Appendix 3.5-A

Technical Study: Pre-Construction Electromagnetic Measurement Survey of 10 Locations Along the Fresno to Bakersfield Section

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Acronyms

AC	alternating current
BNSF	BNSF Railway
CHST	California High-Speed Train
CHSTP	California High-Speed Train Project
CT	computed tomography
dB-µV/m	units of decibels relative to 1 microvolt per meter
DC	direct current
EIR	environmental impact report
EIS	environmental impact statement
ELF	extremely low frequency
EMF	electromagnetic field
EMI	electromagnetic interference
EMT	emergency management team
GHz	gigahertz
HST	high-speed train
Hz	hertz
kHz	kilohertz
MHz	megahertz
MRI	magnetic resonance imaging
NMR	nuclear magnetic resonance
PVC	polyvinyl chloride
RF	radio frequency
SEM	scanning electron microscope
TEM	transmission electron microscope
TM	technical memorandum
WiFi	wireless fidelity
WiMAX	Worldwide Interoperability for Microwave Access

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3.5-A.1 Measurement Protocol

This appendix documents the results of the pre-construction electromagnetic measurement survey of 10 locations along the proposed Fresno to Bakersfield Section of the California High-Speed Train (HST) Project. The purpose of the survey is to provide a baseline characterization of the electromagnetic environment along the Fresno to Bakersfield Section. The measurements will be compared with the expected electromagnetic field (EMF) footprint associated with the proposed HST system for use in the section evaluation of electromagnetic compatibility. These section-specific electromagnetic procedures and measurements are based on the system-wide electromagnetic technical memorandum titled *EIR/EIS Assessment of CHST Alignment EMF Footprint* (Turner Engineering Corporation 2010).

Existing radio frequency (RF)-emitting equipment and facilities along the Fresno to Bakersfield Section of the California HST system were reviewed with respect to the electromagnetic environment. Ten sites along the section were selected to obtain representative baseline RF measurements from:

- Existing sources (e.g., power lines, tower-mounted antennas, RF equipment used in medical and high-technology research and fabrication facilities).
- Areas that are relatively free of EMFs.

The section-level measurement protocols applied at each of the ten locations conform to the general test procedure outlined in the technical memorandum (TM) “Measurement Procedure for Assessment of CHSTP Alignment EMI Footprint” (TM 3.4.11). This TM test procedure was applied in two parts. The first part involved measurement of radiated electric fields from 10 kilohertz (kHz) to 6 gigahertz (GHz); this first part was meant to characterize the RF environment from typical sources, such as:

- Cell towers (cellular telephone antennas).
- Broadcast towers (radio and TV broadcast antennas).
- Airport radar and communications antennas.
- General HF (high frequency) and VHF (very high frequency) communication antennas (typically for police, fire, emergency management team [EMT], utility, and government use).
- Local wireless (WiFi [wireless fidelity] and WiMAX antennas [Worldwide Interoperability for Microwave Access]).

Section-level RF measurements of electric field strength were recorded across the specified range of frequencies using a monopole rod antenna (10 kHz to 30 megahertz [MHz]) and bi-logical antenna (25 MHz to 6 GHz) connected to a spectrum analyzer.

The second part of the test procedure involved measurements of background direct current (DC) and power frequency magnetic fields along the alignment. These magnetic field measurements were recorded using a three-axis fluxgate sensor with a waveform recording data acquisition system; this second part was meant to characterize typical DC and extremely low frequency (ELF) sources of magnetic fields, such as:

- High-voltage transmission lines.
- Electric distribution lines.
- Substations/generation.
- Geomagnetic perturbation due to passing vehicles and trains.

EMI experience has shown that the facilities most sensitive to shifts in the DC field (geomagnetic perturbations) and alternating current (AC) magnetic fields are:

- High-tech semiconductor (e.g., electron microscopes [TEM/SEM], electron-beam lithography, ion-writing systems, focused ion-beam systems).
- High-tech biology (e.g., nuclear magnetic resonance [NMR], magnetic resonance imaging [MRI], electron microscopes).
- Medical imaging (e.g., computed tomography [CT] scanners, MRI systems).
- University/research (instrumentation for chemistry, physics, electrical engineering research for high-tech measurement, fabrication and medical purposes).

The RF and magnetic field measurements for the Fresno to Bakersfield Section were recorded from June 5 to June 8, 2010, by a team composed of Vibro Acoustic Consultants, Inc., in San Francisco, California, and Electric Research & Management, Inc., of Cabot, Pennsylvania.

3.5-A.2 Measurement Locations and Equipment

Measurements were recorded at ten sites along the alignment alternatives for the Fresno to Bakersfield Section. These ten sites were selected to characterize the range of the existing electromagnetic background in the section, using the test procedure specified in TM 3.4.11. The ten sites are listed in Table 3.5-A-1.

Table 3.5-A-1
Summary of Measurement Locations

Site	Nearest City/Town	Street	Type	Description
1	Fresno	H Street, Tuolumne Street	Urban	Parking lot near downtown, RF emitters visible
2	Hanford	7500 Hanford-Armona Road	Rural	Agricultural setting, transmission line
3	Corcoran	Santa Fe Ave, Oregon Ave	Rural	Adjacent to small airstrip, RF emitters
4	Wasco	Kimberlina Road, East of Hwy 43	Rural	Agricultural setting, selected quiet location
5	Shafter	7th Standard Road, Nord Ave	Rural	Rural setting, near distribution line
6	Bakersfield	Verdugo Lane, Glenn Street	Suburb	Residential, quiet
7	Bakersfield	Brimhall Road	Suburb	Adjacent to large transmission lines
8	Bakersfield	16th Street	Urban	Mercy Hospital, potentially sensitive
9	Bakersfield	H Street, 16th Street	Urban	Downtown setting adjacent to BNSF tracks
10	Allensworth	SR-43 North of Allensworth	Rural	Quiet rural site

Ave = avenue
Hwy = highway
RF = radio frequency

Two general types of measurements were recorded during the pre-construction survey at the ten locations identified above. First, radiated electric fields from 10 kHz to 6 GHz were measured to characterize the RF environment along the proposed alternative alignments. Second, the DC and power-frequency magnetic fields were measured to characterize the existing EMF environment.

RF Measurement Equipment

This subsection describes the test equipment used for the two types of measurements described above. Radiated electric fields were measured using an active monopole antenna for the10 kHz to 30 MHz range, and a bi-logical antenna was used for the frequency range from 25 MHz to 6 GHz. These antennas were mounted on a wooden tripod at a height of 2 meters above ground level and connected to an Anritsu 2713B spectrum analyzer using a 3-meter RG-214 coaxial cable. The RF antenna and spectrum analyzer measurement equipment used is listed in Table 3.5-A-2. The monopole and bi-logical antennas used are shown on Figures 3.5-A-1 and 3.5-A-2, respectively.

The Anritsu spectrum analyzer records the electric field strength in units of decibels relative to 1 microvolt per meter (dB-µV/m) across each specified measurement band, and these data are downloaded to a laptop computer for archiving and analysis. Specific antenna factors and cable loss were added to spectrum analyzer readings to obtain calibrated electric field strength data, or signal level, presented as dB-µV/m/MHz in this report.

Table 3.5-A-2
RF Measurement Equipment Used

Company	Description	Model	Serial #	Calibration
Anritsu	Spectrum Analyzer	MS2721B	0745127	19-Apr-10
A.H. Systems	Biological Antenna	SAS-521F-7	169	17-May-10
A.H. Systems	Active Monopole Antenna	SAS-550-1B	640	17-May-10
A.H. Systems	3 m RG-214 Cable N-N	SAC-211	NA	17-May-10

Figure 3.5-A-1
RF measurement equipment: A.H. Systems monopole antenna

Figure 3.5-A-2
RF measurement equipment: A.H. Systems bi-logical antenna

Magnetic Field Measurement Equipment

DC and power-frequency magnetic fields were recorded using two MultiWave System II field measurement units with Bartington three-axis fluxgate sensors. The Bartington fluxgate sensors have a usable bandwidth from DC to 3 kHz. Use of two MultiWave System II units and fluxgate sensors allowed for magnetic field measurements at a fixed location during the time when measurements were recorded along several profiles relative to the alignment. Fixed position measurements provide a general characterization of temporal variation at the test location, and the profile measurements provide a view of spatial variation. Fixed measurements were recorded with the sensor mounted on a polyvinyl chloride (PVC) stand at 1 m above ground level, typically for a total period of 15 minutes. Samples during this 15-minute period were recorded at 2-second intervals. Magnetic fields along spatial profiles were recorded at 10-foot intervals using a distance

measurement wheel with electronic trigger. The fluxgate sensor for spatial profiles was attached to the measurement wheel frame, also at a height of 1 meter above ground level.

For each magnetic field measurement, the MultiWave System II units digitize magnetic field waveforms from each axis of the fluxgate sensor. The digitized binary waveform data are stored by the unit in internal memory and later downloaded to a computer for processing to extract DC and AC magnetic field values. Fourier Transforms of the digitized waveforms provide specific frequency information, namely, the fundamental power frequency of 60 hertz (Hz) and associated harmonics. For data processing and results display, harmonic information was calculated out to the 7^{th} harmonic (420 Hz), though only the fundamental of 60 Hz was significant in most cases (i.e., harmonic content was relatively low). Table 3.5-A-3 lists the magnetic field equipment and sensors used for this survey. Each Bartington fluxgate sensor was always paired with the MultiWave unit listed above it in the table. Post-measurement calibration checks were performed on both units with the sensors used for the survey.

Table 3.5-A-3
Magnetic Field Measurement Equipment Information

Company	Description	Model	Serial #	Calibration
ERM, Inc.	Field Measurement Unit	MultiWave II	1009	7-Jul-10
Bartington	5G 3-Axis Fluxgate	MAG03-MC	643	NA
ERM, Inc.	Active Monopole Antenna	MultiWave II	1008	7-Jul-10
Bartington	5G 3-Axis Fluxgate	MAG03-MC	572	NA

Test Procedure

RF measurements were recorded using a vertical monopole antenna (AH Systems SAS-550-1) for the frequency range of 10 kHz to 30 MHz, and a broadband biological antenna (AH Systems SAS-521-7) for the frequency range of 25 MHz to 6 GHz, connected to an Anritsu MS2721B Spectrum Analyzer (9 kHz to 7.1 GHz). Antennas were mounted at a height of 2 meters above ground level. The tripod with RF antennas was to be placed at an approximate lateral distance of 100 feet from the proposed alignment at most locations. Measurements were recorded using the Anritsu Spectrum Analyzer using the previously discussed antenna and band settings.

Magnetic field measurements consisted of fixed position measurements to characterize typical background magnetic field levels as a function of time, and measurements along profiles at 10-foot intervals to characterize spatial variation of magnetic fields.

Figures 3.5-A-3(a) through 3.5-A-12(i) show photographs of the ten test locations and the test results.

3.5-A.3 References

Turner Engineering Corporation. 2010. *EIR/EIS Assessment of CHST Alignment EMF Footprint, Draft Report*. Revision 2.0. Turner Engineering Corporation. July 8, 2010.

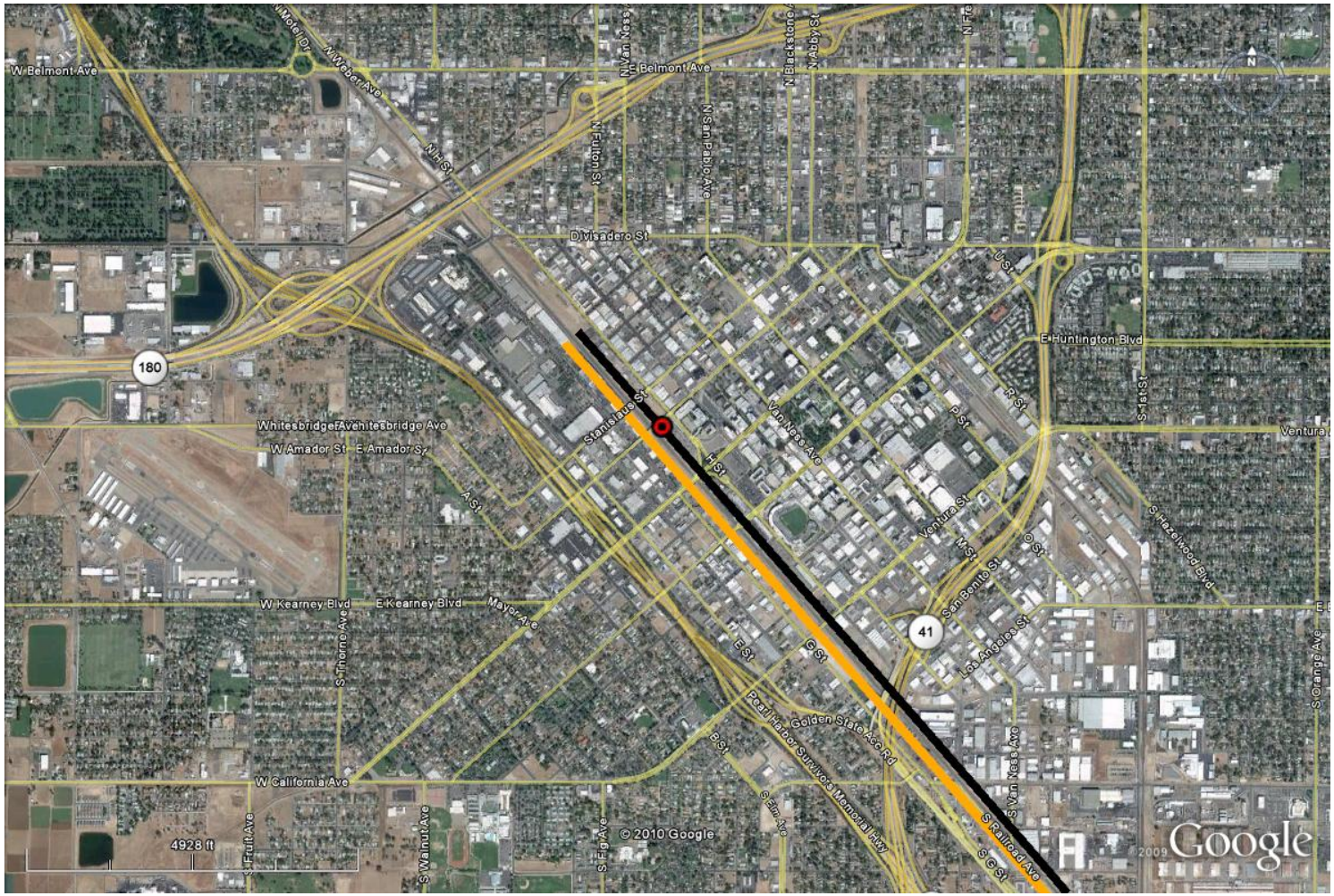


Figure 3.5-A-3(a)
Location 01: Downtown Fresno
A dense urban location in Fresno, near the existing BNSF alignment, with significant RF emitters (Lat: 36° 44' 8.94", Long: W119° 47' 48.56")

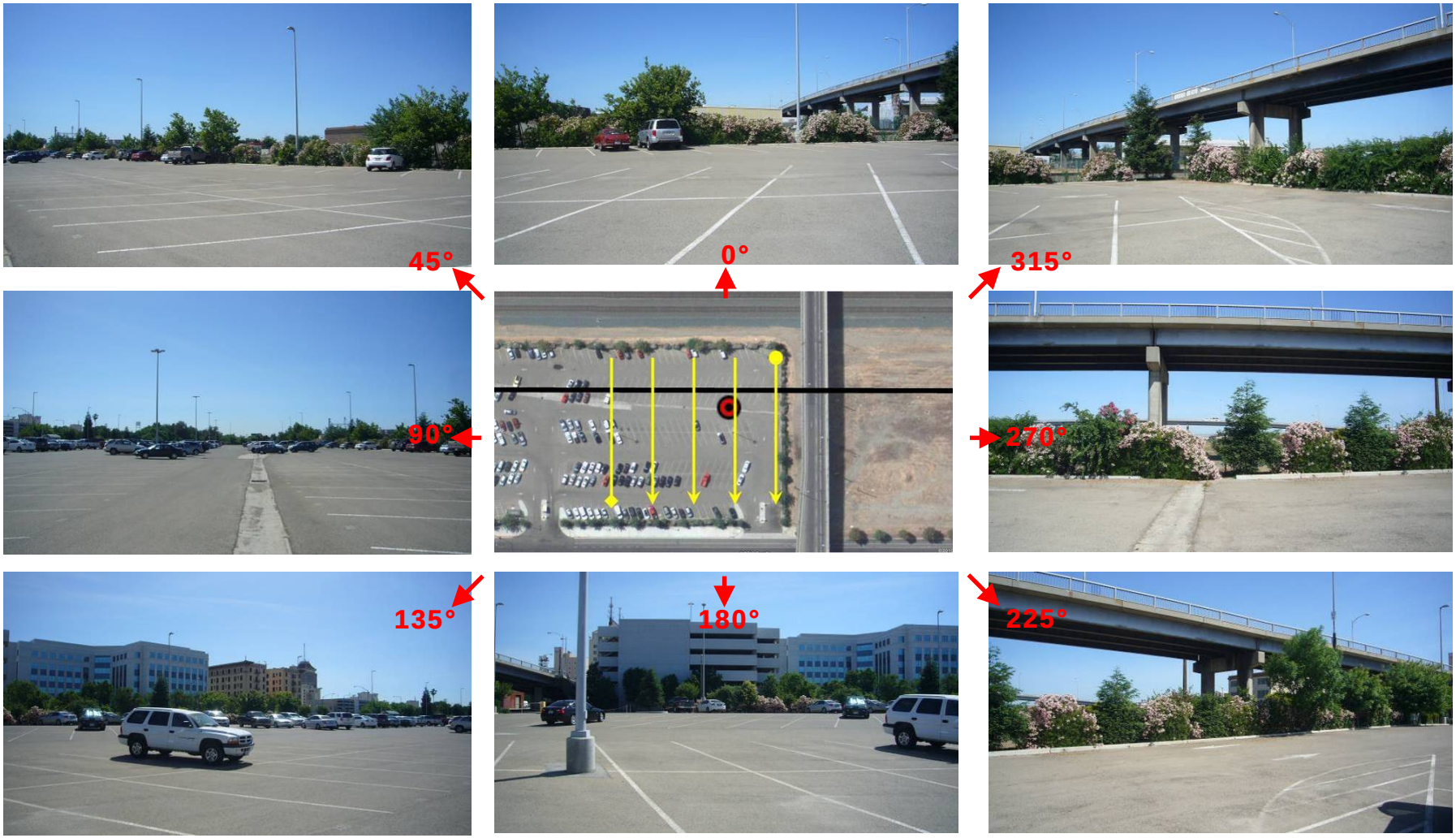


Figure 3.5-A-3(b)
Location 01: Downtown Fresno

Photos depicting the site from the perspective of the RF measurement location. In the center is a satellite view, with the alignment (dark line) and measurement point (red dot). The spatial profiles are indicated in yellow. The satellite view is rotated so that the image at 0° faces the alignment.

Figure 3.5-A-3(c)
Location 01: Downtown Fresno
Nearby emitters include rooftop TV/radio antennas, AT&T communications links, and others. Photos depicting visible close-proximity emitters. Other emissions sources are assumed to exist but are not visible from the site.

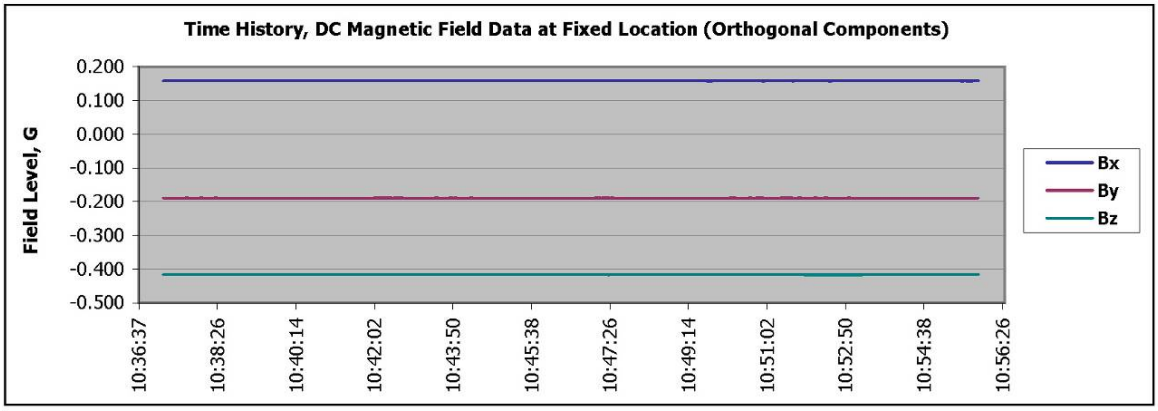
Location: Fresno-Bakersfield Location 01, Fixed Measurement Location
GPS Coord.: 36 44' 8.94" 119 47' 48.56" (latitude, longitude for fixed location)

Date/Time	Date	Start Time	End Time	Duration	Samples	Distance
Fixed Loc.:	8-Jun-10	10:37:11	10:55:53	0:18:42	562	N/A (fixed)

Description: Parking lot in downtown Fresno.

Component DC Magnetic Field (G)

	Bx DC	By DC	Bz DC
MAX	0.1587	-0.1888	-0.4154
MIN	0.1577	-0.1900	-0.4167
MEDIAN	0.1582	-0.1895	-0.4160
RANGE	0.0010	0.0012	0.0013
STD DEV	0.0001	0.0002	0.0002



Resultant DC Magnetic Field (G)

	Br DC	Time of Observation
MAX	0.4843	10:52:07
MIN	0.4831	10:50:55
MEDIAN	0.4837	-----
RANGE	0.0012	-----
STD DEV	0.0002	-----

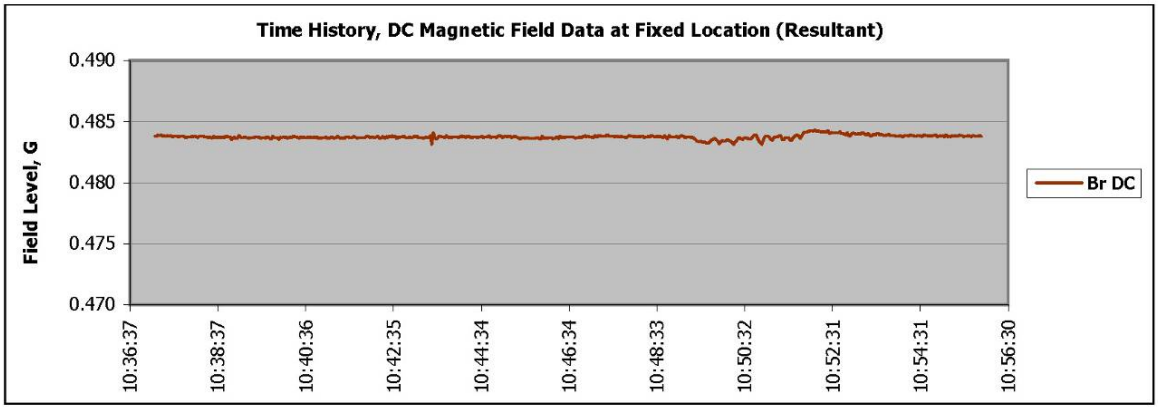


Figure 3.5-A-3(d)
Location 01: Static (DC) magnetic field data with temporal statistics

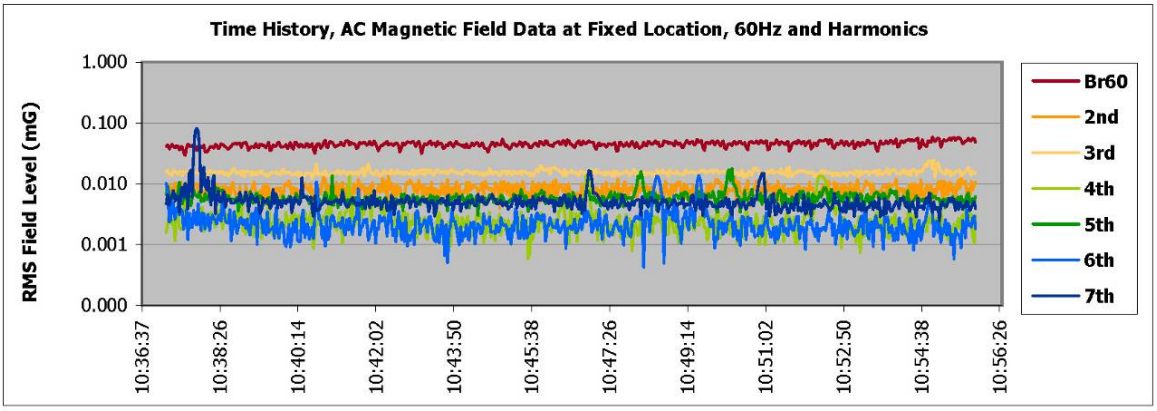
Location: Fresno-Bakersfield Location 01, Fixed and Profile Locations
GPS Coord.: 36 44' 8.94" 119 47' 48.56" (latitude, longitude for fixed location)

Date/Time	Date	Start Time	End Time	Duration	Samples	Distance
Fixed Loc.:	8-Jun-10	10:37:11	10:55:53	0:18:42	562	N/A (fixed)
Profile:	8-Jun-10	10:42:39	10:55:03	0:12:24	105	1050ft

Description: Parking lot in downtown Fresno. Five 200' profiles across parking lot, perpendicular to alignment.

Resultant Low-Frequency AC Magnetic Field (RMS mG) at Fixed Location (60Hz and Harmonics)

	60Hz Fund.	2nd	3rd	4th	5th	6th	7th
MAX	0.06	0.01	0.02	0.01	0.02	0.01	0.08
MIN	0.03	0.00	0.01	0.00	0.00	0.00	0.00
MEDIAN	0.05	0.01	0.02	0.00	0.01	0.00	0.00
RANGE	0.03	0.01	0.01	0.01	0.01	0.01	0.08
STD DEV	0.00	0.00	0.00	0.00	0.00	0.00	0.01



Resultant Low-Frequency AC Magnetic Field (RMS mG) along Profile, 60Hz and Harmonics

	60Hz Fund.	2nd	3rd	4th	5th	6th	7th
MAX	0.46	0.21	0.14	0.11	0.09	0.07	0.07
MIN	0.03	0.00	0.00	0.00	0.01	0.00	0.00
MEDIAN	0.12	0.04	0.03	0.02	0.02	0.01	0.01
RANGE	0.44	0.21	0.14	0.11	0.09	0.07	0.06
STD DEV	0.08	0.03	0.02	0.02	0.01	0.01	0.01

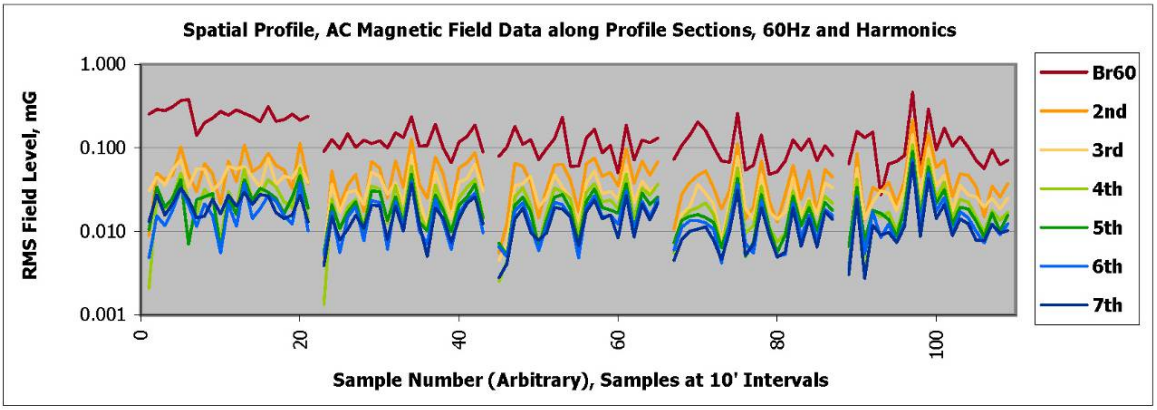
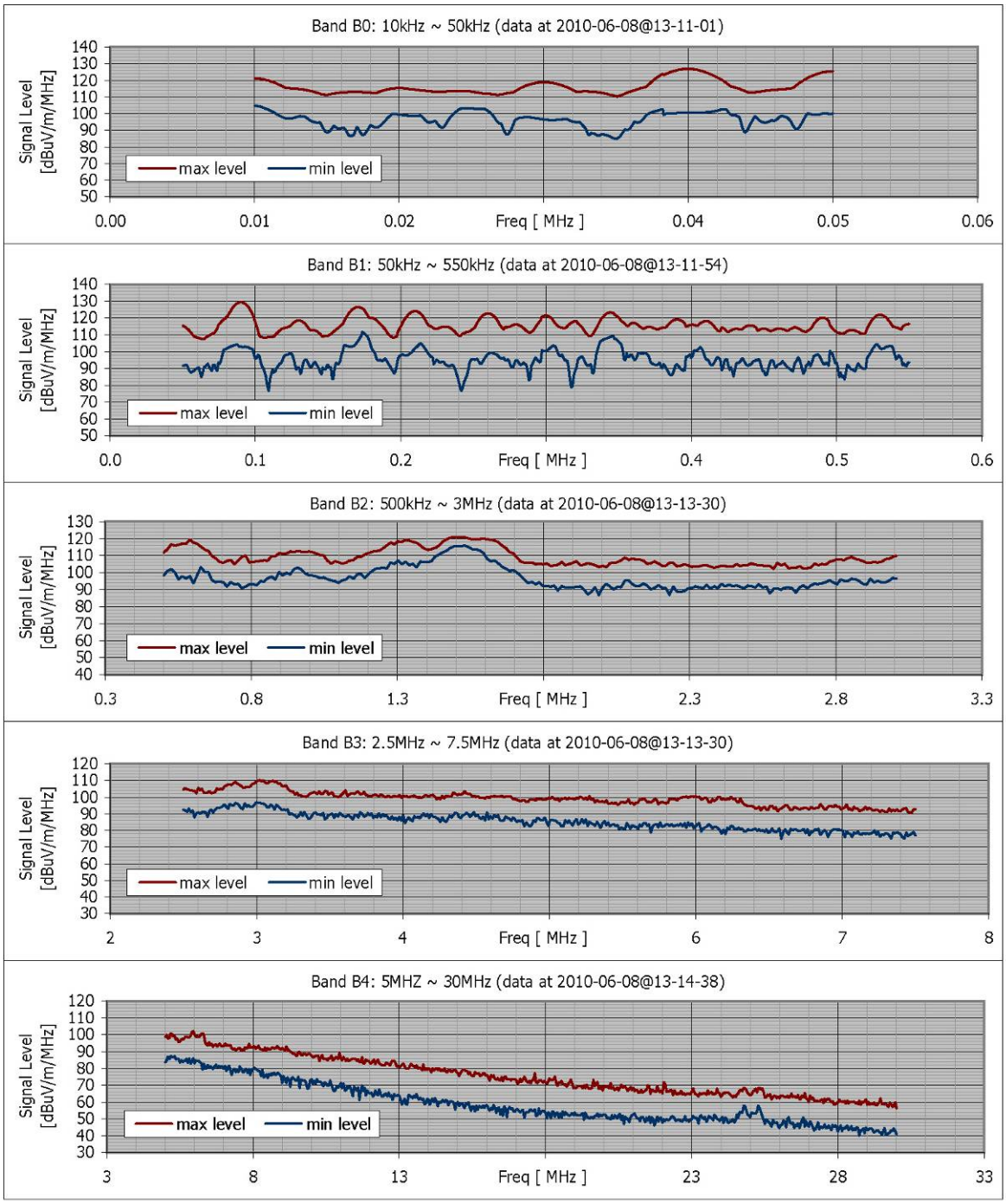
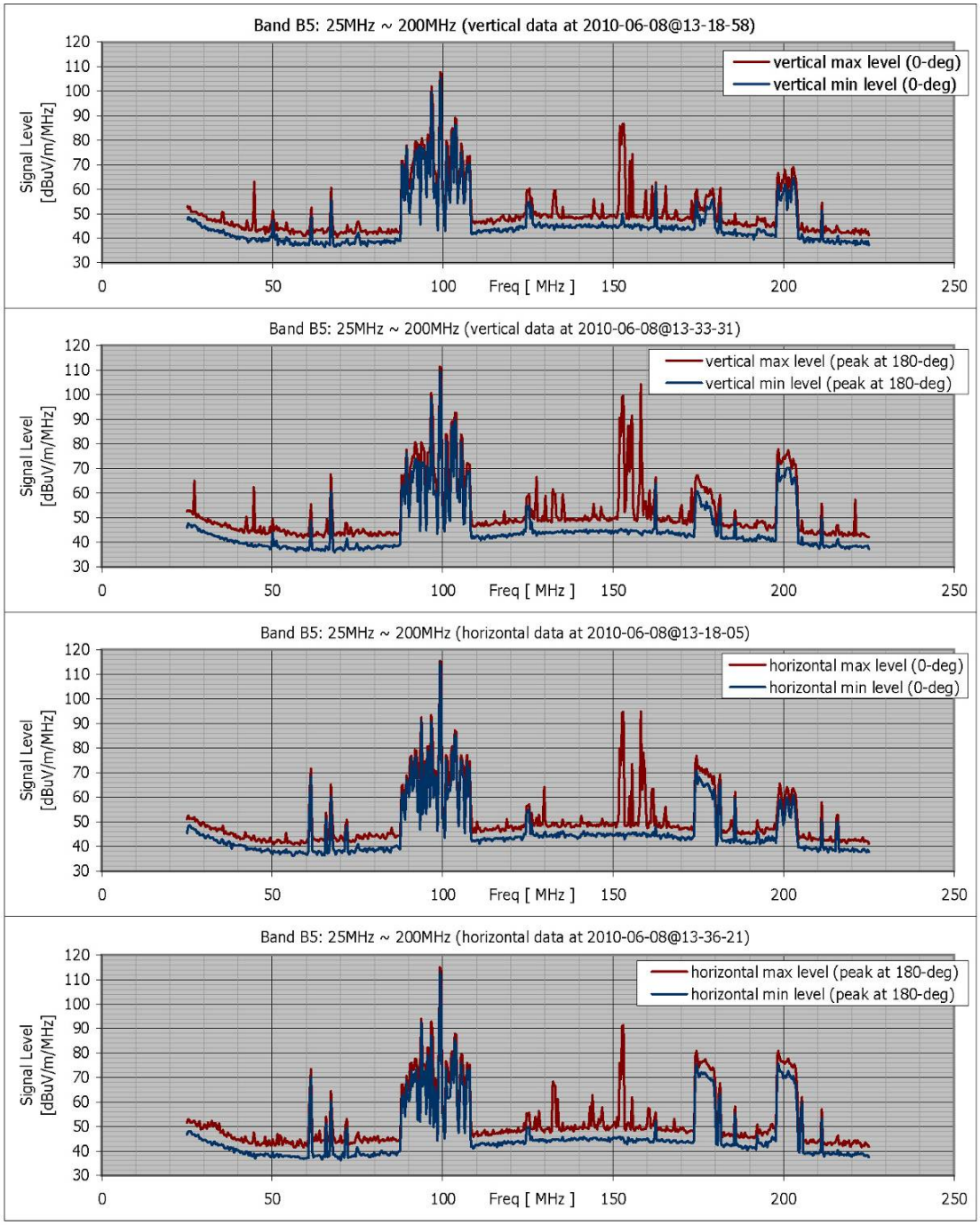


Figure 3.5-A-3(e)
Location 01: Low-frequency (AC) magnetic field data with temporal and spatial statistics



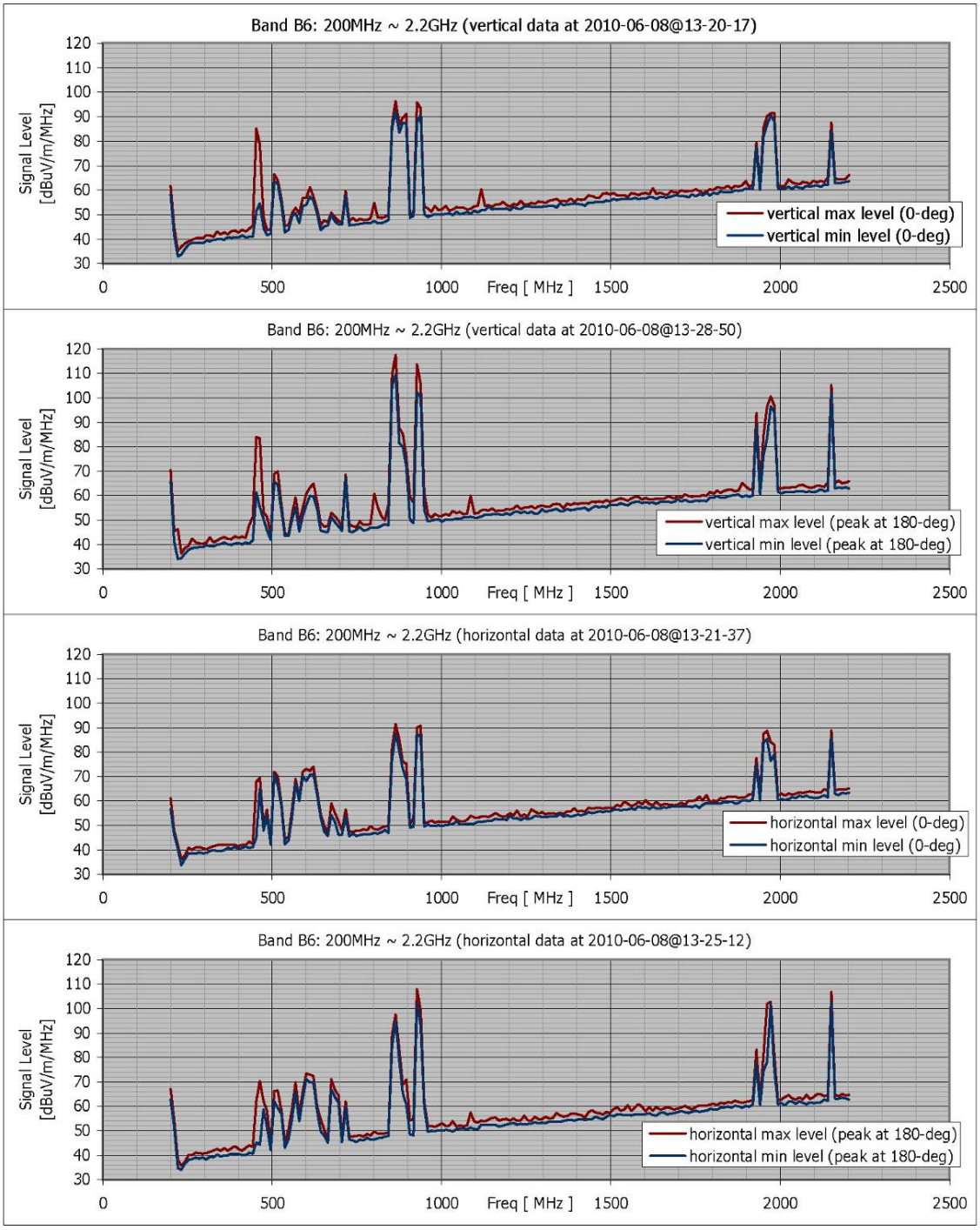
Band	Freq. Range (MHz)	Pk Min-Hold (dB uV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dB uV/m/MHz)	@ Freq. (MHz)
B0	0.01 ~ 0.05	104.7	0.0101	126.8	0.0399
B1	0.05 ~ 0.55	111.6	0.1736	129.3	0.0900
B2	0.50 ~ 3.00	115.8	1.5309	120.7	1.5055
B3	2.5 ~ 7.5	96.7	2.9945	110.0	3.0200
B4	5 ~ 30	87.3	5.3182	102.0	5.9545

Figure 3.5-A-3(f)
Location 01: RF data from non-directional vertically oriented monopole antenna



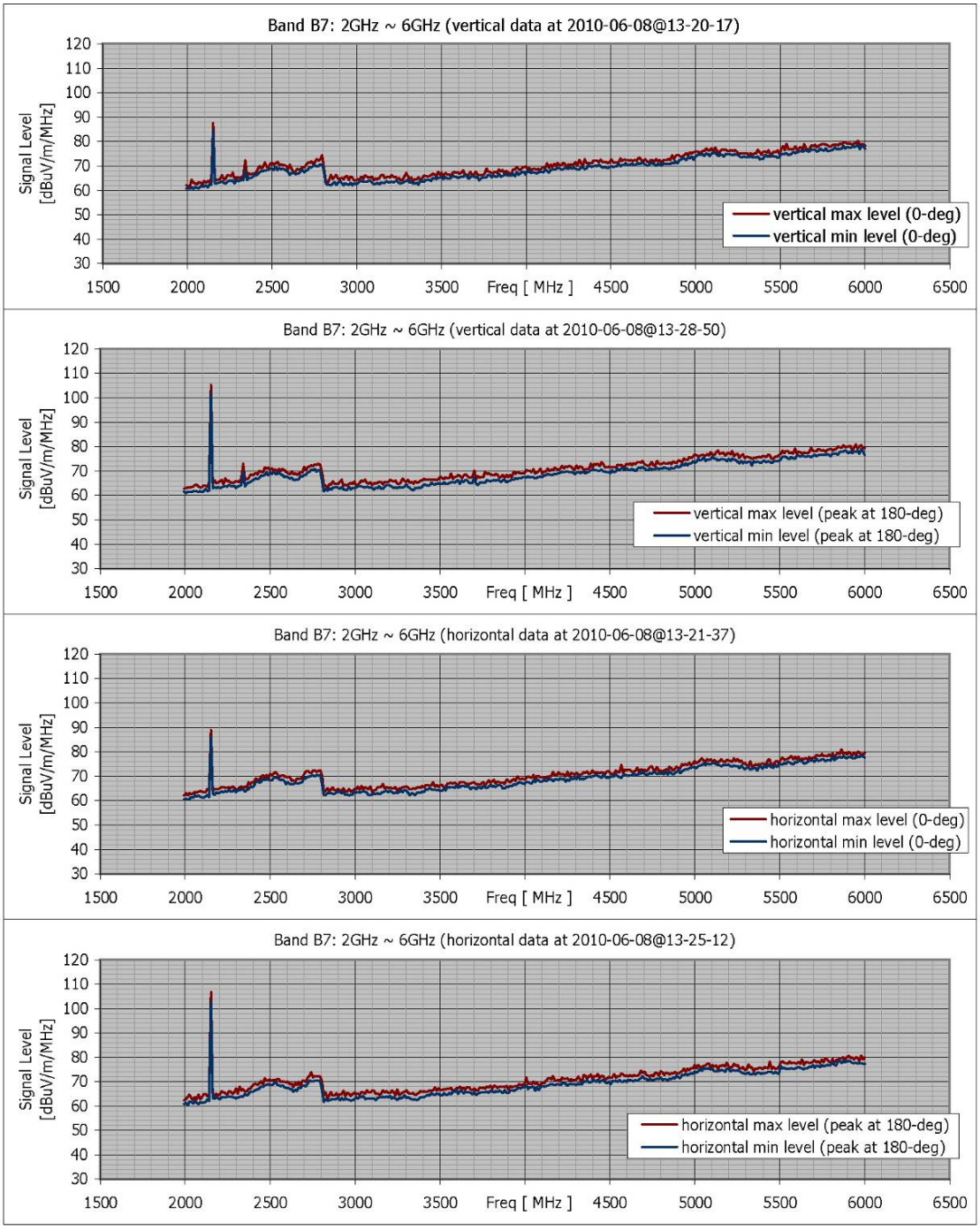
		Vertical				Horizontal			
Band	Freq. Range (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)
B5	25 ~ 200	109.5	99.182	111.3	99.182	114.5	99.182	115.3	99.182

Figure 3.5-A-3(g)
Location 01: RF data, band B5, vertical and horizontal components at 0 degrees (facing alignment) and at peak orientation



		Vertical				Horizontal			
Band	Freq. Range (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)
B6	200 ~ 2200	109.4	864.36	117.6	864.36	102.8	2150.91	107.9	927.64

Figure 3.5-A-3(h)
Location 01: RF data, band B6, vertical and horizontal components at 0 degrees (facing alignment) and at peak orientation



		Vertical				Horizontal			
Band	Freq. Range (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)
B7	2200~6000	102.0	2150.9	105.3	2150.9	102.8	2150.9	106.8	2150.9

Figure 3.5-A-3(i)
Location 01: RF data, band B7, vertical and horizontal components at 0 degrees (facing alignment) and at peak orientation

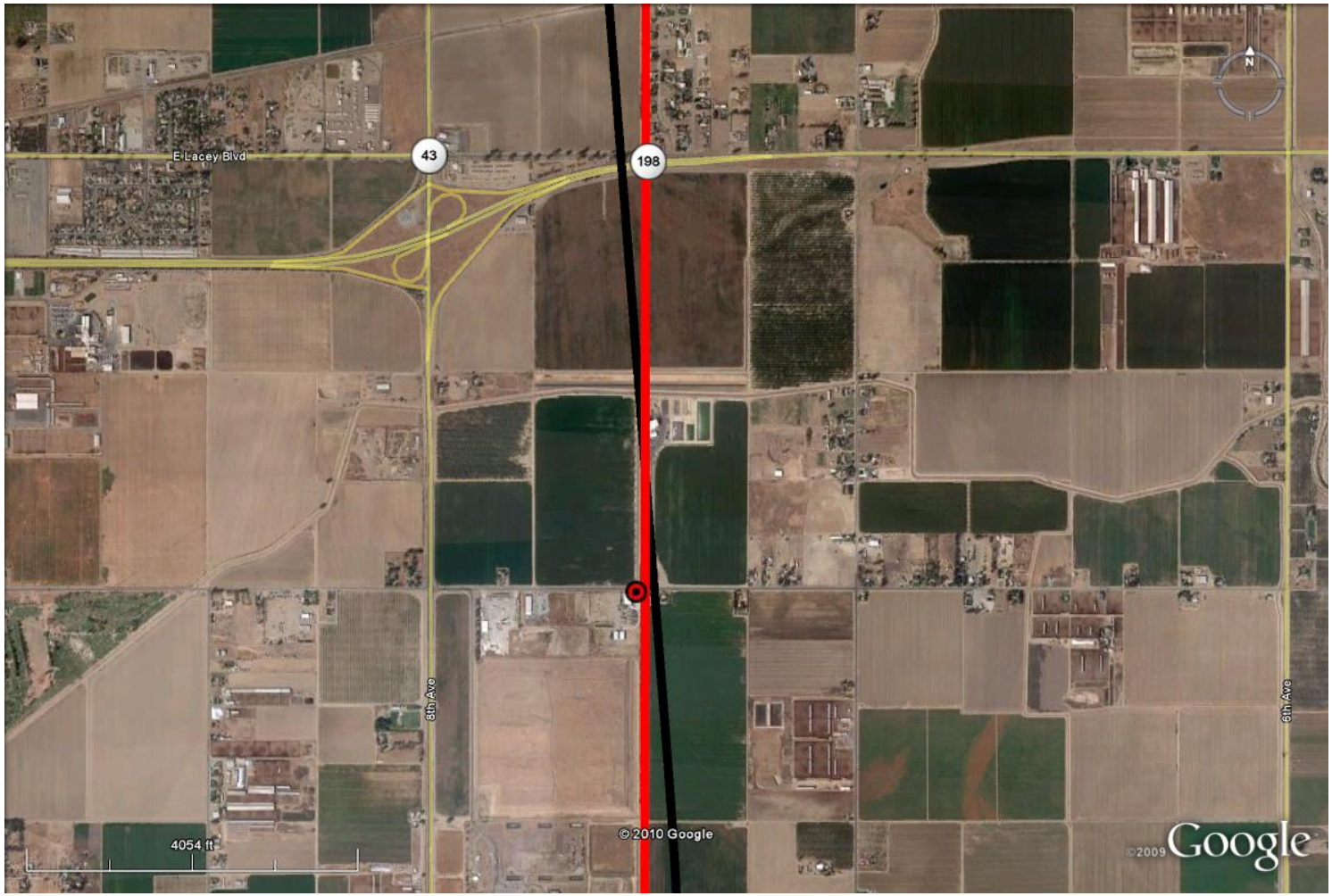


Figure 3.5-A-4(a)
Location 02: Transmission lines near Hanford
A rural area where existing transmission lines run parallel to the alignment, with distribution crossing the (Lat: 36° 18' 48.97", Long: W119° 35' 32.09")

Figure 3.5-A-4(b)
Location 02: Transmission lines near Hanford

Photos depicting the site from the perspective of the RF measurement location. In the center is a satellite view, with the alignment (dark line) and measurement point (red dot). The spatial profiles are indicated by yellow arrows. The satellite view is rotated so that the image at 0° faces the alignment.

Figure 3.5-A-4(c)
Location 02: Transmission lines near Hanford
Nearby emitters include high voltage transmission lines parallel to the alignment with distribution lines crossing the alignment.
Photos depicting visible close-proximity emitters. Other emissions sources are assumed to exist but are not visible from the site.

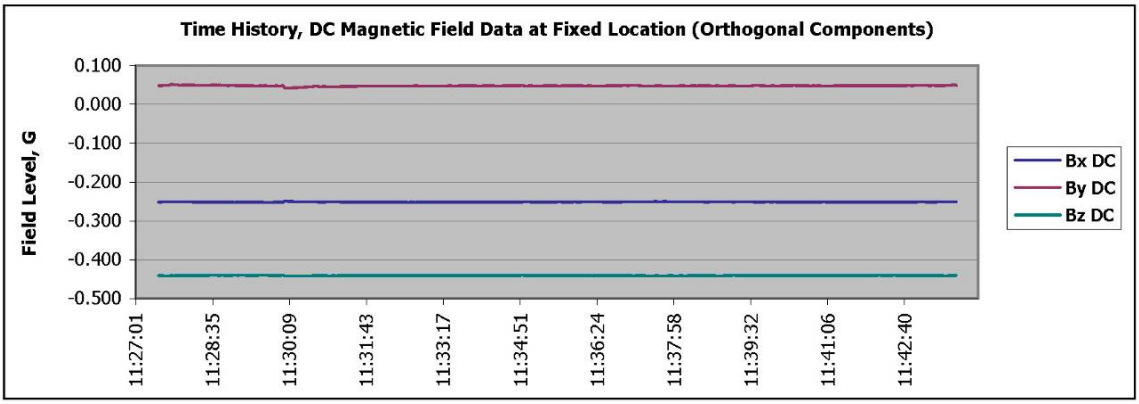
Location: Fresno-Bakersfield Location 02, Fixed Measurement Location
GPS Coord.: 36 18' 49.97" 119 35' 32.09" (latitude, longitude for fixed location)

Date/Time	Date	Start Time	End Time	Duration	Samples	Distance
Fixed Loc.:	5-Jun-10	11:27:29	11:43:43	0:16:14	488	N/A (fixed)

Description: West side of irrigation canal, Hanford-Armona Road.

Component DC Magnetic Field (G)

	Bx DC	By DC	Bz DC
MAX	-0.2497	0.0514	-0.4404
MIN	-0.2524	0.0415	-0.4426
MEDIAN	-0.2516	0.0477	-0.4410
RANGE	0.0028	0.0099	0.0022
STD DEV	0.0004	0.0012	0.0003



Resultant DC Magnetic Field (G)

	Br DC	Time of Observation
MAX	0.5102	11:27:31
MIN	0.5093	11:37:55
MEDIAN	0.5100	-----
RANGE	0.0009	-----
STD DEV	0.0001	-----

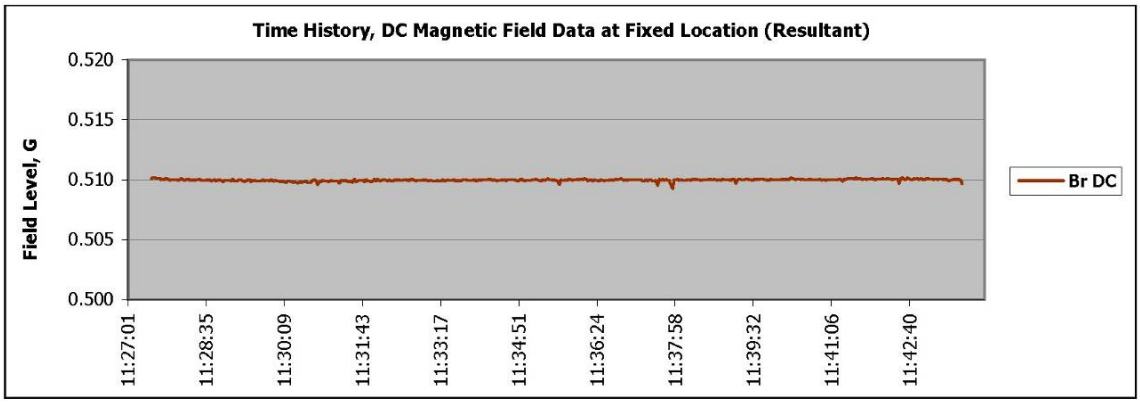


Figure 3.5-A-4(d)
Location 02: Static (DC) magnetic field data with temporal statistics

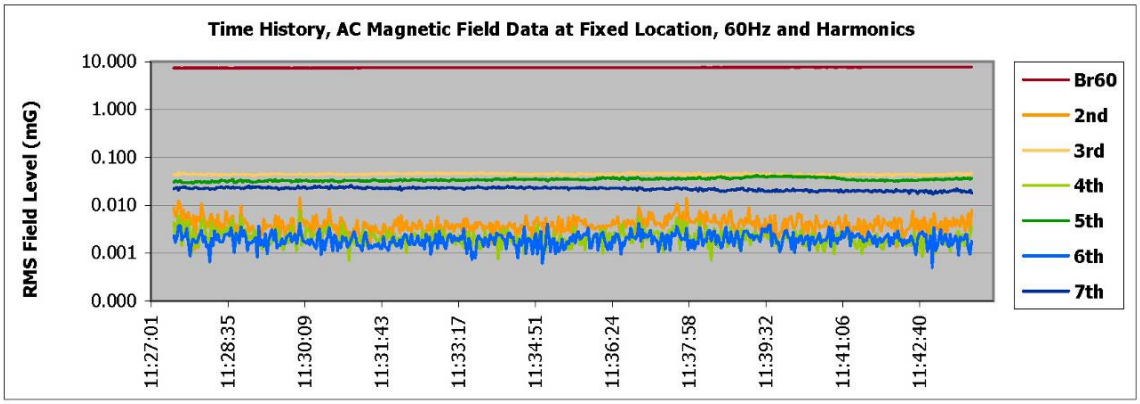
Location: Fresno-Bakersfield Location 02, Fixed and Profile Locations
GPS Coord.: 36 18' 49.97" 119 35' 32.09" (latitude, longitude for fixed location)

	Date/Time	Date	Start Time	End Time	Duration	Samples	Distance
Fixed Loc.:		5-Jun-10	11:27:29	11:43:43	0:16:14	488	N/A (fixed)
Profile:		5-Jun-10	9:40:28	9:51:22	0:10:54	161	1610ft

Description: West side of irrigation canal, Hanford-Armona Road. Profiles 400' on each side of Hanford-Armona Road, spanning on transmission lines.

Resultant Low-Frequency AC Magnetic Field (RMS mG) at Fixed Location (60Hz and Harmonics)

	60Hz Fund.	2nd	3rd	4th	5th	6th	7th
MAX	7.75	0.01	0.05	0.01	0.04	0.00	0.03
MIN	7.31	0.00	0.04	0.00	0.03	0.00	0.02
MEDIAN	7.51	0.00	0.04	0.00	0.03	0.00	0.02
RANGE	0.44	0.01	0.01	0.01	0.01	0.00	0.01
STD DEV	0.12	0.00	0.00	0.00	0.00	0.00	0.00



Resultant Low-Frequency AC Magnetic Field (RMS mG) along Profile, 60Hz and Harmonics

	60Hz Fund.	2nd	3rd	4th	5th	6th	7th
MAX	7.83	0.19	0.13	0.09	0.08	0.06	0.05
MIN	2.26	0.01	0.02	0.00	0.01	0.00	0.01
MEDIAN	4.77	0.06	0.06	0.03	0.03	0.02	0.02
RANGE	5.57	0.18	0.11	0.09	0.07	0.06	0.04
STD DEV	1.80	0.04	0.02	0.02	0.01	0.01	0.01

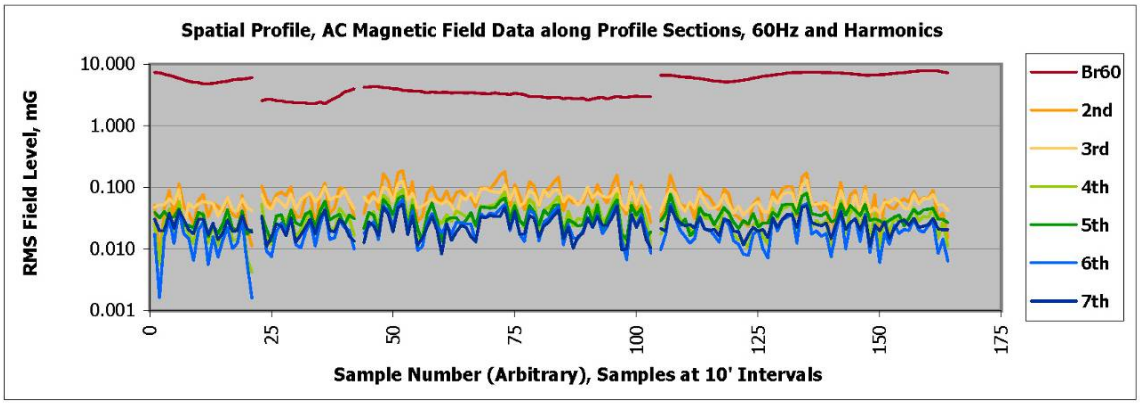
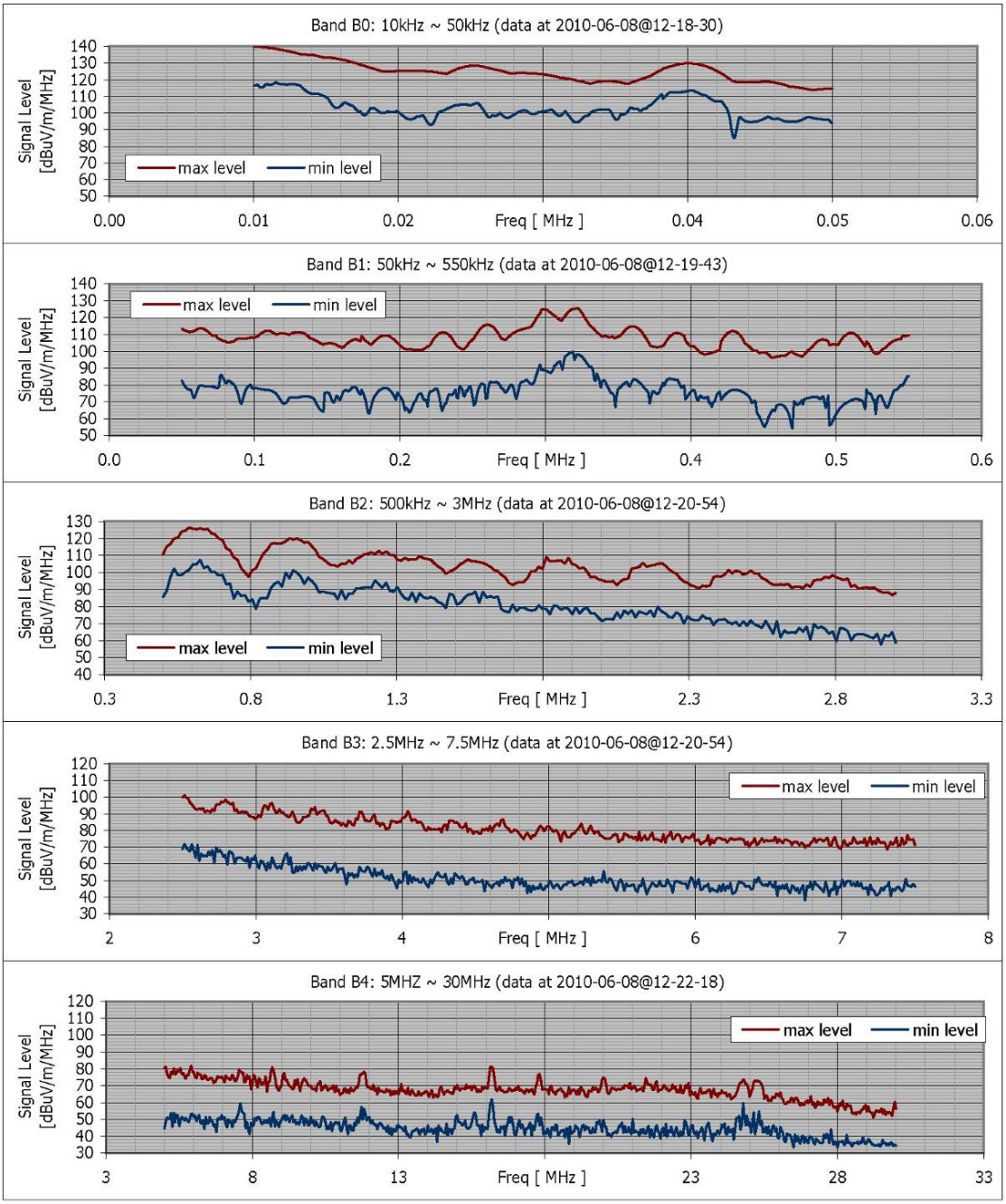
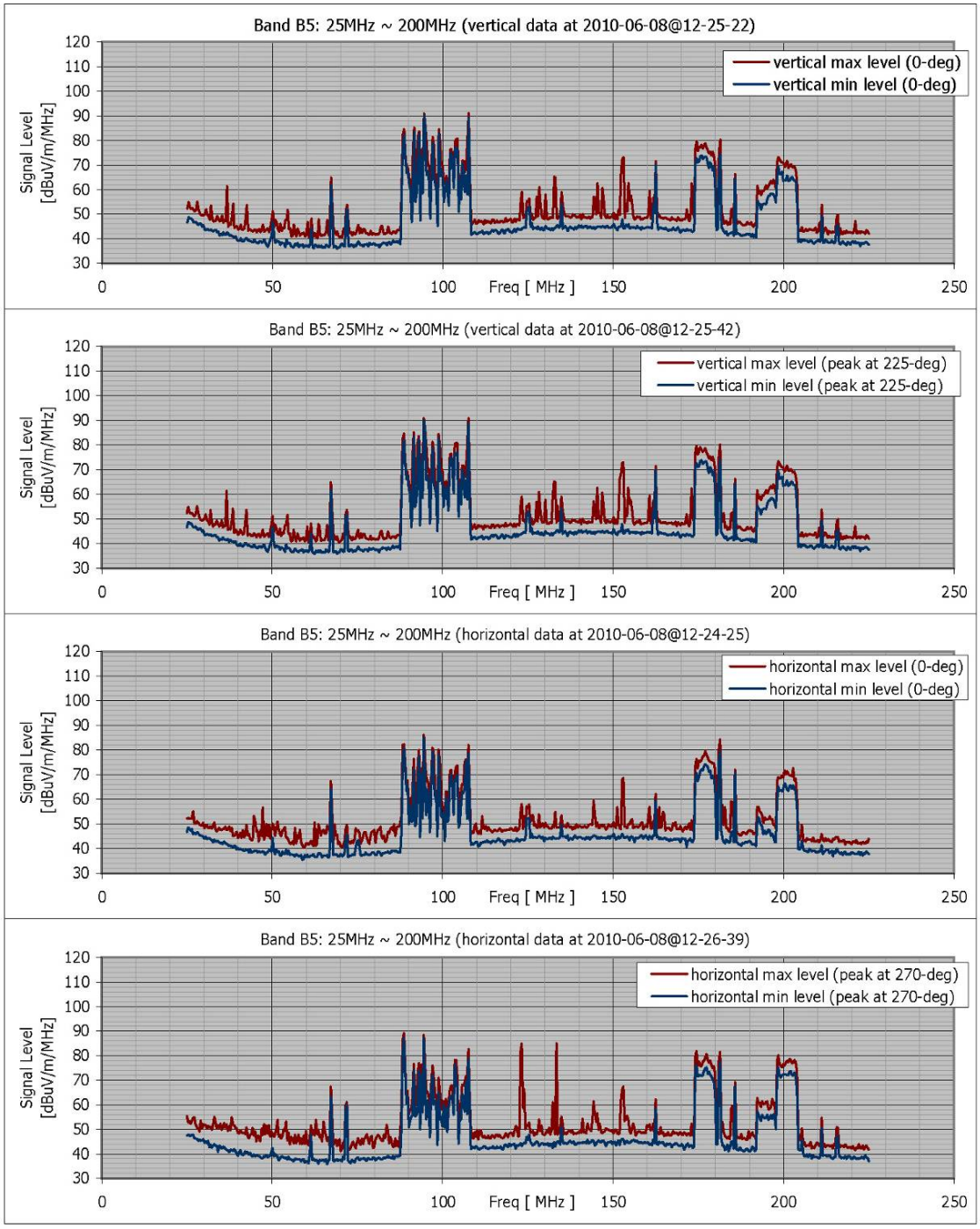


Figure 3.5-A-4(e)
Location 02: Low-frequency (AC) magnetic field data with temporal and spatial statistics



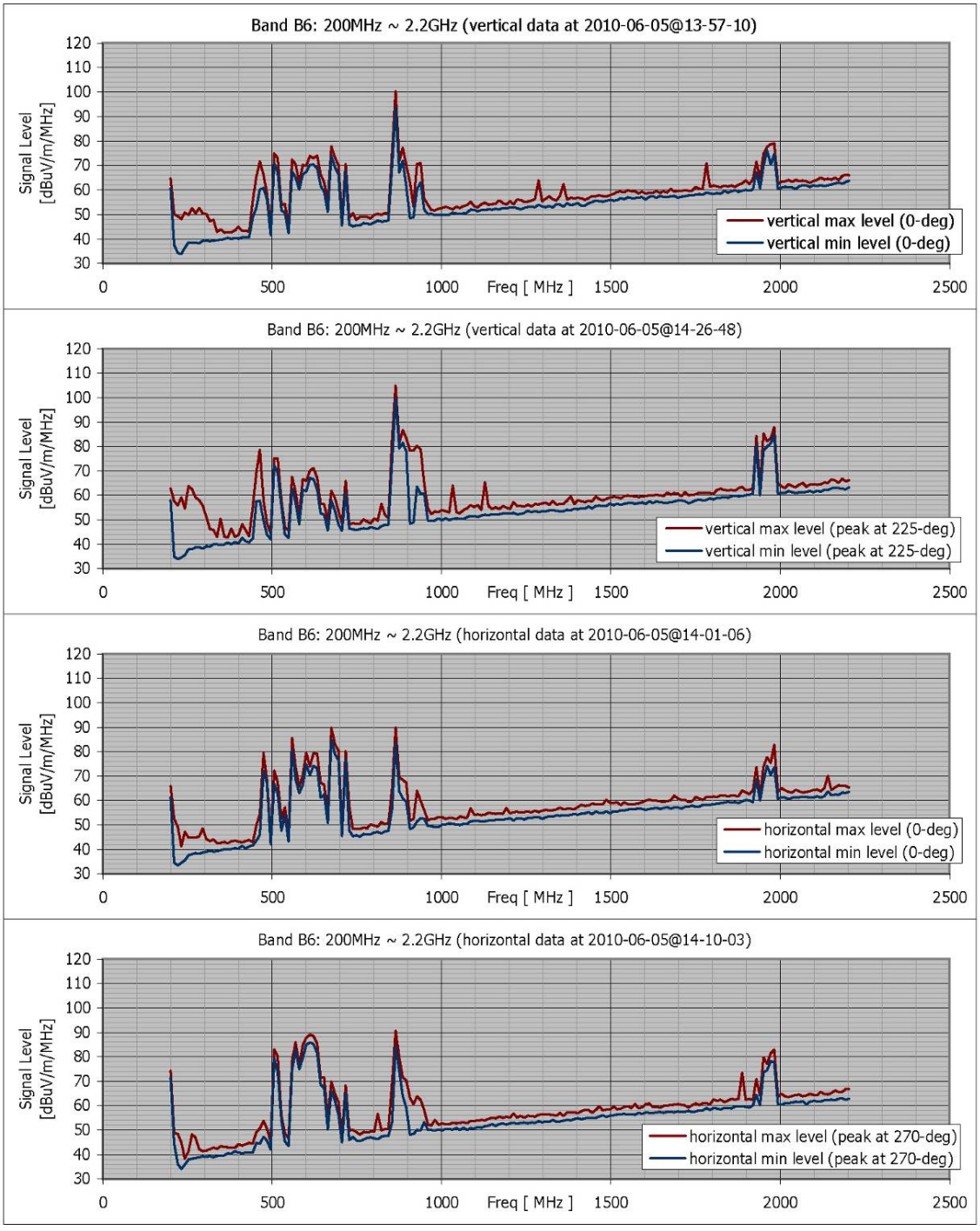
Band	Freq. Range (MHz)	Pk Min-Hold (dB uV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dB uV/m/MHz)	@ Freq. (MHz)
B0	0.01 ~ 0.05	118.2	0.0115	139.9	0.0100
B1	0.05 ~ 0.55	99.6	0.3191	125.7	0.3218
B2	0.50 ~ 3.00	107.3	0.6273	126.4	0.5891
B3	2.5 ~ 7.5	71.7	2.5109	101.0	2.5109
B4	5 ~ 30	61.8	16.1818	81.8	5.9091

Figure 3.5-A-4(f)
Location 02: RF data from non-directional vertically oriented monopole antenna



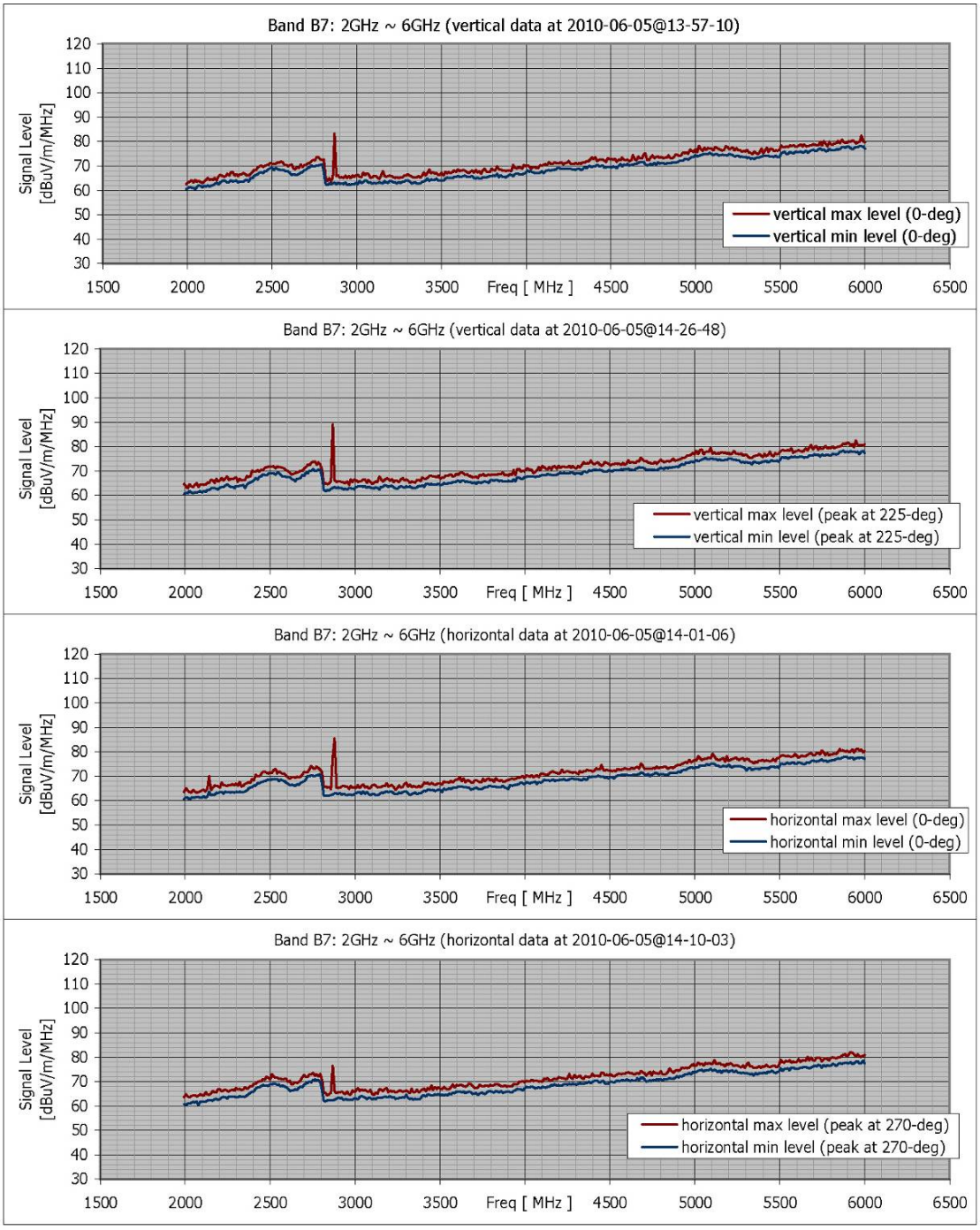
		Vertical				Horizontal			
Band	Freq. Range (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)
B5	25 ~ 200	90.0	94.455	91.0	94.455	87.1	94.455	89.2	88.636

Figure 3.5-A-4(g)
Location 02: RF data, band B5, vertical and horizontal components at 0 degrees (facing alignment) and at peak orientation



		Vertical				Horizontal			
Band	Freq. Range (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)
B6	200 ~ 2200	99.7	864.36	104.8	864.36	85.8	611.27	90.7	864.36

Figure 3.5-A-4(h)
Location 02: RF data, band B6, vertical and horizontal components at 0 degrees (facing alignment) and at peak orientation



		Vertical				Horizontal			
Band	Freq. Range (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)
B7	2200~6000	78.4	5873.5	89.1	2868.0	78.5	5989.5	85.4	2878.5

Figure 3.5-A-4(i)
Location 02: RF data, band B7, vertical and horizontal components at 0 degrees (facing alignment) and at peak orientation

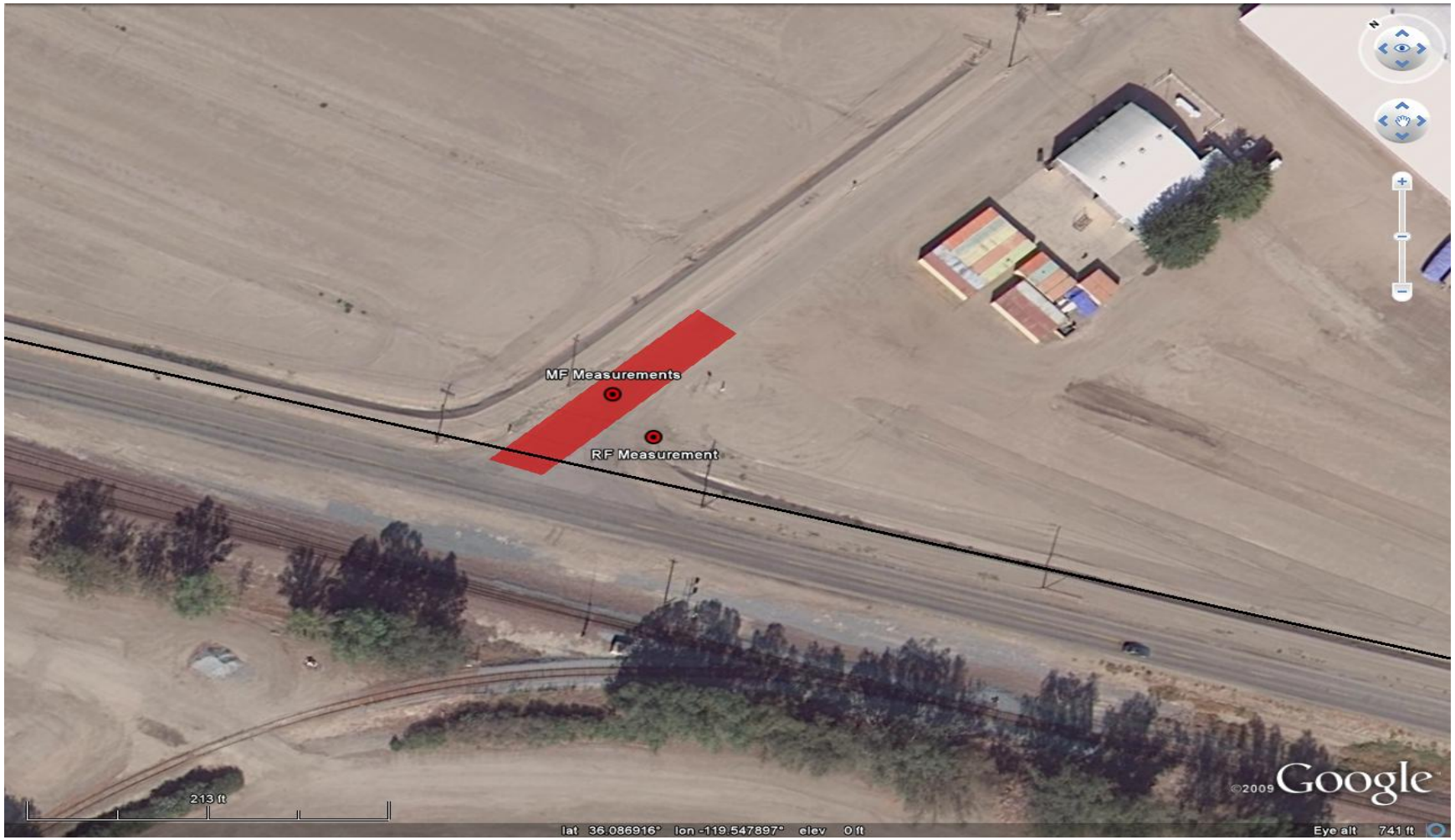


Figure 3.5-A-5(a)
Location 03: Adjacent to private airstrip near Corcoran
Oregon Avenue at Santa Fe Avenue (Lat: 36° 5' 13.11", Long: W119° 32' 52.91")

Figure 3.5-A-5(b)

Location 03: Adjacent to private airstrip near Corcoran

Photos depict the site from the perspective of the RF measurement location. In the center is a satellite view, with the alignment (dark line) and measurement point (red dot). The spatial profiles are indicated by yellow arrows. The satellite view is rotated so that the image at 0° faces the alignment.

Figure 3.5-A-5(c)
Location 03: Adjacent to private airstrip near Corcoran

Nearby emitters include cell towers, existing railway communications, airport communications, communications towers, freight/Amtrak, power distribution. Photos depicting visible close-proximity emitters. Other emissions sources are assumed to exist but are not visible from the site.

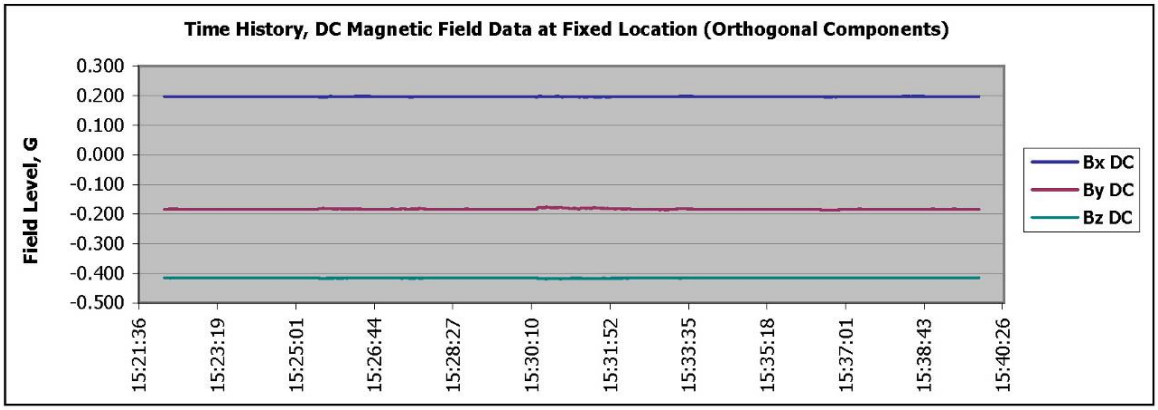
Location: Fresno-Bakersfield Location 03, Fixed Measurement Location
GPS Coord.: 36 5' 13.11" 119 32' 52.91" (latitude, longitude for fixed location)

Date/Time	Date	Start Time	End Time	Duration	Samples	Distance
Fixed Loc.:	5-Jun-10	15:22:09	15:39:55	0:17:46	525	N/A (fixed)

Description: Beside Santa Fe Avenue near small airstrip, Corcoran.

Component DC Magnetic Field (G)

	Bx DC	By DC	Bz DC
MAX	0.1983	-0.1756	-0.4151
MIN	0.1938	-0.1867	-0.4196
MEDIAN	0.1968	-0.1841	-0.4157
RANGE	0.0045	0.0111	0.0045
STD DEV	0.0005	0.0015	0.0007



Resultant DC Magnetic Field (G)

	Br DC	Time of Observation
MAX	0.4961	15:22:51
MIN	0.4950	15:23:03
MEDIAN	0.4955	-----
RANGE	0.0011	-----
STD DEV	0.0002	-----

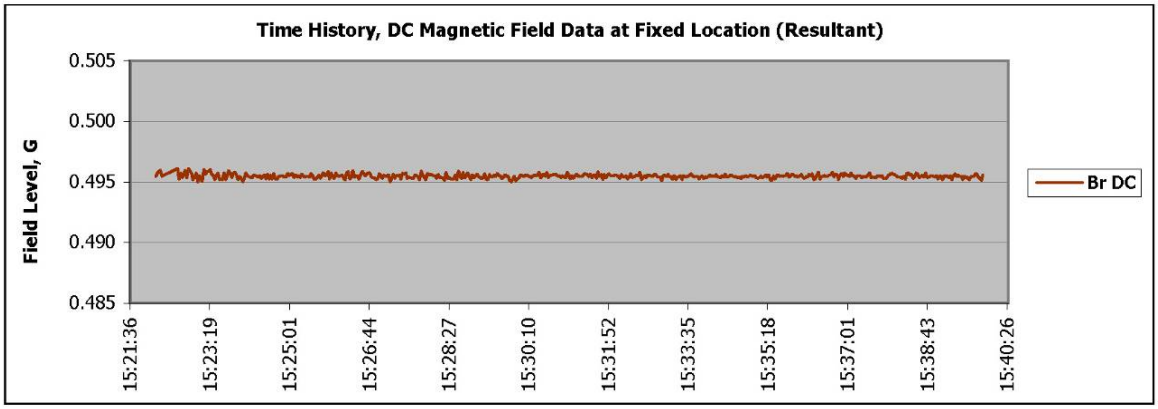


Figure 3.5-A-5(d)
Location 03: Static (DC) magnetic field data with temporal statistics

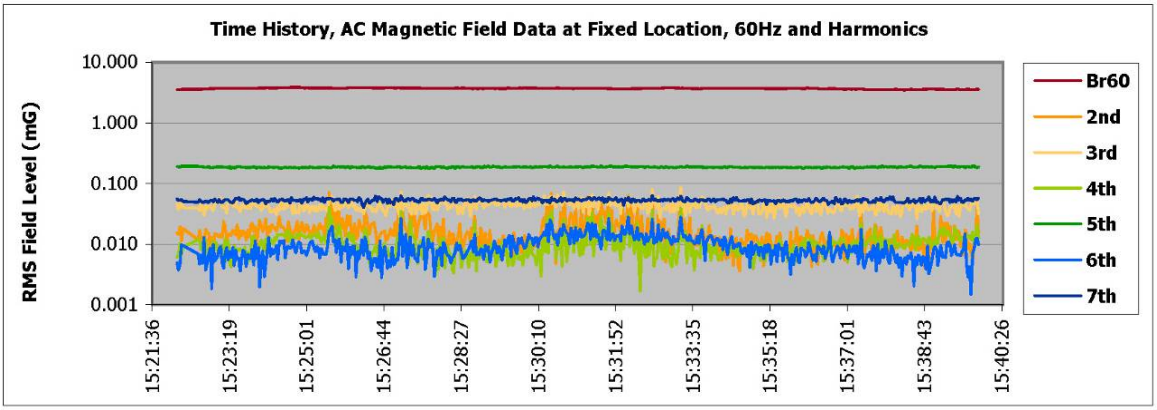
Location: Fresno-Bakersfield Location 03, Fixed and Profile Locations
GPS Coord.: 36 5' 13.11" 119 32' 52.91" (latitude, longitude for fixed location)

	Date/Time	Date	Start Time	End Time	Duration	Samples	Distance
Fixed Loc.:		5-Jun-10	15:22:09	15:39:55	0:17:46	525	N/A (fixed)
Profile:		5-Jun-10	15:23:47	15:26:41	0:02:54	61	610ft

Description: Beside Santa Fe Avenue near small airstrip, Corcoran. Profile is 300' along both sides of Oregon Avenue from Santa Fe Avenue.

Resultant Low-Frequency AC Magnetic Field (RMS mG) at Fixed Location (60Hz and Harmonics)

	60Hz Fund.	2nd	3rd	4th	5th	6th	7th
MAX	3.87	0.08	0.09	0.04	0.20	0.03	0.06
MIN	3.50	0.00	0.03	0.00	0.17	0.00	0.04
MEDIAN	3.71	0.01	0.04	0.01	0.19	0.01	0.05
RANGE	0.37	0.08	0.06	0.04	0.02	0.03	0.02
STD DEV	0.08	0.01	0.01	0.01	0.00	0.00	0.00



Resultant Low-Frequency AC Magnetic Field (RMS mG) along Profile, 60Hz and Harmonics

	60Hz Fund.	2nd	3rd	4th	5th	6th	7th
MAX	3.14	0.22	0.14	0.11	0.16	0.07	0.06
MIN	0.05	0.02	0.01	0.00	0.01	0.00	0.00
MEDIAN	0.30	0.06	0.04	0.03	0.03	0.02	0.02
RANGE	3.09	0.20	0.13	0.10	0.15	0.06	0.05
STD DEV	0.80	0.04	0.02	0.02	0.03	0.01	0.01

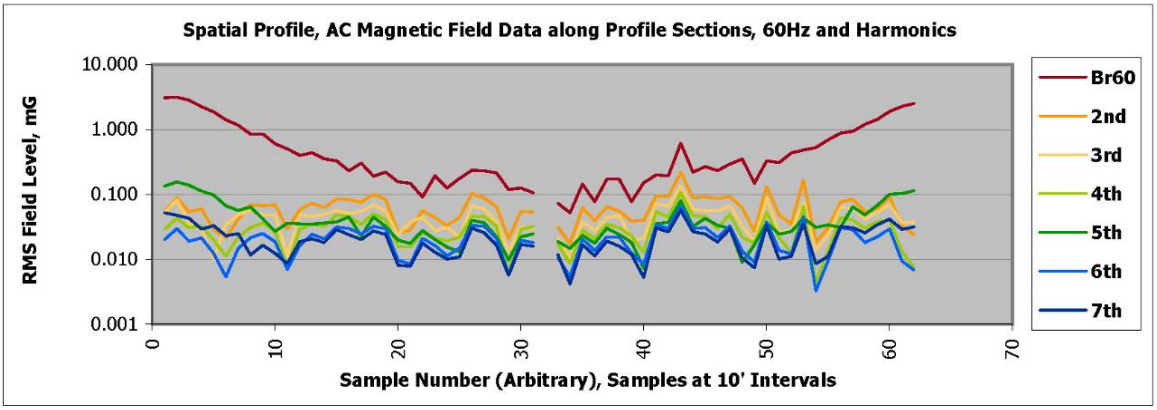
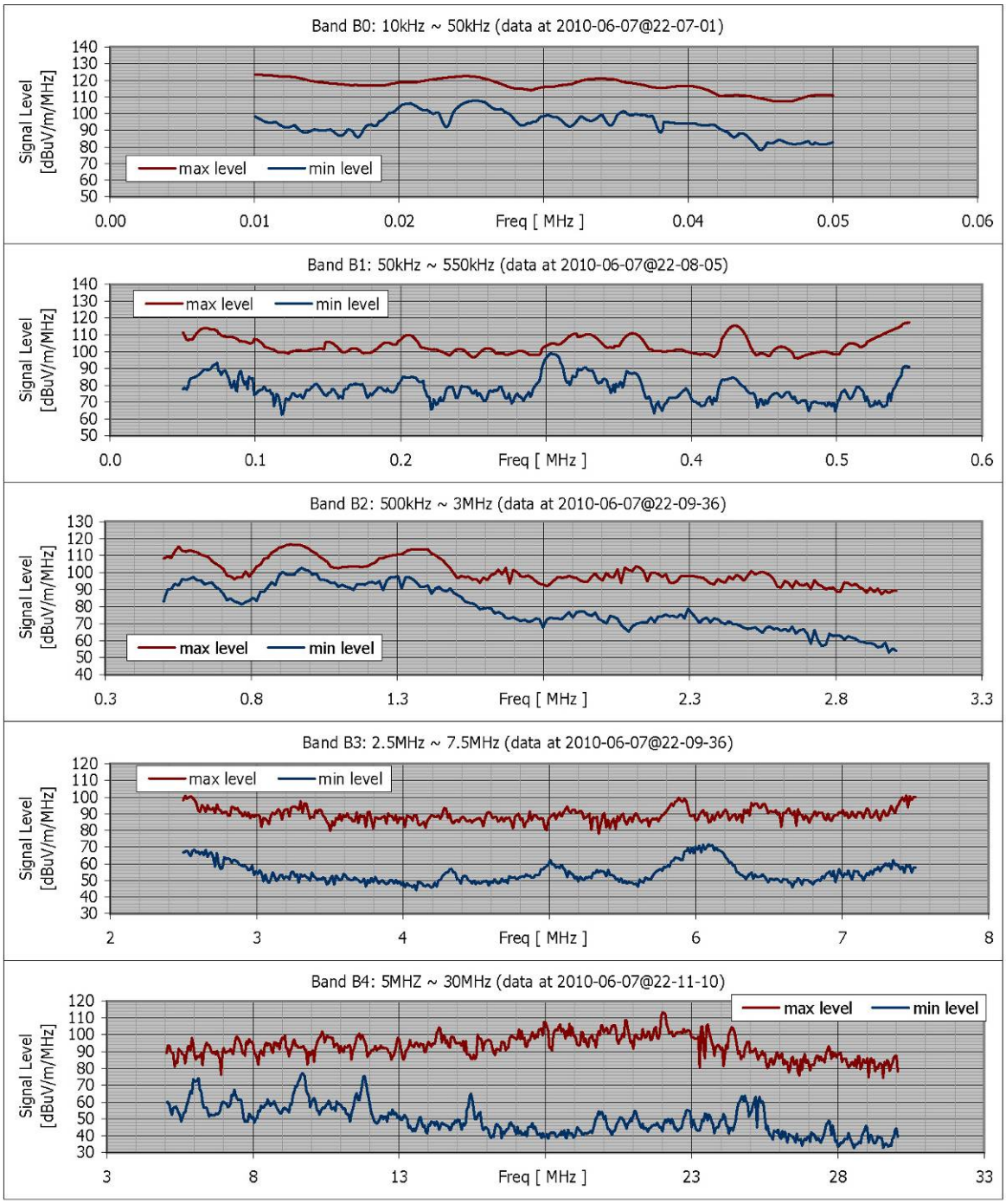
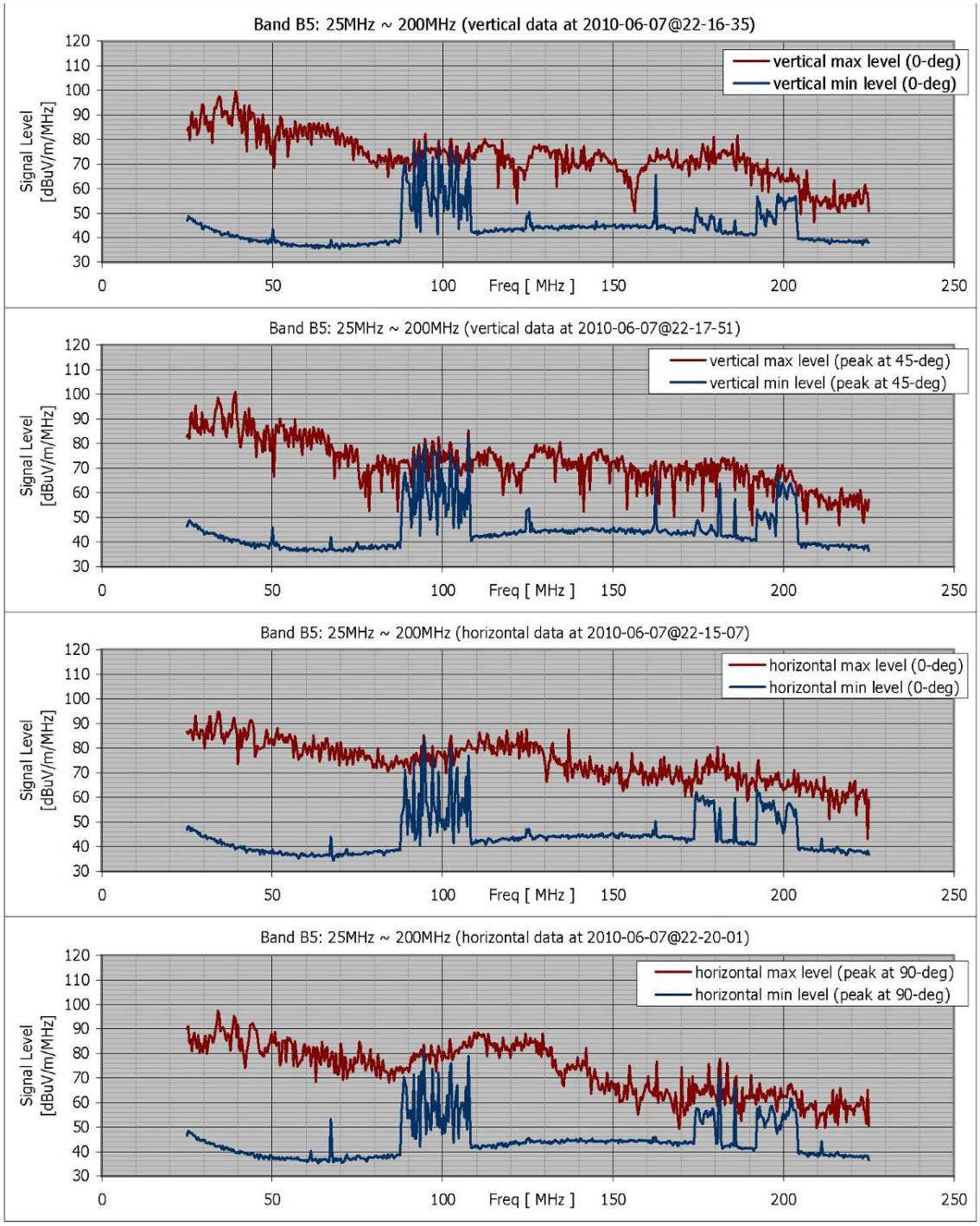


Figure 3.5-A-5(e)
Location 03: Low frequency (AC) magnetic field data with temporal and spatial statistics



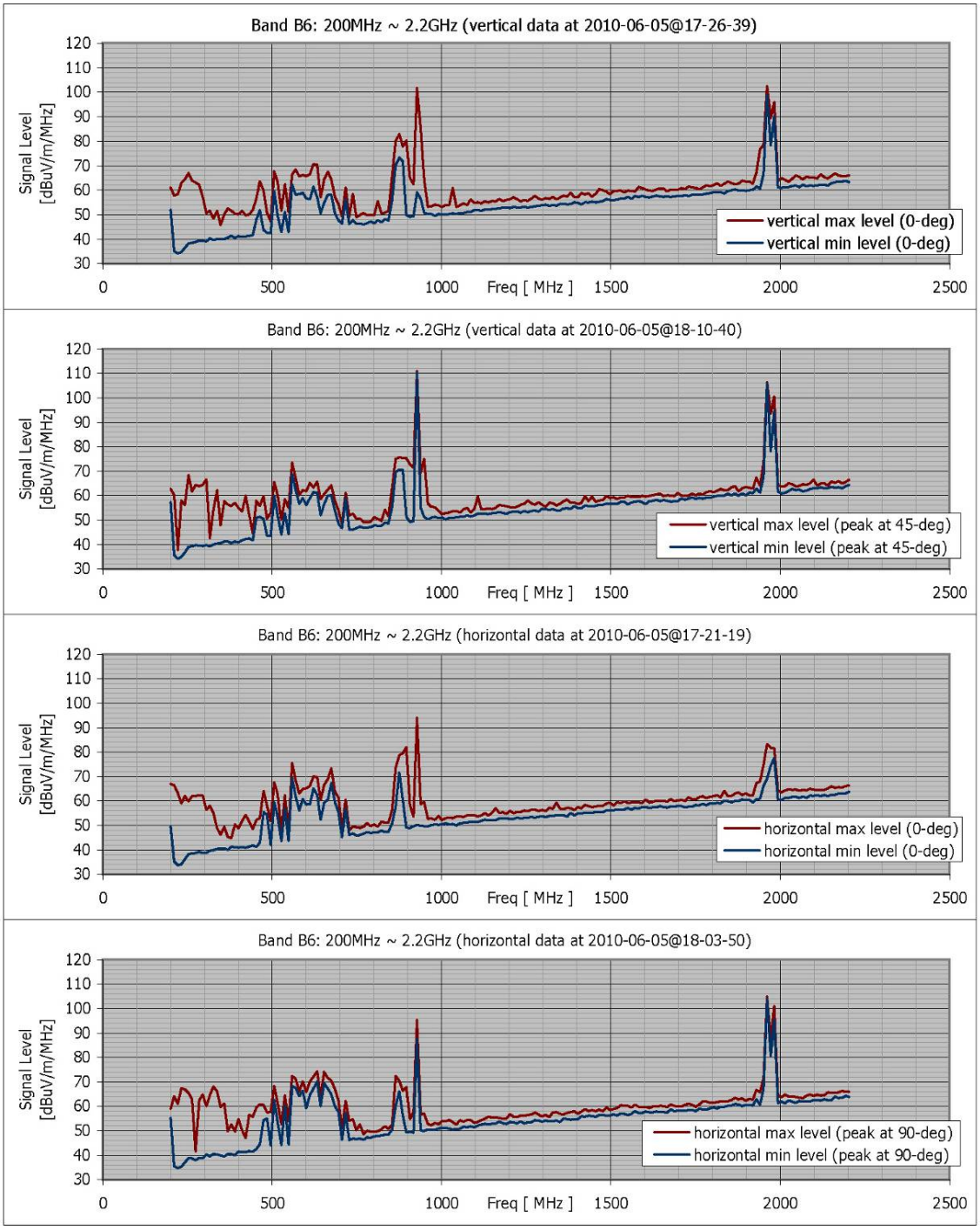
Band	Freq. Range (MHz)	Pk Min-Hold (dB uV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dB uV/m/MHz)	@ Freq. (MHz)
B0	0.01 ~ 0.05	107.7	0.0253	123.4	0.0100
B1	0.05 ~ 0.55	98.8	0.3036	117.2	0.5500
B2	0.50 ~ 3.00	102.7	0.9709	116.4	0.9327
B3	2.5 ~ 7.5	71.6	6.0873	100.9	7.4364
B4	5 ~ 30	77.0	9.6818	113.3	22.0000

Figure 3.5-A-5(f)
Location 03: RF data from non-directional vertically oriented monopole antenna



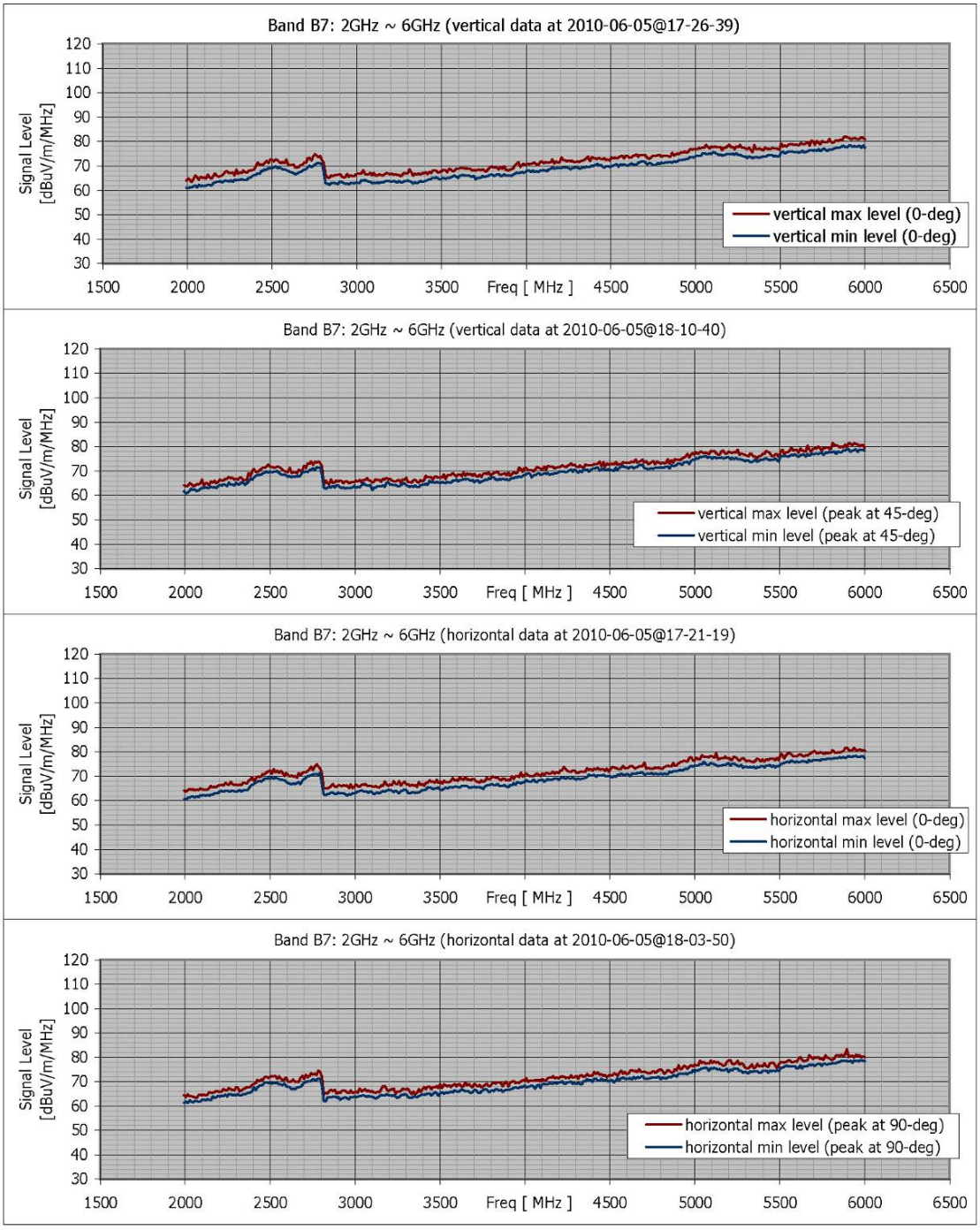
		Vertical				Horizontal			
Band	Freq. Range (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)
B5	25 ~ 200	83.1	107.545	101.0	39.182	83.2	94.455	97.4	34.091

Figure 3.5-A-5(g)
Location 03: RF data, band B5, vertical and horizontal components at 0 degrees (facing alignment) and at peak orientation



		Vertical				Horizontal			
Band	Freq. Range (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)
B6	200 ~ 2200	110.1	927.64	110.9	927.64	103.9	1961.09	104.8	1961.09

Figure 3.5-A-5(h)
Location 03: RF data, band B6, vertical and horizontal components at 0 degrees (facing alignment) and at peak orientation



		Vertical				Horizontal			
Band	Freq. Range (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)
B7	2200~6000	78.9	5947.3	82.1	5884.0	78.8	5978.9	83.4	5894.5

Figure 3.5-A-5(i)
Location 03: RF data, band B7, vertical and horizontal components at 0 degree (facing alignment) and at peak orientation

Figure 3.5-A-6(a)
Location 04: Remote area near Wasco
A rural area that appears relatively quiet; however, radio towers may be seen in the distance (Lat: 35° 33' 28.67", Long: W119° 19' 16.68")

Figure 3.5-A-6(b)
Location 04: Remote area near Wasco

Photos depicting the site from the perspective of the RF measurement location. In the center is a satellite view, with the alignment (dark line) and measurement point (red dot). The spatial profiles are indicated by yellow arrows. The satellite view is rotated so that the image at 0° faces the alignment.

Figure 3.5-A-6(c)
Location 04: Remote area near Wasco
Nearby emitters include local power distribution; tall radio towers in the distance; a small transmitter at a nearby building
Photos depicting visible close-proximity emitters. Other emissions sources are assumed to exist but are not visible from the site.

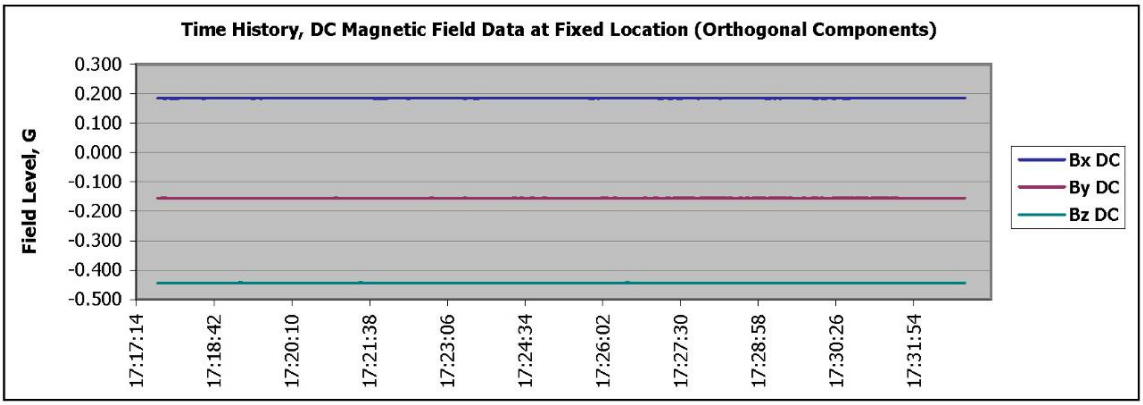
Location: Fresno-Bakersfield Location 04, Fixed Measurement Location
GPS Coord.: 35 33' 28.67" 119 19' 16.68" (latitude, longitude for fixed location)

Date/Time	Date	Start Time	End Time	Duration	Samples	Distance
Fixed Loc.:	7-Jun-10	17:17:38	17:32:52	0:15:14	458	N/A (fixed)

Description: Near Wasco, Kimberlina Road east of Hwy 43.

Component DC Magnetic Field (G)

	Bx DC	By DC	Bz DC
MAX	0.1853	-0.1550	-0.4430
MIN	0.1833	-0.1569	-0.4444
MEDIAN	0.1846	-0.1555	-0.4439
RANGE	0.0020	0.0019	0.0014
STD DEV	0.0003	0.0003	0.0002



Resultant DC Magnetic Field (G)

	Br DC	Time of Observation
MAX	0.5055	17:31:08
MIN	0.5048	17:30:48
MEDIAN	0.5053	-----
RANGE	0.0006	-----
STD DEV	0.0001	-----

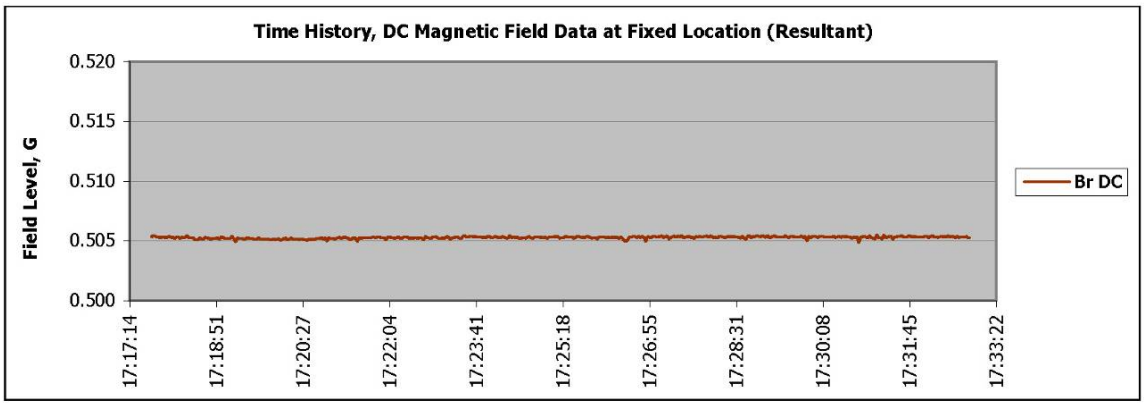


Figure 3.5-A-6(d)
Location 04: Static (DC) magnetic field data with temporal statistics

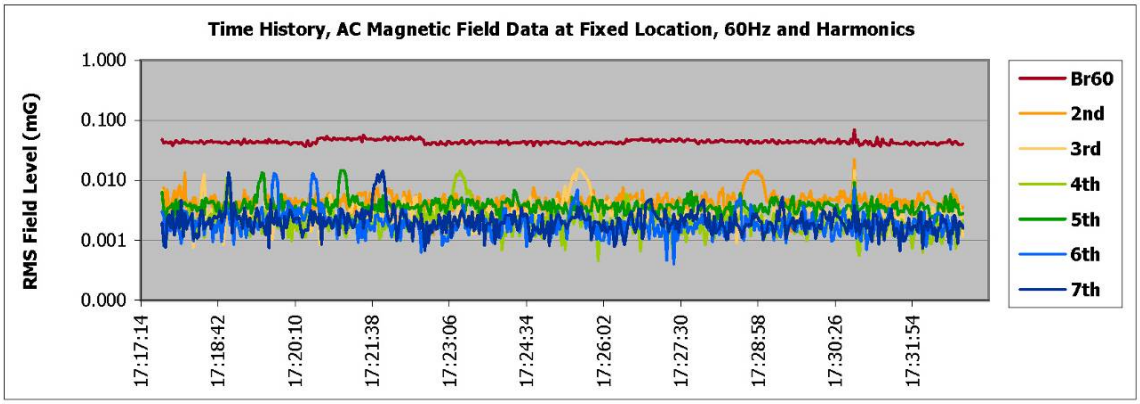
Location: Fresno-Bakersfield Location 04, Fixed and Profile Locations
GPS Coord.: 35 33' 28.67" 119 19' 16.68" (latitude, longitude for fixed location)

	Date/Time	Date	Start Time	End Time	Duration	Samples	Distance
Fixed Loc.:		7-Jun-10	17:17:38	17:32:52	0:15:14	458	N/A (fixed)
Profile:		7-Jun-10	17:20:36	17:26:24	0:05:48	80	800ft

Description: Near Wasco, Kimberlina Road east of Hwy 43. Profile is 200' to either side of alignment on Kimberlina Road.

Resultant Low-Frequency AC Magnetic Field (RMS mG) at Fixed Location (60Hz and Harmonics)

	60Hz Fund.	2nd	3rd	4th	5th	6th	7th
MAX	0.07	0.02	0.02	0.01	0.01	0.01	0.01
MIN	0.04	0.00	0.00	0.00	0.00	0.00	0.00
MEDIAN	0.04	0.00	0.00	0.00	0.00	0.00	0.00
RANGE	0.03	0.02	0.01	0.01	0.01	0.01	0.01
STD DEV	0.00	0.00	0.00	0.00	0.00	0.00	0.00



Resultant Low-Frequency AC Magnetic Field (RMS mG) along Profile, 60Hz and Harmonics

	60Hz Fund.	2nd	3rd	4th	5th	6th	7th
MAX	0.37	0.13	0.08	0.06	0.05	0.04	0.04
MIN	0.03	0.01	0.01	0.00	0.01	0.00	0.00
MEDIAN	0.21	0.05	0.03	0.03	0.03	0.02	0.01
RANGE	0.34	0.12	0.07	0.06	0.04	0.04	0.03
STD DEV	0.09	0.03	0.02	0.01	0.01	0.01	0.01

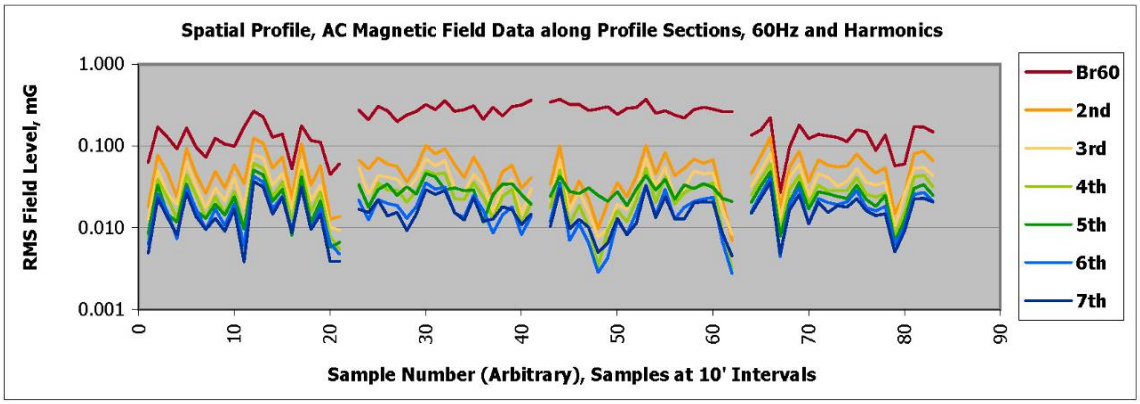
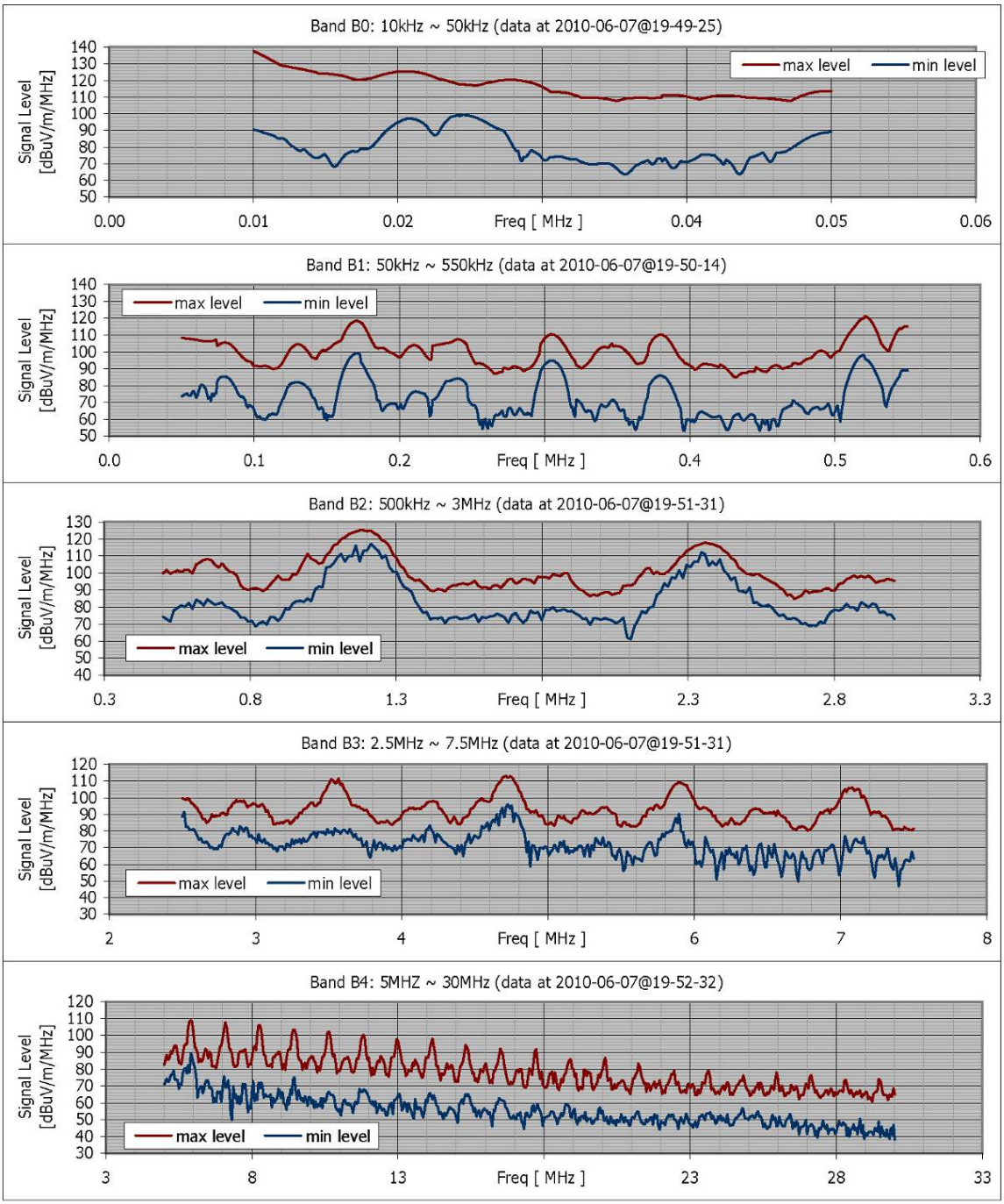
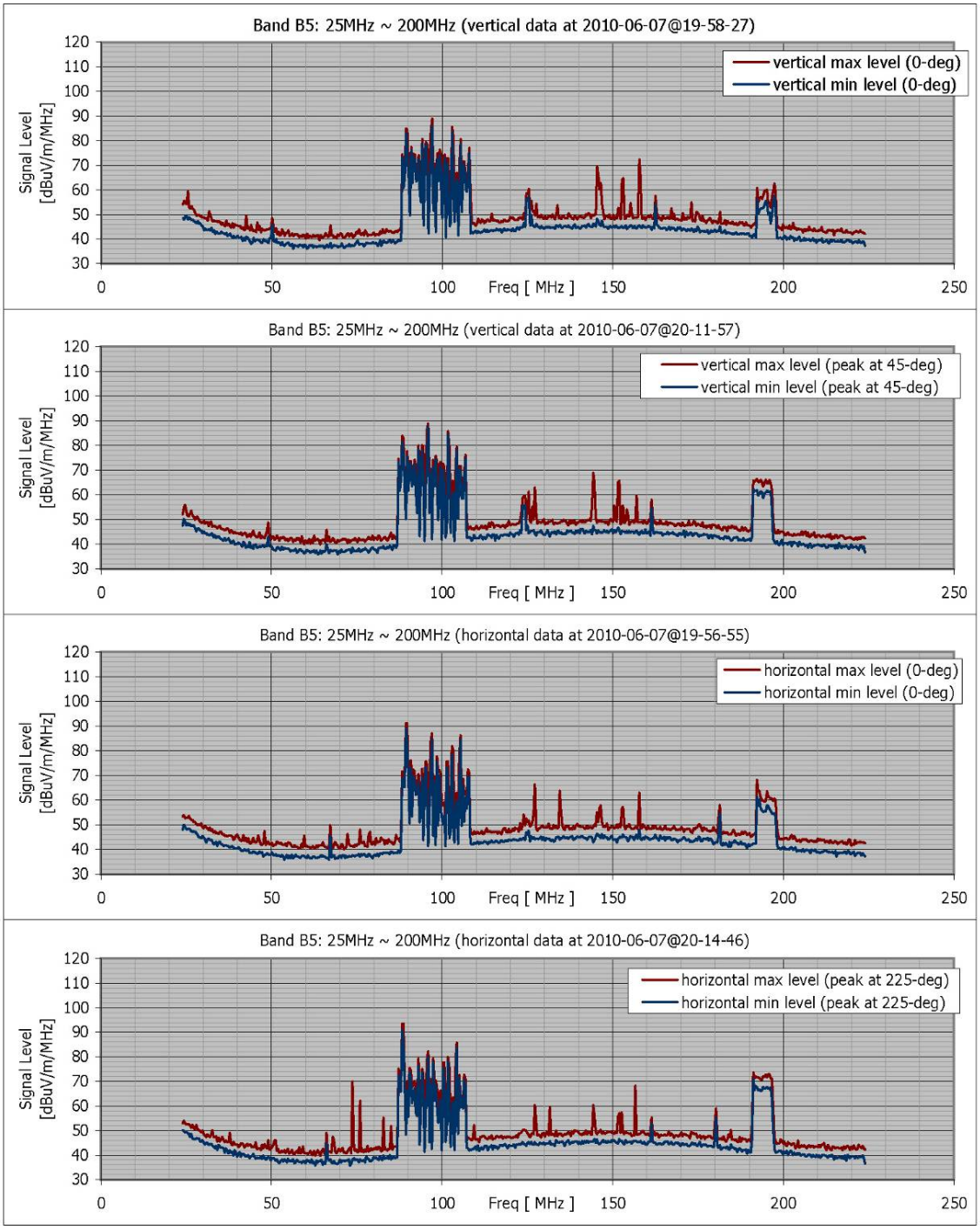


Figure 3.5-A-6(e)
Location 04: Low-frequency (AC) magnetic field data with temporal and spatial statistics



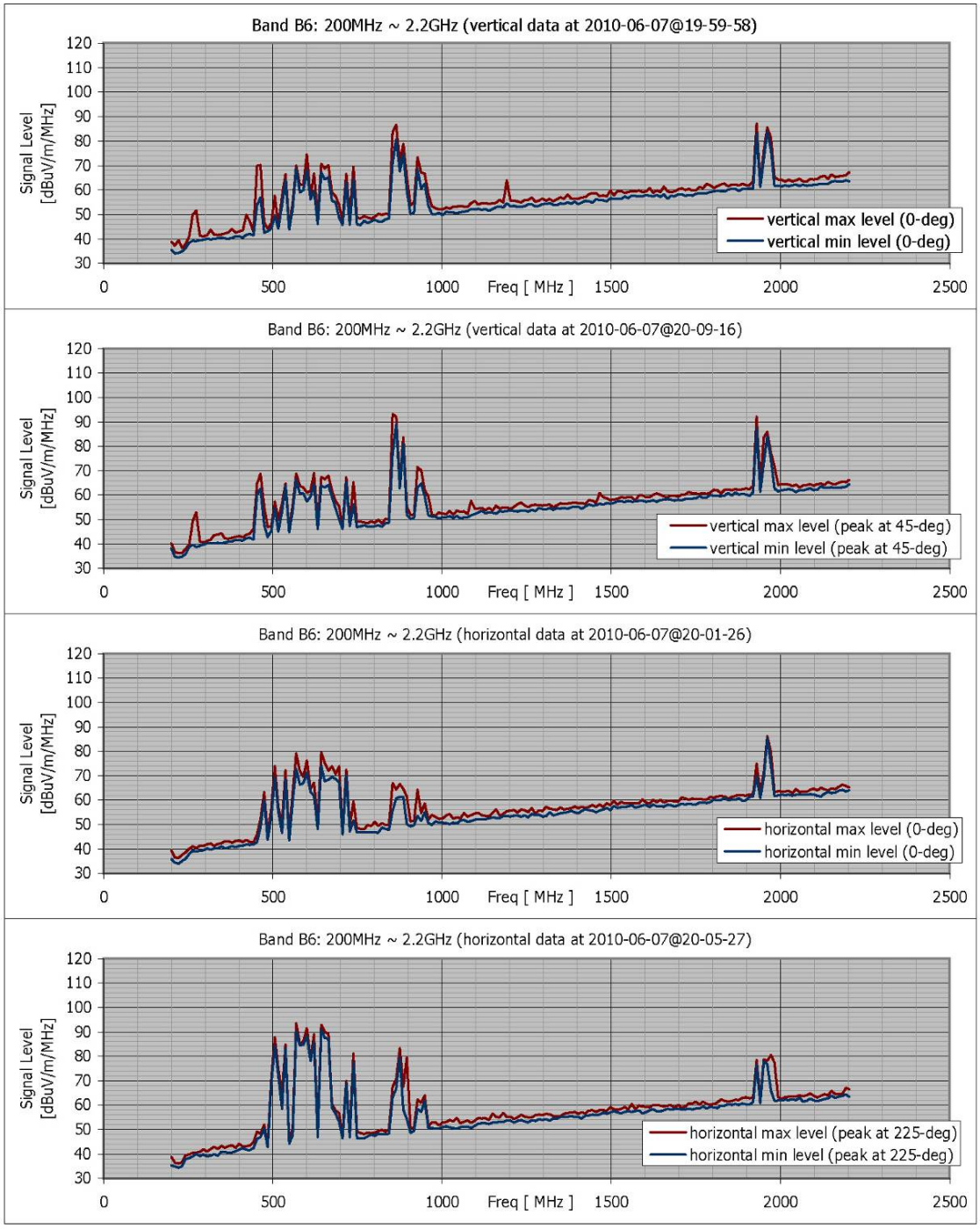
Band	Freq. Range (MHz)	Pk Min-Hold (dB uV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dB uV/m/MHz)	@ Freq. (MHz)
B0	0.01 ~ 0.05	99.3	0.0245	137.5	0.0100
B1	0.05 ~ 0.55	99.1	0.1709	121.2	0.5209
B2	0.50 ~ 3.00	117.0	1.2127	125.1	1.1745
B3	2.5 ~ 7.5	96.0	4.7255	112.8	4.7127
B4	5 ~ 30	89.6	5.9091	108.8	5.9091

Figure 3.5-A-6(f)
Location 04: RF data from non-directional vertically oriented monopole antenna



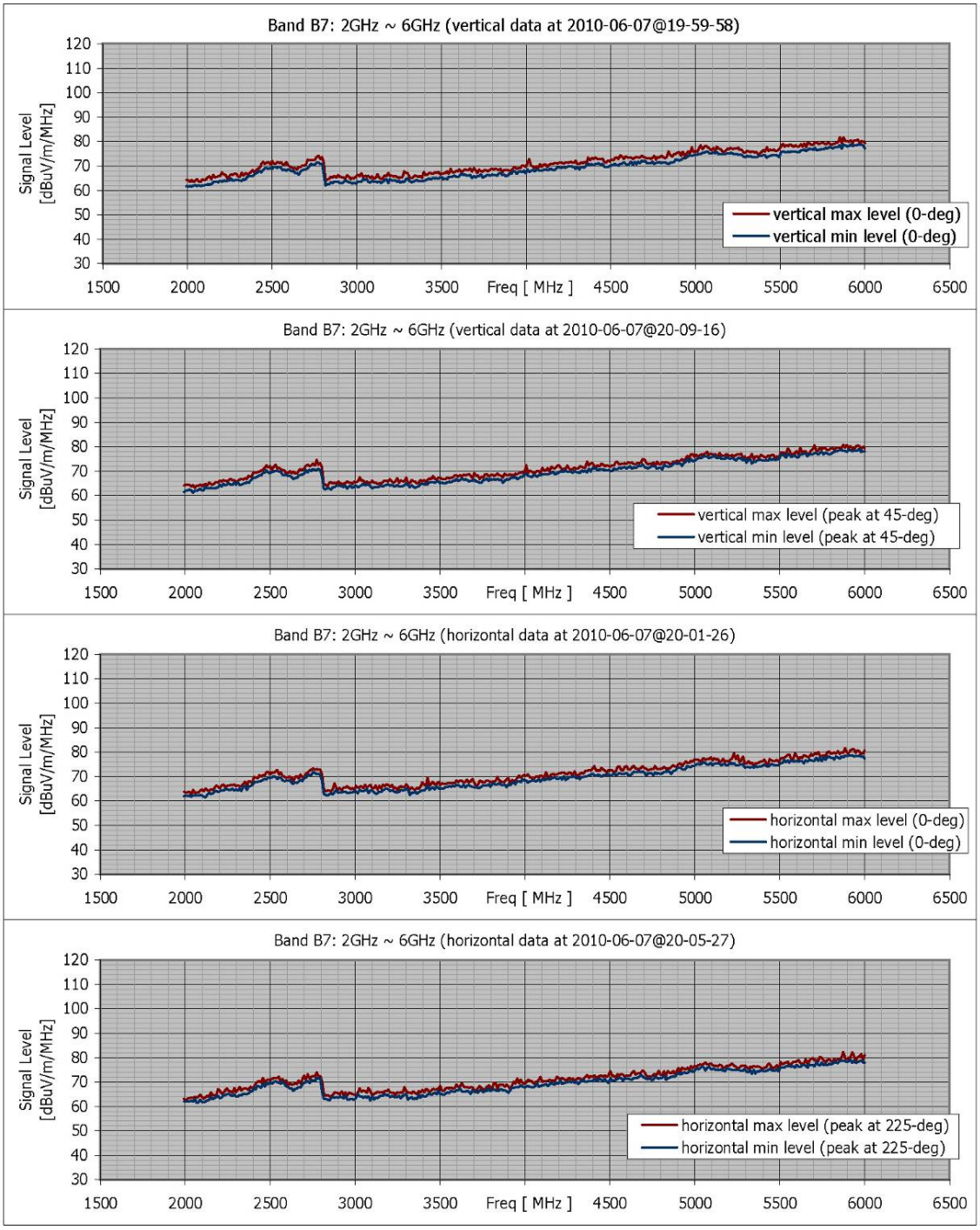
		Vertical				Horizontal			
Band	Freq. Range (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)
B5	25 ~ 200	87.7	95.909	88.9	97.000	91.0	88.273	93.5	88.636

Figure 3.5-A-6(g)
Location 04: RF data, band B5, vertical and horizontal components at 0 degrees (facing alignment) and at peak orientation



		Vertical				Horizontal			
Band	Freq. Range (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)
B6	200 ~ 2200	88.8	864.36	93.2	853.82	90.9	642.91	93.5	569.09

Figure 3.5-A-6(h)
Location 04: RF data, band B6, vertical and horizontal components at 0 degrees (facing alignment) and at peak orientation



		Vertical				Horizontal			
Band	Freq. Range (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)
B7	2200~6000	79.0	5968.4	81.7	5852.4	79.2	5915.6	82.3	5873.5

Figure 3.5-A-6(i)
Location 04: RF data, band B7, vertical and horizontal components at 0 degrees (facing alignment) and at peak orientation

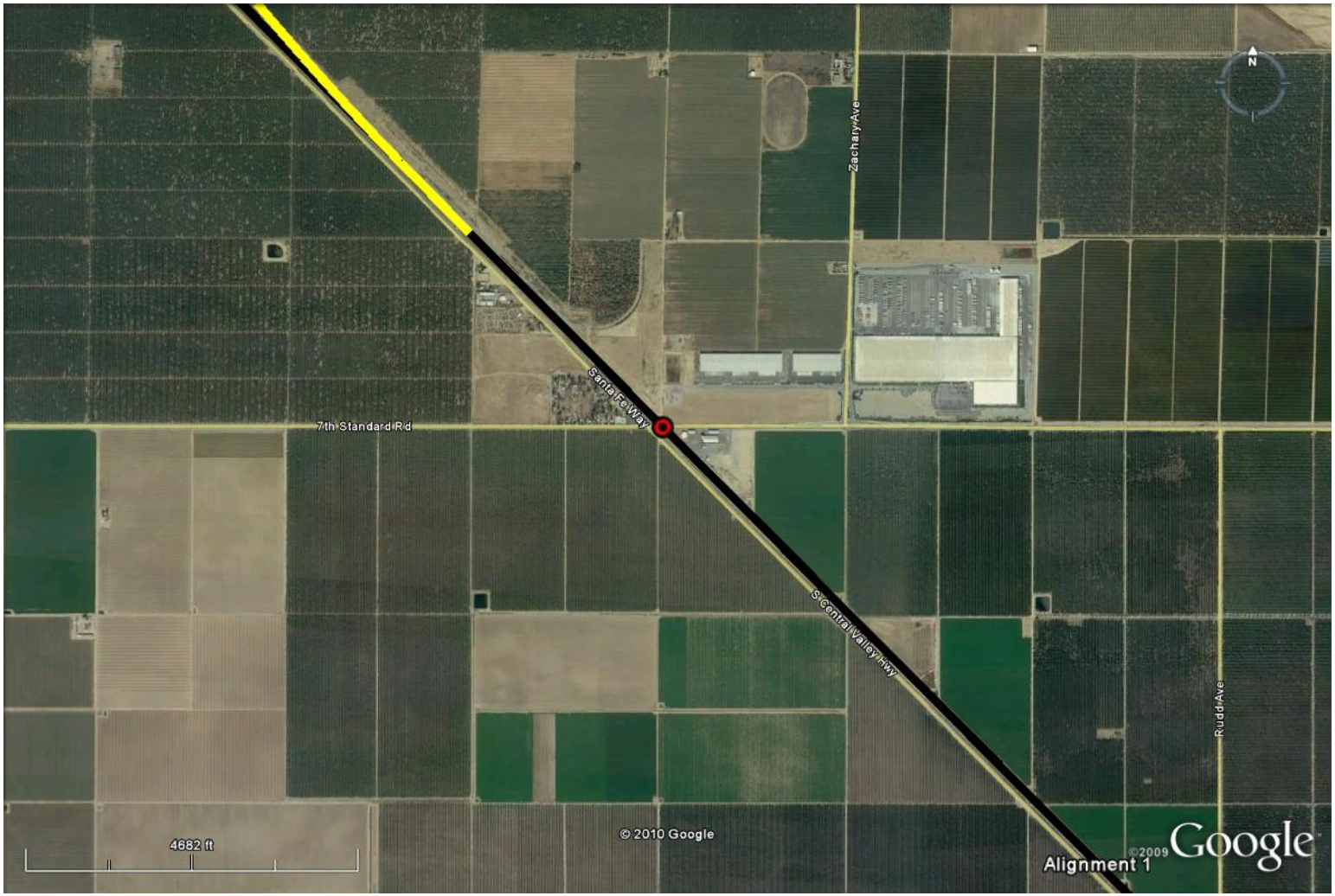


Figure 3.5-A-7(a)
Location 05: Transmission lines near Shafter
A rural area with significant power transmission infrastructure (Lat: 35° 26' 31.37", Long: W119° 11' 54.11")

Figure 3.5-A-7(b)
Location 05: Transmission lines near Shafter
Photos depicting the site from the perspective of the RF measurement location. In the center is a satellite view, with the alignment (dark line) and measurement point (red dot). The spatial profiles are indicated by yellow arrows. The satellite view is rotated so that the image at 0° faces the alignment.

Figure 3.5-A-7(c)
Location 05: Transmission lines near Shafter

Nearby emitters include communications/radio towers and distribution lines. The transmission lines had been recently decommissioned. Photos depicting visible close-proximity emitters. Other emissions sources are assumed to exist but are not visible from the site.

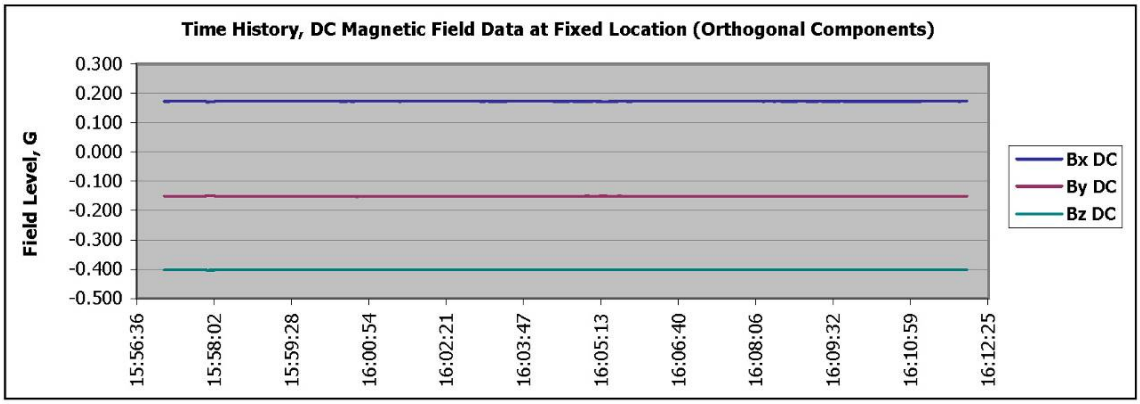
Location: Fresno-Bakersfield Location 05, Fixed Measurement Location
GPS Coord.: 35 26' 31.37" 119 11' 54.11" (latitude, longitude for fixed location)

Date/Time	Date	Start Time	End Time	Duration	Samples	Distance
Fixed Loc.:	6-Jun-10	15:57:06	16:12:02	0:14:56	449	N/A (fixed)

Description: Near Shafter, 7th Standard Road and Nord Avenue.

Component DC Magnetic Field (G)

	Bx DC	By DC	Bz DC
MAX	0.1733	-0.1491	-0.4016
MIN	0.1696	-0.1523	-0.4042
MEDIAN	0.1728	-0.1512	-0.4022
RANGE	0.0037	0.0033	0.0025
STD DEV	0.0003	0.0004	0.0003



Resultant DC Magnetic Field (G)

	Br DC	Time of Observation
MAX	0.4634	15:58:34
MIN	0.4626	16:08:16
MEDIAN	0.4632	-----
RANGE	0.0008	-----
STD DEV	0.0001	-----

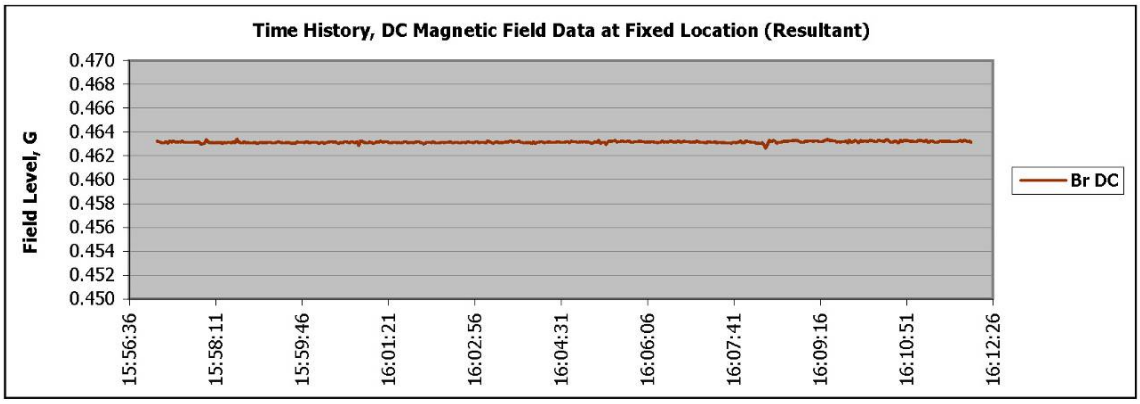


Figure 3.5-A-7(d)
Location 05: Static (DC) magnetic field data with temporal statistics

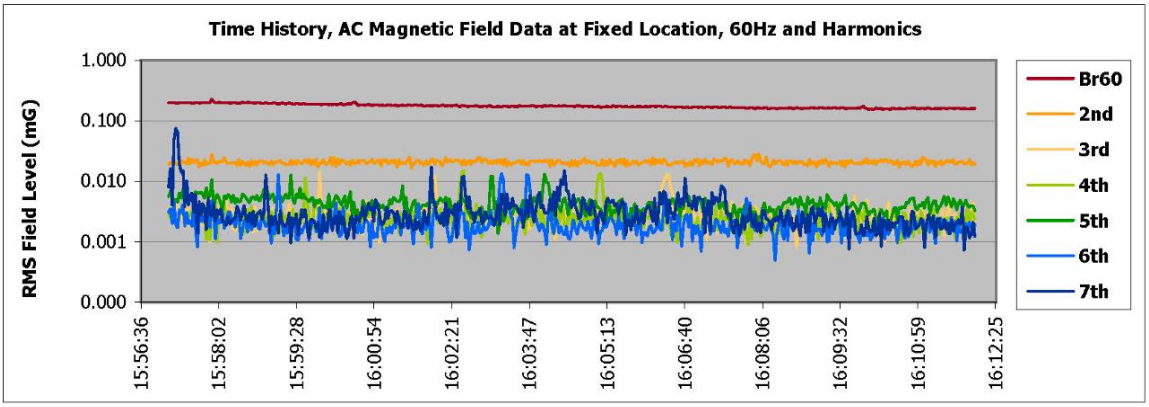
Location: Fresno-Bakersfield Location 05, Fixed and Profile Locations
GPS Coord.: 35 26' 31.37" 119 11' 54.11" (latitude, longitude for fixed location)

	Date/Time	Date	Start Time	End Time	Duration	Samples	Distance
Fixed Loc.:		6-Jun-10	15:57:06	16:12:02	0:14:56	449	N/A (fixed)
Profile:		6-Jun-10	16:03:15	16:05:52	0:02:37	42	420ft

Description: Near Shafter, 7th Standard Road and Nord Avenue. Profile is 200' east of tracks along 7th Standard Road, then 200' returning on the other side of the street.

Resultant Low-Frequency AC Magnetic Field (RMS mG) at Fixed Location (60Hz and Harmonics)

	60Hz Fund.	2nd	3rd	4th	5th	6th	7th
MAX	0.23	0.03	0.01	0.01	0.01	0.01	0.07
MIN	0.15	0.02	0.00	0.00	0.00	0.00	0.00
MEDIAN	0.17	0.02	0.00	0.00	0.00	0.00	0.00
RANGE	0.07	0.01	0.01	0.01	0.01	0.01	0.07
STD DEV	0.01	0.00	0.00	0.00	0.00	0.00	0.01



Resultant Low-Frequency AC Magnetic Field (RMS mG) along Profile, 60Hz and Harmonics

	60Hz Fund.	2nd	3rd	4th	5th	6th	7th
MAX	1.42	0.21	0.13	0.09	0.08	0.06	0.06
MIN	0.27	0.02	0.01	0.00	0.00	0.00	0.00
MEDIAN	0.87	0.11	0.04	0.03	0.03	0.02	0.02
RANGE	1.15	0.19	0.12	0.09	0.07	0.06	0.05
STD DEV	0.35	0.04	0.02	0.02	0.01	0.01	0.01

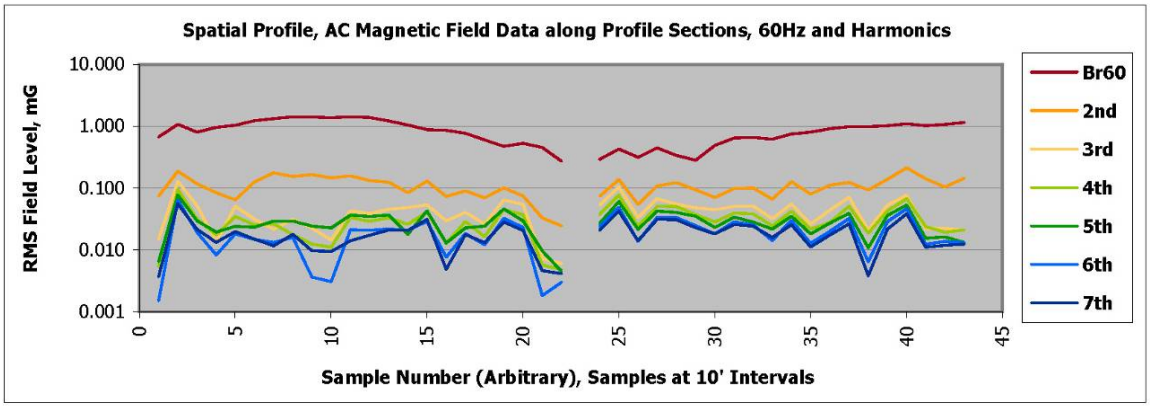
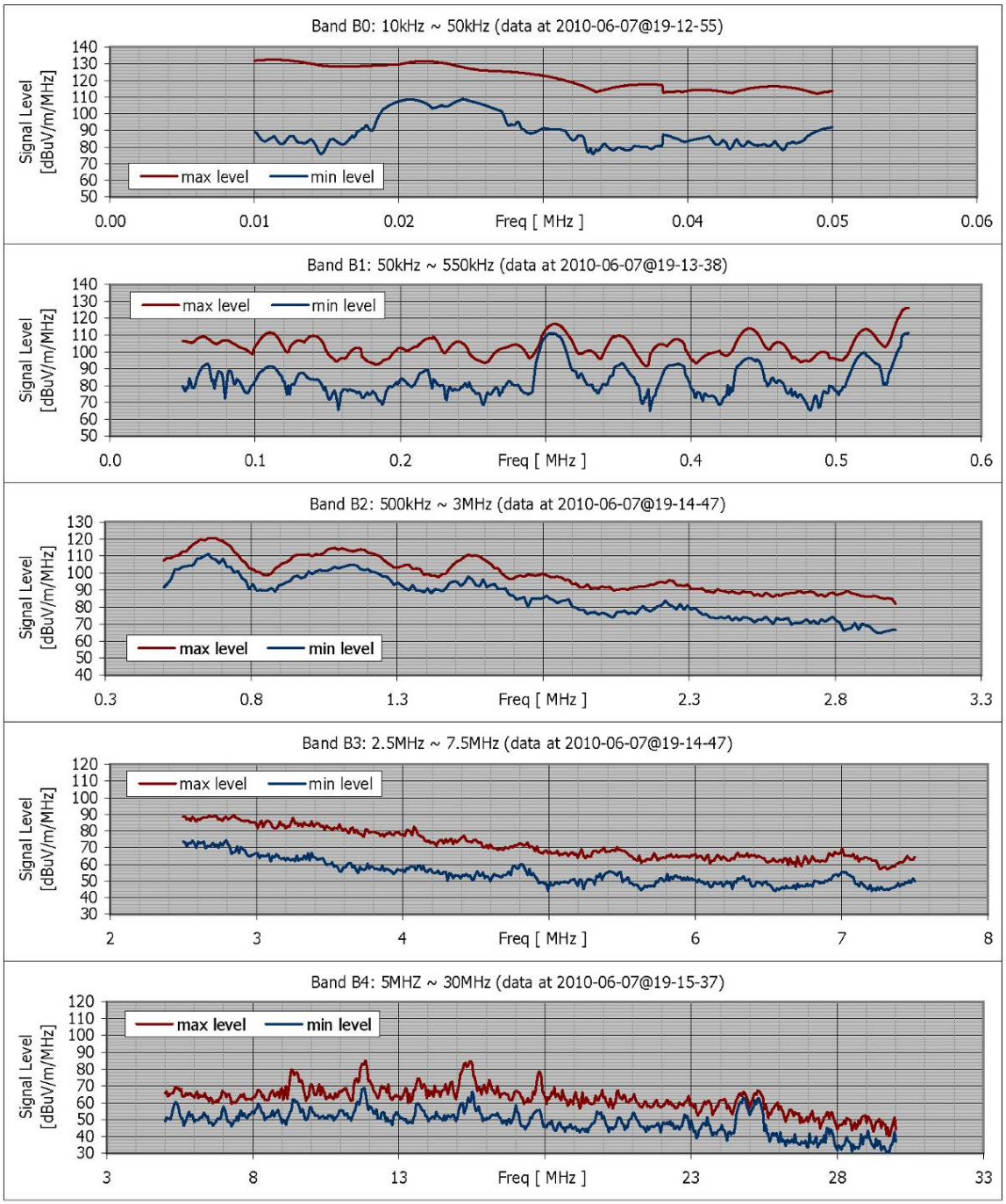
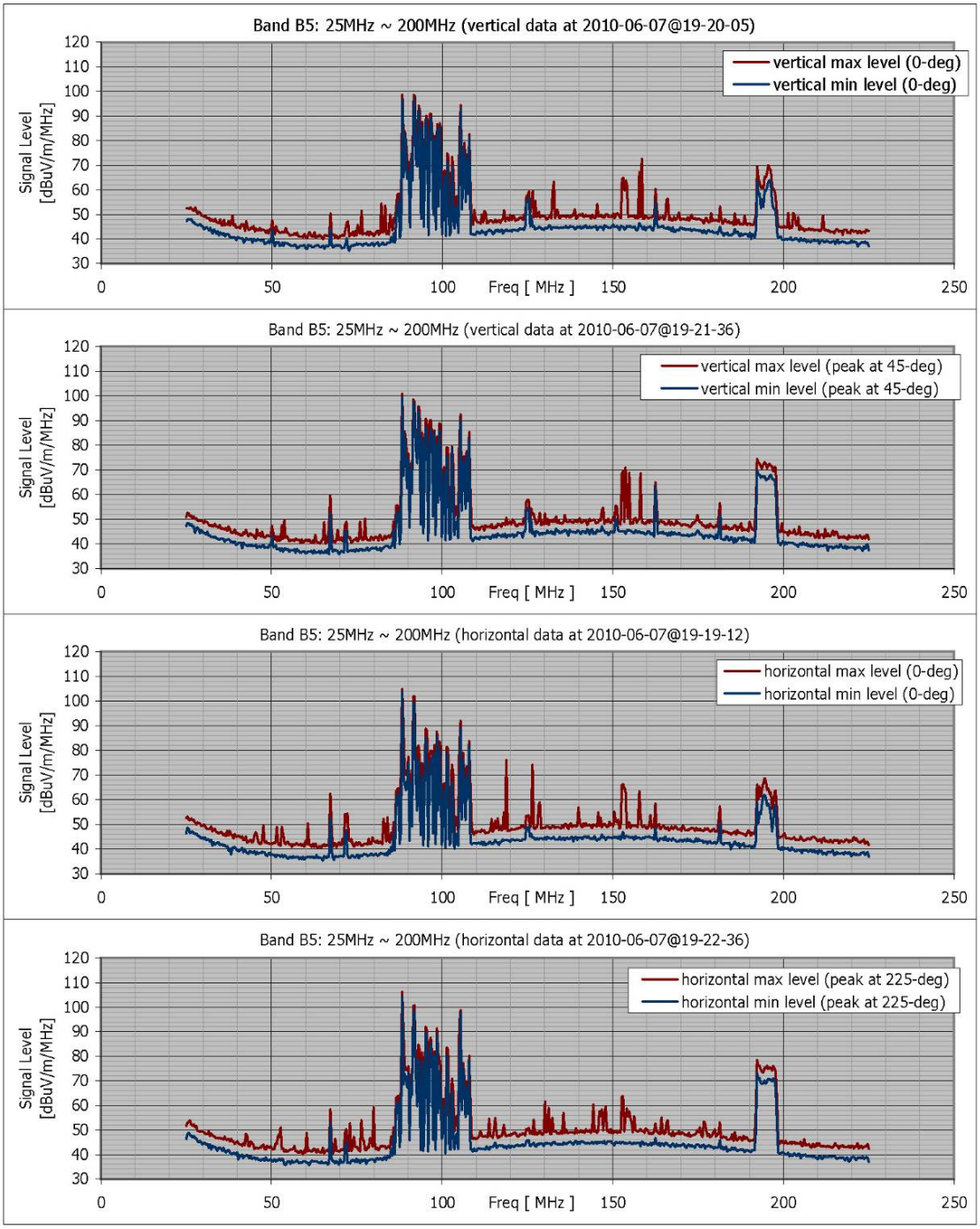


Figure 3.5-A-7(e)
Location 05: Low-frequency (AC) magnetic field data with temporal and spatial statistics



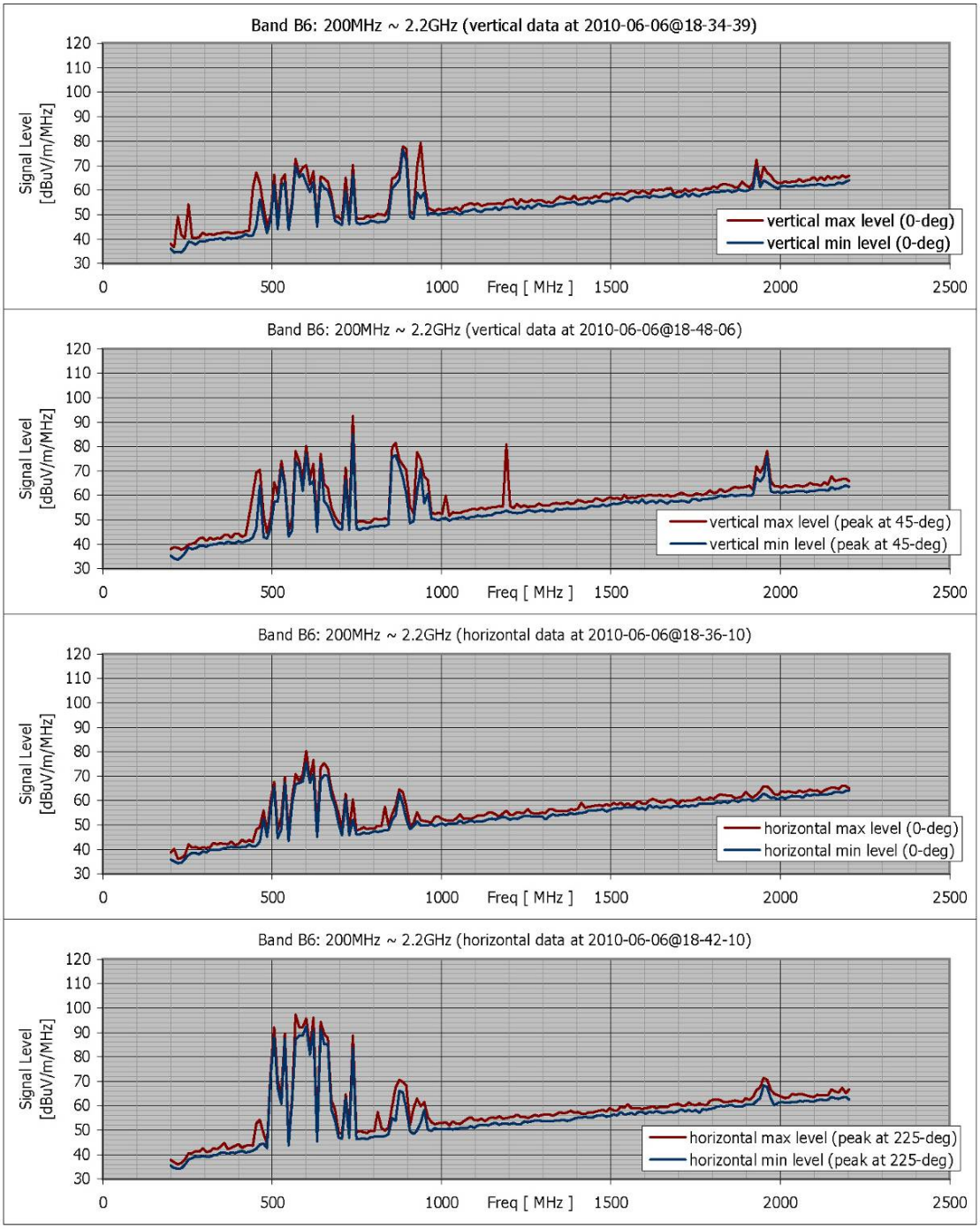
Band	Freq. Range (MHz)	Pk Min-Hold (dB uV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dB uV/m/MHz)	@ Freq. (MHz)
B0	0.01 ~ 0.05	108.7	0.0244	132.6	0.0112
B1	0.05 ~ 0.55	111.1	0.5500	126.0	0.5491
B2	0.50 ~ 3.00	111.0	0.6527	120.4	0.6782
B3	2.5 ~ 7.5	74.3	2.7909	89.5	2.8418
B4	5 ~ 30	68.8	11.8182	85.0	11.8636

Figure 3.5-A-7(f)
Location 05: RF data from non-directional vertically oriented monopole antenna



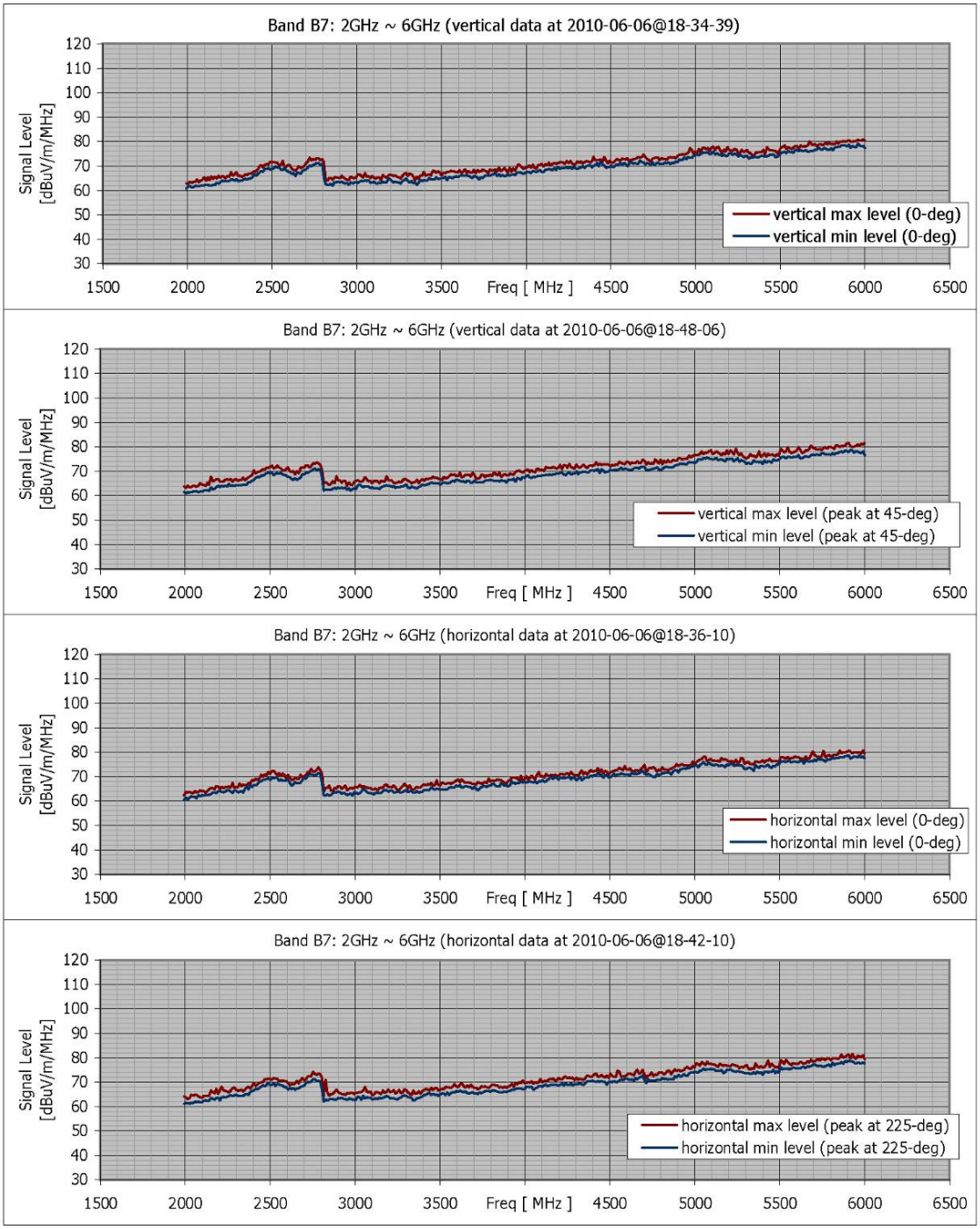
		Vertical				Horizontal			
Band	Freq. Range (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)
B5	25 ~ 200	99.3	88.273	100.9	88.273	104.3	88.273	106.3	88.273

Figure 3.5-A-7(g)
Location 05: RF data, band B5, vertical and horizontal components at 0 degrees (facing alignment) and at peak orientation



		Vertical				Horizontal			
Band	Freq. Range (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)
B6	200 ~ 2200	85.0	737.82	92.5	737.82	92.4	600.73	97.2	569.09

Figure 3.5-A-7(h)
Location 05: RF data, band B6, vertical and horizontal components at 0 degrees (facing alignment) and at peak orientation



		Vertical				Horizontal			
Band	Freq. Range (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)
B7	2200~6000	79.2	5957.8	81.6	5905.1	78.8	5905.1	81.6	5926.2

Figure 3.5-A-7(i)
Location 05: RF data, band B7, vertical and horizontal components at 0 degrees (facing alignment) and at peak orientation

Figure 3.5-A-8(a)
Location 06: Residential area in suburban Bakersfield
A neighborhood in suburban Bakersfield (Lat: 36° 22' 39.23" Long: W119° 7'8.88")

Figure 3.5-A-8(b)
Location 06: Residential area in suburban Bakersfield
Photos depicting the site from the perspective of the RF measurement location. In the center is a satellite view, with the alignment (dark line) and measurement point (red dot). The spatial profiles are indicated by yellow arrows. The satellite view is rotated so that the image at 0° faces the alignment.

Figure 3.5-A-8(c)
Location 06: Residential area in suburban Bakersfield
Nearby emitters include a small radio antenna and local power distribution lines.
Photos depicting visible close-proximity emitters. Other emissions sources are assumed to exist but are not visible from the site.

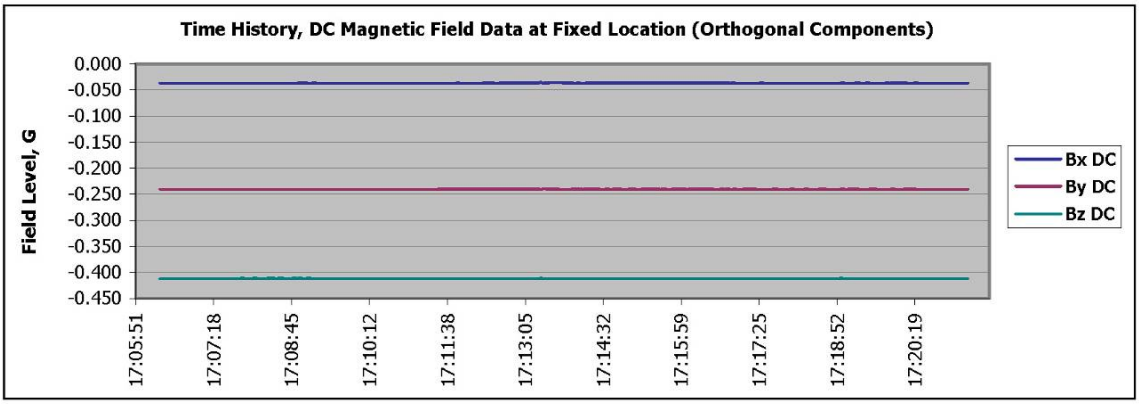
Location: Fresno-Bakersfield Location 06, Fixed Measurement Location
GPS Coord.: 35 22' 39.23" 119 7' 8.88" (latitude, longitude for fixed location)

Date/Time	Date	Start Time	End Time	Duration	Samples	Distance
Fixed Loc.:	6-Jun-10	17:06:18	17:21:18	0:15:00	451	N/A (fixed)

Description: Residential area in suburband Bakersfield, Verdugo Lane at Glenn Street.

Component DC Magnetic Field (G)

	Bx DC	By DC	Bz DC
MAX	-0.0354	-0.2398	-0.4113
MIN	-0.0376	-0.2413	-0.4126
MEDIAN	-0.0369	-0.2405	-0.4120
RANGE	0.0022	0.0015	0.0013
STD DEV	0.0003	0.0002	0.0002



Resultant DC Magnetic Field (G)

	Br DC	Time of Observation
MAX	0.4787	17:20:46
MIN	0.4779	17:19:12
MEDIAN	0.4785	-----
RANGE	0.0008	-----
STD DEV	0.0001	-----

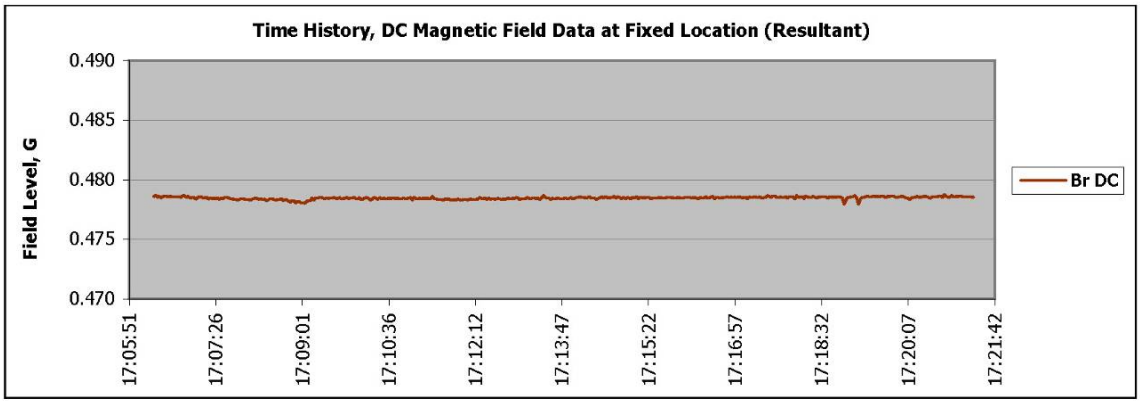


Figure 3.5-A-8(d)
Location 06: Static (DC) magnetic field data with temporal statistics

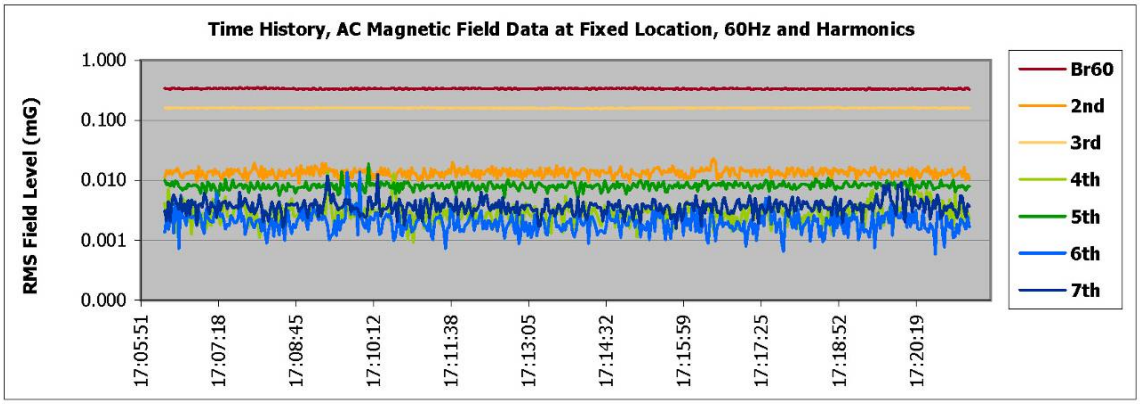
Location: Fresno-Bakersfield Location 06, Fixed and Profile Locations
GPS Coord.: 35 22' 39.23" 119 7' 8.88" (latitude, longitude for fixed location)

	Date/Time	Date	Start Time	End Time	Duration	Samples	Distance
Fixed Loc.:		6-Jun-10	17:06:18	17:21:18	0:15:00	451	N/A (fixed)
Profile:		6-Jun-10	17:08:59	17:13:01	0:04:02	82	820ft

Description: Residential area in suburband Bakersfield, Verdugo Lane at Glenn Street. Profile is 200' north on Verdugo Lane, and 200' east on Glenn Street (both sides of the street).

Resultant Low-Frequency AC Magnetic Field (RMS mG) at Fixed Location (60Hz and Harmonics)

	60Hz Fund.	2nd	3rd	4th	5th	6th	7th
MAX	0.35	0.02	0.17	0.01	0.02	0.01	0.01
MIN	0.32	0.01	0.15	0.00	0.00	0.00	0.00
MEDIAN	0.33	0.01	0.16	0.00	0.01	0.00	0.00
RANGE	0.03	0.01	0.01	0.01	0.01	0.01	0.01
STD DEV	0.01	0.00	0.00	0.00	0.00	0.00	0.00



Resultant Low-Frequency AC Magnetic Field (RMS mG) along Profile, 60Hz and Harmonics

	60Hz Fund.	2nd	3rd	4th	5th	6th	7th
MAX	1.14	0.17	0.21	0.09	0.08	0.06	0.05
MIN	0.12	0.01	0.05	0.00	0.01	0.00	0.00
MEDIAN	0.36	0.07	0.12	0.04	0.03	0.03	0.02
RANGE	1.02	0.16	0.15	0.08	0.07	0.05	0.05
STD DEV	0.29	0.04	0.03	0.02	0.01	0.01	0.01

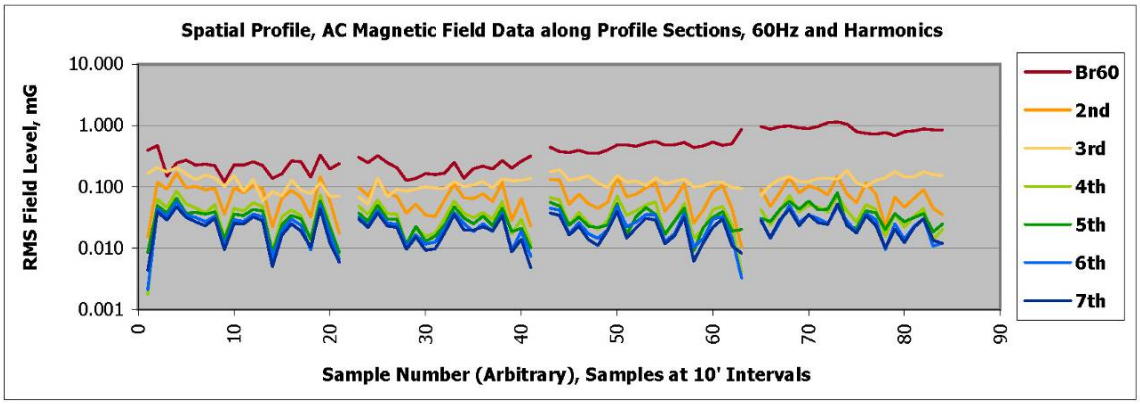
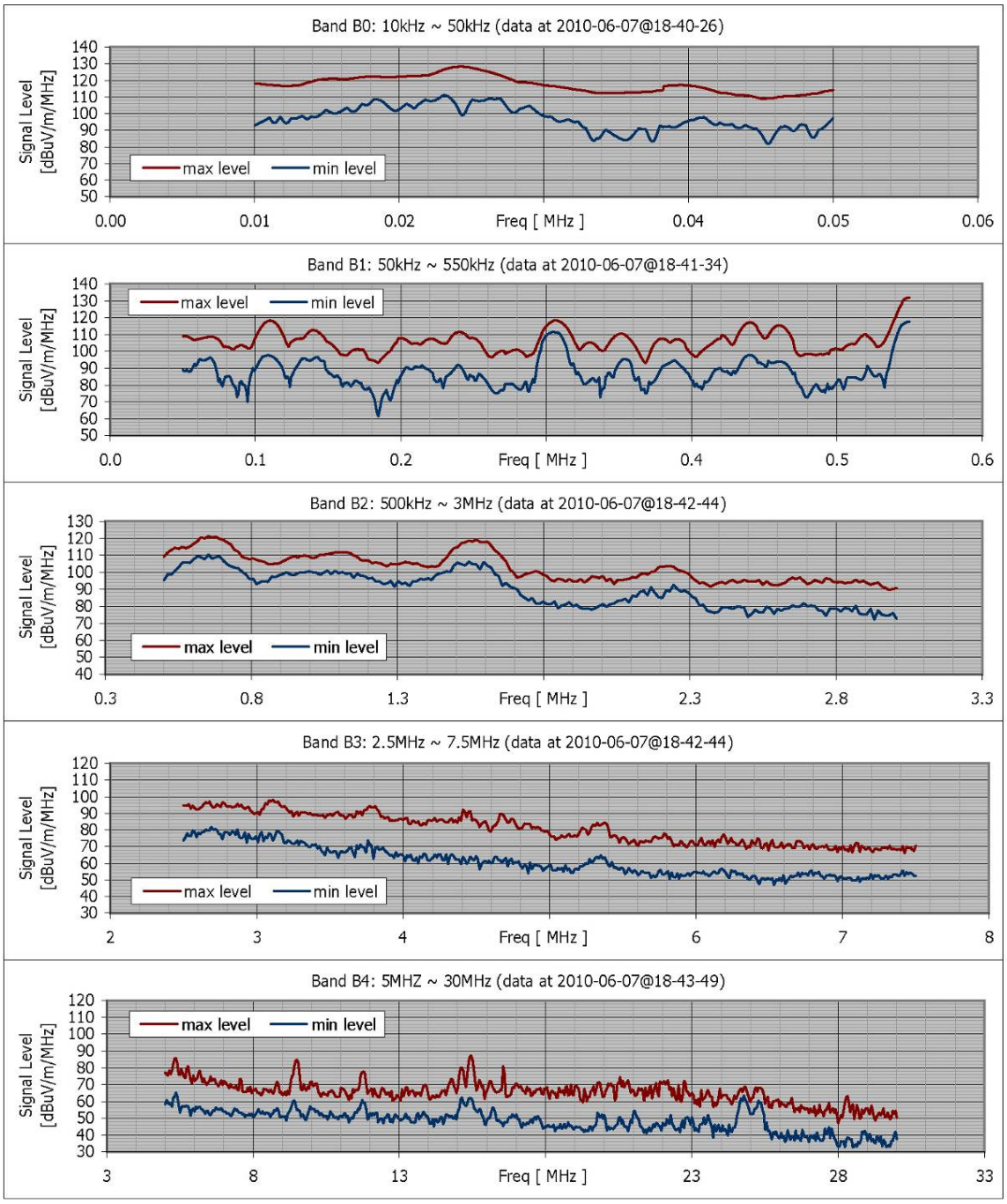
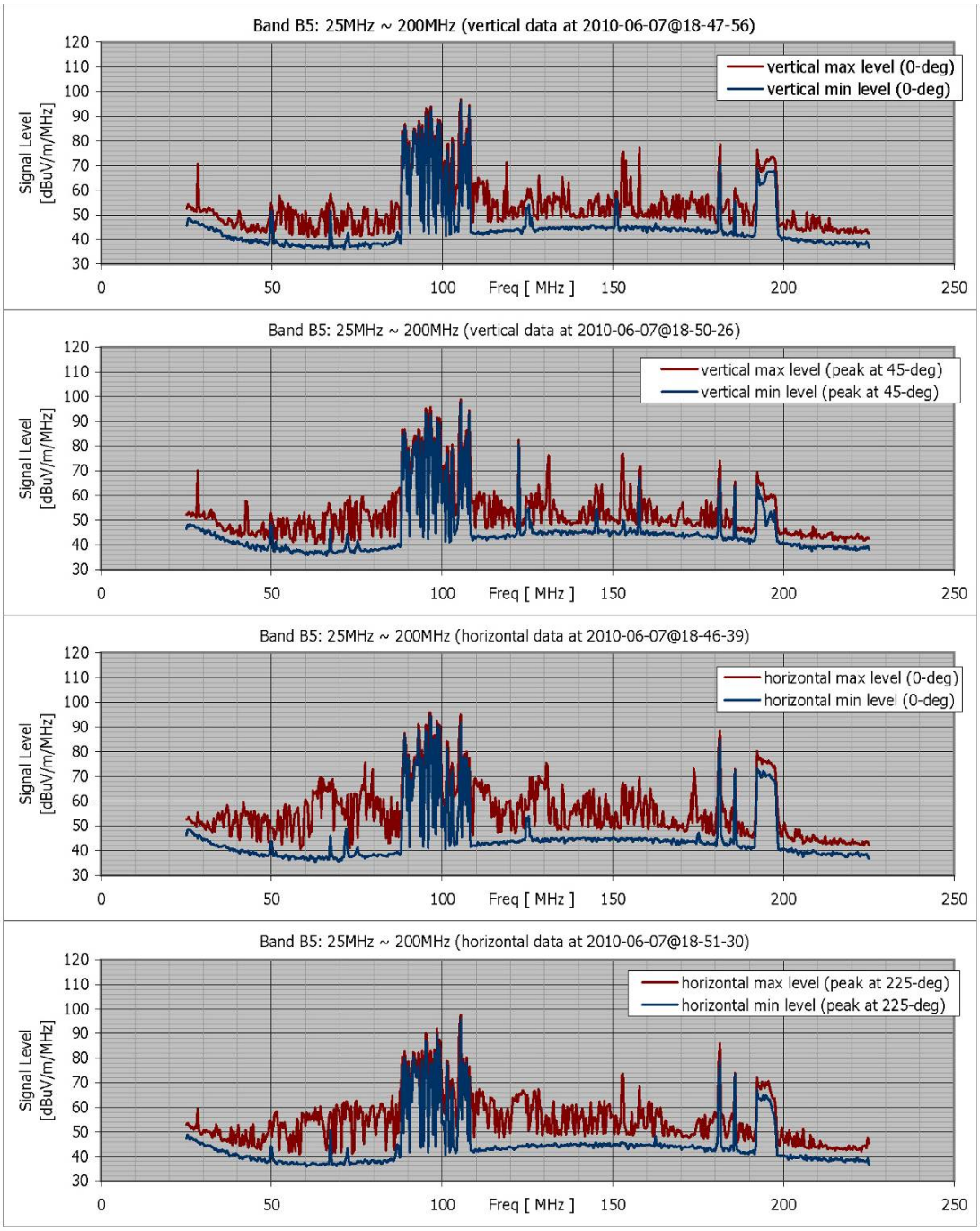


Figure 3.5-A-8(e)
Location 06: Low-frequency (AC) magnetic field data with temporal and spatial statistics



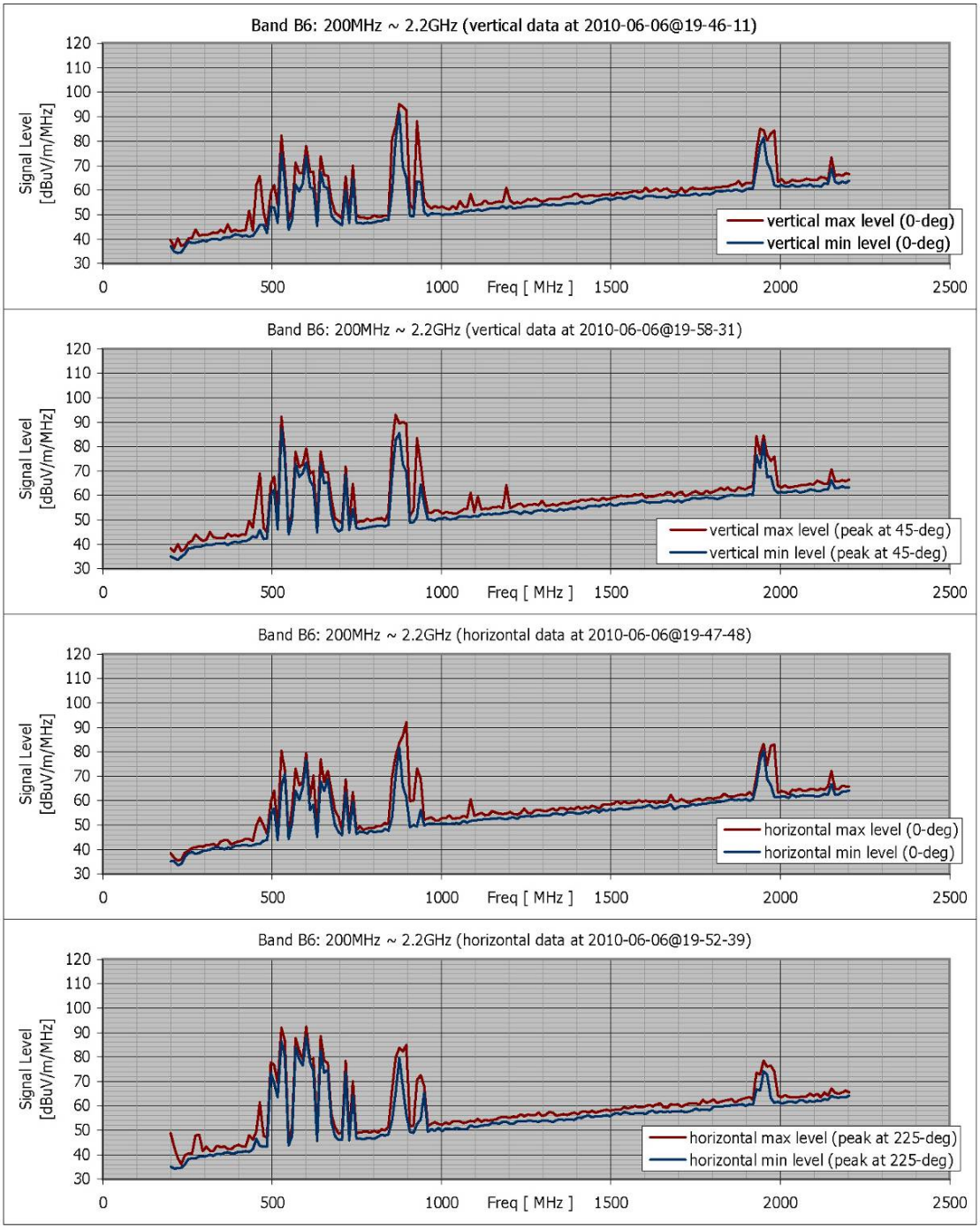
Band	Freq. Range (MHz)	Pk Min-Hold (dB uV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dB uV/m/MHz)	@ Freq. (MHz)
B0	0.01 ~ 0.05	111.0	0.0231	128.2	0.0243
B1	0.05 ~ 0.55	117.5	0.5491	131.9	0.5500
B2	0.50 ~ 3.00	110.4	0.6527	121.1	0.6527
B3	2.5 ~ 7.5	81.7	2.6891	98.1	3.1091
B4	5 ~ 30	65.1	5.3636	87.1	15.4545

Figure 3.5-A-8(f)
Location 06: RF data from non-directional vertically oriented monopole antenna



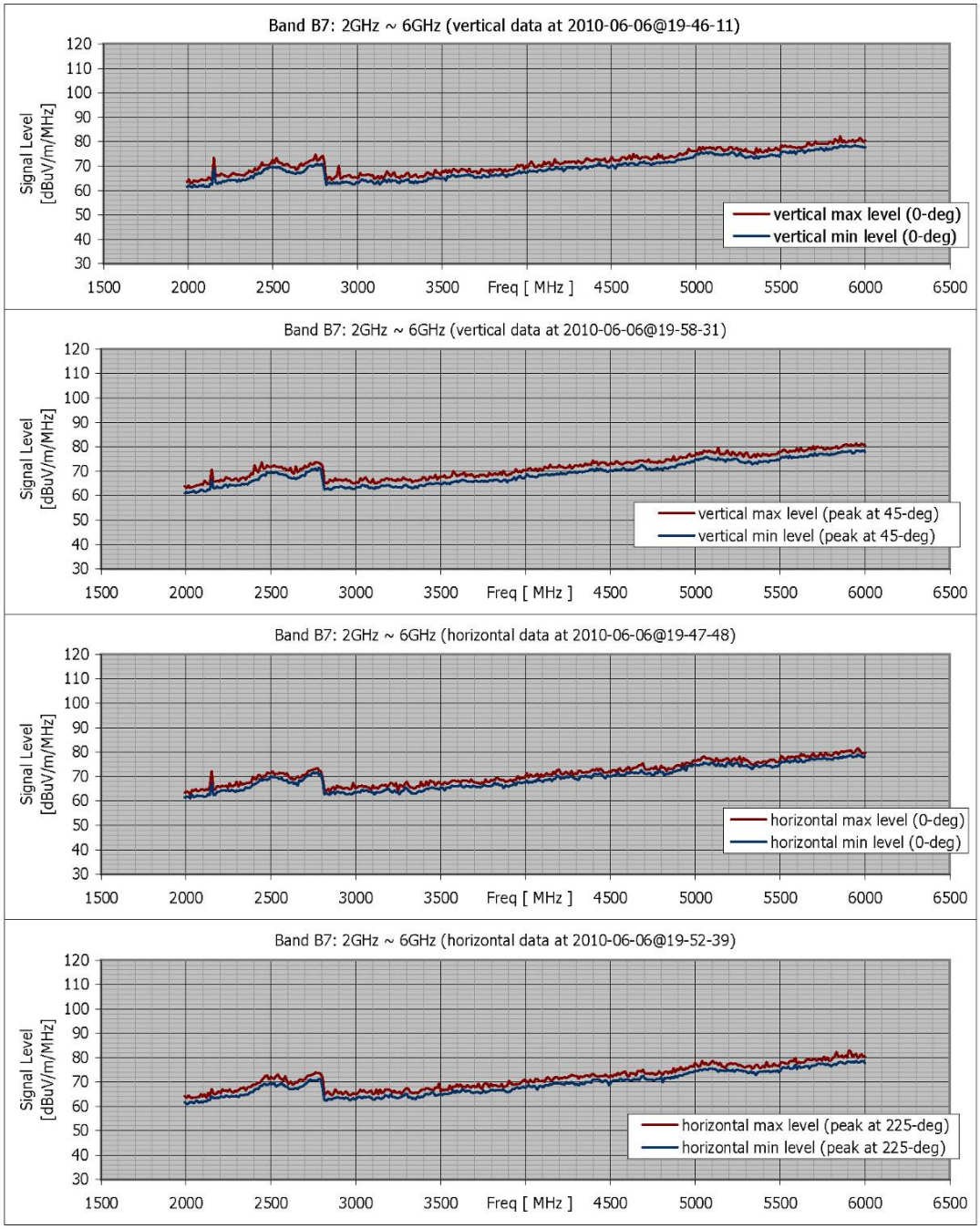
		Vertical				Horizontal			
Band	Freq. Range (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)
B5	25 ~ 200	97.6	105.364	98.8	105.364	95.9	105.364	97.6	105.364

Figure 3.5-A-8(g)
Location 06: RF data, band B5, vertical and horizontal components at 0 degrees (facing alignment) and at peak orientation



		Vertical				Horizontal			
Band	Freq. Range (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)
B6	200 ~ 2200	91.7	874.91	95.1	874.91	88.4	600.73	92.4	600.73

Figure 3.5-A-8(h)
Location 06: RF data, band B6, vertical and horizontal components at 0 degrees (facing alignment) and at peak orientation



		Vertical				Horizontal			
Band	Freq. Range (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)
B7	2200~6000	78.4	5989.5	82.2	5852.4	78.9	5957.8	82.9	5905.1

Figure 3.5-A-8(i)
Location 06: RF data, band B7, vertical and horizontal components at 0 degrees (facing alignment) and at peak orientation

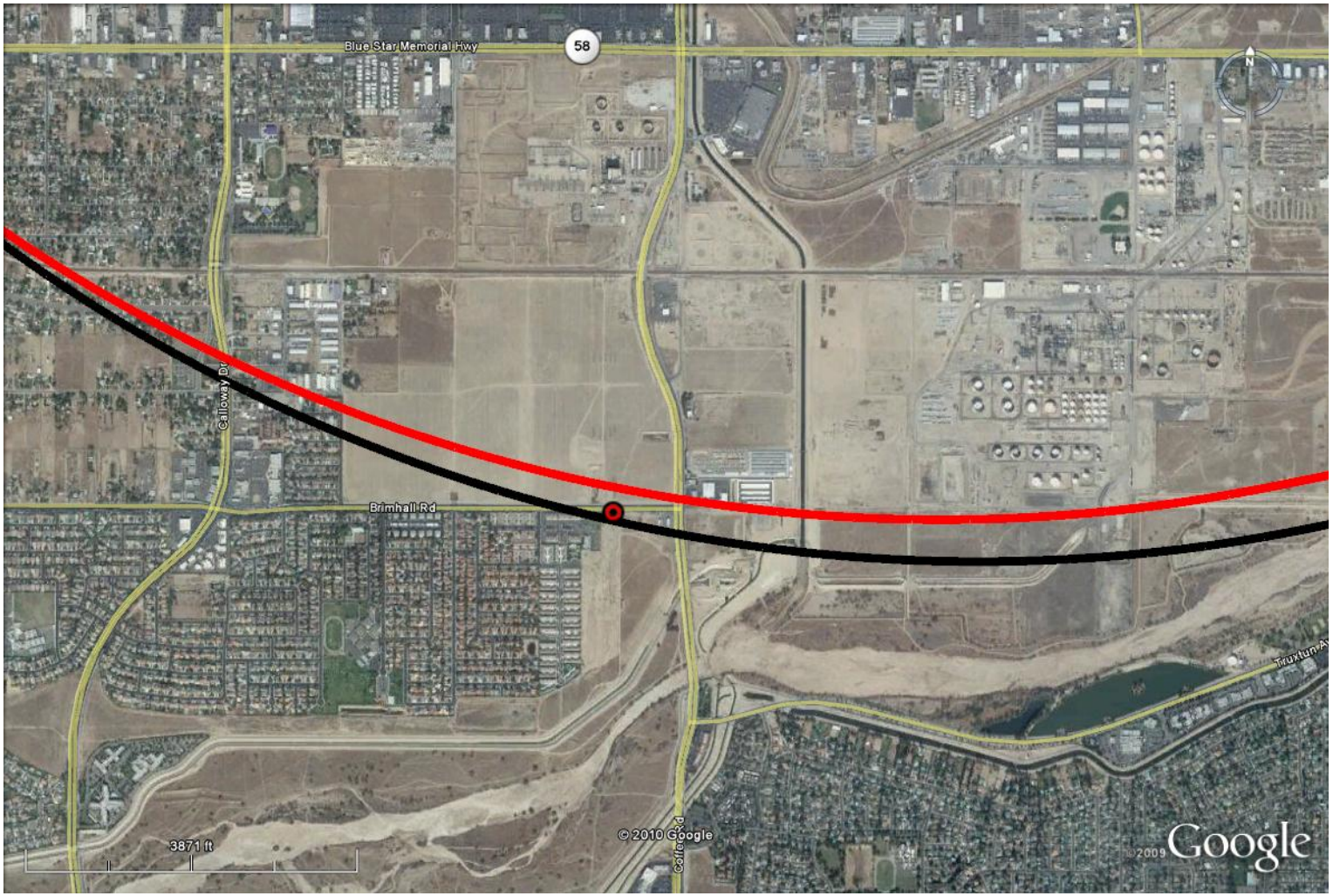


Figure 3.5-A-9(a)
Location 07: A major power transmission/distribution corridor in suburban Bakersfield
A neighborhood in suburban Bakersfield with significant power infrastructure (Lat: 35° 22' 6.58", Long: W119° 5' 41.35")

Figure 3.5-A-9(b)

Location 07: A major power transmission/distribution corridor in suburban Bakersfield

Photos depicting the site from the perspective of the RF measurement location. In the center is a satellite view, with the alignment (dark line) and measurement point (red dot). The spatial profiles are indicated by yellow arrows. The satellite view is rotated so that the image at 0° faces the alignment.

Figure 3.5-A-9(c)
Location 07: A major power transmission/distribution corridor in suburban Bakersfield
Nearby emitters include significant regional power transmission and local power distribution lines; note the power plant north of the site.
Photos depicting visible close-proximity emitters. Other emissions sources are assumed to exist but are not visible from the site.

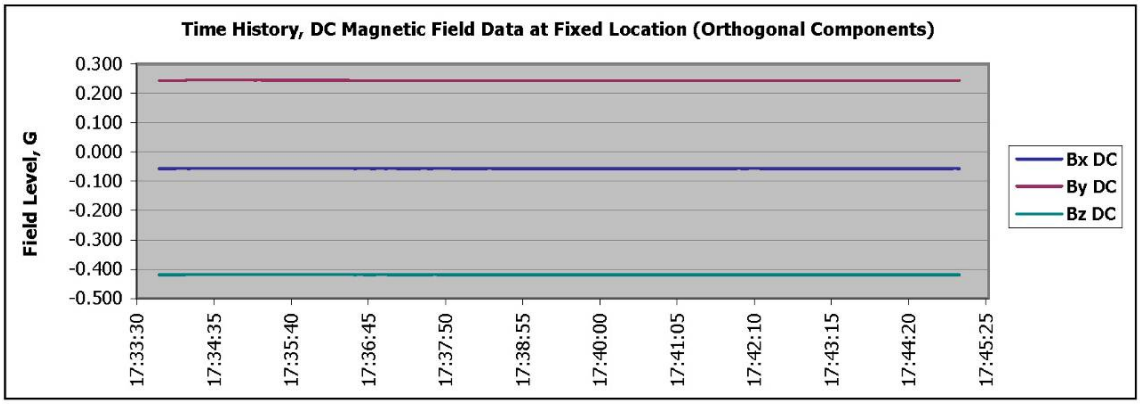
Location: Fresno-Bakersfield Location 07, Fixed Measurement Location
GPS Coord.: 35 22' 6.58" 119 5' 41.35" (latitude, longitude for fixed location)

Date/Time	Date	Start Time	End Time	Duration	Samples	Distance
Fixed Loc.:	6-Jun-10	17:33:49	17:45:03	0:11:14	333	N/A (fixed)

Description: Bakersfield, adjacent to transmission lines crossing Brimhall Road

Component DC Magnetic Field (G)

	Bx DC	By DC	Bz DC
MAX	-0.0565	0.2460	-0.4178
MIN	-0.0578	0.2426	-0.4198
MEDIAN	-0.0573	0.2432	-0.4194
RANGE	0.0014	0.0034	0.0020
STD DEV	0.0003	0.0007	0.0004



Resultant DC Magnetic Field (G)

	Br DC	Time of Observation
MAX	0.4885	17:37:01
MIN	0.4879	17:36:55
MEDIAN	0.4882	-----
RANGE	0.0006	-----
STD DEV	0.0001	-----

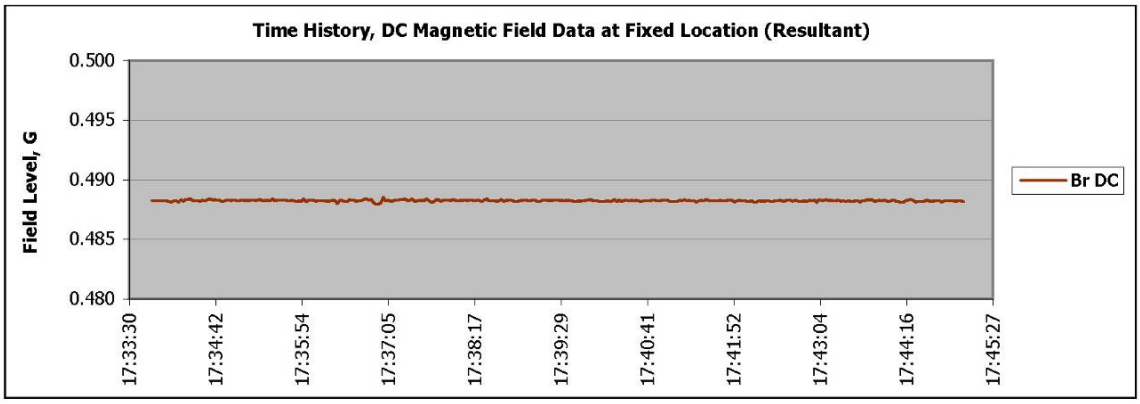


Figure 3.5-A-9(d)
Location 07: Static (DC) magnetic field data with temporal statistics

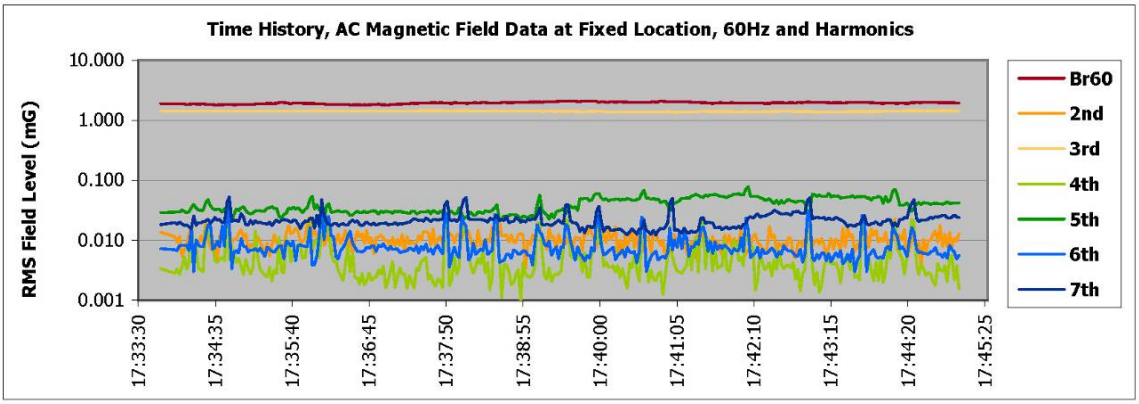
Location: Fresno-Bakersfield Location 07, Fixed and Profile Locations
GPS Coord.: 35 22' 6.58" 119 5' 41.35" (latitude, longitude for fixed location)

Date/Time	Date	Start Time	End Time	Duration	Samples	Distance
Fixed Loc.:	6-Jun-10	17:33:49	17:45:03	0:11:14	333	N/A (fixed)
Profile:	6-Jun-10	12:17:14	12:20:31	0:03:17	68	680ft

Description: Bakersfield, adjacent to transmission lines crossing Brimhall Road East side, crossing beneath, and west side of transmission lines at Brimhall Road, Bakersfield

Resultant Low-Frequency AC Magnetic Field (RMS mG) at Fixed Location (60Hz and Harmonics)

	60Hz Fund.	2nd	3rd	4th	5th	6th	7th
MAX	2.10	0.02	1.44	0.02	0.08	0.04	0.05
MIN	1.79	0.00	1.36	0.00	0.02	0.00	0.01
MEDIAN	1.94	0.01	1.41	0.00	0.04	0.01	0.02
RANGE	0.31	0.02	0.07	0.02	0.06	0.04	0.04
STD DEV	0.07	0.00	0.02	0.00	0.01	0.01	0.01



Resultant Low-Frequency AC Magnetic Field (RMS mG) along Profile, 60Hz and Harmonics

	60Hz Fund.	2nd	3rd	4th	5th	6th	7th
MAX	10.94	0.22	2.60	0.11	0.30	0.07	0.10
MIN	1.15	0.01	0.70	0.00	0.01	0.01	0.02
MEDIAN	2.89	0.08	1.50	0.03	0.11	0.03	0.05
RANGE	9.78	0.21	1.90	0.11	0.29	0.07	0.08
STD DEV	2.90	0.04	0.56	0.02	0.09	0.02	0.02

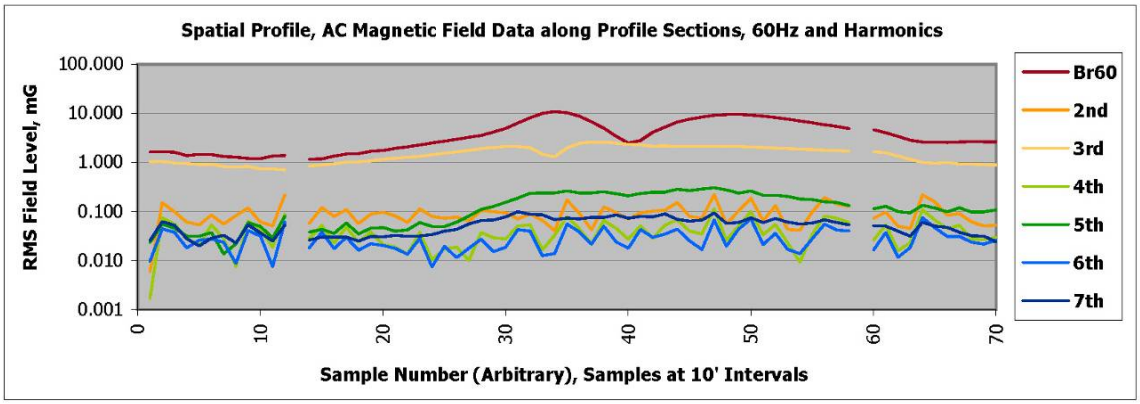
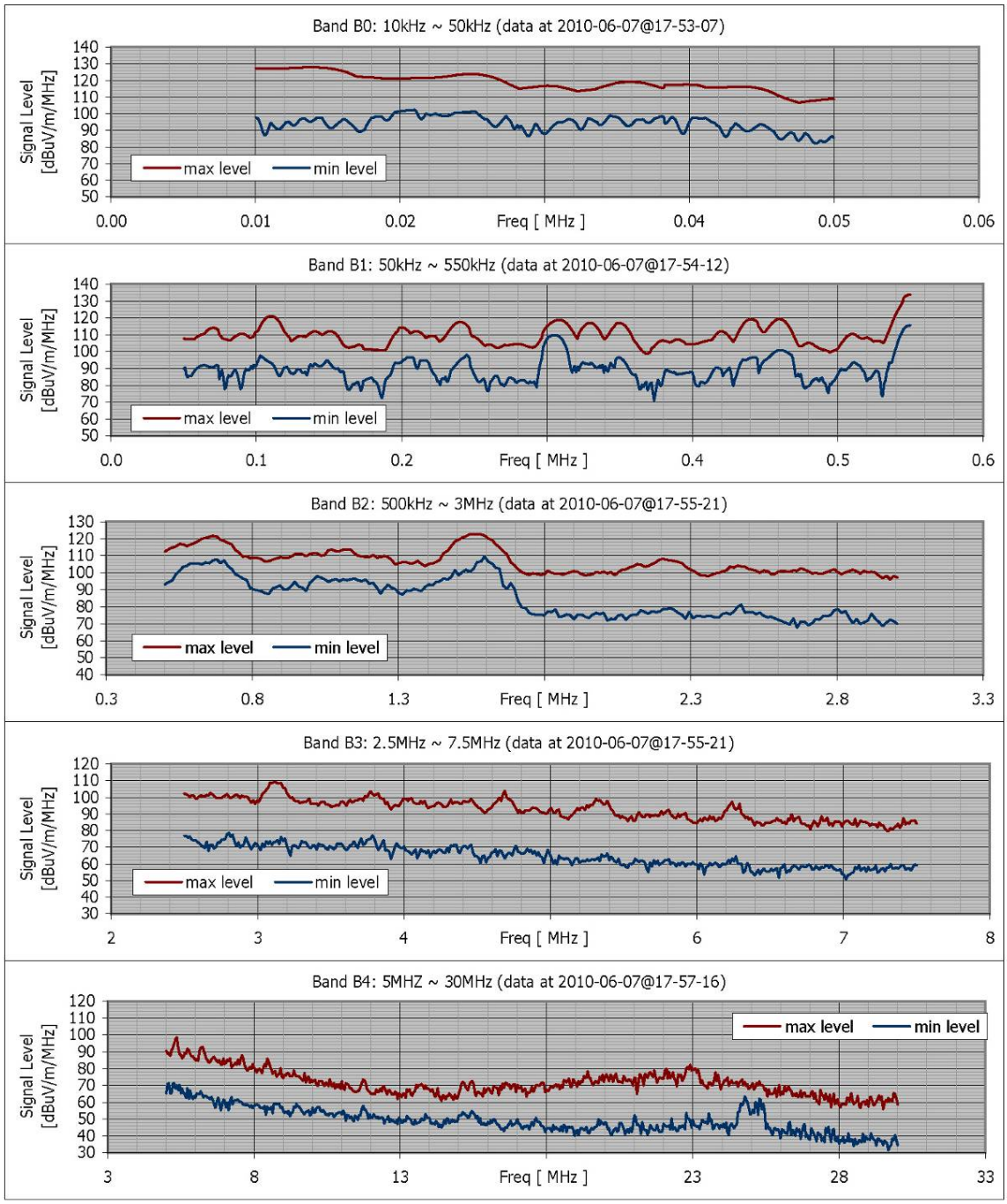
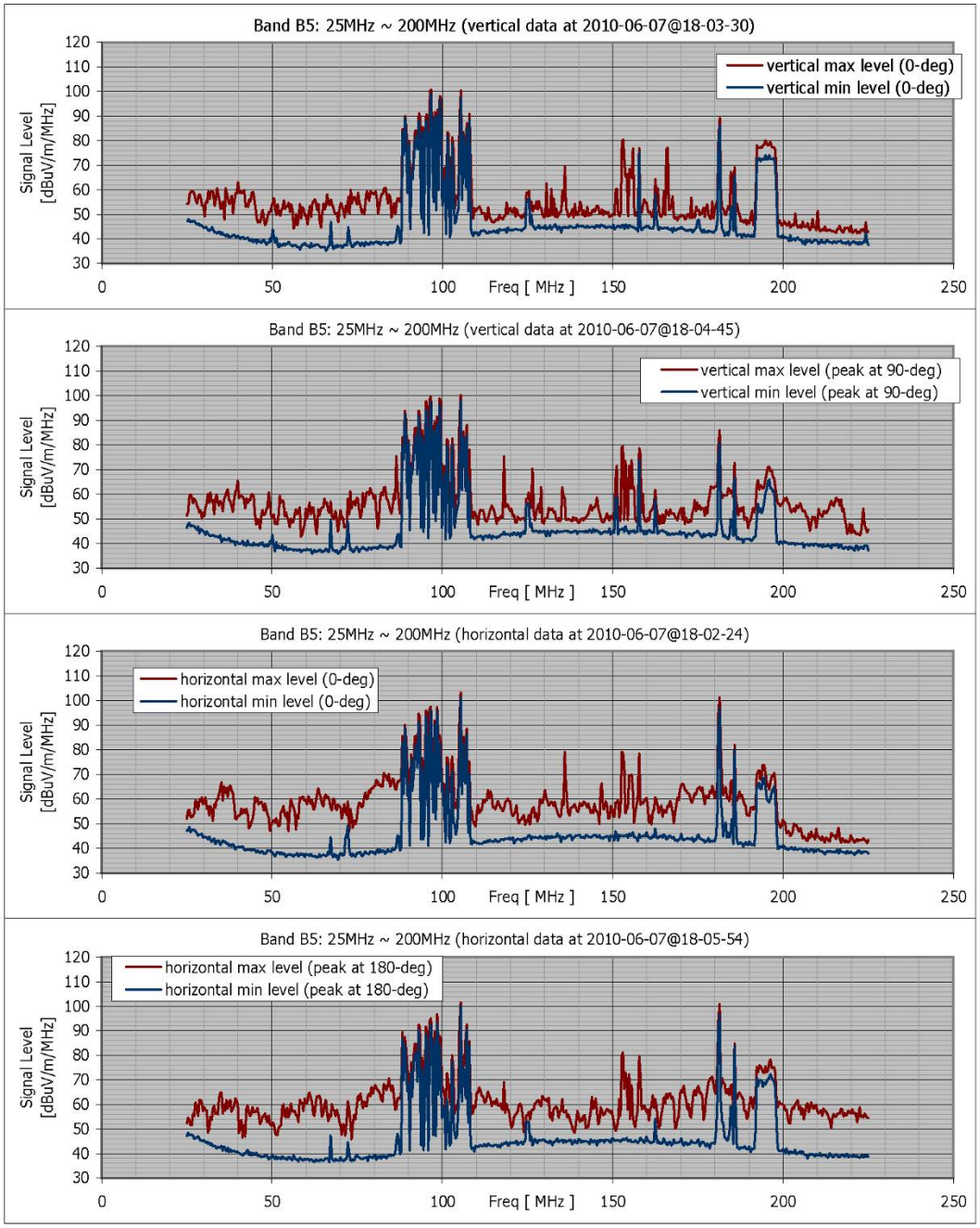


Figure 3.5-A-9(e)
Location 07: Low-frequency (AC) magnetic field data with temporal and spatial statistics



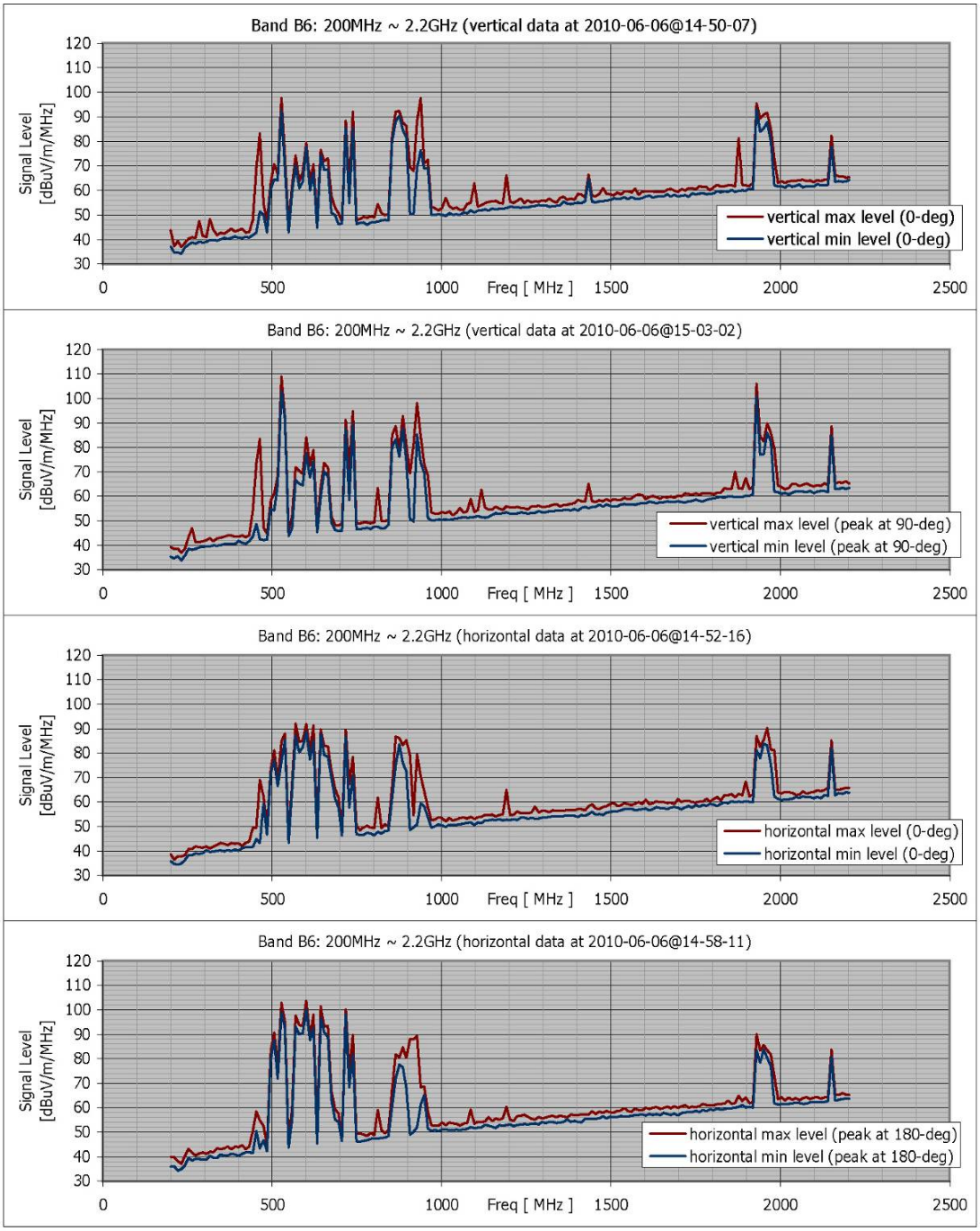
Band	Freq. Range (MHz)	Pk Min-Hold (dB uV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dB uV/m/MHz)	@ Freq. (MHz)
B0	0.01 ~ 0.05	102.2	0.0210	127.9	0.0141
B1	0.05 ~ 0.55	115.5	0.5500	133.7	0.5491
B2	0.50 ~ 3.00	109.5	1.5945	122.6	1.5436
B3	2.5 ~ 7.5	78.5	2.8036	109.1	3.1218
B4	5 ~ 30	71.3	5.2727	98.4	5.3636

Figure 3.5-A-9(f)
Location 07: RF data from non-directional vertically oriented monopole antenna



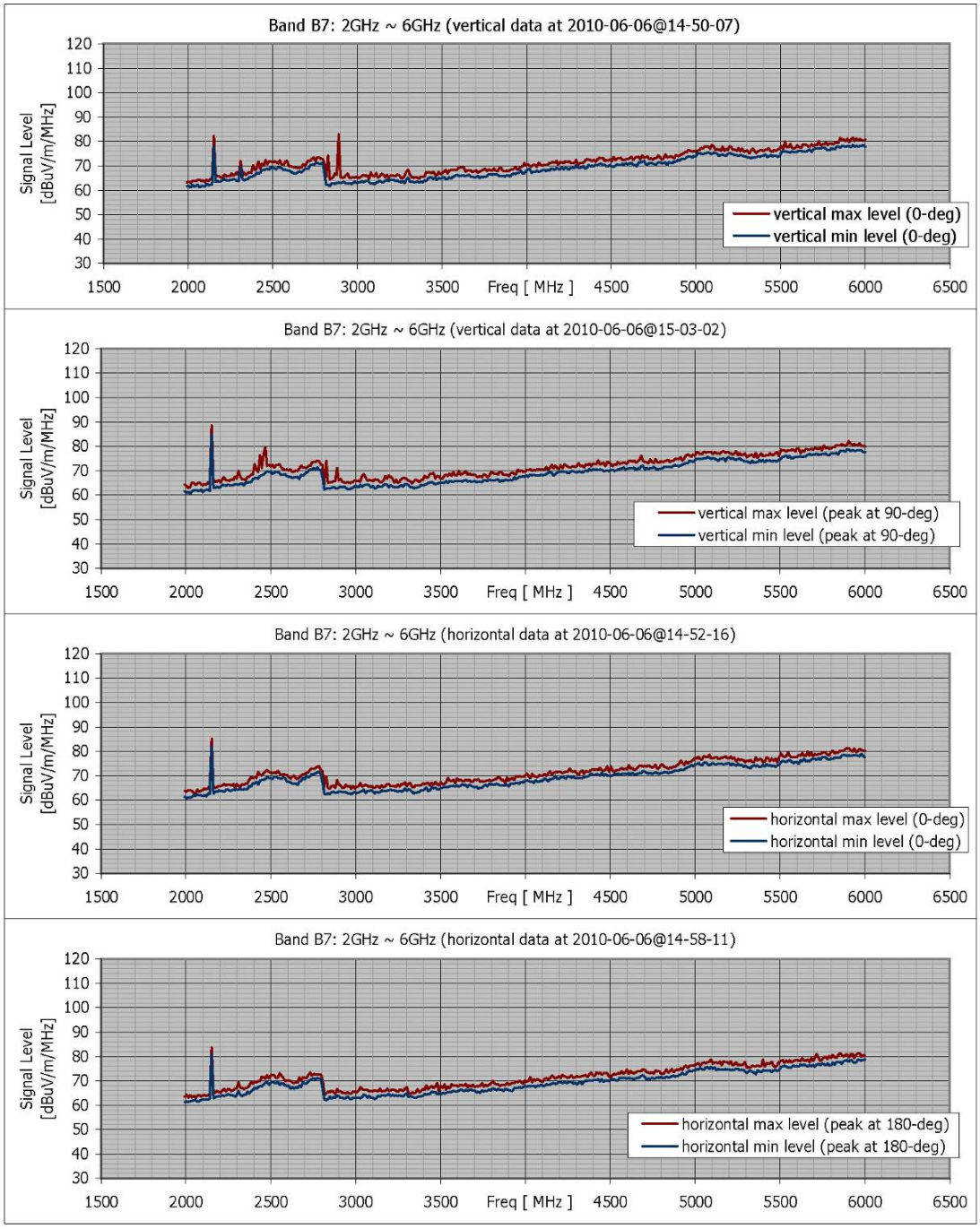
		Vertical				Horizontal			
Band	Freq. Range (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)
B5	25 ~ 200	98.8	96.636	100.7	96.636	101.1	105.364	103.1	105.364

Figure 3.5-A-9(g)
Location 07: RF data, band B5, vertical and horizontal components at 0 degrees (facing alignment) and at peak orientation



		Vertical				Horizontal			
Band	Freq. Range (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)
B6	200 ~ 2200	102.8	526.91	108.8	526.91	100.1	600.73	103.6	600.73

Figure 3.5-A-9(h)
Location 07: RF data, band B6, vertical and horizontal components at 0 degrees (facing alignment) and at peak orientation



		Vertical				Horizontal			
Band	Freq. Range (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)
B7	2200~6000	84.7	2150.9	88.6	2150.9	81.9	2150.9	85.2	2150.9

Figure 3.5-A-9(i)
Location 07: RF data, band B7, vertical and horizontal components at 0 degrees (facing alignment) and at peak orientation

Figure 3.5-A-10(a)
Location 08: Urban Bakersfield near Mercy Hospital
A neighborhood in suburban Bakersfield with significant power infrastructure (Lat: 35° 22' 19.61", Long: W119° 1' 38.95")

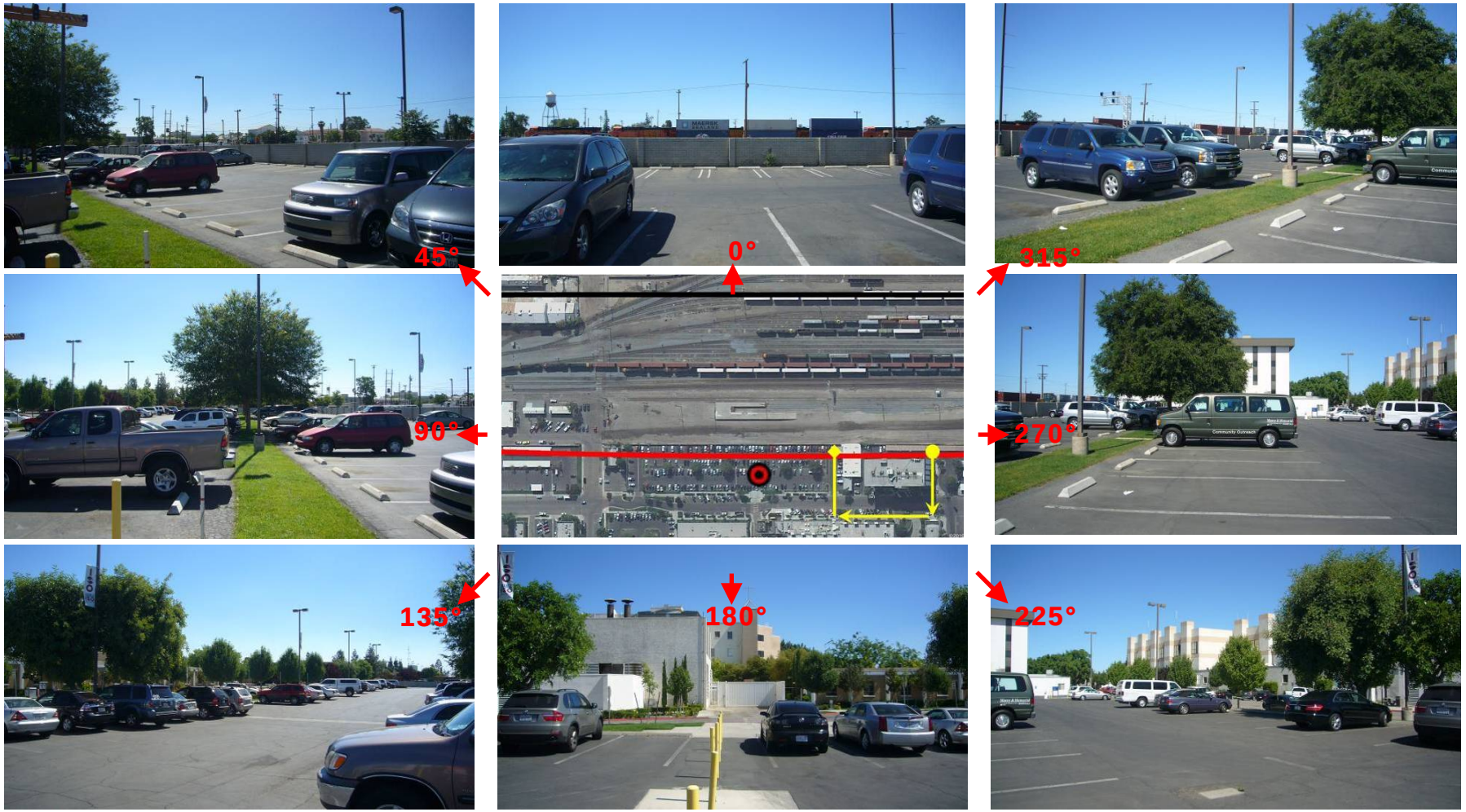


Figure 3.5-A-10(b)
Location 08: Urban Bakersfield near Mercy Hospital
Photos depicting the site from the perspective of the RF measurement location. In the center is a satellite view, with the alignment (dark line) and measurement point (red dot). The spatial profiles are indicated by yellow arrows. The satellite view is rotated so that the image at 0° faces the alignment.

Figure 3.5-A-10(c)
Location 08: Urban Bakersfield near Mercy Hospital
Nearby emitters include significant regional power transmission and local power distribution lines; note the power plant north of the site.
Photos depicting visible close-proximity emitters. Other emissions sources are assumed to exist but are not visible from the site.

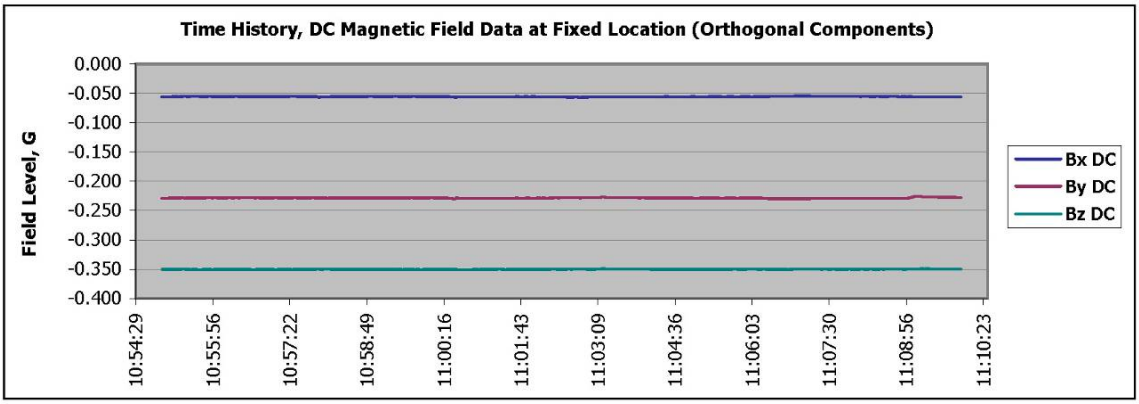
Location: Fresno-Bakersfield Location 08, Fixed Measurement Location
GPS Coord.: 35 22' 19.61" 119 1' 38.95" (latitude, longitude for fixed location)

Date/Time	Date	Start Time	End Time	Duration	Samples	Distance
Fixed Loc.:	6-Jun-10	10:54:58	11:09:58	0:15:00	451	N/A (fixed)

Description: In front of Mercy Hospital on 16th Street, Bakersfield.

Component DC Magnetic Field (G)

	Bx DC	By DC	Bz DC
MAX	-0.0545	-0.2254	-0.3492
MIN	-0.0573	-0.2301	-0.3509
MEDIAN	-0.0559	-0.2287	-0.3505
RANGE	0.0028	0.0047	0.0017
STD DEV	0.0004	0.0006	0.0003



Resultant DC Magnetic Field (G)

	Br DC	Time of Observation
MAX	0.4232	11:00:28
MIN	0.4198	11:09:12
MEDIAN	0.4222	-----
RANGE	0.0034	-----
STD DEV	0.0005	-----

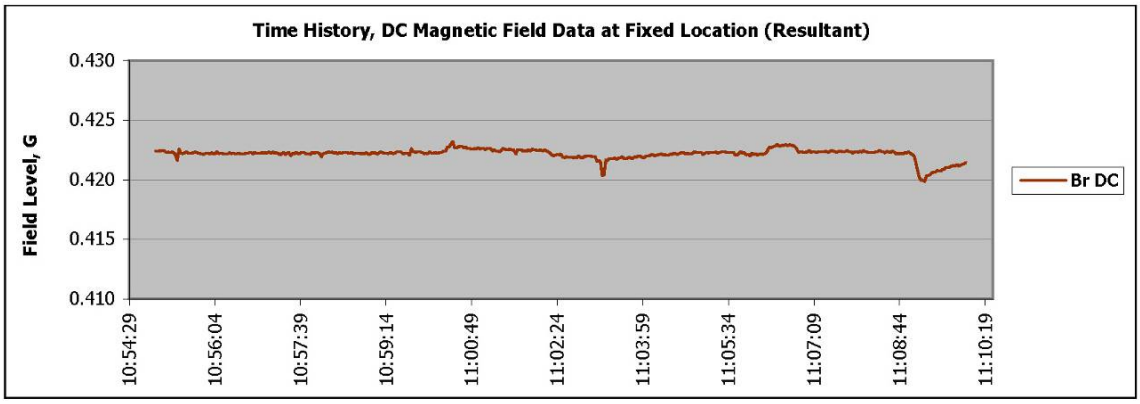


Figure 3.5-A-10(d)
Location 08: Static (DC) magnetic field data with temporal statistics

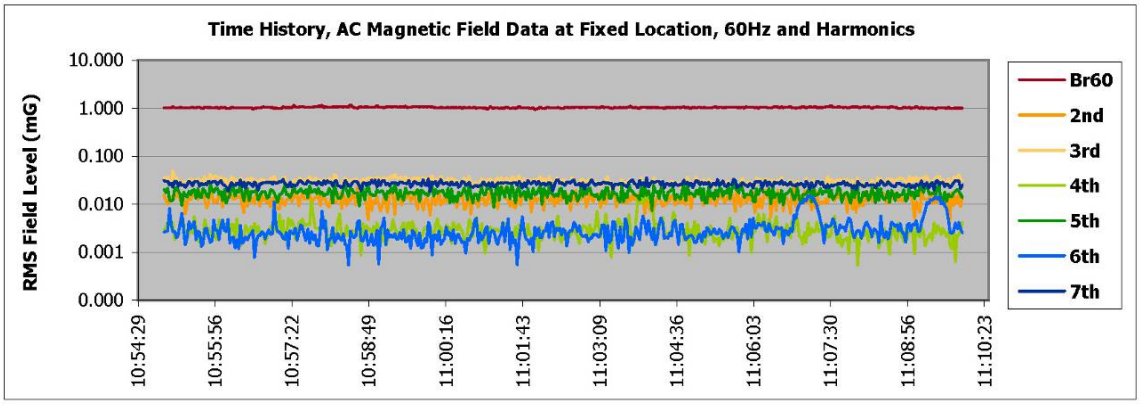
Location: Fresno-Bakersfield Location 08, Fixed and Profile Locations
GPS Coord.: 35 22' 19.61" 119 1' 38.95" (latitude, longitude for fixed location)

	Date/Time	Date	Start Time	End Time	Duration	Samples	Distance
Fixed Loc.:		6-Jun-10	10:54:58	11:09:58	0:15:00	451	N/A (fixed)
Profile:		6-Jun-10	10:59:34	11:03:57	0:04:23	72	720ft

Description: In front of Mercy Hospital on 16th Street, Bakersfield. Three profiles near and around Mercy Hospital.

Resultant Low-Frequency AC Magnetic Field (RMS mG) at Fixed Location (60Hz and Harmonics)

	60Hz Fund.	2nd	3rd	4th	5th	6th	7th
MAX	1.17	0.02	0.05	0.02	0.03	0.02	0.04
MIN	0.93	0.00	0.02	0.00	0.01	0.00	0.02
MEDIAN	1.04	0.01	0.03	0.00	0.02	0.00	0.03
RANGE	0.24	0.02	0.03	0.01	0.02	0.01	0.02
STD DEV	0.03	0.00	0.00	0.00	0.00	0.00	0.00



Resultant Low-Frequency AC Magnetic Field (RMS mG) along Profile, 60Hz and Harmonics

	60Hz Fund.	2nd	3rd	4th	5th	6th	7th
MAX	3.91	0.14	0.18	0.07	0.21	0.05	0.15
MIN	0.06	0.01	0.01	0.00	0.01	0.00	0.00
MEDIAN	0.50	0.05	0.04	0.02	0.03	0.02	0.02
RANGE	3.85	0.13	0.17	0.07	0.20	0.05	0.14
STD DEV	0.76	0.03	0.03	0.01	0.04	0.01	0.03

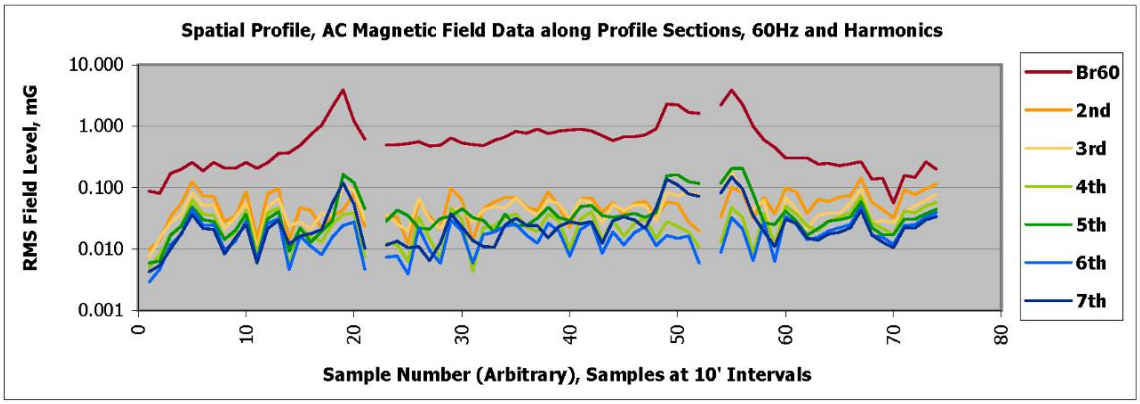
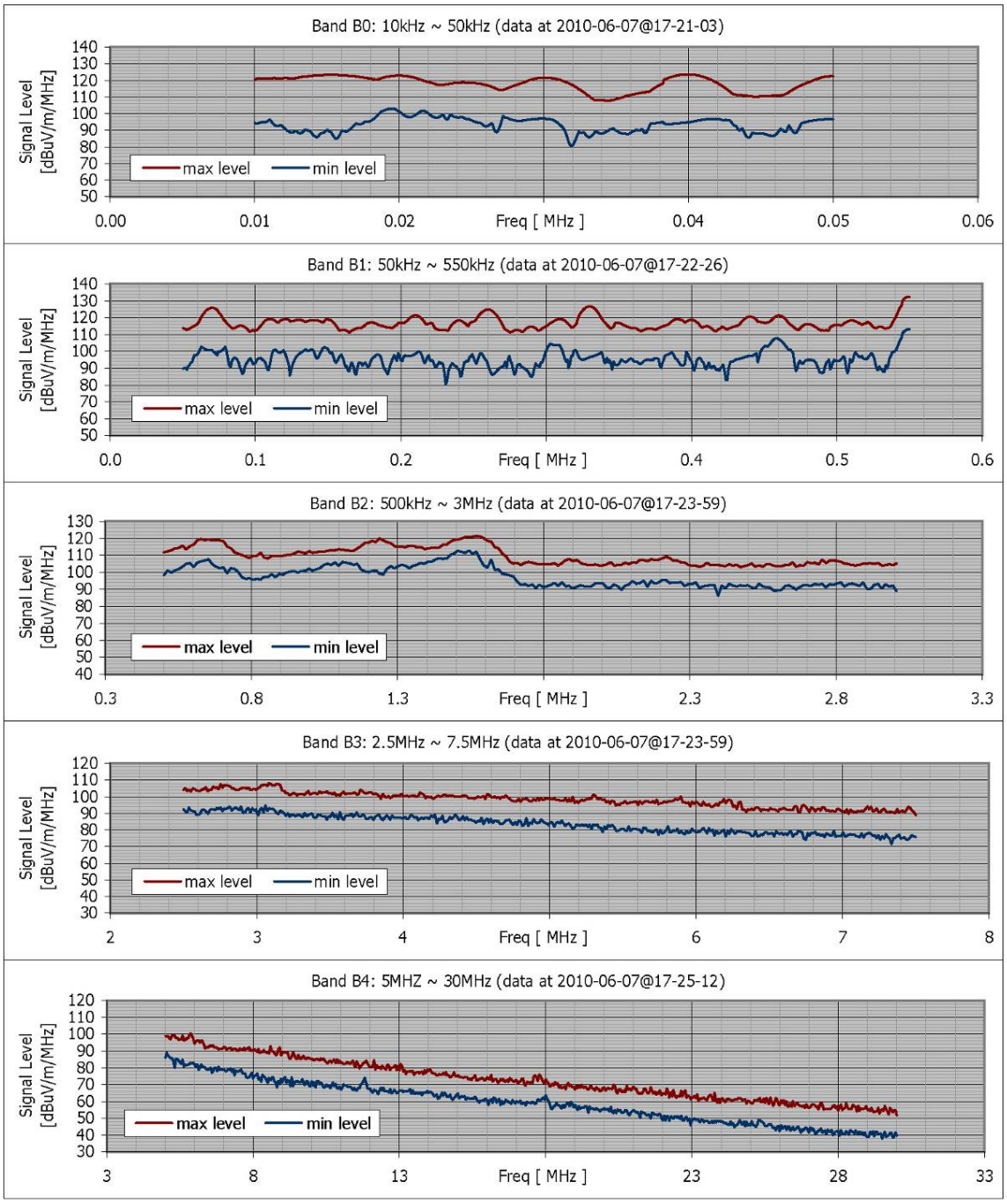
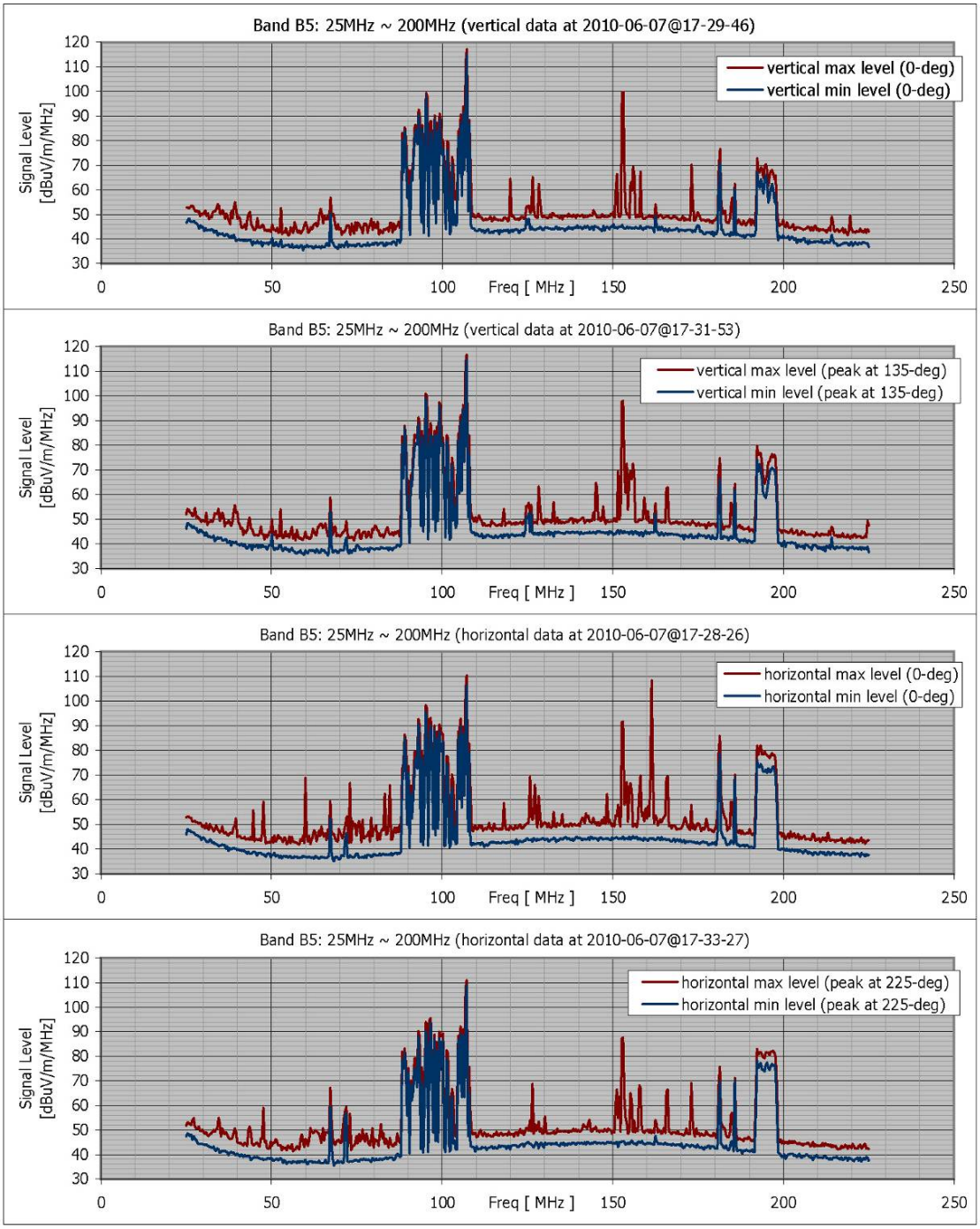


Figure 3.5-A-10(e)
Location 08: Low-frequency (AC) magnetic field data with temporal and spatial statistics



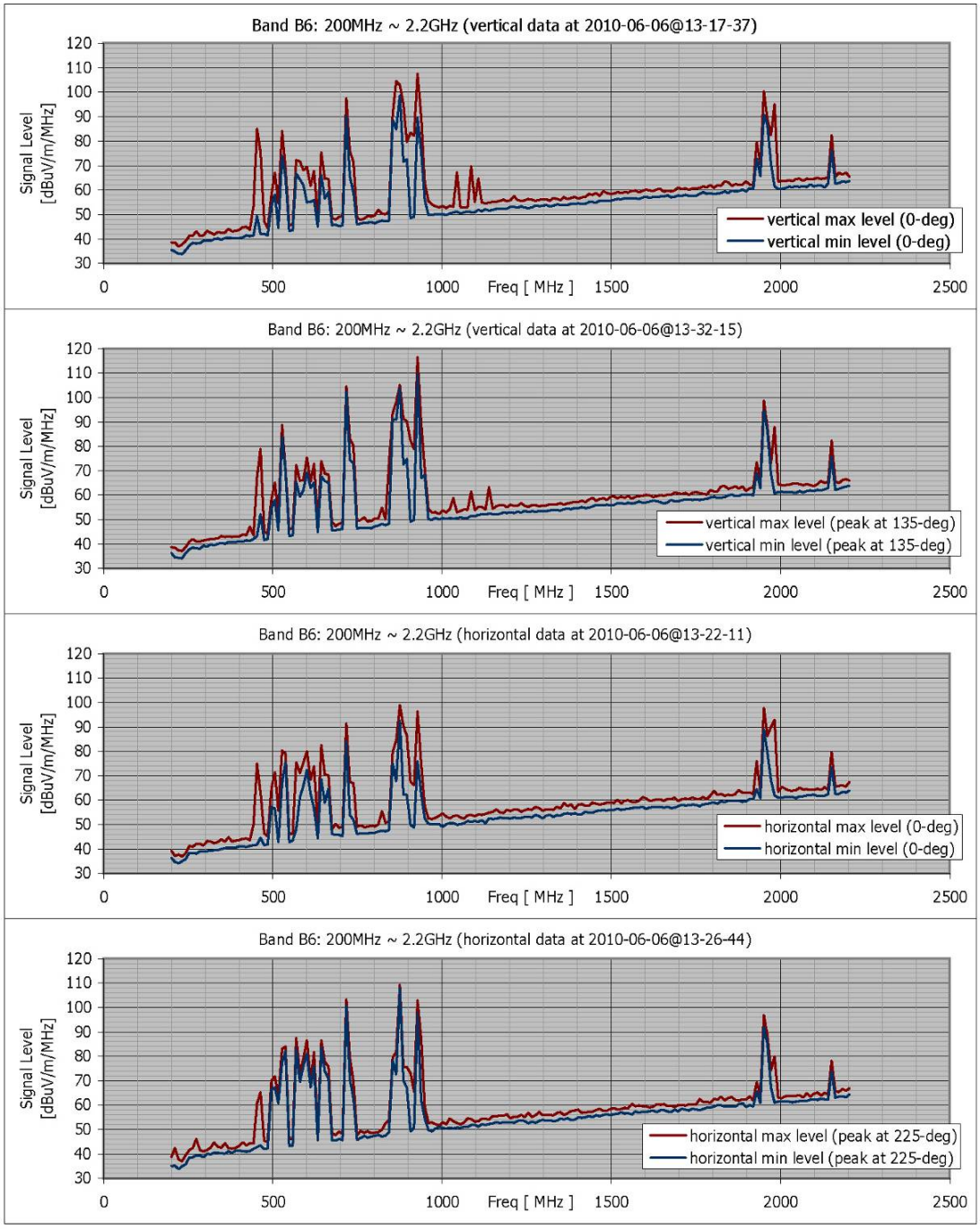
Band	Freq. Range (MHz)	Pk Min-Hold (dB uV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dB uV/m/MHz)	@ Freq. (MHz)
B0	0.01 ~ 0.05	102.8	0.0194	123.5	0.0398
B1	0.05 ~ 0.55	113.2	0.5500	132.4	0.5500
B2	0.50 ~ 3.00	112.8	1.5436	121.3	1.5691
B3	2.5 ~ 7.5	94.6	3.0582	108.0	3.0836
B4	5 ~ 30	88.9	5.0455	100.4	5.8636

Figure 3.5-A-10(f)
Location 08: RF data from non-directional vertically oriented monopole antenna



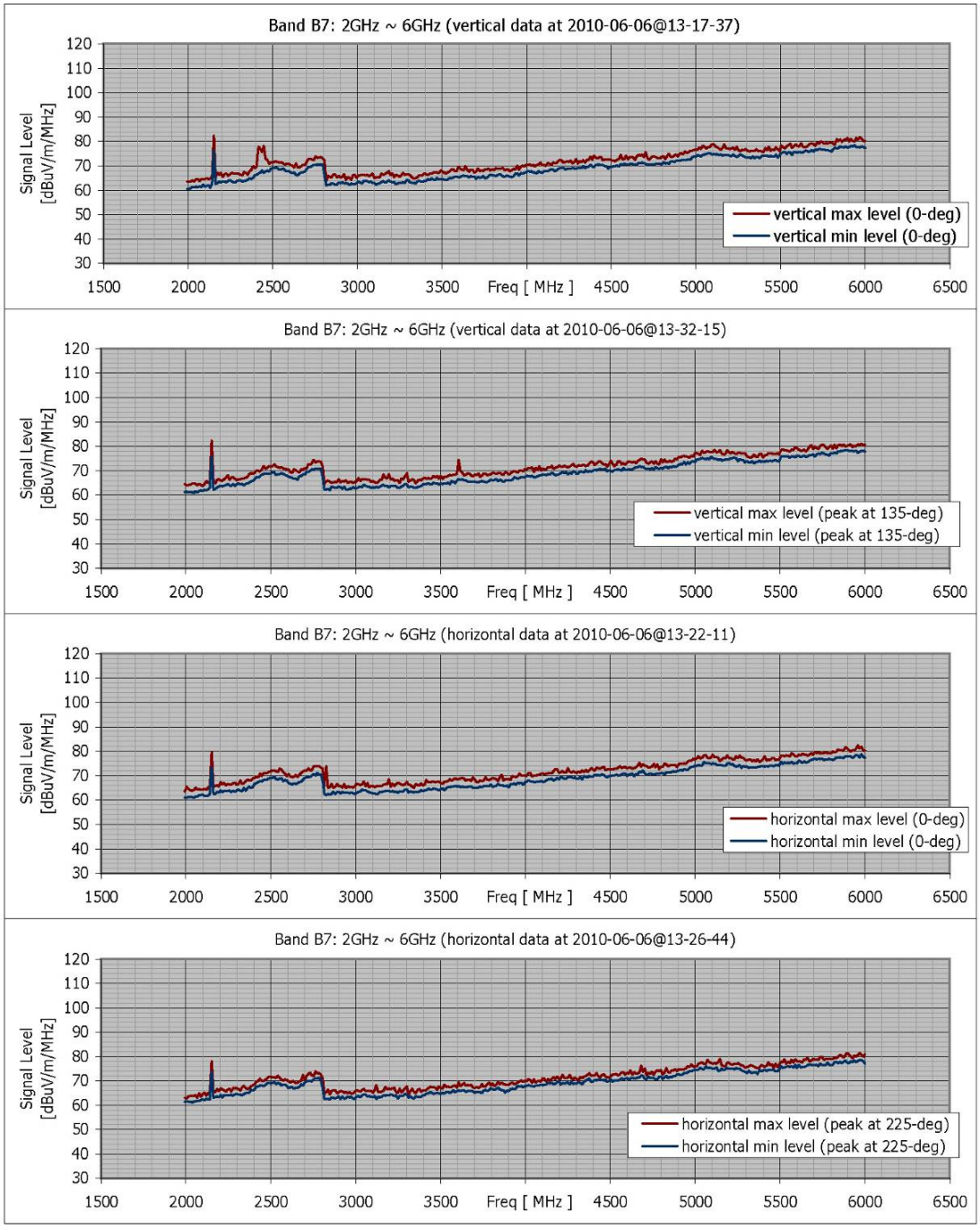
		Vertical				Horizontal			
Band	Freq. Range (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)
B5	25 ~ 200	115.0	107.182	117.2	107.182	108.8	107.182	111.0	107.182

Figure 3.5-A-10(g)
Location 08: RF data, band B5, vertical and horizontal components at 0 degrees (facing alignment) and at peak orientation



		Vertical				Horizontal			
Band	Freq. Range (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)
B6	200 ~ 2200	109.7	927.64	116.5	927.64	107.8	874.91	109.2	874.91

Figure 3.5-A-10(h)
Location 08: RF data, band B6, vertical and horizontal components at 0 degrees (facing alignment) and at peak orientation



		Vertical				Horizontal			
Band	Freq. Range (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)
B7	2200~6000	78.4	5884.0	82.4	2150.9	78.7	5978.9	82.3	5957.8

Figure 3.5-A-10(i)
Location 08: RF data, band B7, vertical and horizontal components at 0 degrees (facing alignment) and at peak orientation

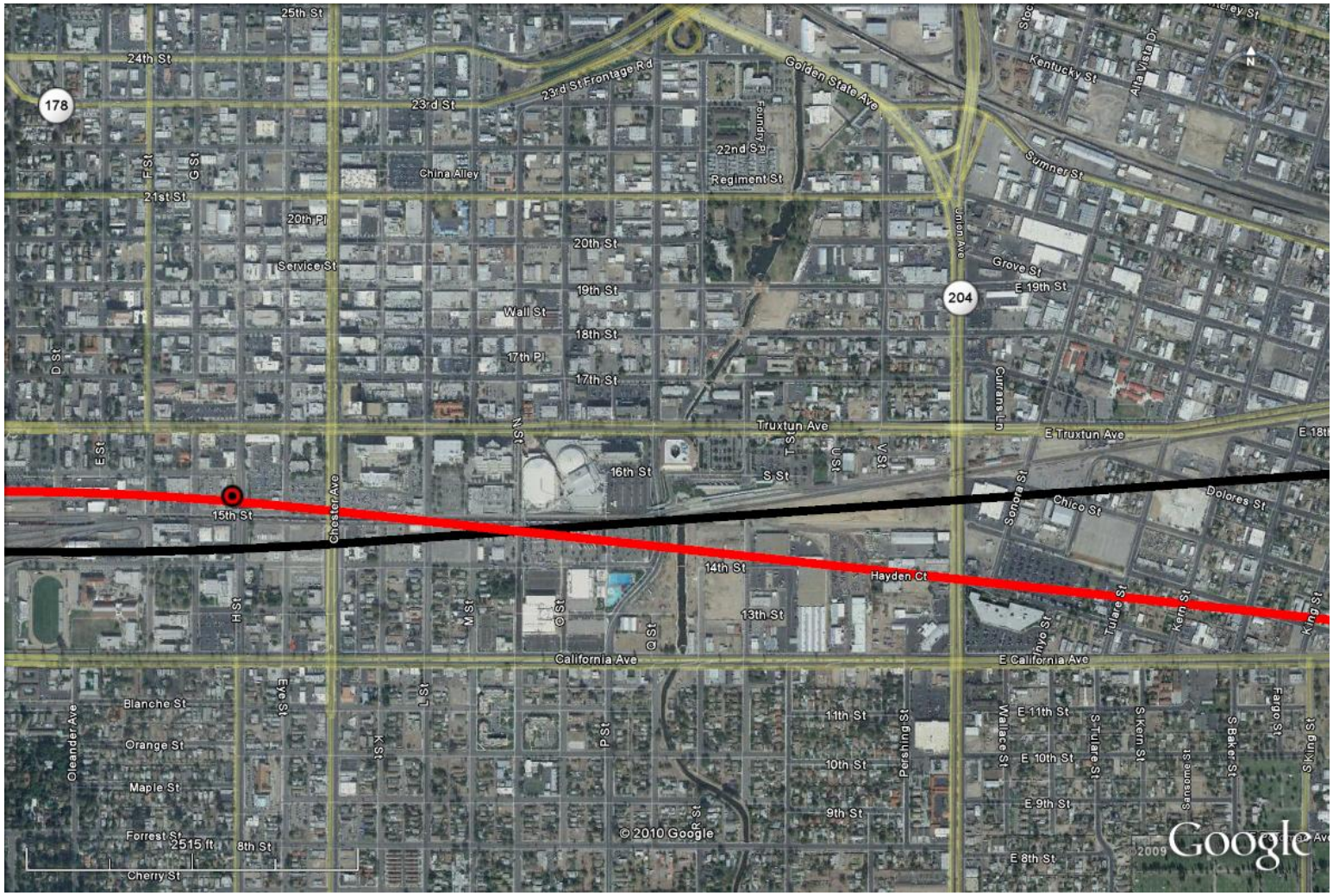


Figure 3.5-A-11(a)
Location 09: Urban Bakersfield near police department
Downtown Bakersfield near existing medical offices and police department (Lat: 35° 22' 18.85", Long: W119° 1' 17.01")

Figure 3.5-A-11(b)
Location 09: Urban Bakersfield near police department
Photos depicting the site from the perspective of the RF measurement location. In the center is a satellite view, with the alignment (dark line) and measurement point (red dot). The spatial profiles are indicated by yellow arrows. The satellite view is rotated so that the image at 0° faces the alignment.

Figure 3.5-A-11(c)
Location 09: Urban Bakersfield near police department
Nearby emitters include multiple dense radio, communications, and cell towers as well as freight rail activities.
Photos depicting visible close-proximity emitters. Other emissions sources are assumed to exist but are not visible from the site.

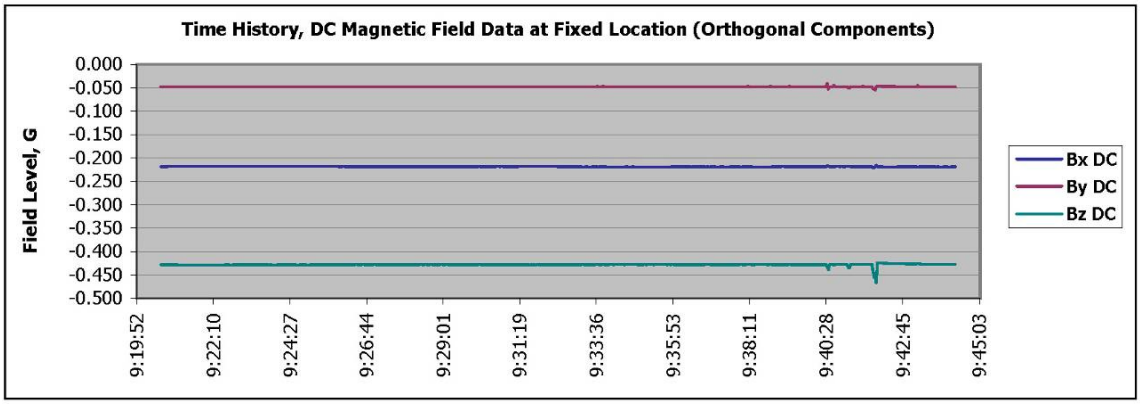
Location: Fresno-Bakersfield Location 09, Fixed Measurement Location
GPS Coord.: 35 22' 18.85" 119 1' 17.01" (latitude, longitude for fixed location)

Date/Time	Date	Start Time	End Time	Duration	Samples	Distance
Fixed Loc.:	6-Jun-10	9:20:35	9:44:20	0:23:45	710	N/A (fixed)

Description: Urban Bakersfield, H Street near rail overpass.

Component DC Magnetic Field (G)

	Bx DC	By DC	Bz DC
MAX	-0.2157	-0.0402	-0.4245
MIN	-0.2208	-0.0550	-0.4672
MEDIAN	-0.2188	-0.0479	-0.4281
RANGE	0.0050	0.0147	0.0427
STD DEV	0.0005	0.0006	0.0022



Resultant DC Magnetic Field (G)

	Br DC	Time of Observation
MAX	0.5168	9:41:58
MIN	0.4799	9:42:00
MEDIAN	0.4831	-----
RANGE	0.0369	-----
STD DEV	0.0019	-----

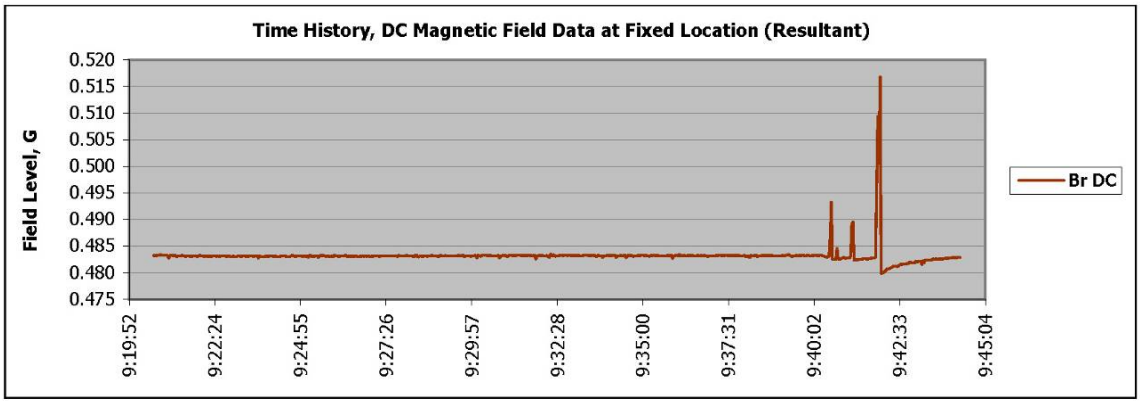


Figure 3.5-A-11(d)
Location 09: Static (DC) magnetic field data with temporal statistics

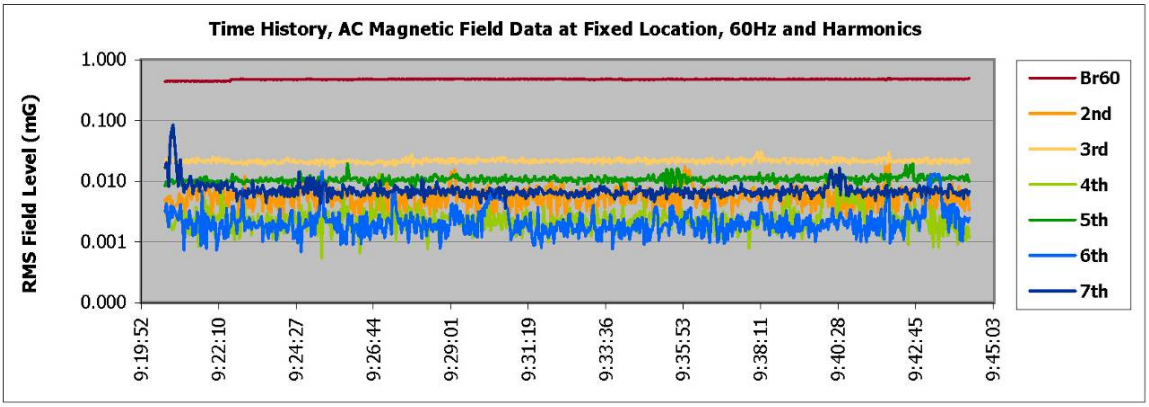
Location: Fresno-Bakersfield Location 09, Fixed and Profile Locations
GPS Coord.: 35 22' 18.85" 119 1' 17.01" (latitude, longitude for fixed location)

	Date/Time	Date	Start Time	End Time	Duration	Samples	Distance
Fixed Loc.:		6-Jun-10	9:20:35	9:44:20	0:23:45	710	N/A (fixed)
Profile:		6-Jun-10	9:27:39	9:30:53	0:03:14	50	500ft

Description: Urban Bakersfield, H Street near rail overpass. Profile is 240' along both sides of H Street, from 16th Street to overpass.

Resultant Low-Frequency AC Magnetic Field (RMS mG) at Fixed Location (60Hz and Harmonics)

	60Hz Fund.	2nd	3rd	4th	5th	6th	7th
MAX	0.50	0.02	0.03	0.01	0.02	0.01	0.08
MIN	0.44	0.00	0.02	0.00	0.01	0.00	0.00
MEDIAN	0.47	0.01	0.02	0.00	0.01	0.00	0.01
RANGE	0.06	0.02	0.01	0.01	0.01	0.01	0.08
STD DEV	0.01	0.00	0.00	0.00	0.00	0.00	0.00



Resultant Low-Frequency AC Magnetic Field (RMS mG) along Profile, 60Hz and Harmonics

	60Hz Fund.	2nd	3rd	4th	5th	6th	7th
MAX	1.54	0.14	0.10	0.07	0.06	0.05	0.04
MIN	0.05	0.01	0.01	0.00	0.00	0.00	0.00
MEDIAN	0.25	0.06	0.04	0.03	0.03	0.02	0.02
RANGE	1.49	0.14	0.09	0.07	0.06	0.05	0.04
STD DEV	0.29	0.03	0.02	0.02	0.01	0.01	0.01

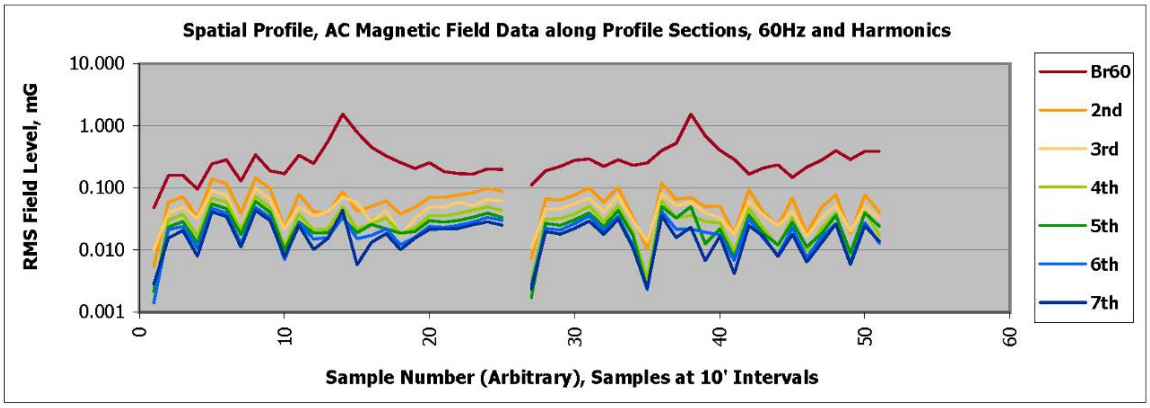
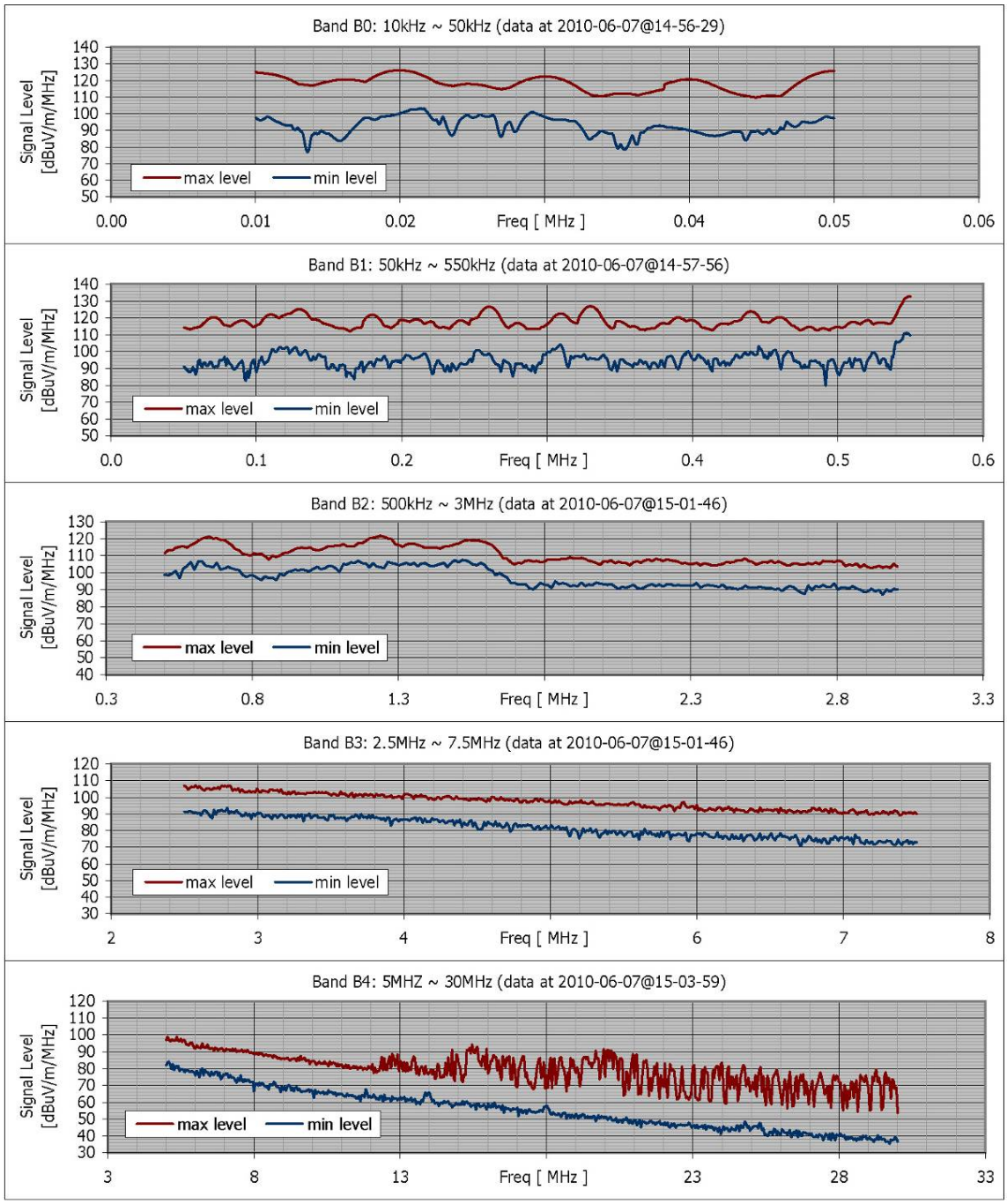
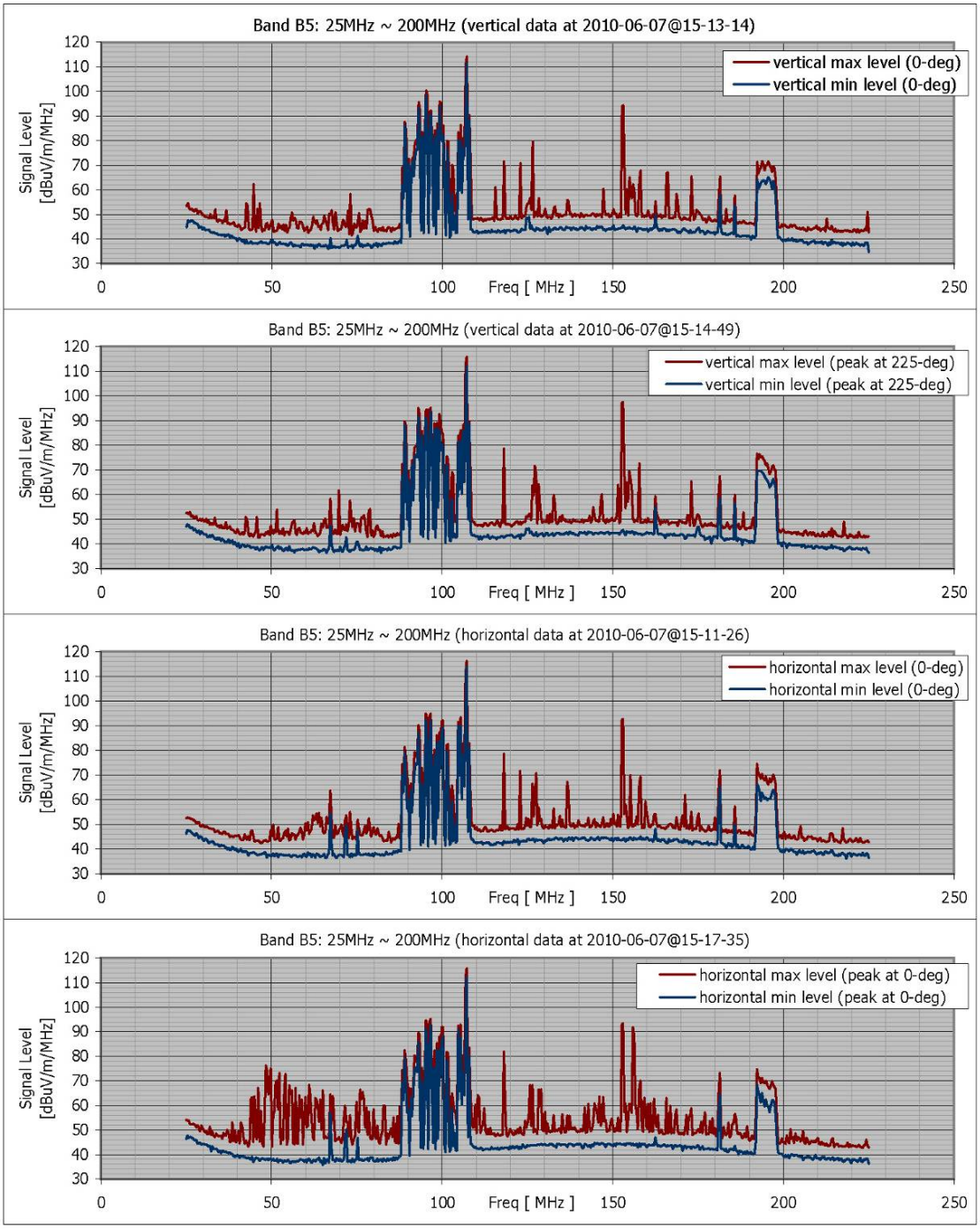


Figure 3.5-A-11(e)
Location 09: Low-frequency (AC) magnetic field data with temporal and spatial statistics



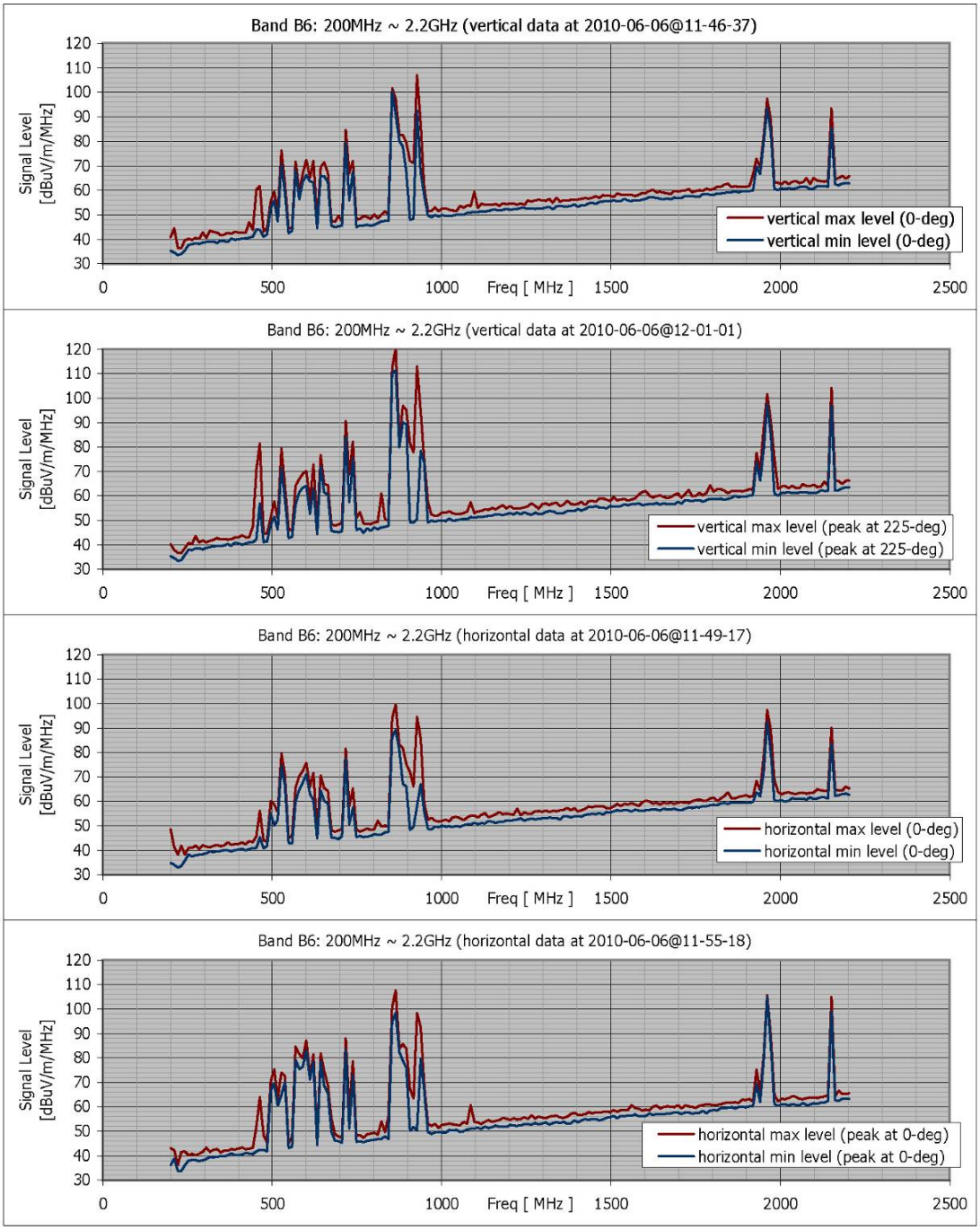
Band	Freq. Range (MHz)	Pk Min-Hold (dB uV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dB uV/m/MHz)	@ Freq. (MHz)
B0	0.01 ~ 0.05	103.0	0.0214	126.1	0.0200
B1	0.05 ~ 0.55	111.0	0.5473	132.7	0.5500
B2	0.50 ~ 3.00	107.6	1.5182	121.6	1.2382
B3	2.5 ~ 7.5	93.6	2.7909	107.1	2.5745
B4	5 ~ 30	83.9	5.0909	98.8	5.0455

Figure 3.5-A-11(f)
Location 09: RF data from non-directional vertically oriented monopole antenna



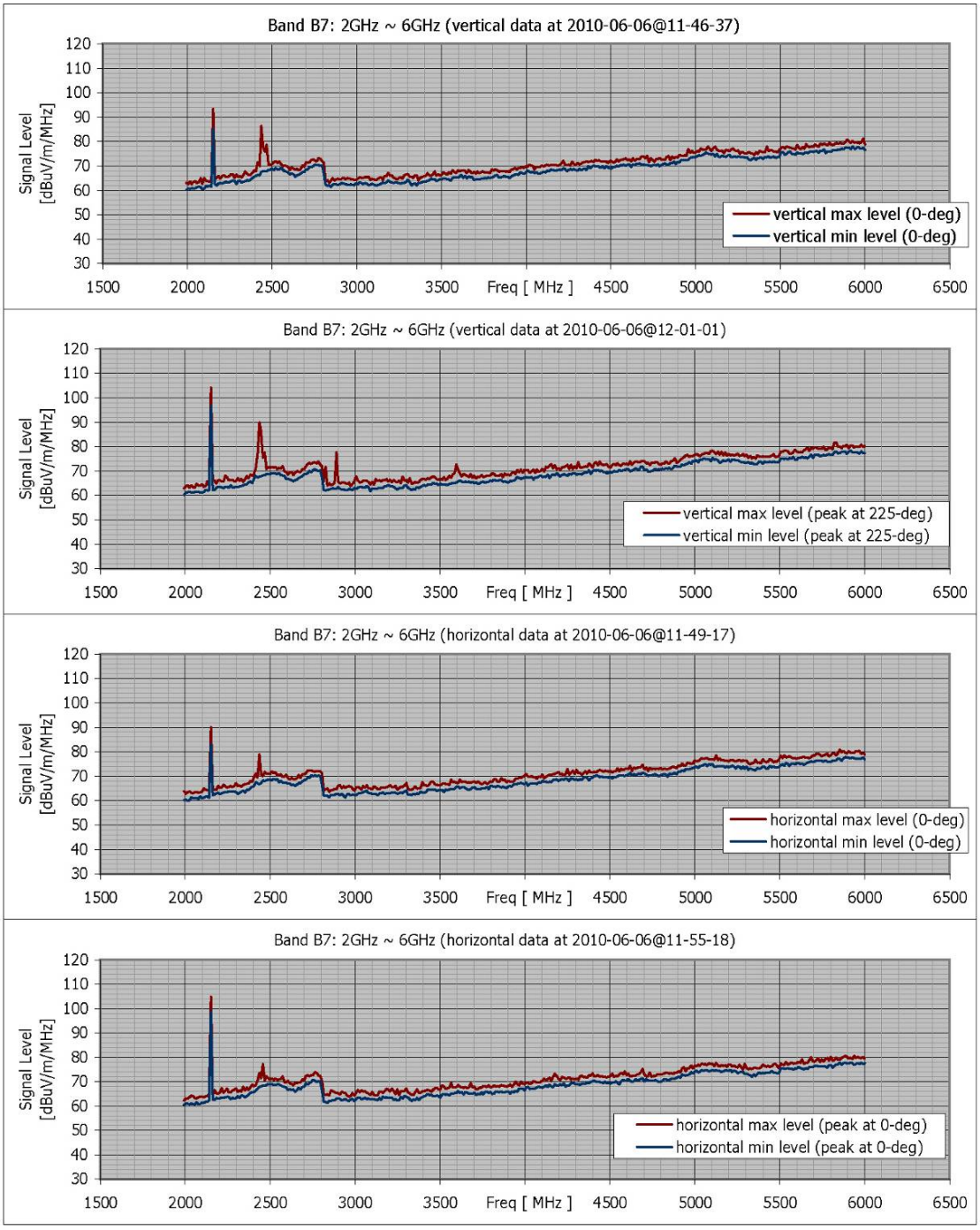
		Vertical				Horizontal			
Band	Freq. Range (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)
B5	25 ~ 200	111.9	107.182	115.8	107.182	114.0	107.182	116.2	107.182

Figure 3.5-A-11(g)
Location 09: RF data, band B5, vertical and horizontal components at 0 degrees (facing alignment) and at peak orientation



		Vertical				Horizontal			
Band	Freq. Range (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)
B6	200 ~ 2200	111.2	864.36	120.3	864.36	104.8	1961.09	107.6	864.36

Figure 3.5-A-11(h)
Location 09: RF data, band B6, vertical and horizontal components at 0 degrees (facing alignment) and at peak orientation



		Vertical				Horizontal			
Band	Freq. Range (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)
B7	2200~6000	96.8	2150.9	104.2	2150.9	98.8	2150.9	104.9	2150.9

Figure 3.5-A-11(i)
Location 09: RF data, band B7, vertical and horizontal components at 0 degrees (facing alignment) and at peak orientation

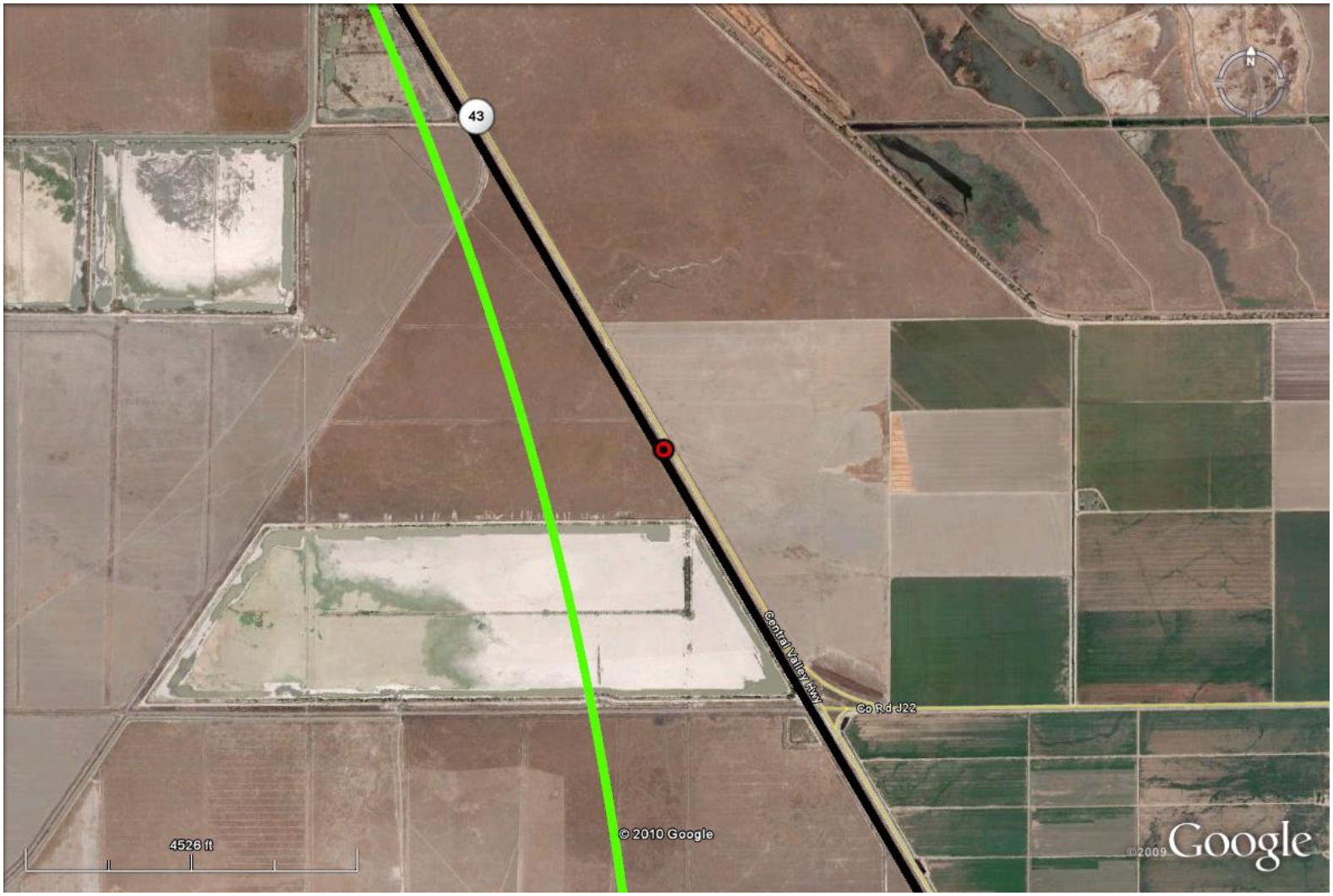


Figure 3.5-A-12(a)
Location 10: Remote area between Allensworth and Corcoran
A remote area with no visible RF sources (Lat: 35° 54' 3.96", Long: W119° 24' 45.52")

Figure 3.5-A-12(b)
Location 10: Remote area between Allensworth and Corcoran
Photos depicting the site from the perspective of the RF measurement location. In the center is a satellite view, with the alignment (dark line) and measurement point (red dot). The spatial profiles are indicated by yellow arrows. The satellite view is rotated so that the image at 0° faces the alignment.

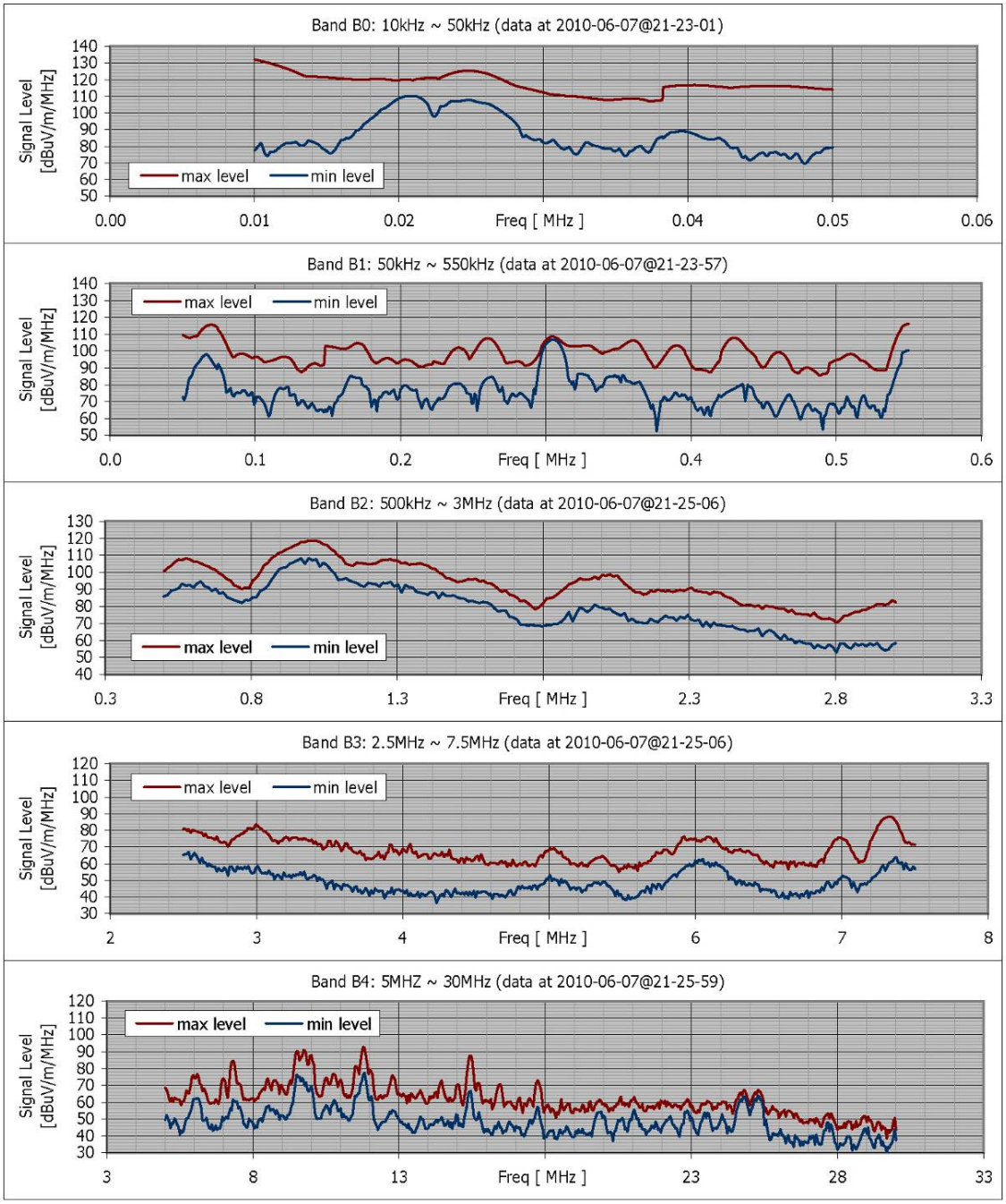
Figure 3.5-A-12(c)
Location 10: Remote area between Allensworth and Corcoran
No radio or communications towers were visible, and the only power infrastructure was distribution lines along the highway. Photos depicting visible close-proximity emitters. Other emissions sources are assumed to exist but are not visible from the site.

[Photo not available.]

Figure 3.5-A-12(d)
Location 10: Static (DC) magnetic field data with temporal statistics
No DC magnetic field data at this location

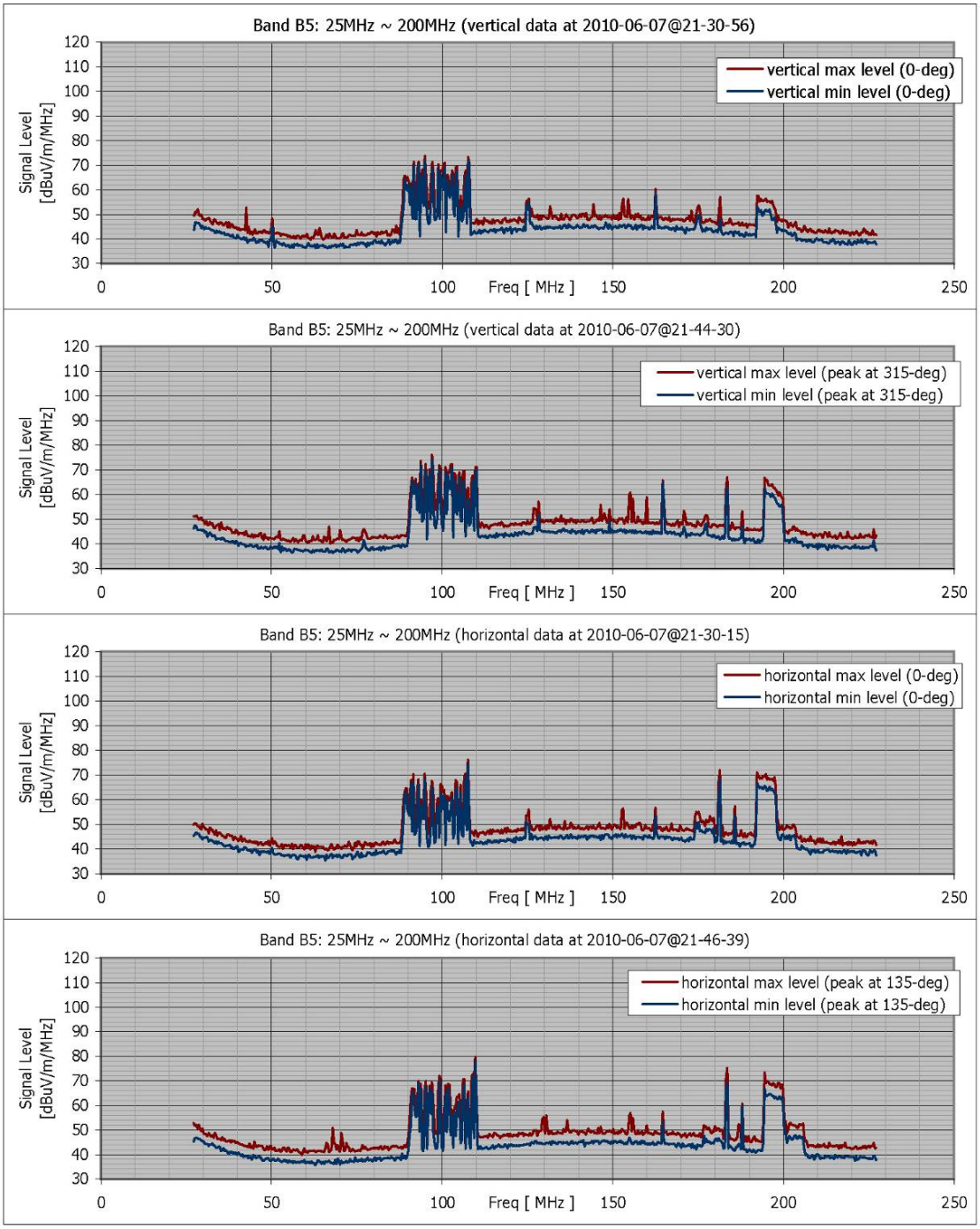
[Photo not available.]

Figure 3.5-A-12(e)
Location 10: Low-frequency (AC) magnetic field data with temporal and spatial statistics
No AC magnetic field data at this location



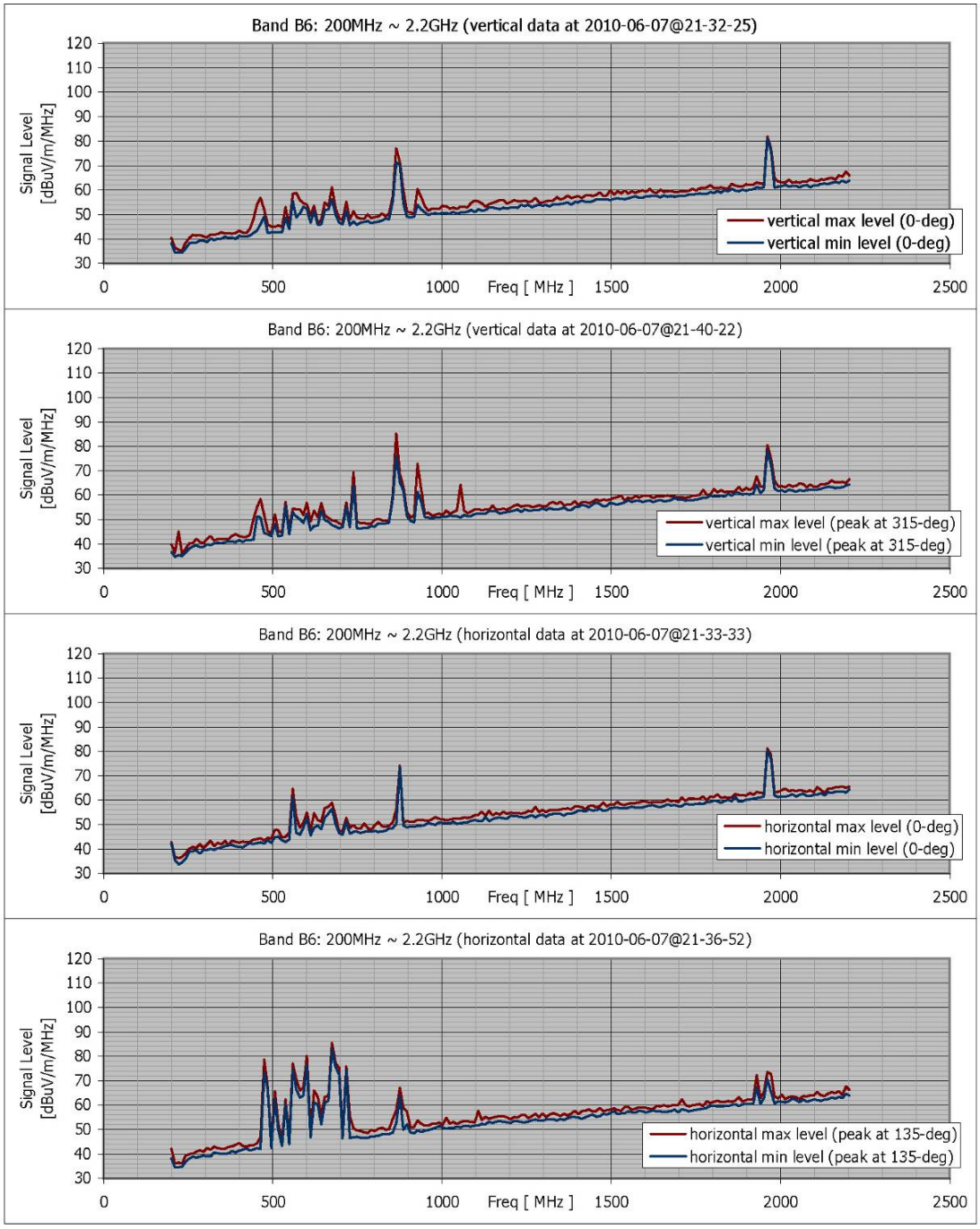
Band	Freq. Range (MHz)	Pk Min-Hold (dB uV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dB uV/m/MHz)	@ Freq. (MHz)
B0	0.01 ~ 0.05	110.0	0.0212	132.0	0.0100
B1	0.05 ~ 0.55	106.7	0.3055	116.0	0.5491
B2	0.50 ~ 3.00	108.1	0.9964	118.6	1.0091
B3	2.5 ~ 7.5	66.9	2.5364	88.3	7.3218
B4	5 ~ 30	77.3	11.8182	92.9	11.7727

Figure 3.5-A-12(f)
Location 10: RF data from non-directional vertically oriented monopole antenna



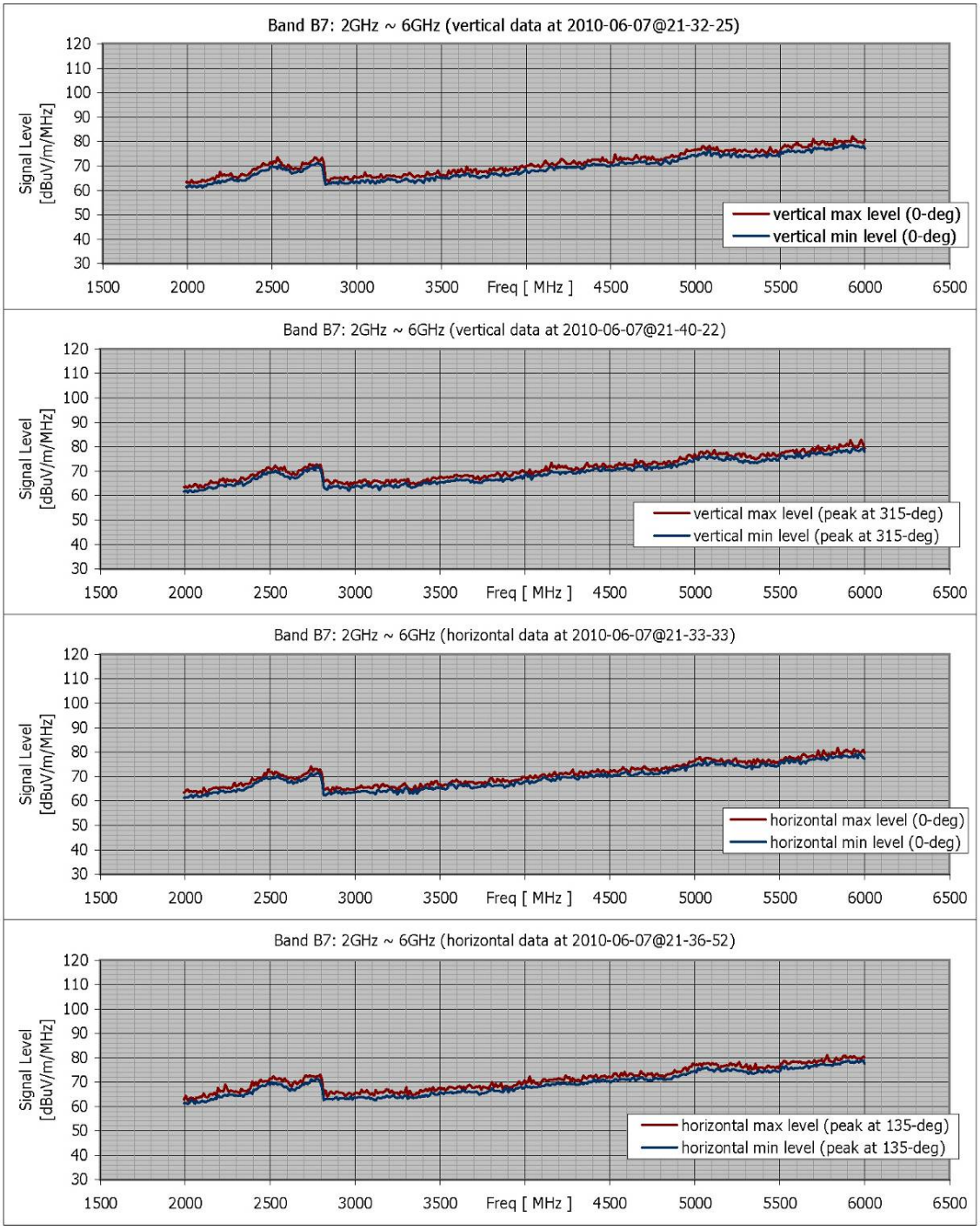
		Vertical				Horizontal			
Band	Freq. Range (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)
B5	25 ~ 200	74.4	97.000	76.1	97.000	78.2	109.727	79.8	109.727

Figure 3.5-A-12(g)
Location 10: RF data, band B5, vertical and horizontal components at 0 degrees (facing alignment) and at peak orientation



		Vertical				Horizontal			
Band	Freq. Range (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)
B6	200 ~ 2200	81.1	1961.09	85.2	864.36	82.9	674.55	85.5	674.55

Figure 3.5-A-12(h)
Location 10: RF data, band B6, vertical and horizontal components at 0 degrees (facing alignment) and at peak orientation



		Vertical				Horizontal			
Band	Freq. Range (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Min-Hold (dBuV/m/MHz)	@ Freq. (MHz)	Pk Max-Hold (dBuV/m/MHz)	@ Freq. (MHz)
B7	2200~6000	79.3	5989.5	82.8	5978.9	79.3	5947.3	81.7	5841.8

Figure 3.5-A-12(i)
Location 10: RF data, band B7, vertical and horizontal components at 0 degrees (facing alignment) and at peak orientation