

TECHNICAL EXHIBIT
APPLICATION FOR FM CONSTRUCTION PERMIT
RADIO STATION KSMG(FM)
FACILITY ID 34977
SEGUIN, TEXAS
CH 287C 100 KW 453 M

Technical Narrative

The technical exhibit of which this narrative is part was prepared on behalf of radio station KSMG(FM) on Channel 287C assigned to Seguin, Texas. KSMG is licensed for operation with a non-directional effective radiated power (ERP) of 100 kilowatts and an antenna height above average terrain (HAAT) of 381 meters.¹ Station KEZB(FM) on Channel 287C3 at Hempstead, Texas has recently filed an application, which, among other changes, seeks to trigger KSMG as a Class C0 facility.²

The purpose of this application is to increase the KSMG antenna HAAT at its existing transmitter site to satisfy the Commission's requirements for a Class C facility, thus precluding the Class C0 trigger.

It is proposed to diplex with station KISS-FM's antenna, which is located higher up on the same tower (ASRN: 1206963). The proposed antenna HAAT is 453 meters, which meets the minimum Class C HAAT (451 meters).

Proposed Transmitter Location

The transmitting facility will be located at its existing site southeast of San Antonio. The location is uniquely described by the following geographic coordinates:

¹ See FCC File Number: BLH-19850314LP

² See FCC File Number: BPH-20030501AAL

29° 16' 29" North Latitude
98° 15' 52" West Longitude

A map of the transmitter site is provided in Figure 1. A sketch showing the antenna and supporting structure is shown on Figure 2.

Interference Concerns

The 115 dBu predicted "blanketing" contour of the proposed station would extend radially 4 kilometers from the transmitting site. The applicant recognizes its responsibility to resolve complaints of interference, including blanketing and receiver-induced interference as required by Sections 73.315(b), 73.316(e) and 73.318.

FCC Predicted Coverage Contours

The predicted coverage contours for the proposed operation were calculated in accordance with the provisions of Section 73.313. Pursuant with current FCC practice, the distances to the contours were calculated without consideration given to terrain roughness correction factors.

The average terrain elevations from 3 to 16 kilometers along eight radials evenly spaced at 45 degree intervals were obtained from the N.G.D.C. 30-second digitized terrain database. The terrain elevations were then used in combination with the effective radiated power for determining the distances to coverage contours.

Figure 3 is a map showing the predicted coverage contours. As the map illustrates, the FCC predicted 70 dBu contour

will encompass 100% of Seguin. Therefore, the proposal complies with the FCC's FM city coverage rules.

Allocation Study

Since there is no proposed change in site or class and KSMG does not operate pursuant to Section 73.215 (or 73.213), the allocation situation is not affected. Channel 287C will continue to satisfy the Commission's minimum separation distance requirements, specified in Section 73.207(b) of the Rules, to all assignments as shown in the tabulation provided in Figure 4 except towards a pending application for KEZB(FM) on Channel 287C3 at Hempstead, Texas.

KEZB has filed an application for construction permit, which is attempting to trigger KSMG as a Class C0. Since KSMG is now proposing actual Class C facilities pursuant to that trigger process, the KEZB application is not an allocation concern.

Radiofrequency Electromagnetic Field Exposure

The proposed facility has been evaluated in terms of potential radiofrequency electromagnetic field exposure at ground level in accordance with OET Bulletin No. 65, Evaluating Compliance with FCC Specified Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields³. The power density at the base of the tower was calculated using the appropriate procedures contained in the Bulletin.

The proposed antenna will be diplexed with KISS-FM's antenna, which is side-mounted on the existing tower with the antenna center of radiation located 448 meters above ground level.

³ OET Bulletin 65, Second Edition 97-01, August, 1997.

The power density was calculated using the appropriate equation contained in the Bulletin. Using a total ERP (horizontal and vertical polarization) of 200 kilowatts and a "worst-case" vertical relative field value of 0.5, the calculated power density at 2 meters above the ground is 0.008 milliwatts per square centimeter (mW/cm^2), which is less than 5% of the Commission's recommended limit of $0.2 \text{ mW}/\text{cm}^2$ for FM frequencies applicable to uncontrolled exposure areas. Therefore, the proposed facility will comply with the FCC's RF emission rules.

Access to the tower site will be restricted and appropriately marked with warning signs. 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 fields 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.

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Figure 1



TRANSMITTER SITE LOCATION

RADIO STATION KSMG(FM)

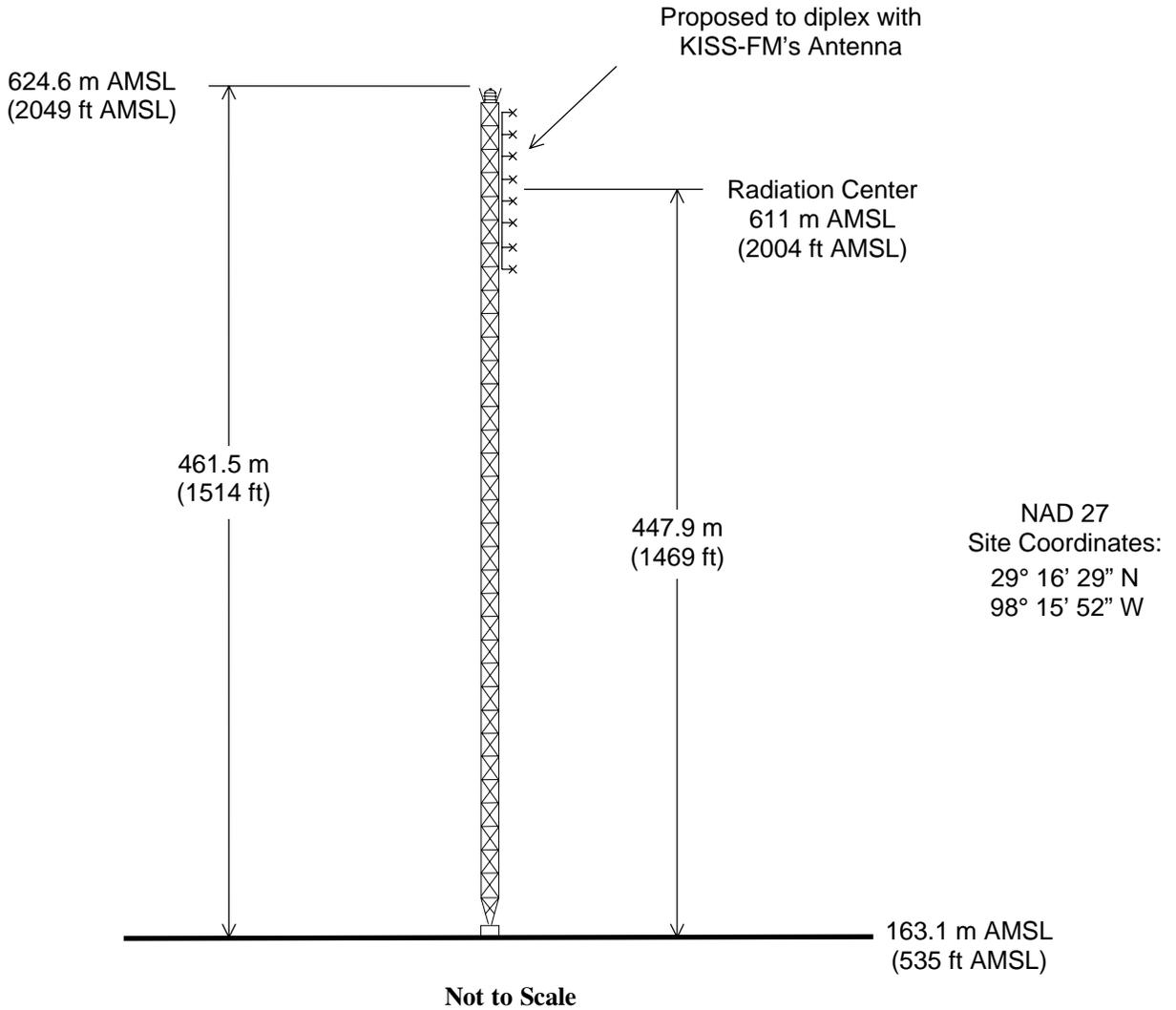
SEGUIN, TEXAS

CH 287C 100 KW 453 M

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



Registration No. 1206963



PROPOSED ANTENNA AND SUPPORTING STRUCTURE

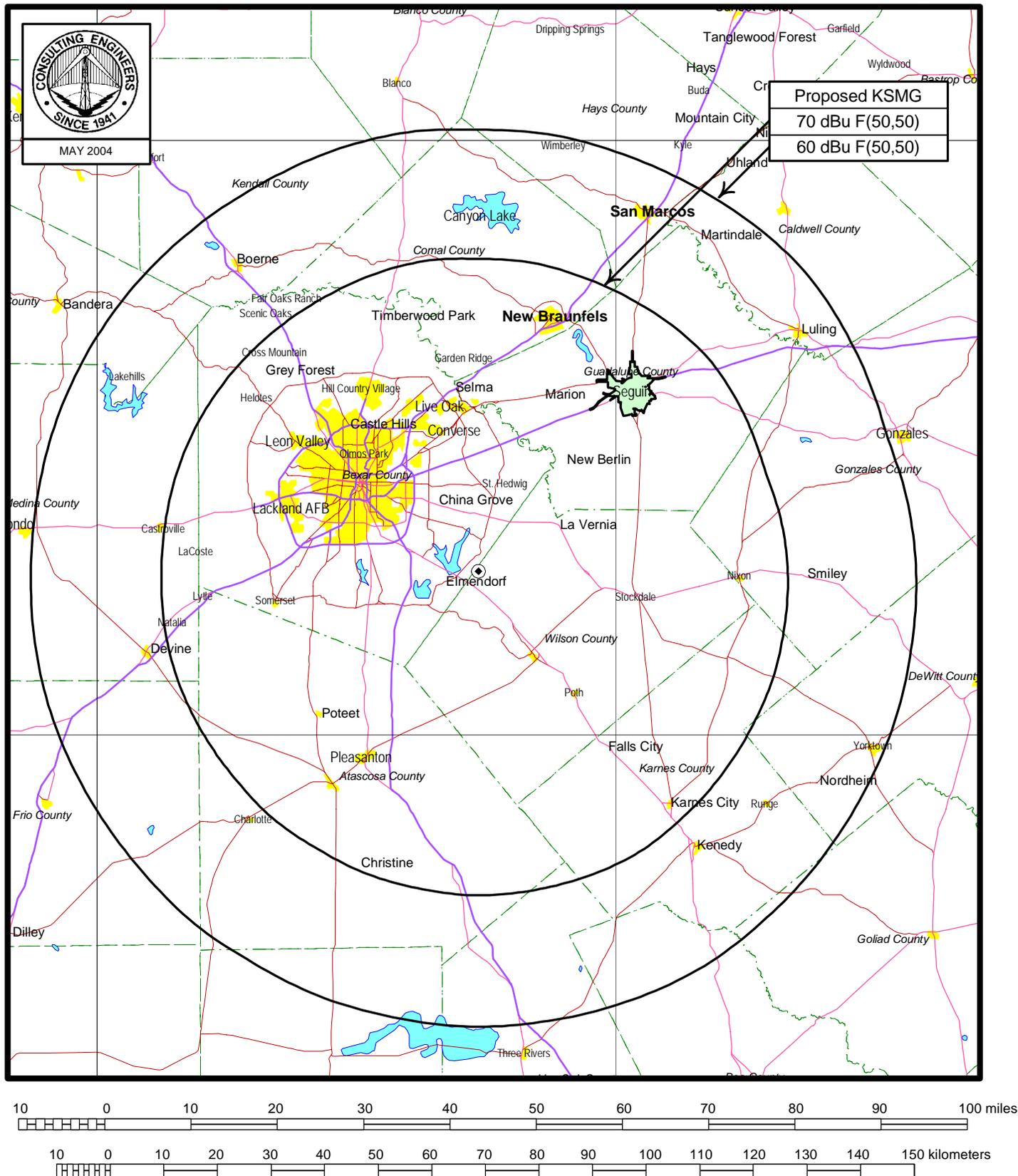
RADIO STATION KSMG(FM)

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Figure 3



PREDICTED FCC COVERAGE CONTOURS

RADIO STATION KSMG(FM)

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Allocation (Separation) Study

29° 16' 29" North Latitude

98° 15' 52" West Longitude

Call Id	City St	File Status Num	Channel Freq	ERP HAAT	DA Id	Latitude Longitude	73 215	Bear	Dist. (km)	Req. 215	207
KEMA 31640	THREE RIVER TX	BPH APP C 20021021AAI	233C2 94.5	50 150	N	28-44-20 098-10-37	Y	171.9	60.00	0.0	35.0
KEMA 31640	THREE RIVER TX	BLH LIC C 20020716AAL	233C2 94.5	48 150	N	28-43-10 098-02-34	Y	160.7	65.22	0.0	35.0
KXXS 40762	DRIPPING TX	SP BPH APP C 20040113AAZ	285A 104.9	2.35 162	N	30-11-54 098-00-46	N	13.2	105.23	89.0	95.0
KXXS 40762	MARBLE FALL TX	BLH LIC C 19991201AAN	285C2 104.9	9.5 245	N	30-26-34 098-14-48	N	0.8	129.49	96.0	105.0
KNVR 84381	CAMERON TX	BPH APP C 19981202IA	286C3 105.1	22 100	N	30-42-19 097-07-56	Y	34.1	192.57	165.0	176.0
KMAT 72527	SEADRIFT TX	BPH CP C 20020104AAI	286C2 105.1	40 124	N	28-25-44 096-26-54	N	117.6	200.48	176.0	188.0
KSMG 34977	SEGUIN TX	BLH LIC C 19850314LP	287C 105.3	100 381	N	29-16-29 098-15-52	N	104.7	0.00	270.0	290.0
<i>(Applicant's existing facility.)</i>											
KEZB 21204	HEMPSTEAD TX	BPH APP C 20030501AAL	287C3 105.3	25 100	N	30-16-04 096-06-50	N	61.5	235.31	226.0	237.0
<i>(Application attempting to trigger KSMG as a Class C0. No allocation issue. See Text.)</i>											
KEZB 21204	HEMPSTEAD TX	BLH LIC C 19990804KD	287C3 105.3	9.2 166	Y	30-18-19 096-01-40		61.5	244.58	226.0	237.0
0	FREER TX	RM VAC C 10263	288A 105.5			27-49-20 098-38-04		192.7	164.99	142.0	165.0
KMJR 3534	PORTLAND TX	BPH APP C 20030430ACA	288A 105.5	2.8 104	N	27-47-48 097-23-51	N	152.5	184.48	142.0	165.0
KMJR 3534	PORTLAND TX	BLH LIC C 19850425KR	288A 105.5	1.9 108	N	27-47-48 097-23-51	N	152.5	184.48	142.0	165.0
KTKO 74442	BEEVILLE TX	BLH LIC C 19960314KB	289C3 105.7	25 100	N	28-28-16 097-48-39	N	153.6	99.45	90.0	96.0
KMFR 21674	HONDO TX	BLH LIC C 20000929AED	290A 105.9	6 100	N	29-18-48 099-16-03	N	272.8	97.55	89.0	95.0