

ENGINEERING STATEMENT

The engineering data contained herein have been prepared on behalf of FOX TELEVISION STATIONS, INC., licensee of digital television station WWOR-DT, Channel 38 in Secaucus, New Jersey, in support of its Application for Construction Permit for a fill-in translator to serve the area surrounding Alpine, New Jersey.

It is proposed to mount a four-bay horizontally-polarized panel antenna at the 119-meter level of an existing 130-meter communications tower known as the Armstrong Tower. Exhibit B is a map upon which the predicted service contour is plotted. In Exhibit C, we show the same contour with reference to the old analog Grade B contour of WWOR-TV. Clearly, the translator's 51 dBu contour is completely located within the WWOR-TV contour, as required for fill-in translator. An interference study is provided in Exhibit D, and a power density calculation follows as Exhibit F.

Since no change in the overall height of the existing tower is proposed, the FAA has not been notified of this application. In addition, the FCC assigned Antenna Structure Registration number 1048672 to this tower.

I declare under penalty of perjury that the foregoing statements and the attached exhibits are true and correct to the best of my knowledge and belief.



December 11, 2013

KEVIN T. FISHER

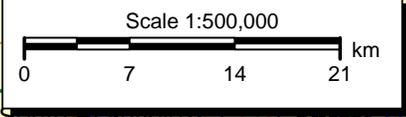


**CONTOUR POPULATION
(2010 U.S. CENSUS DATA)
3,037,563 (1,146,794 HH)**

**PROPOSED FILL-IN
TRANSLATOR 51 DBU
CONTOUR**



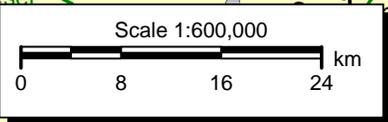
**EXHIBIT B
PREDICTED SERVICE CONTOUR
PROPOSED FILL-IN TRANSLATOR
CHANNEL 34 - ALPINE, NEW JERSEY**





**ANALOG WWOR-TV
GRADE B CONTOUR**

**PROPOSED FILL-IN
TRANSLATOR 51 DBU
CONTOUR**



**EXHIBIT C
CONTOUR COMPARISON
ANALOG WWOR-TV VS. TRANSLATOR
PROPOSED FILL-IN TRANSLATOR
CHANNEL 34 - ALPINE, NEW JERSEY**

LONGLEY-RICE INTERFERENCE STUDY
PROPOSED FILL-IN TRANSLATOR
CHANNEL 34 – ALPINE, NEW JERSEY

We conducted a detailed interference study using the Longley-Rice methodology contained in the Commission's *OET Bulletin No. 69*, with respect to all facilities of concern. The SunDTV software utilizes a 1-square kilometer cell size, calculates signal strength at 1.0 kilometer increments along each radial studied, and employs the 2000 U.S. Census to count population within cells. In addition, the program does not attribute interference to the proposed facility in cells within the protected contour of the station under study where interference from another source (other than the proposed Alpine facility) already is predicted to exist (also known as "masking"). A summary of the results of this study are provided in Exhibit D-2. It concludes that the facility proposed herein causes no significant interference to any of the potentially affected stations.

Alpine34Scala_summary.txt

Summary Study

Percent allowed new interference: 0.500
Percent allowed new interference to non Class A LPTV: 2.000
Census data selected 2000
Data Base Selected
./data_files/pt_tvdb.sff
TV INTERFERENCE and SPACING ANALYSIS PROGRAM

Date: 12-09-2013 Time: 08:08:24

Record Selected for Analysis

PROPOSED USERRECORD-01 ALPINE NJ US
Channel 34 ERP 15. kW HAAT 241. m RCAMSL 00280 m FULL SERVICE MASK
Latitude 040-57-39 Longitude 0073-55-23
Status APP Zone 1 Border Site number: 01
Dir Antenna Make usr Model USRPAT01 Beam tilt N Ref Azimuth 0.
Last update Cutoff date Docket
Comments
Applicant

Cell Size for Service Analysis 1.0 km/side

Distance Increments for Longley-Rice Analysis 1.00 km

Not full service station
Service Class = LD
Maximum height/power limits not checked

Site number 1

| Azimuth (Deg) | ERP (kW) | HAAT (m) | 51.0 dBu F(50,90) (km) |
|------------------|-------------|-------------|---------------------------|
| 0.0 | 11.616 | 225.6 | 49.9 |
| 45.0 | 14.406 | 201.4 | 49.7 |
| 90.0 | 1.350 | 226.4 | 38.8 |
| 135.0 | 0.002 | 250.4 | 9.3 |
| 180.0 | 0.006 | 272.6 | 13.6 |
| 225.0 | 0.002 | 256.6 | 9.4 |
| 270.0 | 1.350 | 257.2 | 40.4 |
| 315.0 | 14.406 | 237.4 | 51.7 |

Contour Overlap to Proposed Station

Contour Overlap Evaluation to Proposed Station Complete

NO LANDMOBILE SPACING VIOLATIONS FOUND

Checks to Site Number 01

Proposed facility OK to FCC Monitoring Stations

Proposed facility OK toward West Virginia quiet zone

Proposed facility OK toward Table Mountain

Proposed facility is within the Canadian coordination distance

Distance to border = 379.8km

Proposed facility is beyond the Mexican coordination distance

Proposed station is OK toward AM broadcast stations

Start of Interference Analysis

| | | | |
|---------|------------------|------------|--------------|
| | Proposed Station | | |
| Channel | Call | City/State | ARN |
| 34 | PROPOSED | ALPINE NJ | USERRECORD01 |

Stations Potentially Affected by Proposed Station

| Chan | Call | City/State | Dist(km) | Status | Application | Ref. No. |
|------|---------|------------------|----------|--------|-------------|--------------|
| 20 | W20CM | PORT JERVIS NY | 77.4 | LIC | BLTTL | -20071129AIS |
| 26 | W26DC | HEMPSTEAD NY | 43.9 | LIC | BLTTL | -20080522ABK |
| 26 | W26CE | NEW YORK NY | 97.6 | LIC | BLTTL | -20080306ABU |
| 26 | W26DB | PORT JERVIS NY | 77.4 | LIC | BLTTL | -20070223AHI |
| 32 | W32EI | PORT JERVIS NY | 77.4 | LIC | BLTTL | -20121024AAB |
| 33 | WFSB | HARTFORD CT | 129.9 | CP | BPCDT | -20110630AAH |
| 33 | WFSB | HARTFORD CT | 129.9 | LIC | BLCDT | -20041029AIL |
| 33 | WCBS-TV | NEW YORK NY | 24.2 | LIC | BLCDT | -20090612AFN |
| 33 | WCBS-TV | NEW YORK NY | 28.6 | APP | BMPCDT | -20080619AAZ |
| 33 | WZPA-LD | PHILADELPHIA PA | 150.9 | LIC | BLDTL | -20120615AAK |
| 33 | WZPA-LD | PHILADELPHIA PA | 150.9 | CP | BDFCDTL | -20100915ABB |
| 34 | WCRN-LP | LEICESTER MA | 218.7 | LIC | BLTTL | -19960130JB |
| 34 | WTXX-LP | SPRINGFIELD MA | 180.0 | CP | BDFCDTL | -20100513ABK |
| 34 | WTXX-LP | SPRINGFIELD MA | 180.0 | LIC | BLTTL | -20080707AAF |
| 34 | WNEU | MERRIMACK NH | 296.2 | LIC | BLCDT | -20021028AAH |
| 34 | WQAV-LP | ATLANTIC CITY NJ | 184.6 | LIC | BLTTL | -19970924JG |
| 34 | WPXO-LD | EAST ORANGE NJ | 24.2 | LIC | BLDTL | -20090511AYH |
| 34 | WIVT | BINGHAMTON NY | 207.9 | LIC | BLCDT | -20090819AGR |
| 34 | W34DI | PORT JERVIS NY | 77.4 | LIC | BLTTL | -20070223AHK |
| 34 | WMHT | SCHENECTADY NY | 185.1 | LIC | BLEDT | -20040108ALV |
| 34 | WONO-CD | SYRACUSE NY | 297.8 | CP | BDCCDTL | -20111129FZS |
| 34 | WCAU | PHILADELPHIA PA | 150.9 | LIC | BLCDT | -20090914AAX |
| 34 | WPXW-TV | MANASSAS VA | 349.6 | LIC | BLCDT | -20090612AIZ |
| 34 | DW34DN | ONANCOCK VA | 374.4 | LIC | BLTT | -20070531ANG |
| 34 | DW34DN | ONANCOCK VA | 374.4 | CP | BDFCDTT | -20101119ADY |
| 35 | WVIT | NEW BRITAIN CT | 122.7 | LIC | BLCDT | -20041203AEF |

Alpine34Scala_summary.txt

| | | | | | | |
|----|---------|-----------------|-------|-----|-------|--------------|
| 35 | WNYX-LD | NEW YORK NY | 23.8 | LIC | BLDTL | -20090908ACQ |
| 35 | WYLN-LP | HAZLETON PA | 170.7 | LIC | BLTTL | -19950324IE |
| 35 | WYBE | PHILADELPHIA PA | 150.9 | LIC | BLEDT | -20091222ARE |
| 36 | W36AZ | SUSSEX NJ | 55.4 | LIC | BLTT | -19970806JC |
| 38 | WHCT-LP | HARTFORD CT | 132.1 | LIC | BLTTL | -20050822AAP |
| 42 | W42CX | PORT JERVIS NY | 77.4 | LIC | BLTTL | -20070223AHH |
| 42 | W42AE | POUGHKEEPSIE NY | 84.5 | LIC | BLTTL | -20040225AAW |

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Study of this proposal found the following interference problem(s):

NONE.

POWER DENSITY CALCULATION

PROPOSED FILL-IN TRANSLATOR
CHANNEL 34 – ALPINE, NEW JERSEY

Since the FCC considers the possible biological effects of RF transmissions in its environmental determinations, we have studied the matter with respect to this Alpine facility. Employing the methods set forth in *OET Bulletin No. 65* and considering a main-lobe effective radiated power of 15 kW, an antenna radiation center 119 meters above ground, and the specific elevation pattern of the Scala 4X2K723147 antenna, maximum power density two meters above ground of 0.00027 mW/cm^2 is calculated to occur 70 meters northeast and northwest of the base of the tower. Since this is less than 0.1 percent of the 0.40 mW/cm^2 reference for uncontrolled environments (areas with public access) surrounding a facility operating on Channel 34 (590-596 MHz), a grant of this proposal may be considered a minor environmental action with respect to public and occupational exposure to non-ionizing electromagnetic radiation.

Further, the station owner will take whatever precautionary steps are necessary, such as reducing power or leaving the air temporarily, to ensure that workers operating in the vicinity of the antenna are not exposed to excessive non-ionizing radiation.