

ENGINEERING STATEMENT RE REQUEST FOR
EMERGENCY TEMPORARY AUTHORITY
TO OPERATE DTV STATION
ON BEHALF OF
CHRISTIAN COMMUNICATIONS CHICAGOLAND
KTLN-DT, NOVATO, CALIFORNIA
CH. 47 360 KW MAX ERP 402 METERS HAAT

JUNE 2006

COHEN, DIPPELL AND EVERIST, P.C.
CONSULTING ENGINEERS
RADIO AND TELEVISION
WASHINGTON, D.C.

COHEN, DIPPELL AND EVERIST, P. C.

City of Washington)
) ss
District of Columbia)

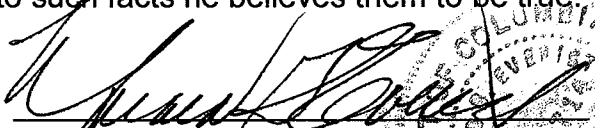
Donald G. Everist, being duly sworn upon his oath, deposes and states that:

He is a graduate electrical engineer, a Registered Professional Engineer in the District of Columbia, and is President, Secretary and Treasurer of Cohen, Dippell and Everist, P.C., Consulting Engineers, Radio - Television, with offices at 1300 L Street, N.W., Suite 1100, Washington, D.C. 20005;

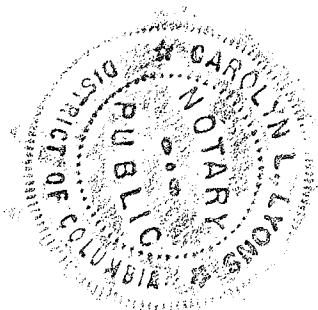
That his qualifications are a matter of record in the Federal Communications Commission;


That the attached engineering report was prepared by him or under his supervision and direction and

That the facts stated herein are true of his own knowledge, except such facts as are stated to be on information and belief, and as to such facts he believes them to be true.


Donald G. Everist
District of Columbia
Professional Engineer
Registration No. 5714

Subscribed and sworn to before me this 6th day of July, 2006.




Notary Public

My Commission Expires: 2/28/2008

COHEN, DIPPELL AND EVERIST, P.C.

ENGINEERING STATEMENT
KTLN-DT, NOVATO, CALIFORNIA

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This engineering statement has been prepared on behalf of Christian Communications Chicagoland, licensee of TV Station KTLN-TV, Novato, California in support of its request for emergency temporary authority for a digital television ("DTV") operation. At present, KTLN-TV is licensed to operate on NTSC TV Channel 68 (794-800 MHz) with 1100 kW effective radiated power ("ERP") and 402 meters antenna height above average terrain ("HAAT"). The current analog Channel 68 operation of KTLN-TV is with a directional TV antenna. Station KTLN-TV has been allotted Channel 47 (668-674 MHz) for its digital TV operation and has been authorized to construct a facility (BPCDT-19991020ABE) with 1000 kW maximum ERP and 402 meters HAAT. During the equipment reconfiguration necessitated to buildout the DT facility, it is proposed to operate from the existing tower (no change in overall height) with 360 kW directional at an HAAT of 402 meters.

Antenna Site

There is no change in the existing antenna site. The DTV antenna will be diplexed into the current NTSC antenna which is the same antenna authorized by the current KTLN-DT construction permit. The proposed KTLN-DT antenna is currently diplexed with the KTLN-TV NTSC operation. This diplexed antenna is side-mounted on the existing tower at 18 meters (59 feet) above ground level.

The existing transmitter site is located immediately north of the city limits of Novato, California on the summit of Burdell Mountain.

The geographic coordinates of the existing tower are as follows:

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ENGINEERING STATEMENT
KTLN-DT, NOVATO, CALIFORNIA

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North Latitude: 38° 09' 00"

West Longitude: 122° 35' 31"

The following data shows the pertinent information concerning the proposed emergency temporary authorization operation.

Equipment Data

Antenna: Antenna Concepts, Model 6-bay spanner dual channel antenna with no electrical beam tilt. The vertical plane pattern and other exhibits required by Section 73.625(c) are included in Exhibit E-1a through E-1h

Dielectric WR1150
Combiner Loss 98.0% 0.09 dB

Transmission Line: 12.8 meters (42 ft) of Andrew, Type HJ11-50, or 4" air dielectric, 50 ohm equivalent

Power Data

Transmitter output	7.1 kW	8.51 dBk
Transmission line loss	96.8%	0.143 dB
Input power to the antenna	6.73 kW	8.28 dBk
Antenna power gain, Main Lobe	53.5	17.28 dB
Effective Radiated Power, Maximum	360 kW	25.56 dBk

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ENGINEERING STATEMENT
KTLN-DT, NOVATO, CALIFORNIA

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Elevation Data
(No Change)

Vertical dimension for dual Channel 47-68 antenna	6.1 meters (20 feet)
Overall height above ground of the antenna structure (including beacon)	21 meters (69 feet)
Center of radiation of dual Channel 47-68 antenna above ground	18 meters (59.1 feet)
Elevation of site above mean sea level	485 meters (1591.2 feet)
Center of radiation of dual Channel 47-68 antenna above mean sea level	503 meters (1650.3 feet)
Overall height above mean sea level of tower and appurtenances	506 meters (1660.1 feet)
Antenna height above average terrain	402 meters (1318.9 feet)

Note: Slight height differences may result due to conversion to metric

Authorized Effective Radiated Power

The maximum ERP authorized by the outstanding construction permit (BPCDT-19991026ABE) for the DTV operation is 1000 kW at 402 meters HAAT. Station KTLN-DT is proposing to operate its DTV facility with a maximum ERP of 360 kW and 402 meters HAAT using a directional transmitting antenna. This power and height will ensure that it does not extend the predicted 41 dBu contour in any direction beyond that authorized by the construction permit.

The attached map Exhibit E-2 shows the computed F(50,90) 41 dBu contours for both of the facilities authorized by the construction permit and the requested facilities. These contours were predicted according to Section 73.625(b) of the Commission's rules.

Principal Community Coverage

In MM Docket No. 00-39, the Commission adopted rules to require DTV stations to place a stronger TV signal over the principal community.

The emergency temporary operation proposed by Station KTLN-DT places a predicted 48 dBu contour over the community of Novato as shown in Exhibit E-2.

Summary of Environmental Assessment

An environmental assessment ("EA") is categorically excluded under Section 1.1306 of the FCC Rules and Regulations as the tower was constructed prior to the requirements specified in WT Docket No. 03-128 as the licensee indicated that:

- (a)(1) The existing tower is not located in an officially designated wilderness area.
- (a)(2) The existing tower is not located in an officially designated wildlife preserve.
- (a)(3) The proposed facilities located on an existing tower will not affect any listed threatened or endangered species or habitats.
- (a)(3)(ii) The proposed facilities on an existing tower will not jeopardize the continued existence of any proposed endangered or threatened species or likely to result in the destruction or adverse modification of proposed critical habitats.

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ENGINEERING STATEMENT
KTLN-DT, NOVATO, CALIFORNIA

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- (a)(4) The proposed facilities located on an existing tower which was built prior to the adoption of WT Docket No. 03-128 and is grandfathered and has not affected any known districts, sites, buildings, structures, or objects significant in American history, architecture, archaeology, engineering, or culture.
- (a)(5) The existing tower is not located near any known Indian religious sites.
- (a)(6) The existing tower is not located in a flood plain.
- (a)(7) The operation of the proposed facilities on the existing tower will not involve a significant change in surface features of the ground in the vicinity of the tower.
- (a)(8) There is no change in painting or lighting of the existing structure.
- (b) Workers and the general public will not be subjected to RFF levels in excess of the current FCC guidelines. Authorized personnel will be alerted to areas of the antennas where potential field levels are in excess of the FCC guidelines.

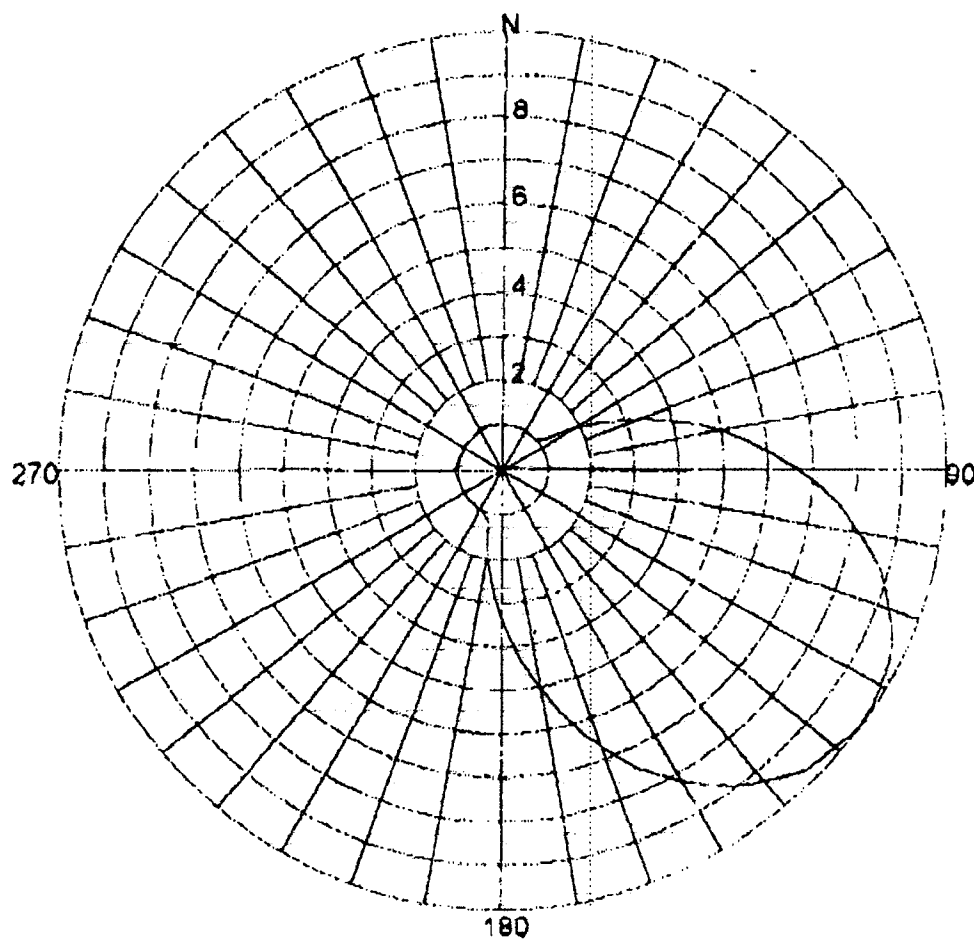


ANTENNA CONCEPTS INC.

SPECIFICATIONS FOR:

Antenna Type:	6 Bay - Spanner
Specifications prepared for:	KTLN TV-68
Date Prepared:	09-21-99

CHANNEL:	68 NTSC	47 HDTV
FREQUENCY RANGE:	794-800 MHz	668-674
AZIMUTH PATTERN FILE:	HPOL: (See Attached)	See Attached
ELEVATION PATTERN FILE:	HPOL: (See Attached)	See Attached
AZIMUTH DIRECTIVITY:	HPOL: 5.0 (7.0 dB)	5.0 (7.0 dB)
ELEVATION DIRECTIVITY:	HPOL: 12.0 (10.8dBd)	10.7 (10.3 dBd)
POLARIZATION RATIO:	HPOL: 100 %	HPOL 100%
PEAK POWER GAIN:	60 (17.8 dBd)	53.5 (17.3 dBd)
GAIN AT HORIZONTAL:	HPOL: 60 (17.8 dBd)	53.5 (17.3 dBd)
ELECTRICAL BEAM TILT:	0 Degrees	0 Degrees
NULL FILL:	None	None
RATED POWER:	50 kW Average	
ERP		
INPUT TYPE:	6- 1/8 " 50 Ohm	
VSWR:	1.08:1	



Azimuth Pattern

Antenna Concepts Inc.

Scale: Linear

Units: Absolute

Date: 5/13/98

CLIENT:

ANTENNA TYPE: *6-Bay UHF Spanner Panel Antenna*

FREQUENCY: *Ch 68 & Ch. 47*

PATTERN POL.: *Horizontal*

CIRCULARITY(+/-dB): *NA*

AZ. DIRECTIVITY: *5.0/ 6.98dB*

PATTERN RMS: *NA*

Software Design by: *Micro-Tek Engineering*

Field Strength Tabulation

Azimuth Heading	Field strength(dB)	Azimuth Heading	Field Strength(dB)
0	.10 (-19.89)	180	.33 (-9.54)
5	.10 (-19.89)	185	.25 (-11.91)
10	.10 (-19.89)	190	.18 (-14.65)
15	.10 (-19.89)	195	.12 (-18.53)
20	.10 (-19.89)	200	.11 (-19.19)
25	.10 (-19.89)	205	.10 (-19.79)
30	.10 (-19.89)	210	.10 (-19.89)
35	.10 (-19.89)	215	.10 (-19.89)
40	.10 (-19.89)	220	.10 (-19.89)
45	.10 (-19.89)	225	.10 (-19.89)
50	.11 (-19.19)	230	.10 (-19.89)
55	.13 (-17.99)	235	.10 (-19.89)
60	.18 (-14.65)	240	.10 (-19.89)
65	.25 (-11.91)	245	.10 (-19.89)
70	.33 (-9.54)	250	.10 (-19.89)
75	.41 (-7.62)	255	.10 (-19.89)
80	.50 (-5.99)	260	.10 (-19.89)
85	.59 (-4.61)	265	.10 (-19.51)
90	.67 (-3.46)	270	.11 (-19.48)
95	.75 (-2.48)	275	.10 (-19.52)
100	.82 (-1.72)	280	.10 (-19.61)
105	.89 (-1.04)	285	.10 (-19.72)
110	.93 (-.83)	290	.10 (-19.83)
115	.97 (-.26)	295	.10 (-19.89)
120	.99 (-.10)	300	.10 (-19.89)
125	1.00 (.00)	305	.10 (-19.89)
130	.99 (-.10)	310	.10 (-19.89)
135	.97 (-.23)	315	.10 (-19.89)
140	.93 (-.63)	320	.10 (-19.83)
145	.88 (-1.07)	325	.10 (-19.72)
150	.82 (-1.72)	330	.10 (-19.61)
155	.75 (-2.48)	335	.10 (-19.52)
160	.67 (-3.46)	340	.11 (-19.48)
165	.59 (-4.60)	345	.10 (-19.51)
170	.50 (-5.99)	350	.10 (-19.84)
175	.41 (-7.62)	355	.10 (-19.85)

Antenna Concepts Inc.

CLIENT:

Date 5/13/98

ANTENNA TYPE 6-Bay UHF Spanner Panel Antenna

FREQUENCY Ch 68 & Ch. 47

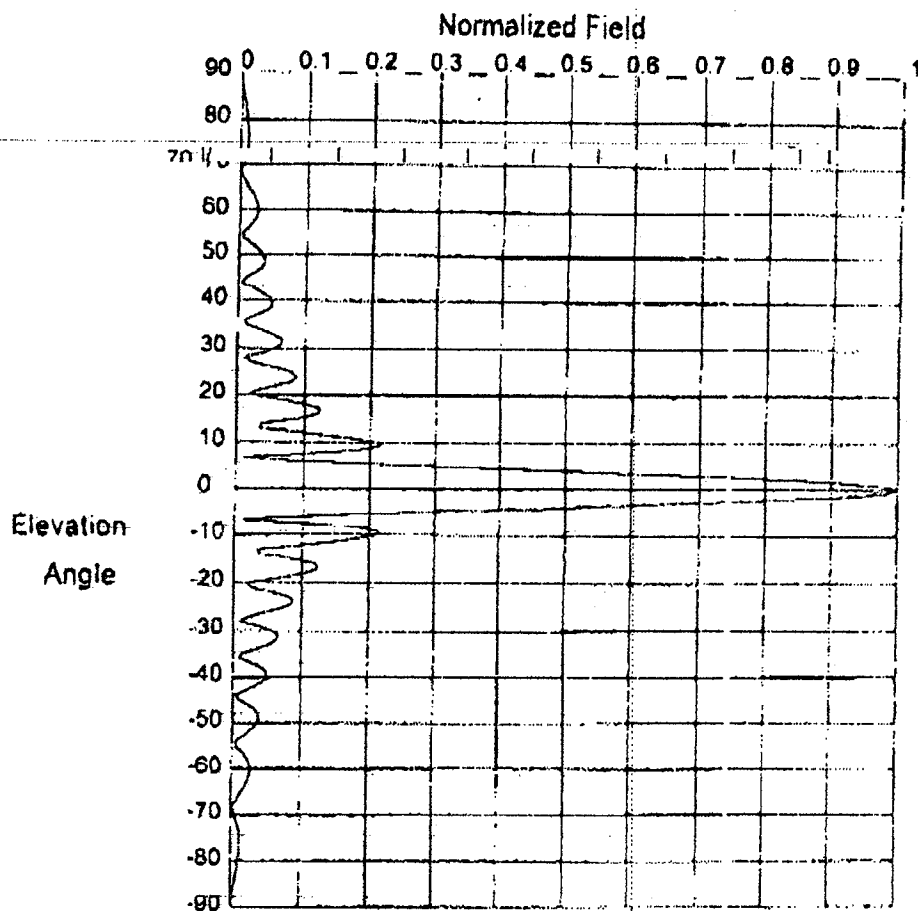
PATTERN POL Horizontal

CIRCULARITY(+/-dB) NA

AZ DIRECTIVITY 5.0/ 6.98dB

PATTERN RMS NA

Software Design by Micro-Tek Engineering



Elevation Pattern

Antenna Concepts Inc.

Scale: Linear

Units: Absolute

CLIENT: KTLN-TV 68

Date: 9/21/99

ANTENNA TYPE: 6-Bay Spanner Antenna

FREQUENCY: Ch. 47 DTV

PATTERN POL: Horizontal

Beam Tilt (Deg.): 0

Elev. DIRECTIVITY: 10.7 / (10.3 dBd)

Null Fill (%) : 0 ,

Software Design by: Micro-Tek Engineering

Field Strength Tabulation

Elevation Heading	Field strength(dB)	Elevation Heading	Field Strength(dB)
90.00	.00 (-50.01)	57.00	.02 (-33.26)
89.00	.00 (-47.85)	56.00	.01 (-36.23)
88.00	.00 (-46.26)	55.00	.00 (-42.35)
87.00	.00 (-44.85)	54.00	.00 (-42.45)
86.00	.00 (-43.61)	53.00	.01 (-35.47)
85.00	.00 (-42.50)	52.00	.02 (-31.76)
84.00	.01 (-41.50)	51.00	.03 (-29.49)
83.00	.01 (-40.59)	50.00	.04 (-28.15)
82.00	.01 (-39.77)	49.00	.04 (-27.82)
81.00	.01 (-39.04)	48.00	.04 (-27.87)
80.00	.01 (-38.40)	47.00	.03 (-29.04)
79.00	.01 (-37.87)	46.00	.02 (-31.60)
78.00	.01 (-37.44)	45.00	.01 (-37.05)
77.00	.01 (-37.14)	44.00	.00 (-43.38)
76.00	.01 (-36.98)	43.00	.02 (-33.16)
75.00	.01 (-37.00)	42.00	.03 (-28.88)
74.00	.01 (-37.23)	41.00	.04 (-28.55)
73.00	.01 (-37.74)	40.00	.05 (-25.49)
72.00	.01 (-38.82)	39.00	.05 (-25.54)
71.00	.01 (-40.02)	38.00	.04 (-28.81)
70.00	.00 (-42.28)	37.00	.03 (-29.93)
69.00	.00 (-48.27)	36.00	.01 (-37.81)
68.00	.00 (-48.41)	35.00	.01 (-36.26)
67.00	.01 (-41.41)	34.00	.03 (-28.60)
66.00	.01 (-38.05)	33.00	.05 (-25.14)
65.00	.01 (-35.58)	32.00	.06 (-23.53)
64.00	.02 (-33.70)	31.00	.07 (-23.31)
63.00	.02 (-32.28)	30.00	.06 (-24.56)
62.00	.02 (-31.28)	29.00	.04 (-28.09)
61.00	.03 (-30.67)	28.00	.01 (-36.50)
60.00	.03 (-30.47)	27.00	.02 (-31.70)
59.00	.03 (-30.78)	26.00	.05 (-25.01)
58.00	.02 (-31.61)	25.00	.06 (-22.01)

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CLIENT: KTLN-TV 68

Date: 9/21/99

ANTENNA TYPE: 6-Bay Spanner Antenna

FREQUENCY: Ch. 47 DTV

PATTERN POL.: Horizontal

Elev. DIRECTIVITY: 10.7 / (10.3 dBd)

Bearr Tilt (Deg.): 0

Null Fill (%): 0

Software Design by: Micro-Tek Engineering

Field Strength Tabulation

Elevation Heading	Field strength(dB)	Elevation Heading	Field Strength(dB)
24.00	.09 (-20.89)	6.20	.08 (-22.08)
23.00	.08 (-21.35)	6.00	.11 (-18.93)
22.00	.06 (-23.83)	5.80	.15 (-18.55)
21.00	.03 (-30.86)	5.60	.18 (-14.82)
20.00	.02 (-32.98)	5.40	.22 (-13.01)
19.00	.07 (-23.31)	5.20	.26 (-11.81)
18.00	.10 (-19.49)	5.00	.30 (-10.39)
17.00	.12 (-17.93)	4.80	.34 (-9.30)
16.00	.12 (-18.13)	4.60	.38 (-8.33)
15.00	.09 (-20.48)	4.40	.42 (-7.45)
14.00	.04 (-27.78)	4.20	.46 (-6.85)
13.00	.03 (-28.81)	4.00	.50 (-5.92)
12.00	.11 (-19.02)	3.80	.54 (-5.28)
11.00	.17 (-15.04)	3.60	.58 (-4.65)
10.00	.21 (-13.35)	3.40	.62 (-4.09)
9.80	.21 (-13.23)	3.20	.66 (-3.58)
9.60	.22 (-13.19)	3.00	.70 (-3.11)
9.40	.22 (-13.22)	2.80	.73 (-2.68)
9.20	.21 (-13.32)	2.60	.77 (-2.29)
9.00	.21 (-13.51)	2.40	.80 (-1.93)
8.80	.20 (-13.79)	2.20	.83 (-1.81)
8.60	.19 (-14.17)	2.00	.86 (-1.32)
8.40	.18 (-14.67)	1.80	.88 (-1.08)
8.20	.17 (-15.31)	1.60	.91 (-.83)
8.00	.15 (-18.11)	1.40	.93 (-.63)
7.80	.14 (-17.14)	1.20	.95 (-.45)
7.60	.12 (-18.45)	1.00	.98 (-.31)
7.40	.09 (-20.18)	.80	.98 (-.19)
7.20	.07 (-22.59)	.60	.99 (-.10)
7.00	.06 (-26.27)	.40	.99 (-.03)
6.80	.02 (-33.56)	.20	1.00 (.01)
6.60	.01 (-36.82)	.00	1.00 (.03)
6.40	.04 (-28.76)	-.20	1.00 (.01)

Antenna Concepts Inc.

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CLIENT: KTLN-TV 68

Date: 9/21/99

ANTENNA TYPE: 6-Bay Spanner Antenna

FREQUENCY: Ch. 47 DTV

PATTERN POL: Horizontal

Elev. DIRECTIVITY: 10.7/ (10.3 dBd)

Beam Tilt (Deg) : 0

Null Fill (%) : 0

Software Design by: Micro-Tek Engineering

Field Strength Tabulation

Elevation Heading	Field strength(dB)	Elevation Heading	Field Strength(dB)
-40	.99 (-.03)	-7.00	.05 (-28.27)
-60	.99 (-.10)	-7.20	.07 (-22.58)
-80	.98 (-.19)	-7.40	.08 (-20.18)
-1.00	.96 (-.31)	-7.60	.12 (-18.45)
-1.20	.95 (-.45)	-7.80	.14 (-17.14)
-1.40	.93 (-.63)	-8.00	.15 (-16.11)
-1.60	.91 (-.83)	-8.20	.17 (-15.31)
-1.80	.88 (-1.06)	-8.40	.18 (-14.67)
-2.00	.86 (-1.32)	-8.60	.18 (-14.17)
-2.20	.83 (-1.61)	-8.80	.20 (-13.79)
-2.40	.80 (-1.93)	-9.00	.21 (-13.51)
-2.60	.77 (-2.29)	-9.20	.21 (-13.32)
-2.80	.73 (-2.68)	-9.40	.22 (-13.22)
-3.00	.70 (-3.11)	-9.60	.22 (-13.19)
-3.20	.68 (-3.58)	-9.80	.21 (-13.23)
-3.40	.62 (-4.09)	-10.00	.21 (-13.35)
-3.60	.58 (-4.65)	-11.00	.17 (-15.04)
-3.80	.54 (-5.26)	-12.00	.11 (-19.02)
-4.00	.50 (-5.92)	-13.00	.03 (-28.81)
-4.20	.46 (-6.65)	-14.00	.04 (-27.78)
-4.40	.42 (-7.45)	-15.00	.09 (-20.48)
-4.60	.38 (-8.33)	-16.00	.12 (-18.13)
-4.80	.34 (-9.30)	-17.00	.12 (-17.93)
-5.00	.30 (-10.39)	-18.00	.10 (-19.49)
-5.20	.26 (-11.81)	-19.00	.07 (-23.31)
-5.40	.22 (-13.01)	-20.00	.02 (-32.98)
-5.60	.18 (-14.82)	-21.00	.03 (-30.86)
-5.80	.15 (-16.55)	-22.00	.06 (-23.83)
-6.00	.11 (-18.93)	-23.00	.06 (-21.35)
-6.20	.08 (-22.08)	-24.00	.09 (-20.89)
-6.40	.04 (-28.78)	-25.00	.08 (-22.01)
-6.60	.01 (-38.82)	-26.00	.05 (-25.01)
-6.80	.02 (-33.58)	-27.00	.02 (-31.70)

Antenna Concepts Inc.

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CLIENT: KTLN-TV 68

Date: 9/21/99

ANTENNA TYPE: 6-Bay Spanner Antenna

FREQUENCY: Ch. 47 DIV

PATTERN POL: Horizontal

Beam Tilt (Deg) 0

Elev. DIRECTIVITY: 10.77 (10.3 dBd)

Null Fill (%) 0

Software Design by: Micro-Tek Engineering

Field Strength Tabulation

Elevation Heading	Field strength(dB)	Elevation Heading	Field Strength(dB)
-28.00	.01 (-38.60)	-61.00	.03 (-30.87)
-29.00	.04 (-28.06)	-62.00	.02 (-31.28)
-30.00	.06 (-24.56)	-63.00	.02 (-32.28)
-31.00	.07 (-23.31)	-64.00	.02 (-33.70)
-32.00	.06 (-23.53)	-65.00	.01 (-35.58)
-33.00	.05 (-25.14)	-66.00	.01 (-38.05)
-34.00	.03 (-28.80)	-67.00	.01 (-41.41)
-35.00	.01 (-36.26)	-68.00	.00 (-45.41)
-36.00	.01 (-37.81)	-69.00	.00 (-46.27)
-37.00	.03 (-29.93)	-70.00	.00 (-42.28)
-38.00	.04 (-28.81)	-71.00	.01 (-40.02)
-39.00	.05 (-25.54)	-72.00	.01 (-38.62)
-40.00	.05 (-25.49)	-73.00	.01 (-37.74)
-41.00	.04 (-28.55)	-74.00	.01 (-37.23)
-42.00	.03 (-28.86)	-75.00	.01 (-37.00)
-43.00	.02 (-33.16)	-76.00	.01 (-36.98)
-44.00	.00 (-43.38)	-77.00	.01 (-37.14)
-45.00	.01 (-37.05)	-78.00	.01 (-37.44)
-46.00	.02 (-31.80)	-79.00	.01 (-37.87)
-47.00	.03 (-29.04)	-80.00	.01 (-38.40)
-48.00	.04 (-27.87)	-81.00	.01 (-39.04)
-49.00	.04 (-27.62)	-82.00	.01 (-39.77)
-50.00	.04 (-28.15)	-83.00	.01 (-40.59)
-51.00	.03 (-28.48)	-84.00	.01 (-41.50)
-52.00	.02 (-31.76)	-85.00	.00 (-42.50)
-53.00	.01 (-35.47)	-86.00	.00 (-43.61)
-54.00	.00 (-42.45)	-87.00	.00 (-44.85)
-55.00	.00 (-42.35)	-88.00	.00 (-46.28)
-56.00	.01 (-38.23)	-89.00	.00 (-47.95)
-57.00	.02 (-33.28)	-90.00	.00 (-50.01)
-58.00	.02 (-31.61)	90.00	.00 (-50.01)
-59.00	.03 (-30.76)	90.00	.00 (-50.01)
-60.00	.03 (-30.47)	90.00	.00 (-50.01)

Antenna Concepts Inc.

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CLIENT: KTLN-TV 68

Date: 9/21/99

ANTENNA TYPE: 6-Bay Spanner Antenna

FREQUENCY: Ch. 47 DTV

PATTERN POL: Horizontal

Beam Tilt (Deg.): 0

Elev. DIRECTIVITY: 10.77 (10.3 dBd)

Null Fill (%): 0

Software Design by: Micro Tek Engineering

