INTERFERENCE ANALYSIS FOR
PROPOSED WJFB, LEBANON, TN, CHANNEL 25

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tvstudy v2.2.5 (4uoc83)
Database: localhost,  Study: wjfb05b,  Model: Longley-Rice

Study build station data: LMS TV 2020-11-25

    Proposal: WJFB05 D25 DT APP LEBANON, TN
 File number: wjfb05
 Facility ID: 7651
Station data: User record
   Record ID: 4447
     Country: U.S.
        Zone: II

Stations potentially affected by proposal:

IX   Call      Chan       Svc Status  City, State              File Number            Distance
Yes  WHIQ      D24        DT  LIC     HUNTSVILLE, AL           BLANK0000004828        171.9 km
Yes  WNKY      D24        DT  LIC     BOWLING GREEN, KY        BLANK0000111324        101.5
No   WUWT-CD   D24        DC  LIC     UNION CITY, TN           BLANK0000113689        201.6
No   WAKA      D25        DT  LIC     SELMA, AL                BLANK0000081489        457.8
Yes  WATL      D25        DT  LIC     ATLANTA, GA              BLCDT20020716AAH       353.2
No   WRTV      D25        DT  LIC     INDIANAPOLIS, IN         BLCDT20090623ACJ       406.9
Yes  WDKA      D25        DT  LIC     PADUCAH, KY              BLANK0000087462        228.2
Yes  WUPX-TV   D25        DT  LIC     RICHMOND, KY             BLANK0000075153        252.6
No   K25NG-D   D25        DC  LIC     ST. LOUIS, MO            BLDTL20130805ABR       401.2
No   WMAO-TV   D25        DT  LIC     GREENWOOD, MS            BLEDT20090612AAI       469.2
Yes  WYHB-CD   D25        DC  LIC     CHATTANOOGA, TN          BLANK0000102891        180.5
Yes  WATN-TV   D25        DT  LIC     MEMPHIS, TN              BLCDT20050628AAP       290.6
No   WTJP-TV   D26        DT  LIC     GADSDEN, AL              BLCDT20110304ACB       274.5
No   WFIE      D26        DT  LIC     EVANSVILLE, IN           BLANK0000087068        191.1
No   WATE-TV   D26        DT  LIC     KNOXVILLE, TN            BMLCDT20041203AEG      257.8

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

    Channel: D25
   Latitude:  36 16  4.90 N (NAD83)
  Longitude:  86 47 44.70 W
Height AMSL: 592.9 m
       HAAT: 407.0 m
   Peak ERP: 1000 kW
    Antenna: DIE-TFU-18DSC/VP-R S180 0.0 deg
Elev Pattrn: Generic
  Elec Tilt: 1.00

39.9 dBu contour:
Azimuth      ERP       HAAT   Distance
  0.0 deg    174 kW   352.4 m   89.7 km
 45.0        699      406.0     105.7
 90.0        920      433.2     111.1
135.0        990      431.0     111.6
180.0        841      438.8     110.6
225.0        482      442.3     105.2
270.0        104      389.1      88.9
315.0        203      366.7      92.1

ERP exceeds maximum
ERP: 1000 kW    ERP maximum: 838 kW (The largest station in the market criterion is met. See Technical Summary.)

Distance to Canadian border: 698.3 km

Distance to Mexican border: 1493.9 km

Conditions at FCC monitoring station: Powder Springs GA
Bearing: 144.2 degrees   Distance: 327.1 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 290.5 degrees   Distance: 1662.4 km
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Study cell size: 2.00 km
Profile point spacing: 0.05 km (Higher resolution terrain profile point spacing is requested.)

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

Interference to BLANK0000004828 LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WHIQ	D24	DT	LIC	HUNTSVILLE, AL	BLANK0000004828	
Undesireds:	WJFB	D25	DT	BL	LEBANON, TN	DTVBL7651	158.1 km
	WJFB05	D25	DT	APP	LEBANON, TN	wjfb05	171.9
	WFLI-TV	D23	DT	LIC	CLEVELAND, TN	BLANK0000093785	120.0
	WBXA-CD	D24	DC	LIC	BIRMINGHAM, AL	BLANK0000001638	141.5
	WXTX	D24	DT	LIC	COLUMBUS, GA	BLANK0000064021	295.5
	WGTA	D24	DT	LIC	TOCCOA, GA	BLANK0000001315	289.1
	WNKY	D24	DT	LIC	BOWLING GREEN, KY	BLANK0000111324	257.4
	W39CA-D	D24	DC	LIC	FULTON, MS	BLANK0000063965	175.7
	WMDN	D24	DT	CP	MERIDIAN, MS	BLANK0000035927	334.4
	WETP-TV	D24	DT	LIC	SNEEDVILLE, TN	BLANK0000120200	353.7

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX
28802.6	1,278,174	27367.9	1,217,711	27260.1	1,214,963	27256.0	1,214,909	0.01	0.00

Undesired	Total IX		Unique IX, before		Unique IX, after	
WJFB D25 DT BL	0.0	0	0.0	0		
WJFB05 D25 DT APP	4.0	54			4.0	54
WFLI-TV D23 DT LIC	27.7	969	23.8	946	23.8	946
WXTX D24 DT LIC	4.0	94	0.0	0	0.0	0
WGTA D24 DT LIC	20.0	565	16.0	471	16.0	471
WNKY D24 DT LIC	4.0	59	4.0	59	4.0	59
W39CA-D D24 DC LIC	4.0	0	4.0	0	4.0	0
WMDN D24 DT CP	44.0	830	44.0	830	44.0	830
WETP-TV D24 DT LIC	12.0	348	8.0	325	8.0	325

Interference to BLANK0000111324 LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WNKY	D24	DT	LIC	BOWLING GREEN, KY	BLANK0000111324	
Undesireds:	WJFB	D25	DT	BL	LEBANON, TN	DTVBL7651	99.6 km
	WJFB05	D25	DT	APP	LEBANON, TN	wjfb05	101.5
	WKZT-TV	D23	DT	LIC	ELIZABETHTOWN, KY	BLANK0000087417	77.8
	WHIQ	D24	DT	LIC	HUNTSVILLE, AL	BLANK0000004828	257.4
	WJTS-CD	D24	DC	LIC	JASPER, IN	BLANK0000083248	161.7
	WKON	D24	DT	LIC	OWENTON, KY	BLANK0000087440	204.6
	WETP-TV	D24	DT	LIC	SNEEDVILLE, TN	BLANK0000120200	276.8

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX
14055.3	379,002	13895.5	375,682	13704.4	372,404	13624.8	370,617	0.58	0.48

Undesired	Total IX		Unique IX, before		Unique IX, after	
WJFB D25 DT BL	0.0	0	0.0	0		
WJFB05 D25 DT APP	91.5	2,065			79.6	1,787
WKZT-TV D23 DT LIC	139.4	2,540	123.4	2,336	123.4	2,336
WHIQ D24 DT LIC	23.9	347	15.9	306	4.0	28
WJTS-CD D24 DC LIC	27.9	265	8.0	99	8.0	99
WKON D24 DT LIC	19.9	274	4.0	21	4.0	21
WETP-TV D24 DT LIC	23.9	345	8.0	141	8.0	141

Interference to BLCDT20020716AAH LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WATL	D25	DT	LIC	ATLANTA, GA	BLCDT20020716AAH	
Undesireds:	WJFB	D25	DT	BL	LEBANON, TN	DTVBL7651	320.2 km
	WJFB05	D25	DT	APP	LEBANON, TN	wjfb05	353.2

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	WGTA	D24	DT	LIC	TOCCOA, GA	BLANK0000001315	126.0
	WAKA	D25	DT	LIC	SELMA, AL	BLANK0000081489	292.7
	WJZY	D25	DT	LIC	BELMONT, NC	BLANK0000081702	338.8
	WYHB-CD	D25	DC	LIC	CHATTANOOGA, TN	BLANK0000102891	178.1
	WGXA	D26	DT	LIC	MACON, GA	BLANK0000074961	138.1

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX
28965.5	5,882,837	27971.4	5,818,745	27575.8	5,799,094	27575.8	5,797,992	0.00 0.02

Undesired		Total IX		Unique IX, before		Unique IX, after	
WJFB D25 DT BL	43.9	2,613		12.0	1,893		
WJFB05 D25 DT APP	28.0	3,246				12.0	2,995
WGTA D24 DT LIC	51.9	5,849		32.0	4,639	32.0	4,639
WAKA D25 DT LIC	152.0	5,580		144.0	5,286	148.0	5,541
WJZY D25 DT LIC	36.0	1,750		16.0	540	16.0	540
WYHB-CD D25 DC LIC	107.6	4,987		79.7	4,522	91.7	4,736
WGXA D26 DT LIC	60.0	841		56.0	802	56.0	802

Interference to BLANK0000087462 LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WDKA	D25	DT	LIC	PADUCAH, KY	BLANK0000087462	
Undesireds:	WJFB	D25	DT	BL	LEBANON, TN	DTVBL7651	266.4 km
	WJFB05	D25	DT	APP	LEBANON, TN	wjfb05	228.2
	WUWT-CD	D24	DC	LIC	UNION CITY, TN	BLANK0000113689	105.8
	WRTV	D25	DT	LIC	INDIANAPOLIS, IN	BLCDT20090623ACJ	366.0
	K25NG-D	D25	DC	LIC	ST. LOUIS, MO	BLDTL20130805ABR	178.1
	WATN-TV	D25	DT	LIC	MEMPHIS, TN	BLCDT20050628AAP	247.2
	WFIE	D26	DT	LIC	EVANSVILLE, IN	BLANK0000087068	136.5

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX
27489.6	658,699	27238.8	657,674	26685.5	653,932	26677.4	654,101	0.03 -0.03

Undesired		Total IX		Unique IX, before		Unique IX, after	
WJFB D25 DT BL	103.7	1,098		51.9	619		
WJFB05 D25 DT APP	103.8	893				60.0	450
WUWT-CD D24 DC LIC	167.1	888		35.8	397	35.8	397
WRTV D25 DT LIC	19.8	70		7.9	9	11.9	36
K25NG-D D25 DC LIC	11.9	300		11.9	300	11.9	300
WATN-TV D25 DT LIC	310.9	2,088		155.7	1,239	159.7	1,248
WFIE D26 DT LIC	126.9	268		119.0	250	119.0	250

Interference to BLANK0000075153 LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WUPX-TV	D25	DT	LIC	RICHMOND, KY	BLANK0000075153	
Undesireds:	WJFB	D25	DT	BL	LEBANON, TN	DTVBL7651	236.2 km
	WJFB05	D25	DT	APP	LEBANON, TN	wjfb05	252.6
	WKON	D24	DT	LIC	OWENTON, KY	BLANK0000087440	82.7
	WRTV	D25	DT	LIC	INDIANAPOLIS, IN	BLCDT20090623ACJ	269.0
	WLFB	D25	DT	LIC	BLUEFIELD, WV	BLANK0000123625	308.5

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX
23526.5	1,102,435	23072.2	1,089,177	22560.9	1,073,297	22524.9	1,071,337	0.16 0.18

Undesired		Total IX		Unique IX, before		Unique IX, after	
WJFB D25 DT BL	403.5	12,326		391.6	12,061		
WJFB05 D25 DT APP	443.5	14,415				427.6	14,021
WKON D24 DT LIC	44.3	671		44.3	671	44.3	671
WRTV D25 DT LIC	71.4	3,067		55.5	2,745	51.5	2,616
WLFB D25 DT LIC	7.9	138		4.0	81	4.0	81

Interference to BLANK0000102891 LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WYHB-CD	D25	DC	LIC	CHATTANOOGA, TN	BLANK0000102891	
Undesireds:	WJFB	D25	DT	BL	LEBANON, TN	DTVBL7651	144.5 km
	WJFB05	D25	DT	APP	LEBANON, TN	wjfb05	180.5

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	WATL	D25	DT	LIC	ATLANTA, GA	BLCDT20020716AAH	178.1

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX
7111.8	756,769	6362.5	702,708	6274.9	696,818	6282.9	696,143	-0.13	0.10

Undesired	Total IX		Unique IX, before		Unique IX, after	
WJFB D25 DT BL	71.5	5,552	55.6	4,672		
WJFB05 D25 DT APP	55.6	5,499			47.7	5,347
WATL D25 DT LIC	32.0	1,218	16.1	338	24.0	1,066

Interference to BLCDT20050628AAP LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WATN-TV	D25	DT	LIC	MEMPHIS, TN	BLCDT20050628AAP	
Undesireds:	WJFB	D25	DT	BL	LEBANON, TN	DTVBL7651	321.8 km
	WJFB05	D25	DT	APP	LEBANON, TN	wjfb05	290.6
	WDKA	D25	DT	LIC	PADUCAH, KY	BLANK0000087462	247.2
	WMAO-TV	D25	DT	LIC	GREENWOOD, MS	BLEDT20090612AAI	222.5

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX
33254.3	1,787,595	32983.2	1,779,165	31771.3	1,748,006	31731.2	1,747,575	0.13	0.02

Undesired	Total IX		Unique IX, before		Unique IX, after	
WJFB D25 DT BL	56.4	2,682	12.1	182		
WJFB05 D25 DT APP	132.5	3,499			52.3	613
WDKA D25 DT LIC	96.5	4,602	52.3	2,163	48.3	2,033
WMAO-TV D25 DT LIC	1119.2	26,811	1099.2	26,314	1067.3	26,058

Interference to proposal scenario 1
1.39% interference received

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WJFB05	D25	DT	APP	LEBANON, TN	wjfb05	
Undesireds:	WHIQ	D24	DT	LIC	HUNTSVILLE, AL	BLANK0000004828	171.9 km
	WNKY	D24	DT	LIC	BOWLING GREEN, KY	BLANK0000111324	101.5
	WATL	D25	DT	LIC	ATLANTA, GA	BLCDT20020716AAH	353.2
	WDKA	D25	DT	LIC	PADUCAH, KY	BLANK0000087462	228.2
	WUPX-TV	D25	DT	LIC	RICHMOND, KY	BLANK0000075153	252.6
	WATN-TV	D25	DT	LIC	MEMPHIS, TN	BLCDT20050628AAP	290.6

Service area		Terrain-limited		IX-free		Percent IX	
32852.0	2,310,517	32272.7	2,301,905	31579.4	2,269,846	2.15	1.39

Undesired	Total IX		Unique IX		Prcnt Unique IX	
WHIQ D24 DT LIC	8.1	250	8.1	250	0.03	0.01
WNKY D24 DT LIC	236.5	17,205	192.4	14,958	0.60	0.65
WATL D25 DT LIC	4.0	407	0.0	0	0.00	0.00
WDKA D25 DT LIC	300.2	10,586	203.7	3,724	0.63	0.16
WUPX-TV D25 DT LIC	128.1	4,724	72.0	1,947	0.22	0.08
WATN-TV D25 DT LIC	161.0	8,403	72.6	1,664	0.22	0.07
