560-570

Station	Main Studio	Freq	Power	Date
CFOS	Owen Sound, ON	560	1/5 kW/DA-2	11/17/80
CFOS	Owen Sound, ON	560	1/2.5 kW/DA-2	5/80
CHCM	Marystown, NF	560	10/5 kW/DA-N	11/9/77
CHTK	Prince Rupert, BC	560	0.25/1 kW	6/29/64
CHVO	Conception Bay, CN	560	5 kW	5/4/82
CJKL	Kirkland Lake, ON	560	5 kW	
CKCN	Sept Iles, PQ	560	5/10 kW/DA-2	6/29/64
CKCN	Seven Islands, QU	560	5 kW/DA-1	7/26/61
CKNL	Fort St. John, BC	560	1 kW/DA-N	8/28/64
CMKM	Holguin, Oriente	560	5 kW/DA-1	10/22/52
KBLU	Yuma, AZ	560	1 kW/DA-N	3/21/50
KLVI	Dallas, TX	560	5 kW/DA-N	12/31/48
KLZ	Denver, CO	560	5 kW/DA-1	6/40
KMON	Great Falls, MT	560	5 kW/DA-N	3/10/47
KPQ	Wenatchee, WA	560	5 kW/DA-N	4/18/50
KSFO	San Francisco, CA	560	5 kW/DA-N	9/28/79
KWTO	Springfield, MO	560	5 kW/DA-N	9/7/77
WCKL	Catskill, NY	560	1 kW/DA-D	1/30/67
WEBC	Duluth, MN	560	5 kW/DA-2	7/26/54
WFIL	Philadelphia, PA	560	5 kW/DA-2	8/11/76
WGAI	Elizabeth City, NC	560	0.5/1 kW/DA-2	1/17/50
WGAN	Portland, ME	560	5 kW/DA-1	9/25/70
WHBQ	Memphis, TN	560	5 kW/DA-2	9/16/48
WHBQ	Memphis, TN	560	1/5 kW/DA-2	9/28/65
WHND	Monroe, MI	560	0.5 kW/DA-D	5/3/55
WHYN	Holyoke, MA	560	1/5 kW/DA-2	1/28/70

560-570

Station	Main Studio	Freq	Power	Date
WIND	Chicago, IL	560	5 kW/DA-2	6/18/75
WIS	Columbia, SC	560	5 kW/DA-N	8/66
WJLS	Beckley, WV	560	0.5 kW	5/47
CFCB	Corner Brook, NF	570	1 kW	7/7/60
CFWH	Whitehorse, Yukon	570	1 kW	8/24/62
CHYM	Kitchener, ON	570	10 kW/DA-1	11/9/77
CHYM	Kitchener, ON	570	5/10 kW/DA-1	1/20/76
CJEM	Edmundston, NB	570	5/1 kW/DA-N	5/25/62
CKCQ	Quesnel, BC	570	1 kW/DA-2	9/27/56
CKEK	Cranbrook, BC	570	1 kW/DA-1	6/7/57
CKSW	Swift Current, Sask.	570	10 kW/DA-2	12/5/80
CKWL	Williams Lake, BC	570	1 kW/DA-N	7/10/79
CMHI	Santa Clara, Cuba	570	10 kW	10/16/52
KLAC	Los Angeles, CA	570	5 kW/DA-N	3/30/66
KLUB		570	5 kW	2/20/45
WAAX	Gadsden, AL	570	0.5/5 kW/DA-N	12/20/57
WACL	Waycross, GA	570	1/5 kW/DA-N	5/13/53
WFAA	Fort Worth, TX	570	5 kW/DA-2	12/30/69
WFSO	Pinellas Park, FL	570	0.5 kW/DA-2	1/18/78
WFSO	Pinellas Park, FL	570	0.5 kW/DA-D	4/30/63
WGMS	Bethesda, MD	570	1/5 kW/DA-2	10/31/55
WKBN	Youngstown, OH	570	5 kW/DA-N	11/70
WKYX	Paducah, KY	570	1 kW/DA-D	9/14/49
WKYX	Paducah, KY	570	0.5/1 kW/DA-2	1/9/51
WMCA	New York, NY	570	5 kW/DA-1	3/29/67
WNAX	Yankton, SD	570		9/43

560-570

Station	Main Studio	Freq	Power	Date
WSYR	Syracuse, NY	570	5 kW/DA-2	1/30/67
WVMI	Biloxi, MS	570	1/5 kW/DA-2	8/22/80
WWNC	Asheville, NC	570	5 kW/DA-N	1/13/46

CFOS
560kHz

TABLE 1

ANTENNA DESCRIPTION SHEET

STATION CALL: CFOS

MAIN STUDIO: OWEN SOUND, ONTARIO

FREQUENCY: 560 kHz

POWER: 1N/5D kW

CLASS: III

MODE: DA-2

TIME: UNLIMITED

NOTIFICATION LIST NO.: 400... DATE: November 17, 1980..

GEOGRAPHICAL LOCATION: Latitude: 44° 32' 40" North
Longitude: 80° 54' 08" West

ARRAY CHARACTERISTICS: Five guyed steel towers of uniform cross section; base insulated; series fed; night towers top loaded to approximate electrical height of 74.5° using four wires per tower, each 100' long and inclined at 45°.

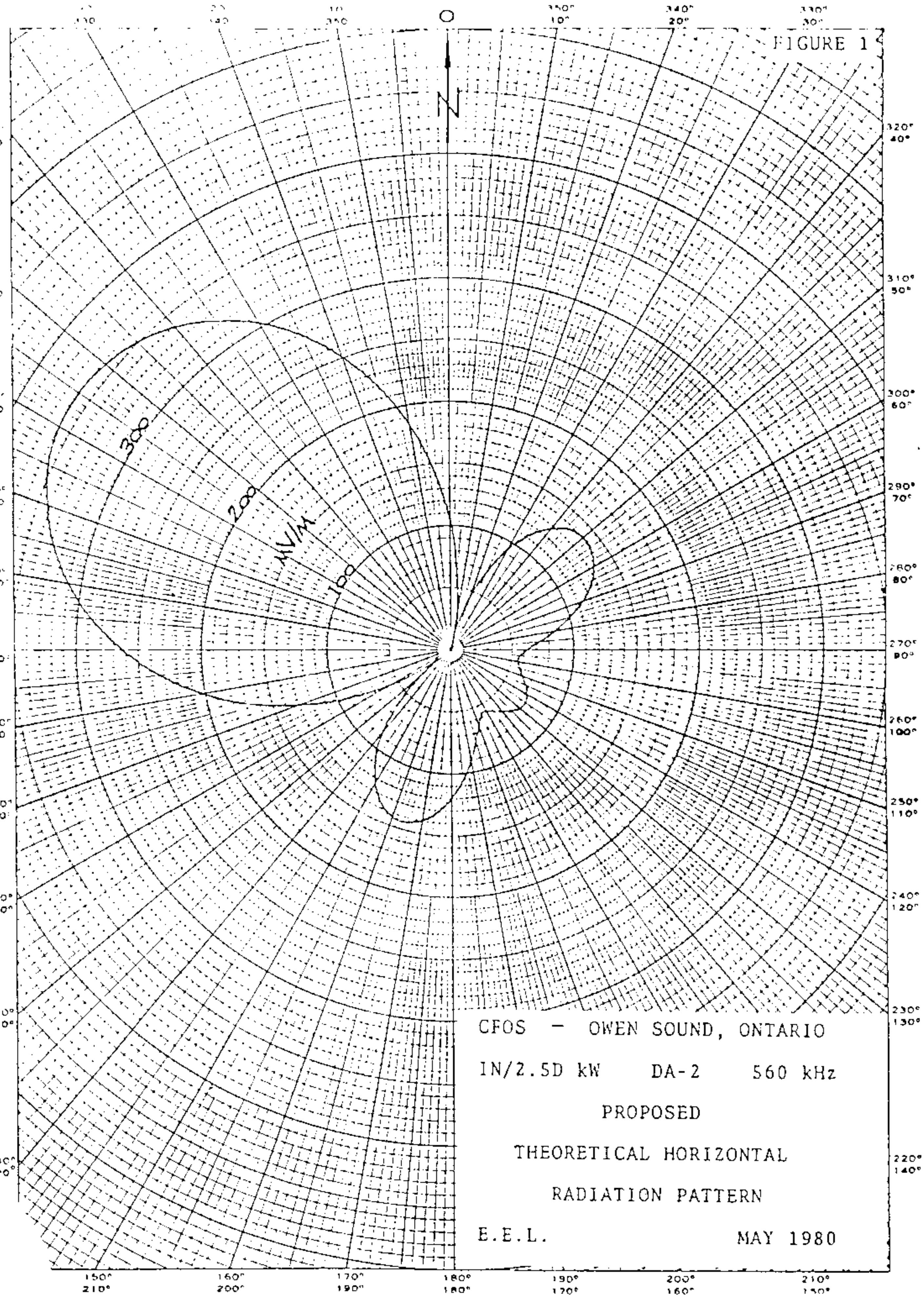
	NIGHT			DAY	
TOWER NUMBER:	1	2	3	4	5
HEIGHT ABOVE GRADE:	298'	298'	298'	325'	325'
HEIGHT ABOVE BASE INSULATOR:	293'	293'	293'(60.0°)	320'	320'(65.6°)
FIELD RATIO:	.826	1.00	.690	1.00	1.00
PHASE:	-162.9°	0°	151.1°	0°	33.3°
SPACING:	391' 80°	Ref.	391' 80°	Ref.	732.1' 150°
ORIENTATION:	304°	Ref.	124°	Ref.	226.5°

GROUND SYSTEM: 120 equally spaced radials per tower of #10 AWG bare copper buried 6" - 18" below grade, where possible, of average length 703'(0.4λ) and minimum length 440' (0.25λ), excluding those along the common chord.

PREDICTED EFFECTIVE FIELD: (UNATTENUATED AT ONE MILE)
DAY: 391.3 mV/m for 5 kW
or 175 mV/m for 1 kW
NIGHT: 177 mV/m for 1 kW

This proposed is for a change of night-time operation only. Please retain the day-time directional antenna pattern notified with Canadian Change List No. 368 dated November 9, 1977.

FIGURE 1



CFOS - OWEN SOUND, ONTARIO

IN/2.5D kW DA-2 560 kHz

PROPOSED

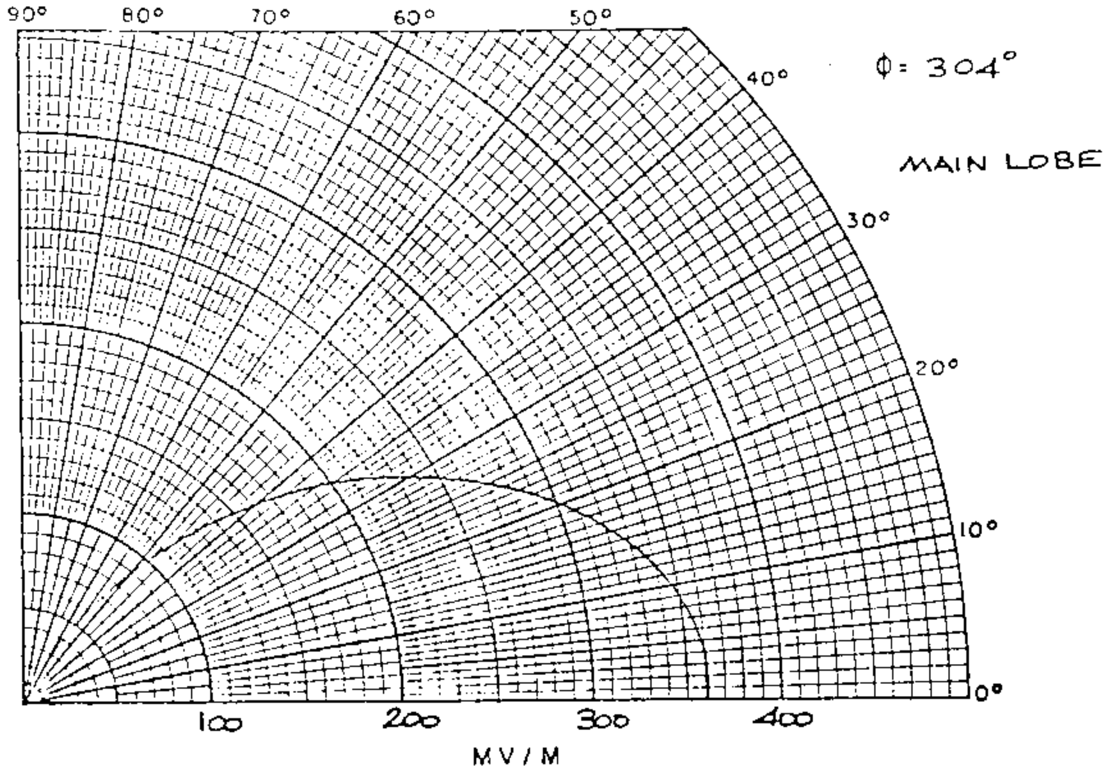
THEORETICAL HORIZONTAL

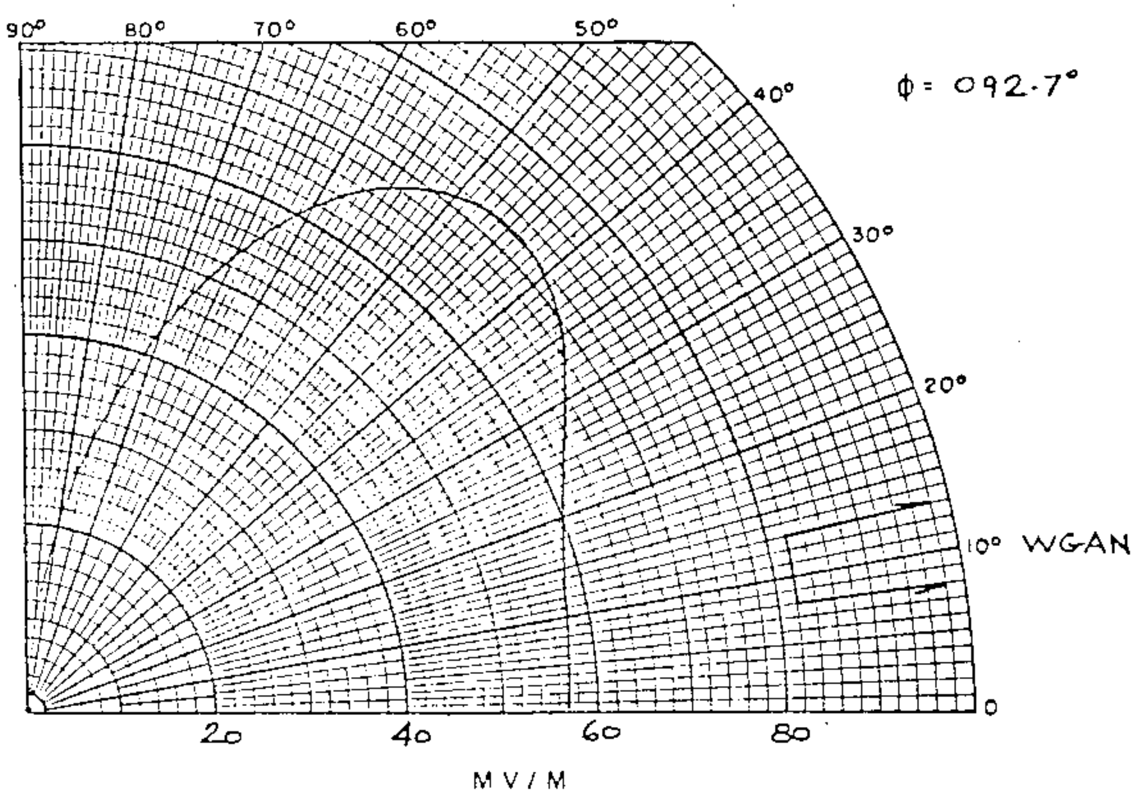
RADIATION PATTERN

E.E.L. MAY 1980

560 KHZ

FIGURE 2-1





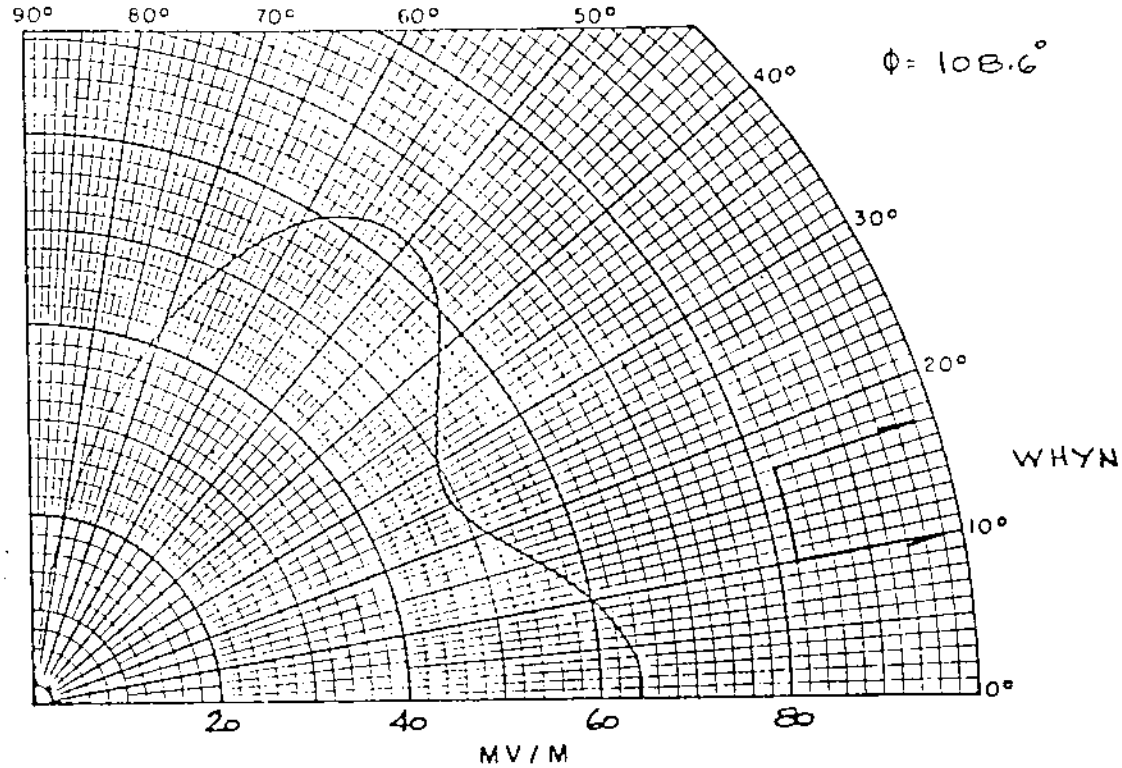
VERTICAL RADIATION PATTERNS

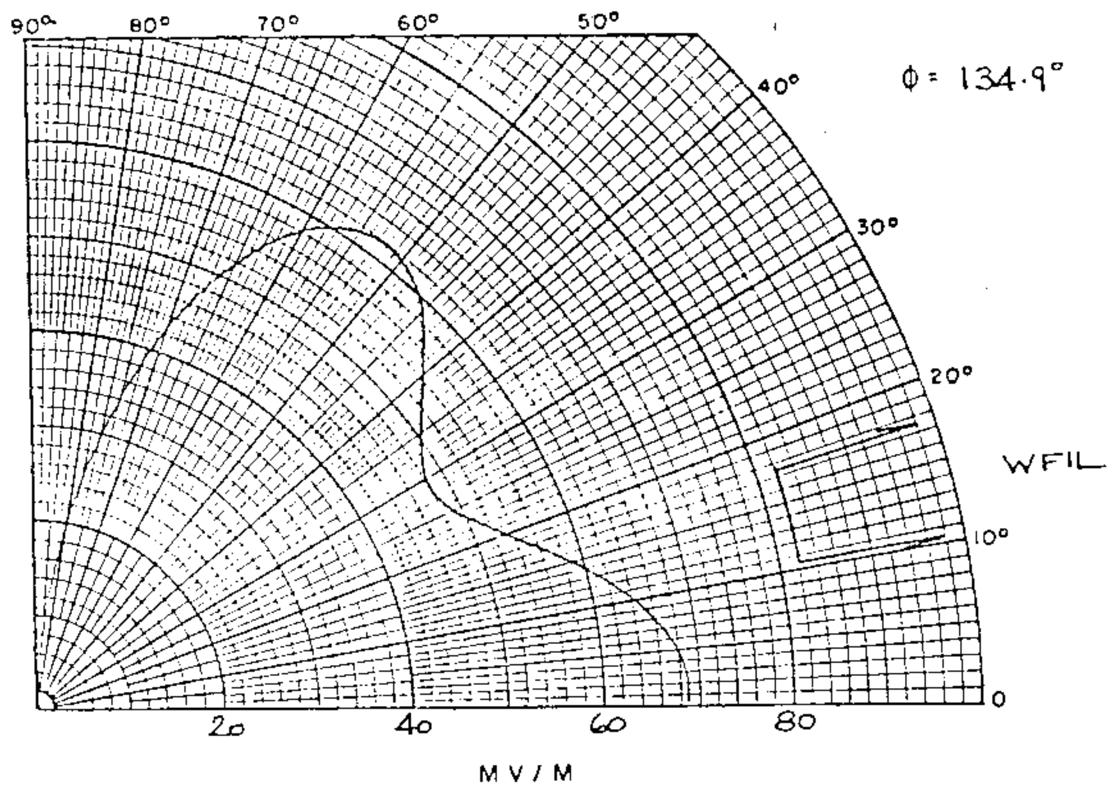
CFOS — OWEN SOUND, ONTARIO

1N/2.5D kW DA-2 560 kHz

E.E.L. MAY 1980

FIGURE 2-2



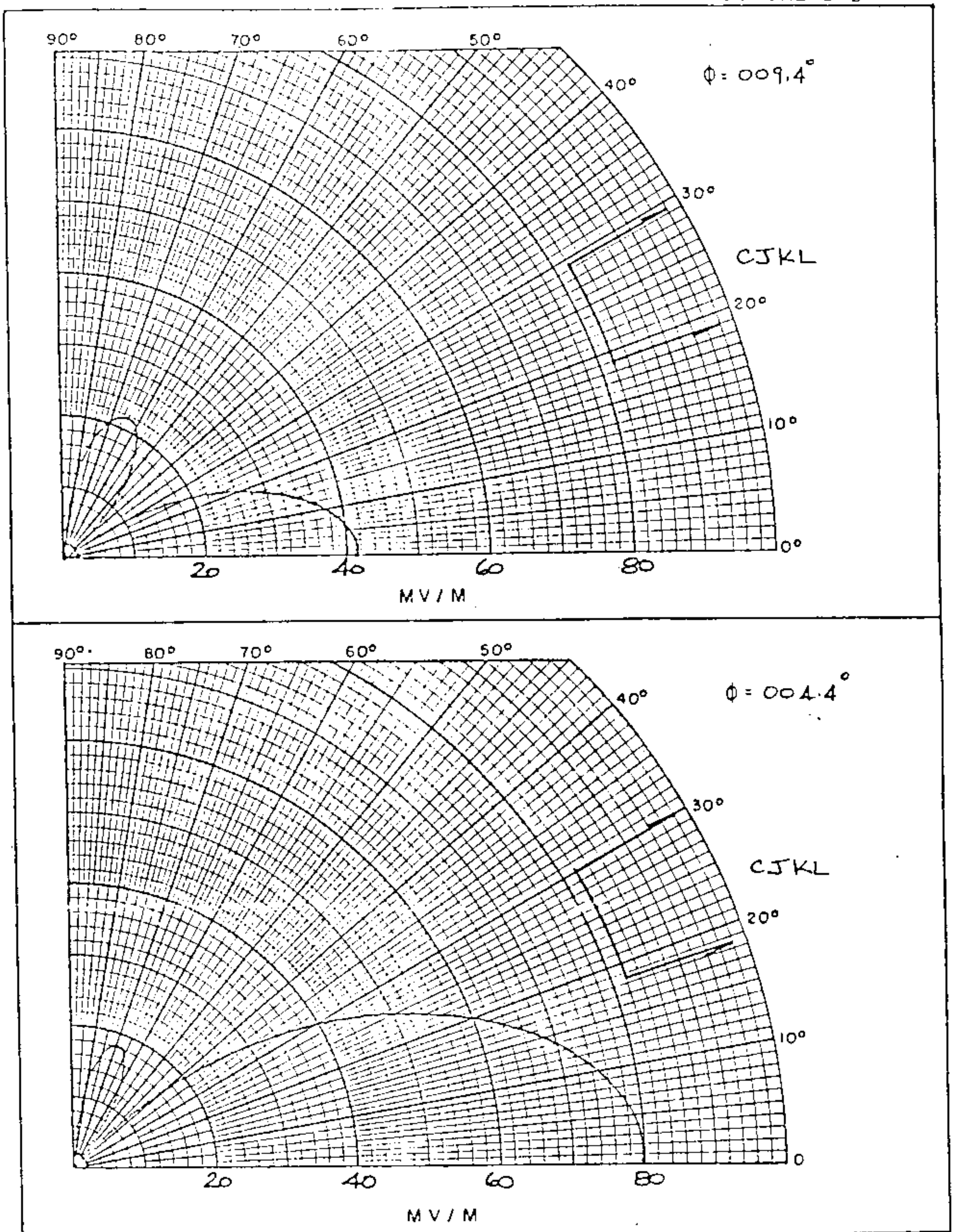


VERTICAL RADIATION PATTERNS

CFOS — OWEN SOUND, ONTARIO
1N/2.5D kW DA-2 560 kHz
E.E.L. MAY 1980

CFOS 560 KHz

FIGURE 2-3

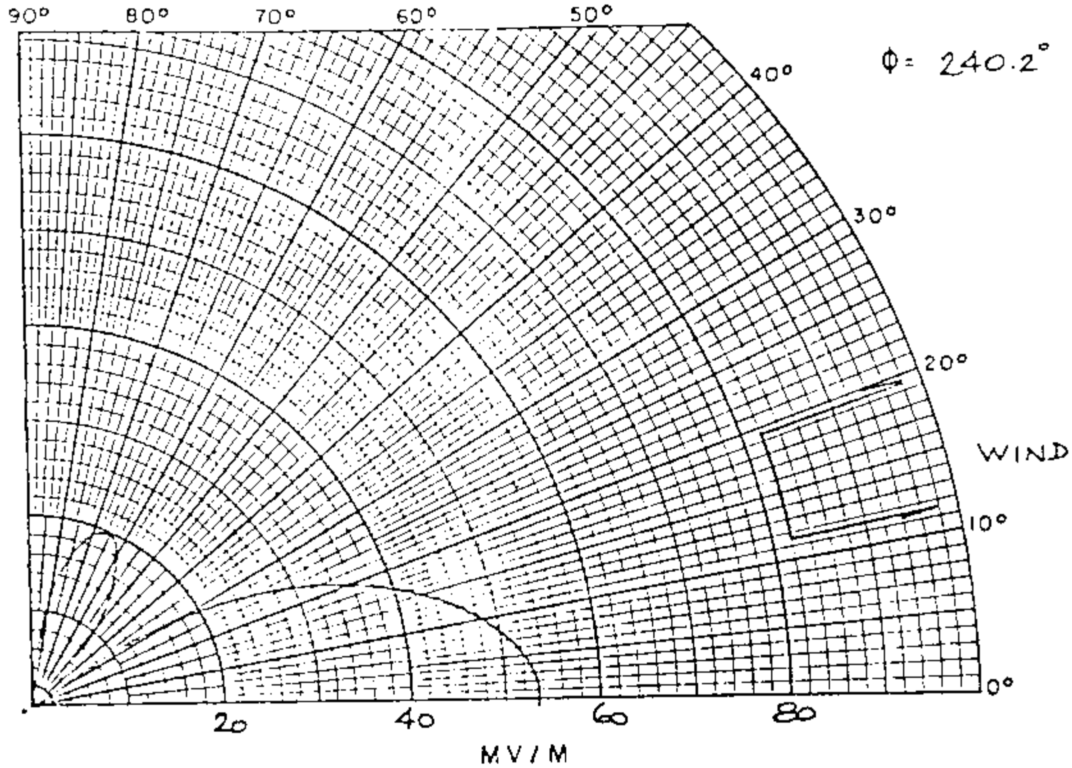


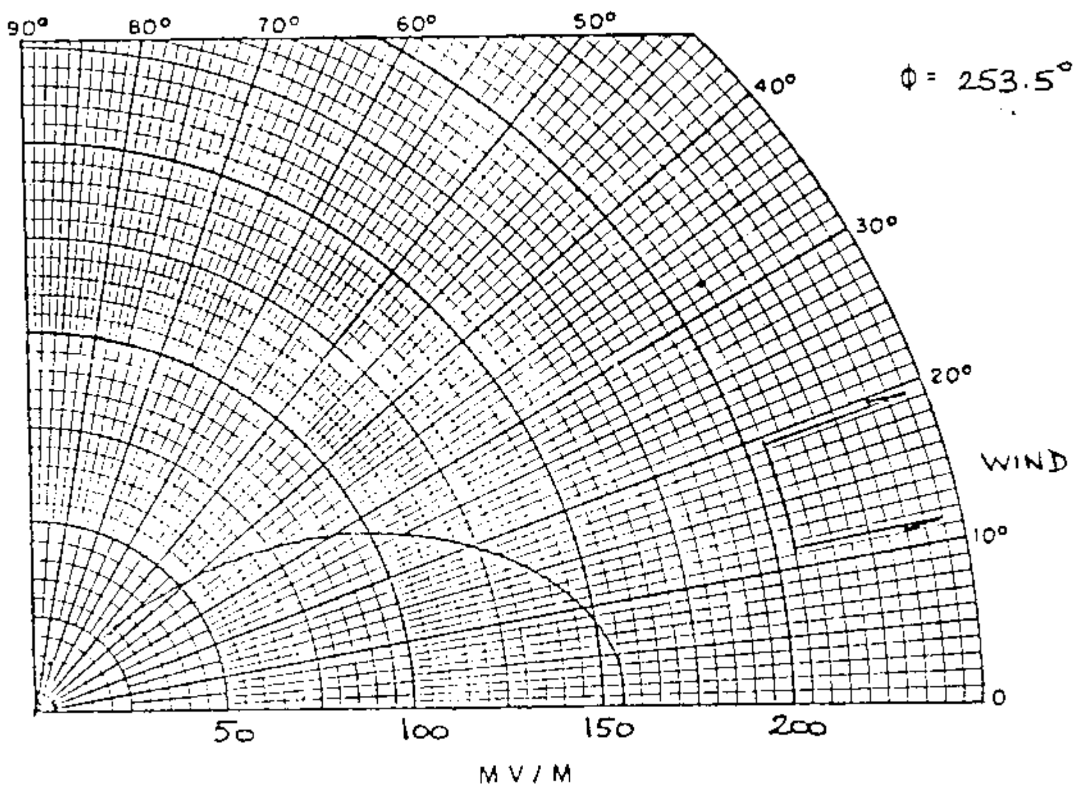
VERTICAL RADIATION PATTERNS

CFOS – OWEN SOUND, ONTARIO

1N/2.5D kW DA-2 560 kHz

E.E.L. MAY 1980

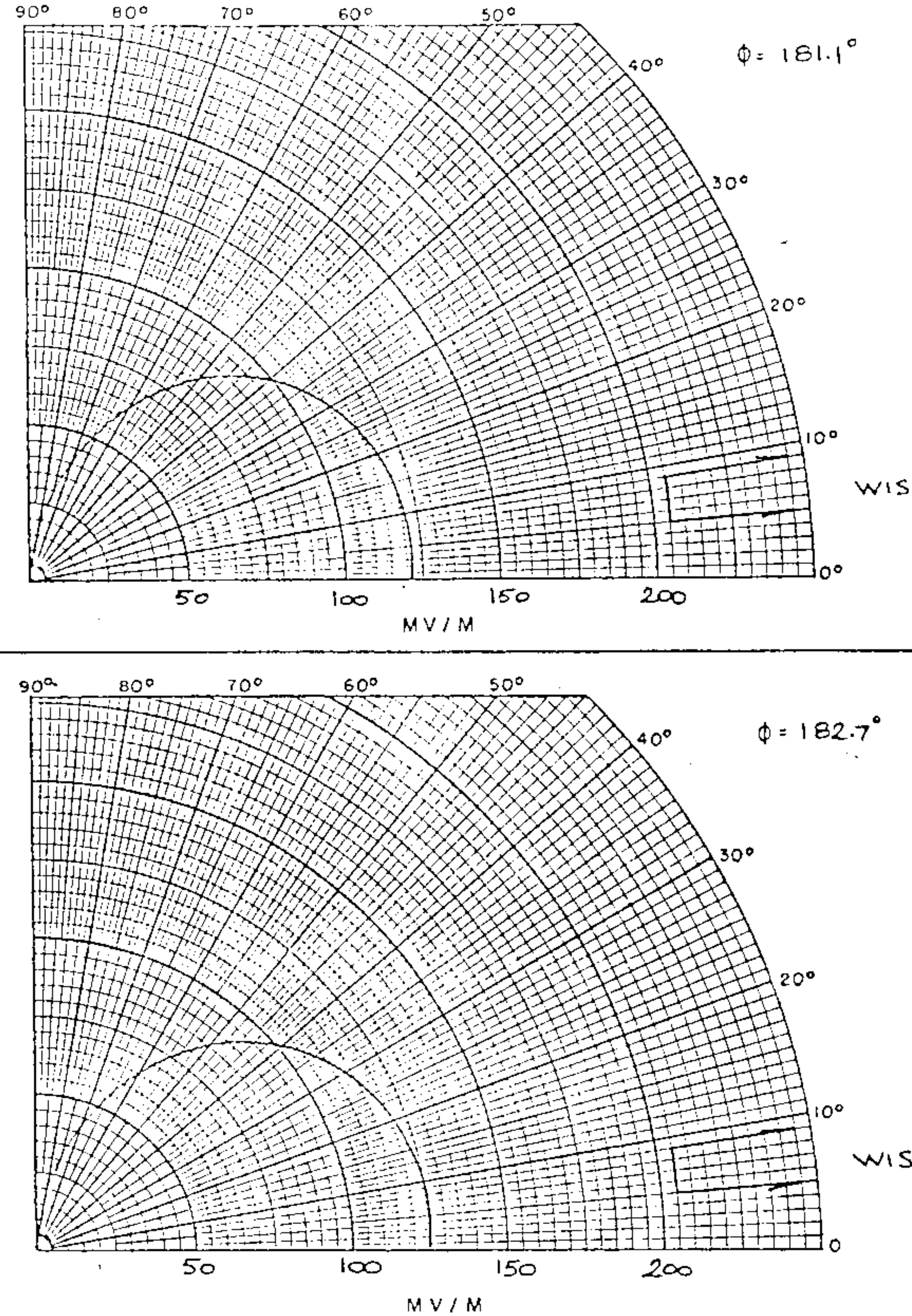




VERTICAL RADIATION PATTERNS

CFOS – OWEN SOUND, ONTARIO
1N/2.5D kW DA-2 560 kHz
E.E.L. MAY 1980

FIGURE 2-5



VERTICAL RADIATION PATTERNS

CFOS – OWEN SOUND, ONTARIO

1N/2.5D kW DA-2 560 kHz

E.E.L. MAY 1980

CFOS

TABLE I

ANTENNA DESCRIPTION SHEET

STATION CALL: CFOS
MAIN STUDIO: OWEN SOUND, ONTARIO
FREQUENCY: 560 kHz
POWER: 1N/5D kW
CLASS: III
MODE: DA-2
TIME: UNLIMITED

NOTIFICATION LIST NO.: 368... DATE: November 9, 1977

GEOGRAPHICAL LOCATION: Latitude: 44° 32' 40" North
Longitude: 80° 54' 08" West

ARRAY CHARACTERISTICS: Five guyed steel towers of uniform cross section; base insulated; series fed; night towers top loaded to approximate electrical height of 74.5° using four wires per tower, each 100' long and inclined at 45°.

	NIGHT			DAY	
TOWER NUMBER:	1	2	3	4	5
HEIGHT ABOVE GRADE:	298'	298'	298'	325'	325'
HEIGHT ABOVE BASE INSULATOR:	293'	293'	293'(60.0°)	320'	320'(65.6°)
FIELD RATIO:	1.00	1.39	1.00	1.00	1.00
PHASE:	-160°	0°	160°	0°	33.3°
SPACING:	391' 80°	Ref.	391' 80°	Ref.	732.1' 150°
ORIENTATION:	304°	Ref.	124°	Ref.	226.5°

GROUND SYSTEM: 120 equally spaced radials per tower of #10 AWG bare copper buried 6" - 18" below grade, where possible, of average length 703'(0.4λ) and minimum length 440' (0.25λ), excluding those along the common chord.

PREDICTED EFFECTIVE FIELD: DAY: 391.3 mV/m for 5 kW
(UNATTENUATED AT ONE MILE) or 175 mV/m for 1 kW
NIGHT: 177 mV/m for 1 kW

.../2

CFOS

TABLE 1

PLEASE retain night-time radiation patterns supplied with List No. 115 dated October 15, 1957.

ANTENNA DESCRIPTION SHEET

STATION CALL: CFOS

MAIN STUDIO: OWEN SOUND, ONTARIO

FREQUENCY: 560 kHz

POWER: 1N/2.5D kW

CLASS: III

MODE: DA-2

TIME: UNLIMITED

NOTIFICATION LIST NO.: ..350... DATE: January 20, 1976

GEOGRAPHICAL LOCATION: Latitude: 44° 32' 40" North
Longitude: 80° 54' 08" West

ARRAY CHARACTERISTICS: Five guyed steel towers of uniform cross section; base insulated; series fed; night towers top loaded to approximate electrical height of 74.5° using four wires per tower, each 100' long and inclined at 45°.

	NIGHT			DAY	
TOWER NUMBER:	1	2	3	4	5
HEIGHT ABOVE GRADE:	298'	298'	298'	325'	325'
HEIGHT ABOVE BASE INSULATOR:	293'	293'	293'(60.0°)	320'	320'(65.6°)
FIELD RATIO:	1.00	1.39	1.00	1.00	0.96
PHASE:	-160°	0°	160°	0°	34°
SPACING:	391' 80°	ref.	391' 80°	ref.	732.1' 150°
ORIENTATION:	304°	ref.	124°	ref.	226.5°

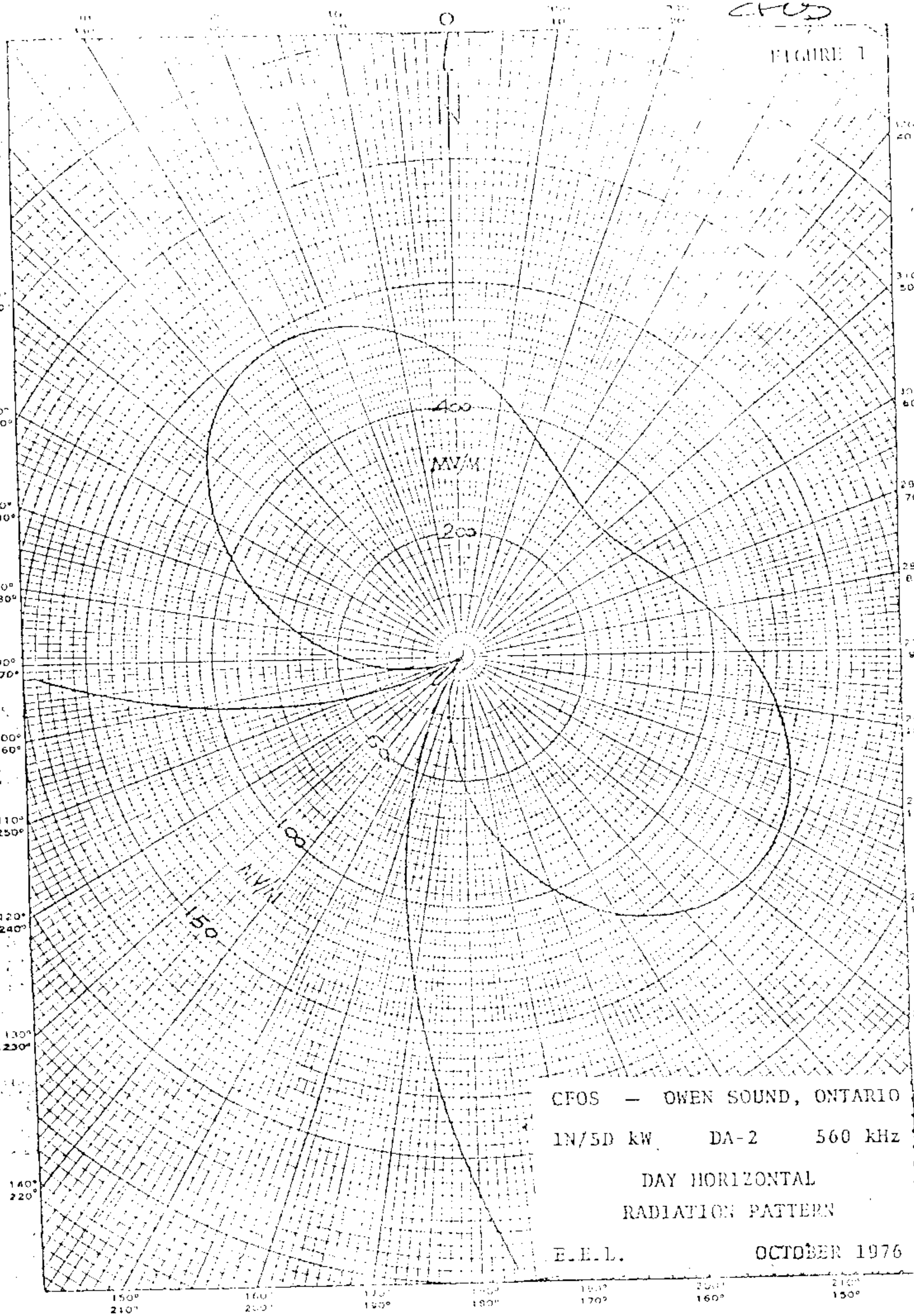
GROUND SYSTEM: 120 equally spaced radials per tower of #10 AWG bare copper buried 6" - 18" below grade, where possible, of average length 703'(0.4λ) and minimum length 440' (0.25λ), excluding those along the common chord.

PREDICTED EFFECTIVE FIELD: (UNATTENUATED AT ONE MILE)
DAY: 276.7 mV/m for 2.5 kW
or 175 mV/m for 1 kW
NIGHT: 177 mV/m for 1 kW

Please retain the night-time directional antenna radiation pattern for CFOS forwarded with Canadian Change List 115 dated October 15, 1957. This proposal involves a change in the day-time operation only.

CHOS

FIGURE 1



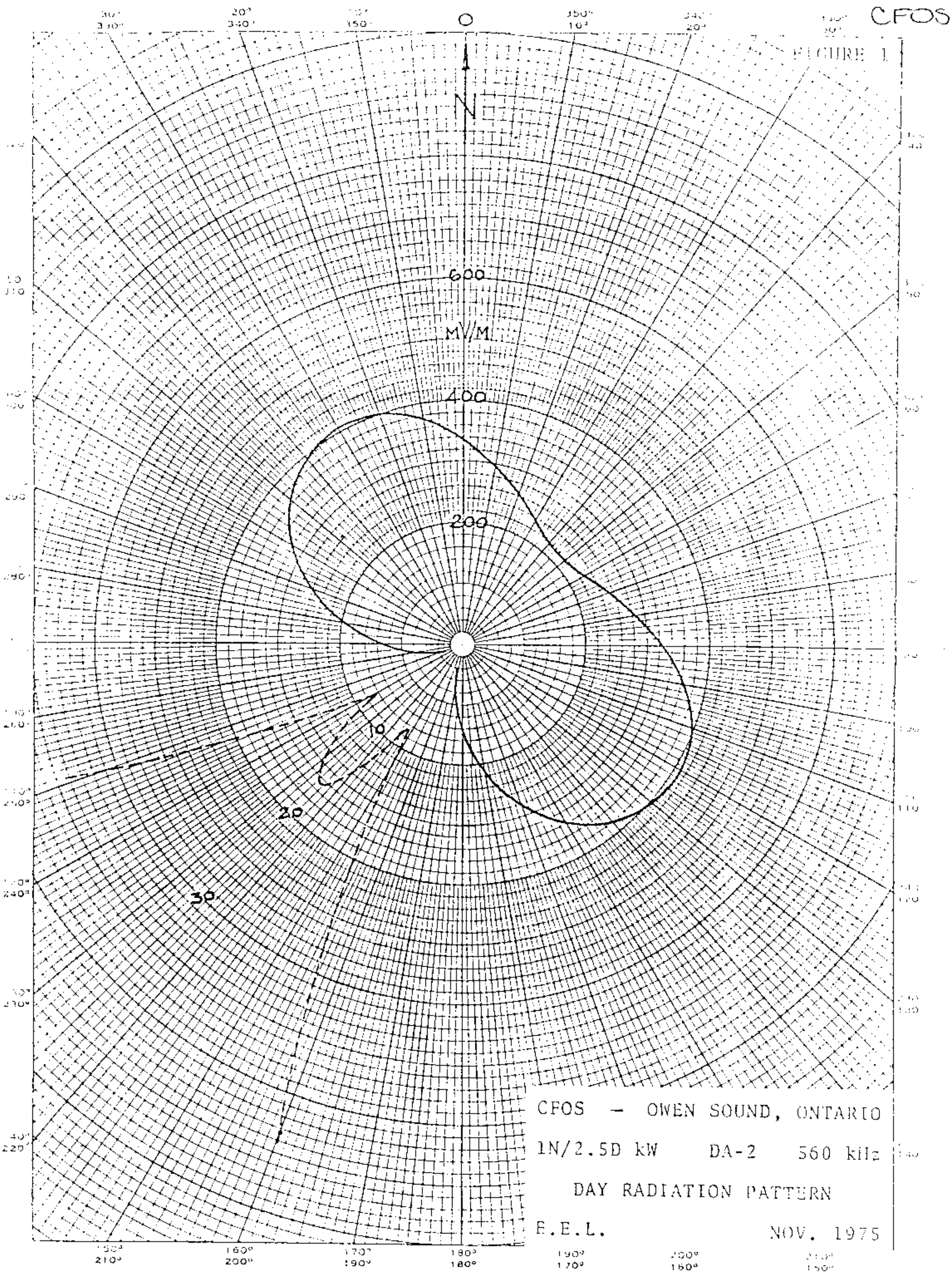
CFOS — OWEN SOUND, ONTARIO

1N/5D KW DA-2 560 kHz

DAY HORIZONTAL

RADIATION PATTERN

E.E.L. OCTOBER 1976



CFOS - OWEN SOUND, ONTARIO

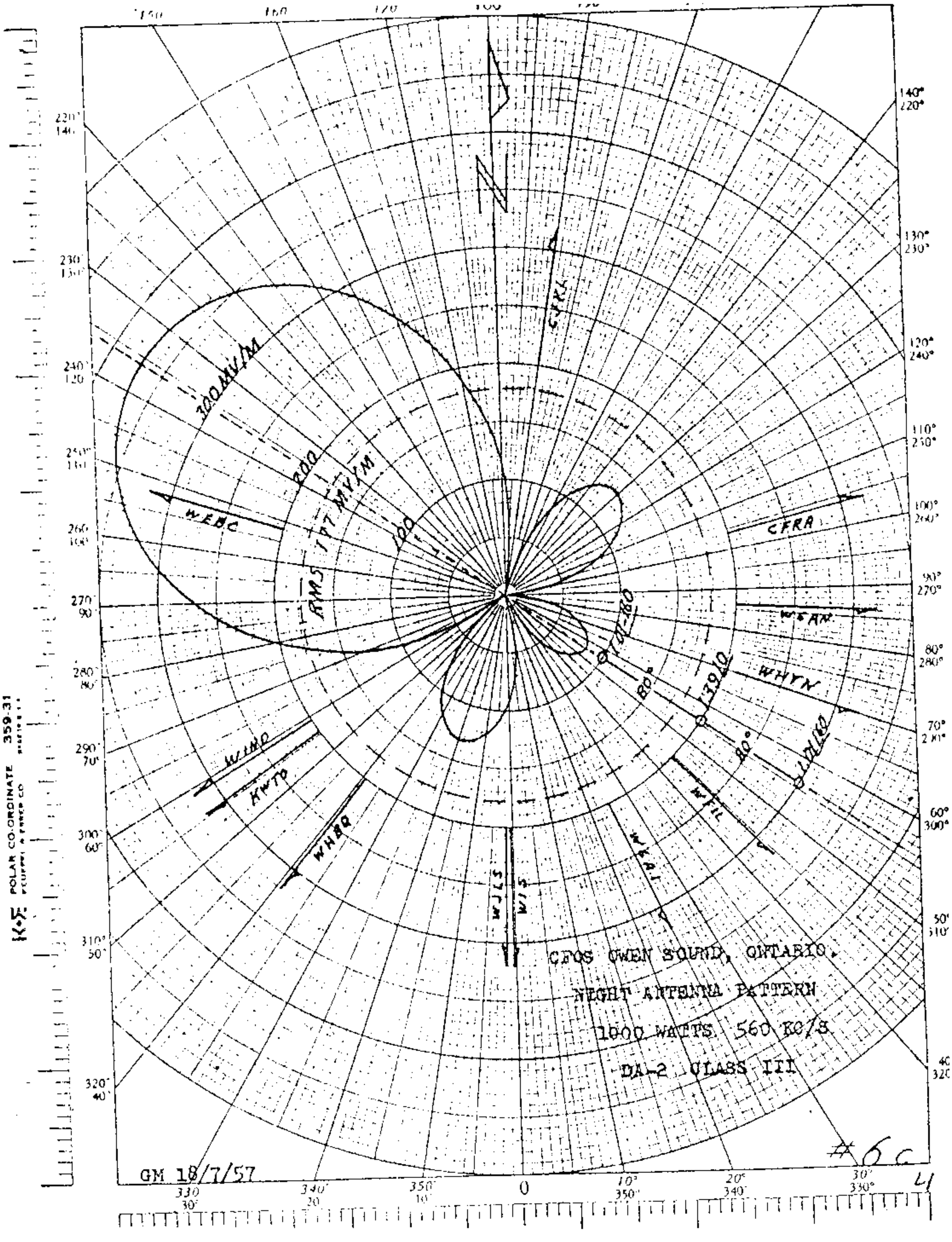
1N/2.5D kW DA-2 560 kHz

DAY RADIATION PATTERN

E.E.L. NOV. 1975

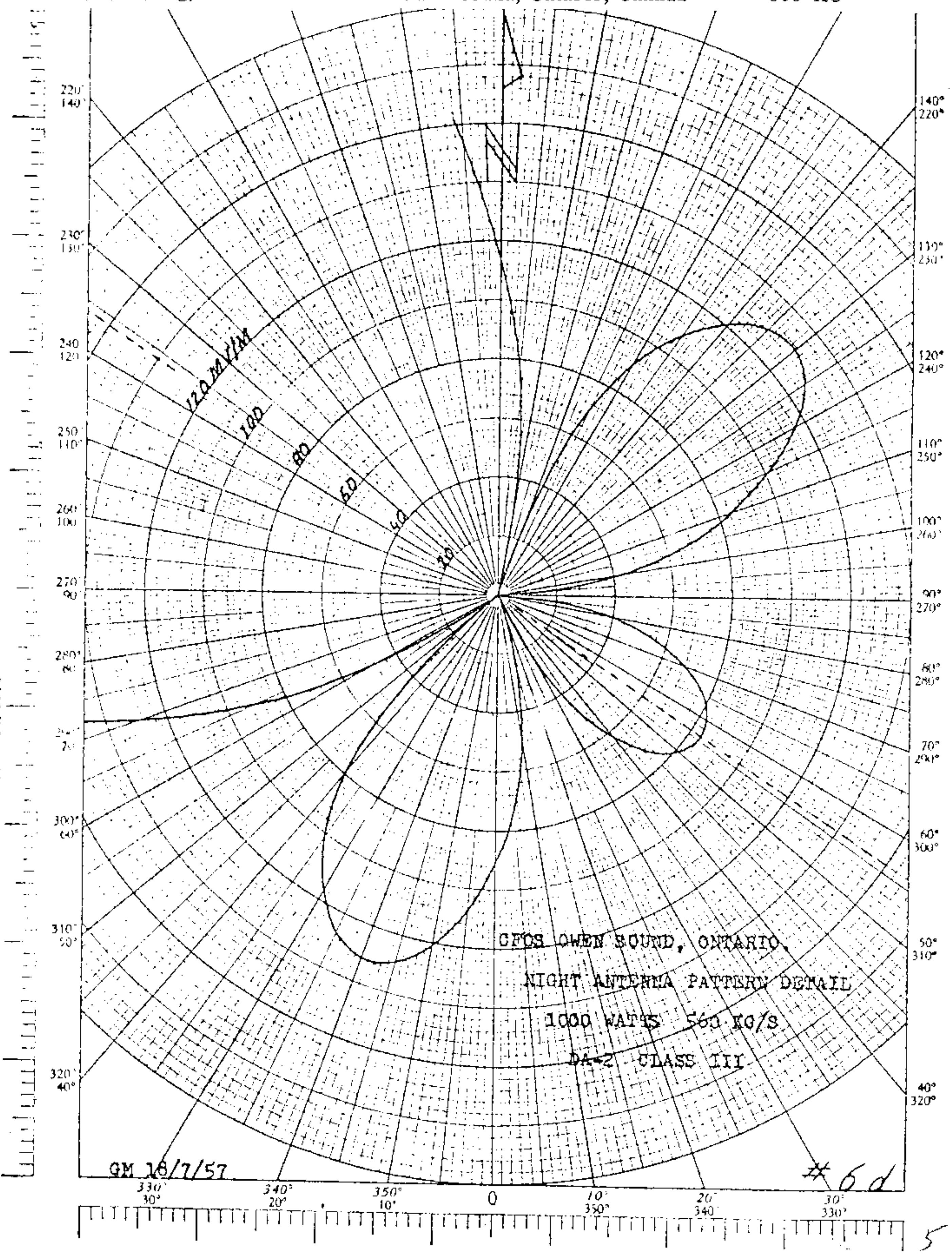
PROPOSED NIGHT
(11/22/57g)

Station CFOS 1kw, DA-2,U
Owen Sound, Ontario, Canada 560 KC



CFOS

PROPOSED NIGHT NULL (11/22/57g) Station CFOS 1kw, DA-2,U
Owen Sound, Ontario, Canada 560 KC



5

CHCM

CHCM - Marystown, Newfoundland

602

DIRECTIONAL ANTENNA - DESCRIPTION SHEET.

Station : CHCM

Location : Marystown, Nfld.

Frequency : 560 kHz

Power : 10 kW - Day
5 kW - Night

Class : III

Notification List No.: 368

Date : November 9,1977

Geographical Location of the Centre of the Antenna System : 47° 09' 33" N. Latitude
55° 14' 37" W. Longitude

ANTENNA CHARACTERISTICS

Mode of Operation : DA-N, Unlimited Time
Number of Elements : Two (2)
Type of Elements : Guyed steel towers, uniform cross-section, base insulated, series fed, no top loading.

Tower No.	:	2 (S.W.)	1 (N.E.)
Height above Insulator	:	293 ft.	293 ft.
Overall Height	:	298 ft.	298 ft.
Field Ratio	:	1	0.73
Phasing	:	0°	-127°
Spacing	:	REF	80°
Orientation	:	REF	025.57° E

Ground System : 120 equiangularly spaced radials per tower, No. 10 bare, soft-drawn copper wire, buried at least 8" in ground, each radial 702 ft. (=0.4λ) long, except along common chord.

Predicted Effective Field :

DAY
570.8 mV/m at 1 mile for 10 kW radiated,
180.5 mV/m at 1 mile for 1 kW radiated;

NIGHT
396.2 mV/m ar 1 mile for 5 kW radiated,
177.2 mV/m at 1 mile for 1 kW radiated.

PETER CAHN & ASSOCIATES
CONSULTING ENGINEERS

CHCM

DIRECTIONAL ANTENNA - DESCRIPTION SHEET

Station : New AM CHCM Location : Marystown, Nfld.

Frequency : 560 kHz Power : 10 kW Class : III

Notification List No.: 362 Date : March 15, 1977

Geographical Location of the Centre of the Antenna System : 47° 09' 26" N. Latitude, 55° 14' 37" W. Longitude

ANTENNA CHARACTERISTICS

Mode of Oeration : DA-N, Unlimited Time (U)
Number of Elements: Three (3)
Type of Elements : Guyed steel tower, uniform cross-section, base insulated, series fed, no top loading.

Tower No. :	2 (S.W.)	1 (N.E.)	3 (E.)
Height above Insulator :	293 ft (60°)	292 ft	293 ft
Overall Height :	298 ft	298 ft	298 ft
Field Ratio :	1	0.95	0.65
Phasing :	0°	-174°	-074°
Spacing :	REF.	80°	60°
Orientation :	REF	25.57°	85°

Ground System : 120 equiangularly spaced radials per tower. AWG No. 10 bare, soft-drawn, copper wire buried at least 8" in ground, each radial 702 ft.(=0.4λ) except along common chords.

Predicted Effective Fields :

DAY 575.5 mV/m at 1 mile for 10 kW radiated
182.0 mV/m at 1 mile for 1 kW radiated;

NIGHT 551.0 mV/m at 1 mile for 10 kW radiated
174.2 mV/m at 1 mile for 1 kW radiated.

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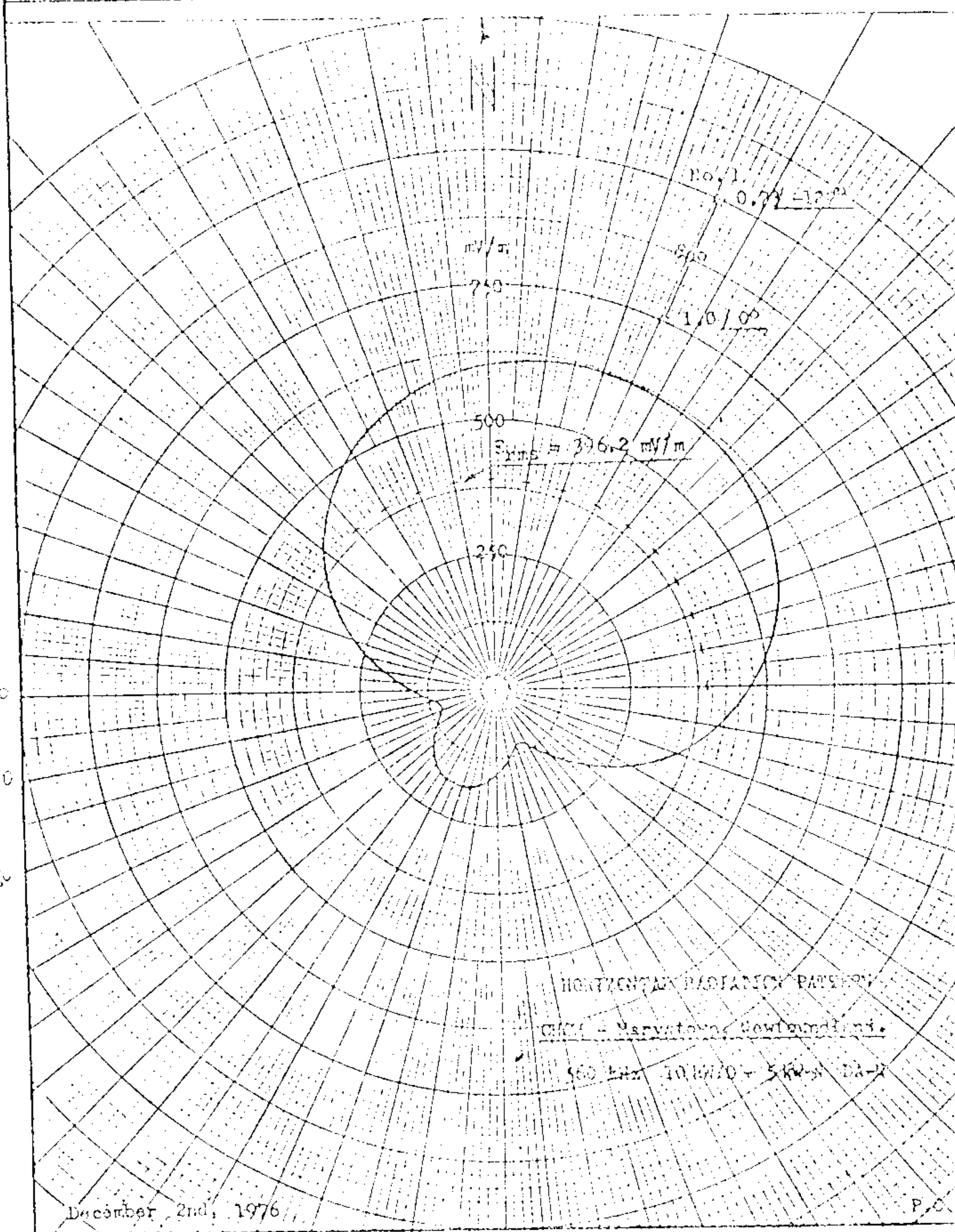
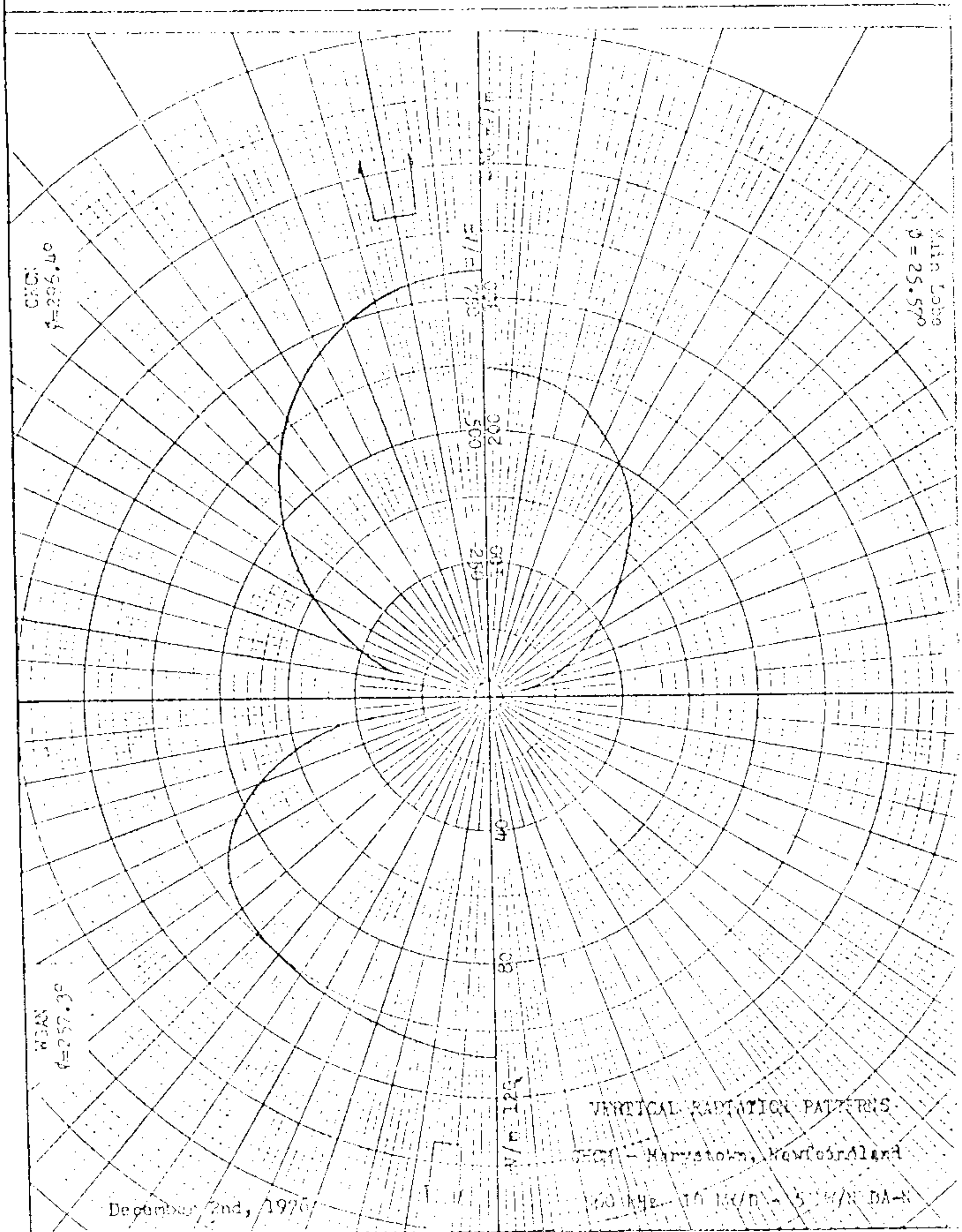
CONSULTING ENGINEERS

CHCM

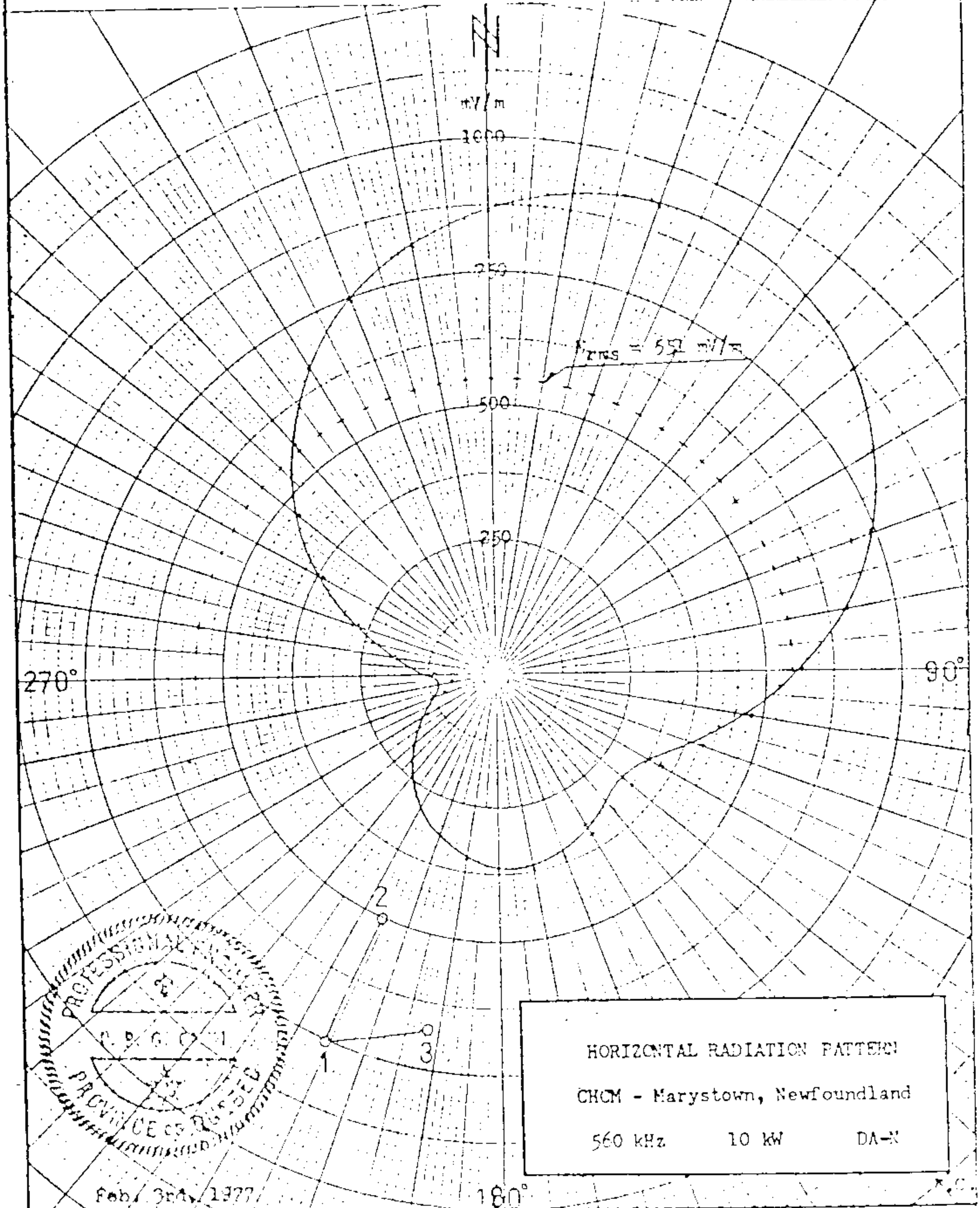


270
260
250

CHCM

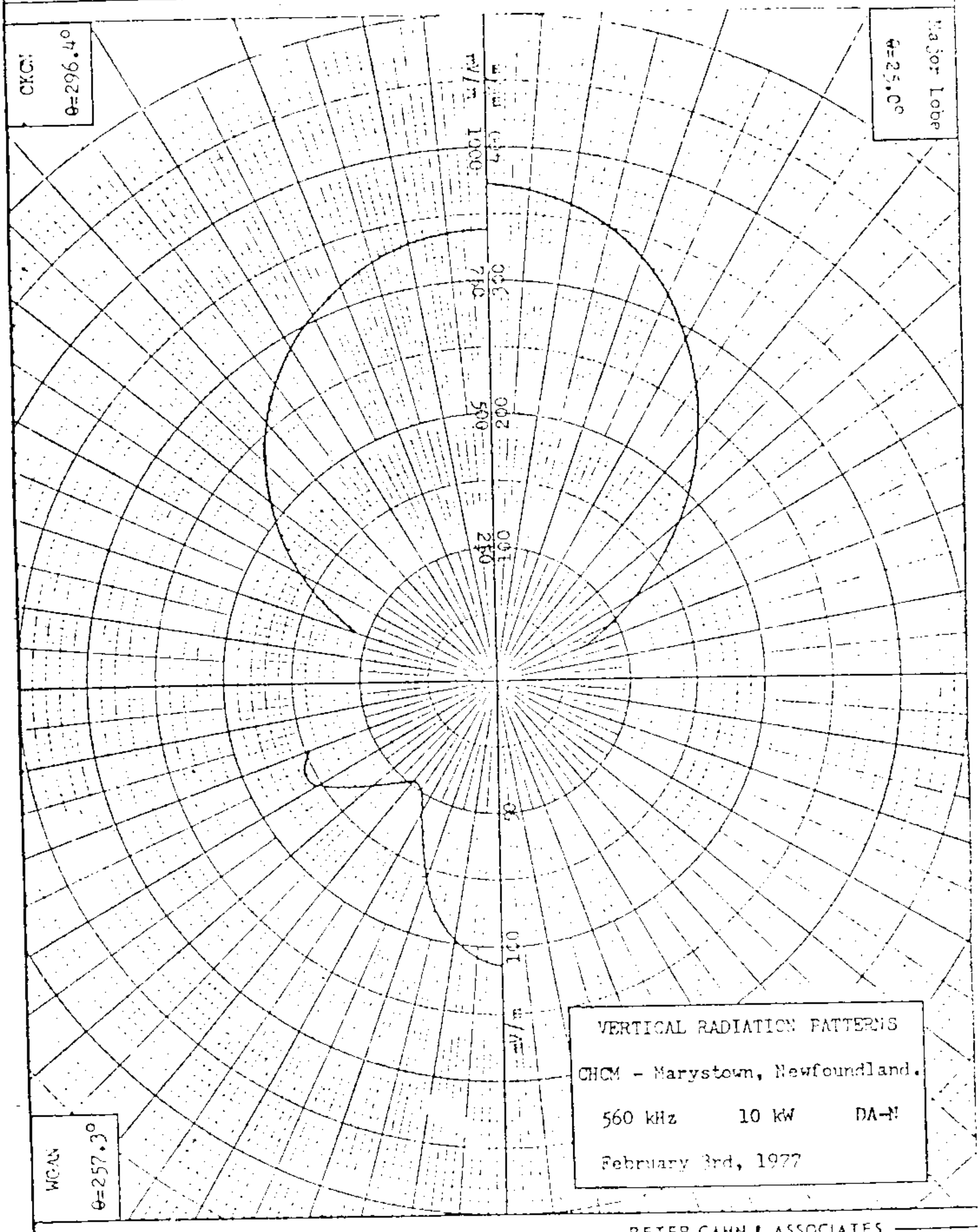

CHCM
ϕ=296.4°
Main Lobe
θ=25.5°
ϕ=257.3°
VERTICAL RADIATION PATTERNS
CHCM - Marystown, Newfoundland

CHCM


N
mV/m
1000
750
500
250
Erms = 552 mV/m
270°
90°
180°
2
1
3
HORIZONTAL RADIATION PATTERN
CHCM - Marystown, Newfoundland
560 kHz 10 kW DA-N
Feb. 3rd, 1977

CHCM

CHCM - Marystown, Newfoundland 8r3



PETER CAHN & ASSOCIATES
CONSULTING ENGINEERS

Description Sheet
(6-29-64ct)

New Station
Prince Rupert, B. C.

250w,1kw-LS,U,Class IV
560 kc

CHTK

HOYLES, NIBLOCK AND ASSOCIATES

CORRECTED

DESCRIPTION SHEET

Omnidirectional Antenna

JAN 1964
RECEIVED

Station Call:	New
Location:	Prince Rupert, B.C.
Frequency:	560 kc/s
Power:	1 kw D/ 0.25 kw N
Class: IV	Operation Unlimited
Notification List No.	Date:
Geographic Coordinates Antenna System:	54° 17' 55" N. Latitude 130° 23' 10" W. Longitude
Antenna Characteristics:	Height 288' (59°)
Type of Element:	A guyed uniform cross-section single tower base-insulated and fitted for series feed.
Ground System:	120 - 0.4λ (or less terminated in salt water) buried approximately 8" below grade.
Expected Efficiency:	175 mv/m at 1 mile for 1 kw 87.5 mv/m at 1 mile for 0.25 kw

NOTE: This corrected description sheet replaces description sheet notified in Canadian Change List No. 188, dated May 22, 1964. This concerns a correction in the Class of the station and expected efficiency.

June 5, 1964.

CONSULTING TELECOMMUNICATION ENGINEERS AND ATTORNEYS

CHVO
DELETE
560

IFRB Serial No.

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. 415 | Date 821130

Assigned frequency (kHz)		(02)	560
Transmitting station	Name of the station	(03)	CONCEPTION BAY
	Call sign	(04)	CHVO
	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 [ ] c) Cancellation of an assignment [X]

Station remains on 850 kHz

(12) Modification under Section 4.2.14 Yes [ ] 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								

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

CHVO
560

PART I GENERAL INFORMATION

(01) Administration: CANADA | Sheet No. 412 | Date 820504

Assigned frequency (kHz)		02	560
Transmitting station	Name of the station	03	CONCEPTION BAY
	Call sign	04	CHVO
	Additional Identification	05	
	Station class	06	B
	Operational Status	07	P
Country		08	CAN
Geographical coordinates of the transmitting station		09	53W1514 47N3936

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

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

(13) Date of bringing into service or cessation of operation: 83 06 01 (Year Month Day)

STATION PARAMETERS	DAYTIME OPERATION		NIGHT-TIME OPERATION	
Station power (kW)	21	5.00	31	5.00
r.m.s. value of radiation for station power (mV/m at 1 km)	25		35	
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								

FORM FOR THE APPLICATION OF AR ...LE 4 OF THE AGR ...IENT
CHARACTERISTICS OF A REGION 2 BROADCAS...NG STATION IN THE ...AND 535 -1605 kHz

PART II S...tion I

Description of a directional anten... consisting of vertical ...luctors

Sheet No. 412

Date 820504

(01) CONCEPTION BAY
Name of transmitting station

(02) AN
...untry

HJ
Hours of operation

(04) 2
Total number of towers

(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.		60.	
2	.56	-88.	96.82	95.		60.	
	.	.	.	.		.	
	.	.	.	.		.	
	.	.	.	.		.	
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	.	.	.	.		.	
	.	.	.	.		.	
	.	.	.	.		.	
	.	.	.	.		.	

(14) r.m.s. value of radiation	(15) Type of pattern	(16) Special quadrature factor
638.6 mV/m at 1 km	E	. mV/m at 1 km

(17) SUPPLEMENTARY INFORMATION

CHVO
560

CHVO 560

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. 412

Date 820504

(01) Name of transmitting station: CONCEPTION BAY

(02) Country: CAN

(03) Hours of operation: HN

(04) Total number of towers: 02

(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) [illegible]
1	1.	0.	0.	0.		60.	
2	.56	-88.	96.82	95.		60.	

(14) r.m.s. value of radiation: 638.6 mV/m at 1 km

(15) Type of pattern: E

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

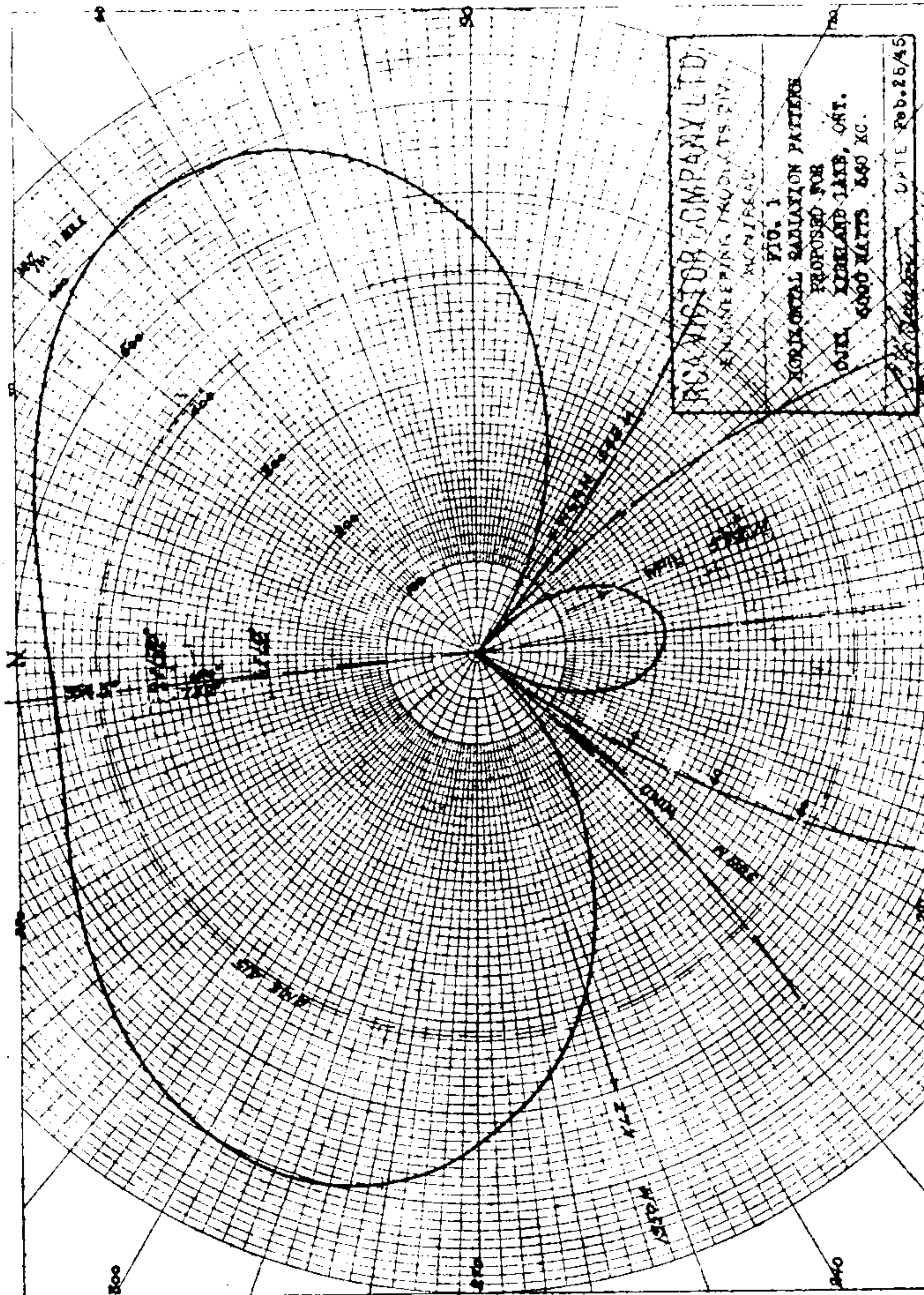
(17) SUPPLEMENTARY INFORMATION

CJKL- 560 Kc

DESCRIPTION OF PROPOSED ANTENNA SYSTEM

Number of Radiators:	2
Type of Radiators:	Identical radiators of uniform cross-section, insulated at the base for series feed.
No top loading to be used.	
Height of Radiators:	288 feet
Overall Height above grade level:	293 feet (60°)
Spacing:	732 feet (150°)
Orientation:	True bearing of line joining towers 354.5°.
Current Ratio:	1 to 1.
Phasing:	Current in south radiator to lead that in north radiator by 70°.
Ground System:	Each radiator to have a ground system of 120 radials. The radials will be bonded together at the towers and at points where radials of the two systems meet. Where possible ground radials will be buried at least six ins.
Non-Directive operation:	Unused tower allowed to float electrically.
Predicted effective field:	430 MV/M non-directional (192 MV/M for 1 KW.)
CJKL Kirkland Lake, Ontario.	5000 watts Class III-B 560 kilocycles.
	Latitude 48° 04' 18.5" N. Longitude 80° 01' 38" W.

CJKL
560



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

3a

CKCN

Description Sheet
(6-29-64ct)

Station CKCN
Sept Iles, P.Q.

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

DIRECTIONAL ANTENNA DESCRIPTION SHEET

Station: CKCN

Main Studio: Sept Iles, P.Q.

Frecuency: 560 kc/s

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

Notification List No. 188

Date: May 22, 1964

GEOGRAPHICAL LOCATION OF THE CENTER OF THE ANTENNA SYSTEM: North Latitude: 50° 12' 18"

West Longitude: 66° 34' 04"

ANTENNA CHARACTERISTICS

Mode of operation: Authorized for Day & Night. (DA-2)
Number of elements: Three (3)
Type of elements: Uniform section, guyed steel towers base insulated for series feed.

Tower:	No.1 (North)	No.2 (Center)	No.3 (South)
Height above insulators:	293' (60°)	293'	293'
Spacing:	100° (488')	reference	100° (488')
Phasing, Day:	180°	0°	
Night:	-113°	0°	+113°
Field ratio; Day:	1.8	1.0	
Night:	.51	1.0	.69
Orientation:	15°	reference	195°

Ground system: 120 equiangularly spaced radials extending from bases of antenna towers over a distance of 704' (.4 wavelength) except those connected along common chords.

Predicted effective field: 181 mv/m at 1 mile for 1 kw
405 mv/m at 1 mile for 5 kw
573 mv/m at 1 mile for 10 kw.

NOTE: Please retain antenna radiation patterns notified for CKCN in Canadian Change List No. 161 dated June 7, 1961 and attach to this revised description sheet and daytime pattern. This only concerns a change in the daytime operation of the station, with nighttime operation continuing as heretofore.

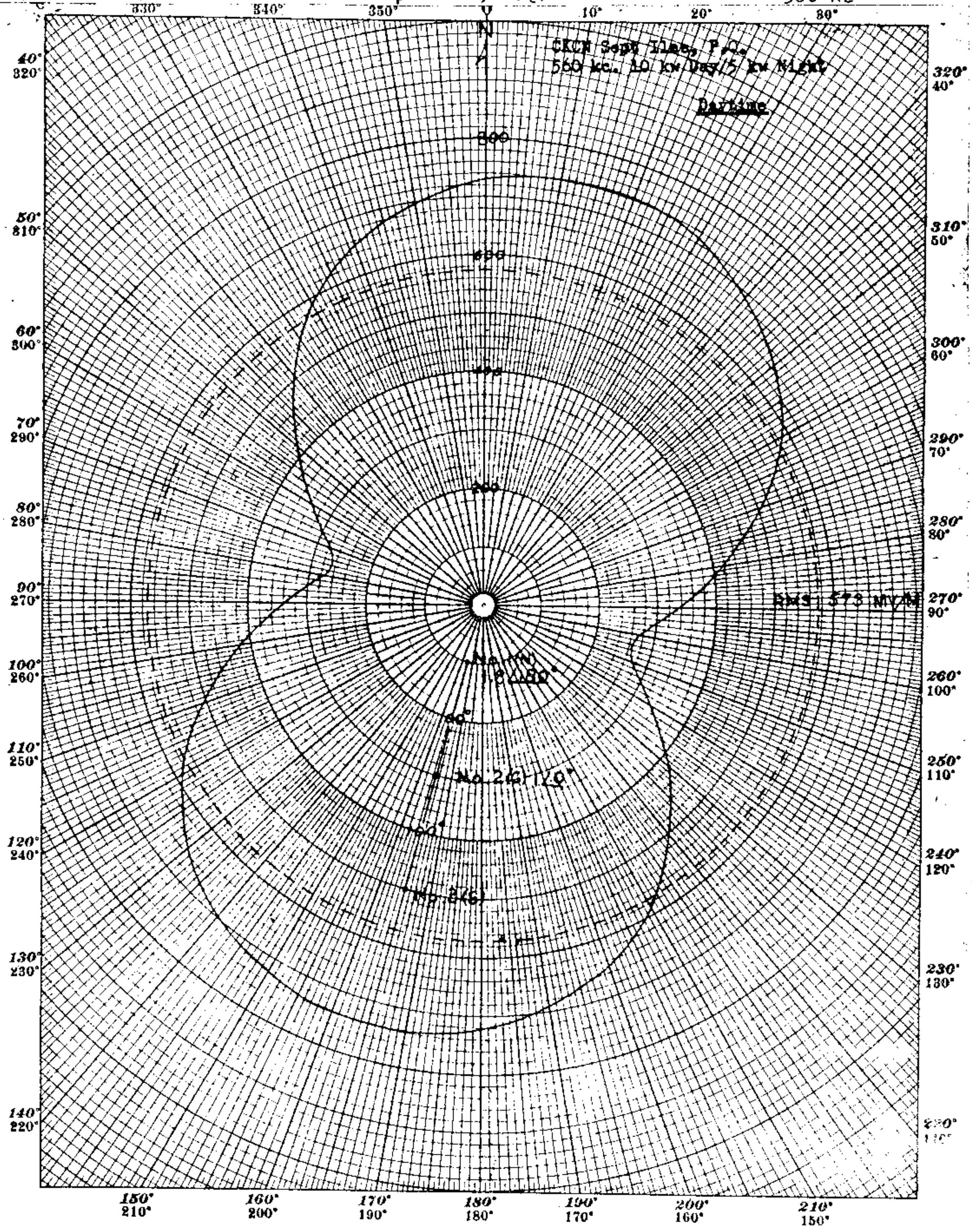
#188

CKCN

Proposed Day
(6-29-64ct)

Station CKCN
Sept Iles, P.Q.

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



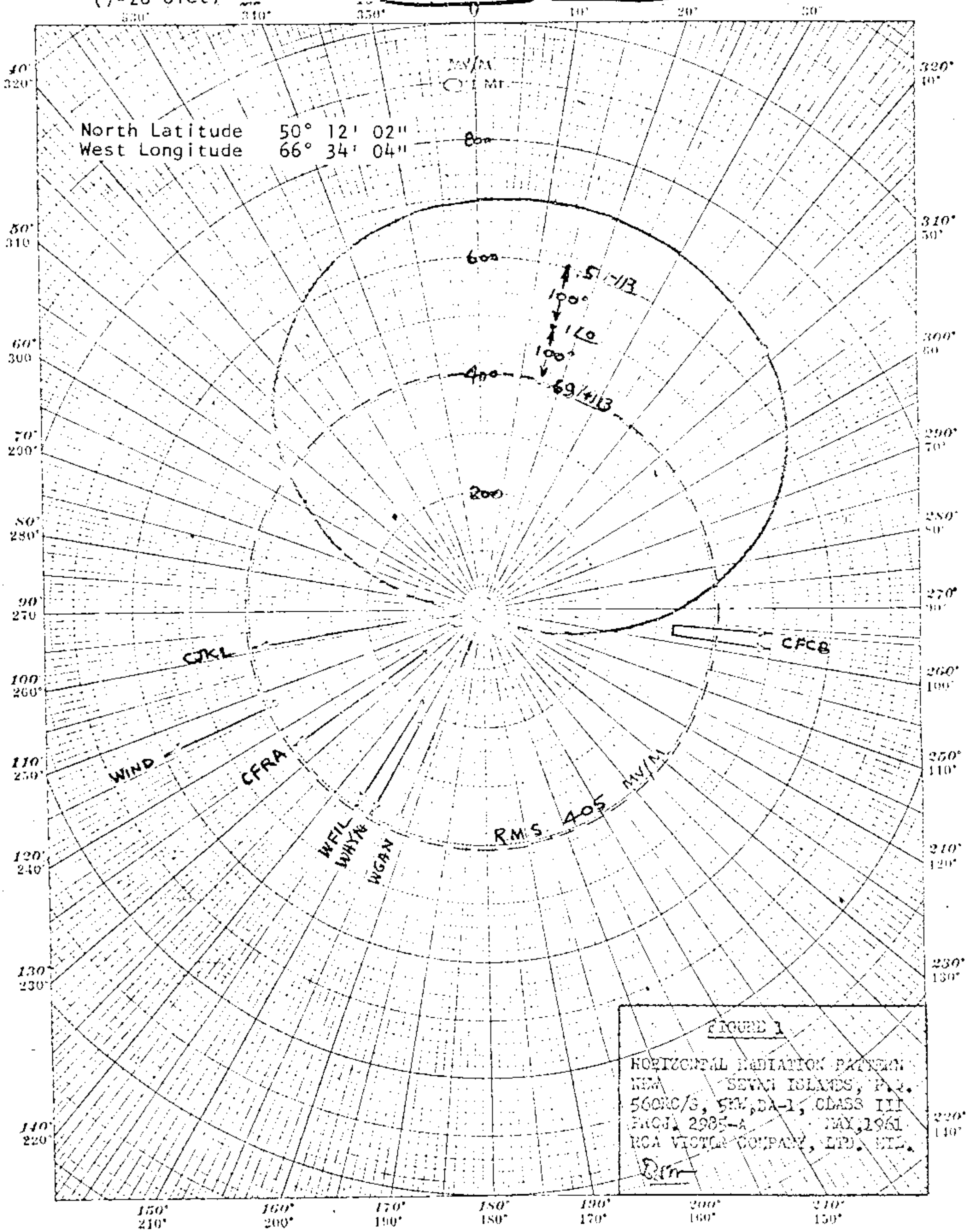
CKCN

#161

PROPOSED ~~DAY &~~ NIGHT
(7-26-61ct)

New Station
Seven Islands, Quebec, Canada

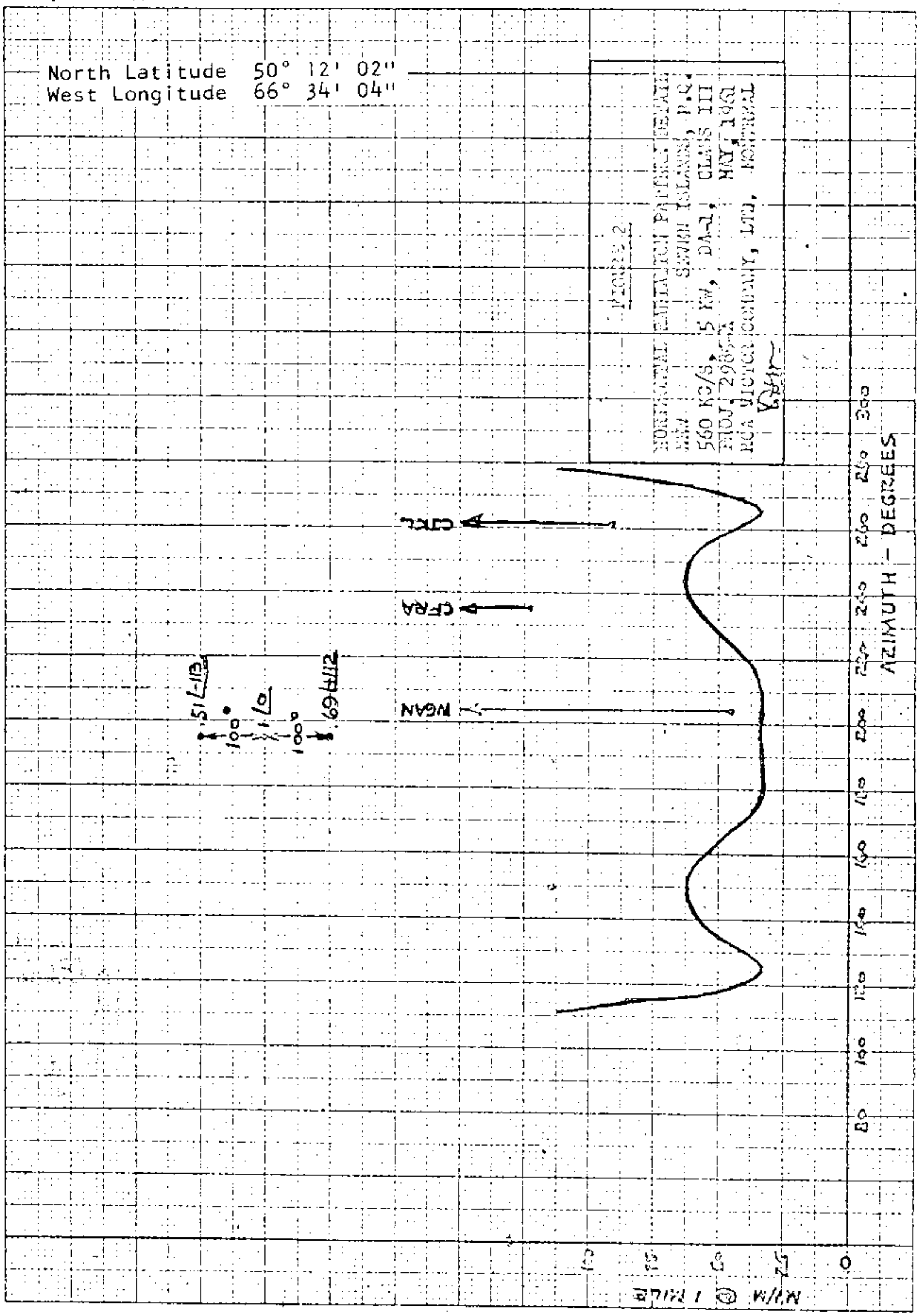
5kw, DA-1,U,Class III
560•KC



CKCN

#161

PROPOSED ~~DAY &~~ NIGHT NULLS New Station 5kw, DA-1,U,Class III
(7-26-61ct) Seven Islands, Quebec, Canada 560 KC



CKNL

Description Sheet
(8-28-64ct)

Station CKNL
Fort St, John, B. C.

1kw,DA-N,U,Class III
560 kc

JUL 1964

2.5 DIRECTIONAL ANTENNA DESCRIPTION SHEET

Station: CKNL

Main Studio: Fort St. John B. C.

Frequency: 560 Kc/s

Power: 1KW, DA-N Class: III

Notification List No: 169

Date: July 20, 1964

GEOGRAPHICAL LOCATION OF THE ANTENNA SYSTEM:

North Latitude: 56° 14' 00"

West Longitude: 120° 53' 32"

ANTENNA CHARACTERISTICS:

Mode of Operation: DA-N
Number of Elements: 2
Type of Elements: guyed, base insulated, seried fed, uniform cross section

TOWER:	No. 1 South	No. 2 North
HEIGHT ABOVE INSULATORS:	300' (61.4°)	300'(61.4°)
OVERALL HEIGHT:	304'	304'
SPACING:	440'(90°)	
PHASING: Night	0	-80°
FIELD RATIO: Night	1.	.55

ORIENTATION: Towers on a line with true North.

GROUND SYSTEM: 120 radials No. 10 AWG copper wire per tower. Radials from each tower bonded to No. 4 AWG bus at right angles midway between towers and extending to property limits. Effective radial length .4λ

Predicted Effective Field: Day 180 mv/m (for 1Kw)
Night 177 mv/m

NOTE: Number 2 tower used daytime.

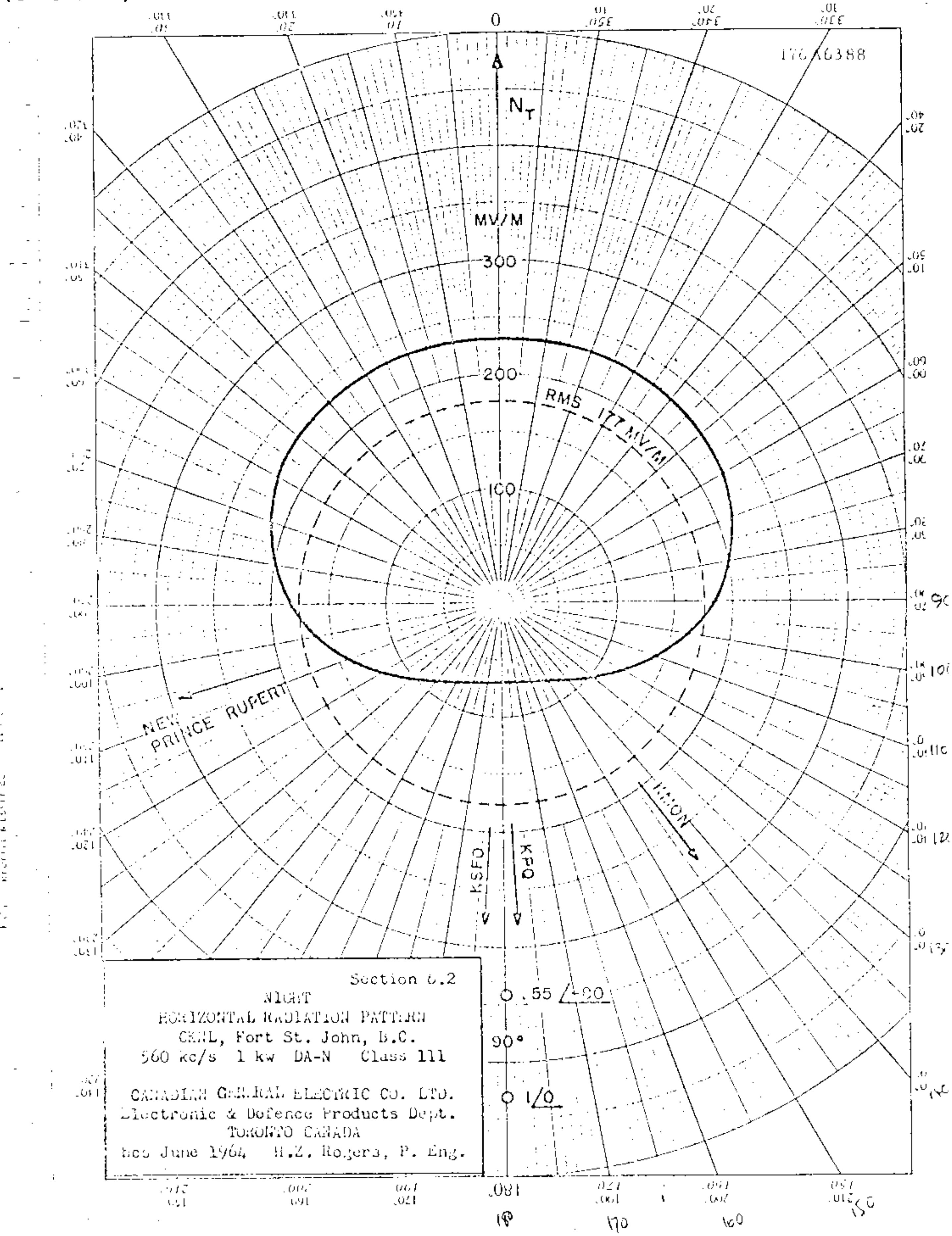
CKNL

#189

Proposed Night
(8-28-64ct)

Station CKNL
Fort St. John, B. C.

1kw,DA-N,U,Class III
560 kc



Cuba

CMKM

DIRECTIONAL ANTENNA DESCRIPTION SHEET

Station: CMKM

Main Studio: Holguin, Oriente

Frequency: 560 Kcs.

Power: 5 kw

Received October 22,1952 Class:III

GEOGRAPHICAL LOCATION OF THE ANTENNA SYSTEM:

North Latitude: 20° 55'

West Longitude: 76° 17'

ANTENNA CHARACTERISTICS

Authorized for Day and Night operation. (DA-1)
Number of elements: Two (2)
Type of elements: Series-fed, guyed, vertical steel towers.

TOWER:	North	South
HEIGHT ABOVE GROUND:	300'	300' (61.5°)
SPACING:	(293' or 60° between adjacent towers)	
PHASING:	0°	-123°
FIELD RATIO:	1	0.78
ORIENTATION:	(Elements on a line bearing 162° true.)	

Predicted effective Field: 392 mv/m (at rated power)

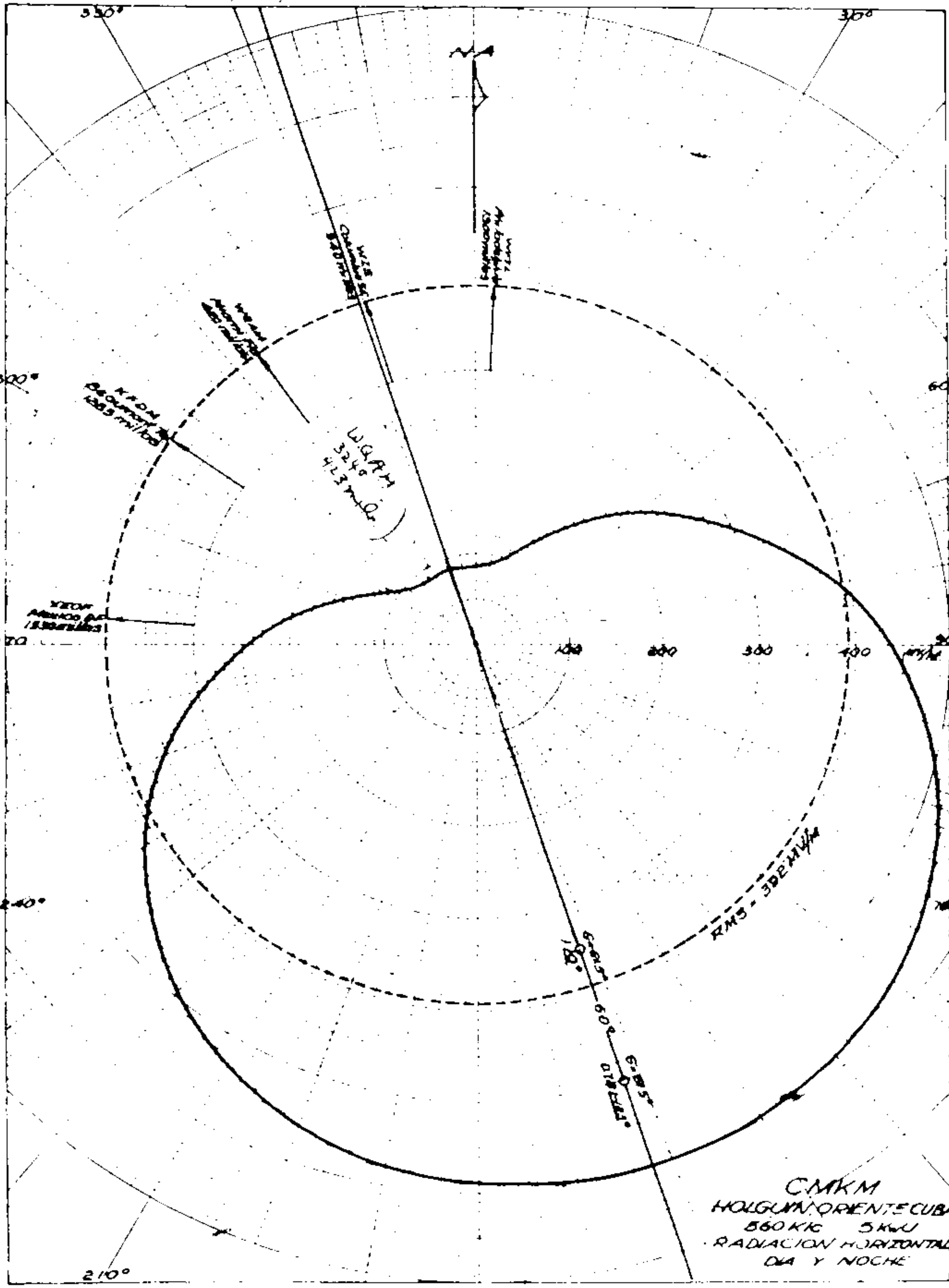
F.C.C. Note:
This pattern supplements the particulars for this station set forth in Annex 3 to the North American Regional Broadcasting Agreement, Washington, D.C., 1950.

Cuba

CMKM

PROPOSED   CMKM, HOLGUIN, ORIENTE   5 kw, DA-1   560 kc
DAY & NIGHT   (5/13/53G)

This pattern replaces that dated (3/18/53G)



CMKM, HOLGUIN, ORIENTE   560 kc

PROPOSED
NIGHT

KYUM, YUMA, ARIZ.

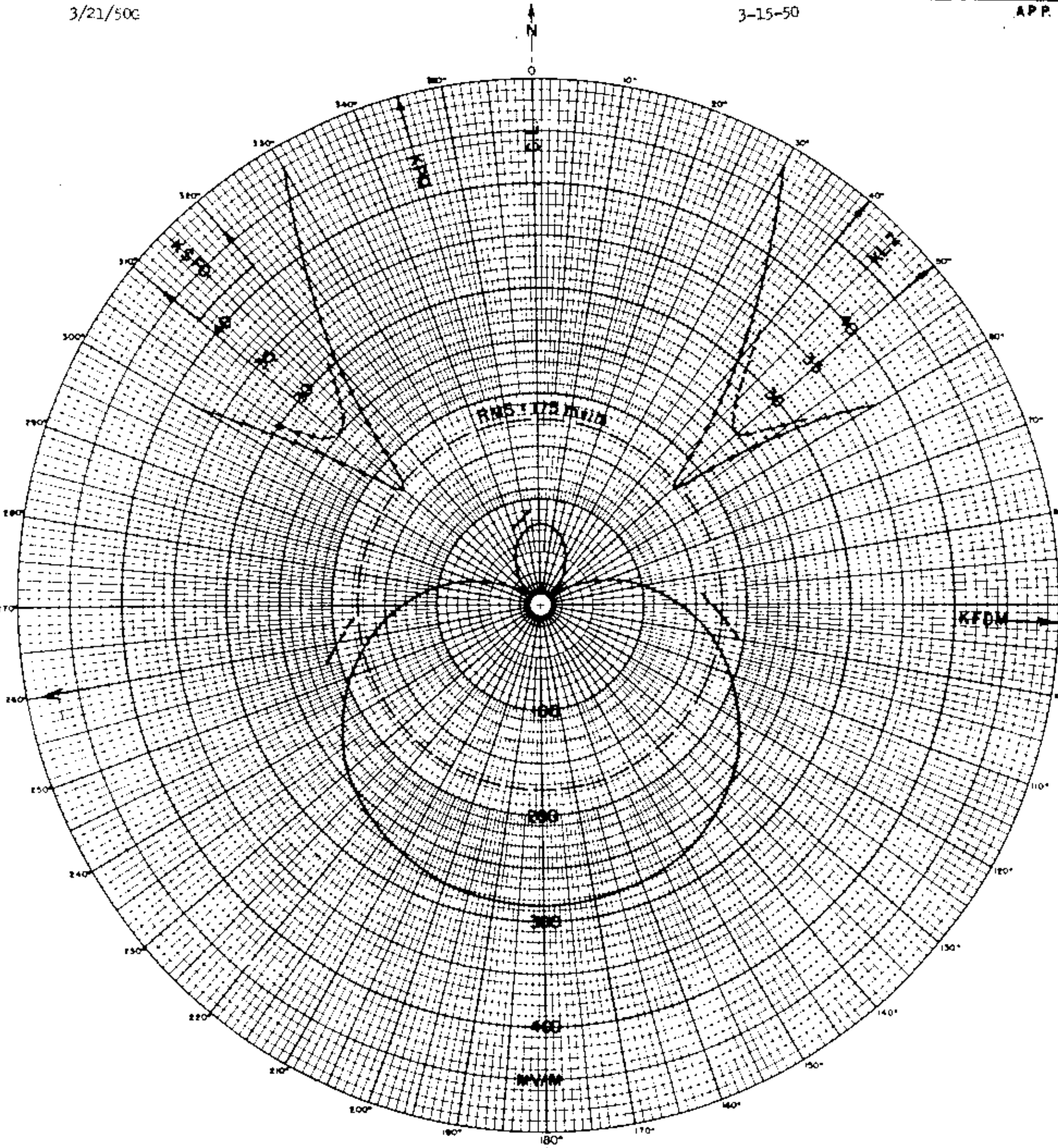
KBLU

1kw, DAN 560 kc

3/21/50c

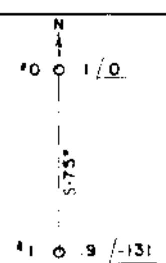
3-15-50

APP. 3a



----- MEOV

ANTENNA PARAMETERS



Tower	Electrical Height	True Tower Orientation	Spacing	Phasing	Horizontal Field mv/m	Field Ratio	Elev Angle	Elevation RMS Field mv/m
No	G°	φ°	S°	ψ°	E	F	θ°	E_θ
0	80	0	0	0		1	0	
1	80	180	75	-131		.9	10	
2							20	
3							30	
4							40	
5							50	
6							60	
7							70	
8							80	
9							RMS h°	
							Ant Orie φ°	

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

KYUM
YUMA, ARIZONA

1 KW DA-N 560 KC

NIGHT-TIME
HORIZONTAL RADIATION PATTERN

491215

Lat SITE:	32° 43' 25" N	Supersedes	470130
Lon	114° 38' 39" W	Pattern No.	491215

KYUM, Yuma, Ariz. 560 kc

KBLU

MEASURED NIGHT   KYUM, YUMA, ARIZ.   1kw, DA-N   560 kc

BL-4390

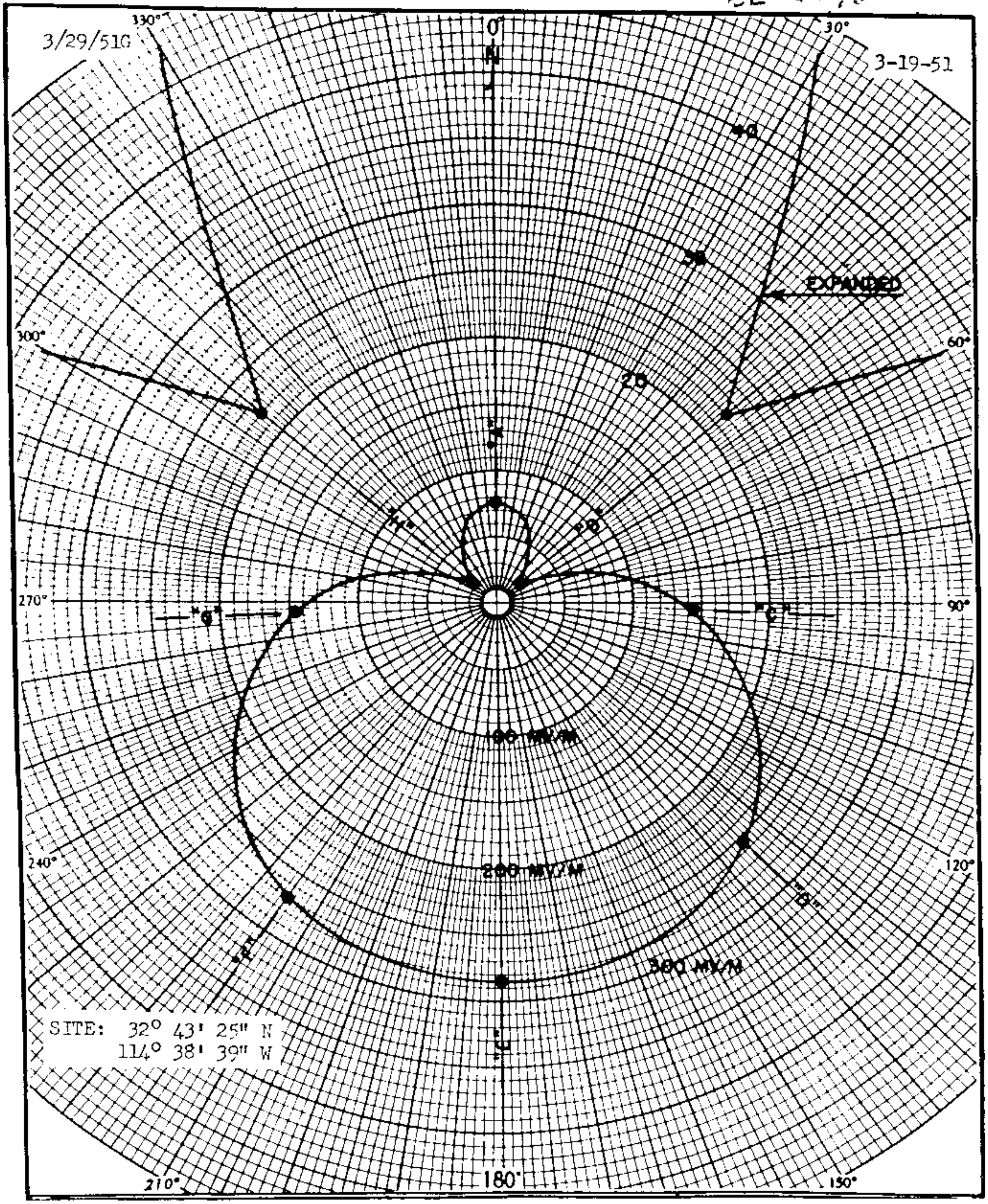


FIGURE NO. 11

Horizontal Radiation Pattern
Antenna Operation: DA: Night

Radio Station KYUM   Yuma, Arizona
1,000 Watts   560 KC
Determined RMS Field at One Mile 178 MV/M
March-1951

MEASURED KYUM, YUMA, ARIZ. KBLU 1kw, DA-N 560 kc
DAY (NON-DA)

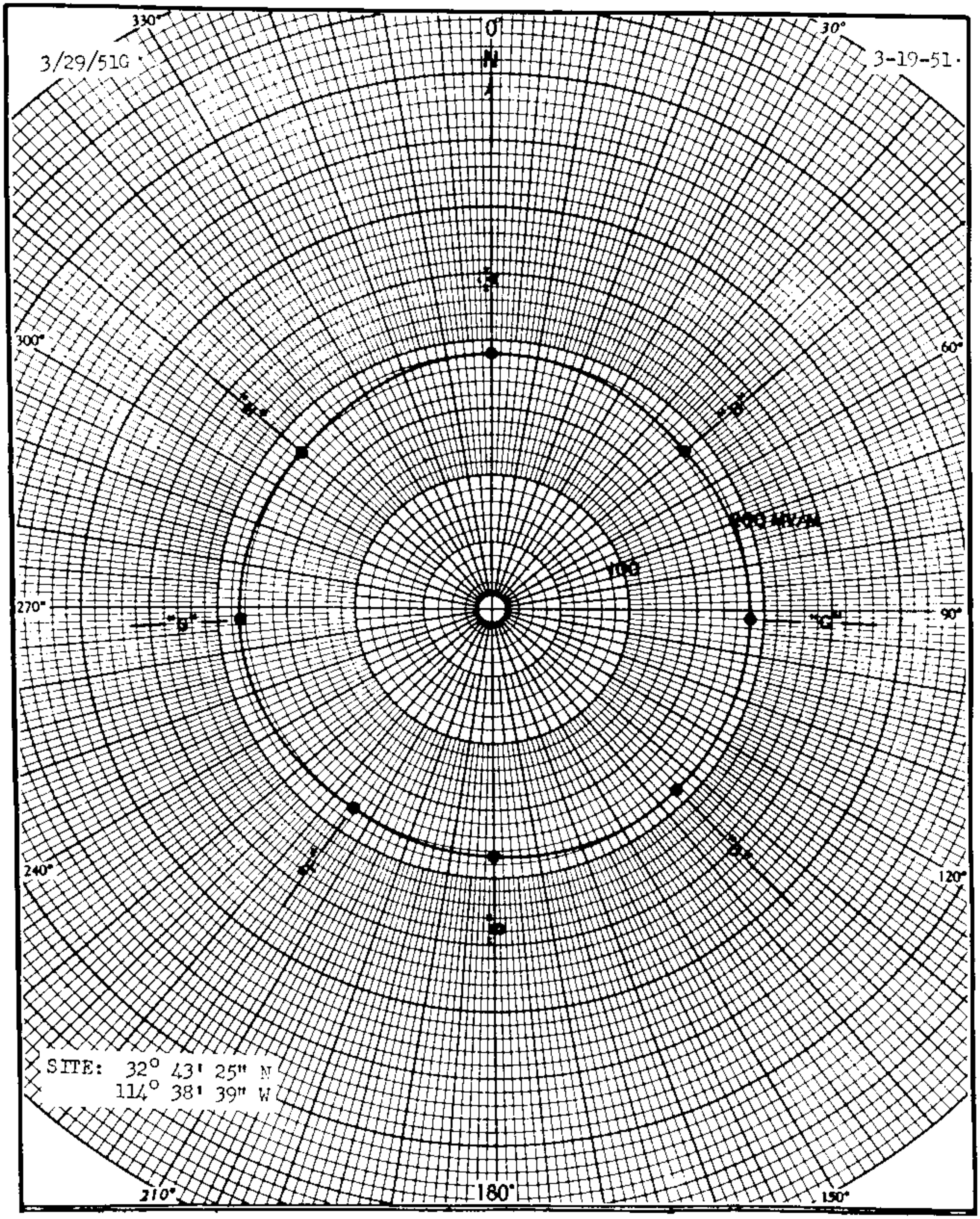


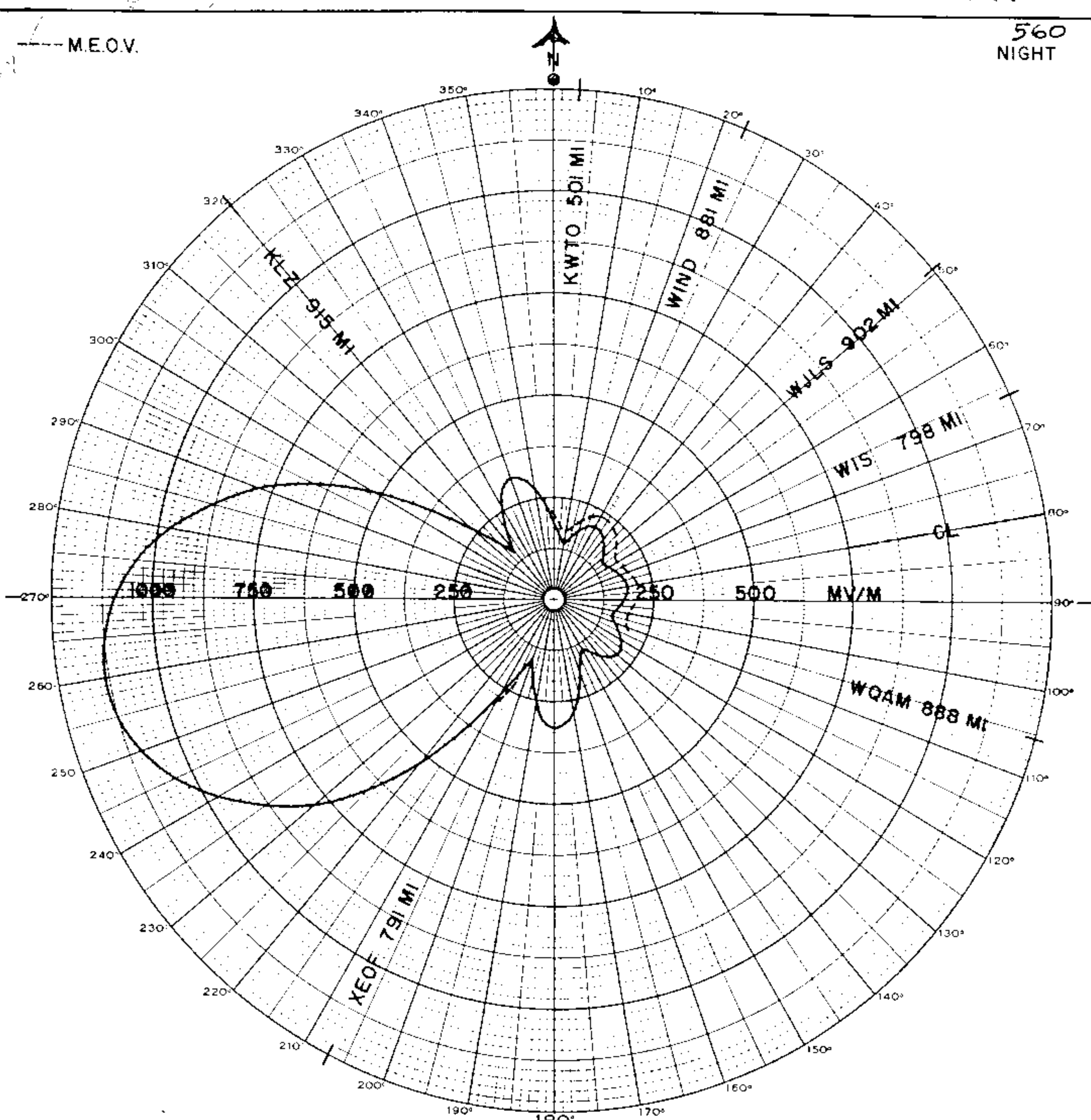
FIGURE NO. 10

Horizontal Radiation Pattern
Antenna Operation: ND (Day)

Radio Station KYUM **Yuma, Arizona**
1,000 Watts 560 KC
Determined RMS Field at One Mile 187 MV/M
March-1951

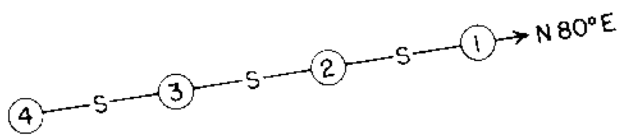
KLVI

560
NIGHT



RMS = 485 MV/M

PATTERN 470804



1: 1.00 $\angle$ 0.0°
2: 1.44 $\angle$ -157.8°
3: 1.23 $\angle$ +39.7°
4: 0.55 $\angle$ -115.0°
S: 90° OR 439.4'
G: 66°

A. EARL CULLUM, JR.
CONSULTING RADIO ENGINEERS
DALLAS TEXAS

RADIO STATION KFDM
560 KC, 5 KW, DA-N
FIGURE 5A

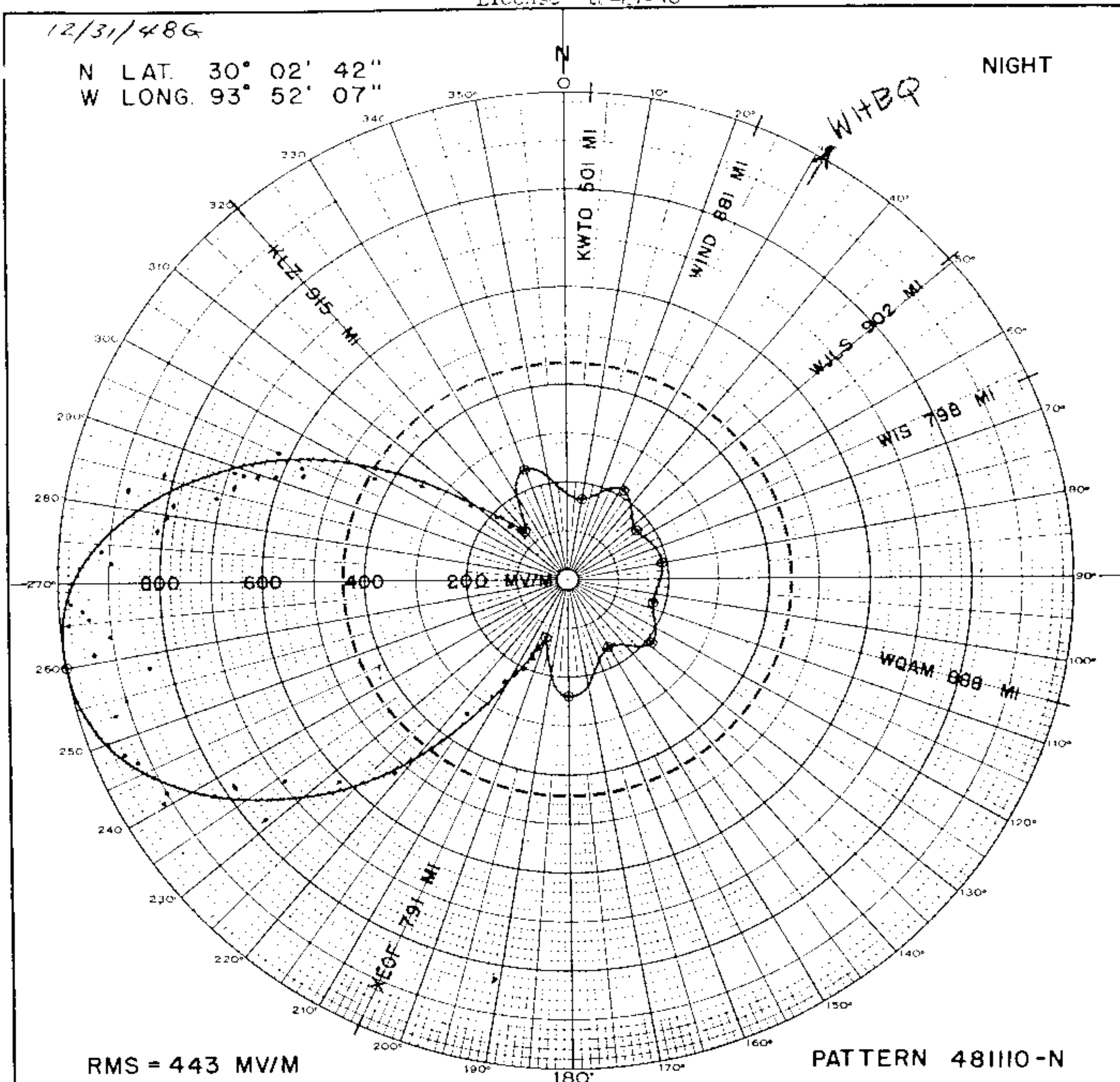
KLVI

MEASURED NIGHT KFDM, BEAUMONT, TEX. License 12-27-48 5kw, DAN 560 kc

12/31/48G

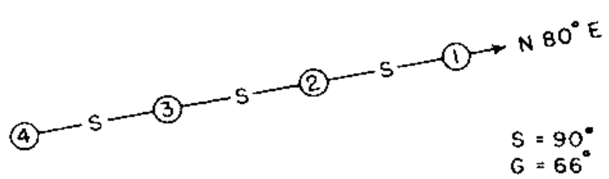
N LAT. 30° 02' 42"
W LONG. 93° 52' 07"

NIGHT



RMS = 443 MV/M

PATTERN 481110-N



A. EARL CULLUM, JR.
CONSULTING RADIO ENGINEERS
DALLAS 481110

PATTERN BASED ON FIELD INTENSITY MEASUREMENTS

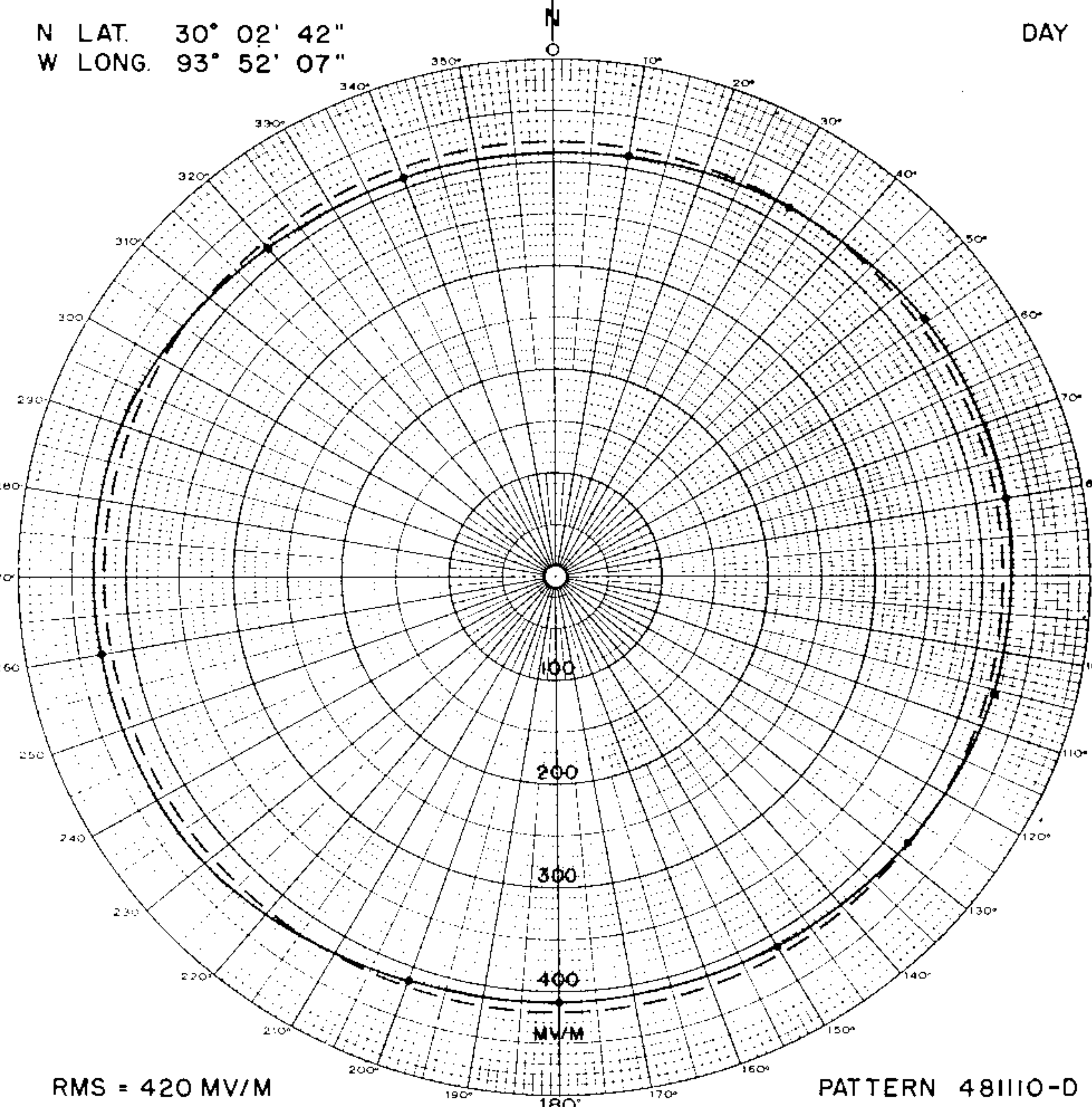
RADIO STATION KFDM
560 KC 5 KW DA-N
BEAUMONT, TEXAS
FIGURE 1B

KLVI

MEASURED DAY(Non-DA) 3/24/49G KFDM, BEAUMONT, TEX. License 12-27-48 5kw, DAN 560 kc

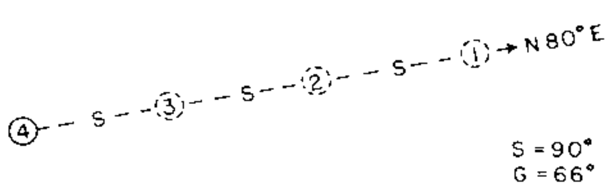
N LAT. 30° 02' 42"
W LONG. 93° 52' 07"

DAY



RMS = 420 MV/M

PATTERN 481110-D



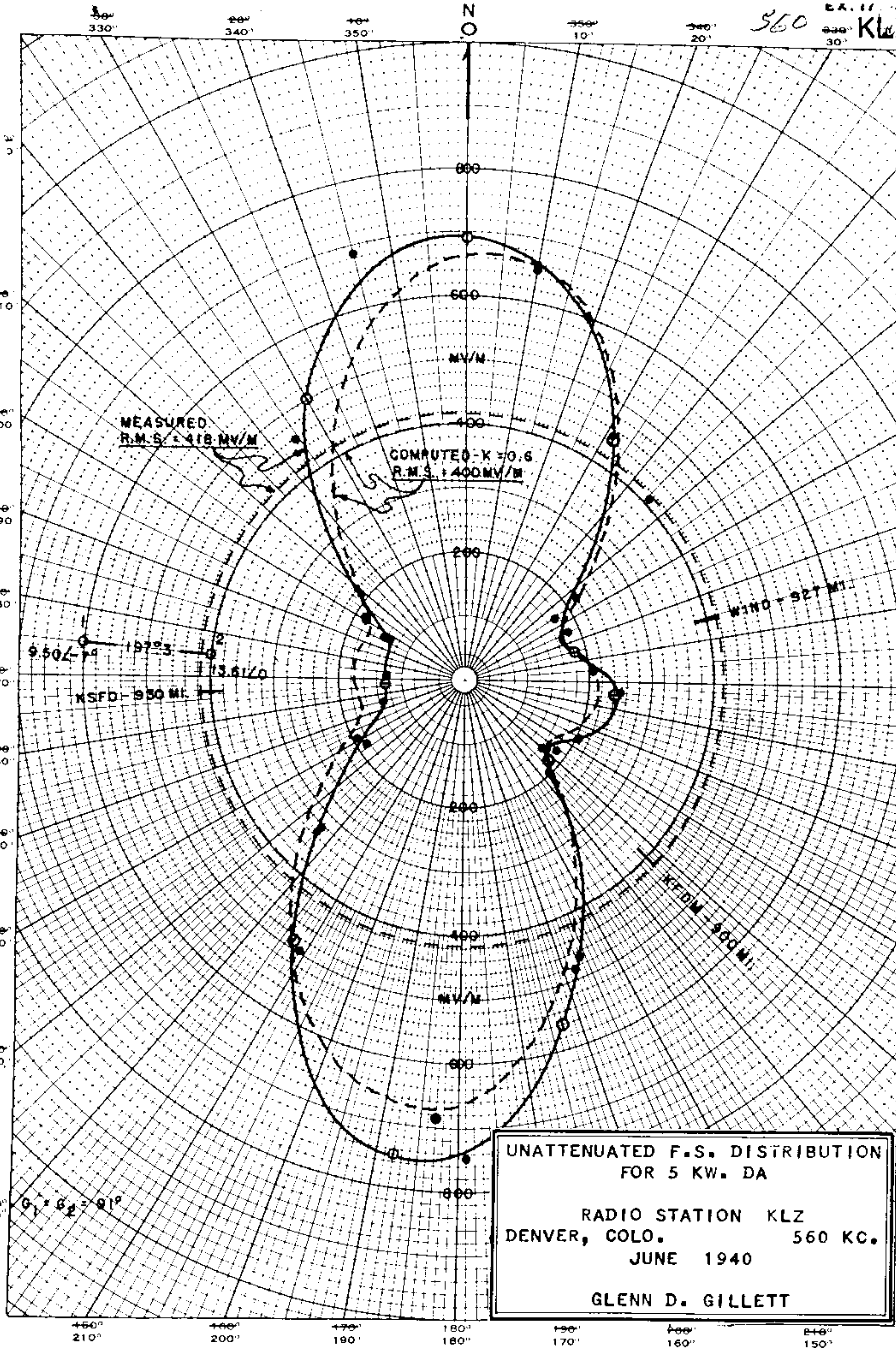
A. EARL CULLUM, JR.
CONSULTING RADIO ENGINEERS
DALLAS 481110

PATTERN BASED ON FIELD INTENSITY MEASUREMENTS

RADIO STATION KFDM
560 KC 5 KW ND-D
BEAUMONT, TEXAS
FIGURE 1A

560 KLZ

560



UNATTENUATED F.S. DISTRIBUTION
FOR 5 KW. DA

RADIO STATION KLZ
DENVER, COLO. 560 KC.
JUNE 1940

GLENN D. GILLETT

BL-9644 KLZ

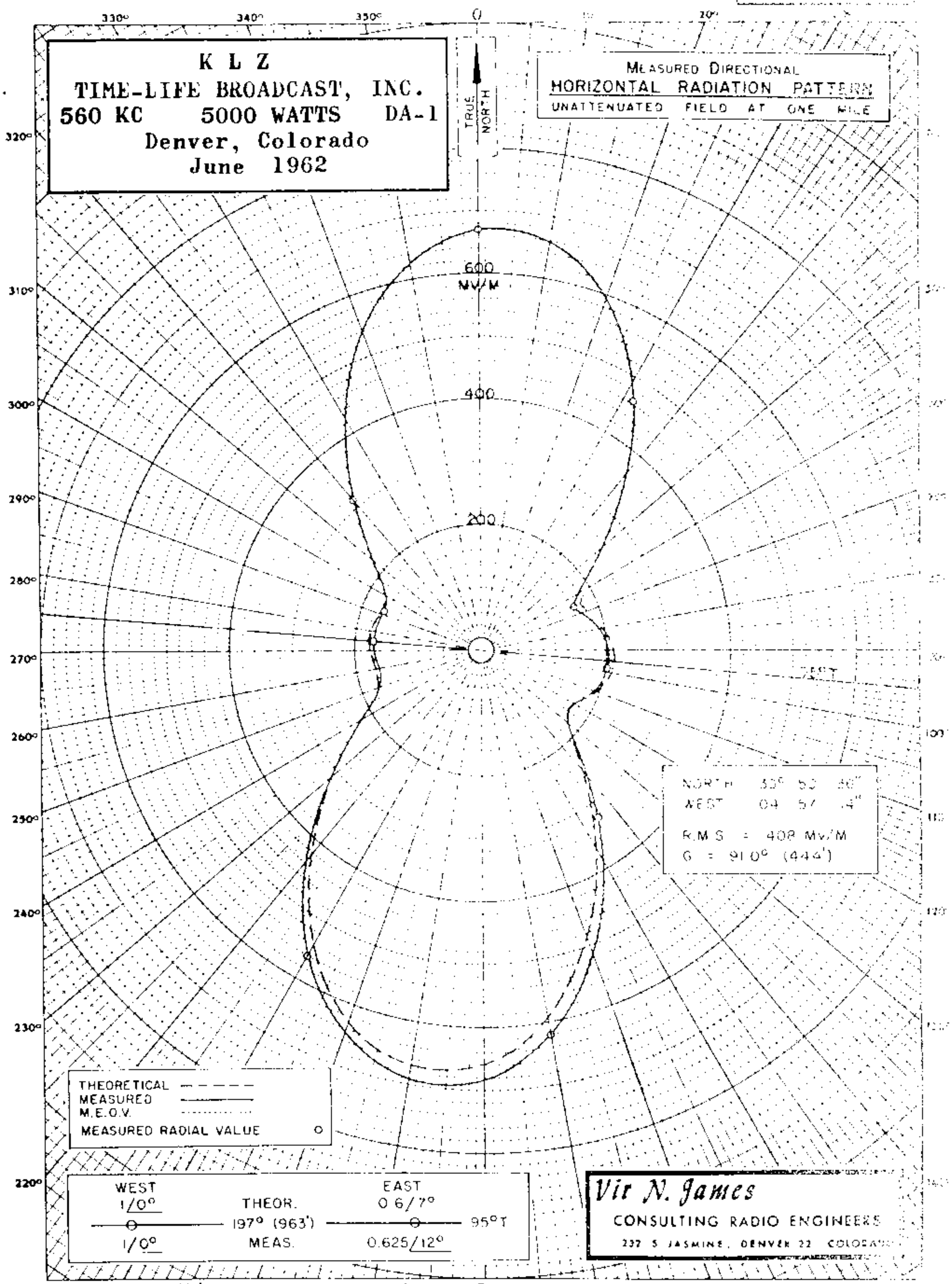
Measured Day & Night
(2-26-63ct)

Station KLZ
Denver, Colorado

5kw,DA-1,U
560 kc

EXHIBIT

2-14-63
granted L
for change in
xmtr & location..



FCC File No. BL-9644
Accepted

Station KLZ
Denver, Colorado

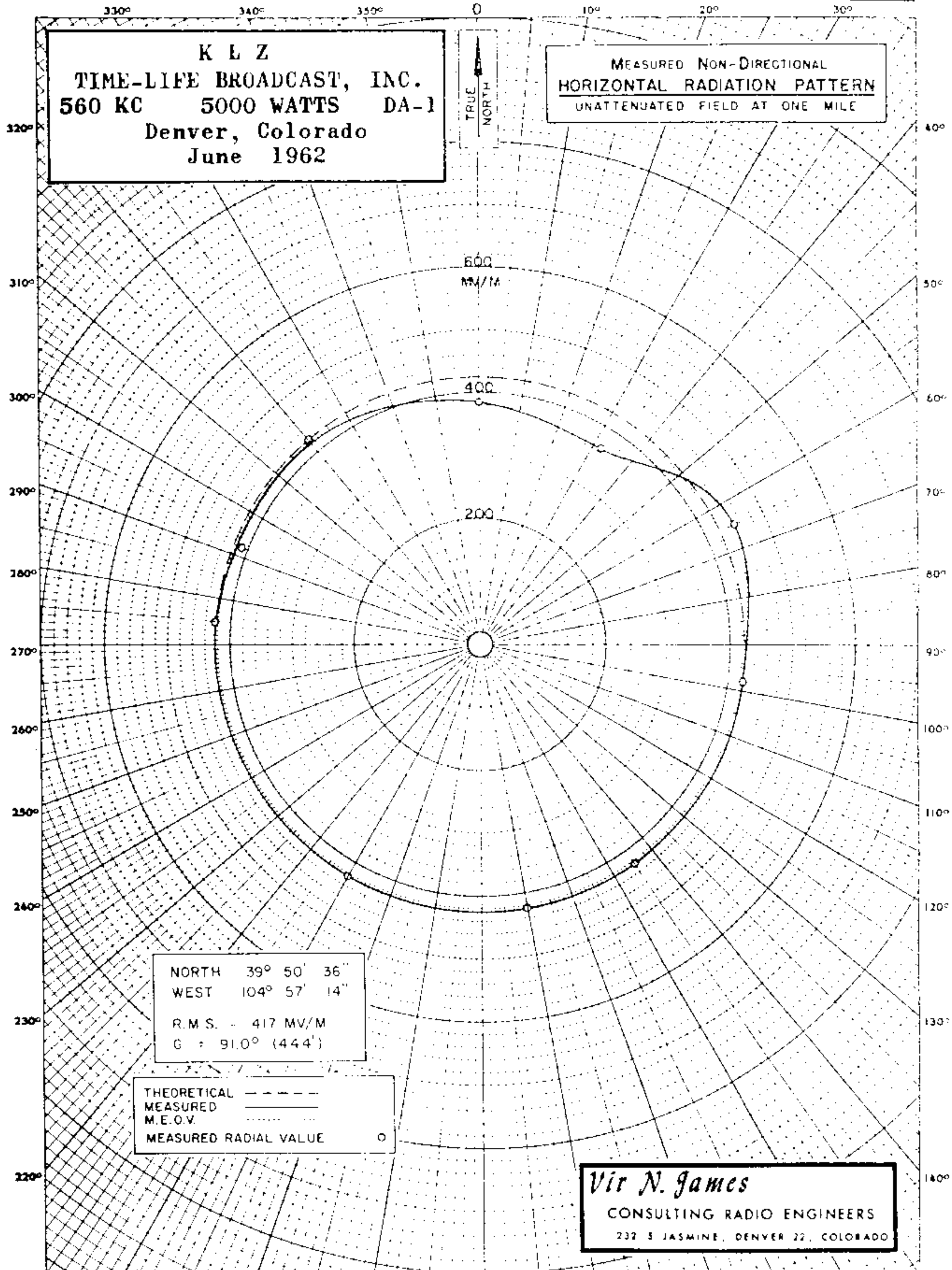
560 kc

KLZ

Measured Non-DA
(2-26-63ct)

Station KLZ
Denver, Colorado

5kw,DA-1,U
560 kc
EXHIBIT E-8.03A



FCC File No.BL-9644
Accepted

Station KLZ
Denver, Colorado

560 kc

GREAT FALLS MONT. 560

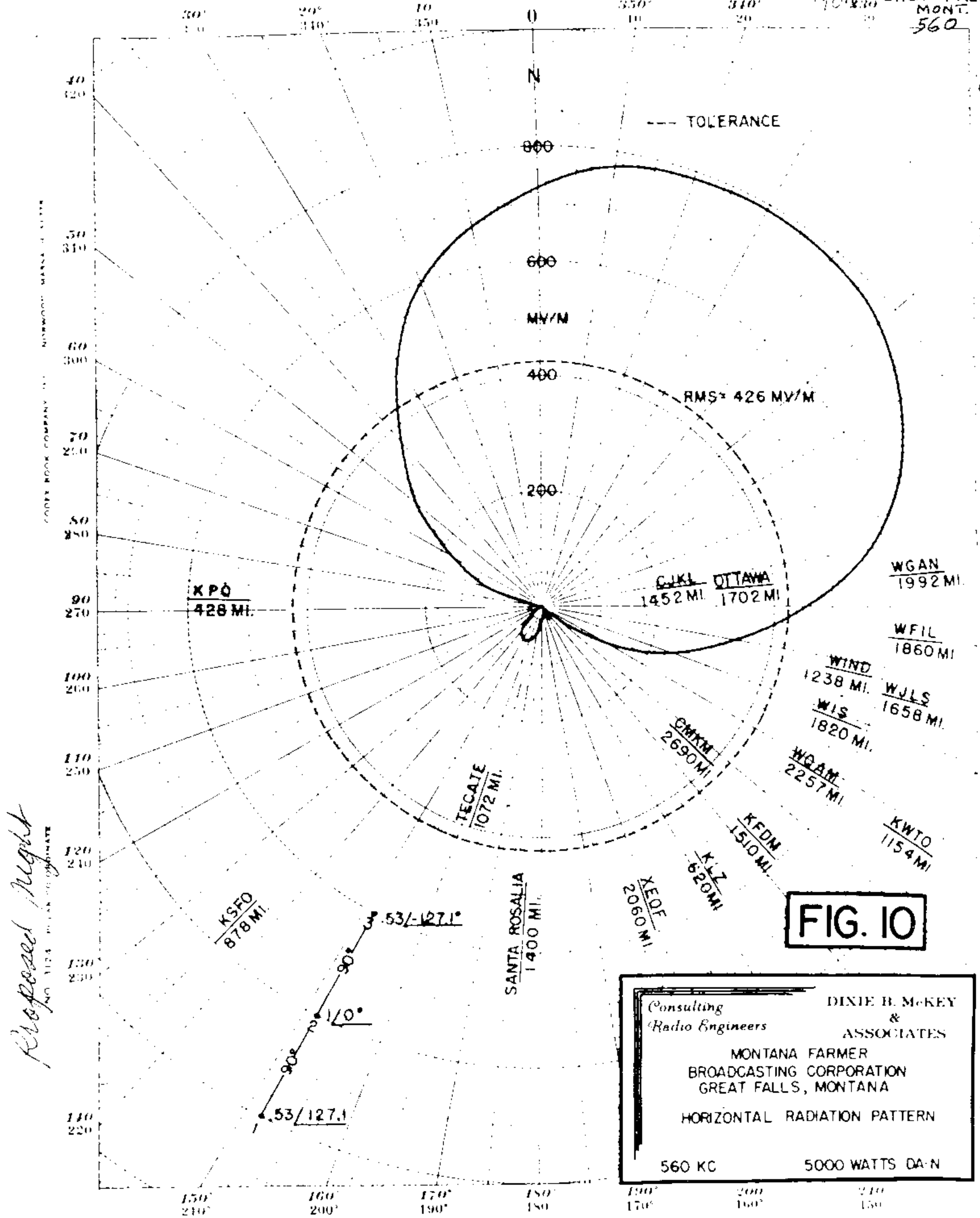


FIG. 10

Consulting Radio Engineers

DIXIE B. McKEY & ASSOCIATES

MONTANA FARMER BROADCASTING CORPORATION
GREAT FALLS, MONTANA

HORIZONTAL RADIATION PATTERN

560 KC | 5000 WATTS DA-N

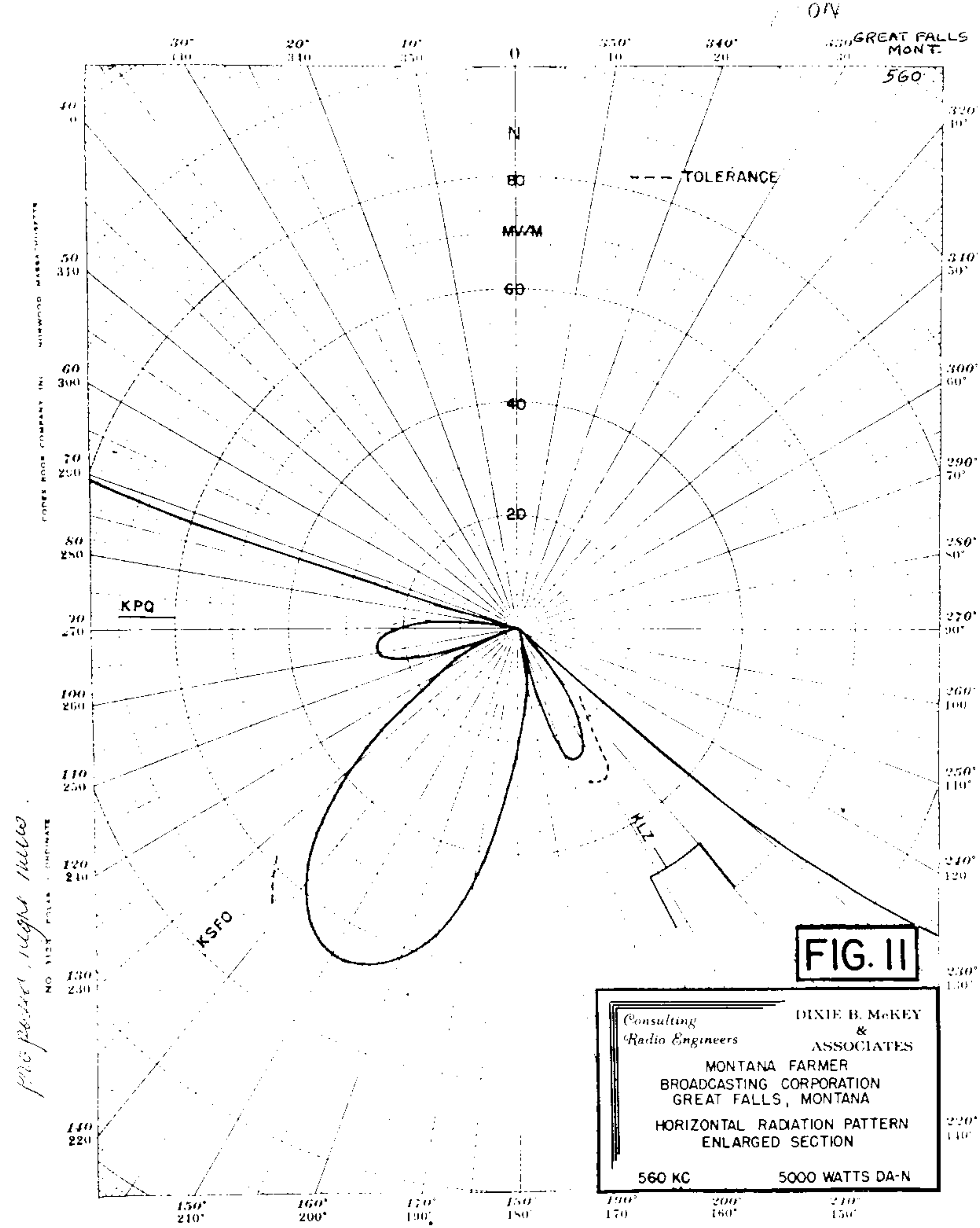


FIG. II

Consulting Radio Engineers

DIXIE B. McKEY & ASSOCIATES

MONTANA FARMER BROADCASTING CORPORATION GREAT FALLS, MONTANA

HORIZONTAL RADIATION PATTERN ENLARGED SECTION

560 KC 5000 WATTS DA-N

MEASURED NIGHT

Station KMON
Great Falls, Montana

5kw, DA-N,U
560 KC

KMON

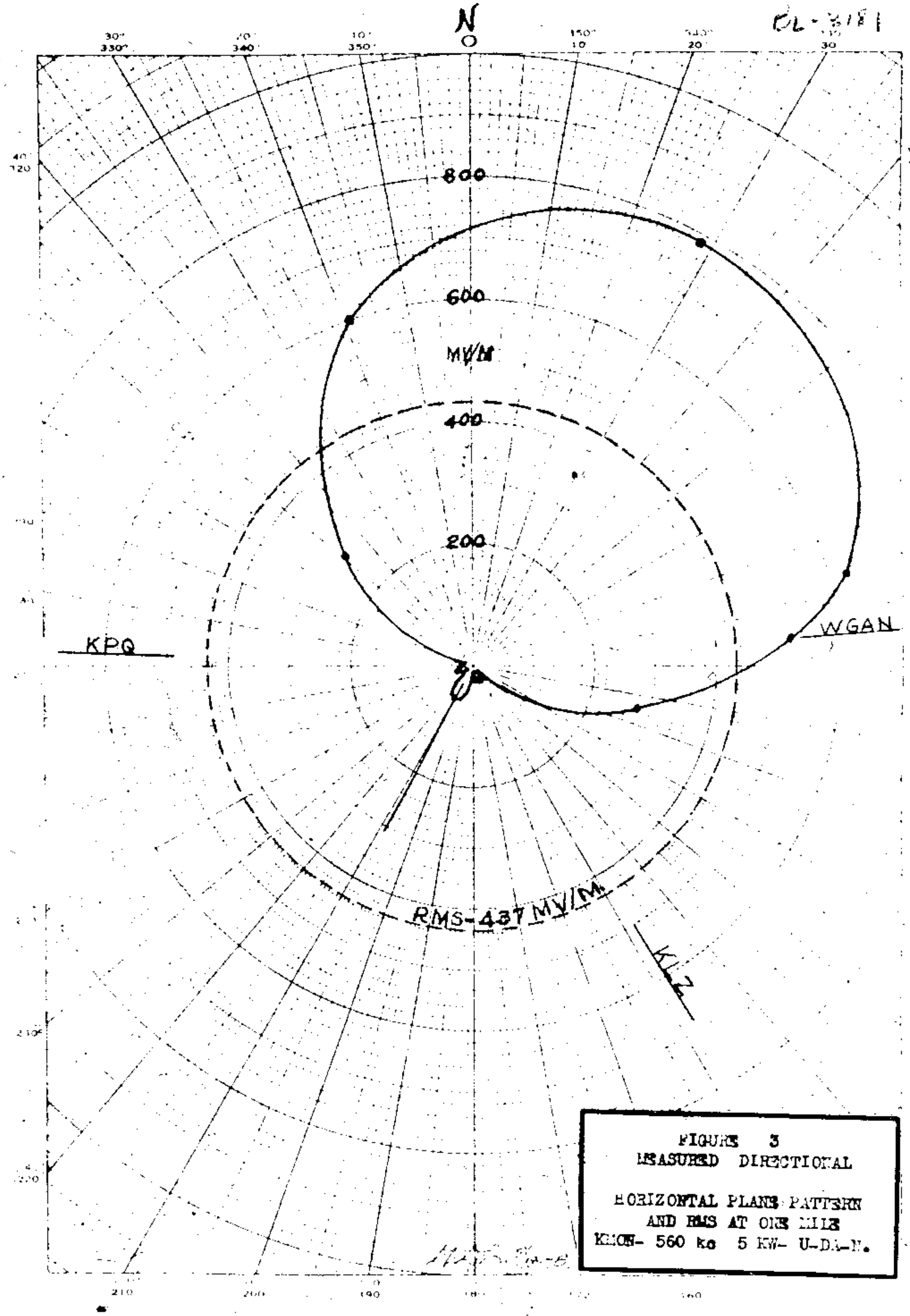


FIGURE 3
MEASURED DIRECTIONAL

HORIZONTAL PLANE PATTERN
AND RMS AT ONE MILE
KMON- 560 kc 5 KW- U-DA-N.

KMON

BL 3-8-1

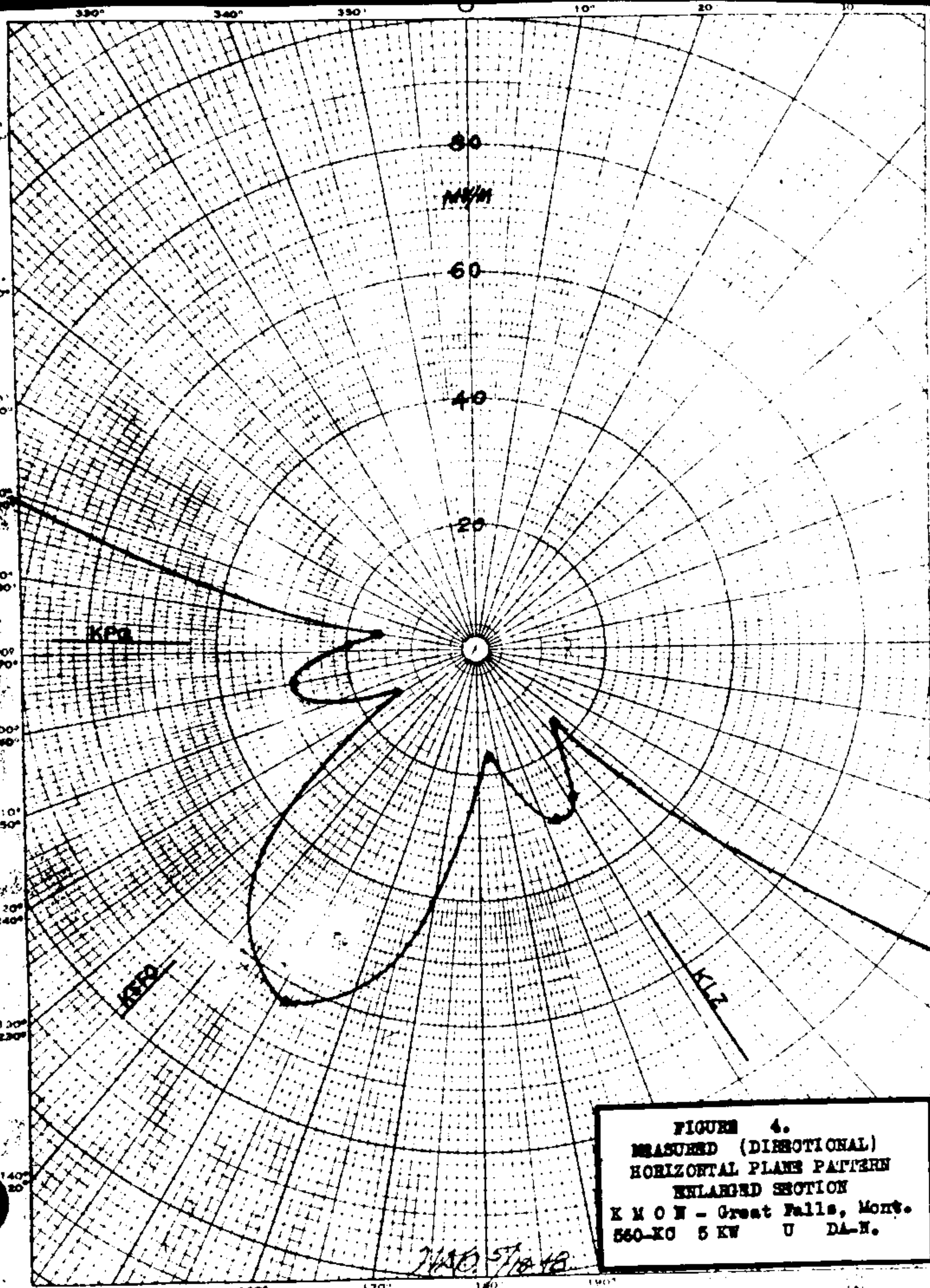
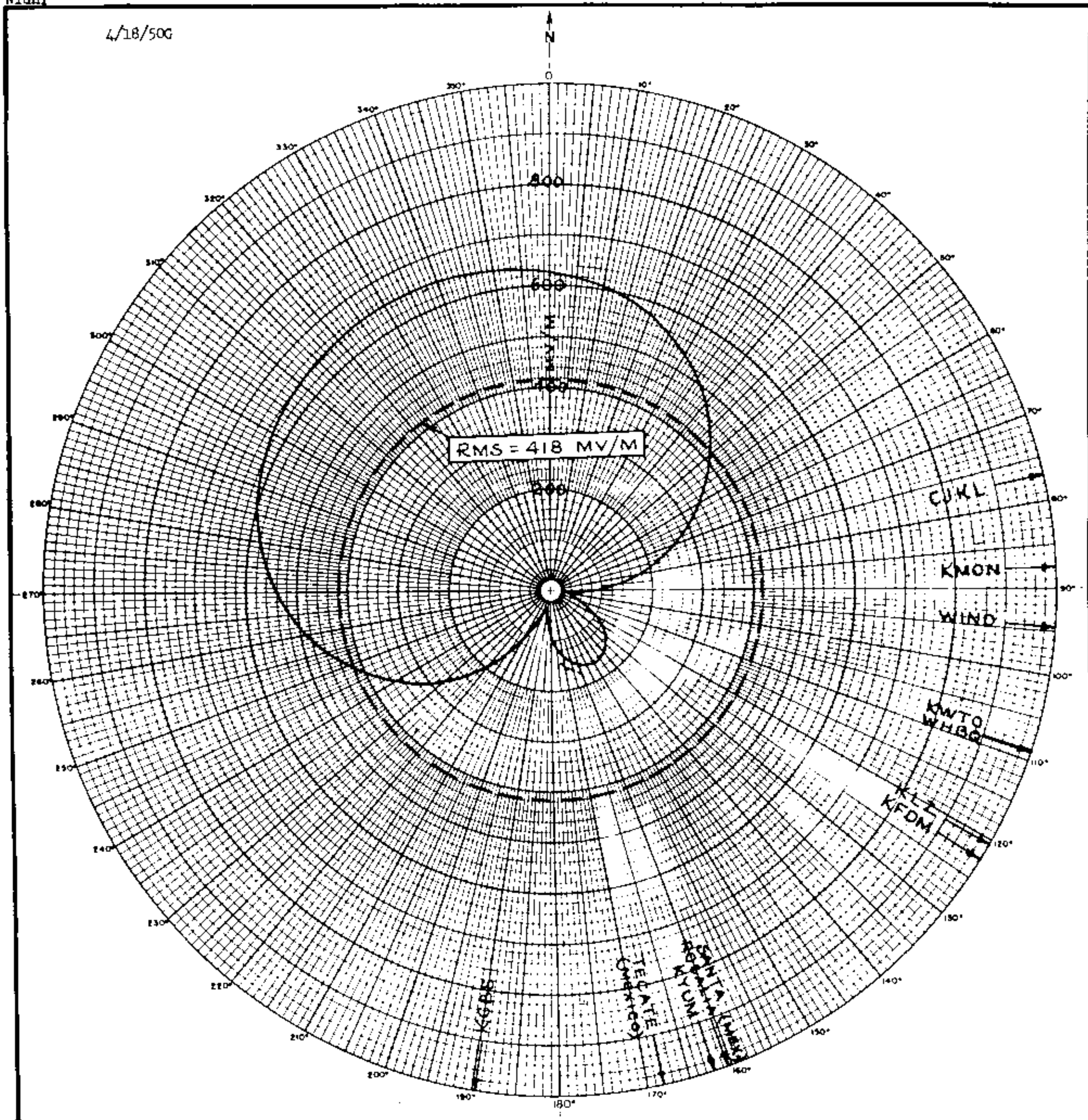
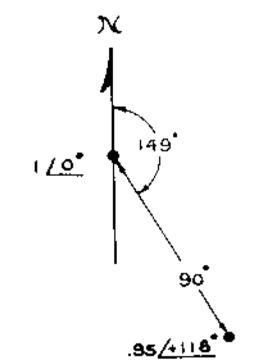


FIGURE 4.
MEASURED (DIRECTIONAL)
HORIZONTAL PLANE PATTERN
ENLARGED SECTION
K M O N - Great Falls, Mont.
560-KC 5 KW U DA-N.

4/18/50C





TOWER HEIGHT = 61.45°

SITE: 47° 27' 12" N
120° 19' 43" W

EXHIBIT VII - A
PROPOSED NIGHTTIME PATTERN
KPQ- WENATCHEE, WASHINGTON 560 KC/S 5KW-U-DA-N MAR. 1950

WILLIAM L. FOSS, INC.
Electronic Consultants
WASHINGTON, D. C.
927 15th Street, N.W. RE 3883

PATTERN NO. 500316
SUPERSEDES 490111
APP. Edmund E Pendleton

KPQ

PROPOSED NIGHT NULLS — KPQ, WENATCHEE, WASH. — 5kw, DAN — 560 kc

5-2-49

5/4/49G

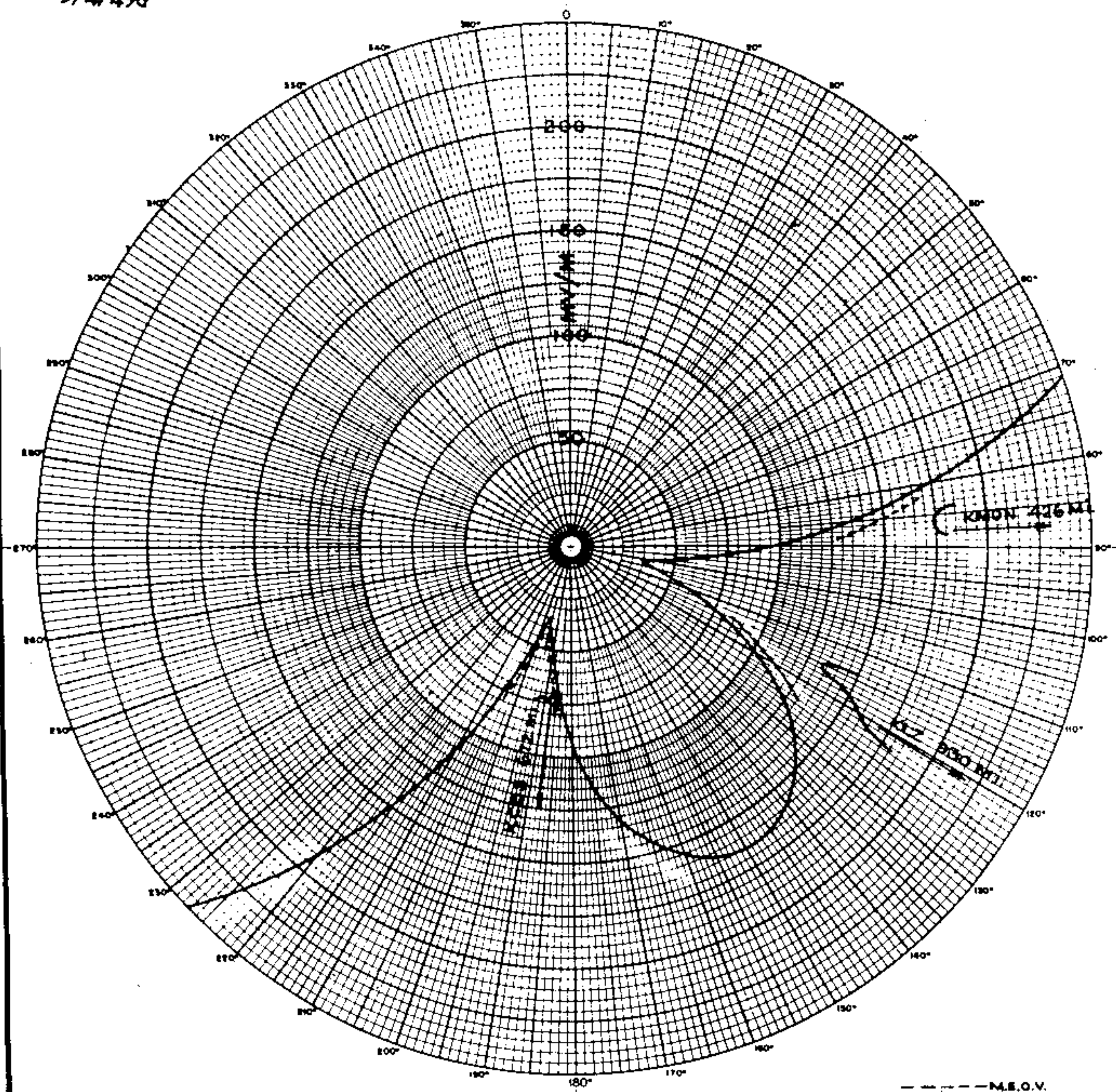


EXHIBIT VII - B
PROPOSED NIGHTTIME PATTERN (EXPANDED NULLS)
KPQ-WENATCHEE, WASHINGTON 560 KC/S 5 KW-U-DA-N APR. 1949

SITE: 47° 27' 12" N
120° 19' 43" W

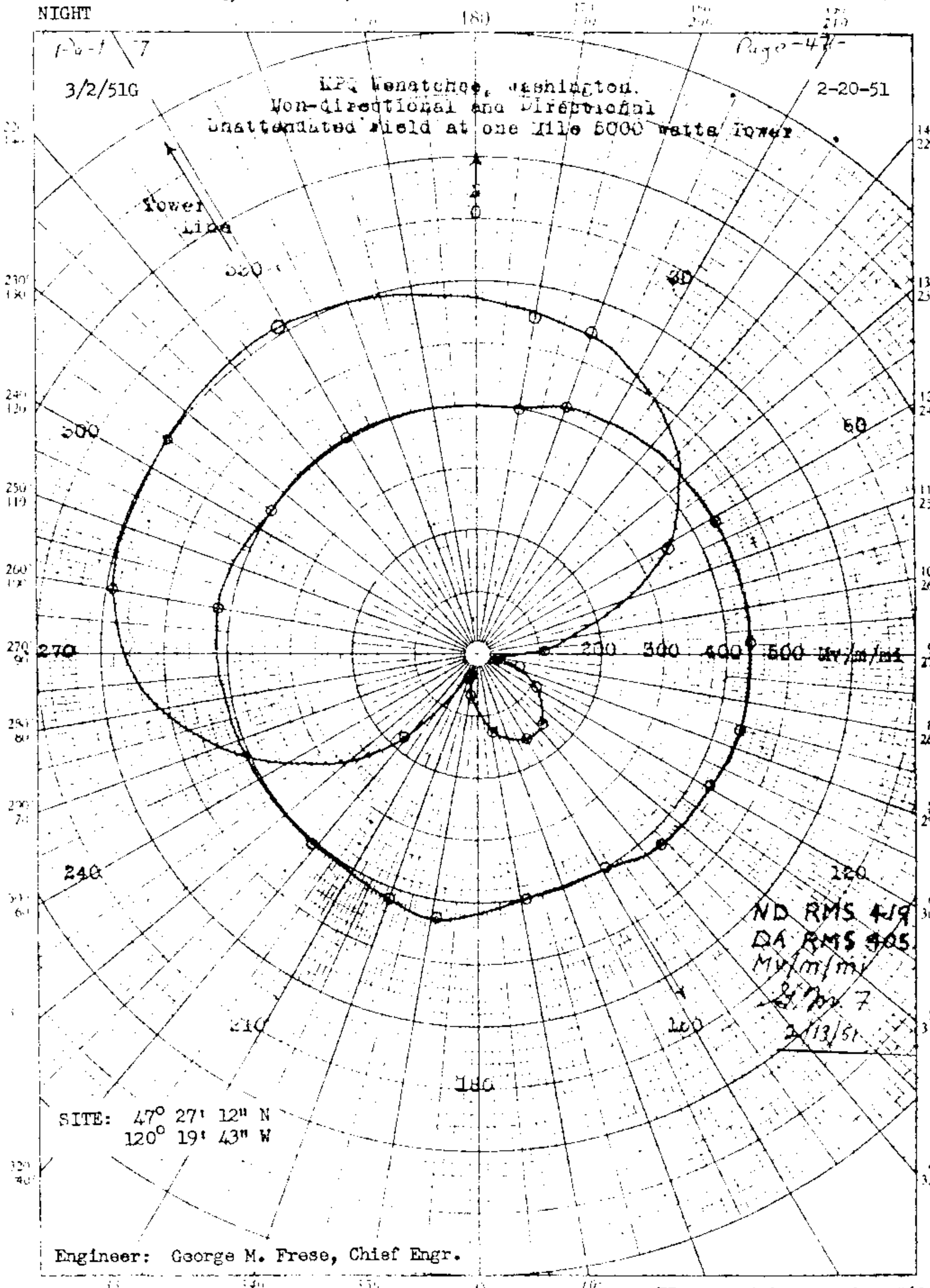
WILLIAM L. FOSS, INC.
Electronic Consultants
WASHINGTON, D. C.
927 15th Street, N.W. RE 3063

PATTERN NO. 490411
SUPERSEDES
APP. Edmund Pendleton

KPQ

BL-4374

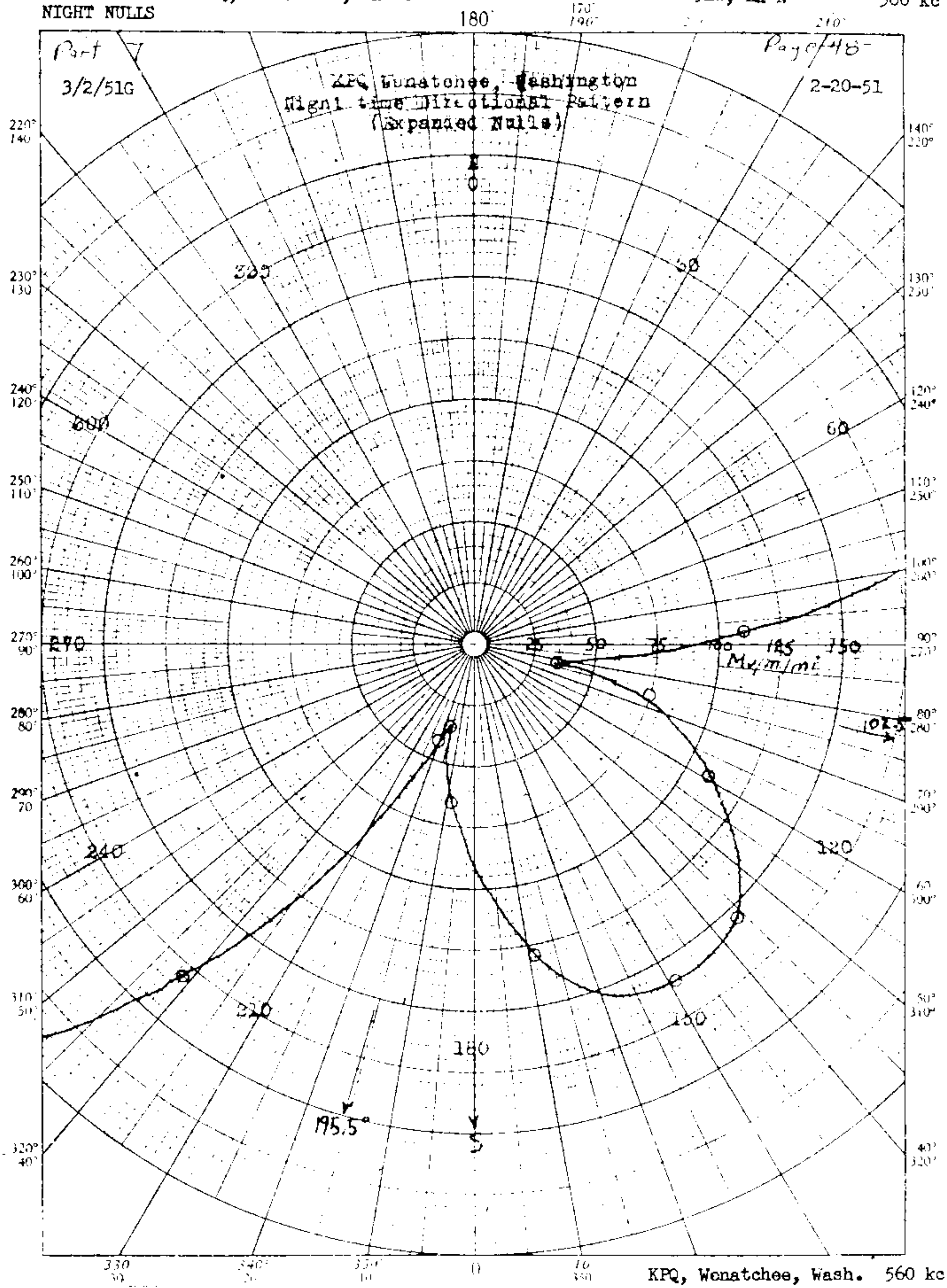
MEASURED NIGHT KPQ, WENATCHEE, WASH. 5kw, DA-N 560 kc



KPQ, Wenatchee, Wash. 560 kc

BL-4376 KPQ

MEASURED NIGHT NULLS KPQ, WENATCHEE, WASH. 5kw, DA-N 560 kc



KPQ, Wenatchee, Wash. 560 kc

KSFO

DIRECTIONAL ANTENNA DESCRIPTION SHEET

Station	: KSFO	Main Studio:	San Francisco, California
Frequency	: 560 KHz	Power :	5 kW Night 5 kW Day
Notification	: 1780	Date :	Sept. 28, 1979 Class: III

GEOGRAPHICAL LOCATION OF THE
CENTER OF THE ANTENNA SYSTEM: North Latitude: 37 44 44
West Longitude: 122 22 40

Predicted Daytime Nighttime effective field (omnidirectional): 391 mV/m at rated power.

ANTENNA CHARACTERISTICS

Authorized for Nighttime operation. (DA-N)
Number of elements: 2
Type of elements : Series excited, Self supporting, tappered, vertical steel towers.

TOWER	:	W(#1)	E(#2)				
HEIGHT ABOVE INSULATORS	:	350'(71.7°)	300'(61.5°)				
PHASING	:	0°	112.5°				
FIELD RATIO	:	1.0	0.67				

SPACING AND ORIENTATION : Towers in a row are spaced 512.5' (105°) on a line bearing 66.5° true.

GROUND SYSTEM : 120 - 350' equally spaced copper radials plus a 25' square ground screen about each tower. Radials are shrtened and bonded to a transverse strap along intersections between towers.

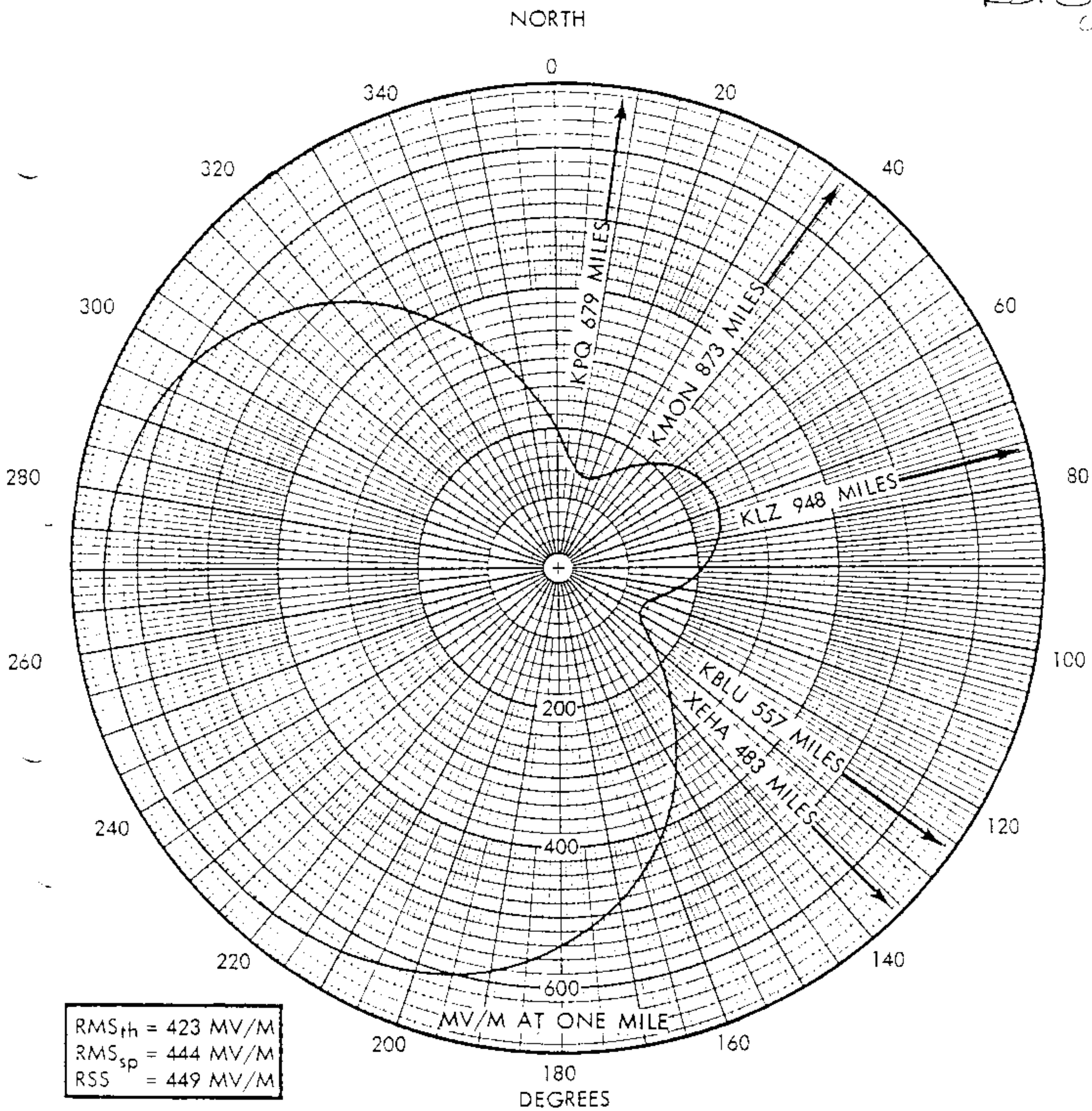
PREDICTED EFFECTIVE FIELDS AT RATED POWER:

	THEORETICAL		STANDARD
	RMS	RSS	RMS
Night 1/	423 mV/m	449 mV/m	444 mV/m

1/ By adjustment of input power.

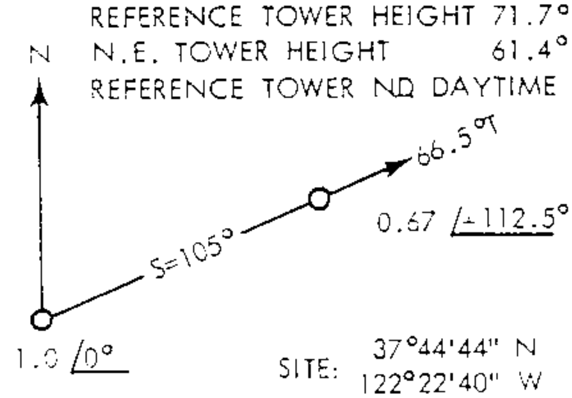
Note: This notification concerns only a change in the Nighttime operation of the station with Daytime operation continued as previously notified.

KSFO



RMS$_{th}$ = 423 MV/M
RMS$_{sp}$ = 444 MV/M
RSS = 449 MV/M

REFERENCE TOWER HEIGHT 71.7°
N.E. TOWER HEIGHT 61.4°
REFERENCE TOWER ND DAYTIME



SITE: 37°44'44" N
122°22'40" W

STANDARD HORIZONTAL PLANE PATTERN
PROPOSED FOR NIGHTTIME USE

KSFO - SAN FRANCISCO, CALIFORNIA
560 KHZ, 5KW - U - DA-N

GOLDEN WEST BROADCASTERS
SAN FRANCISCO, CALIFORNIA

AUGUST 8, 1977

FIGURE 7A

DIRECTIONAL ANTENNA DESCRIPTION SHEET

STATION: KWTO
FREQUENCY: 560 kHz
Notification List No. 1748

Main Studio: Springfield, Missouri
Power: 5 kW
Date September 7, 1977 Class: III

GEOGRAPHICAL LOCATION OF THE CENTER OF THE ANTENNA SYSTEM: North Latitude: 37° 08' 06"
West Longitude: 93° 16' 36"

ANTENNA CHARACTERISTICS

Authorized for Nighttime operation (DA-N)
Number of elements: 4
Type of elements: Towers #1 and #3 are, uniform cross-section, guyed, and towers #2 and #4 are, Self supporting, tapered. all series excited vertical steel towers.

TOWER:	SW(#1)	S(#4)	N(#2)	NE(#3)	
HEIGHT ABOVE INSULATORS:	310	429(88°)	310	310	(63.5°)
PHASING:	+15°	+122.5°	-15°	+92.5°	
Field Ratio:	1	1.3	1	1.3	

SPACING AND ORIENTATION: The towers are located at the vertices of a parallelogram the long sides of which are 1185' (243°) in length on a line bearing 60° true. The short sides are 439' (90° in length on a line bearing 90° true.

Ground System: 120-440 equally spaced copper radials tower #1 and #2 and 120 -600' radials about towers #3 and #4. Radials are shortened or lengthene as necessary and bonded to transverse along intersections between towers.

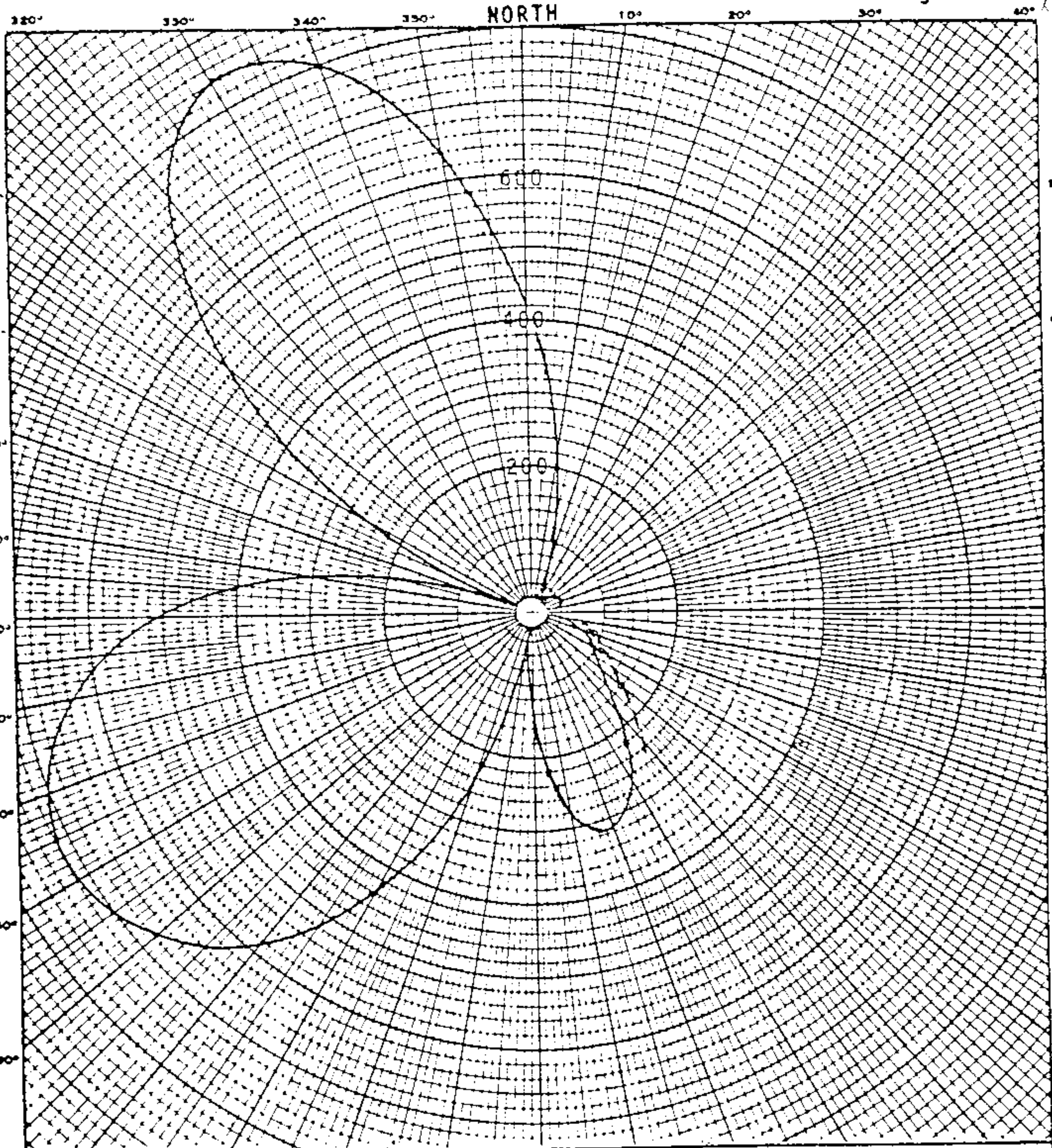
PREDICTED EFFECTIVE FIELDS AT RATED POWER:

THEORETICAL
RMS
DAY 425 mV/m (tower #4)
NIGHT 410.9 mV/m

NOTE:

This notification concerns only minor changes in MEOV's nighttime operation of radiation of the station with daytime operation continued as previously notified.

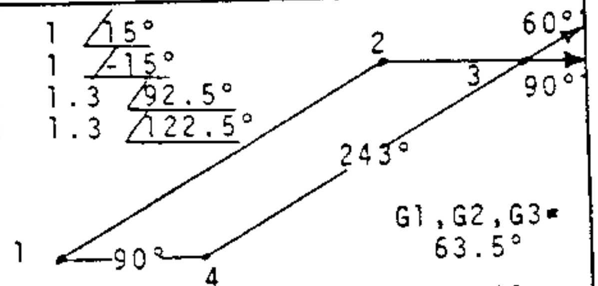
Figure A



R.M.S. (THEO) 410.9 MV/M R.M.S. (STND) _____ MV/M R.S.S. _____ MV/M

PATTERN PARAMETERS

1: 1 ∠15°
2: 1 ∠-15°
3: 1.3 ∠92.5°
4: 1.3 ∠122.5°



G1, G2, G3 = 63.5°

G4 = 88°

SALINA BROADCASTING CO.

☐ MEASURED ☒ PROPOSED

FREQ 550 (KHZ) POWER 5 (KW) ☐ DA-D

N. LAT. 37 ° 08 ' 06 " ☒ DA-N

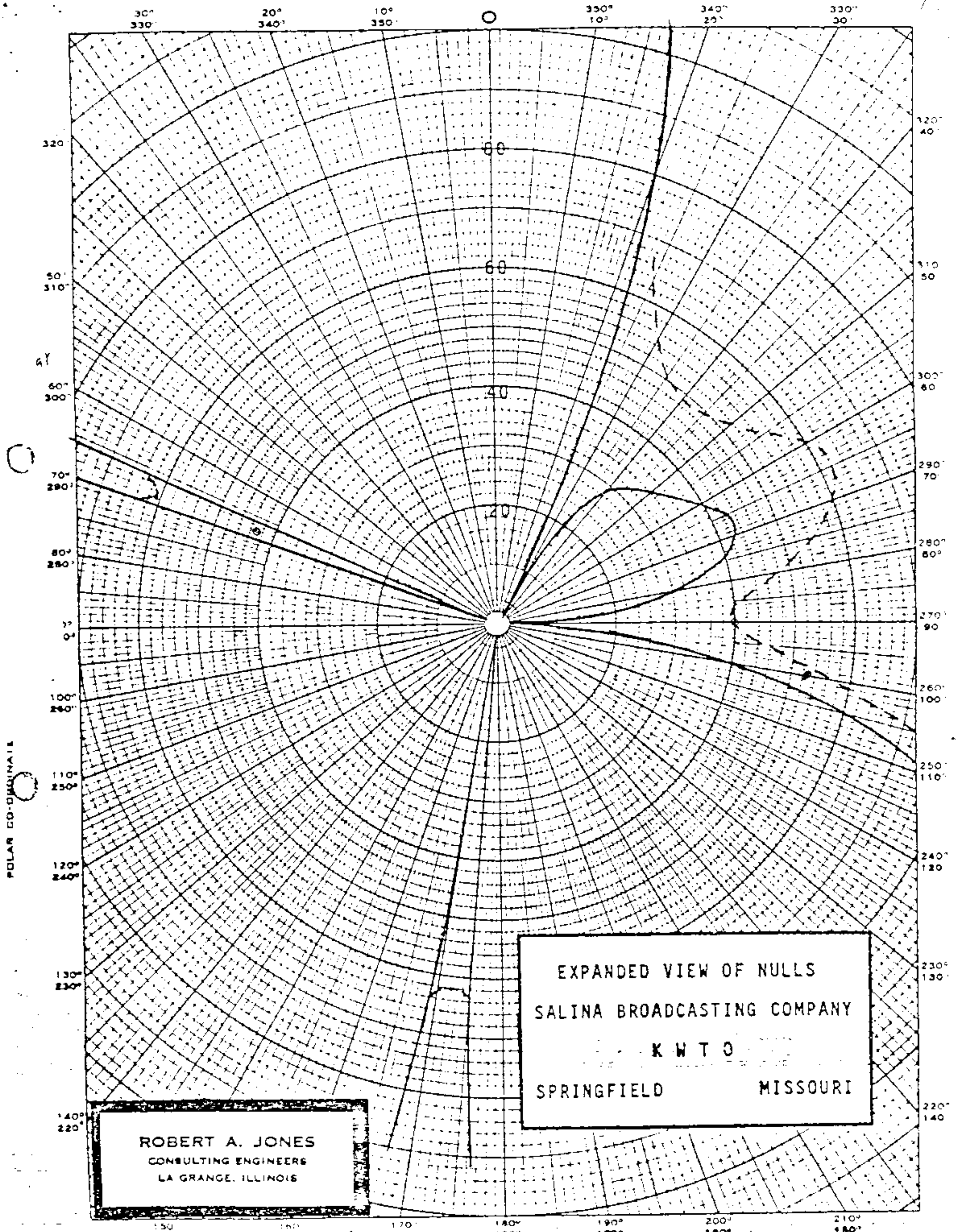
W. LONG 93 ° 16 ' 36 " ☐ N-D

LOCATION: Springfield, Missouri

DATE: May 1976

ROBERT A. JONES
CONSULTING ENGINEERS
LA GRANGE, ILLINOIS

FIGURE B


EXPANDED VIEW OF NULLS
SALINA BROADCASTING COMPANY
K W T O
SPRINGFIELD MISSOURI
ROBERT A. JONES
CONSULTING ENGINEERS
LA GRANGE, ILLINOIS
POLAR CO-ORDINATE
20
40
60
80

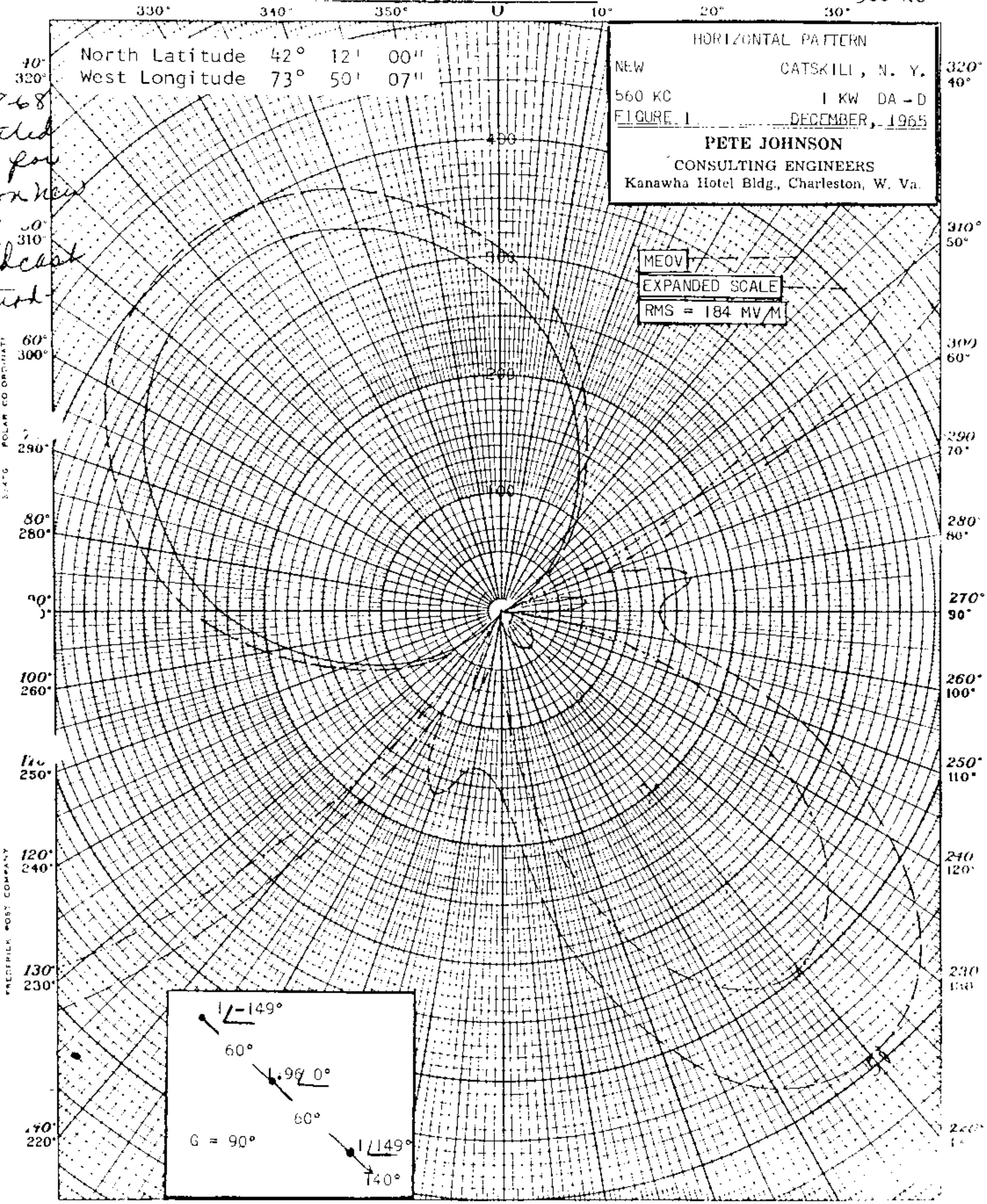
WCKL

Proposed Day
(1-30-67ct)

New; Caranje Broadcasting Co., Inc.
Catskill, New York

1kw,DA-D,D
560 kc

12-18-68 Granted pg. for ? for new AM Broadcast Station



FCC File No.BP-17473
Accepted 1-19-67

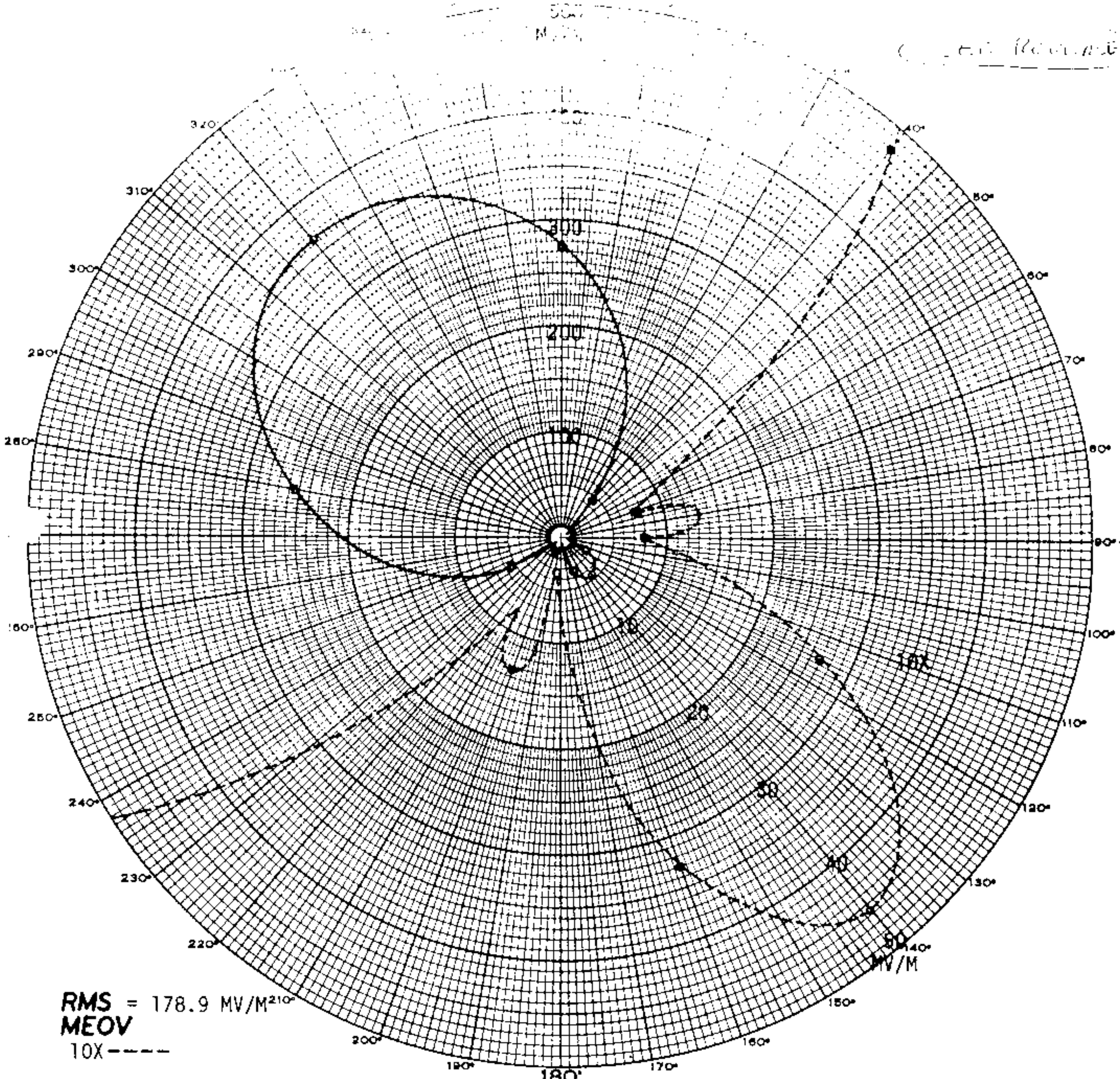
New; Caranje Broadcasting Co., Inc.
Catskill, New York

560 kc

Measured Day
(4-29-70ct)

Station WCKL

WCKL
1kw,DA-D,D
560 kc



RMS = 178.9 MV/M
MEOV
10X----

o = Measured Radials

TOWER PLACEMENT SKETCH	PATTERN PARAMETERS	*FIGURE* 7	STATION DATA
G's = 90° #1 0.541/-151.6° S #2 1.000/0° S 0.548/+161.1° #3 S's = 60° 140° T.	see table below	WCKL CATSKILL, N. Y. MEASURED DIRECTIONAL PATTERN DECEMBER - 1969 θ° = 0°	**CALL** WCKL **FREQ** 560 KHz. **POWER** 1.0 Kw **TYPE** DA-D **TIME** DAYTIME **LAT.** 42-12-00 **LONG.** 73-50-07 **E.H.MUNN,JR.** **RADIO ENGINEER** **COLDWATER, MICH.**

TOWER No.	ELECTRICAL HEIGHT $\theta°$	SPACING $S°$	PHASING $\psi°$	FIELD RATIO f
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

DAYTIME OPERATION ☒ NIGHTTIME OPERATION ☐

FCC File No. BL-12300
Accepted 4-21-70

Station WCKL
Catskill, New York

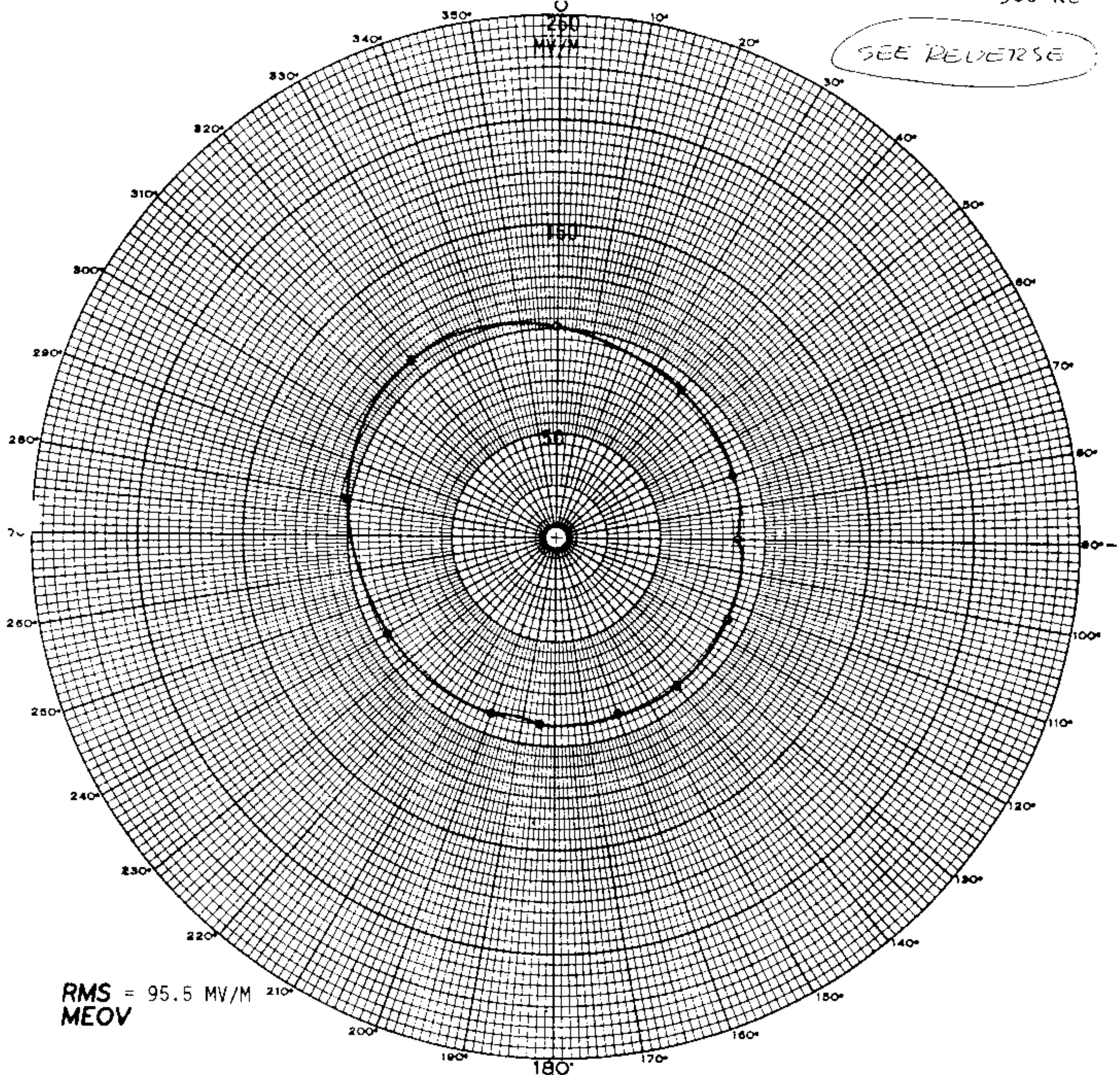
560 kc

Measured Non-DA
(4-29-70ct)

Station WCKL
Catskill, New York

WCKL
1kw,DA-D,D
560 kc

SEE REVERSE



RMS = 95.5 MV/M
MEOV

o = Measured Radials

TOWER PLACEMENT SKETCH

G's = 90°

#1 NU

S

#2 NDA

S

#3 NU

s=60°

140° T.

PATTERN PARAMETERS

TOWER No.	ELECTRICAL HEIGHT G°	SPACING S°	PHASING ψ°	FIELD RATIO f
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

DAYTIME OPERATION ☒ NIGHTTIME OPERATION ☐

FIGURE 6

WCKL
CATSKILL, N.Y.

MEASURED
NON-DIRECTIONAL
PATTERN

DECEMBER - 1969

θ^{o} = 0°

STATION DATA

CALL	WCKL
FREQ	560 KHz.
POWER	0.25 Kw
TYPE	NDA
TIME	DAYTIME
LAT.	42-12-00
LONG.	73-50-07

E.H.MUNN, JR.
RADIO ENGINEER
COLDWATER, MICH.

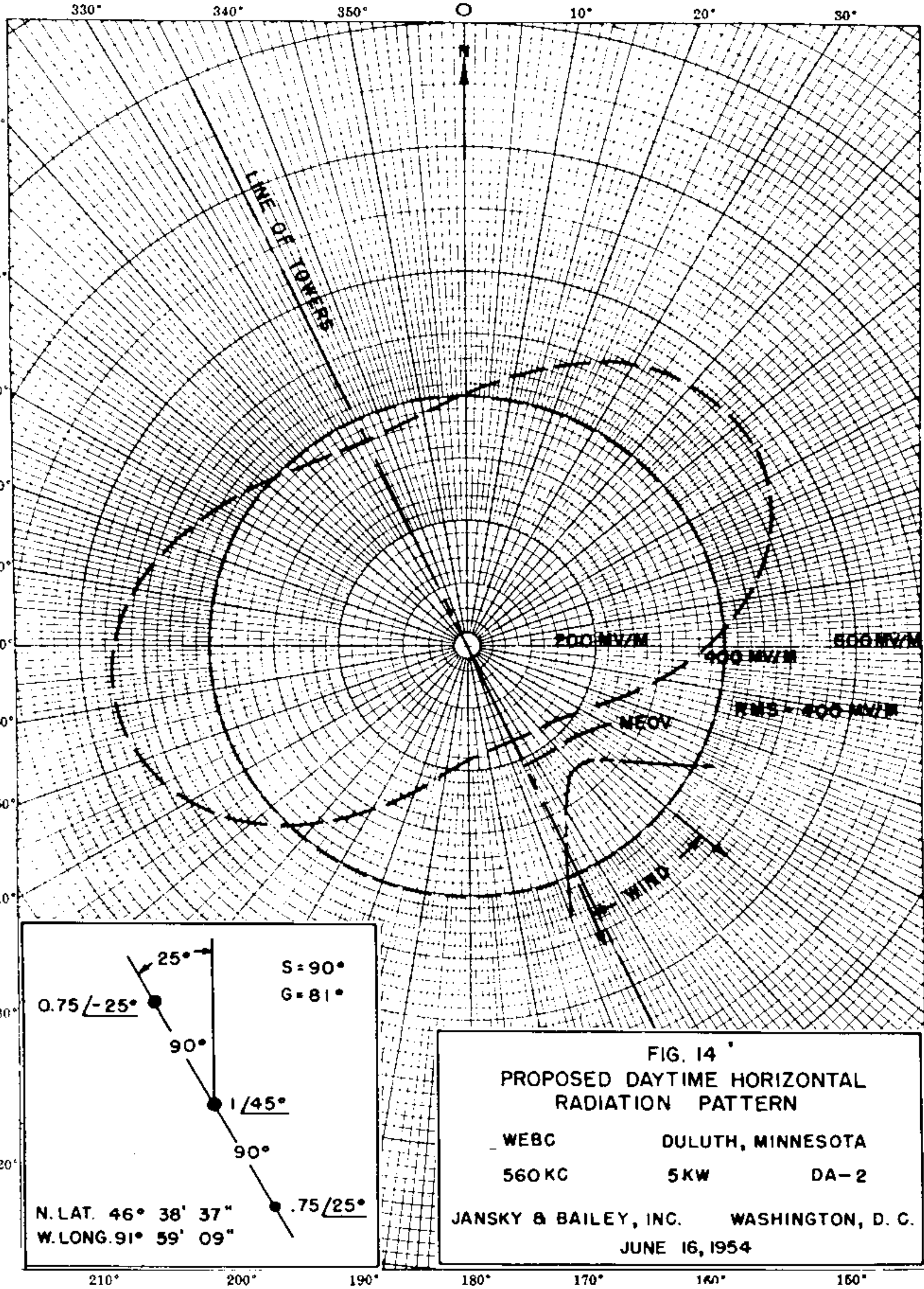
FCC File No.BL12300
Accepted 4-21-70

Station WCKL
Catskill, New York

560 kc

WEBC

PROPOSED DAY (7/26/54G) WEBC DULUTH, MINN. 5KW DA-2, U 560kc



FCC FILE NO. BP-9041 (AMENDED) DATE ACCEPTED 7-14-54 560kc

WEBC

MEASURED DAY (2/25/55G)

STATION WEBC
DULUTH, MINNESOTA

5 KW
DA-2, U

VOID

560 KC

SEE PROOF PATTERN

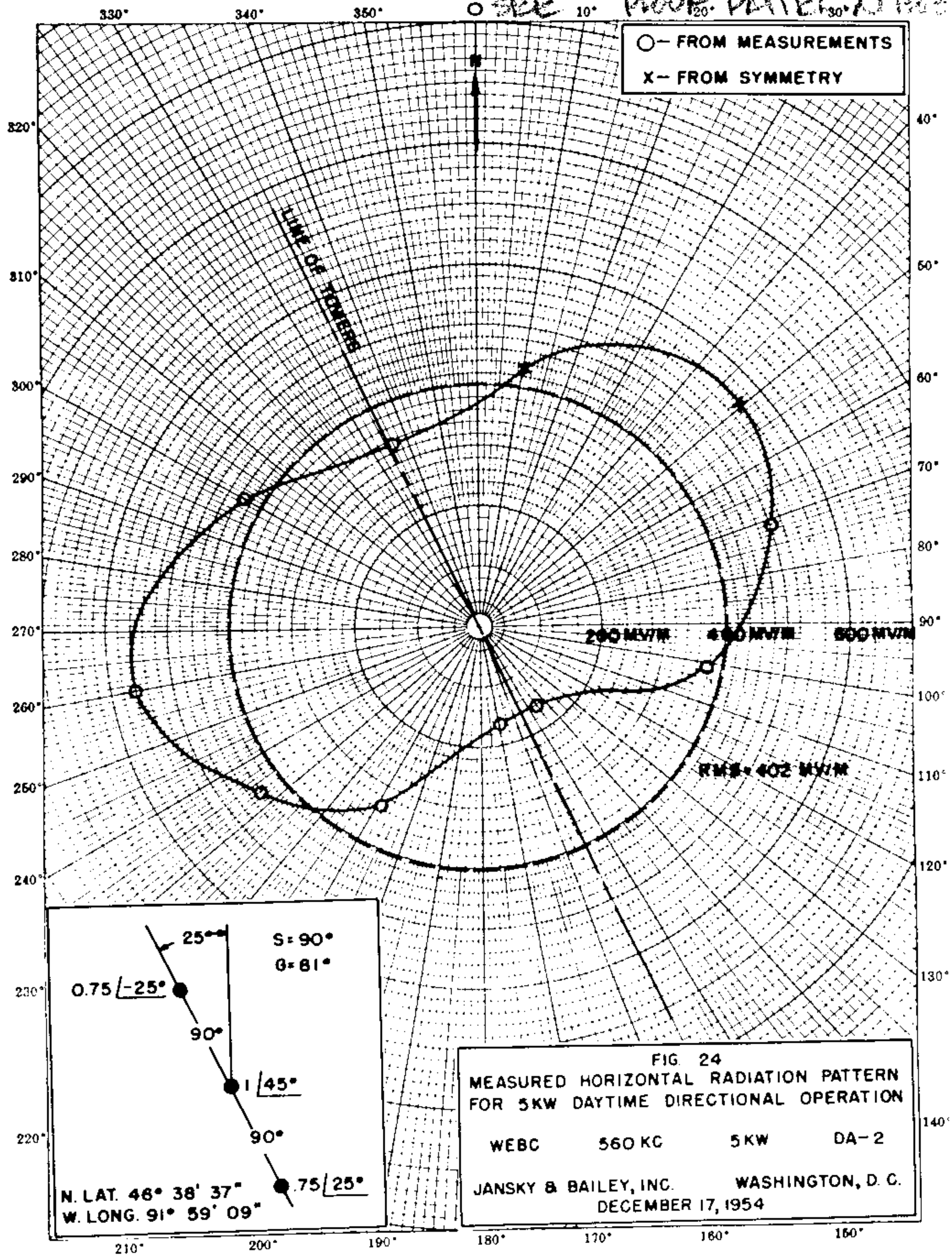


FIG. 24
MEASURED HORIZONTAL RADIATION PATTERN FOR 5KW DAYTIME DIRECTIONAL OPERATION

WEBC 560 KC 5 KW DA-2

JANSKY & BAILEY, INC. WASHINGTON, D. C.
DECEMBER 17, 1954

WEBC

PROPOSED NIGHT (7/26/54G) WEBC DULUTH, MINN. 5KW DA-2, U 560kc

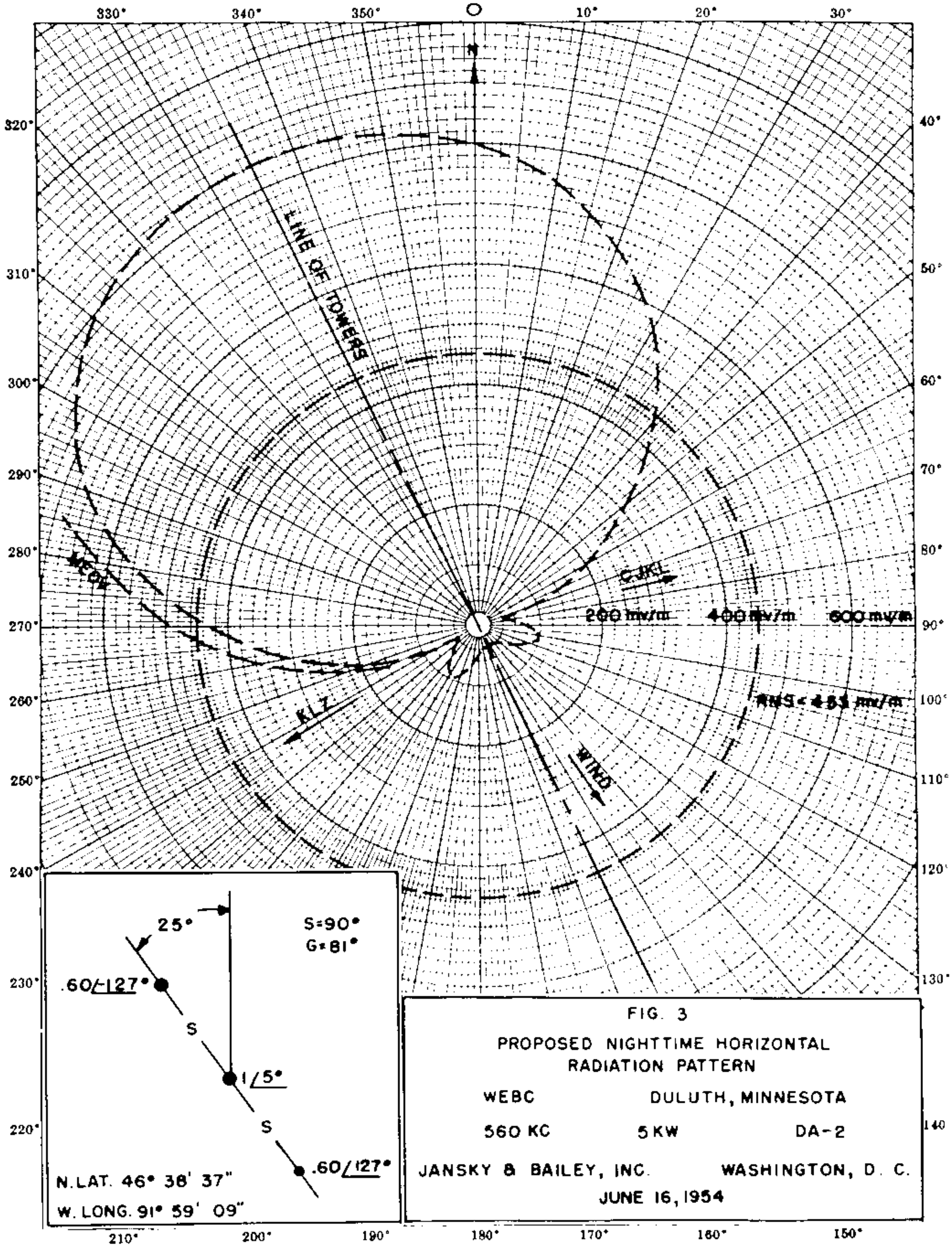


FIG. 3

PROPOSED NIGHTTIME HORIZONTAL RADIATION PATTERN

WEBC DULUTH, MINNESOTA

560 KC 5 KW DA-2

JANSKY & BAILEY, INC. WASHINGTON, D. C.

JUNE 16, 1954

FCC FILE NO. BP-9041 (AMENDED) DATE ACCEPTED 7-14-54 560 kc

WEBC

PROPOSED
NIGHT NULLS (7/26/54G)

WEBC
DULUTH, MINN.

5KW DA-2, U

560 kc

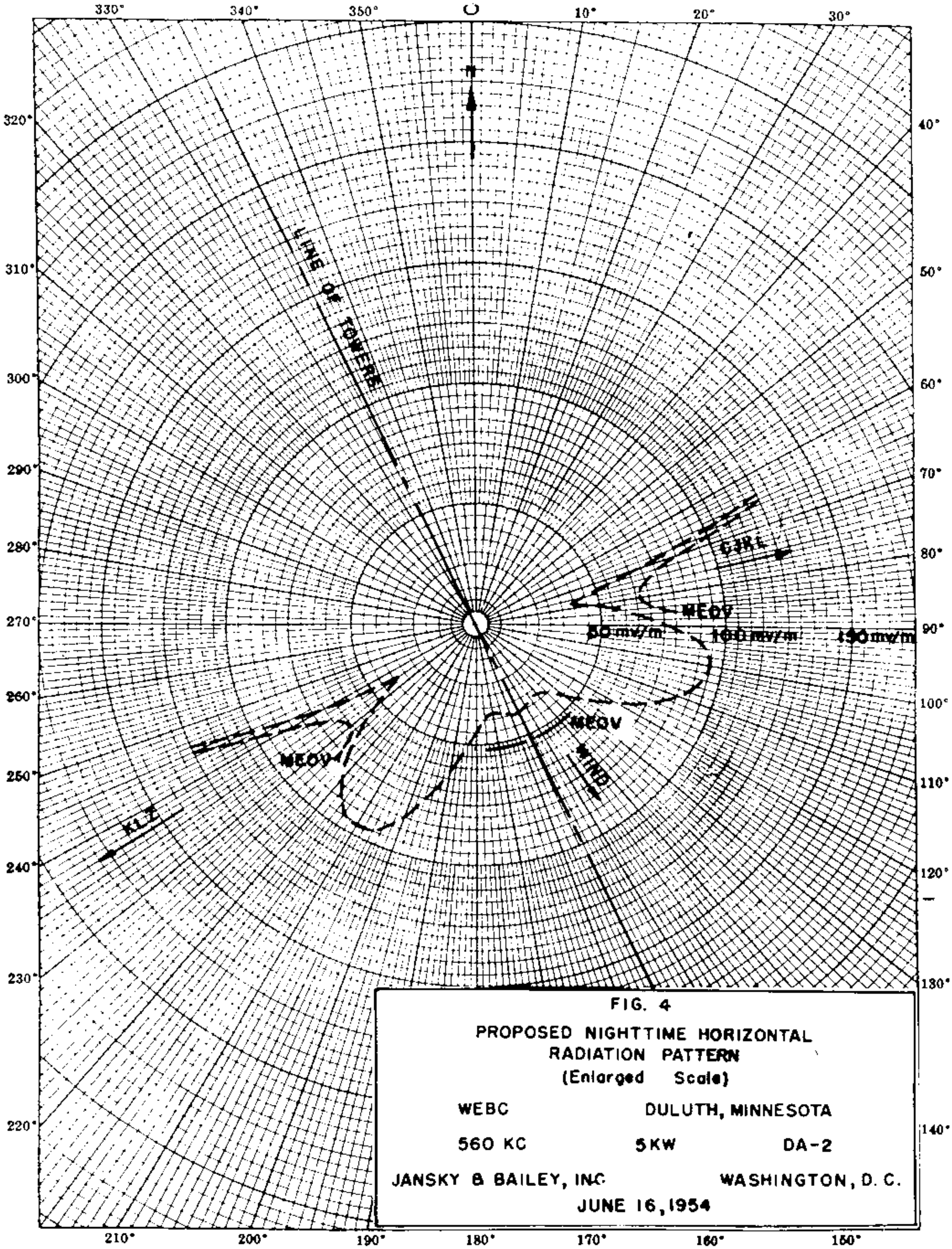


FIG. 4

PROPOSED NIGHTTIME HORIZONTAL RADIATION PATTERN
(Enlarged Scale)

WEBC DULUTH, MINNESOTA

560 KC 5KW DA-2

JANSKY & BAILEY, INC. WASHINGTON, D. C.

JUNE 16, 1954

FCC FILE NO. BP-9041 (AMENDED) DATE ACCEPTED 7-14-54

560kc

WEBC

MEASURED NIGHT (2/25/55G) | STATION WEBC DULUTH, MINNESOTA | 5 KW DA-2, U VOID SEE PROOF PATTERN 560 KC

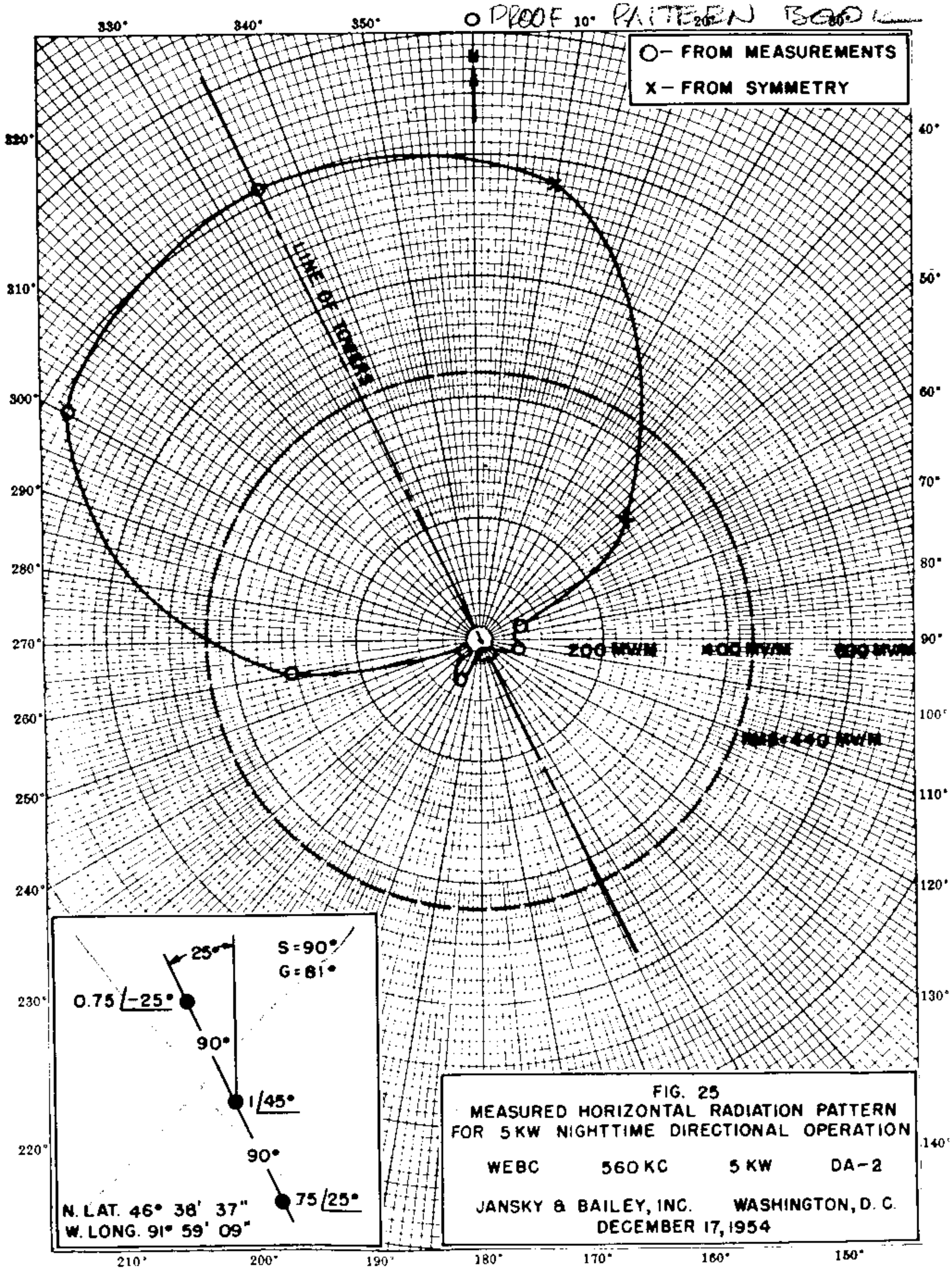


FIG. 25
MEASURED HORIZONTAL RADIATION PATTERN FOR 5KW NIGHTTIME DIRECTIONAL OPERATION

WEBC 560 KC 5 KW DA-2

JANSKY & BAILEY, INC. WASHINGTON, D.C.
DECEMBER 17, 1954

WEBC

VOID

MEASURED NIGHT NULLS (2/25/55G) | STATION WEBC DULUTH, MINNESOTA | 5 KW DA-2, U | 560 KC

o SEE PROOF PATTERN BOOK

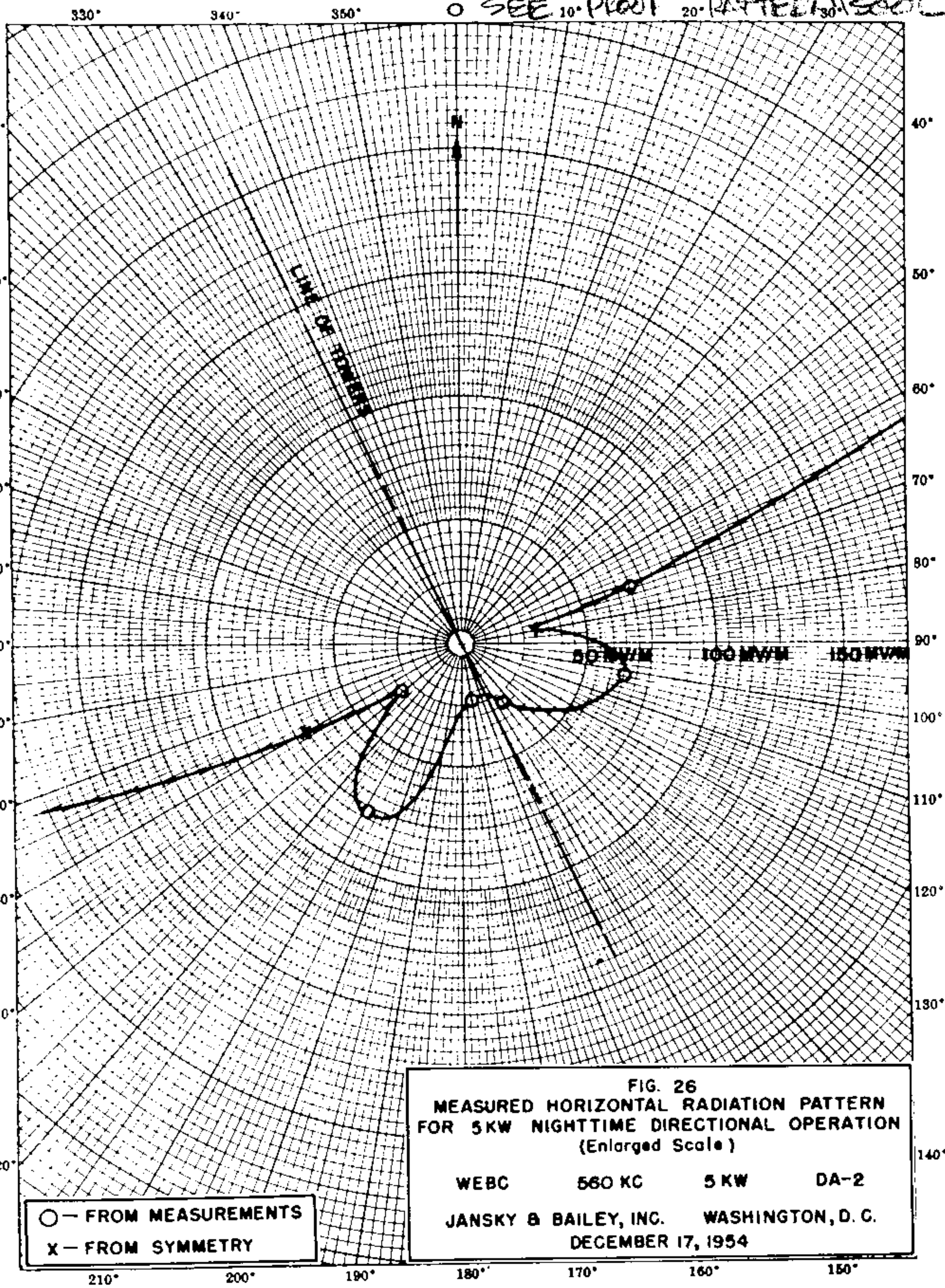


FIG. 26
MEASURED HORIZONTAL RADIATION PATTERN
FOR 5KW NIGHTTIME DIRECTIONAL OPERATION
(Enlarged Scale)

WEBC | 560 KC | 5 KW | DA-2

JANSKY & BAILEY, INC. | WASHINGTON, D.C.
DECEMBER 17, 1954

FILE NO. BL-5618 | Accepted 2/10/55 FCC | WEBC, Duluth, Minnesota | 560 KC

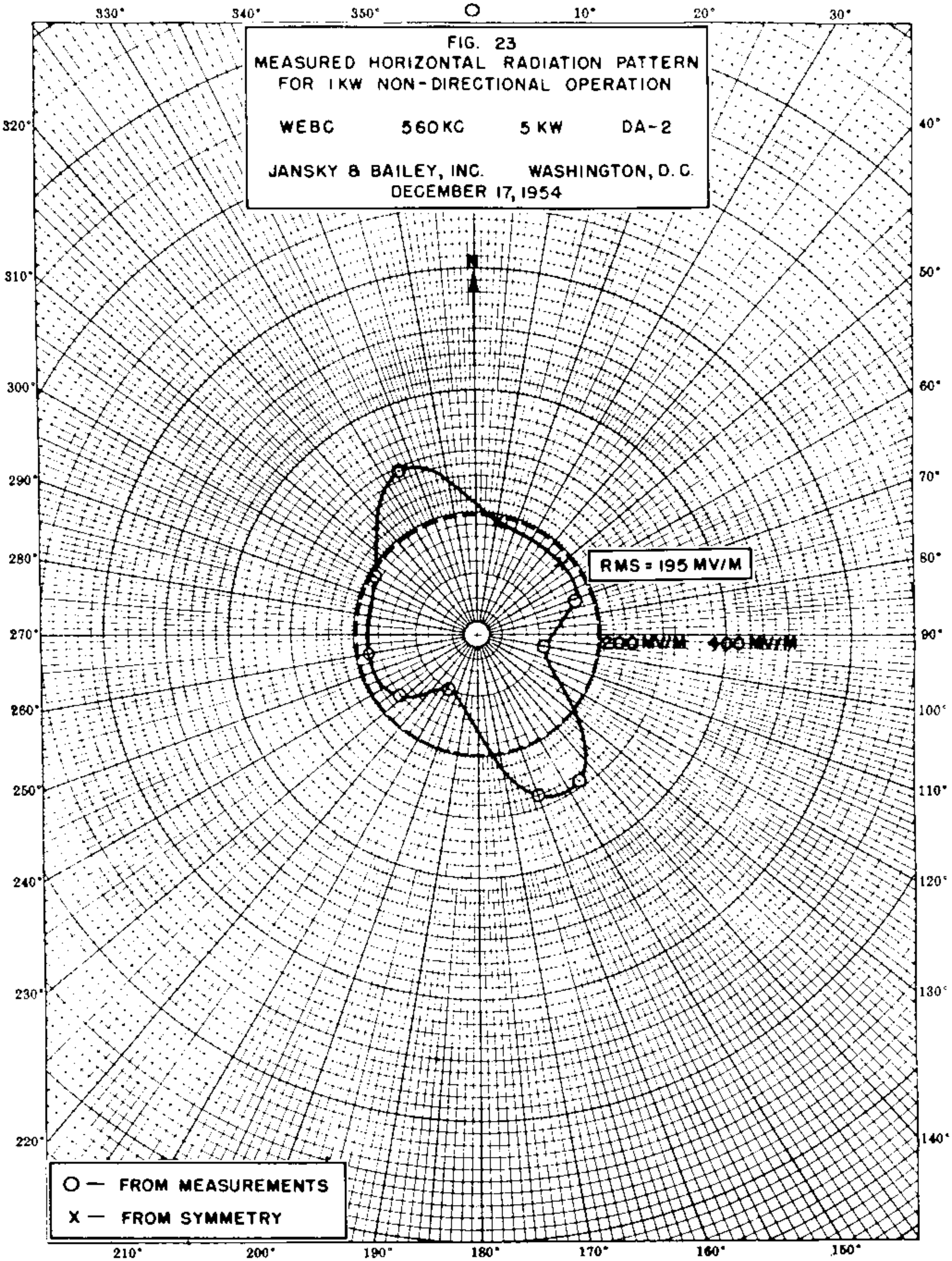
WEBC

MEASURED NON-DIRECTIONAL
(2/25/55G)

STATION WEBC
DULUTH, MINNESOTA

5 KW
DA-2, U

560 KC



FILE NO. BL-5618 ACCEPTED 2/10/55 FCC WEBC, Duluth, Minnesota 560 KC

SUPPLEMENTAL AND CORRECTED
DIRECTIONAL ANTENNA DESCRIPTION SHEET

Station: WFIL

Main Studio: Philadelphia, Pennsylvania

Frequency: 560 kHz

Power: 5 kW

Notification List No. 1697

Date: August 11, 1976

Class: III

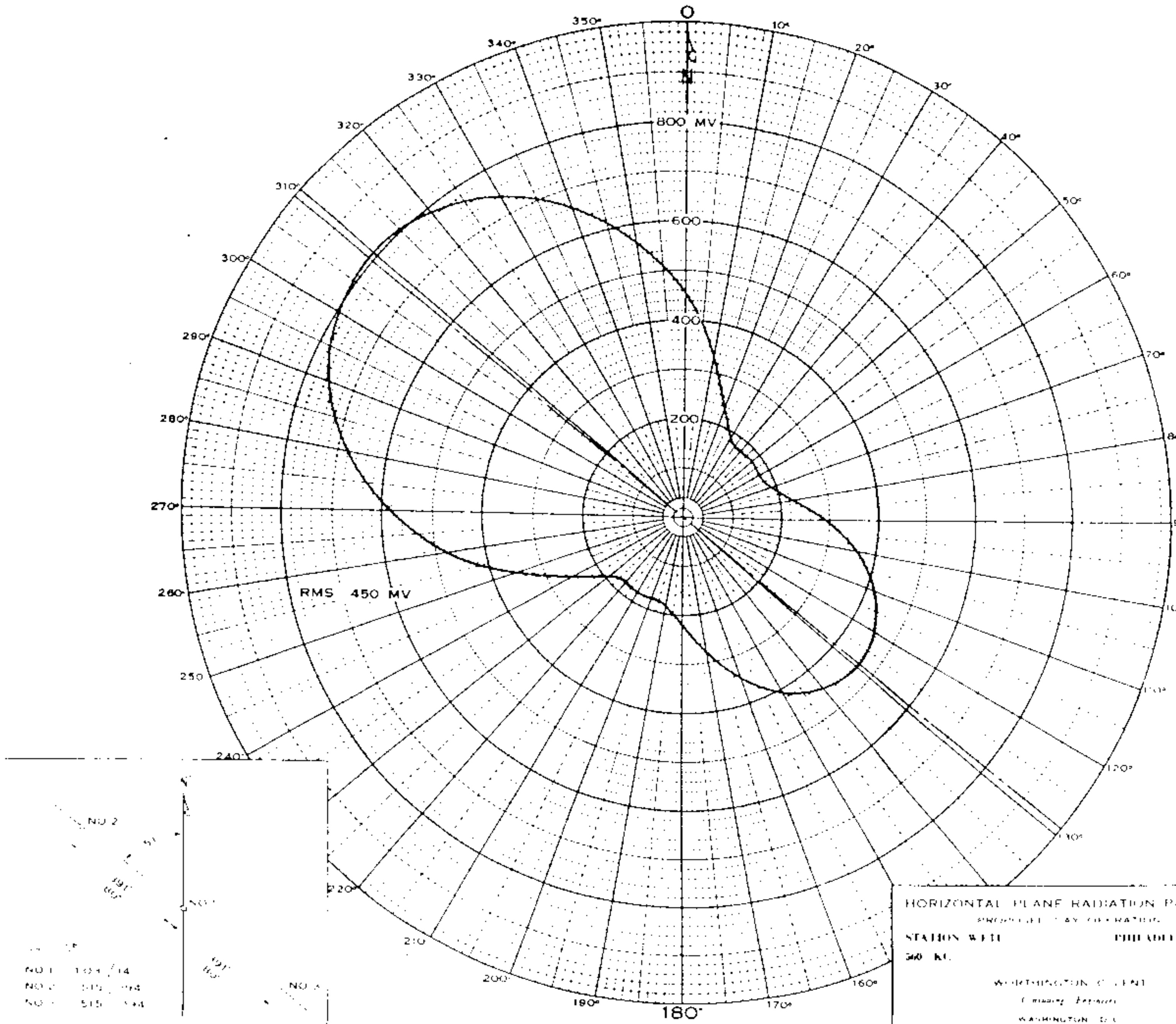
GEOGRAPHICAL LOCATION OF THE CENTER OF THE ANTENNA SYSTEM:

North Latitude: 40° 05' 59"
West Longitude: 75° 15' 47"

Authorized for Day and Night operation (DA-2).

Note: Please retain the description sheet and directional antenna radiation patterns notified for station WFIL in United States Change List Number 173, dated May 24, 1946, and attach to this supplemental Description Sheet. This notification is for the purpose of indicating only a correction in the geographical coordinates of the center of the antenna system.

CTR NO 30435A3



HORIZONTAL PLANE RADIATION PATTERN

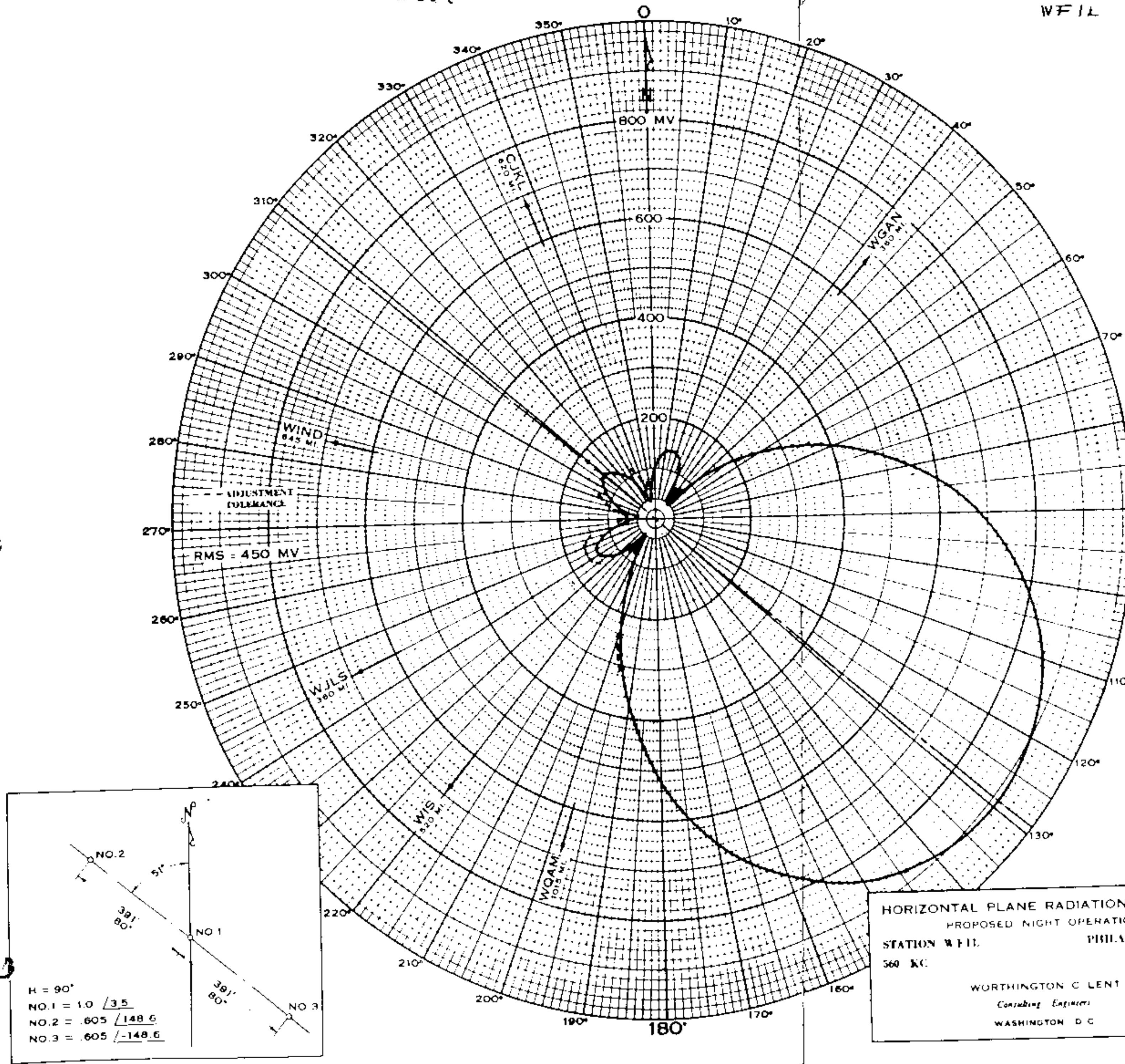
STATION WFIL PHILADELPHIA, PA.

560 KC.

WASHINGTON, D.C.

FIGURE 5

WFIL 560 kc



HORIZONTAL PLANE RADIATION PATTERN

PROPOSED NIGHT OPERATION

STATION WFIL PHILADELPHIA, PA.

560 KC 5 KW

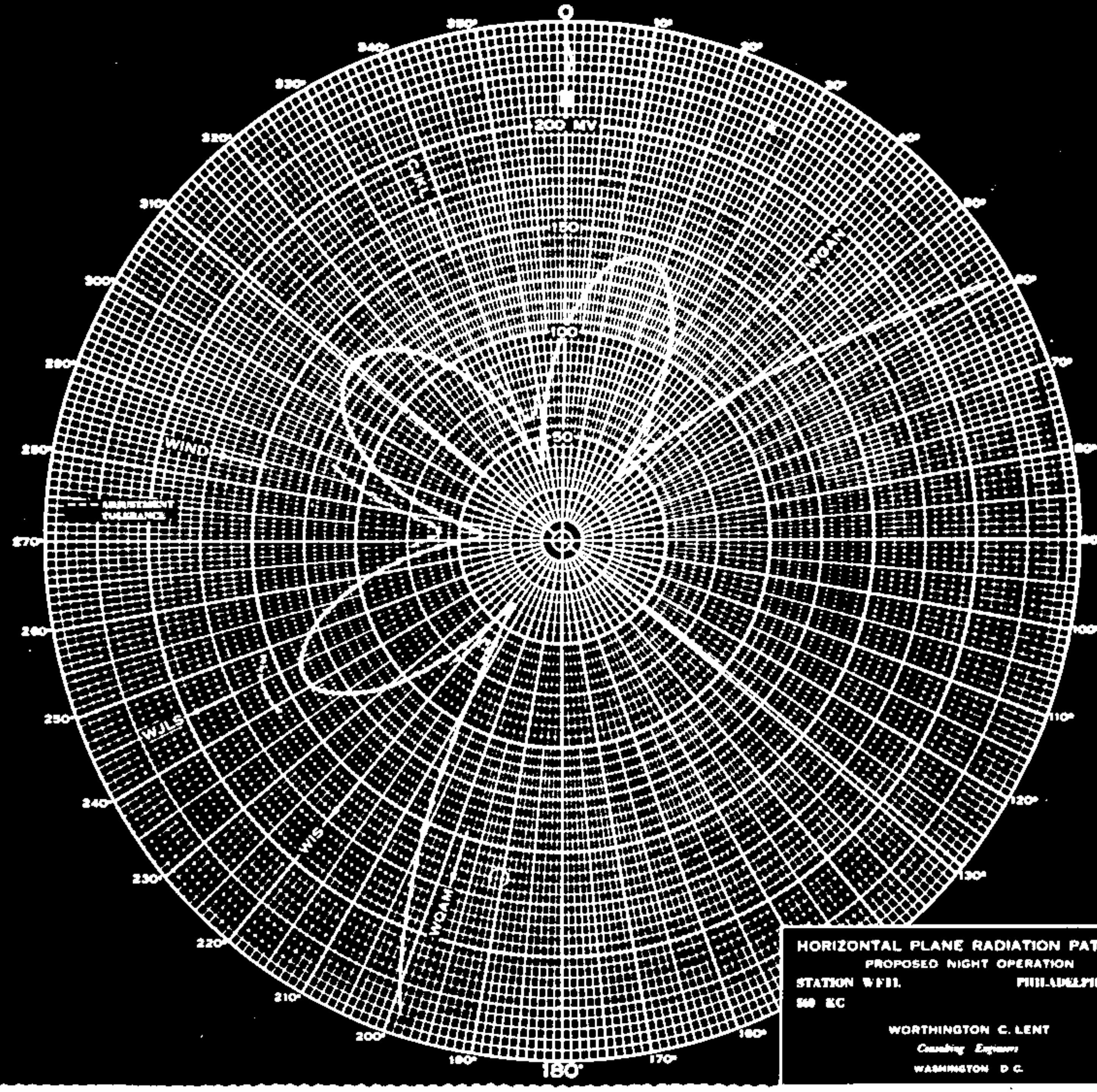
WORTHINGTON C. LENT

Consulting Engineers

WASHINGTON D.C.

FIGURE 10

WFIL - 5KW - 560KC



HORIZONTAL PLANE RADIATION PATTERN
PROPOSED NIGHT OPERATION
STATION WFIL PHILADELPHIA, PA.
560 KC 5 KW

WORTHINGTON C. LENT
Consulting Engineers
WASHINGTON D.C.

PROPOSED DAYTIME

WGAI, ELIZABETH CITY, N. C. 500w,1kw-LS,DA-2

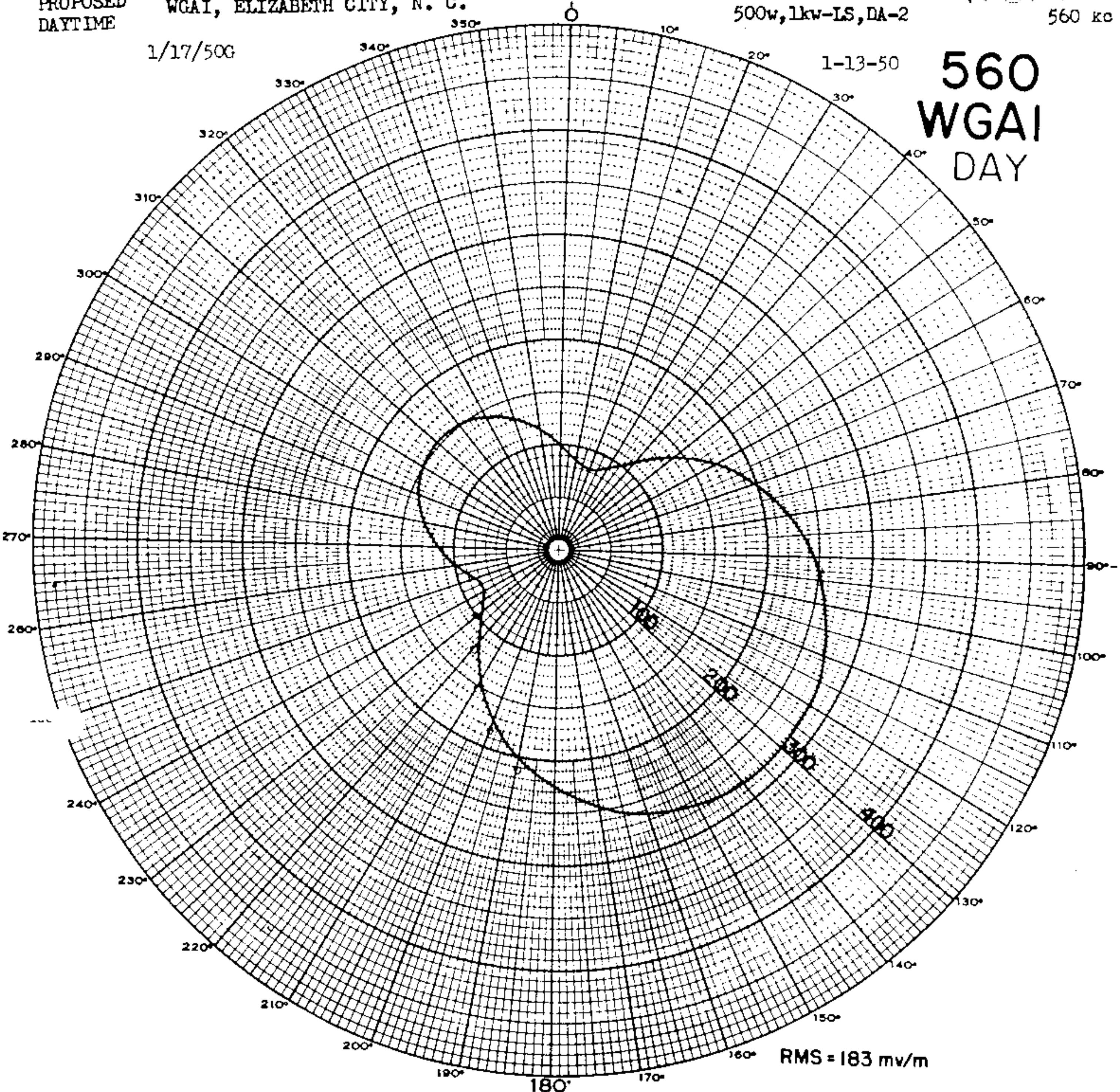
WGAI

560 kc

1/17/50G

1-13-50

560 WGAI DAY



310° 41" True

.4/157°

60°

G = 65.6°

.6/0°

Lat. 36° 20' 20" N
Long. 76° 14' 50" W

FIGURE 2
Horizontal Plane Radiation Pattern

DAYTIME OPERATION

WGAI, The Advance, Inc.
Elizabeth City, N. C.
560 kc .5-1kwLS DA - 2

E. C. PAGE
Consulting Radio Engineers
Washington, D. C.

VE-JJ December 22, 1949

WGAI, Elizabeth City, N. C. 560 kc

Measured Day
(11-30-61ct)

Station WGAI 500w,1kw-LS,DA-2,U
Elizabeth City, North Carolina 560kc

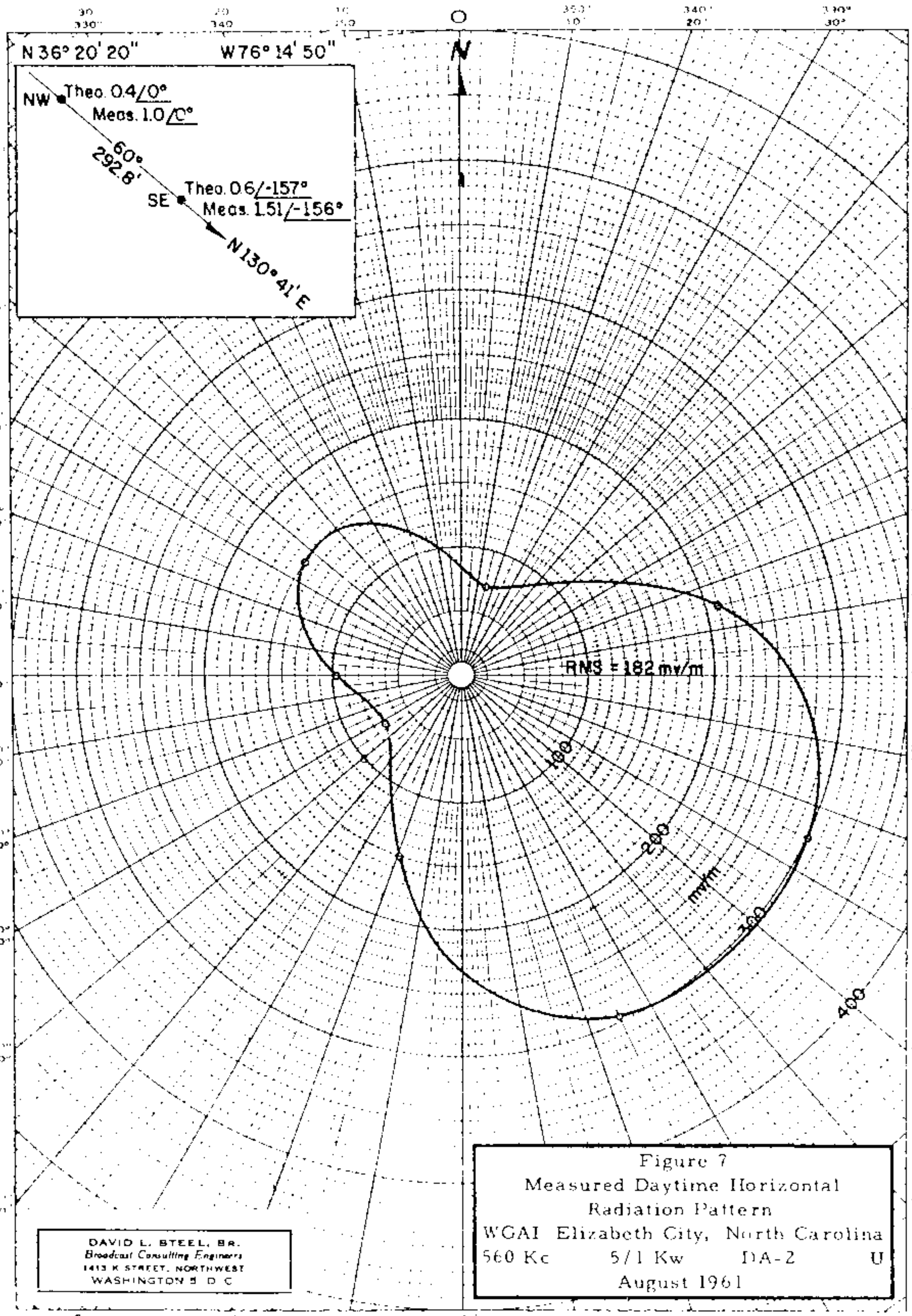


Figure 7
Measured Daytime Horizontal
Radiation Pattern
WGAI Elizabeth City, North Carolina
560 Kc 5/1 Kw DA-2 U
August 1961

FCC File No.BZ-4527
Accepted 11-21-61

Station WGAI
Elizabeth City, North Carolina 560kc

WGAI

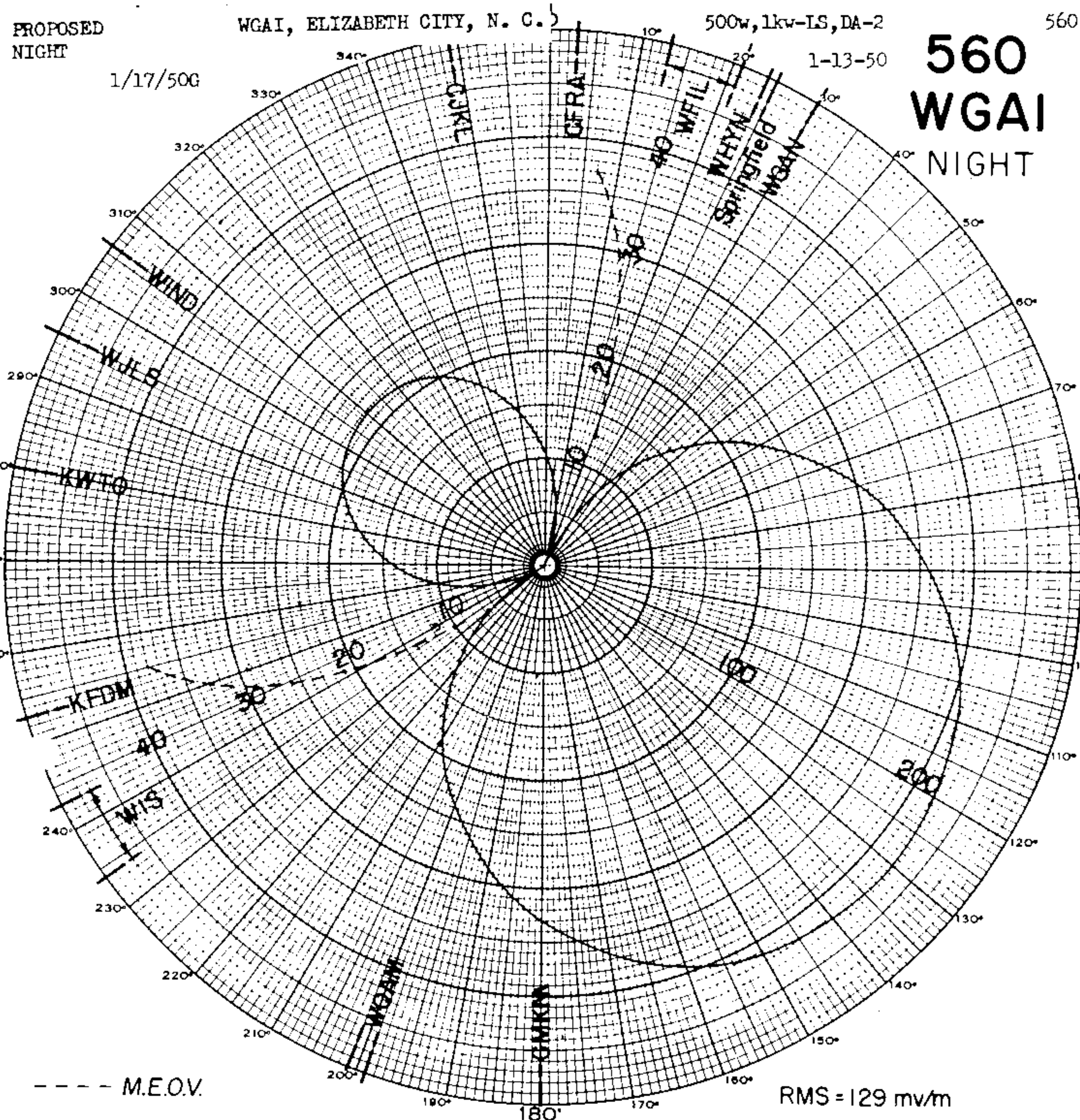
PROPOSED
NIGHT

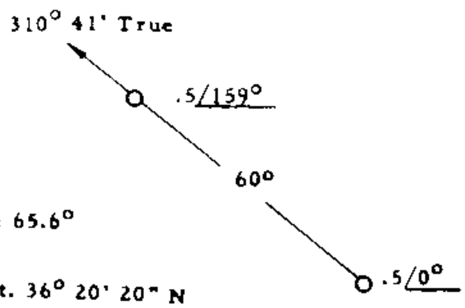
1/17/50G

WGAI, ELIZABETH CITY, N. C. 500w,1kw-LS,DA-2 560 kc

1-13-50

560 WGAI NIGHT





G = 65.6°

Lat. 36° 20' 20" N
Long. 76° 14' 50" W

FIGURE 1-a
Horizontal Plane Radiation Pattern

NIGHTTIME OPERATION

WGAI, The Advance, Inc.
Elizabeth City, N. C.
560 kc, .5-1kw LS, U, DA-2

E. C. PAGE
Consulting Radio Engineers
Washington, D.C.

VE-JJ December 22, 1949

WGAI

Measured Night (11-30-61ct)

Station WGAI
Elizabeth City, North Carolina

500w, 1kw-LS, DA-2,
560kc

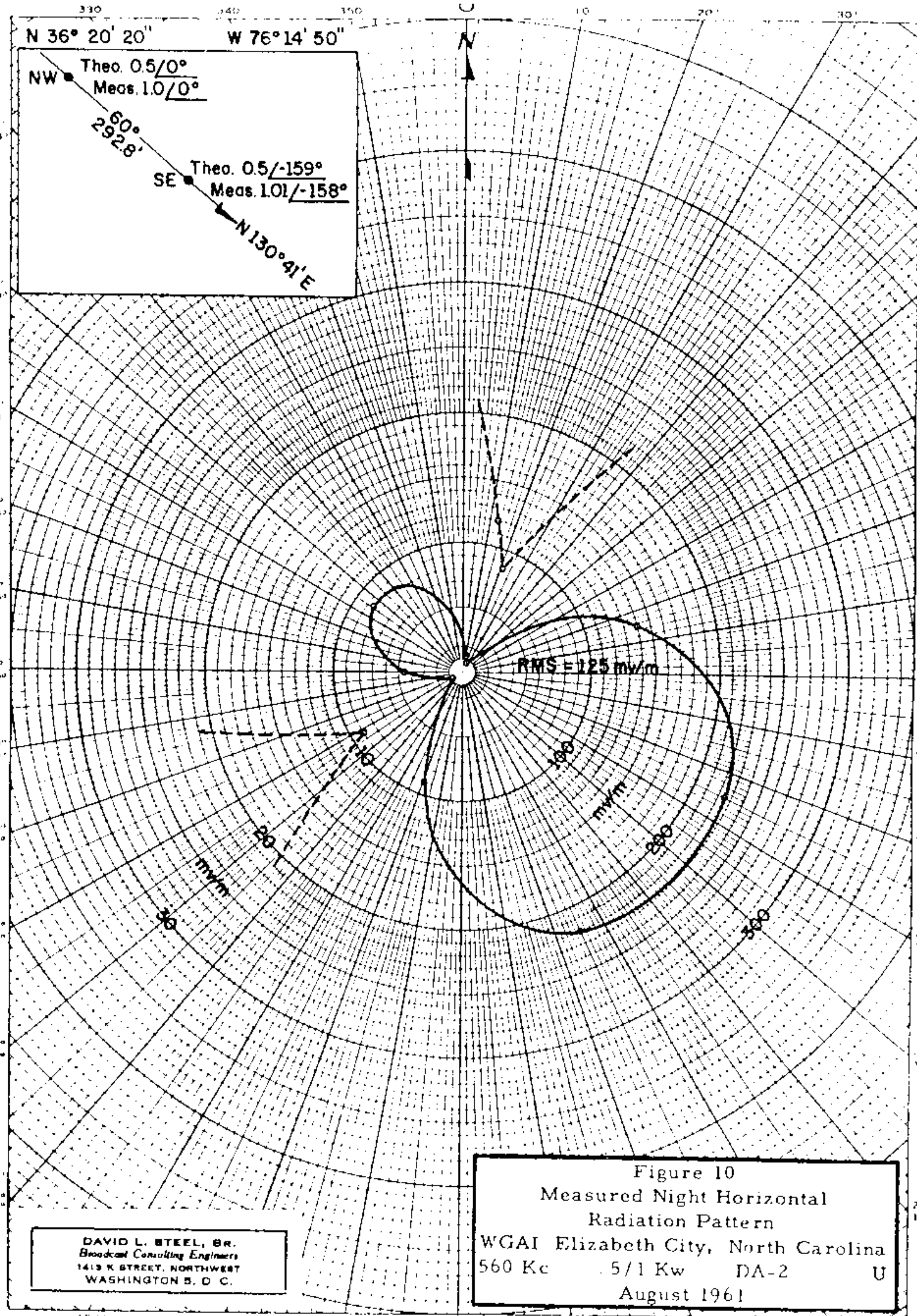


Figure 10
Measured Night Horizontal
Radiation Pattern
WGAI Elizabeth City, North Carolina
560 Kc .5/1 Kw DA-2 U
August 1961

DAVID L. STEEL, SR.
Broadcast Consulting Engineers
1413 K STREET, NORTHWEST
WASHINGTON 5, D. C.

FCC File No. BZ-4527
Accepted 11-21-61

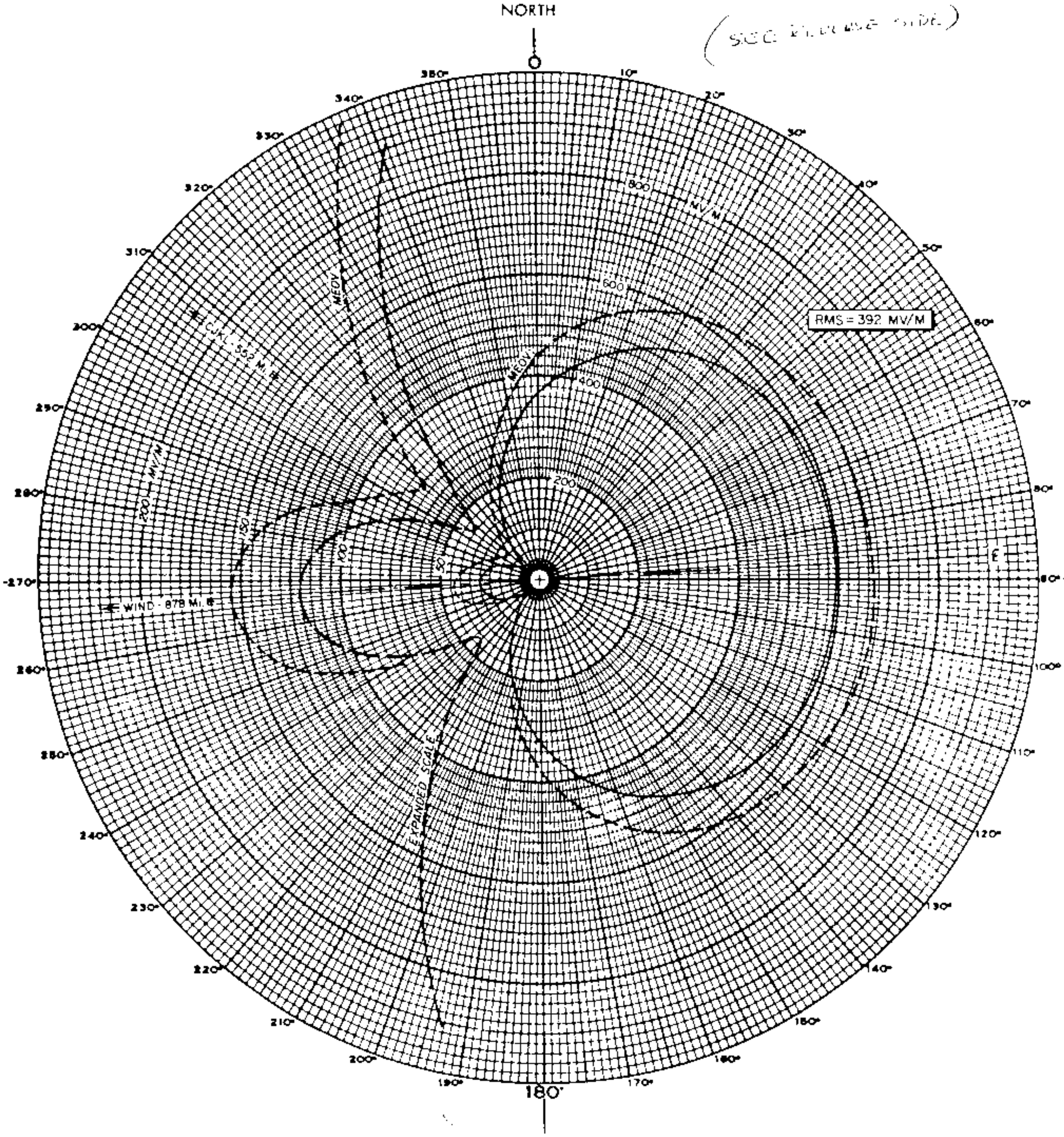
Station WGAI
Elizabeth City, North Carolina 560kc

WGAN
5kw,DA-1,U
560 kc

Proposed Day & Night
(9-25-70ct)

Station WGAN
Portland, Maine

(see reverse side)



NORTH LATITUDE : 43° 41' 22"
WEST LONGITUDE : 70° 19' 00"

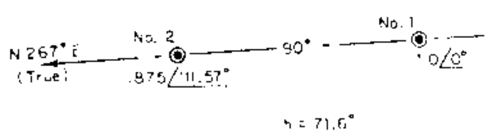


FIGURE 2 (Amended)
HORIZONTAL PLANE RADIATION PATTERN
WGAN 5 KW-U DA-1 560 KC
PORTLAND, MAINE

Prepared by
Lohnes and Culver Washington, D.C.
February, 1970

FCC File No.BP-18835
Accepted 8-28-70

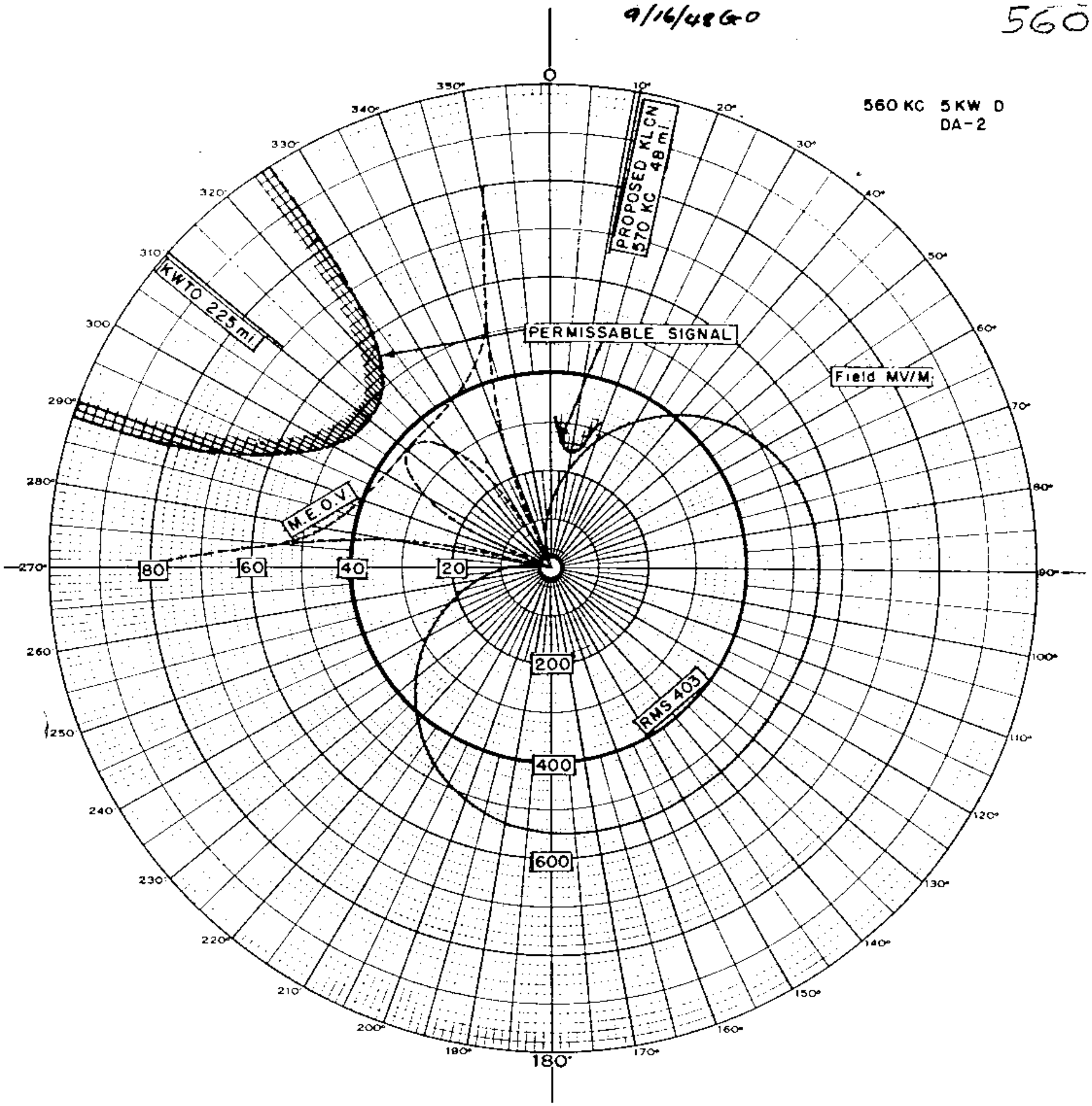
Station WGAN
Portland, Maine

560 kc

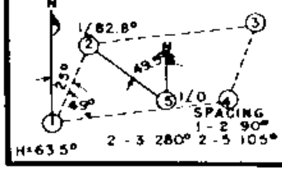
WHBQ
560

9/16/48 GO

560 KC 5 KW D
DA-2



BROADCASTING STATION WHBQ INC. MEMPHIS, TENNESSEE	Figure 3A Series 471009 P 560 KC 5000 WATTS DAY
PROPOSED DIRECTIONAL ANTENNA PATTERN	FRANK H. McINTOSH *Consulting Radio Engineer* Washington, D.C.



WHBQ

Measured Day
(9-28-65ct)

Station WHBQ
Memphis, Tennessee

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

BL-11017

Lic 11-1-65
Chg DA, Loc

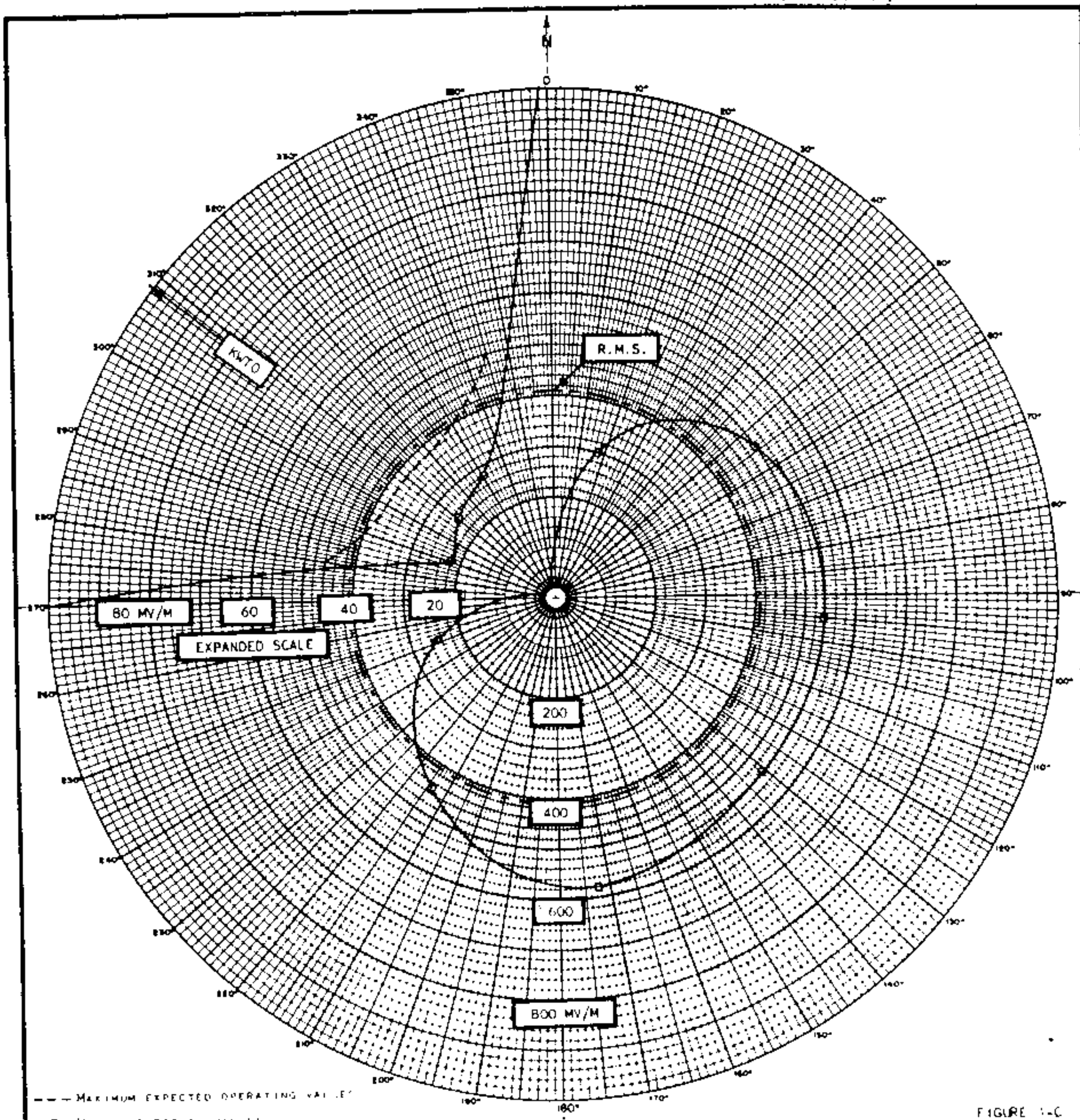
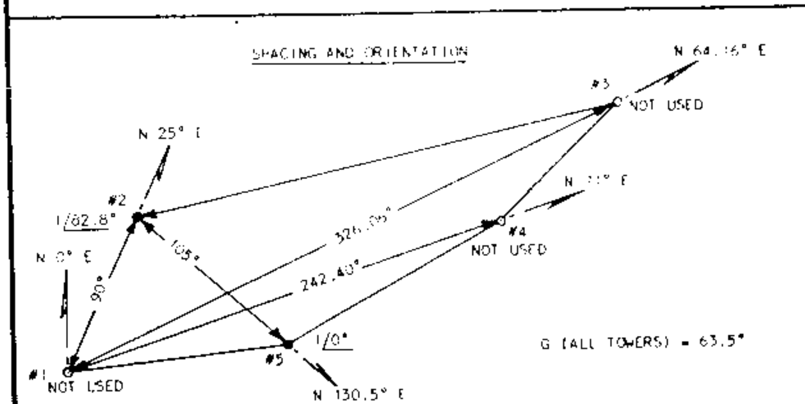


FIGURE ?-C

HORIZONTAL RADIATION PATTERN



APPLICANT	: RKO GENERAL INC. (WHBQ)
LOCATION	: MEMPHIS, TENNESSEE
FREQUENCY	: 56? KC/S
POWER	: 5 KW-LS, 1 KW-N (DA-2)
LATITUDE	: 35 DEG 15 MIN. 12 SEC.
LONGITUDE	: 90 DEG 02 MIN 51 SEC.
WHEN USED	: DAYTIME
R.M.S. FIELD	408 MV/M (MEASURED)
DATE	: APRIL 1965

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

FCC File No. BL-11017
Accepted 9-15-65

Station WHBQ
Memphis, Tennessee

560 kc

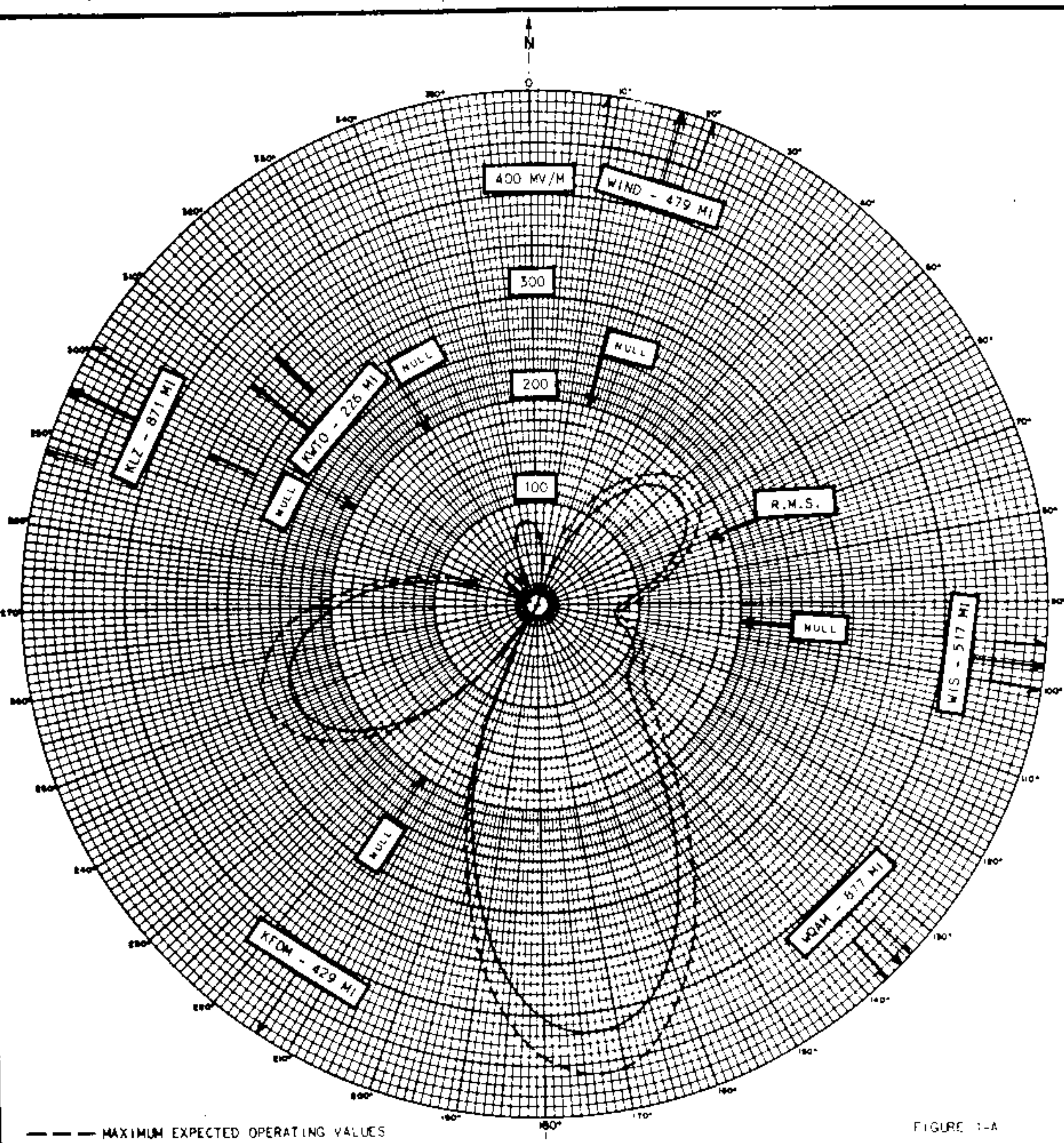
WHBQ

3-23-64 Beach Dp. DA Changed

Proposed Night (3-30-64ct)

Station WHBQ
Memphis, Tennessee

1kw,5kw-LS,DA-2,U
560kc

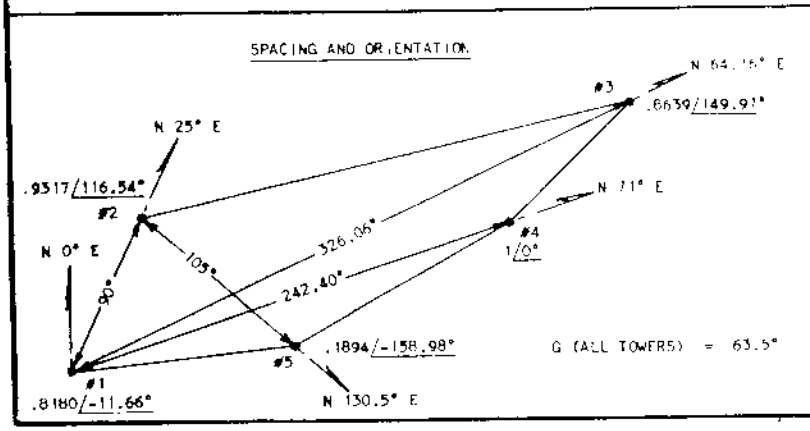


— — — MAXIMUM EXPECTED OPERATING VALUES

FIGURE 1-A

HORIZONTAL RADIATION PATTERN

SPACING AND ORIENTATION



G (ALL TOWERS) = 63.5°

APPLICANT	RKO General, Inc. (WHBQ)
LOCATION	Memphis, Tennessee
FREQUENCY	560 KC/S
POWER	.5 KW-LS, 1 KW-N (DA-2)
LATITUDE	35 DEG 15 MIN 12 SEC.
LONGITUDE	90 DEG 02 MIN 51 SEC.
WHEN USED	Nighttime
RMS FIELD	190 MV/M
DATE	October 1963 631001

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

FCC File No. BP-16110
Accepted 3-9-64

Station WHBQ
Memphis, Tennessee

560kc

WHBQ

Proposed Night Nulls (3-30-64ct)

Station WHBQ
Memphis, Tennessee

1kw, 5kw-LS, DA-2, U
560kc

3-23-64 Granted CP & change DA-N pattern

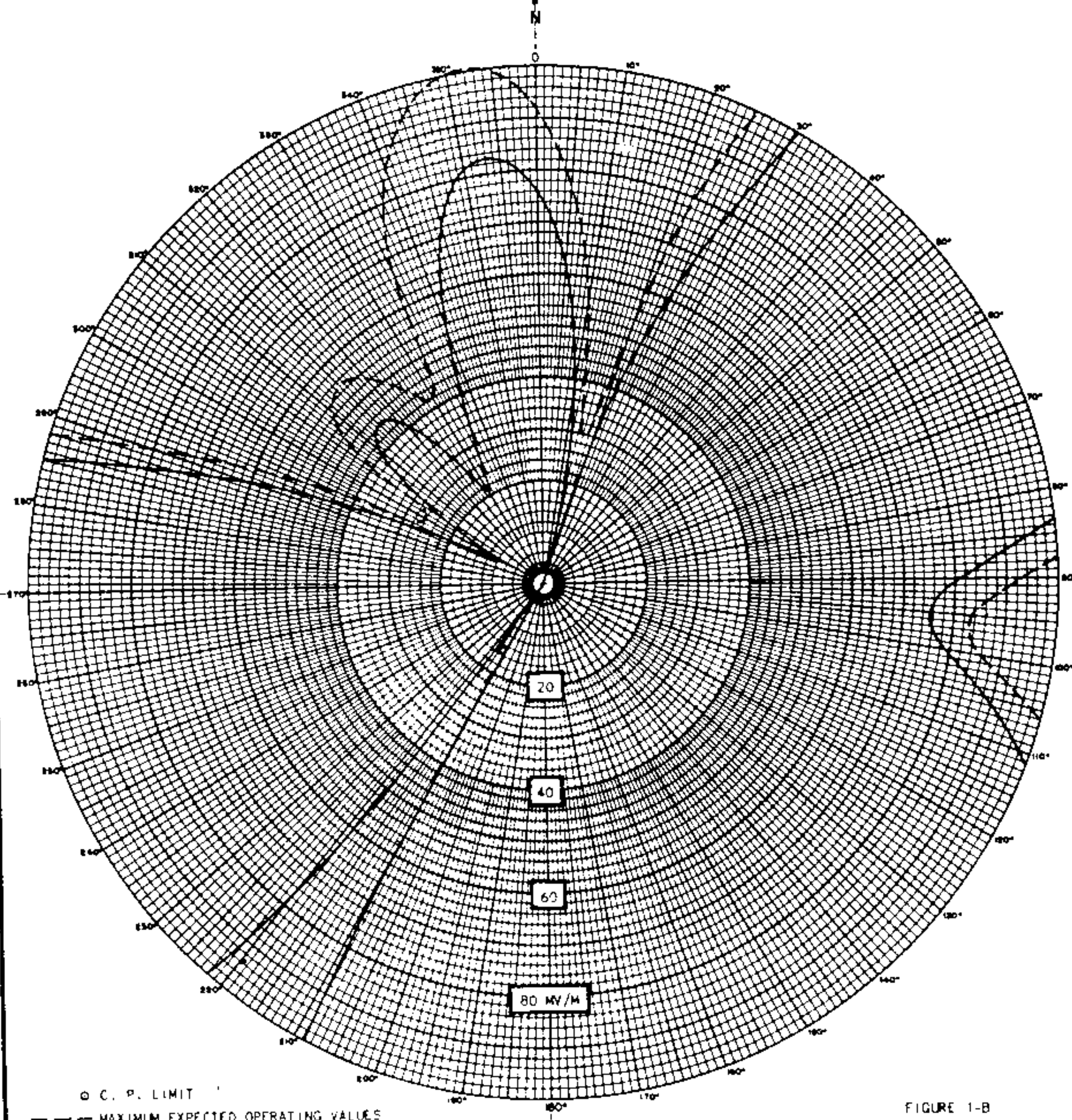


FIGURE 1-B

HORIZONTAL RADIATION PATTERN

EXPANDED VIEW

APPLICANT	RKO GENERAL INC. (WHBQ)
LOCATION	MEMPHIS, TENNESSEE
FREQUENCY	560 KC/S
POWER	5 KW-LS, 1 KW-N (DA-2)
LATITUDE	35 DEG 15 MIN. 12 SEC.
LONGITUDE	90 DEG. 02 MIN. 51 SEC.
WHEN USED	NIGHTTIME
R.M.S. FIELD	180 MV/M
DATE	OCTOBER 1963 631001

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

FCC File No. BP-16110
Accepted 3-9-64

Station WHBQ
Memphis, Tennessee

560kc

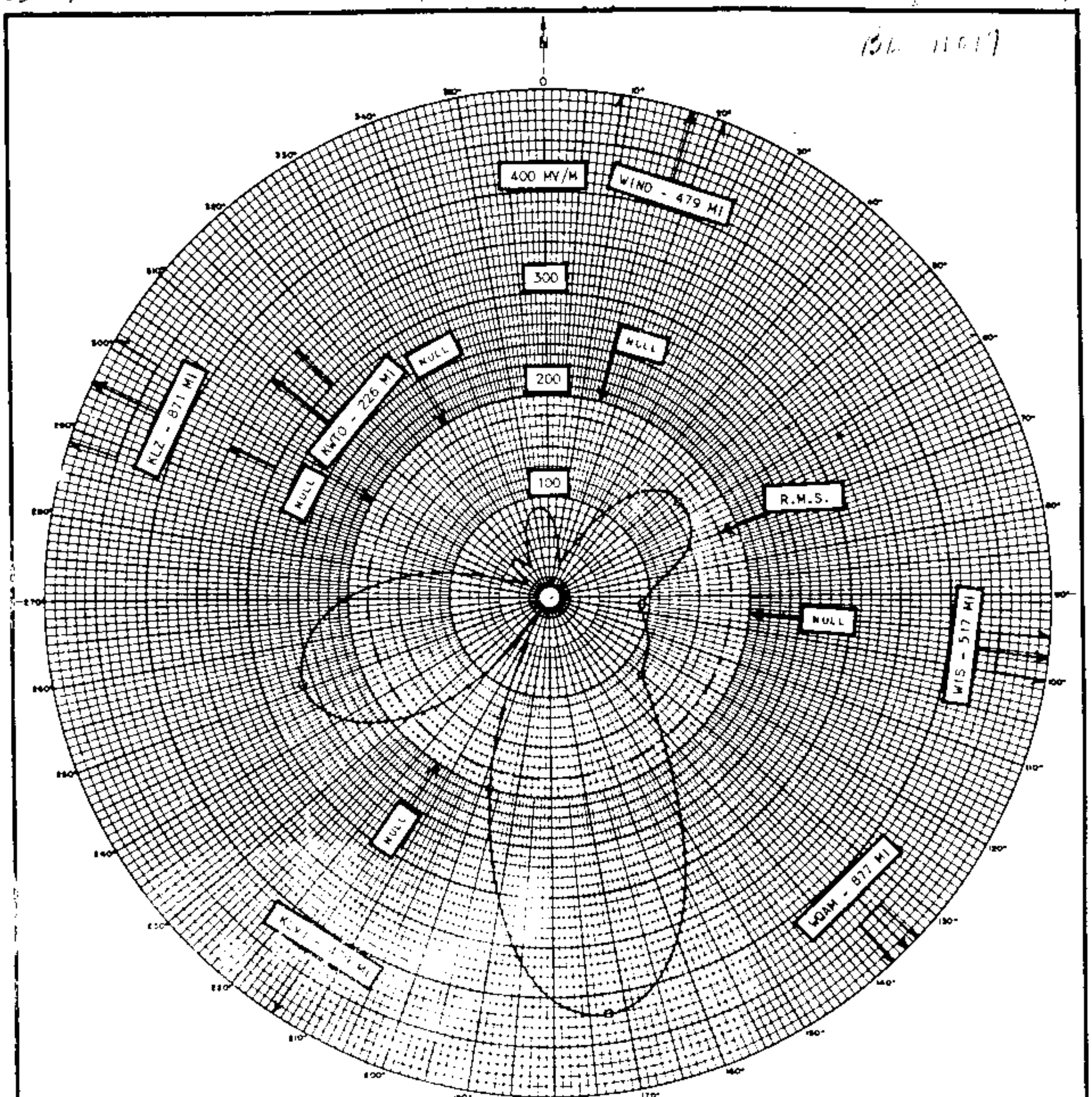
WHBQ

Measured Night
(9-28-65ct)

Station WHBQ
Memphis, Tennessee

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

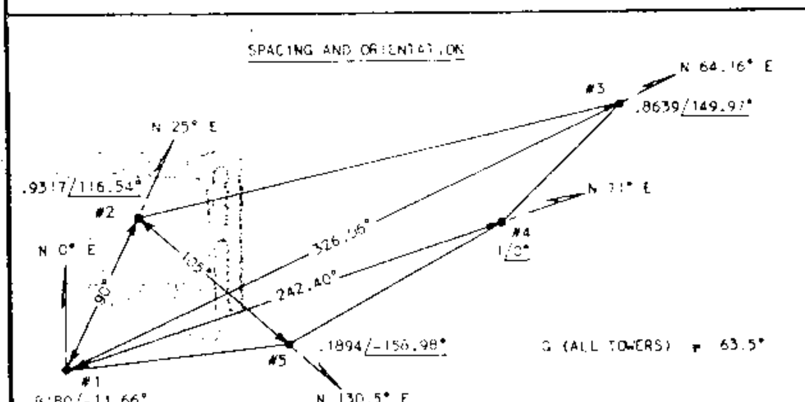
BL 11017



O MEASURED RADIAL VALUES

FIGURE 1-A

HORIZONTAL RADIATION PATTERN



APPLICANT	RKO GENERAL INC. (WHBQ)
LOCATION	MEMPHIS, TENNESSEE
FREQUENCY	560 KC/S
POWER	5 KW-LS, 1 KW-N (DA-2)
LATITUDE	35 DEG 15 MIN. 12 SEC.
LONGITUDE	90 DEG. 02 MIN 51 SEC.
WHEN USED	NIGHTTIME
R M S FIELD	181 MV/M (MEASURED)
DATE	APRIL 1965

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

FCC File No. BL-11017
Accepted 9-15-65

Station WHBQ
Memphis, Tennessee

560 kc

WHBQ

Measured Night Nulls
(9-28-65ct)

Station WHBQ
Memphis, Tennessee

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

Lic 11-1-65
CHG DA & LOC

BL-11017

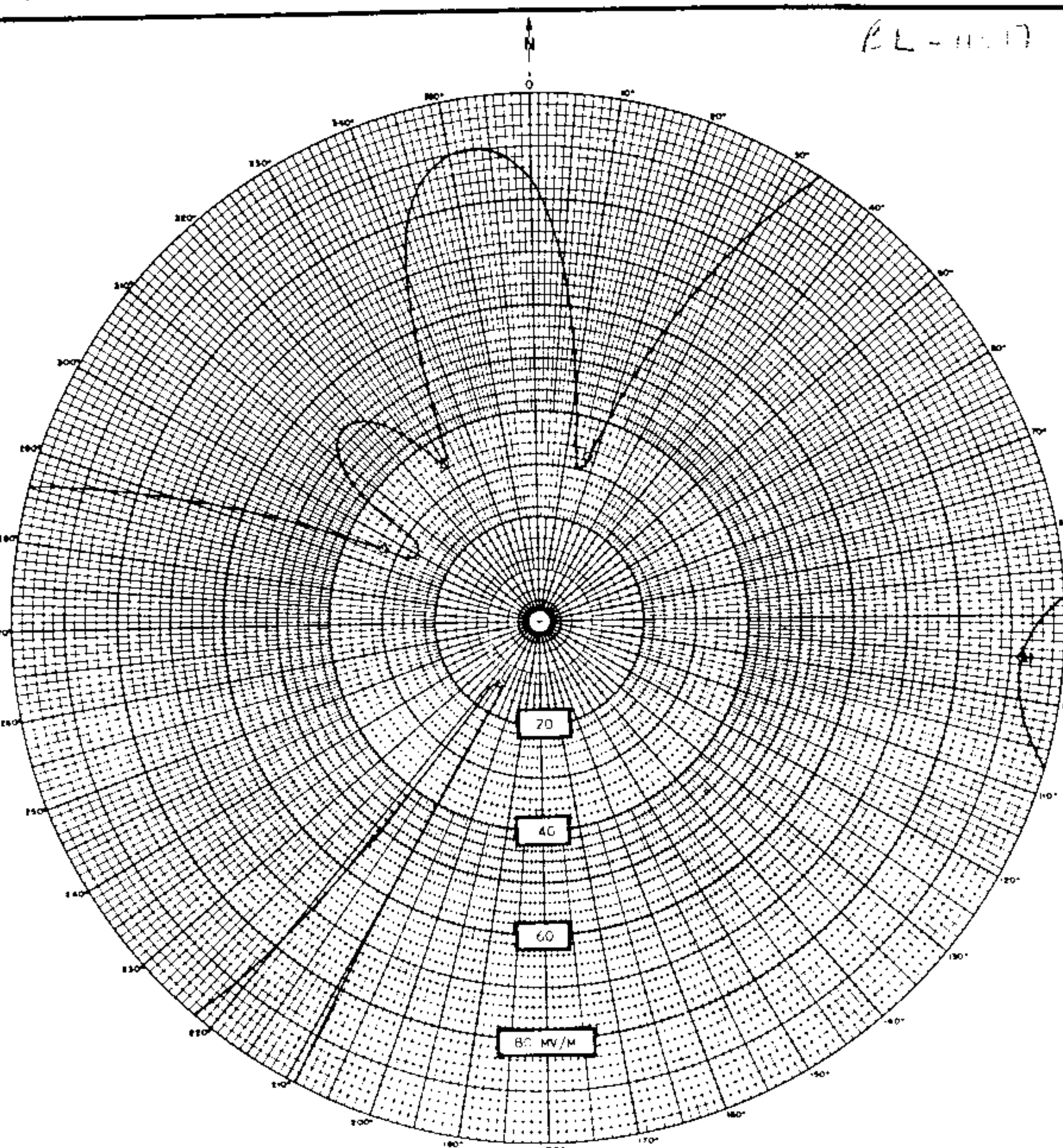


FIGURE 1-6

HORIZONTAL RADIATION PATTERN

EXPANDED VIEW

APPLICANT	RKO GENERAL INC. (WHBQ)
LOCATION	MEMPHIS, TENNESSEE
FREQUENCY	560 KC/S
POWER	5 KW-LS, 1 KW-N (DA-2)
LATITUDE	35 DEG 15 MIN 12 SEC
LONGITUDE	90 DEG 07 MIN 51 SEC
WHEN USED	NIGHTTIME
RMS FIELD:	[illegible] MV/M (MEASURED)
DATE	APRIL [illegible]

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

FCC File No. BL-11017
Accepted 9-15-65

Station WHBQ
Memphis, Tennessee

560 kc

WHBQ

Measured Non-DA (9-28-65ct)	Station WHBQ Memphis, Tennessee	1kw,5kw-LS,DA-2,U 560 kc

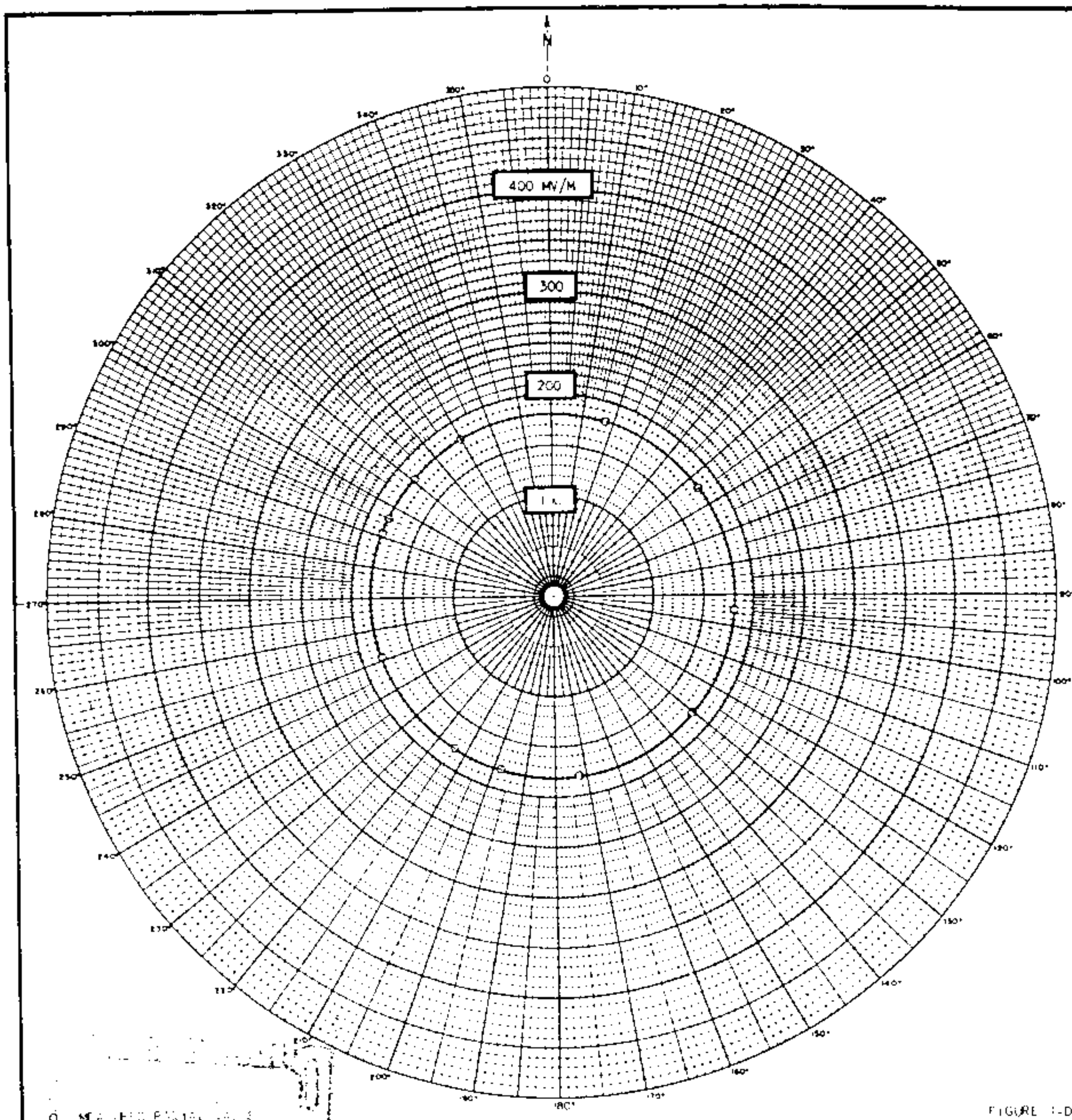


FIGURE 1-D

HORIZONTAL RADIATION PATTERN

NON-DIRECTIONAL SURVEY

APPLICANT	RKO GENERAL INC. (WHBQ)
LOCATION	MEMPHIS, TENNESSEE
FREQUENCY :	560 KC/S
POWER	5 KW-LS, 1 KW-N (DA-2)
LATITUDE :	35 DEG 15 MIN 12 SEC
LONGITUDE	90 DEG 02 MIN 51 SEC
WHEN USED.	NON-DIRECTIONAL SURVEY ONLY
R.M.S FIELD:	180 MV/M (MEASURED)
DATE :	APRIL 1965

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

FCC File No. BL-11017 Accepted 9-15-65	Station WHBQ Memphis, Tennessee	560 kc

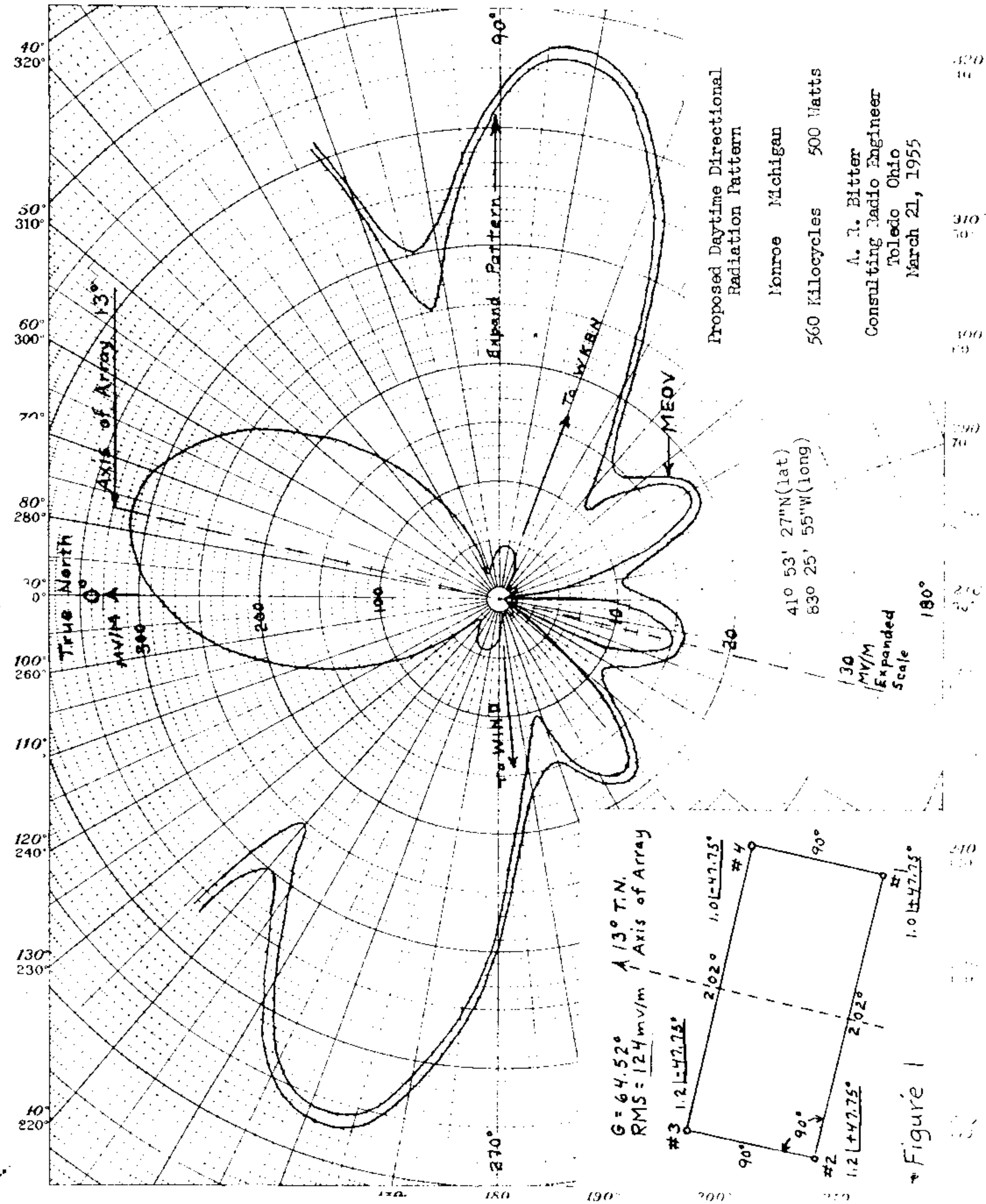
WHHN

PROPOSED DAY
(5/3/55G)

CHARLES S. MC INTYRE
MONROE, MICHIGAN

500W
DA-D, D

560 KC



FILE NO. BP-9544 (Amended) Accepted FCC 4/7/55

Charles S. McIntyre
Monroe, Michigan

560 KC

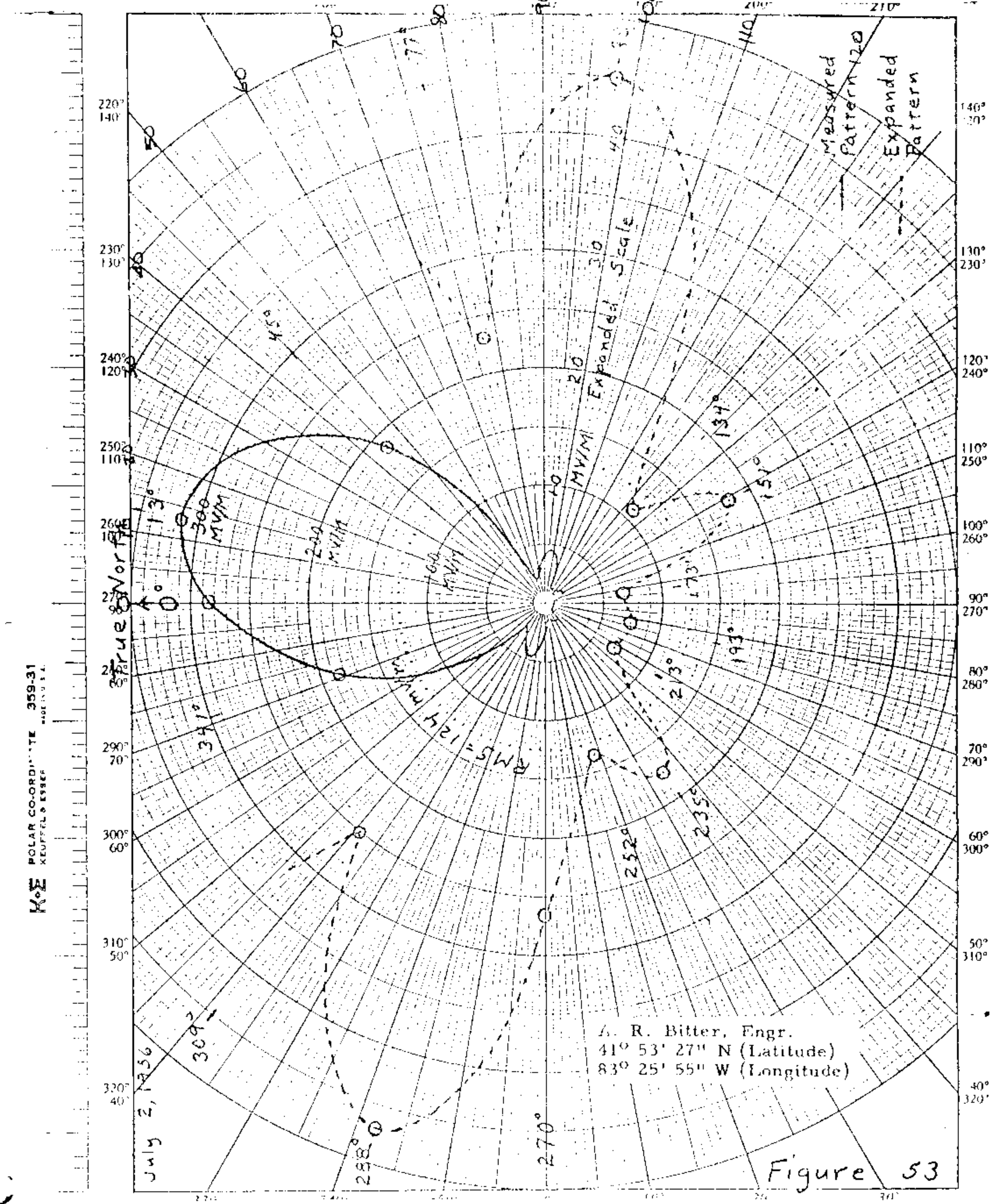
WHND

MEASURED
DAY (8-31-56g)

STATION WMIC
MONROE, MICH.

DA-D, D
500 W

560 KC



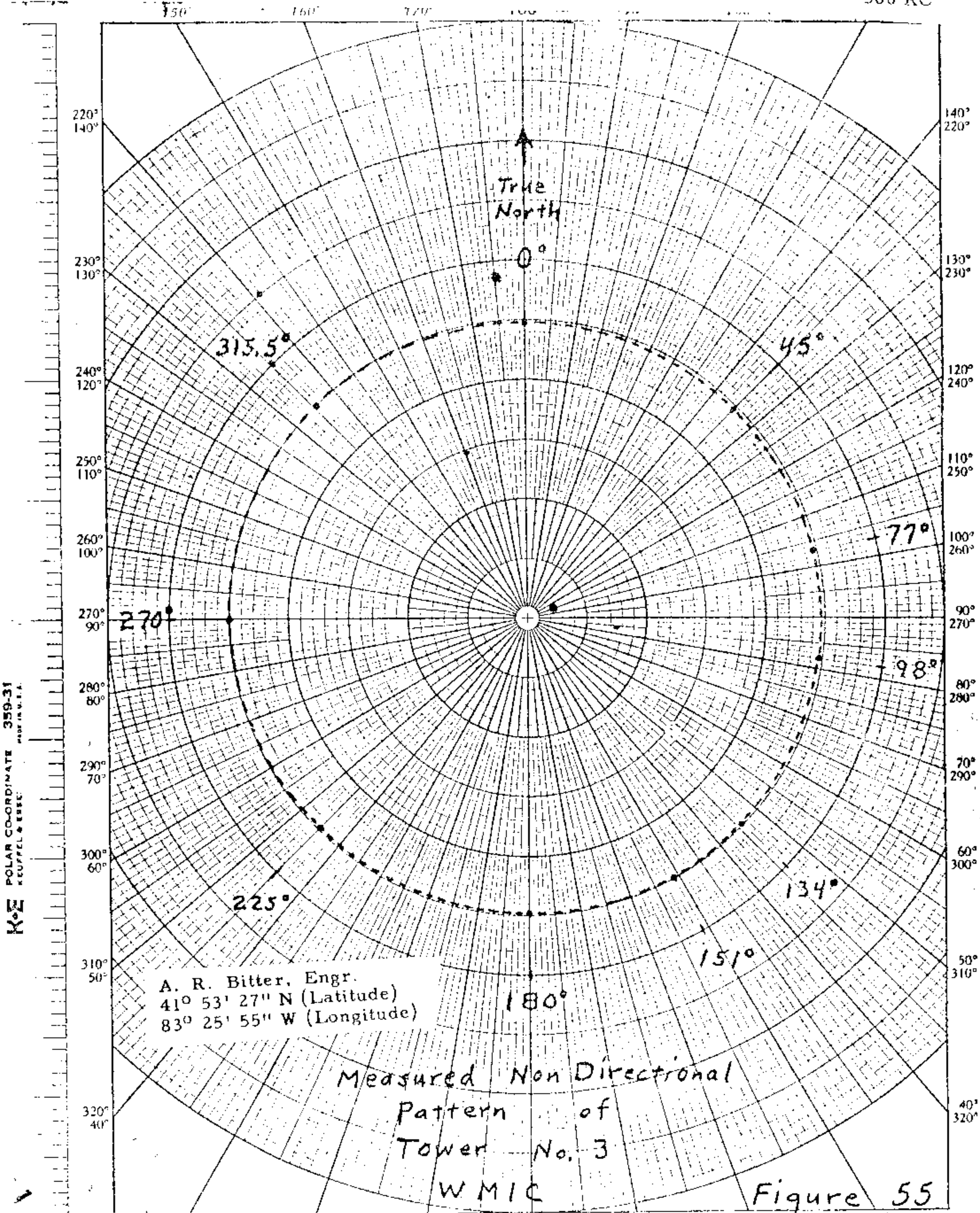
FCC File No. BL-6276 Accepted 8-29-56 WMIC, Monroe, Michigan 560 KC

MEASURED NON-DIRECTIONAL (8-31-56g)

STATION WMIC
MONROE, MICH.

DA-D, D
500 W

560 KC



FCC File No. BL-6276

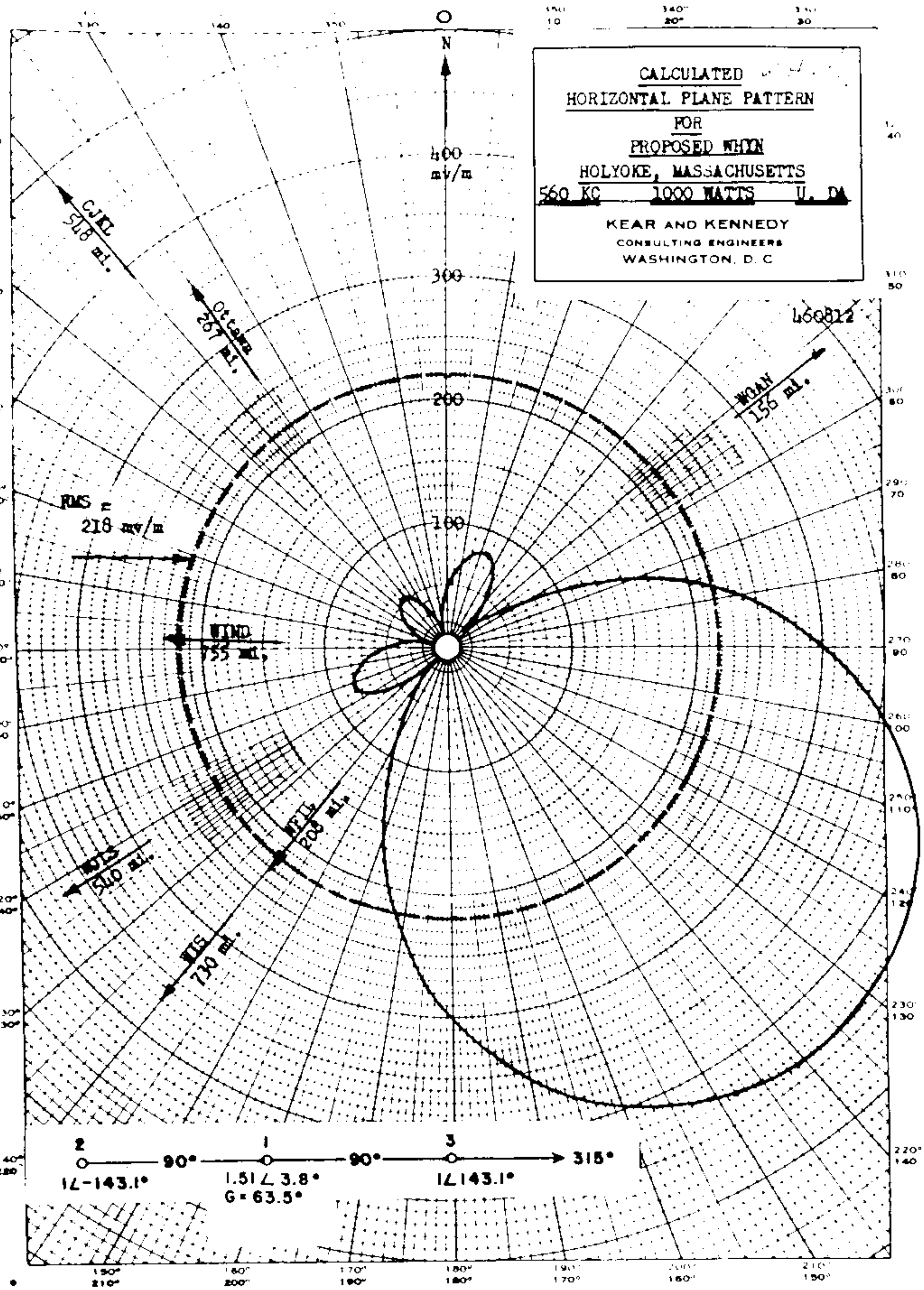
Accepted 8-29-56

WMIC, Monroe, Michigan

560 KC

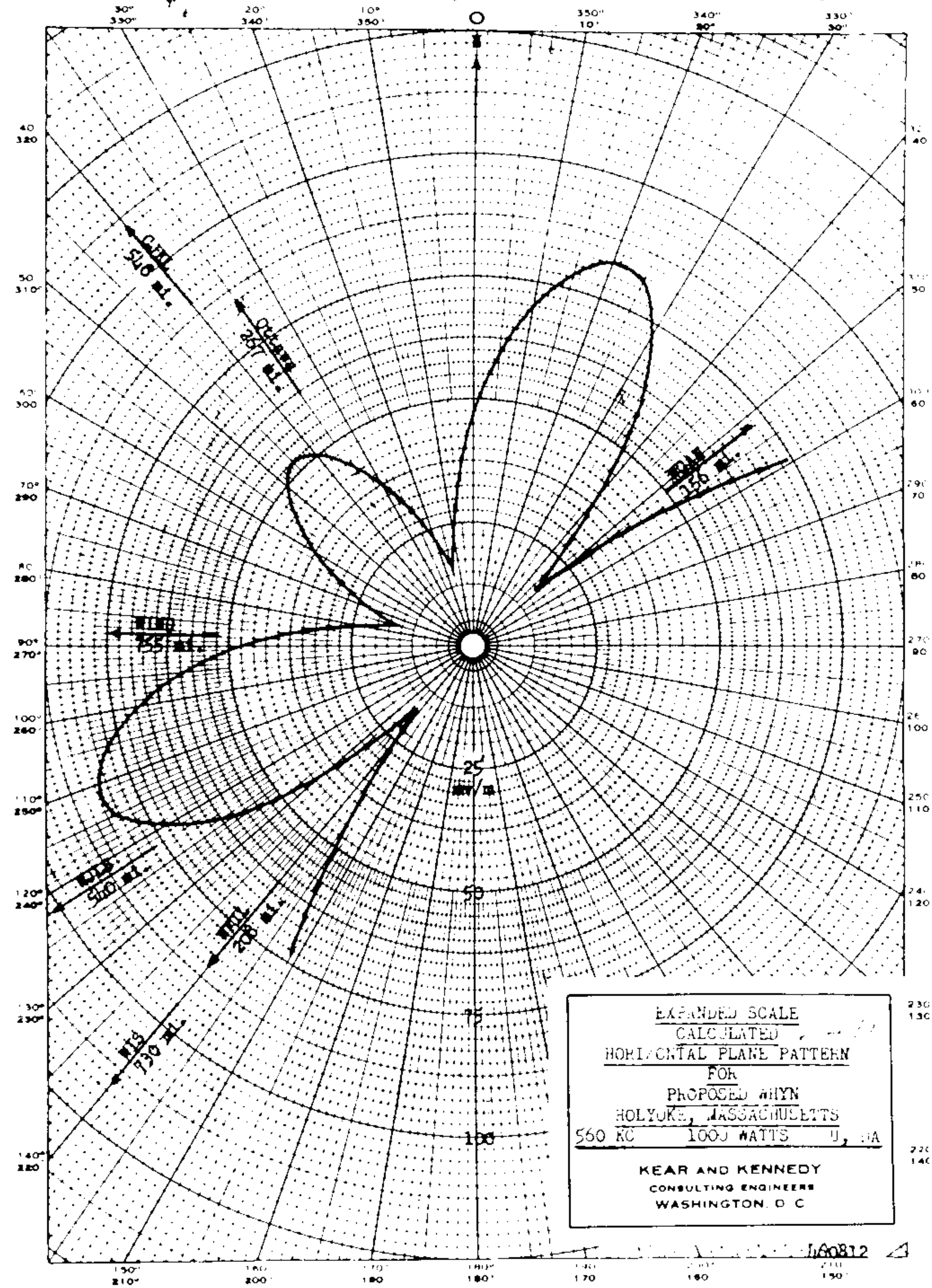
PROP NIGHT

WHYN
560



Proposed day and night

WHYN
560



EXPANDED SCALE
CALCULATED
HORIZONTAL PLANE PATTERN
FOR
PROPOSED WHYN
HOLYOKE, MASSACHUSETTS
560 KC 1000 WATTS U, DA

KEAR AND KENNEDY
CONSULTING ENGINEERS
WASHINGTON, D. C.

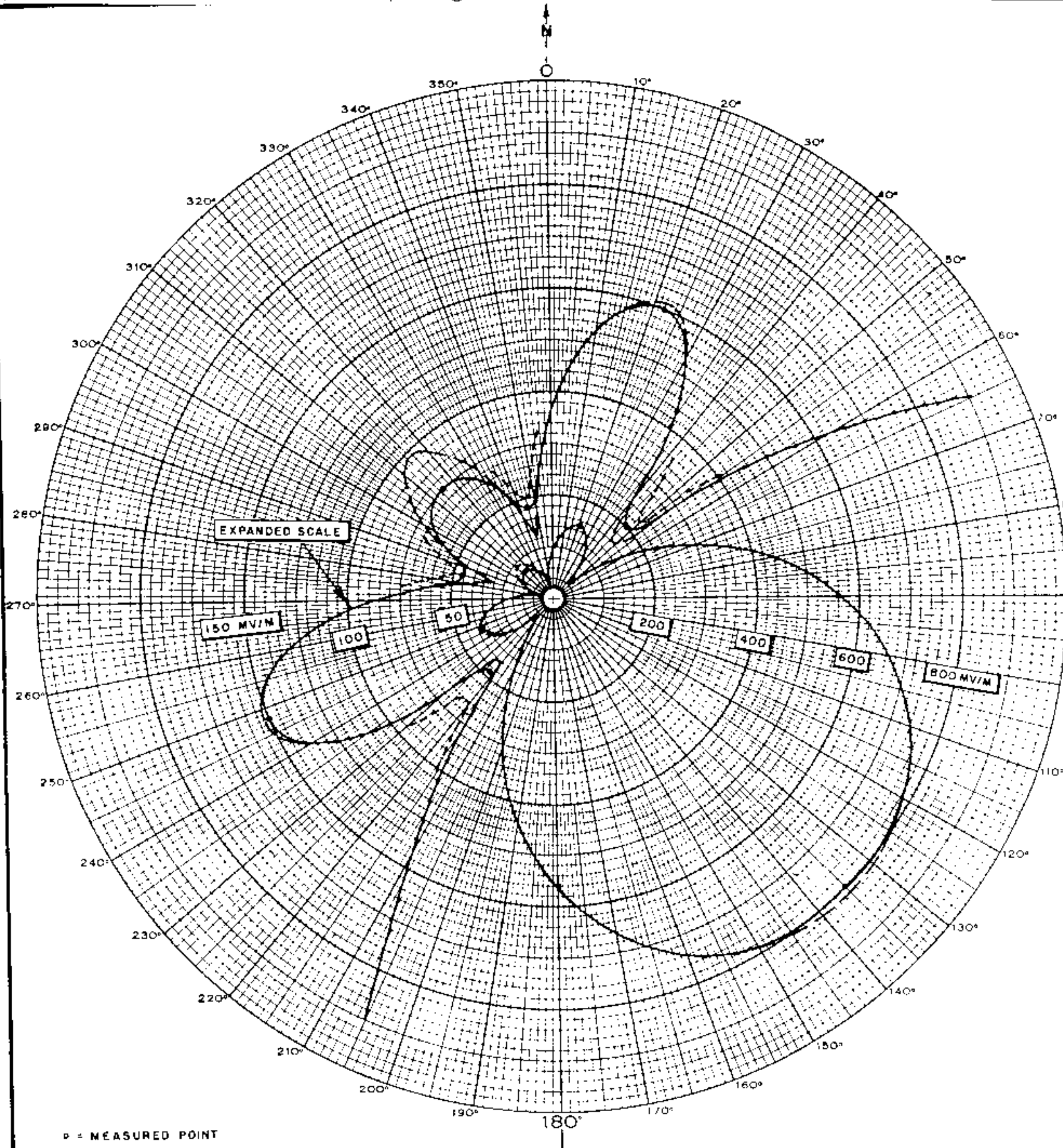
Proposed nulls

Measured Day
(1-28-70ct)

Station WHYN
Springfield, Massachusetts

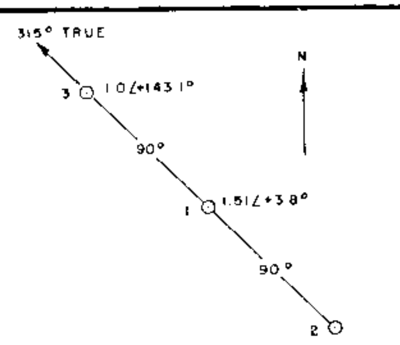
PRC - 3396 **WHYN**

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



o = MEASURED POINT
— — = THEORETICAL PATTERN
—o— = MEASURED PATTERN
} RMS 405 MV/M
- - - - - = M.E.O.V.

FIGURE 4



LATITUDE 42° 11' 37" NORTH
LONGITUDE 72° 41' 02" WEST

ANTENNA NUMBER	AZIMUTH DEG	SPACING DEG	PHASING DEG	FIELD RATIO	MV/M FOR 1 KW	HEIGHT DEG
1	—	—	3.8	1.51	—	63.5
2	135	90	-143.1	1.0	—	63.5
3	315	90	143.1	1.0	—	63.5

DAYTIME
MEASURED & THEORETICAL
HORIZONTAL PLANE PATTERN
FOR
WHYN
SPRINGFIELD, MASSACHUSETTS
560 Khz 1/5 KW U-DA-2
680909

KEAR & KENNEDY
CONSULTING ENGINEERS
WASHINGTON, D.C.

FCC File No.BRC-3396
Accepted 1-13-70

Station WHYN
Springfield, Massachusetts

560 kc

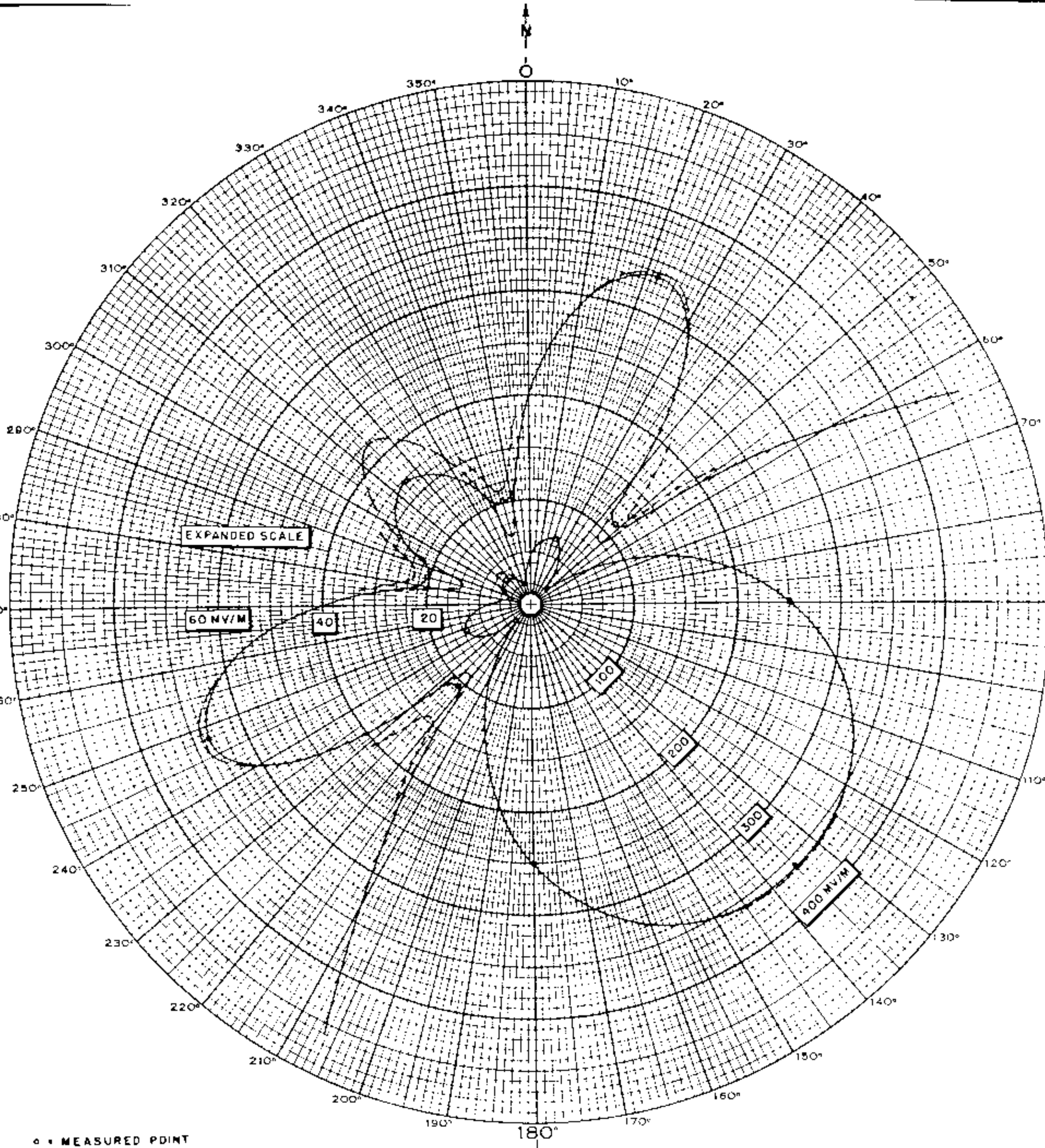
DRC-3396

WHYN

Measured Night
(1-28-70ct)

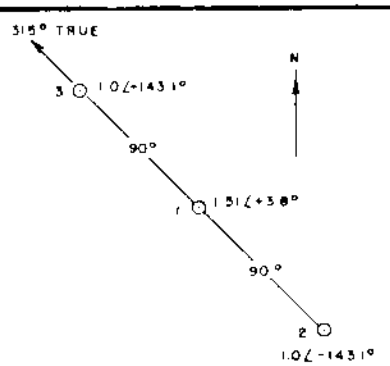
Station WHYN
Springfield, Massachusetts

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



○ = MEASURED POINT
—— = THEORETICAL PATTERN } 181 MV/M
—○— = MEASURED PATTERN
- - - - = M.E.O.V.

FIGURE 5



LATITUDE 42° 11' 37" NORTH
LONGITUDE 72° 41' 02" WEST

ANTENNA NUMBER	AZIMUTH DEG	SPACING DEG	PHASING DEG	FIELD RATIO	MV/M FOR 1 KW	HEIGHT DEG
1	—	—	3.8	1.51	—	63.5
2	135	90	-143.1	1.0	—	63.5
3	315	90	143.1	1.0	—	63.5

NIGHTTIME
MEASURED & THEORETICAL
HORIZONTAL PLANE PATTERN
FOR
WHYN
SPRINGFIELD, MASSACHUSETTS
560 Khz 1/5 KW U - DA - 2
680909

KEAR & KENNEDY
CONSULTING ENGINEERS
WASHINGTON, D.C.

FCC File No.BRC-3396
Accepted 1-13-70

Station WHYN
Springfield, Massachusetts

560 kc

WIND

DIRECTIONAL ANTENNA DESCRIPTION SHEET

Station: WIND — Main Studio: Chicago, Illinois

Frequency: 560 kHz — Power: 5 kW

Notification List No. 1637 — Date: June 18, 1975 — Class: III

GEOGRAPHICAL LOCATION OF THE CENTER OF THE ANTENNA SYSTEM:

North Latitude: 41° 33' 53"
West Longitude: 87° 25' 10"

ANTENNA CHARACTERISTICS

Authorized for Daytime and Nighttime operation. (DA-2)
Number of elements: 4
Type of elements: Series-excited, uniform cross-section, guyed, vertical steel towers.

TOWER:	W(#1)	S(#2)	N(#3)	E(#4)	
HEIGHT ABOVE INSULATORS:	492'	492'	492'	492'	(100.8°)
NIGHT PHASING:	0°	+90°	+15°	+105°	
NIGHT FIELD RATIO:	0.80	0.80	1.00	1.00	
DAY PHASING:	0°	+90°	0°	+90°	
DAY FIELD RATIO:	0.15	0.50	0.30	1.00	

SPACING AND ORIENTATION: The towers are located at the vertices of a rectangle the long sides of which are 975.8' (200°) in length on a line bearing 65° true. The short sides are 414.7' (85°) in length on a line bearing 155° true.

GROUND SYSTEM: 120-280' to 650' equally spaced copper radials plus a 48' square ground screen about each tower. Radials are shortened and bonded to transverse straps along intersections between towers.

Predicted effective Day and Night Fields: 403 mv/m at rated power.

Note: Please retain the Daytime directional antenna radiation pattern notified for Station WIND in the original 1941 notification and and attach to this Revised Description Sheet and Nighttime patterns. This notification concerns only minor changes in the Nighttime operation of the station, changes to equivalent daytime parameters, and changes in transmitter location.

CTR NO 30613A4

WIND

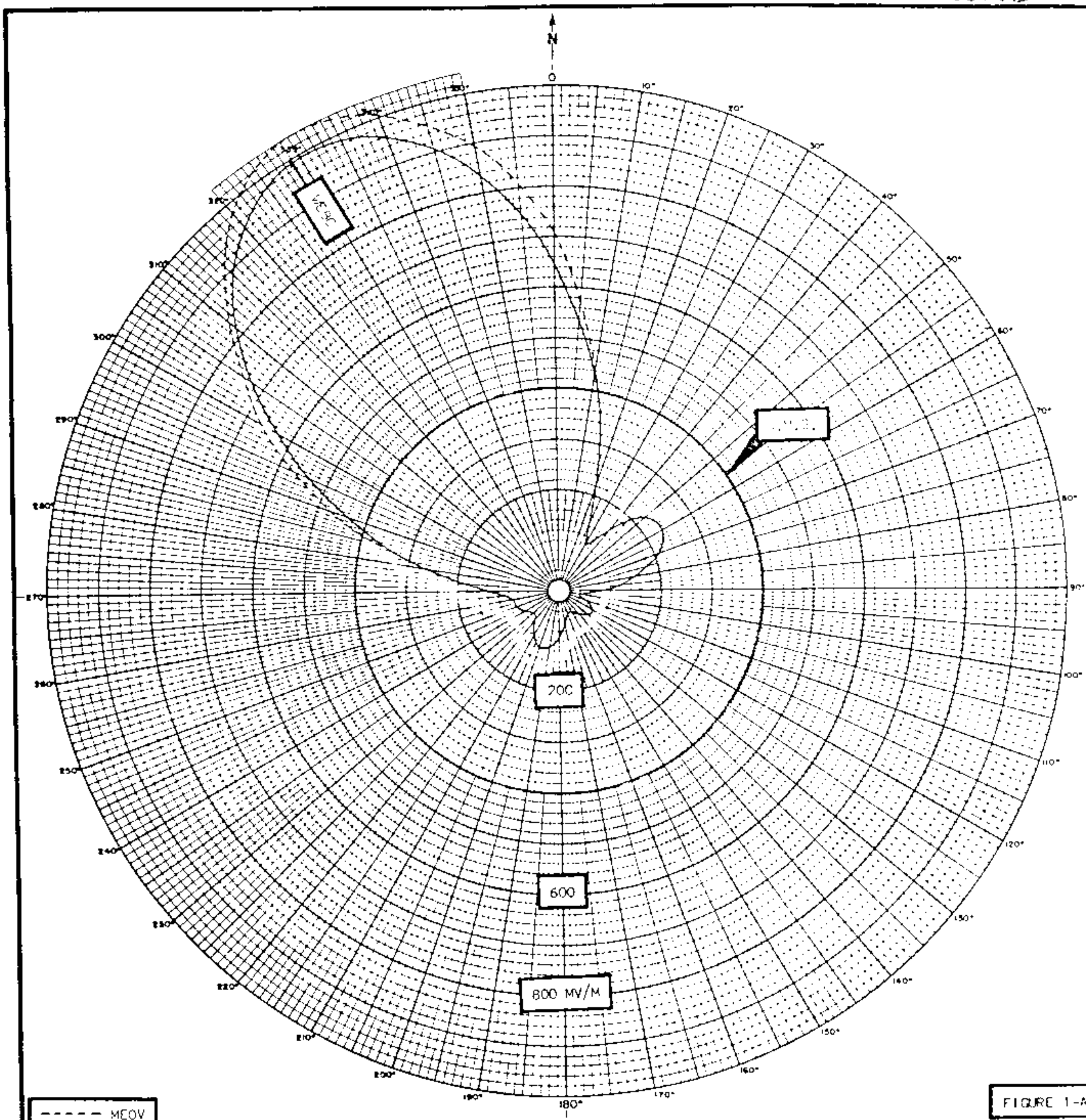
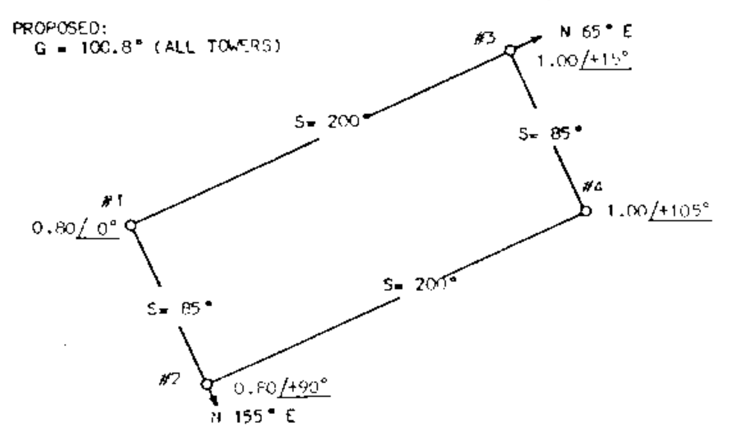


FIGURE 1-A

HORIZONTAL RADIATION PATTERN



APPLICANT WESTINGHOUSE BROADCAST CO.,

LOCATION CHICAGO, ILLINOIS

FREQUENCY : [illegible] KC/S

POWER 5 KW, DA-2, U

LATITUDE : 41 DEG 33 MIN 53 SEC.

LONGITUDE : 87 DEG 25 MIN 10 SEC

WHEN USED: NIGHTTIME

R.M.S. FIELD: 403 MV/M

DATE FEB., 1974

SILLIMAN, MOFFET & KOWALSKI

CONSULTING RADIO ENGINEERS

WASHINGTON, D.C.

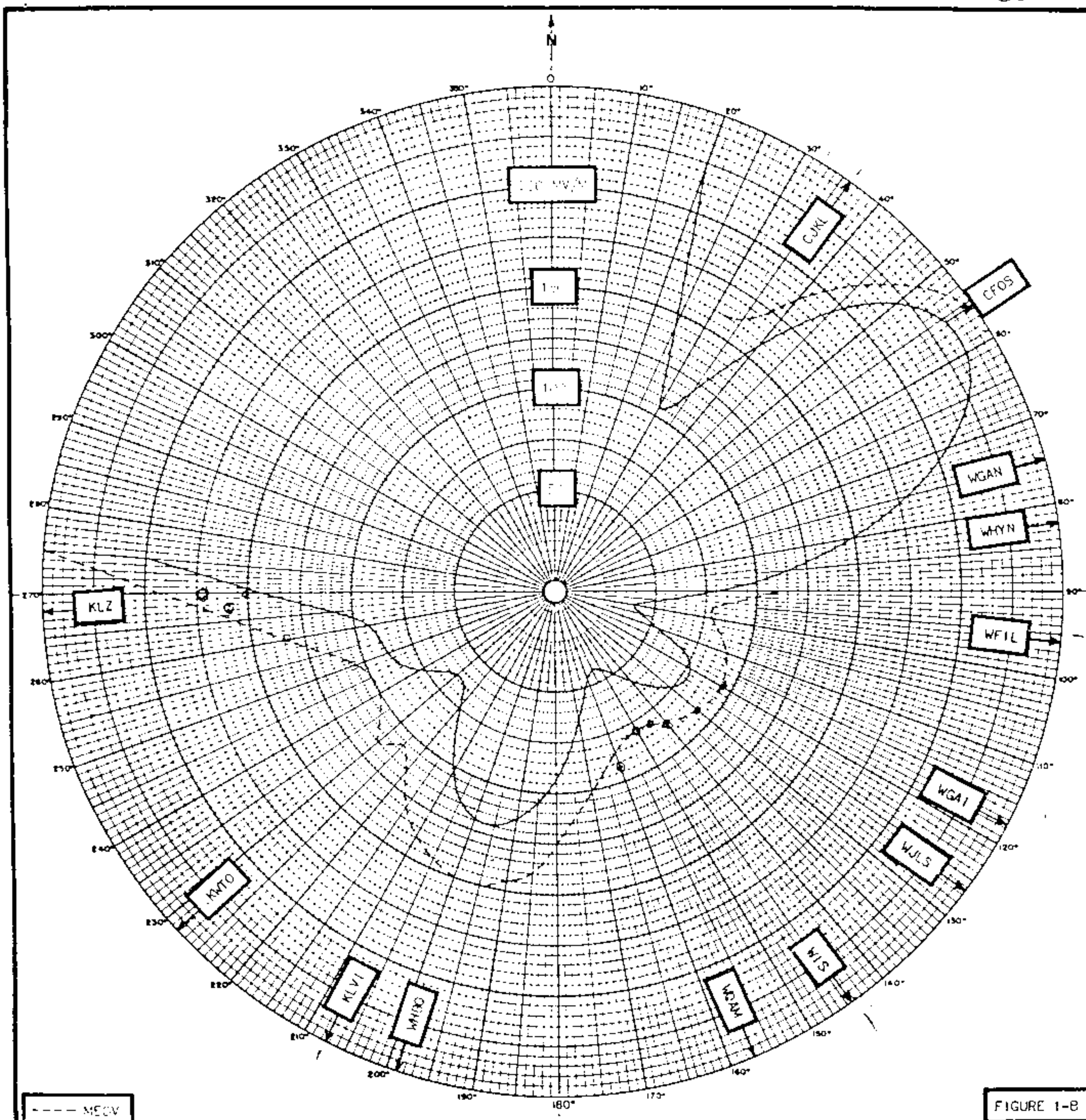


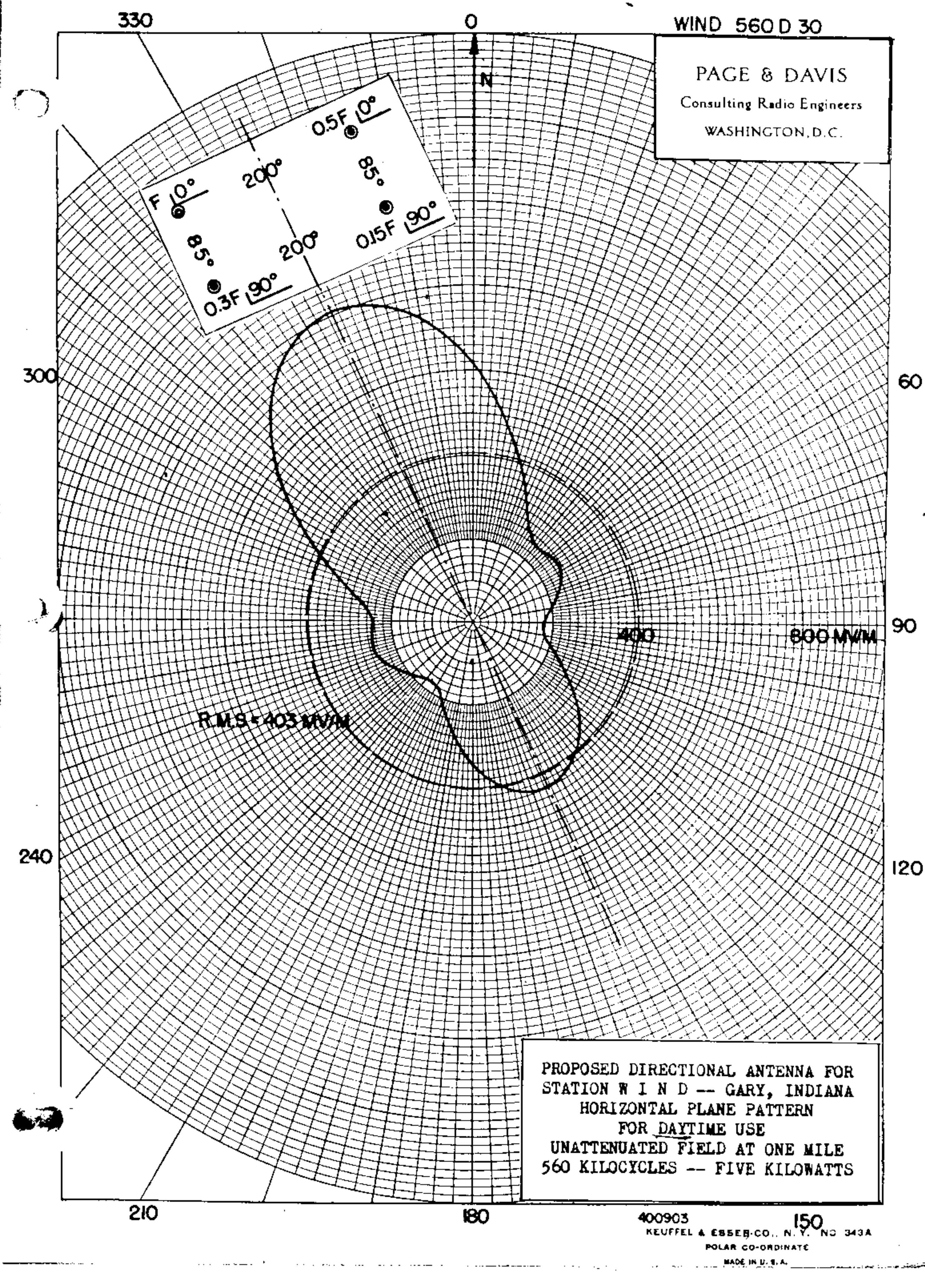
FIGURE 1-8

EXPANDED HORIZONTAL PATTERN

SILLIMAN, MOFFET & KOWALSKI

CONSULTING RADIO ENGINEERS

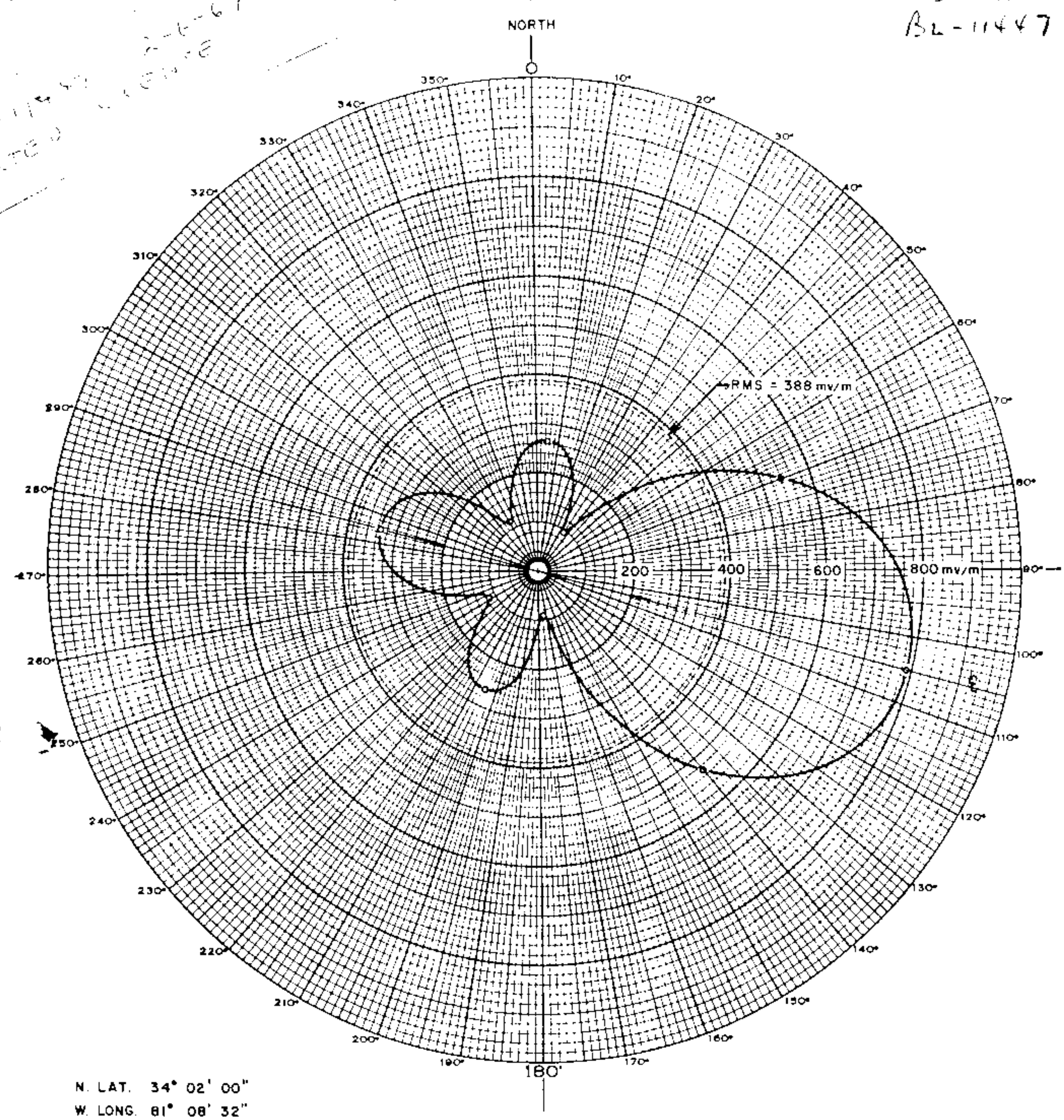
WASHINGTON, D.C.


WIND 560 D 30
PAGE & DAVIS
Consulting Radio Engineers
WASHINGTON, D.C.
330
0
N
300
60
90
240
120
210
180
150
F 0°
0.5F 0°
200°
85°
85°
200°
0.15F 90°
0.3F 90°
400
800 MV/M
R.M.S.=403 MV/M
PROPOSED DIRECTIONAL ANTENNA FOR
STATION W I N D -- GARY, INDIANA
HORIZONTAL PLANE PATTERN
FOR DAYTIME USE
UNATTENUATED FIELD AT ONE MILE
560 KILOCYCLES -- FIVE KILOWATTS
400903
KEUFFEL & ESSER CO., N.Y. NO 343A
POLAR CO-ORDINATE
MADE IN U.S.A.

Measured Night
(12-29-66ct)

Station WIS
Columbia, South Carolina

5kw,DA-N,U
560 kc
BL-11447



N. LAT. 34° 02' 00"
W. LONG. 81° 08' 32"

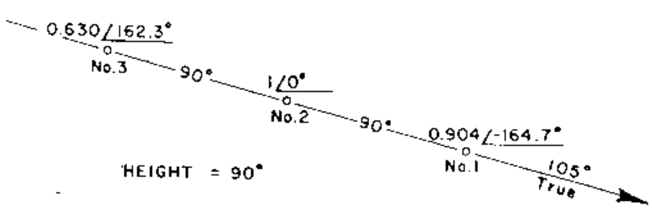


FIGURE 7
HORIZONTAL RADIATION PATTERN
DA-N OPERATION
COSMOS BROADCASTING CORPORATION
WIS 5 KW-U, DA-N 560 KC
COLUMBIA, SOUTH CAROLINA

Prepared by
Lohnes and Culver Washington, D. C.
August, 1966

FCC File No.BL-11447
Accepted 12-5-66

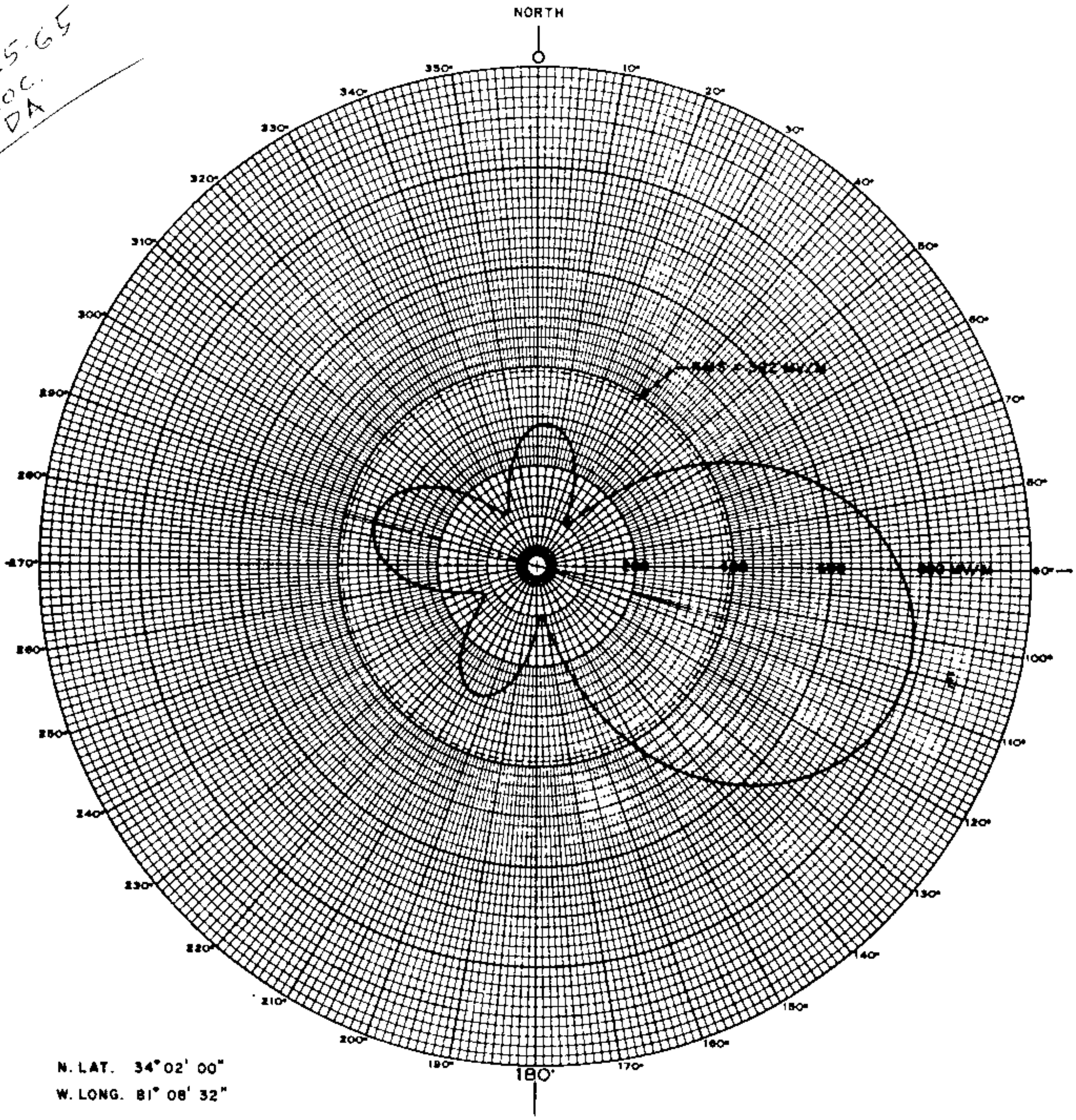
Station WIS
Columbia, South Carolina
560 kc

Proposed Night
(8-27-65ct)

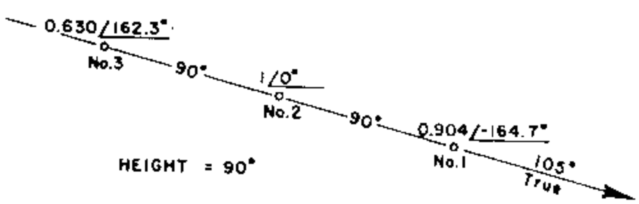
Station WIS
Columbia, South Carolina

WIS
5kw,DA-N,U
560 kc

CP 8-25-65
CHG. LOC.
CHG. DA



N. LAT. 34° 02' 00"
W. LONG. 81° 08' 32"



HEIGHT = 90°

FIGURE 6
POLAR DIAGRAM OF HORIZONTAL
PLANE RADIATION PATTERN
WIS 5 KW-U, DA-N 560 KC
COLUMBIA, SOUTH CAROLINA

Prepared by
Lohnes and Culver Washington, D. C.
June, 1965

FCC File No. BP-16789
Accepted 8-16-65

Station WIS
Columbia, South Carolina
560 kc

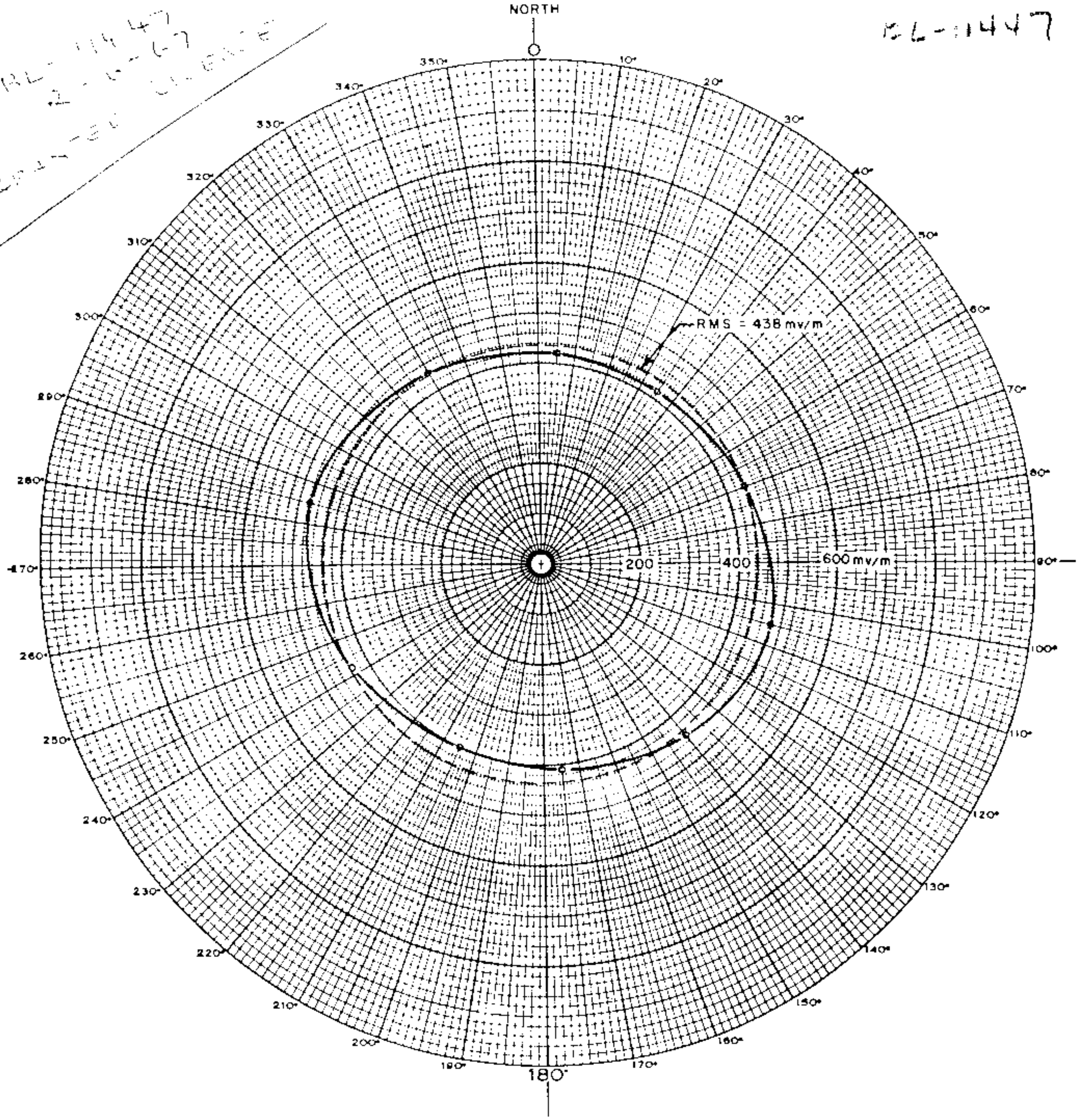
WIS

Measured Non-DA
(12-29-66ct)

Station WIS
Columbia, South Carolina

5kw,DA-N,U
560 kc

BL-11447



N. LAT. 34° 02' 00"
W. LONG. 81° 08' 32"

FIGURE 6
HORIZONTAL RADIATION PATTERN
NON-DA OPERATION
COSMOS BROADCASTING CORPORATION
WIS 5 KW-U, DA-N 560 KC
COLUMBIA, SOUTH CAROLINA

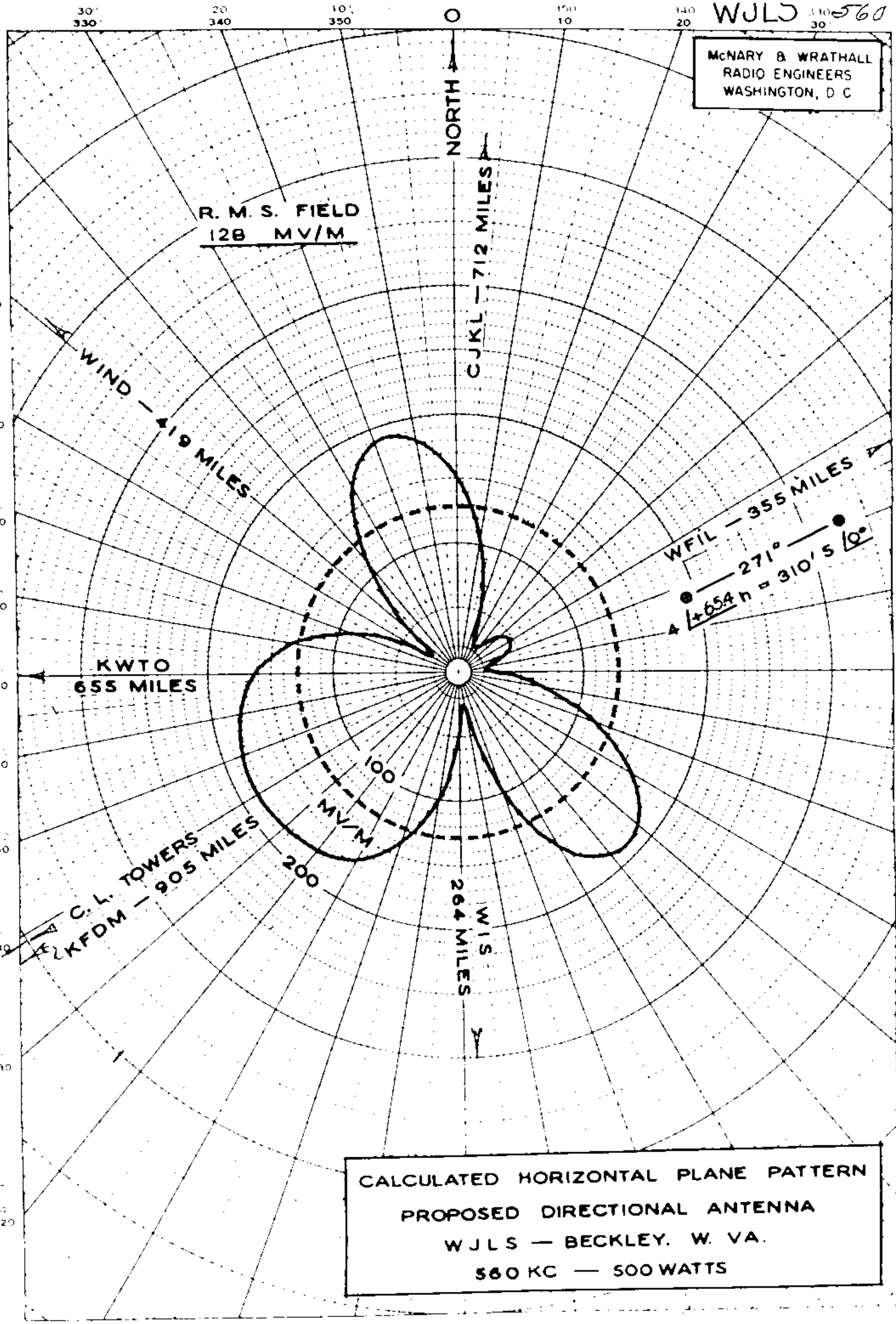
Prepared by
Lohnes and Culver Washington, D. C.
August, 1966

FCC File No.BL-11447
Accepted 12-5-66

Station WIS
Columbia, South Carolina

560 kc

WJLS 560 KC

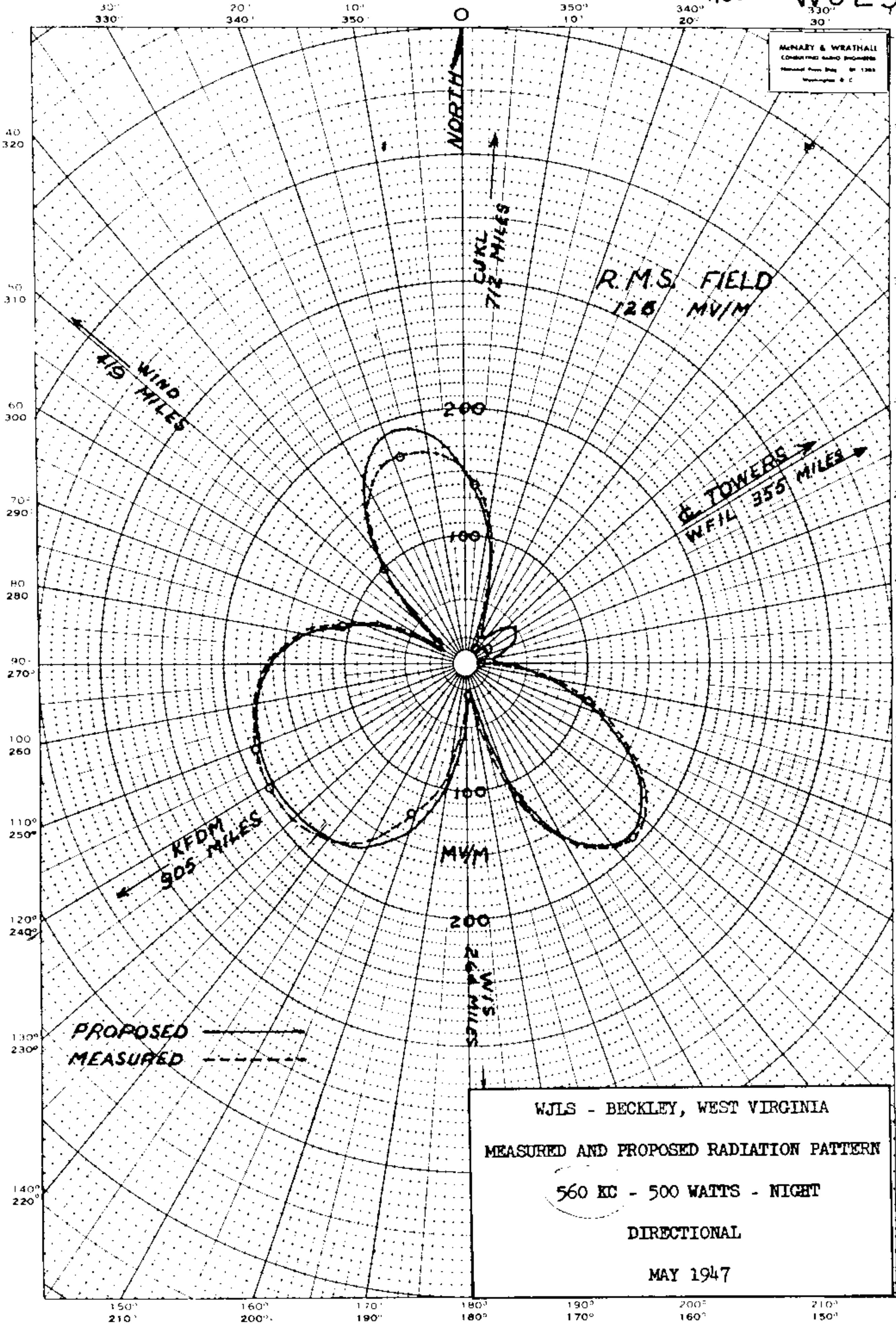


CALCULATED HORIZONTAL PLANE PATTERN
PROPOSED DIRECTIONAL ANTENNA
WJLS — BECKLEY. W. VA.
560 KC — 500 WATTS

proposed night

BD P-3943

WJLS - WJLS



WJLS - BECKLEY, WEST VIRGINIA

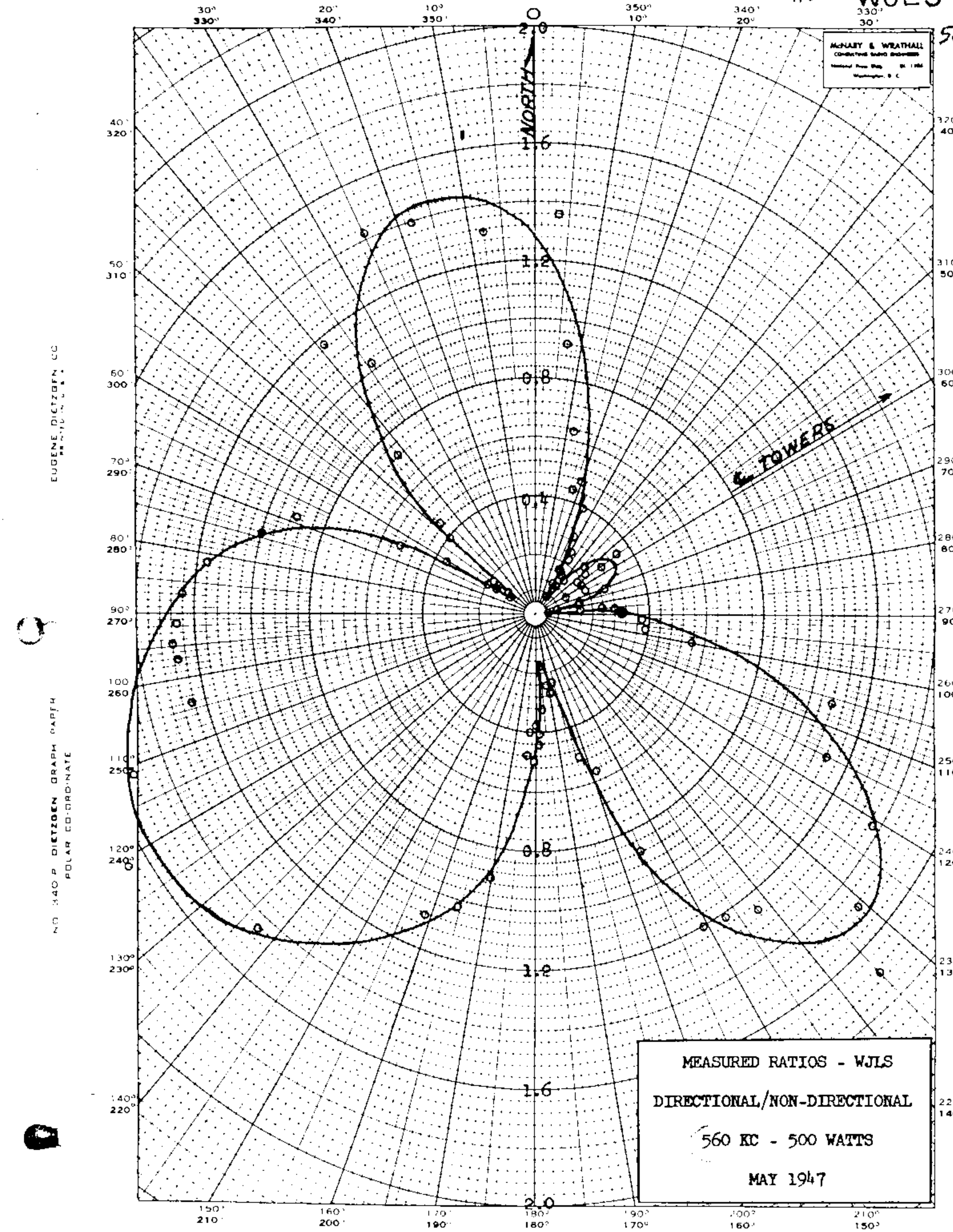
MEASURED AND PROPOSED RADIATION PATTERN

560 KC - 500 WATTS - NIGHT

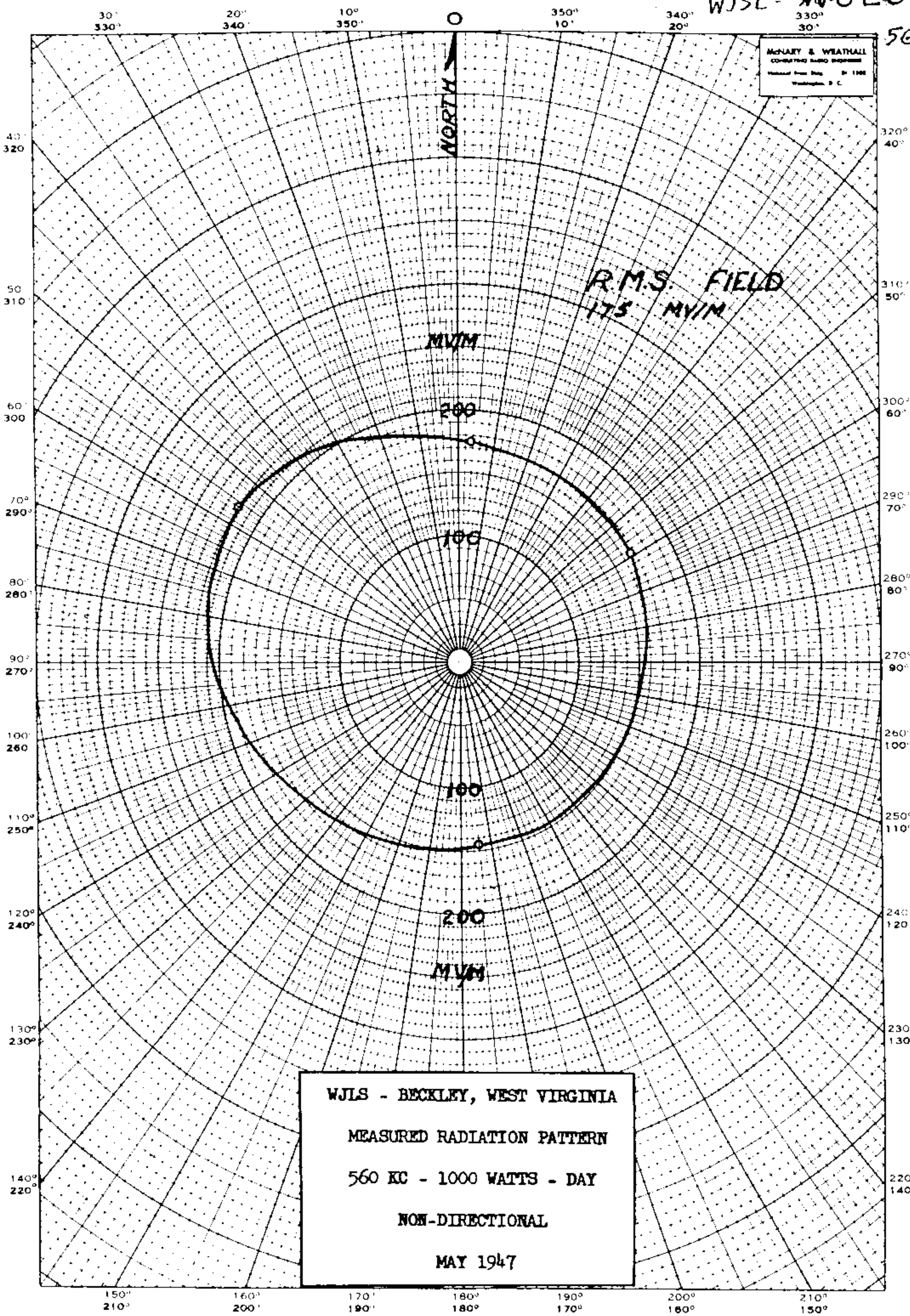
DIRECTIONAL

MAY 1947

WJLS WJLS 560



WJSL - WJLS
560



WJLS - BECKLEY, WEST VIRGINIA

MEASURED RADIATION PATTERN

560 KC - 1000 WATTS - DAY

NON-DIRECTIONAL

MAY 1947

Corner Brook, Newfoundland CFCB

DESCRIPTION SHEET
(7-7-60g)

AIR SERVICES
TELECOMMUNICATIONS AND
ELECTRONICS BRANCH

New Station
Corner Brook, Nfld., Canada

1kw, U, Class III
570 Kc

CANADA

DEPARTMENT OF TRANSPORT

OTTAWA

CORRECTED
DESCRIPTION SHEET - OMNIDIRECTIONAL ANTENNA

Station Call: NEW

Main Studio: Corner Brook, Nfld.

Frequency: 570 Kc/s

Power 1000 W

Class: III

Time: U

Notification List No.: 145 Date: April 8, 1960

GEOGRAPHICAL LOCATION OF THE ANTENNA SYSTEM:

North Latitude: 48° 56' 13"

West Longitude: 57° 59' 32"

ANTENNA CHARACTERISTICS:

Height: 267 feet 60 degrees

Type of Element: Guyed. uniform cross-section base insulated. Series Fed. No top loading.

Ground System: 120 radials of #10 AWG soft drawn copper wire buried 8" and extending to the boundries of the property. Effective length of ground system 690' (0.4 wavelength)
Expected Efficiency:

175 mv/m at 1 mile for 1 Kw.

or 175 mv/m at 1 mile for 1 Kw.

June 8, 1960

CANADIAN BROADCASTING CORPORATION

ENGINEERING DIVISION MONTREAL

TITLE Engineering Brief for Change of Frequency and Power Increase for CFWH Whitehorse, Yukon

DWG. NO.
DATE May 15/62 ISS.
ENG. J.H.S. APP. R.E.S.

DESCRIPTION SHEET - OMNIDIRECTIONAL ANTENNA

Station Call:	CFWH
Main Studio:	Whitehorse, Yukon
Frequency:	570 kc/s
Power:	1 kw
Class:	III
Time:	Day and Night
Notification:	July 9, 1962
Geographical Location:	Latitude: 60° 47' 00" N.
	Longitude: 135° 06' 47" W.

Antenna Characteristics

Type of Element:	Vertical uniform cross-section tower, guyed, base-insulated, series fed, and shall meet requirements of Broadcast Procedure No. 1, Rule 1.
Height of Radiating Element:	287 feet (60°)
Overall Height of Antenna Including base and beacon:	294 feet
Expected Efficiency:	180 mv/m/1 mile for 1 kw
Ground System:	120 radials 693 feet long (0.4 wavelength) with equivalent area extension to compensate for sector containing transmitter building and for loss of segments on each side of property.

CHYM

TABLE 1

ANTENNA DESCRIPTION SHEET

STATION CALL: CHYM

MAIN STUDIO: KITCHENER, ONTARIO

FREQUENCY: 570 kHz

POWER: 10 kW

CLASS: III

MODE: DA-1

TIME: UNLIMITED

NOTIFICATION LIST NO.: 368 DATE: November 9, 1977

GEOGRAPHICAL LOCATION: Latitude: 43° 17' 25" North
Longitude: 80° 21' 10" West

ARRAY CHARACTERISTICS: Five guyed steel towers of uniform cross sectipn; base insulated, series fed; no top loading; height above base insulator: 420' or 87.6° except for Tower #3 which is 430' or 89.7°.

TOWER NUMBER:	1	2	3	4	5
ORIENTATION:	0°	176°	176°	176°	176°
SPACING { DEGREES:	0°	095°	190°	285°	380°
SPACING { FEET:	0'	455.6'	911.1'	1366.7'	1822.2'
FIELD RATIO:	1.00	3.00	4.20	3.00	1.00
PHASE ANGLE:	0°	138.06°	276.50°	54.94°	193.00°

GROUND SYSTEM: 120 equally spaced radial wires per tower of #10 AWG bare copper buried 6" - 12" below grade; of average length 690.5' (0.4λ) and minimum length 432' (0.25λ), excluding those along common chords.

PREDICTED EFFECTIVE FIELD: 648.3 mV/m or 205 mV/m per kW
(UNATTENUATED AT 1 MILE)

Please retain the night-time directional antenna radiation pattern for CHYM forwarded with Canadian Change List 359 dated January 20, 1976. This proposal involves a change in the day-time operation only.

CHYM

TABLE 1

ANTENNA DESCRIPTION SHEET

STATION CALL: CHYM

MAIN STUDIO: KITCHENER, ONTARIO

FREQUENCY: 570 kHz

POWER: 5D/10N kW

CLASS: III

MODE: DA-1

TIME: UNLIMITED

NOTIFICATION LIST NO.: 350 DATE: January 20, 1976

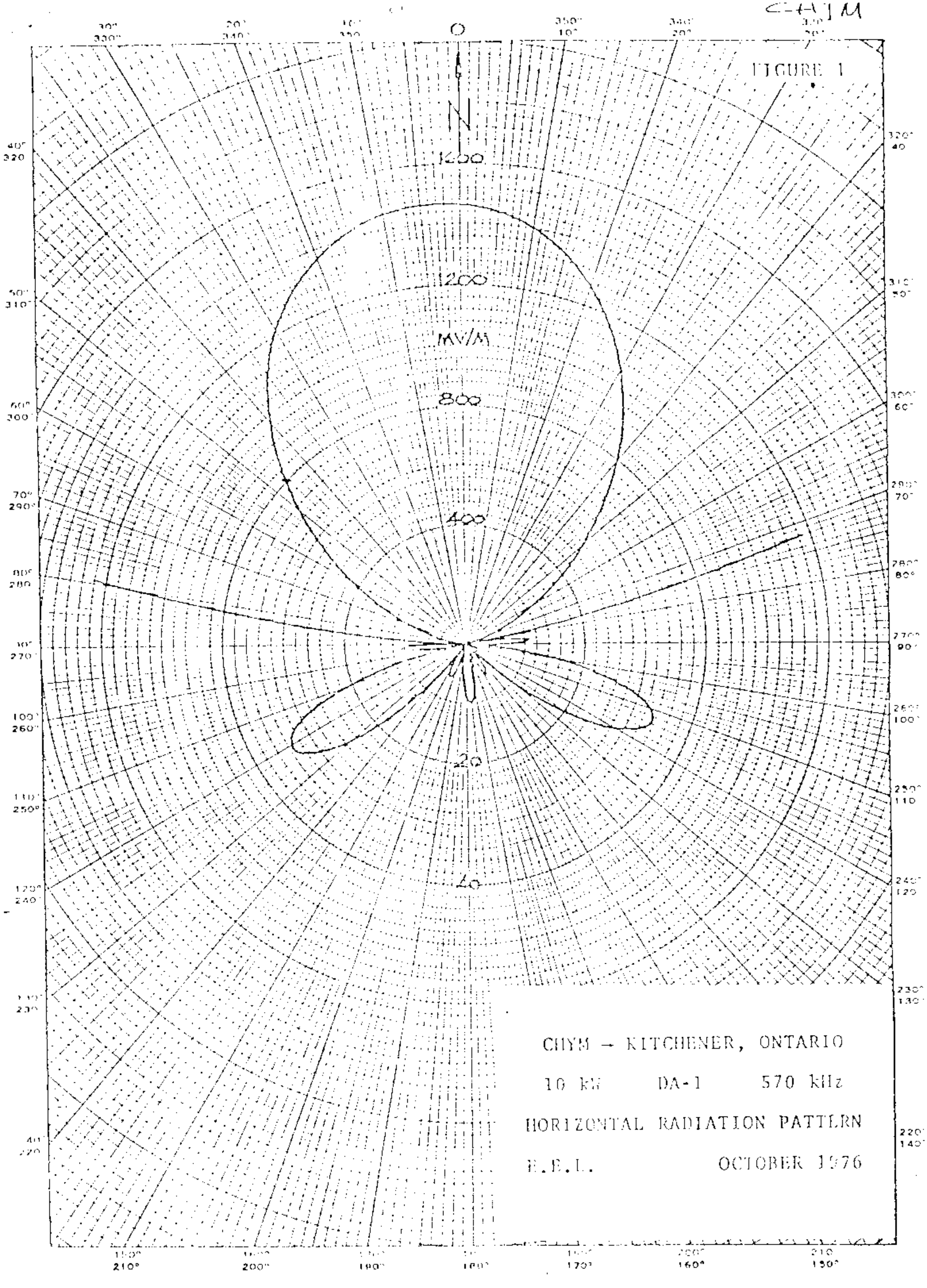
GEOGRAPHICAL LOCATION: Latitude: 43° 17' 25" North
Longitude: 80° 21' 10" West

ARRAY CHARACTERISTICS: Five guyed steel towers of uniform cross section; base insulated, series fed; no top loading; height above base insulator: 420' or 87.6° except for Tower #3 which is 430' or 89.7°.

TOWER NUMBER:	1	2	3	4	5
ORIENTATION:	0°	176°	176°	176°	176°
SPACING { DEGREES:	0°	95°	190°	285°	380°
SPACING { FEET:	0'	455.6'	911.1'	1366.7'	1822.2'
FIELD RATIO:	1.00	3.00	4.20	3.00	1.00
PHASE ANGLE:	0°	138.06°	276.50°	54.94°	193.00°

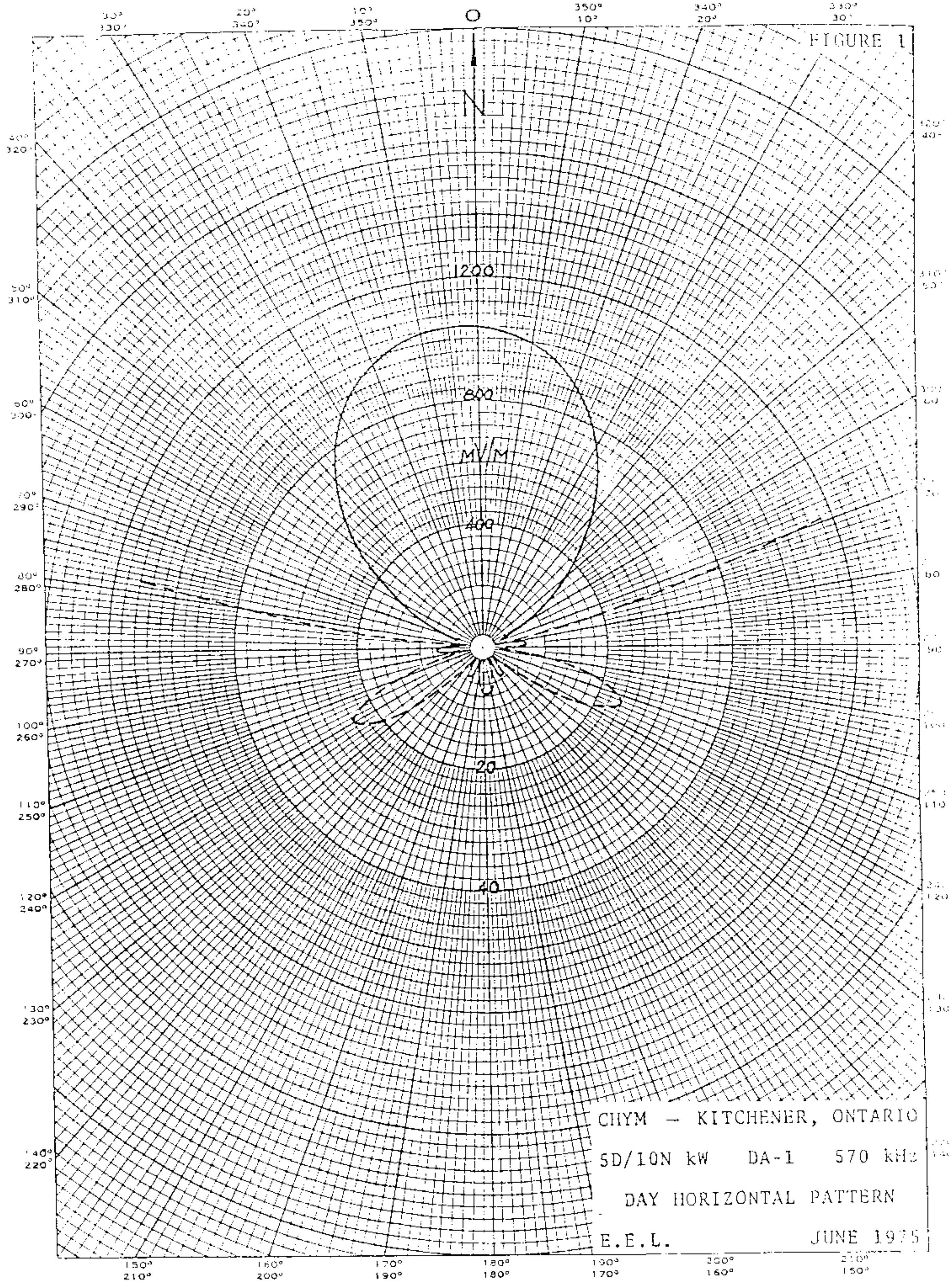
GROUND SYSTEM: 120 equally spaced radial wires per tower of #10 AWG bare copper buried 6" - 12" below grade; of average length 690.5' (0.4λ) and minimum length 432' (0.25λ), excluding those along common chords.

PREDICTED EFFECTIVE FIELD:
(UNATTENUATED AT 1 MILE)
DAY: 458.4 mV/m
NIGHT: 648.3 mV/m or 205 mV/m per kW.


CHYM
FIGURE 1
N
MV/M
800
400
CHYM - KITCHENER, ONTARIO
10 KW DA-1 570 kHz
HORIZONTAL RADIATION PATTERN
E.E.L. OCTOBER 1976

CHYM

FIGURE 1



CHYM - KITCHENER, ONTARIO

5D/10N kW DA-1 570 kHz

DAY HORIZONTAL PATTERN

E.E.L. JUNE 1975

CHYM

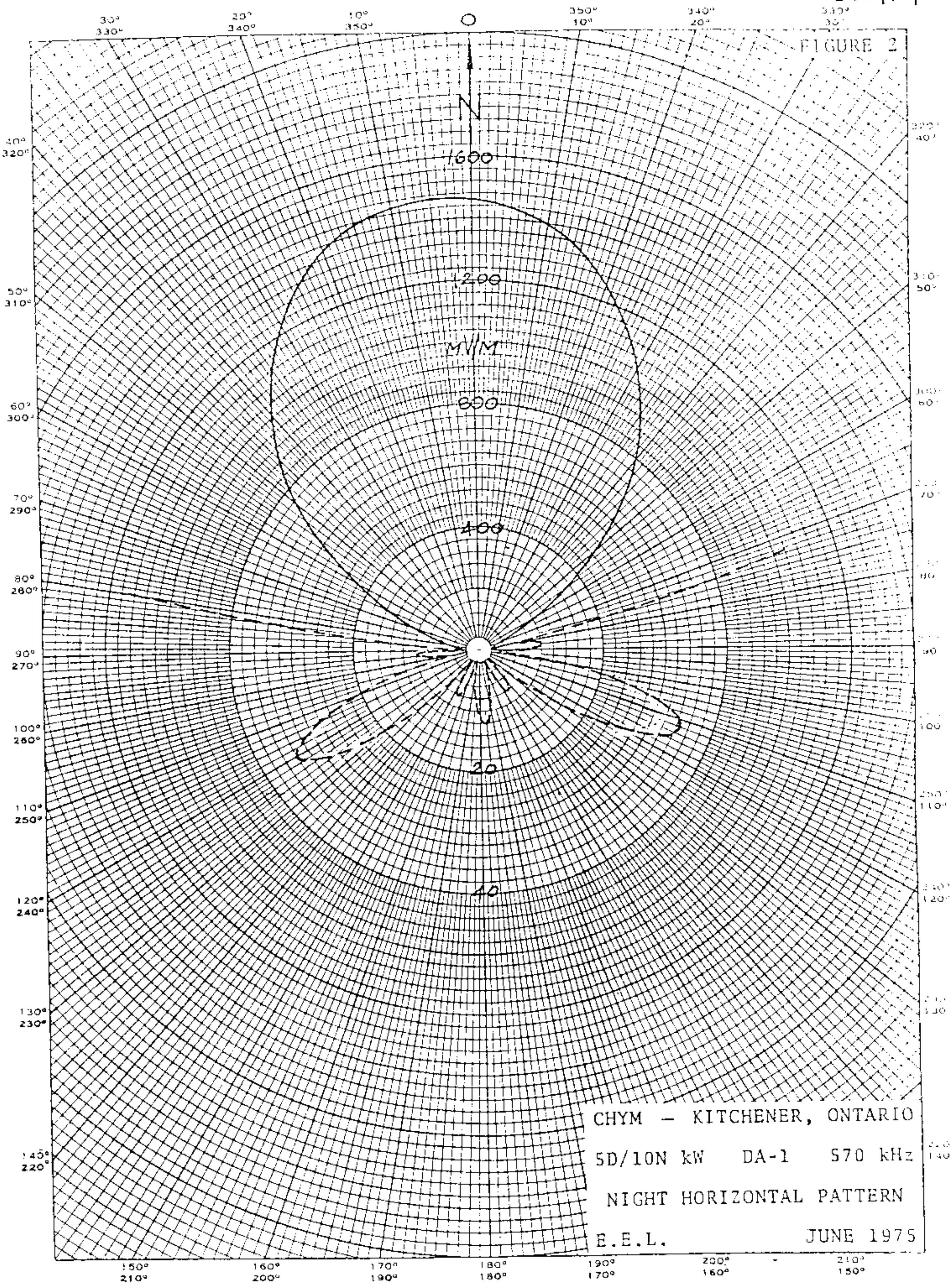


FIGURE 2
N
1600
1200
MV/M
800
400
20
40
CHYM - KITCHENER, ONTARIO
5D/10N kW DA-1 570 kHz
NIGHT HORIZONTAL PATTERN
E.E.L. JUNE 1975
POLAR CO-ORDINATE

CHYM

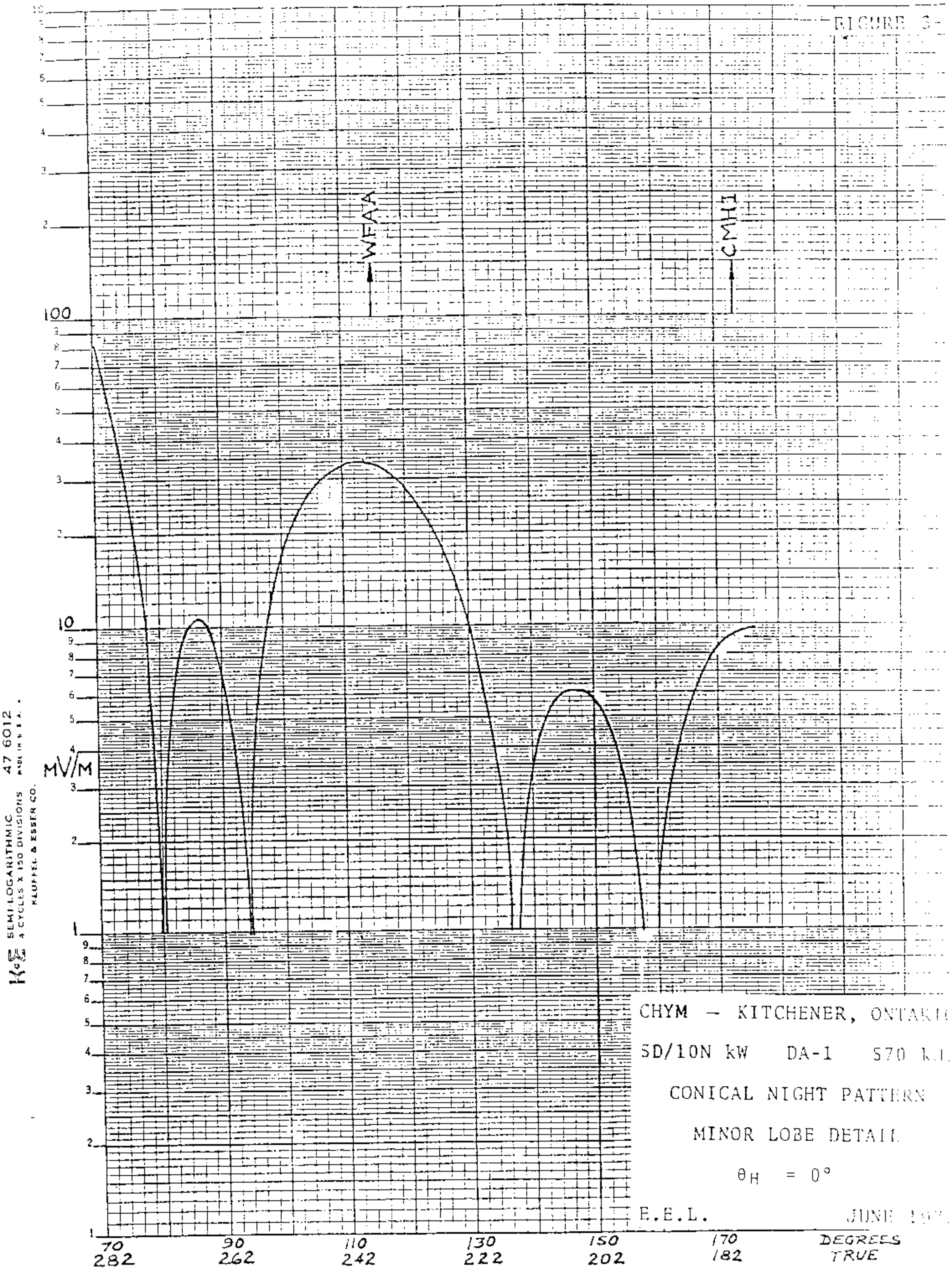


FIGURE 3-
WFAA
CMH1
100
10
1
MV/M
70 282
90 262
110 242
130 222
150 202
170 182
DEGREES TRUE
CHYM – KITCHENER, ONTARI
5D/10N kW DA-1 570
CONICAL NIGHT PATTERN
MINOR LOBE DETAIL
$\theta_H = 0°$
E.E.L.
JUNE
K&E SEMI-LOGARITHMIC 4 CYCLES X 150 DIVISIONS
KEUFFEL & ESSER CO.
47 6012

CHYM

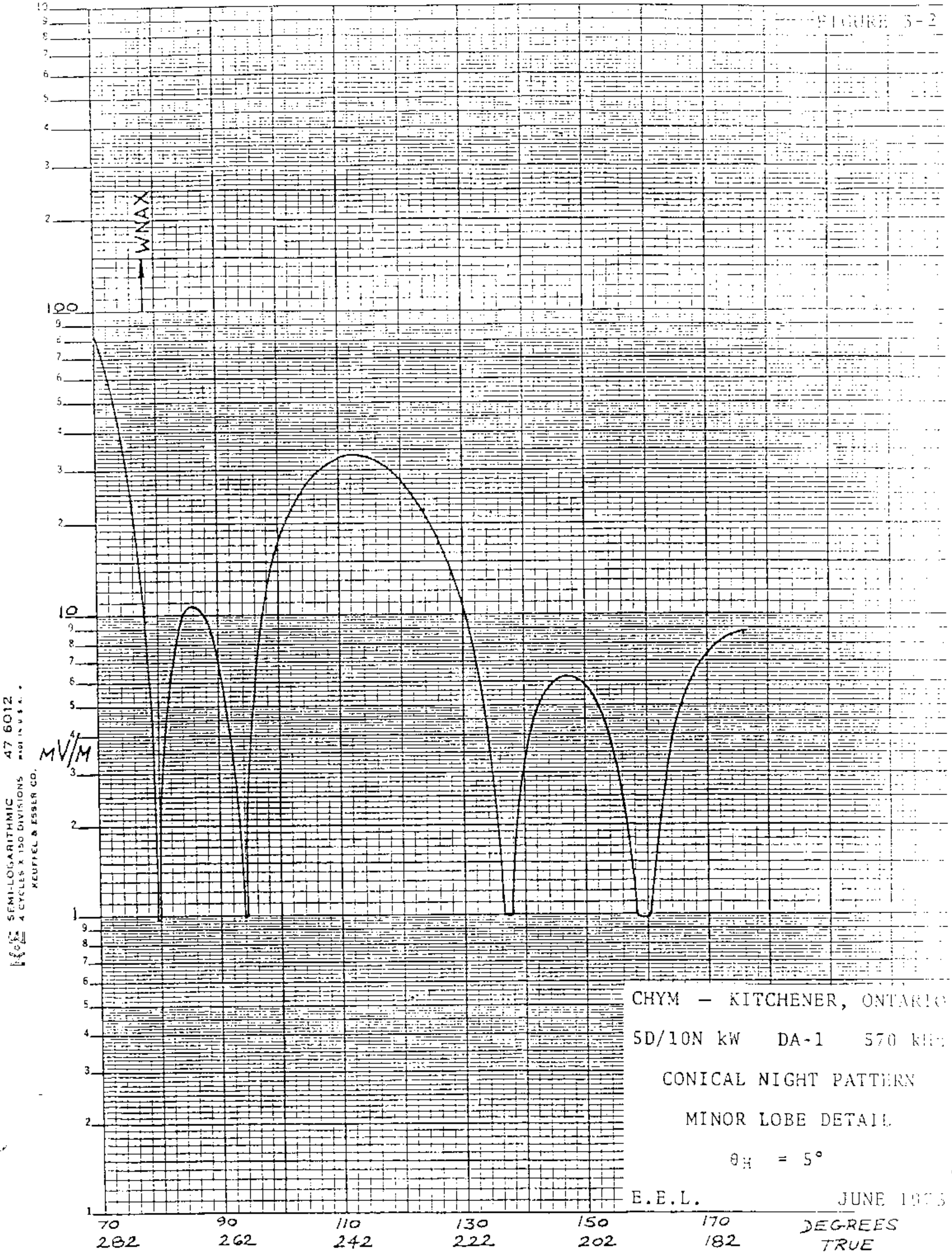


FIGURE 5-2
WNAX
100
10
1
MV/M
70
282
90
262
110
242
130
222
150
202
170
182
DEGREES TRUE
SEMI-LOGARITHMIC 47 6012
4 CYCLES X 150 DIVISIONS
KEUFFEL & ESSER CO.
CHYM — KITCHENER, ONTARIO
5D/10N kW DA-1 570 KHz
CONICAL NIGHT PATTERN
MINOR LOBE DETAIL
$\theta_H = 5°$
E.E.L.
JUNE 1975

CHYM

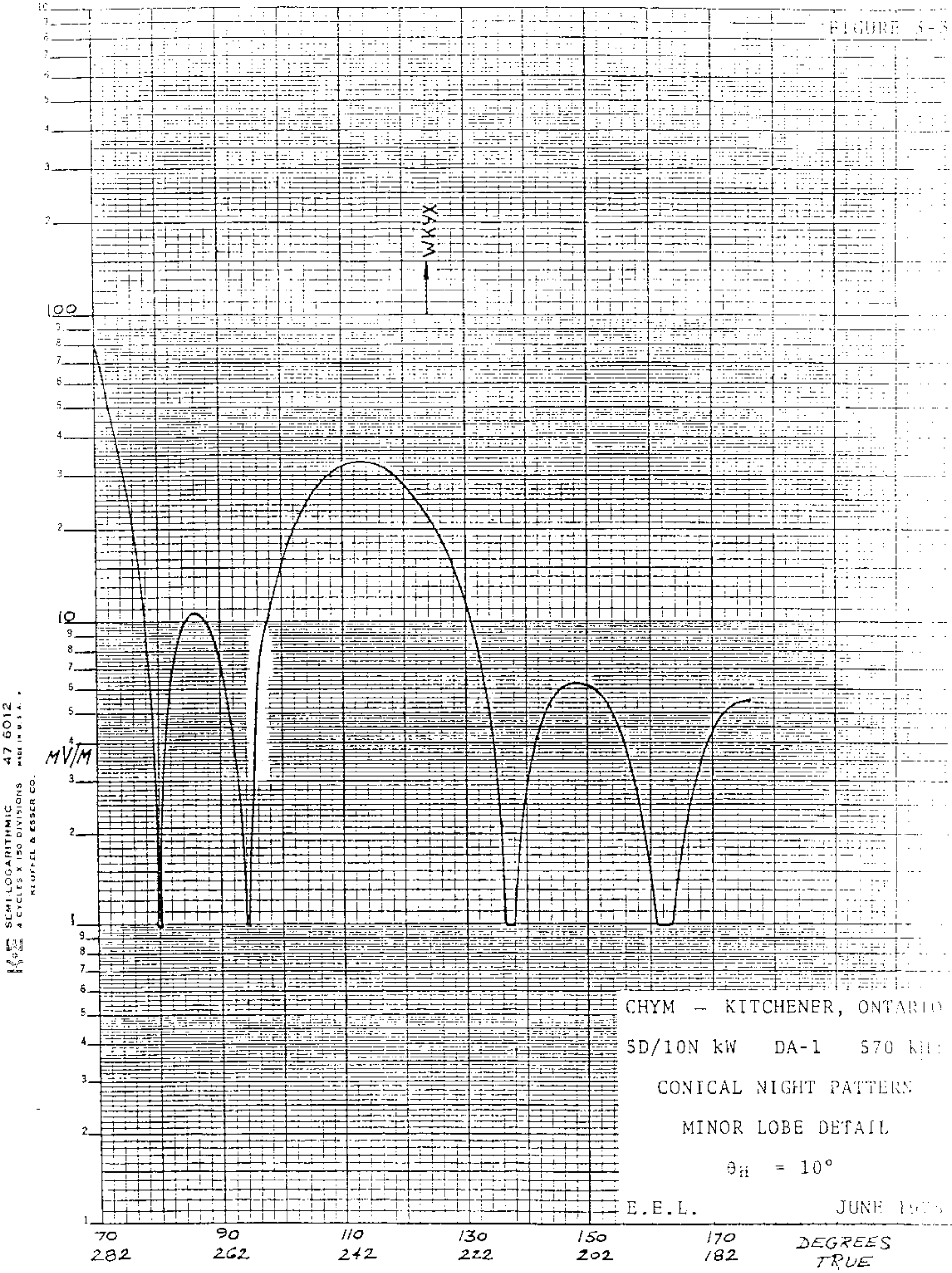


FIGURE 5-8
WKYX
MV/M
100
10
1
70 282
90 262
110 242
130 222
150 202
170 182
DEGREES TRUE
CHYM – KITCHENER, ONTARIO
5D/10N kW DA-1 570 KHz
CONICAL NIGHT PATTERN
MINOR LOBE DETAIL
θ_H = 10°
E.E.L.
JUNE
SEMI-LOGARITHMIC 47 6012
4 CYCLES X 150 DIVISIONS MADE IN U.S.A.
KEUFFEL & ESSER CO.

CH4M

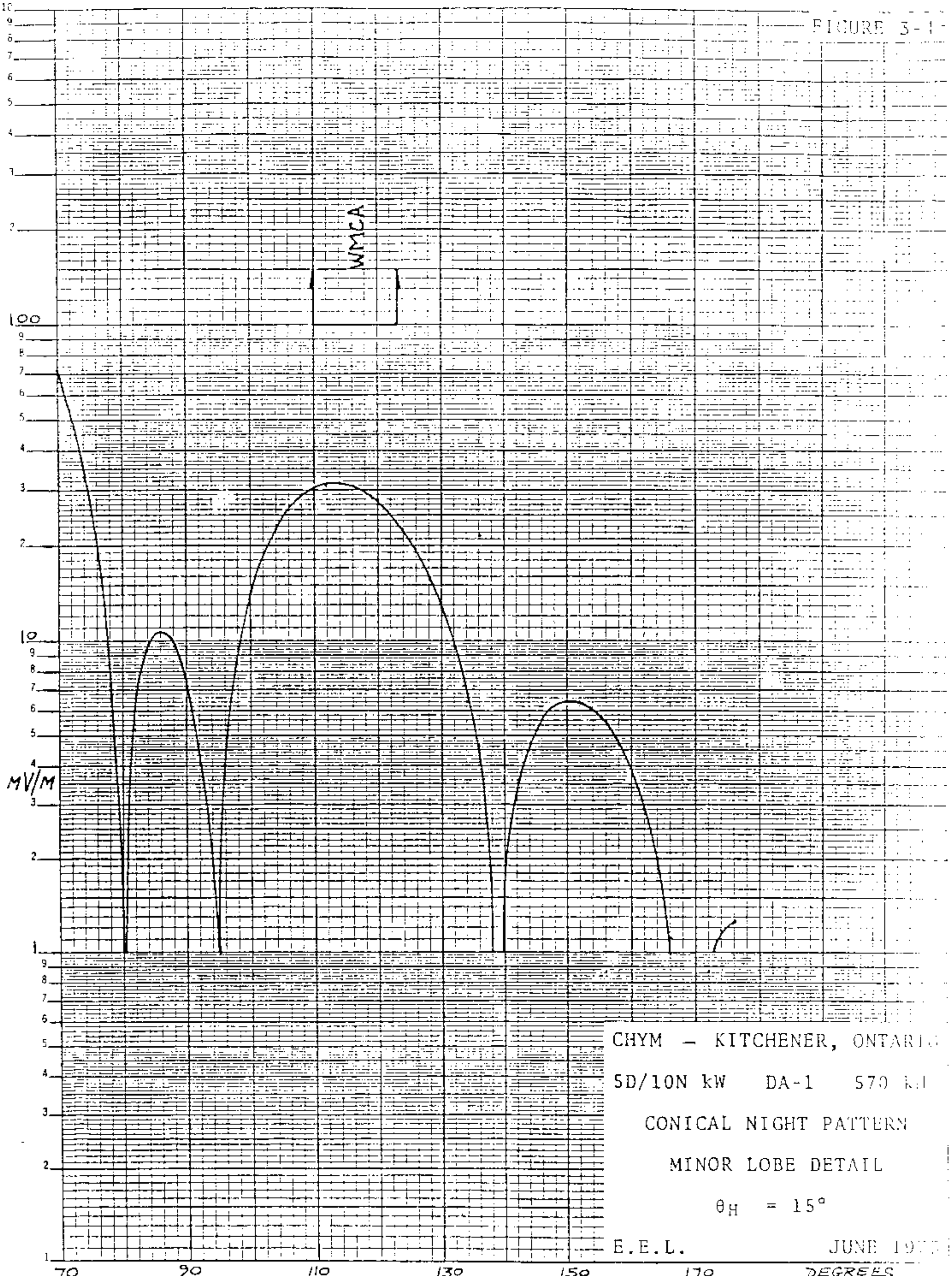


FIGURE 3-1
WMCA
MV/M
100
10
1
70 282
90 262
110 242
130 222
150 202
170 182
DEGREES TRUE
CHYM – KITCHENER, ONTARIO
5D/10N kW DA-1 570
CONICAL NIGHT PATTERN
MINOR LOBE DETAIL
θ_H = 15°
E.E.L.
JUNE 19

CHYM

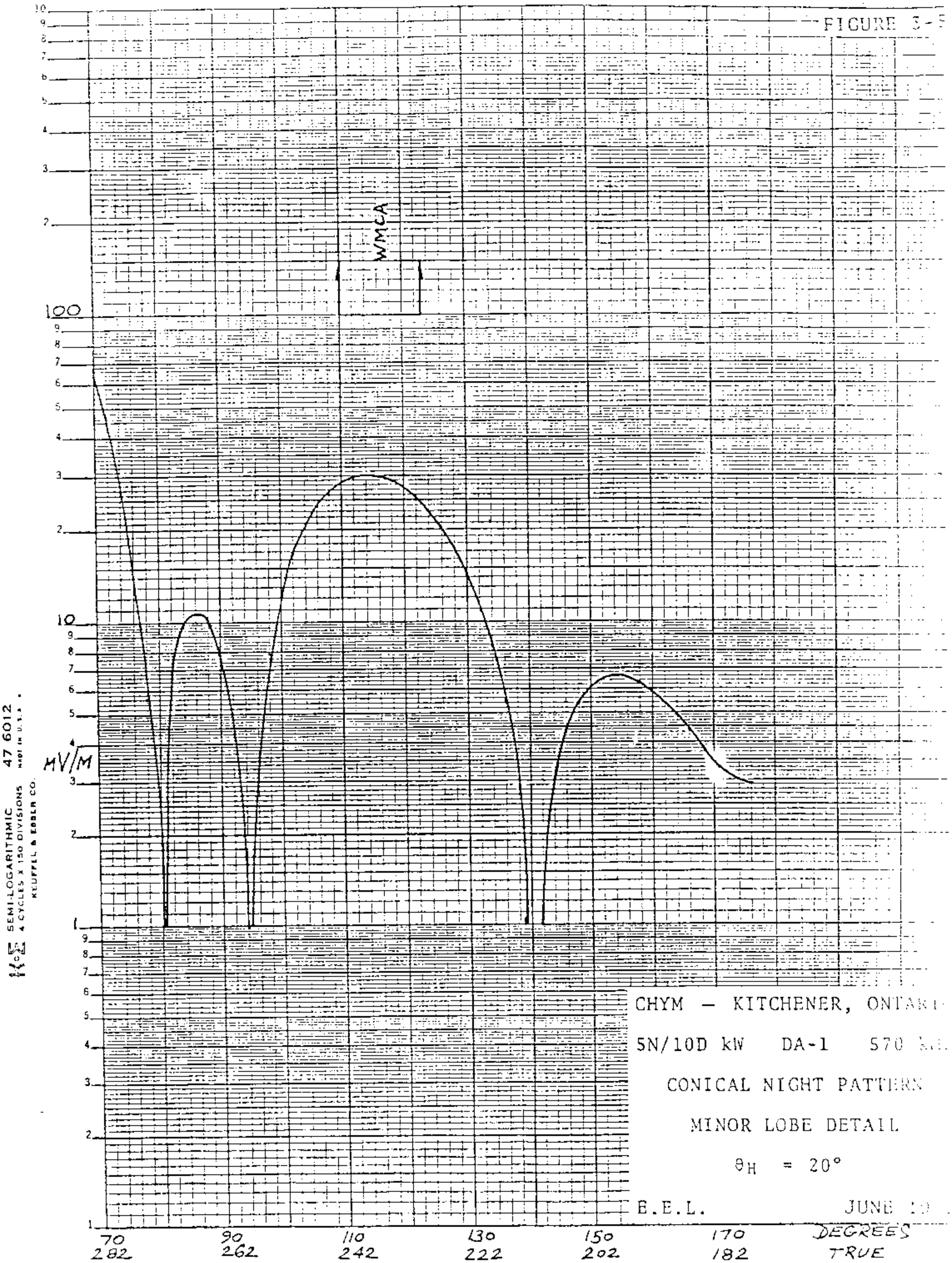


FIGURE 3-
WMCA
100
10
MV/M
70
282
90
262
110
242
130
222
150
202
170
182
DEGREES
TRUE
CHYM — KITCHENER, ONTAR
5N/10D kW DA-1 570
CONICAL NIGHT PATTER
MINOR LOBE DETAIL
θH = 20°
E.E.L.
JUNE
K&E SEMI-LOGARITHMIC 4 CYCLES X 150 DIVISIONS
KEUFFEL & ESSER CO.
47 6012
MADE IN U.S.A.

CHYM

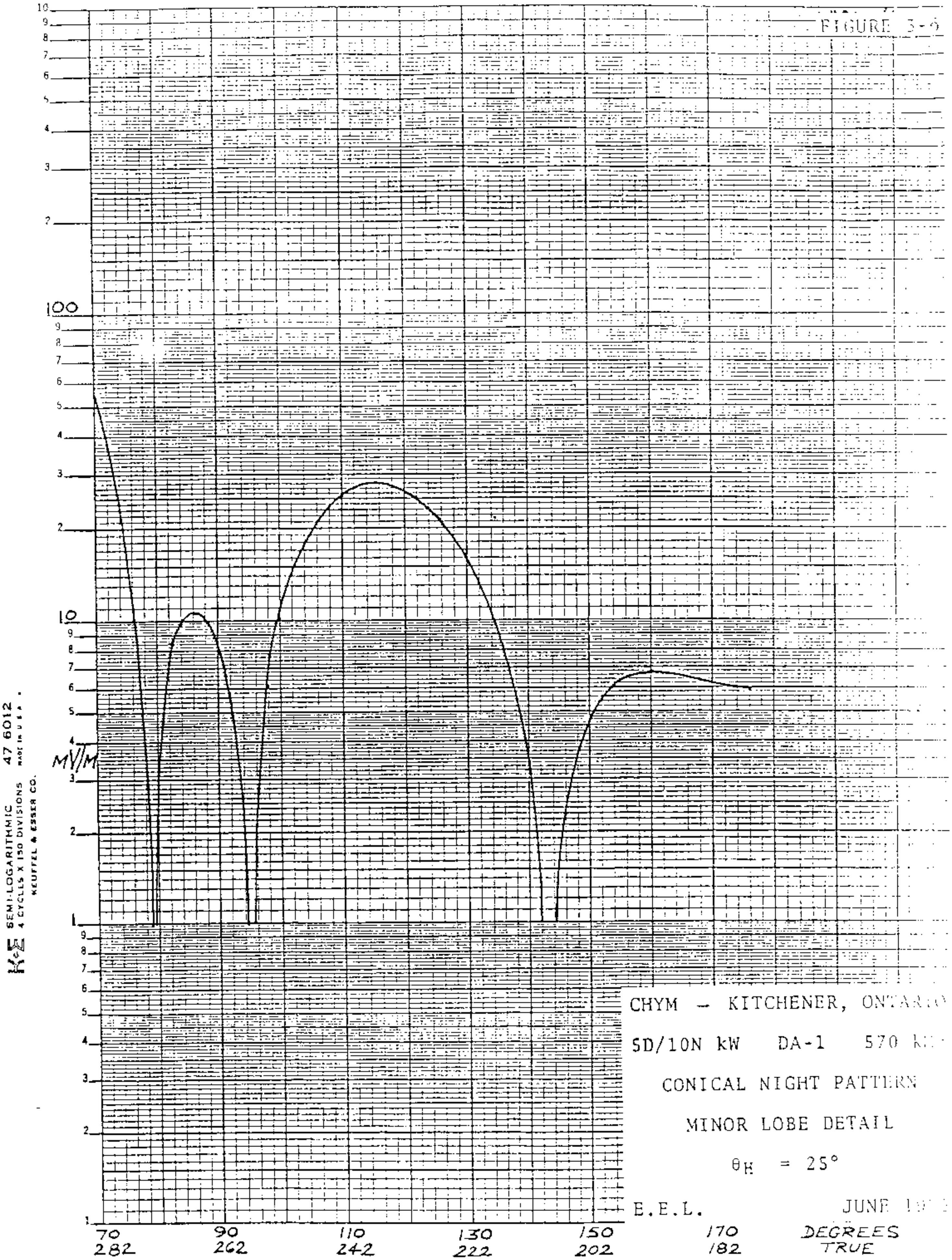
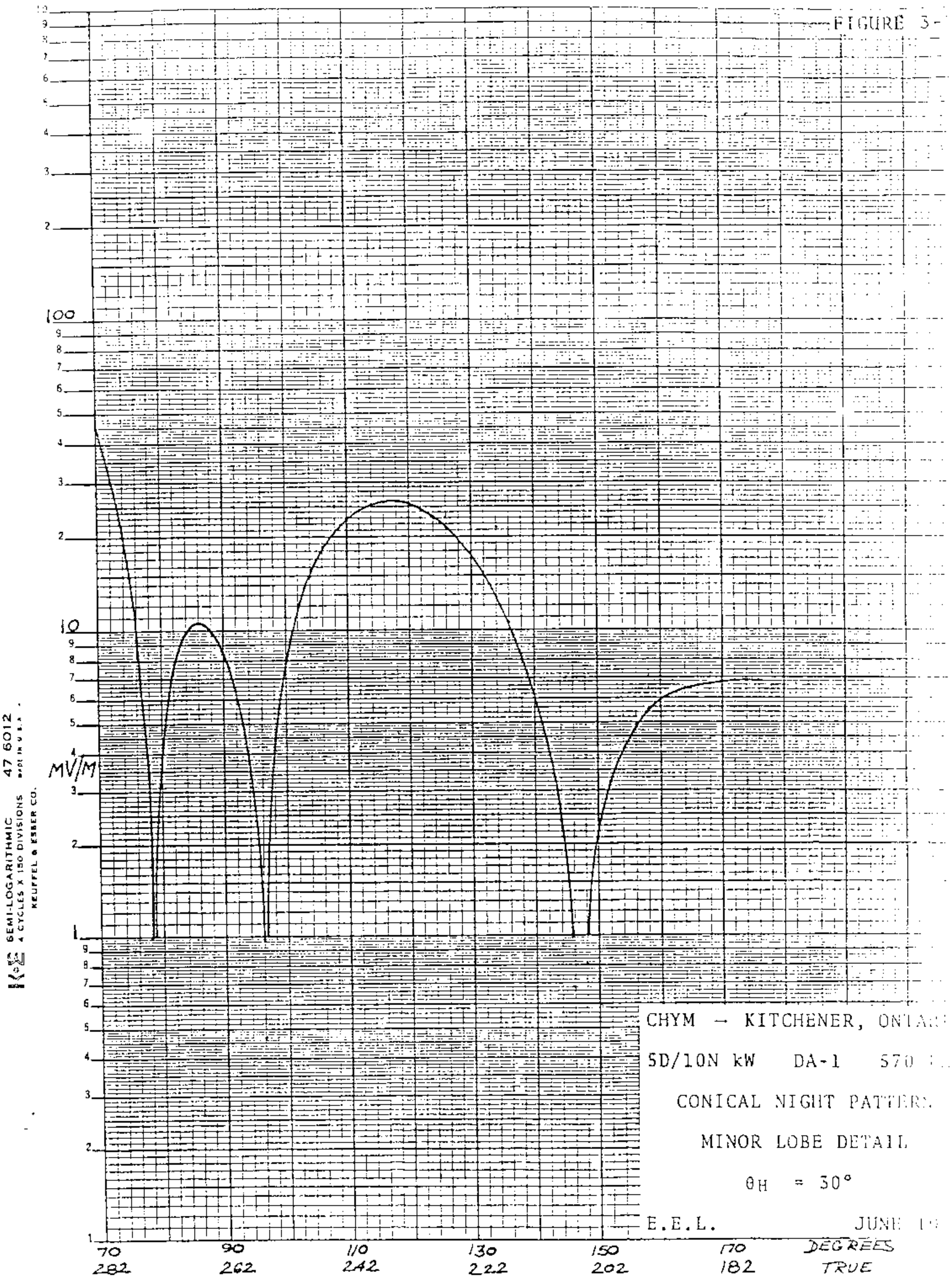


FIGURE 3-6
CHYM - KITCHENER, ONTARIO
5D/10N kW DA-1 570 KHz
CONICAL NIGHT PATTERN
MINOR LOBE DETAIL
θ_H = 25°
E.E.L.
JUNE 19
MV/M
DEGREES TRUE
70 282
90 262
110 242
130 222
150 202
170 182
K+E SEMI-LOGARITHMIC 4 CYCLES X 150 DIVISIONS KEUFFEL & ESSER CO.
47 6012 MADE IN U.S.A.

CHYM

FIGURE 3-



CHYM – KITCHENER, ONTAR

5D/10N kW DA-1 570

CONICAL NIGHT PATTERN

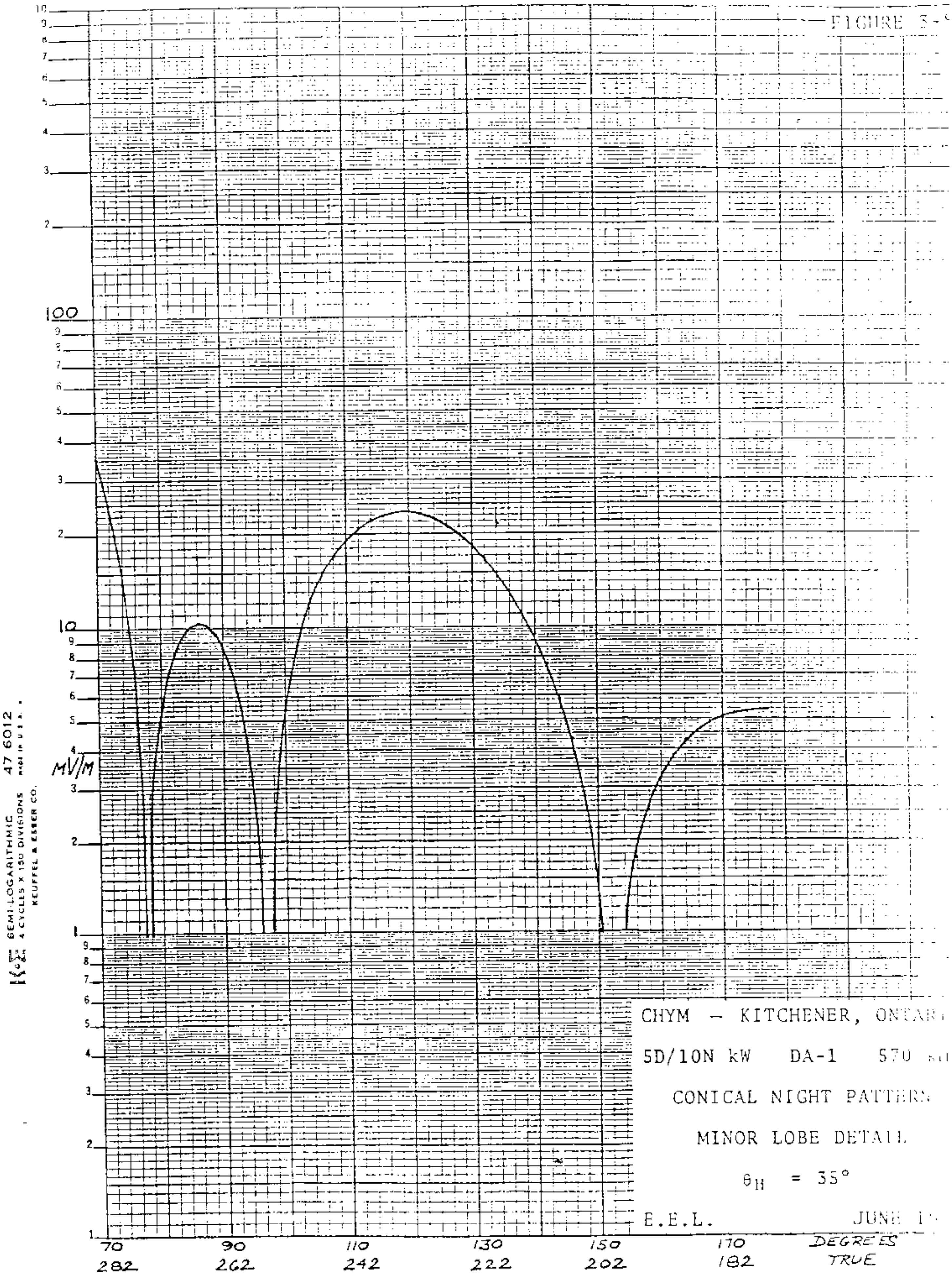
MINOR LOBE DETAIL

$\theta_H = 30°$

E.E.L. JUNE 19

CHYM

FIGURE 3-



CH4M

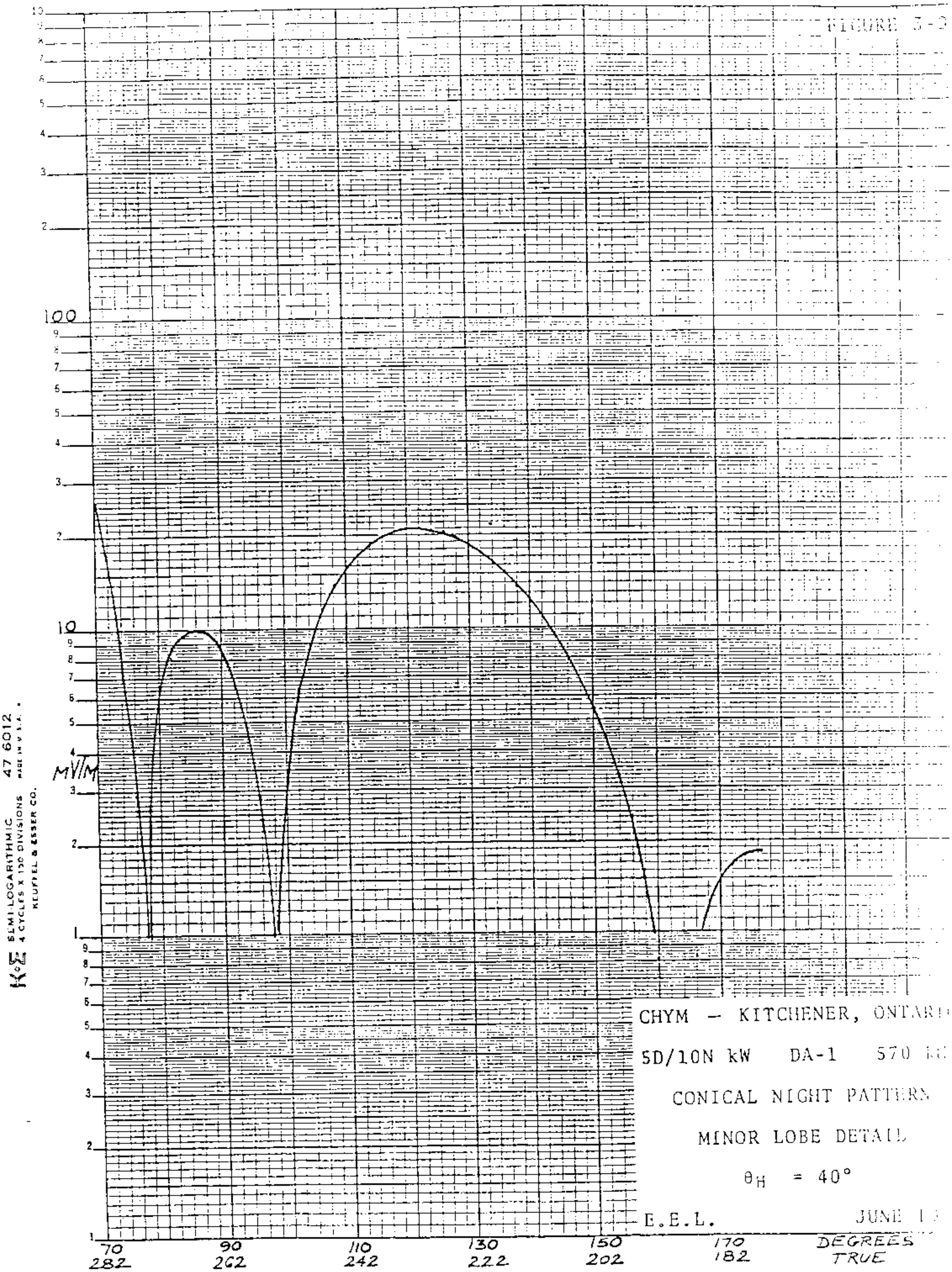
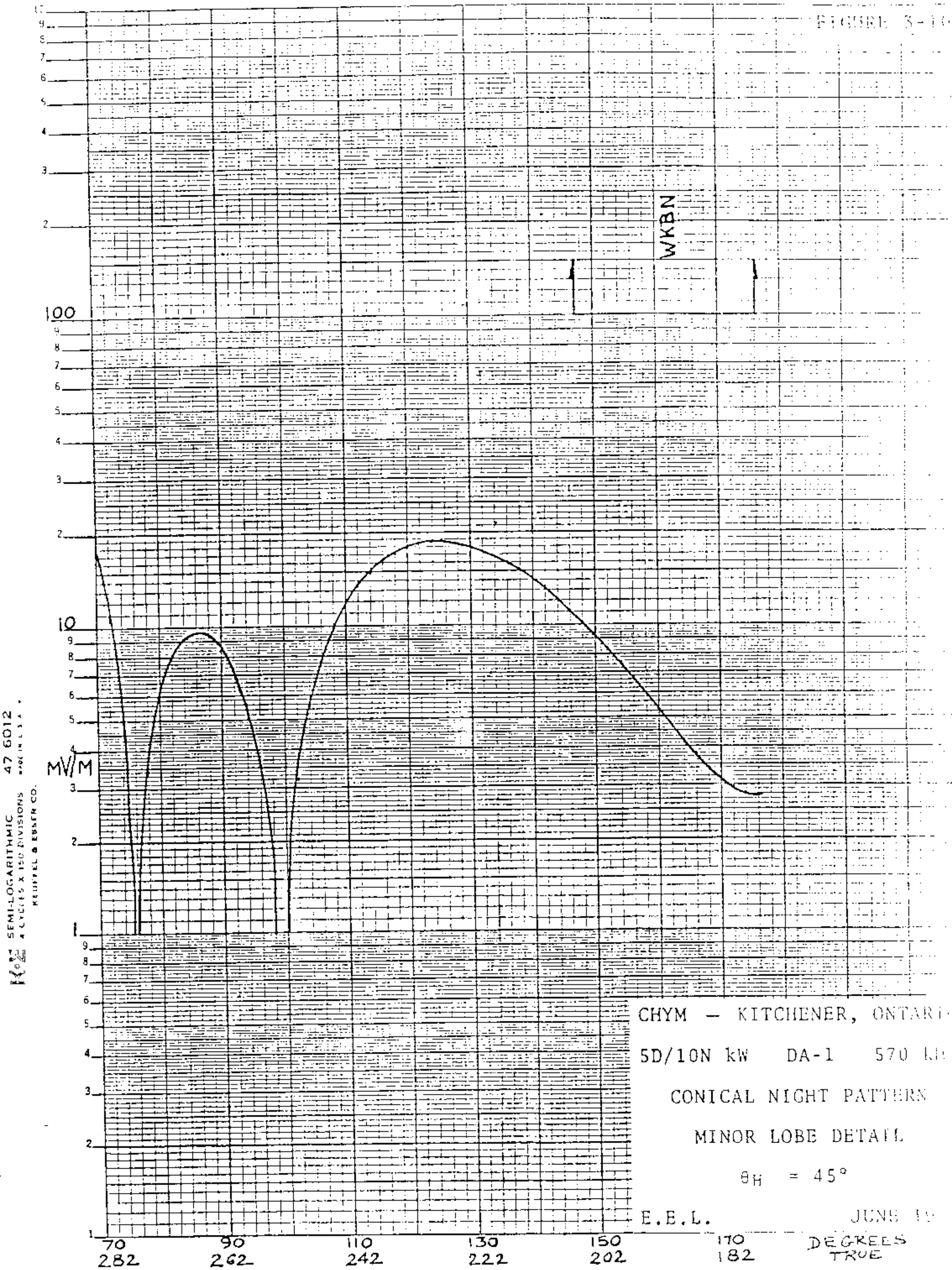


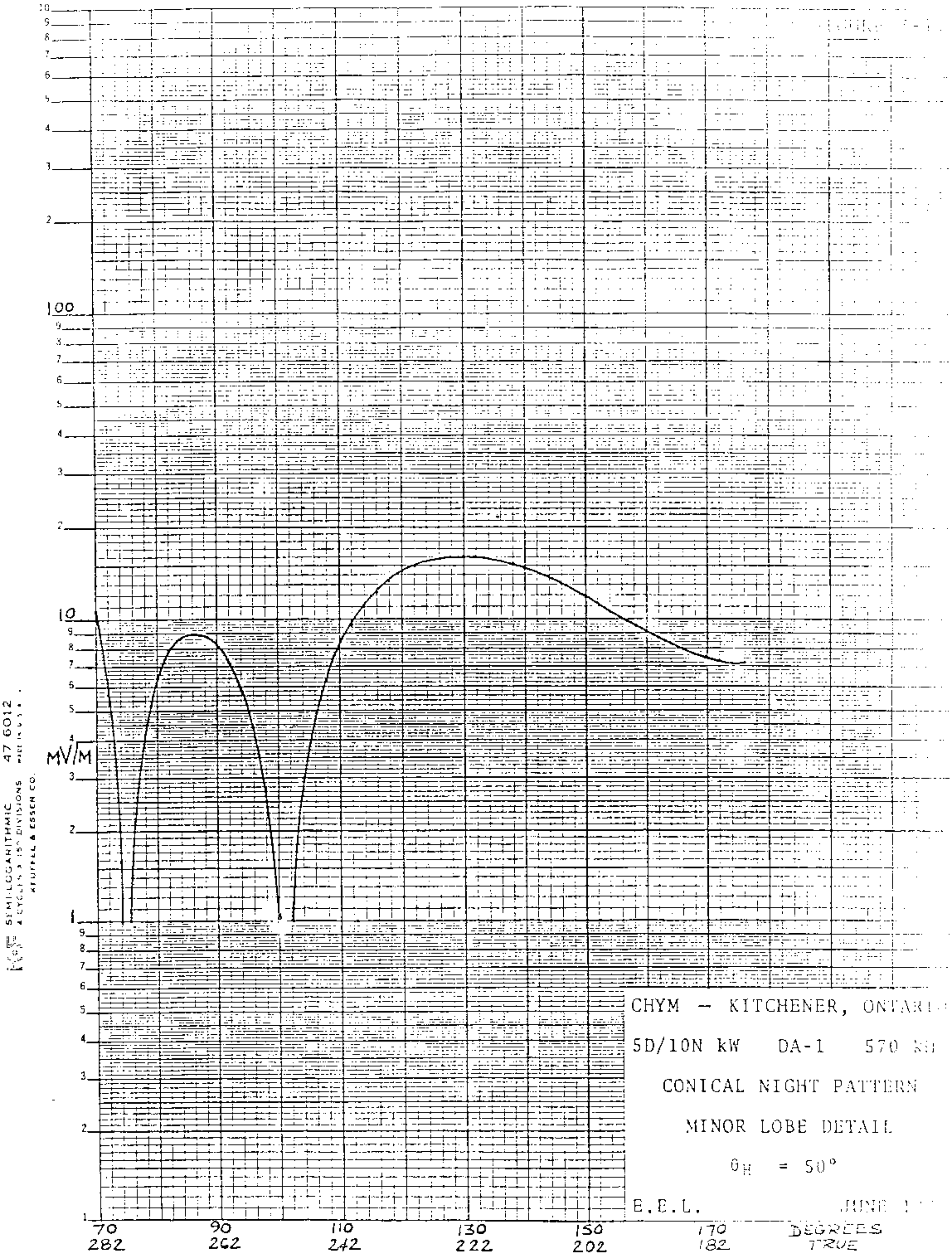
FIGURE 3-2
100
10
1
MV/M
70
282
90
262
110
242
130
222
150
202
170
182
DEGREES
TRUE
CHYM — KITCHENER, ONTARIO
5D/10N kW DA-1 570 KC
CONICAL NIGHT PATTERN
MINOR LOBE DETAIL
θ_H = 40°
E.E.L.
JUNE 1
K+E SEMI-LOGARITHMIC 4 CYCLES X 120 DIVISIONS 47 6012 MADE IN U.S.A.
KEUFFEL & ESSER CO.

CHYM

FIGURE 3-10

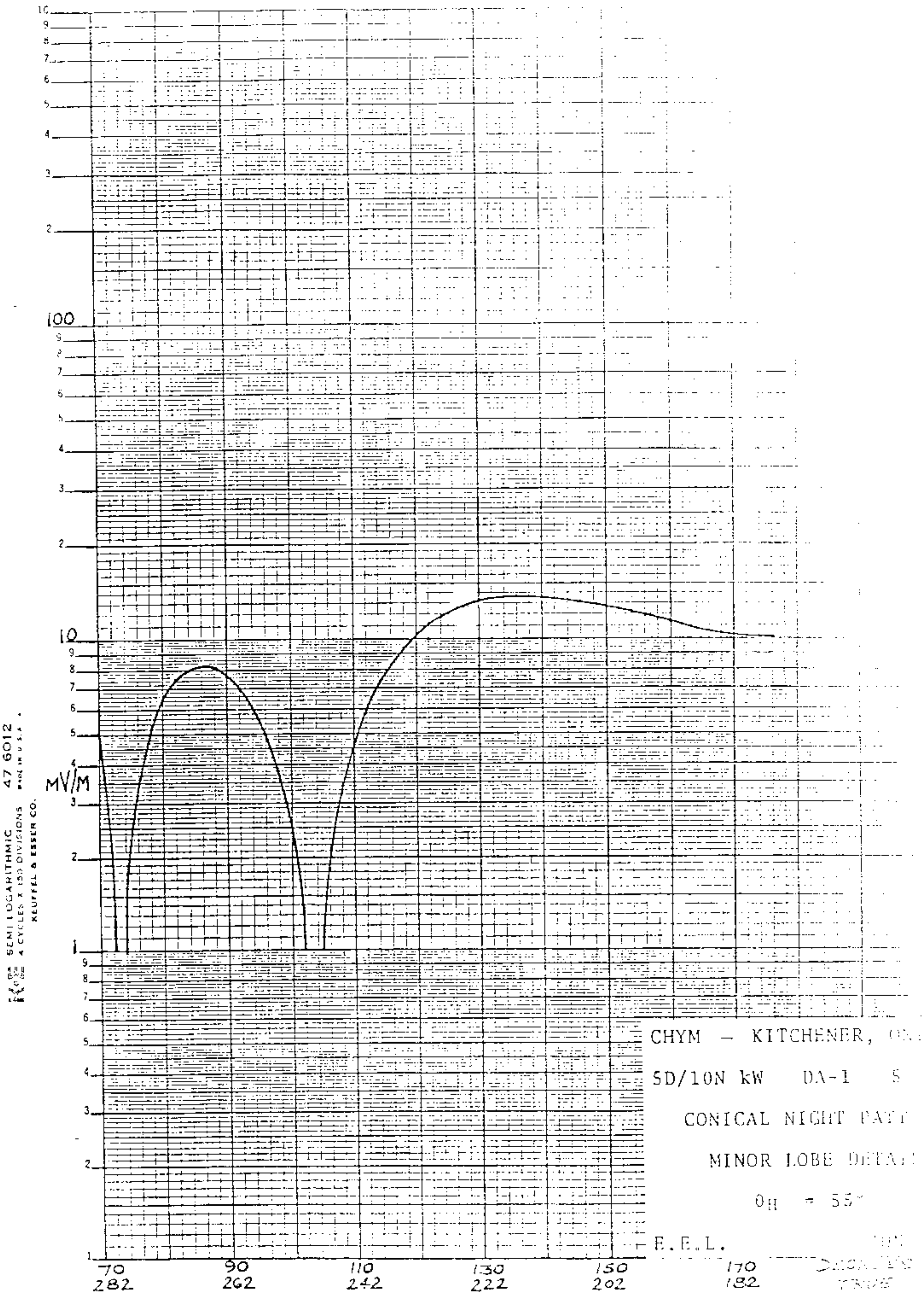


CHYM



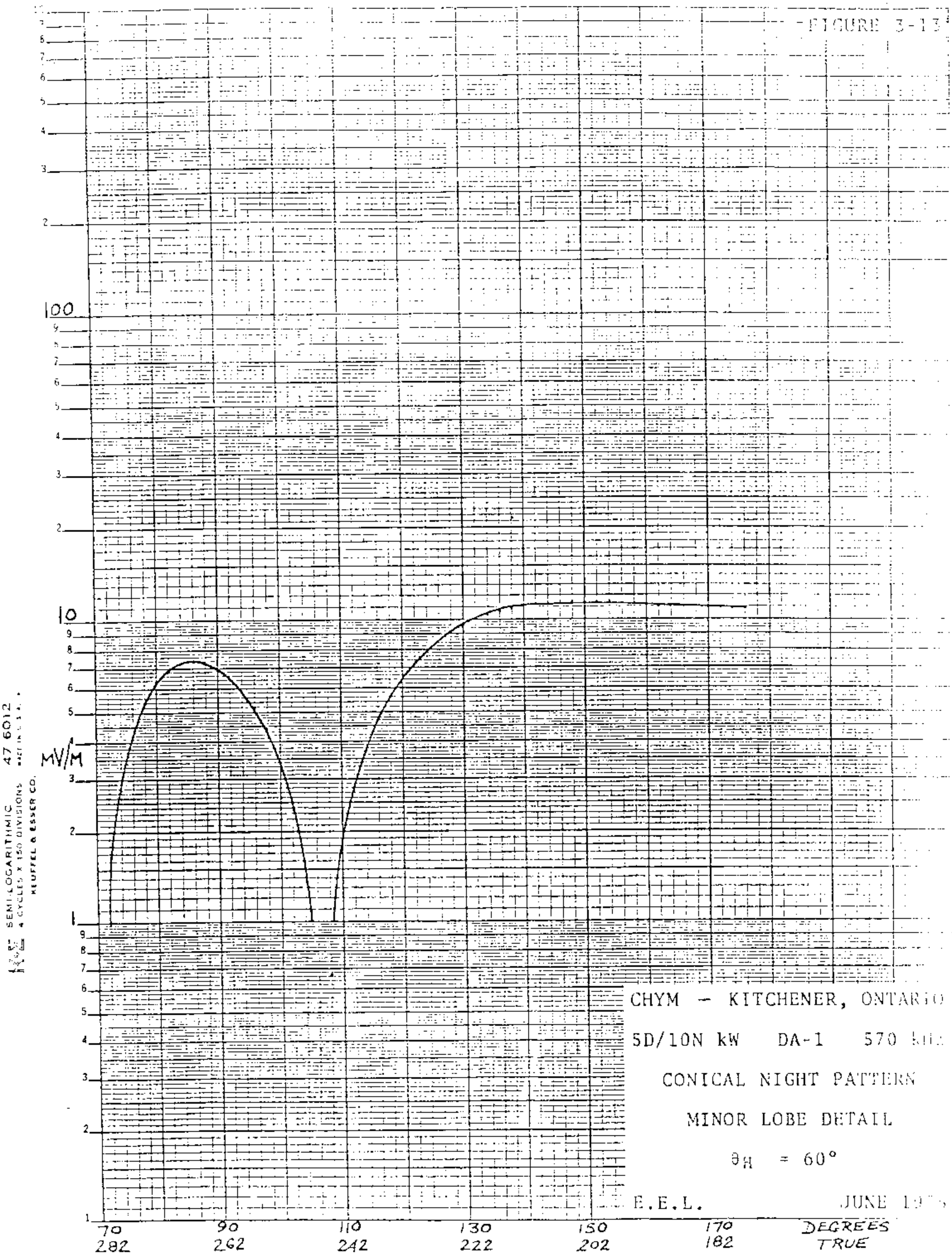
MV/M
100
10
1
70 282
90 262
110 242
130 222
150 202
170 182
DEGREES TRUE
CHYM - KITCHENER, ONTARIO
5D/10N kW DA-1 570
CONICAL NIGHT PATTERN
MINOR LOBE DETAIL
θ_H = 50°
E.E.L.
JUNE
SEMI-LOGARITHMIC
KEUFFEL & ESSER CO.
47 6012

CHYM


MV/M
100
10
1
70 282
90 262
110 242
130 222
150 202
170 182
CHYM – KITCHENER,
5D/10N kW DA-1
CONICAL NIGHT
MINOR LOBE
E.E.L.
SEMI-LOGARITHMIC
4 CYCLES X 150 DIVISIONS
KEUFFEL & ESSER CO.
47 6012

CHYM

FIGURE 3-13



#170

CJEM

Description Sheet
(5-25-62ct)

Station CJEM
Edmundston, N.B.

1kw,5kw-LS,DA-N,U,Class III
570 kc

Appendix D

Official List No. 170

Date: April 24, 1962

Description of Array

Station CJEM — Main Studio Edmundston, N. B.

Power 5 kw Day, 1 kw Night — Frequency 570 kc — Class III

Location

North Latitude 47° 21' 47"
West Longitude 68° 17" 21"

Antenna

Mode of Operation DA-N

Two elements, guyed, series-fed.

Each element top loaded with 4 wires, each 100' long, at 40° to vertical.

	SW Tower	NE Tower
Height above insulator	200'	200'
Spacing	431' (90°)	
Phasing	0°	65° lag
Field Ratio	1.0	1.0
Ground System	500' radials spaced 3°	500' radials spaced 3°
Orientation	Line through towers bears N 35° E.	
Predicted Effective Field	Day : 392 mv/m/mile (175 per kw)	
	Night: 175 mv/m/mile (175 per kw)	

EDMUNDSTON, N.B

PROPOSED NIGHT (3/18/53G) NEW, EDMUNDSTON, N.B. 1000 w. DA-N 570 kc CJE

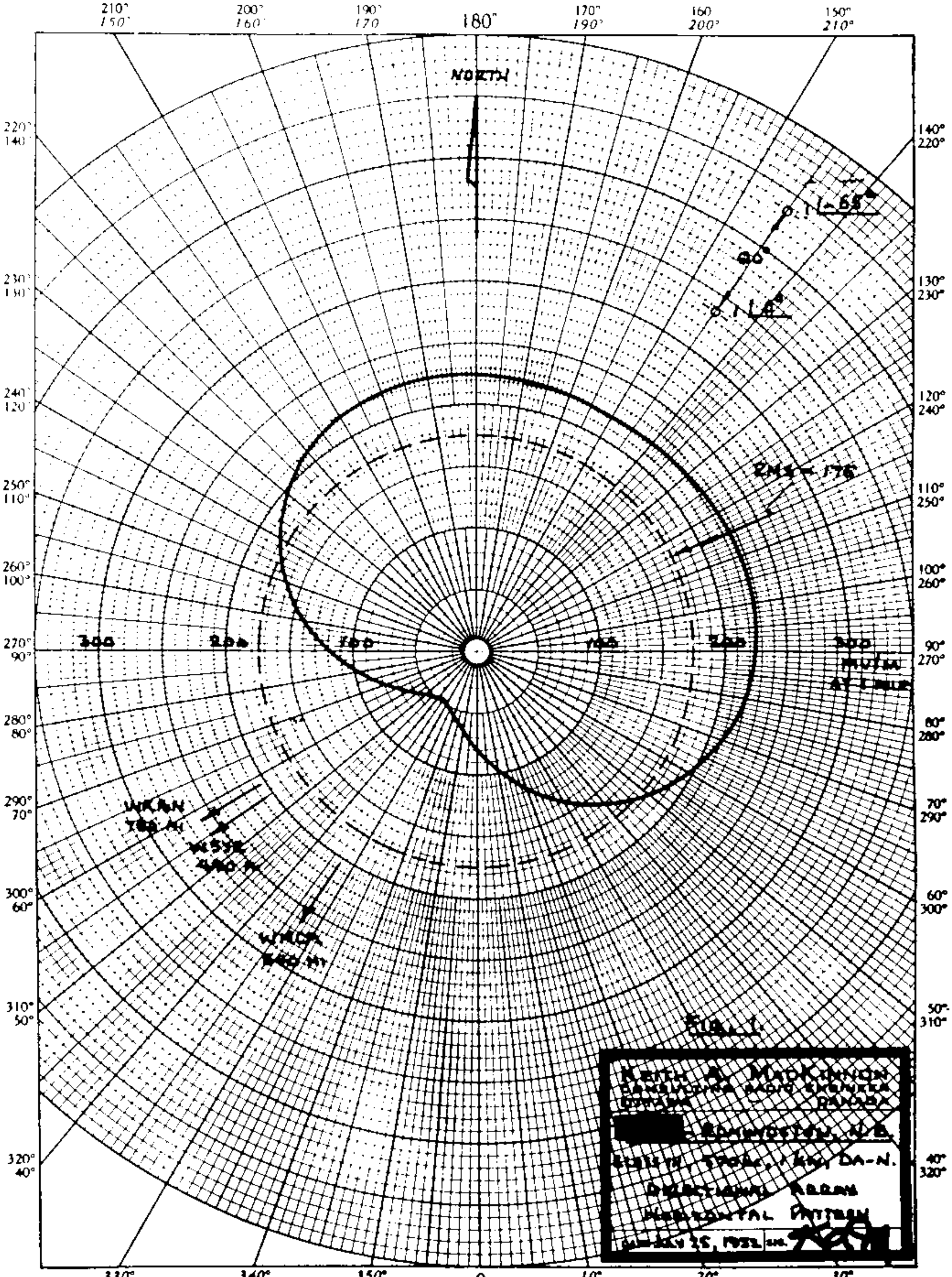


FIG. 1

NEW, Edmundston, N. B. 570 kc

Quesnel, B.C.

CKCQ

DESCRIPTION OF ARRAY

STATION: New   MAIN STUDIO: Quesnel, B.C.

POWER: 1000 Watts   FREQUENCY: 570 KC   CLASS: I I I

Notification List No.: 106   DATE: September 27, 1956

LOCATION:

NORTH LATITUDE: 52° 54' 38"

WEST LONGITUDE: 122° 29' 26"

ANTENNA.

MODE OF OPERATION: Different directional patterns for day and night. (DA-2)

ELEMENTS: Two, square, uniform cross section, guyed, insulated from ground, series fed, no top loading.

TOWER:	#1 (S)	#2 (N)
HEIGHT ABOVE INSULATORS:	300' (62.3*)	300'(62.3*)

SPACING: 431.3' (90*) between towers.

PHASING:	Night:	0*	-90*
	Day:	0*	+165*
FIELD RATIO:	Night:	1	.846
	Day:	1	1.6

GROUND SYSTEM: 120 equally spaced radials of #10 B&S bare copper wire per mast, bonded on line equidistant from towers, burried approx. 8", length of radials; max. 975' (.58), min. 450' (.26), area covered by ground system: approx. rectangle with area equal to standard ground system. (.4) radials

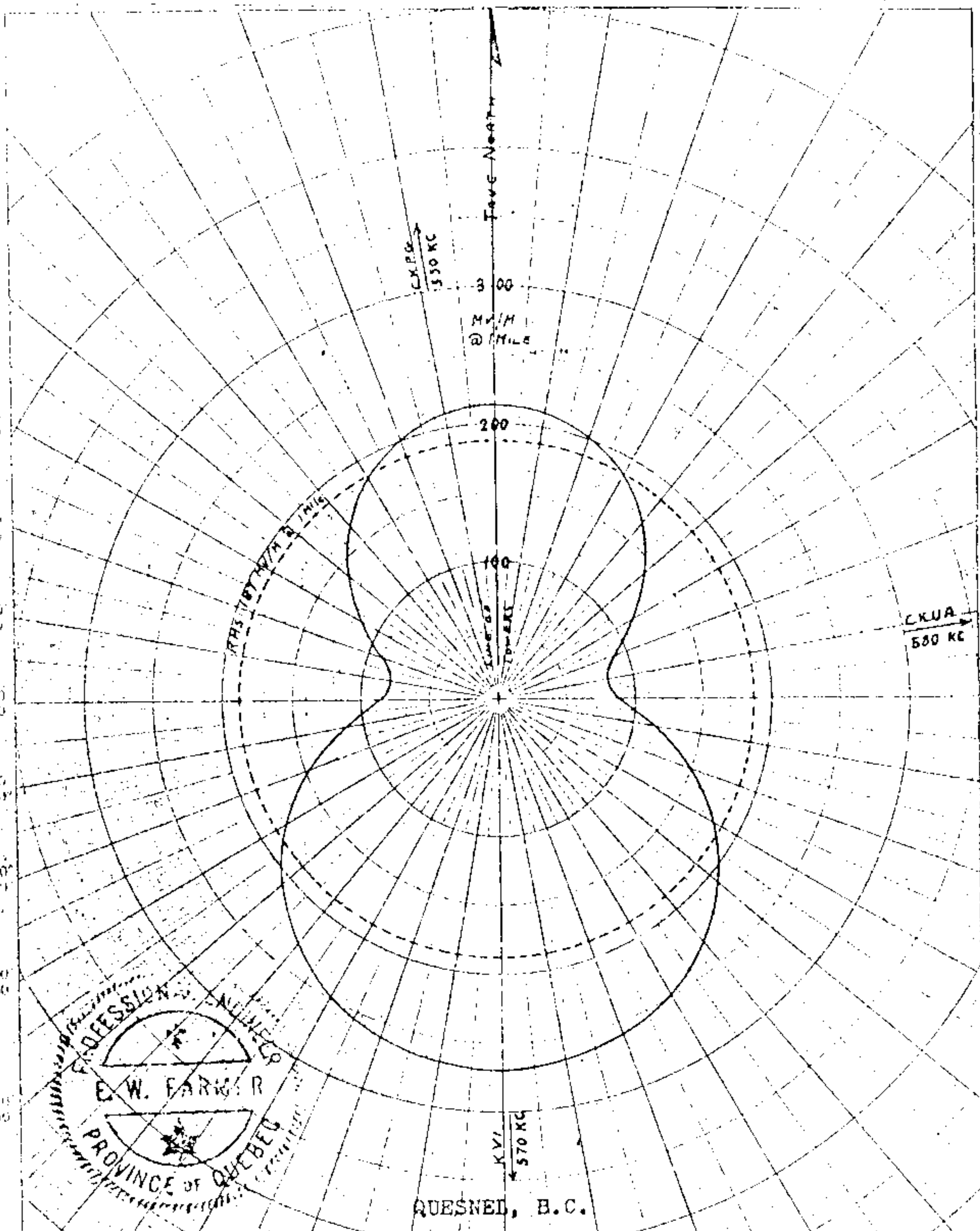
PREDICTED EFFECTIVE FIELD: Night: 185 mv/m at 1 mile per 1 KW
Day: 187 mv/m at 1 mile per 1 KW

ORIENTATION: Line of towers bearing 0* True North.

(11-9-56g)

Quinset, B.C.

Station New, Quesnel, B. C., 1000 Watts, Class III, 570 K C. (11-9-56g) CKCQ
Filed 10-8-56



QUESNEL, B.C.

570 KC 1 KW DA-2

Proposed Horizontal Day-Time Radiation Pattern

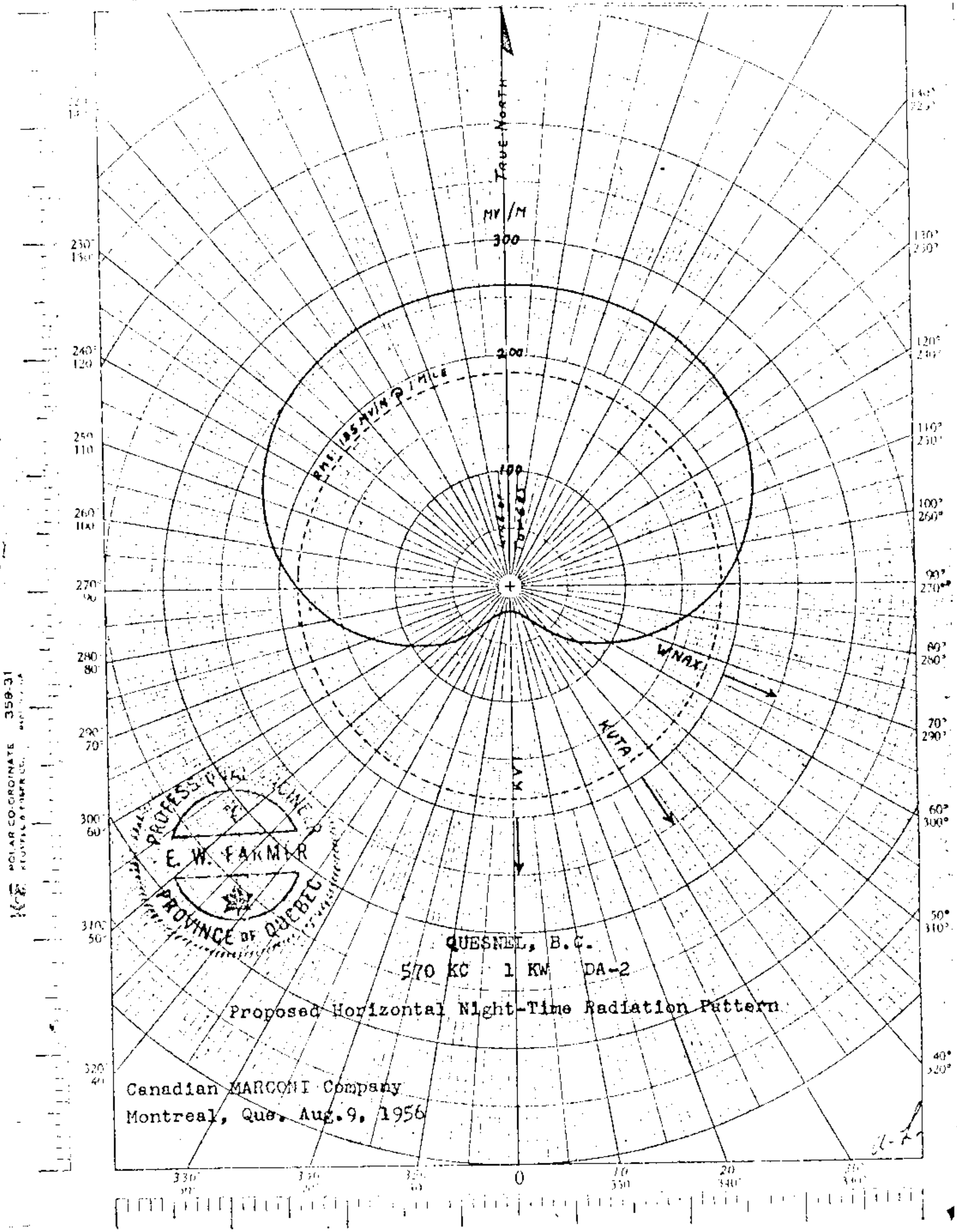
Canadian MARCONI Company
Montreal, Que. Aug. 9, 1956

\# 1016

Quesnel, B.C.

Station New, Quesnel, B. C., 1000 Watts, Class III, 570 K C, (11-9-56g) CKC

Filed 10-8-56



Cranbrook, B.C.
CKEK

Description Sheet (6/7/57g) | New, Cranbrook, B.C. | 1kw, DA-1,U 570 KC

DESCRIPTION OF ARRAY

STATION: New | MAIN STUDIO: Cranbrook, B.C.

POWER: 1000 Watts | FREQUENCY: 570 KC | CLASS: III

NOTIFICATION LIST No. 111 | DATE: April 12, 1957

LOCATION:

NORTH LATITUDE: 49° 26' 57"

WEST LONGITUDE: 115° 51' 50"

ANTENNA:

MODE OF OPERATION: Directional, same Pattern Day and Night (DA-1)

ELEMENTS: Two, square, uniform cross section, guyed, base insulated, series fed, no top loading

TOWER:	# 1 (S)	# 2 (N)
HEIGHT ABOVE INSULATORS:	300'(62.6°)	300'(62.6°)
SPACING:	431.3'(90°) between towers	
PHASING:	0	-110°
FIELD RATIO:	1	.875

GROUND SYSTEM: 120 equally spaced radials of #10 B & S bare copper wire per mast, joined on line equidistant from towers, buried approximately 8 inches. Length of radials maximum 850', min. 431'(.25λ). Area covered by ground system equal to that of standard ground system with .4λ radials.

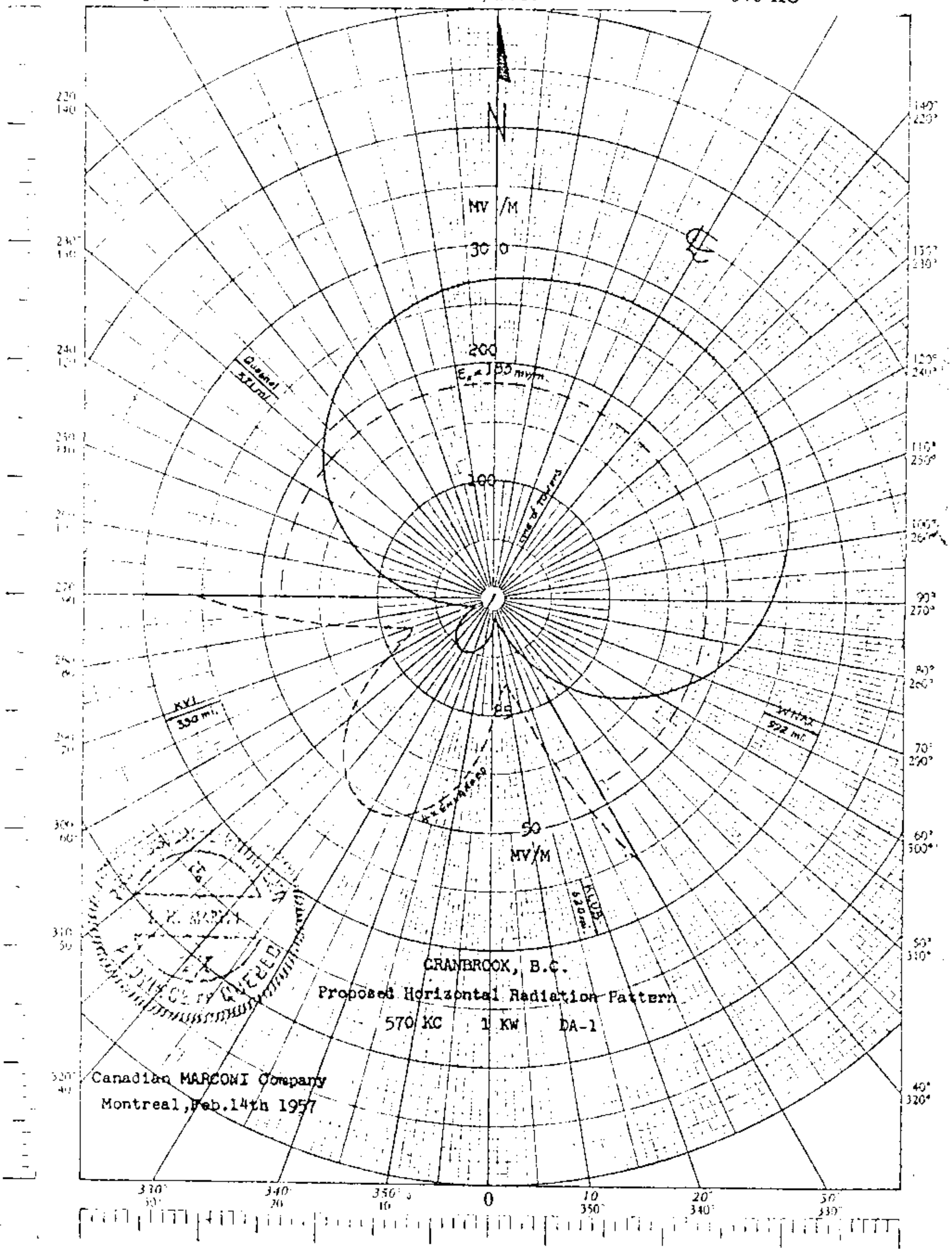
PREDICTED EFFECTIVE FIELD: 183 Mv/m at 1 mile for 1 KW

ORIENTATION: Line of towers bearing 30° East of True North.

18

Cranbrook, B.C.
CKEK

PROPOSED DAY & NIGHT (6/7/57g) | New Cranbrook, B.C. | 1kw, DA-1,U | 570 KC



CKSW
570kHz

SUPPLEMENTAL DIRECTIONAL

ANTENNA DESCRIPTION SHEET

Station: CKSW

Frequency: 570 kHz

Notification List No.: 401

Mode of operation: DA-2

Geographical Location of
the Center of the Antenna System:

North Latitude: 50° 09' 39"
West Longitude: 107° 48' 58"

Main Studio: Swift Current, Saskatchewan

Power: 10 kW, Class III

Date: December 5, 1980

Note: Please retain the description sheet and directional antenna radiation patterns notified for station CKSW in Canadian Change List Number 344 dated August 15, 1975 and attach to this supplemental description sheet. This notification is for the purpose of indicating only a correction in the geographical coordinates.

CKSW

ANTENNA DESCRIPTION SHEET
DIRECTIONAL DA-2

FREQUENCY:	570 kc/s
STATION CALL:	C K S W
LOCATION:	Swift Current, Saskatchewan.
POWER:	10,000 watts
CLASS:	III
TIME:	Unlimited
GEOGRAPHICAL COORDINATES:	Lat 50°09'09", Lon 107°48'58"
NOTIFICATION REFERENCE:	List No. 344 Dated August 15, 1975
ARRAY CHARACTERISTICS:	Eight elements, guyed, uniform cross section, base insulated, series feed. Height 300 feet or 62.54 degrees physical. Elements top loaded to equivalent 75 degrees electrical height by bonding top 100 feet of guy wires to tower top.

Twr	Bearing	Spacing	Day Ratio	Day Phase	Night Ratio	Night Phase
1	Ref	Ref	1.000	00°	1.000	00°
2	105.00°	215.00° 1031.3'	2.350	05°	3.000	-14.0°
3	105.00°	408.00° 1957.1'	2.200	-12°	2.950	-30.0°
4	105.00°	612.00° 2935.6'	1.000	-18°	1.000	-48.0°
5	96.77°	626.29° 3004.2'	0.900	-110°	0.960	-139.5°
6	92.83°	425.40° 2040.6'	1.980	-104°	2.832	-121.5°
7	83.08°	240.20° 1152.2'	2.115	-87°	2.880	-105.5°
8	20.00°	90.00° 431.7'	0.900	-92°	0.960	-91.5°

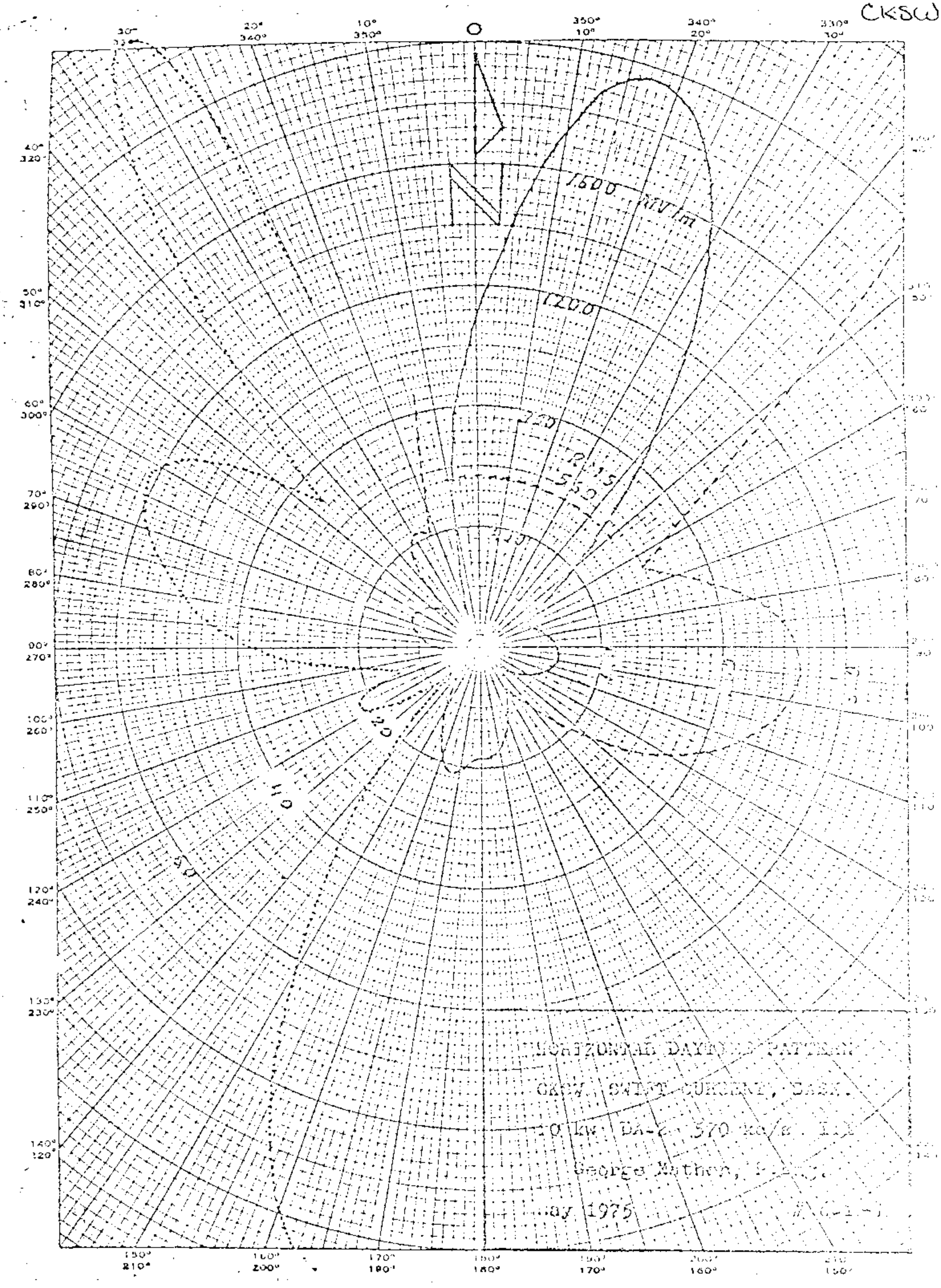
Ground System 120 radials per tower, #10 AWG bare, soft copper wire, spaced uniformly, depth approximately 8 inches. Radials bonded along line between towers and bonded to soft copper strap at tower base. Minimum radial length 432 feet.

Predicted RMS 569 mv/m at 1 mile for 10 kw, 180 mv/m for 1 kw

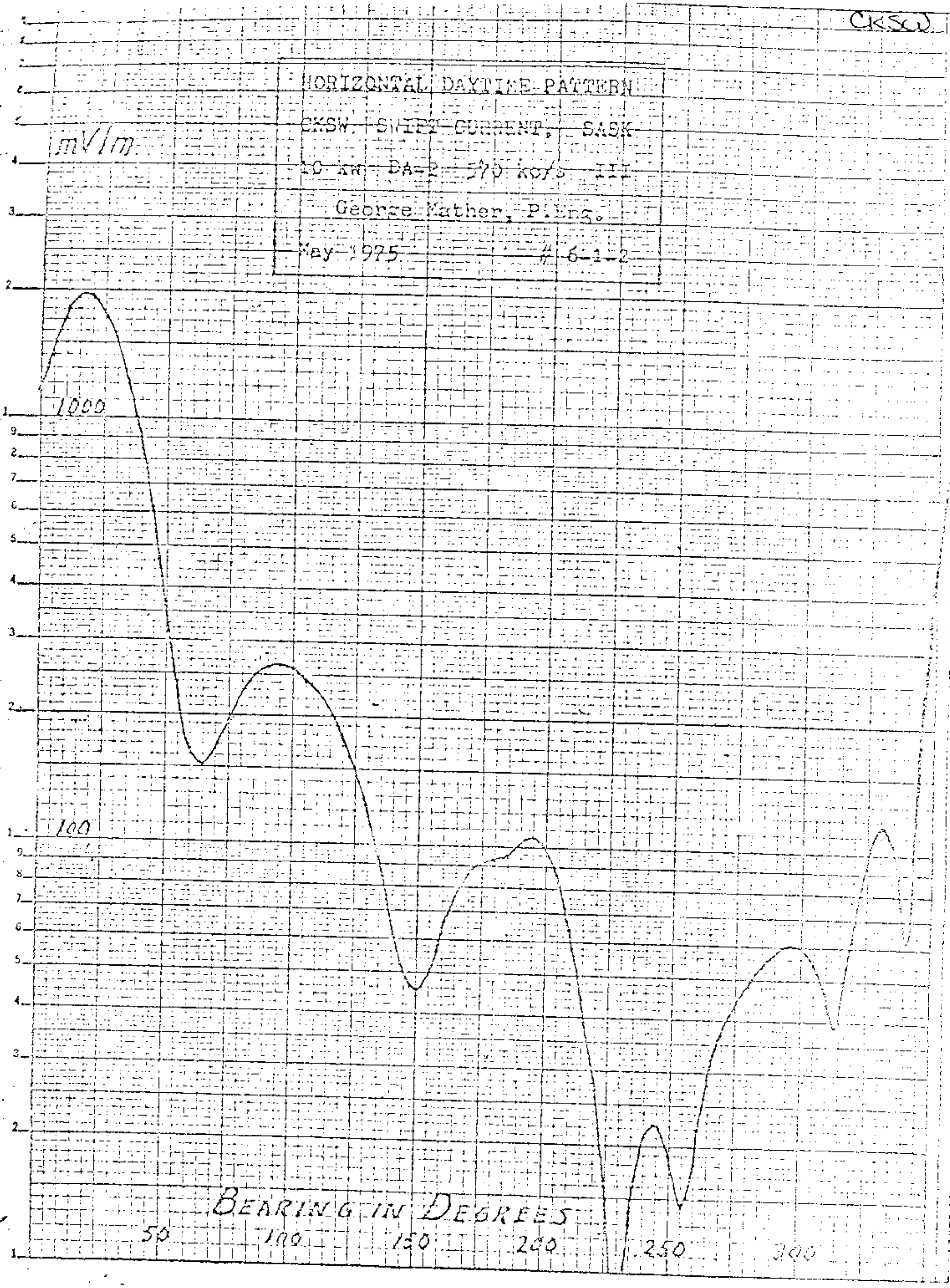
May 1975

5

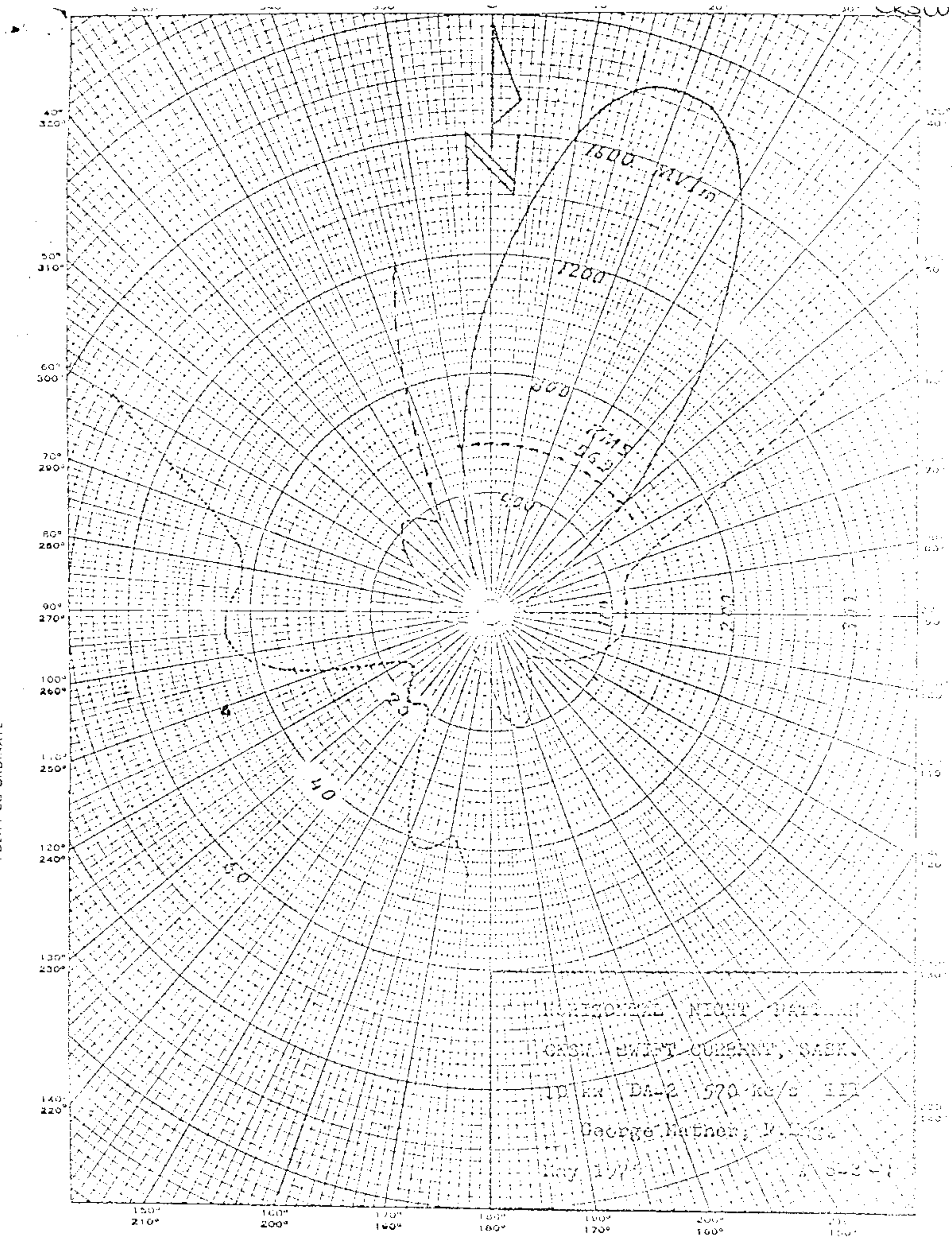
CKSW



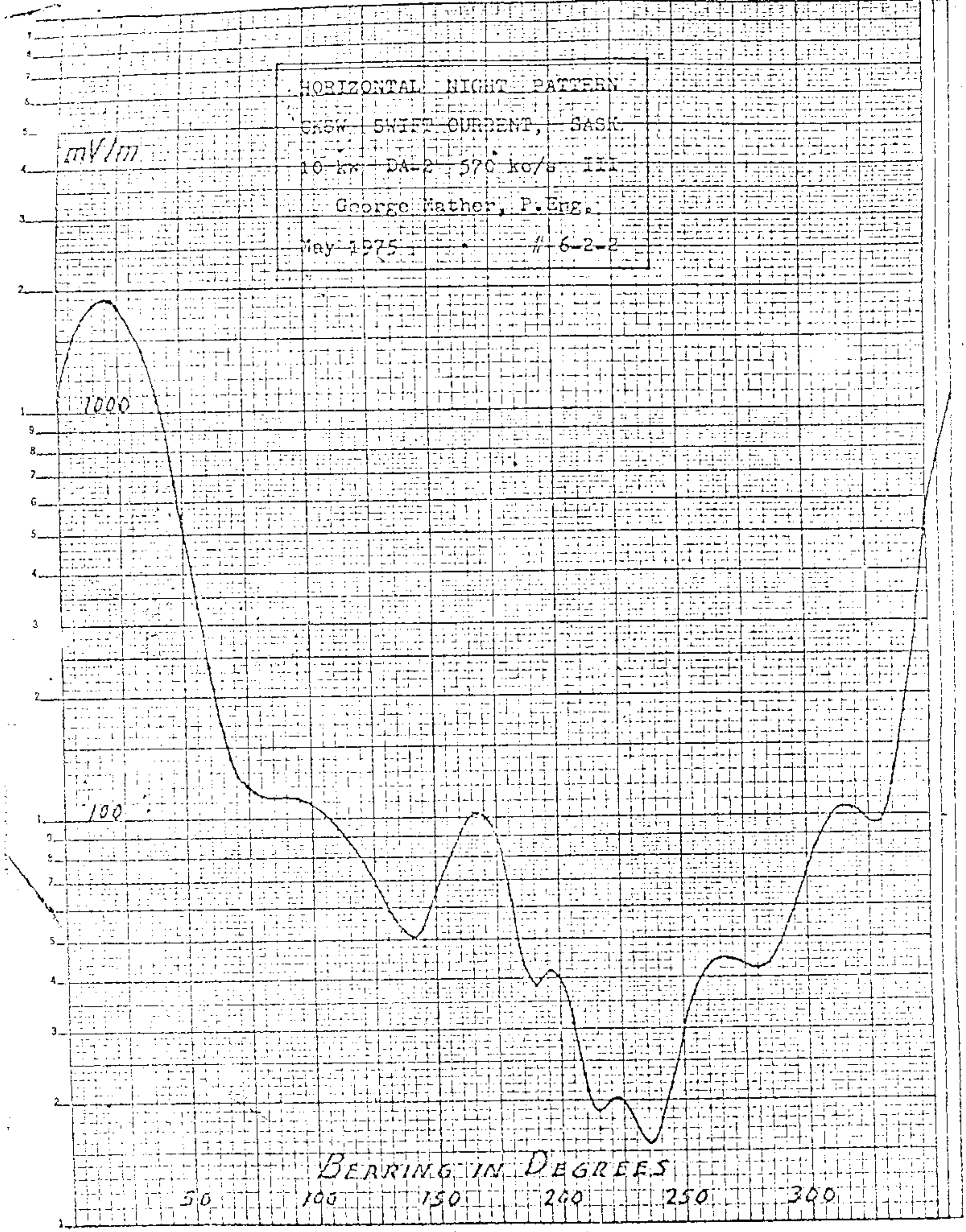
CKSW

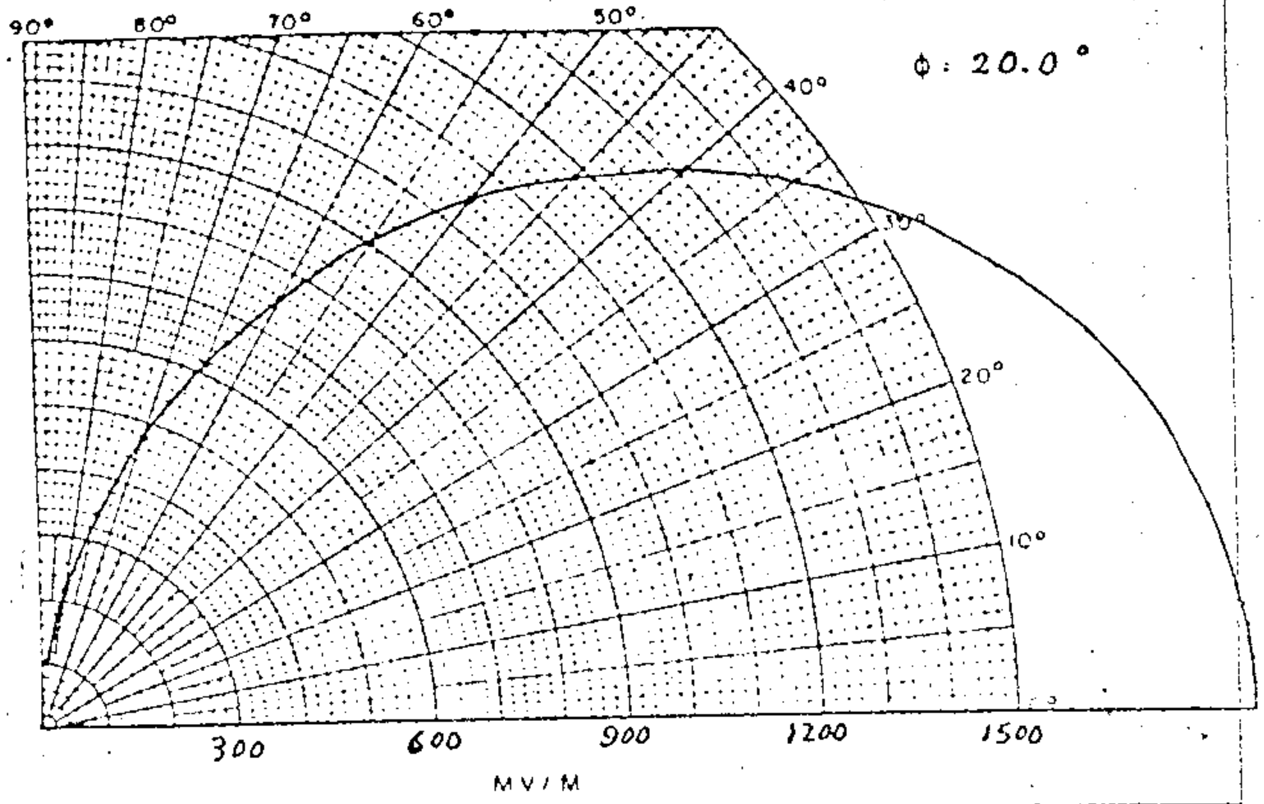

HORIZONTAL DAYTIME PATTERN
CKSW, SWIFT CURRENT, SASK
10 kW DA-2 570 kc/s III
George Mather, P.Eng.
May 1975 # 6-1-2
mV/m
1000
100
BEARING IN DEGREES
50
100
150
200
250
300

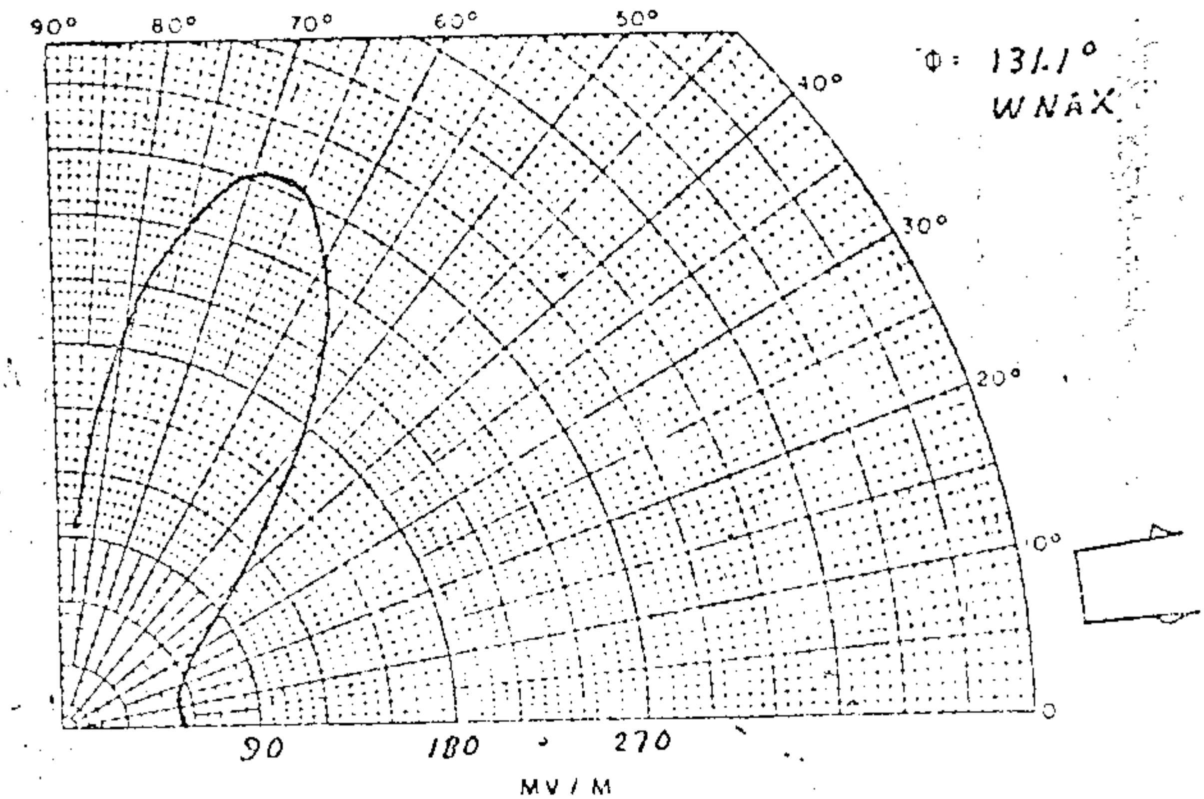
6-1-2


CKSW
1500 MV/m
1200
600
300
RMS 563
25
40
60
POLAR CO-ORDINATE
DA-2
SASK.

CKSW


HORIZONTAL NIGHT PATTERN
CKSW SWIFT CURRENT, SASK.
10 kw DA-2 570 kc/s III
George Mather, P.Eng.
May 1975 #-6-2-2
mV/m
1000
100
BERRING IN DEGREES
50
100
150
200
250
300





VERTICAL RADIATION PATTERNS

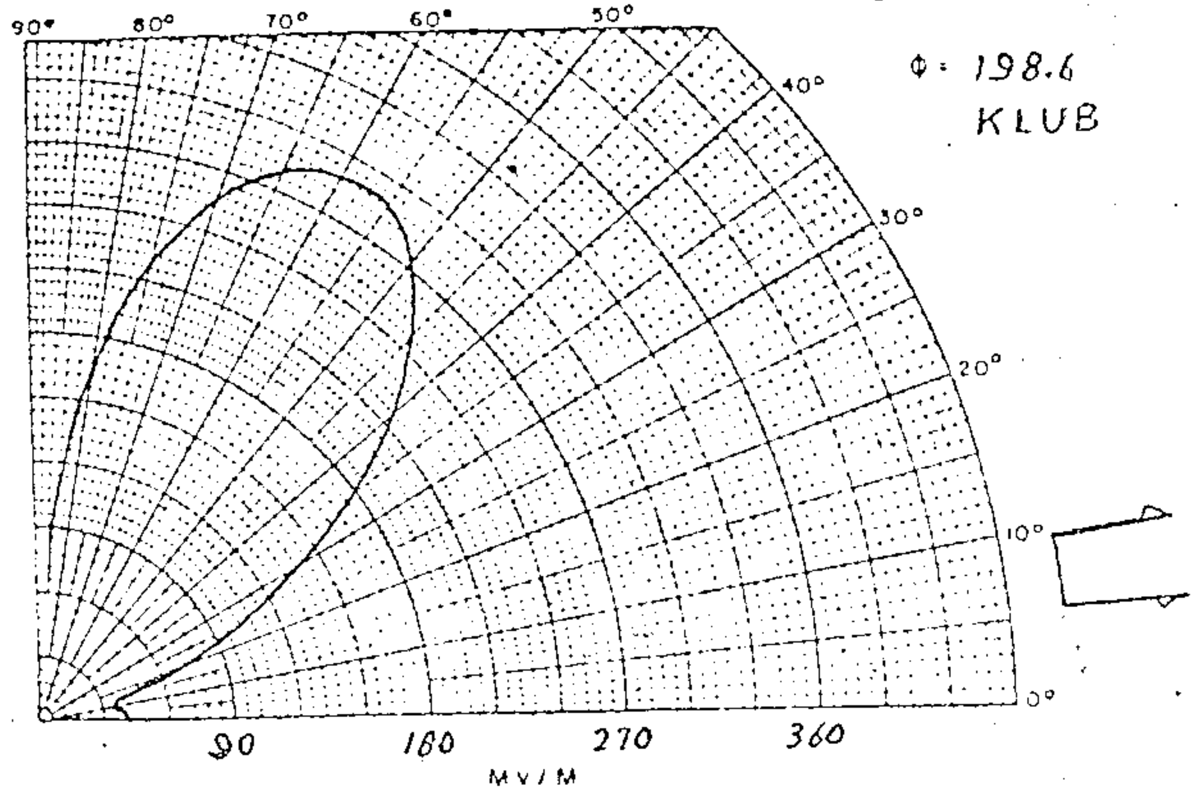
CKSW SWIFT CURRENT, SASK.
10 kw DA-2 570 kc/s III
George Mather, P.Eng.

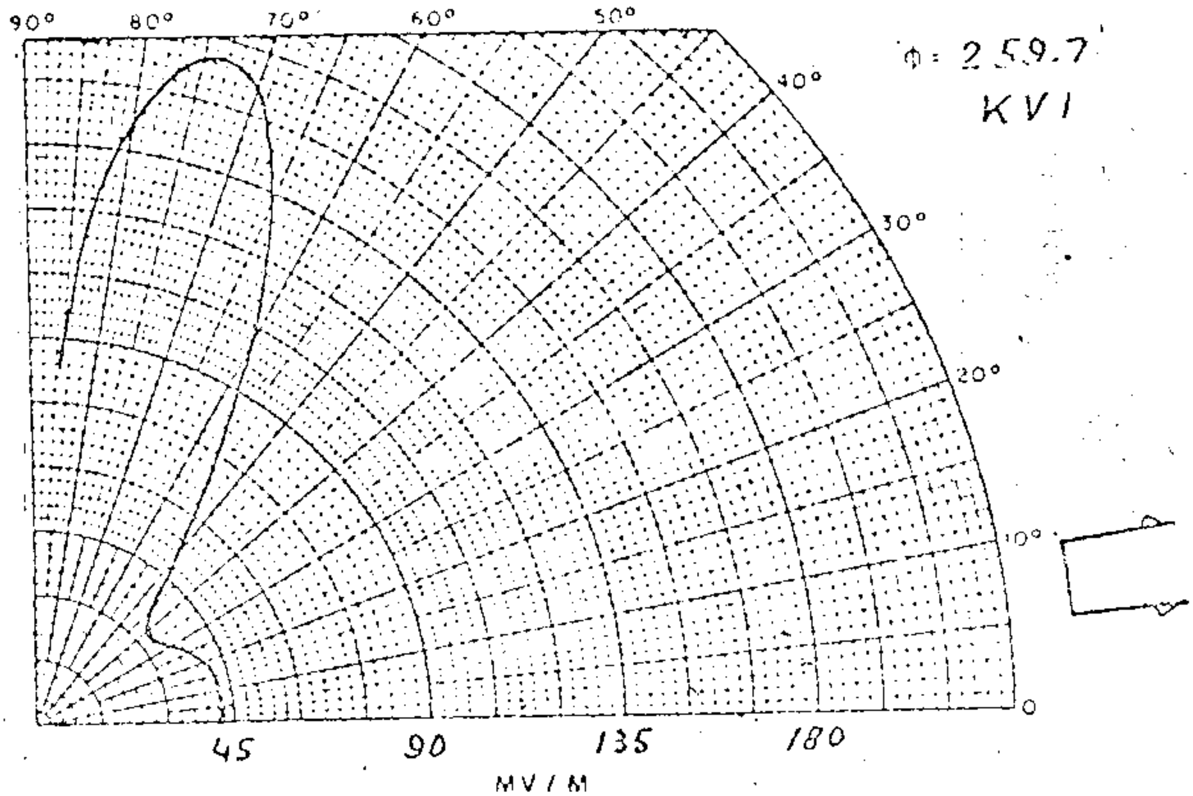
May 1975

7-1

POLAR CO-ORDINATE

CKSW





VERTICAL RADIATION PATTERNS

CKSW SWIFT CURRENT, SASK.
10 kw DA-2 570 kc/s III
George Mather, P.Eng.

May 1975

7-2

POLAR CO-ORDINATE

CKWL

DESCRIPTION SHEET - OMNI-DAY, DIRECTIONAL-NIGHT

Station:	CKWL	Main Studio:	Williams Lake, B.C.
Power:	1 kW	Frequency:	570 kHz
Class:	III	Notification List No:	387
		Date:	July 10, 1979

Location: 52° 05' 29" N. Lat., 122° 10' 27" W. Long.

Antenna:

Mode of Operation: Omni-directional patterns for daytime and directional pattern for night (DA-N)

Elements: Two, square, uniform cross section, guyed, tower insulated from ground, series fed, no top loading.

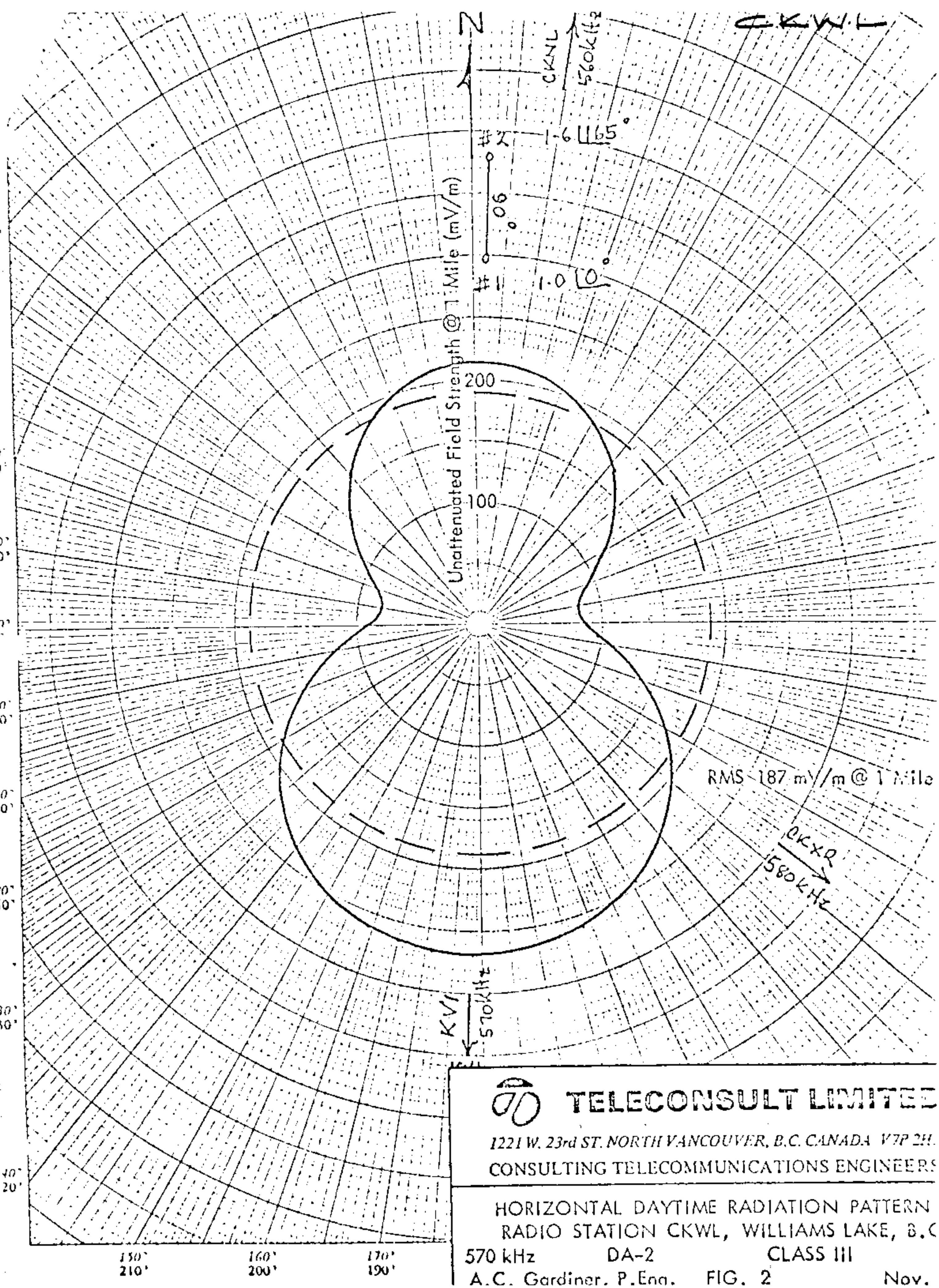
Tower:		#1 (S)		#2 (N)
Height above insulators:		300' (62.3°)		300' (62.3°)
Spacing:			431.3' (90°)	
Phasing:	Night	0°		-90°
	Day	0°		-
Field Ratio:	Night	1		0.9
	Day	1		-

Ground System: 120 equally spaced radials of #10 B & S bare, copper wire per mast, bonded on a line equidistant from towers, approximately 8" depth. Length of radials: maximum 780' minimum 580' (0.45 & 0.34 wavelength respectively). Area covered by ground system approximately 3% greater than that of standard 0.4 wavelength system.

Predicted Effective Field: Night: 185 mV/m @ 1 Mile
Day: 185 mv/m @ 1 Mile

Orientation: Line of towers bearing 002.1° True North

Please retain the night-time directional antenna radiation pattern notified for CKWL in Canadian Change List No. 339 dated March 1[illegible], 197[illegible]. This proposal concerns only a change of the day-time operation of CKWL from directional to non directional.



TELECONSULT LIMITED

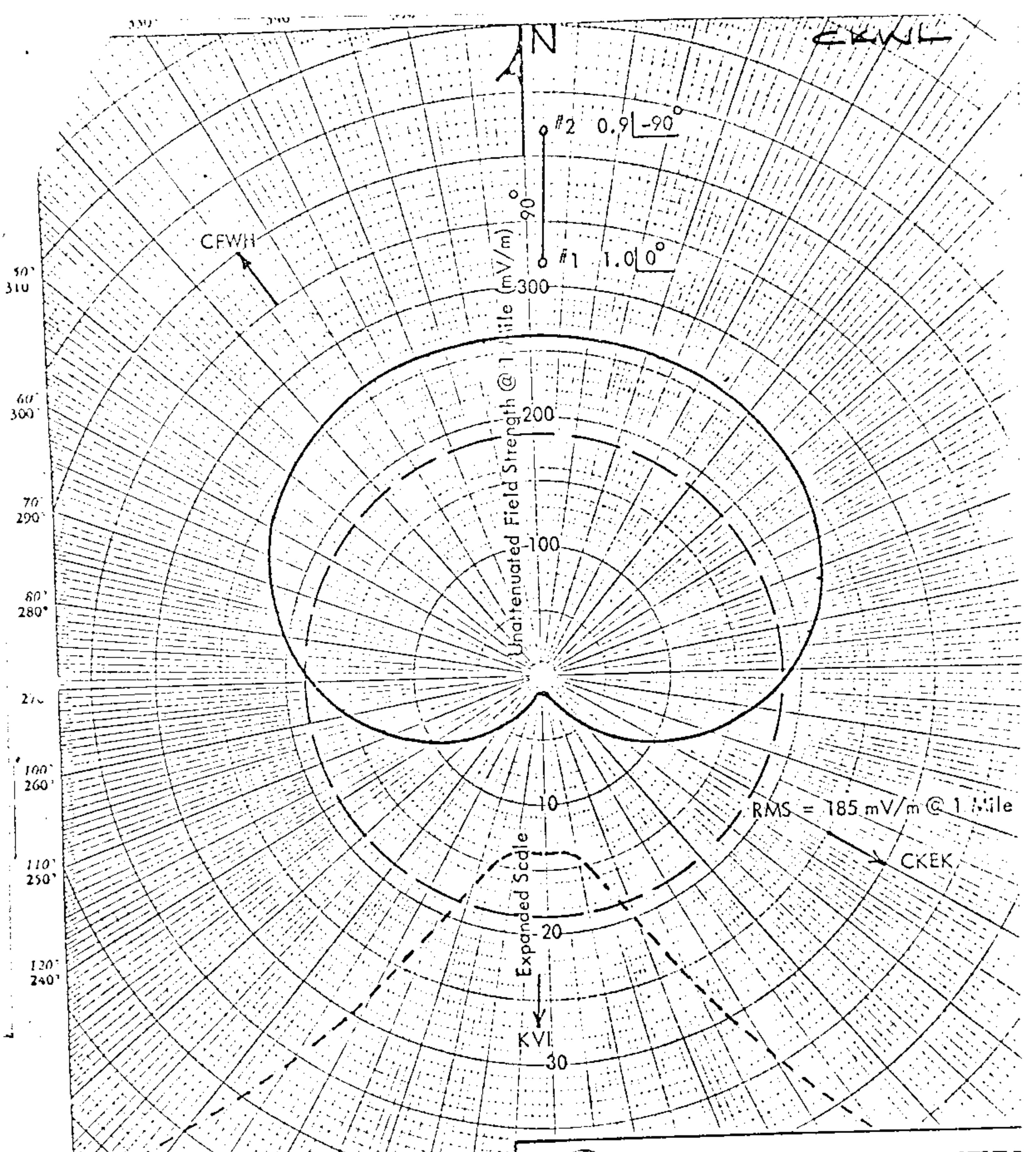
1221 W. 23rd ST. NORTH VANCOUVER, B.C. CANADA V7P 2H.

CONSULTING TELECOMMUNICATIONS ENGINEERS

HORIZONTAL DAYTIME RADIATION PATTERN
RADIO STATION CKWL, WILLIAMS LAKE, B.C

570 kHz DA-2 CLASS III

A.C. Gardiner, P.Eng. FIG. 2 Nov.



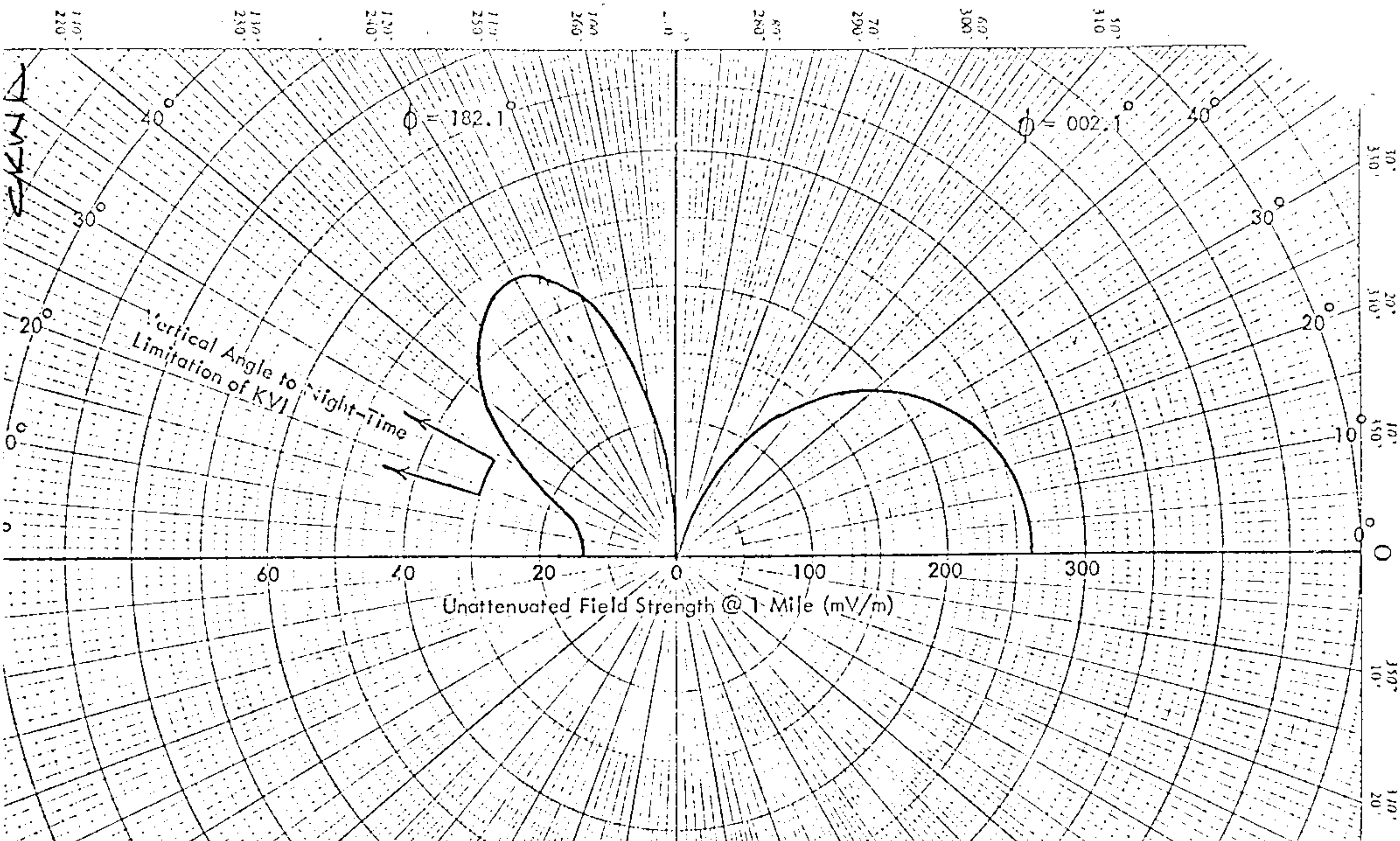
TELECONSULT LIMITE

1221 W. 23rd ST. NORTH VANCOUVER, B.C. CANADA V7P 2I

CONSULTING TELECOMMUNICATIONS ENGINEER

HORIZONTAL NIGHT-TIME RADIATION PATTE
RADIO STATION CKWL, WILLIAMS LAKE, B.

570 kHz DA-2 CLASS III



TELECONSULT LIMITED

1221 W. 23rd ST. NORTH VANCOUVER, B.C. CANADA V7P 2H5

CONSULTING TELECOMMUNICATIONS ENGINEERS

VERTICAL NIGHT-TIME RADIATIC PATTERN
RADIO STATION CKWL, WILLIAMS LAKE, B.C.
570 kHz DA-2 CLASS III 1 kW

Cuba

CMHI

DIRECTIONAL ANTENNA DESCRIPTION SHEET

Station: CMHI

Frequency: 570 Kcs.

Main Studio: Santa Clara, Cuba

Power: 10 kw

Received: October 16, 1952 Class: I-D

GEOGRAPHICAL LOCATION OF THE CENTER OF THE ANTENNA SYSTEM:

North Latitude: 22° 15'

West Longitude: 79° 55'

ANTENNA CHARACTERISTICS

Number of elements: two (2)
Type of elements: Series-fed, self-supporting, vertical steel towers.

TOWER:	North	South
HEIGHT ABOVE INSULATORS:	340' (70.45°)	417' (86.76°)
SPACING:	(344.4' or 71.82° between adjacent towers)	
PHASING:	85°	0
RATIO:	1	1

ORIENTATION: (Elements on a line bearing 171° true.)

GROUND SYSTEM: 120 - 430' equally spaced radials about each tower base. Radials are bonded by transverse straps along intersections between towers.

Predicted effective Field: 891 mv/m (at rated power) (at 1 kilometer)

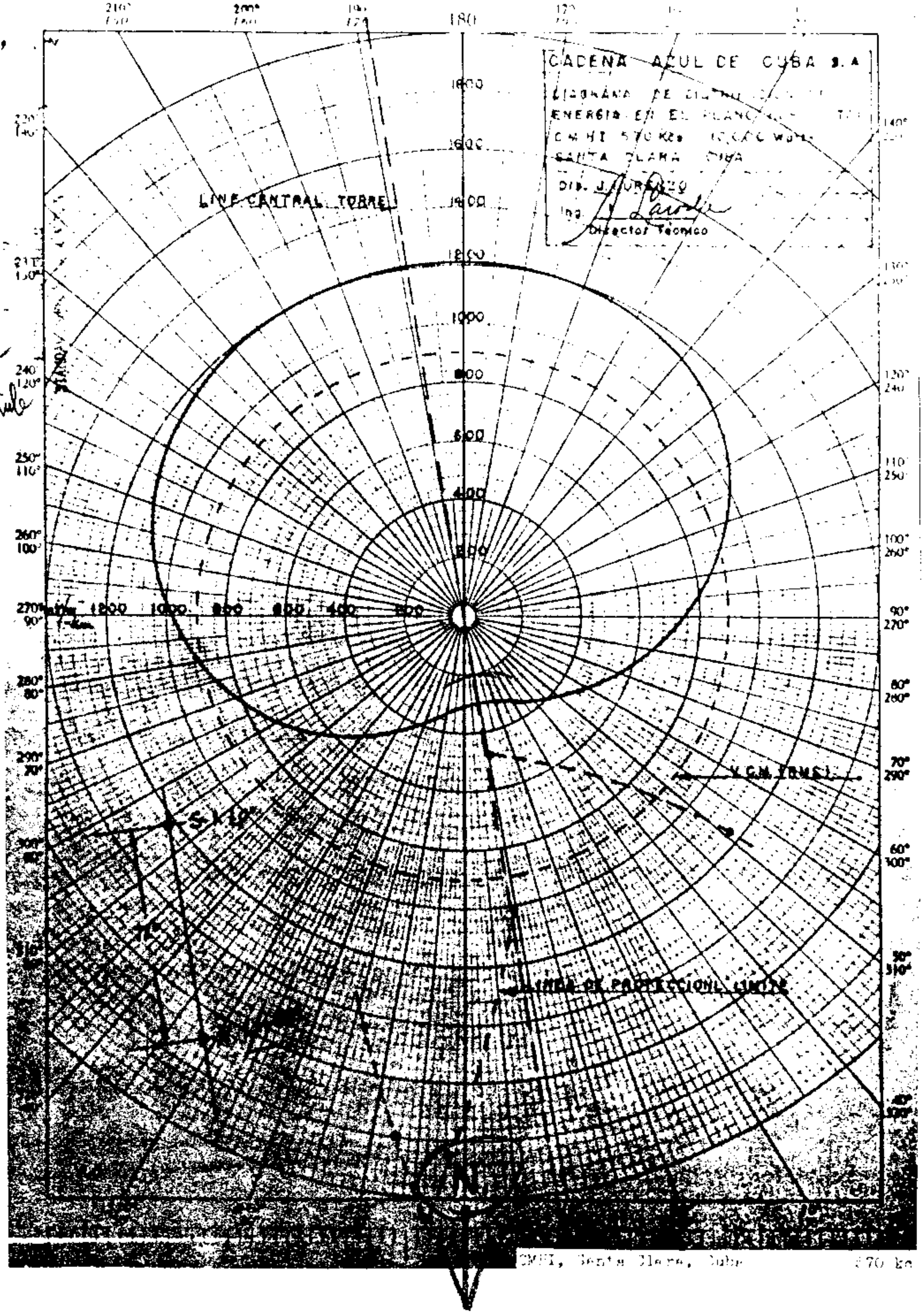
F.C.C Note:
This pattern supplements the particulars for this station set forth in Annex 3 to the North American Regional Broadcasting Agreement, Washington, D.C., 1950.

Cuba

CMHI

CMHI, SANTA CLARA, CUBA

RMS=
891 MV/m/kw
554 mv/m at 1 mile



CMHI, Santa Clara, Cuba 570 kc

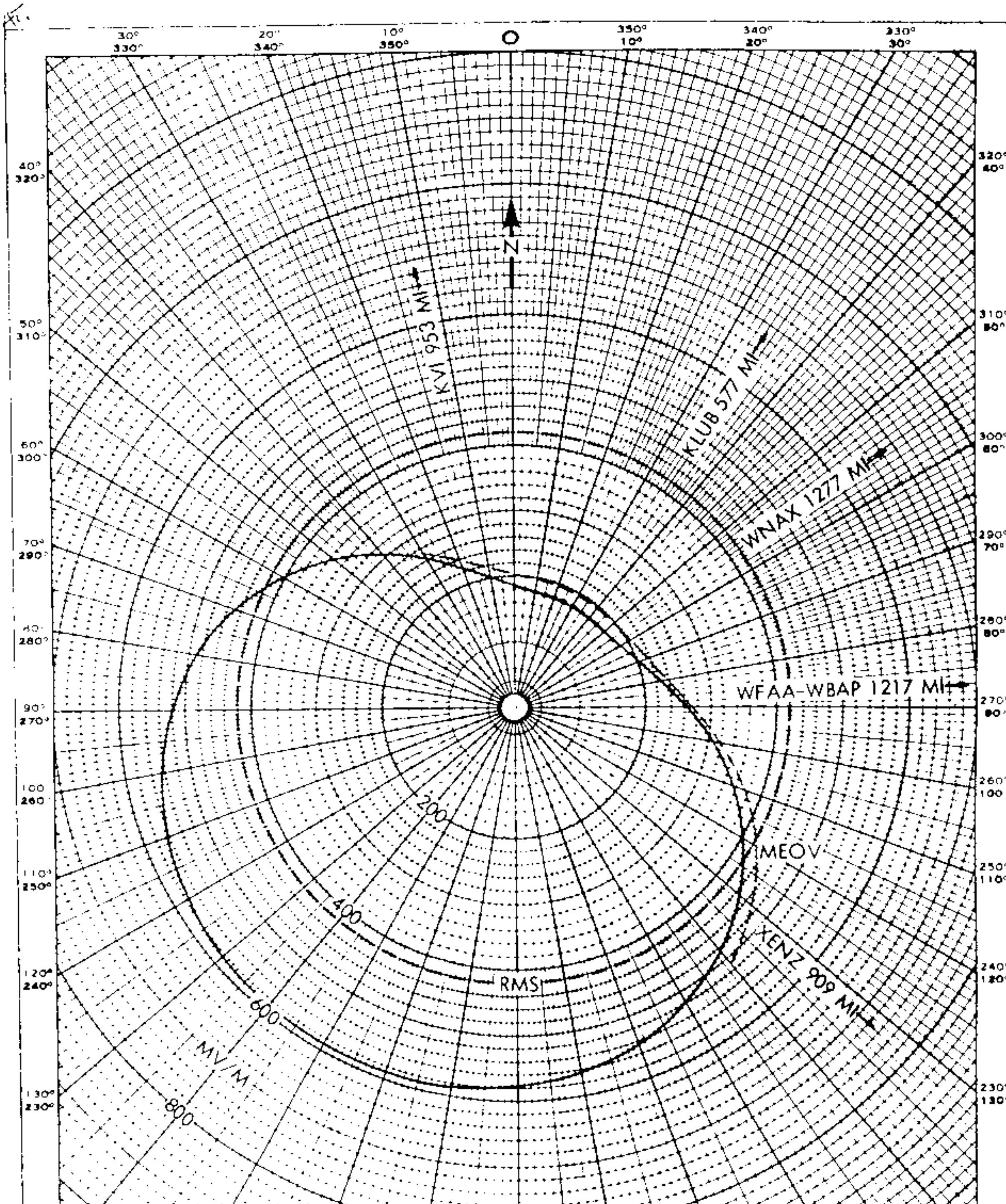
KLAC

Proposed Night
(3-30-66CT)

3-22-66
CP CHG DA

Station KLAC
Los Angeles, California

5kw, DA-N, U
570 kc



N LAT 30° 04' 11"
W LONG 118° 11' 36"
S = 75° = 360'
G1 = G2 = 73° = 350 PLUS TOP
LOADING FROM 3 GUYS
48 FEET LONG
G3 = 90° = 432'
RMS = 420 MV/M

1 ● 1.00/0°
N30°E
30
S
2 ● 0.55/103°

PROPOSED NIGHTTIME HORIZONTAL RADIATION

UNATTENUATED FIELD INTENSITY
AT ONE MILE

HAMMETT & EDISON
CONSULTING RADIO ENGINEERS
SAN FRANCISCO

RADIO STATION KLAC
570 KC 5 KW DA-N
LOS ANGELES, CALIFORNIA

651003

FIGURE 2

FCC File No. BP-17091
Accepted 3-15-66

Station KLAC
Los Angeles, California

570 kc

KLAC

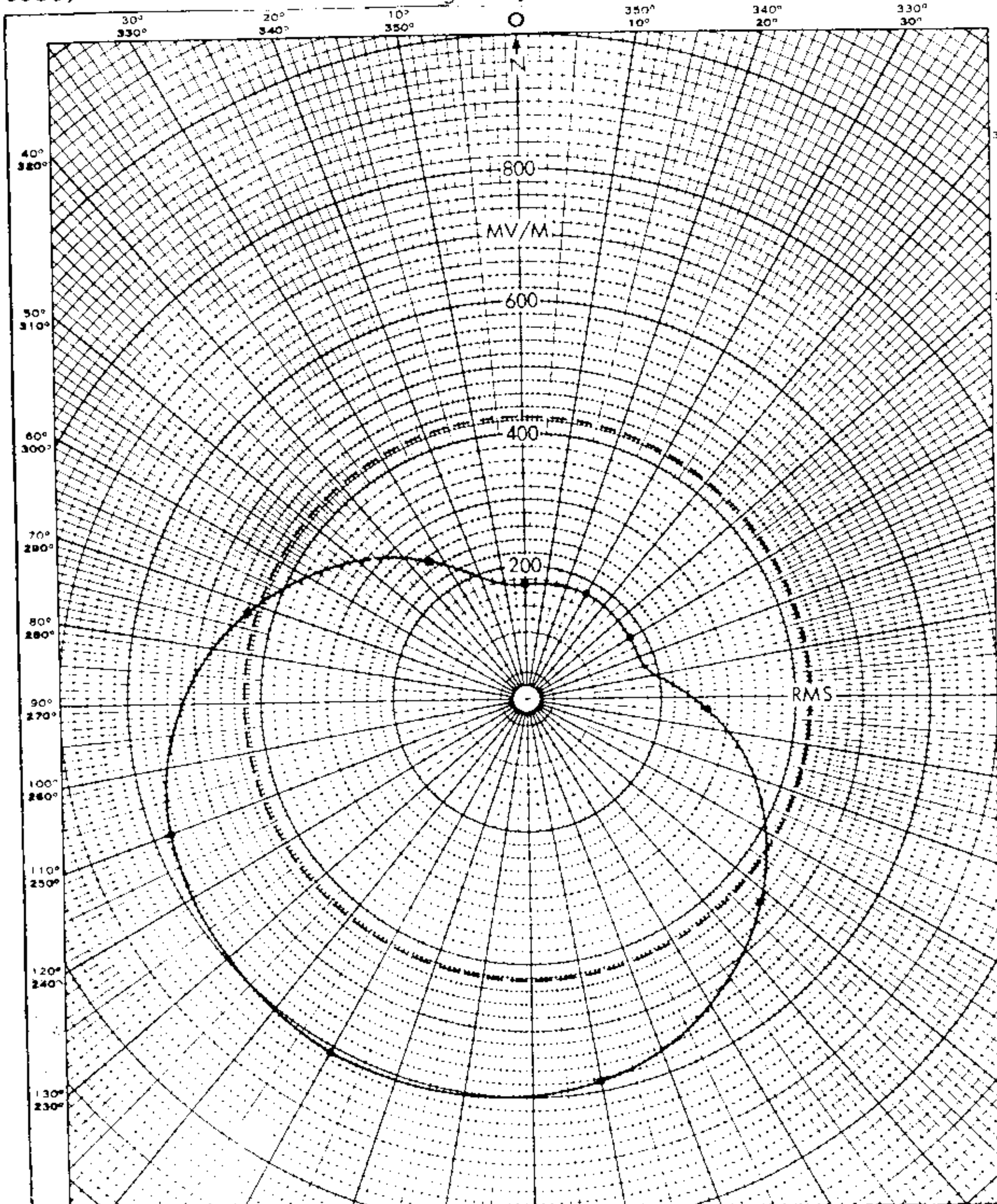
Measured Night
(8-26-66ct)

Station KLAC
Los Angeles, California

BL-11393

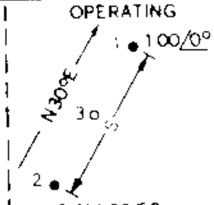
5kw,DA-N,U
570 kc

BL11393
4C10-31-66

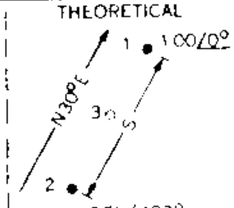


N LAT. 34° 04' 11"
W LONG 118° 11' 36"
S = 75° = 360'
G1 = G2 = 73° = 350' PLUS TOP LOADING FROM 3 GUYS 48 FEET LONG
G3 = 90° = 432'
RMS = 424 MV/M

OPERATING



THEORETICAL



MEASURED NIGHTTIME HORIZONTAL RADIATION

UNATTENUATED FIELD INTENSITY AT ONE MILE

HAMMETT & EDISON
CONSULTING RADIO ENGINEERS
SAN FRANCISCO

RADIO STATION KLAC
570 KC 5 KW DA-N
LOS ANGELES CALIFORNIA

660406

FIGURE 5

FCC File No. BL-11393
Accepted 8-23-66

Station KLAC
Los Angeles, California

570 kc

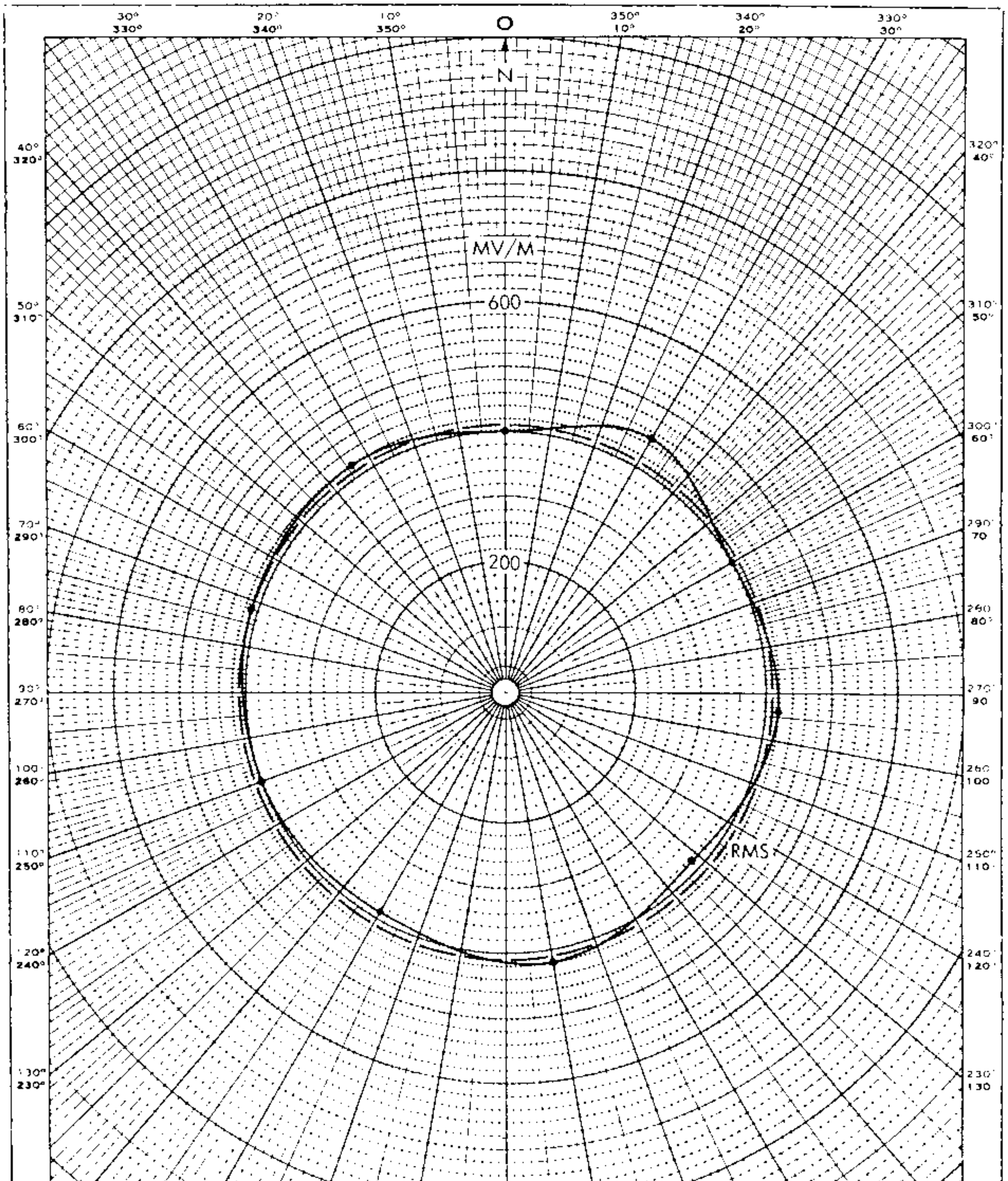
KLAC

Measured Non-DA
(11-29-65ct)

Station KLAC
Los Angeles, California

5kw,DA-N,U
570 kc

LIC 3 25-66
INCR ~~DS~~ N PWR
DA-N



N. LAT. 34° 04' 11"

W. LONG. 118° 11' 36"

G = 90° : 432'

RMS = 409 MV/M

5 KW INTO TOWER 3

MEASURED NON-DIRECTIONAL HORIZONTAL RADIATION

UNATTENUATED FIELD INTENSITY
AT ONE MILE

HAMMETT & EDISON CONSULTING RADIO ENGINEERS SAN FRANCISCO	RADIO STATION KLAC 570 KC. 5 KW. DA-N LOS ANGELES, CALIFORNIA	650701	FIGURE 10A

FCC File No. BL-11123
Accepted 11-23-65

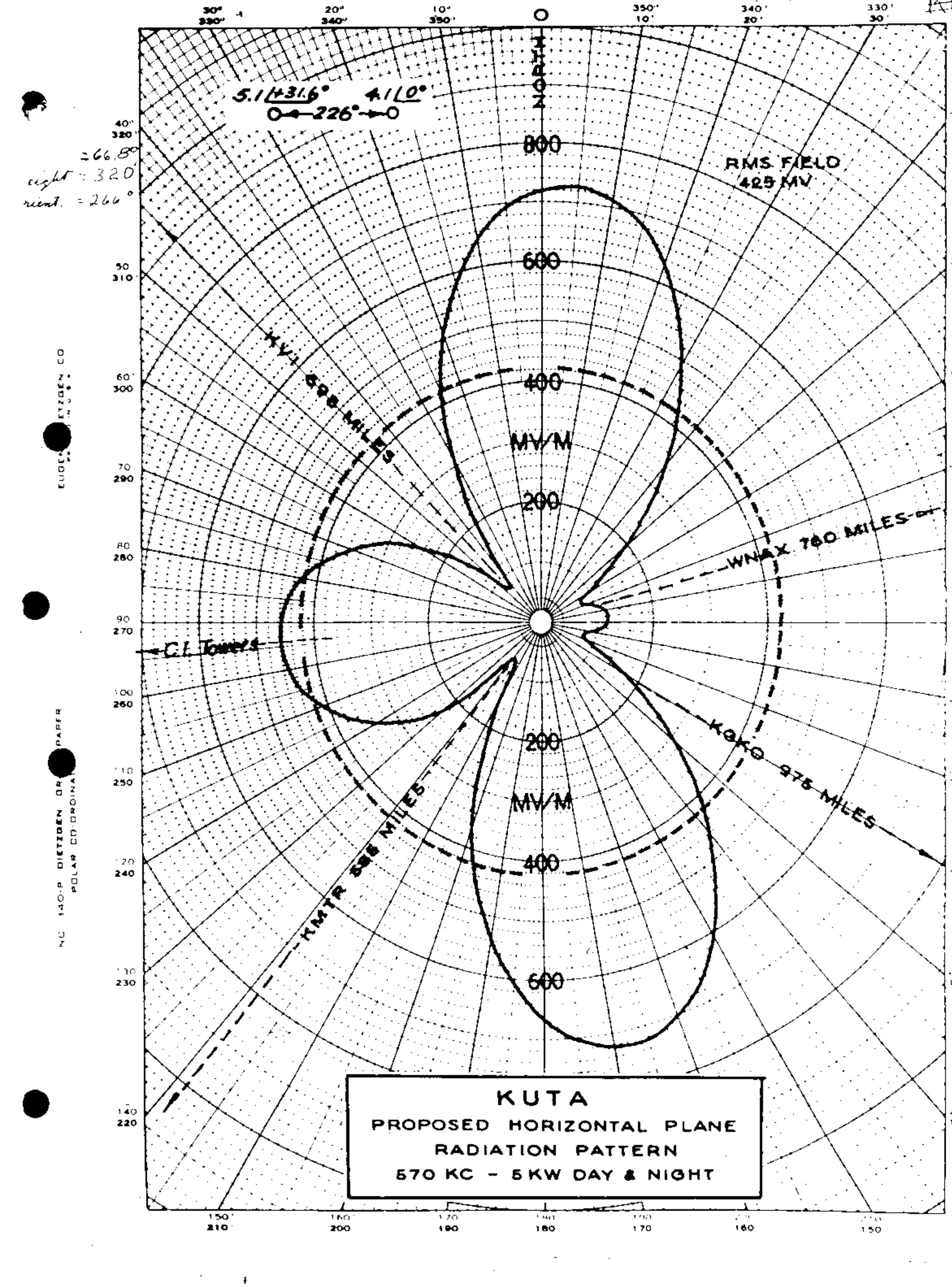
Station KLAC
Los Angeles, California

570 kc

SALT LAKE CITY

KLUB ~~KUTA~~

570



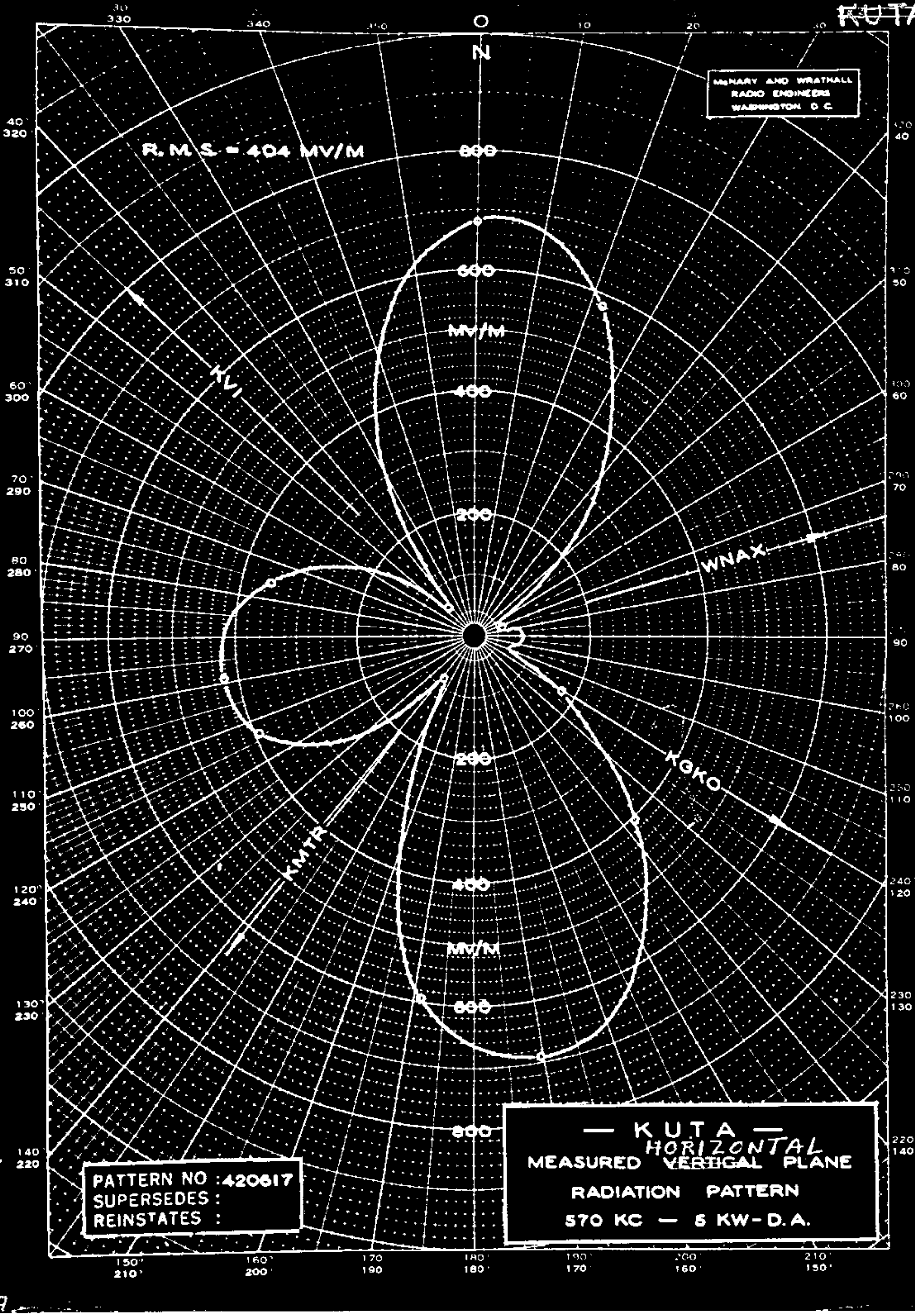
KUTA

PROPOSED HORIZONTAL PLANE

RADIATION PATTERN

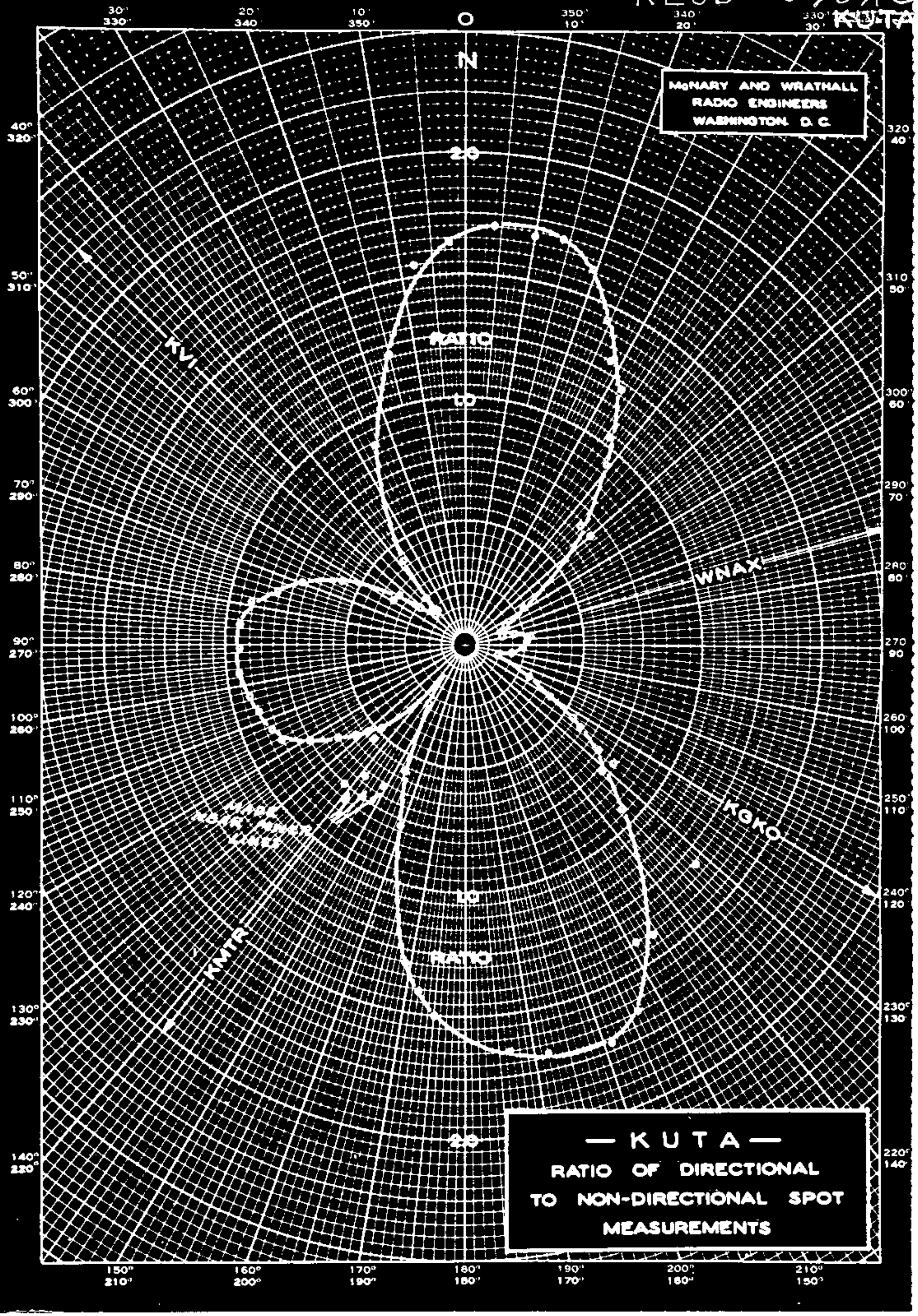
570 KC - 5 KW DAY & NIGHT

KLDB 3-90 ...
~~KUTA~~



4-A

KLUB 570KC



EUGENE DIETZGEN CO.
PRINTED IN U.S.A.

NO. 340-P DIETZGEN GRAPH PAPER
POLAR CO-ORDINATE

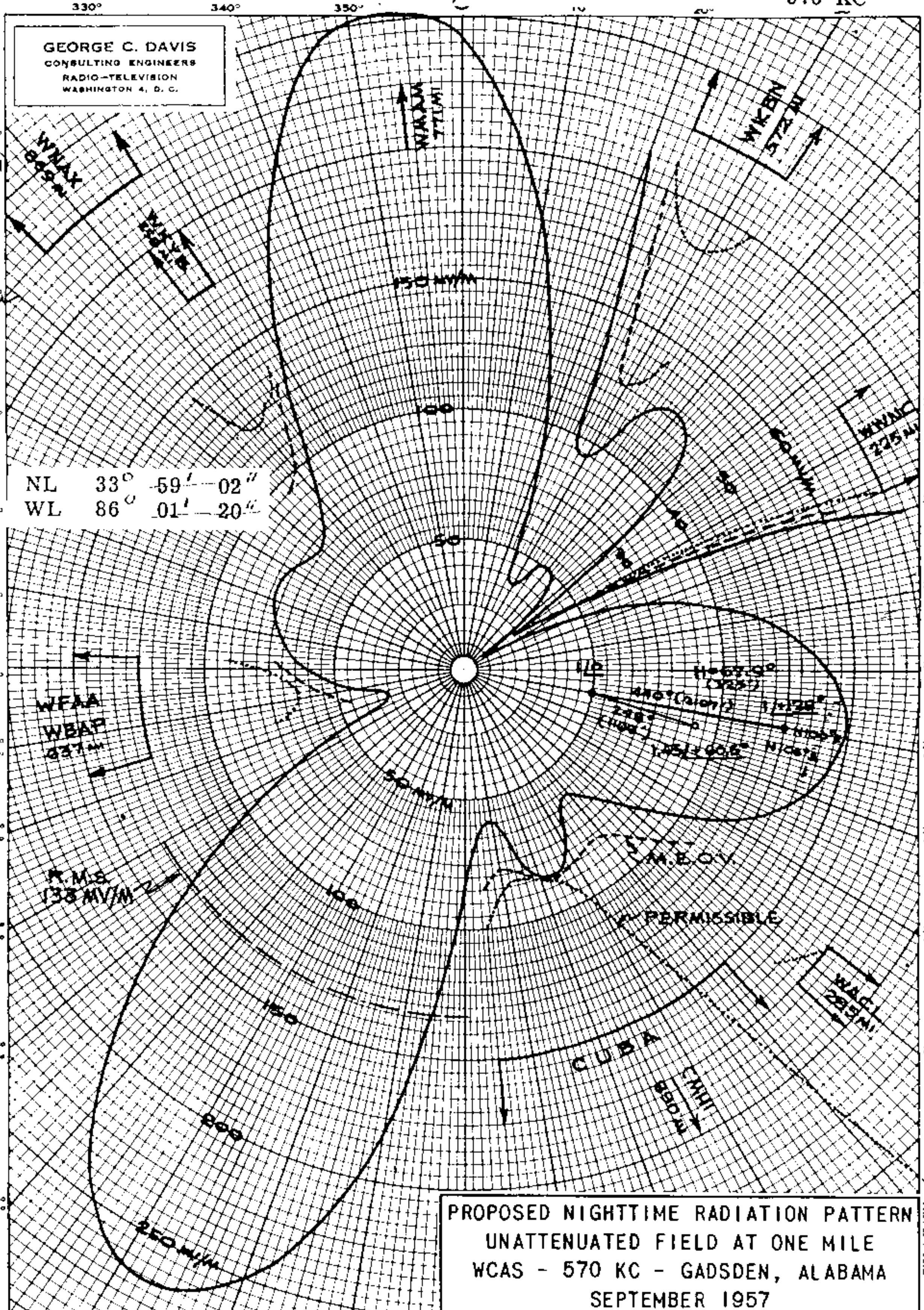
4-B

WAAX

PROPOSED NIGHT
(12-20-57g)

Station WCAS
Gadsden, Alabama

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



Granted CP (1/21/59) to change from day only to unlimited time using DA-N application for mod. CP

NL 35° 58' 45"
NL 86° 00' 09"

GMCP new coordinates
NL 35-58-45
WL 86-00'.09

FCC File No. BP-11,704
Accepted 12-9-57

WCAS
Gadsden, Alabama

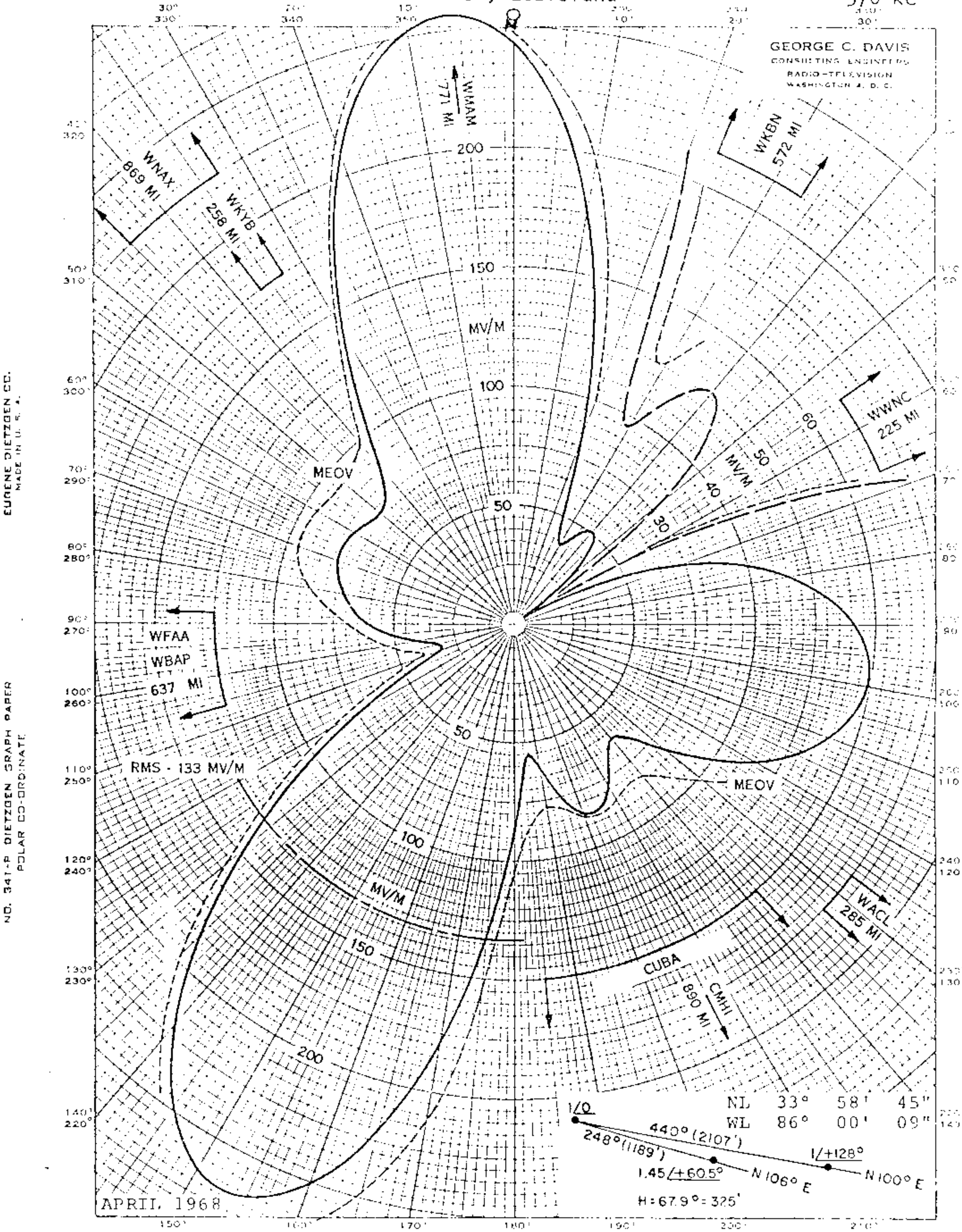
570 KC

WAAX

Proposed Night
(6-28-68ct)

Station WAAX
Gadsden, Louisiana

500w,5kw-LS,DA-N,U
570 kc



FCC File No.BMP-12424
Accepted 6-20-68

Station WAAX
Gadsden, Louisiana

570 kc

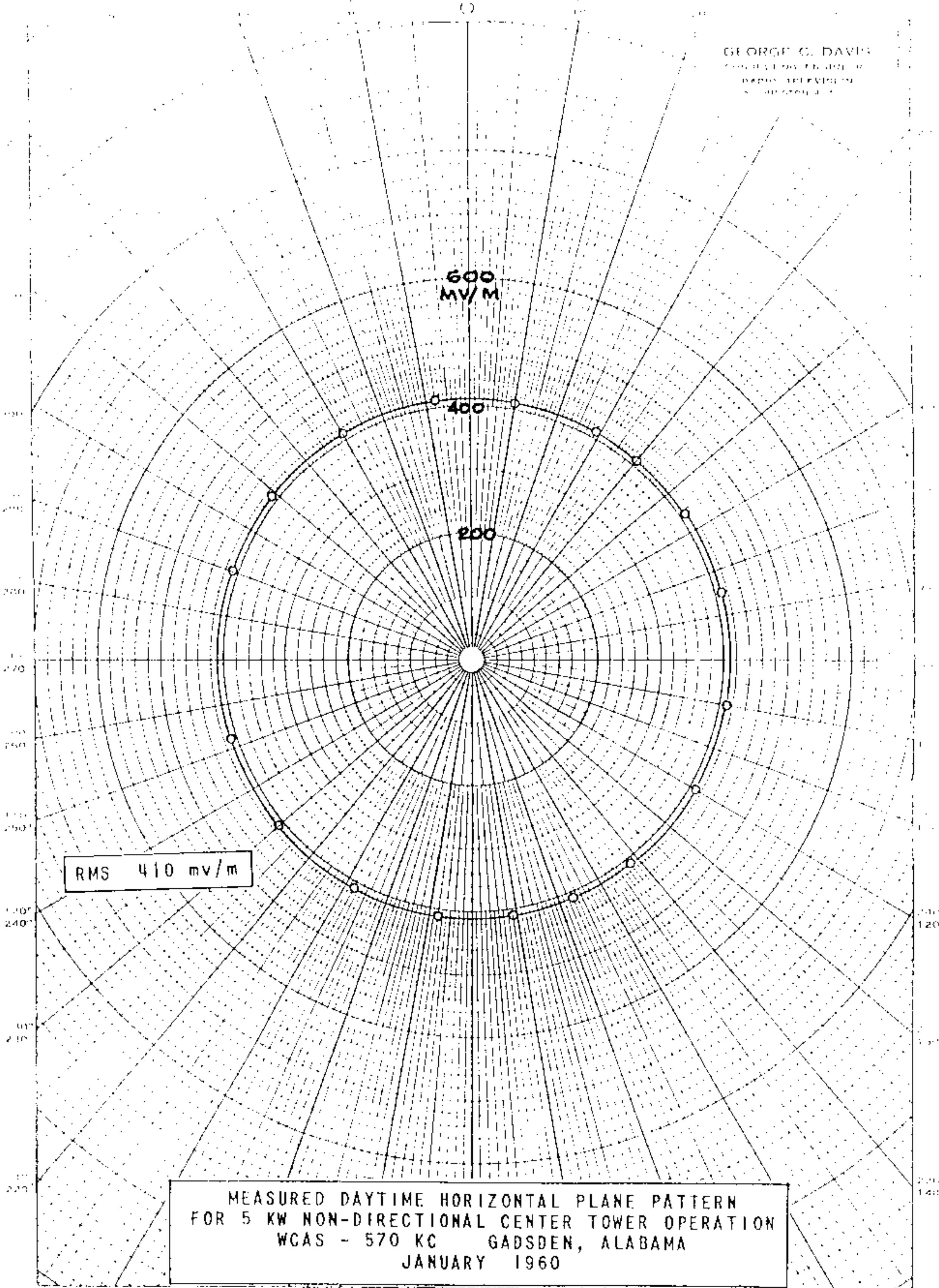
OFFICIAL PATTERN, 29 DEC 78

WAAX

MEASURED NON-DA
(2-26-60g)

Station WCAS
Gadsden, Alabama

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



MEASURED DAYTIME HORIZONTAL PLANE PATTERN
FOR 5 KW NON-DIRECTIONAL CENTER TOWER OPERATION
WCAS - 570 KC GADSDEN, ALABAMA
JANUARY 1960

for DA-N 6-21-60

FCC File No. BL-7818
Accepted 2-11-60

WCAS
Gadsden, Alabama

570 KC

BL-7818 WAAX

MEASURED NIGHT
(2-26-60g)

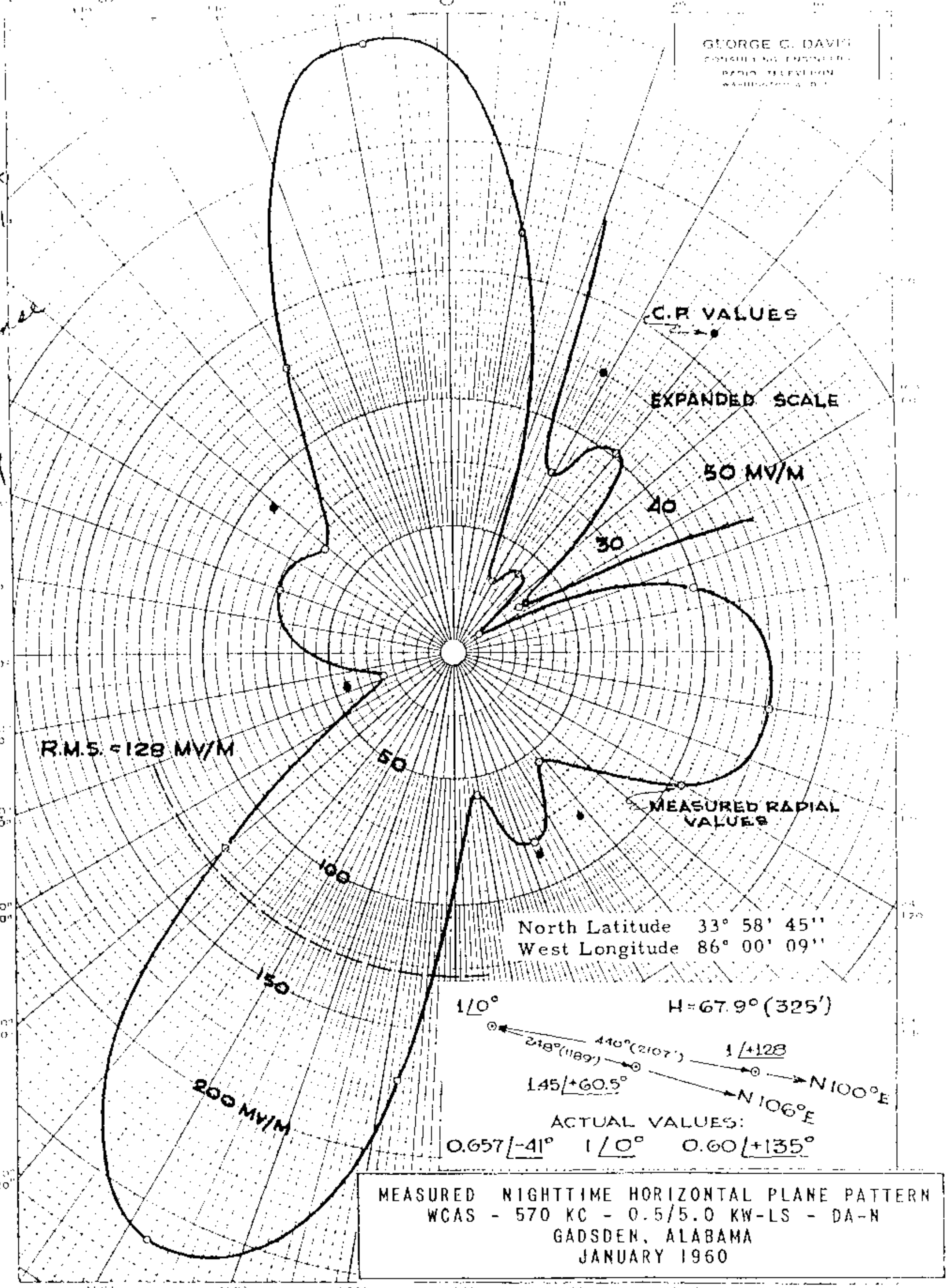
Station WCAS
Gadsden, Alabama

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

Granted CP 2-3-67 to reduce ANTENNA RADIATOR by 5ft to 320'/328' overall. BP-17566

Granted license (3-26-69) to reduce antenna radiator by 5' (to 320')

Granted for DA-N 6-21-60

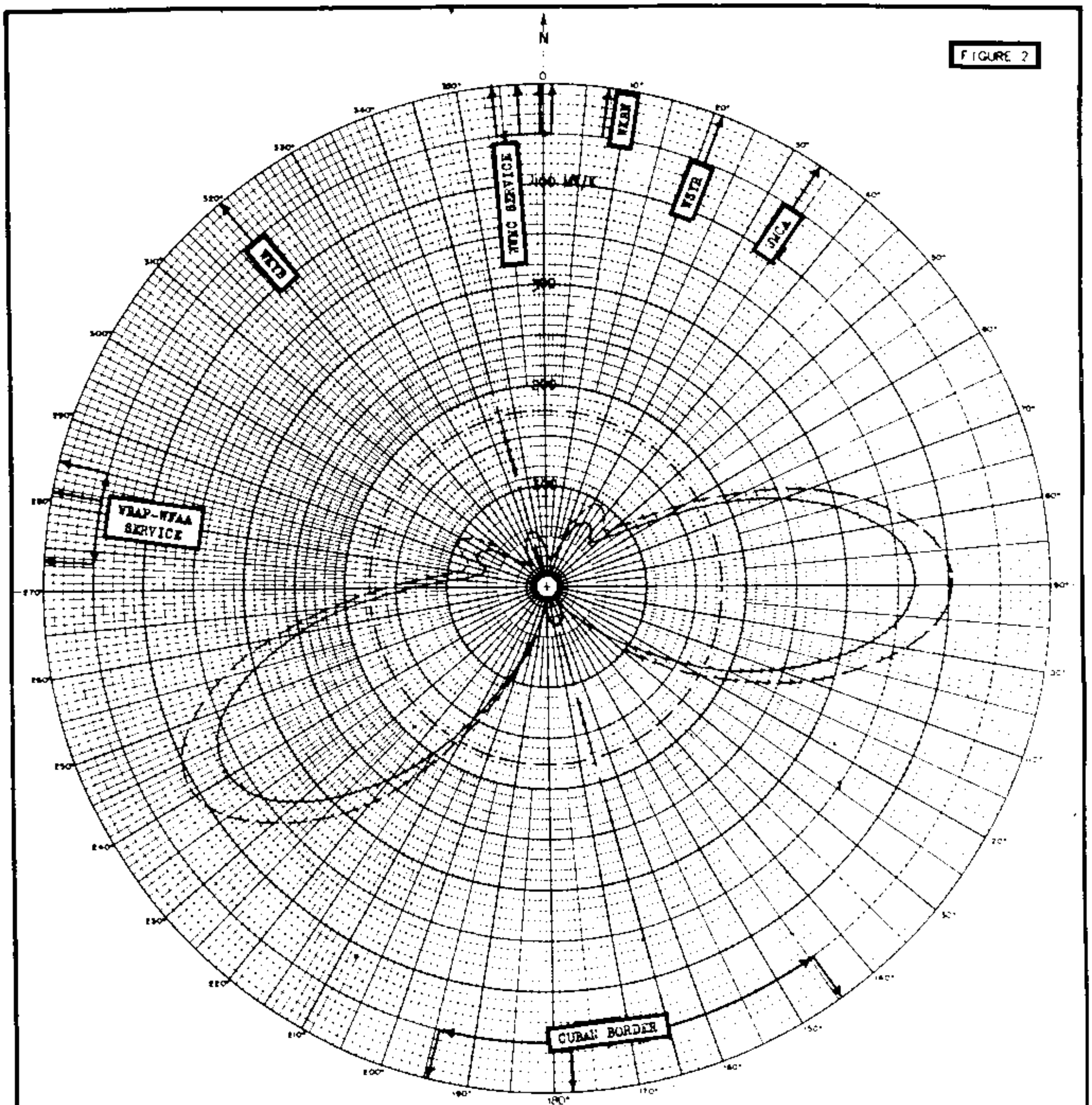


FCC File No. BL-7818
Accepted 2-11-60

WCAS
Gadsden, Alabama

570 KC

PROPOSED NIGHT (5/13/53G) WACL, WAYCROSS, GA. ~~1kw, U, DA-N~~ 1-5 LS DA-N 570 kc



— — — MAXIMUM EXPECTED OPERATING VALUES

PATTERN NO. [illegible]

FREQUENCY	570 KC
ASSIGNMENT	1 Kw-U(DA-N)
LONGITUDE	82 DEG 19 MIN 26 SEC
LATITUDE	31 DEG 15 MIN 42 SEC
WHEN USED	NIGHTTIME
RMS FIELD	175 MV/M
DATE	AMENDED MARCH 1953

WACL

HORIZONTAL RADIATION PATTERN CALCULATED

ANTENNA	NO 1 (NORTH)	NO 2 (CENTER)	NO 3 (SOUTH)	NO 4	NO 5	NO 6
PHASE DEG	32.29	0	-63.31			
HEIGHT DEG	105	105	105			
FIELD RATIO	.736	1.00	.588			
NON DA ANT		•				

ORIENTATION 345° TRUE SPACING 195°

ROBERT M. SILLIMAN

CONSULTING RADIO ENGINEERS

WASHINGTON D.C.

WACL

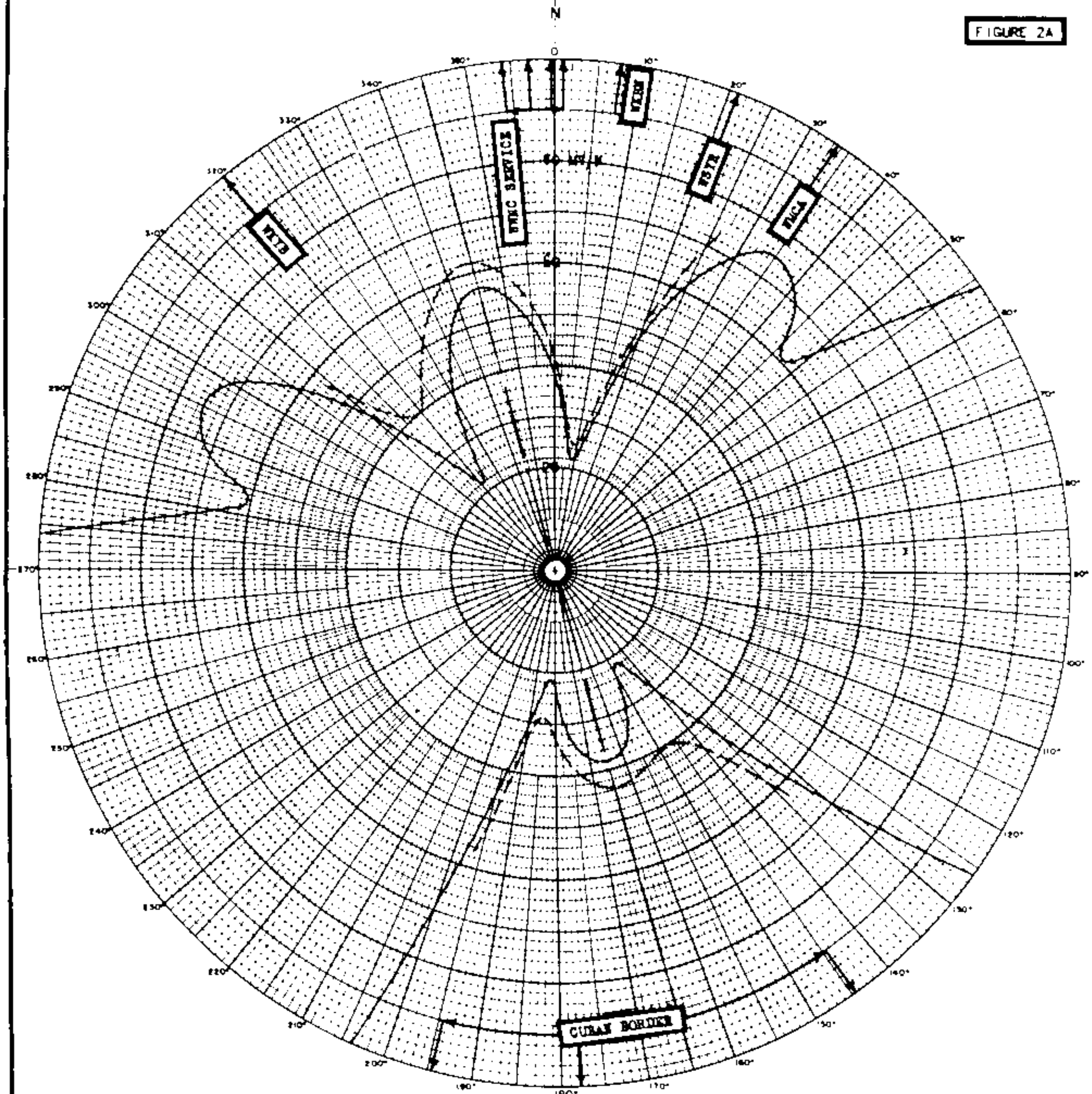
PROPOSED
NIGHT NULLS (5/13/53G)

WACL, WAYCROSS, GA.

~~1kw, U, DA-N~~
1-5 L S DA-N

570 kc

FIGURE 2A



— — — — MAXIMUM EXPECTED OPERATING VALUES

PATTERN NO. C12S526

WACL

HORIZONTAL RADIATION PATTERN
ENLARGED VIEW CALCULATED

	NORTH	CENTER	SOUTH			
ANTENNA	NO. 1	NO. 2	NO. 3	NO. 4	NO. 5	NO. 6
PHASE DEG	32.29	0	-63.31			
HEIGHT DEG	10?	105	105			
FIELD RATIO	.766	1.00	.588			
NON-DA ANT		●				

ORIENTATION 345° TRUE SPACING 195°

FREQUENCY	570 KC
ASSIGNMENT	1 Kw-U(DA-N)
LONGITUDE	82 DEG 19 MIN 26 SEC
LATITUDE	31 DEG 15 MIN 42 SEC
WHEN USED	NIGHTTIME
R.M.S. FIELD	175 MV/M
DATE	AMENDED MARCH 1953

ROBERT M. SILLIMAN
CONSULTING RADIO ENGINEERS
WASHINGTON, D.C.

WACL

DIRECTIONAL ANTENNA DESCRIPTION SHEET

Station: WACL | Main Studio: Waycross, Georgia

Frequency: 570 kHz | Power: 1 kW Night 5 kW Day

Notification List No. 1675 | Date: March 9, 1976 | Class: III

GEOGRAPHICAL LOCATION OF THE CENTER OF THE ANTENNA SYSTEM:
North Latitude: 31° 15' 51"
West Longitude: 82° 19' 29"

ANTENNA CHARACTERISTICS

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

TOWER:	N(#1)	C(#2)	S(#3)
HEIGHT ABOVE INSULATORS:	440'	440'	440' (92°)
PHASING:	+32.29°	0°	-63.31°
FIELD RATIO:	0.766	1.00	0.588

SPACING AND ORIENTATION: Adjacent elements are spaced 934.7 (195°) on a line bearing 345° true.

GROUND SYSTEM: 180-430' to 604' equally spaced copper radials plus a 48' square ground screen about each tower. Radials are shortened and bonded to transverse straps along intersections between towers.

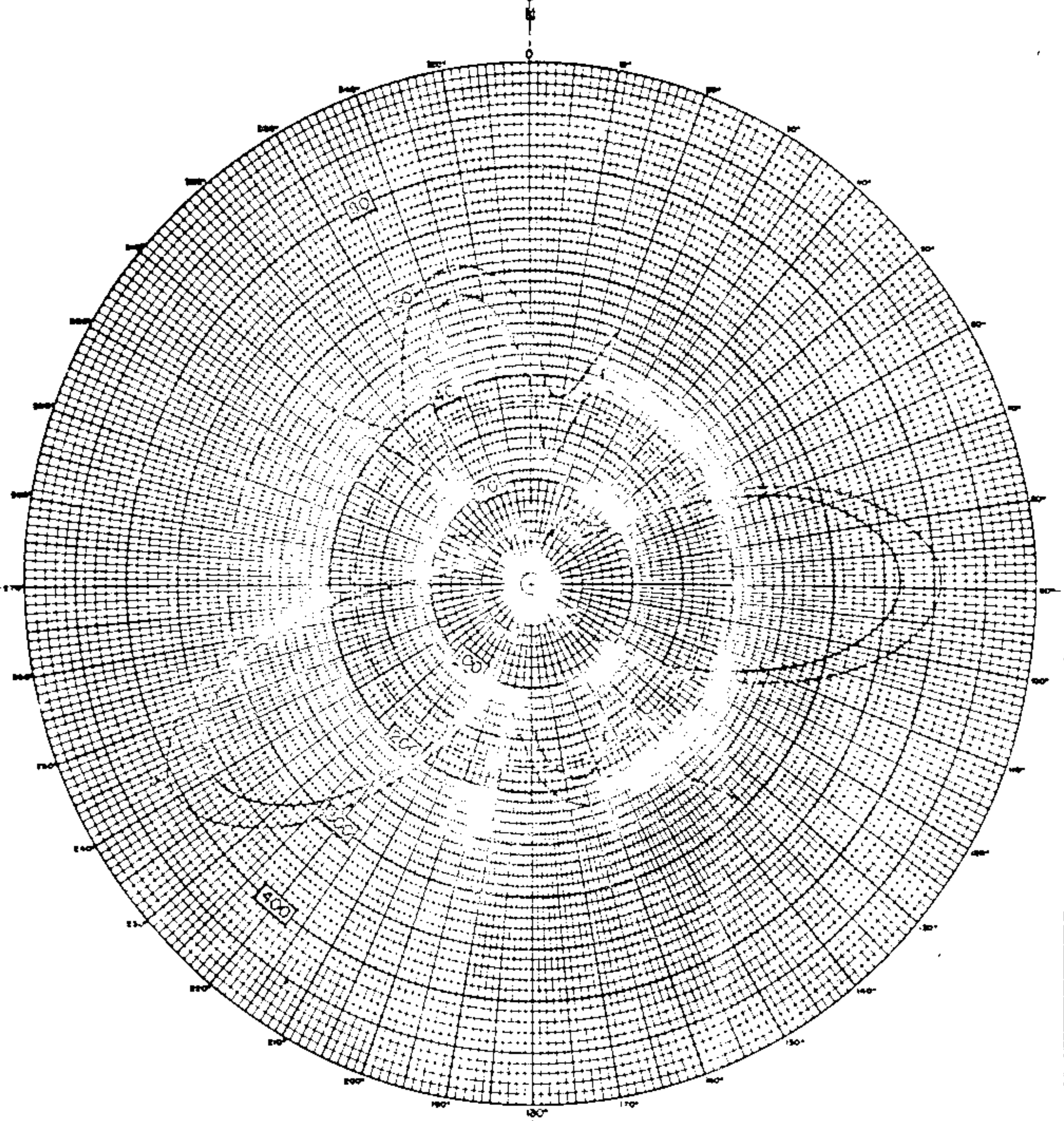
Predicted effective Night Field: 175 mv/m at rated power.

Predicted effective Day Field: (omnidirectional tower #2) 427 mv/m at rated power.

Note: This notification concerns minor changes in the day and night antenna systems.

CTR NO 30440A3

WACL



E_{RMS} = 175 MV/M

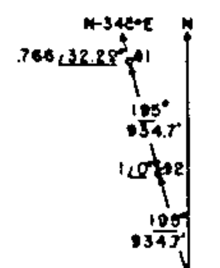
----MEOV

LATITUDE: 31° 15' 51"

LONGITUDE: 82° 19' 29"

JOHN R. McKENNA
Consulting Radio Engineer
Washington, D. C.

ANTENNA PARAMETERS



G=92°

FIGURE 3

NIGHTTIME
HORIZONTAL POLAR
PATTERN

RADIO STATION WACL
WAYCROSS, GEORGIA

570 KC 1KW,5KW-LS,U,DA-N

WACL

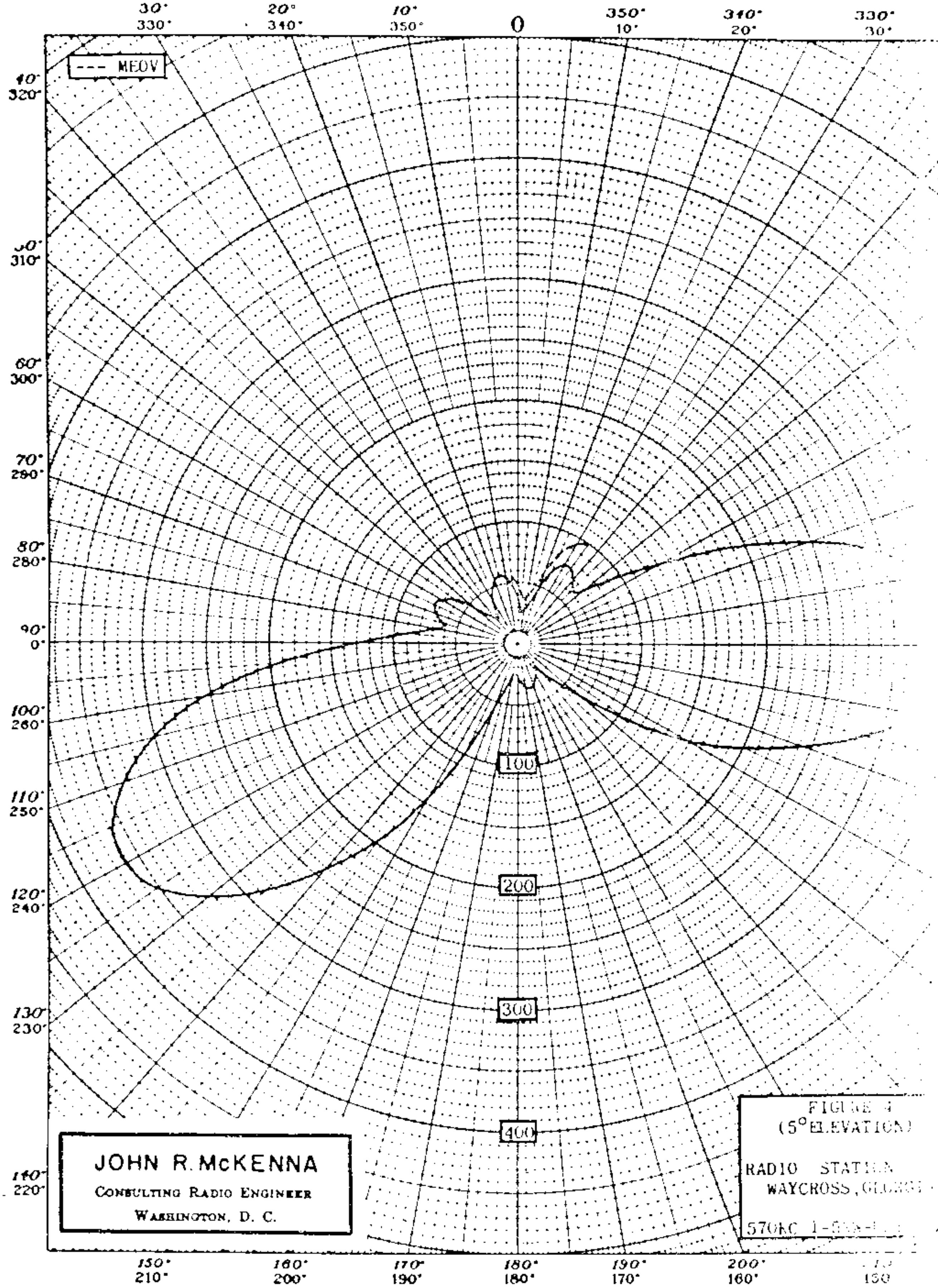
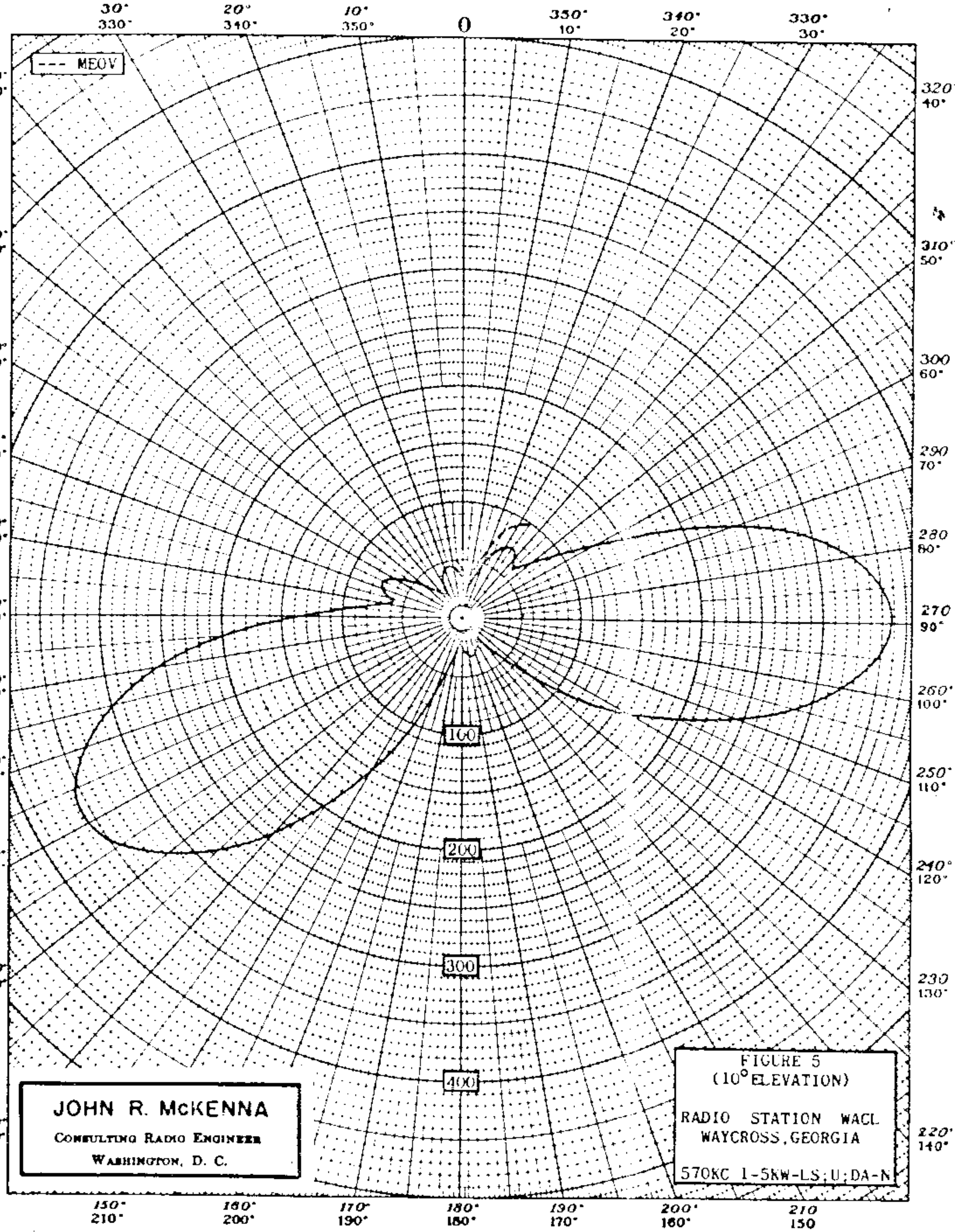


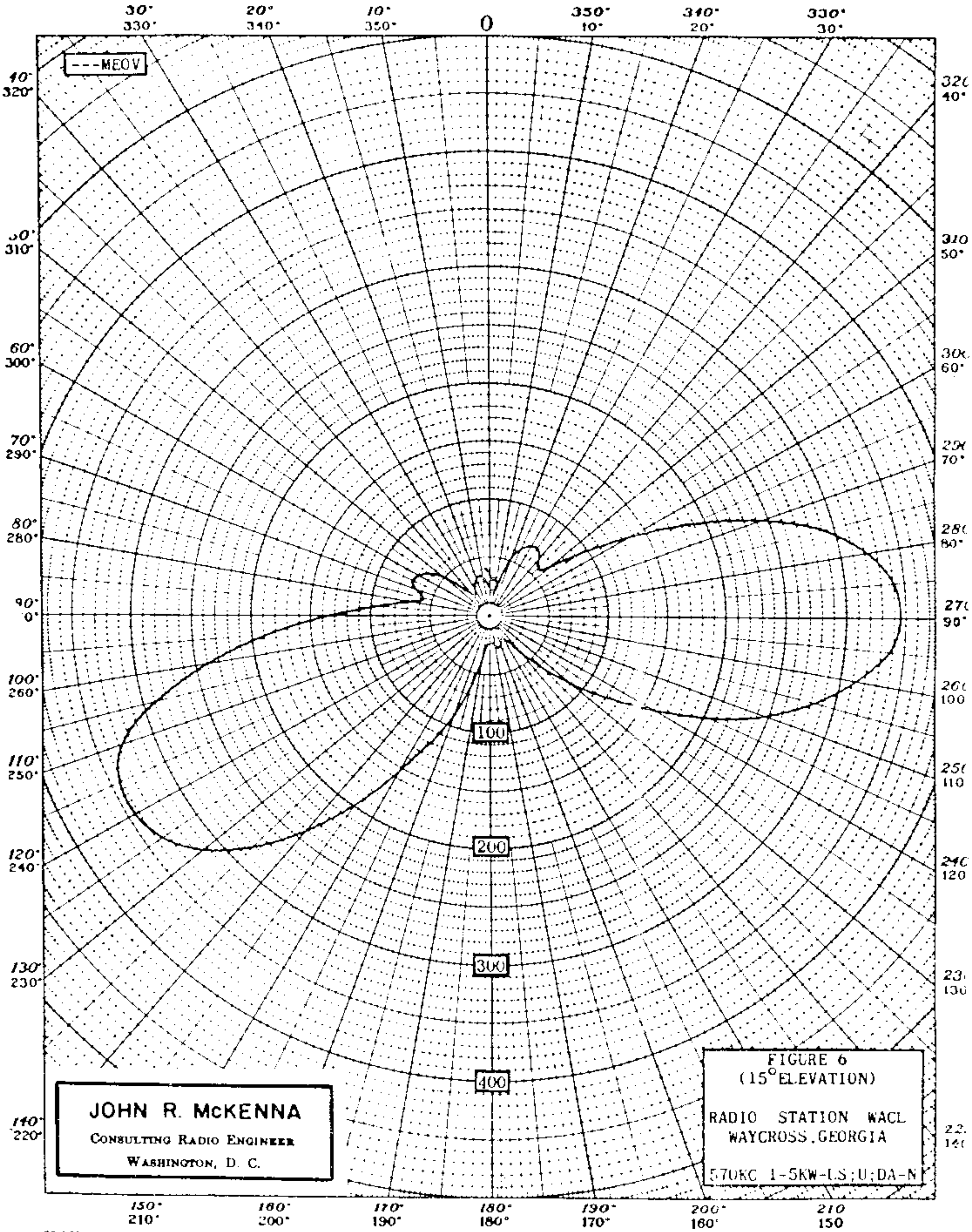
FIGURE 4
(5° ELEVATION)

WACL

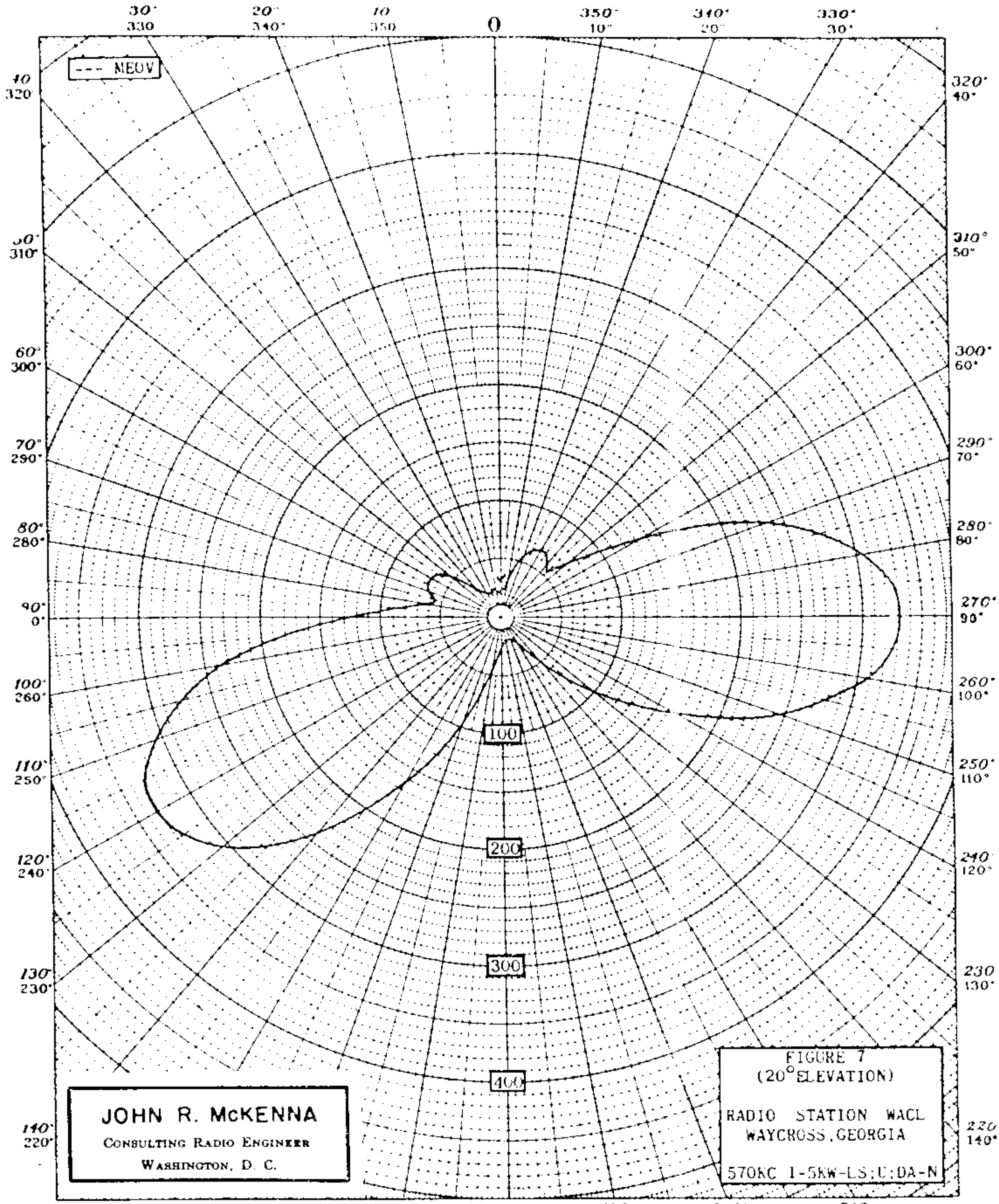


--- MEOV
0
100
200
300
400
JOHN R. McKENNA
CONSULTING RADIO ENGINEER
WASHINGTON, D. C.
FIGURE 5
(10° ELEVATION)
RADIO STATION WACL
WAYCROSS, GEORGIA
570KC 1-5KW-LS; U; DA-N

WACL

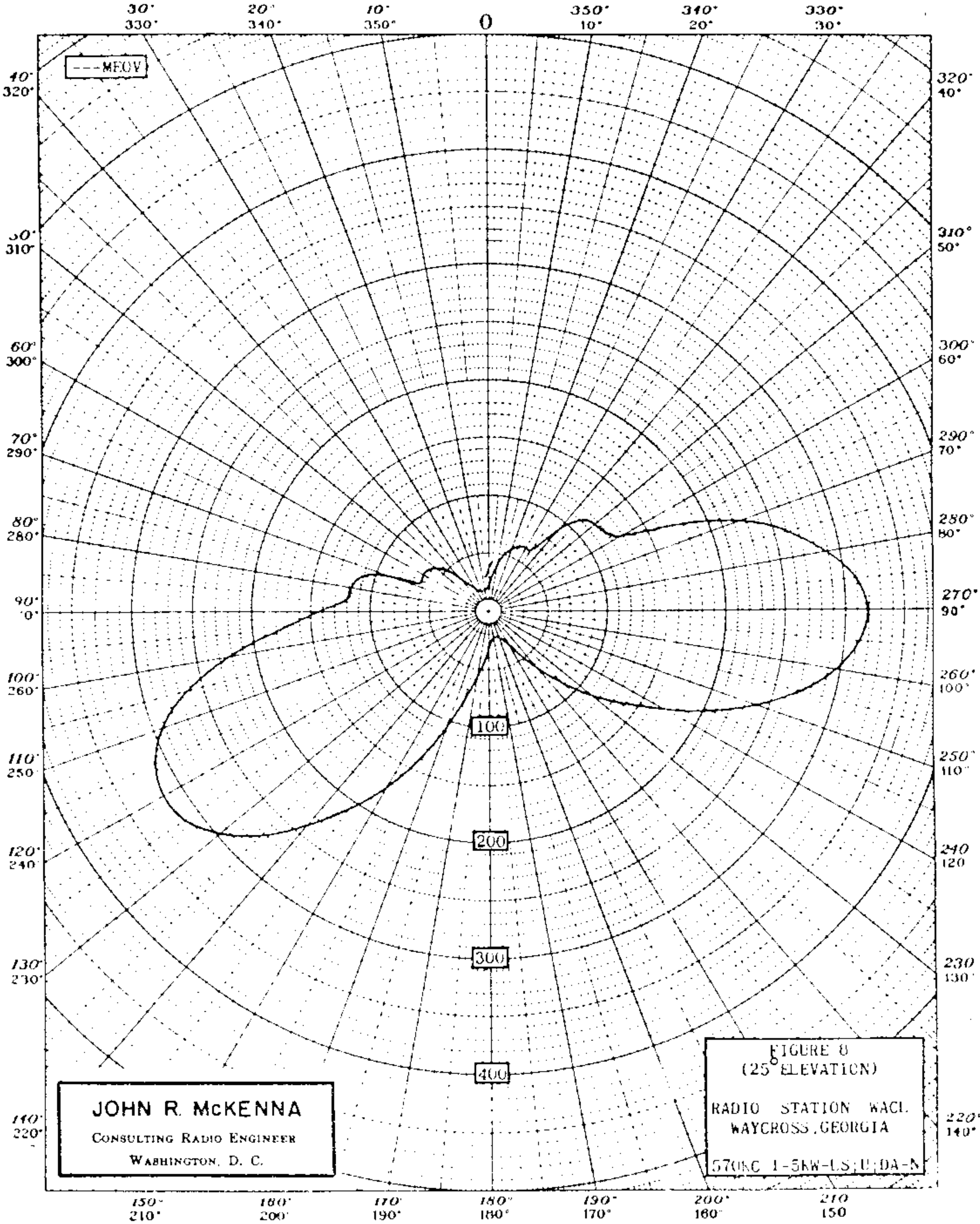

---MEOV
0
100
200
300
400
JOHN R. McKENNA
Consulting Radio Engineer
Washington, D. C.
FIGURE 6
(15° ELEVATION)
RADIO STATION WACL
WAYCROSS, GEORGIA
570KC 1-5KW-LS;U;DA-N

WACL



PRINTED IN U. S. A.

WACL



---MEOV
0
100
200
300
400
JOHN R. McKENNA
Consulting Radio Engineer
Washington, D. C.
FIGURE 8
(25° ELEVATION)
RADIO STATION WACL
WAYCROSS, GEORGIA
570KC 1-5KW-LS; U; DA-N

WACL

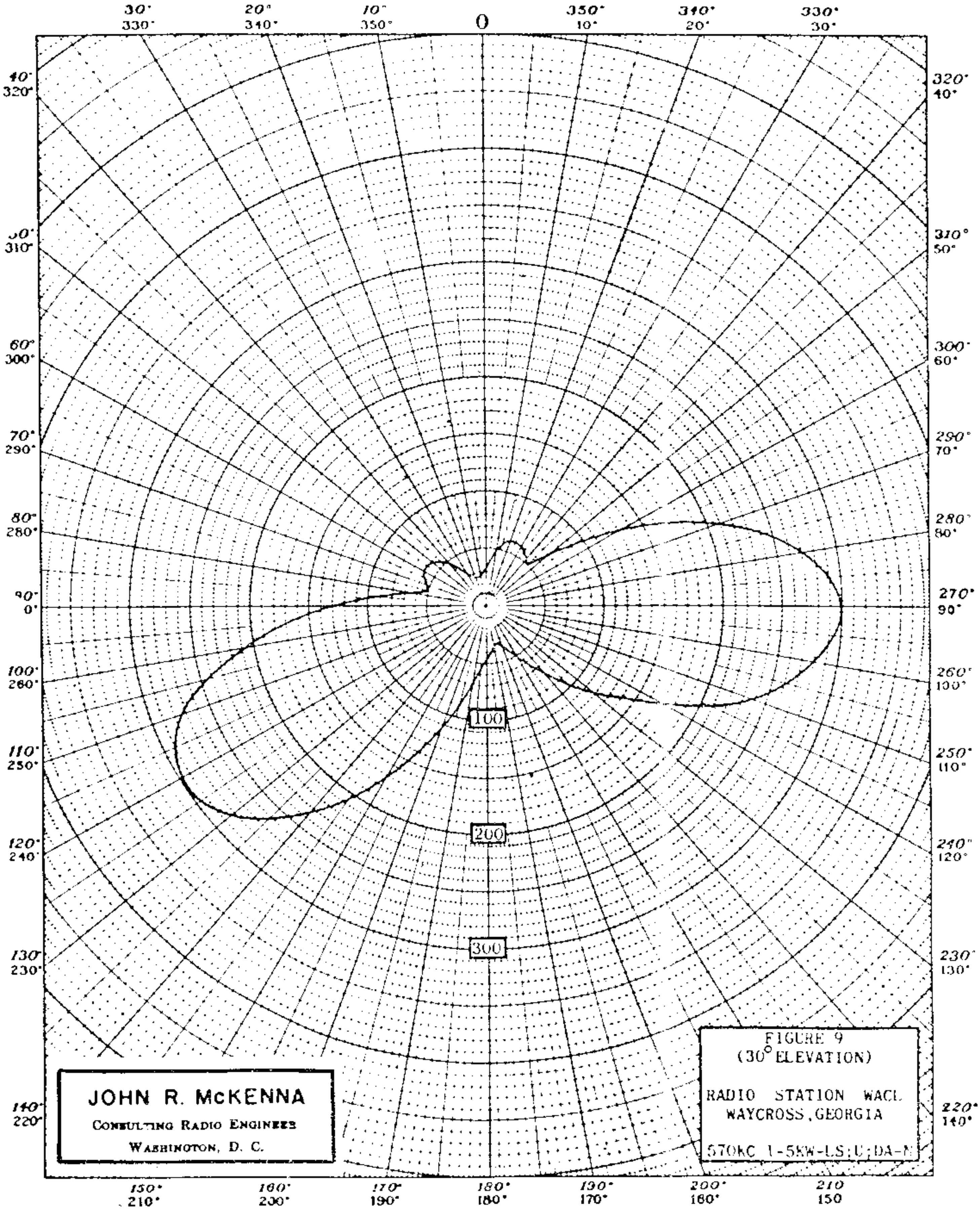


FIGURE 9
(30° ELEVATION)

RADIO STATION WACL
WAYCROSS, GEORGIA

570KC 1-5KW-LS;U;DA-N

WACL

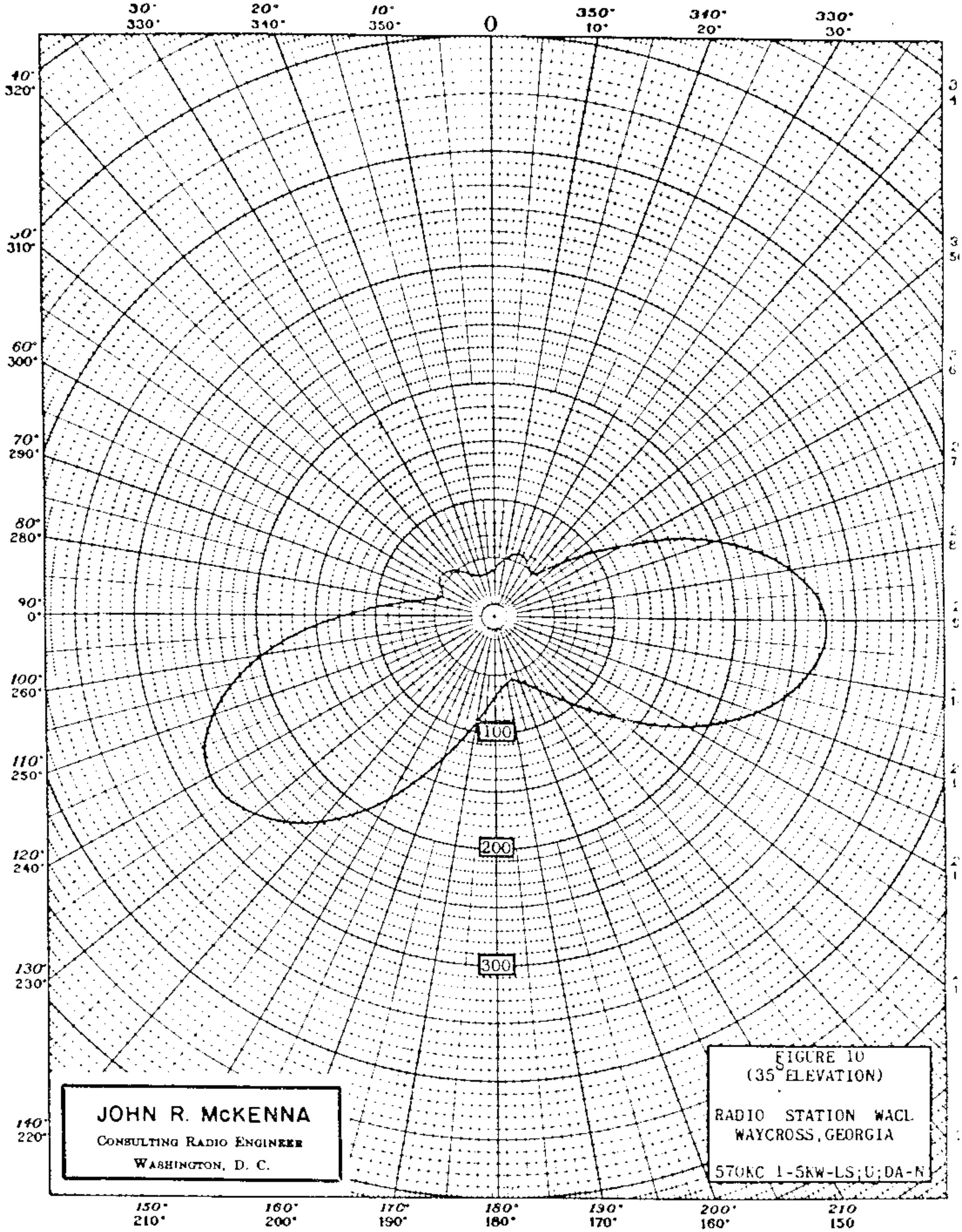


FIGURE 10
(35° ELEVATION)

RADIO STATION WACL
WAYCROSS, GEORGIA

570KC 1-5KW-LS;U;DA-N

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WASHINGTON, D. C.

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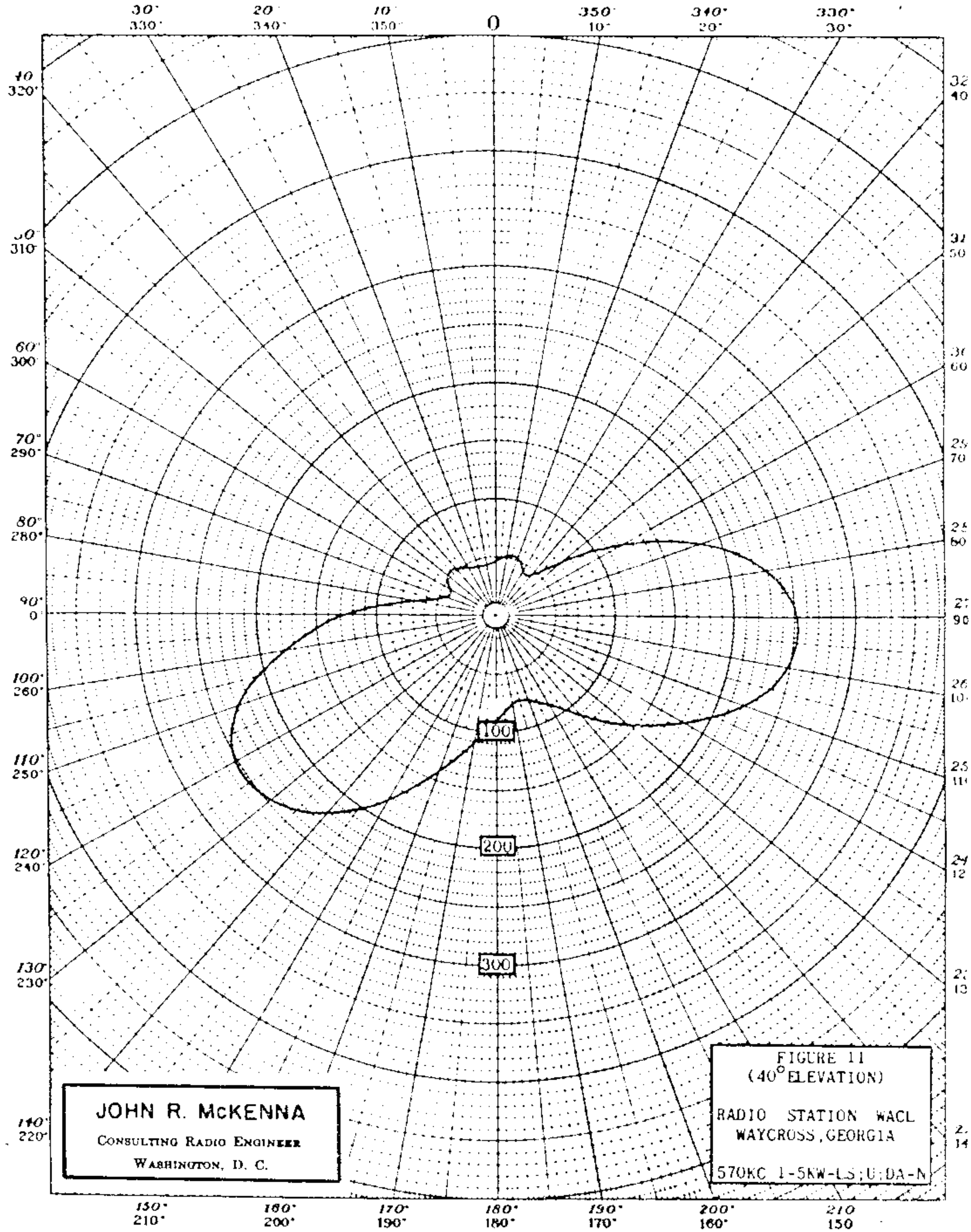
WACL



0
100
200
300
FIGURE 11
(40° ELEVATION)
RADIO STATION WACL
WAYCROSS, GEORGIA
570KC 1-5KW-LS;U;DA-N
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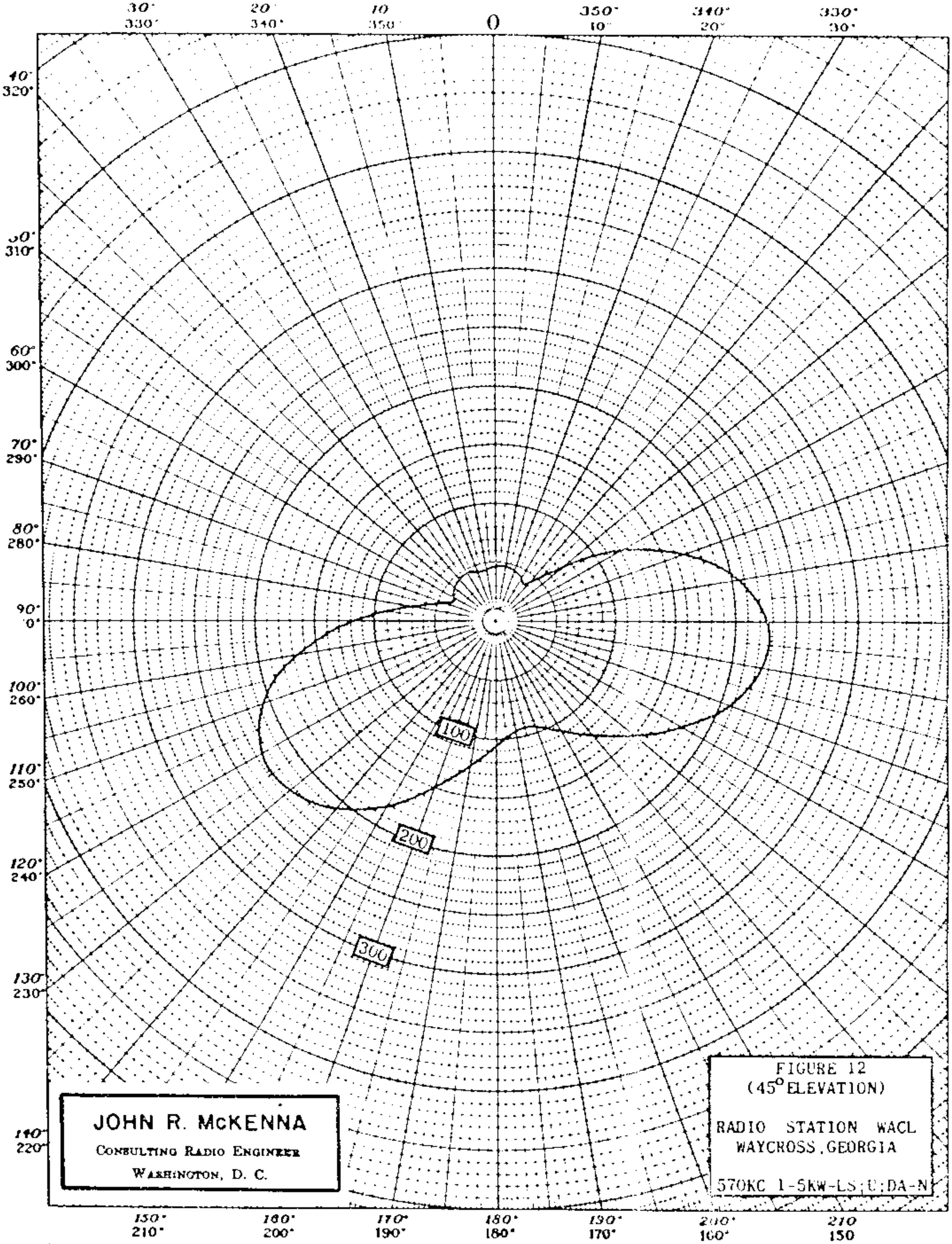
CONSULTING RADIO ENGINEER
WASHINGTON, D. C.

WACL



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CONSULTING RADIO ENGINEER
WASHINGTON, D. C.

FIGURE 12
(45° ELEVATION)

RADIO STATION WACL
WAYCROSS, GEORGIA

570KC 1-5KW-LS;U;DA-N

WACL

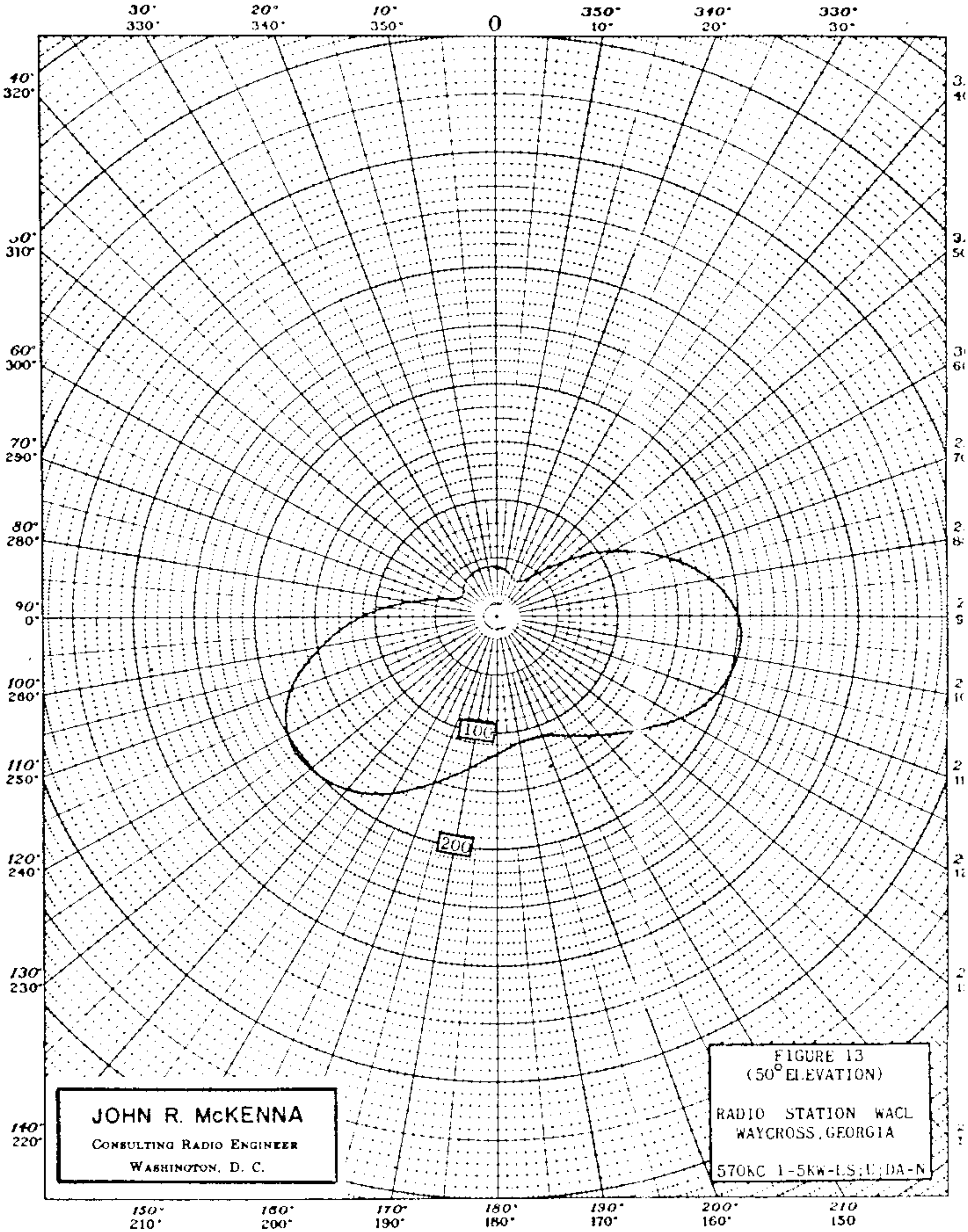
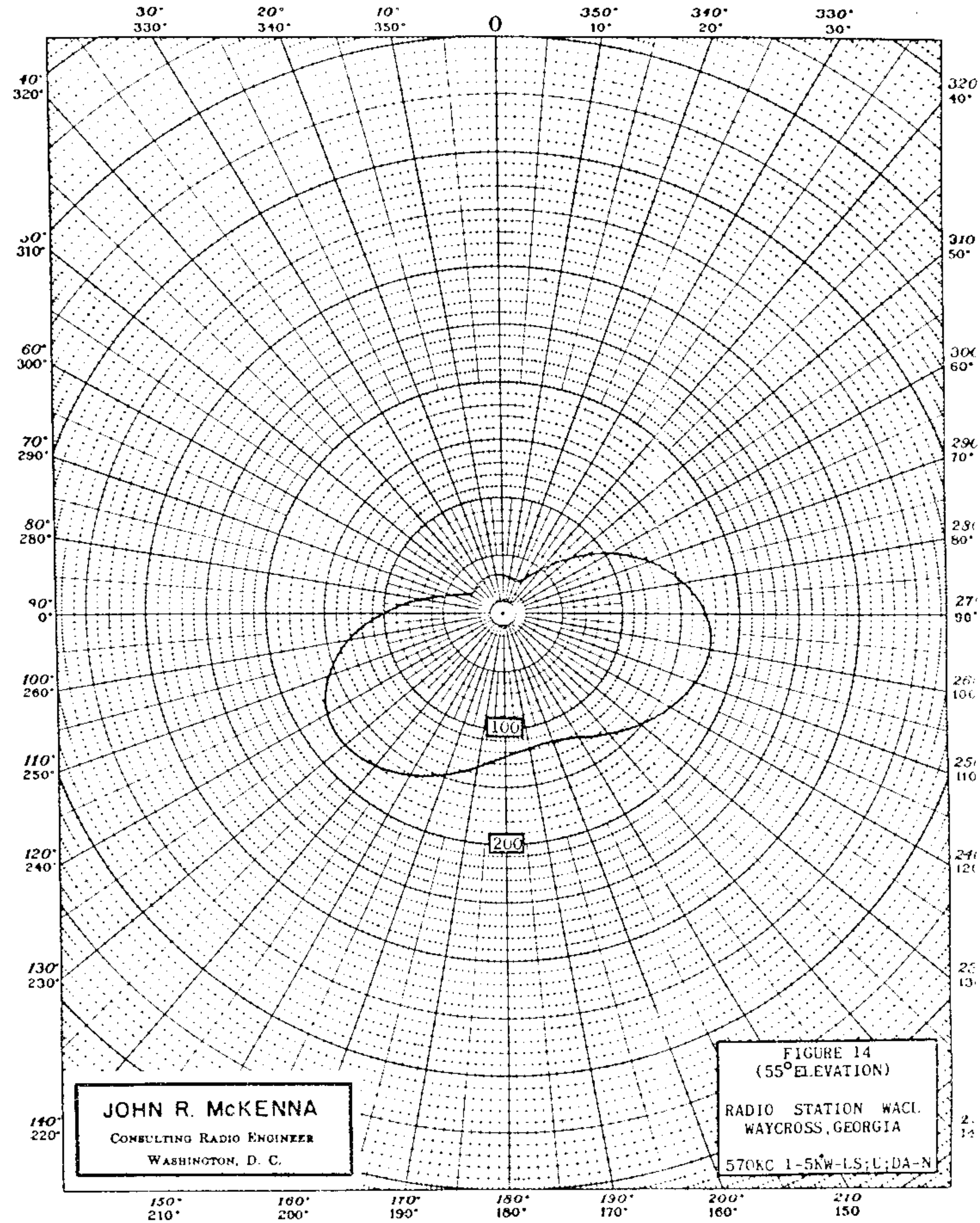


FIGURE 13
(50° ELEVATION)

WACL



30° 330°
20° 340°
10° 350°
0
350° 10°
340° 20°
330° 30°
40° 320°
50° 310°
60° 300°
70° 290°
80° 280°
90° 0°
100° 260°
110° 250°
120° 240°
130° 230°
140° 220°
150° 210°
160° 200°
170° 190°
180° 180°
190° 170°
200° 160°
210 150
100
200
JOHN R. McKENNA
CONSULTING RADIO ENGINEER
WASHINGTON, D. C.
FIGURE 14
(55° ELEVATION)
RADIO STATION WACL
WAYCROSS, GEORGIA
570KC 1-5KW-LS;U;DA-N

WACL

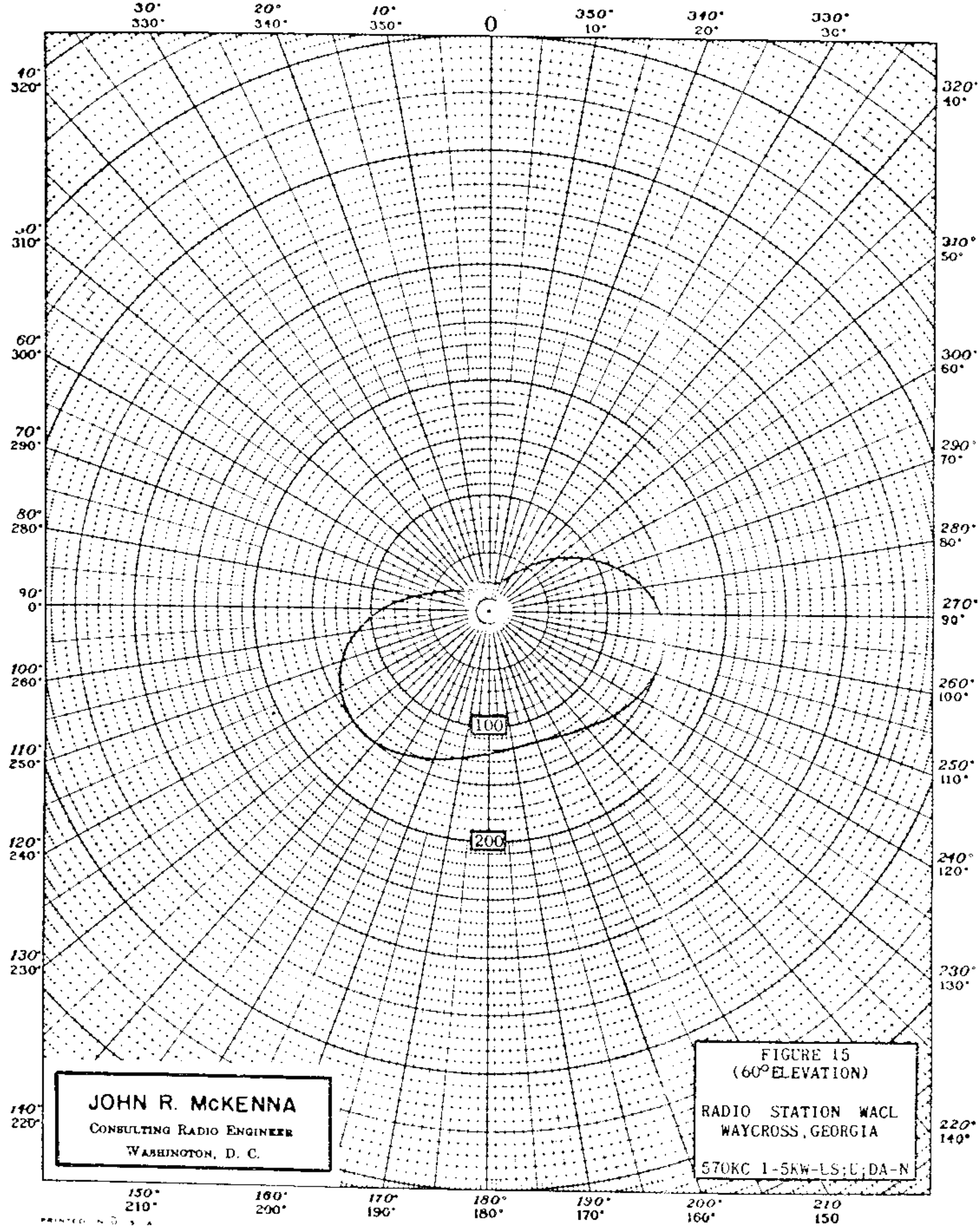
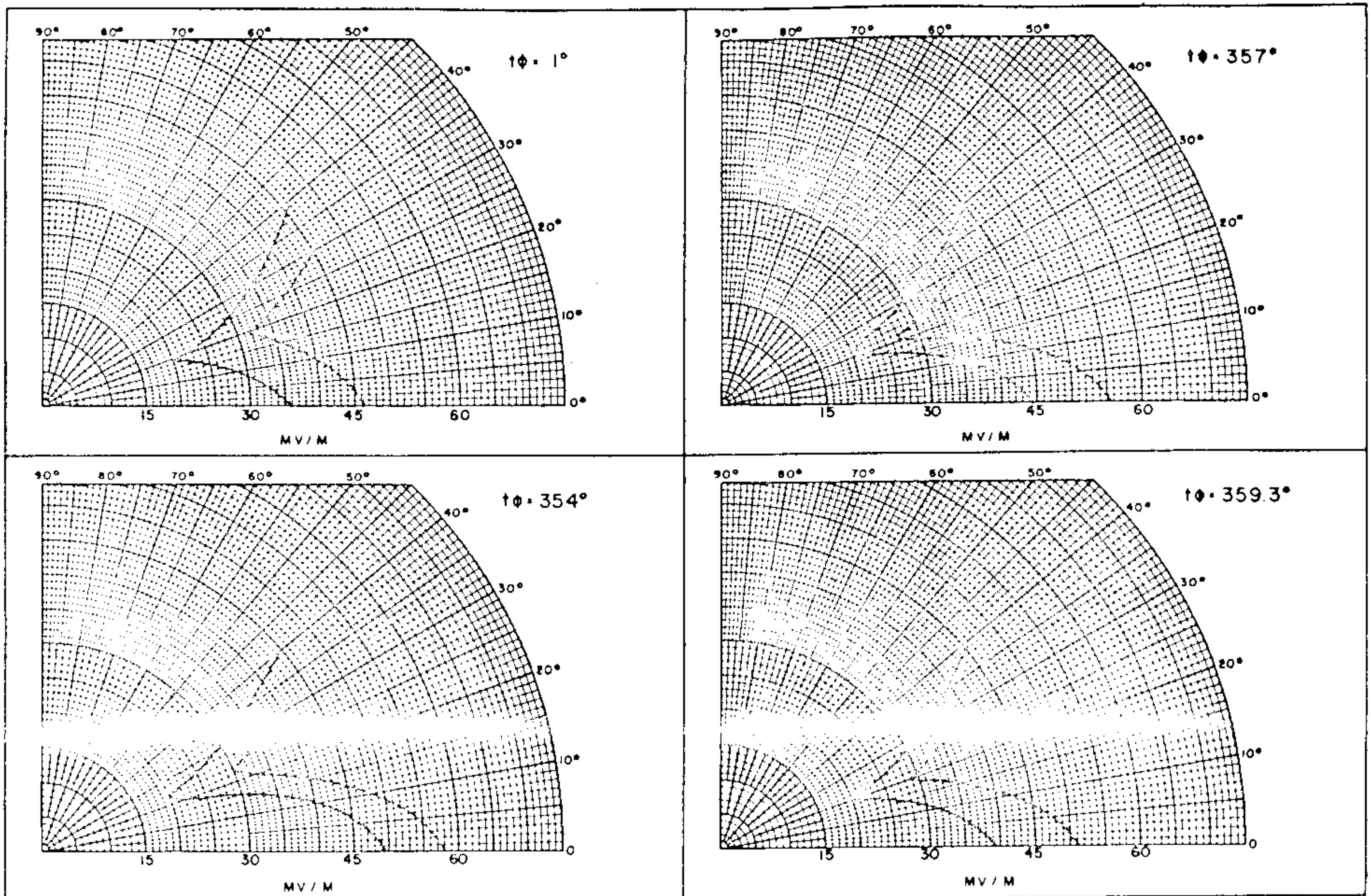


FIGURE 15
(60° ELEVATION)

RADIO STATION WACL
WAYCROSS, GEORGIA

570KC 1-5KW-LS;U;DA-N

WACL



VERTICAL RADIATION PATTERNS

VERTICAL RADIATION PATTERNS

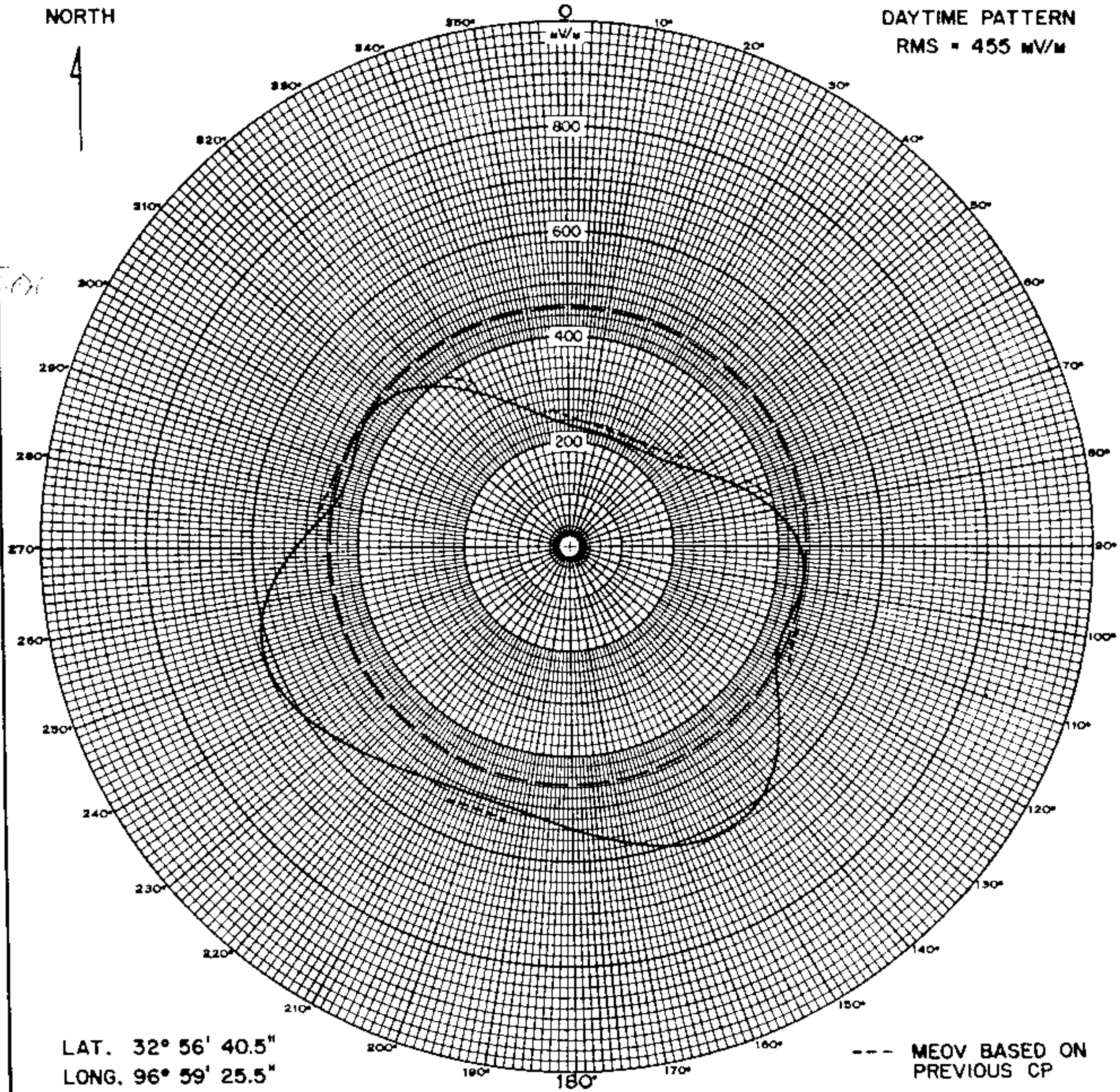
JOHN R. McKENNA
CONSULTING RADIO ENGINEER
WA[illegible] D. C.

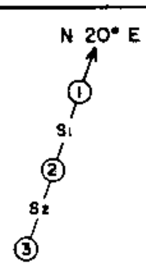
FIGURE 16
RADIO STATION WACL
WAYCROSS, GEORGIA
570KC 1KW 5KW-L[illegible] A-N

Proposed Day
(12-30-69ct)

Station WBAP
Fort Worth, Texas

BMP-12819
Granted
(12-4-69)
Modification
of CP to
change
daytime
MEOV





S1 = 575' = 120°
S2 = 1440' = 300°
G = 490' = 102°
PLUS 43° OF TOPLOADING

ANTENNA PARAMETERS

TOWER	FIELD	PHASE
1	0.351	70°
2	1.000	0°
3	0.151	150°

PREPARED BY
THE FIRM OF A. EARL CULLUM, JR.
CONSULTING ENGINEERS

RADIO STATION WBAP
570 kHz 5 kW DA-2
690305.2A FIGURE 2B

FCC File No. BMP-12819
Accepted 11-10-69

Station WBAP
Fort Worth, Texas
570 kc

WBAP

Proposed Night
(12-30-69ct)

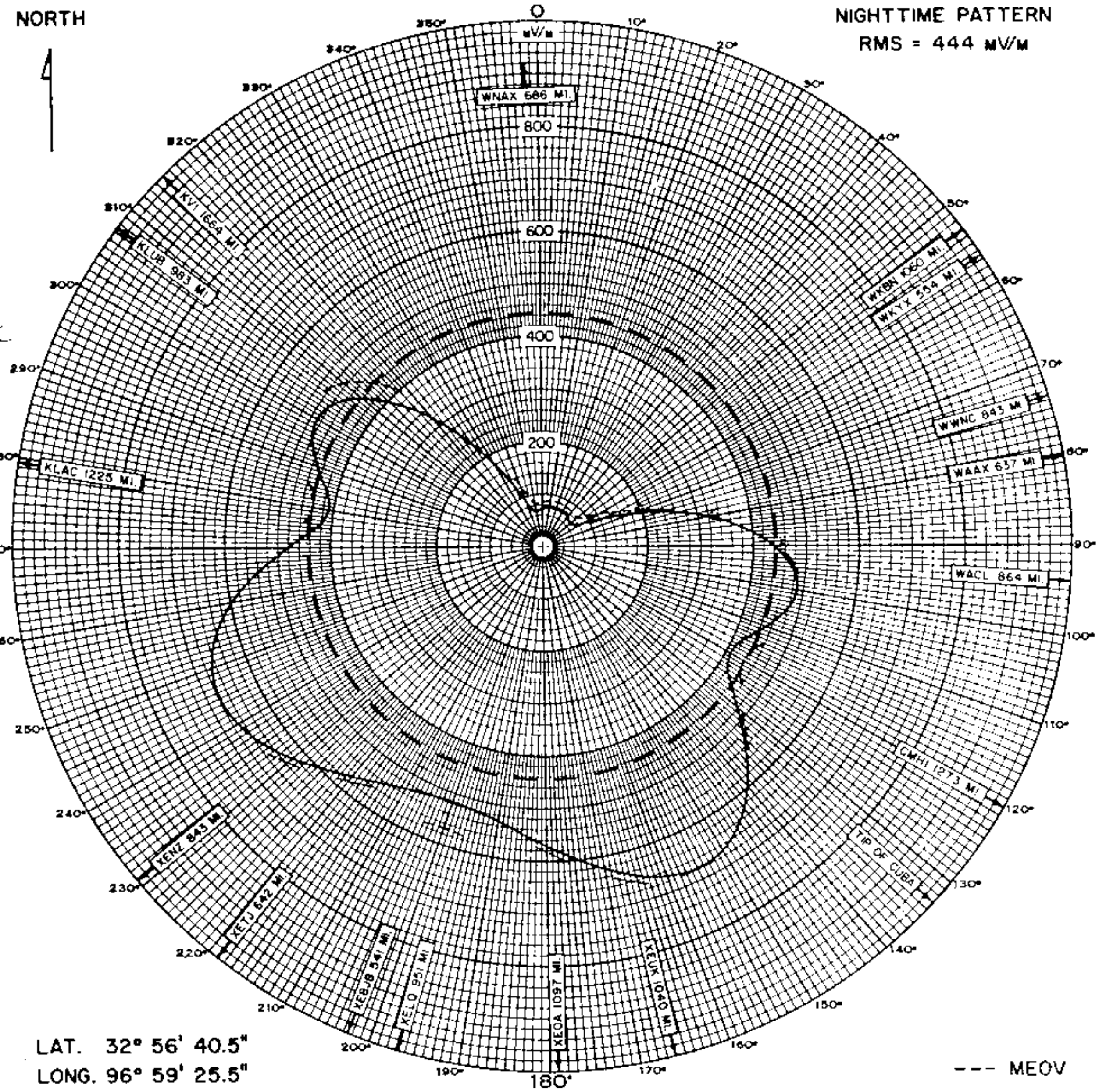
Station WBAP
Fort Worth, Texas

2,U
570 kc

BP-18585
Granted
8-15-69
to
change
transmitter
location
& make
change in
antenna
system

NORTH

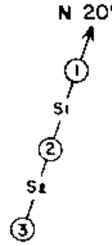
NIGHTTIME PATTERN
RMS = 444 MV/M



LAT. 32° 56' 40.5"
LONG. 96° 59' 25.5"

--- MEOV

N 20° E



S1 = 575' = 120°
S2 = 1440' = 300°
G = 490' = 102°
PLUS 43° OF TOPLOADING

ANTENNA PARAMETERS

TOWER	FIELD	PHASE
1	0.752	70°
2	1.000	0°
3	0.346	135°

PREPARED BY
THE FIRM OF A. EARL CULLUM, JR.
CONSULTING ENGINEERS

RADIO STATION WBAP
570 kHz 5 kW DA-2
690305.3A FIGURE 2B

FCC File No. BP-18585
Accepted

Station WBAP
Fort Worth, Texas

570 kc

DIRECTIONAL ANTENNA DESCRIPTION SHEET

Station: WFSO	Main Studio: Pinellas Park, Florida
Frequency: 570 kHz	Power: 0.5kw
Notification List No. 1766	Date: January 18, 1978 Class: III

GEOGRAPHICAL LOCATION OF THE CENTER OF THE ANTENNA SYSTEM:

North Latitude: 27° 50' 44"
West Longitude: 82° 46' 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:	S(#1)	C(#2)	N(#3)	
HEIGHT ABOVE INSULATORS:	336'	350' (73°)	336'	(70°)
NIGHT PHASING:	0°	+20.3°	+1.90°	
NIGHT FIELD RATIO:	1.0	0.76	1.36	
DAY PHASING:	0°	–	+49°	
DAY FIELD RATIO:	1.0	–	0.9	

SPACING AND ORIENTATION: From reference tower #1; tower #2 is spaced 623.1' (130°) on a line bearing 1° true and tower #3 is spaced 1150.5' (240°) on a line bearing 355° true.

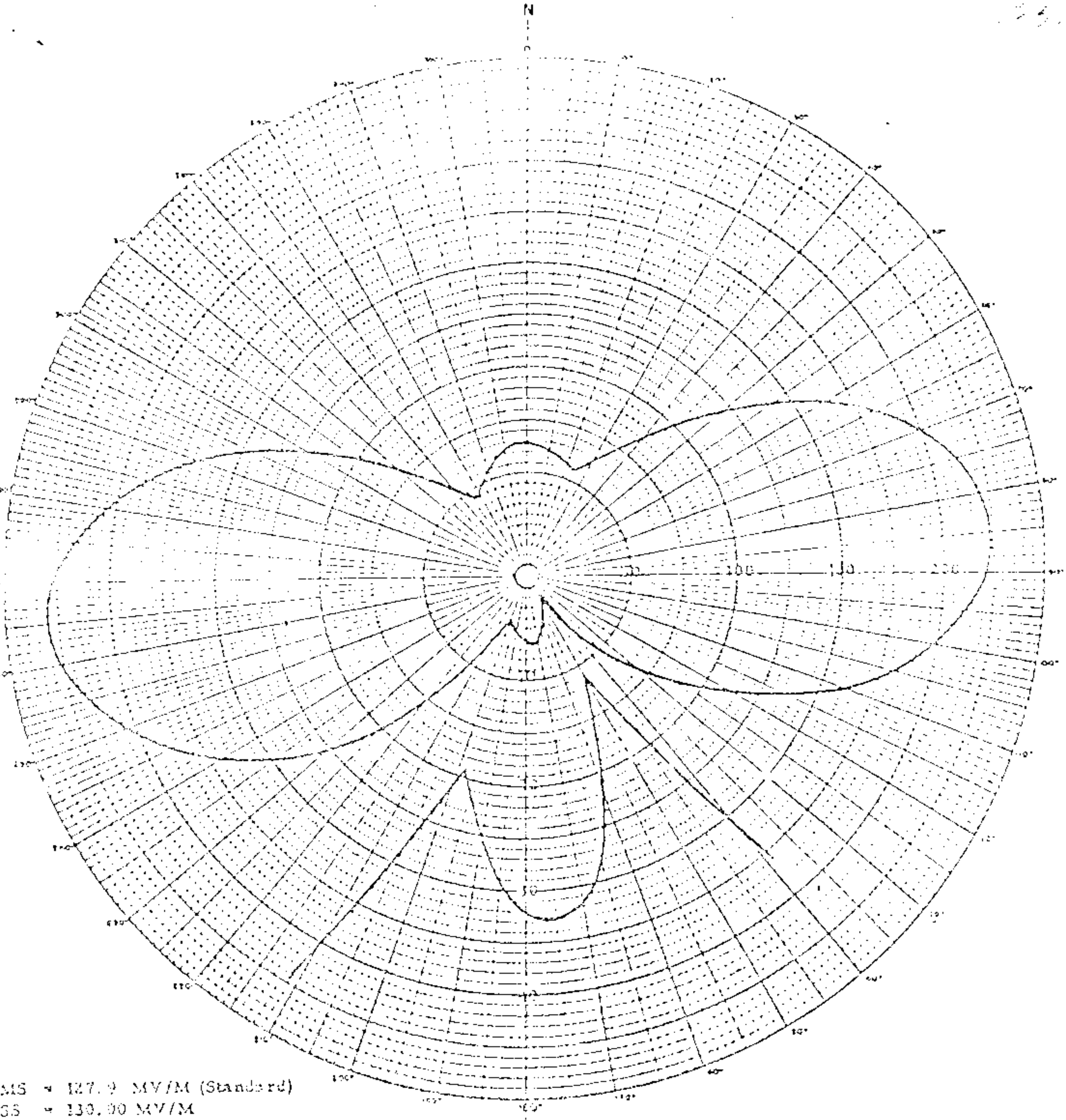
GROUND SYSTEM: 150 - 60' equally spaced copper radials plus a 24' square ground screen about each tower. Radials are submerged in salt water and centers of system are bonded together.

PREDICTED EFFECTIVE FIELDS AT RATED POWER:

	THEORETICAL RMS	THEORETICAL RSS	STANDARD RMS
Day	125.9 mv/m	–	–
Night	121.67 mv/m	130.00 mv/m	127.9 mv/m

(cont'd)

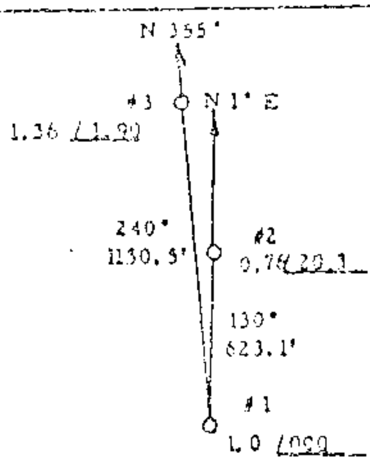
Note: Please retain the Daytime directional antenna radiation pattern notified for Station WFSO in United States Change List Number 1160 dated April 20, 1966 and attach to this Revised Description Sheet and Nighttime patterns. This notification concerns a change to add new Nighttime operation with Daytime operation continued as previously notified.



RMS = 127.9 MV/M (Standard)
RSS = 130.00 MV/M

HORIZONTAL RADIATION PATTERN

FIGURE 1A



C 1 & 3 = 70°
C 2 = 73°

APPLICANT	Radio Station WP SO
LOCATION	Pinellas Park, Florida
FREQUENCY	570 KHz
POWER	0.5 KW
LATITUDE	27 DEG 50 MIN 14 SEC
LONGITUDE	82 DEG 40 MIN 22 SEC
WHEN USED	Nighttime
RMS FIELD	131.67 MV/M (Theoretical)
DATE	May 1977

Ronald L. Pluckhe

WASHINGTON, D. C.

WFSO

Proposed Day
(4-30-63ct)

New; Pinellas Radio Co.
Pinellas Park, Florida

500w,DA-D,D
570 kc

ARP 8-16-65
CHG LOC TO
27° 50' 44"
82 46 22
MLP 8-25-65
CHG LOC

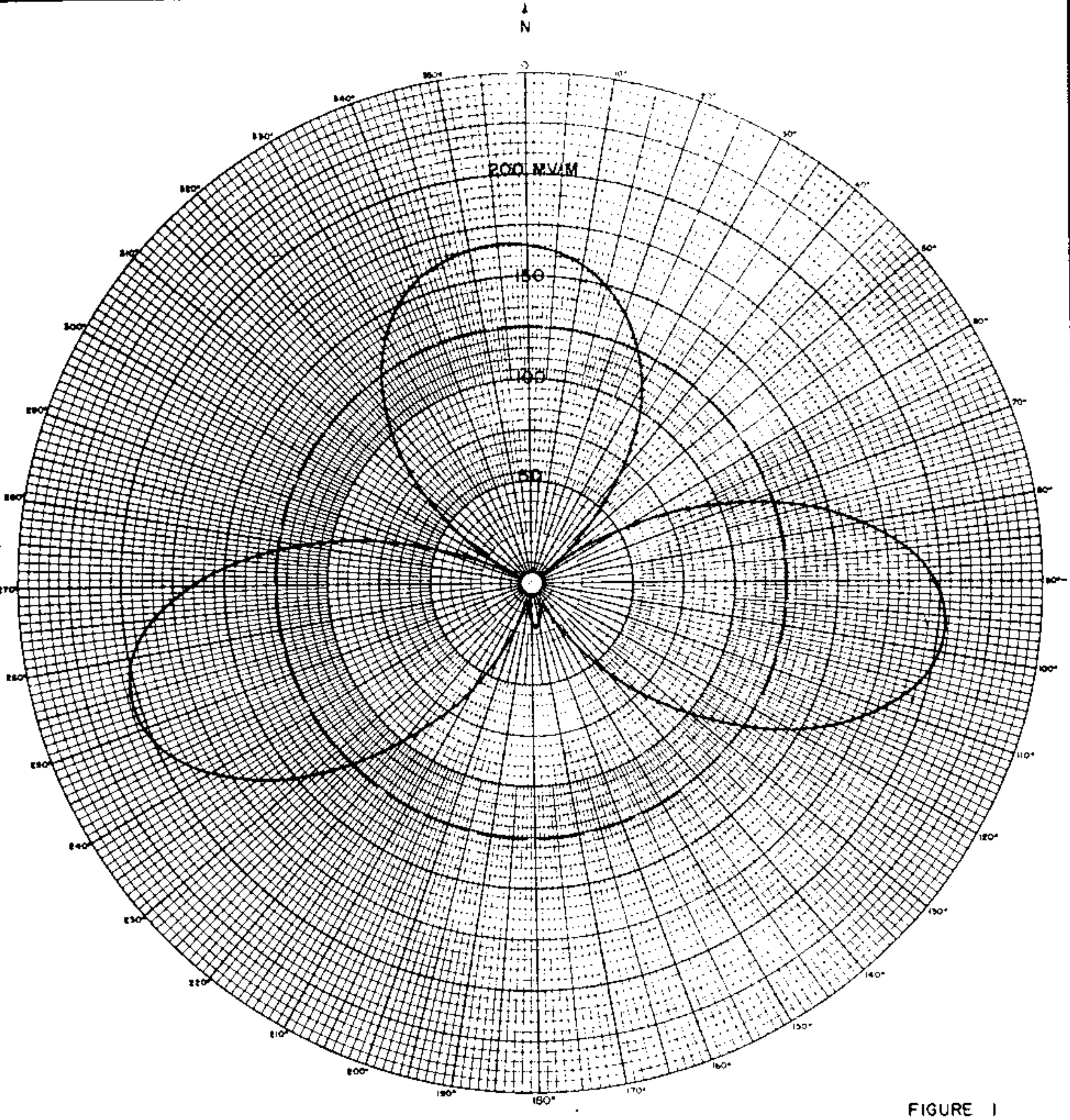
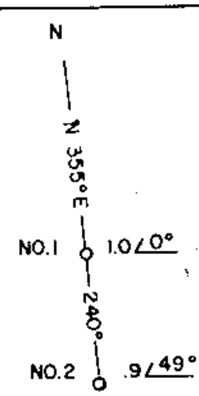


FIGURE I

HORIZONTAL RADIATION PATTERN



G (ALL TOWERS) = 70°

APPLICANT	PINELLAS RADIO CO.
LOCATION	PINELLAS PARK, FLORIDA
FREQUENCY	570 KC/S
POWER	500 WATTS (DA—D)
LATITUDE	27 DEG 50 MIN ~~37 SEC~~
LONGITUDE	~~82 DEG 46 MIN 38 SEC~~
WHEN USED	DAYTIME
R.M.S. FIELD	125.5 MV/M
DATE	SEPTEMBER 1962

RAYMOND E. ROHRER & ASSOCIATES
CONSULTING RADIO ENGINEERS
WASHINGTON, D. C.

FCC File ~~No. BP-14387~~
Accepted 3-26-63 Amended

New; Pinellas Radio Co.
Pinellas Park, Florida

570 kc

WFSO

Measured Day
(5-27-66ct)

Station WFSO
Pinellas Park, Florida

500w,DA-D,D
570 kc

LIC 6-17-66

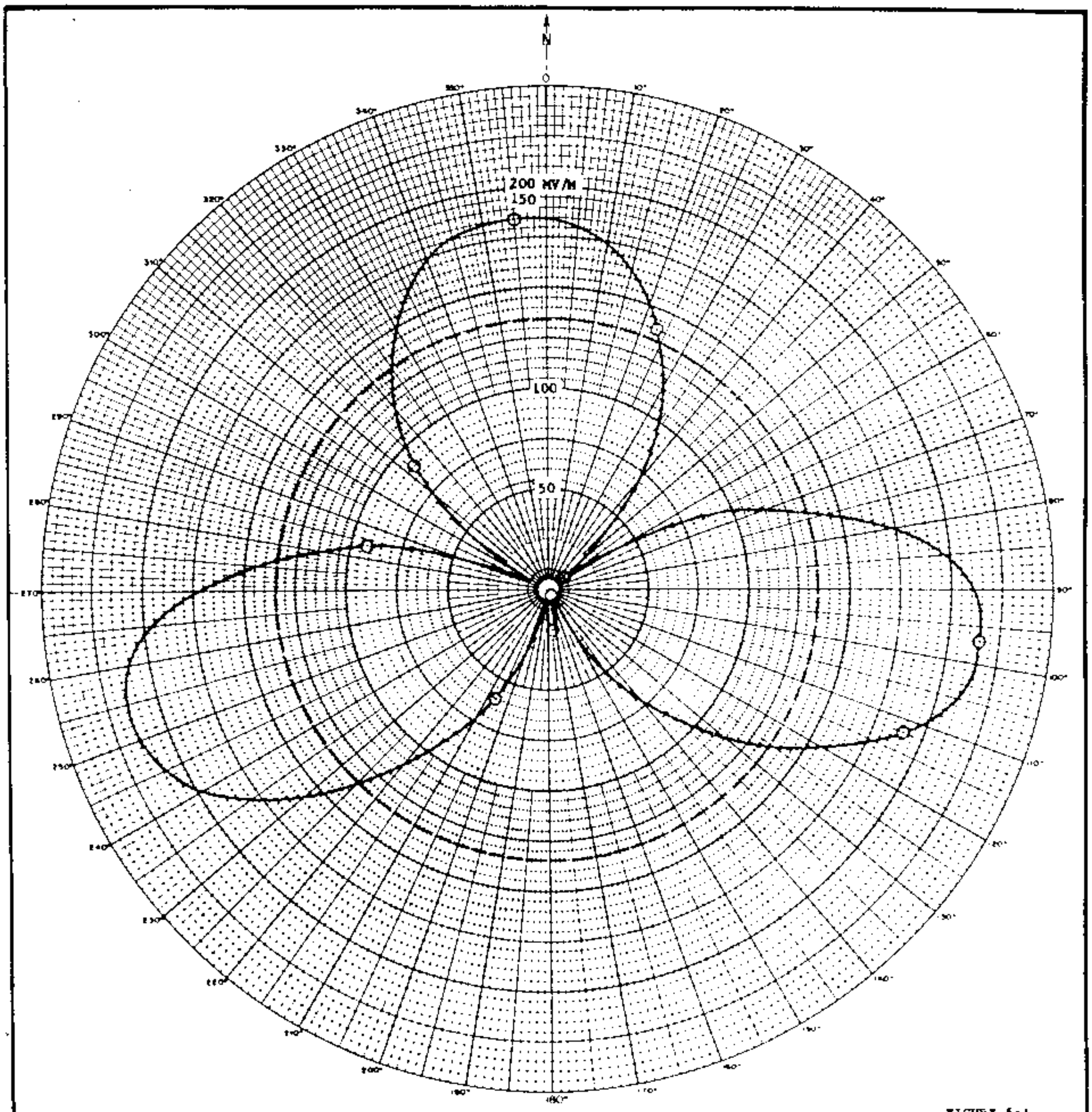
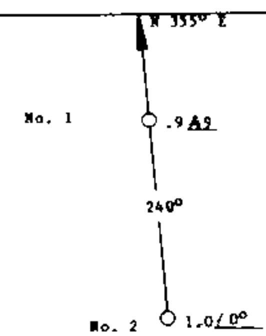


FIGURE 5-A

HORIZONTAL RADIATION PATTERN



APPLICANT	WFSO
LOCATION	Pinellas Park, Florida
FREQUENCY	570 KC/S
POWER	500 Watts
LATITUDE	27 DEG 50 MIN 44 SEC
LONGITUDE	82 DEG 46 MIN 22 SEC
WHEN USED	Daytime
RMS FIELD	134.5 MV/M
DATE	March 3, 1966

RAYMOND E. ROHRER & ASSOCIATES
CONSULTING RADIO ENGINEERS
WASHINGTON D. C.

FCC File No. BL-11243
Accepted 5-3-66

Station WFSO
Pinellas Park, Florida

570 kc

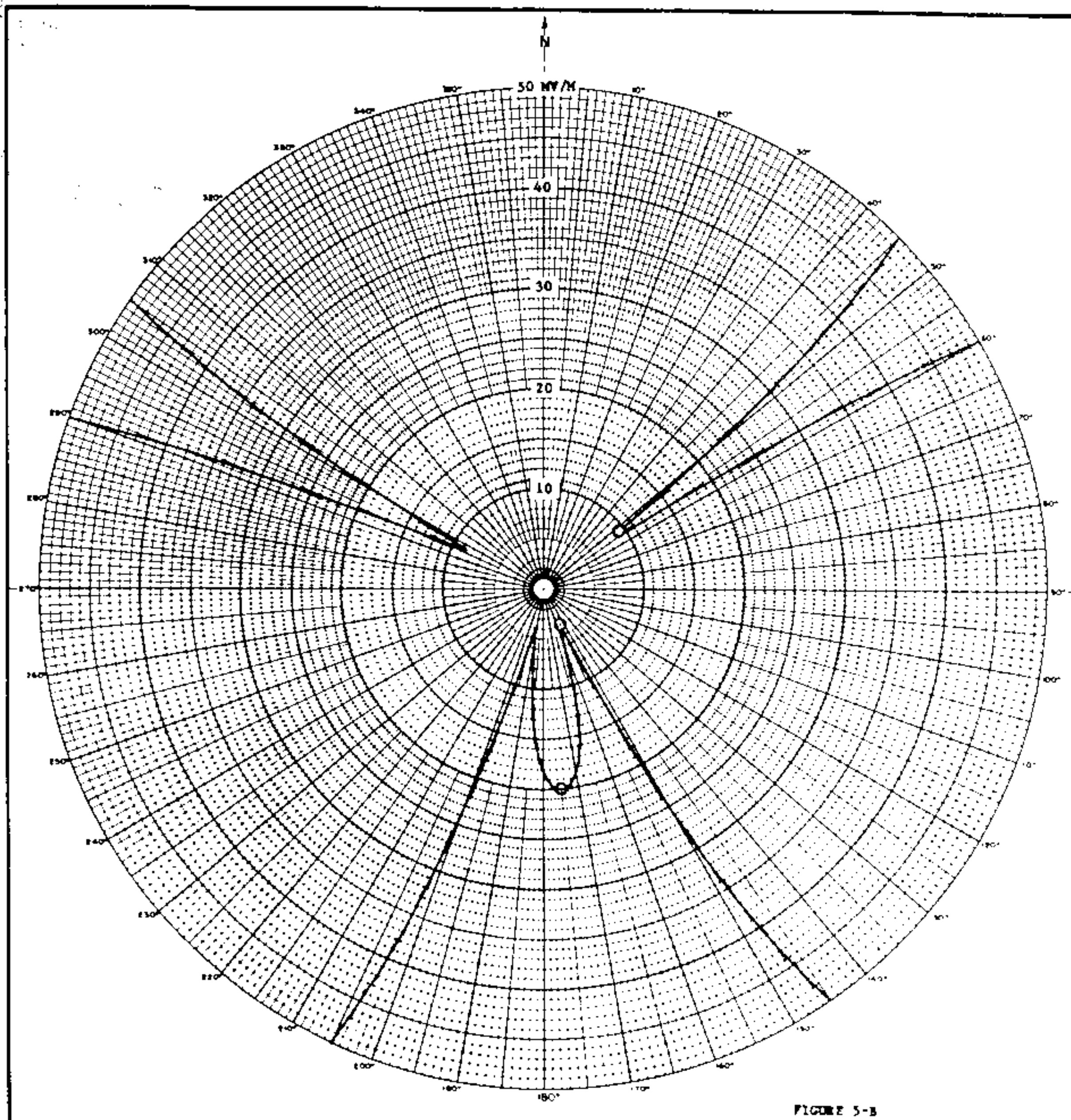
WFSO

Measured Day Nulls
(5-27-66ct)

Station WFSO
Pinellas Park, Florida

500w,DA-D,D
570 kc

LIC 6-17-66



EXPANDED VIEW

RAYMOND E. ROHRER & ASSOCIATES
CONSULTING RADIO ENGINEERS
WASHINGTON, D. C.

FCC File No. BL-11243
Accepted 5-3-66

Station WFSO
Pinellas Park, Florida

570 kc

WFSO

Measured Non-DA
(5-27-66ct)

Station WFSO
Pinellas Park, Florida

500w,DA-D,D
570 kc

-ic 6-17-66

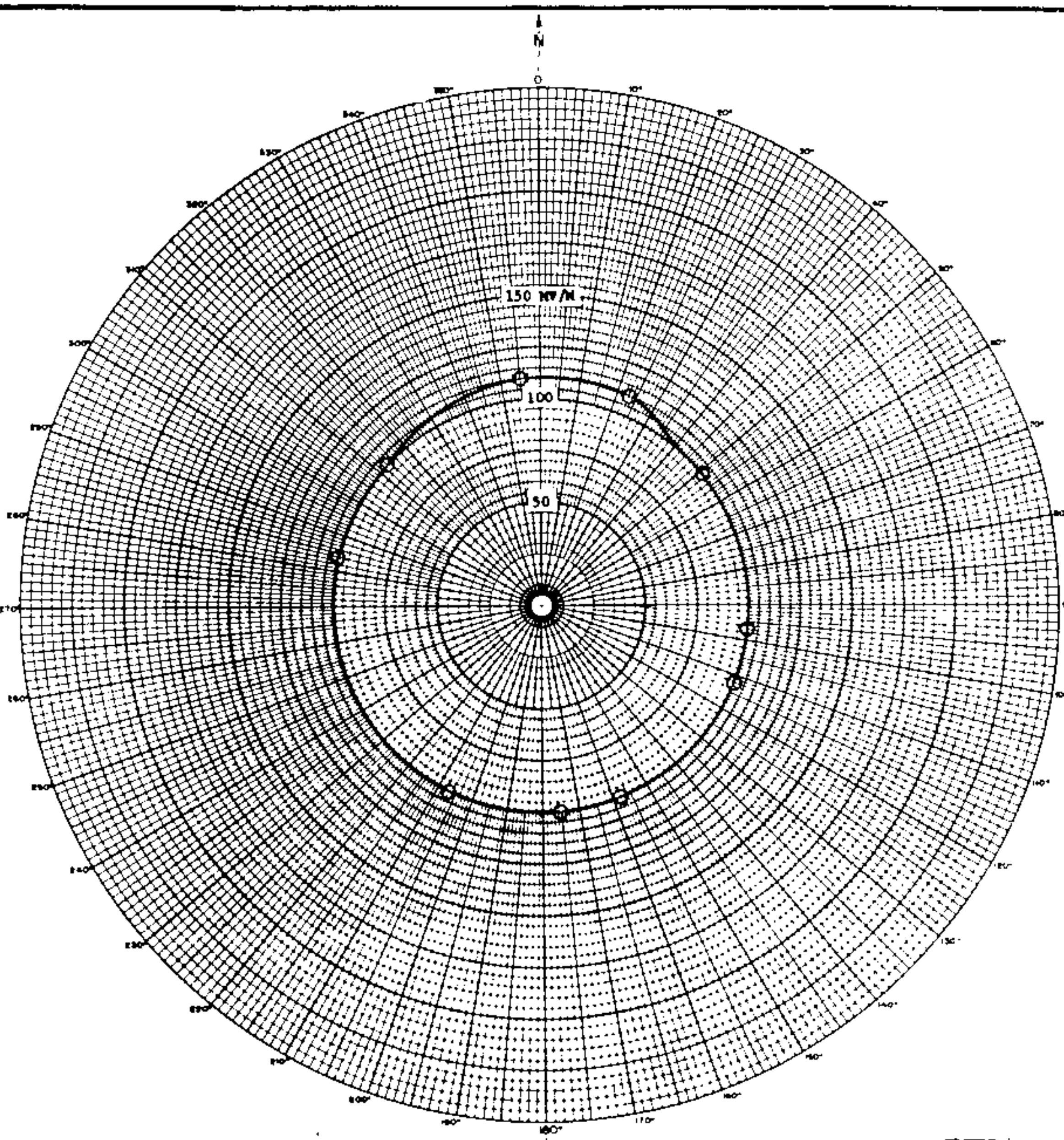


FIGURE 4

HORIZONTAL RADIATION PATTERN

APPLICANT	WFSO
LOCATION	Pinellas Park, Florida
FREQUENCY	570 KC/S
POWER	250 Watts
LATITUDE	27 DEG 50 MIN 44 SEC
LONGITUDE	82 DEG 46 MIN 22 SEC
WHEN USED	Non-directional Survey
RMS FIELD	102.5 MV/M
DATE	February 1966

RAYMOND E. ROHRER & ASSOCIATES
CONSULTING RADIO ENGINEERS
WASHINGTON, D. C.

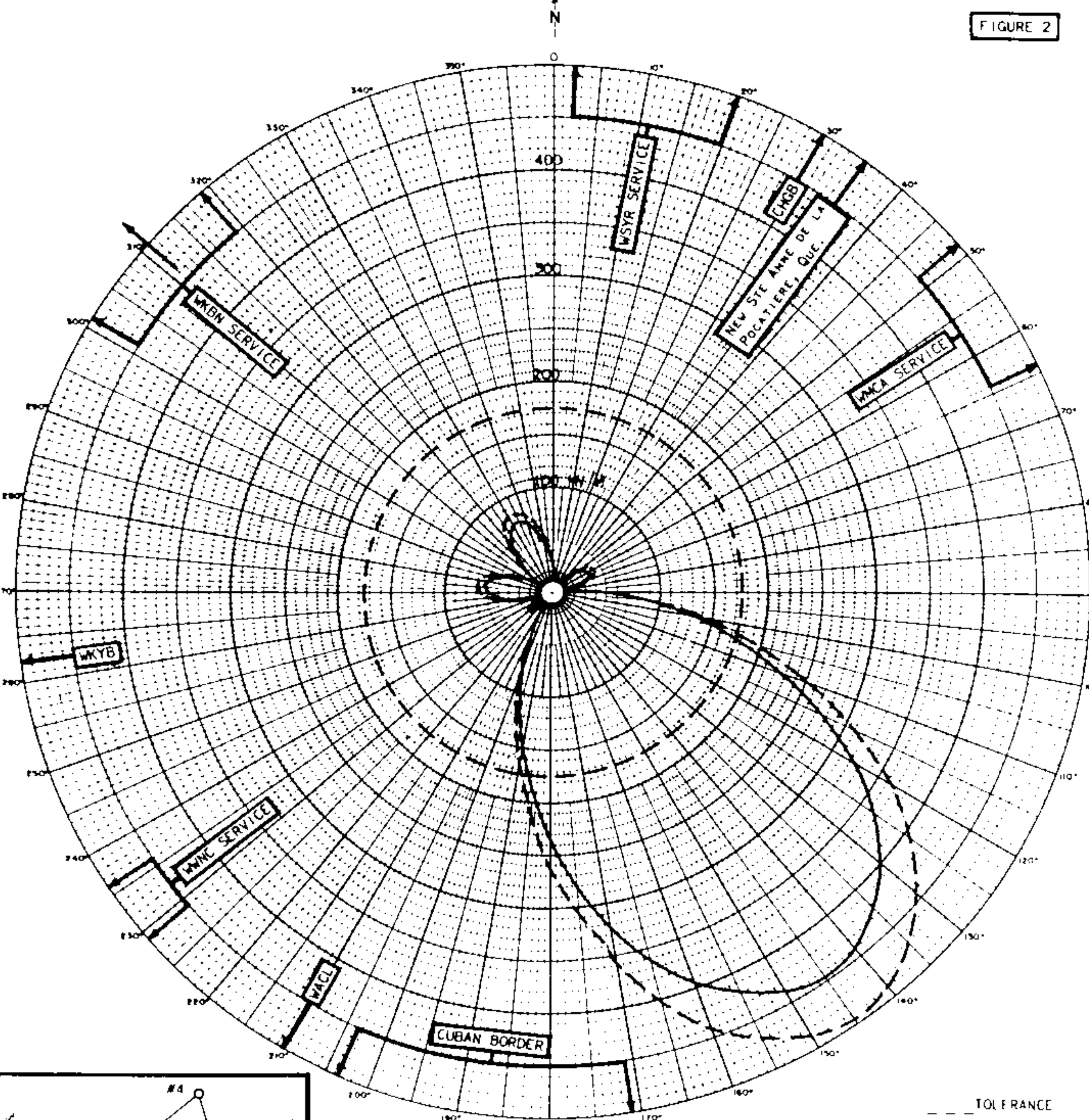
FCC File No. BL-11243
Accepted 5-3-66

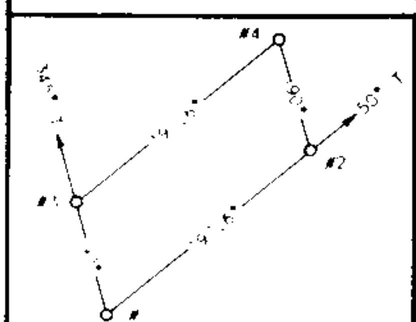
Station WFSO
Pinellas Park, Florida

570 kc

WG

FIGURE 2





_ _ _ TOLERANCE

PATTERN NO. 720532

THE GOOD MUSIC STATION, INC.

HORIZONTAL RADIATION PATTERN

FREQUENCY	570 KC
ASSIGNMENT	1 KW NIGHT
LONGITUDE	77 DEG 10 MIN 11 SEC
LATITUDE	39 DEG 02 MIN 07 SEC
WHEN USED	NIGHT
RMS FIELD	175 MV/M
DATE	SEPTEMBER 1953

ANTENNA	NO. 1	NO. 2	NO. 3	NO. 4	NO. 5	NO. 6
PHASE DEG	-63.25	-49.0	52.57	60.58		
HEIGHT DEG	130°**	130°**	130°**	130°**		
FIELD RATIO	1.0	1.0	1.0	1.0		
NON DA ANT						

*TOWERS WILL HAVE PHYSICAL HEIGHT OF 93.9° + 36.1° TOP LOADING

ROBERT M. SILLIMAN

CONSULTING RADIO ENGINEERS

WASHINGTON, D.C.

WGMS

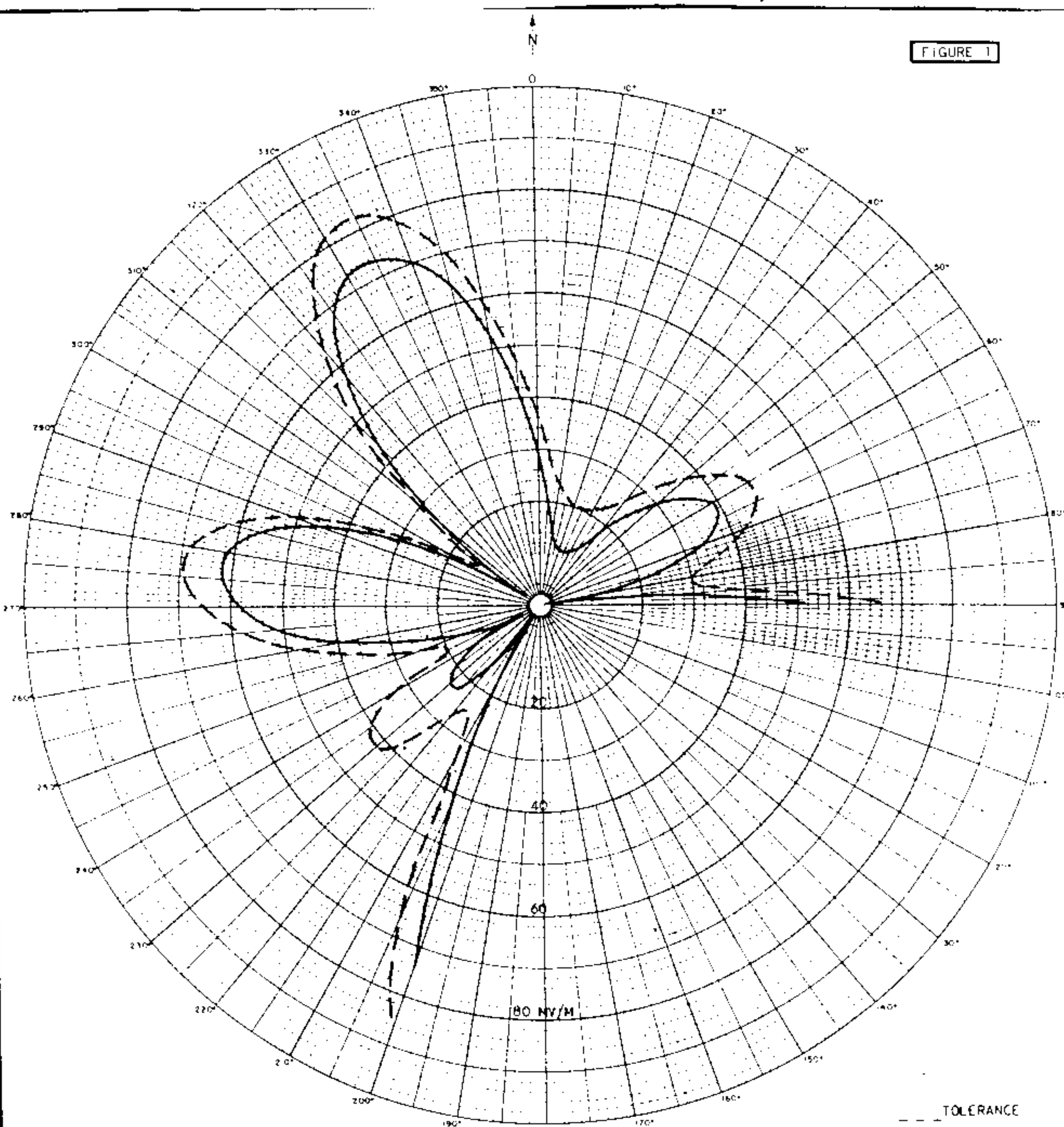
PROPOSED NIGHT NULL
(10-31-55G)

STATION WGMS
BETHESDA, MARYLAND

1KW, 5KW-LS
DA-2, U

570 KC

FIGURE 1



_ _ _TOLERANCE

PATTERN NO. 720532A

THE GOOD MUSIC STATION, INC.

HORIZONTAL RADIATION PATTERN

FREQUENCY	570 KC
ASSIGNMENT	1 KW NIGHT
LONGITUDE	77 DEG 10 MIN 11 SEC
LATITUDE	39 DEG. 02 MIN. 07 SEC.
WHEN USED	NIGHT
R.M.S. FIELD.	175 MV/M
DATE.	OCTOBER 1955

ANTENNA	NO. 1	NO. 2	NO. 3	NO. 4	NO. 5	NO. 6
PHASE DEG	- 63.25	- 49.70	52.57	60.38		
HEIGHT DEG	130°*	130°*	130°*	130°*		
FIELD RATIO	1.0	1.0	1.0	1.0		
NON DA ANT						

*TOWERS WILL HAVE PHYSICAL HEIGHT OF 93.9° + 36.1° TOP LOADING

ROBERT M. SILLIMAN

CONSULTING RADIO ENGINEERS

WASHINGTON, D. C.

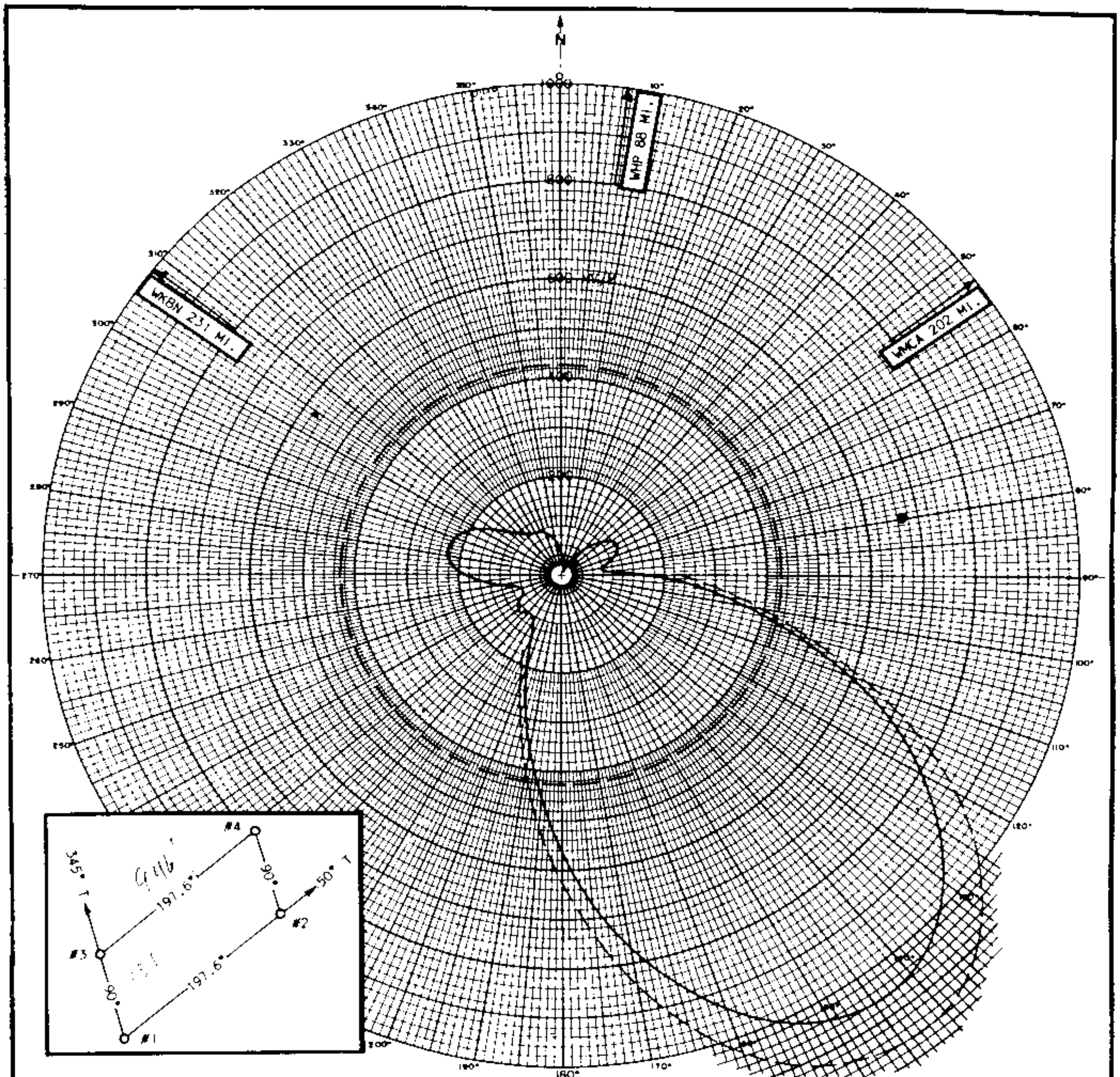
FILE NO. BMP-6985 ACCEPTED 10-10-55 FCC WGMS, Bethesda, Md. 570 KC

WAC 35/

WGMS

PROPOSED WGMS, WASHINGTON, D. C. 5KW, D, DA-D
DAY (2/5/54G)

570 kc



— — — MAXIMUM EXPECTED OPERATING VALUES

FIGURE 1-A

THE GOOD MUSIC STATION, INC.

HORIZONTAL RADIATION PATTERN

	SOUTH	EAST	WEST	NORTH		
ANTENNA	NO 1	NO 2	NO 3	NO 4	NO 5	NO 6
PHASE DEG	-53.5°	-42.5°	42.5°	53.5°		
HEIGHT DEG*	130°	130°	130°	130°		
FIELD RATIO	1.2	1.0	1.0	0.8		
NON-DA ANT						

*TOWERS WILL HAVE PHYSICAL HEIGHT OF 93.9° + 36.1° TOP LOADING

FREQUENCY	570 KC
ASSIGNMENT:	5 Kw-D(DA)
LONGITUDE:	77 DEG. 10 MIN. 11 SEC
LATITUDE:	39 DEG. 02 MIN. 07 SEC.
WHEN USED.	DAYTIME
R.M.S. FIELD.	427 MV/M (CALCULATED)
DATE.	JANUARY 1954

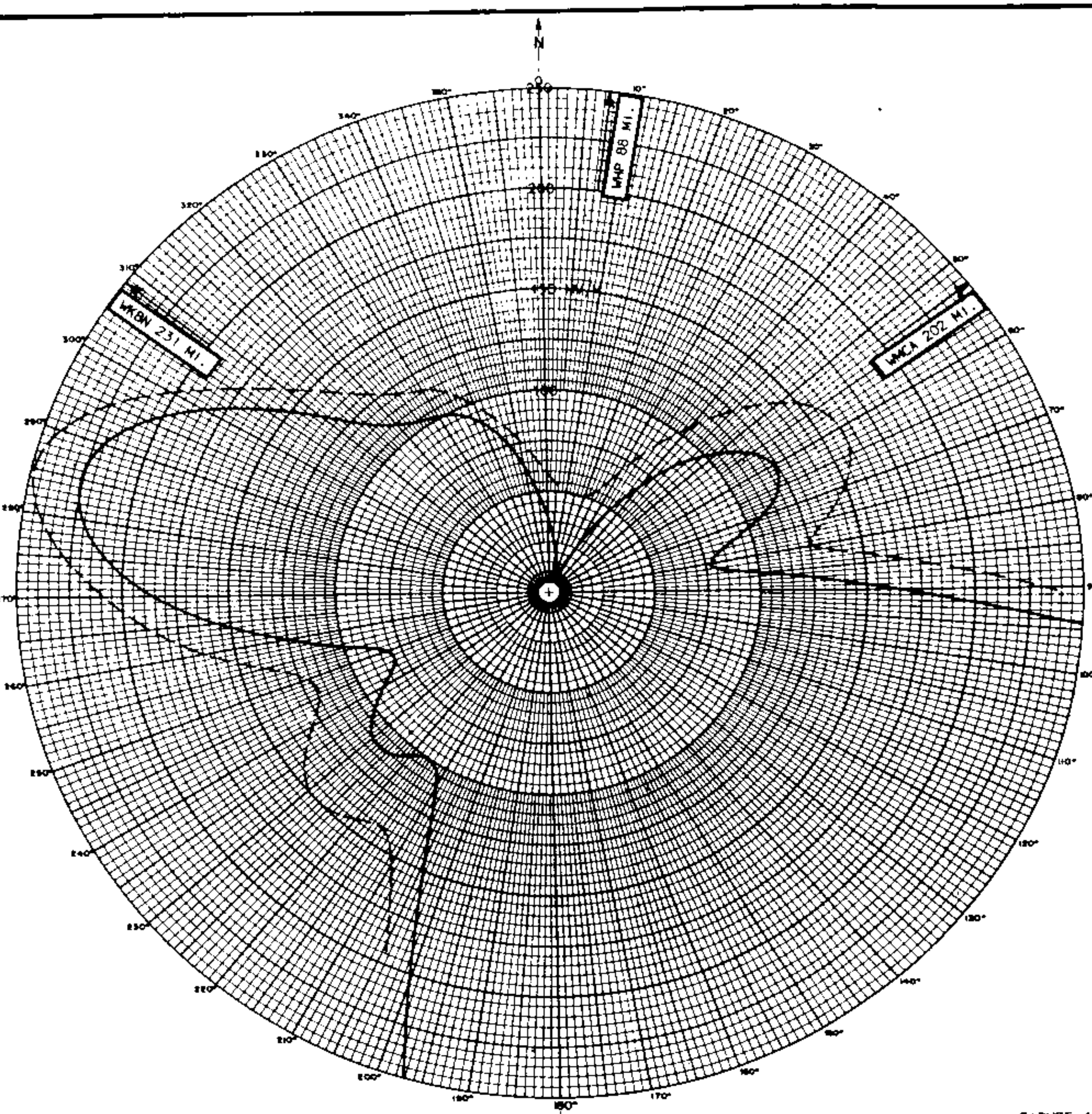
ROBERT M. SILLIMAN

CONSULTING RADIO ENGINEERS

WASHINGTON, D. C.

WGMS

PROPOSED DAY NULLS — WGMS, WASHINGTON, D, C, (2/5/54G) — 5KW, D, DA-D — 570 kc



— — — — MAXIMUM EXPECTED OPERATING VALUES

FIGURE 1-8

THE GOOD MUSIC STATION, INC.

HORIZONTAL RADIATION PATTERN

FREQUENCY:	570 KC.	
ASSIGNMENT:	5 Kw-D(DA)	
LONGITUDE:	77 DEG. 10 MIN. 11 SEC.	
LATITUDE:	39 DEG. 02 MIN. 07 SEC.	
WHEN USED:	DAYTIME	
R.M.S. FIELD:	427 MV/M (CALCULATED)	
DATE:	JANUARY 1954	

	SOUTH	EAST	WEST	NORTH		
ANTENNA	NO. 1	NO. 2	NO. 3	NO. 4	NO. 5	NO. 6
PHASE DEG.	-53.5°	-42.5°	42.5°	53.5°		
HEIGHT DEG.*	130°	130°	130°	130°		
FIELD RATIO	1.2	1.0	1.0	0.8		
NON-DA ANT.						
	*TOWERS WILL HAVE PHYSICAL HEIGHT OF 93.9° + 36.1° TOP LOADING					

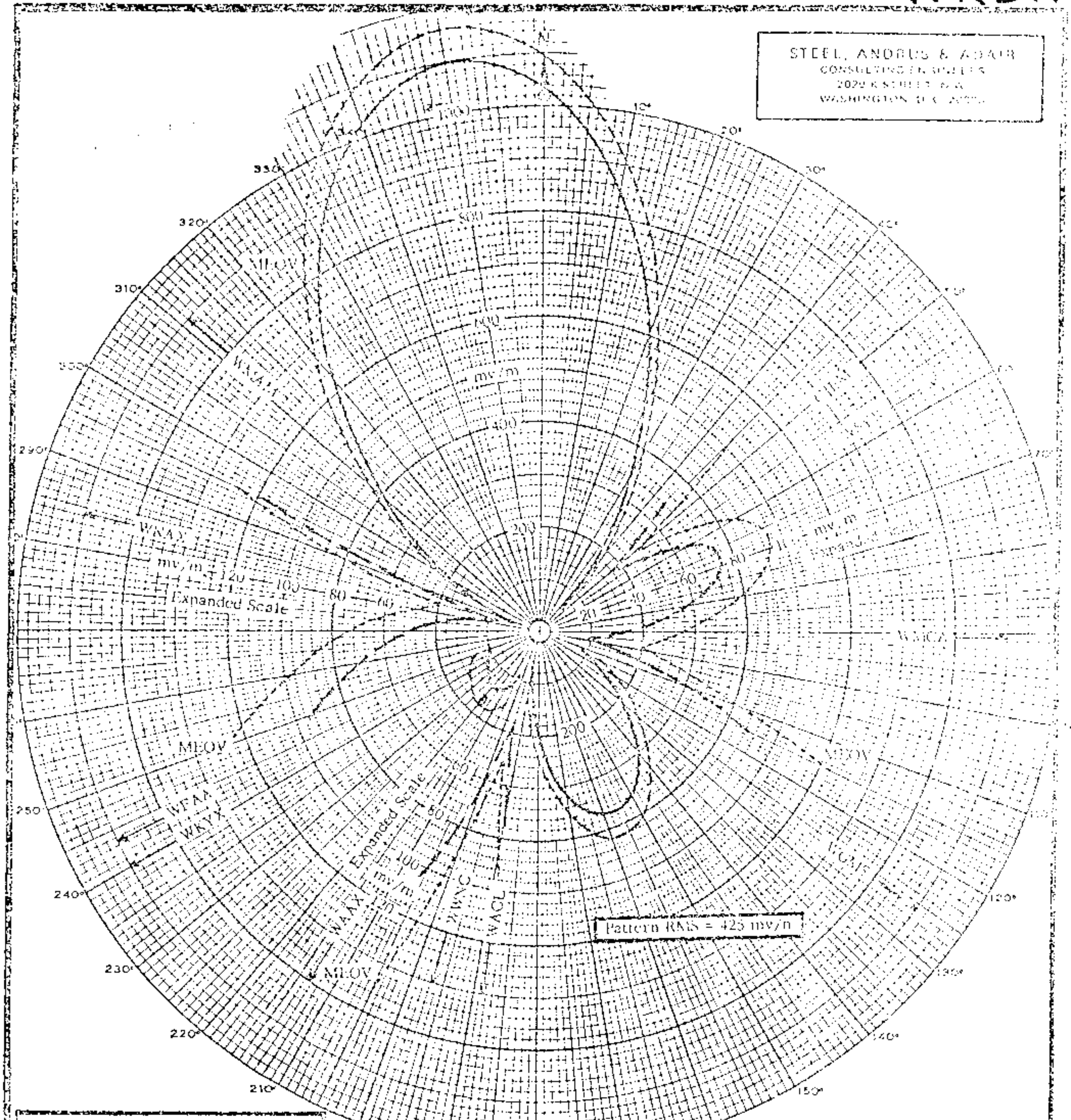
ROBERT M. SILLIMAN

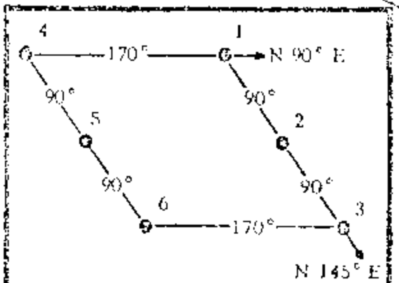
CONSULTING RADIO ENGINEERS

WASHINGTON, D. C.

WKBN

STEEL, ANDRUS & ADAIR
CONSULTING ENGINEERS
2029 K STREET N.W.
WASHINGTON D.C.





Tower	Field Ratio	Phase
1	1.000	0°
2	1.664	162°
3	1.100	317°
4	0.753	20°
5	1.590	176°
6	0.864	325°

Tower Height = 89°

Coordinates:
N 40° 59' 07"
W 80° 36' 02"

FIGURE 1 (AMENDED)

PROPOSED NIGHTTIME
HORIZONTAL RADIATION PATTERN

WKBN YOUNGSTOWN, OHIO
570 KHZ 5 KW DA-N U

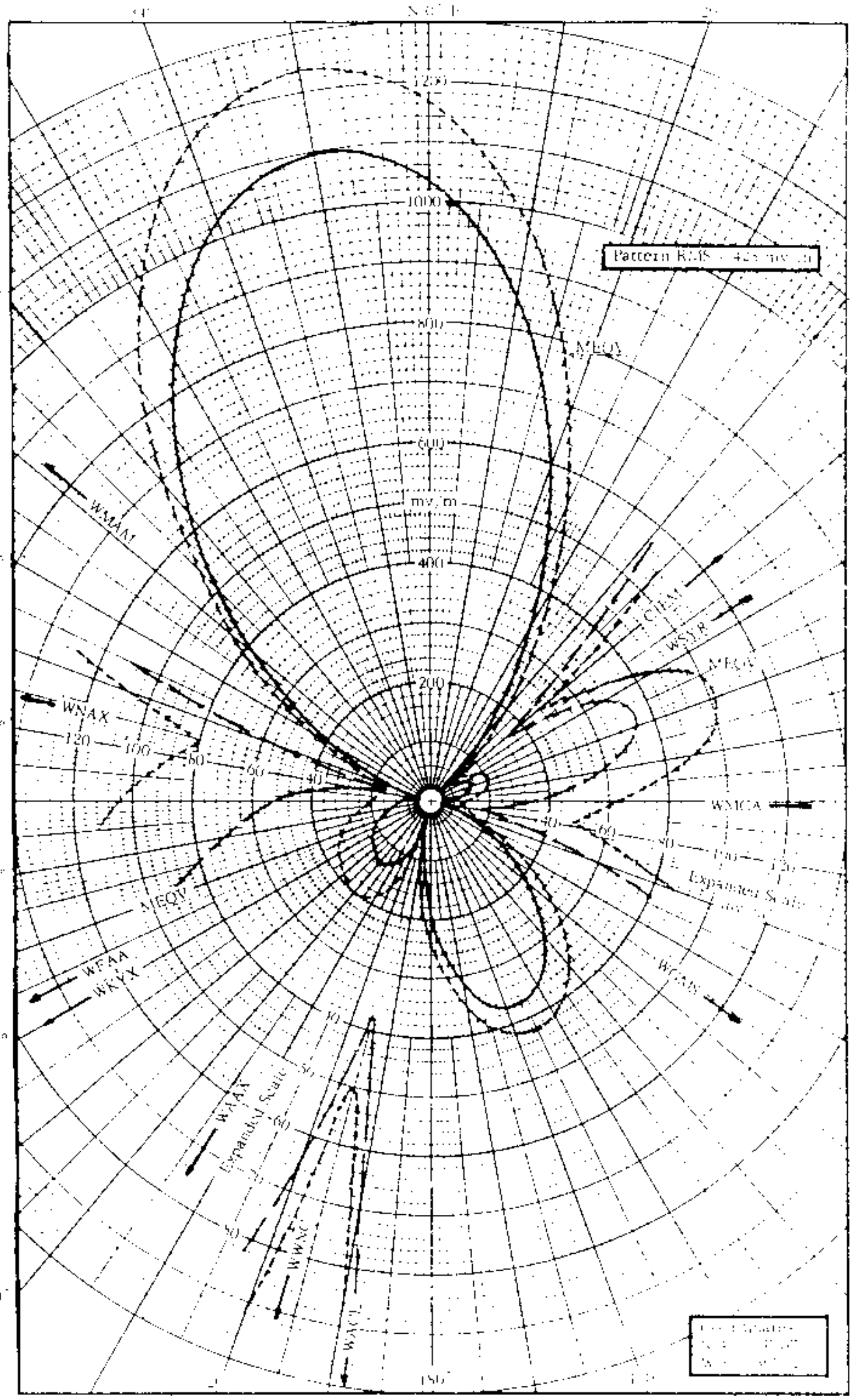
NOVEMBER 1970

WKBN

Proposed Night
(2-22-71ct)

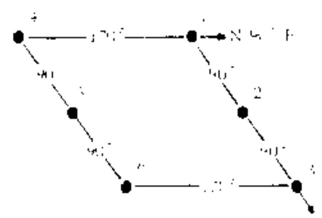
Station WKBN
Youngstown, Ohio

5kw,DA-N,U
570 kc



Tower	Field Ratio	Phase
1	1.000	[illegible]
2	[illegible]	162
3	1.150	317
4	0.753	[illegible]
5	1.500	176
6	0.884	323

Tower Height [illegible]



ALVIN H. ANDRUS
BROADCAST & COMMUNICATIONS CONSULTING ENGINEER

FIGURE 1
PROPOSED NIGHTTIME
HORIZONTAL RADIATION PATTERN
WKBN YOUNGSTOWN, OHIO
570 KHZ [illegible]
MARCH 1970

FCC File No.BP-18959
Accepted 1-25-71

Station WKBN
Youngstown, Ohio

570 kc

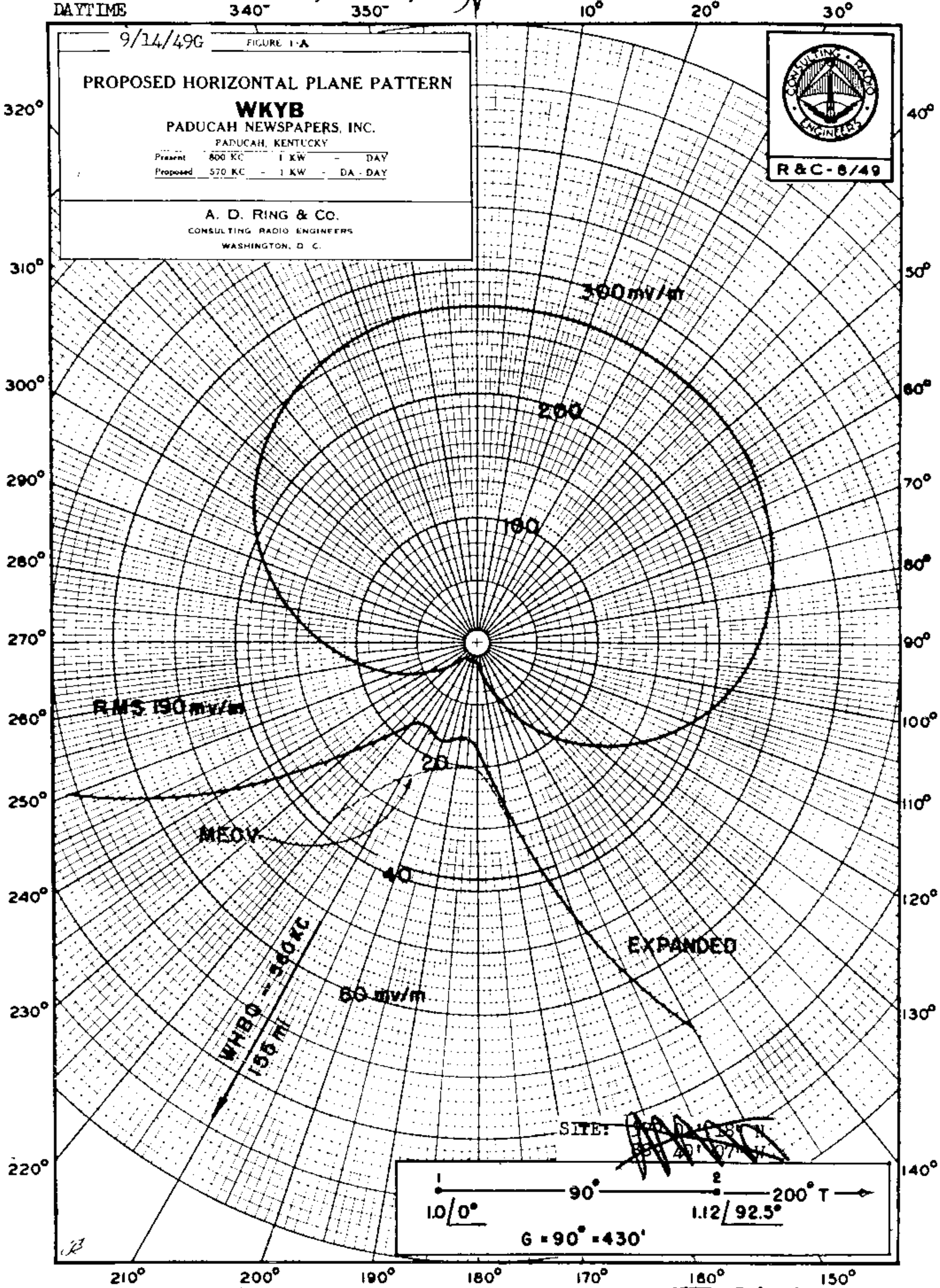
WKYX

WKYB – 570 KC

PROPOSED
DAYTIME

WKYB, PADUCAH, KY.

1kw, DA, D



AMENDMENT RECD 8-24-49 P-7146

WKYB, Paducah, Ky. 570 kc

BL-4345

WKYX

WKYB-570KC

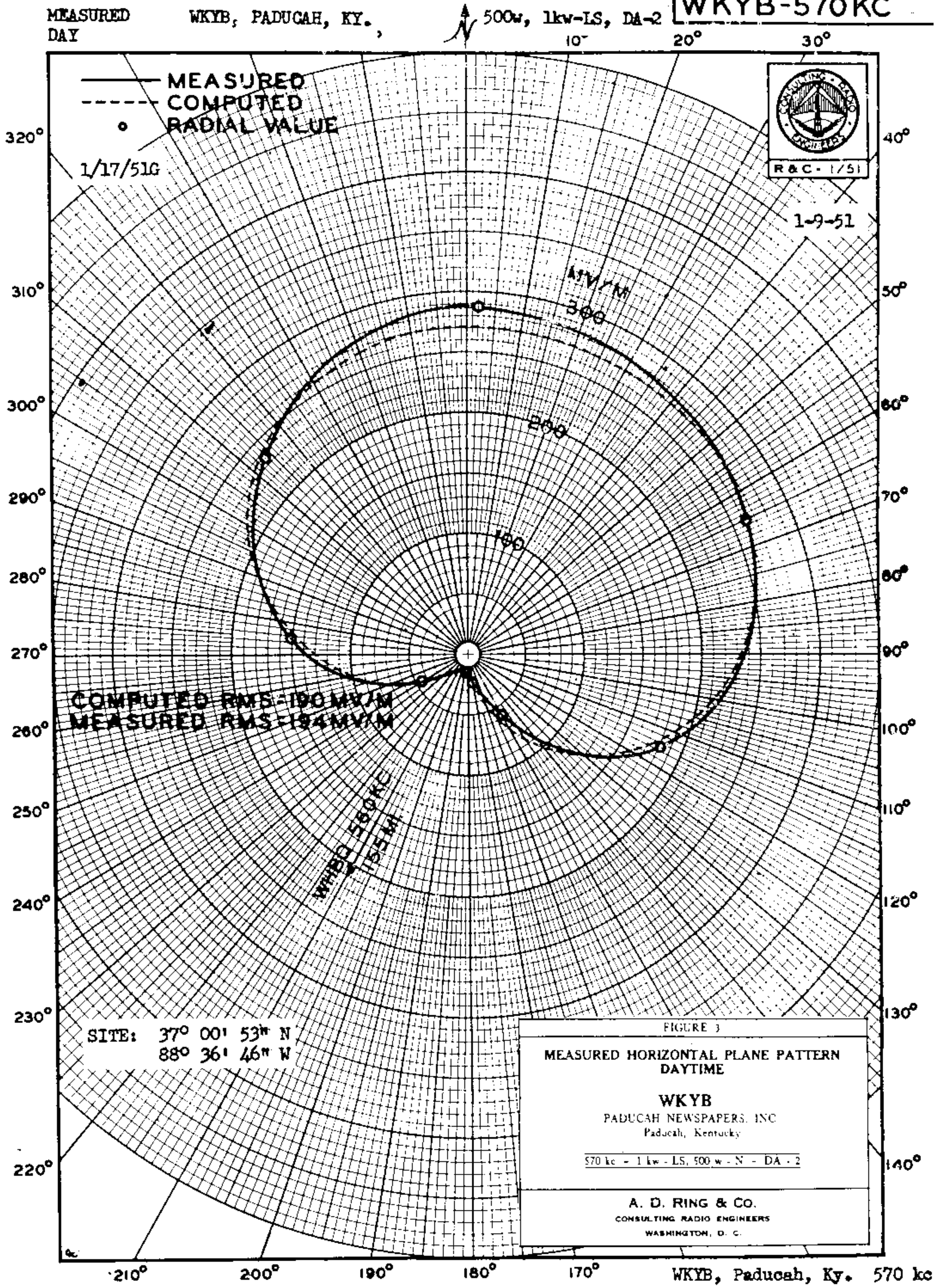


FIGURE 3

MEASURED HORIZONTAL PLANE PATTERN
DAYTIME

WKYB

PADUCAH NEWSPAPERS, INC
Paducah, Kentucky

570 kc - 1 kw - LS, 500 w - N - DA - 2

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

WKYB, Paducah, Ky. 570 kc

PROPOSED NIGHT WKYB, PADUCAH, KY. 500w,1kw-LS,DA-2

WKYB - 570 kc

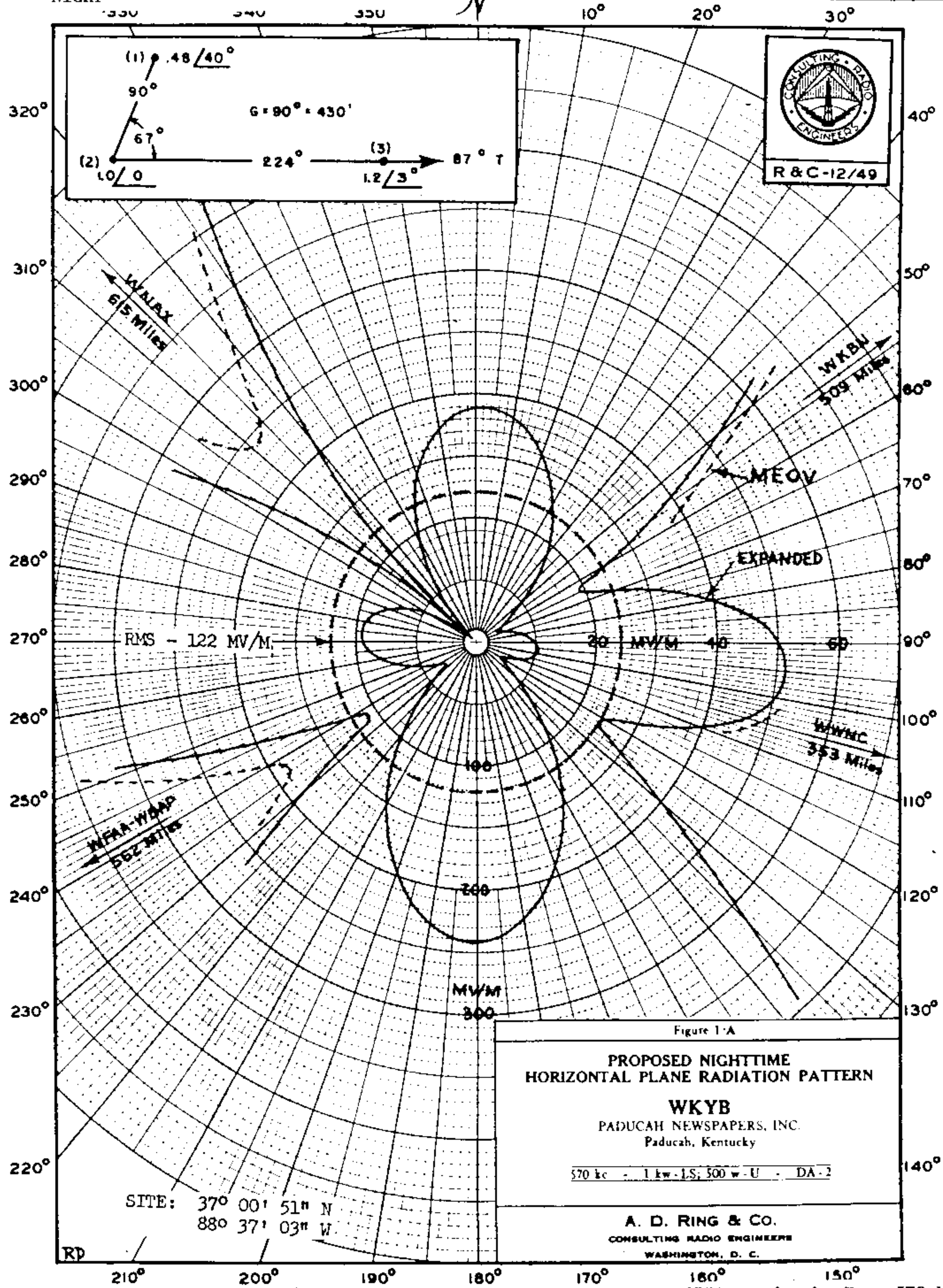


Figure 1-A

PROPOSED NIGHTTIME HORIZONTAL PLANE RADIATION PATTERN

WKYB

PADUCAH NEWSPAPERS, INC.
Paducah, Kentucky

570 kc - 1 kw-LS; 500 w-U - DA-2

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

AMENDMENT RECD 12/23/49 MP-4837

WKYB, Paducah, Ky. 570 kc

WKY

MEASURED NIGHT WKYB, PADUCAH, KY., 500w, 1kw-LS, DA-2

WKYB 570 KC

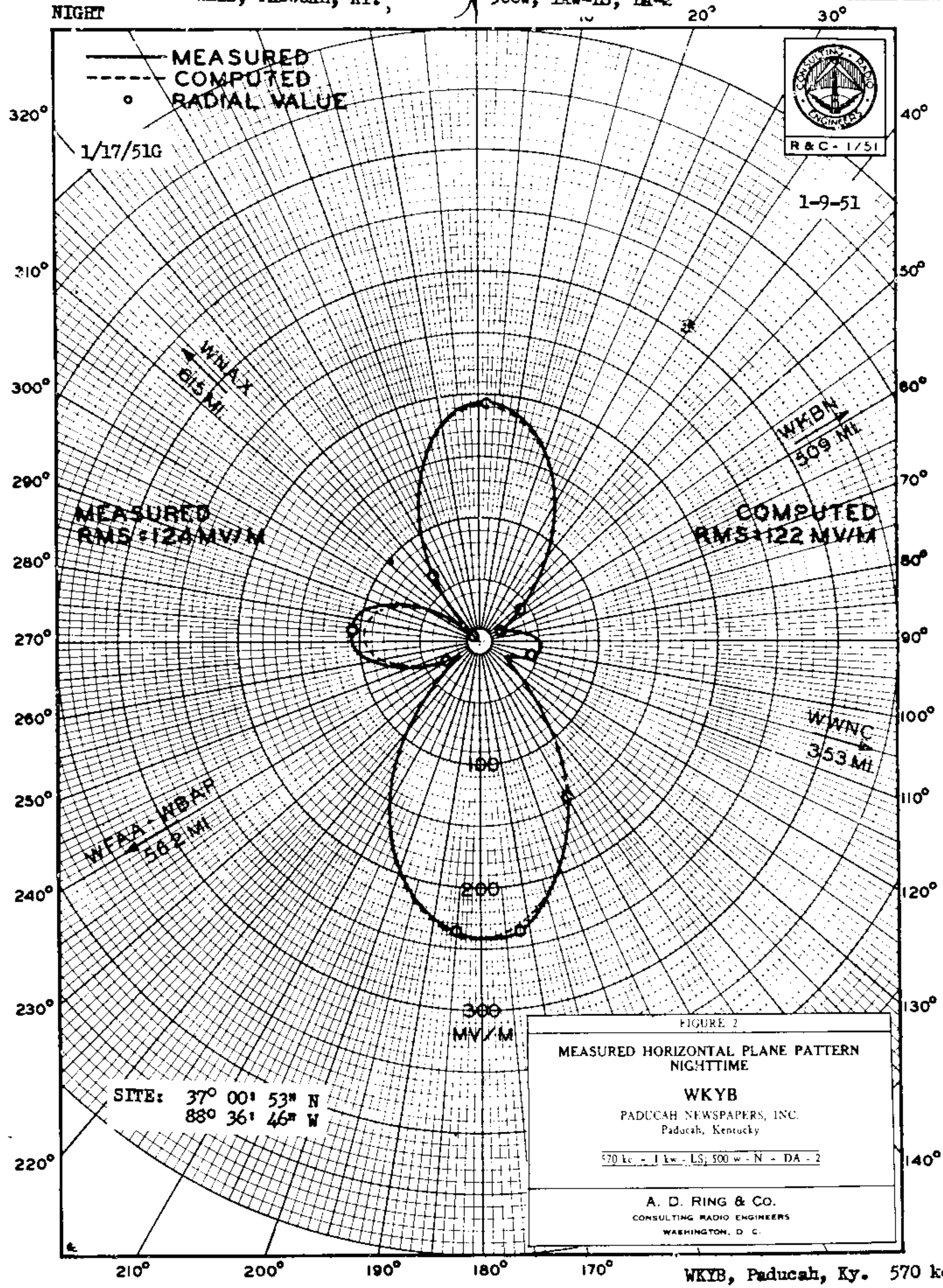


FIGURE 2

MEASURED HORIZONTAL PLANE PATTERN NIGHTTIME

WKYB

PADUCAH NEWSPAPERS, INC.
Paducah, Kentucky

570 kc - 1 kw - LS; 500 w - N - DA - 2

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

WKYB, Paducah, Ky. 570 kc

WMCA

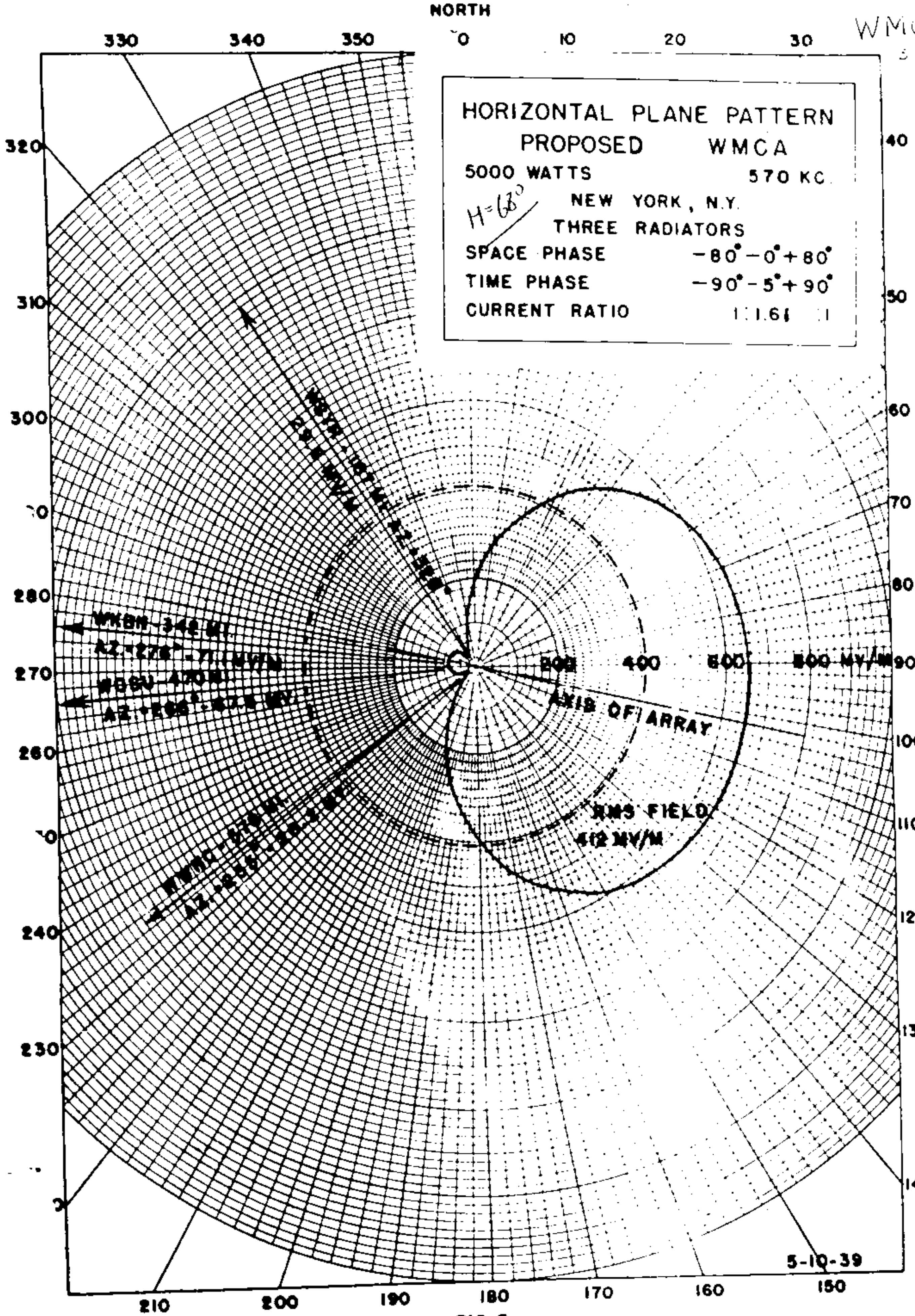

NORTH
HORIZONTAL PLANE PATTERN
PROPOSED WMCA
5000 WATTS 570 KC.
H=68°
NEW YORK, N.Y.
THREE RADIATORS
SPACE PHASE -80°-0°+80°
TIME PHASE -90°-5°+90°
CURRENT RATIO 1:1.61:1
200
400
600
800 MV/M
AXIS OF ARRAY
RMS FIELD
412 MV/M
5-10-39

FIG. 2

BRC-2273 WMCA

Measured Day & Night (3-29-67ct)

Station WMCA
New York, New York

5kw,DA-1,U
570 kc

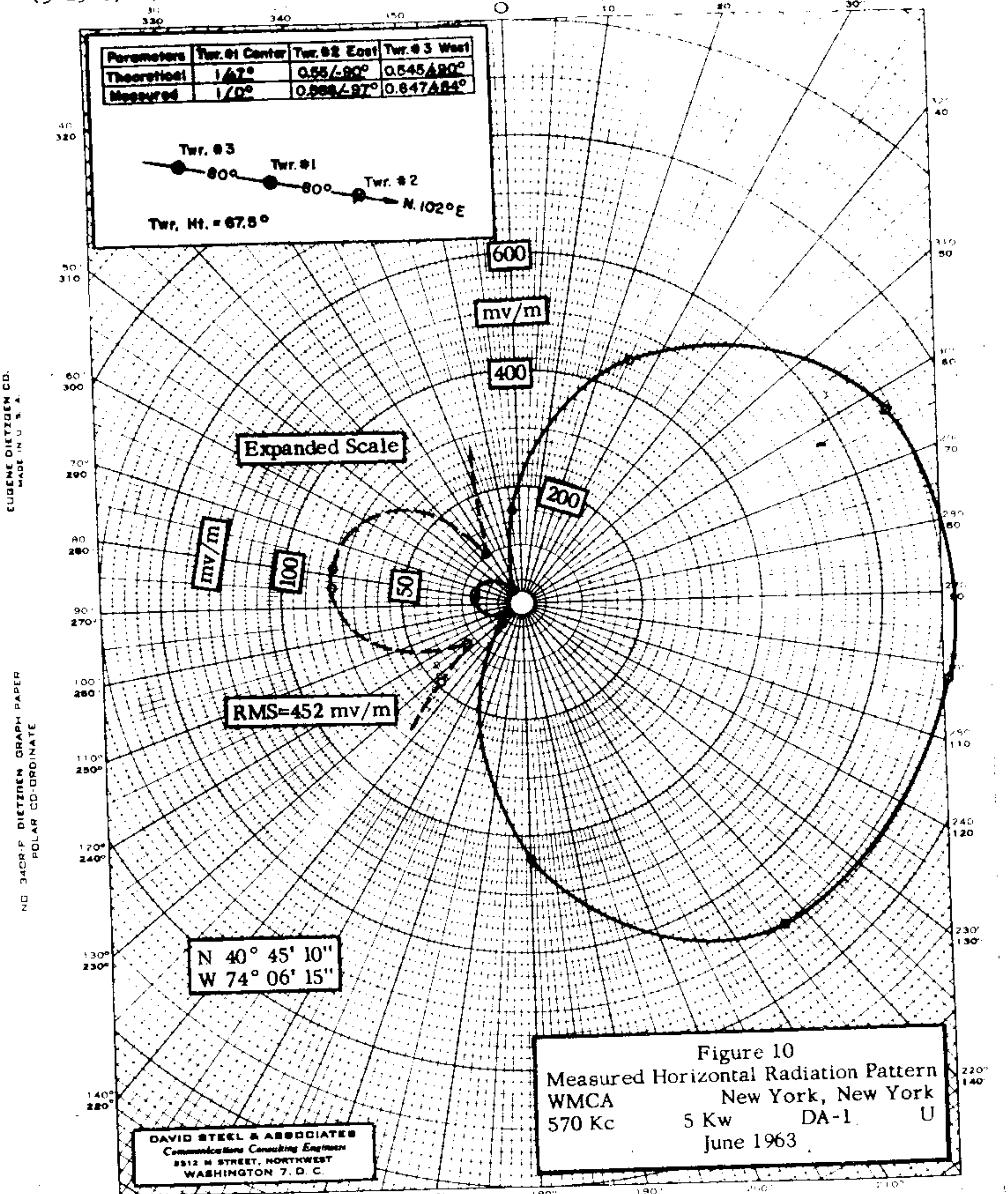


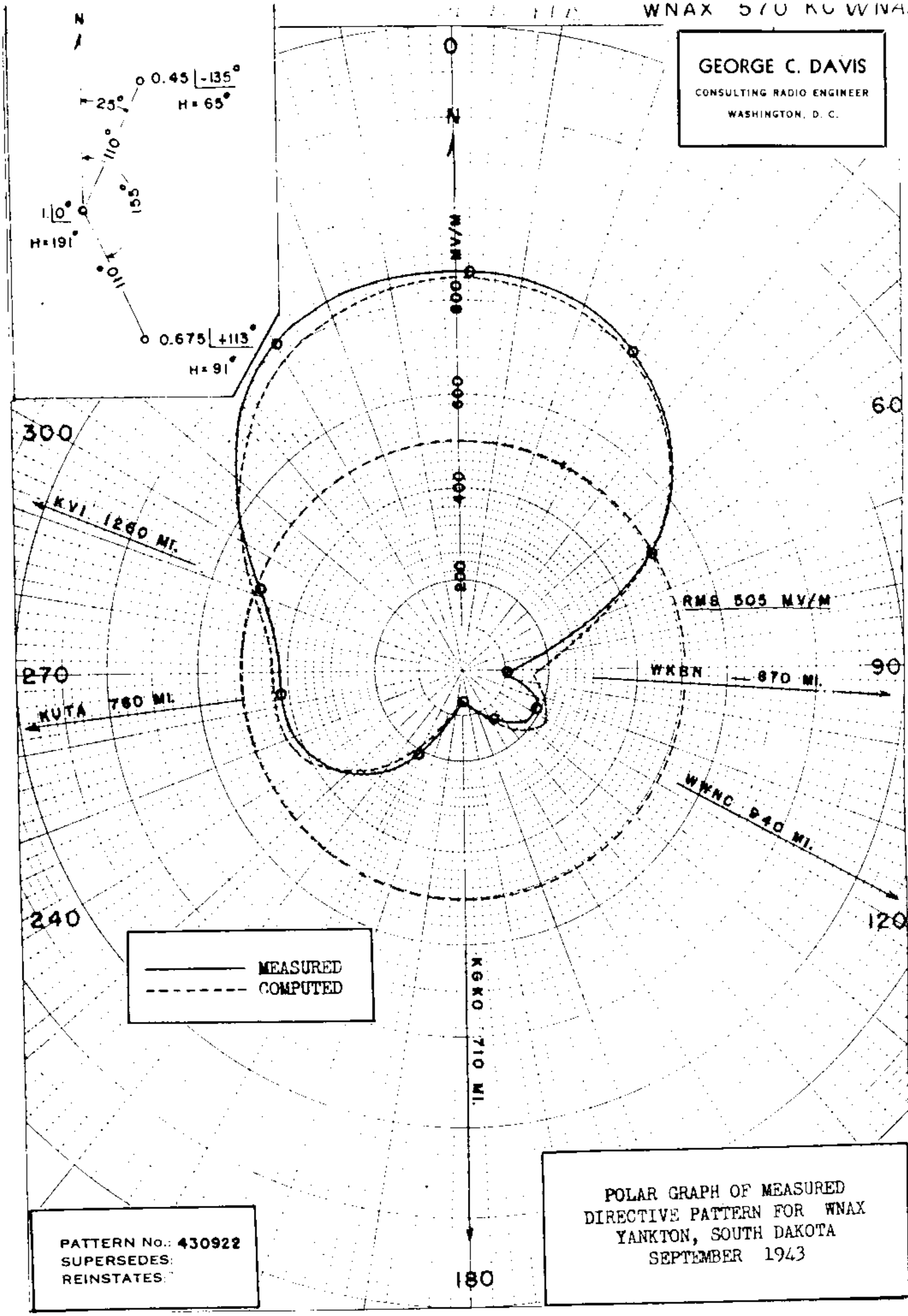
Figure 10
Measured Horizontal Radiation Pattern
WMCA New York, New York
570 Kc 5 Kw DA-1 U
June 1963

FCC File No.BRC-2273
Granted 9-4-63

Station WMCA
New York, New York

570 kc

WNAX 570 KC WNAX



POLAR GRAPH OF MEASURED
DIRECTIVE PATTERN FOR WNAX
YANKTON, SOUTH DAKOTA
SEPTEMBER 1943

PATTERN No.: 430922
SUPERSEDES:
REINSTATES:

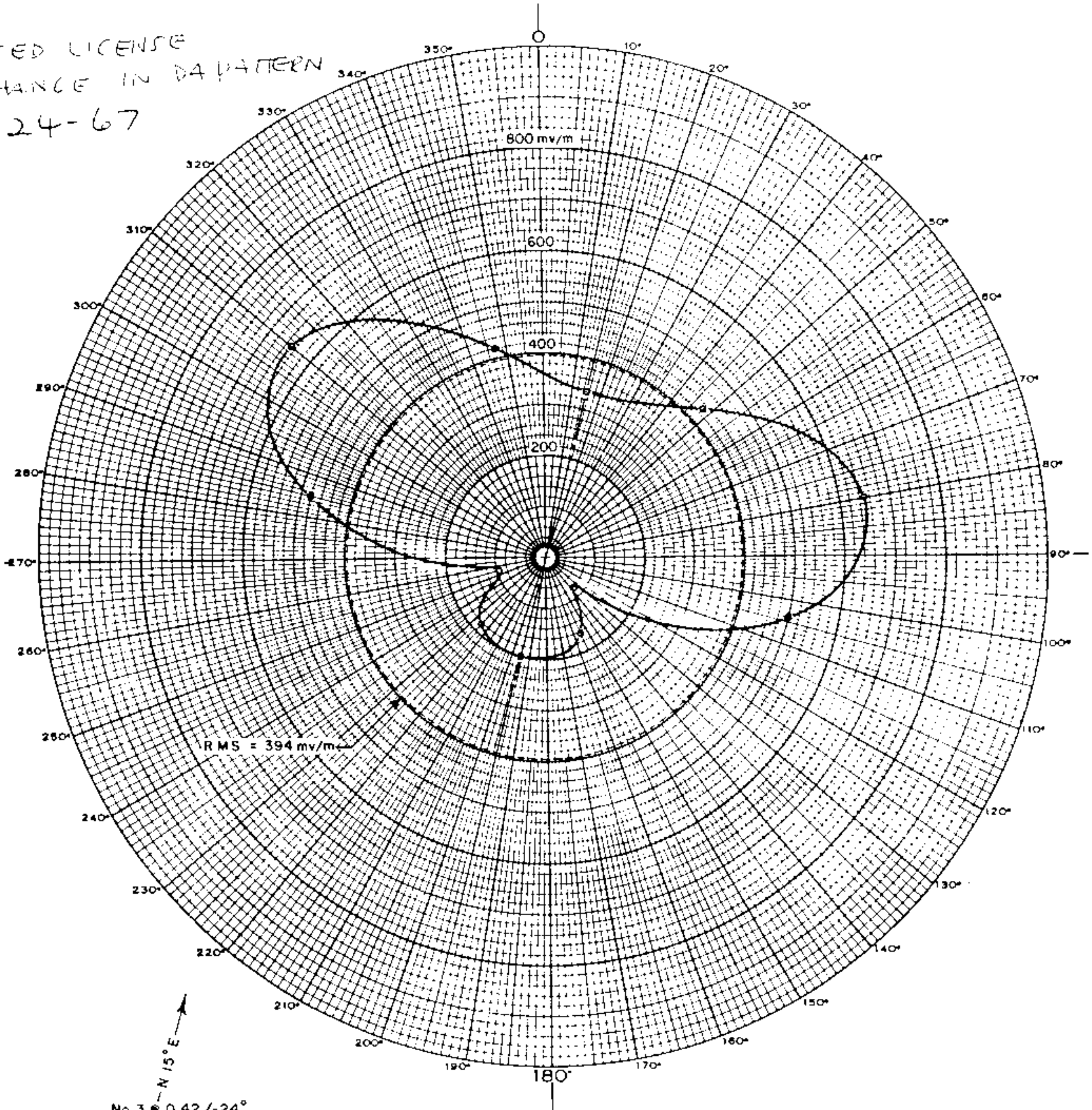
BL-11,573 WSYR

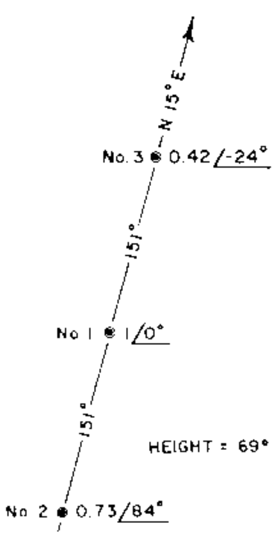
Measured Day
(1-30-67ct)

Station WSYR
Syracuse, New York

5kw,DA-2,U
570 kc

GRANTED LICENSE
FOR CHANGE IN DA PATTERN
3-24-67





NORTH LATITUDE 42° 59' 13"
WEST LONGITUDE 76° 09' 09"

FIGURE 7
HORIZONTAL RADIATION PATTERN
DA-DAY OPERATION
WSYR 5 KW-U, DA-2 570 KC
NEWHOUSE BROADCASTING CORPORATION
SYRACUSE, NEW YORK

Prepared by
Lohnes and Culver Washington, D. C.
October, 1966

FCC File No.BL-11523
Accepted 1-19-67

Station WSYR
Syracuse, New York

570 kc

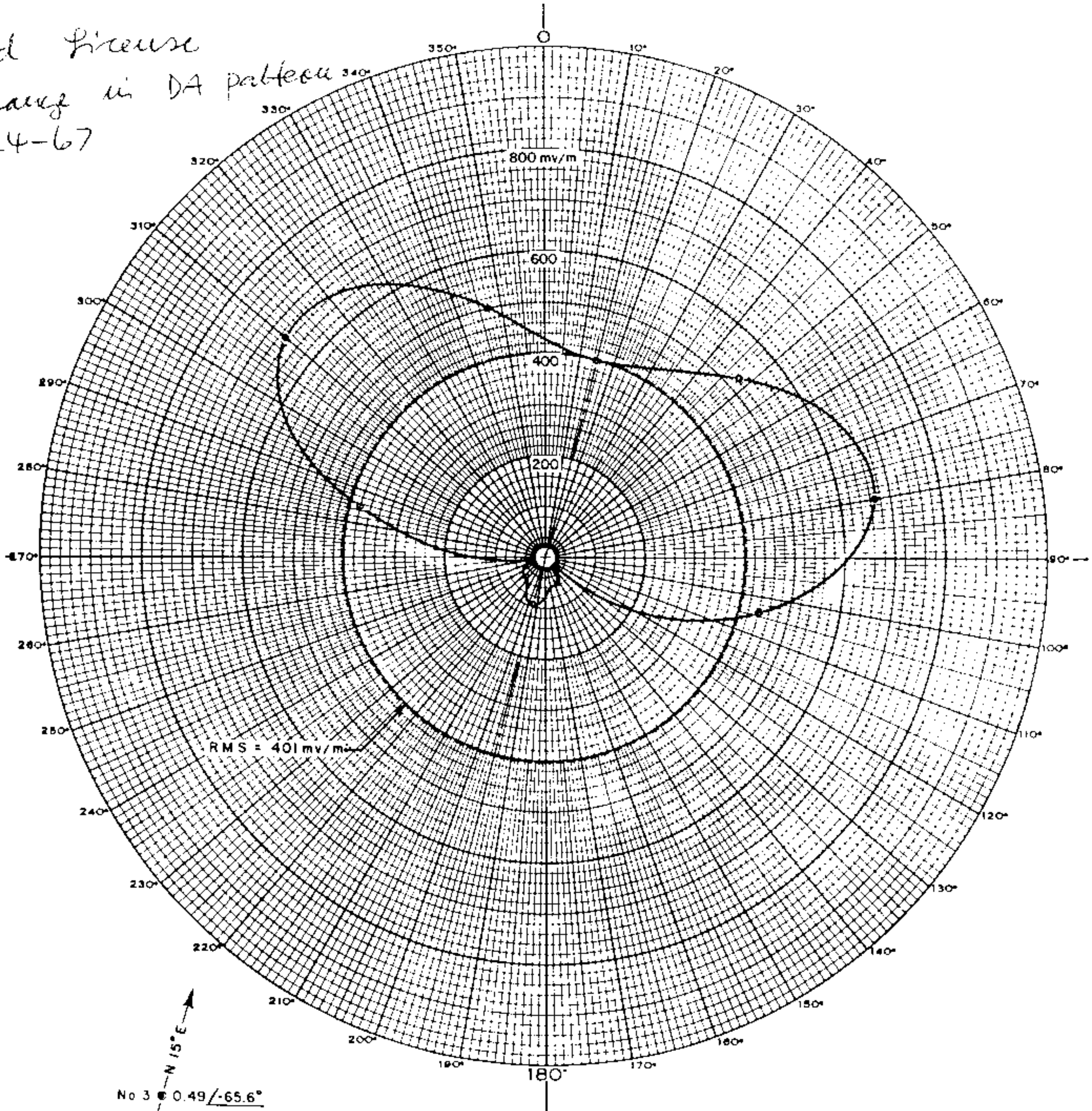
BL 11523 WSYK

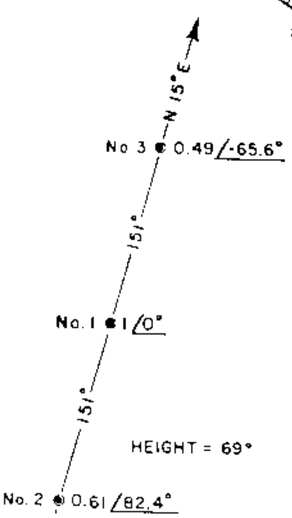
Measured Night
(1-30-67ct)

Station WSYR
Syracuse, New York

5kw,DA-2,U
570 kc

granted License
for change in DA pattern
3-24-67





HEIGHT = 69°

NORTH LATITUDE 42° 59' 13"
WEST LONGITUDE 76° 09' 09"

FIGURE 8
HORIZONTAL RADIATION PATTERN
DA-NIGHT OPERATION
WSYR 5 KW-U, DA-2 570 KC
NEWHOUSE BROADCASTING CORPORATION
SYRACUSE, NEW YORK

Prepared by
Lohnes and Culver Washington, D. C.
October, 1966

FCC File No. BL-11523
Accepted 1-19-67

Station WSYR
Syracuse, New York

570 kc

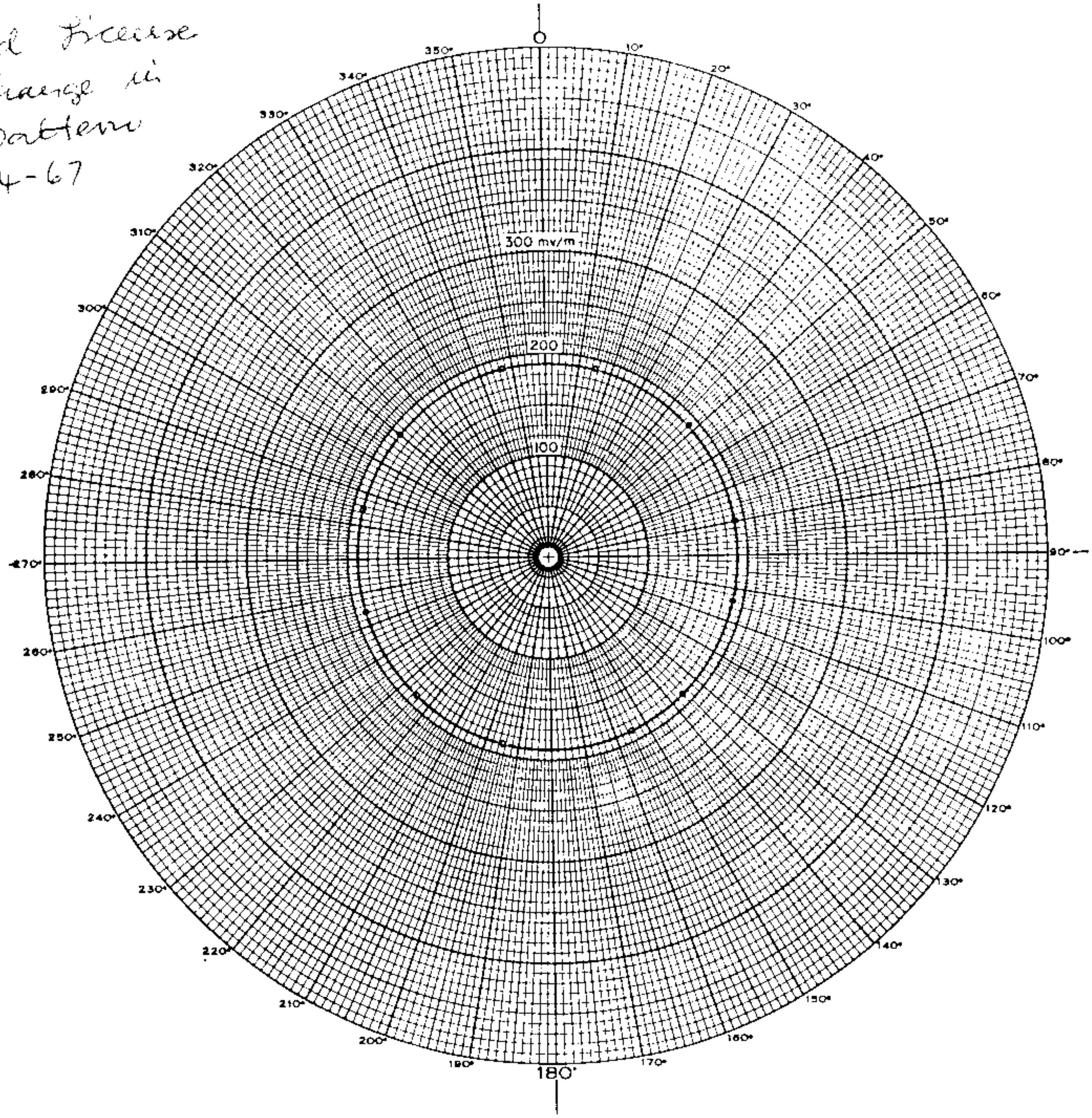
WSYR

Measured Non-DA
(1-30-67ct)

Station WSYR
Syracuse, New York

5kw,DA-2,U
570 kc

Granted License
for change in
DA-pattern
3-24-67



NORTH LATITUDE 42° 59' 13"
WEST LONGITUDE 76° 09' 09"

FIGURE 6
HORIZONTAL RADIATION PATTERN
NON-DA OPERATION
WSYR 5 KW-U, DA-2 570 KC
NEWHOUSE BROADCASTING CORPORATION
SYRACUSE, NEW YORK

Prepared by
Lohnes and Culver Washington, D. C.
October, 1966

FCC File No. BL-11523
Accepted 1-19-67

Station WSYR
Syracuse, New York

570 kc

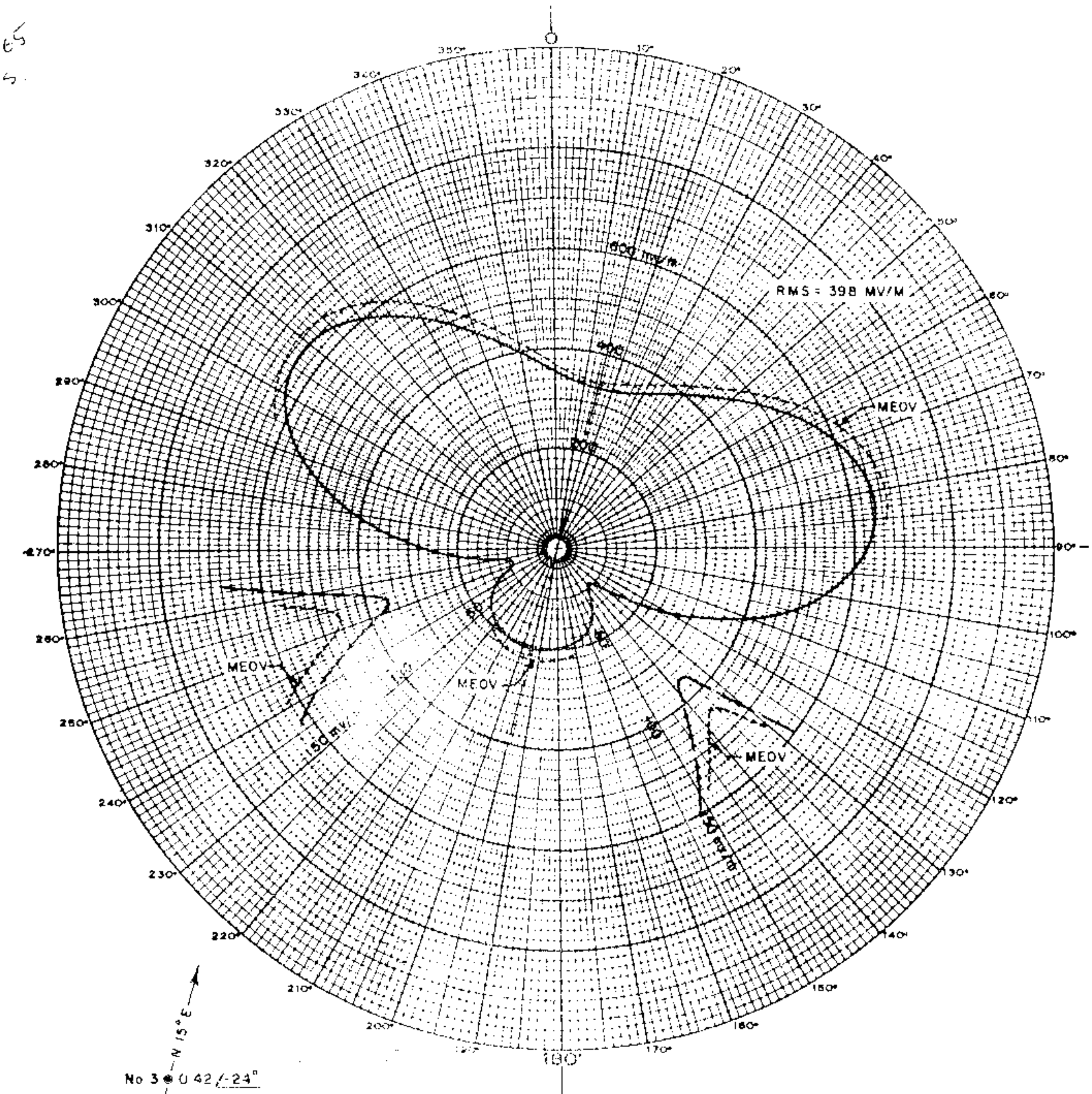
WSYR

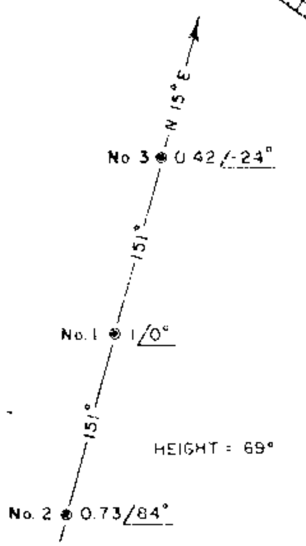
Proposed Day
(9-28-65ct)

Station WSYR
Syracuse, New York

5kw,DA-2,U
570 kc

P 10-8-65





NORTH LATITUDE 42° 59' 13"
WEST LONGITUDE 76° 09' 09"

FIGURE 2
PROPOSED DAYTIME HORIZONTAL
PLANE RADIATION PATTERN
WSYR 5 KW-U, DA-2 570 KC
SYRACUSE, NEW YORK

Prepared by
Lohnes and Culver Washington, D.C.
July, 1965

FCC File No. BP-16867
Accepted 9-3-65

Station WSYR
Syracuse, New York

570 kc

WSYR

Proposed Night
(9-28-65ct)

Station WSYR
Syracuse, New York

5kw,DA-2,U
570 kc

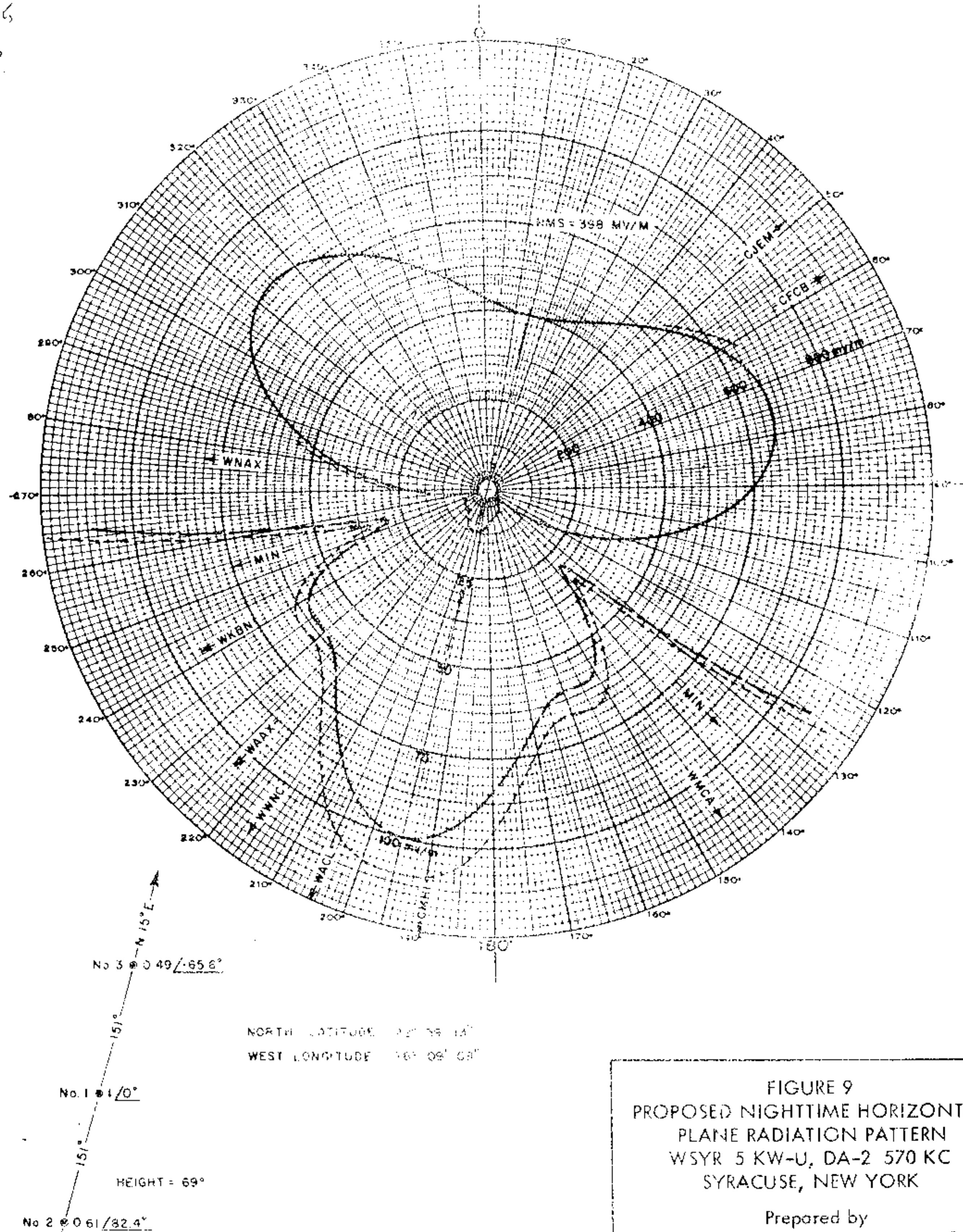


FIGURE 9
PROPOSED NIGHTTIME HORIZONTAL
PLANE RADIATION PATTERN
WSYR 5 KW-U, DA-2 570 KC
SYRACUSE, NEW YORK

Prepared by
Lohnes and Culver Washington, D. C.
July, 1965

FCC File No. BP-16867
Accepted 9-3-65

Station WSYR
Syracuse, New York

570 kc

WVMI
570kHz

DIRECTIONAL ANTENNA DESCRIPTION SHEET

Station: WVMI

Main Studio: Biloxi, Mississippi

Frequency: 570 kHz

Power: 1kw Night 5kw Day

Notification List No. 1788

Date: August 22, 1980 Class:

GEOGRAPHICAL LOCATION OF THE CENTER OF THE ANTENNA SYSTEM:

North Latitude: 30° 28' 29"
West Longitude: 88° 51' 22"

ANTENNA CHARACTERISTICS

Authorized for Daytime and Nighttime operation. (DA-2)
Number of elements: 6
Type of elements: Series excited, uniform cross-section, guyed, vertical steel towers. * All towers 61.7 feet (12.9°) top loading.

TOWER:	SW(#1)	NW(#2)	NE(#3)	SE(#4)	SC(#5)	NC(#6)
HEIGHT ABOVE INSULATORS:	394'	394'	394'	394'	394'	394' (95.09°)
NIGHT PHASING:	0°	—	-217°	—	176.8°	-33°
NIGHT FIELD RATIO:	1.0	—	1.053	—	1.549	1.715
DAY PHASING:	0°	-30°	-3°	+27°	—	---
DAY FIELD RATIO:	1.0	1.95	1.95	1.0	—	—

SPACING AND ORIENTATION:

Daytime: Towers #1, #2, #3 and #4 are located at the vertices of a parallelogram the long sides of which are 1298.8' (270.78°) in length on a line bearing 15° true. The short sides are 619.5' (129.15°) in length on a line bearing 105° true.
Nighttime: from reference tower #1 tower #3 is spaced 1438.9' (300°) on a line bearing 40.5° true, tower #5 is spaced 479.6' ((100°) on a line bearing 41° true, tower #6 is spaced 959.2' (200°) on a line bearing 41° true.

GROUND SYSTEM:

120 - 190' to 450' equally spaced copper radials about each tower. Radials are shortened and bonded to a transverse straps along intersections between towers.

WVMI
570 kHz

Directional Antenna Description Sheet

PREDICTED EFFECTIVE FIELDS AT RATED POWER:

	THEORETICAL RMS	THEORETICAL RSS	STANDARD RMS
Day	426 mv/m	469 mv/m	448 mv/m
Night 1/	176.3 mv/m	422.8 mv/m	182 mv/m

1/ By adjustment of input power.

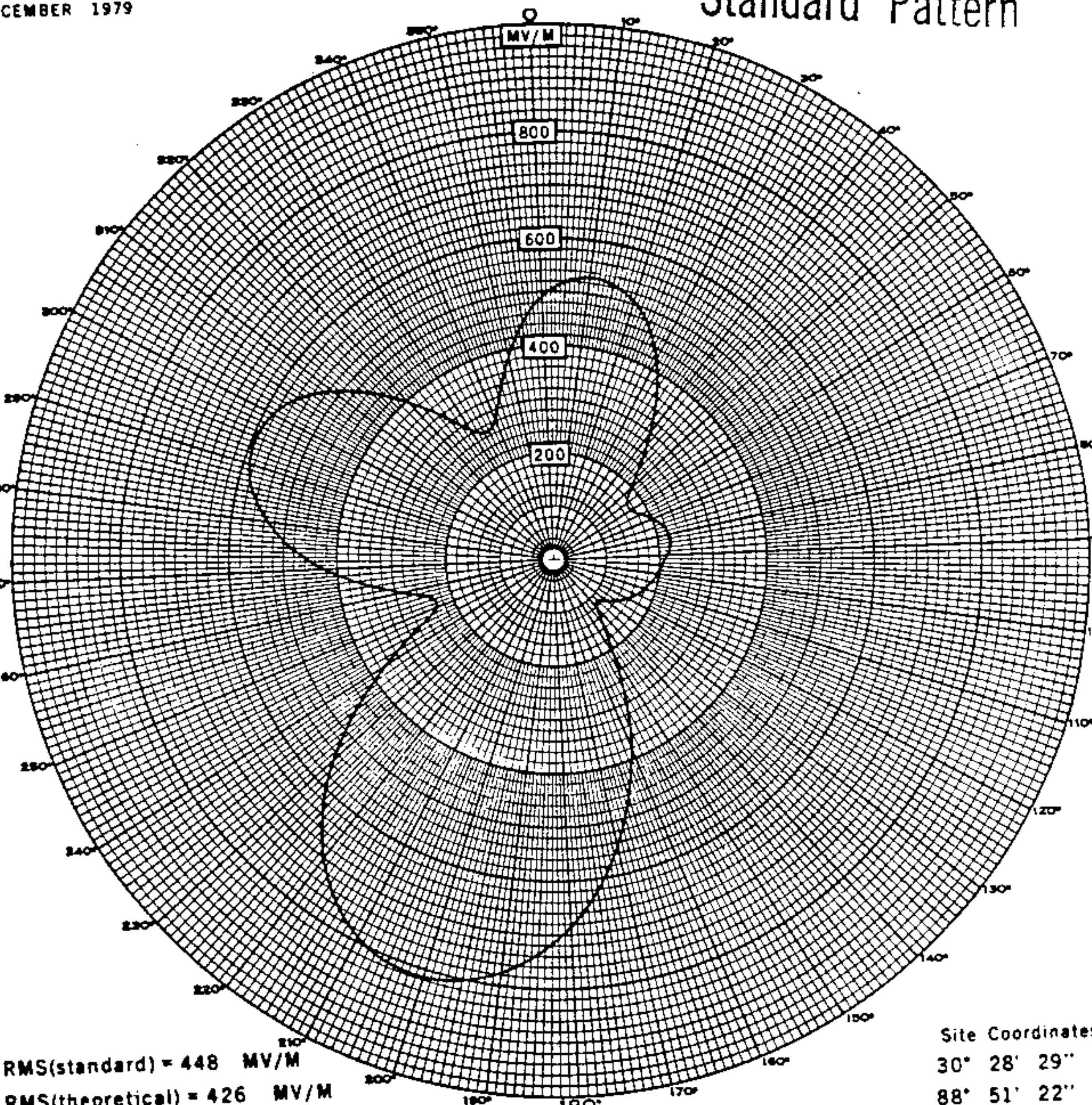
Note: Please retain the Nighttime directional antenna radiation pattern notified for Station WVMI in United States Change List Number 1676 dated March 19, 1976 and attach to this Revised Description Sheet and Daytime pattern. This notification concerns only a change in the Daytime operation of the station with Nighttime operation continued as previously notified.

WVMI
570KHZ
DA-D

Figure 1

DECEMBER 1979

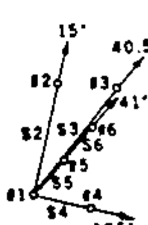
Standard Pattern



RMS(standard) = 448 MV/M
RMS(theoretical) = 426 MV/M
RSS(theoretical) = 469 MV/M

Site Coordinates:
30° 28' 29'' N
88° 51' 22'' W

PROPOSED DAYTIME HORIZONTAL PLANE STANDARD RADIATION PATTERN



#1 1.0 /0°
#2 1.95 /-30°
#3 1.95 /-3°
#4 1.0 /27°
#5 Isolated
#6 Isolated

S2=270.78°/1298.8°
S3=300°/1438.9°
S4=129.15°/619.5°
S5=100°/479.6°
S6=100°/479.6°

G(all)=95°(82.1°+12.9°T.L.)

NEW SOUTH COMMUNICATIONS, INC.
RADIO STATION WVMI
BILOXI, MISSISSIPPI

Jules Cohen & Associates
Consulting Electronics Engineers

570 KHZ

1 KW, 5 KW-LS

U DA-2

Pattern No. 791213

WVMI

DIRECTIONAL ANTENNA DESCRIPTION SHEET

Station: WVMI Main Studio: Biloxi, Mississippi

Frequency: 570 kHz Power: 1 kW Night 5 kW Day

Notification List No. 1676 Date: March 19, 1976 Class: III

GEOGRAPHICAL LOCATION OF THE CENTER OF THE ANTENNA SYSTEM: North Latitude: 30° 28' 29" West Longitude: 88° 51' 22"

ANTENNA CHARACTERISTICS

Authorized for Daytime and Nighttime operation. (DA-2)
Number of elements: 6
Type of elements: Series-excited, uniform cross-section, guyed, vertical steel towers, top loaded by upper 61.7 foot sections of 3 guy wires to an effective electrical height of 95 degrees. (*)

TOWER:	SW(#1)	NW(#2)	NE(#3)	SE(#4)	CS(#5)	CN(#6)
HEIGHT ABOVE INSULATORS:	All towers 394' (*)					
NIGHT PHASING:	0°	-	-217°	-	+176.8°	-33°
NIGHT FIELD RATIO:	1.0	-	1.053	-	1.549	1.715
DAY PHASING:	0°	0°	+32°	+32°	-	-
DAY FIELD RATIO:	1.0	0.68	0.612	0.90	-	-

SPACING AND ORIENTATION: Daytime, towers #1, #2, #3, and #4 are located at the vertices of a parallelogram the long sides of which are 1298.8'(270.78°) in length on a line bearing 15° true. The short sides are 619. (129.15°) in length on a line bearing 105° true.

Nighttime, from reference tower #1, tower #3 is spaced 1438.9' (300°) on a line bearing 40.5° true, tower #5 is spaced 479.6' (100°) on a line bearing 41° true, tower #6 is spaced 959.2' (200°) on a line bearing 41° true.

GROUND SYSTEM: 120-190' to 450' equally spaced copper radials about each tower. Radials are shortened and bonded to transverse straps along intersections between towers.

(Cont'd)

PREDICTED EFFECTIVE FIELDS AT RATED POWER:

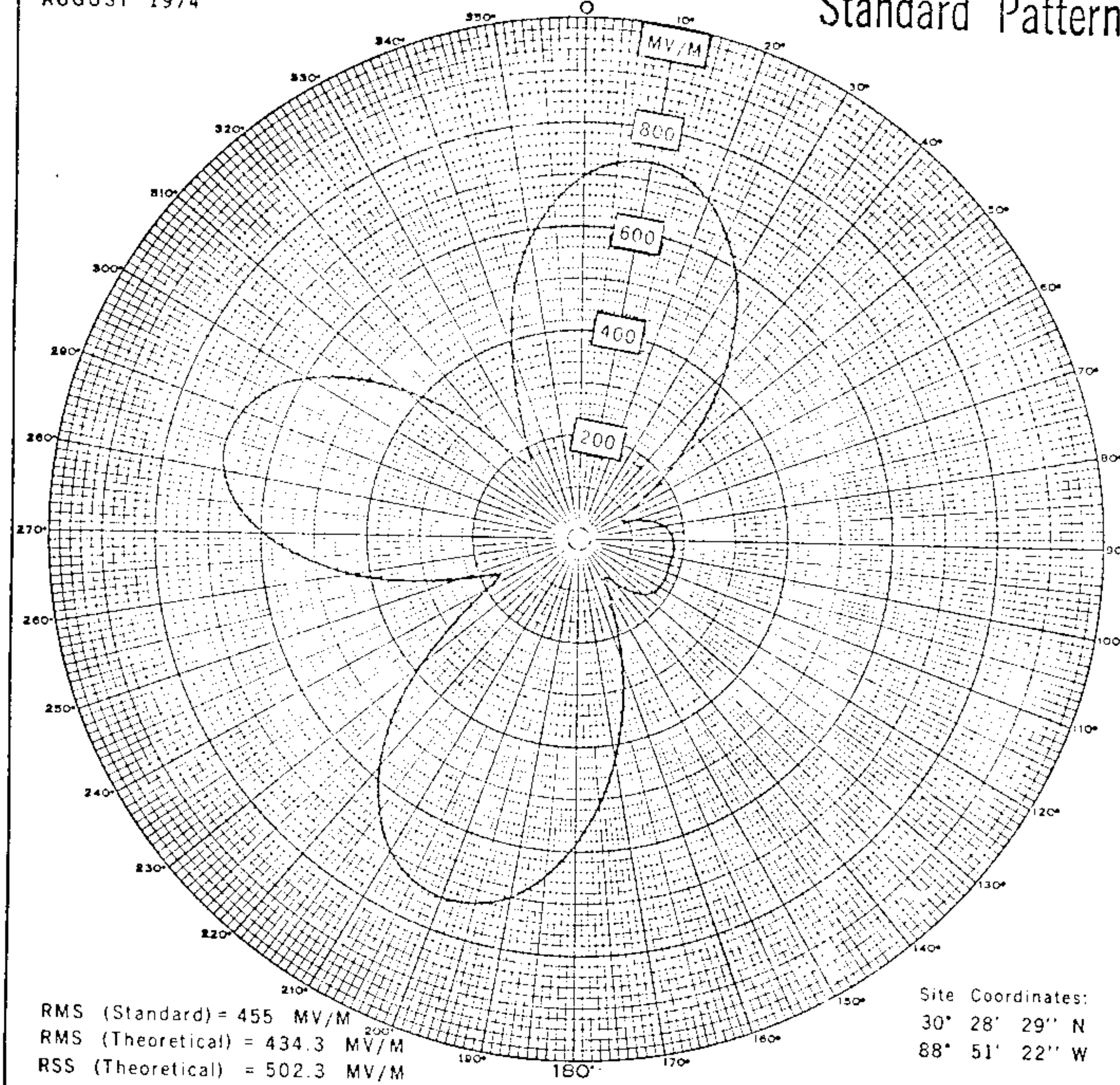
	THEORETICAL RMS	THEORETICAL RSS	STANDARD RMS
Day	434.3 mv/m	502.3 mv/m	455 mv/m
Night 1/	176.3 mv/m	422.8 mv/m	182 mv/m

1/ By adjustment of input power.

CTR NO 30457A3

AUGUST 1974

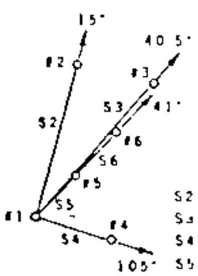
Standard Pattern



RMS (Standard) = 455 MV/M
RMS (Theoretical) = 434.3 MV/M
RSS (Theoretical) = 502.3 MV/M

Site Coordinates:
30° 28' 29'' N
88° 51' 22'' W

PROPOSED DAYTIME HORIZONTAL PLANE STANDARD RADIATION PATTERN



#1	1.0∠0°
#2	0.68∠0°
#3	0.612∠37°
#4	0.90∠32°
#5	Isolated
#6	Isolated

S2 = 270.78°/1298.8'
S3 = 300°/1438.9'
S4 = 129.35°/619.5'
S5 = 100°/475.6'
S6 = 100°/479.6'

G (all) = 95° (82.1° + 12.9° T.L.)

NEW SOUTH COMMUNICATIONS, INC.
RADIO STATION WVMI
BILOXI, MISSISSIPPI

Jules Cohen & Associates
Consulting Electronics Engineers

570 KHZ
1 KW, 5 KW-LS
U DA-2

Pattern No. 731004

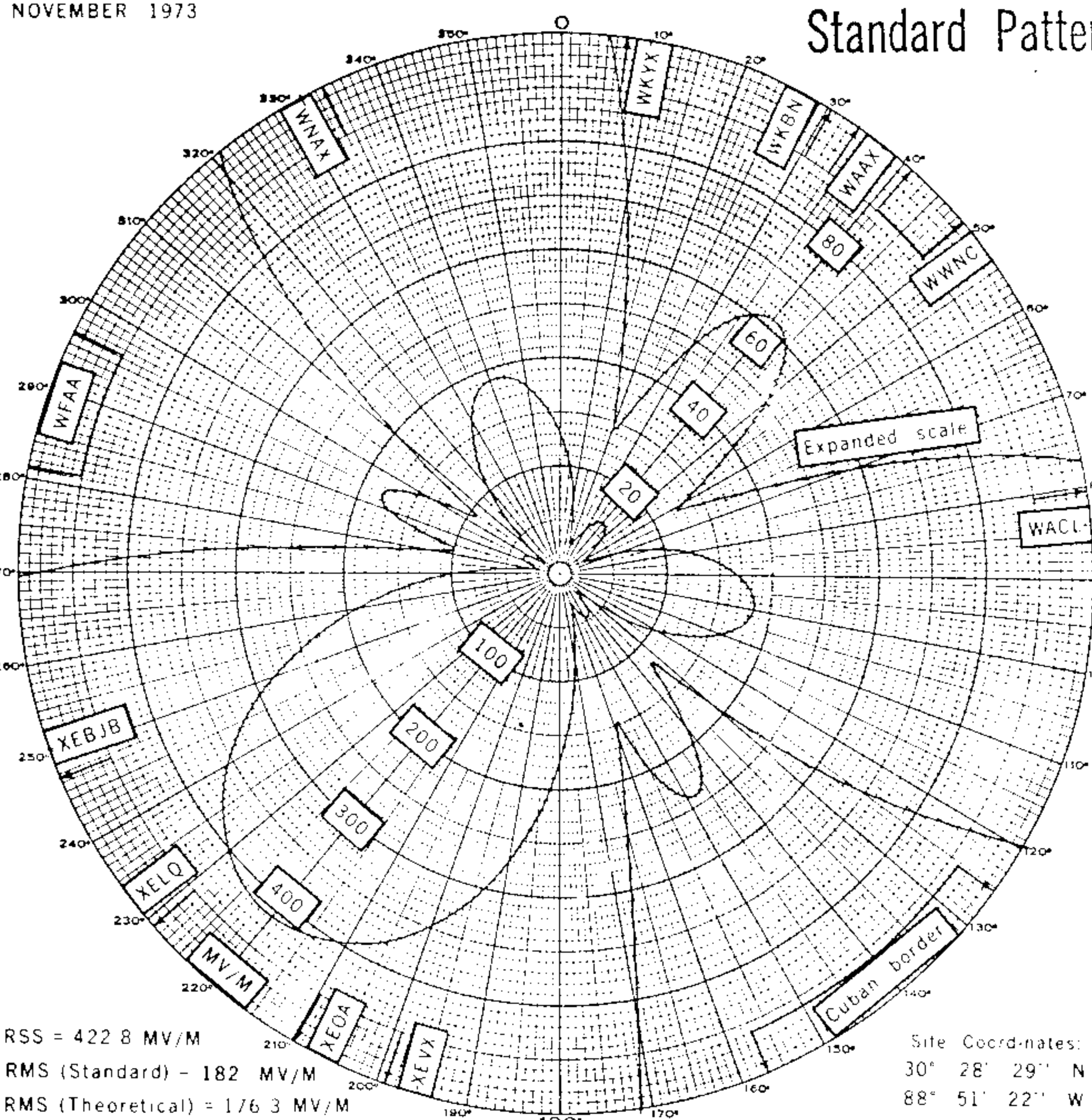
WVMI

Figure 11

Sheet 1 of 13

NOVEMBER 1973

Standard Pattern



RSS = 422.8 MV/M

RMS (Standard) - 182 MV/M

RMS (Theoretical) = 176.3 MV/M

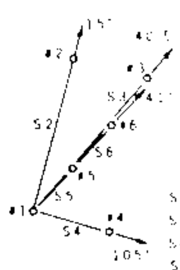
(By adjustment)

Site Coordinates:

30° 28' 29'' N

88° 51' 22'' W

PROPOSED NIGHTTIME HORIZONTAL PLANE STANDARD RADIATION PATTERN



#1 1.0

#2 Isolated

#3 [illegible]

#4 Isolated

#5 1.549 176.8

#6 1.715 [illegible]

S2 - 270 78° 1296.8

S3 - 100° 1448.9

S4 129.15 [illegible]

S5 100° 479.6

S6 100° 479.6

[illegible]

NEW SOUTH COMMUNICATIONS, INC.

RADIO STATION WVMI

BILOXI, MISSISSIPPI

Jules Cohen & Associates

Consulting Electronics Engineers

570 KHZ

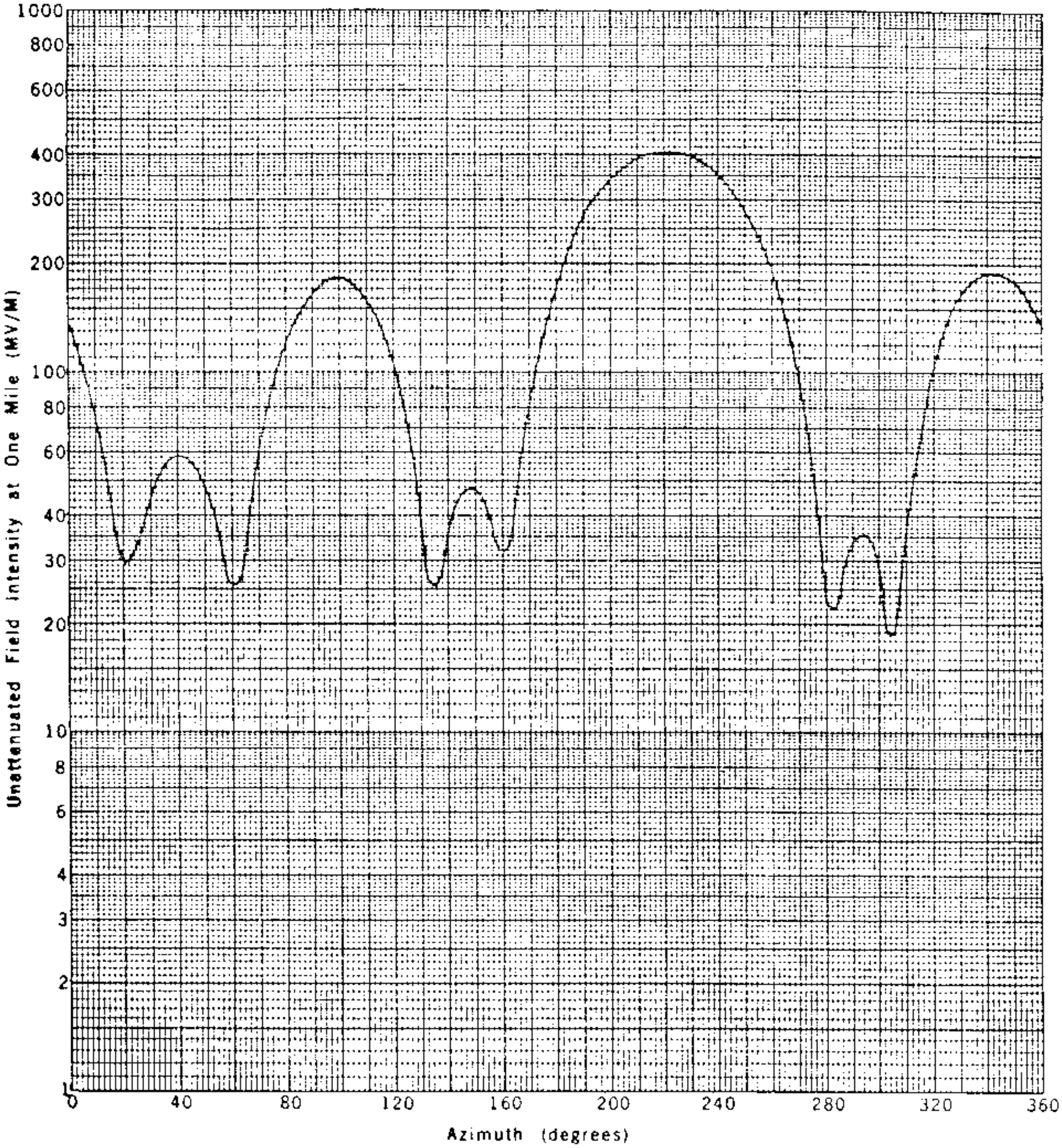
1 KW, 5 KW LS

U DA-2

Pattern No. 731004

NOVEMBER 1973

Standard Pattern



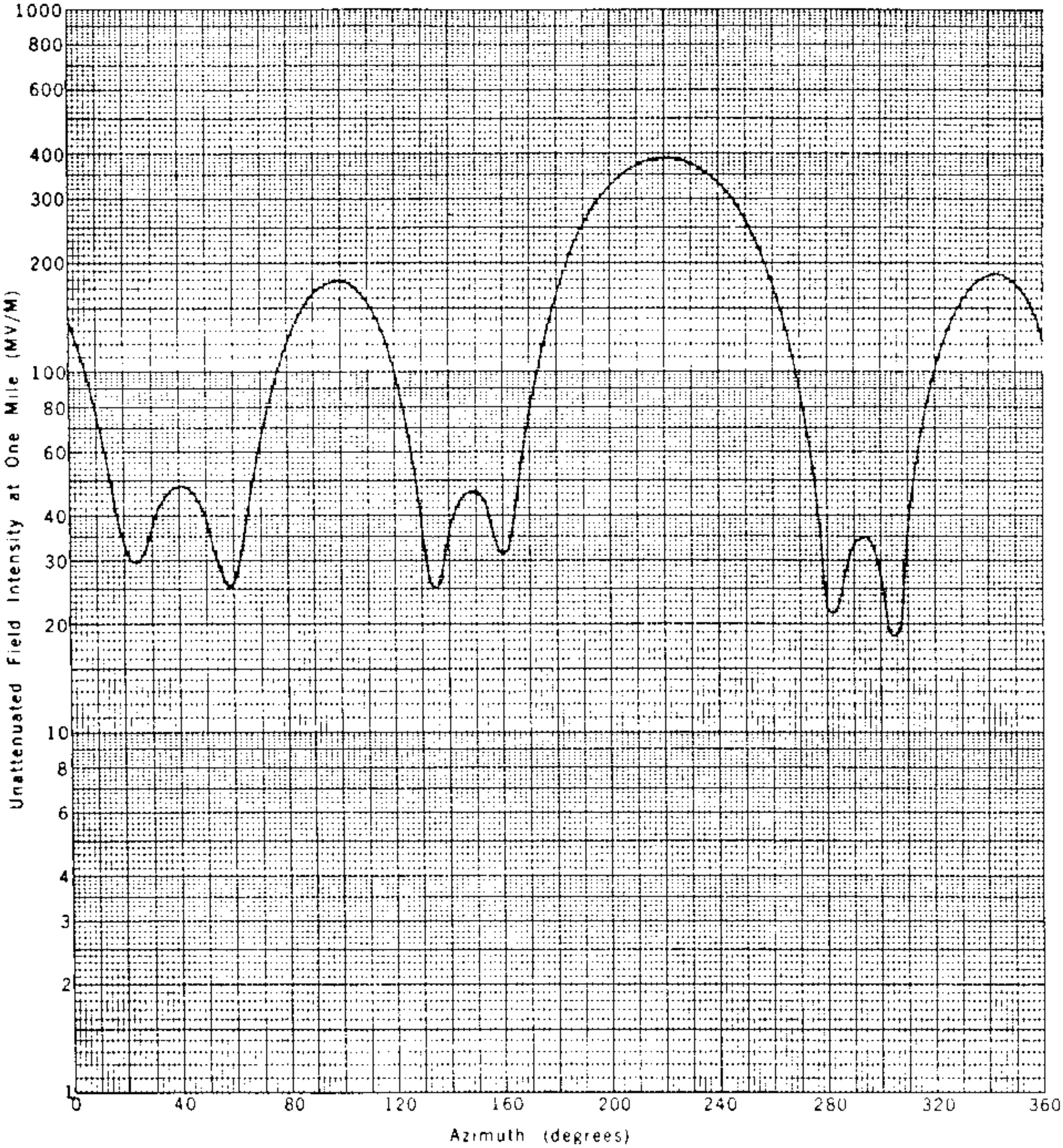
PROPOSED NIGHTTIME STANDARD RADIATION PATTERN
AT VERTICAL ANGLE OF 5 DEGREES

NEW SOUTH COMMUNICATIONS INC.
STATION WVMI BILOXI, MISSISSIPPI
570 KHZ 1 KW, 5 KW-LS U DA-2

Jules Cohen & Associates Consulting Electronics Engineers

NOVEMBER 1973

Standard Pattern



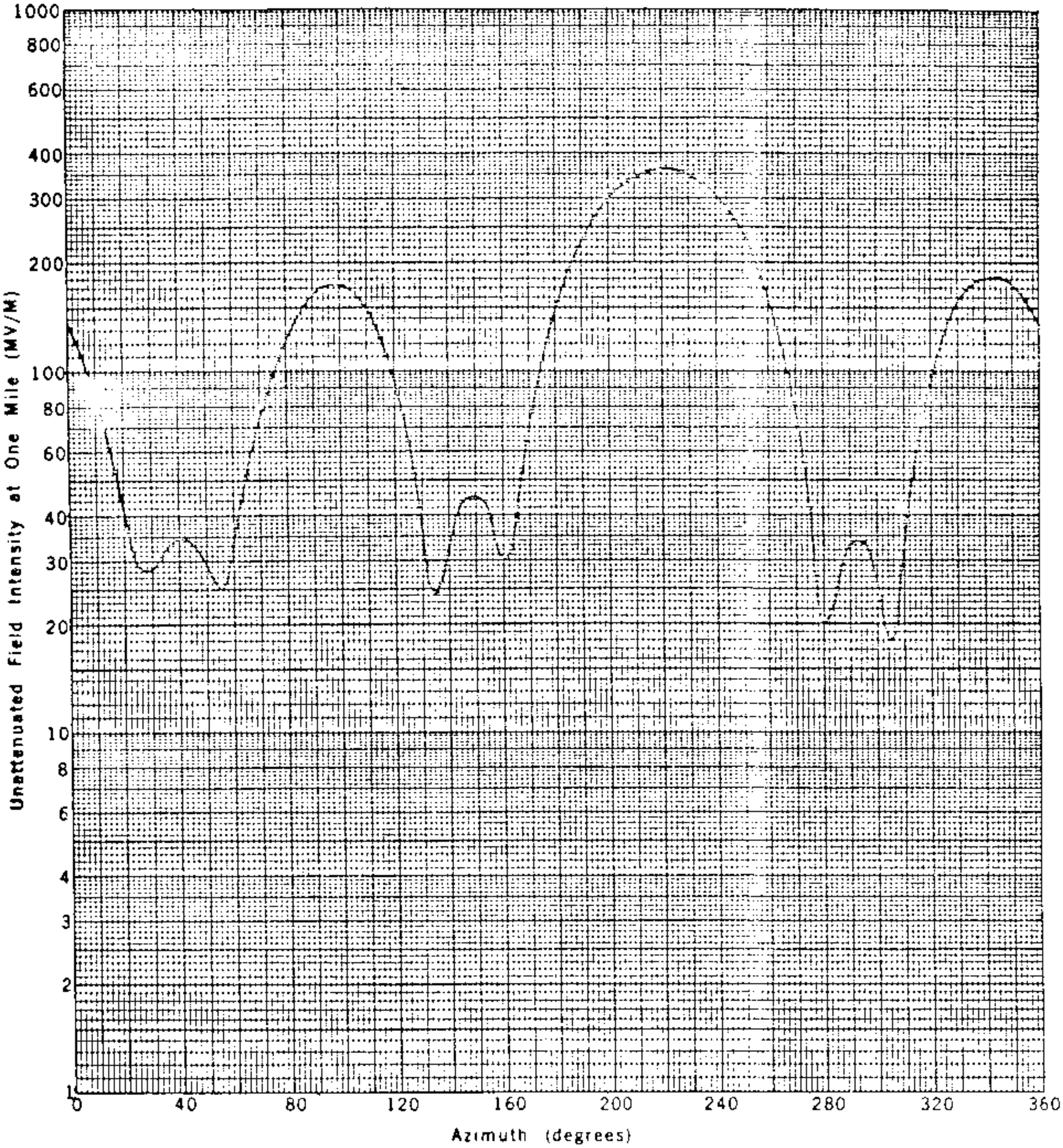
PROPOSED NIGHTTIME STANDARD RADIATION PATTERN
AT VERTICAL ANGLE OF 10 DEGREES

NEW SOUTH COMMUNICATIONS, INC.
STATION WVMI BILOXI, MISSISSIPPI
570 KHZ 1 KW, 5 KW-LS U DA-2

Jules Cohen & Associates Consulting Electronics Engineers

NOVEMBER 1973

Standard Pattern



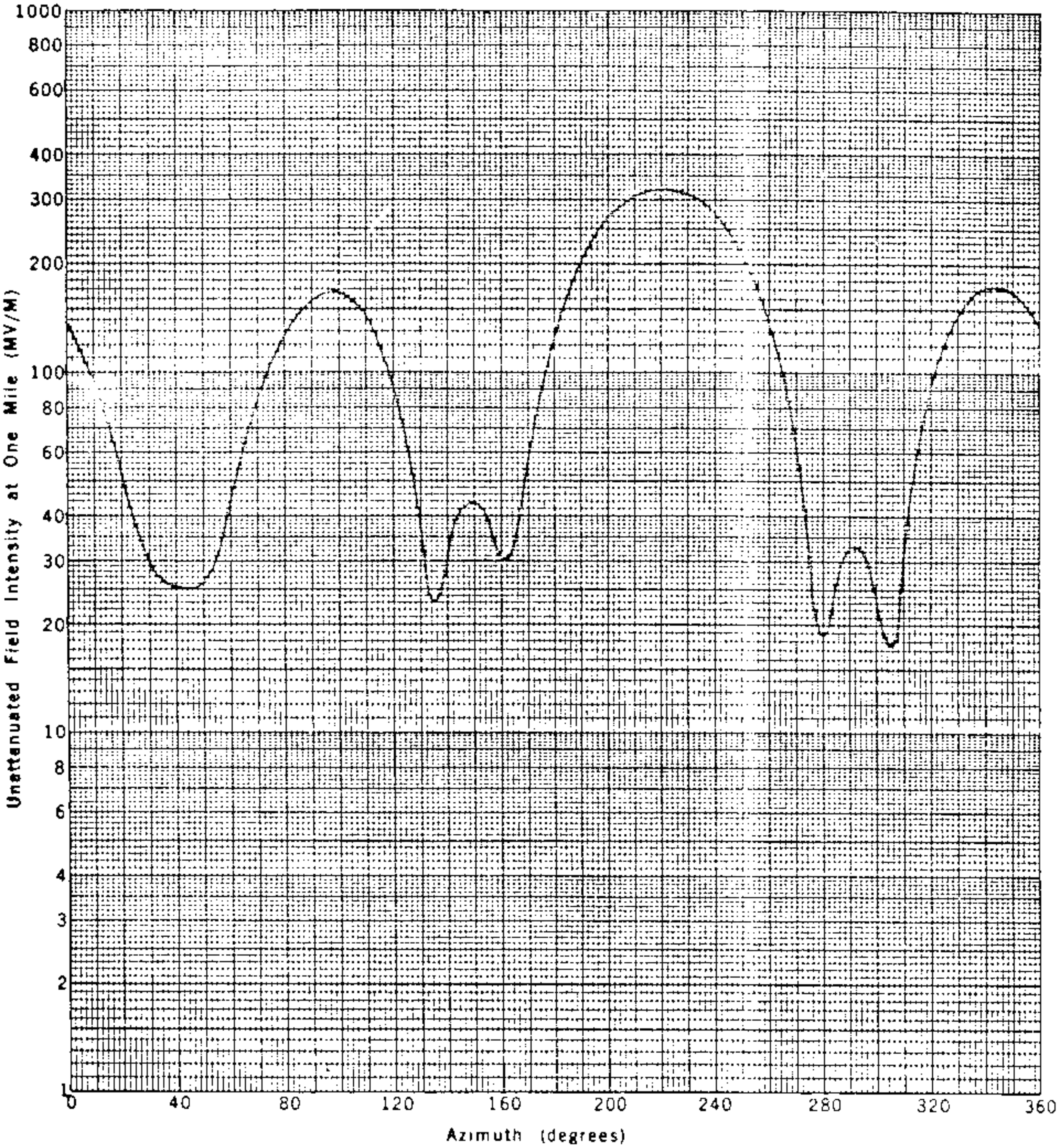
PROPOSED NIGHTTIME STANDARD RADIATION PATTERN
AT VERTICAL ANGLE OF 15 DEGREES

NEW SOUTH COMMUNICATIONS, INC.
STATION WVMI BILOXI, MISSISSIPPI
570 KHZ 1 KW, 5 KW-LS U DA-2

Jules Cohen & Associates Consulting Electronics Engineers

NOVEMBER 1973

Standard Pattern



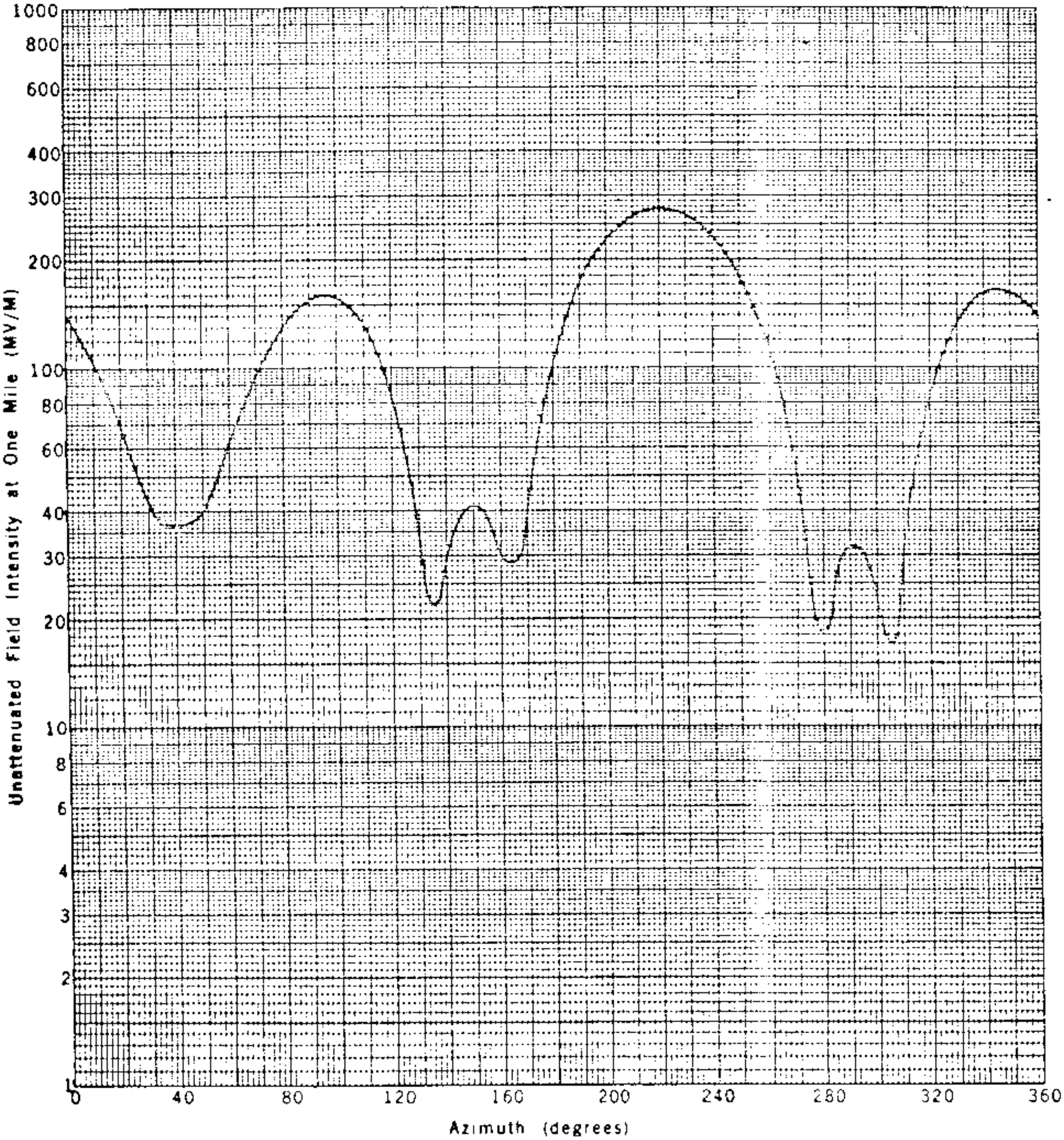
PROPOSED NIGHTTIME STANDARD RADIATION PATTERN
AT VERTICAL ANGLE OF 20 DEGREES

NEW SOUTH COMMUNICATIONS, INC.
STATION WVMI BILOXI, MISSISSIPPI
570 KHZ 1 KW, 5 KW-LS U DA-2

Jules Cohen & Associates Consulting Electronics Engineers

NOVEMBER 1973

Standard Pattern



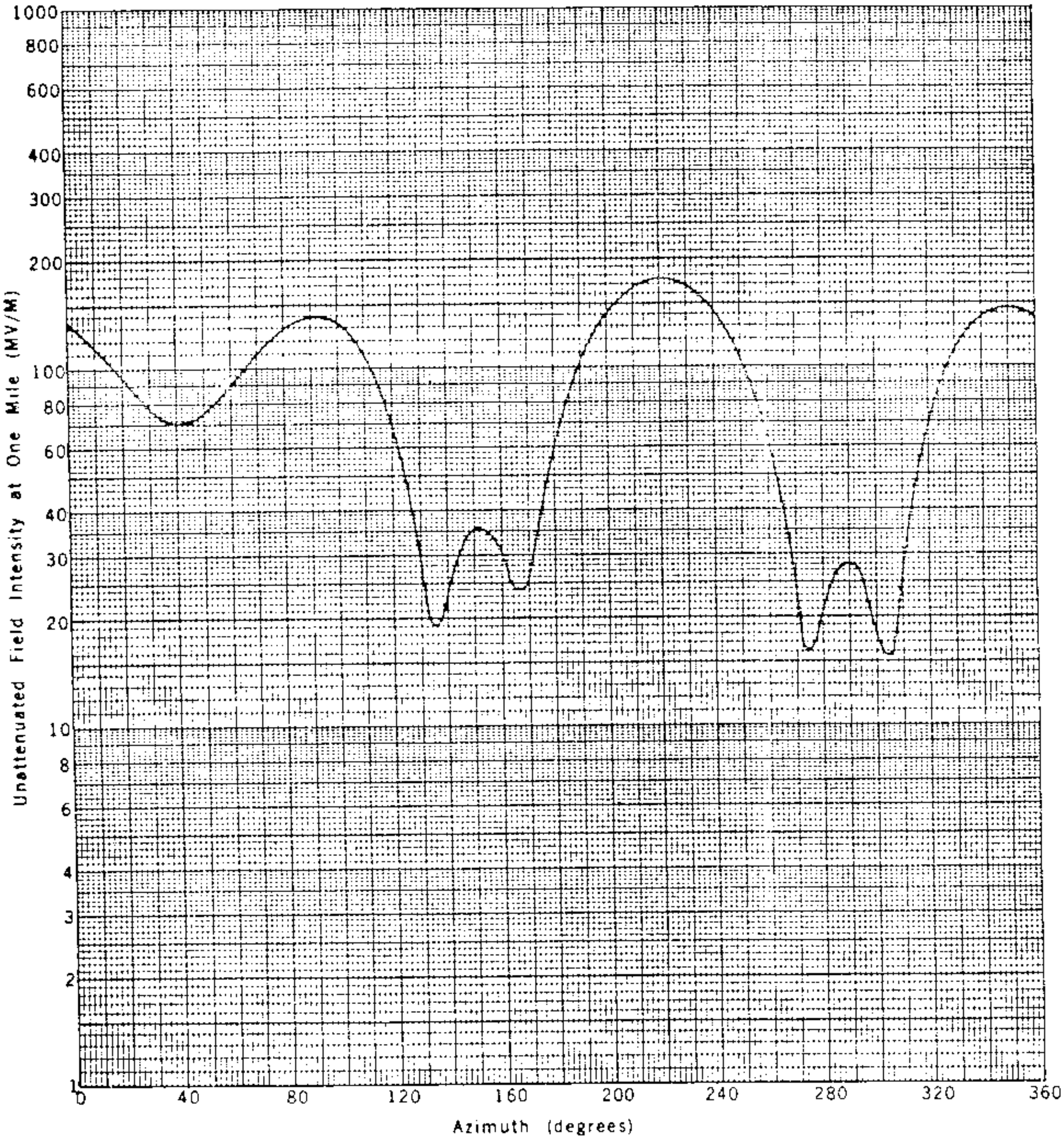
PROPOSED NIGHTTIME STANDARD RADIATION PATTERN
AT VERTICAL ANGLE OF 25 DEGREES

NEW SOUTH COMMUNICATIONS, INC.
STATION WVMI BILOXI, MISSISSIPPI
570 KHZ 1 KW, 5 KW-LS U DA-2

Jules Cohen & Associates Consulting Electronics Engineers

NOVEMBER 1973

Standard Pattern



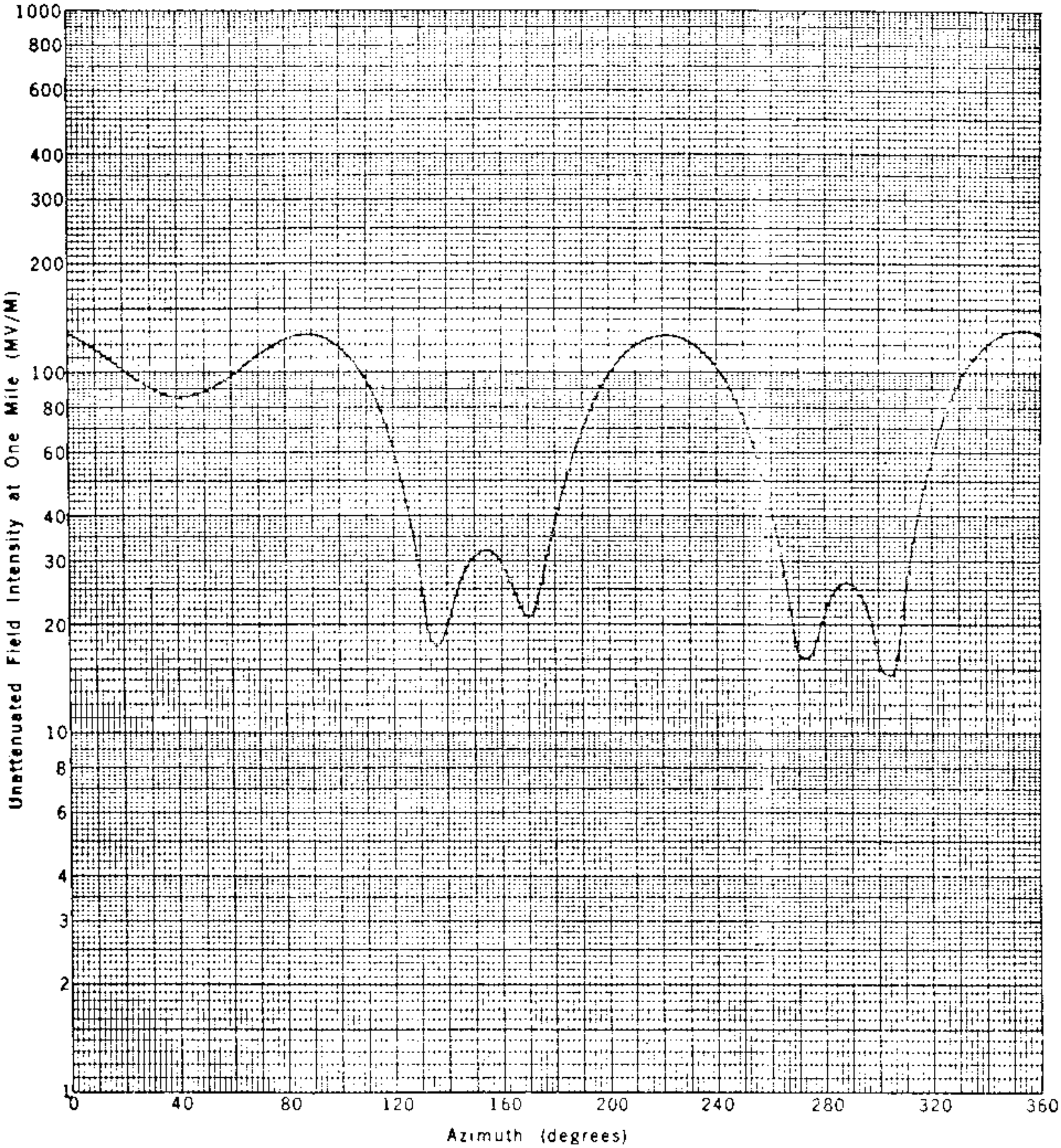
PROPOSED NIGHTTIME STANDARD RADIATION PATTERN
AT VERTICAL ANGLE OF 35 DEGREES

NEW SOUTH COMMUNICATIONS, INC.
STATION WVMI BILOXI, MISSISSIPPI
570 KHZ 1 KW, 5 KW-LS U DA-2

Jules Cohen & Associates Consulting Electronics Engineers

NOVEMBER 1973

Standard Pattern



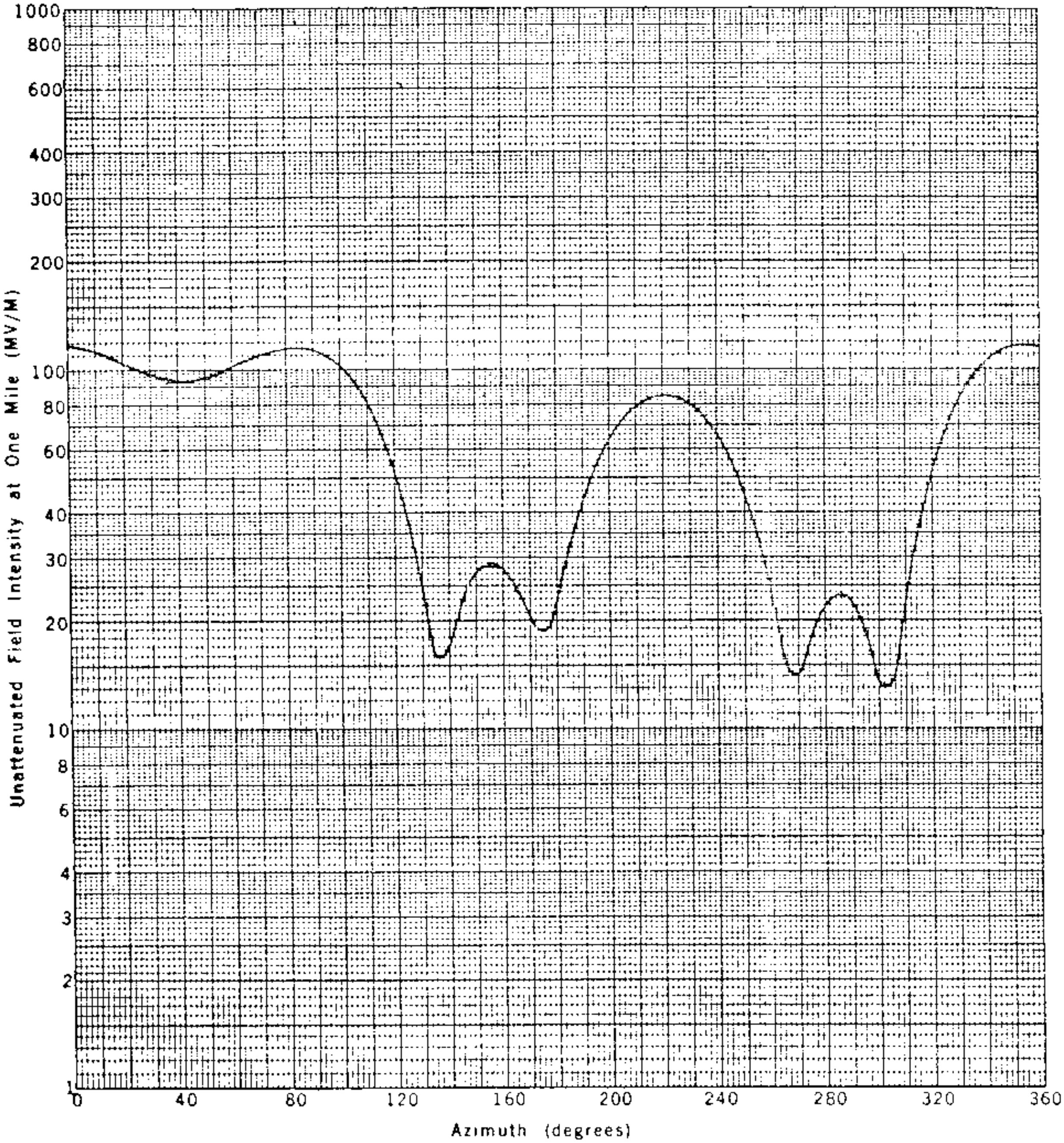
PROPOSED NIGHTTIME STANDARD RADIATION PATTERN
AT VERTICAL ANGLE OF 40 DEGREES

NEW SOUTH COMMUNICATIONS, INC.
STATION WVMI BILOXI, MISSISSIPPI
570 KHZ 1 KW, 5 KW-LS U DA-2

Jules Cohen & Associates Consulting Electronics Engineers

NOVEMBER 1973

Standard Pattern



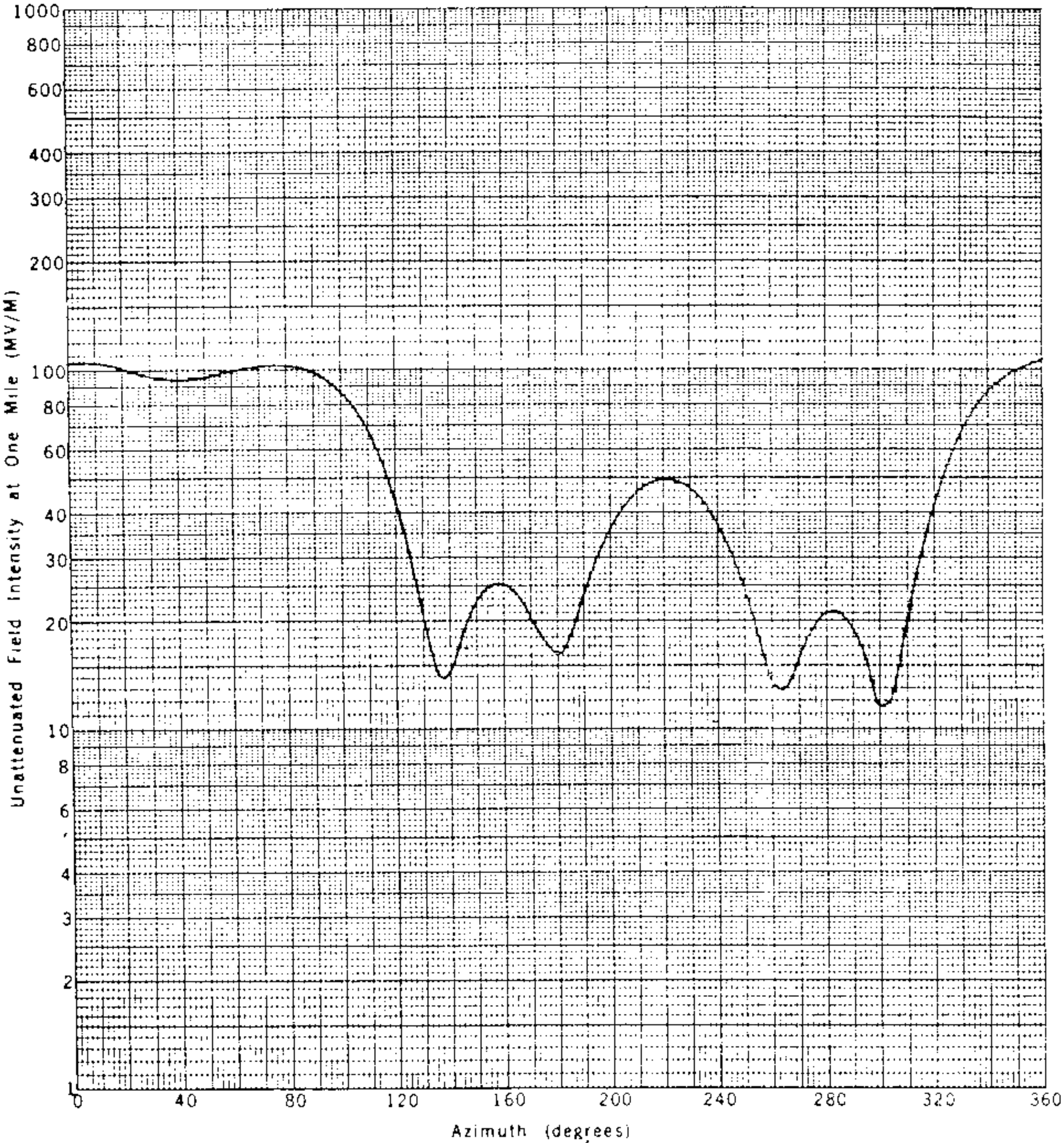
PROPOSED NIGHTTIME STANDARD RADIATION PATTERN
AT VERTICAL ANGLE OF 45 DEGREES

NEW SOUTH COMMUNICATIONS, INC.
STATION WVMI BILOXI, MISSISSIPPI
570 KHZ 1 KW, 5 KW-LS U DA-2

Jules Cohen & Associates Consulting Electronics Engineers

NOVEMBER 1973

Standard Pattern



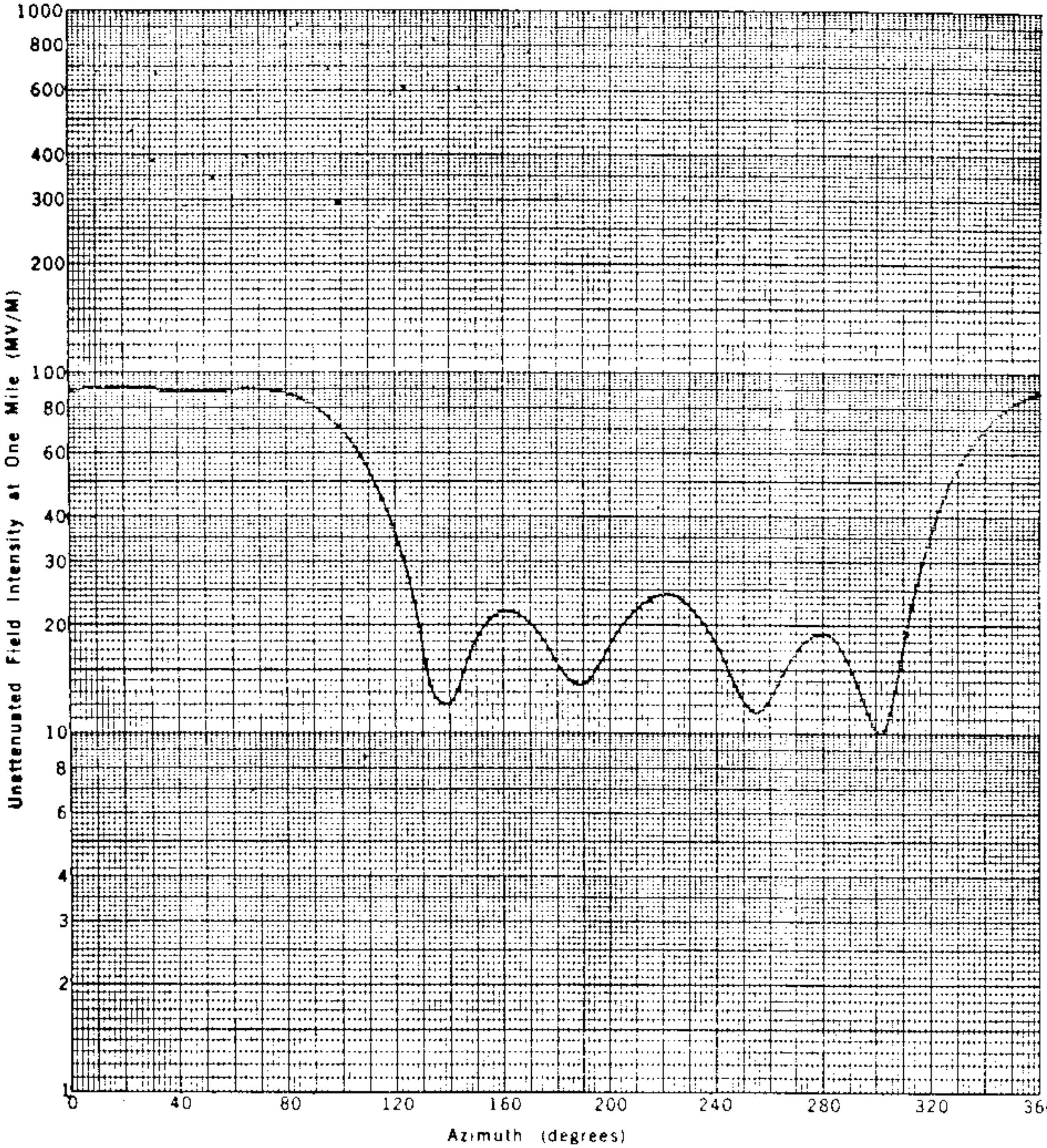
PROPOSED NIGHTTIME STANDARD RADIATION PATTERN
AT VERTICAL ANGLE OF 50 DEGREES

NEW SOUTH COMMUNICATIONS, INC.
STATION WVMI BILOXI, MISSISSIPPI
570 KHZ 1 KW, 5 KW-LS U DA-2

Jules Cohen & Associates Consulting Electronics Engineers

NOVEMBER 1973

Standard Pattern



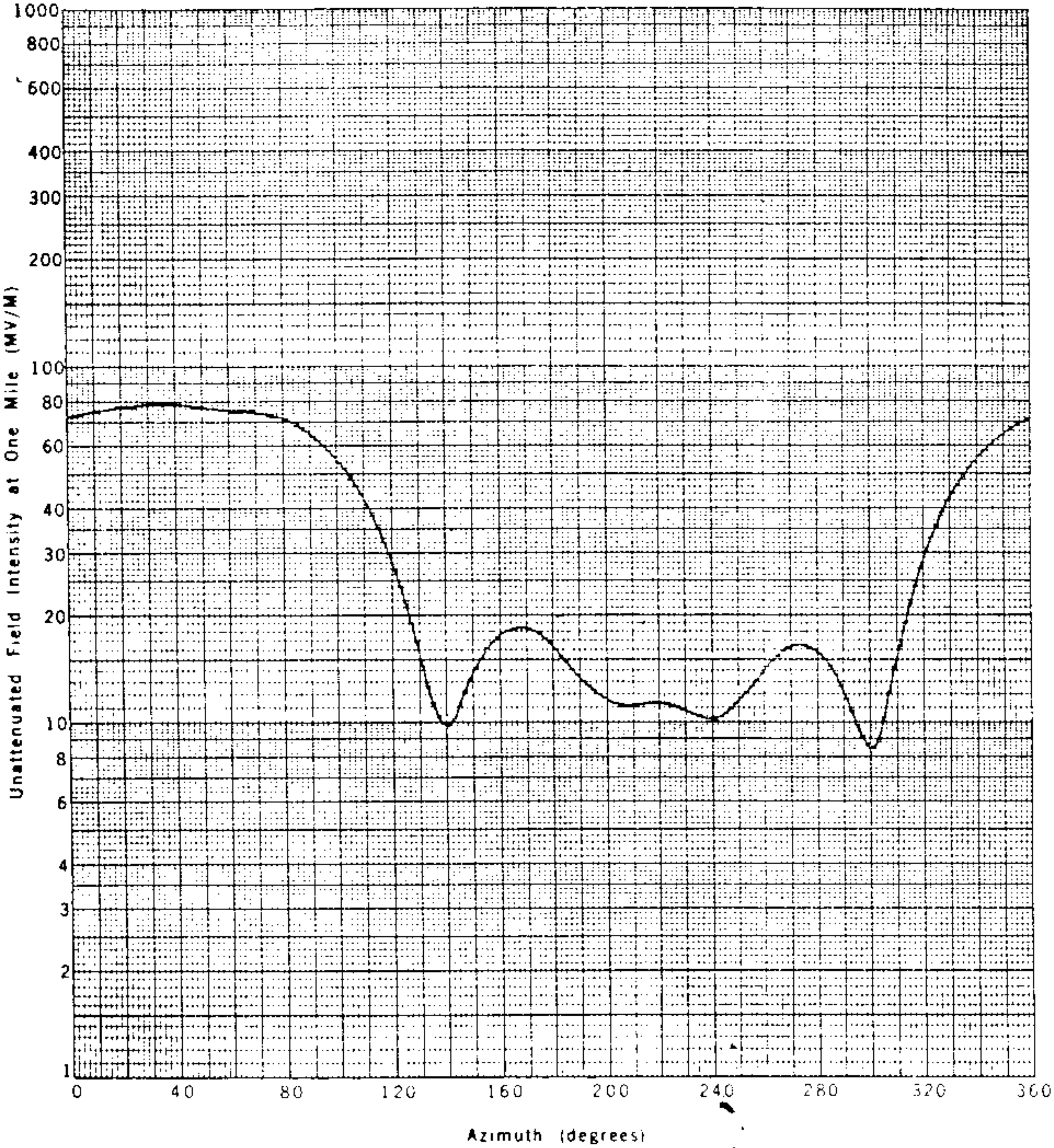
PROPOSED NIGHTTIME STANDARD RADIATION PATTERN
AT VERTICAL ANGLE OF 55 DEGREES

NEW SOUTH COMMUNICATIONS, INC.
STATION WVMI BILOXI, MISSISSIPPI
570 KHZ 1 KW 5 KW-LS U DA-2

Jules Cohen & Associates Consulting Electronics Engineers

NOVEMBER 1973

Standard Pattern



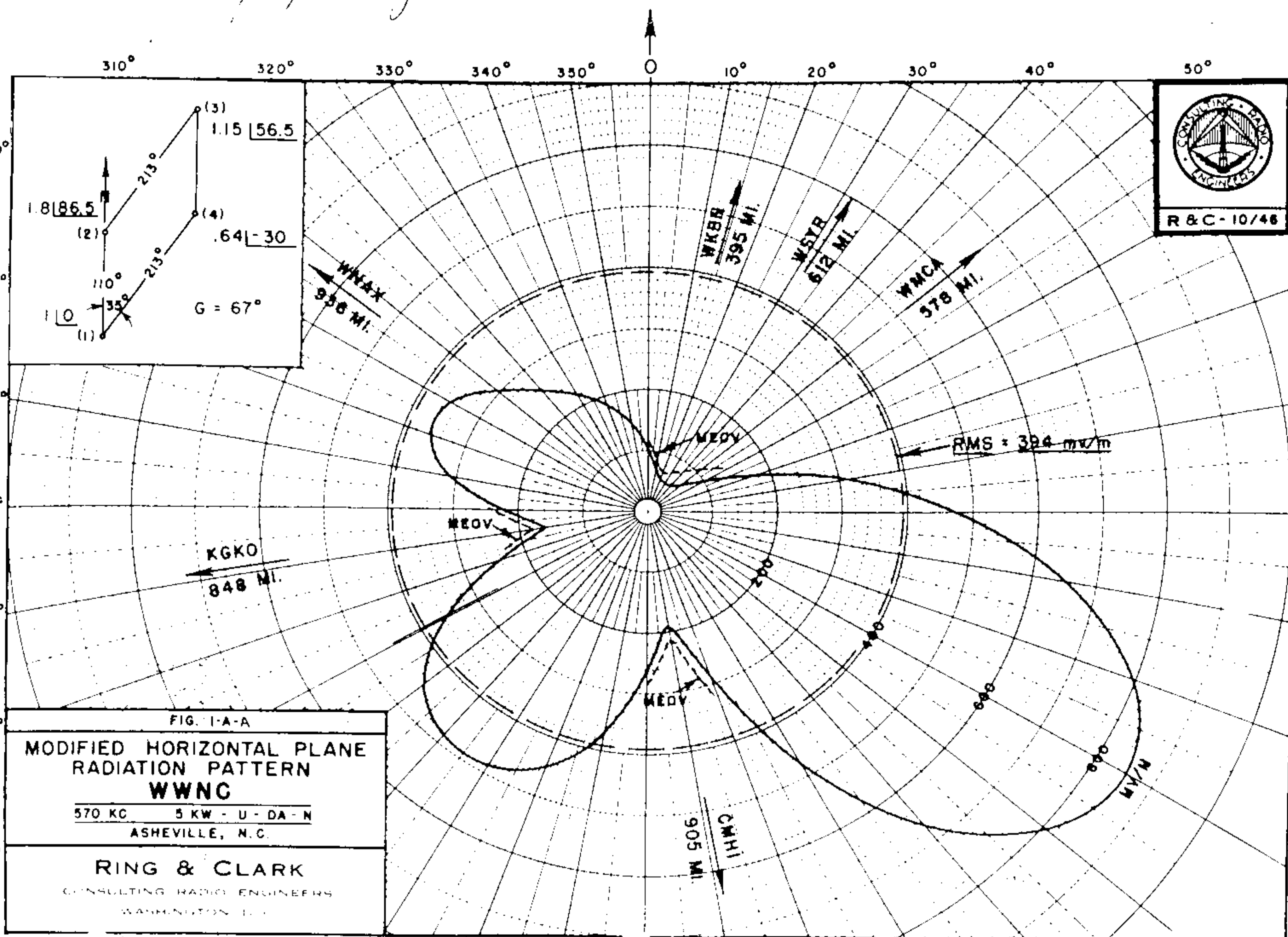
PROPOSED NIGHTTIME STANDARD RADIATION PATTERN
AT VERTICAL ANGLE OF 60 DEGREES

NEW SOUTH COMMUNICATIONS, INC.
STATION WVMI BILOXI, MISSISSIPPI
570 KHZ 1 KW, 5 KW-LS U DA-2

Jules Cohen & Associates Consulting Electronics Engineers

WWNC-570 KC

Proposed night



WWNC
570

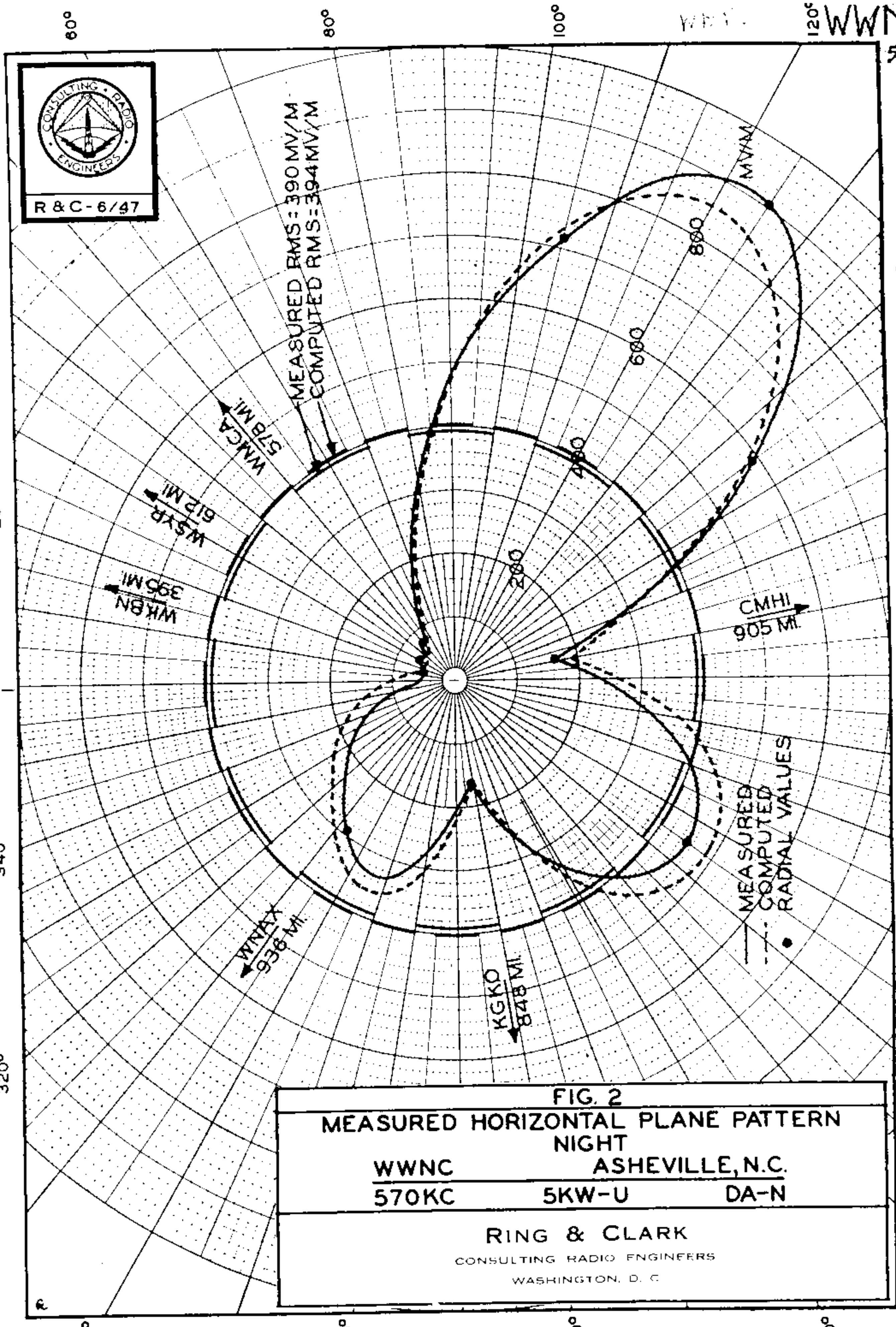


FIG. 2
MEASURED HORIZONTAL PLANE PATTERN
NIGHT

WWNC ASHEVILLE, N.C.

570KC 5KW-U DA-N

RING & CLARK
CONSULTING RADIO ENGINEERS
WASHINGTON, D. C.

measured night