

FEDERAL COMMUNICATIONS COMMISSION
445 TWELFTH STREET SW
WASHINGTON DC 20554

REC
LANCASTER

MEDIA BUREAU / OFFICE OF BROADCAST LICENSE POLICY
 AUDIO DIVISION
 APPLICATION STATUS: (202) 418-2790
 HOME PAGE: www.fcc.gov/mb/audio/

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 E-MAIL: charles.miller@fcc.gov

September 1, 2004

Norwood J. Patterson, President
 Radio Representatives, Inc.
 1416 Hollister Lane
 Los Osos, California 93402

Re: KGDP (AM), Orcutt, California
 Facility Identification Number: 54760
 Radio Representatives, Inc.
 Special Field Test Authority

Lancaster

Dear Mr. Patterson:

This is in reference to your letters dated July 3, July 21 and August 23, 2004, filed on behalf of Radio Representatives, Inc. ("RRI"). RRI requests extension of the special field test authority (SFTA) granted on April 6, 2004, for operation of a 1 kilowatt test transmitter on 1690 kHz, employing a temporary tower at geographic coordinates 34° 42' 04" NL, 118° 17' 22" WL. In support of the request, RRI states that delays in obtaining the necessary equipment have prevented completion of the measurement program within the period of the original SFTA. RRI further states all necessary equipment has been obtained and that measurements are scheduled to commence on or about September 10, 2004.

In light of the above, the request for extension of special field test authority IS HEREBY GRANTED. Call Sign KG6XDP remains assigned to the test station. Station KG6XDP may operate with the following facilities:

Frequency:	1690 kHz
Hours of operation:	Non-critical daytime hours only ¹
Coordinates:	34° 42' 04" NL, 118° 17' 22" WL
Power:	1 kilowatt
Antenna type:	series-fed tower
Radiator height:	42.7 meters (86.5°)
Overall height:	44 meters (145 feet)
Ground system:	120 radials, each 44.4 meters (90°) in length
Antenna efficiency:	303 mV/m/km/kW ²
Marking and lighting	not required

¹ Sunrise and sunset times as specified on Construction Permit BP-20001027ABC, which authorizes modification of the facilities of Station KIRN, Simi Valley, CA.

² Millivolts per meter at one kilometer for one kilowatt input power.

Transmissions shall consist of unmodulated carrier plus hourly station identification announcements. The use of intermittent audio tone modulation, only as necessary for positive identification of the test transmitter at distant locations, also is authorized. A report detailing the methodology employed and the results obtained must be submitted within sixty days following the conclusion of the experimental operation pursuant to 47 C.F.R. § 73.1515(c)(7). It will be necessary to reduce power or cease operation to protect persons having access to the site from radio frequency radiation in excess of FCC guidelines.

This special field test authority expires December 1, 2004.

Sincerely,



Charles N. Miller, Engineer
Audio Division
Office of Broadcast License Policy
Media Bureau

EXHIBIT B

The coordinates of the tower West of Lancaster were measured, using a Trimble GPS Receiver model GE03 and a BOB receiver. This combination gives a very high correlation of the coordinates.

The coordinates were measured by Norwood J. Patterson, who has many years in the radio engineering business, designing directional antenna patterns, proving in directional antennas, and conducting field tests and conductivity measurements.

It became necessary to move the tower about 330 ft. South of the intended site of coordinates. The measured coordinates used in these field tests were:

34° 41' 59" N. Lat. (NAD27)
118° 17' 28" W. Long.

This was necessary due to site boundary restrictions.



Exhibit C

Test Site Compliance as to FCC Requirements for separation.

The Policy is that Test Sites cannot be removed more than 2.0 miles from the Station for which the conductivity is to be used.

In this case the test site is removed from CP site 0.96 Miles. This test site is in compliance with FCC Policies.

Co-Ordinates of concern :

KIRN:

34° 41' 9.00" N. Latitude
118° 17' 26.00" W. Longitude

KG6XDP:

34° 41' 59.0" N. Latitude
118° 17' 28.0" W. Longitude

Calculated distance with FCC Methodology:

Distance between the sites:

0.96 Miles at 358.1°

1.54 km. @ 359.09°

**This distance is well within the FCC minimum
Policy of 2 Miles.**

Norwood J. Patterson



Audio Division

AM Query & AM List Results

(202)-418-2700

[FCC](#) > [MB](#) > [Audio Division](#) > [AM Query](#)[FM Query](#)[TV Query](#)[FCC](#)

AM Query and AM List results are derived from the public files at <http://www.fcc.gov/mb/databases/cdbs>. Requests to correct data should be referred to [Son Nguyen, son.nguyen@fcc.gov](mailto:son.nguyen@fcc.gov). Comments on the AM Query may be referred to [Dale Bickel, dale.bickel@fcc.gov](mailto:dale.bickel@fcc.gov).

Wed Oct 20 16:26:09 2004 Eastern time

Search Parameters

Callsign: KAFY
 State: CA
 Lower Frequency: 530
 Upper Frequency: 1700

[Next Record](#)

KAFY

Daytime

CA BAKERSFIELD

USA

Licensee: KAFY, INC.

1100 kHz Licensed

Domestic Station Class: B Region 2 Station Class (corresponds to W. Hemisphere): B

Coordination Status: Canada: - Mexico: - Region 2: -

File No: BL-20000621AFK Facility ID No.: 36027

CDBS Application ID No.: 505384

35° 27' 0.00 " N Latitude

118° 56' 48.00" W Longitude (NAD 27)

Power: 4.2 kilowatts (kW) Daytime

DAN - Directional Antenna: Nighttime only

Number of Augmentations to standard directional pattern: 0

RMS Standard: 0.00 mV/m at 1 kilometer

RMS Theoretical: 313.50 mV/m at 1 kilometer

1 tower

CDBS Ant. System ID: 70087

Tower information:

Tower No.	Field Ratio	Phase (deg)	Spacing (deg)	Orientation (degrees)	Electrical Height (deg)	Twr Ref.	-No Top Loaded or Sectionalized Tower(s)- (#0)	A	B	C	D	Antenna Struct Registration No.
1	1.000	0.00	0.00	0.00	102.10	0	0.00	0.00	0.00	0.00	0.00	1057537

Additional Individual Tower Information from the Antenna Structure Registration database.

Use the Registration Number links for detailed information

Tower No.	ASRN	Site Elevation (meters)	Overall Height Above Ground (meters)	Overall Height Above Mean Sea Level (meters)	NAD 83 Tower Coordinates	Convert to NAD 27
1	1057537	161.5	78.8	240.3	N 35° 27' 0.0 " W 118° 56' 51.0"	To NAD27

Approximate Sunrise & Sunset Times => [Pacific](#) time zoneCDBS: [Station Info](#) [Application Info](#) [Mailing Address](#) [Assignments and Transfers](#)[Application List](#) [CDBS Search Page](#) [Ownership Info](#) [EEO](#)Maps: [Region Map](#) [Area Map](#) [Local Map](#)

[Previous Record](#) -- [Next Record](#)

KIRN
Daytime

CA SIMI VALLEY

USA

Licensee: LOTUS OXNARD CORP.

670 kHz Construction Permit

Domestic Station Class: B Region 2 Station Class (corresponds to W. Hemisphere): B

Coordination Status: Canada: - Mexico: - Region 2: -

File No: BP-20001027ABC Facility ID No.: 69743

CDBS Application ID No.: 595847

34° 41' 9.00 " N Latitude

Power: 35.0 kilowatts (kW) Daytime

118° 17' 26.00" W Longitude (NAD 27)

DA2 - Directional Antenna: Different constants day and night

Number of Augmentations to standard directional pattern: 0

Q Factor: 59.160000

RMS Standard: 1909.00 mV/m at 1 kilometer

RMS Theoretical: 1817.00 mV/m at 1 kilometer

6 towers in the directional array

CDBS Ant. System ID: 75319

Tower information:

Tower No.	Field Ratio	Phase (deg)	Spacing (deg)	Orientation (degrees)	Electrical Height (deg)	Twr Ref.	-No Top Loaded or (#0)	Sectionalized Tower(s)- A	B	C	D	Antenna Struct Registration N
1	1.000	0.00	0.00	0.00	88.00	0		0.00	0.00	0.00	0.00	1239425
2	1.800	-115.00	90.00	180.00	88.00	0		0.00	0.00	0.00	0.00	1239426
3	0.900	-230.00	180.00	180.00	88.00	0		0.00	0.00	0.00	0.00	1239427
4	1.000	10.00	200.00	280.00	88.00	0		0.00	0.00	0.00	0.00	1239428
5	1.800	-105.00	204.60	254.30	88.00	0		0.00	0.00	0.00	0.00	1239429
6	0.900	-220.00	244.80	233.60	88.00	0		0.00	0.00	0.00	0.00	1239431

Additional Individual Tower Information from the Antenna Structure Registration database.

Use the Registration Number links for detailed information

Tower No.	ASRN	Site Elevation (meters)	Overall Height Above Ground (meters)	Overall Height Above Mean Sea Level (meters)	NAD 83 Tower Coordinates				Convert to NAD 27
					Latitude	Longitude			
1	1239425	741.6	111.3	852.9	N 34° 41' 11.9"	W 118° 17' 24.2"			To NAD27
2	1239426	741.6	111.3	852.9	N 34° 41' 8.3"	W 118° 17' 24.2"			To NAD27
3	1239427	741.6	111.3	852.9	N 34° 41' 4.7"	W 118° 17' 24.2"			To NAD27
4	1239428	741.6	111.3	852.9	N 34° 41' 13.3"	W 118° 17' 33.8"			To NAD27
5	1239429	741.6	111.3	852.9	N 34° 41' 9.7"	W 118° 17' 33.8"			To NAD27
6	1239431	741.6	111.3	852.9	N 34° 41' 6.1"	W 118° 17' 33.8"			To NAD27

Approximate Sunrise & Sunset Times => [Pacific](#) time zone

CDBS: [Station Info](#) [Application Info](#) [Mailing Address](#) [Assignments and Transfers](#)
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Please send comments via standard mail to the Federal Communications Commission, Consumer and Governmental Affairs Bureau, 445 12th Street, S.W., Washington, D.C., 20554. Questions can also be answered by calling the FCC's National Call Center, toll free, at 1-888-Call FCC (1-888-225-5322).

Federal Communications Commission
445 12th Street SW
Washington, DC 20554
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Phone: 1-888-CALL-FCC (1-888-225-5322)
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<http://www.fcc.gov/fcc-bin/amq?state=CA&call=kirn&arn=&city=&freq=530&fre2=1700&type...> 10/20/2004

EXHIBIT D

KAFY Oildale



The inverse field for each radial was obtained from the KAFY Proof of the Non-DA Pattern, which is KAFY's Day pattern with 4.2 kW.

See attached Fig. 13 & 14 from KAFY (KZPM) File No. BMP-940509A Proof dated June 2000.

Attached also is the RMS Value for KG6XDP, Lancaster.

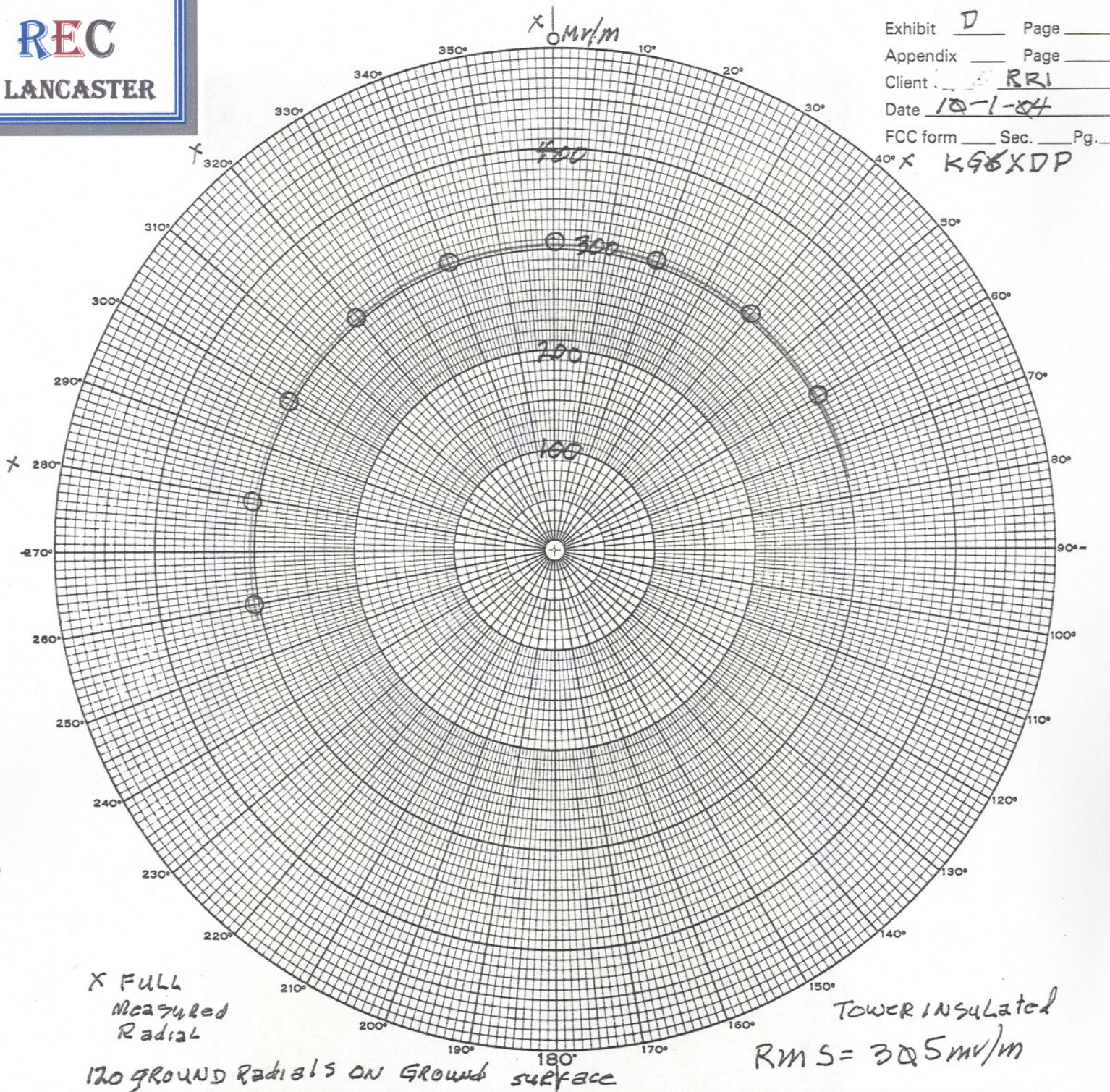
A Table is also included.

$P_o = 1.0 \text{ Kw}$

$F_c = 1690 \text{ kHz}$

Antenna $R_c = 140 \text{ ft. AGL}$

Antenna Height Total 145.0 ft. AGL



TOWER PLACEMENT SKETCH		PATTERN PARAMETERS							STATION DATA			
		TOWER No.	ELECTRICAL HEIGHT G'	TRUE TOWER ORIENTATION θ°	SPACING S'	PHASING μ°	HORIZONTAL FIELD mV/m E	FIELD RATIO F	ELEV. ANGLE θ°	ELEVATION RMS FIELD mV/m E _θ	CALL <u>K96XDP</u>	
		1	36.5	—	—	—	305	—	0	305	FREQUENCY <u>1690</u> kc	
		2							10		POWER <u>1.0</u> kw	
		3							20		TIME OF OPERATION <u>DAY</u>	
		4							30		TYPE OF OPERATION <u>DAY</u>	
		5							40		DAYTIME TOWERS <u>1</u>	
		6							50		NIGHTTIME TOWERS <u>—</u>	
		7							60		No. RADIALS PER TOWER <u>120</u>	
		8							70		LENGTH OF RADIALS <u>9250/145'</u>	
		9							80		GROUND SCREEN DIMENSION	
10									LAT. <u>34° 41' 59"</u>			
		DAYTIME OPERATION <input checked="" type="checkbox"/> NIGHTTIME OPERATION <input type="checkbox"/>							LONG. <u>118° 17' 28"</u> SUPERSEDES <u> </u> P ₂ = <u> </u> kw			
		PATTERN No. <u>9-9-04-1</u>										



Exhibit D
KG6XDP-RR1
10/01/04

EXHIBIT D

ANTENNA RADIATION EFFICIENCY

<u>Radial No.</u>	<u>Radial Az. Degrees</u>	<u>Measured mV/m/1km/1kw</u>
1	0 *	305
2	20	305
3	40 *	305
4	60	305
5	260	305
6	280 *	305
7	300	305
8	320 *	305
9	340	<u>305</u>

Mean Value: 305 mV/m/1km/1kw

* Close-in measured value 305 for the 4 full radials.

MEASURED DAY NON-DIRECTIONAL RMS (FIGURE 13)

648.7 mV/m at 1kM or 316.5 mV/m / kW

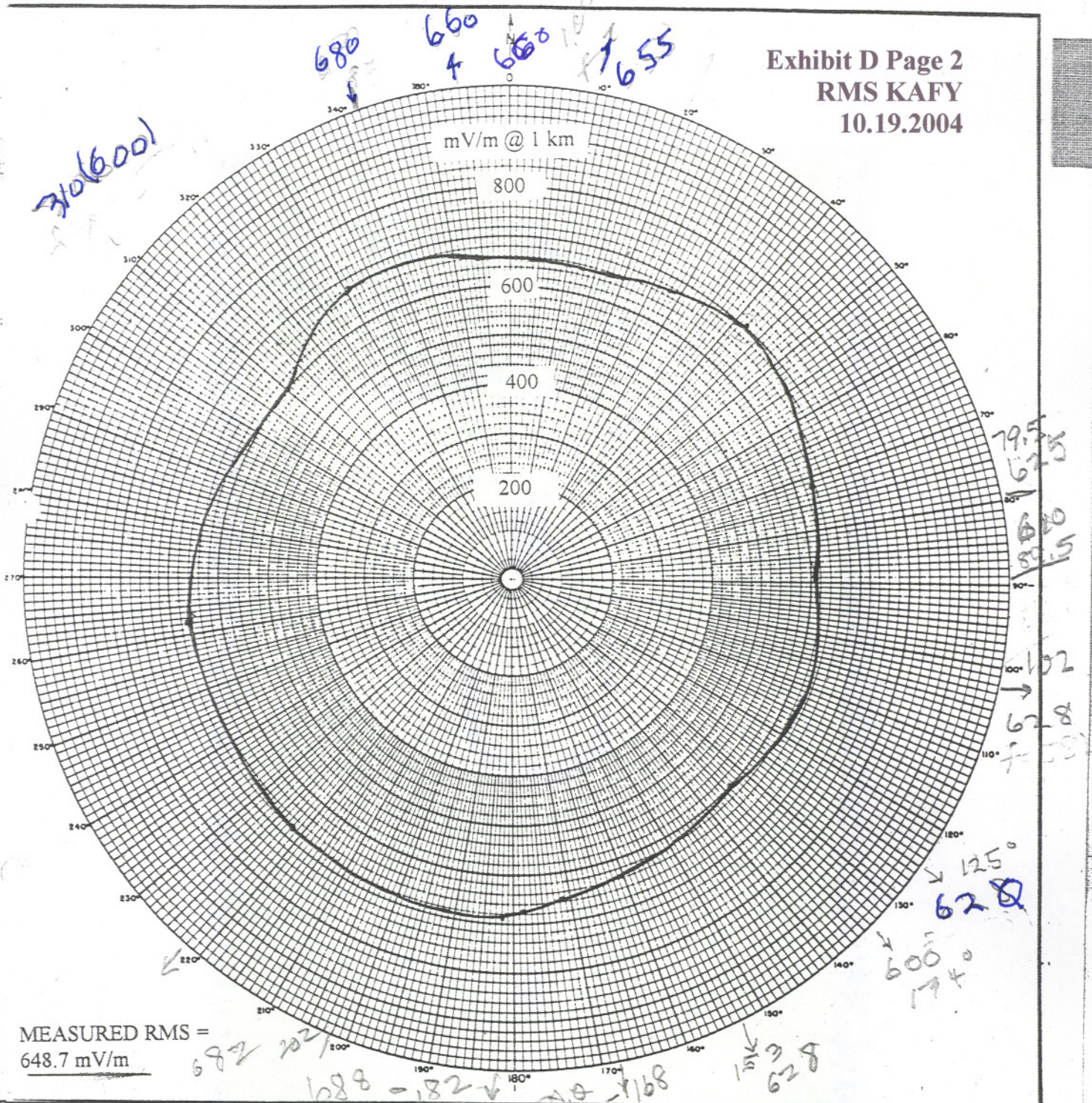
MEASURED NIGHT DIRECTIONAL RMS (FIGURE 14)

306.4 mV/m at 1km

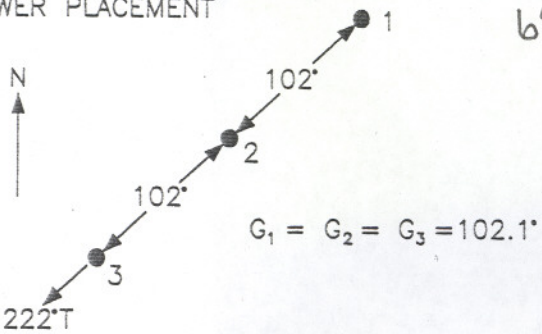
MEASURED RADIAL DATA (DAY)

AZIMUTH (DEGREES TRUE)	MEASURED RADIATED FIELD (mV/M)		ALLOWABLE DIRECTIONAL RADIATED FIELD (mV/M)*
	NON-DIRECTIONAL	DIRECTIONAL	
42	705	168.4	191.4
89.5 (MP)	610	9.3	11.3
113.5	630	81.5	82.4
134 (MP)	600	9.5	11.3
182	690	481.9	490.3
222	680	595.5	637.0
262	670	477.2	490.3
310 (MP)	600	10.9	11.3
330.5	680	76.4	82.4
354 (MP)	660	11.1	11.3

UNITS : mV/M at 1 kilometer



TOWER PLACEMENT



PHASETEK INC.
FIGURE 13
MEASURED 4.2kW
NON-DIRECTIONAL
KZPM, 1100kHz
JUNE 2000