

**ENGINEERING STATEMENT
SUPPORTING REQUEST FOR AUTHORIZATION TO
ESTABLISH ATSC 3.0 SERVICE AND ATSC 1.0 SIMULCAST HOST
KSAT-TV, SAN ANTONIO, TX (FACILITY ID NO. 53118) (ATSC 3.0 LIGHTHOUSE)
KLRN, SAN ANTONIO, TX (FACILITY ID NO. 749) (PRIMARY SIMULCAST HOST)
SAN ANTONIO DMA**

This statement was prepared on behalf of Graham Media Group, San Antonio, Inc. ('Graham'), licensee of station KSAT-TV, San Antonio, TX. Graham requests authorization for ATSC 3.0 NextGen service on KSAT-TV (RF Channel 12) with KLRN (RF Channel 9) to be established as the ATSC 1.0 simulcast host station for the KSAT-TV primary signal.

The proposal is compliant with the coverage requirements for an ATSC 3.0 simulcast signal as outlined in 47 C.F.R. § 73.3801(c) of the FCC Rules. Specifically,

- (1) The KLRN predicted 43 dBu, f(50,90), principal community contour encompasses the KSAT-TV city of license of San Antonio, TX; and,
- (2) Both KSAT-TV and KLRN are licensed to the same Nielsen Designated Market Area (DMA), which is San Antonio.

The predicted service contours of the respective facilities are shown on the map on page 2 of this statement.

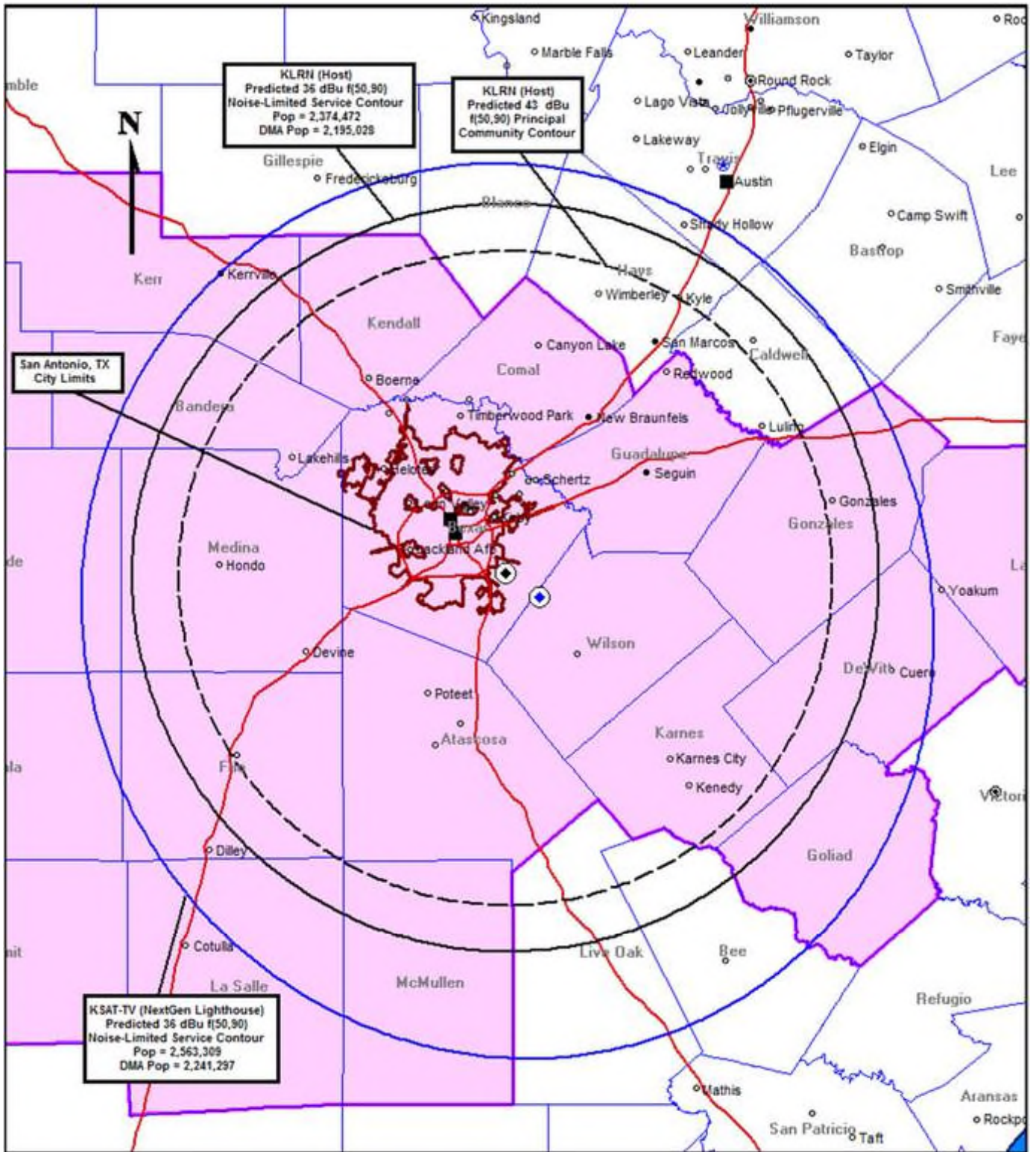
The noise-limited service contour population/household figures for the respective coverage contours are shown on pages 3 and 4 and are broken out by counties. KLRN is predicted to serve 92.6% of the population inside the KSAT-TV predicted noise-limited contour. However, as shown on the map, the KSAT-TV predicted noise limited contour extends beyond the San Antonio DMA, shown on the contour map highlighted in magenta, into the Austin DMA to the north and the Corpus Christi DMA to the south. Both of these DMA's are serviced by an ABC network affiliate, the same network affiliation as KSAT-TV. Excluding the counties outside the San Antonio DMA, KLRN serves 97.9% of the population inside the KSAT-TV predicted noise-limited contour and inside the San Antonio DMA. The population/household figures are based on the U.S.G.S. 2010 Census block data.

Information regarding the ATSC 1.0 carriage of KSAT-TV multicast streams is found on pages 5 and 6 of this statement.



PREDICTED CONTOURS

Blue (Noise-Limited) - KSAT-TV, San Antonio, TX, RF Ch. 12, ATSC 3.0 Lighthouse
 Black (Noise-Limited) - KLRN, San Antonio, TX, RF Ch. 9, ATSC 1.0 Host for KSAT-TV
 Dashed Black (Principal Community) - KLRN, San Antonio, TX, RF Channel 9
 San Antonio DMA shown in Magenta



**PREDICTED POPULATION/HOUSEHOLD COMPARISON
INSIDE THE NOISE LIMITED CONTOUR
KSAT-TV, San Antonio, TX, Channel 12, ATSC 3.0 Lighthouse
KLRN, San Antonio, TX, Channel 9, ATSC 1.0 Simulcast Host for KSAT-TV**

St	County	Population		Difference	Coverage	Households		Difference	Coverage
		KSAT-TV	KLRN			KSAT-TV	KLRN		
TX	Atascosa	44,911	44,911	0	100.0%	15,246	15,246	0	100.0%
TX	Bandera	19,690	18,171	-1,519	92.3%	8,190	7,560	-630	92.3%
TX	Bastrop	916	0	-916	0.0%	286		-286	0.0%
TX	Bee	29,163	1,690	-27,473	5.8%	8,080	627	-7,453	7.8%
TX	Bexar	1,714,773	1,714,773	0	100.0%	608,931	608,931	0	100.0%
TX	Blanco	8,823	5,783	-3,040	65.5%	3,597	2,344	-1,253	65.2%
TX	Caldwell	37,994	32,526	-5,468	85.6%	12,272	10,442	-1,830	85.1%
TX	Comal	108,472	108,472	0	100.0%	41,363	41,363	0	100.0%
TX	DeWitt	16,478	4,771	-11,707	29.0%	6,048	2,031	-4,017	33.6%
TX	Frio	17,201	12,493	-4,708	72.6%	4,846	3,649	-1,197	75.3%
TX	Gillespie	2,548	39	-2,509	1.5%	1,033	16	-1,017	1.5%
TX	Goliad	5,525	331	-5,194	6.0%	2,196	136	-2,060	6.2%
TX	Gonzales	18,287	17,177	-1,110	93.9%	6,576	6,130	-446	93.2%
TX	Guadalupe	131,533	131,533	0	100.0%	45,762	45,762	0	100.0%
TX	Hays	155,484	135,216	-20,268	87.0%	54,636	47,566	-7,070	87.1%
TX	Karnes	14,824	14,824	0	100.0%	4,463	4,463	0	100.0%
TX	Kendall	33,410	33,355	-55	99.8%	12,617	12,592	-25	99.8%
TX	Kerr	23,417	4,828	-18,589	20.6%	9,225	1,838	-7,387	19.9%
TX	La Salle	179	10	-169	5.6%	82	4	-78	4.9%
TX	Lavaca	310	0	-310	0.0%	126		-126	0.0%
TX	Live Oak	9,287	4,187	-5,100	45.1%	3,203	1,275	-1,928	39.8%
TX	McMullen	673	554	-119	82.3%	295	247	-48	83.7%
TX	Medina	46,006	45,907	-99	99.8%	15,530	15,488	-42	99.7%
TX	Travis	77,797	3	-77,794	0.0%	28,963	2	-28,961	0.0%
TX	Uvalde	2,197	0	-2,197	0.0%	804		-804	0.0%
TX	Victoria	473	0	-473	0.0%	185		-185	0.0%
TX	Wilson	42,918	42,918	0	100.0%	15,009	15,009	0	100.0%
TX	Zavala	20	0	-20	0.0%	6		-6	0.0%
Total:		2,563,309	2,374,472	-188,837	92.6%	909,570	842,721	-66,849	92.7%



**PREDICTED POPULATION/HOUSEHOLD COMPARISON
INSIDE THE NOISE LIMITED CONTOUR AND INSIDE THE SAN ANTONIO DMA
KSAT-TV, San Antonio, TX, Channel 12, ATSC 3.0 Host
KLRN, San Antonio, TX, Channel 9, ATSC 1.0 Simulcast Host for KSAT-TV**

St	County	Population		Difference	Coverage	Households		Difference	Coverage
		KSAT-TV	KLRN			KSAT-TV	KLRN		
TX	Atascosa	44,911	44,911	0	100.0%	15,246	15,246	0	100.0%
TX	Bandera	19,690	18,171	-1,519	92.3%	8,190	7,560	-630	92.3%
TX	Bexar	1,714,773	1,714,773	0	100.0%	608,931	608,931	0	100.0%
TX	Comal	108,472	108,472	0	100.0%	41,363	41,363	0	100.0%
TX	DeWitt	16,478	4,771	-11,707	29.0%	6,048	2,031	-4,017	33.6%
TX	Frio	17,201	12,493	-4,708	72.6%	4,846	3,649	-1,197	75.3%
TX	Goliad	5,525	331	-5,194	6.0%	2,196	136	-2,060	6.2%
TX	Gonzales	18,287	17,177	-1,110	93.9%	6,576	6,130	-446	93.2%
TX	Guadalupe	131,533	131,533	0	100.0%	45,762	45,762	0	100.0%
TX	Karnes	14,824	14,824	0	100.0%	4,463	4,463	0	100.0%
TX	Kendall	33,410	33,355	-55	99.8%	12,617	12,592	-25	99.8%
TX	Kerr	23,417	4,828	-18,589	20.6%	9,225	1,838	-7,387	19.9%
TX	La Salle	179	10	-169	5.6%	82	4	-78	4.9%
TX	Lavaca	310	0	-310	0.0%	126		-126	0.0%
TX	McMullen	673	554	-119	82.3%	295	247	-48	83.7%
TX	Medina	46,006	45,907	-99	99.8%	15,530	15,488	-42	99.7%
TX	Uvalde	2,197	0	-2,197	0.0%	804		-804	0.0%
TX	Victoria	473	0	-473	0.0%	185		-185	0.0%
TX	Wilson	42,918	42,918	0	100.0%	15,009	15,009	0	100.0%
TX	Zavala	20	0	-20	0.0%	6		-6	0.0%
Total:		2,241,297	2,195,028	-46,269	97.9%	797,500	780,449	-17,051	97.9%

