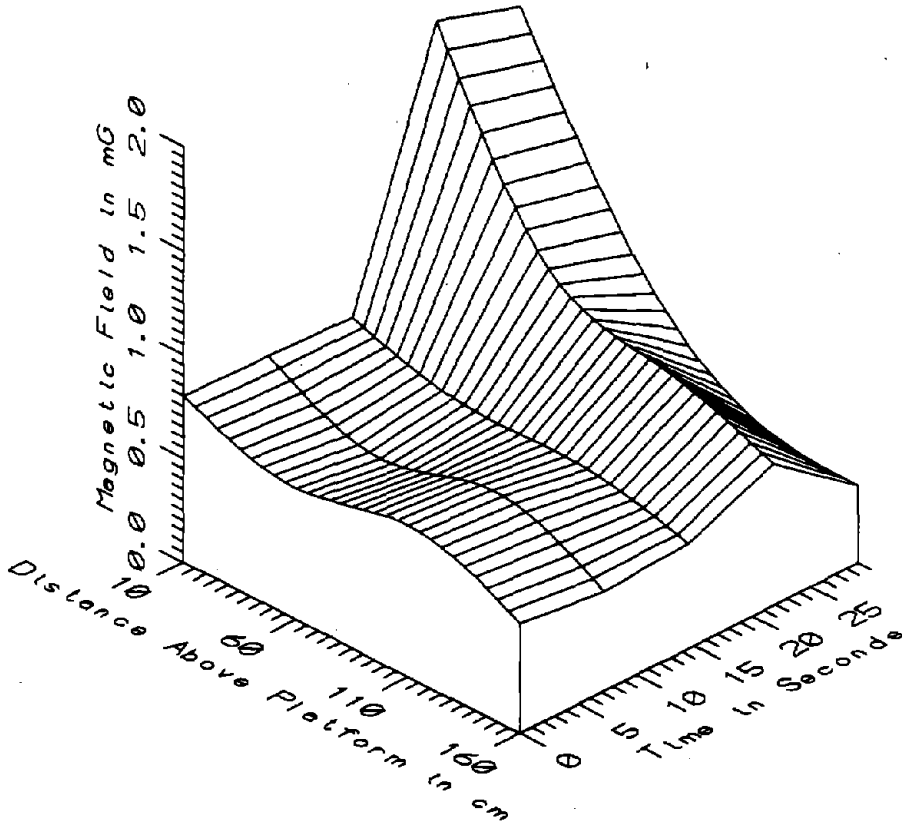
BOS050 - AT WOOD ISLAND STATION, BLUE LINE - STATIC



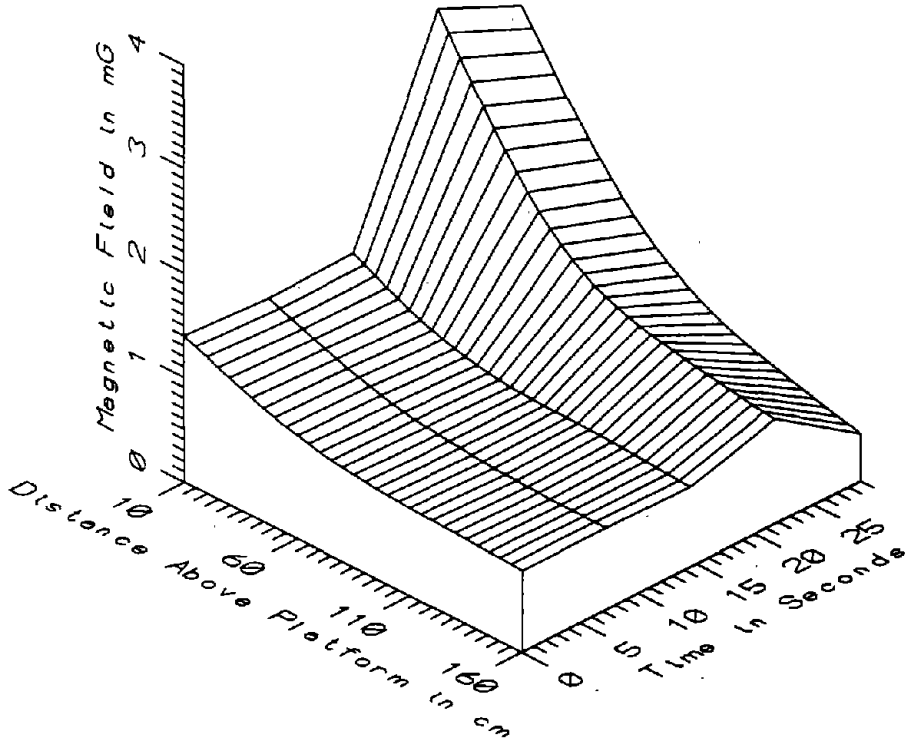
BOS050 - AT WOOD ISLAND STATION, BLUE LINE - LOW FREQ, 5-45Hz



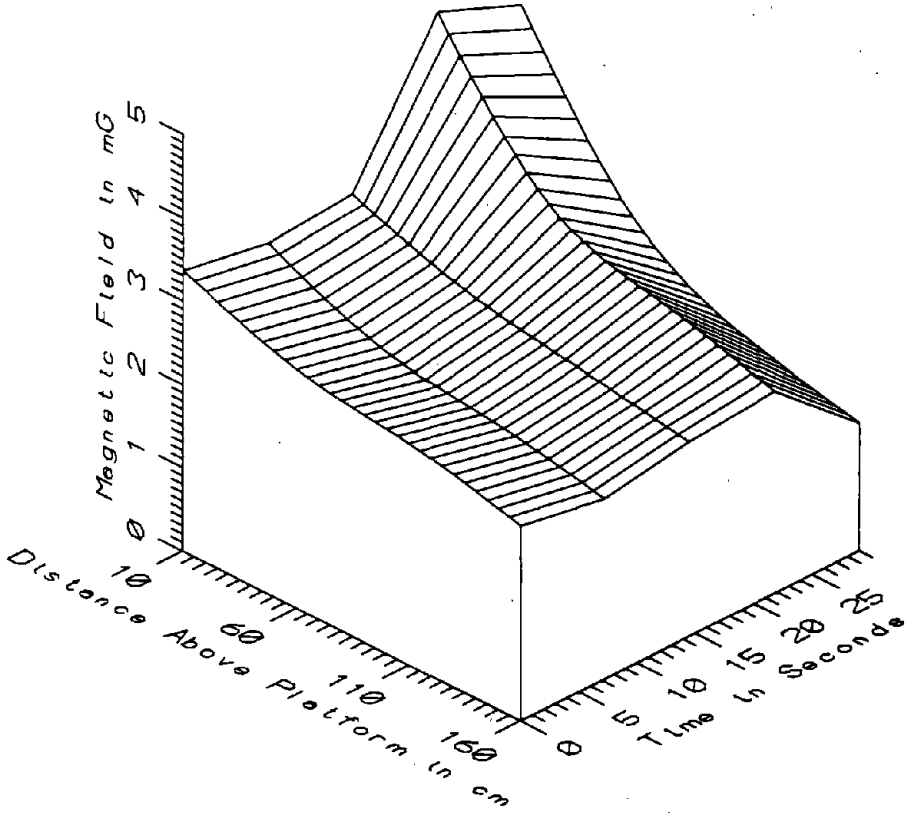
BOS050 - AT WOOD ISLAND STATION, BLUE LINE - POWER FREQ, 50-60Hz



BOS050 - AT WOOD ISLAND STATION, BLUE LINE - POWER HARM, 65-300Hz

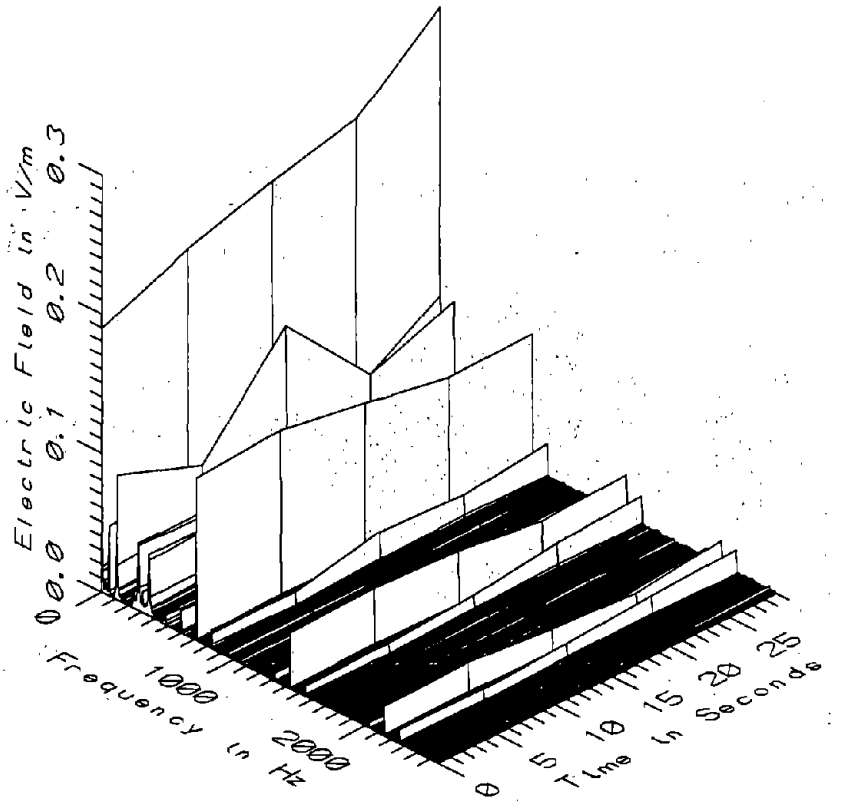


BOS050 - AT WOOD ISLAND STATION, BLUE LINE - HIGH FREQ, 305-2560Hz



BOS050 - AT WOOD ISLAND STATION, BLUE LINE - ALL FREQ, 5-2560Hz

BOS050 - ON WOOD ISLAND STATION PLATFORM, BLUE LINE					TOTAL OF 5 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	427.70	1718.22	921.16	612.72	66.52
	60	467.60	794.72	574.16	136.17	23.72
	110	275.45	525.77	456.72	102.29	22.40
	160	231.69	561.85	477.64	138.48	28.99
5-45Hz LOW FREQ	10	1.22	2.27	1.68	0.40	23.92
	60	0.90	1.53	1.29	0.23	18.20
	110	0.75	1.33	1.07	0.24	22.69
	160	0.66	1.19	0.95	0.26	27.90
50-60Hz PWR FREQ	10	1.77	2.54	2.33	0.32	13.59
	60	1.49	2.28	2.04	0.32	15.59
	110	1.39	2.11	1.90	0.29	15.20
	160	1.26	1.85	1.70	0.25	14.78
65-300Hz PWR HARM	10	0.77	1.99	1.24	0.62	50.23
	60	0.57	1.08	0.77	0.23	29.64
	110	0.46	0.88	0.67	0.15	22.65
	160	0.37	0.68	0.51	0.11	21.95
305-2560Hz HIGH FREQ	10	1.36	3.31	2.07	0.97	46.55
	60	0.92	1.74	1.21	0.36	30.04
	110	0.77	1.19	0.89	0.17	19.29
	160	0.46	1.00	0.76	0.19	25.74
5-2560Hz ALL FREQ	10	3.19	4.93	3.85	0.81	20.97
	60	2.62	3.31	2.85	0.28	9.80
	110	1.88	2.82	2.46	0.36	14.54
	160	1.54	2.43	2.16	0.36	16.76



BOS050 - ELECTRIC FIELD AT WOOD ISLAND STATION, BLUE LINE

*U.S. G.P.O.:1993-343-273:80083