

DOW, LOHNES & ALBERTSON

ATTORNEYS AT LAW

1255 TWENTY-THIRD STREET

WASHINGTON, D. C. 20037

3-28-88 pls

TELEPHONE (202) 857-2500

TELECOPIER (202) 659-0059

CABLE "DOWLA"

TELEX 425546

March 18, 1988

ALAN C. CAMPBELL

DIRECT DIAL NO.

857-2788

H. Walker Feaster
Acting Secretary
Federal Communications Commission
1919 M Street, N.W.
Washington, DC 20554

Re: Station WCKY(AM)
Cincinnati, Ohio
BP-860530AJ

RECEIVED
880318

FCC
FEE SECTION

Dear Mr. Feaster:

Transmitted herewith and filed in triplicate on behalf of Pathfinder Communications Corporation is an application for license on FCC Form 302 covering modifications to the facilities of Station WCKY(AM), Cincinnati, Ohio.

A check in the amount of \$700.00 payable to the Federal Communications Commission is enclosed to cover the required filing fee. This application was filed originally on March 7, 1988; however, it was returned because an insufficient payment was tendered at that time.

Should you have any questions concerning this application, please contact the undersigned.

Very truly yours,

Alan Campbell
Alan C. Campbell

Enclosure

2880307AF

FEE NO: 08007876
FEE TYPE: MAD
FEE AMT: 375.00
ID SEQ: 09

FEE NO: 08007877
FEE AMT: 325.00
ID SEQ: 09

APPLICANT FOR NEW BROADCAST STATION LICENSE
Carefully read instructions before filling out form
RETURN ONLY FORM TO FCC

RL-880318 AT
For Commission Use Only
File No.
3-28-88 JCS

SECTION I General Data

Legal Name of Applicant

Mailing Address

Pathfinder Communicatins Corporation 219 W. McFarland

City

State

ZIP Code

Telephone No.

Cincinnati,

OH

45202

(Include Area Code)

(513) 241-6565

1. Facilities authorized by construction permit

This application is for:

Commercial

Noncommercial

AM

FM

TV

Call Letters	Community of License	Construction Permit File No.	Modification of Construction Permit File No(s).	Expiration Date of last Construction Permit
WCKY	Cincinnati	BP-860530AJ	--	February 7, 1988

2. Is the station now operating pursuant to automatic program test authority in accordance with Section 73.1620 of the Commission's Rules?

YES NO

If No, explain.

Station operating pursuant to Section 73.1615(b)(6)

RECEIVED
880307
FCC
FEE SECTION

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

YES NO

If No, state exceptions.

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

YES NO

If Yes, explain.

RECEIVED
880318
FCC
FEE SECTION

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 of the previous use of the same whether by license or otherwise, and requests an 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 all exhibits are material and are incorporated herein.

CERTIFICATION

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.

Signed and dated this _____ day of February, 19 88.

Pathfinder Communications Corp.

Name of Applicant

Signature

President

Title

WILLFUL FALSE STATEMENTS MADE ON THIS FORM ARE PUNISHABLE BY FINE AND IMPRISONMENT U.S. CODE, TITLE 18, SECTION 1001

Name of Applicant

PATHFINDER COMMUNICATIONS CORP.

PURPOSE OF AUTHORIZATION APPLIED FOR: (check one)

Station License

Answer Items
1-9

Direct measurement of power

1, 2, 6, 7, 8 and 10

1. Facilities authorized in construction permit

Call Sign	File No. of Construction Permit	Frequency	Hours of operation	Power in kilowatts	
				Night	Day
WCKY	BP-860530AJ	1530 kHz	Unlimited	50	50

2. Station location

State Ohio	City or town Cincinnati
---------------	----------------------------

3. Transmitter location

State Kentucky	County Kenton	City or town Villa Hills	State address (or other identification) 1100 Radio Road
-------------------	------------------	-----------------------------	---

4. Main Studio location

State Ohio	County Hamilton	City or town Cincinnati	Number and Street 219 Marland Street
---------------	--------------------	----------------------------	---

5. Remote control point location (only if authorized)

State Ohio	City or town Cincinnati	Street address (or other identification) 219 Marland Street
---------------	----------------------------	---

6. Operating constants:

RF common point or antenna current without modulation for night power in amperes 32.4	RF common point or antenna current without modulation for day power in amperes 30.15
Actual measured antenna or common point resistance (in ohms) at operating frequency Night 50 Day 55	Actual measured antenna or common point reactance (in ohms) at operating frequency Night 0 Day -124

Antenna monitor indication for directional operation

Tower	Phase reading in degrees		Antenna base current		Antenna monitor sample current ratio	
	Night	Day	Night A	Day A	Night	Day
1 E	0	--	14.1	--	1.00	--
2 EC	+77	--	15.45	30.15	.59	1.0
3 WC	-34	--	9.6	--	.415	--
4 W	-49	--	3.84	--	.574	--

Manufacturer and type of antenna monitor:

Potomac Instruments AM-19 (204), SN 1325

7. Description of antenna system

(If directional antenna is used, the information requested below should be given for each element of the array. Use separate sheets if necessary. Height figures should not include obstruction lighting.)

Type radiator Four uniform cross-section guyed steel towers	Height in feet of complete radiator above base insulator, or above base if grounded. 1, 3, 4 300' 2 350'	Overall height in feet above ground (without obstruction lighting) 1, 3, 4 305' 2 355'	If antenna is either top loaded or tionalized, describe fully in Exhibit No. -- N/A
--	--	--	--

Excitation

Series

Shunt

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

North latitude 39 ° 03 ' 55 "

West longitude 84 ° 36 ' 27 "

If not fully described above, attach as Exhibit No. E further details and dimensions including any other antenna mounted on tower and associated isolation circuits. Also, if necessary for a complete description attach as Exhibit No. a sketch of the details and dimensions of ground system.

8. Antenna resistance measurement

Attach as Exhibit No. E the following:

- (a) Qualifications of persons taking measurements.
- (b) Schematic diagram showing clearly all components of coupling circuits, point of resistance measurements, location of antenna ammeter, connection to and characteristics of all tower lighting isolation circuits, static drains, and any other fixtures, lines, etc. connected to or supported by the antenna, including other antennas, and associated circuits.
- (c) Full description of method used to make measurements.
- (d) Manufacturer's name of each calibrated instrument used and manufacturer's rated accuracy.
- (e) Date, accuracy, and by whom each instrument was last calibrated.
- (f) Table of complete data taken.
- (g) The graph drawn of 10 to 12 readings in a band 50 to 60 kilohertz wide with the operating frequency near the center.

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

STL, TSL, antenna side mounted on #3 WC tower with iso-couplers feeding transmission lines across tower base.

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

N/A

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.

Date February 1, 1988

(202) 296-2722 Telephone No. (Include Area Code)

Name LOHNES AND CULVER Frederick D. Veihmeyer (Please Print or Type)

Signature [Handwritten Signature] (Check appropriate box below)

1156 15th Street, N.W., Suite 606 Address (Include ZIP Code)

Washington, D. C. 20005

Technical Director

Registered Professional Engineer

Chief Operator

Technical Consultant

Other (specify)

ENGINEERING STATEMENT
RE: PROOF OF PERFORMANCE
WCKY 50 kW-U DA-N 1530 kHz
CINCINNATI, OHIO

CONTENTS

INTRODUCTION	PAGE 1
ANTENNA SYSTEM	PAGE 1
ANTENNA MONITOR AND SAMPLING SYSTEM	PAGE 1
IMPEDANCE MEASUREMENTS	PAGE 2
FIELD STRENGTH MEASUREMENTS	PAGE 3
RADIATION PATTERNS	PAGE 4
MONITOR POINTS	PAGE 4
PERSONNEL AND TEST EQUIPMENT	PAGE 5

FIGURES

DESCRIPTION OF ANTENNA SYSTEM	FIGURE 1
SCHEMATIC DIAGRAM	FIGURE 2
BASE IMPEDANCE	FIGURE 3
COMMON POINT IMPEDANCE	FIGURE 4
FIELD STRENGTH DATA	FIGURE 5
FIELD STRENGTH RATIOS	FIGURE 6
FIELD STRENGTH GRAPHS	FIGURE 7
MEASURED AND STANDARD RADIATION VALUES	FIGURE 8
NON-DA PATTERN	FIGURE 9
DA-N PATTERN	FIGURE 10
MONITORING POINT PHOTOGRAPHS	FIGURE 11
MONITOR POINT DESCRIPTIONS	FIGURE 12
MONITOR POINT ROUTE MAP	FIGURE 13
MEASUREMENT EQUIPMENT	FIGURE 14
INDEX TO LOCATION MAPS	APPENDIX 1
LOCATION MAPS	FIGURES A-W

Prepared by
Lohnes and Culver Washington, D.C.
October, 1987

FIGURE 7
FIELD STRENGTH GRAPHS
WCKY 50 kW-U, DA-N 1530 kHz
CINCINNATI, OHIO

Lohnes and Culver

Prepared by
September, 1987

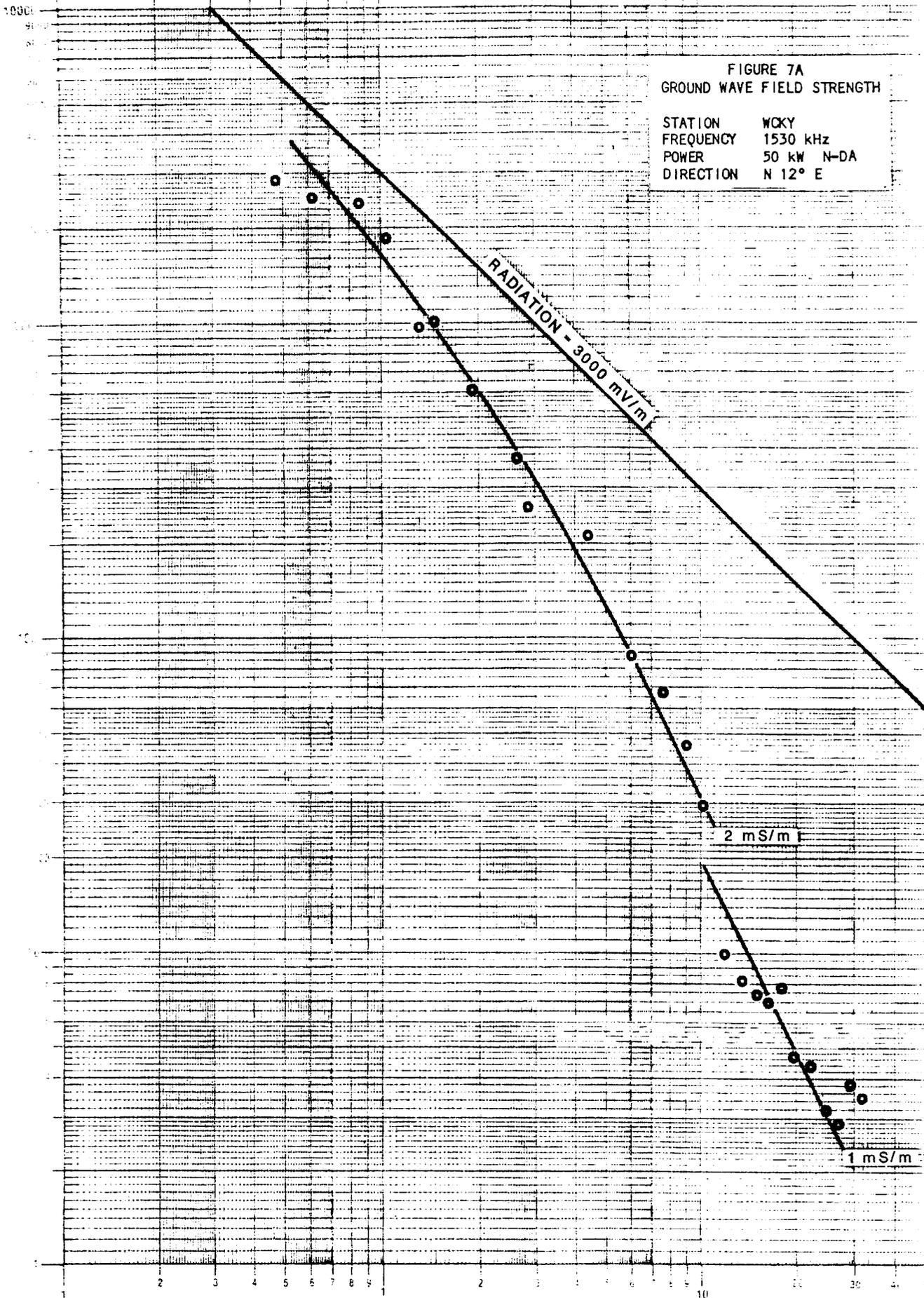
Washington, D.C.

KILOMETERS FROM ANTENNA

FIGURE 7A
GROUND WAVE FIELD STRENGTH

STATION WCKY
 FREQUENCY 1530 kHz
 POWER 50 kW N-DA
 DIRECTION N 12° E

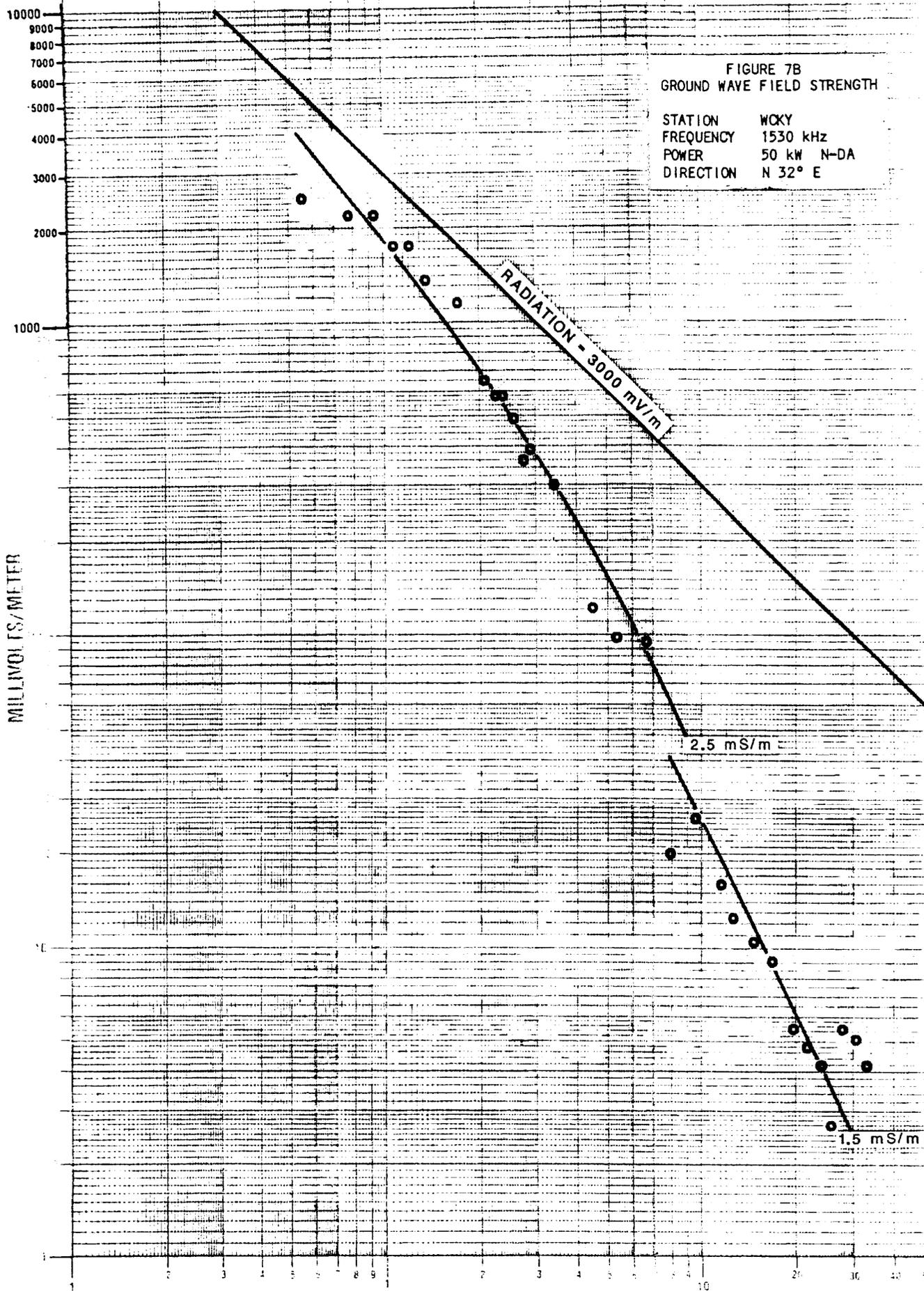
MILLIVOLTS/METER



KILOMETERS FROM ANTENNA

Graphs and graph paper should not be copied. Office copiers introduce geometric distortions which will affect accuracy. Copies for submission to the FCC and station files should only be made after all data have been plotted.

KILOMETERS FROM ANTENNA



Graphs and graph paper should not be copied. Office copyists introduce geometric distortions which will affect accuracy. Copies for submission to the FCC and station files should only be made after all data have been plotted.

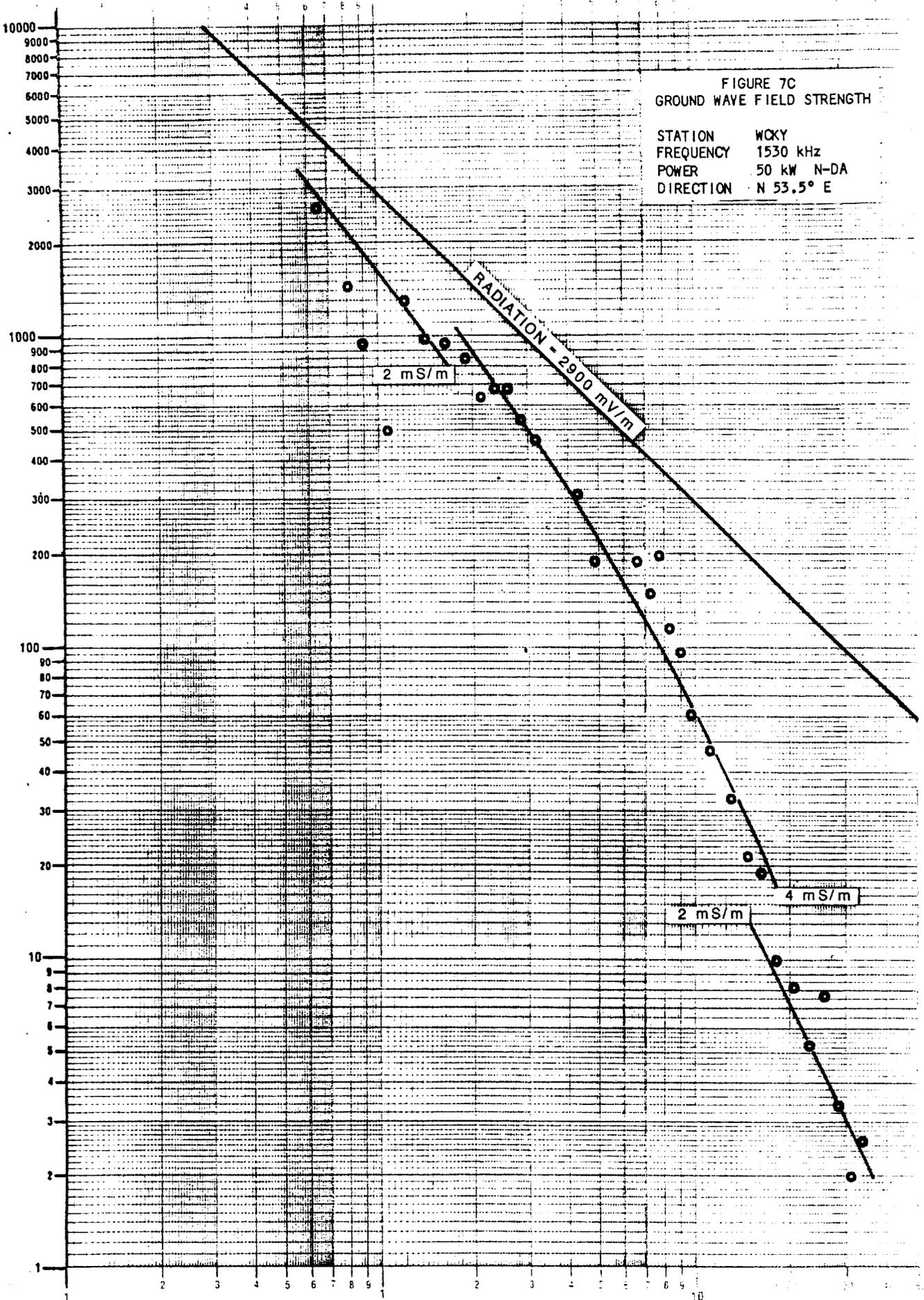
KILOMETERS FROM ANTENNA

KILOMETERS FROM ANTENNA

FIGURE 7C
GROUND WAVE FIELD STRENGTH

STATION WQKY
 FREQUENCY 1530 kHz
 POWER 50 kW N-DA
 DIRECTION N 53.5° E

MILLIVOLTS/METER



KILOMETERS FROM ANTENNA

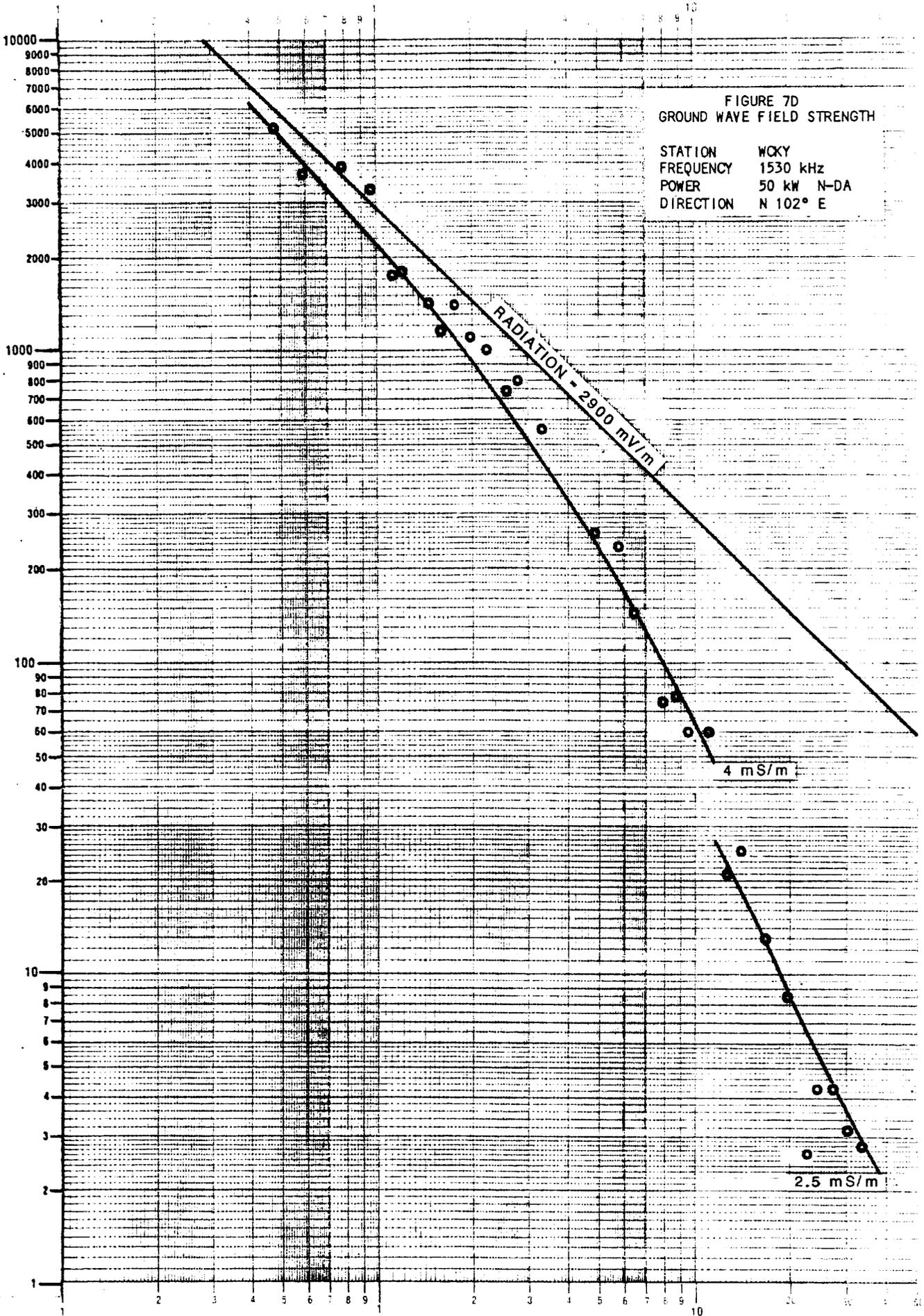
Graphs and graph paper should not be copied. Office copies introduce geometric distortions which will affect accuracy. Copies for submission to the FCC and station files should only be made after all data have been plotted.

KILOMETERS FROM ANTENNA

FIGURE 7D
GROUND WAVE FIELD STRENGTH

STATION WCKY
 FREQUENCY 1530 kHz
 POWER 50 kW N-DA
 DIRECTION N 102° E

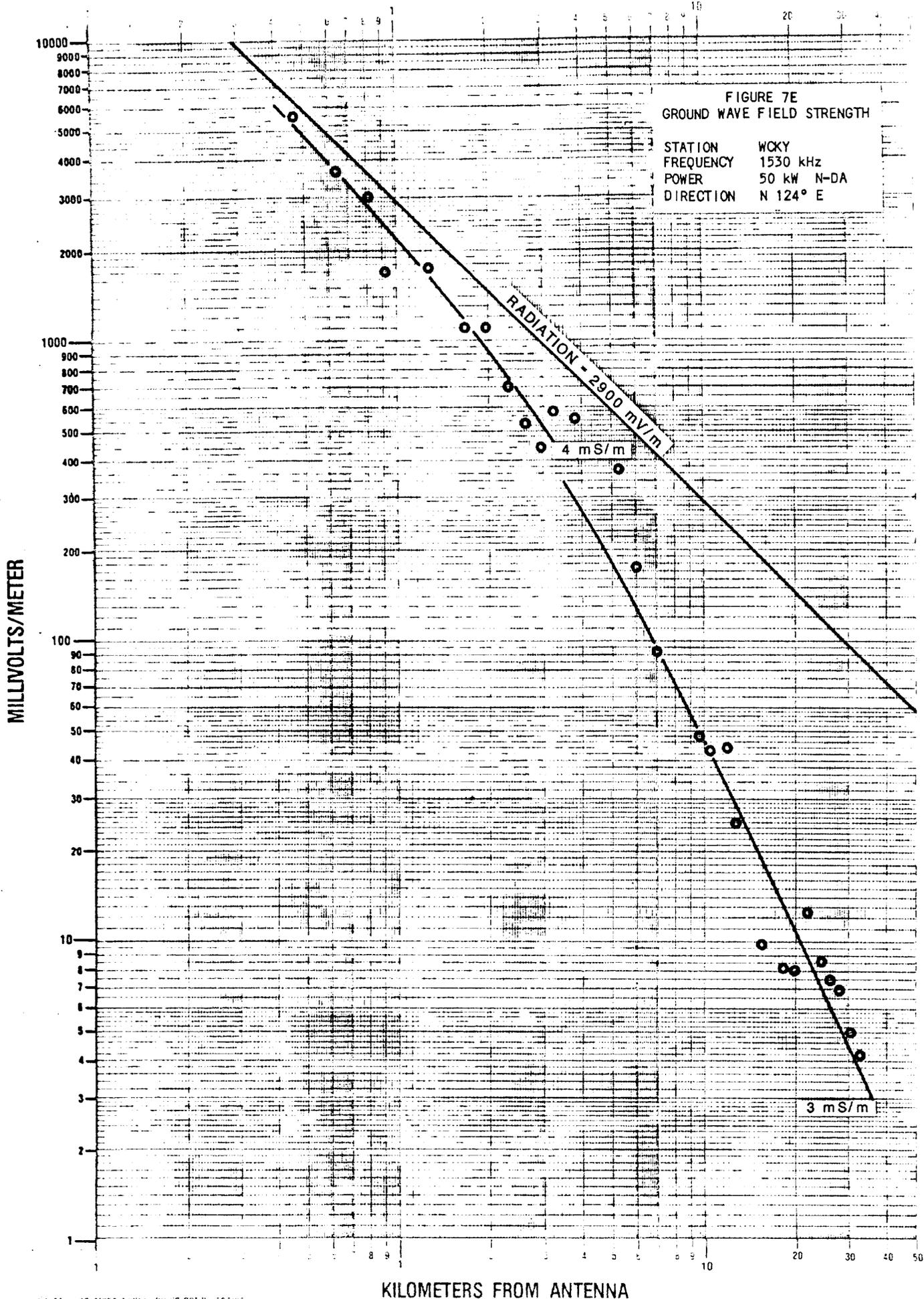
MILLIVOLTS/METER



KILOMETERS FROM ANTENNA

Graphs and graph paper should not be copied. Office copiers introduce geometric distortions which will affect accuracy. Copies for submission to the FCC and station files should only be made after all data have been plotted.

KILOMETERS FROM ANTENNA



Graphs and graph paper should not be copied unless copies are produced from the original which will affect accuracy. Copies for submission to the FCC and station files should only be made after copies have been plotted.

KILOMETERS FROM ANTENNA

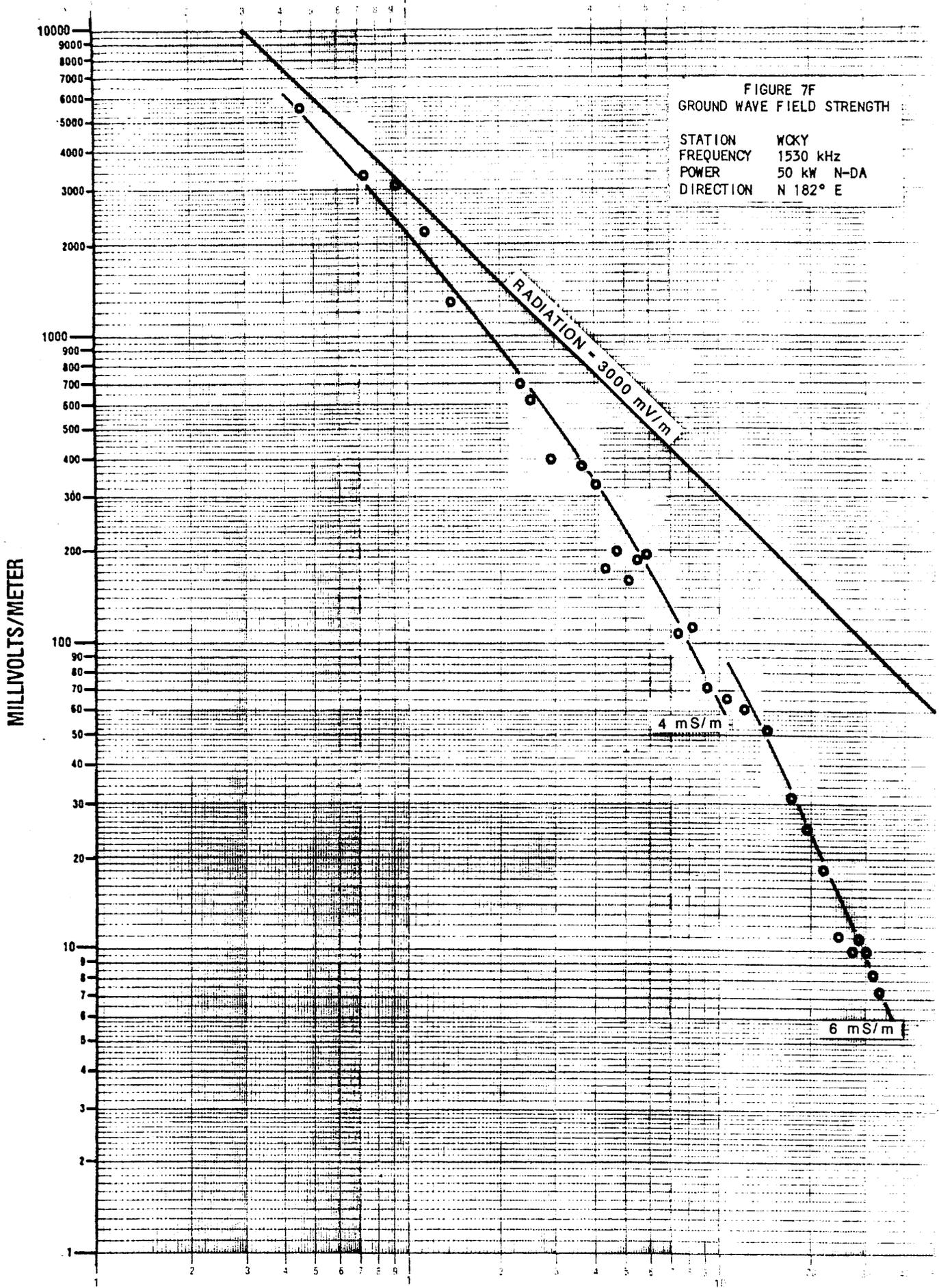


FIGURE 7F
GROUND WAVE FIELD STRENGTH

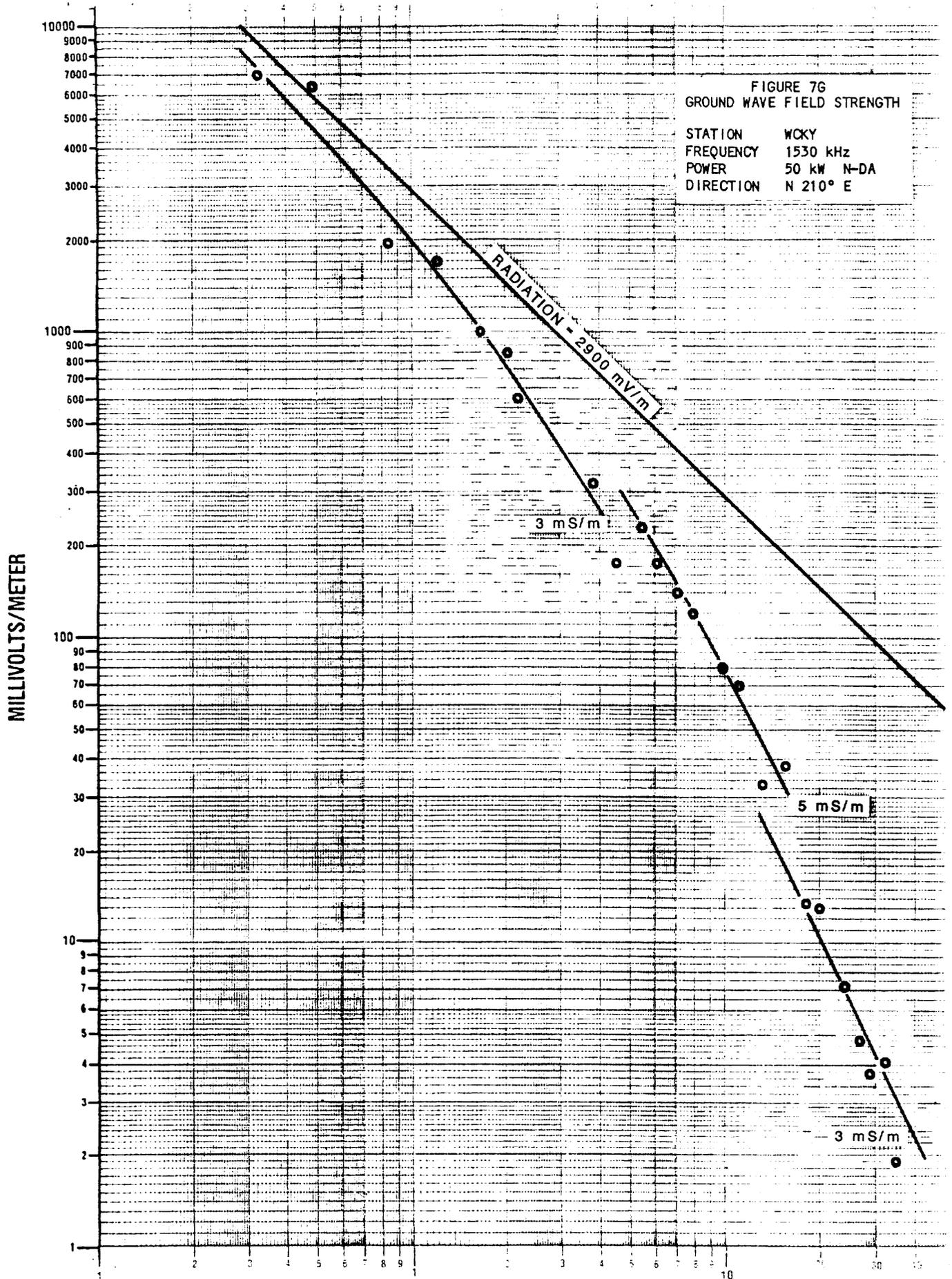
STATION WCKY
 FREQUENCY 1530 kHz
 POWER 50 kW N-DA
 DIRECTION N 182° E

MILLIVOLTS/METER

KILOMETERS FROM ANTENNA

Graphs and graph paper should not be copied. Office copiers introduce geometric distortions which will affect accuracy. Copies for submission to the FCC and station files should only be made after all data have been plotted.

KILOMETERS FROM ANTENNA



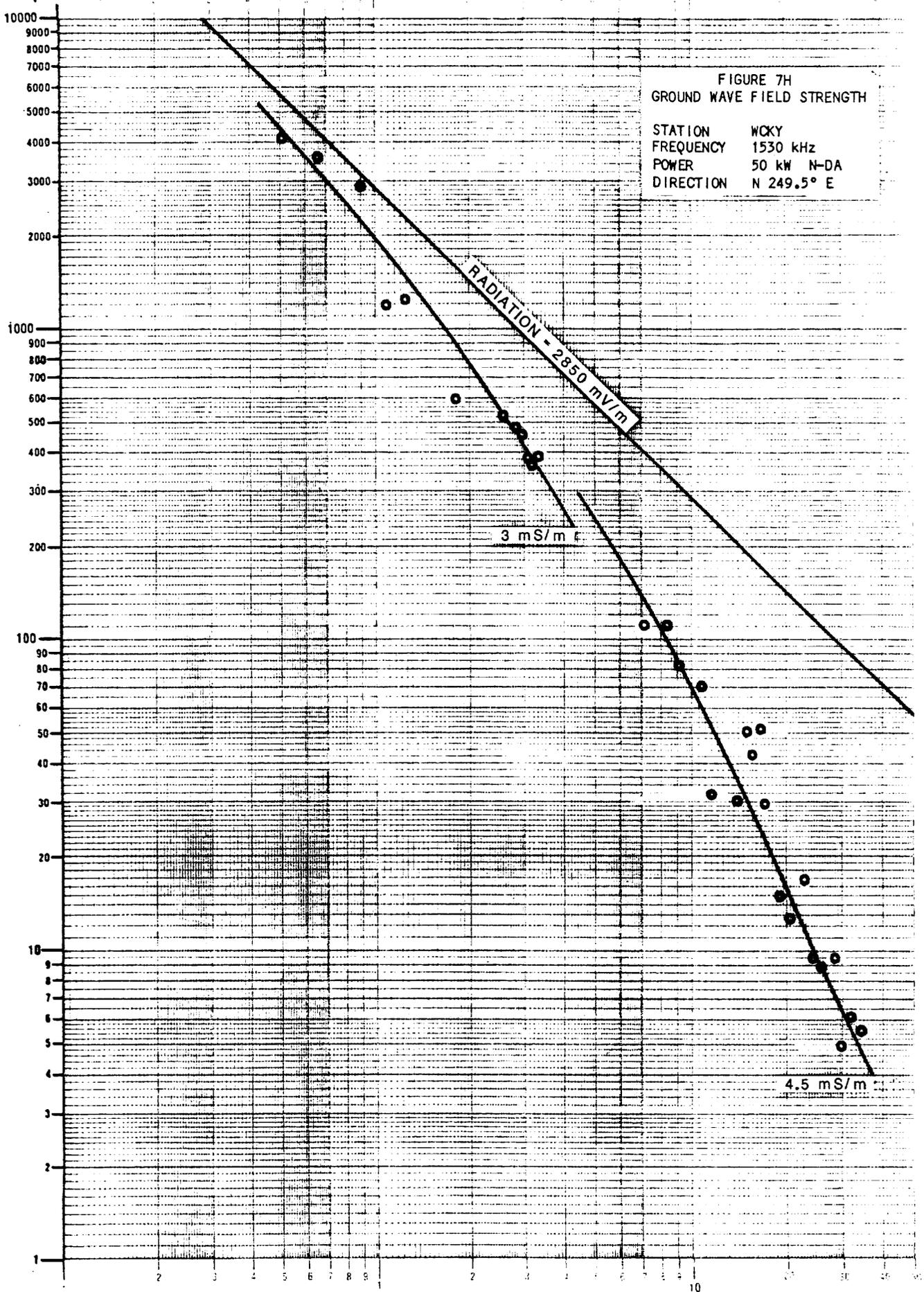
Graphs and graph paper should not be copied. Office copiers introduce geometric distortions which will affect accuracy. Copies for submission to the FCC and station files should only be made after all data have been plotted.

KILOMETERS FROM ANTENNA

FIGURE 7H
GROUND WAVE FIELD STRENGTH

STATION WCKY
FREQUENCY 1530 kHz
POWER 50 kW N-DA
DIRECTION N 249.5° E

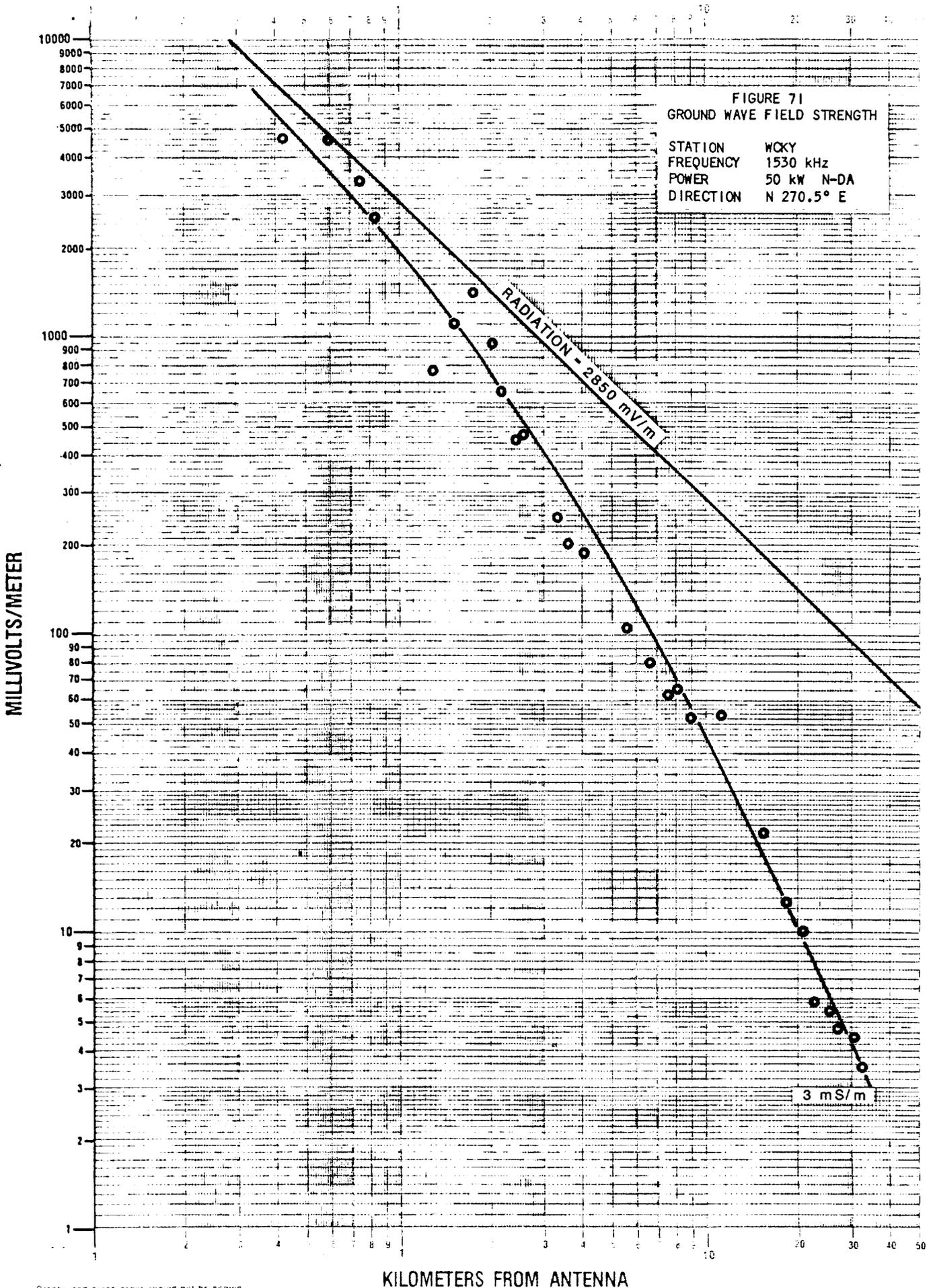
MILLIVOLTS/METER



KILOMETERS FROM ANTENNA

Graphs and graph paper should not be copied. Office copies introduce geometric distortions which will affect accuracy. Copies for submission to the FCC and station files should only be made after all data have been plotted.

KILOMETERS FROM ANTENNA



Graphs and graph paper should not be copied. Other copies introduce geometric distortions which will affect accuracy. Copies for submission to the FCC and station files should only be made after all data have been plotted.

KILOMETERS FROM ANTENNA

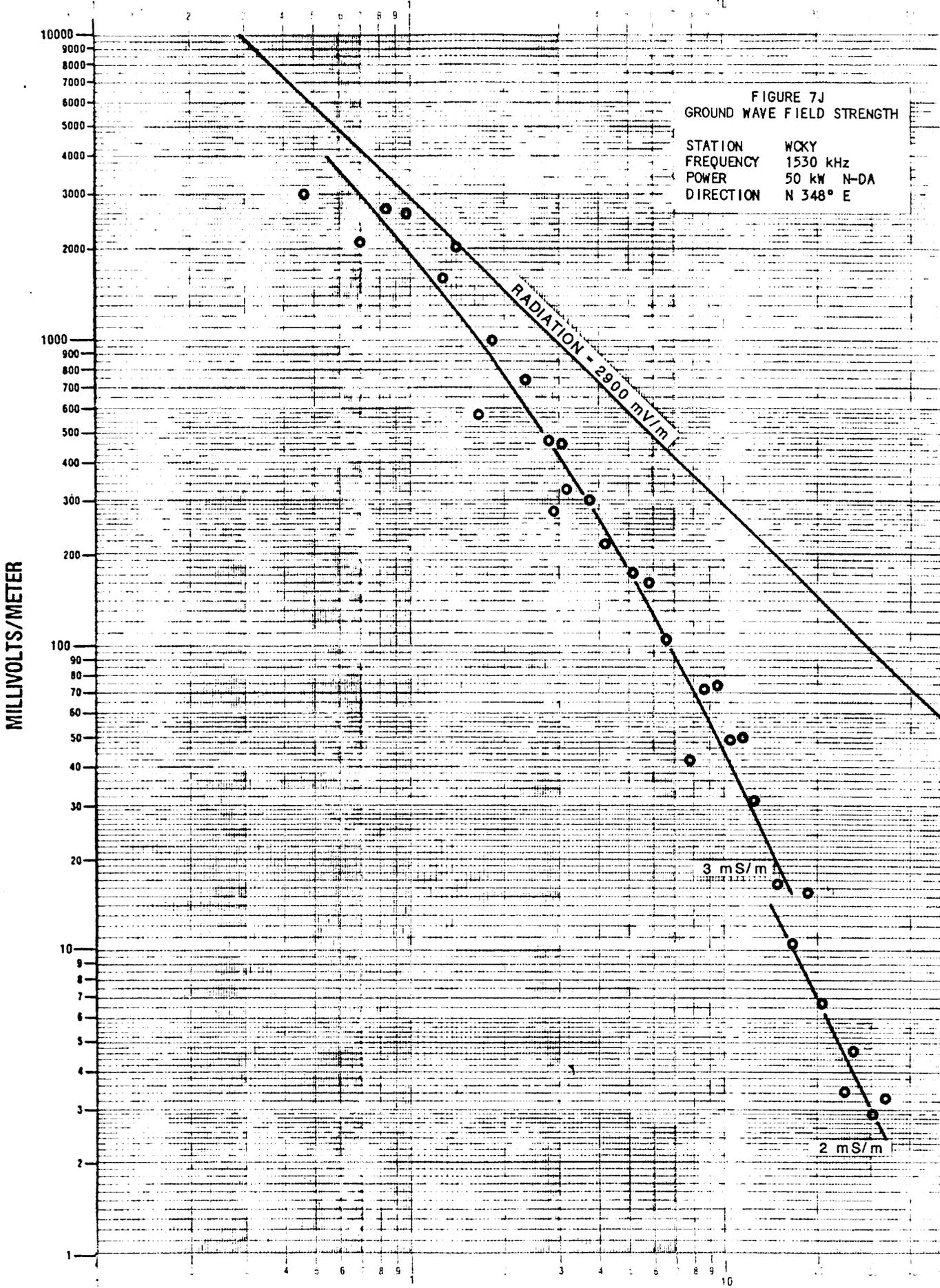


FIGURE 7J
GROUND WAVE FIELD STRENGTH

STATION WCKY
 FREQUENCY 1530 kHz
 POWER 50 kW N-DA
 DIRECTION N 348° E

MILLIVOLTS/METER

KILOMETERS FROM ANTENNA

Graphs and other papers should not be copied. Office copies include geometric distortions which will affect accuracy. Copies for submission to the FCC and Station files should only be made after all data have been plotted.

KILOMETERS FROM ANTENNA

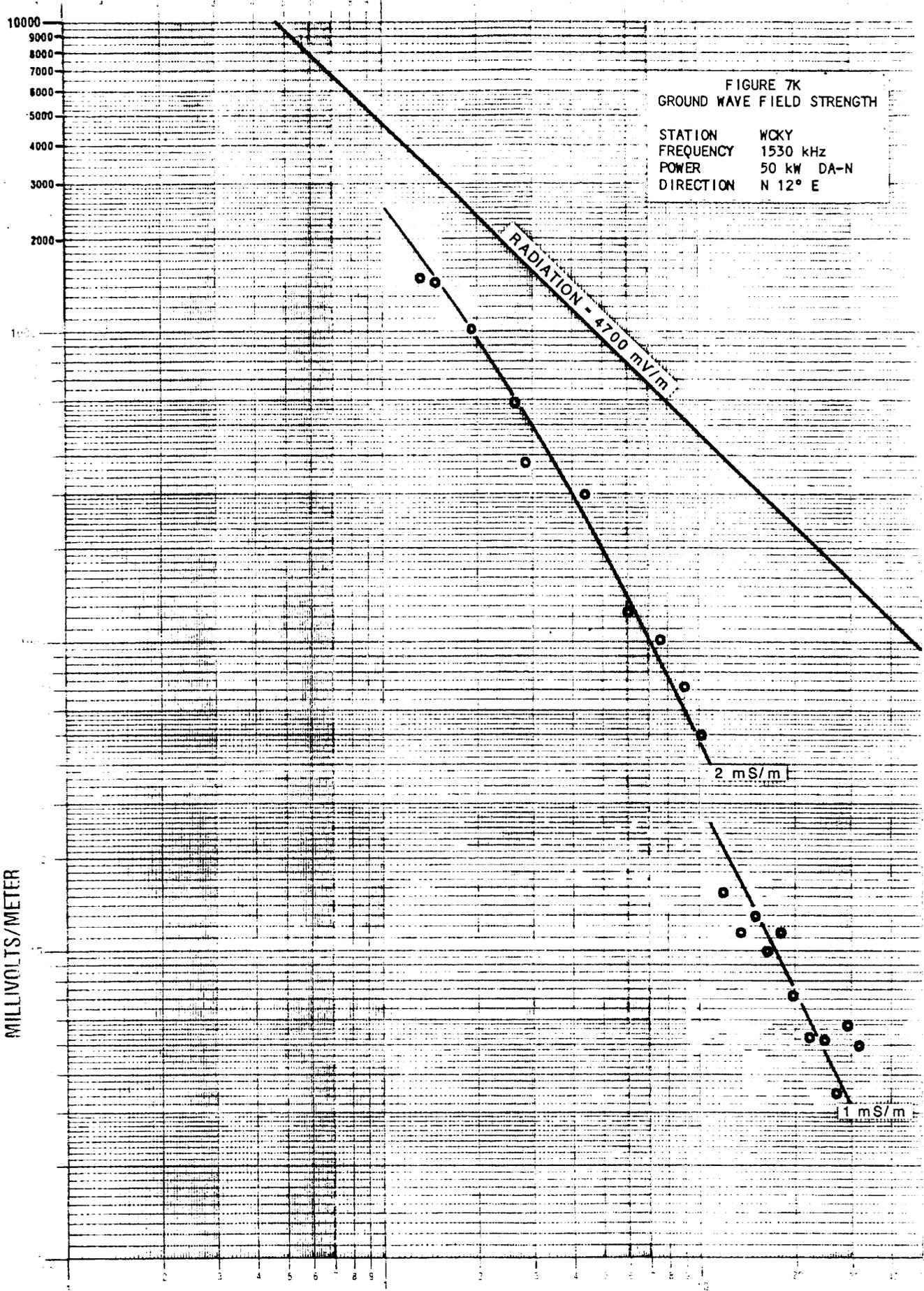


FIGURE 7K
GROUND WAVE FIELD STRENGTH

STATION	WCKY
FREQUENCY	1530 kHz
POWER	50 kW DA-N
DIRECTION	N 12° E

RADIATION - 4700 mV/m

2 mS/m

1 mS/m

MILLVOLTS/METER

KILOMETERS FROM ANTENNA

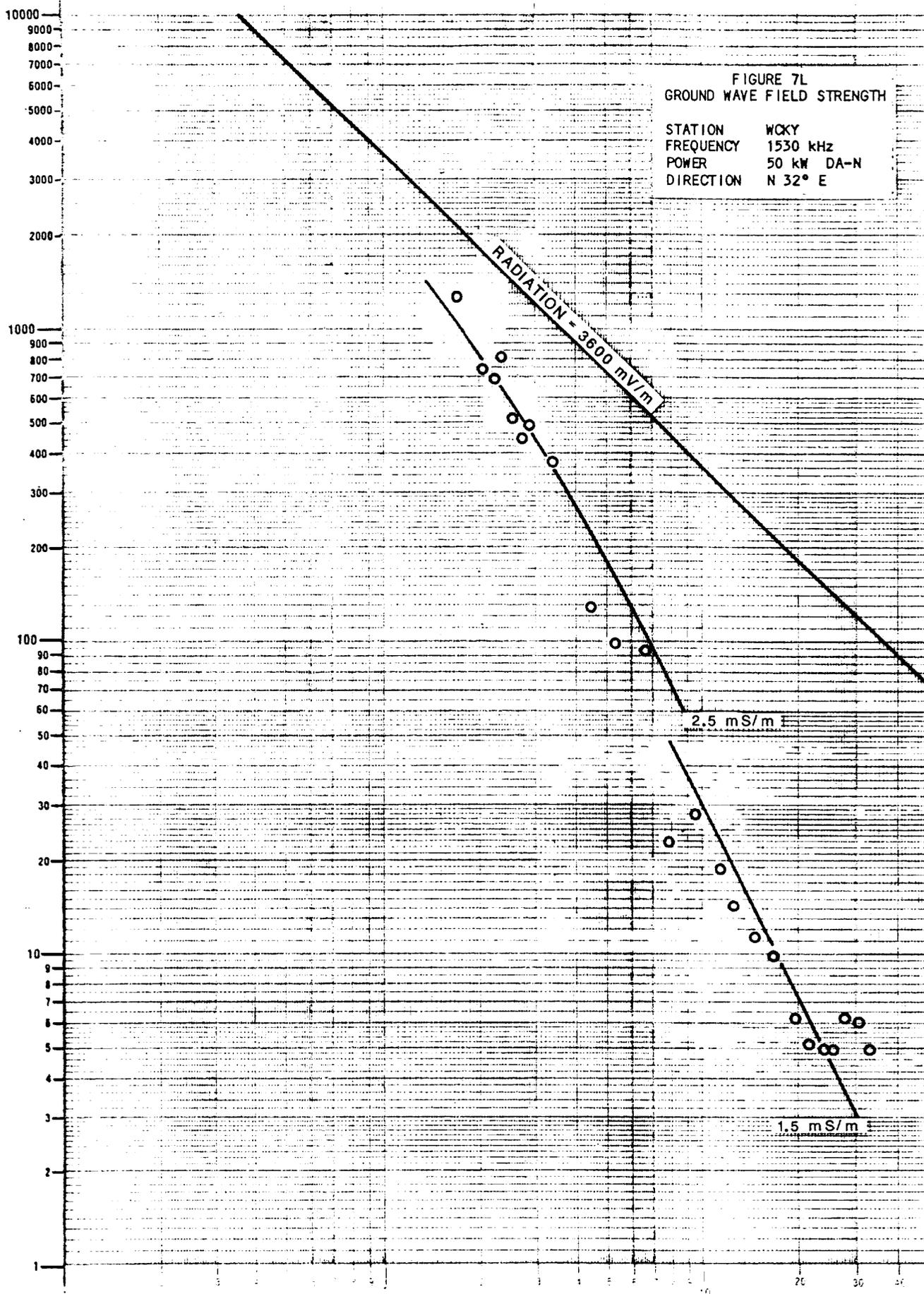
Graphs and plain paper should not be copied. Office copies introduce geometric distortions which will affect accuracy. Copies for submission to the FCC and station files should only be made after all data have been plotted.

KILOMETERS FROM ANTENNA

FIGURE 7L
GROUND WAVE FIELD STRENGTH

STATION WCKY
 FREQUENCY 1530 kHz
 POWER 50 kW DA-N
 DIRECTION N 32° E

MILLVOLTS/METER



KILOMETERS FROM ANTENNA

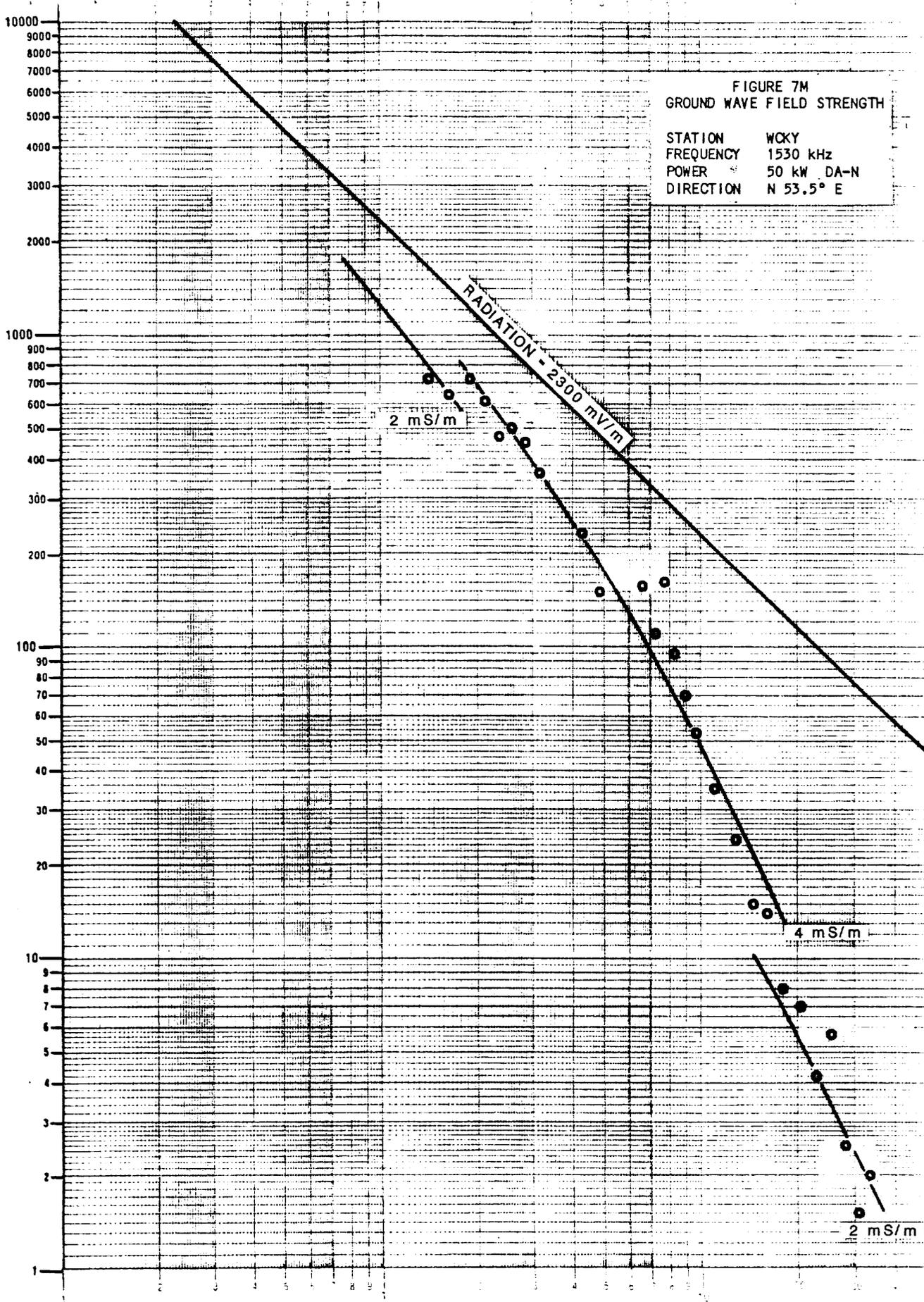
NOTE: The data shown in this figure were obtained from a ground wave field strength measurement made on 11/15/54 at the station WCKY, N 32° E. The data were obtained from a ground wave field strength measurement made on 11/15/54 at the station WCKY, N 32° E. The data were obtained from a ground wave field strength measurement made on 11/15/54 at the station WCKY, N 32° E.

KILOMETERS FROM ANTENNA

FIGURE 7M
GROUND WAVE FIELD STRENGTH

STATION WCKY
 FREQUENCY 1530 kHz
 POWER 50 kW DA-N
 DIRECTION N 53.5° E

MILLVOLTS/METER



KILOMETERS FROM ANTENNA

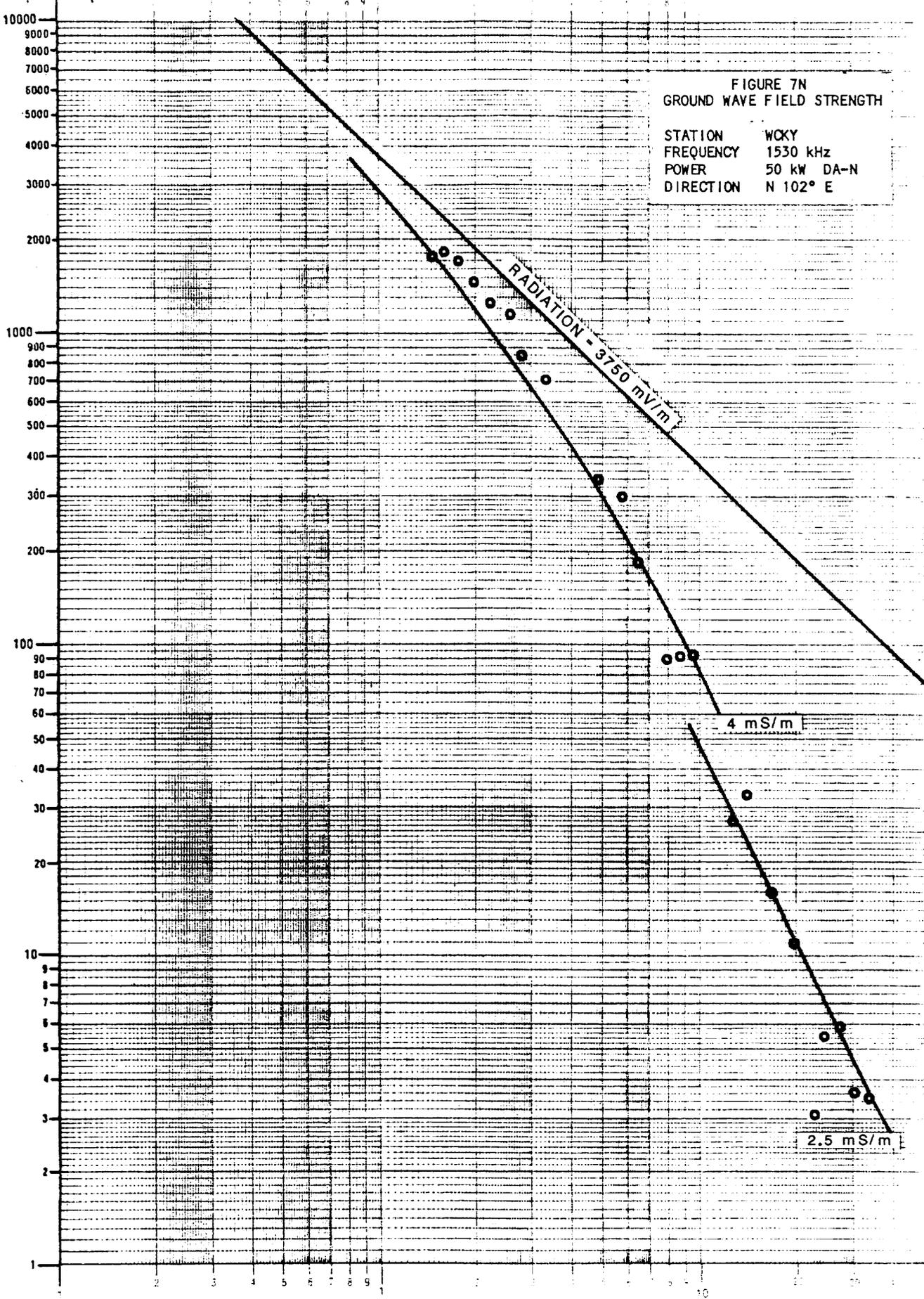
Graphs and data plots should not be copied. Office copies introduce geometric distortions which will affect accuracy. Copies for submission to the FCC and station files should only be made after all data have been plotted.

KILOMETERS FROM ANTENNA

FIGURE 7N
GROUND WAVE FIELD STRENGTH

STATION WQXY
 FREQUENCY 1530 kHz
 POWER 50 kW DA-N
 DIRECTION N 102° E

MILLVOLTS/METER



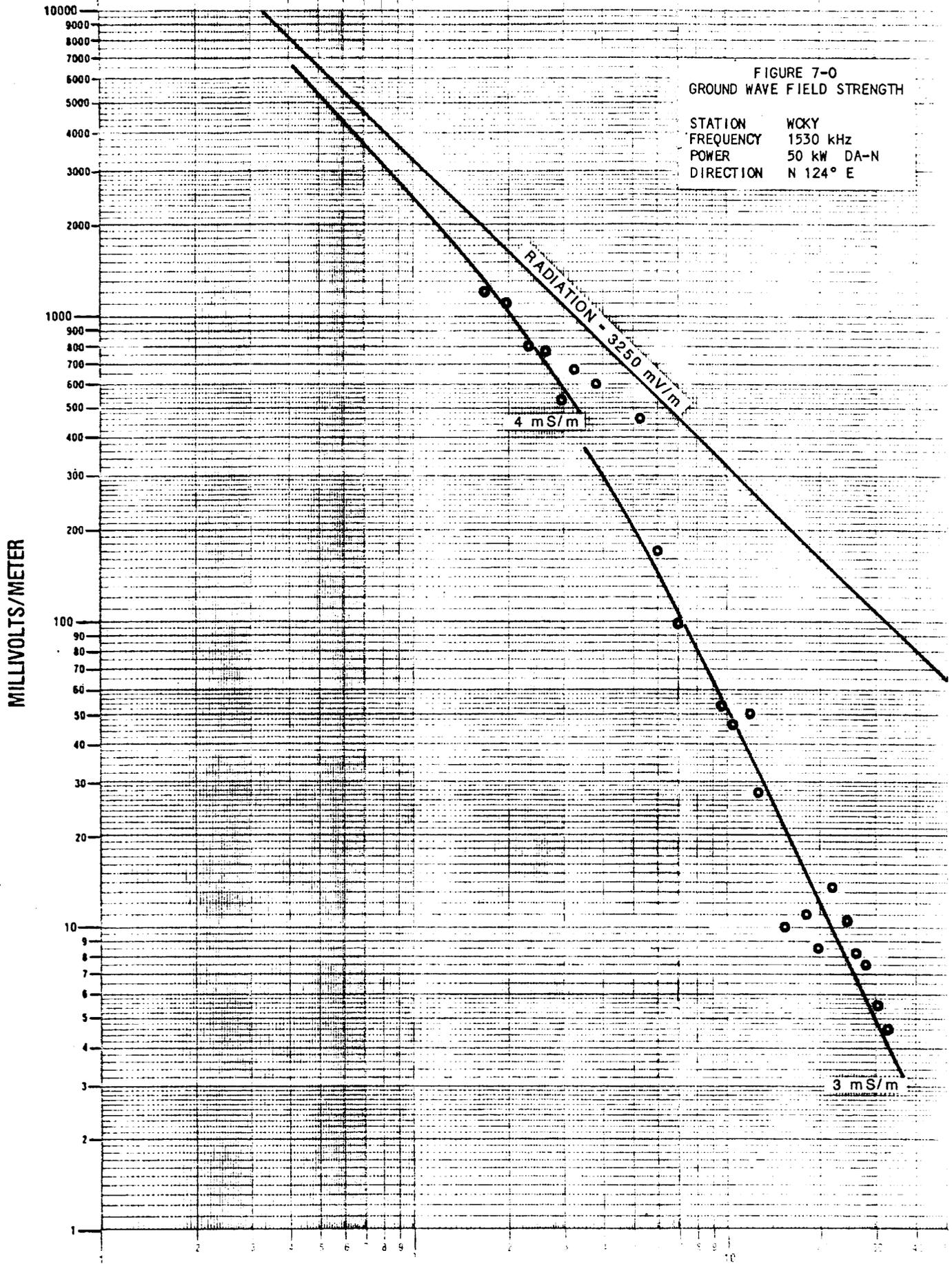
KILOMETERS FROM ANTENNA

Graphs and graph paper should not be copied. Office copiers introduce geometric distortions which will affect accuracy. Copies for submission to the FCC and station files should only be made after all data have been plotted.

KILOMETERS FROM ANTENNA

FIGURE 7-0
GROUND WAVE FIELD STRENGTH

STATION WCKY
 FREQUENCY 1530 kHz
 POWER 50 kW DA-N
 DIRECTION N 124° E



KILOMETERS FROM ANTENNA

Graphs and green paper should not be copied. Office copiers introduce geometric distortions which will affect accuracy. Copies for submission to the FCC and station files should only be made after all data have been plotted.

KILOMETERS FROM ANTENNA

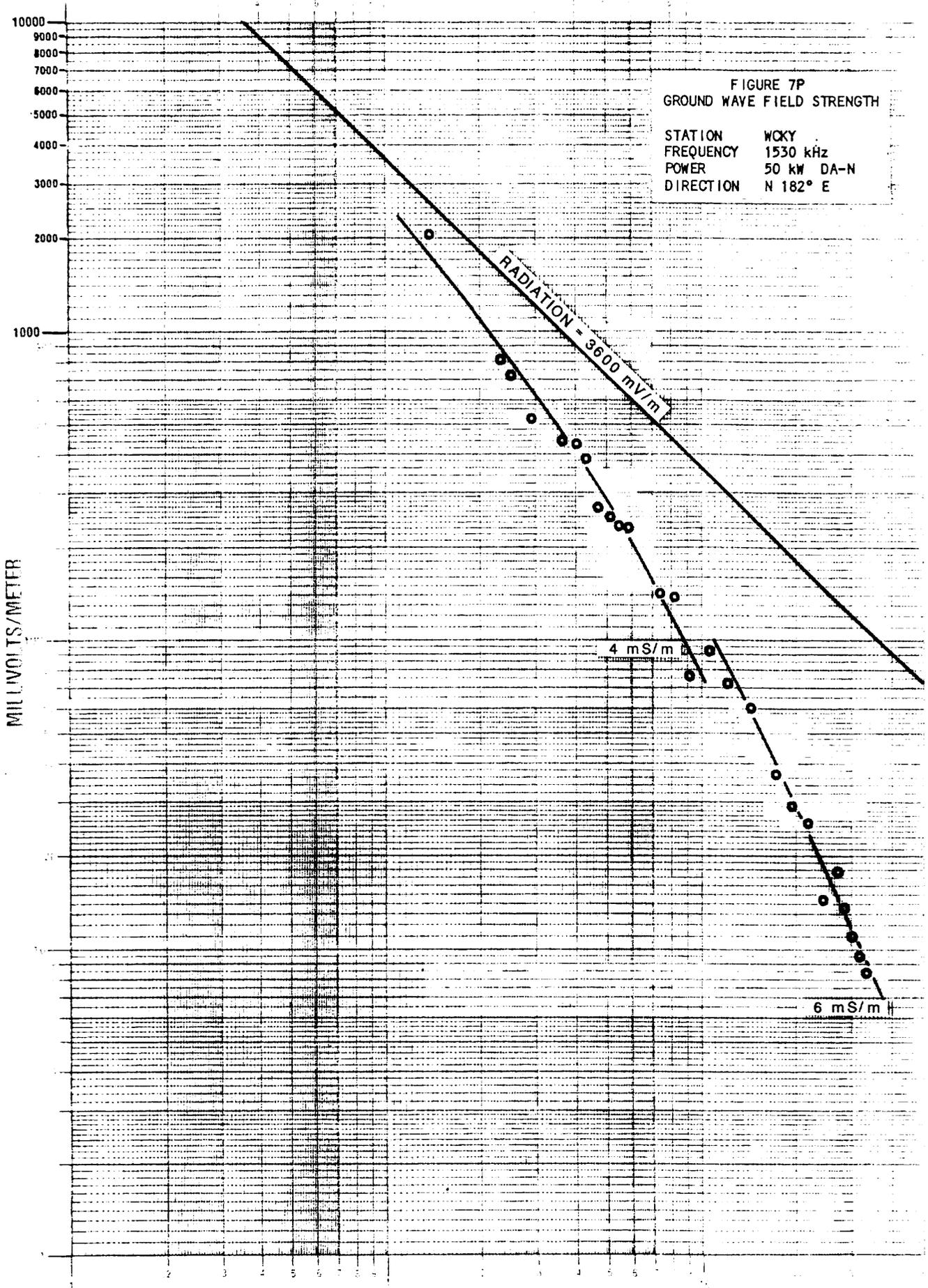


FIGURE 7P
GROUND WAVE FIELD STRENGTH

STATION	WCKY
FREQUENCY	1530 kHz
POWER	50 kW DA-N
DIRECTION	N 182° E

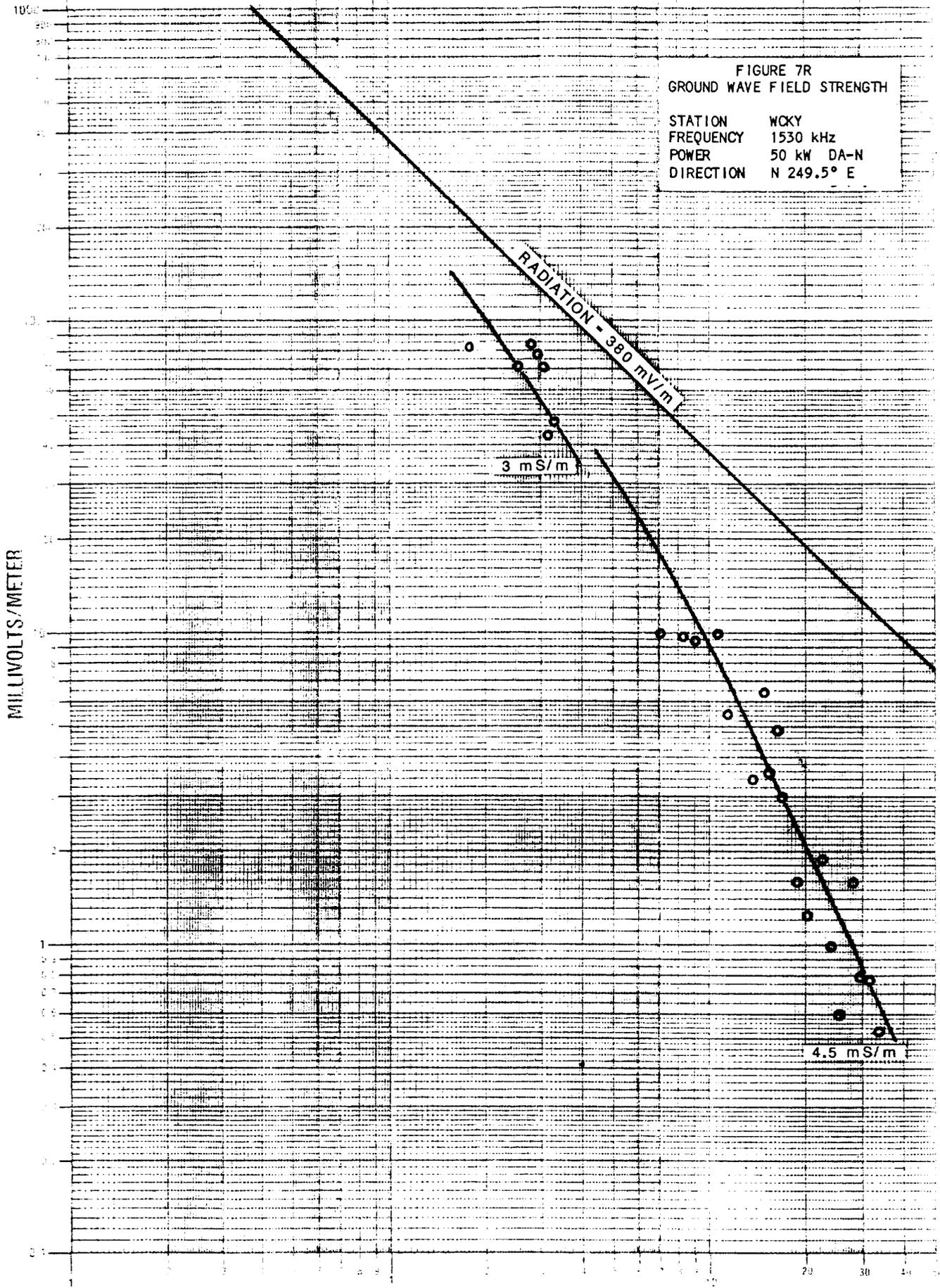
KILOMETERS FROM ANTENNA

Graphs and graph paper should not be copied. Office copies introduce geometric distortion which will affect accuracy. Copies for submission to the FCC and station files should only be made after the data have been plotted.

KILOMETERS FROM ANTENNA

FIGURE 7R
GROUND WAVE FIELD STRENGTH

STATION WCKY
 FREQUENCY 1530 kHz
 POWER 50 kW DA-N
 DIRECTION N 249.5° E



MILLVOLTS/METER

KILOMETERS FROM ANTENNA

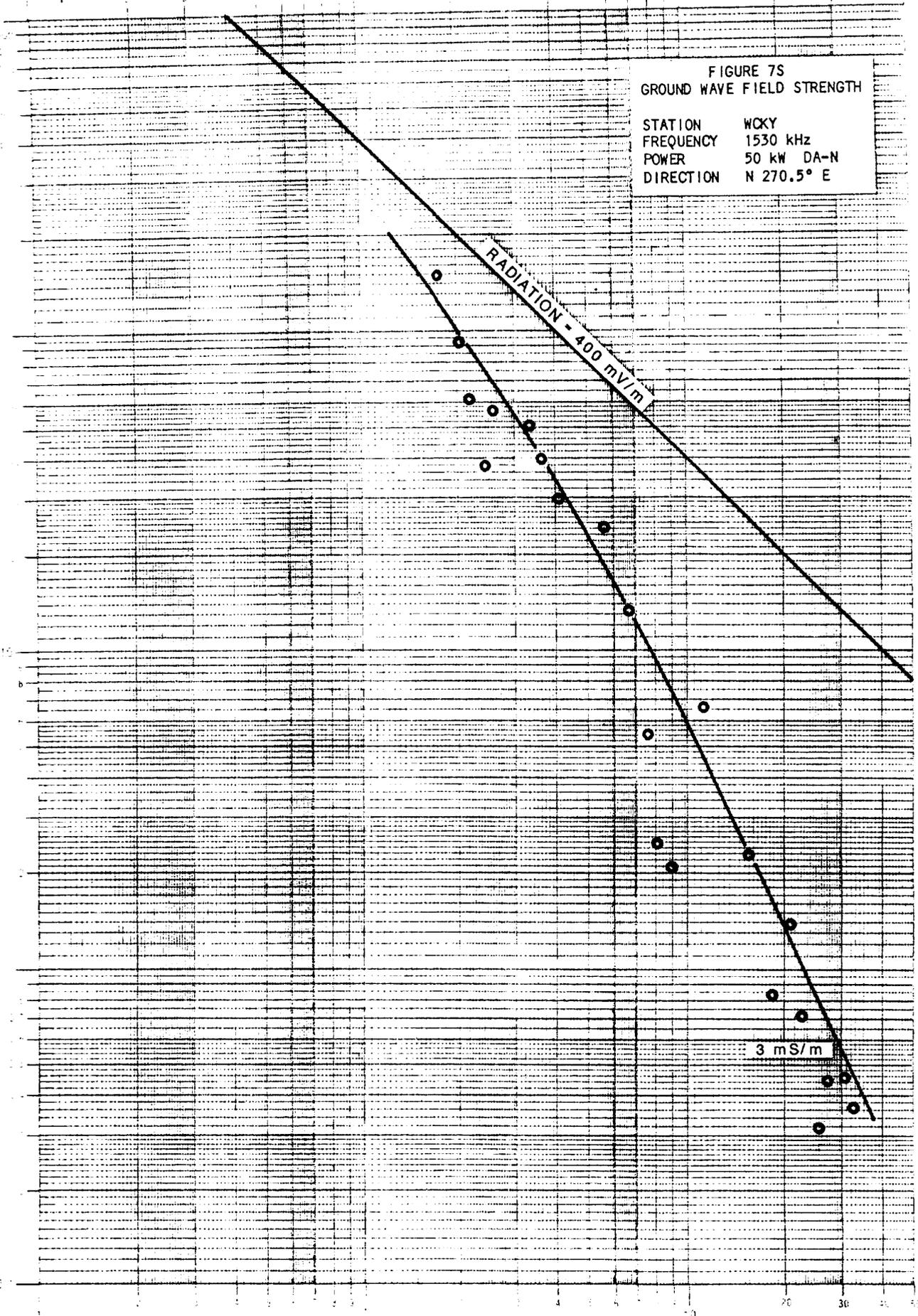
Graphs and graphs made should be checked for errors. Different copies of the same graph may be made which will affect accuracy. Topographic information to the FCC and other agencies should only be made after all data has been printed.

KILOMETERS FROM ANTENNA

FIGURE 7S
GROUND WAVE FIELD STRENGTH

STATION	WCXY
FREQUENCY	1530 kHz
POWER	50 kW DA-N
DIRECTION	N 270.5° E

MILLIVOLTS/METER



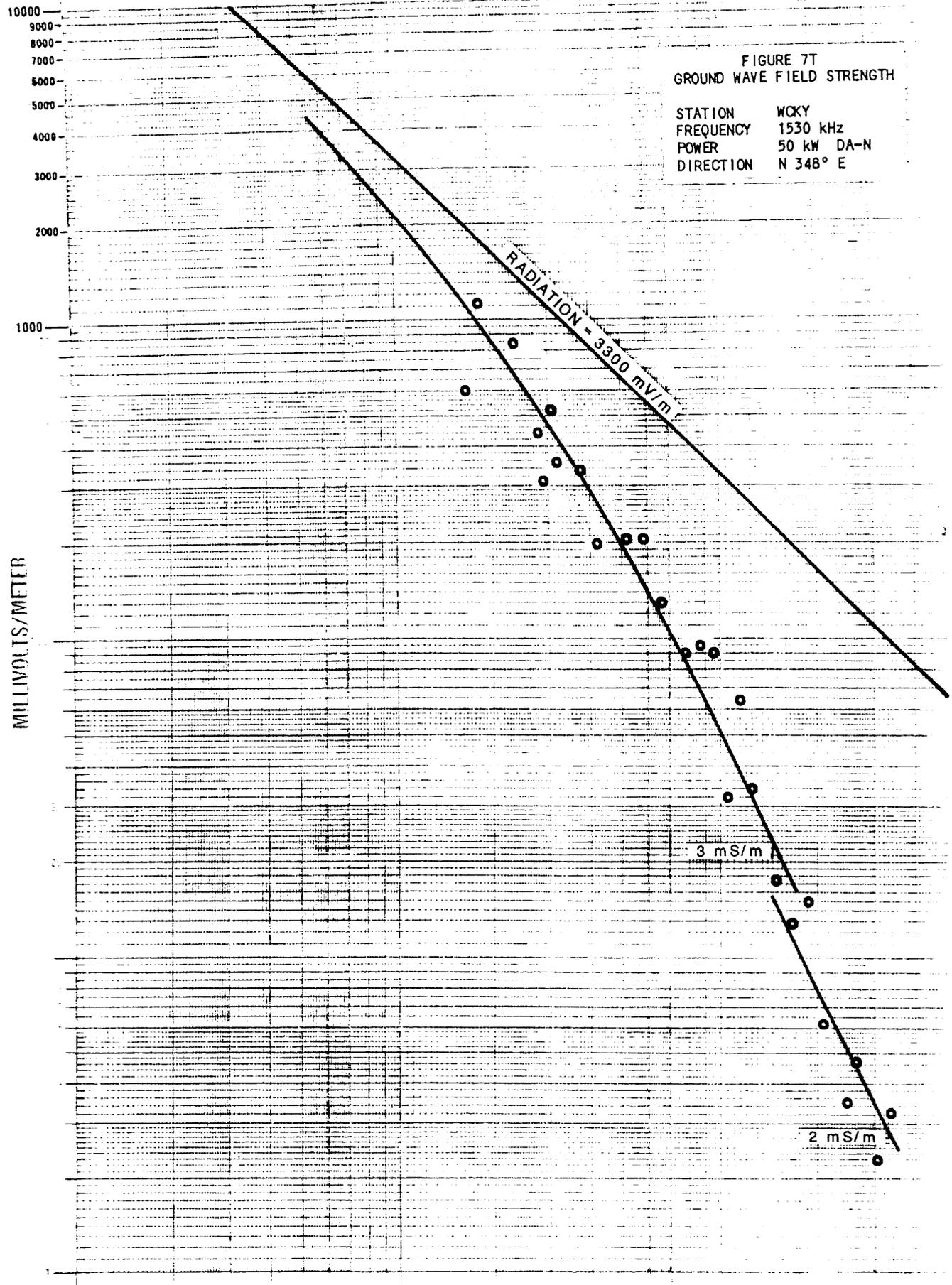
KILOMETERS FROM ANTENNA

© 1960 National Association of Broadcasters
 This document is a reproduction of a document prepared by the
 National Association of Broadcasters for the purpose of
 providing information to the public. It is not to be
 distributed, reproduced, or otherwise used for any
 purpose other than that for which it was prepared.

KILOMETER FROM ANTENNA

FIGURE 7T
GROUND WAVE FIELD STRENGTH

STATION	WCKY
FREQUENCY	1530 kHz
POWER	50 kW DA-N
DIRECTION	N 348° E



KILOMETERS FROM ANTENNA

Graphs and curves are to be plotted on the 200 millimeter grid paper which is available in sheets for sale from the U.S. Government Printing Office. Data should be plotted only on the grid paper.