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May 1, 2000

**HAND DELIVER**

Ms. Magalie R. Salas  
Secretary  
Federal Communications Commission  
The Portals II  
445 12th Street, S.W.  
Room TW-A325  
Washington, DC 20554

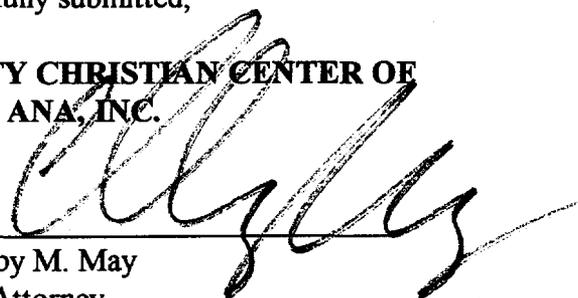
RECEIVED  
MAY 01 2000  
FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

Dear Ms. Salas:

On behalf of Trinity Christian Center of Santa Ana, Inc., licensee of television station KTBN (TV), Santa Ana, California, there are transmitted herewith an original and four copies of a Petition for Rulemaking proposing the substitution of DTV Channel 16 for DTV Channel 23, Santa Ana, California.

Respectfully submitted,

**TRINITY CHRISTIAN CENTER OF  
SANTA ANA, INC.**

By:   
Colby M. May  
Its Attorney

CMM:fd  
Enclosures

xc: KTBN (TV) Public File  
Clay Pendarvis, Esq.  
Terrence M. Hickey  
Ben Miller

BEFORE THE  
**Federal Communications Commission**  
 WASHINGTON, D.C. 20554

**RECEIVED**  
 MAY 01 2000  
 FEDERAL COMMUNICATIONS COMMISSION  
 OFFICE OF THE SECRETARY

**In the Matter of** )  
 )  
**Amendment of Section 73.622(b)** )  
**Digital Television Table of Allotments,** )  
**(Santa Ana, California)** )

RM- 9982

**To: Chief, Mass Media Bureau**

**PETITION FOR RULEMAKING**

Trinity Christian Center of Santa Ana, Inc., licensee of Television Broadcast Station KTBN, Santa Ana, California ("Petitioner"), by its attorney and pursuant to Sections 1.419, 1.420 and 73.623 of the Commission's Rules, hereby requests that the Table of Allotments for Digital Television ("DTV") Stations, Section 73.622(b) of the Commission's Rules, be amended as follows:

<u>City</u>	<u>Channel No.</u>	
	<u>Present</u>	<u>Proposed</u>
<b>Santa Ana, California</b>	<b>23</b>	<b>16</b>

In support of such request, the following is set forth.

1. Petitioner seeks to substitute DTV Channel 16 in lieu of DTV Channel 23 at Santa Ana, California, for use by Station KTBN at the same transmitter site authorized for use by KTBN for its NTSC operation on Channel 40. DTV Channel 23 was allocated for use by KTBN pursuant to the Sixth Report and Order in MM Docket No. 87-268, 12 F.C.C. Rcd. 14588 (1997), recon. granted in part, 13 F.C.C. Rcd. 7418 (1998).

2. As set forth in the attached engineering of Kevin T. Fisher, Smith and Fisher, the proposed DTV channel substitution is fully consistent with the requirements of Section 63.623(c)

and 76.625(a) of the Rules. Specifically, the substitution of DTV Channel 16 at Santa Ana would comply with the principal community coverage requirements and will not result in more than a two percent (2%) increase in new interference to the population served by any other DTV stations, DTV allotment or analog television broadcast station or result in any affected station receiving interference in excess of ten percent (10%) of its population (see Exhibit H of attached engineering).

3. The proposed substitution would benefit the public interest for the following reasons. If the Petition for Rulemaking is adopted, Petitioner intends to operate DTV Channel 16 during the transition period with facilities which will provide service to a population of 14,815,132. Moreover, absent a change in DTV allocation from Channel 23 to Channel 16, Petitioner will not, during the interim DTV transition period, engage in full power DTV operations, but, rather, will operate at low power, providing interim DTV coverage to its city of license. As established by the attached engineering, an interim DTV operation on Channel 23 would provide DTV service to a population of only 13,514,484. Thus, the proposed substitution of Channel 16 would result in an increase in interim DTV service to over 1,300,000 additional persons.

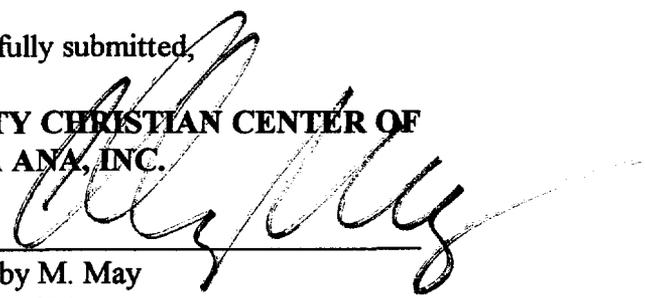
4. The proposed change also will enable Station KTBN to avoid the extra cost of purchasing a transmitter and other equipment which it will not use at the end of the DTV transition period. As reflected by the attached engineering, Petitioner would propose to operate on DTV Channel 16 after the transition period and, therefore, will be able to use the antenna, transmission line and transmitter employed during the transition period. If Petitioner's proposal to substitute Channel 16 in lieu of Channel 23 is adopted by the Commission, the resulting capital cost savings will make available additional resources for Petitioner to invest in promoting and providing DTV and public interest programming to the public.

5. The success of a DTV station operation is inherently related to viewer acceptance; the larger the audience size, the greater likelihood that viewers will purchase DTV receivers and, further, purchase receivers at an earlier point in time. The compelling public interest benefit herein is that more than 1,300,000 additional persons will be served by a DTV Channel 16 operation at the commencement of DTV operation in 2002 -- many years prior to the 2006 end of the transition period. Accordingly, a Channel 16 DTV allocation would better serve to expedite the public's acceptance and conversion to digital television.

6. The proposed substitution of DTV Channel 16 for DTV Channel 23 would permit station KTBN to replicate a substantially larger portion of its existing service area on analog Channel 40 during the DTV transition period; and the proposed channel change complies with the coverage and allocation criteria set forth in the Commission's Rules. Accordingly, and for the reasons stated herein, Petitioner submits that its proposed DTV channel substitution would serve the public interest and the Commission is respectfully requested to issue a Notice of Proposed Rulemaking.

Respectfully submitted,

**TRINITY CHRISTIAN CENTER OF  
SANTA ANA, INC.**

By: 

Colby M. May  
Suite 609  
1000 Thomas Jefferson Street, NW  
Washington, DC 20007  
(202) 298-6348

Its Attorney

Date: May 1, 2000

ENGINEERING STATEMENT

The engineering data contained herein have been prepared on behalf of TRINITY BROADCASTING NETWORK, licensee of Television Station KTBN-TV, Santa Ana, California, in support of its Petition for Rulemaking to substitute DTV Channel 16 for DTV Channel 23 in Santa Ana, California.

Due to significant interference concerns for DTV Channel 23 with respect to KVCR-TV (Channel 24 in San Bernardino, California) and KADY-DT (Channel 24 in Oxnard, California), KTBN-DT cannot be properly maximized on its present channel. However, a detailed channel search reveals that DTV Channel 16 can be used in Santa Ana from the KTBN-TV site and with specific, maximized operating parameters

The proposed site, at 34° 13' 27", 118° 03' 44", is plotted in Exhibit B. For the purposes of our interference studies, we assumed that an Andrew ATW22H3-HSO omnidirectional antenna would be side-mounted on the present KTBN-TV tower, as shown in Exhibit C. The proposed effective antenna height is 1765 meters AMSL, and the main-lobe ERP is 1000 kw. Proposed operating parameters are listed in Exhibit D, and Exhibit E provides the antenna radiation pattern data for the proposed antenna. Exhibit F is a tabulation of terrain and contour data for the proposed facility.

The predicted 41 db $\mu$  contour is plotted in Exhibit G. As shown, the entire community of Santa Ana is contained within the proposed 41 db $\mu$  contour, as required by §73.623(c)(1) of the Rules. Exhibit H is an interference study, which concludes that the

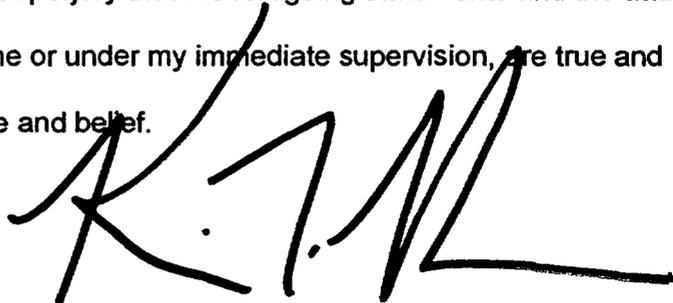
EXHIBIT A

proposed facility meets the requirements of §73.623(c)(2) of the Rules with respect to both NTSC and DTV facilities.

It is thus respectfully requested that the FCC substitute DTV Channel 16 for DTV Channel 23 in Santa Ana, California in its Digital Television Table of Allotments in §73.622(b) of the Rules as follows:

<u>Community</u>	<u>Present Allotments</u>	<u>Proposed Allotments</u>
Santa Ana, California	23c	16

I declare under penalty of perjury that the foregoing statements and the attached exhibits, which were prepared by me or under my immediate supervision, are true and correct to the best of my knowledge and belief.



KEVIN T. FISHER

April 27, 2000

STATE OF CALIFORNIA  
DEPARTMENT OF WATER RESOURCES

MT. WILSON QUADRANGLE  
CALIFORNIA - LOS ANGELES CO.  
7.5 MINUTE SERIES (TOPOGRAPHIC)

2352 1 SE  
(CHILAO FLAT)

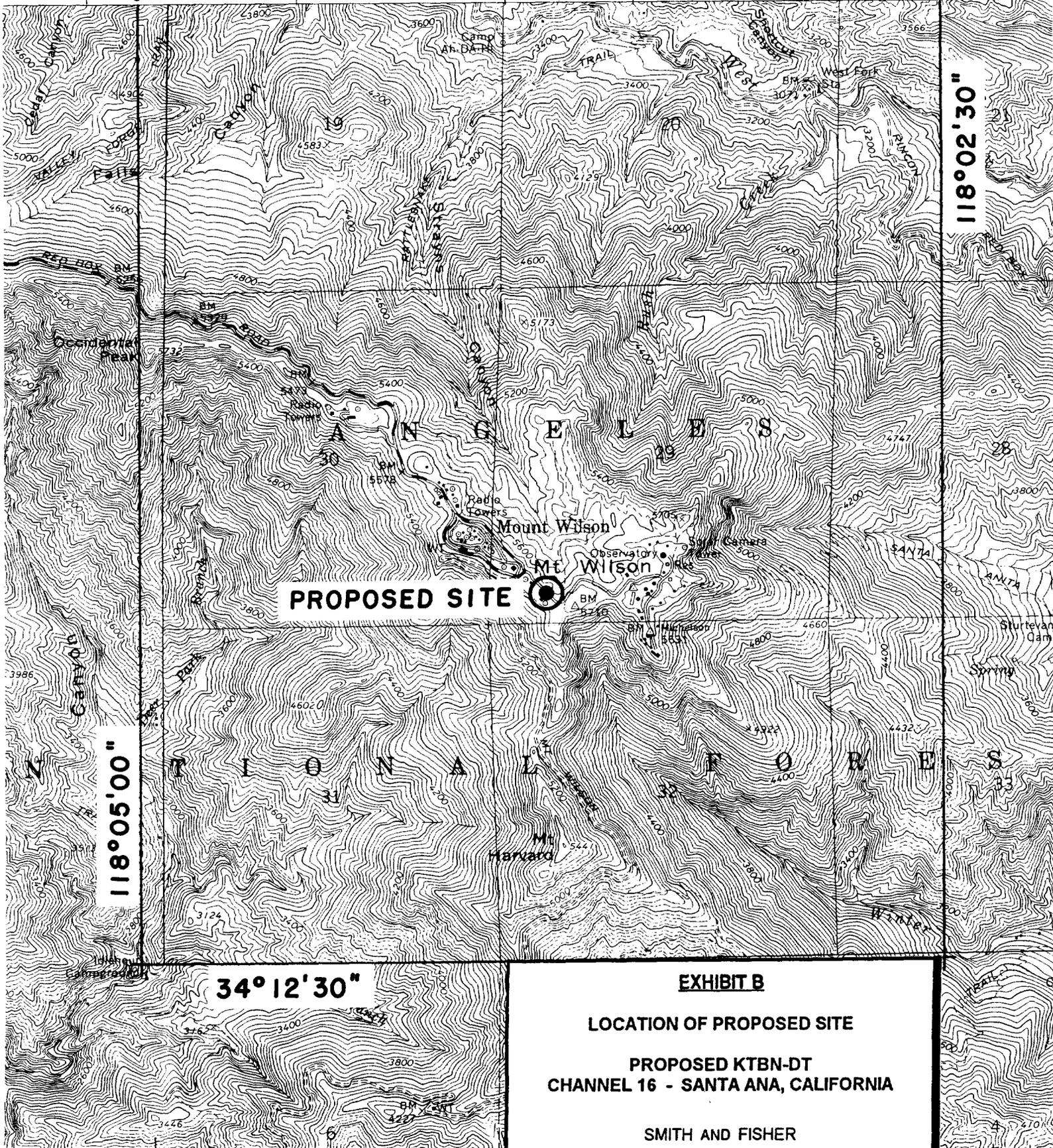
34° 15' 00"

2' 30"

R. 12 W. 5'

R. 11 W.

401



PROPOSED SITE

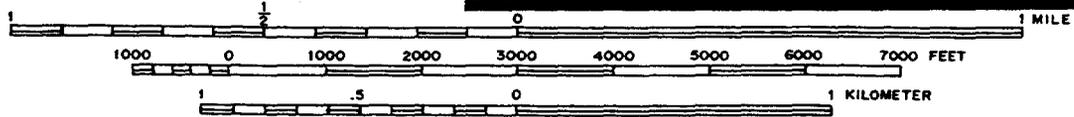
34° 12' 30"

EXHIBIT B

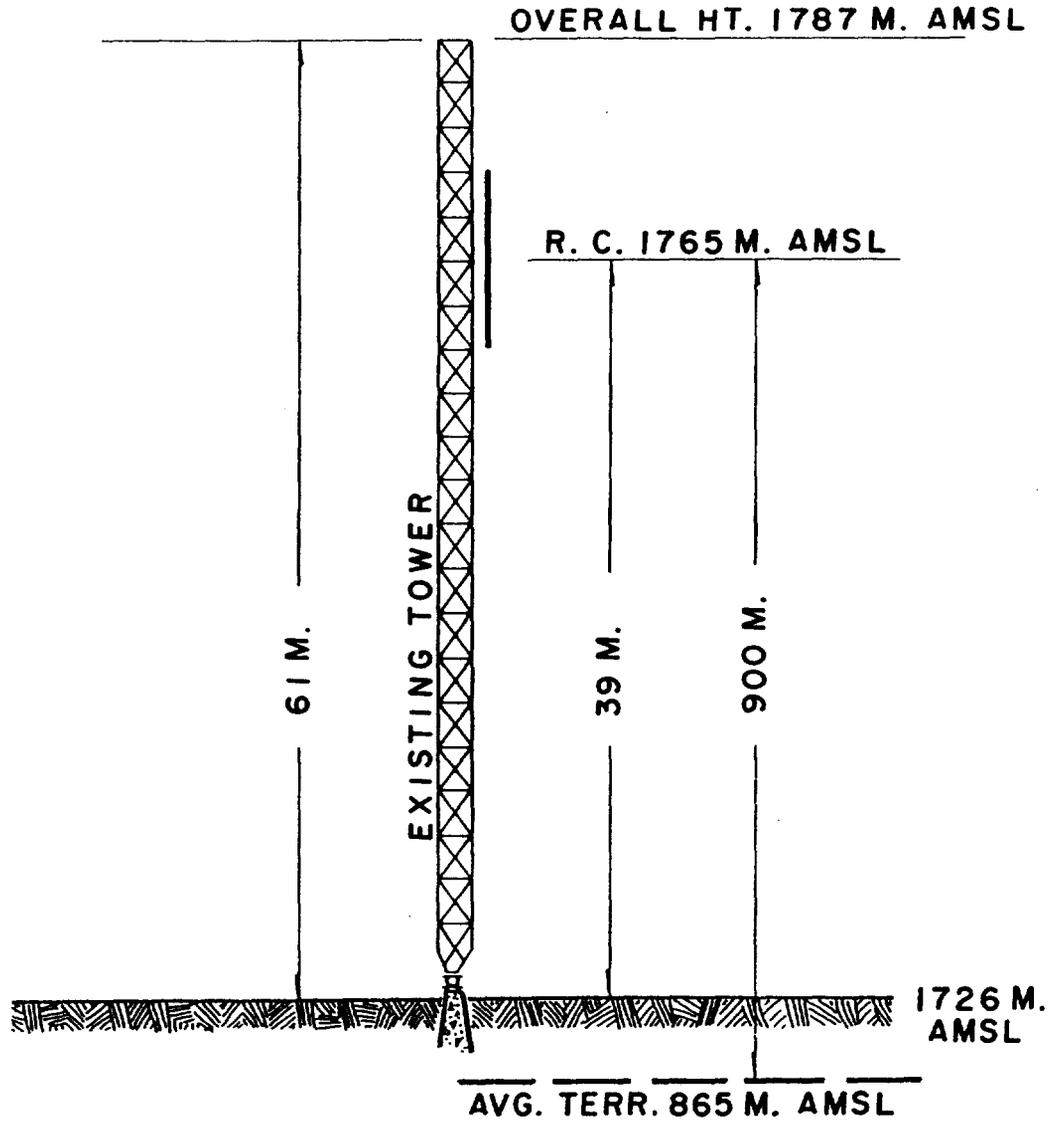
LOCATION OF PROPOSED SITE

PROPOSED KTBN-DT  
CHANNEL 16 - SANTA ANA, CALIFORNIA

SMITH AND FISHER



NOT TO SCALE



SITE COORDINATES:

34° 13' 27"  
118° 03' 44"

EXHIBIT C

ELEVATION OF ANTENNA STRUCTURE  
PROPOSED KTBN-DT  
CHANNEL 16 - SANTA ANA, CALIFORNIA

SMITH AND FISHER

PROPOSED OPERATING PARAMETERS

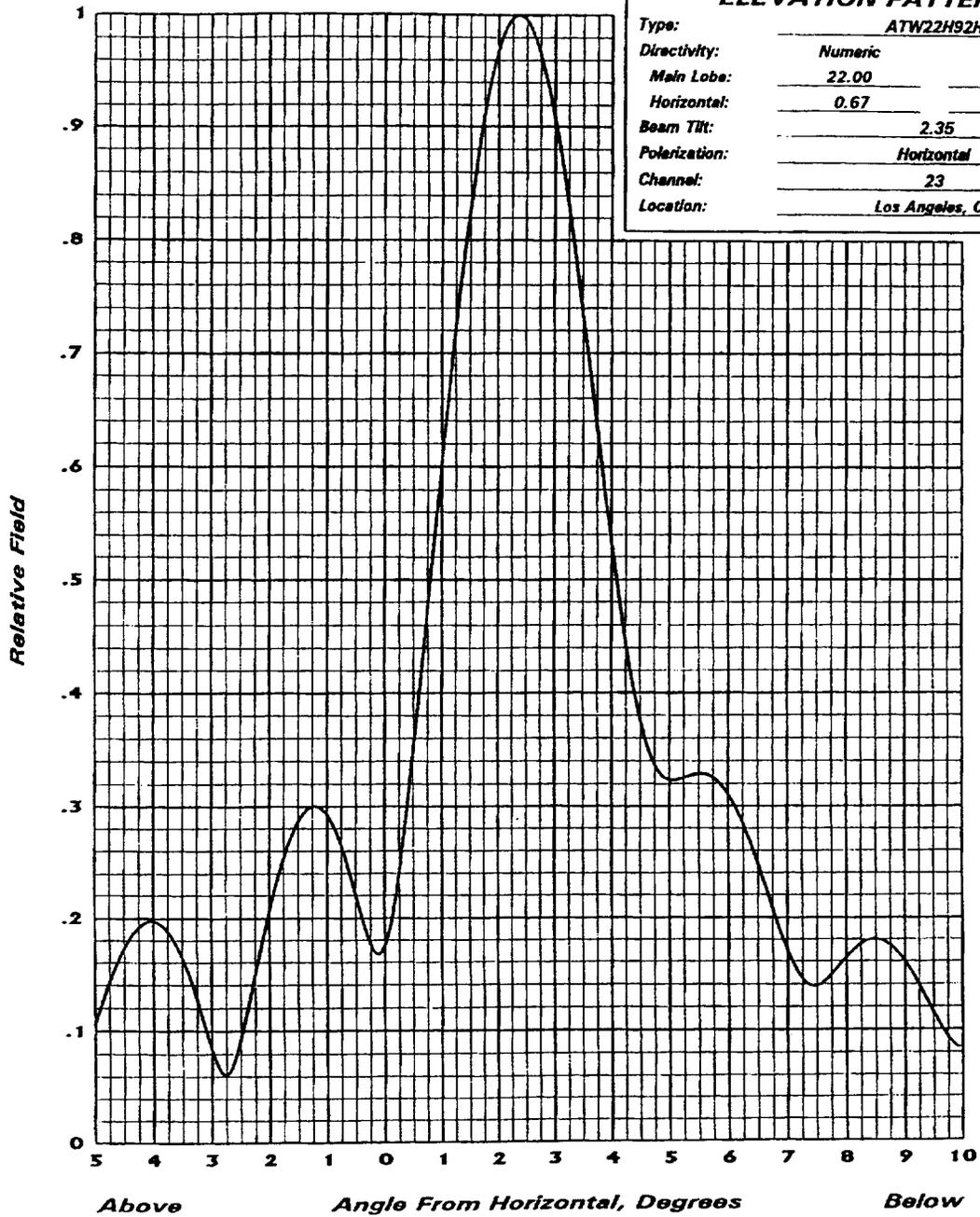
PROPOSED KTBN-DT ALLOTMENT  
CHANNEL 16 - SANTA ANA, CALIFORNIA

Channel Number:	16
Zone:	2
Site Coordinates:	34-13-27N 118-03-44W
Antenna Structure Registration Number:	None required
Tower Site Elevation (AMSL):	1726 meters
Overall Tower Height Above Ground:	61 meters
Overall Tower Height Above (AMSL):	1787 meters
Effective Antenna Height Above Ground:	39 meters
Effective Antenna Height (AMSL):	1765 meters
Average Terrain Elevation (2-10 miles):	865 meters
Effective Antenna Height Above Average Terrain:	900 meters
Antenna Make and Model:	Andrew ATW22H3-HSO
Orientation:	Omnidirectional
Electrical Beam Tilt:	0.75°
Polarization:	Horizontal
Effective Radiated Power (main-Lobe, maximum):	1000 kw



# ANDREW ELEVATION PATTERN

Type:	ATW22H92H	
Directivity:	Numeric	dBd
Main Lobe:	22.00	(13.42)
Horizontal:	0.67	(-1.74)
Beam Tilt:	2.35	
Polarization:	Horizontal	
Channel:	23	
Location:	Los Angeles, CA	



## EXHIBIT E

ANTENNA ELEVATION PATTERN  
PROPOSED KTBN-DT  
CHANNEL 16 - SANTA ANA, CALIFORNIA

SMITH AND FISHER

ELEVATION AND CONTOUR DATA  
 PROPOSED KTBN-DT ALLOTMENT  
 CHANNEL 16 - SANTA ANA, CALIFORNIA

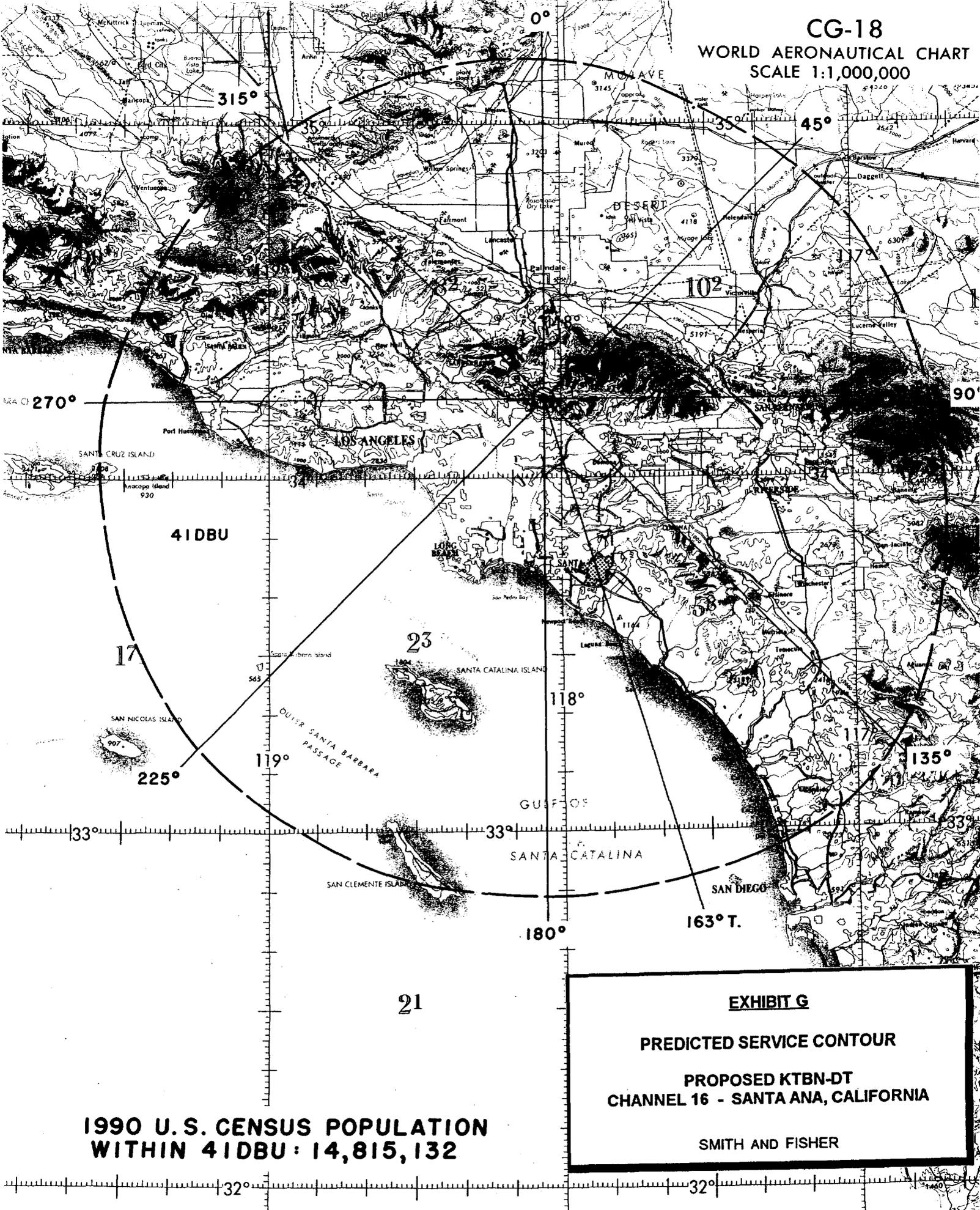
<u>Az.</u> <u>(° T)</u>	<u>Avg. Elv. AMSL</u> <u>2 to 10 Miles</u> <u>meters</u>	<u>Effective</u> <u>Ant. Ht. AAT</u> <u>meters</u>	<u>ERP</u> <u>(dbk)</u>	<u>Distance to Predicted</u> <u>Digital Contour (41 dbμ)</u> <u>km.</u>
0	1353	412	30.0	107
45	1364	401	30.0	106
90	1186	579	30.0	120
135	388	1392	30.0	153
180	275	1505	30.0	156
225	341	1424	30.0	154
270	782	983	30.0	138
315	1228	537	30.0	117
163*	275	1505	30.0	156

*\*Radial through Santa Ana; not included in average.*

Height of radiation center above mean sea level	1765 meters
Height of average terrain above mean sea level	865 meters
Height of radiation center above average terrain	900 meters
Effective radiated power, main lobe, maximum	30.0 dbk, 1000 kw

Geographic Coordinates

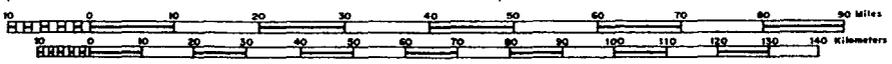
N 34° 13' 27" W 118° 03' 44"



41DBU

1990 U.S. CENSUS POPULATION  
WITHIN 41DBU: 14,815,132

**EXHIBIT G**  
**PREDICTED SERVICE CONTOUR**  
**PROPOSED KTBN-DT**  
**CHANNEL 16 - SANTA ANA, CALIFORNIA**  
**SMITH AND FISHER**



ALLOCATION AND INTERFERENCE STUDY

PROPOSED KTBN-DT ALLOTMENT  
CHANNEL 16 - SANTA ANA, CALIFORNIA

An interference study was conducted using the operating parameters of the facility described herein to determine if it meets the FCC's *de minimis* interference requirements of Section 73.623(c)(2) of the Commission's Rules. Specifically, the proposed facility may not cause more than two percent interference to the service population of a DTV or NTSC facility, nor can its interference contribution result in an excess of 10 percent total DTV interference to the service population of any DTV or NTSC facility.

The service area of a DTV station is defined as that which is calculated using the Longley-Rice propagation model to receive a signal of 41 db $\mu$  or greater and lies within the predicted 41 db $\mu$  contour of the station using the F(50,90) curves, the station's effective radiated power, and 2-10 mile terrain averages along each radial.

In evaluating the interference effect of this proposal, we have relied upon the V-Soft Communications "Probe" computer program, which has been found generally to mimic the FCC's program. Changes in interference caused by the proposed allotment facility to other pertinent stations are tabulated in Exhibit H-2.

As indicated, the proposed allotment would not contribute more than two percent DTV interference to the service population of any potentially affected NTSC or DTV station. In addition, this proposal does not result in any NTSC or DTV station receiving more than ten percent total DTV interference to viewers living within the station's authorized or proposed service area.

Therefore, this proposal meets the FCC's *de minimis* interference standards as defined in Section 73.623(c)(3) of the Commission's Rules.

EXHIBIT H-2

*DE MINIMIS* INTERFERENCE ANALYSIS

PROPOSED KTBN-DT  
CHANNEL 16 - SANTA ANA, CALIFORNIA

NTSC FACILITIES

			<u>INTERFERENCE LOSSES (POPULATION)</u>									
<u>Call Sign</u>	<u>City, State</u>	<u>Ch.</u>	<u>Grade B Population F(50,50)</u>	<u>NTSC Only</u>	<u>NTSC &amp; DTV Without KTBN-DT</u>	<u>Unmasked DTV</u>	<u>%<sup>1</sup></u>	<u>NTSC &amp; DTV With KTBN-DT</u>	<u>Unmasked DTV</u>	<u>%<sup>1</sup></u>	<u>KTBN-DT Contribution</u>	<u>%<sup>2</sup></u>
KSCI	Long Beach, CA	18	13,701,714	7,565	183,270	175,705	1.3	220,356	212,791	1.6	37,086	0.3
KPBS	San Diego, CA	15	2,573,998	2,010	2,010	0	0	3,678	1,668	0.1	1,668	0.1

DTV FACILITIES

			<u>INTERFERENCE LOSSES (POPULATION)</u>									
<u>Call Sign</u>	<u>City, State</u>	<u>Ch.</u>	<u>NTSC/DTV<sup>3</sup> Grade B Pop. Longley-Rice</u>	<u>NTSC Only</u>	<u>NTSC &amp; DTV Without KTBN-DT</u>	<u>Unmasked DTV</u>	<u>%<sup>1</sup></u>	<u>NTSC &amp; DTV With KTBN-DT</u>	<u>Unmasked DTV</u>	<u>%<sup>1</sup></u>	<u>KTBN-DT Contribution</u>	<u>%<sup>2</sup></u>
-- NONE --												

-- NONE --

<sup>1</sup> Cannot exceed 10% of Grade B Population.

<sup>2</sup> Cannot exceed 2% of Grade Population.

<sup>3</sup> Larger of either NTSC Grade B population (with no DTV losses) or DTV Grade B population with all losses.