

**Agency Tracking ID:PGC2357314 Authorization
Number:257973
Successful Authorization -- Date Paid: 7/18/13
FILE COPY ONLY!!**

READ INSTRUCTIONS CAREFULLY BEFORE PROCEEDING (1) LOCKBOX #979089	FEDERAL COMMUNICATIONS COMMISSION REMITTANCE ADVICE FORM 159 PAGE NO 1 OF 1	APPROVED BY OMB 3060-059
		SPECIAL USE _____ FCC USE ONLY _____
SECTION A - Payer Information		
(2) PAYER NAME (if paying by credit card, enter name exactly as it appears on your card) Wiley Rein LLP		(3) TOTAL AMOUNT PAID (dollars and cents) \$1365.00
(4) STREET ADDRESS LINE NO. 1 1776 K Street, N.W.		
(5) STREET ADDRESS LINE NO. 2		
(6) CITY Washington	(7) STATE DC	(8) ZIP CODE 20006-2304
(9) DAYTIME TELEPHONE NUMBER (INCLUDING AREA CODE) 202-7197000 x7235		(10) COUNTRY CODE (IF NOT IN U.S.A.) US
FCC REGISTRATION NUMBER (FRN) AND TAX IDENTIFICATION NUMBER (TIN) REQUIRED		
(11) PAYER (FRN) 0002151744	(12) FCC USE ONLY	
IF PAYER NAME AND THE APPLICANT NAME ARE DIFFERENT, COMPLETE SECTION B IF MORE THAN ONE APPLICANT, USE CONTINUATION SHEETS (FORM 159-C)		
(13) APPLICANT NAME Multicultural Radio Broadcasting License		
(14) STREET ADDRESS LINE NO. 1 27 William Street		
(15) STREET ADDRESS LINE NO. 2 11th Floor		
(16) CITY New York	(17) STATE NY	(18) ZIP CODE 10005
(19) DAYTIME TELEPHONE NUMBER (INCLUDING AREA CODE) 212-9661059		(20) COUNTRY CODE (IF NOT IN U.S.A.) US
FCC REGISTRATION NUMBER (FRN) AND TAX IDENTIFICATION NUMBER (TIN) REQUIRED		
(21) APPLICANT (FRN) 0010215812	(22) FCC USE ONLY	
COMPLETE SECTION C FOR EACH SERVICE, IF MORE BOXES ARE NEEDED, USE CONTINUATION SHEET		
(23A) FCC Call Sign/Other ID KAZN	(24A) Payment Type Code(PTC) MMR	(25A) Quantity 1
(26A) Fee Due for (PTC) \$635.00	(27A) Total Fee \$635.00	FCC Use Only
(28A) FCC CODE 1 51426	(29A) FCC CODE 2 Form302-AM	
(23B) FCC Call Sign/Other ID KAZN	(24B) Payment Type Code(PTC) MOR	(25B) Quantity 1
(26B) Fee Due for (PTC) \$730.00	(27B) Total Fee \$730.00	FCC Use Only
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1776 K STREET NW
WASHINGTON, DC 20006
PHONE 202.719.7000
FAX 202.719.7049

7925 JONES BRANCH DRIVE
McLEAN, VA 22102
PHONE 703.905.2800
FAX 703.905.2820

www.wileyrein.com

STAMP & RETURN

July 18, 2013

Mark Lipp
202.719.7503
mlipp@wileyrein.com

BY HAND DELIVERY

Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554
ATTN: Audio Division

FILED/ACCEPTED

JUL 18 2013

Federal Communications Commission
Office of the Secretary

Re: **Application for AM Broadcast Station License/
Request for Program Test Authority**
Multicultural Radio Broadcasting Licensee, LLC
Station KAZN(AM), Pasadena, California
Facility Identifier Number 51426
File Number BP-20130305ABV

Dear Ms. Dortch:

Transmitted herewith on behalf of Multicultural Radio Broadcasting Licensee, LLC, the licensee of Station KAZN(AM), are an original and two copies of its application for an AM broadcast station license to cover the construction authorized in construction permit BP-20130305ABV. This Permit authorizes operation on 1300 kHz with 4.2 kW of power during nighttime hours in the directional mode. The Executive Summary and Proof-of-Performance were prepared by Ronald D. Rackley, P.E, and include all of the technical details.

It is important to note that the filing fees associated with this license application were paid using FCC Fee Filer. Please see the Report for Submitted Fees and the FCC Form 159 included as part of this submission.

If there are any questions about this Application, please contact undersigned counsel for Multicultural Radio Broadcasting Licensee, LLC.

Sincerely,


Mark Lipp
Enclosure

FOR
FCC
USE
ONLY

**FCC 302-AM
APPLICATION FOR AM
BROADCAST STATION LICENSE**

(Please read instructions before filling out form.)

FOR COMMISSION USE ONLY

FILE NO.

SECTION I - APPLICANT FEE INFORMATION																					
1. PAYOR NAME (Last, First, Middle Initial) Wiley Rein LLP																					
MAILING ADDRESS (Line 1) (Maximum 35 characters) 1776 K Street, NW																					
MAILING ADDRESS (Line 2) (Maximum 35 characters)																					
CITY Washington	STATE OR COUNTRY (if foreign address) DC		ZIP CODE 20006																		
TELEPHONE NUMBER (include area code) 202.719.7503	CALL LETTERS KAZN(AM)	OTHER FCC IDENTIFIER (If applicable) 51426																			
2. A. Is a fee submitted with this application?			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No																		
B. If No, indicate reason for fee exemption (see 47 C.F.R. Section																					
<input type="checkbox"/> Governmental Entity <input type="checkbox"/> Noncommercial educational licensee <input type="checkbox"/> Other (Please explain):																					
C. If Yes, provide the following information:																					
Enter in Column (A) the correct Fee Type Code for the service you are applying for. Fee Type Codes may be found in the "Mass Media Services Fee Filing Guide." Column (B) lists the Fee Multiple applicable for this application. Enter fee amount due in Column (C).																					
(A)	(B)	(C)	FOR FCC USE ONLY																		
<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td colspan="3" style="text-align: center;">FEE TYPE CODE</td></tr> <tr><td style="text-align: center;">M</td><td style="text-align: center;">M</td><td style="text-align: center;">R</td></tr> </table>	FEE TYPE CODE			M	M	R	<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td colspan="4" style="text-align: center;">FEE MULTIPLE</td></tr> <tr><td style="text-align: center;">0</td><td style="text-align: center;">0</td><td style="text-align: center;">0</td><td style="text-align: center;">1</td></tr> </table>	FEE MULTIPLE				0	0	0	1	<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td colspan="1" style="text-align: center;">FEE DUE FOR FEE TYPE CODE IN COLUMN (A)</td></tr> <tr><td style="text-align: center;">\$ 635.00</td></tr> </table>	FEE DUE FOR FEE TYPE CODE IN COLUMN (A)	\$ 635.00	<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td style="height: 20px;"> </td></tr> <tr><td style="height: 20px;"> </td></tr> </table>		
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\$ 635.00																					
To be used only when you are requesting concurrent actions which result in a requirement to list more than one Fee Type Code.																					
(A)	(B)	(C)	FOR FCC USE ONLY																		
<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td style="text-align: center;">M</td><td style="text-align: center;">O</td><td style="text-align: center;">R</td></tr> </table>	M	O	R	<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td style="text-align: center;">0</td><td style="text-align: center;">0</td><td style="text-align: center;">0</td><td style="text-align: center;">1</td></tr> </table>	0	0	0	1	<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td style="text-align: center;">\$ 730.00</td></tr> </table>	\$ 730.00	<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td style="height: 20px;"> </td></tr> <tr><td style="height: 20px;"> </td></tr> </table>										
M	O	R																			
0	0	0	1																		
\$ 730.00																					
ADD ALL AMOUNTS SHOWN IN COLUMN C, AND ENTER THE TOTAL HERE. THIS AMOUNT SHOULD EQUAL YOUR ENCLOSED REMITTANCE.		<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td colspan="1" style="text-align: center;">TOTAL AMOUNT REMITTED WITH THIS APPLICATION</td></tr> <tr><td style="text-align: center;">\$ 1,365.00</td></tr> </table>	TOTAL AMOUNT REMITTED WITH THIS APPLICATION	\$ 1,365.00	<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td style="height: 20px;"> </td></tr> <tr><td style="height: 20px;"> </td></tr> </table>																
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The fees identified above have been paid using FCC Fee Filer.

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Fee Filer

Report for Submitted Fees

Report for Submitted Fees

Report Date : 07/18/2013 02:15:42



- The FCC has not yet received payment for the fees reflected in this report. [Click here to continue to pay online or print your Form 159-E.](#)
- If paying regulatory fees by check, money order, credit card by mail or fax, or through a wire transfer from your bank to the FCC lockbox bank, proceed to the Payment Summary page to view and print the Form 159-E Remittance Voucher. All payments must include the Form 159-E Remittance Voucher generated by Fee Filer, which includes the voucher number associated with your transaction.

Payer FRN : 0002151744
Remittance ID: 2357314
Amount filed : \$1,365.00

Payer Name :Wiley Rein LLP

PRINT

Licensee : Multicultural Radio Broadcasting License (FRN: 0010215812)							
Call Sign	P T C	Quantity	Amount	FCC Code 1	FCC Code 2	Bill Number	Late Fees
KAZN	MMR	1	\$635.00	51426	Form 302-AM	N/A	\$0.00
KAZN	MOR	1	\$730.00	51426	Form 302-AM	N/A	\$0.00
Total:	*****	2	\$1,365.00	*****	*****	*****	\$0.00

CLOSE

PRINT

Customer Service

[Frequently Asked Questions](#)

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[Filing Resources](#)

[Web Policies / Privacy Policy](#)

[Paperwork Reduction Act](#)

Financial Operations Help Desk: (877) 480-3201, option 4 (Mon.-Fri. 8 a.m.-6:00 p.m. ET)

Fee Filer has a dedicated staff of customer service representatives standing by to answer your questions or concerns.

You can email us at arinquiries@fcc.gov.

SECTION II - APPLICANT INFORMATION		
1. NAME OF APPLICANT Multicultural Radio Broadcasting Licensee, LLC		
MAILING ADDRESS 27 William Street, 11th Floor		
CITY New York	STATE New York	ZIP CODE 10005

2. This application is for:

- Commercial Noncommercial
 AM Directional AM Non-Directional

Call letters	Community of License	Construction Permit File No.	Modification of Construction Permit File No(s).	Expiration Date of Last Construction Permit
KAZN(AM)	Pasadena, CA	BP-20130305ABV	N/A	07/03/2016

3. Is the station now operating pursuant to automatic program test authority in accordance with 47 C.F.R. Section 73.1620?

Yes No

If No, explain in an Exhibit.

Exhibit No.
A

4. Have all the terms, conditions, and obligations set forth in the above described construction permit been fully met?

Yes No

If No, state exceptions in an Exhibit.

Exhibit No.

5. Apart from the changes already reported, has any cause or circumstance arisen since the grant of the underlying construction permit which would result in any statement or representation contained in the construction permit application to be now incorrect?

Yes No

If Yes, explain in an Exhibit.

Exhibit No.

6. Has the permittee filed its Ownership Report (FCC Form 323) or ownership certification in accordance with 47 C.F.R. Section 73.3615(b)?

Yes No

If No, explain in an Exhibit.

Does not apply

Exhibit No.

7. Has an adverse finding been made or an adverse final action been taken by any court or administrative body with respect to the applicant or parties to the application in a civil or criminal proceeding, brought under the provisions of any law relating to the following: any felony; mass media related antitrust or unfair competition; fraudulent statements to another governmental unit; or discrimination?

Yes No

If the answer is Yes, attach as an Exhibit a full disclosure of the persons and matters involved, including an identification of the court or administrative body and the proceeding (by dates and file numbers), and the disposition of the litigation. Where the requisite information has been earlier disclosed in connection with another application or as required by 47 U.S.C. Section 1.65(c), the applicant need only provide: (i) an identification of that previous submission by reference to the file number in the case of an application, the call letters of the station regarding which the application or Section 1.65 information was filed, and the date of filing; and (ii) the disposition of the previously reported matter.

Exhibit No.

8. Does the applicant, or any party to the application, have a petition on file to migrate to the expanded band (1605-1705 kHz) or a permit or license either in the existing band or expanded band that is held in combination (pursuant to the 5 year holding period allowed) with the AM facility proposed to be modified herein?

Yes No

If Yes, provide particulars as an Exhibit.

Exhibit No.

The APPLICANT hereby waives any claim to the use of any particular frequency or of the electromagnetic spectrum as against the regulatory power of the United States because use of the same, whether by license or otherwise, and requests and authorization in accordance with this application. (See Section 304 of the Communications Act of 1934, as amended).

The APPLICANT acknowledges that all the statements made in this application and attached exhibits are considered material representations and that all the exhibits are a material part hereof and are incorporated herein as set out in full in

CERTIFICATION

1. By checking Yes, the applicant certifies, that, in the case of an individual applicant, he or she is not subject to a denial of federal benefits that includes FCC benefits pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. Section 862, or, in the case of a non-individual applicant (e.g., corporation, partnership or other unincorporated association), no party to the application is subject to a denial of federal benefits that includes FCC benefits pursuant to that section. For the definition of a "party" for these purposes, see 47 C.F.R. Section 1.2002(b).

Yes No

2. I certify that the statements in this application are true, complete, and correct to the best of my knowledge and belief, and are made in good faith.

Name Arthur S. Liu	Signature 	
Title President	Date 07.16.2013	Telephone Number 212.431.4300

WILLFUL FALSE STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND/OR IMPRISONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION

FCC NOTICE TO INDIVIDUALS REQUIRED BY THE PRIVACY ACT AND THE PAPERWORK REDUCTION ACT

The solicitation of personal information requested in this application is authorized by the Communications Act of 1934, as amended. The Commission will use the information provided in this form to determine whether grant of the application is in the public interest. In reaching that determination, or for law enforcement purposes, it may become necessary to refer personal information contained in this form to another government agency. In addition, all information provided in this form will be available for public inspection. If information requested on the form is not provided, the application may be returned without action having been taken upon it or its processing may be delayed while a request is made to provide the missing information. Your response is required to obtain the requested authorization.

Public reporting burden for this collection of information is estimated to average 639 hours and 53 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, can be sent to the Federal Communications Commission, Records Management Branch, Paperwork Reduction Project (3060-0627), Washington, D. C. 20554. Do NOT send completed forms to this address.

THE FOREGOING NOTICE IS REQUIRED BY THE PRIVACY ACT OF 1974, P.L. 93-579, DECEMBER 31, 1974, 5 U.S.C. 552a(e)(3), AND THE PAPERWORK REDUCTION ACT OF 1980, P.L. 96-511, DECEMBER 11, 1980, 44 U.S.C. 3507.

SECTION III - LICENSE APPLICATION ENGINEERING DATA

Name of Applicant
MULTICULTURAL RADIO BROADCASTING LICENSEE, LLC

PURPOSE OF AUTHORIZATION APPLIED FOR: (check one)

- Station License Direct Measurement of Power

1. Facilities authorized in construction permit					
Call Sign KAZN	File No. of Construction Permit (if applicable) BP -20130305ABV	Frequency (kHz) 1300	Hours of Operation UNLIMITED	Power in kilowatts	
				Night 4.2	Day 23.0
2. Station location					
State CA			City or Town PASADENA		
3. Transmitter location					
State CA	County LOS ANGELES		City or Town SAN GABRIEL	Street address (or other identification) 6544 N VISTA ST.	
4. Main studio location					
State CA	County LOS ANGELES		City or Town PASADENA	Street address (or other identification) 747 EAST GREEN ST.	
5. Remote control point location (specify only if authorized directional antenna)					
State CA	County LOS ANGELES		City or Town PASADENA	Street address (or other identification) 747 EAST GREEN ST.	

6. Has type-approved stereo generating equipment been installed? Yes No

7. Does the sampling system meet the requirements of 47 C.F.R. Section 73.68? Yes No

Not Applicable

Attach as an Exhibit a detailed description of the sampling system as installed.

Exhibit No. TECH EXHIBIT

8. Operating constants:							
RF common point or antenna current (in amperes) without modulation for night system 9.52				RF common point or antenna current (in amperes) without modulation for day system 24.5			
Measured antenna or common point resistance (in ohms) at operating frequency Night Day 50.0 50.0				Measured antenna or common point reactance (in ohms) at operating frequency Night Day 0.0 0.0			
Antenna indications for directional operation							
Towers	Antenna monitor Phase reading(s) in degrees		Antenna monitor sample current ratio(s)		Antenna base currents		
	Night	Day	Night	Day	Night	Day	
1	0.0	+ 33.8	1.000	1.403	N/A	N/A	
2	+ 162.2	+ 157.8	0.850	1.280	N/A	N/A	
3	+ 42.0	+ 7.3	0.595	0.778	N/A	N/A	
4	- 145.4	+ 123.5	0.862	1.329	N/A	N/A	
5	+ 68.6	- 26.6	0.116	0.768	N/A	N/A	
6	+ 18.6	0.0	0.172	1.000	N/A	N/A	
Manufacturer and type of antenna monitor: POTOMAC INSTRUMENTS AM-1901							

SECTION III - Page 2

9. Description of antenna system ((f directional antenna is used, the information requested below should be given for each element of the array. Use separate sheets if necessary.)

Type Radiator UNIFORM CROSS-SECTION, GUYED	Overall height in meters of radiator above base insulator, or above base, if grounded. T1,4,5&6:58.9, T2&3:81.5	Overall height in meters above ground (without obstruction lighting) T1,4,5&6:60.7, T2&3:82.3	Overall height in meters above ground (include obstruction lighting) T1,4,5&6:60.7, T2&3:82.3	If antenna is either top loaded or sectionalized, describe fully in an Exhibit. Exhibit No. PROOF RPT
---	--	--	--	--

Excitation Series Shunt

Geographic coordinates to nearest second. For directional antenna give coordinates of center of array. For single vertical radiator give tower location.

North Latitude 34 ° 07 ' 08 "	West Longitude 118 ° 04 ' 54 "
-------------------------------	--------------------------------

If not fully described above, attach as an Exhibit further details and dimensions including any other antenna mounted on tower and associated isolation circuits.

Exhibit No. N/A

Also, if necessary for a complete description, attach as an Exhibit a sketch of the details and dimensions of ground system.

Exhibit No. N/A

10. In what respect, if any, does the apparatus constructed differ from that described in the application for construction permit or in the permit?

NONE

11. Give reasons for the change in antenna or common point resistance.

NEW TRANSMITTER SITE FOR KAZN

I certify that I represent the applicant in the capacity indicated below and that I have examined the foregoing statement of technical information and that it is true to the best of my knowledge and belief.

Name (Please Print or Type) RONALD D. RACKLEY, P.E.	Signature (<i>Ronald D. Rackley</i>)
Address (include ZIP Code) DUTREIL, LUNDIN & RACKLEY, INC. 201 FLETCHER AVENUE SARASOTA, FL 34237	Date JULY 15, 2013
	Telephone No. (Include Area Code) 941-329-6000

- Technical Director
- Registered Professional Engineer
- Chief Operator
- Technical Consultant
- Other (specify)

Exhibit A
to KAZN(AM) License Application

Multicultural Radio Broadcasting Licensee, LLC, cannot operate KAZN(AM) pursuant to automatic Program Test Authority because of Special Operating Condition number one (1) on its construction permit BP-20130305ABV. As a result, it is requesting Program Test Authority.

APPLICATION FOR LICENSE INFORMATION
RADIO STATION KAZN
PASADENA, CALIFORNIA

July 15, 2013

1300 KHZ 23 KW-D 4.2 KW-N U DA-2

APPLICATION FOR LICENSE INFORMATION

RADIO STATION KAZN
PASADENA, CALIFORNIA

1300 KHZ 23 KW -D 4.2 KW-N DA-2

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Executive Summary

Appendix A

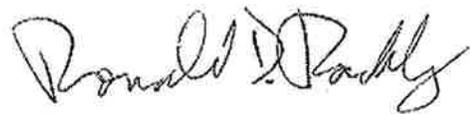
Proof of Performance of Nighttime Directional
Antenna Pattern

Executive Summary - KAZN

This engineering exhibit supports an application for license for the nighttime directional antenna system of radio station KAZN in Pasadena, California. KAZN is presently licensed to operate fulltime on 1300 kilohertz with daytime power of 23 kilowatts and nighttime power of 1 kilowatt, with different transmitter sites and directional antenna patterns day and night. An STA authorizing operation at night with 4.2 kilowatts and a directional antenna from the new daytime site was approved at approximately the same time the daytime facility was licensed. This application is to license the 4.2 kilowatt nighttime directional antenna pattern, which has now been authorized by Construction Permit BP-20130305ABV. The Construction Permit nighttime directional antenna pattern is identical to the one authorized under the STA, and there are no changes in the daytime operation.

Complete proofs of performance were run on the licensed daytime and STA directional antenna patterns at the time the new transmitter site was activated in 2009. They were filed separately, however, with the daytime proof being filed with an application for license and the nighttime proof being filed with an STA request. This application for license adopts the KAZN "Proof of Performance of Nighttime STA Directional Antenna Pattern" dated May 7, 2009. It was prepared by the undersigned and includes all required elements of an application for license to satisfy the Construction Permit. The technical details remain unchanged. A copy of the proof of performance that was filed with the STA request is provided in Appendix A of this exhibit for identification purposes.

Program test authority for the nighttime directional antenna is hereby requested.



Ronald D. Rackley, P.E.
July 15, 2013

Appendix A

Proof of Performance of Nighttime Directional Antenna Pattern

**(Previously filed as "Proof of Performance of Nighttime
STA Directional Antenna Pattern on May 7, 2009)**

du Treil, Lundin & Rackley, Inc.
Consulting Engineers

ENGINEERING EXHIBIT
PROOF OF PERFORMANCE OF
NIGHTTIME STA DIRECTIONAL ANTENNA PATTERN
MULTICULTURAL RADIO BROADCASTING LICENSEE, LLC
RADIO STATION KAZN
PASADENA, CALIFORNIA

May 7, 2009

1300 KHZ 23 KW-D 4.2 KW-N U DA-2

ENGINEERING EXHIBIT
PROOF OF PERFORMANCE OF
NIGHTTIME STA DIRECTIONAL ANTENNA PATTERN
MULTICULTURAL RADIO BROADCASTING LICENSEE, LLC
RADIO STATION KAZN
PASADENA, CALIFORNIA

1300 KHZ 23 KW-D 4.2 KW-N U DA-2

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	Engineering Statement
Figure 1	Tabulation of Meter Readings
Figure 2	Summary of Measured Field Strength Data
Figure 3	Tabulation of Measured Field Strength Data
Figure 4	Graphs of Measured Field Strength Data
Figure 5	Measured Non-directional Horizontal Plane Radiation Pattern
Figure 6	Nighttime Horizontal Plane Modified Standard Radiation Pattern
Figure 7	Nighttime Horizontal Plane Measured Radiation Pattern
Figure 8	Descriptions, Routing to, and Photographs of Monitor Points
Figure 9	Map Showing Monitor Point Locations

ENGINEERING EXHIBIT
PROOF OF PERFORMANCE OF
NIGHTTIME STA DIRECTIONAL ANTENNA PATTERN
MULTICULTURAL RADIO BROADCASTING LICENSEE, LLC
RADIO STATION KAZN
PASADENA, CALIFORNIA

1300 KHZ 23 KW-D 4.2 KW-N U DA-2

Engineering Statement

The technical exhibit of which this narrative is part has been prepared on behalf of Multicultural Radio Broadcasting, LLC, licensee of AM broadcast station KAZN at Pasadena, California. KAZN is licensed as a Class B station for operation on 1300 kilohertz with daytime power of 5 kilowatts and nighttime power of 1 kilowatt, operating with different directional antenna patterns during daytime and nighttime hours. KAZN was issued a construction permit, BP-20041022AEF, to increase daytime power to 23 kilowatts from a new site with new parameters. This construction permit was modified to remove top loading from two of the towers with BMP-20080912ACN. The new facility has been constructed and an application for license, BL-20090209APK, has been filed.

Under the construction permit, the licensed nighttime operation remains unchanged. KAZN has been issued special temporary authority for nighttime operation with 4.2 kilowatts at the new site utilizing the same towers authorized for the daytime construction permit, as well as the nondirectional operation that has been necessary during construction at the new site. A separate "Request for Modification of STA Operation" providing information on the modified nighttime directional antenna pattern with the top loading change and the addition of

an augmentation is being filed simultaneous with this exhibit. This proof of performance information demonstrates that the measured STA nighttime directional antenna pattern meets the requirements of the proposed modified STA pattern. Modification of the KAZN STA to specify the directional antenna operating parameters contained herein for nighttime operation is requested.

The new KAZN transmitter site is shared with 1430 kilohertz station KMRB, using the same six towers that are used by the licensed KMRB directional antenna system. Filters are employed at the tower bases to isolate the antenna tuning units of the two stations from each other and at the phasor common point inputs to isolate the transmitter outputs and suppress spurious intermodulation products.

Antenna Sampling System

The antenna monitor employed is a Potomac Instruments Model 1901. It contains factory-installed filters to reject the 1430 kilohertz signal of radio station KMRB, which shares the towers.

The sampling devices for the towers are Kintronic fixed-mounted, single-turn, 12 by 48 inch unshielded sampling loops. The loops for towers 1, 4, 5 and 6, which are identical structures, are centered at a height of 24.3 meters above the base insulators. The loops for towers 2 and 3, which are identical structures, are centered at a height of 27.4 meters above the base insulators.

The sampling lines are equal length phase-stabilized coaxial cables constructed of a copper-clad aluminum center conductor, low-loss cellular polyethylene foam dielectric, solid corrugated copper outer conductor, and a protective black polyethylene jacket. Connectors employed are the type recommended by the manufacturer. The sampling lines meet the FCC requirements for an approved sampling system.

Ground System

The KAZN antenna system utilizes a conventional buried radial wire ground system. There are 120 evenly spaced copper wire radials, extending to property boundaries except where intersecting radials are shortened and bonded to a transverse copper strap midway between adjacent towers, plus a copper ground screen 14.6 meters square about the base of each tower.

System Adjustment

The KAZN directional antenna pattern was adjusted to the parameters shown herein by Mr. M. Donald Crain and supervised by Mr. Ronald D. Rackley. Mr. Crain was assisted by Mr. George Butch, Mr. Robert F. Turner and Mr. Mark Mocerri.

Initially, the directional antenna parameters were adjusted to calculated values for the pattern. As the electromagnetic environment of the site is known to have many complications, including three rows of power lines running approximately north-south near the array toward the east and terrain obstructions within the distance to which proof-of-performance measurements are normally made, talk-down adjustments were made on many points on each of the null radials of the pattern to facilitate analysis of the fields of the individual points as vector quantities using complex-plane mapping techniques.

As expected, the complex-plane mapping analysis revealed that the null radials would exhibit significant "scatter" of directional antenna field strength along their lengths - but that further adjustment of the antenna parameters could compensate for the effects of the nearby power lines to make acceptable radial measurements possible. The three closest power line towers to the transmitter site have detuning skirts and their states of adjustment remain the same as was the case when the KMRB antenna proof-of-performance was run in 2008. The directional antenna parameters were adjusted to values that were computed to "move" the measured vector complex-plane "constellations" representing the field strength scatter of the

various radials, simultaneously, to place a sufficient number of them near the radial's reference computation zero for the proof-of-performance.

Field Strength Measurements

Field strength measurements were made along sufficient radials to define the shapes of the antenna radiation patterns. Non-directional measurements were made with power of 5,750 watts employing tower 2 with the other towers detuned. Directional measurements were made, where practical, to distances of approximately 15 kilometers on each of the seven radials at intervals conforming as closely to the recommendations of the FCC rules and regulations as physical conditions permitted. Non-directional close-in measurements were made within 3 kilometers of the antenna. Directional pattern measurements were omitted at points close to the antenna where proper formation of the directional patterns would not be expected. In all cases, field strength measurements were made with the meter oriented toward the transmitter site. The nature of the terrain in the vicinity of the transmitter site, particularly toward the north and east, severely restricts access to locations where measurements can be made in conformance with the distance interval recommendations of the FCC Rules. Measurements were made at closer intervals within distance spans having accessibility where it was necessary to obtain a sufficient number of accessible points for directional antenna pattern analysis. There were a sufficient number of acceptable measurement points available on all of the radials to permit unambiguous analysis.

A tabulation of meter readings for the measured patterns is included herein as Figure 1, while Figure 2 is a summary of the measured field strength data. A tabulation of the measured field strength data is included herein as Figure 3 and graphs of measured field strength data are included as Figure 4. Field strength measurements were by Mr. George Butch, Mr. Mark Mocerì, Mr. Robert F. Turner and Mr. M. Donald Crain.

The following Potomac Instruments field strength meters were used in conducting the proof-of-performance:

<u>Meter Type</u>	<u>Serial Number</u>
FIM-41	567
FIM-41	1205
FIM-41	1432
FIM-41	1925

The most recently calibrated field strength meter was serial number 1925, which was calibrated by Potomac Instruments on May 31, 2005. Prior to commencement of the field strength measurement program, readings with the meters were compared and found to be in agreement.

Field Strength Measurement Maps

Maps showing the ground points used in the proof-of-performance, designated by the numbers that appear herein, will be placed in the station's file for future reference.

Field Strength Measurement Analysis

The field strength measurements were analyzed in accordance with the "best fit" method outlined in Section 73.186 of the FCC Rules. Graph 16 of Section 73.184 was utilized to determine unattenuated fields and conductivity values.

As an aid in analysis of the radial field strength measurement data, the logarithms of the ratios of directional to nondirectional field were averaged for each radial and the antilogarithm of the average logarithm determined. The radial averages thus obtained were multiplied by the corresponding radial nondirectional unattenuated fields to determine the directional radiation values. After the field strength analysis work was completed, it was

found that the nighttime directional antenna standard radiation pattern would have to be modified with an augmentation in order to enclose the measured radiation pattern. Simultaneous with the application for license for which this exhibit was prepared, an application for modification of construction permit is being filed with the FCC.

Figure 5 is a polar plot of the measured non-directional horizontal plane radiation pattern. The nighttime directional horizontal plane standard radiation pattern is shown as Figure 6, while Figure 7 is the plot of the nighttime directional horizontal plane measured radiation pattern.

Monitor Points

An accessible monitor point has been selected on each of the radials specified for monitoring in the construction permit. Photographs and descriptions of the monitor points are included herein as Figure 8. A maps showing the monitor point locations is included as Figure 9.

Direct Measurement of Power

For the purpose of the determination of nondirectional power for the test operation employed for this proof-of-performance, the common point impedance with the system configured to feed only the number 2 tower was measured with the other towers detuned. The common point impedance measurements for the nondirectional mode and the daytime and nighttime directional modes were made at the output of the common point current meter with a Hewlett-Packard 8751A network analyzer employing an external power amplifier and calibrated directional coupler.

Current Distribution Measurements

Current distribution measurements that demonstrate the effectiveness of the top loading on towers 1, 4, 5 and 6 of the KAZN array are on file in the application for license of the new daytime directional antenna pattern, BL20090209APK.

Spurious Emission Observations

Prior to completion of the KAZN nighttime adjustments, KAZN and KMRB did not both operate for testing at full power. The following information regarding measurements with both stations operating at full power, therefore, is also pertinent with regard to the pending KAZN license applications – file number BL20090209APK.

Upon completion of final tuning for the KAZN (1300 KHz) antenna system, with both KAZN and KMRB (1430 KHz) operating at full power with their authorized daytime directional antenna patterns, an FIM-41 field strength meter was utilized to search for intermodulation products at a location approximately 1.7 kilometers from the transmitter site at an azimuth of 282 degrees true - a direction within the major lobes of both stations' directional antenna patterns. The location was at the curb on the walkway to 2465 Roanoke Road, San Marino, California, as far as practical from any possible reradiating objects. With KAZN and KMRB operating with full power in their daytime modes, their field strengths were observed to be 1098 mV/m and 1998 mV/m, respectively, at this point. Eight measurable intermodulation products were found at the frequencies of:

2730 kHz (1300+1430)
4160 kHz (1300+2x1430)
2990 kHz (1300-3x1430)
4030 kHz (2x1300+1430)
1170 kHz (2x1300-1430)
1690 kHz (2x1300-3x1430)
2470 kHz (3x1300-1430)
1040 kHz (3x1300-2x1430)

Measurement Results:

- The 2730 kHz field strength was 55 uV/m, 85.9 dB below the KAZN signal level and 91.2 dB below the KMRB signal level.
- The 4160 kHz field strength was 37 uV/m, 89.4 dB below the KAZN signal level and 94.6 dB below the KMRB signal level.
- The 2990 kHz field strength was 17.5 uV/m, 95.9 dB below the KAZN signal level and 101.2 dB below the KMRB signal level.
- The 4030 kHz field strength was 39 uV/m, 88.9 dB below the KAZN signal level and 94.2 dB below the KMRB signal level.
- The 1170 kHz field strength was 55 uV/m, 85.9 dB below the KAZN signal level and 91.2 dB below the KMRB signal level.
- The 1690 kHz field strength was 48 uV/m, 87.1 dB below the KAZN signal level and 92.4 dB below the KMRB signal level.
- The 2470 kHz field strength was 13 uV/m, 98.5 dB below the KAZN signal level and 103.7 dB below the KMRB signal level.
- The 1040 kHz field strength was 25 uV/m, 92.8 dB below the KAZN signal level and 98.1 dB below the KMRB signal level.

The measured unattenuated field of the 23 kilowatt KAZN daytime directional antenna pattern at 282 degrees true is 2830 mV/m, while the measured unattenuated nondirectional field calculated for 23 kilowatts input power is 1895 mV/m – making the KAZN daytime directional antenna pattern gain at 282 degrees true 3.5 dB. The measured unattenuated field of the 50 kilowatt KMRB daytime directional antenna pattern at 282 degrees true is 4259 mV/m, while the measured unattenuated nondirectional field calculated for 50 kilowatts input power is 2400 mV/m. The KMRB daytime directional antenna pattern gain at 282 degrees true is therefore 5.0 dB. Following the procedure outlined in section 73.44(d)(1) of the FCC Rules, the measurements indicate that the filtering equipment employed to duplex KAZN and KMRB is functioning satisfactorily – providing margins of 2.4 and 0.9 dB, respectively, with reference to the highest spurious signals that were observed at 2730 KHz and 1170 KHz.

Radio Frequency Radiation Considerations

Prior to completion of the KAZN nighttime adjustments, KAZN and KMRB did not both operate for testing at full power. The following information regarding measurements with both stations operating at full power, therefore, is also pertinent with regard to the pending KAZN license applications – file number BL20090209APK.

The operation of KAZN will not result in the exposure of workers or the general public to levels of radio frequency radiation in excess of the limits specified in 47 CFR 1.1310. Fences have been installed around the tower bases to restrict access to distances beyond those necessary to prevent electric and magnetic field exposure above the required levels, and small areas within the locked buildings at the tower bases with excessive field levels have been identified and marked to show that access to them is restricted, based on field strength measurements at the site.

The measurements were made with a Holiday Industries model HI-3002 broadband survey meter, using a model STE-02 probe for the electric field component and a model LFH-02 probe for the magnetic field component. The manufacturer's specified probe factors were applied to the meter readings. Observations were made at distances 20 centimeters or more from nearby objects, following the procedures outlined in the FCC's "OET Bulletin 65, Edition 97-01."

At the KAZN carrier frequency, 1300 KHz, the specified maximum electric and magnetic field values are 632 V/m and 1.63 A/m, respectively. At the carrier frequency of the station with which KAZN shares the transmitter site, KMRB on 1430 KHz, the specified maximum values are 576 V/m and 1.53 A/m. For worst-case analysis, the 1430 KHz maximum specified values were used with both stations operating since they are lower than the values for 1300 KHz.

Measurements made within the transmitter building revealed field strength levels above the limits at the surfaces of certain equipment cabinets. The field levels 20 centimeters from those cabinets were well below the limits, however, so no spatially-averaged measurements were necessary.

The fences and tuning houses restrict access to areas with fields that exceed the requirements of the Rules with both stations operating normally at full power. Within the tuning houses, areas outside the equipment enclosures have acceptable levels with the exception small areas underneath conductors that exit the enclosures and connect to the tower feedlines. No one would normally be within those small areas with either station feeding radiofrequency energy to the tower and the floors beneath them have been marked for restricted access. If it is necessary for workers to be inside the restricted areas or within the tower base area fences for extended periods of time, both stations may switch to alternate modes in a coordinated effort. Both stations may switch to nondirectional operation with tower 1 to de-activate the remaining towers. To de-activate tower 1, KMRB and KAZN may switch to nondirectional operation with towers 2 and 3, respectively. The facility, therefore, is in full compliance with the FCC's requirements with regard to radio frequency radiation exposure.

Considering Co-Located Station KMRB

KMRB was continually aware of the KAZN construction as it progressed, as both stations share the site. All construction near the tower bases was completed for both stations, and the shared antenna monitor sampling system was installed as well, before the new KMRB directional antenna patterns were implemented in 2008. The addition of the new KAZN directional antenna system had no impact on the licensed KMRB facility and before-and-after field strength measurements on KMRB were not necessary.



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Figure 1

ENGINEERING EXHIBIT
 PROOF OF PERFORMANCE OF
 NIGHTTIME STA DIRECTIONAL ANTENNA PATTERN
 RADIO STATION KAZN
 PASADENA, CALIFORNIA

1300 KHZ 23 KW-D 4.2 KW-N U DA-2

Nighttime Directional						
Tower Numbering	1	2	3	4	5	6
Theoretical Field Ratio	0.774	1.000	0.713	0.683	0.088	0.131
Theoretical Phase(deg)	+0.0	+166.2	+49.1	+215.3	+69.8	+19.8
Antenna Monitor Ratio	1.000	0.850	0.595	0.862	0.116	0.172
Antenna Monitor Phase(deg)	+0.0	+162.2	+42.0	-145.4	+68.6	+18.6

Directional Readings	4.2 kW DA-Night
Common Point Resistance(ohms)	50.0
Common Point Current(amps)	9.52
Antenna Input Power	4,536

Non-Directional Common Point Readings	5.75 kW
Feeding Tower 2	NDA
Tower Resistance(ohms)	50.0
Tower Current(amps)	10.7
Antenna Input Power	5,750

Figure 2

ENGINEERING EXHIBIT
PROOF OF PERFORMANCE OF
NIGHTTIME STA DIRECTIONAL ANTENNA PATTERN
RADIO STATION KAZN
PASADENA, CALIFORNIA

1300 KHZ 23 KW-D 4.2 KW-N U DA-2

Summary of Measured Field Strength Data

Unattenuated Field Strength at One Kilometer (mV/m)

Radial deg. T	Measured Non-DA (5.75 kW)	Measured DA-Night (4.2 kW)	Modified Standard DA-Night (4.2 kW)
34	730	283	380
83.5	720	60.3	99.7 *
116.5	730	39.5	46.3 *
150	780	602	710
210.5	740	963	1015 *
270	790	1161	1193
348	900	28.5	113 *

* - Monitored Radial

ENGINEERING EXHIBIT
PROOF OF PERFORMANCE OF
NIGHTTIME STA DIRECTIONAL ANTENNA PATTERN
RADIO STATION KAZN
PASADENA, CALIFORNIA

1300 KHZ 23 KW-D 4.2 KW-N U DA-2

Tabulation of Measured Field Strength Data

34 Degree True Radial - Night

Point Desig.	Distance (km)	NDA		DA		Ratio (DA/NDA)
		Date & Time (local)	Field Strength (mV/m)	Date & Time (local)	Field Strength (mV/m)	
		1/15/2009		2/21/2009		
A	0.60	919	950			
B	0.84	923	450			
C	1.10	927	380			
D	1.26	929	460			
E	1.37	934	450			
F	1.58	938	310			
G	1.98	942	360			
1	2.10	948	265	902	96.0	0.362
2	2.52	1002	203	910	83.0	0.409
3	2.77	1006	180	913	73.0	0.406
4	2.96	1010	165	921	70.0	0.424
5	3.07	1011	160	924	70.0	0.438
6	3.29	1018	135	930	50.0	0.370
7	3.40	1021	163	1020	61.0	0.374
8	3.58	1023	140	1022	51.0	0.364
9	3.63	1026	115	1024	37.0	0.322
10	3.90	1029	120	1026	46.0	0.383
11	4.24	1035	118	1032	43.0	0.364
12	4.92	1052	95.0	1048	40.0	0.421
13	5.13	1055	85.0	1050	35.0	0.412
14	5.27	1058	74.0	1054	34.0	0.459
15	5.78	1109	38.0	1104	19.5	0.513
16	5.93	1104	56.0	1108	19.5	0.348
17	6.10	1107	60.0	1111	22.0	0.367
18	6.18	1109	39.0	1114	12.5	0.321
19	6.30	1111	66.0	1116	25.0	0.379
20	6.45	1113	37.0	1120	15.5	0.419
21	6.78	1117	43.0	1125	15.5	0.360
22	7.04	1119	45.0	1129	16.0	0.356
Average Log Ratio:						-0.412
Antilog of Average:						0.387
NDA Analyzed Field Strength (mV/m):						730
DA Analyzed Field Strength (mV/m):						283

83.5 Degree True Radial - Night

Point Desig.	Distance (km)	NDA		DA		Ratio (DA/NDA)
		Date & Time (local)	Field Strength (mV/m)	Date & Time (local)	Field Strength (mV/m)	
		2/12/2009		2/19/2009		
A	0.32	850	1200			
B	0.58	854	1100			
C	0.74	585	580			
D	0.82	900	600			
E	1.35	905	455			
F	1.44	908	405			
G	1.92	914	350			
H	2.15	917	195			
I	2.31	920	255			
J	2.55	924	238			
K	2.72	930	208			
L	2.91	928	110			
1 MP	3.41	935	124	1147	11.2	0.090
2	4.09	941	155	1150	12.8	0.083
3	5.05	950	98.0	1157	6.80	0.069
4	5.34	958	62.0	1202	6.50	0.105
5	5.63	1004	82.0	1206	6.00	0.073
6	5.91	1010	60.0	1210	5.30	0.088
7	6.42	1018	63.0	1215	4.40	0.070
8	6.79	1023	40.0	1219	4.60	0.115
9	7.15	1030	58.0	1224	5.10	0.088
10	8.05	1044	33.0	1230	3.40	0.103
11	8.26	1049	30.5	1235	3.20	0.105
12	8.51	1054	38.0	1239	3.60	0.095
13	8.96	1100	28.5	1243	1.20	0.042
14	9.45	1106	34.5	1247	1.90	0.055
15	13.90	1127	9.80	1300	0.760	0.078
16	15.40	1138	6.00	1309	0.680	0.113
17	18.40	1151	7.20	1319	0.680	0.094
Average Log Ratio:						-1.077
Antilog of Average:						0.084
NDA Analyzed Field Strength (mV/m):						720
DA Analyzed Field Strength (mV/m):						60.3

116.5 Degree True Radial - Night

Point Desig.	Distance (km)	NDA		DA		Ratio (DA/NDA)
		Date & Time (local)	Field Strength (mV/m)	Date & Time (local)	Field Strength (mV/m)	
		2/12/2009		2/19/2009		
A	0.20	900	4000			
B	0.36	904	1200			
C	0.42	909	1200			
D	0.51	912	1000			
E	0.68	917	780			
F	0.83	921	850			
G	1.07	925	480			
H	1.36	929	420			
I	1.48	934	150			
J	1.81	1000	265			
K	2.15	1008	175			
L	2.33	1011	235			
M	2.49	1014	210			
N	2.66	1017	190			
O	2.85	1021	205			
P	2.99	1025	215			
I MP	4.88	1003	114	1239	11.5	0.101
2	7.00	1143	84.0	1308	4.60	0.055
3	7.48	1150	65.0	1312	3.50	0.054
4	7.82	1157	47.0	1320	3.10	0.066
5	8.20	1200	38.0	1322	1.90	0.050
6	8.37	1205	47.0	1326	2.70	0.057
7	10.00	1239	28.5	1357	1.10	0.039
8	10.50	1246	31.0	1405	2.10	0.068
9	11.10	1254	15.5	1410	0.800	0.052
10	11.30	1258	25.0	1412	1.35	0.054
11	12.00	1209	23.0	1423	0.900	0.039
12	12.40	1218	21.4	1429	0.600	0.028
13	13.50	1338	18.2	1443	1.50	0.082
14	14.50	1350	18.0	1455	0.900	0.050
Average Log Ratio:						-1.267
Antilog of Average:						0.054
NDA Analyzed Field Strength (mV/m):						730
DA Analyzed Field Strength (mV/m):						39.5

Figure 3
Sheet 5 of 8

150 Degree True Radial - Night

Point Desig.	Distance (km)	NDA		DA		Ratio (DA/NDA)
		Date & Time (local)	Field Strength (mV/m)	Date & Time (local)	Field Strength (mV/m)	
		1/17/2009		2/20/2009		
A	0.36	905	1200			
B	0.70	908	790			
C	0.97	912	700			
D	1.22	915	520			
E	1.42	920	480			
F	1.63	924	320			
G	1.93	930	385			
H	2.34	935	248			
I	2.69	940	230			
J	3.04	945	190			
1	3.39	950	140	1037	110	0.786
2	3.96	958	100	1041	80.0	0.800
3	4.60	1007	90.0	1046	66.0	0.733
4	4.94	1011	115	1051	95.0	0.826
5	5.68	1017	54.0	1056	43.0	0.796
6	5.89	1025	85.0	1058	68.0	0.800
7	6.28	1033	65.0	1108	49.0	0.754
8	6.65	1037	78.0	1112	56.0	0.718
9	7.01	1045	60.0	1117	43.0	0.717
10	7.74	1050	60.0	1123	44.0	0.733
11	8.17	1055	49.0	1127	37.0	0.755
12	8.68	1100	49.0	1134	38.0	0.776
13	9.31	1105	53.0	1138	41.0	0.774
14	9.67	1116	41.0	1146	32.0	0.780
15	10.00	1121	18.0	1149	15.0	0.833
16	10.20	1125	34.0	1153	28.0	0.824
17	11.20	1153	40.0	1217	31.5	0.788
18	11.60	1203	26.0	1221	19.5	0.750
19	11.90	1210	31.0	1225	23.0	0.742
Average Log Ratio:						-0.112
Antilog of Average:						0.772
NDA Analyzed Field Strength (mV/m):						780
DA Analyzed Field Strength (mV/m):						602

Figure 3
Sheet 6 of 8

210.5 Degree True Radial - Day

Point Desig.	Distance (km)	NDA		DA		Ratio (DA/NDA)
		Date & Time (local)	Field Strength (mV/m)	Date & Time (local)	Field Strength (mV/m)	
		2/12/2009		2/19/2009		
A	0.50	847	780			
B	0.73	855	550			
C	0.89	900	500			
D	1.03	903	440			
E	1.16	907	480			
F	1.27	912	470			
G	1.39	915	460			
H	1.51	919	380			
I	1.63	923	300			
J	1.78	925	170			
K	1.97	929	215			
L	2.23	934	175			
M	2.58	938	145			
N	2.72	943	135			
O	2.95	949	175			
1 MP	3.75	958	150	1214	215	1.433
2	6.96	1129	50.0	1237	64.0	1.280
3	8.04	1034	66.0	1238	86.0	1.303
4	9.92	1043	33.5	1245	45.0	1.343
5	12.30	1055	25.0	1255	30.0	1.200
6	13.40	1101	22.5	1259	29.0	1.289
7	14.30	1109	19.5	1304	25.0	1.282
8	14.90	1119	15.5	1308	20.0	1.290
Average Log Ratio:						0.114
Antilog of Average:						1.301
NDA Analyzed Field Strength (mV/m):						740
DA Analyzed Field Strength (mV/m):						963

270 Degree True Radial - Night

Point Desig.	Distance (km)	NDA		DA		Ratio (DA/NDA)
		Date & Time (local)	Field Strength (mV/m)	Date & Time (local)	Field Strength (mV/m)	
		1/16/2009		2/19/2009		
A	0.46	910	1050			
B	0.56	913	920			
C	0.66	917	870			
D	0.79	921	820			
E	0.91	925	700			
F	1.04	928	480			
G	1.22	932	530			
H	1.44	937	470			
I	1.59	943	400			
J	1.73	946	315			
K	1.92	954	330			
L	2.12	957	315			
M	2.25	1002	290			
N	2.50	1007	270			
O	2.71	1011	230			
P	2.93	1015	220			
Q	3.16	1020	185			
1	3.45	1026	145	1015	200	1.379
2	3.84	1029	140	1018	190	1.357
3	4.58	1036	72.0	1022	108	1.500
4	5.05	1043	60.0	1025	90.0	1.500
5	5.41	1051	60.0	1030	86.0	1.433
6	5.89	1057	54.0	1034	84.0	1.556
7	6.49	1105	44.0	1040	74.0	1.682
8	6.99	1110	28.5	1044	43.0	1.509
9	7.43	1117	31.0	1050	42.0	1.355
10	8.03	1128	34.0	1056	52.0	1.529
11	8.57	1145	16.0	1109	26.0	1.625
12	9.01	1148	22.0	1113	32.0	1.455
13	9.41	1155	26.0	1118	41.0	1.577
14	10.08	1202	18.5	1123	27.0	1.459
15	11.32	1209	15.5	1130	22.0	1.419
16	12.41	1222	12.5	1136	18.0	1.440
17	14.18	1234	15.0	1145	22.0	1.467
18	14.93	1239	12.0	1151	16.0	1.333
19	16.39	1250	10.0	1158	14.0	1.400
Average Log Ratio:						0.167
Antilog of Average:						1.470
NDA Analyzed Field Strength (mV/m):						790
DA Analyzed Field Strength (mV/m):						1161

348 Degree True Radial - Night

Point Desig.	Distance (km)	NDA		DA		Ratio (DA/NDA)
		Date & Time (local)	Field Strength (mV/m)	Date & Time (local)	Field Strength (mV/m)	
		2/12/2009		2/19/2009		
A	0.21	1324	4000			
B	0.34	1327	2500			
C	0.46	1330	1850			
D	0.56	1331	1700			
E	0.73	1336	1300			
F	1.11	1343	350			
G	1.25	1349	540			
H	1.41	1351	640			
I	1.69	1401	365			
J	1.92	1403	185			
K	2.15	1407	310			
L	2.43	1410	340			
M	2.79	1420	245			
N	3.07	1423	275			
1 MP	3.20	1426	190	1451	5.40	0.028
2	3.31	1429	235	1452	9.00	0.038
3	4.38	1444	172	1502	6.40	0.037
4	4.62	1450	165	1507	5.60	0.034
5	4.79	1456	145	1512	4.20	0.029
6	5.23	1501	145	1517	4.60	0.032
7	5.45	1505	128	1519	4.75	0.037
8	5.62	1509	142	1524	4.80	0.034
9	6.51	1519	80.0	1529	2.45	0.031
10	7.02	1523	94.0	1532	1.95	0.021
Average Log Ratio:						-1.500
Antilog of Average:						0.032
NDA Analyzed Field Strength (mV/m):						900
DA Analyzed Field Strength (mV/m):						28.5

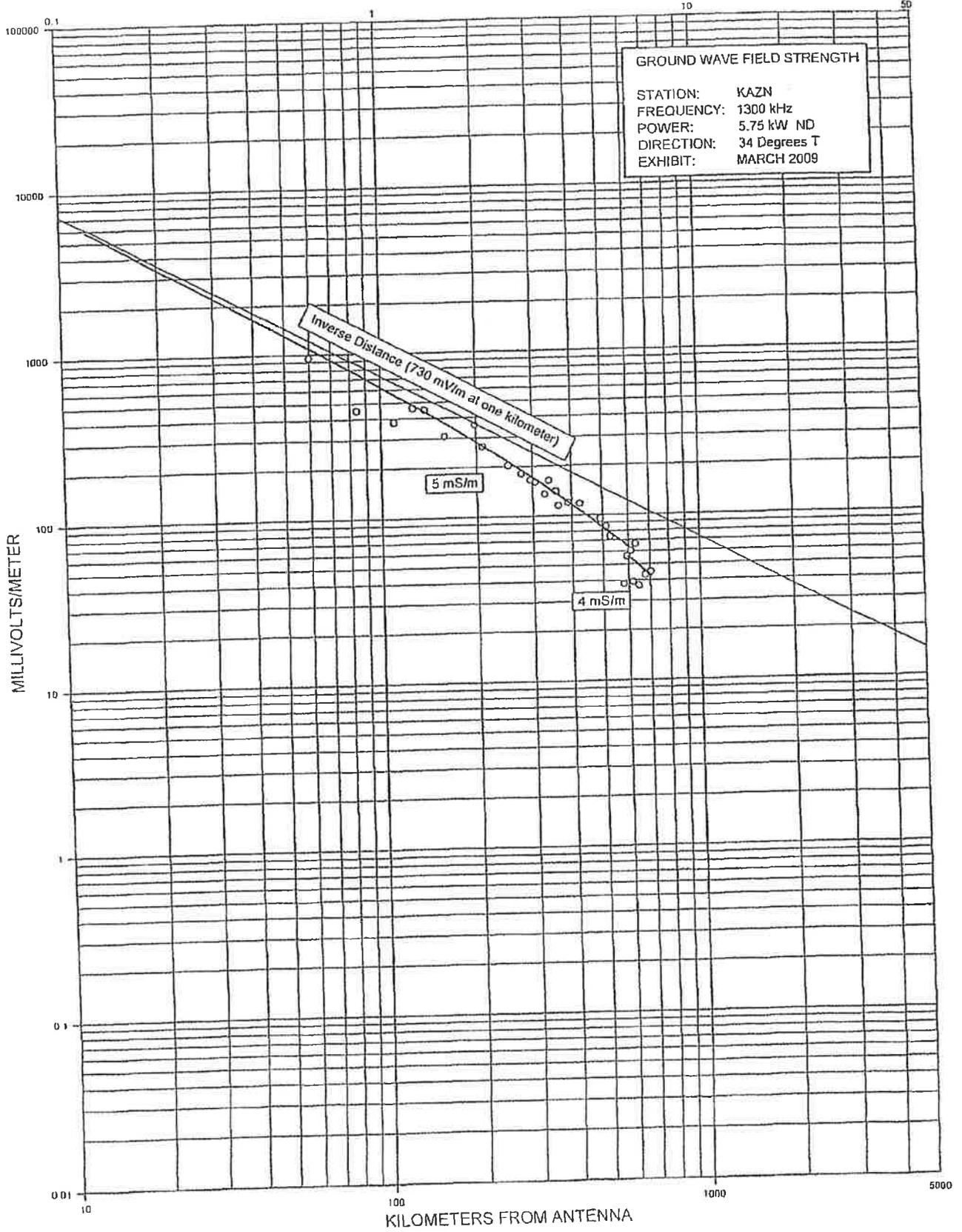
ENGINEERING EXHIBIT
PROOF OF PERFORMANCE OF
NIGHTTIME STA DIRECTIONAL ANTENNA PATTERN
RADIO STATION KAZN
PASADENA, CALIFORNIA

1300 KHZ 23 KW-D 4.2 KW-N U DA-2

Graphs of Measured Field Strength Data

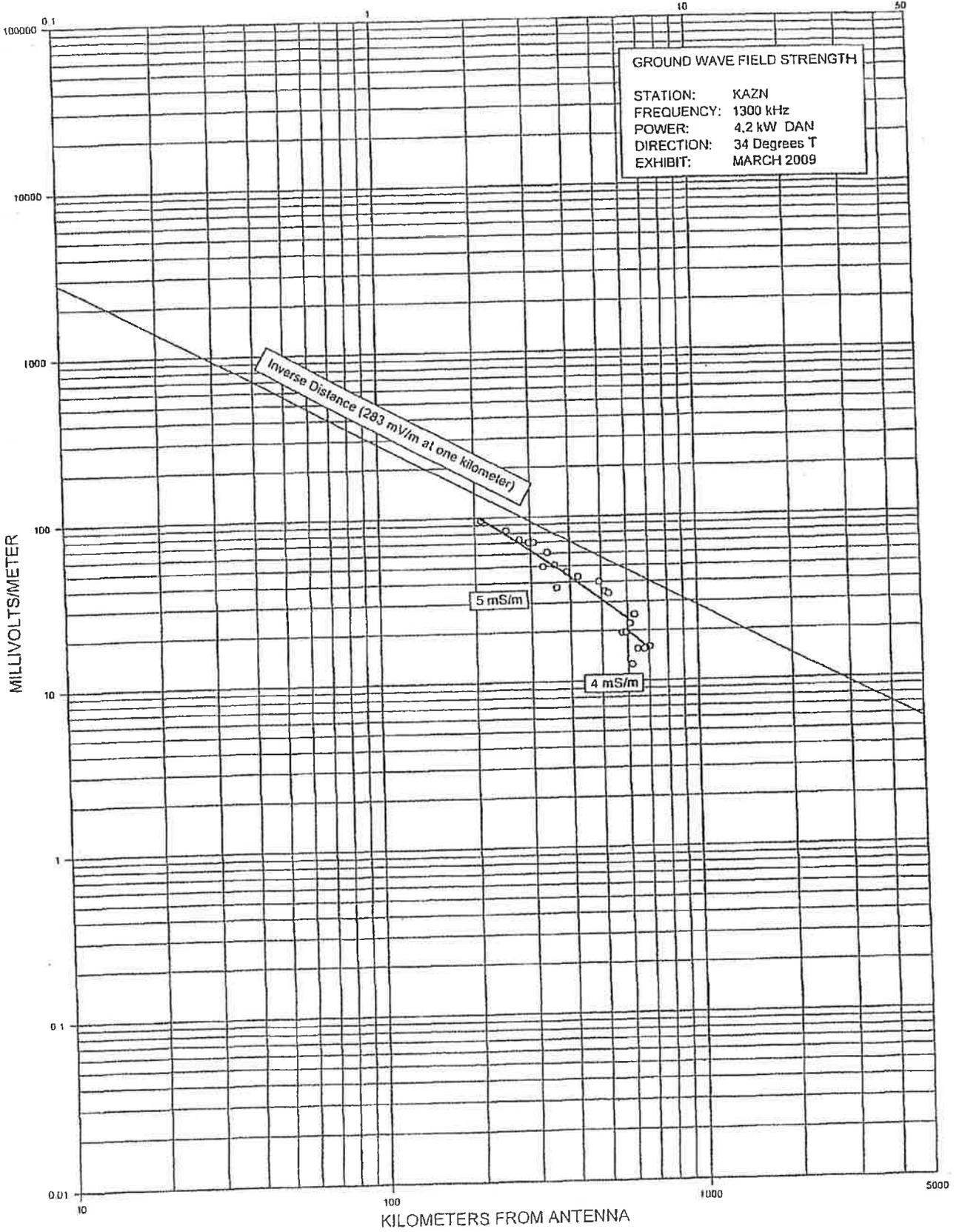
KILOMETERS FROM ANTENNA

Figure 4
Sheet 2 of 16



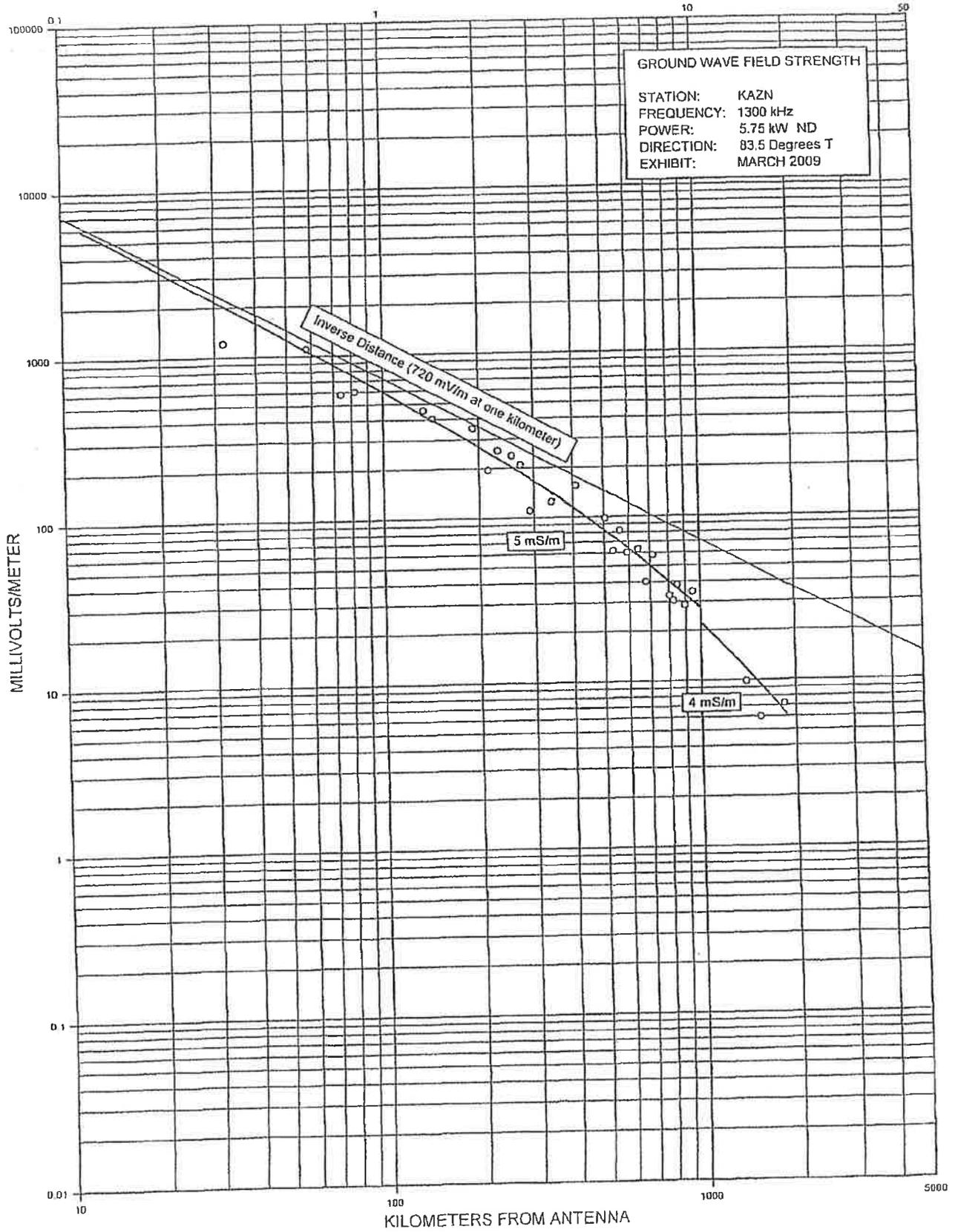
KILOMETERS FROM ANTENNA

Figure 4
Sheet 3 of 16



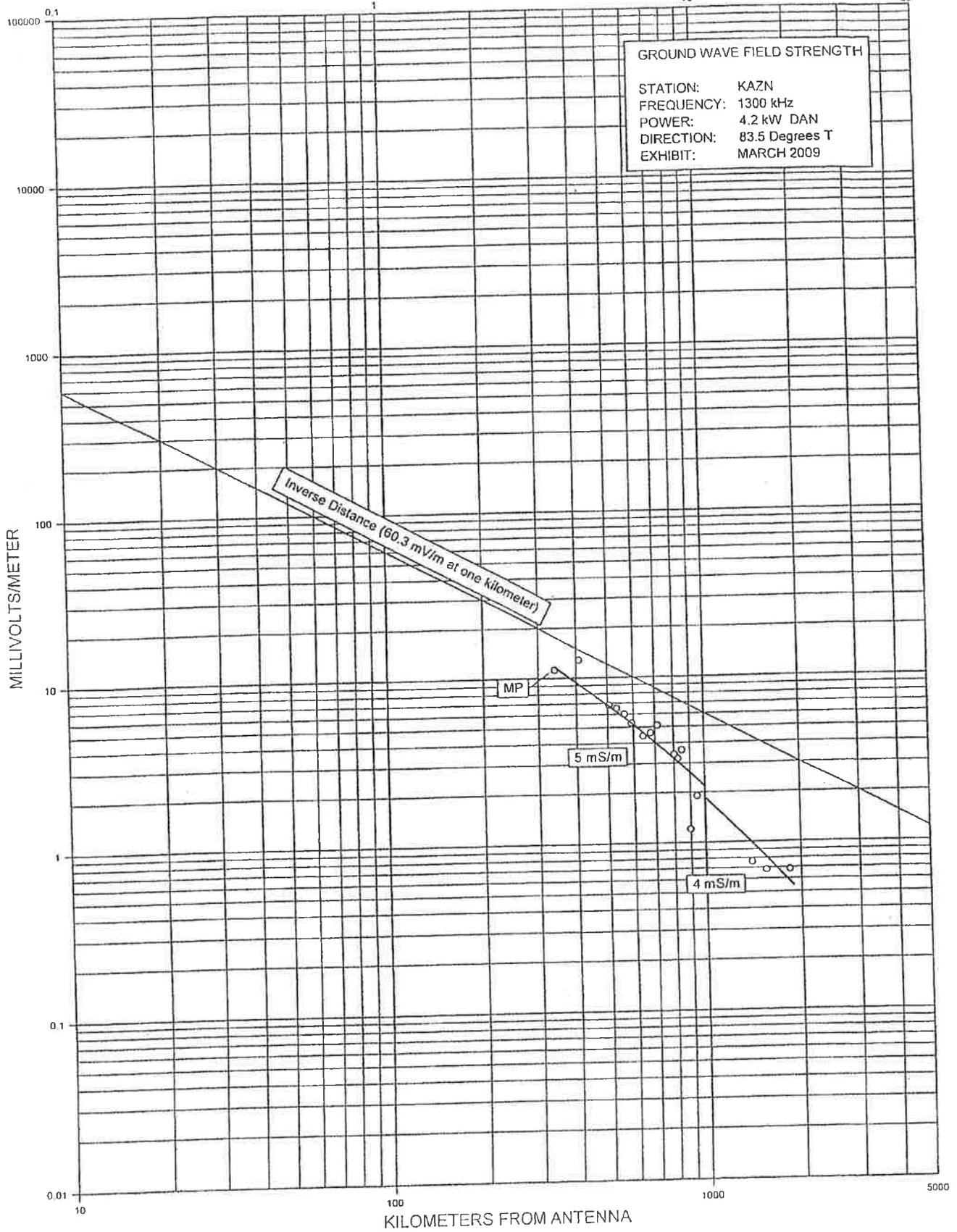
KILOMETERS FROM ANTENNA

Figure 4
Sheet 4 of 16



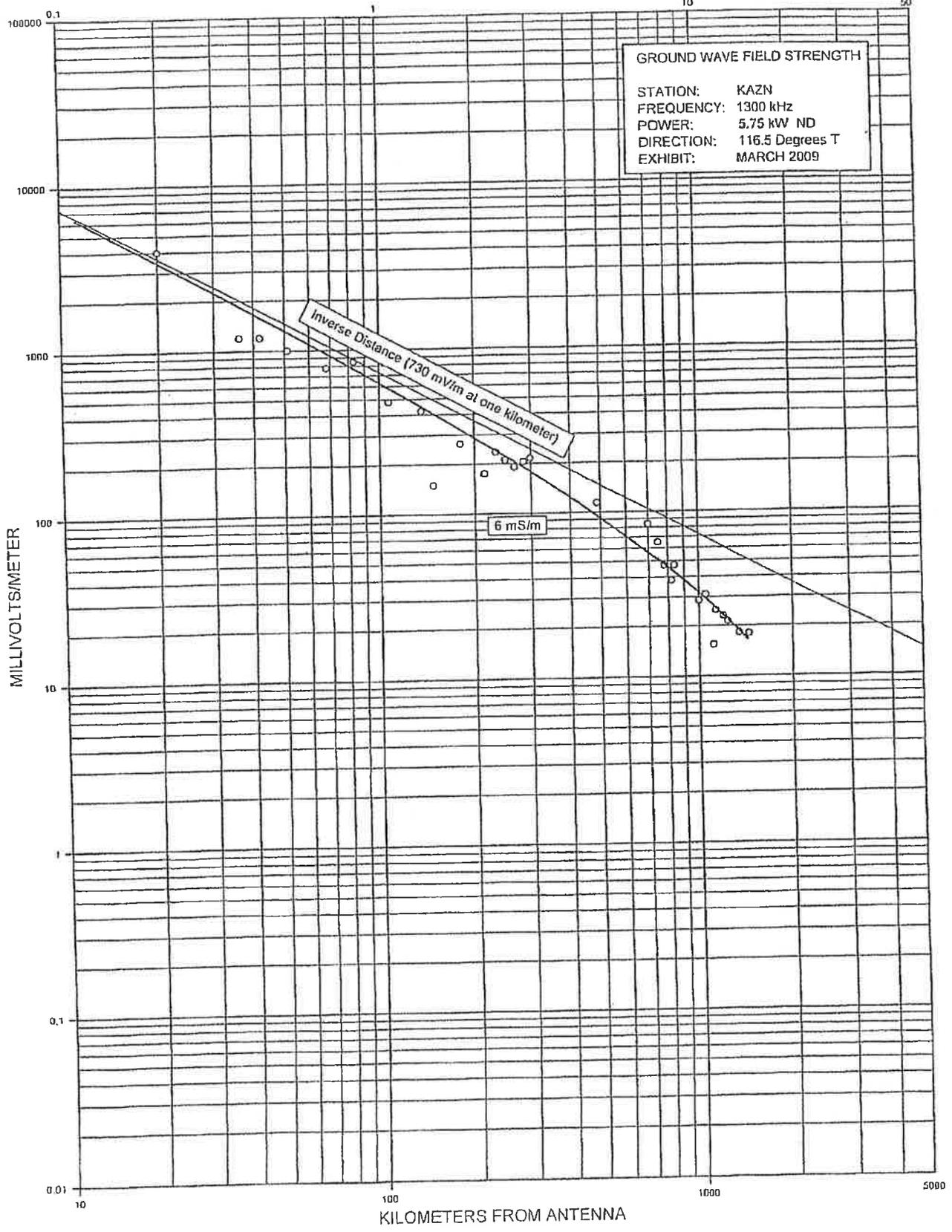
KILOMETERS FROM ANTENNA

Figure 4
Sheet 5 of 16



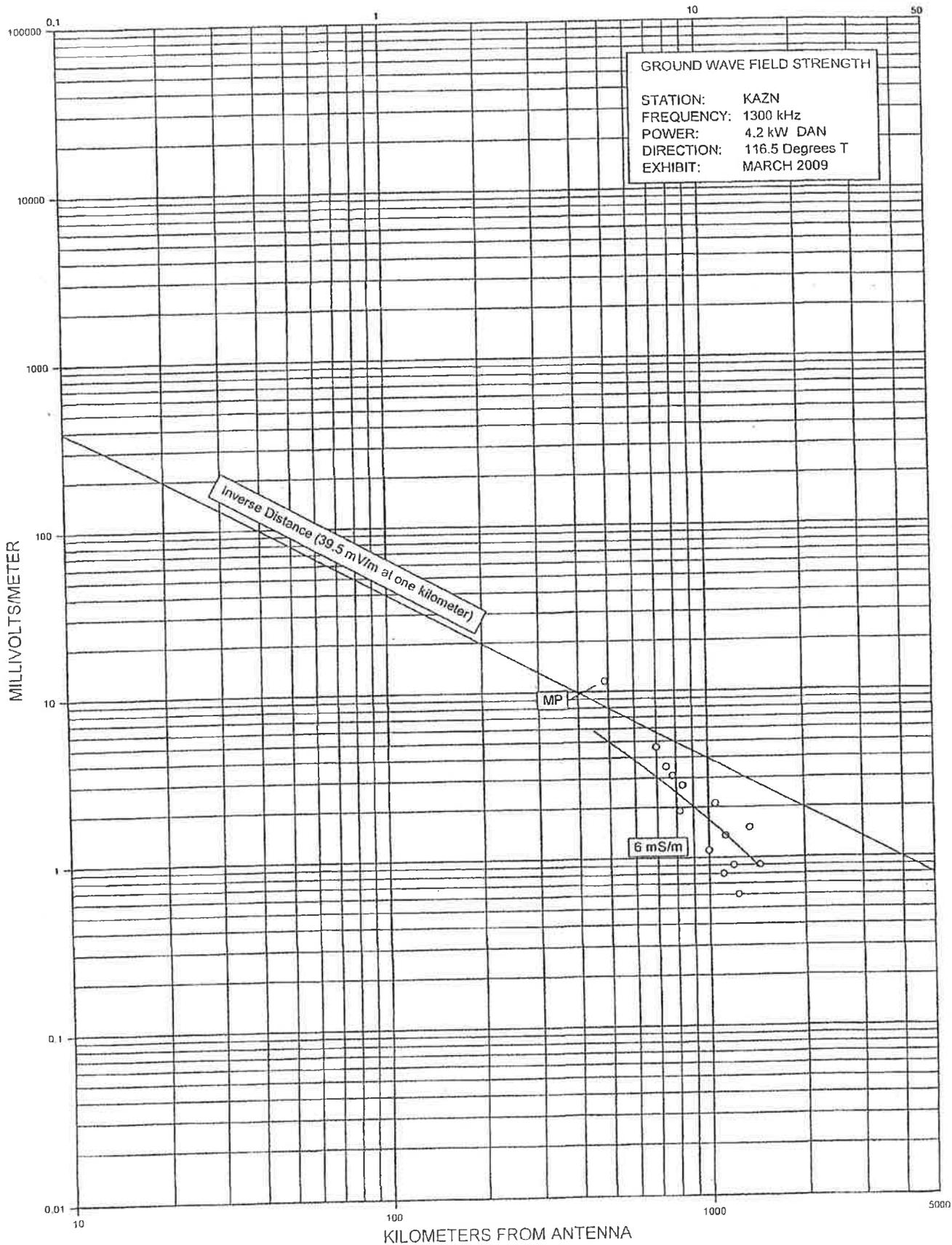
KILOMETERS FROM ANTENNA

Figure 4
Sheet 6 of 16



KILOMETERS FROM ANTENNA

Figure 4
Sheet 7 of 16



KILOMETERS FROM ANTENNA

Figure 4
Sheet 8 of 16

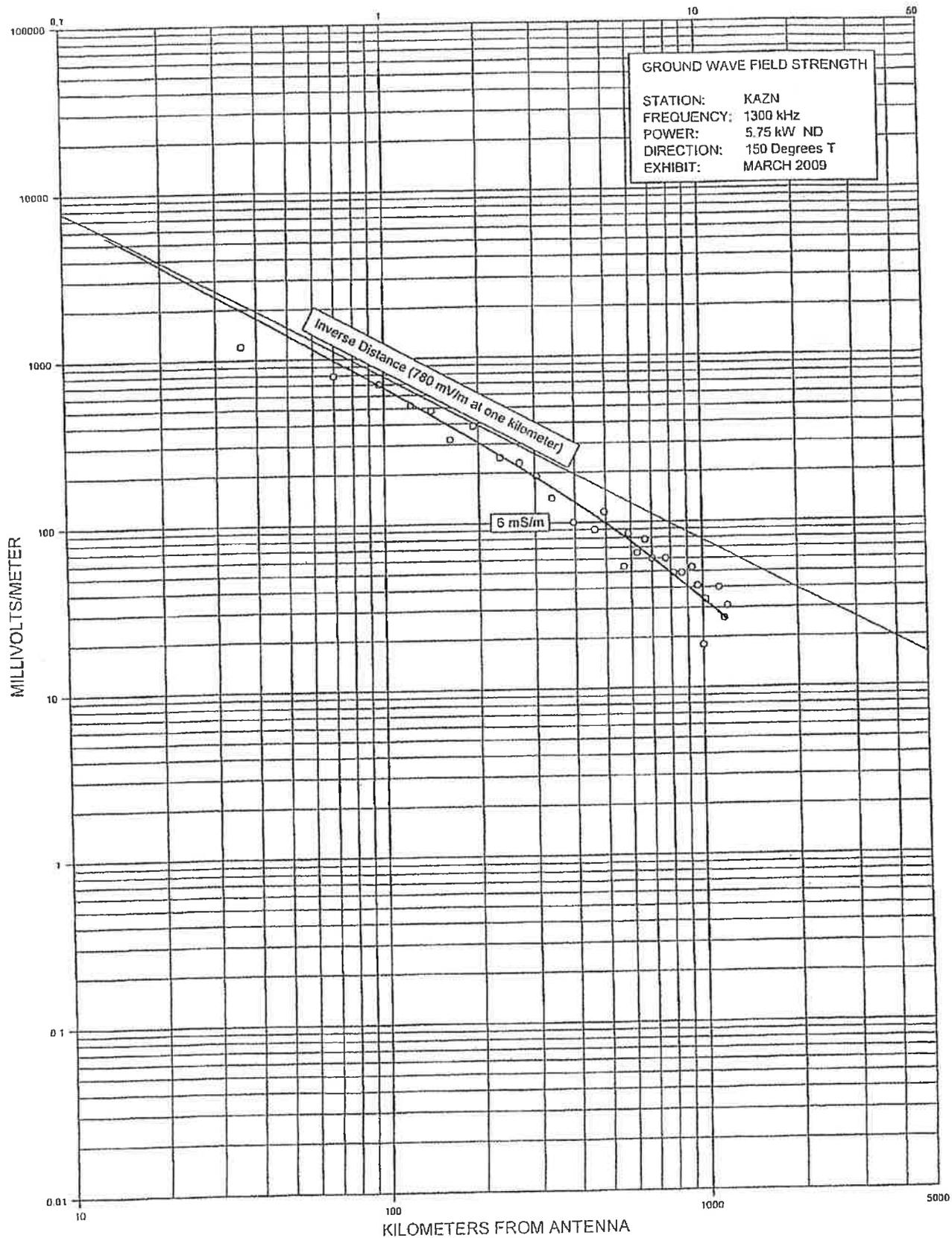
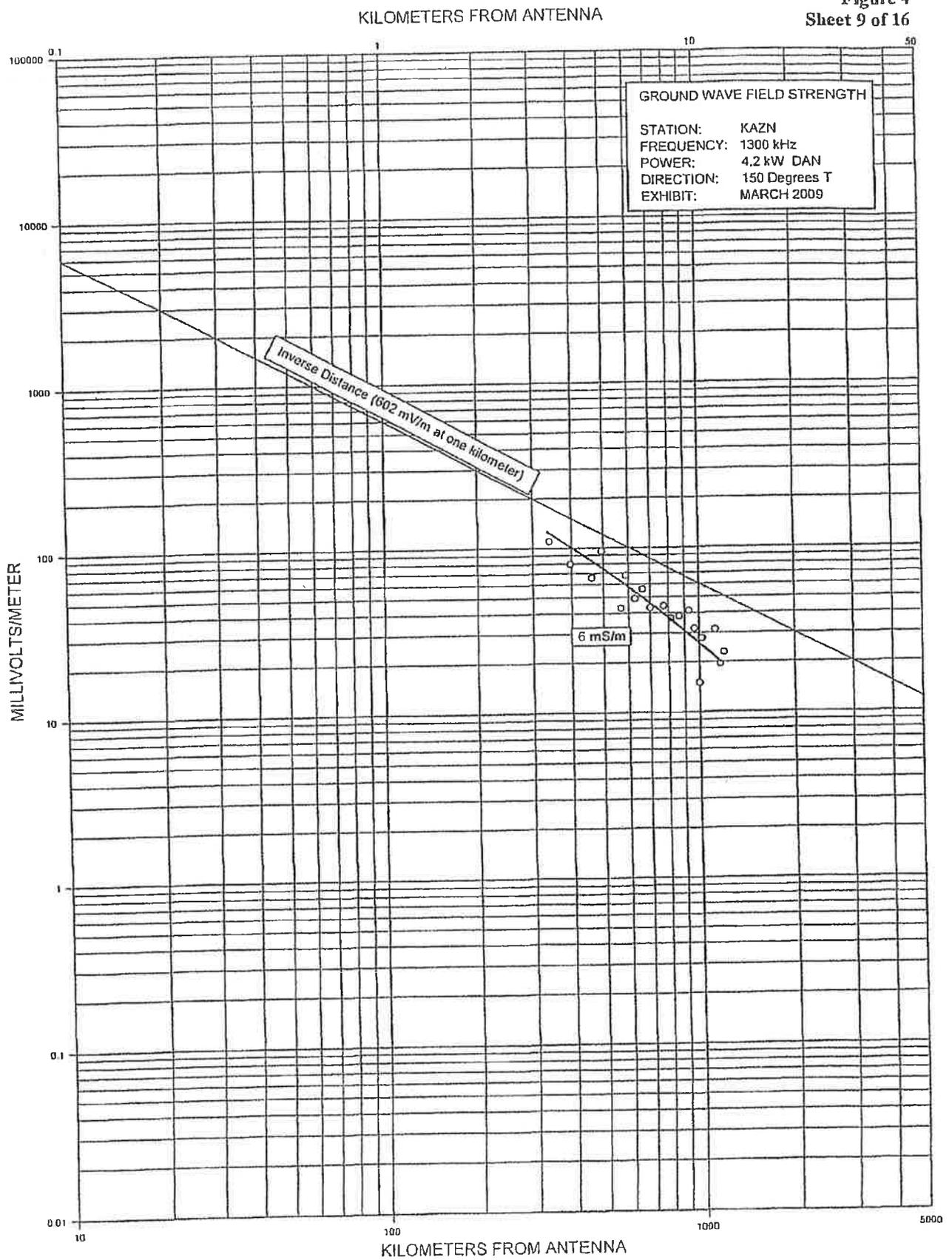
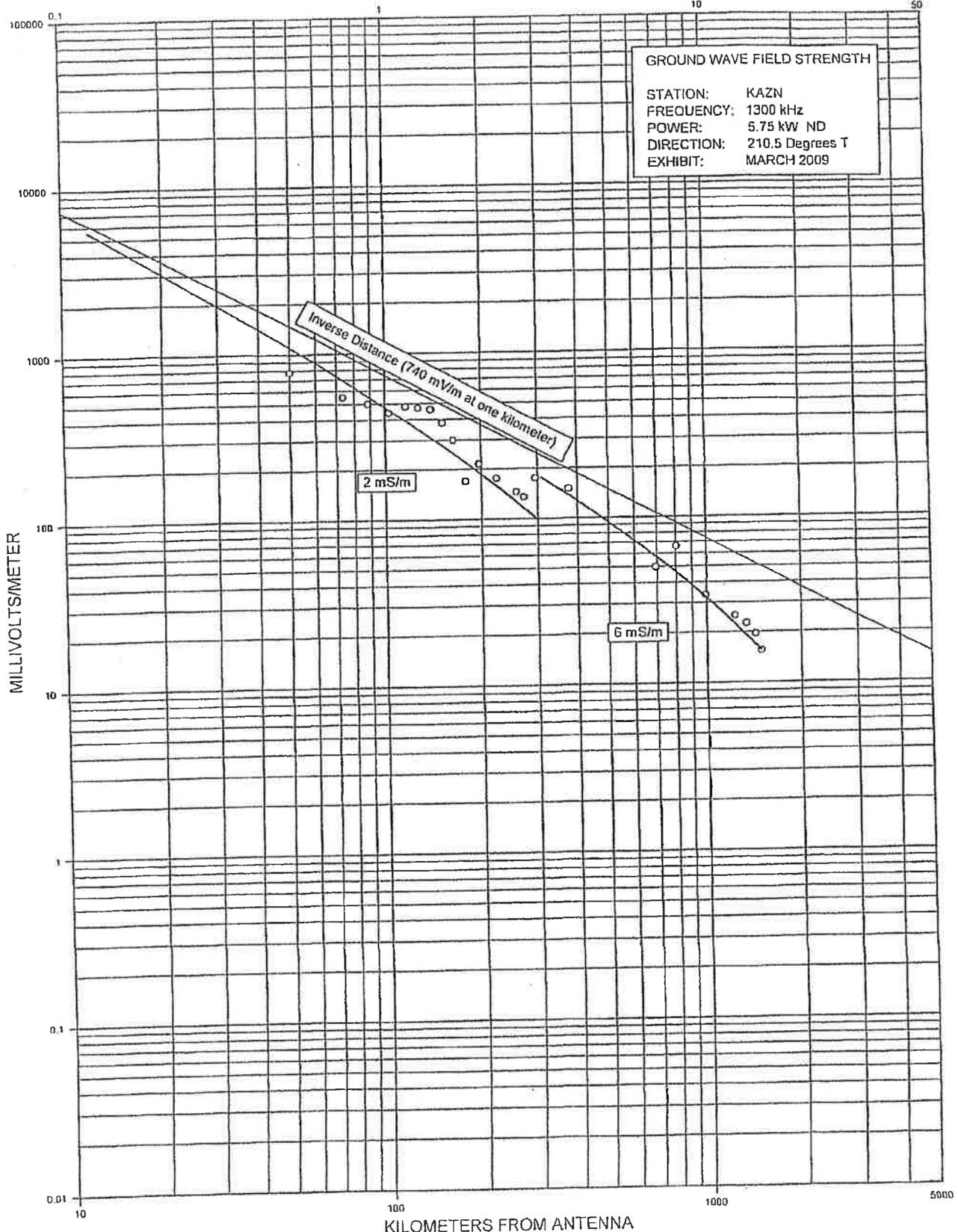


Figure 4
Sheet 9 of 16



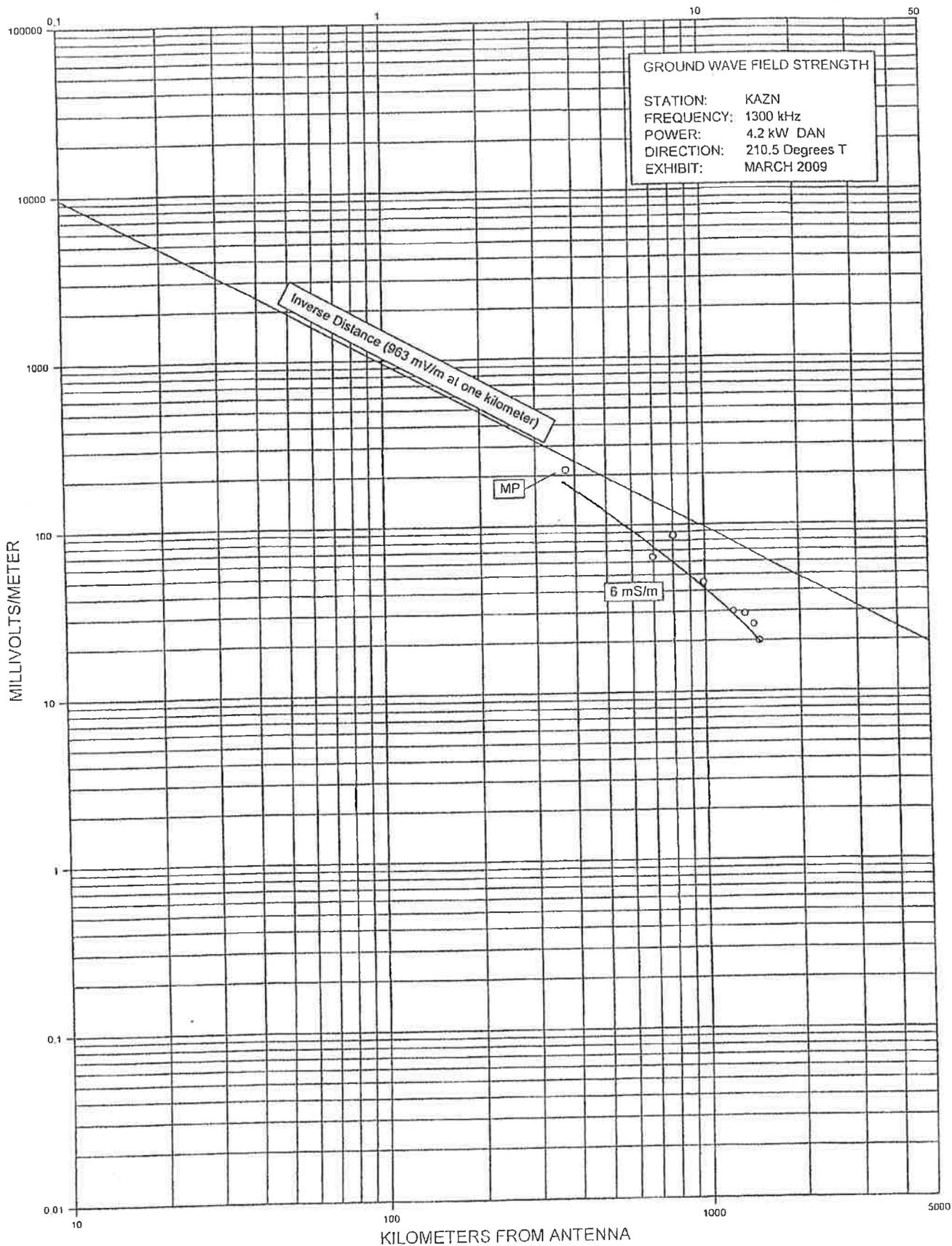
KILOMETERS FROM ANTENNA

Figure 4
Sheet 10 of 16



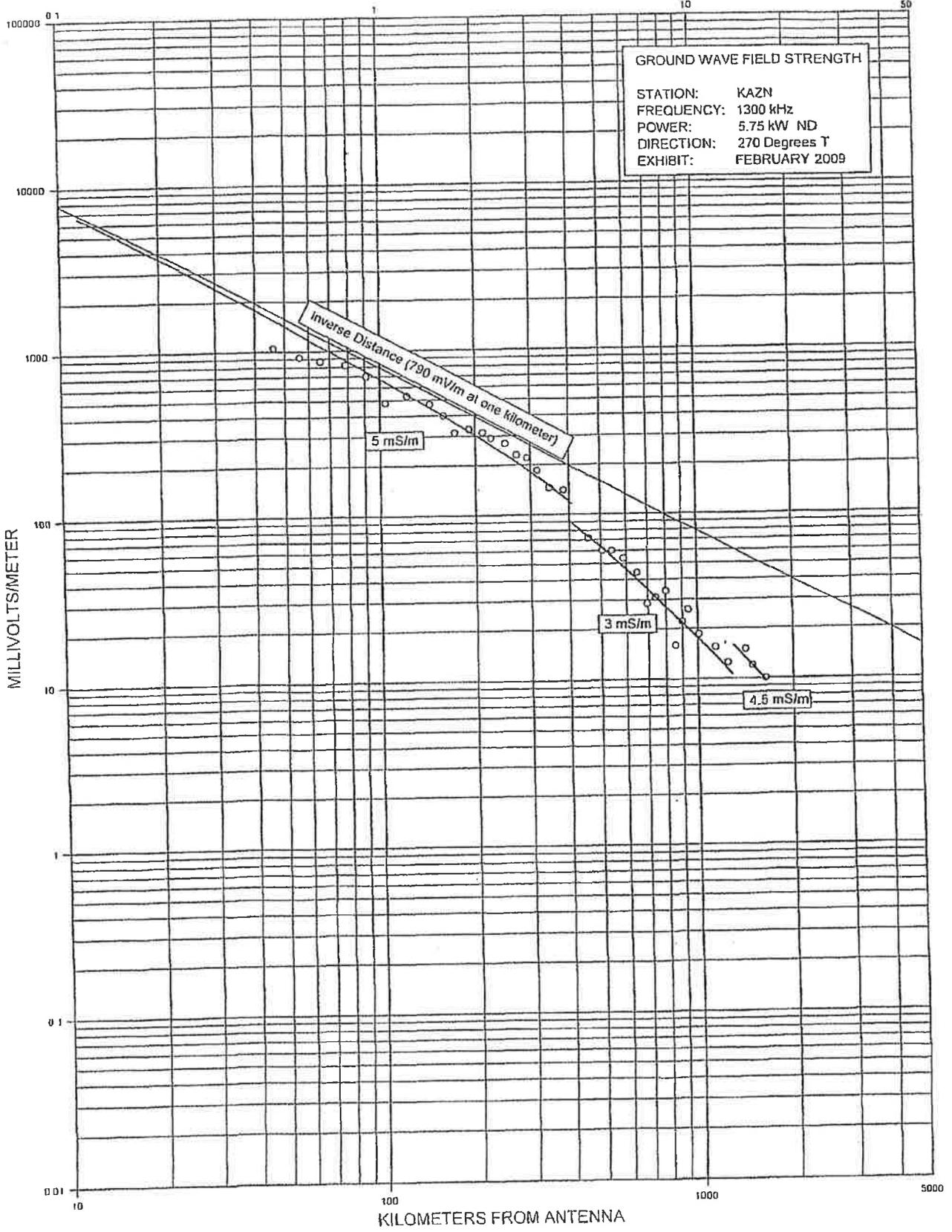
KILOMETERS FROM ANTENNA

Figure 4
Sheet 11 of 16



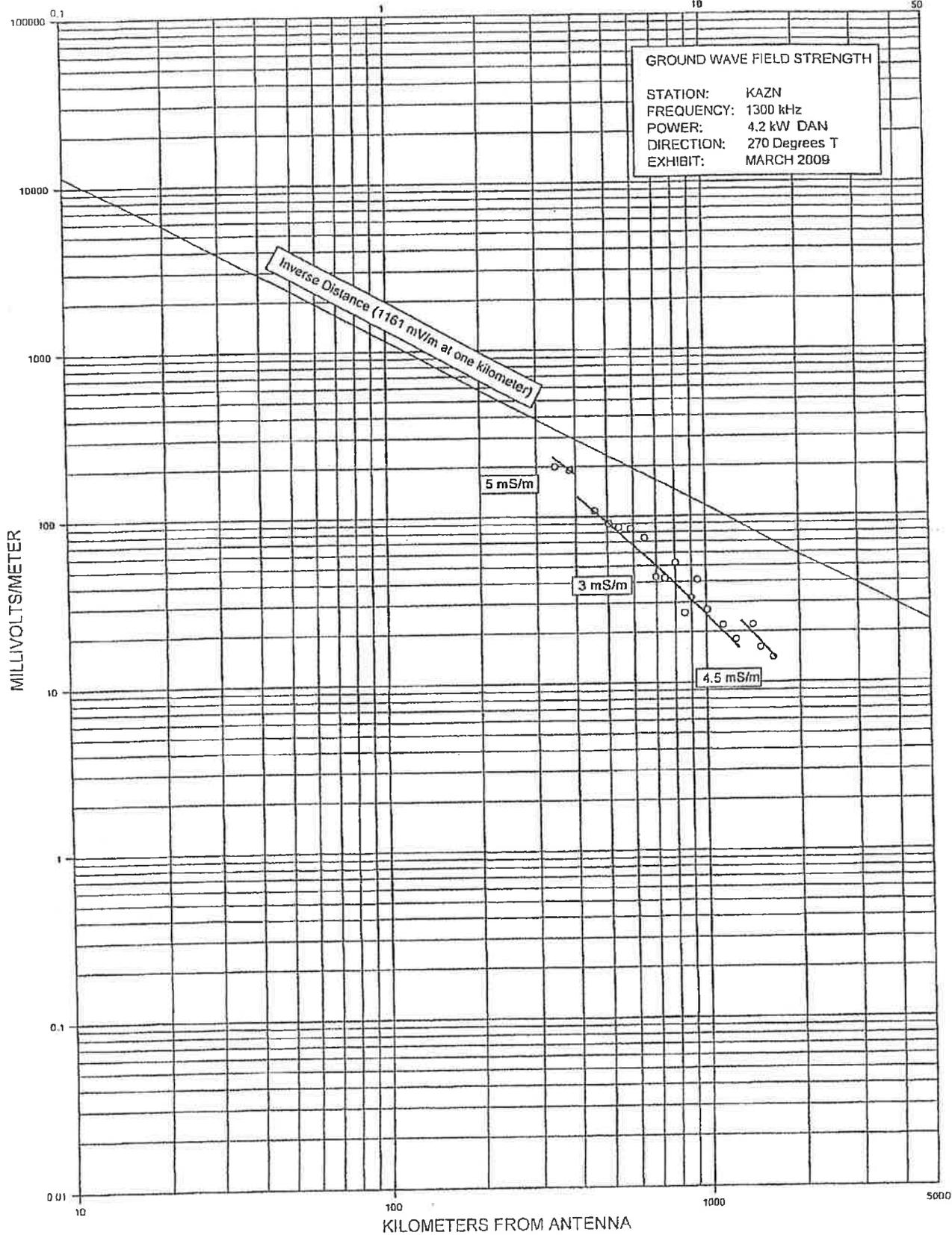
KILOMETERS FROM ANTENNA

Figure 4
Sheet 12 of 16



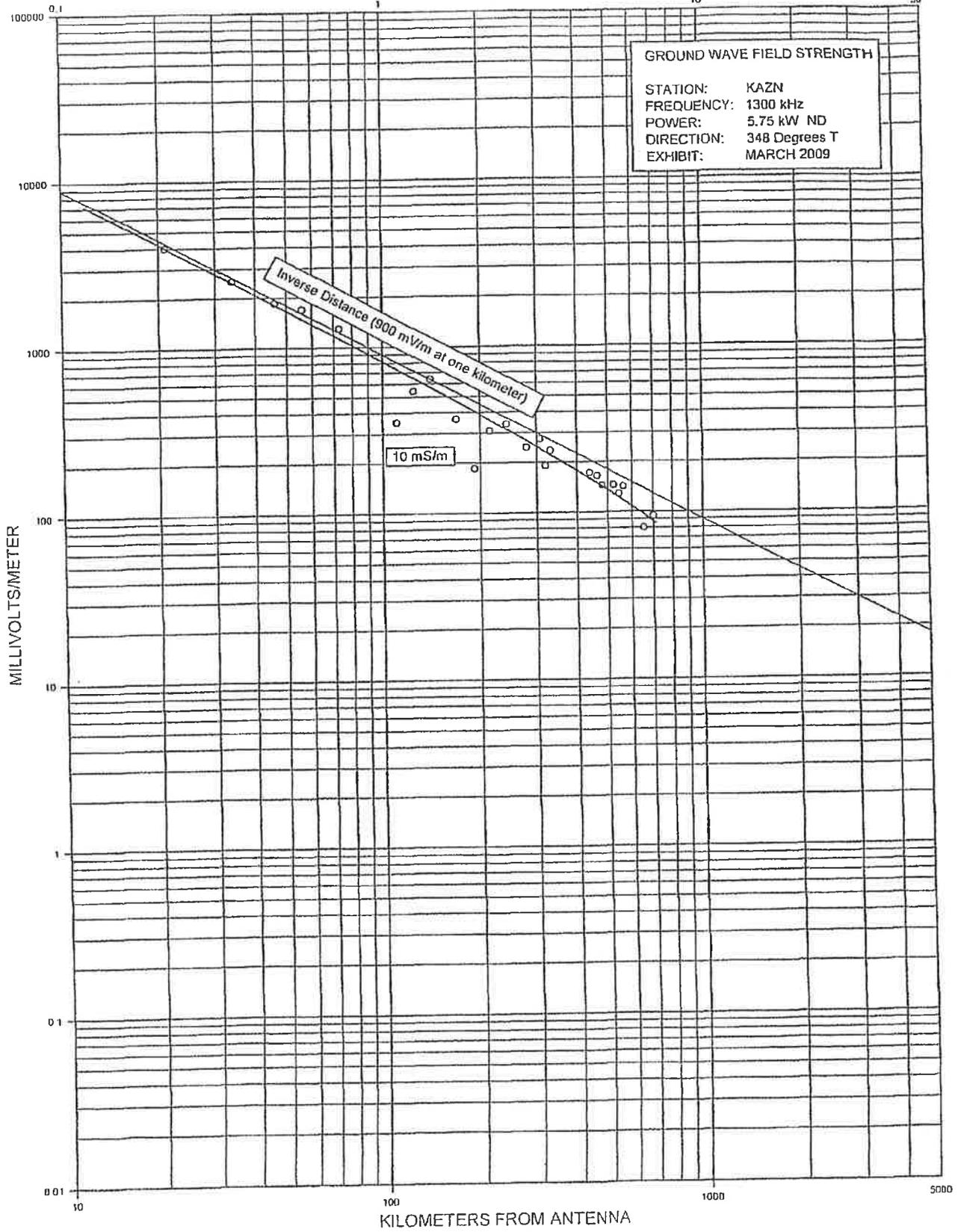
KILOMETERS FROM ANTENNA

Figure 4
Sheet 13 of 16



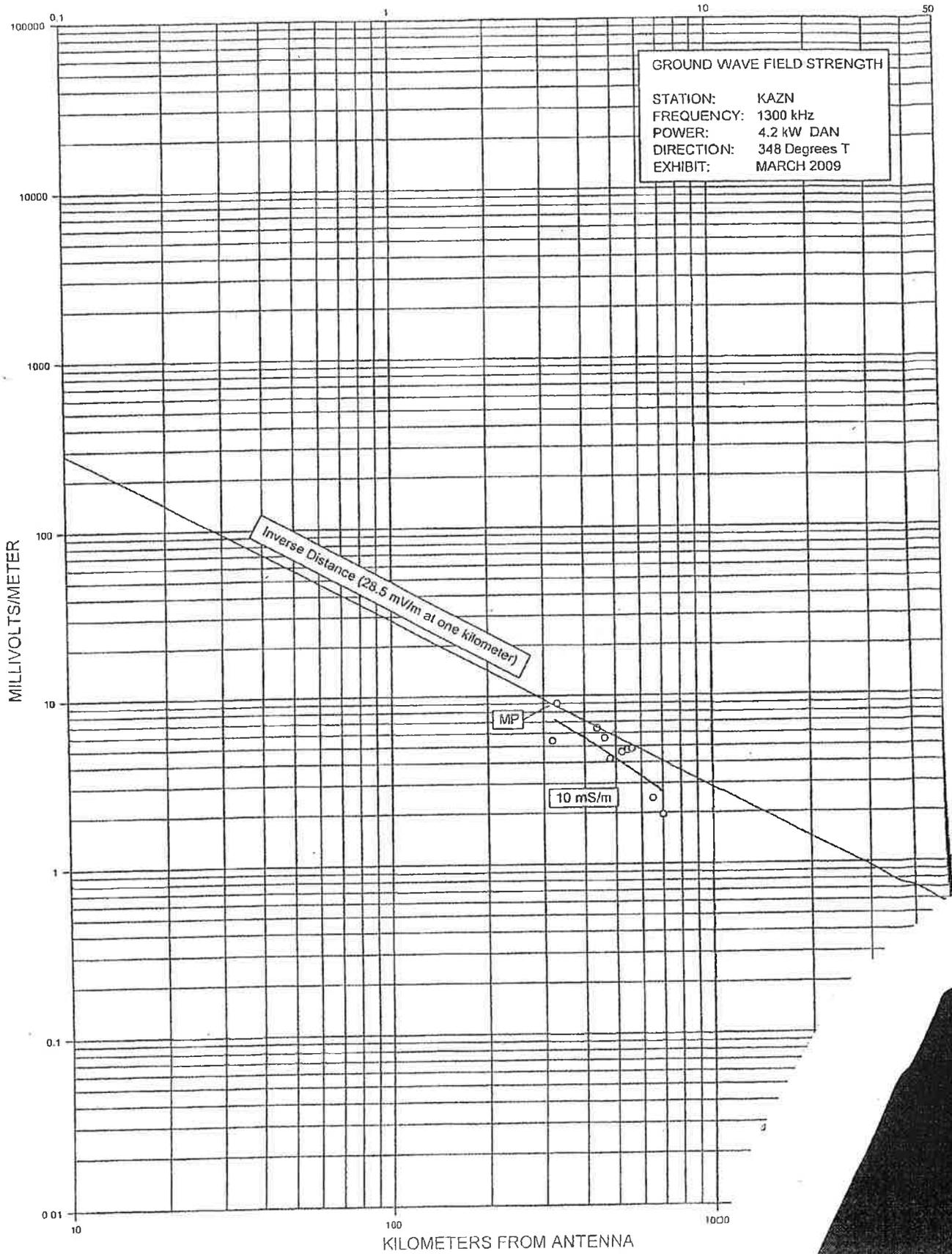
KILOMETERS FROM ANTENNA

Figure 4
Sheet 14 of 16



KILOMETERS FROM ANTENNA

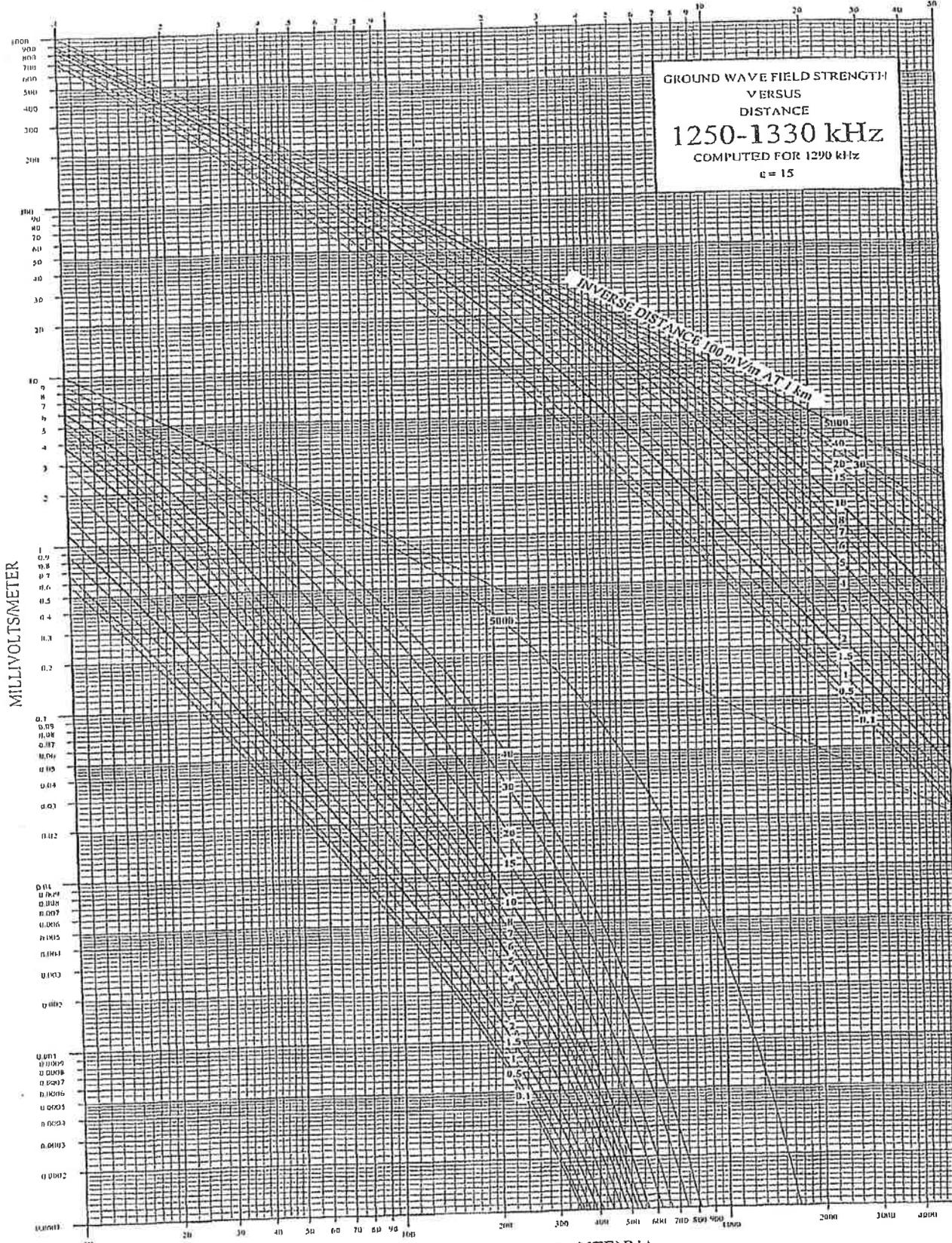
Figure 4
Sheet 15 of 16



KILOMETERS FROM ANTENNA

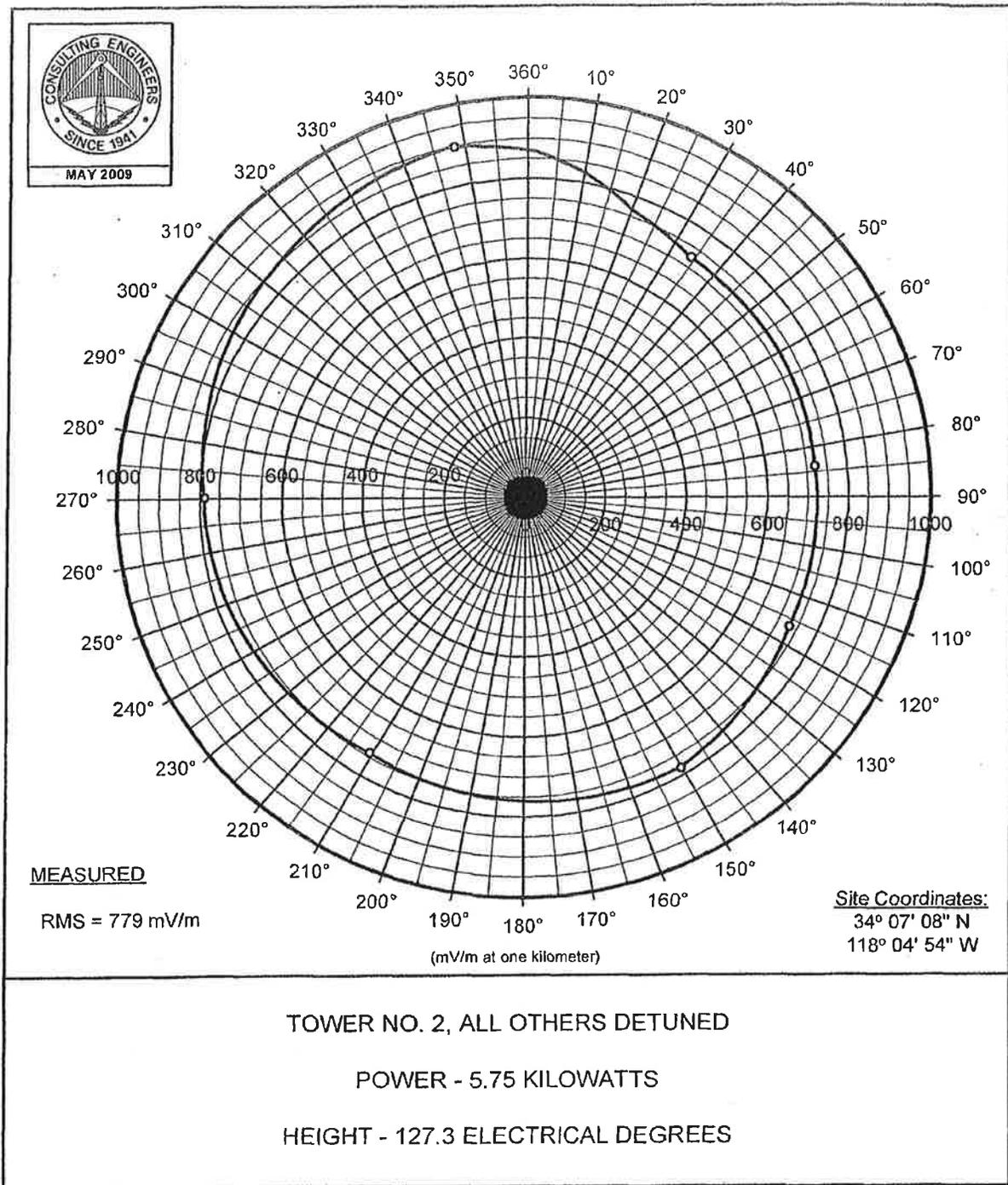
Figure 4
Sheet 16 of 16

KILOMETERS FROM ANTENNA



KILOMETERS FROM ANTENNA
GRAPH 16

Figure 5

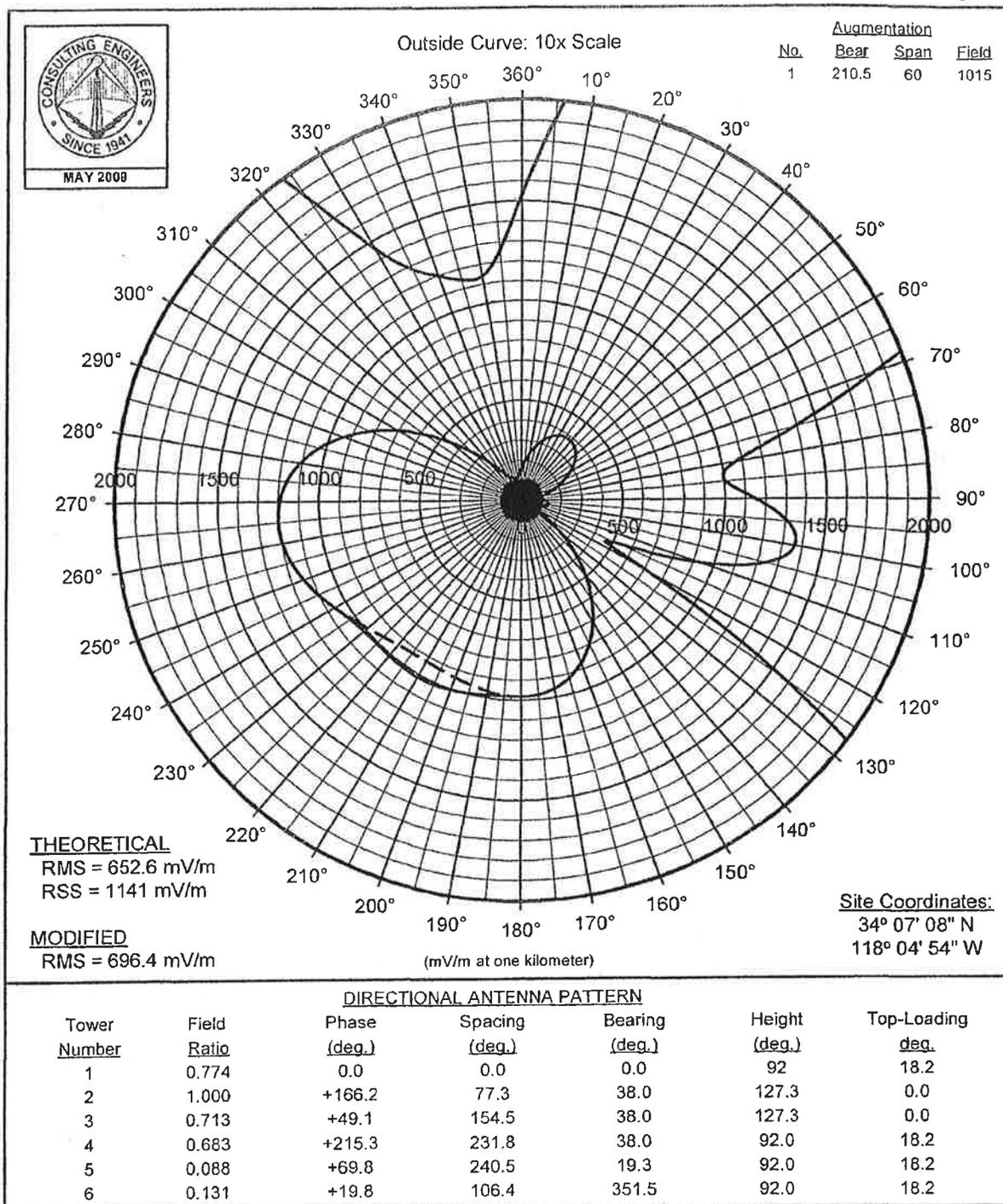


**MEASURED NON-DIRECTIONAL HORIZONTAL
PLANE RADIATION PATTERN**

RADIO STATION KAZN
PASADENA, CALIFORNIA
1300 KHZ 23 KW-D 4.2 KW-N U DA-2

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

Figure 6

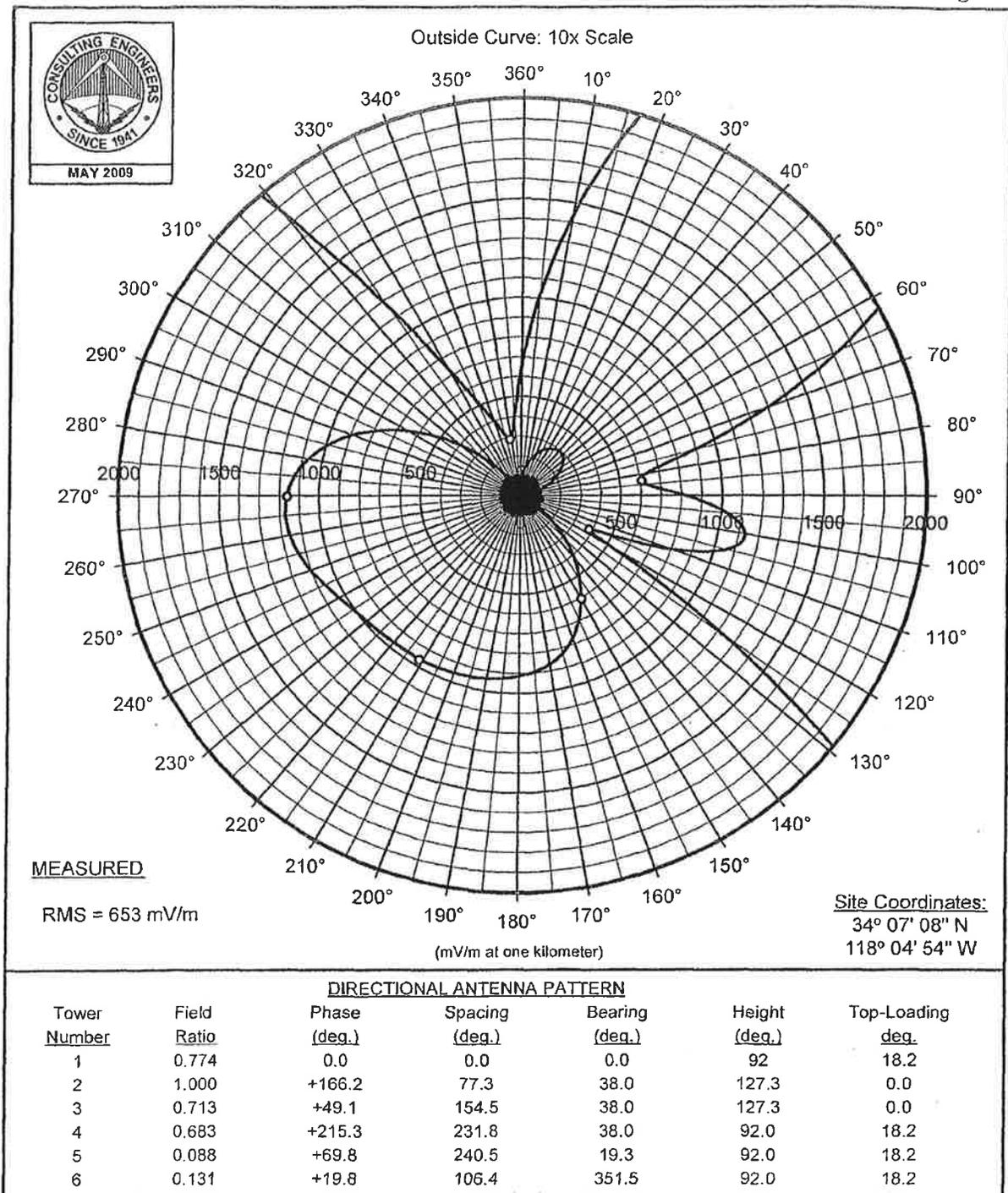


NIGHTTIME HORIZONTAL PLANE MODIFIED RADIATION PATTERN

RADIO STATION KAZN
PASADENA, CALIFORNIA
1300 KHZ 23 KW-D 4.2 KW-N U DA-2

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

Figure 7



**NIGHTTIME HORIZONTAL PLANE
MEASURED RADIATION PATTERN**

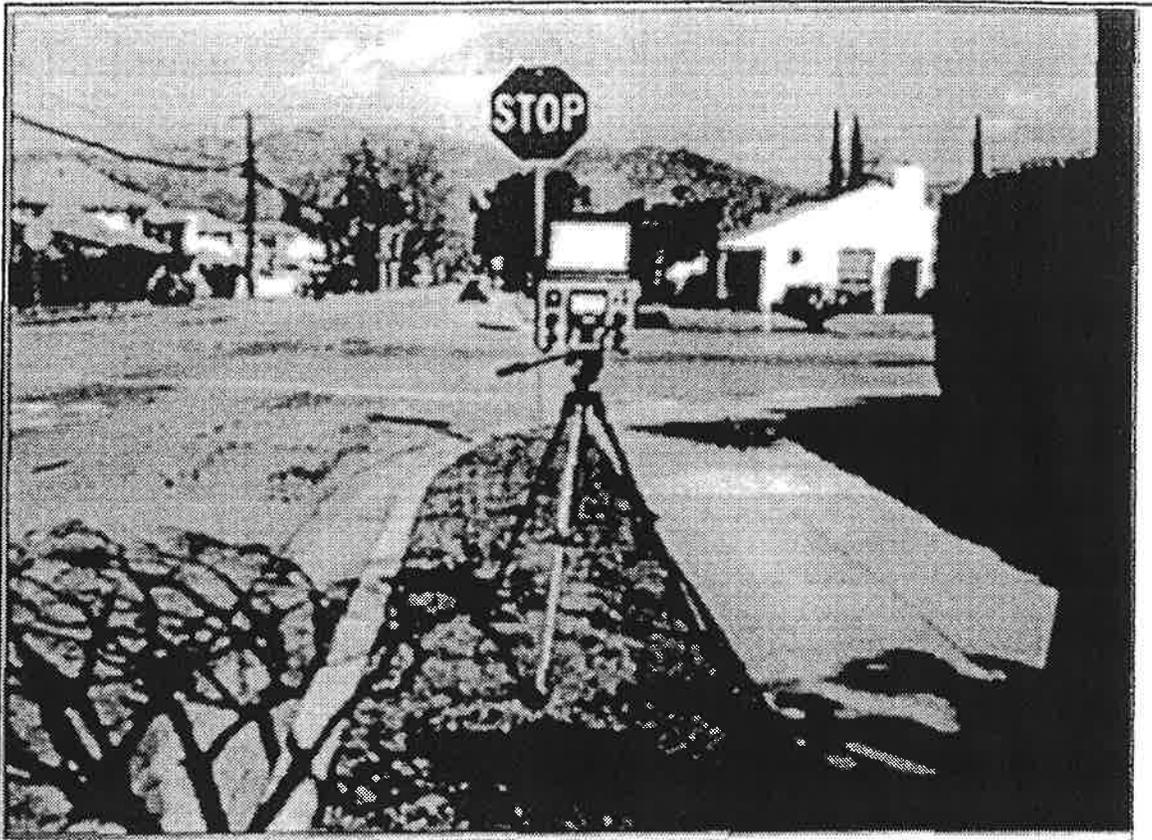
RADIO STATION KAZN
PASADENA, CALIFORNIA
1300 KHZ 23 KW-D 4.2 KW-N U DA-2

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

ENGINEERING EXHIBIT
PROOF OF PERFORMANCE OF
NIGHTTIME STA DIRECTIONAL ANTENNA PATTERN
RADIO STATION KAZN
PASADENA, CALIFORNIA

1300 KHZ 23 KW-D 4.2 KW-N U DA-2

Descriptions, Routing to,
and Photographs of Monitor Points



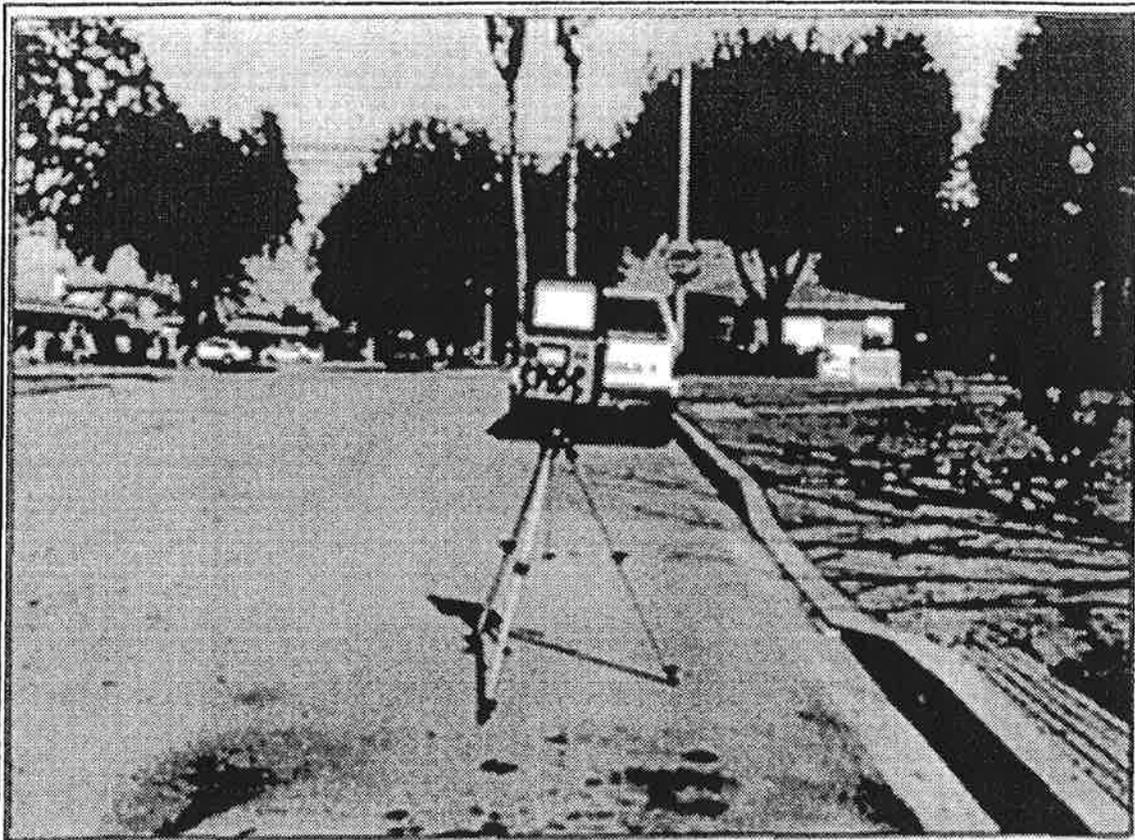
The monitor point is located at 20-feet south of stop sign on the southeast corner of Camino Real and Holly Street.

Radial Point Number: 1
Distance to Antenna: 3.41 km
Night-DA Field Strength: 11.2 mV/m

83.5 DEGREE TRUE MONITOR POINT

RADIO STATION KAZN
PASADENA, CALIFORNIA
1300 KHZ 23 KW-D 4.2 KW-N U DA-2

du Treil, Lundin & Rackley, Inc. Sarasota, Florida



The monitor point is located at curb address marker for 5214 Persimmon.

Radial Point Number: 1
Distance to Antenna: 4.88 km
Night-DA Field Strength: 11.5 mV/m

116.5 DEGREE TRUE MONITOR POINT

RADIO STATION KAZN
PASADENA, CALIFORNIA
1300 KHZ 23 KW-D 4.2 KW-N U DA-2

du Treil, Lundin & Rackley, Inc. Sarasota, Florida



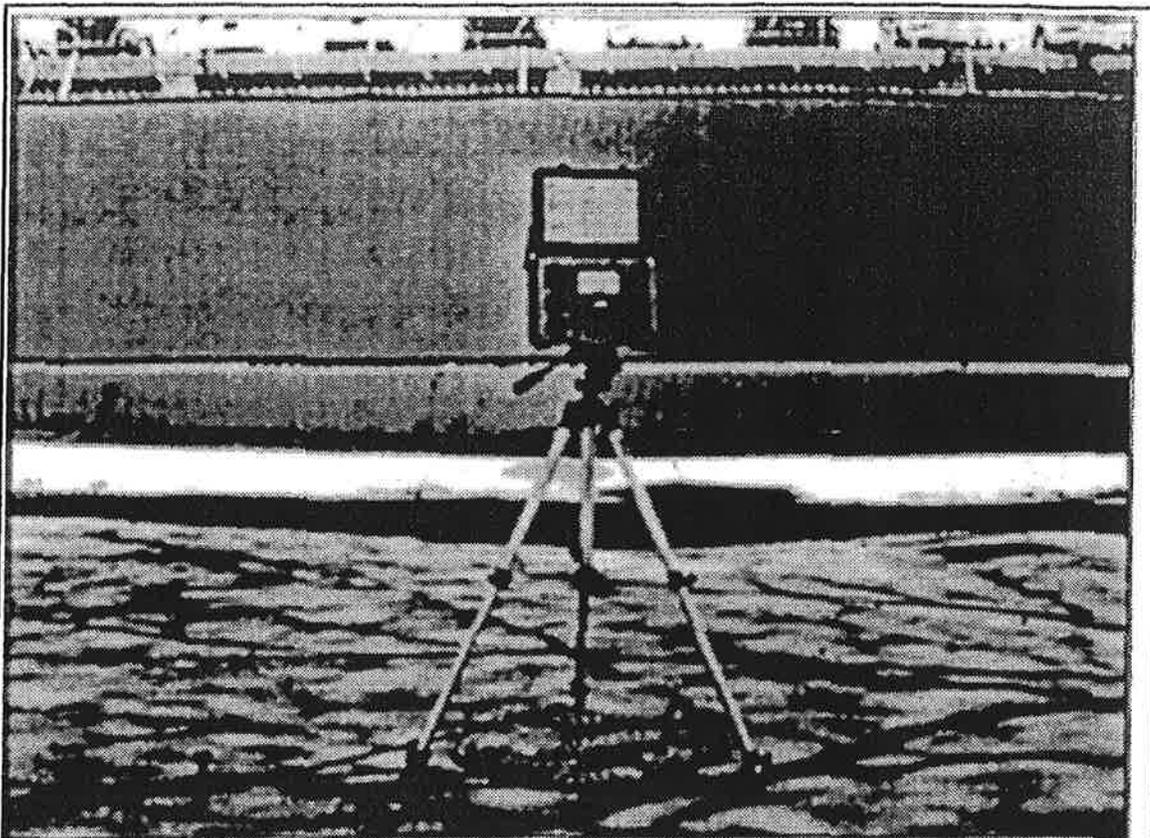
The monitor point is located on sidewalk in front of entrance to 212 West Fairview Avenue.

Radial Point Number: 1
Distance to Antenna: 3.75 km
Night-DA Field Strength: 215 mV/m

210.5 DEGREE TRUE MONITOR POINT

RADIO STATION KAZN
PASADENA, CALIFORNIA
1300 KHZ 23 KW-D 4.2 KW-N U DA-2

du Treil, Lundin & Rackley, Inc. Sarasota, Florida



The monitor point is located on sewer cover at the end of Nina Street.

Radial Point Number: 1
Distance to Antenna: 3.20 km
Night-DA Field Strength: 5.40 mV/m

348 DEGREE TRUE MONITOR POINT

RADIO STATION KAZN
PASADENA, CALIFORNIA
1300 KHZ 23 KW-D 4.2 KW-N U DA-2

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

Figure 9



MAP SHOWING NIGHTTIME MONITOR POINT LOCATIONS

RADIO STATION KAZN
PASADENA, CALIFORNIA
1300 KHZ 23 KW-D 4.2 KW-N U DA-2

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

SECTION III - Page 2

9. Description of antenna system ((f directional antenna is used, the information requested below should be given for each element of the array. Use separate sheets if necessary.)

Type Radiator UNIFORM CROSS-SECTION, GUYED	Overall height in meters of radiator above base insulator, or above base, if grounded. T1,4,5&6:58.9, T2&3:81.5	Overall height in meters above ground (without obstruction lighting) T1,4,5&6:60.7, T2&3:82.3	Overall height in meters above ground (include obstruction lighting) T1,4,5&6:60.7, T2&3:82.3	If antenna is either top loaded or sectionalized, describe fully in an Exhibit. Exhibit No. PROOF RPT
---	--	--	--	---

Excitation Series Shunt

Geographic coordinates to nearest second. For directional antenna give coordinates of center of array. For single vertical radiator give tower location.

North Latitude 34 ° 07 ' 08 "	West Longitude 118 ° 04 ' 54 "
-------------------------------	--------------------------------

If not fully described above, attach as an Exhibit further details and dimensions including any other antenna mounted on tower and associated isolation circuits.

Exhibit No.
N/A

Also, if necessary for a complete description, attach as an Exhibit a sketch of the details and dimensions of ground system.

Exhibit No.
N/A

10. In what respect, if any, does the apparatus constructed differ from that described in the application for construction permit or in the permit?

NONE

11. Give reasons for the change in antenna or common point resistance.

NEW TRANSMITTER SITE FOR KAZN

I certify that I represent the applicant in the capacity indicated below and that I have examined the foregoing statement of technical information and that it is true to the best of my knowledge and belief.

Name (Please Print or Type) RONALD D. RACKLEY, P.E.	Signature (<i>Ronald D. Rackley</i>)
Address (include ZIP Code) DUTREIL, LUNDIN & RACKLEY, INC. 201 FLETCHER AVENUE SARASOTA, FL 34237	Date JULY 15, 2013
	Telephone No. (Include Area Code) 941-329-6000

Technical Director

Registered Professional Engineer

Chief Operator

Technical Consultant

Other (specify)

OWNER-BUILDER DECLARATION

I hereby affirm under penalty of perjury that I am exempt from the Contractor's State License Law for the reason(s) indicated below by the checkmark(s) I have placed next to the applicable item(s) (Section 7031.5, Business and Professions Code): Any city or county that requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for the permit to file a signed statement that he or she is licensed pursuant to the provisions of the Contractor's State License Law (Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code) or that he or she is exempt from licensure and the basis for the alleged exemption. Any violation of Section 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars (\$500).):

I, as owner of the property, or my employees with wages as their sole compensation, will do (x) all of or () portions of the work, and the structure is not intended or offered for sale (Section 7044, Business and Professions Code: The Contractor's State License Law does not apply to an owner of property who, through employees' or personal effort, builds or improves the property, provided that the improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the Owner-Builder will have the burden of proving that it was not built or improved for the purpose of sale.)

I, as owner of the property, am exclusively contracting with licensed Contractors to construct the project (Section 7044, Business and Professions Code: The Contractor's State License Law does not apply to an owner of property who builds or improves thereon, and who contracts for the projects with a licensed Contractor pursuant to the Contractor's State License Law).

I am exempt from licensure under the Contractor's State License Law for the following reason:

By my signature below I acknowledge that, except for my personal residence in which I must have resided for at least one year prior to completion of the improvements covered by this permit, I cannot legally sell a structure that I have built as an owner-builder if it has not been constructed in its entirety by licensed contractors. I understand that a copy of the applicable law, Section 7044 of the Business and Professions Code, is available upon request when this application is submitted or at the following Web site: <http://www.leginfo.ca.gov/calaw.html>.

Date: _____
Signature of Property Owner or Authorized Agent _____

LICENSED CONTRACTOR'S DECLARATION

I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code, and my license is in full force and effect.

License Class C10 License No. 62770
Date _____ Contractor Signature _____

WORKERS' COMPENSATION DECLARATION

WARNING: FAILURE TO SECURE WORKERS' COMPENSATION COVERAGE IS UNLAWFUL, AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS (\$100,000), IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3706 OF THE LABOR CODE, INTEREST, AND ATTORNEY'S FEES.

I hereby affirm under penalty of perjury one of the following declarations:
 I have and will maintain a certificate of consent to self-insure for workers' compensation, issued by the Director of Industrial Relations as provided for by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued.
Policy No. _____

I have and will maintain workers' compensation insurance, as required by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued. My workers' compensation insurance carrier and policy number are:

Carrier _____ Policy Number _____ Expiration Date _____
Name of Agent _____ Phone Number _____

I certify that, in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California, and agree that, if I should become subject to the workers' compensation provisions of Section 3700 of the Labor Code, I shall forthwith comply with those provisions

Signature of Applicant _____ Date _____

LOBBYIST ORDINANCE CERTIFICATION
Complete this section for permits in Unincorporated Los Angeles County only

This is to certify that I, as permit applicant, am familiar with the requirements of Los Angeles County Code Chapter 2.160 et seq., (relating to the Los Angeles County Lobbyist Ordinance) and that all persons acting on behalf of myself complied and will continue to comply therewith through the application process.

Applicant (Print Name) _____ Applicant Signature _____
Company Name _____ Date _____

JOB ADDRESS
LOCALITY

HAZARDOUS MATERIAL DECLARATION

Will the applicant or future building occupant handle a hazardous material or a mixture containing a hazardous material equal to or greater than the amount specified on the hazardous materials information guide?

Yes No

Will the intended use of the building by the applicant or future building occupant require a permit for construction or modification from the South Coast Air Quality Management District (SCAQMD)? See permitting checklist for guidelines.

Yes No

I have read the hazardous materials information guide and the SCAQMD permitting checklist; I understand my requirements under the Los Angeles County Code Title 2, Chapter 220 Sections 220.100 through 220.140 concerning hazardous material reporting and for obtaining a permit from the SCAQMD.

ASBESTOS NOTIFICATION

Notification letter sent to AQMD and/or EPA

I declare that notification of asbestos removal is not applicable to addressed project.

DECLARATION REGARDING CONSTRUCTION LENDING AGENCY

I hereby affirm under penalty of perjury that there is a Construction lending agency for the performance of the work for which this permit is issued (Section 3097, Civil Code).

Lender's Name _____
Lender's Address _____

By my signature below, I certify to each of the following:
I am the property owner or authorized to act on the property owner's behalf.
I have read this application and the information I have provided is correct.

I agree to comply with all applicable city and county ordinances and state laws relating to building construction.
I authorize representatives of this county to enter the above-identified property for inspection purposes.

Signature of Property Owner or Authorized Agent _____

Date _____