

TECHNICAL EXHIBIT
APPLICATION FOR DTV CONSTRUCTION PERMIT
IN SUPPORT OF ITS POST-TRANSITION FACILITY
STATION KFVS-DT (FACILITY ID 592)
CAPE GIRARDEAU, MISSOURI

APRIL 1, 2008

CH 12 6.8 KW 609 M

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Technical Narrative {Up To 5-Mile Waiver Request}

This Technical Exhibit supports an application for digital television (DTV) station KFVS-DT for its final DTV operation at Cape Girardeau, Missouri. This application requests a construction permit (CP) for a digital television operation on channel 12, using a new antenna that will replace its licensed analog, non-directional antenna.

Proposed Facilities

Station KFVS-DT proposes to operate DTV channel 12, with a non-directional antenna effective radiated power (ERP) of 6.8 kilowatts and antenna height above average terrain (HAAT) of 609 meters. The transmitter site coordinates are:

37° 25' 46" North Latitude
89° 30' 14" West Longitude

A sketch of antenna and pertinent elevations are included as Figure 1. The antenna structure registration number is 1003017. Figure 2 depicts a typical antenna elevation pattern.

Figure 3 is a map showing the DTV predicted coverage contours as well as the associated analog Grade B and Appendix B allotment coverage contours. For each noise-limited contour, the 36 dBu contour was used, as well as 360-radials and a 3-second digitized terrain database. A 5-mile buffer has been added to the Appendix B allotment coverage contour. The extent of the proposed 6.8 kW contour has been calculated using the normal FCC prediction method. The predicted 36 dBu contour will not extend beyond the 5-mile buffer at any location.

The proposed 43 dBu contour will encompass all of Cape Girardeau. The Cape Girardeau city limits were derived from information contained in the 2000 U.S. Census of Population and Housing.

Population Served

The herein proposed KFVS-DT facility is predicted to serve 769,792 persons, post-transition, based upon the 2000 Census. KFVS-DT's associated Appendix B facility is predicted to serve 689,526 persons. Therefore, the herein proposed KFVS-DT facility would serve more than 100% of KFVS-DT's Appendix B population.

Allocation Considerations

Since the proposed KFVS-DT ERP exceeds the Commission's *Appendix B* allocated maximum effective radiated power in some azimuthal directions¹, a waiver of the current freeze on filing DTV maximization applications is hereby requested. The proposed facilities would (1) create a contour that does not extend more than 5 miles in any direction beyond the Appendix B contour; (2) not create more than 0.5% new interference to any other station; and (3) would allow KFVS-DT to use a new antenna to avoid a significant reduction in post-transition service from its analog service area.

In support of this waiver request, an allocation study was completed to ensure no prohibited interference would occur. The proposed KFVS-DT operation meets the FCC's post-transition interference standards to pertinent Class A and DTV allotments using the procedures outlined in the FCC's OET-69 Bulletin and a 2 kilometer grid cell size. The results of the interference analyses are summarized in Figure 4.

Radiofrequency Electromagnetic Field Exposure

The proposed KFVS-DT facilities were evaluated in terms of potential radio frequency (RF) energy exposure at ground level to workers and the general public. The

¹ See Seventh Report And Order And Eighth Further Notice Of Proposed Rule Making in the Matter of Advanced Television Systems and their Impact Upon the Existing Television Broadcast Service, MB Docket 87-268, Released August 6, 2007; Adopted August 1, 2007.

radiation center for the proposed DTV antenna is located 498 meters above ground level with an ERP of 6.8 kW. A conservative relative field value of 0.2 was assumed for the calculation (see Figure 2). The calculated power density at a point 2 meters above ground level will not exceed 0.0001 mW/cm^2 . This is less than 5% of the FCC's recommended limit of 0.2 mW/cm^2 for channel 12 for an "uncontrolled" environment.

Access to the transmitting site will be restricted and appropriately marked with warning signs. In the event that workers or other authorized personnel enter restricted areas or climb the tower, appropriate measures will be taken to assure worker safety with respect to radio frequency radiation exposure. Such measures include reducing the average exposure by spreading out the work over a longer period of time, wearing "accepted" RFR protective clothing and/or RFR exposure monitors or scheduling work when the station is at reduced power or shut down. The proposed KFVS-DT operation appears to be otherwise categorically excluded from environmental processing.

It is noted that this statement only addresses the potential for radiofrequency electromagnetic field exposure. All other aspects of the environmental processing analysis will be or already have been provided to the FCC by the tower owner.



Jonathan N. Edwards

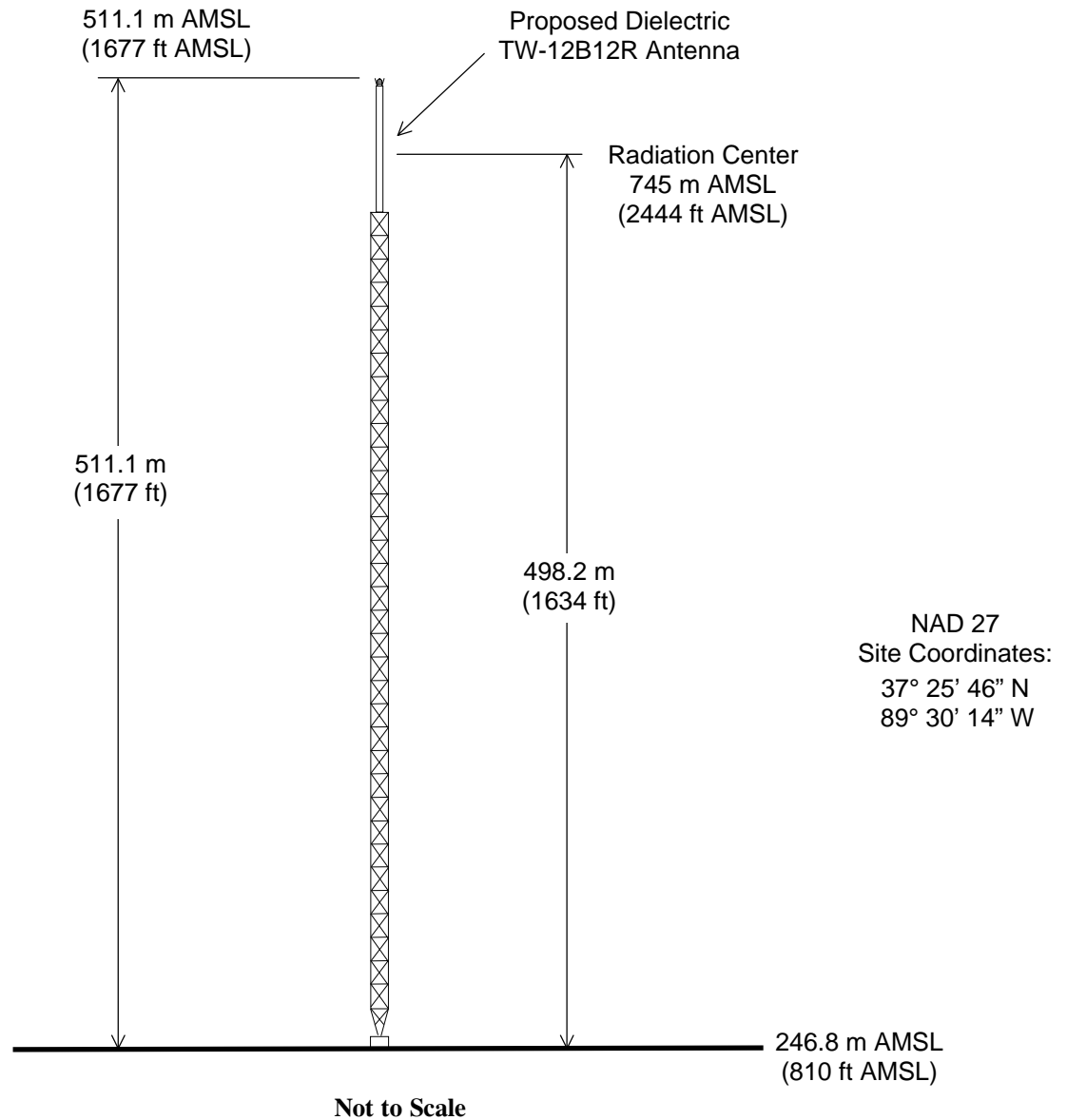
du Treil, Lundin & Rackley, Inc.
201 Fletcher Avenue
Sarasota, Florida 34237
(941) 329-6000
JON@DLR.COM

April 1, 2008

Figure 1



Registration No. 1003017



ANTENNA AND SUPPORTING STRUCTURE

STATION KFVS-DT

CAPE GIRARDEAU, MISSOURI

CH 12 6.8 KW 609 M

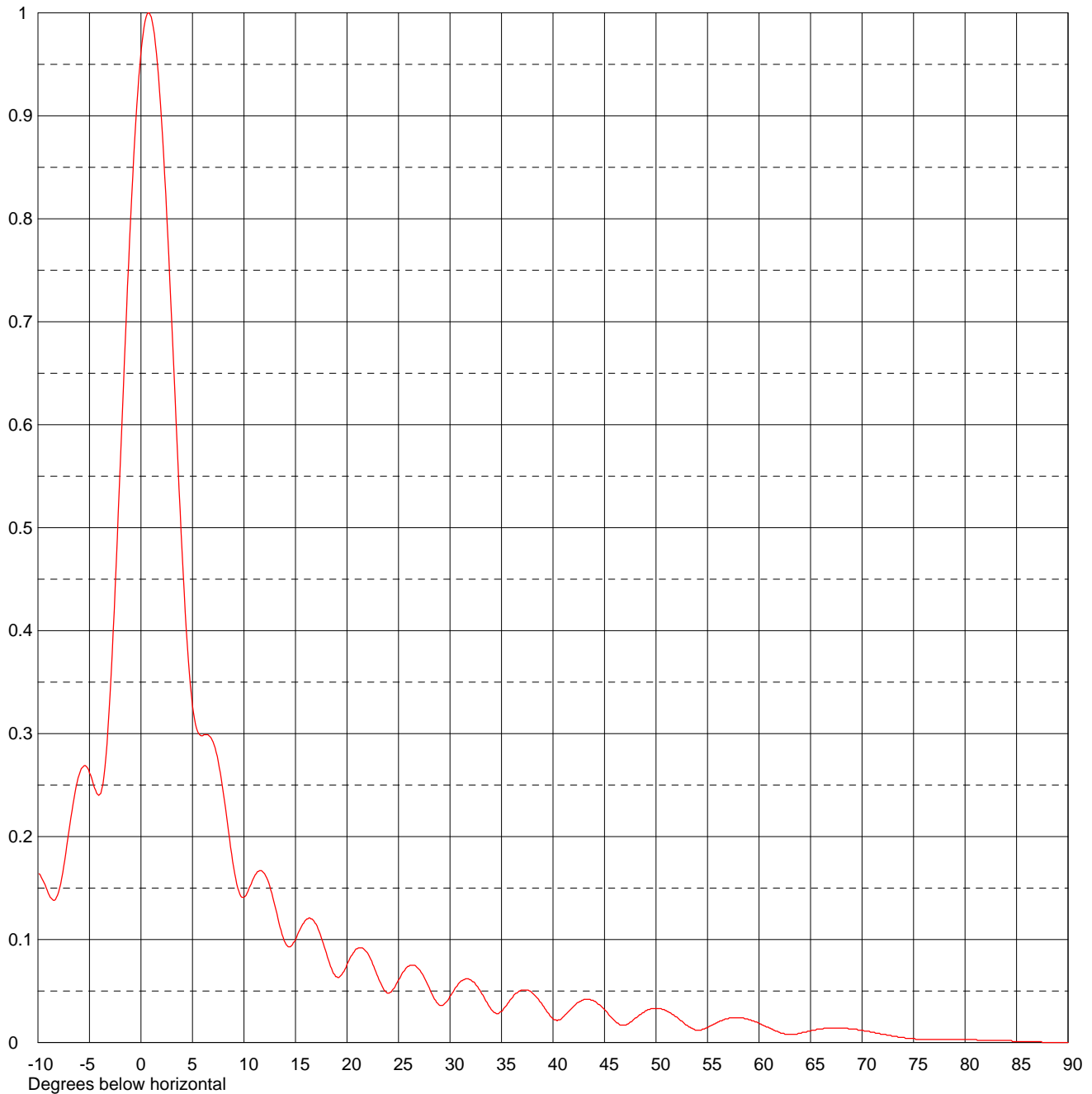
du Treil, Lundin & Rackley, Inc. Sarasota, Florida



Date	31 Mar 2008	
Call Letters	KFVS-DT	Channel 12
Location		
Customer		
Antenna Type	TW-12B12	

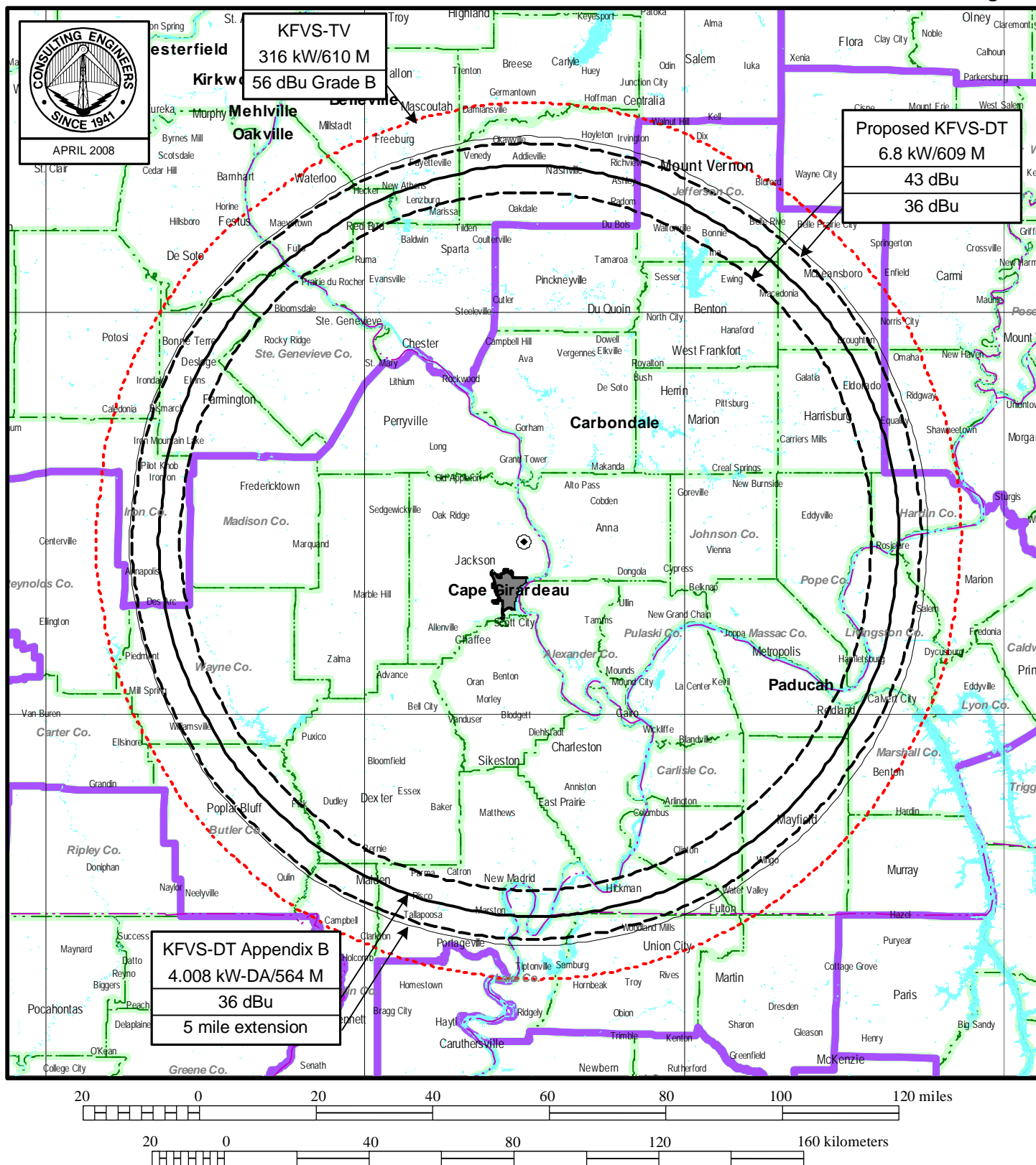
ELEVATION PATTERN

RMS Gain at Main Lobe	12.0 (10.79 dB)	Beam Tilt	0.75 Degrees
RMS Gain at Horizontal	11.1 (10.45 dB)	Frequency	207.00 MHz
Calculated / Measured	Calculated	Drawing #	25W120075-90



Remarks:

Figure 3



PREDICTED COVERAGE CONTOURS

STATION KFVS-DT

CAPE GIRARDEAU, MISSOURI

CH 12 6.8 kW 609

du Treil, Lundin & Rackley, Inc Sarasota, Florida

Percent allowed new interference: 0.500
 Percent allowed new interference to Class A: 0.500
 Census data selected 2000

Post Transition Data Base Selected
 /export/home/cdbb/tvdb.sff_G
 TV INTERFERENCE and SPACING ANALYSIS PROGRAM

Date: 03-31-2008 Time: 17:58:19
 Record Selected for Analysis

KFVS USERRECORD-01 CAPE GIRARDEAU MO US
 Channel 12 ERP 6.8 kW HAAT 609. m RCMSL 00745 m
 Latitude 037-25-46 Longitude 0089-30-14
 Status APP Zone 2 Border
 Last update Cutoff date Docket

Cell Size for Service Analysis 2.0 km/side
 Distance Increments for Longley-Rice Analysis 1.00 km

Facility meets maximum height/power limits

Azimuth (Deg)	ERP (kW)	HAAT (m)	36.0 dBu F(50,90) (km)
0.0	6.800	629.0	110.1
45.0	6.800	615.5	109.7
90.0	6.800	622.3	109.9
135.0	6.800	632.5	110.2
180.0	6.800	619.9	109.8
225.0	6.800	582.9	108.3
270.0	6.800	578.6	108.1
315.0	6.800	587.8	108.6

Evaluation toward Class A Stations
 No Spacing violations or contour overlap to Class A stations
 Class A Evaluation Complete

Proposed facility OK to FCC Monitoring Stations
 Proposed facility OK toward West Virginia quite zone
 Proposed facility OK toward Table Mountain
 Proposed facility is beyond the Canadian coordination distance
 Proposed facility is beyond the Mexican coordination distance
 Proposed station is OK toward AM broadcast stations

Start of Interference Analysis

Channel	Proposed Station Call	City/State	ARN
12	KFVS	CAPE GIRARDEAU MO	USERRECORD01

Stations Potentially Affected by Proposed Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
12	KTHV	LITTLE ROCK AR	397.2	CP	BPCDT	-19991020ABU
12	KRCG	JEFFERSON CITY MO	266.7	LIC	BLCDDT	-20030709ABP
12	WMAE-TV	BOONEVILLE MS	314.4	CP	BPEDT	-20000501AHZ

%%

Analysis of Interference to Affected Station 1

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
12	KTHV	LITTLE ROCK AR	BPCDT	-19991020ABU

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
12	WMAE-TV	BOONEVILLE MS	342.7	CP	BPEDT	-20000501AHZ
12	WJTV	JACKSON MS	344.3	CP	BPCDT	-19991025AEF
12	KXII	SHERMAN TX	403.4	CP	BDTV	-00000098

13	KETG	ARKADELPHIA AR	114.0	LIC	BLEDT	-20040608AAX
13	KEMV	MOUNTAIN VIEW AR	114.3	CP	BDSTA	-20040414ADU
12	KFVS	CAPE GIRARDEAU MO	397.2	APP	USERRECORD-01	

Total scenarios = 1

Result key: 1
 Scenario 1 Affected station 1
 Before Analysis

Results for: 12A AR LITTLE ROCK BPCDT 19991020ABU CP

HAAT 519.0 m, ATV ERP 55.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	1171680	48017.4
not affected by terrain losses	1138021	44862.5
lost to NTSC IX	0	0.0
lost to additional IX by ATV	9338	1764.3
lost to ATV IX only	9338	1764.3
lost to all IX	9338	1764.3

Potential Interfering Stations Included in above Scenario 1

12A MS BOONEVILLE	BPEDT	20000501AHZ	CP
12A MS JACKSON	BPCDT	19991025AEF	CP
12A TX SHERMAN	BDTV	00000098	CP
13A AR ARKADELPHIA	BLEDT	20040608AAX	LIC
13A AR MOUNTAIN VIEW	BDSTA	20040414ADU	CP

After Analysis

Results for: 12A AR LITTLE ROCK BPCDT 19991020ABU CP

HAAT 519.0 m, ATV ERP 55.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	1171680	48017.4
not affected by terrain losses	1138021	44862.5
lost to NTSC IX	0	0.0
lost to additional IX by ATV	9344	1768.3
lost to ATV IX only	9344	1768.3
lost to all IX	9344	1768.3

Potential Interfering Stations Included in above Scenario 1

12A MS BOONEVILLE	BPEDT	20000501AHZ	CP
12A MS JACKSON	BPCDT	19991025AEF	CP
12A TX SHERMAN	BDTV	00000098	CP
13A AR ARKADELPHIA	BLEDT	20040608AAX	LIC
13A AR MOUNTAIN VIEW	BDSTA	20040414ADU	CP
12A MO CAPE GIRARDEAU	USERRECORD01		APP

Percent new IX = 0.0005%

Worst case new IX 0.0005% Scenario 1

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Analysis of Interference to Affected Station 2

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
12	KRCG	JEFFERSON CITY MO	BLCDT	-20030709ABP

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
12	KIIN	IOWA CITY IA	342.7	CP	BDTV	-00000107
12	NEW	TOPEKA KS	320.1	CP	BNPCT	-20060424ADV
12	KFVS	CAPE GIRARDEAU MO	266.7	APP	USERRECORD-01	

Total scenarios = 1

Result key: 2
 Scenario 1 Affected station 2
 Before Analysis

Results for: 12A MO JEFFERSON CITY BLCDT 20030709ABP LIC

HAAT 308.0 m, ATV ERP 15.1 kW		
	POPULATION	AREA (sq km)
within Noise Limited Contour	617588	29240.8
not affected by terrain losses	594620	27980.1
lost to NTSC IX	0	0.0
lost to additional IX by ATV	3955	100.4
lost to ATV IX only	3955	100.4
lost to all IX	3955	100.4

Potential Interfering Stations Included in above Scenario 1

12A IA IOWA CITY	BDTV	00000107	CP
12A KS TOPEKA	BNPCT	20060424ADV	CP
12A MO CAPE GIRARDEAU	BLCDDT	20020423AAA	LIC

After Analysis

Results for: 12A MO JEFFERSON CITY BLCDDT 20030709ABP LIC
HAAT 308.0 m, ATV ERP 15.1 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	617588	29240.8
not affected by terrain losses	594620	27980.1
lost to NTSC IX	0	0.0
lost to additional IX by ATV	6475	188.7
lost to ATV IX only	6475	188.7
lost to all IX	6475	188.7

Potential Interfering Stations Included in above Scenario 1

12A IA IOWA CITY	BDTV	00000107	CP
12A KS TOPEKA	BNPCT	20060424ADV	CP
12A MO CAPE GIRARDEAU	USERRECORD01		APP

Percent new IX = 0.4266%
Worst case new IX 0.4266% Scenario 1

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Analysis of Interference to Affected Station 3

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
12	WMAE-TV	BOONEVILLE MS	BPEDT	-20000501AHZ

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
12	WSFA	MONTGOMERY AL	383.9	CP MOD	BMPCDDT	-20040519ADX
12	KTHV	LITTLE ROCK AR	342.7	CP	BPCDDT	-19991020ABU
12	WJTV	JACKSON MS	310.2	CP	BPCDDT	-19991025AEF
12	WDEF-TV	CHATTANOOGA TN	316.8	CP	BPCDDT	-19991025ACX
13	WVTM-TV	BIRMINGHAM AL	222.4	CP	BDTV	-00000128
13	WHBQ-TV	MEMPHIS TN	114.5	CP	BDTV	-00000129
12	KFVS	CAPE GIRARDEAU MO	314.4	APP	USERRECORD-01	

Total scenarios = 1

Result key: 3
Scenario 1 Affected station 3
Before Analysis

Results for: 12A MS BOONEVILLE BPEDT 20000501AHZ CP
HAAT 227.0 m, ATV ERP 5.9 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	446056	22087.2
not affected by terrain losses	430923	21104.8
lost to NTSC IX	0	0.0
lost to additional IX by ATV	12312	656.3
lost to ATV IX only	12312	656.3
lost to all IX	12312	656.3

Potential Interfering Stations Included in above Scenario 1

12A AR LITTLE ROCK	BPCDDT	19991020ABU	CP
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12A MS JACKSON	BPCDT	19991025AEF	CP
12A TN CHATTANOOGA	BPCDT	19991025ACX	CP
13A TN MEMPHIS	BDTV	00000129	CP
12A MO CAPE GIRARDEAU	BLCDT	20020423AAA	LIC

After Analysis

Results for: 12A MS BOONEVILLE BPEDT 20000501AHZ CP
HAAT 227.0 m, ATV ERP 5.9 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	446056	22087.2
not affected by terrain losses	430923	21104.8
lost to NTSC IX	0	0.0
lost to additional IX by ATV	12514	672.4
lost to ATV IX only	12514	672.4
lost to all IX	12514	672.4

Potential Interfering Stations Included in above Scenario 1

12A AR LITTLE ROCK	BPCDT	19991020ABU	CP
12A MS JACKSON	BPCDT	19991025AEF	CP
12A TN CHATTANOOGA	BPCDT	19991025ACX	CP
13A TN MEMPHIS	BDTV	00000129	CP
12A MO CAPE GIRARDEAU	USERRECORD01		APP

Percent new IX = 0.0483%
Worst case new IX 0.0483% Scenario 1

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Analysis of Interference to Affected Station 4

Analysis of current record

Channel	Call	City/State	Application Ref. No.
12	KFVS	CAPE GIRARDEAU MO	USERRECORD-01

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
12	KTHV	LITTLE ROCK AR	397.2	CP	BPCDT -19991020ABU
12	KRCG	JEFFERSON CITY MO	266.7	LIC	BLCDT -20030709ABP
12	WMAE-TV	BOONEVILLE MS	314.4	CP	BPEDT -20000501AHZ

Total scenarios = 1

Result key: 4
Scenario 1 Affected station 4
Before Analysis

Results for: 12A MO CAPE GIRARDEAU USERRECORD01 APP
HAAT 609.0 m, ATV ERP 6.8 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	795867	37514.5
not affected by terrain losses	774785	36582.5
lost to NTSC IX	0	0.0
lost to additional IX by ATV	4993	217.9
lost to ATV IX only	4993	217.9
lost to all IX	4993	217.9

Potential Interfering Stations Included in above Scenario 1

12A AR LITTLE ROCK	BPCDT	19991020ABU	CP
12A MO JEFFERSON CITY	BLCDT	20030709ABP	LIC
12A MS BOONEVILLE	BPEDT	20000501AHZ	CP

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