

ENGINEERING STATEMENT  
RE DTV BROADCAST ENGINEERING DATA  
APPLICATION FOR MODIFICATION OF  
CONSTRUCTION PERMIT  
(FCC FILE NO. BPCDT-20080311ADB) FOR  
KSCI-DT, LONG BEACH, CALIFORNIA  
CHANNEL 18 700 KW ERP MAX DA 899 METERS HAAT

JUNE 2008

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

COHEN, DIPPELL AND EVERIST, P. C.

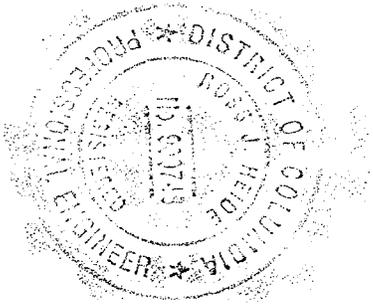
City of Washington )  
 ) ss  
District of Columbia )

Ross J. Heide, being duly sworn upon his oath, deposes and states that:

He is a graduate of the Massachusetts Institute of Technology in Operations Research and Management Science, a Registered Professional Engineer in the District of Columbia, and employed by 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 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.

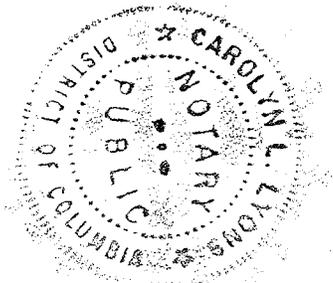


Ross J. Heide  
Ross J. Heide  
District of Columbia  
Professional Engineer  
Registration No. PE900748

Subscribed and sworn to before me this 18<sup>th</sup> day of June, 2008.

Carolyn L. Lyons  
Notary Public

My Commission Expires: 2/28/2013



This engineering statement has been prepared in support of an application for modification of the outstanding construction permit (FCC File No. BPCDT-20080311ADB) on behalf of KSLs, Inc., licensee of KSCI(TV), Long Beach, California. The purpose of this application is to regularize the azimuth pattern of the allotted Appendix B<sup>1</sup> facilities and to attempt to avoid a reduction of as many viewers as possible in the currently licensed Grade B service with the KSCI-DT post-transition facilities using 700 kW non-directional effective radiated power (“ERP”) from the authorized top-mounted 899 meters antenna height above average terrain (“HAAT”).

KSCI-TV is licensed to operate on NTSC television Channel 18 with a maximum visual ERP of 2583 kW and a HAAT of 899 meters. KSCI-DT has been allocated DTV Channel 18 with facilities of 110.9 kW directional ERP and HAAT of 889 meters in the final DTV Table of Allotments.<sup>2</sup> KSCI-DT has been authorized in its outstanding construction permit (FCC File No. BPCDT-20080311ADB) to construct DTV facilities of 110.9 kW (directional) at a HAAT of 885.8 meters with 1.5° electrical beam tilt and 0.8° mechanical tilt at a bearing of N 230° E, T, resulting in a characteristically directional radiation pattern toward the horizontal. KSCI-DT proposes herein to modify these authorized DTV facilities to operate with 700 kW (directional) at HAAT of 899 meters using the existing analog antenna. These proposed facilities are intended to

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<sup>1</sup>“In the Matter of Advanced Television Systems and Their Impact Upon the Existing Television Broadcast Service”, MM Docket 87-268, Memorandum Opinion and Order on Reconsideration of the Seventh Report and Order and Eighth Report & Order (FCC 08-72) Appendix B, Released March 6, 2008.

<sup>2</sup>Ibid.

avoid as much of a reduction of service from the current Grade B contour as possible. No other changes are proposed.

Lifting of the Application Filing Freeze June 20, 2008

An allocation study from the proposed site has been performed as the predicted F(50,90) 41 dBu contour of the proposed DTV facilities at the currently authorized site are not expected to be entirely within the predicted F(50,90) 41 dBu contour of the KSCI-DT facility in the final DTV Table of Allotments in the Memorandum Opinion and Order. However, the proposed operation does not exceed the 0.5% additional interference standard to any potentially affected station in the final DTV Table of Allotments in the Memorandum Opinion and Order (see Table I).

The proposed operation is predicted to serve approximately 14,734,600 persons in an area of 26,484 square kilometers, which is approximately 104.4% of the population served by the KSCI-DT facility in the final DTV Table of Allotments in the Memorandum Opinion and Order and is entirely within the predicted Grade B contour of the licensed analog operation of KSCI-TV.

There are no AM stations located within 3.2 km of the proposed KSCI-DT tower site. There are two FM and four full-service DTV facilities in addition to the proposed operation at or within 100 meters of the proposed KSCI-DT site.

The DTV antenna will be top-mounted on the existing tower. The KSCI-DT antenna will be located on an existing tower having a total overall structure height above ground of 60.9 meters (200 feet). The existing transmitter site is located on Mt. Harvard. The registration number for the existing tower is 1213941.

Since there will be no change in overall height, FAA airspace approval is not required.

Exhibit E-1 is a vertical sketch of the existing tower and the proposed transmitting antenna.

The geographic coordinates of the proposed site are as follows:

North Latitude: 34° 12' 47.8"

West Longitude: 118° 03' 41.0"

NAD-27

Equipment Data

Antenna: Andrew, Model ATW26H6-ETC-18S (or equivalent) antenna with 1.6° electrical beam tilt and 1.6° mechanical tilt at a bearing of N 220° E, T. The vertical plane pattern and other exhibits required by Section 73.625(c) are herein included as Exhibit E-2.

Transmission Line: 85.3 meters (280 ft) of Andrew, Type ACX675, 6-1/8" air dielectric (or equivalent)

Power Data

|                                                           |          |           |
|-----------------------------------------------------------|----------|-----------|
| Transmitter output                                        | 17.32 kW | 12.39 dBk |
| Total Transmission line efficiency/loss                   | 93.7%    | 0.283 dB  |
| Input power to the antenna                                | 16.23 kW | 12.10 dBk |
| Antenna peak power gain,                                  |          |           |
| Horizontal Polarization                                   | 43.13    | 16.35 dB  |
| Vertical Polarization (RH elliptical,<br>v/h ratio = 0.2) | 8.63     | 9.36 dB   |
| Maximum Effective Radiated Power                          |          |           |
| Horizontal Polarization                                   | 700 kW   | 28.45 dBk |
| Vertical Polarization                                     | 140 kW   | 21.46 dBk |

Elevation Data

|                                                                                                    |                              |
|----------------------------------------------------------------------------------------------------|------------------------------|
| Vertical dimension for Channel 18 antenna                                                          | 18.7 meters<br>61.3 feet     |
| Overall height above ground of the existing antenna structure (including beacon and lightning rod) | 60.9 meters<br>199.8 feet    |
| Center of radiation of Channel 18 antenna above ground                                             | 50 meters<br>164 feet        |
| Elevation of site above mean sea level                                                             | 1654.8 meters<br>5429.1 feet |
| Center of radiation of Channel 18 antenna above mean sea level                                     | 1704.8 meters<br>5593 feet   |
| Overall height above mean sea level of existing tower and stacked antenna (including beacon)       | 1715.7 meters<br>5628.9 feet |
| Antenna height above average terrain                                                               | 899 meters                   |

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

Coverage

The average elevation data for 3.2 to 16.1 km along each radial are based upon NGDC 3-second terrain data. The F(50,90) DTV coverage contour has been computed from reference to the propagation data for Channels 14-69, as published by the FCC in Figure 10b and Figure 10c, Section 73.699 of the FCC Rules and Regulations.

Utilizing the formula in Section 73.625(b)(2) of the Rules for the effective heights, it is found that the depression angle,  $A_h$ , varies from 0.43 to 1.077 degrees. The normalized relative field

values given in the directional pattern as filed were used in determining the distance to the DTV contour.

Table I includes the distances to the 48 and 41 dBu F(50,90) coverage contours, the average elevation 3.2 to 16.1 km, and the antenna heights above average terrain and the directional ERP every 10 degrees beginning with true north. Exhibit E-3 provides the 48 and 41 dBu F(50,90) coverage contours and demonstrates that the community of license is covered by the F(50,90) 48 dBu contour.

#### Allocation

An allocation study from the proposed site has been performed since the proposed DTV facilities exceed that listed in Appendix B. The proposed operation causes no more than 0.5% new interference to any potentially affected post-transition station. These stations are listed in Table II.

#### Interference Analysis

A study of predicted interference caused by the proposed KSCI-DT service has been performed using a version of the Longley-Rice program as described in OET Bulletin No. 69 (February 6, 2004) and the Public Notice, "Additional Application Processing Guidelines for Digital Television (DTV)" (August 1998). The FCC's FORTRAN-77 code was modified only to the extent necessary (primarily input/output handling) for the program to run on a Windows XP platform. Comparison of service/interference areas and populations indicates that this model closely matches the FCC's evaluation program. Best efforts have been made to use data and calculations identical to the FCC's program. Any slight differences are attributable to compiler, operating system and/or

processor characteristics. The effect of any variance in calculated population values versus the FCC's program is minimized when differencing a given model's results, such as calculating new interference as total interference less baseline interference. Any variance effect is further reduced when using ratios of calculated population values such as measuring the incremental population affected as a percent of the total population served. The model employs the Longley-Rice propagation methodology and evaluates in grid cells of approximately 4 km<sup>2</sup> using 3-second terrain data sampled approximately every 1.0 km at one degree azimuth intervals with 2000 census centroids.

#### International Coordination

The proposed KSCI site is within the 275 km coordination zone for Mexico. However, Commission staff indicates that KSCI has been prior coordinated with Mexico for 200 kW ERP non-directional from this site. Although the maximum directional ERP is 700 kW, the proposed ERP in the horizontal plane is less than 200 kW at all azimuths for which the distance to the U.S. border with Mexico is less than 275 km. These values are shown in Table III. Therefore, the proposed operation remains within the terms of the prior international coordination.

#### Other Licensed and Broadcast Facilities

There are no AM facilities within 3.22 km of the authorized site. There are two licensed FM stations and four authorized DTV stations, in addition to the full service KSCI-DT facilities, within 0.1 km of the existing transmitter site. Since this proposal is for post-transition operation, the predicted radiofrequency field ("RFF") levels for analog TV stations will not be included in the

following analysis. No adverse technical effect is anticipated by the proposed DTV operation to any other FCC authorized facility.

FCC Rule, Section 1.1307

The proposed post-transition operation has been analyzed based upon the current OET Bulletin No. 65, Edition No. 97-01, dated August 1997 and Supplement A. The following equations from OET Bulletin No. 65 have been used to calculate the predicted radiofrequency fields at 2 meters above ground at the base of the tower:

**Digital Television Broadcast Stations**

$$S = [(33.4)(F^2)(ERP^2)]/R^2$$

S = Power Density in Microwatts/sq. cm ( $\mu\text{W}/\text{cm}^2$ )

F = Relative Field Factor in the downward direction of interest (-60° to -90° elevation)

ERP = Power in Watts

R = Distance from 2 meters above ground to center of radiation in meters

The radio frequency field analysis of the post-transition site is shown in the following table:

| <u>Station</u> | <u>Status</u> | <u>ERP</u><br>(kW) | <u>Frequency</u><br>(MHz) | <u>Ch</u> | <u>RCAGL</u><br>(m) | <u>Relative</u><br><u>Field</u> | <u>S</u><br>( $\mu\text{W}/\text{cm}^2$ ) | <u>RFF (%)</u> |                   |
|----------------|---------------|--------------------|---------------------------|-----------|---------------------|---------------------------------|-------------------------------------------|----------------|-------------------|
|                |               |                    |                           |           |                     |                                 |                                           | <u>General</u> | <u>Controlled</u> |
| KSCI-DT        | Proposed      | 700                | 494-500                   | 18        | 50                  | 0.06                            | 44                                        | 13.3           | 2.7               |
| KPXN-DT        | Licensed      | 1000               | 614-620                   | 38        | 52.6                | 0.1                             | 130.5                                     | 31.9           | 6.4               |
| KVEA-DT        | Licensed      | 54                 | 620-626                   | 39        | 57.2                | 0.12                            | 8.5                                       | 2.1            | 0.4               |
| KWHY-DT        | Licensed      | 486                | 638-644                   | 42        | 38                  | 0.12                            | 180.4                                     | 42.4           | 8.5               |
| KRCA-DT        | Allotment     | 670                | 656-662                   | 45        | 54                  | 0.1                             | 82.8                                      | 19.5           | 3.9               |
| KUSC(FM)       | Licensed      | 39                 | 91.5                      | 218B      | 35                  | 0.4                             | 53.2                                      | 265.8          | 53.2              |
| KLOS(FM)       | Licensed      | 50                 | 95.5                      | 238B      | 49                  | 0.2                             | 82.3                                      | 41.2           | 8.3               |
| Total          |               |                    |                           |           |                     |                                 |                                           | 416.2%         | 83.4%             |

For the post-transition operation, KSCI-DT proposes to use an Andrew, Type ATW26H6-ETC-18S or equivalent antenna. The manufacturer's elevation pattern for this antenna indicates a maximum relative downward field of less than 0.06 towards the ground in the vicinity of the tower. Using this relative field factor and the procedures prescribed in OET Bulletin 65, the maximum RFF resulting from the proposed KSCI operation is less than  $0.44 \text{ uW/cm}^2$ . This is less than 13.3% of the  $329 \text{ } \mu\text{W/cm}^2$  maximum human exposure to RFF recommended by the current FCC guidelines for the general population.

Although the method of OET Bulletin 65 indicates potential RFF levels to be in excess of the guideline for the general population, actual measurements taken in May 2005 indicate that this is not the case. The licensee accepts these measurement as valid and more definitive than the theoretical prediction using OET 69, which is typically worst case.

Moreover, the site is on a steep mountaintop, accessible only through a series of three locked gates. Post-transition, the total RFF contribution at the site from television stations will diminish as the analog stations cease operation. Total television RFF contribution will be less after the transition, even if all of the DTV stations maximize. Therefore, post-transition, the proposed operation at the site will continue to meet the RFF guidelines. Nevertheless, it is strongly recommended to conduct a new RFF survey post-transition with the new complement of facilities.

Authorized personnel and rigging contractors will be alerted to the potential zone of high field levels on the tower, and if necessary, the station will operate with reduced power or terminate the operation of the transmitter as appropriate when it is necessary for authorized personnel or

contractors to perform work on the tower. Workers and the general public, therefore, will not be subjected to RFF levels in excess of the current FCC guidelines.

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 and the licensee indicates:

- (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 will not affect any listed threatened or endangered species or habitats.
- (a)(3)(ii) The proposed facilities 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.
- (a)(4) The proposed facilities located on a 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 installation of the DTV facilities on an existing guyed tower will not involve a significant change in surface features of the ground in the vicinity of the tower.
- (a)(8) It is not proposed to modify the tower lighting unless required by the FAA.

- (b) Workers and the general public will not be subjected to RFF levels in excess of the current FCC guidelines contained in OET Bulletin No. 65, Edition 97-01, dated August 1997 and Supplement A.

ABOVE GROUND

ABOVE MEAN SEA LEVEL

60.9 m (199.8')

1715.7 m (5628.9')

**C/R 50 m (164.0')**

**1704.8 m (5593.2') C/R**

**PROPOSED KSCI-DT ANTENNA  
CHANNEL 18**

30.5 m (100.1')

REG # 1213941

PAINTING AND LIGHTING ARE IN  
ACCORDANCE WITH F.A.A. RULES  
AND REGULATIONS.

SELF-SUPPORTING TOWER

0 m (0')

1654.8 m (5429.1')

NOT TO SCALE

EXHIBIT E - 1  
VERTICAL SKETCH  
FOR THE PROPOSED OPERATION OF  
**KSCI-DT, LONG BEACH, CALIFORNIA**  
JUNE 2008

COHEN, DIPPELL and EVERIST, P.C. Consulting Engineers

TABLE I  
COMPUTED COVERAGE DATA  
FOR PROPOSED DTV OPERATION OF  
KSCI-DT, LONG BEACH, CALIFORNIA  
CHANNEL 18 700 KW ERP 899 METERS HAAT  
JUNE 2008

| <u>Radial</u><br>N ° E, T | <u>Average*</u><br><u>Elevation</u><br>meters | <u>Effective</u><br><u>Height</u><br>meters | <u>Depression</u><br><u>Angle</u><br>degrees | <u>ERP</u><br>kW | <u>Distance to Contour F(50,90)</u>      |                                             |
|---------------------------|-----------------------------------------------|---------------------------------------------|----------------------------------------------|------------------|------------------------------------------|---------------------------------------------|
|                           |                                               |                                             |                                              |                  | <u>48 dBu</u><br><u>City Grade</u><br>km | <u>41 dBu</u><br><u>Noise-Limited</u><br>km |
| 0                         | 1292.9                                        | 411.9                                       | 0.562                                        | 239.6            | 82.9                                     | 94.2                                        |
| 10                        | 1337.5                                        | 367.3                                       | 0.531                                        | 214.1            | 79.2                                     | 90.6                                        |
| 20                        | 1460.6                                        | 244.2                                       | 0.433                                        | 157.3            | 67.5                                     | 75.5                                        |
| 30                        | 1395.4                                        | 309.4                                       | 0.487                                        | 117.1            | 70.5                                     | 80.3                                        |
| 40                        | 1312.4                                        | 392.4                                       | 0.549                                        | 145.6            | 78.5                                     | 89.4                                        |
| 50                        | 1209.6                                        | 495.2                                       | 0.616                                        | 257.9            | 87.8                                     | 101.1                                       |
| 60                        | 1035.6                                        | 669.2                                       | 0.717                                        | 434.7            | 101.5                                    | 116.1                                       |
| 70                        | 865.5                                         | 839.3                                       | 0.802                                        | 586.1            | 110.5                                    | 125.8                                       |
| 80                        | 1009.8                                        | 695.0                                       | 0.730                                        | 679.2            | 106.4                                    | 121.7                                       |
| 90                        | 1054.2                                        | 650.6                                       | 0.707                                        | 700.0            | 104.9                                    | 119.9                                       |
| 100                       | 882.5                                         | 822.3                                       | 0.794                                        | 579.7            | 109.9                                    | 125.1                                       |
| 110                       | 716.4                                         | 988.4                                       | 0.871                                        | 415.0            | 111.4                                    | 127.2                                       |
| 120                       | 505.7                                         | 1199.1                                      | 0.959                                        | 252.8            | 112.0                                    | 129.0                                       |
| 130                       | 333.0                                         | 1371.8                                      | 1.026                                        | 116.0            | 108.3                                    | 125.5                                       |
| 140                       | 285.2                                         | 1419.6                                      | 1.044                                        | 107.6            | 108.7                                    | 126.2                                       |
| 150                       | 266.2                                         | 1438.6                                      | 1.051                                        | 99.5             | 108.3                                    | 125.9                                       |
| 160                       | 244.7                                         | 1460.1                                      | 1.058                                        | 90.7             | 107.9                                    | 125.5                                       |
| 170                       | 222.4                                         | 1482.4                                      | 1.067                                        | 92.7             | 108.6                                    | 126.4                                       |
| 180                       | 194.0                                         | 1510.8                                      | 1.077                                        | 113.1            | 111.4                                    | 129.5                                       |
| 190                       | 188.7                                         | 1516.1                                      | 1.079                                        | 136.8            | 113.6                                    | 131.7                                       |
| 200                       | 197.1                                         | 1507.7                                      | 1.076                                        | 170.8            | 115.8                                    | 133.9                                       |
| 210                       | 196.5                                         | 1508.3                                      | 1.076                                        | 136.1            | 113.3                                    | 131.5                                       |
| 220                       | 210.8                                         | 1494.0                                      | 1.071                                        | 107.6            | 110.4                                    | 128.4                                       |
| 230                       | 223.1                                         | 1481.7                                      | 1.066                                        | 86.2             | 107.9                                    | 125.5                                       |
| 240                       | 244.3                                         | 1460.5                                      | 1.059                                        | 76.7             | 106.2                                    | 123.6                                       |
| 250                       | 286.2                                         | 1418.6                                      | 1.043                                        | 69.9             | 104.4                                    | 121.3                                       |
| 260                       | 317.0                                         | 1387.8                                      | 1.032                                        | 65.1             | 103.0                                    | 119.6                                       |
| 270                       | 359.8                                         | 1345.0                                      | 1.016                                        | 63.0             | 101.8                                    | 118.0                                       |
| 280                       | 413.7                                         | 1291.1                                      | 0.995                                        | 68.6             | 101.4                                    | 117.4                                       |

TABLE I  
COMPUTED COVERAGE DATA  
FOR PROPOSED OPERATION OF  
KSCI-DT, LONG BEACH, CALIFORNIA  
CHANNEL 18 700 KW ERP 899 METERS HAAT  
JUNE 2008  
 (continued)

| <u>Radial</u><br>N ° E, T | <u>Average*</u><br><u>Elevation</u><br>meters | <u>Effective</u><br><u>Height</u><br>meters | <u>Depression</u><br><u>Angle</u><br>degrees | <u>ERP</u><br>kW | <u>Distance to Contour F(50,90)</u>      |                                             |
|---------------------------|-----------------------------------------------|---------------------------------------------|----------------------------------------------|------------------|------------------------------------------|---------------------------------------------|
|                           |                                               |                                             |                                              |                  | <u>48 dBu</u><br><u>City Grade</u><br>km | <u>41 dBu</u><br><u>Noise-Limited</u><br>km |
| 290                       | 501.6                                         | 1203.2                                      | 0.961                                        | 76.7             | 100.5                                    | 116.3                                       |
| 300                       | 630.2                                         | 1074.6                                      | 0.908                                        | 83.3             | 98.2                                     | 113.8                                       |
| 310                       | 885.5                                         | 819.3                                       | 0.793                                        | 53.7             | 87.9                                     | 102.6                                       |
| 320                       | 1099.7                                        | 605.1                                       | 0.681                                        | 26.6             | 76.4                                     | 89.1                                        |
| 330                       | 1110.5                                        | 594.3                                       | 0.675                                        | 18.6             | 73.4                                     | 85.7                                        |
| 340                       | 1273.9                                        | 430.9                                       | 0.575                                        | 13.5             | 65.5                                     | 75.9                                        |
| 350                       | 1282.8                                        | 422.0                                       | 0.569                                        | 25.5             | 69.0                                     | 79.5                                        |

\*Based on data from FCC 3-second data base.

DTV Channel 18 (494-500 MHz)  
 Average Elevation 3.2 to 16.1 km 777.6 meters AMSL  
 Center of Radiation 1704.8 meters AMSL  
 Antenna Height Above Average Terrain 899 meters  
 Effective Radiated Power 700 kW (28.45 dBk) Max

North Latitude: 34° 12' 47.8"

West Longitude: 118° 03' 41"

(NAD-27)

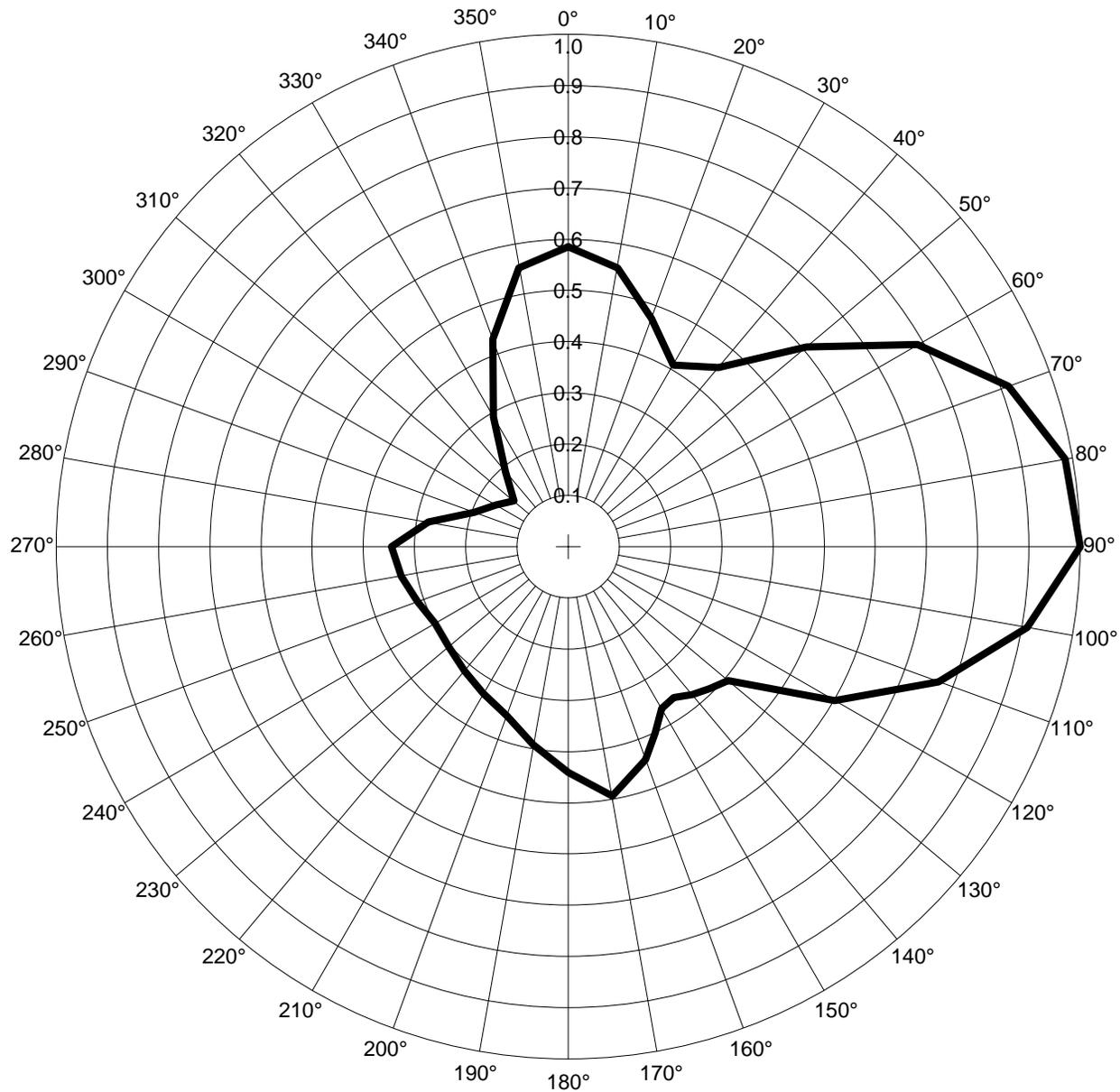
COHEN, DIPPELL AND EVERIST, P.C.

EXHIBIT E-2

ANTENNA MANUFACTURER DATA

KSCI-DT, LONG BEACH, CALIFORNIA

HORIZONTAL PLANE PATTERN



Relative Intensity

Pattern file: KSCI 1dot6 mech tilt at 220.pat

EXHIBIT A

**ANDREW**  
AZIMUTH PATTERN

Type: CHIBAZH  
Numeric dBd

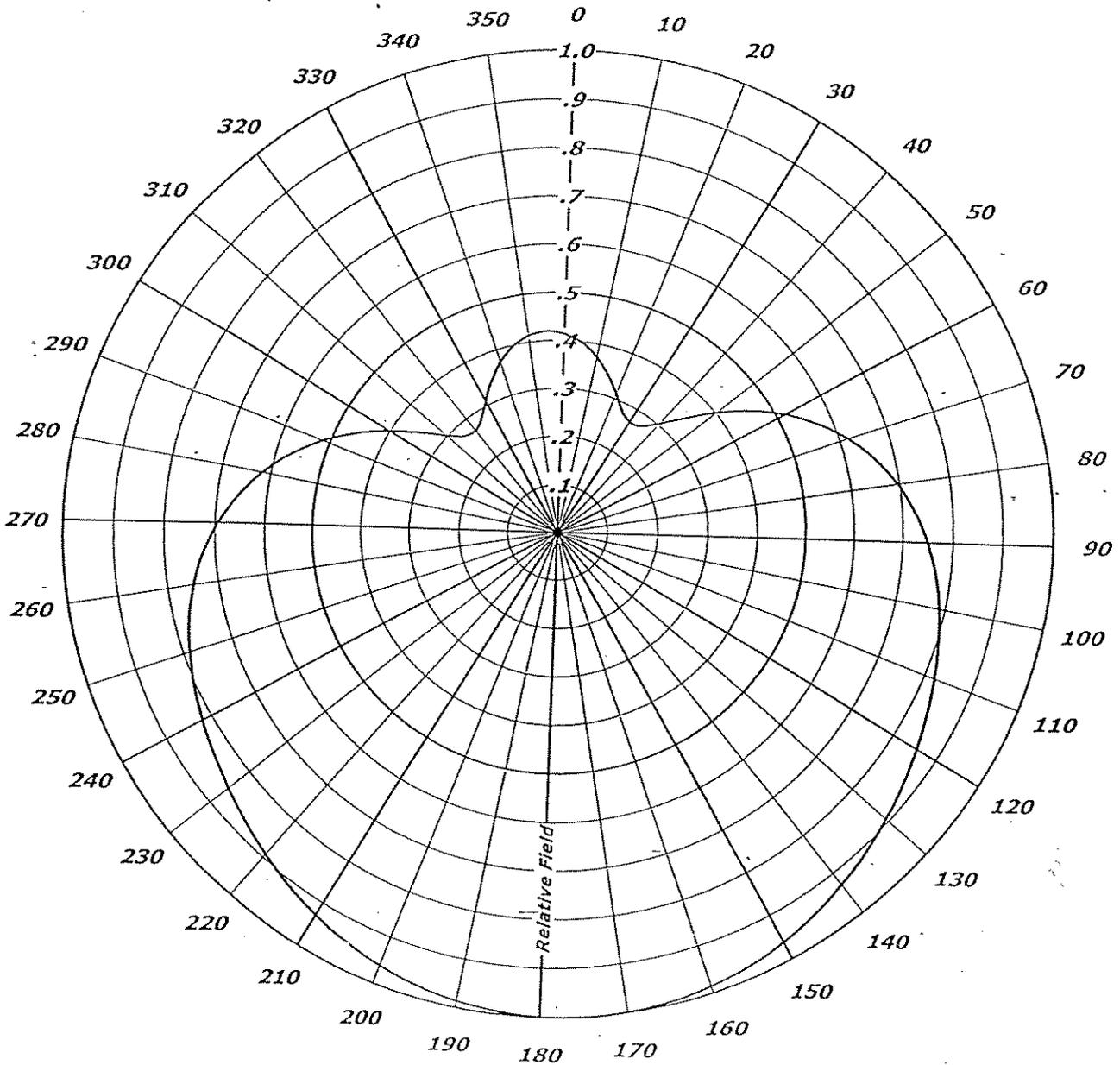
Directivity: \_\_\_\_\_

Peak(s) At: \_\_\_\_\_

Polarization: Horizontal

Channel: 18

Location: LOS ANGELES, CA.



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

EXHIBIT B

**ANDREW**  
AZIMUTH PATTERN  
CH18AZV

Type: \_\_\_\_\_  
Numeric dBd

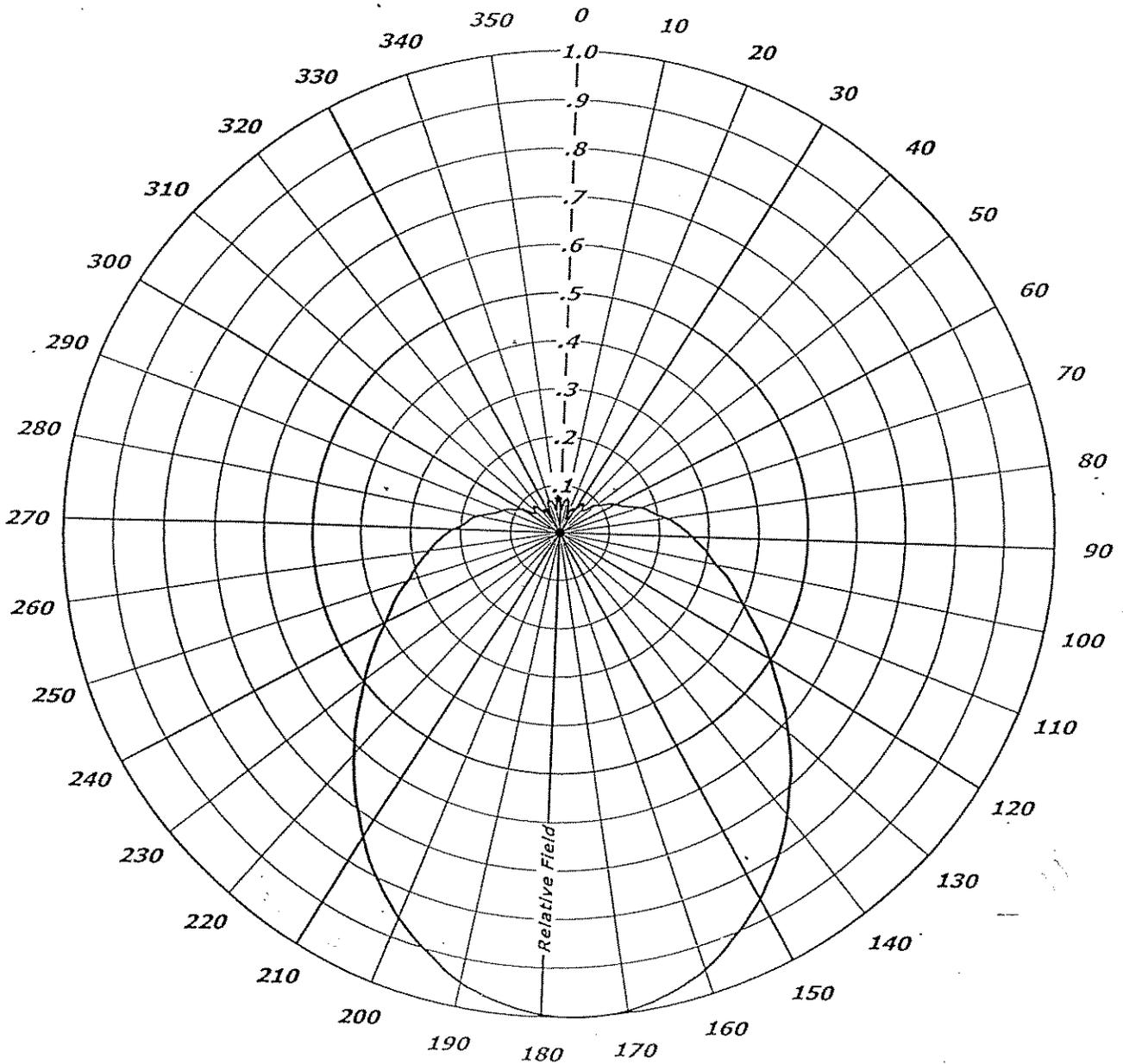
Directivity: \_\_\_\_\_

Peak(s) At: \_\_\_\_\_

Polarization: \_\_\_\_\_  
Vertical

Channel: \_\_\_\_\_  
18

Location: LOS ANGELES, CA.



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

EXHIBIT C

**ANDREW**  
ELEVATION PATTERN

Type: CHISELH  
Directivity: Numeric dBd  
Main Lobe:  
Horizontal:  
Beam Tilt:  
Polarization: HORIZONTAL  
Channel: 18  
Location: LOS ANGELES, CA.

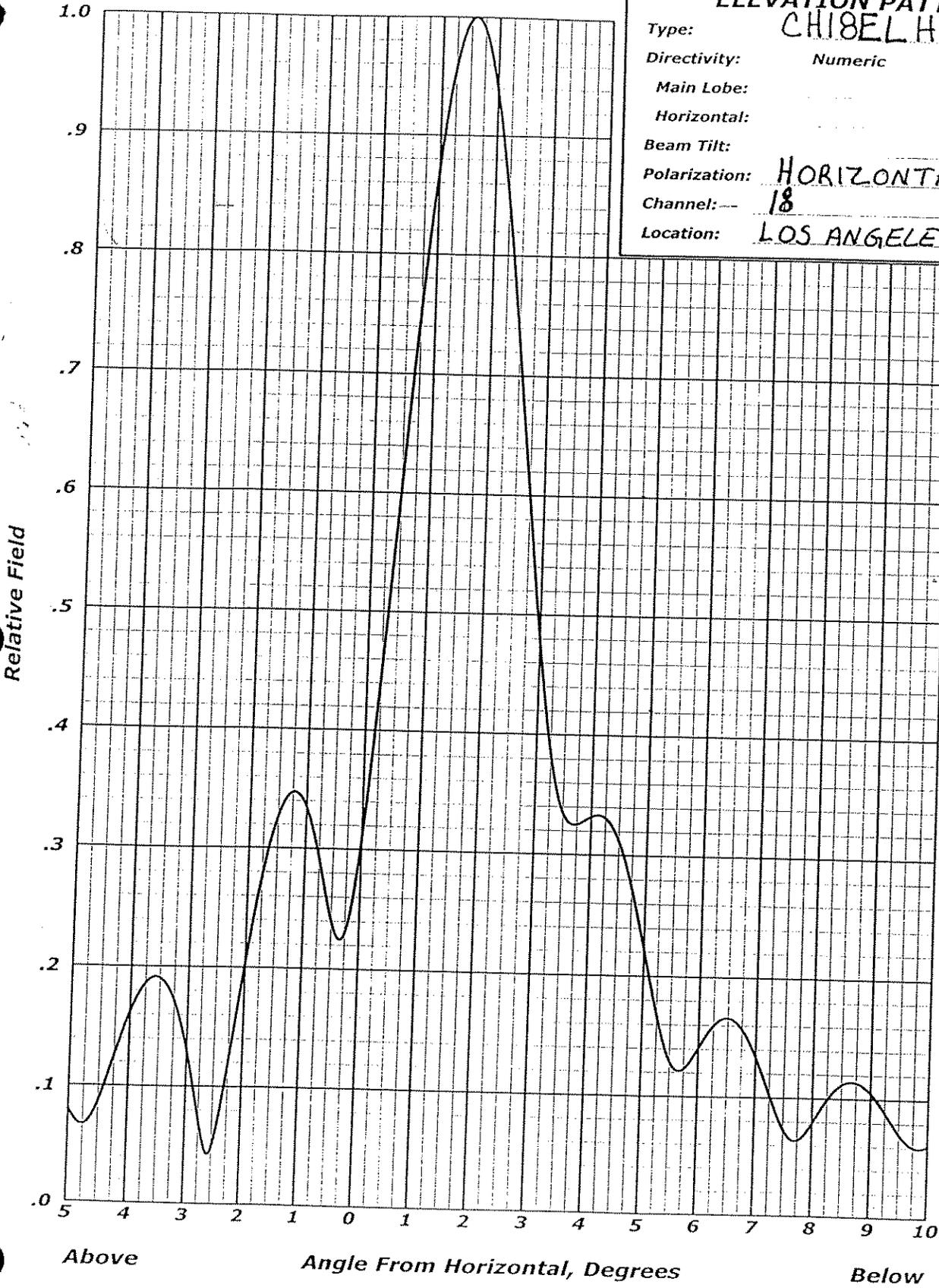
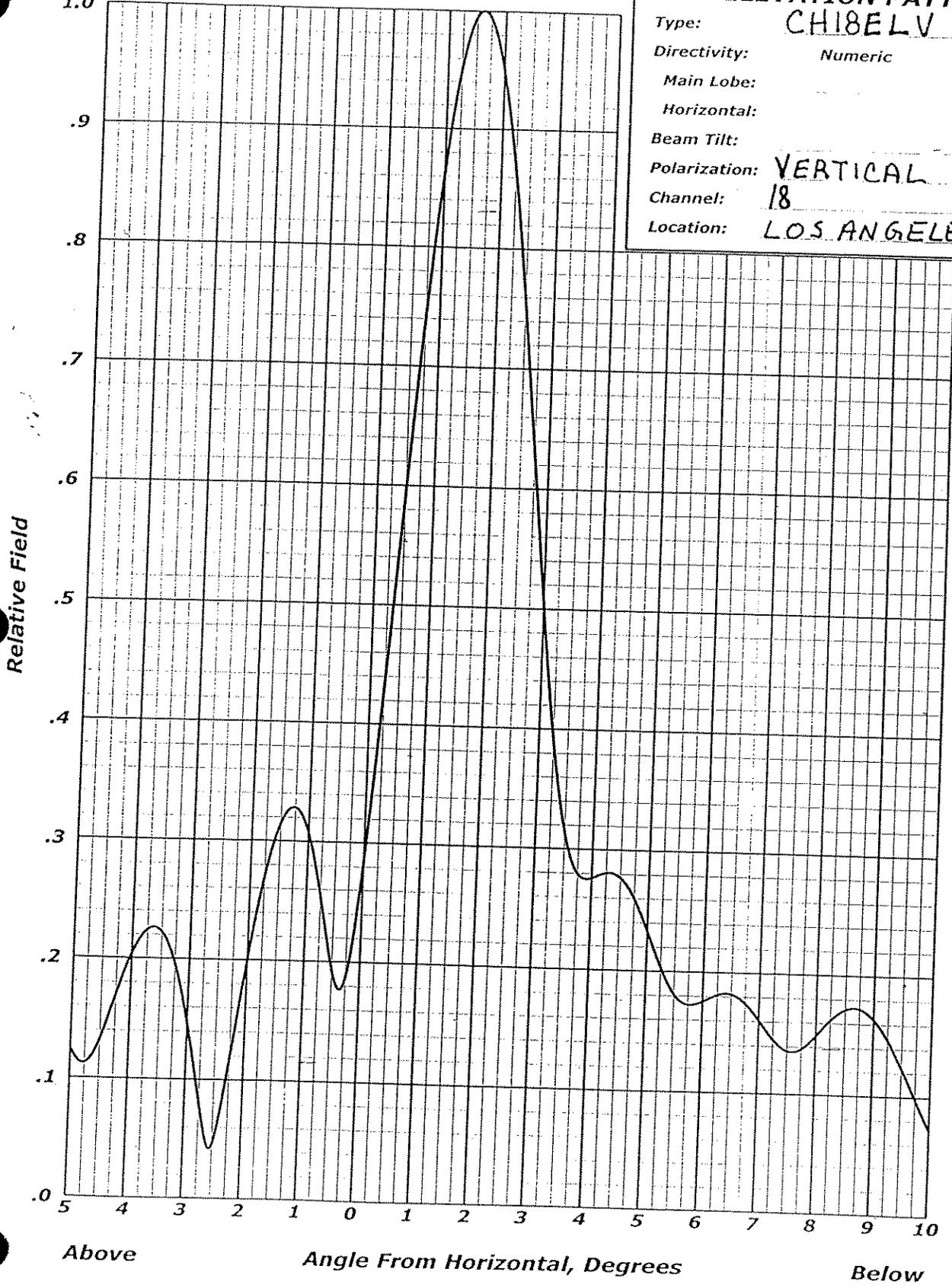


EXHIBIT D

**ANDREW**  
ELEVATION PATTERN

Type: CH18ELV  
Directivity: Numeric dBd  
Main Lobe:  
Horizontal:  
Beam Tilt:  
Polarization: VERTICAL  
Channel: 18  
Location: LOS ANGELES, CA.



COHEN, DIPPELL AND EVERIST, P.C.

TABLE II  
LONGLEY-RICE (OET 69) INTERFERENCE ANALYSIS  
FOR THE PROPOSED OPERATION OF  
KSCI-DT, LONG BEACH, CALIFORNIA  
CHANNEL 18 700 KW ERP 899 METERS HAAT  
JUNE 2008

| <u>Potentially<br/>Affected<br/>Station</u> | <u>City/State</u> | <u>Channel</u> | <u>ERP<br/>kW</u> | <u>FCC File No.</u> | <u>% New<br/>Interference</u> |
|---------------------------------------------|-------------------|----------------|-------------------|---------------------|-------------------------------|
| KUSI-DT                                     | SAN DIEGO, CA     | 18             | 355               | BMPCDT-200004ABV    | 0.49%                         |
| KSWB-DT                                     | SAN DIEGO, CA     | 19             | 322.8             | BLCDT-20040722AAA   | 0.36%                         |
| KNET-LP                                     | LOS ANGELES, CA   | 25             | 73.7              | BLTTA-20060925AGZ   | 0.0%                          |
| KSFV-LP                                     | LOS ANGELES, CA   | 26             | 9.3               | BLTTL-20010507AAN   | 0.0%                          |

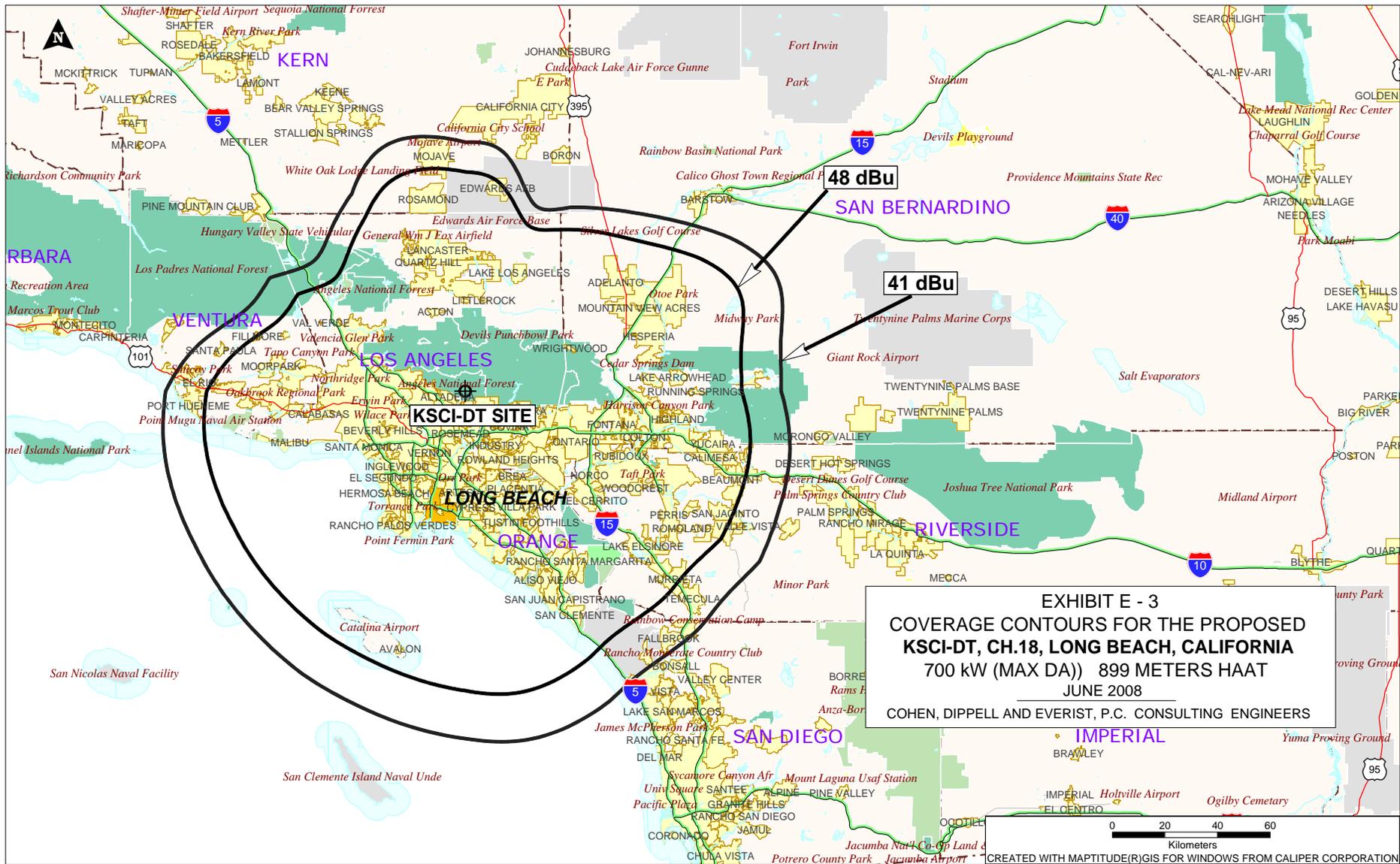
COHEN, DIPPELL AND EVERIST, P.C.

TABLE III  
COMPUTED COVERAGE DATA  
FOR THE PROPOSED DTV OPERATION OF  
KSCI-DT, LONG BEACH, CALIFORNIA  
CHANNEL 18 700 KW ERP MAX DA 899 METERS HAAT  
JUNE 2008

1.6° Electrical Tilt 1.6° Mechanical Tilt @ 220°

AZIMUTHS FOR WHICH DISTANCE FROM KSCI SITE TO  
THE MEXICO BORDER IS LESS THAN 275 KM

| <u>Azimuth</u><br>N ° E, T | <u>AT HORIZONTAL</u>  |                 |
|----------------------------|-----------------------|-----------------|
|                            | <u>Relative Field</u> | <u>ERP (kW)</u> |
| 120°                       | 0.394                 | 155.1           |
| 125°                       | 0.332                 | 110.4           |
| 130°                       | 0.267                 | 71.4            |
| 135°                       | 0.257                 | 66.3            |
| 140°                       | 0.247                 | 61.1            |
| 145°                       | 0.236                 | 55.8            |
| 150°                       | 0.239                 | 57.0            |
| 155°                       | 0.264                 | 69.9            |
| 160°                       | 0.290                 | 89.3            |



**SECTION III - D - DTV Engineering**

**Complete Questions 1-5, and provide all data and information for the proposed facility, as requested in Technical Specifications, Items 1-13.**

**Pre-Transition Certification Checklist:** An application concerning a pre-transition channel must complete questions 1(a)-(c), and 2-5. A correct answer of "Yes" to all of the questions will ensure an expeditious grant of a construction permit application to modify pre-transition facilities. However, if the proposed facility is located within the Canadian or Mexican borders, coordination of the proposal under the appropriate treaties may be required prior to grant of the application. An answer of "No" will require additional evaluation of the applicable information in this form before a construction permit can be granted.

**Post-Transition Expedited Processing.** An application concerning a post-transition channel must complete questions 1(a), (d)-(e), and 2-5. A station applying for a construction permit to build its post-transition channel will receive expedited processing if its application (1) does not seek to expand the noise-limited service contour in any direction beyond that established by Appendix B of the Seventh Report and Order in MB Docket No. 87-268 establishing the new DTV Table of Allotments in 47 C.F.R. § 73.622(i) ("new DTV Table Appendix B"); (2) specifies facilities that match or closely approximate those defined in the new DTV Table Appendix B facilities; and (3) is filed within 45 days of the effective date of Section 73.616 of the rules adopted in the Report and Order in the Third DTV Periodic Review proceeding, MB Docket No. 07-91.

- 1. The proposed DTV facility complies with 47 C.F.R. Section 73.622 in the following respects:
  - (a) It will operate on the DTV channel for this station as established in 47 C.F.R. Section 73.622.  Yes  No
  - (b) It will operate a pre-transition facility from a transmitting antenna located within 5.0 km (3.1 miles) of the DTV reference site for this station as established in 47 C.F.R. Section 73.622.  Yes  No
  - (c) It will operate a pre-transition facility with an effective radiated power (ERP) and antenna height above average terrain (HAAT) that do not exceed the DTV reference ERP and HAAT for this station as established in 47 C.F.R. Section 73.622.  Yes  No
  - (d) It will operate at post-transition facilities that do not expand the noise-limited service contour in any direction beyond that established by Appendix B of the Seventh Report and Order in MB Docket No. 87-268 establishing the new DTV Table of Allotments in 47 C.F.R. § 73.622(i) ("new DTV Table Appendix B").  Yes  No  
 N/A
  - (e) It will operate at post-transition facilities that match or reduce by no more than five percent with respect to predicted population from those defined in the new DTV Table Appendix B.  Yes  No  
 N/A
- 2. The proposed facility will not have a significant environmental impact, including exposure of workers or the general public to levels of RIF radiation exceeding the applicable health and safety guidelines, and therefore will not come within 47 C.F.R. Section 1.1307.  Yes  No

Applicant must **submit the Exhibit** called for in Item 13.

- 3. Pursuant to 47 C.F.R. Section 73.625, the DTV coverage contour of the proposed facility will encompass the allotted principal community.  Yes  No
- 4. The requirements of 47 C.F.R. Section 73.1030 regarding notification to radio astronomy installations, radio receiving installations and FCC monitoring stations have either been satisfied or are not applicable.  Yes  No
- 5. The antenna structure to be used by this facility has been registered by the Commission and will not require reregistration to support the proposed antenna, OR the FAA has previously determined that the proposed structure will not adversely effect safety in air navigation and this structure qualifies for later registration under the Commission's phased registration plan, OR the proposed installation on this structure does not require notification to the FAA pursuant to 47 C.F.R. Section 17.7.  Yes  No

**SECTION III - D DTV Engineering**

**TECHNICAL SPECIFICATIONS** Ensure that the specifications below are accurate. Contradicting data found elsewhere in this application will be disregarded. All items must be completed. The response "on file" is not acceptable.

**TECH BOX**

1. Channel Number: DTV \_\_\_\_\_ Analog TV, if any \_\_\_\_\_

2. Zone:  I  II  III

3. Antenna Location Coordinates: (NAD 27)

\_\_\_\_\_ ° \_\_\_\_\_ ' \_\_\_\_\_ "  N  S Latitude  
 \_\_\_\_\_ ° \_\_\_\_\_ ' \_\_\_\_\_ "  E  W Longitude

4. Antenna Structure Registration Number: \_\_\_\_\_

Not applicable  FAA Notification Filed with FAA

5. Antenna Location Site Elevation Above Mean Sea Level: \_\_\_\_\_ meters

6. Overall Tower Height Above Ground Level: \_\_\_\_\_ meters

7. Height of Radiation Center Above Ground Level: \_\_\_\_\_ meters

8. Height of Radiation Center Above Average Terrain: \_\_\_\_\_ meters

9. Maximum Effective Radiated Power (average power): \_\_\_\_\_ kW

10. Antenna Specifications:

|              |       |
|--------------|-------|
| Manufacturer | Model |
|--------------|-------|

a.  Not Applicable

b. Electrical Beam Tilt: \_\_\_\_\_ degrees  Not Applicable

c. Mechanical Beam Tilt: \_\_\_\_\_ degrees toward azimuth \_\_\_\_\_ degrees True  Not Applicable

Attach as an Exhibit all data specified in 47 C.F.R. Section 73.625(c). Exhibit No.

d. Polarization:  Horizontal  Circular  Elliptical

**TECH BOX**

e. Directional Antenna Relative Field Values:  Not applicable (Nondirectional)  
 Rotation: \_\_\_\_\_ °  No rotation

| Degree              | Value | Degree | Value | Degree | Value | Degree | Value | Degree | Value | Degree | Value |
|---------------------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|
| 0                   |       | 60     |       | 120    |       | 180    |       | 240    |       | 300    |       |
| 10                  |       | 70     |       | 130    |       | 190    |       | 250    |       | 310    |       |
| 20                  |       | 80     |       | 140    |       | 200    |       | 260    |       | 320    |       |
| 30                  |       | 90     |       | 150    |       | 210    |       | 270    |       | 330    |       |
| 40                  |       | 100    |       | 160    |       | 220    |       | 280    |       | 340    |       |
| 50                  |       | 110    |       | 170    |       | 230    |       | 290    |       | 350    |       |
| Additional Azimuths |       |        |       |        |       |        |       |        |       |        |       |

If a directional antenna is proposed, the requirements of 47 C.F.R. Section 73.625(c) must be satisfied. **Exhibit required.**

Exhibit No.

11. Does the proposed facility satisfy the pre-transition interference protection provisions of 47 C.F.R. Section 73.623(a) (Applicable only if **Certification Checklist** Items 1(a), (b), or (c) are answered "No.") and/or the post-transition interference protection provisions of 47 C.F.R. Section 73.616?  Yes  No

Exhibit No.

If "No," attach as an Exhibit justification therefore, including a summary of any related previously granted waivers.

12. If the proposed facility will not satisfy the coverage requirement of 47 C.F.R. Section 73.625, attach as an Exhibit justification therefore. (Applicable only if **Certification Checklist** Item 3 is answered "No.")

Exhibit No.

13. **Environmental Protection Act. Submit in an Exhibit** the following:

a. If **Certification Checklist Item 2** is answered "Yes," a brief explanation of why an Environmental Assessment is not required. Also describe in the Exhibit the steps that will be taken to limit RF radiation exposure to the public and to persons authorized access to the tower site.

By checking "Yes" to **Certification Checklist** Item 2, the applicant also certifies that it, in coordination with other users of the site, will reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from radio frequency electromagnetic exposure in excess of FCC guidelines.

If **Certification Checklist** Item 2 is answered "No," an Environmental Assessment as required by 47 C.F.R. Section 1.1311.

**PREPARER'S CERTIFICATION IN SECTION III MUST BE COMPLETED AND SIGNED.**

Yes  No  N/A

13. **Petition for Rulemaking/Counterproposal to Add New FM Channel to FM Table of Allotments.** If the application is being submitted concurrently with a Petition for Rulemaking or Counterproposal to Amend the FM Table of Allotments (47 C.F.R. Section 73.202) to add a new FM channel allotment, petitioner/counter-proponent certifies that, if the FM channel allotment requested is allotted, petitioner/counter-proponent will apply to participate in the auction of the channel allotment requested and specified in this application.

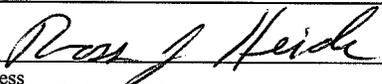
I certify that the statements in this application are true, complete, and correct to the best of my knowledge and belief, and are made in 'good faith. I acknowledge that all certifications and attached Exhibits are considered material representations. I hereby waive any claim to the use of any particular frequency as against the regulatory power of the United States because of the previous use of the same, whether by license or otherwise, and request an authorization in accordance with this application. (See Section 304 of the Communications Act of 1934, as amended.)

|                                         |                                          |
|-----------------------------------------|------------------------------------------|
| Typed or Printed Name of Person Signing | Typed or Printed Title of Person Signing |
| Signature                               | Date                                     |

WILLFUL FALSE STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND/OR IMPRISONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SECTION 312(a)(1)), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503).

**SECTION III PREPARER'S CERTIFICATION**

I certify that I have prepared Section III (Engineering Data) on behalf of the applicant, and that after such preparation, I have examined and found it to be accurate and true to the best of my knowledge and belief.

|                                                                                                  |                                                                              |                   |
|--------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|-------------------|
| Name<br>Ross J. Heide                                                                            | Relationship to Applicant (e.g., Consulting Engineer)<br>Consulting Engineer |                   |
| Signature<br> | Date<br>June 18, 2008                                                        |                   |
| Mailing Address<br>Cohen, Dippell and Everist, P.C, 1300 L Street, NW Suite 1100                 |                                                                              |                   |
| City<br>Washington                                                                               | State or Country (if foreign address)<br>DC                                  | ZIP Code<br>20005 |
| Telephone Number (include area code)<br>(202) 898-0111                                           | E-Mail Address (if available)<br>cde@attglobal.net                           |                   |

WILLFUL FALSE STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND/OR IMPRISONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SECTION 312(a)(1)), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503).