

Comprehensive Technical Exhibit
Application for Construction Permit
KYMA-DT – Yuma, Arizona
Yuma Broadcasting Company
April, 2008

General

The following engineering statement and attached exhibits have been prepared for **Yuma Broadcasting Company**, licensee of digital television station KYMA-DT at Yuma, Arizona, and are in support of their application for construction permit for the KYMA-DT post transition facilities.¹

KYMA currently operates on channel 11 as an NTSC facility, with pre-transition DTV operations on channel 41. In the post-transition environment, KYMA-DT will operate on channel 11 pursuant to the Commission's DTV Table of Allotments in Appendix B of the *Eighth Report and Order*. This application is therefore being filed to request a construction permit for the post-transition DTV facilities, which will be at variance from those listed in Appendix B. The proposed facilities, even though differing from those listed in Appendix B, will be consistent with Commission policies and rules.

Discussion of KYMA-DT Allotment and Proposed Facilities

In the Commission's Table of Allotments, KYMA-DT is specified as operating in the post-transition environment on channel 11. The table specifies maximum effective radiated power of 22.3 kW at an antenna center of radiation at 468 meters above average terrain. The allocation lists an Antenna ID of 74556 for KYMA-DT.

The pattern contained within Antenna ID 74556 is an omnioid in shape, and is inconsistent with the pattern associated with the current NTSC antenna, which will be utilized for DTV operations in the post-transition environment. The antenna currently in use by KYMA for NTSC operations is a Harris TAB-12H Superturnstile. This antenna model is considered a non-directional antenna, and is the antenna which will be utilized by KYMA-DT in the post-transition environment.

¹ The Facility ID for KYMA is 74449.

The applicant therefore seeks to remove the “directional characteristics” that have been associated with this antenna.

In addition to removing the directional characteristics of the antenna, the applicant also seeks an increase in the center of radiation above average terrain from 468 meters to 493 meters. The listed value of 468 meters is inconsistent with the vertical location of the channel 11 antenna, which is at 493 meters above average terrain. This change will permit the station to utilize its existing NTSC antenna in the post-transition environment.

As previously mentioned, KYMA has been allocated an average effective radiated power of 22.3 kW according to Appendix B. The applicant seeks to reduce the maximum average effective radiated power from this value to 10.3 kW. As will be subsequently demonstrated, this change is consistent with the regulatory flexibility afforded to the applicant and will not result in a substantial loss of service.

Specifically the proposed facility would operate on the channel established in Appendix B. The proposed operation would not extend the noise limited service contour in any direction. Rather, the proposed noise limited contour would be smaller relative to the allocation contour in all directions as graphically demonstrated in Exhibit E-1, with a distance to contour tabulation in Exhibit E-2. The proposed facility would also be consistent with the regulatory flexibility afforded as the service area population would decrease by less than five percent.

The above described reduction in the size of the noise limited service contour would necessarily imply a reduction in the predicted interference to other facilities in the region. Exhibit E-3 contains an outgoing interference study for the proposed facility and demonstrates that the interference requirements contained within the Commission’s Rules and proceedings would be

met. The table below depicts the changes in the interference caused to other stations that would result from the proposed facilities.

Affected Station	Facility ID	Auth. Type	Community of License	Contour Population	Appendix B Facility		Proposed Facility	
					Interference Population	Interference Percentage	Interference Population	Interference Percentage
KDTP	83491	CP/ALLOC	Holbrook, AZ	2,619,391	9,360	0.36	5,933	0.23
KTTV	22208	CP	Los Angeles, CA	16,185,069	16	0.00	0	0.00
KTTV	22208	ALLOC	Los Angeles, CA	16,305,302	0	0.00	0	0.00
KLVS	11683	LIC/ALLOC	Las Vegas, NV	1,445,520	17	0.00	4	0.00

Note: Population Figures based on 2000 US Census Data.

In addition to reducing the interference caused to other facilities in the region, a slight reduction in the service population of KYMA-DT relative to the Appendix B facilities would also occur. Exhibit E-4, along with its tabulation, provides illustration of the service area of the KYMA Appendix B facilities. In Exhibit E-5, the service area of the proposed facility is illustrated along with a tabulation of the population served. As these two exhibits demonstrate, the proposed facility would reduce the KYMA-DT service area from 326,619 persons to 324,889 persons by the 2000 US Census. This reduction results in the proposed facility providing interference-free service to 99.5 percent of persons predicted to receive interference-free service from the Appendix B facilities. In terms of straight contour populations, the contour population would be reduced from 330,035 persons under the Appendix B facilities to 329,196 persons by the proposed facility. The proposed facility noise limited service contour encompasses 99.7 percent of the population encompassed by the Appendix B noise limited contour.²

The requirements of Section 73.1030 of the Commission's Rules are not applicable in this particular case. The proposed facility would not operate in any of the zones described in the referenced section, and is not in close proximity to any of the installations described in that section.

² The contours and service areas for both the proposed and Appendix B facilities encompass land area within Mexico. Only population within the United States was included in the described population counts.

The closest two protected FCC field installations to the proposed facility are those at Livermore, California and Douglas, Arizona. The distance to both of these facilities is well in excess of that where specific notification is suggested or required.

The structure utilized for the facilities described in this application has been registered with the Commission. Specifically an Antenna Structure Registration Number of 1002110 has been assigned to the tower.

Tech Box – FCC Form 301 Section III-D

This section of the technical exhibit contains additional information relative to the responses required on the Tech Box section of FCC Form 301. Responses to items numbered 1 through 9 in this section have been answered in the appropriate blanks on the form page.

The antenna that would be utilized by the proposed facility is an Harris (HAR) TAB-12H Superturnstile. This is the same antenna that has been in use by the NTSC facility. This antenna is a non-directional antenna with 0.7 degree of electrical beamtilt and no mechanical beamtilt. Items described under Section 73.625(c)(3) of the Commission's Rules have been omitted from this application since the proposed antenna is considered non-directional antenna.

The tower utilized by the proposed DTV is not utilized by any other authorized facility. In addition, it would not be part of an AM radiation system and is not located in the vicinity of an AM radiation system. The proposed facility therefore complies with Section 73.625(c) of the Commission's Rules.

The proposed KYMA-DT facilities would satisfy the principal community coverage requirements of Section 73.625 of the Commission's Rules. Exhibit E-6 is a map illustrating the predicted coverage of the proposed facility. As this map demonstrates, the entire community of license, Yuma, Arizona would be served with a signal level of greater than 43 dBu. For reference purposes, the 36 dBu F(50,90) service contour has also been included on this map.

The proposed KYMA-DT facility would not constitute a substantial environmental impact. The absence of a significant environmental impact by the proposed facility is based on two considerations. The first of these considerations is the fact that the proposed facility would utilize the existing KYMA transmission facility. Since no new excavation or construction would result, no additional environmental impact to the area would ensue.

Secondly, the proposed facility would not constitute an RF exposure hazard to persons at the site. For KYMA-DT a worst case scenario was assumed using the equations contained in OET Bulletin 65. The worst case scenario assumes that all energy radiating from the antenna would be directed at the ground. The worst-case predicted power density for KYMA-DT is determined by the following:

$$S = \frac{33.4(E_{rel})^2(ERP)}{h^2}$$

Since all radiation is assumed to be directed at the ground, the relative field component for all facilities in both equations is assumed to have 1.0 as a value. The effective radiated power is simply the maximum effective radiated power of the facilities in Watts for KYMA-DT. The denominator term is the height of the center of radiation minus 2 meters to accommodate the average human height. The worst case power density for the facility is therefore predicted to be

13.8 $\mu\text{W}/\text{cm}^2$. The upper limit permissible under the uncontrolled environment condition of the applicable safety standard is 200 $\mu\text{W}/\text{cm}^2$. The proposed facility would therefore not constitute an RF exposure hazard.

In order to protect workers having access to the site from being exposed to levels of non-ionizing radiation which may exceed the applicable safety standards, the applicant certifies that it will coordinate with other present and future users of the site. Such coordination will include, but is not necessarily limited to, a reduction in transmitter power or cessation of operation.

Affidavit

The preceding statement and attached exhibits have been prepared by me, or under my direction, and are true and accurate to the best of my belief and knowledge.



Above signature is digitized copy of actual signature
License Expires November 30, 2009

Jeremy D. Ruck, PE
April 30, 2008

KYMA

BLCT19880304KF
Latitude: 33-03-10 N
Longitude: 114-49-40 W
ERP: 316.00 kW
Channel: 11-
Frequency: 200.5 MHz
AMSL Height: 773.0 m
Horiz. Pattern: Omni
Vert. Pattern: Yes
Elec Tilt: 0.7
Prop Model: FCC Method

KYMA-DT.ALL**ALLOCATION**

Latitude: 33-03-10 N
Longitude: 114-49-40 W
ERP: 22.30 kW
Channel: 11
Frequency: 201.0 MHz
AMSL Height: 747.0 m
Horiz. Pattern: Directional
Vert. Pattern: Yes
Elec Tilt: 0.0
Prop Model: FCC Method

KYMA-DT.PRO**PROPOSED**

Latitude: 33-03-10 N
Longitude: 114-49-40 W
ERP: 10.30 kW
Channel: 11
Frequency: 201.0 MHz
AMSL Height: 773.0 m
Horiz. Pattern: Omni
Vert. Pattern: Yes
Elec Tilt: 0.7
Prop Model: FCC Method

Exhibit E-1

Service Contour Comparison
KYMA-DT -Yuma, Arizona
Yuma Broadcasting Company
April, 2008

D.L. Markley & Associates, Inc.

- KYMA(TV) Grade B Service Contour
- KYMA-DT Appendix B N.L. Service Contour
- KYMA-DT Proposed N.L. Service Contour

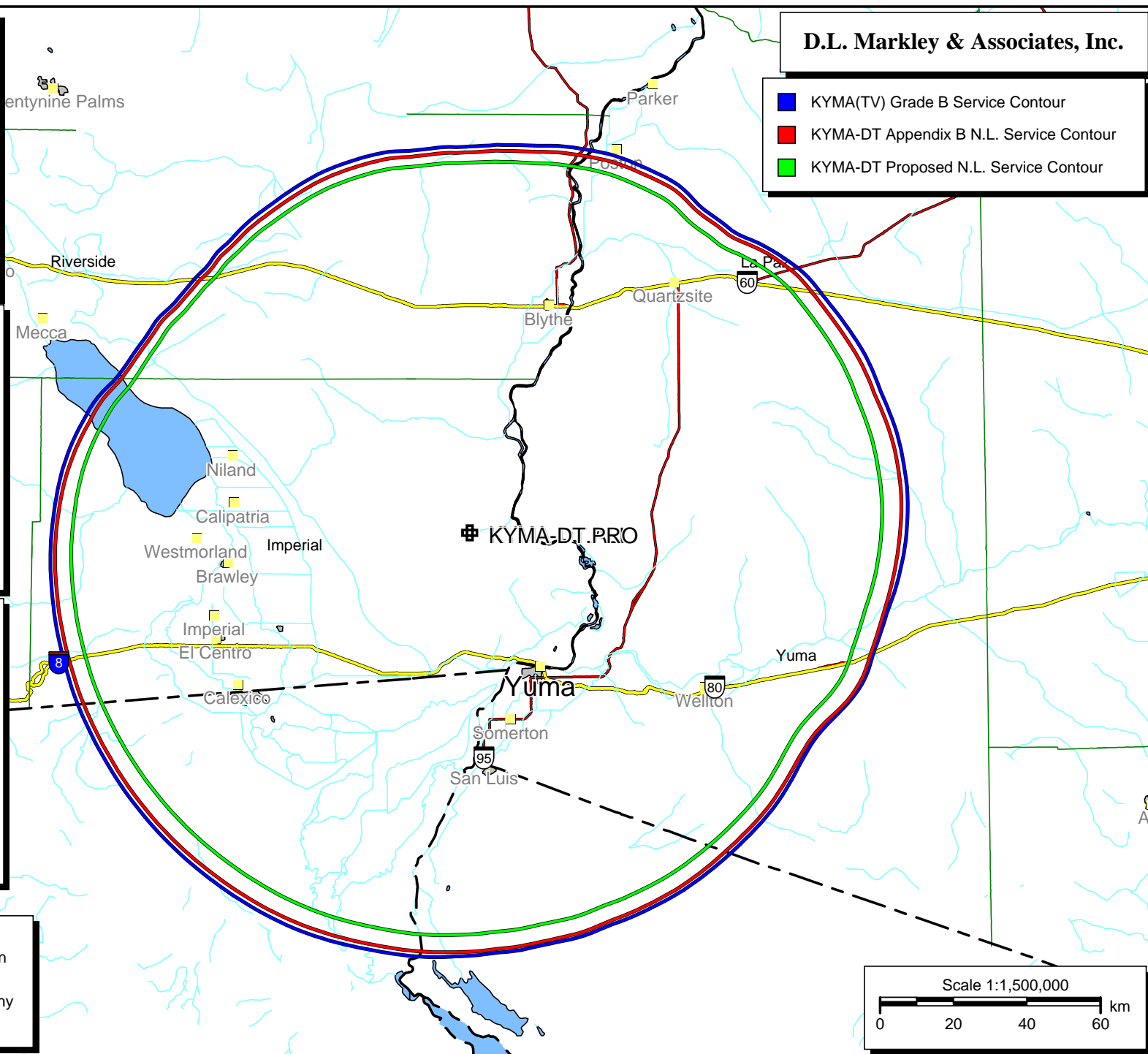


Exhibit E-2 - Comparison of Proposed,Allocated, and Grade B Service Contours

Azimuth	HAAT in meters(1)	Contour Distance in kilometers(2)			Contour Distance Differences			
		Contour Distance in kilometers(2)			Proposed to Grade B		Proposed to Allocation	
		Grade B	Allocation	Proposed	kilometers	miles	kilometers	miles
0	409.8	104.9	103.3	100.5	-4.4	-2.73	-2.8	-1.74
10	430.0	106.7	105.0	101.8	-4.9	-3.04	-3.2	-1.99
20	461.0	109.5	107.6	104.3	-5.2	-3.23	-3.3	-2.05
30	469.1	110.2	108.5	104.9	-5.3	-3.29	-3.6	-2.24
40	451.6	108.6	107.1	103.5	-5.1	-3.17	-3.6	-2.24
50	518.0	113.9	112.4	108.3	-5.6	-3.48	-4.1	-2.55
60	553.5	116.4	114.5	110.2	-6.2	-3.85	-4.3	-2.67
70	575.6	118.0	116.2	111.4	-6.6	-4.10	-4.8	-2.98
80	594.9	119.3	117.7	112.3	-7.0	-4.35	-5.4	-3.36
90	584.8	118.6	116.9	111.8	-6.8	-4.23	-5.1	-3.17
100	543.4	115.7	114.7	109.7	-6.0	-3.73	-5.0	-3.11
110	525.5	114.5	113.7	108.7	-5.8	-3.60	-5.0	-3.11
120	460.5	109.4	108.5	104.2	-5.2	-3.23	-4.3	-2.67
130	477.1	110.9	109.6	105.6	-5.3	-3.29	-4.0	-2.49
140	492.9	112.1	110.8	106.7	-5.4	-3.36	-4.1	-2.55
150	506.4	113.1	111.9	107.6	-5.5	-3.42	-4.3	-2.67
160	507.1	113.2	112.1	107.6	-5.6	-3.48	-4.5	-2.80
170	515.2	113.7	112.7	108.1	-5.6	-3.48	-4.6	-2.86
180	531.5	114.9	113.7	109.0	-5.9	-3.67	-4.7	-2.92
190	549.5	116.2	114.7	110.0	-6.2	-3.85	-4.7	-2.92
200	563.7	117.2	115.5	110.8	-6.4	-3.98	-4.7	-2.92
210	569.3	117.6	116.0	111.0	-6.6	-4.10	-5.0	-3.11
220	567.4	117.4	115.9	110.9	-6.5	-4.04	-5.0	-3.11
230	562.9	117.1	115.6	110.7	-6.4	-3.98	-4.9	-3.04
240	554.8	116.5	115.0	110.3	-6.2	-3.85	-4.7	-2.92
250	544.4	115.8	114.3	109.7	-6.1	-3.79	-4.6	-2.86
260	530.0	114.8	113.4	109.0	-5.8	-3.60	-4.4	-2.73
270	512.0	113.5	112.3	107.9	-5.6	-3.48	-4.4	-2.73
280	484.9	111.5	110.0	106.1	-5.4	-3.36	-3.9	-2.42
290	439.2	107.5	106.0	102.5	-5.0	-3.11	-3.5	-2.17
300	388.5	103.0	101.7	99.1	-3.9	-2.42	-2.6	-1.62
310	371.9	101.5	100.2	97.9	-3.6	-2.24	-2.3	-1.43
320	383.3	102.5	101.1	98.7	-3.8	-2.36	-2.4	-1.49
330	404.1	104.4	102.7	100.1	-4.3	-2.67	-2.6	-1.62
340	420.8	105.8	104.0	101.2	-4.6	-2.86	-2.8	-1.74
350	413.8	105.2	103.5	100.8	-4.4	-2.73	-2.7	-1.68

(1) - HAAT values indicated are for NTSC and Proposed DT operations. DT Allocation HAAT is 25 m lower.

(2) - Grade B contour is 56 dBu F(50,50). Both DTV contours are 36 dBu F(50,90)

D.L. Markley & Associates, Inc.

Consulting Engineers

2104 West Moss Avenue

Peoria, Illinois 61604

KYMA-DT.PRO**PROPOSED**

Latitude: 33-03-10 N

Longitude: 114-49-40 W

ERP: 10.30 kW

Channel: 11

Frequency: 201.0 MHz

AMSL Height: 773.0 m

Elevation: 615.0 m

Horiz. Pattern: Omni

Vert. Pattern: Yes

Elec Tilt: 0.0

Prop Model: Longley/Rice

Climate: Cont temperate

Conductivity: 0.0050

Dielec Const: 15.0

Refractivity: 301.0

Receiver Ht AG: 10.0 m






Receiver Gain: 0 dB

Time Variability: 10.0%

Sit. Variability: 50.0%

ITM Mode: Broadcast

D.L. Markley & Associates, Inc.

-  KYMA-DT.PRO
-  KDTP-DT.C
-  KTTV-D.C
-  KTTV-D
-  KLVX-D

KLVX-D

KDTP-DT.C

KYMA-DT.PRO

Exhibite E-3

Outgoing Interference Study

KYMA-DT - Yuma, Arizona

Yuma Broadcasting Company

April, 2008

Scale 1:3,000,000



0 40 80 120 km

Exhibit E-3
Outgoing Interference Population Report

KYMA-DT.PRO (11) Yuma, AZ - PROPOSED
Broadcast Type: Digital Service: V
Lat: 33-03-10 N Lng: 114-49-40 W ERP: 10.3 kW AMSL: 773.0 m
TV Outgoing Interference Study
Signal Resolution: 1.0 km
Consider NTSC Taboo: Yes
KWX error points are considered to
be interference free coverage.
Default # of radials computed for contours: 72
Contours calculated using 8 radial HAAT.
LR Profile Spacing Increment: 0.1 km
Masked interference points are being
counted as interference.
Pop Centroid DB: 2000 US Census (SF1)

Study Date: 4/29/2008
TV Database Date: 4/29/2008

Primary Terrain: V-Soft 30 Second US Database
Secondary Terrain: V-Soft 3 Second US Terrain

Population Database: 2000 US Census (SF1)

Stations Considered:

Call Letters	City	State	Dist	Bear
KDTP-DT.C (11)	Holbrook	AZ	379.6	66.0
KTTV-D.C (11)	Los Angeles	CA	327.0	294.3
KTTV-D (11)	LOS ANGELES	CA	327.1	294.3
KLVX-D (11)	LAS VEGAS	NV	328.1	357.2


Call	Area	HUnits	Contour	Masked Ix	Unmasked Ix	%
KDTP-DT.C (11)	5.1	2,398	2,619,391	0	5,933	0.2
KTTV-D.C (11)	5.1	0	16,185,069	0	0	0.0
KTTV-D (11)	8.1	0	16,305,302	0	0	0.0
KLVX-D (11)	53.9	2	1,445,520	0	4	0.0

	Housing Units	Population
Arizona		
Maricopa County		
Total	1,250,231	3,072,149
KDTP-DT.C (11)	2,398	5,933
Mohave County		














Total	80,062	155,032
KLVS-D (11)	0	0
California		
Riverside County		
Total	584,674	1,545,387
KTTV-D (11)	0	0
San Bernardino County		
Total	601,369	1,709,434
KLVS-D (11)	2	4

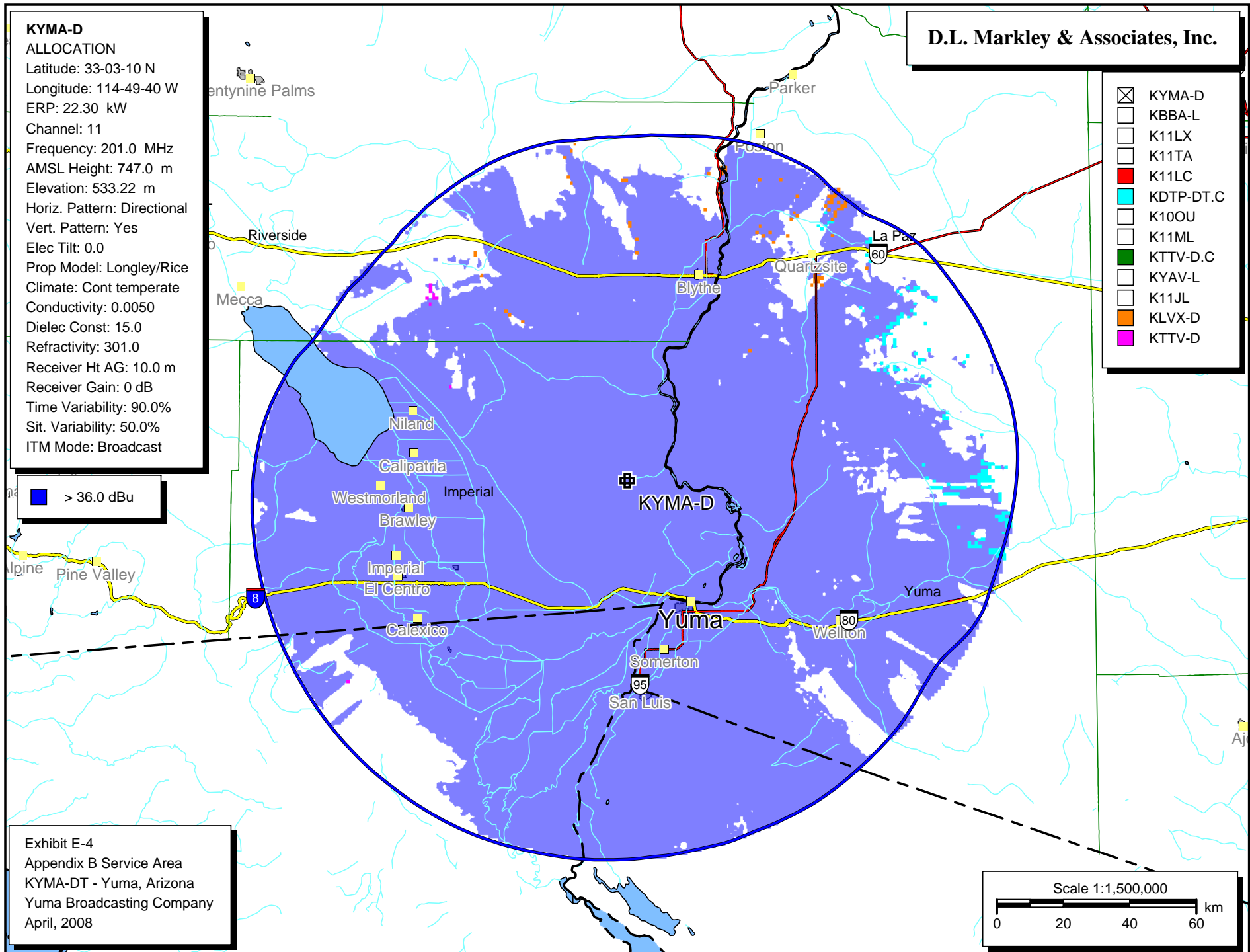
KYMA-D**ALLOCATION**

Latitude: 33-03-10 N
Longitude: 114-49-40 W
ERP: 22.30 kW
Channel: 11
Frequency: 201.0 MHz
AMSL Height: 747.0 m
Elevation: 533.22 m
Horiz. Pattern: Directional
Vert. Pattern: Yes
Elec Tilt: 0.0
Prop Model: Longley/Rice
Climate: Cont temperate
Conductivity: 0.0050
Dielec Const: 15.0
Refractivity: 301.0
Receiver Ht AG: 10.0 m
Receiver Gain: 0 dB
Time Variability: 90.0%
Sit. Variability: 50.0%
ITM Mode: Broadcast

 > 36.0 dBu

D.L. Markley & Associates, Inc.

-  KYMA-D
-  KBBA-L
-  K11LX
-  K11TA
-  K11LC
-  KDTP-DT.C
-  K10OU
-  K11ML
-  KTTV-D.C
-  KYAV-L
-  K11JL
-  KLVX-D
-  KTTV-D



D.L. Markley & Associates, Inc. Population Report
Exhibit E-4
KYMA-DT Appendix B Facilities Service Area

KYMA-D (11) YUMA, AZ - ALLOCATION
Broadcast Type: Digital Service: D
Lat: 33-03-10 N Lng: 114-49-40 W ERP: 22.3 kW AMSL: 747.0 m
TV Incoming Interference Study
Interference Considered Within: FCC Contour: 36 dBu
Signal Resolution: 1.0 km
LR Profile Spacing Increment: 0.1 km
Consider NTSC Taboo: Yes
KWX error points are considered to
be interference free coverage.
of radials computed for protected contour: 72
Protected contour calculated using 8 radial HAAT.
Threshold for reception: 36.0
Pop Centroid DB: 2000 US Census (SF1)

Study Date: 4/30/2008
TV Database Date: 4/29/2008

Primary Terrain: V-Soft 30 Second US Database
Secondary Terrain: V-Soft 3 Second US Terrain

Population Database: 2000 US Census (SF1)

Percentages calculated using a baseline population of 326,761.

Stations which cause interference:

Call Letters	H Units	Population	%	Area (sq. km)
K11LC (11N)	0	0	0.000	6.11
KDTP-DT.C (11)	1	0	0.000	172.57
KTTV-D.C (11)	0	0	0.000	7.12
KLVX-D (11)	340	142	0.043	82.21
KTTV-D (11)	0	0	0.000	10.19

Masking Summary:

Call Letters	Total Interference		Unique Interference	
	Population	%	Population	%
K11LC (11N)	0	0.000	0	0.000
KDTP-DT.C (11)	0	0.000	0	0.000
KTTV-D.C (11)	0	0.000	0	0.000
KLVX-D (11)	142	0.043	142	0.043
KTTV-D (11)	0	0.000	0	0.000

Stations considered which do not cause interference:

KBBA-L (10Z)
K11LX (11N)
K11TA (11N)

K11LC (11N)
 K100U (10Z)
 K11ML (11N)
 KTTV-D.C (11)
 KYAV-L (12N)
 K11JL (11N)
 KTTV-D (11)

Call Letters	City	State	Dist	Bear
KBBA-L (10Z)	Lake Havasu City	AZ	177.0	13.7
K11LX (11N)	Bullhead City	AZ	240.9	5.9
K11TA (11N)	Golden Valley	AZ	247.8	13.0
K11LC (11N)	Prescott	AZ	265.3	52.5
KDTP-DT.C (11)	Holbrook	AZ	379.6	66.0
K100U (10Z)	Palm Springs	CA	192.2	300.6
K11ML (11N)	Ridgecrest, Etc.	CA	385.9	319.4
KTTV-D.C (11)	Los Angeles	CA	327.0	294.3
KYAV-L (12N)	Palm Springs	CA	174.5	301.6
K11JL (11N)	Overton, Etc.	NV	403.5	3.9
KLVS-D (11)	Las Vegas	NV	328.1	357.2
KTTV-D (11)	LOS ANGELES	CA	327.1	294.3

Totals for KYMA-D (11)

Calculation Area Population:	329,826	(	38326.4 sq. km)
Not Affected by Terrain Loss:	326,761	(	34248.6 sq. km)
Total NTSC Interference:	0	(	6.1 sq. km)
DTV Only Interference:	142	(	251.7 sq. km)
Total DTV Interference:	142	(	257.9 sq. km)
Interfered Population:	142	(	257.8 sq. km)
Interference Free:	326,619	(	33990.8 sq. km)
Percent Interference:	0.04		
Terrain Blocked Population:	3,065	(	4077.7 sq. km)
Contour Area Population:	329,849		

Interference Free Breakdown:

White:	108,802	(	33.3%)
Black:	11,611	(	3.6%)
Hispanic:	194,322	(	59.5%)
Native American:	3,853	(	1.2%)
Asian:	4,098	(	1.3%)
Pacific Islander:	274	(	0.1%)
Mixed Race:	3,284	(	1.0%)

Other: 375 (0.1%)

Total: 326,619














	Housing Units	Population	% of County

Arizona			
La Paz County			
County Pop	15,133	19,715	
KYMA-D (11)	2,475	3,448	
KDTP-DT.C (11)	0	0	0.00
KLVX-D (11)	55	111	3.22
Ix Free	2,420	3,337	96.78
Yuma County			
County Pop	74,140	160,026	
KYMA-D (11)	73,696	159,066	
KDTP-DT.C (11)	1	0	0.00
Ix Free	73,695	159,066	100.00


	Housing Units	Population	% of County
California			
Imperial County			
County Pop	43,891	142,361	
KYMA-D (11)	41,676	139,705	
Ix Free	41,676	139,705	100.00
Riverside County			
County Pop	584,674	1,545,387	
KYMA-D (11)	7,099	24,542	
KTTV-D.C (11)	0	0	0.00
KLVX-D (11)	285	31	0.13
KTTV-D (11)	0	0	0.00
Ix Free	6,814	24,511	99.87

PROPOSED

■ > 36.0 dBu

	KYMA.PRO
	KBBA-L
	K11LX
	K11TA
	K11LC
	KDTP-DT.CP
	K10OU
	K11ML
	KTTV-D.C
	KYAV-L
	K11JL
	KLVS-D
	KTTV-D

Scale 1:1,500,000



0 20 40 60 km

D.L. Markley & Associates, Inc. Population Report
Exhibit E-5
Proposed KYMA-DT Facilities Service Area

KYMA.PRO (11) Yuma, AZ - PROPOSED
Broadcast Type: Digital Service: V
Lat: 33-03-10 N Lng: 114-49-40 W ERP: 10.3 kW AMSL: 773.0 m
TV Incoming Interference Study
Interference Considered Within: FCC Contour: 36 dBu
Signal Resolution: 1.0 km
LR Profile Spacing Increment: 0.1 km
Consider NTSC Taboo: Yes
KWX error points are considered to
be interference free coverage.
of radials computed for protected contour: 72
Protected contour calculated using 8 radial HAAT.
Threshold for reception: -999.0
Pop Centroid DB: 2000 US Census (SF1)

Study Date: 4/30/2008
TV Database Date: 4/29/2008

Primary Terrain: V-Soft 30 Second US Database
Secondary Terrain: V-Soft 3 Second US Terrain

Population Database: 2000 US Census (SF1)

Percentages calculated using a baseline population of 324,936.

Stations which cause interference:

Call Letters	H Units	Population	%	Area (sq. km)
K11LC (11N)	0	0	0.000	4.08
KDTP-DT.CP (11)	0	0	0.000	162.46
KTTV-D.C (11)	0	0	0.000	6.10
KLVX-D (11)	227	47	0.014	72.08
KTTV-D (11)	0	0	0.000	14.26

Masking Summary:

Call Letters	Total Interference Population	%	Unique Interference Population	%
K11LC (11N)	0	0.000	0	0.000
KDTP-DT.CP (11)	0	0.000	0	0.000
KTTV-D.C (11)	0	0.000	0	0.000
KLVX-D (11)	47	0.014	47	0.014
KTTV-D (11)	0	0.000	0	0.000

Stations considered which do not cause interference:

KBBA-L (10Z)
K11LX (11N)
K11TA (11N)

K11LC (11N)
 KDTP-DT.CP (11)
 K100U (10Z)
 K11ML (11N)
 KTTV-D.C (11)
 KYAV-L (12N)
 K11JL (11N)
 KTTV-D (11)

Call Letters	City	State	Dist	Bear
KBBA-L (10Z)	Lake Havasu City	AZ	177.0	13.7
K11LX (11N)	Bullhead City	AZ	240.9	5.9
K11TA (11N)	Golden Valley	AZ	247.8	13.0
K11LC (11N)	Prescott	AZ	265.3	52.5
KDTP-DT.CP (11)	Holbrook	AZ	379.6	66.0
K100U (10Z)	Palm Springs	CA	192.2	300.6
K11ML (11N)	Ridgecrest, Etc.	CA	385.9	319.4
KTTV-D.C (11)	Los Angeles	CA	327.0	294.3
KYAV-L (12N)	Palm Springs	CA	174.5	301.6
K11JL (11N)	Overton, Etc.	NV	403.5	3.9
KLVS-D (11)	Las Vegas	NV	328.1	357.2
KTTV-D (11)	LOS ANGELES	CA	327.1	294.3

Totals for KYMA.PRO (11)

Calculation Area Population:	329,164	(35572.1 sq. km)
Not Affected by Terrain Loss:	324,936	(31939.0 sq. km)
Total NTSC Interference:	0	(4.1 sq. km)
DTV Only Interference:	47	(238.7 sq. km)
Total DTV Interference:	47	(241.7 sq. km)
Interfered Population:	47	(242.7 sq. km)
Interference Free:	324,889	(31696.3 sq. km)

Percent Interference: 0.01

Terrain Blocked Population:	4,228	(3633.1 sq. km)
Contour Area Population:	329,140	

Interference Free Breakdown:

White:	107,434	(33.1%)
Black:	11,606	(3.6%)
Hispanic:	194,029	(59.7%)
Native American:	3,825	(1.2%)
Asian:	4,091	(1.3%)
Pacific Islander:	273	(0.1%)

Mixed Race:	3,256	(1.0%)
Other:	375	(0.1%)
Total:	324,889	

	Housing Units	Population	% of County
Arizona			
La Paz County			
County Pop	15,133	19,715	
KYMA.PRO (11)	1,403	2,181	
KDTP-DT.CP (11)	0	0	0.00
KLVX-D (11)	0	0	0.00
Ix Free	1,403	2,181	100.00
Yuma County			
County Pop	74,140	160,026	
KYMA.PRO (11)	73,667	158,979	
KDTP-DT.CP (11)	0	0	0.00
Ix Free	73,667	158,979	100.00

	Housing Units	Population	% of County
California			
Imperial County			
County Pop	43,891	142,361	
KYMA.PRO (11)	41,233	139,258	
KTTV-D (11)	0	0	0.00
Ix Free	41,233	139,258	100.00
Riverside County			
County Pop	584,674	1,545,387	
KYMA.PRO (11)	6,840	24,518	
KLVX-D (11)	227	47	0.19
KTTV-D (11)	0	0	0.00
Ix Free	6,613	24,471	99.81

KYMA.PRO**PROPOSED**

Latitude: 33-03-10 N

Longitude: 114-49-40 W

ERP: 10.30 kW

Channel: 11

Frequency: 201.0 MHz

AMSL Height: 773.0 m

Elevation: 615.0 m

Horiz. Pattern: Omni

Vert. Pattern: Yes

Elec Tilt: 0.7

Prop Model: FCC Method

D.L. Markley & Associates, Inc.

- 43 dBu F(50,90) Service Contour
- 36 dBu F(50,90) Service Contour

