

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of)	
)	
CHANNEL 51 OF SAN DIEGO, INC.)	Application No. 0000052518
)	FCC Call Sign K12PO
Request for Waiver and Amendment to a)	
Displacement for LPTV Translator)	
Application)	
)	
Temecula, California)	
 To: Michelle M. Carey, Chief Media Bureau		

**PETITION TO DENY
OF LOS ANGELES COUNTY, CALIFORNIA**

The County of Los Angeles, California (“LA County”), through counsel and pursuant to Section 73.3584(c) of the Commission’s Rules, hereby submits its Petition to Deny the Request for Waiver and Amendment to a Displacement for LPTC Translator Application submitted by Channel 51 of San Diego, Inc. (“Petitioner”) on April 4, 2019 and assigned FCC Application Number 0000052518.¹ In support thereof, the following is shown:

I. BACKGROUND

A. LA County’s TV Channel 15 System

In 2008, the Public Safety and Homeland Security Bureau (Bureau) granted LA County a waiver pursuant to Section 337 of the Communications Act of 1934, as amended, to use UHF-TV channel 15 to construct a “standards-based, single platform, UHF voice radio system” to be used

¹¹ Attached hereto is an engineering study performed by Pericle Communications Company (“Pericle”) in support of LA County’s Petition to Deny.

by all public safety agencies in the County.² The County also requested extended implementation (slow growth) authority under Section 90.629 of the Commission's Rules.

LA-RICS is developing a new, interoperable, digital-trunked radio network to tie together the public safety communications operations of the County of Los Angeles, including most significantly, the Sheriff's Department, which is the designated law enforcement Mutual Aid Coordinator for Region 1 (Los Angeles and Orange Counties), thereby providing a modern, integrated, wireless voice and data communications system that will support more than 34,000 first responders and local mission-critical personnel. When completed, the LA-RICS system will operate a broadband data system in the 700 MHz band (utilizing "D Block" frequencies) and voice communications in both the 700 MHz (utilizing public narrowband frequencies) and 470-512 MHz bands.

The LA-RICS LMR communications platform will operate in portions of the 470-512 MHz band, which has long been the principal frequency band for Los Angeles area public safety agencies.³ The spectrum at 482-488 MHz (TV channel 16) is allocated exclusively for public safety in Los Angeles⁴ and provides the core spectrum for the Los Angeles County Sheriff's Department and other agencies' communications systems.

B. Petitioner's LPTV Station – K12PO, Temecula, California

According to its Petition, Petitioner operates an LPTV station under FCC Call Sign K12PO in Temecula, California. Petitioner claims that it was forced to remove K12PO's operation on TV Channel 12 off the air when KDOC-TV in Anaheim, California was recently relocated by the

² FCC Call Sign WQJX500 through WQJX557, WQUP813 and WQUR911.

³ See South Bay Regional Public Safety Communications Authority, *Memorandum Opinion and Order*, 13 FCC Rcd 23781, 23797 (1998), at ¶ 37.

⁴ 47 C.F.R. §90.311.

Commission to TV channel 12. Petitioner now seeks relocation to Channel 15 so that it can resume operation.

It is Petitioner's claim that its operations on Channel 15 will not cause interference to LA County's co-channel operations. Petitioner claims that the Commission's Rules do not specify a methodology for determining interference between TV and Land Mobile Radio Service operations, but Petitioner claims that such potential interference is similar to that which may be experienced between TV stations and Offshore Radio Service ("ORS") facilities, and Petitioner has submitted an interference study based upon such parameters.

II. PETITION TO DENY REQUEST FOR WAIVER

LA County opposes Petitioner's Request. As shown herein, Petitioner's Engineering Study is fatally flawed, and there is no question that K12PO's operation with the requested parameters on Channel 15 will cause significant interference to LA County's public safety operations.

A. The History Of TV Interference To Land Mobile Operations

As the Commission is aware, there has been a long, tortious history of interference from television stations to co-channel and adjacent channel land mobile radio stations. Back in the early 1980s, the Commission conducted a multi-year intervention to attempt to cure interference from WEVU-TV's operations on TV Channel 69 in Atlanta, Georgia to adjacent channel land mobile radio operations.⁵ The proceeding was long and costly for all parties, and ultimately resulted in a significant number of Part 90 800 MHz Land Mobile Radio channels being unusable anywhere in downtown Atlanta.

The Atlanta issue was not a singular example. Subsequently, the Commission issued a Public Notice in March of 1982 which stated that construction permits for new television stations

⁵ *Broadcast Corporation of Georgia*, 52 RR 2d 530 (1982); *Broadcast Corporation of Georgia*, 92 FCC 2d 910, FCC 87-571 (1982), recon. denied, 96 FCC 2d 901 (1984).

on Channels 14 or 69 would be conditioned on the applicant taking adequate precautions to ensure that land mobile radio facilities did not experience interference.⁶ After denying several television assignment requests and imposing a freeze on such requests, the Commission opened a proceeding to resolve interference issues between the services.⁷

Eventually, the Commission adopted a Report and Order which codified interference standards that had been used since the Atlanta issue, including a specific responsibility by television stations to protect land mobile radio operations.⁸ Specifically, Section 73.687(e)(3) and (e)(4) were added to the Commission's Rules, as follows:

(3) TV broadcast stations operating on Channel 14 and Channel 69 must take special precautions to avoid interference to adjacent spectrum land mobile radio service facilities. Where a TV station is authorized and operating prior to the authorization and operation of the land mobile facility, a Channel 14 station must attenuate its emissions within the frequency range 467 to 470 MHz and a Channel 69 station must attenuate its emissions within the frequency range 806 to 809 MHz if necessary to permit reasonable use of the adjacent frequencies by land mobile licensees.

(4) The requirements listed below apply to permittees authorized to construct a new station on TV Channel 14 or TV Channel 69, and to licensees authorized to change the channel of an existing station to Channel 14 or to Channel 69, to increase effective radiated power (ERP) (including any change in directional antenna characteristics that results in an increase in ERP in any direction), or to change the transmitting location of an existing station.

(i) For the purposes of this paragraph, a protected land mobile facility is a receiver that is intended to receive transmissions from licensed land mobile stations within the frequency band below 470 MHz (as relates to Channel 14) or above 806 MHz (as relates to Channel 69), and is associated with one or more land mobile stations for which a license has been issued by the Commission, or a proper application has been received by the Commission prior to the date of the filing of the TV construction permit application. However, a land mobile facility will not be protected if it is proposed in an application that is denied or dismissed and that action is no longer subject to Commission review. Further, if the land mobile station is not operating when the TV facility commences operation and it does not

⁶ *Channel 14 and 69 Television Permittees' Obligations to Protect Existing Land Mobile Facilities on Adjacent Frequencies from Objectionable Interference*, FCC mimeo 2526, released March 1, 1982.

⁷ *Resolution of Interference between UHF channels 14 and 69 and Adjacent-channel Land Mobile Operations*, Notice of Proposed Rule Making/Notice of Inquiry, MM Docket No. 87-465, 2 FCC Rcd 7328 (1987).

⁸ *Land Mobile Operations (Interference from UHF Channels 14 and 69)*, Report and Order, MM Docket No. 87-465, 6 FCC Rcd 5148, 69 RR 2d 1070 (1991).

commence operation within the time permitted by its authorization in accordance with Part 90 of this Chapter, it will not be protected.

(ii) A TV permittee must take steps before construction to identify potential interference to normal land mobile operation that could be caused by TV emissions outside the authorized channel, land mobile receiver desensitization or intermodulation. It must install filters and take other precautions as necessary, and submit evidence that no interference is being caused before it will be permitted to transmit programming on the new facilities pursuant to the provisions of Section 73.1615 or 73.1620 of this Part. A TV permittee must reduce its emissions within the land mobile channel of a protected land mobile facility that is receiving interference caused by the TV emission producing a vertically polarized signal with a field strength in excess of 17 dBu at the land mobile receiver site on the land mobile frequency. The TV emission should be measured with equipment set to a 30 kHz measurement bandwidth including the entire applicable land mobile channel. A TV permittee must correct a desensitization problem if its occurrence can be directly linked to the start of the TV operation and the land mobile station is using facilities with typical desensitization rejection characteristics. A TV permittee must identify the source of an intermodulation product that is generated when the TV operation commences. If the intermodulation source is under its control, the TV permittee must correct the problem. If the intermodulation source is beyond the TV permittee's control, it must cooperate in the resolution of the problem and should provide whatever technical assistance it can.

With regard to LPTV operations, Section 74.709 provides additional protection for land mobile operations. While Section 74.709(a) does not include LA County's Channel 15 public safety operations (because such operations were assigned by waiver, not by rule), there is no question that such operations are entitled to full protection from K12PO's proposed operations on Channel 15.

B. Petitioner's Engineering Study Is Flawed

LA County's concerns are supported by the engineering study performed by Pericle. As discussed herein, Pericle is well positioned to understand LA County's T-Band operations and television interference to such operations.

Pericle states that the propagation models used by Petitioner are inappropriate for TV-to-Land Mobile interference determination. While Longley-Rice studies may be appropriate for generic modeling, it is ill-suited for determinations of actual interference at a specific location. On

this basis, Pericle conducted an analysis using one of LA County's transmitter sites (Mt. Disappointment) and Petitioner's proposed operations.⁹ LA County was disappointed to find that the possibility of interference is extremely high, due to the fact that Petitioner's proposed operation is line-of-sight to LA County's Mt. Disappointment site. On this basis, it is clear that Petitioner's Waiver cannot be granted by the Commission, as the proposed operations will unquestionably cause interference to LA County's Channel 15 operations.

C. LA County's Channel 15 Mexico Interference

Petitioner points to the current operations of XHTJB on Channel 15 in Tijuana, Mexico at higher power than proposed by Petitioner. Unbeknownst to LA County, the Commission's International Bureau conducted negotiations with the Mexican government to permit the assignment of a television assignment on Channel 15 in Mexico not far from the Mexico/United States border. Apparently, these negotiations resulted in the International Bureau agreeing to such an assignment, with reduced Effective Radiated Power (ERP) and requiring the use of a directional antenna. Unfortunately, the Commission did not inform LA County of the negotiations.

The Commission now knows that this agreement between the Commission and the Mexican government was fatally flawed. As demonstrated by Pericle to the Commission in a series of site-based studies, LA County is now experiencing interference so significant at its many of its transmitter sites that such sites are unusable on Channel 15. LA County's attempts at mitigation (which **should** be the responsibility of the television station, but-for the fact that the assignment is pursuant to treaty negotiations) have been ineffective thus far, and any additional mitigation techniques will be extremely expensive to LA County (if such techniques can even be

⁹ While Pericle could conduct interference studies regarding LA County's other transmitter sites, such work is costly, and results in the deprivation of funding for the build-out of the system, and as such was deemed unnecessary.

discovered). Thus, Petitioner's argument-by-example is not a reason to grant the Waiver Request, but rather is a cautionary-tale reason **not** to grant the Waiver Request.

D. Additional Interference Expected To Be Caused By Commission "Repacking"

This is not the first time that LA County has found it necessary to protest a TV repack proposal in the T-Band. Specifically, the Commission initially decided to "repack" KSEE-TV in Fresno, California from DTV Channel 38 to DTV Channel 16.¹⁰ This repack was designated by the Commission despite the fact that KSEE-TV's prior operation on Channel 16 caused interference to LA County, resulting in a reassignment of KSEE-TV to Channel 38.¹¹ It was only the reallocation of KSEE-TV to another TV channel which made Channel 15 apparently available for K12PO's potential use.

III. CONCLUSION

It is clear from the Pericle study that interference will be caused from K12PO's proposed operations to LA County, and thus the Waiver Request should be denied. It is not enough to respond that Petitioner will be required to cure interference to LA County should it occur. Rather, the allocation would place responsibility and huge costs on LA County to detect interference and determine its source. The public interest demands that the public not be forced to bear such costs.

Section 1.925(b)(3) of the Commission's Rules permits the Commission to grant a waiver where the following criteria is met: (1) the underlying purpose of the rule(s) would not be served or would be frustrated by application to the instant case and that a grant of the requested would be in the public interest; or (2) in view of the unique or unusual factual circumstances of the instant

¹⁰ See, *In Re Incentive Auction Closing and Channel Reassignment Public Notice*, DA 17-314, released April 13, 2017.

¹¹ See, *Los Angeles County Interference Complaint and Petition*, filed March 5, 2004; *Notice of Proposed Rule Making*, DA 04-1846, released July 2, 2004.

case, application of the rule(s) would be inequitable, unduly burdensome or contrary to the public interest, or the application has no reasonable alternative.

In this case, Petitioner has not even attempted to address the criteria of Section 1.925(b)(3). There is only a bare claim that no other TV channels are available, and therefore there is no determination that there is no reasonable alternative. Petitioner also fails to address the important public safety use of Channel 15 by LA County, and how the dangers of interference by K12PO's proposed operations (no matter how small Petitioner believes it to be) to LA County is somehow in the public interest. K12PO's repacking difficulties are neither unique nor unusual, but rather those faced by LPTV stations nationwide. The need to proactively monitor, locate and participate in interference mitigation is a huge burden on LA County, and one that should not be imposed upon LA County.

WHEREFORE, the premises considered, it is respectfully requested that the Commission DENY the Waiver Request submitted by Channel 51 of San Diego, Inc.

Respectfully Submitted,

LOS ANGELES COUNTY, CALIFORNIA

By: Alan S. Tilles, Esquire

Its Attorney

Shulman Rogers Gandal Pordy & Ecker, P.A.
12505 Park Potomac Ave., Sixth Floor
Potomac, Maryland 20854
(301) 230-5200

Date: May 30, 2019

CERTIFICATION OF SERVICE

I, Julie Maiello, an administrative assistant in the law firm of Shulman Rogers Gandal Pordy & Ecker, P.A., hereby certify that on this 30th day of May, 2019, I sent a copy of the foregoing Petition to Deny via United States Mail, postage prepaid, to the following:

Howard M. Liberman, Esquire
Wilkinson Barker Knauer LLP
1800 M Street, NW
Suite 800N
Washington, DC 20036

Julie Maiello

May 20, 2019

Via Email

Mr. Alan Tilles

Shulman, Rogers, Gandal, Pordy & Ecker, P.A.

12505 Park Potomac Ave., 6th Floor

Potomac, MD 20854

Subject: Co-Channel Interference from K15MG-D (Temecula, CA) to Los Angeles County
T-Band Fixed Sites

Dear Mr. Tilles:

Channel 51 of San Diego, Inc., the applicant for the subject filing, seeks to license a low power digital television station on Channel 15 (476-492 MHz) in Temecula, CA. The applicant proposes an ERP of 9 kW at an antenna elevation of 553.3 m AMSL (see application at Attachment 2). Our client, Los Angeles County, operates a 28-site T-Band land mobile radio network in southern California, also on Channel 15 (e.g., see WQJX512 and WQJX540). Like television stations, many T-Band fixed stations in southern California operate from high mountaintop sites, but unlike television stations, T-Band sites must transmit *and* receive in the same Channel 15 band as the television station. Because of the extreme antenna height of one or both co-channel stations, it is possible the two stations are line-of-sight or near line-of-sight and therefore have minimal path loss between them. Harmful interference is a strong possibility.

This letter serves as our report on the potential for harmful interference from the applicant's proposed television station. We find that the potential for harmful interference from K15MG-D to the Los Angeles County T-Band system is high and we recommend that the application be denied.

Background and Approach. The applicant filed an interference study showing a lack of harmful interference from the K15MG-D to the Los Angeles County T-Band network. (see Attachment 2), but this study did not use appropriate propagation models for the situation in question. While contour studies and Longley-Rice area studies might be appropriate for TV-TV interference, they are not appropriate in this case because we must protect individual high sites from harmful interference. Assumptions regarding average terrain attenuation used in area propagation models are not valid in this case. Furthermore, interference at the repeater site does not affect a single home television receiver; it affects all land mobile radio users attempting to access the repeater site. Harmful interference can cause a serious network outage.

The most accurate model for this case is a point-to-point model similar to what is used on microwave radio links. For this study, actual terrain on the point-to-point path is modeled (30 m resolution) and diffraction loss specific to actual terrain obstacles is calculated using the Epstein-Peterson method, an industry standard (see TIA-TSB-88.2-E).

Interference Study. To determine if harmful interference is likely, our firm conducted a point-to-point study of one of the 28 Los Angeles County T-Band sites, Mt. Disappointment, a 1,818 m (5,963') peak in the San Gabriel Mountains. This site is 114.3 km northwest of the proposed K15MG-D tower site. The path profile for this link is shown in Attachment 1. This path is partially obstructed and there is an excess path loss of 26.5 dB (beyond free space loss). Assuming a T-Band site antenna gain of 8 dBd (10.2 dBi), the predicted interference power at the antenna port is -89.3 dBm. For a system noise figure referenced to the antenna port of 6 dB (typical), the thermal noise floor in 6 MHz is -100.2 dBm. An interference threshold 6 dB below the noise floor is equivalent to a desense of 1.0 dB which is *de minimis*. Thus, the predicted interference is **16.9 dB** above the acceptable threshold.

Note that we have not considered antenna polarization discrimination in this path prediction which is normally relevant because the licensed ERP of the television station assumes horizontal polarization while the T-Band site antenna is vertically polarized. However, the path is obstructed which tends to lessen the polarization isolation and the applicant has proposed a vertically polarized component in the transmit antenna, regardless (elliptical polarization is proposed in the application).

Conclusions. A point-to-point path prediction shows that significant interference is likely to occur from K15MG-D to one or more T-Band sites operated by Los Angeles County. Note that the County is already dealing with field-verified interference from XHTJB Channel 15 (Tijuana) to multiple sites, some of which are over 200 km distant from the television station.

If you require further information, you can reach me at (303) 759-5111 or via email at jacobsmeyer@pericle.com.

Sincerely,

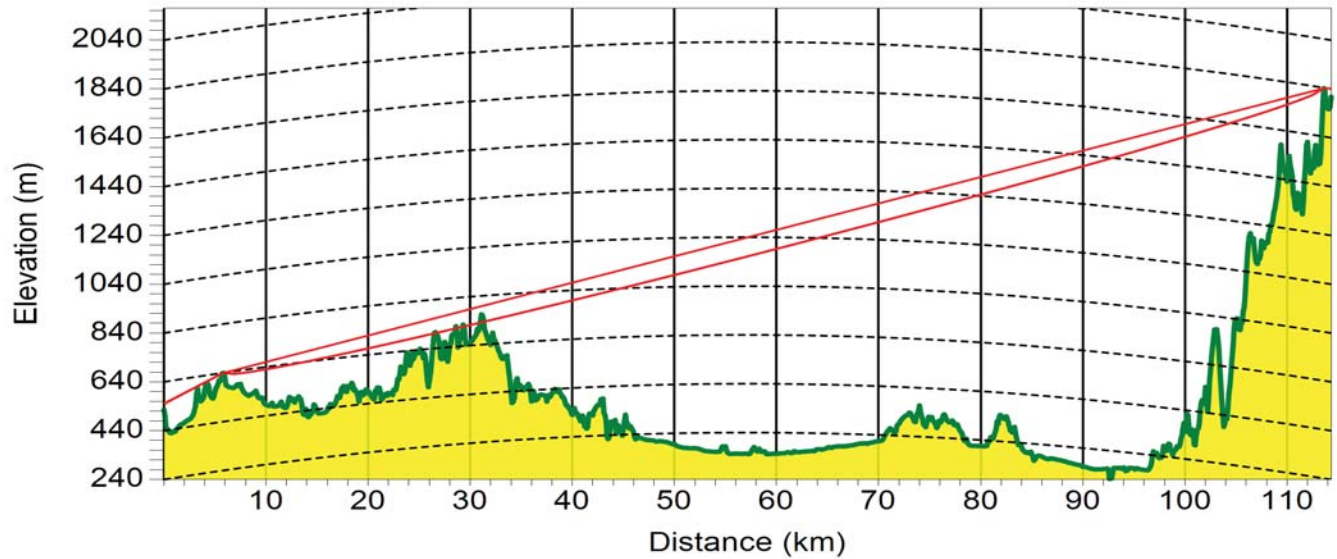

Jay M. Jacobsmeyer, P.E.
President

Attachments:

1. Point-to-point path prediction study, Temecula Ch. 15-LD to LA County MDI site.
2. Amendment to a Displacement for LPTV Translator Application, FCC File # 0000052518, Call Sign K15MG-D, Temecula, CA, 4/4/2019.

LA-RICS CH15 Study

Link: K15MG -> MDI2



Transmitter	
Description	Data
Link end 1 ID	K15MG
Site name	K15MG
Latitude	N33°35'34.40"
Longitude	W117°08'53.90"
Transmitter Frequency	479 MHz
Polarization	horizontal
Antenna Height (AGL)	26.00 m
Antenna elevation (AMSL)	552.84 m
Point az. to link end 2	309.75°
Pointing elev. to link end 2	0.13°
Antenna gain to link end 2	10.00 dBi
Relative ERP (toward distant end)	159.3 W

Receiver	
Description	Data
Link end 2 ID	MDI2
Site name	MDI2
Latitude	N34°14'48.00"
Longitude	W118°06'17.00"
Received signal level	-89.3 dBm
Receiver noise level	-100.2 dBm
Antenna Height (AGL)	34.00 m
Antenna elevation (AMSL)	1842.00 m
Point az. to link end 1	129.21°
Pointing elev. to link end 1	-1.16°
Antenna gain to link end 1	10.2 dBi
Net diversity gain	0.00 dB

Link Statistics	
Description	Data
Path	K15MG -> MDI2
Length	114.3108 km
Number of obstacles	3
Excess pathloss	26.5 dB
Atm. Absorption loss	0.00 dB
Path loss for Stats	153.7 dB
Path Fresnel zone clearance	0.00
K factor	1.333

Link Performance	
Description	Data
Flat fade margin	-4.70 dB
Net fade margin	-4.70 dB
Annual fade outage	15768000.00 sec
Annual rain outage	0.00 sec
Percent availability	50.0000
Required C/(I+N) Ratio	9.60 dB
Link throughput	0.000 Mbps
Adaptive modulation table	-----
Adaptive modulation label	none
Fade outage method	Vigants-Barnett
Rain outage method	Crane



(REFERENCE COPY - Not for submission)

Amendment to a Displacement for LPTV Translator Application

File Number: **0000052518** | Submit Date: **04/04/2019** | Call Sign: **K15MG-D** | Facility ID: **41601** | FRN: **0002965655** |
State: **California** | City: **TEMECULA**
Service: **LPT** | Purpose: **Displacement Amendment BLTTV-20040219ACC** | Status: **Review** | Status Date: **04/04/2019** |
Filing Status: **Active**

General Information

Section	Question	Response
Attachments	Are attachments (other than associated schedules) being filed with this application?	Yes

Fees, Waivers, and Exemptions

Section	Question	Response
Waivers	Does this filing request a waiver of the Commission's rule(s)?	Yes
	Total number of rule sections involved in this waiver request:	

**Applicant
Information**

Applicant Name, Type, and Contact Information

Applicant	Address	Phone	Email	Applicant Type
CHANNEL 51 OF SAN DIEGO, INC. Doing Business As: CHANNEL 51 OF SAN DIEGO, INC.	4575 VIEWRIDGE AVENUE SAN DIEGO, CA 92123 United States	+1 (858) 571-5151	swift@kusi.com	Corporation

Authorization Holder Name

- ☐ Check box if the Authorization Holder name is being updated because of the sale (or transfer of control) of the Authorization(s) to another party and for which proper Commission approval has not been received or proper notification provided.

**Contact
Representatives
(2)**

Contact Name	Address	Phone	Email	Contact Type
Clarence M Beverage <i>Broadcast Engineering Consultant</i> Communications Technologies, Inc.	Clarence Beverage PO Box 1130 Marlton, NJ 08053 United States	+1 (609) 451- 5296	cbeverage@commtechrf. com	Technical Representative
Howard M Liberman Wilkinson Barker Knauer, LLP	Howard M. Liberman 1800 M Street NW Suite 800N Washington, DC 20036 United States	+1 (202) 383- 3373	hliberman@wbklaw.com	Legal Representative

Alien Ownership

Question	Response
1) Is the applicant a foreign government or the representative of any foreign government as specified in Section 310(a) of the Communications Act?	No
2) Is the applicant an alien or the representative of an alien? (Section 310(b)(1))	No
3) Is the applicant a corporation, or non-corporate entity, that is organized under the laws of any foreign government? (Section 310(b)(2))	No
4) Is the applicant an entity of which more than one-fifth of the capital stock, or other equity or voting interest, is owned of record or voted by aliens or their representatives or by a foreign government or representative thereof or by any entity organized under the laws of a foreign country? (Section 310(b)(3))	No
5) Is the applicant directly or indirectly controlled by any other entity of which more than one-fourth of the capital stock, or other equity or voting interest, is owned of record or voted by aliens, their representatives, or by a foreign government or representative thereof, or by any entity organized under the laws of a foreign country? (Section 310(b)(4))	No
6) Has the applicant received a declaratory ruling(s) under Section 310(b)(4) of the Communications Act?	No
6a) Enter the citation of the applicable declaratory ruling by DA/FCC number, FCC Record citation, release date, or any other identifying information.	
7) Has there been any change in the applicant's foreign ownership since issuance of the declaratory ruling(s) cited in response to Question 6?	
7a) Enter the File or Docket Number of the Petition for Declaratory Ruling that the applicant has filed for its foreign ownership in connection with this application pursuant to Section 310(b)(4) of the Communications Act. It is not necessary to file a request for a foreign ownership declaratory ruling if the applicant attaches a showing that the requested authorization(s) is exempt from the provisions of Section 310(b)(4).	
8) Does the applicant certify that it is in compliance with the terms and conditions of the foreign ownership declaratory ruling(s) cited in response to Question 6?	
9) In connection with this application, is the applicant filing a foreign ownership Petition for Declaratory Ruling pursuant to Section 310(b)(4) of the Communications Act?	No

Basic Qualifying Questions

Section	Question	Response
Revoked Application	Has the Applicant or any party to this application had any FCC station Authorization revoked or had any application for an initial, modification or renewal of FCC station Authorization denied by the Commission?	No
State or Federal Convictions	Has the Applicant or any party to this application, or any party directly or indirectly controlling the Applicant, ever been convicted of a felony by any state or federal court?	No

Channel and
Facility
Information

Section	Question	Response
Proposed Community of License	Facility ID	41601
	State	California
	City	TEMECULA
	LPT Channel	15

Antenna Location
Data

Section	Question	Response
Antenna Structure Registration	Do you have an FCC Antenna Structure Registration (ASR) Number?	Yes
	ASR Number	1016098
Coordinates (NAD83)	Latitude	33° 35' 34.4" N+
	Longitude	117° 08' 53.9" W-
	Structure Type	TOWER-A free standing or guyed struct
	Overall Structure Height	40.2 meters
	Support Structure Height	39.9 meters
	Ground Elevation (AMSL)	527.3 meters
Antenna Data	Height of Radiation Center Above Ground Level	26 meters
	Height of Radiation Center Above Mean Sea Level	553.3 meters
	Effective Radiated Power	9 kW

Antenna
Technical Data

Section	Question	Response
Antenna Type	Antenna Type	Directional Custom
	Do you have an Antenna ID?	No
	Antenna ID	1004807
Antenna Manufacturer and Model	Manufacturer:	DIE
	Model	TLP-8E/VP
	Rotation	175 degrees
	Electrical Beam Tilt	1.0
	Mechanical Beam Tilt	Not Applicable
	toward azimuth	
	Polarization	Elliptical
Elevation Radiation Pattern	Does the proposed antenna propose elevation radiation patterns that vary with azimuth for reasons other than the use of mechanical beam tilt?	No
	Uploaded file for elevation antenna (or radiation) pattern data	
	Out-of-Channel Emission Mask:	Full Service

Directional Antenna Relative Field Values (Pre-rotated Pattern)

Degree	V _A (Authorized Value)	Degree	V _A (Authorized Value)	Degree	V _A (Authorized Value)	Degree	V _A (Authorized Value)
0	1.0	90	0.231	180	0.240	270	0.254
10	0.995	100	0.195	190	0.226	280	0.301
20	0.945	110	0.162	200	0.197	290	0.369
30	0.848	120	0.137	210	0.164	300	0.459
40	0.725	130	0.127	220	0.136	310	0.570
50	0.590	140	0.139	230	0.128	320	0.693
60	0.457	150	0.166	240	0.153	330	0.820
70	0.346	160	0.198	250	0.190	340	0.928
80	0.277	170	0.225	260	0.222	350	0.988

Additional Azimuths

Degree	V _A
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**Parties to the
Application (0)**

Information not provided.

**Attributable
Interest**

Section	Question	Response
Equity and Financial Interests	Applicant certifies that equity and financial interests not set forth by the applicant parties are non-attributable.	
Other Authorizations	Does the applicant or any party to the application have an attributable interest in any other broadcast station(s).	

**Construction
Permit
Certifications**

Section	Question	Response
Post-Incentive Auction Expedited Processing	It will operate on the DTV channel for this station as established in the post-incentive auction channel reassignment public notice.	
	It will operate post-incentive auction facilities that do not expand the noise-limited service contour in any direction beyond that established by the post-incentive auction channel reassignment public notice.	
	It will operate post-incentive auction facilities that match or reduce by no more than five percent with respect to predicted population from those defined in the post-incentive auction channel reassignment public notice.	
	The antenna structure to be used by this facility has been registered by the Commission and will not require re-registration to support the proposed antenna, OR the FAA has previously determined that the proposed structure will not adversely affect safety in air navigation and this structure qualifies for later registration under the Commission's phased registration plan, OR the proposed installation on this structure does not require notification to the FAA pursuant to 47 C.F.R. Section 17.7.	
Environmental Effect	Would a Commission grant of Authorization for this location be an action which may have a significant environmental effect? (See Section 1.1306 of 47 C.F.R.)	No
Broadcast Facility	The proposed facility complies with all of the following applicable rule sections. 47 C.F.R. Sections 74.709, 74.793 (e), 74.793(f), 74.793(g), 74.793(h)	Yes

**Legal
Certifications**

Section	Question	Response
Character Issues	<p>Applicant certifies that neither applicant nor any party to the application has or had any interest in, or connection with:</p> <p>(a) any broadcast application in any proceeding where character issues were left in unresolved or were resolved adversely against the applicant or party to the application; or</p> <p>(b) any pending broadcast application in which character issues have been raised.</p>	
Adverse Findings	<p>Has the Applicant or any party to this application had an adverse finding or an adverse final action taken by any court or administrative body in a civil or criminal proceeding brought under any law related to the following: any felony; mass media-related antitrust or unfair competition; fraudulent statements to another governmental unit; or discrimination?</p>	
Program Service Certification	<p>Applicant certifies that it is cognizant of and will comply with its obligations as a Commission licensee to present a program service responsive to the issues of public concern facing the station's community of license and service area.</p>	
Local Public Notice	<p>Applicant certifies that it has or will comply with the public notice requirements of 47 C.F.R. Section 73.3580.</p>	Yes
Equal Employment Opportunity (EEO)	<p>If the applicant proposes to employ five or more full-time employees, applicant certifies that it is filing simultaneously with this application a Model EEO Program Report.</p>	
Auction Authorization	<p>If the application is being submitted to obtain a construction permit for which the applicant was the winning bidder in an auction, then the applicant certifies, pursuant to 47 C.F.R. Section 73.5005(a), that it has attached an exhibit containing the information required by 47 C.F.R. Sections 1.2107(d), 1.2110(i), 1.2112(a) and 1.2112(b), if applicable.</p>	N/A
Rebroadcast Certification	<p>(For Applicants proposing rebroadcasts that are not the licensee of the primary station) Applicant certifies that written authority has been obtained from the licensee of the station whose programs are to be retransmitted.</p>	N/A

Certification

Section	Question	Response
General Certification Statements	The Applicant waives any claim to the use of any particular frequency or of the electromagnetic spectrum as against the regulatory power of the United States because of the previous use of the same, whether by authorization or otherwise, and requests an Authorization in accordance with this application (See Section 304 of the Communications Act of 1934, as amended.).	
	The Applicant certifies that neither the Applicant nor any other party to the application is subject to a denial of Federal benefits pursuant to §5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. §862, because of a conviction for possession or distribution of a controlled substance. This certification does not apply to applications filed in services exempted under §1.2002(c) of the rules, 47 CFR . See §1.2002(b) of the rules, 47 CFR §1.2002(b), for the definition of "party to the application" as used in this certification §1.2002 (c). The Applicant certifies that all statements made in this application and in the exhibits, attachments, or documents incorporated by reference are material, are part of this application, and are true, complete, correct, and made in good faith.	
Authorized Party to Sign	FAILURE TO SIGN THIS APPLICATION MAY RESULT IN DISMISSAL OF THE APPLICATION AND FORFEITURE OF ANY FEES PAID Upon grant of this application, the Authorization Holder may be subject to certain construction or coverage requirements. Failure to meet the construction or coverage requirements will result in automatic cancellation of the Authorization. Consult appropriate FCC regulations to determine the construction or coverage requirements that apply to the type of Authorization requested in this application. WILLFUL FALSE STATEMENTS MADE ON THIS FORM OR ANY ATTACHMENTS ARE PUNISHABLE BY FINE AND /OR IMPRISONMENT (U.S. Code, Title 18, §1001) AND/OR REVOCATION OF ANY STATION AUTHORIZATION (U.S. Code, Title 47, §312(a)(1)), AND/OR FORFEITURE (U.S. Code, Title 47, §503).	
	I certify that this application includes all required and relevant attachments.	Yes
	I declare, under penalty of perjury, that I am an authorized representative of the above-named applicant for the Authorization(s) specified above.	Michael D. McKinnon <i>President</i> 04/04/2019

Attachments

File Name	Uploaded By	Attachment Type	Description
52518.PDF	Internal	All Purpose	
ATTACHMENT A - K12PO ENGINEERING NARRATIVE AND ENVIRONMENTAL ANALYSIS 04022019.pdf	Applicant	Technical Certifications	ATTACHMENT A - K12PO ENGINEERING NARRATIVE AND ENVIRONMENTAL ANALYSIS
ATTACHMENT B - K12PO SUPPLEMENTAL ENGINEERING TO CH 15 DISPLACEMENT APPLICATION 04022019.pdf	Applicant	Amendment	ATTACHMENT B - K12PO SUPPLEMENTAL ENGINEERING TO CH 15 DISPLACEMENT APPLICATION
K15MG-D - LMS-0000052518 - 30 day letter interference - Land Mobile - 3-11-19.docx	Internal	All Purpose	
K15MG-D - LMS-52518 - Mexican Referral Letter - 11-27-2018.pdf	Internal	All Purpose	
Narrative_For_Amendment_-_Request_For_Waiver.pdf	Applicant	Fees, Waivers and Exemptions	NARRATIVE FOR AMENDMENT AND, IF NECESSARY, REQUEST FOR WAIVER

NARRATIVE FOR AMENDMENT AND, IF NECESSARY, REQUEST FOR WAIVER

Channel 51 of San Diego, Inc. (“Channel 51”) hereby submits this narrative to accompany the amendment to its pending Low Power TV (“LPTV”) Displacement Application for LPTV station K12PO, Temecula, CA being submitted herewith. As set forth below, grant of the application will allow Channel 51 to relocate its displaced operations to Channel 15 in Temecula, CA, and is unlikely to cause interference to any other licensee. Accordingly, FCC grant of the application will serve the public interest, convenience and necessity.

Station K12PO began broadcasting on channel 12 at Temecula in February 2004. As part of the repack following the FCC’s Incentive Auction (Auction 1000), the FCC ordered station KDOC-TV, Anaheim, CA to change its over-the-air channel to channel 12. In anticipation of that change, Channel 51 submitted the present “displacement” application during the filing window for such applications. That application is not mutually exclusive with any other applications for a broadcast television station and is unopposed.

KDOC-TV began broadcasting on channel 12 on March 14, 2019. The next day, Channel 51 took station K12PO off the air. The station cannot resume broadcasting until the present application is granted. (There are no other channels available in the area.)

Section 74.709 of the Commission’s rules does not include a Channel 15 Land Mobile Radio Service (“LMRS”) allotment for Los Angeles. As set forth herein, Channel 51’s proposed operations will not cause harmful interference to the LA-RICS system, and thus the present application should be granted.

The Commission’s rules thus do not specify a methodology for determining interference potential between K12PO’s proposed channel 15 LPTV operations and LMRS facilities. In an analogous case, however, the Commission relied on Section 90.187(d)(1)(ii) of its rules (which expresses protection criteria for trunking operations in the 150 - 512 MHz band) to determine interference potential between a Channel 15 television facility and an Offshore Radio Service (“ORS”) facility.¹ Specifically, the applicant used the criteria in Section 90.187(d)(1)(ii) to determine the extent of any overlaps between the broadcast station’s contour and the ORS station’s interference contour.

Channel 51 has used this same sensible approach to evaluate the interference potential of its proposed operation, as modified, to the LA-RICS system. Specifically, Channel 51 plotted the base station location and 48 km mobile service radius of each LA-RICS location and then overlaid the proposed 21 dBu F(50,10) interfering contour for K12PO. *See Attachment B.* As indicated, Channel 51’s contour does not overlap any of the LA-RICS contours. Based on this analysis, the Channel 51’s proposed operations on Channel 15 are unlikely to cause any harmful interference to the LA-RICS system. Channel 51 notes, moreover, that its proposed facility is

¹ See LMS File No. 0000056548.

low power and low antenna height; and given that the proposed antenna pattern directs a null value in the direction of Los Angeles County, and given extensive terrain blockage between the proposed facility and Los Angeles County, Channel 51 submits that the likelihood of interference is very low.

It is also important to note that the Commission recently consented to the construction of a new channel 15 television station at Tijuana, Mexico (Station XHTJB) via repacking-related negotiations between the Commission and the government of Mexico. Station XHTJB is authorized to operate at a much higher power than K12PO is proposing (79 kW v. 9 kW), and is authorized to operate at a higher height above ground than K12PO is proposing (32 meters AGL compared to 103 meters AGL). As a result, XHTJB is believed more likely to cause interference to LA-RICS than K12PO, and the Commission has already approved those operations.

Finally, Channel 51 also address the CH 14 and 16 LMRS T-Band allotments in Los Angeles and demonstrates that there will be no interference to these adjacent channel facilities using good engineering practice as previously approved by the Video Division for LPTV DTV operation on a channel immediately adjacent to LMRS operations.

For the foregoing reasons, the Commission should grant the present application. To the extent the Commission deems necessary, the Commission should waive Section 74.709(b) of its rules to allow Channel 51 to relocate its Temecula, CA LPTV station to Channel 15. As indicated, the likelihood of interference caused by the new facility to the LA-RICS stations is very low, and the Commission has already approved a new station in Tijuana, Mexico that presents a worse interference case. Inasmuch as grant of the requested waiver will allow Channel 51 to resume serving viewers in the Temecula area market without any likelihood of interference resulting to LA-RICS, grant of the requested relief will serve the public interest, convenience and necessity.

**K12PO-LD AMENDMENT TO DISPLACEMENT APPLICATION FOR CH 15 9.0 kW DA
TEMECULA, CALIFORNIA**

ENGINEERING NARRATIVE AND RF RADIATION ENVIRONMENTAL ANALYSIS

APRIL 2019

This amendment specifies a change in ERP, directional antenna pattern and orientation. No other changes are proposed. FCC TVStudy software was utilized to determine a lack of impermissible interference to other LPTV,

The proposed antenna system consists of a Dielectric Communications 8 slot UHF antenna model TLP-8E/VP, elliptically polarized antenna. The maximum relative field in the elevation pattern across the depression angle range of 50 to 90 degrees is 0.23 with a radiation center 26 meters above ground. Utilizing formula 10 OF OET Bulletin No. 65, Edition 97-01, a value F of 0.23 has been used to calculate the power density 2 meters above ground. The maximum power density is 40.5 uw/cm squared calculated for an ERP OF 9,000 watts H. polarization and 4,200 watts V. polarization. This value is 12.8% of the Public Exposure MPE per section 1.1310. Based on this analysis it is believed that the proposed facility is in compliance with OET-65 Guidelines.

The applicant will reduce power or cease transmission as required to meet FCC OET-65 Guidelines.

The proposed tower is at an existing site with, building, access road and power.

Below is a copy of the TVStudy interference analysis for CH 15 based on 9 kW ERP with the proposed Dielectric E horizontal plane pattern. As can be seen at the conclusion there is no ISIX and no received interference. LM interference on CH 14, 15 and 16 is fully addressed in Attachment B. The applicant is proposing a directional antenna pattern with a null to prevent real world interference.

It is believed that the proposed facility provides full protection to other television facilities as well as LM facilities. Due to the extreme congestion in the area between LA and San Diego this is believed to be the only available displacement channel for K12PO.

Study created: 2019.04.02 19:05:38

Study build station data: LMS TV 2019-04-01

Proposal: K12PO D15 LD APP TEMECULA, CA
File number: BLANK0000052518

Facility ID: 41601
Station data: User record
Record ID: 181
Country: U.S.

Search options:

Non-U.S. records included

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
No	NEW	D14	LD	APP	DESERT CENTER, CA	BNPDTL20100514ACI	107.8 km
No	K14JT	N14	TX	LIC	JOSHUA TREE, ETC., CA	BLTVL1980330JH	122.5
No	NEW	D14	LD	APP	SAN BERNARDINO, CA	BMJADTL20100524ADD	93.7
No	K15IT-D	D15	LD	CP	GOLDEN VALLEY, AZ	BNPDTL20100510ADY	329.0
No	K15CR-D	D15	LD	LIC	LAKE HAVASU CITY, AZ	BLDTT20140530APD	279.2
No	K47HE-D	D15	LD	CP	MEADVIEW, AZ	BLANK0000053721	376.0
No	KNXV-TV	D15	DT	APP	PHOENIX, AZ	BLANK0000035696	472.3
No	KNXV-TV	D15	DT	LIC	PHOENIX, AZ	BLCDT20090619ABX	472.3
No	KYUM-LD	D15	LD	LIC	YUMA, AZ	BLANK0000004396	281.0
No	K08MM-D	D15	DC	LIC	BAKERSFIELD, CA	BLANK0000001629	251.6
No	K08MM-D	D15	DC	APP	BAKERSFIELD, CA	BLANK0000035875	251.6
No	K15BZ	N15-	TX	LIC	DAGGETT, CA	BLTT1980307IC	145.5
No	KUNA-LP	D15	LD	CP	INDIO, CA	BDFCDTL20110207ACY	88.4
No	KUNA-LP	N15-	TX	LIC	INDIO, CA	BLTTL20031124AQH	88.4
No	K15CA	N15+	TX	LIC	LUCERNE VALLEY, CA	BLTT1980307IE	99.8
No	KFVD-LP	D15	LD	CP	PORTERVILLE, CA	BDFCDTL20100810AAY	336.6
No	KFVD-LP	N15z	TX	LIC	PORTERVILLE, CA	BLTT19891122JU	336.6
No	K15HJ-D	D15	LD	LIC	RIDGECREST, ETC., CA	BLDTT20090622AAI	215.4
No	KSBY	D15	DT	LIC	SAN LUIS OBISPO, CA	BLCDT20081118AEW	376.7
No	K15JE-D	D15	LD	CP	SANTA BARBARA, CA	BNPDTL20101018ABH	278.9
No	K15FC-D	N15+	TX	LIC	twentynine palms, CA	BLTT20080902AEC	98.2
No	K15FC-D	D15	LD	LIC	twentynine palms, CA	BLANK0000004552	122.5
No	KVCW	D15	LD	LIC	LAS VEGAS, NV	BLCDT20131108AKG	307.0
No	KELV-LD	D15	LD	LIC	LAS VEGAS, NV	BLDTL20120215ABO	324.5
No	K16KH-D	D16	LD	CP	LUCERNE VALLEY, CA	BDCCDTT20061030AJR	99.8
No	KDTF-LD	D16	LD	CP	SAN DIEGO, CA	BLANK0000053785	101.6
No	K16LB-D	D16	LD	CP	YUCCA VALLEY, CA	BDCCDTT20120113AEI	122.5
No	K17KD	N17	TX	LIC	LUCERNE VALLEY, CA	BLTT20120112AFA	99.8
No	KODG-LD	N17z	TX	LIC	PALM SPRINGS, CA	BLTTL20001219ABP	88.5
No	K17GJ-D	N17-	TX	LIC	Twentynine Palms, CA	BLTT20080902AED	98.2
No	K19BT	N19-	TX	LIC	LUCERNE VALLEY, CA	BLTT19880307ID	99.8
No	LICITACIOND14	D14	DT	LIC	ENSENADA, BN	BLANKBFFS20160524AAS	195.3
No	XHBC	D14	DT	LIC	MEXICALI, BN	BLANKBFFS20160301ABU	188.7
No	XHME	D15	DT	LIC	MEXICALI, BN	BLANKBFFS20160301ABY	188.7
Yes	XHTJB	D15	DT	LIC	TIJUANA, BN	BLANKBFFS20160302ACZ	126.5
No	XHENE	D16	DT	LIC	ENSENADA, BN	BLANKBFFS20111108ACK	197.1
No	LICITACIOND16	D16	DT	LIC	MEXICALI, BN	BLANKBFFS20160524AAU	188.7

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D15
Mask: Full Service
Latitude: 33 35 34.40 N (NAD83)
Longitude: 117 8 53.90 W
Height AMSL: 553.3 m
HAAT: 0.0 m
Peak ERP: 9.00 kW
Antenna: D1E-T1P-8E 175.0 deg
Elev Pattern: Generic
Elec Tilt: 1.00

48.8 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	0.489 kW	102.8 m	28.2 km
45.0	0.147	82.1	19.5
90.0	0.693	60.3	24.5
135.0	4.32	146.5	42.7
180.0	8.96	168.4	47.9
225.0	3.13	114.2	38.8
270.0	0.408	82.5	24.8
315.0	0.174	47.8	15.2

Database HAAT does not agree with computed HAAT
Database HAAT: 0 m Computed HAAT: 101 m

Distance to Canadian border: 1710.0 km

**Proposal is within coordination distance of Mexican border
Distance to Mexican border: 115.2 km

Conditions at FCC monitoring station: Livermore CA
Bearing: 319.2 degrees Distance: 619.5 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 52.1 degrees Distance: 1280.8 km

**Proposal fails distance check to land mobile station:	Los Angeles CA ch. 14,	118.7 km
**Proposal fails distance check to land mobile station:	Los Angeles CA ch. 16,	118.7 km
**Proposal fails distance check to land mobile station:	LOS ANGELES CA WQJX500 ch. 15,	125.6 km
**Proposal fails distance check to land mobile station:	LOS ANGELES CA WQJX501 ch. 15,	97.3 km
**Proposal fails distance check to land mobile station:	LOS ANGELES CA WQJX502 ch. 15,	92.8 km
**Proposal fails distance check to land mobile station:	LOS ANGELES CA WQJX503 ch. 15,	124.5 km
**Proposal fails distance check to land mobile station:	LOS ANGELES CA WQJX504 ch. 15,	87.1 km
**Proposal fails distance check to land mobile station:	LOS ANGELES CA WQJX505 ch. 15,	111.2 km
**Proposal fails distance check to land mobile station:	LOS ANGELES CA WQJX506 ch. 15,	114.9 km

**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX508 ch. 15, 121.1 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX509 ch. 15, 118.3 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX510 ch. 15, 115.3 km
**Proposal fails contour check to land mobile station: LOS ANGELES CA WQJX511 ch. 15
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX512 ch. 15, 114.3 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX513 ch. 15, 125.6 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX516 ch. 15, 113.4 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX517 ch. 15, 112.5 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX518 ch. 15, 112.7 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX519 ch. 15, 126.4 km
**Proposal fails contour check to land mobile station: LOS ANGELES CA WQJX520 ch. 15
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX521 ch. 15, 107.8 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX522 ch. 15, 102.8 km
**Proposal fails contour check to land mobile station: LOS ANGELES CA WQJX523 ch. 15
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX525 ch. 15, 125.3 km
**Proposal fails contour check to land mobile station: LOS ANGELES CA WQJX526 ch. 15
**Proposal fails contour check to land mobile station: LOS ANGELES CA WQJX527 ch. 15
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX528 ch. 15, 79.9 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX529 ch. 15, 97.3 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX530 ch. 15, 92.8 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX531 ch. 15, 124.5 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX532 ch. 15, 87.1 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX533 ch. 15, 111.2 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX534 ch. 15, 114.9 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX536 ch. 15, 121.1 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX537 ch. 15, 118.3 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX538 ch. 15, 115.3 km
**Proposal fails contour check to land mobile station: LOS ANGELES CA WQJX539 ch. 15
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX540 ch. 15, 114.3 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX541 ch. 15, 125.6 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX544 ch. 15, 113.4 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX545 ch. 15, 112.5 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX546 ch. 15, 112.7 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX547 ch. 15, 126.4 km
**Proposal fails contour check to land mobile station: LOS ANGELES CA WQJX548 ch. 15
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX549 ch. 15, 107.8 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX550 ch. 15, 102.8 km
**Proposal fails contour check to land mobile station: LOS ANGELES CA WQJX551 ch. 15
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX553 ch. 15, 125.3 km
**Proposal fails contour check to land mobile station: LOS ANGELES CA WQJX554 ch. 15
**Proposal fails contour check to land mobile station: LOS ANGELES CA WQJX556 ch. 15
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX557 ch. 15, 79.9 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX500 ch. 16, 125.6 km

Proposal is not within the Offshore Radio Service protected area

Study cell size: 0.50 km
Profile point spacing: 0.10 km

Maximum new IX to full-service and Class A: 0.50%

Maximum new IX to LPTV: 2.00%

No IX check failures found.

tvstudy v2.2.5 (4uoc83)
Database: 127.0.0.1, Study: BLANK0000052518 #272, Model: Longley-Rice
Start: 2019.04.02 19:05:38

Study created: 2019.04.02 19:05:38

Study build station data: LMS TV 2019-04-01

Proposal: K12PO D15 LD APP TEMECULA, CA
File number: BLANK0000052518
Facility ID: 41601
Station data: User record
Record ID: 181
Country: U.S.

Search options:
Non-U.S. records included

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
No	NEW	D14	LD	APP	DESERT CENTER, CA	BNPDTL20100514ACI	107.8 km
No	K14JT	N14	TX	LIC	JOSHUA TREE, ETC., CA	BLTVL19980330JH	122.5
No	NEW	D14	LD	APP	SAN BERNARDINO, CA	BMJADTL20100524ADD	93.7
No	K15IT-D	D15	LD	CP	GOLDEN VALLEY, AZ	BNPDTL20100510ADY	329.0
No	K15CR-D	D15	LD	LIC	LAKE HAVASU CITY, AZ	BLDTT20140530APD	279.2
No	K47HE-D	D15	LD	CP	MEADVIEW, AZ	BLANK0000053721	376.0
No	KNXV-TV	D15	DT	APP	PHOENIX, AZ	BLANK0000035696	472.3
No	KNXV-TV	D15	DT	LIC	PHOENIX, AZ	BLCDT20090619ABX	472.3
No	KYUM-LD	D15	LD	LIC	YUMA, AZ	BLANK0000004396	281.0
No	K08MM-D	D15	DC	LIC	BAKERSFIELD, CA	BLANK0000001629	251.6
No	K08MM-D	D15	DC	APP	BAKERSFIELD, CA	BLANK0000035875	251.6
No	K15BZ	N15-	TX	LIC	DAGGETT, CA	BLTT19880307IC	145.5
No	KUNA-LP	D15	LD	CP	INDIO, CA	BDFCDTL20110207ACY	88.4
No	KUNA-LP	N15-	TX	LIC	INDIO, CA	BLTTL20031124AQH	88.4
No	K15CA	N15+	TX	LIC	LUCERNE VALLEY, CA	BLTT19880307IE	99.8
No	KFVD-LP	D15	LD	CP	PORTERVILLE, CA	BDFCDTL20100810AAY	336.6
No	KFVD-LP	N15Z	TX	LIC	PORTERVILLE, CA	BLTT19891122JU	336.6
No	K15HJ-D	D15	LD	LIC	RIDGECREST, ETC., CA	BLDTT20090622AAI	215.4
No	KSBY	D15	DT	LIC	SAN LUIS OBISPO, CA	BLCDT20081118AEW	376.7
No	K15JE-D	D15	LD	CP	SANTA BARBARA, CA	BNPDTL20101018ABH	278.9
No	K15FC-D	N15+	TX	LIC	twentynine palms, CA	BLTT20080902AEC	98.2
No	K15FC-D	D15	LD	LIC	twentynine palms, CA	BLANK0000004552	122.5
No	KVCW	D15	LD	LIC	LAS VEGAS, NV	BLCDT20131108AKG	307.0
No	KELV-LD	D15	LD	LIC	LAS VEGAS, NV	BLDTL20120215ABO	324.5
No	K16KH-D	D16	LD	CP	LUCERNE VALLEY, CA	BDCDDTT20061030AJR	99.8

No	KDTF-LD	D16	LD	CP	SAN DIEGO, CA	BLANK0000053785	101.6
No	K16LB-D	D16	LD	CP	YUCCA VALLEY, CA	BDCCDTT20120113AEI	122.5
No	K17KD	N17	TX	LIC	LUCERNE VALLEY, CA	BLTT20120112AFA	99.8
No	KODG-LD	N17z	TX	LIC	PALM SPRINGS, CA	BLTTL20001219ABP	88.5
No	K17GJ-D	N17-	TX	LIC	Twentynine Palms, CA	BLTT20080902AED	98.2
No	K19BT	N19-	TX	LIC	LUCERNE VALLEY, CA	BLTT19880307ID	99.8
No	LICITACIOND14		DT	LIC	ENSENADA, BN	BLANKBPFS20160524AAS	195.3
No	XHBC	D14	DT	LIC	MEXICALI, BN	BLANKBPFS20160301ABU	188.7
No	XHMEE	D15	DT	LIC	MEXICALI, BN	BLANKBPFS20160301ABY	188.7
Yes	XHTJB	D15	DT	LIC	TIJUANA, BN	BLANKBPFS20160302ACZ	126.5
No	XHENE	D16	DT	LIC	ENSENADA, BN	BLANKBPFS20111108ACK	197.1
No	LICITACIOND16		DT	LIC	MEXICALI, BN	BLANKBPFS20160524AAU	188.7

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D15
Mask: Full Service
Latitude: 33 35 34.40 N (NAD83)
Longitude: 117 8 53.90 W
Height AMSL: 553.3 m
HAAT: 0.0 m
Peak ERP: 9.00 kW
Antenna: D1E-TLP-8E 175.0 deg
Elev Pattern: Generic
Elec Tilt: 1.00

48.8 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	0.489 kW	102.8 m	28.2 km
45.0	0.147	82.1	19.5
90.0	0.693	60.3	24.5
135.0	4.32	146.5	42.7
180.0	8.96	168.4	47.9
225.0	3.13	114.2	38.8
270.0	0.408	82.5	24.8
315.0	0.174	47.8	15.2

Database HAAT does not agree with computed HAAT
Database HAAT: 0 m Computed HAAT: 101 m

Distance to Canadian border: 1710.0 km

**Proposal is within coordination distance of Mexican border
Distance to Mexican border: 115.2 km

Conditions at FCC monitoring station: Livermore CA
Bearing: 319.2 degrees Distance: 619.5 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:

Bearing: 52.1 degrees Distance: 1280.8 km

**Proposal fails distance check to land mobile station: Los Angeles CA ch. 14, 118.7 km
**Proposal fails distance check to land mobile station: Los Angeles CA ch. 16, 118.7 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX500 ch. 15, 125.6 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX501 ch. 15, 97.3 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX502 ch. 15, 92.8 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX503 ch. 15, 124.5 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX504 ch. 15, 87.1 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX505 ch. 15, 111.2 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX506 ch. 15, 114.9 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX508 ch. 15, 121.1 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX509 ch. 15, 118.3 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX510 ch. 15, 115.3 km
**Proposal fails contour check to land mobile station: LOS ANGELES CA WQJX511 ch. 15
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX512 ch. 15, 114.3 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX513 ch. 15, 125.6 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX516 ch. 15, 113.4 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX517 ch. 15, 112.5 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX518 ch. 15, 112.7 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX519 ch. 15, 126.4 km
**Proposal fails contour check to land mobile station: LOS ANGELES CA WQJX520 ch. 15
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX521 ch. 15, 107.8 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX522 ch. 15, 102.8 km
**Proposal fails contour check to land mobile station: LOS ANGELES CA WQJX523 ch. 15
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX525 ch. 15, 125.3 km
**Proposal fails contour check to land mobile station: LOS ANGELES CA WQJX526 ch. 15
**Proposal fails contour check to land mobile station: LOS ANGELES CA WQJX527 ch. 15
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX528 ch. 15, 79.9 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX529 ch. 15, 97.3 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX530 ch. 15, 92.8 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX531 ch. 15, 124.5 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX532 ch. 15, 87.1 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX533 ch. 15, 111.2 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX534 ch. 15, 114.9 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX536 ch. 15, 121.1 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX537 ch. 15, 118.3 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX538 ch. 15, 115.3 km
**Proposal fails contour check to land mobile station: LOS ANGELES CA WQJX539 ch. 15
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX540 ch. 15, 114.3 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX541 ch. 15, 125.6 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX544 ch. 15, 113.4 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX545 ch. 15, 112.5 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX546 ch. 15, 112.7 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX547 ch. 15, 126.4 km
**Proposal fails contour check to land mobile station: LOS ANGELES CA WQJX548 ch. 15
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX549 ch. 15, 107.8 km

**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX550 ch. 15, 102.8 km
 **Proposal fails contour check to land mobile station: LOS ANGELES CA WQJX551 ch. 15
 **Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX553 ch. 15, 125.3 km
 **Proposal fails contour check to land mobile station: LOS ANGELES CA WQJX554 ch. 15
 **Proposal fails contour check to land mobile station: LOS ANGELES CA WQJX556 ch. 15
 **Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX557 ch. 15, 79.9 km
 **Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX500 ch. 16, 125.6 km

Proposal is not within the Offshore Radio Service protected area

Study cell size: 0.50 km
 Profile point spacing: 0.10 km

Maximum new IX to full-service and Class A: 0.50%
 Maximum new IX to LPTV: 2.00%

Interference to BLANKBPFS20160302ACZ LIC scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	XHTJB	D15	DT	LIC	TIJUANA, BN	BLANKBPFS20160302ACZ	
Undesireds:	K12PO	D15	LD	APP	TEMECULA, CA	BLANK0000052518	126.5 km
	K08MM-D	D15	DC	LIC	BAKERSFIELD, CA	BLANK0000001629	370.7
	LICITACIOND14	DT	LIC		ENSENADA, BN	BLANKBPFS20160524AAS	69.5
	LICITACIOND15	DT	BL		ENSENADA, BN	DTVBL704622	69.5
	XHMEE	D15	DT	LIC	MEXICALI, BN	BLANKBPFS20160301ABY	132.3
	XHENE	D16	DT	LIC	ENSENADA, BN	BLANKBPFS20111108ACK	71.3
	LICITACIOND16	DT	LIC		MEXICALI, BN	BLANKBPFS20160524AAU	132.3
Service area							
Terrain-limited				IX-free, before		IX-free, after	
7807.4	2,281,874	6781.8	2,119,267	6723.9	2,118,429	6711.5	2,118,360
10472.3	1,802,449	9364.5	1,771,144	7643.0	1,771,125	7636.6	1,771,125
Total IX				Unique IX, before		Unique IX, after	
Undesired							
K12PO D15 LD APP	37.0	69				12.4	69 (in U.S.)
K12PO D15 LD APP	56.5	0				6.4	0
LICITACION D14 DT LIC	206.9	0		0.0		0.0	0
LICITACION D15 DT BL	55.0	838		55.0	838	30.4	838 (in U.S.)
LICITACION D15 DT BL	1719.5	19		1512.7	19	1494.7	19
XHMEE D15 DT LIC	2.9	0		2.9	0	2.9	0 (in U.S.)
XHMEE D15 DT LIC	2.0	0		1.2	0	1.2	0
XHENE D16 DT LIC	3.0	0		0.0	0	0.0	0
LICITACION D16 DT LIC	0.7	0		0.0	0	0.0	0
				Percent New IX		(in U.S.)	
				0.18		0.00	
				0.08		0.00	

Interference to proposal scenario 1

Desired:	Call K12PO	Chan D15	Svc LD	Status APP	City, State TEMECULA, CA	File Number BLANK0000052518	Distance
Undesireds:	K08MM-D	D15	DC	LIC	BAKERSFIELD, CA	BLANK00000001629	251.6 km
	KUNA-LP	D15	LD	CP	INDIO, CA	BDFCDTL20110207ACY	88.4
	K15FC-D	N15+	TX	LIC	twenty-nine palms, CA	BLTT20080902AEC	98.2
	XHTJB	D15	DT	LIC	TIJUANA, BN	BLANKBDFS20160302ACZ	126.5
	Service area		Terrain-limited		IX-free	Percent IX	
3265.7	845,299	2602.5	615,626	2587.7	612,232	0.57	0.55
Undesired			Total IX		Unique IX	Prcnt Unique IX	
XHTJB D15 DT LIC		14.8	3,394	14.8	3,394	0.57	0.55

CONCLUSION

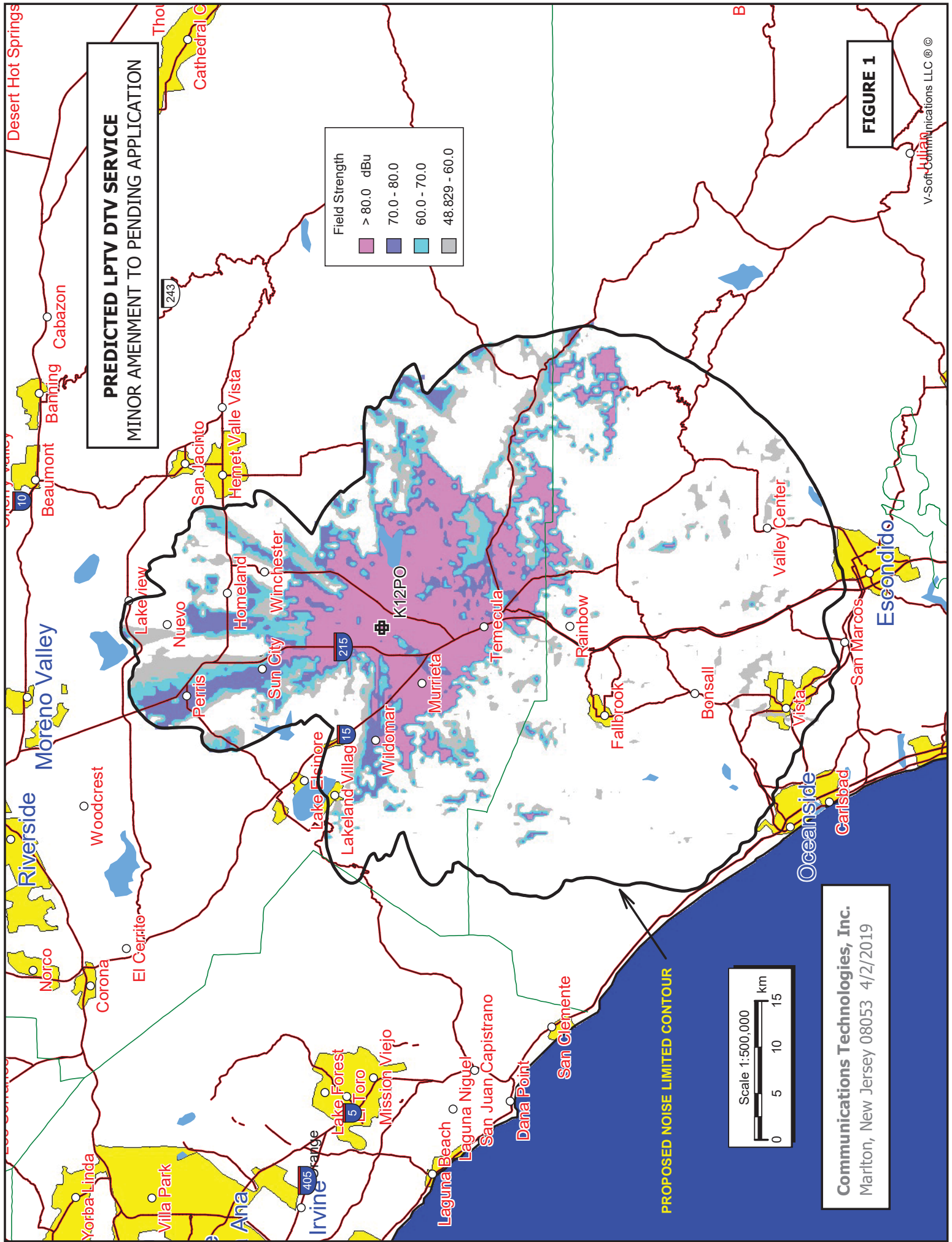
The foregoing was prepared on behalf of Channel 51 of San Diego, Inc. by Clarence M. Beverage of *Communications Technologies, Inc.*, Marlton, New Jersey, whose qualifications are a matter of record with the Federal Communications Commission. The undersigned certifies, under penalty of perjury, that the statements herein are true and correct of his own knowledge, except such statements made on information and belief, and as to these statements he believes them to be true and correct.



By _____

Clarence M. Beverage
for Communications Technologies, Inc.
Marlton, New Jersey

April 2, 2019



**AMENDMENT ENGINEERING STATEMENT CONCERNING
LOS ANGELES CH 15 T-BAND PROTECTION
PREPARED ON BEHALF OF CHANNEL 51 OF SAN DIEGO, INC.
APPLICANT FOR CH 15 LPTV DISPLACEMENT FACILITIES
K12PO FCC FILE NUMBER 0000052518 TEMECULA, CALIFORNIA
APRIL 2019**

INTRODUCTION

This analysis is submitted to address protection to co and first adjacent channel Land Mobile (“LM”) Channels. In doing so, it is believed important to understand that the only FCC requirement for LPTV station protection of LM channels is found in FCC Rule Section 74.709 which was last updated in [69 FR 31906](#), June 8, 2004. This rule section sets forth protection requirements for LM channels 14, 16 and 20 in Los Angeles, CA. This rule section is believed to be complied with fully in the engineering showing now on file in the pending application for CP regarding CH 15 LM. This April 2019 amendment does not alter that conclusion. Notably, 74.709 does not require CH 15 LM protection in southern California as no CH 15 LM allocation in Los Angeles is listed in 74.709(a) and on that basis, it is believed that a waiver of 74.709(a) is not required but one is requested should the FCC staff deem that appropriate. Appendix 1 attached is a copy of the 74.709 analysis originally filed on April 11, 2018 in FCC File Number 0000052518 for ease of reference.

It should be noted that DTV standards for LPTV were added, for the first time, in Rule Section 74.710 at [69 FR 69332](#), on Nov. 29, 2004. This occurred five years before the first DTV transition in the U.S. Section 74.709 was written for analog TV stations and has never been updated to reflect the existence of the DTV service.

We are aware of the FCC Order Released on December 30, 2008, In the Matter of County of Los Angeles, California, Request for Waiver of the Commission’s Rules to Authorize Public Safety Communications in the 476 – 482 MHz Band. This order appears to have no effect in terms of 74.709 as the order is not reflected in the text of the current rule even though more than 10 years have passed.

On March 29, 2016, the FCC commenced its Incentive Auction 1000 designed to repack DTV stations, not auctioned, into CH 2 – 36 spectrum. As a result of FCC DTV Repack, three pertinent

impacts to CH 14 - 20 wireless license holders have occurred in the U.S. and none of them are reflected in 74.709:

1. Based on communication with the International Branch, XHTJB, Tijuana, MX CH 15 was part of the repack negotiation with Mexico and not something undertaken apart from the repack. The minimum separation used in the negotiation between the U.S. and Mexico was 185 kilometers. The distance to the LA LM reference coordinates from the XHTJB site exceeds 185 kilometers. There is a record in LMS for XHTJB, BPFS20180302ACZ, indicating that a license to operate was granted on May 12, 2017.
2. Three new Full-Service stations have been reallocated in an area affecting the Offshore Radio Service (ORS) on Channels 15 – 18 in the Gulf of Mexico:

KFDM-TV CH 15 from CH 21 Beaumont, TX, File Number 0000063111

KLWB-TV CH 17 from CH 50 New Iberia, LA, File Number 0000034171

KVHP-TV CH 18 from CH 29 Lake Charles, LA, File Number 0000064019

3. Full-Service Television station KPBS, San Diego, CA operating analog on Channel 15 prior to the DTV Transition in 2009, now is allocated to Channel 19 in San Diego, CA, and a construction permit for CH 19 operation with an ERP of 285 kW has been granted under FCC File Number 0000027963. This facility is in Transition Phase 2 and has reported to the FCC that effective March 29, 2019 the station has commenced operation on Channel 19.

Since 74.709 does not require protection of CH 15 T-Band service in Los Angeles, CA, or accurately depict current television allocations, we have examined pertinent FCC Media Bureau database changes and a recent LPTV 74.709 filing to shed additional light on how best to proceed.

Full-Service television stations are not required to protect LM facilities to the best of our knowledge when allocated by the Commission. The FCC demonstrated a practical approach in late 2018 concerning 74.709(e) Offshore Radio Service (“ORS”) protection by KVVV-LD CH 15 in Houston when it filed an application to modify its CH 15 facility to protect the newly authorized KFDM-TV CH 15 operation which is now licensed and operating.

In that case, KVVV cited Rule Section 90.187(d)(1)(ii), which provides the protection criteria for UHF Trunking in the bands between 150 and 512 MHz, as the most appropriate technique for determining impact to the ORS operating area. ORS facilities have a maximum bandwidth of 20 kHz as specified in 22.1007. Since the DTV bandwidth is 5,381 kHz, the ERP for CH 15 LPTV and full-service DTV stations must be adjusted by the ratio of the bandwidths. See IEEE P1631TM/D3, February 2008. The station then plotted the 21 dBu F(50,10) contours for the Full-Service stations and demonstrated that no new contour overlap to the ORS would result from the CH 15 LPTV proposal. That application was granted by the FCC under File Number 0000056548 on November 15, 2018.

It is our belief that this approach offers a simple and appropriate method of demonstrating a lack of new interference to the 57 Los Angeles CH 15 LM licenses as it utilizes established Part 90 contour protection methodology with Part 73 and 74 contour calculations.

LOS ANGELES T-BAND LICENSE PROTECTION CONSIDERING XHTJB, TIJUANA, MX

First, the presence of XHTJB in Tijuana, MX returns an active CH 15 facility to the San Diego market as is currently found in 74.790(b)(2).

More importantly, when FCC Rule Section 90.187(d)(1)(ii) contour prediction standards are utilized, XHTJB becomes an important station to be considered in terms of real-world potential interference since its ERP is 79 kW compared to the amended K12PO proposed 9.0 kW facility proposed herein. Map Figure 1 attached depicts the 21 dBu F(50,10) interfering contours for the simultaneously filed K12PO CH 15 amended application as well as the operating XHTJB facility in Tijuana. The bandwidth of the LM facilities is considered to be 25 kHz and for both DTV facilities the bandwidth is 5,381 kHz. The green circles on the map are the licensed base stations with the 48 km mobile radius around each base station plotted in green per Section 90.305.

Examination of Figure 1 shows that the XHTJB 21 dBu F(50,10) interfering contour does not overlap any of the 48 km base station mobile radii except over sea water. The amended proposed K12PO CH 15 facility 21 dBu F(50,10) interfering contour does not overlap any of the mobile radii.

For clarity purposes, it is noted that Appendix 4 includes a list of all 57 LA County T- Band licenses grouped by coordinates in ascending latitude. Twenty seven licenses duplicate a set of coordinates (two licenses at the same site) and three licenses duplicate a set of coordinates (three licenses at the same site).

Through e-mail exchange with Ted Pao, Information Technology Specialist for LA – RICS, we do understand that the County is concerned about real world CH 15 interference which they have received from a TV station over 200 miles away via ducting from Fresno and the Tijuana station. We believe that because the K12PO facility is low power, is relatively close to Los Angeles, has a null directed north toward the county and its site is extremely terrain obstructed looking north that ducting is not at all likely and real-world interference from K12PO is also highly unlikely. Ducting tends to occur over greater distances or over water paths, neither of which applies to the proposed K12PO CH 15 facility.

FCC TVSTUDY SOFTWARE ANALYSIS OF CH 15 LM AT LOS ANGELES

On February 19, 2016 the FCC Office of Engineering and Technology (OET) released Version 2.0 of a new TV Allocation tool called TVStudy, DA 16-185. This program version was released for purposes calculating interference from wireless facilities in the 600 MHz band to DTV stations and not LPTV to LM based on the FCC Public Notice. On February 6, 2017, DA 17-43, OET released Version 2.1 of the TVStudy software which was released for purposes of filing applications for construction permit for displaced full service and Class A DTV stations. The most recent release is Version 2.2.5 released March 13, 2018. This version of the software does include a module that looks at LPTV interference to T-Band licenses. The output of that module can be seen on Pages 4 and 5 of Appendix 2. The TVStudy manual does not explain how the module works so inquiries were made of Mark Colombo, an expert in the FCC most familiar with this software. Communications with Mr. Colombo are found in Appendix 3. Mr. Colombo's information is summarized as follows:

The land mobile file contains the land mobile protections in 73.623(e) and 74.709(a). The land mobile waiver file is the same information, but for the waivers rather than the rule-specified locations. Location, channel, and coordinates. The last few columns are the various distances or contour thresholds spelled out in those rule parts. The first two columns are the full-power co- and adjacent-channel distances from 73.623(e), then the rest are for LPTV and Class A from 74.709. The next two columns with 130 are the distances in 74.709(b), the 52 and 76 are the contour dBu values from 74.709(d)(2) and 74.709(d)(3), and (in the land mobile file only) the 145 km and 95 km in the next column are from 74.709(b)(1) and the 95 km in the last column is from 74.709(b)(2).

We know that the FCC granted an STA to the County of Los Angeles for 57 licenses (WQJX500 – WQJX557), DA 14-1553, dated October 27, 2014, with an extended construction deadline. The STA specifies a 5-site hybrid trunked system to be deployed throughout Los Angeles County utilizing 476-482 MHz spectrum in TV Channel 15. The FCC STA for CH 15 operation appears to have been based, in part, on the County's promise to provide a migration path to 700 MHz and that the County would request no contour or frequency extensions of existing T-Band authorizations.

Review of the FCC TVStudy output run from the proposed K12PO CH 15 site reveals the following:

1. 74.709(a) has the CH 14 and CH 16 Los Angeles reference coordinates and the first two rows which display distance provide the distance separation between the K12PO CH 15 site and the LA reference coordinates as required. CH 14 and 16 protection is addressed later in this amendment engineering.
2. 74.709(b) sets 130 km as the protected contour radius from the community reference coordinates. Rows 3 – 60 are calculations of distance from each LA County License site to the K12PO site. When the distance is less than 130 kilometers the distance is displayed. For the 16 sites where the distance is greater than 130 kilometers no distance is displayed.
3. There is no obvious allowance for 74.709(b)(1) 145 kilometer co-channel preclusion area from the base reference coordinates.

Based on this analysis it is believed that the “fails distance check” messages have no relationship to contour overlap because there are no CH 15 Los Angeles coordinates to reference. The purpose for referencing TVStudy is to understand how the output is being generated.

In terms of perspective it must be noted that TVStudy was never designed to address LM protections routinely addressed by Part 90 techniques and/or good engineering practice. A good example is the dialogue with Mr. Colombo in Appendix 3 where it is stated that no 460 – 470 MHz records are pulled into the TVStudy software so no analysis of protection to LM stations operating in the 460 – 470 MHz band can be performed. To be clear, every FCC construction permit does however require LM protection by CH 14 DTV facilities as shown in the Appendix 5

example CP condition for KVOS-TV Bellingham, WA.

Relying on good engineering practice in accordance with established Part 90 procedures as discussed on pages 2 and 3 appears to offer more understandable and verifiable results. This may not be the fault of the program but instead the fact that the program has no CH 15 allotment coordinates to reference.

LOS ANGELES T-BAND CHANNELS 14 AND 16 LICENSE PROTECTION

It has already been stated that FCC Rule Section 74.709 was written for analog LPTV facilities. K12PO proposes DTV operation on CH 15 and not analog TV operation. The Video Division has already processed and granted both a construction permit and LPTV DTV license on CH 14 immediately adjacent to the 460 - 470 MHz wireless band for KBWF-LD (formerly K14NV), Facility ID 181673, Sioux City, Iowa. In that case the applicant specified use of a Dielectric LPTV DTV 8 pole mask filter to prevent any interference to the immediately adjacent 460 – 470 MHz LM licensed facilities. The facility was constructed and no interference reports from adjacent CH LM wireless users were received.

Given that the circumstances are identical to the K12PO proposal, LPTV DTV operating immediately adjacent to LM wireless licenses and the same identical 8 pole mask filter is proposed to be used by K12PO, it is believed that complete protection to CH 14 and CH 16 LM is proposed and will be implemented. Thus, the proposed K12PO CH 15 facility, as amended, is believed to comply with the Commission's protection requirements. To the extent that the Commission may require a waiver of 74.709, such waiver is herein respectfully requested.

The reasonableness of this process can be seen by comparing FCC Rule Section 74.736 for analog TV wherein no adjacent channel protection was required at the analog TV band edge where the LPTV DTV rules in 74.794(a)(2)(iii) require a Full-Service mask filter to attenuate the signal by 47 dB at the band edge. 74.736 required 60 dB of signal attenuation 3 MHz from the edge of the TV channel while the Full-Service mask filter attenuation is 76 dB and at 6 MHz it is 110 dB. The proposed 8 pole filter exceeds the Full-Service mask requirements.

CONCLUSION

The proposed K12PO CH 15 facilities, as amended, are believed to comply with FCC Rule Section 74.709 as written and as depicted in Appendix 1.

It is recognized that 74.709 provides no true protection analysis while Part 90 rules addressing trunking in the 150 - 512 MHz spectrum and UHF-TV sharing in the 470 – 512 MHz spectrum, as described in pages two and three of this document, offer contour analysis compatible with Part 73 and Part 74 protections. This methodology provides a tool for analyzing K12PO possible impact to the Los Angeles County T-Band licenses as demonstrated herein.

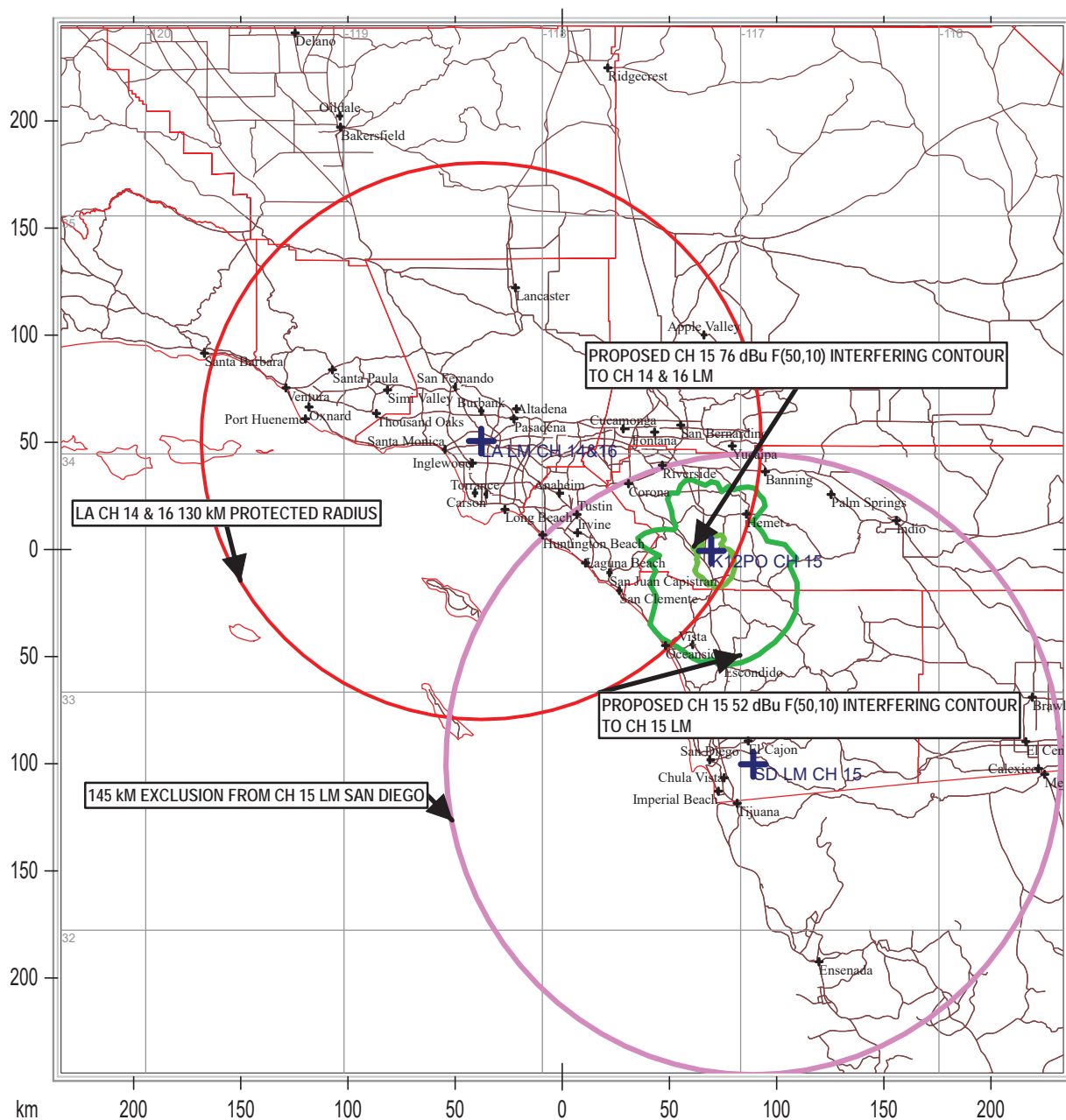
74.709 provides no guidelines for LPTV DTV protection of CH 14 and CH 16 LM Licenses in the Los Angeles market. Utilizing the protection methodology specified herein, as already utilized by the Video Division, will provide full protection to CH 14 and CH 16 LM licensees.

The foregoing was prepared on behalf of Channel 51 of San Diego, Inc. by Clarence M. Beverage of *Communications Technologies, Inc.*, Marlton, New Jersey, whose qualifications are a matter of record with the Federal Communications Commission. The statements herein are true and correct of his own knowledge, except such statements made on information and belief, and as to these statements he believes them to be true and correct.



Clarence M. Beverage
for Communications Technologies, Inc.
Marlton, New Jersey
April 2, 2019

K12PO-LD CH 15 7.5 kW DA RC 555 M AMSL TEMECULA, CALIFORNIA



Communications Technologies, Inc. Marlton, New Jersey

County Borders Highways Lat/Lon Grid

APPENDIX 2

TVStudy Version 2.2.5 Run February 19, 2019 K12PO STUDY RUN WITH MEXICAN RECORDS

tvstudy v2.2.5 (4uoc83)
Database: 127.0.0.1, Study: BLANK0000052518 #236, Model: Longley-Rice
Start: 2019.02.19 10:17:50

Study created: 2019.02.19 10:17:50

Study build station data: LMS TV 2019-02-15

Proposal: K12PO D15- LD APP *P TEMECULA, CA
File number: BLANK0000052518
Facility ID: 41601
Station data: LMS TV 2019-02-15
Record ID: 25076f916267d43b016268cd0ee08d3
Country: U.S.

Search options:

Non-U.S. records included

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
No	NEW	D14	LD	APP	DESERT CENTER, CA	BNPDTL20100514ACI	107.8 km
No	K14JT	N14	TX	LIC	JOSHUA TREE, ETC., CA	BLTVL19980330JH	122.5
No	NEW	D14	LD	APP	SAN BERNARDINO, CA	BMJADTL20100524ADD	93.7
No	K15IT-D	D15	LD	CP	GOLDEN VALLEY, AZ	BNPDTL20100510ADY	329.0
No	K15CR-D	D15	LD	LIC	LAKE HAVASU CITY, AZ	BLDTT20140530APD	279.2
No	K47HE-D	D15	LD	CP	MEADVIEW, AZ	BLANK0000053721	376.0
No	KNXV-TV	D15	DT	APP	PHOENIX, AZ	BLANK0000035696	472.3
No	KNXV-TV	D15	DT	LIC	PHOENIX, AZ	BLCDT20090619ABX	472.3
No	KYUM-LD	D15	LD	LIC	YUMA, AZ	BLANK0000004396	281.0
No	K08MM-D	D15	DC	LIC	BAKERSFIELD, CA	BLANK0000001629	251.6
No	K08MM-D	D15	DC	APP	BAKERSFIELD, CA	BLANK0000035875	251.6
No	K15BZ	N15-	TX	LIC	DAGGETT, CA	BLTT19880307IC	145.5
No	KUNA-LP	D15	LD	CP	INDIO, CA	BDFCDTL20110207ACY	88.4
No	KUNA-LP	N15-	TX	LIC	INDIO, CA	BLTTL20031124AQH	88.4
No	K15CA	N15+	TX	LIC	LUCERNE VALLEY, CA	BLTT19880307IE	99.8
No	KFVD-LP	D15	LD	CP	PORTERVILLE, CA	BDFCDTL20100810AAY	336.6

No	KFVD-LP	N15z	TX	LIC	PORTERVILLE, CA	BLTT19891122JU	336.6
No	K15HJ-D	D15	LD	LIC	RIDGECREST, ETC., CA	BLDTT20090622AAI	215.4
No	KSBY	D15	DT	LIC	SAN LUIS OBISPO, CA	BLCDT20081118AEW	376.7
No	K15JE-D	D15	LD	CP	SANTA BARBARA, CA	BNPDTL20101018ABH	278.9
No	K15FC-D	N15+	TX	LIC	twentynine palms, CA	BLTT20080902AEC	98.2
No	K15FC-D	D15	LD	LIC	twentynine palms, CA	BLANK0000004552	122.5
No	KVCW	D15	LD	LIC	LAS VEGAS, NV	BLCDT20131108AKG	307.0
No	KELV-LD	D15	LD	LIC	LAS VEGAS, NV	BLDTL20120215ABO	324.5
No	K16KH-D	D16	LD	CP	LUCERNE VALLEY, CA	BDCCDTT20061030AJR	99.8
No	KDTF-LD	D16	LD	APP	SAN DIEGO, CA	BLANK0000053785	101.6
No	K16LB-D	D16	LD	CP	YUCCA VALLEY, CA	BDCCDTT20120113AEI	122.5
No	K17KD	N17	TX	LIC	LUCERNE VALLEY, CA	BLTT20120112AFA	99.8
No	KODG-LD	N17z	TX	LIC	PALM SPRINGS, CA	BLTTL20001219ABP	88.5
No	K17GJ-D	N17-	TX	LIC	Twentynine Palms, CA	BLTT20080902AED	98.2
No	K19BT	N19-	TX	LIC	LUCERNE VALLEY, CA	BLTT19880307ID	99.8
No	LICITACIOND14		DT	LIC	ENSENADA, BN	BLANKBFFS20160524AAS	195.3
No	XHBC	D14	DT	LIC	MEXICALI, BN	BLANKBFFS20160301ABU	188.7
No	XHME	D15	DT	LIC	MEXICALI, BN	BLANKBFFS20160301ABY	188.7
Yes	XHTJB	D15	DT	LIC	TIJUANA, BN	BLANKBFFS20160302ACZ	126.5
No	XHENE	D16	DT	LIC	ENSENADA, BN	BLANKBFFS20111108ACK	197.1
No	LICITACIOND16		DT	LIC	MEXICALI, BN	BLANKBFFS20160524AAU	188.7

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D15-

Mask: Full Service

Latitude: 33 35 34.40 N (NAD83)

Longitude: 117 8 53.90 W

Height AMSL: 553.3 m

HAAT: 0.0 m

Peak ERP: 7.50 kW

Antenna: DIE-TLP-8C (ID 1003015) 45.0 deg

Elev Pattern: Generic

Elec Tilt: 1.00

48.8 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	1.29 kW	102.8 m	33.2 km
45.0	2.61	82.1	34.2
90.0	6.08	60.3	35.1
135.0	7.50	146.5	45.5
180.0	5.83	168.4	45.7
225.0	2.24	114.2	37.2
270.0	1.16	82.5	30.2
315.0	2.08	47.8	27.3

Database HAAT does not agree with computed HAAT

Database HAAT: 0 m Computed HAAT: 101 m

Distance to Canadian border: 1710.0 km

**Proposal is within coordination distance of Mexican border

Distance to Mexican border: 115.2 km

Conditions at FCC monitoring station: Livermore CA

Bearing: 319.2 degrees Distance: 619.5 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:

Bearing: 52.1 degrees Distance: 1280.8 km

CH 15 LM Analysis

**Proposal fails distance check to land mobile station: Los Angeles CA ch. 14, 118.7 km
**Proposal fails distance check to land mobile station: Los Angeles CA ch. 16, 118.7 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX500 ch. 15, 125.6 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX501 ch. 15, 97.3 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX502 ch. 15, 92.8 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX503 ch. 15, 124.5 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX504 ch. 15, 87.1 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX505 ch. 15, 111.2 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX506 ch. 15, 114.9 km
**Proposal fails contour check to land mobile station: LOS ANGELES CA WQJX507 ch. 15
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX508 ch. 15, 121.1 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX509 ch. 15, 118.3 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX510 ch. 15, 115.3 km
**Proposal fails contour check to land mobile station: LOS ANGELES CA WQJX511 ch. 15
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX512 ch. 15, 114.3 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX513 ch. 15, 125.6 km
**Proposal fails contour check to land mobile station: LOS ANGELES CA WQJX514 ch. 15
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX516 ch. 15, 113.4 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX517 ch. 15, 112.5 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX518 ch. 15, 112.7 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX519 ch. 15, 126.4 km
**Proposal fails contour check to land mobile station: LOS ANGELES CA WQJX520 ch. 15
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX521 ch. 15, 107.8 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX522 ch. 15, 102.8 km
**Proposal fails contour check to land mobile station: LOS ANGELES CA WQJX523 ch. 15
**Proposal fails contour check to land mobile station: LOS ANGELES CA WQJX524 ch. 15
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX525 ch. 15, 125.3 km
**Proposal fails contour check to land mobile station: LOS ANGELES CA WQJX526 ch. 15
**Proposal fails contour check to land mobile station: LOS ANGELES CA WQJX527 ch. 15
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX528 ch. 15, 79.9 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX529 ch. 15, 97.3 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX530 ch. 15, 92.8 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX531 ch. 15, 124.5 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX532 ch. 15, 87.1 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX533 ch. 15, 111.2 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX534 ch. 15, 114.9 km
**Proposal fails contour check to land mobile station: LOS ANGELES CA WQJX535 ch. 15
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX536 ch. 15, 121.1 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX537 ch. 15, 118.3 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX538 ch. 15, 115.3 km
**Proposal fails contour check to land mobile station: LOS ANGELES CA WQJX539 ch. 15
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX540 ch. 15, 114.3 km

CH 15 LM Analysis continued

**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX541 ch. 15, 125.6 km
**Proposal fails contour check to land mobile station: LOS ANGELES CA WQJX542 ch. 15
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX544 ch. 15, 113.4 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX545 ch. 15, 112.5 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX546 ch. 15, 112.7 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX547 ch. 15, 126.4 km
**Proposal fails contour check to land mobile station: LOS ANGELES CA WQJX548 ch. 15
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX549 ch. 15, 107.8 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX550 ch. 15, 102.8 km
**Proposal fails contour check to land mobile station: LOS ANGELES CA WQJX551 ch. 15
**Proposal fails contour check to land mobile station: LOS ANGELES CA WQJX552 ch. 15
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX553 ch. 15, 125.3 km
**Proposal fails contour check to land mobile station: LOS ANGELES CA WQJX554 ch. 15
**Proposal fails contour check to land mobile station: LOS ANGELES CA WQJX556 ch. 15
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX557 ch. 15, 79.9 km
**Proposal fails distance check to land mobile station: LOS ANGELES CA WQJX500 ch. 16, 125.6 km

Proposal is not within the Offshore Radio Service protected area

Study cell size: 0.50 km

Profile point spacing: 0.10 km

Maximum new IX to full-service and Class A: 0.50%

Maximum new IX to LPTV: 2.00%

Interference to BLANKBFFS20160302ACZ LIC scenario 1

Call	Chan	Svc	Status	City, State	File Number	Distance	
Desired:	XHTJB	D15	DT	LIC	TIJUANA, BN	BLANKBFFS20160302ACZ	
Undesireds:	K12PO	D15-	LD	APP	TEMECULA, CA	BLANK00000052518	
	K08MM-D	D15	DC	LIC	BAKERSFIELD, CA	BLANK00000001629	
	LICITACIOND14	DT	LIC	ENSENADA, BN	BLANKBFFS20160524AAS	69.5	
	LICITACIOND15	DT	BL	ENSENADA, BN	DTVBL704622	69.5	
	XHMEE	D15	DT	LIC	MEXICALI, BN	BLANKBFFS20160301ABY	132.3
	XHENE	D16	DT	LIC	ENSENADA, BN	BLANKBFFS2011108ACK	71.3
	LICITACIOND16	DT	LIC	MEXICALI, BN	BLANKBFFS20160524AAU	132.3	
Service area							
7807.4	2,281,874	6781.8	Terrain-limited		IX-free, before		
		2,119,267			IX-free, after		
10472.3	1,802,449	9364.5	1,771,144	7643.0	1,771,125	7638.3	

Undesired	Total IX		Unique IX, before		Unique IX, after	
K12PO D15- LD APP	28.5	69	0	0.0	8.5	69 (in U.S.)
K12PO D15- LD APP	31.7	0	0	0.0	4.7	0
LICITACION D14 DT LIC	206.9	0	0	0.0	0.0	0
LICITACION D15 DT BL	55.0	838	838	35.0	838	(in U.S.)
LICITACION D15 DT BL	1719.5	19	19	1506.8	19	
XHMEE D15 DT LIC	2.9	0	0	2.9	0	(in U.S.)
XHMEE D15 DT LIC	2.0	0	0	1.2	0	
XHENE D16 DT LIC	3.0	0	0	0.0	0.0	0
LICITACION D16 DT LIC	0.7	0	0	0.0	0.0	0

Interference to proposal scenario 1

Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	K12PO	D15-	LD APP	TEMECULA, CA	BLANK0000052518	
Undesireds:	K08MM-D	D15	DC LIC	BAKERSFIELD, CA	BLANK0000001629	251.6 km
	KUNA-LP	D15	LD CP	INDIO, CA	BDFCDTL20110207ACY	88.4
	K15JE-D	D15	LD CP	SANTA BARBARA, CA	BNPDTL20101018ABH	278.9
	K15FC-D	N15+	TX LIC	twentynine palms, CA	BLTT20080902AEC	98.2
	XHTJB	D15	DT LIC	TIJUANA, BN	BLANKBPFS20160302ACZ	126.5
Service area						
4149.1	961,394	3352.8	Terrain-limited	IX-free	Percent IX	
			749,570	3338.3	747,940	0.43 0.22
Undesired						
K15JE-D D15 LD CP		0.2	Total IX	Unique IX	Prct Unique IX	
			0	0	0.01	0.00
XHTJB D15 DT LIC		14.3	1,630	14.3	1,630	0.43 0.22

APPENDIX 3

COMMUNICATION WITH FCC STAFF CONCERNING TVStudy and LM PROTECTION

From: Mark Colombo <Mark.Colombo@fcc.gov>
Sent: Thursday, August 16, 2018 8:04 AM
To: Clarence Beverage <CBeverage@CommTechRF.com>
Subject: Re: TVStudy - Land Mobile Radio Calculations

Clarence,

Yes, all our land mobile rules are based on analog operation, as far as I know. But that's what's on the books and I doubt there's an appetite to open the issue.

Mark

From: Clarence Beverage <CBeverage@CommTechRF.com>
Sent: Thursday, August 16, 2018 7:44 AM
To: Mark Colombo
Subject: RE: TVStudy - Land Mobile Radio Calculations

Mark,

The interesting thing I am seeing is that 74.709 and 90.307 are all old rules based on analog operation. LMR isn't my thing but I am seeing that, in the Los Angeles case as an example, that the implementation is a digital system called P25 and that is not an LTE. Need to do some more research.

The reason this may be of greater importance than anyone thought previously is that there is now legislation in Congress to allow the T-Band to continue indefinitely and not move the Public Safety users to new spectrum.

<http://www.npstc.org/article.jsp?id=2226&cat=6307>

Clarence

From: Mark Colombo <Mark.Colombo@fcc.gov>
Sent: Wednesday, August 15, 2018 10:38 AM
To: Clarence Beverage <CBeverage@CommTechRF.com>
Subject: RE: TVStudy - Land Mobile Radio Calculations

Clarence,

So far, so good. I hope you are similarly doing well.

I don't recall discussing this, so maybe we didn't. Interference calculations with respect to T-band are contour-driven, and as such, the ERP is not adjusted. The assumption being made is that the values in the rules already account for that adjustment, since 74.709 points to a station's contour and is silent about making further adjustments.

Mark

From: Clarence Beverage <CBeverage@CommTechRF.com>
Sent: Wednesday, August 15, 2018 10:01 AM
To: Mark Colombo <Mark.Colombo@fcc.gov>
Subject: TVStudy - Land Mobile Radio Calculations

Hi Mark,

Hope your week is going well.

I feel like we discussed this in an earlier e-mail but I am unable to locate that so my memory may be bad. Here is my question. When TVStudy runs interference calculations to LM T-Band facilities does it use the ERP specified in the application or is it adjusted to account for the fact that the DTV ERP is spread across most of the 6 MHz channel while the amount of signal in the 25 kHz LM channel is significantly reduced, see attached.

Look forward to learning the answer.

Clarence

From: Mark Colombo <Mark.Colombo@fcc.gov>

Sent: Wednesday, May 31, 2017 9:36 AM

To: Clarence Beverage <CBeverage@CommTechRF.com>

Subject: RE: WDUM-LD Land mobile problem T-Band Protection and

Good morning,

I assume you mean what each column represents. It's spelled out in the source code (somewhere) but I think it's pretty straight-forward.

Easiest first, the land_mobile_exclude file contains the data in table 74.709(b)(2). Location, channel, and coordinates.

The land_mobile file contains the land mobile protections in 73.623(e) and 74.709(a). The land_mobile_waiver file is the same information, but for the waivers rather than the rule-specified locations. Location, channel, and coordinates. The last few columns are the various distances or contour thresholds spelled out in those rule parts. The first two columns are the full-power co- and adjacent-channel distances from 73.623(e), then the rest are for LPTV and Class A from 74.709. The next two columns with 130 are the distances in 74.709(b), the 52 and 76 are the contour dBu values from 74.709(d)(2) and 74.709(d)(3), and (in the land_mobile file only) the 145 and 95 in the next column are from 74.709(b)(1) and the consistent 95 in the last column is from 74.709(b)(2).

Does that help?

Mark

From: Mark Colombo [<mailto:Mark.Colombo@fcc.gov>]
Sent: Wednesday, May 24, 2017 7:36 AM
To: Clarence Beverage <CBeverage@CommTechRF.com>
Subject: RE: WDUM-LD Land mobile problem T-Band Protection

Clarence,

First and most simply, TVStudy does not have data for 450-470 MHz, so no information is provided for those frequencies.

Second, the old software did not evaluate land mobile waivers at all, only the 74.709-specified areas and distances. TVStudy evaluates both, and if you trip over one of the waiver facilities, it will give you the call sign and other information. WLIG-LP's permit came with a waiver request to account for the channel 16 land mobile operation, which you can see if you look at it in CDBS.

WDUM-LD only landed on channel 16 because of interference complaints when WTSD-CD first tried to operate on channel 16 and the two swapped channels, as I understood it, so I'm not sure why he would be surprised by land mobile interference concerns, especially since they were called out and explained away in the WDUM-LD application. In any case, as noted above, land mobile waivers were not checked in the old software. So, the fact that they now appear is just the software helping identify potential problems earlier in the process. I don't think it means the existing WDUM-LD authorization is no longer valid, or anything like that, so I don't think he needs to worry too much unless he's looking to alter things.

I hope this helps. If you have more questions, please let me know. Have a great day.

Mark

Appendix 4

Los Angeles County CH 15 T-Band Site Locations

Call Sign	Latitude	Longitude
WQJX518	33-20-38.1 N	118-19-35.3 W
WQJX546	33-20-38.1 N	118-19-35.3 W
WQJX506	33-20-59.8 N	118-21-09.2 W
WQJX534	33-20-59.8 N	118-21-09.2 W
WQJX509	33-23-12.0 N	118-24-03.0 W
WQJX537	33-23-12.0 N	118-24-03.0 W
WQJX503	33-25-33.1 N	118-28-34.3 W
WQJX531	33-25-33.1 N	118-28-34.3 W
WQJX505	33-44-50.0 N	118-20-10.0 W
WQJX533	33-44-50.0 N	118-20-10.0 W
WQJX510	33-46-06.0 N	118-22-36.0 W
WQJX538	33-46-06.0 N	118-22-36.0 W
WQJX528	33-57-20.0 N	117-53-42.2 W
WQJX557	33-57-20.0 N	117-53-42.2 W
WQJX508	34-00-17.0 N	118-21-44.3 W
WQJX536	34-00-17.0 N	118-21-44.3 W
WQJX502	34-01-05.0 N	118-00-49.0 W
WQJX530	34-01-05.0 N	118-00-49.0 W
WQJX520	34-02-12.0 N	118-41-22.3 W
WQJX548	34-02-12.0 N	118-41-22.3 W
WQJX516	34-03-18.0 N	118-14-36.0 W
WQJX544	34-03-18.0 N	118-14-36.0 W
WQJX521	34-03-22.0 N	118-10-27.0 W
WQJX549	34-03-22.0 N	118-10-27.0 W
WQJX519	34-05-01.0 N	118-23-01.3 W
WQJX547	34-05-01.0 N	118-23-01.3 W
WQJX507	34-05-09.0 N	118-47-09.0 W
WQJX535	34-05-09.0 N	118-47-09.0 W
WQJX522	34-06-11.0 N	118-04-36.0 W

Appendix 4

Los Angeles County CH 15 T-Band Site Locations

Call Sign	Latitude	Longitude
WQJX550	34-06-11.0 N	118-04-36.0 W
WQJX504	34-09-37.0 N	117-47-56.0 W
WQJX532	34-09-37.0 N	117-47-56.0 W
WQJX517	34-11-23.0 N	118-07-59.3 W
WQJX545	34-11-23.0 N	118-07-59.3 W
WQJX513	34-13-03.0 N	118-16-59.0 W
WQJX541	34-13-03.0 N	118-16-59.0 W
WQJX500	34-13-03.0 N	118-16-59.3 W
WQJX512	34-14-48.0 N	118-06-17.0 W
WQJX540	34-14-48.0 N	118-06-17.0 W
WQJX525	34-16-07.0 N	118-14-11.3 W
WQJX553	34-16-07.0 N	118-14-11.3 W
WQJX524	34-19-12.0 N	118-33-56.0 W
WQJX552	34-19-12.0 N	118-33-56.0 W
WQJX514	34-19-34.0 N	118-35-12.0 W
WQJX542	34-19-34.0 N	118-35-12.0 W
WQJX501	34-21-06.0 N	117-40-30.2 W
WQJX529	34-21-06.0 N	117-40-30.2 W
WQJX527	34-23-10.0 N	118-19-46.3 W
WQJX556	34-23-10.0 N	118-19-46.3 W
WQJX526	34-32-48.0 N	118-13-03.0 W
WQJX554	34-32-48.0 N	118-13-03.0 W
WQJX511	34-33-58.0 N	118-16-31.0 W
WQJX539	34-33-58.0 N	118-16-31.0 W
WQJX523	34-41-18.0 N	118-08-57.0 W
WQJX551	34-41-18.0 N	118-08-57.0 W
WQJX515	34-44-40.0 N	118-43-41.0 W
WQJX543	34-44-40.0 N	118-43-41.0 W

Appendix 5

Federal Communications Commission

TELEVISION BROADCAST STATION CONSTRUCTION PERMIT

Licensee/Permittee

OTA BROADCASTING (SEA), LLC
11710 PLAZA AMERICA DRIVE
SUITE 2000
RESTON, VA, 20190

Call Sign	File Number
KVOS-TV	0000027890

Facility ID: 35862**NTSC TSID:** 3104**Digital TSID:** 3105**This Permit Modifies License File No.:** BLCDT-20070628ABX

Grant Date 08/17/2017		Expiration Date 01/17/2020
Hours of Operation Unlimited		
Station Location City BELLINGHAM State WA	Frequency (MHz) 470.0 - 476.0	Station Channel 14
Facility Type Commercial		

Antenna Structure Registration Number 1251758	
Transmitter Type Accepted. See Sections 73.1660, 73.1665 and 73.1670 of the Commission's Rules.	Transmitter Output Power(kW) As required to achieve authorized ERP.
Antenna Coordinates Latitude 48-40-49.4 N Longitude 122-50-26.4 W	Antenna Type Directional
Description of Antenna Make Dielectric Model TFU-20JTH/VP-R O4SP	

Antenna Beam Tilt (Degrees Electrical) 1	Antenna Beam Tilt (Degrees Mechanical @ Degrees Azimuth) Not Applicable
Major Lobe Directions 160.0	Maximum Effective Radiated Power (Average) 362 kW 25.59 DBK
Height of Radiated Center Above Ground (Meters) 142.8	Height of Radiated Center Above Mean Sea Level (Meters) 834.8
Height of Radiated Center Above Average Terrain (Meters) 799	Overall Height of Antenna Structure Above Ground (Meters) See the registration for this antenna structure.

Waivers/Special Conditions

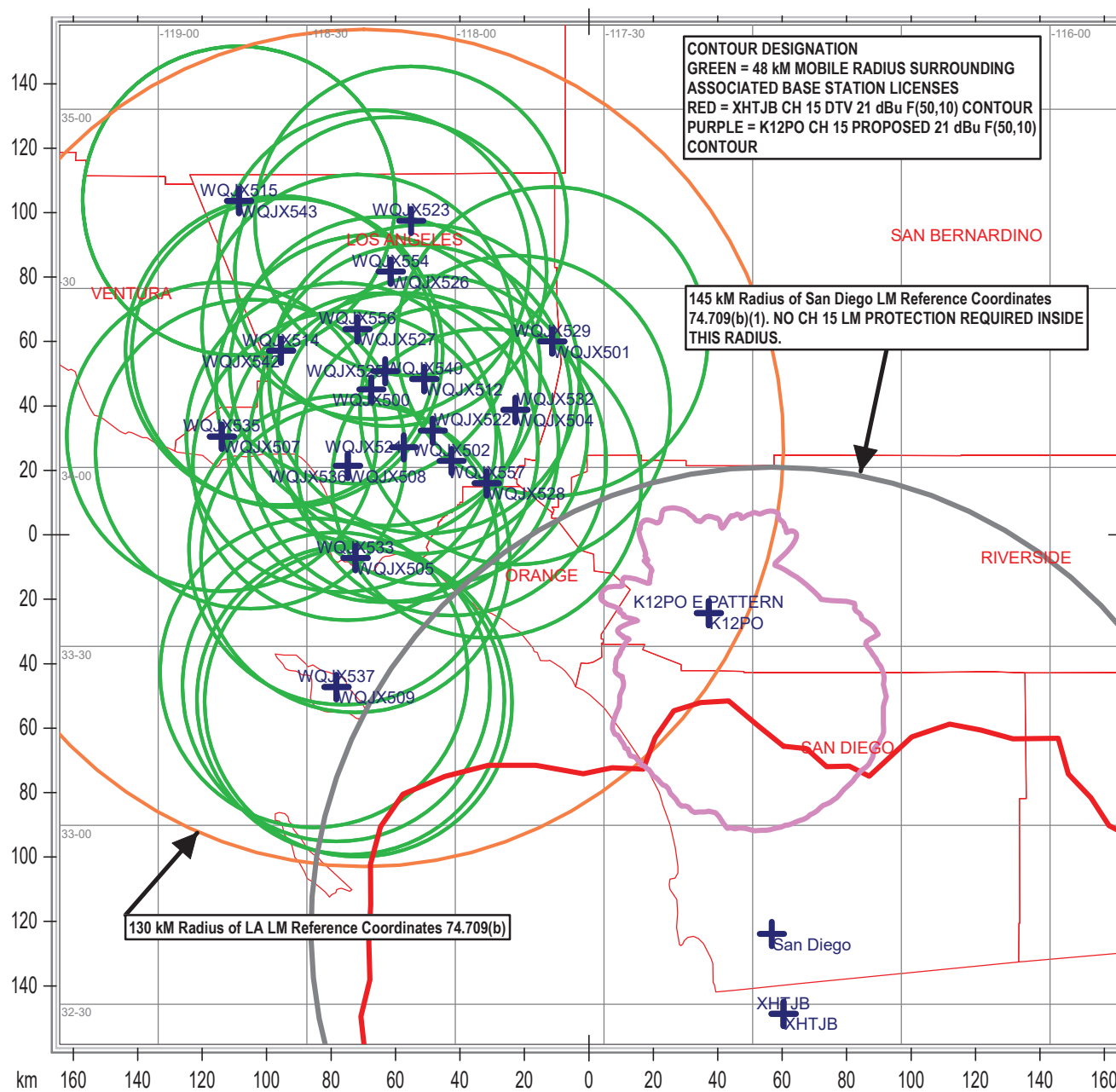
- During equipment tests, authorized by Section 73.1610 of the Commissions Rules, the permittee shall take adequate measures to identify and substantially eliminate objectionable interference which may be caused to existing land mobile radio facilities in the 460 to 470 MHz band. Documentation that objectionable interference will not be caused to existing land mobile radio facilities shall be submitted along with the request for Program Test Authority. Program tests shall not be commenced under Section 73.1620(a) of the Commissions Rules and may only be started after specific authority is granted by the Commission. An application for a license must be filed within 10 days after the start of program tests.
- The grant of this construction permit is subject to the condition that, with ample time before commencing operation, you make a good faith effort to identify and notify health care facilities (e.g., hospitals, nursing homes, see 47 CFR 15.242(a)(1)) within your service area potentially affected by your DTV operations. Contact with state and/or local hospital associations and local governmental health care licensing authorities may prove helpful in this process. During this pre-broadcast period, you must provide all notified entities with relevant technical details of your operation, such as DTV channel, targeted on-air date, effective radiated power, antenna location, and antenna height. You are required to place in the stations public inspection file documentation of the notifications and contacts made and you may not commence operations until good faith efforts have been made to notify affected health care facilities. During this pre-broadcast period and for up to twenty (20) days after commencing operations, should you become aware of any instances of medical devices malfunctioning or that such devices are likely to malfunction due to your DTV operations, you must cooperate with the health care facility so that it is afforded a reasonable opportunity to resolve the interference problem. At such time as all provisions of this condition have been fulfilled, and either upon the expiration of twenty (20) days following commencement of operations or when all known interference problems have been resolved, whichever is later, this condition lapses.

Subject to the provisions of the Communications Act of 1934, as amended, subsequent acts and treaties, and all regulations heretofore or hereafter made by this Commission, and further subject to the conditions set forth in this permit, the permittee is hereby authorized to construct the radio transmitting apparatus herein described. Installation and adjustment of equipment not specifically set forth herein shall be in accordance with representations contained in the permittee's application for construction permit except for such modifications as are presently permitted, without application, by the Commission's Rules.

Equipment and program tests shall be conducted only pursuant to Sections 73.1610 and 73.1620 of the Commission's Rules.

Appendix 5 - Page 3 Blank

K12PO PROPOSED CH 15 LPTV TEMECULA, CALIFORNIA



Communications Technologies, Inc. Marlton, NJ 08053

County Borders Lat/Lon Grid



Federal Communications Commission
Washington, D.C. 20554

March 11, 2019

Channel 51 of San Diego, Inc.
4575 Viewridge Avenue
San Diego, CA. 92123

1800E3-RLG

In re: Low Power Television Application of:
Call Sign: K15MG-D
Facility Id No: 41601
Temecula, CA.
Channel: 15
File No.: 0000052518

Dear Applicant:

We are currently processing the above captioned application. Our preliminary analysis indicates the following:

1. The proposal causes objectionable interference to the protected area of the Land Mobile service in LOS ANGELES, CA on Channel 14
2. The proposal causes objectionable interference to the protected area of the Land Mobile service in LOS ANGELES, CA on Channel 16

If you do not amend your application electronically within 30 days from the date of this letter to resolve the above deficiencies, we will dismiss your application.

Sincerely

Hossein Hashemzadeh
Deputy Chief
Video Division
Media Bureau

C.C. Channel 51 of San Diego, Inc.
C/O – Derek Teslik, Esq.
Wilkinson, Barber, Knauer, LLP
1800 M Street NW, Suite 800N
Washington, DC 20036



Federal Communications Commission
Washington, DC 20554

International Bureau

José de Jesús Arias Franco
IFT
Av. Insurgentes Sur 1143
Col. Nochebuena, C.P. 03720
Del. Benito Juárez
México City, México

DATE November 27, 2018

Dear Mr. Arias:

The Commission is in receipt of a proposal to install a Low Power Digital Television/Translator station as follows:

1. Applicant: CHANNEL 51 OF SAN DIEGO, INC.
2. Call Sign: K15MG-D
3. Channel Number: 15
4. Principal Community to be served: TEMECULA, CA.
5. Proposed Transmitter Location: 33 - 35 - 34.4 NL
117 - 08 - 53.9 WL
6. Effective Radiated Power: 7.5 kW
Emission Mask: FULL SERVICE
7. Transmitting Antenna: Directional: DIE/TLP-8C
Orientation: 45°
Polarization: ELLIPTICAL
Electrical beam tilt: 1.0
Mechanical tilt: N/A °
Radiation Center Above Ground: 26 meters
Radiation Center Above Mean Sea Level: 553.3 meters
8. Average HAAT: 101 meters
9. Distance to the border: 115.2 km

In view of the proximity of this proposed site to the Mexican-U.S.A. border, your comments are requested.

Sincerely,

Olga Madruga-Forti
Chief, Global Strategy & Negotiation Division
International Bureau

Directional Antenna Relative Field Values (Pre-rotated Pattern)

Degree	V_A	Degree	V_A	Degree	V_A	Degree	V_A
0	0.59	90	1	180	0.547	270	0.527
10	0.671	100	0.99	190	0.474	280	0.522
20	0.748	110	0.973	200	0.414	290	0.5
30	0.818	120	0.946	210	0.378	300	0.467
40	0.877	130	0.907	220	0.378	310	0.43
50	0.924	140	0.857	230	0.408	320	0.4
60	0.958	150	0.792	240	0.449	330	0.398
70	0.98	160	0.713	250	0.487	340	0.44
80	0.994	170	0.628	260	0.515	350	0.51



Federal Communications Commission
Washington, D.C. 20554

March 11, 2019

Channel 51 of San Diego, Inc.
4575 Viewridge Avenue
San Diego, CA. 92123

1800E3-RLG

In re: Low Power Television Application of:
Call Sign: K15MG-D
Facility Id No: 41601
Temecula, CA.
Channel: 15
File No.: 0000052518


Dear Applicant:

We are currently processing the above captioned application. Our preliminary analysis indicates the following:

1. The proposal causes objectionable interference to the protected area of the Land Mobile service in LOS ANGELES, CA on Channel 14
2. The proposal causes objectionable interference to the protected area of the Land Mobile service in LOS ANGELES, CA on Channel 16

If you do not amend your application electronically within 30 days from the date of this letter to resolve the above deficiencies, we will dismiss your application.

Sincerely


Hossein Hashemzadeh
Deputy Chief
Video Division
Media Bureau

C.C. Channel 51 of San Diego, Inc.
C/O – Derek Teslik, Esq.
Wilkinson, Barber, Knauer, LLP
1800 M Street NW, Suite 800N
Washington, DC 20036