Comprehensive Technical Exhibit

Application for Construction Permit

KHQA-DT – Hannibal, Missouri

Barrington Quincy License LLC

March, 2008

General

The following engineering statement and attached exhibits have been prepared for **Barrington Quincy License LLC**, licensee of digital television station KHQA-DT (Facility ID: 4690) at Hannibal, Missouri, and are in support of their application for construction permit for the KHQA-DT post transition facilities.

KHQA currently operates on channel 7 as an NTSC facility, with current DTV operations on channel 29. In the post-transition environment, KHQA-DT will operate on channel 7 pursuant to the Commission's DTV Table of Allotments. This application is therefore being filed to request a construction permit for the post-transition DTV facilities, which will be slightly different than those indicated in the Table of Allotments. The proposed facilities, even though in variance relative to the allocation facilities, will be consistent with Commission policies and rules.

Discussion of KHQA-DT Allotment

In the Commission's Table of Allotments, KHQA-DT is specified as operating in the post-transition environment on channel 7. Appendix B to the Commission's order adopting the Table specifies maximum effective radiated power of 13.6 kW at an antenna center of radiation at 271 meters above average terrain, and lists an Antenna ID of 75011 for KHQA-DT.

The pattern contained within Antenna ID 75011 is of an omnioid shape. This shape is inconsistent with the type of antenna currently utilized by KHQA-TV, which is an RCA (Dielectric) TF-12AH Superturnstile. This antenna model is considered a non-directional antenna, and is the antenna with which the proponent will operate KHQA-DT in the post-transition environment. As a result, the facilities for which the applicant is submitting this application vary slightly from the entry

in Appendix B, as the applicant seeks to remove the "directional characteristics" of the antenna specified in the allotment. The pattern contained within the referenced Antenna ID is consistent with an ERI ALP omnioid antenna that is listed as being utilized by the pre-transition KHQA DTV facility.

Even though the facilities specified in this application are at a slight variance from those specified in the Table of Allotments, this application would be consistent with the freeze waiver policy established by the Commission at paragraph 151 of the *Third Periodic Review of the Commission's Rules and Policies Affecting the Conversion to Digital Television*. The applicant respectfully requests waiver of the freeze pursuant to that policy. All technical parameters specified for the KHQA-DT facility would be identical to those specified in Appendix B with the exception of the directional antenna pattern. It will be demonstrated in this exhibit that the technical parameters contained herein will permit the facility to utilize its current NTSC antenna to avoid a reduction in post-transition service from its analog service area, and would neither increase the authorized service area by more than five miles nor would more than 0.5 percent new interference be caused to other stations.

It should be noted that the removal of the directional characteristics is not being requested in an attempt to expand or "maximize" the coverage of the allotted facilities, but rather is requested in order to allow the station to utilize its current NTSC antenna in the post-transition environment while still maintaining coverage similar to the analog facility. The map in Exhibit E-1 depicts the proposed 36 dBu F(50,90) service contour, the 36 dBu F(50,90) service contour based on the allocation, and the licensed Grade B service contour for KHQA-TV.

As demonstrated on this map and the subsequent table in Exhibit E-2, the proposed noise limited service contour would not increase by more than five miles in any direction when compared against the allocation service contour. Furthermore, as this map and table demonstrate, the proposed noise limited service contour is very nearly identical to the licensed Grade B service contour for KHQA-TV. Differences between the Grade B service contour and the proposed service contour are attributable to mathematical differences resulting from the use of the F(50,50) and F(50,90) curves. These contours could reasonably be considered identical were it not for these mathematical differences.

The proposed facility would not cause impermissible interference to other facilities. In order to demonstrate this fact, two interference studies have been included, which have been labeled as Exhibits E-3 and E-4. These studies depict the predicted interference from the proposed facility to other facilities in the region both based on the KHQA-DT allocation facilities and also based on the proposed KHQA-DT facilities. The effect of potential masking of interference from other facilities in the region was ignored in the study creation.

In the creation of these studies not only was the effect of masking ignored, but the assumption was made that many of the stations involved may be in the same situation as the applicant with regard to the mathematical directional characteristics applied to antennas that should clearly be considered non-directional. For such facilities listed in Appendix B, the assumption for the basis of the interference calculations was that these facilities would ultimately operate at the allocated parameters with a non-directional antenna. Several of the facilities, however, clearly have directional antennas by virtue of the particular antennas imposed. In those

cases, especially where the ultimate post-transition facility was already licensed, the directional pattern identical to that specified under the appropriate Antenna ID in the CDBS was utilized.

As these two studies demonstrate, the proposed facility would be compliant with the requirement that the proposed facility not create new interference of more than 0.5 percent. The Appendix B facilities are predicted to cause interference to 1,657 persons in the KWWL-DT service area, which is 0.2 percent of the population. The proposed facilities would increase this number to 3,122 persons, or 0.3 percent of the service area population. With regard to KQTV-DT, the other facility to which KHQA-DT is predicted to cause interference, the predicted interference population is 921 persons, or 0.1 percent of the service area population. The proposed facility would increase this to 940 persons, which is still 0.1 percent of the service area population.

As this application demonstrates, the public interest would be served by waiving the filing freeze in this instance and promptly approving this application.

DTV Checklist – FCC Form 301 Section III-D

The appropriate items on Section III-D of FCC Form 301 have been answered. This application is for the post-transition facilities for KHQA-DT. As a result, items 1(a), 1(d), 1(e), and 2-5 have been answered per the instructions. This section of the comprehensive technical exhibit will, however, provide additional information relative to these responses.

The proposed DTV facilities described in this application will operate on the DTV channel established for the station. Specifically, the proposed facilities would utilize channel 7 in the post-transition environment. This is the channel on which the applicant current operates an NTSC facility. The response of “yes” has therefore been provided under item 1(a).

Under item 1(d), a question is posed concerning the expansion of the noise limited service contour beyond the established value indicated in Appendix B. This question has been answered "no" as the proposed facilities expand the noise limited service contour along several azimuths by an amount less than five miles. As previously discussed, this minimal extension of the noise limited service contour is the result of the removal of the directional characteristics added to the allocation. It is respectfully submitted that the consistency of this minimal expansion of the service area with Commission proceedings should not preclude rapid processing of this application

The response to item 1(e) is tied to the previous response provided under item 1(d). As with the previous response, this question is answered "no" since the proposed facility would neither identically match the service area population, nor would it reduce the service area population by less than five percent. Rather, the increase in the service area previously discussed would result in a minor increase to the station's service area population. Specifically, Appendix B lists a service area population of 309 thousand persons. The actual resident population within the Appendix B contour is 312,312 persons based on 2000 US Census data, while the proposed contour has a resident population of 327,234 persons by the same data. This increase is 4.84 percent with the allocation contour used as the baseline. It should be noted that the Grade B service contour of the corresponding analog facility has a resident population of 325,119 persons. Using this contour as a baseline, the proposed facility would increase the population served by the analog facility by 2,115 persons or 0.65 percent.

The proposed facility will not have a significant environmental impact. The facility, as a result, will not fall under Section 1.1307 of the Commission's Rules. More detailed information

concerning this response will be contained in section of this technical exhibit pertinent to the Tech Box portion of FCC Form 301.

The proposed facility will also comply with the provisions of Section 73.625 of the Commission's Rules. Additional information concerning this response will be provided in the subsequent Tech Box section of this exhibit.

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. The response of "yes" to this item is thus applicable.

The structure utilized for the facilities described in this application has been registered with the Commission. Specifically an Antenna Structure Registration Number of 1007637 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 RCA (Dielectric) TF-12AH Superturnstile. This is the same antenna that has been in use by the NTSC facility. This antenna is a non-directional antenna with 1.0 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 facility is also utilized by several LPTV facilities. The tower would not be part of an AM radiation system, however, the antenna system for WGEM is located 1.07 kilometers away from the proposed site. Since no construction or modification of the tower would be required, no additional impact would result to WGEM. The proposed facility therefore complies with Section 73.625(c) of the Commission's Rules.

As indicated on the form pages, the proposed facility would satisfy the post-transition interference protection provisions of Section 73.616 of the Commission's Rules. Two interference studies have been previously discussed in this technical exhibit.

The proposed KHQA-DT facilities would satisfy the principal community coverage requirements of Section 73.625 of the Commission's Rules. Exhibit E-5 is a map illustrating the predicted coverage of the proposed facility. As this map demonstrates, the entire community of license, Hannibal, Missouri, 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 KHQA-DT facility would not constitute a substantial environmental impact as previously discussed. 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 KHQA 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. In addition to the final KHQA-DT facilities, the tower would also support the transmitting antennas for several LPTV facilities. For each of the facilities a worst case scenario was assumed using equations contained in OET Bulletin 65. The worst case scenario assumes that all energy radiating from each of the antennas would be directed at the ground. The worst-case predicted power density for KHQA-DT is determined by the following:

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

For the LPTV stations the worst case power density at ground level is given by the following equation:

$$S = \frac{33.4(E_{Rel})^2(0.4ERP_V + ERP_A)}{h^2}$$

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 KHQA, while for the DTV facilities it is the sum of the aural ERP and four-tenths of the visual ERP in Watts. The denominator term in all cases is the height of the center of radiation minus 2 meters to accommodate the average human height. The contributions from each of the facilities are tabulated at the top of the next page.

Callsign	Channel	Relative Field	ERP (kW)	COR AGL (m)	Power Density μw/cm^2
KHQA-DT	7	1.00	13.6	235	8.367
W36BS	36	1.00	0.007	32	0.130
W45BM	45	1.00	0.007	32	0.130
W49BS	49	1.00	0.007	32	0.130
W53BP	53	1.00	0.007	32	0.130
W61CO	61	1.00	0.007	32	0.130
W65CZ	65	1.00	0.007	32	0.130
W67DR	67	1.00	0.007	32	0.130
W69DF	69	1.00	0.007	32	0.130
				Sum of Contributors:	9.41

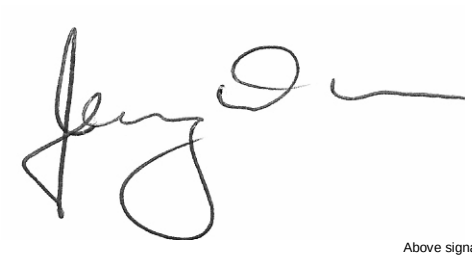
As this table indicates, the sum of all contributors on the tower is 9.41 $\mu W/cm^2$. Under the applicable safety standard, the most stringent requirement is imposed on frequencies in the range of channel 7. In that range, the uncontrolled environment limits the power density to 200 $\mu W/cm^2$ to be compliant. Since the predicted worst case power density is considerably less than this value, it is apparent that the proposed facility would not constitute an RF exposure hazard.[1]

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.

[1] The contribution from the pre-transition KHQA-DT facility as well as the KHQA-TV contribution have been ignored since this study is only relevant in the post-transition environment.

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
March 13, 2008

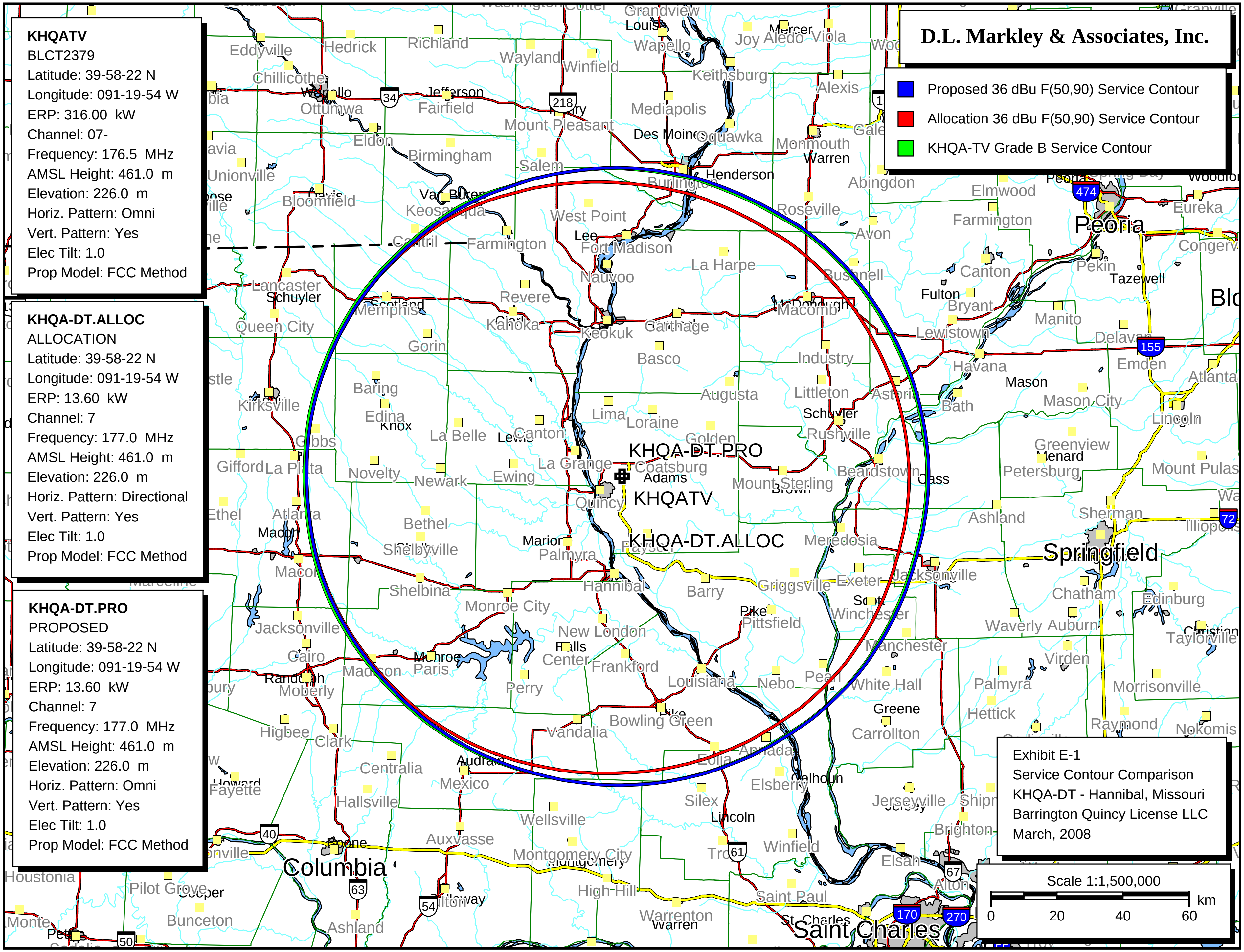

D.L. Markley & Associates, Inc.
Proposed 36 dBu F(50,90) Service Contour
Allocation 36 dBu F(50,90) Service Contour
KHQA-TV Grade B Service Contour
KHQATV
BLCT2379
Latitude: 39-58-22 N
Longitude: 091-19-54 W
ERP: 316.00 kW
Channel: 07-
Frequency: 176.5 MHz
AMSL Height: 461.0 m
Elevation: 226.0 m
Horiz. Pattern: Omni
Vert. Pattern: Yes
Elec Tilt: 1.0
Prop Model: FCC Method
KHQA-DT.ALLOC
ALLOCATION
Latitude: 39-58-22 N
Longitude: 091-19-54 W
ERP: 13.60 kW
Channel: 7
Frequency: 177.0 MHz
AMSL Height: 461.0 m
Elevation: 226.0 m
Horiz. Pattern: Directional
Vert. Pattern: Yes
Elec Tilt: 1.0
Prop Model: FCC Method
KHQA-DT.PRO
PROPOSED
Latitude: 39-58-22 N
Longitude: 091-19-54 W
ERP: 13.60 kW
Channel: 7
Frequency: 177.0 MHz
AMSL Height: 461.0 m
Elevation: 226.0 m
Horiz. Pattern: Omni
Vert. Pattern: Yes
Elec Tilt: 1.0
Prop Model: FCC Method
KHQA-DT.PRO
KHQATV
KHQA-DT.ALLOC
Quincy
Hannibal
Springfield
Peoria
Columbia
Saint Charles
Exhibit E-1
Service Contour Comparison
KHQA-DT - Hannibal, Missouri
Barrington Quincy License LLC
March, 2008
Scale 1:1,500,000
0 20 40 60 km

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

					Contour Distance Differences			
	HAAT	Contour Distance in kilometers			Proposed to Grade B		Proposed to Allocation	
Azimuth	in meters	Grade B	Allocation	Proposed	kilometers	miles	kilometers	miles
0	264.1	93.0	88.6	93.2	0.2	0.12	4.6	2.86
10	255.0	92.4	87.8	92.8	0.4	0.25	5.0	3.11
20	247.9	91.9	87.1	92.5	0.6	0.37	5.4	3.36
30	245.0	91.7	86.6	92.3	0.6	0.37	5.7	3.54
40	251.3	92.1	86.7	92.6	0.5	0.31	5.9	3.67
50	248.9	92.0	86.4	92.5	0.5	0.31	6.1	3.79
60	245.8	91.7	86.3	92.3	0.6	0.37	6.0	3.73
70	246.9	91.8	86.4	92.4	0.6	0.37	6.0	3.73
80	248.9	92.0	86.6	92.5	0.5	0.31	5.9	3.67
90	251.4	92.1	86.7	92.7	0.6	0.37	6.0	3.73
100	247.2	91.8	86.7	92.4	0.6	0.37	5.7	3.54
110	246.4	91.8	86.9	92.4	0.6	0.37	5.5	3.42
120	253.1	92.3	87.4	92.7	0.4	0.25	5.3	3.29
130	261.4	92.8	88.1	93.1	0.3	0.19	5.0	3.11
140	262.6	92.9	88.4	93.1	0.2	0.12	4.7	2.92
150	260.3	92.7	88.5	93.1	0.4	0.25	4.6	2.86
160	263.5	92.9	88.9	93.2	0.3	0.19	4.3	2.67
170	267.9	93.2	89.3	93.3	0.1	0.06	4.0	2.49
180	271.7	93.4	89.7	93.5	0.1	0.06	3.8	2.36
190	274.3	93.6	90.7	93.6	0.0	0.00	2.9	1.80
200	282.2	94.1	91.7	93.8	-0.3	-0.19	2.1	1.30
210	292.2	94.7	92.8	94.3	-0.4	-0.25	1.5	0.93
220	297.6	95.1	93.7	94.6	-0.5	-0.31	0.9	0.56
230	300.4	95.3	94.2	94.7	-0.6	-0.37	0.5	0.31
240	305.9	95.8	94.8	95.1	-0.7	-0.43	0.3	0.19
250	310.6	96.1	95.2	95.5	-0.6	-0.37	0.3	0.19
260	308.8	96.0	95.2	95.3	-0.7	-0.43	0.1	0.06
270	307.8	95.9	95.2	95.2	-0.7	-0.43	0.0	0.00
280	311.0	96.2	95.4	95.5	-0.7	-0.43	0.1	0.06
290	310.9	96.2	95.4	95.5	-0.7	-0.43	0.1	0.06
300	309.5	96.1	95.3	95.4	-0.7	-0.43	0.1	0.06
310	306.4	95.8	95.0	95.1	-0.7	-0.43	0.1	0.06
320	301.2	95.4	94.3	94.8	-0.6	-0.37	0.5	0.31
330	296.9	95.0	93.2	94.5	-0.5	-0.31	1.3	0.81
340	279.2	93.9	91.4	93.7	-0.2	-0.12	2.3	1.43
350	269.6	93.3	89.9	93.4	0.1	0.06	3.5	2.17

Note: Noise Limited Contour (Proposed and Allocated) is 36 dBu F(50,90),
while Grade B Service Contour is 56 dBu F(50,50).

D.L. Markley & Associates, Inc.
Consulting Engineers
2104 West Moss Avenue
Peoria, Illinois 61604

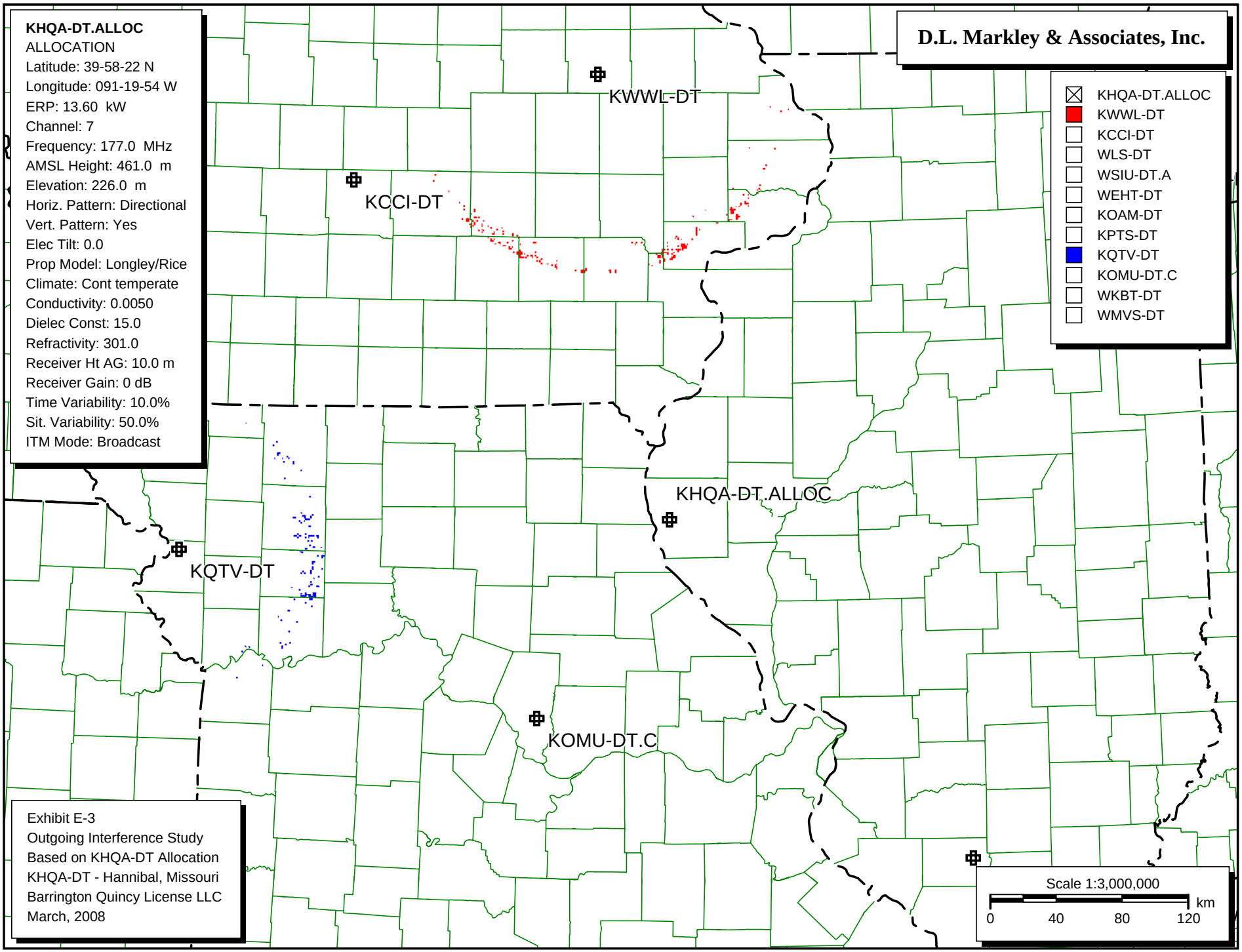

KHQA-DT.ALLOC
ALLOCATION
Latitude: 39-58-22 N
Longitude: 091-19-54 W
ERP: 13.60 kW
Channel: 7
Frequency: 177.0 MHz
AMSL Height: 461.0 m
Elevation: 226.0 m
Horiz. Pattern: Directional
Vert. Pattern: Yes
Elec Tilt: 0.0
Prop Model: Longley/Rice
Climate: Cont temperate
Conductivity: 0.0050
Dielec Const: 15.0
Refractivity: 301.0
Receiver Ht AG: 10.0 m
Receiver Gain: 0 dB
Time Variability: 10.0%
Sit. Variability: 50.0%
ITM Mode: Broadcast
D.L. Markley & Associates, Inc.
KHQA-DT.ALLOC
KWWL-DT
KCCI-DT
WLS-DT
WSIU-DT.A
WEHT-DT
KOAM-DT
KPTS-DT
KQTV-DT
KOMU-DT.C
WKBT-DT
WMVS-DT
KWWL-DT
KCCI-DT
KHQA-DT.ALLOC
KQTV-DT
KOMU-DT.C
Exhibit E-3
Outgoing Interference Study
Based on KHQA-DT Allocation
KHQA-DT - Hannibal, Missouri
Barrington Quincy License LLC
March, 2008
Scale 1:3,000,000
0
40
80
120
km

Exhibit E-3
Outgoing Interference Population Report
Interference study based on KHQA-DT allocation parameters.

KHQA-DT.ALLOC (7) Hannibal, MO - ALLOCATION
Broadcast Type: Digital Service: V
Lat: 39-58-22 N Lng: 091-19-54 W ERP: 13.6 kW AMSL: 461.0 m
TV Outgoing Interference Study
Signal Resolution: 1.0 km
Consider NTSC Taboo: Yes
KWX error points are considered to
     be interference free coverage.
# 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: 3/13/2008
TV Database Date: 3/12/2008

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
KWWL-DT (7)	Waterloo	IA	273.1	351.1
KCCI-DT (8)	Des Moines	IA	280.7	317.3
WLS-DT (7)	Chicago	IL	376.4	54.6
WSIU-DT.A (8)	Carbondale	IL	275.2	138.3
WEHT-DT (7)	Evansville	IN	401.4	124.4
KOAM-DT (7)	Pittsburg	KS	423.9	225.0
KPTS-DT (8)	Hutchinson	KS	597.0	251.2
KQTV-DT (7)	St. Joseph	MO	297.4	266.8
KOMU-DT.C (8)	Columbia	MO	144.7	214.0
WKBT-DT (8)	La Crosse	WI	457.3	359.9
WMVS-DT (8)	Milwaukee	WI	449.4	38.4

Call	Area	HUnits	Contour	Masked Ix	Unmasked Ix	%
KWWL-DT (7)	217.9	747	1,011,597	0	1,657	0.2
KCCI-DT (8)	0.0	0	1,014,544	0	0	0.0
WLS-DT (7)	0.0	0	9,448,187	0	0	0.0
WSIU-DT.A (8)	0.0	0	1,860,944	0	0	0.0
WEHT-DT (7)	0.0	0	707,751	0	0	0.0

KOAM-DT (7)	0.0	0	560,256	0	0	0.0
KPTS-DT (8)	0.0	0	726,561	0	0	0.0
KQTV-DT (7)	120.3	409	1,148,198	0	921	0.1
KOMU-DT.C (8)	0.0	0	509,702	0	0	0.0
WKBT-DT (8)	0.0	0	780,856	0	0	0.0
WMVS-DT (8)	0.0	0	3,133,317	0	0	0.0

	Housing Units	Population
Iowa		
Cedar County		
Total	7,570	18,187
KWWL-DT (7)	210	520
Clinton County		
Total	21,585	50,149
KWWL-DT (7)	14	32
Jackson County		
Total	8,949	20,296
KWWL-DT (7)	1	5
Jasper County		
Total	15,659	37,213
KWWL-DT (7)	26	54
Johnson County		
Total	45,831	111,006
KWWL-DT (7)	7	17
Keokuk County		
Total	5,013	11,400
KWWL-DT (7)	51	111
Louisa County		
Total	5,133	12,183
KWWL-DT (7)	14	36
Mahaska County		
Total	9,551	22,335
KWWL-DT (7)	23	51
Muscatine County		
Total	16,786	41,722
KWWL-DT (7)	117	224
Poweshiek County		
Total	8,556	18,815
KWWL-DT (7)	21	41
Scott County		
Total	65,649	158,668
KWWL-DT (7)	123	282
Washington County		
Total	8,543	20,670
KWWL-DT (7)	140	284
Missouri		
Caldwell County		
Total	4,493	8,969
KQTV-DT (7)	61	135
Clay County		

Total	76,230	184,006
KQTV-DT (7)	13	27
Daviess County		
Total	3,853	8,016
KQTV-DT (7)	26	58
Harrison County		
Total	4,316	8,850
KQTV-DT (7)	12	36
Jackson County		
Total	288,231	654,880
KQTV-DT (7)	229	496
Ray County		
Total	9,371	23,354
KQTV-DT (7)	68	169

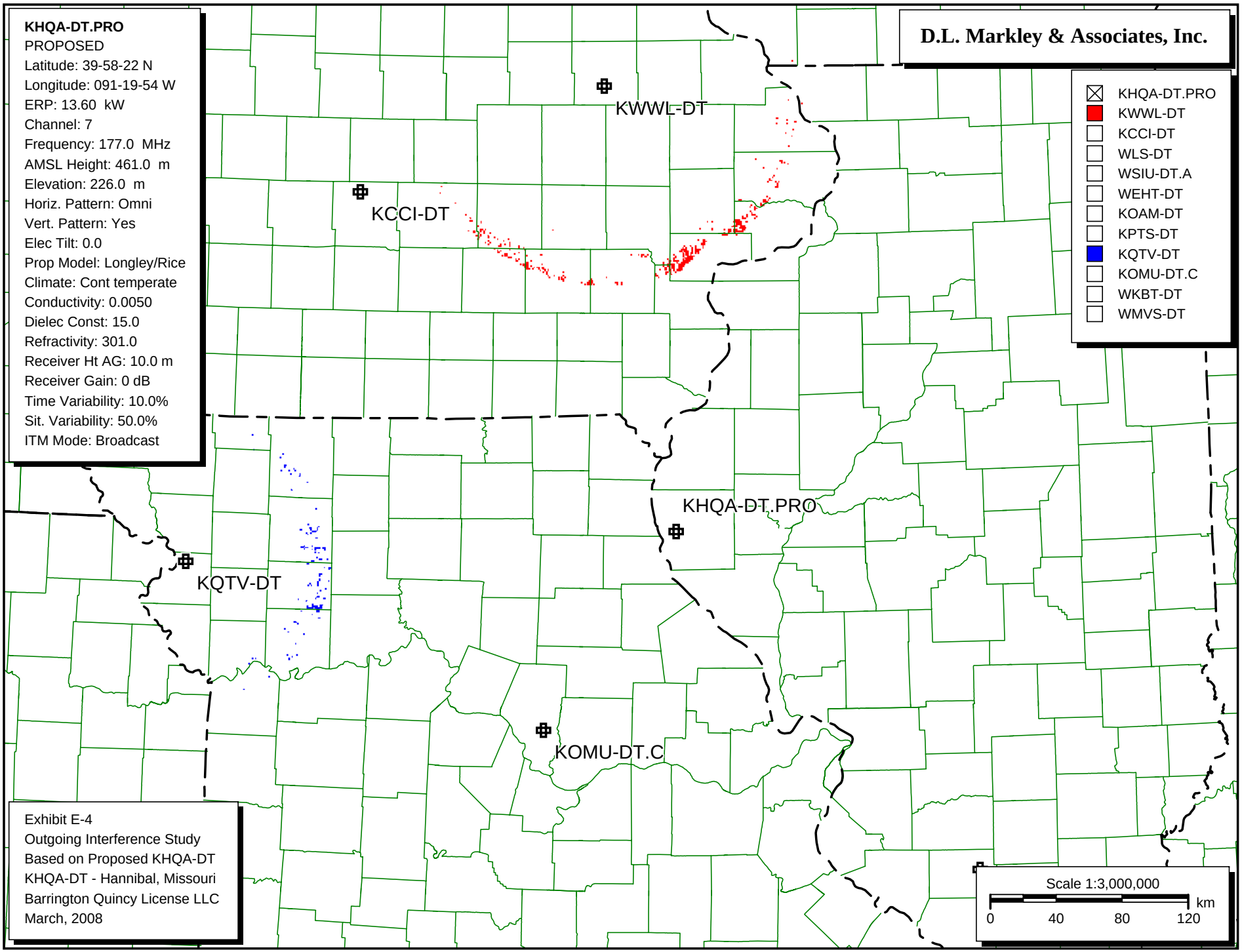

KHQA-DT.PRO
PROPOSED
Latitude: 39-58-22 N
Longitude: 091-19-54 W
ERP: 13.60 kW
Channel: 7
Frequency: 177.0 MHz
AMSL Height: 461.0 m
Elevation: 226.0 m
Horiz. Pattern: Omni
Vert. Pattern: Yes
Elec Tilt: 0.0
Prop Model: Longley/Rice
Climate: Cont temperate
Conductivity: 0.0050
Dielec Const: 15.0
Refractivity: 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.
KHQA-DT.PRO
KWWL-DT
KCCI-DT
WLS-DT
WSIU-DT.A
WEHT-DT
KOAM-DT
KPTS-DT
KQTV-DT
KOMU-DT.C
WKBT-DT
WMVS-DT
KWWL-DT
KCCI-DT
KHQA-DT.PRO
KQTV-DT
KOMU-DT.C
Exhibit E-4
Outgoing Interference Study
Based on Proposed KHQA-DT
KHQA-DT - Hannibal, Missouri
Barrington Quincy License LLC
March, 2008
Scale 1:3,000,000
0
40
80
120
km

Exhibit E-4
Outgoing Interference Population Report
Interference study based on proposed KHQA-DT facilities.

KHQA-DT.PRO (7) Hannibal, MO - PROPOSED
Broadcast Type: Digital Service: V
Lat: 39-58-22 N Lng: 091-19-54 W ERP: 13.6 kW AMSL: 461.0 m
TV Outgoing Interference Study
Signal Resolution: 1.0 km
Consider NTSC Taboo: Yes
KWX error points are considered to
     be interference free coverage.
# 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: 3/13/2008
TV Database Date: 3/12/2008

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

Population Database: 2000 US Census (SF1)

Stations Considered:

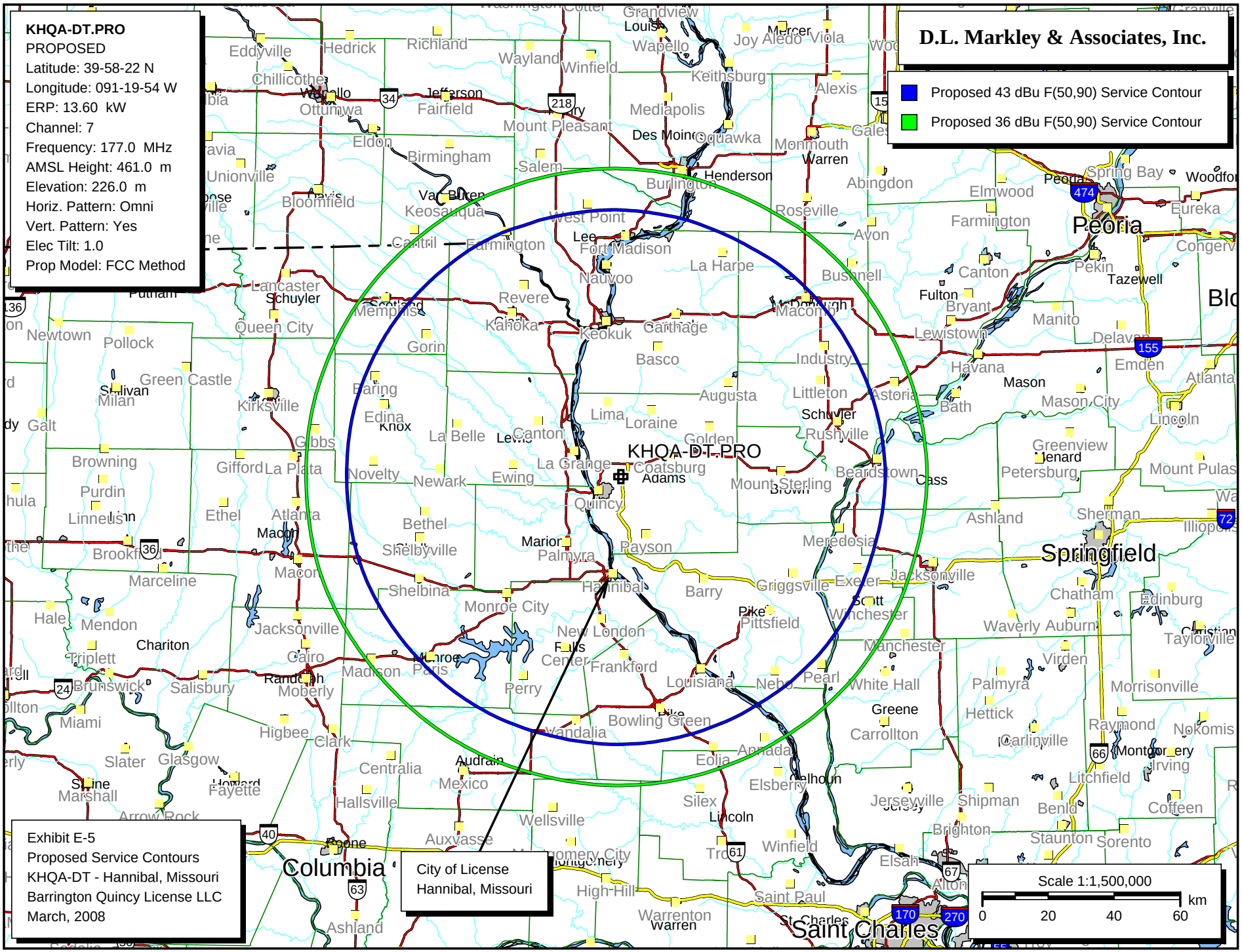
Call Letters	City	State	Dist	Bear
KWWL-DT (7)	Waterloo	IA	273.1	351.1
KCCI-DT (8)	Des Moines	IA	280.7	317.3
WLS-DT (7)	Chicago	IL	376.4	54.6
WSIU-DT.A (8)	Carbondale	IL	275.2	138.3
WEHT-DT (7)	Evansville	IN	401.4	124.4
KOAM-DT (7)	Pittsburg	KS	423.9	225.0
KPTS-DT (8)	Hutchinson	KS	597.0	251.2
KQTV-DT (7)	St. Joseph	MO	297.4	266.8
KOMU-DT.C (8)	Columbia	MO	144.7	214.0
WKBT-DT (8)	La Crosse	WI	457.3	359.9
WMVS-DT (8)	Milwaukee	WI	449.4	38.4

Call	Area	HUnits	Contour	Masked Ix	Unmasked Ix	%
KWWL-DT (7)	389.8	1,359	1,011,597	0	3,122	0.3
KCCI-DT (8)	0.0	0	1,014,544	0	0	0.0
WLS-DT (7)	0.0	0	9,448,187	0	0	0.0
WSIU-DT.A (8)	0.0	0	1,860,944	0	0	0.0
WEHT-DT (7)	0.0	0	707,751	0	0	0.0

KOAM-DT (7)	0.0	0	560,256	0	0	0.0
KPTS-DT (8)	0.0	0	726,561	0	0	0.0
KQTV-DT (7)	122.2	414	1,148,198	0	940	0.1
KOMU-DT.C (8)	0.0	0	509,702	0	0	0.0
WKBT-DT (8)	0.0	0	780,856	0	0	0.0
WMVS-DT (8)	0.0	0	3,133,317	0	0	0.0

	Housing Units	Population
Illinois		
Jo Daviess County		
Total	12,003	22,289
KWWL-DT (7)	3	0
Iowa		
Cedar County		
Total	7,570	18,187
KWWL-DT (7)	250	636
Clinton County		
Total	21,585	50,149
KWWL-DT (7)	135	322
Jackson County		
Total	8,949	20,296
KWWL-DT (7)	11	29
Jasper County		
Total	15,659	37,213
KWWL-DT (7)	29	59
Johnson County		
Total	45,831	111,006
KWWL-DT (7)	7	17
Keokuk County		
Total	5,013	11,400
KWWL-DT (7)	67	147
Louisa County		
Total	5,133	12,183
KWWL-DT (7)	16	39
Mahaska County		
Total	9,551	22,335
KWWL-DT (7)	32	74
Muscatine County		
Total	16,786	41,722
KWWL-DT (7)	293	598
Poweshiek County		
Total	8,556	18,815
KWWL-DT (7)	25	52
Scott County		
Total	65,649	158,668
KWWL-DT (7)	182	417
Washington County		
Total	8,543	20,670
KWWL-DT (7)	309	732
Missouri		

Caldwell County		
Total	4,493	8,969
KQTV-DT (7)	61	135
Clay County		
Total	76,230	184,006
KQTV-DT (7)	13	27
Daviess County		
Total	3,853	8,016
KQTV-DT (7)	26	58
Harrison County		
Total	4,316	8,850
KQTV-DT (7)	12	36
Jackson County		
Total	288,231	654,880
KQTV-DT (7)	229	496
Ray County		
Total	9,371	23,354
KQTV-DT (7)	73	188


KHQA-DT.PRO
PROPOSED
Latitude: 39-58-22 N
Longitude: 091-19-54 W
ERP: 13.60 kW
Channel: 7
Frequency: 177.0 MHz
AMSL Height: 461.0 m
Elevation: 226.0 m
Horiz. Pattern: Omni
Vert. Pattern: Yes
Elec Tilt: 1.0
Prop Model: FCC Method
D.L. Markley & Associates, Inc.
Proposed 43 dBu F(50,90) Service Contour
Proposed 36 dBu F(50,90) Service Contour
KHQA-DT-PRO
Exhibit E-5
Proposed Service Contours
KHQA-DT - Hannibal, Missouri
Barrington Quincy License LLC
March, 2008
City of License
Hannibal, Missouri
Scale 1:1,500,000
0 20 40 60 km
Columbia
Saint Charles
Springfield
Peoria