COHEN, DIPPELL AND EVERIST, P. C.

EXHIBIT E-3

TV ANTENNA INFORMATION

KWTV-DT, OKLAHOMA CITY, OKLAHOMA

MECHANICAL DATA FOR STATION KWTV-DT & KETA-DT OFFSET STACK CHANNELS 39 AND 32 OKLAHOMA CITY, OKLAHOMA

Loading Conditions:

1. 75.0 MPH basic wind speed, no ice
2. TIA/EIA-222-F
3. OFFSET STACK

Mechanical Parameters:

No Ice

	Length (feet)	Moment Arm (feet)	Weight (lbs)	$C_A X A_C$ (sq. feet)
Top Mount Channel 39	47.4	84.7	7,350	41.5
Side Mount Channel 32	50.6	30.5	2,650	80.1
Support Mast Section 1 (22x1.375")	61.0	30.5	22,200	134.2
Top Antenna Tx Line (8.1875" OD)	61.0	30.5	575	49.9
Beacon	0.0	109.9	100	3.25
Ladder/Pole	61.0	30.5	755	15.0
Mounting Brackets	0.0	30.5	431	4.3
Bury Section	-12.0	-6.0	3,640	26.4
Totals	108.4			
Weight			34,061	
Ca X Ac				328.5

Wind Shear:	12,200 lbs
Moment at base:	+465,105 lbs-ft

*Calculated weight is based on the **PRELIMINARY** design of the antennas and mounting pole. The actual weight of the antennas and mounting pole will be within ±10% of the calculated weight. The actual weight will be given in the technical manual which accompanies the system. This figure is for the antennas, tranmission line for top mount antenna, and mounting pole only and does not include antenna input sections.*

ANDREW
Andrew Corporation
10500 W. 153rd Street
Orland Park, Illinois U.S.A. 60462

PRELIMINARY SPECIFICATION FOR ANDREW TRASAR® HORIZONTALLY POLARIZED COAXIAL SLOTTED ARRAY ANTENNA

Prepared For
KWTV-DT Channel 39 Oklahoma City, OK
August 17, 1999

ANTENNA TYPE:
ATW25H3-HTO-39S

SPECIFICATION NO.:
AG062899-489

PRELIMINARY SPECIFICATION FOR ANDREW TRASAR® HORIZONTALLY POLARIZED COAXIAL SLOTTED ARRAY ANTENNA

ELECTRICAL CHARACTERISTICS:

CHANNEL:	39
FREQUENCY RANGE:	620 to 626 Mhz
AZIMUTH PATTERN NUMBER:	CH39AZ-H-BID-OMNI
ELEVATION PATTERN NUMBER:	ATW25H3H
AZIMUTH DIRECTIVITY:	1.00 (0.00 dB)
ELEVATION DIRECTIVITY:	25.00 (13.98 dBd)
PEAK POWER GAIN:	25.00 (13.98 dBd)
GAIN AT HORIZONTAL:	16.97 (12.30 dBd)
ELECTRICAL BEAM TILT:	0.75 Degrees
POWER HANDLING:	42 kW Average Power, Digital
INPUT TYPE:	8-3/16 inch EIA, 75 ohm
VSWR (MAXIMUM):	1.10 Over 6 MHz Channel

PRELIMINARY SPECIFICATION FOR ANDREW TRASAR® HORIZONTALLY POLARIZED COAXIAL SLOTTED ARRAY ANTENNA

MECHANICAL CHARACTERISTICS:

MOUNTING CONFIGURATION: ****(Tower Interface supplied and installed by others.)***	*Top Mount**
HEIGHT OF ANTENNA (D):	*47.4 feet*
HEIGHT OF CENTER OF RADIATION (B):	*23.7 feet*
OVERALL HEIGHT (A): *(Includes four 3 foot Lightning Rods)*	*50.4 feet*
DEICING:	*Pressurized Radome Enclosure*
RADOME DIAMETER (C):	*14.4 inches, O.D.*
RADOME COLOR:	*AVIATION ORANGE (standard)*
CLIMBING DEVICE:	*Galvanized Steel Pole*
CALCULATED WEIGHT[1]:	*7,350 lbs.*
WINDLOAD DATA[2]:	*SHEAR:* *1,525 lbs.* *OVERTURNING MOMENT:* *37,200 lbs.-ft.*
ANTENNA AREA:	C_aA_c: *41.5 square feet* A_c: *70.3 square feet*
MOUNTING FLANGE:	*BOLT CIRCLE:* *21.5 inches* *BOLT DIAMETER:* *1.25 inches* *NUMBER OF BOLTS:* *16*

This antenna is designed to be supported by a structure that can resist the antenna base reactions and which provides a support that is rigid in the three translational and three rotational degrees of freedom.

1 *Calculated weight is based on the* ***PRELIMINARY*** *design of the antenna. The actual weight of the antenna will be within ±10% of the calculated weight. The actual weight will be given in the technical manual which accompanies the antenna. This figure is for the antenna only and does not include the antenna input section.*

2 *Based on a wind speed of* ***75 miles per hour (MPH)****, height above average terrain* ***(HAAT)*** *of* ***1,539 feet,*** *and height above ground level* ***(HAGL)*** *of* ***1,522 feet*** *per* ***EIA/TIA-222-F****. Windloads include 300 mm beacon, not supplied.*

NOTE: Localized conditions may require higher wind speed specifications than TIA/EIA specifications. Check with local authorities to verify wind speed requirements.

Broadcast Antenna System

Power Analysis

Station KWTV-DT, Ch 39
Oklahoma City, OK.
08-20-1999

ANTENNA PARAMETERS

Type: ATW25H3-HTO-39S

Azimuth Directivity:
Hor Pol: 1.00 (0.00 dBd)
Ver Pol: 0.00 (0.00 dBd)

Elevation Directivity:
Hor Pol: 25.00 (13.98 dBd)
Ver Pol: 0.00 (0.00 dBd)

Internal Power Split:
Hor Pol: 0.0%
Ver Pol: 0.0%

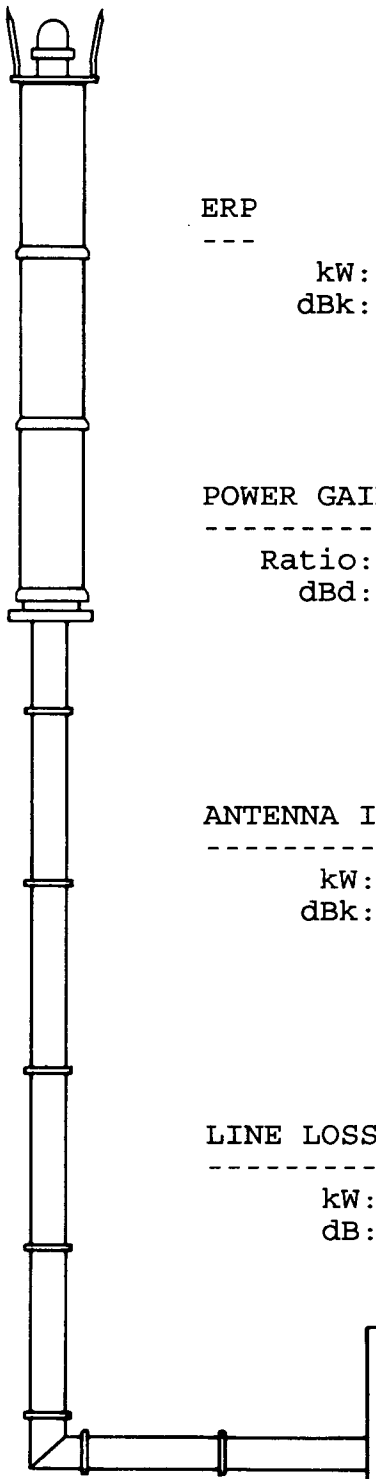
Gain Ratio:
Ver Pol/Hor Pol = 0.000

TRANSMISSION LINE

Vertical Run
Type : MACX875
Length: 1570 ft.
Attn : 0.0860 dB/100'

Horizontal Run
Type : MACX875
Length: 300 ft.
Attn : 0.0860 dB/100'

Efficiency: 69.05%



	Hor Pol	Ver Pol
ERP		
kW:	1000	0
dBk:	30.00	0.00
POWER GAIN		
Ratio:	25.00	0.00
dBd:	13.98	0.00

ANTENNA INPUT

kW: 40.00
dBk: 16.02

LINE LOSS

kW: 17.93
dB: 1.608

TRANSMITTER POWER

kW: 57.93
dBk: 17.63

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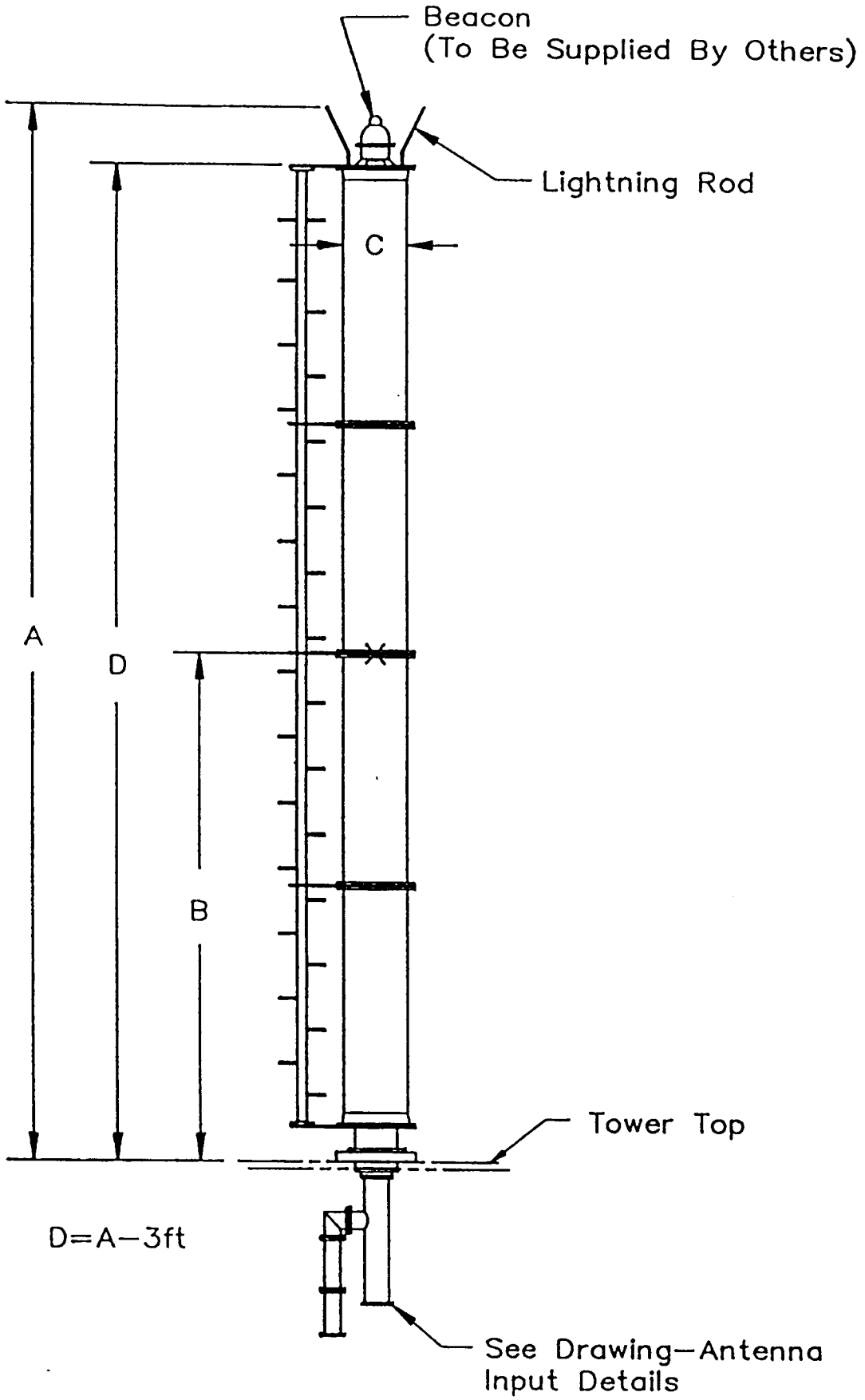
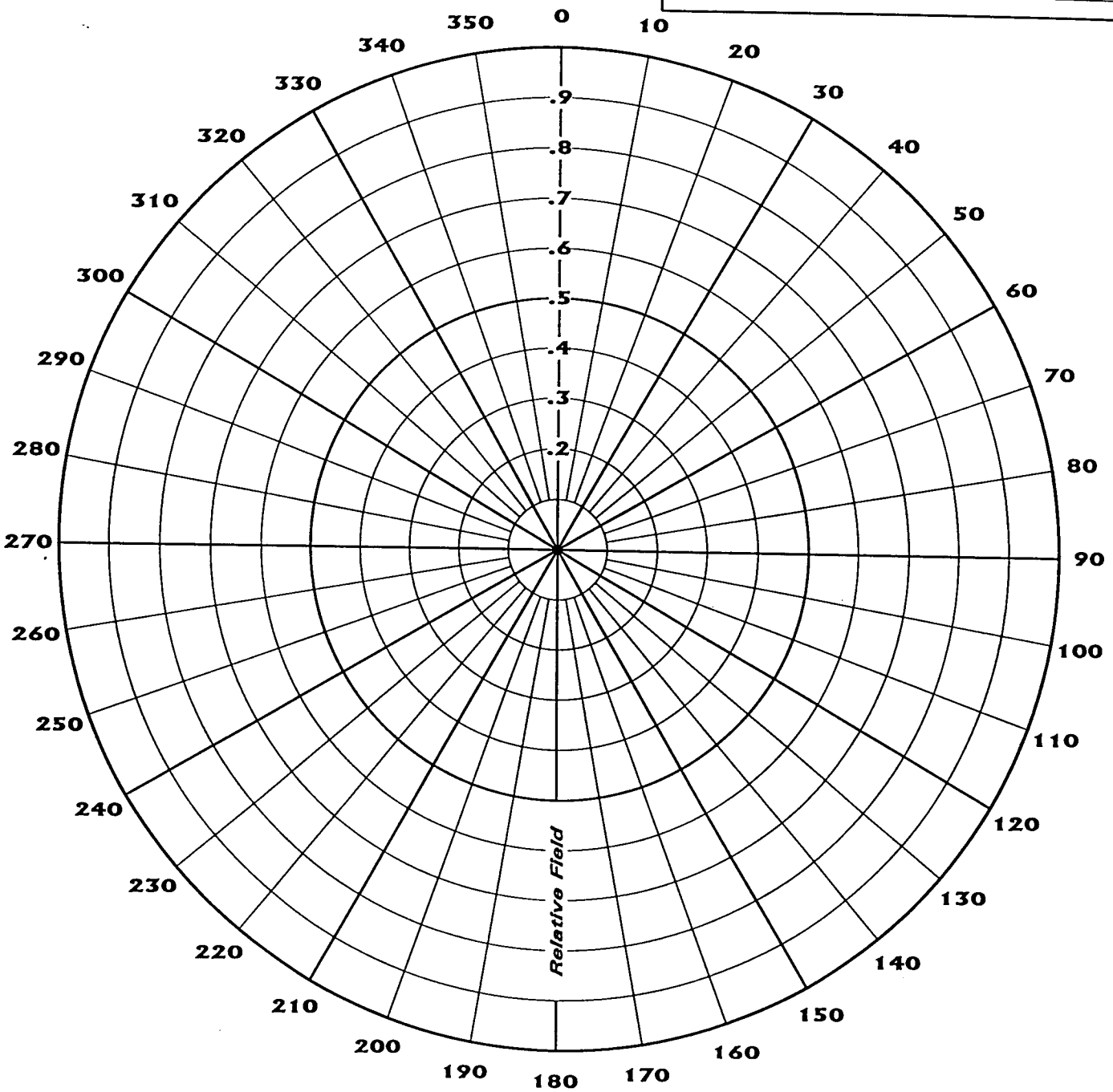

Beacon
(To Be Supplied By Others)
Lightning Rod
C
A
D
B
Tower Top
D=A−3ft
See Drawing—Antenna
Input Details

ANDREW

AZIMUTH PATTERN

Type:	CH39AZ-H-BID-OMNI	
	Numeric	dBd
Directivity:	1.00	(0.00)
Peak(s) At:		
Polarization:	Horizontal	
Channel:	39	
Location:	Oklahoma City, OK	



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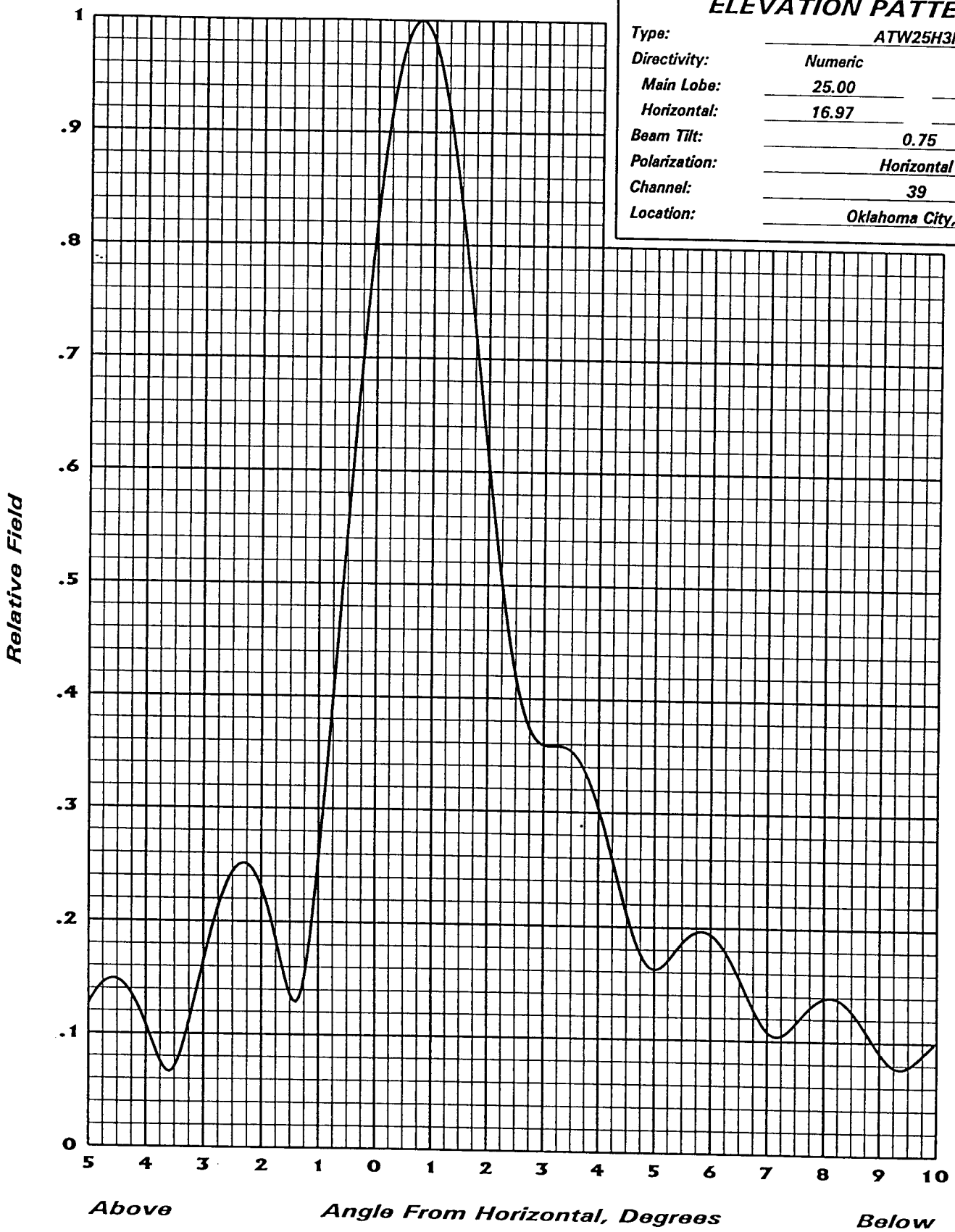
ELEVATION PATTERN

Type:	ATW25H3H	
Directivity:	Numeric	dBd
Main Lobe:	25.00	(13.98)
Horizontal:	16.97	(12.30)
Beam Tilt:	0.75	
Polarization:	Horizontal	
Channel:	39	
Location:	Oklahoma City, OK	



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