TECHNICAL EXHIBIT
DIGITAL DISPLACEMENT RELIEF APPLICATION FOR
LOW POWER TV STATION KZSD-LP
FACILITY ID 57054
SAN DIEGO, CALIFORNIA
CH 25 5 KW (MAX-DA)

Technical Narrative

The technical exhibit of which this narrative is part was prepared in support of a digital displacement relief application for Low Power TV (LPTV) station KZSD-LP at San Diego, California (Facility ID: 57054). Specifically, this application proposes to modify the KZSD-LP licensed operation to change transmitter site and specify digital operation on UHF channel 25.

Displacement Relief Eligibility

Station KZSD-LP is currently licensed to operate on NTSC channel 41 (632-638 MHz) with a directional antenna maximum ERP of 15 kW and an antenna RCAMSL of 900 meters. However, Mexico recently allotted DTV co-channel 41 at Tijuana, BN which is located only 56.6 km from the KZSD-LP site.[1] Therefore KZSD-LP is considered to be displaced.

The applicant has submitted an analog displacement relief application to operate on channel 25 (see FCC File No. BDISTTL-20080625ABJ). This analog displacement relief application has higher priority than the pending digital companion channel application for channel 25 (FCC File No. BDCCDTL-20060926ABY) pursuant to Section 73.3572(a)(4)(ii) of the Commission's Rules, so the applicant accordingly is permitted to disregard the digital companion channel application.

This instant application is for digital displacement relief on channel 25 from a new transmitter site located 32.2 kilometers southwest of the current KZSD-LP site. It is noted that the proposed site is located less than 48 kilometers (30 miles) from KZSD-LP's currently licensed site. In addition, there will be overlap of the current 74 dBu and proposed 51 dBu

[1] The notified facilities for the Tijuana DTV channel 41 allotment are: site coordinates N32°30'07", W117°02'23"; ERP 440 kW; and HAAT 248 meters.

contours as detailed below. Therefore, based on current FCC policy, a displacement relief application specifying a site change of less than 48 kilometers (30 miles) and also involving protected contour overlap is considered permissible.

This application is considered a "minor change" in facilities pursuant to Section 73.3572, as it is a displacement relief application and the proposed 51 dBu contour will overlap a portion of the licensed 74 dBu contour (see Figure 1).

Proposed Operation

Station KZSD-LP proposes to operate on digital channel 25 (536-542 MHz) from a new transmitter site. A Dielectric (DIE) model TFU-30DSC-R C170 directional antenna will be employed with a maximum ERP of 5 kW and an RCAMSL of 285 meters. The DIE TFU-30DSC-R C170 directional antenna will be mounted at the 46 meter level on an existing 80.5 meter tower (FCC ASR 1015930).

Response to Paragraph 13

A study has been conducted using the provisions of Section 74.793 and the OET Bulletin 69 interference model. The results indicate that the proposed operation will not create prohibited interference to stations in the Land Mobile Radio Service (LMRS) or other existing, authorized or proposed NTSC or DTV full-power, LPTV, TV translator or Class A stations, except as hereby noted. The application for a digital companion channel 25 operation at San Diego, CA (BDCCDTL-20060926ABY) has been ignored as the pending analog displacement relief application (FCC File No. BDISTTL-20080625ABJ) has priority over and effectively eliminated the digital companion channel application pursuant to Section 73.3572(a)(4)(ii) (i.e., grant of both applications would result in excessive interference to viewers). Based on the provisions of Section 74.793 and the OET Bulletin 69 interference model, the proposed digital channel 25 operation is predicted to cause excessive interference to the licensed DTV operation of KGTV on DTV channel 25 at San Diego, CA (BLCDT-20050630AFX). However, KGTV and KZSD-LP are co-owned, and the licensee consents to the predicted received interference.

Mexican Coordination/MOU Compliance

The proposed transmitter site is located 35.8 kilometers from the US-Mexican border. Therefore, it is respectfully requested that the FCC coordinate this proposal with Mexico.

Figure 2 is a separation study based on the provisions of the US-Mexican TV Agreement (June 1982) and the Memorandum of Understanding (MOU) between the United States and Mexico regarding the use of DTV Broadcasting Service along the common border.[2] The separation requirements are applicable to full-power NTSC and DTV stations (but are not applicable to low power stations) but have been used for this analysis in an abundance of caution. As indicated, the proposed channel 25 digital operation complies with the separation requirements to all Mexican NTSC and DTV stations and allotments with the exception of a 56.58 kilometer short-spacing with a vacant Mexican DTV channel 25 allotment at Mexicali, BC as well as a 56.04 kilometer short-spacing with the pending application of XHEXT-DT to implement the DTV channel 25 allotment at Mexicali (BPFS-20050721BFG). However, as detailed below, an analysis based on the Longley-Rice methodology (which considers the effect of intervening terrain) and the provisions of OET Bulletin No. 69 indicates that the proposal would not adversely impact the XHEXT-DT DTV channel 25 operation. It is noted that use of the Longley-Rice method was adopted for the purpose of "detailed" interference analysis in the MOU.[3]

Figure 3 is a terrain profile from the proposed KZSD-LP transmitter site to the XHEXT-DT DTV channel 25 application site. The terrain used to develop the terrain profiles was derived from a 3-second terrain database. Also shown on Figure 4 is the line-of-sight path drawn from the KZSD-LP antenna radiation center to the XHEXT-DT DTV channel 25 application transmitter site. It is apparent that the effect of "terrain shielding" caused by intervening mountains would be significant.

[2] See "*Memorandum of Understanding Between the Federal Communications Commission of the United States of America and the Secretaria de Comunicaciones y Transportes of the United Mexican States Related to the Use of the 54-72 MHz, 76-88 MHz, 174-216 MHz and 470-806 MHz Bands for The Digital Television Broadcasting Service Along the Common Border*" dated July 22, 1998 ("MOU").

The Federal Communications Commission (FCC) of the United States permits LPTV stations involved in co-channel allocation situations similar to the situation between the proposed operation of KZSD-LP and the Mexicali DTV channel 25 allotment to seek waivers of the "normal" allocation criteria where it can be demonstrated that no actual interference is predicted. In addition, such showings are typically based on the Longley-Rice methodology and the provisions of the Office of Technology (OET) Bulletin No. 69 ("Longley-Rice Methodology for Evaluating TV Coverage and Interference"). Furthermore, as noted above, the MOU adopted use of the Longley-Rice methodology and the provisions of OET Bulletin No. 69 for the purpose of "detailed" interference analysis.

For co-channel DTV stations, the desired-to-undesired (D/U) ratio set forth in Appendix 5 of the MOU for DTV into DTV interference is +15 decibels (dB). In other words, interference is predicted to occur in areas where the desired signal is less than 15 dB greater than the undesired signal. Therefore, in order to quantify the potential for adverse interference from the proposed KZSD-LP operation to the XHEXT-DT DTV channel 25, studies were conducted based on the provisions of the OET-69 Bulletin and Appendix 5 of the MOU.[4] The output of the OET-69/Appendix 5 interference analysis computer program is attached as Figure 4. The facilities set forth in the XHEXT-DT DTV channel 25 application were used for this analysis (ERP 550 kW, HAAT 85 meters, ND). As indicated on Figure 4, the proposed KZSD-LP operation is not predicted cause any interference (in terms of either population or area) to the XHEXT-DT DTV channel 25 application facility.[5] Therefore, it is believed that the proposal complies with the interference standards of the MOU.

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[3] The Longley-Rice methodology is set forth in Appendix 5 of the MOU.

[4] The du Treil, Lundin & Rackley, Inc. interference analysis program is based on the program and procedures outlined in FCC OET Bulletin No. 69 and Appendix 5 of the MOU. A grid size resolution of 2 km was employed along with a terrain increment of 0.5 km. A Unix based computer system was employed. The results have been found to be in very close agreement with the results of the FCC implementation of OET Bulletin No. 69.

5 Population figures are US only.

Response to Paragraph 14 - Environmental Protection Act

The proposed KZSD-LP facilities were evaluated in terms of potential radiofrequency radiation exposure at ground level in accordance with OET Bulletin No. 65, "Evaluating Compliance With FCC-Specified Guidelines for Human Exposure to Radiofrequency Radiation." The calculated power density at 2 meters above ground level at the base of the tower was calculated using the appropriate equation of the Bulletin. Figure 5 depicts the vertical pattern data for the proposed directional antenna. Using a worst-case vertical relative field value of 0.10 at depression angles towards the tower base (-60° to -90° elevation), a maximum ERP of 5 kilowatts, the calculated power density at 2 meters above ground level at the base of the tower is 0.0009 milliwatts per square centimeter (mW/cm^2), or 0.25% percent of the Commission's recommended limit of 0.36 mW/cm^2 for TV channel 25 applicable to general population/uncontrolled exposure areas. Therefore, based on the responsibility threshold of 5%, the proposal will comply with the new RF emission rules.

Access to the transmitting site will be restricted and appropriately marked with warning signs. Furthermore, as this is a multi-user site, an agreement will be in place to ensure that appropriate measures will be taken to assure worker safety with respect to radio frequency radiation exposure. Such measures include reducing the average exposure by spreading out the work over a longer period of time, wearing “accepted” RFR protective clothing and/or RFR exposure monitors or scheduling work when the stations are at reduced power or shut down.

Finally, it is noted that this technical exhibit only addresses the potential for radiofrequency electromagnetic field exposure. All other aspects of the environmental

processing analysis will be or already has been provided to the FCC by the tower owner as part of the tower registration process.

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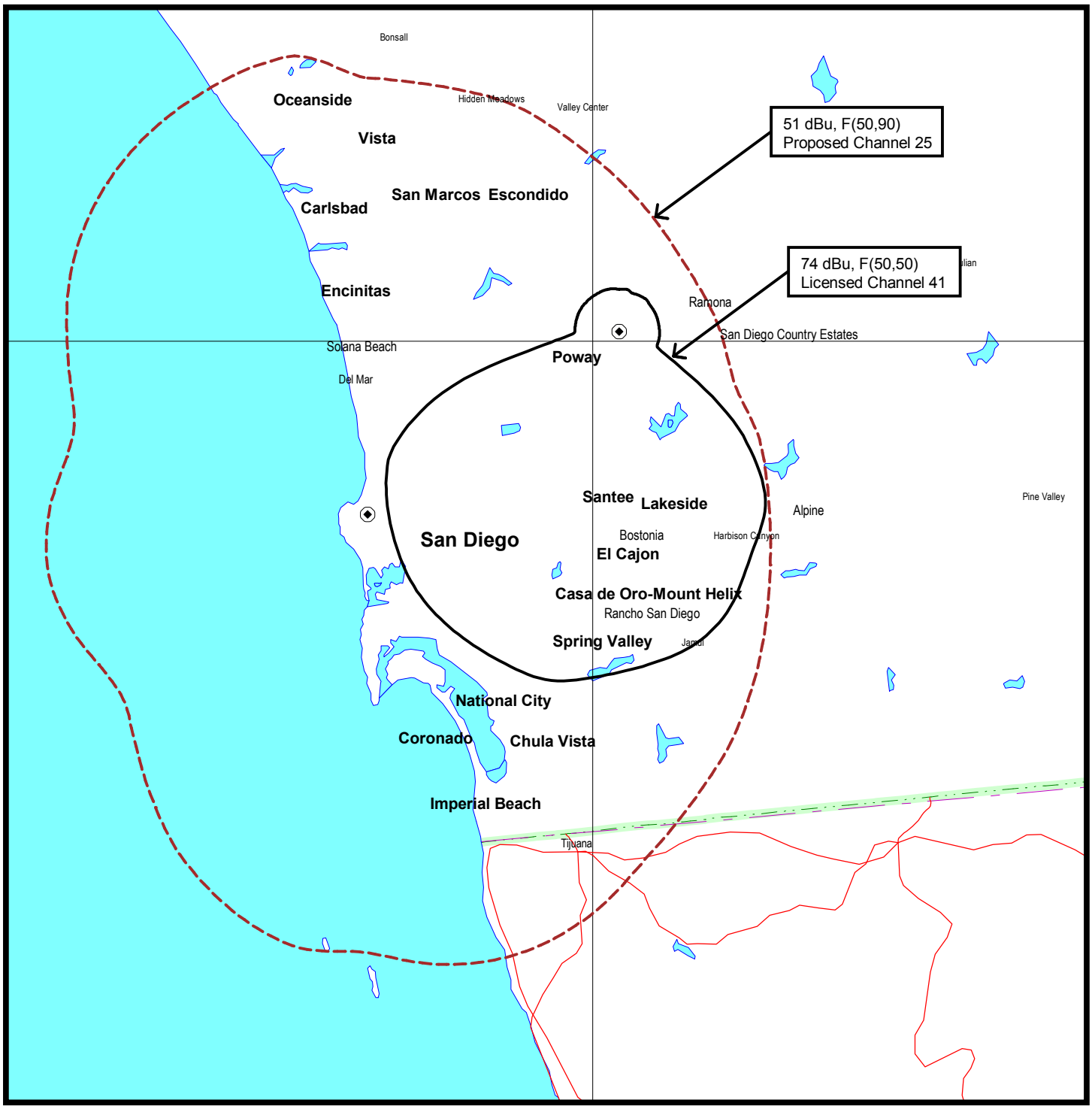
Figure 1



FCC PREDICTED COVERAGE CONTOURS

DIGITAL STATION KZSD-LP
SAN DIEGO, CALIFORNIA
CH 25 5 KW (MAX-DA)

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

TV Study

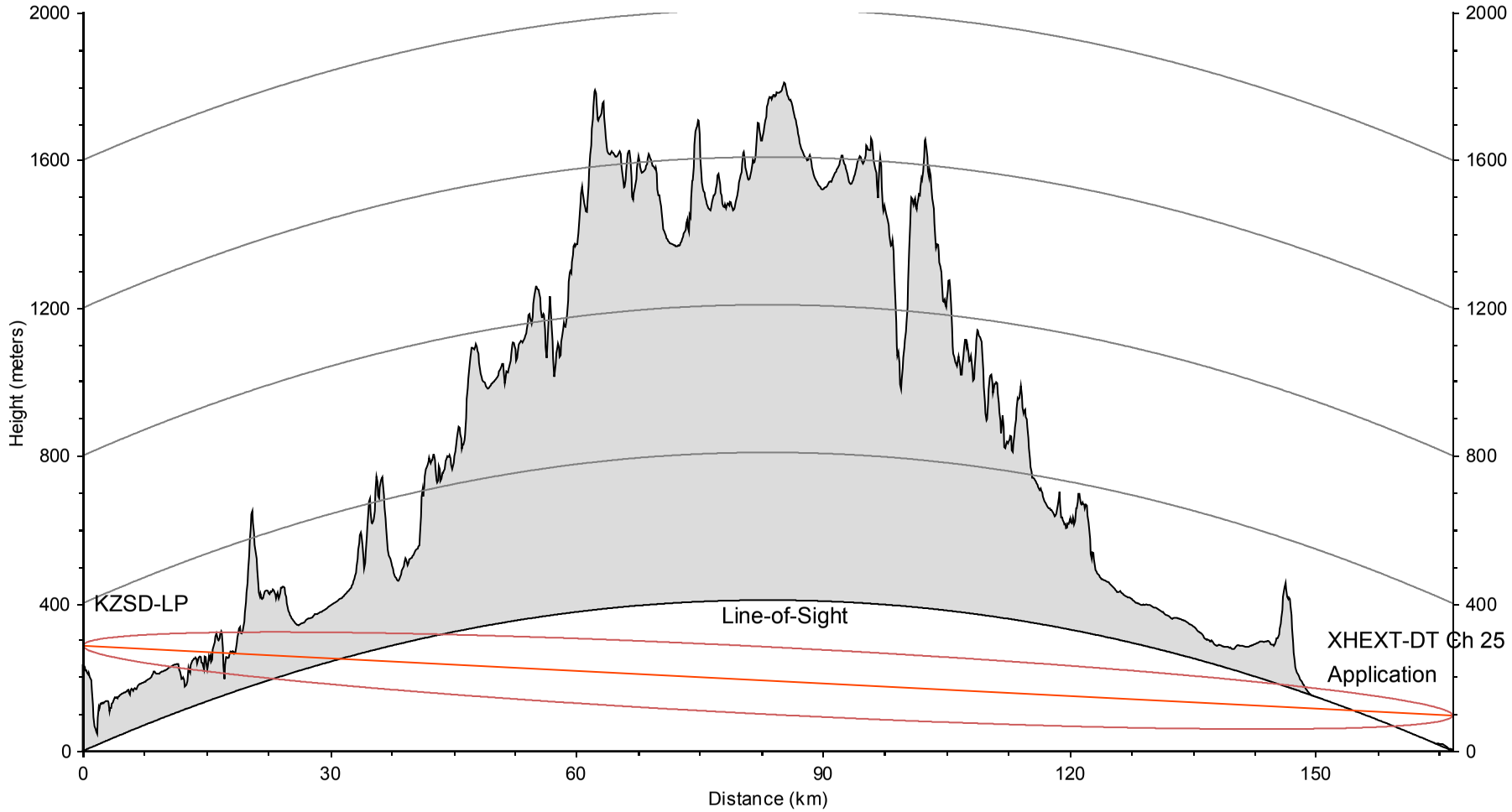
du Treil, Lundin, & Rackley, Inc., Sarasota, Florida

Station Type:	DT	***Station Coordinates:***	032-50-20.00 117-14-56.00 (NAD 27)		
Station Channel:	25	***Station Zone:***	II	***Equivalent Canadian Class:***	VU
Buffer Distance:	32 km	***Comment:***	Proposed KZSD-LP, DTV Ch. 25, San Diego, CA		

Callsign	*Status*	*Channel*	*Service*	*Zone*	*City*	*State*	*Latitude*	*Dist. (km)*	*Min. (km)*	*Spacing (km)*
Facility ID	*ARN*			*Class*	*DA Ant ID*	*ERP (kW)*	*HAAT (m)*	*Rec Type*	*Longitude*	*Bear. (deg)*	*Max. (km)*	*Comment*
	MEXTAB	21	TV		TIJUANA			BC	032-30-08	42.2	24	10.2
0					0	0	0	C	117-02-21	152.27	32	**CLEAR**
XHTIT-TV	OPER	21 -	TV	2	TIJUANA			BN	032-30-08	42.2	24	10.2
137363	BPFS				N	3000	258	C	117-02-21	152.27	32	**CLEAR**
KVCR-TV	LIC	24 -	TV	2	SAN BERNARDINO			CA	033-57-57	125.03	12	19.03
58795	BMLET	20051114	ALG		N 77920	1320	509.5	C	117-17-05	358.49	106	**CLEAR**
DKGTV	DTVALT	25	DT	2	SAN DIEGO			CA	32-50-20	0	223.7	-223.7
0					20584	809.1	229	C	117-14-56	276.79	223.7	**SHORT**
KGTV	LIC	25	DT	2	SAN DIEGO			CA	032-50-20	0	223.7	-223.7
40876	BLCDT	20050630	AFX		D 32676	1000	205	C	117-14-56	139.96	223.7	**SHORT**
	MEXTAB	25	DT		MEXICALI			BC	032-36-41	166.42	223	-56.58
0					0	0	0	C	115-29-39	98.29	223	**SHORT**
XHEXT-DT	APP	25	DT	3	MEXICALI			BN	032-36-46	166.96	223	-56.04
165463	BPFS	20050721	BFG		D	550	85	C	115-29-17	98.2	223	**SHORT**
DKVCRTV	DTVALT	26	DT	2	SAN BERNARDINO			CA	33-57-57	125.03	24	15.03
0						50	509	C	117-17-05	358.49	110	**CLEAR**
KVCR-TV	LIC	26	DT	2	SAN BERNARDINO			CA	033-57-57	125.03	24	15.03
58795	BLEDT	20070904	AIC		N 66986	475	509.5	C	117-17-05	358.49	110	**CLEAR**
	MEXTAB	27	TV		TIJUANA			BC	032-30-08	42.2	24	10.2
0					0	0	0	C	117-02-21	152.27	32	**CLEAR**
XHJK-TV	OPER	27 Z	TV	2	TIJUANA			BN	032-30-08	42.2	24	10.2
137364	BPFS				N	3091	258	C	117-02-21	152.27	32	**CLEAR**
	MEXTAB	33	TV		TIJUANA			BC	032-30-07	42.2	24	10.2
0					0	0	0	C	117-02-23	152.35	32	**CLEAR**

Terrain Path

du Treil, Lundin, & Rackley, Inc., Sarasota, Florida



Latitude (NAD27):	032-50-20.00	***Latitude (NAD27):***	032-36-46.00	***Distance:***	166.62 km	***Earth Curvature Factor:***	1.3333	***Frequency:***	0.539 GHz
Longitude (NAD27):	117-14-56.00	***Longitude (NAD27):***	115-29-17.00	***Azimuth:***	98.2 deg			***Fresnel Factor:***	0.6
Elevation:	232.67 m	***Elevation:***	3.97 m	***Transmitter Height:***	285 m (AMSL)			***Fresnel Zone:***	1
				Receiver Height:	92 m (AGL)				

Figure 3

OET-69/MOU APPENDIX 5 INTERFERENCE CAUSED ANALYSIS

Cell Size (km): 2.00
Terrain Increment (km): 0.50
Using Offset in Determining Thresholds
Using Census 2000

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XHEXT-D 32-36-46 115-29-17 25(N) 550.000 kw 88 m 90.0% 39.8 dBu
MEXICALI BN
APP BPFS20050721BFG
Using DEFAULT vertical antenna pattern

	Area	Pop
within Noise Limited Contour	14734.650391	144479
not affected by terrain losses	12930.981445	143791

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NEW 32-50-20 117-14-56 25(N) 5.000 kw 285 m DA 10.0% 49.8 dBu
SAN DIEGO CA

0.987 1.000 0.988 0.963 0.936 0.917 0.905 0.900 0.899 0.900 0.905 0.917
0.936 0.963 0.988 1.000 0.987 0.940 0.854 0.733 0.588 0.437 0.302 0.218
0.207 0.232 0.245 0.232 0.207 0.218 0.302 0.437 0.588 0.733 0.854 0.940
Ref Az: 0.0

-0.750	1.000
-1.500	1.000
-2.000	1.000
-2.500	0.920
-3.000	0.520
-3.500	0.470
-4.000	0.420
-5.000	0.400
-6.000	0.300
-7.000	0.300
-8.000	0.300
-9.000	0.300
-10.000	0.300

D/U Baseline: 15.00

	Area	Pop
Interference	0	0

[Note: Population figures are US only]

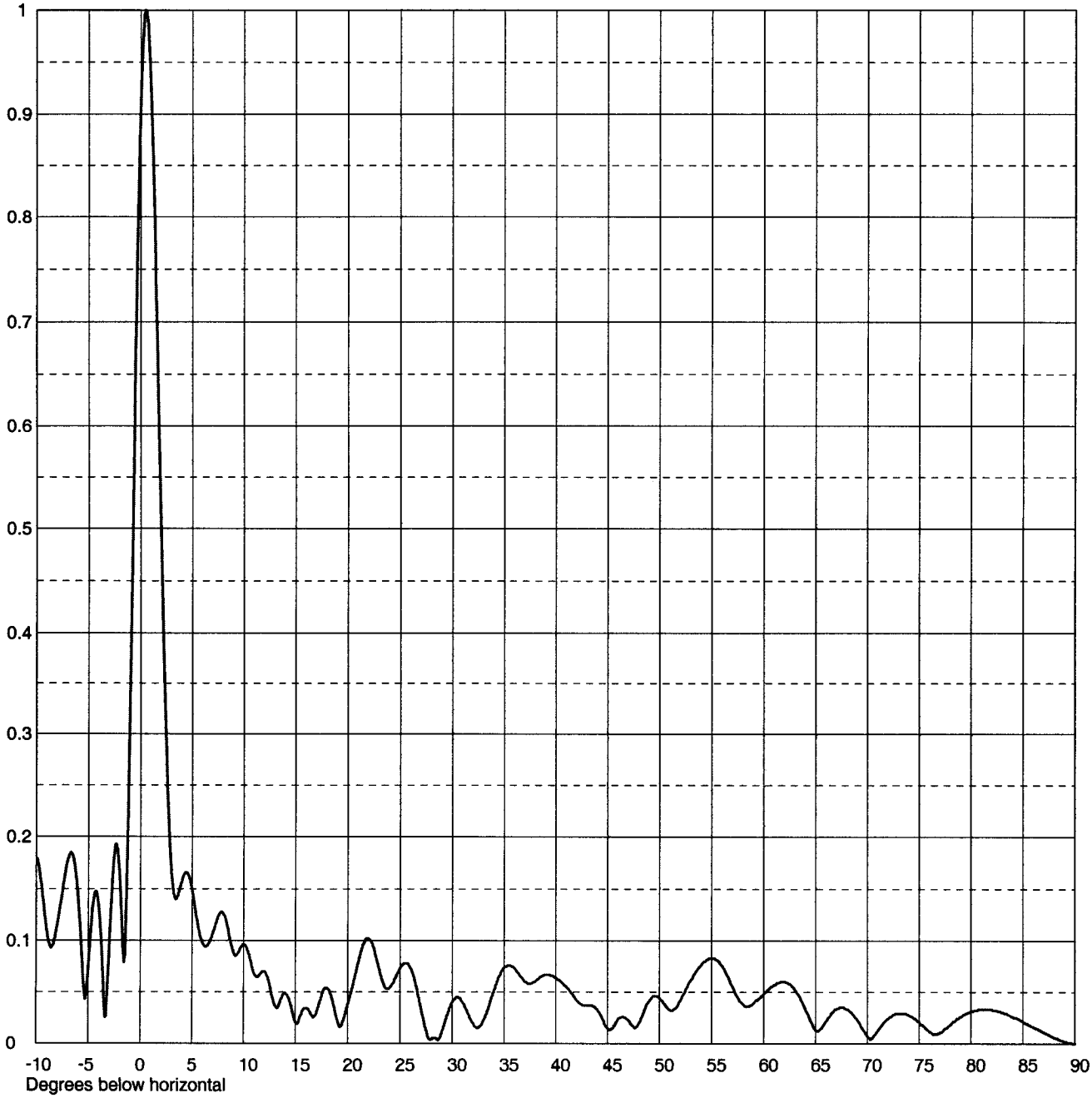
Exhibit No.
Figure 5

Dielectric

Date	**14 Sep 2006**		
Call Letters	**KZDS(LD)**	Channel	**25**
Location	**San Diego, CA**		
Customer			
Antenna Type	**TFU-30DSC-R C170**		

ELEVATION PATTERN

RMS Gain at Main Lobe	**25.5 (14.07 dB)**	Beam Tilt	**0.50 Degrees**
RMS Gain at Horizontal	**21.0 (13.22 dB)**	Frequency	**539.00 MHz**
Calculated / Measured	**Calculated**	Drawing #	**30Q255050-90**



Remarks: