

INTERFERENCE ANALYSIS FOR PROPOSED WRAZ, RALEIGH, NORTH CAROLINA (CHANNEL 15)

tvstudy v2.2.5 (4uoc83)
Database: localhost, Study: wraz_p03, Model: Longley-Rice

Study build station data: LMS TV 2019-05-31

Proposal: WRAZ_P03 D15 DT APP RALEIGH, NC
File number: wraz_p03
Facility ID: 64611
Station data: User record
Record ID: 3916
Country: U.S.
Zone: II

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	WRDC	D14	DT	CP	DURHAM, NC	BLANK0000068684	0.0 km
No	WHKY-TV	D14	DD	CP	HICKORY, NC	BLANK0000034548	238.6
Yes	W2LCK-D	D15	DC	CP	CHARLOTTE, NC	BLANK0000034509	219.2
No	WQCW	D15	DT	CP	PORTSMOUTH, OH	BLANK0000025192	454.3
Yes	WLTX	D15	DT	CP	COLUMBIA, SC	BLANK0000028035	268.9
No	WFDC-DT	D15	DT	LIC	ARLINGTON, VA	BLANK0000041206	384.8
No	WPXU-TV	D16	DT	CP	JACKSONVILLE, NC	BLANK0000072136	161.6
Yes	WXII-TV	D16	DT	CP	WINSTON-SALEM, NC	BLANK0000034697	183.3
No	WJPM-TV	D16	DT	CP	FLORENCE, SC	BLANK0000025028	190.5
No	WTKR	D16	DT	CP	NORFOLK, VA	BLANK0000034472	221.0

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D15

Latitude: 35 40 29.00 N (NAD83)
Longitude: 78 31 39.00 W
Height AMSL: 687.5 m
HAAT: 607.0 m

Peak ERP: 805 kW

Antenna: Omnidirectional
Elev Pattn: Generic
Elec Tilt: 1.00

38.8 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	805 kW	617.5 m	124.5 km
45.0	805	611.6	124.1
90.0	805	602.6	123.6
135.0	805	606.1	123.8
180.0	805	615.9	124.4
225.0	805	601.8	123.6
270.0	805	595.4	123.2
315.0	805	603.2	123.6

ERP exceeds maximum

ERP: 805 kW ERP maximum: 320 kW (Proposal compliant with largest station in the market provision of the FCC Rules.)

Distance to Canadian border: 746.6 km

Distance to Mexican border: 2055.1 km

Conditions at FCC monitoring station: Laurel MD
Bearing: 20.7 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: 2383.7 km

No land mobile station failures found

INTERFERENCE ANALYSIS FOR PROPOSED WRAZ, RALEIGH, NORTH CAROLINA (CHANNEL 15)

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 BLANK0000034509 CP scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	W21CK-D	D15	DC	CP	CHARLOTTE, NC	BLANK0000034509	
Undesireds:	WRAZ	D15	DT	BL	RALEIGH, NC	DTVBL64611	219.2 km
	WRAZ_P03	D15	DT	APP	RALEIGH, NC	wraz_p03	219.2
	WHKY-TV	D14	DD	CP	HICKORY, NC	BLANK0000034548	41.6
	WLTX	D15	DT	CP	COLUMBIA, SC	BLANK0000028035	122.9
	WXII-TV	D16	DT	CP	WINSTON-SALEM, NC	BLANK0000034697	138.4

	Service area	Terrain-limited		IX-free, before		IX-free, after	Percent New IX
	5258.3	1,730,839	5222.3	1,728,486	4665.6	1,637,428	4653.8 1,636,850 0.25 0.04

Undesired	Total IX	Unique IX, before	Unique IX, after
WRAZ D15 DT BL	47.9 3,462	20.0 881	
WRAZ_P03 D15 DT APP	91.8 6,974		31.8 1,459
WHKY-TV D14 DD CP	298.7 52,568	286.8 51,116	270.6 50,113
WLTX D15 DT CP	238.0 37,609	218.0 36,458	202.1 34,527
WXII-TV D16 DT CP	4.0 22	0.0 0	0.0 0

----- Interference to BLANK0000028035 CP scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WLTX	D15	DT	CP	COLUMBIA, SC	BLANK0000028035	
Undesireds:	WRAZ	D15	DT	BL	RALEIGH, NC	DTVBL64611	268.9 km
	WRAZ_P03	D15	DT	APP	RALEIGH, NC	wraz_p03	268.9
	WHKY-TV	D14	DD	CP	HICKORY, NC	BLANK0000034548	159.5
	W21CK-D	D15	DC	CP	CHARLOTTE, NC	BLANK0000034509	122.9
	WAGT-CD	D16	DC	BL	AUGUSTA, GA	DTVBL3369	136.3
	WJPM-TV	D16	DT	CP	FLORENCE, SC	BLANK0000025028	96.0

	Service area	Terrain-limited		IX-free, before		IX-free, after	Percent New IX
	35144.2	1,597,499	35016.7	1,592,898	33620.8	1,515,807	33537.4 1,513,968 0.25 0.12

Undesired	Total IX	Unique IX, before	Unique IX, after
WRAZ D15 DT BL	671.3 15,166	504.5 9,711	
WRAZ_P03 D15 DT APP	766.7 17,394		587.9 11,550
WHKY-TV D14 DD CP	4.0 222	0.0 0	0.0 0
W21CK-D D15 DC CP	488.0 19,780	388.8 14,883	380.9 14,511
WAGT-CD D16 DC BL	68.2 8,224	68.2 8,224	68.2 8,224
WJPM-TV D16 DT CP	335.3 39,376	267.6 38,818	263.6 38,801

----- Interference to BLANK0000034697 CP scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WXII-TV	D16	DT	CP	WINSTON-SALEM, NC	BLANK0000034697	
Undesireds:	WRAZ	D15	DT	BL	RALEIGH, NC	DTVBL64611	183.3 km
	WRAZ_P03	D15	DT	APP	RALEIGH, NC	wraz_p03	183.3
	W21CK-D	D15	DC	CP	CHARLOTTE, NC	BLANK0000034509	138.4
	WPXU-TV	D16	DT	CP	JACKSONVILLE, NC	BLANK0000072136	334.6
	WJPM-TV	D16	DT	CP	FLORENCE, SC	BLANK0000025028	239.8
	WAPK-CD	D16	DC	LIC	BRISTOL VA/KINGSPORT, TN	BLANK0000070481	157.9
	WTKR	D16	DT	CP	NORFOLK, VA	BLANK0000034472	348.7
	WRAL-TV	D17	DT	CP	RALEIGH, NC	BLANK0000034032	183.3
	WVVA	D17	DT	CP	BLUEFIELD, WV	BLANK0000027470	121.4

	Service area	Terrain-limited		IX-free, before		IX-free, after	Percent New IX
	45264.5	3,630,551	42015.9	3,302,717	40747.4	3,245,845	40747.4 3,245,845 0.00 0.00

Undesired	Total IX	Unique IX, before	Unique IX, after
WRAZ D15 DT BL	233.1 7,071	0.0 0	
WRAZ_P03 D15 DT APP	361.5 13,685		0.0 0

INTERFERENCE ANALYSIS FOR PROPOSED WRAZ, RALEIGH, NORTH CAROLINA (CHANNEL 15)

W21CK-D D15 DC CP	4.0	5,934	4.0	5,934	4.0	5,934
WPXU-TV D16 DT CP	124.9	5,279	8.1	185	8.1	185
WJPM-TV D16 DT CP	294.7	18,957	218.1	13,970	218.1	13,970
WAPK-CD D16 DC LIC	259.7	10,340	239.6	9,046	239.6	9,046
WTKR D16 DT CP	116.1	2,899	84.0	2,048	84.0	2,048
WRAL-TV D17 DT CP	506.1	20,020	272.9	12,949	144.5	6,335
WVVA D17 DT CP	128.1	569	120.1	569	120.1	569

Interference to proposal scenario 1
1.72% interference received

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WRAZ_P03	D15	DT	APP	RALEIGH, NC	wraz_p03	
Undesireds:	WRDC	D14	DT	CP	DURHAM, NC	BLANK0000068684	0.0 km
	WNLO-CD	D14	DC	APP	NORFOLK, VA	BLANK0000072851	221.1
	W21CK-D	D15	DC	CP	CHARLOTTE, NC	BLANK0000034509	219.2
	WLTX	D15	DT	CP	COLUMBIA, SC	BLANK0000028035	268.9
	WFDC-DT	D15	DT	LIC	ARLINGTON, VA	BLANK0000041206	384.8
	WPXU-TV	D16	DT	CP	JACKSONVILLE, NC	BLANK0000072136	161.6
	WXII-TV	D16	DT	CP	WINSTON-SALEM, NC	BLANK0000034697	183.3

Service area		Terrain-limited		IX-free		Percent IX	
48194.4	3,800,484	48022.8	3,797,405	47439.1	3,732,144	1.22	1.72

Undesired	Total IX		Unique IX		Prcnt Unique IX	
WRDC D14 DT CP	4.0	208	4.0	208	0.01	0.01
W21CK-D D15 DC CP	40.2	2,498	8.0	73	0.02	0.00
WLTX D15 DT CP	92.1	3,076	72.0	2,266	0.15	0.06
WFDC-DT D15 DT LIC	31.8	718	31.8	718	0.07	0.02
WPXU-TV D16 DT CP	107.2	1,304	107.2	1,304	0.22	0.03
WXII-TV D16 DT CP	348.5	60,283	324.5	58,104	0.68	1.53
