

ENGINEERING STATEMENT
SUPPORTING REQUEST FOR AUTHORIZATION TO
ESTABLISH ATSC 3.0 SERVICE AND ATSC 1.0 SIMULCAST HOST
KSBB-CD, SANTA BARBARA, CA (FACILITY ID NO. 60639)
KEYT-TV, SANTA BARBARA, CA (FACILITY ID NO. 60637)

Background

This statement was prepared on behalf of NPG of California, LLC ('Applicant'), licensee of stations KSBB-CD and KEYT-TV, both Santa Barbara, CA. The Applicant requests authorization for ATSC 3.0 service on KSBB-CD (RF Channel 17) with KEYT-TV (RF Channel 27) established as an ATSC 1.0 simulcast host station.

Compliance with Coverage Requirements

The proposal is compliant with the coverage requirements for an ATSC 1.0 simulcast signal as outlined in Section 73.6029(c) of the FCC Rules. Specifically, the KEYT-TV predicted protected contour entirely encompasses the predicted protected contour of the KSBB-CD licensed facility. The KEYT-TV transmitter site is located within 30 miles of the KSBB-CD licensed transmitter site and both stations are located within the same Nielsen DMA (Santa Barbara-Santa Maria-San Luis Obispo). This is illustrated in the Predicted Coverage Analysis Map attached hereto as an exhibit.

Compliance with Expedited Processing

The instant proposal qualifies for expedited processing according to the requirements outlined in Section 73.6029(f)(5) of the FCC Rules. Specifically, predicted service studies were conducted on the KSBB-CD and KEYT-TV facilities utilizing the FCC's *TVStudy* Predicted Service and Interference Analysis Model. These studies indicate that the KEYT-TV Host station will provide service to 97.5% of the KSBB-CD predicted service population as predicted by the *TVStudy* model.

In particular, based on the *TVStudy* model studies, the predicted terrain-limited interference-free population within the KSBB-CD predicted protected contour is 187,117. Based on the *TVStudy* model studies, the KEYT-TV facility will provide predicted

terrain-limited interference-free service within the KSBB-CD predicted protected contour of 182,362 persons. This is equivalent to a service loss population of 4,755 (2.5%). See attached exhibit showing a summary of the *TVStudy* results for the KSBB-CD licensed facility.

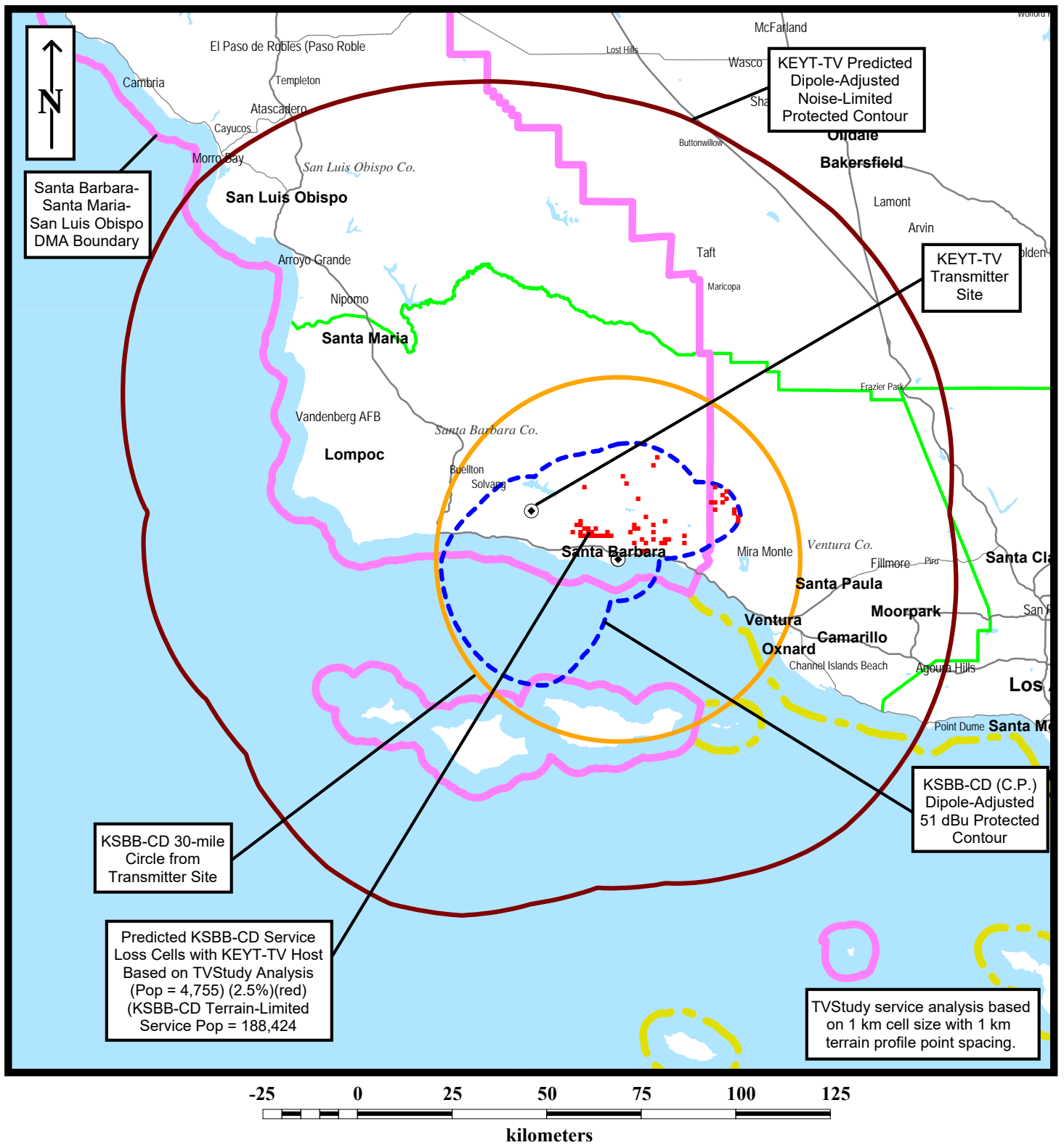
A map showing the locations of the predicted KSBB-CD service loss cells within the predicted protected contour is attached hereto. Also attached hereto is an exhibit showing the results of the *TVStudy* analysis for the KEYT-TV facility for reference. All studies were conducted utilizing the same cell size and terrain profile point spacing so as to make a consistent service comparison between the respective facilities.

A handwritten signature in black ink, appearing to read "Louis R. du Treil, Jr.", with a stylized, cursive script.

Louis R. du Treil, Jr., P.E.

du Treil, Lundin & Rackley, Inc.
3135 Southgate Circle
Sarasota, Florida 34239

July 18, 2019



PREDICTED COVERAGE ANALYSIS MAP

duTreil, Lundin & Rackley, Inc. Sarasota, Florida

TVSTUDY ANALYSIS FOR KSBB-CD, SANTA BARBARA, CA (CHANNEL 17) C.P. FACILITY (1 KM CELL SIZE / 1 KM TERRAIN INCREMENT)

tvstudy v2.2.5 (4uoc83)
Database: localhost, Study: ksbb_lic, Model: Longley-Rice

Study build station data: LMS TV 2018-07-10

Proposal: KSBB-CD D17 DC CP SANTA BARBARA, CA
File number: BLANK0000035689
Facility ID: 60639
Station data: LMS TV 2018-07-10
Record ID: 25076f915f98d3db015fcb5023594874
Country: U.S.

Stations potentially affected by proposal:

Record parameters as studied:

Channel: D17
Mask: Simple
Latitude: 34 24 35.90 N (NAD83)
Longitude: 119 42 28.40 W
Height AMSL: 134.0 m
HAAT: 0.0 m
Peak ERP: 15.0 kW
Antenna: SCA-4DR-16-2HW (ID 20732) 320.0 deg
Elev Pattn: Generic

49.0 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	12.8 kW	-406.7 m	30.6 km
45.0	9.01	-371.0	29.0
90.0	0.006	131.8	10.9
135.0	0.006	134.0	11.0
180.0	0.006	134.0	11.0
225.0	6.05	134.0	43.3
270.0	14.5	120.8	46.8
315.0	14.3	-133.5	31.1

Study cell size: 1.00 km
Profile point spacing: 1.00 km

Interference to proposal scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KSBB-CD	D17	DC	CP	SANTA BARBARA, CA	BLANK0000035689	
Undesireds:	KLDF-CD	D17+	DC	LIC	LOMPOC, CA	BLANK0000001615	77.0 km
	Service area		Terrain-limited		IX-free	Percent IX	
	3005.8	188,714	2402.9	188,424	2400.9	188,424	0.08 0.00
Undesired			Total IX		Unique IX	Prcnt Unique IX	
KLDF-CD D17+ DC LIC			2.0	0	2.0	0	0.08 0.00

Note:

Based on analysis of KEYT-TV service cells and KSBB-CD service cells, the KEYT-TV facility will provide predicted noise-limited interference-free service to a population of 183,669 within the KSBB-CD predicted service area. This is 97.5% of the KSBB-CD predicted service population.

TVSTUDY ANALYSIS FOR KEYT-TV, SANTA BARBARA, CA (CHANNEL 27) LICENSED FACILITY (1 KM CELL SIZE / 1 KM TERRAIN INCREMENT)

tvstudy v2.2.5 (4uoc83)
Database: localhost, Study: keyt_lic2, Model: Longley-Rice

Study build station data: LMS TV 2018-07-16

Proposal: KEYT-TV D27 DT LIC SANTA BARBARA, CA
File number: BLCDT20061102ABJ
Facility ID: 60637
Station data: LMS TV 2018-07-16
Record ID: 4bd54dc4f7b04489a7b5cf6212b6c0ea
Country: U.S.
Zone: II

Stations potentially affected by proposal:

Record parameters as studied:

Channel: D27
Latitude: 34 31 32.00 N (NAD83)
Longitude: 119 57 32.00 W
Height AMSL: 1252.0 m
HAAT: 918.0 m
Peak ERP: 250 kW
Antenna: RFT-CS-2050-SP-24 (ID 73232) 0.0 deg
Elev Pattn: Generic
Elec Tilt: 1.00

40.0 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	93.0 kW	931.4 m	113.2 km
45.0	101	876.5	112.4
90.0	250	619.6	110.7
135.0	111	1058.1	118.2
180.0	19.6	1169.3	104.2
225.0	18.9	1126.1	102.8
270.0	133	551.0	101.6
315.0	243	970.7	123.6

Study cell size: 1.00 km
Profile point spacing: 1.00 km

Interference to proposal scenario 4
1.18% interference received

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	KEYT-TV	D27	DT	LIC	SANTA BARBARA, CA	BLCDT20061102ABJ	
Undesireds:	KUVI-DT	D26	DT	CP	BAKERSFIELD, CA	BLANK0000034321	150.3 km
	KSKJ-CD	D26	DC	CP	VAN NUYS, CA	BLANK0000034721	177.4
	KGMC	D27	DT	CP	CLOVIS, CA	BLANK0000028225	254.2
	KPOM-CD	D27	DC	CP	ONTARIO, CA	BLANK0000034691	210.7
	KCET	D28	DT	LIC	LOS ANGELES, CA	BLANK0000055363	177.1
	KVMM-CD	D28	DC	LIC	SANTA BARBARA, CA	BLANK0000054369	26.6

Service area	Terrain-limited	IX-free	Percent IX
39195.4 1,418,633	30814.0 1,241,763	29300.8 1,227,152	4.91 1.18

Undesired	Total IX	Unique IX	Prcnt Unique IX
KUVI-DT D26 DT CP	7.0 7	4.0 7	0.01 0.00
KGMC D27 DT CP	133.9 185	129.9 185	0.42 0.01
KPOM-CD D27 DC CP	1200.0 8,228	921.0 3,876	2.99 0.31
KCET D28 DT LIC	48.3 5,759	34.2 1,407	0.11 0.11
KVMM-CD D28 DC LIC	407.1 4,784	141.1 4,784	0.46 0.39
