ENGINEERING EXHIBIT

Incentive Auction Channel Reassignment

Application for Digital Television Station Construction Permit

prepared for

Hearst Stations Inc.
WLKY(DT) Louisville, KY
Facility ID 53939
Ch. 14 400 kW 392 m

Hearst Stations Inc. ("Hearst") is the licensee of digital television station WLKY, Channel 26, Facility ID 53939, Louisville, KY. *Hearst* herein proposes construction of the WLKY post-auction facility on Channel 14. Reassignment of WLKY from Channel 26 to Channel 14 was specified in the *Incentive Auction Closing and Channel Reassignment Public Notice* (*"CCRPN"*, DA 17-317, released April 13, 2017).

WLKY currently utilizes a directional antenna which is shared with WAVE(DT) (Fac ID 13989, Louisville KY). The shared antenna must be replaced in order to accommodate the channel reassignments for WLKY and WAVE. *Hearst* proposes to operate WLKY with an effective radiated power ("ERP") of 400 kW at 392 meters antenna height above average terrain ("HAAT").

The existing tower structure corresponds to FCC Antenna Structure Registration number 1230057. No change to the overall structure height will result.

The proposed antenna is a horizontally polarized Dielectric model TUD-C5-14/70-2-T. The directional antenna's azimuthal pattern is supplied in Figure 1 and the elevation pattern is depicted in Figure 2.

A map is supplied as Figure 3 which depicts the standard predicted coverage contours. This map includes the location of Louisville, WLKY's principal community. As demonstrated

thereon, the proposed facility complies with §73.625(a)(1) as the entire principal community will be encompassed by the 48 dBμ contour.

Except for a few critical azimuths, the proposed noise limited service contour ("NLSC") does not extend beyond that of the *CCRPN* parameters of 452 kW ERP and 392 meters HAAT. The proposal complies with §73.3700(b)(ii) as described in the following.

The *CCRPN* facility specifies the directional antenna pattern corresponding to the WLKY's licensed Channel 26. The antenna manufacturer cannot provide the exact pattern on the new channel due to the change in frequency and corresponding mechanical limitations of antenna construction. The directional pattern proposed herein replicates the reassignment pattern as closely as possible. The proposal results in a slightly larger coverage contour in some directions in an attempt to achieve the *CCRPN* coverage contour. Due to the difference in directional pattern, WLKY qualifies under §73.3700(b)(ii)(A) for a contour extension due to the loss of coverage area resulting from the new channel assignment.

Interference study per FCC OET Bulletin 69[1] shows that the proposal complies with the 0.5 percent limit of new interference caused to pertinent nearby post-auction full service and Class A television stations and reassignments as required by §73.616. The interference study output report is provided as Table 1. This satisfies §73.3700(b)(ii)(C) for the proposed NLSC extension.

The amount of NLSC extension does not exceed one percent in any direction, and in most directions falls slightly short of the target *CCRPN* contour. Figure 4 supplies a coverage contour comparison of the proposed WLKY facility to the reassignment facility's contour and a one percent extension distance of the reassignment facility's contour. Here, the contour level is adjusted with the dipole factor to match FCC application processing. Table 1's results also

[1]FCC Office of Engineering and Technology Bulletin number 69, *Longley-Rice Methodology for Evaluating TV Coverage and Interference*, February 6, 2004 ("OET-69"). This analysis employed the FCC's current "TVStudy" software with the default application processing template settings, 2 km cell size, and 1 km terrain increment. Comparisons of various results of this computer program (run on a Mac processor) to the FCCs implementation of TVStudy show excellent correlation.

demonstrate that the proposed contour is within the baseline contour plus one percent. Therefore the proposed contour extension complies with §73.3700(b)(ii)(B).

The proposed WLKY facility's terrain-limited population provides a 98.5 percent match of the *CCRPN* baseline facility, as detailed in the following table. The OET Bulletin 69 report summary in Table 1 also concludes that the proposed service area population is more than 95 percent of the baseline population.

Terrain Limited Population - Match of Reassignment

Population Summary (2010 Census) OET Bulletin 69: TVStudy	Reassignment Parameters	Proposed
Within Noise Limited Contour	1,854,829	1,828,004
Not affected by terrain losses	1,847,866	1,821,043
Match of Reassignment	---	**98.55%**

The nearest FCC monitoring station is 471 km distant at Allegan, MI. This exceeds by a large margin the threshold minimum distance specified in §73.1030(c)(3) that would suggest consideration of the monitoring station. The site is not located within the areas requiring coordination with "quiet" zones specified in §73.1030(a) and (b). The site location is beyond the border areas requiring international coordination. There are no authorized AM stations within 3 kilometers of the site.

Human Exposure to Radiofrequency Electromagnetic Field (Environmental)

The proposed operation was evaluated for human exposure to RF energy using the procedures outlined in the FCC's OET Bulletin Number 65. Based on OET-65 equation (10), and considering 10 percent antenna relative field in downward elevations (pattern data shows less than 10 percent relative field at angles 10 to 90 degrees below the antenna), the calculated signal density near the tower at two meters above ground level attributable to the proposed facility is 1.7 $\mu W/cm^2$, which is 0.5 percent of the general population/uncontrolled maximum permitted exposure limit. This is well below the five percent threshold limit described in §1.1307(b) regarding sites with multiple emitters, categorically excluding the applicant from responsibility for taking any corrective action in the areas where the proposal's contribution is less than five percent.

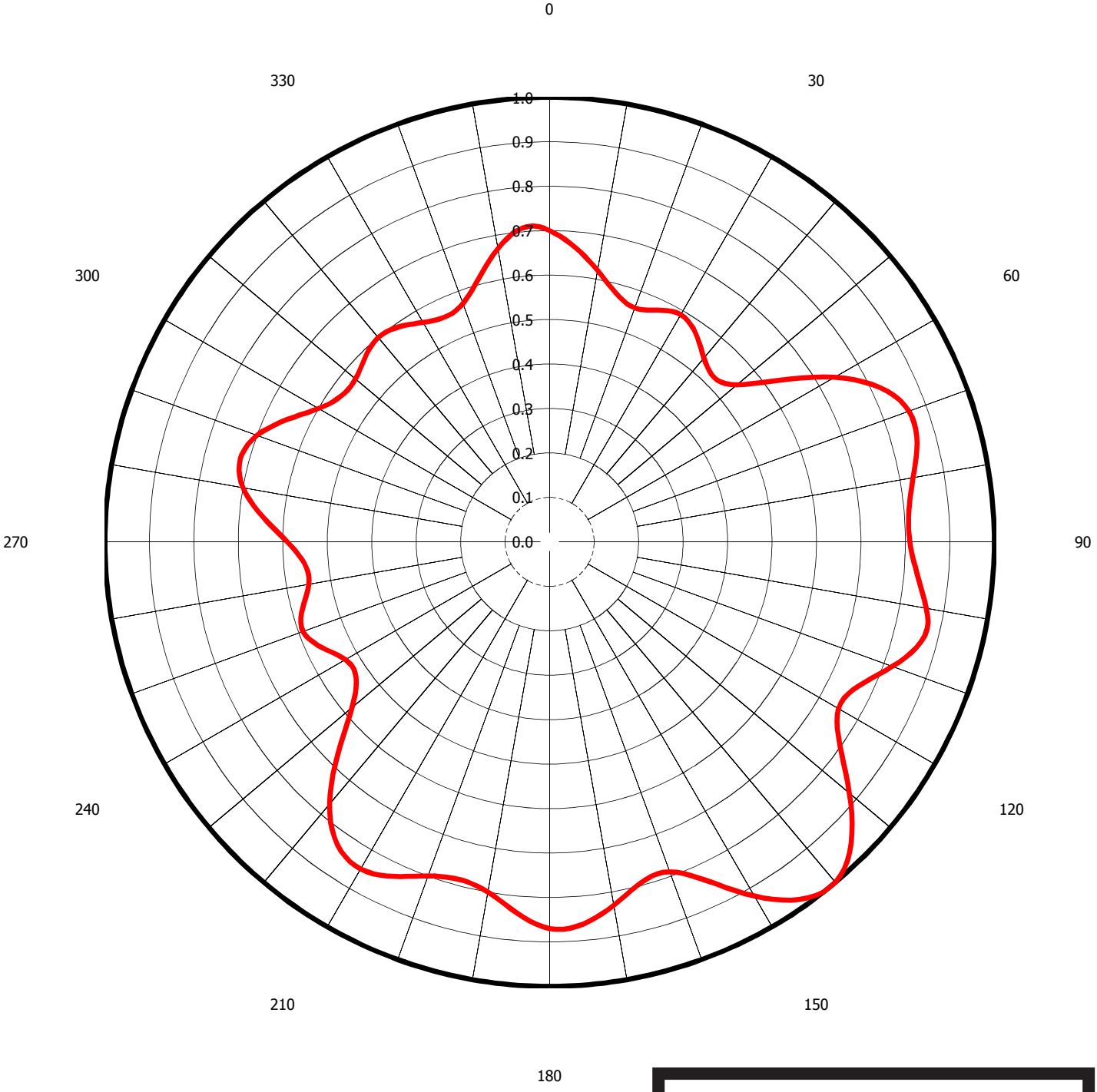
The general public will not be exposed to RF levels attributable to the proposal in excess of the FCC's guidelines. RF exposure warning signs will continue to be posted. With respect to worker safety, the applicant will coordinate exposure procedures with all pertinent stations and will reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from RF electromagnetic field exposure in excess of FCC guidelines. This exhibit is limited to the evaluation of exposure to RF electromagnetic field. No increase in structure height is proposed.

List of Attachments

Figure 1	Antenna Azimuthal Pattern
Figure 2	Antenna Elevation Pattern
Figure 3	Proposed Coverage Contours
Figure 4	Proposed Contour Expansion
Table 1	OET Bulletin 69 Interference Study
Form 2100	Saved Version of Engineering Sections from FCC Form at Time of Upload

Chesapeake RF Consultants, LLC
Joseph M. Davis, P.E. June 14, 2017
207 Old Dominion Road Yorktown, VA 23692 703-650-9600

Azimuth Pattern - Relative Field
(True North)



Chesapeake RF Consultants, LLC
Radiofrequency Consulting Engineers
Digital Television and Radio

Figure 1
Antenna Azimuthal Pattern
WLKY(DT) Louisville, KY
Facility ID 53939
Ch. 14 400 kW 392 m

prepared for
Hearst Properties Inc.

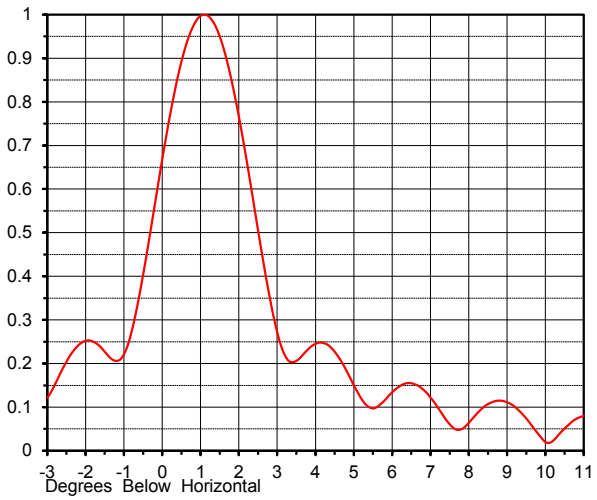
June, 2017

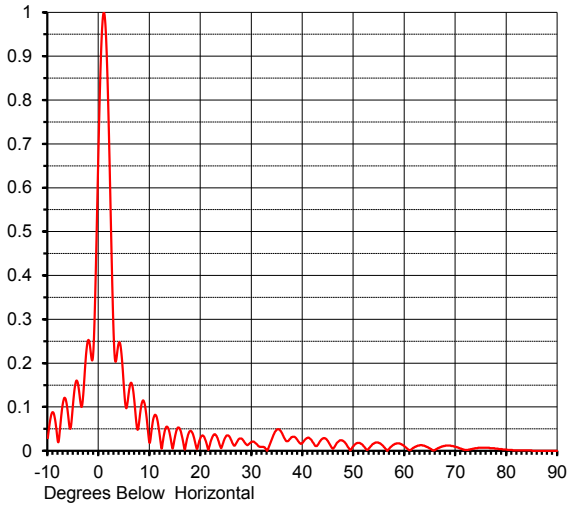
Dielectric®

ELEVATION PATTERN

Proposal No.	**C-70127**
Date	**13-Mar-17**
Call Letters	**WLKY**
Channel	**14**
Frequency	**473 MHz**
Antenna Type	**TUD-C5-14/70-2-T**

RMS Directivity at Main Lobe	**25.5 (14.07 dB)**	Beam Tilt	**1.00 deg**
RMS Directivity at Horizontal	**11.4 (10.57 dB)**	Drawing Number	**14U255100**
	Calculated		





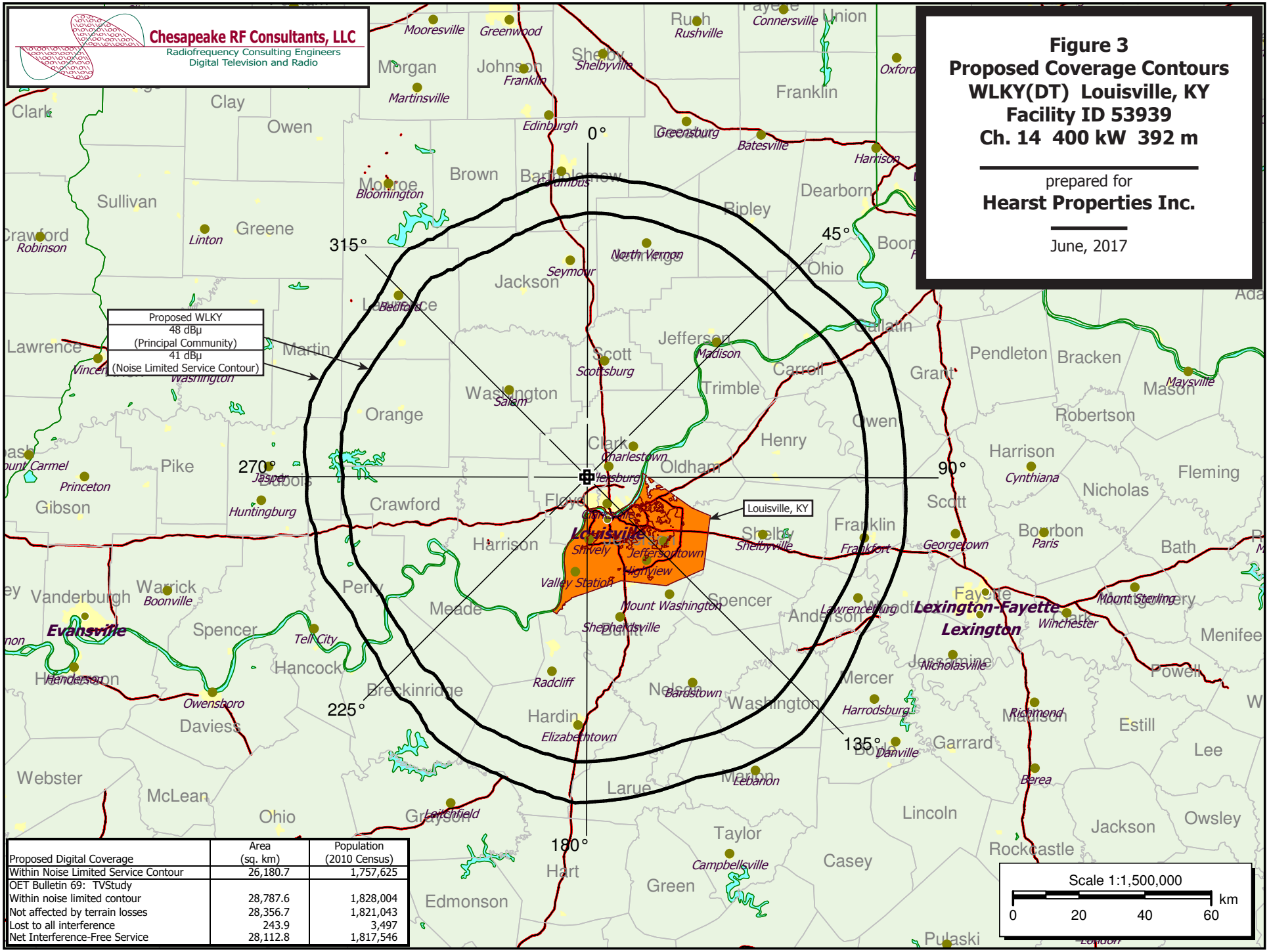
Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.029	10.0	0.018	30.0	0.020	50.0	0.011	70.0	0.009
-9.0	0.088	11.0	0.082	31.0	0.015	51.0	0.018	71.0	0.005
-8.0	0.020	12.0	0.031	32.0	0.009	52.0	0.010	72.0	0.002
-7.0	0.111	13.0	0.048	33.0	0.000	53.0	0.006	73.0	0.004
-6.0	0.080	14.0	0.034	34.0	0.028	54.0	0.017	74.0	0.006
-5.0	0.113	15.0	0.035	35.0	0.049	55.0	0.018	75.0	0.007
-4.0	0.147	16.0	0.047	36.0	0.039	56.0	0.008	76.0	0.007
-3.0	0.135	17.0	0.009	37.0	0.022	57.0	0.005	77.0	0.006
-2.0	0.253	18.0	0.046	38.0	0.032	58.0	0.015	78.0	0.005
-1.0	0.242	19.0	0.014	39.0	0.024	59.0	0.017	79.0	0.004
0.0	0.719	20.0	0.031	40.0	0.019	60.0	0.010	80.0	0.003
1.0	1.000	21.0	0.022	41.0	0.030	61.0	0.001	81.0	0.002
2.0	0.718	22.0	0.023	42.0	0.019	62.0	0.009	82.0	0.001
3.0	0.241	23.0	0.035	43.0	0.014	63.0	0.013	83.0	0.001
4.0	0.248	24.0	0.006	44.0	0.028	64.0	0.011	84.0	0.001
5.0	0.134	25.0	0.034	45.0	0.021	65.0	0.005	85.0	0.000
6.0	0.142	26.0	0.024	46.0	0.005	66.0	0.002	86.0	0.000
7.0	0.111	27.0	0.018	47.0	0.021	67.0	0.008	87.0	0.000
8.0	0.074	28.0	0.028	48.0	0.022	68.0	0.012	88.0	0.000
9.0	0.107	29.0	0.014	49.0	0.007	69.0	0.012	89.0	0.000
								90.0	0.000

Chesapeake RF Consultants, LLC
Radiofrequency Consulting Engineers
Digital Television and Radio

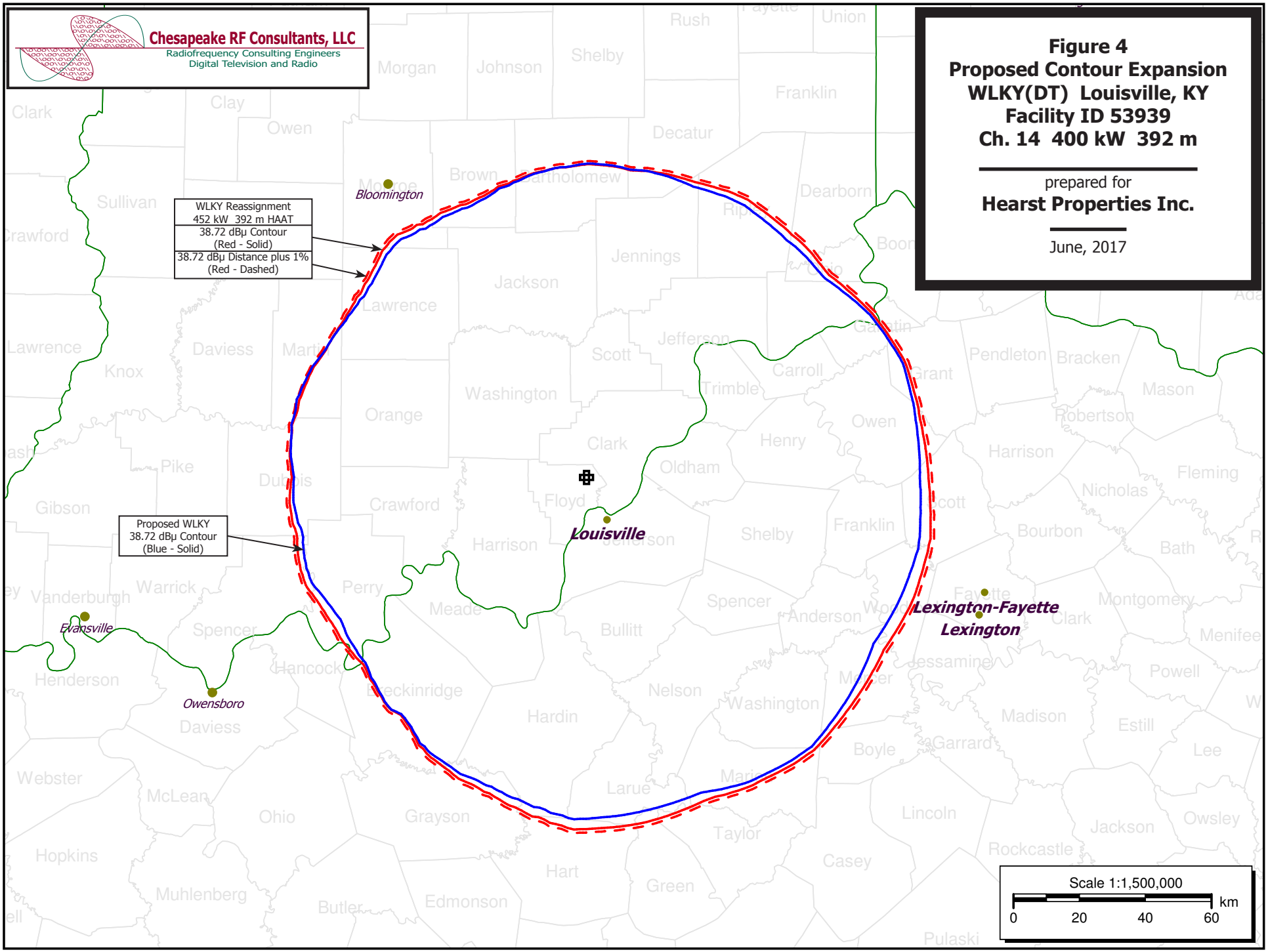
Figure 2
Antenna Elevation Pattern
WLKY(DT) Louisville, KY
Facility ID 53939
Ch. 14 400 kW 392 m

prepared for
Hearst Properties Inc.

June, 2017



Proposed Digital Coverage	Area (sq. km)	Population (2010 Census)
Within Noise Limited Service Contour	26,180.7	1,757,625
OET Bulletin 69: TVStudy		
Within noise limited contour	28,787.6	1,828,004
Not affected by terrain losses	28,356.7	1,821,043
Lost to all interference	243.9	3,497
Net Interference-Free Service	28,112.8	1,817,546


Chesapeake RF Consultants, LLC
Radiofrequency Consulting Engineers
Digital Television and Radio
Figure 4
Proposed Contour Expansion
WLKY(DT) Louisville, KY
Facility ID 53939
Ch. 14 400 kW 392 m
prepared for
Hearst Properties Inc.
June, 2017
WLKY Reassignment
452 kW 392 m HAAT
38.72 dBµ Contour
(Red - Solid)
38.72 dBµ Distance plus 1%
(Red - Dashed)
Proposed WLKY
38.72 dBµ Contour
(Blue - Solid)
Bloomington
Louisville
Lexington-Fayette
Lexington
Evansville
Owensboro
Scale 1:1,500,000
0 20 40 60 km

```
tvstudy v2.2.2
Database: localhost,  Study: WLKY PROP TUD 400KW,  Model: Longley-Rice
Start: 2017.06.14 10:14:02

Study created: 2017.06.14 10:13:55

Study build station data: LMS TV 2017-06-13_LMSTV

    Proposal: WLKY D14 DT APP LOUISVILLE, KY
 File number: WLKY PROP TUD 400KW
 Facility ID: 53939
Station data: User record
   Record ID: 505
     Country: U.S.
        Zone: I


Stations potentially affected:

Call      Chan  Svc Status  City, State              File Number            Distance
KNLC      D14   DT  LIC     ST. LOUIS, MO            BLCDT20061228AAC       411.2 km
WCMH-TV   D14   DT  LIC     COLUMBUS, OH             BLCDT20050823AAD       300.0
WDSI-TV   D14   DT  BL      CHATTANOOGA, TN          DTVBL71353             354.6
WLJT-DT   D14   DT  BL      LEXINGTON, TN            DTVBL71645             385.1
WLFG      D14   DT  BL      GRUNDY, VA               DTVBL37808             371.9
WYYW-CD   D15   DC  LIC     EVANSVILLE, IN           BLDTA20130109AGB       132.8
WTTK      D15   DT  APP     KOKOMO, IN               BLANK0000024884        172.0
WTTK      D15   DT  BL      KOKOMO, IN               DTVBL56526             172.0
WLCU-CD   D15   DC  BL      CAMPBELLSVILLE, KY       DTVBL8500              121.2
WXIX-TV   D15   DT  BL      NEWPORT, KY              DTVBL39738             139.1
WPBM-CD   D15   DC  BL      SCOTTSVILLE, KY          DTVBL30580             172.1

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

    Channel: D14
   Latitude:  38 22  8.40 N (NAD83)
  Longitude:  85 49 47.60 W
Height AMSL: 582.6 m
       HAAT: 391.6 m
   Peak ERP: 400 kW
    Antenna: WLKY TUD-C5 20170614 0.0 deg

38.7 dBu contour:
Azimuth      ERP       HAAT   Distance
  0.0 deg    196 kW   382.4 m   95.0 km
 45.0        119      432.7      94.2
 90.0        262      429.0     100.8
135.0        353      441.1     104.6
180.0        303      442.4     103.2
225.0        182      326.6      89.5
270.0        139      336.7      88.4
315.0        137      341.8      88.8

Proposal service area is within baseline plus 1.0%
Proposal service area population is more than 95.0% of baseline

Distance to Canadian border: 453.7 km

Distance to Mexican border: 1710.6 km

Conditions at FCC monitoring station: Allegan MI
Bearing: 358.7 degrees   Distance: 471.0 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 282.7 degrees   Distance: 1677.5 km

No land mobile station failures found
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Study cell size: 2.00 km
Profile point spacing: 1.00 km

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

Interference to BLCDT20061228AAC LIC, scenario 1
Proposal causes no interference.

Interference to BLCDT20050823AAD LIC, scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WCMH-TV	D14	DT	LIC	COLUMBUS, OH	BLCDT20050823AAD	
Undesireds:	WLKY	D14	DT	BL	LOUISVILLE, KY	DTVBL53939	300.0 km
	WLKY	D14	DT	APP	LOUISVILLE, KY	WLKY PROP TUD 400KW	300.0
	WLAJ	D14	DT	BL	LANSING, MI	DTVBL36533	299.6
	WLFG	D14	DT	BL	GRUNDY, VA	DTVBL37808	358.8
	WXIX-TV	D15	DT	BL	NEWPORT, KY	DTVBL39738	160.9
	WEWS-TV	D15	DT	LIC	CLEVELAND, OH	BLCDT20091211ACS	191.1
	WOHL-CD	D15	DC	BL	LIMA, OH	DTVBL68549	127.2
	WQCW	D15	DT	BL	PORTSMOUTH, OH	DTVBL65130	177.5

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
28659.8	2,756,260	27872.2	2,712,989	27384.1	2,691,741	27412.2	2,693,355	-0.10	-0.06

Undesired	Total IX	Unique IX, before		Unique IX, after	
WLKY D14 DT BL	184.4	11,296	128.1	4,244	
WLKY D14 DT APP	156.3	9,682			100.1	2,630
WLAJ D14 DT BL	168.5	12,663	8.0	374	8.0	374
WLFG D14 DT BL	99.6	2,277	71.7	1,861	71.7	1,861
WOHL-CD D15 DC BL	192.3	7,622	60.1	1,661	60.1	1,661
WQCW D15 DT BL	43.8	507	31.9	403	31.9	403

Interference to DTVBL71353 BL, scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WDSI-TV	D14	DT	BL	CHATTANOOGA, TN	DTVBL71353	
Undesireds:	WLKY	D14	DT	BL	LOUISVILLE, KY	DTVBL53939	354.6 km
	WLKY	D14	DT	APP	LOUISVILLE, KY	WLKY PROP TUD 400KW	354.6
	WDBB	D14	DT	BL	BESSEMER, AL	DTVBL71325	273.6
	WSKC-CD	D14	DC	BL	ATLANTA, GA	DTVBL35090	171.1
	WHKY-TV	D14	DD	CP	HICKORY, NC	BLANK0000024614	362.0
	WLJT-DT	D14	DT	BL	LEXINGTON, TN	DTVBL71645	306.0
	WLFG	D14	DT	BL	GRUNDY, VA	DTVBL37808	339.3
	WAFF	D15	DT	BL	HUNTSVILLE, AL	DTVBL591	127.3
	WTNZ	D15	DT	BL	KNOXVILLE, TN	DTVBL19200	149.5

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
19154.7	1,062,402	16479.1	994,718	16087.7	983,284	16091.7	983,305	-0.03	-0.00

Undesired	Total IX	Unique IX, before		Unique IX, after	
WLKY D14 DT BL	12.1	21	8.0	21	
WLKY D14 DT APP	8.1	0			4.0	0
WDBB D14 DT BL	226.9	8,939	203.0	8,178	203.0	8,178
WSKC-CD D14 DC BL	51.7	1,259	35.8	615	35.8	615
WLJT-DT D14 DT BL	4.0	0	0.0	0	0.0	0
WLFG D14 DT BL	68.4	761	40.2	373	40.2	373
WAFF D15 DT BL	15.9	253	8.0	136	8.0	136
WTNZ D15 DT BL	68.6	1,350	40.4	962	40.4	962

Interference to DTVBL71353 BL, scenario 2

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WDSI-TV	D14	DT	BL	CHATTANOOGA, TN	DTVBL71353	

Undesireds:	WLKY	D14	DT	BL	LOUISVILLE, KY	DTVBL53939	354.6 km
	WLKY	D14	DT	APP	LOUISVILLE, KY	WLKY PROP TUD 400KW	354.6
	WDBB	D14	DT	BL	BESSEMER, AL	DTVBL71325	273.6
	WSKC-CD	D14	DC	BL	ATLANTA, GA	DTVBL35090	171.1
	WHKY-TV	D14	DD	BL	HICKORY, NC	DTVBL65919	362.0
	WLJT-DT	D14	DT	BL	LEXINGTON, TN	DTVBL71645	306.0
	WLFG	D14	DT	BL	GRUNDY, VA	DTVBL37808	339.3
	WAFF	D15	DT	BL	HUNTSVILLE, AL	DTVBL591	127.3
	WTNZ	D15	DT	BL	KNOXVILLE, TN	DTVBL19200	149.5

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
19154.7	1,062,402	16479.1	994,718	16087.7	983,284	16091.7	983,305	-0.03	-0.00

Undesired	Total IX		Unique IX, before		Unique IX, after	
WLKY D14 DT BL	12.1	21	8.0	21		
WLKY D14 DT APP	8.1	0			4.0	0
WDBB D14 DT BL	226.9	8,939	203.0	8,178	203.0	8,178
WSKC-CD D14 DC BL	51.7	1,259	35.8	615	35.8	615
WLJT-DT D14 DT BL	4.0	0	0.0	0	0.0	0
WLFG D14 DT BL	68.4	761	40.2	373	40.2	373
WAFF D15 DT BL	15.9	253	8.0	136	8.0	136
WTNZ D15 DT BL	68.6	1,350	40.4	962	40.4	962

Interference to DTVBL71645 BL, scenario 1
Proposal causes no interference.

Interference to DTVBL71645 BL, scenario 2
Proposal causes no interference.

Interference to DTVBL37808 BL, scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WLFG	D14	DT	BL	GRUNDY, VA	DTVBL37808	
Undesireds:	WLKY	D14	DT	BL	LOUISVILLE, KY	DTVBL53939	371.9 km
	WLKY	D14	DT	APP	LOUISVILLE, KY	WLKY PROP TUD 400KW	371.9
	WSKC-CD	D14	DC	BL	ATLANTA, GA	DTVBL35090	368.7
	WRDC	D14	DT	BL	DURHAM, NC	DTVBL54963	342.5
	WHKY-TV	D14	DD	CP	HICKORY, NC	BLANK0000024614	139.1
	WCMH-TV	D14	DT	LIC	COLUMBUS, OH	BLCDT20050823AAD	358.8
	WDSI-TV	D14	DT	BL	CHATTANOOGA, TN	DTVBL71353	339.3
	W21CK-D	D15	DC	BL	CHARLOTTE, NC	DTVBL67022	211.0
	WQCW	D15	DT	BL	PORTSMOUTH, OH	DTVBL65130	186.6
	WTNZ	D15	DT	BL	KNOXVILLE, TN	DTVBL19200	190.3

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
46547.5	1,614,321	38181.3	1,289,306	36976.5	1,257,829	36972.4	1,257,829	0.01	0.00

Undesired	Total IX		Unique IX, before		Unique IX, after	
WLKY D14 DT BL	84.0	2,149	56.0	1,600		
WLKY D14 DT APP	88.0	2,149			60.1	1,600
WRDC D14 DT BL	355.1	10,513	187.6	5,722	187.6	5,722
WHKY-TV D14 DD CP	782.3	19,879	571.0	13,884	571.0	13,884
WCMH-TV D14 DT LIC	111.3	3,618	67.5	2,128	67.5	2,128
WDSI-TV D14 DT BL	16.0	145	16.0	145	16.0	145
WQCW D15 DT BL	67.4	1,450	55.5	645	55.5	645
WTNZ D15 DT BL	24.0	737	20.0	339	20.0	339

Interference to DTVBL37808 BL, scenario 2

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WLFG	D14	DT	BL	GRUNDY, VA	DTVBL37808	
Undesireds:	WLKY	D14	DT	BL	LOUISVILLE, KY	DTVBL53939	371.9 km
	WLKY	D14	DT	APP	LOUISVILLE, KY	WLKY PROP TUD 400KW	371.9
	WSKC-CD	D14	DC	BL	ATLANTA, GA	DTVBL35090	368.7
	WRDC	D14	DT	BL	DURHAM, NC	DTVBL54963	342.5
	WHKY-TV	D14	DD	BL	HICKORY, NC	DTVBL65919	139.1

WCMH-TV	D14	DT	LIC	COLUMBUS, OH	BLCDT20050823AAD	358.8
WDSI-TV	D14	DT	BL	CHATTANOOGA, TN	DTVBL71353	339.3
W21CK-D	D15	DC	BL	CHARLOTTE, NC	DTVBL67022	211.0
WQCW	D15	DT	BL	PORTSMOUTH, OH	DTVBL65130	186.6
WTNZ	D15	DT	BL	KNOXVILLE, TN	DTVBL19200	190.3

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
46547.5	1,614,321	38181.3	1,289,306	36968.5	1,257,594	36964.5	1,257,594	0.01	0.00

Undesired	Total IX		Unique IX, before		Unique IX, after	
WLKY D14 DT BL	84.0	2,149	56.0	1,600		
WLKY D14 DT APP	88.0	2,149			60.1	1,600
WRDC D14 DT BL	355.1	10,513	187.6	5,722	187.6	5,722
WHKY-TV D14 DD BL	786.3	20,089	578.9	14,119	578.9	14,119
WCMH-TV D14 DT LIC	111.3	3,618	71.5	2,153	71.5	2,153
WDSI-TV D14 DT BL	16.0	145	16.0	145	16.0	145
WQCW D15 DT BL	67.4	1,450	55.5	645	55.5	645
WTNZ D15 DT BL	24.0	737	20.0	339	20.0	339

Interference to BLDTA20130109AGB LIC, scenario 1
Proposal causes no interference.

Interference to BLDTA20130109AGB LIC, scenario 2
Proposal causes no interference.

Interference to BLDTA20130109AGB LIC, scenario 3
Proposal causes no interference.

Interference to BLDTA20130109AGB LIC, scenario 4
Proposal causes no interference.

Interference to BLANK0000024884 APP, scenario 1
Proposal causes no interference.

Interference to DTVBL56526 BL, scenario 1
Proposal causes no interference.

Interference to DTVBL8500 BL, scenario 1
Proposal causes no interference.

Interference to DTVBL8500 BL, scenario 2
Proposal causes no interference.

Interference to DTVBL39738 BL, scenario 1
Proposal causes no interference.

Interference to DTVBL39738 BL, scenario 2
Proposal causes no interference.

Interference to DTVBL30580 BL, scenario 1
Proposal causes no interference.

Interference to DTVBL30580 BL, scenario 2
Proposal causes no interference.

Interference to DTVBL30580 BL, scenario 3
Proposal causes no interference.

Interference to DTVBL30580 BL, scenario 4

Proposal causes no interference.

Interference to proposal, scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WLKY	D14	DT	APP	LOUISVILLE, KY	WLKY PROP TUD 400KW	
Undesireds:	WCMH-TV	D14	DT	LIC	COLUMBUS, OH	BLCDT20050823AAD	300.0 km
	WDSI-TV	D14	DT	BL	CHATTANOOGA, TN	DTVBL71353	354.6
	WLJT-DT	D14	DT	BL	LEXINGTON, TN	DTVBL71645	385.1
	WLFG	D14	DT	BL	GRUNDY, VA	DTVBL37808	371.9
	WYYW-CD	D15	DC	LIC	EVANSVILLE, IN	BLDTA20130109AGB	132.8
	WTTK	D15	DT	APP	KOKOMO, IN	BLANK0000024884	172.0
	WLCU-CD	D15	DC	BL	CAMPBELLSVILLE, KY	DTVBL8500	121.2
	WXIX-TV	D15	DT	BL	NEWPORT, KY	DTVBL39738	139.1
	WPBM-CD	D15	DC	BL	SCOTTSVILLE, KY	DTVBL30580	172.1

Service area		Terrain-limited		IX-free		Percent IX	
28787.6	1,828,004	28356.7	1,821,043	28112.8	1,817,546	0.86	0.19

Undesired	Total IX		Unique IX		Prcnt Unique IX	
WCMH-TV D14 DT LIC	192.4	2,998	160.3	2,698	0.57	0.15
WLFG D14 DT BL	12.0	37	4.0	10	0.01	0.00
WYYW-CD D15 DC LIC	43.6	395	43.6	395	0.15	0.02
WXIX-TV D15 DT BL	28.0	367	4.0	94	0.01	0.01

Interference to proposal, scenario 2

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WLKY	D14	DT	APP	LOUISVILLE, KY	WLKY PROP TUD 400KW	
Undesireds:	WCMH-TV	D14	DT	LIC	COLUMBUS, OH	BLCDT20050823AAD	300.0 km
	WDSI-TV	D14	DT	BL	CHATTANOOGA, TN	DTVBL71353	354.6
	WLJT-DT	D14	DT	BL	LEXINGTON, TN	DTVBL71645	385.1
	WLFG	D14	DT	BL	GRUNDY, VA	DTVBL37808	371.9
	WYYW-CD	D15	DC	LIC	EVANSVILLE, IN	BLDTA20130109AGB	132.8
	WTTK	D15	DT	BL	KOKOMO, IN	DTVBL56526	172.0
	WLCU-CD	D15	DC	BL	CAMPBELLSVILLE, KY	DTVBL8500	121.2
	WXIX-TV	D15	DT	BL	NEWPORT, KY	DTVBL39738	139.1
	WPBM-CD	D15	DC	BL	SCOTTSVILLE, KY	DTVBL30580	172.1

Service area		Terrain-limited		IX-free		Percent IX	
28787.6	1,828,004	28356.7	1,821,043	28112.8	1,817,546	0.86	0.19

Undesired	Total IX		Unique IX		Prcnt Unique IX	
WCMH-TV D14 DT LIC	192.4	2,998	160.3	2,698	0.57	0.15
WLFG D14 DT BL	12.0	37	4.0	10	0.01	0.00
WYYW-CD D15 DC LIC	43.6	395	43.6	395	0.15	0.02
WXIX-TV D15 DT BL	28.0	367	4.0	94	0.01	0.01

Channel and Facility Information

Section	Question	Response
Proposed Community of License	Facility ID	53939
	State	Kentucky
	City	LOUISVILLE
	DTV Channel	14
Facility Type	Facility Type	Commercial
	Station Type	Main
Zone	Zone	1

Antenna Location Data

Section	Question	Response
Antenna Structure Registration	Do you have an FCC Antenna Structure Registration (ASR) Number?	Yes
	ASR Number	1230057
Coordinates (NAD83)	Latitude	38° 22' 08.4" N+
	Longitude	085° 49' 47.6" W-
	Structure Type	GTOWER-Guyed Structure Used for Communication Purposes
	Overall Structure Height	292.9 meters
	Support Structure Height	274.3 meters
	Ground Elevation (AMSL)	299.6 meters
Antenna Data	Height of Radiation Center Above Ground Level	283 meters
	Height of Radiation Center Above Average Terrain	391.6 meters
	Height of Radiation Center Above Mean Sea Level	582.6 meters
	Effective Radiated Power	400 kW

Antenna Technical Data

Section	Question	Response
Antenna Type	Antenna Type	Directional Custom
	Do you have an Antenna ID?	No
	Antenna ID	
Antenna Manufacturer and Model	Manufacturer:	DIE
	Model	TUD-C5-14/70-2-T
	Rotation	0 degrees
	Electrical Beam Tilt	1.0
	Mechanical Beam Tilt	Not Applicable
	toward azimuth	
	Polarization	Horizontal
DTV and DTS: Elevation 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	

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	0.700	**90**	0.810	**180**	0.870	**270**	0.590
10	0.620	**100**	0.860	**190**	0.800	**280**	0.700
20	0.560	**110**	0.820	**200**	0.800	**290**	0.700
30	0.590	**120**	0.750	**210**	0.850	**300**	0.600
40	0.540	**130**	0.880	**220**	0.770	**310**	0.570
50	0.550	**140**	1.000	**230**	0.580	**320**	0.600
60	0.740	**150**	0.920	**240**	0.530	**330**	0.570
70	0.860	**160**	0.790	**250**	0.590	**340**	0.570
80	0.830	**170**	0.830	**260**	0.550	**350**	0.670

Additional Azimuths

Degree	V_A
358	0.710
285	0.720
102	0.870

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.	Yes
	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.	No
	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.	Yes
	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.	Yes
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 the applicable engineering standards and assignment requirements of 47 C. F.R. Sections 73.616, 73.622(i), 73.623(e), 73.625, 73.1030, and 73.1125.	Yes