INTERFERENCE ANALYSIS FOR PROPOSED WARZ-CD, SMITHFIELD-SELMA, NC, CHANNEL 23

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tvstudy v2.2.5 (4uoc83)
Database: localhost,  Study: warz61a,  Model: Longley-Rice

Study build station data: LMS TV 2020-11-18

    Proposal: WARZ61 D23 DC APP SMITHFIELD-SELMA, NC
 File number: warz61
 Facility ID: 71089
Station data: User record
   Record ID: 3469
     Country: U.S.

Build options:
Protect LPTV records from Class A

Search options:
Baseline record excluded if station has CP

Stations potentially affected by proposal:

IX   Call      Chan       Svc Status  City, State               File Number             Distance
No   W19CA     N19-       TX  LIC     LUMBERTON, NC             BLTT19961112JH          100.7 km
Yes  WUVC-DT   D22        DT  LIC     FAYETTEVILLE, NC          BLANK0000125505          44.0
No   W22FC-D   D22        LD  CP      GREENVILLE, NC            BLANK0000071778         117.1
No   W22CJ     N22-       TX  LIC     JACKSONVILLE, NC          BLTT19990629JD          144.9
No   WACH      D22        DT  LIC     COLUMBIA, SC              BLANK0000093772         267.1
No   WCVE-TV   D22        DT  LIC     RICHMOND, VA              BLANK0000112529         220.5
No   WDDN-LD   D23        LD  LIC     WASHINGTON, DC            BLDTL20120810AAG        391.8
No   WAAU-LD   D23        LD  LIC     AUGUSTA, GA               BLDTL20120522AFJ        401.2
No   WKPI-TV   D23        DT  LIC     PIKEVILLE, KY             BLANK0000087418         398.8
No   WDVM-TV   D23        DT  LIC     HAGERSTOWN, MD            BLANK0000080408         445.9
No   W23ED-D   D23        LD  CP      SALISBURY, MD             BLANK0000068887         399.7
Yes  WUNC-TV   D23        LD  LIC     CHAPEL HILL, NC           BLANK0000119643          89.4
Yes  WBTV      D23        DT  LIC     CHARLOTTE, NC             BLCDT19991025AEB        242.3
No   WDFH-LD   D23        LD  CP      GREENVILLE, NC            BLANK0000072080         144.3
No   W08AX     D23        LD  LIC     MARSHALL, NC              BLANK0000074623         375.8
Yes  WECT      D23        DT  LIC     WILMINGTON, NC            BLANK0000111584         174.6
No   WLDW-LD   D23        LD  LIC     Florence, SC              BLANK0000092516         206.4
No   WAZS-LD   D23        LD  CP      NORTH CHARLESTON, SC      BLANK0000054749         337.6
No   WAPW-CD   D23        DC  LIC     ABINGDON, ETC., VA        BLANK0000116775         301.9
No   WITD-CD   D23        DC  LIC     CHESAPEAKE, VA            BLANK0000001500         221.6
No   WDWA-LD   D23        LD  LIC     Damascus, VA              BLDTL20140528ACM        361.9
No   WMDV-LD   D23        LD  CP      DANVILLE, VA              BLANK0000054844         140.8
No   WJDG-LD   D23        LD  LIC     GRUNDY, VA                BLDTL20120619ABQ        304.2
Yes  WTVR-TV   D23        DT  LIC     RICHMOND, VA              BLANK0000109887         220.5
No   W23DR-D   D23        LD  LIC     ROMNEY, WV                BLDTT20090609AAZ        404.2
No   WCNC-TV   D24        DT  LIC     CHARLOTTE, NC             BLANK0000087279         241.2
Yes  W24CP-D   D24        LD  LIC     DURHAM, NC                BLANK0000004266          60.4
Yes  WUBX-CD   D24        DC  LIC     DURHAM, ETC., NC          BLANK0000108883          42.0
No   W24AY-D   D24        LD  LIC     LILESVILLE/WADESBORO, NC  BLDTT20111212AFX        147.4
No   WAET-LD   D24        LD  CP      NEW BERN, NC              BLANK0000077921         144.3
No   K24OD-D   D24        LD  CP      NEW BERN, NC              BNPDTL20100209AAW       188.0
No   WWAY      D24        DT  LIC     WILMINGTON, NC            BLANK0000100423         174.6
No   WRLH-TV   D24        DT  LIC     RICHMOND, VA              BLANK0000081561         220.5

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

    Channel: D23
       Mask: Full Service
   Latitude:  35 40 35.10 N (NAD83)
  Longitude:  78 32  7.20 W
Height AMSL: 415.7 m
       HAAT: 334.0 m
   Peak ERP: 15.0 kW
    Antenna: ERI-ALP12M5-CSW-23 345.0 deg
Elev Pattrn: ERI-ALP12M5-CSW-23
  Elec Tilt: 1.25

49.7 dBu contour:
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INTERFERENCE ANALYSIS FOR PROPOSED WARZ-CD, SMITHFIELD-SELMA, NC, CHANNEL 23

Azimuth	ERP	HAAT	Distance
0.0 deg	14.8 kW	349.9 m	59.6 km
45.0	14.5	342.5	59.1
90.0	9.33	329.4	56.1
135.0	1.42	331.7	46.0
180.0	1.31	338.0	45.8
225.0	6.14	329.0	53.8
270.0	13.5	322.8	57.8
315.0	14.8	328.1	58.5

Distance to Canadian border: 746.2 km

Distance to Mexican border: 2054.5 km

Conditions at FCC monitoring station: Laurel MD
Bearing: 20.8 degrees Distance: 416.2 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 290.0 degrees Distance: 2382.9 km

Study cell size: 1.00 km
Profile point spacing: 0.10 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 BLANK0000125505 LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WUVC-DT	D22	DT	LIC	FAYETTEVILLE, NC	BLANK0000125505	
Undesireds:	WARZ-CD	D23	DC	BL	SMITHFIELD-SELMA, NC	DTVBL71089	44.0 km
	WARZ61	D23	DC	APP	SMITHFIELD-SELMA, NC	warz61	44.0
	WUNG-TV	D21	DT	LIC	CONCORD, NC	BLANK0000113063	148.8
	WUNJ-TV	D21	DT	CP	WILMINGTON, NC	BLANK0000075396	148.9
	WACH	D22	DT	LIC	COLUMBIA, SC	BLANK0000093772	225.0
	WCVE-TV	D22	DT	LIC	RICHMOND, VA	BLANK0000112529	254.1
	WBTV	D23	DT	LIC	CHARLOTTE, NC	BLCDT19991025AEB	200.7
	WECT	D23	DT	LIC	WILMINGTON, NC	BLANK0000111584	169.5

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX
37849.0	3,765,231	37369.4	3,741,870	36204.0	3,699,940	36234.3	3,701,649	-0.08	-0.05

Undesired		Total IX		Unique IX, before		Unique IX, after	
WARZ-CD D23 DC BL	136.6		6,027	136.6	6,027		
WARZ61 D23 DC APP	107.2		4,382			106.2	4,318
WUNG-TV D21 DT LIC	287.1		21,102	232.3	16,623	232.3	16,623
WUNJ-TV D21 DT CP	258.0		2,069	140.5	1,132	140.5	1,132
WACH D22 DT LIC	120.0		5,895	88.1	1,411	88.1	1,411
WCVE-TV D22 DT LIC	392.6		12,075	388.6	9,774	387.6	9,710
WBTV D23 DT LIC	31.8		1,570	2.0	38	2.0	38
WECT D23 DT LIC	120.5		1,001	3.0	64	3.0	64

Interference to BLANK0000119643 LIC scenario 1
**IX: 13.29% interference caused

There is an interference consent agreement with the licensee of WUNC-TV, University of North Carolina. See attached exhibit.

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WUNC-TV	D23	LD	LIC	CHAPEL HILL, NC	BLANK0000119643	
Undesireds:	WARZ-CD	D23	DC	BL	SMITHFIELD-SELMA, NC	DTVBL71089	89.4 km
	WARZ61	D23	DC	APP	SMITHFIELD-SELMA, NC	warz61	89.4
	WUVC-DT	D22	DT	LIC	FAYETTEVILLE, NC	BLANK0000125505	107.3

INTERFERENCE ANALYSIS FOR PROPOSED WARZ-CD, SMITHFIELD-SELMA, NC, CHANNEL 23

	WBTV	D23	DT	LIC	CHARLOTTE, NC	BLCDT19991025AEB	250.6
	WECT	D23	DT	LIC	WILMINGTON, NC	BLANK0000111584	264.0
	WMDV-LD	D23	LD	CP	DANVILLE, VA	BLANK0000054844	64.2
	WTVR-TV	D23	DT	LIC	RICHMOND, VA	BLANK0000109887	155.4

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX
4965.1	169,991	4929.9	167,851	4778.7	159,425	4443.8	138,245	7.01	13.29

Undesired		Total IX	Unique IX, before		Unique IX, after	
WARZ-CD D23 DC BL	55.5	5,259	36.4	3,102		
WARZ61 D23 DC APP	401.6	27,231			371.3	24,282
WUVC-DT D22 DT LIC	4.0	85	2.0	39	2.0	39
WBTV D23 DT LIC	7.0	58	1.0	0	1.0	0
WECT D23 DT LIC	3.0	65	1.0	15	0.0	0
WMDV-LD D23 LD CP	1.0	26	1.0	26	1.0	26
WTVR-TV D23 DT LIC	107.8	5,148	86.6	3,029	77.5	2,302

Interference to BLCDT19991025AEB LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WBTV	D23	DT	LIC	CHARLOTTE, NC	BLCDT19991025AEB	
Undesireds:	WARZ-CD	D23	DC	BL	SMITHFIELD-SELMA, NC	DTVBL71089	242.3 km
	WARZ61	D23	DC	APP	SMITHFIELD-SELMA, NC	warz61	242.3
	WUVC-DT	D22	DT	LIC	FAYETTEVILLE, NC	BLANK0000125505	200.7
	WACH	D22	DT	LIC	COLUMBIA, SC	BLANK0000093772	144.0
	WKPI-TV	D23	DT	LIC	PIKEVILLE, KY	BLANK0000087418	244.8
	WECT	D23	DT	LIC	WILMINGTON, NC	BLANK0000111584	306.2
	WAPW-CD	D23	DC	LIC	ABINGDON, ETC., VA	BLANK0000116775	173.8
	WTVR-TV	D23	DT	LIC	RICHMOND, VA	BLANK0000109887	399.7
	WCNC-TV	D24	DT	LIC	CHARLOTTE, NC	BLANK0000087279	2.4

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX
46301.0	4,433,864	44491.7	4,297,273	44050.5	4,287,452	44044.5	4,286,948	0.01	0.01

Undesired		Total IX	Unique IX, before		Unique IX, after	
WARZ-CD D23 DC BL	0.0	0	0.0	0		
WARZ61 D23 DC APP	39.9	2,243			6.0	504
WUVC-DT D22 DT LIC	20.9	1,045	5.0	395	1.0	288
WACH D22 DT LIC	186.3	1,688	181.3	1,644	181.3	1,644
WKPI-TV D23 DT LIC	1.0	5	1.0	5	1.0	5
WECT D23 DT LIC	210.8	6,987	185.8	5,947	170.9	5,193
WAPW-CD D23 DC LIC	3.0	10	3.0	10	3.0	10
WTVR-TV D23 DT LIC	8.0	401	4.0	55	3.0	55
WCNC-TV D24 DT LIC	36.1	725	36.1	725	36.1	725

Interference to BLANK0000111584 LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WECT	D23	DT	LIC	WILMINGTON, NC	BLANK0000111584	
Undesireds:	WARZ-CD	D23	DC	BL	SMITHFIELD-SELMA, NC	DTVBL71089	174.6 km
	WARZ61	D23	DC	APP	SMITHFIELD-SELMA, NC	warz61	174.6
	WUVC-DT	D22	DT	LIC	FAYETTEVILLE, NC	BLANK0000125505	169.5
	WBTV	D23	DT	LIC	CHARLOTTE, NC	BLCDT19991025AEB	306.2

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX
37889.9	1,156,216	37889.9	1,156,216	37740.1	1,151,816	37638.3	1,146,293	0.27	0.48

Undesired		Total IX	Unique IX, before		Unique IX, after	
WARZ-CD D23 DC BL	133.7	2,806	123.8	2,562		
WARZ61 D23 DC APP	246.6	9,363			225.6	8,085
WUVC-DT D22 DT LIC	25.0	1,838	14.0	1,594	3.0	560
WBTV D23 DT LIC	2.0	0	1.0	0	1.0	0

Interference to BLANK0000109887 LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WTVR-TV	D23	DT	LIC	RICHMOND, VA	BLANK0000109887	

INTERFERENCE ANALYSIS FOR PROPOSED WARZ-CD, SMITHFIELD-SELMA, NC, CHANNEL 23

Undesireds:	WARZ-CD	D23	DC	BL	SMITHFIELD-SELMA, NC	DTVBL71089	220.5 km
	WARZ61	D23	DC	APP	SMITHFIELD-SELMA, NC	warz61	220.5
	WDVM-TV	D23	DT	LIC	HAGERSTOWN, MD	BLANK0000080408	241.0
	WMJF-CD	D23	DC	LIC	TOWSON, MD	BLANK0000116949	227.4
	WNJS	D23	DT	LIC	CAMDEN, NJ	BLANK0000125056	343.4

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX
29151.9	1,823,858	28952.5	1,812,896	28723.0	1,798,508	28722.0	1,798,508	0.00	0.00

Undesired		Total IX		Unique IX, before		Unique IX, after	
WARZ-CD D23 DC BL	0.0	0		0.0	0		
WARZ61 D23 DC APP	2.0	0				1.0	0
WDVM-TV D23 DT LIC	225.5	14,222		201.3	13,730	200.3	13,730
WMJF-CD D23 DC LIC	24.2	471		3.0	129	3.0	129
WNJS D23 DT LIC	24.2	520		0.0	0	0.0	0

Interference to BLANK0000004266 LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	W24CP-D	D24	LD	LIC	DURHAM, NC	BLANK0000004266	
Undesireds:	WARZ-CD	D23	DC	BL	SMITHFIELD-SELMA, NC	DTVBL71089	60.4 km
	WARZ61	D23	DC	APP	SMITHFIELD-SELMA, NC	warz61	60.4
	WCNC-TV	D24	DT	LIC	CHARLOTTE, NC	BLANK0000087279	190.7
	WUBX-CD	D24	DC	LIC	DURHAM, ETC., NC	BLANK0000108883	33.2
	W24AY-D	D24	LD	LIC	LILESVILLE/WADESBORO, NC	BLDTT20111212AFX	118.4
	WWAY	D24	DT	LIC	WILMINGTON, NC	BLANK0000100423	212.7
	WRLH-TV	D24	DT	LIC	RICHMOND, VA	BLANK0000081561	229.4

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX
7570.3	1,504,990	7516.2	1,495,869	5620.6	861,257	5620.6	860,634	0.00	0.07

Undesired		Total IX		Unique IX, before		Unique IX, after	
WARZ-CD D23 DC BL	7.9	2,552		2.0	888		
WARZ61 D23 DC APP	6.0	2,574				2.0	1,511
WCNC-TV D24 DT LIC	52.0	7,014		16.9	638	15.9	318
WUBX-CD D24 DC LIC	1854.7	630,298		1805.6	619,568	1807.6	619,578
W24AY-D D24 LD LIC	3.0	0		0.0	0	0.0	0
WWAY D24 DT LIC	41.0	6,569		9.0	323	9.0	323
WRLH-TV D24 DT LIC	28.1	5,008		5.0	1,085	5.0	1,085

Interference to BLANK0000108883 LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WUBX-CD	D24	DC	LIC	DURHAM, ETC., NC	BLANK0000108883	
Undesireds:	WARZ-CD	D23	DC	BL	SMITHFIELD-SELMA, NC	DTVBL71089	42.0 km
	WARZ61	D23	DC	APP	SMITHFIELD-SELMA, NC	warz61	42.0
	WCNC-TV	D24	DT	LIC	CHARLOTTE, NC	BLANK0000087279	223.9
	WWAY	D24	DT	LIC	WILMINGTON, NC	BLANK0000100423	213.0
	WRLH-TV	D24	DT	LIC	RICHMOND, VA	BLANK0000081561	202.0

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX
5908.9	1,390,106	5823.3	1,385,485	5576.7	1,374,680	5573.8	1,373,165	0.05	0.11

Undesired		Total IX		Unique IX, before		Unique IX, after	
WARZ-CD D23 DC BL	11.9	1,472		8.9	619		
WARZ61 D23 DC APP	13.9	2,552				11.9	2,134
WCNC-TV D24 DT LIC	92.9	3,578		52.6	1,899	52.6	1,899
WWAY D24 DT LIC	129.8	6,919		81.5	3,509	83.5	3,967
WRLH-TV D24 DT LIC	97.5	3,904		34.1	534	34.1	534

Interference to proposal scenario 1
1.52% interference received

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WARZ61	D23	DC	APP	SMITHFIELD-SELMA, NC	warz61	
Undesireds:	WUVC-DT	D22	DT	LIC	FAYETTEVILLE, NC	BLANK0000125505	44.0 km
	WBTV	D23	DT	LIC	CHARLOTTE, NC	BLCDT19991025AEB	242.3

INTERFERENCE ANALYSIS FOR PROPOSED WARZ-CD, SMITHFIELD-SELMA, NC, CHANNEL 23

WECT	D23	DT	LIC	WILMINGTON, NC	BLANK0000111584	174.6
WTVR-TV	D23	DT	LIC	RICHMOND, VA	BLANK0000109887	220.5
WUBX-CD	D24	DC	LIC	DURHAM, ETC., NC	BLANK0000108883	42.0

Service area		Terrain-limited		IX-free		Percent IX	
9477.8	1,687,293	9450.8	1,686,009	9221.6	1,660,327	2.42	1.52

Undesired	Total IX		Unique IX		Prcnt Unique IX	
WUVC-DT D22 DT LIC	135.3	8,494	123.3	7,525	1.31	0.45
WBTV D23 DT LIC	10.0	374	0.0	0	0.00	0.00
WECT D23 DT LIC	51.2	1,825	40.2	849	0.43	0.05
WTVR-TV D23 DT LIC	1.0	0	1.0	0	0.01	0.00
WUBX-CD D24 DC LIC	51.6	16,332	50.6	16,332	0.54	0.97
