

TECHNICAL EXHIBIT
APPLICATION FOR CONSTRUCTION PERMIT
NEW NCE-FM STATION
ELDORADO, TEXAS
CH 209C1 100 KW (MAX-DA) 98 M

Technical Narrative

The technical exhibit of which this narrative is part was prepared in response to the FCC Public Notice (Public Notice) released August 9, 2007 and entitled "Media Bureau Announces NCE FM New Station and Major Change Filing Procedures For October 12 – October 19, 2007 Window; Limited Application Filing Freeze to Commence on September 8, 2007" (DA 07-3521). Specifically, this technical exhibit was prepared in support of a complete FCC Form 340 as required by the Public Notice for a proposed new NCE-FM station to operate on channel 209C1 at Eldorado, Texas.

Proposed Facility

It is proposed to operate on reserved band channel 209C1 (89.7 MHz) from a proposed tower and with a directional antenna maximum effective radiated power (ERP) of 100 kW (vertical polarization only) and an antenna height above average terrain (HAAT) of 98 meters. Figure 1 is a polar graph and tabulation of the proposed directional antenna horizontal plane relative field pattern.

Tower Registration

It is proposed to construct a new 300 foot tower at the following site location, N 31° 04' 09" W 100° 32' 56". The FAA has been notified of the proposed structure. Once a Determination of No Hazard has been issued, the tower will be registered and the FCC will be provided with the registration number. Figure 2 is a map of the proposed site location.

City Coverage

Figure 3 is a map showing the predicted 60 dBu contour for the proposed facility. As indicated, the proposed 60 dBu will encompass 100% of the Eldorado city limits (obtained from the 2000 Census), which comports with Section 73.515.

The predicted 60 dBu contour was calculated in accordance with Section 73.313 of the FCC Rules. The average terrain elevations from 3 to 16 km were computed using the U.S.G.S. 30-second terrain database. The overall antenna HAAT was determined according to the provisions of Section 73.313 of the FCC Rules. The antenna radiation center HAAT in each radial direction and the ERP were used in conjunction with the propagation prediction curves of Section 73.333 to determine the distances to contours.

Response to Paragraphs 15(a) and (b) – Allocation Studies

Figure 4 provides a summary of an allocation study for the proposed facility. The tabulation in Figure 4 lists the results of a numerical analysis of the potential for contour overlap for all nearby co-channel and first, second, and third-adjacent channel facilities. For the purposes of the numerical study, the maximum HAAT and ERP values were used in calculating the maximum distance to the predicted service and interfering contours.

Figure 5 is a map depicting the predicted protected and interfering contours of those stations close enough to warrant further study pursuant to Section 73.509. This is based on the numerical analysis in Figure 4, where there is an indication of the potential for prohibited overlapping contours. As indicated in Figure 5 the proposed operation complies with the requirements of Section 73.509.

Response to Paragraph 15(e) - TV Channel 6 Protection

TV station KIDY is the only channel 6 station located within the 196

kilometer study distance for channel 209, as required by Section 73.525(a). The map in Figure 6 depicts the predicted interference area for the proposal with respect to TV station KIDY.

The population within the predicted interference area was determined by a computer program, which adds the populations of census enumeration districts whose centroids lie within the contour. The 2000 U.S. Census was employed. The population within the predicted interference area is 164 (less than the limit of 3000 people per Section 73.525(c)). No population adjustments were claimed.

Response to Paragraph 17 – International Borders

The proposed site is located 1,964 kilometers from the closest point of the Canadian border. This distance is outside the coordination zone for Canada, therefore notification of the proposal to Canada will not be necessary. However, the proposed site is located only 165.9 kilometers from the closest point of the Mexican border. This distance is within the coordination zone with Mexico, and therefore coordination with Mexico is necessary.

Environmental Considerations

The proposed facilities were evaluated in terms of potential radiofrequency radiation exposure at 2 meters above ground level in accordance with OST Bulletin No. 65, “Evaluating Compliance With FCC-Specified Guidelines for Human Exposure to Radiofrequency Radiation”. This Bulletin provides assistance in determining whether FCC-regulated transmitting facilities, operations or devices comply with limits for human exposure to radiofrequency (RF) electromagnetic fields. The radiation center for the proposed antenna is located 84 meters above ground level. The maximum directional ERP (vertical polarization only) is 100 kW. The calculated power density at 2 meters above ground level (AGL) was calculated using the appropriate equation contained in the Bulletin. Based on a conservative vertical relative field 0.4, for depression angles toward the tower base (-60° to -90°), the calculated power density at 2 meters above the ground is 0.0795 milliwatts per square centimeter (mW/cm²), which is 39.75% of the Commission’s recommended limit of

0.2 mW/cm² for FM frequencies, applicable to uncontrolled exposure areas.

Therefore, the proposed facility will comply with the FCC's RF emission rules.

When it becomes necessary for workers to ascend the tower, appropriate measures, such as reduction or shut down of power if necessary, shall be taken to ensure that the human exposure to radiofrequency electromagnetic radiation will not exceed the FCC guidelines.

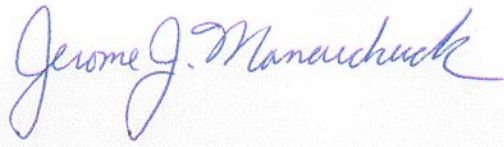
It is noted that this technical exhibit only addresses the potential for radiofrequency electromagnetic field exposure. All other aspects of the environmental processing analysis will be provided to the FCC by the tower owner as part of the tower registration process.

Response to Section III, Fair Distribution of Service
and Section IV, Point System Factors

Figure 7 is a map which depicts the proposed 60 dBu contour and the other NCE-FM services that provide service to some portion of the proposed 60 dBu contour.¹ The proposed 60 dBu contour encompasses 31,602 persons (2000 Census) within a land area containing 7,059 square kilometers. In addition, the proposal will provide a new first NCE-FM service to 3,224 persons which is 10.2 percent of the population within its 60 dBu contour. Furthermore, the proposal will

¹ The determination of available NCE-FM services was based on the actual terrain exception to the uniform terrain policy set forth in the FCC *Order* regarding the vacant channel 273A allotment at Hemet, California (adopted: September 1, 2006; released: September 6, 2006; DA 06-1766). Also, consistent with FCC allocations policy, only licensed and/or authorized operations were considered for this analysis.

provide a new second NCE-FM service to 1,583 persons, which is 5 percent of the total population within the proposed 60 dBu contour.



Jerome J. Manarchuck

du Treil, Lundin & Rackley, Inc.
201 Fletcher Avenue
Sarasota, FL 34237-6019
(941) 329-6000
jerry@dlr.com

October 17, 2007

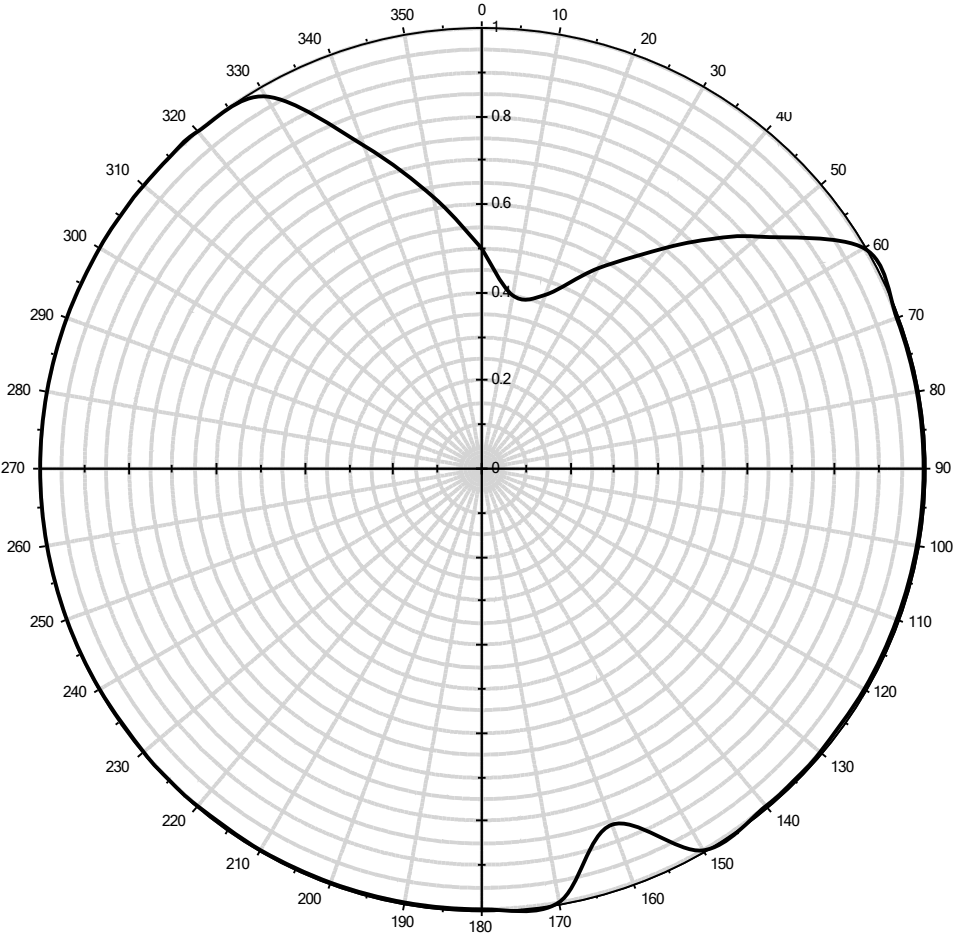
Figure 1

DA Inquiry

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



Antenna Pattern: Antenna ID: 800010



Note: display reflects rotation of 0.00°

Antenna Details:

0°	0.500	60°	1.000	120°	1.000	180°	1.000	240°	1.000	300°	1.000	45°	0.738
10°	0.400	70°	1.000	130°	1.000	190°	1.000	250°	1.000	310°	1.000	135°	1.000
20°	0.420	80°	1.000	140°	1.000	200°	1.000	260°	1.000	320°	1.000	225°	1.000
30°	0.525	90°	1.000	150°	1.000	210°	1.000	270°	1.000	330°	0.976	307°	1.000
40°	0.656	100°	1.000	160°	0.860	220°	1.000	280°	1.000	340°	0.781	315°	1.000
50°	0.820	110°	1.000	170°	1.000	230°	1.000	290°	1.000	350°	0.625		

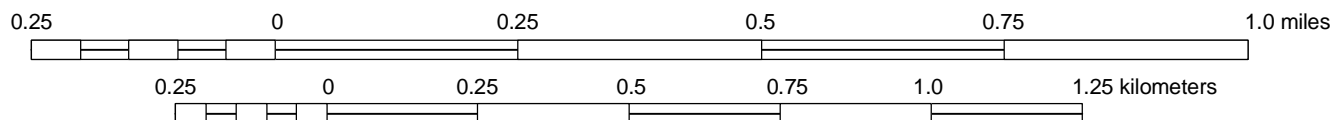
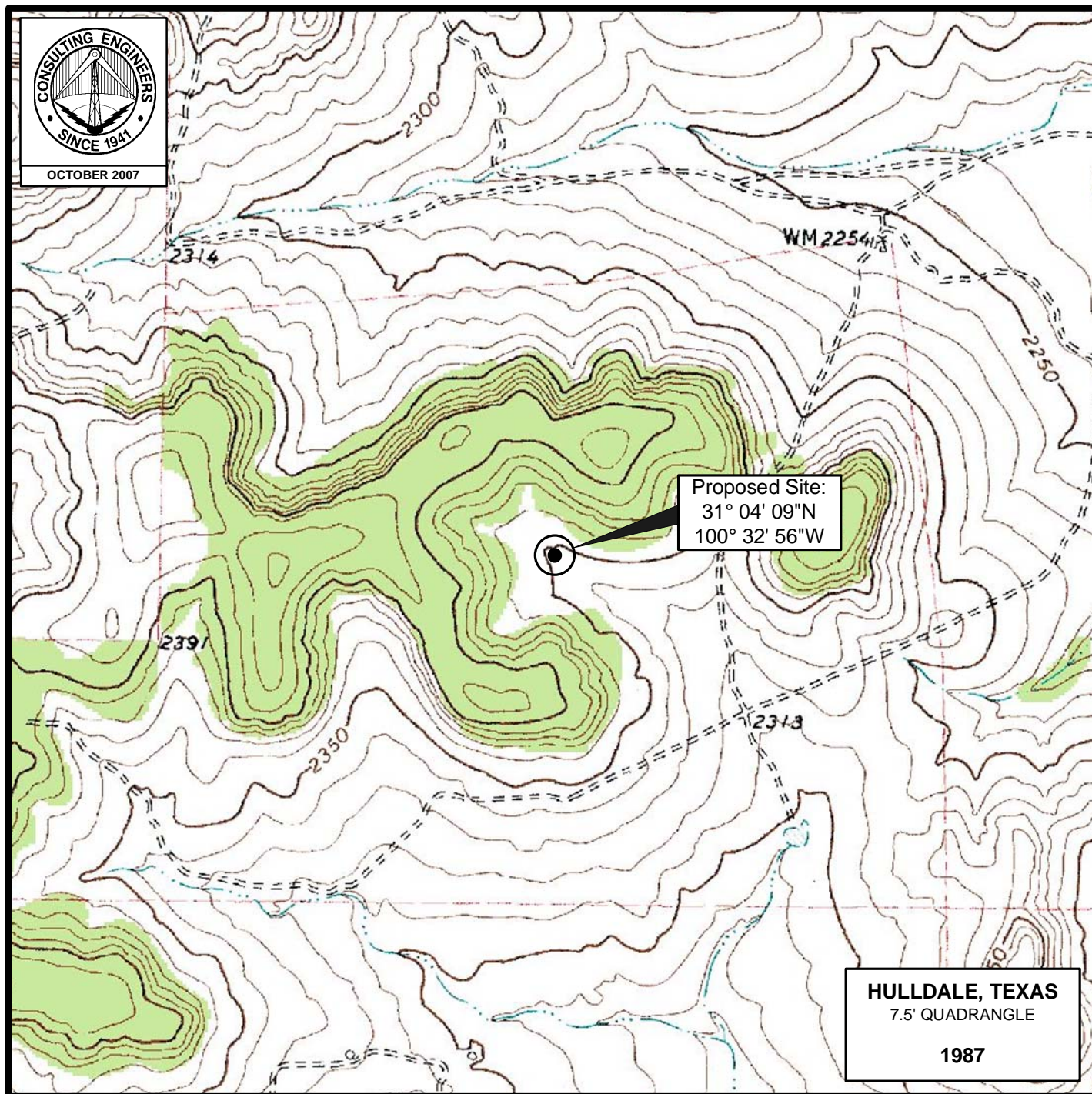
Antenna Make: ODD

Standard Pattern:

Antenna Model: EL DLROAD0

Last Change Date:

Figure 2

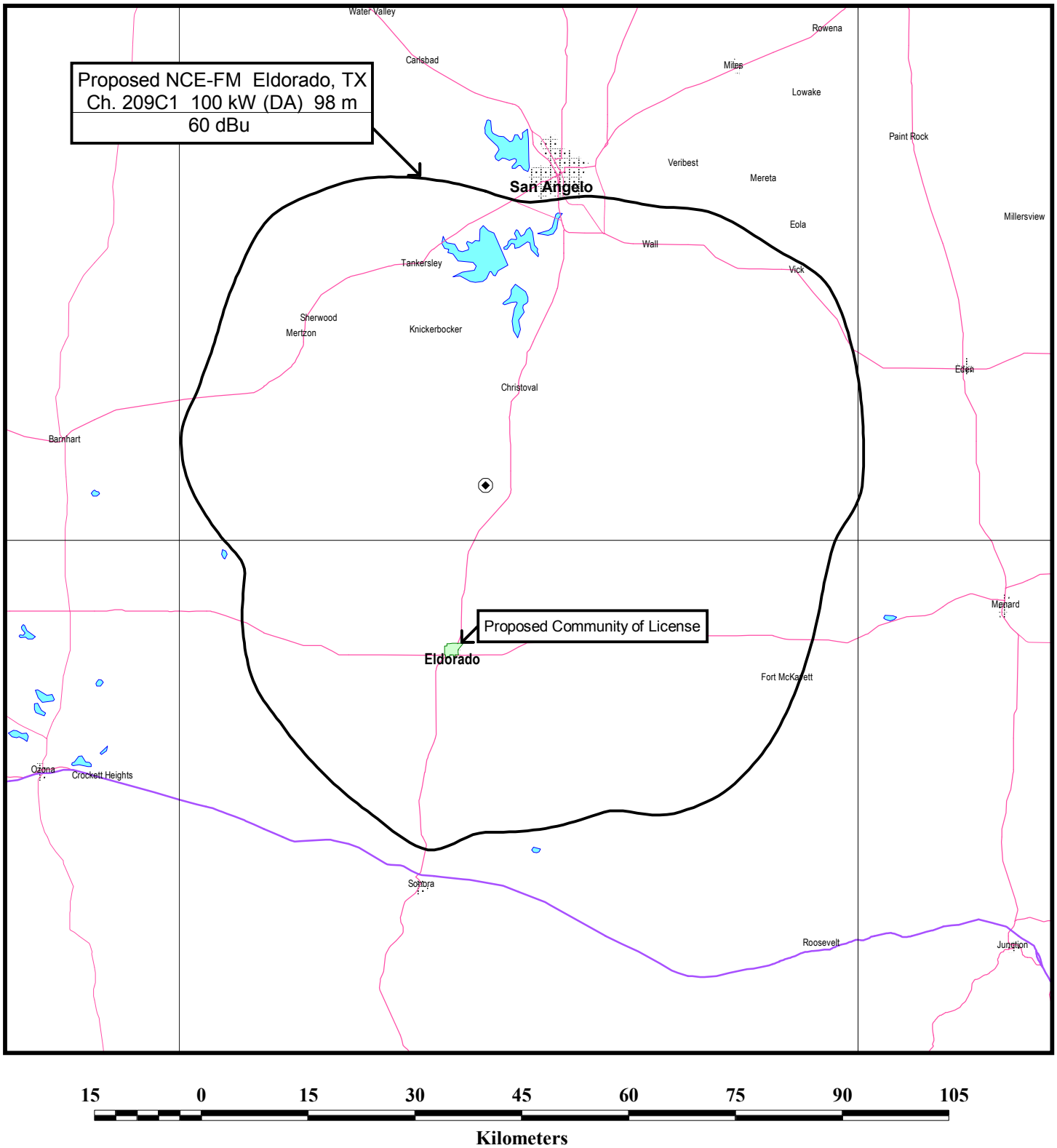


PROPOSED TRANSMITTER SITE

NEW NCE-FM STATION
ELDORADO, TEXAS
CH 209C1 100 KW (MAX-DA) 98 M

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

Figure 3



COMPLIANCE WITH SECTION 73.515

PROPOSED NCE-FM STATION
ELDORADO, TEXAS

CH 209C1 100 KW (DA) 98 M

du Treil, Lundin & Rackley, Inc. Sarasota, Florida 34237

Figure 4

CDBS FM SEPARATION STUDY

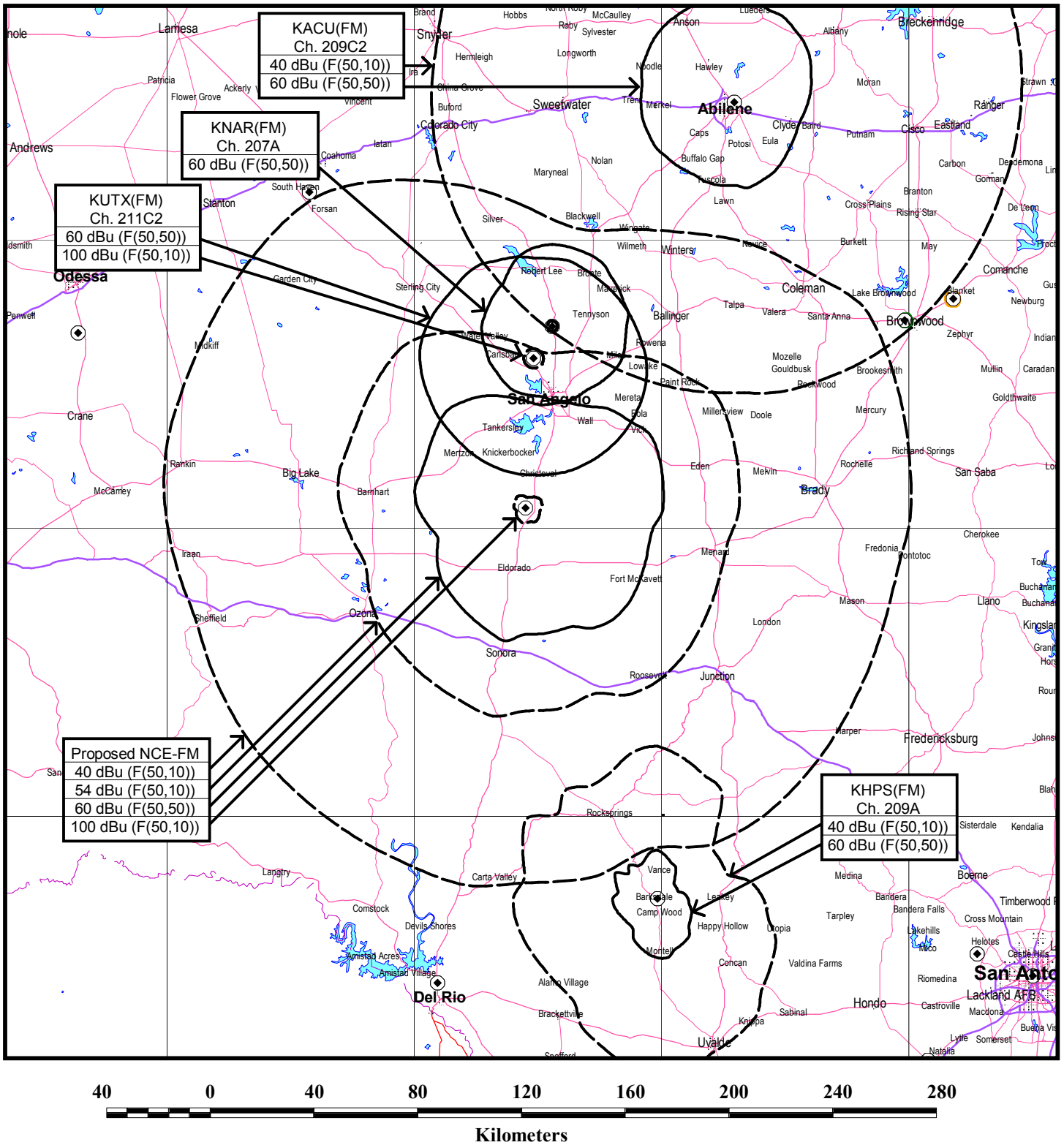
Job Title: NEW NCE-FM Eldorado, TX
 Channel: 209 C1

Separation Buffer: 32 km
 Coordinates: 31-04-09 100-32-56

Call Id	City St	File Status	Channel Num	ERP Freq	HAAT	DA Id	Latitude Longitude	73 215	Bear	Dist. (km)	Req. (km) 215	207
KNAR 91797	SAN ANGELO TX	BLD LIC C	207 20060412ADG	A 89.3	1.000 244	N	31-41-59 100-26-30	N	8.2	70.65 -4.35	69.0 Short	75.0
KBMM 82034	ODESSA TX	BLD LIC C	208 20040716AAJ	C2 89.5	25.000 163	N	31-40-35 102-21-32	N	291.9	184.88 26.88	144.0 Clear	158.0
KHPS 92144	CAMP WOOD TX	BPED CP C	209 19981119MB	A 89.7	0.500 110	N	29-42-53 100-00-56	N	161.1	158.66 -41.34	178.0 Short	200.0
KACU 300	ABILENE TX	BLD LIC C	209 19860616KA	C2 89.7	33.000 66	N	32-28-34 099-42-22	N	26.8	175.24 -48.76	211.0 Short	224.0
KUTX 9776	SAN ANGELO TX	BLD LIC C	211 19960424KA	C2 90.1	5.000 277	N	31-35-21 100-31-00	N	3.0	57.73 -21.27	73.0 Short	79.0
0	ELDORADO TX	RM ADD C	263 10479	A 100.5	0.000		30-51-00 100-31-00		172.8	24.49 2.49	0.0 Close	22.0

Alternate site, 6/2/2005: sent to Mexico 6/2/05 7/17/2006: Accepted on channel 263AA by Mexico in 3/30/06 letter, not restricted.

Figure 5

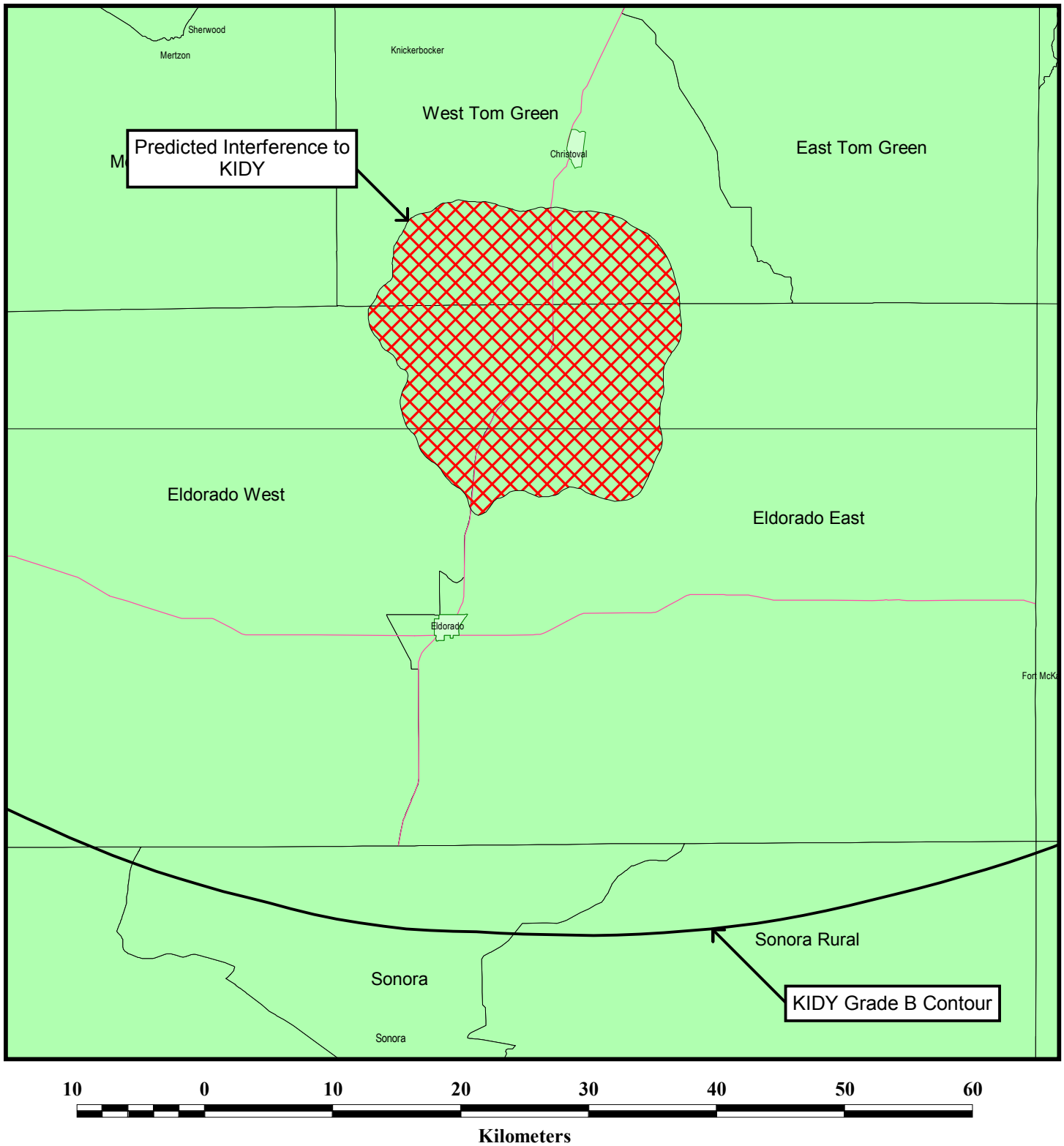


COMPLIANCE WITH SECTION 73.509

PROPOSED NCE-FM STATION
ELDORADO, TEXAS
CH 209C1 100 KW (DA) 98 M

du Treil, Lundin & Rackley, Inc. Sarasota, Florida 34237

Figure 6



PREDICTED INTERFERENCE TO KIDY TV CHANNEL 6

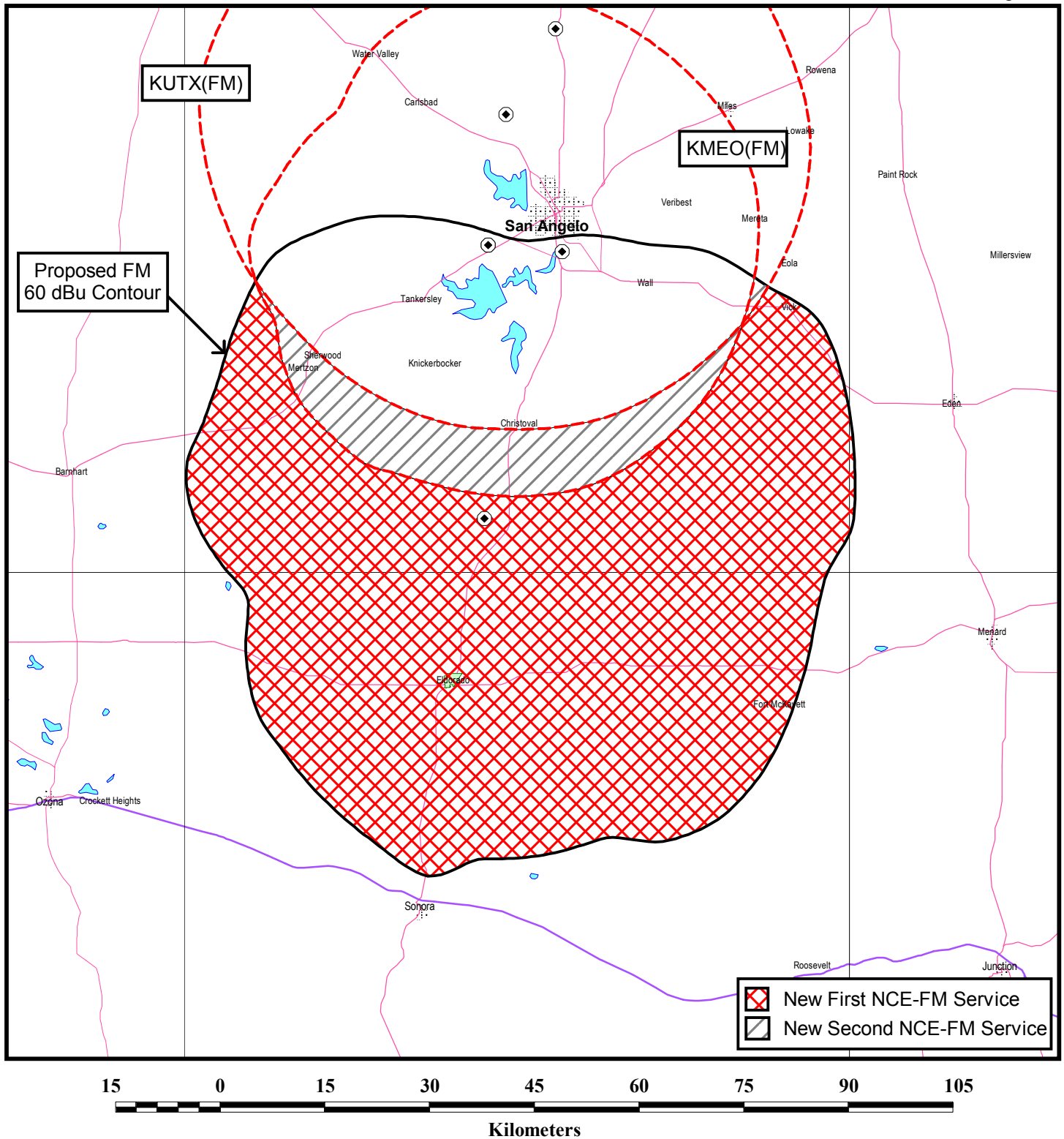
PROPOSED NCE-FM STATION

ELDORADO, TEXAS

CH 209C1 100 KW (DA) 98 M

du Treil, Lundin & Rackley, Inc. Sarasota, Florida 34237

Figure 7



FAIR DISTRIBUTION/POINT SELECTION ANALYSIS

PROPOSED NCE-FM STATION
 ELDORADO, TEXAS
 CH 209C1 100 KW (DA) 98 M

du Treil, Lundin & Rackley, Inc. Sarasota, Florida 34237