tvstudy v2.2.5 (4uoc83)
Database: localhost, Study: Lebanon29d15kwBA120IncFF, Model: Longley-Rice
Start: 2021.06.30 06:33:47

Study created: 2021.06.30 06:33:47

Study build station data: LMS TV 2021-06-30

    Proposal: W29FR-D D29 LD APP Lebanon, TN
 Facility ID: 187448
Station data: User record
   Record ID: 398
     Country: U.S.

Build options:
Protect pre-transition records not on baseline channel

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
No	DWIIW-LP	N14z	TX	APP	NASHVILLE, TN	BLANK0000010767	34.1 km
No	WNTU-LP	N26-	TX	LIC	NASHVILLE, TN	BLTTL20001018ABZ	35.9
No	WYAM-LD	D28	LD	LIC	PRICEVILLE, AL	BLANK0000095679	182.9
No	WELF-TV	D28	DT	LIC	DALTON, GA	BLANK0000090766	171.6
No	WEVV-TV	D28	DT	LIC	EVANSVILLE, IN	BLANK0000087480	218.7
No	WLEX-TV	D28	DT	LIC	LEXINGTON, KY	BLANK0000087372	273.2
No	DDDWQTV-LP	D28+	LD	APP	MURRAY, KY	BLANK0000054105	180.2
Yes	WKUW-LD	D28	LD	LIC	WHITE HOUSE, TN	BLANK0000142042	39.4
No	WBRC	D29	DT	LIC	BIRMINGHAM, AL	BLANK0000081282	298.7
No	WQMK-LD	D29	LD	LIC	CUSSETA, AL	BLANK0000143981	391.8
No	W29DN-D	D29	LD	LIC	ATHENS, GA	BLDTL20140221ACE	392.5
No	W29DN-D	D29	LD	CP	ATHENS, GA	BPDTL20140228AEM	344.9
No	WYGA-CD	D29	DC	CP	ATLANTA, GA	BLANK0000127583	324.9
No	WYGA-CD	D29	DC	LIC	ATLANTA, GA	BLANK0000081313	324.9
No	W29CI-D	D29	DC	LIC	SALEM, IL	BLDTA20120913AAP	353.9
No	WLEH-LD	D29	LD	LIC	ST. LOUIS, IL	BLANK0000080775	396.0
No	WJYL-CD	D29	DC	LIC	JEFFERSONVILLE, IN	BLANK0000087052	251.0
No	W29FI-D	D29	LD	CP	TERRE HAUTE, IN	BLANK0000071923	355.7

Yes	WKGB-TV	D29	DT	LIC	BOWLING GREEN, KY	BLANK0000087457	106.5
No	WVTN-LD	D29	LD	LIC	CORBIN, KY	BLANK0000080149	220.7
No	NEW	D29	LD	CP	GLASGOW, KY	BNPDTL20090825AQM	112.2
No	W29DE-D	D29	LD	LIC	HAYESVILLE, NC	BLANK0000138231	261.5
No	WPTO	D29	DT	LIC	OXFORD, OH	BLANK0000113643	368.4
No	WSQY-LD	D29	LD	LIC	SPARTANBURG, SC	BLANK0000136293	383.3
Yes	WTCI	D29	DT	LIC	CHATTANOOGA, TN	BLANK0000001535	144.6
Yes	WKOP-TV	D29	DT	LIC	KNOXVILLE, TN	BLANK0000081273	218.4
Yes	W29DM-D	D29	LD	LIC	LEWISBURG, TN	BLANK0000091947	84.5
No	WKNO	D29	DT	LIC	MEMPHIS, TN	BLEDT20060627ABE	330.1
Yes	WIIW-LD	D29	LD	LIC	NASHVILLE, TN	BLANK0000140083	34.1
No	WCYB-TV	D29	LD	LIC	BRISTOL, VA	BLANK0000010637	384.0
No	WCHS-TV	D29	DT	LIC	CHARLESTON, WV	BLANK0000059340	468.4
No	WELW-LD	D30	LD	CP	EVANSVILLE, IN	BLANK0000138318	227.9
No	WKPC-TV	D30	DT	LIC	LOUISVILLE, KY	BLANK0000087420	250.7
No	W11DM-D	N30-	TX	LIC	COLLEGEDALE, TN	BLTTL19990802JH	172.2
No	W30EG-D	D30	LD	LIC	KNOXVILLE, TN	BLANK0000138506	218.4
Yes	WNAB	D30	DT	LIC	NASHVILLE, TN	BLANK0000115868	39.2
No	WCNT-LP	N36-	TX	LIC	CHATTANOOGA, TN	BLTTL20050908AAJ	173.2

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

```
    Channel: D29
       Mask: Full Service
   Latitude:  36  9 13.00 N (NAD83)
  Longitude:  86 22 46.00 W
Height AMSL: 351.0 m
       HAAT: 0.0 m
   Peak ERP: 15.0 kW
    Antenna: PSI-PSILPD12BA (ID 111377) 120.0 deg
Elev Pattrn: Generic
```

50.2 dBu contour:

Azimuth	ERP	HAAT	Distance

0.0 deg	5.95 kW	164.0 m	43.8 km
45.0	14.6	179.9	49.4
90.0	13.0	135.8	45.9
135.0	14.1	130.7	46.0
180.0	14.1	163.0	48.2
225.0	10.1	173.5	47.1
270.0	0.794	159.0	33.1
315.0	0.693	171.3	33.2

Database HAAT does not agree with computed HAAT
Database HAAT: 0 m Computed HAAT: 160 m

Distance to Canadian border: 692.1 km

Distance to Mexican border: 1510.5 km

Conditions at FCC monitoring station: Powder Springs GA
Bearing: 148.9 degrees Distance: 295.9 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 290.7 degrees Distance: 1701.8 km

Study cell size: 1.00 km
Profile point spacing: 0.10 km

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

Interference to BLANK0000142042 LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WKUW-LD	D28	LD	LIC	WHITE HOUSE, TN	BLANK0000142042	

Undesireds:	W29FR-D	D29	LD	APP	Lebanon, TN		39.4 km
	WKRN-TV	D27	DT	LIC	NASHVILLE, TN	BLANK0000115874	24.7
	WELF-TV	D28	DT	LIC	DALTON, GA	BLANK0000090766	203.2
	WSIU-TV	D28	LD	APP	CARBONDALE, IL	BLANK0000054907	277.1
	WEVV-TV	D28	DT	LIC	EVANSVILLE, IN	BLANK0000087480	191.9
	DDDWQTV-LP	D28+	LD	APP	MURRAY, KY	BLANK0000054105	140.9
	WREG-TV	D28	DT	LIC	MEMPHIS, TN	BLCDT20050513AAE	299.4

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
9697.6	1,388,628	9448.6	1,369,586	8746.9	1,254,213	8693.4	1,243,100	0.61	0.89

Undesired	Total IX		Unique IX, before		Unique IX, after	
W29FR-D D29 LD APP	71.7	12,272			53.5	11,113
WKRN-TV D27 DT LIC	690.6	114,926	668.4	111,414	652.3	110,296
WELF-TV D28 DT LIC	9.1	765	3.0	0	3.0	0
WEVV-TV D28 DT LIC	27.2	3,815	5.0	140	5.0	140
DDDWQTV-LP D28+ LD APP	2.0	150	1.0	109	1.0	109
WREG-TV D28 DT LIC	1.0	0	1.0	0	1.0	0

Interference to BLANK0000087457 LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WKGB-TV	D29	DT	LIC	BOWLING GREEN, KY	BLANK0000087457	
Undesireds:	W29FR-D	D29	LD	APP	Lebanon, TN		106.5 km
	WEVV-TV	D28	DT	LIC	EVANSVILLE, IN	BLANK0000087480	119.6
	WJYL-CD	D29	DC	LIC	JEFFERSONVILLE, IN	BLANK0000087052	158.8
	WKNO	D29	DT	LIC	MEMPHIS, TN	BLEDT20060627ABE	358.0
	WNAB	D30	DT	LIC	NASHVILLE, TN	BLANK0000115868	92.9

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
15074.1	414,718	14943.6	410,462	14855.8	403,325	14803.5	401,975	0.35	0.33

Undesired	Total IX		Unique IX, before		Unique IX, after	
W29FR-D D29 LD APP	53.3	1,487			52.3	1,350
WEVV-TV D28 DT LIC	41.6	1,601	41.6	1,601	41.6	1,601
WJYL-CD D29 DC LIC	4.1	1	4.1	1	4.1	1

WKNO D29 DT LIC	7.0	7	7.0	7	7.0	7	
WNAB D30 DT LIC	35.2	5,528	35.2	5,528	34.2	5,391	

Interference to BLANK0000001535 LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WTCI	D29	DT	LIC	CHATTANOOGA, TN	BLANK0000001535	
Undesireds:	W29FR-D	D29	LD	APP	Lebanon, TN		144.6 km
	WELF-TV	D28	DT	LIC	DALTON, GA	BLANK0000090766	44.5
	WBRC	D29	DT	LIC	BIRMINGHAM, AL	BLANK0000081282	236.4
	WYGA-CD	D29	DC	LIC	ATLANTA, GA	BLANK0000081313	183.2
	WKGB-TV	D29	DT	LIC	BOWLING GREEN, KY	BLANK0000087457	241.9
	WKOP-TV	D29	DT	LIC	KNOXVILLE, TN	BLANK0000081273	148.4
	WDGA-CD	D30	DC	LIC	DALTON, GA	BLANK0000098047	57.9

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
23928.8	1,204,075	20600.3	1,097,328	18374.2	963,726	18335.4	963,436	0.21	0.03

Undesired		Total IX		Unique IX, before		Unique IX, after	
W29FR-D D29 LD APP	69.9	1,298				38.8	290
WELF-TV D28 DT LIC	396.2	8,465	202.5	3,875	201.5	3,875	
WBRC D29 DT LIC	554.7	23,076	301.7	12,655	297.7	12,630	
WYGA-CD D29 DC LIC	83.4	2,515	14.1	181	14.1	181	
WKGB-TV D29 DT LIC	11.0	503	3.0	0	1.0	0	
WKOP-TV D29 DT LIC	997.5	43,742	750.6	35,366	745.5	34,985	
WDGA-CD D30 DC LIC	678.2	74,162	590.8	67,583	590.8	67,583	

Interference to BLANK0000081273 LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WKOP-TV	D29	DT	LIC	KNOXVILLE, TN	BLANK0000081273	
Undesireds:	W29FR-D	D29	LD	APP	Lebanon, TN		218.4 km
	WELF-TV	D28	DT	LIC	DALTON, GA	BLANK0000090766	185.8
	WEMT	D28	DT	LIC	GREENEVILLE, TN	BLANK0000072087	173.2

	WBRC	D29	DT	LIC	BIRMINGHAM, AL	BLANK0000081282	380.9
	WYGA-CD	D29	DC	CP	ATLANTA, GA	BLANK0000127583	252.9
	WKGB-TV	D29	DT	LIC	BOWLING GREEN, KY	BLANK0000087457	268.3
	WXLV-TV	D29	DT	LIC	WINSTON-SALEM, NC	BLCDT20050624ABB	372.2
	WPTO	D29	DT	LIC	OXFORD, OH	BLANK0000113643	351.3
	WCHS-TV	D29	DT	LIC	CHARLESTON, WV	BLANK0000059340	323.9

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
32648.4	1,555,950	28196.7	1,420,427	28061.8	1,413,333	28047.7	1,412,926	0.05	0.03

Undesired		Total IX	Unique IX, before		Unique IX, after	
W29FR-D D29 LD APP	37.4	2,442			14.2	407
WELF-TV D28 DT LIC	7.0	43	5.0	32	5.0	32
WEMT D28 DT LIC	60.6	3,387	60.6	3,387	60.6	3,387
WBRC D29 DT LIC	15.9	706	13.9	695	13.9	695
WYGA-CD D29 DC CP	3.0	0	3.0	0	3.0	0
WKGB-TV D29 DT LIC	33.3	2,679	30.3	2,344	7.1	309
WXLV-TV D29 DT LIC	1.0	0	1.0	0	1.0	0
WPTO D29 DT LIC	4.0	335	1.0	0	1.0	0
WCHS-TV D29 DT LIC	17.1	625	15.1	290	15.1	290

Interference to BLANK0000081273 LIC scenario 2

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WKOP-TV	D29	DT	LIC	KNOXVILLE, TN	BLANK0000081273	
Undesireds:	W29FR-D	D29	LD	APP	Lebanon, TN		218.4 km
	WELF-TV	D28	DT	LIC	DALTON, GA	BLANK0000090766	185.8
	WEMT	D28	DT	LIC	GREENEVILLE, TN	BLANK0000072087	173.2
	WBRC	D29	DT	LIC	BIRMINGHAM, AL	BLANK0000081282	380.9
	WYGA-CD	D29	DC	LIC	ATLANTA, GA	BLANK0000081313	252.9
	WKGB-TV	D29	DT	LIC	BOWLING GREEN, KY	BLANK0000087457	268.3
	WXLV-TV	D29	DT	LIC	WINSTON-SALEM, NC	BLCDT20050624ABB	372.2
	WPTO	D29	DT	LIC	OXFORD, OH	BLANK0000113643	351.3
	WCHS-TV	D29	DT	LIC	CHARLESTON, WV	BLANK0000059340	323.9

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	

32648.4	1,555,950	28196.7	1,420,427	28063.8	1,413,333	28049.7	1,412,926	0.05	0.03

Undesired		Total IX	Unique IX, before		Unique IX, after	
W29FR-D D29 LD APP	37.4	2,442			14.2	407
WELF-TV D28 DT LIC	7.0	43	5.0	32	5.0	32
WEMT D28 DT LIC	60.6	3,387	60.6	3,387	60.6	3,387
WBRC D29 DT LIC	15.9	706	13.9	695	13.9	695
WYGA-CD D29 DC LIC	1.0	0	1.0	0	1.0	0
WKGB-TV D29 DT LIC	33.3	2,679	30.3	2,344	7.1	309
WXLV-TV D29 DT LIC	1.0	0	1.0	0	1.0	0
WPTO D29 DT LIC	4.0	335	1.0	0	1.0	0
WCHS-TV D29 DT LIC	17.1	625	15.1	290	15.1	290

Interference to BLANK0000091947 LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	W29DM-D	D29	LD	LIC	LEWISBURG, TN	BLANK0000091947	
Undesireds:	W29FR-D	D29	LD	APP	Lebanon, TN		84.5 km
	WBRC	D29	DT	LIC	BIRMINGHAM, AL	BLANK0000081282	237.6
	WYGA-CD	D29	DC	CP	ATLANTA, GA	BLANK0000127583	321.7
	WKGB-TV	D29	DT	LIC	BOWLING GREEN, KY	BLANK0000087457	167.8
	WKNO	D29	DT	LIC	MEMPHIS, TN	BLEDT20060627ABE	256.9
	WNAB	D30	DT	LIC	NASHVILLE, TN	BLANK0000115868	75.3

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
2968.3	146,118	2852.2	135,853	2827.9	135,475	2816.9	133,926	0.39	1.14

Undesired		Total IX	Unique IX, before		Unique IX, after	
W29FR-D D29 LD APP	13.0	1,614			11.0	1,549
WBRC D29 DT LIC	15.2	151	14.2	151	13.2	86
WKGB-TV D29 DT LIC	1.0	0	1.0	0	0.0	0
WKNO D29 DT LIC	1.0	110	1.0	110	1.0	110
WNAB D30 DT LIC	8.1	117	7.1	117	7.1	117

Interference to BLANK0000140083 LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WIIW-LD	D29	LD	LIC	NASHVILLE, TN	BLANK0000140083	
Undesireds:	W29FR-D	D29	LD	APP	Lebanon, TN		34.1 km
	WKUW-LD	D28	LD	LIC	WHITE HOUSE, TN	BLANK0000142042	9.6
	WKGB-TV	D29	DT	LIC	BOWLING GREEN, KY	BLANK0000087457	100.9
	WNAB	D30	DT	LIC	NASHVILLE, TN	BLANK0000115868	9.1

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
67.6	56,250	55.5	48,464	41.4	37,657	41.4	37,657	0.00	0.00

Undesired	Total IX		Unique IX, before		Unique IX, after	
W29FR-D D29 LD APP	10.1	7,124			0.0	0
WKUW-LD D28 LD LIC	13.1	8,772	0.0	0	0.0	0
WKGB-TV D29 DT LIC	6.1	3,122	0.0	0	0.0	0
WNAB D30 DT LIC	14.1	10,807	1.0	2,035	1.0	2,035

Interference to BLANK0000115868 LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WNAB	D30	DT	LIC	NASHVILLE, TN	BLANK0000115868	
Undesireds:	W29FR-D	D29	LD	APP	Lebanon, TN		39.2 km
	WKGB-TV	D29	DT	LIC	BOWLING GREEN, KY	BLANK0000087457	92.9
	WIAT	D30	DT	LIC	BIRMINGHAM, AL	BLCDT20021219AAV	308.9
	WTCT	D30	DT	LIC	MARION, IL	BLANK0000096223	244.8
	WKPC-TV	D30	DT	LIC	LOUISVILLE, KY	BLANK0000087420	248.8
	WMC-TV	D30	DT	APP	MEMPHIS, TN	BLANK0000127522	304.3
	WKMA-TV	D31	DT	LIC	MADISONVILLE, KY	BLANK0000087442	121.2

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
28816.0	2,176,241	28206.7	2,165,805	27691.6	2,138,079	27688.6	2,138,069	0.01	0.00

Undesired	Total IX		Unique IX, before		Unique IX, after	
W29FR-D D29 LD APP	4.0	10			3.0	10
WKGB-TV D29 DT LIC	102.9	17,377	83.9	16,572	83.9	16,572

WIAT D30 DT LIC	189.2	7,281	169.3	5,806	168.3	5,806
WTCT D30 DT LIC	219.8	3,942	175.8	2,563	175.8	2,563
WKPC-TV D30 DT LIC	8.0	83	3.0	71	3.0	71
WMC-TV D30 DT APP	55.1	1,828	24.1	284	24.1	284
WKMA-TV D31 DT LIC	7.0	81	3.0	55	3.0	55

Interference to proposal scenario 1
6.96% interference received

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	W29FR-D	D29	LD	APP	Lebanon, TN		
Undesireds:	WKUW-LD	D28	LD	LIC	WHITE HOUSE, TN	BLANK0000142042	39.4 km
	WBRC	D29	DT	LIC	BIRMINGHAM, AL	BLANK0000081282	298.7
	WYGA-CD	D29	DC	CP	ATLANTA, GA	BLANK0000127583	324.9
	WKGB-TV	D29	DT	LIC	BOWLING GREEN, KY	BLANK0000087457	106.5
	W29DM-D	D29	LD	LIC	LEWISBURG, TN	BLANK0000091947	84.5
	WIIW-LD	D29	LD	LIC	NASHVILLE, TN	BLANK0000140083	34.1
	WNAB	D30	DT	LIC	NASHVILLE, TN	BLANK0000115868	39.2

Service area		Terrain-limited		IX-free		Percent IX	
6100.0	918,323	5754.0	899,596	5510.9	837,026	4.22	6.96

Undesired	Total IX		Unique IX		Prcnt Unique IX	
WKUW-LD D28 LD LIC	9.1	4,463	0.0	0	0.00	0.00
WBRC D29 DT LIC	1.0	14	0.0	0	0.00	0.00
WKGB-TV D29 DT LIC	50.2	3,663	42.2	1,545	0.73	0.17
W29DM-D D29 LD LIC	15.2	986	13.1	683	0.23	0.08
WIIW-LD D29 LD LIC	2.0	3,449	2.0	3,449	0.04	0.38
WNAB D30 DT LIC	184.6	56,879	168.6	50,312	2.93	5.59