

TECHNICAL EXHIBIT
APPLICATION FOR CONSTRUCTION PERMIT
RADIO STATION KYKX
LONGVIEW, TEXAS

FEBRUARY 18, 2009

CH 289C 100 KW (MAX-DA) 456 M

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Technical Statement

This Technical Exhibit was prepared on behalf of radio station KYKX, channel 289C, Longview, Texas, in support of an application to modify the facilities of KYKX.

Proposed Facilities

The proposed transmitting facility will operate on Channel 289C with a maximum effective radiated power (ERP) of 100 kW (circular polarization). It is proposed to employ a directional antenna to be side-mounted on a new, guyed tower to be constructed at a site described by the following geographic coordinates (NAD '27):

32° 39' 30" North Latitude
94° 48' 32" West Longitude.

The proposed transmitting facility consists of a 8-bay, circularly polarized, directional FM antenna to be side-mounted at 458 meters above ground level (562 meters AMSL). The proposed antenna height results in a calculated antenna height above average terrain (HAAT) of 456 meters (based on the method of 47 CFR 73.313 with average terrain elevations obtained from the N.G.D.C. 30-second terrain database). The proposed facilities exceed the minimum for a class C FM station.

Specifications for the proposed operation are provided in Figure 1. A site map and tower sketch are provided as Figure 2. A plot and tabulation of the proposed directional antenna pattern envelope are provided in Figure 3.

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Predicted Coverage Contours

The predicted coverage contours were calculated in accordance with Section 73.313 of the FCC Rules. The average terrain elevations from 3 to 16 km from the proposed site were computed using the U.S.G.S 3-second terrain database. The distances to the predicted coverage contours were determined using the average elevations of 3-16 km portions of radials spaced every 10-degrees of azimuth. 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. Figure 4 is a map showing the predicted coverage contours.

As indicated in Figure 4, the normally predicted 70 dBu contour encompasses 100 percent of Longview, Texas. The city limits shown for Longview were obtained from the 2000 U.S. Census.

Allocation Considerations

Figure 5 is an allocation study for channel 289C at Longview. As outlined in Sheet 1 of Figure 5, the proposed facility meets the separation requirements of Section 73.207 of the FCC Rules with respect to all pertinent allotments and assignments with the exception of three licensed stations and one vacant allotment. These facilities are: KNCB-FM, Vivian, LA; KVVP, Leesville, LA; KRNB, Decatur, TX and the vacant allotment on channel 288A at Haynesville, LA. With respect to these facilities, the proposal provides contour protection and processing pursuant to 47 CFR 73.215 is requested. Maps demonstrating that the proposed KYKX facility does provide contour protection to these four facilities are provided in Figure 5, Sheets 2 through 4.

There is one, licensed, full-service TV station (KCEB, channel 54) and two licensed FM stations (KTAA, channel 214 and KFRO-FM, channel 237) within 10 kilometers of the proposed transmitter site; no interference is expected with respect to these or any other facilities. The predicted blanketing contour extends approximately

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3.9 km from the transmitter site. No problems with blanketing interference are anticipated, however, if any problems arise the applicant recognizes its responsibility to remedy complaints of blanketing interference as required by 47 CFR 73.318.

Environmental Considerations

With respect to human exposure to radiofrequency radiation, the proposed facility is categorically excluded from environmental processing. The proposed 8-bay antenna is to be mounted 458 meters above ground level. Based on the vertical radiation pattern for a typical 8-bay FM antenna^{*}, the relative field is less than 0.35 at all angles greater than 6° below the horizontal. Assuming 200 kW of radiated power (100 kW horizontal/100 kW vertical) and a “worst-case” pattern relative field in the downward direction of 0.35, the “worst-case” calculated RFR power density from Equation 8 on page 22 of OET Bulletin 65 (Edition 97-01, August 1997) at 2 meters above ground level at the tower base is 0.0045 mW/cm² or less than 2.0% of the FCC limit for uncontrolled environments. Therefore, the proposal complies with the FCC limits for human exposure to RF radiation, and with respect to RF radiation it is categorically excluded from environmental processing. The applicant certifies that access to the tower will be restricted by means of a fence, that RFR warning signs will be posted, and that it will reduce power or cease operation, as necessary, to protect persons having access to the tower from RFR exposure in excess of the FCC guidelines.

^{*} See the Appendix for a typical 8-bay FM antenna vertical radiation pattern.

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The applicant will address the certification with respect to all other environmental issues during the antenna structure registration process.

February 18, 2009

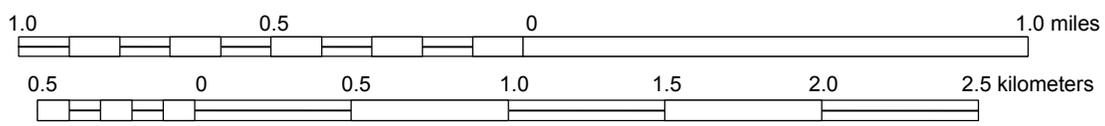
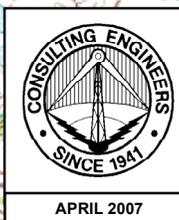
Figure 1

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Technical Specifications

Channel / Frequency	289C / 105.7 MHz
Site Coordinates (NAD'27)	32°39'30"North Latitude 94°48'32"West Longitude
Site elevation	103.6 m (340 Feet) AMSL
Overall height of proposed structure	472.1 m (1549 feet) AGL / 575.7m (1889 feet) AMSL
Height of antenna radiation center	458.4 m (1504 feet) AGL / 562.0m (1844 feet) AMSL
Antenna radiation center HAAT	456 M
Transmitter	as required
Transmitter power output	27.02 kW
Transmission line	Andrew, HJ9-50*
Transmission line length	472 m (1550 ft)
Transmission line efficiency	74.9 %
Antenna	8-bay, directional
Polarization	Circular
Power gain (assumed DA)	4.94
Antenna input power	20.24 kW
Effective radiated power (H & V)	100 kW

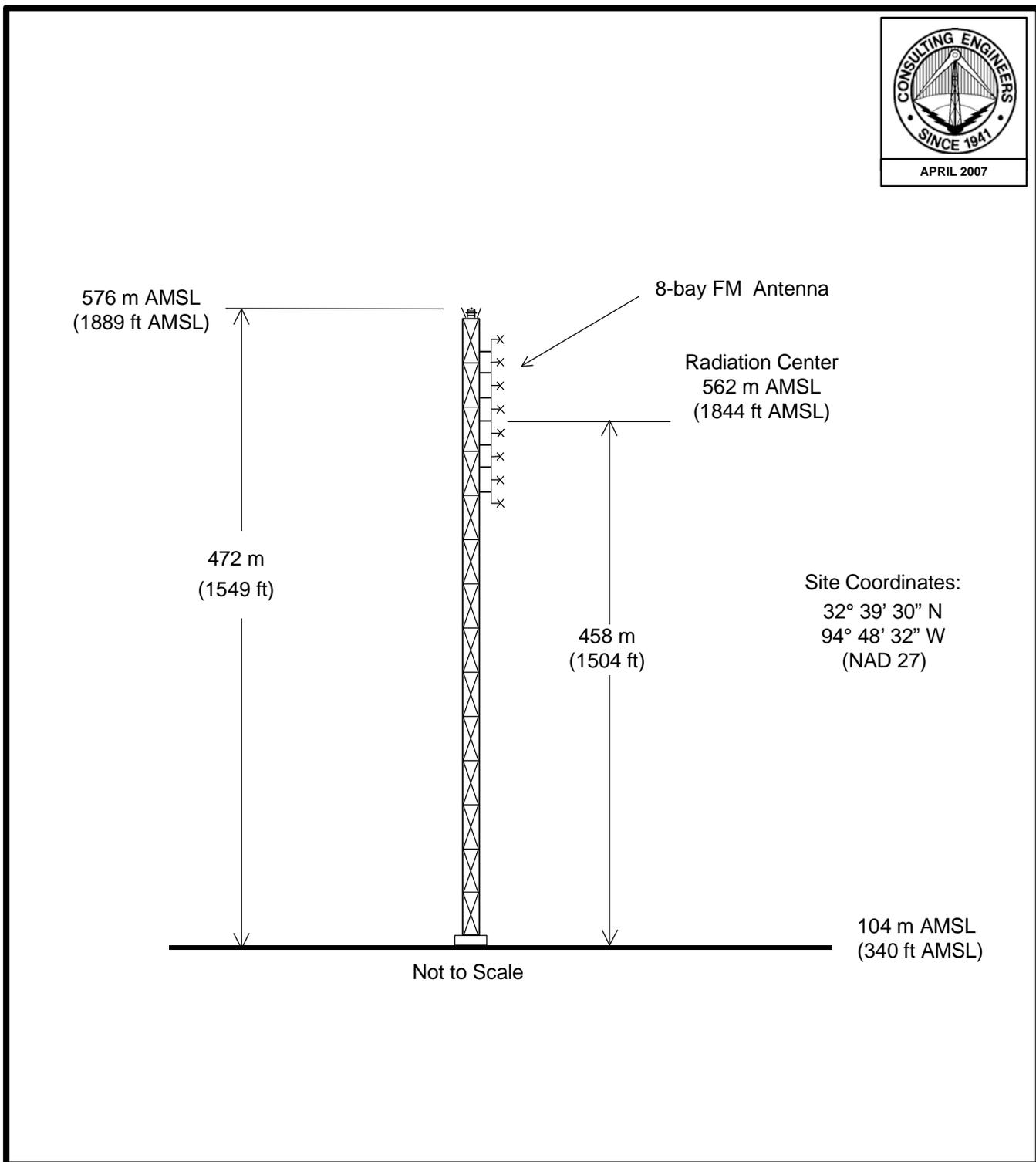
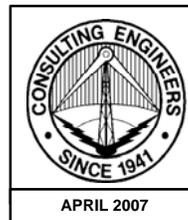
*or equivalent



TRANSMITTER SITE LOCATION

RADIO STATION KYKX
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du Treil, Lundin & Rackley, Inc. Sarasota, Florida



PROPOSED ANTENNA AND SUPPORTING STRUCTURE

RADIO STATION KYKX
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du Treil, Lundin & Rackley, Inc. Sarasota, Florida

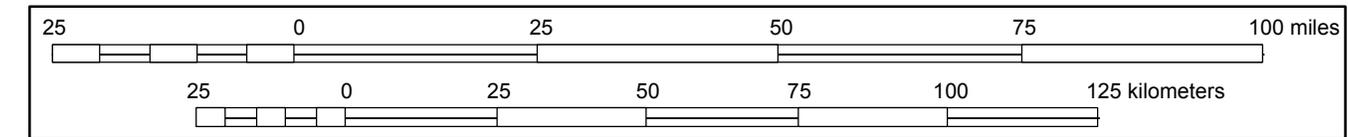
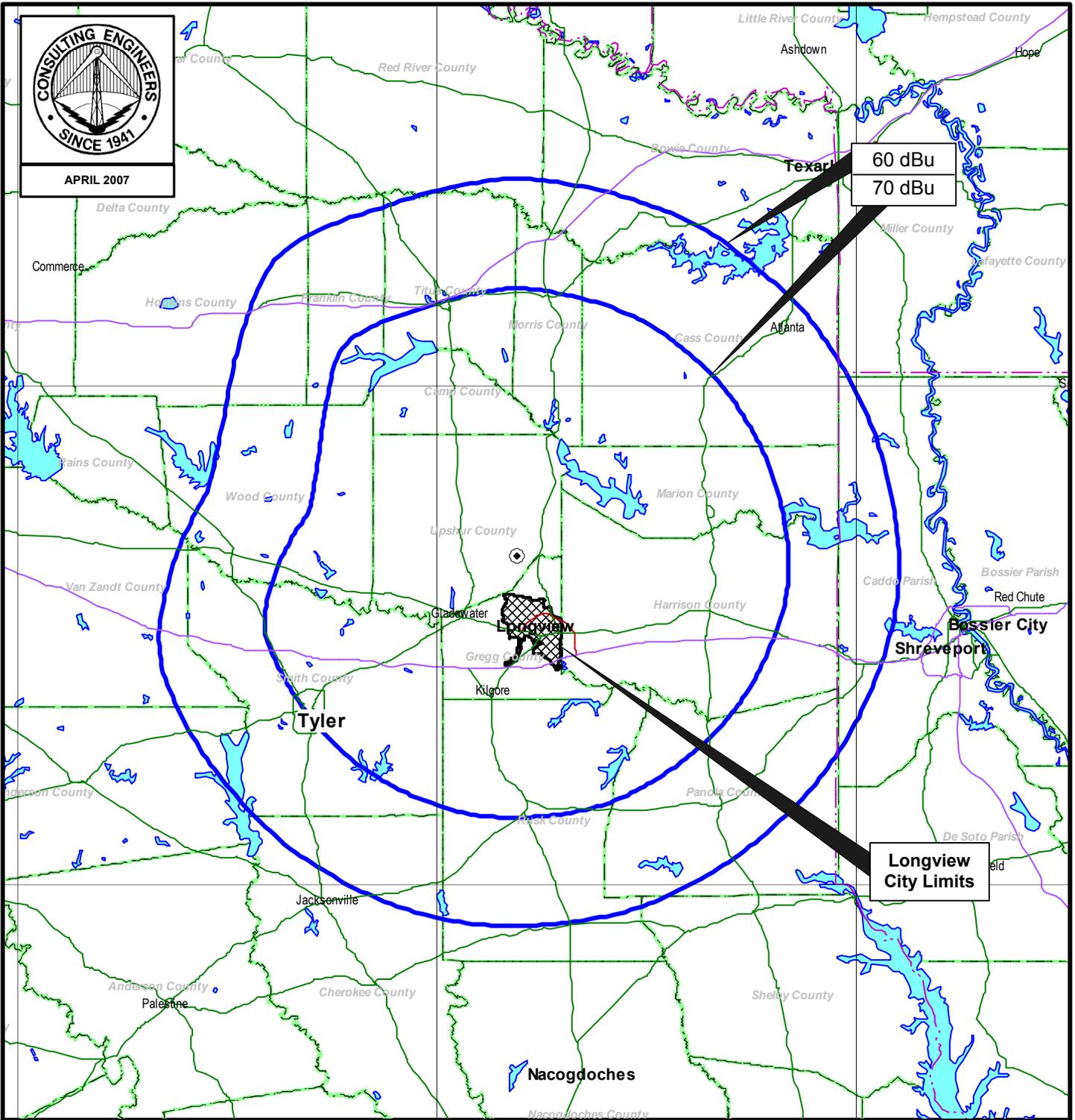
TECHNICAL EXHIBIT
 AMENDMENT TO
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Tabulation of Relative Field Envelope*

Azimuth (deg. True)	Relative Field	Azimuth (deg. True)	Relative Field
0	1.000	180	1.000
10	1.000	190	1.000
20	1.000	200	1.000
30	1.000	210	1.000
40	1.000	220	1.000
50	1.000	230	1.000
60	1.000	240	1.000
70	1.000	250	1.000
80	1.000	260	0.891
90	1.000	270	0.708
100	1.000	280	0.562
110	1.000	290	0.562
120	1.000	300	0.631
130	1.000	310	0.794
140	1.000	320	1.000
150	1.000	330	1.000
160	1.000	340	1.000
170	1.000	350	1.000
Additional Bearings:			
255	1.000	295	0.562

* Note: Minimum relative field of 0.562 from 280° T to 295° T

Figure 4



PREDICTED COVERAGE CONTOURS

RADIO STATION KYKX
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du Treil, Lundin & Rackley, Inc. Sarasota, Florida

ALLOCATION STUDY
RADIO STATION KYKX
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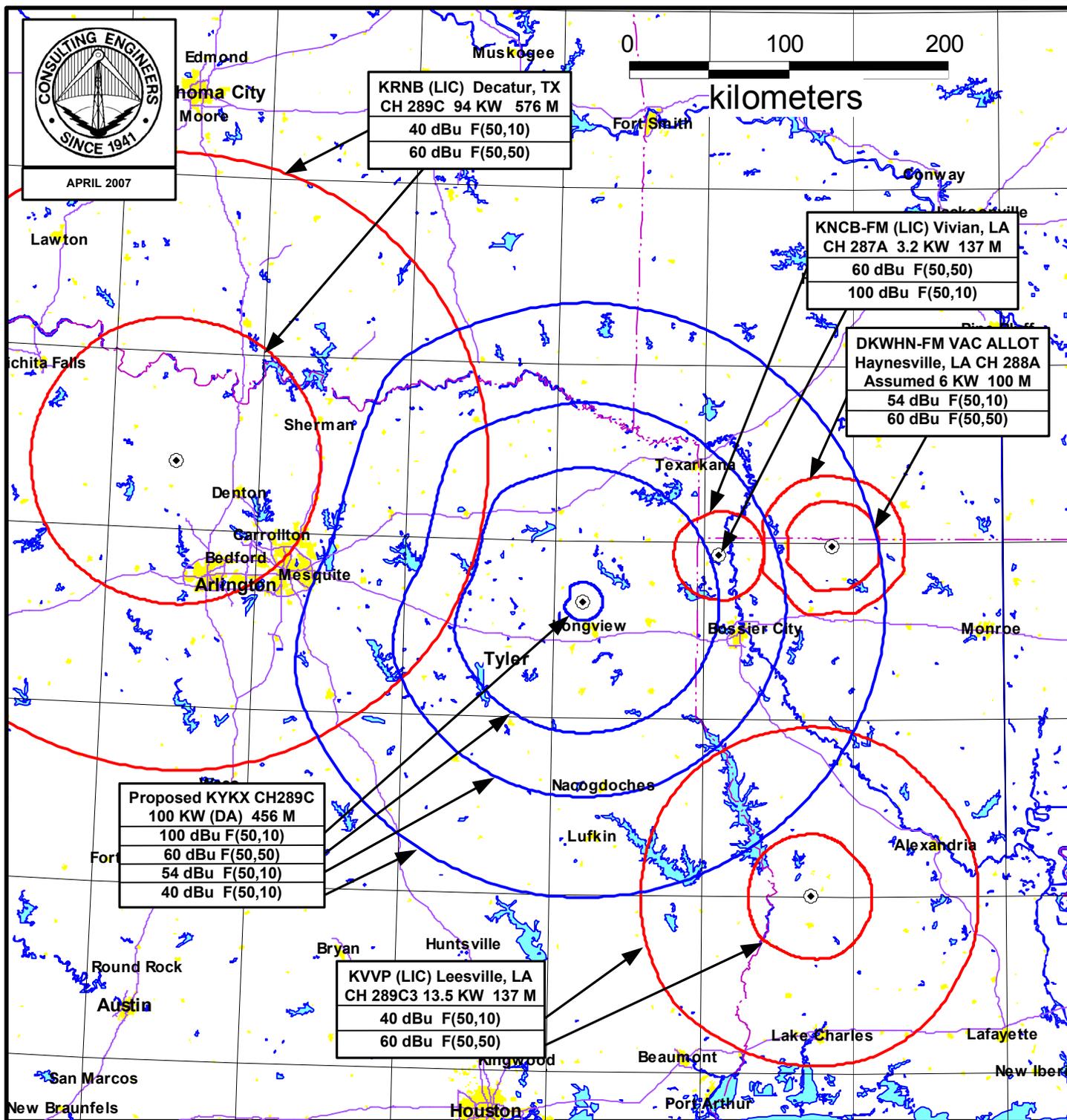
Channel: 289 **Coordinates:** 032-39-30 094-48-32
Class: C **Buffer Distance:** 32 km

Call Id	City St	File Status Num	Channel Freq	ERP HAAT	DA Id	Latitude Longitude	73 215	Bear	Dist. (km)	Req. 215	(km) 207
KTTY 165971	NEW BOSTON TX CP	BNPH C 20060308AAN	286A 105.1	4.3 118	N	33-28-00 094-27-48	N 215	19.6	95.28	89.0	95.0
KNCB-FMVIVIAN 49155	LA LIC	BLH C 20020910AAE	287 A 105.3	3.200 137	N	32-55-54 093-54-22	Y 215	69.9	89.83	89.0	95.0 ¹
DKWHN-FHAYNESVILLE 26464	LA VAC	C	288 A 105.5	0.000	N	32-58-47 093-08-38	N 215	76.6	159.94	142.0	165.0 ¹
KNAS 54822	NASHVILLE AR LIC	BLH C 20060811AXK	288 A 105.5	6.000 62	N	34-00-41 093-52-03	Y 215	29.9	173.78	142.0	165.0
0	LOVELADY TX VAC	RM C 11030	288 A 105.5	0.000		31-03-14 095-32-34		201.4	190.98	142.0	165.0
KYKX 54844	LONGVIEW TX LIC	BLH C 19960408KB	289 C 105.7	100.000 352	N	32-35-37 094-49-10	Y 215	187.8	7.25	270.0	
<i>(Applicant's existing facility.)</i>											
KVVP 62277	LEESVILLE LA LIC	BLH C 19960405KD	289 C3 105.7	13.500 137	N	31-00-19 093-16-42	Y 215	141.4	233.64	226.0	237.0 ¹
KRNB 9747	DECATUR TX LIC	BMLH C 20031209AAL	289 C 105.7	94.000 576	N	33-23-12 097-33-57	Y 215	288.2	269.95	270.0	290.0 ^{1,3}
KUZN 9087	CENTERVILLE TX LIC	BMLED C 20071227ABM	290 C3 105.9	25.000 100	N	31-16-56 095-53-42	N 215	214.1	183.91	165.0	176.0
KYGL 12312	TEXARKANA AR LIC	BLH C 19950427KC	292 C2 106.3	50.000 150	N	33-18-30 093-56-54	Y 215	47.8	108.01	96.0	105.0

¹ Contour protection pursuant to 47 CFR 73.215 provided.

² Protection not required of these proposed allotments, see Technical Narrative.

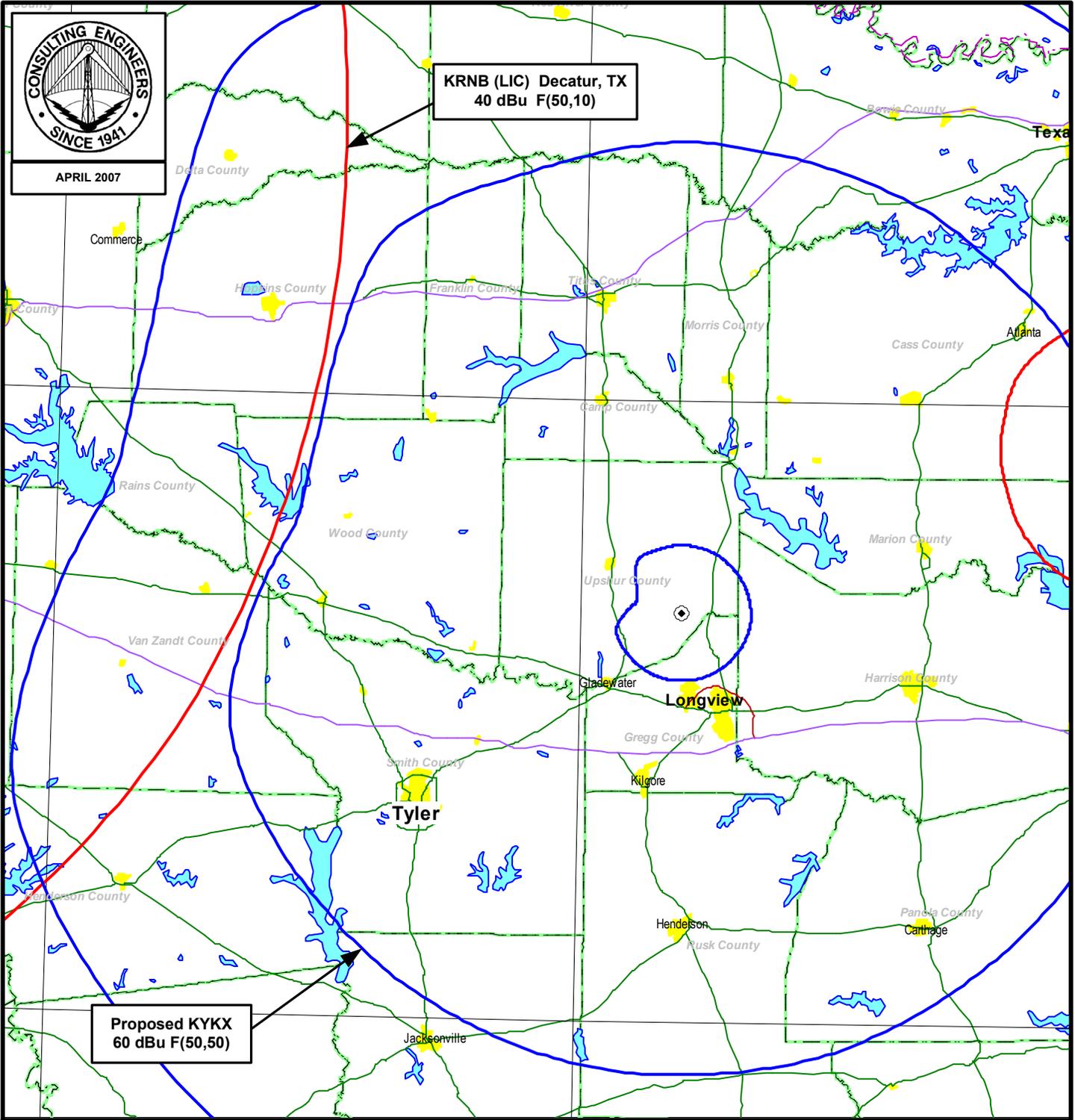
³ Separation distance of 269.95 km rounds to 270 km, which meets the spacing requirements of 73.215(e).



ALLOCATION STUDY

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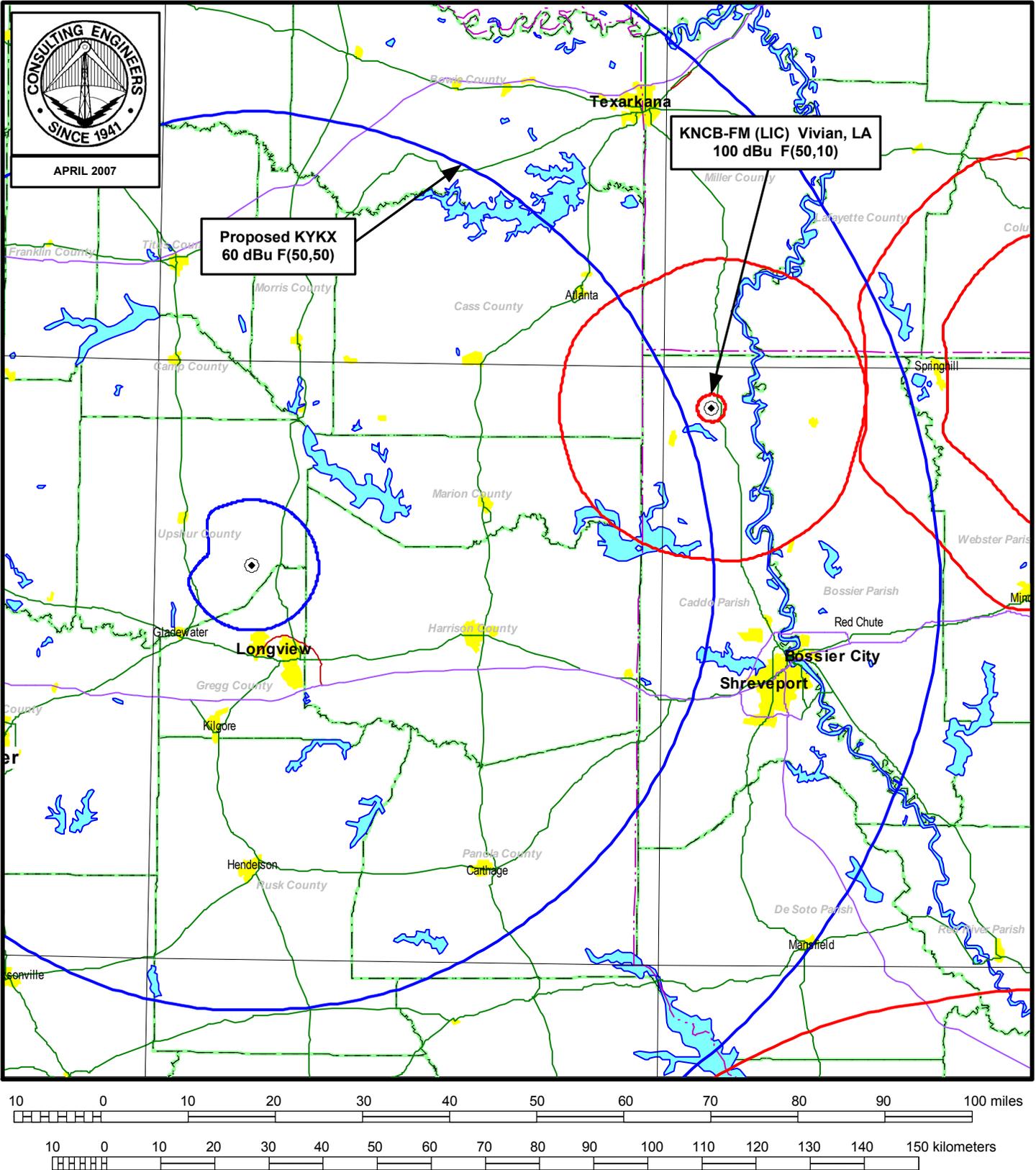
KRNB (LIC) Decatur, TX
40 dBu F(50,10)

Proposed KYKX
60 dBu F(50,50)

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APPENDIX – ANTENNA VERTICAL RADIATION PATTERN
(one page follows)

ELEVATION PATTERN

Type:	<u>SHPX8F</u>		Channel:	<u>289</u>
Directivity:	<u>Numeric</u>	<u>dBd</u>	Location:	<u> </u>
Main Lobe:	<u>4.49</u>	<u>6.52</u>	Beam Tilt:	<u>0.00</u>
Horizontal:	<u>4.49</u>	<u>6.52</u>	Polarization:	<u>Circular</u>

