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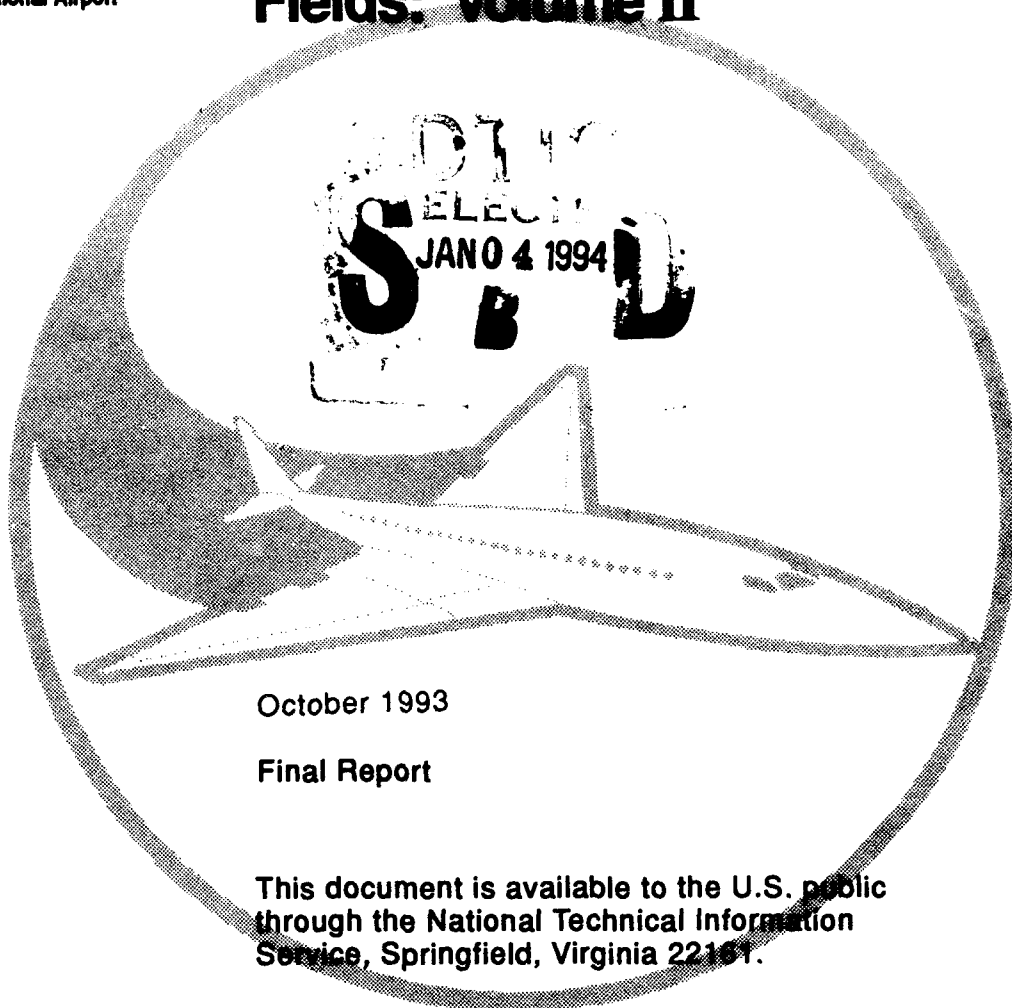


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DOT/FAA/CT-93/5-II

FAA Technical Center
Atlantic City International Airport
N.J. 08405

S-76 High Intensity Radiated Fields: Volume II



October 1993

Final Report

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U.S. Department of Transportation
Federal Aviation Administration

94-00043



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Technical Report Documentation Page

1. Report No. DOT/FAA/CT-93/5, II*		2. Government Accession No.		3. Recipient's Catalog No.	
4. Title and Subtitle S-76 HIGH INTENSITY RADIATED FIELDS: VOLUME II				5. Report Date October 1993	
				6. Performing Organization Code	
				8. Performing Organization Report No.	
7. Author(s) Jerry Blair				10. Work Unit No. (TRAIS)	
9. Performing Organization Name and Address SCIENTECH, Inc. 1690 International Way Idaho Falls, Idaho 83402				11. Contract or Grant No.	
				13. Type of Report and Period Covered Final Report	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Federal Aviation Administration Technical Center Atlantic City International Airport, NJ 08405				14. Sponsoring Agency Code ACD-230	
15. Supplementary Notes FAA Project Manager: Michael Glynn * Volume II of III					
16. Abstract The Federal Aviation Administration (FAA) Technical Center sponsored a series of High Intensity Radiated Fields (HIRF) test on a Sikorsky S-76 rotorcraft. The project was conducted to evaluate the practicality of performing aircraft level HIRF tests, determine the effects of HIRF on a specific rotorcraft with the potential to obtain information on rotorcraft in general, and evaluate the effects of exposure to "real world" HIRF emitters. HIRF ground and flight tests were conducted to achieve the objective of the project. Site calibration (SCAL) measurements were made in the test area to determine the levels at which the S-76 would be irradiated when placed in the test area. Ground tests consisted of Low Level Swept Coupling (LLSC) and Low Level Swept Fields (LLSF) tests. The flight tests were flown directly into the main beam of a variety of pulsed and continuous wave (CW) transmitters including the Over the Horizon Back Scatter (OTHB), PAVE PAWS, ASR-9, FPS-65, and FPS-16 radars. Results of the S-76 tests added credibility to the existence of HIRF as a flight safety hazard. In the evaluation of the emitters, the flight tests showed repeatable instances where exposure resulted in instrumentation disruptions. It should however be noted that all the observed disruptions were of a non-critical nature.					
17. Key Words HIRF Electromagnetic Fields LLSC Helicopter			18. Distribution Statement Document is available to the public through the National Technical Information Service, Springfield, Virginia 22161		
19. Security Classif. (of this report) Unclassified		20. Security Classif. (of this page) Unclassified		21. No. of Pages 169	22. Price

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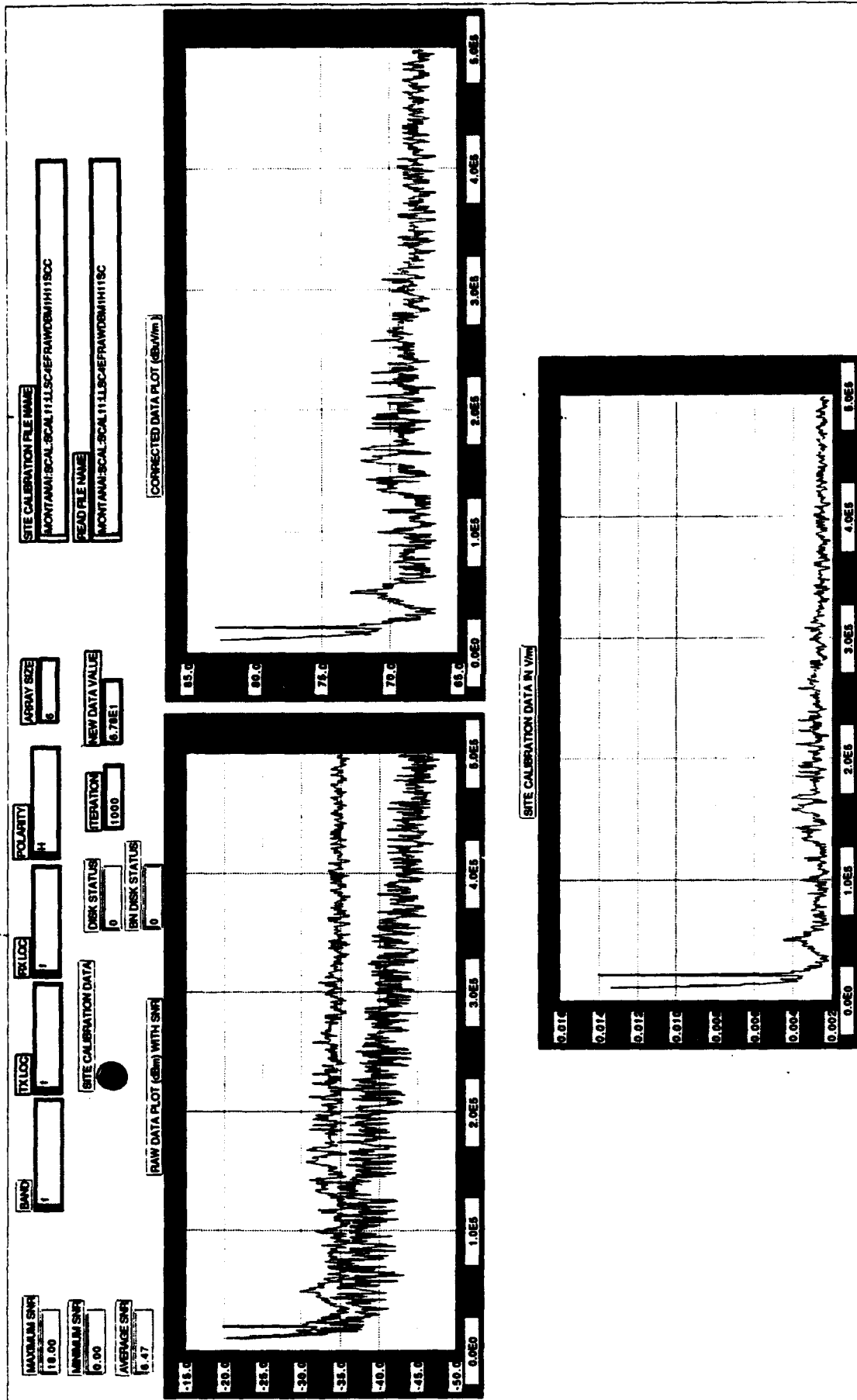
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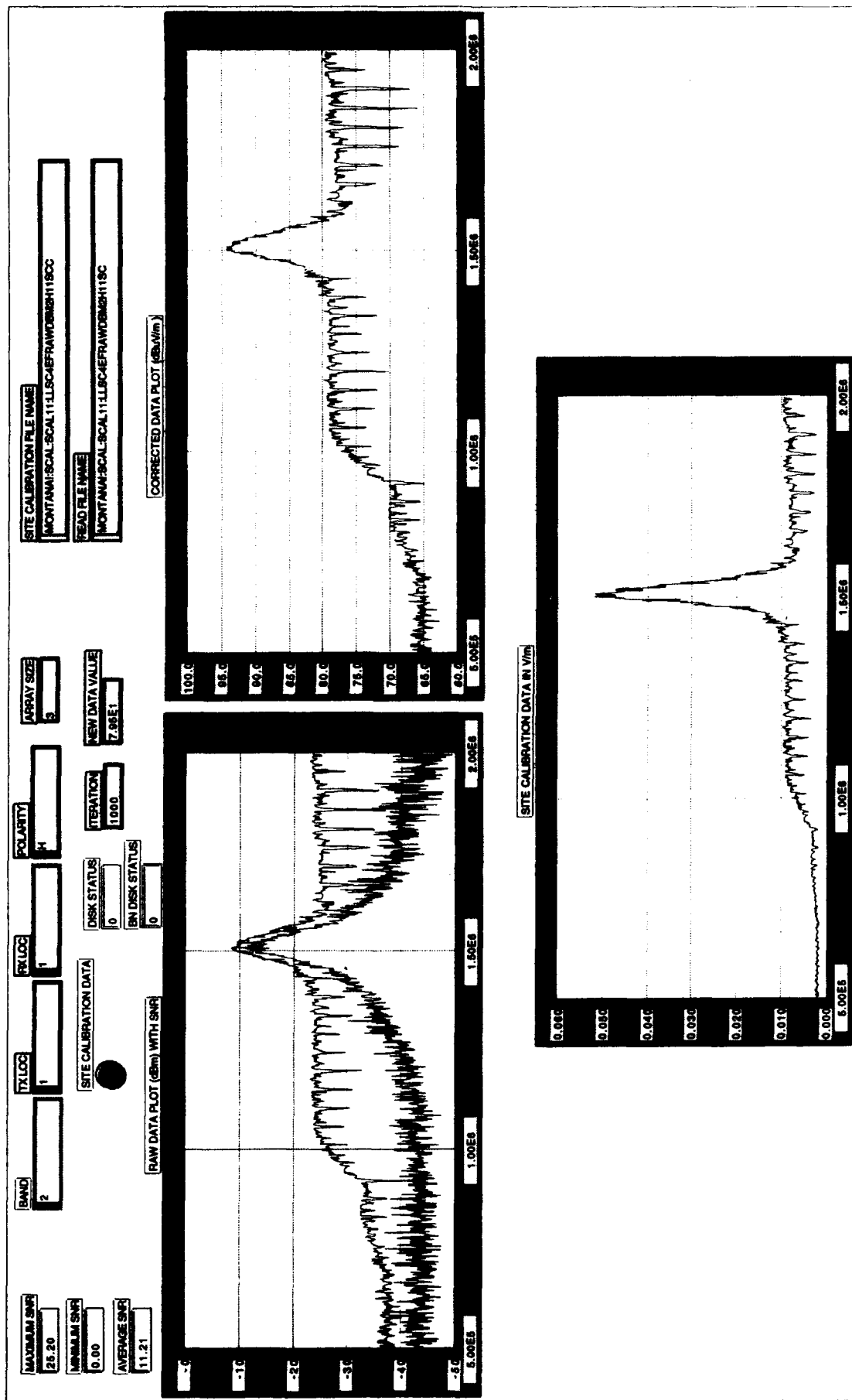
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SCAL DATA PLOT DESCRIPTION

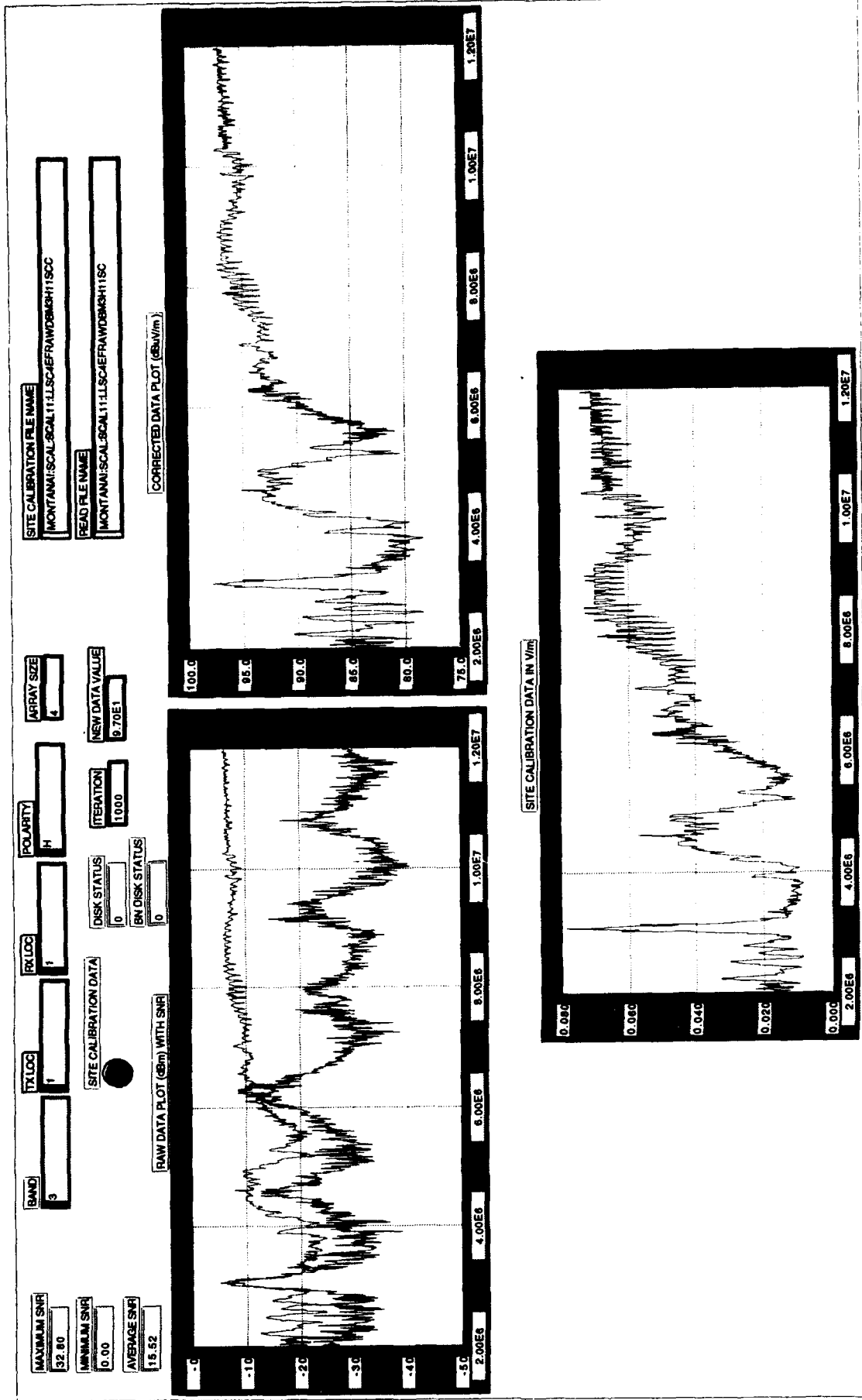
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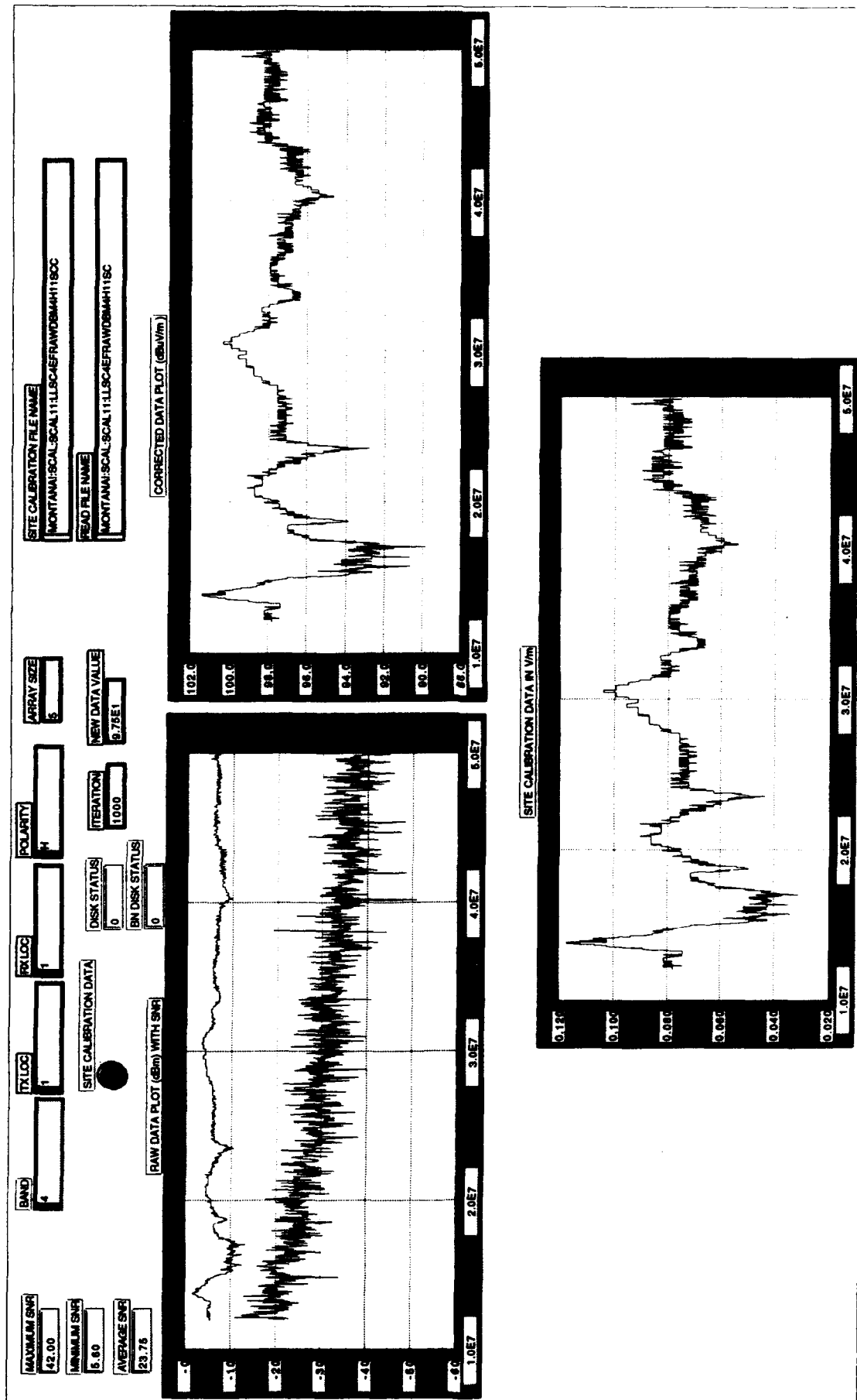
- Band number identification (Band)
 - S-76 orientation during the test (TXLOC)
 - SCAL test set number (RXLOC)
 - Transmit Antennae Polarity (POLARITY)
 - Full threat data array size (ARRAY SIZE - used internally by software application to process the data)
 - Name of the corrected SCAL data file
 - Data type indicator (if black indicates plot is E-Field data)
 - SCAL data type indicator (if black indicated plot is SCAL data)
 - Disk read error indicator (DISK STATUS)
 - Single corrected data value (NEW DATA VALUE - used internally by software application to process data)
 - Original uncorrected SCAL data file name (READ FILE NAME)
 - Original SCAL Data Plot in dBm with background noise overlay (RAW DATA PLOT (dBm) WITH SNR)
 - Corrected data plot in dBuV/m (CORRECTED DATA PLOT dBuV/m OR dBuA)
 - SCAL processed data plot with values in V/m (SITE CALIBRATION DATA IN V/m or A)
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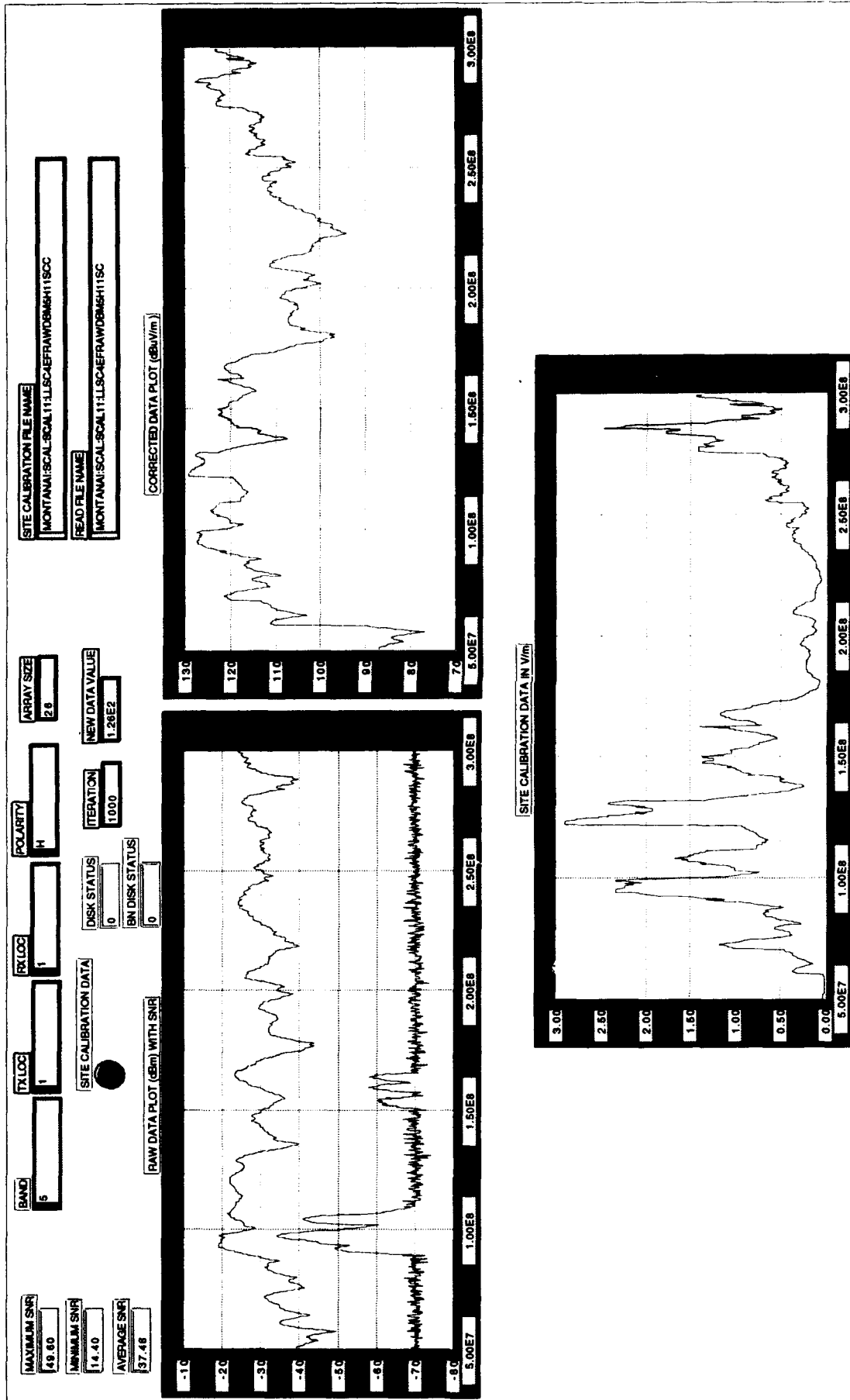
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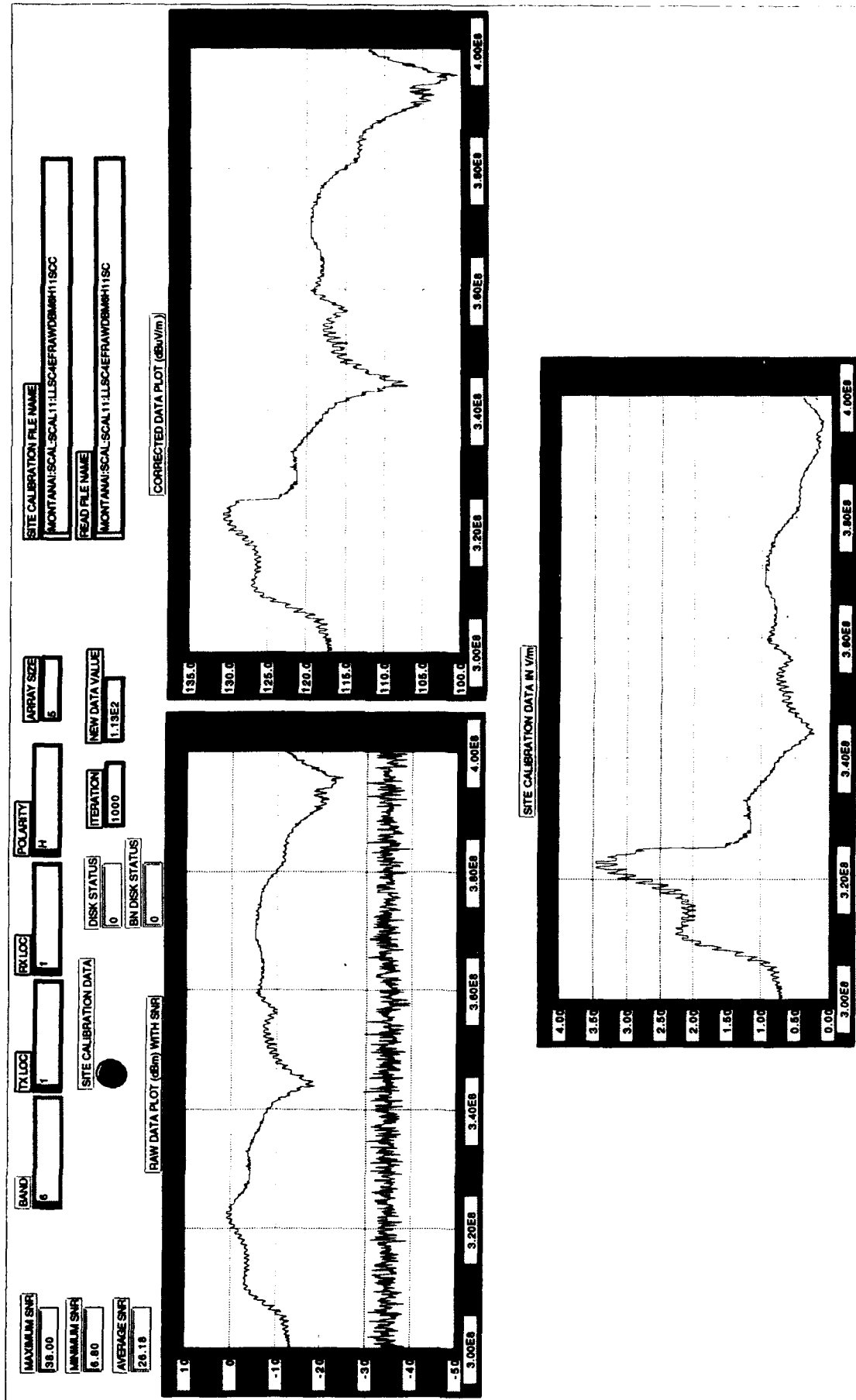


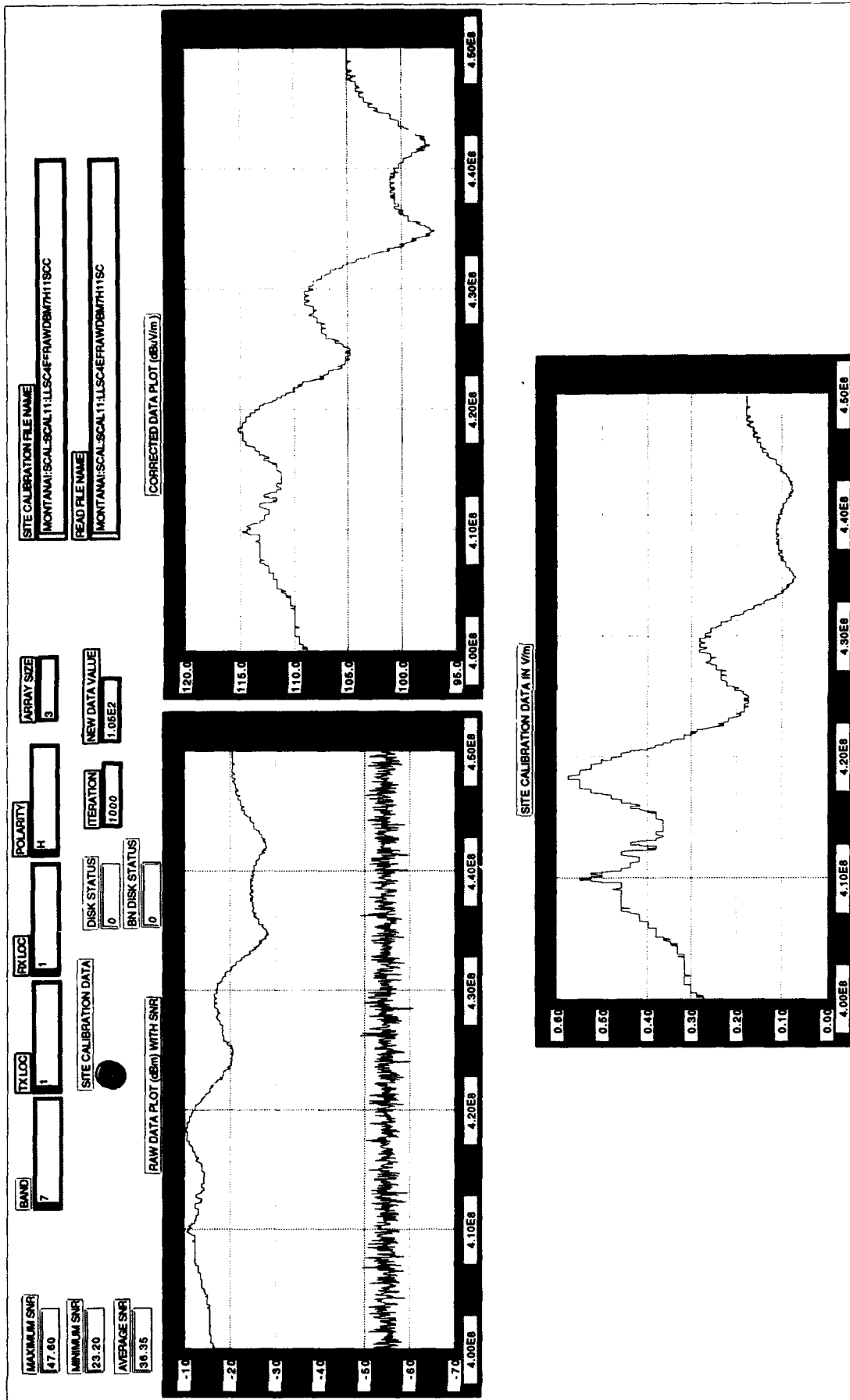


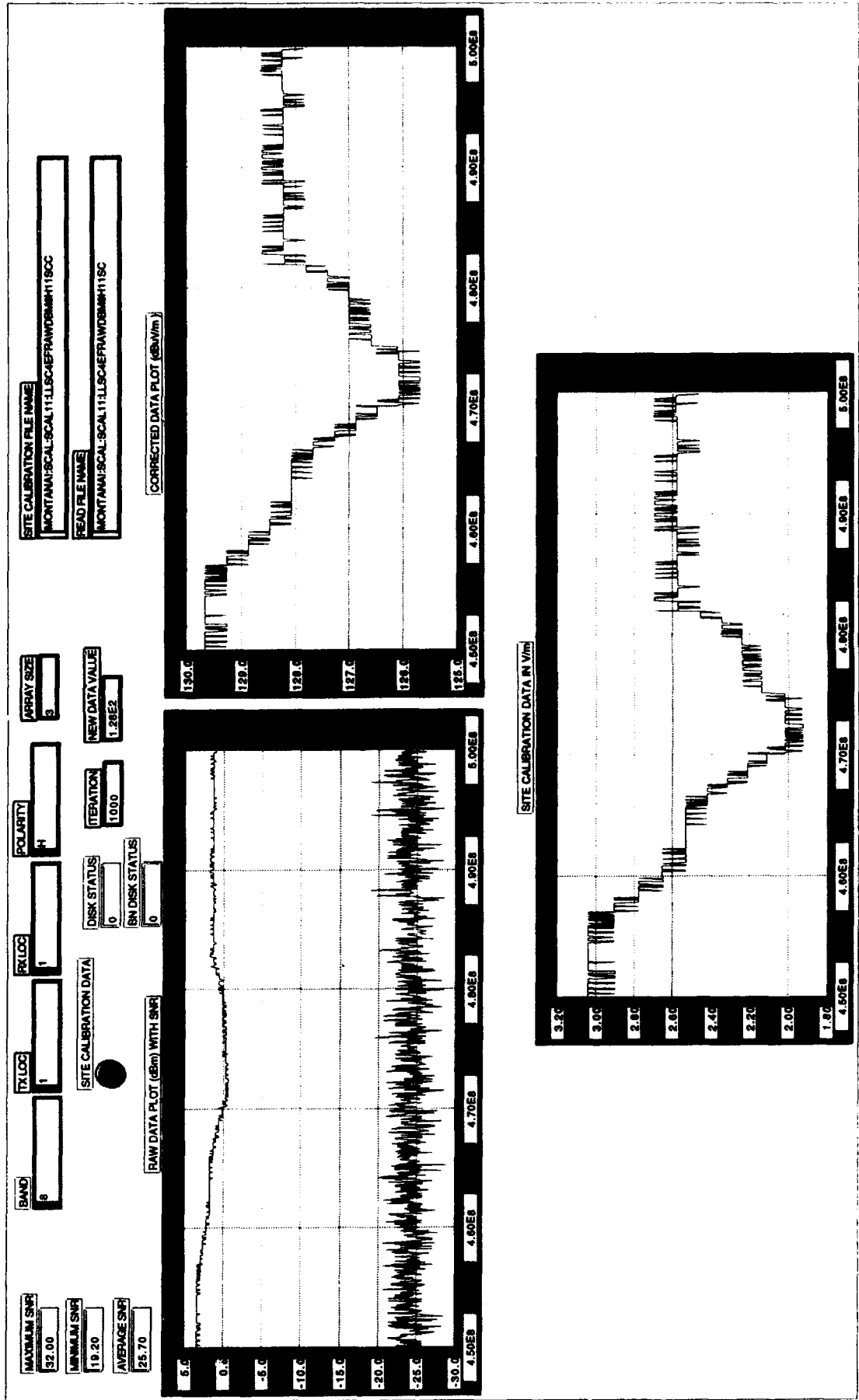


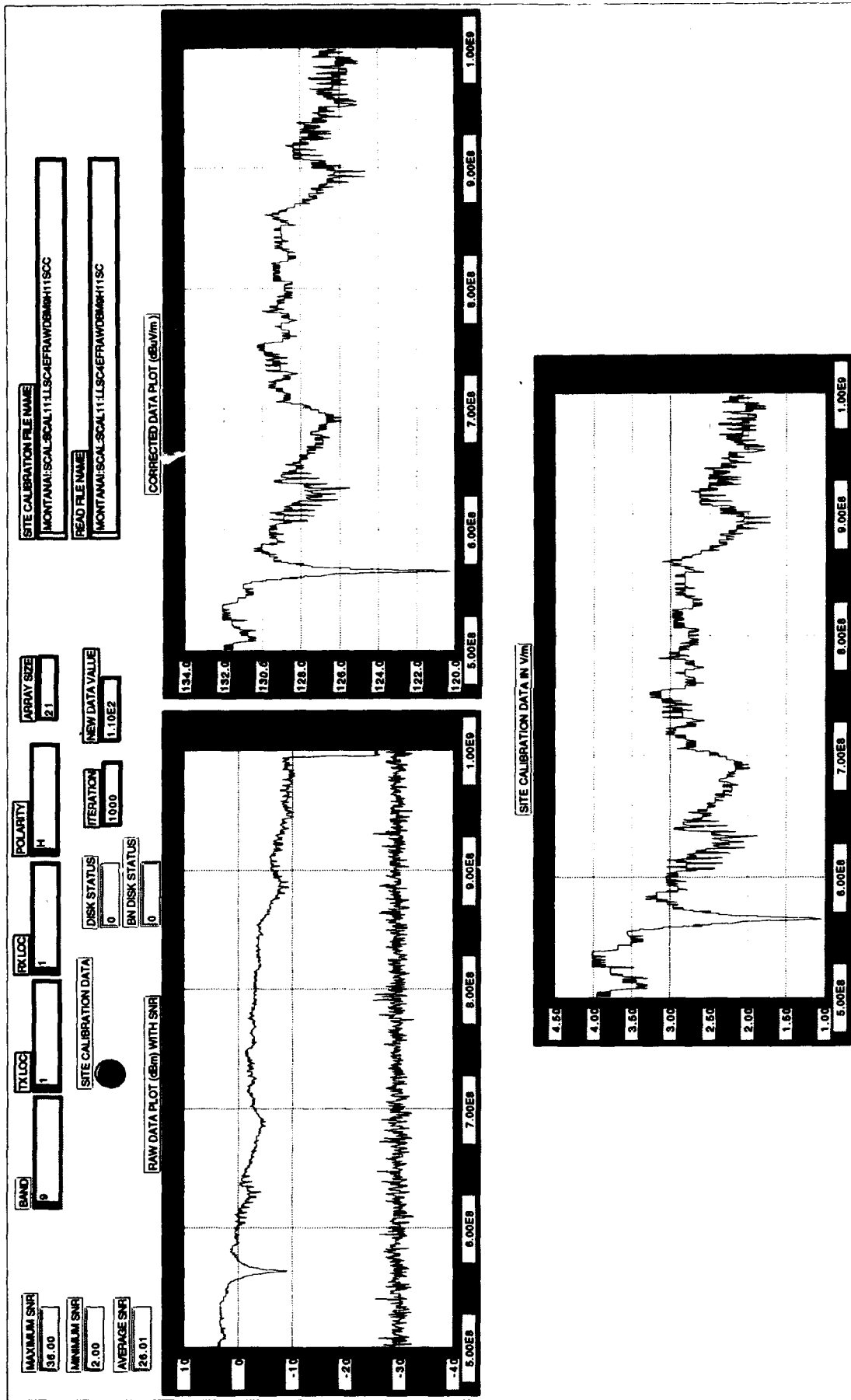


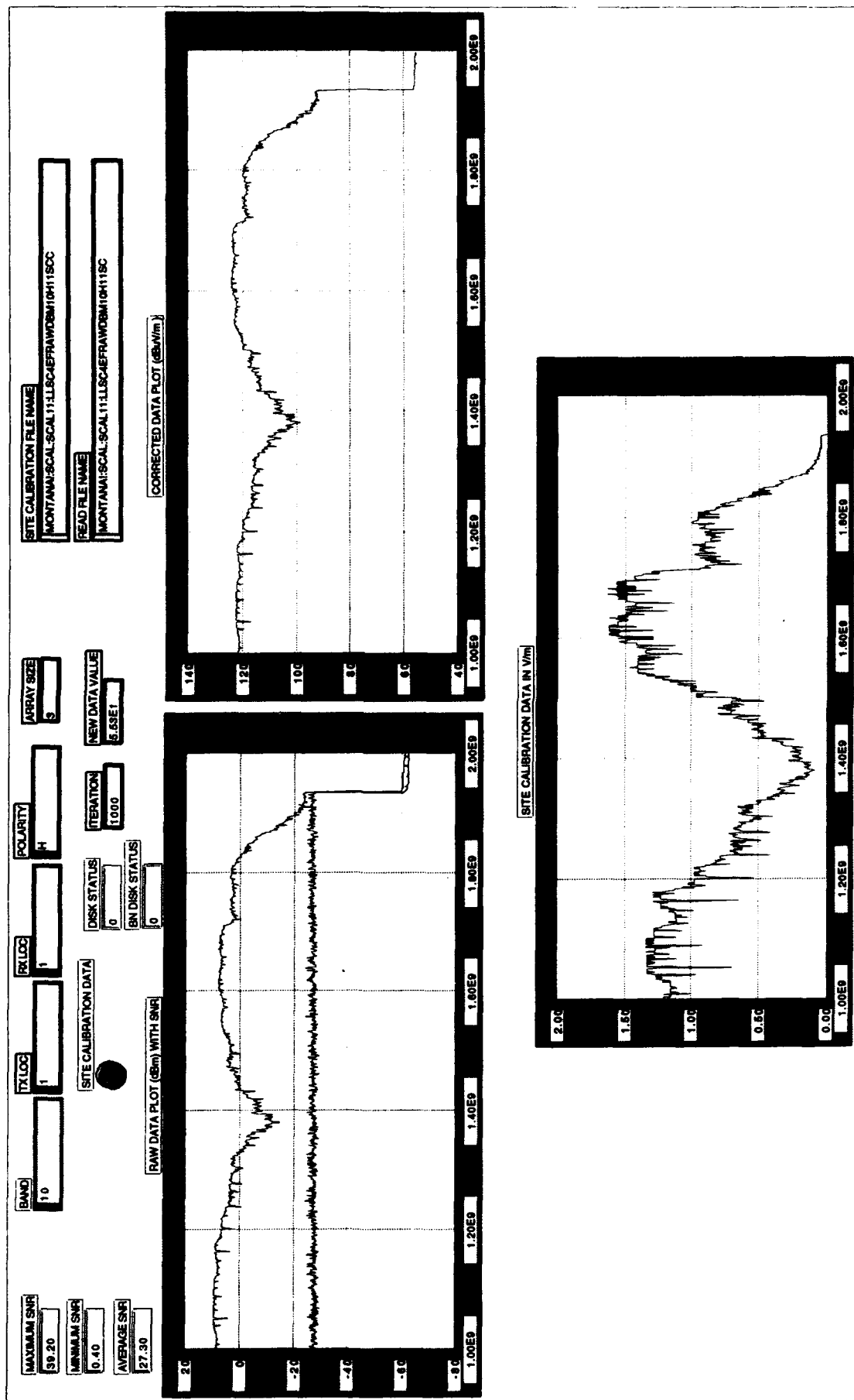


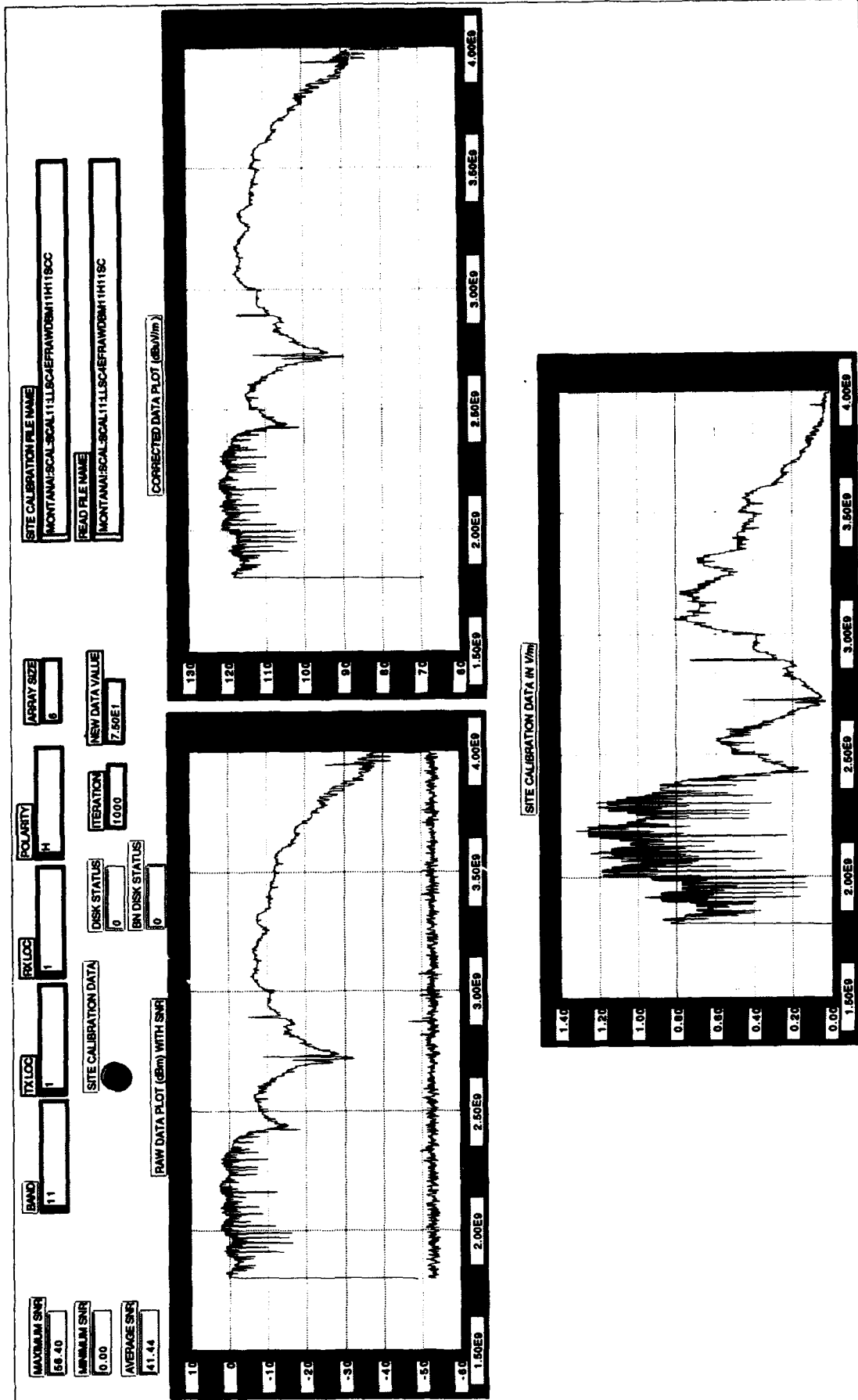


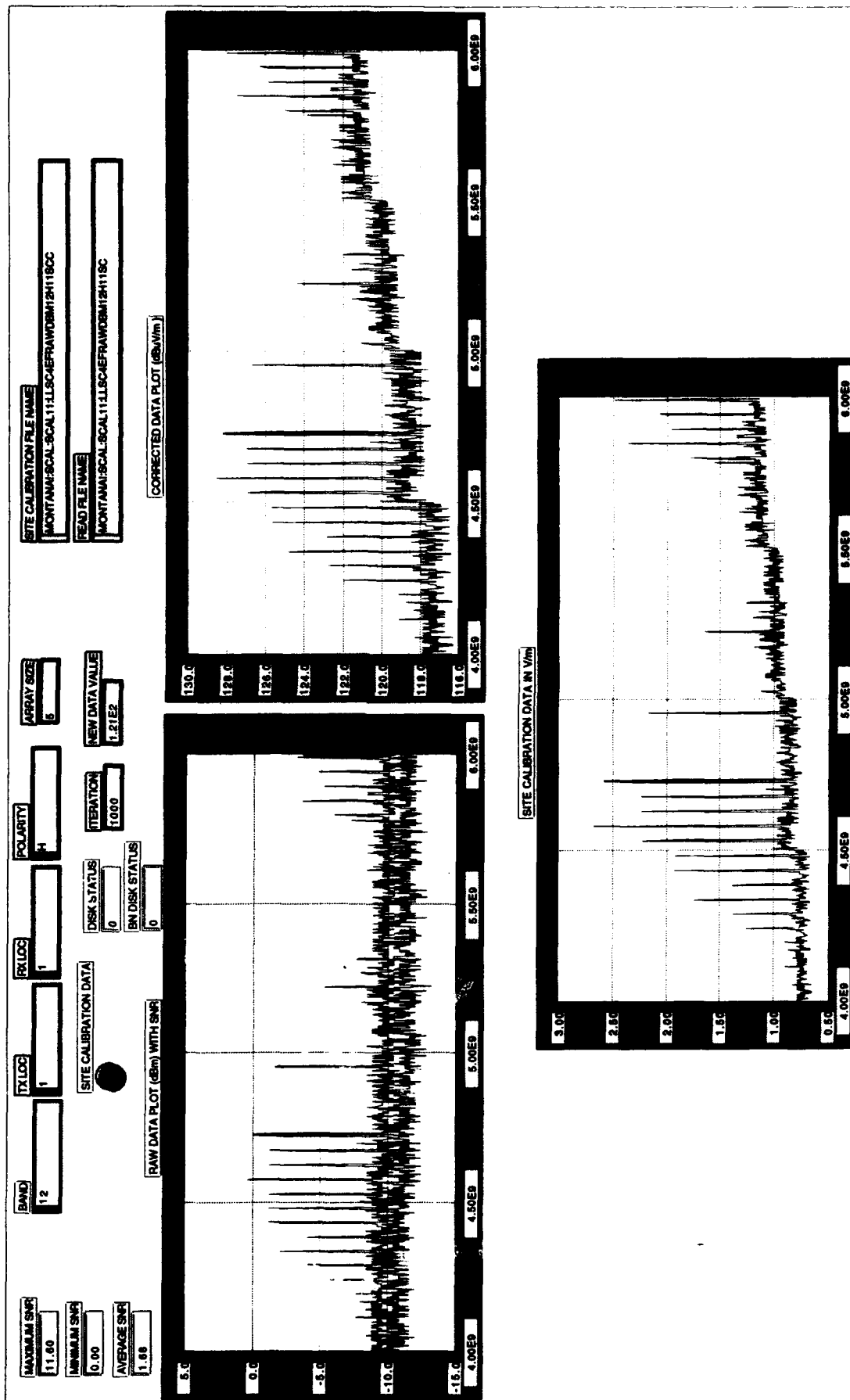


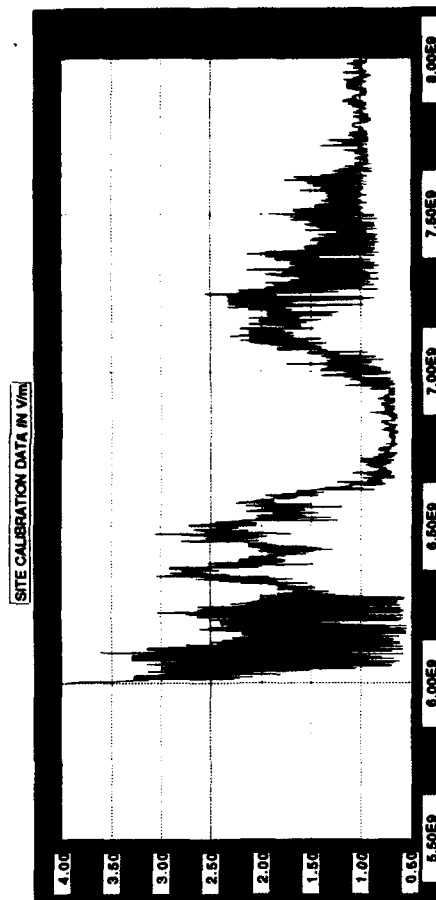
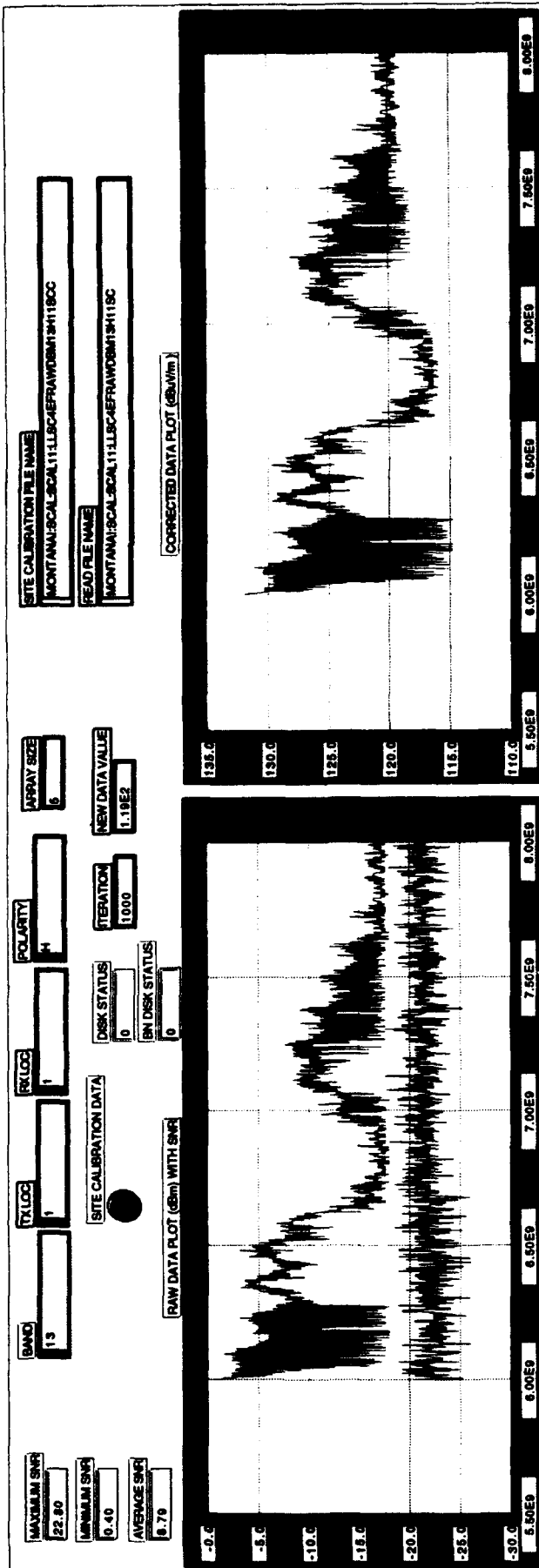


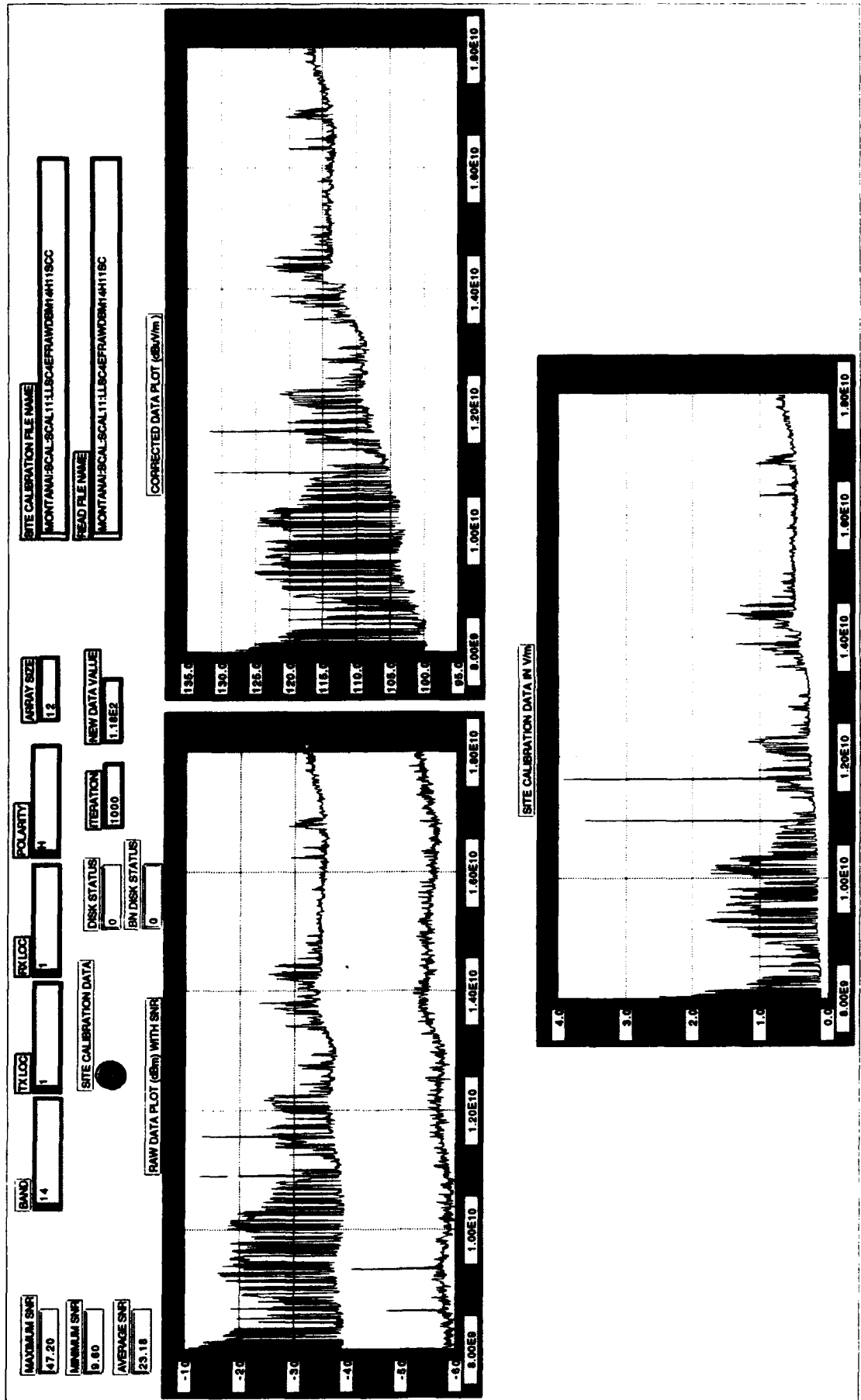


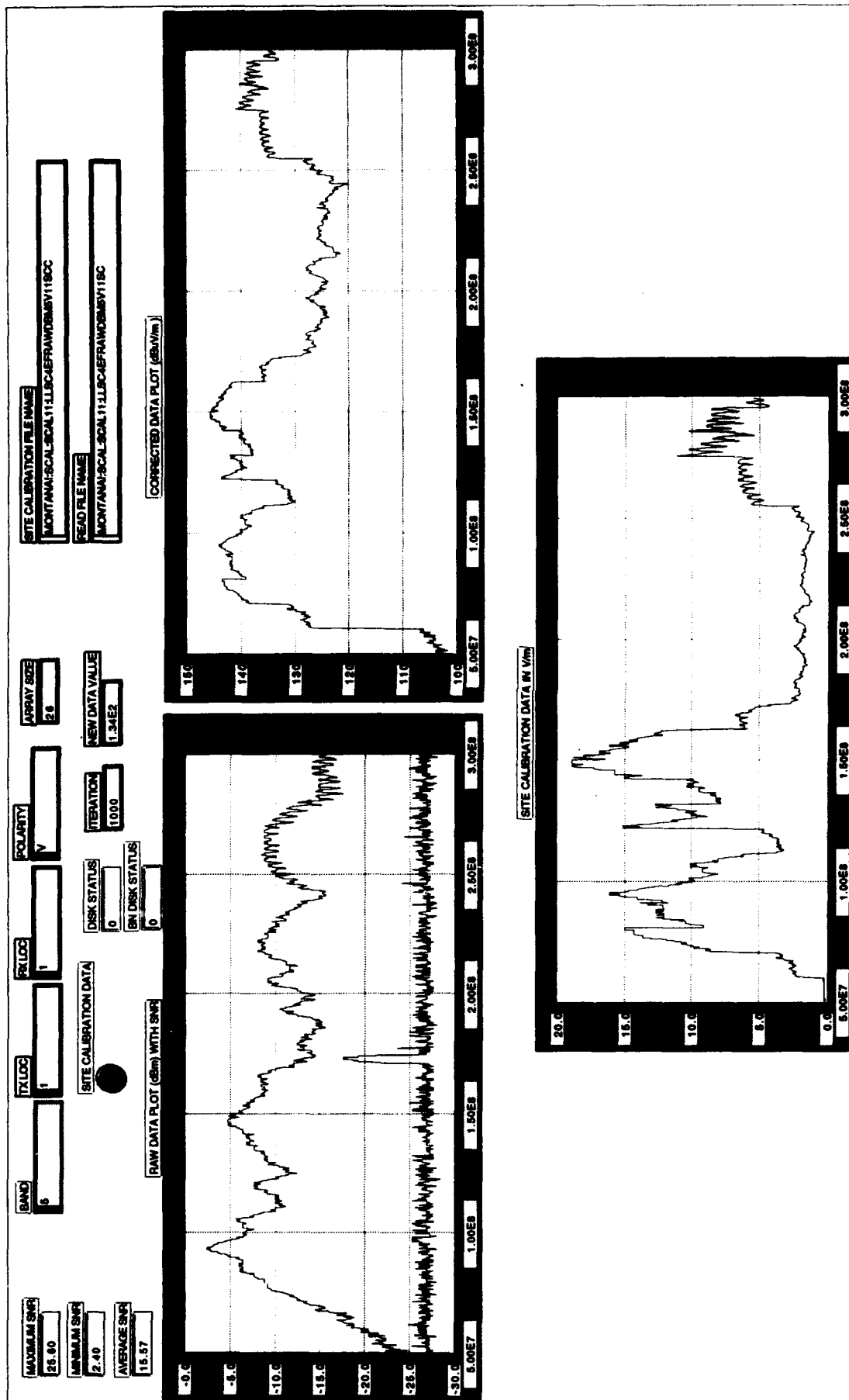


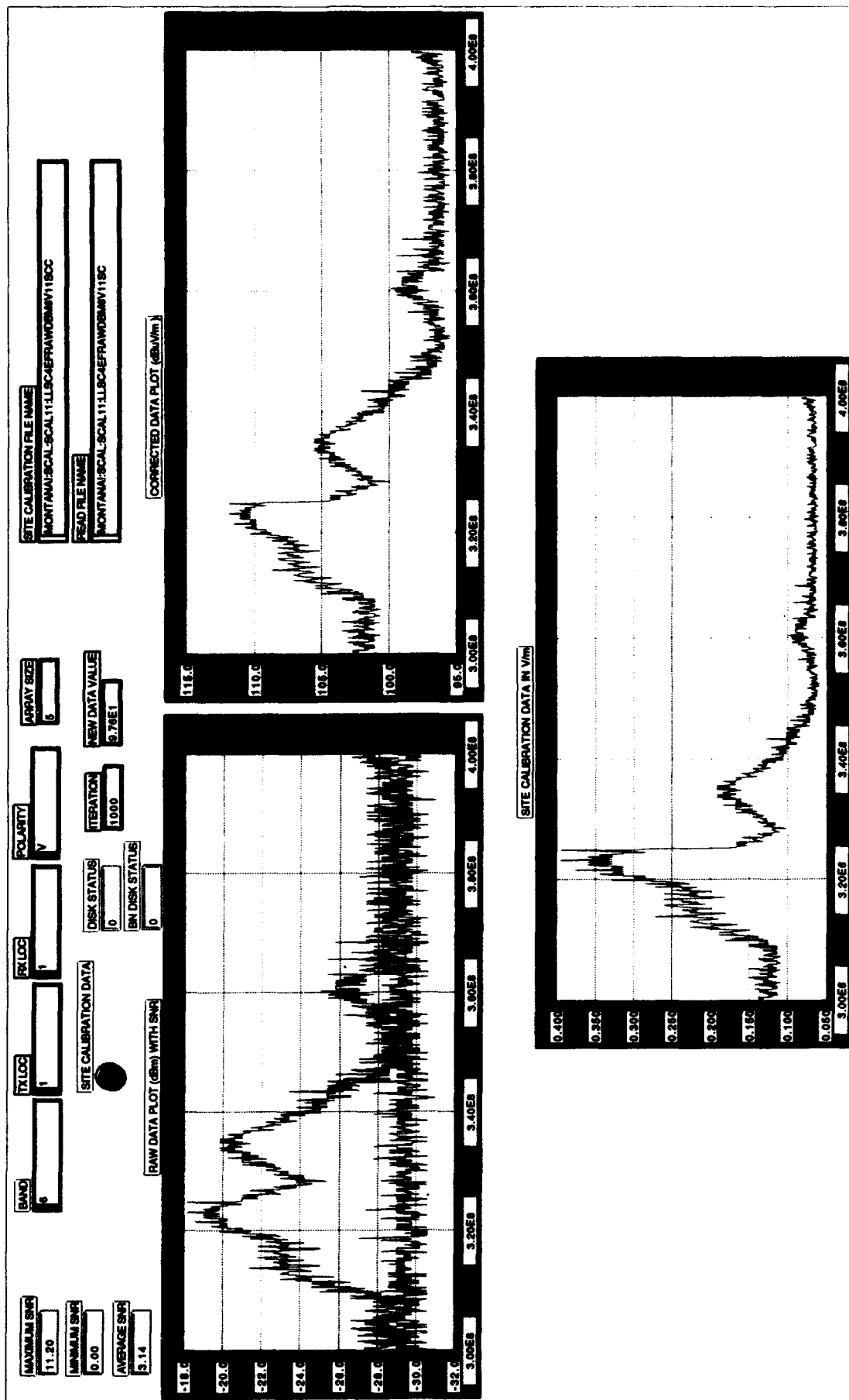


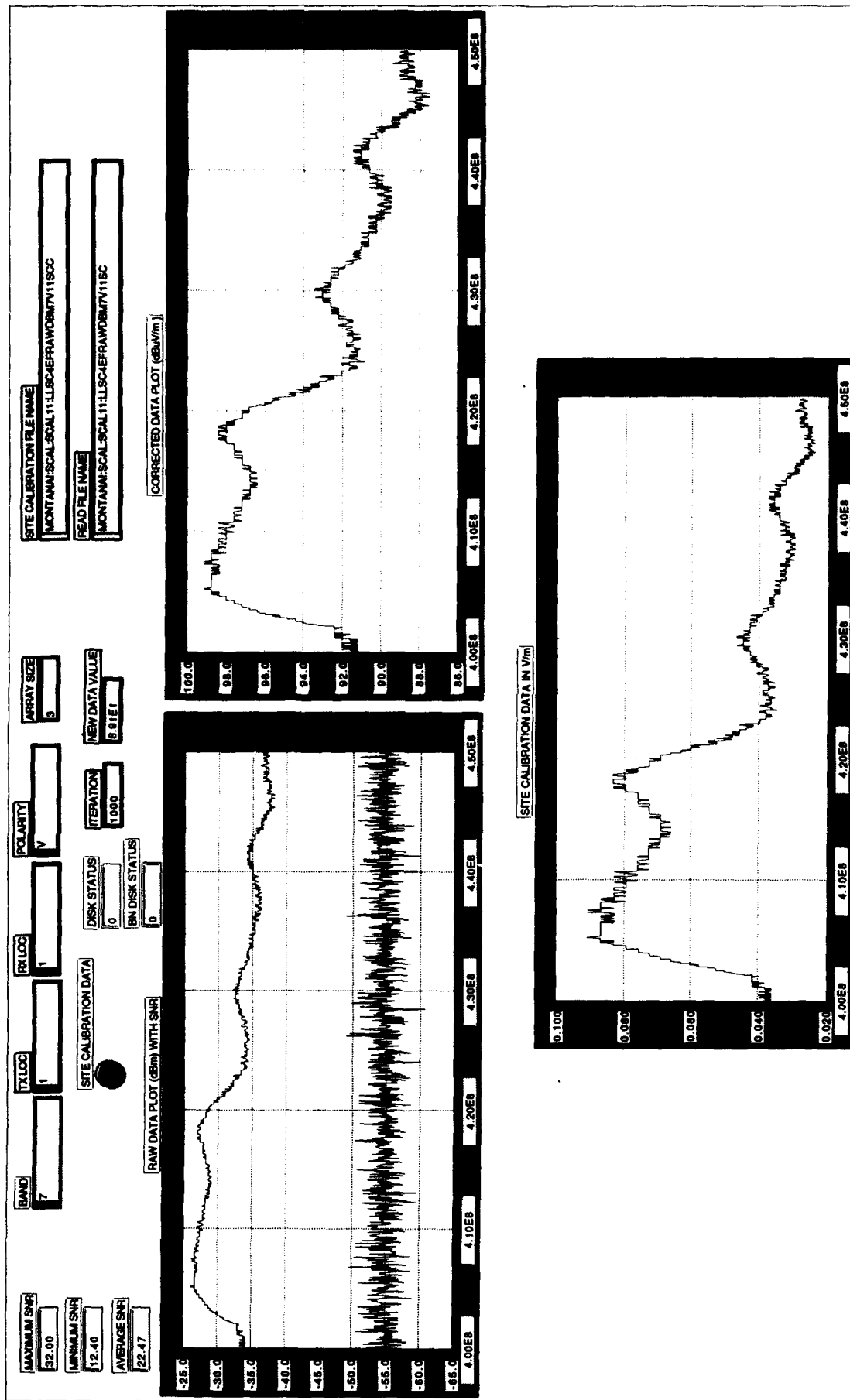


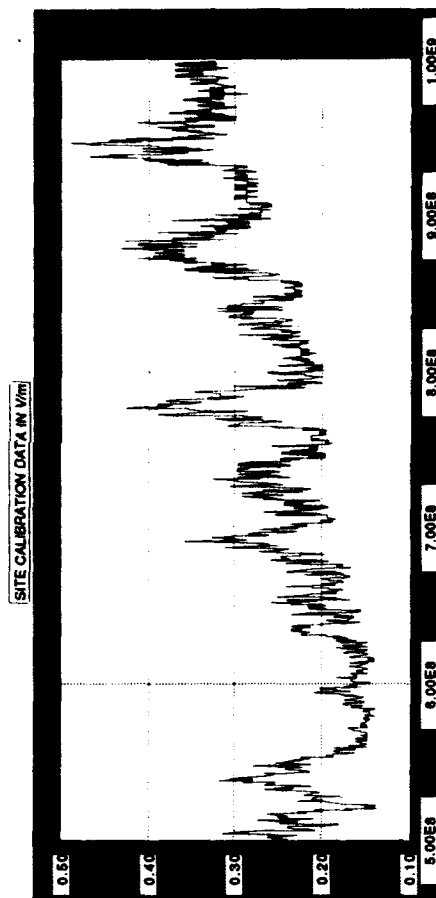
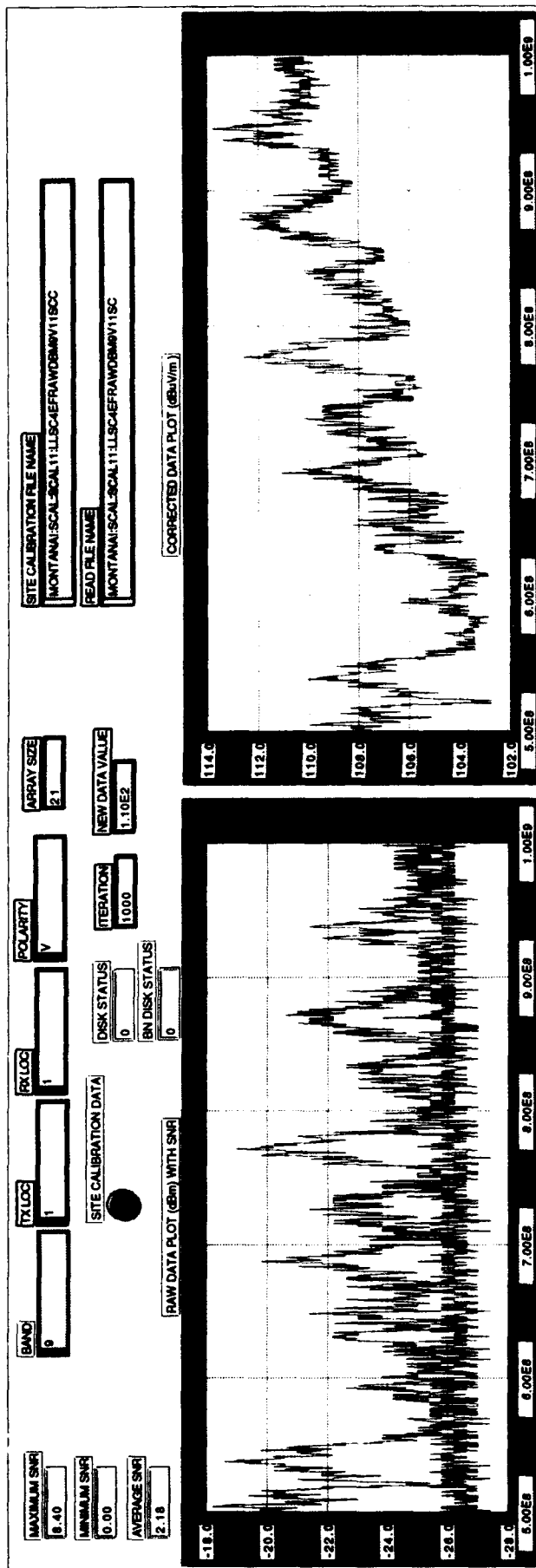


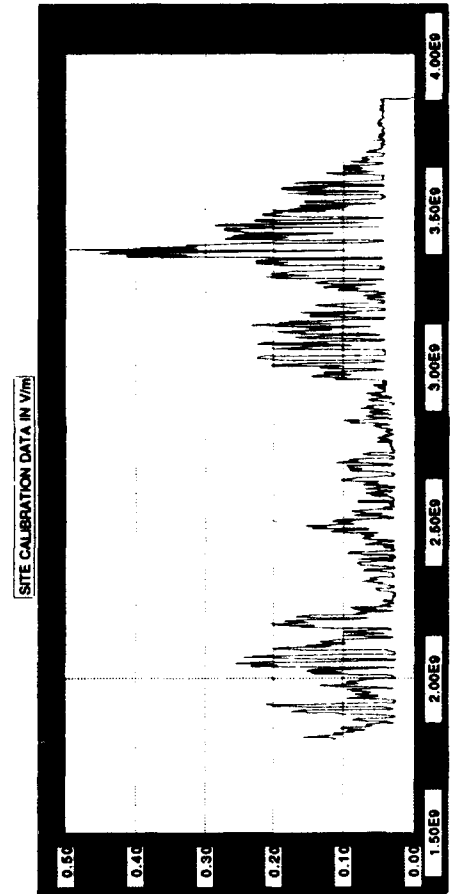
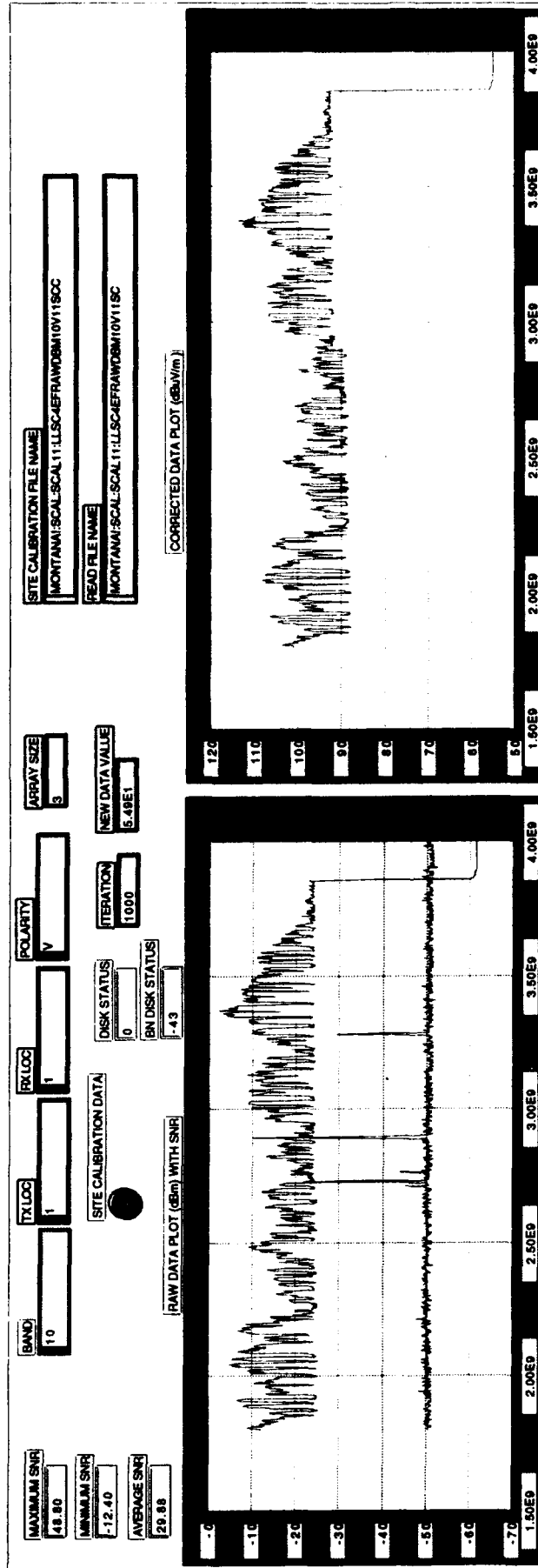


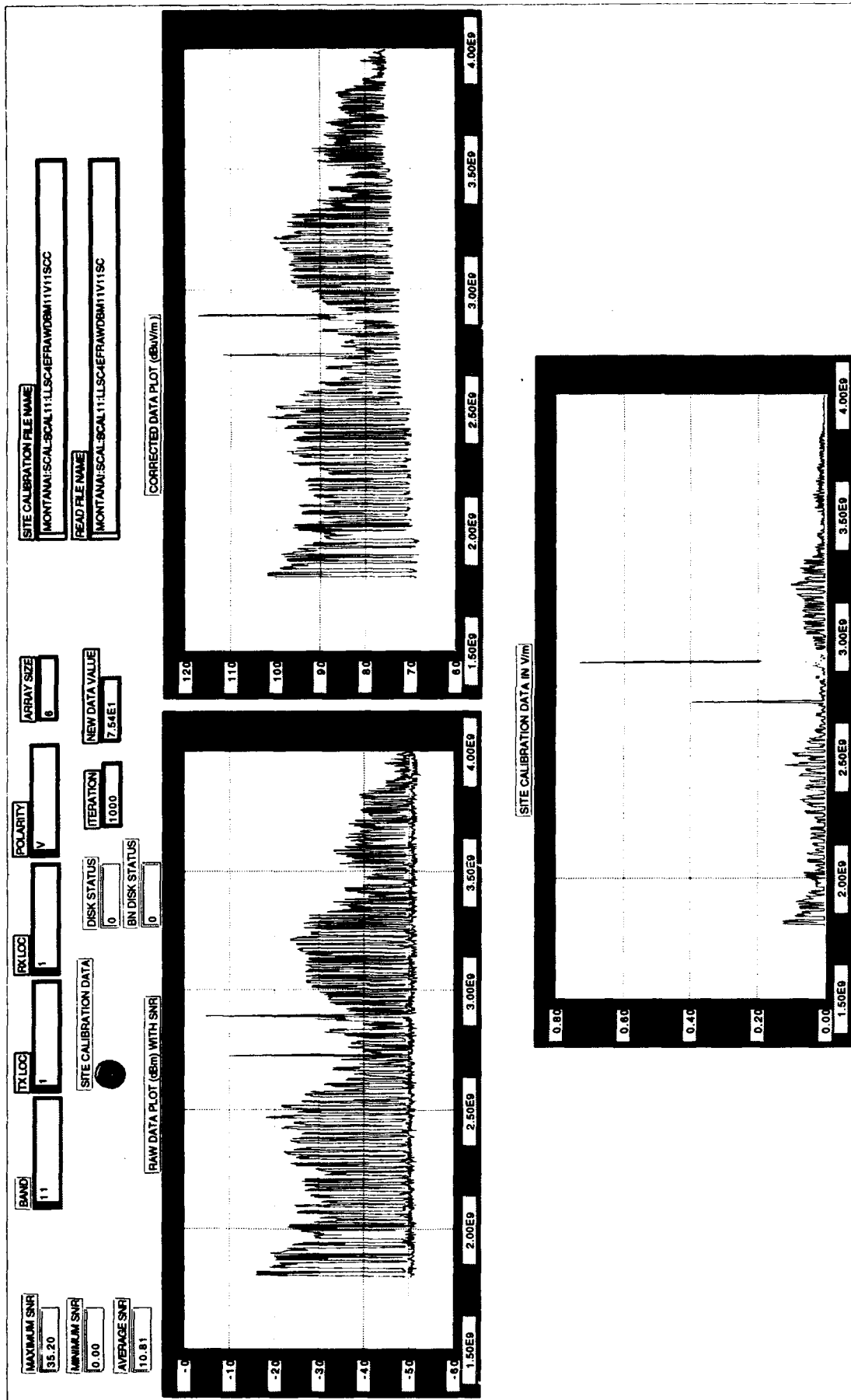


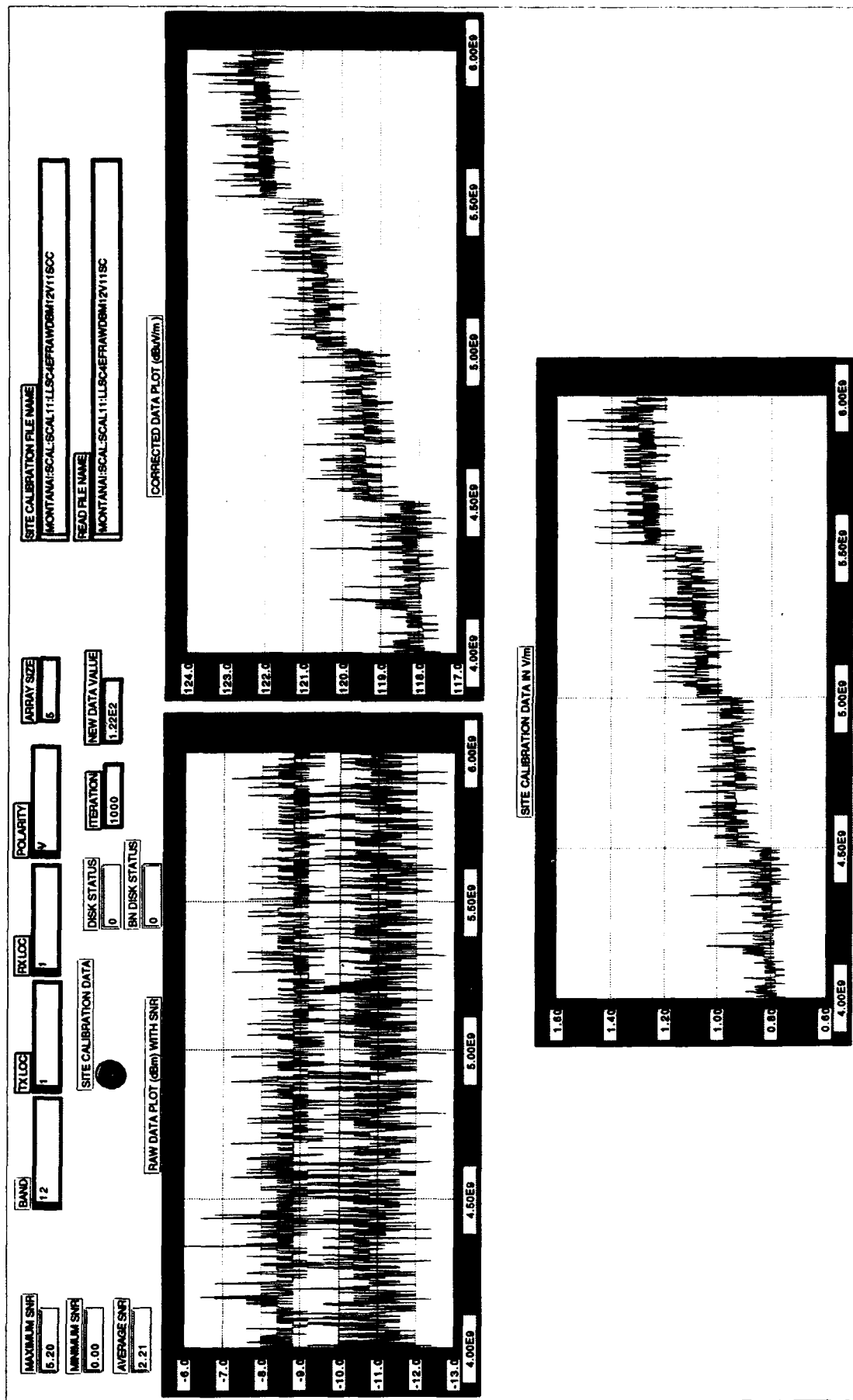


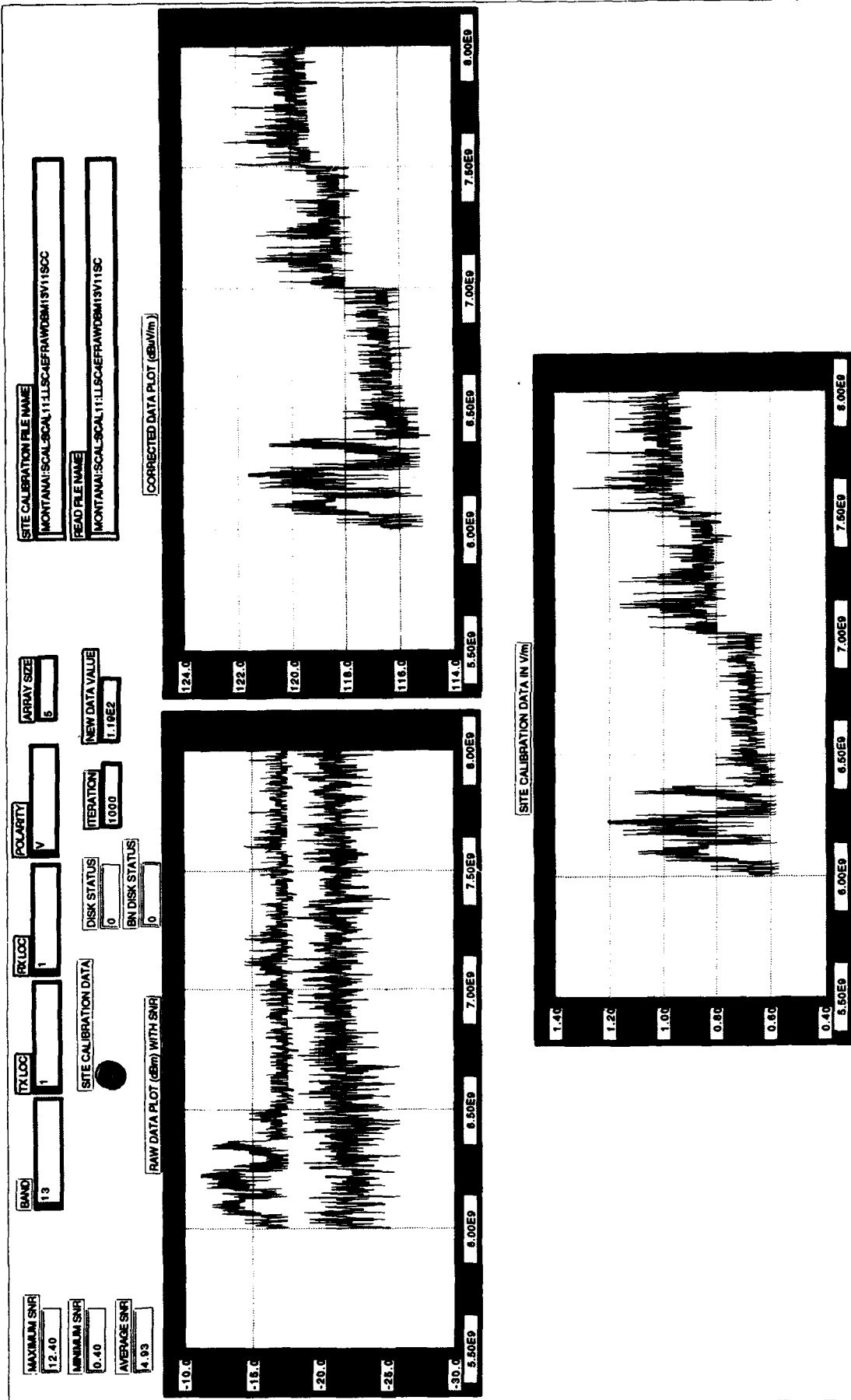


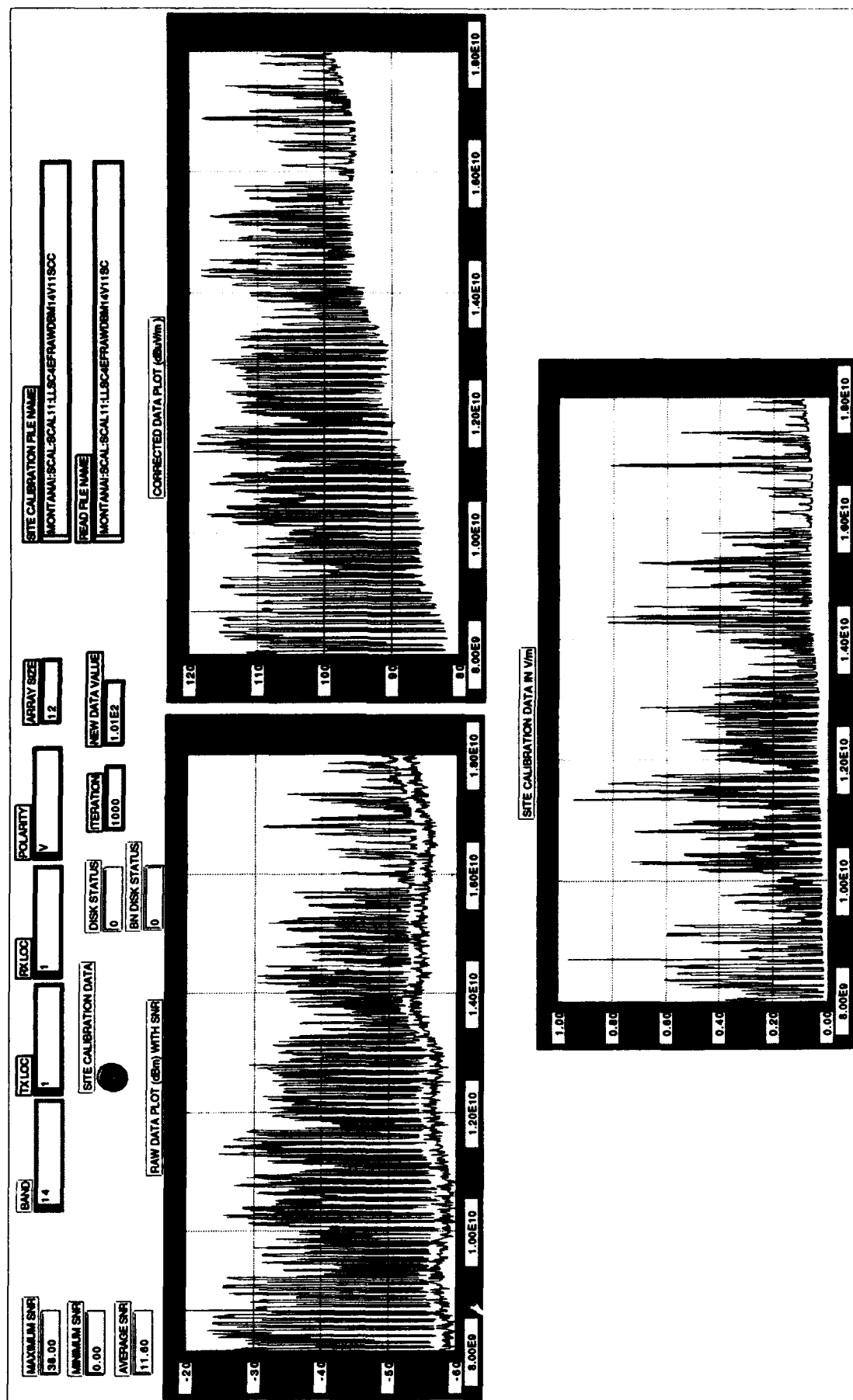




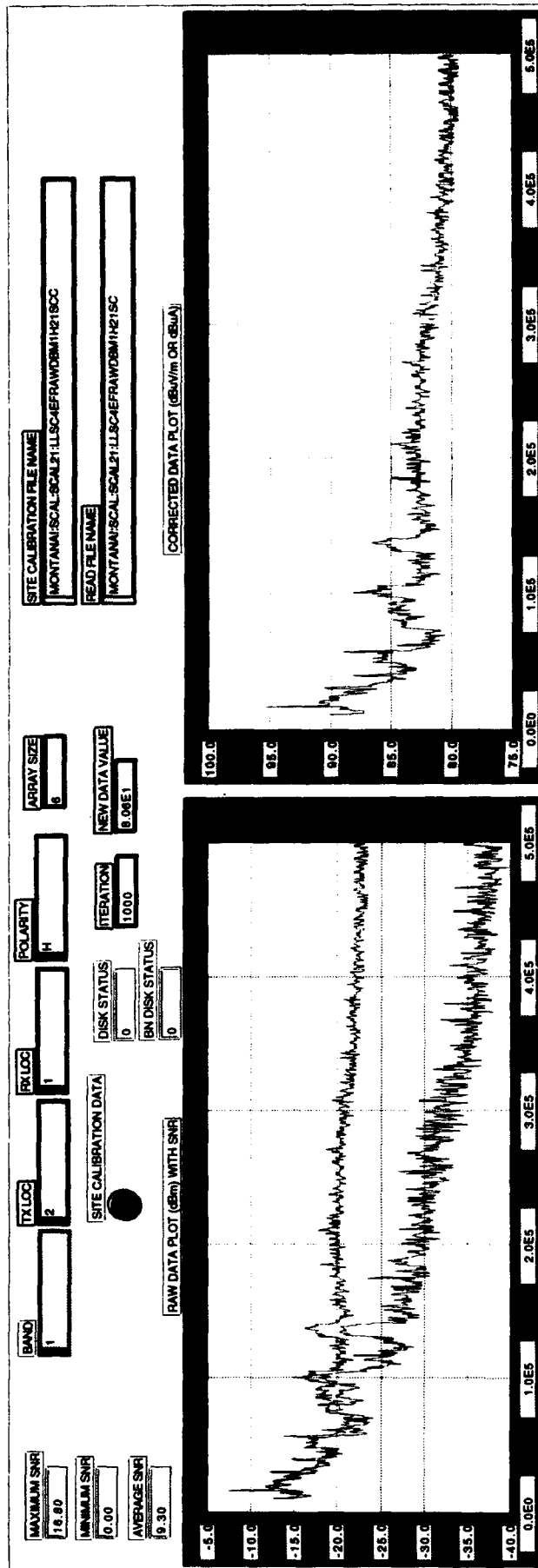




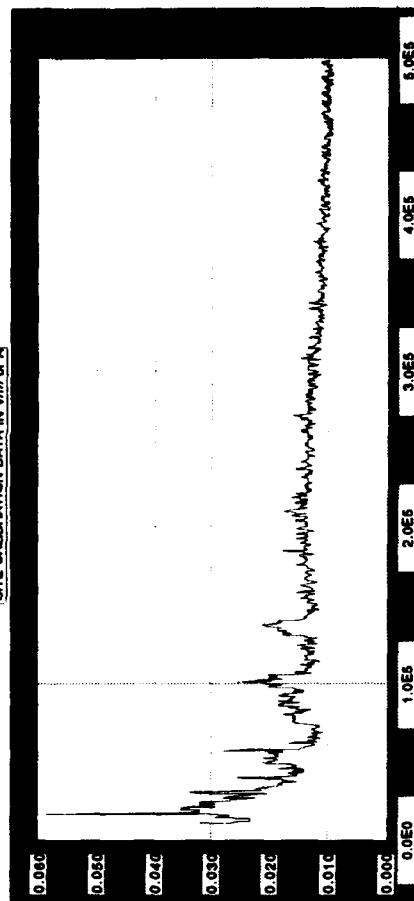


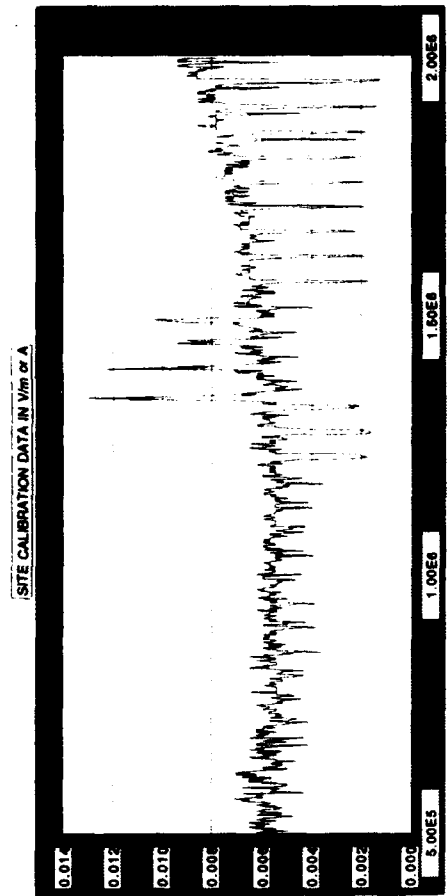
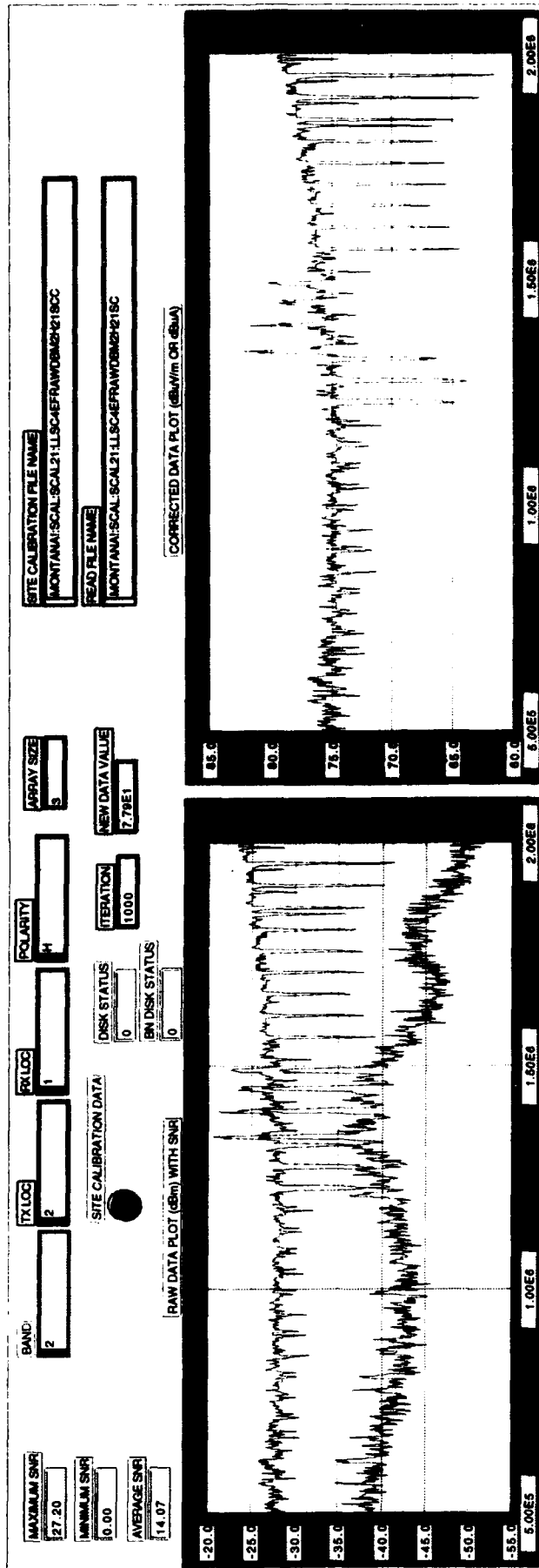


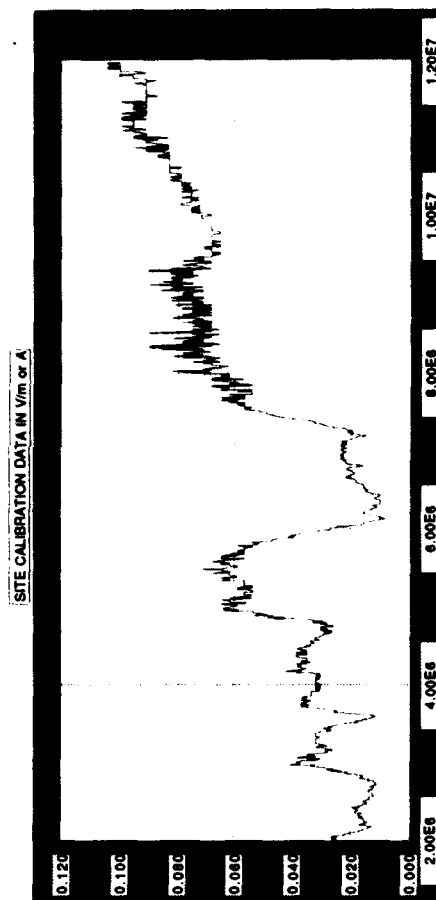
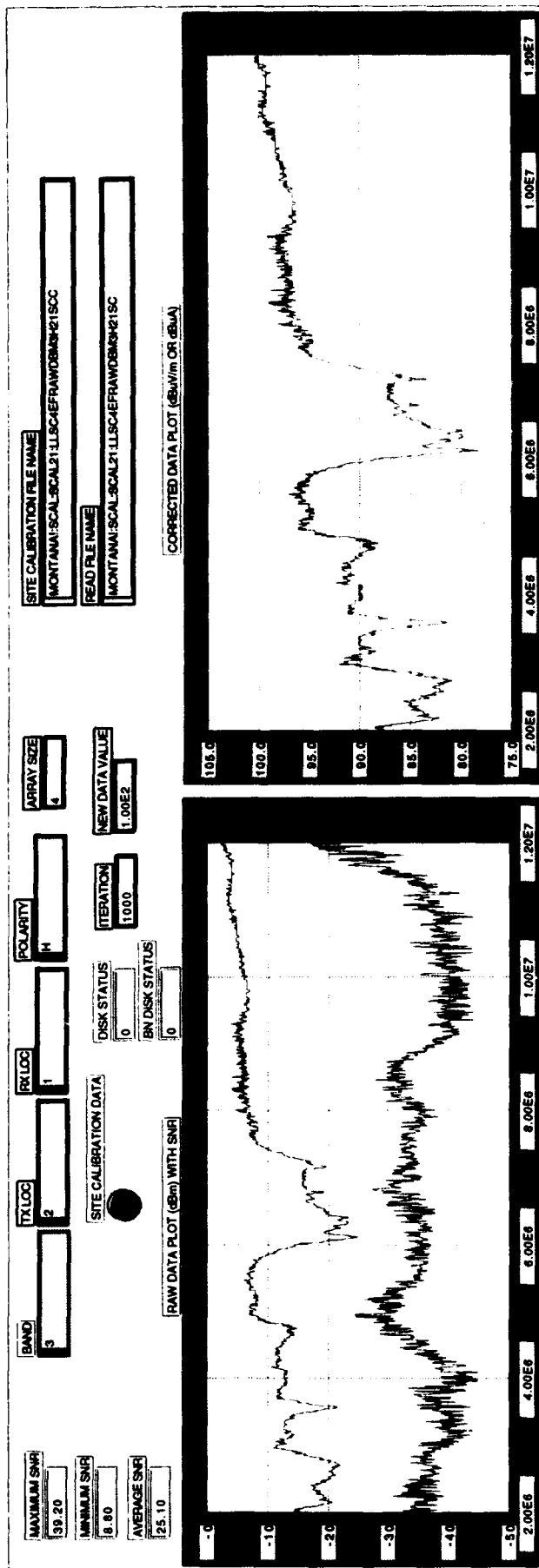
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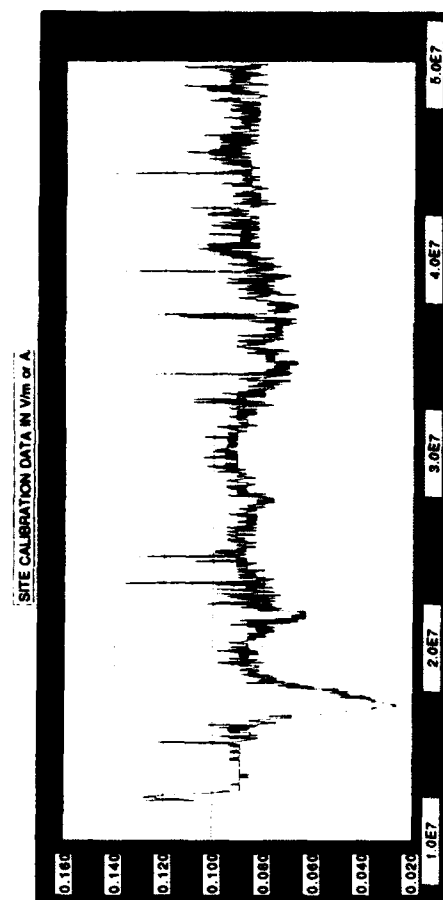
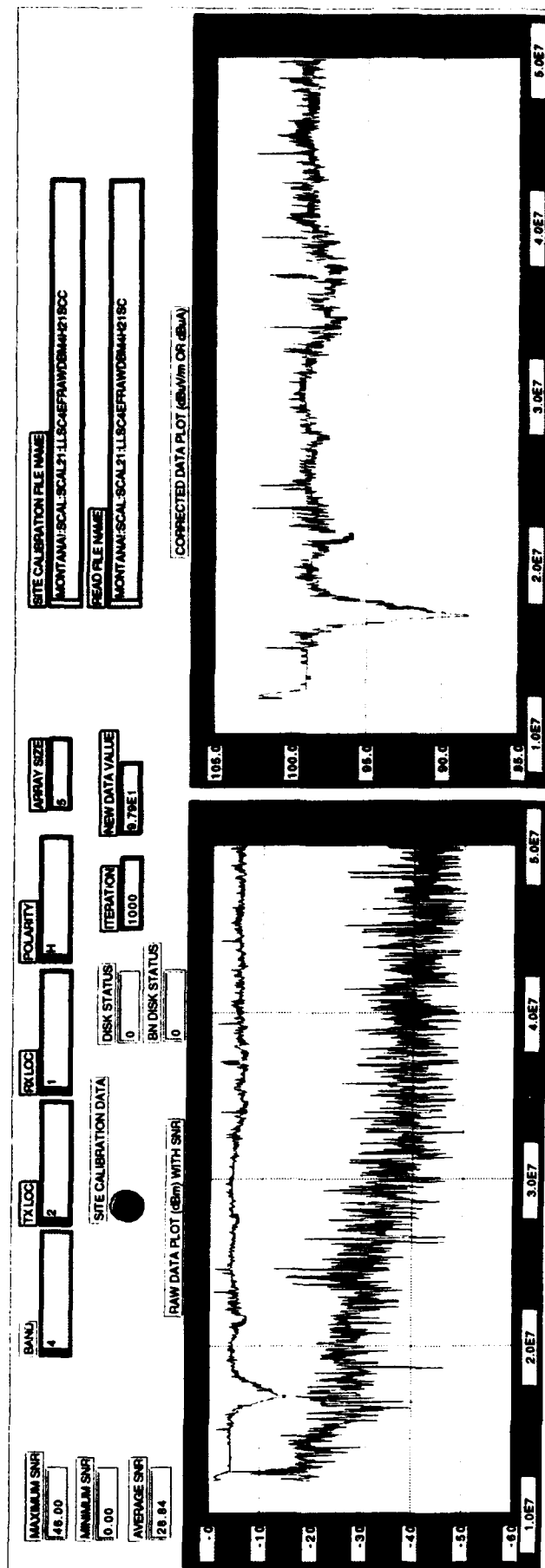


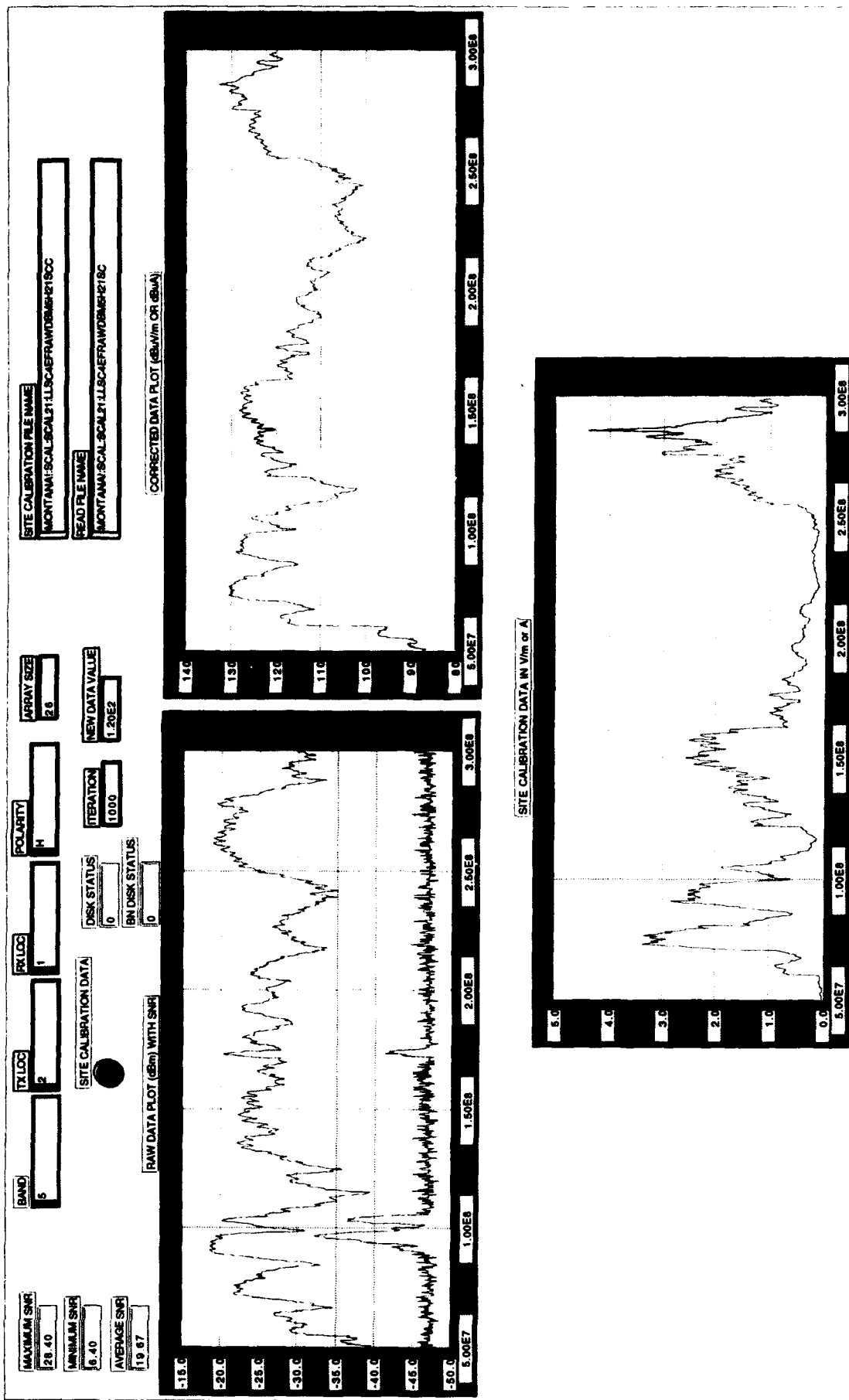
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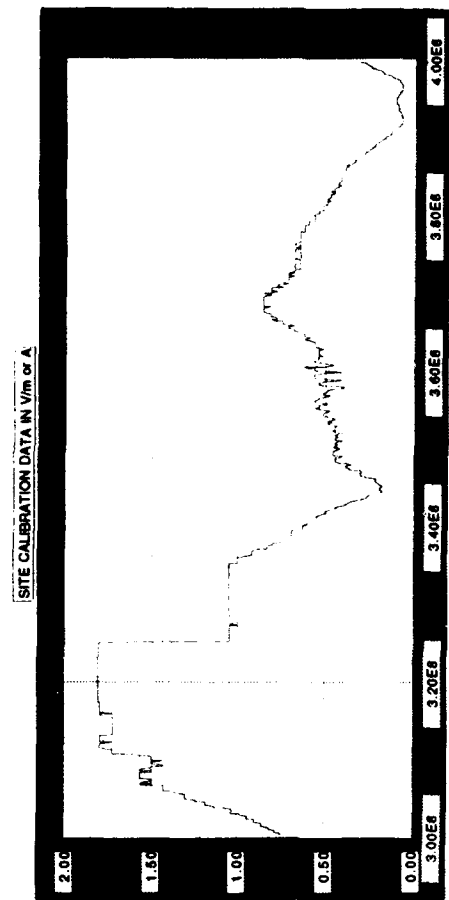
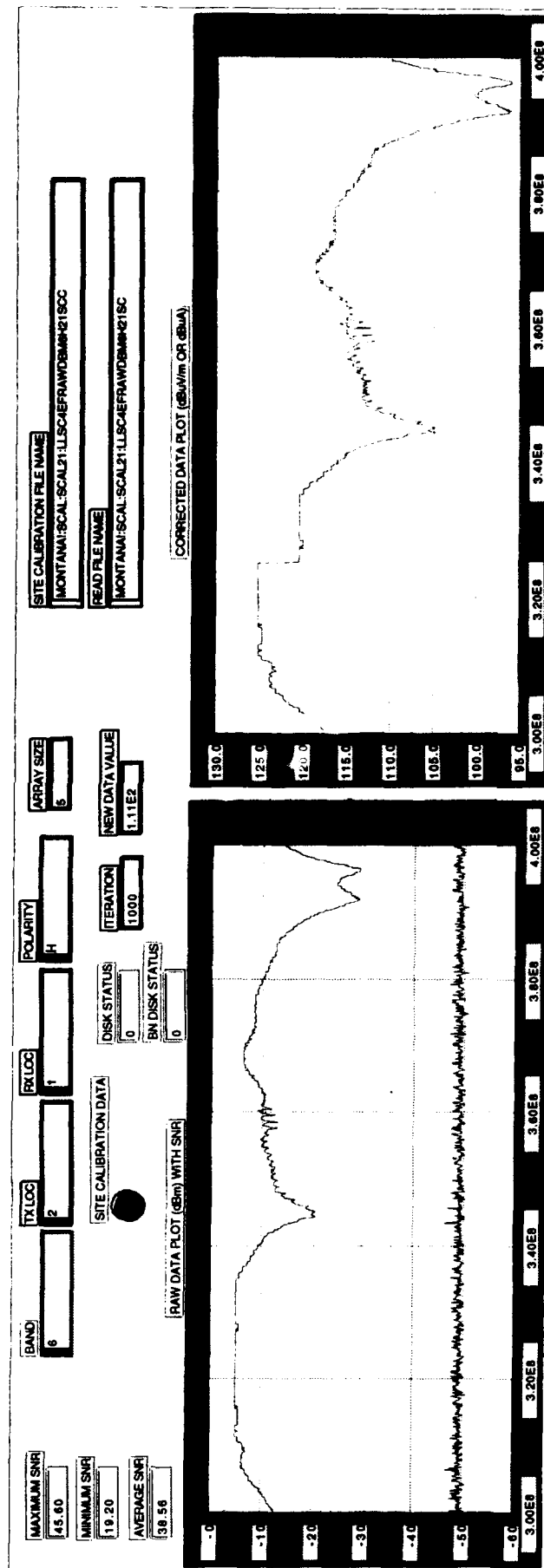


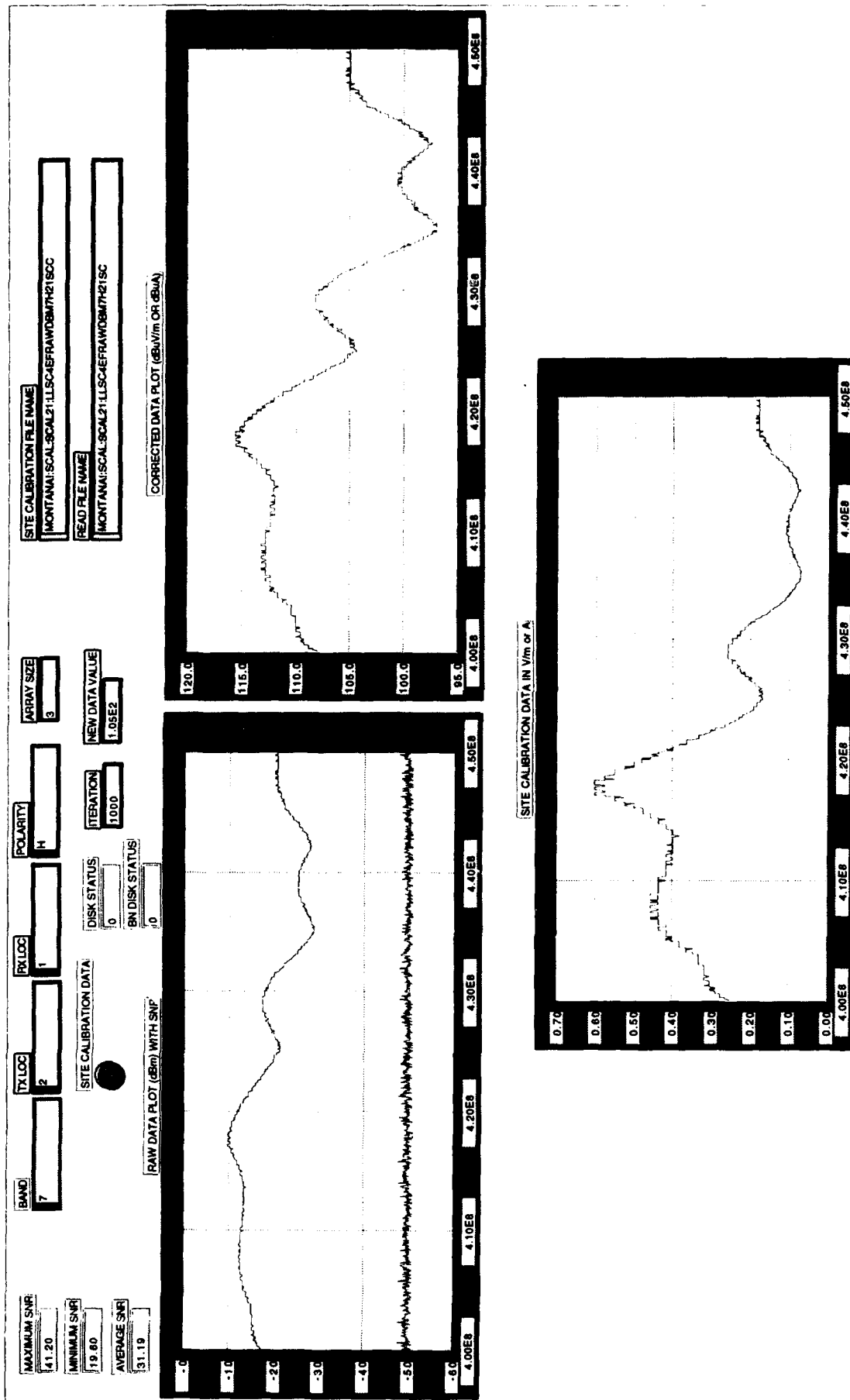


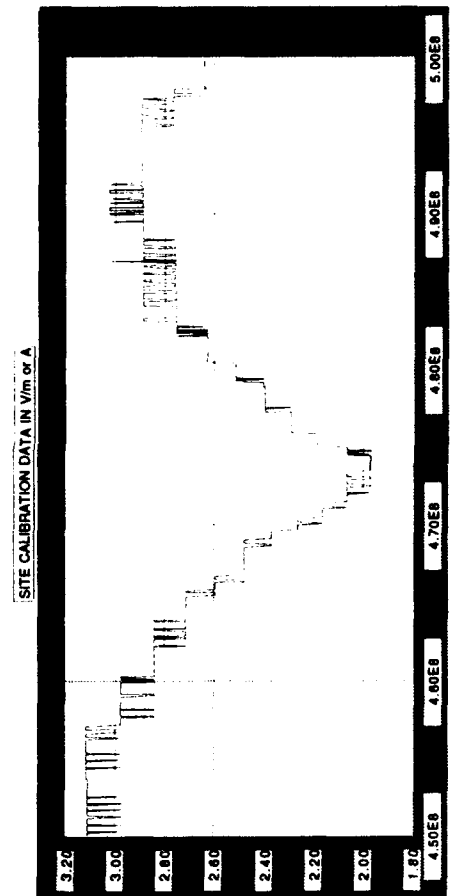
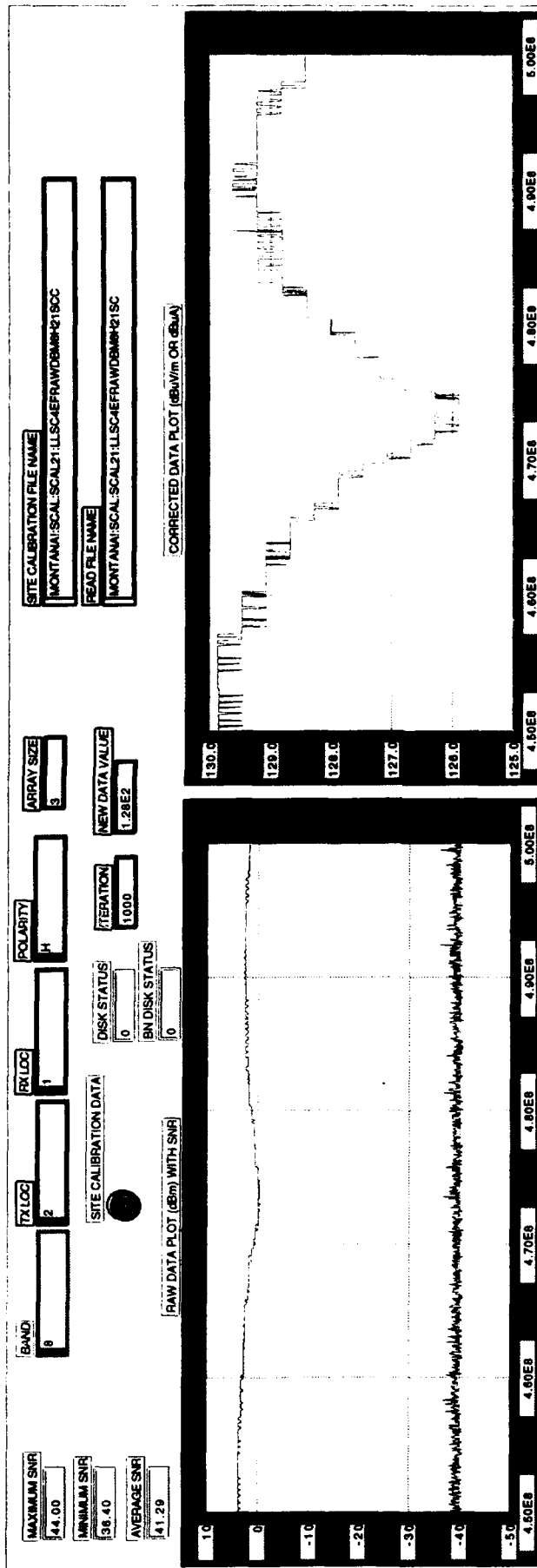


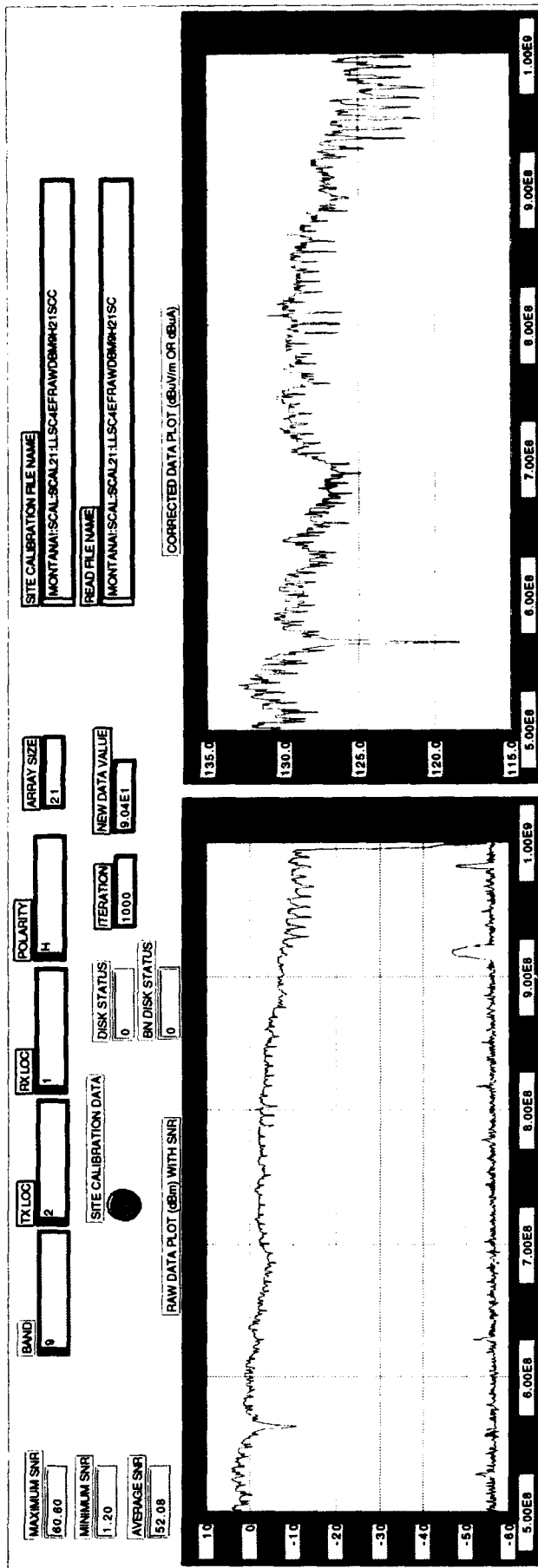




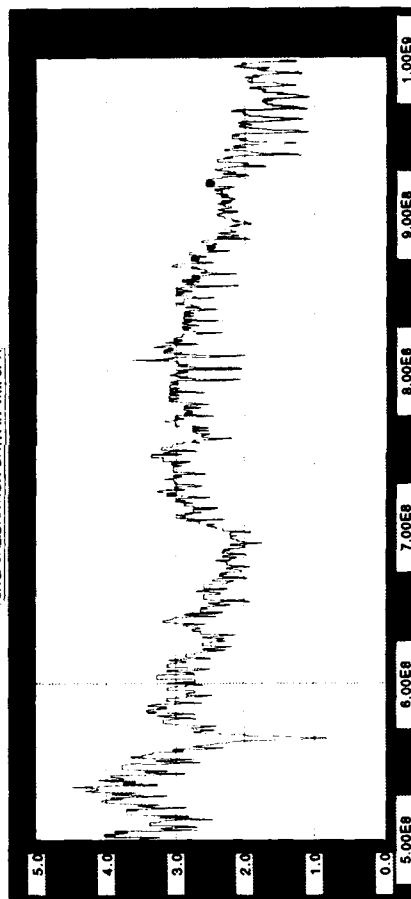


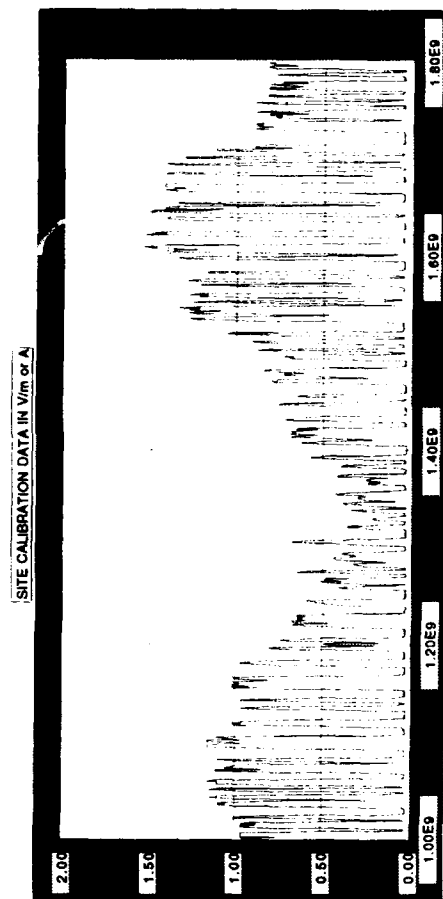
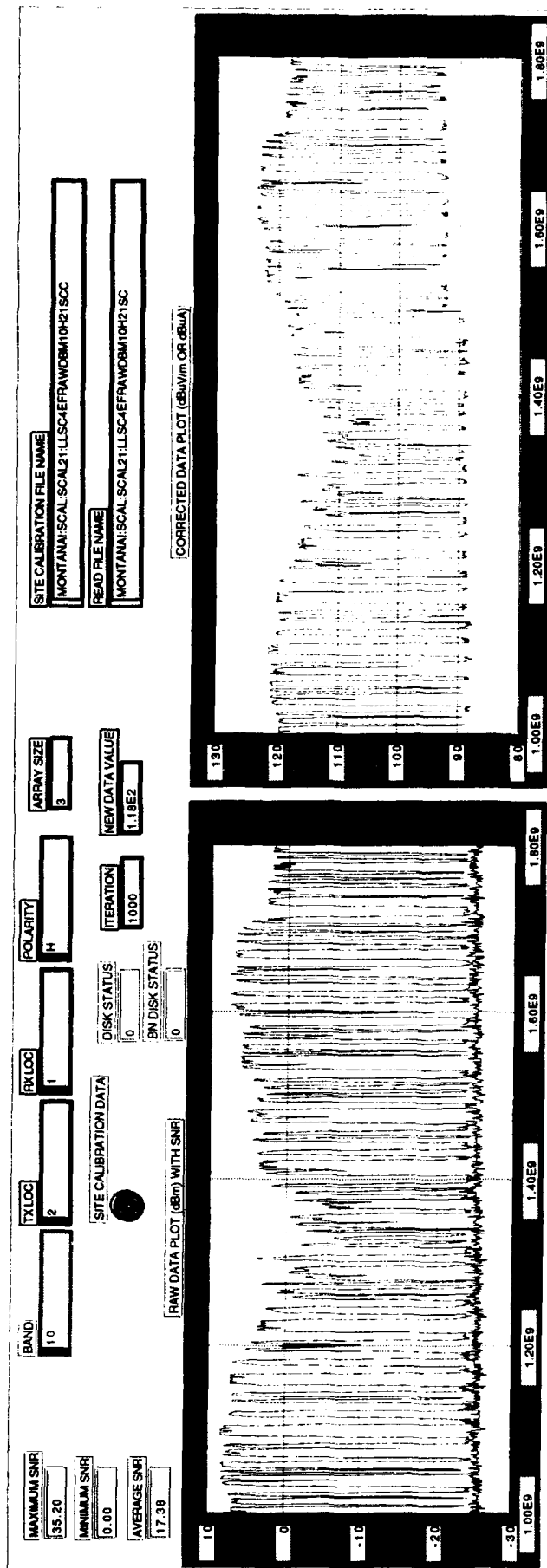


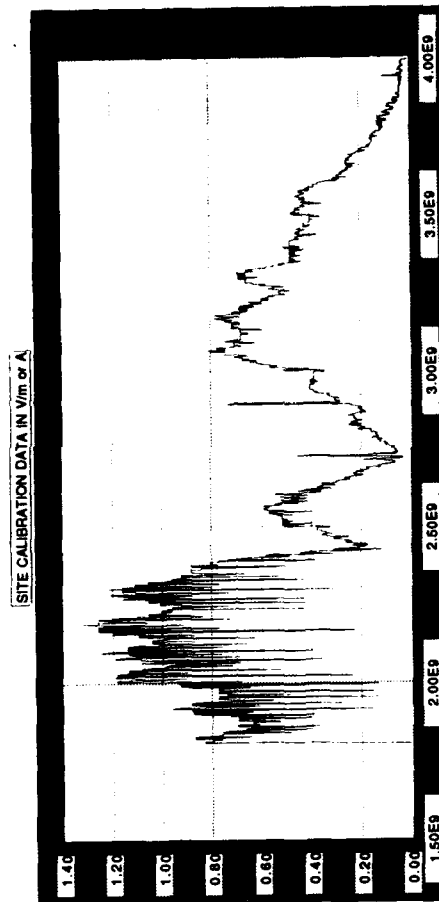
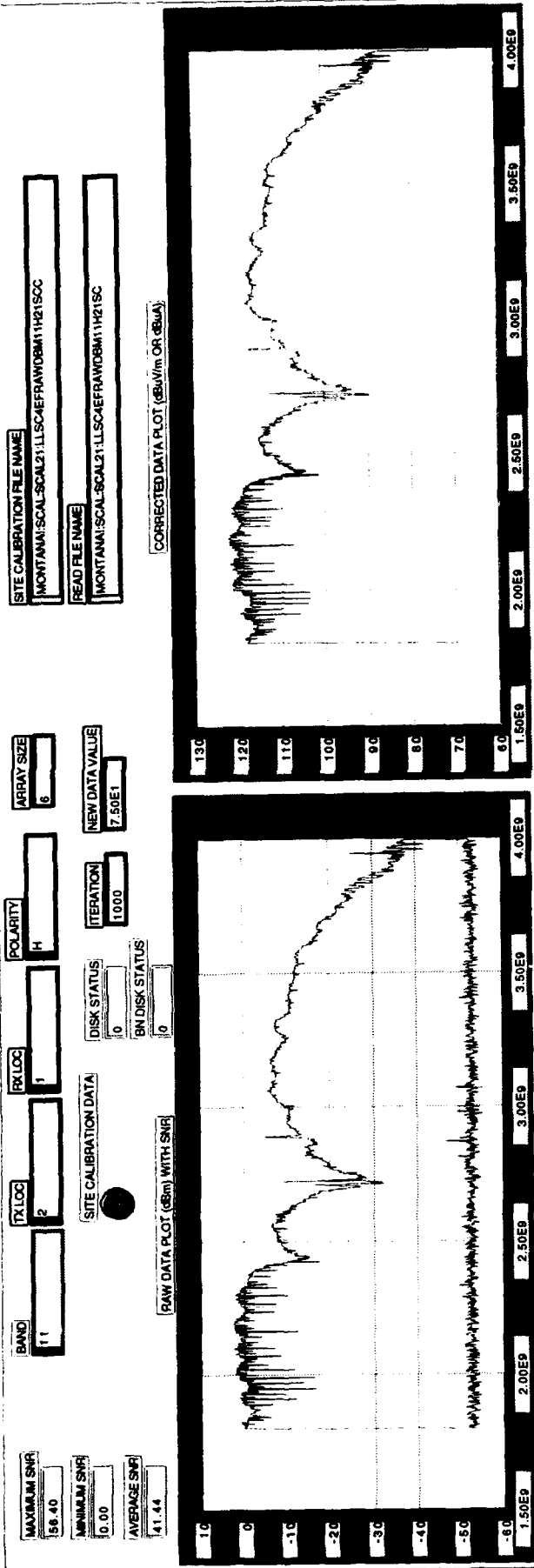




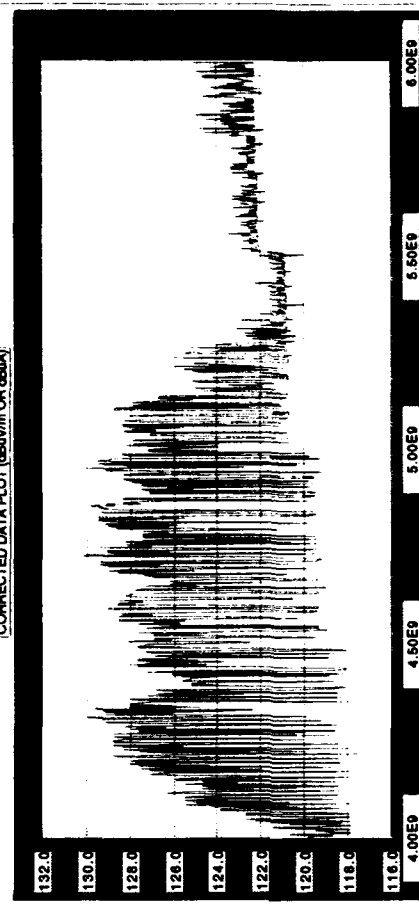
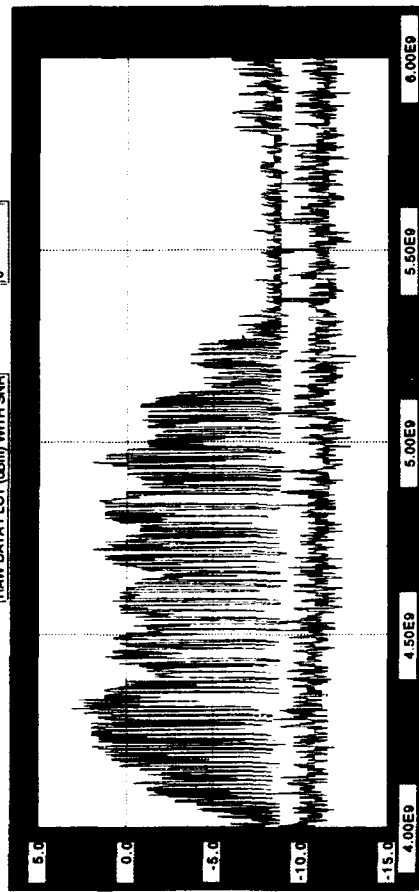
SITE CALIBRATION DATA IN V/m or A



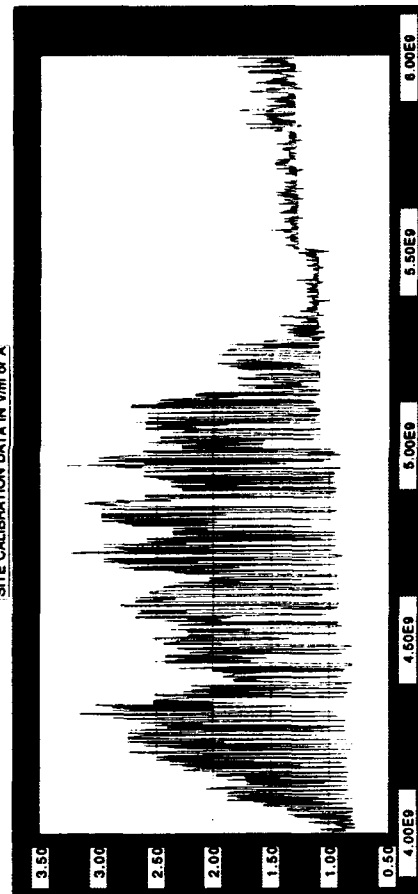


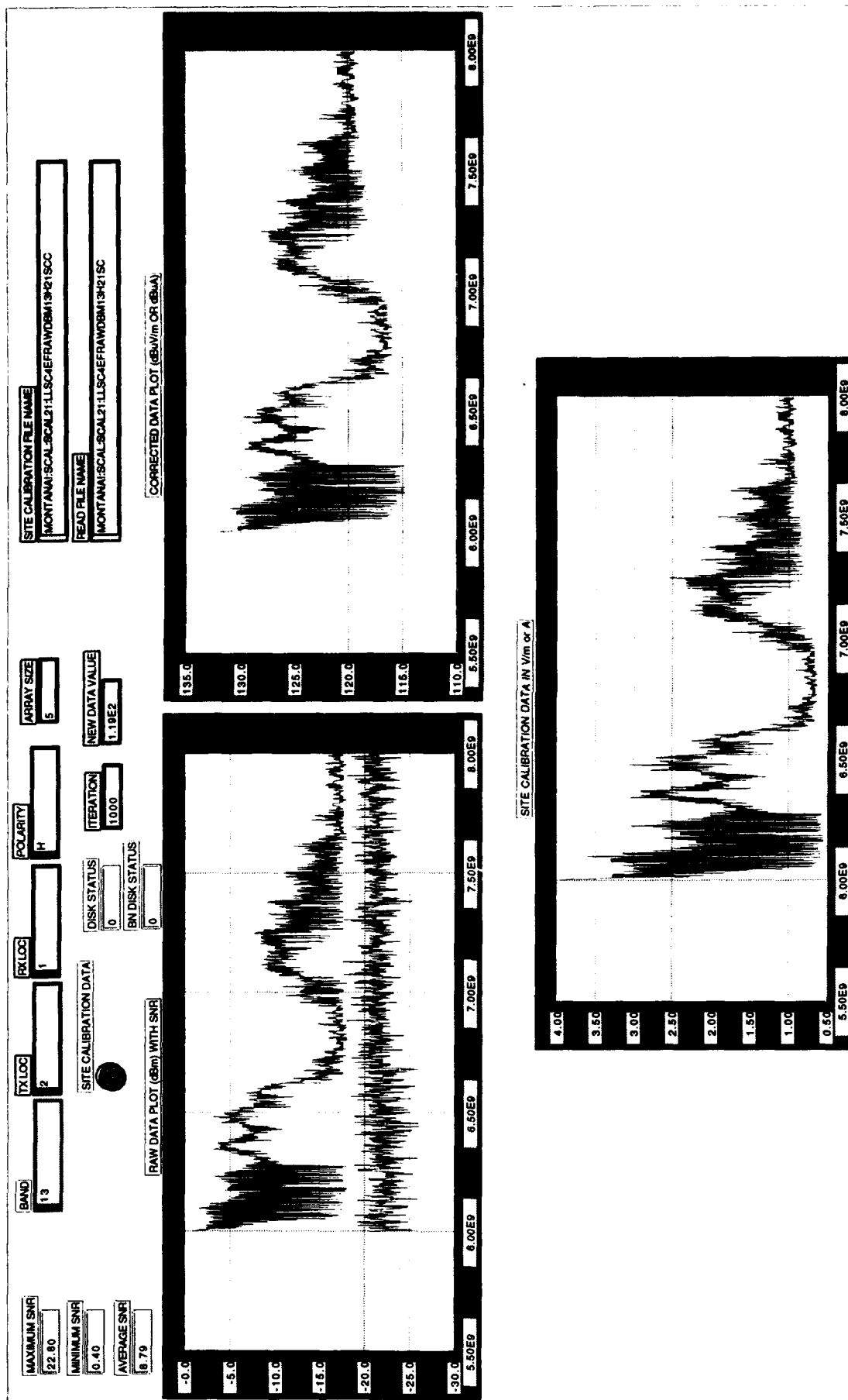


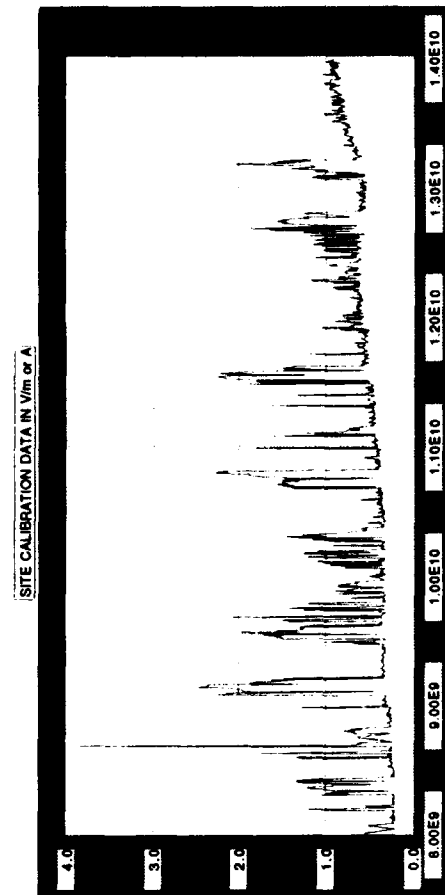
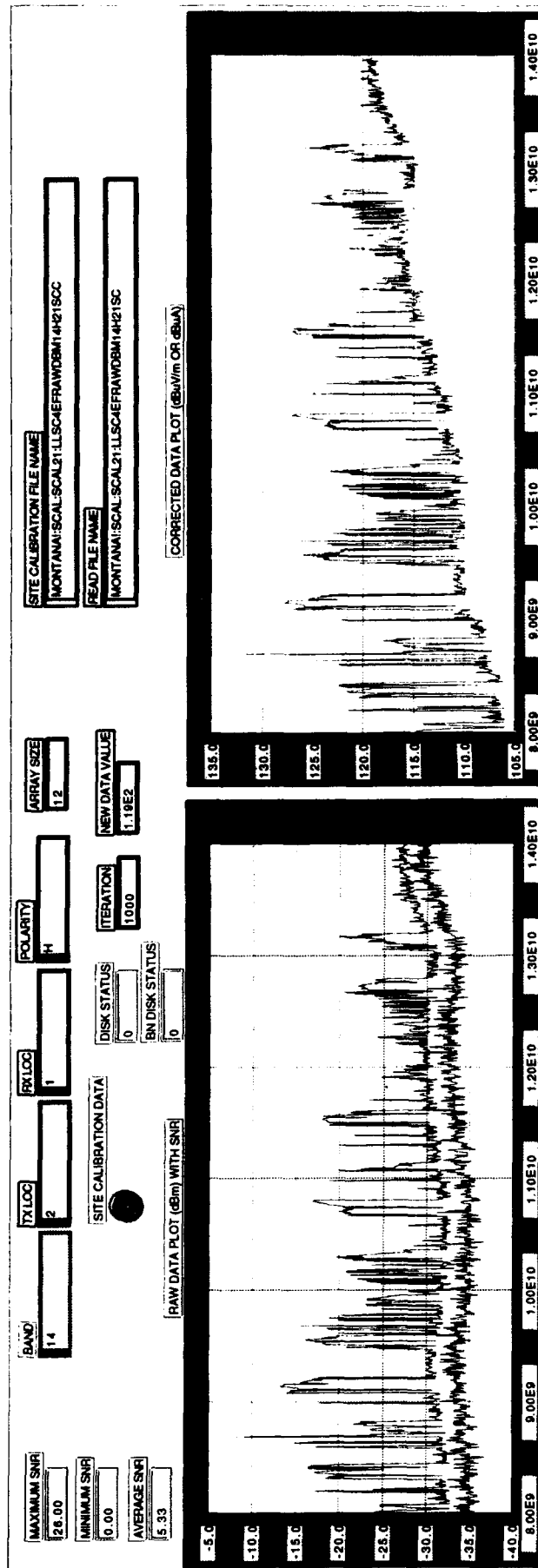
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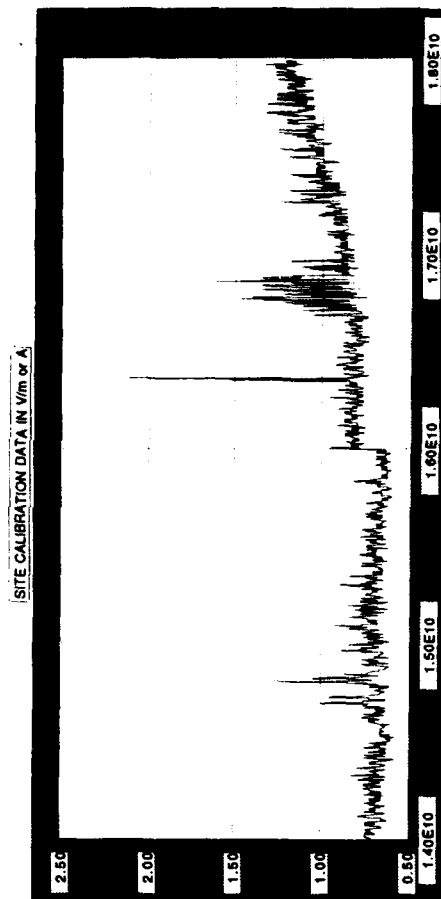
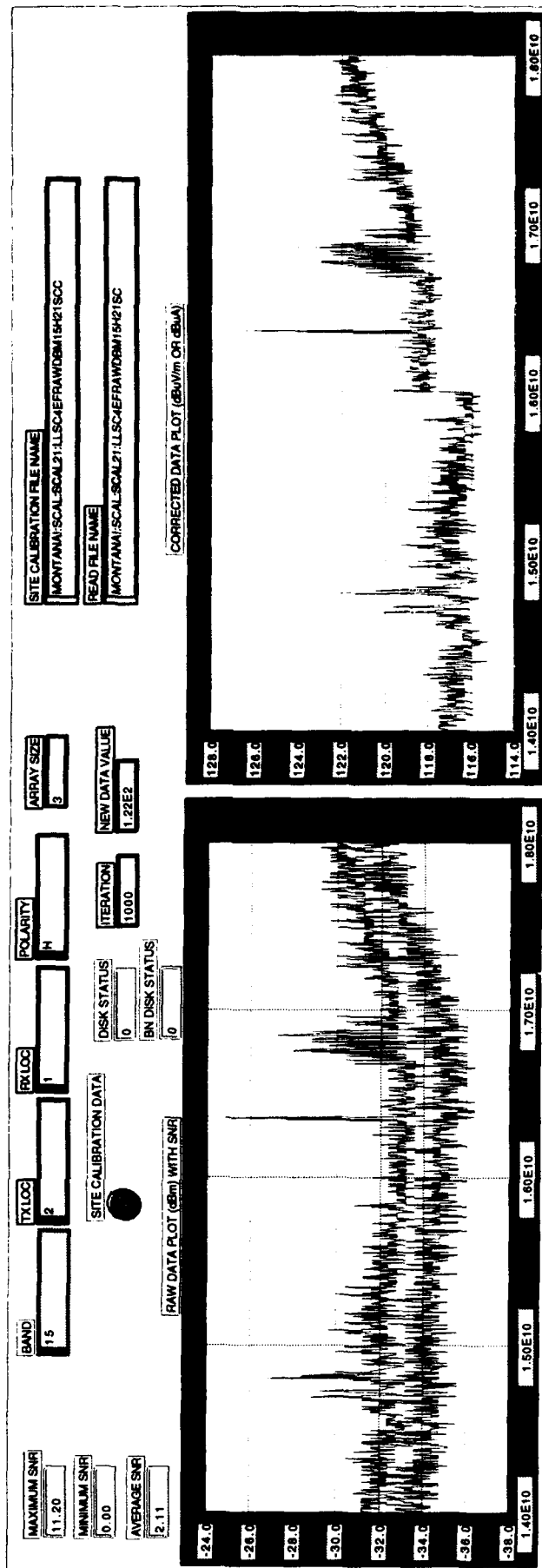


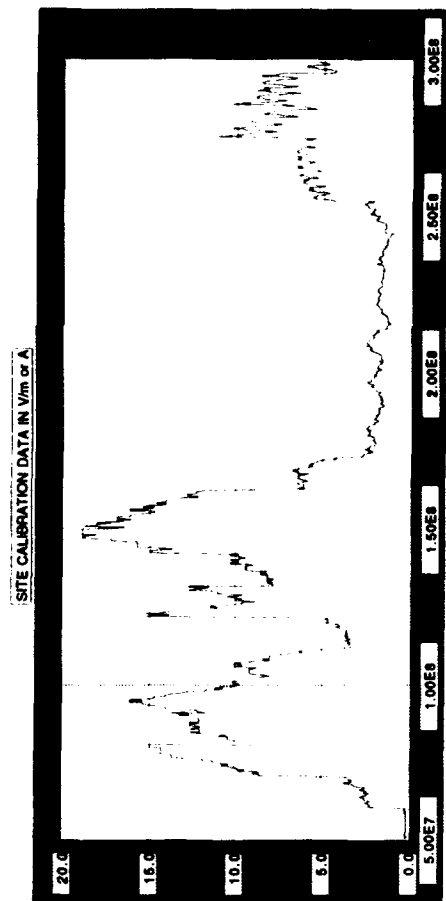
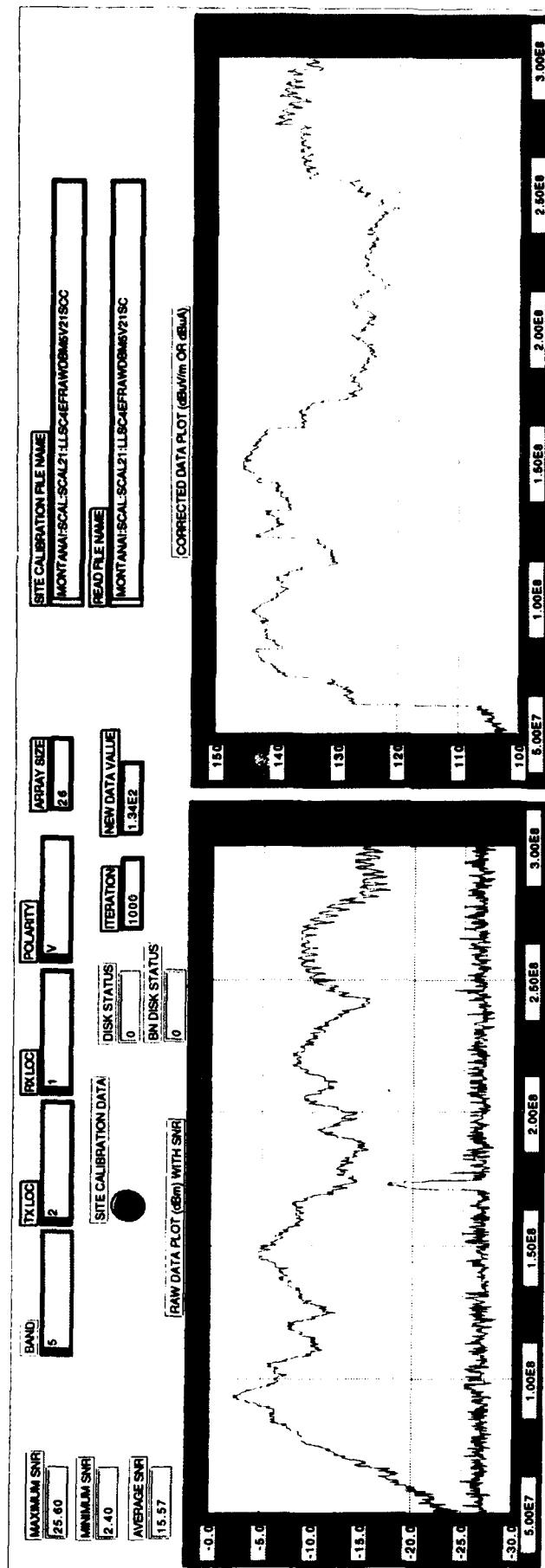
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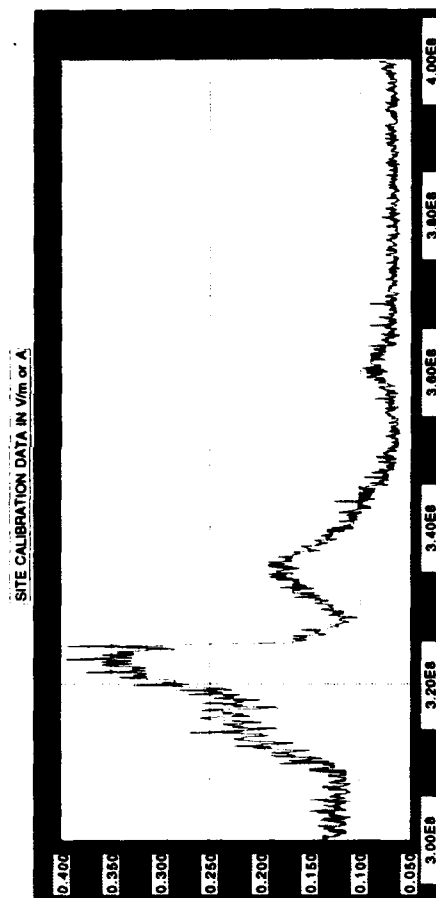
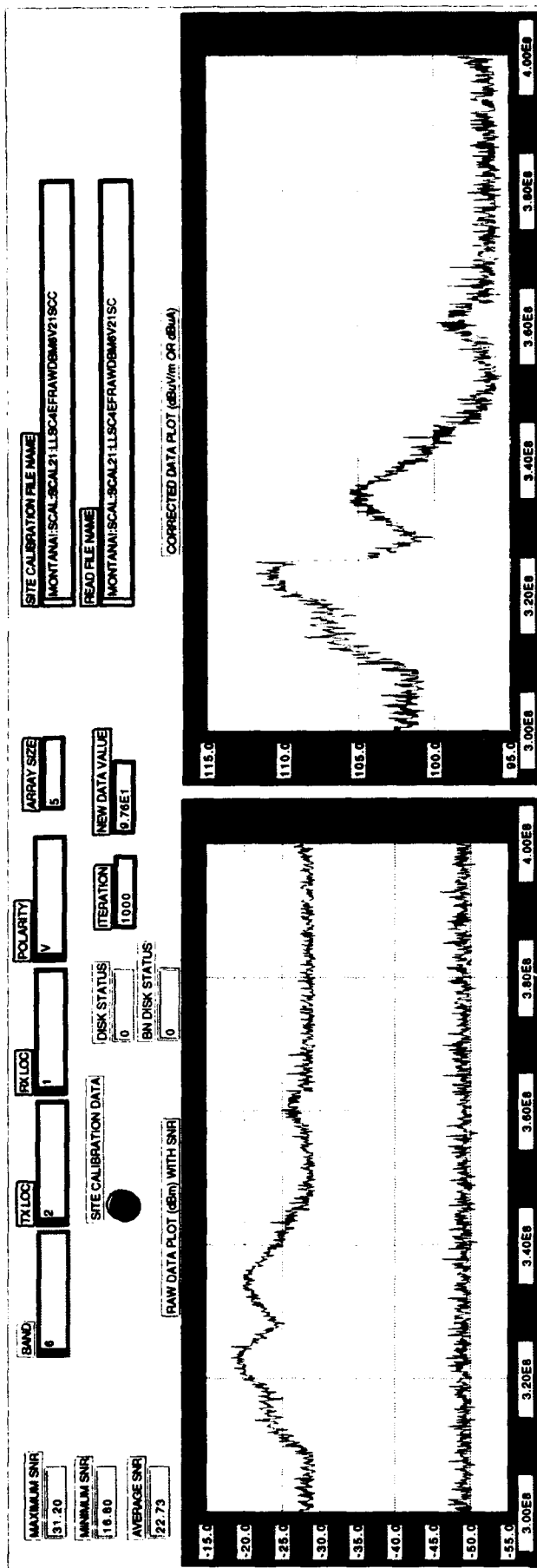


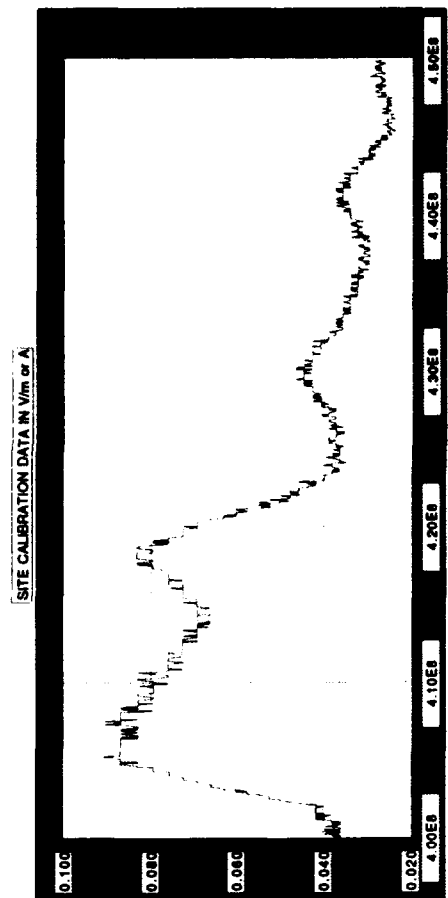
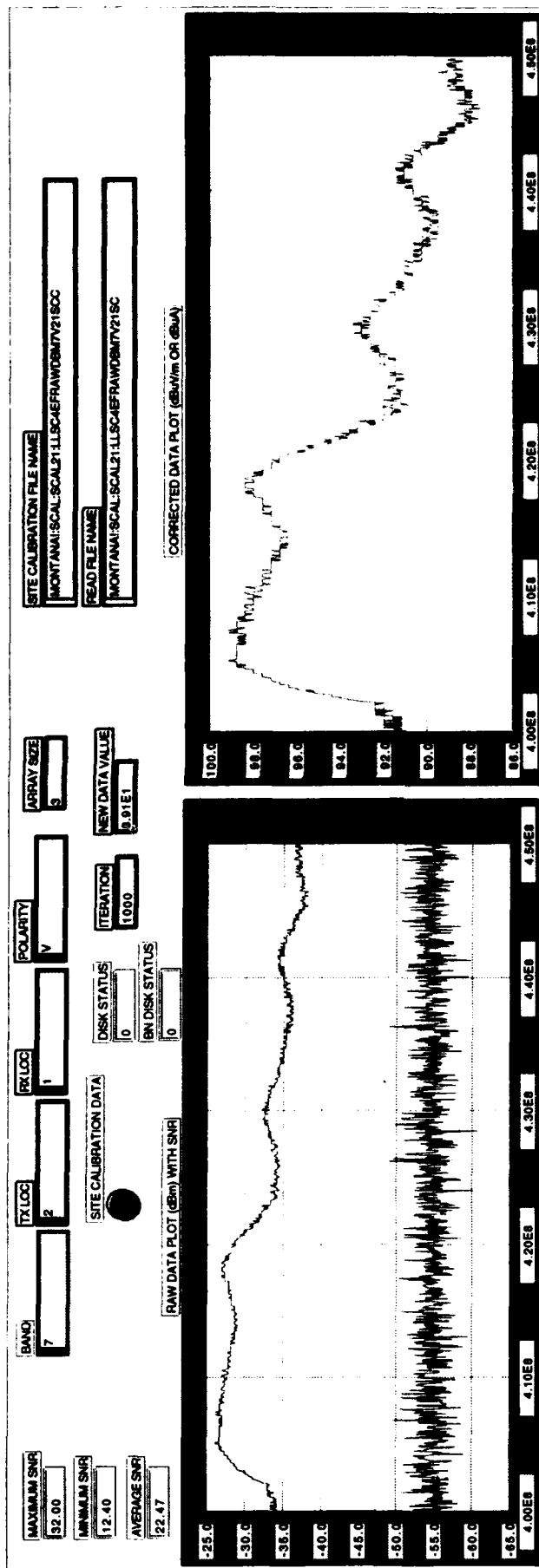


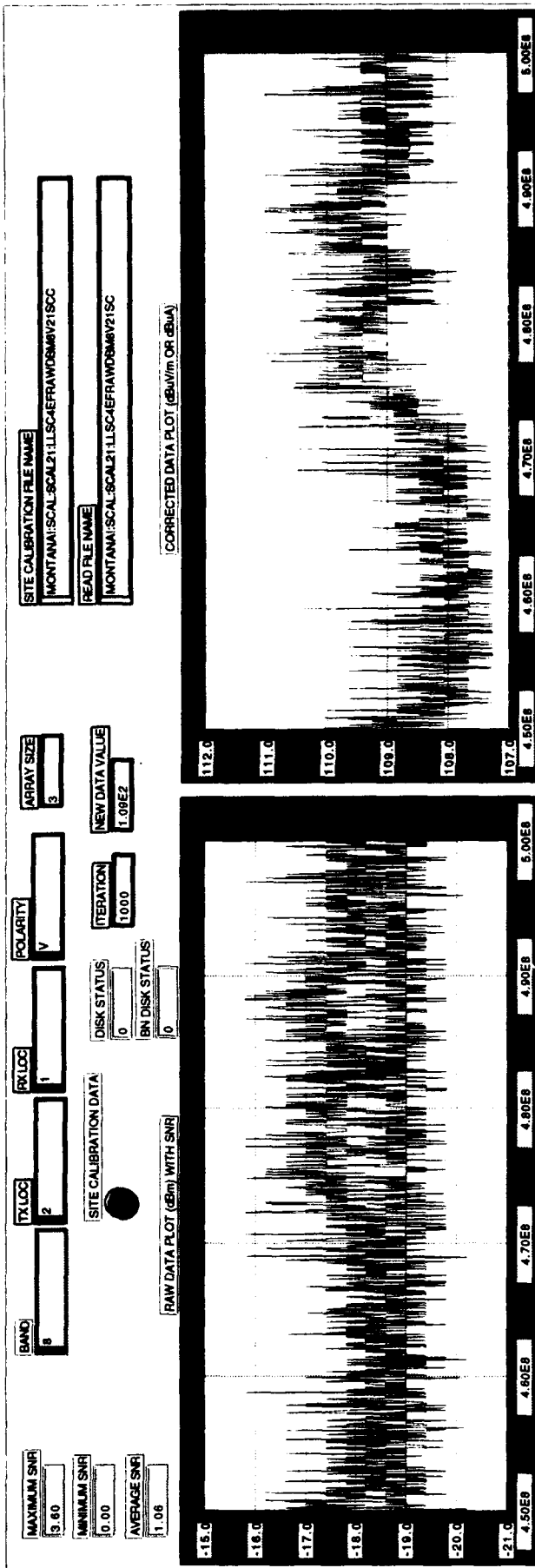




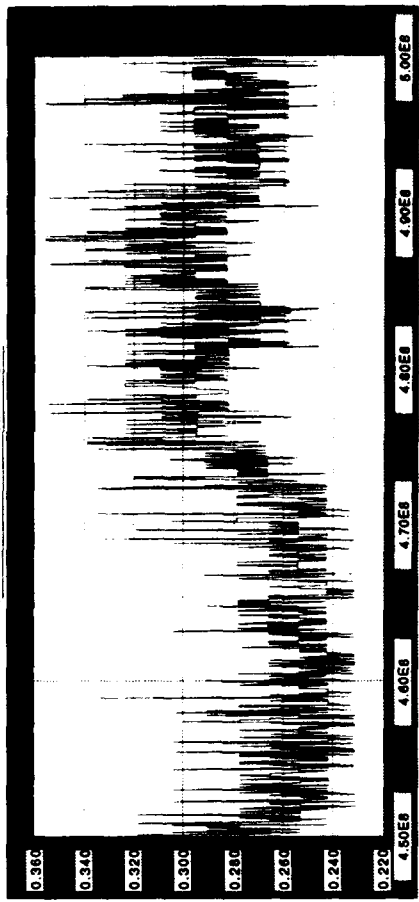


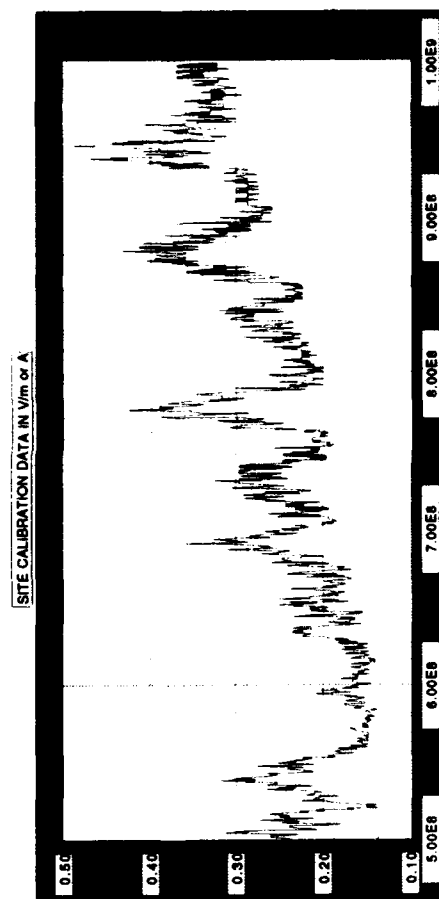
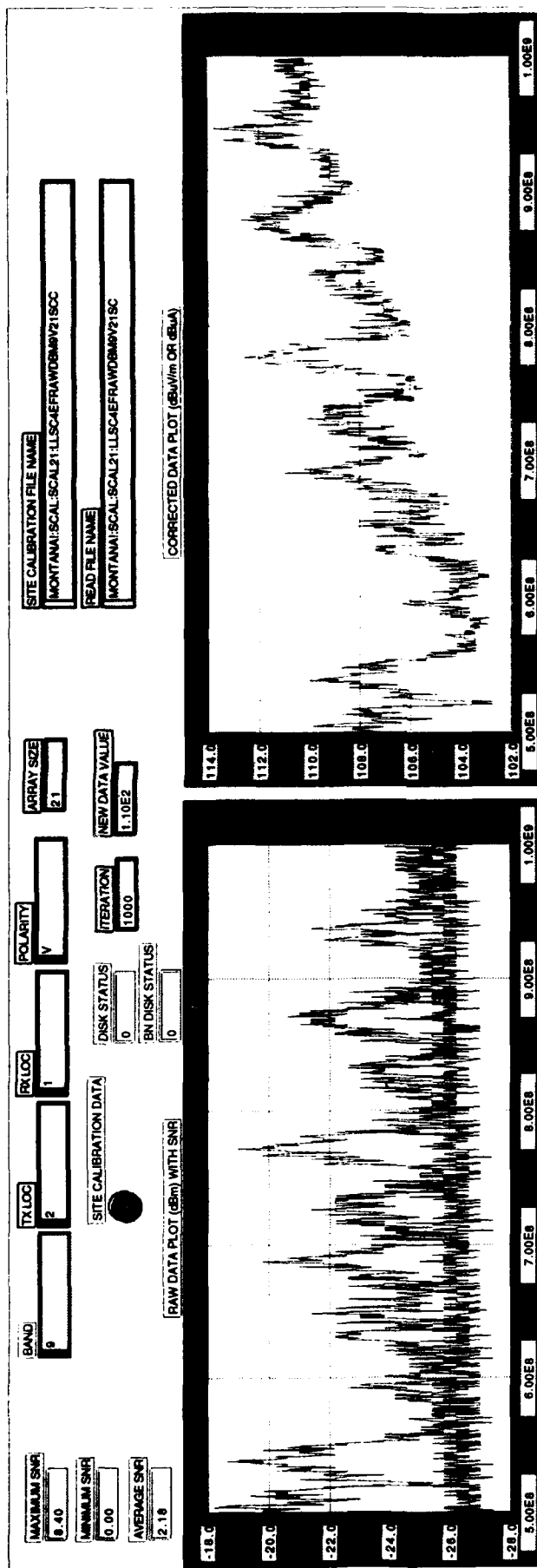


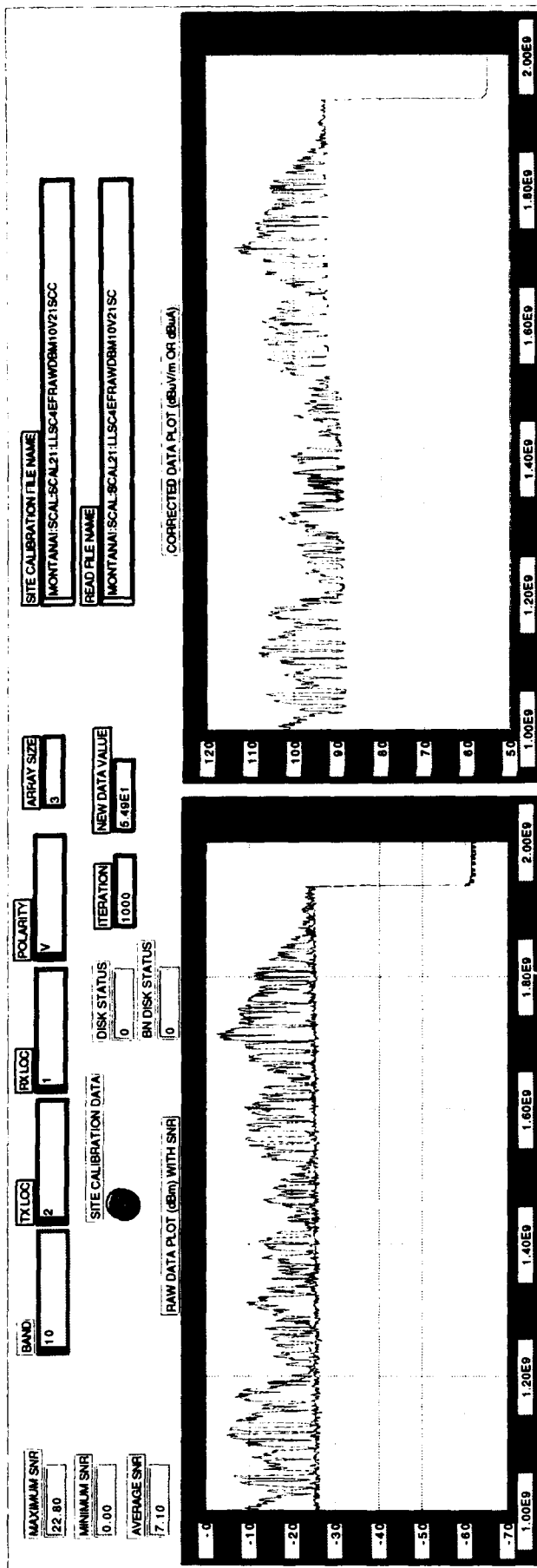




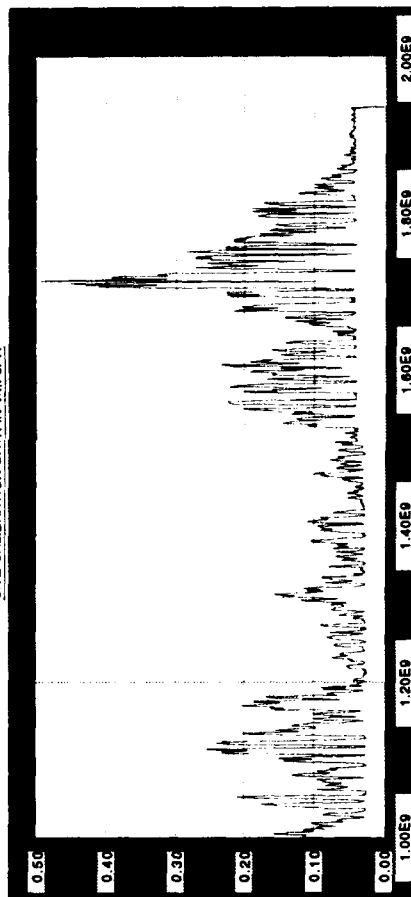
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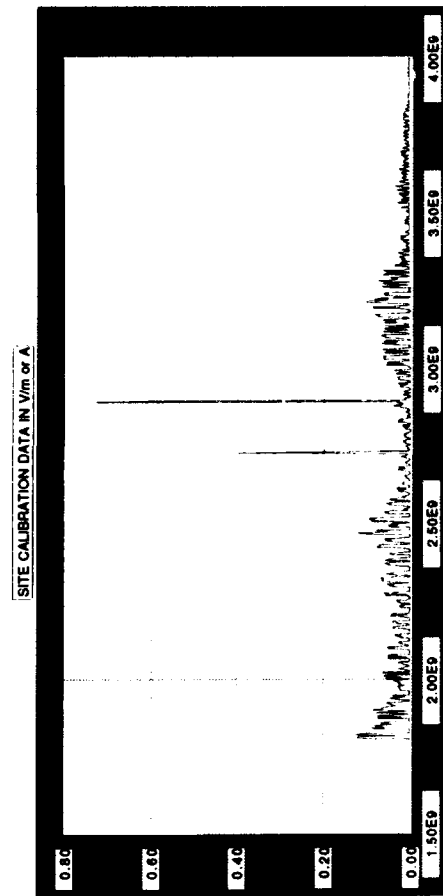
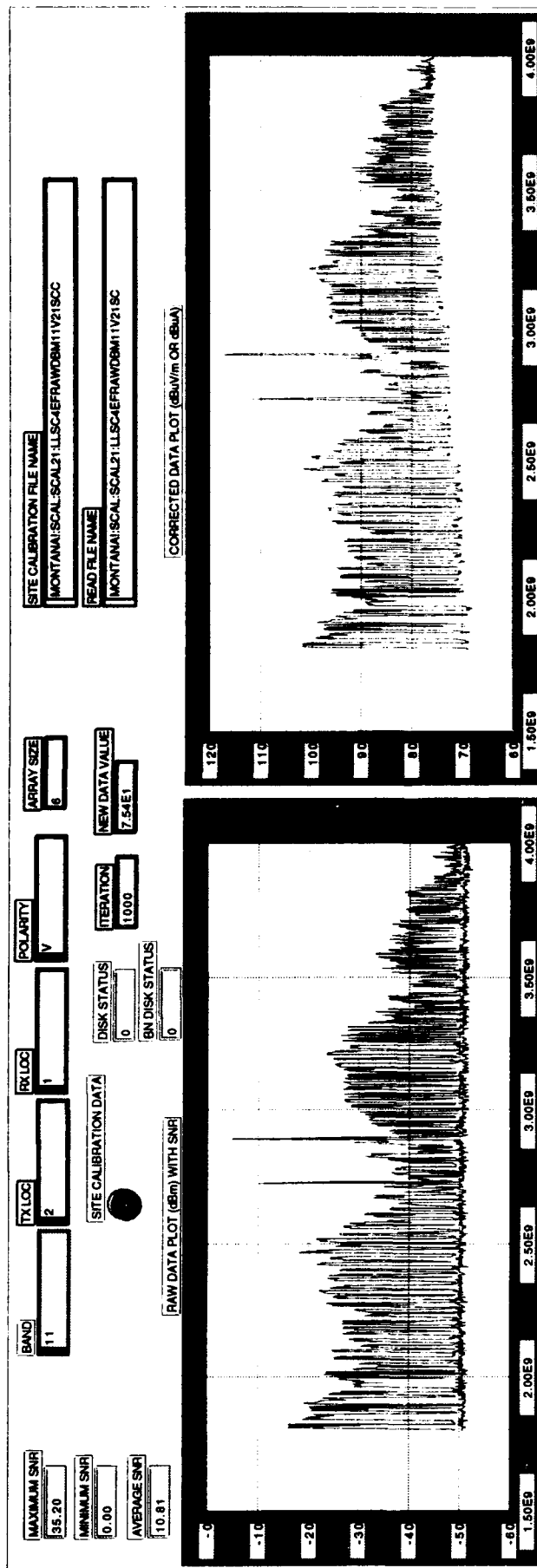


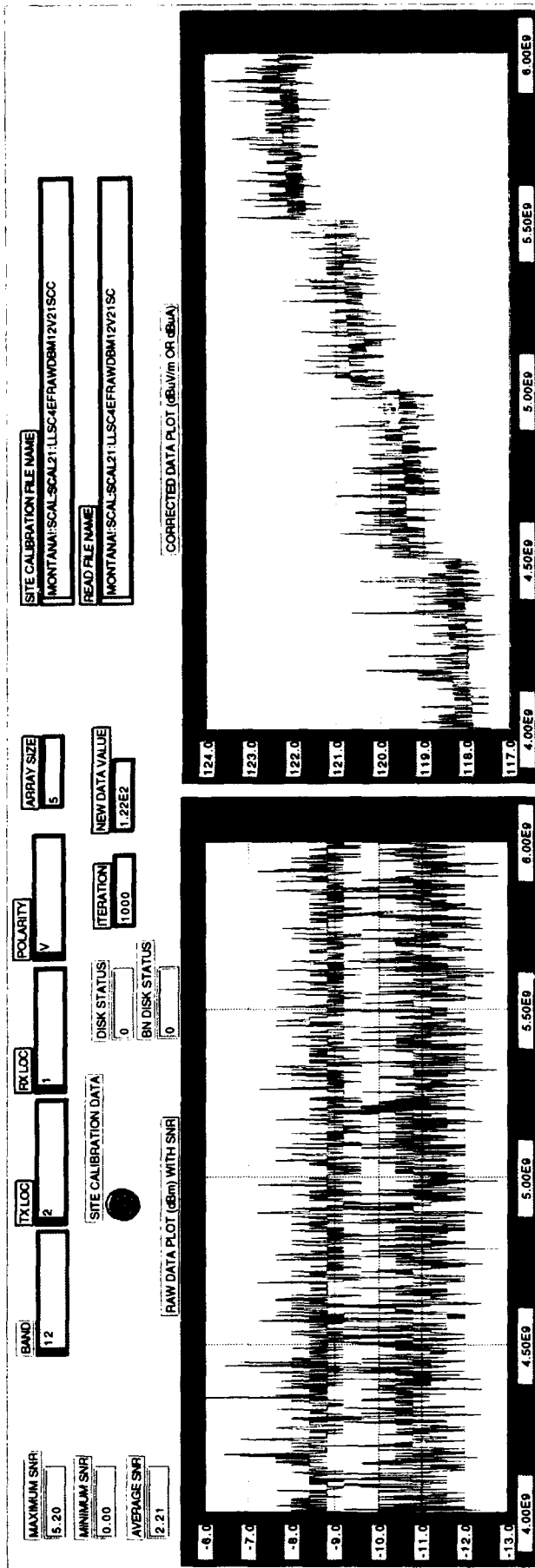




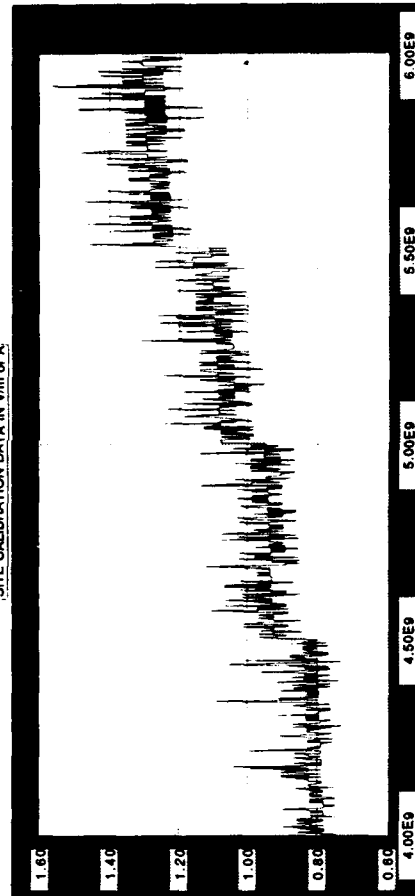
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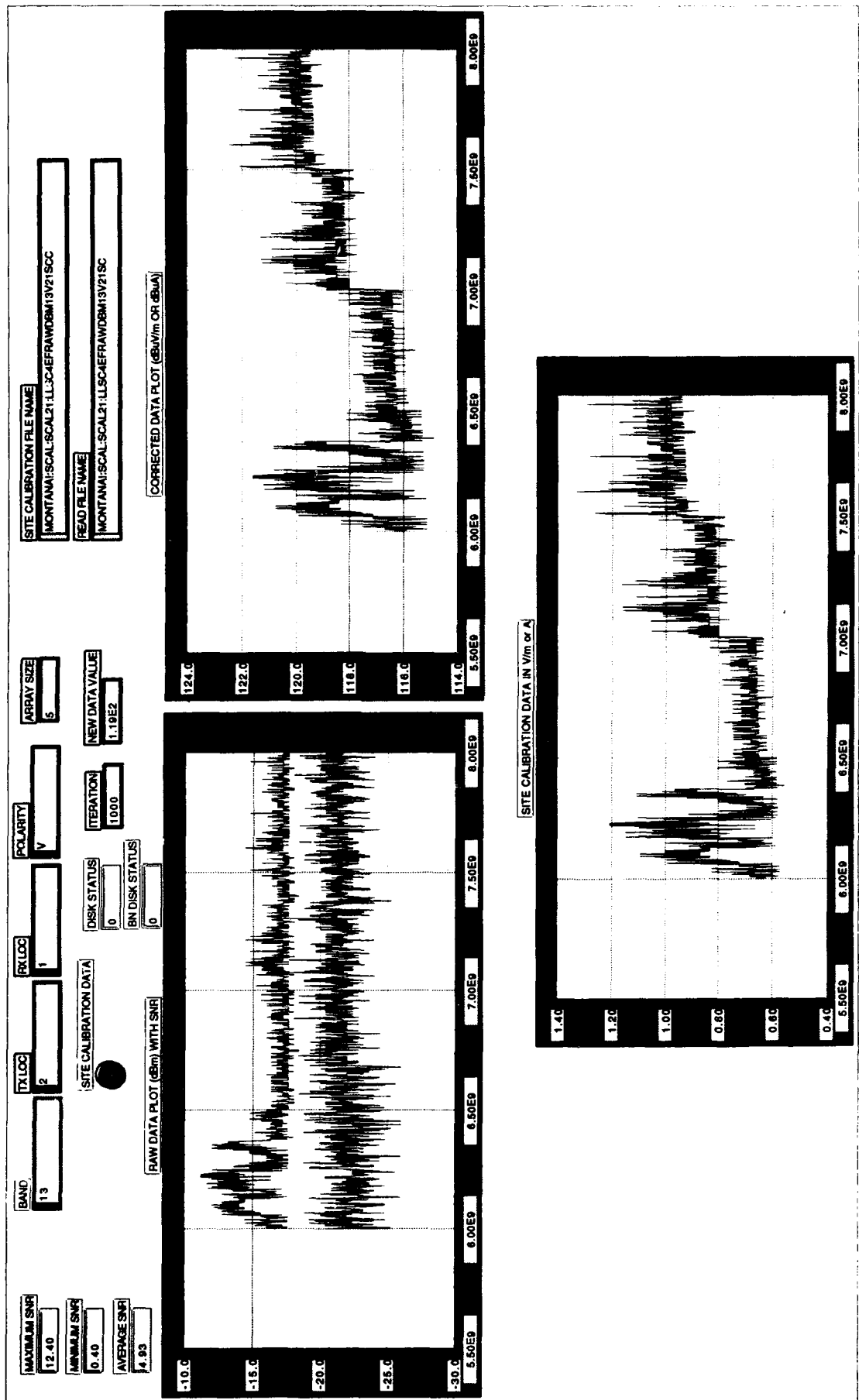


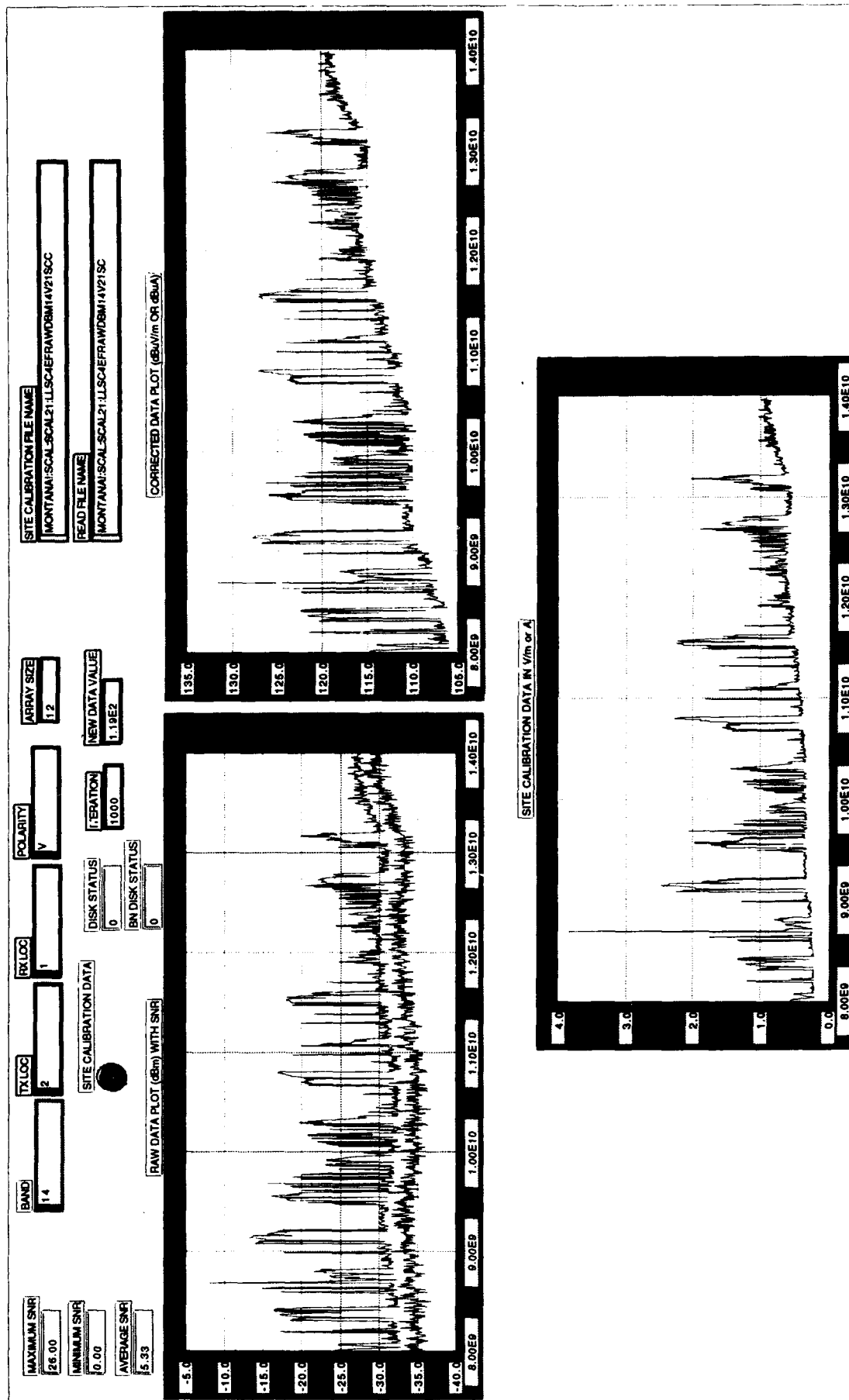


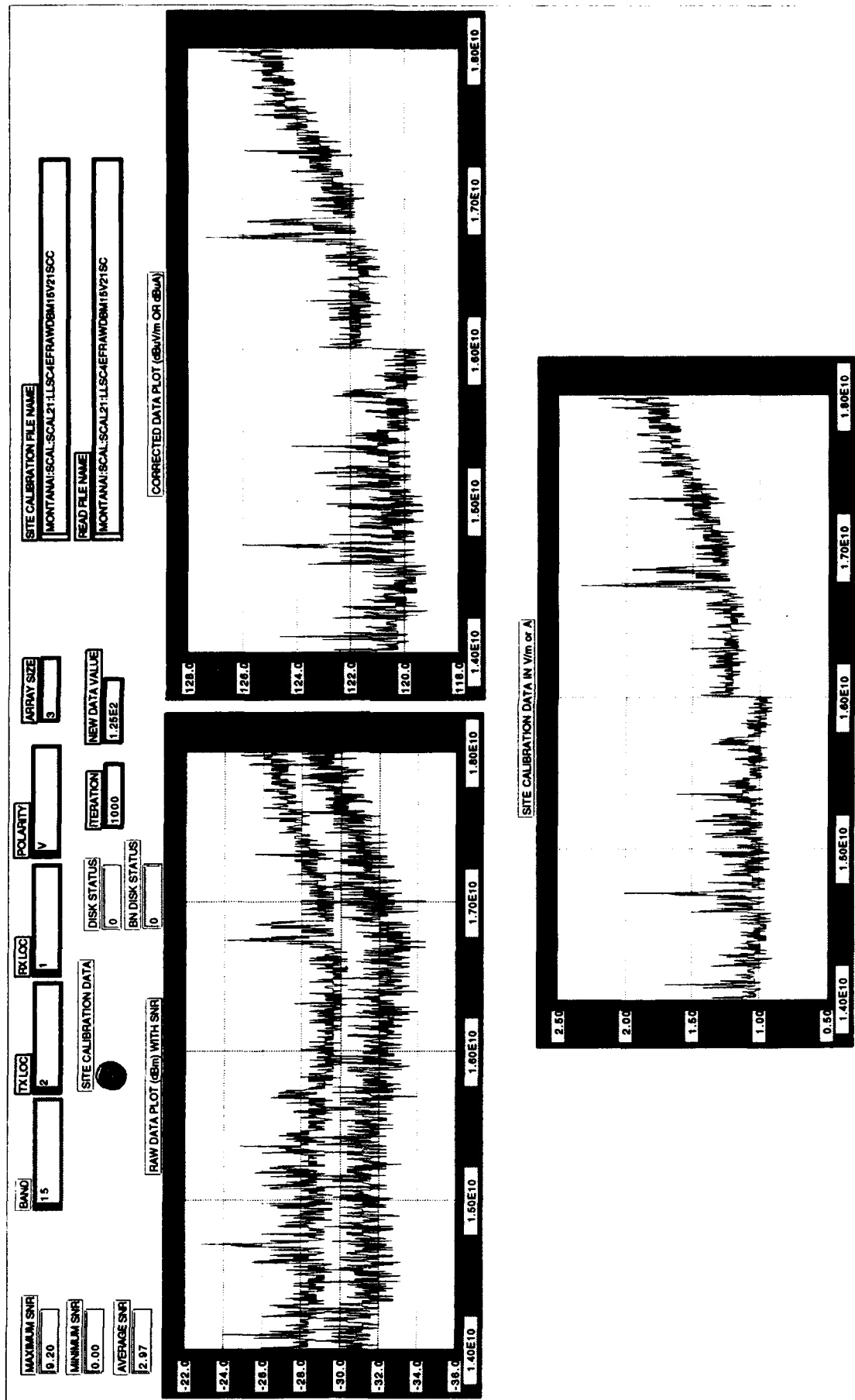


SITE CALIBRATION DATA IN V/m or A









SECTION 2

LLSC DATA PLOT DESCRIPTION

The LLSC data plots (sample on the following page) each contain the following information:

- Band number identification (Band)
 - S-76 orientation during the test (TXLOC)
 - Receive configuration location (RXLOC)
 - Transmit Antennae Polarity (POLARITY)
 - Full threat data array size (ARRAY SIZE - used internally by software application to process the data)
 - Name of the corrected SCAL data file
 - Data type indicator (if white indicates plot is LLSC data)
 - SCAL data type indicator (if black indicated plot is SCAL data)
 - Disk read error indicator (DISK STATUS)
 - Single corrected data value (NEW DATA VALUE - used internally by software application to process data)
 - Original uncorrected LLSC data file name (READ FILE NAME)
 - Original LLSC Data Plot in dBm with background noise overlay (RAW DATA PLOT (dBm) WITH SNR)
 - Corrected data plot in dBuA (CORRECTED DATA PLOT dBuV/m OR dBuA)
 - SCAL corrected data plot with values in dBuV/m (SITE CALIBRATION CORRECTED (dBuV))
 - LLSC data plot extrapolated to full threat (FULL THREAT DATA PLOT (V/m) OR CABLE CURRENT (A) WITH FULL THREAT OVERLAY)
-

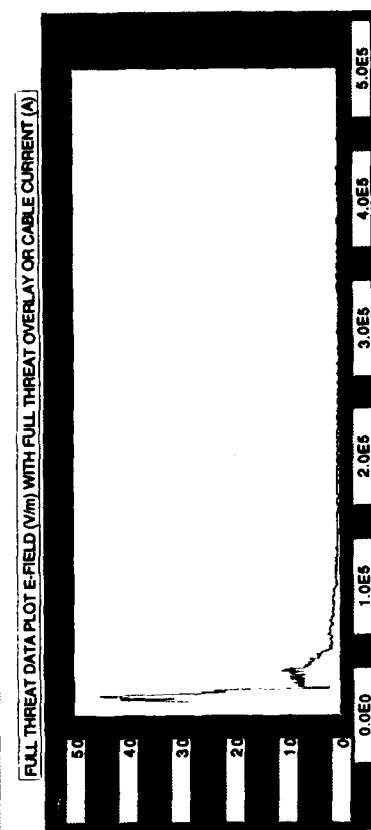
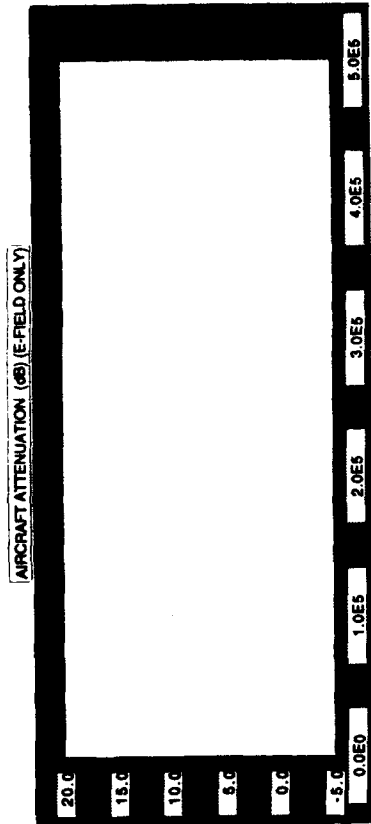
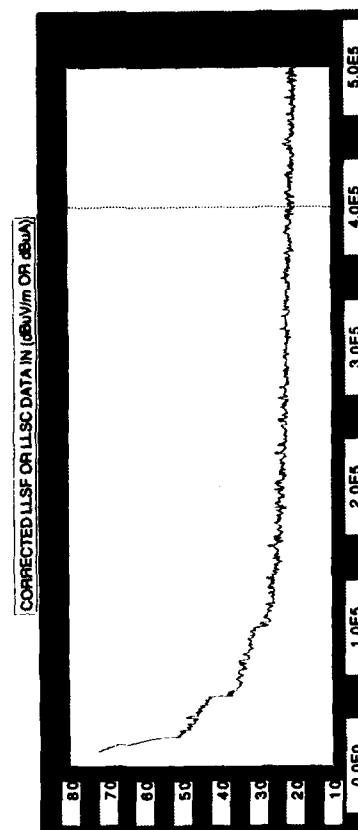
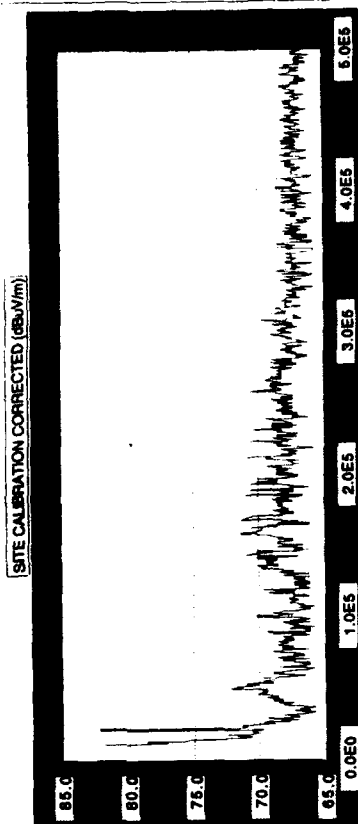
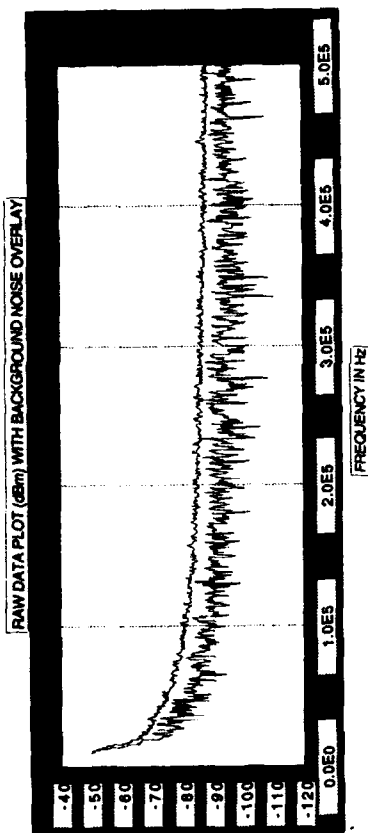
SECTION 2-1
PILOT DISPLAY UNIT LLSC DATA PLOTS

SITE CALIBRATION FILE NAME
MONTANA:SCAL:SCAL11LLSC4FRWDBM1H11SCC

READ FILE NAME
MONTANA:LABVIEW DATA:LLSC1CCRAWDBM1H11

SAND 1 TX LOC 1 RX LOC 1 POLARITY H

E-FIELD ☒ FILTER ON/OFF ☒ FILTER RANK 0 DISK STATUS 0



SITE CALIBRATION FILE NAME

MONTANA:SCAL:SCAL111LSC:FRANDBM2H1180C

READ FILE NAME

MONTANA:LABVIEW DATA\LSC10CRAWDBM2H11

SITE CALIBRATION FILE NAME

MONTANA:SCAL:SCAL111LSC:FRANDBM2H1180C

READ FILE NAME

MONTANA:LABVIEW DATA\LSC10CRAWDBM2H11

BAND

2

TX LOC

1

POLARITY

H

E-FIELD

☒

FILTER ON/OFF

☒

DISK STATUS

0

FILTER BANK

0

MAX ATTENUATION (dB)

0

MIN ATTENUATION (dB)

0

AVERAGE ATTENUATION (dB)

0

RAW DATA PLOT (dBm) WITH BACKGROUND NOISE OVERLAY

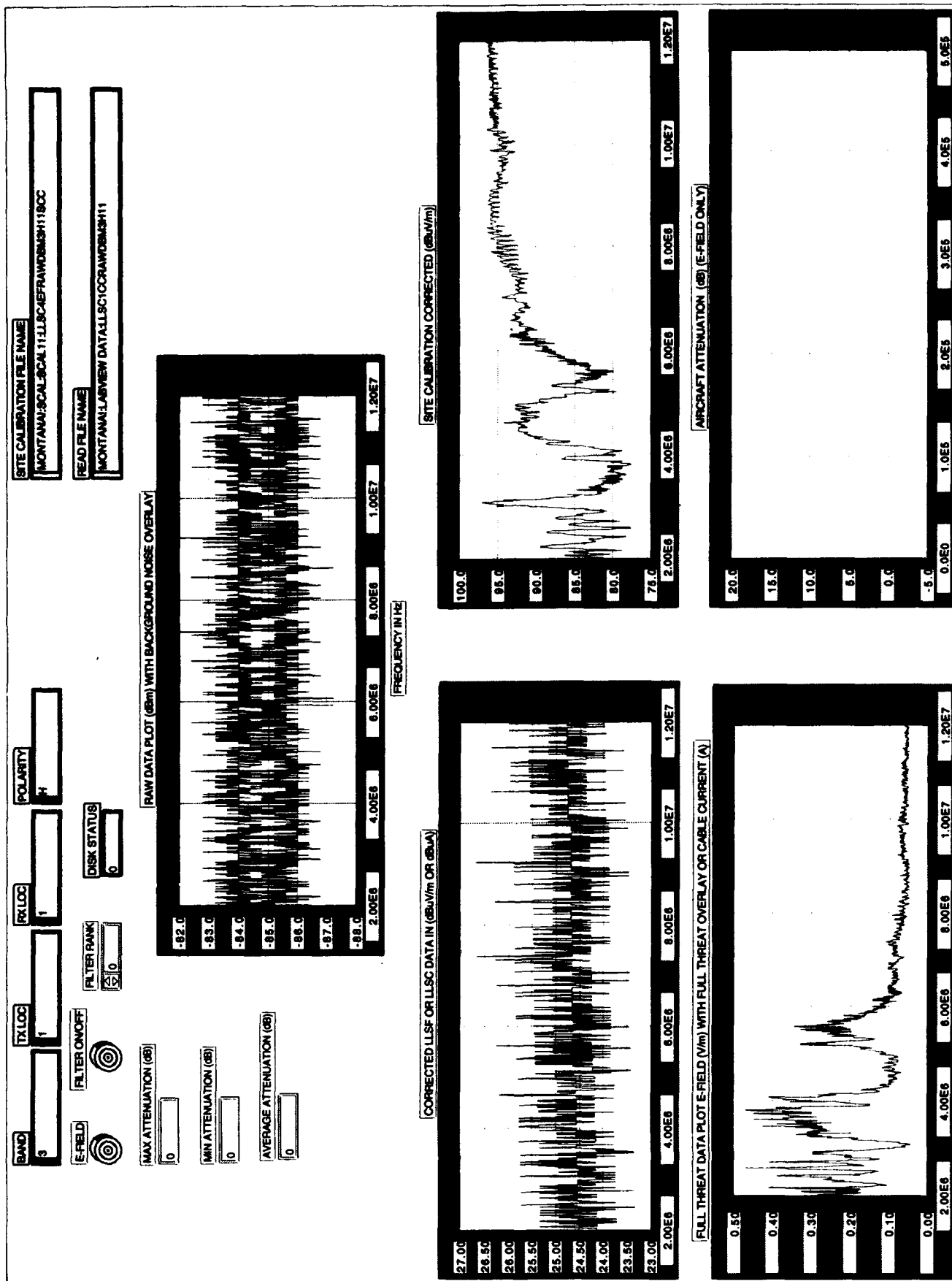
CORRECTED ILSF OR ILSC DATA IN (dBuV/m OR dBuA)

SITE CALIBRATION CORRECTED (dBuV/m)

AIRCRAFT ATTENUATION (dB) (E-FIELD ONLY)

FULL THREAT DATA PLOT E-FIELD (V/m) WITH FULL THREAT OVERLAY OR CABLE CURRENT (A)

FULL THREAT DATA PLOT E-FIELD (V/m) WITH FULL THREAT OVERLAY OR CABLE CURRENT (A)



SITE CALIBRATION FILE NAME
MONTANA:SCAL:SCAL11LLSC4EPRAWDBM4H11SCC

READ FILE NAME
MONTANA:LABVIEW DATA:LLSC10CRAWDBM4H11

BAND 4 TX LOC 1 RX LOC 1 POLARITY H

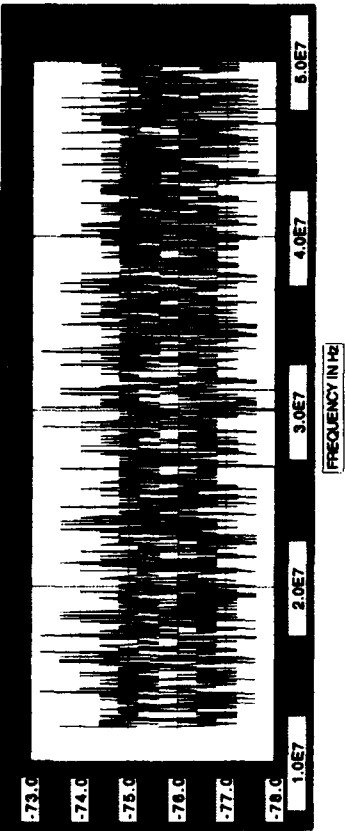
E-FIELD FILTER ON/OFF FILTER RANK 20 DISK STATUS 0

MAX ATTENUATION (dB) 0

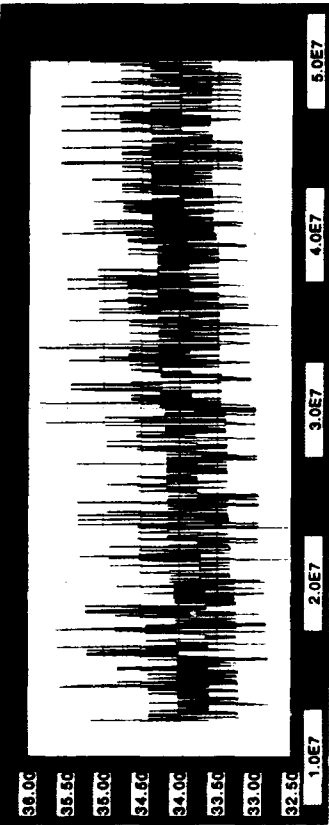
MIN ATTENUATION (dB) 0

AVERAGE ATTENUATION (dB) 0

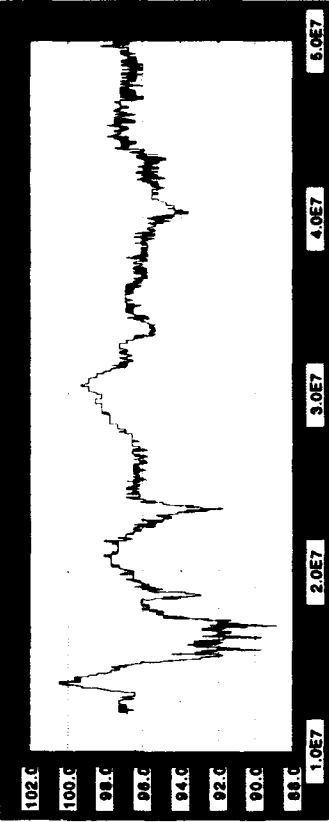
RAW DATA PLOT (dBm) WITH BACKGROUND NOISE OVERLAY



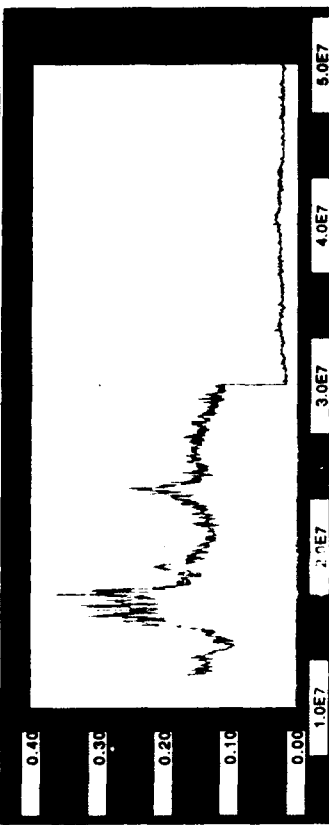
CORRECTED LLSC OR LLSC DATA IN (dBuV/m OR dBuA)



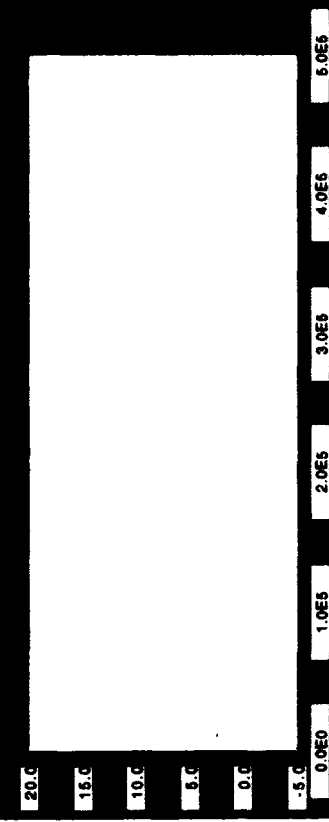
SITE CALIBRATION CORRECTED (dBuV/m)



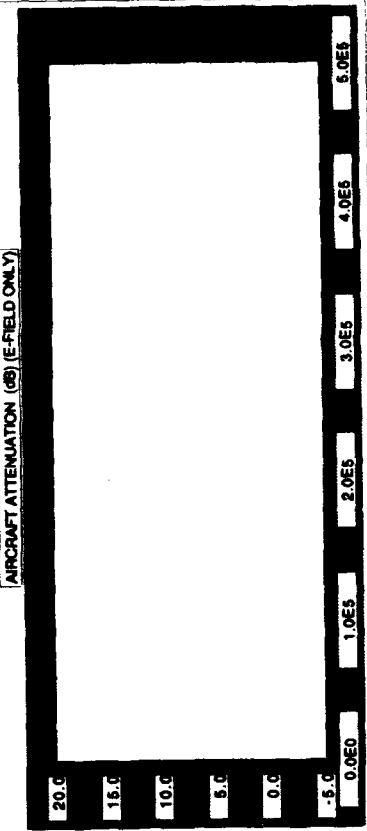
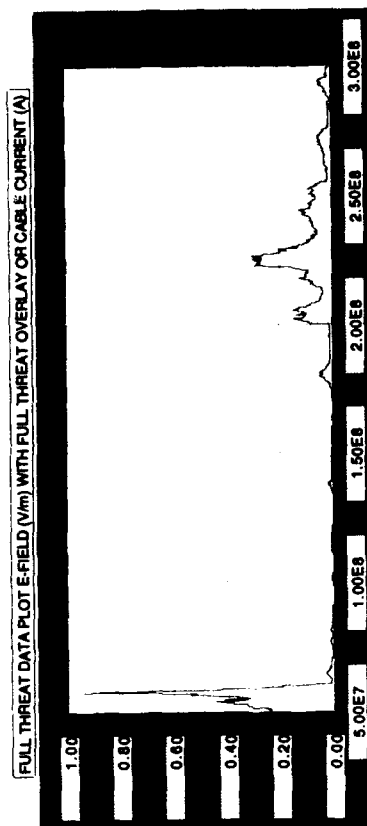
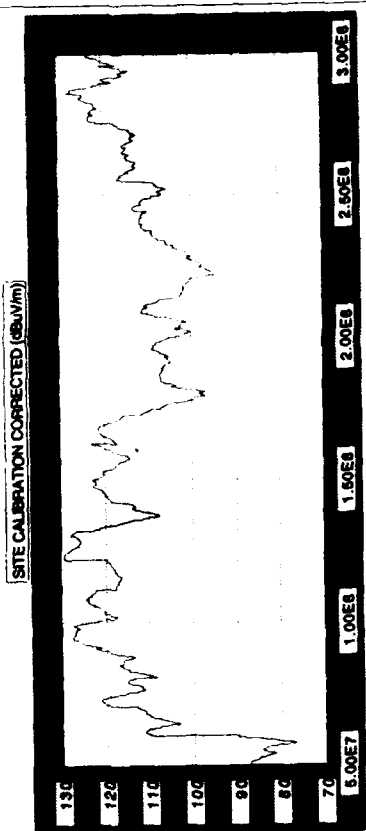
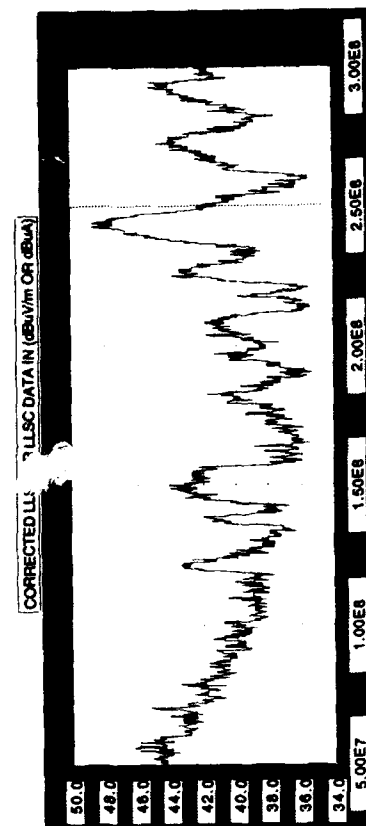
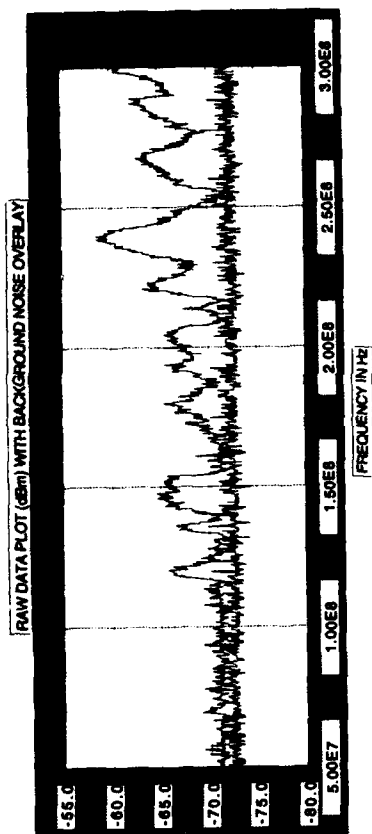
FULL THREAT DATA PLOT E-FIELD (V/m) WITH FULL THREAT OVERLAY OR CABLE CURRENT (A)



AIRCRAFT ATTENUATION (dB) (E-FIELD ONLY)



BAND TX LOC RX LOC POLARITY
 E-FIELD FILTER ON/OFF FILTER RANK DISK STATUS



BAND	TX LOC	FX LOC	POLARITY
6	1	1	H

E-FIELD	FILTER ON/OFF	FILTER RANK	DISK STATUS
		5/0	0

MAX ATTENUATION (dB)	MIN ATTENUATION (dB)	AVERAGE ATTENUATION (dB)
0	0	0

SITE CALIBRATION FILE NAME		READ FILE NAME	
MONTANA-SCAL-SCAL11LLSC4EPRANDBMH1180C		MONTANA-LABVIEW DATA-LLSC10CRANWOBMBH11	

RAW DATA PLOT (dBm) WITH BACKGROUND NOISE OVERLAY

CORRECTED LLSF OR LLSC DATA IN (dBuV/m OR dBuV)

FULL THREAT DATA PLOT E-FIELD (V/m) WITH FULL THREAT OVERLAY OR CABLE CURRENT (A)

SITE CALIBRATION CORRECTED (dBuV/m)

AIRCRAFT ATTENUATION (dB) (E-FIELD ONLY)

SITE CALIBRATION FILE NAME
MONTANA/SCAL/SCAL11/LLSCA/FRANDBM7H180C

READ FILE NAME
MONTANA/LASVIEW DATA/LLSC/CRANDBM7H12

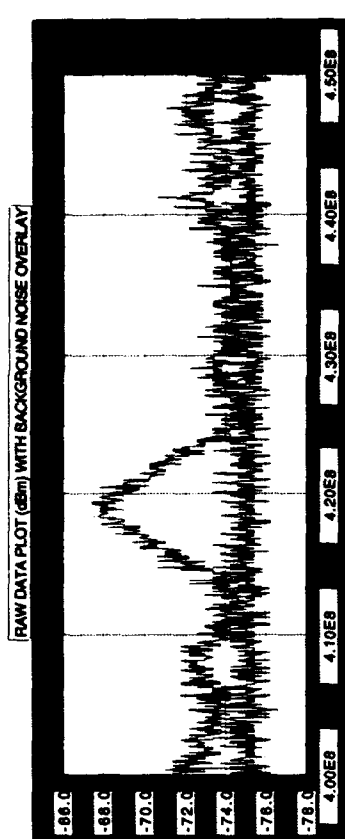
SAND 7 TXLOC 1 RXLOC 2 POLARITY H

E-FIELD ☒ FILTER ON/OFF ☒ FILTER RANK 0 DISK STATUS 0

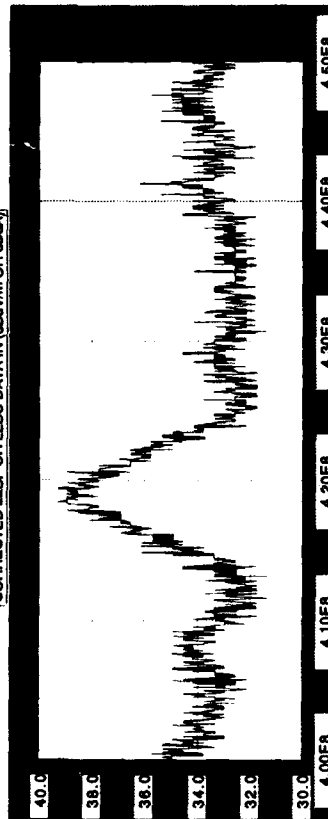
MAX ATTENUATION (dB) 0

MIN ATTENUATION (dB) 0

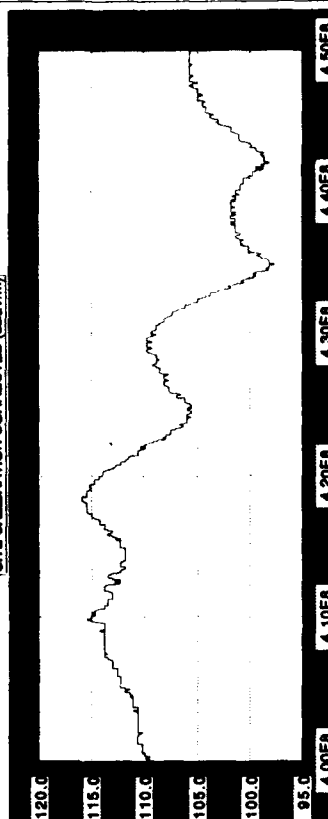
AVERAGE ATTENUATION (dB) 0



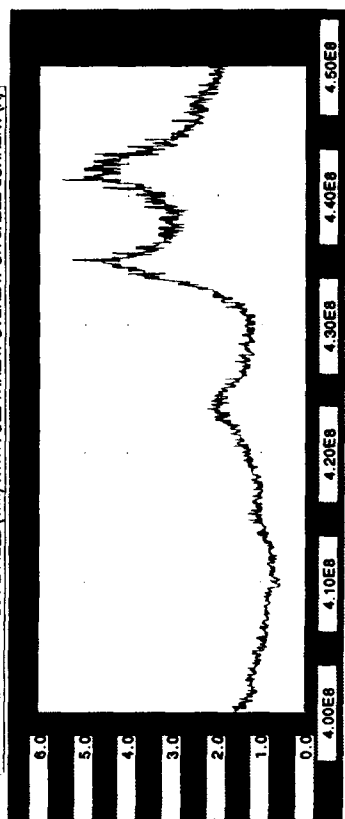
CORRECTED LLSP OR LLSC DATA IN (dBuV/m OR dBuA)



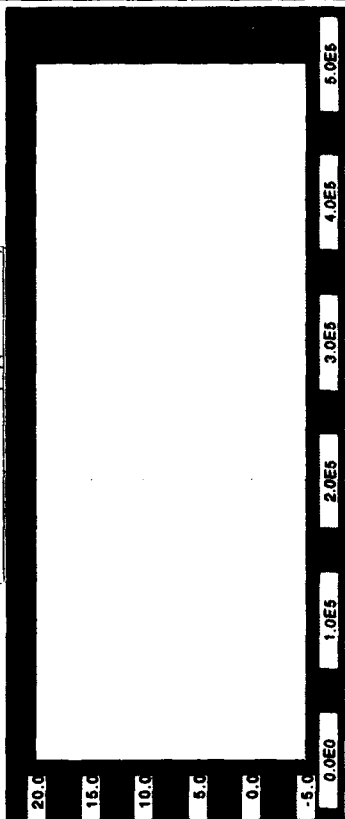
SITE CALIBRATION CORRECTED (dBuV/m)

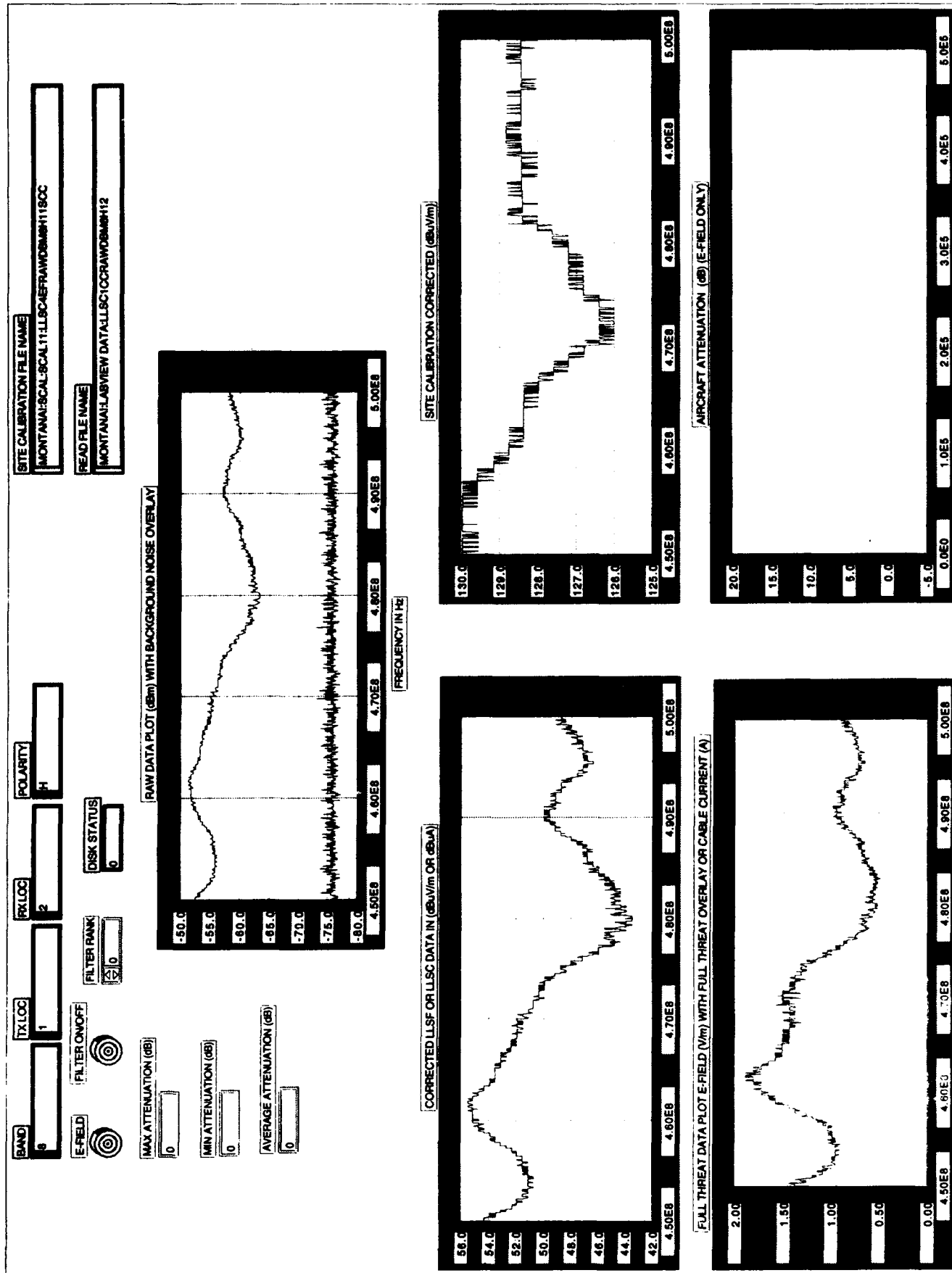


FULL THREAT DATA PLOT E-FIELD (V/m) WITH FULL THREAT OVERLAY OR CABLE CURRENT (A)



AIRCRAFT ATTENUATION (dB) [E-FIELD ONLY]



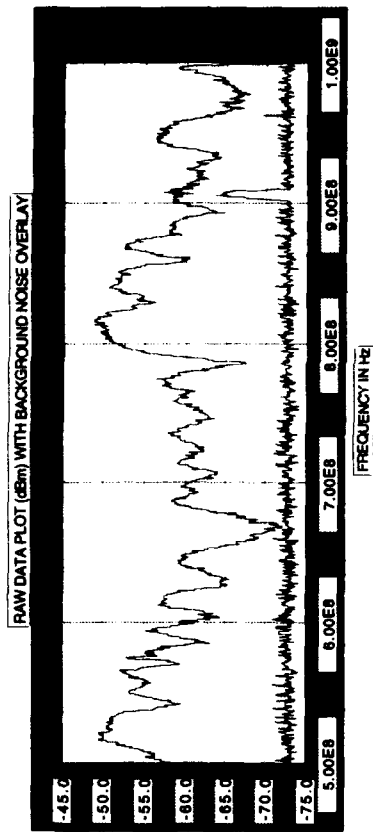


SITE CALIBRATION FILE NAME
MONTANA:SCAL:SCAL11LLSC:EPRAWDBM9H11SOC

READ FILE NAME
MONTANA:LABVIEW DATA:LLSC:ICORAWDBM9H12

BAND 9 TX LOC 1 RX LOC 2 POLARITY H

E-FIELD FILTER ON/OFF FILTER RANK 2/0 DISK STATUS 0

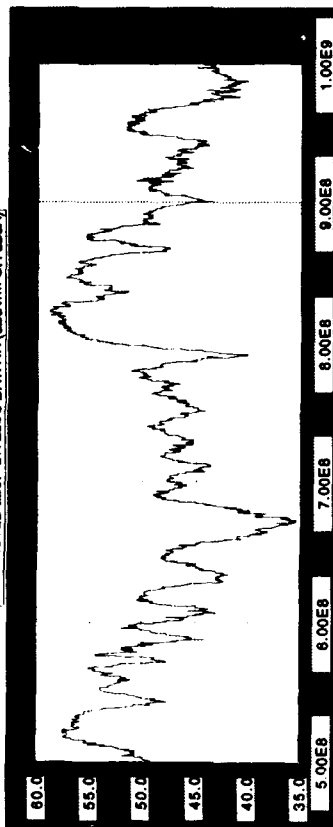


MAX ATTENUATION (dB) 0

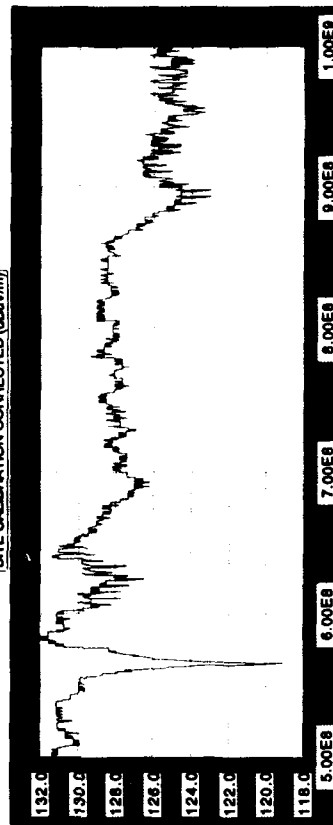
MIN ATTENUATION (dB) 0

AVERAGE ATTENUATION (dB) 0

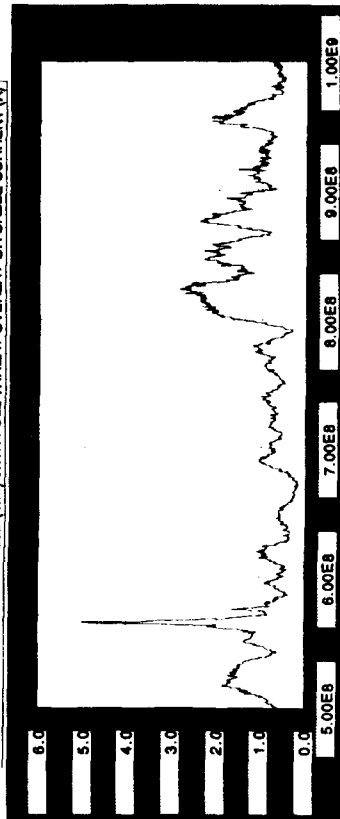
CORRECTED LLSP OR LLSC DATA IN (dBuV/m OR dBuA)



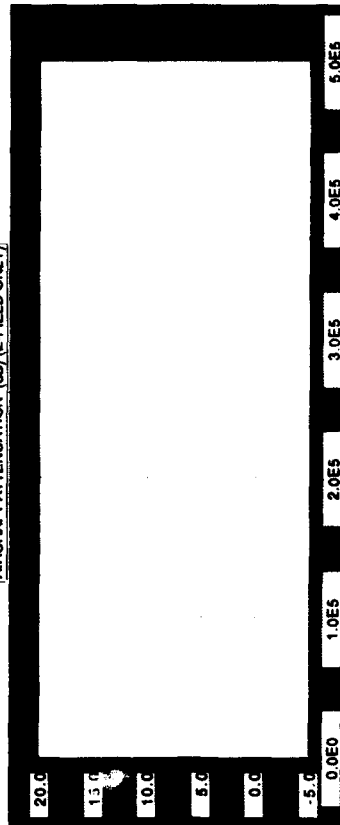
SITE CALIBRATION CORRECTED (dBuV/m)

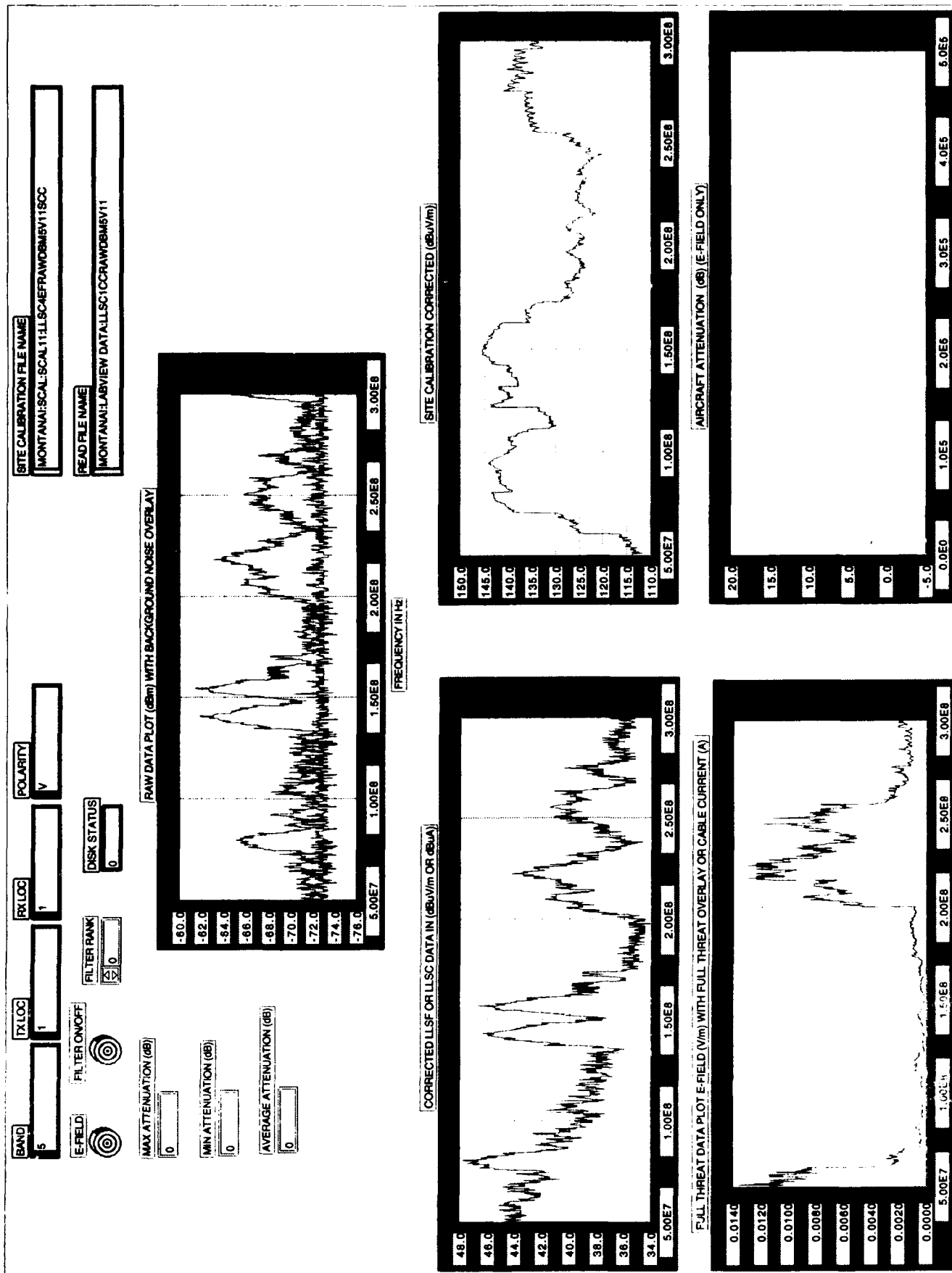


FULL THREAT DATA PLOT E-FIELD (V/m) WITH FULL THREAT OVERLAY OR CABLE CURRENT (A)



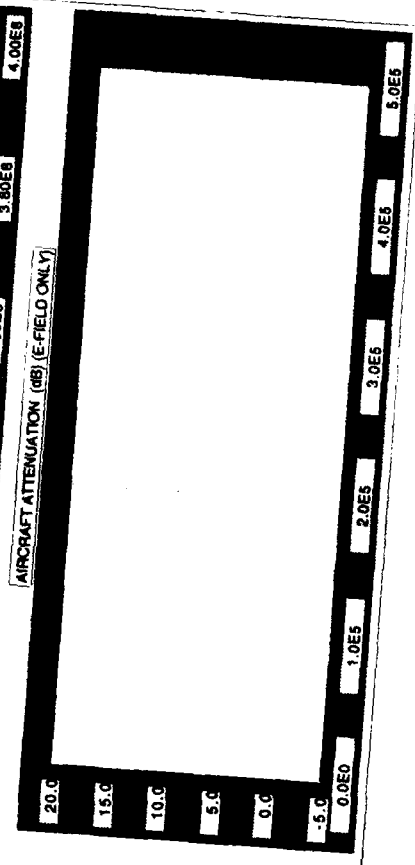
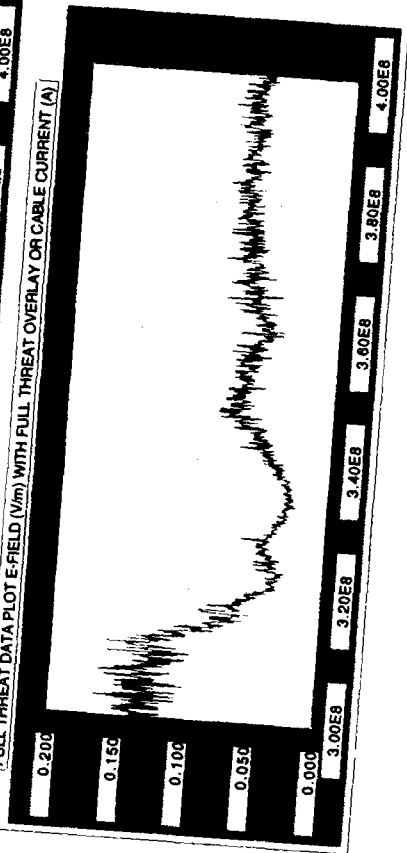
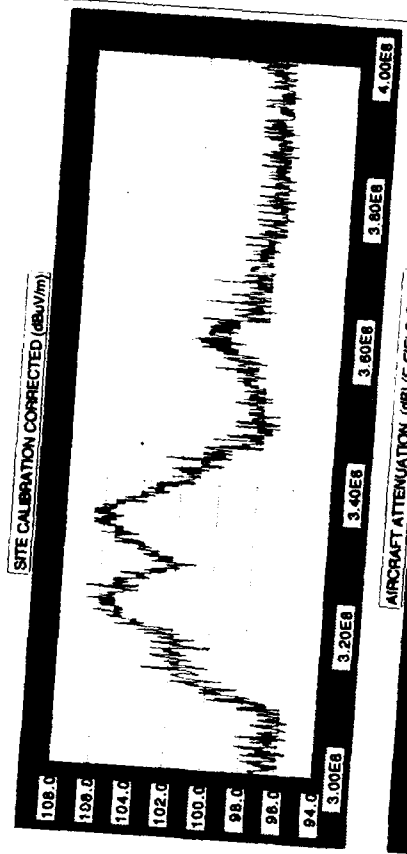
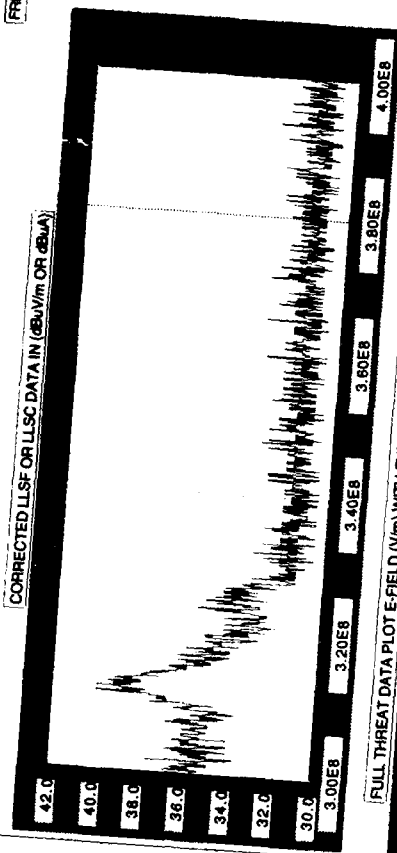
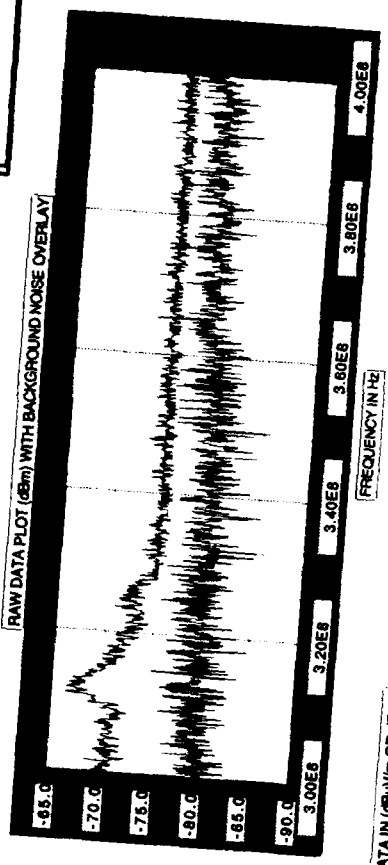
AIRCRAFT ATTENUATION (dB) (E-FIELD ONLY)

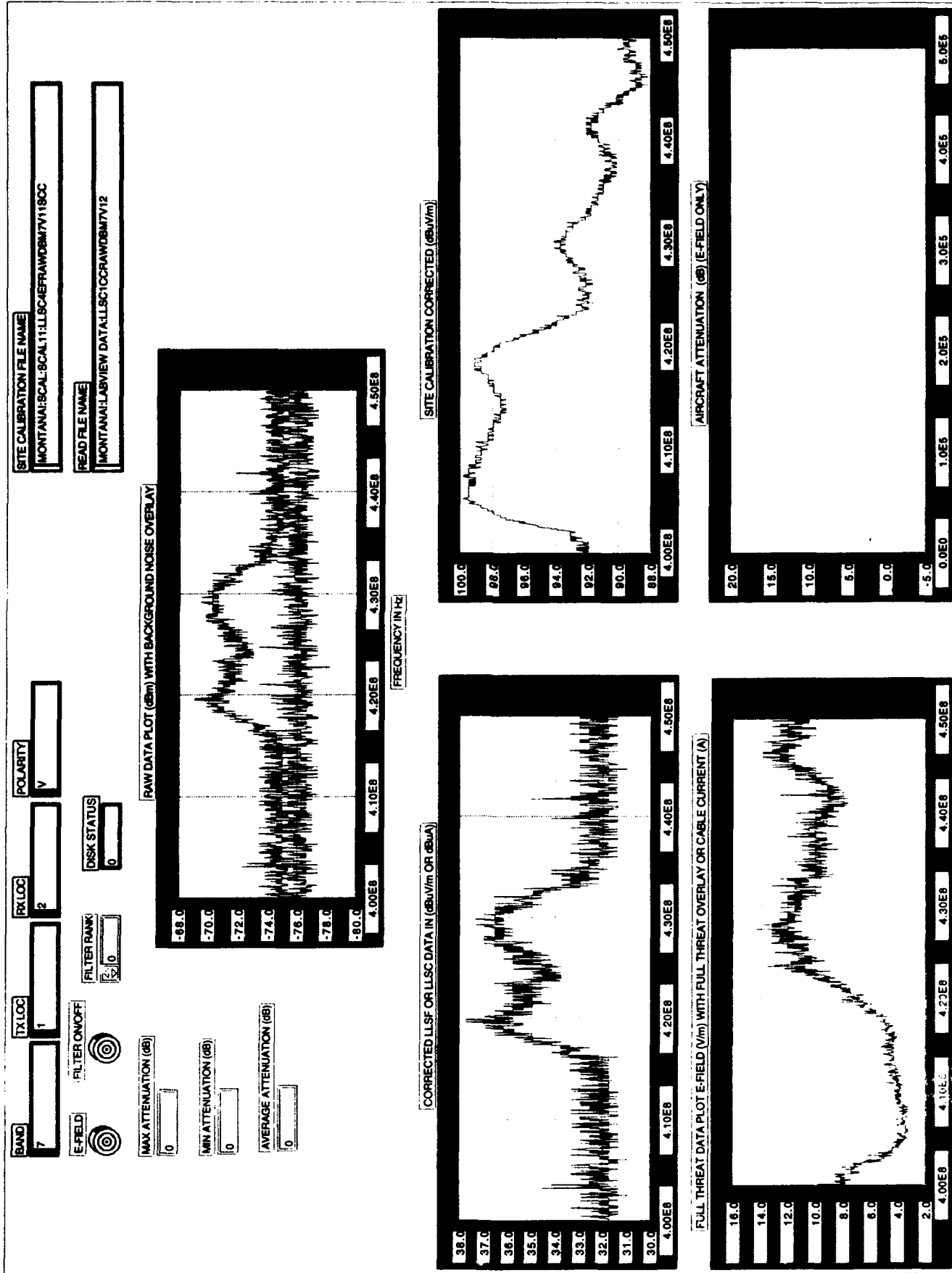




BAND TX LOC RX LOC POLARITY
 E-FIELD ☒ FILTER ON/OFF ☒ FILTER RANK DISK STATUS
 MAX ATTENUATION (dB) MIN ATTENUATION (dB) AVERAGE ATTENUATION (dB)

SITE CALIBRATION FILE NAME
 MONTANA11SCAL11LLSCAFRAWD8M8V11SCC
 READ FILE NAME
 MONTANA11ABVIEW DATA11SC1CCRAWDSM8V11



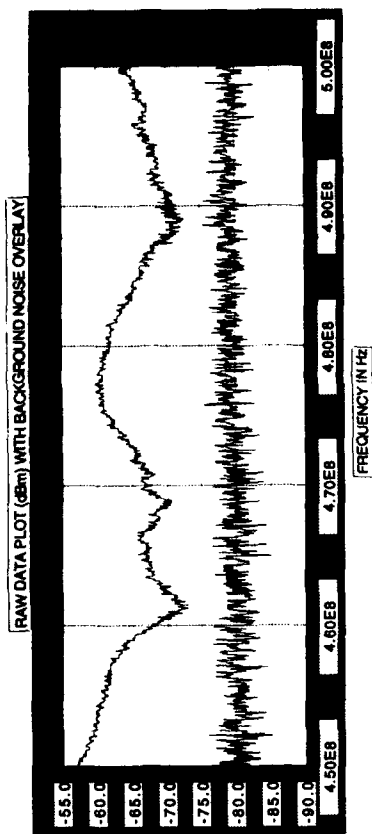


SITE CALIBRATION FILE NAME
MONTANA:SCAL11LLSCAFRAWD8MBV11SOC

READ FILE NAME
MONTANA:LABVIEW DATA\LLSC10CRAWDSMBV12

BAND 8 TXLOC 1 RXLOC 2 POLARITY V

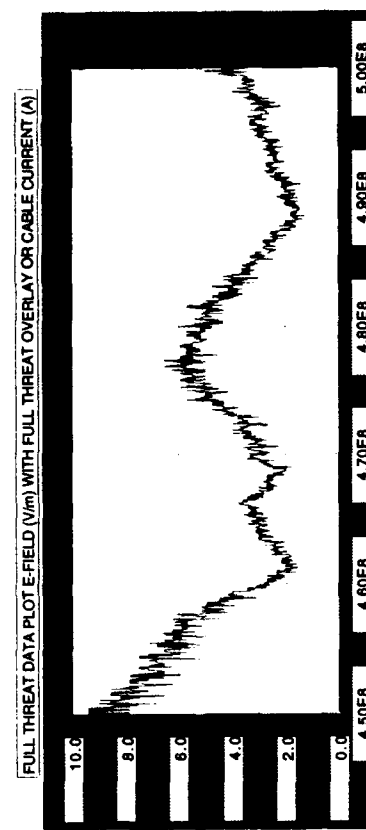
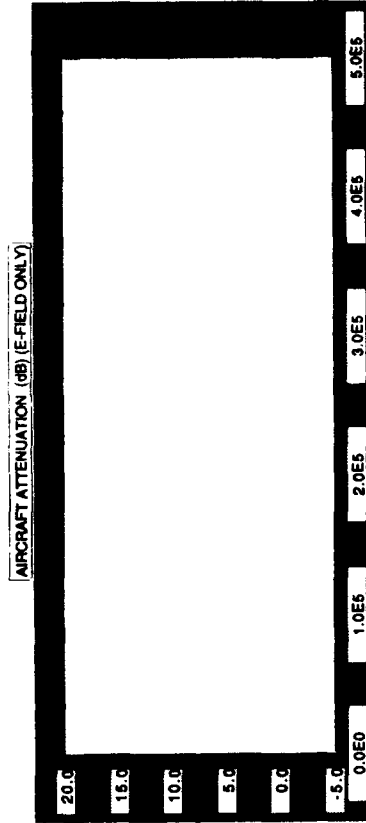
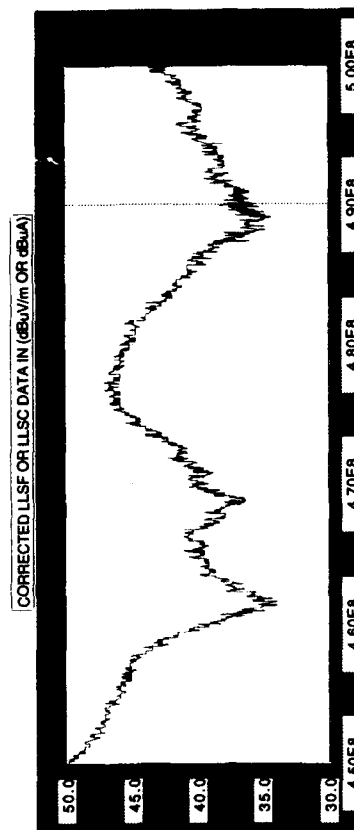
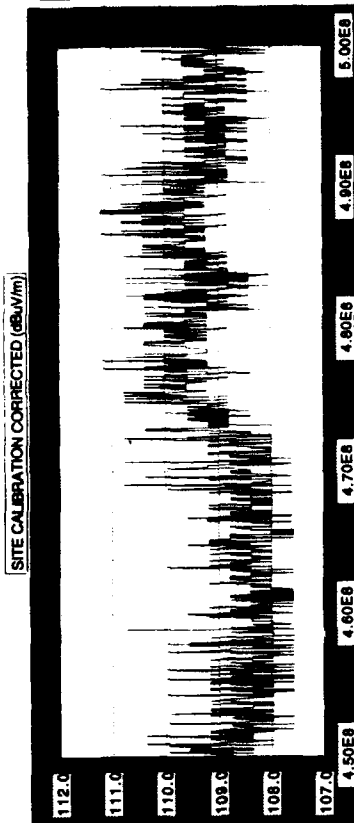
E-FIELD FILTER ON/OFF FILTER RANK 0 DISK STATUS 0

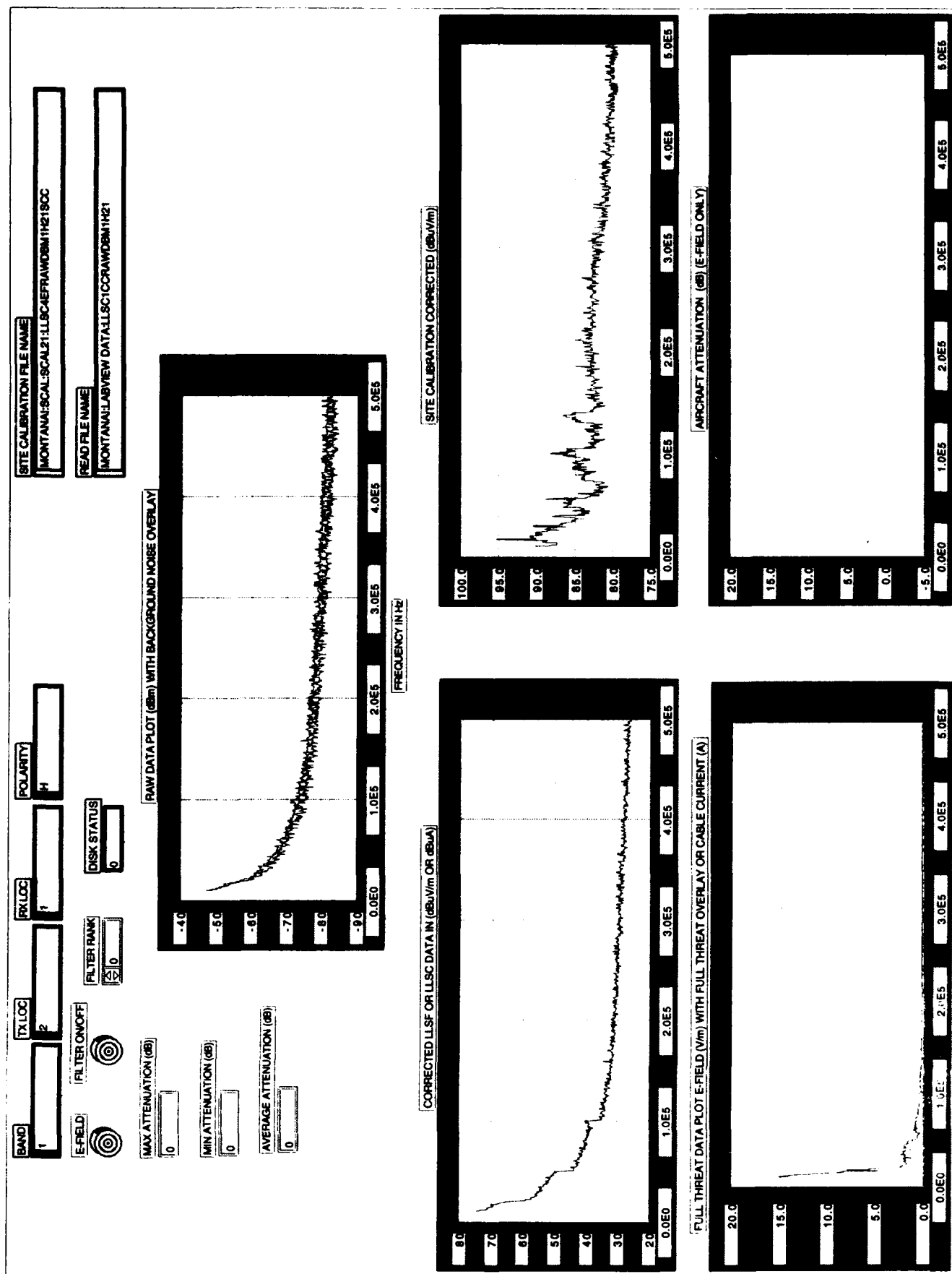


MAX ATTENUATION (dB) 0

MIN ATTENUATION (dB) 0

AVERAGE ATTENUATION (dB) 0





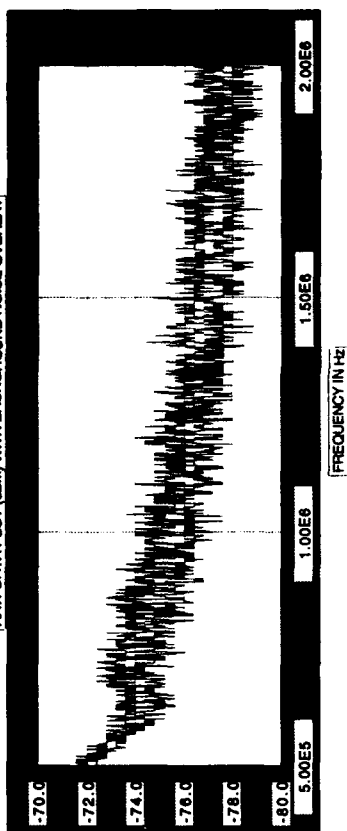
SITE CALIBRATION FILE NAME
MONTANA:SCAL3CAL21LLSCAFRAWDBM2H21SCC

READ FILE NAME
MONTANA:LABVIEW DATA\LLSC1CCRAWDBM2H21

BAND 2 TX LOC 2 RX LOC 1 POLARITY H

E-FIELD FILTER ON/OFF FILTER RANK 2/0 DISK STATUS 0

RAW DATA PLOT (dBm) WITH BACKGROUND NOISE OVERLAY

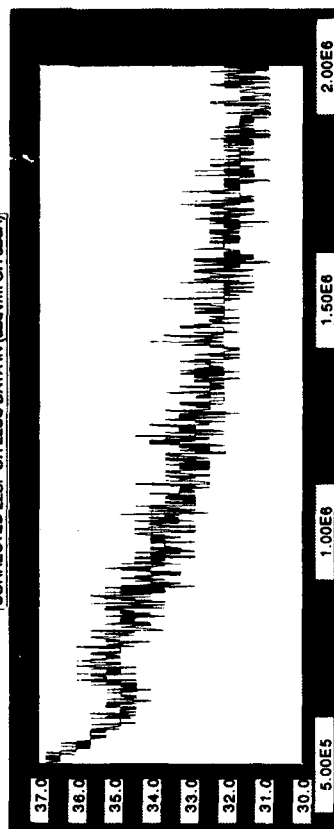


MAX ATTENUATION (dB) 0

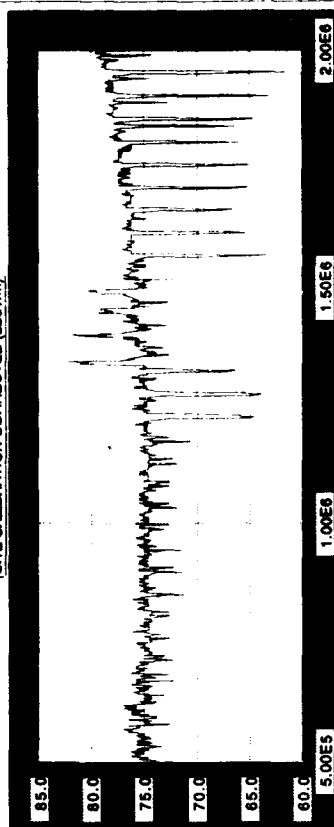
MIN ATTENUATION (dB) 0

AVERAGE ATTENUATION (dB) 0

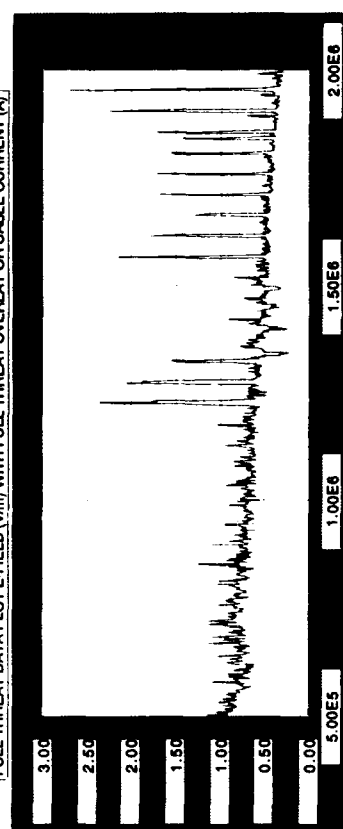
CORRECTED ILLSF OR LLSC DATA IN (dBuV/m OR dBuA)



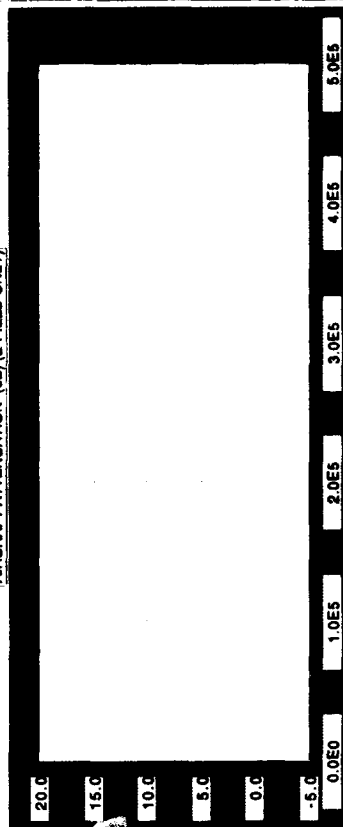
SITE CALIBRATION CORRECTED (dBuV/m)



FULL THREAT DATA PLOT E-FIELD (V/m) WITH FULL THREAT OVERLAY OR CABLE CURRENT (A)



AIRCRAFT ATTENUATION (dB) (E-FIELD ONLY)



BAND 3

TX LOC 2

TX LOC 1

POLARITY H

SITE CALIBRATION FILE NAME

MONTANA1SCAL3CAL211LSC4EFAWDBMSH2180C

E-FIELD

MAX ATTENUATION (dB) 0

MIN ATTENUATION (dB) 0

AVERAGE ATTENUATION (dB) 0

DISK STATUS 0

READ FILE NAME

MONTANA1LABVIEW DATA11LSC1CCRAWDBMSH21

RAW DATA PLOT (dBm) WITH BACKGROUND NOISE OVERLAY

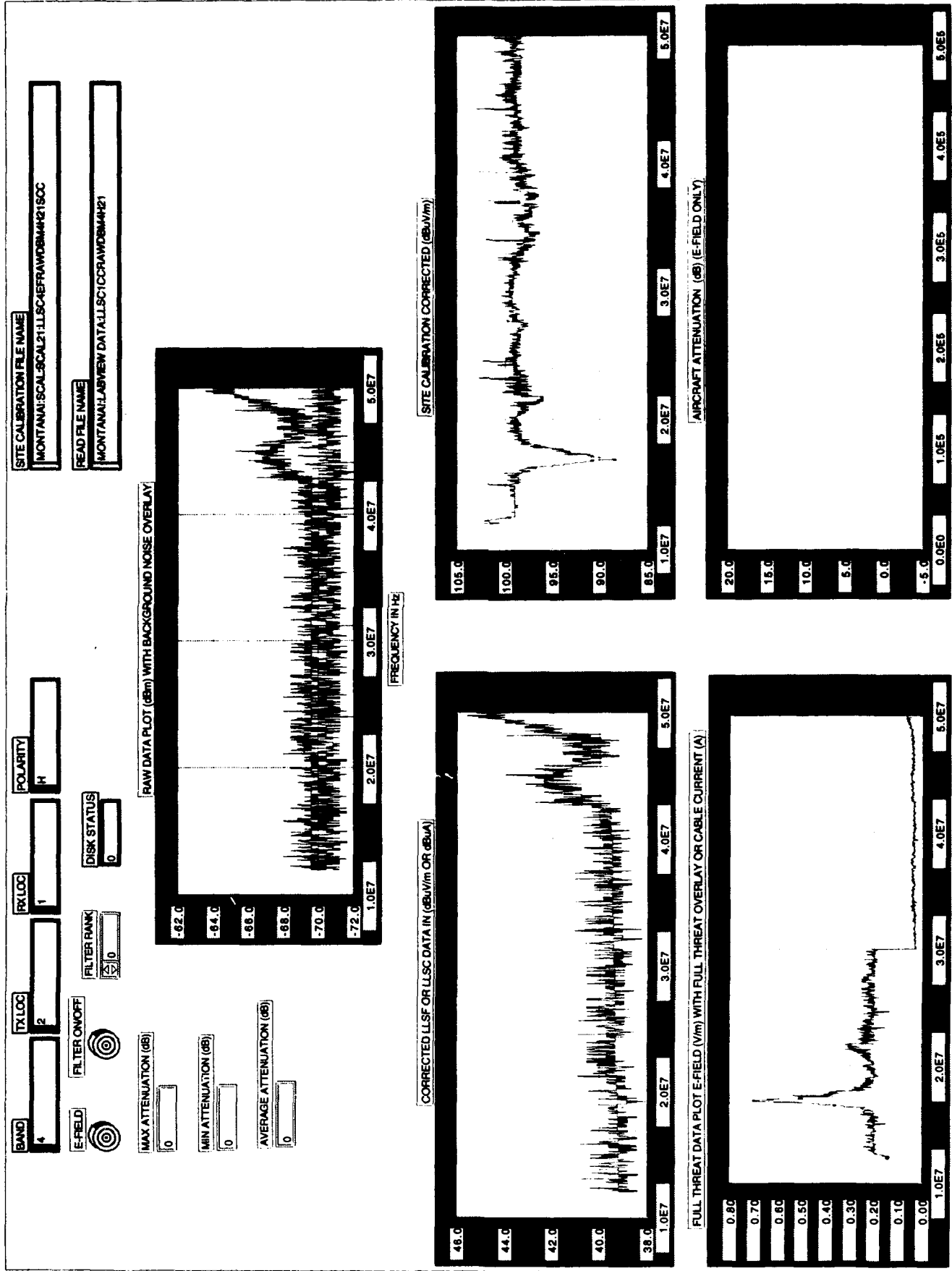
FREQUENCY IN HZ

CORRECTED ILSF OR LISC DATA IN (dBuV/m OR dBuA)

SITE CALIBRATION CORRECTED (dBuV/m)

FULL THREAT DATA PLOT E-FIELD (V/m) WITH FULL THREAT OVERLAY OR CABLE CURRENT (A)

AIRCRAFT ATTENUATION (dB) (E-FIELD ONLY)



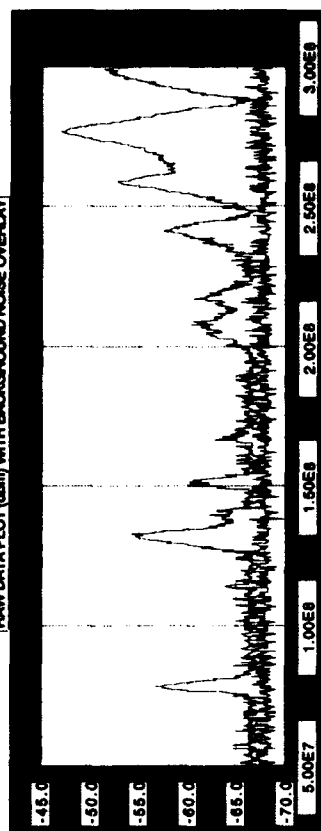
SITE CALIBRATION FILE NAME
MONTANA:SCAL:SCAL:11:SC:EF:RAW:08:05:21:80C

READ FILE NAME
MONTANA:LABVIEW DATA:LLSC:10:RAW:08:05:21

BAND 6 TX LOC 2 RX LOC 1 POLARITY H

E-FIELD FILTER ON/OFF FILTER RANK 2/0 DISK STATUS 0

RAW DATA PLOT (dBm) WITH BACKGROUND NOISE OVERLAY



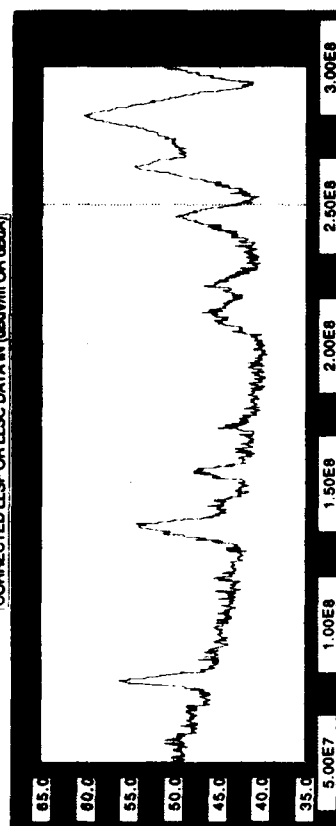
MAX ATTENUATION (dB) 0

MIN ATTENUATION (dB) 0

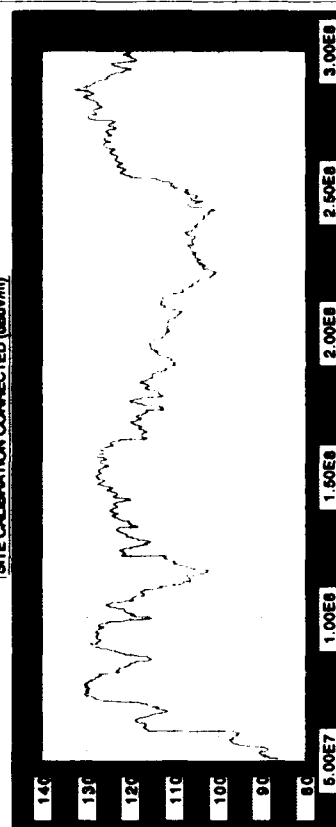
AVERAGE ATTENUATION (dB) 0

FREQUENCY IN HZ

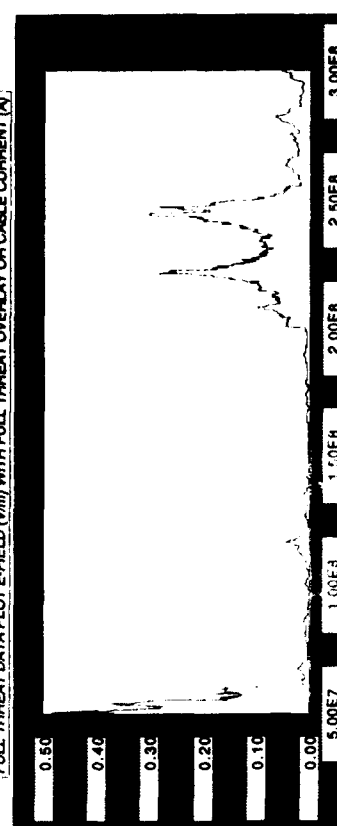
CORRECTED ILSF OR LLSC DATA IN (dBuV/m OR dBuA)



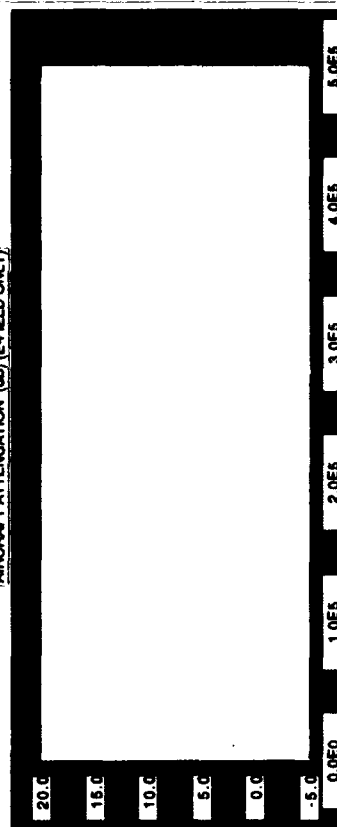
SITE CALIBRATION CORRECTED (dBuV/m)

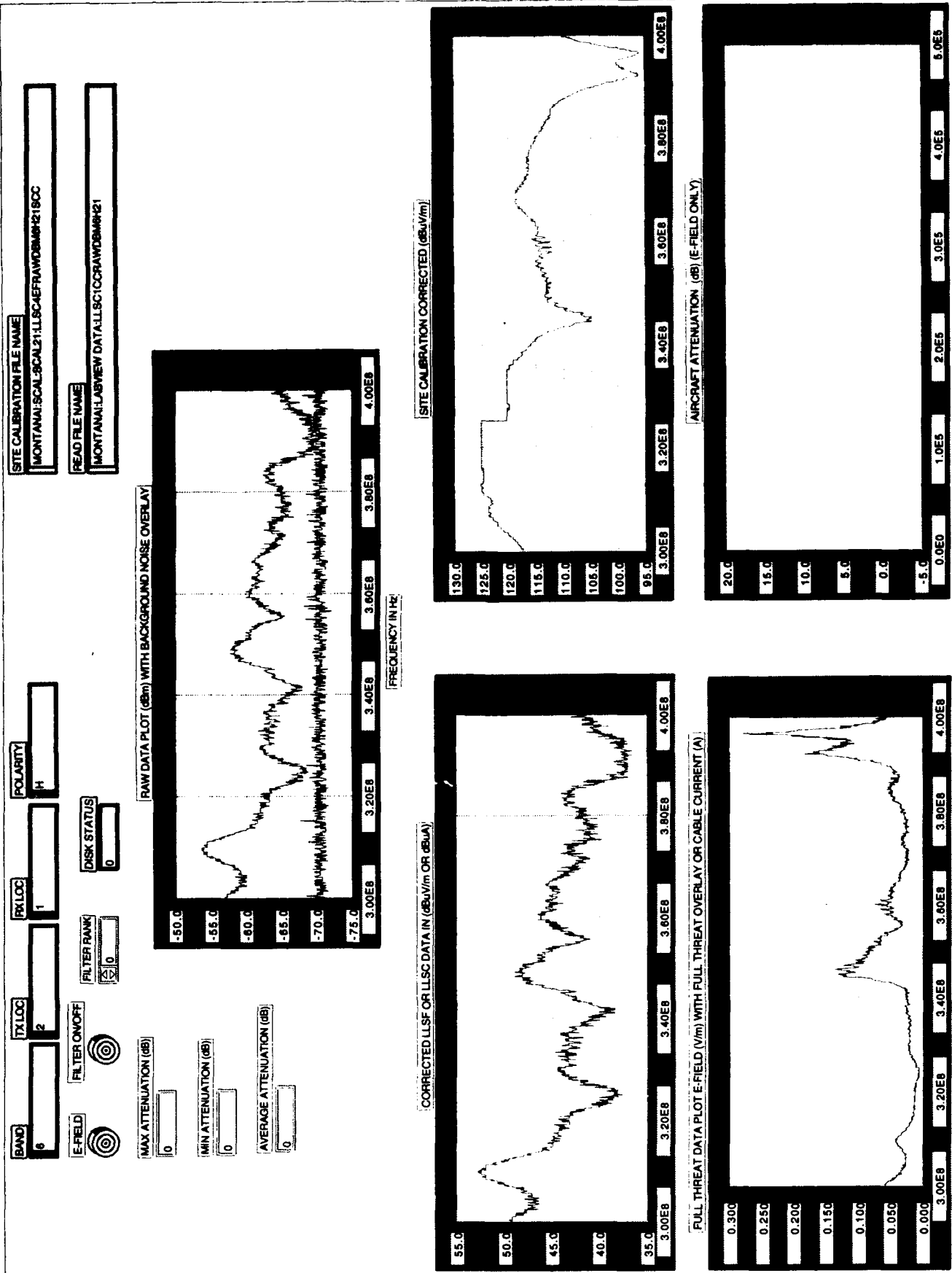


FULL THREAT DATA PLOT E-FIELD (V/m) WITH FULL THREAT OVERLAY OR CABLE CURRENT (A)



AIRCRAFT ATTENUATION (dB) (E-FIELD ONLY)





BAND

7

TX LOC

2

RX LOC

2

POLARITY

H

E-FIELD

FILTER ON/OFF

FILTER RANK

0

DISK STATUS

0

MAX ATTENUATION (dB)

0

MIN ATTENUATION (dB)

0

AVERAGE ATTENUATION (dB)

0

SITE CALIBRATION FILE NAME

MONTANA:SCAL:SCAL21:LLSC4FRANDBM7H2180C

READ FILE NAME

MONTANA:LABVIEW DATA:LLSC1CCRANDBM7H22

RAW DATA PLOT (dBm) WITH BACKGROUND NOISE OVERLAY

CORRECTED LLSF OR LLSC DATA IN (dBuV/m OR dBuA)

SITE CALIBRATION CORRECTED (dBuV/m)

FULL THREAT DATA PLOT E-FIELD (V/m) WITH FULL THREAT OVERLAY OR CABLE CURRENT (A)

AIRCRAFT ATTENUATION (dB) (E-FIELD ONLY)

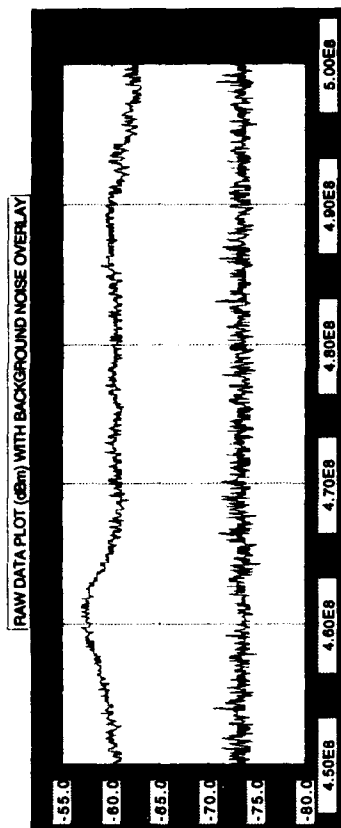
70

SITE CALIBRATION FILE NAME
MONTANA:SCAL:SCAL21:LLSC4FRANDM2180C

READ FILE NAME
MONTANA:LABVIEW DATA:LLSC4FRANDM2180C

BAND 8 TX LOC 2 RX LOC 2 POLARITY H

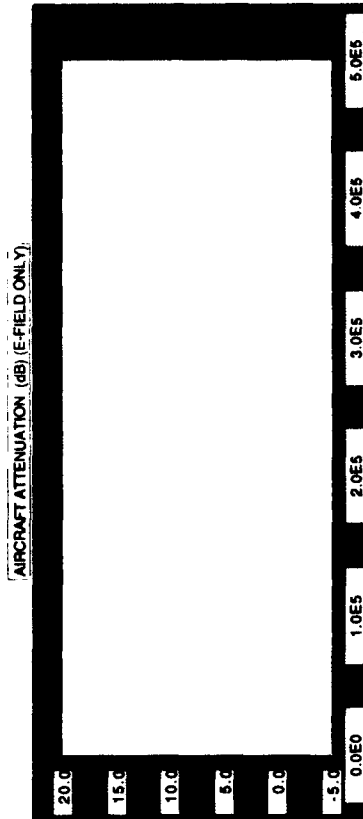
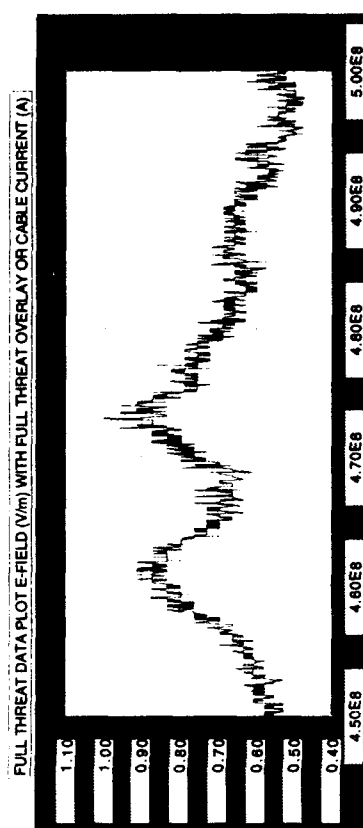
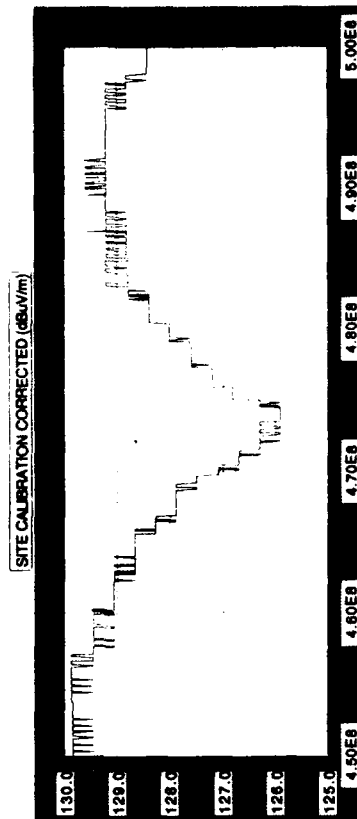
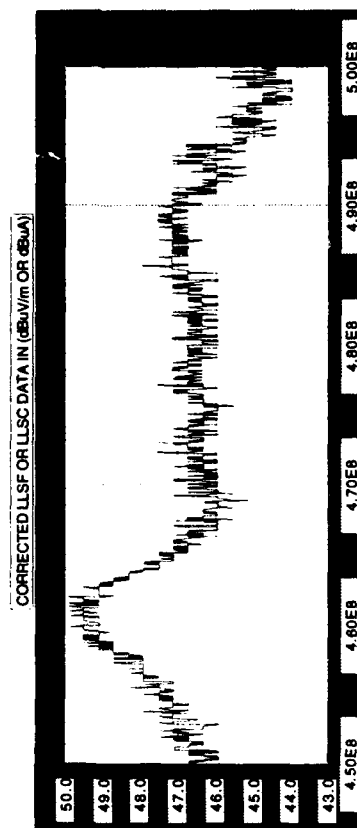
E-FIELD FILTER ON/OFF FILTER RANK 0 DISK STATUS 0



MAX ATTENUATION (dB) 10

MIN ATTENUATION (dB) 10

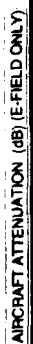
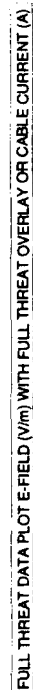
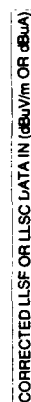
AVERAGE ATTENUATION (dB) 0



SECTION 2-2
CO-PILOT DISPLAY UNIT LLSC DATA PLOTS

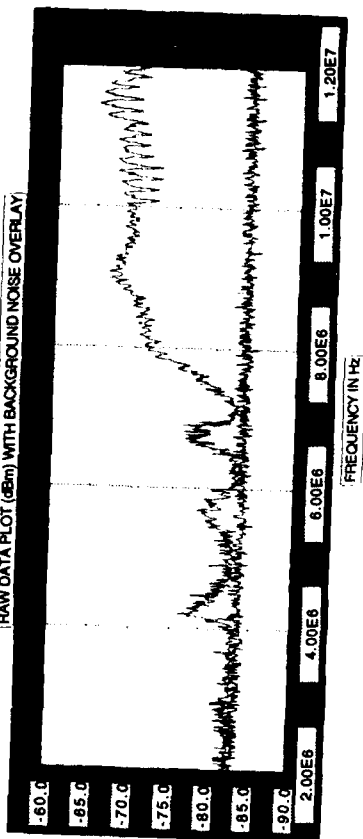
SITE CALIBRATION FILE NAME
MONTANA\SCAL\SCAL11\LLSC4EFRAWDBM1H11SOC

READ FILE NAME
MONTANA\LABVIEW DATA\LLSC1CCRAWDBM1H112

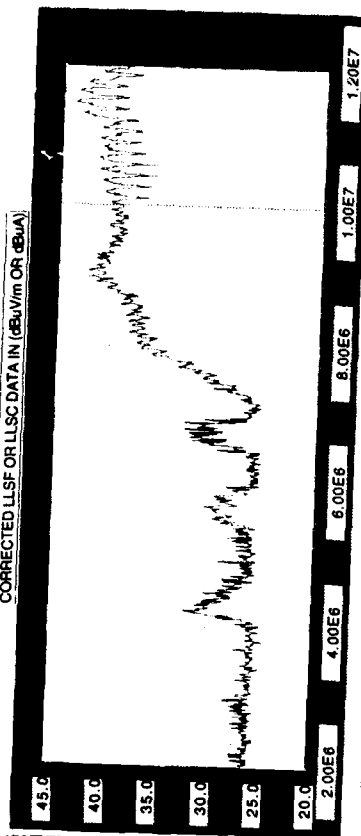


BAND TX LOC RX LOC POLARITY
 E-FIELD ☐ FILTER ON/OFF ☐ FILTER RANK DISK STATUS
 SITE CALIBRATION FILE NAME
 READ FILE NAME

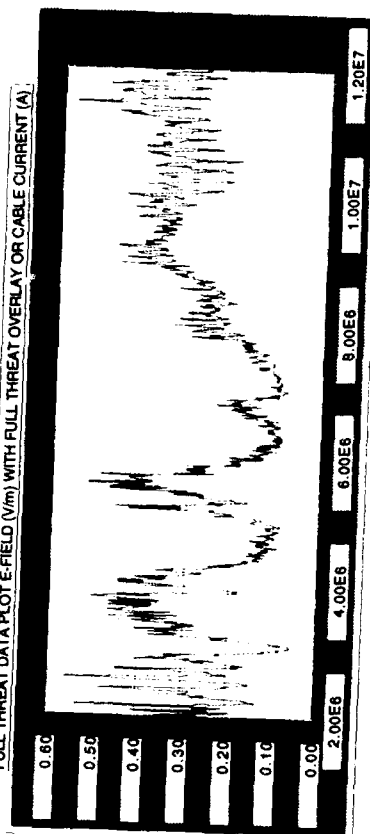
RAW DATA PLOT (dBm) WITH BACKGROUND NOISE OVERLAY



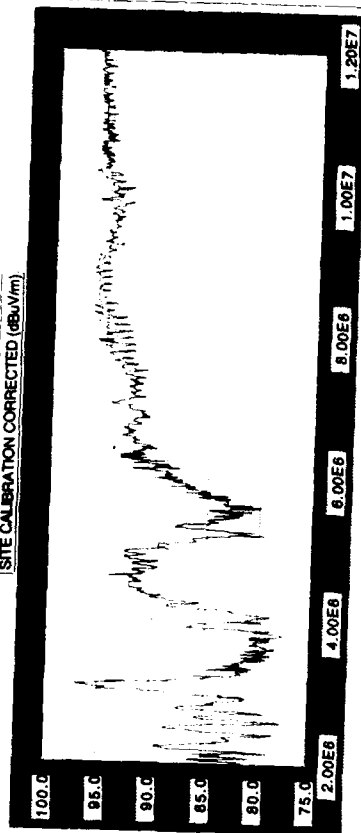
CORRECTED LLSC OR LLSC DATA IN (dBuV/m OR dBuA)



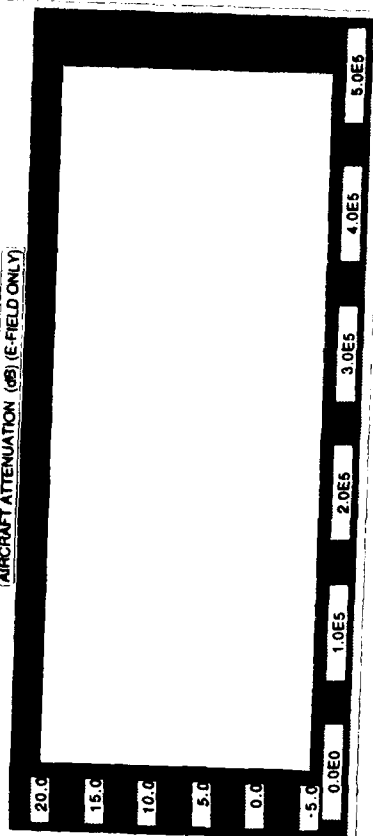
FULL THREAT DATA PLOT E-FIELD (V/m) WITH FULL THREAT OVERLAY OR CABLE CURRENT (A)

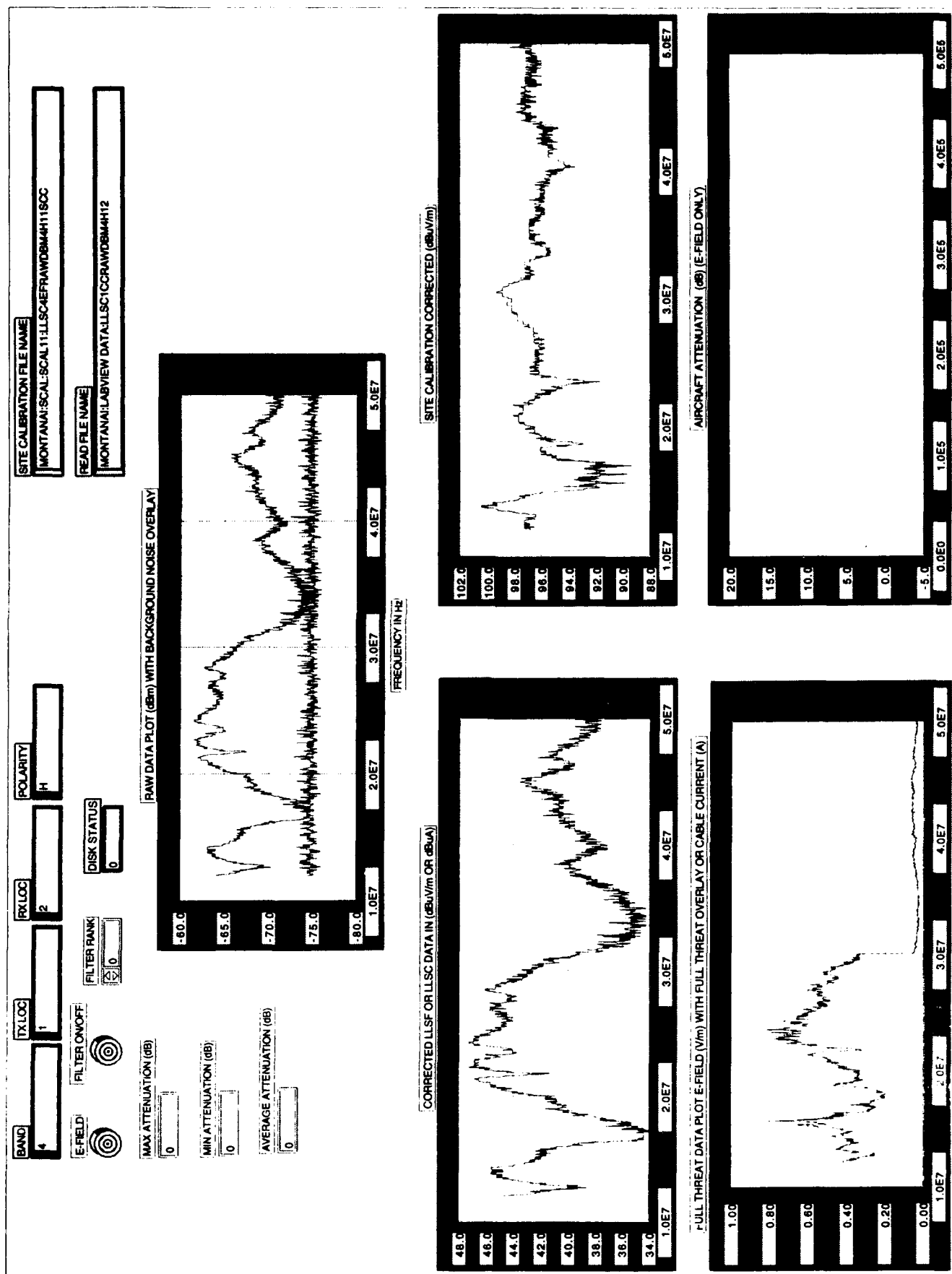


SITE CALIBRATION CORRECTED (dBuV/m)



AIRCRAFT ATTENUATION (dB) (E-FIELD ONLY)





BAND

5

TX LOC

1

RX LOC

2

POLARITY

H

SITE CALIBRATION FILE NAME

MONTANA:SCAL:SCAL11LLSC:FRADBM5H11SCC

READ FILE NAME

MONTANA:LABVIEW DATA:LLSC:CORADBM5H12

E-FIELD

FILTER ON/OFF

FILTER RANK

20

DISK STATUS

0

MAX ATTENUATION (dB)

0

MIN ATTENUATION (dB)

0

AVERAGE ATTENUATION (dB)

0

RAW DATA PLOT (dBm) WITH BACKGROUND NOISE OVERLAY

CORRECTED LLSC OR LLSC DATA IN (dBu V/m OR dBuA)

SITE CALIBRATION CORRECTED (dBu V/m)

FULL THREAT DATA PLOT E-FIELD (V/m) WITH FULL THREAT OVERLAY OR CABLE CURRENT (A)

AIRCRAFT ATTENUATION (dB) (E-FIELD ONLY)

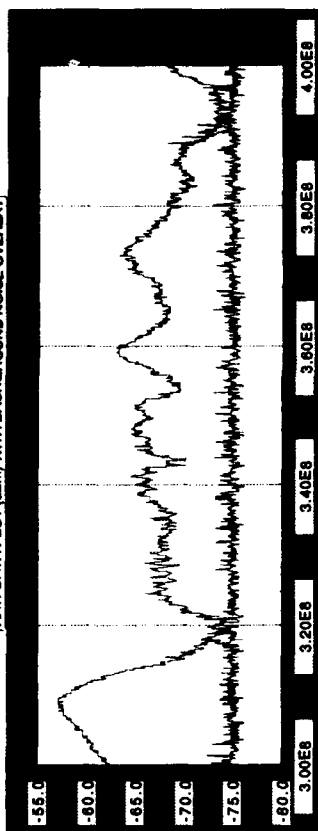
SITE CALIBRATION FILE NAME
MONTANA:SCAL:SCAL11LLSC4EFRAWD8M8H11SCC

READ FILE NAME
MONTANA:LABVIEW DATA:LLSC1CCRAWD8M8H12

BAND 6 TX LOC 1 RX LOC 2 POLARITY H

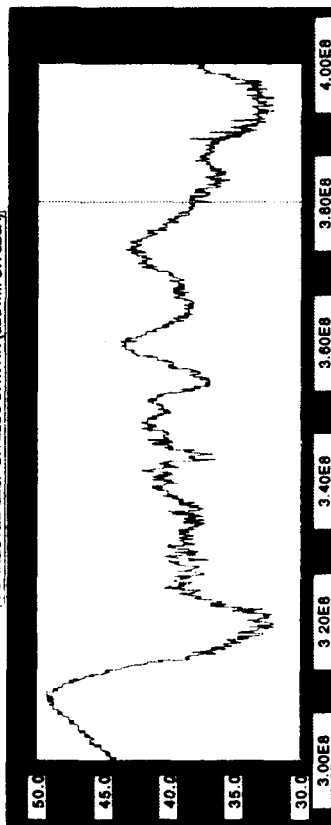
E-FIELD FILTER ON/OFF FILTER RANK 0 DISK STATUS 0

RAW DATA PLOT (dBm) WITH BACKGROUND NOISE OVERLAY

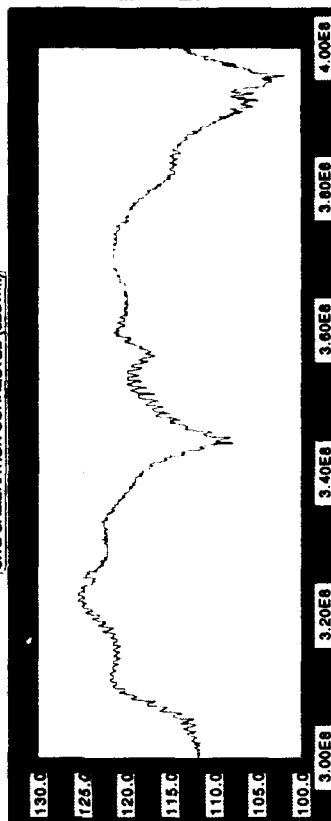


FREQUENCY IN Hz

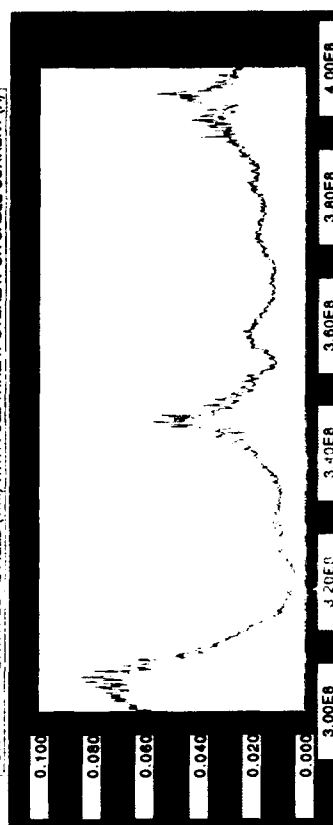
CORRECTED LLSC OR LLSC DATA IN (dBuV/m OR dBuA)



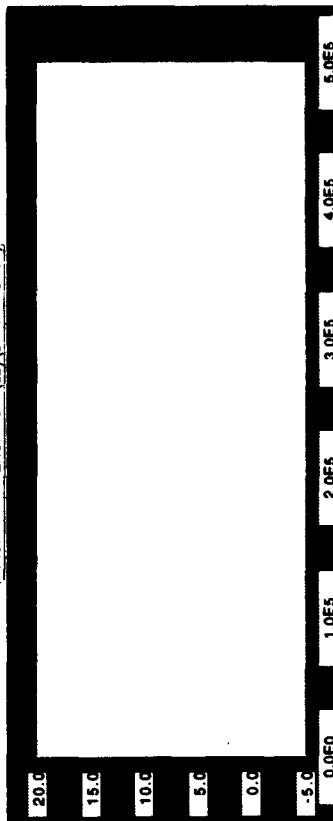
SITE CALIBRATION CORRECTED (dBuV/m)

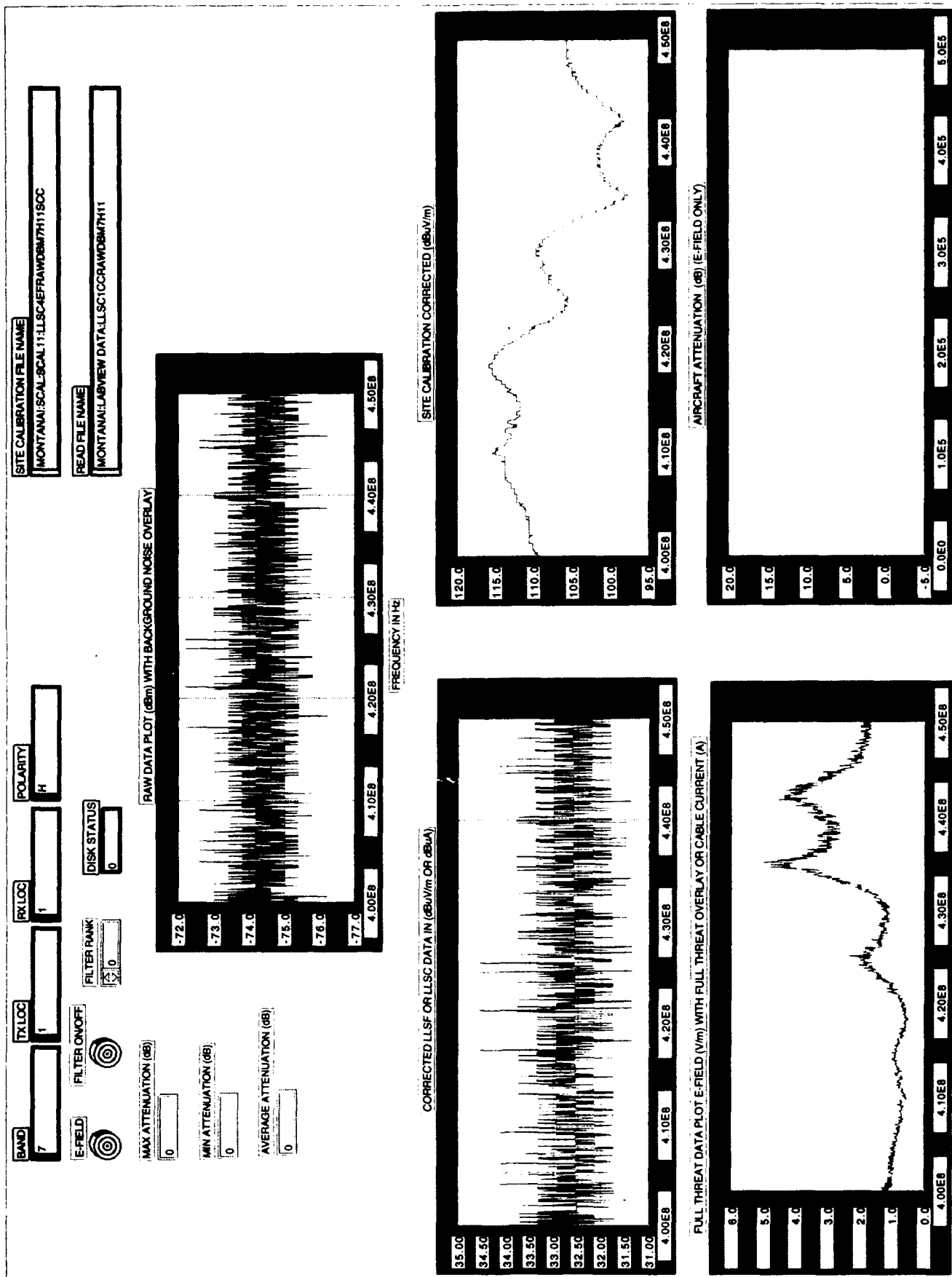


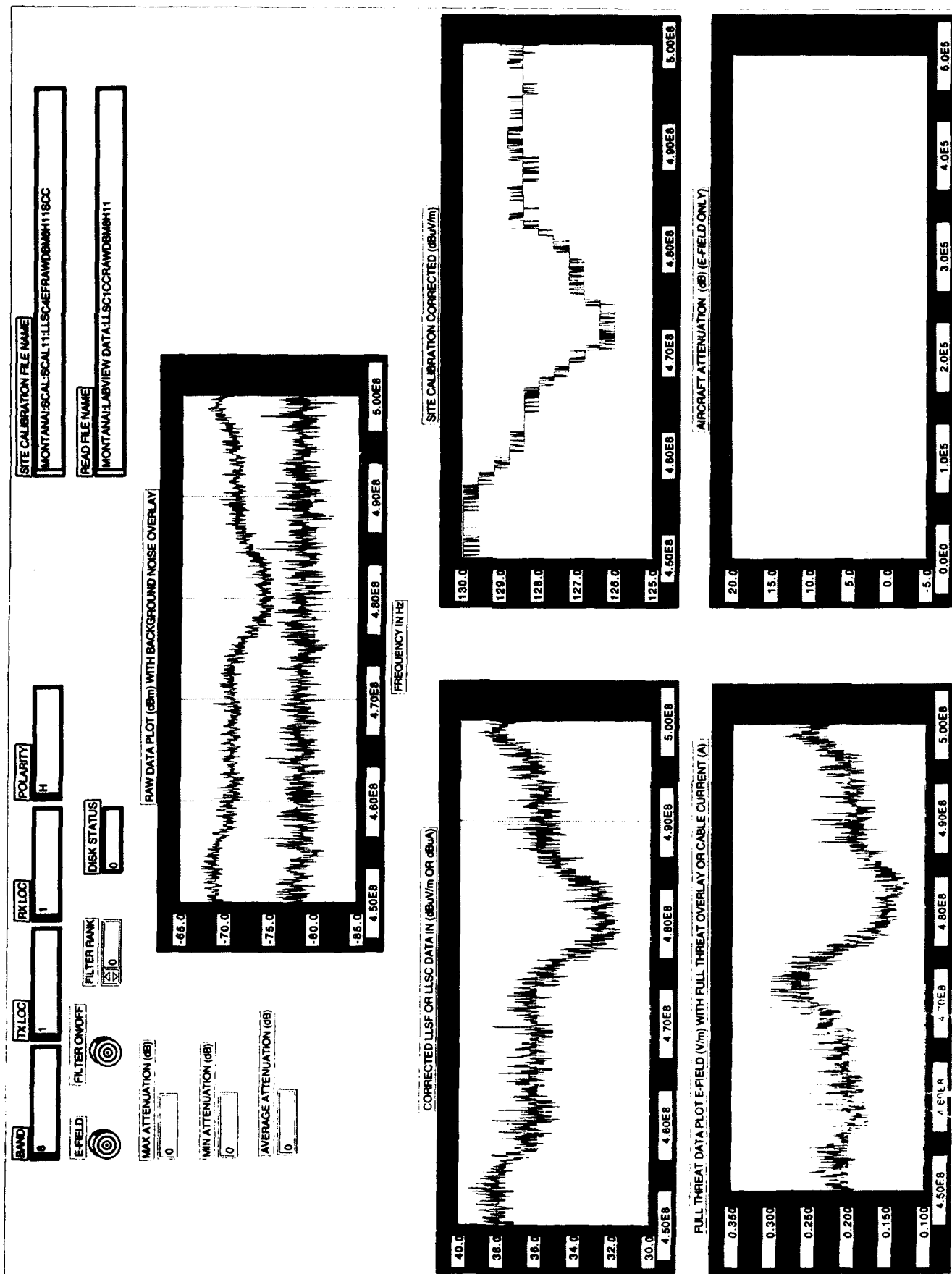
FULL THREAT DATA PLOT E-FIELD (V/m) WITH FULL THREAT OVERLAY OR CABLE CURRENT (A)



AIRCRAFT ATTENUATION (dB) (E-FIELD ONLY)







SITE CALIBRATION FILE NAME
MONTANA:SCAL:SCAL11LLSCAFRAWDBM9H11S0C

READ FILE NAME
MONTANA:LABVIEW DATA:LLSC1CORAWDBM9H11

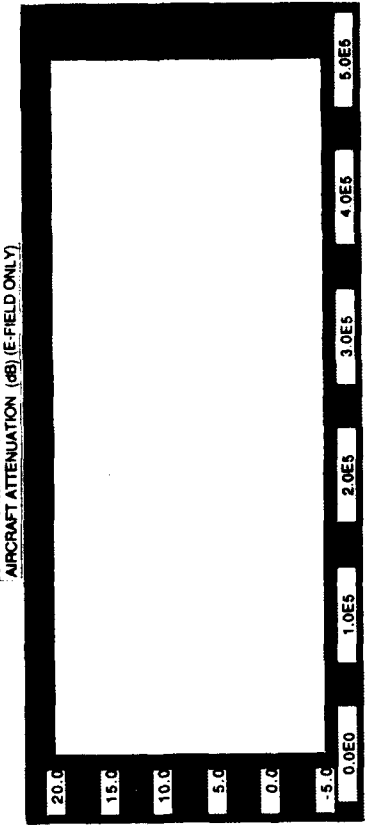
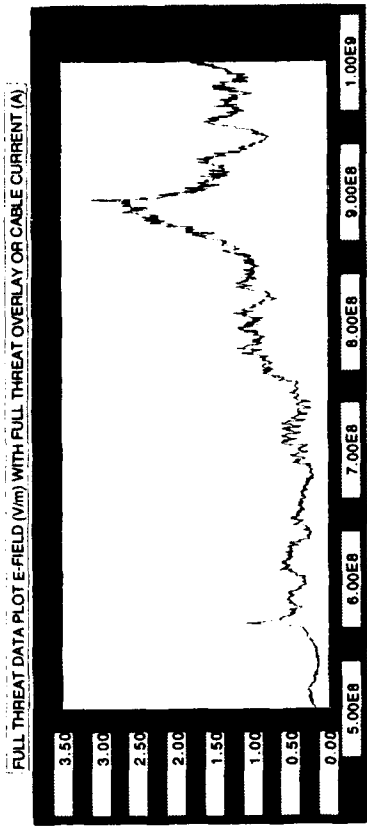
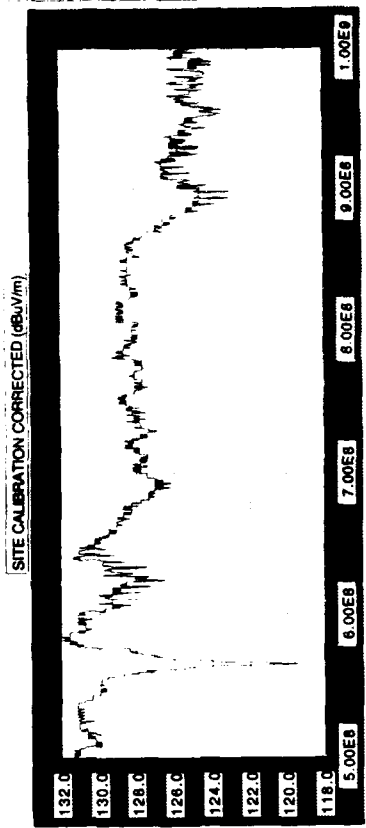
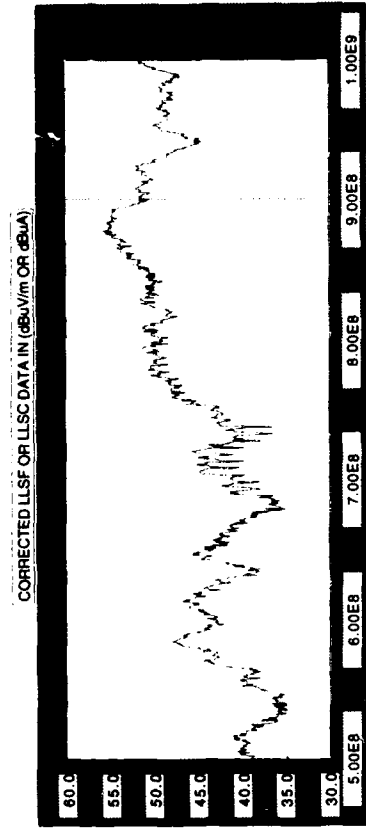
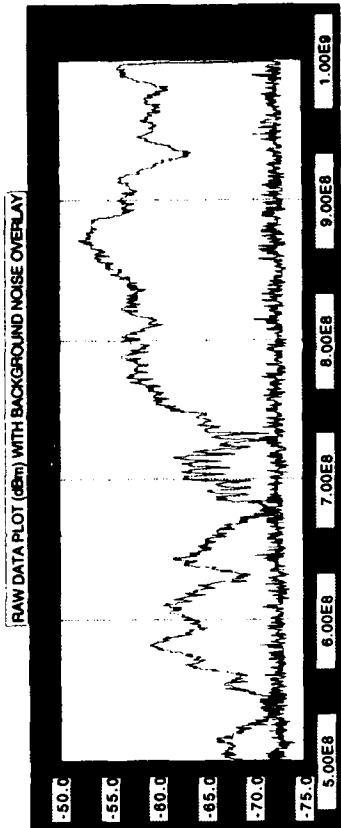
BAND 9 TX LOC 1 RX LOC 1 POLARITY H

E-FIELD FILTER ON/OFF FILTER RANK 0 DISK STATUS 0

MAX ATTENUATION (dB) 0

MIN ATTENUATION (dB) 0

AVERAGE ATTENUATION (dB) 0



SECTION 2-3
ALTITUDE INDICATOR LLSC DATA PLOTS

BAND 1	TX LOC 1	RX LOC 4	POLARITY H	SITE CALIBRATION FILE NAME MONTANA:SCAL:SCAL21:LLSC:AFRAWDBM1H21SOC
E-FIELD 	FILTER ON/OFF 		DISK STATUS 0	READ FILE NAME MONTANA:LABVIEW DATA:LLSC:ICORAWDBM1H14
MAX ATTENUATION (dB) 0		MIN ATTENUATION (dB) 0		
AVERAGE ATTENUATION (dB) 0				

RAW DATA PLOT (dBm) WITH BACKGROUND NOISE OVERLAY

SITE CALIBRATION CORRECTED (dBuV/m)

CORRECTED LLSC OR LLSC DATA IN (dBuV/m OR dBuA)

AIRCRAFT ATTENUATION (dB) (E-FIELD ONLY)

FULL THREAT DATA PLOT E-FIELD (V/m) WITH FULL THREAT OVERLAY OR CABLE CURRENT (A)

FULL THREAT DATA PLOT E-FIELD (V/m) WITH FULL THREAT OVERLAY OR CABLE CURRENT (A)

SITE CALIBRATION FILE NAME
MONTANA:SCAL:SCAL211:SC4EFRAWDSM2121SCC

READ FILE NAME
MONTANA:LABVIEW DATA:LLSC1CCRAWDSM2H14

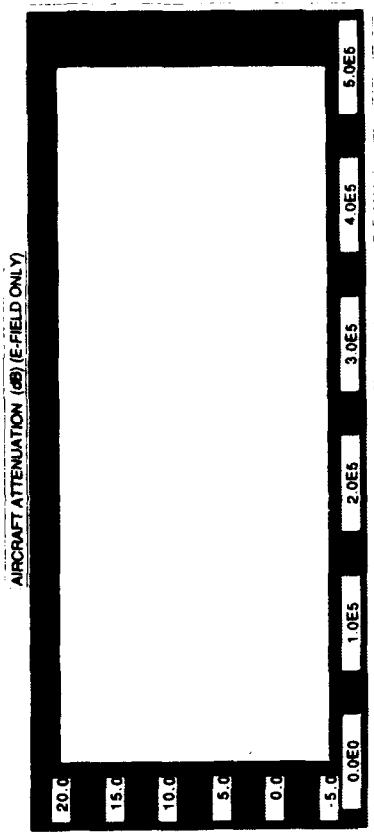
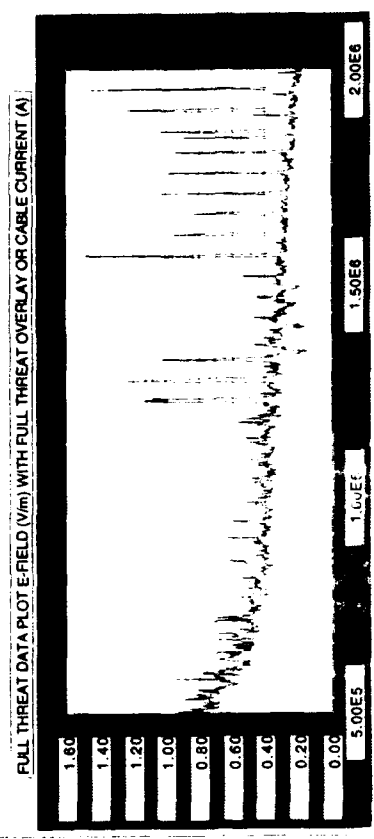
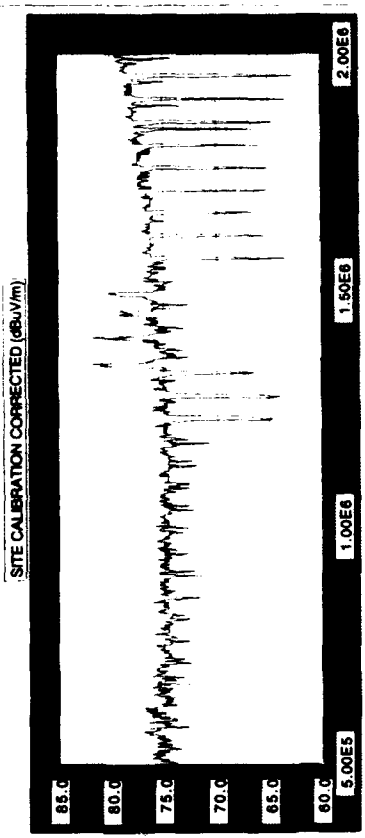
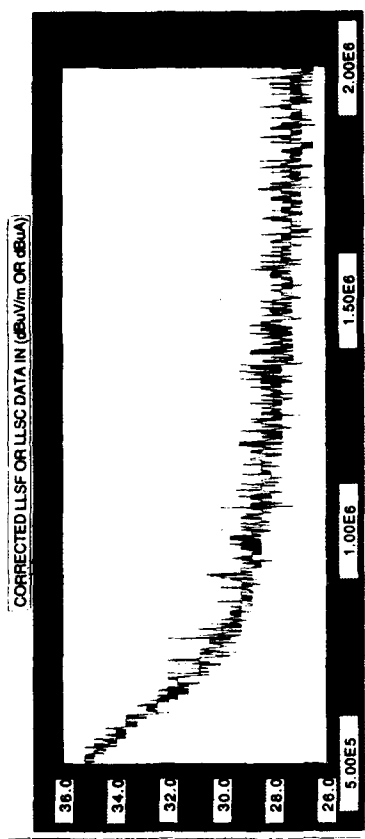
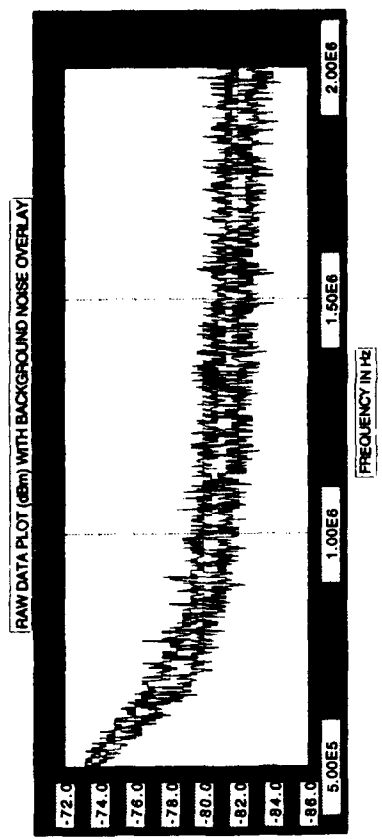
BAND 2 TX LOG 1 RX LOG 4 POLARITY H

E-FIELD  FILTER ON/OFF  FILTER RANK 0 DISK STATUS 0

MAX ATTENUATION (dB) 0

MIN ATTENUATION (dB) 0

AVERAGE ATTENUATION (dB) 0



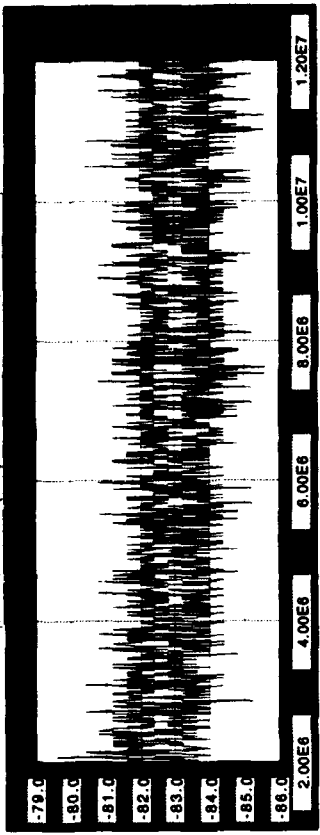
SITE CALIBRATION FILE NAME
MONTANA/SCAL/SCAL21/LLSC/EFRAWDBM3H21.SCC

READ FILE NAME
MONTANA/LABVIEW DATA/LLSC/CFRAWDBM3H14

BAND 3 TX LOC 1 RX LOC 4 POLARITY H

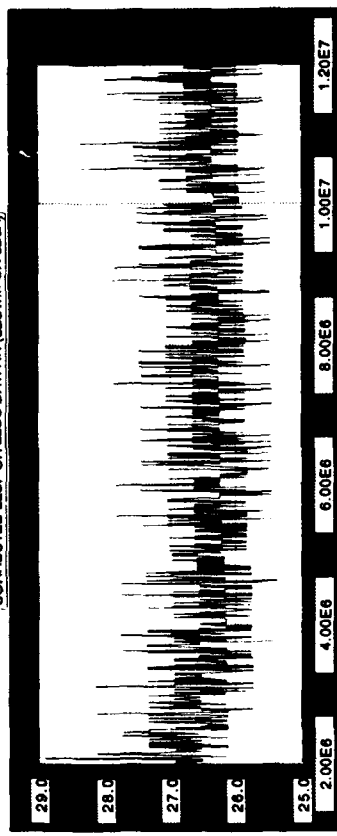
E-FIELD FILTER ON/OFF FILTER HANK DISK STATUS 0

RAW DATA PLOT (dBm) WITH BACKGROUND NOISE OVERLAY

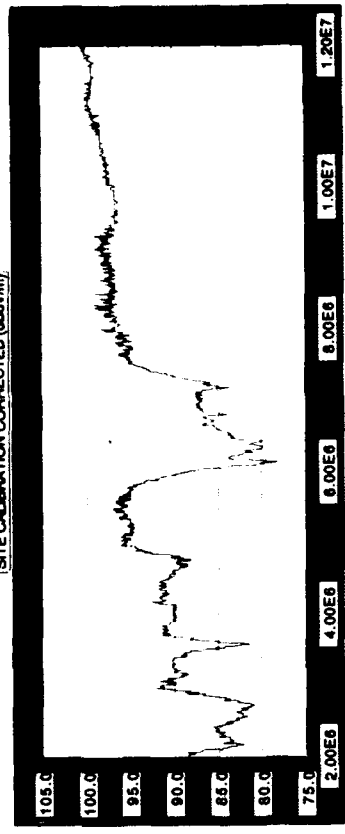


FREQUENCY IN Hz

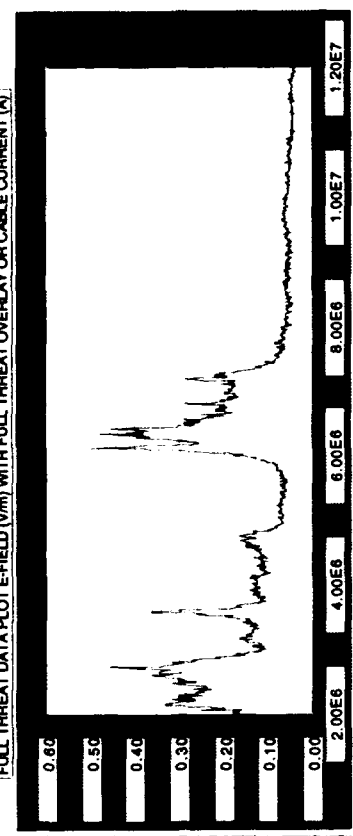
CORRECTED LLSC OR LLSC DATA IN (dBuV/m OR dBuA)



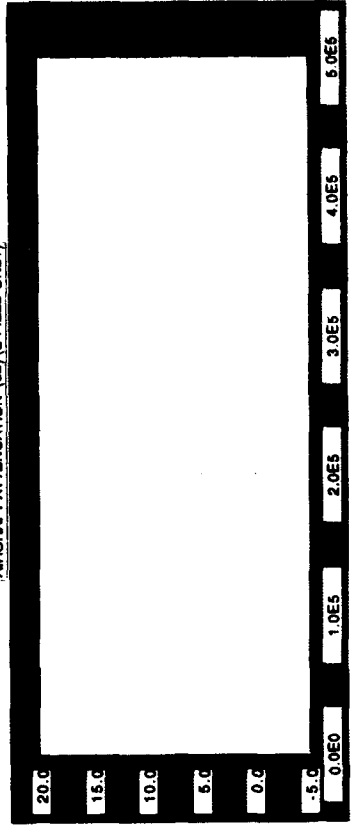
SITE CALIBRATION CORRECTED (dBuV/m)



FULL THREAT DATA PLOT E-FIELD (V/m) WITH FULL THREAT OVERLAY OR CABLE CURRENT (A)



AIRCRAFT ATTENUATION (dB) (E-FIELD ONLY)



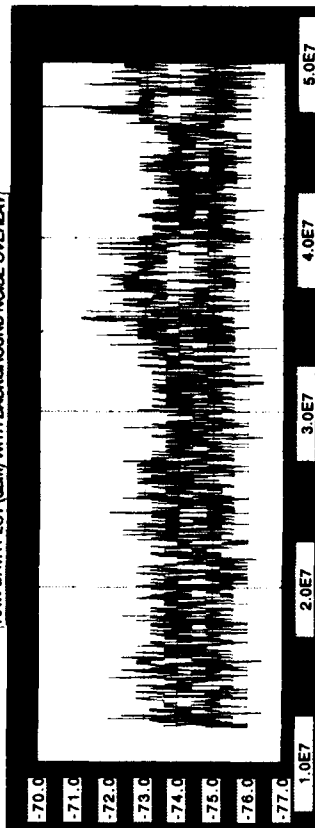
SITE CALIBRATION FILE NAME
MONTANA:SCAL:SCAL21:LLSC:FRWDBM4H21SCC

READ FILE NAME
MONTANA:LABVIEW DATA:LLSC:ICCRWDBM4H14

BAND 4 TX LOC 1 RX LOC 4 POLARITY H

E-FIELD FILTER ON/OFF FILTER RANK 0 DISK STATUS 0

RAW DATA PLOT (dBm) WITH BACKGROUND NOISE OVERLAY

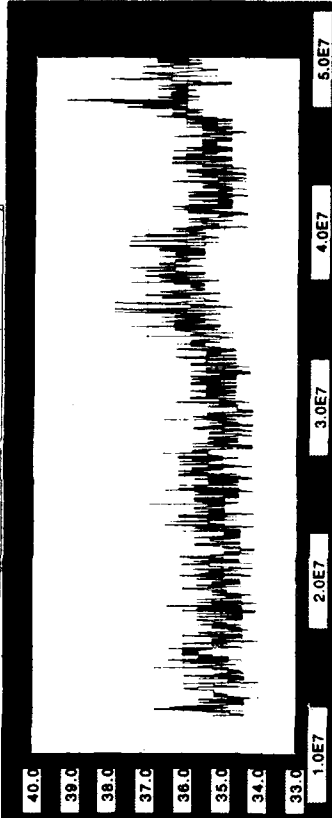


MAX ATTENUATION (dB) 0

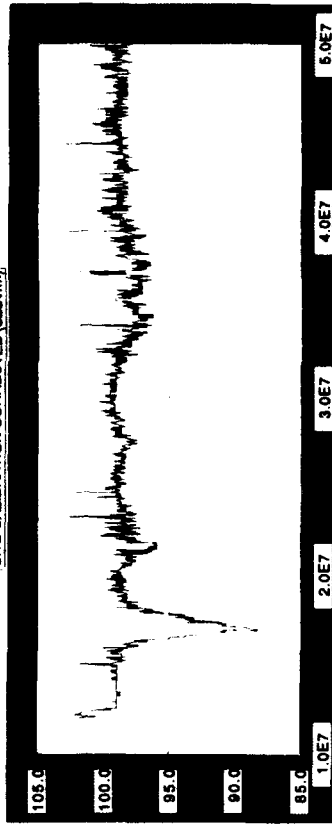
MIN ATTENUATION (dB) 0

AVERAGE ATTENUATION (dB) 0

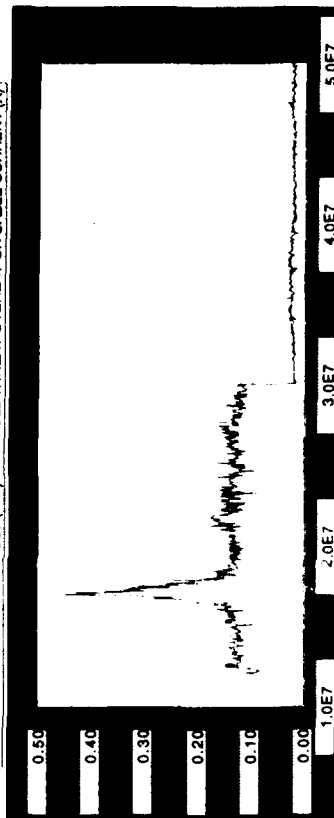
CORRECTED LLSC OR LLSC DATA IN (dBuV/m OR dBuA)



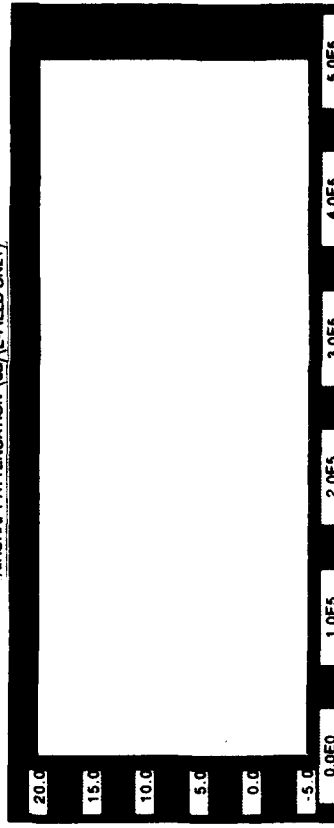
SITE CALIBRATION CORRECTED (dBuV/m)

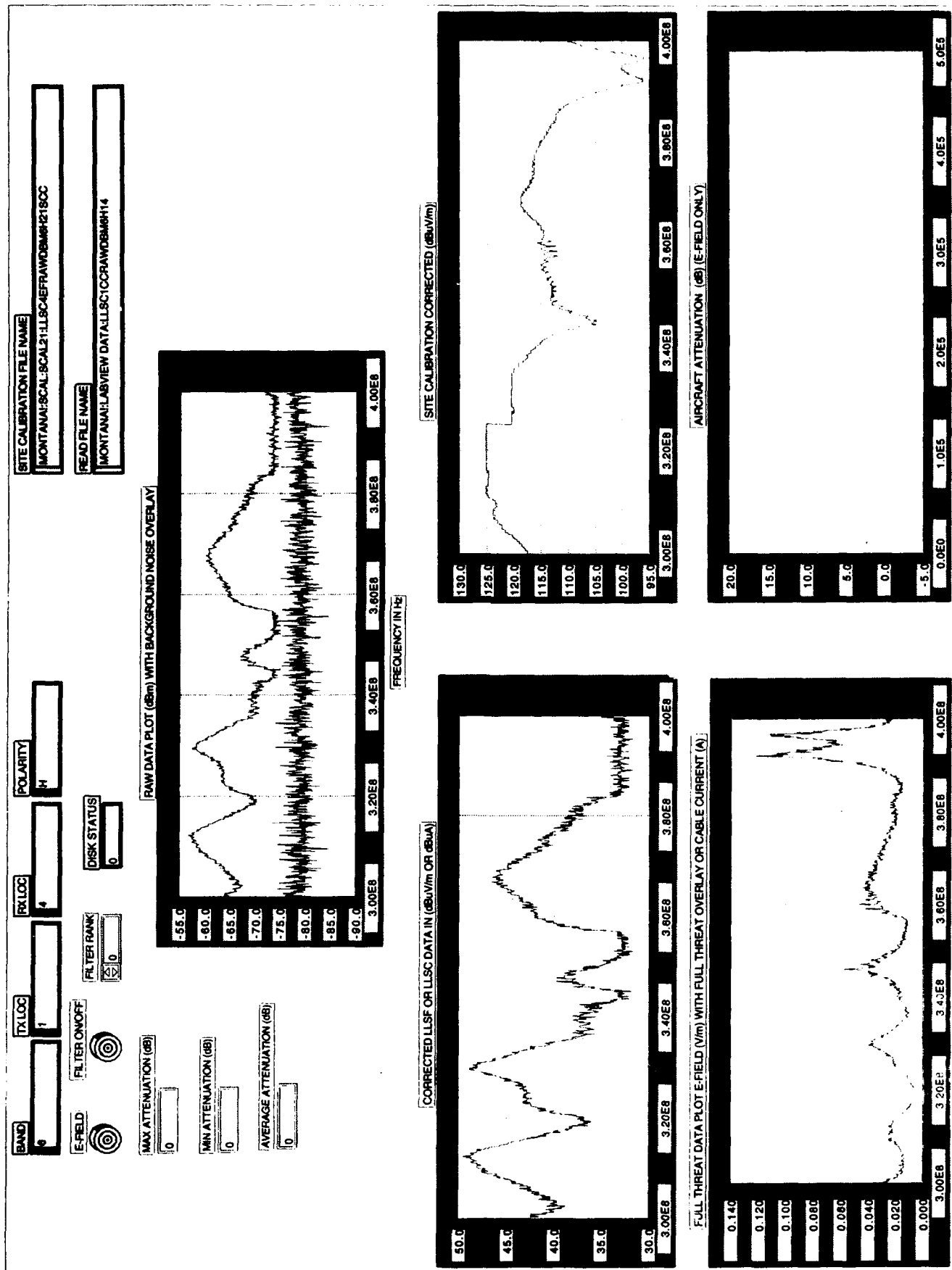


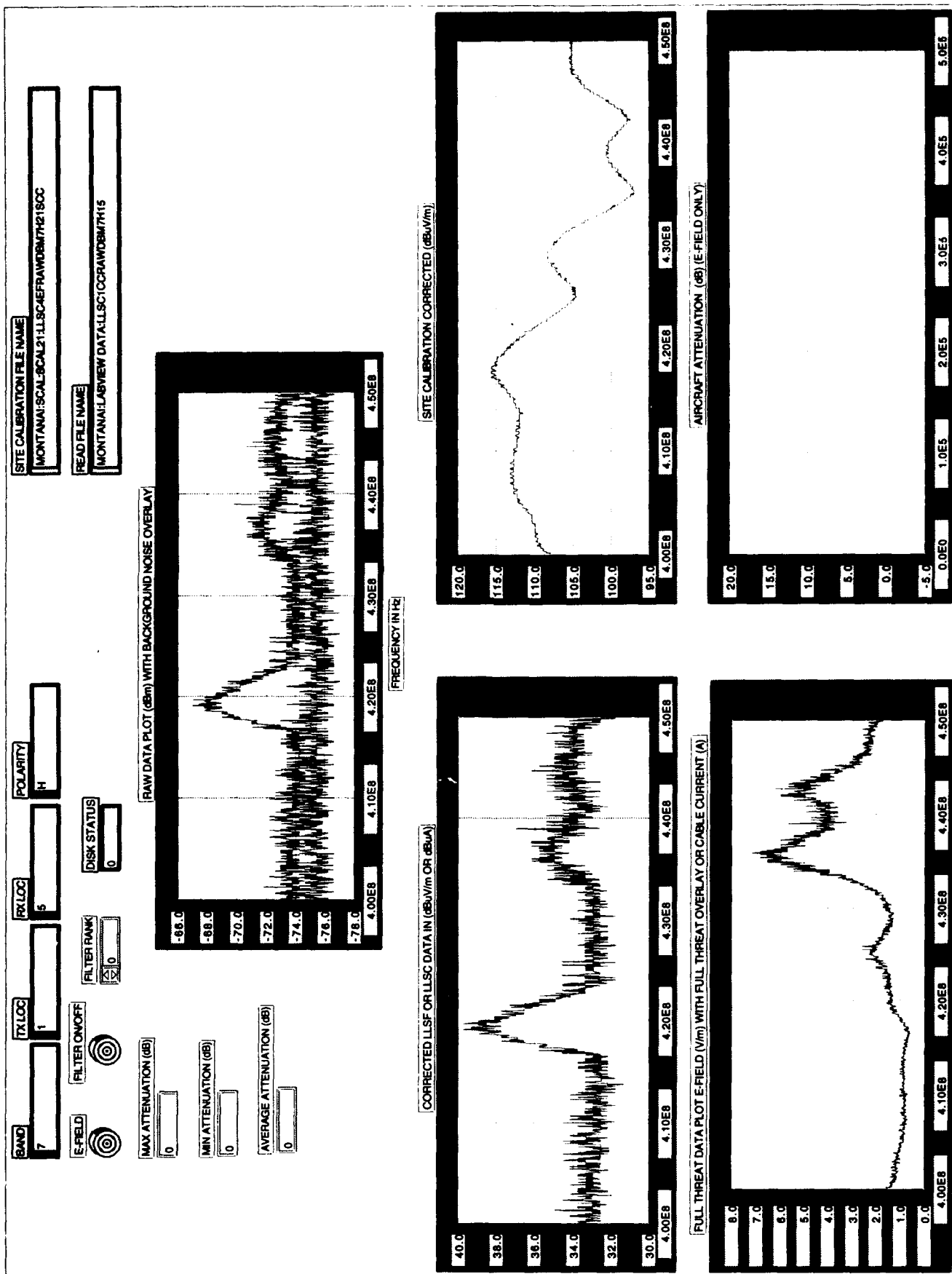
FULL THREAT DATA PLOT E-FIELD (V/m) WITH FULL THREAT OVERLAY OR CABLE CURRENT (A)

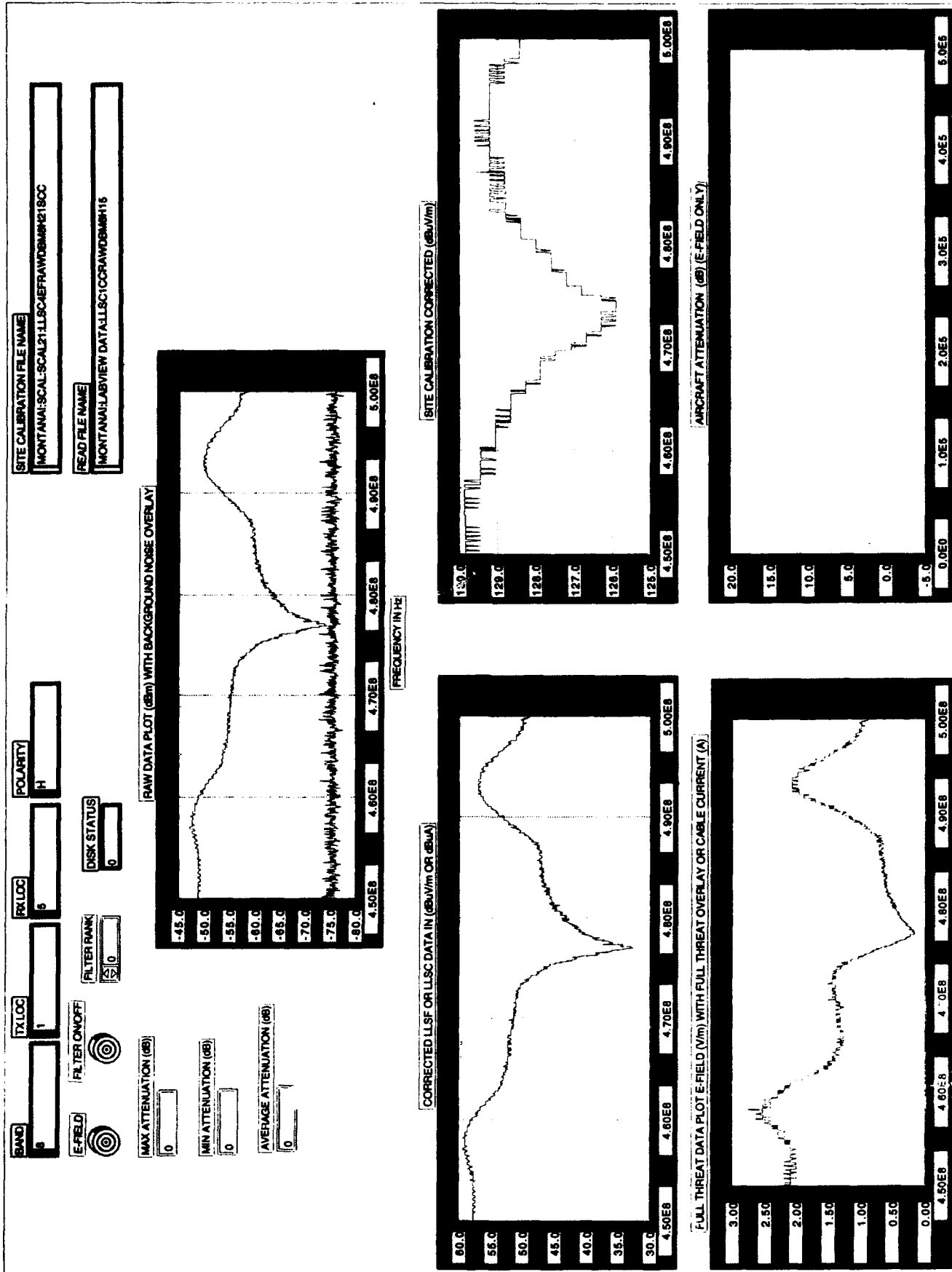


AIRCRAFT ATTENUATION (dB) (E-FIELD ONLY)









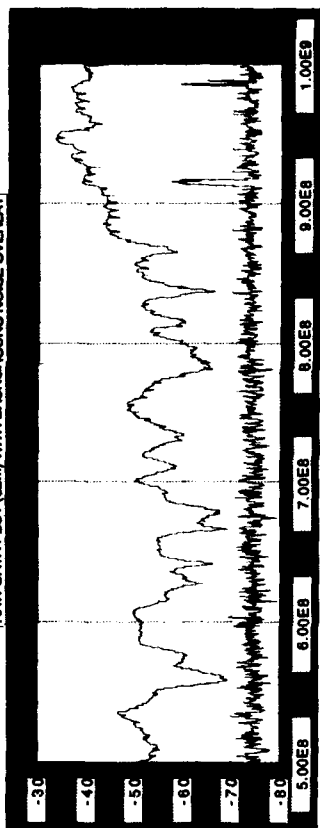
SITE CALIBRATION FILE NAME
MONTANA:SCAL:SCAL21:LLSC4FFRAWD8MH21SCC

READ FILE NAME
MONTANA:LABVIEW DATA:LLSC1CCRAWD8MH15

BAND 9 TX LOC 1 RX LOC 5 POLARITY H

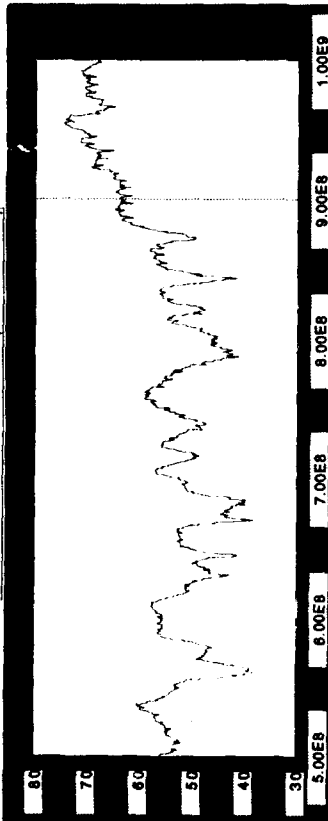
E-FIELD FILTER ON/OFF FILTER RANK 0 DISK STATUS 0

RAW DATA PLOT (dBm) WITH BACKGROUND NOISE OVERLAY

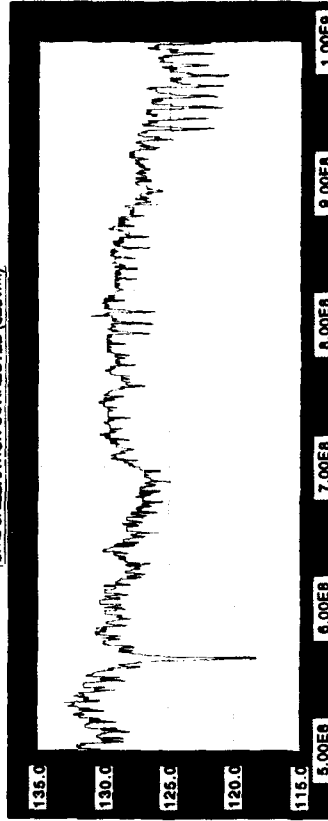


FREQUENCY (IN HZ)

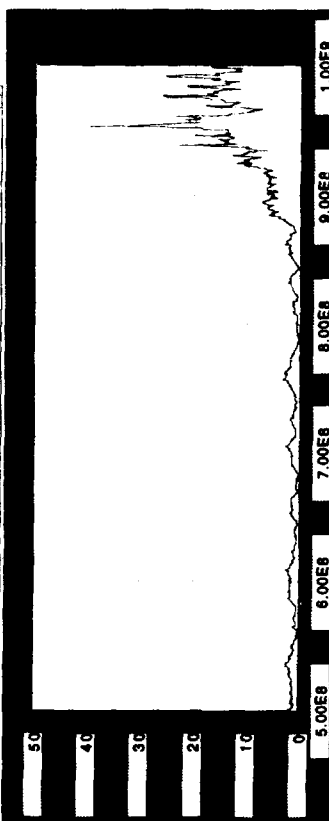
CORRECTED ILLSF OR LLSC DATA IN (dBuV/m OR dBuA)



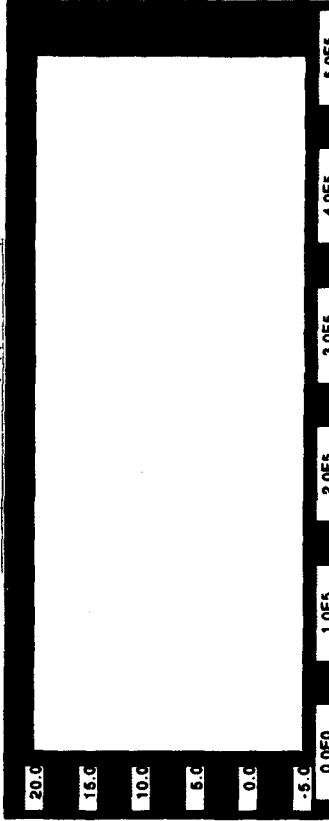
SITE CALIBRATION CORRECTED (dBuV/m)



FULL THREAT DATA PLOT E-FIELD (N/m) WITH FULL THREAT OVERLAY OR CABLE CURRENT (A)



AIRCRAFT ATTENUATION (dB) (E-FIELD ONLY)



SITE CALIBRATION FILE NAME
MONTANA/SCAL/SCAL21/LLSCAFRANDBM2H2190C

READ FILE NAME
MONTANA/LABVIEW DATA/LLSC/ICORANDBM2H2190C

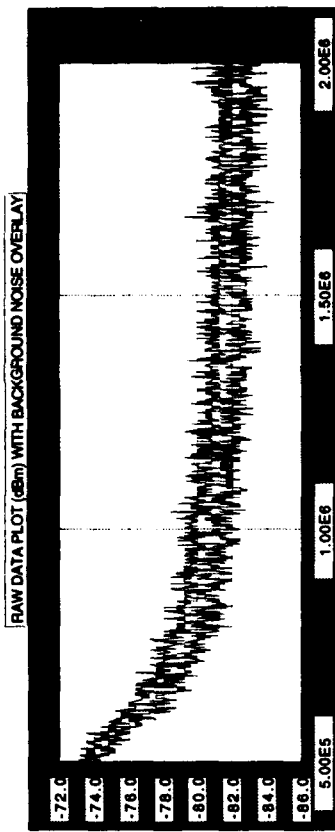
BAND 2 TXLOC 2 RXLOC 4 POLARITY H

E-FIELD FILTER ON/OFF FILTER RANK 0 DISK STATUS 0

MAX ATTENUATION (dB) 0

MIN ATTENUATION (dB) 0

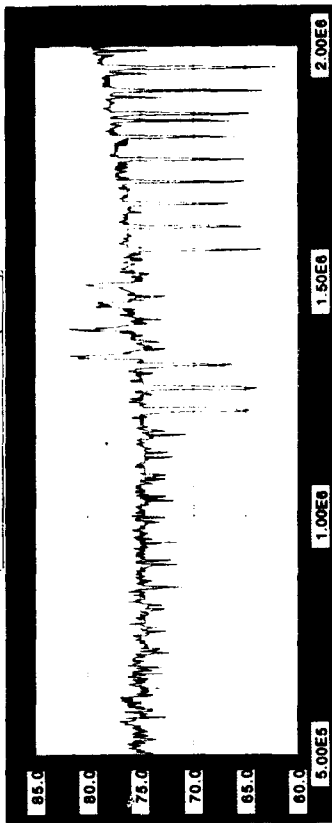
AVERAGE ATTENUATION (dB) 0



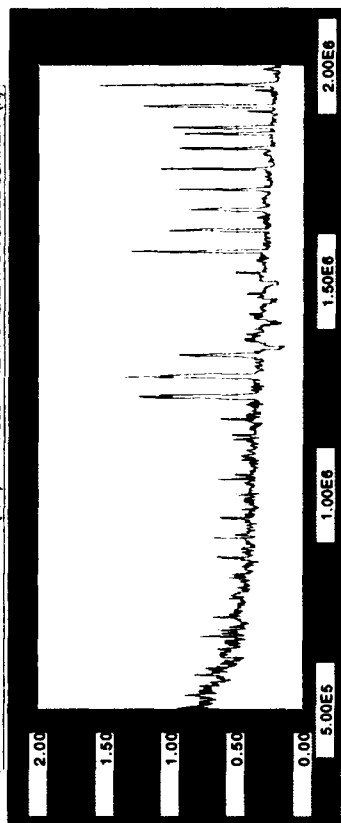
CORRECTED LLSP OR LLSC DATA IN (dBuV/m OR dBuA)



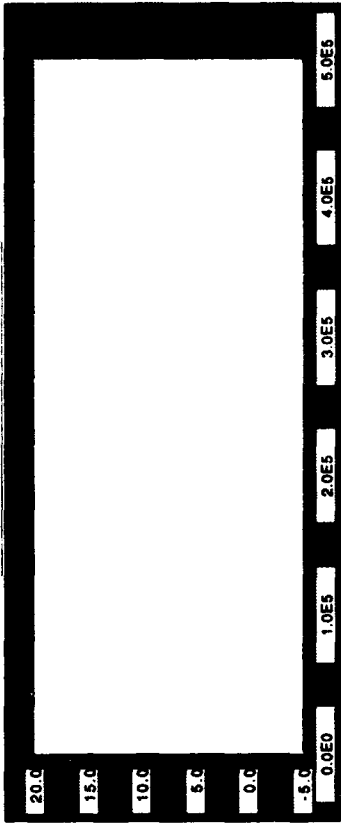
SITE CALIBRATION CORRECTED (dBuV/m)



FULL THREAT DATA PLOT E-FIELD (V/m) WITH FULL THREAT OVERLAY OR CABLE CURRENT (A)



AIRCRAFT ATTENUATION (dB) (E-FIELD ONLY)

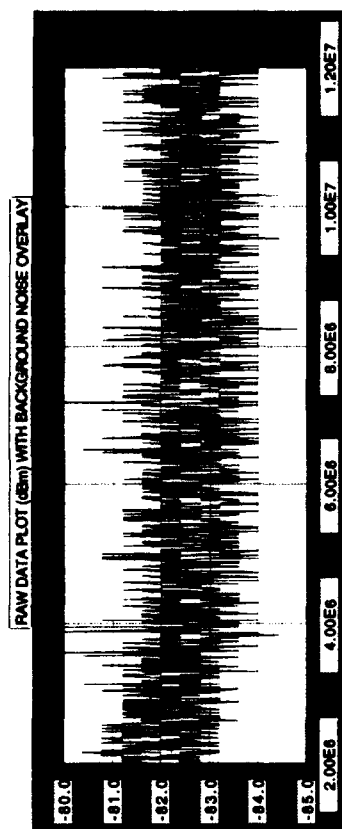


SITE CALIBRATION FILE NAME
MONTANA:SCAL:SCAL2111SC4EFRAWDBM3H2180C

READ FILE NAME
MONTANA:LABVIEW DATA:LLSC:CCRAWDBM3H24

BAND 3 TX LOC 2 RX LOC 4 POLARITY H

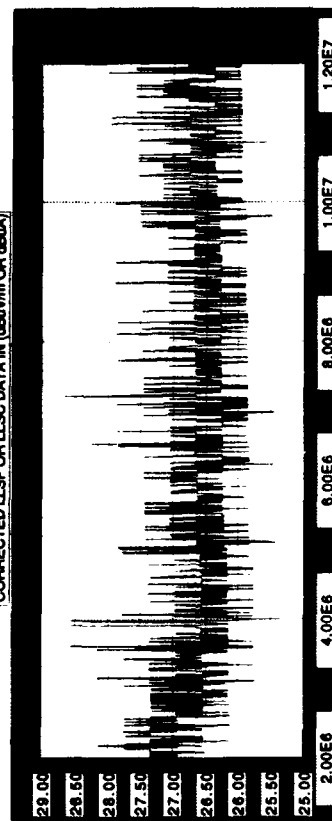
E-FIELD FILTER ON/OFF FILTER RANK 0 DSK STATUS 0



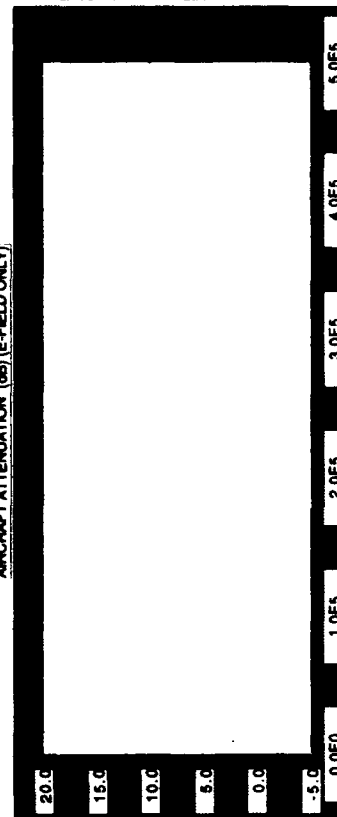
SITE CALIBRATION CORRECTED (dBuV/m)



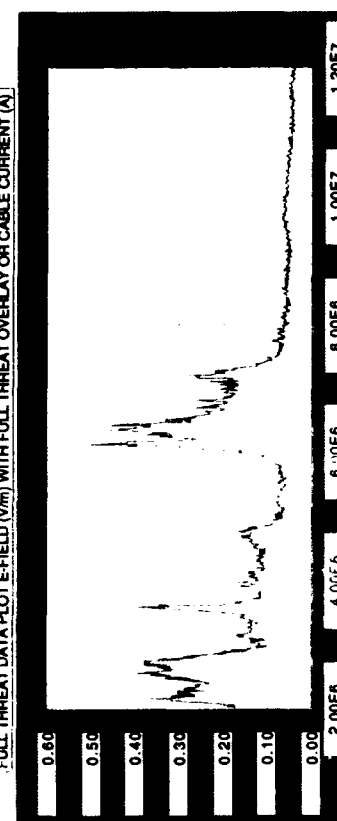
CORRECTED LLSC OR LLSC DATA IN (dBuV/m OR dBuA)

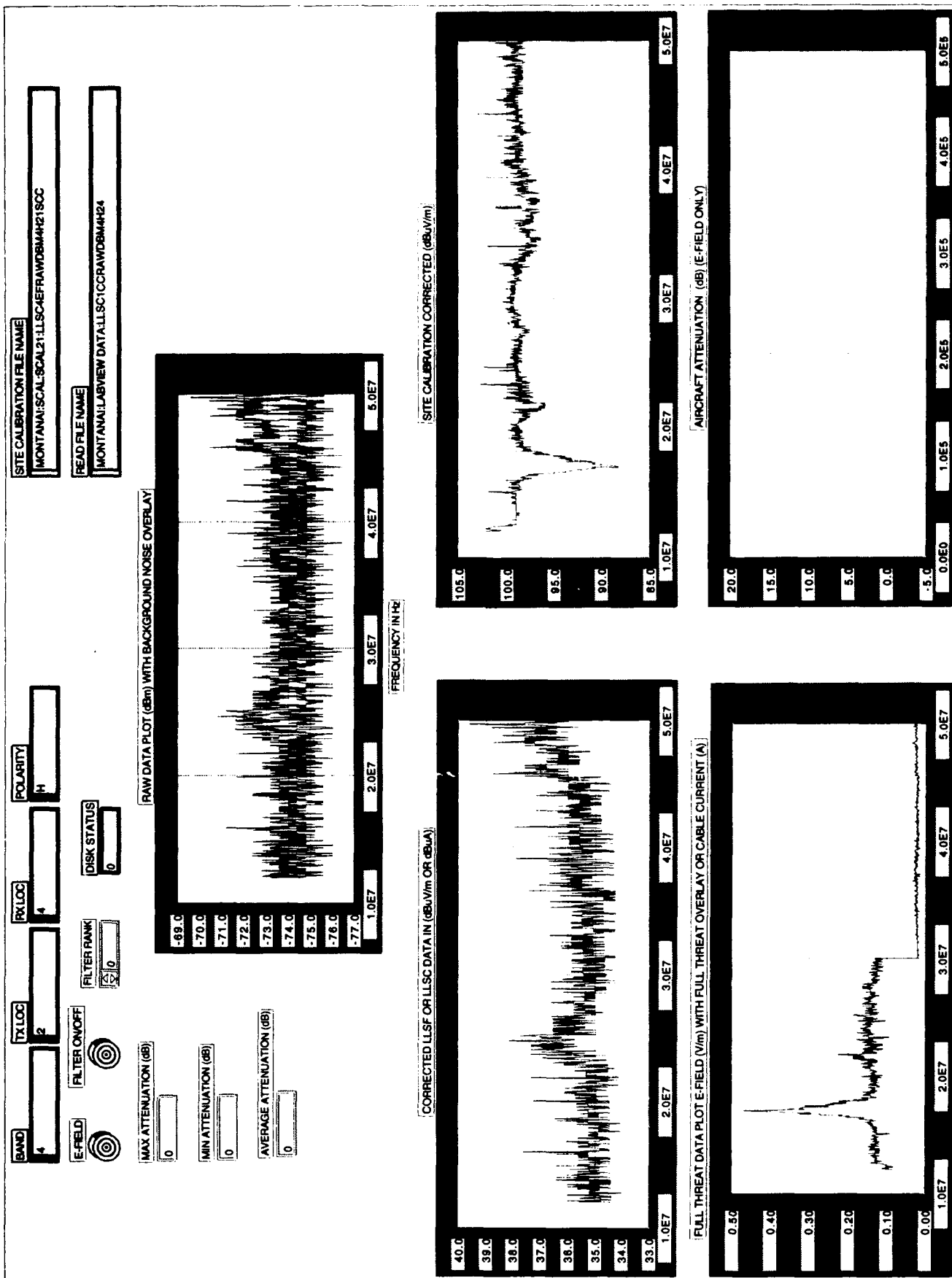


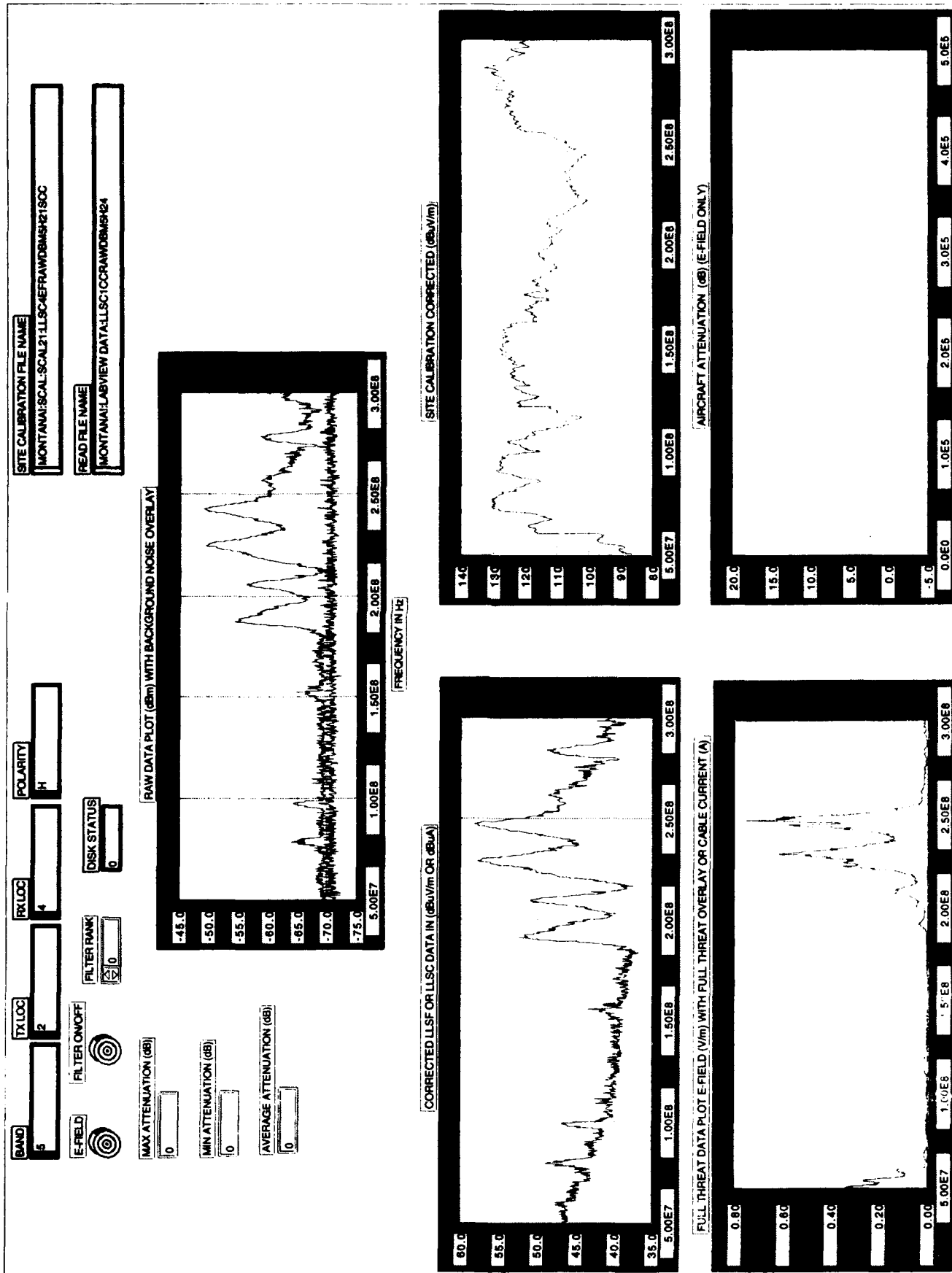
AIRCRAFT ATTENUATION (dB) (E-FIELD ONLY)

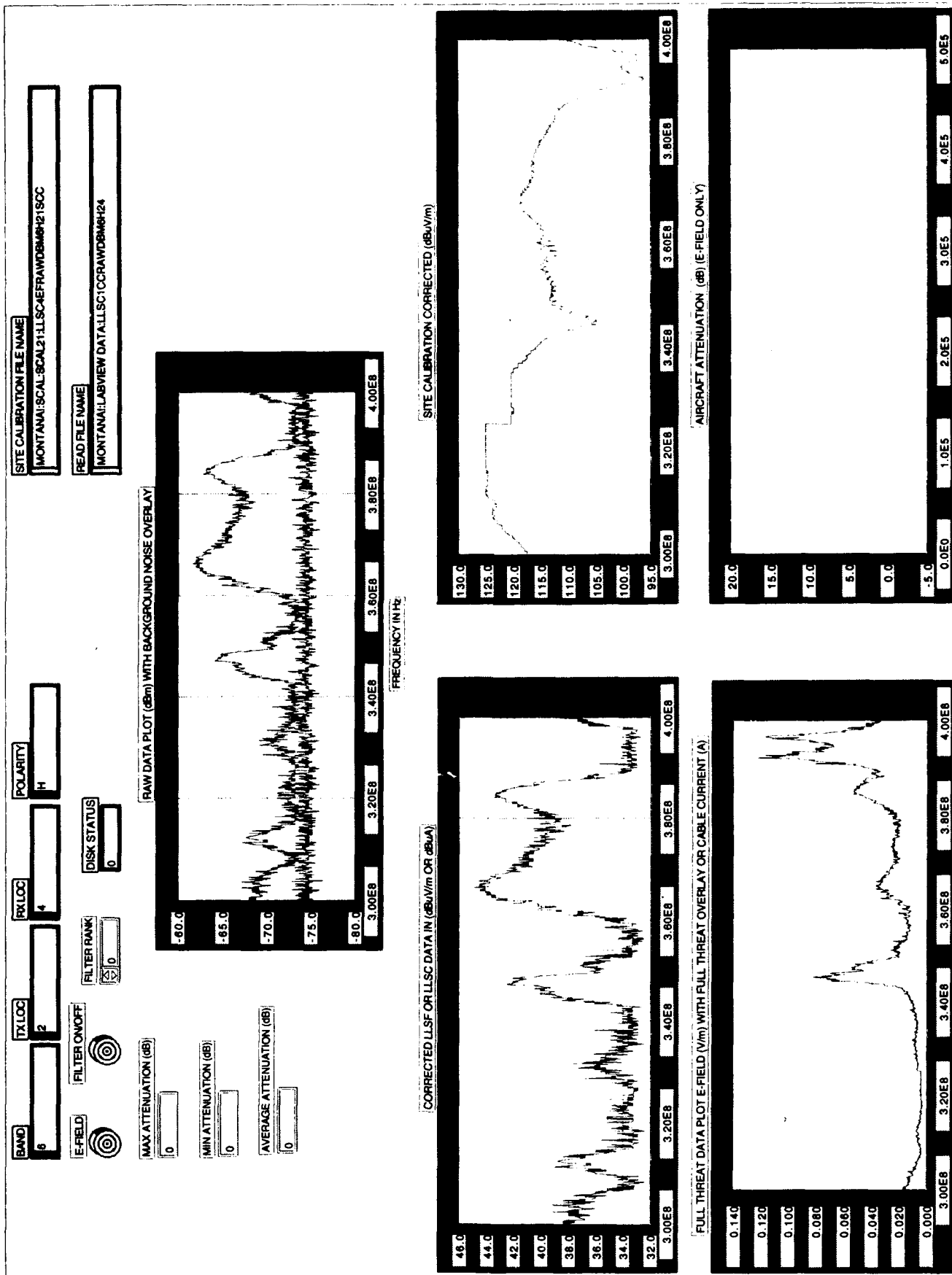


FULL THREAT DATA PLOT E-FIELD (V/m) WITH FULL THREAT OVERLAY OR CABLE CURRENT (A)









BAND
TX LOC
RX LOC
POLARITY

E-FIELD ☒
DISK STATUS

MAX ATTENUATION (dB)
MIN ATTENUATION (dB)
AVERAGE ATTENUATION (dB)

RAW DATA PLOT (dBm) WITH BACKGROUND NOISE OVERLAY

SITE CALIBRATION FILE NAME

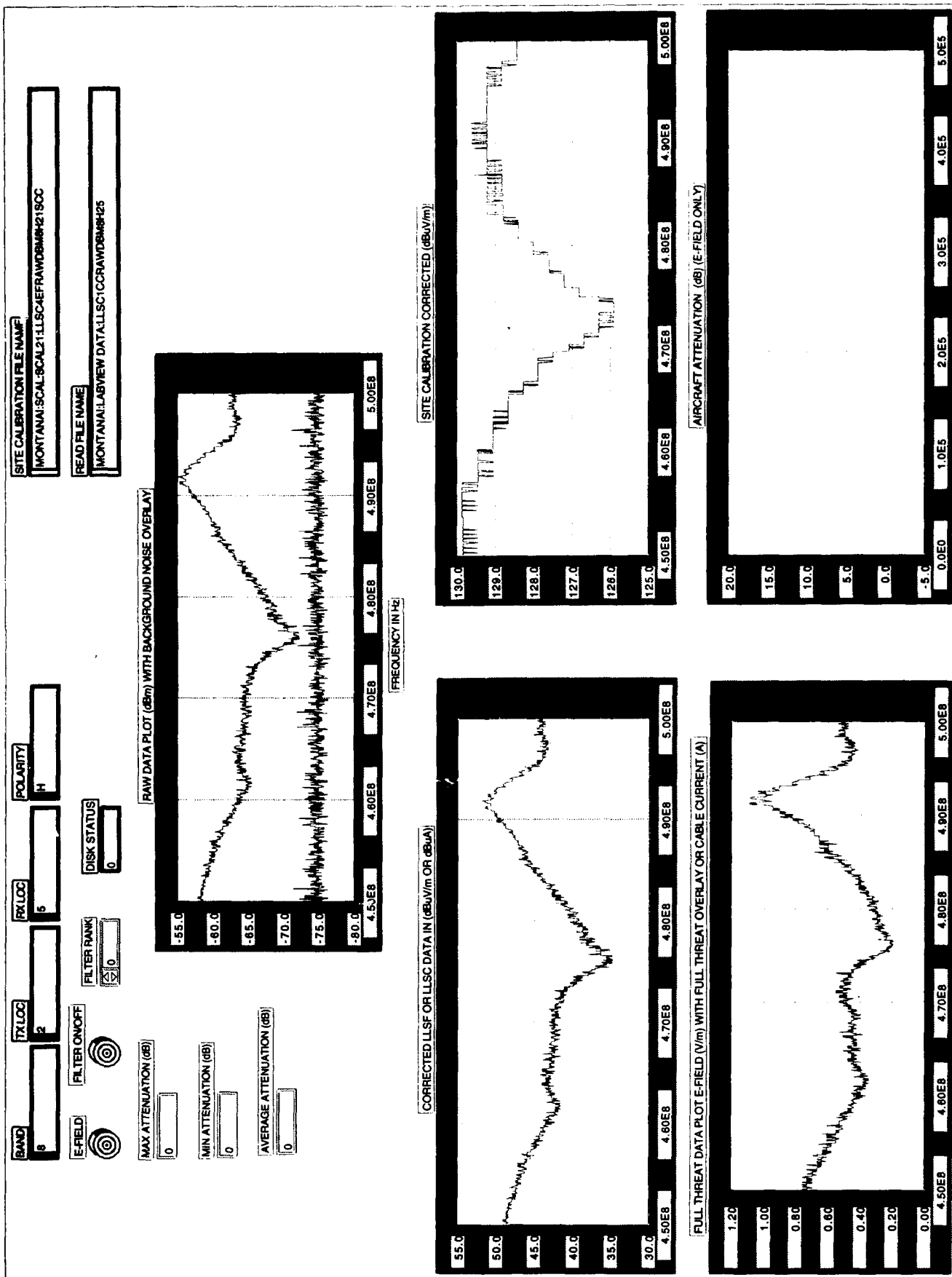
READ FILE NAME

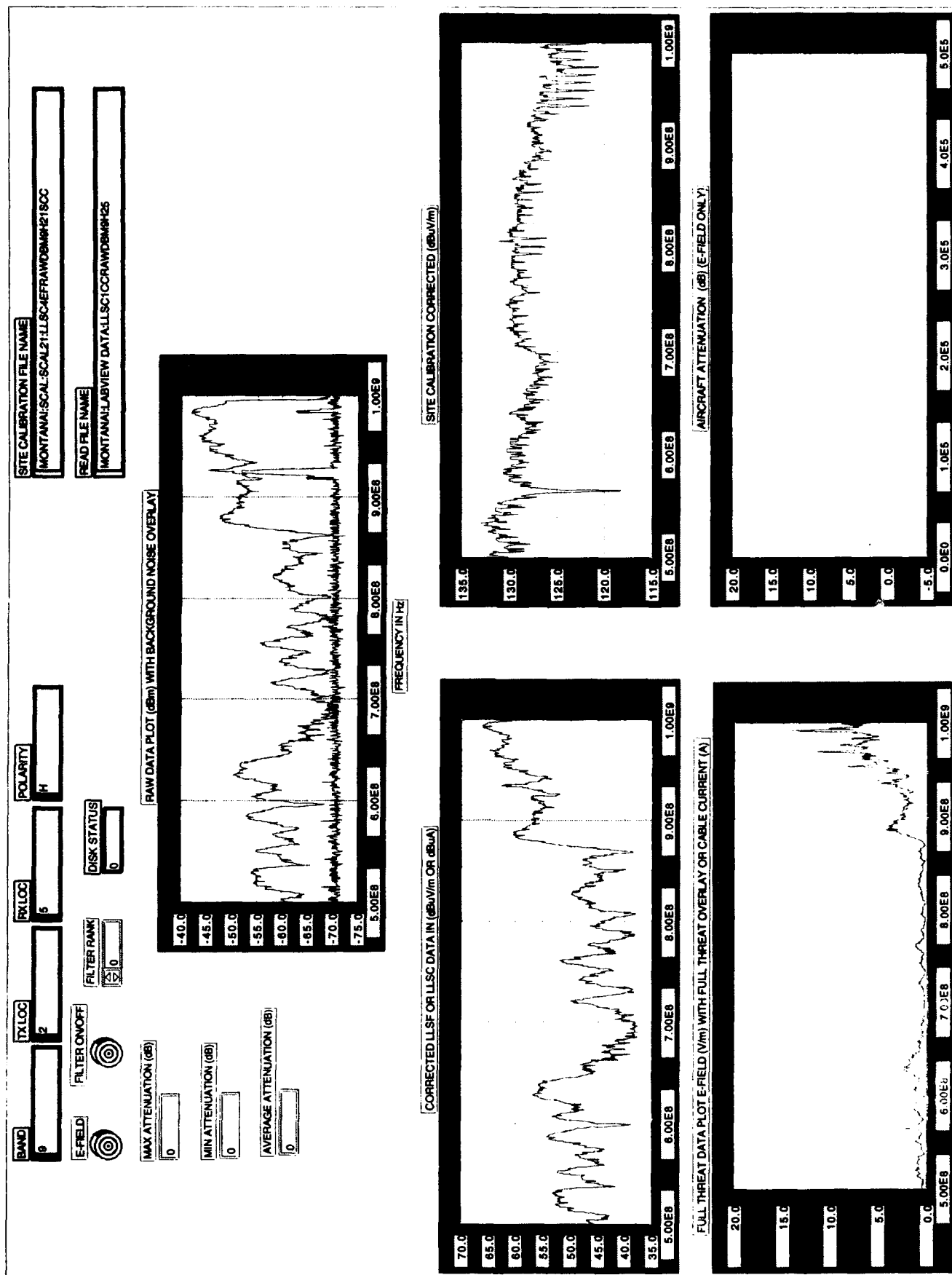
CORRECTED LLSC OR LLSC DATA IN (dBuV/m OR dBuA)

SITE CALIBRATION CORRECTED (dBuV/m)

FULL THREAT DATA PLOT E-FIELD (V/m) WITH FULL THREAT OVERLAY OR CABLE CURRENT (A)

AIRCRAFT ATTENUATION (dB) (E-FIELD ONLY)





SECTION 2-4
FIRE SENSOR LLSC DATA PLOTS

BAND

E-FIELD ☒

TX LOC

TX LOC

POLARITY

MAX ATTENUATION (dB)

MIN ATTENUATION (dB)

AVERAGE ATTENUATION (dB)

DISK STATUS

DISK STATUS

SITE CALIBRATION FILE NAME

MONTANA:SCAL:SCAL211LLSC4FRANWDBM1H21SOC

READ FILE NAME

MONTANA:LABVIEW DATA:LLSC:CCRANWDBM1H15

RAW DATA PLOT (dBm) WITH BACKGROUND NOISE OVERLAY

FREQUENCY IN HZ

SITE CALIBRATION CORRECTED (dBuV/m)

CORRECTED LLSC OR LLSC DATA IN (dBuV/m OR dBuA)

AIRCRAFT ATTENUATION (dB) (E-FIELD ONLY)

FULL THREAT DATA PLOT E-FIELD (V/m) WITH FULL THREAT OVERLAY OR CABLE CURRENT (A)

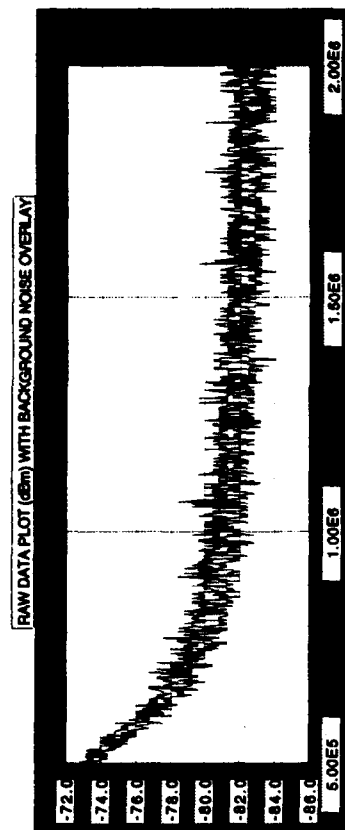
SITE CALIBRATION CORRECTED (dBuV/m)

SITE CALIBRATION FILE NAME
MONTANAUSCAL:SCAL211LLSC4FRW06M2H150C

READ FILE NAME
MONTANAUSCALVIEW DATA:LLSC1CCRAW06M2H15

SAND 2 TX LOC 1 RX LOC 6 POLARITY H

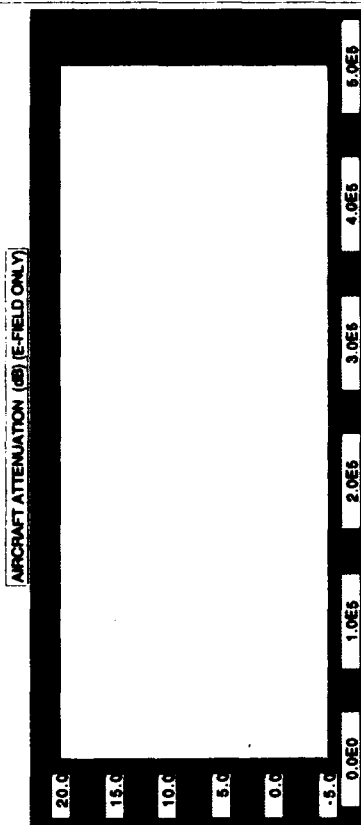
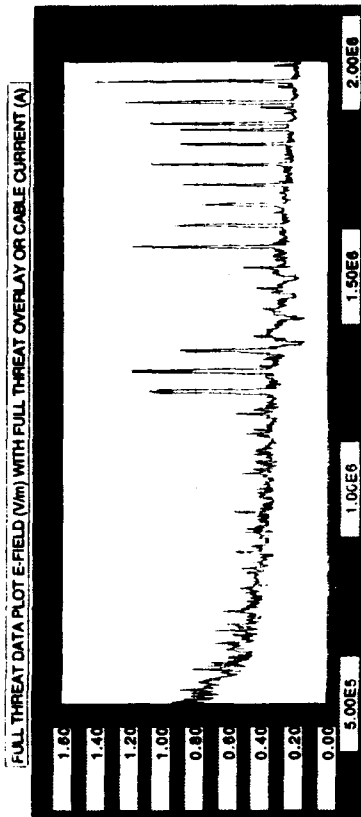
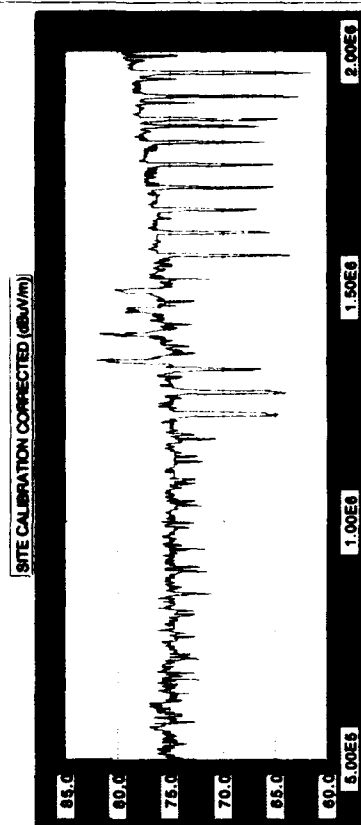
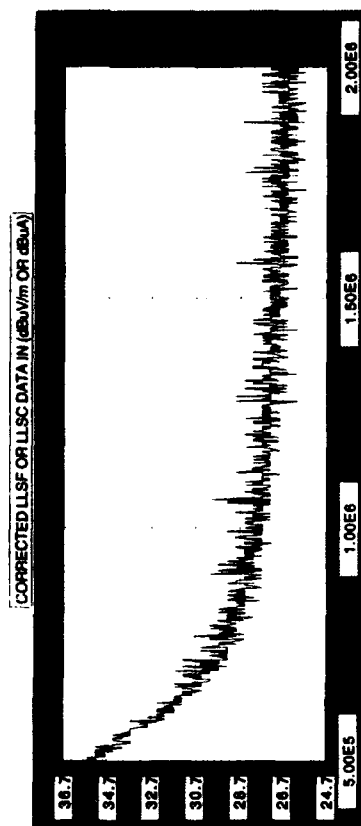
E-FIELD ☒ FILTER QW/OFF ☒ FILTER RANK 20 DISK STATUS 0



MAX ATTENUATION (dB) 0

MIN ATTENUATION (dB) 0

AVERAGE ATTENUATION (dB) 0



SITE CALIBRATION FILE NAME
MONTANA:SCAL:SCAL21:LLSC4EFTAWDBMS421BCC

READ FILE NAME
MONTANA:LABVIEW DATA:LLSC1COCRAWDBMS4SH16

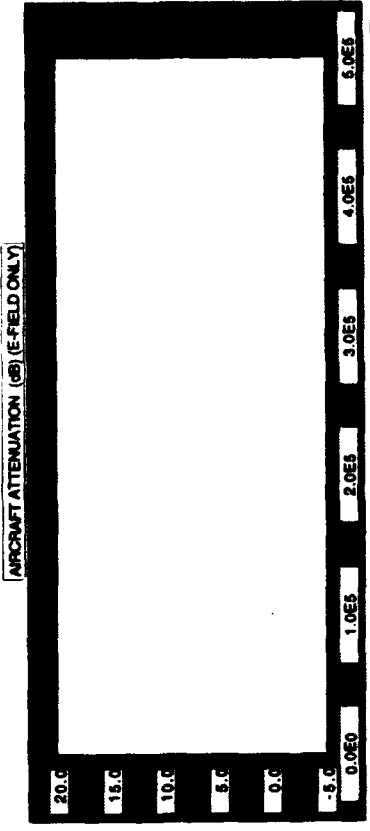
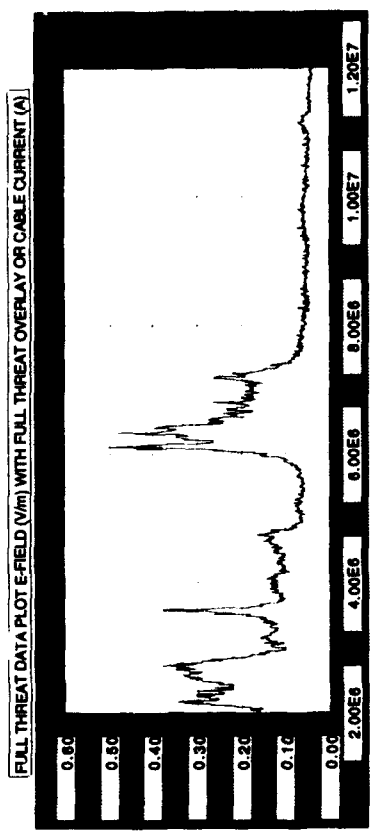
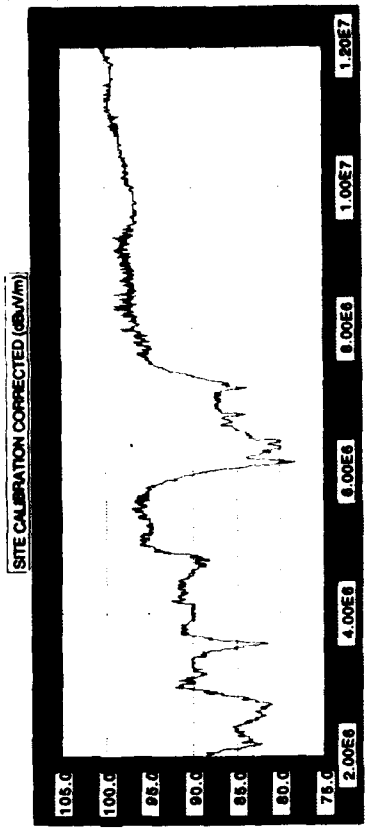
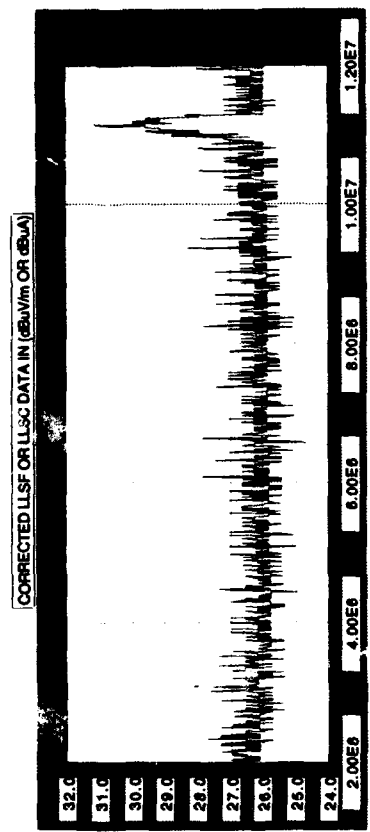
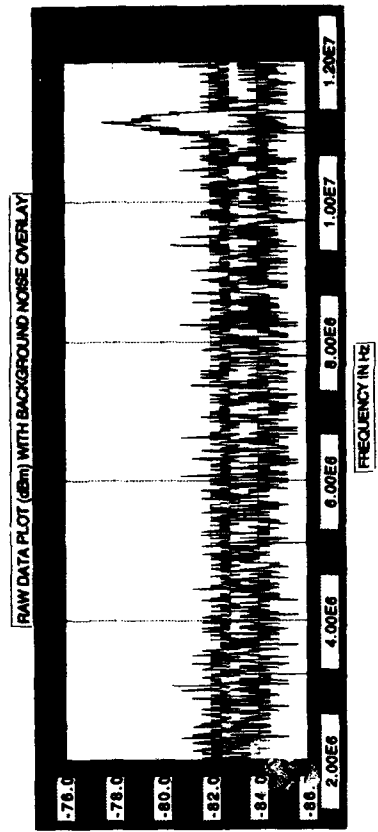
BAND 3 TX LOC 1 RX LOC 6 POLARITY H

E-FIELD FILTER ON/OFF FILTER RANK 2 DISK STATUS 0

MAX ATTENUATION (dB) 0

MIN ATTENUATION (dB) 0

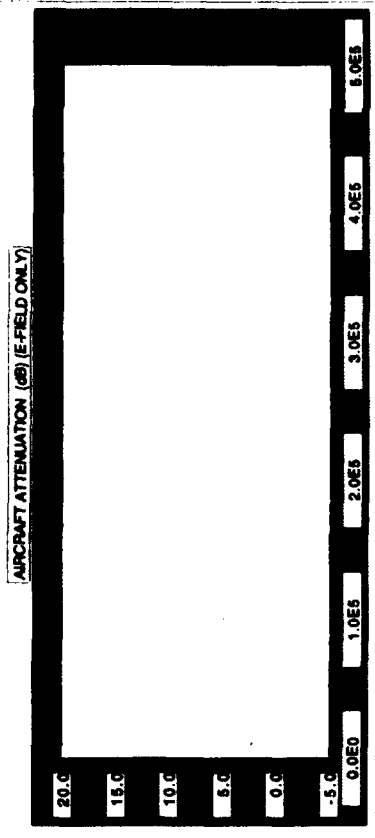
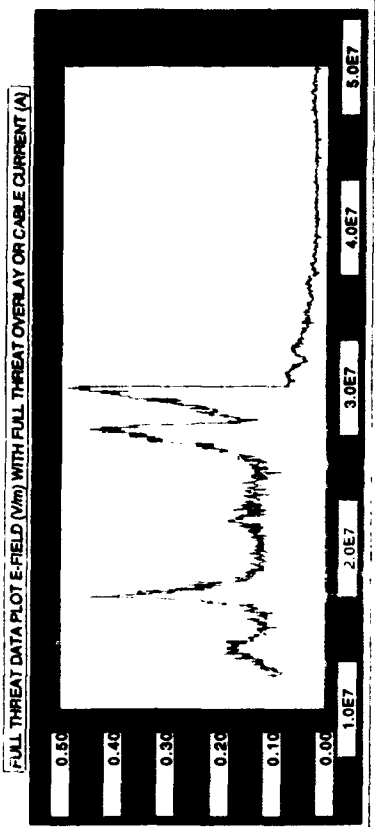
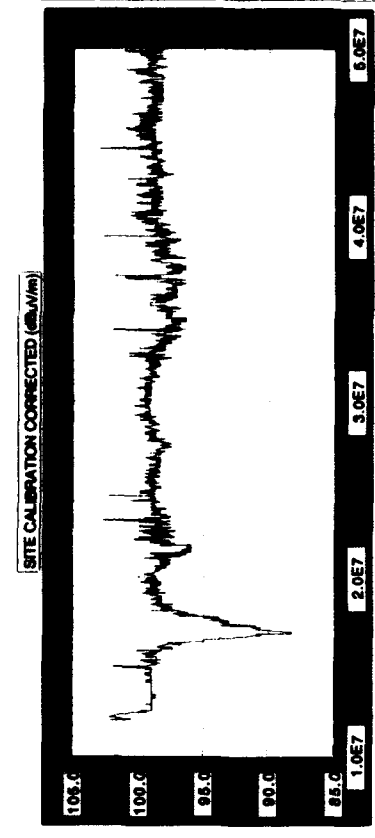
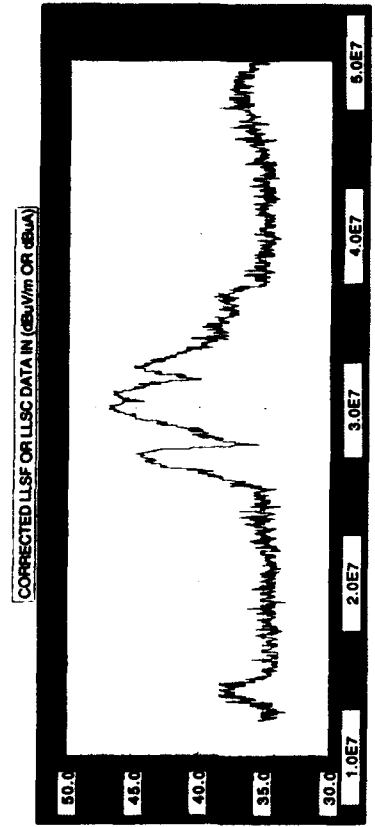
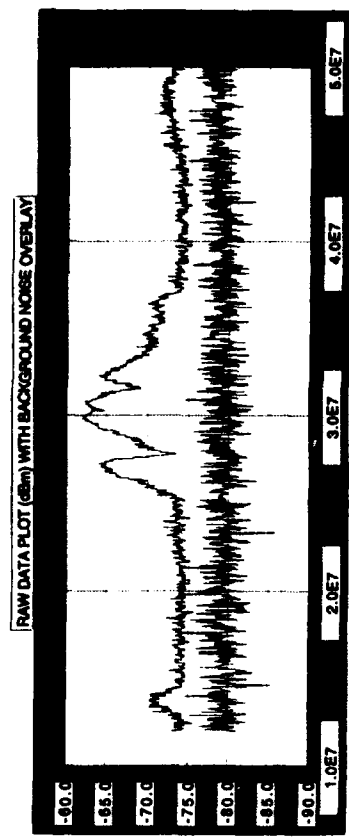
AVERAGE ATTENUATION (dB) 0

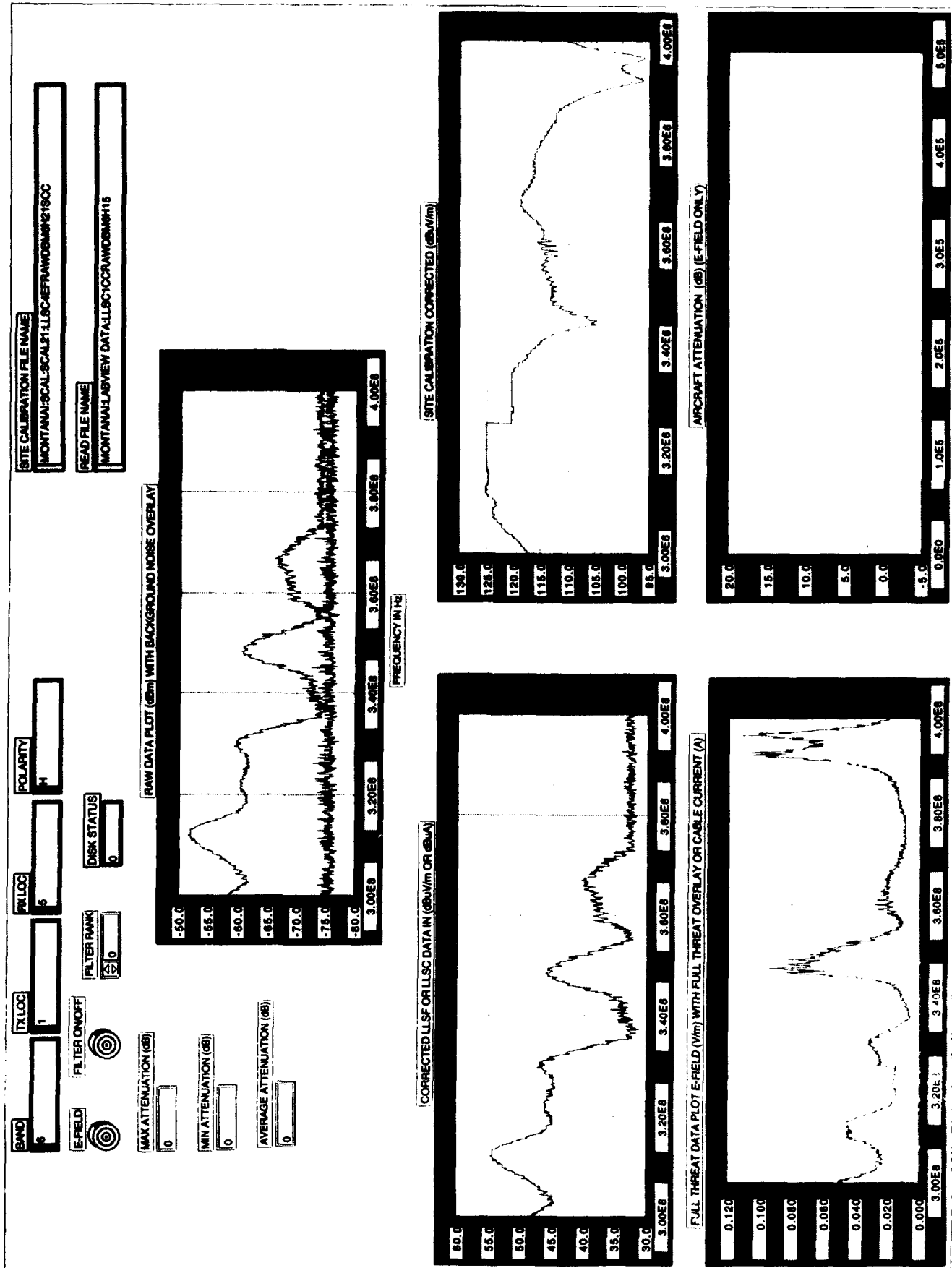


SITE CALIBRATION FILE NAME
 MONTANA:SCAL1111SCAFRANDBM42180C
 READ FILE NAME
 MONTANA:VIEW DATA11SC100FRANDBM4115

SMC 4 TX LOC 1 RX LOC 5 POLARITY N
 E-FIELD FILTER ON/OFF FILTER RANK 30 DISK STATUS 0

MAX ATTENUATION (dB) 0
 MIN ATTENUATION (dB) 0
 AVERAGE ATTENUATION (dB) 0





SITE CALIBRATION FILE NAME
MONTANA1SCALSCAL31LLSCAFRAWD8M7H2180C

READ FILE NAME
MONTANA1ASVIEW DATA1LLSC1CORAWD8M7H14

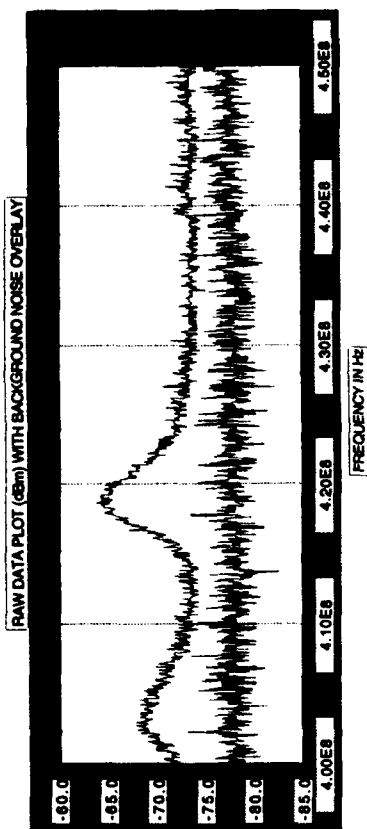
BAND 7 TX LOC 1 RX LOC 4 POLARITY H

E-FIELD ☒ FILTER ON/OFF ☒ FILTER RANK 2 DISK STATUS 0

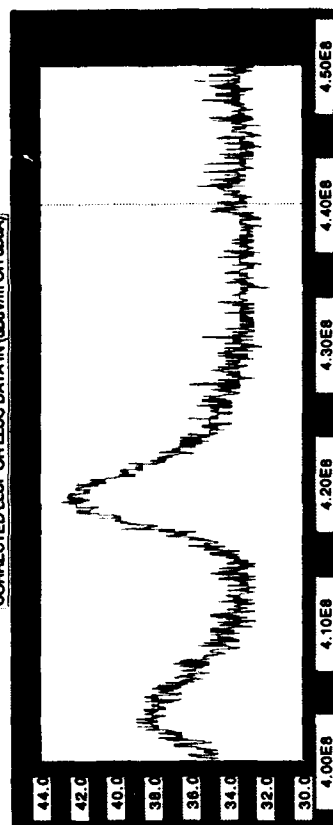
MAX ATTENUATION (dB) 0

MIN ATTENUATION (dB) 0

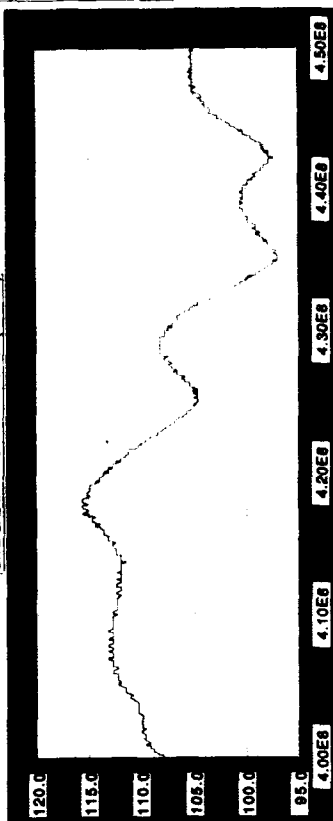
AVERAGE ATTENUATION (dB) 0



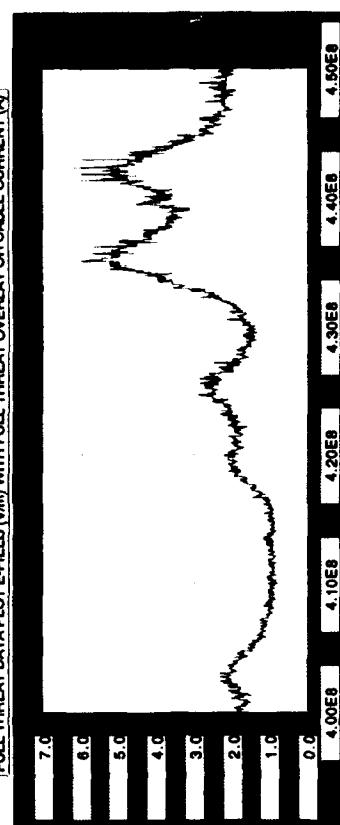
CORRECTED LLSF OR LLSC DATA IN (dBuV/m OR dBuA)



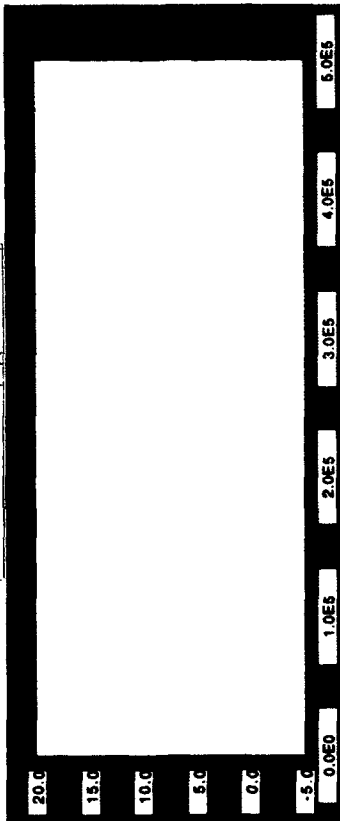
SITE CALIBRATION CORRECTED (dBuV/m)



FULL THREAT DATA PLOT E-FIELD (V/m) WITH FULL THREAT OVERLAY OR CABLE CURRENT (A)



AIRCRAFT ATTENUATION (dB) (E-FIELD ONLY)



BAND

TX LOC

RX LOC

POLARITY

0

1

4

H

E-FIELD

☒

☒

☐

MAX ATTENUATION (dB)

MIN ATTENUATION (dB)

AVERAGE ATTENUATION (dB)

0

0

0

0

0

0

0

0

0

SITE CALIBRATION FILE NAME

MONTANA:SCAL:SCAL21:LLSC48FRAWDBM8H2180C

READ FILE NAME

MONTANA:LABVIEW DATA:LLSC:CCRAWDBM8H14

RAW DATA PLOT (dBm) WITH BACKGROUND NOISE OVERLAY

FREQUENCY IN HZ

SITE CALIBRATION CORRECTED (dBV/m)

CORRECTED LLSC OR LLSC DATA IN (dBV/m OR dBuA)

AIRCRAFT ATTENUATION (dB) (E-FIELD ONLY)

107

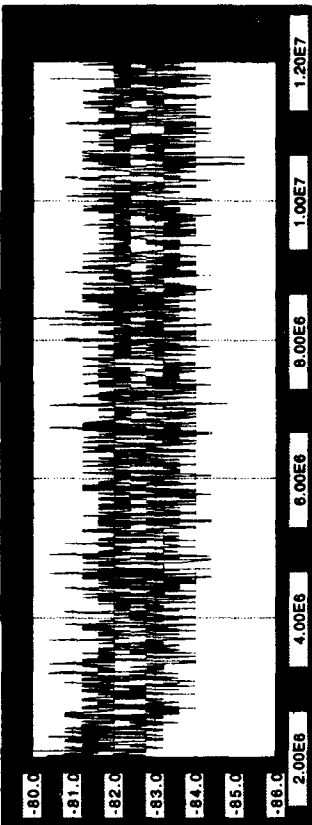
SITE CALIBRATION FILE NAME
MONTANA/SCAL/SCAL21/LLSC4EFRAME08M3H2180C

READ FILE NAME
MONTANA/LLABVIEW/DATA/LLSC10CRANW08M3H25

SAND 3 TX LOC 2 RX LOC 6 POLARITY H

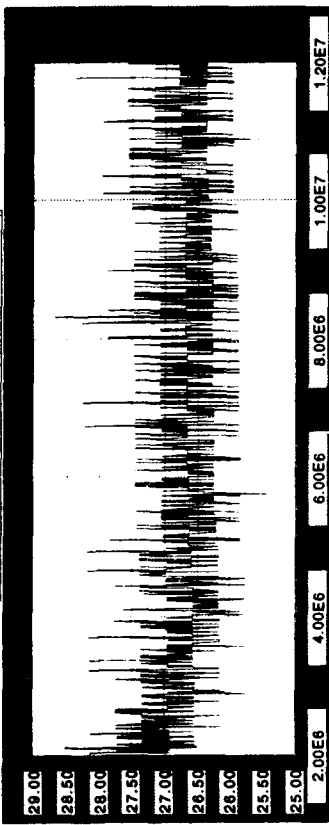
E-FIELD FILTER ON/OFF FILTER RANK 0 DISK STATUS 0

RAW DATA PLOT (dBm) WITH BACKGROUND NOISE OVERLAY

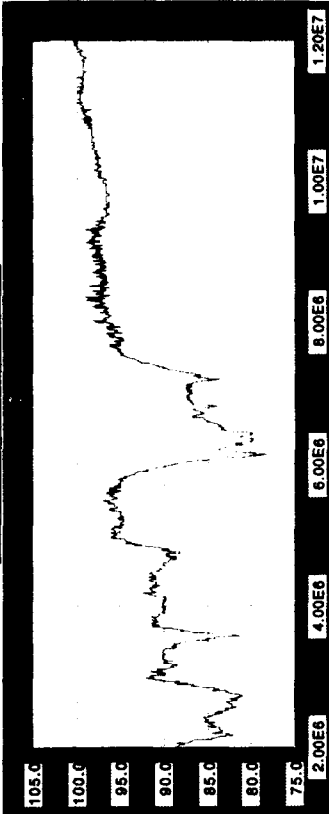


FREQUENCY IN HZ

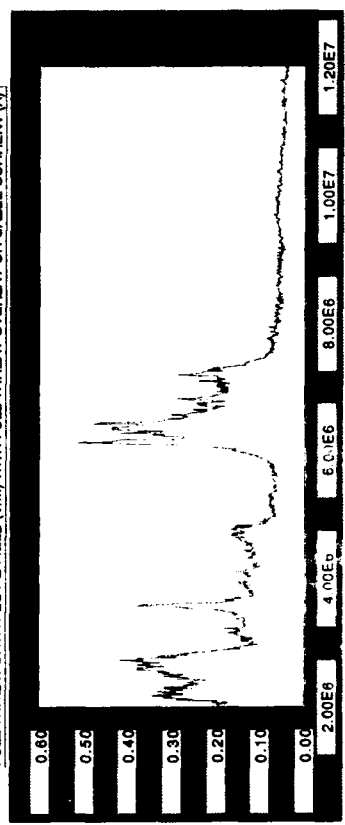
CORRECTED LLSF OR LLSC DATA IN (dBuV/m OR dBuA)



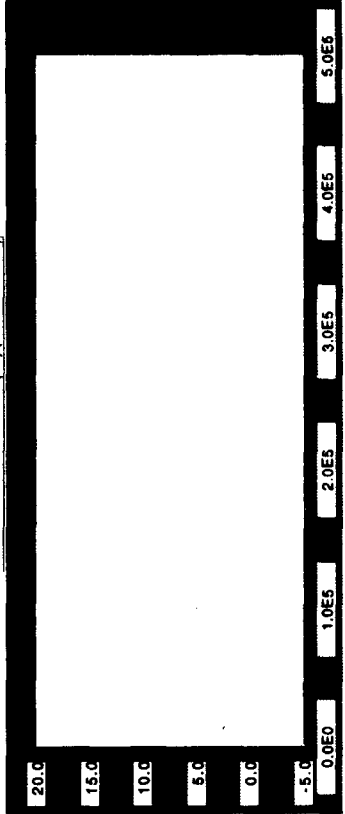
SITE CALIBRATION CORRECTED (dBuV/m)

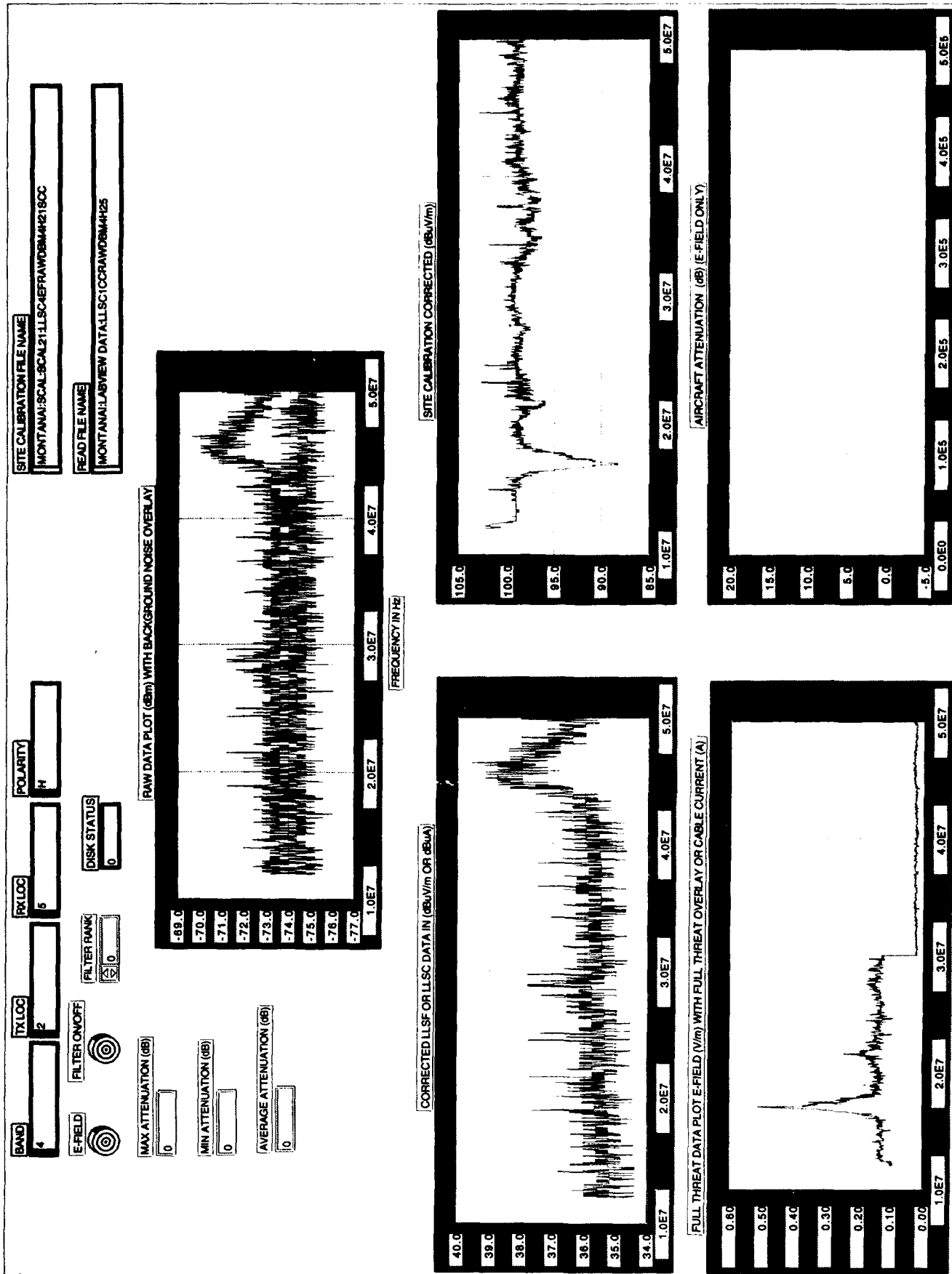


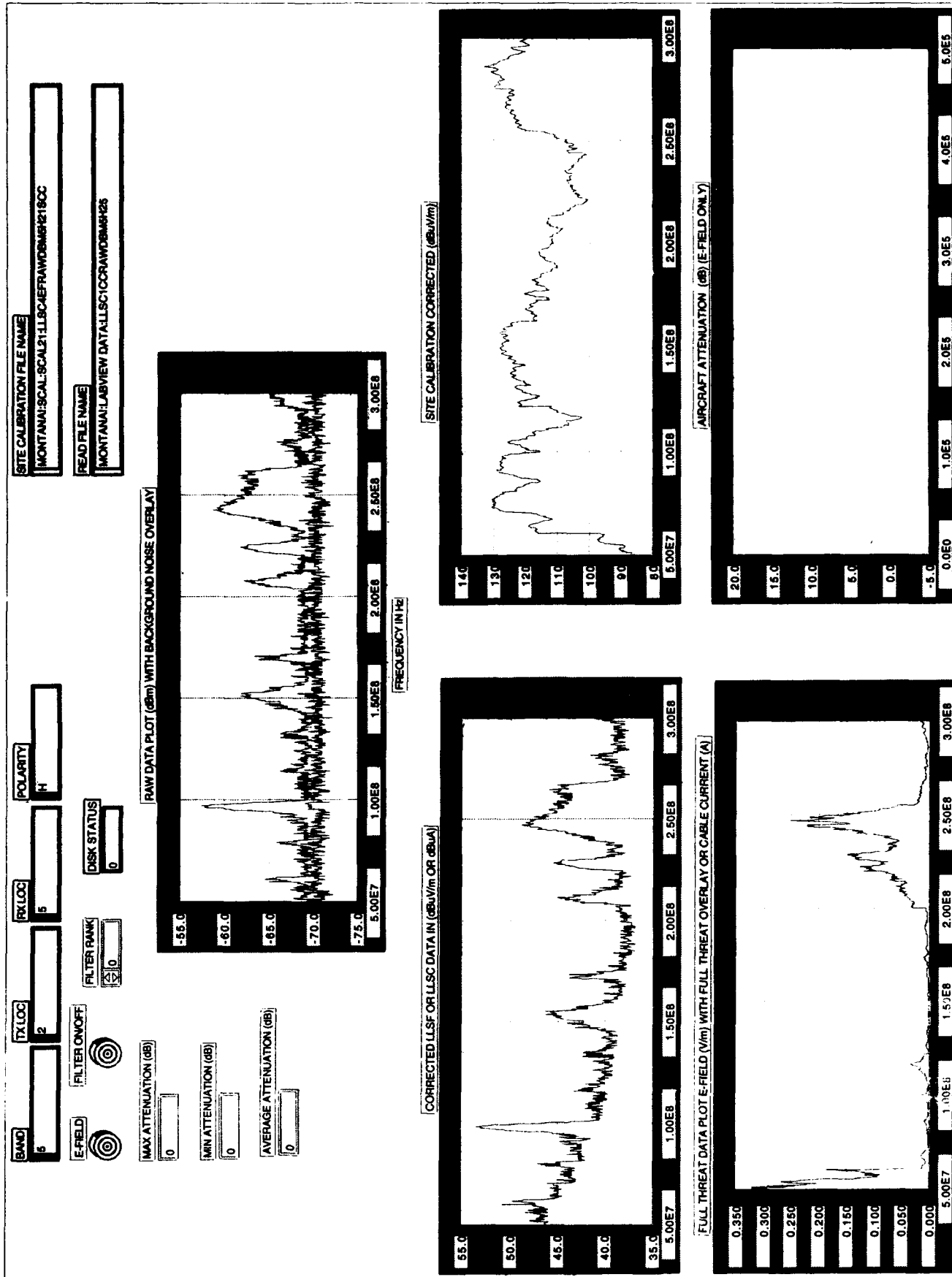
FULL THREAT DATA PLOT E-FIELD (V/m) WITH FULL THREAT OVERLAY OR CABLE CURRENT (A)

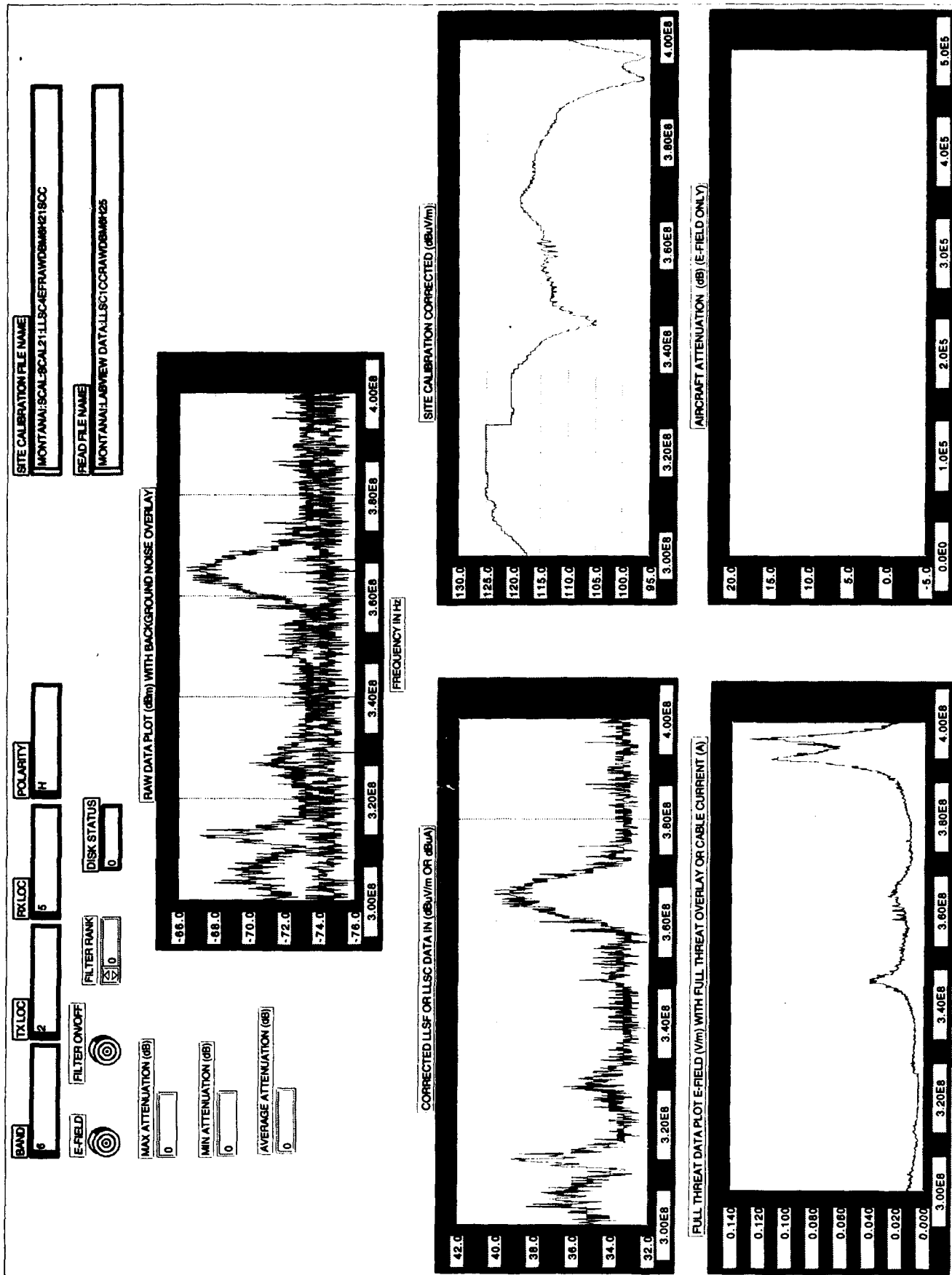


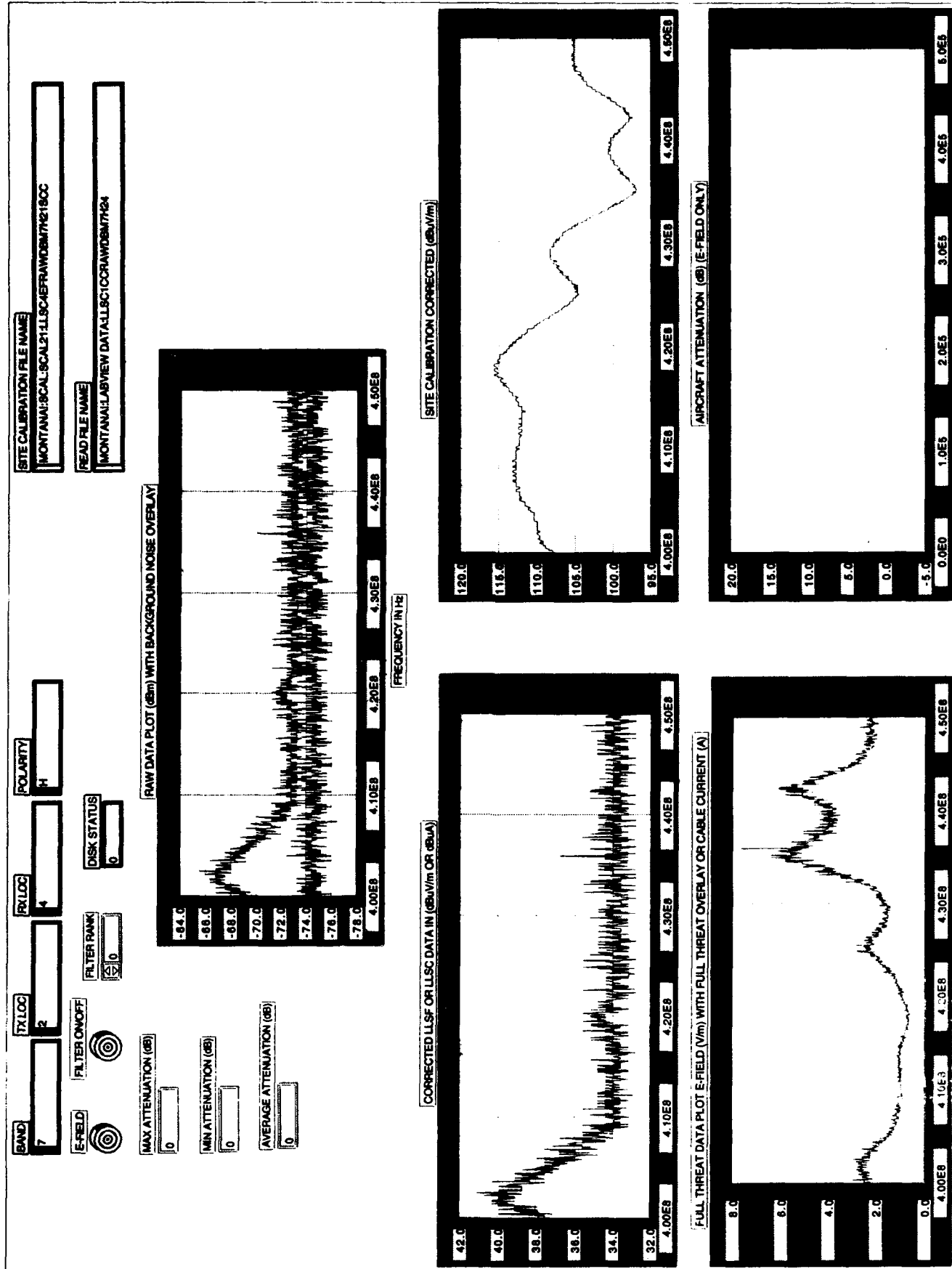
AIRCRAFT ATTENUATION (dB) (E-FIELD ONLY)

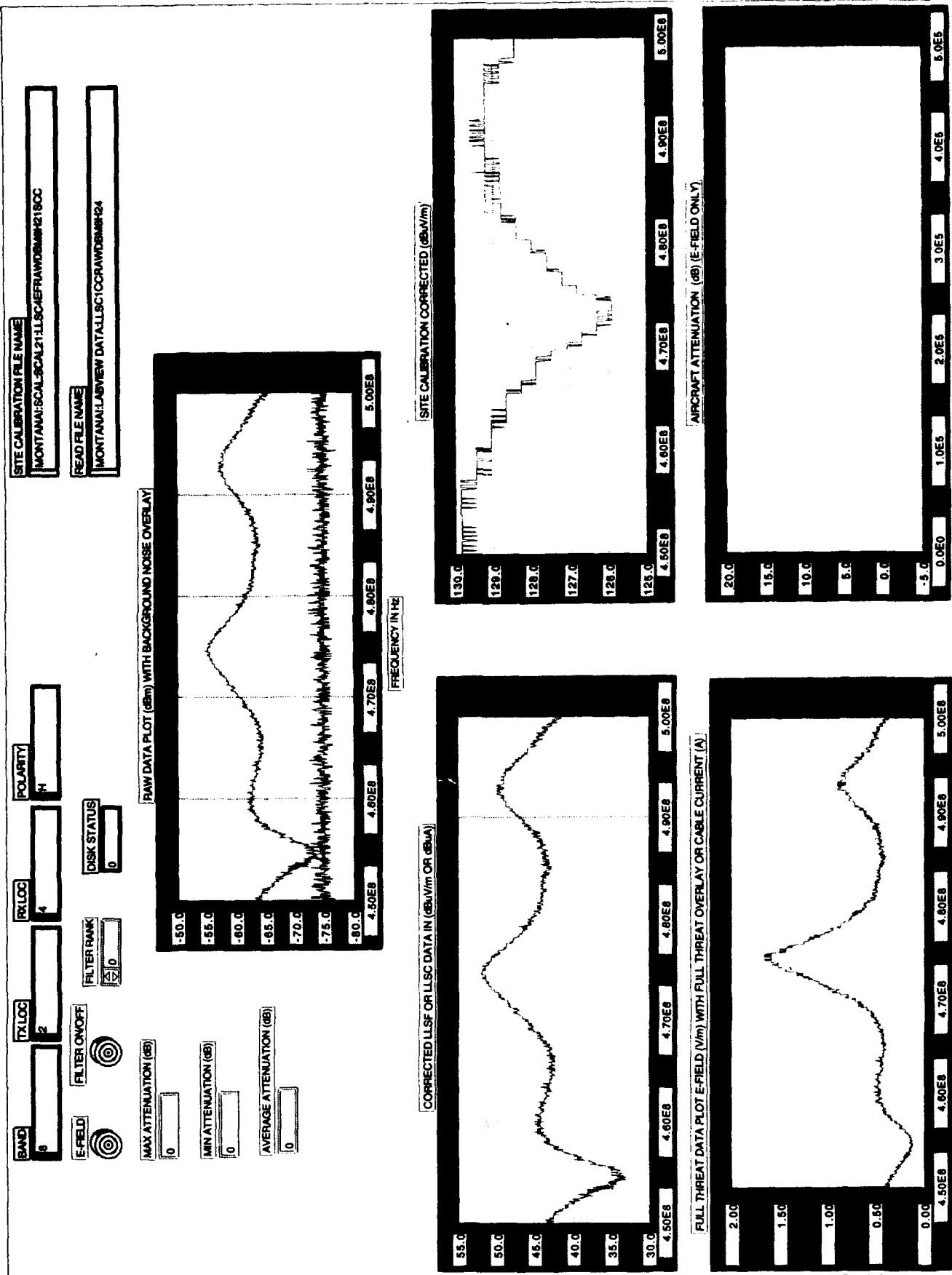










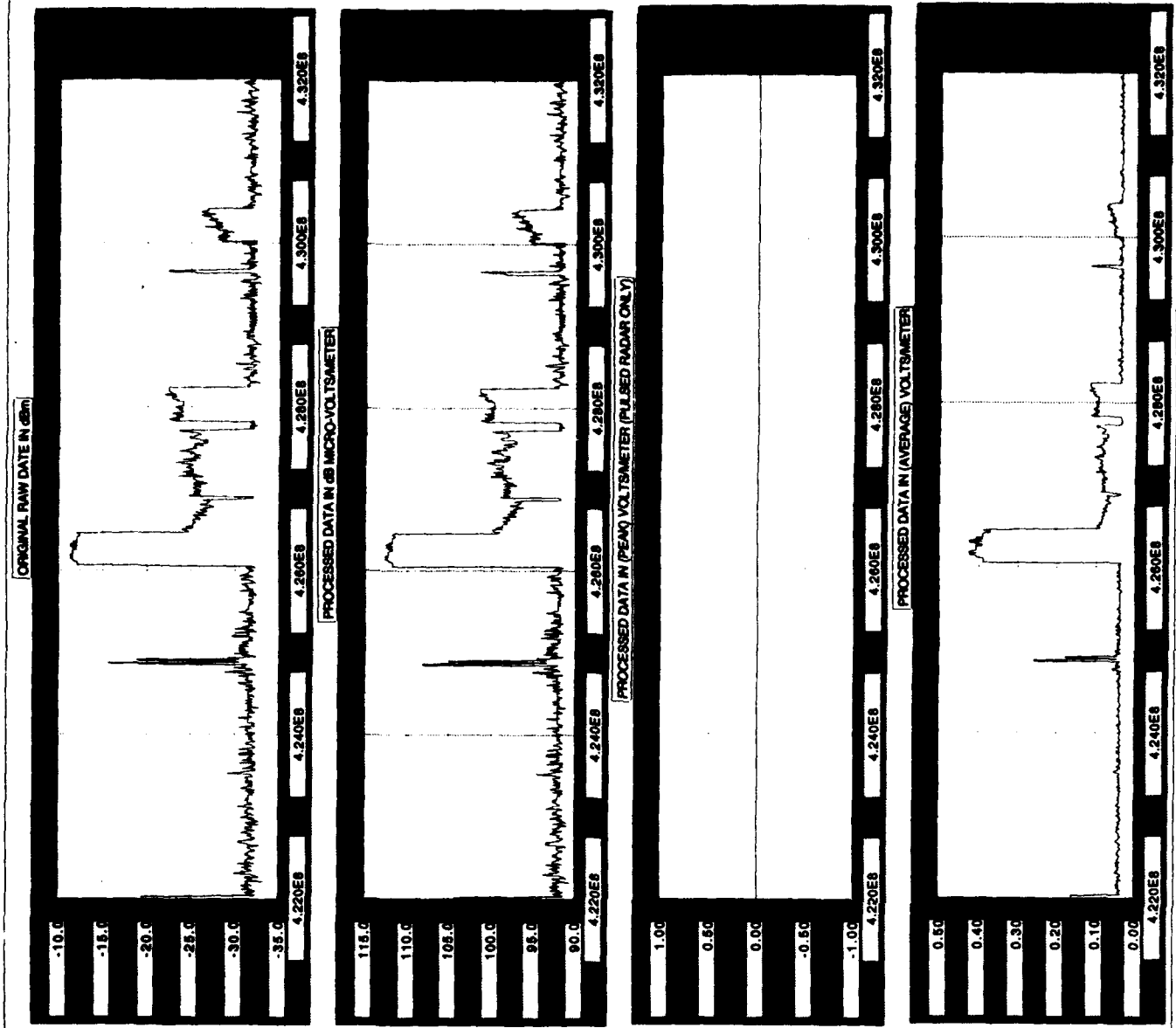


SECTION 3
FLIGHT TEST DATA PLOT DESCRIPTION

The flight test data plots (sample on the following page) each contain the following information:

- Source radar/transmitter duty cycle (DUTY CYCLE)
 - Source ERP (ERP)
 - Name of the source transmitter (RADAR NAME)
 - Receive antenna factor for source frequency range (ANTENNA FACTOR)
 - Approximate range from the transmitter (RANGE)
 - S-76 altitude during test (ALTITUDE)
 - Approximate radius from the transmitter (RADIUS)
 - File name of the stored data (DATA FILE NAME)
 - Calculated expected peak E-Field level in V/m (ESTIMATED E-FIELD LEVEL (PEAK) V/m)
 - Calculated expected average E-Field level for, **pulsed transmitters only**, in V/m.
 - Original flight test Data Plot in dBm (ORIGINAL RAW DATA PLOT IN dBm)
 - Corrected data plot in dBuV/m (PROCESSED DATA IN dB MICRO-VOLTS/METER)
 - Original data converted to peak E-Field level data plot, **pulsed transmitters only**, in V/m (PROCESSED DATA IN (PEAK) VOLTS/METER)
 - Original data converted to average E-Field level in V/m data plot (PROCESSED DATA IN (AVERAGE) VOLTS/METER)
-

SECTION 3-1
PAVE PAWS DATA PLOTS



DUTY CYCLE 10.00

RF 12.548

ANTENNA FACTOR (dB) 16.8

RADAR NAME PAWPAWS

RANGE (M) 10680

ALTITUDE (M) 2000

RADIUS (M) 10747.75

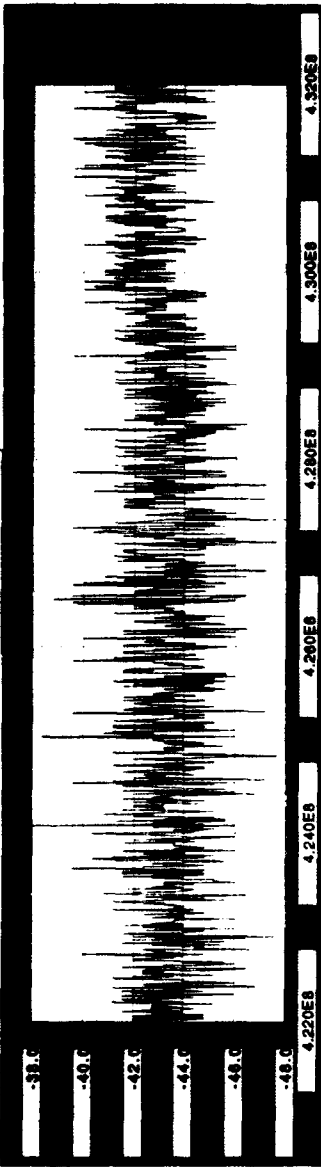
DATA FILE NAME MONTANA.FLYBYDATA.PAWPAWSR10680A2000

ESTIMATED E-FIELD LEVEL (PEAK) V/M 9.00

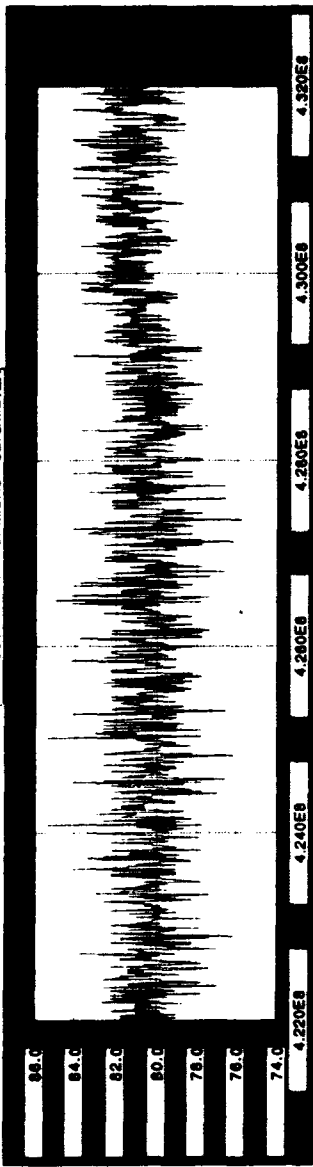
ESTIMATED E-FIELD LEVEL (AVERAGE) V/M 9.00

DEK ERROR 0.00

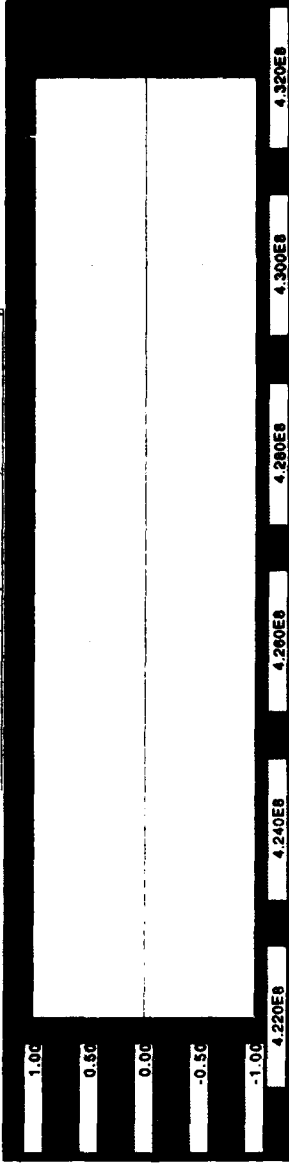
ORIGINAL RAW DATA IN dBm



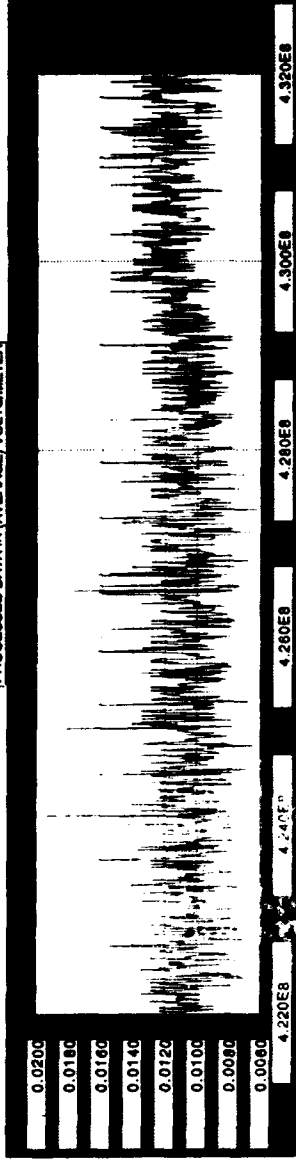
PROCESSED DATA IN dB MICRO-VOLTMETER



PROCESSED DATA IN (PEAK) VOLTMETER (PULSED RADAR ONLY)



PROCESSED DATA IN (AVERAGE) VOLTMETER



DUTY CYCLE
5 0.00

DISK ERROR
0.00

RADAR NAME
PAVEPAWS

ANTENNA FACTOR (dB)
16.8

RANGE (ft)
9280

ALTITUDE (ft)
1000

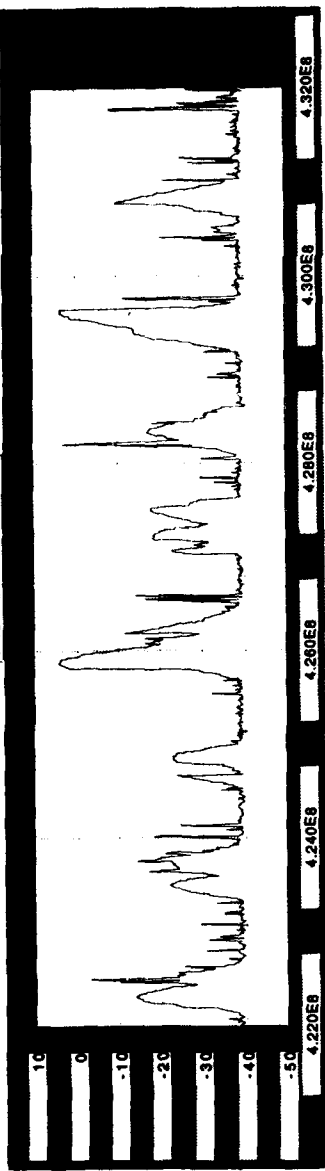
RADIUS (ft)
5373.86

DATA FILE NAME
MONTANA:FLYBYDATA:PAVEPAWSR5290A1000

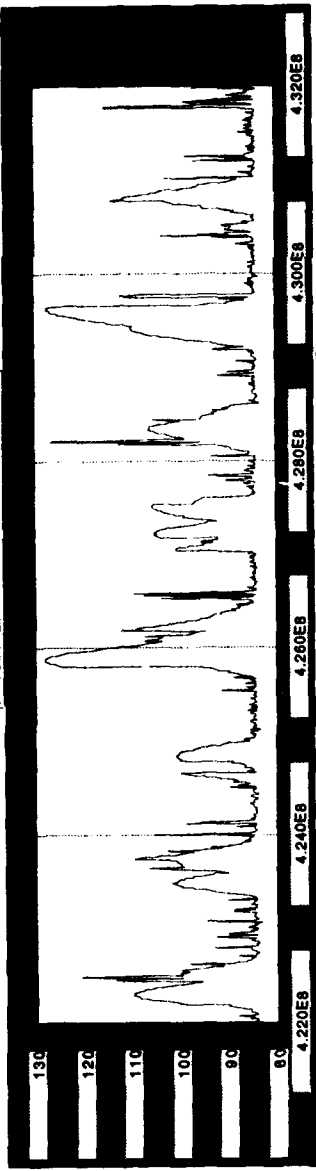
ESTIMATED E-FIELD LEVEL (PEAK) V/M
12.18

ESTIMATED E-FIELD LEVEL (AVERAGE) V/M
0.00

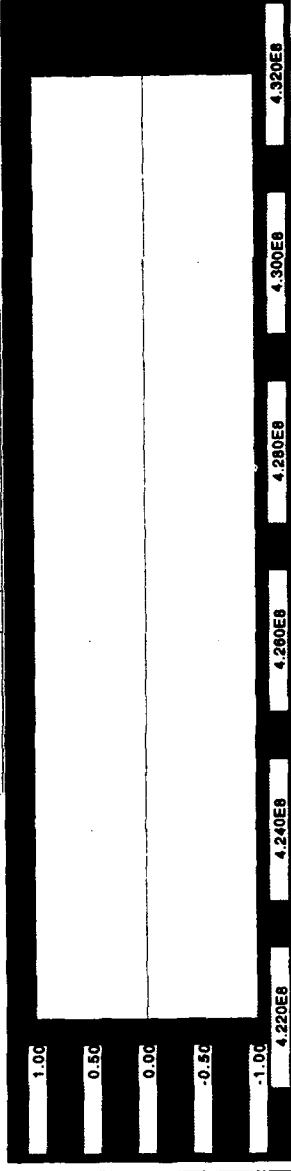
ORIGINAL RAW DATE IN dBm



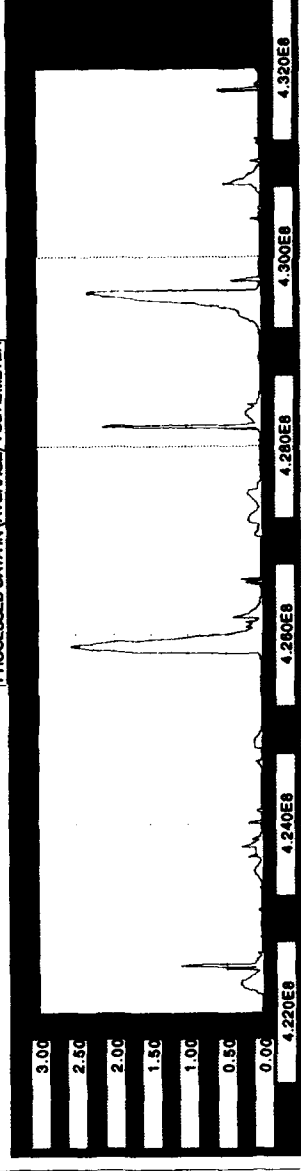
PROCESSED DATA IN dB MICRO-VOLTS/METER



PROCESSED DATA IN (PEAK) VOLTS/METER (PULSED RADAR ONLY)



PROCESSED DATA IN (AVERAGE) VOLTS/METER



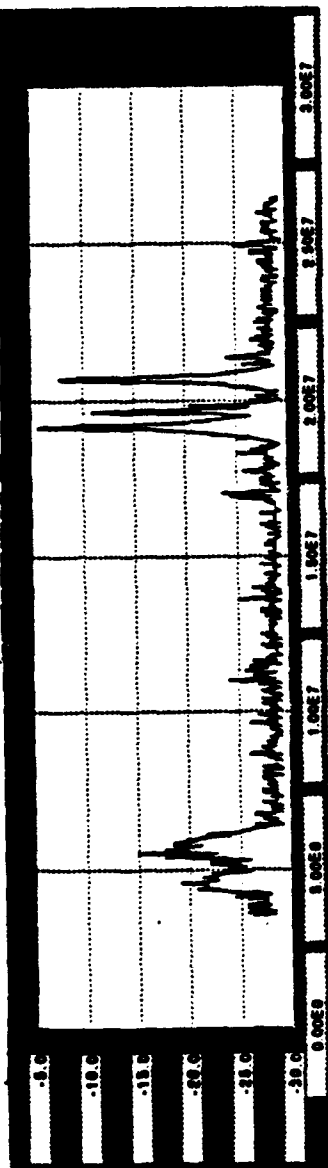
DUTY CYCLE 10.00
RFP 12.5dB
DISK ERROR 0.00
RANGE (M) 500
RADAR NAME PAVEPAWS
ANTENNA FACTOR (dB) 16.8
ALTITUDE (M) 1000
RADIUS (M) 1118.03

DATA FILE NAME
MONTANA:FLYBYDATA:PAVEPAWSR500A1000

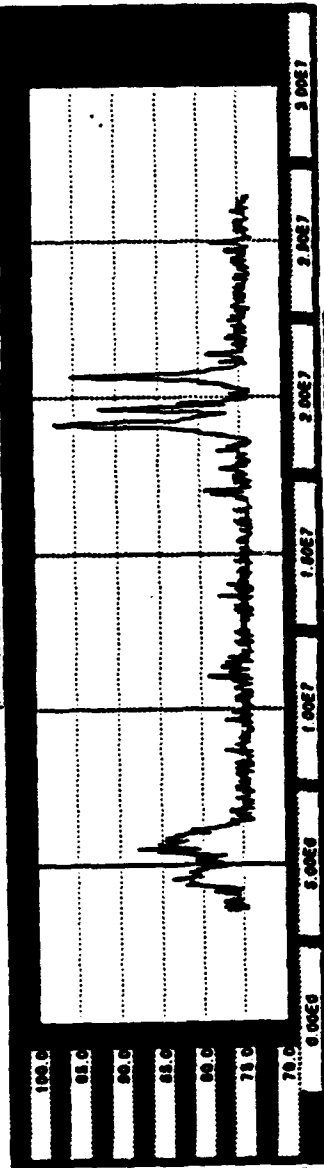
ESTIMATED E-FIELD LEVEL (PEAK) V/M 58.53
ESTIMATED E-FIELD LEVEL (AVERAGE) V/M 0.00

SECTION 3-2
OTHB PHASE I DATA PLOTS

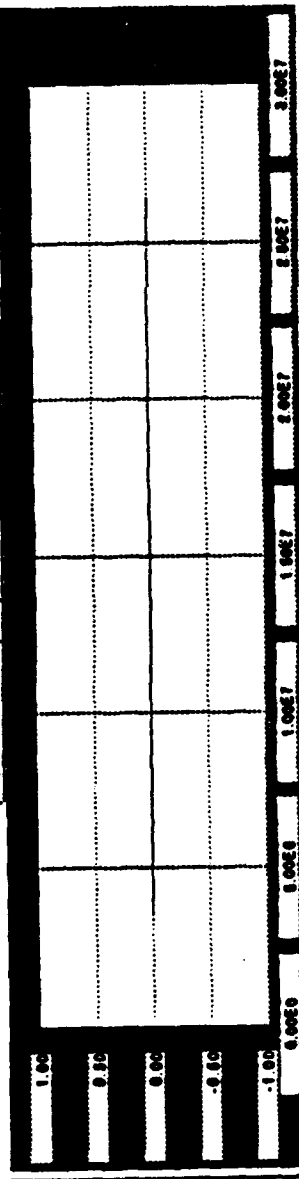
ORIGINAL RAW DATA IN GDB



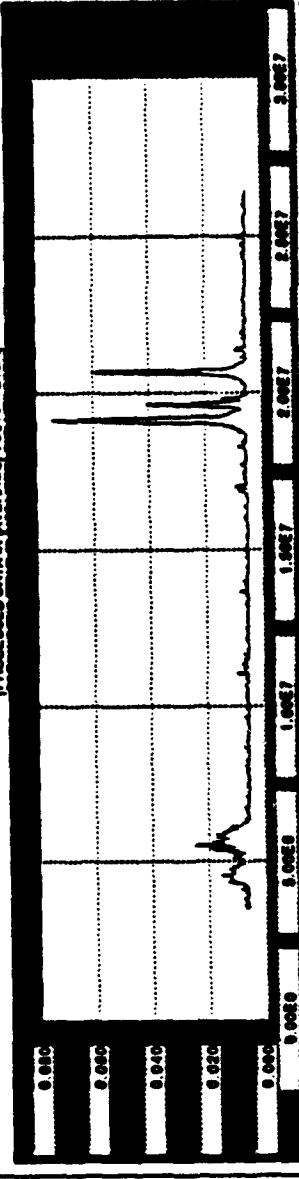
PROCESSED DATA IN MICRO-VOLTMETER



PROCESSED DATA IN PEAK VOLTMETER PULSED RADAR ONLY



PROCESSED DATA IN (AVERAGE) VOLTMETER



DUTY CYCLE
50

SPY
1518123

RADAR NAME
CIR

ANTENNA FACTOR (dB)
-6

RANGE (ft)
5000

ALTITUDE (ft)
750

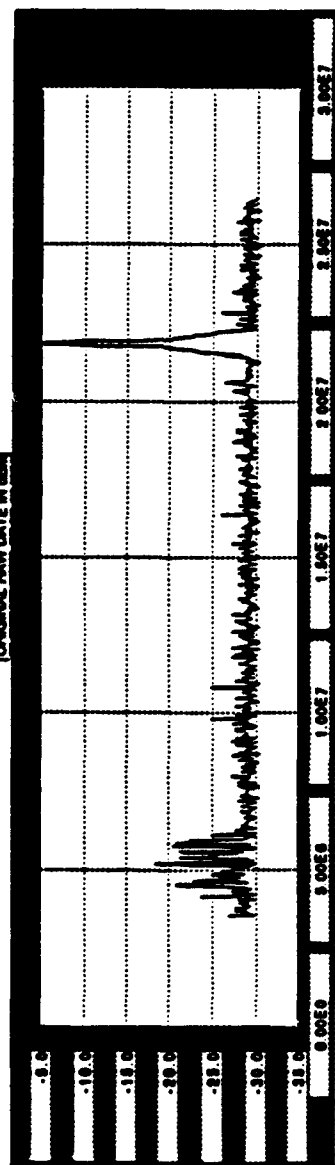
RADAR ID
1333 00

DATA FILE NAME
HARD DRIVE.FLYBYDATA OTHERS.DAT750

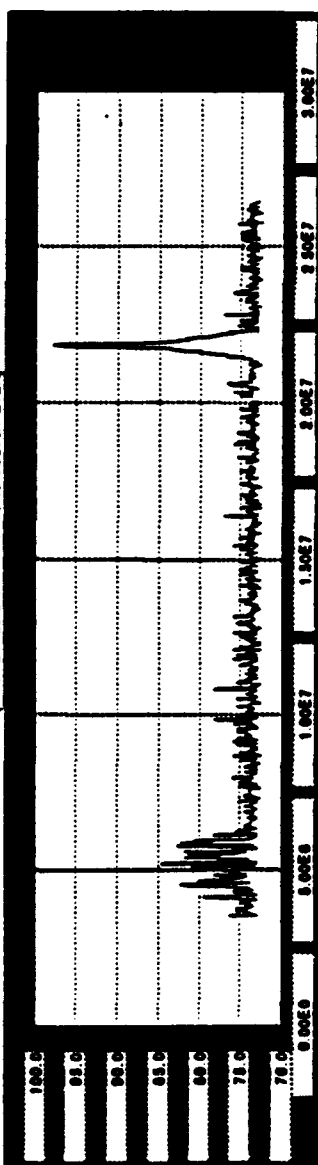
ESTIMATED E-FIELD LEVEL (PEAK V/M)
1.74

ESTIMATED E-FIELD LEVEL (AVERAGE V/M)
0.90

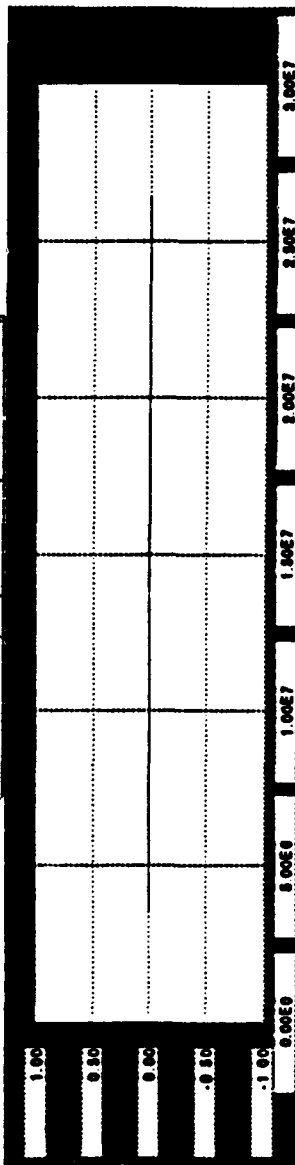
ORIGINAL RAW DATA IN GHz



PROCESSED DATA IN GHz MICROVOLT/METER



PROCESSED DATA IN PEAK VOLT/METER (PULSED RADAR ONLY)



PROCESSED DATA IN (AVERAGE) VOLT/METER



DUTY CYCLE
0.10

SW
0.0123

RADAR NAME
OT-9

ANTENNA FACTOR (dB)
4

RANGE (m)
5200

ALTITUDE (m)
1000

RADIUS (m)
5373.00

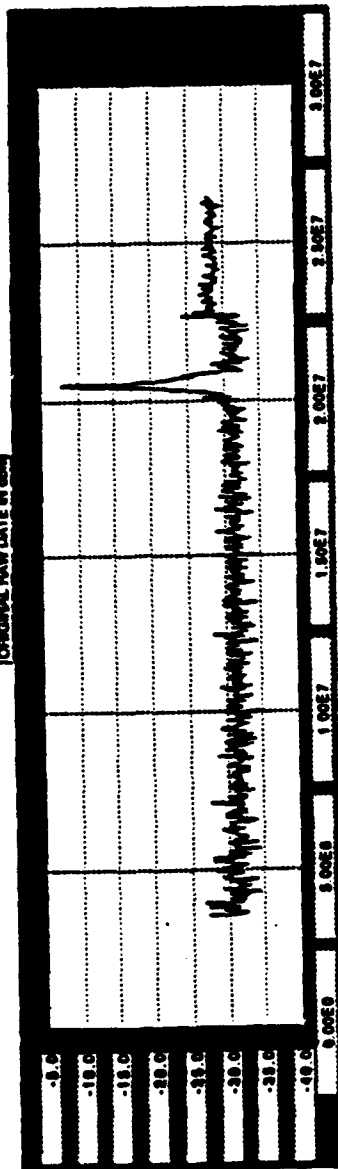
DATA FILE NAME

MACRO DRIVE FL VIB DATA OT-9-00000001000

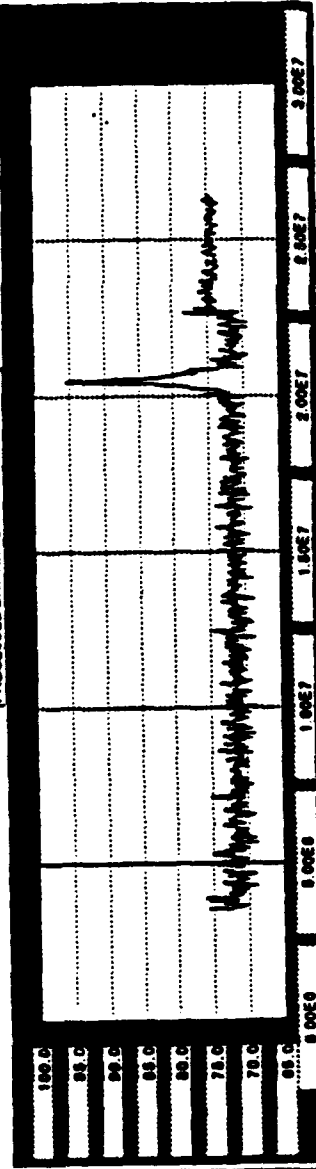
ESTIMATED E-FIELD LEVEL (PEAK) V/M
1.73

ESTIMATED E-FIELD LEVEL (AVERAGE) V/M
0.90

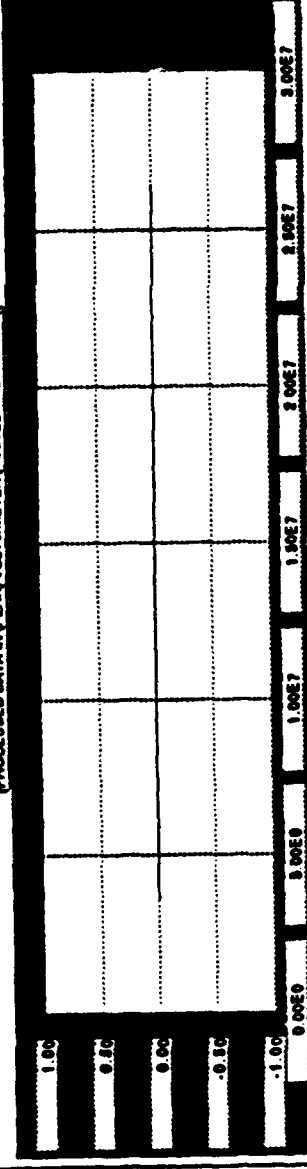
ORIGINAL RAW DATA IN GHz



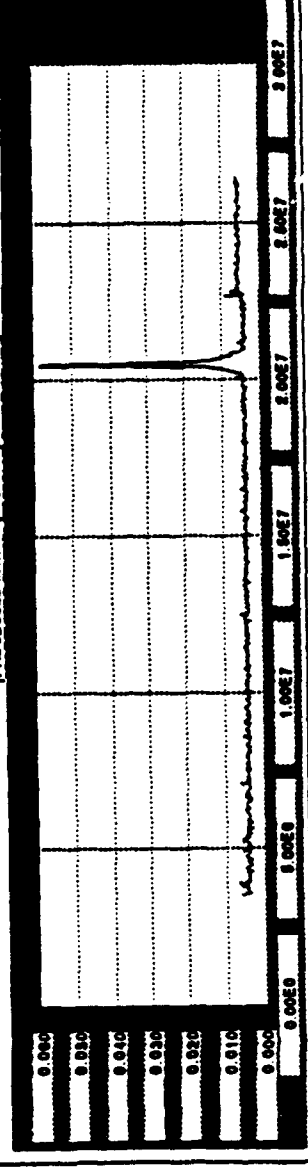
PROCESSED DATA IN GHz MICROVOLT/METER



PROCESSED DATA IN PEAK VOLT/METER (PULSED RADAR ONLY)



PROCESSED DATA IN AVERAGE VOLT/METER

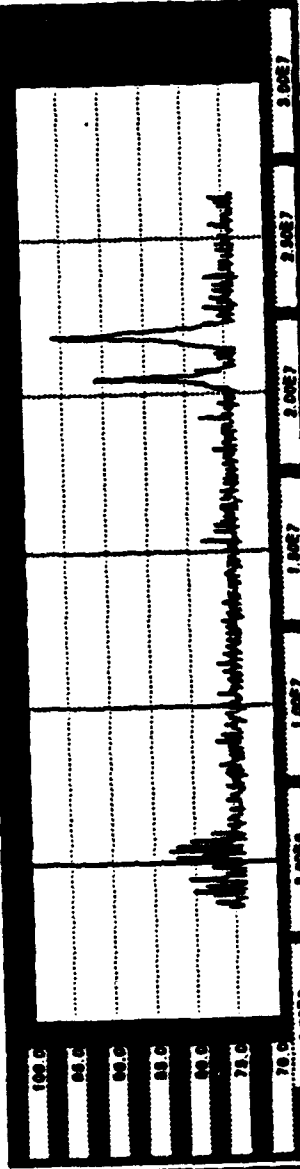


DUTY CYCLE: 0.5
 ANTENNA FACTOR: 1.4
 ALTITUDE: 1000
 RANGE: 1000
 DATA FILE NAME: 0000 DRIVE FLYBY DATA OTHER 1000000000
 ESTIMATED E-FIELD LEVEL (PEAK V/M): 0.01
 ESTIMATED E-FIELD LEVEL (AVERAGE V/M): 0.00

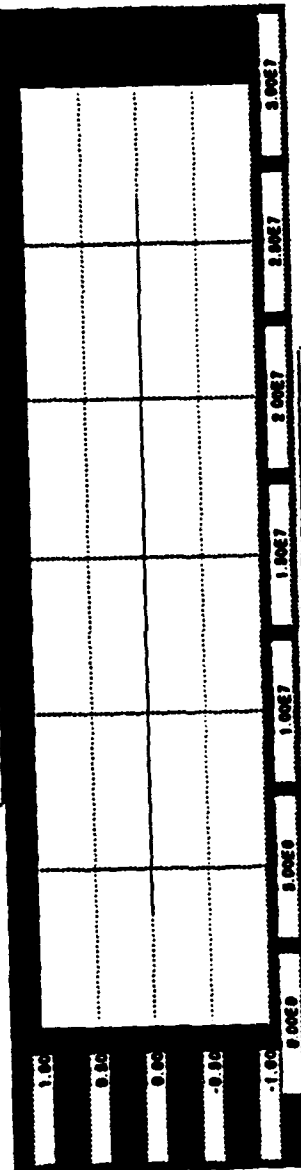
ORIGINAL RAW DATA IN GHz



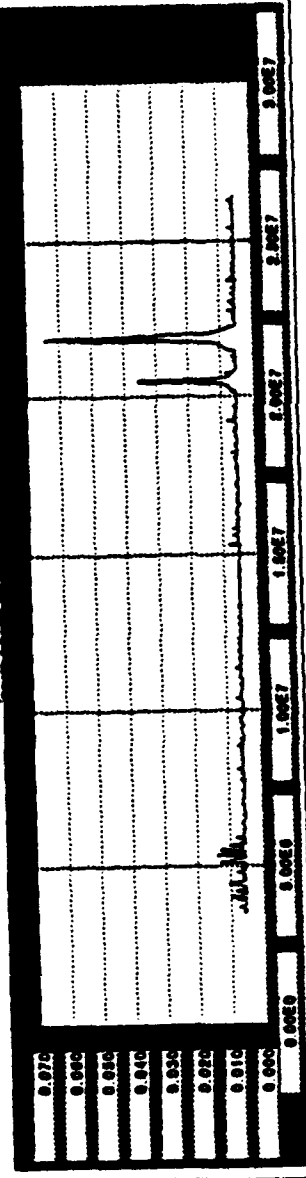
PROCESSED DATA IN GHz MICRO-VOLTMETER



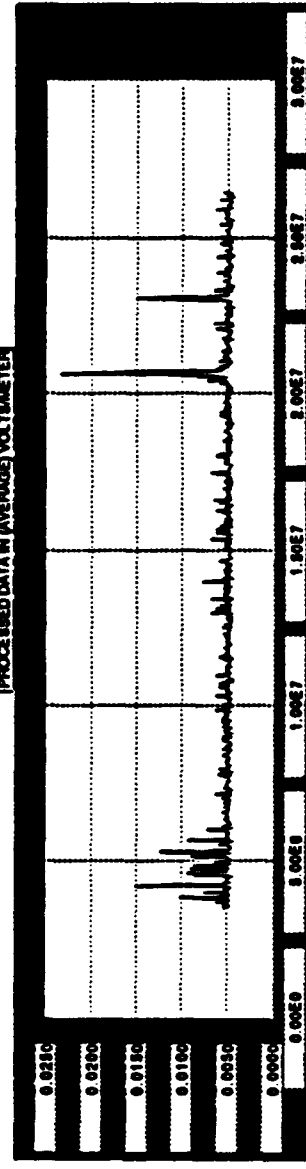
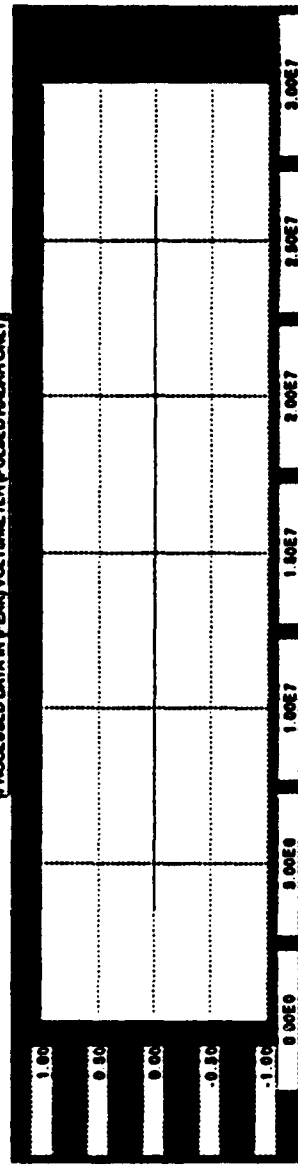
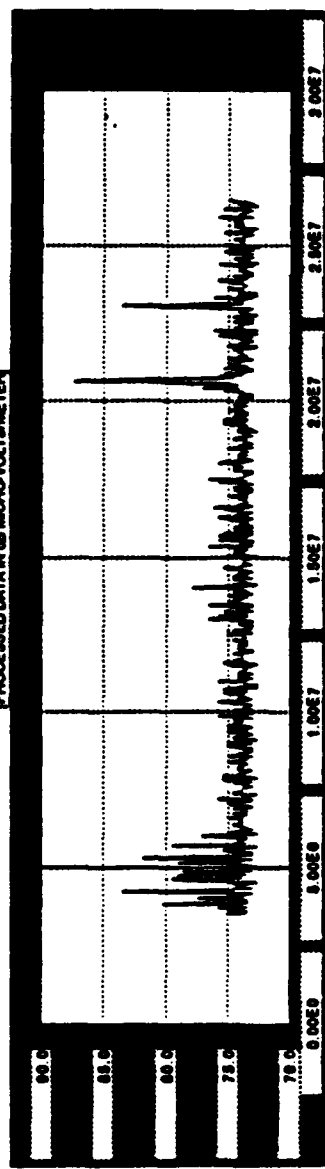
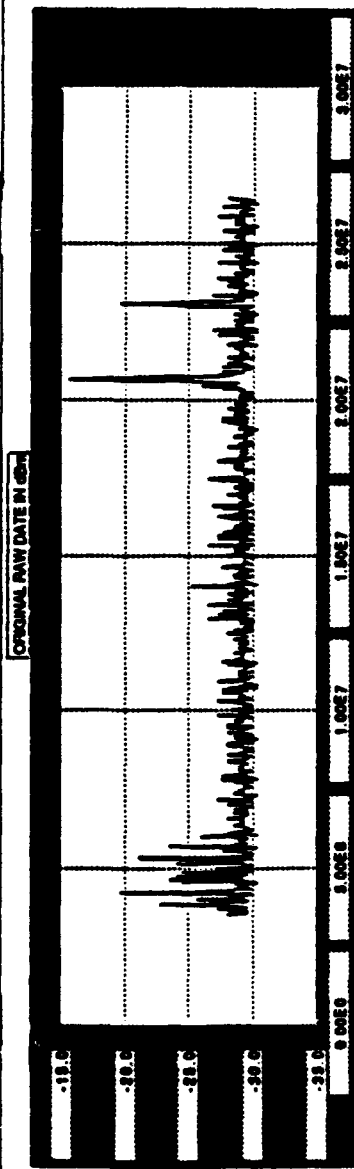
PROCESSED DATA IN PEAK VOLTMETER (PULSED RADAR ONLY)



PROCESSED DATA IN AVERAGE VOLTMETER



CLUT CYCLE	1.00	ANTENNA FACTOR	4	RANGE IN	21100	ALTITUDE IN	1000	RADIUS IN	21103.00
DATA FILE NAME	HARD DRIVE FL10YDATA.01H0021100A1000								
ESTIMATED E-FIELD LEVEL	0.44	ESTIMATED E-FIELD LEVEL	0.49						

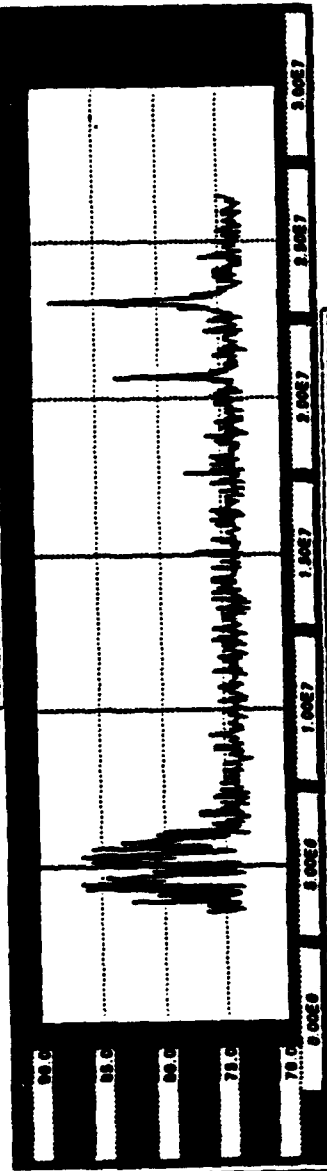


DUTY CYCLE: 50.0
 RADAR NAME: OTH-6
 RANGE: 21100
 ALTITUDE: 1500
 DATA FILE NAME: JUND DRIVE-FLYBYDATA OTH-6PRT1120A1800
 ESTIMATED E-FIELD LEVEL (PEAK) V/M: 0.44
 ESTIMATED E-FIELD LEVEL (AVERAGE) V/M: 0.09
 ANTENNA FACTOR: 1011E9
 RADIUS: 21175.00

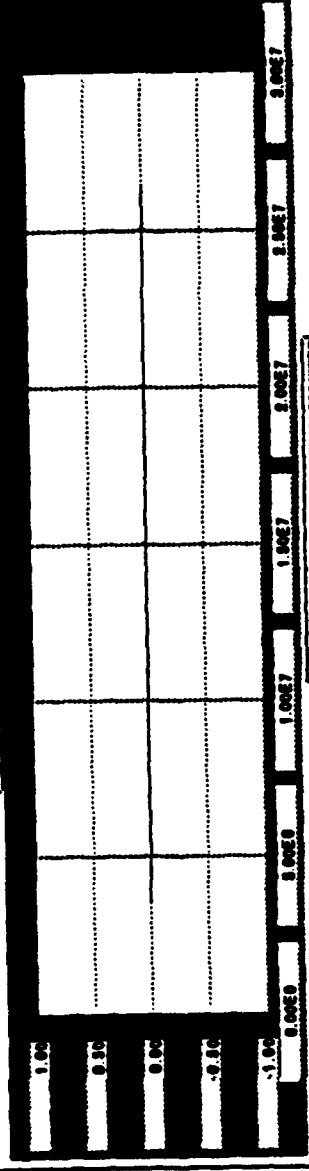
ORIGINAL RAW DATA IN GUN



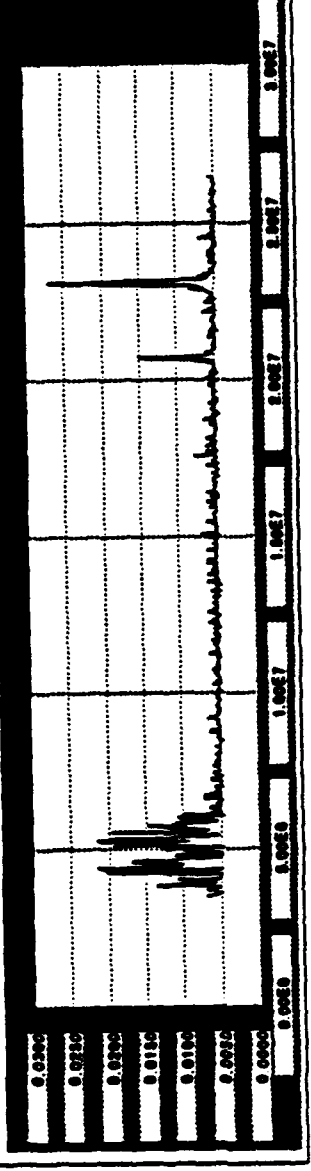
PROCESSED DATA IN MICRO-VOLTMETER



PROCESSED DATA IN PEAK VOLTMETER (PULSED RADAR ONLY)



PROCESSED DATA IN AVERAGE VOLTMETER



DATA FILE NAME
HARD DRIVE FLYBYDATA 07H0800400A1000

ESTIMATED E-FIELD LEVEL PEAK VAC
0.38

ESTIMATED E-FIELD LEVEL AVERAGE VAC
0.09

DUTY CYCLE
50

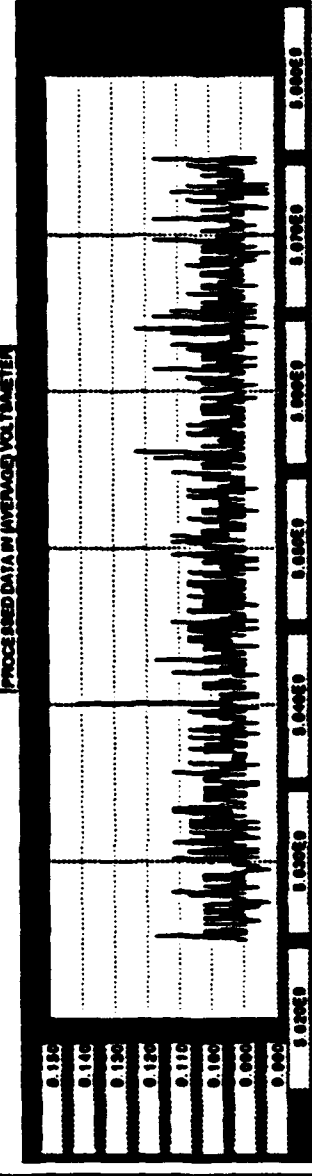
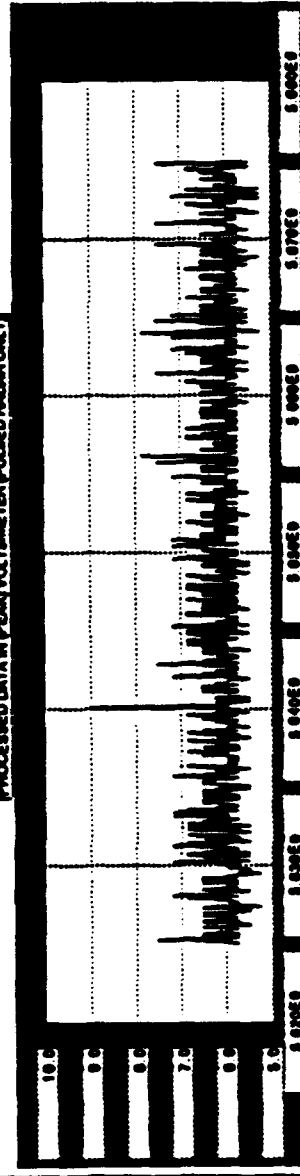
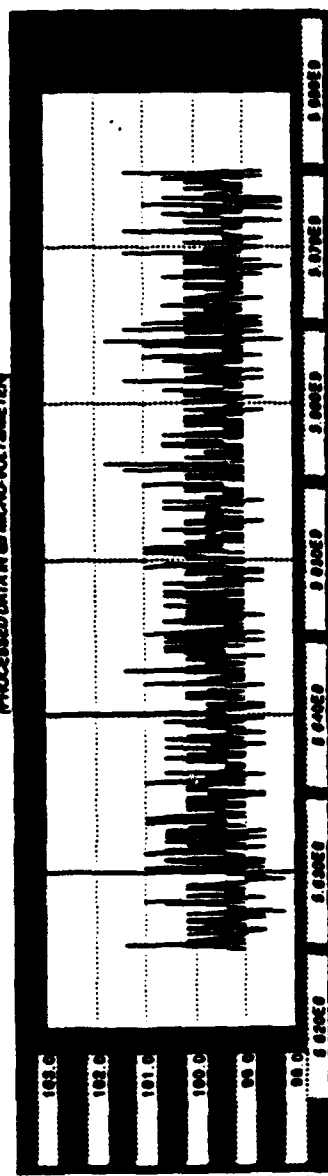
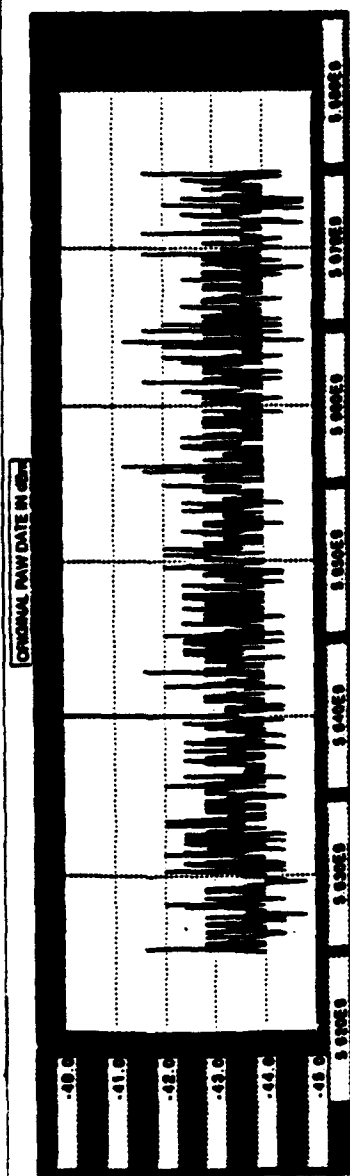
ANTENNA FACTOR (dB)
4

ALTITUDE (ft)
1000

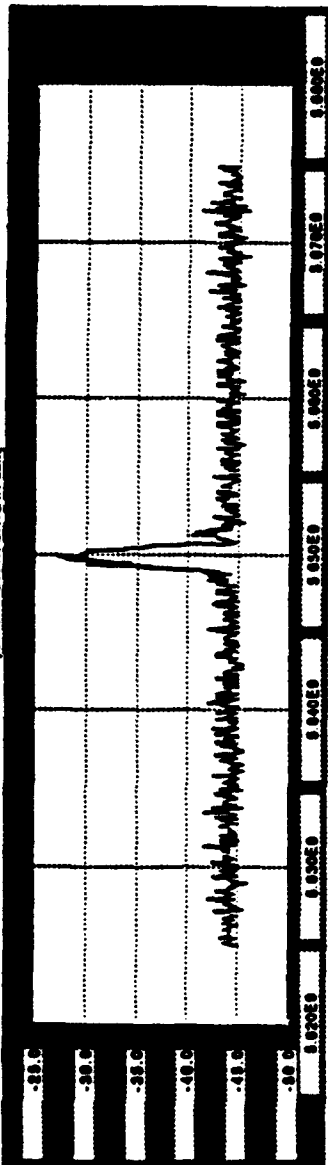
RANGE (ft)
20400

RADIUS (ft)
20448.00

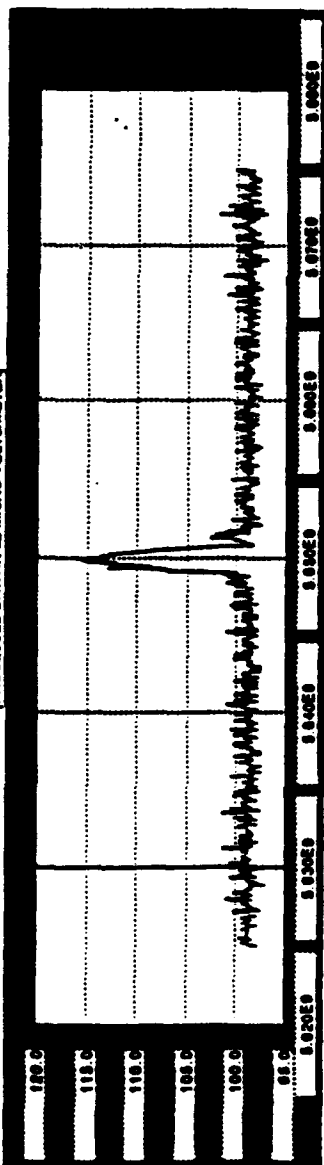
SECTION 3-3
FPS-16 DATA PLOTS

[illegible]

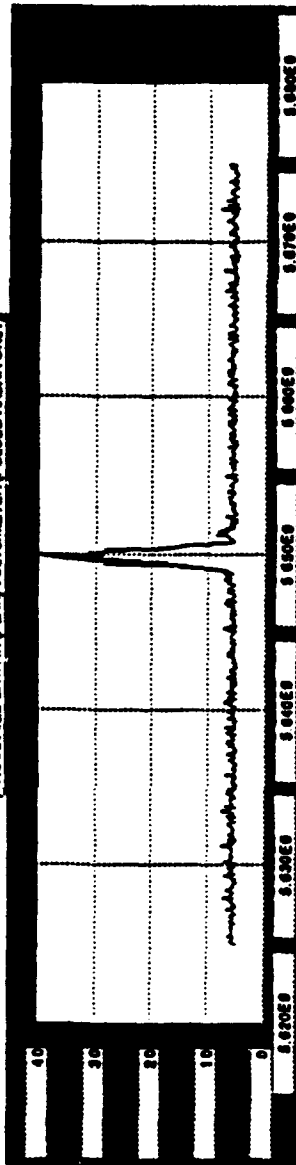
ORIGINAL RAW DATA IN GHz



PROCESSED DATA IN GHz MICROVOLT/METER



PROCESSED DATA IN PEAK VOLT/METER (PULSED RADAR ONLY)



PROCESSED DATA IN AVERAGE VOLT/METER



DUTY CYCLE

50.00

ANTENNA FACTOR (dB)

5.0

RADAR NAME

77910

RANGE (m)

1200

ALTITUDE (m)

1200

RADAR ON

0077.00

DATA FILE NAME

HARD DRIVE A:\VTDATA\77910R000001000

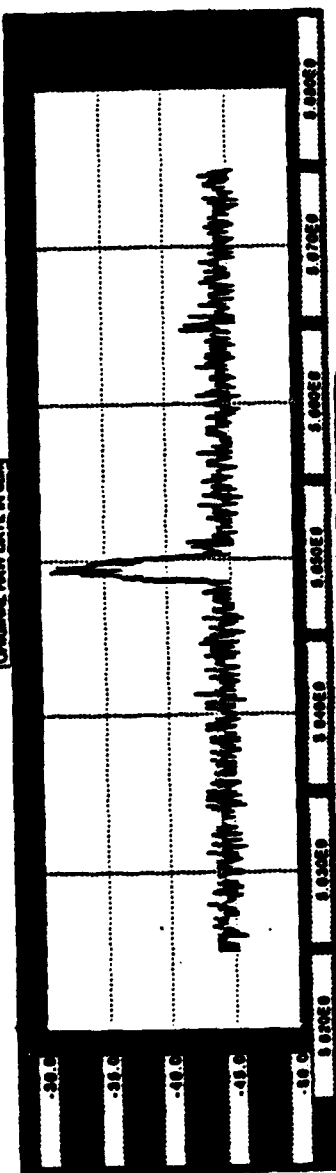
ESTIMATED E-FIELD LEVEL (PEAK) V/M

008.00

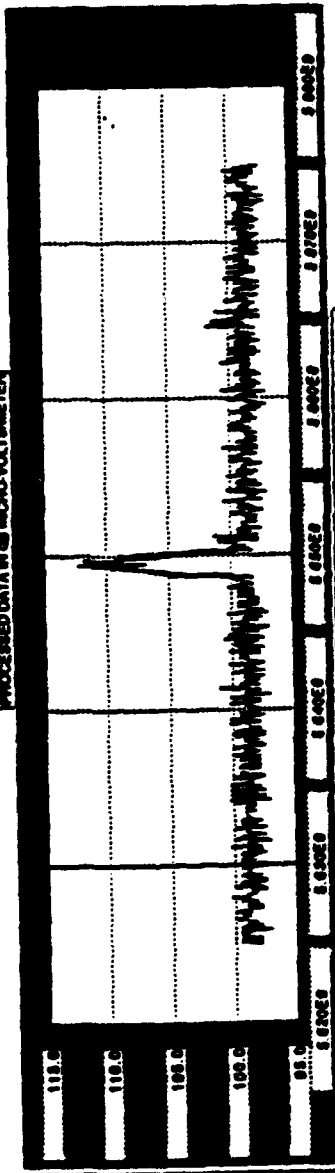
ESTIMATED E-FIELD LEVEL (AVERAGE) V/M

11.00

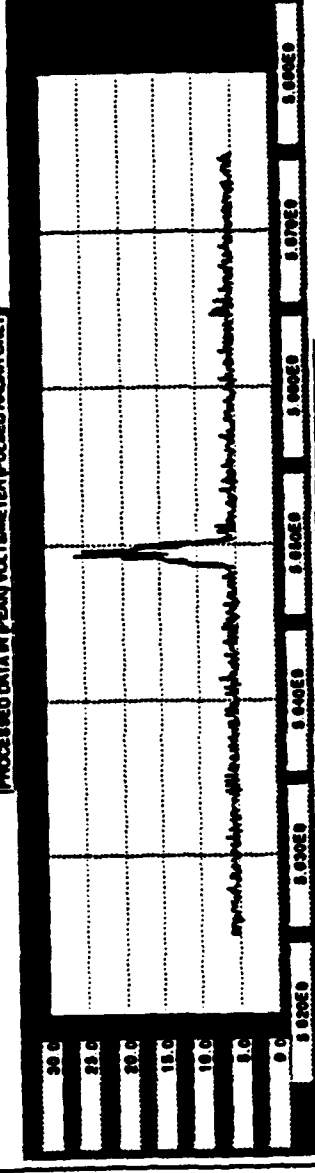
ORIGINAL RAW DATA IN GUN



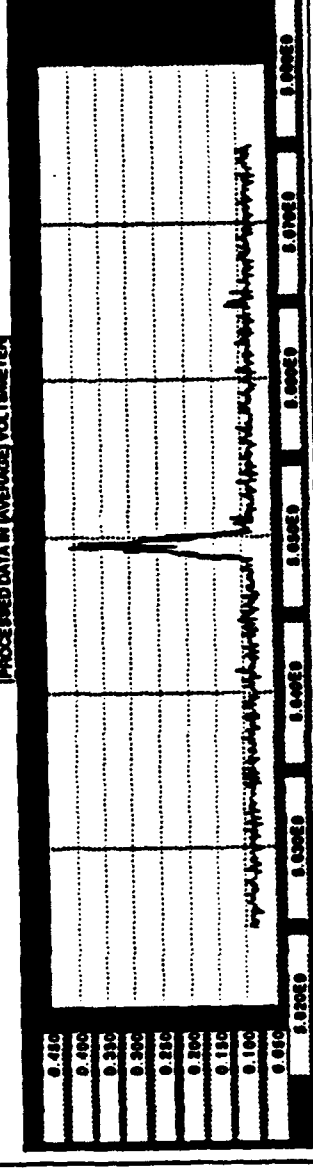
PROCESSED DATA IN MICRO-VOLTMETER



PROCESSED DATA IN PEAK VOLTMETER (PULSED RADAR ONLY)



PROCESSED DATA IN (AVERAGE) VOLTMETER



DUTY CYCLE
25.00-4

PADAR NAME
PPS10

RANGE IN
0000

GMT
15 0000

ANTENNA FACTOR IN
30

ALTITUDE IN
1200

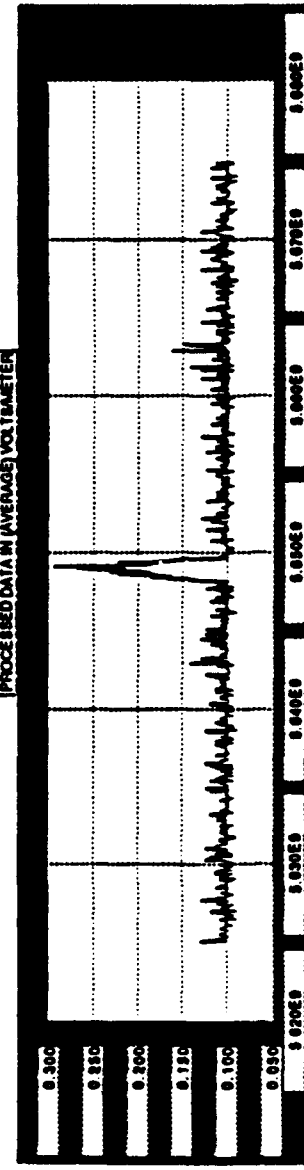
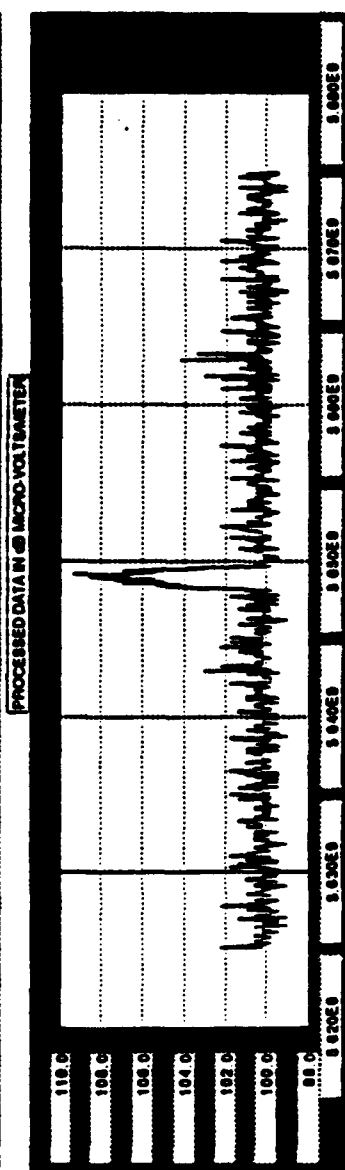
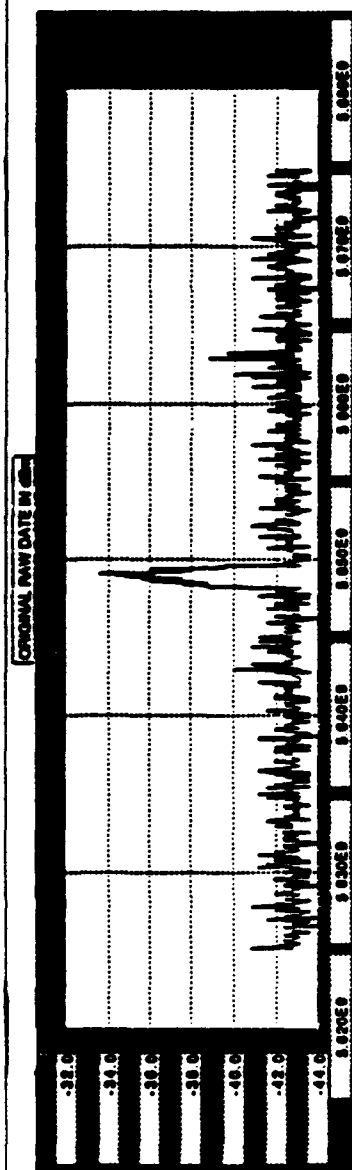
RADAR IN
0700.40

DATA FILE NAME

WIND DRIVE FLYBYDATA PPS10RADAR041200

ESTIMATED E-FIELD LEVEL (PEAK) V/M
437.50

ESTIMATED E-FIELD LEVEL (AVERAGE) V/M
11.50



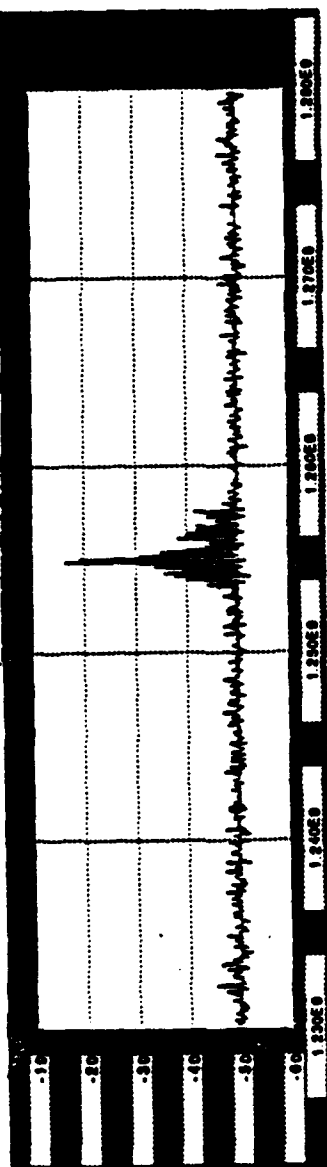
DUTY CYCLE	0.48-4	RADAR NAME	SPB10	FRANCE #	9280
SPC	2000	ANTENNA FACTOR	30	ALTITUDE #	1000
				RADAR ID	5400 02

DATA FILE NAME
HARD DRIVE FLYBYDATA FFB16R350041300

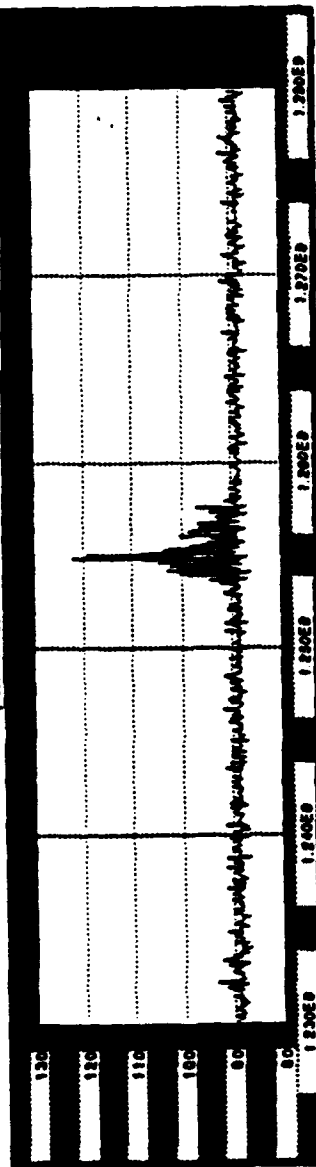
ESTIMATED 2-FIELD LEVEL (PEAK) VAS	ESTIMATED 2-FIELD LEVEL (AVERAGE) VAS
304.88	14.87

SECTION 3-4
FPS-65 DATA PLOTS

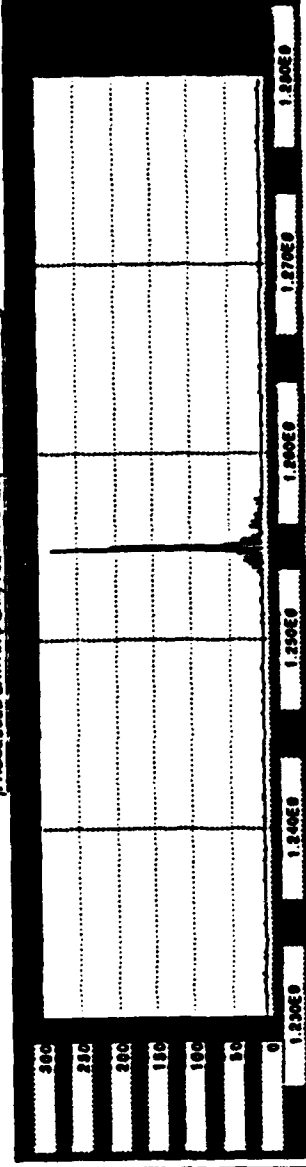
ORIGINAL RAW DATA IN GHz



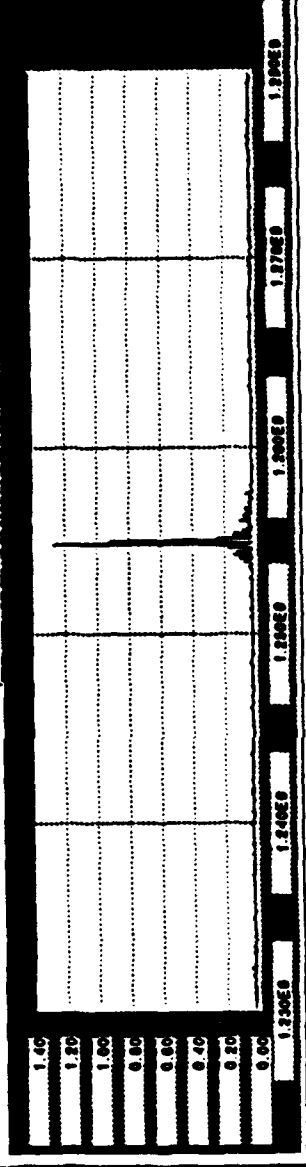
PROCESSED DATA IN GHz MICRO-VOLTMETER



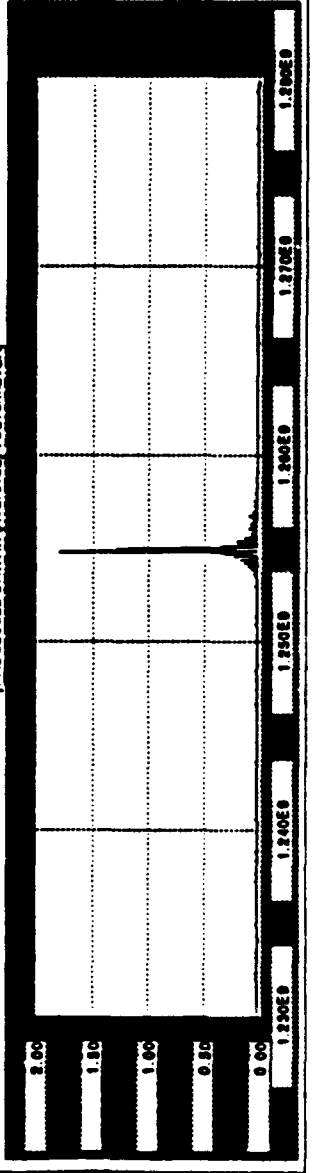
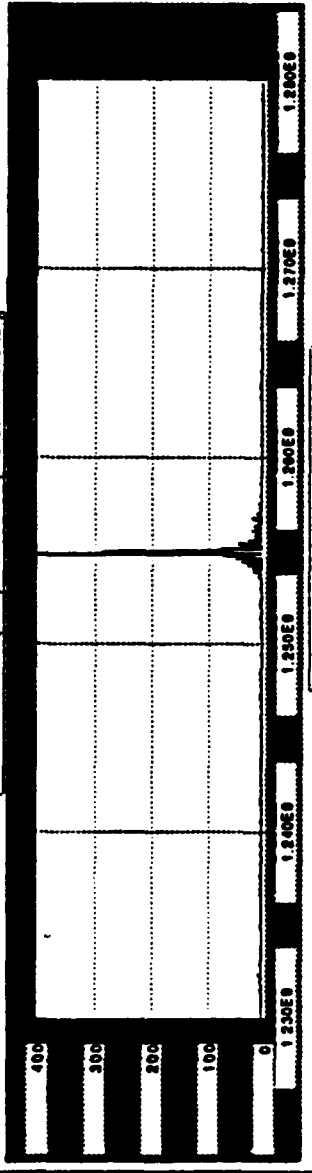
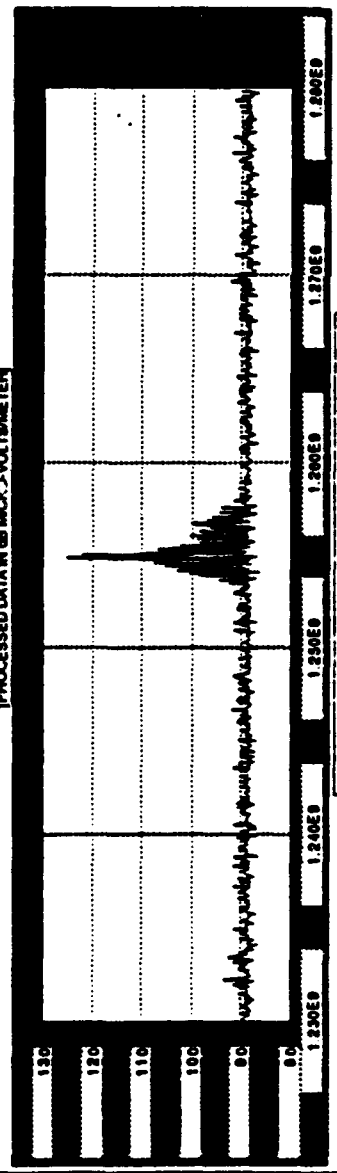
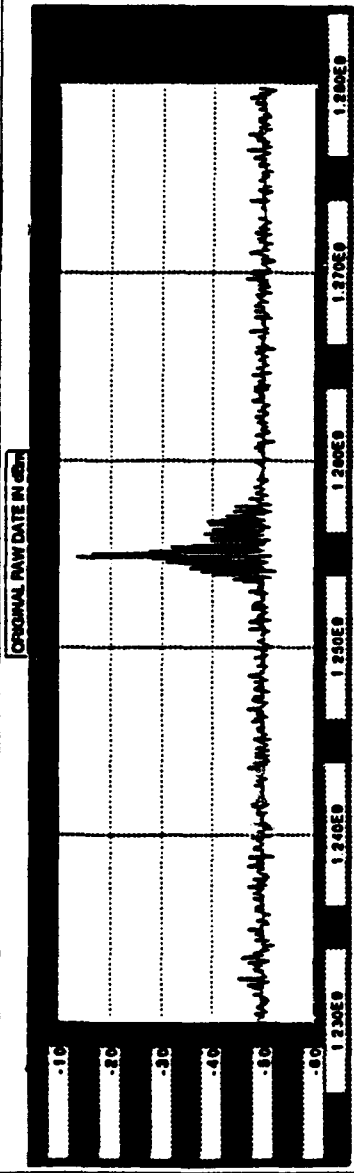
PROCESSED DATA IN PEAK VOLTMETER (PULSED RADAR ONLY)



PROCESSED DATA IN (AVERAGE) VOLTMETER



DUTY CYCLE	0.250	ANTENNA FACTOR (dB)	31.5	RANGE (m)	1000	ALTITUDE (m)	1000	RADIUS (m)	1000
DATA NAME	HARD DRIVE FLYBY DATA 7P000R1000A1000								
ESTIMATED E-FIELD LEVEL (PEAK) V/M	0.10								
ESTIMATED E-FIELD LEVEL (AVERAGE) V/M	0.10								



DUTY CYCLE: 0.250

ANTENNA FACTOR: 31.8

RANGE (ft): 10800

ALTITUDE (ft): 1800

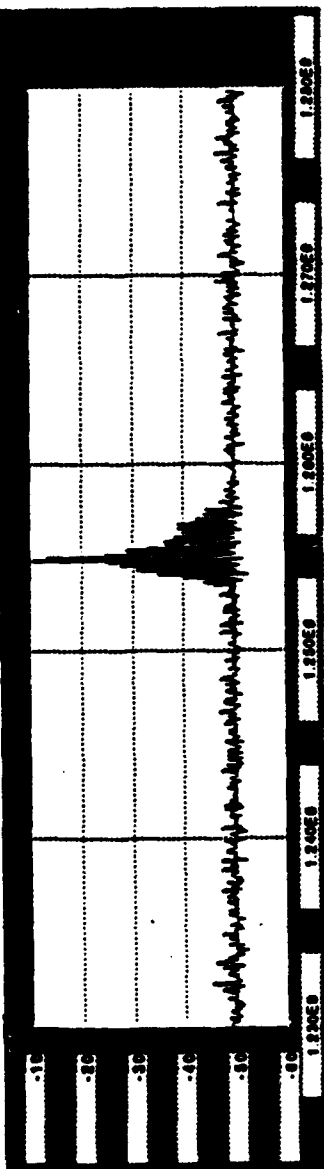
RADIUS (ft): 10000.00

DATA FILE NAME: HARD DRIVE FLYBYDATA FPGSR10600A1800

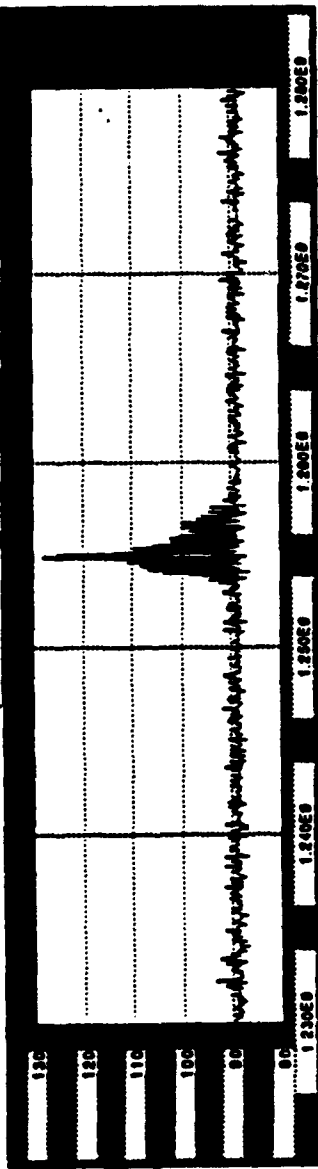
ESTIMATED E-FIELD LEVEL (PEAK VAL): 137.73

ESTIMATED E-FIELD LEVEL (AVERAGE VAL): 5.49

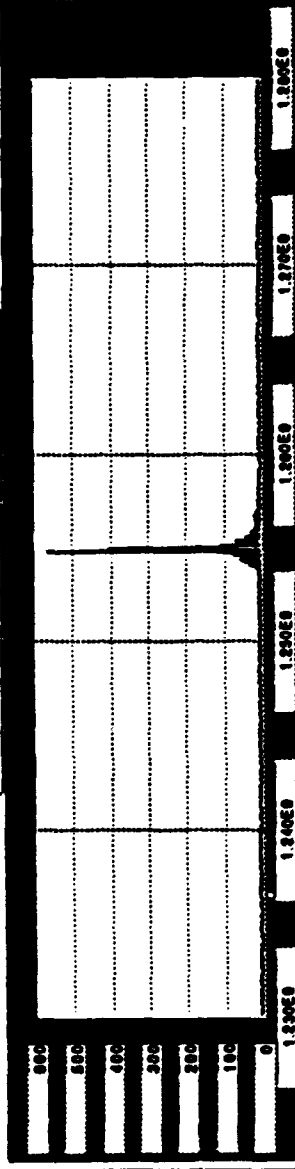
ORIGINAL RAW DATA IN dBm



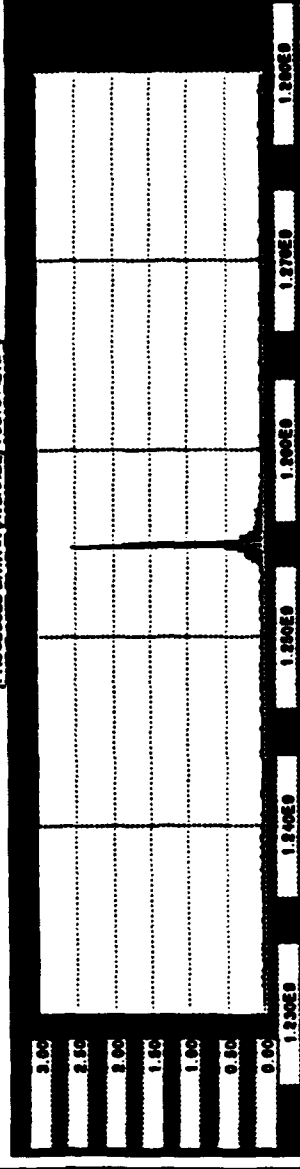
PROCESSED DATA IN dB MICROVOLT/METER



PROCESSED DATA IN PEAK VOLT/METER PULSED NOISE ONLY



PROCESSED DATA IN (AVERAGE) VOLT/METER



DUTY CYCLE

50.000

SW

1.000

POWER NAME

PP000

ANTENNA FACTOR (dB)

31.9

RANGE (m)

5000

ALTITUDE (m)

1000

RADIUS (m)

5000.00

DATA FILE NAME

HARD DRIVE FLYBYDATA PP000R120041800

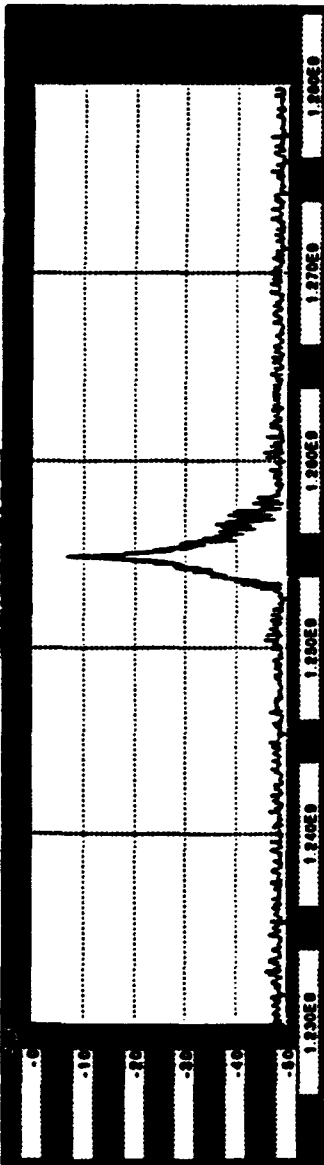
ESTIMATED E-FIELD LEVEL (PEAK) V/M

207.83

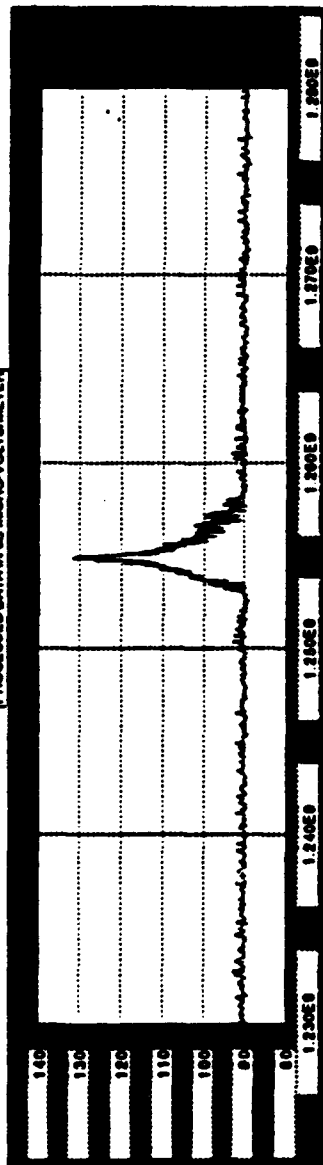
ESTIMATED E-FIELD LEVEL (AVERAGE) V/M

192.81

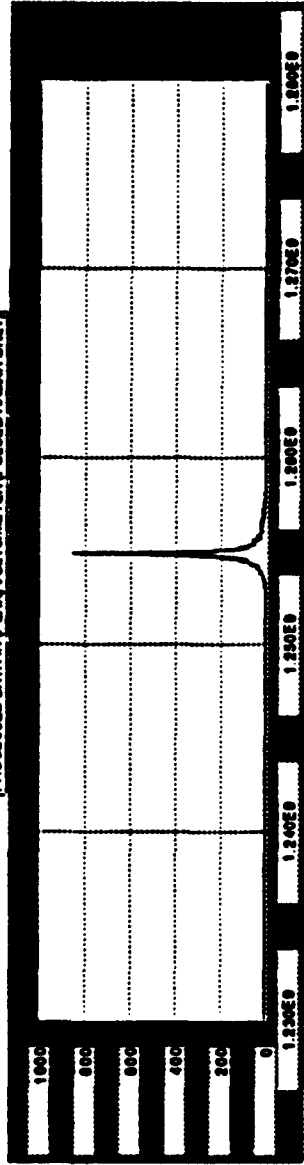
CORRELATION DATA IN GHz



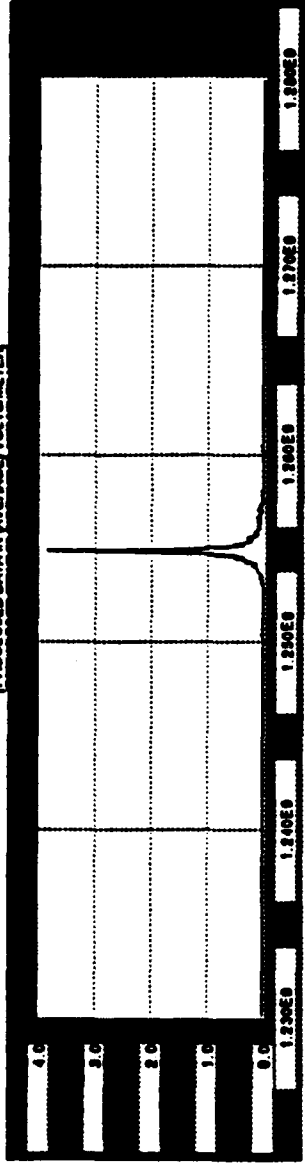
PROCESSED DATA IN dB MICRO VOLTMETER



PROCESSED DATA IN PEAR VOLTMETER (PULSED RADAR ONLY)



PROCESSED DATA IN (AVERAGE) VOLTMETER



DUTY CYCLE
50.00E-3

SWR
1.50.00

RADAR NAME
P7000

ANTENNA FACTOR
11.1

RANGE IN
5200

ALTITUDE IN
1200

RADIUS IN
6400.00

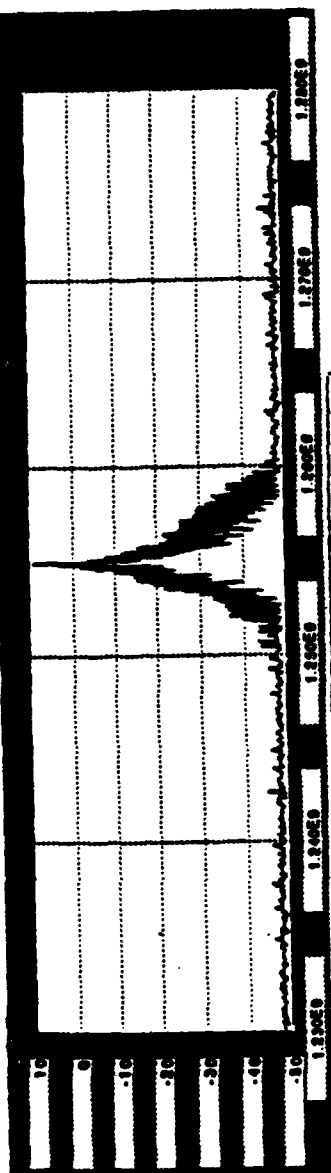
DATA FILE NAME

RAVIO DRIVE FLV9VQDATA P7000000001200

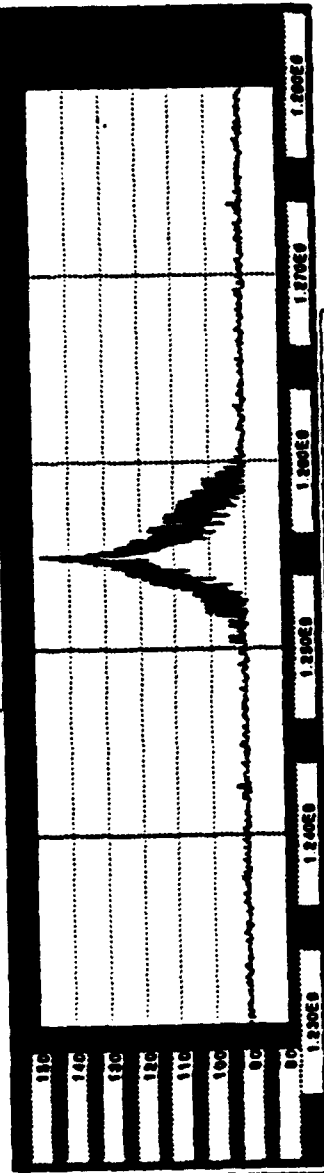
ESTIMATED E-FIELD LEVEL (PEAK) V/M
373.74

ESTIMATED E-FIELD LEVEL (AVERAGE) V/M
12.70

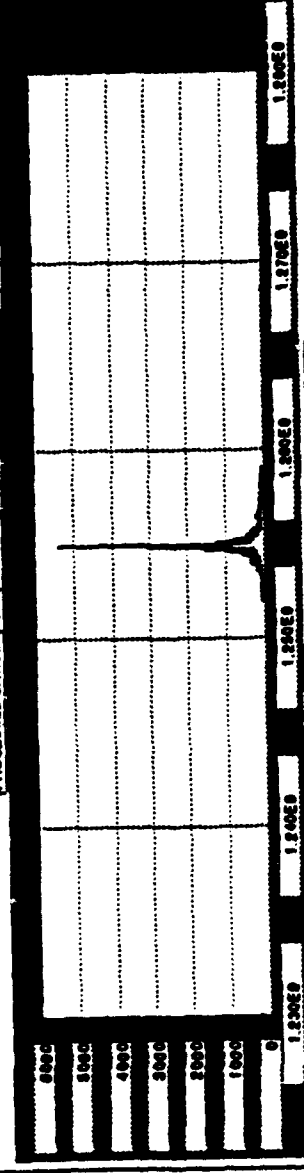
ORIGINAL RAW DATA IN GHz



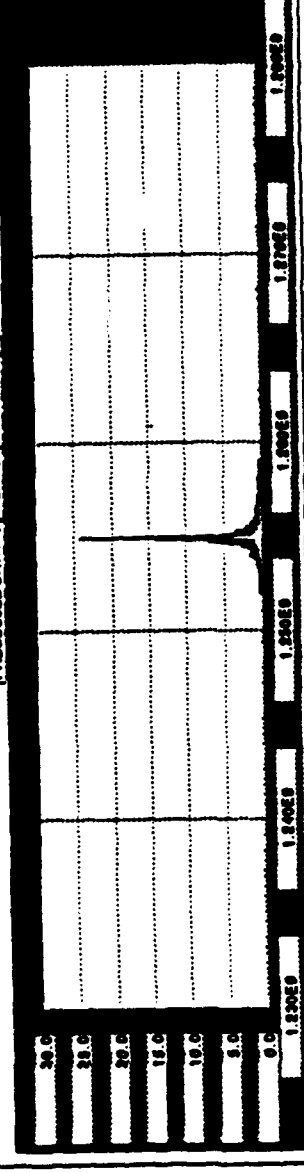
PROCESSED DATA IN GHz MICRO-VOLTMETER



PROCESSED DATA IN PEAK VOLT METER (PULSED RADAR ONLY)



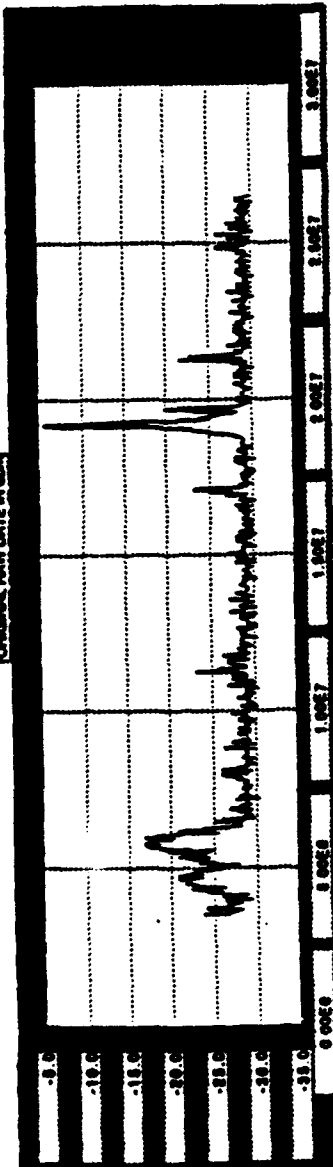
PROCESSED DATA IN AVERAGE VOLT METER



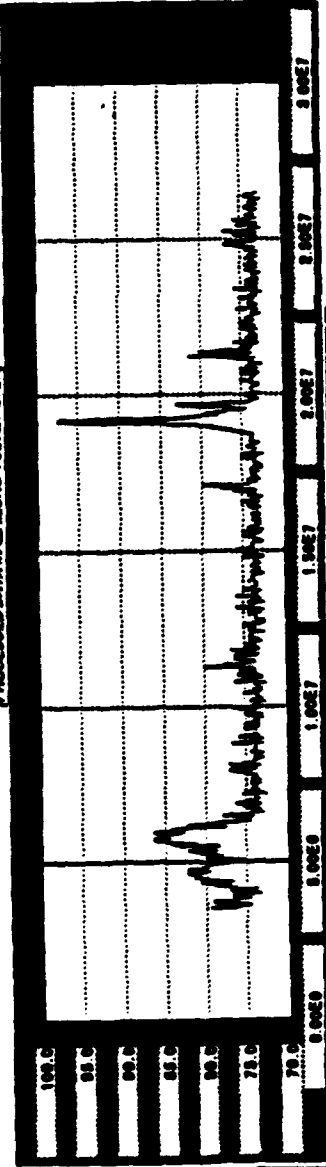
DUTY CYCLE: 0.1
 ANTENNA FACTOR: 1.5
 RANGE: 100
 ALTITUDE: 210
 RADIUS: 720.13
 DATA FILE NAME: PIANO DRIVE FLTY DATA FROM 08-11-80
 ESTIMATED E-FIELD LEVEL, PEAK VAS: 1011.97
 ESTIMATED E-FIELD LEVEL, AVERAGE VAS: 24.00

SECTION 3-5
OTHB PHASE II DATA PLOTS

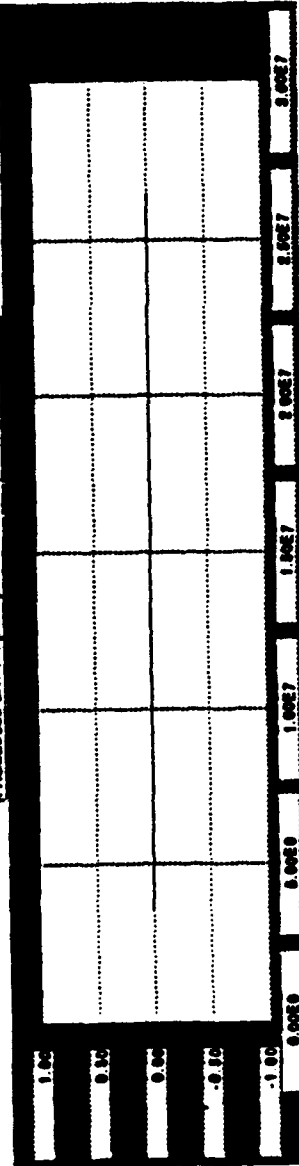
ORIGINAL RAW DATA IN



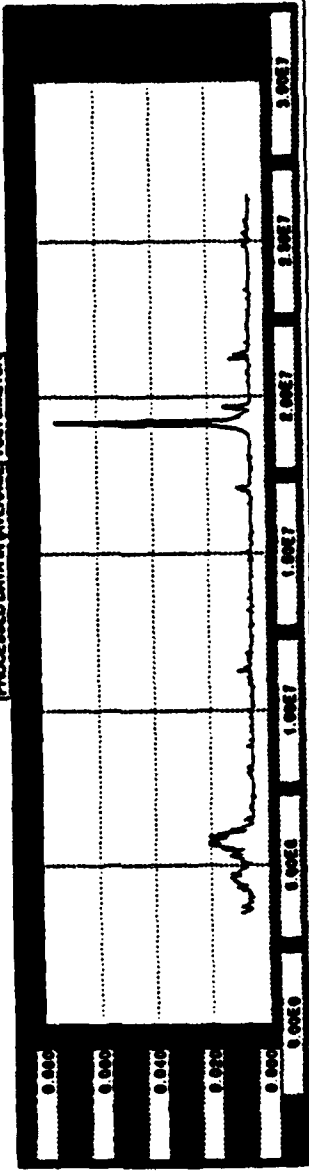
PROCESSED DATA IN MICROVOLT METER



PROCESSED DATA IN PEAK VOLT METER (PULSED RADAR ONLY)



PROCESSED DATA IN AVERAGE VOLT METER



DUTY CYCLE
50

RADAR NAME
C78

RANGE IN
0

CTF
00183

ANTENNA FACTOR IN
4

ALTITUDE IN
TOP-1

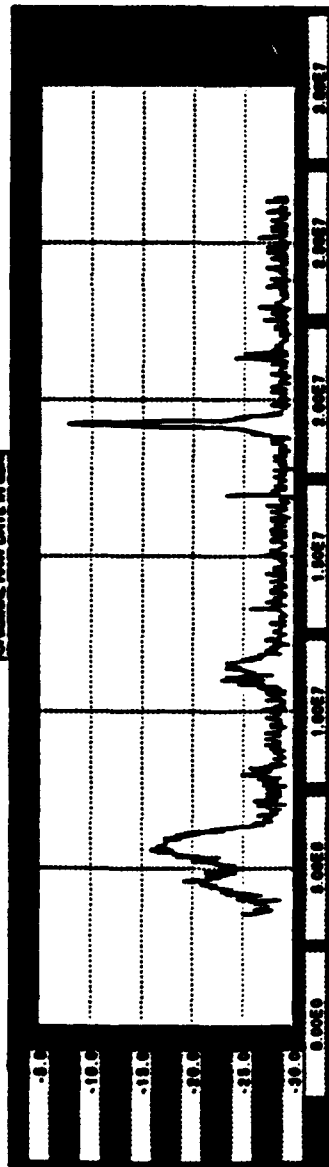
RADIUS IN
0.00

DATA FILE NAME
PAND DRIVE / LVSTDATA OTHER/ATOP-1

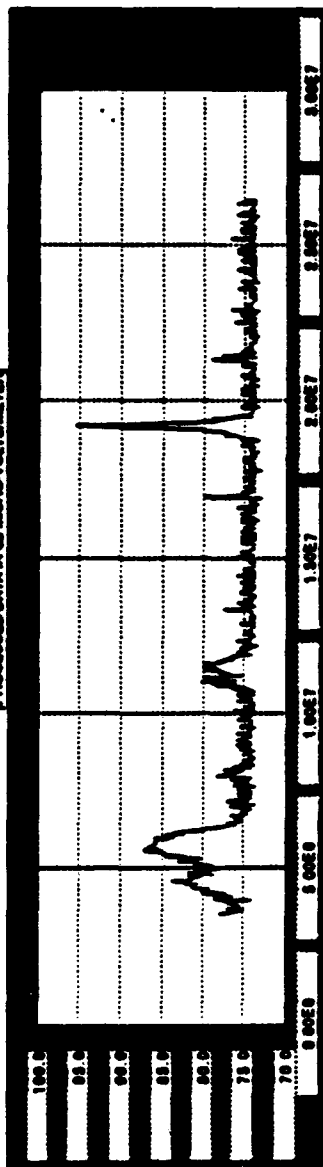
ESTIMATED E-FIELD LEVEL (PEAK) V/M
14

ESTIMATED E-FIELD LEVEL (AVERAGE) V/M
14

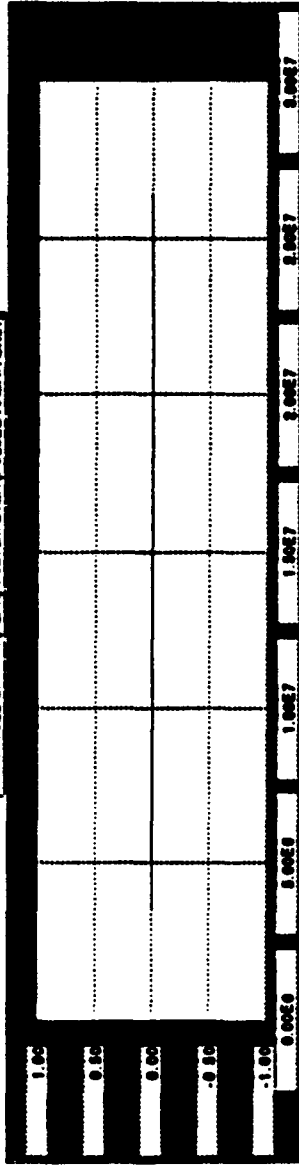
ORIGINAL DATA DATE IN CH



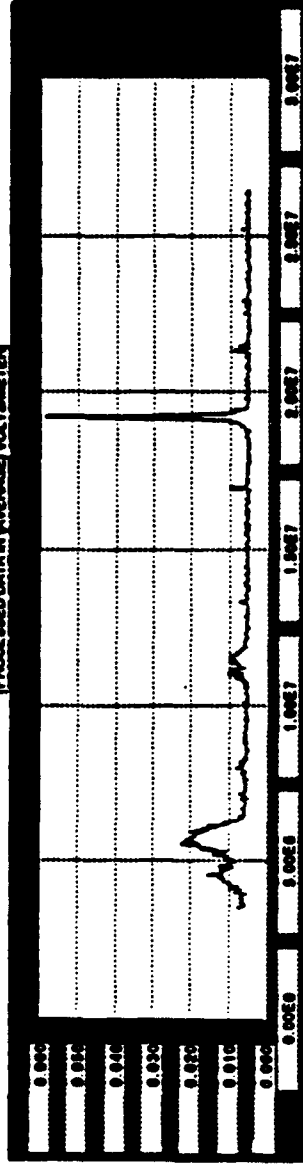
PROCESSED DATA IN MICRO-VOLTMETER



PROCESSED DATA IN PEAK VOLT-METER (PULSED PREAMP ONLY)



PROCESSED DATA IN AVERAGED VOLT-METER



DATA FILE NAME: HARD DRIVE FLYING DATA OTHER DATA TOP

ESTIMATED E-FIELD LEVEL: PEAK VOLT: 1.00

ESTIMATED E-FIELD LEVEL: AVERAGED VOLT: 0.00

CUTY CYCLE: 100

ANTENNA FACTOR: 1.0

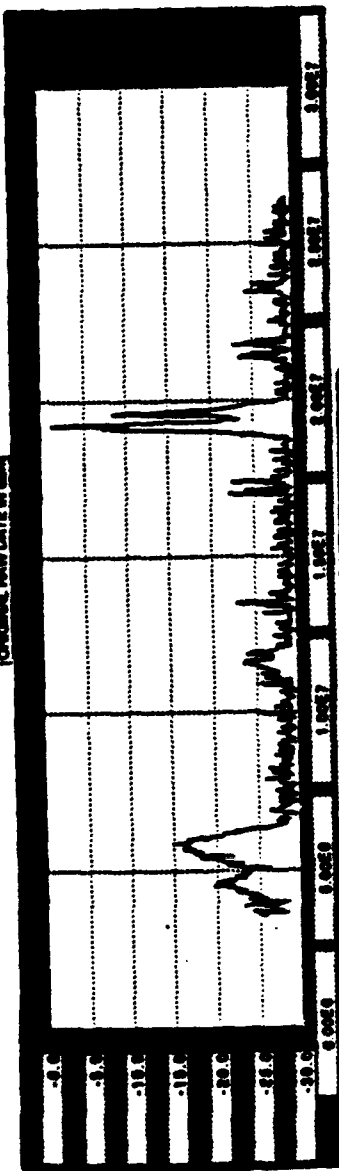
ALTIMETER: 100

ALTITUDE: 100

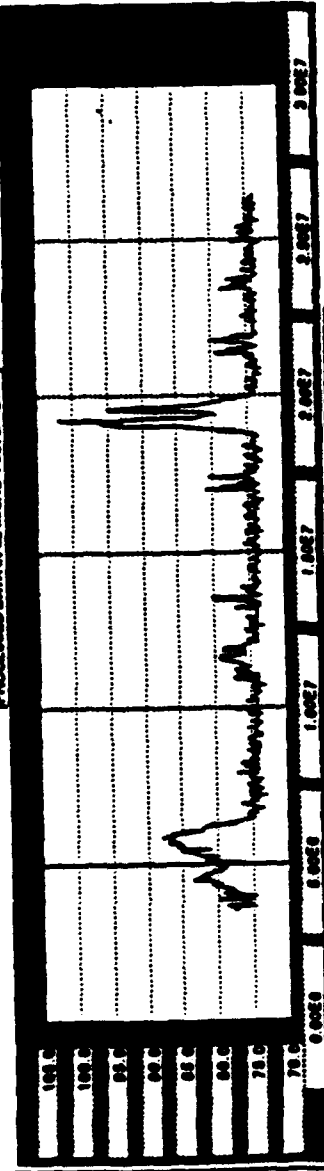
MODE: 0

MODE: 0

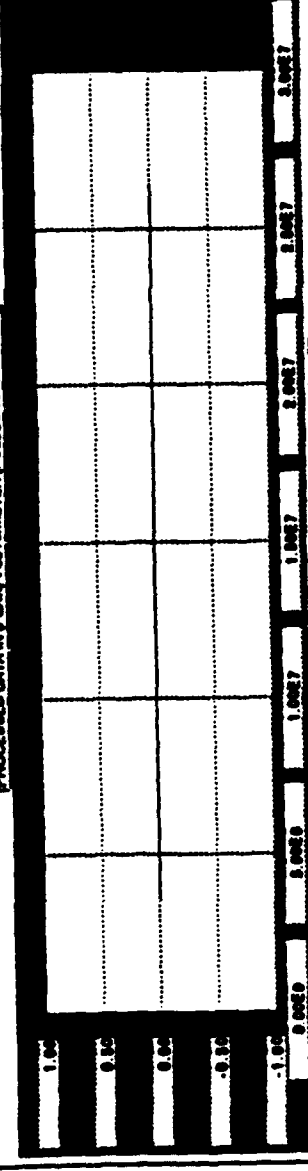
ORIGINAL RAW DATA IN (mV)



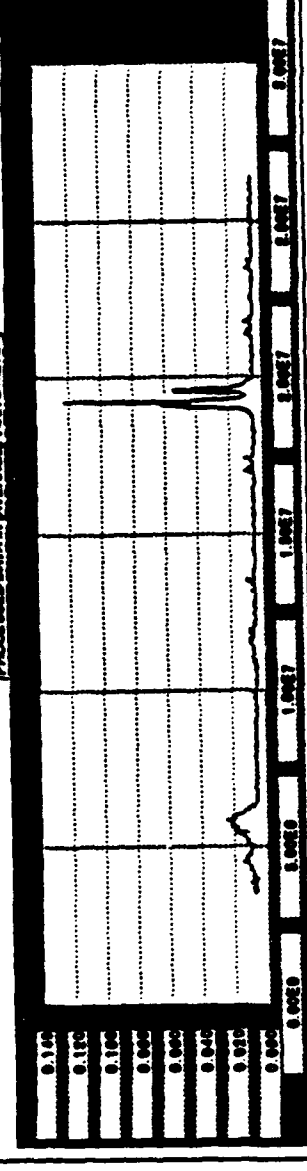
PROCESSED DATA IN (mV) MICRO-VOLTMETER



PROCESSED DATA IN PEAK VOLTMETER PULSED IN (mV)



PROCESSED DATA IN AVERAGE VOLTMETER



CURT CYCLE
100

PAUSE TIME
0.00

RANGE IN
100

ANTENNA FACTOR (dB)
20.0

ANTENNA FACTOR (dB)
20.0

ALTITUDE IN
1000

RADIUS IN
100.0

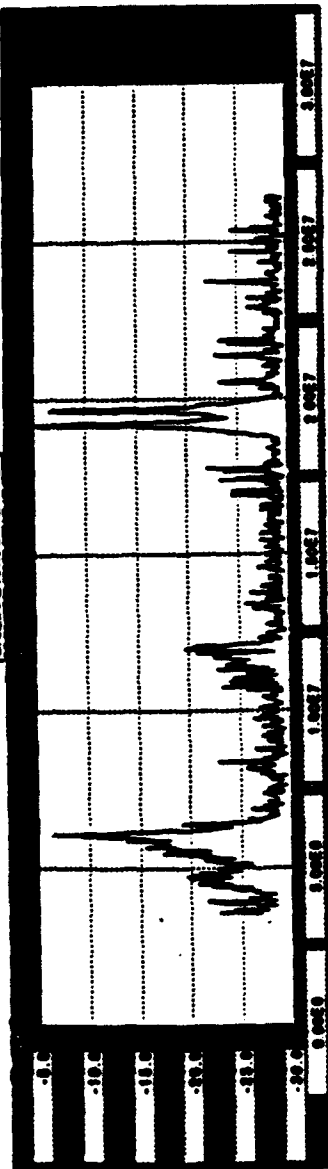
DATA FILE NAME

HARD DRIVE PL VTDATA OTHERSUSCNC

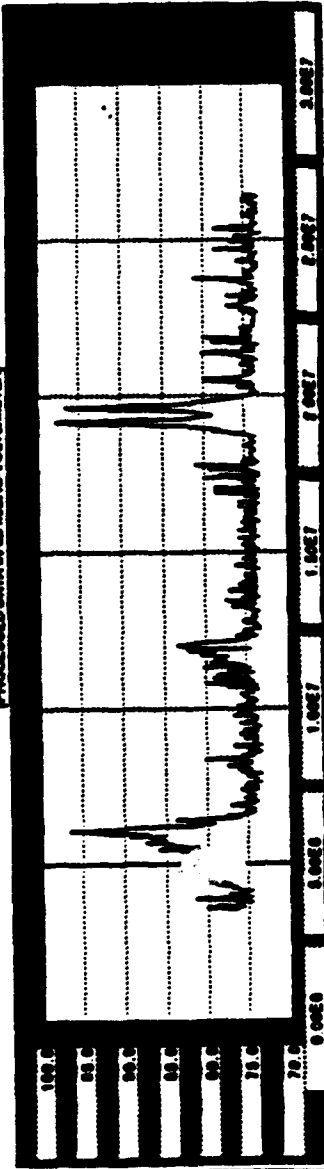
ESTIMATED E-FIELD LEVEL PEAK V/A
10.0

ESTIMATED E-FIELD LEVEL AVERAGE V/A
10.0

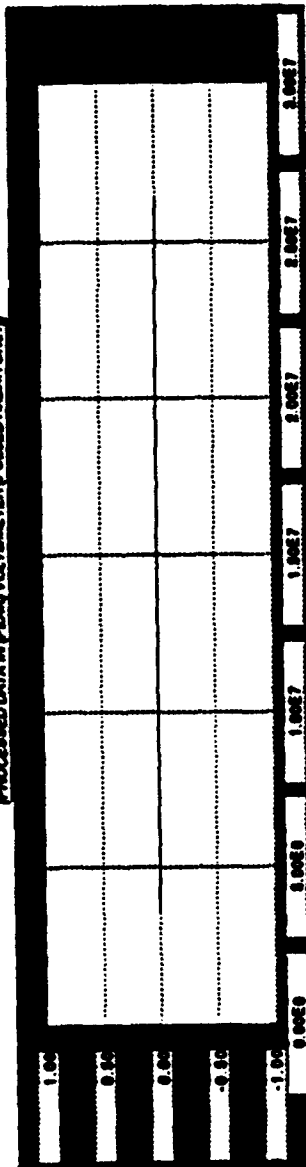
ORIGINAL RAW DATA IN GHz



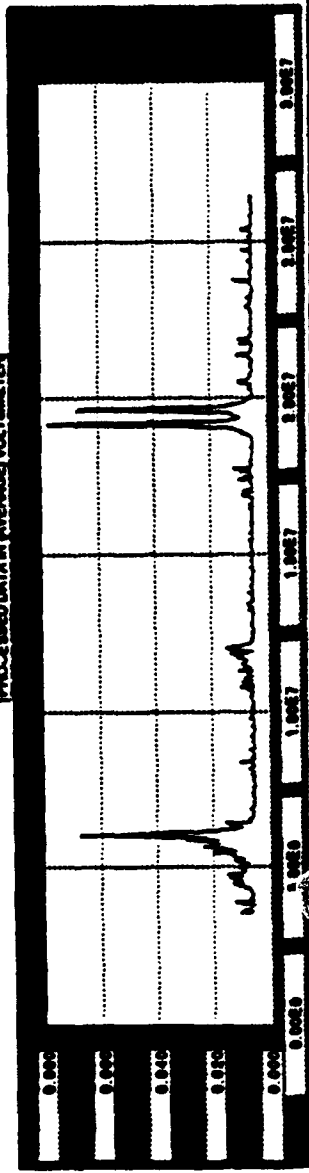
PROCESSED DATA IN GHz MICRO-VOLTMETER



PROCESSED DATA IN PEAK VOLTMETER (PULSED RADAR ONLY)

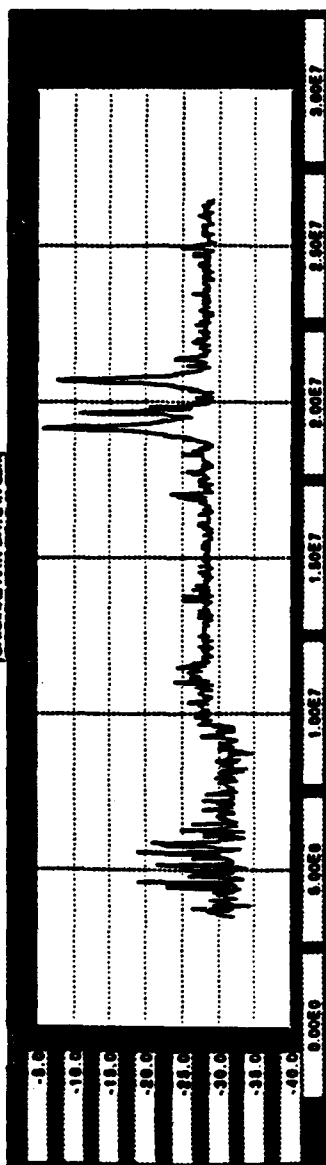


PROCESSED DATA IN AVERAGE VOLTMETER

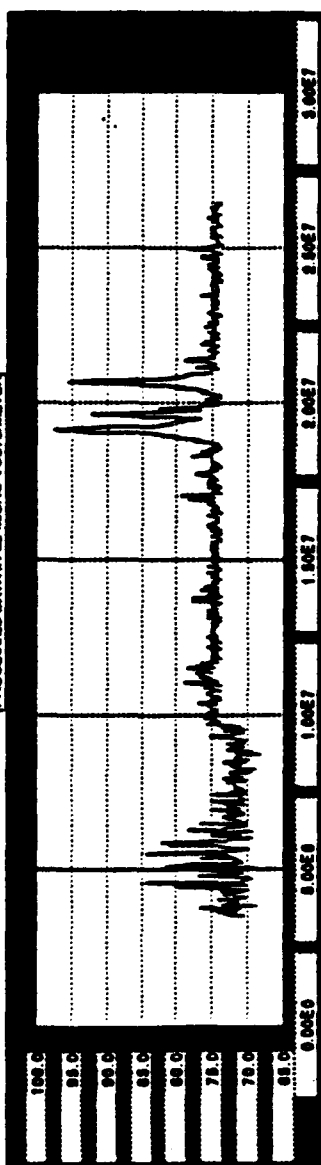


DATA CYCLE 100	100180
RADAR NAME CH-8	ANTENNA FACTOR (dB) -3
RANGE (ft) 1000	ALTITUDE (ft) 1000
DATA FILE NAME HARD DRIVE PL 18 DATA 07-18-68-04-100	
ESTIMATED E-FIELD LEVEL (PEAK) V/M 0.00	
ESTIMATED E-FIELD LEVEL (AVERAGE) V/M 0.00	

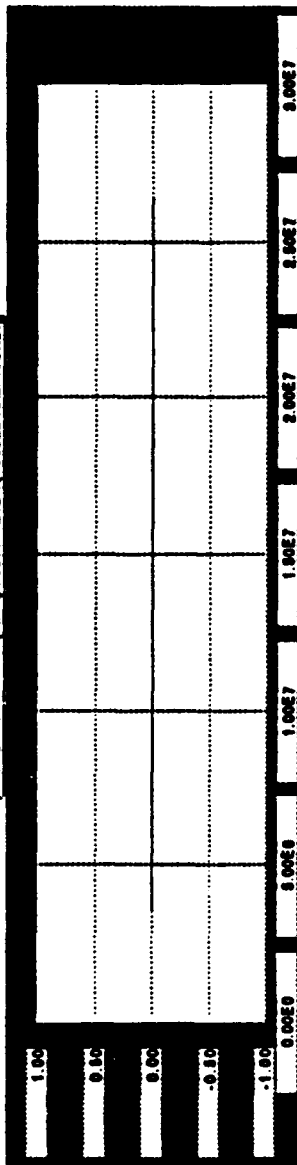
ORIGINAL RAW DATA IN GHz



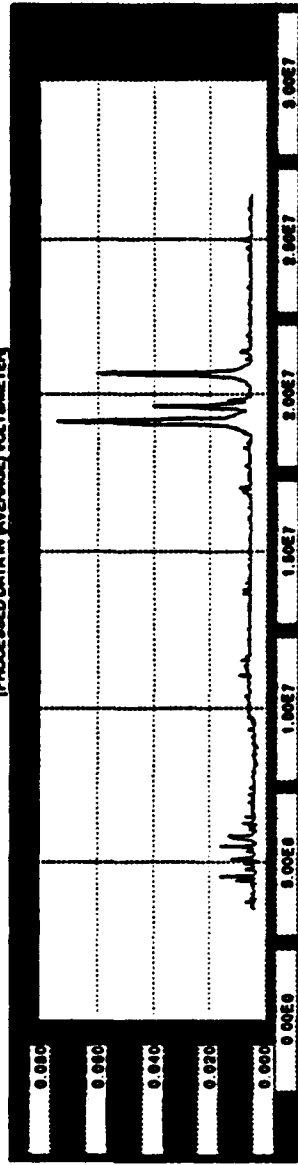
PROCESSED DATA IN dB MICRO-VOLTMETER



PROCESSED DATA IN PEAQ VOLTMETER (PULSED RADAR ONLY)



PROCESSED DATA IN AVERAGE VOLTMETER



DUTY CYCLE

50.0

GPS

20180

RADAR NAME

QTH

ANTENNA FACTOR

4

RANGE

5000

ALTITUDE

700.1

RADIUS

5333.00

DATA FILE NAME

HAND DRIVE FLV DATA OF HBR000A170-1

ESTIMATED E-FIELD LEVEL PEAQ VAW

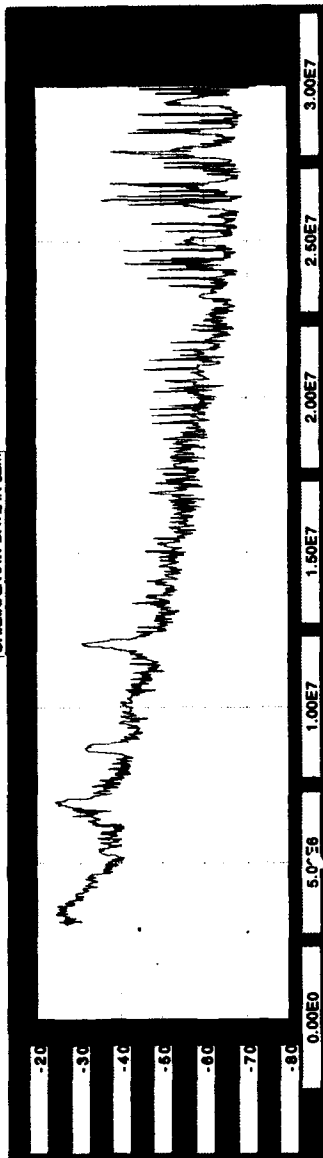
1.74

ESTIMATED E-FIELD LEVEL AVERAGE VAW

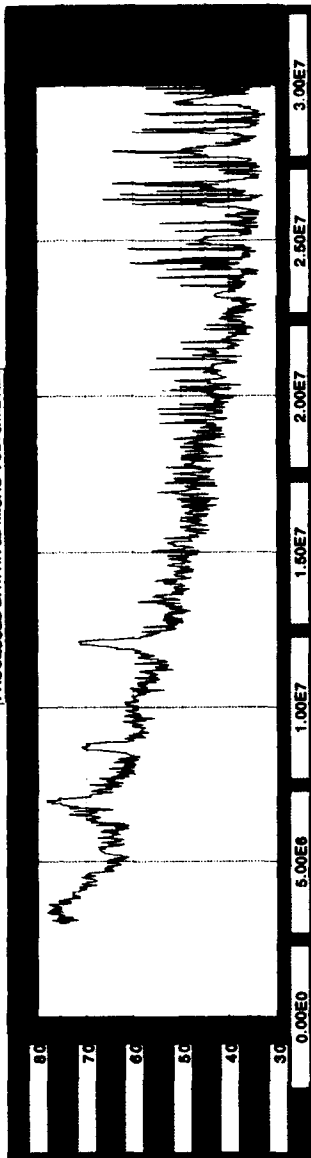
0.90

SECTION 3-6
HHC DATA PLOTS

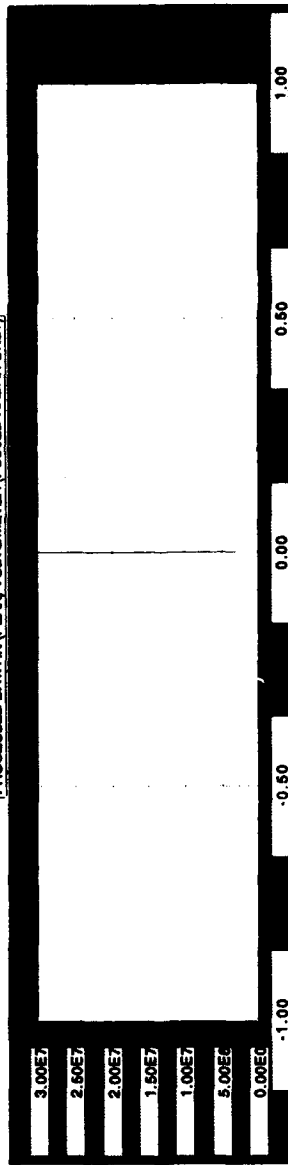
ORIGINAL RAW DATA IN dBm



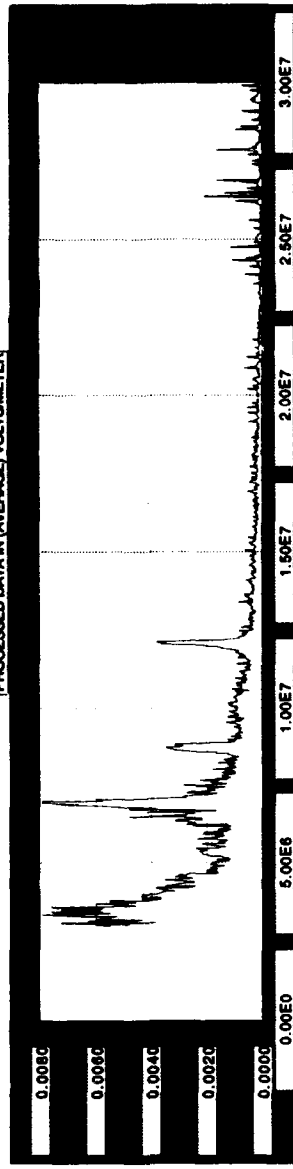
PROCESSED DATA IN dB MICRO-VOLTS/METER



PROCESSED DATA IN (PEAK) VOLTS/METER (PULSED RADAR ONLY)

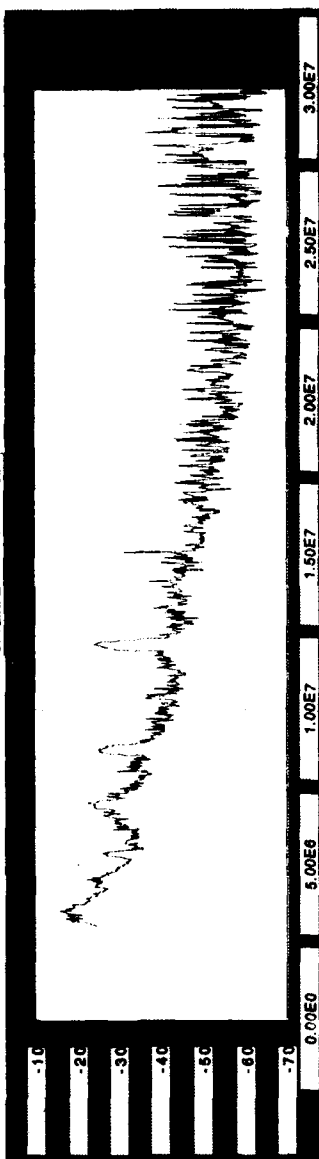


PROCESSED DATA IN (AVERAGE) VOLTS/METER

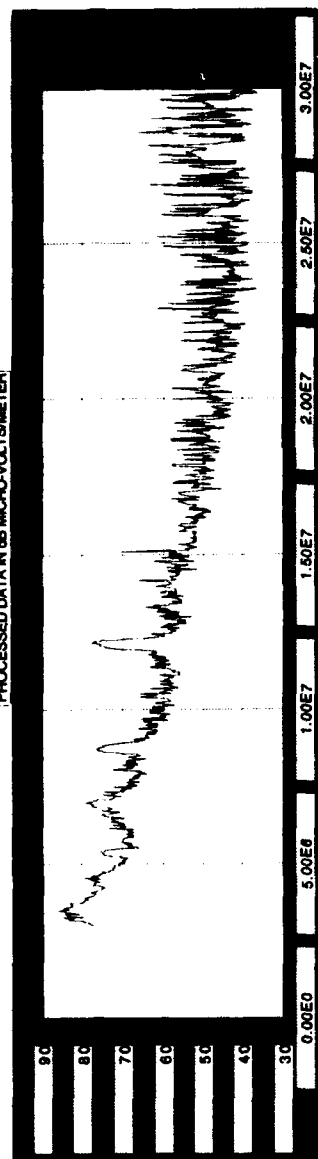


DUTY CYCLE	0.00	DISK ERROR	0.00
RF	0.00	ANTENNA FACTOR (dB)	5
RADAR NAME	HC	ALTITUDE (ft)	1184FSIDE
RANGE (ft)	116	RADIUS (ft)	192.63
DATA FILE NAME			
MONTANA:FLYBYDATA:HCOR116A1184FSIDE			
ESTIMATED E-FIELD LEVEL (PEAK) (V/M)			
0.00			
ESTIMATED E-FIELD LEVEL (AVERAGE) (V/M)			
0.00			

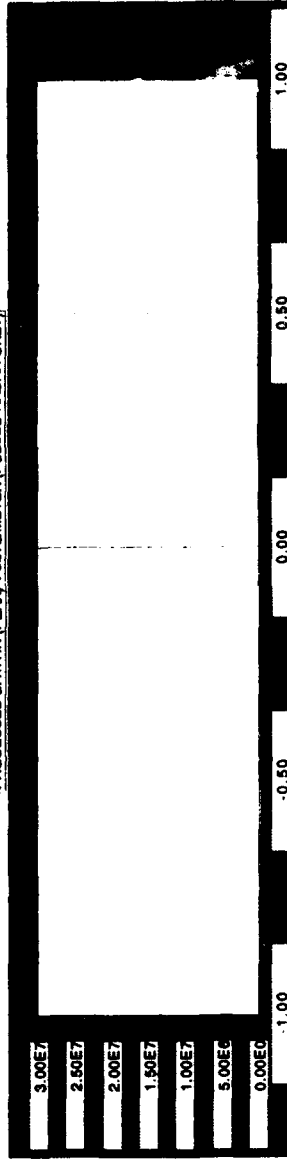
ORIGINAL RAW DATE IN dBm



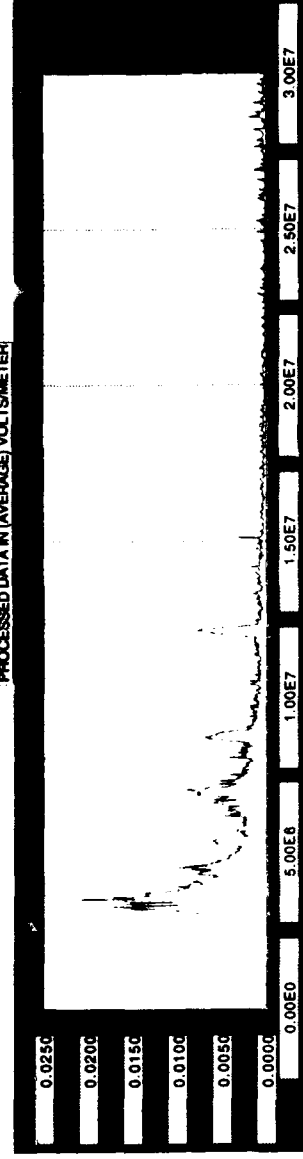
PROCESSED DATA IN dB MICRO-VOLTS/METER



PROCESSED DATA IN (PEAK) VOLTS/METER (PULSED RADAR ONLY)



PROCESSED DATA IN (AVERAGE) VOLTS/METER



DISK ERROR
10.00

EEP
10

DUTY CYCLE
10

ANTENNA FACTOR (dB)
5

RADAR NAME
HHC

RADIUS (ft)
182.83

ALTITUDE (ft)
115HFFRONT

RANGE (ft)
115

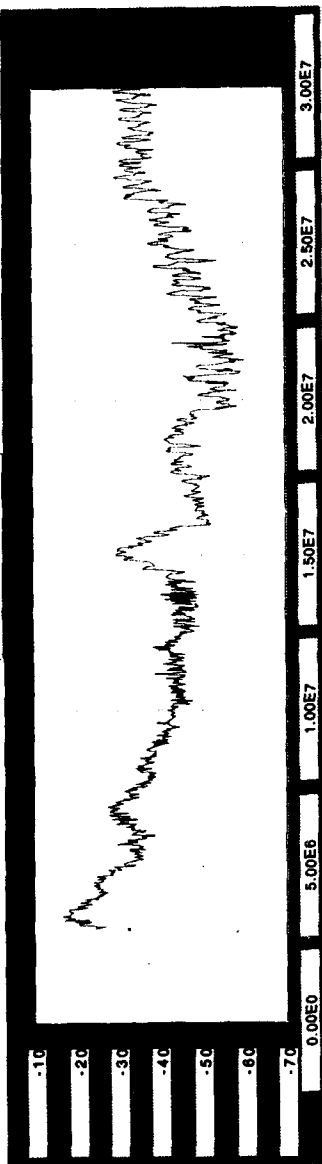
DATA FILE NAME

MONTANA:FLYBYDATA\HHC115A115HFFRONT

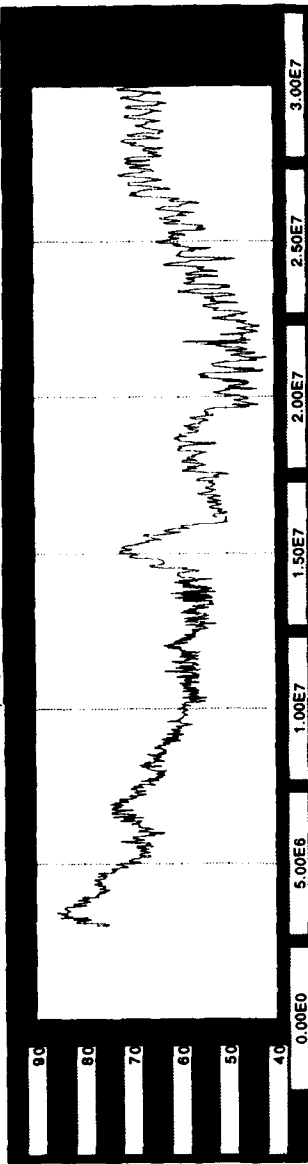
ESTIMATED E-FIELD LEVEL (PEAK) V/M
0.00

ESTIMATED E-FIELD LEVEL (AVERAGE) V/M
0.00

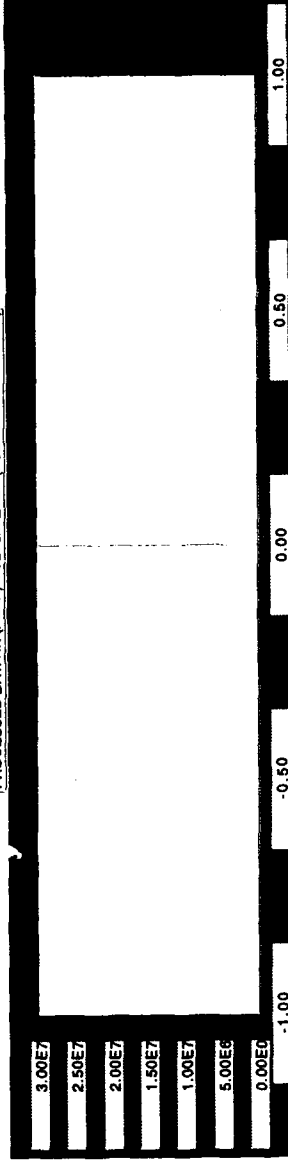
ORIGINAL RAW DATA IN dBm



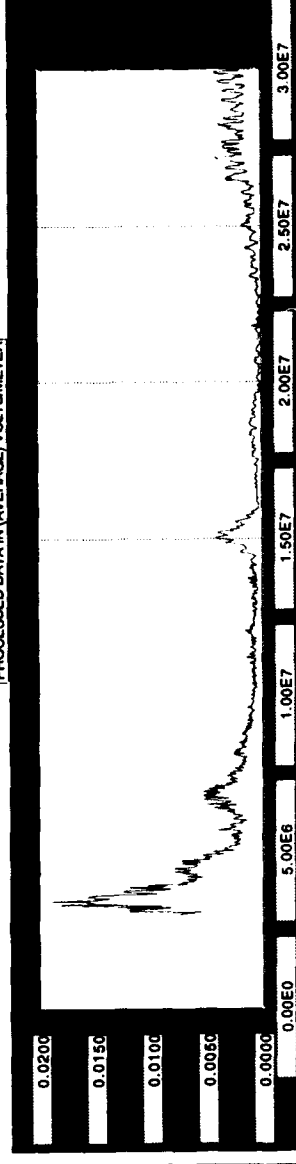
PROCESSED DATA IN dB MICRO-VOLTMETER



PROCESSED DATA IN (PEAK) VOLTMETER (PULSED RADAR ONLY)



PROCESSED DATA IN (AVERAGE) VOLTMETER



DUTY CYCLE
0

ERP
0

DISK ERROR
0.00

ANTENNA FACTOR (dB)
1.5

RADAR NAME
HH

RADIUS (ft)
343.65

ALTITUDE (ft)
243

RANGE (ft)
243

DATA FILE NAME

MONTANA:FLYBYDATA:HHCR243A243HFSIDE

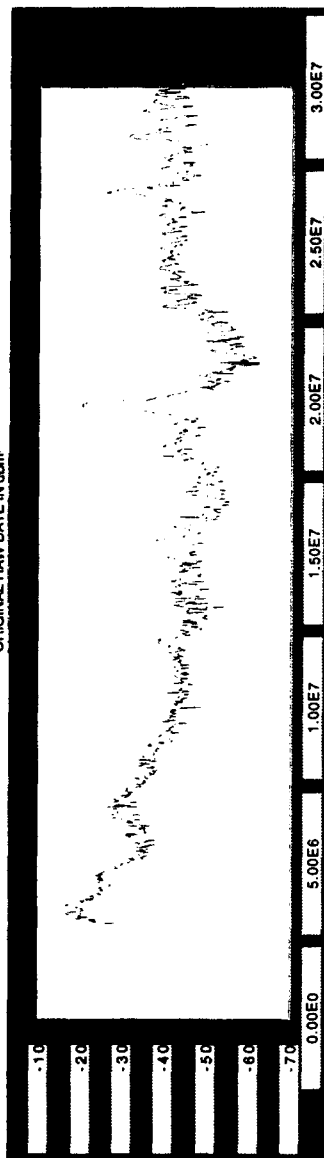
ESTIMATED E-FIELD LEVEL (PEAK) V/M

0.00

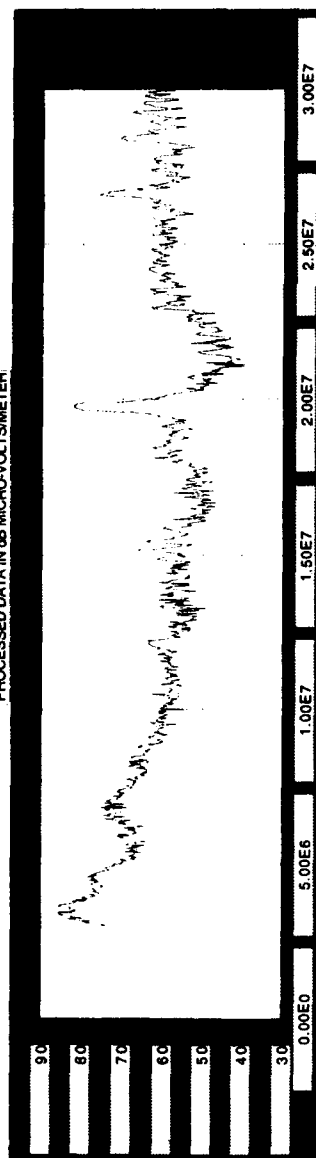
ESTIMATED E-FIELD LEVEL (AVERAGE) V/M

0.00

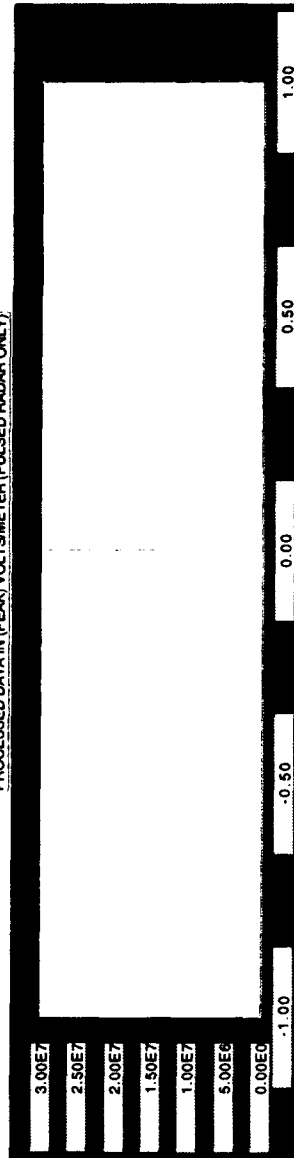
ORIGINAL RAW DATA IN dBm



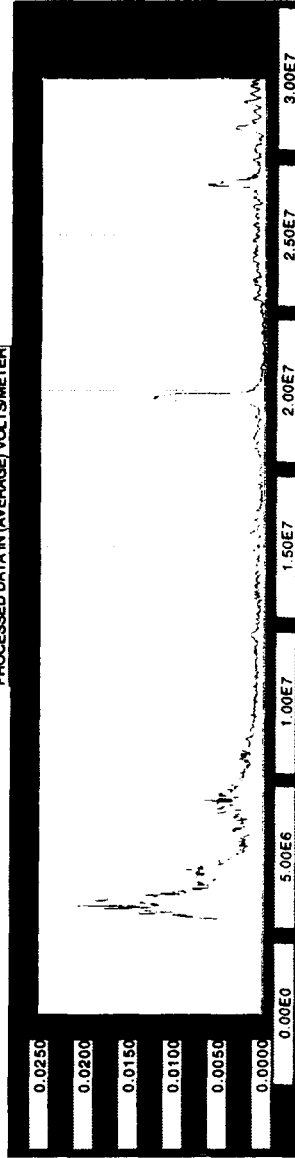
PROCESSED DATA IN dB MICRO-VOLTMETER



PROCESSED DATA IN (PEAK) VOLTMETER (PULSED RADAR ONLY)

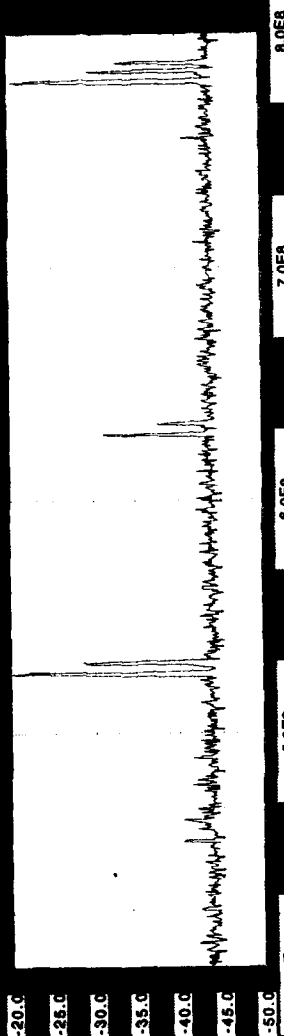


PROCESSED DATA IN (AVERAGE) VOLTMETER

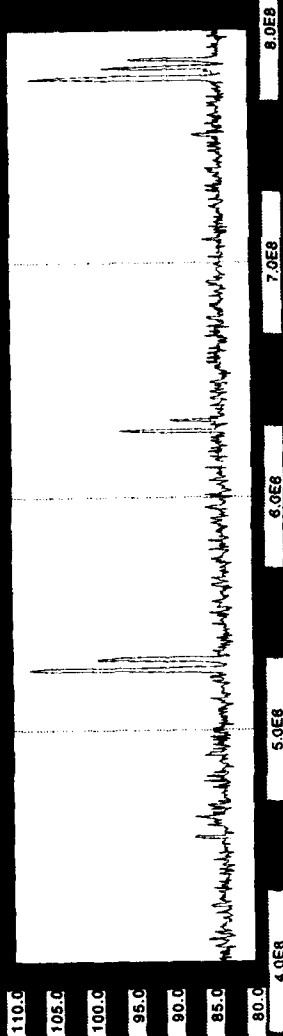


DUTY CYCLE 0	BP 0	DISK ERROR 0.00
RADAR NAME H-C	ANTENNA FACTOR (dB) 5	RADIUS (ft) 343.65
RANGE (ft) 243	ALTITUDE (ft) 243HFRONT	
DATA FILE NAME MONTANA:FLYBYDATA:HCR2434243HFRONT		
ESTIMATED E-FIELD LEVEL (PEAK) V/M 0.00		
ESTIMATED E-FIELD LEVEL (AVERAGE) V/M 0.00		

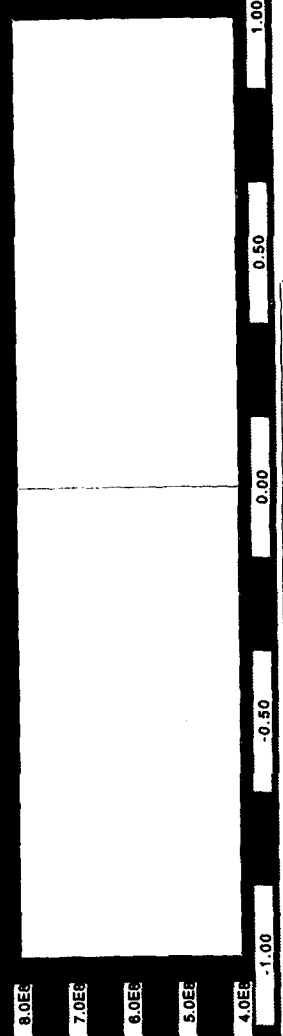
ORIGINAL RAW DATA IN dBm



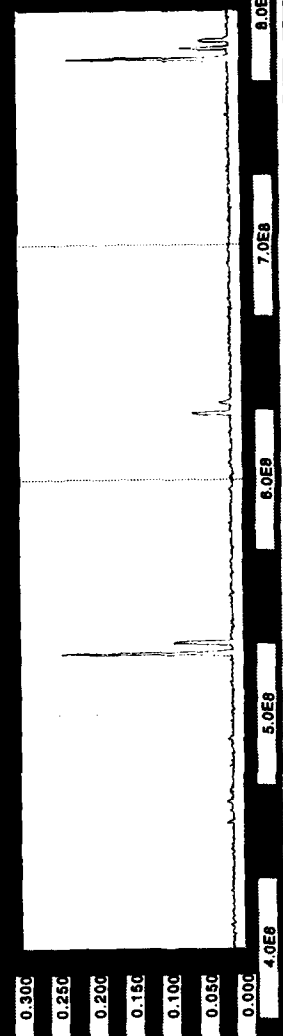
PROCESSED DATA IN dB MICRO-VOLTS/METER



PROCESSED DATA IN (PEAK) VOLTS/METER (PULSED RADAR ONLY)



PROCESSED DATA IN (AVERAGE) VOLTS/METER



DISK ERROR
0.00

BP
0

DUTY CYCLE
0

ANTENNA FACTOR (dB)
20.8

RADAR NAME
HHC

RADIUS (N)
162.83

ALTITUDE (N)
115PPSIDE

RANGE (N)
115

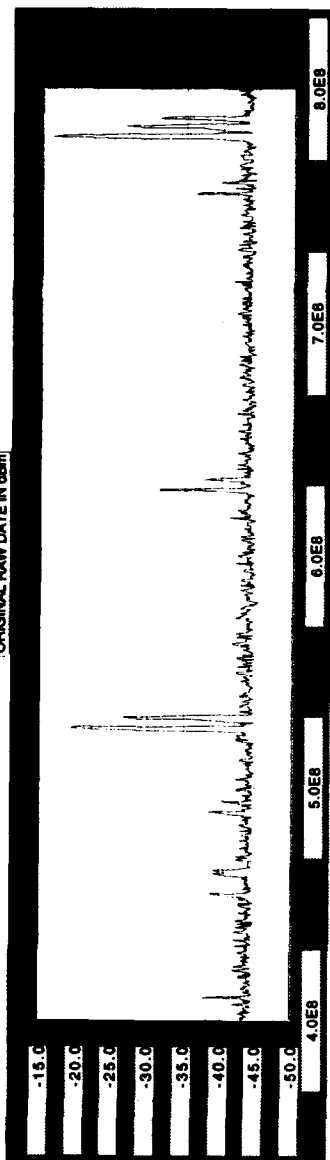
DATA FILE NAME

MONTANA\FLYBYDATA\HCR115A115PPSIDE

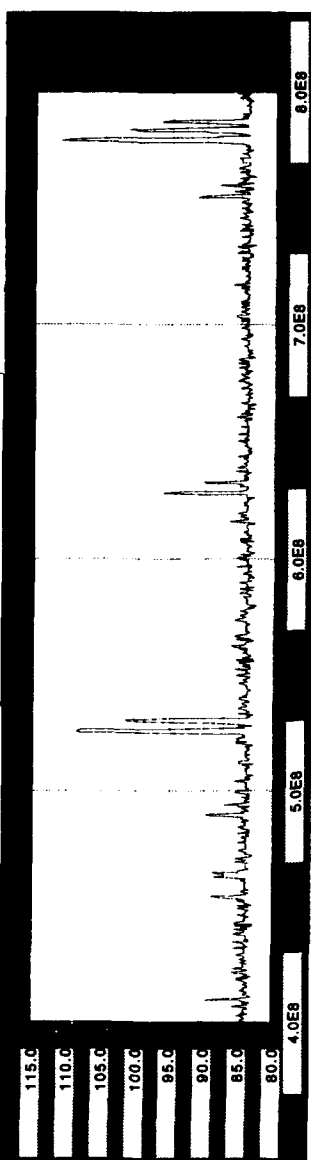
ESTIMATED E-FIELD LEVEL (PEAK) V/M
0.00

ESTIMATED E-FIELD LEVEL (AVERAGE) V/M
0.00

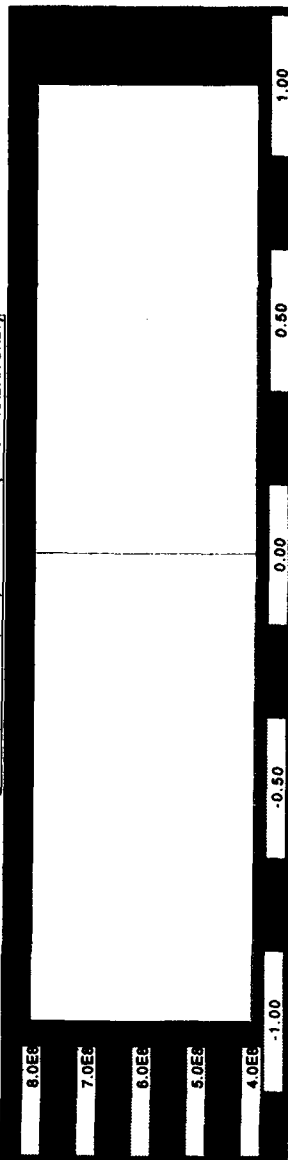
ORIGINAL RAW DATE IN dBm



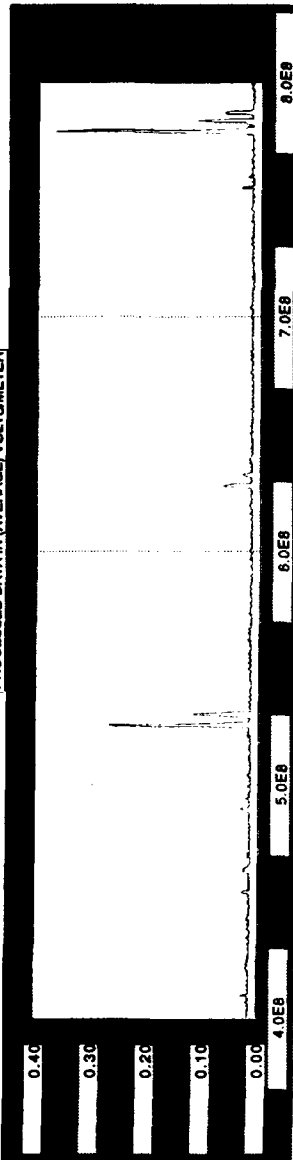
PROCESSED DATA IN dB MICRO-VOLTMETER



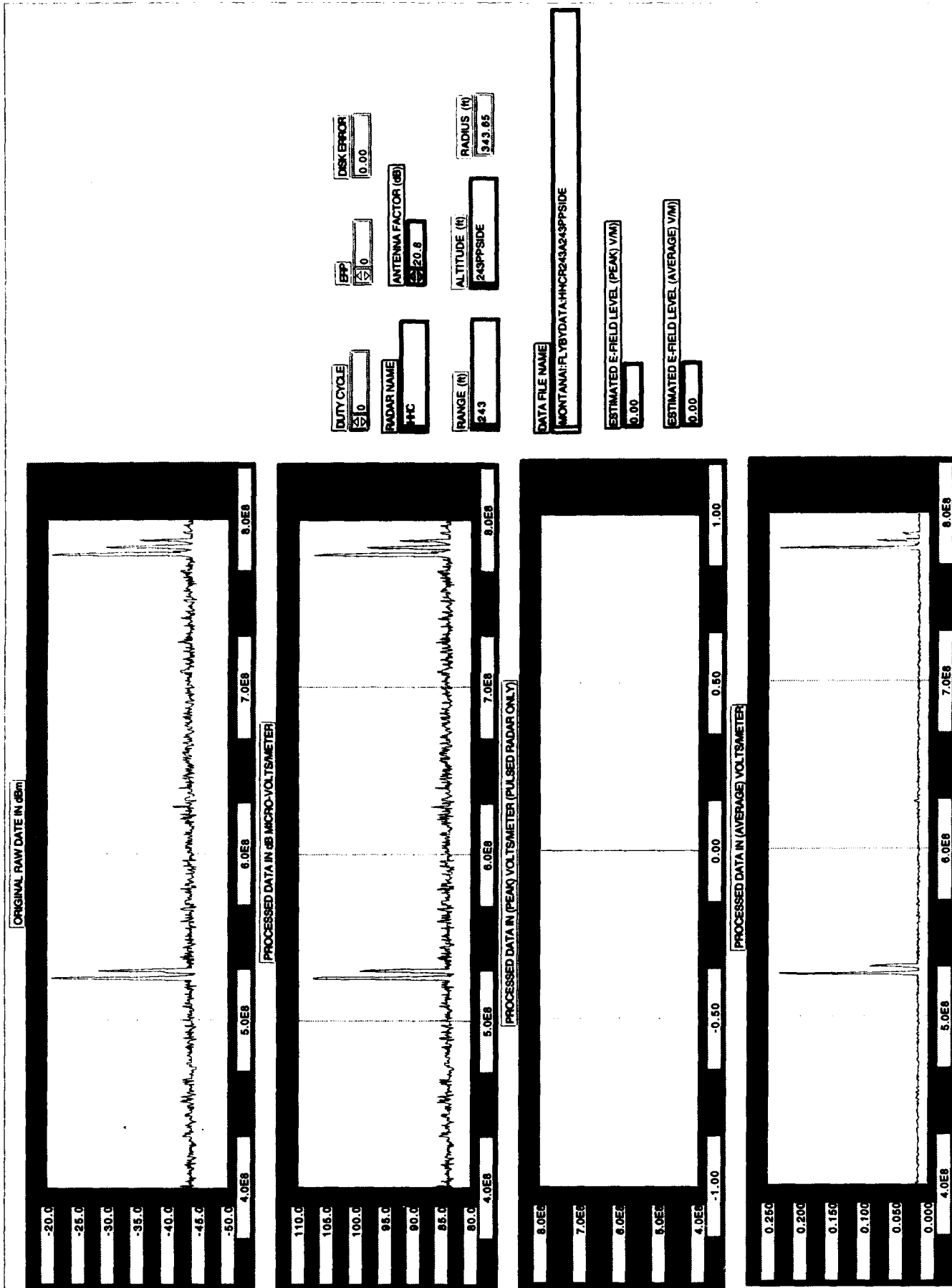
PROCESSED DATA IN (PEAK) VOLTMETER (PULSED RADAR ONLY)



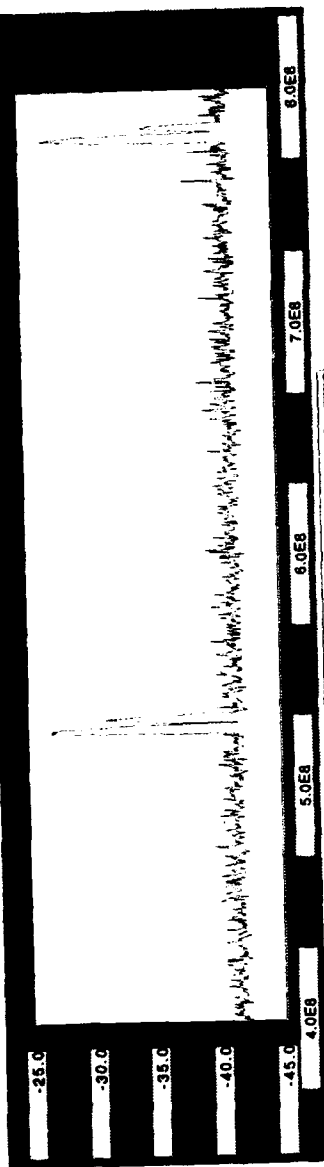
PROCESSED DATA IN (AVERAGE) VOLTMETER



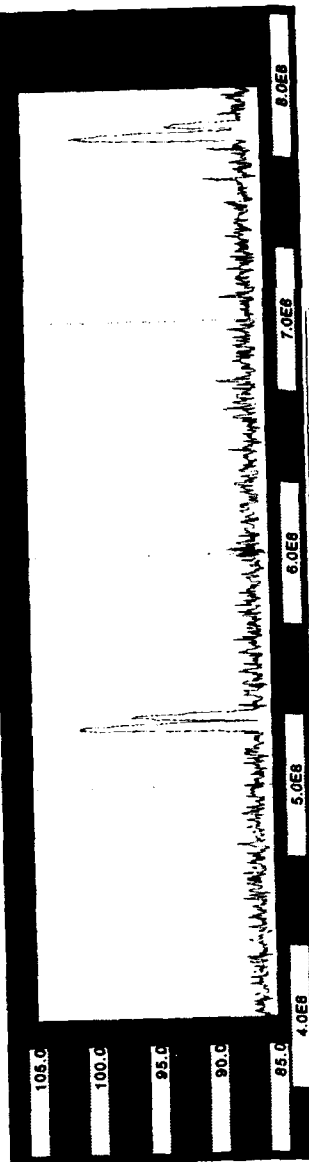
DUTY CYCLE	0	DISK ERROR	0.00
RADAR NAME	H-C	ANTENNA FACTOR (dB)	20.8
RANGE (N)	115	ALTITUDE (N)	115PPFRONT
		RADIUS (N)	162.63
DATA FILE NAME			
MONTANA:FLYBYDATA-HC-R115A115PPFRONT			
ESTIMATED E-FIELD LEVEL (PEAK) (V/M)			
0.00			
ESTIMATED E-FIELD LEVEL (AVERAGE) (V/M)			
0.00			



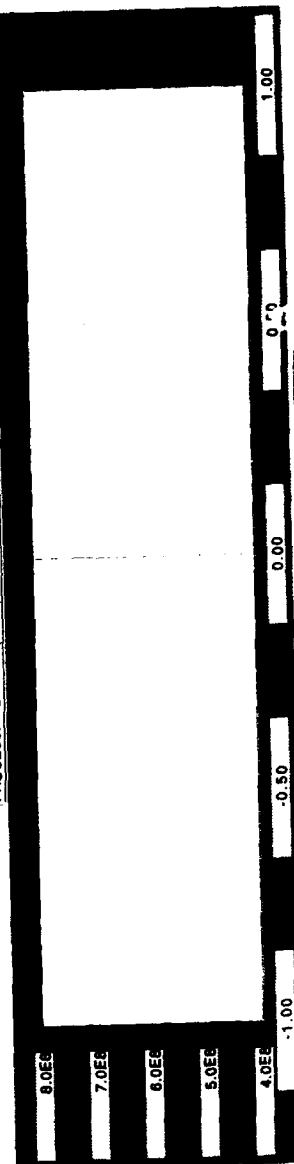
ORIGINAL RAW DATA IN dBm



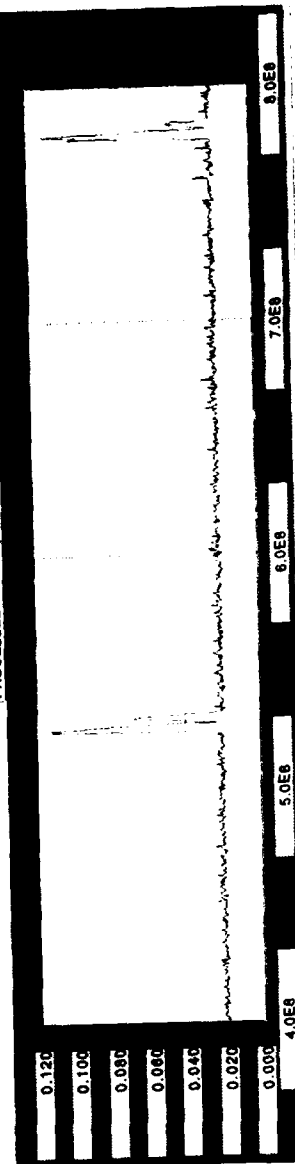
PROCESSED DATA IN dB MICRO-VOLTMETER



PROCESSED DATA IN (PEAK) VOLTMETER (PULSED RADAR ONLY)



PROCESSED DATA IN (AVERAGE) VOLTMETER



DUTY CYCLE 0	DISK ERROR 0.00
RADAR NAME HHC	ANTENNA FACTOR (dB) 20.8
RANGE (N) 243	ALTITUDE (N) 343.85
RADIUS (N) 343.85	
DATA FILE NAME MONTANA:FLYBYDATA:HCRC343438PPFRONT	
ESTIMATED E-FIELD LEVEL (PEAK) V(M) 0.00	
ESTIMATED E-FIELD LEVEL (AVERAGE) V(M) 0.00	