1350

Station	Main Studio	Freq	Power	Date
NEW	Winnipeg, MB	1350	50/10 kW	7/5/83
NEW	Nanaimo, BC	1350	5 kW/DA-1	12/27/79
NEW	St. Pamphile, QU	1350	1 kW/DA-1	2/28/72
CFOM	Quebec, QU	1350	1 kW/DA-1	8/15/67
CHOV	Pembroke, ON	1350	1 kW/DA-N	7/27/46
CJLM	Joliette, QU	1350	10/1 kW/DA-2	4/14/72
CHRO	Pembroke, ON	1350		11/30/82
CJLM	Joliette, QU	1350	1 kW/DA-1	9/4/59
CKAD	Middleton, NS	1350	1 kW/DA-1	8/23/68
CKEG	Nanaimo, BC	1350	10 kW/DA-1	2/12/81
CKEG	Nanaimo, BC	1350	1 kW/DA-N	8/29/55
CKLB	Oshawa, ON	1350	10/5 kW/DA-2	10/31/75
NEW	Aberdeen, NC	1350	2.5 kW/DA-D	12/4/80
KAAB	Hot Springs, AR	1350	0.5/1 kW/DA-N	3/22/55
KABQ	Albuquerque, NM	1350	0.5/1 kW/DA-N	6/11/57
KCKC	San Bernardino, CA	1350	0.5/5 kW/DA-2	1/22/71
KCKC	San Bernardino, CA	1350	0.5 kW/DA-N	3/30/49
KCOR	San Antonio, TX	1350	5 kW/DA-N	5/28/63
KIDN	Pueblo, CO	1350	5/1 kW/DA-N	6/11/47
KITH	Clinton, MO	1350	1 kW/DA-D	9/27/62
KRLC	Lewiston, ID	1350	1 kW/DA-N	9/17/48
KRNT	Des Moines, IA	1350	5 kW/DA-N	7/20/48
KSRO	Santa Rosa, CA	1350	5 kW/DA-N	10/24/58
WCSM	Celina, OH	1350	0.5 kW/DA-D	9/25/63
WDCF	Dade City, FL	1350	0.5/1 kW/DA-N	3/3/76
WEGA	Vega Baja, PR	1350	0.5 kW/DA-2	5/30/74

1350

Station	Main Studio	Freq	Power	Date
WEZY	Cocoa, FL	1350	0.5/1 kW/DA-N	7/25/58
WGAD	Gadsden, AL	1350	1/5 kW/DA-N	4/6/49
WHNE	Portsmouth, VA	1350	5 kW/DA-2	3/18/75
WHWH	Princeton, NJ	1350	5 kW/DA-2	5/6/59
WIOU	Kokomo, IN	1350	1/5 kW/DA-2	5/28/59
WIOU	Kokomo, IN	1350	1 kW/DA-2	4/30/63
WJEB	Gladwin, MI	1350	1 kW/DA-D	5/15/74
WNIS	Portsmouth, VA	1350	5 kW/DA-2	11/9/79
WNLK	Norwalk, CT	1350	0.5 kW/DA-N	2/21/50
WPDR	Portage, WI	1350	5 kW/DA-D	5/8/61
WSLR	Akron, OH	1350	5 kW/DA-1	10/48
WSMB	New Orleans, LA	1350	5 kW/DA-N	12/7/54
WXCL	Peoria, IL (WAAP)	1350	1 kW/DA-2	10/30/63
WZIX	York, PA	1350	1/5 kW/DA-N	10/25/61
KTMF	New Prague, MN	1350	0.5 kW/DA-D	2/28/70
NEW	Tom’s River, NJ	1350	0.5 kW/DA-D	6/20/58
NEW	Bartlesville, OK	1350	0.5 kW/DA-D	10/31/55
NEW	Vega Baja, PR	1350	0.5 kW/DA-1	7/29/68

NEW
1350

IFRB Serial No. 6344

FORM FOR THE APPLICATION OF ARTICLE 4 OF THE AGREEMENT

CHARACTERISTICS OF A REGION 2 BROADCASTING STATION IN THE BAND 535 - 1605 kHz

PART I GENERAL INFORMATION

(01) Administration: CANADA — Sheet No. 420 — Date: 830705

Assigned frequency (kHz)		02	1350
Transmitting station	Name of the station	03	WINNIPEG MB
	Call sign	04	
	Additional identification	05	
	Station class	06	B
	Operational Status	07	P
Country		08	CAN
Geographical coordinates of the transmitting station		09	97W09 00 49N53 00

(11) a) New assignment [ ] b) Modification of characteristic of an assignment recorded in the plan [X] c) Cancellation of an assignment [ ]

(12) Modification under Section 4.2.14 Yes [ ] No [X]

(13) Date of bringing into service or cessation of operation [ ] Year Month Day

STATION PARAMETERS		DAYTIME OPERATION		NIGHT-TIME OPERATION
Station power (kW)	21	50.	31	10.
r.m.s. value of radiation for station power (mV/m at 1 km)	25	2091.7	35	1025.
Antenna type	26	B	36	B
Simple vertical antenna electrical height (degrees)	27	.	37	.

(44) Remarks

COORDINATION UNDER ARTICLE 4:

COUNTRY	USA							
IN PROGRESS	X							
ACCEPTANCE OBTAINED								

NEW 1350

IFRB Serial No. 6344

FORM FOR THE APPLICATION OF ARTICLE 4 OF THE AGREEMENT
CHARACTERISTICS OF A REGION 2 BROADCASTING STATION IN THE BAND 535 - 1605 kHz

PART II Section I

Description of a directional antenna consisting of vertical conductors

Sheet No.: 420

Date: 830705

(01) Name of transmitting station: WINNIPEG MB

(02) Country: CAN

(03) Hours of operation: D

(04) Total number of towers: 2

(05) Tower No.	(06) Tower field ratio	(07) Phase difference of the field (± degrees)	(08) Electrical tower spacing (degrees)	(09) Angular tower orientation (degrees)	(10) Reference tower indicator	(11) Electrical height of tower (degrees)	(12) Tower structure
1	1.	0.	0.	0.		90.	
2	.9	90.	90.	202.		90.	

(14) r.m.s value of radiation: 2091.7 mV/m at 1 km

(15) Type of pattern: E

(16) Special quadrature factor: . mV/m at 1 km

(17) SUPPLEMENTARY INFORMATION

SAMPLE RADIATIONS

AZIMUTH	15	60	135	195	240
RADIATION	3102.5	3059.8	1437.4	179.2	543.4

NEW 1350

FORM FOR THE APPLICATION OF ARTICLE 4 OF THE AGREEMENT
CHARACTERISTICS OF A REGION 2 BROADCASTING STATION IN THE BAND 535 - 1605 kHz

IFRB Serial No. 6344

PART II Section I

Description of a directional antenna consisting of vertical conductors

Sheet No. 420

Date 830705

01 Name of transmitting station: WINNIPEG MB

02 Country: CAN

03 Hours of operation: N

04 Total number of towers: 3

05 Tower No.	06 Tower field ratio	07 Phase difference of the field (± degrees)	08 Electrical tower spacing (degrees)	09 Angular tower orientation (degrees)	10 Reference tower indicator	11 Electrical height of tower (degrees)	12 Tower structure
1	1.	0.	0.	0.		90.	
2	1.74	144.	90.	202.		90.	
3	1.	290.	180.	202.		90.	

14 r.m.s value of radiation: 1025. mV/m at 1 km

15 Type of pattern: E

16 Special quadrature factor: . mV/m at 1 km

17 SUPPLEMENTARY INFORMATION

SAMPLE RADIATIONS

AZIMUTH	22	89	202	292	323
ANGLE	0	30	45	0	15
RADIATION	2129.8	549.2	44.3	88.4	972.3

NEW

DESCRIPTION SHEET - DIRECTIONAL ANTENNA

STATION: NEW

MAIN STUDIO: Nanaimo, B.C.

FREQUENCY: 1350 KHz

POWER: 5 KW CLASS: III

NOTIFICATION LIST NO.: 393

DATE: December 27, 1979

GEOGRAPHICAL LOCATION:

Latitude 49° 09' 14" North
Longitude 123° 46' 36" West

ANTENNA CHARACTERISTICS:

Mode of Operation: DA-1

Number of Elements: 4 (Four)

Type of Elements: Guyed steel towers, uniform cross-section, base insulated for series feed

TOWER:	#1 (E)	#2 (EC)	#3 (WC)	#4 (W)
HEIGHT ABOVE BASE INSULATOR:	140'	140'	140'	125'
OVERALL HEIGHT:	145'	145'	145'	130'
FIELD RATIO:	.41	1.0	1.0	.41
PHASING:	0°	-137°	83°	-54.3°
ORIENTATION:	Ref.	258°T	258°T	258°T
SPACING:	Ref.	95° (192.4')	190° (384.8')	285° (577.2')

GROUND SYSTEM: 120 equally spaced radials of #10 copper wire extend from the base of each tower. Minimum radial length 235' (116°), Maximum radial length 355' (175°), with the exception of those joined along the the common chords.

PREDICTED EFFECTIVE FIELD: 436 mV/m at 1 mile for 5 KW
195 mV/m at 1 mile for 1 KW

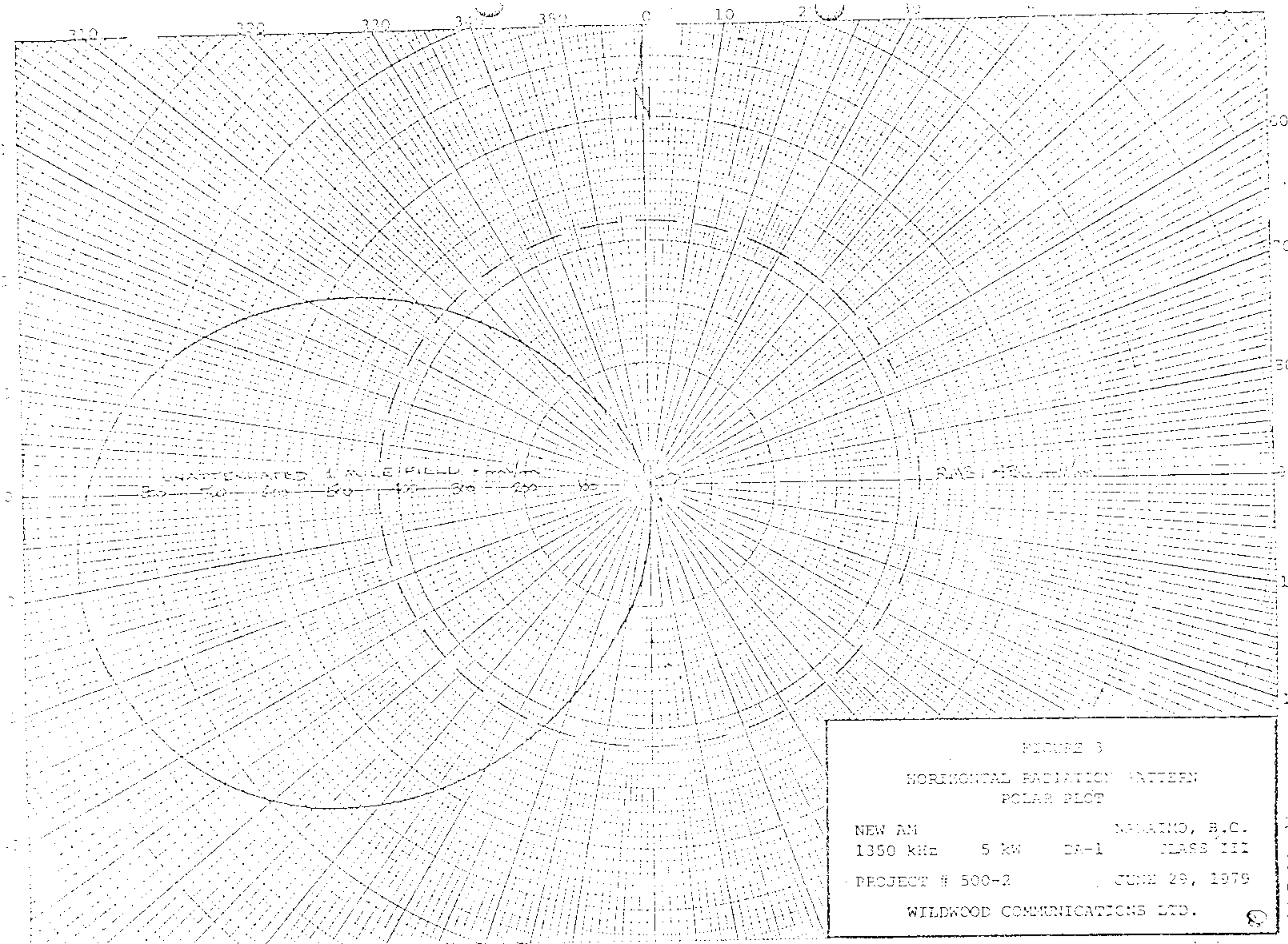


FIGURE 3

HORIZONTAL RADIATION PATTERN
POLAR PLOT

NEW AM — NANAIMO, B.C.
1350 kHz — 5 kW — DA-1 — CLASS III

PROJECT # 500-2 — JUNE 29, 1979

WILDWOOD COMMUNICATIONS LTD.

NEW

46 1323

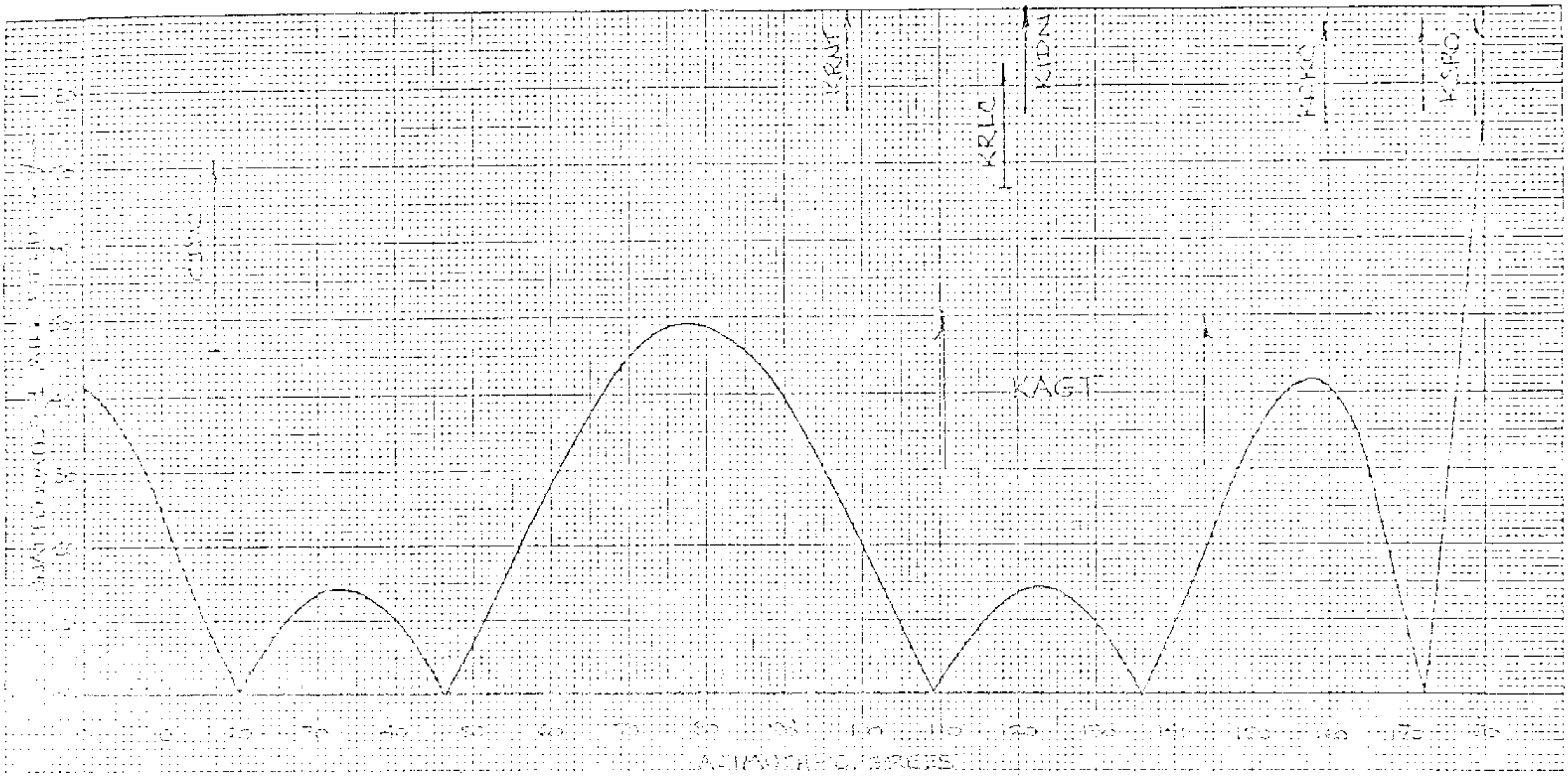


FIGURE 4

HORIZONTAL RADIATION PATTERN
EXPANDED II

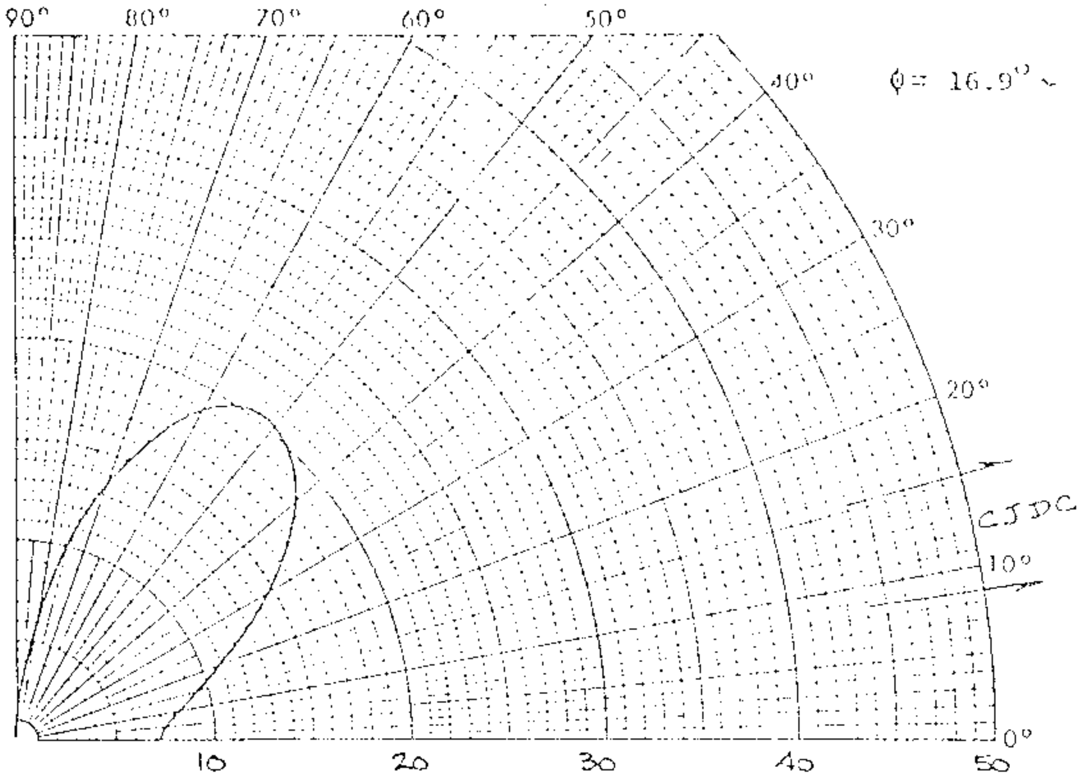
NEW AM NANAIMO, B.C.
1350 kHz 5 KW DA-1 CLASS III

PROJECT # 500-2 JUNE 29, 1979

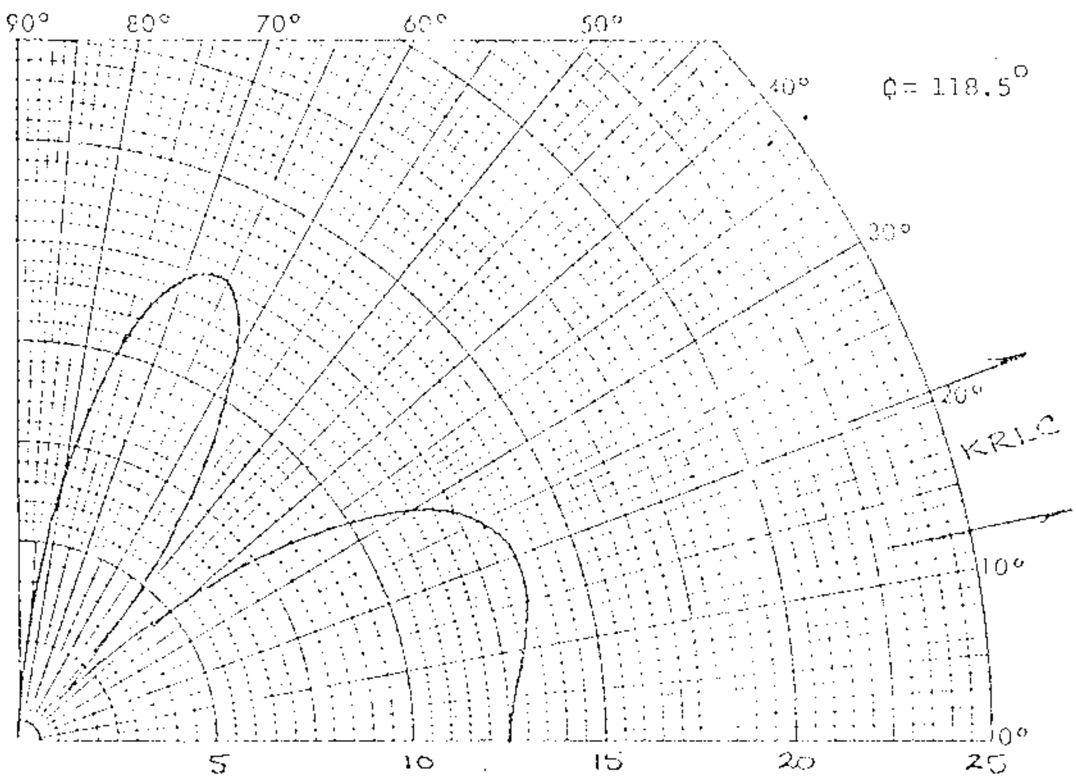
WILDWOOD COMMUNICATIONS LTD.

NEW

NEW



UNATTENUATED (MVM) 1 MILE FIELD



UNATTENUATED (MVM) 1 MILE FIELD

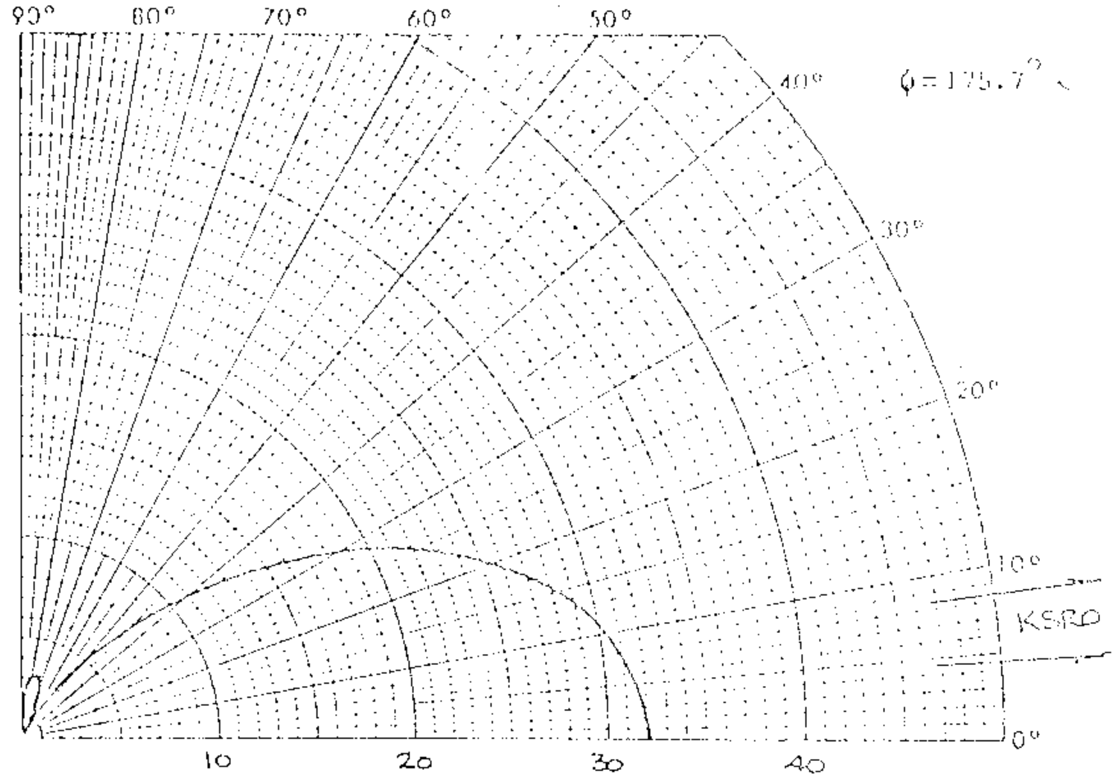
VERTICAL RADIATION PATTERNS

FIGURE 5

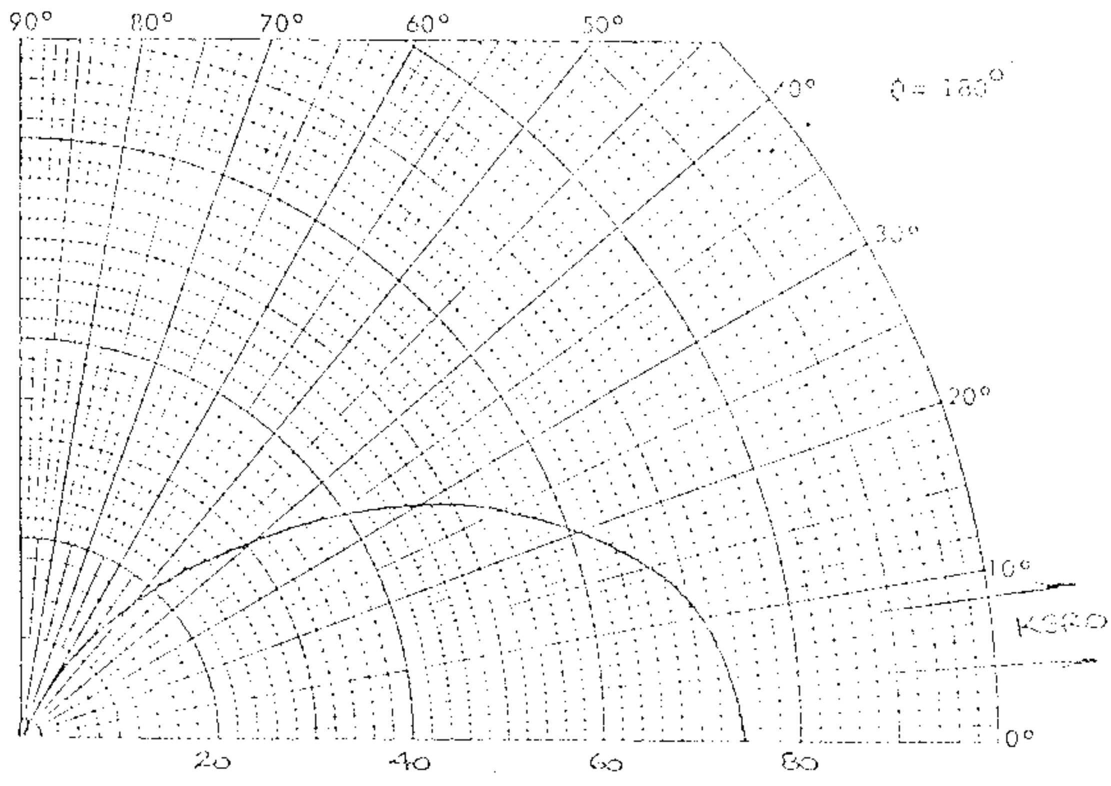
NEW AM | | | NANAIMO, B.C.
1350 KHz | 5 KW | DA-1 | CLASS III

PROJECT # 500-2 [illegible] COMMUNICATIONS LTD. JUNE 29, 1979

NEW



UNATTENUATED (MV M) 1 MILE FIELD



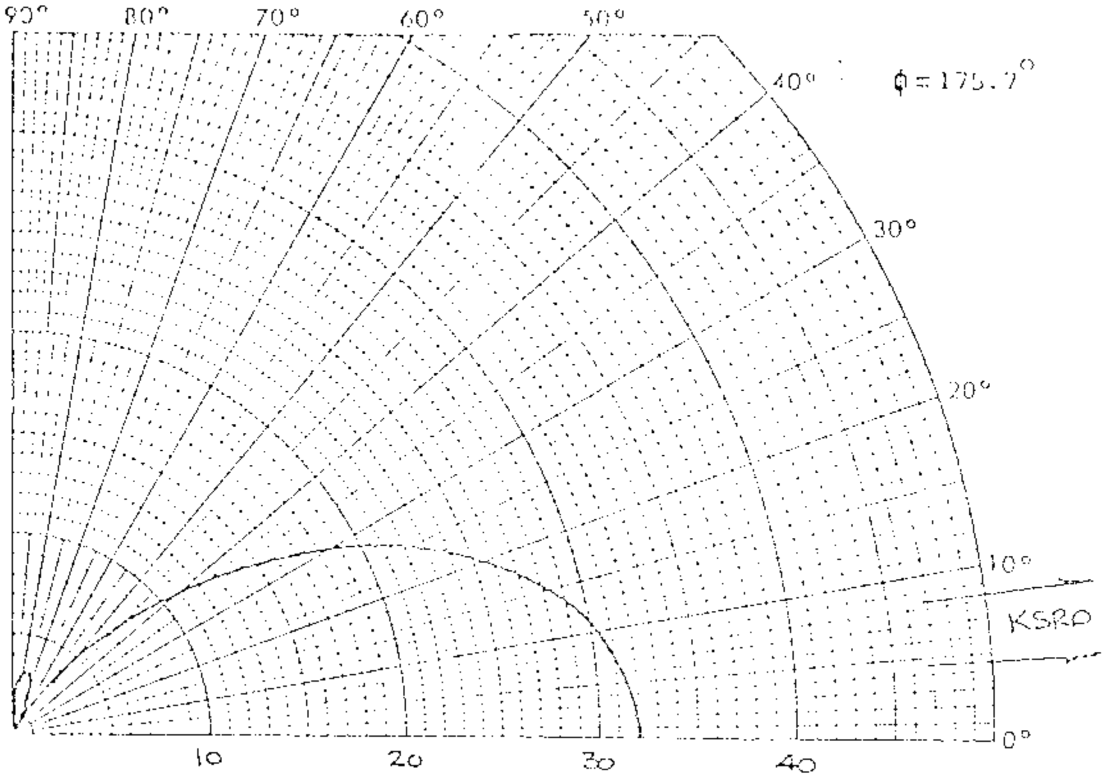
UNATTENUATED (MV M) 1 MILE FIELD

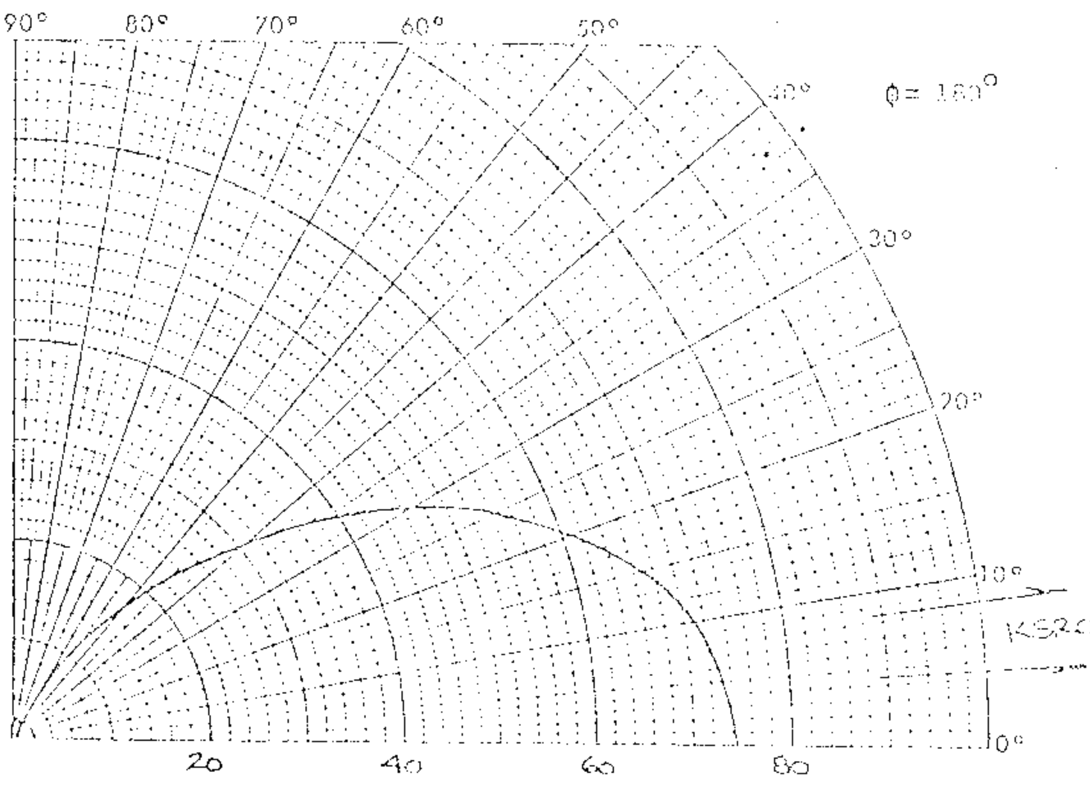
VERTICAL RADIATION PATTERNS

FIGURE 6

NEW AM			NANAIMO, B.C.
1350 kHz	5 kW	DA-1	CLASS III
PROJECT # 566-2	WILLWOOD COMMUNICATIONS LTD.		JUNE 23, 19[illegible]

NEW

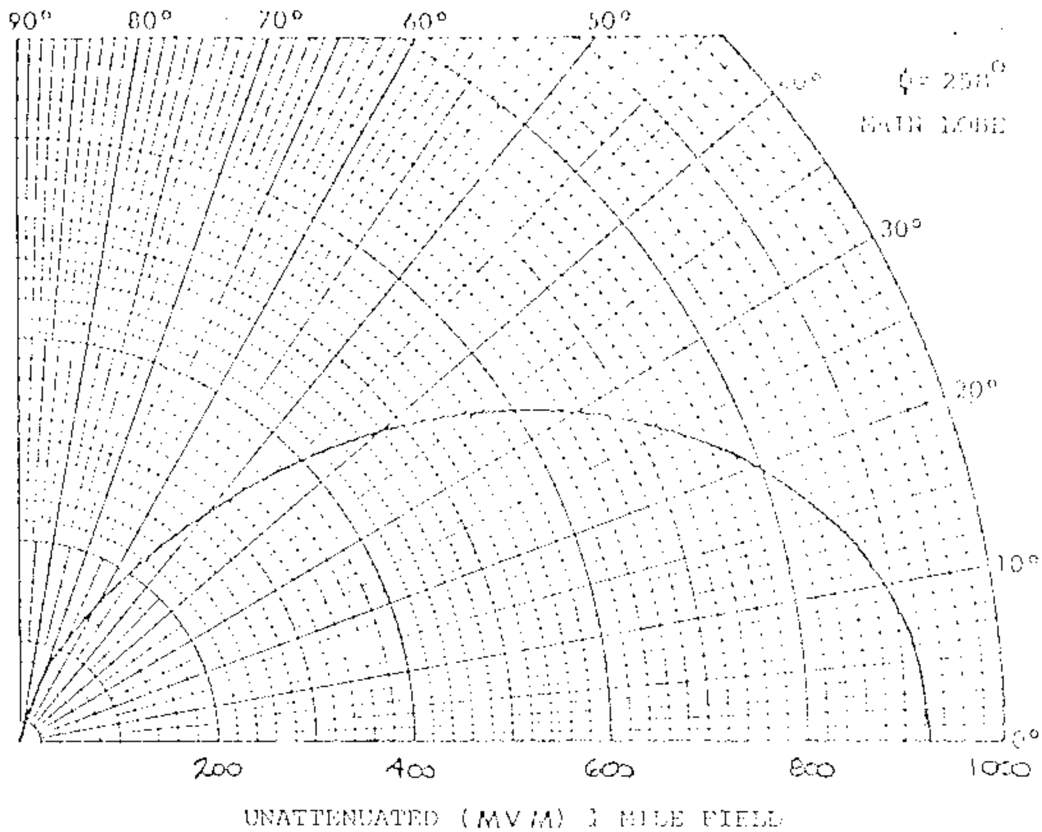


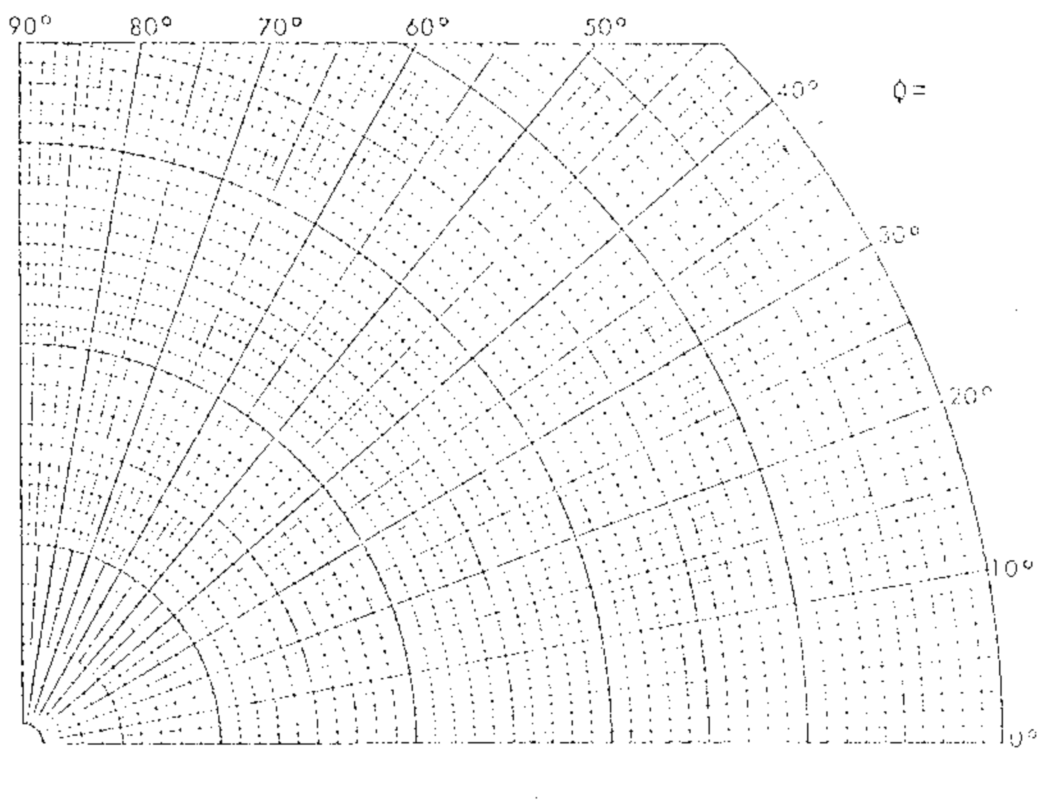


VERTICAL RADIATION PATTERNS

FIGURE 6

NEW AM			NANAIMO, B.C.
1350 kHz	5 kW	DA-1	CLASS III
PROJECT # 500-2	WILLIAM D. [illegible] LTD.		JUNE 29, 1979





VERTICAL RADIATION PATTERNS

FIGURE 7

NEW AM			[illegible], B.C.
1350 KHz	5 KW	DA-1	CLASS III
PROJECT [illegible]	[illegible] COMMUNICATIONS LTD.		[illegible], 19[illegible]

KAM 600 — NEW

DESCRIPTION SHEET - DIRECTIONAL ANTENNA

STATION: NEW

MAIN STUDIO: Nanaimo, B.C.

FREQUENCY: 1350 kHz

POWER: 5 kW CLASS: III

NOTIFICATION LIST NO.: 393

DATE: December 27, 1979

GEOGRAPHICAL LOCATION:

Latitude 49° 09' 14" North
Longitude 123° 48' 36" West

ANTENNA CHARACTERISTICS:

Mode of Operation:	DA-1
Number of Elements:	4 (Four)
Type of Elements:	Guyed steel towers, uniform cross-section, base insulated for series feed

TOWER:	#1 (E)	#2 (EC)	#3 (WC)	#4 (W)
HEIGHT ABOVE BASE INSULATOR:	140'	140'	140'	125'
OVERALL HEIGHT:	145'	145'	145'	130'
FIELD RATIO:	.41	1.0	1.0	.41
PHASING:	0°	-137°	83°	-54.3°
ORIENTATION:	Ref.	258°T	258°T	258°T
SPACING:	Ref.	95° (192.4')	190° (384.8')	285° (577.2')

GROUND SYSTEM: 120 equally spaced radials of #10 copper wire extend from the base of each tower. Minimum radial length 235' (116°), Maximum radial length 355' (175°), with the exception of those joined along the the common chords.

PREDICTED EFFECTIVE FIELD: 436 mV/m at 1 mile for 5 kW
195 mV/m at 1 mile for 1 kW

NEW

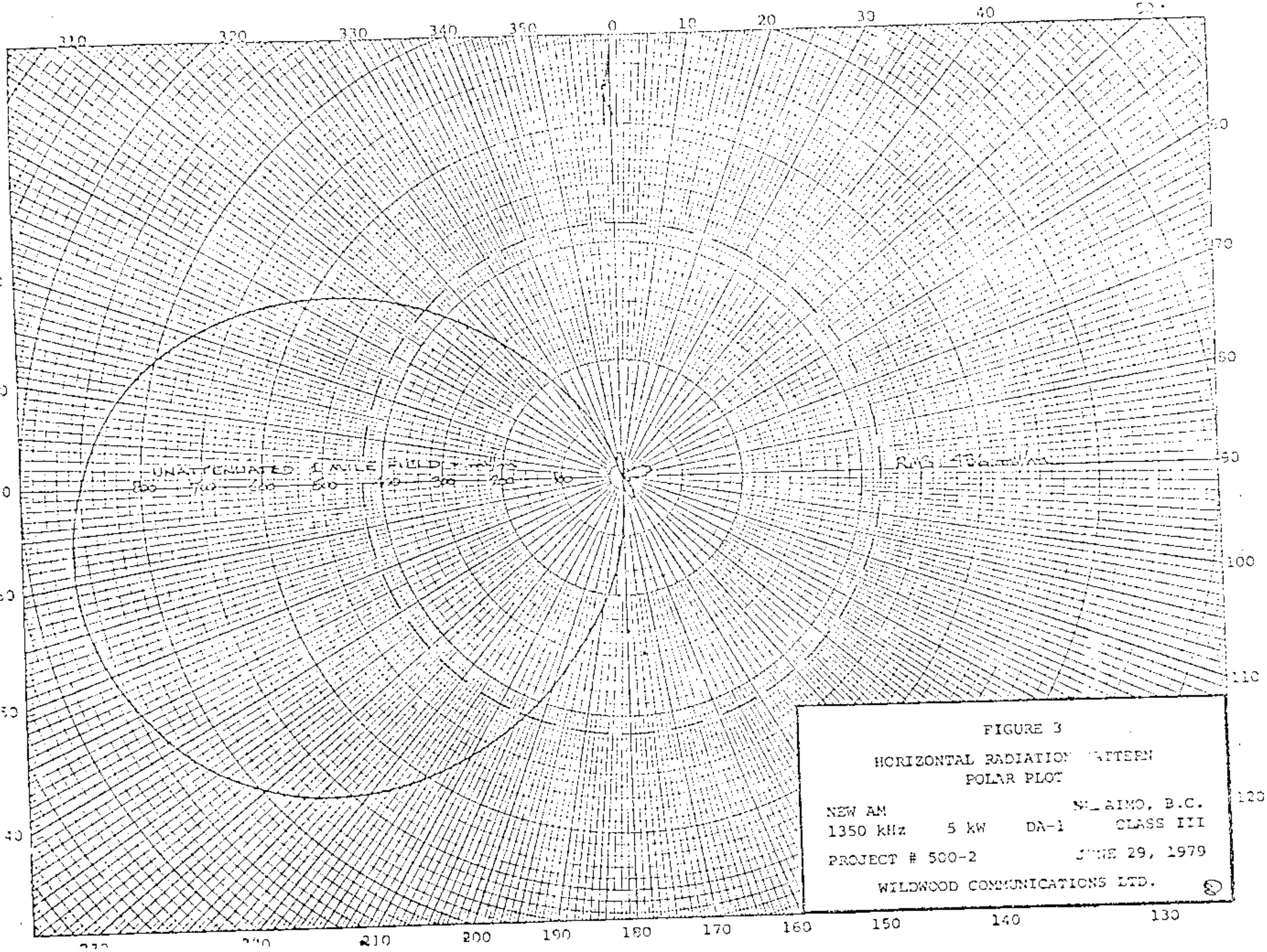


FIGURE 3

HORIZONTAL RADIATION PATTERN
POLAR PLOT

NEW AM — NANAIMO, B.C.
1350 kHz 5 kW DA-1 CLASS III
PROJECT # 500-2 JUNE 29, 1979

WILDWOOD COMMUNICATIONS LTD.

NEW

K+E 10 X 10 TO ½ INCH 7 X 10 INCHES KEUFFEL & ESSER CO. MADE IN U.S.A. 46 1323

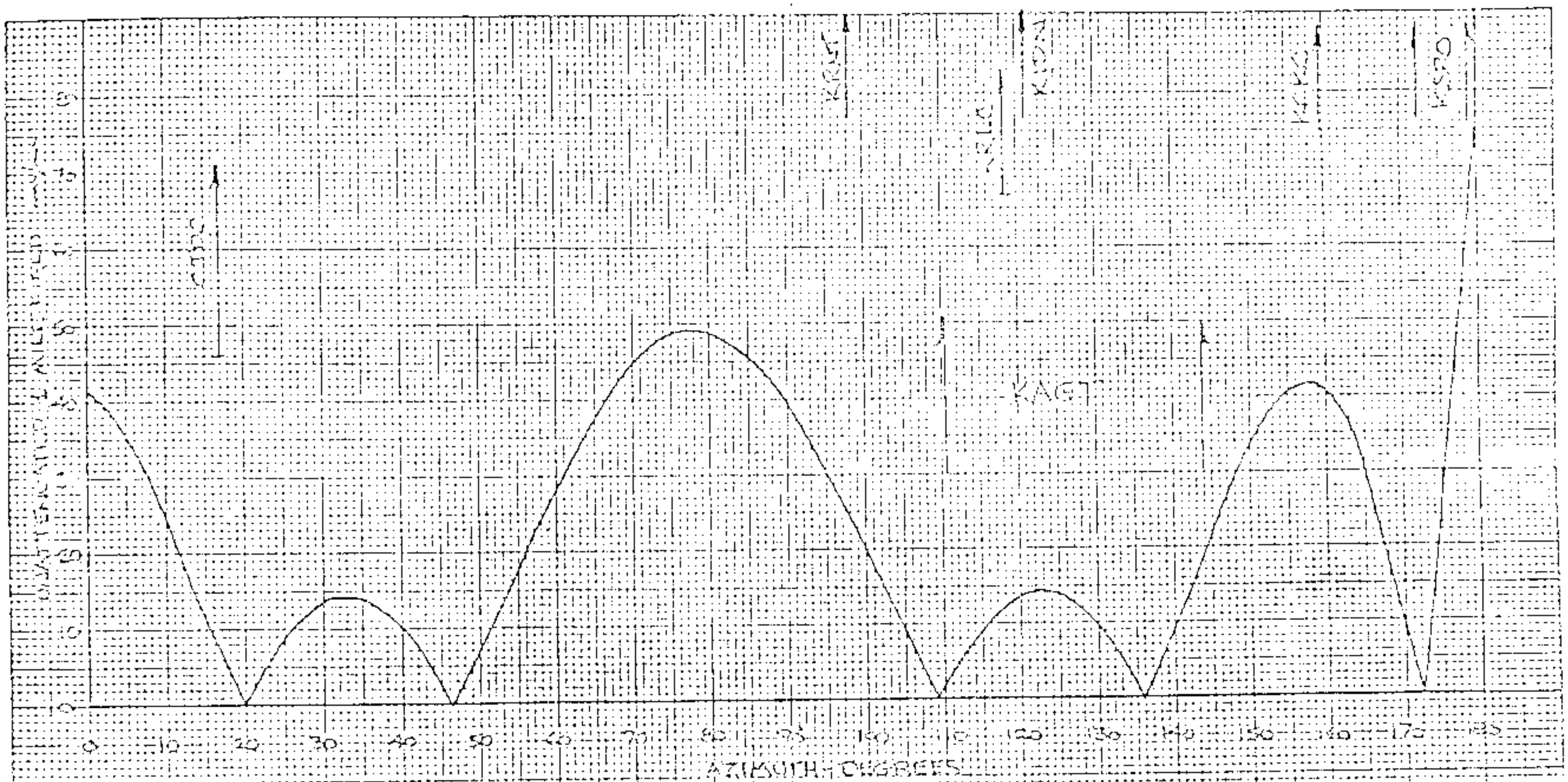


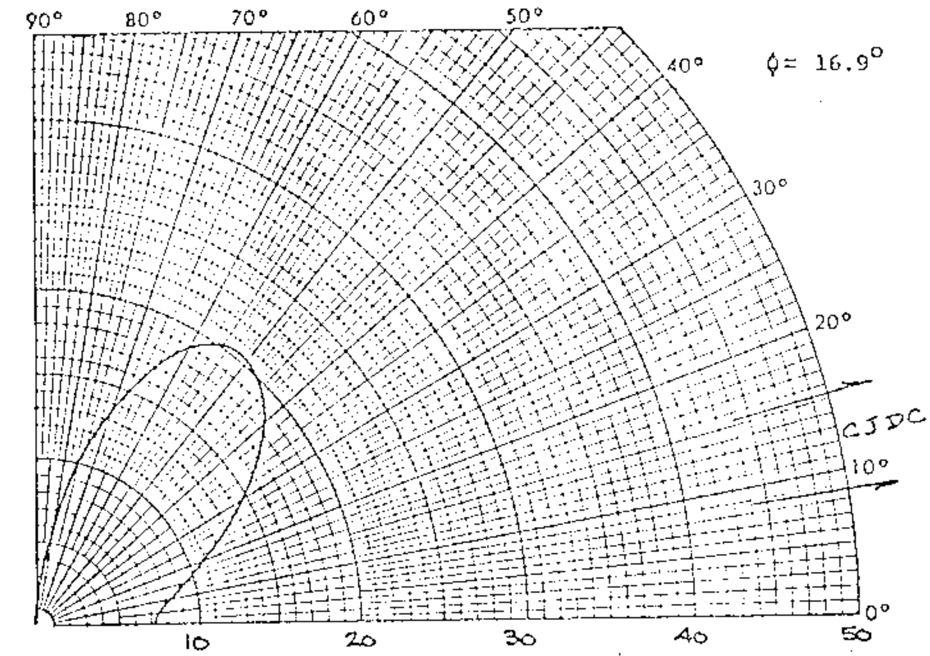
FIGURE 4

HORIZONTAL RADIATION PATTERN
EXPANDED PLOT

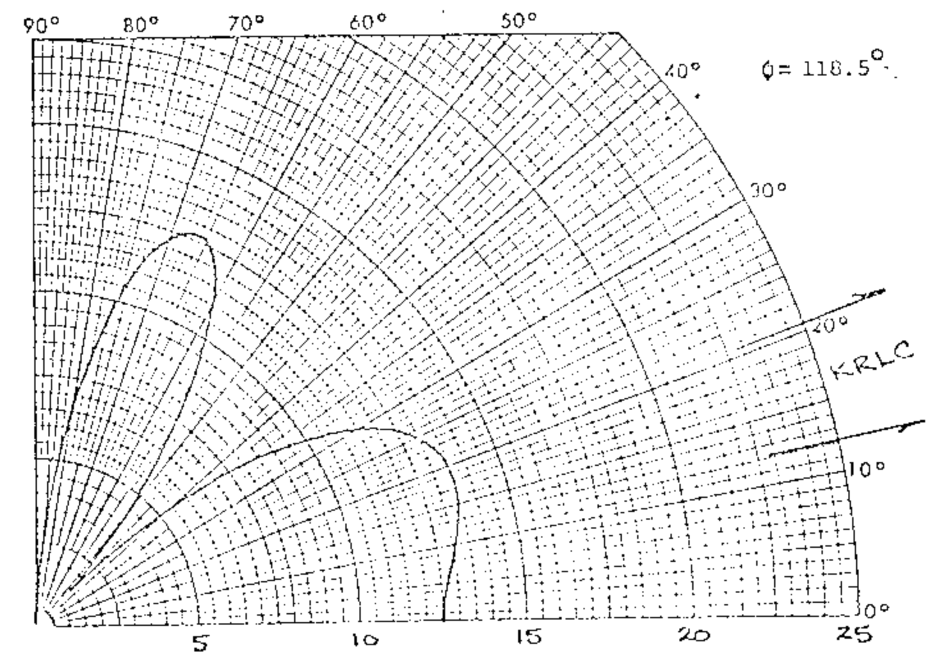
NEW AM NANAIMO, B.C.
1350 kHz 5 kW DA-1 CLASS III
PROJECT # 500-2 JUNE 29, 1979

WILDWOOD COMMUNICATIONS LTD.

NEW



UNATTENUATED (MV/M) 1 MILE FIELD



UNATTENUATED (MV/M) 1 MILE FIELD

VERTICAL RADIATION PATTERNS

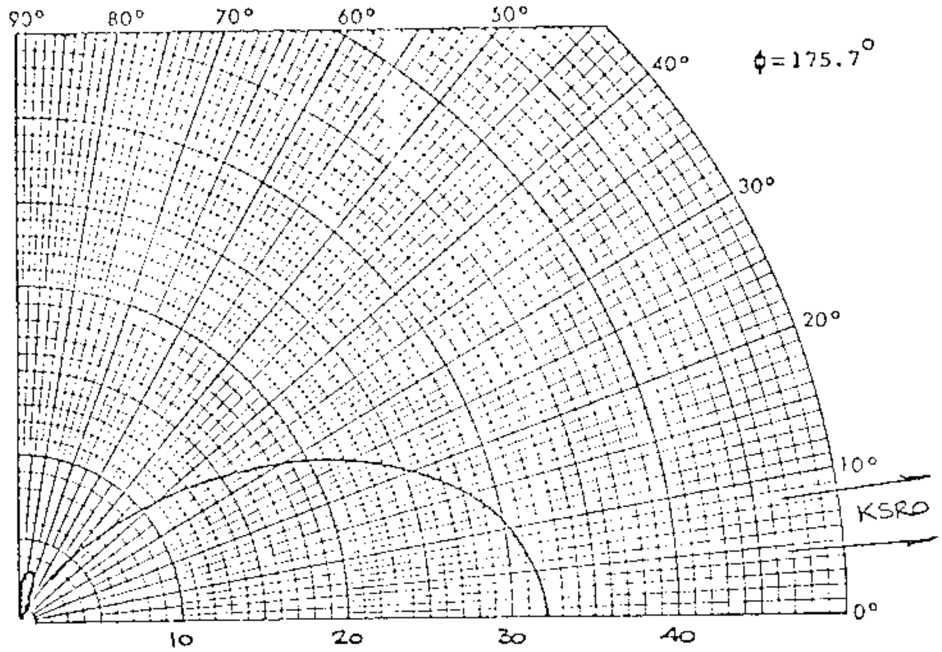
FIGURE 5

NEW AM			NANAIMO, B.C.
1350 kHz	5 kW	DA-1	CLASS III
PROJECT # 500-2	WILLWOOD COMMUNICATIONS LTD.		JUNE 29, 1979

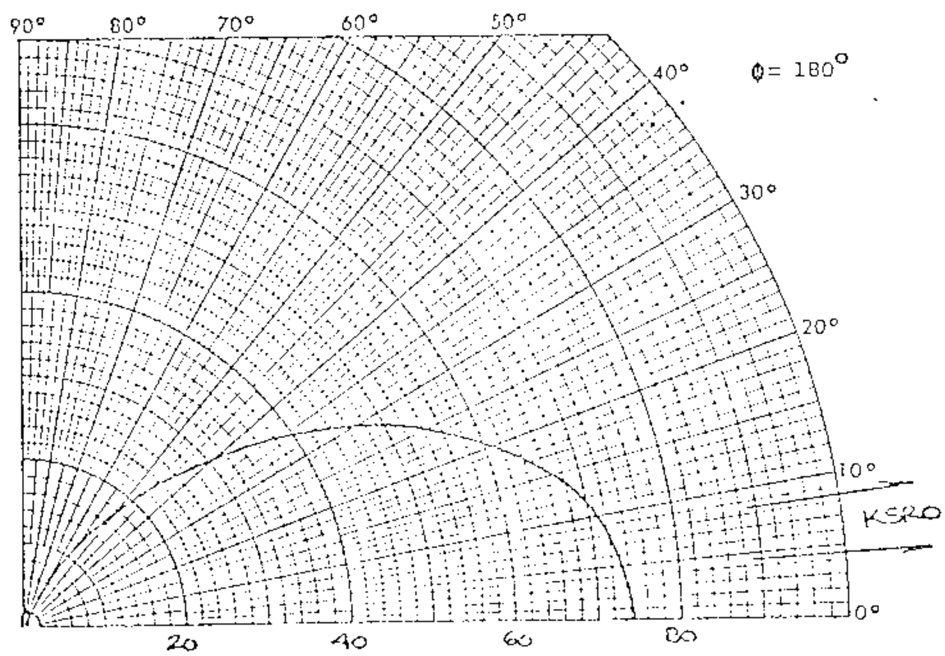
NEW

G9-10159 (NO 10LV)

POLAR CO-ORDINATE
MADE IN CANADA



UNATTENUATED (MV/M) 1 MILE FIELD



UNATTENUATED (MV/M) 1 MILE FIELD

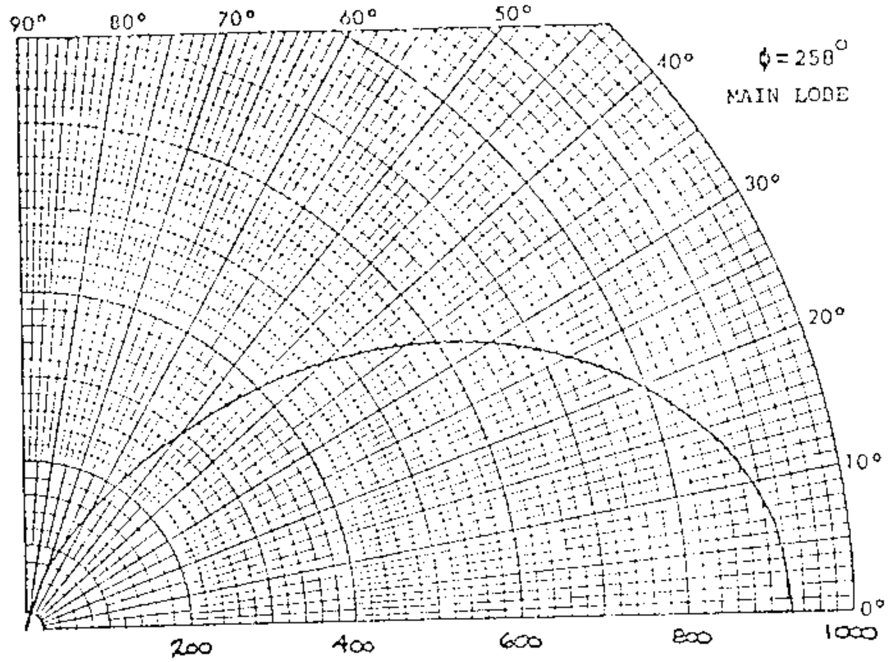
VERTICAL RADIATION PATTERNS

FIGURE 6

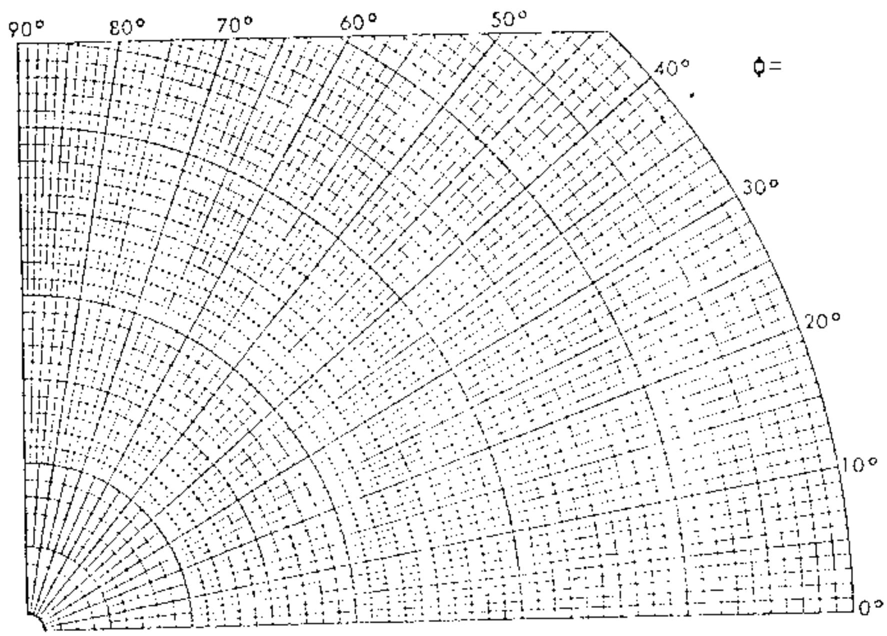
NEW AM
1350 kHz   5 kW   DA-1   NANAIMO, B.C. CLASS III

PROJECT # 500-2   WILDWOOD COMMUNICATIONS LTD.   JUNE 29, 1979
Rev. NOV 7, 1979

NEW



UNATTENUATED (MV/M) 1 MILE FIELD



MV/M

VERTICAL RADIATION PATTERNS

FIGURE 7

NEW AM 1350 kHz	5 kW	DA-1	NANAIMO, B.C. CLASS III
PROJECT # 500-2	WILDWOOD COMMUNICATIONS LTD.		JUNE 29, 1979

ANTENNA DESCRIPTION SHEET

1. CALL LETTERS: (New station)

2. STATION: St. Pamphile, Quebec.

3. FREQUENCY: 1350 KHZ

4. POWER: 1 Kw Day and Night - DA-1

5. CLASS: III U

6. NOTIFICATION LIST NO: 287 DATE: 28.2.72

7. COORDINATES: North Latitude: 46° 58' 58"
   West Longitude: 69° 48' 38"

8. ANTENNA SYSTEM: a) Mode of Operation: DA-1

   b) Type: two elements, guyed, triangular cross section, series fed.

   c) ground system: 120 No. 10 equally spaced radials of a length of 290' max. (0.4λ) with interconnecting straps buried approximately 8 inches.

9. ANTENNA MASTS:

	No. 1 (South)	No. 2 (North)
Orientation (AZ):	Ref.	351°
Height above insulator:	89°	89° (180')
Spacing:	60° (121')	
Phase:	0°	-163°
Field Ratio:	1.0	1.233

10. PREDICTED EFFECTIVE FIELD: Day and Night: 180 mV/m at 1 mile.

YVES R. HAMEL
CONSULTING ENGINEER
3772 KENT AVENUE
MONTREAL 249, P.Q.

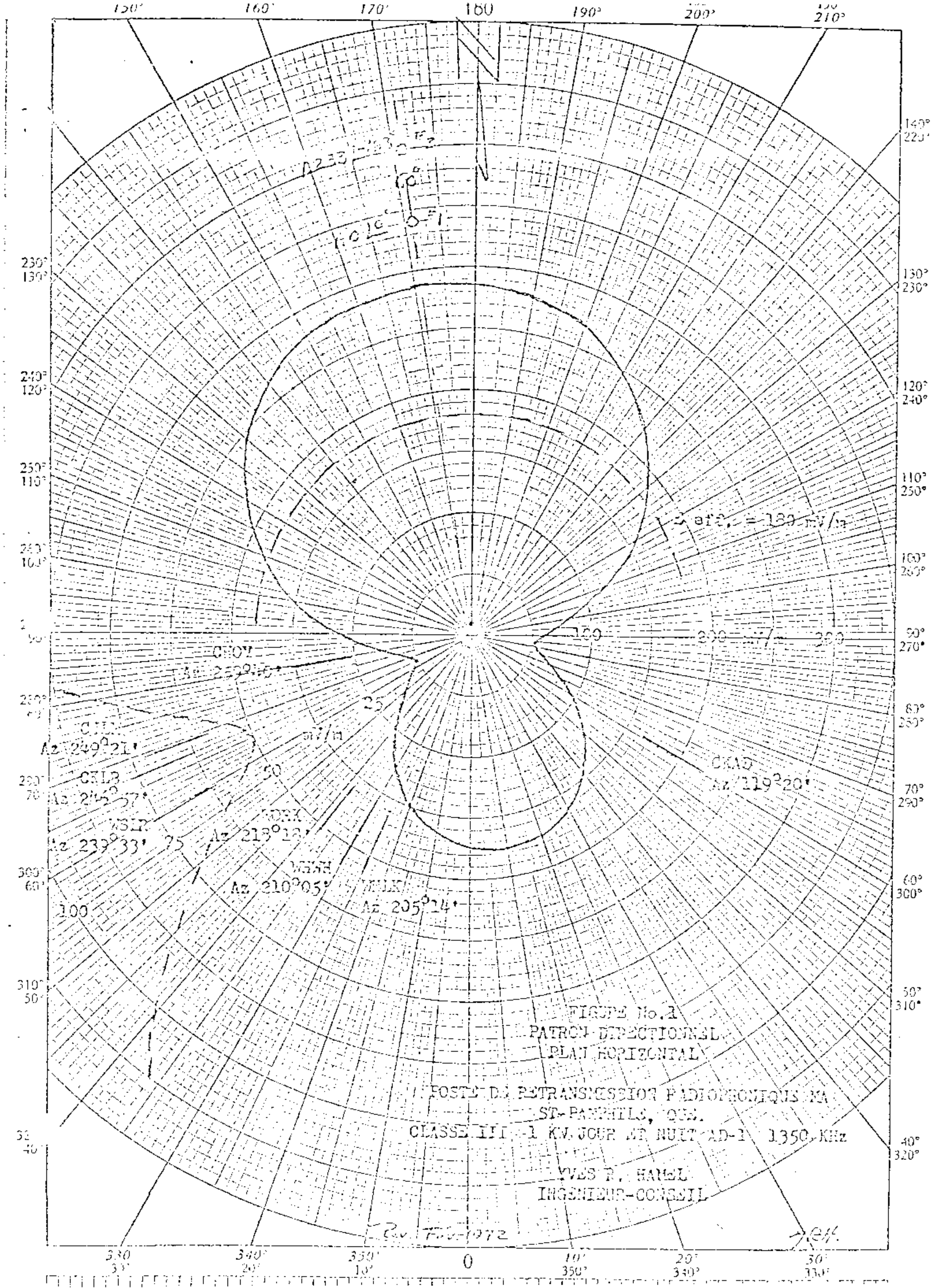


FIGURE No. 3
PATRON DIRECTIONNEL
PLAN HORIZONTAL
POSTE DE RETRANSMISSION RADIOPHONIQUE MA
ST-PAMPHILE, QUE.
CLASSE III - 1 KW JOUR ET NUIT AD-1 1350 KHz
YVES R. HAMEL
INGENIEUR-CONSEIL
CKAD
Az 119°20'
CHOV
Az 269°40'
CKLB
WSIR
Az 239°33'
Az 218°18'
WKHM
Az 210°05'
WALK
Az 205°14'
mV/m
100
200
300
25
50
75

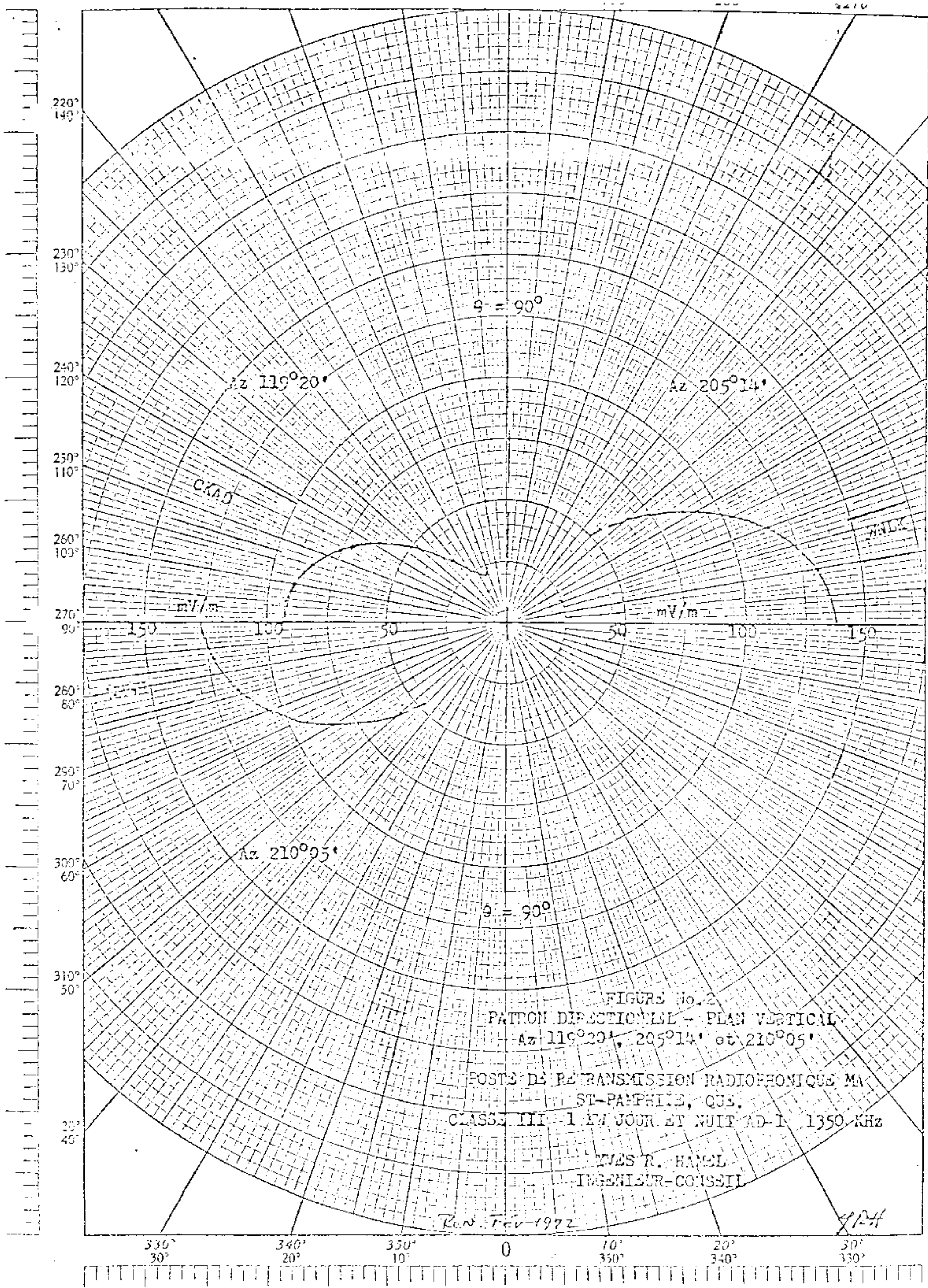


FIGURE No. 2
PATRON DIRECTIONNEL - PLAN VERTICAL
Az 119°20', 205°14' et 210°05'

POSTE DE RETRANSMISSION RADIOPHONIQUE MA
ST-PAMPHILE, QUE.
CLASSE III - 1 KW JOUR ET NUIT AD-1 1350 KHz

YVES R. HAMEL
INGENIEUR-CONSEIL

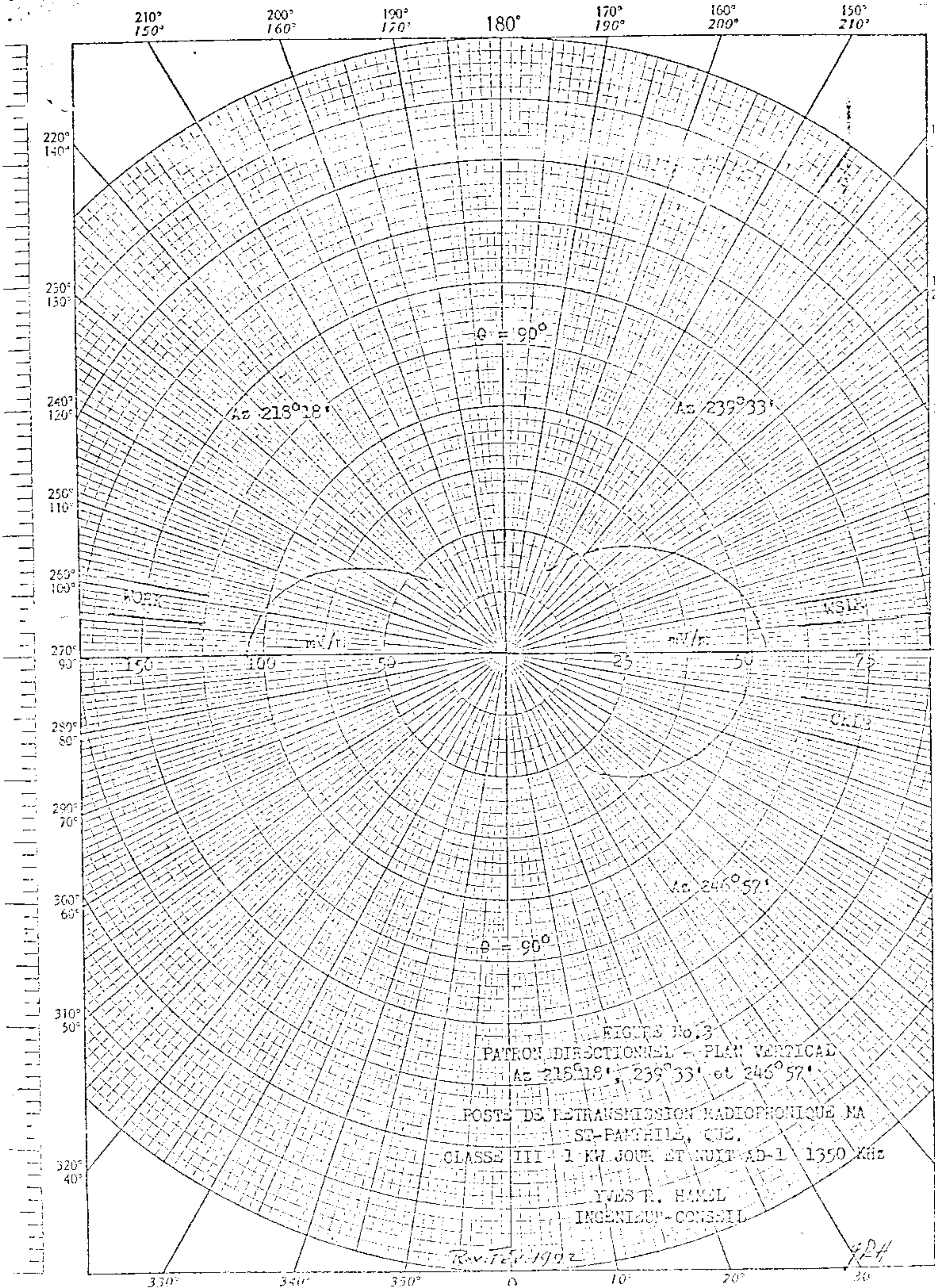


FIGURE No.3
PATRON DIRECTIONNEL – PLAN VERTICAL
Az 218°18', 239°33' et 246°57'

POSTE DE RETRANSMISSION RADIOPHONIQUE MA
ST-PAMPHILE, QUE.
CLASSE III 1 KW JOUR ET NUIT AD-1 1350 KHz

YVES R. HAMEL
INGENIEUR-CONSEIL

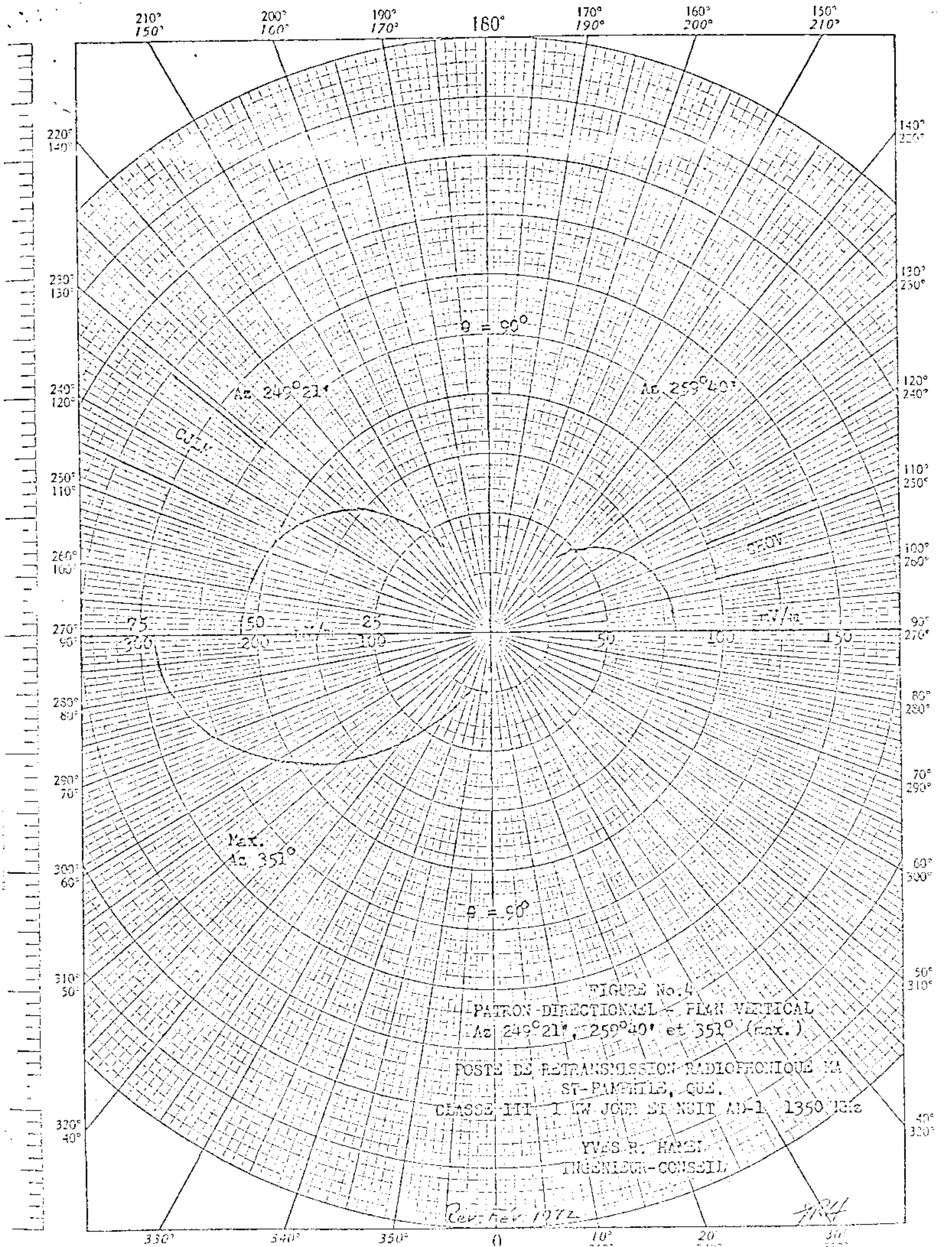


FIGURE No. 4
PATRON-DIRECTIONNEL - PLAN VERTICAL
Az 249°21', 259°40' et 351° (max.)

POSTE DE RETRANSMISSION RADIOPHONIQUE MA
ST-PAMPHILE, QUE.
CLASSE III 1 KW JOUR ET NUIT AD-1 1350 kHz

YVES R. HAMEL
INGENIEUR-CONSEIL

Description Sheet
(9-28-67ct)

Station CFOM
Quebec, Quebec

1kw,DA-1,U,Class II
1350 kc

[illegible] ANTENNA DESCRIPTION SHEET

[illegible]: MAIN STUDIO: QUEBEC, QUE.

[illegible]: POWER: 1 KW [illegible] CLASS [illegible]

[illegible]: 230 DATE: August 15, 1967

[illegible]: North Latitude: 46 45' 06"
West Longitude: 71 10' 54"

[illegible]

[illegible] operation: 1 kw directional day and night [illegible] same pattern

Number of elements: Two

Type of elements: Uniform cross-section guyed steel tower, base insulated for series feed

Tower: No. 1 (A) No. [illegible] (C)

[illegible] Insulator: [illegible]' (92°) [illegible]' (92°)

[illegible] : 1 [illegible].9

[illegible] : [illegible] 145

[illegible] : [illegible]' (60°)

Orientation : On a line bearing 5° east of north

Ground System : [illegible] equiangularly spaced radials extending from the base of the tower to a minimum distance of [illegible] (0.[illegible] wave length), with the exception of those joined along the common chord. The total area covered by radials is larger than the area that would be covered without the property limitations and 0.4 wave length long radials. All radials. All radials are buried to a depth of approx. [illegible] inches. Intersecting radials are bonded together.

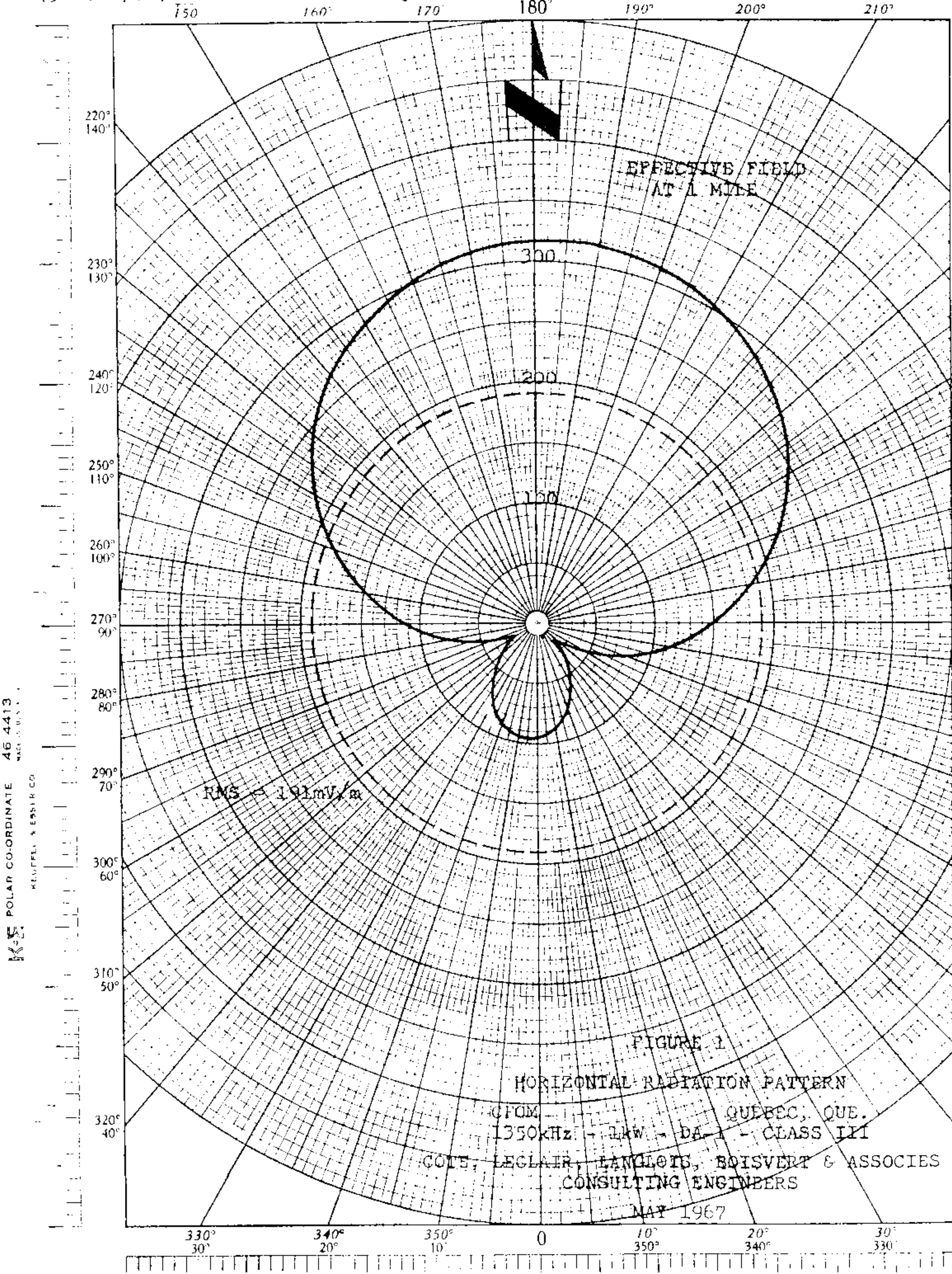
[illegible] Effective Field:
[illegible] MV/M at 1 mile for 1 KW.

COTE. LECLAIR. LANGLOIS. BOISVERT & ASSOCIES

Proposed Day & Night
(9-28-67ct)

Station CFOM
Quebec, Quebec

1kw,DA-1,U,Class III
1350 kc



7/46

CHOV
1350

Station: C H O V Main Studio: Pembroke, Ontario.

Power: 1000 watts Frequency: 1350kc Class: III-B

Location:

North Latitude: 45° 48' 25"

West Longitude: 77° 04' 10"

Antenna:

Mode of operation DAY and NIGHT

Two elements, guyed, series-fed, no top loading.

Tower:	Northeast	Southwest
Height above insulators:	182'	182'
Spacing:	401' (198.5°)	
Phasing:	0°	0°
Field Ratio:	1.0	0.8
Ground System:	290' radials spaced 3°.	290' radials spaced 3°.

Predicted effective field: 174 mv/m at one mile (174 per kw)

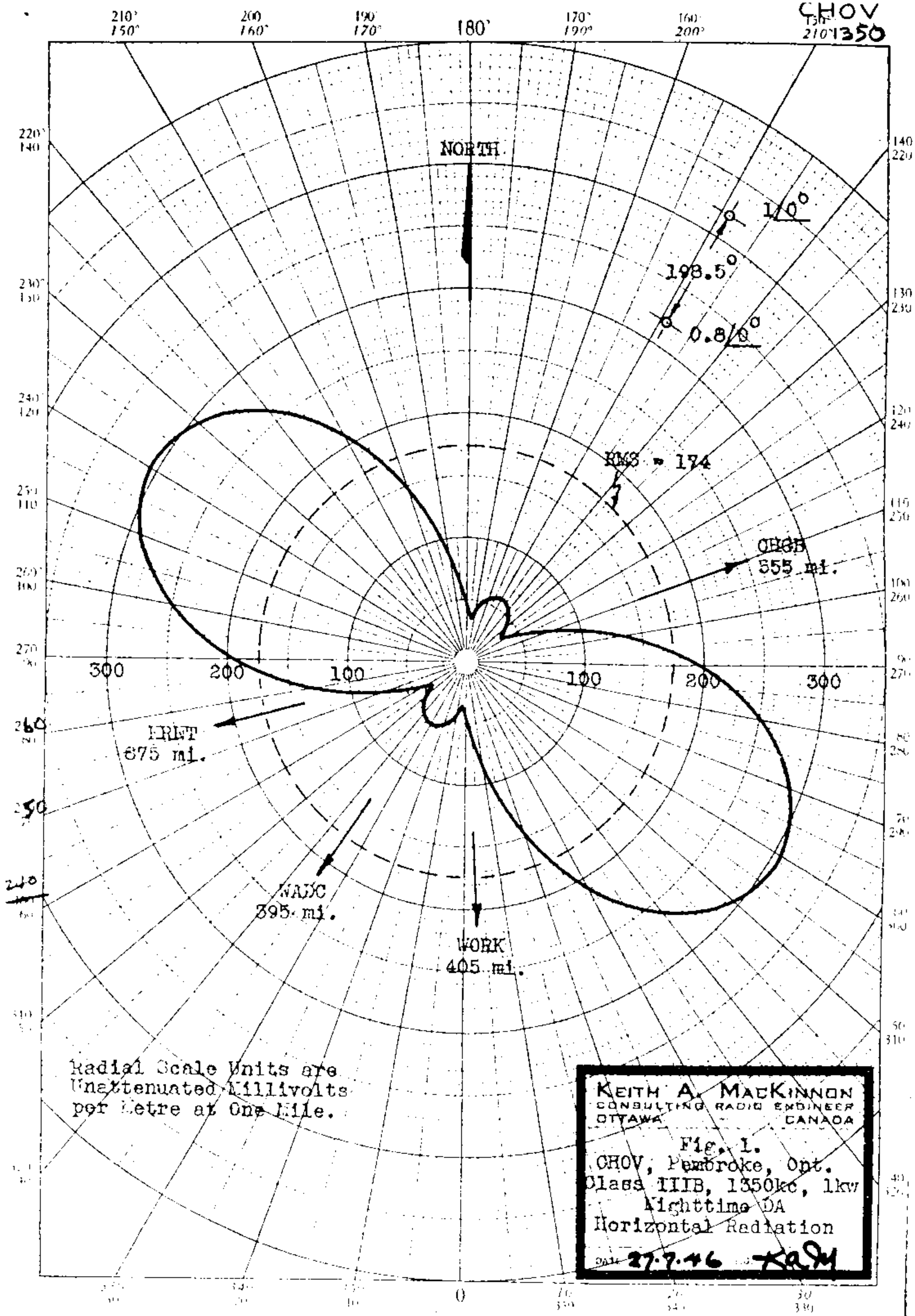
Orientation: Line through towers bears N 31° E

5

11

7/4/46

CHOV 1350



KEITH A. MACKINNON
CONSULTING RADIO ENGINEER
OTTAWA CANADA

Fig. 1.
CHOV, Pembroke, Ont.
Class IIIB, 1350kc, 1kw
Nighttime DA
Horizontal Radiation

DATE 27.7.46 KAM

2

DESCRIPTION SHEET

STATION: CJLM	MAIN STUDIO: JOLIETTE, QUEBEC
POWER: 10 KW DAY / 1 KW NIGHT	FREQUENCY: 1350 KHZ CLASS: III
NOTIFICATION LIST NO.: 288	DATE: April, 14. 1972
GEOGRAPHICAL LOCATION:	N. LAT. 45° 59' 10" W. LONG. 73° 25' 52"

ANTENNA CHARACTERISTICS

MODE OF OPERATION: DA-2

ANTENNA CHARACTERISTICS: THREE ELEMENTS, UNIFORM CROSS SECTION GUYED STEEL TOWER, BASE INSULATED FOR SERIES FEED.

TOWERS:	# 1N	# 2C	# 3S
HEIGHT ABOVE INSULATORS:	183' (90°)	183' (90°)	183' (90°)
FIELD RATIOS (DAY)		0.30	1.00
FIELD RATIOS (NIGHT)	1.00	1.85	1.00
PHASING (DAY)		-140	0
PHASING (NIGHT)	-157	0	+163
SPACING	152'(75°)	152'(75°)	

ORIENTATION: LINE OF TOWERS: 15° WEST OF NORTH

GROUND SYSTEM: 120 EQUIANGULARLY SPACED RADIALS EXTENDING FROM THE BASE OF EACH TOWER TO A DISTANCE OF 300' (0.41 WAVE LENGTH WITH THE EXCEPTION OF THOSE JOINED ALONG THE COMMON CHORD. THE GROUND WIRES CONSIST OF SOLID COPPER WIRE #10 AWG BURIED TO A DEPTH OF APPROXIMATELY 8 INCHES.

PREDICTED EFFECTIVE FIELD:
DAY 190 MV/M FOR 1KW 600 MV/M FOR 10 KW
NIGHT 207 MV/M FOR 1K

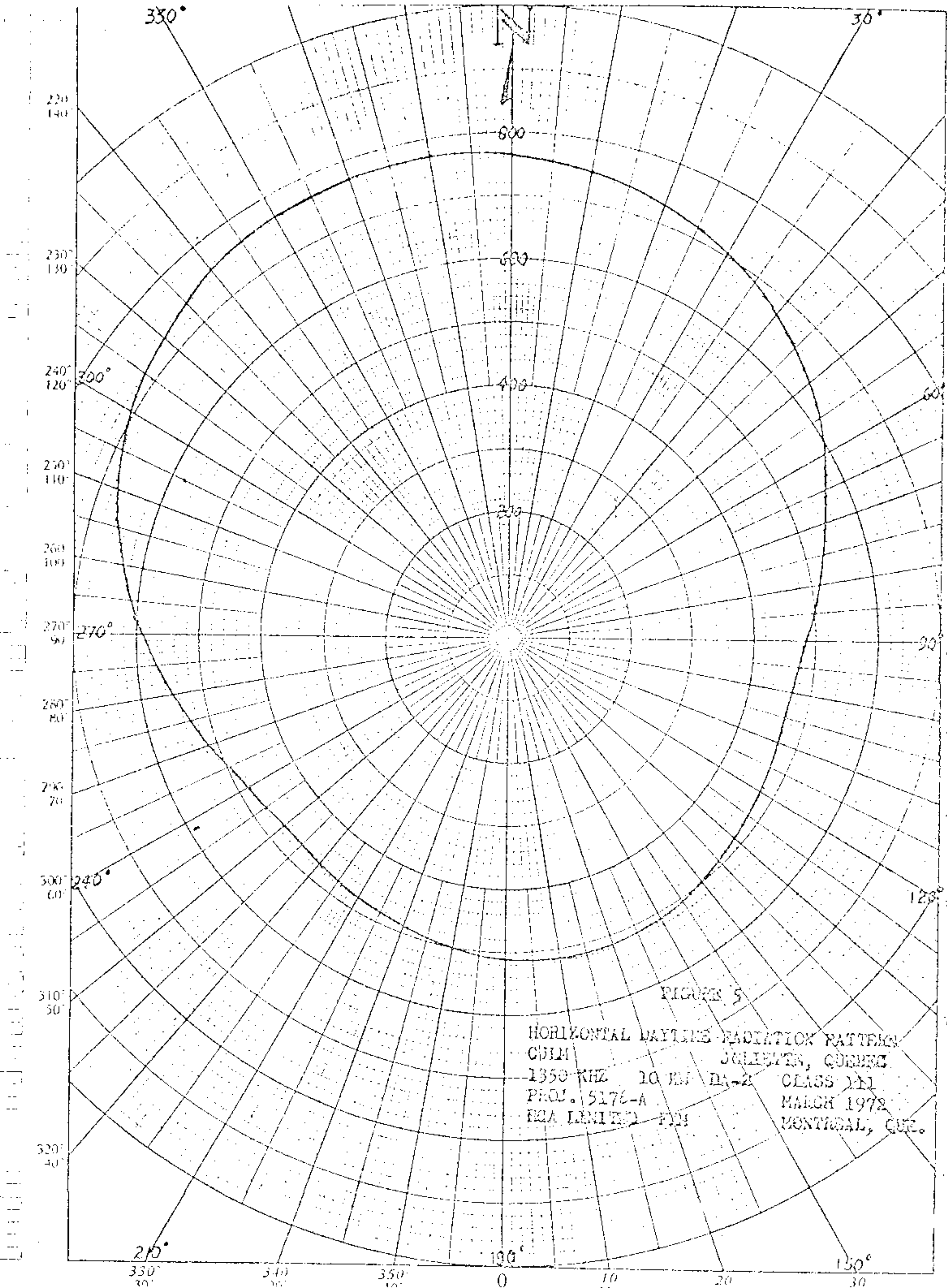


FIGURE 5

HORIZONTAL DAYTIME RADIATION PATTERN
CJLM JOLIETTE, QUEBEC
1350 KHZ 10 KW DA-2 CLASS III
PROJ. 5176-A MARCH 1972
RCA LIMITED MONTREAL, QUE.

CHRO
~~1350~~

IFRB Serial No. 1 2 3 3 4

FORM FOR THE APPLICATION OF ARTICLE 4 OF THE AGREEMENT

CHARACTERISTICS OF A REGION 2 BROADCASTING STATION IN THE BAND 535 - 1605 kHz

CALL LETTER CHANGE

PART I GENERAL INFORMATION

(01) Administration: CANADA | Sheet No. 415 | Date 821130

Assigned frequency (kHz)		02	1 3 5 0
Transmitting station	Name of the station	03	P E M B R O K E O N
	Call sign	04	C H R O
	Additional Identification	05	
	Station class	06	
	Operational Status	07	
Country		08	CAN
Geographical coordinates of the transmitting station		09	W N

(11) a) New assignment [ ] b) Modification of characteristic of an assignment recorded in the plan [X] c) Cancellation of an assignment [ ]

(12) Modification under Section 4.2.14 Call sign Yes [X] No [ ]

(13) Date of bringing into service or cessation of operation [ ] Year Month Day

STATION PARAMETERS	DAYTIME OPERATION	NIGHT-TIME OPERATION
Station power (kW)	21	31
r.m.s. value of radiation for station power (mV/m at 1 km)	25	35
Antenna type	26	36
Simple vertical antenna electrical height (degrees)	27	37

(44) Remarks

COORDINATION UNDER ARTICLE 4:								
COUNTRY	USA							
IN PROGRESS								
ACCEPTANCE OBTAINED								

MAY 20 59

Joliette, Canada CJLM

DESCRIPTION SHEET
(9-4-59g)

New Station 1kw, DA-1,U, Class III
Joliette, Quebec, Canada 1350 KC

DESCRIPTION SHEET

DIRECTIONAL ANTENNA SYSTEM

STATION: NEW

MAIN STUDIO: JOLIETTE, QUE.

POWER: 1 KW

FREQUENCY: 1350 KC/S CLASS: III

GEOGRAPHICAL LOCATION OF
CENTRE OF ANTENNA SYSTEM:

NORTH LAT. NL 45° 59' 10''
WEST LONG. WL 73° 25' 52''

ANTENNA:

MODE OF OPERATION:	DA-1 (SAME PATTERN DAY AND NIGHT) THREE ELEMENT UNIFORM CROSS SECTION GUYED STEEL TOWERS, BASE INSULATED FOR SERIES FEED		
TOWER:	#1 NORTH	#2 CENTRE	#3 SOUTH
HEIGHT ABOVE INSULATORS	183' (90°)	183' (90°)	183' (90°)
SPACING	152' (75°)	152' (75°)	
PHASING	-157°	0°	+163°
FIELD RATIO	1.0	1.85	1.0
ORIENTATION	LINE OF TOWERS: 15° WEST OF NORTH		

GROUND SYSTEM: 120 EQUIANGULARLY SPACED RADIALS EXTENDING FROM THE BASE OF EACH TOWER TO A DISTANCE OF 293 FT. (0.4 WAVELENGTH) WITH THE EXCEPTION OF THOSE RADIALS JOINED ALONG THE COMMON CHORD. THE GROUND WIRES CONSIST OF SOLID COPPER WIRE #10 B & S GAUGE AND ARE BURIED TO A DEPTH OF APPROXIMATELY 8 INCHES.

PREDICTED EFFECTIVE FIELD: 207 MV/M AT ONE MILE FOR 1 KW

REVISED MAY 20, 1959.

MAY 20 '59

JOLIETTE, CANADA CULM

PROPOSED DAY & NIGHT
(9-4-59g)

New Station
Joliette, Quebec, Canada

1kw, DA-1,U, Class III
1350 KC

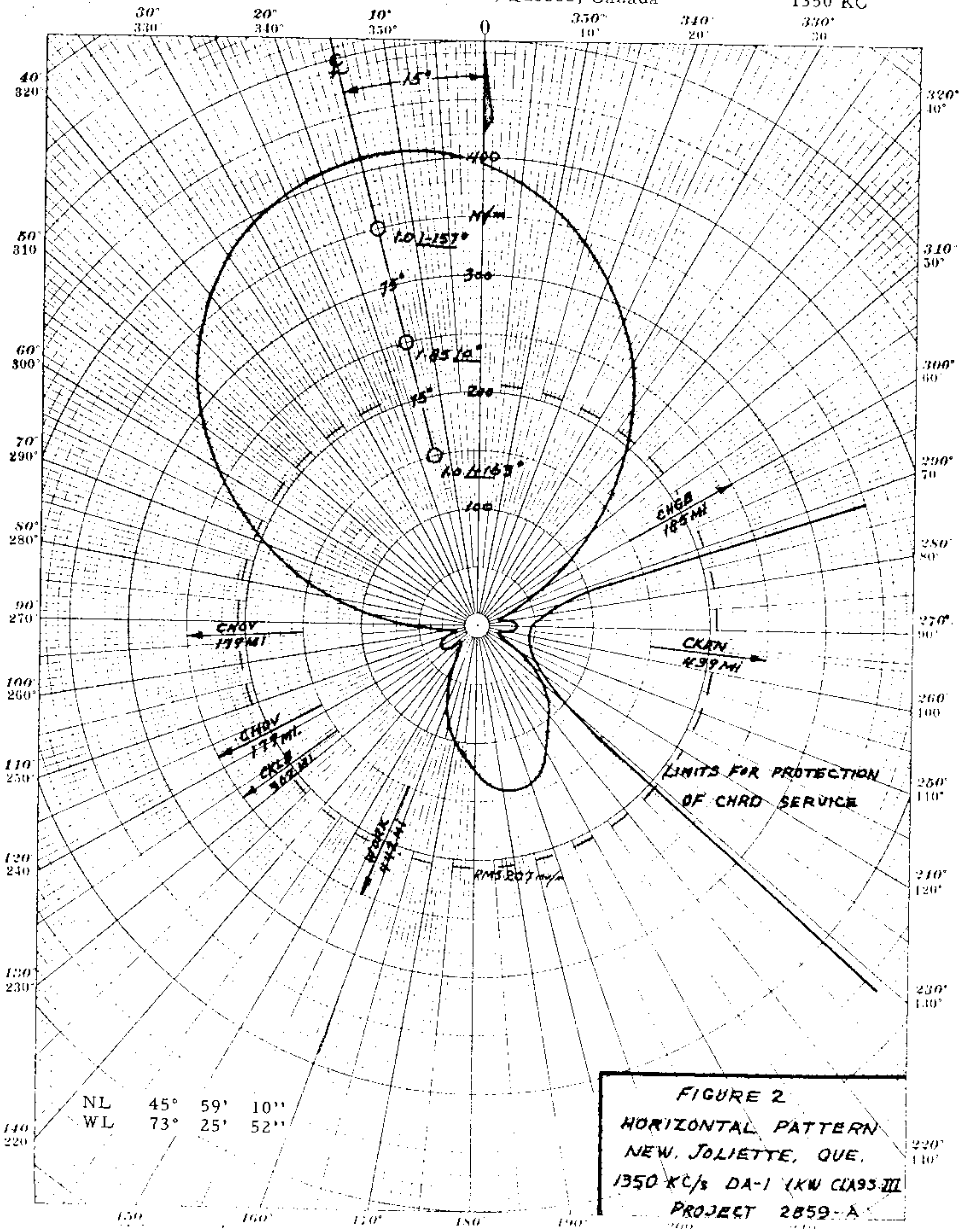


FIGURE 2
HORIZONTAL PATTERN
NEW. JOLIETTE, QUE.
1350 KC/s DA-1 1KW CLASS III
PROJECT 2859-A

MAY 20 59

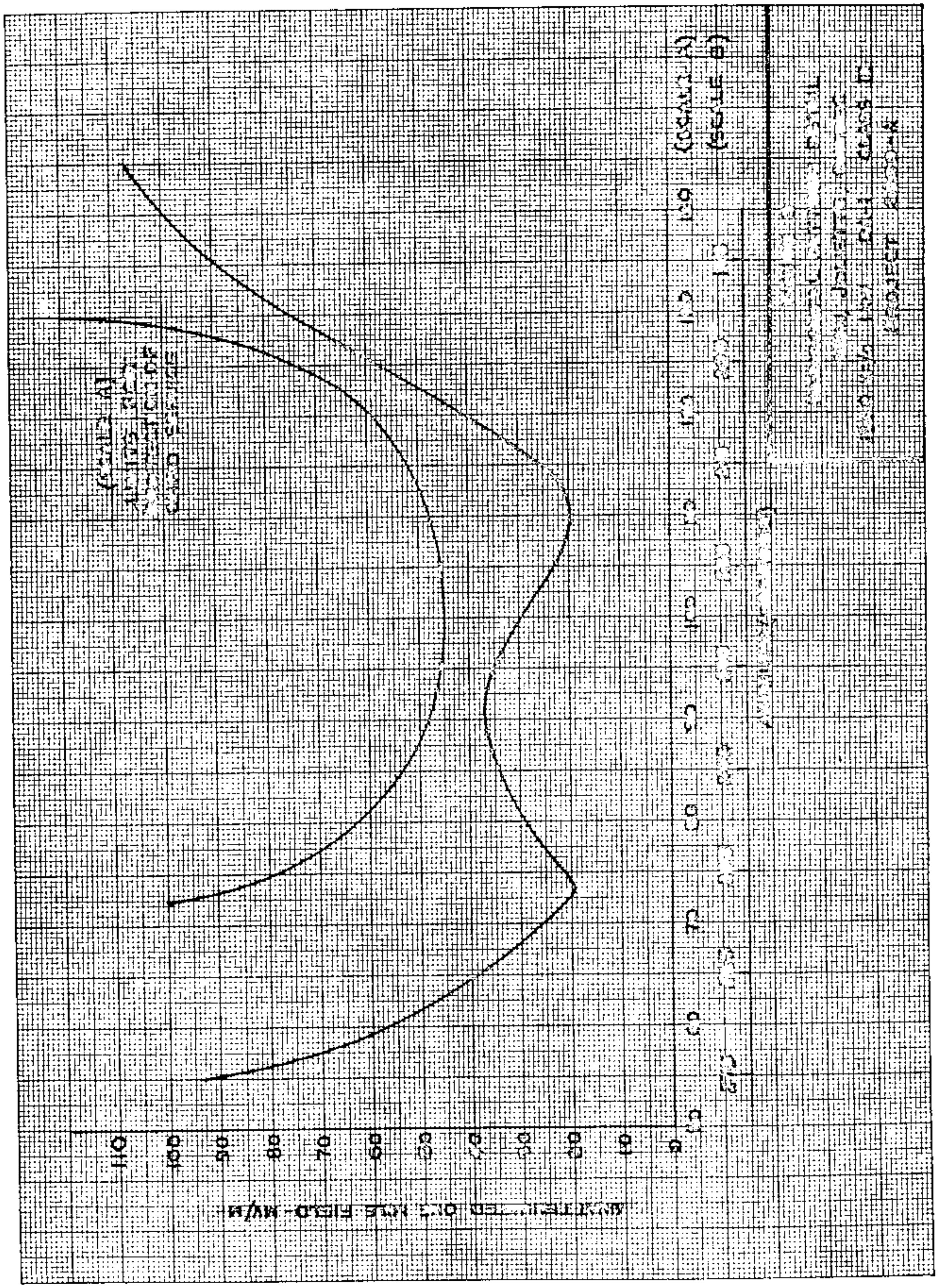
Joliette, Canada

CJLM

PROPOSED DA-1 NULLS (9-4-59g)

New Station
Joliette, Quebec, Canada

1kw, DA-1, U, Class III
1350 KC



CKAD

CORRECTED DATA

DESCRIPTION SHEET - DIRECTIONAL ANTENNA

LOCATION : Middleton, N.S.

STATION : CKAD   MAIN STUDIO : Kentville, N.S.

FREQUENCY : 1350 KHz   POWER : 1 Kw   CLASS : III

Notification List No. : 244   Date : August 23, 1968

GEOGRAPHICAL LOCATION OF THE ANTENNA SYSTEM : 44° 59' 15" N. Latitude
65° 01' 30" W. Longitude

ANTENNA CHARACTERISTICS :

Mode of Operation : DA-1 U

No. of Elements : 3 (three)

Type of Elements : Uniform cross-section, guyed, base insulated, series fed, no top loading.

Tower	:	#1 (SE)	#2 (C)	#3 (NW)
Height above Insulator	:	222ft.(110°)	222ft.(110°)	222ft.(110°)
Spacing	:	344ft.(170°)	344ft.(170°)	
Field Ratio	:	0.5	1.0	0.5
Phasing	:	-55°	0°	+55°

Orientation : Line of towers 136° East of True North.

Ground System : 120 equiangularly spaced radials per tower, No. 10 AWG, soft-drawn copper wire, bare and buried approximately 8" in ground, and extending to the limits of the property in order to cover an area equivalent to a 0.4 wavelength radial system.

PREDICTED EFFECTIVE FIELD :

184 mV/m at one mile for 1 Kw radiated.

Note: To this corrected description sheet and horizontal radiation pattern attach the vertical radiation patterns submitted previously relative to List No. 244.

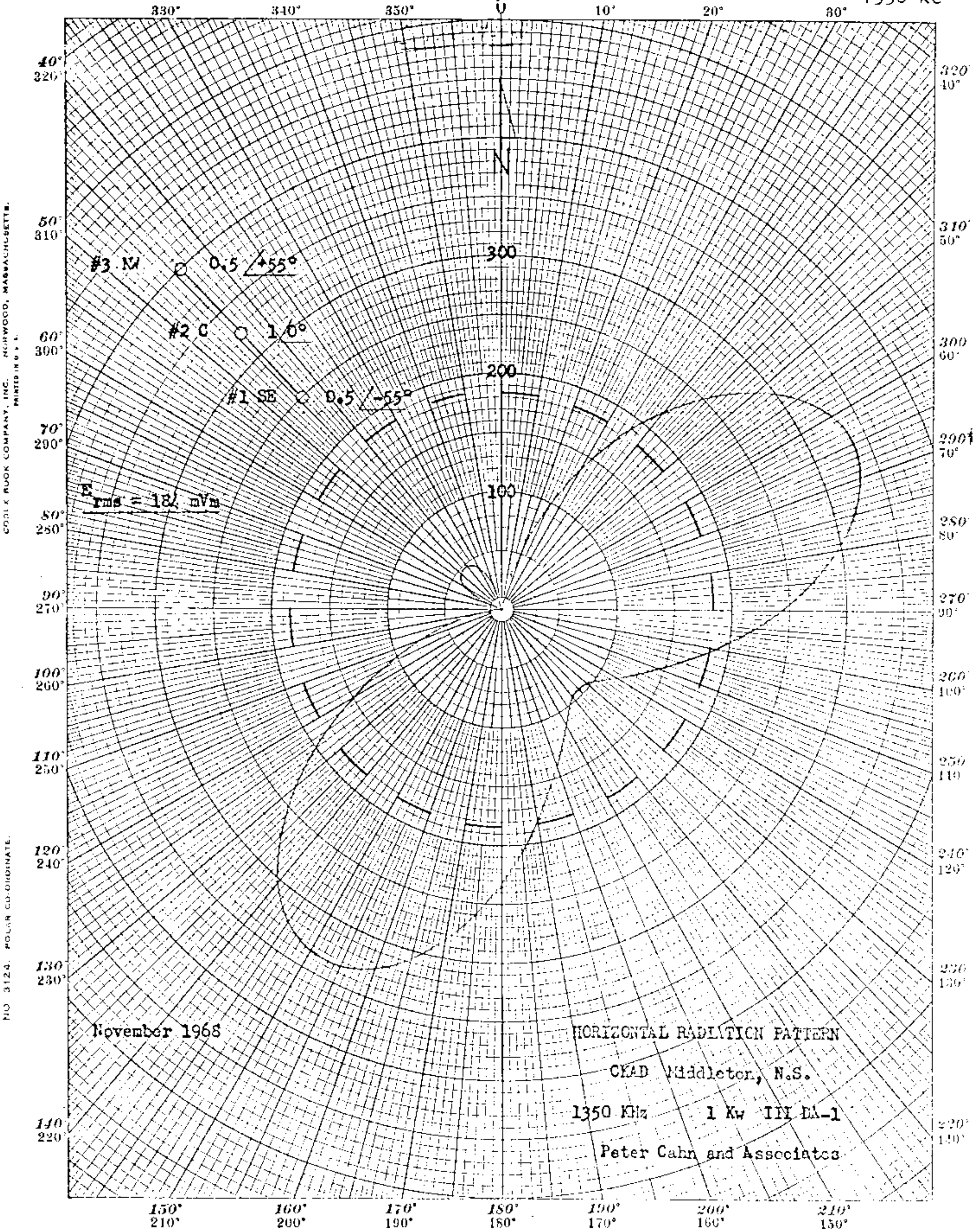
PETER CAHN & ASSOCIATES
CONSULTING ENGINEERS

CKAD

Proposed Day & Night
(1-28-69ct)

Station CKAD
Middleton, Nova Scotia

1kw,DA-1,U,Class III
1350 kc



CKAD

Description Sheet
(9-26-68ct)

Station CKAD
Middleton, Nova Scotia

1kw,DA-1,U,Class III
1350 kc

DESCRIPTION SHEET - DIRECTIONAL ANTENNA

STATION : CKAD

MAIN STUDIO : Middleton [redacted], N.S.

FREQ.: 1350 KHz. POWER 1 Kw. CLASS : III.

Notification List No. : [illegible] Date : August 23, [illegible]

GEOGRAPHICAL LOCATION OF THE ANTENNA SYSTEM : 44° 59' 15" N. Lat. 65° 01' 30" W.Long. (Middleton, N.S.)

ANTENNA CHARACTERISTICS :

Mode of Operation : DA-1, U

No. of Elements : 3 (three)

Type of Elements : Uniform cross-section, guyed, base insulated series fed, no top loading.

Tower	#1 (SE)	#2 (C)	#3 (NW)
Height above Insulator :	222ft.(110°)	222ft.(110°)	222ft (110°)
Spacing :	344ft. (170°)	344ft. (170°)	
Field Ratio	0.5	1.0	0.5
Phasing :	-55°	[illegible]	55°

Orientation : Line of towers [illegible]° East of True North

Ground System: 120 equiangularly spaced radials per tower. No. 10 AWG soft drawn copper wire bare and buried approximately 8" in ground, and extending to the limits of the property in order to cover an area equivalent to 0.4 wavelength radial system.

PREDICTED EFFECTIVE FIELD :

184 mV/m at one mile for 1 Kw radiated.

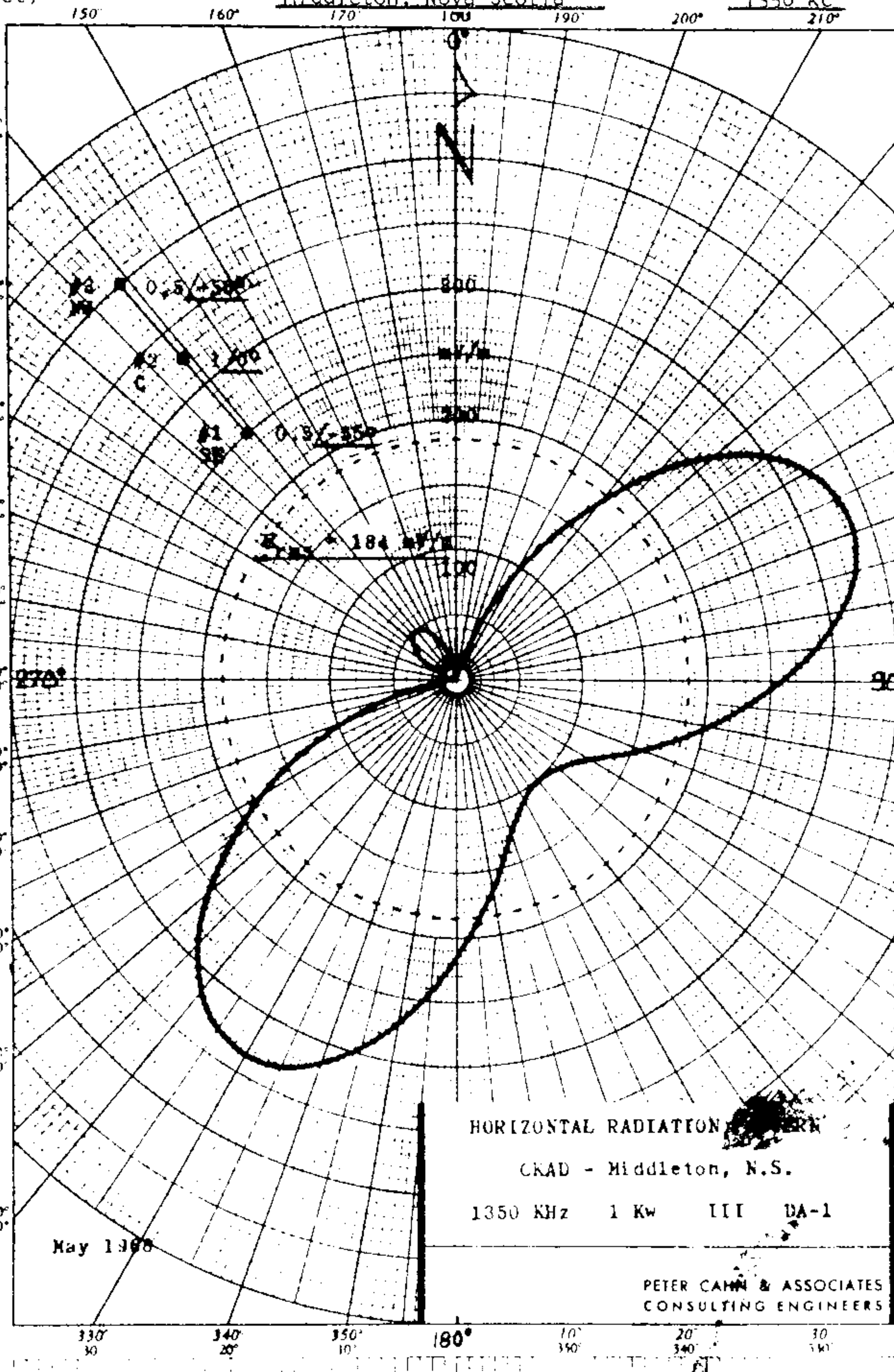
PETER CAHN & ASSOCIATES
CONSULTING ENGINEERS

CKAD

Proposed Day & Night
(9-26-68ct)

Station CKAD
Middleton, Nova Scotia

1kw,DA-1,U,Class III
1350 kc



CKEG
1350kHz

DIRECTIONAL ANTENNA DESCRIPTION SHEET

STATION: CKEG — MAIN STUDIO: NANAIMO, B.C.

POWER: 10 KW — FREQUENCY: 1350 KHZ CLASS III

NOTIFICATION LIST NO: 403 — DATE: February 12, 1981

GEOGRAPHICAL LOCATION: NORTH LATITUDE 49° 09' 07"
WEST LONGITUDE 123° 48' 40"

ANTENNA CHARACTERISTICS

MODE OF OPERATION: DA-1

ANTENNA CHARACTERISTICS: Four guyed elements, uniform cross-section, guyed steel towers; base insulated for series feed, no top loading.

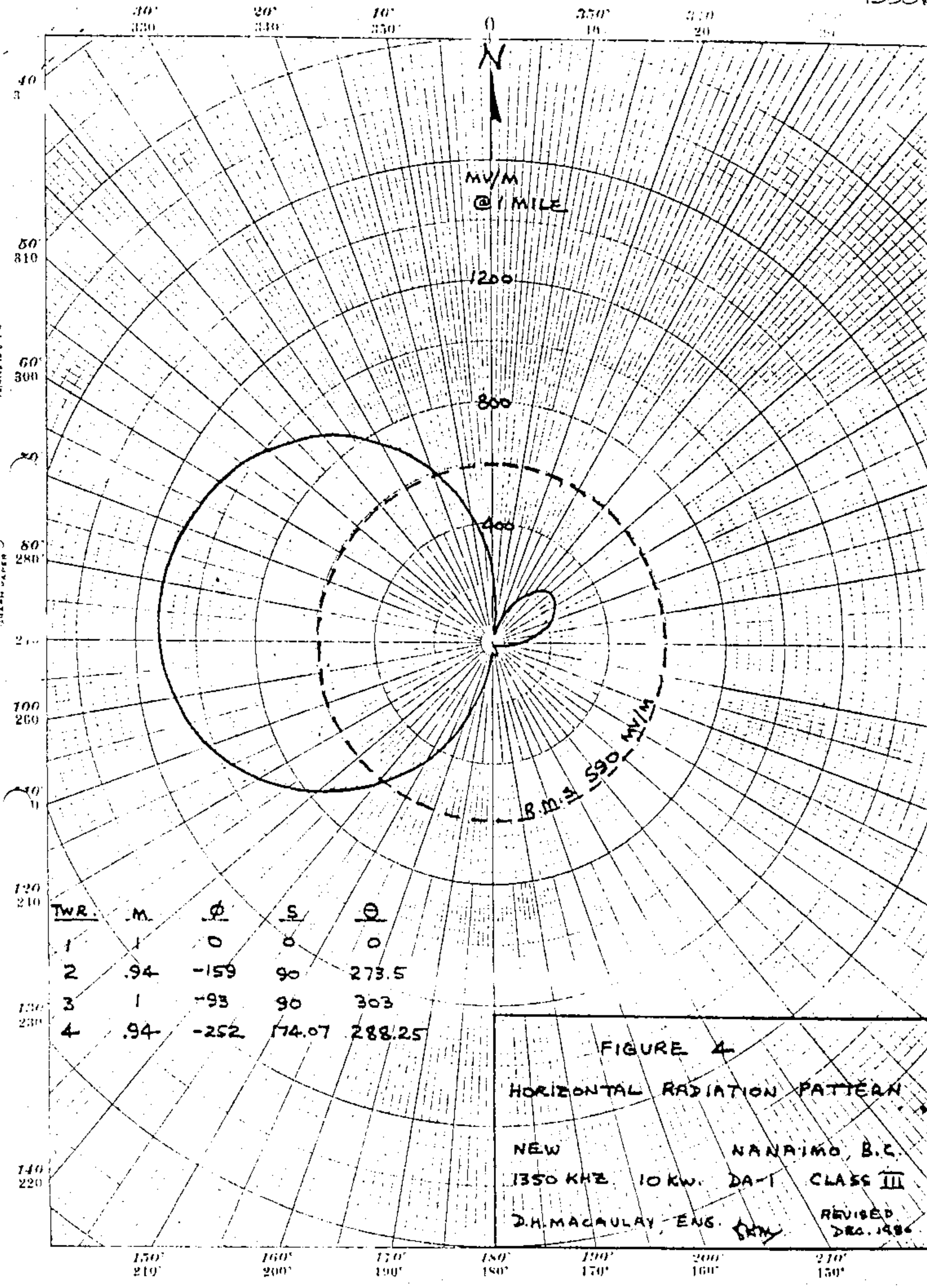
TOWERS:	No. 1	No. 2	No. 3	No. 4
HEIGHT ABOVE INSULATORS:	145' (71.6°)	145'	145'	145'
OVERALL HEIGHT:	150'	150'	150'	150'
FIELD RATIO:	1.0	0.94	1.0	0.94
PHASING:	0	-159°	-93°	-252°
SPACING:	0	90° (182.2')	90° (182.2')	174.07° (352.4')
ORIENTATION:	0	273.5°	303°	288.25°

GROUND SYSTEM: 120 equiangularly spaced radials extend from the base of each tower to a maximum distance of 291.5 feet (0.4 wavelength) and bonded along the common cord. Ground wires are No. 10 AWG soft copper wire, buried approximately 8" in the ground.

PREDICTED EFFECTIVE FIELD: 390 mv/m for 10 kw
(187 mv/m for 1 kw)

REVISED DECEMBER 1980

CKEG
1350 kHz



TWR.	M.	φ	S	θ
1	1	0	0	0
2	.94	-159	90	273.5
3	1	-93	90	303
4	.94	-252	174.07	288.25

FIGURE 4

HORIZONTAL RADIATION PATTERN

NEW NANAIMO, B.C.

1350 KHZ 10 KW. DA-1 CLASS III

D.H. MACAULAY, ENG.

REVISED DEC. 1986

~~UEW-G~~ 1350kHz

DIRECTIONAL ANTENNA DESCRIPTION SHEET

STATION: NEW

MAIN STUDIO: NANAIMO, B.C.

POWER: 10KW

FREQUENCY: 1350 KHZ CLASS 111

NOTIFICATION LIST NO: 400

DATE: November 17, 1980

GEOGRAPHICAL LOCATION: North Latitude 49° 09' 07" West Longitude 123° 48' 40"

ANTENNA CHARACTERISTICS

MODE OF OPERATION: DA-1

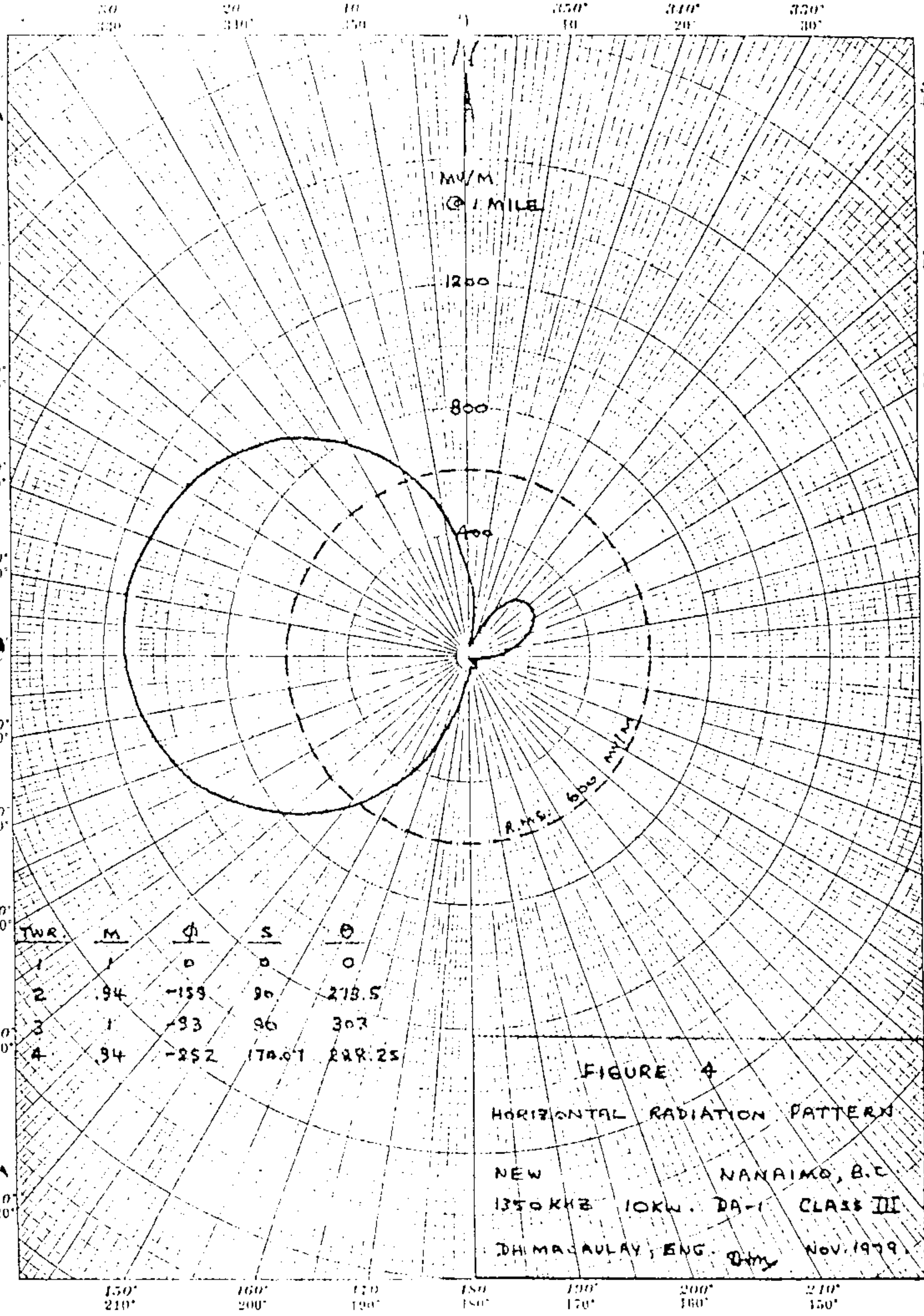
ANTENNA CHARACTERISTICS: Four elements, uniform cross-section, guyed steel towers; base insulated for series feed, no top loading.

TOWERS:	No. 1	No. 2	No. 3	No. 4
HEIGHT ABOVE INSULATORS:	145' (71.6°)	145'	145'	145'
OVERALL HEIGHT:	150'	150'	150'	150'
FIELD RATIO:	1.0	0.94	1.0	0.94
PHASING:	0	-159°	-93°	-252°
SPACING:	0	90° (182.2')	90° (182.2')	174.07° (352.4')
ORIENTATION:	0	273.5°	303°	288.25°

GROUND SYSTEM: 120 equiangularly spaced radials extend from the base of each tower to a maximum distance of 291.5 feet (0.4 wavelength) and bonded along the common cord. Ground wires are No. 10 AWG soft copper wire, buried approximately 6" in the ground.

PREDICTED EFFECTIVE FIELD: 600 mv/m for 10 KW (190 mv/m for 1 KW)

1350 KHZ



TWR.	M	Φ	S	Θ
1	1	0	0	0
2	.94	-159	90	273.5
3	1	-93	90	303
4	.94	-252	170.01	288.25

FIGURE 4

HORIZONTAL RADIATION PATTERN

NEW NANAIMO, B.C.

1350 KHZ 10KW. DA-1 CLASS III

D.H. MACAULAY, ENG. DHM NOV. 1979

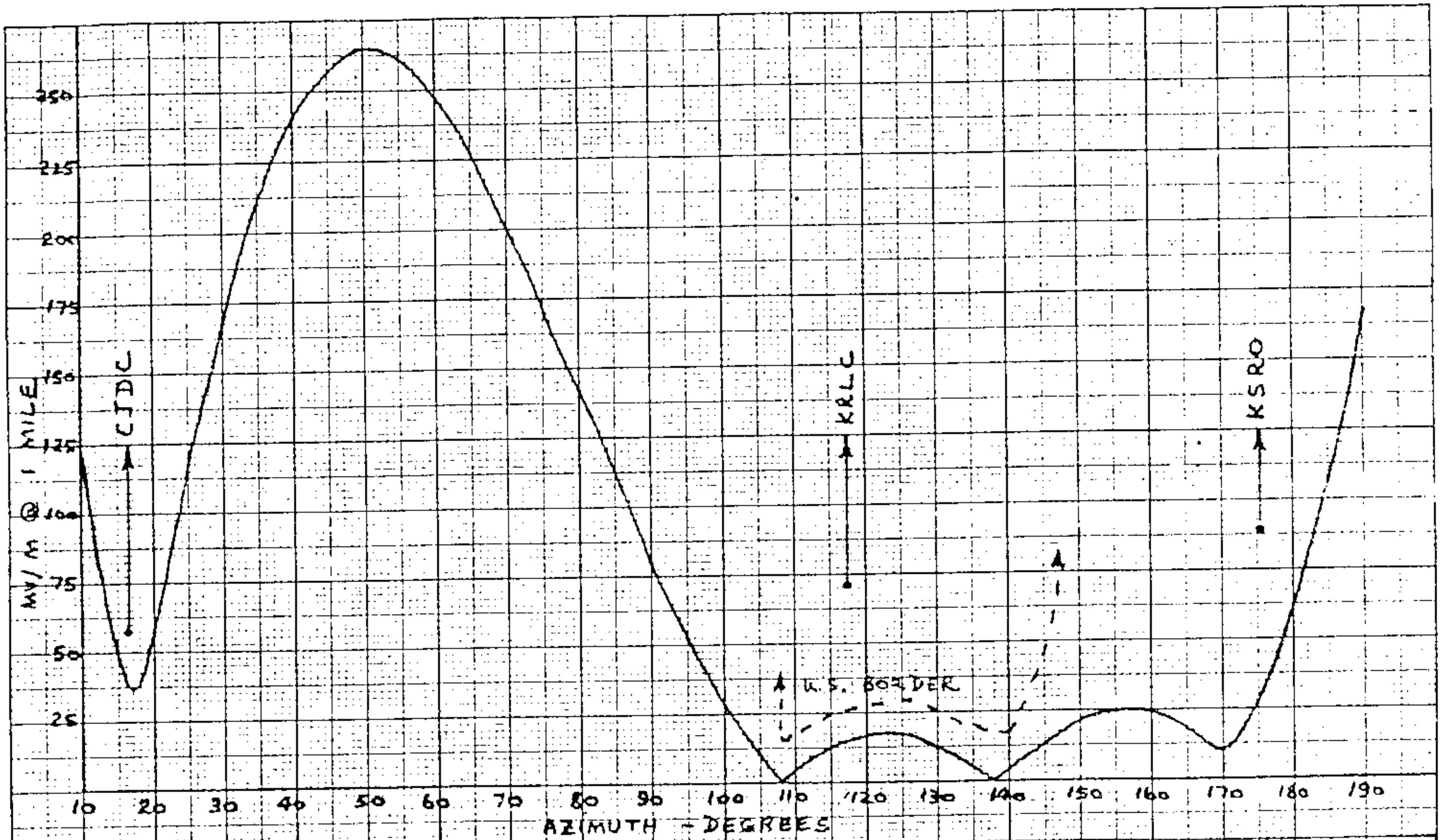
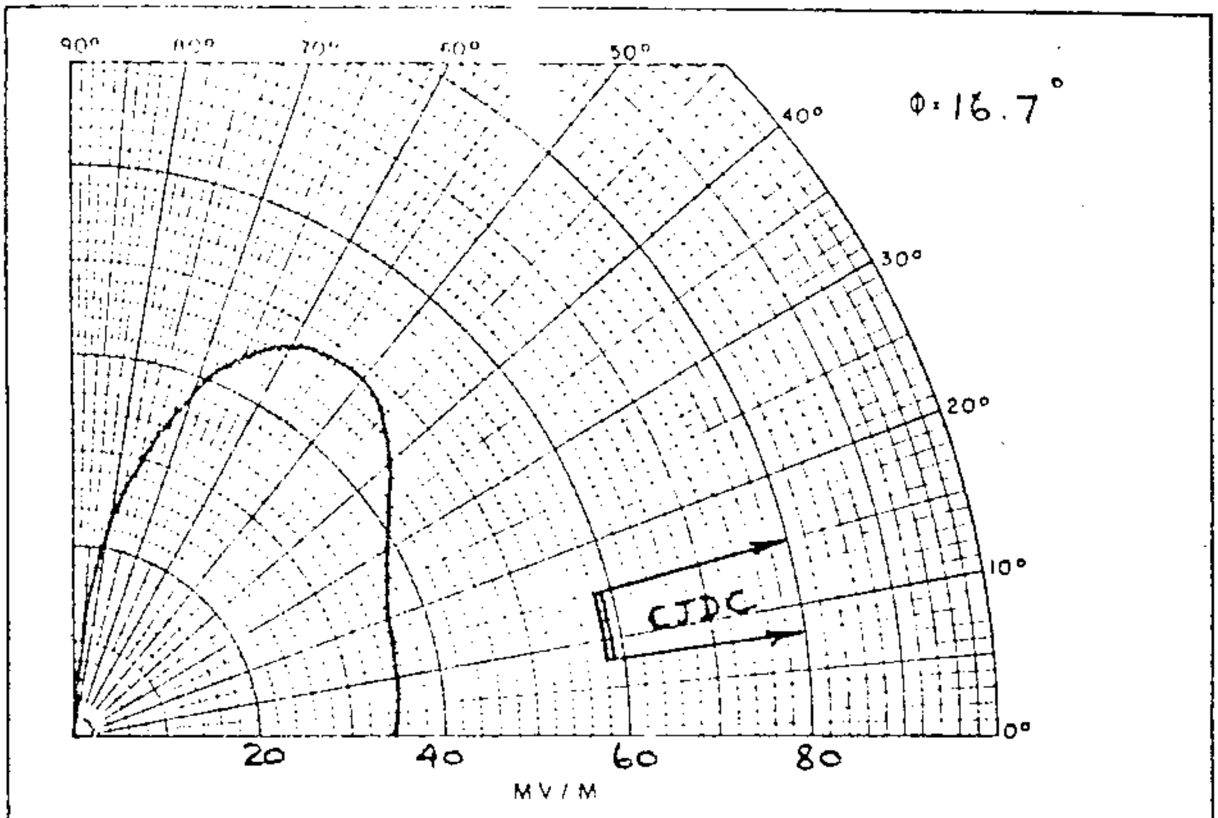
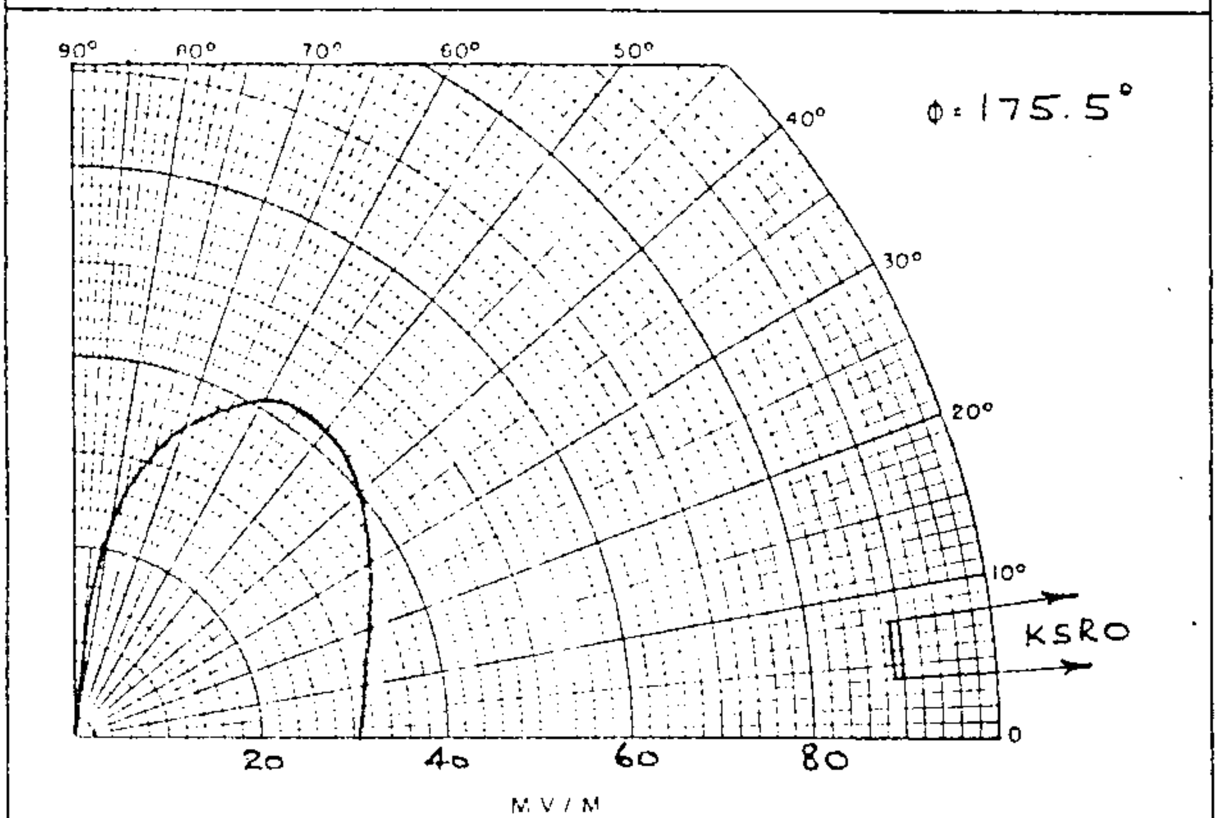


FIGURE 5
HORIZONTAL PATTERN DETAIL
NEW NANAIMO, B.C.
1350 KHZ. 10KW DA-1 CLASS III
D.H. MACAULAY ENG. NOV. 1979.

NEW ...
1350 KHz





VERTICAL RADIATION PATTERNS

FIGURE 6

NEW NANAIMO, B.C.

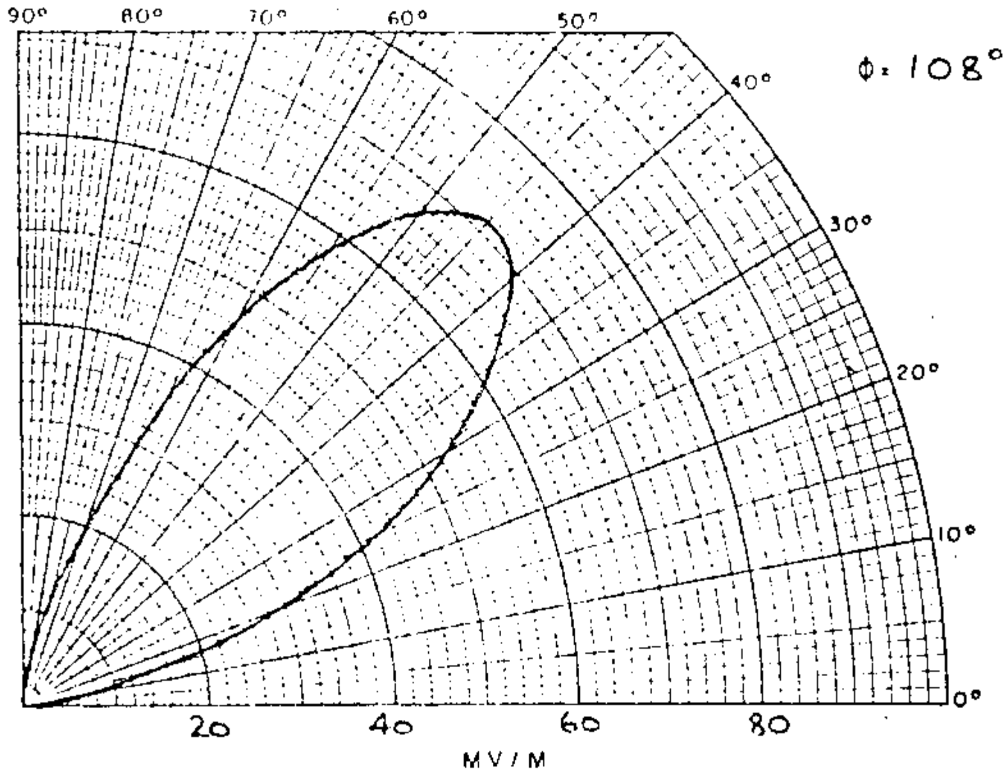
1350 KHZ. 10KW. DA-1 CLASS III

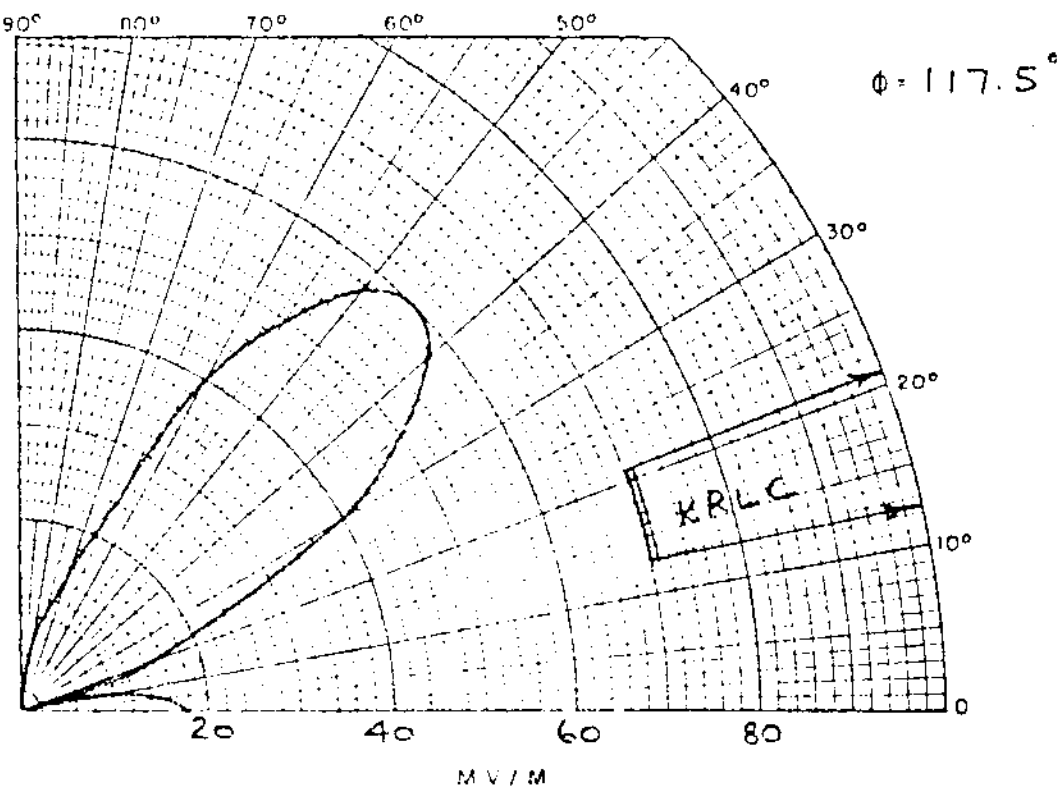
EHM

POLAR CO-ORDINATE NO. 10 LV CLEVELAND INSTITUTE OF RADIO ELECTRONICS CLEVELAND, OHIO

MADE IN U.S.A.

NEW ...
1350 KHZ





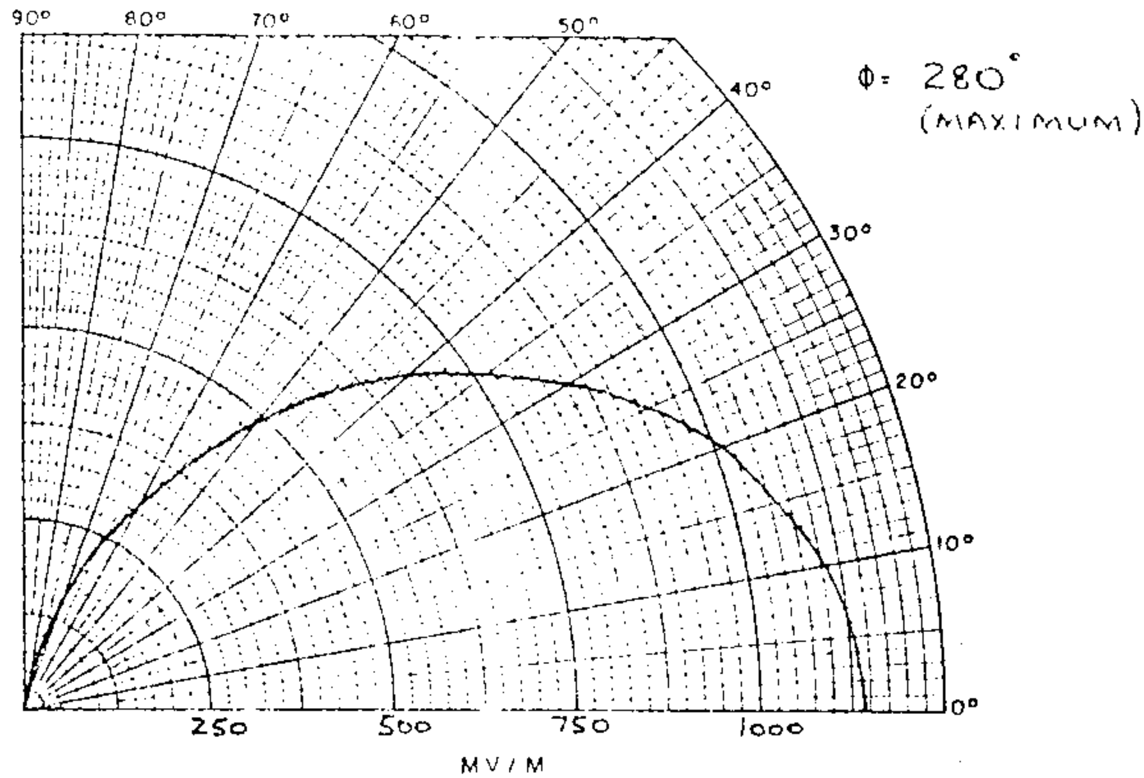
VERTICAL RADIATION PATTERNS

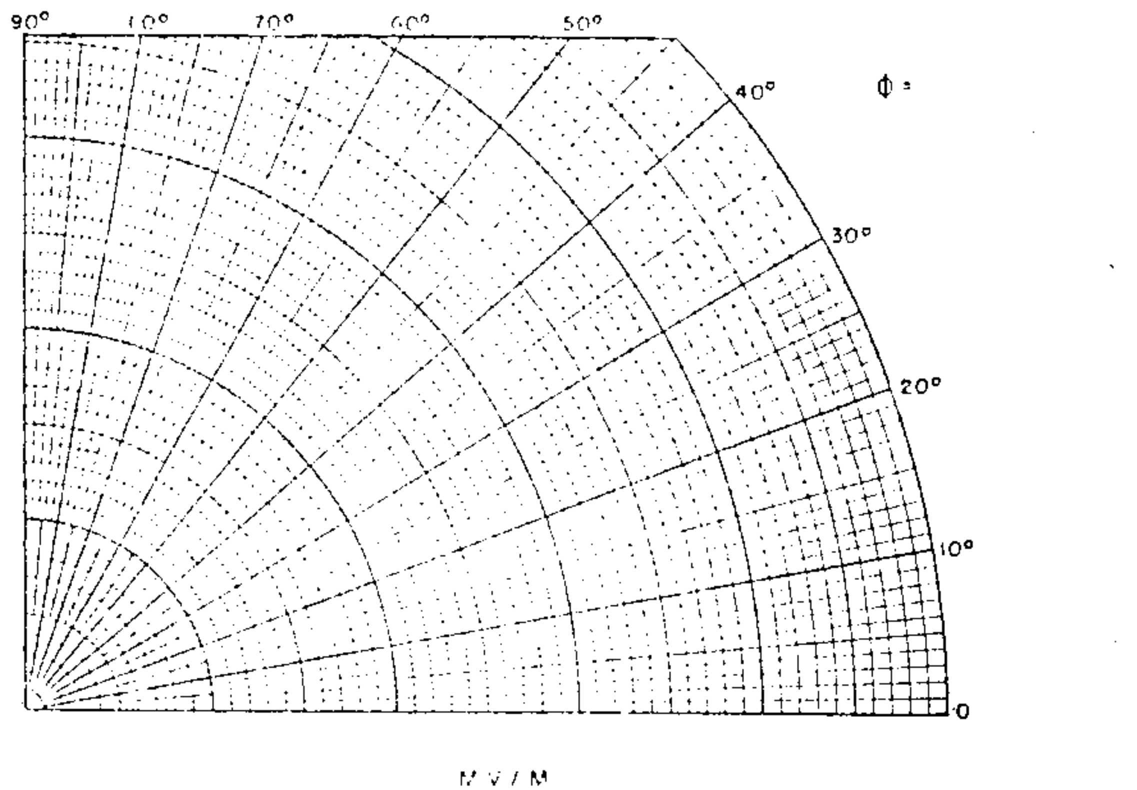
FIGURE 7

NEW NANAIMO, B.C.

1350 KHZ 10 KW. DA-1 CLASS III

NEW ...
1350 KHZ





VERTICAL RADIATION PATTERNS

FIGURE 8

NEW NANAIMO, B.C.

1350 KHZ 10 KW. DA-1 CLASS III

#95

CKEN

DESCRIPTION SHEET

PROPOSED NIGHT (11-28-55G) | STATION CKEN, KENTVILLE, NOVA SCOTIA, CANADA | 1000W, DA-N, CLASS III | 1350 KC

Description of Array

Station CKEN

Main Studio - Kentville, N.S.

Power 1000 w.

Class - III

Frequency 1350 Kc

Location Kentville, N.S.
North Latitude 45° 6' 40"
West Longitude 64° 29' 35"

Notification List No. 95.   Dated: August 29, 1955.

Antenna Mode of Operation DA-N
2 guyed elements, Base insulated, Series-fed

Tower	#1 (South East)		#2 (North West)
Height above Insulators	121.5' (60°)		121.5' (60°)
Overall Height	125'		125'
Spacing		121.5' (60°)	
Phasing	0°		150°
Field Ratio	1.0		1.25

Ground System North West Tower - 120 radials, length 230' (except between towers) and 120 radials 35' long.

South East Tower - 120 radials, lengths between 0.25 and 0.7 wavelengths.

Radials are constructed of #10 AWG bare soft copper wire, buried at a depth of 8 inches and bonded at intersections.

Proposed area of the ground system is equivalent to a ground system for a two tower array of 120 radials per tower. 0.4 of a wavelength except between towers.

Predicted Effective Field - 180 mv/m for 1Kw

Orientation of Towers - On a line bearing 23° west of true north.

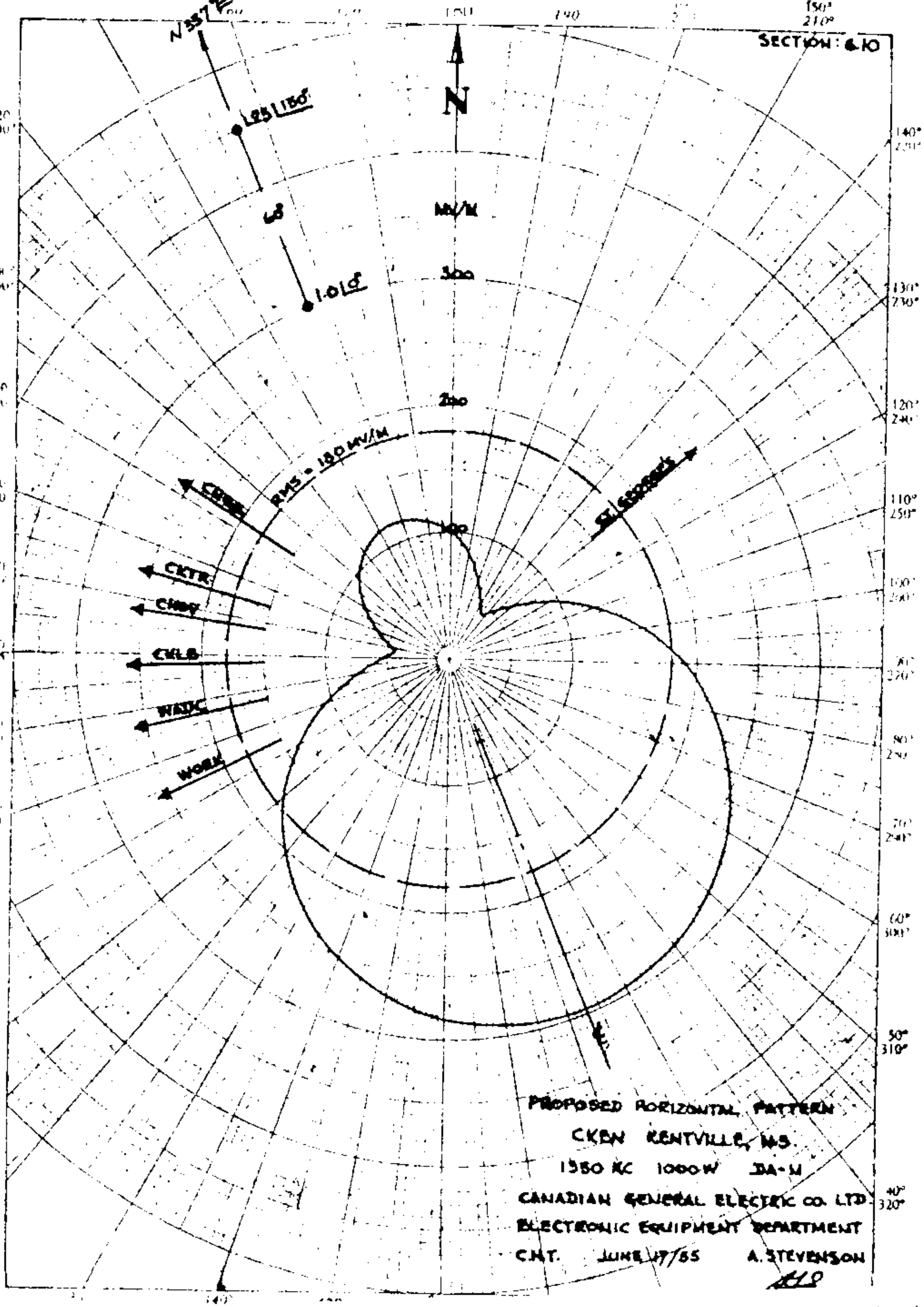
#95 CKEN

PROPOSED NIGHT
(11-28-55G)

STATION CKEN
KENTVILLE, NOVA SCOTIA, CANADA

1000 W
DA-N, CLASS III

1350 KC



NOTIFICATION LIST NO. 95 DATED: 8-29-55

CKEN, Kentville, Nova Scotia, Canada 1350 KC

CKLB

CORRECTED DIRECTIONAL ANTENNA DESCRIPTION SHEET

Station: CKLB

Main Studio: Oshawa, Ontario

Frequency: 1350 kcs.

Power: 10 kw Day/5 kw Night, Class: III

Notification List No. 346

Date: October 31, 1975

GEORGRAPHICAL LOCATION OF THE ANTENNA SYSTEM:

North Latitude: 43° 52' 19"

West Longitude: 78° 45' 54"

ANTENNA CHARACTERISTICS

Mode of operation: DA-2
Number of elements: five
Type of elements: guyed, base insulated, series fed.

Tower:	No. 1(South)	No.2	No.3	No.4	No.5
Height above insulators:	121'(60°)	182'(90°)	121'(60°)	121'(60°)	121'(60°)
Overall height:	125'	186'	125'	125'	125'
Spacing:	Ref.	78°	156°	234°	122°
True bearing:	Ref.	324°	325°	325°	275°
Day field ratio:	Unused	Unused	1.0	1.0	1.0
Day phasing:	"	"	20	-35	35
Night field ratio:	1.0	2.40	2.33	1.0	Unused
Night phasing	0°	202°	45°	247°	"

Orientation: See diagram on attached nighttime horizontal pattern sheet.

Ground system: 120 radials of #10 AWG bare soft copper wire, maximum length 292' per tower. Radials joined along a line between towers and bonded to soft copper strap.

Predicted effective day field: 553 mv/m at 1 mile for 10 kw. (175 mv/m for 1 kw)
Predicted effective night field: 186 mv/m at 1 mile for 1 kw.

NOTE: Please retain day-time and nighttime radiation patterns previously supplied and attach to this corrected directional antenna description sheet. The daytime phasing of towers 3 and 4 has been corrected in order to comply with the daytime radiation pattern supplied.

7/127

CKLB

Description Sheet (11-30-61ct) | Station CKLB Oshawa, Ontario | 5kw,10kw-LS,DA-2,U 1350 kc Class III

SUPPLEMENTAL
DIRECTIONAL ANTENNA DESCRIPTION SHEET

Station: CKLB

Main Studio: Oshawa, Ontario

Frequency: 1350 kcs.

Power: 10 kw Day/5 kw Night, Class: III

Notification List No. 127

Date: November 28, 1958

GEOGRAPHICAL LOCATION OF THE ANTENNA SYSTEM:

North Latitude: 43° 52' 19"

West Longitude: 78° 45' 54"

ANTENNA CHARACTERISTICS

Mode of operation: DA-2
Number of elements: Five
Type of elements: guyed, base insulated, series fed.

Tower:	No.1(South)	No.2	No.3	No.4	No.5
Height above insulators:	121'(60°)	182'(90°)	121'(60°)	121'(60°)	121'(60°)
Overall height:	125'	186'	125'	125'	125'
Spacing:	Ref.	78°	156°	234°	122°
True bearing:	Ref.	324°	325°	325°	275°
Day field ratio:	Unused	Unused	1.0	1.0	1.0
Day phasing:	"	"	-35°	20°	35°
Night field ratio:	1.0	2.40	2.33	1.0	Unused
Night phasing	0°	202°	45°	247°	"

Orientation: See diagram on attached nighttime horizontal pattern sheet.

Ground system: 120 radials of #10 A.W.G. bare soft copper wire, maximum length 292' per tower. Radials joined along a line between towers and bonded to soft copper strap.

Predicted effective day field: 553 mv/m at 1 mile for 10 kw. (175 mv/m for 1 kw)
Predicted effective night field: 180 mv/m at 1 mile for 1 kw.

N.B.: Please retain daytime horizontal and nighttime vertical patterns previously supplied for CKLB and attach to this supplemental description sheet and nighttime pattern. Daytime and nighttime description sheets have been combined and a tower diagram has been shown on nighttime pattern sheet.

21.9.61

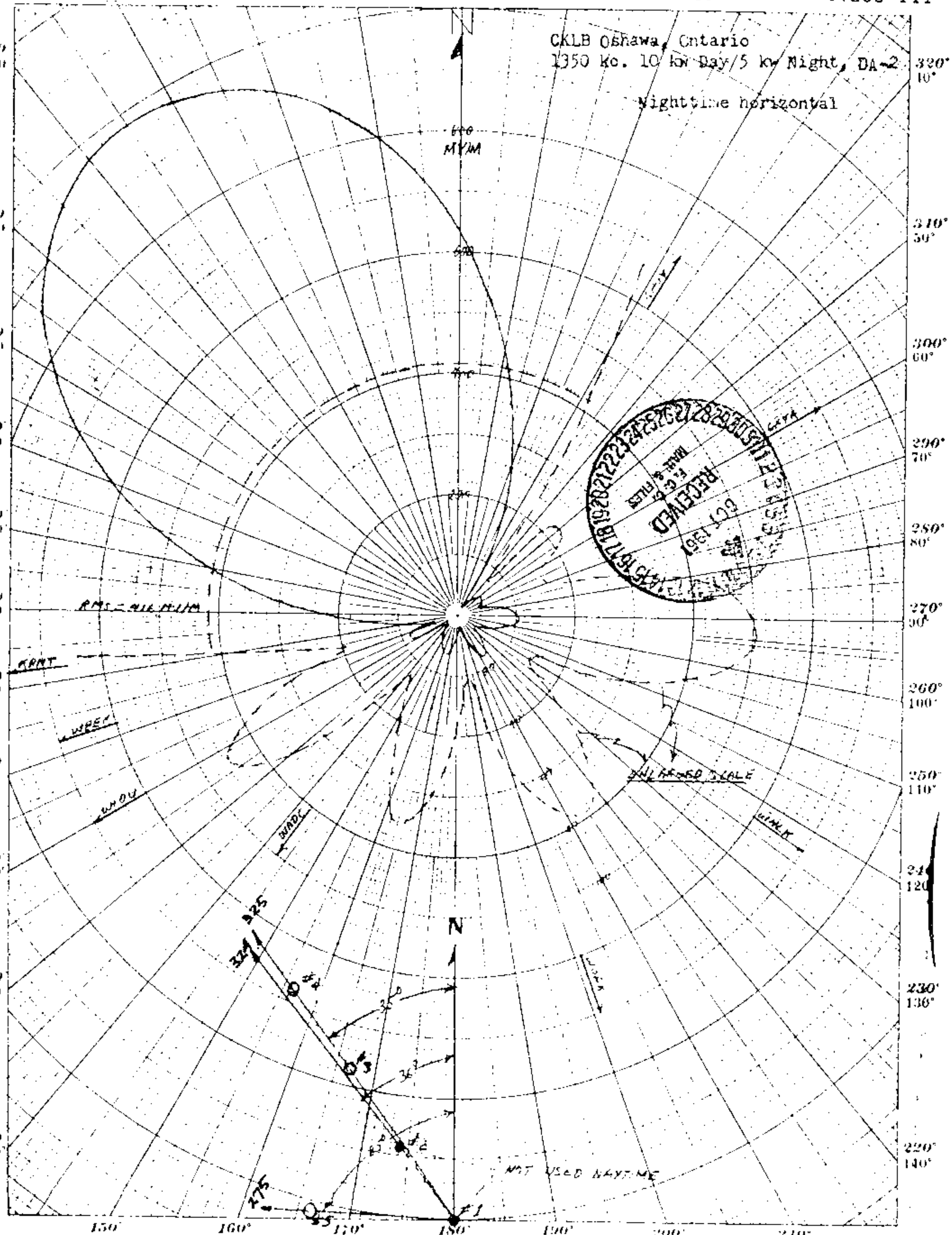
#127

CKLB

Proposed Night
(11-30-61ct)

Station CKLB
Oshawa, Ontario

5kw,10kw-LS,DA-2,U
1350 kc Class III



NEW
1350kHz

DIRECTIONAL ANTENNA DESCRIPTION SHEET

Station: (NEW)

Main Studio: Aberdeen, North Carolina

Frequency: 1350 kHz

Power: 2.5kw Day

Notification List No. 1790

Date: December 4, 1980 Class: III

GEOGRAPHICAL LOCATION OF THE CENTER OF THE ANTENNA SYSTEM:

North Latitude: 35° 07' 20"
West Longitude: 79° 24' 57"

ANTENNA CHARACTERISTICS

Authorized for Daytime operation. (DA-D)
Number of elements: 3
Type of elements: Folder unipole, Shunt excited, vertical steel towers.

TOWER:	E(#1)	NW(#2)	SW(#3)
HEIGHT ABOVE INSULATORS:	172'	172'	172' (85°)
DAY PHASING:	0°	-157.36	-69.33
DAY FIELD RATIO:	1.0	0.754	0.426

SPACING AND ORIENTATION: From Tower #1, tower #2 is on a line bearing 353.71° true. spaced 83.4' (41.21°) and tower #3 is on a line bearing 88.81° true spaced 362.7' (179.21°).

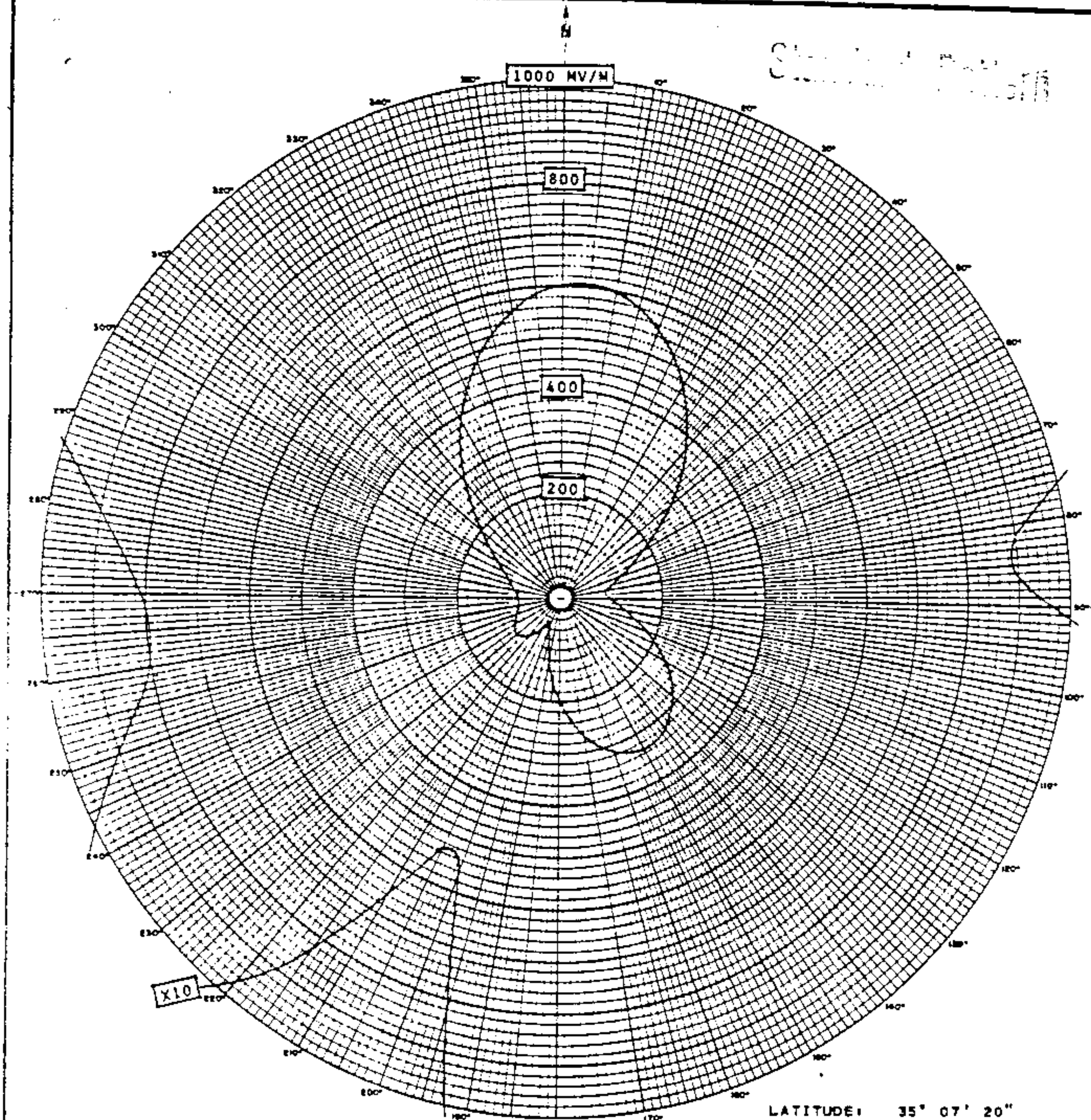
GROUND SYSTEM: 120 - 182' equally spaced copper radials plus a 24 square ground screen about each tower. Radials are shortened and bonded to transvers straps along intersections between towers.

PREDICTED EFFECTIVE FIELDS AT RATED POWER:

	THEORETICAL		STANDARD
	RMS	RSS	RMS
Day	277.8 mv/m	557.3 mv/m	291.7 mv/m

NEW
1350kHz

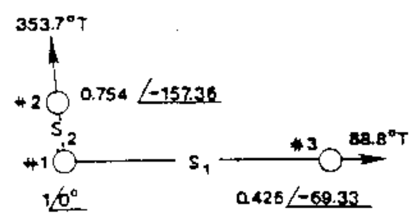
STD



LATITUDE: 35° 07' 20"
LONGITUDE: 79° 24' 57"

LBA
LAWRENCE BEHR ASSOCIATES, INC.
GREENVILLE N. C.

ANTENNA PARAMETERS



$S_1 = 179.2°$
$S_2 = 41.2°$ $G_1 = G_2 = G_3 = 85°$

RSS_{TH}	=	557.373
RSS_{STD}	=	585.241
RMS_{TH}	=	277.779
RMS_{STD}	=	291.668
RSS/RMS	=	2.007

FIGURE 11

PROPOSED STANDARD DAYTIME HORIZONTAL PATTERN

ABERDEEN BROADCASTING, INC.
ABERDEEN, NORTH CAROLINA

1350 KHZ, 2.5 KW, DA-D

9-78

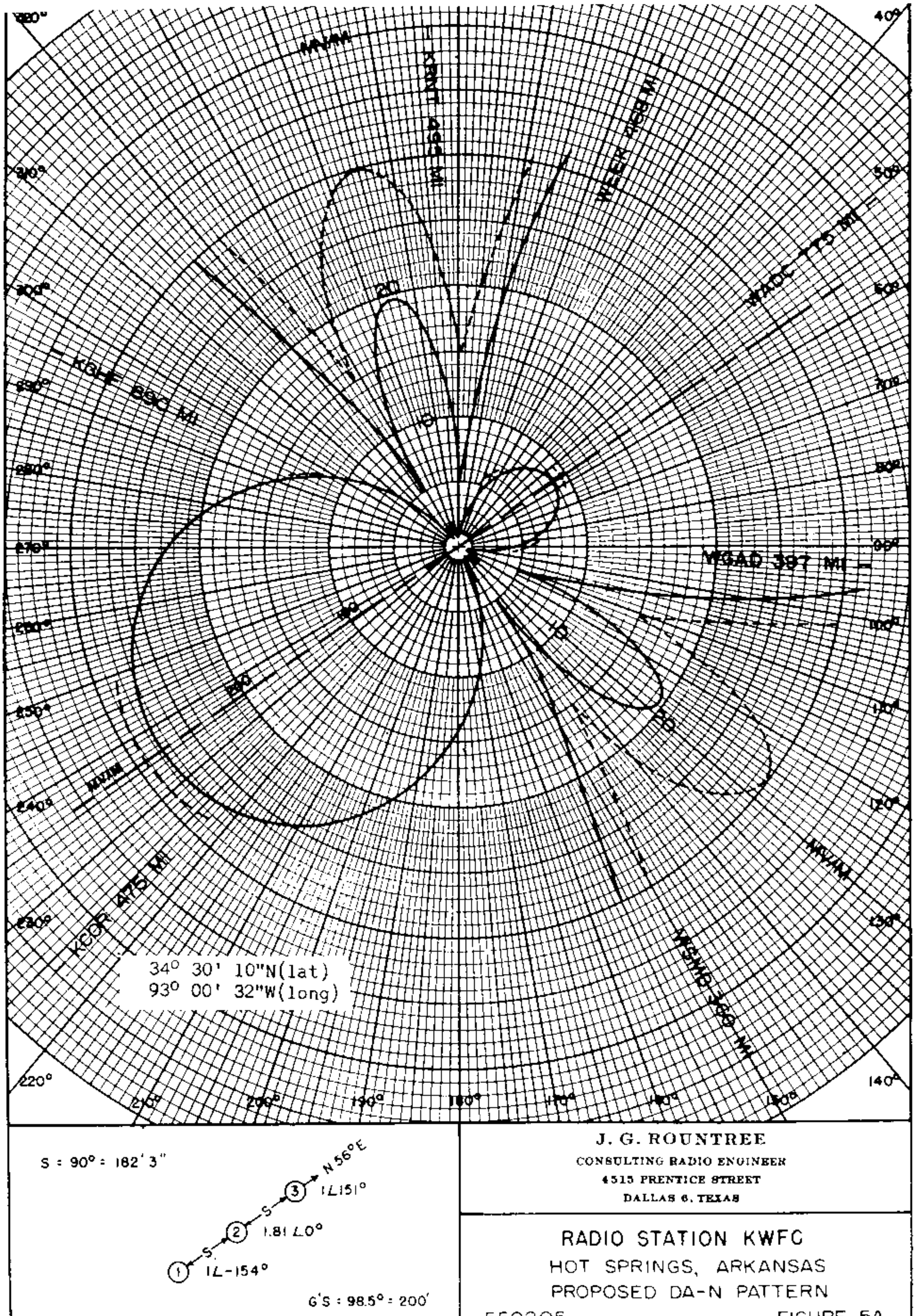
KAAB

PROPOSED NIGHT
(3/22/55G)

STATION KWFC
HOT SPRINGS, ARKANSAS

500W, 1KW-LS
DA-N, U

1350 KC



J. G. ROUNTREE
CONSULTING RADIO ENGINEER
4515 PRENTICE STREET
DALLAS 6, TEXAS

RADIO STATION KWFC
HOT SPRINGS, ARKANSAS
PROPOSED DA-N PATTERN
550205 FIGURE 6A

FILE BP-9679 Accepted 2/18/55 FCC KWFC, Hot Springs, Arkansas 1350 KC

* KAAB *

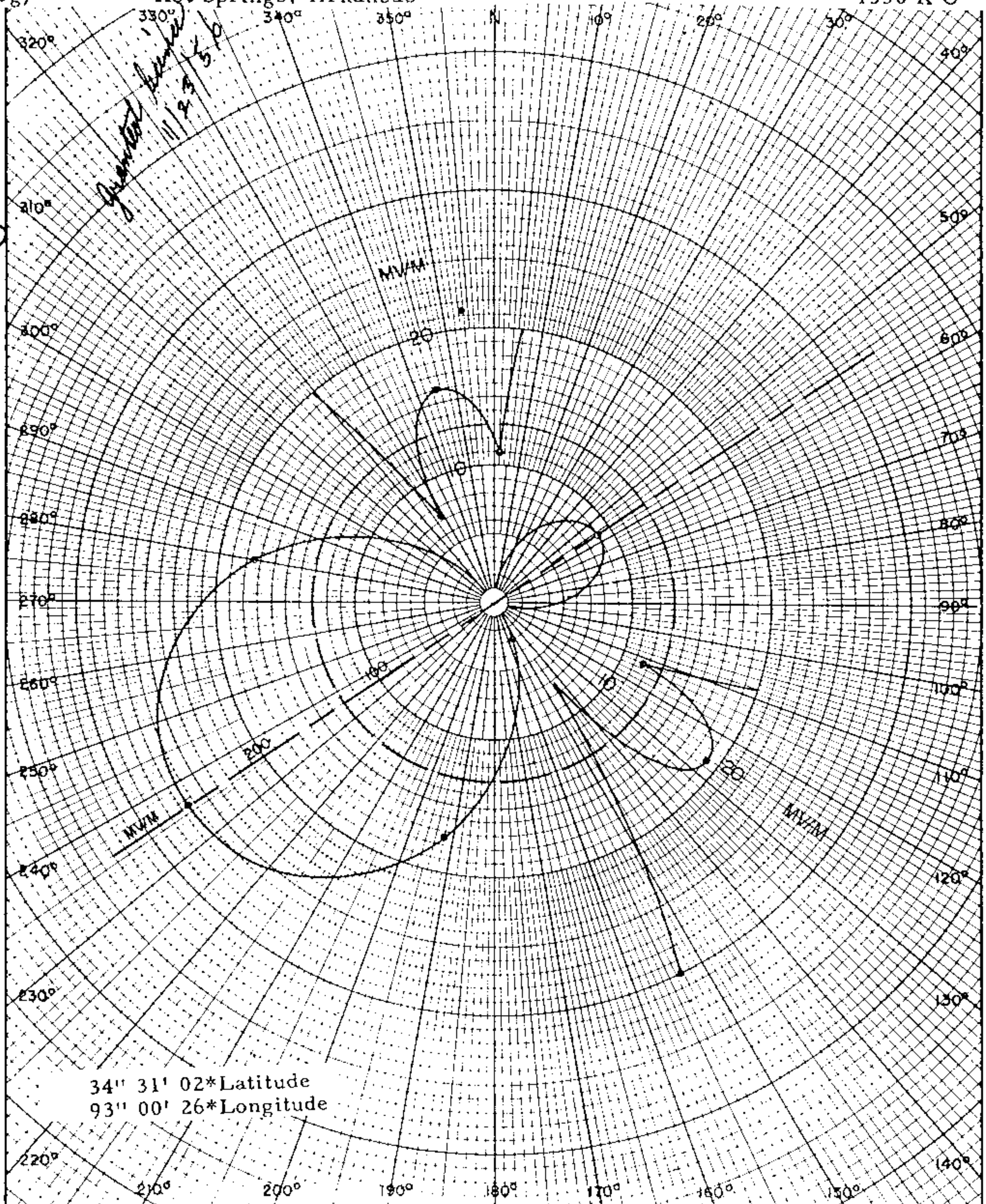
MEASURED NIGHT (10-21-56g)

Station K W F C
Hot Springs, Arkansas

500W, 1 KW, DA-N,U

1350 K C

granted CP to change freq to 340KC and ND operation! 9-20-60



MEASURED DA-N PATTERN

R.M.S. = 131 MV/M

1 ←S→ 2 ←S→ 3 → N56°E

SEE FIGURE 3 FOR OPERATING PARAMETERS

J. G. ROUNTREE
CONSULTING RADIO ENGINEER
5622 DYER STREET
DALLAS 6, TEXAS

RADIO STATION KWFC
HOT SPRINGS, ARKANSAS
1350 KC, 500 W, 1000 W-LS, DA-N

560827

FIGURE 4B

FCC File No.
BL-6344

Accepted 10-9-56

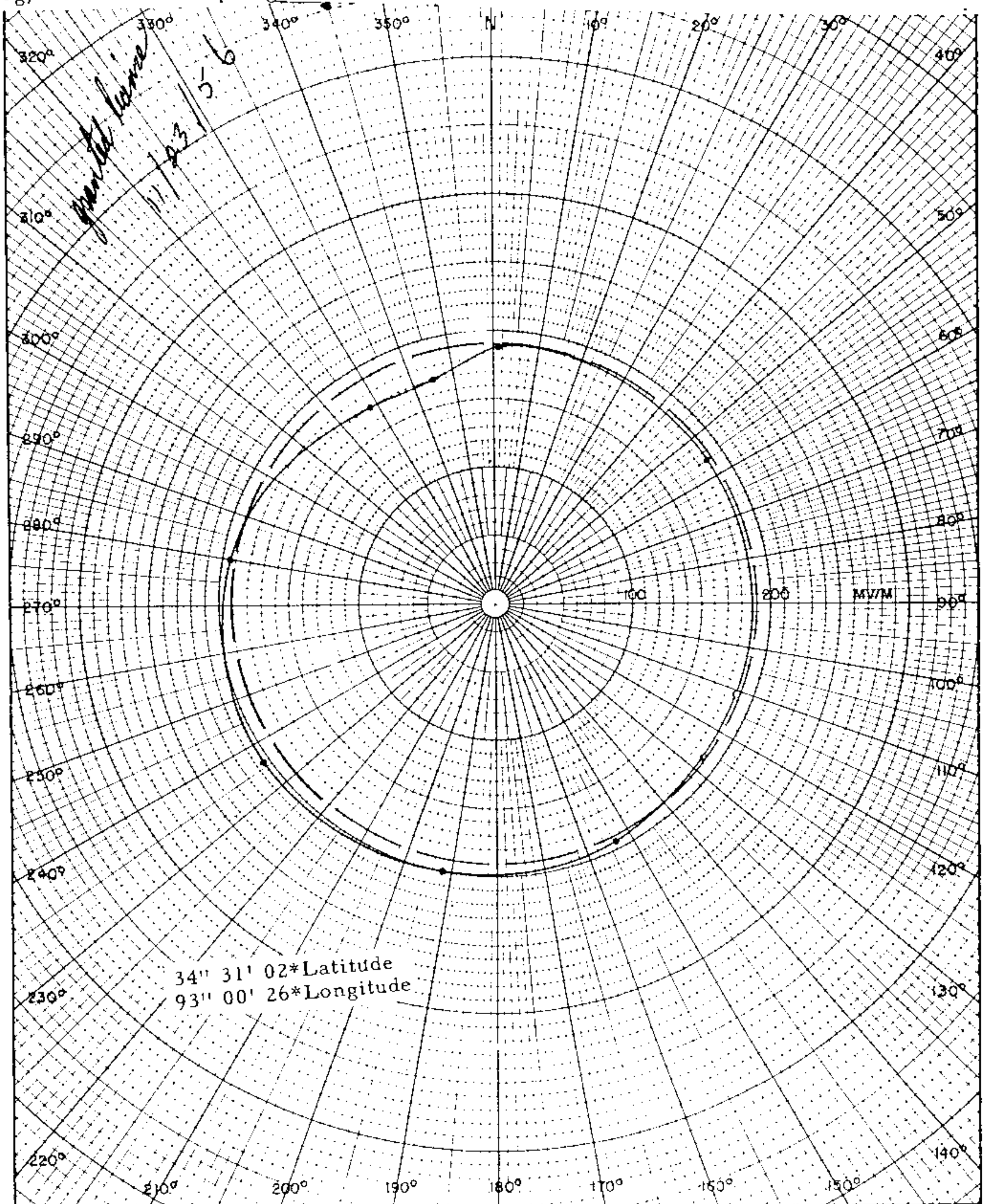
Station K W F C
Hot Springs, Ark.

1350 K C

MEASURED NON-DA Station K W F C
(10-21-56g) Hot Springs, Arkansas

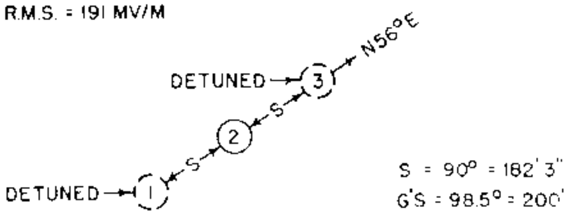
KAAB -

500W, 1 KW, DA N 350 K C



MEASURED ND PATTERN

R.M.S. = 191 MV/M



J. G. ROUNTREE
CONSULTING RADIO ENGINEER
5622 DYER STREET
DALLAS 6, TEXAS

RADIO STATION KWFC
HOT SPRINGS, ARKANSAS
1350 KC, 500 W, 1000 W-LS, DA-N

560827 FIGURE 4A

FCC File No.
BL-6344

Accepted 10-9-56

Station K W F C
Hot Springs, Ark. 1350 K C

KABQ

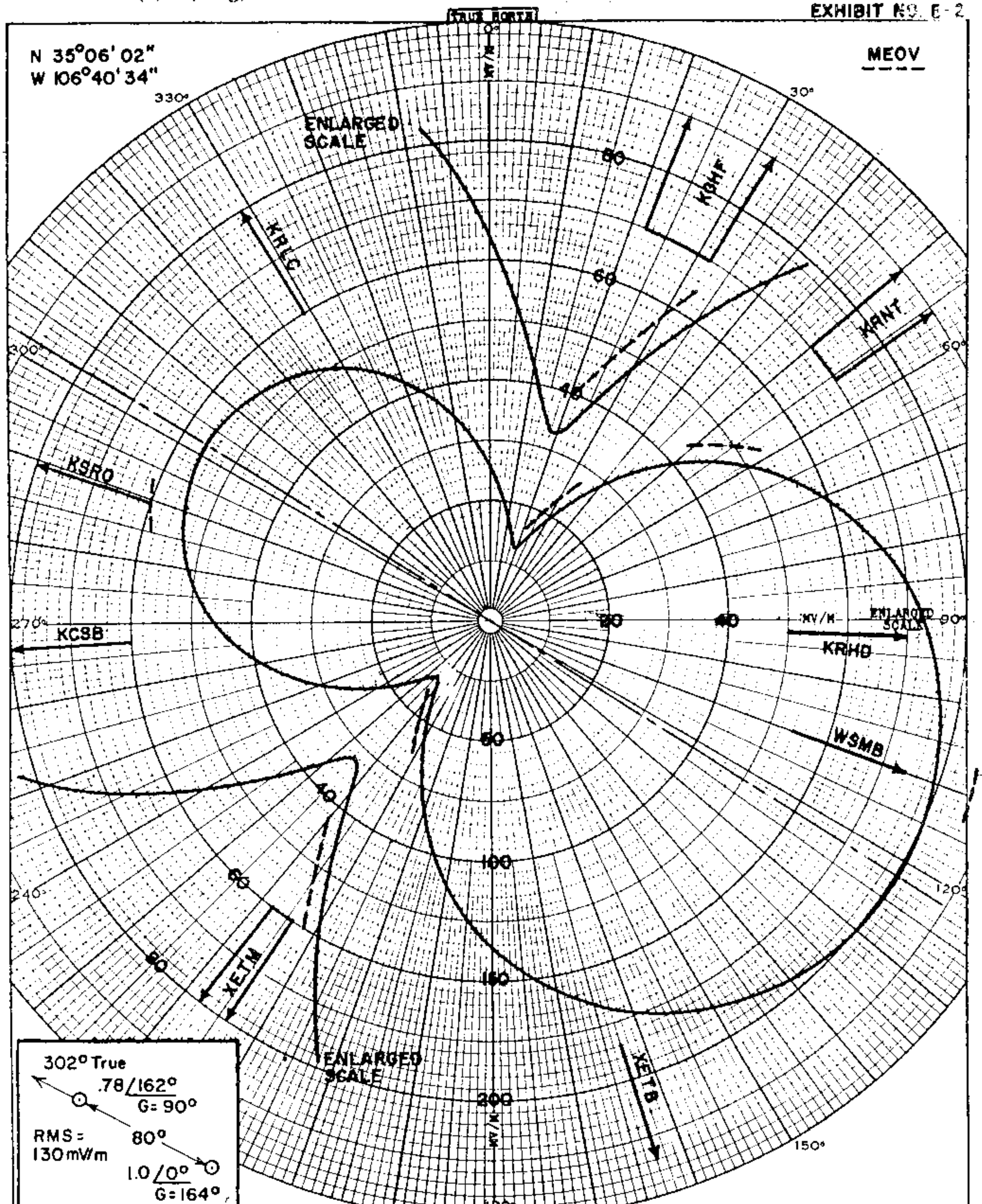
PROPOSED NIGHT
(6/17/57g)

Station KABQ
Albuquerque, New Mexico

500w,5kw-LS, DA

EXHIBIT NO. E-2

Granted
mod of CP
5/14/58



COMMERCIAL RADIO EQUIPMENT CO.
RADIO ENGINEERING CONSULTANTS
WASHINGTON, D. C.

PATTERN:	PROPOSED NIGHTTIME
FOR:	KABQ, Albuquerque, N.M.
POWER:	500W-N FREQ: 1350 KC
DATE:	MAY 1957

FCC File No. BMP-7697
Accepted 6/11/57

KABQ
Albuquerque, New Mexico

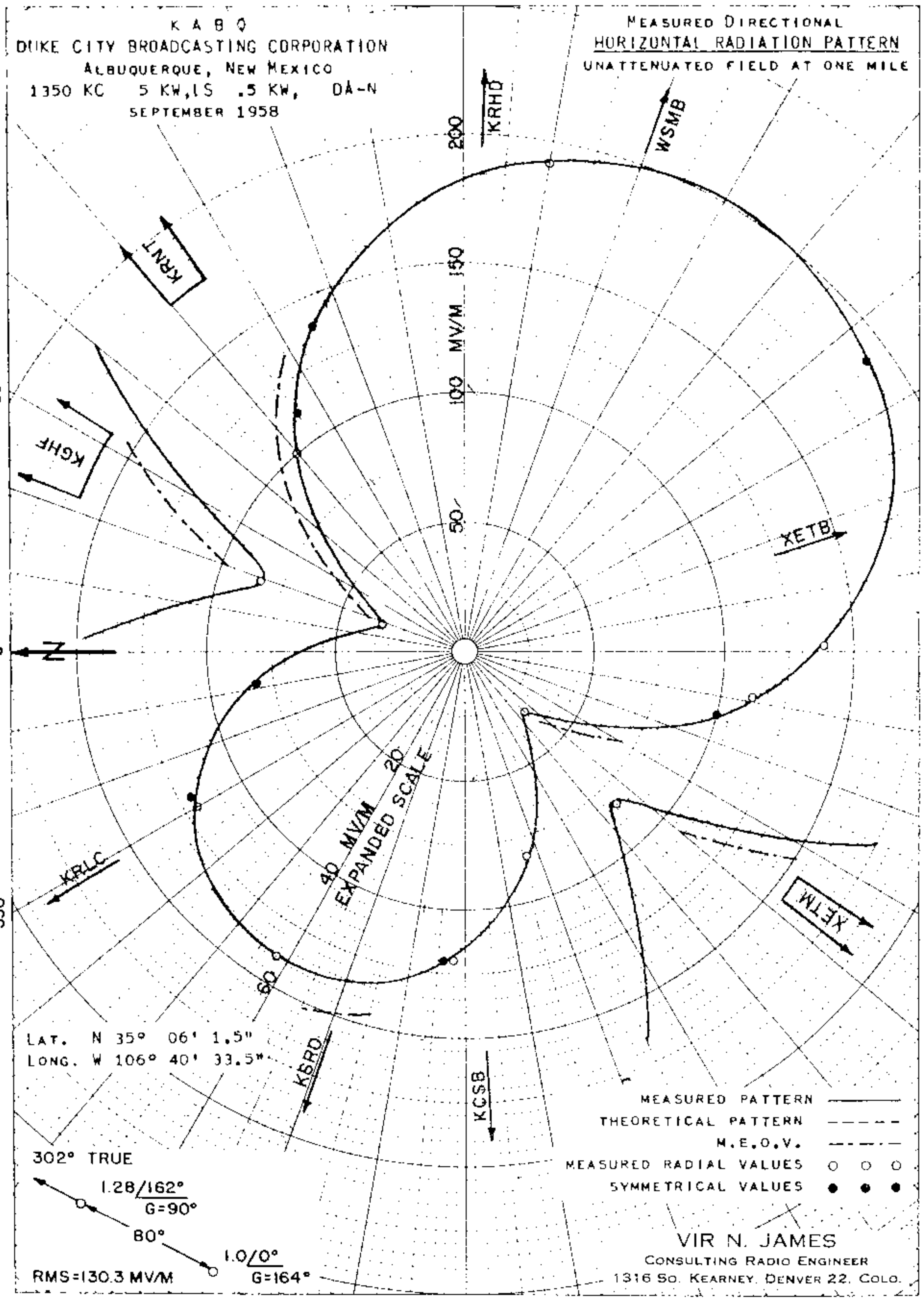
1350 KC

KABQ

EXHIBIT F-8.04A

MEASURED NIGHT (1-8-59g)

Station KABQ 500w, 5kw-LS, DA-N, U
Albuquerque, New Mexico 1350 KC



FCC File No. BL-7306
Accepted 12-16-58

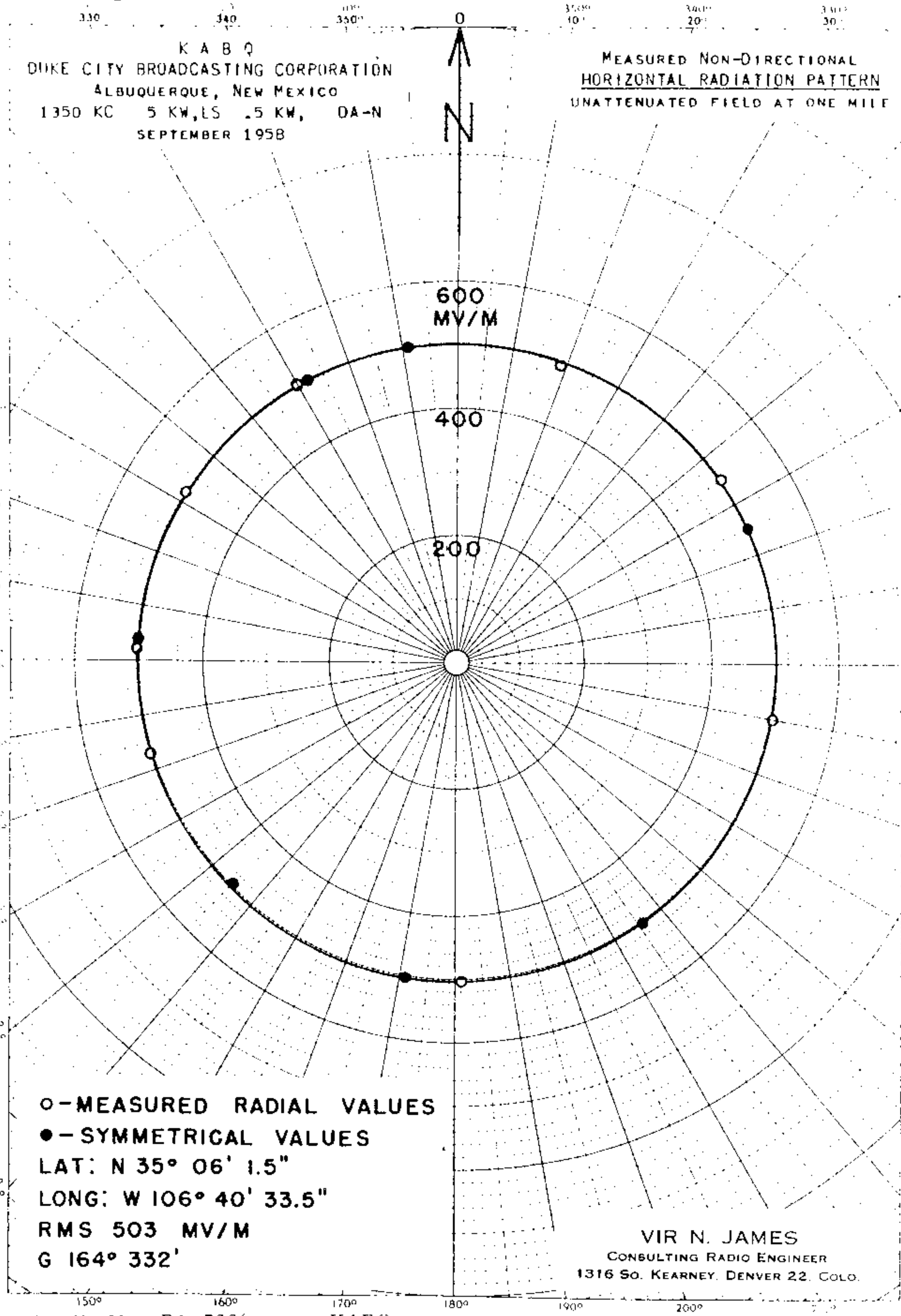
KABQ
Albuquerque, New Mexico 1350 KC

KABQ

MEASURED NON-DA
(1-8-59g)

Station KABQ
Albuquerque, New Mexico

500w, 5kw-LS, DA-N, U
1350 KC



FCC File No. BL-7306
Accepted 12-16-58

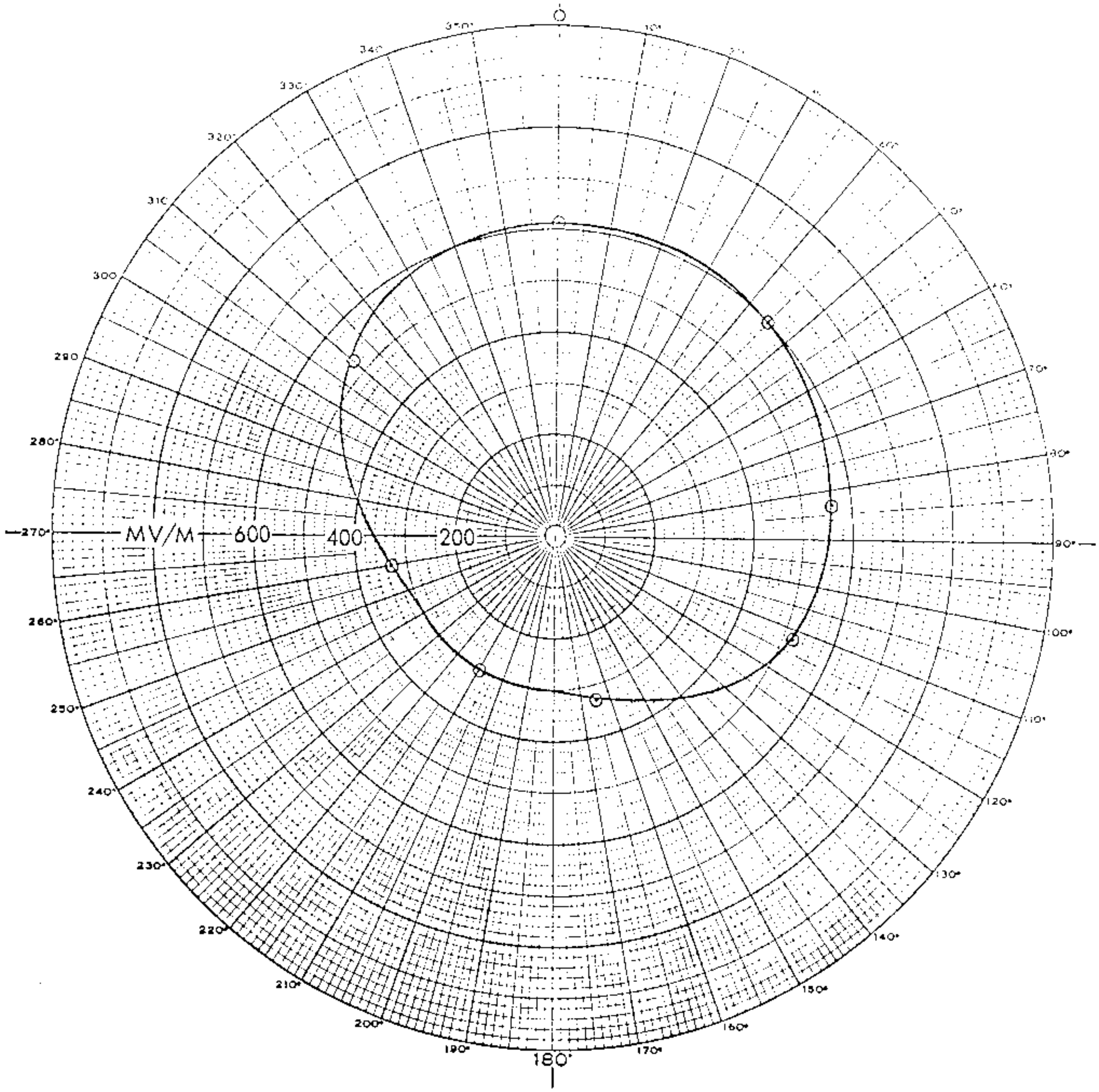
KABQ
Albuquerque, New Mexico

1350 KC

DAY
Measured ~~Night~~
(1-22-71ct)

Station KCKC
San Bernardino, California

KCKC
500w,5kw-LS,DA-2,U
1350 kc



34° 05' 37" N
117° 17' 57" W

RMS Field - 474 MV/M

N 30° E

No. 1 (NE) △ 1.0/0°

G = 96.2° S = 90°

No. 2 (SW) △ 0.3/90°

Consulting Engineer: Robert E. Bullock

Figure 27

Measured Horizontal Plane Pattern
Directional DAY 500 W
KCKC 1350 KHz 10-5-70

FCC File No.BRC-3492
Accepted 1-20-71

Station KCKC
San Bernardino, California

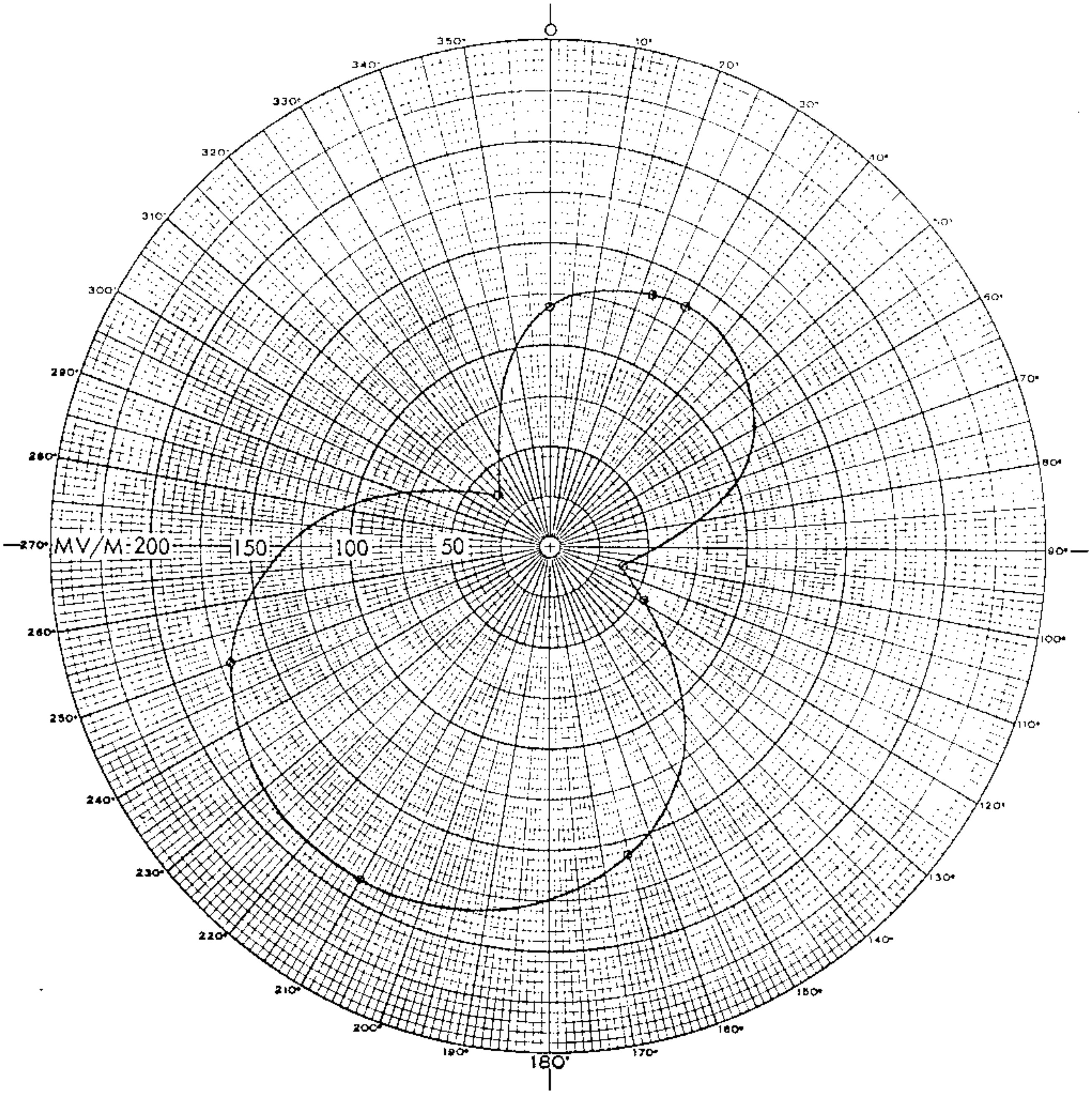
1350 kc

KCKC

Measured ~~Day~~ NIGHT
(1-22-71ct)

Station KCKC
San Bernardino, California

500w,5kw-LS,DA-2,U
1350 kc



34° 05'37" N
117° 17'57" W

RMS Field - 127.5 MV/M

N 30° E

No. 1 (NE) 1.0 /0°

G = 96.2° S = 90°

No. 2 (SW) 0.73 /-156.7°

Consulting Engineer: Robert E. Bullock

Figure 46

Measured Horizontal Plane Pattern
Directional NIGHT 500 W

KCKC 1350 KHz 10-5-70

FCC File No.BRC-3492
Accepted 1-20-71

Station KCKC
San Bernardino, California

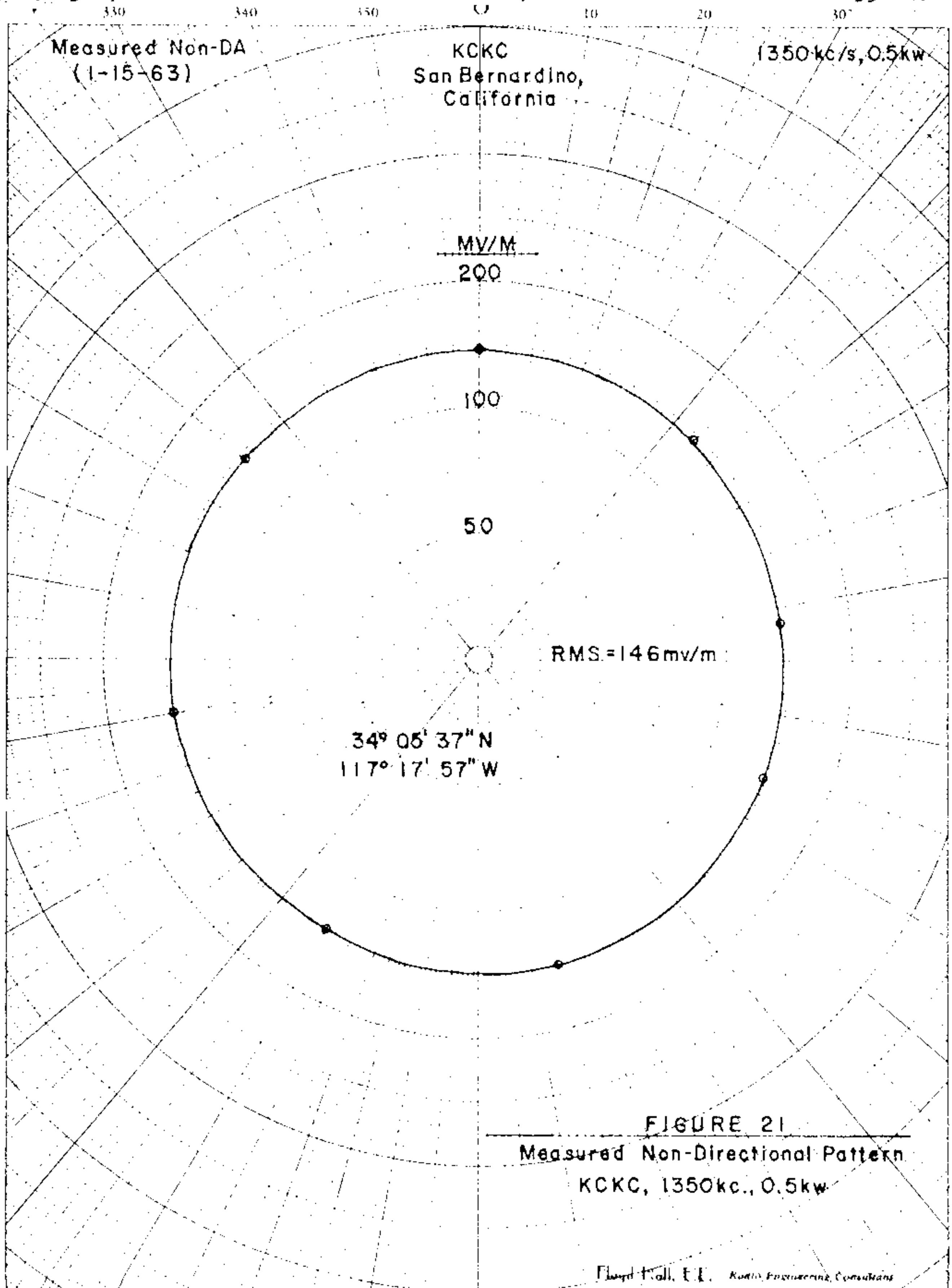
1350 kc

KCKC

Measured Non-DA
(6-28-63ct)

Station KCKC
San Bernardino, California

500w,5kw-LS,DA-2,U
1350 kc



FCC File No.BL-9999
Accepted 5-27-63

Station KCKC
San Bernardino, California

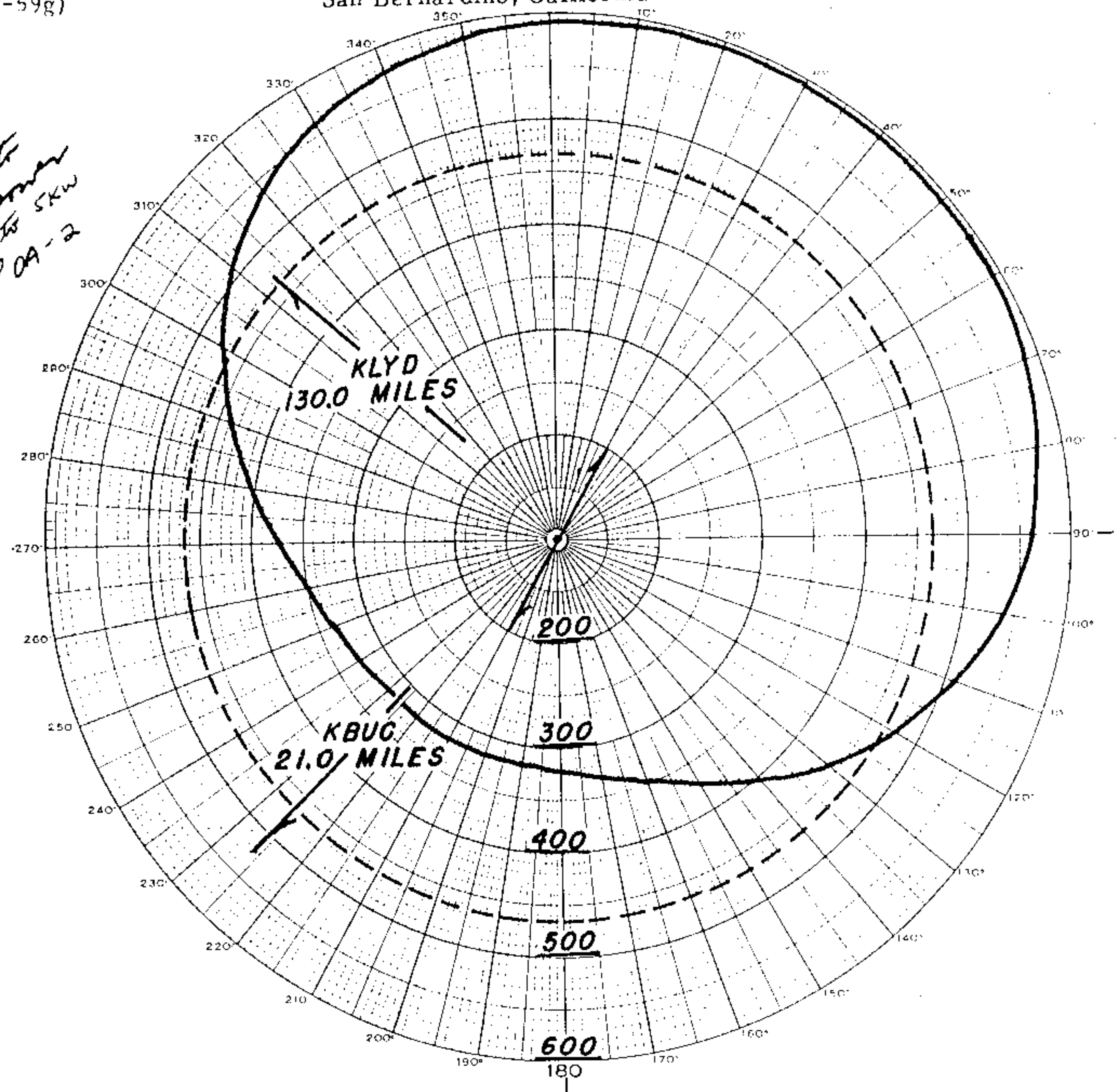
1350 kc

PROPOSED DAY
(2-26-59g)

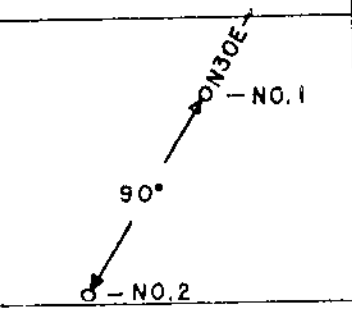
Station KCKC
San Bernardino, California

500w, 5kw-LS, DA-2,U
1350 KC

-18-62 granted CP to increase power from 500w to 5kw and install DA-2



TOWER PLACEMENT SKETCH



PATTERN PARAMETERS

TOWER No	ELECTRICAL HEIGHT G°	TRUE TOWER ORIENTATION A°	SPACING S°	PHASING ψ°	HORIZONTAL FIELD mv/m E	FIELD RATIO F
1	96.5	N30E	90	0	457	1.0
2	96.5			90	137	0.3
3						
4						
5						
6						
7						
8						
9						
10						

ELEV. ANGLE θ°	ELEVATION RMS FIELD mv/m E_θ
0	467
10	
20	
30	
40	

STATION DATA

CALL	KCKC
FREQUENCY	1350
POWER	5.0 D
TIME OF OPERATION	U
TYPE OF OPERATION	DA-2
DAYTIME TOWERS	2
NIGHTTIME TOWERS	2
NO. RADIALS PER TOWER	120
LENGTH OF RADIALS	89 180°
GROUND CONDUCTIVITY	
LAT	34 05 37
LONG	117 17 57

EXHIBIT IA

MVW RADIO CORP.
SAN BERNARDINO, CALIFORNIA

FLOYD HALL
RADIO ENGINEERING CONSULTANT

FCC File No. BP-13782
Accepted 1-20-60

KCKC
San Bernardino, California

1350 KC

PROPOSED
NIGHT

KCSB, SAN BERNARDINO, CAL.

500w, DAN

1350 kc

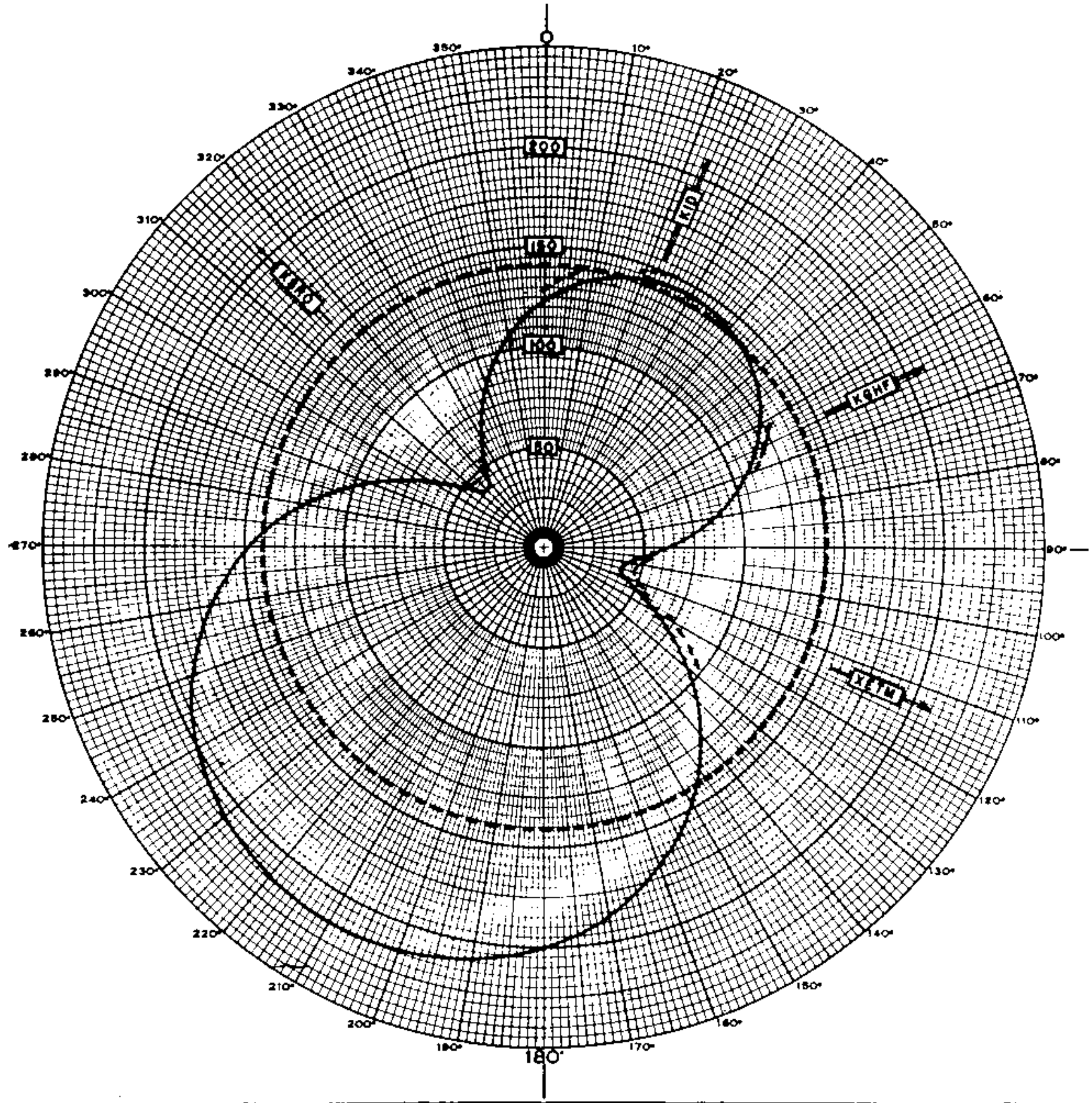
KCKB

POLAR COORDINATE
MADE IN U.S.A.

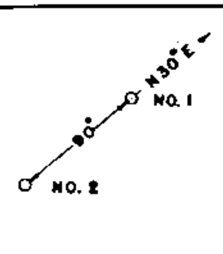
NO. 10 HP

CLEVELAND INSTITUTE OF RADIO ELECTRONICS
CLEVELAND, OHIO

3/30/49G



TOWER PLACEMENT SKETCH



PATTERN PARAMETERS

TOWER No.	ELECTRICAL HEIGHT	TRUE TOWER ORIENTATION	SPACING	PHASING	HORIZONTAL FIELD	FIELD RATIO	ELEV. ANGLE	ELEVATION RMS FIELD
1	96.5	N30E	90	0	148.26	1.000	0	141
2	96.5			-158.7	108.22	0.730	10	
3							20	
4							30	
5							40	
6							50	
7							60	
8							70	
9							80	
10							E_r =	

DAYTIME OPERATION ☐ NIGHTTIME OPERATION ☒ P_r =

STATION DATA

CALL	KCSB
FREQUENCY	1350 kc
POWER	0.5 kw
TIME OF OPERATION	U
TYPE OF OPERATION	DA-N
DAYTIME TOWERS	1
NIGHTTIME TOWERS	2
No. RADIALS PER TOWER	120
LENGTH OF RADIALS	89° 180 ft
GROUND SCREEN DIMENSION	40X40
LAT.	34° 05' 37"
LONG.	117° 17' 57"
SUPERSEDES	
PATTERN No.	490302

WOODROW MILLER
San Bernardino, California

3/2/49

Figure 1A 3/4/49 Page B

GEORGE P. ADAIR
Radio Engineering Consultants
WASHINGTON, D. C.

AMENDMENT TO BP-6425 RECD 3-24-49

KCSB, San Bernardino, Cal. 1350 kc

MEASURED NON-DA

Station KCSB 500w, DA-N,U
San Bernardino, California 1350 KC

KCKC
1350KC

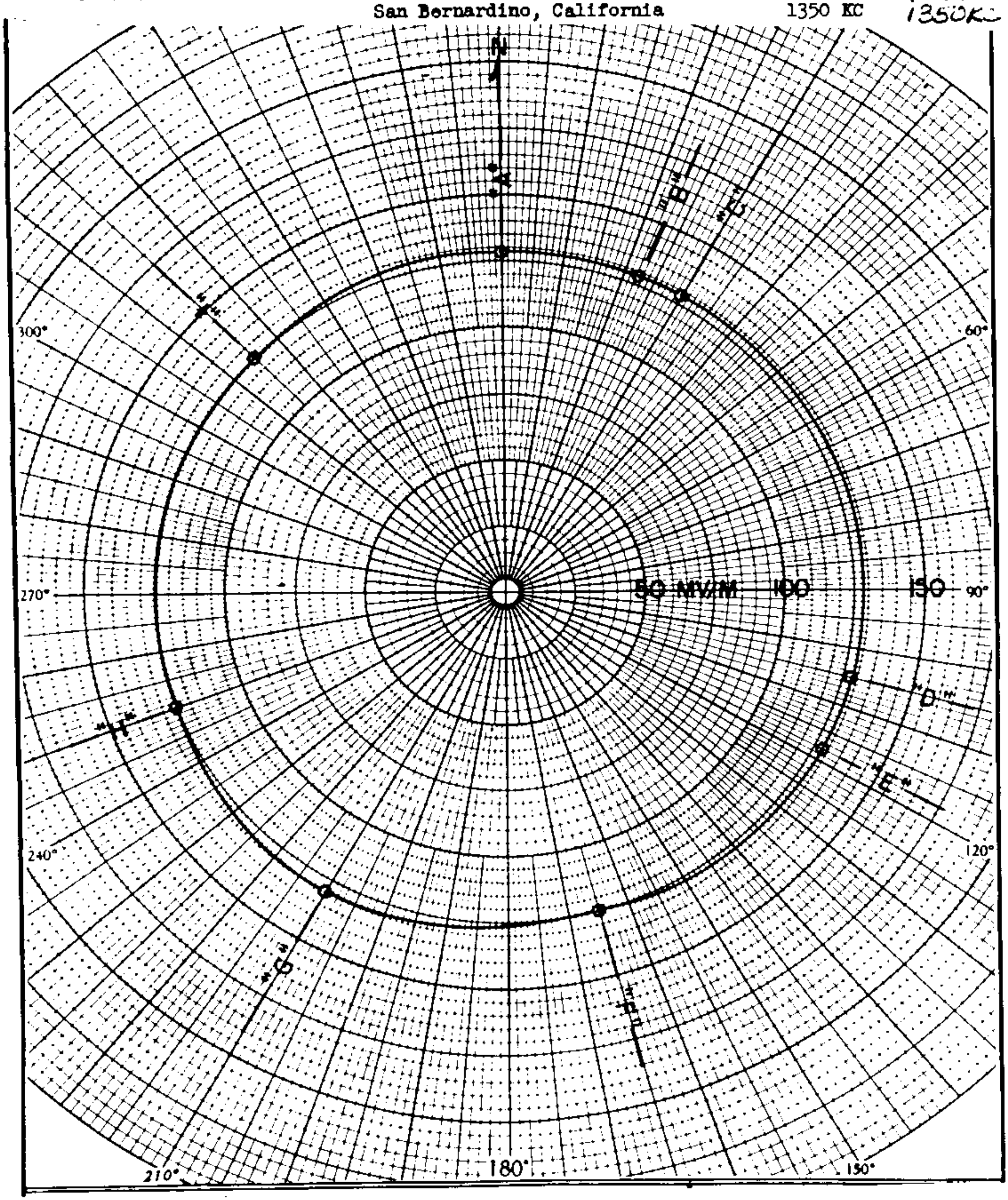


FIGURE NO. 9-A

Measured Horizontal Radiation Pattern
Antenna Operation: ND (Day)

Radio Station KCSB San Bernardino, California
500 Watts 1350 KC
Determined RMS Field at one mile 128.7 MV/M
February-1950

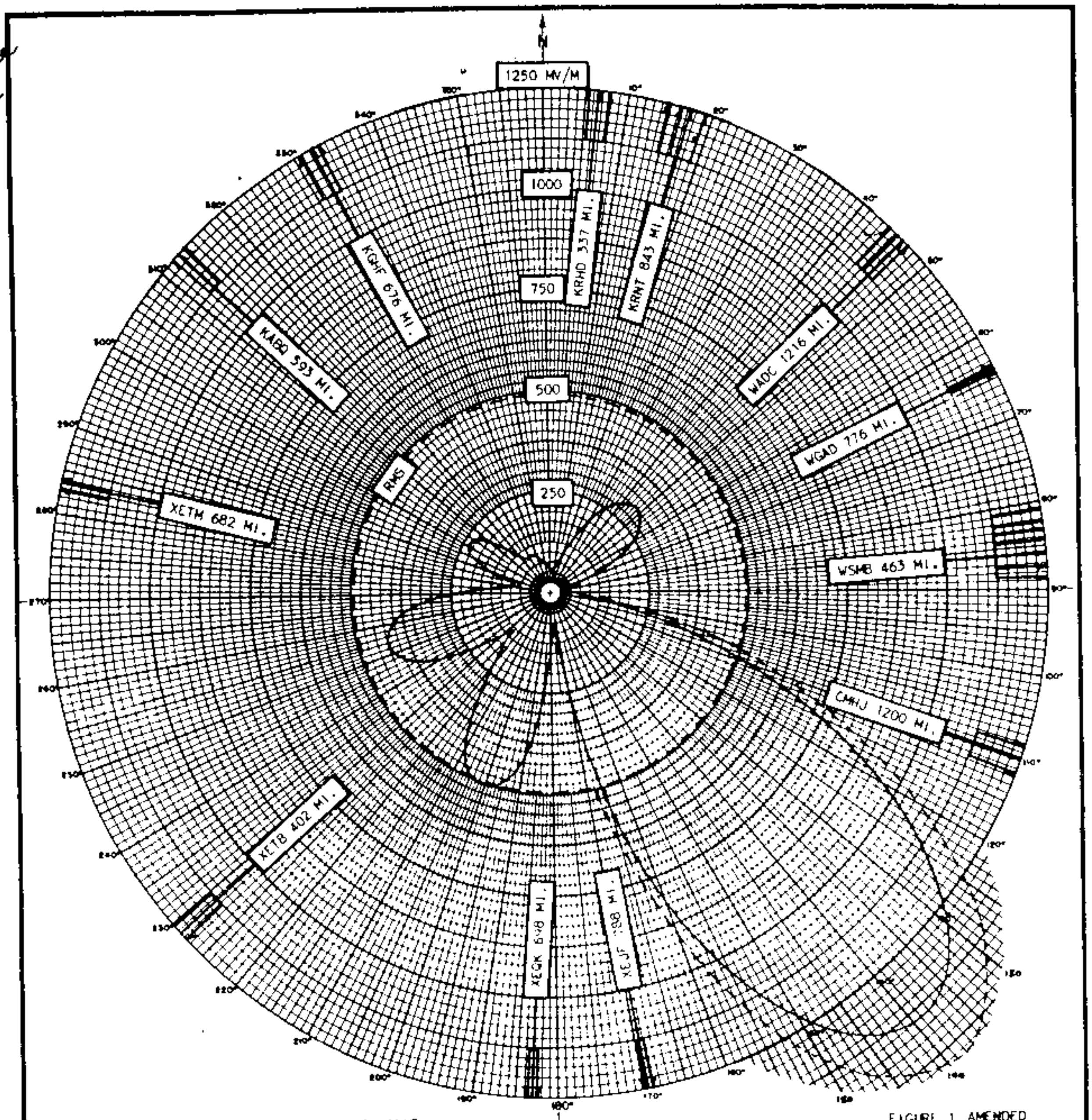
KCOR

Proposed Night
(5-28-63ct)

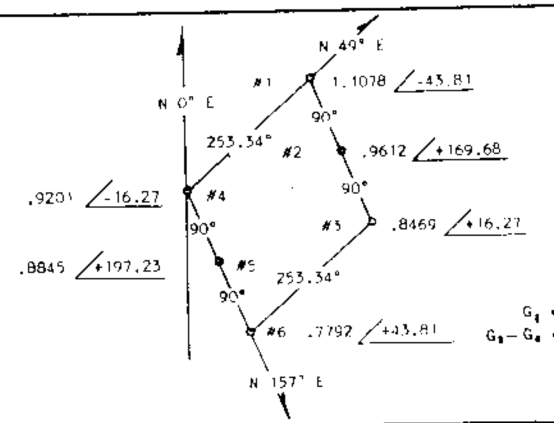
Station KCOR
San Antonio, Texas

5kw,DA-N,U
1350 kc

1-8-64 rested increased power from kw to 5kw + change from DA-2 to DA-N.



HORIZONTAL RADIATION PATTERN



APPLICANT	INTER - AMERICAN RADIO, INC.
LOCATION	SAN ANTONIO, TEXAS
FREQUENCY	1350 KC/S
POWER	5000 WATTS
LATITUDE	29 DEG 31 MIN 27 SEC.
LONGITUDE	98 DEG. 37 MIN. 05 SEC.
WHEN USED	NIGHTTIME
R.M.S. FIELD	493.53 MV/M
DATE	MARCH 1963

SILLIMAN, MOFFET & KOWALSKI
CONSULTING RADIO ENGINEERS
WASHINGTON, D.C.

FCC File No.BP-15123
Accepted 5-23-63

Station KCOR
San Antonio, Texas

1350 kc

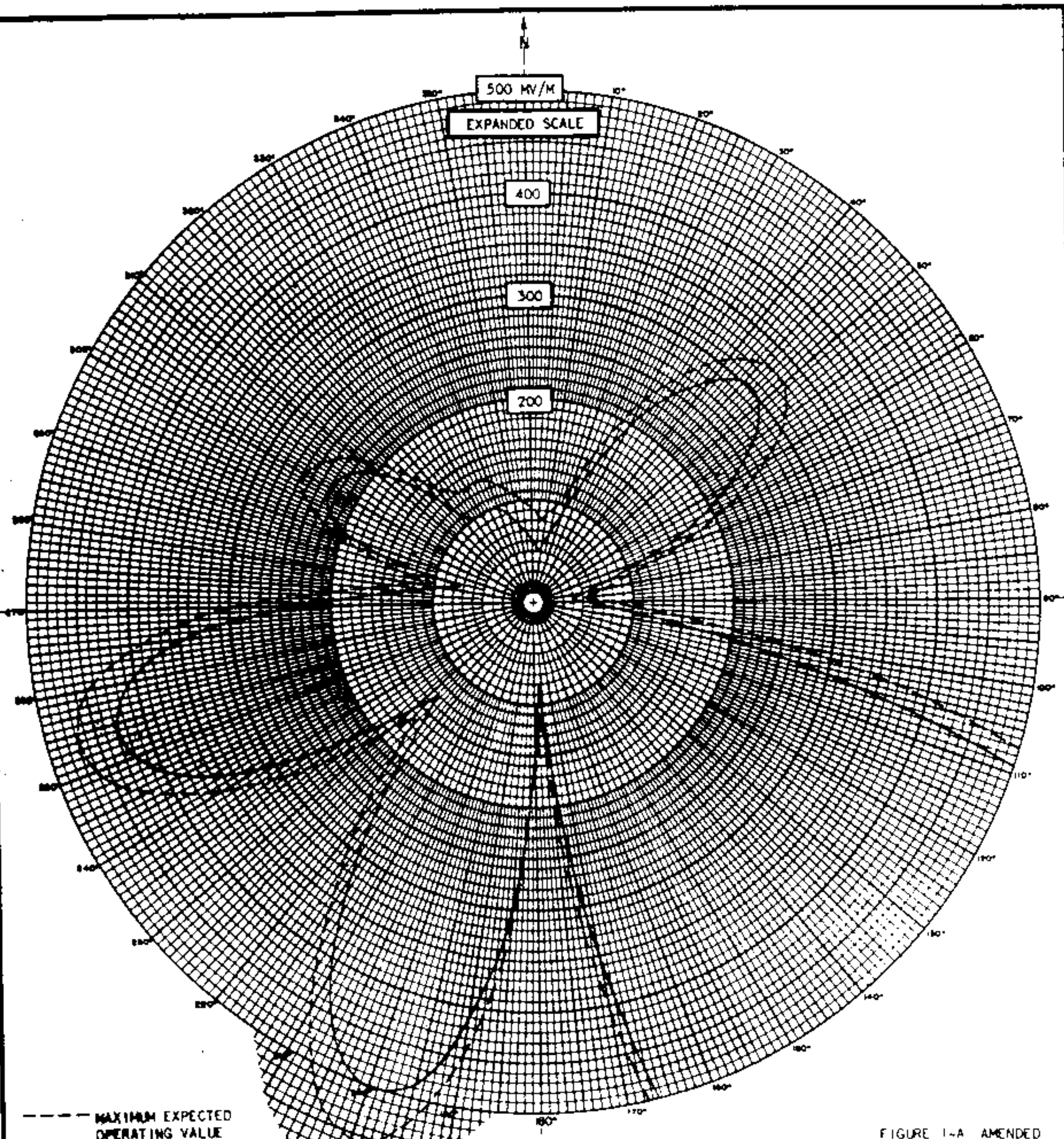
KCOR

Proposed Night Nulls
(5-28-63ct)

Station KCOR
San Antonio, Texas

5kw,DA-N,U
1350 kc

1-8-64 rated change on 1 kw-N to kw-N and from DA-2 to DA-N.



HORIZONTAL RADIATION PATTERN

KCOR - SAN ANTONIO, TEXAS

EXPANDED VIEW

SILLIMAN, MOFFET & KOWALSKI
CONSULTING RADIO ENGINEERS
WASHINGTON, D.C.

FCC File No.BP-15123
Accepted 5-23-63

Station KCOR
San Antonio, Texas

1350 kc

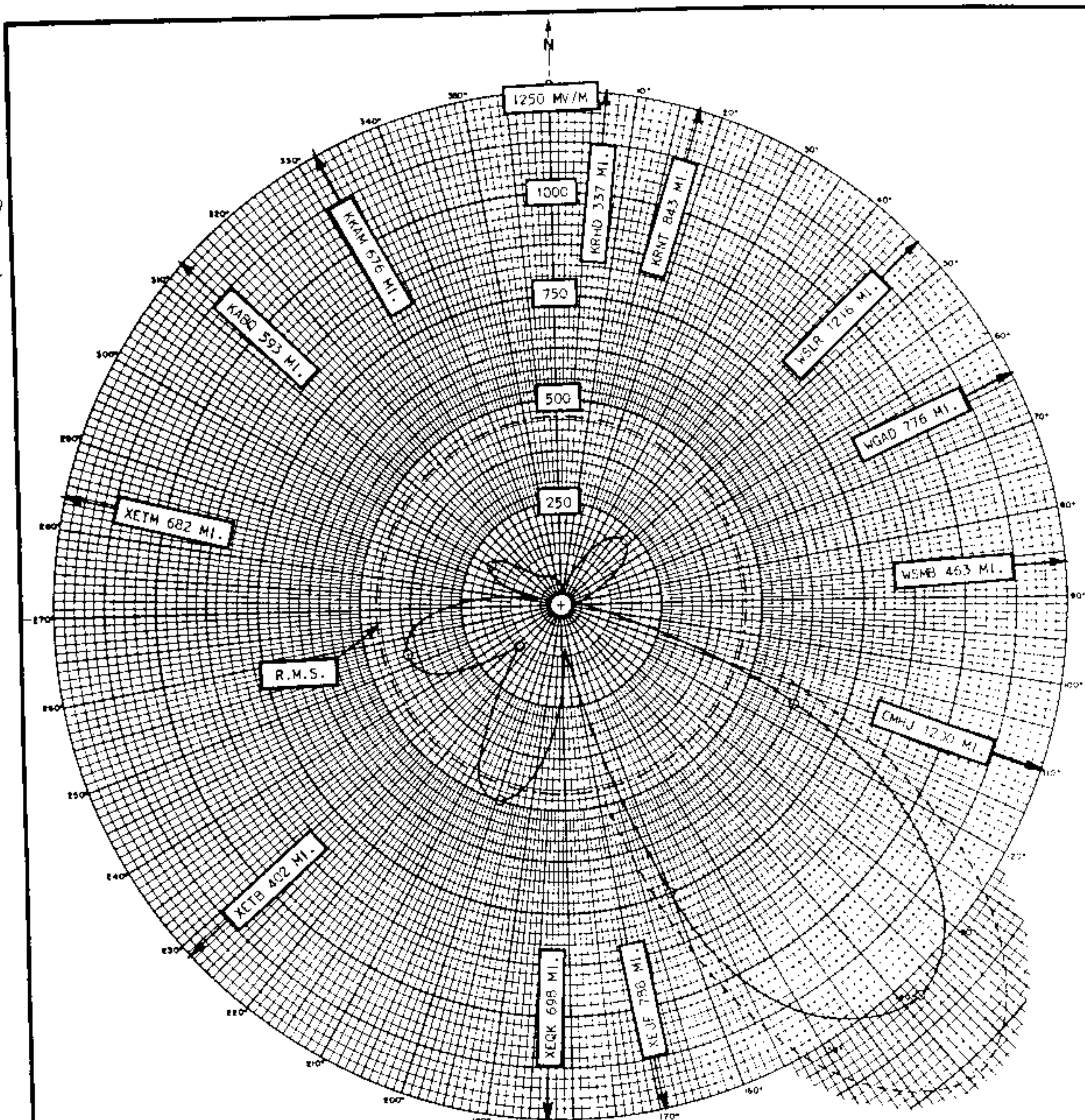
KCOR

Measured Night
(3-29-67ct)

Station KCOR
San Antonio, Texas

5kw,DA-N,U
1350 kc

Granted License 3-23-67 with increase in night power



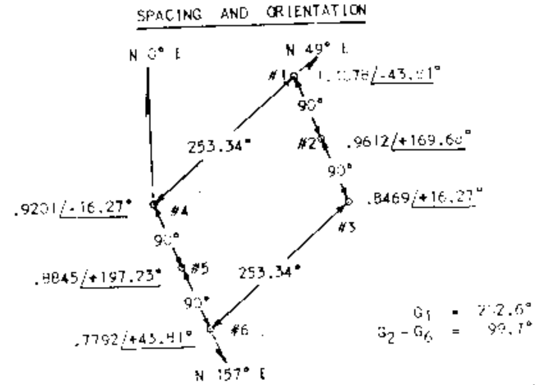
○ MEASURED RADIAL VALUES

— — — MAXIMUM EXPECTED OPERATING VALUE

HORIZONTAL RADIATION PATTERN

FIGURE 1-A

SPACING AND ORIENTATION



APPLICANT INTER-AMERICAN RADIO, INC.
LOCATION SAN ANTONIO, TEXAS
FREQUENCY 1350 KC/S
POWER 5 KW-U-DA-N
LATITUDE 29 DEG 31 MIN 27 SEC
LONGITUDE 98 DEG 37 MIN 05 SEC
WHEN USED NIGHTTIME
R.M.S. FIELD 450 MV/M (MEASURED)
DATE DECEMBER 1966

SILLIMAN, MOFFET & KOWALSKI
CONSULTING RADIO ENGINEERS
WASHINGTON, D.C.

FCC File No.BL-11547
Accepted 2-10-67

Station KCOR
San Antonio, Texas

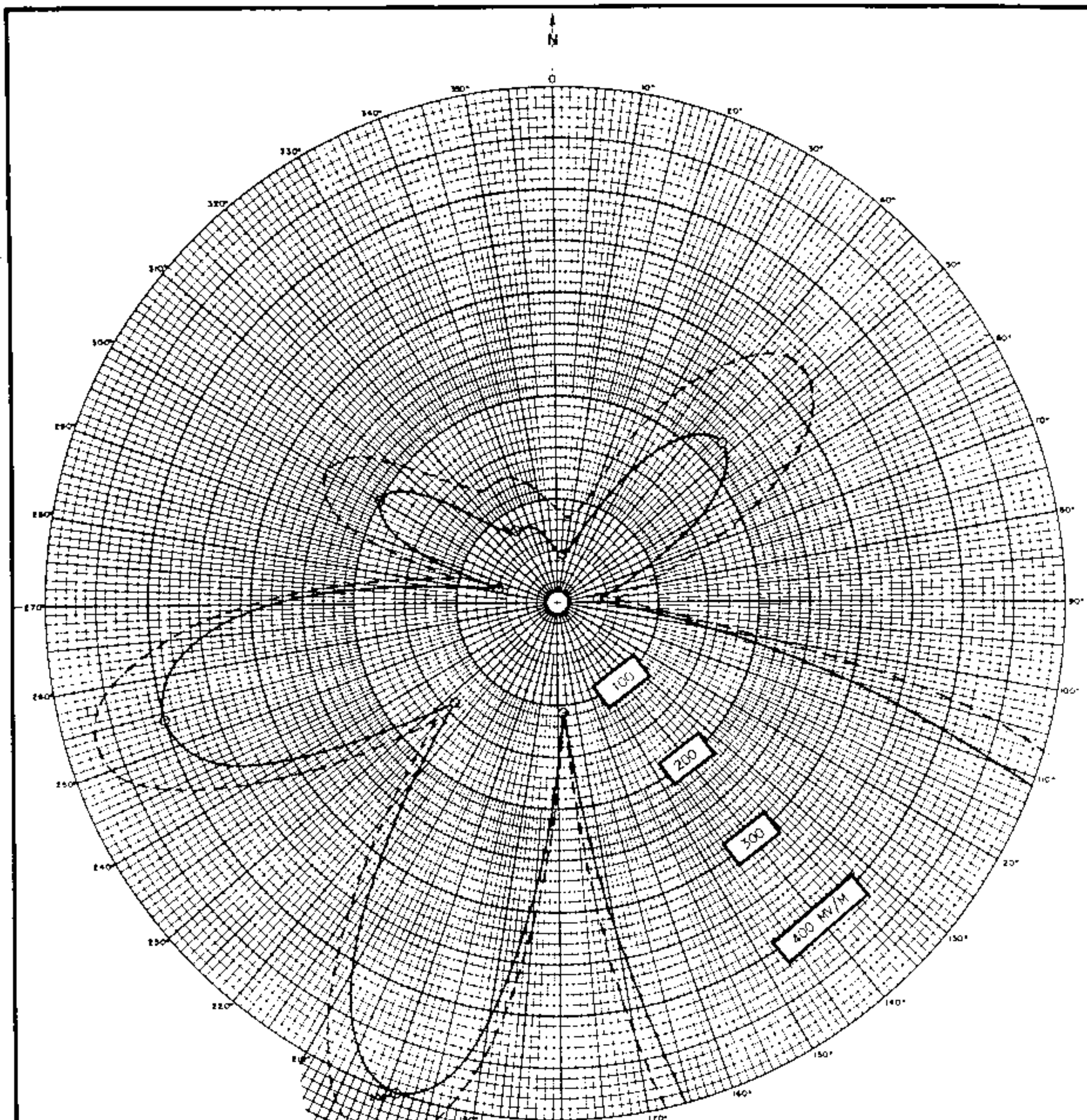
1350 kc

KCOR

Measured Night Nulls
(3-29-67ct)

Station KCOR
San Antonio, Texas

5kw,DA-N,U
1350 kc



○ MEASURED RADIAL VALUES

— — — MAXIMUM EXPECTED OPERATING VALUES

HORIZONTAL RADIATION PATTERN

FIGURE 1-B

EXPANDED VIEW

APPLICANT	INTER-AMERICAN RADIO, INC.
LOCATION	: SAN ANTONIO, TEXAS
FREQUENCY	: 1350 KC/S
POWER	: 5 KW-U-DA-N
LATITUDE	29 DEG 31 MIN. 27 SEC.
LONGITUDE	98 DEG 37 MIN. 05 SEC.
WHEN USED	: NIGHTTIME
R.M.S. FIELD	: 555 MV/M (MEASURED)
DATE	DECEMBER 1966

SILLIMAN, MOFFET & KOWALSKI
CONSULTING RADIO ENGINEERS
WASHINGTON, D.C.

FCC File No.BL-11547
Accepted 2-10-67

Station KCOR
San Antonio, Texas

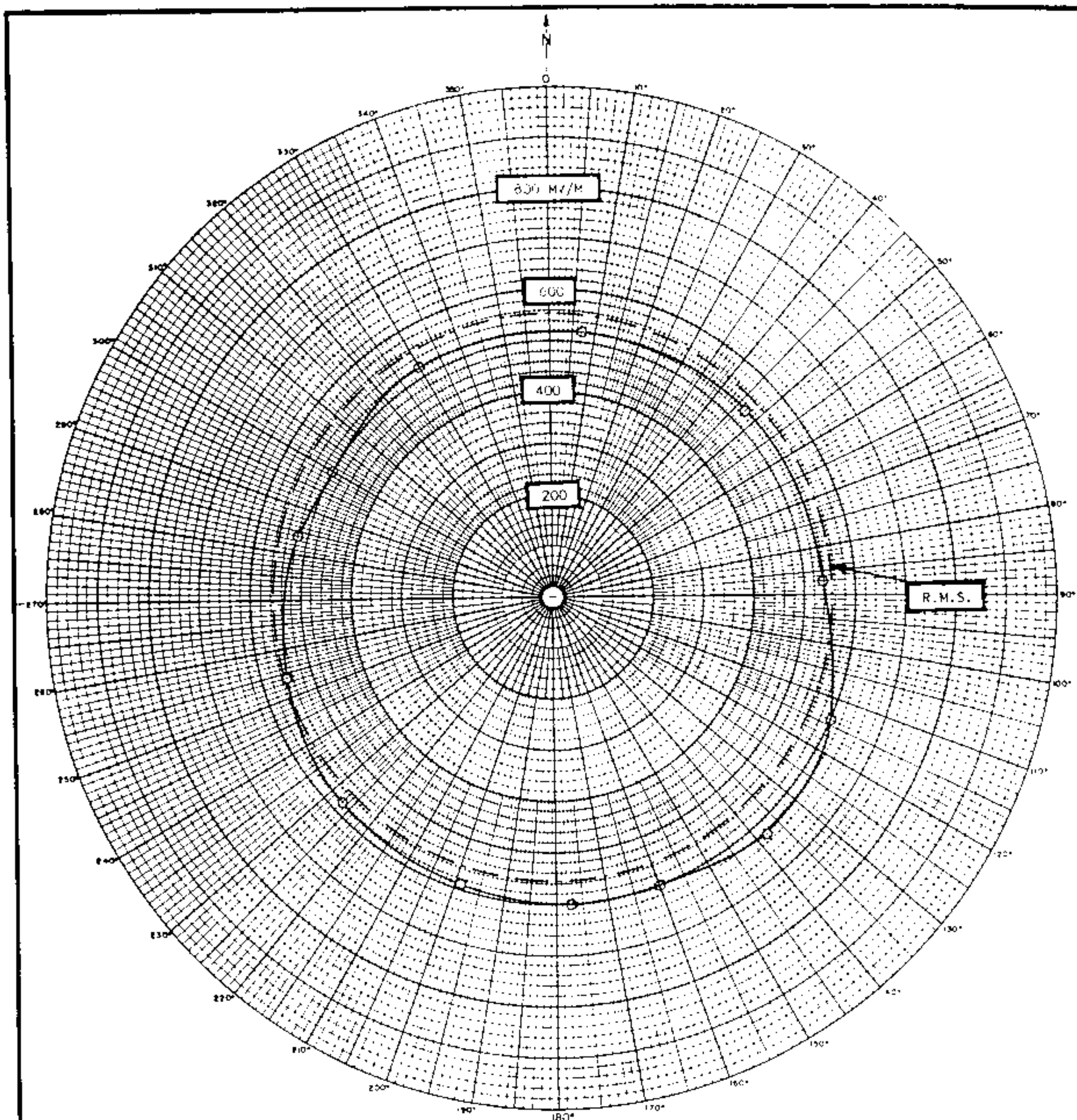
1350 kc

KCOR

Measured Non-DA
(3-29-67ct)

Station KCOR
San Antonio, Texas

5kw,DA-N,U
1350 kc



O MEASURED RADIAL VALUES

HORIZONTAL RADIATION PATTERN

FIGURE 1-C

NON-DIRECTIONAL

APPLICANT	INTER-AMERICAN RADIO, INC.
LOCATION	SAN ANTONIO, TEXAS
FREQUENCY	1350 KC/S
POWER	5 KW-U-DA-N
LATITUDE	29 DEG 31 MIN [illegible] SEC
LONGITUDE	98 DEG 37 MIN 15 SEC
WHEN USED	DAYTIME
R.M.S. FIELD:	555 MV/M (MEASURED)
DATE	DECEMBER 1966

SILLIMAN, MOFFET & KOWALSKI
CONSULTING RADIO ENGINEERS
WASHINGTON, D.C.

FCC File No.BL-11547
Accepted 2-10-67

Station KCOR
San Antonio, Texas

1350 kc

KIDN ~~KKAM~~

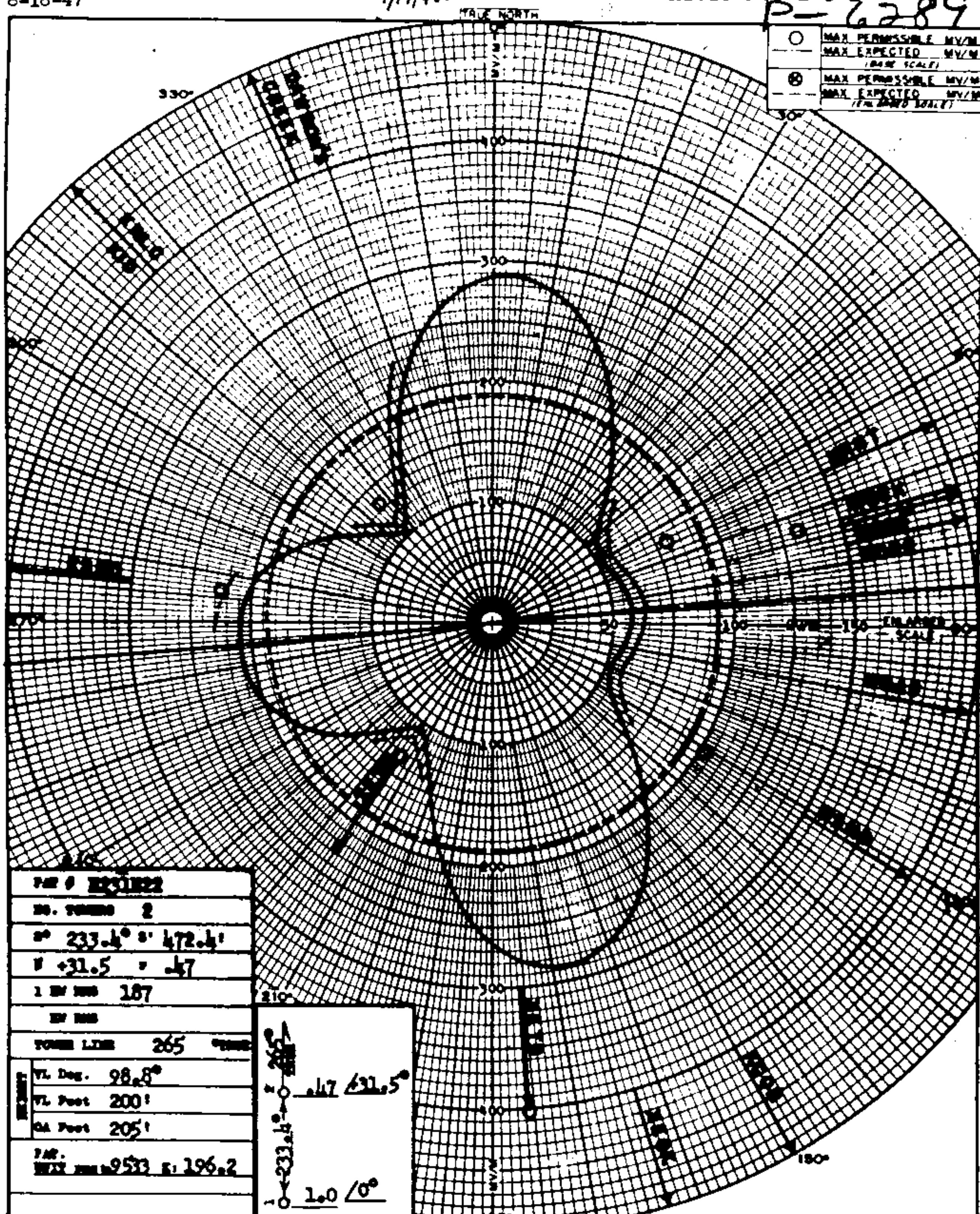
1350

8-18-47

9/17/4860

EXHIBIT NO. I-0-1

P-6289



[illegible]	[illegible]
[illegible]	2
[illegible] 233.4°	[illegible] 472.4'
[illegible] +31.5	[illegible] .47
1 [illegible]	187
[illegible]	
[illegible]	265
VL Deg.	98.8°
VL Feet	200'
OA Feet	205'
[illegible] 9533	[illegible] 196.2

265

.47 ∠31.5°

233.4°

1.0 ∠0°

COMMERCIAL RADIO EQUIPMENT CO.

RADIO ENGINEERING CONSULTANTS

KANSAS CITY   WASHINGTON, D.C.   HOLLYWOOD

PATTERN	PROPOSED NIGHTTIME
FOR	KGHF, PUEBLO, COLORADO
POWER	5KW-1KW-DA-N FREQ 1350 KCS
DATE	JUNE 11, 1947 BY EPL

MEASURED NIGHT

KGHF, PUEBLO, COLO. BL-3623 1kw,5kw-LS,DAN 1350

4/25/49G

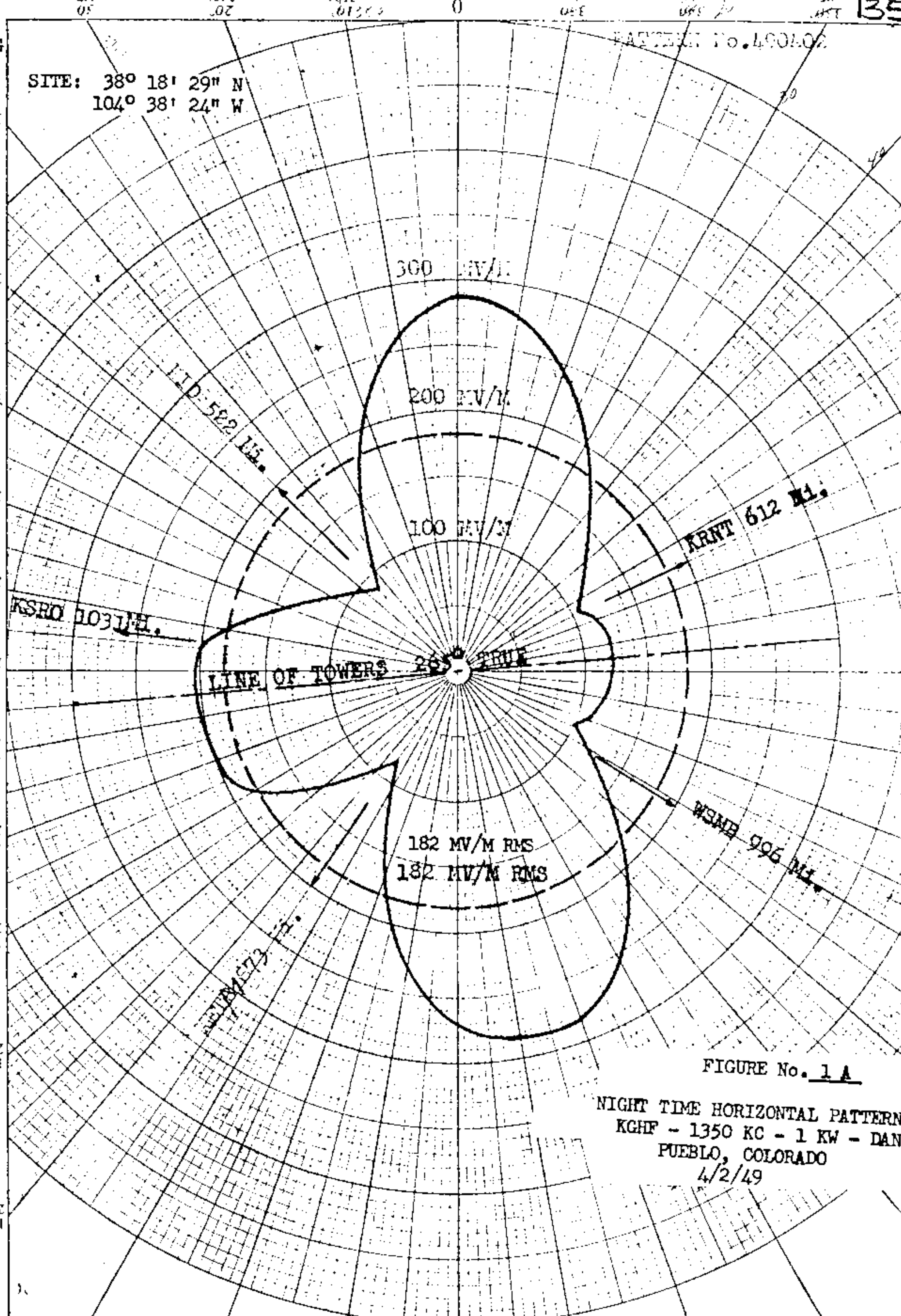


FIGURE No. 1 A

NIGHT TIME HORIZONTAL PATTERN
KGHF - 1350 KC - 1 KW - DAN
PUEBLO, COLORADO
4/2/49

KGHF, Pueblo, Colo. 1350kc

KIUN ~~KTAM~~ - 1500

MEASURED DAYTIME Non-DA   KGHF, PUEBLO, COLO.   BL-3623   1kw,5kw-LS,DAN

4/25/49G

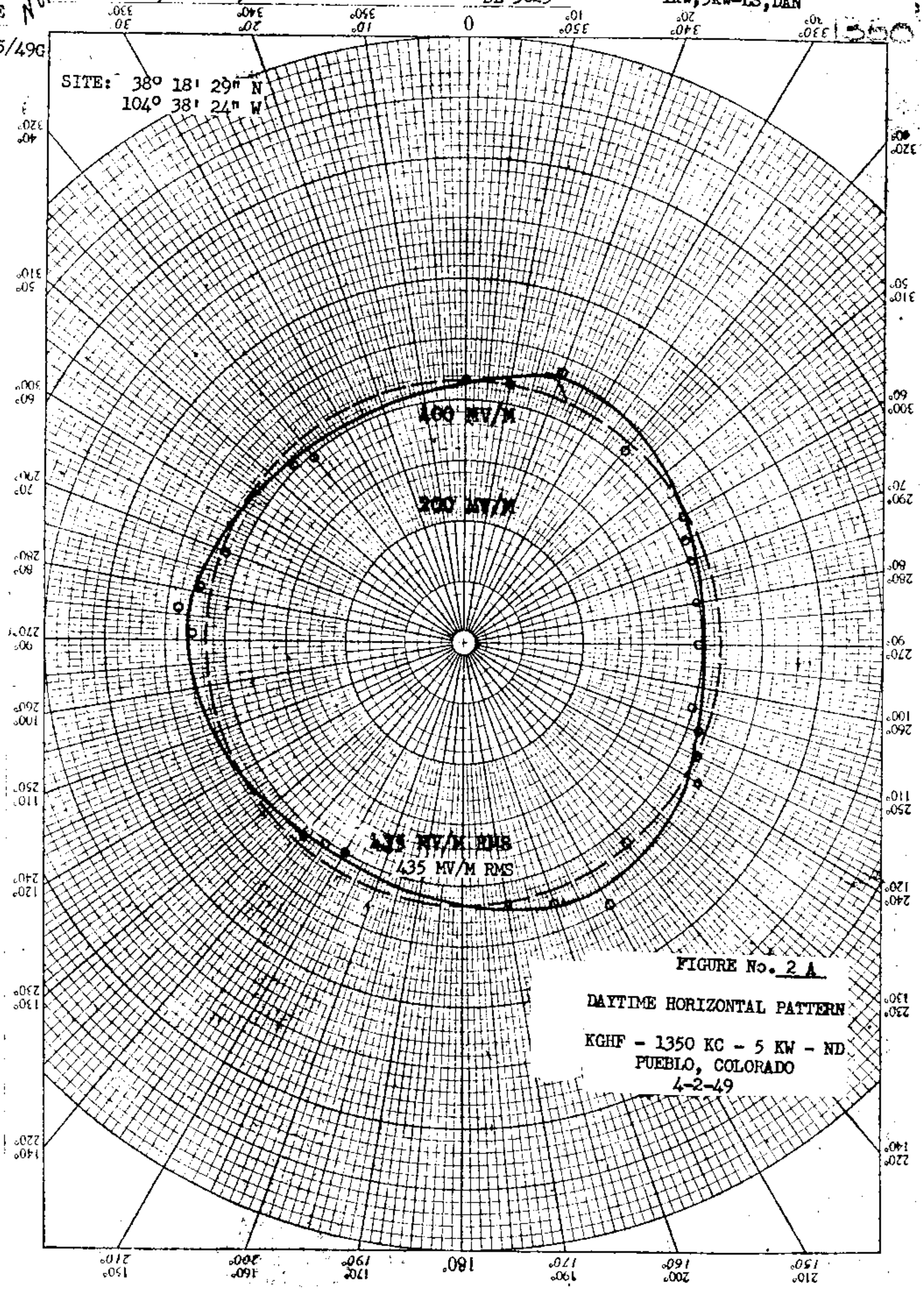


FIGURE No. 2 A

DAYTIME HORIZONTAL PATTERN

KGHF - 1350 KC - 5 KW - ND
PUEBLO, COLORADO
4-2-49

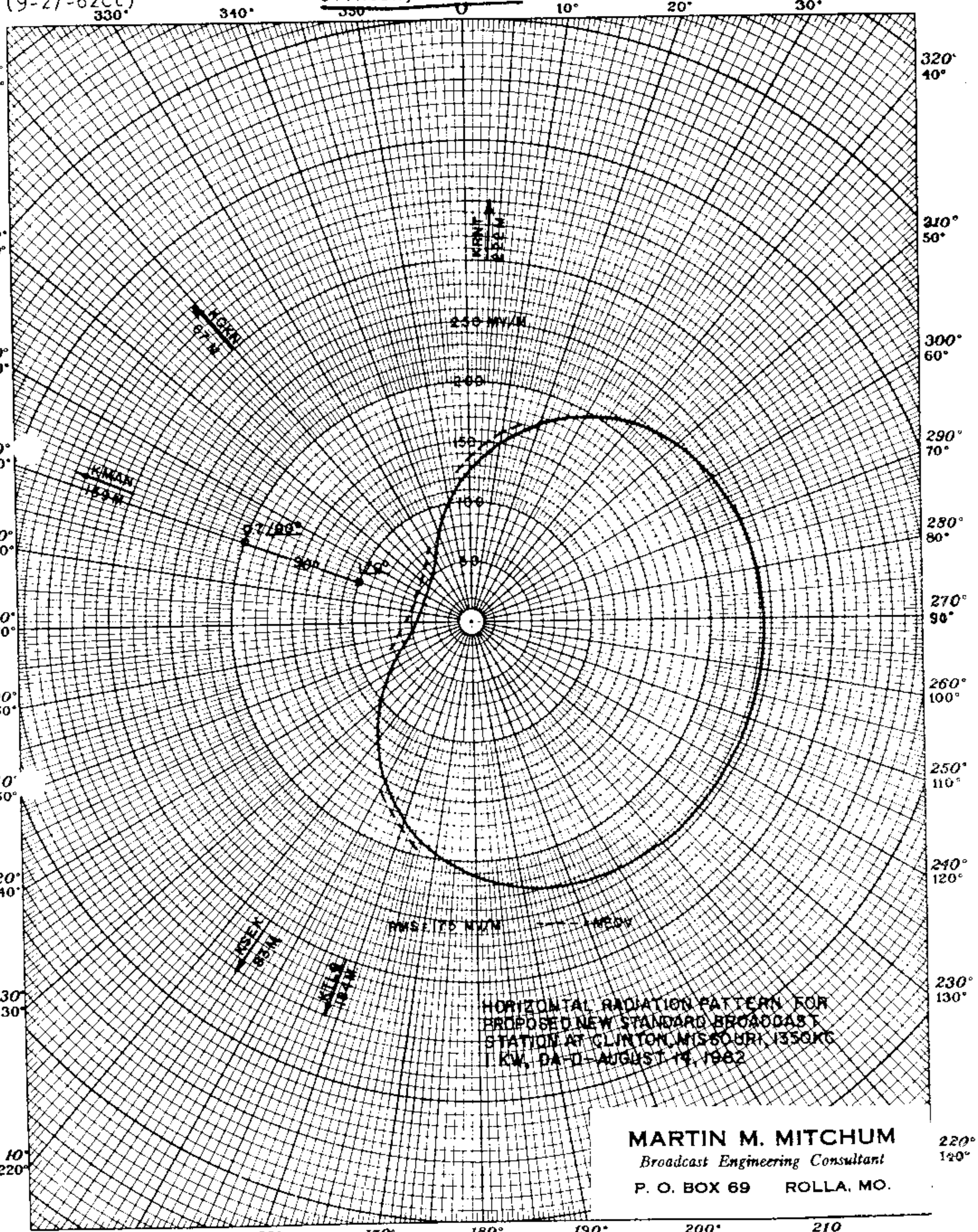
KGHF, Pueblo, Colo. 1350kc

KITH

Proposed Day
(9-27-62ct)

New; Golden Valley B/cing Co.
Clinton, Missouri

1kw,DA-D,D
1350 kc

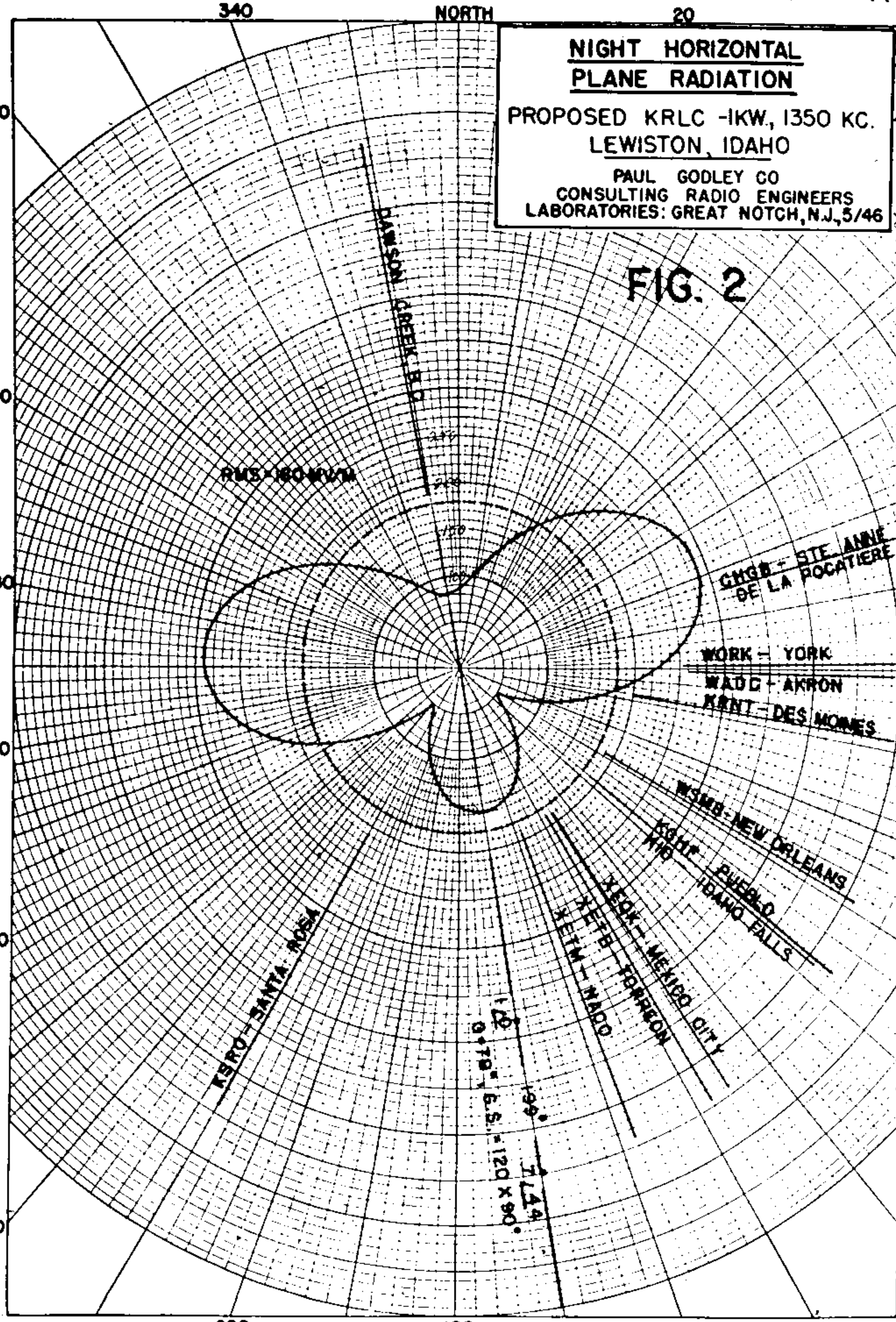


FCC File No.BP-14998
Accepted 9-19-62 Amended

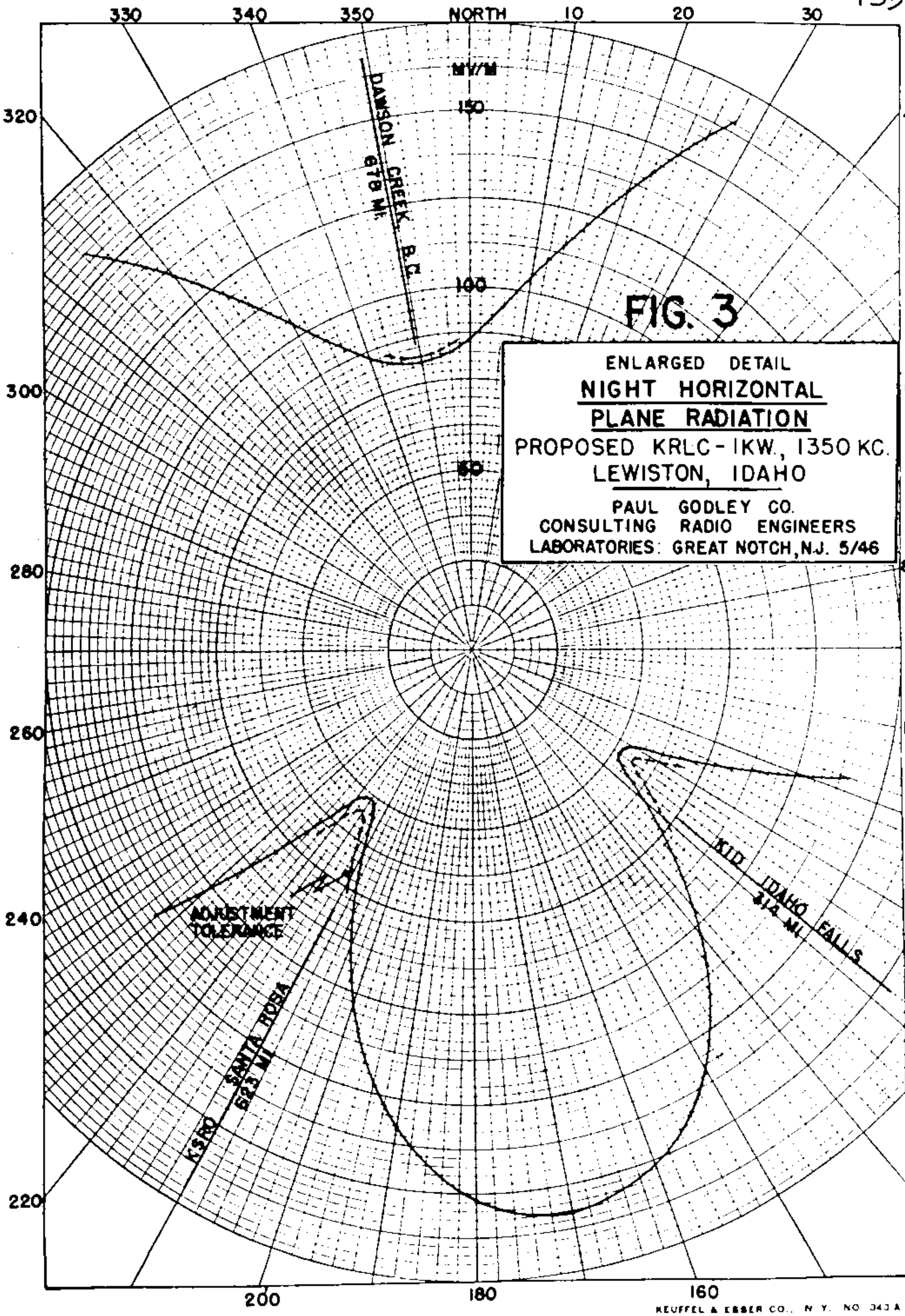
New; Golden Valley B/cing Co.
Clinton, Missouri

1350 kc

KRLC
1350


NIGHT HORIZONTAL PLANE RADIATION
PROPOSED KRLC -1KW, 1350 KC.
LEWISTON, IDAHO
PAUL GODLEY CO
CONSULTING RADIO ENGINEERS
LABORATORIES: GREAT NOTCH, N.J., 5/46
FIG. 2
NORTH
340
20
320
40
300
60
280
80
260
100
240
120
220
140
200
180
160
DAWSON CREEK B.C.
RMS = 180 MV/M
CHGB - STE ANNE DE LA POCATIERE
WORK - YORK
WADC - AKRON
KRNT - DES MOINES
WSMB - NEW ORLEANS
KGHF - PUEBLO
KID - IDAHO FALLS
XEQK - MEXICO CITY
XETB - TORREON
XETM - NADO
KSRO - SANTA ROSA
199°
7.44
Q = 78°, S.S. = 120 X 90°

KRLC
1350



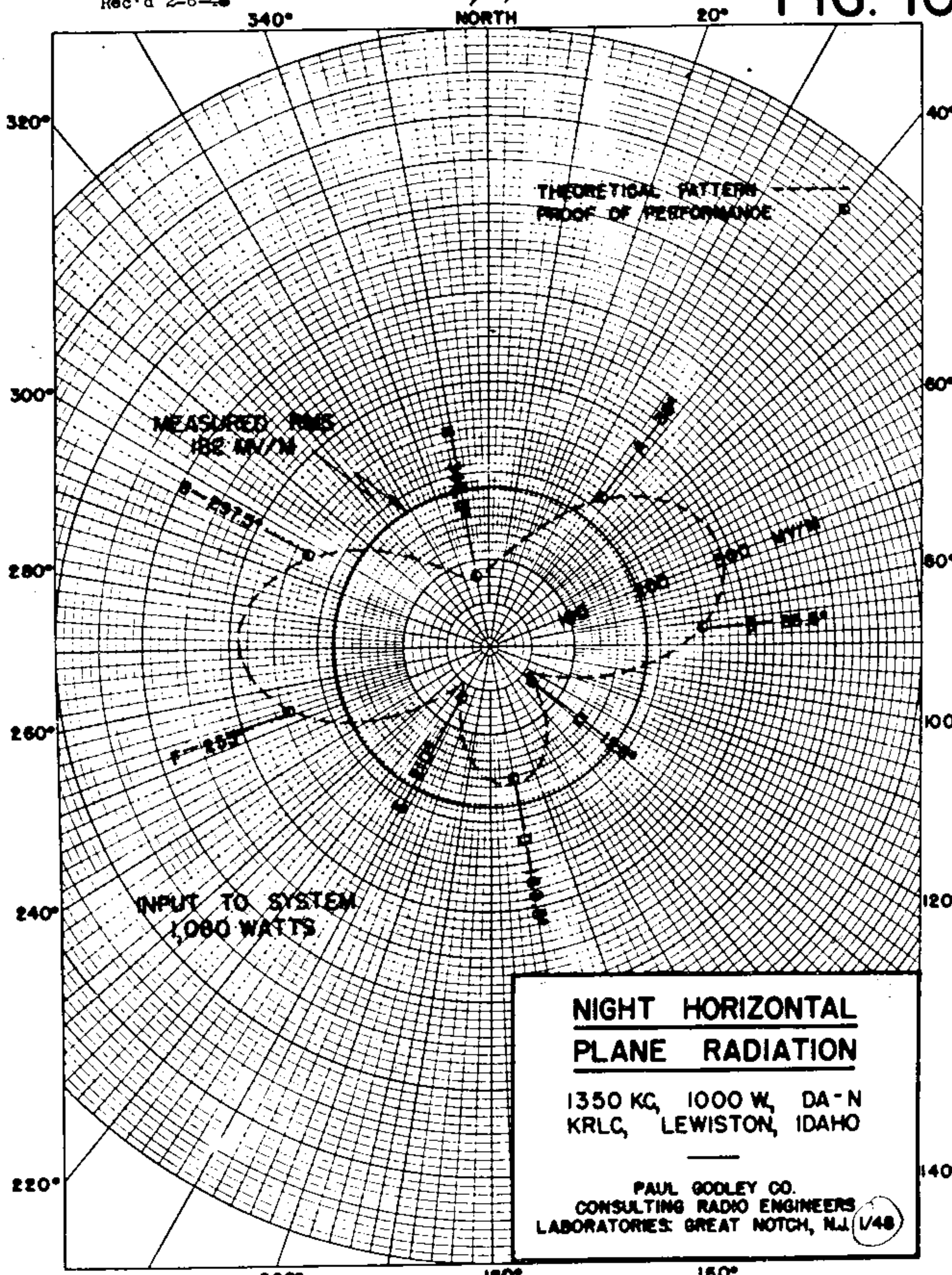
KEUFFEL & ESSER CO., N. Y. NO. 343 A
POLAR CO-ORDINATE
MADE IN U.S.A.

KRLC
1350

Rec'd 2-6-48

9/17/48

FIG. 10

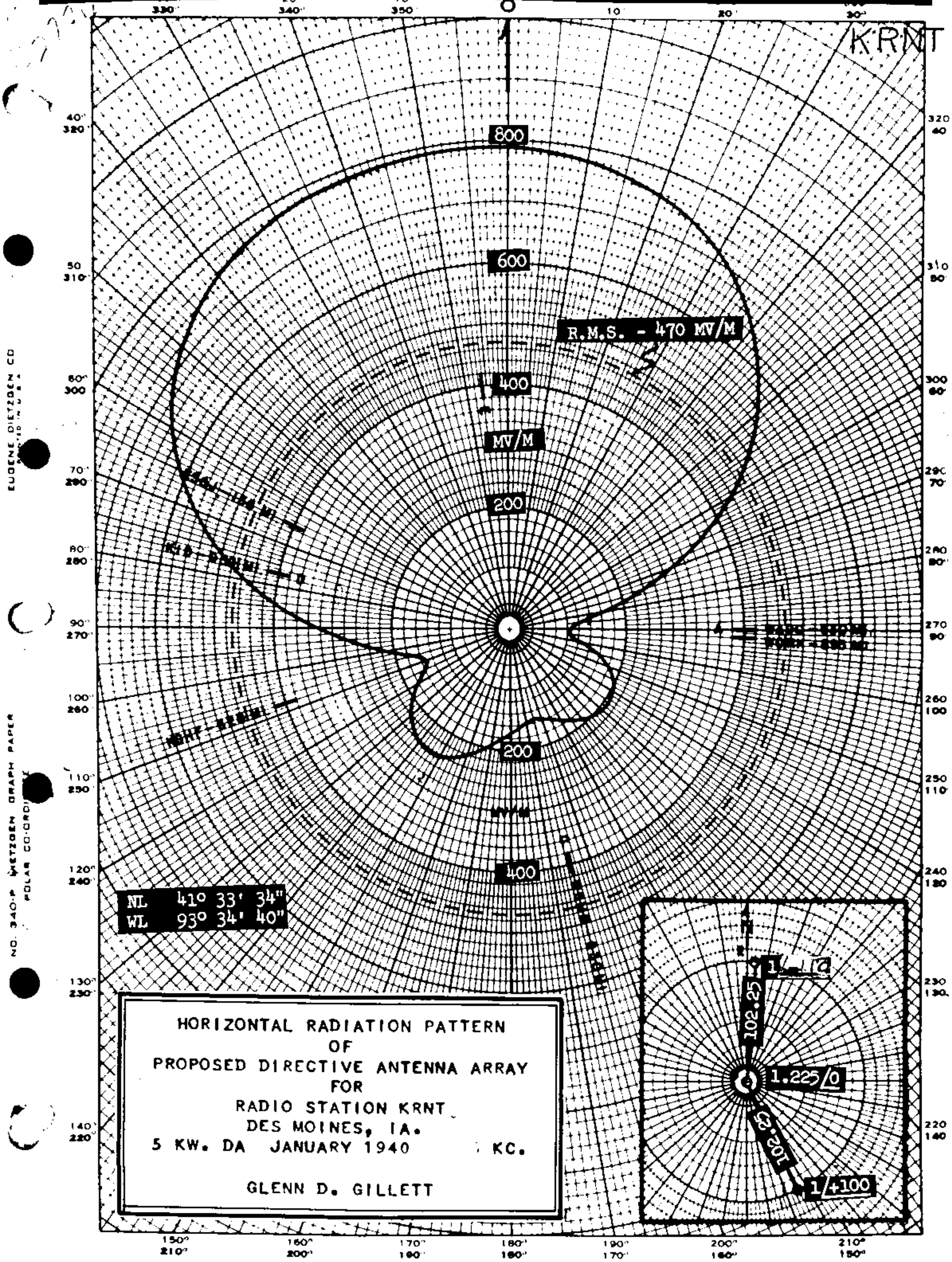


NIGHT HORIZONTAL PLANE RADIATION

1350 KC, 1000 W, DA-N
KRLC, LEWISTON, IDAHO

PAUL GODLEY CO.
CONSULTING RADIO ENGINEERS
LABORATORIES: GREAT NOTCH, N.J. 1/48

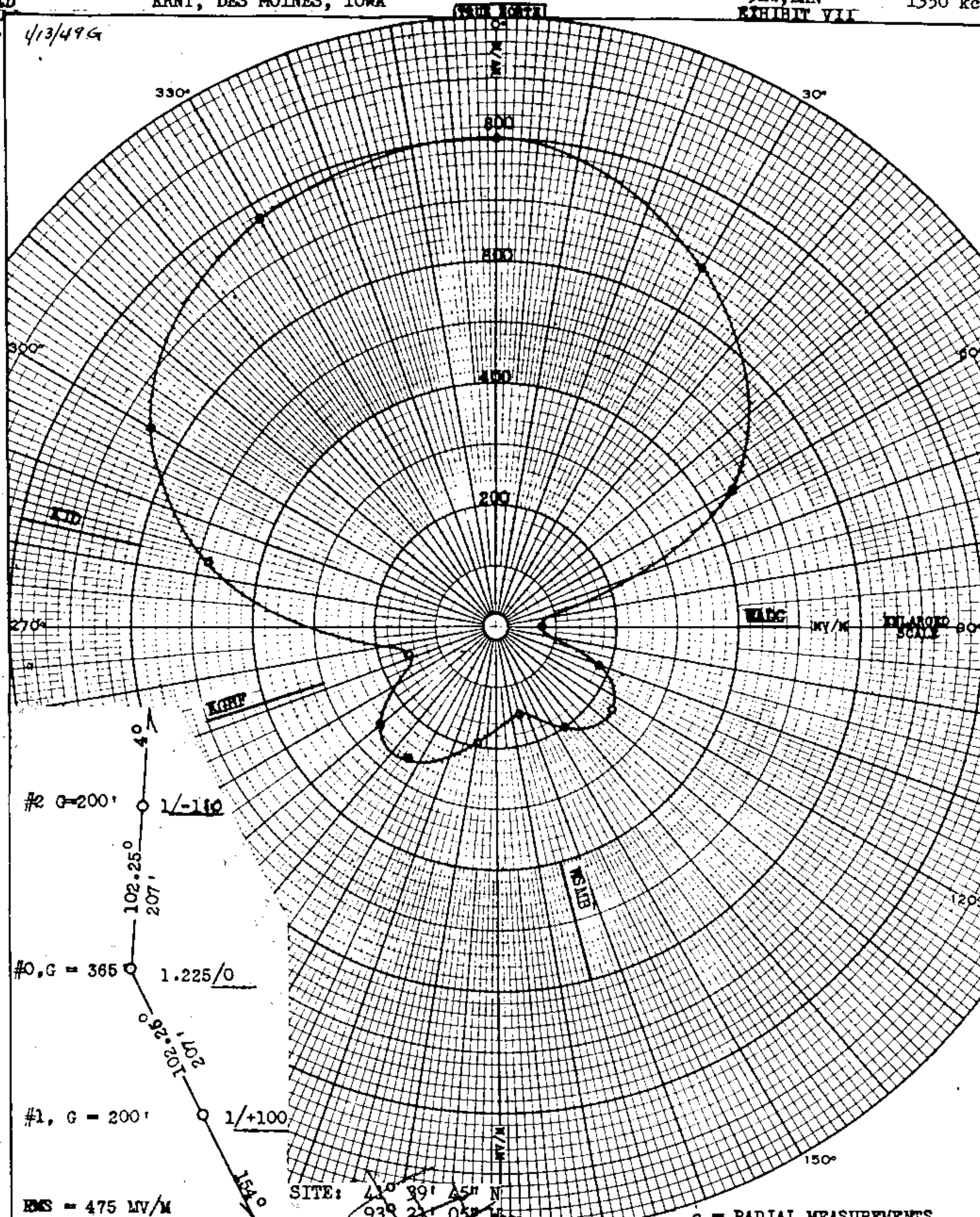
PROPOSED NIGHT Station KRNT 5kW, DA-N,U
Des Moines, Iowa 1350 KC



KRNT

MEASURED NIGHT   KRNT, DES MOINES, IOWA   5kw, DAN EXHIBIT VII   1350 kc

(3) 4/13/49G



COMMERCIAL RADIO EQUIPMENT CO.

RADIO ENGINEERING CONSULTANTS

KANSAS CITY   WASHINGTON, D.C.   HOLLYWOOD

PATTERN: Proof of Performance
FOR: KRNT, DesMoines, Iowa
POWER: 5 KW DA-N   FREQ: 1350KC
DATE: July 20, 1948   BY: KMH

This patternsupersedes Proof Pattern 12/12/41

41-33-34
93-34-47

KRNT

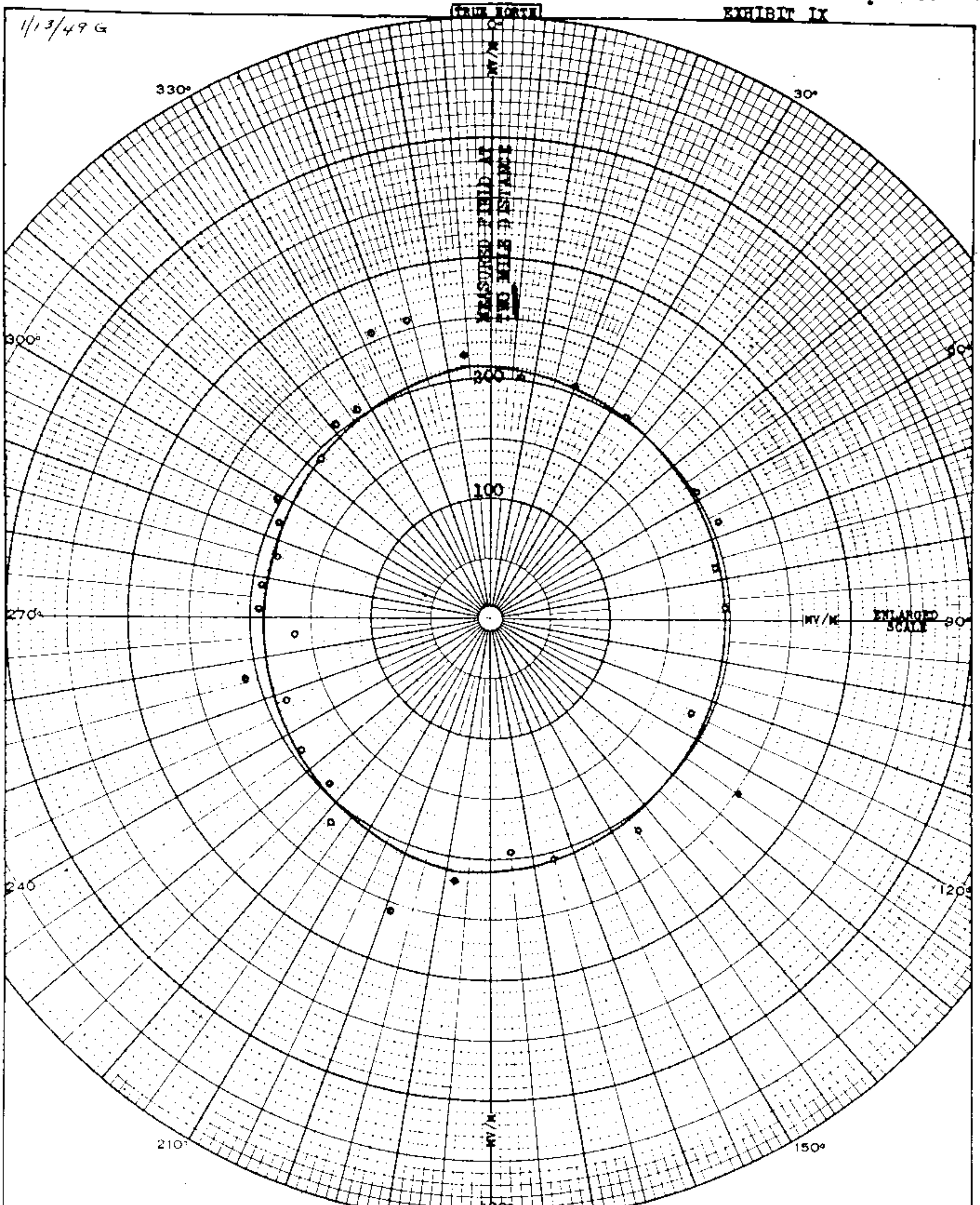
MEASURED NON-DA DAY

KRNT, DES MOINES, IOWA

5kw, DAN 1350 kc

EXHIBIT IX

1/13/49 G



COMMERCIAL RADIO EQUIPMENT CO.

RADIO ENGINEERING CONSULTANTS

KANSAS CITY WASHINGTON, D.C. HOLLYWOOD

ACCURACY

PATTERN: NON DIRECTIONAL

FOR: KRNT

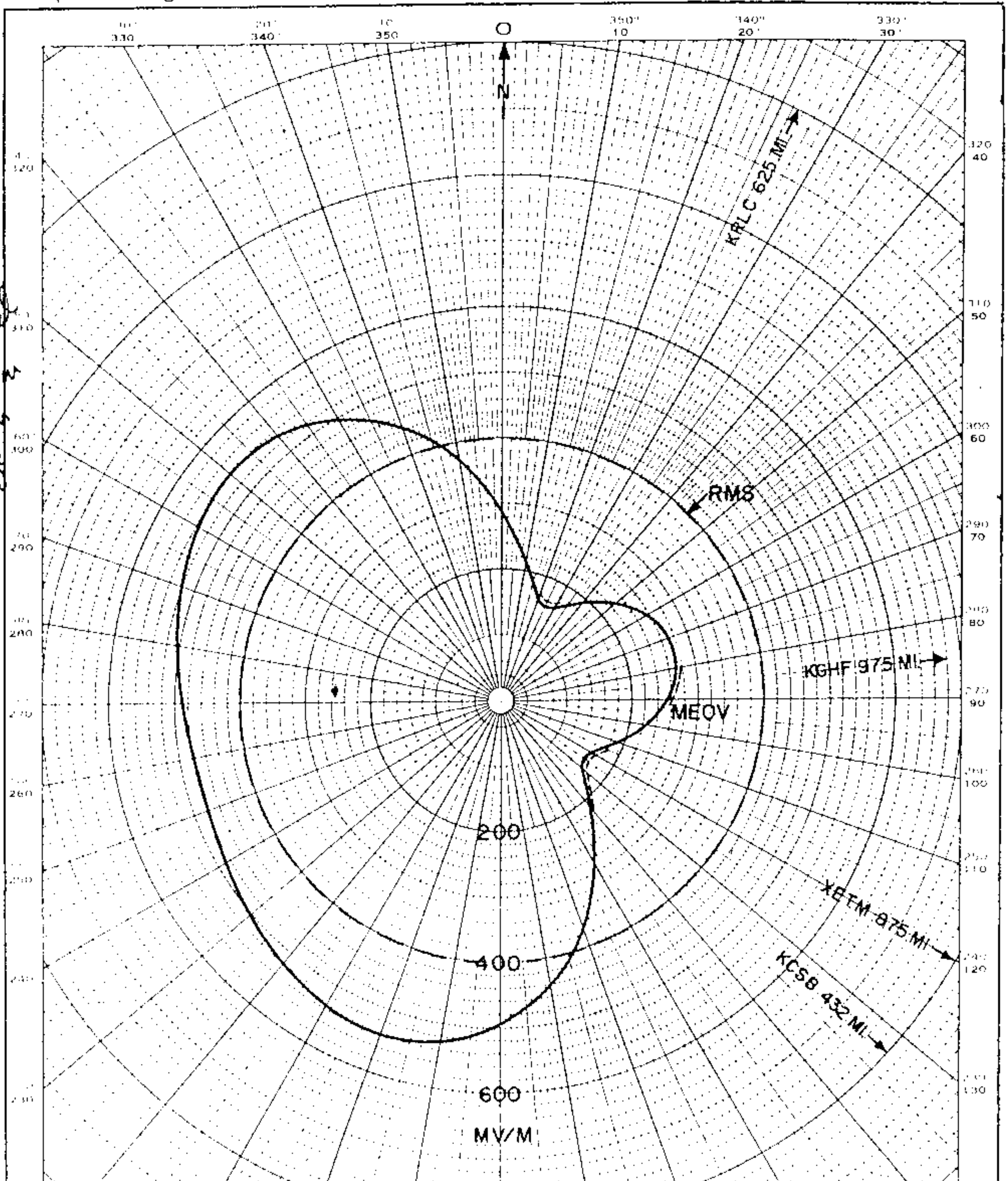
POWER: 5 KW FREQ: 1350 KC

DATE: July 23, 1948 BY: KMH

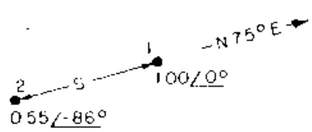
PROPOSED NIGHT (10-24-58g) | Station KSRO Santa Rosa, California | 5kw, DA-N,U 1350 KC

KSRO

CP 3040 granted CP to change to DA-N 7-6-61
-17-62 granted CP for increase in power, change in DA sys + change in T-mitr site



S: 145° : 294'
G: 90° : 182'
RMS: 400 MV/M



N LAT 38° 26' 22"
W LONG 122° 44' 51"

HORIZONTAL RADIATION PATTERN NIGHTTIME

UNATTENUATED FIELD INTENSITY AT ONE MILE

580702 FIGURE 6

HAMMETT & EDISON
CONSULTING RADIO ENGINEERS
SAN FRANCISCO

RADIO STATION KSRO
1350 KC, 5 KW, DA-N
SANTA ROSA, CALIFORNIA

FCC File No. BP-12,313
Accepted 9-26-58

KSRO
Santa Rosa, California 1350 KC

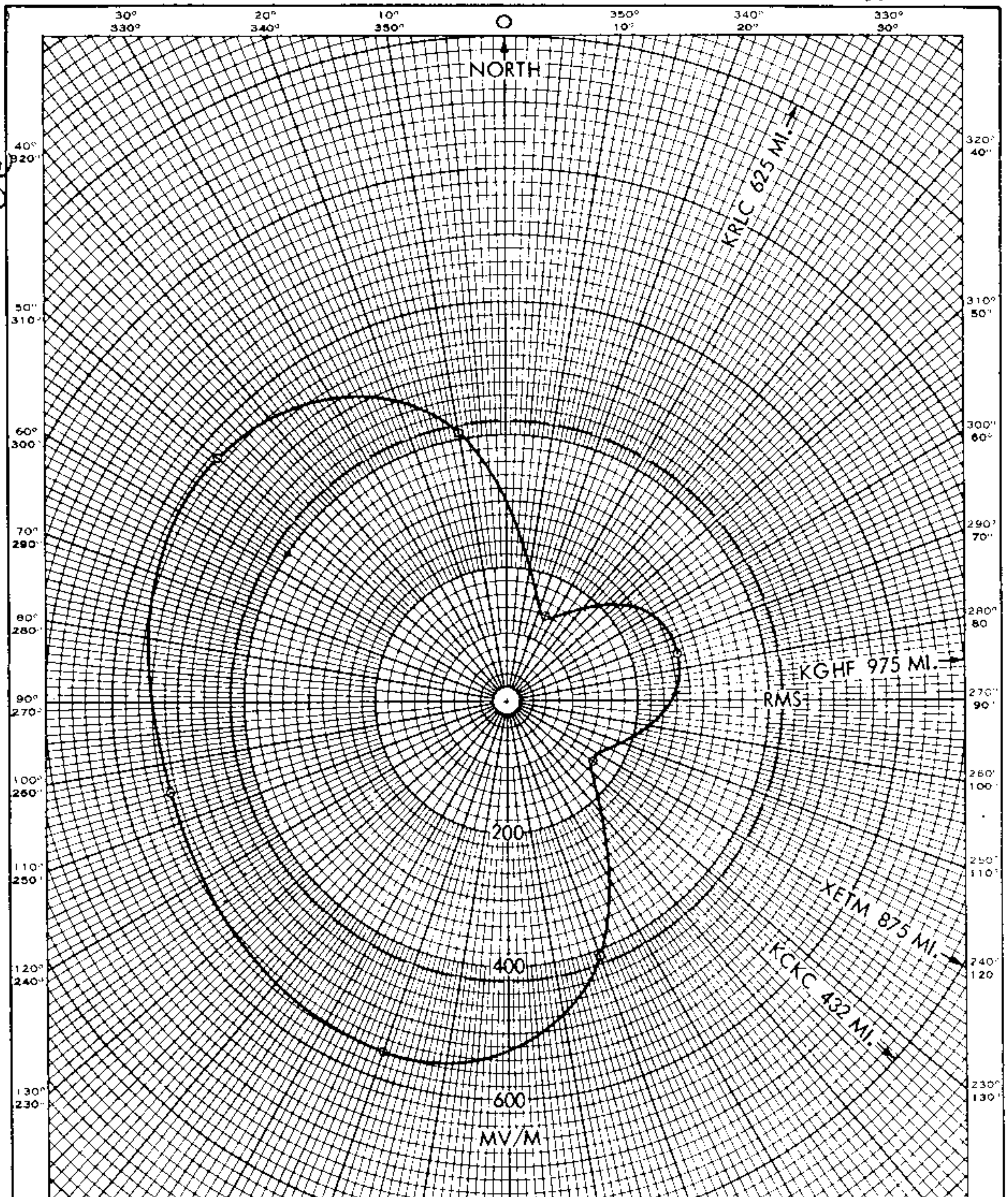
KSRO

Measured Night
(4-27-62ct)

Station KSRO
Santa Rosa, California

5kw,DA-N,U
1350 kc

5/17-62
anted L for
crease in power
nge in Xmtr
cation & change
DA system



S=145°=294'
G=90°=182'
RMS=422 MV/M

2 — S — 1 — N75°E
0.55/-86°   1.00/0°

N. LAT. 38° 26' 22"
W. LONG. 122° 44' 51"

HAMMETT & EDISON
CONSULTING RADIO ENGINEERS
SAN FRANCISCO

RADIO STATION KSRO
1350 KC, 5 KW, DA-N
SANTA ROSA, CALIFORNIA

MEASURED
HORIZONTAL RADIATION PATTERN
NIGHTTIME

UNATTENUATED FIELD INTENSITY
AT ONE MILE

611031

FIGURE 10B

'CC File No. BL-9007
'ccepted 3-27-62

Station KSRO
Santa Rosa, California

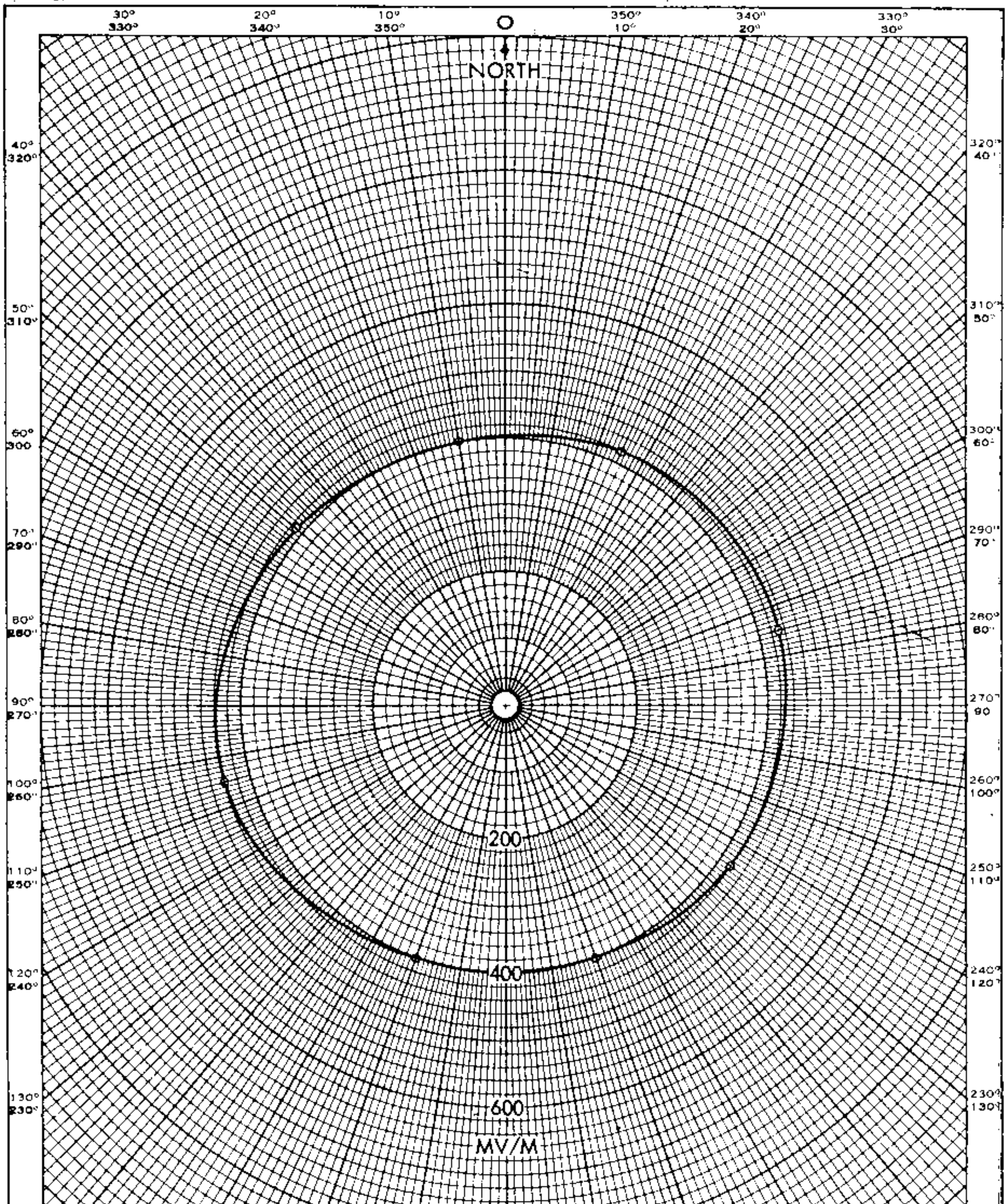
1350 kc

KSRO

Measured Non-DA
(4-27-62ct)

Station KSRO
Santa Rosa, California

5kw,DA-N,U
1350 kc



N.LAT. 38° 26' 22"
W.LONG. 122° 44' 51"

G=90° = 182'
RMS=417 MV/M

TOWER 1 EXCITED, TOWER 2 FLOATING

MEASURED
HORIZONTAL RADIATION PATTERN
NON-DIRECTIONAL

UNATTENUATED FIELD INTENSITY
AT ONE MILE

HAMMETT & EDISON
CONSULTING RADIO ENGINEERS
SAN FRANCISCO

RADIO STATION KSRO
1350 KC, 5 KW, DA-N
SANTA ROSA CALIFORNIA

611031

FIGURE 10A

FCC File No.BL-9007
Accepted 3-27-62

Station KSRO
Santa Rosa, California

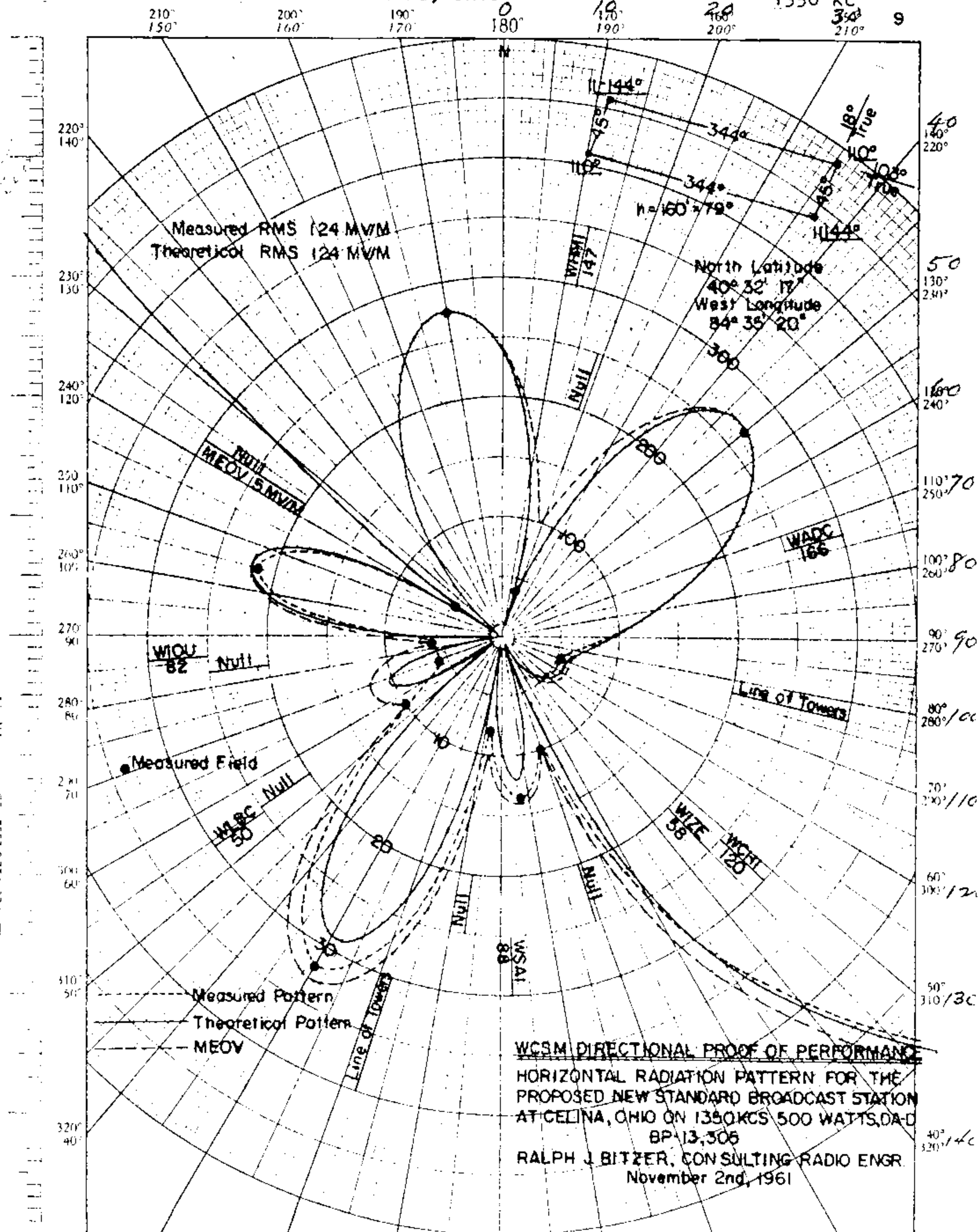
1350 kc

WCSM

Measured Day
(9-25-63ct)

Station WCSM
Celina, Ohio

500w,DA-D,D
1350 kc



FCC File No.BL-10282
Accepted 9-19-63

Station WCSM
Celina, Ohio

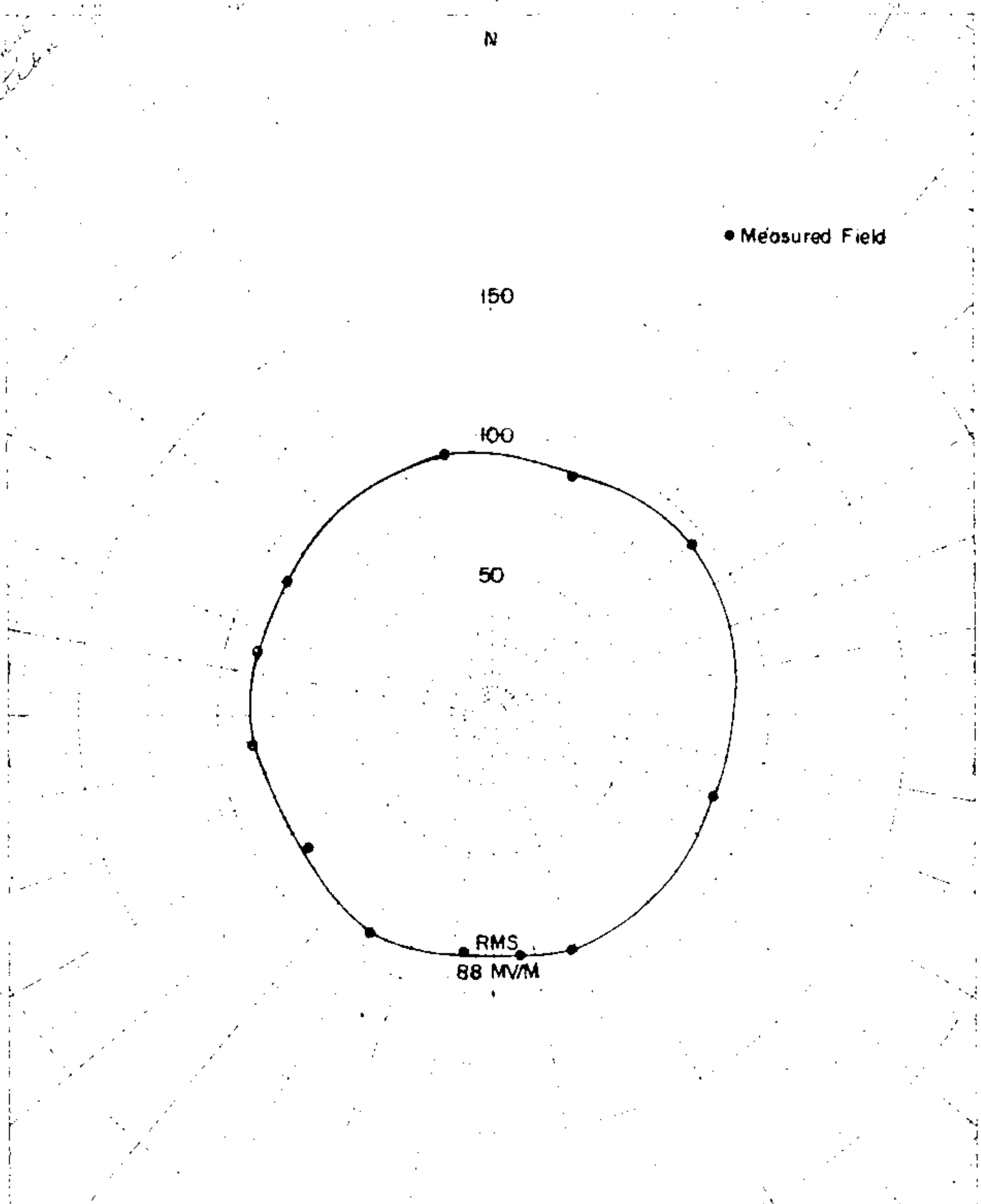
1350 kc

WCSM

Measured Non-DA
(9-25-63ct)

Station WCSM
Celina, Ohio

500w,DA-D,D
1350 kc



NON-DIRECTIONAL PROOF OF PERFORMANCE
FOR RADIO STATION WCSM CELINA, OHIO
ON 1350 KCS WITH 500 WATTS, DA-DAYTIME
BP-13,305
RALPH J. BITZER, CONSULTING RADIO ENGR

FCC File No.BL-10282
Accepted 9-19-63

Station WCSM
Celina, Ohio

1350 kc

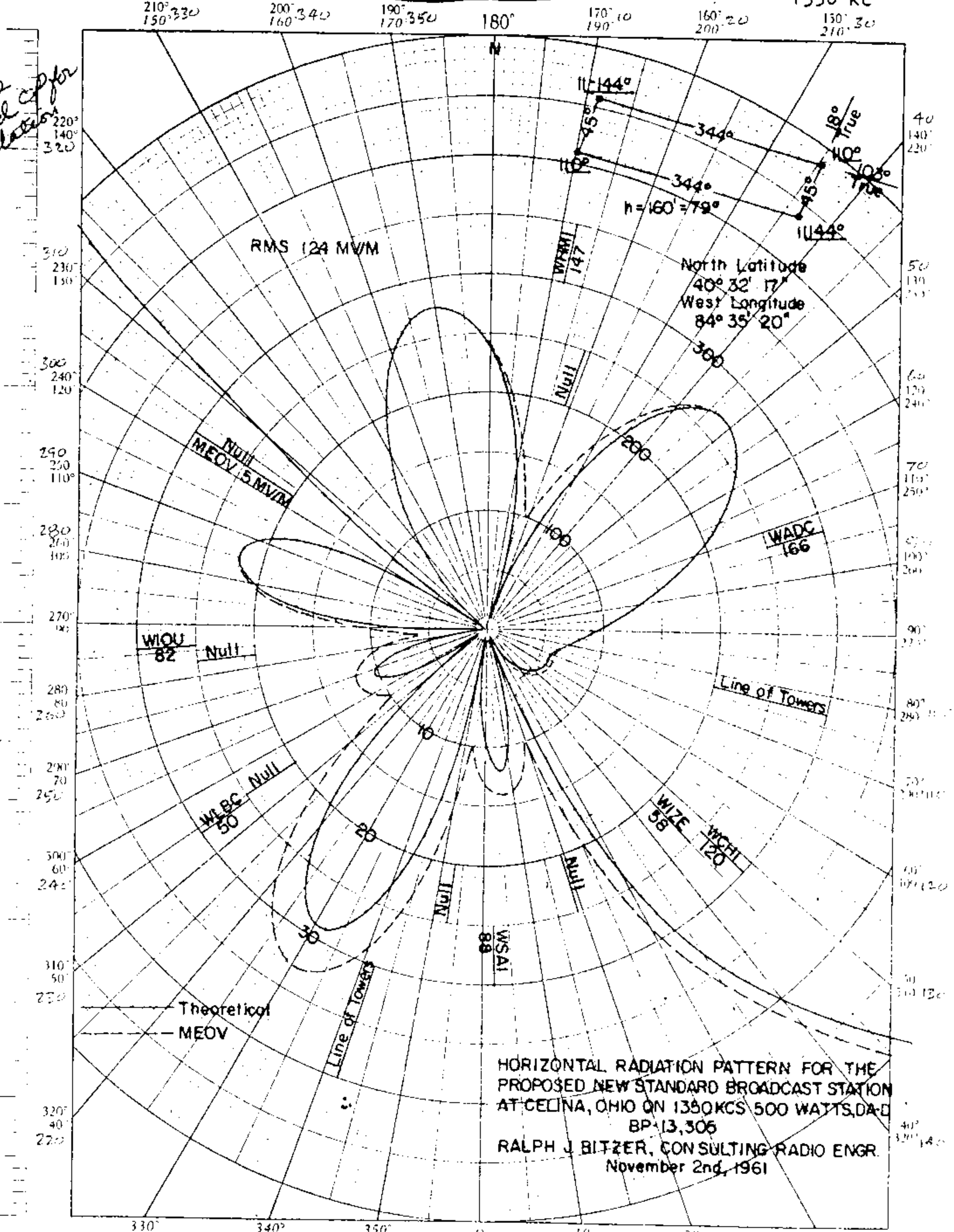
WCSM

*Proposed Day
(12-19-61ct)

New; Marshall Rosene
Celina, Ohio

500w,DA-D,D
1350 kc

1-6-62 granted cp for new station



FCC File No.BP-13305 New; Marshall Rosene
Accepted 12-14-61 Amended Celina, Ohio

1350 kc

WDCF

DIRECTIONAL ANTENNA DESCRIPTION SHEET

Station: WDCF | Main Studio: Dade City, Florida

Frequency: 1350 kHz | Power: 0.5 kW Night 1 kW Day

Notification List No. 1674 | Date: March 3, 1976 | Class: III

GEOGRAPHICAL LOCATION OF THE CENTER OF THE ANTENNA SYSTEM:

North Latitude: 28° 20' 04"
West Longitude: 82° 11' 23"

ANTENNA CHARACTERISTICS

Authorized for Nighttime operation. (DA-N)
Number of elements: 2
Type of elements: Series-excited, uniform cross-section, guyed, vertical steel towers. Tower #1 is sectionalized by means of a tuned isolation skirt to provide an effective electrical height of 38 degrees for nighttime operation. The skirt is shorted out to provide 99 degrees electrical height for daytime operation. (*)

TOWER:	S(#1)	N(#2)
HEIGHT ABOVE INSULATORS:	201'(*)	77'(38°)
PHASING:	0°	180°
FIELD RATIO:	1.0	0.6

SPACING AND ORIENTATION: Elements are spaced 485.7' (240°) on a line bearing 9° true.

GROUND SYSTEM: 120-182' to 200' equally spaced copper radials plus a 48' square ground screen about each tower. Centers of systems are bonded together.

Note: This notification concerns only a change to add new Nighttime operation with Daytime operation continued as previously notified and with correction to geographical coordinates.

(Cont'd)

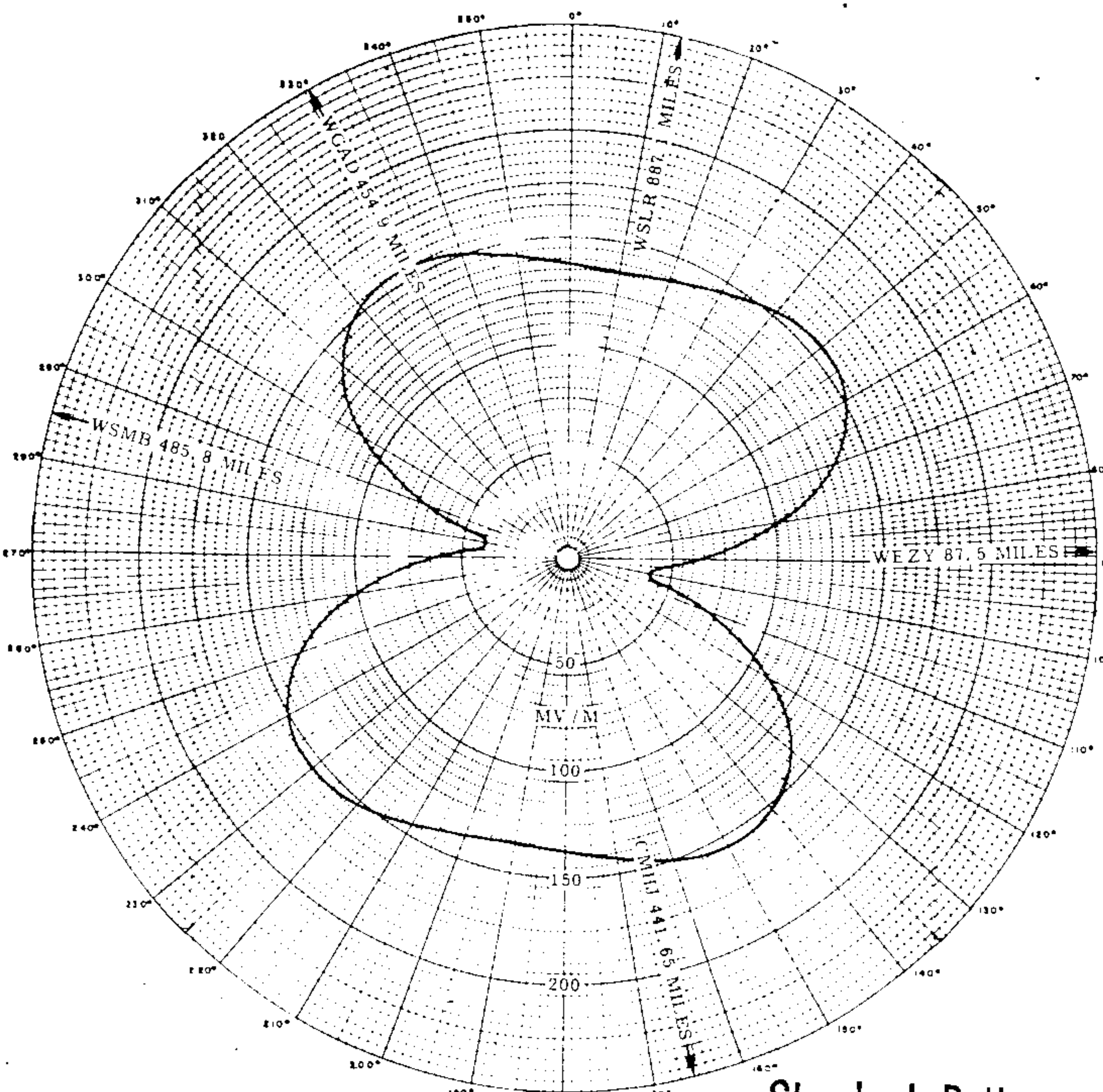
PREDICTED EFFECTIVE FIELDS AT RATED POWER:

	THEORETICAL		STANDARD
	RMS	RSS	RMS
Day	194 mv/m 1/	-	-
Night	124.65 mv/m	107.94 mv/m	131.04 mv/m

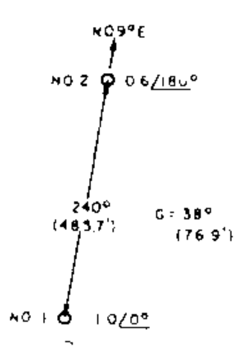
1/ Tower #1

CTR NO 30416A3

WDCF



Standard Pattern



STANDARD HORIZONTAL PLANE PATTERN

RMS STANDARD	131.04 MV/M
RMS THEORETICAL	124.65 MV/M
RSS THEORETICAL	107.94 MV/M
N. LATITUDE	28° 20' 04"
W LONGITUDE	82° 11' 23"
DATE	9-3-75
SUPERSEDES	

RADIO STATION WDCF

DADE CITY, FLORIDA

PROPOSED

1350 KHZ - 0.5N/1D DA-N

RUSSELL P. MAY
Consulting Radio Engineer
Indialantic, Florida

WEGA

DIRECTIONAL ANTENNA DESCRIPTION SHEET

Station: WEGA

Main Studio: Vega Baja, Puerto Rico

Frequency: 1350 kHz

Power: 0.5 kW

Notification List No. 1582

Date: May 30, 1974

Class: III

GEOGRAPHICAL LOCATION OF THE CENTER OF THE ANTENNA SYSTEM:

North Latitude: 18° 28' 38"
West Longitude: 66° 23' 43"

ANTENNA CHARACTERISTICS

Authorized for Daytime and Nighttime operation. (DA-2)
Number of elements: 2
Type of elements: Series-excited, uniform cross-section, guyed, vertical steel towers.

TOWER:	NW(#2)	SE(#1)	
HEIGHT ABOVE INSULATORS:	185'	185'	(91.4°)
NIGHT PHASING:	+35.5°	0°	
NIGHT FIELD RATIO:	1.2	1.0	
DAY PHASING:	+24°	0°	
DAY FIELD RATIO:	0.98	1.0	

SPACING AND ORIENTATION: Elements are spaced 316' (156°) on a line bearing 235° true.

GROUND SYSTEM: 120-182' equally spaced copper radials plus a 24' square ground screen about each tower. Radials are shortened and bonded to a transverse strap along intersections between towers.

PREDICTED EFFECTIVE FIELDS AT RATED POWER:

	THEORETICAL RMS	THEORETICAL RSS	STANDARD RMS
Daytime	124 mv/m	-	-
Nighttime	128.26 mv/m	136.88 mv/m	134.82 mv/m

(Cont'd)

WEGA

Note: Please retain the Daytime directional antenna radiation pattern notified for Station WEGA in United States Change List Number 1475 dated May 3, 1972 and attach to this Revised Description Sheet and Nighttime patterns. This notification concerns only a change to add new Nighttime operation with Daytime operation continued as previously notified.

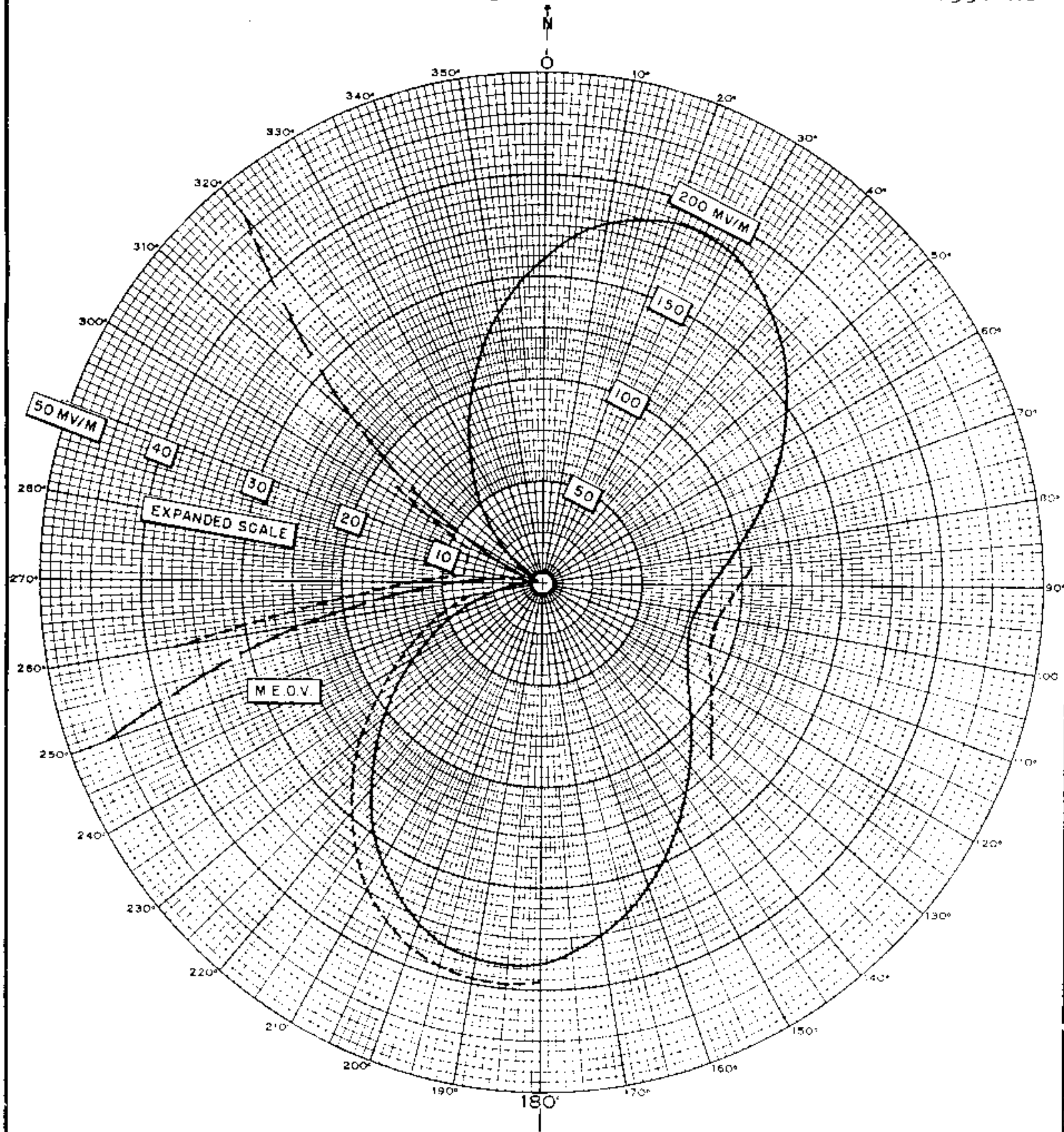
CTR NO. 30102A3

WEGA

Proposed Day
(11-24-70ct)

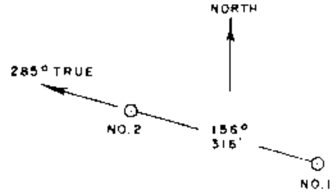
Station WEGA
Vega Baja, Puerto Rico

500w, DA-D, D
1350 kc



ERMS=124 MV/M

EXHIBIT E



LATITUDE 18° 28' 38" North
LONGITUDE 66° 23' 43" West

ANTENNA NUMBER	AZIMUTH DEG	SPACING DEG	PHASING DEG	FIELD RATIO	MV/M FOR 1 KW	HEIGHT DEG
1	0	0	0	1.0	–	90
2	285	156	+24	.98	–	90

HORIZONTAL PLANE PATTERN
FOR
PROPOSED
VEGA BAJA, PUERTO RICO
1350 KHZ 0.5 KW DA-D
700519

KEAR & KENNEDY
CONSULTING ENGINEERS
WASHINGTON, D. C.

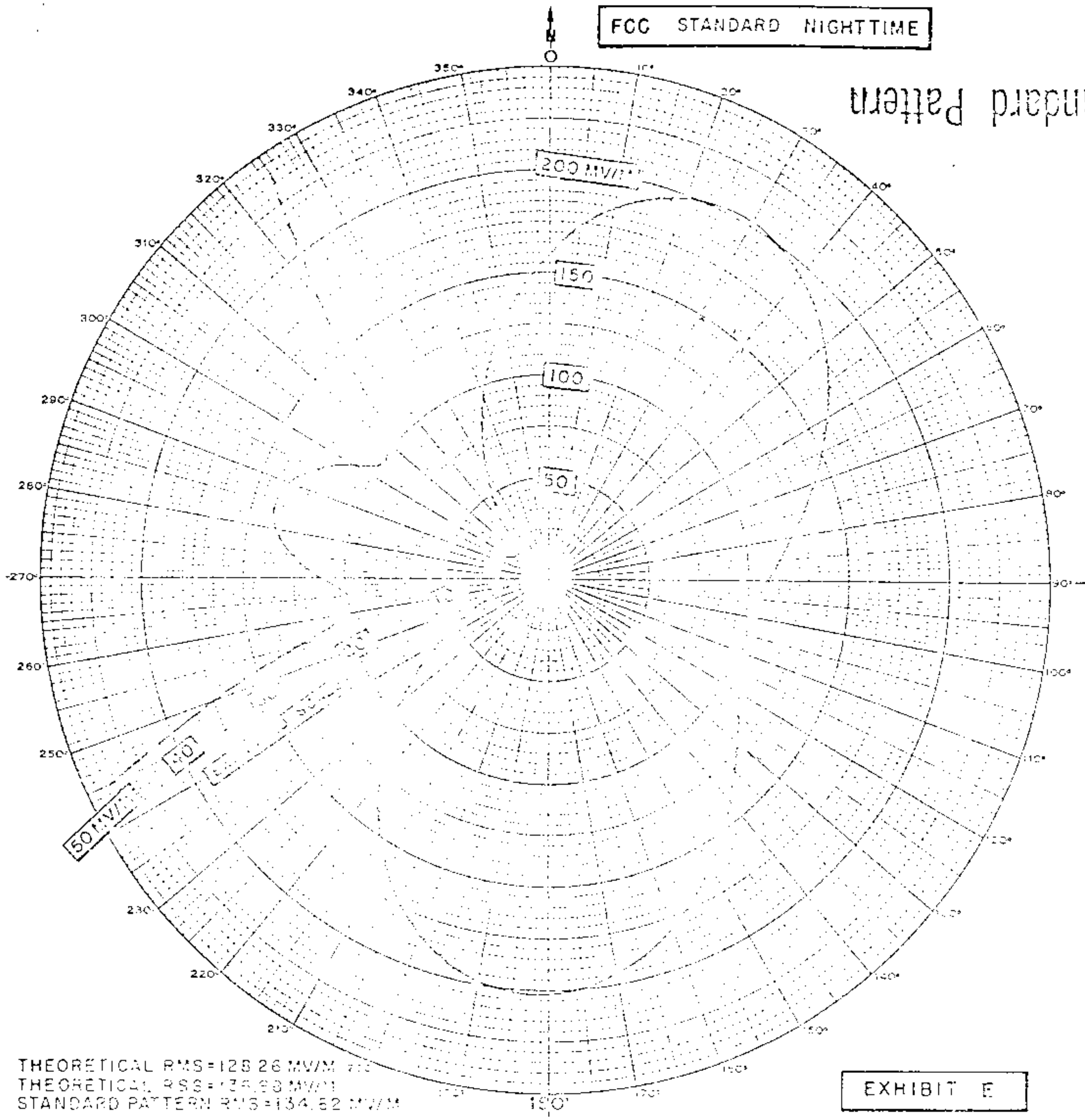
FCC File No. BMP-13117
Accepted 11-5-70

Station WEGA
Vega Baja, Puerto Rico

1350 kc

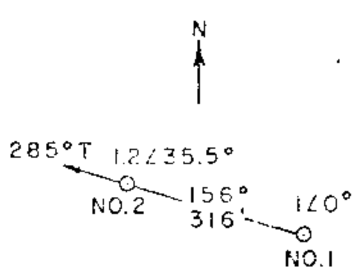
WEGA

FCC STANDARD NIGHTTIME



THEORETICAL RMS=128.26 MV/M
THEORETICAL RSS=135.93 MV/M
STANDARD PATTERN RMS=134.52 MV/M

EXHIBIT E



LATITUDE	18° 28' 38" North
LONGITUDE	66° 23' 43" West

Antenna Number	Azimuth	Spacing	Phasing	Field Ratio	MV/M for 1 KW	[illegible]
1	0	0	0	1.0	—	91.4
2	285	156	35.5	1.2	—	91.4

HORIZONTAL RADIATION PATTERN
PROPOSED WEGA
VEGA BAJA,
PUERTO RICO
1350 KHZ 0.5 KW DA-2-U

731001

ROBERT E. L. KENNEDY
CONSULTING RADIO ENGINEERS
WASHINGTON, D.C.

WEGA

FCC STANDARD NIGHTTIME

Standard Pattern

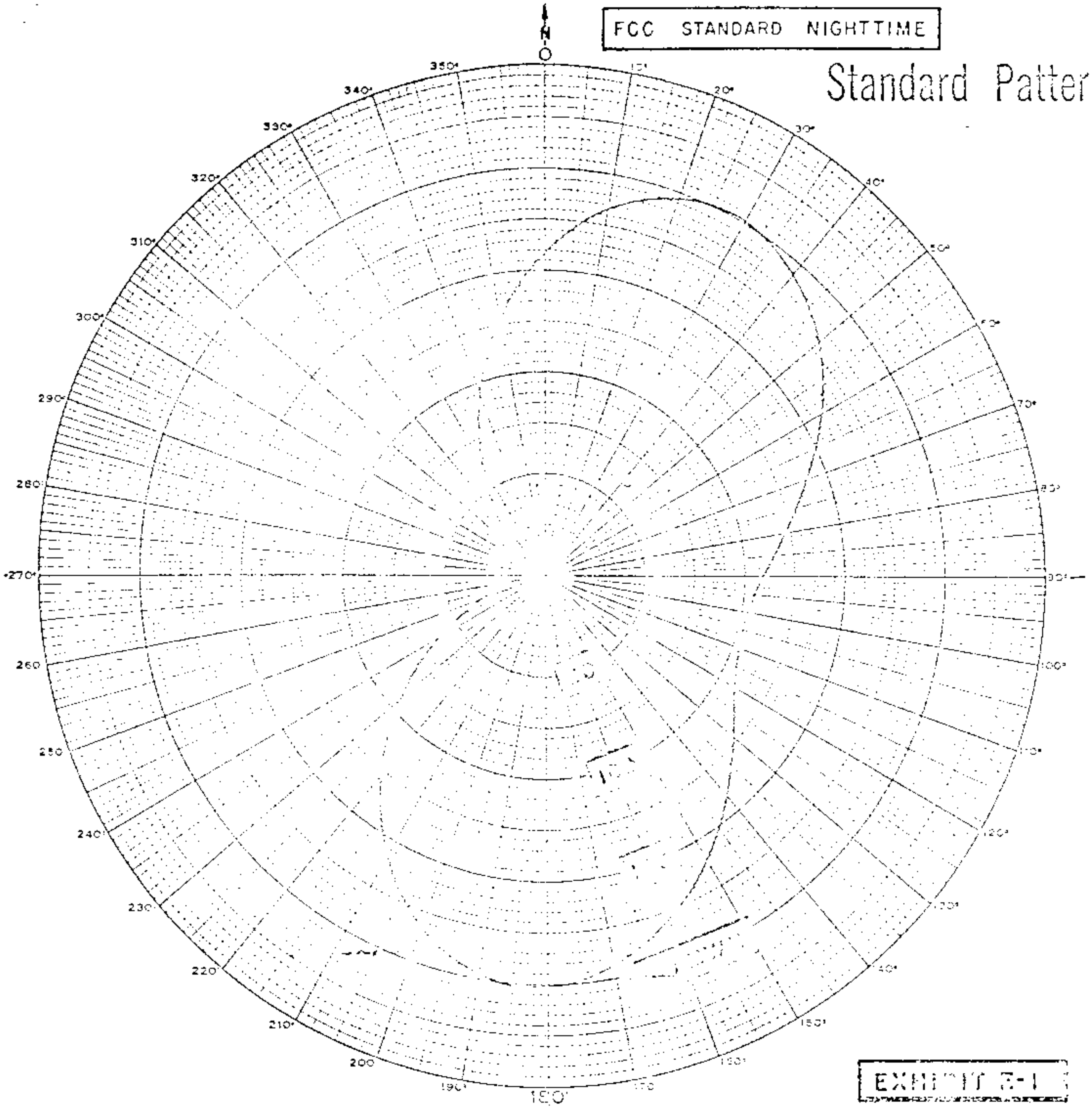


EXHIBIT E-1

LATITUDE
LONGITUDE

$\theta = 5°$

ANTENNA NUMBER	AZIMUTH DEG	SPACING DEG	PHASING DEG	FIELD RATIO	[illegible]	HEIGHT DEG

VERTICAL RADIATION PATTERN
PROPOSED WEGA
VEGA BAJA, PUERTO RICO
1350 KHZ 0.5 KW DA-2-U

731001

ROBERT E. L. KENNEDY
CONSULTING RADIO ENGINEER
WASHINGTON, D.C.

WEGA

FCC STANDARD NIGHTTIME

Standard Pattern

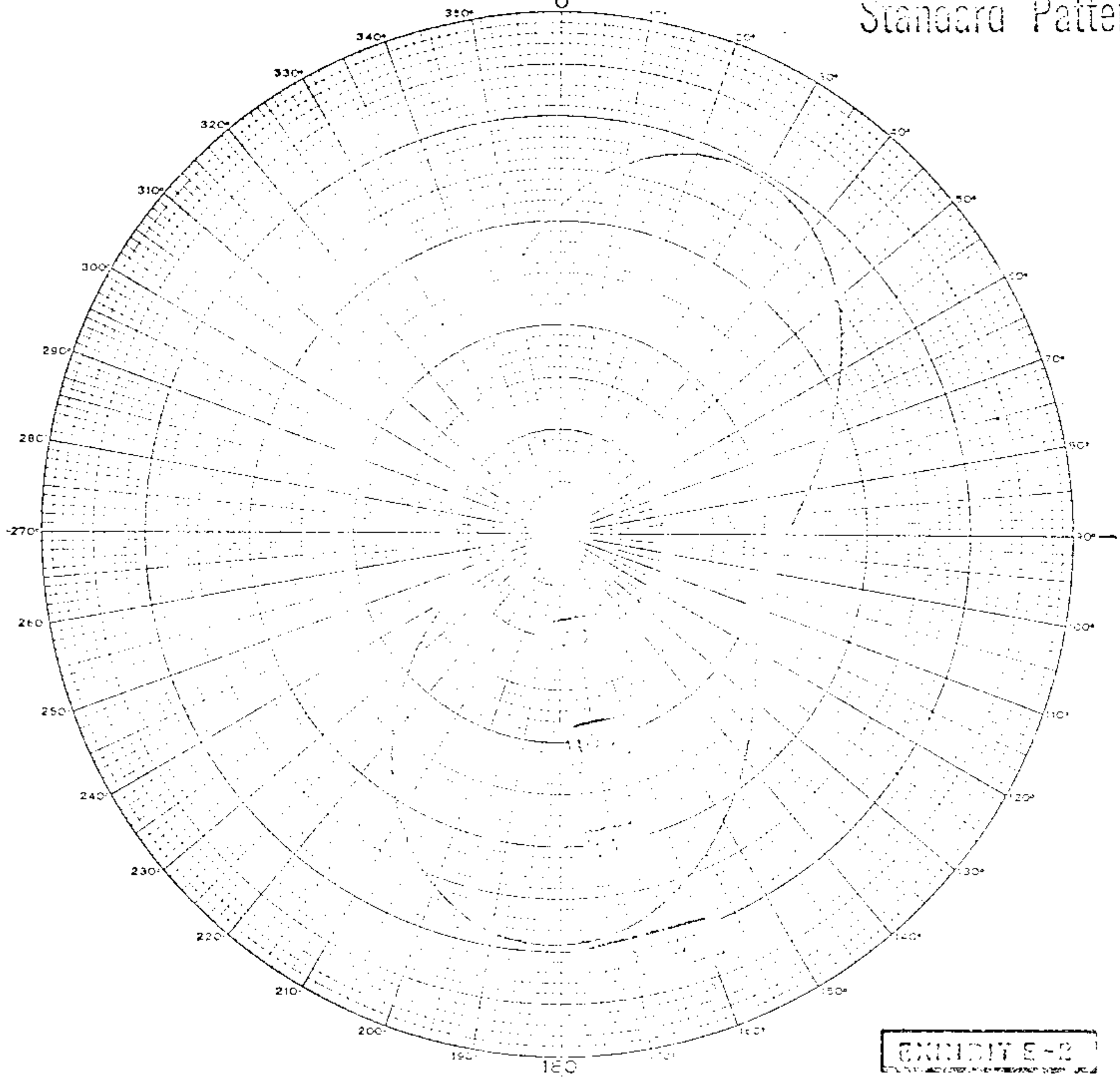


EXHIBIT E-2

LATITUDE
LONGITUDE

$\theta = 10°$

ANTENNA NUMBER	AZIMUTH DEG	[illegible] DEG	PHASING DEG	FIELD RATIO	[illegible] FOR [illegible]	[illegible] DEG

VERTICAL RADIATION PATTERN
PROPOSED WEGA
VEGA BAJA, PUERTO RICO
1350 KHZ 0.5 KW DA-2-U
731001

ROBERT E. L. KENNEDY
CONSULTING RADIO ENGINEERS
WASHINGTON, D.C.

WEGA

FCC STANDARD NIGHTTIME

Standard Pattern

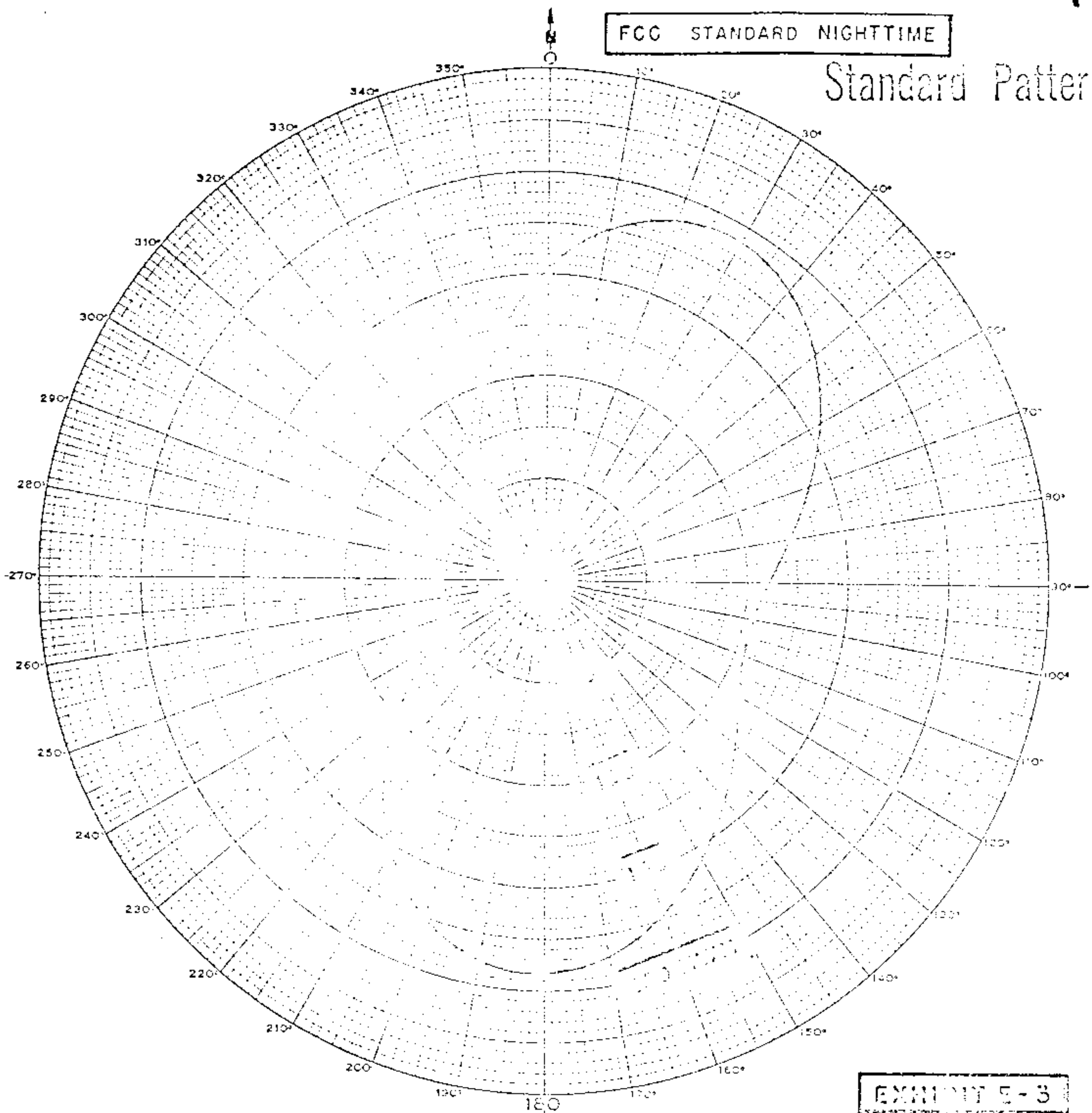


EXHIBIT E-3

LATITUDE
LONGITUDE

θ = 15°

ANTENNA NUMBER	AZIMUTH DEG	SPACING DEG	PHASING DEG	FIELD RATIO	MV/M FOR 1 KW	HEIGHT DEG

VERTICAL RADIATION PATTERN
PROPOSED WEGA
VEGA BAJA, PUERTO RICO
1350 KHZ 0.5 KW DA-2-U
731001

ROBERT E. L. KENNEDY
CONSULTING RADIO ENGINEERS
WASHINGTON, D.C.

WEGA

FCC STANDARD NIGHTTIME

Standard Pattern

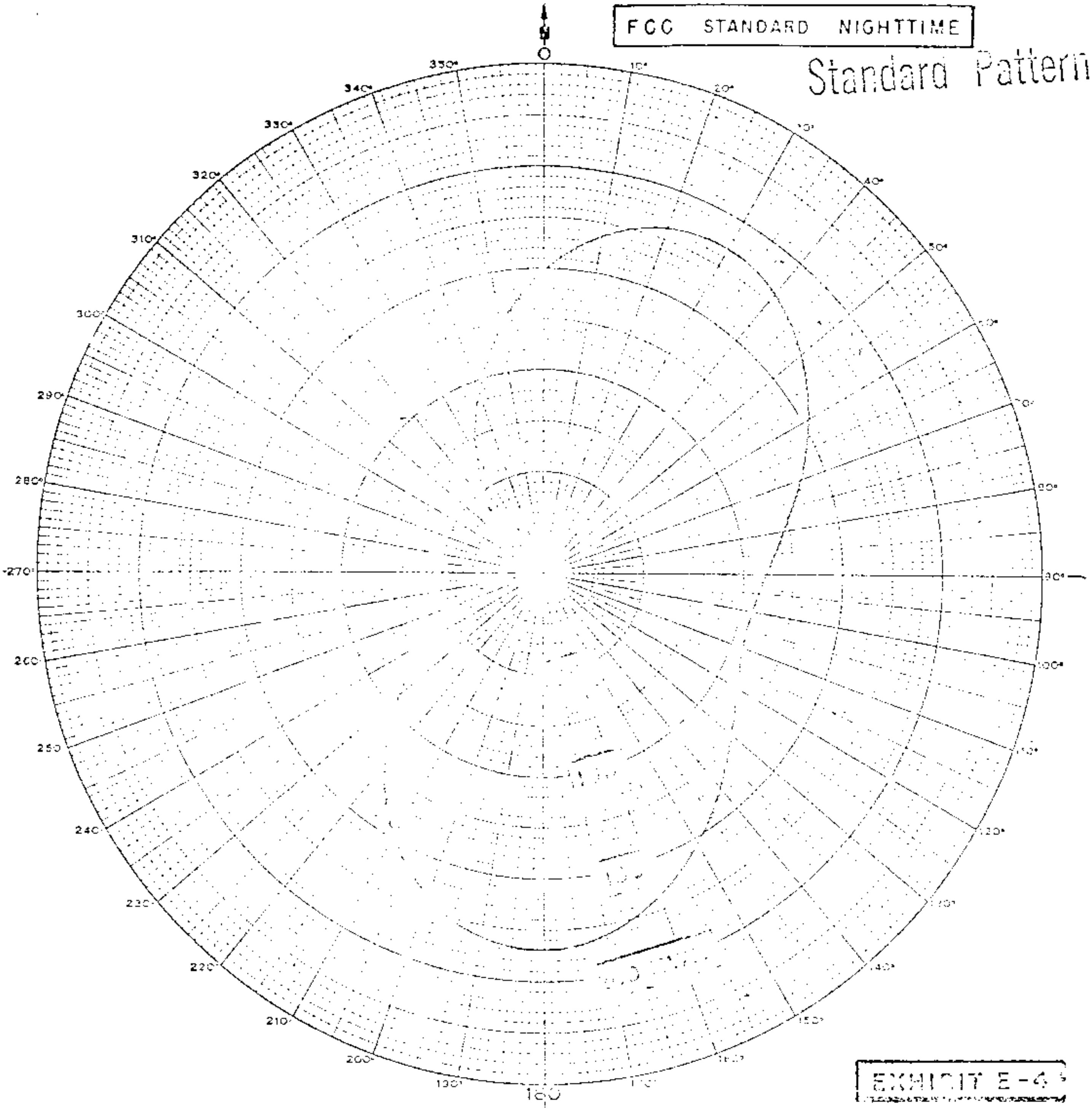


EXHIBIT E-4

θ = 20°

VERTICAL RADIATION PATTERN

PROPOSED WEGA

VEGA BAJA, PUERTO RICO

1350 KHZ 0.5 KW DA-2-U

731001

ROBERT E. L. KENNEDY
CONSULTING RADIO ENGINEER
WASHINGTON, D.C.

WEGA

FCC STANDARD NIGHTTIME

Standard Pattern

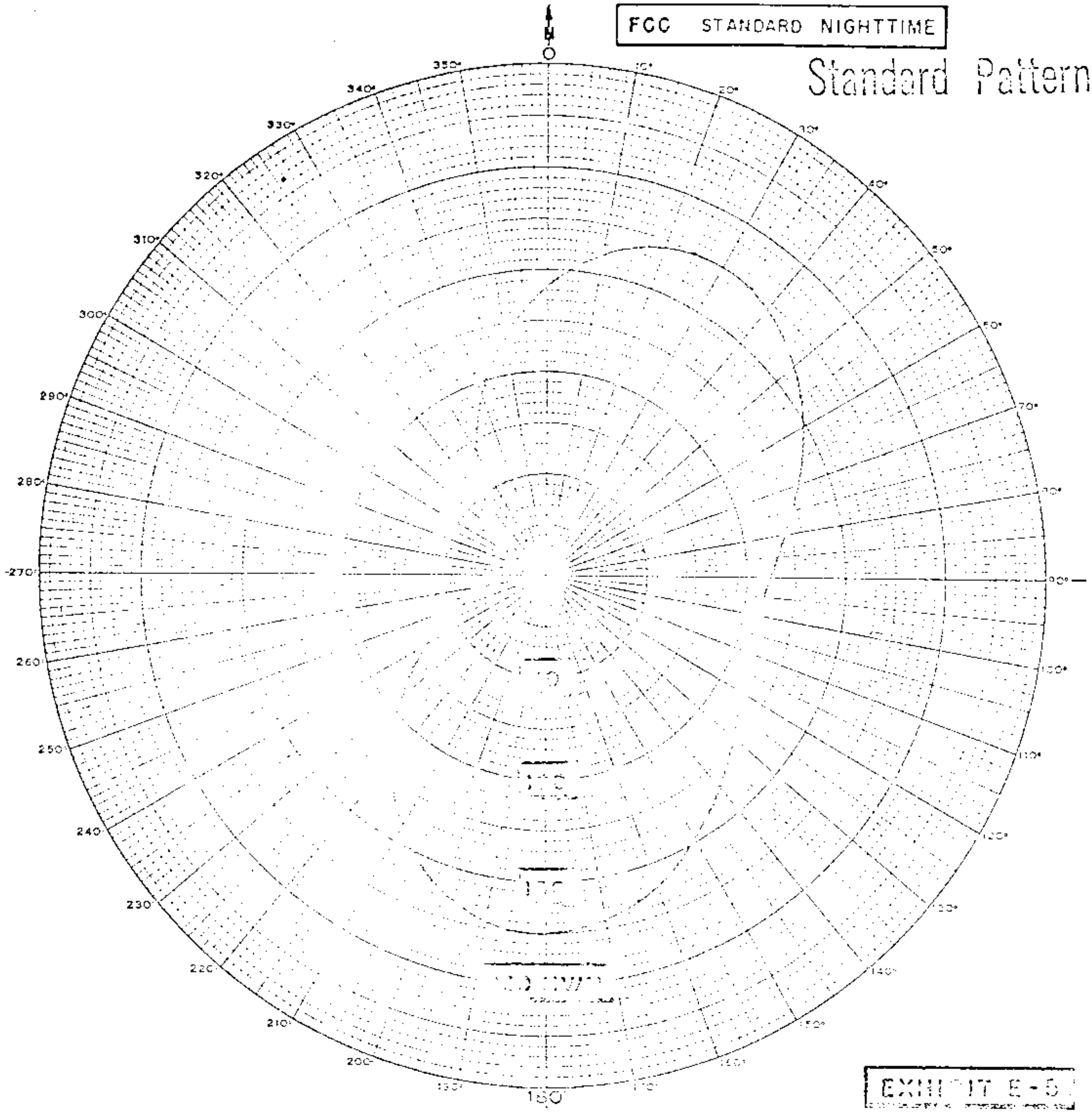


EXHIBIT E-5

LATITUDE
LONGITUDE

θ = 25°

ANTENNA NUMBER	AZIMUTH DEG	SPACING DEG	PHASING DEG	FIELD RATIO	MV/M FOR 1 KW	HEIGHT DEG

VERTICAL RADIATION PATTERN

PROPOSED WEGA

VEGA BAJA, PUERTO RICO

1350 KHZ 0.5KW DA-2-U

731001

ROBERT E. L. KENNEDY
CONSULTING RADIO ENGINEERS
WASHINGTON, D.C.

WEGA

FCC STANDARD NIGHTTIME

Standard Pattern

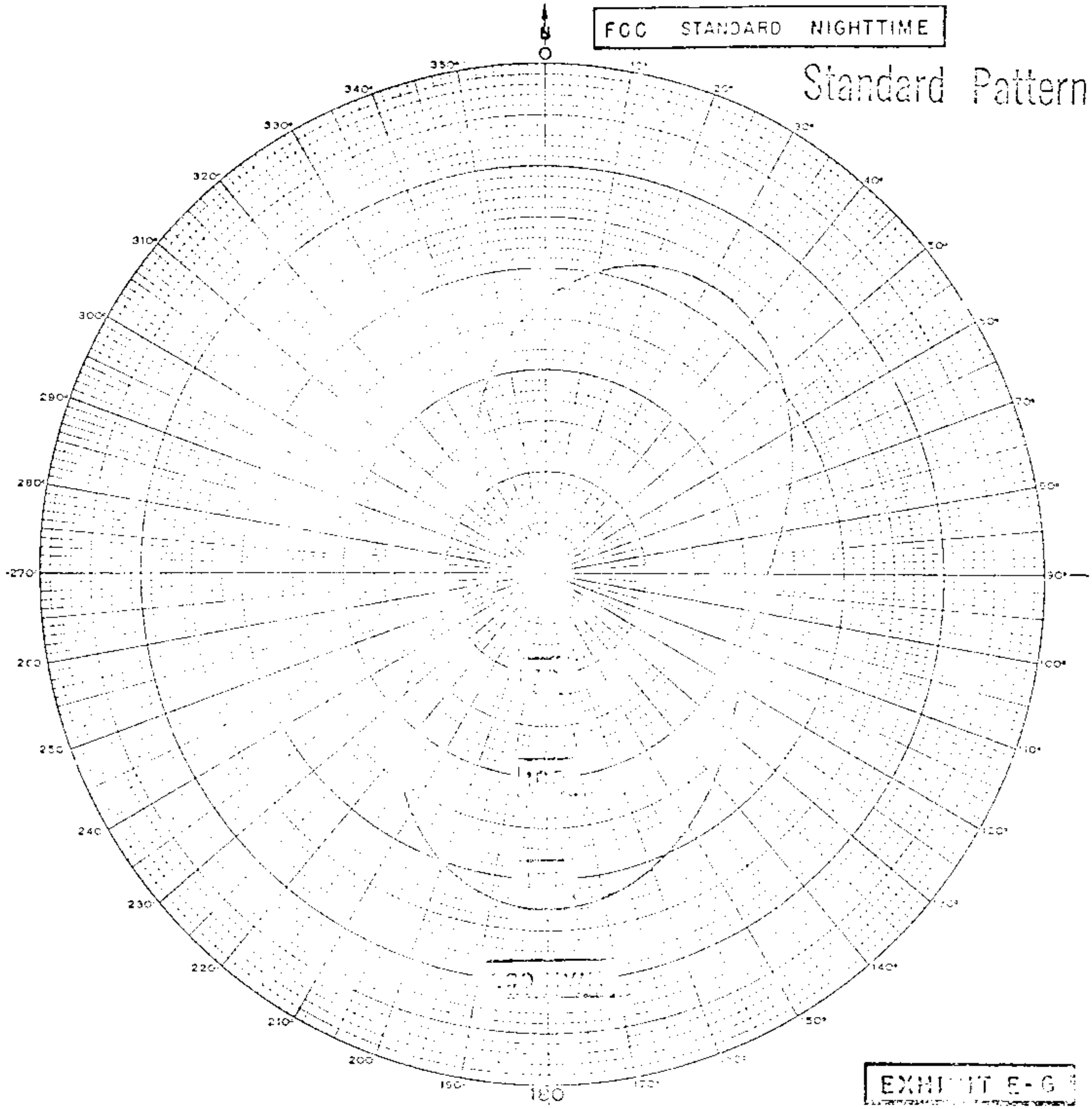


EXHIBIT E-G

LATITUDE LONGITUDE	θ = 30°

ANTENNA NUMBER	AZIMUTH DEG	SPACING DEG	PHASING DEG	FIELD RATIO	MUM FORM AM	HEIGHT DEG

VERTICAL RADIATION PATTERN
PROPOSED WEGA
VEGA BAJA, PUERTO RICO

1350 KHZ 0.5 KW DA-2-U

731001

ROBERT E. L. KENNEDY
CONSULTING RADIO ENGINEER
WASHINGTON, D.C.

WEGA

FCC STANDARD NIGHTTIME

Standard Pattern

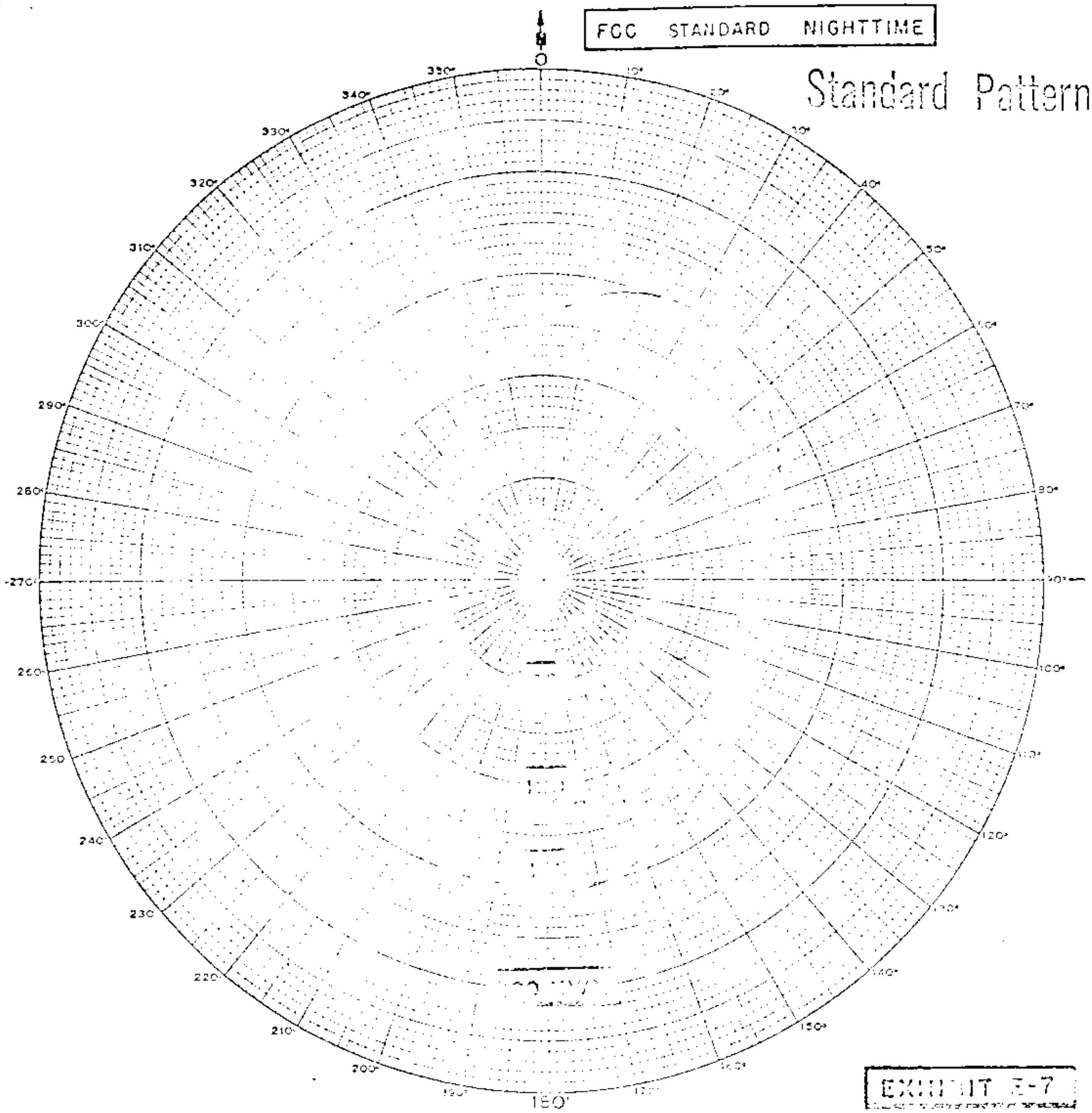


EXHIBIT E-7

LATITUDE
LONGITUDE

θ = 35°

ANTENNA NUMBER	AZIMUTH DEG	SPACING DEG	PHASING DEG	FIELD RATIO	MV/M FOR 1 KW	HEIGHT DEG

VERTICAL RADIATION PATTERN
PROPOSED WEGA
VEGA BAJA, PUERTO RICO
1350 KHZ 0.5 KW DA-2-U
731001

ROBERT E. L. KENNEDY
CONSULTING RADIO ENGINEERS
WASHINGTON, D.C.

WEGA

FCC STANDARD NIGHTTIME

Standard Pattern

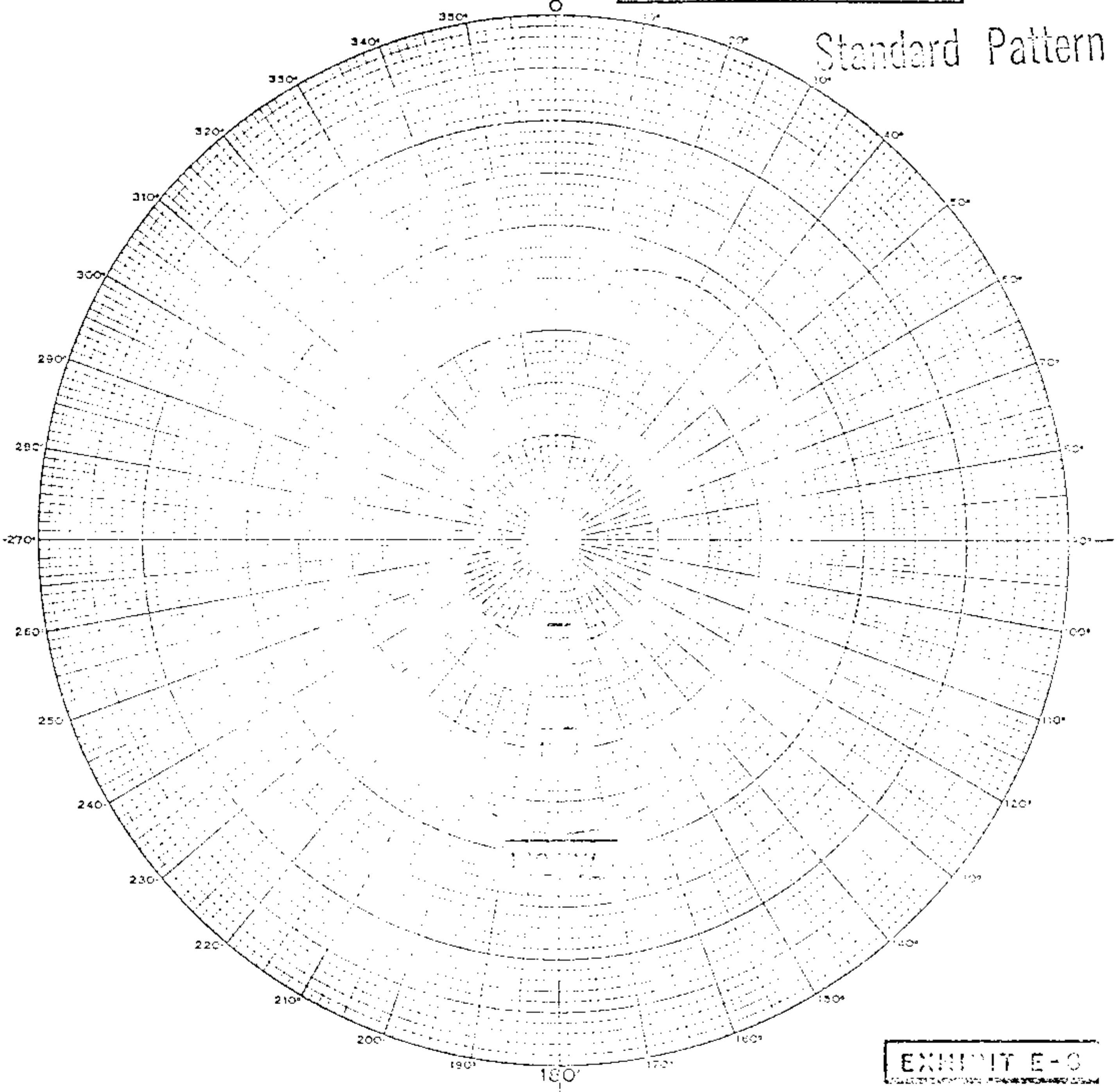


EXHIBIT E-[illegible]

LATITUDE
LONGITUDE

θ = 40°

ANTENNA NUMBER	AZIMUTH DEG	SPACING DEG	PHASING DEG	FIELD RATIO	[illegible]	HEIGHT DEG

VERTICAL RADIATION PATTERN
PROPOSED WEGA
VEGA BAJA, PUERTO RICO

1350 KHZ 0.5 KW DA-2-U

731001

ROBERT E. L. KENNEDY
CONSULTING RADIO ENGINEERS
WASHINGTON, D.C.

WEGA

FCC STANDARD NIGHTTIME

Standard Pattern

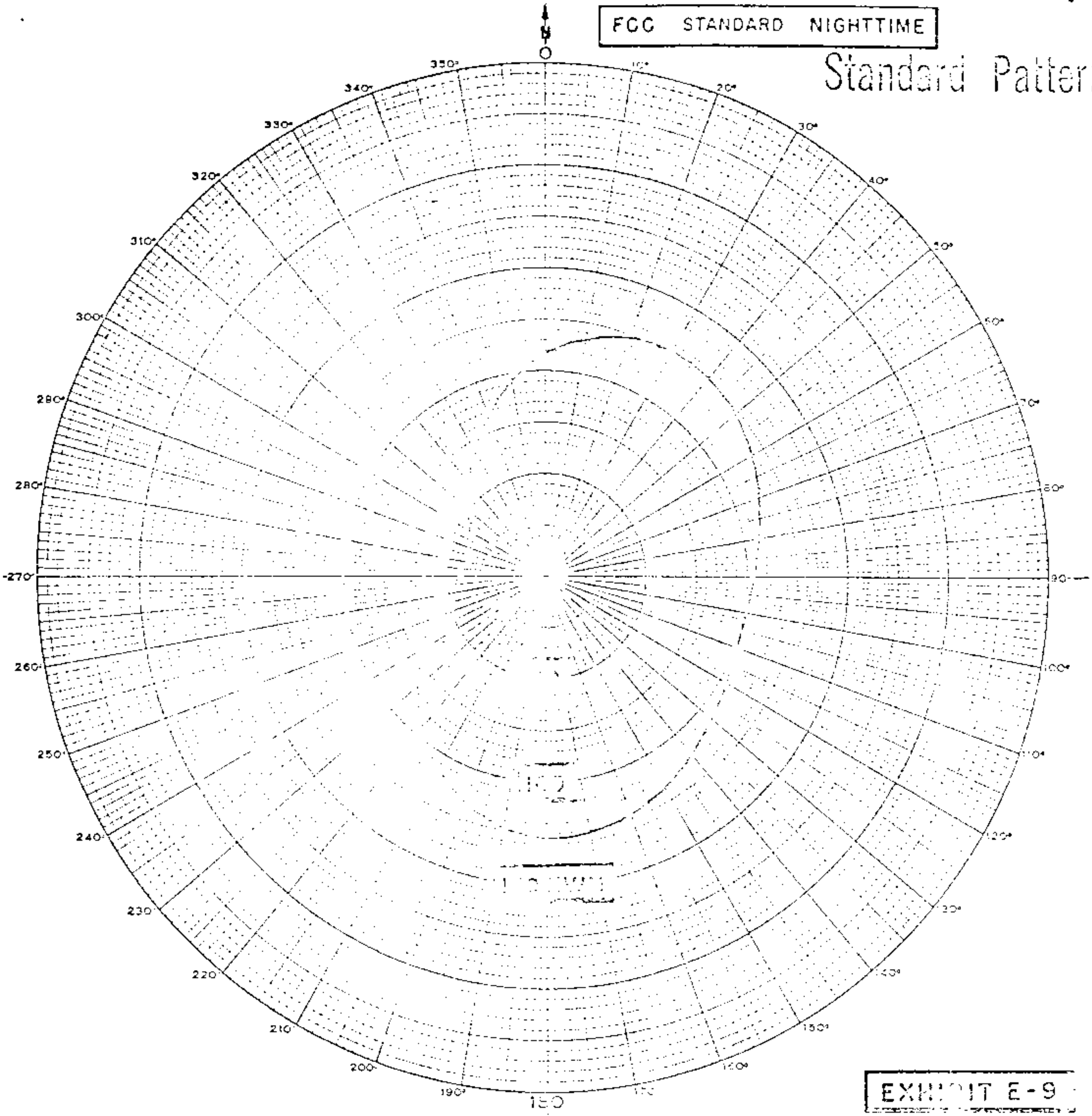


EXHIBIT E-9

LATITUDE LONGITUDE	θ = 45°

ANTENNA NUMBER	AZIMUTH DEG	SPACING DEG	PHASING DEG	FIELD RATIO	MV/M FOR 1 KW	HEIGHT DEG

VERTICAL RADIATION PATTERN
PROPOSED WEGA
VEGA BAJA, PUERTO RICO
1350 KHZ 0.5 KW DA-2-U
731001

ROBERT E. L. KENNEDY
CONSULTING RADIO ENGINEERS
WASHINGTON, D.C.

WEGA

Standard Pattern

FCC STANDARD NIGHTTIME

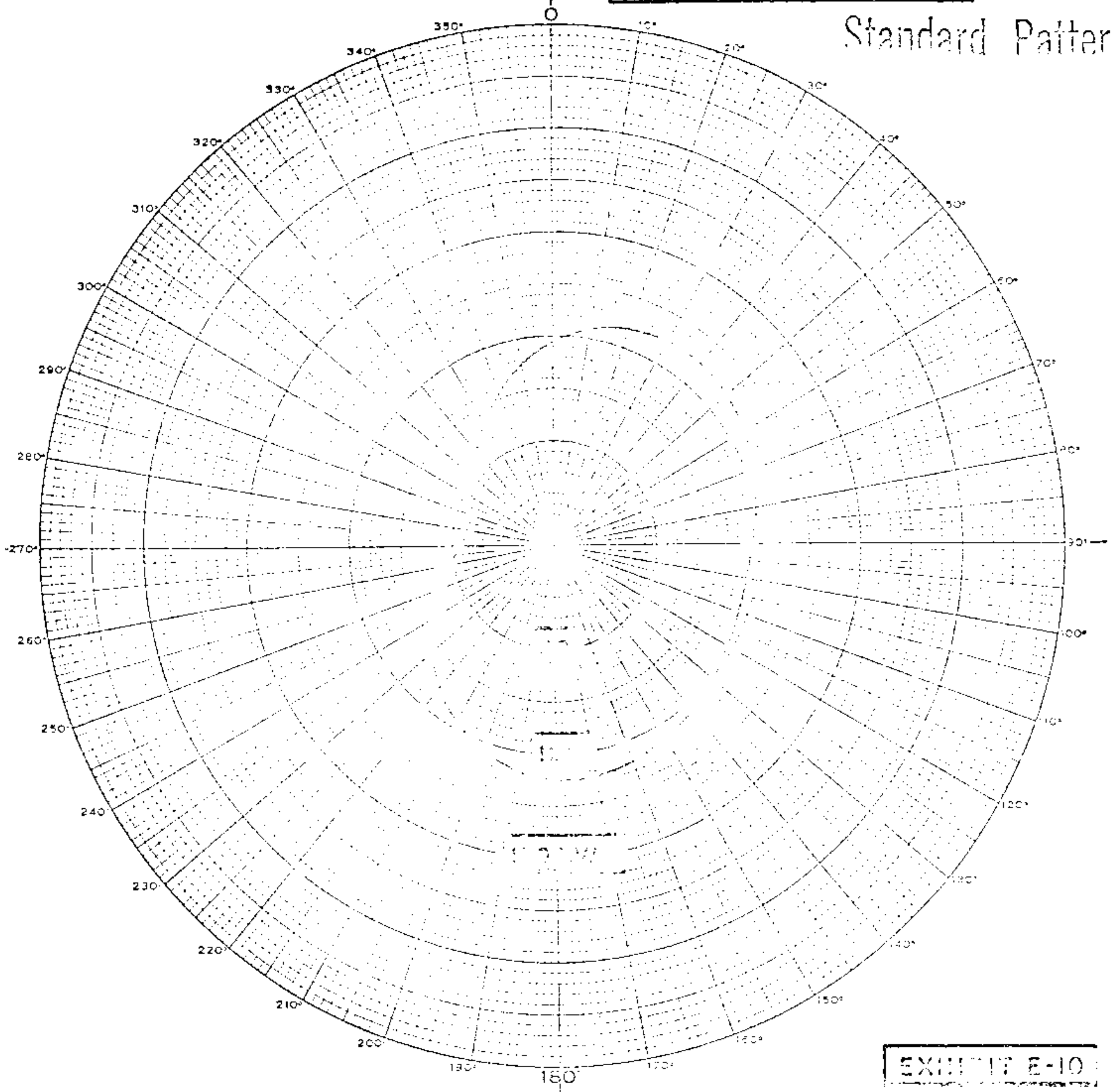


EXHIBIT E-10

LATITUDE
LONGITUDE

$\theta = 50°$

ANTENNA NUMBER	AZIMUTH DEG	SPACING DEG	PHASING DEG	FIELD RATIO	[illegible]	[illegible]

VERTICAL RADIATION PATTERN
PROPOSED WEGA
VEGA BAJA, PUERTO RICO
1350 KHZ 0.5 KW DA-2-U

731001

ROBERT E. L. KENNEDY
CONSULTING RADIO ENGINEERS
WASHINGTON, D.C.

WEGA

FCC STANDARD NIGHTTIME

Standard Pattern

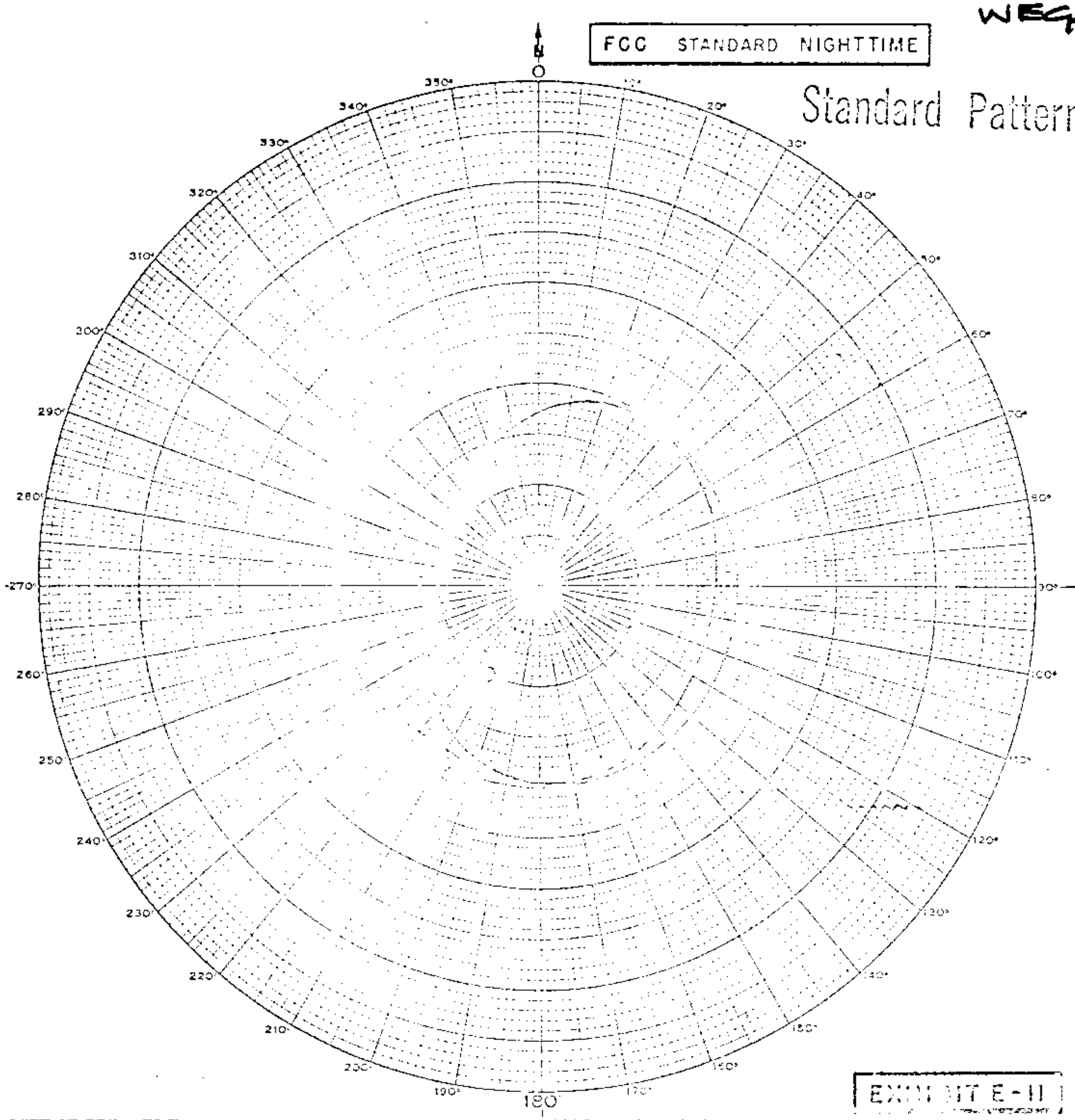


EXHIBIT E-11

LATITUDE

LONGITUDE

$\theta = 55°$

ANTENNA NUMBER	AZIMUTH DEG	SPACING DEG	PHASING DEG	FIELD RATIO	[illegible]	HEIGHT DEG

VERTICAL RADIATION PATTERN

PROPOSED WEGA

VEGA BAJA, PUERTO RICO

1350 KHZ 0.5 KW DA-2-U

731001

ROBERT E. L. KENNEDY
CONSULTING RADIO ENGINEERS
WASHINGTON, D.C.

WEGA

FCC STANDARD NIGHTTIME

Standard Pattern

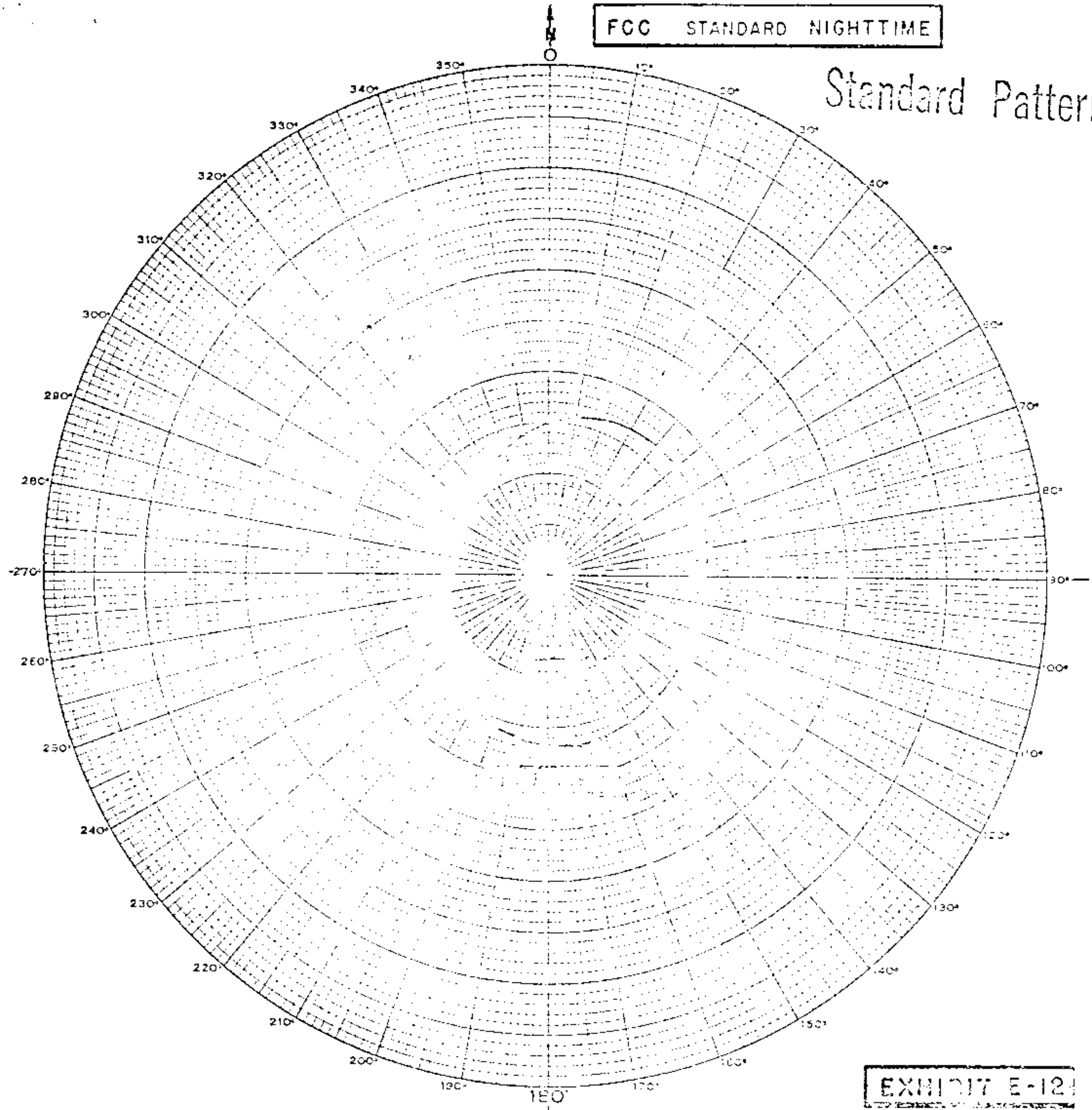


EXHIBIT E-12

LATITUDE
LONGITUDE

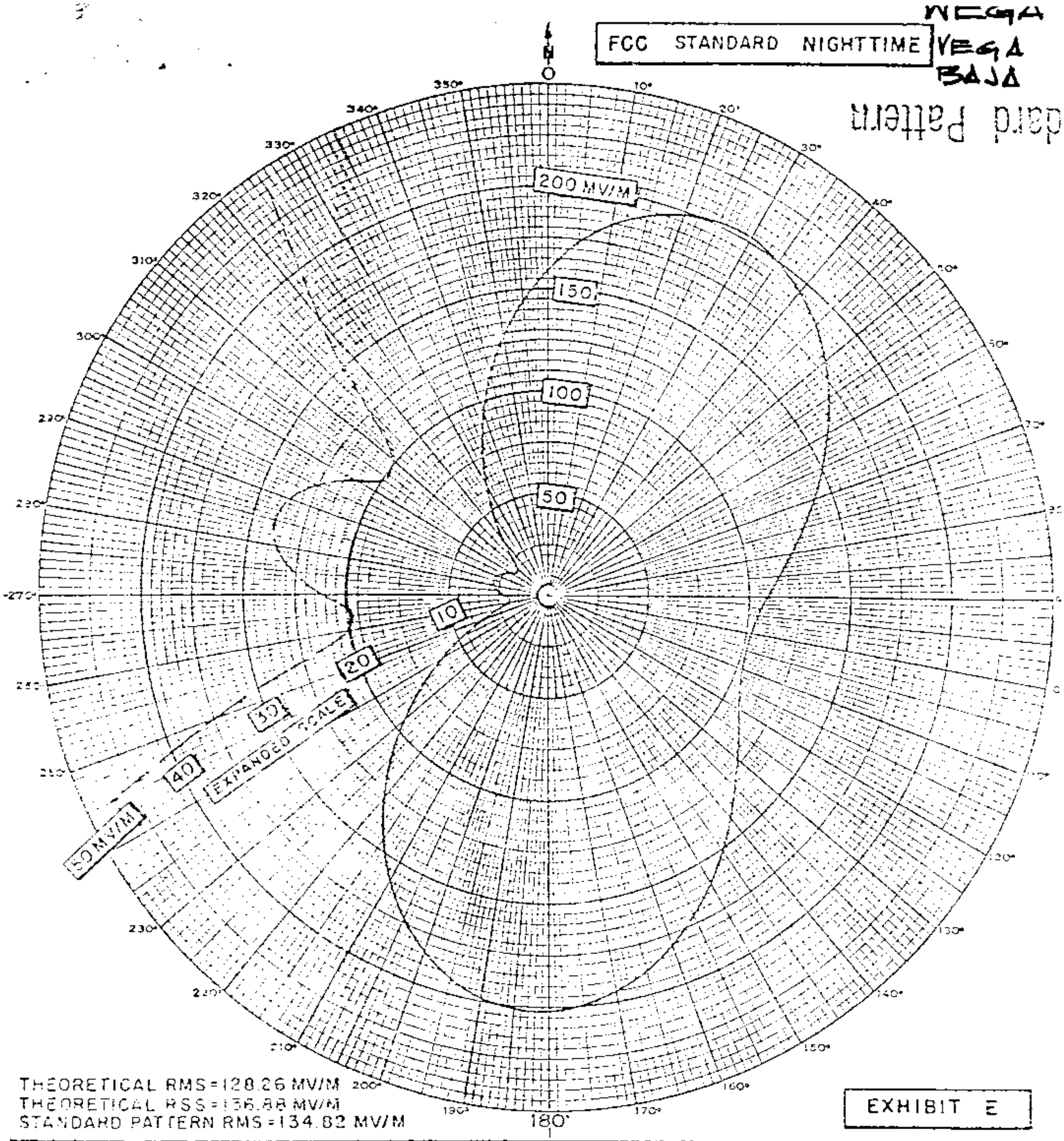
$\theta = 60°$

ANTENNA NUMBER	AZIMUTH DEG	SPACING DEG	PHASING DEG	FIELD RATIO	MV/M FOR 1 KW	HEIGHT DEG

VERTICAL RADIATION PATTERN
PROPOSED WEGA
VEGA BAJA, PUERTO RICO
1350 KHZ 0.5 KW DA-2-U
731001

ROBERT E. L. KENNEDY
CONSULTING RADIO ENGINEERS
WASHINGTON, D.C.

WEGA
VEGA
BAJA



THEORETICAL RMS=128.26 MV/M
THEORETICAL RSS=136.88 MV/M
STANDARD PATTERN RMS=134.82 MV/M

EXHIBIT E

N

285°T 1.2∠35.5°
NO.2 156° 316° 120°
NO.1

BL-13,821

LATITUDE 18° 28' 38" North
LONGITUDE 66° 23' 43" West

ANTENNA NUMBER	AZIMUTH DEG	SPACING DEG	PHASING DEG	FIELD RATIO	MV/M FOR 1 KW	HEIGHT DEG
1	0	0	0	1.0	—	91.4
2	285	156	35.5	1.2	—	91.4

HORIZONTAL
RADIATION PATTERN
PROPOSED WEGA
VEGA BAJA,
PUERTO RICO
1350 KHZ 0.5 KW DA-2-U

731001

ROBERT E.L. KENNEDY
CONSULTING RADIO ENGINEERS
WASHINGTON, D.C.

WEZY

PROPOSED N[illegible] (7-25-58g)

Station WEZY
Cocoa, Florida

500w,1kw-LS, DA-N,U
1350 KC

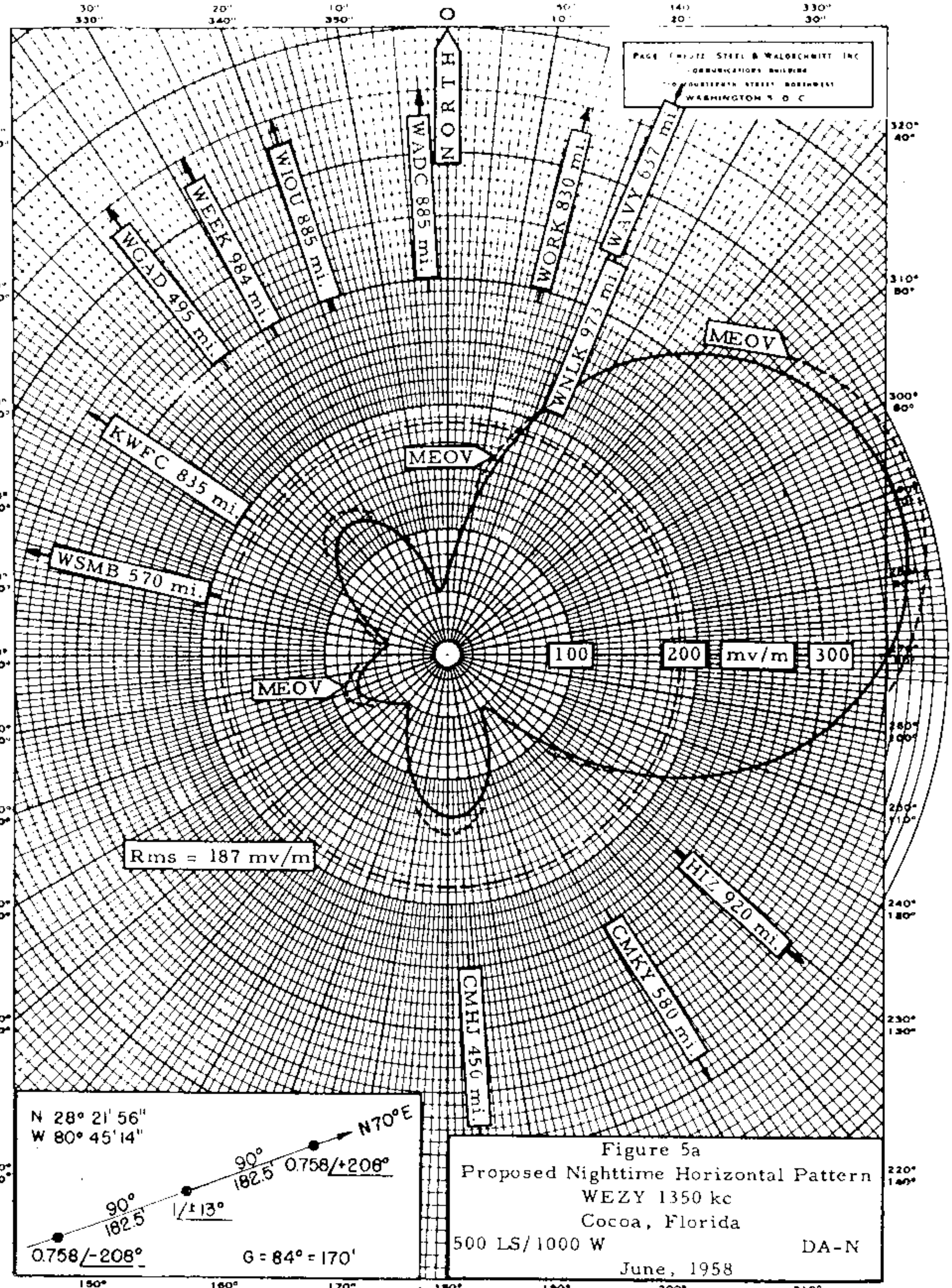


Figure 5a
Proposed Nighttime Horizontal Pattern
WEZY 1350 kc
Cocoa, Florida
500 LS/1000 W DA-N
June, 1958

granted m. CP change antenna transmitter location
N.L. 28-21-58
W.L 80-45-08

FCC File No. BMP-~~7766~~ 8521
Accepted 7-17-58 (Amended)

WEZY
Cocoa, Florida

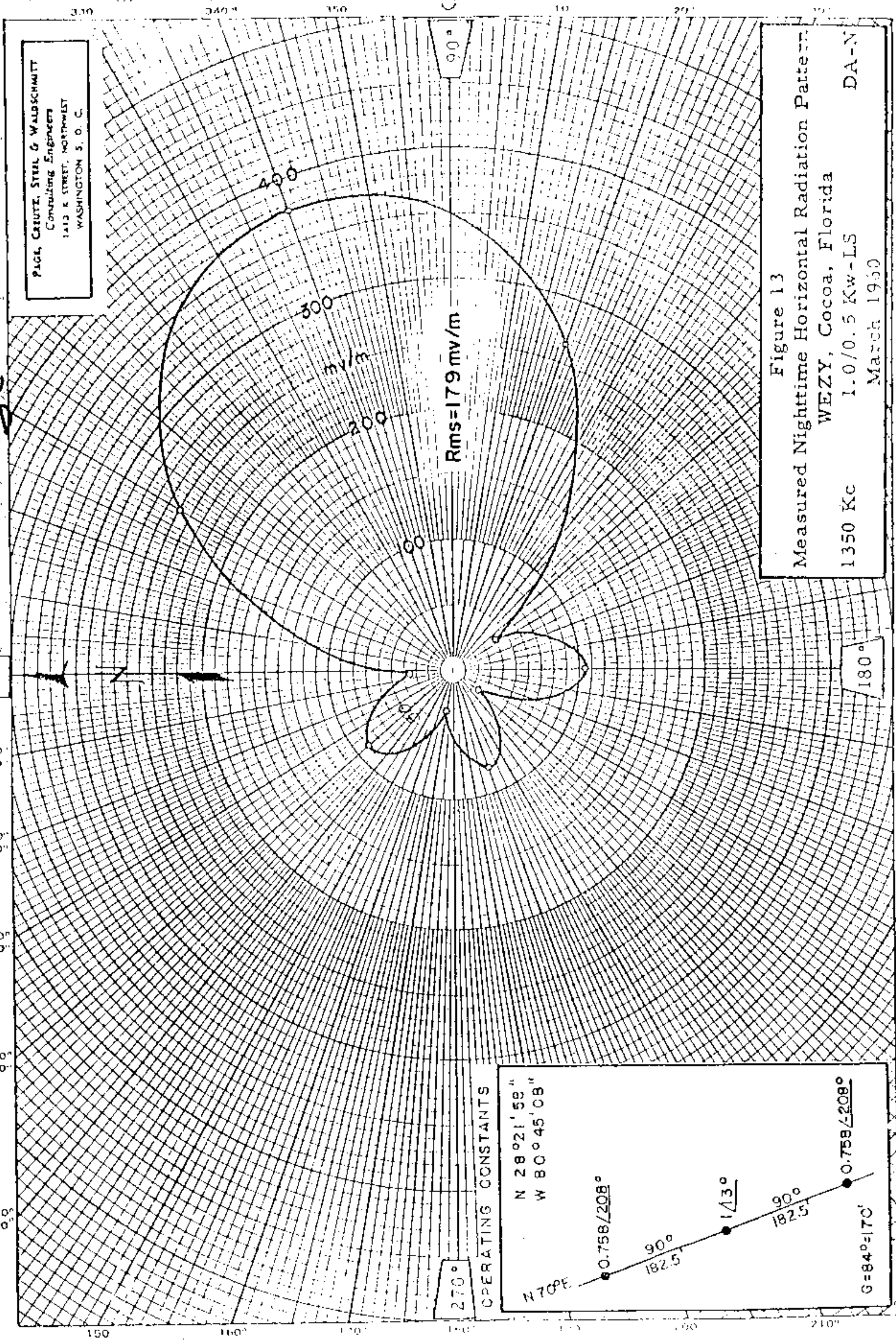
1350 KC

WEZY

MEASURED NIGHT
(5-27-60g)

Station WEZY
Cocoa, Florida

500w, 1kw-LS, DA-N,U
1350 KC



Granted license 8-4-60 #155
11-60 application to release ND, day power to 5 KW
12-13-62 granted Cp to increase day ND
5-20-63 granted license covering increase in power

FCC File No. BL-7926
Accepted 5-11-60

WEZY
Cocoa, Florida

1350 KC

WEZY

MEASURED NON-DA
(5-27-60g)

Station WEZY
Cocoa, Florida

500w, 1kw-LS, DA-N,U
1350 KC

Granted license 8-4-60

5-20-63 granted license covering an increase in power.

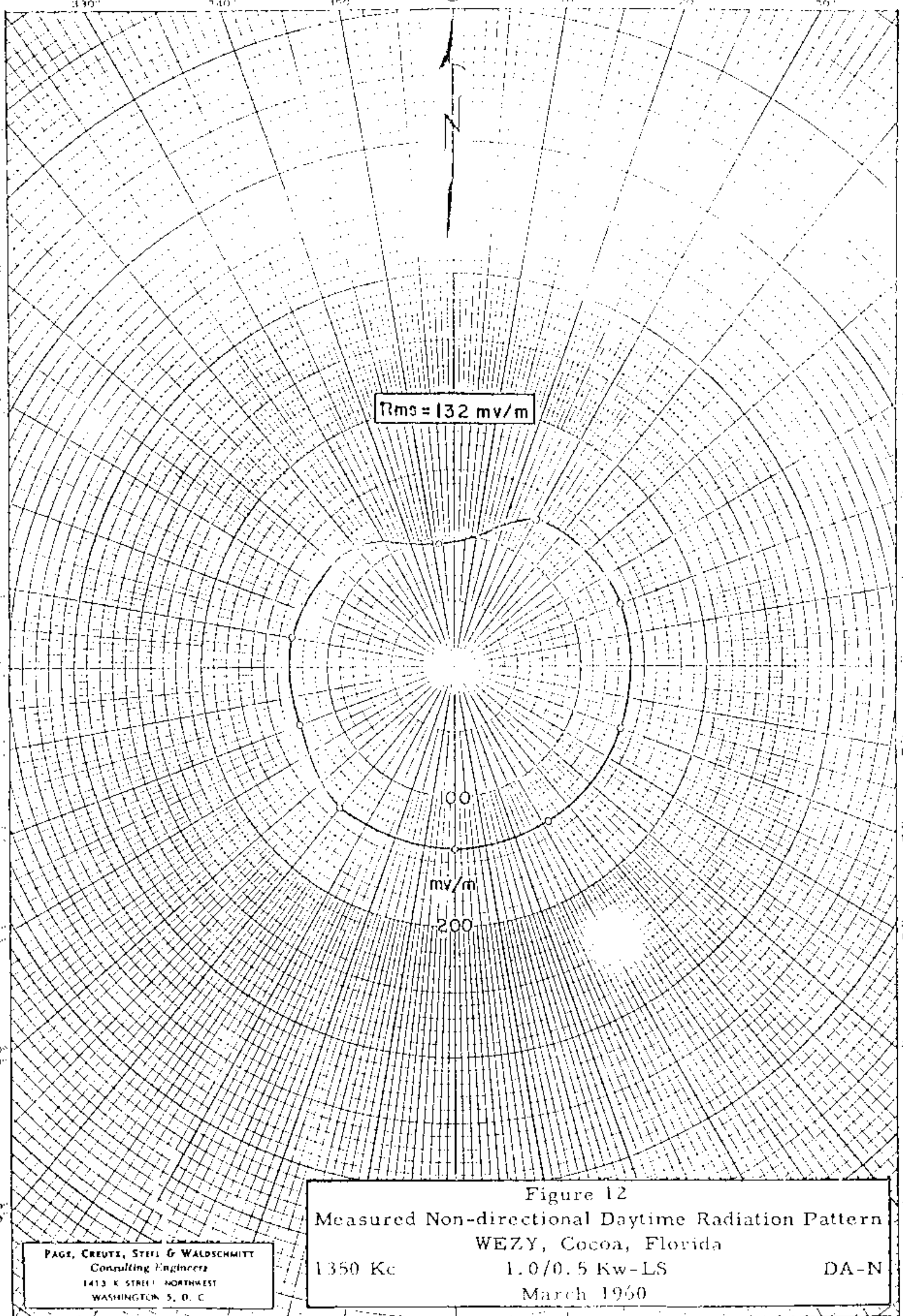


Figure 12
Measured Non-directional Daytime Radiation Pattern
WEZY, Cocoa, Florida
1350 Kc 1.0/0.5 Kw-LS DA-N
March 1960

FCC File No. BL-7926
Accepted 5-11-60

WEZY
Cocoa, Florida

1350 KC

WGAD

REVISED
DIRECTIONAL ANTENNA DESCRIPTION SHEET*

Station: W G A D

Main Studio: Gadsden, Alabama

Frequency: 1350kcs.

Power: 1kw Night, 5kw Day

Notification List No. 311

Date: April 6, 1949 Class III-B

GEOGRAPHICAL LOCATION OF ANTENNA:	North Latitude:	34°	00'	56"
	West Longitude:	86°	05'	28"

ANTENNA CHARACTERISTICS: Authorized for Nighttime operation. (DA-N)
Number of elements: Two (2)
Type of elements: Series-fed, uniform, cross-section, guyed, vertical steel towers.

TOWER:	North		South
HEIGHT ABOVE INSULATORS:	202.5'		202.5' (100°)
SPACING:	467'	or	230.4°
PHASING:	-14.4°		00°
FIELD RATIO:	0.8		1.0

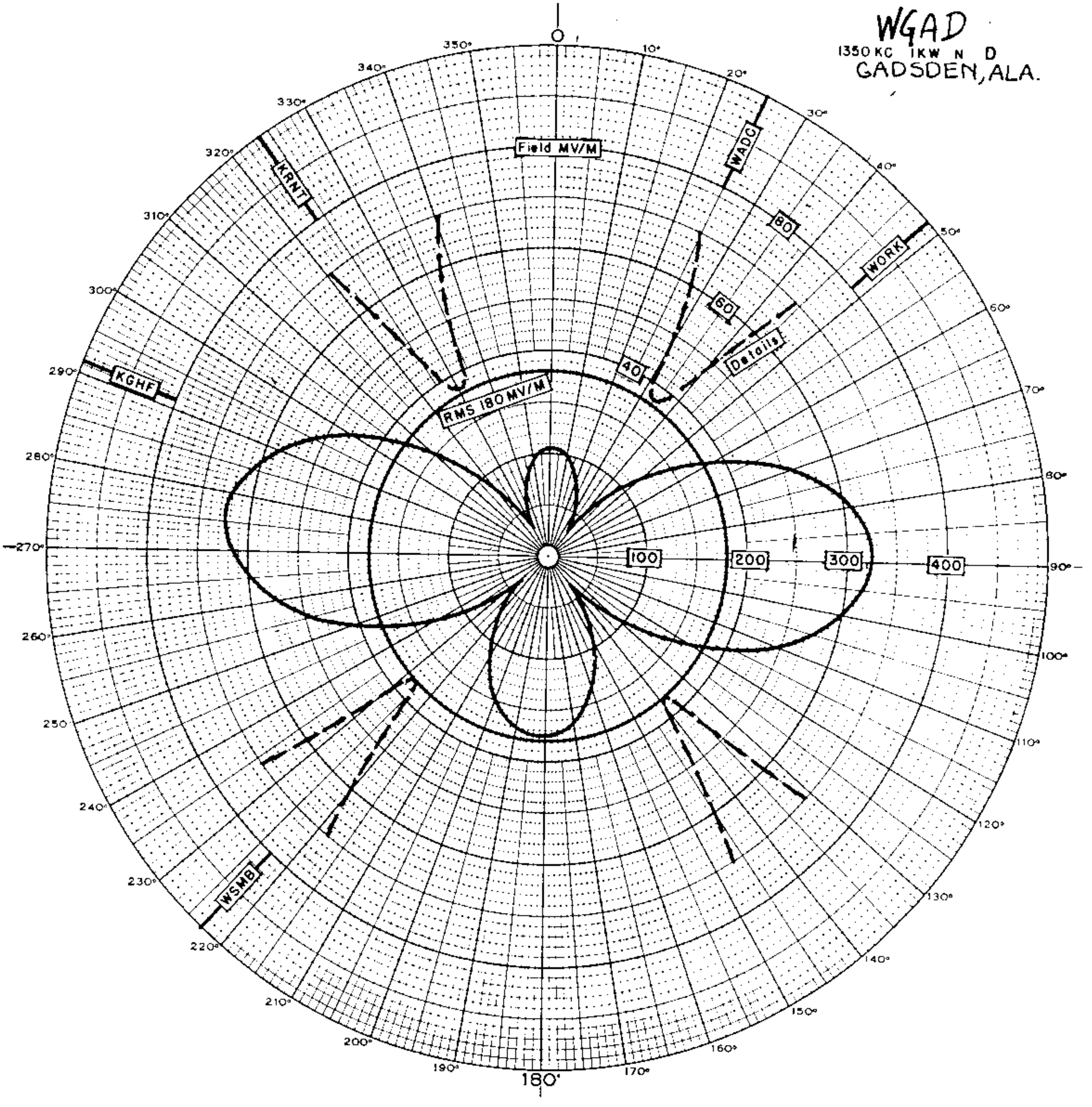
GROUND SYSTEM: 120 - 200' equally spaced radials plus 120 - 50' interspaced radials about each tower base.

ORIENTATION: Elements on a line bearing 182.5° true.

Predicted effective Night Field: 180 mv/m at rated power.

*NOTE: This notification is for a change in antenna location co-ordinates, increase in daytime power, and change of radiation from DA-1 to DA-N. Since the Nighttime directional antenna radiation pattern will remain unchanged, please retain the directional antenna radiation pattern notified in Change List No. 177 and attach to this revised Description Sheet.

WGAD
1350 KC 1KW N D
GADSDEN, ALA.

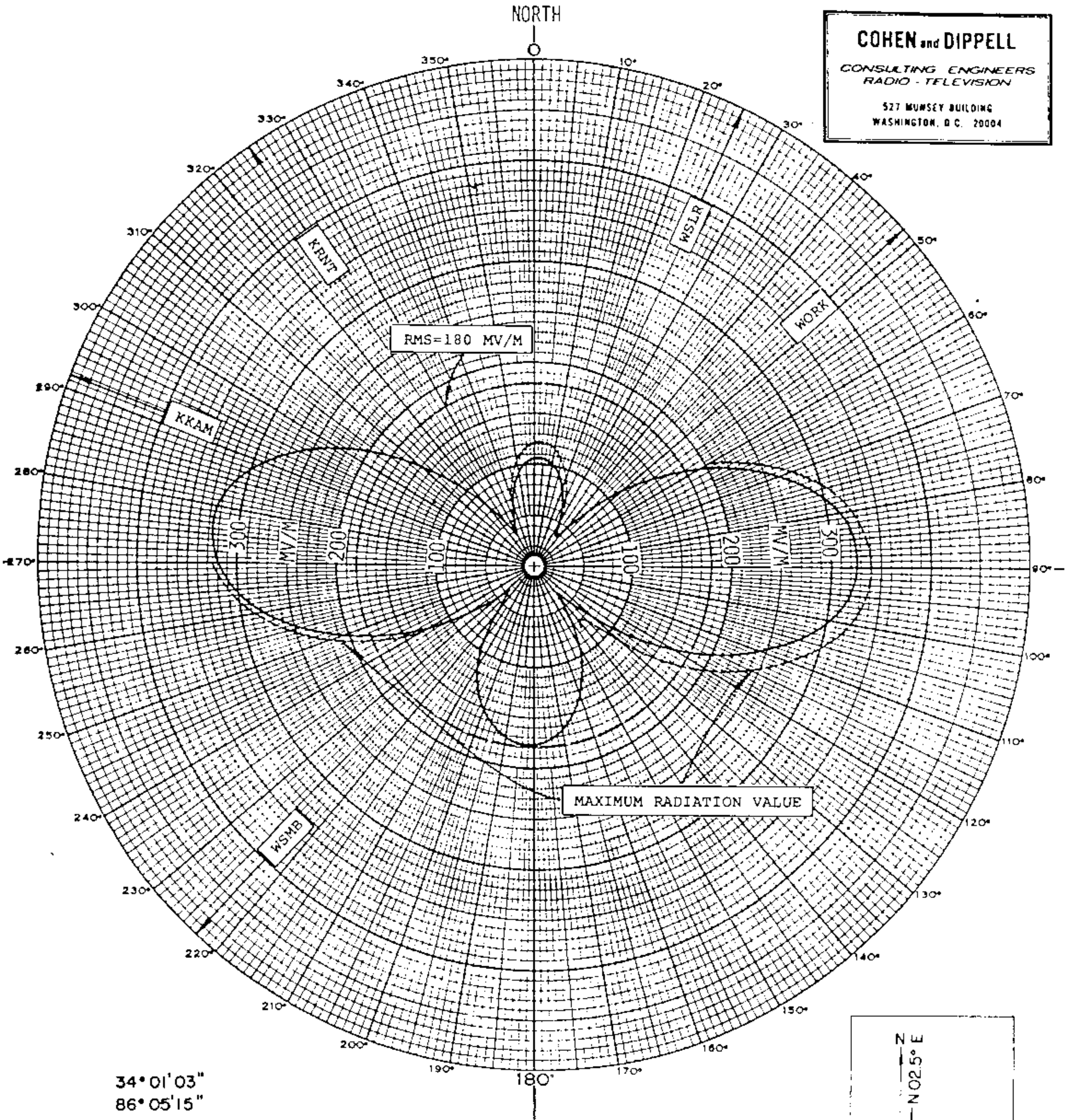


COOSA-VALLEY BROADCASTING CO. GADSDEN, ALABAMA		Exhibit E 1 Series 460108M
N .8∠-14.4 2.5° Spacing=230.4° H=100° 1∠0	Prepared Under Direction of E. L. ROBERTS **PROPOSED DIRECTIONAL ANTENNA PATTERN**	1350 KC 1000 WATTS NIGHT-DAY FRANK H. McINTOSH *Consulting Radio Engineer* Washington, D.C.

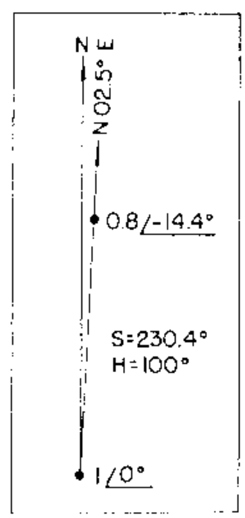
COHEN and DIPPELL

CONSULTING ENGINEERS
RADIO - TELEVISION

527 MUNSEY BUILDING
WASHINGTON, D.C. 20004

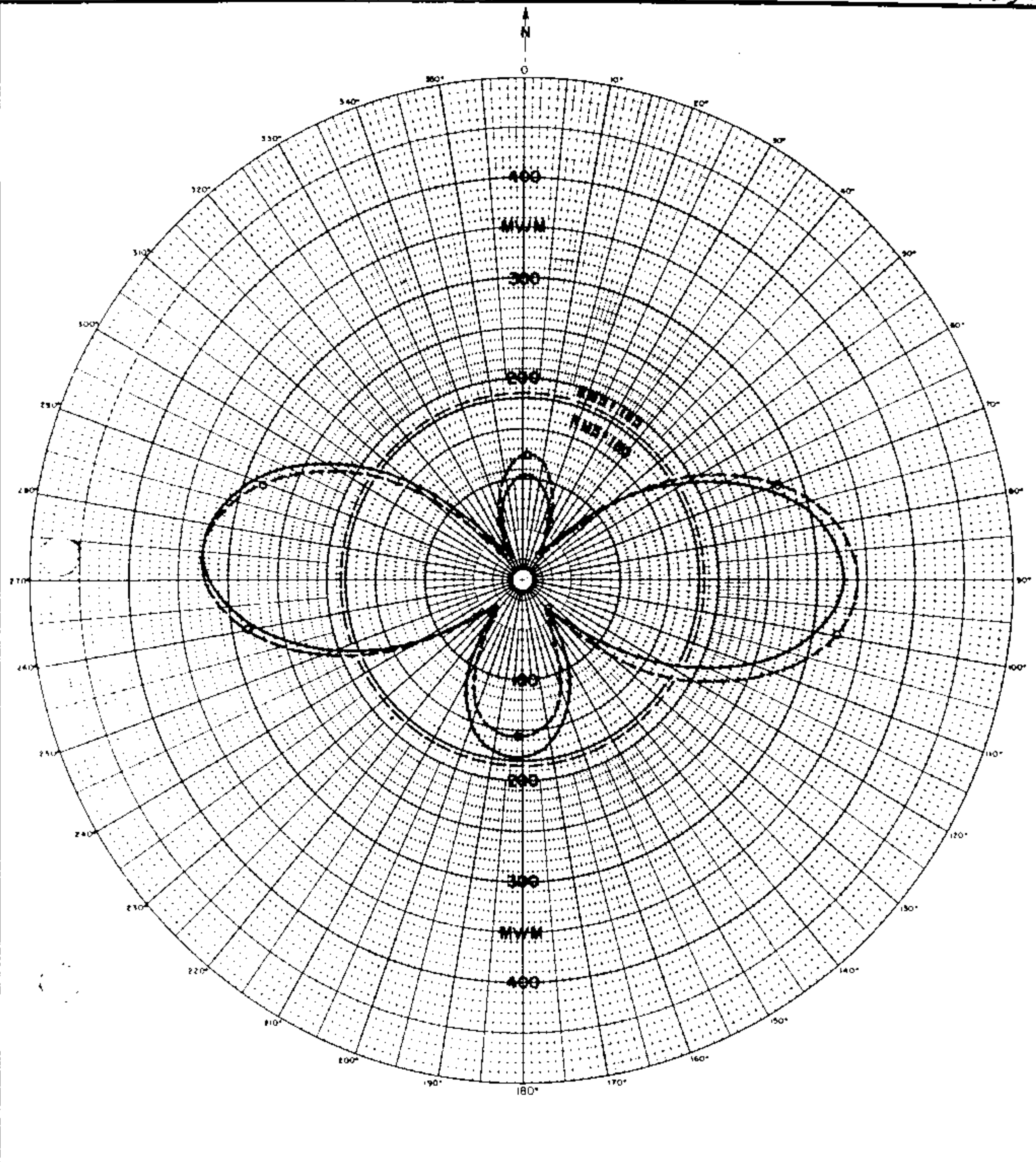


34° 01' 03"
86° 05' 15"

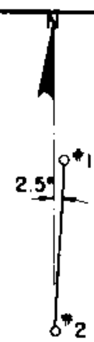


PROPOSED HOPIZONTAL PLANE RADIATION PATTERN
FOR THE PRESENT NIGHTTIME OPERATION OF
WGAD, GADSDEN, ALABAMA
1350 KHz - 1/5 KW - DA-N
SEPTEMBER 1971

WGAD
1350



MEASURED ------
CALCULATED ———



WGAD
GADSDEN, ALABAMA

PROOF OF PERFORMANCE
DAY AND NIGHT
1 KW. 1350 KC.

ANT	α-DEG	S-DEG	σ-DEG	FIELD-K	F-GND	H-DEG
#1	0		14.4	.80		
#2		230.4		1.0		100°

GLENN D GILLETT AND ASSOCIATES
CONSULTING RADIO ENGINEERS
NATIONAL PRESS BUILDING
WASHINGTON 4, D C

PATTERN NO 470423
SUPERSEDES
APP 7

WGAD

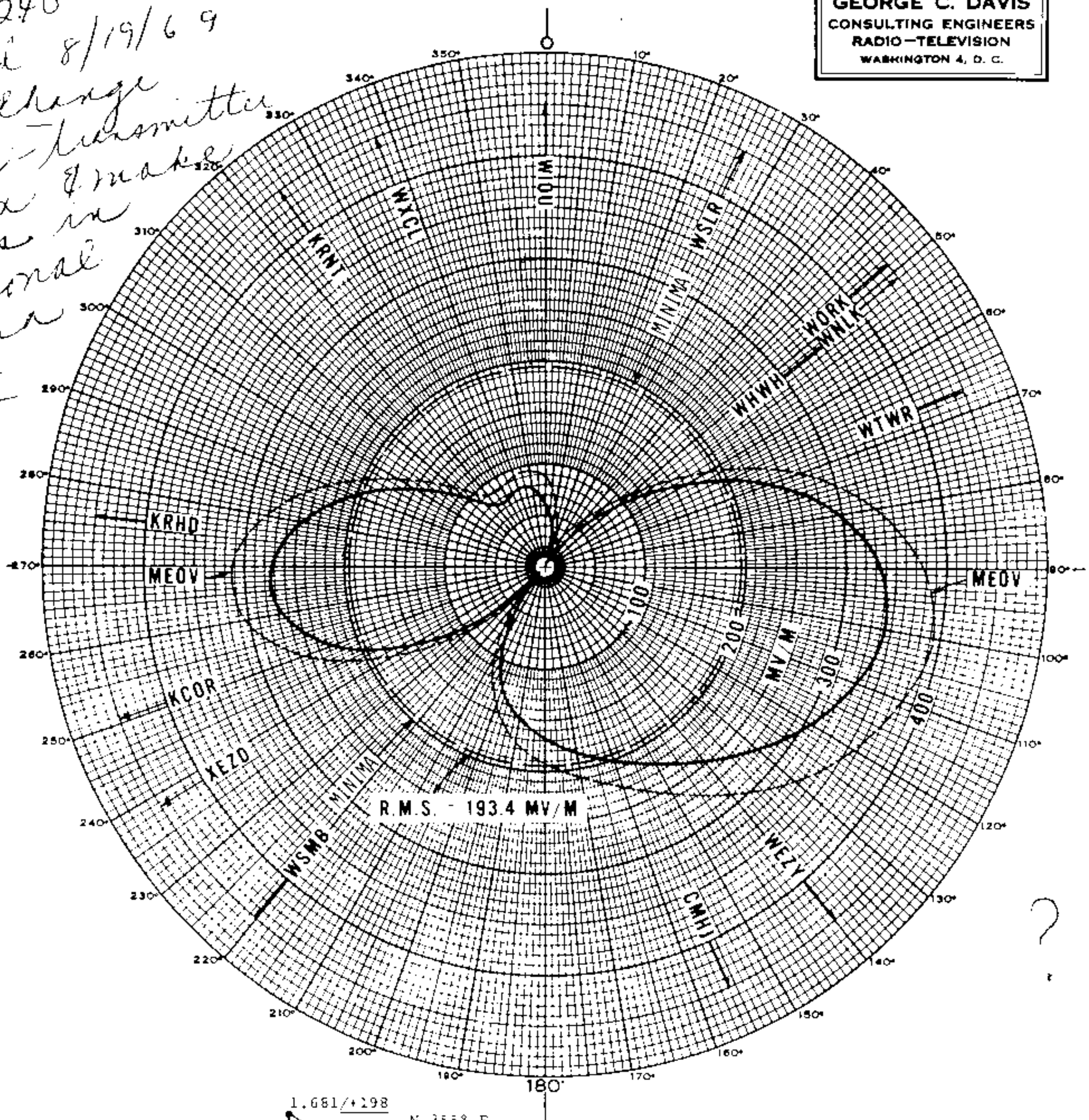
Proposed Night
(9-26-68ct)

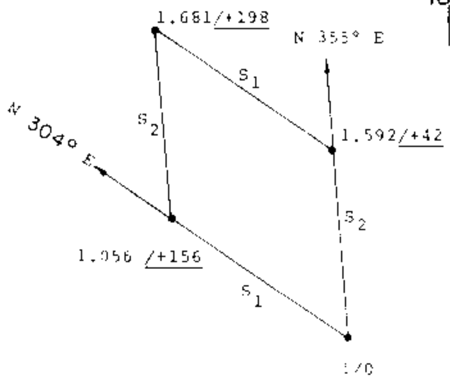
Station WGAD
Gadsden, Alabama

1kw,5kw-LS,DA-N,U
1350 kc

GEORGE C. DAVIS
CONSULTING ENGINEERS
RADIO—TELEVISION
WASHINGTON 4, D. C.

BP-18240
Granted 8/19/69
CP to change antenna-transmitter location & make changes in directional antenna system





COMPUTED RADIATION PATTERN
UNATTENUATED FIELD AT ONE MILE
FOR PROPOSED NIGHTTIME OPERATION OF
WGAD, GADSDEN, ALABAMA
1350 KHz - 1/5 KW - DA-N U
MAY 1968

H = 98.8° = 200 FEET
S_1 = 180° = 364 FEET
S_2 - 160° - 323 FEET

N.LAT. 34° 00' 52"
W.LONG. 86° 04' 48"

FCC File No.BP-18240
Accepted 9-9-68

Station WGAD
Gadsden, Alabama

1350 kc

DIRECTIONAL ANTENNA DESCRIPTION SHEET

~~WKLX~~
WHNE

Station: WKLX

Main Studio: Portsmouth, Virginia

Frequency: 1350 kHz

Power: 5 kW

Notification List No. 1624

Date: March 18, 1975

Class: III

GEOGRAPHICAL LOCATION OF THE CENTER OF THE ANTENNA SYSTEM:

North Latitude: 36° 53' 00"
West Longitude: 76° 22' 23"

ANTENNA CHARACTERISTICS

Authorized for Daytime and Nighttime operation. (DA-2)
Number of elements: 3
Type of elements: Series-excited, uniform cross-section, guyed, vertical steel towers.

TOWER:	NW(#3)	C(#2)	SE(#1)
HEIGHT ABOVE INSULATORS:	200'	200'	200' (99°)
NIGHT PHASING:	+195.6°	+86.7°	0°
NIGHT FIELD RATIO:	0.88	1.73	1
DAY PHASING:	+201.8°	+39.1°	0°
DAY FIELD RATIO:	0.437	0.896	1

SPACING AND ORIENTATION: From reference tower #1; tower #2 is spaced 253' (125°) on a line bearing 313° true, and tower #3 is spaced 485.6' (240°) on a line bearing 305° true.

GROUND SYSTEM: 120-185' equally spaced copper radials plus a 24' square ground screen about each tower. Radials are shortened and bonded to transverse straps along intersections between towers.

Predicted effective Night Field: 442 mv/m at rated power.

Predicted effective Day Field: 431 mv/m at rated power.

CTR NO 30176A3

COHEN AND DIPPELL
RECEIVED

OCT 29 1975

WASHINGTON, D.C.

WHNE WKLX

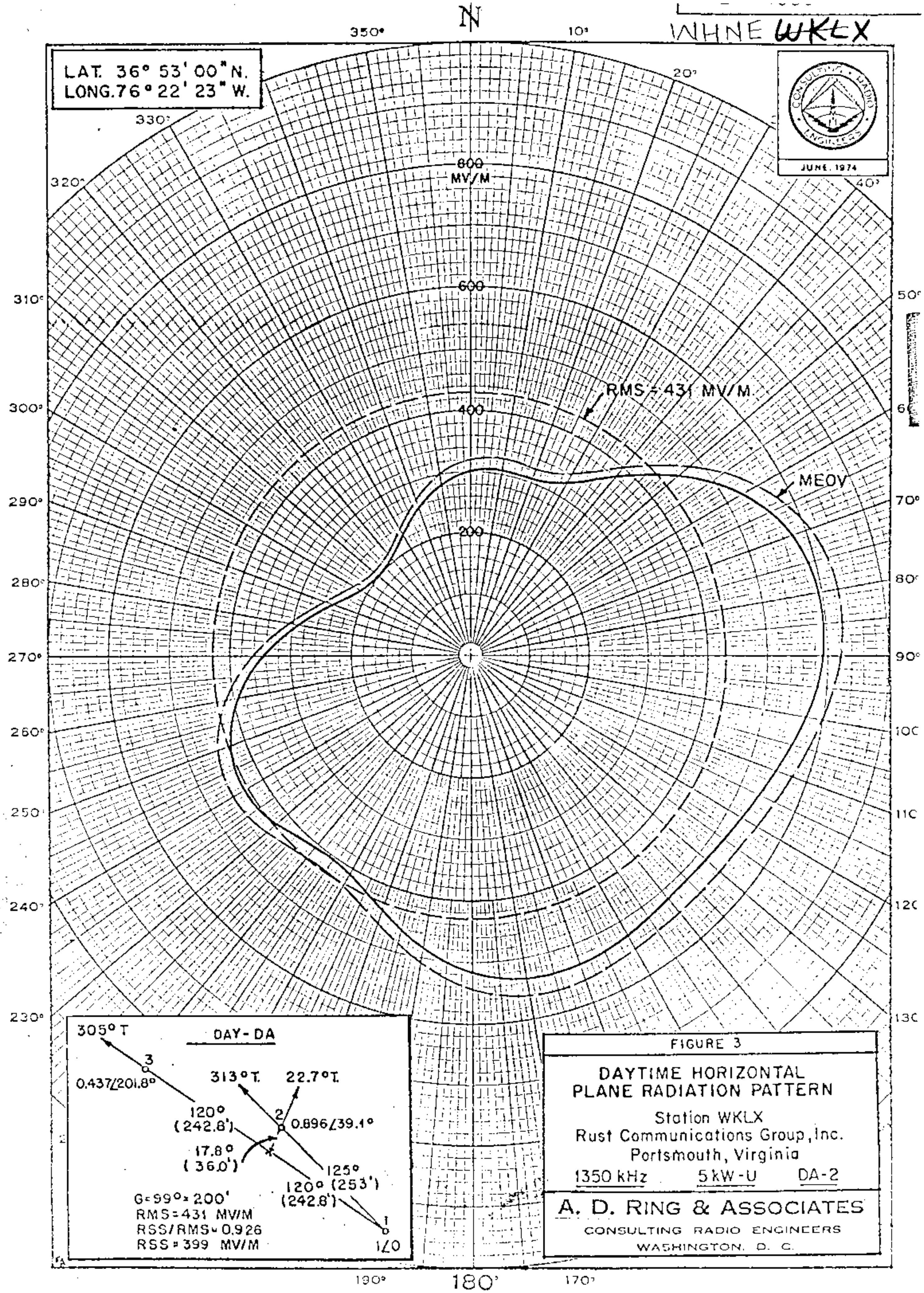


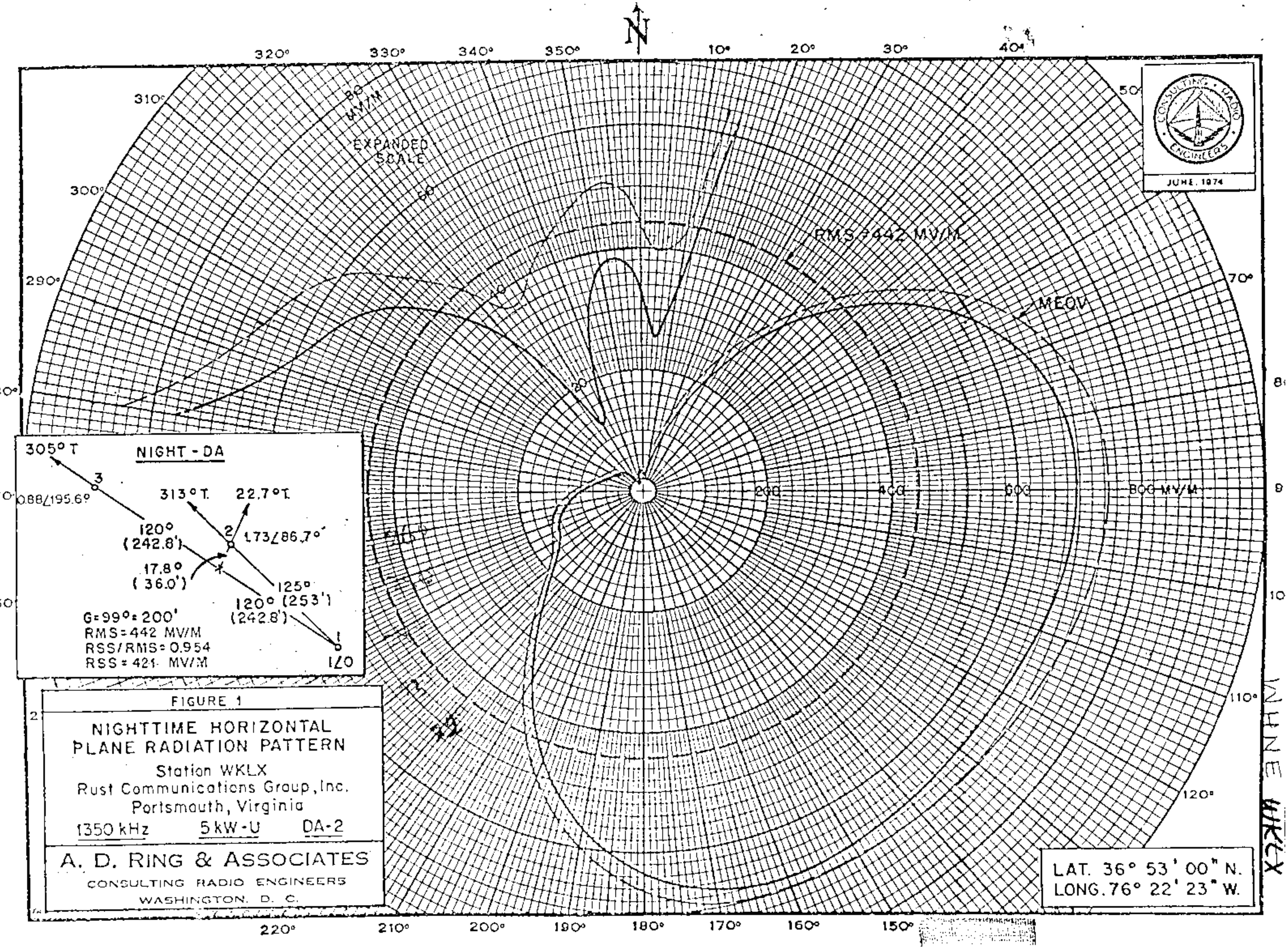
FIGURE 3

DAYTIME HORIZONTAL
PLANE RADIATION PATTERN

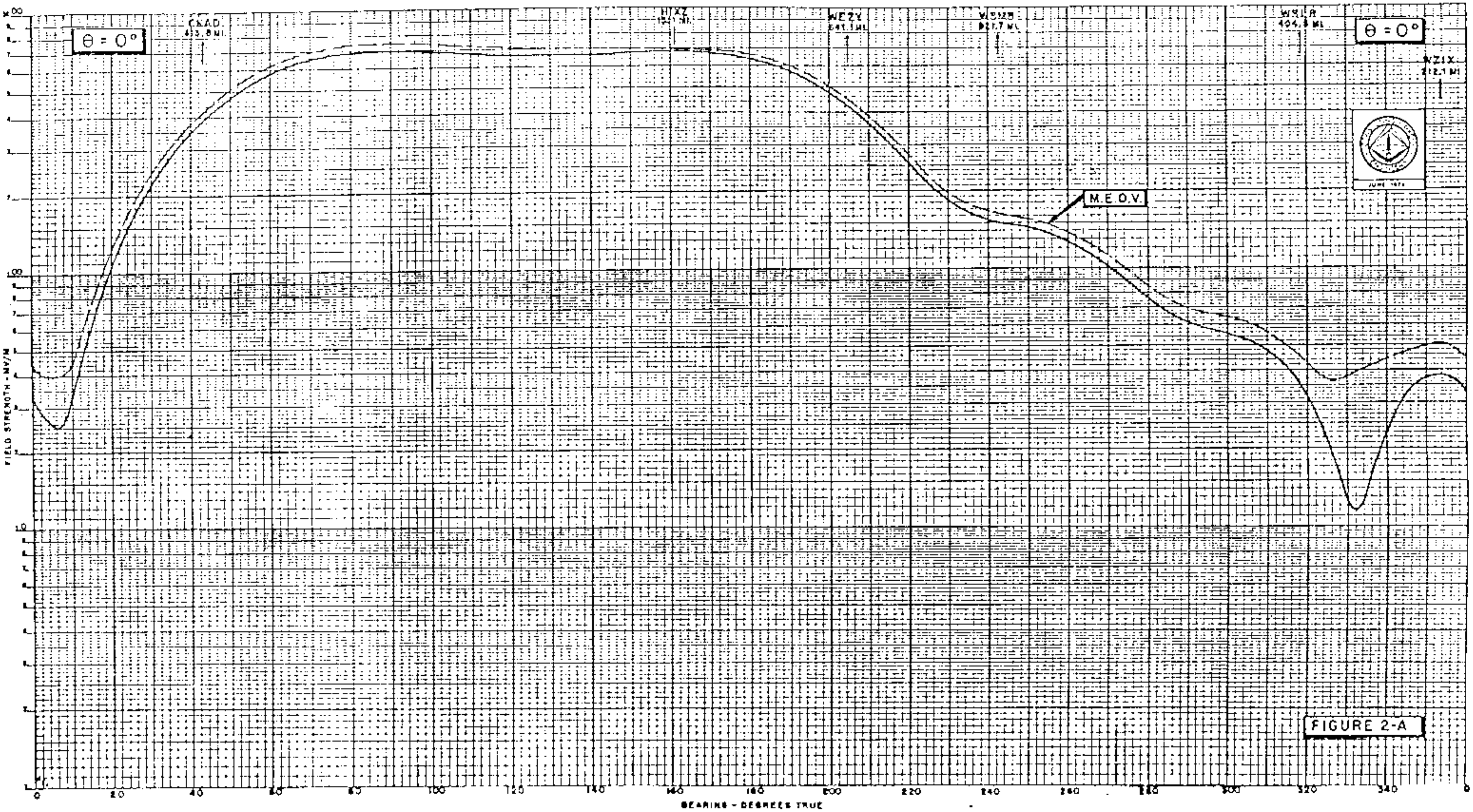
Station WKLX
Rust Communications Group, Inc.
Portsmouth, Virginia

1350 kHz 5 kW-U DA-2

A. D. RING & ASSOCIATES
CONSULTING RADIO ENGINEERS
WASHINGTON, D. C.

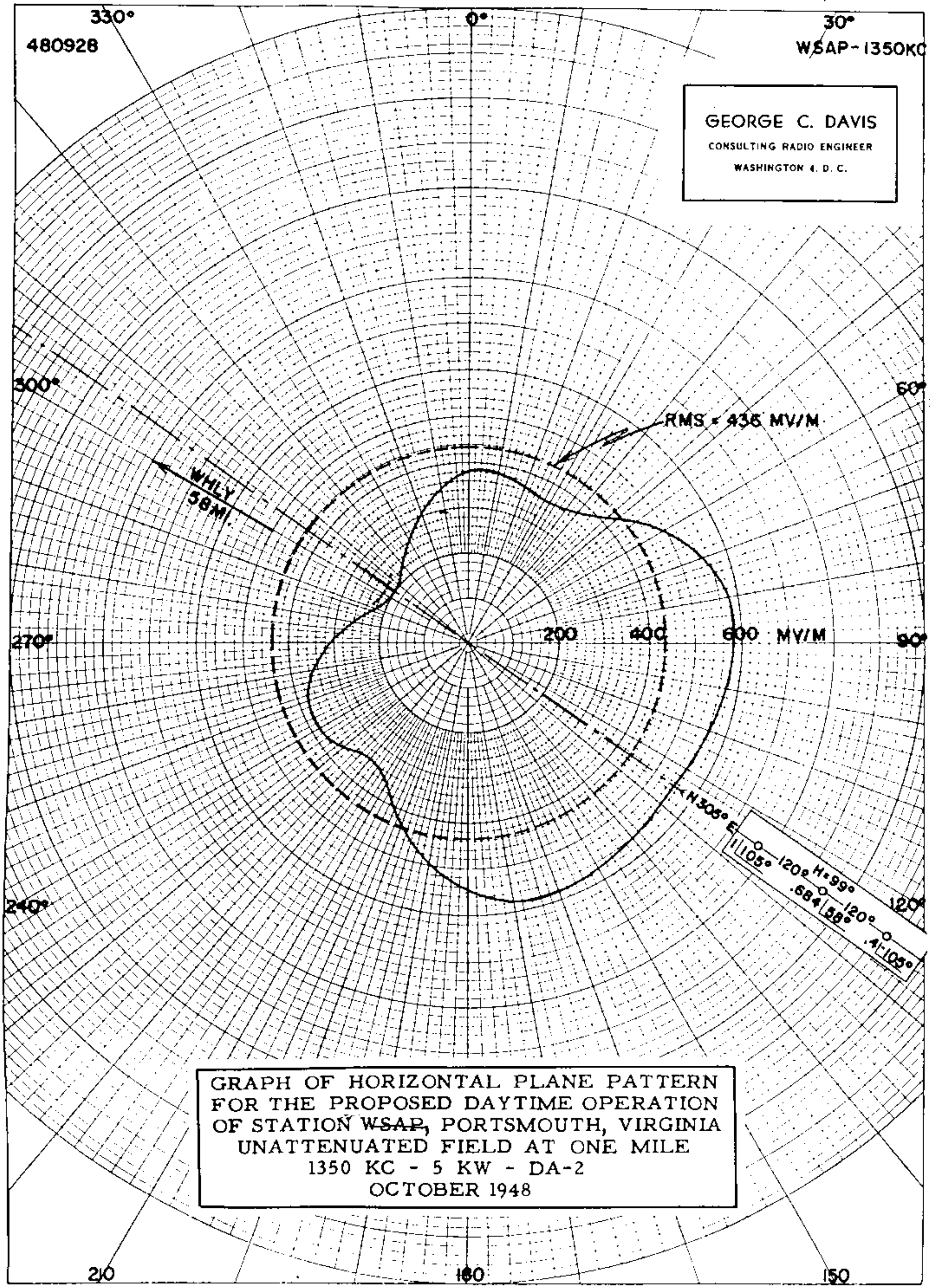

WHNE WKLX
RMS=442 MV/M
MEOV
80 MV/M
EXPANDED SCALE
200
400
600
800 MV/M
JUNE, 1974
CONSULTING RADIO ENGINEERS
NIGHT - DA
305° T
0.88∠195.6°
313° T
22.7° T
1.73∠86.7°
120° (242.8')
17.8° (36.0')
125° (253')
120° (242.8')
1∠0
G=99°=200'
RMS=442 MV/M
RSS/RMS=0.954
RSS=421 MV/M
FIGURE 1
NIGHTTIME HORIZONTAL PLANE RADIATION PATTERN
Station WKLX
Rust Communications Group, Inc.
Portsmouth, Virginia
1350 kHz
5 kW-U
DA-2
A. D. RING & ASSOCIATES
CONSULTING RADIO ENGINEERS
WASHINGTON, D. C.
LAT. 36° 53' 00" N.
LONG. 76° 22' 23" W.

~~WKLX~~
WHNE



θ = 0°
CKAD
WEZY
M.E.O.V.
WZIX
θ = 0°
FIGURE 2-A
FIELD STRENGTH - MV/M
BEARING - DEGREES TRUE
100
10
0
20
40
60
80
100
120
140
160
180
200
220
240
260
280
300
320
340
0

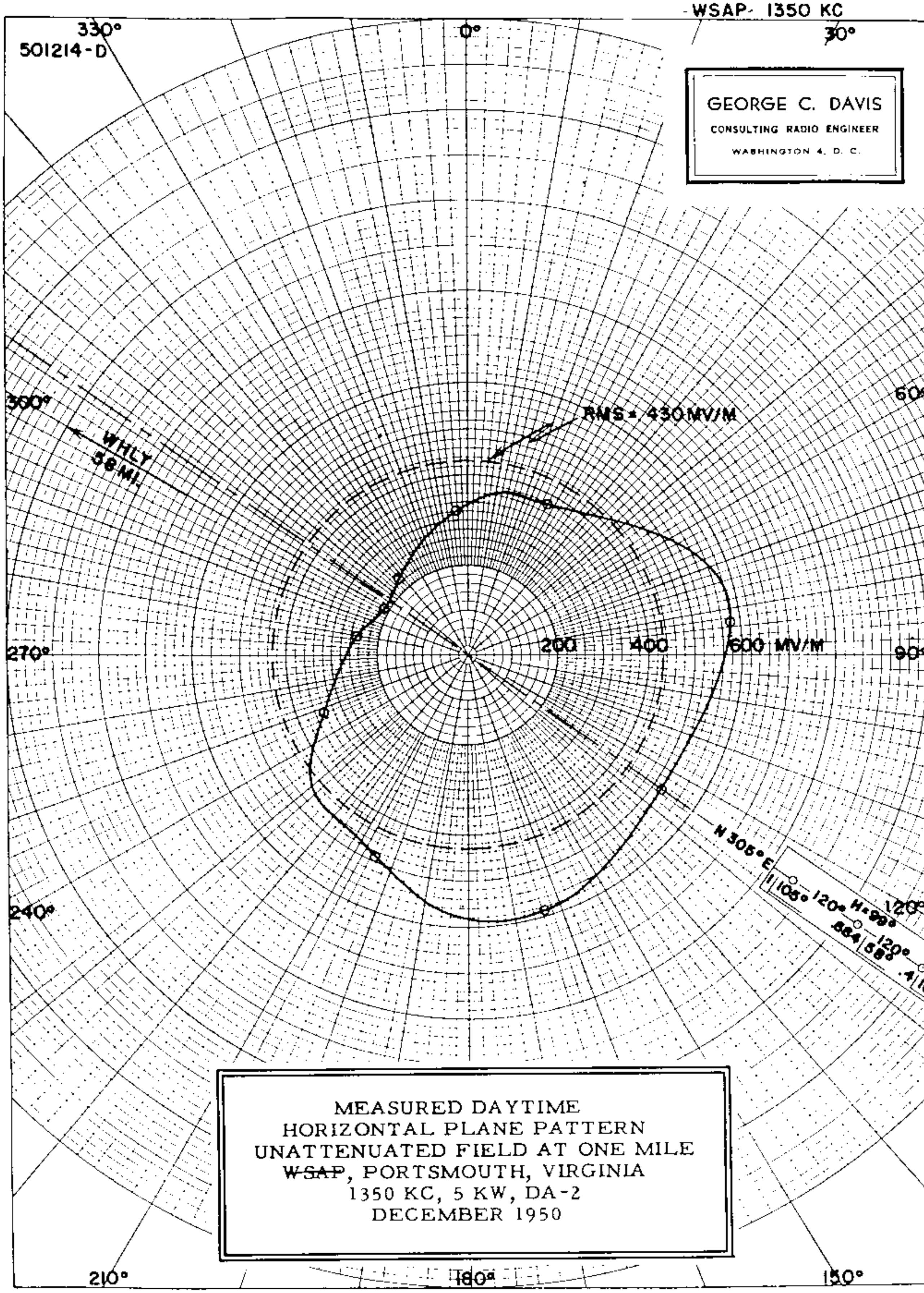
WHNE



GRAPH OF HORIZONTAL PLANE PATTERN
FOR THE PROPOSED DAYTIME OPERATION
OF STATION ~~WSAP~~, PORTSMOUTH, VIRGINIA
UNATTENUATED FIELD AT ONE MILE
1350 KC - 5 KW - DA-2
OCTOBER 1948

WKLX

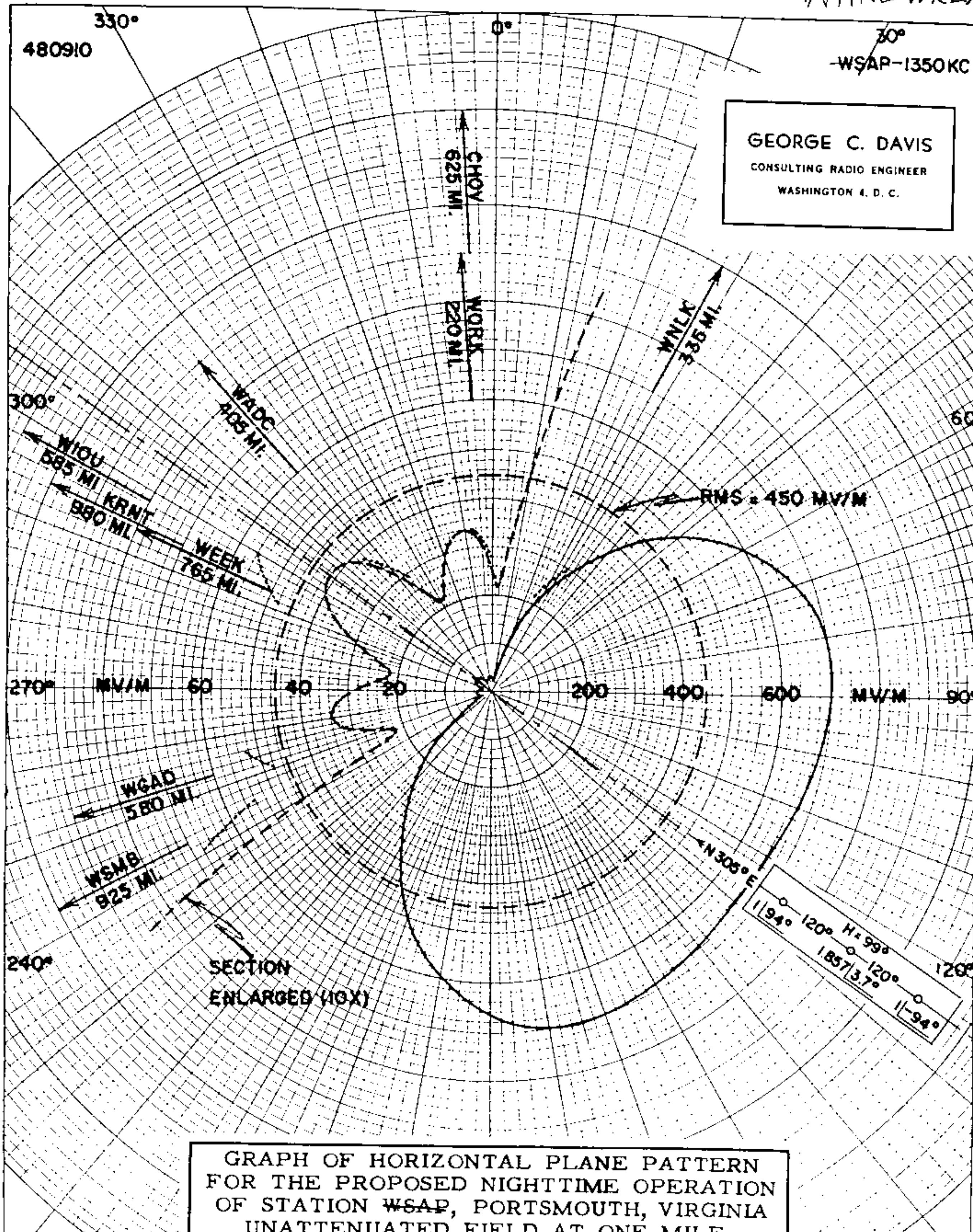
~~WKLX~~
WHNE



MEASURED DAYTIME
HORIZONTAL PLANE PATTERN
UNATTENUATED FIELD AT ONE MILE
~~WSAP~~, PORTSMOUTH, VIRGINIA
1350 KC, 5 KW, DA-2
DECEMBER 1950

WKLX

WHNE ~~WKLX~~

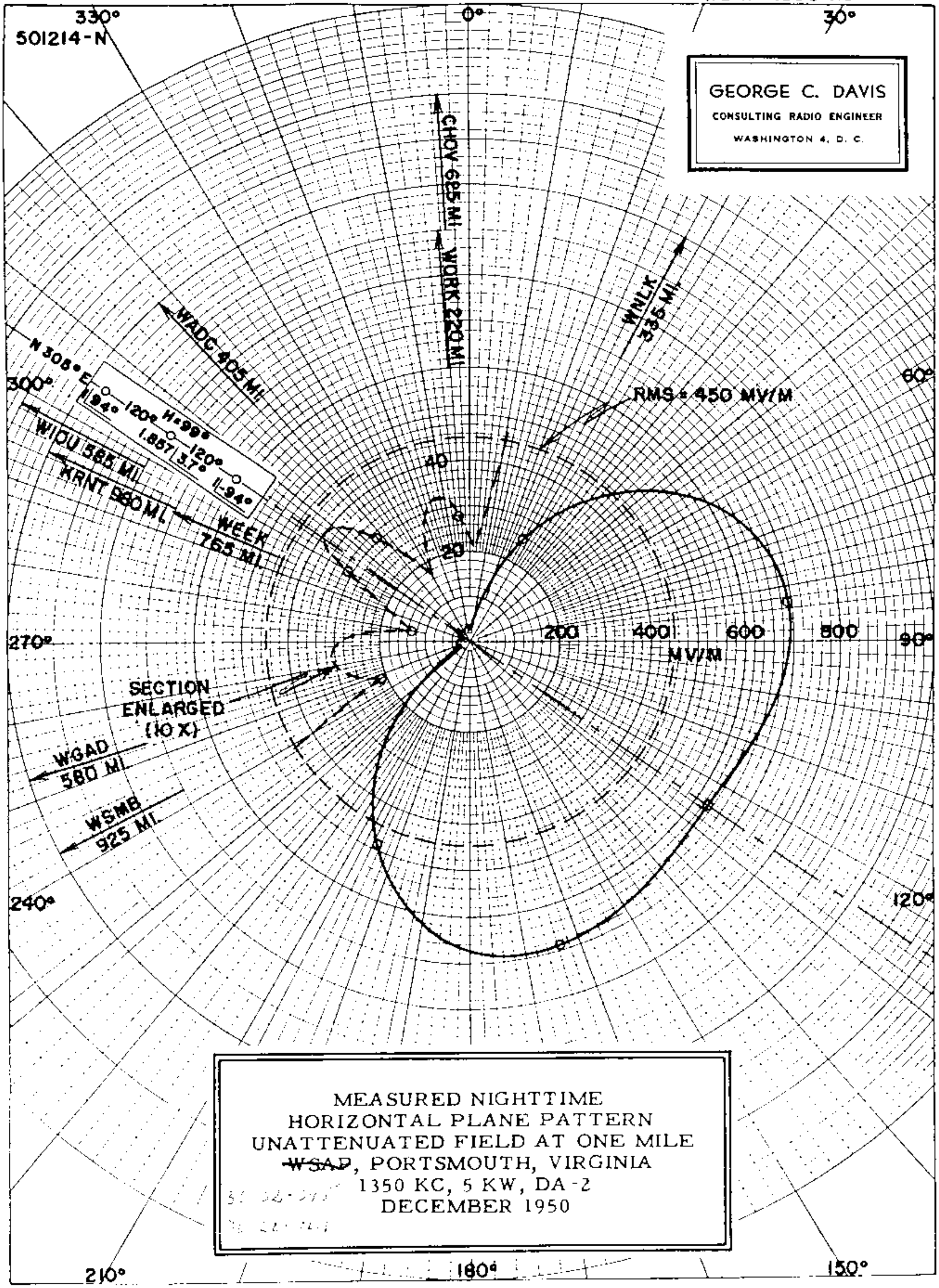


GRAPH OF HORIZONTAL PLANE PATTERN
FOR THE PROPOSED NIGHTTIME OPERATION
OF STATION ~~WSAP~~, PORTSMOUTH, VIRGINIA
UNATTENUATED FIELD AT ONE MILE
1350 KC - 5 KW - DA-2
OCTOBER 1948

WKLX

WHNE WKLX

~~WSAP~~ 1350 KC



MEASURED NIGHTTIME
HORIZONTAL PLANE PATTERN
UNATTENUATED FIELD AT ONE MILE
~~WSAP~~, PORTSMOUTH, VIRGINIA
1350 KC, 5 KW, DA-2
DECEMBER 1950

WKLX

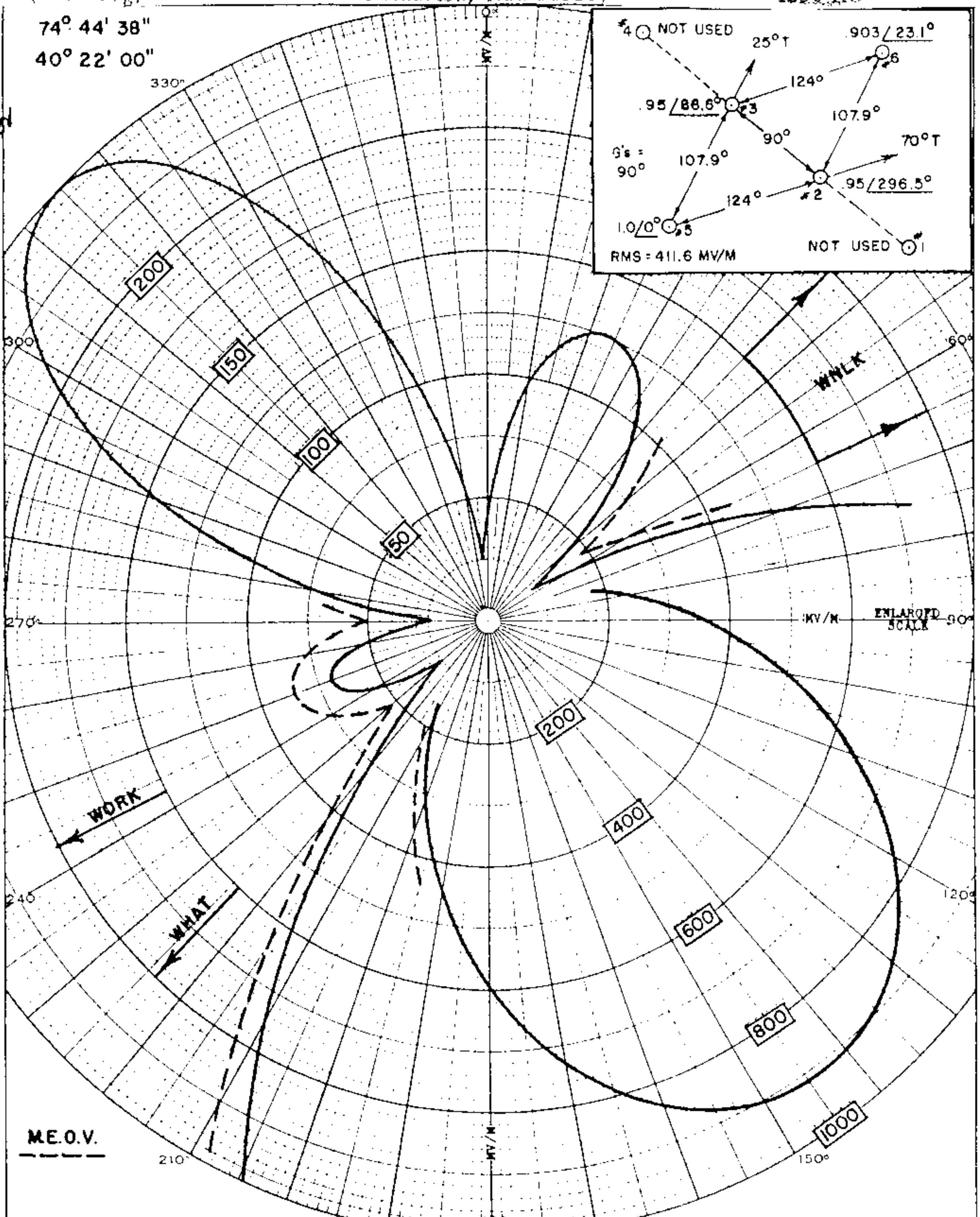
PRINCETON, N.J. WHWH

PROPOSED DAY (6-16-59g)

New; Nassau B/C Co. Princeton, New Jersey

5kw, DA-2, U 1350 KC

2-6-62 granted CP for new station



COMMERCIAL RADIO EQUIPMENT CO. RADIO ENGINEERING CONSULTANTS WASHINGTON, D.C.	PATTERN: PROPOSED DAYTIME FOR: PRINCETON, NEW JERSEY POWER: 5 KW FREQ: 1350 KC DATE: 5/6/59

FCC File No. BP-13064
Accepted 6-3-59

Nassau Broadcasting Company
Princeton, New Jersey 1350 KC

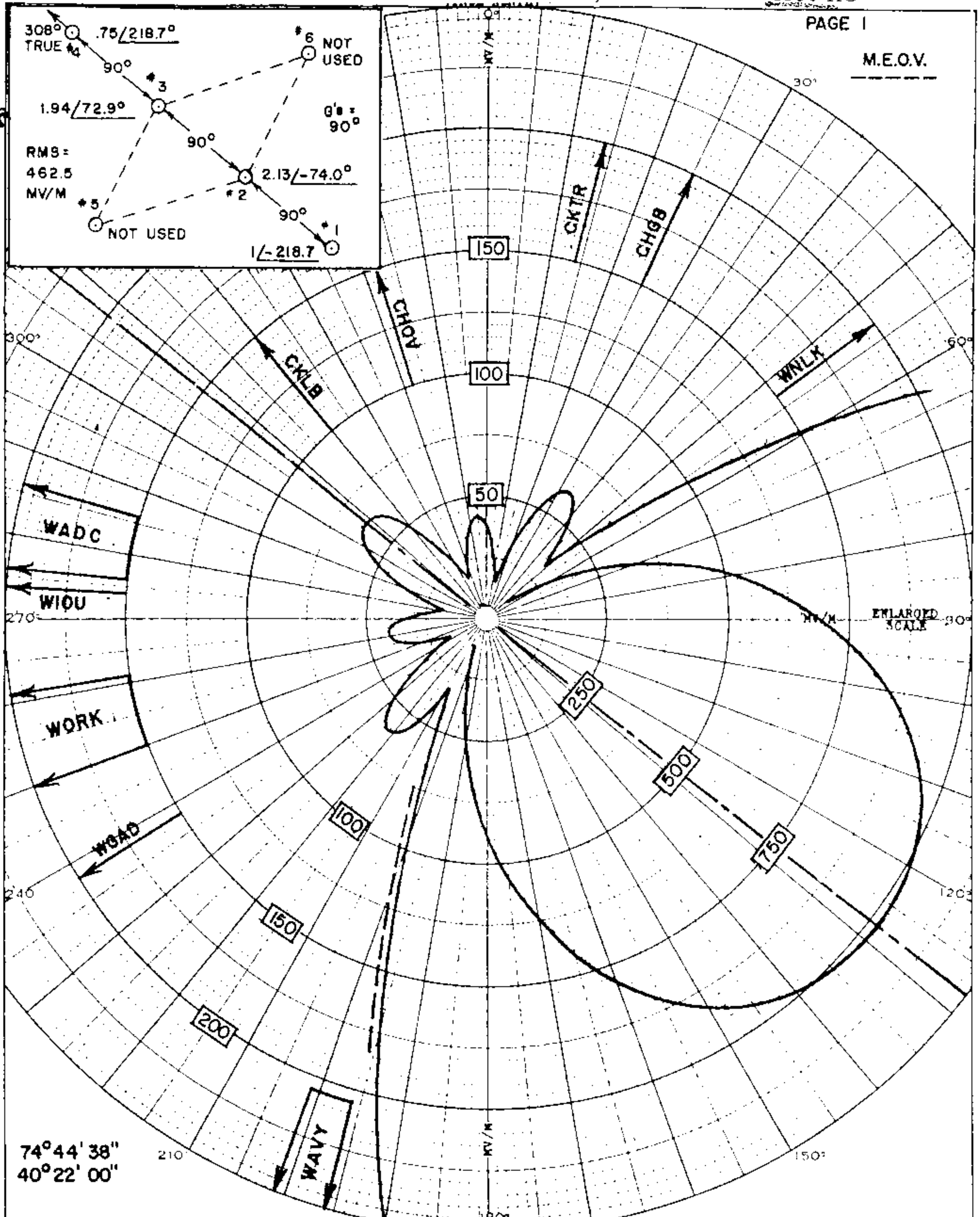
PRINCETON, N.J. WHWH

PROPOSED NIGHT (6-16-59g)

New; Nassau B/C Co.
Princeton, New Jersey

5kw, DA-2, U
1350 KC

2-6-62 granted CP for new station



COMMERCIAL RADIO EQUIPMENT CO.

RADIO ENGINEERING CONSULTANTS

WASHINGTON, D.C.

ACCURACY

PATTERN: PROPOSED NIGHTIME
FOR: PRINCETON, NEW JERSEY
POWER: 5 KW FREQ: 1350 KC.
DATE: 5/6/59

FCC File No. BP-13064
Accepted 6-3-59

Nassau Broadcasting Company
Princeton, New Jersey

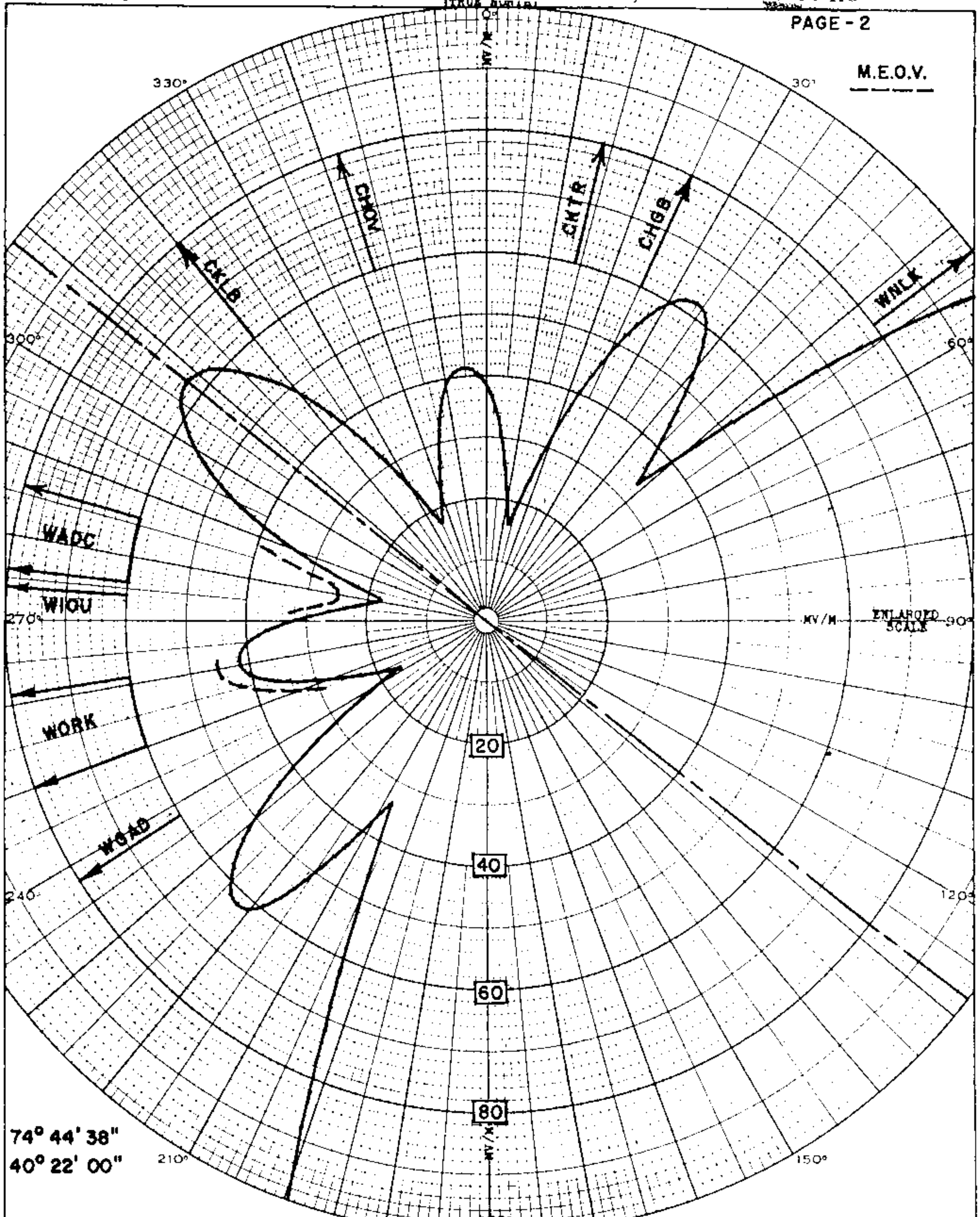
1350 KC

PRINCETON, N.J. WHWH

PROPOSED NIGHT NULLS (6-16-59g)

New; Nassau B/C Co. Princeton, New Jersey

5kw, DA-2, U 1350 KC



COMMERCIAL RADIO EQUIPMENT CO.

RADIO ENGINEERING CONSULTANTS

WASHINGTON, D.C.

PATTERN: PROPOSED NIGHT MINIMA

FOR: PRINCETON, NEW JERSEY

POWER: 5 KW FREQ: 1350 KC

DATE: 5/6/59

FCC File No. BP-13064
Accepted 6-3-59

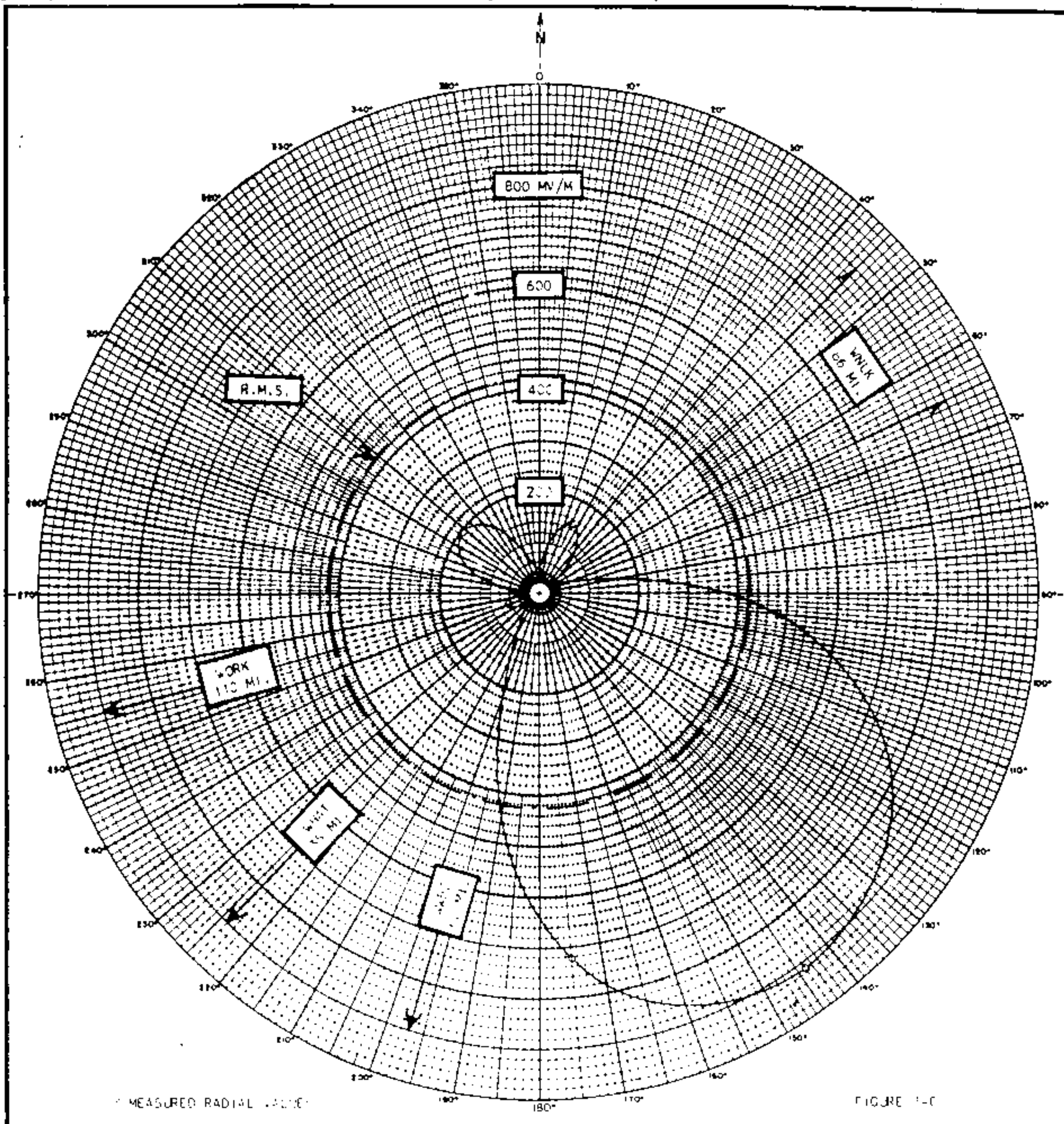
Nassau Broadcasting Company
Princeton, New Jersey 1350 KC

Measured Day
(9-25-63ct)

Station WHWH
Princeton, New Jersey

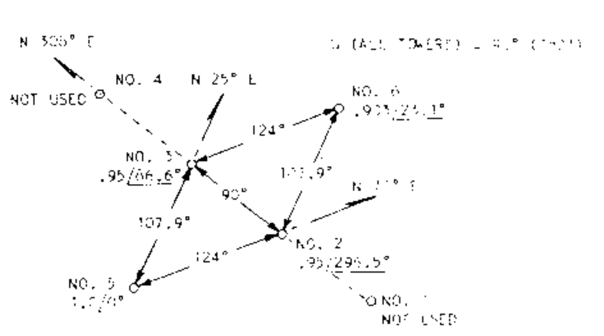
5kw,DA-2,U
1350 kc

2-14-64
LG for new station



HORIZONTAL RADIATION PATTERN

SPACING AND ORIENTATION



APPLICANT NASSAU BROADCASTING CO. (WHWH)
LOCATION PRINCETON, N. J.
FREQUENCY 1350 KC/S
POWER 5 KW-U (DA-2)
LATITUDE 40 DEG 22 MIN SEC
LONGITUDE 74 DEG 44 MIN 34 SEC
WHEN USED DAYTIME
RMS FIELD 424 MV/M
DATE AUGUST 1963

SILLIMAN, MOFFET & KOWALSKI
CONSULTING RADIO ENGINEERS
WASHINGTON, D.C.

FCC File No.BL-10278
Accepted 9-19-63

Station WHWH
Princeton, New Jersey

1350 kc

WHWH

Measured Day Nulls
(9-25-63ct)

Station WHWH
Princeton, New Jersey

5kw,DA-2,U
1350 kc

2-14-64
LG for new
station

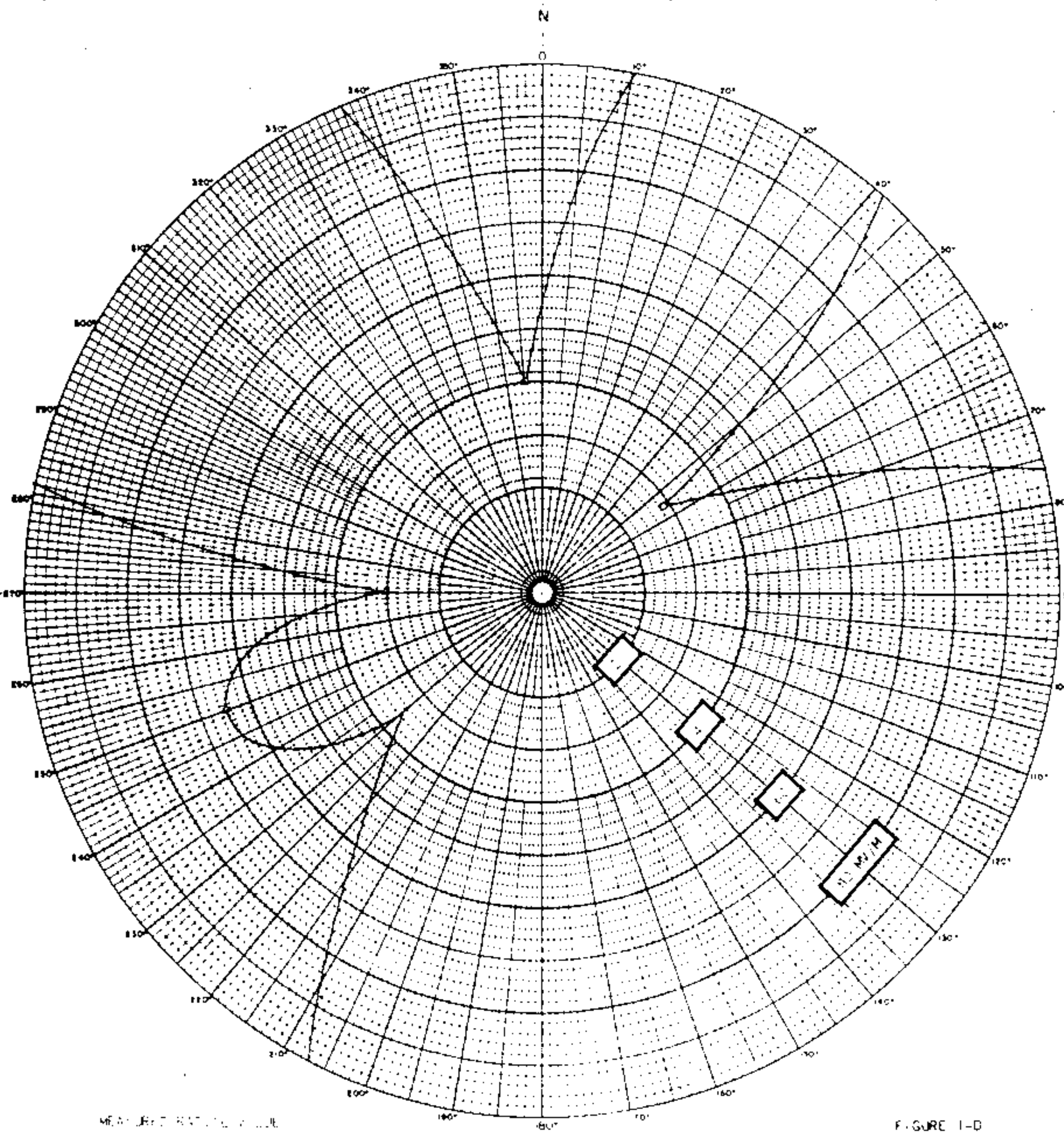


FIGURE 1-D

HORIZONTAL RADIATION PATTERN

EXPANDED VIEW

APPLICANT	NASSAU BROADCASTING CO. (WHWH)
LOCATION	PRINCETON, N. J.
FREQUENCY	1350 KC/S
POWER	5 KW-U (DA-2)
LATITUDE	40 DEG 22 MIN [illegible] SEC
LONGITUDE	74 DEG [illegible] MIN [illegible] SEC
WHEN USED	DAYTIME
RMS FIELD	[illegible] MV/M
DATE	[illegible]

SILLIMAN, MOFFET & KOWALSKI
CONSULTING RADIO ENGINEERS
WASHINGTON, D.C.

FCC File No.BL-10278
Accepted 9-19-63

Station WHWH
Princeton, New Jersey

1350 kc

WHWH

Measured Non-DA
(9-25-63ct)

Station WHWH
Princeton, New Jersey

5kw,DA-2,U
1350 kc

2-14-64
LG for new station

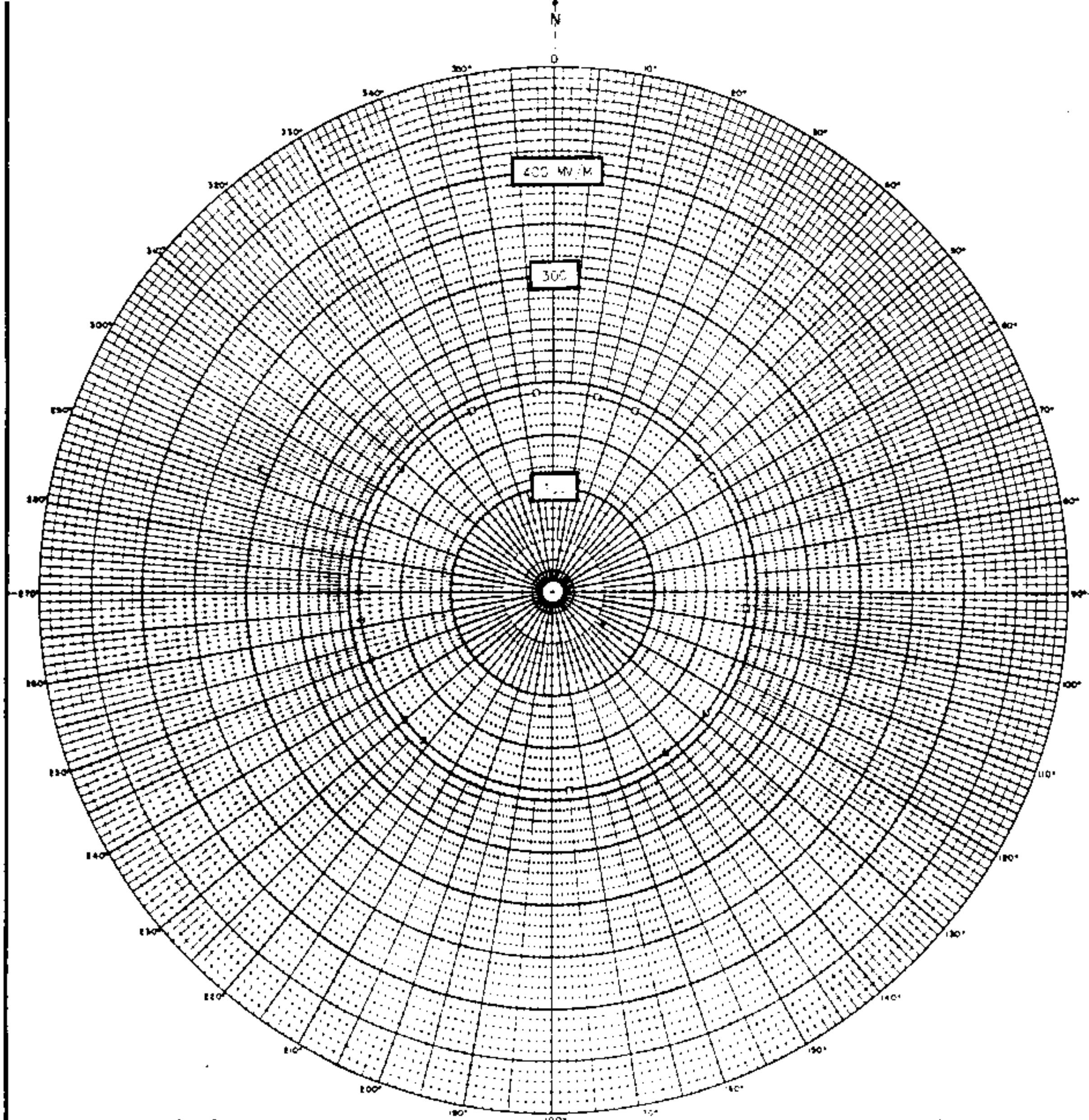


FIGURE 1-E

HORIZONTAL RADIATION PATTERN

NON-DIRECTIONAL SURVEY

APPLICANT	Nassau Broadcasting Co. (WHWH)
LOCATION	Princeton, N. J.
FREQUENCY	1350 KC/S
POWER	1 KW
LATITUDE	40 DEG 22 MIN 20 SEC
LONGITUDE	74 DEG 44 MIN 58 SEC
WHEN USED	Non-Directional Survey
RMS FIELD	190 MV/M
DATE	August 1963

SILLIMAN, MOFFET & KOWALSKI
CONSULTING RADIO ENGINEERS
WASHINGTON, D.C.

FCC File No.BL-10278
Accepted 9-19-63

Station WHWH
Princeton, New Jersey

1350 kc

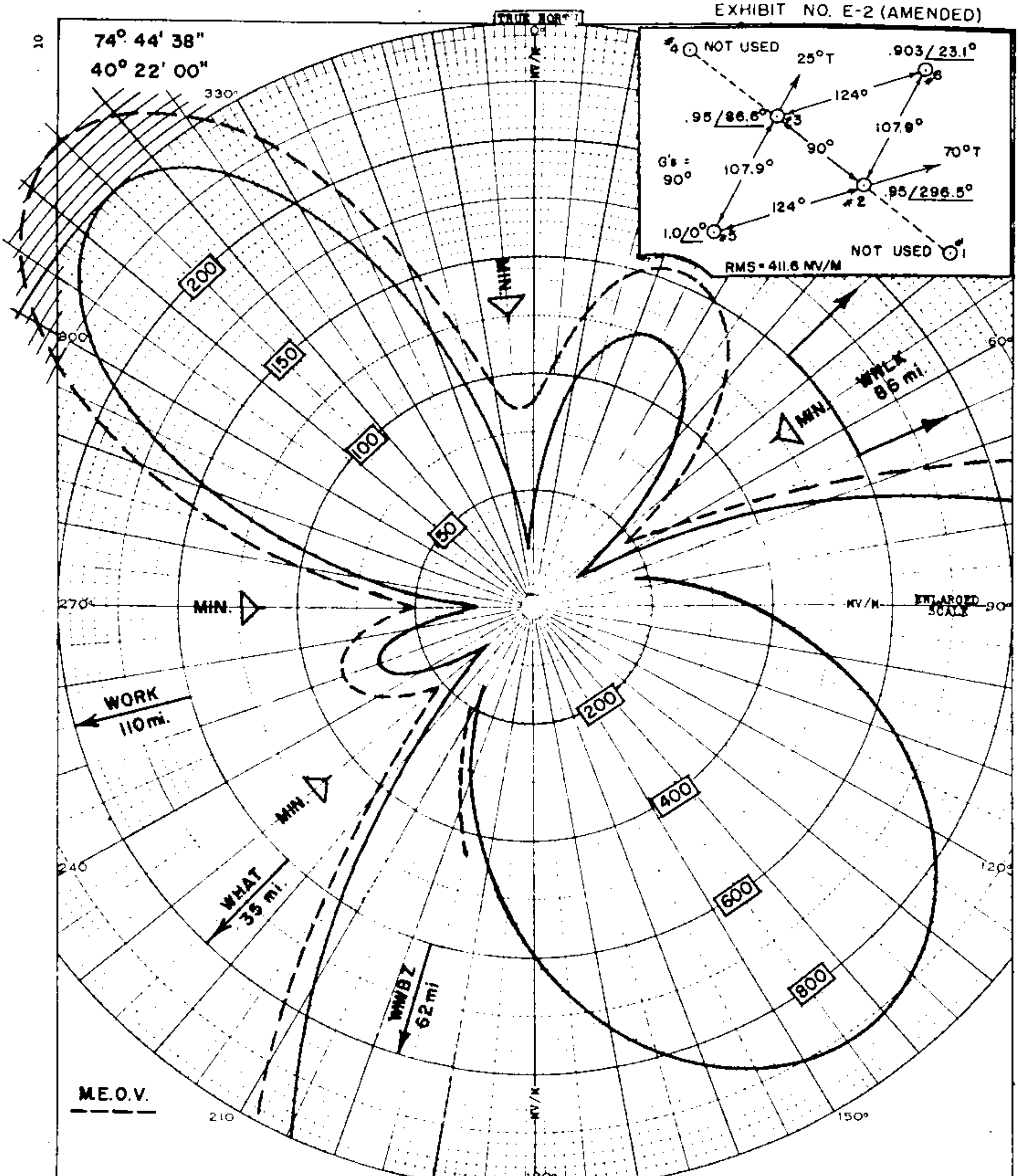
WHWH

Proposed Day
(3-30-63ct)

Station WHWH
Princeton, New Jersey

5kw,DA-2,U
1350 kc

EXHIBIT NO. E-2 (AMENDED)



COMMERCIAL RADIO EQUIPMENT CO. RADIO ENGINEERING CONSULTANTS WASHINGTON, D. C.	PATTERN: PROPOSED DAYTIME FOR: PRINCETON, NEW JERSEY POWER: 5 KW FREQ: 1350 KC DATE: 1/7/63

FCC File No. BMP-10388
Accepted 3-13-63

Station WHWH
Princeton, New Jersey

1350 kc

WHWH

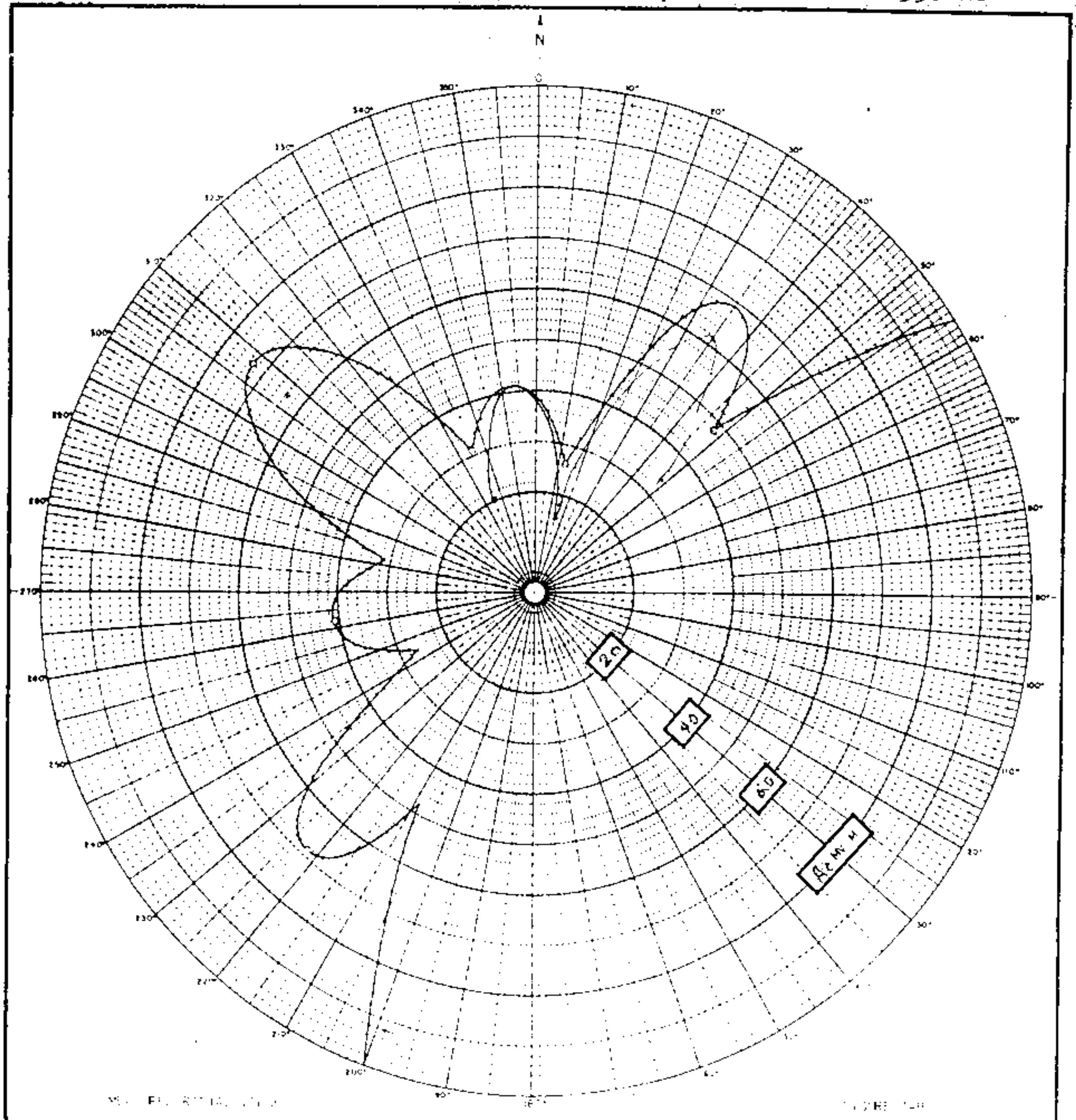
Measured Night Nulls
(9-25-63ct)

Station WHWH
Princeton, New Jersey

5kw,DA-2,U
1350 kc

11

2-14-64
LG for new station



EXPANDED VIEW

SILLIMAN, MOFFET & KOWALSKI
CONSULTING RADIO ENGINEERS
WASHINGTON, D.C.

FCC File No.BL-10278
Accepted 9-19-63

Station WHWH
Princeton, New Jersey

1350 kc

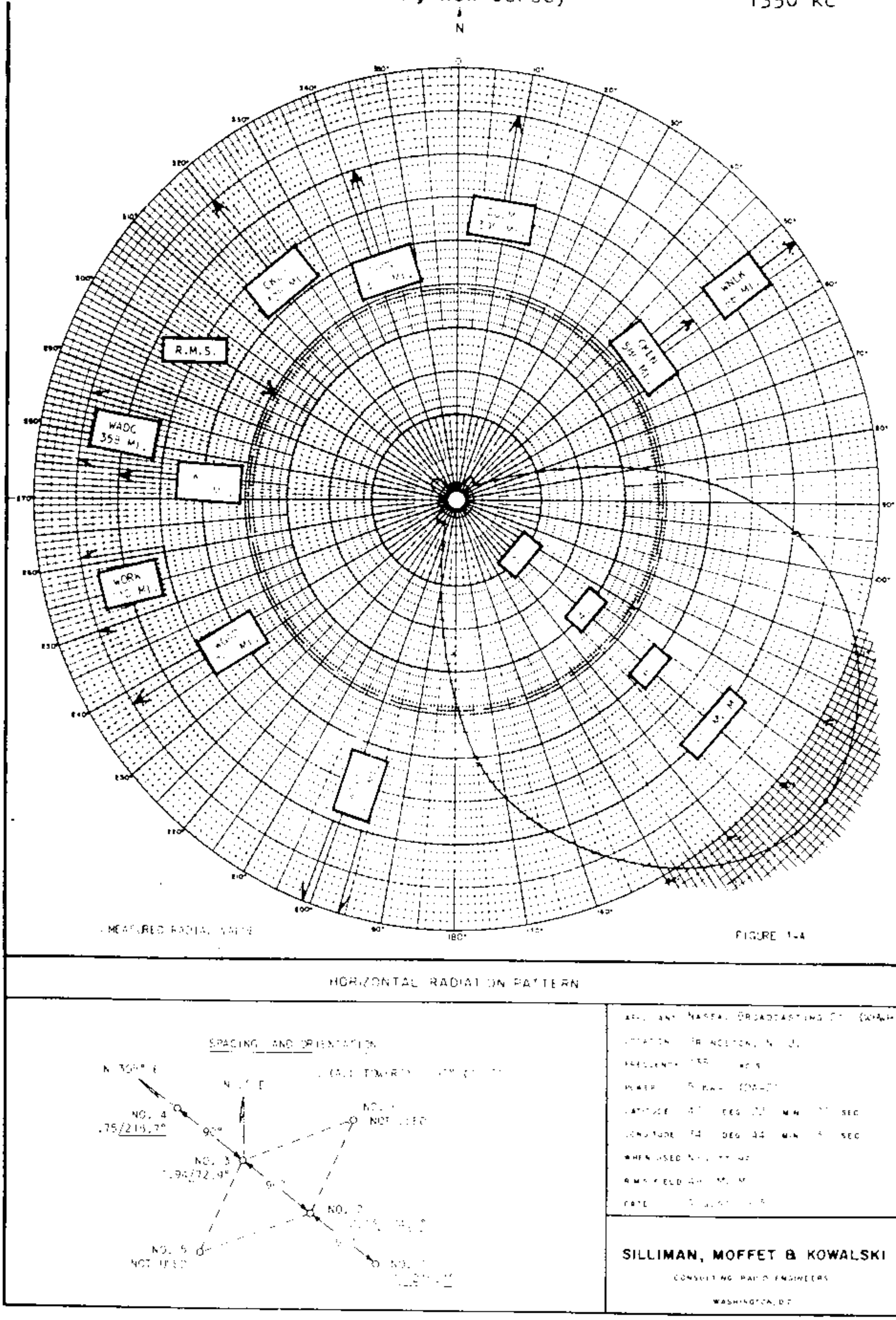
WHWH

Measured Night
(9-25-63ct)

Station WHWH
Princeton, New Jersey

5kw,DA-2,U
1350 kc

2-14-64
LG for new
station



FCC File No.BL-10278
Accepted 9-19-63

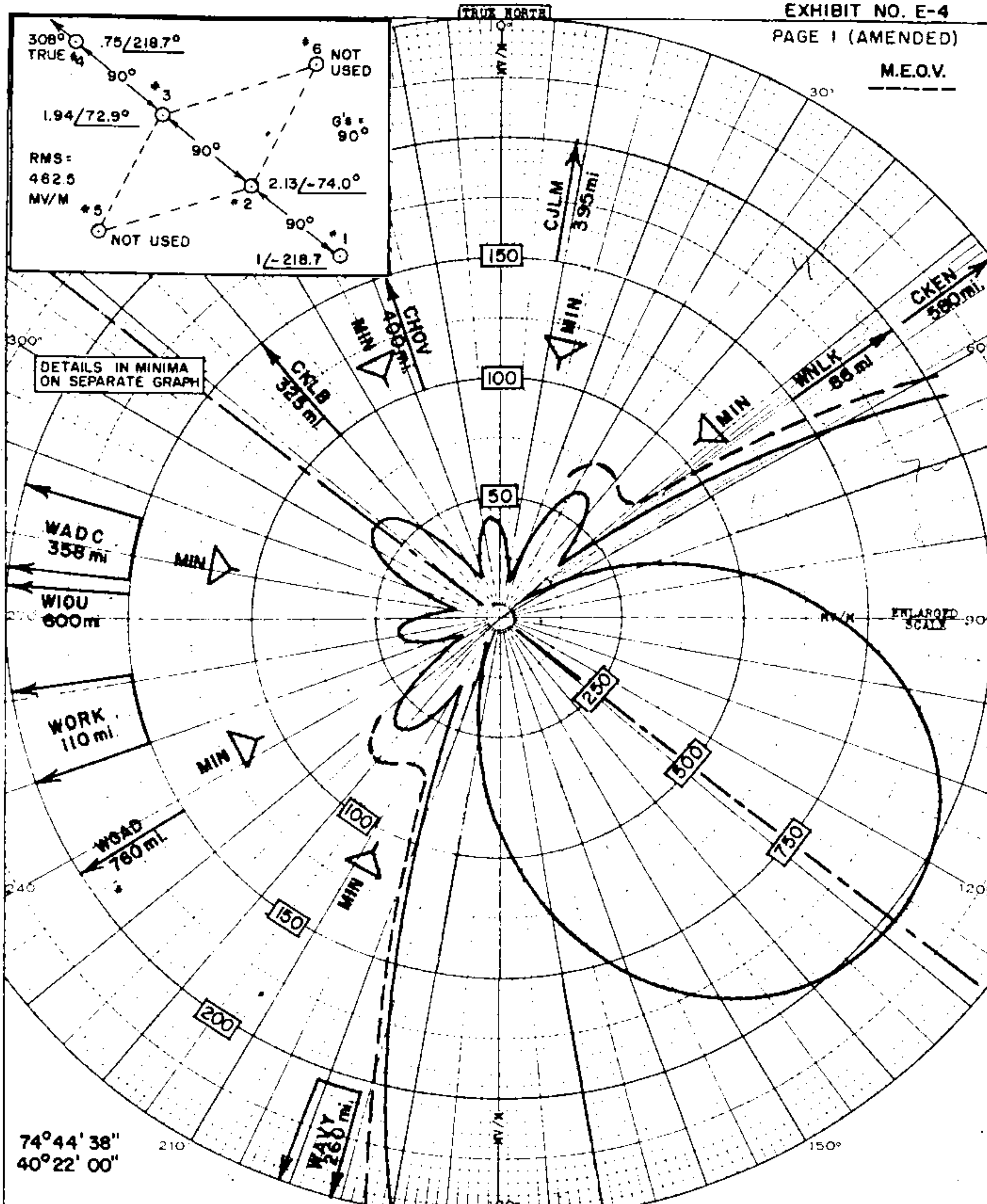
Station WHWH
Princeton, New Jersey

1350 kc

WHWH

Proposed Night (3-30-63ct) | Station WHWH Princeton, New Jersey | 5kw,DA-2,U 1350 kc

EXHIBIT NO. E-4
PAGE 1 (AMENDED)
M.E.O.V.



COMMERCIAL RADIO EQUIPMENT CO.
RADIO ENGINEERING CONSULTANTS
WASHINGTON, D. C.

PATTERN: PROPOSED NIGHTIME
FOR: PRINCETON, NEW JERSEY
POWER: 5 KW FREQ: 1350 KC.
DATE: 1/7/63

FCC File No. BMP-10388
Accepted 3-13-63

Station WHWH
Princeton, New Jersey

1350 kc

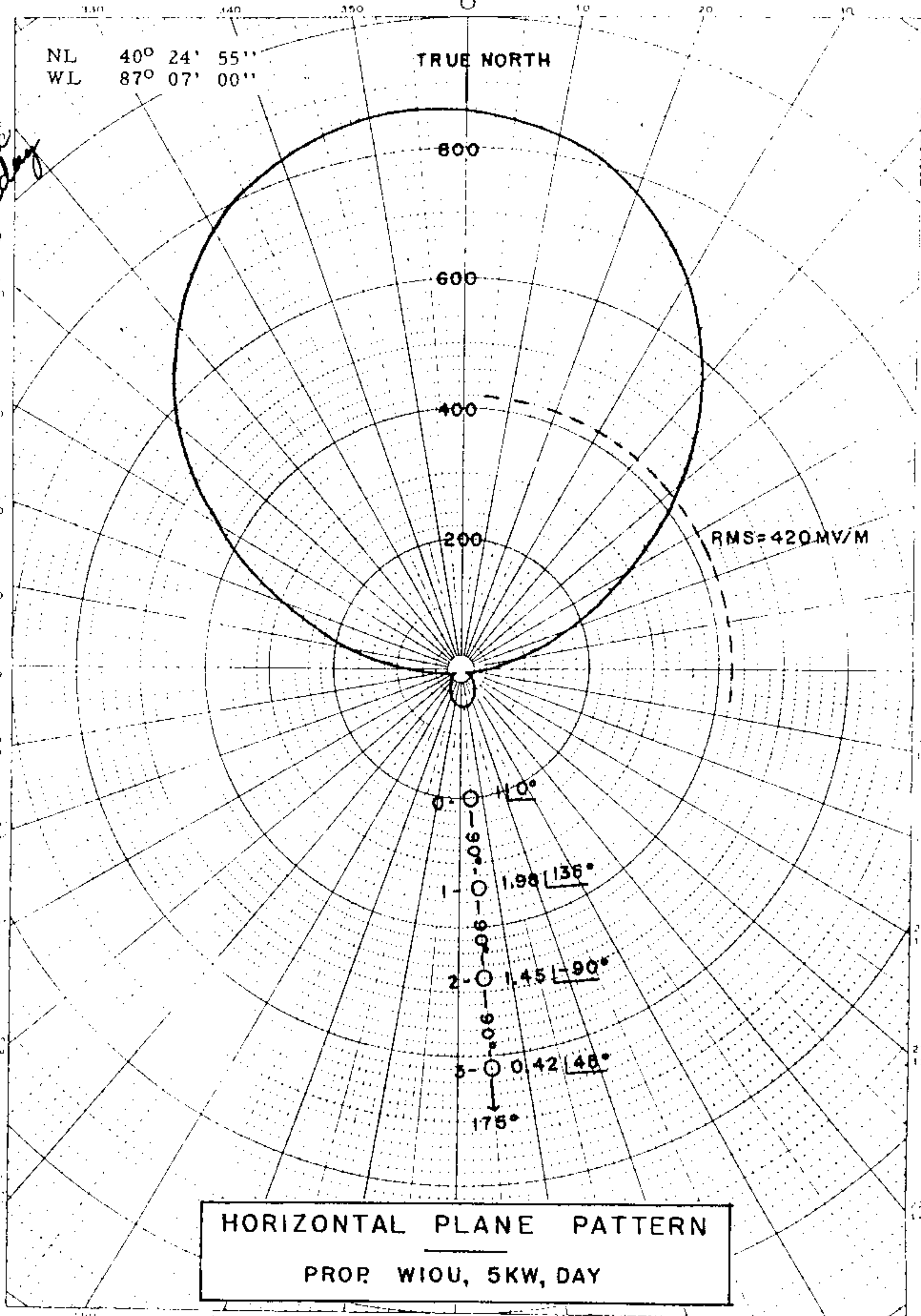
WIOU

PROPOSED DAY
(5-28-59g)

Station WIOU
Kokomo, Indiana

1kw, 5kw-LS, DA-2,U
1350 KC

-18-61 granted
P to increase day
power to 5 kw



FCC File No. BP-12036
Accepted 5-4-59 (Amended)

WIOU
Kokomo, Indiana

1350 KC

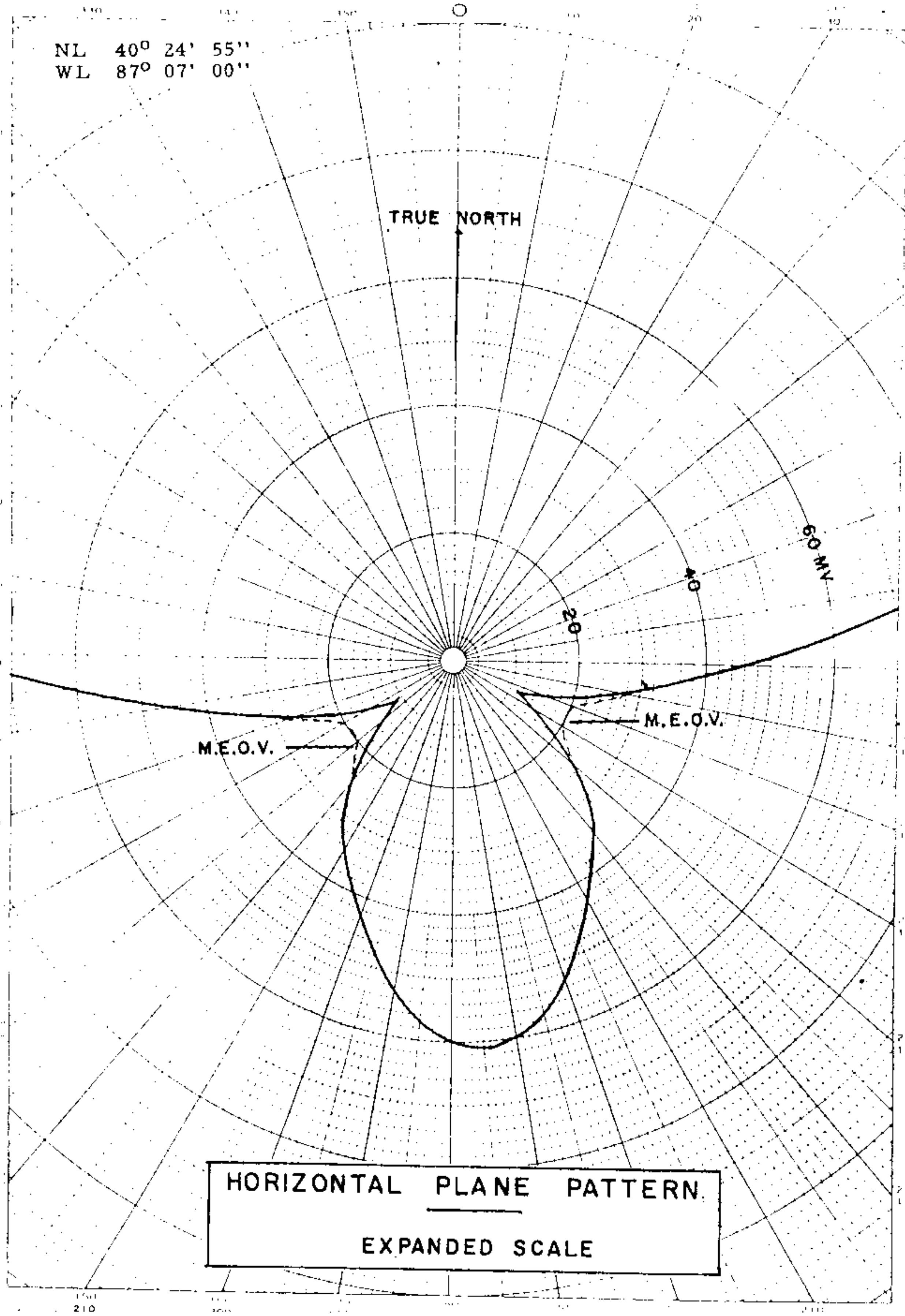
W I O U

PROPOSED DAY NULLS
(5-28-59g)

Station WIOU
Kokomo, Indiana

1kw, 5kw-LS, DA-2,U
1350 KC

NL 40° 24' 55''
WL 87° 07' 00''



FCC File No. BP-12036
Accepted 5-4-59 (Amended)

WIOU
Kokomo, Indiana

1350 KC

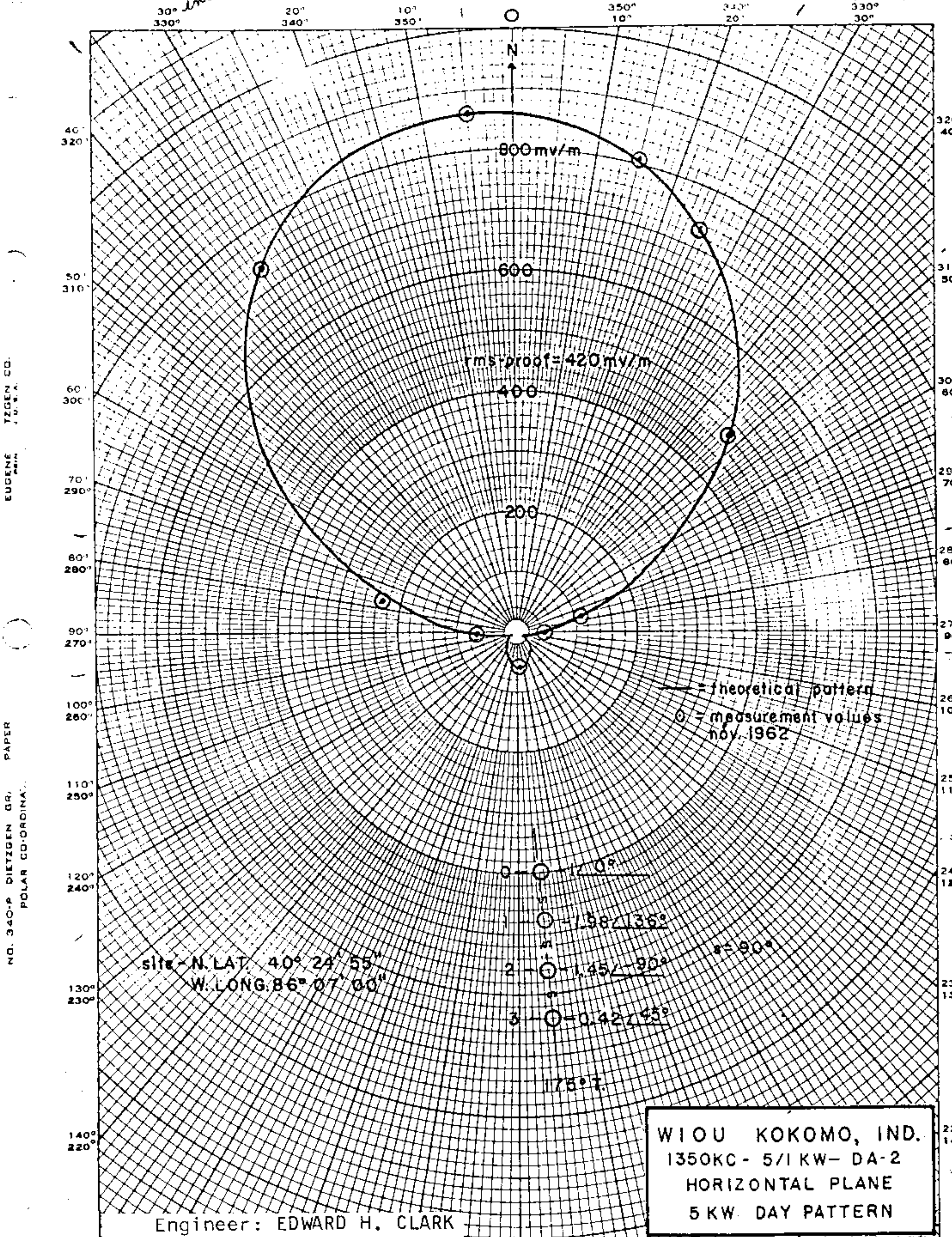
WIOU

5-15-6 granted li for change in day DA and increase in day powe

Measured Day (4-30-63ct)

Station WIOU
Kokomo, Indiana

1kw,5kw-LS,DA-2,U
1350 kc



FCC File No.BL-9904
Accepted 4-12-63

Station WIOU
Kokomo, Indiana

1350 kc

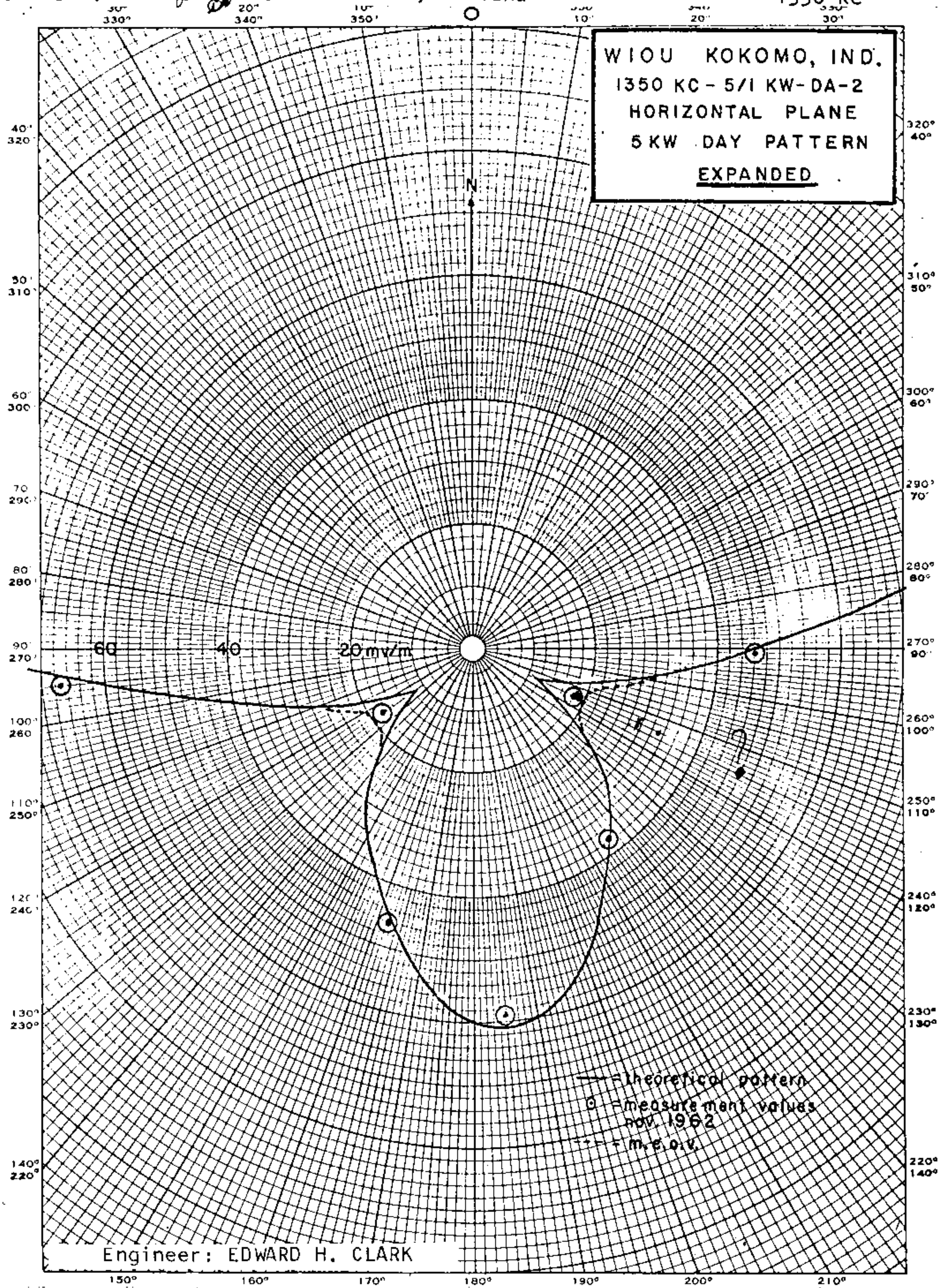
WIOU

5-15- greater coverage increase in day power and day DA changes in

Measured Day Nulls
(4-30-63ct)

Station WIOU
Kokomo, Indiana

1kw,5kw-LS,DA-2,U
1350 kc



FCC File No.BL-9904
Accepted 4-12-63

Station WIOU
Kokomo, Indiana

1350 kc

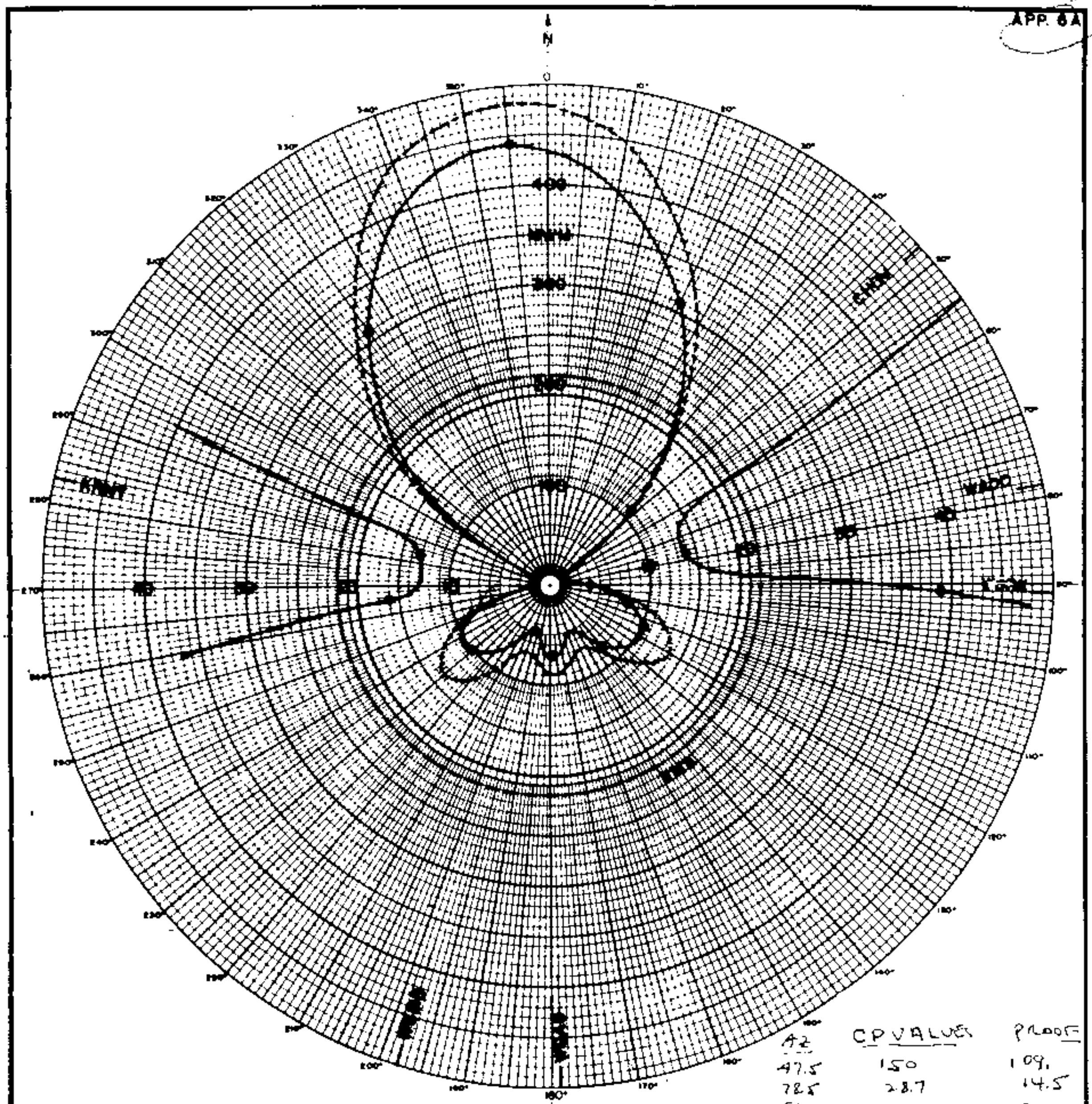
WIOU
1350
MEASURED
NIGHT

JUL 16 [illegible] G

7-11-48-L

granted CP to increase day power to 5 kw 7-18-61

APP. 6A



AZ	CP VALUES	PROOF
47.5	150	109.
78.5	28.7	14.5
91	60	39.
179	115	70.
198	94	48.
283	40	12.8

● RADIAL VALUES
—— MEASURED
------ THEORETICAL

ANTENNA PARAMETERS

18.7

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
0	110	-	-	0	196	1.00	0	
1	110	0	90	+178	196	1.90	10	
2	110	0	180	-29	196	1.00	20	
3	110	0	270	+136.8	196	.96	30	
4							40	
5							50	
6							60	
7							70	
8							80	
9							90	

Glenn D. Gillett And Associates
Consulting Radio Engineers
National Press Building
Washington, D.C.

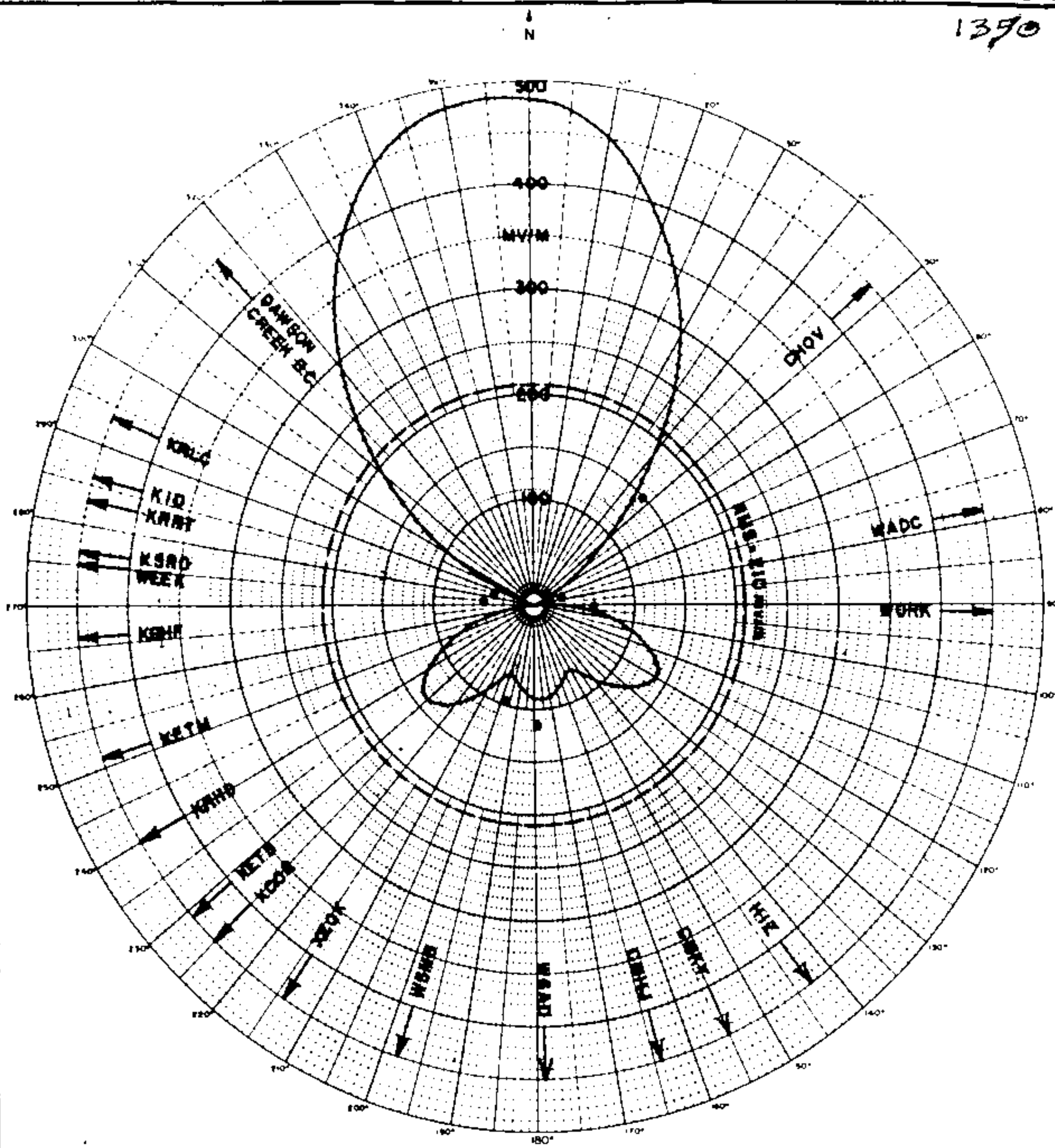
WIOU
KOKOMO, INDIANA

1 KW. DA - 2 1350 KC.

MEASURED
NIGHT TIME HORIZONTAL
RADIATION PATTERN

Latitude
Longitude

WIOU ..
KOKOMO
1350



● MAXIMUM EXPECTED VALUE

TOWER PLACEMENT SKETCH	PATTERN SHAPE PARAMETERS	PATTERN VOLUME	GLENN D. GILLETT AND ASSOCIATES CONSULTING RADIO ENGINEERS NATIONAL PRESS BUILDING WASHINGTON, D. C.

ANT.	ELECT. HEIGHT	HORIZ. FIELD	TOWER ORIEN.	SPACING	PHASE	FIELD RATIO	ELEV.	% HOR. RMS
#	G°	F MVM	OC°	S°	ψ°	r	θ	
0	110	196	–	–	0	1.00	0	1.00
1	110	196	0	90	+175.0	1.90	10	.92
2	110	196	0	180	−28.0	1.69	20	.78
3	110	196	0	270	+136.5	.65	30	.59
4							40	.37
5							50	.26
6							60	.15
7							70	.067
8							80	.032
9							% REF. ANT. 110°	
10							1.185	

NORTH CENTRAL INDIANA
BROADCASTING COMPANY
KOKOMO, INDIANA

1 KW DA - 2 1350 KC

NIGHT TIME HORIZONTAL
RADIATION PATTERN

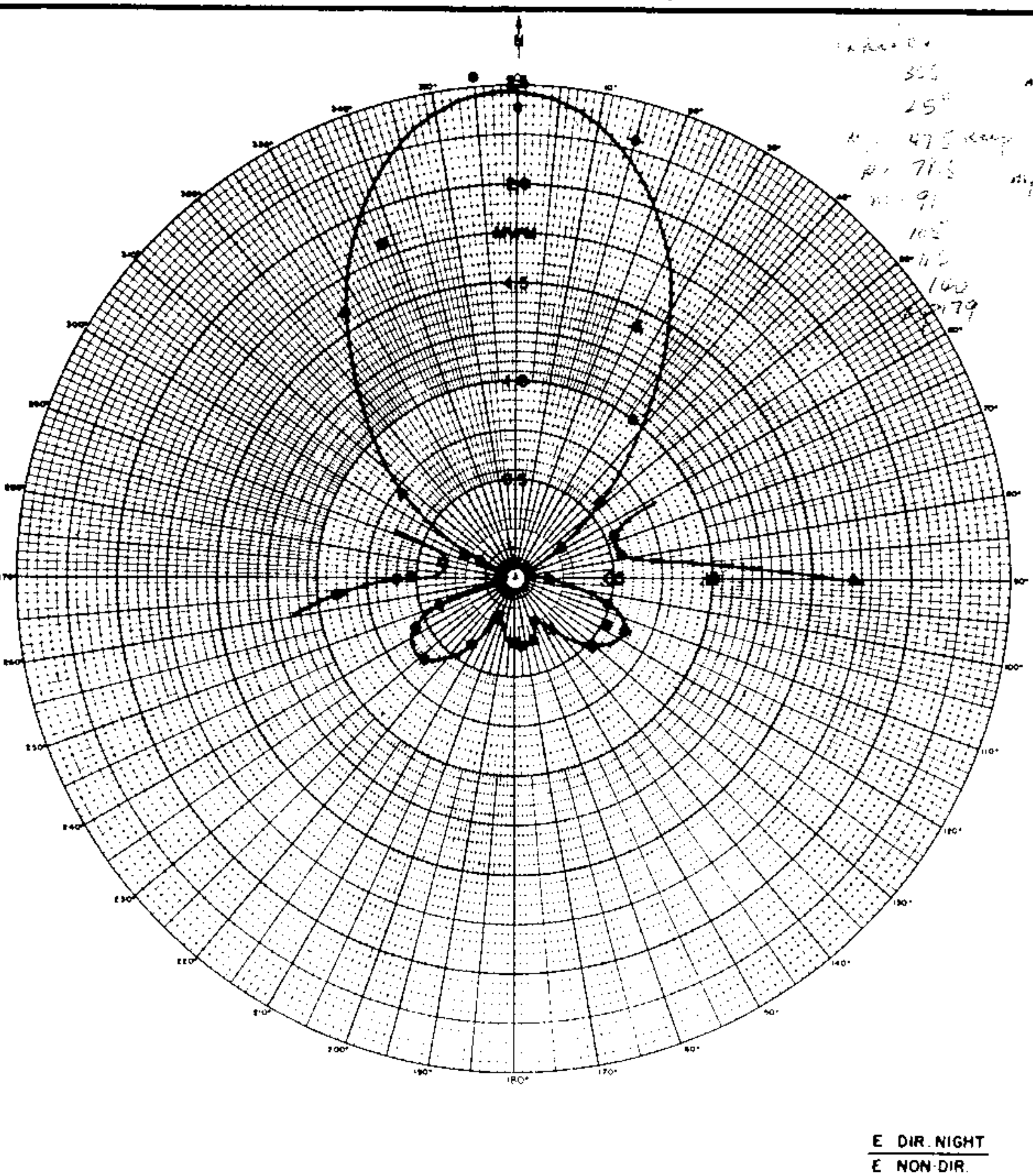
LAT 40° 25' 40"
LONG. 86° 7' 30"

PATT. NO. 470812
SUPER.
APP. NO. 3A

WIOU
1350
NIGHT/N.D

JUL 16 1948 G

7-11-48-L



25°
47.5
71.5
91
105
100
179

178
230
265
283

E DIR. NIGHT
E NON-DIR.

NIGHT TIME
HORIZONTAL RATIO PATTERN

WIOU
KOKOMO, INDIANA
1 KW. DA-2 1350 KC.

ANT	α DEG	S DEG	σ DEG	FIELD K	F GND	H DEG

GLENN D. GILLETT AND ASSOCIATES
CONSULTING RADIO ENGINEERS
NATIONAL PRESS BUILDING
WASHINGTON 4, D.C.

480714

PATTERN NO
SUPERSEDES
APP 6 B

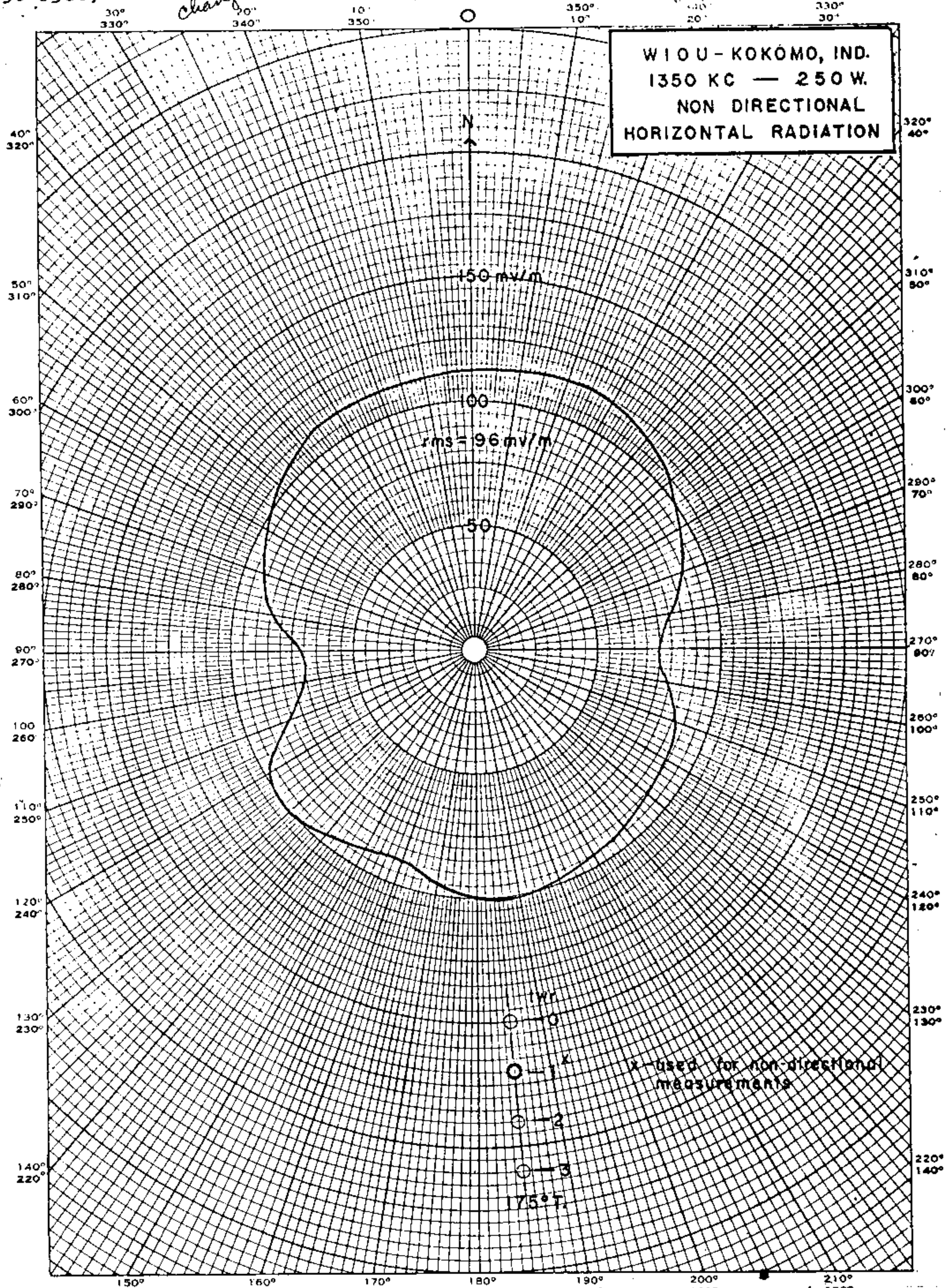
5-15-63 granted lic covering increase in day power and changes in day DA

WIOU

Measured Non-DA (4-30-63ct)

Station WIOU
Kokomo, Indiana

1kw,5kw-LS,DA-2,U
1350 kc

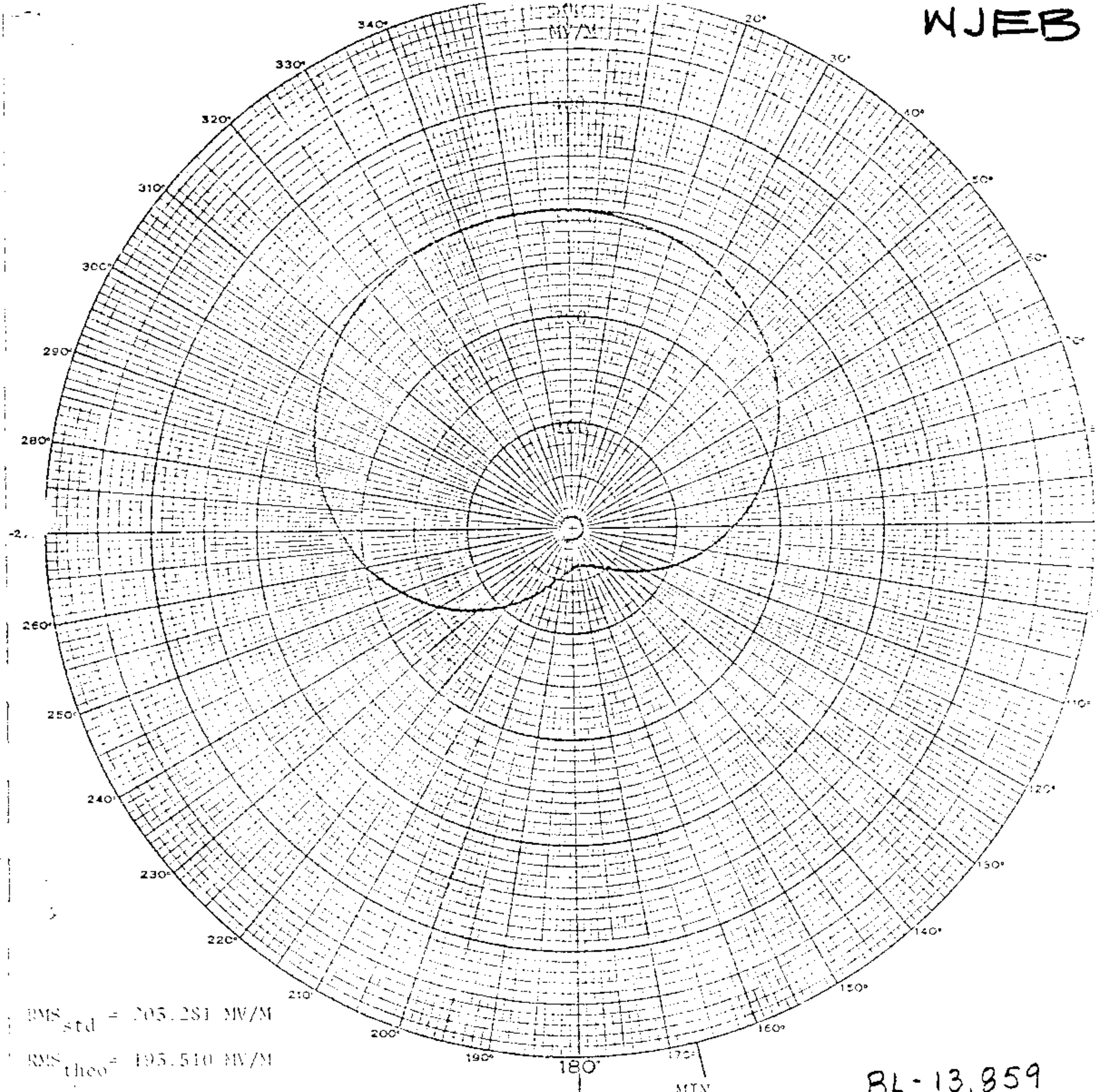


FCC File No.BL-9904
Accepted 4-12-63

Station WIOU
Kokomo, Indiana

1350 kc

WJEB



RMS_{std} = 203.281 MV/M

RMS_{theo} = 195.510 MV/M

RSS_{theo} = [illegible] MV/M

BL-13,859

TOWER PLACEMENT SKETCH	PATTERN PARAMETERS					FIGURE 4	STATION DATA
G's = 90°	TOWER NO.	ELECTRICAL HEIGHT G°	SPACING S°	PHASING ψ°	FIELD RATIO F	PROPOSED STANDARD DIRECTIONAL PATTERN *DAYTIME*	CALL WJEB
#1 1.0/0°	1						FREQ [illegible]
65°	2						POWER [illegible]
#2 0.82/109°	3						TYPE [illegible]
167° T.	4					GLADWIN, MICHIGAN	TIME [illegible]
	5						LAT. [illegible]
	6					θ° = 0°	LONG. [illegible]
							E.H.MUNN, JR. RADIO ENGINEER COLDWATER, MICH.

GLADWIN, MICHIGAN
WJEB

DIRECTIONAL ANTENNA DESCRIPTION SHEET

Station: (New)

Main Studio: Gladwin, Michigan

Frequency: 1350 kHz

Power: 1 kW

Notification List No. 1580

Date: May 15, 1974

Class: III

GEOGRAPHICAL LOCATION OF THE CENTER OF THE ANTENNA SYSTEM:

North Latitude: 43° 57' 03"
West Longitude: 84° 30' 34"

ANTENNA CHARACTERISTICS

Authorized for Daytime operation. (DA-D)
Number of elements: 2
Type of elements: Series-excited, uniform cross-section, guyed, vertical steel towers.

TOWER:	NW(#1)	SE(#2)	
HEIGHT ABOVE INSULATORS:	182'	182'	(90°)
PHASING:	0°	+109°	
FIELD RATIO:	1.0	0.82	

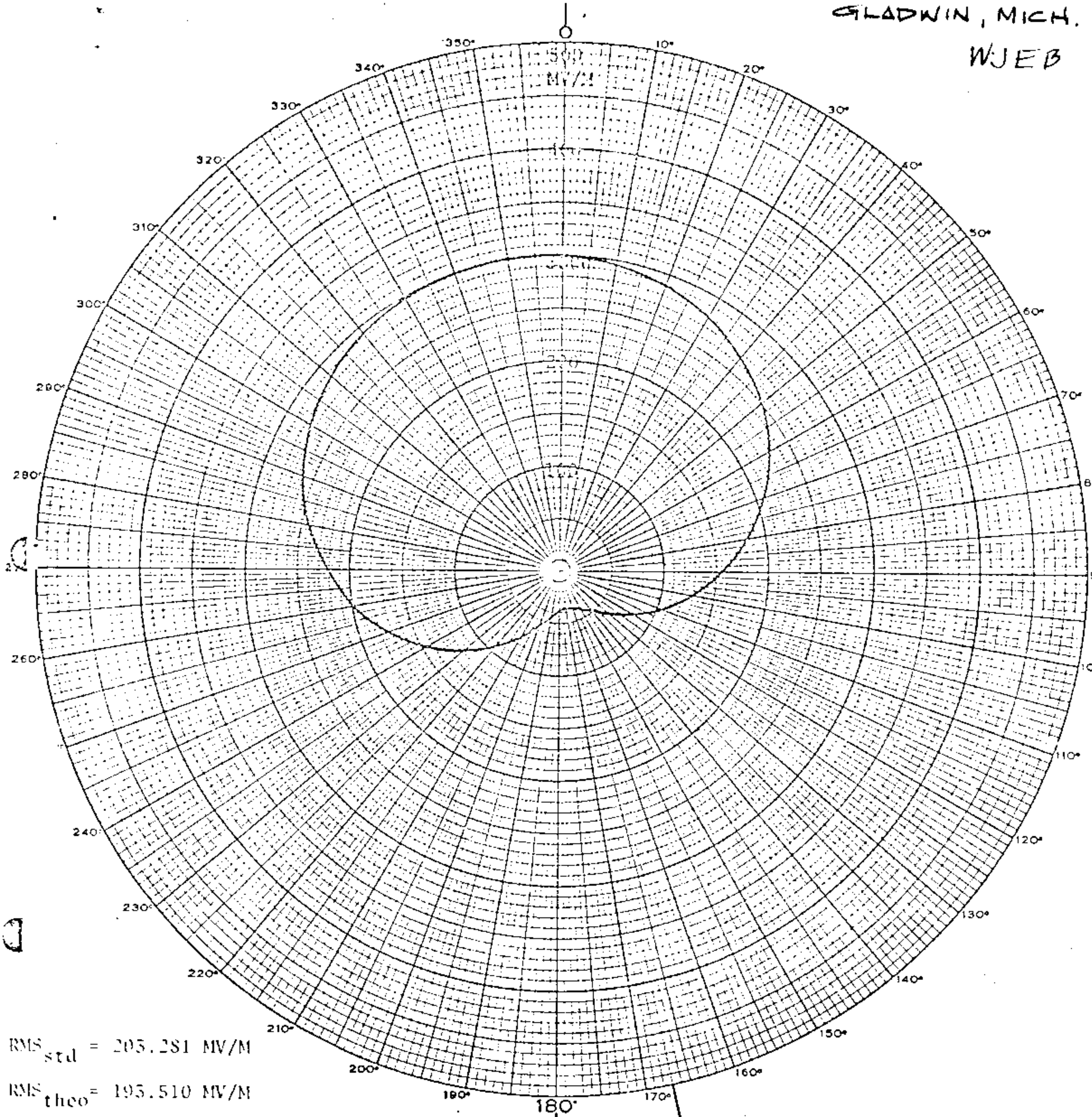
SPACING AND ORIENTATION: Elements are spaced 131.6' (65°) on a line bearing 167° true.

GROUND SYSTEM: 120-182' equally spaced copper radials about each tower. Radials are shortened and bonded to a transverse strap along intersections between towers.

PREDICTED EFFECTIVE FIELDS AT RATED POWER:

THEORETICAL RMS	RSS	STANDARD RMS
193.510 mv/m	219.743 mv/m	203.281 mv/m

GLADWIN, MICH.
WJEB



RMS_{std} = 203.281 MV/M

RMS_{theo} = 193.510 MV/M

RSS_{theo} = 219.743 MV/M

TOWER PLACEMENT SKETCH	PATTERN PARAMETERS	FIGURE 4	STATION DATA
G's = 90° #1 1.0/0° 65° #2 0.82/109° 167° T.	(see table below)	PROPOSED STANDARD DIRECTIONAL PATTERN *DAYTIME* GLADWIN, MICHIGAN θ° = 0°	CALL NEW FREQ 1350 KHz POWER 1.0 Kw TYPE DA-D TIME Daytime LAT. N 43-57-03 LONG. W 84-30-34 E.H.MUNN, JR. RADIO ENGINEER COLDWATER, MICH.

TOWER No	ELECTRICAL HEIGHT G°	SPACING S°	PHASING Ψ°	FIELD RATIO F
1				
2				
3				
4				
5				
6				

DAYTIME OPERATION ☒ NIGHTTIME OPERATION ☐

WNIS
1350 kHz

DIRECTIONAL ANTENNA DESCRIPTION SHEET

Station: W N I S — Main Studio: Portsmouth, Virginia

Frequency: 1350 kHz — Power: 5 kW Night 5 kW Day

Notification List No. 1784 — Date: November 9, 1979 Class: III

GEOGRAPHICAL LOCATION OF THE CENTER OF THE ANTENNA SYSTEM: North Latitude: 36° 53' 00"
West Longitude: 76° 22' 22"

ANTENNA CHARACTERISTICS

Authorized for Daytime and Nighttime operation. (DA-2)
Number of elements 3
Type of elements: Series excited, uniform cross-section, guyed, vertical steel towers.

TOWER:	NW (#1)	C (#2)	SE (#3)
HEIGHT ABOVE INSULATORS:	200'	200'	200' (99°)
NIGHT PHASING:	0°	-90.3°	172°
NIGHT FIELD RADIO:	1.0	1.855	1.0
DAY PHASING:	0°	-47°	150°
DAY FIELD RATIO:	1.0	0.684	0.400

SPACING AND ORIENTATION: Adjacent towers in a row are spaced 243' (120°) on a line bearing 305° true.

GROUND SYSTEM: 120-185' equally spaced copper radials plus a 24' square ground screen about each tower. Radials are shortened and bonded to a transverse strap along intersections between towers.

PREDICTED EFFECTIVE FIELDS AT RATED POWER:

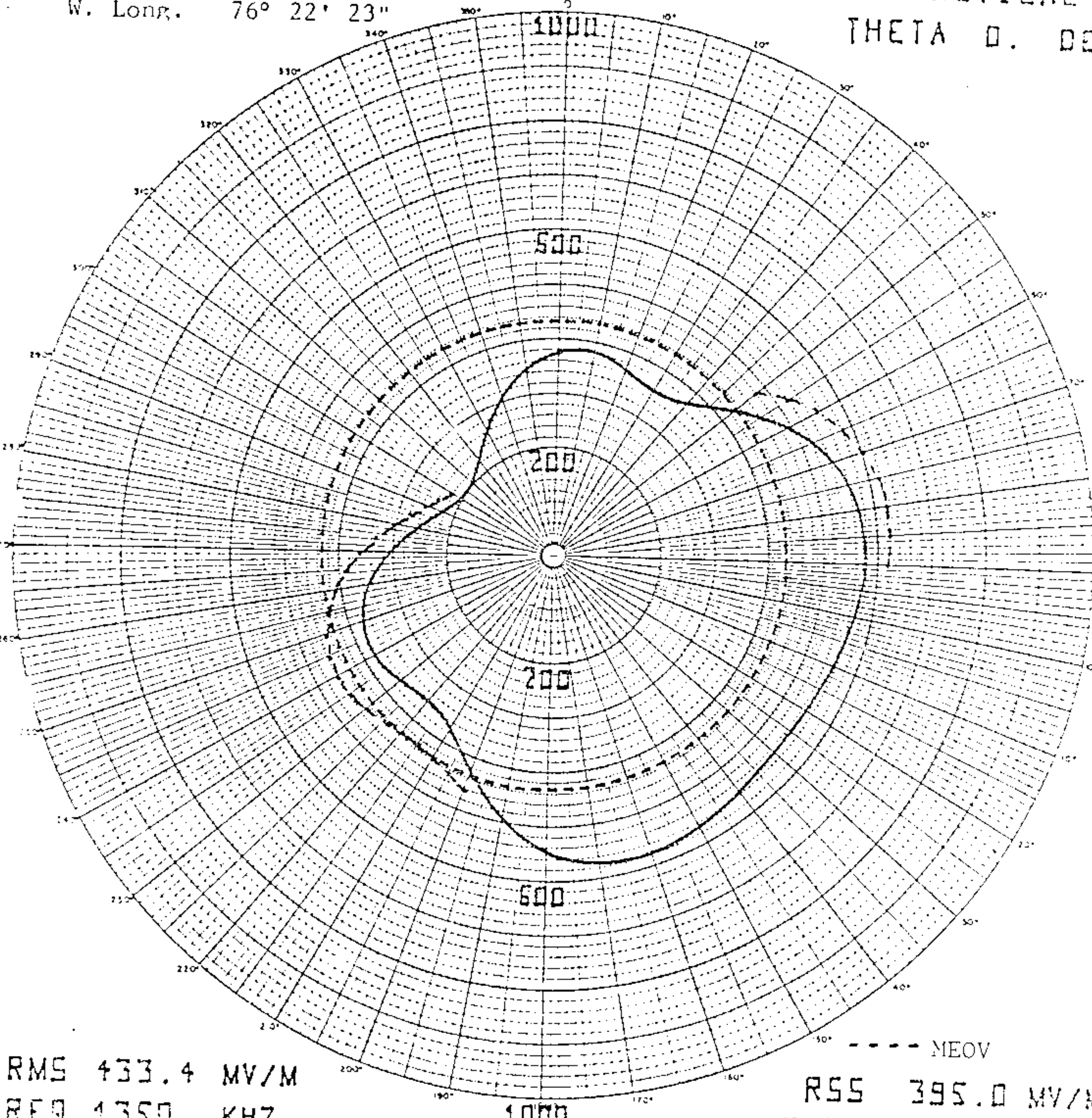
	THEORETICAL RMS	THEORETICAL RSS	STANDARD RMS
Day	433.4 m V/m	395.0 mV/m	455.07 mV/m
Night	440.5 mV/m	415.9 mV/m	462.53 mV/m

WNIS
1350KHz
DA-D

Location:

N. Lat. 36° 53' 00"
W. Long. 76° 22' 23"

THEORETICAL
THETA 0. DEG



RMS 433.4 MV/M
FREQ 1350 KHZ.

RSS 395.0 MV/M
POWER 5.00 KW

TOWER NUMBER	HEIGHT DEGREES	FIELD RATIO	SPACING DEGREES	ORIENTATION DEGREES	PHASING DEGREES
1	99.00	1.000	0.000	0.000	0.000
2	99.00	0.684	120.000	125.000	-47.000
3	99.00	0.400	240.000	125.000	150.000

JOHN H. MULLANEY
CONSULTING
RADIO ENGINEERS
POTOMAC, MARYLAND.

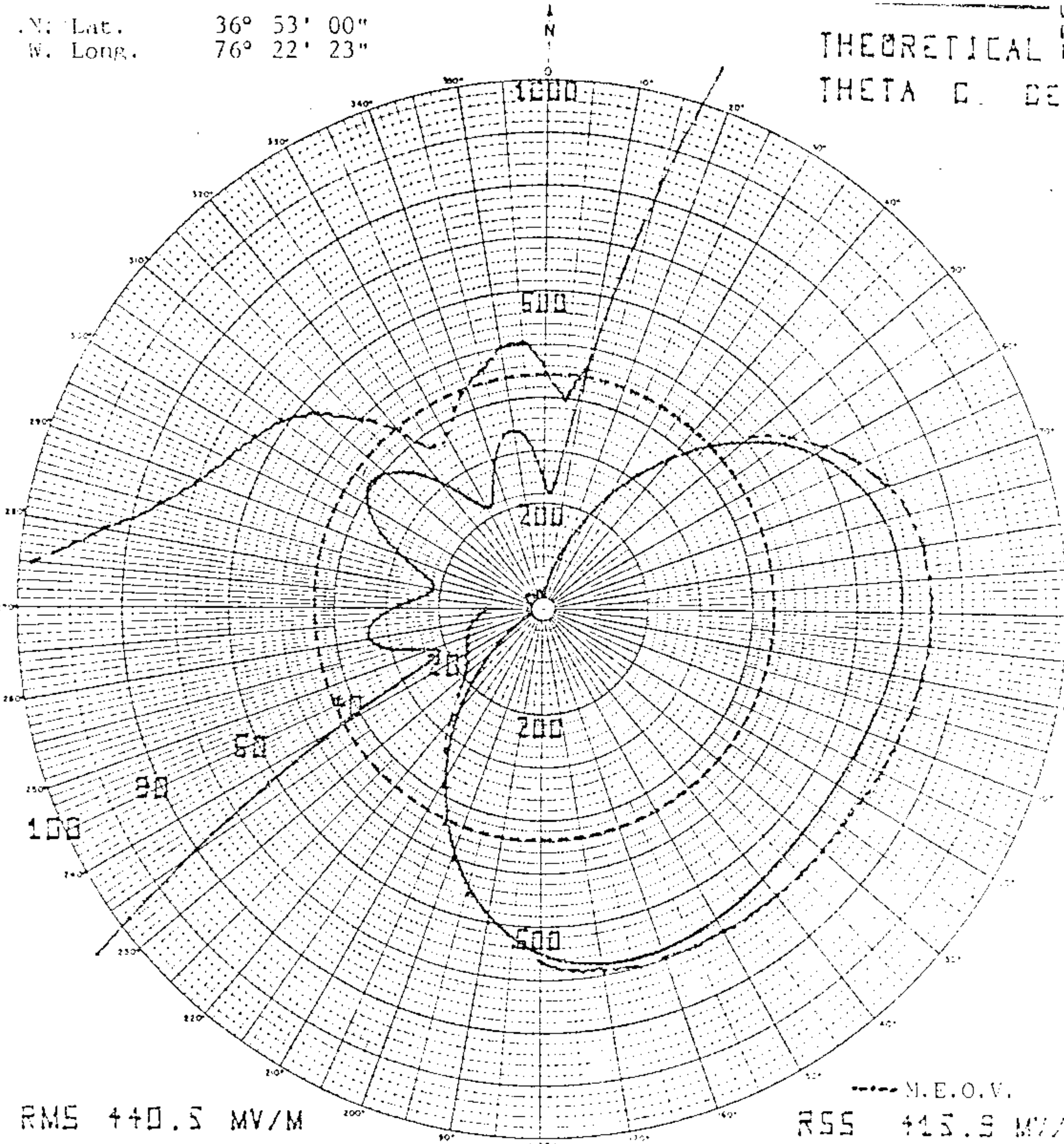
RADIO STATION WHNE
PORTSMOUTH, VA.
DAYTIME PATTERN

FIGURE 2

N. Lat. 36° 53' 00"
W. Long. 76° 22' 23"

WNIS
1350KHz
PA-N

THEORETICAL
THETA 0. DEG



RMS 440.5 MV/M
FREQ 1350 KHZ.

RSS 415.9 MV/M
POWER 5.00 KW.

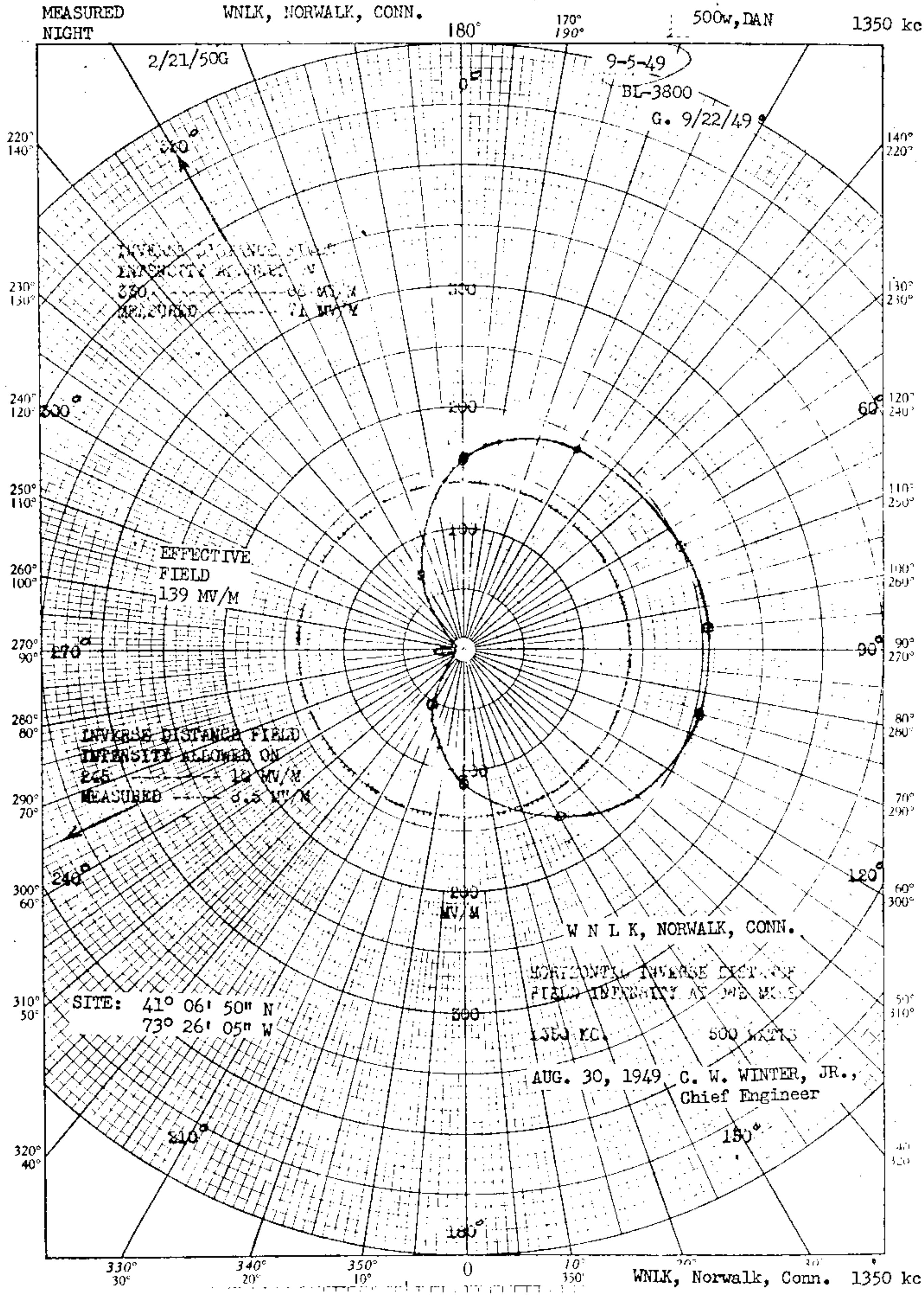
TOWER NUMBER	HEIGHT DEGREES	FIELD RATIO	SPACING DEGREES	ORIENTATION DEGREES	PHASING DEGREES
1	99.00	1.000	0.000	0.000	0.000
2	99.00	1.855	120.000	125.000	-90.300
3	99.00	1.000	240.000	125.000	172.000

JOHN H. MULLANEY
CONSULTING
RADIO ENGINEERS
POTOMAC, MARYLAND.

RADIO STATION WHNE
PORTSMOUTH, VA.,
NIGHTTIME PATTERN

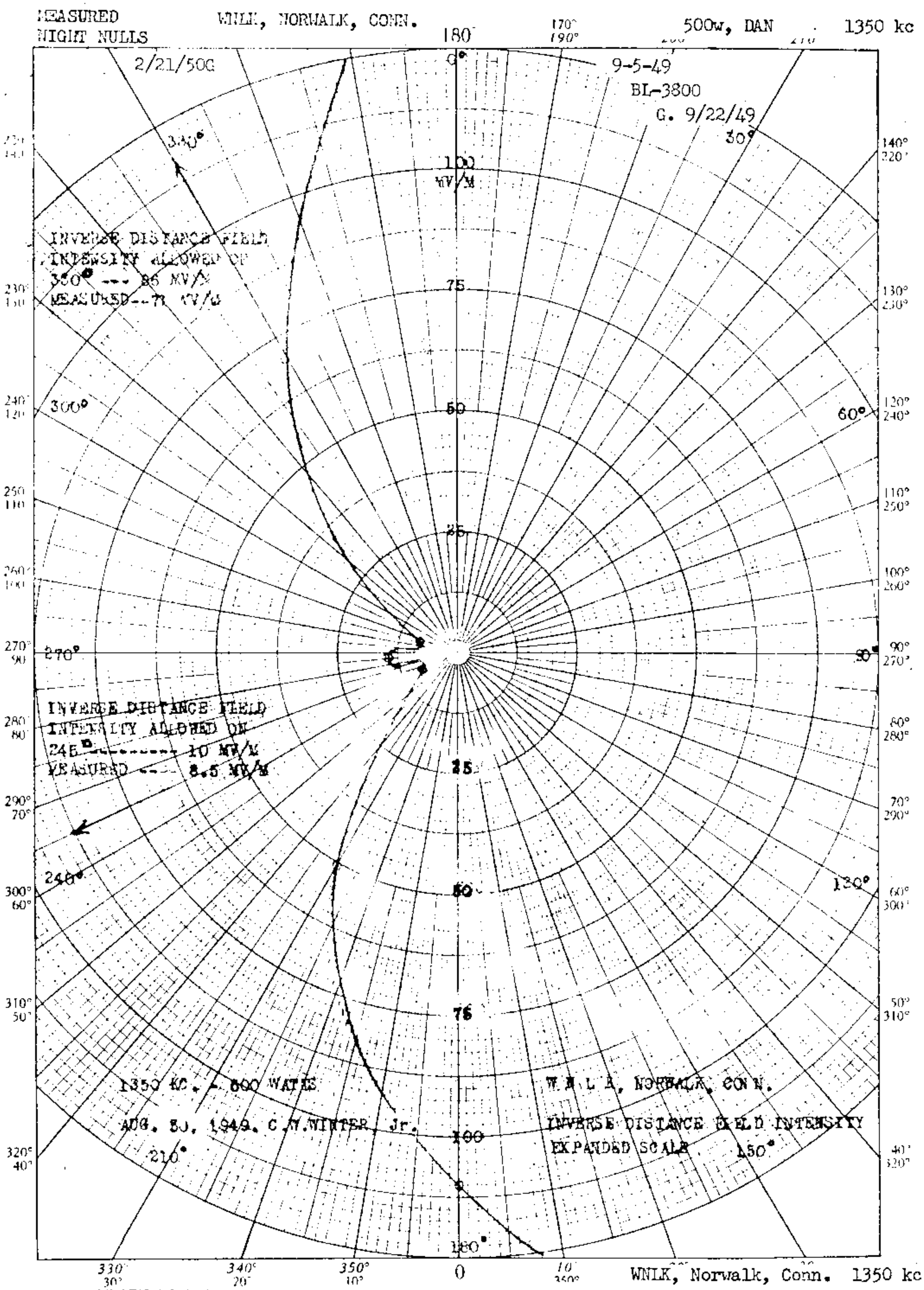
FIGURE 3

WNLK



DP 1344 application to increase daytime ND power to 1KW (10-14-59)
2-8-62 granted CP for increase in ND power.

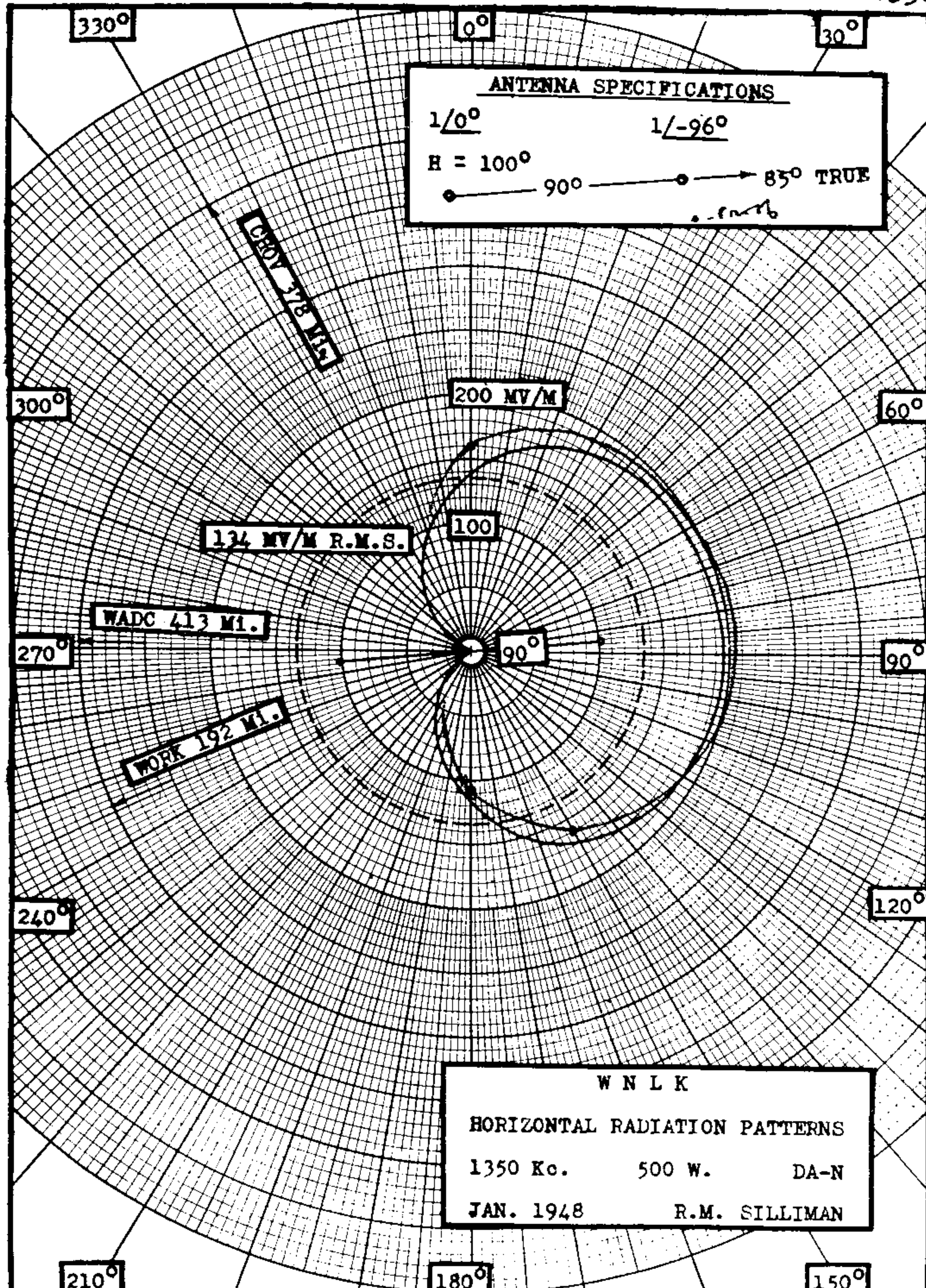
WNLK



BP 13444 application to increase daytime ND power to 1 KW - (10-14-59)

WNLK
1350

2-26-48



2-26-48

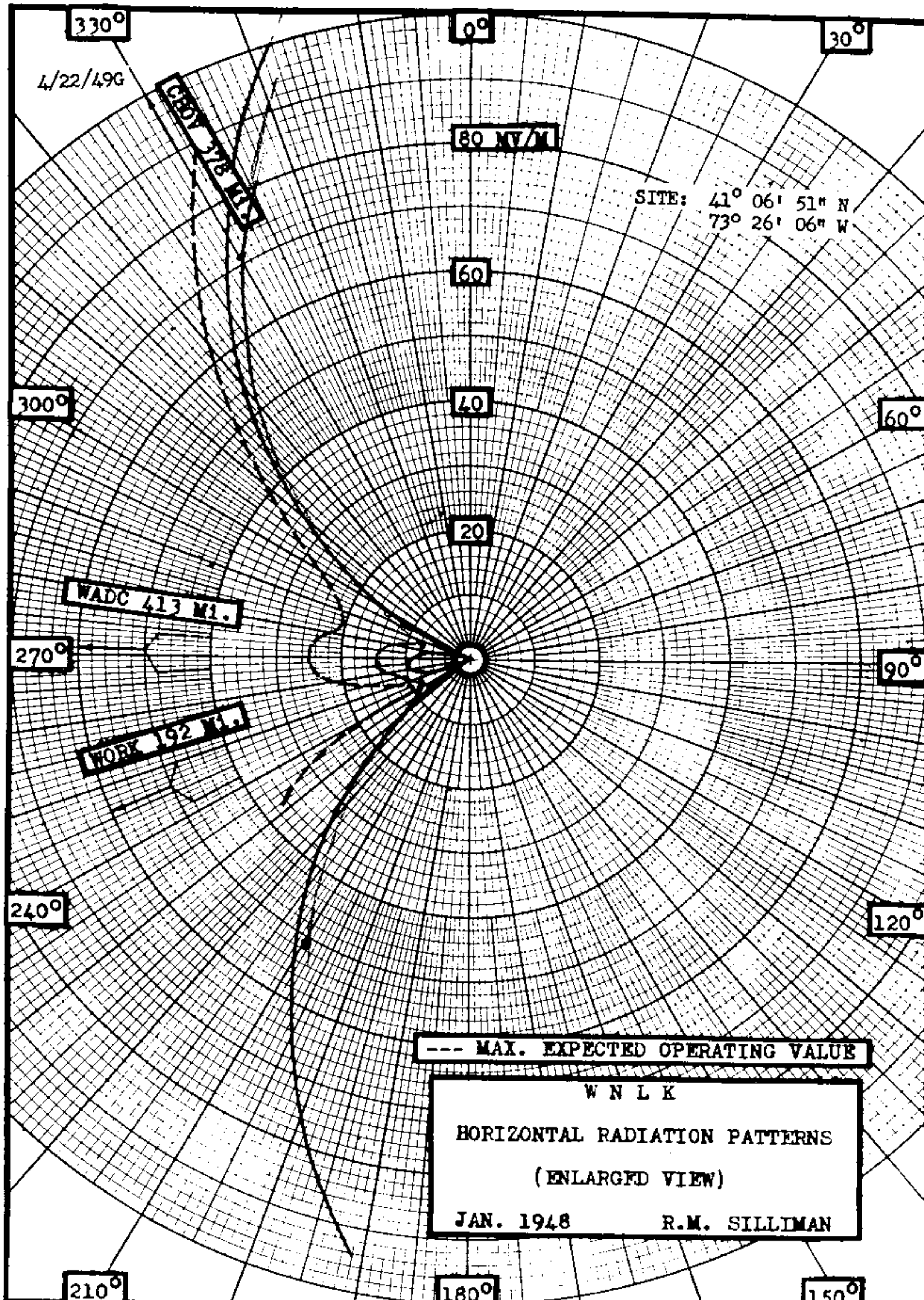
WNLK

PROPOSED
NIGHT
NULLS

WNLK, NORWALK, CONN.

2-26-48

500w, DAN 1350kc



WNLK

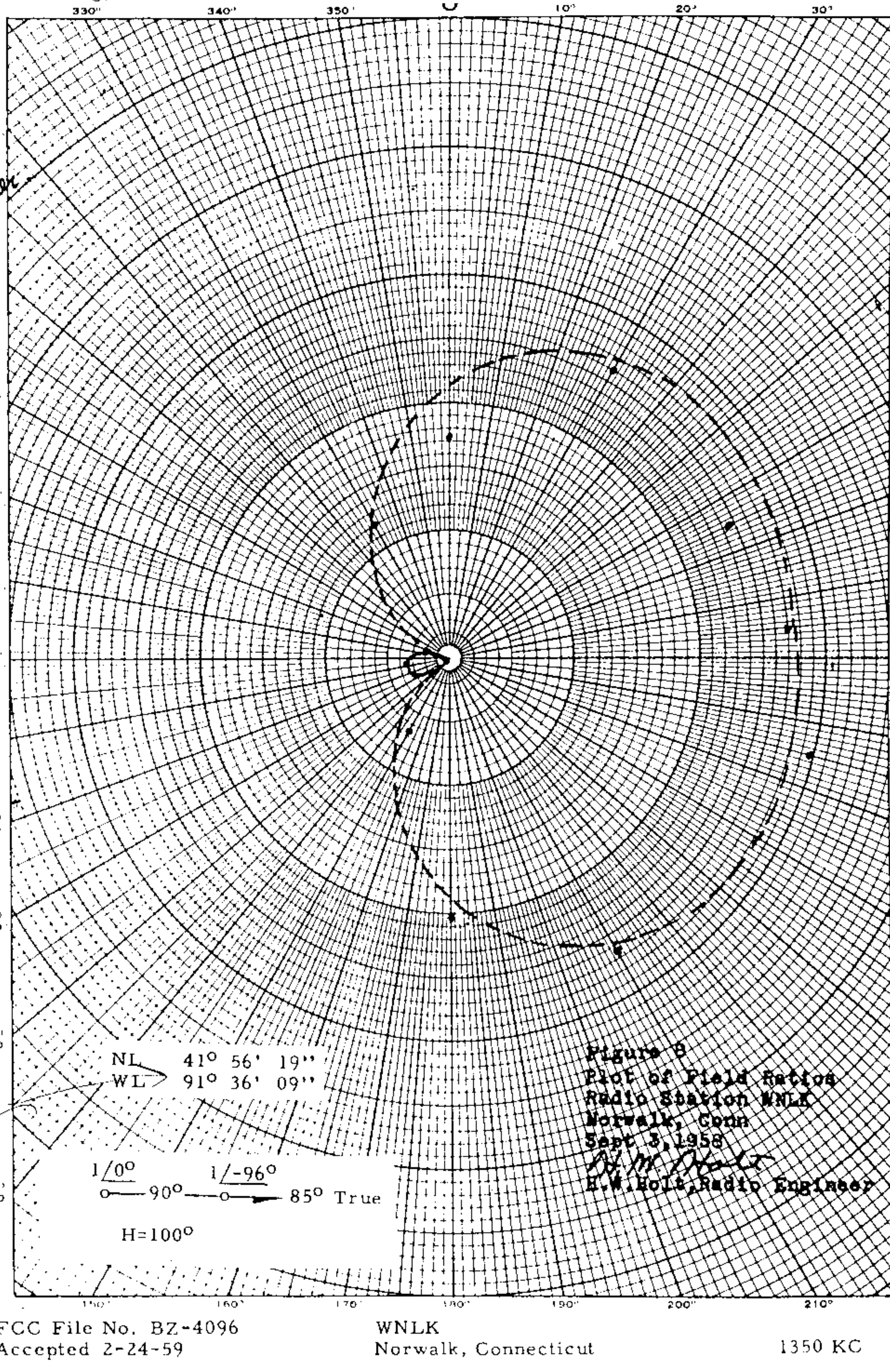
MEASURED NIGHT (3-23-59g)

Station WNLK
Norwalk, Connecticut

500w, DA-N,U
1350 KC

7-25-62
granted L
for increase
n ND day power

BP 13444 application to increase
daytime ND power to 1KW.



FCC File No. BZ-4096
Accepted 2-24-59

WNLK
Norwalk, Connecticut

1350 KC

WPDR

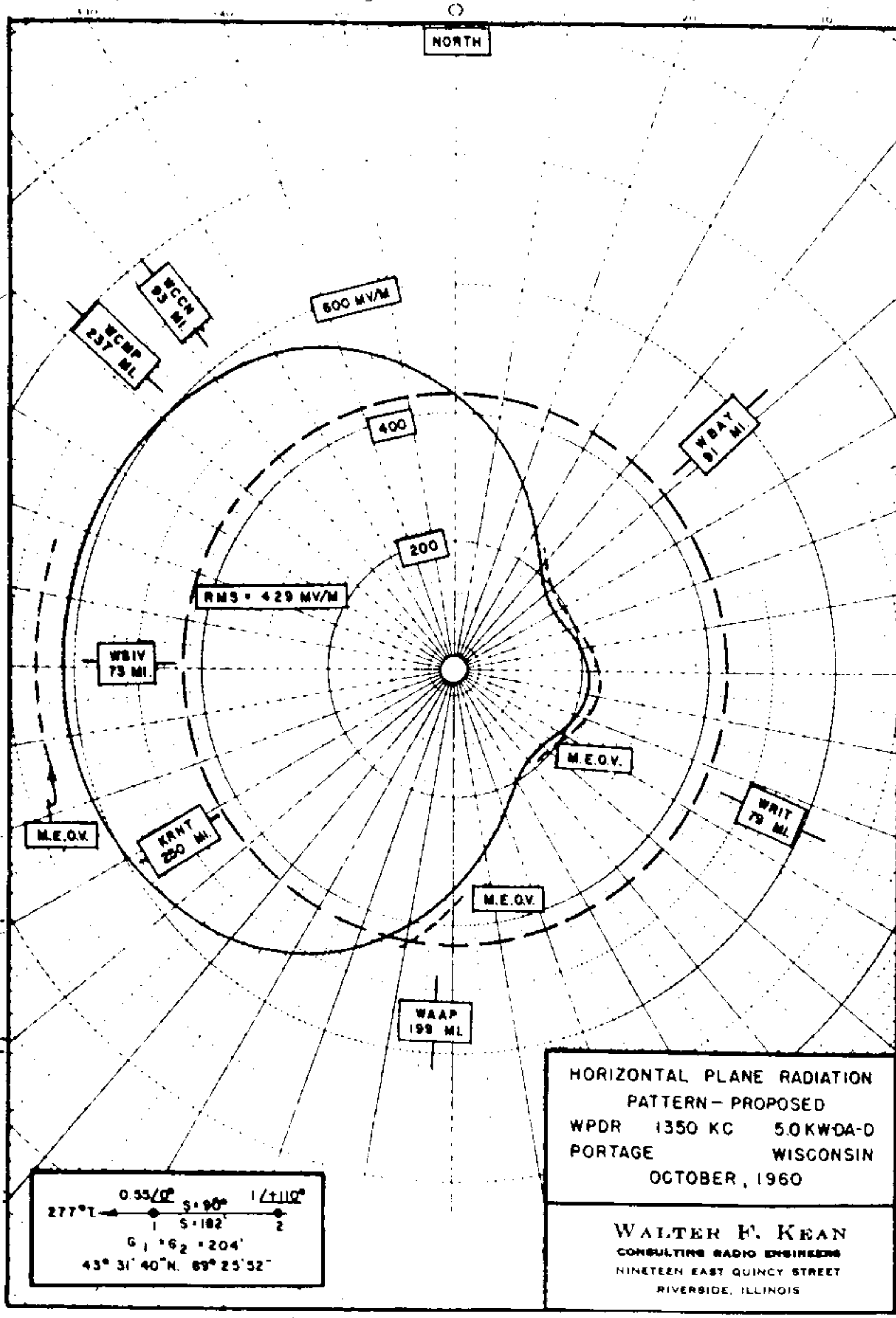
PROPOSED DAY
(5-8-61g)

Station WPDR
Portage, Wisconsin

5kw, DA-D,D
1350 KC

6-20-62 granted CP to increase power from 1 kw to 5kw and install DA-D.

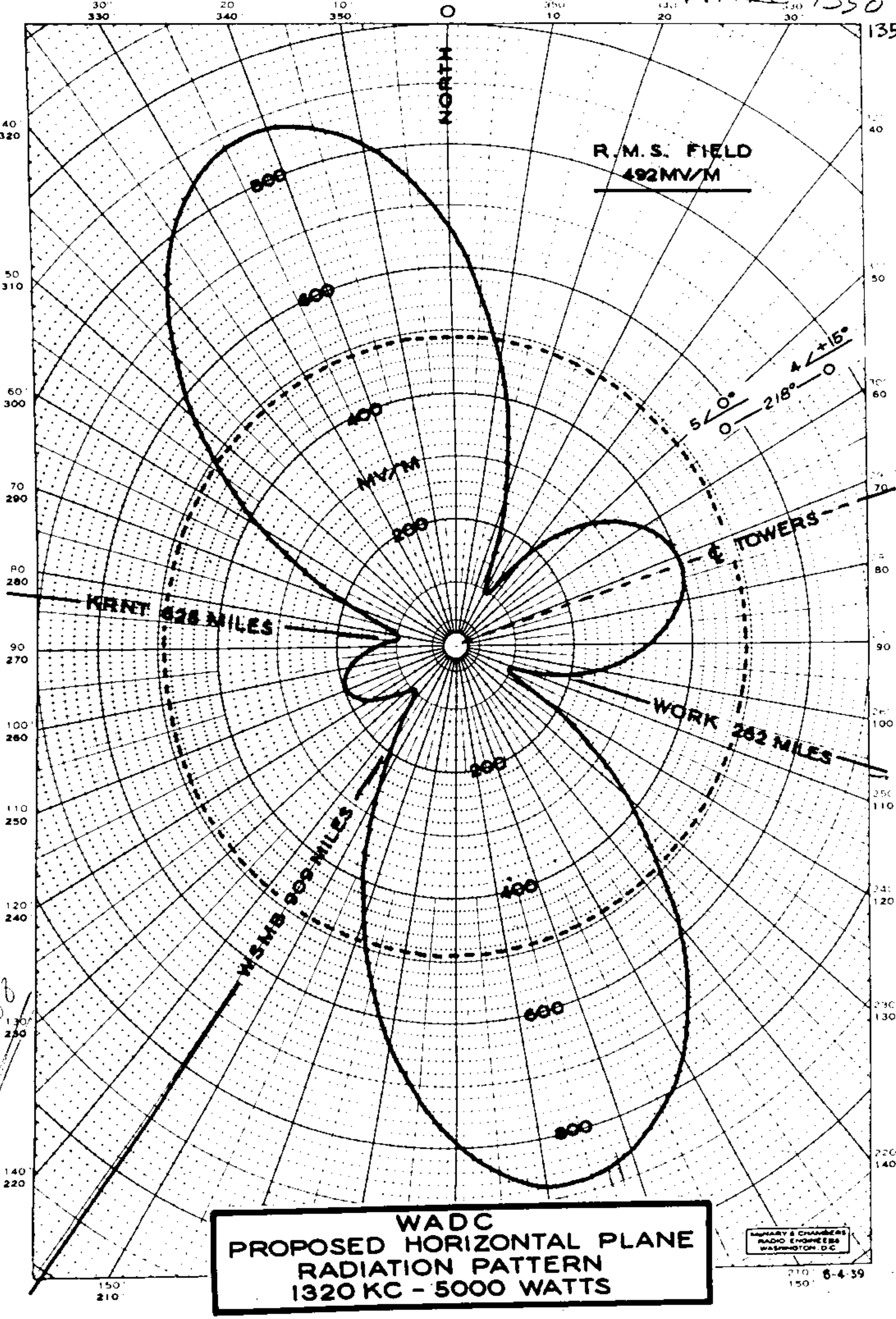
8-1-62 granted request to cancelled 1 and mod. of CP to increase power.



FCC File No. BP-14756
Accepted 5-1-61

WPDR
Portage, Wisconsin 1350 KC

WSLR WADC 1350



Proposed day and night

EUGENE DIETZGEN CO PRINTED IN U.S.A.

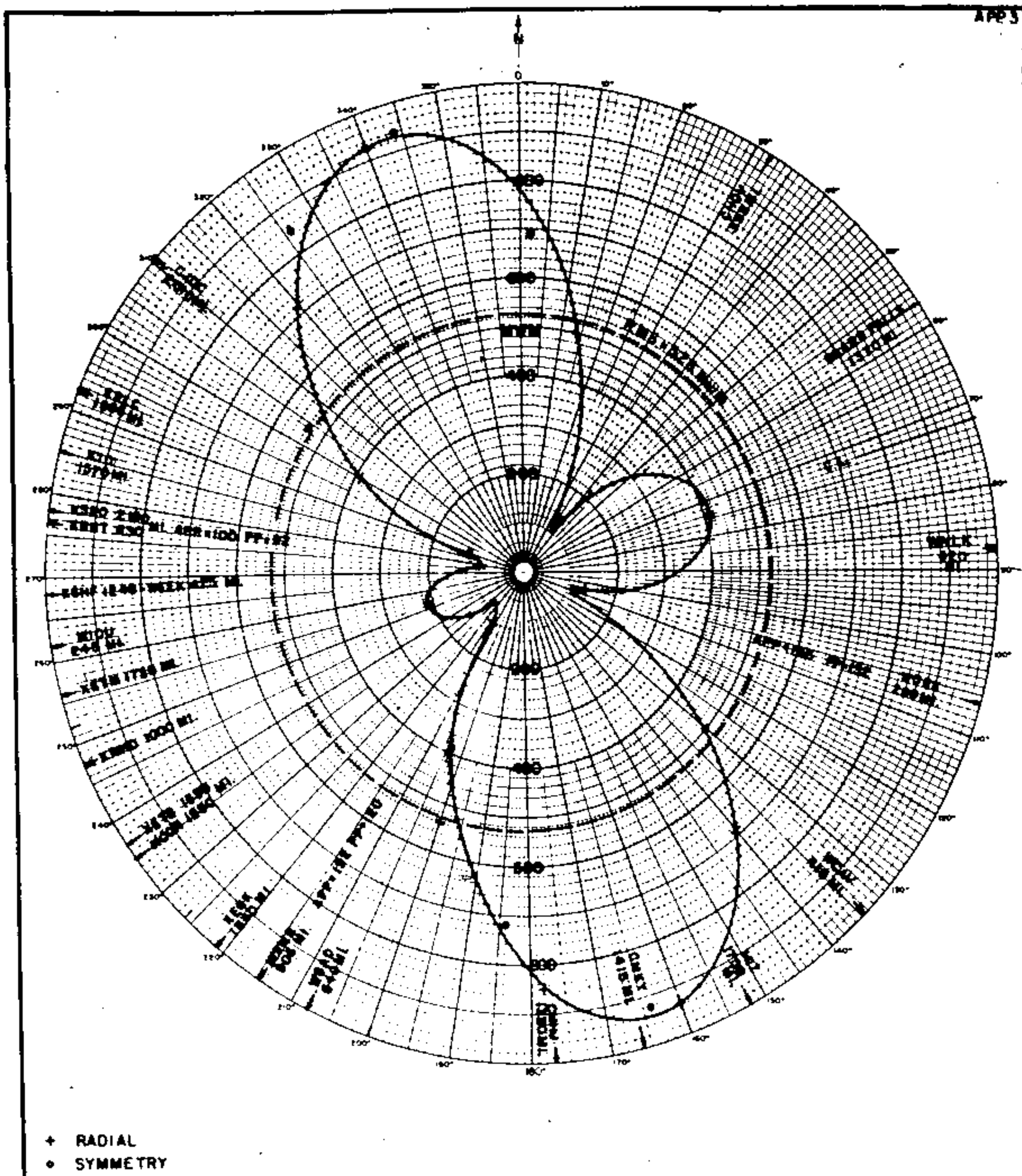
NO 340-P DIETZGEN GRAPH PAPER POLAR CO-ORDINATE

WSLR WADC

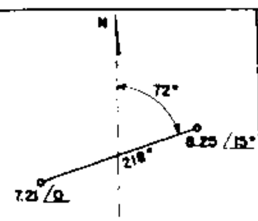
MEASURED DAY&NIGHT 12/3/48G

WADC, AKRON, O. 5kw,DA1 1350 kc

Z—302 on 11-29-48



ANTENNA PARAMETERS



No.	Electrical Height	[illegible]	Spacing	Phasing	Horizontal Field mv/m	Field Ratio	Elev. Angle	[illegible] mv/m
0							0	528
1	185	0					10	
2	185	72	218	15		1.25	20	
3							30	
4							40	
5							50	
6							60	
7							70	
8							80	
9								

Glenn D. Gillett And Associates
Consulting Radio Engineers
National Press Building
Washington, D.C.

RADIO STATION WADC
AKRON, OHIO

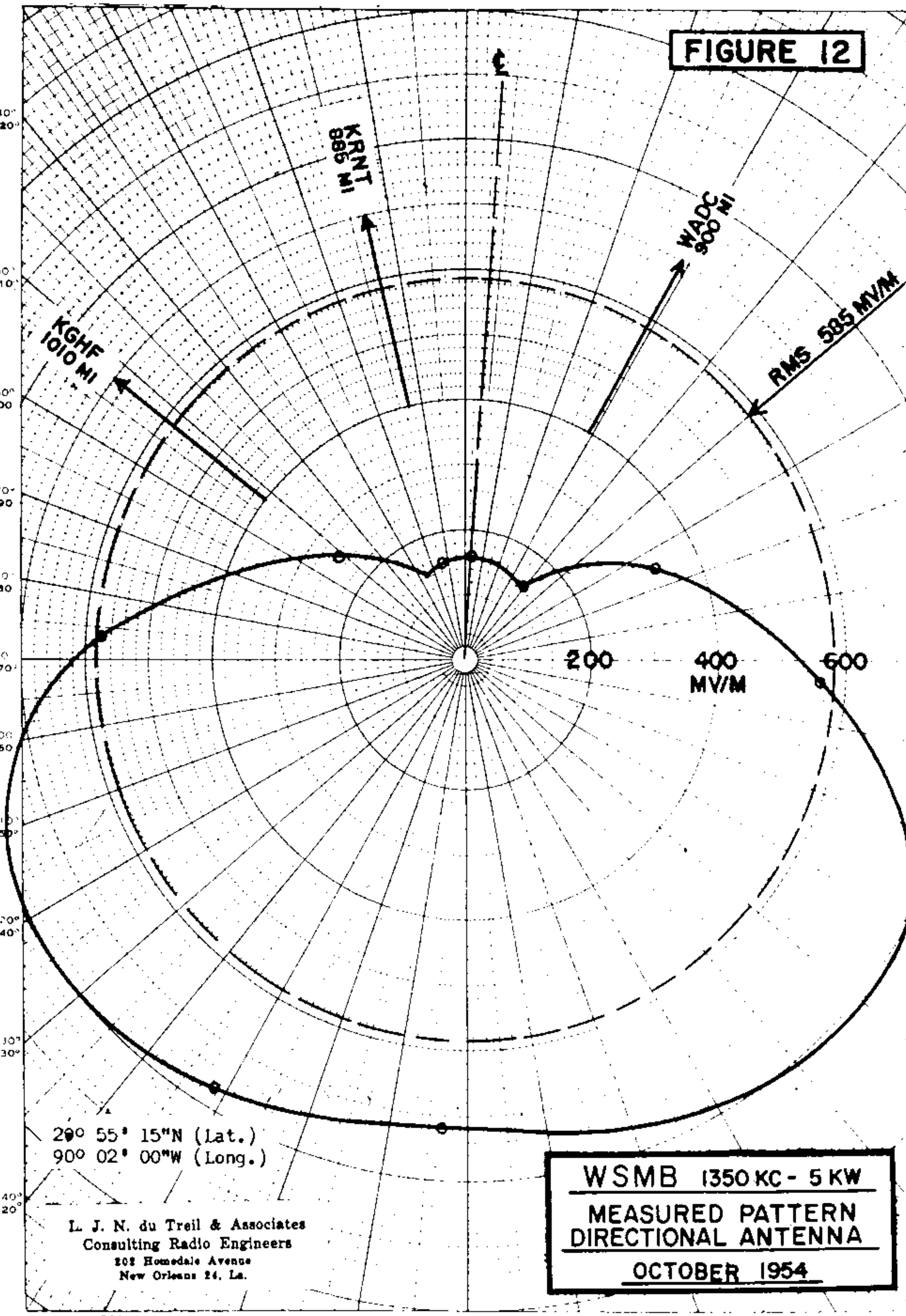
5 KW DA-1 1350 KC

PROOF OF PERFORMANCE
OCT.1948

Latitude 41° 10' 03" Approval 470502
Longitude 81° 30' 45" Pattern No. 481023

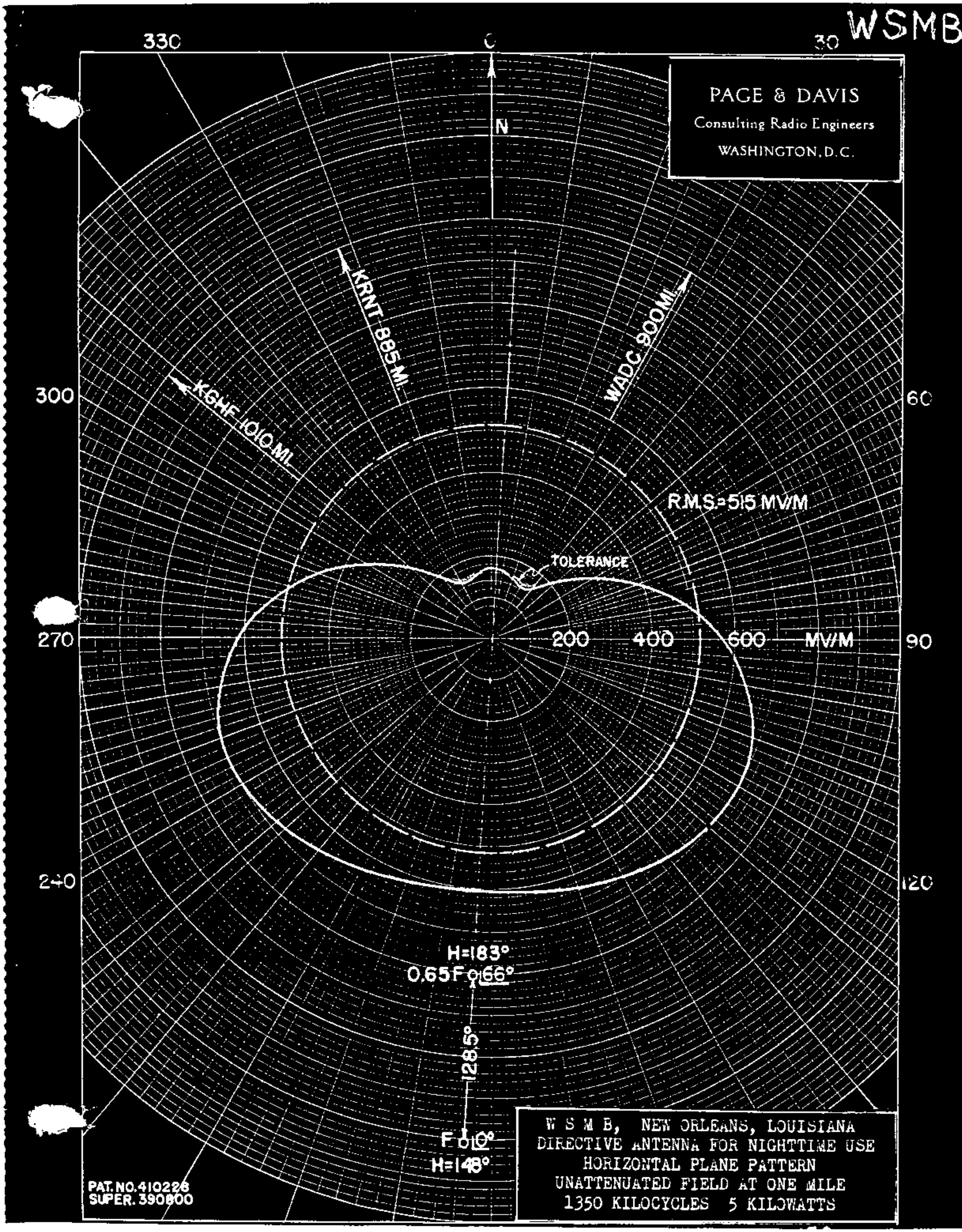
WSMB

MEASURED NIGHT ~~& DAY~~ STATION WSMB 5 KW 1350 KC
12/7/54G NEW ORLEANS, LOUISIANA DA-N, U



FILE NO. BL-5393 (Amended) ACCEPTED 11/9/54 WBS WSMF, NEW ORLEANS, LOUISIANA 1350 KC

WSMB


330
0
30
N
PAGE & DAVIS
Consulting Radio Engineers
WASHINGTON, D.C.
KRNT 885 MI.
WADC 900 MI.
300
KGHF 1010 MI.
60
R.M.S.=515 MV/M
TOLERANCE
270
200
400
600
MV/M
90
240
120
H=183°
0.65F o 66°
128.5°
F o 0°
H=148°
PAT. NO. 410226
SUPER. 390800
W S M B, NEW ORLEANS, LOUISIANA
DIRECTIVE ANTENNA FOR NIGHTTIME USE
HORIZONTAL PLANE PATTERN
UNATTENUATED FIELD AT ONE MILE
1350 KILOCYCLES 5 KILOWATTS

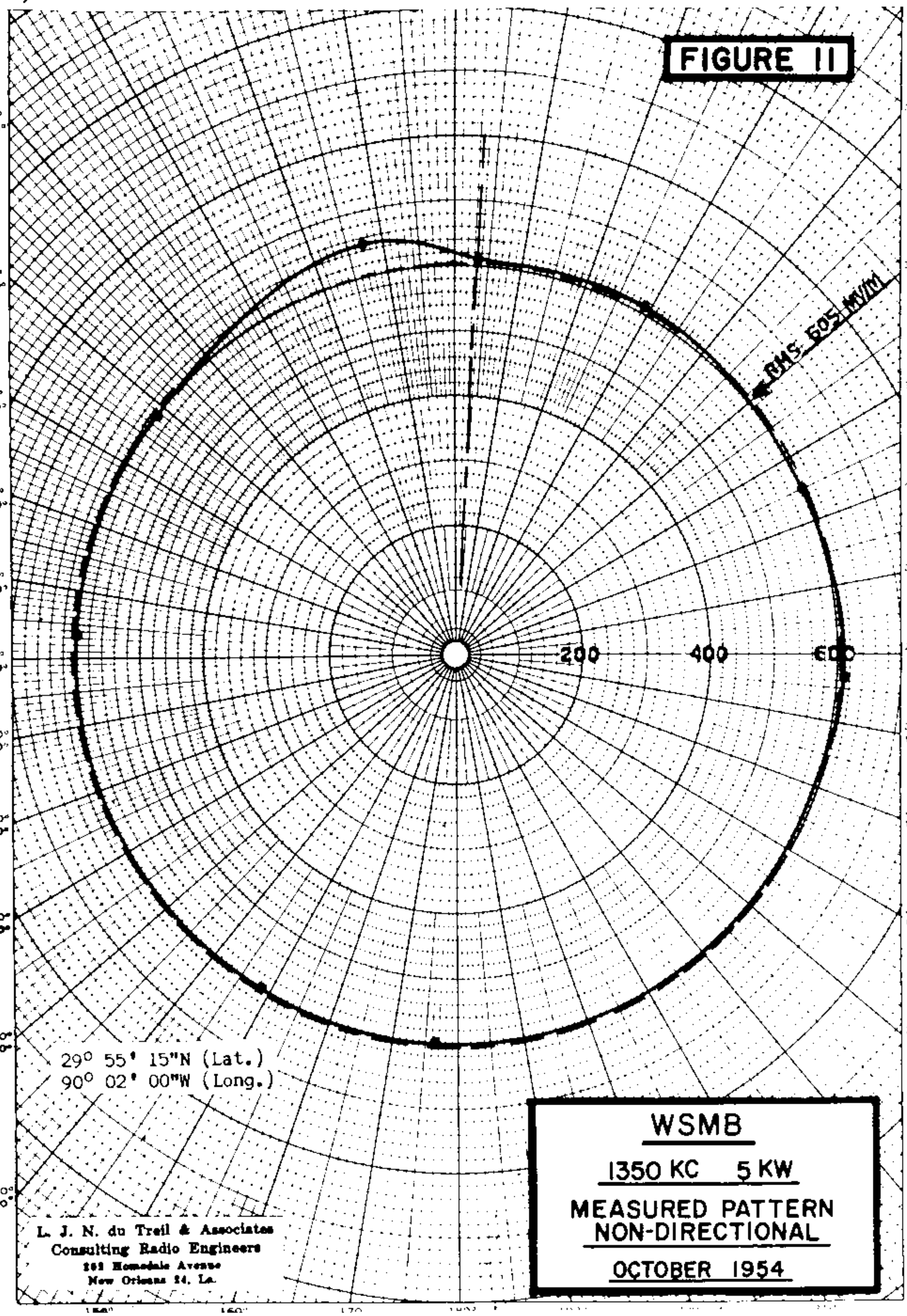
WSMB

MEASURED ~~NIGHTS~~ DAY
NON DIRECTION PATTERN
(12/7/54G)

STATION WSMB
NEW ORLEANS, LOUISIANA

5KW
DA-N, U

1350 KC

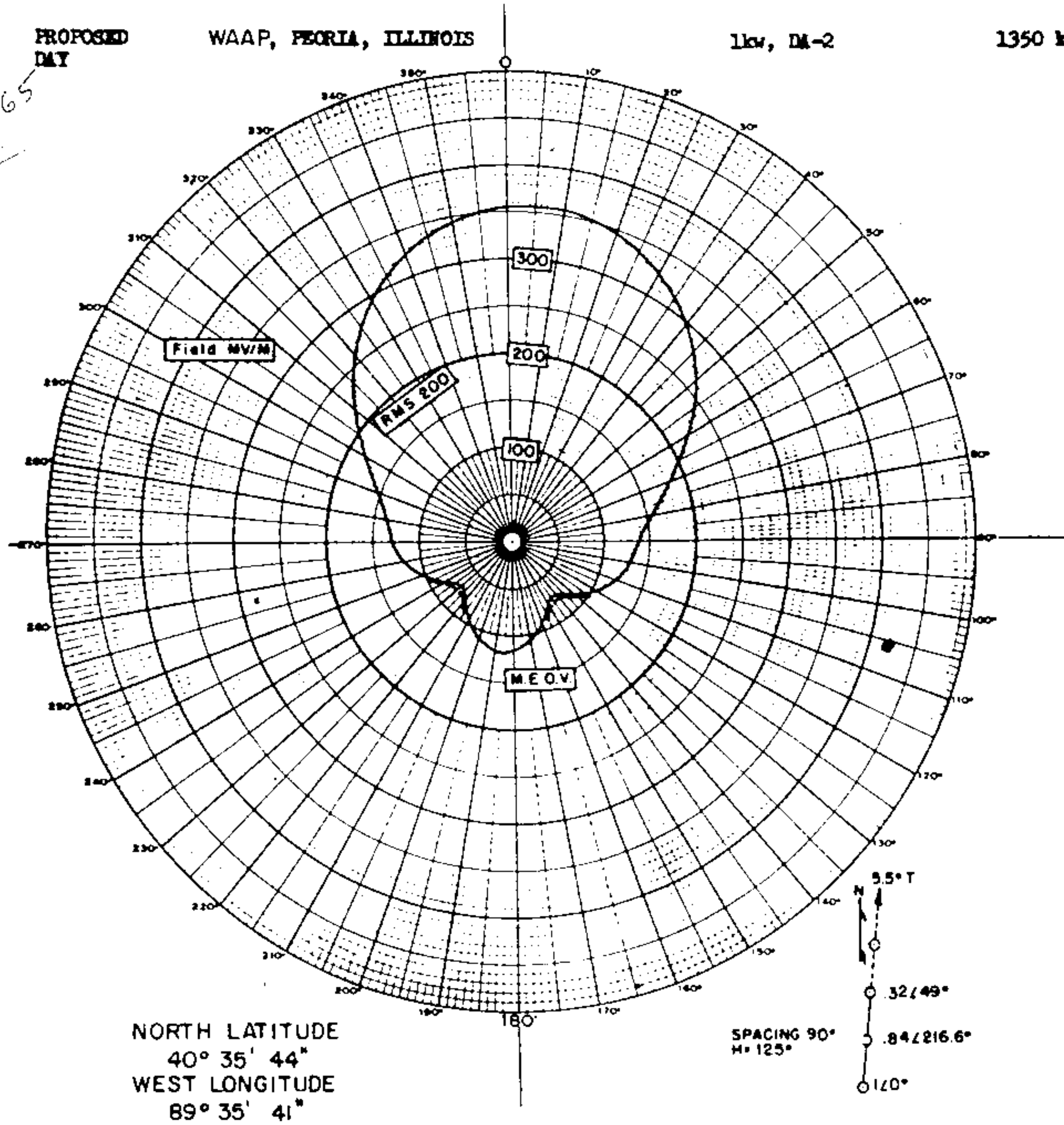


FILE NO. BL-5393 (Amended) ACCEPTED 11/9/54 WSMB, NEW ORLEANS, LOUISIANA 1350 KC wxch ~~WAAP~~

Proposed Day (10-30-63ct) | Station WAAP Peoria, Illinois | 1kw,DA-2,U 1350 kc

PROPOSED DAY | WAAP, PEORIA, ILLINOIS | 1kw, DA-2 | 1350 kc

P 6-29-65 ORIG. LOC.



NORTH LATITUDE
40° 35' 44"
WEST LONGITUDE
89° 35' 41"

STATION WAAP PEORIA, ILLINOIS ON
1350 KCS 1KW, DA-2
THEORETICAL DAYTIME PATTERN
RALPH J. BITZER, CONSULTING RADIO ENGINEER, ST. LOUIS, MO.

1350 kc

FCC File No.BP-15985
Accepted 10-14-63 Amended

Station WAAP
Peoria, Illinois

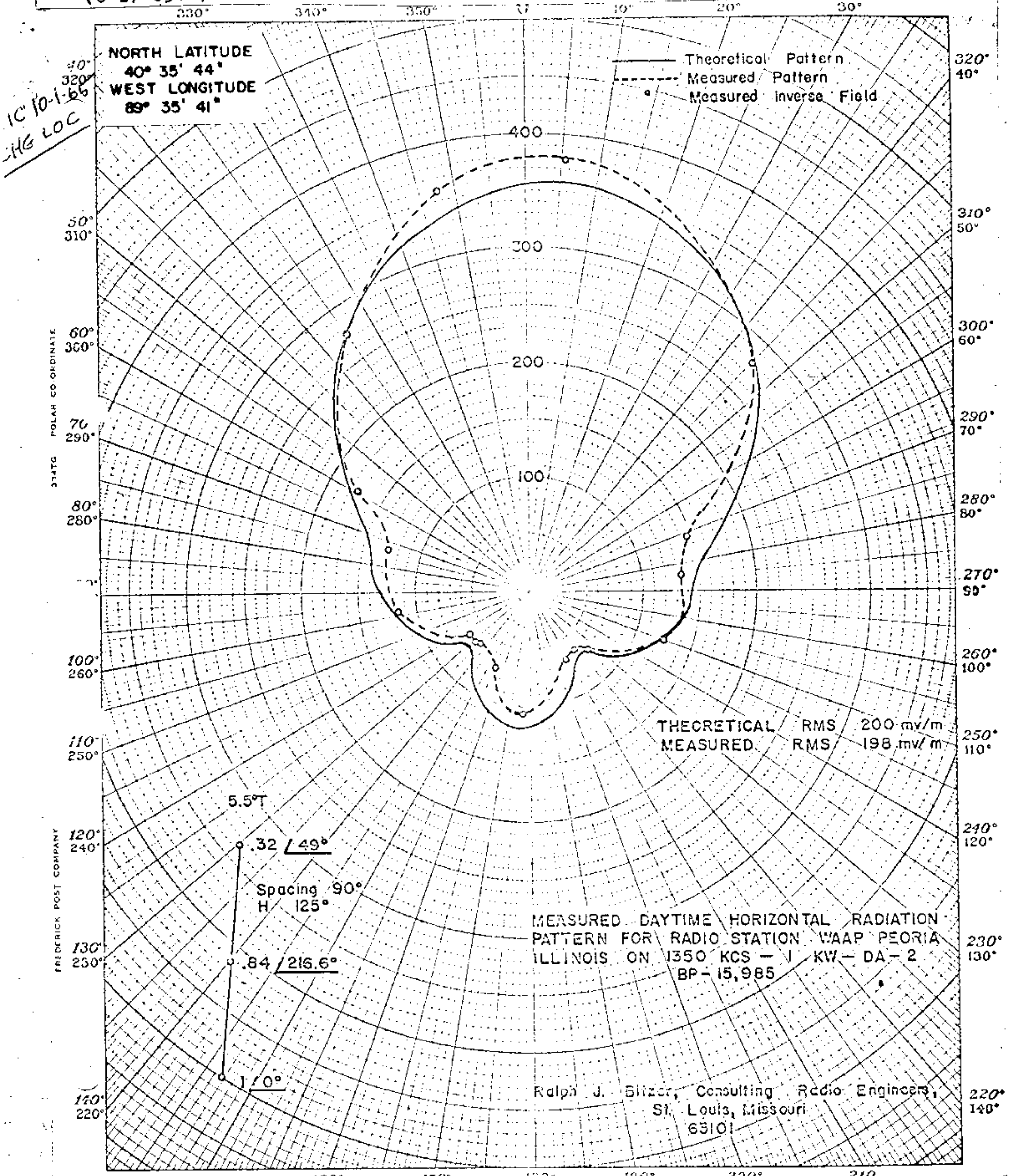
1350 kc

WXCL [redacted]

Measured Day
(8-27-65ct)

Station WAAP
Peoria, Illinois

1kw, DA-2, U
1350 kc



FCC File No. BL-10973
Accepted 8-16-65

Station WAAP
Peoria, Illinois

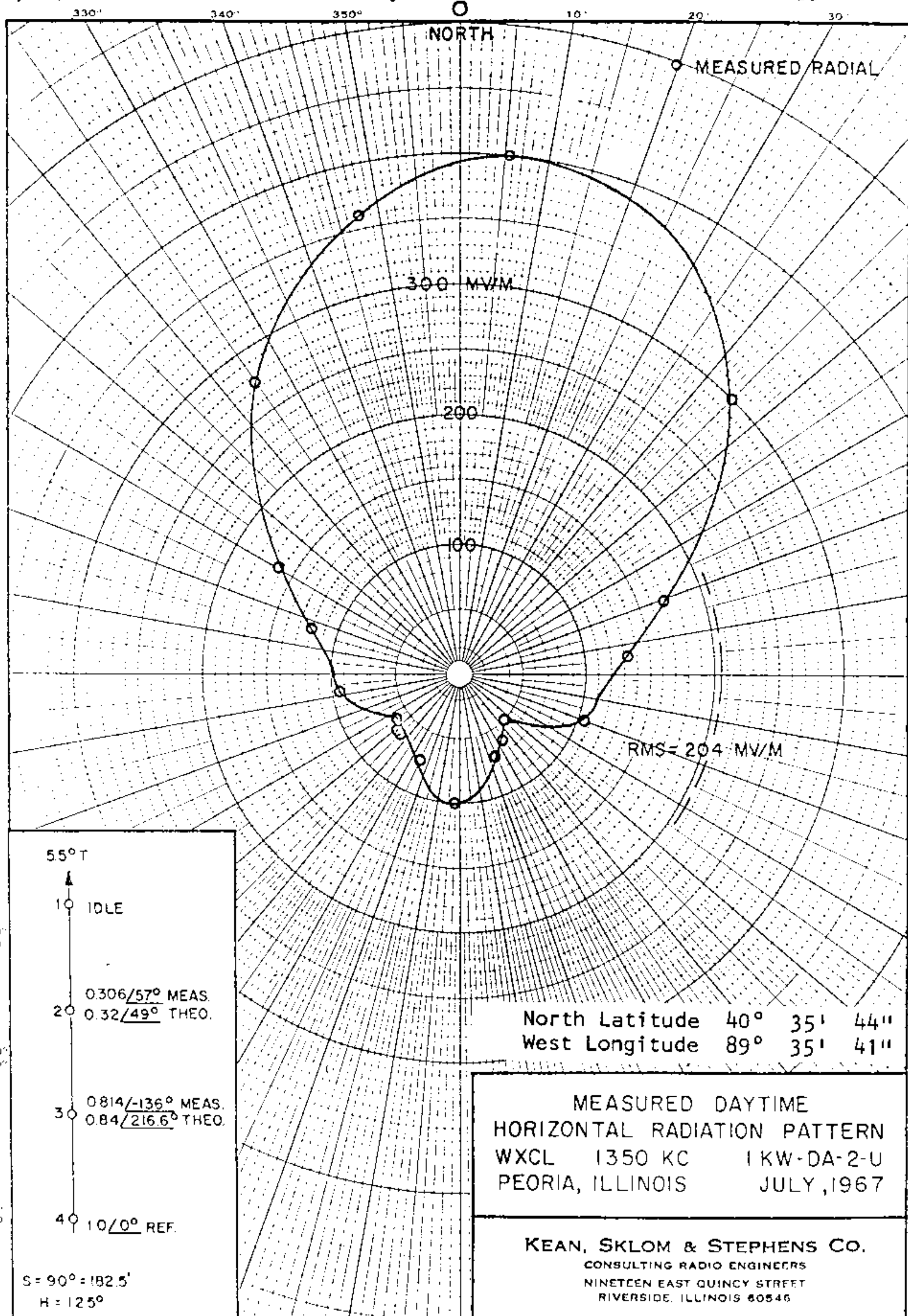
1350 kc

WXCL

Measured Day
(8-28-67ct)

Station WXCL
Peoria, Illinois

1kw,DA-2,U
1350 kc



FCC File No. BRC-3155
Accepted 8-9-67

Station WXCL
Peoria, Illinois

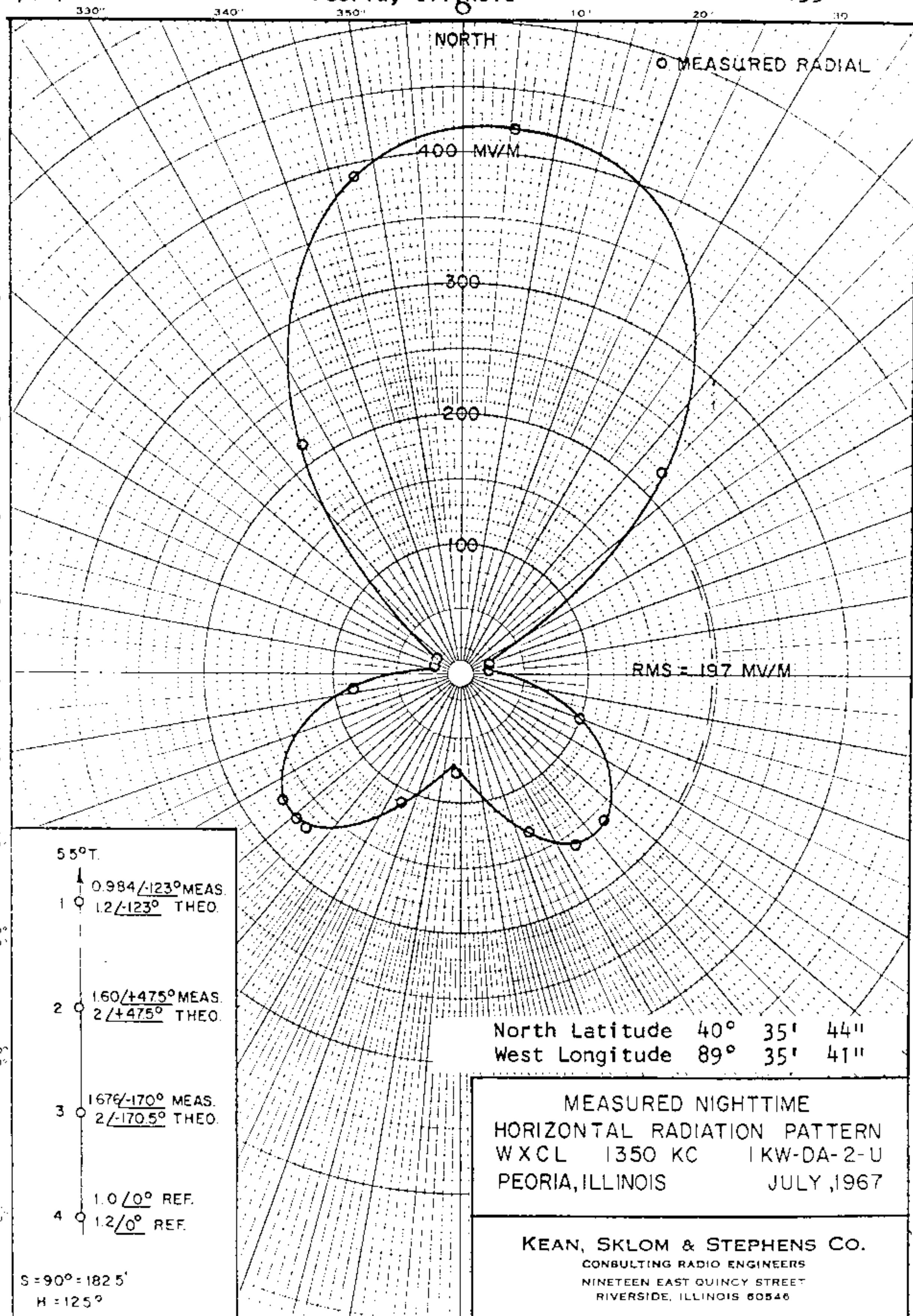
1350 kc

WXCL

Measured Night
(8-28-67ct)

Station WXCL
Peoria, Illinois

1kw, DA-2, U
1350 kc



FCC File No. BRC-3155
Accepted 8-9-67

Station WXCL
Peoria, Illinois

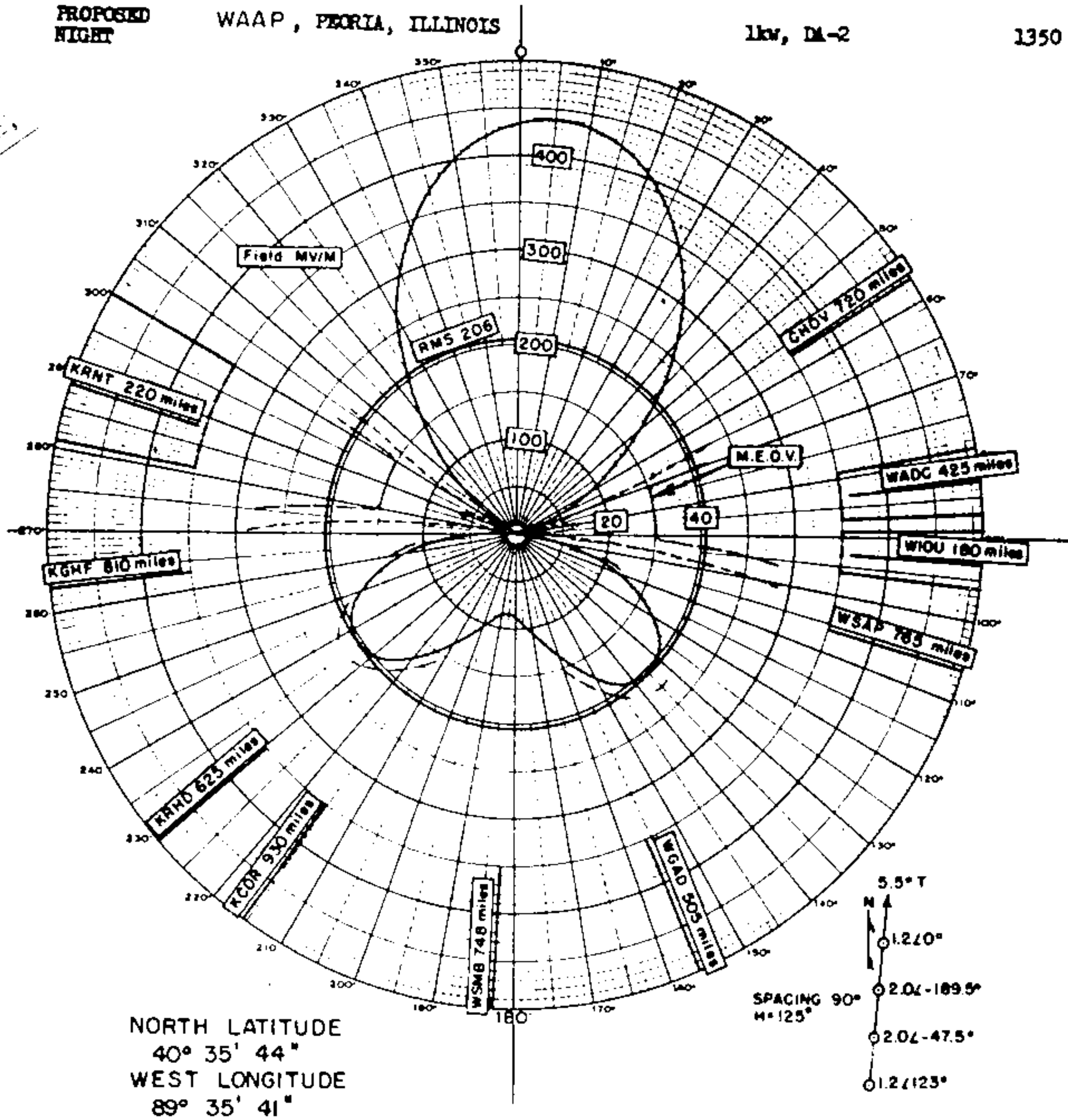
1350 kc

WXCL ~~WAAP~~

Proposed Night
(10-30-63ct)

Station WAAP
Peoria, Illinois

1kw,DA-2,U
1350 kc



CP
6-29-65
CHG. LOC.

STATION WAAP PEORIA, ILLINOIS ON
1350 KCS 1 KW, DA-2

THEORETICAL NIGHTTIME PATTERN

RALPH J. BITZER, CONSULTING RADIO ENGINEER, ST. LOUIS, MO.

1350 kc

FCC File No.BP-15985
Accepted 10-14-63 Amended

Station WAAP
Peoria, Illinois

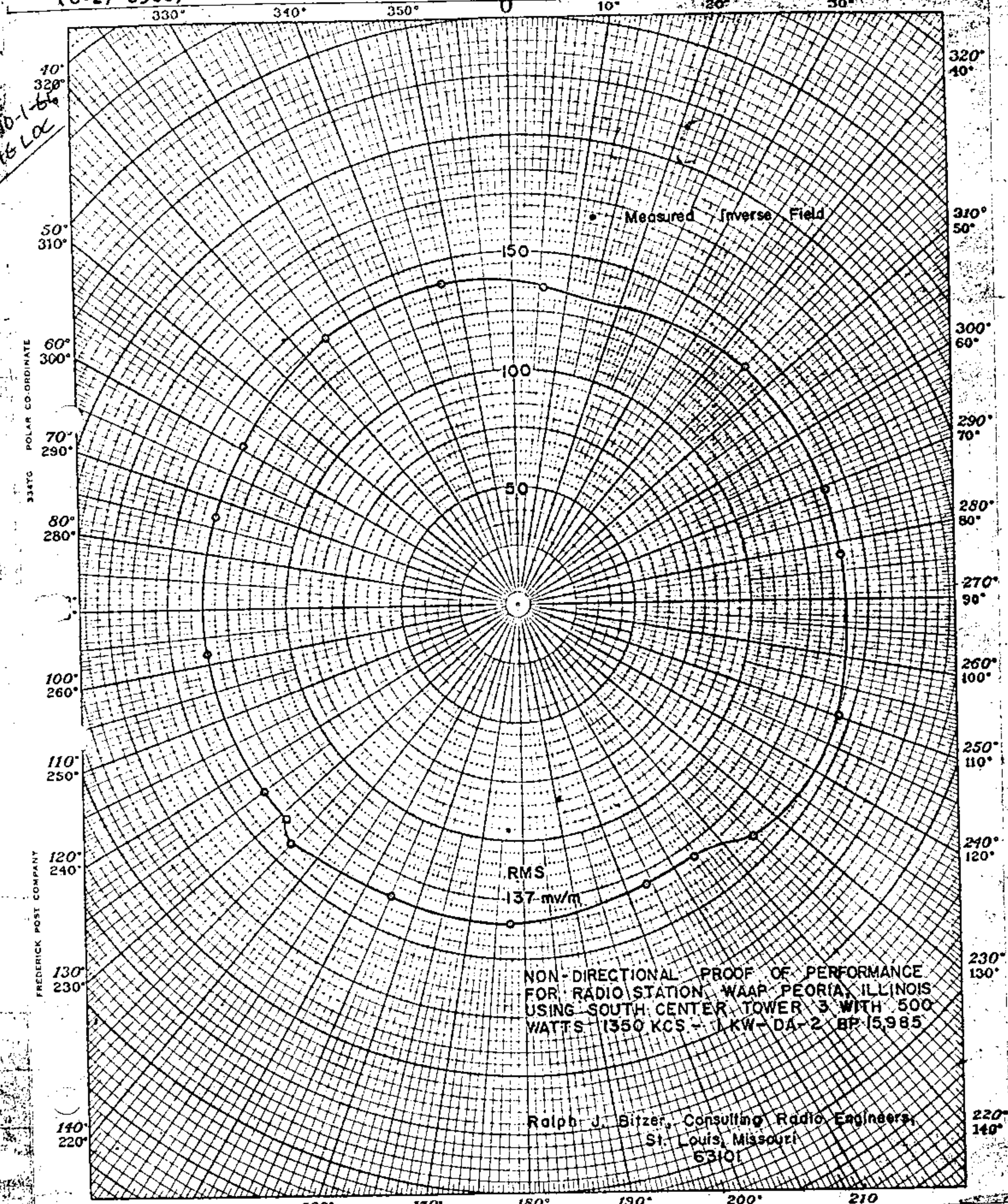
1350 kc

Measured Non-DA
(8-27-65ct)

Station ~~WAAP~~
Peoria, Illinois

WXCL ~~WAAP~~
1kw,DA-2,U
1350 kc

c 10-1-66
CHG LOC



FCC File No.BL-10973
Accepted 8-16-65

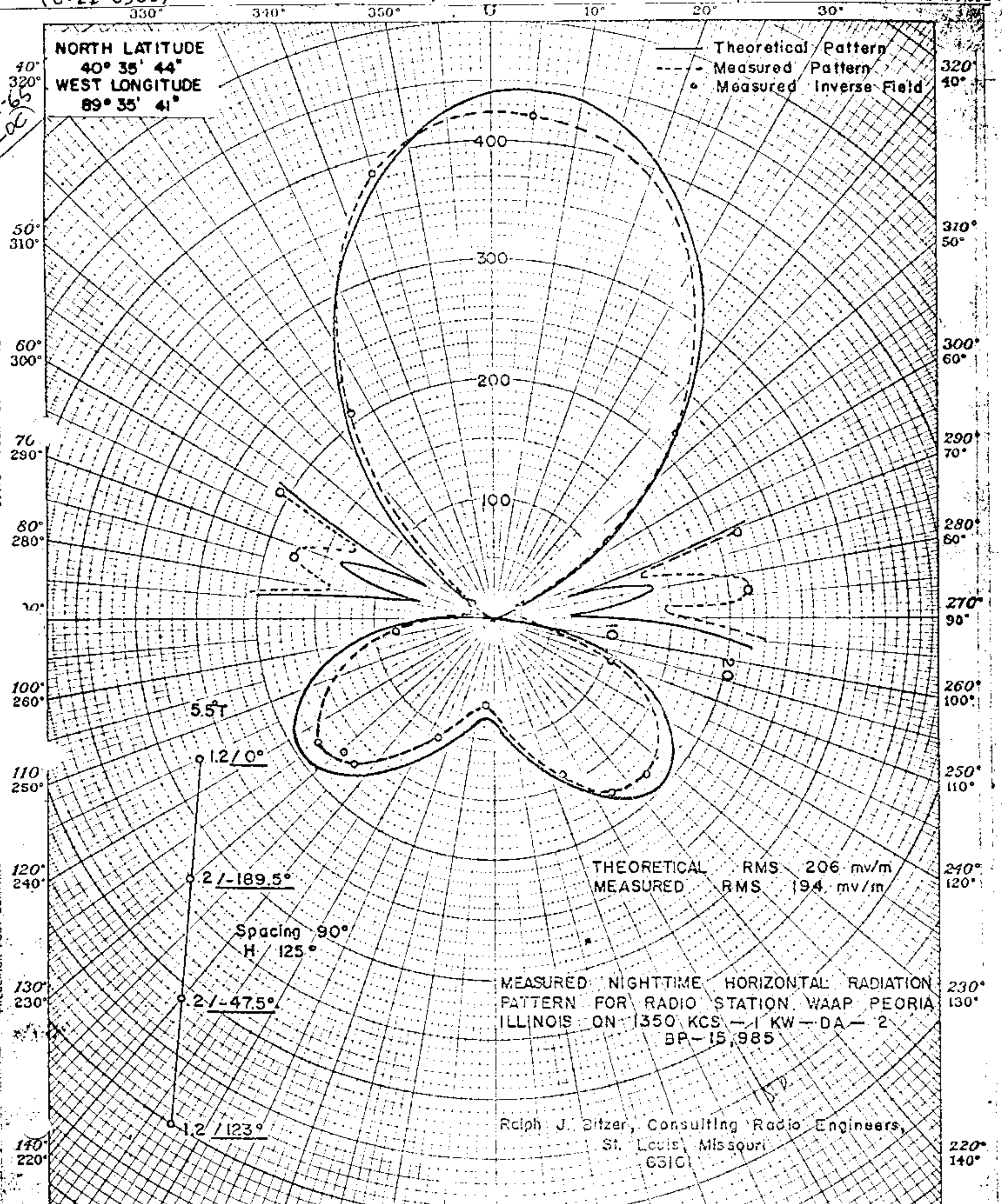
Station WAAP
Peoria, Illinois

1350 kc

Measured Night
(8-27-65ct)

Station WAAP
Peoria, Illinois

WXCL [redacted] 1kw,DA-2,U
1350 kc



10-1-65
CHG LOC

FCC File No.BL-10973
Accepted 8-16-65

Station WAAP
Peoria, Illinois

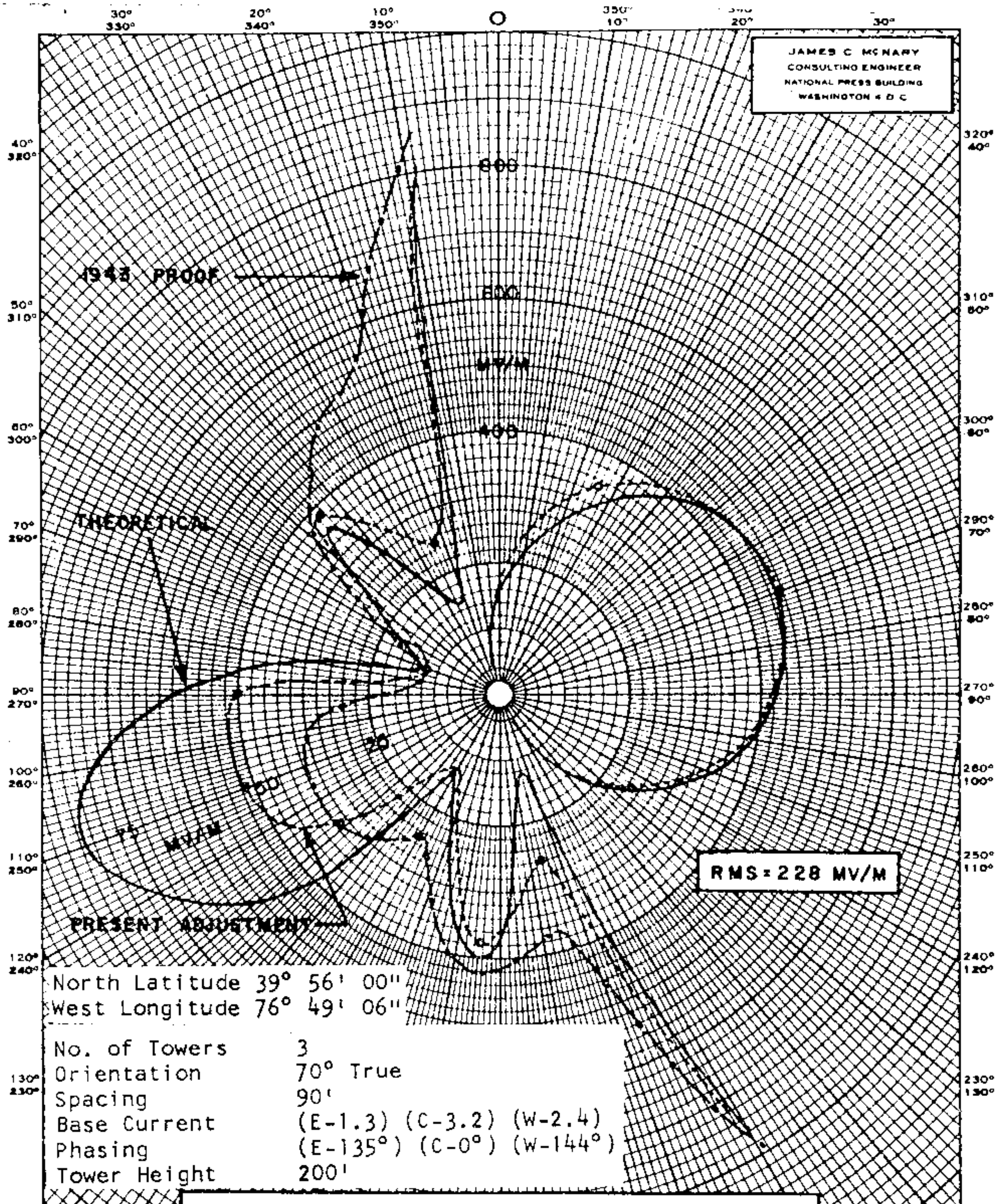
1350 kc

WZIX

MEASURED NIGHT
(10-25-61ct)

Station WORK
York, Pennsylvania

1kw,5kw-LS,DA-N,U
1350 kc



North Latitude 39° 56' 00"
West Longitude 76° 49' 06"

No. of Towers	3
Orientation	70° True
Spacing	90'
Base Current	(E-1.3) (C-3.2) (W-2.4)
Phasing	(E-135°) (C-0°) (W-144°)
Tower Height	200'

HORIZONTAL PLANE PATTERN
NIGHT DIRECTIONAL OPERATION
WORK, 1350 KC, 1 KW, 5 KW - LS, DA-N
YORK PENNSYLVANIA
JUNE, 1960

EXHIBIT 1

FCC File No. BZ-4521
Accepted 9-26-61

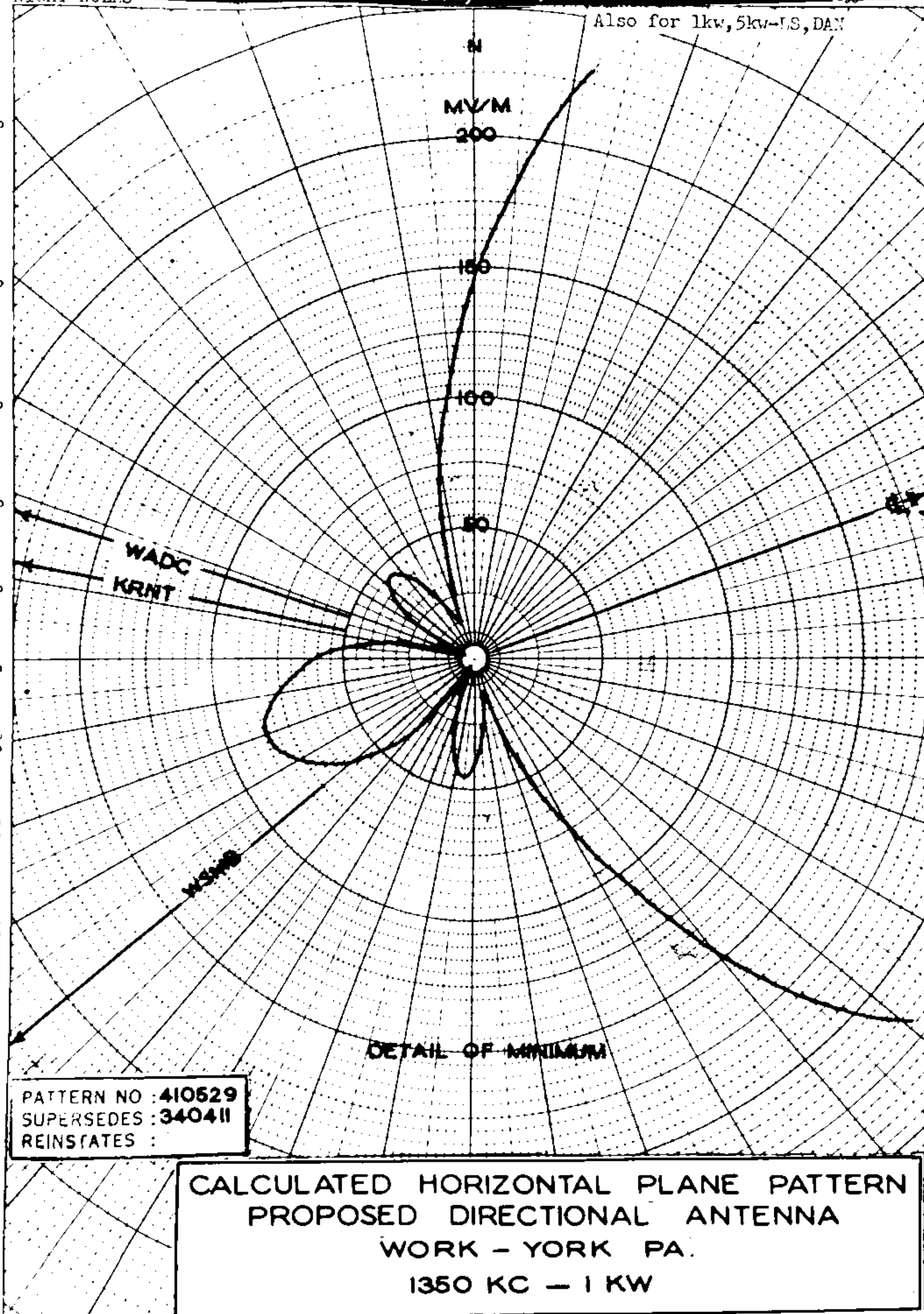
Station WORK
York, Pennsylvania

1350 kc

PROPOSED NIGHT NULLS Station WORK 1kw,5kw-LS,
York, Pennsylvania

WZIX

Also for 1kw,5kw-LS,DAN



PATTERN NO : 410529
SUPERSEDES : 340411
REINSTATES :

CALCULATED HORIZONTAL PLANE PATTERN
PROPOSED DIRECTIONAL ANTENNA
WORK – YORK PA.
1350 KC — 1 KW

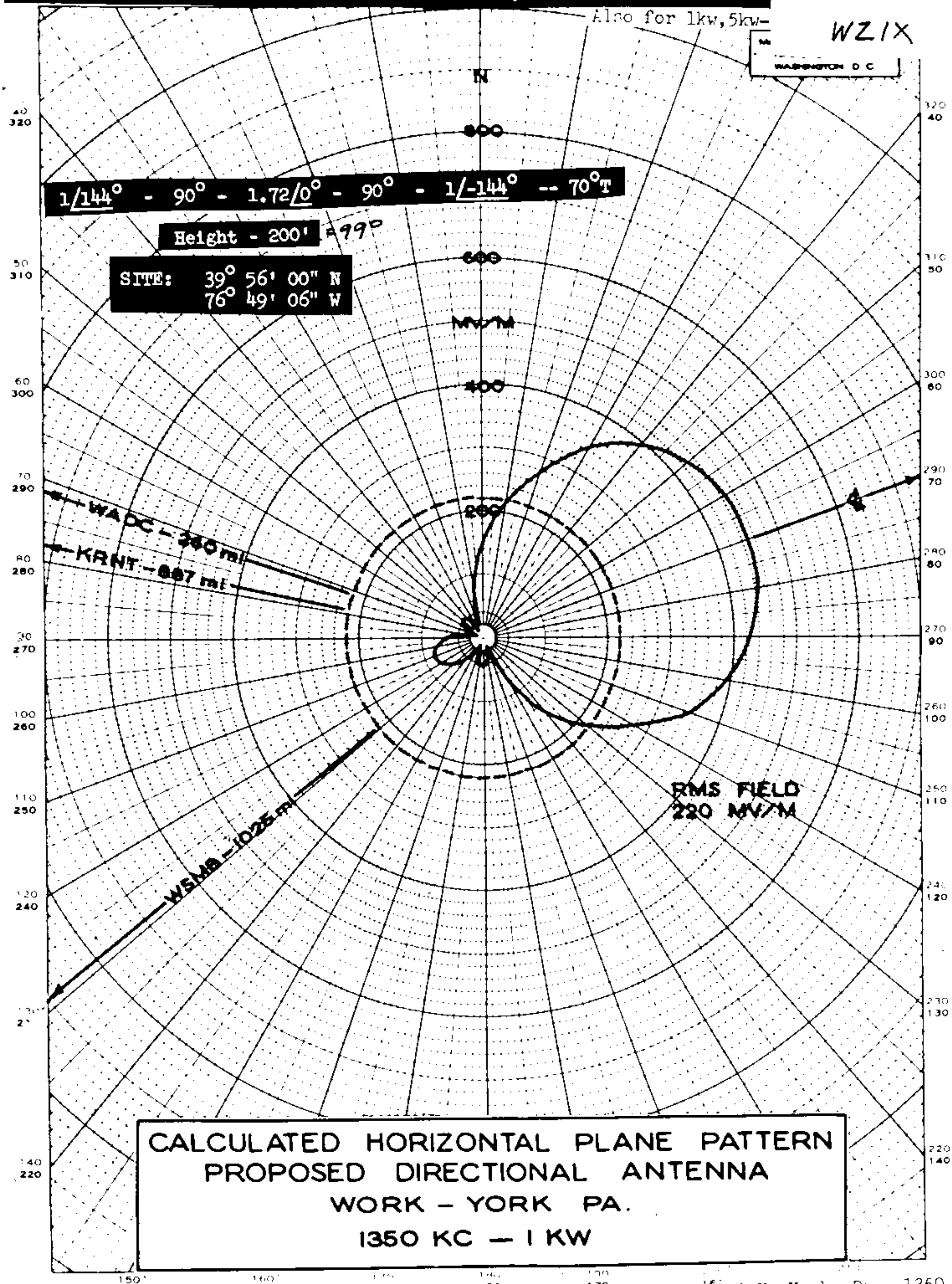
WORK, York, Pa. 1350 kc

PROPOSED NIGHT

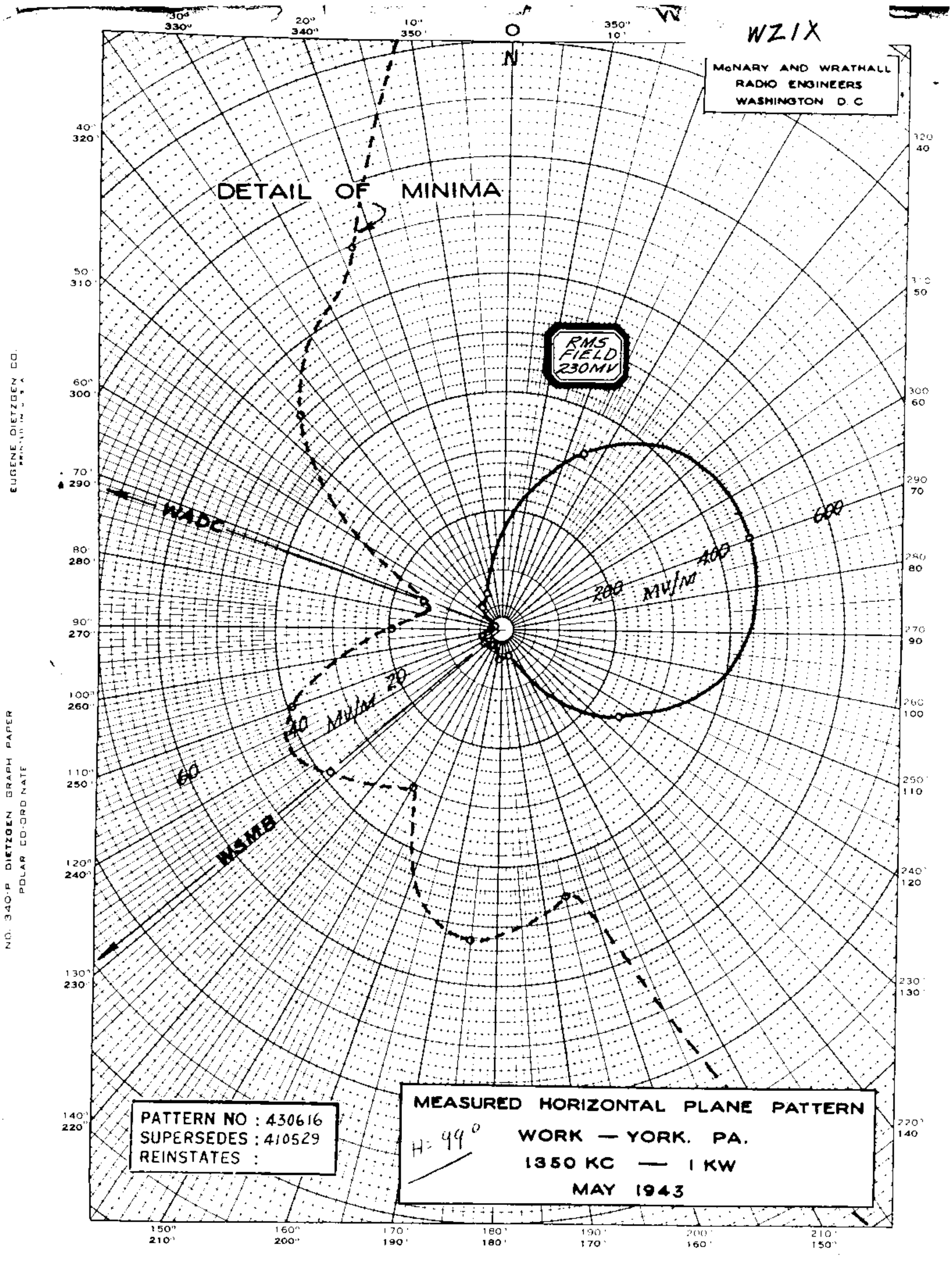
Station WORK 1kw,5kw-LS, DA-N,U
York, Pennsylvania 1350 KC

Also for 1kw,5kw-

WZIX



WORK, York, Pa. 1350

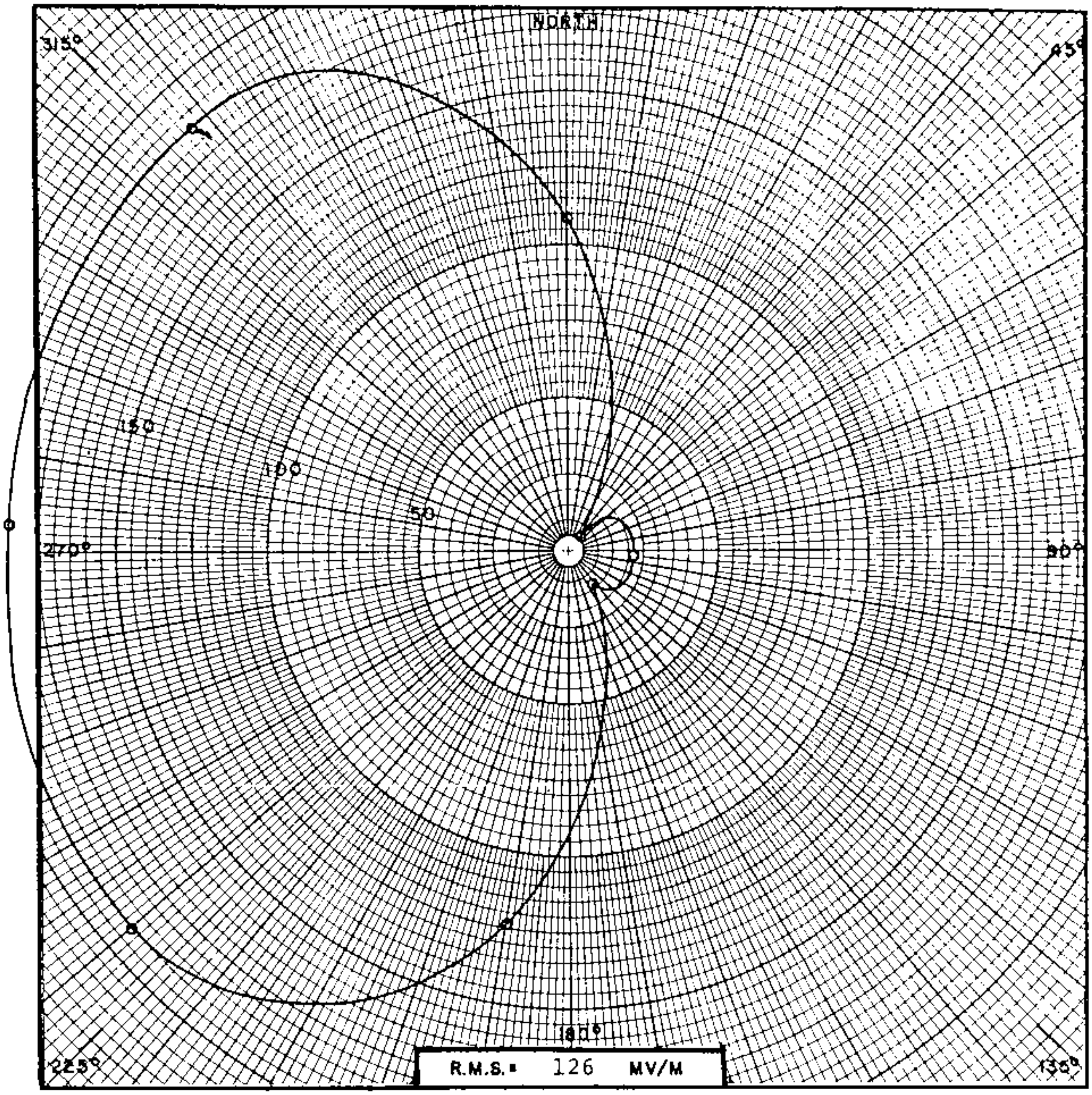

WZIX
McNARY AND WRATHALL
RADIO ENGINEERS
WASHINGTON D. C
DETAIL OF MINIMA
N
RMS
FIELD
230MV
WADC
WSMB
200
400
600
MV/M
20
40
MV/M
60
PATTERN NO : 430616
SUPERSEDES : 410529
REINSTATES :
MEASURED HORIZONTAL PLANE PATTERN
H: 49°
WORK — YORK. PA.
1350 KC — 1 KW
MAY 1943
EUGENE DIETZGEN CO.
NO. 340-P DIETZGEN GRAPH PAPER
POLAR CO-ORDINATE

BL 12486
GR (2-13-70) License Covering CP for New Station

Measured Day
(2-28-70ct)

Station KTMF
New Prague, Minnesota

KTMF
500w, DA-D, D
1350 kc



PATTERN PARAMETERS

273° ◄ 3. — S — 2. — S — 1.

0.528/-170° 1.192/-86.51° 1.000/0° CALC.
0.892/-135.5° 1.516/-80° 1.000/0° MEAS.

S=105° G=79°

DIRECTIONAL RADIATION PATTERN

TMF COMMUNICATIONS, INCORPORATED

[X] MEASURED [ ] PROPOSED

FREQ. 1350 (KHZ) POWER 0.5 (KW) [X] DA-D
N. LAT. 44° 34' 39" [ ] DA-N
W. LONG. 93° 30' 16" [ ] N-D

LOCATION: New Prague, Minnesota

DATE: August, 1969

ROBERT A. JONES
CONSULTING ENGINEERS
LA GRANGE, ILLINOIS

FCC File No. BL-12486
Accepted 2-4-70

Station KTMF
New Prague, Minnesota

1350 kc

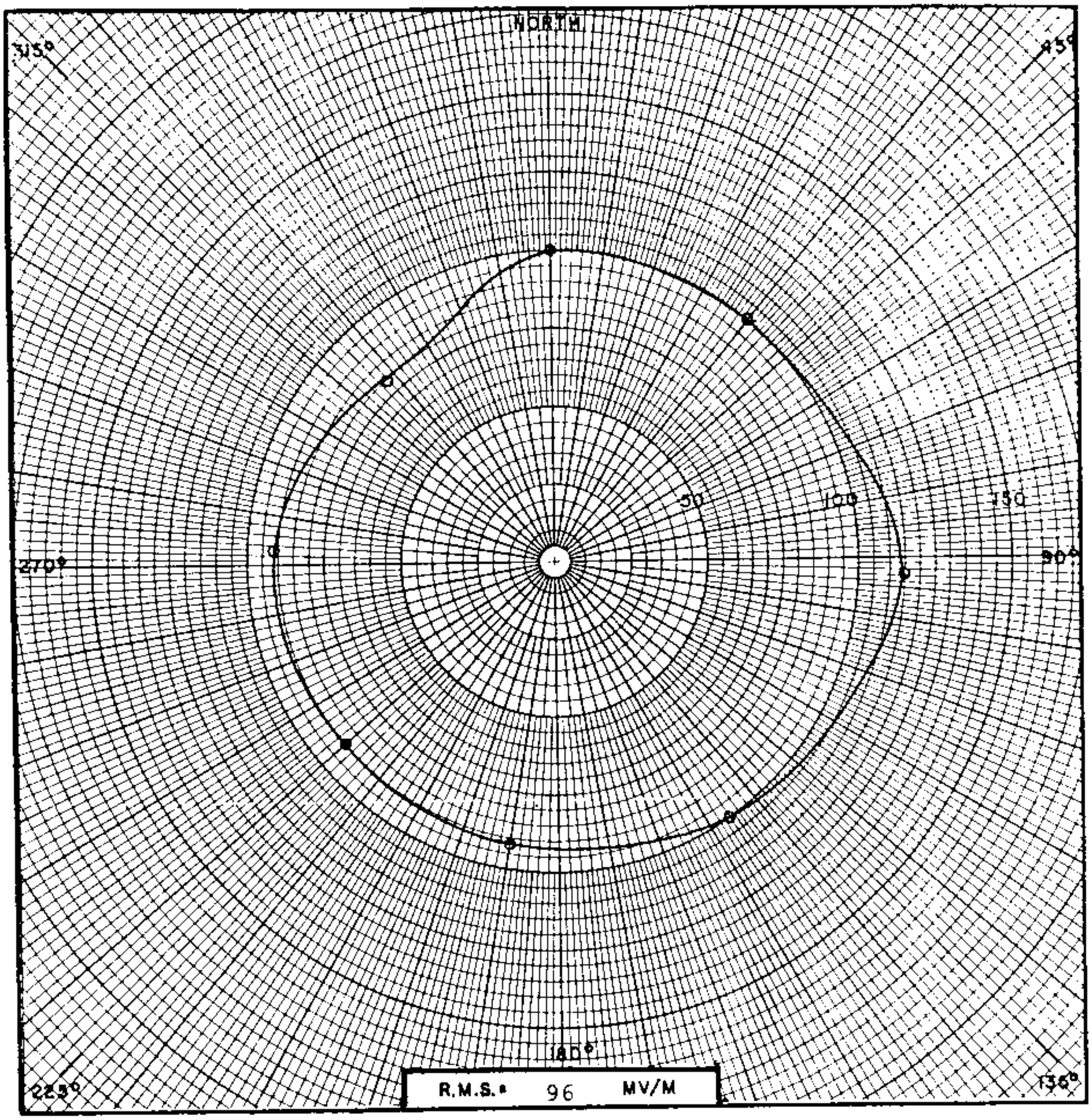
BL 12486
GR (2-13-70) License Covering CP for New Station

KTMF

Measured Non-DA
(2-28-70ct)

Station KTMF
New Prague, Minnesota

500w, DA-D, D
1350 kc



PATTERN PARAMETERS

DIRECTIONAL
RADIATION PATTERN
TMF COMMUNICATIONS, INCORPORATED

[X] MEASURED [ ] PROPOSED

FREQ: 1350 (KHZ) POWER 0.5 (KW) [ ] DA-D
N. LAT. 44° 34' 39" [ ] DA-N
W. LONG. 93° 30' 16" [X] N-D
LOCATION: New Prague, Minnesota
DATE: August, 1969

ROBERT A. JONES
CONSULTING ENGINEERS
LA GRANGE, ILLINOIS

FCC File No. BL-12486
Accepted 2-4-70

Station KTMF
New Prague, Minnesota

1350 kc

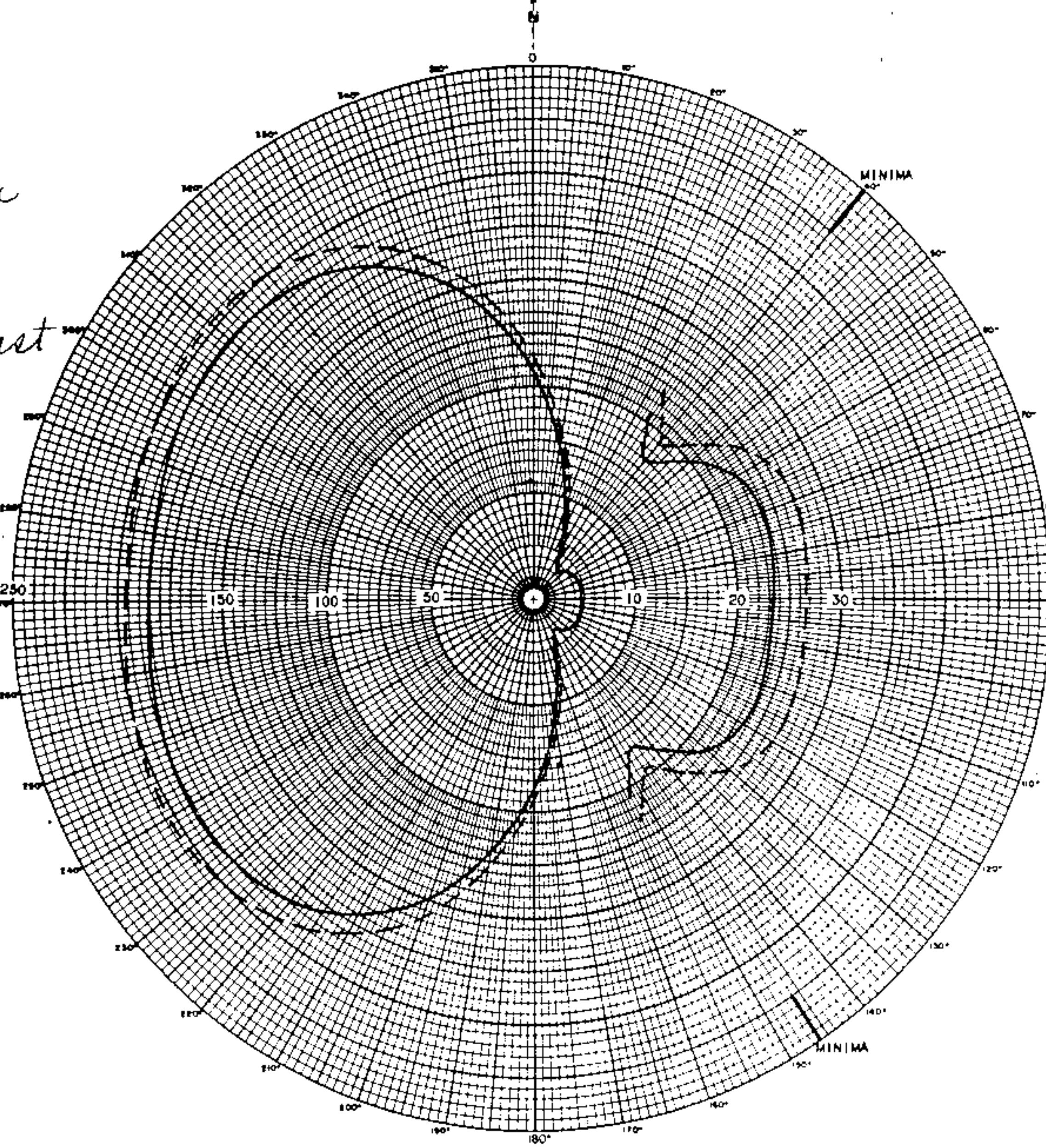
KTMF

Proposed Day
(4-29-68ct)

New; TMF Communications, Inc.
New Prague, Minnesota

500w,DA-D,D
1350 kc

BP 17992
Granted
1/8/69
Application
for CP
for a new
AM broadcast
station



E_{RMS} = 126 MV/M (BY ADJUSTMENT)

MINIMA LOCATE AT 40° & 146°

LATITUDE: 44° 34' 39"
LONGITUDE: 93° 30' 18"

CHARLES E. BRENNAN
CONSULTING RADIO ENGINEERS
MILWAUKEE, WISCONSIN

ANTENNA PARAMETERS

G's = 79° (160')
ADJOINING TOWERS ARE SPACED 105°
(212.64')

273° ← #3 #2 #1
.5285/-170° 1.1922/-86.51° 1.0/0°

670922 FIGURE 5

PROPOSED DIRECTIONAL ANTENNA PATTERN
T M F COMMUNICATIONS INCORPORATED
NEW PRAGUE, MINNESOTA

1350 Kc. 500 DA-D

FCC File No.BP-17992
Accepted 4-5-68

New; TMF Communications, Inc.
New Prague, Minnesota

1350 kc

Toms River, N.J.

PROPOSED DAY
(6-20-58g)

South

New; Asbury Park Press
Tom's River, New Jersey

500w, DA-D,D
1350 KC

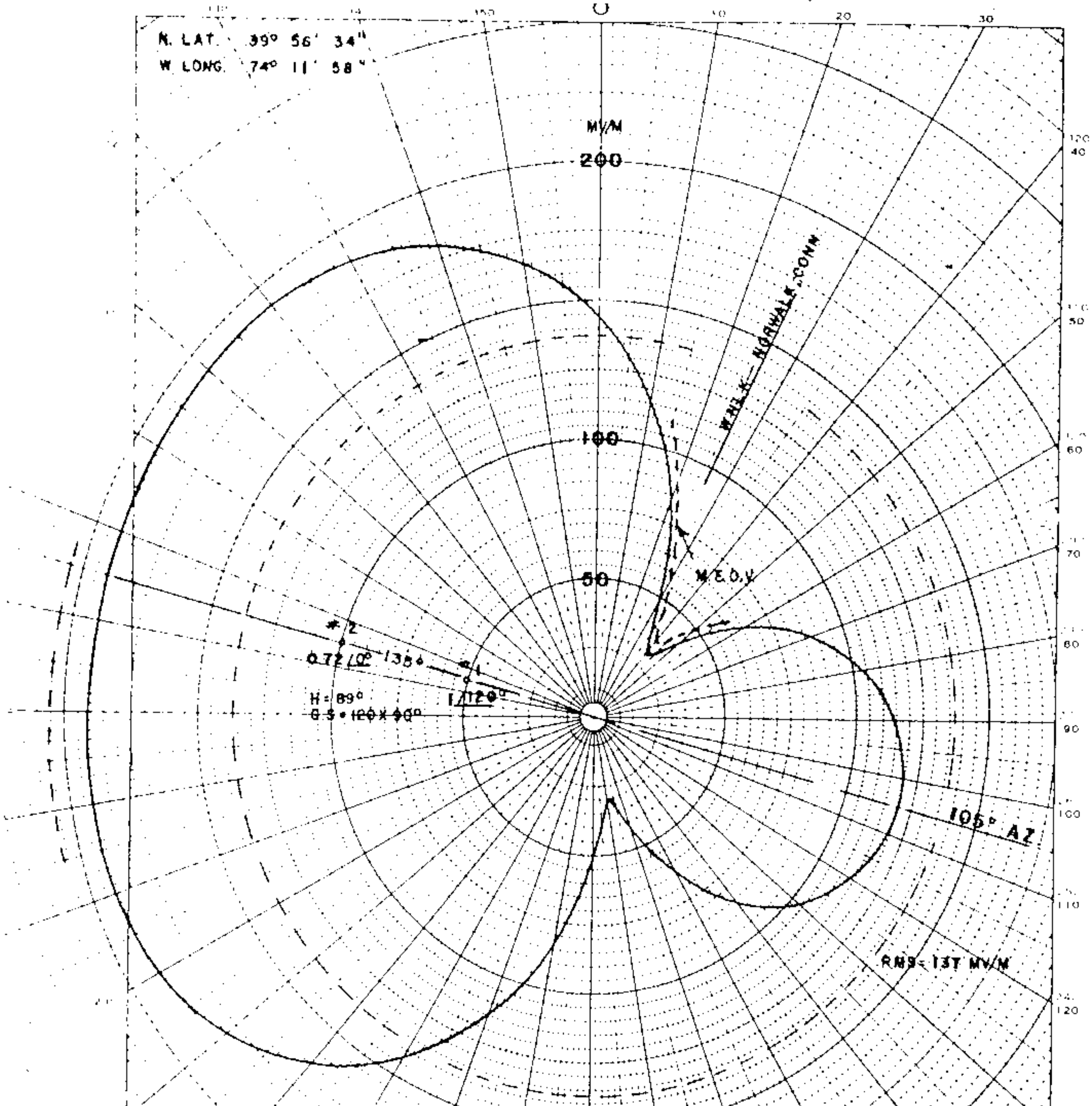


FIG. I

DAY HORIZONTAL PLANE RADIATION

PROPOSED 1350 KC., 500 W., DAY-DA.
TOMS RIVER, NEW JERSEY

PAUL GODLEY CO.
CONSULTING RADIO ENGINEERS
LABORATORIES: GREAT NOTCH, N.J. 4/58

FCC File No. BP-12,024
Accepted 6-12-58

Asbury Park Press
Tom's River, New Jersey

1350 KC

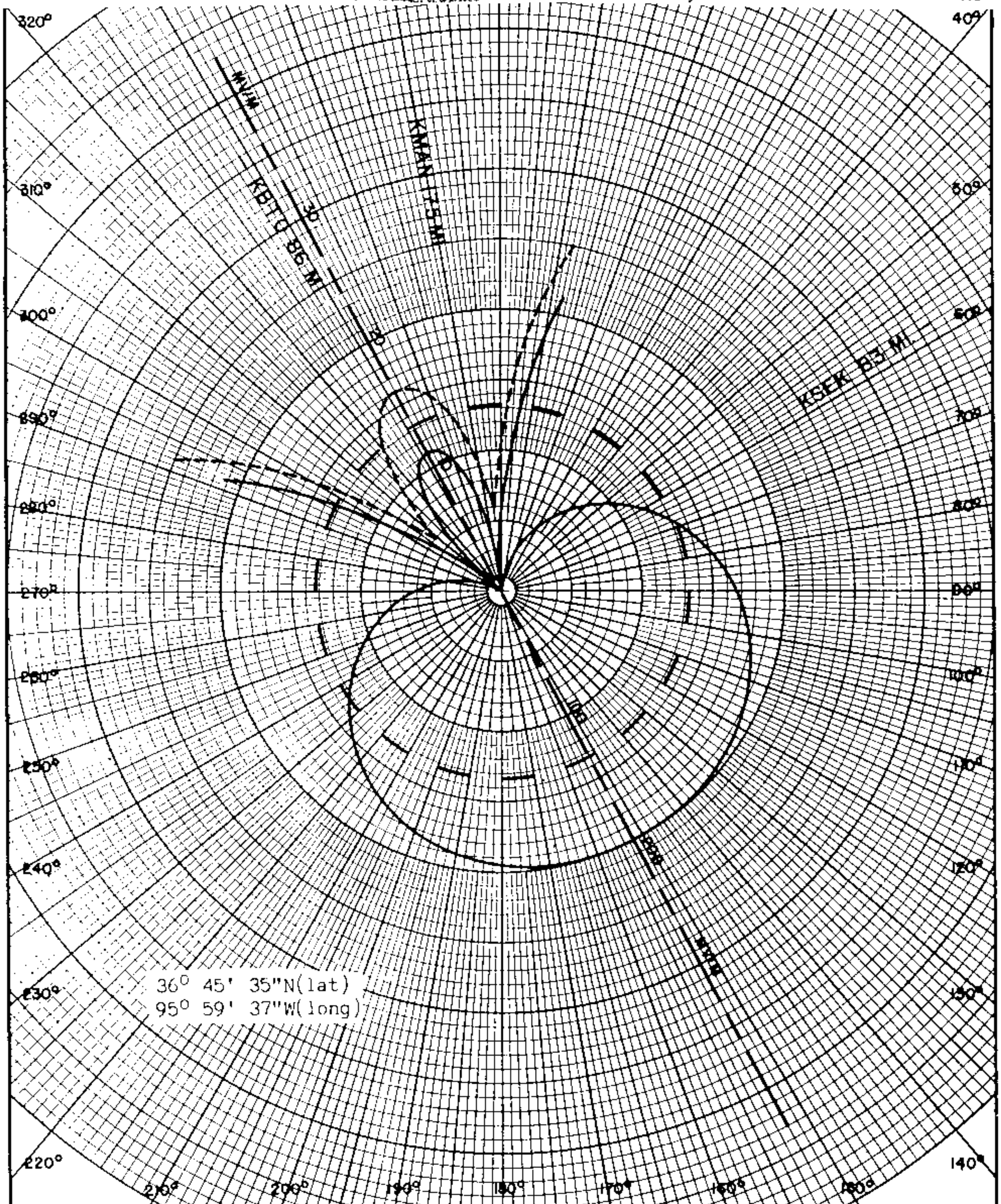
Bartlesville Okla

PROPOSED DAY
(10-31-55G)

OSAGE BROADCASTING COMPANY
BARTLESVILLE, OKLAHOMA

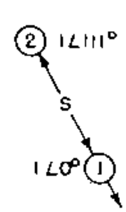
500W
DA-D, D

1350 KC



S = 75° = 151.9'

G'S = 74.1° = 150'



RMS = 132 MV/M

--- MEOV

J. G. ROUNTREE
CONSULTING RADIO ENGINEER
4515 PRENTICE STREET
DALLAS 6, TEXAS

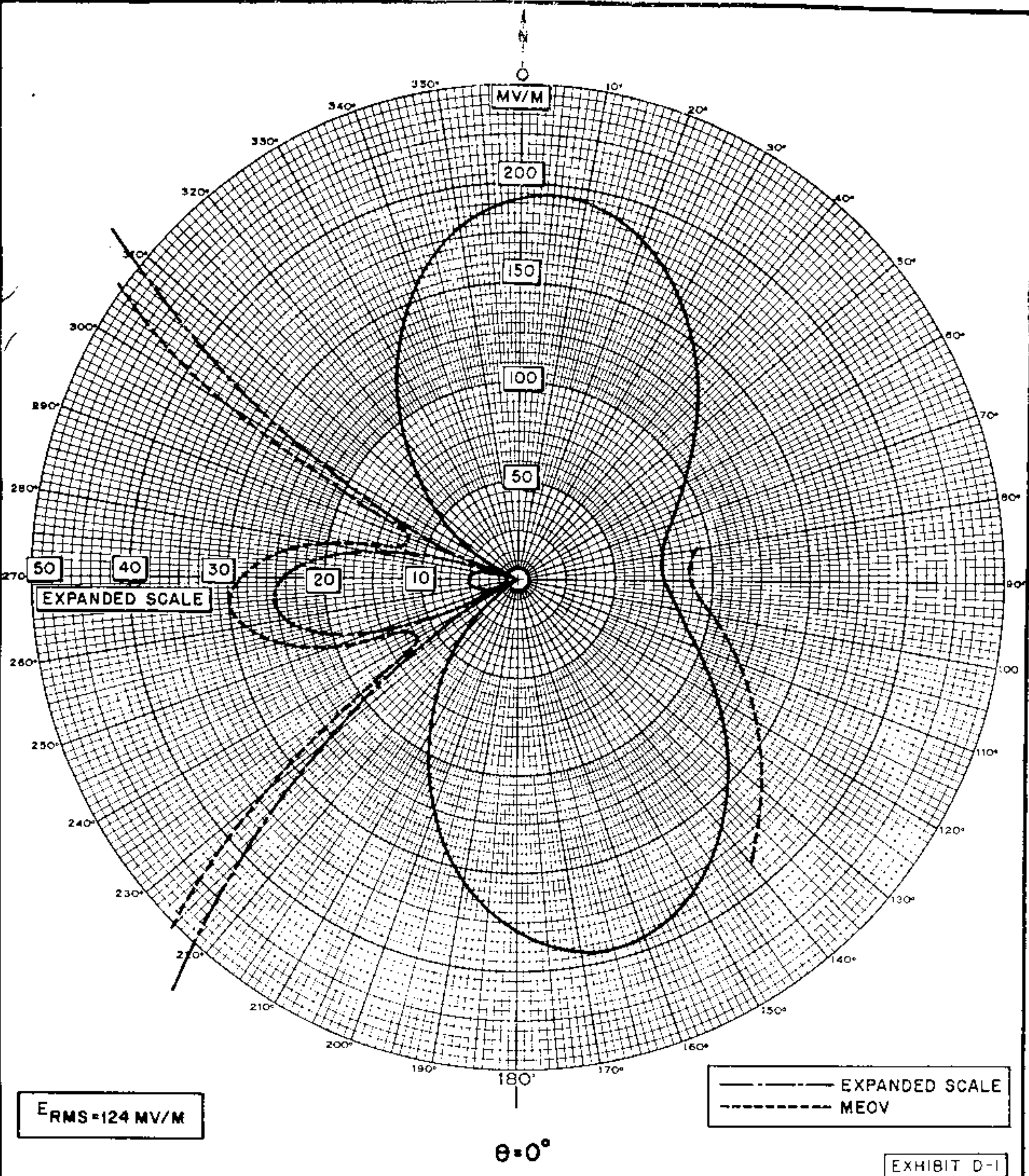
OSAGE BROADCASTING COMPANY
BARTLESVILLE, OKLAHOMA
1350 KC, 500 W, DA,D

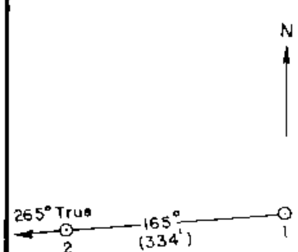
FILE NO. BP-10,096

ACCEPTED 10-10-55 FCC

OSAGE BCG. CO.:
Bartlesville, Okla. 1350 KC

BP-18230
Granted
7/28/69
CP for a
new
standard
broadcast
station





LATITUDE 18° 26' 52.5" NORTH
LONGITUDE 66° 23' 50" WEST

ANTENNA NUMBER	AZIMUTH DEG	SPACING DEG	PHASING DEG	FIELD RATIO	MV/M FOR 1 KW	HEIGHT DEG
1	—	—	—	1.0	—	90
2	265	165	+30	1.0	—	90

HORIZONTAL PLANE PATTERN FOR PROPOSED VEGA BAJA, PUERTO RICO

1350 KC 0.5 KW DA-1, U

670713

KEAR & KENNEDY
CONSULTING ENGINEERS
WASHINGTON D.C.