

INTERFERENCE ANALYSIS FOR PROPOSED WLCN-CD, CHARLESTON, SC, CHANNEL 18

tvstudy v2.2.5 (4uoc83)
Database: localhost, Study: wlc023, Model: Longley-Rice

Study build station data: LMS TV 2022-12-01

Proposal: WLCN023 D18 DC APP CHARLESTON, SC
File number: wlc023
Facility ID: 55203
Station data: User record
Record ID: 4905
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 | WGAT-LD | D17 | LD | CP | AUGUSTA, GA | BLANK0000189899 | 198.2 km |
| No | WTAT-TV | D17 | DT | LIC | CHARLESTON, SC | BLANK0000184941 | 18.8 |
| No | WJXT | D18 | DT | LIC | JACKSONVILLE, FL | BLANK0000097950 | 326.3 |
| No | WUVG-DT | D18 | DT | LIC | ATHENS, GA | BLANK0000081094 | 432.5 |
| No | WIEF-LD | D18 | LD | LIC | AUGUSTA, GA | BLANK0000096704 | 198.2 |
| No | WPGA-LD | D18- | LD | LIC | MACON, GA | BLANK0000163851 | 347.9 |
| No | WUET-LD | D18 | LD | LIC | SAVANNAH, GA | BLANK0000106517 | 160.6 |
| Yes | WCCB | D18 | DT | LIC | CHARLOTTE, NC | BLANK0000097908 | 284.5 |
| No | W18EV-D | D18 | LD | LIC | NEW BERN, NC | BLANK0000195981 | 352.5 |
| No | WLFL | D18 | DT | LIC | RALEIGH, NC | BLANK0000125309 | 339.5 |
| No | WQDH-LD | D18 | LD | LIC | WILMINGTON, NC | BLANK0000083869 | 232.7 |
| No | W18FC-D | D18 | LD | APP | FLORENCE, SC | BLANK0000185726 | 161.9 |
| No | W18FC-D | D18 | LD | LIC | FLORENCE, SC | BLANK0000177715 | 161.9 |
| No | W31DY-D | D18 | LD | CP | PICKENS, SC | BLANK0000199502 | 326.6 |
| No | WBPI-CD | D19 | DC | LIC | AUGUSTA, GA | BLANK0000059661 | 210.6 |
| No | W19EU-D | D19 | LD | APP | WILMINGTON, NC | BLANK0000202088 | 220.1 |
| No | DWLOW-LP | N19- | TX | APP | BEAUFORT, SC | BLTT20000302AAU | 96.5 |
| No | WCSC-TV | D19 | DT | LIC | CHARLESTON, SC | BLANK0000184937 | 17.4 |
| No | W19FC-D | D19 | LD | LIC | FLORENCE, SC | BLANK0000177716 | 161.9 |
| No | W19FC-D | D19 | LD | APP | FLORENCE, SC | BLANK0000202792 | 178.7 |

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D18
Mask: Simple
Latitude: 32 49 5.00 N (NAD83)
Longitude: 79 50 7.00 W
Height AMSL: 187.2 m
HAAT: 185.0 m
Peak ERP: 15.0 kW
Antenna: DIE-TLP-12W/VP 320.0 deg
Elev Pattn: Generic
Elec Tilt: 1.00

49.1 dBu contour:

| Azimuth | ERP | HAAT | Distance |
|---------|---------|---------|----------|
| 0.0 deg | 14.6 kW | 183.0 m | 50.8 km |
| 45.0 | 13.3 | 182.3 | 50.3 |
| 90.0 | 3.57 | 186.9 | 43.9 |
| 135.0 | 0.594 | 187.0 | 34.5 |
| 180.0 | 2.00 | 186.9 | 40.8 |
| 225.0 | 11.6 | 184.8 | 49.8 |
| 270.0 | 14.9 | 184.9 | 51.0 |
| 315.0 | 14.2 | 185.2 | 50.8 |

Distance to Canadian border: 1010.2 km

Distance to Mexican border: 1818.2 km

Conditions at FCC monitoring station: Powder Springs GA

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Bearing: 285.7 degrees Distance: 468.5 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 297.0 degrees Distance: 2400.1 km

No land mobile station failures found

Proposal is not within the Offshore Radio Service protected area

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 BLANK0000097908 LIC scenario 1

| | Call | Chan | Svc | Status | City, State | File Number | Distance |
|-------------|---------|------|-----|--------|----------------|-----------------|----------|
| Desired: | WCCB | D18 | DT | LIC | CHARLOTTE, NC | BLANK0000097908 | |
| Undesireds: | WLCN-CD | D18 | DC | BL | CHARLESTON, SC | DTVBL55203 | 255.7 km |
| | WLCN023 | D18 | DC | APP | CHARLESTON, SC | wlcn023 | 284.5 |
| | WRAL-TV | D17 | DT | LIC | RALEIGH, NC | BLANK0000143682 | 204.8 |
| | WHNS | D17 | DT | LIC | GREENVILLE, SC | BLANK0000190316 | 177.1 |
| | WUVG-DT | D18 | DT | LIC | ATHENS, GA | BLANK0000081094 | 367.8 |
| | WLFL | D18 | DT | LIC | RALEIGH, NC | BLANK0000125309 | 204.8 |
| | WPXK-TV | D18 | DT | LIC | JELICO, TN | BLANK0000081463 | 300.9 |
| | WSOC-TV | D19 | DT | LIC | CHARLOTTE, NC | BLANK0000146857 | 0.9 |

| | Service area | Terrain-limited | IX-free, before | IX-free, after | Percent New IX |
|--|--------------|-----------------|-----------------|----------------|----------------|
| | 33574.7 | 3,642,232 | 32693.8 | 3,574,928 | 29786.3 |
| | | | | | 3,370,804 |
| | | | | | 29782.3 |
| | | | | | 3,370,781 |
| | | | | | 0.01 |
| | | | | | 0.00 |

| Undesired | Total IX | Unique IX, before | Unique IX, after |
|--------------------|----------|-------------------|------------------|
| WLCN-CD D18 DC BL | 0.0 | 0 | 0 |
| WLCN023 D18 DC APP | 4.0 | 23 | 4.0 |
| WRAL-TV D17 DT LIC | 12.1 | 199 | 0.0 |
| WHNS D17 DT LIC | 243.7 | 16,903 | 148.0 |
| WUVG-DT D18 DT LIC | 67.6 | 3,075 | 12.0 |
| WLFL D18 DT LIC | 2479.6 | 182,270 | 2339.5 |
| WPXK-TV D18 DT LIC | 8.0 | 2,147 | 0.0 |
| WSOC-TV D19 DT LIC | 296.2 | 14,834 | 220.3 |

Interference to proposal scenario 1
2.98% interference received

| | Call | Chan | Svc | Status | City, State | File Number | Distance |
|-------------|---------|------|-----|--------|----------------|-----------------|----------|
| Desired: | WLCN023 | D18 | DC | APP | CHARLESTON, SC | wlcn023 | |
| Undesireds: | WTAT-TV | D17 | DT | LIC | CHARLESTON, SC | BLANK0000184941 | 18.8 km |
| | WCSC-TV | D19 | DT | LIC | CHARLESTON, SC | BLANK0000184937 | 17.4 |

| | Service area | Terrain-limited | IX-free | Percent IX |
|--|--------------|-----------------|---------|------------|
| | 6881.7 | 620,960 | 6881.7 | 620,960 |
| | | | 5576.9 | 602,462 |
| | | | | 18.96 |
| | | | | 2.98 |

| Undesired | Total IX | Unique IX | Prcnt Unique IX |
|--------------------|----------|-----------|-----------------|
| WTAT-TV D17 DT LIC | 727.6 | 10,407 | 0.0 |
| WCSC-TV D19 DT LIC | 1304.8 | 18,498 | 577.2 |