tvstudy v2.2.5 (4uoc83)
Database: 127.0.0.1,  Study: BLDTL20110505ACS #257,  Model: Longley-Rice
Start: 2018.03.30 16:56:55

Study created: 2018.03.30 16:56:54

Study build station data: LMS TV 2018-03-26

    Proposal: WVQS-LD D14 LD LIC ISABEL SEGUNDA, PR
 File number: BLDTL20110505ACS
 Facility ID: 32144
Station data: User record
   Record ID: 213
     Country: U.S.

Stations potentially affected by proposal:

| IX | Call | Chan | Svc | Status | City, State | File Number | Distance |
|---|---|---|---|---|---|---|---|
| Yes | WTIN-TV | D14 | DT | CP | PONCE, PR | BLANK0000028558 | 84.0 km |
| Yes | WTIN-TV | D14 | DT | APP | PONCE, PR | BLANK0000034579 | 84.0 |
| Yes | WMTJ | D15 | DT | CP | FAJARDO, PR | BLANK0000028080 | 0.1 |
| No | WMNS-LD | N22+ | TX | LIC | CHARLOTTE AMALIE, VI | BLTTL20041015ABV | 89.6 |

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

    Channel: D14
       Mask: Stringent
   Latitude:  18 18 29.00 N (NAD83)
  Longitude:  65 47 40.00 W
Height AMSL: 1056.0 m
       HAAT: 0.0 m
   Peak ERP: 4.00 kW
    Antenna: Scala 2 X CL-1469B 90.0 deg
Elev Pattrn: Generic
  Elec Tilt: 1.00

48.7 dBu contour:

| Azimuth | ERP | HAAT | Distance |
|---|---|---|---|
| 0.0 deg | 0.000 kW | 1014.8 m | 12.8 km |
| 45.0 | 0.197 | 985.6 | 49.6 |
| 90.0 | 4.00 | 838.7 | 67.0 |
| 135.0 | 0.197 | 712.7 | 45.1 |
| 180.0 | 0.000 | 879.5 | 12.3 |
| 225.0 | 0.000 | 641.1 | 10.8 |
| 270.0 | 0.000 | 741.8 | 11.4 |
| 315.0 | 0.000 | 998.6 | 12.8 |

Database HAAT does not agree with computed HAAT
Database HAAT: 0 m  Computed HAAT: 852 m

Distance to Canadian border: 2943.8 km

Distance to Mexican border: 3307.2 km

Conditions at FCC monitoring station: Santa Isabel PR
Bearing: 241.3 degrees  Distance: 70.0 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 311.3 degrees  Distance: 4474.4 km

No land mobile station failures found

Study cell size: 1.00 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%

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Interference to BLANK0000028558 CP scenario 1

| | Call | Chan | Svc | Status | City, State | File Number | Distance |
|---|---|---|---|---|---|---|---|
| Desired: | WTIN-TV | D14 | DT | CP | PONCE, PR | BLANK0000028558 | |
| Undesireds: | WVQS-LD | D14 | LD | LIC | ISABEL SEGUNDA, PR | BLDTL20110505ACS | 84.0 km |
| | WMTJ | D15 | DT | CP | FAJARDO, PR | BLANK0000028080 | 84.0 |

| Service area | | Terrain-limited | | IX-free, before | | IX-free, after | | Percent New IX | |
|---|---|---|---|---|---|---|---|---|---|
| 43305.2 | 3,714,547 | 42685.3 | 3,501,136 | 42312.7 | 3,390,097 | 42169.9 | 3,375,752 | 0.34 | 0.42 |

| Undesired | Total IX | | Unique IX, before | | Unique IX, after | |
|---|---|---|---|---|---|---|
| WVQS-LD D14 LD LIC | 410.0 | 72,857 | | | 142.8 | 14,345 |
| WMTJ D15 DT CP | 372.6 | 111,039 | 372.6 | 111,039 | 105.4 | 52,527 |

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Interference to BLANK0000028558 CP scenario 2

| | Call | Chan | Svc | Status | City, State | File Number | Distance |
|---|---|---|---|---|---|---|---|
| Desired: | WTIN-TV | D14 | DT | CP | PONCE, PR | BLANK0000028558 | |
| Undesireds: | WVQS-LD | D14 | LD | LIC | ISABEL SEGUNDA, PR | BLDTL20110505ACS | 84.0 km |
| | WMTJ | D15 | DT | BL | FAJARDO, PR | DTVBL2174 | 83.9 |

| Service area | | Terrain-limited | | IX-free, before | | IX-free, after | | Percent New IX | |
|---|---|---|---|---|---|---|---|---|---|
| 43305.2 | 3,714,547 | 42685.3 | 3,501,136 | 42312.7 | 3,389,281 | 42168.9 | 3,374,936 | 0.34 | 0.42 |

| Undesired | Total IX | | Unique IX, before | | Unique IX, after | |
|---|---|---|---|---|---|---|
| WVQS-LD D14 LD LIC | 410.0 | 72,857 | | | 143.8 | 14,345 |
| WMTJ D15 DT BL | 372.6 | 111,855 | 372.6 | 111,855 | 106.4 | 53,343 |

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Interference to BLANK0000034579 APP scenario 1

| | Call | Chan | Svc | Status | City, State | File Number | Distance |
|---|---|---|---|---|---|---|---|
| Desired: | WTIN-TV | D14 | DT | APP | PONCE, PR | BLANK0000034579 | |
| Undesireds: | WVQS-LD | D14 | LD | LIC | ISABEL SEGUNDA, PR | BLDTL20110505ACS | 84.0 km |
| | WMTJ | D15 | DT | CP | FAJARDO, PR | BLANK0000028080 | 84.0 |

| Service area | | Terrain-limited | | IX-free, before | | IX-free, after | | Percent New IX | |
|---|---|---|---|---|---|---|---|---|---|
| 50276.1 | 3,718,877 | 49778.7 | 3,616,345 | 49410.2 | 3,498,870 | 48709.9 | 3,488,338 | 1.42 | 0.30 |

| Undesired | | Total IX | | Unique IX, before | | Unique IX, after | |
|---|---|---|---|---|---|---|---|
| WVQS-LD D14 LD LIC | 980.1 | 62,713 | | | | 700.3 | 10,532 |
| WMTJ D15 DT CP | 368.5 | 117,475 | 368.5 | 117,475 | | 88.7 | 65,294 |

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Interference to BLANK0000034579 APP scenario 2

| | Call | Chan | Svc | Status | City, State | File Number | Distance |
|---|---|---|---|---|---|---|---|
| Desired: | WTIN-TV | D14 | DT | APP | PONCE, PR | BLANK0000034579 | |
| Undesireds: | WVQS-LD | D14 | LD | LIC | ISABEL SEGUNDA, PR | BLDTL20110505ACS | 84.0 km |
| | WMTJ | D15 | DT | BL | FAJARDO, PR | DTVBL2174 | 83.9 |

| Service area | | Terrain-limited | | IX-free, before | | IX-free, after | | Percent New IX | |
|---|---|---|---|---|---|---|---|---|---|
| 50276.1 | 3,718,877 | 49778.7 | 3,616,345 | 49409.2 | 3,498,054 | 48708.9 | 3,487,522 | 1.42 | 0.30 |

| Undesired | | Total IX | | Unique IX, before | | Unique IX, after | |
|---|---|---|---|---|---|---|---|
| WVQS-LD D14 LD LIC | 980.1 | 62,713 | | | | 700.3 | 10,532 |
| WMTJ D15 DT BL | 369.5 | 118,291 | 369.5 | 118,291 | | 89.7 | 66,110 |

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Interference to BLANK0000028080 CP scenario 1

| | Call | Chan | Svc | Status | City, State | File Number | Distance |
|---|---|---|---|---|---|---|---|
| Desired: | WMTJ | D15 | DT | CP | FAJARDO, PR | BLANK0000028080 | |
| Undesireds: | WVQS-LD | D14 | LD | LIC | ISABEL SEGUNDA, PR | BLDTL20110505ACS | 0.1 km |
| | WTIN-TV | D14 | DT | CP | PONCE, PR | BLANK0000028558 | 84.0 |
| | WRUA | D16 | DT | CP | FAJARDO, PR | BLANK0000025646 | 0.1 |
| | WQQZ-CD | D16 | DC | BL | PONCE, PR | DTVBL32142 | 104.1 |

| Service area | | Terrain-limited | | IX-free, before | | IX-free, after | | Percent New IX | |
|---|---|---|---|---|---|---|---|---|---|
| 34024.7 | 3,143,320 | 32661.6 | 2,846,446 | 31233.8 | 2,738,655 | 31227.9 | 2,736,118 | 0.02 | 0.09 |

| Undesired | | Total IX | | Unique IX, before | | Unique IX, after | |
|---|---|---|---|---|---|---|---|
| WVQS-LD D14 LD LIC | 5.9 | 2,537 | | | | 5.9 | 2,537 |

| | | | | | |
|---|---|---|---|---|---|
| WTIN-TV D14 DT CP | 1423.9 | 106,965 | 710.2 | 62,746 | 710.2 | 62,746 |
| WRUA D16 DT CP | 2.0 | 676 | 2.0 | 676 | 2.0 | 676 |
| WQQZ-CD D16 DC BL | 715.6 | 44,369 | 2.0 | 150 | 2.0 | 150 |

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Interference to BLANK0000028080 CP scenario 2

| | Call | Chan | Svc | Status | City, State | File Number | Distance |
|---|---|---|---|---|---|---|---|
| Desired: | WMTJ | D15 | DT | CP | FAJARDO, PR | BLANK0000028080 | |
| Undesireds: | WVQS-LD | D14 | LD | LIC | ISABEL SEGUNDA, PR | BLDTL20110505ACS | 0.1 km |
| | WTIN-TV | D14 | DT | CP | PONCE, PR | BLANK0000028558 | 84.0 |
| | WRUA | D16 | DT | BL | FAJARDO, PR | DTVBL15320 | 0.1 |
| | WQQZ-CD | D16 | DC | BL | PONCE, PR | DTVBL32142 | 104.1 |

| Service area | | Terrain-limited | | IX-free, before | | IX-free, after | | Percent New IX | |
|---|---|---|---|---|---|---|---|---|---|
| 34024.7 | 3,143,320 | 32661.6 | 2,846,446 | 31229.9 | 2,737,263 | 31224.0 | 2,734,726 | 0.02 | 0.09 |

| Undesired | | Total IX | | Unique IX, before | | Unique IX, after | |
|---|---|---|---|---|---|---|---|
| WVQS-LD D14 LD LIC | 5.9 | 2,537 | | | | 5.9 | 2,537 |
| WTIN-TV D14 DT CP | 1423.9 | 106,965 | 710.2 | 62,746 | 710.2 | 62,746 | |
| WRUA D16 DT BL | 5.9 | 2,068 | 5.9 | 2,068 | 5.9 | 2,068 | |
| WQQZ-CD D16 DC BL | 715.6 | 44,369 | 2.0 | 150 | 2.0 | 150 | |

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Interference to BLANK0000028080 CP scenario 3

| | Call | Chan | Svc | Status | City, State | File Number | Distance |
|---|---|---|---|---|---|---|---|
| Desired: | WMTJ | D15 | DT | CP | FAJARDO, PR | BLANK0000028080 | |
| Undesireds: | WVQS-LD | D14 | LD | LIC | ISABEL SEGUNDA, PR | BLDTL20110505ACS | 0.1 km |
| | WTIN-TV | D14 | DT | APP | PONCE, PR | BLANK0000034579 | 84.0 |
| | WRUA | D16 | DT | CP | FAJARDO, PR | BLANK0000025646 | 0.1 |
| | WQQZ-CD | D16 | DC | BL | PONCE, PR | DTVBL32142 | 104.1 |

| Service area | | Terrain-limited | | IX-free, before | | IX-free, after | | Percent New IX | |
|---|---|---|---|---|---|---|---|---|---|
| 34024.7 | 3,143,320 | 32661.6 | 2,846,446 | 30896.2 | 2,723,698 | 30890.2 | 2,721,161 | 0.02 | 0.09 |

| Undesired | | Total IX | | Unique IX, before | | Unique IX, after | |
|---|---|---|---|---|---|---|---|

| | | | | | | |
|---|---|---|---|---|---|---|
| WVQS-LD D14 LD LIC | 5.9 | 2,537 | | | 5.9 | 2,537 |
| WTIN-TV D14 DT APP | 1761.5 | 121,922 | 1047.9 | 77,703 | 1047.9 | 77,703 |
| WRUA D16 DT CP | 2.0 | 676 | 2.0 | 676 | 2.0 | 676 |
| WQQZ-CD D16 DC BL | 715.6 | 44,369 | 2.0 | 150 | 2.0 | 150 |

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Interference to BLANK0000028080 CP scenario 4

| | Call | Chan | Svc | Status | City, State | File Number | Distance |
|---|---|---|---|---|---|---|---|
| Desired: | WMTJ | D15 | DT | CP | FAJARDO, PR | BLANK0000028080 | |
| Undesireds: | WVQS-LD | D14 | LD | LIC | ISABEL SEGUNDA, PR | BLDTL20110505ACS | 0.1 km |
| | WTIN-TV | D14 | DT | BL | PONCE, PR | DTVBL26681 | 84.0 |
| | WRUA | D16 | DT | CP | FAJARDO, PR | BLANK0000025646 | 0.1 |
| | WQQZ-CD | D16 | DC | BL | PONCE, PR | DTVBL32142 | 104.1 |

| Service area | | Terrain-limited | | IX-free, before | | IX-free, after | | Percent New IX | |
|---|---|---|---|---|---|---|---|---|---|
| 34024.7 | 3,143,320 | 32661.6 | 2,846,446 | 31230.8 | 2,738,655 | 31224.9 | 2,736,118 | 0.02 | 0.09 |

| Undesired | Total IX | | Unique IX, before | | Unique IX, after | |
|---|---|---|---|---|---|---|
| WVQS-LD D14 LD LIC | 5.9 | 2,537 | | | 5.9 | 2,537 |
| WTIN-TV D14 DT BL | 1426.8 | 106,965 | 713.2 | 62,746 | 713.2 | 62,746 |
| WRUA D16 DT CP | 2.0 | 676 | 2.0 | 676 | 2.0 | 676 |
| WQQZ-CD D16 DC BL | 715.6 | 44,369 | 2.0 | 150 | 2.0 | 150 |

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Interference to BLANK0000028080 CP scenario 5

| | Call | Chan | Svc | Status | City, State | File Number | Distance |
|---|---|---|---|---|---|---|---|
| Desired: | WMTJ | D15 | DT | CP | FAJARDO, PR | BLANK0000028080 | |
| Undesireds: | WVQS-LD | D14 | LD | LIC | ISABEL SEGUNDA, PR | BLDTL20110505ACS | 0.1 km |
| | WTIN-TV | D14 | DT | APP | PONCE, PR | BLANK0000034579 | 84.0 |
| | WRUA | D16 | DT | BL | FAJARDO, PR | DTVBL15320 | 0.1 |
| | WQQZ-CD | D16 | DC | BL | PONCE, PR | DTVBL32142 | 104.1 |

| Service area | | Terrain-limited | | IX-free, before | | IX-free, after | | Percent New IX | |
|---|---|---|---|---|---|---|---|---|---|
| 34024.7 | 3,143,320 | 32661.6 | 2,846,446 | 30892.2 | 2,722,306 | 30886.3 | 2,719,769 | 0.02 | 0.09 |

| Undesired | | Total IX | | Unique IX, before | | Unique IX, after | |
|---|---|---|---|---|---|---|---|
| WVQS-LD D14 LD LIC | 5.9 | 2,537 | | | | 5.9 | 2,537 |
| WTIN-TV D14 DT APP | 1761.5 | 121,922 | 1047.9 | 77,703 | 1047.9 | 77,703 | |
| WRUA D16 DT BL | 5.9 | 2,068 | 5.9 | 2,068 | 5.9 | 2,068 | |
| WQQZ-CD D16 DC BL | 715.6 | 44,369 | 2.0 | 150 | 2.0 | 150 | |

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Interference to BLANK0000028080 CP scenario 6

| | Call | Chan | Svc | Status | City, State | File Number | Distance |
|---|---|---|---|---|---|---|---|
| Desired: | WMTJ | D15 | DT | CP | FAJARDO, PR | BLANK0000028080 | |
| Undesireds: | WVQS-LD | D14 | LD | LIC | ISABEL SEGUNDA, PR | BLDTL20110505ACS | 0.1 km |
| | WTIN-TV | D14 | DT | BL | PONCE, PR | DTVBL26681 | 84.0 |
| | WRUA | D16 | DT | BL | FAJARDO, PR | DTVBL15320 | 0.1 |
| | WQQZ-CD | D16 | DC | BL | PONCE, PR | DTVBL32142 | 104.1 |

| Service area | | Terrain-limited | | IX-free, before | | IX-free, after | | Percent New IX | |
|---|---|---|---|---|---|---|---|---|---|
| 34024.7 | 3,143,320 | 32661.6 | 2,846,446 | 31226.9 | 2,737,263 | 31221.0 | 2,734,726 | 0.02 | 0.09 |

| Undesired | | Total IX | | Unique IX, before | | Unique IX, after | |
|---|---|---|---|---|---|---|---|
| WVQS-LD D14 LD LIC | 5.9 | 2,537 | | | | 5.9 | 2,537 |
| WTIN-TV D14 DT BL | 1426.8 | 106,965 | 713.2 | 62,746 | 713.2 | 62,746 | |
| WRUA D16 DT BL | 5.9 | 2,068 | 5.9 | 2,068 | 5.9 | 2,068 | |
| WQQZ-CD D16 DC BL | 715.6 | 44,369 | 2.0 | 150 | 2.0 | 150 | |

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Interference to proposal scenario 1
12.40% interference received

| | Call | Chan | Svc | Status | City, State | File Number | Distance |
|---|---|---|---|---|---|---|---|
| Desired: | WVQS-LD | D14 | LD | LIC | ISABEL SEGUNDA, PR | BLDTL20110505ACS | |
| Undesireds: | WTIN-TV | D14 | DT | CP | PONCE, PR | BLANK0000028558 | 84.0 km |
| | WMTJ | D15 | DT | CP | FAJARDO, PR | BLANK0000028080 | 0.1 |

| Service area | | Terrain-limited | | IX-free | | Percent IX | |
|---|---|---|---|---|---|---|---|
| 3608.6 | 188,904 | 3407.8 | 107,665 | 1595.5 | 94,313 | 53.18 | 12.40 |

| Undesired | | Total IX | | Unique IX | Prcnt Unique IX | |
|---|---|---|---|---|---|---|
| WTIN-TV D14 DT CP | 1787.7 | 12,515 | 1746.3 | 11,775 | 51.25 | 10.94 |
| WMTJ D15 DT CP | 66.0 | 1,577 | 24.6 | 837 | 0.72 | 0.78 |

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Interference to proposal scenario 2
**MX: 16.45% interference received

| | Call | Chan | Svc | Status | City, State | File Number | Distance |
|---|---|---|---|---|---|---|---|
| Desired: | WVQS-LD | D14 | LD | LIC | ISABEL SEGUNDA, PR | BLDTL20110505ACS | |
| Undesireds: | WTIN-TV | D14 | DT | APP | PONCE, PR | BLANK0000034579 | 84.0 km |
| | WMTJ | D15 | DT | CP | FAJARDO, PR | BLANK0000028080 | 0.1 |

| Service area | | Terrain-limited | | IX-free | | Percent IX | |
|---|---|---|---|---|---|---|---|
| 3608.6 | 188,904 | 3407.8 | 107,665 | 1248.6 | 89,957 | 63.36 | 16.45 |

| Undesired | | Total IX | | Unique IX | Prcnt Unique IX | |
|---|---|---|---|---|---|---|
| WTIN-TV D14 DT APP | 2135.5 | 16,871 | 2093.2 | 16,131 | 61.42 | 14.98 |
| WMTJ D15 DT CP | 66.0 | 1,577 | 23.6 | 837 | 0.69 | 0.78 |