

## **Exhibit 12**

### **Non-Interference Compliance**

**Channel: 233**

Reference to: FCC File Number: BLFT-20090302AAH (W233AY Sunapee, NH)  
Facility id 146333) This Application proposes a site modification to Newport, NH.

### **Description of Exhibit 12 Contents**

This exhibit will show that the proposed facility complies with contour overlap interference protection provisions in 47 CFR 74.1204.

Specifically we will show compliance because the Proposed ch. 233 Translator is fully spaced with all domestic and international stations, applications, and allotments.

The applicant certifies that should any actual interference occur, operation of the translator will be suspended in accordance with 47 CFR 74.1203.

Page 3, Exhibit 12(a), displays the F(50/50) 60 dbu of the proposed channel 233 Translator overlapping the F(50/50) 60 dbu of the original W233AY Licensed Facilities, thus compliance with CFR, 74.1233(a) (2).

Please note that the Primary Station is (WNTK-FM), thus the proposed ch. 233 Translator is allowed the maximum power of 250 Watts ERP.

Page 4, Exhibit 12(b), is a Table showing the distance to the F (50/50) 60 dbu contour of the Proposed 94.5 Translator, prepared using ComStudy 2.2. \*(Also note the HAAT Column of this Exhibit for Reference)

Page 5, Exhibit 12(c), is a Table showing the distance to the Proposed ch. 233 Translator's F(50,10) 34 dBu Interfering Contour.

Page 6, Exhibit 12(d), is a Topographical map of the area around the proposed channel 233 translator site.

Since the proposed channel 233 translator is about 182 kilometers from the Canadian Border, the applicant certifies that the 50/10, 34 dbu contour does not extend beyond the U.S. Border, or exceed 60 kilometers in any direction, in compliance with CFR 47, Sec. 74.1235 (d)3, which states that "the distance to the 34 dbu interfering contour may not exceed 60 kilometers in any direction", and hence is in compliance with 47 CFR 74.1204(h). (see page 5, Exhibit 12(c) & Page 7, Exhibit 12 (e))

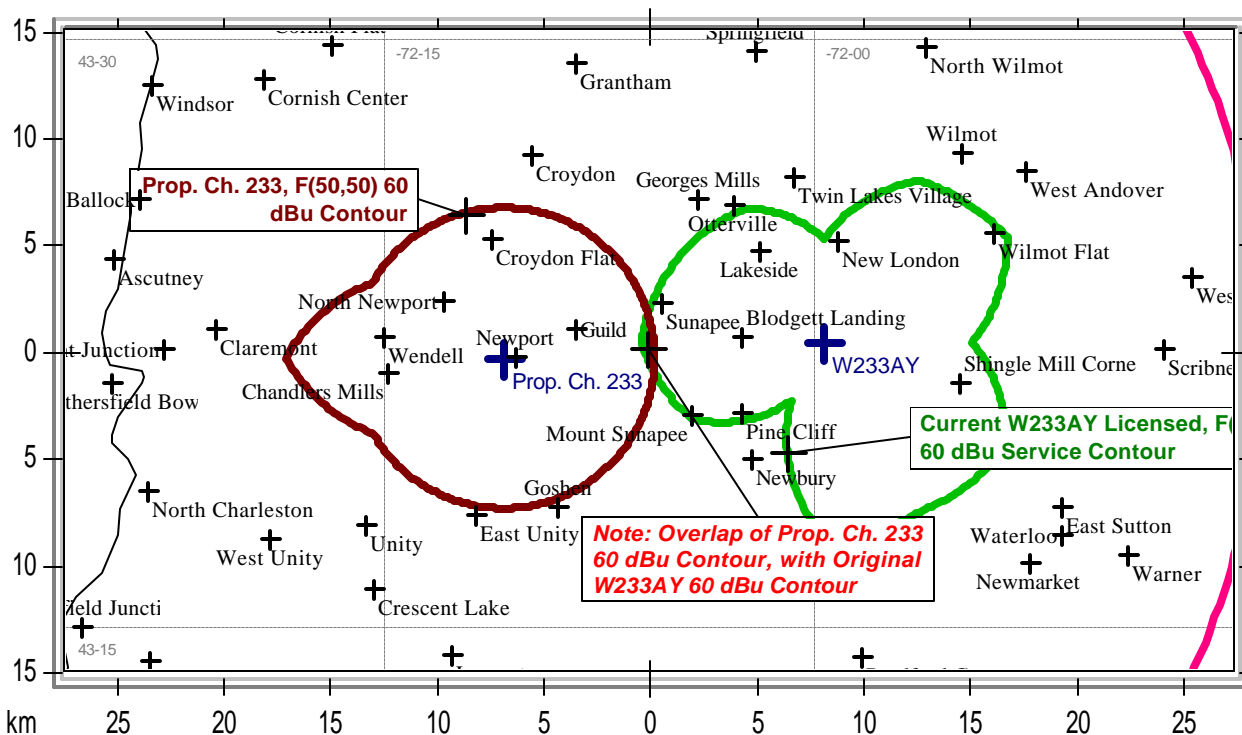
### **Explanation of ComStudy Frequency Finder Results:**

The Interference analysis for the instant application was performed using data taken directly from the FCC's FM database, which looks for prohibited overlap with contours of adjacent stations, and prohibited proximity to stations 53 or 54 channels from the proposed translator station (IF) using 3 arc second terrain data and the FCC's contour algorithms. See results of analysis in Table on Page 8, Exhibit 12(f). (ComStudy uses the FCC's FM Database, thus the results included the proposed translator. This line was deleted from the Table to save confusion) The results show the proposal is fully spaced to all domestic, and international stations, applications, and allotments.

The proposed channel 233 Translator can operate with an effective radiated power of 250-watts at 10 meters AGL. . (see page 3, Exhibit 12(a) Contour Study) (For reference HAAT on the 12 required radials, see page 3, Exhibit 12 (a) and note the HAAT column)

The proposed facility is excluded from environmental processing under 47. C.F.R. Section 1.1306 (i.e., the facility will not have a significant environmental impact and complies with the maximum permissible radio frequency electromagnetic exposure limits for controlled and uncontrolled environments). (See page 9, Exhibit 12(g), FM Model)

Prop. Ch. 233 Xlator is fully spaced to all Domestic & Intl. Stns. Applications & Allotments



Prop. ch. 233 is allowed 250 watts as a Fill-in Xlator for WNTK-FM

State Borders Lat/Lon Grid

**Prop. Ch. 233, Newport, NH**  
**Distance to 60 dBu Contour**

**Site:** Prop. Ch. 233  
**Coordinates:** 43-21-52.2 N, 72-10-49.9 W  
**Freq:** 94.50000 MHz  
**ERP:** 250.00 W

| Bearing | ERP W | HAAT | DH     | Distance | Lat       | Lon      |
|---------|-------|------|--------|----------|-----------|----------|
| 0       | 250   | -85  | -21427 | 7.09     | 43.428341 | -72.1806 |
| 30      | 250   | -93  | 18774  | 7.09     | 43.428331 | -72.179  |
| 60      | 250   | -94  | -19748 | 7.09     | 43.428302 | -72.1775 |
| 90      | 250   | -111 | 16453  | 7.09     | 43.428253 | -72.176  |
| 120     | 250   | -199 | -30978 | 7.09     | 43.428185 | -72.1744 |
| 150     | 250   | -215 | -9659  | 7.09     | 43.428097 | -72.1729 |
| 180     | 250   | -119 | -20104 | 7.09     | 43.427991 | -72.1714 |
| 210     | 250   | -188 | 16453  | 7.09     | 43.427864 | -72.1698 |
| 240     | 250   | -123 | -19761 | 7.09     | 43.427719 | -72.1683 |
| 270     | 250   | 61   | -2052  | 7.09     | 43.427554 | -72.1668 |
| 300     | 250   | -99  | -20465 | 7.09     | 43.42737  | -72.1653 |
| 330     | 250   | -146 | 16453  | 7.09     | 43.427167 | -72.1638 |

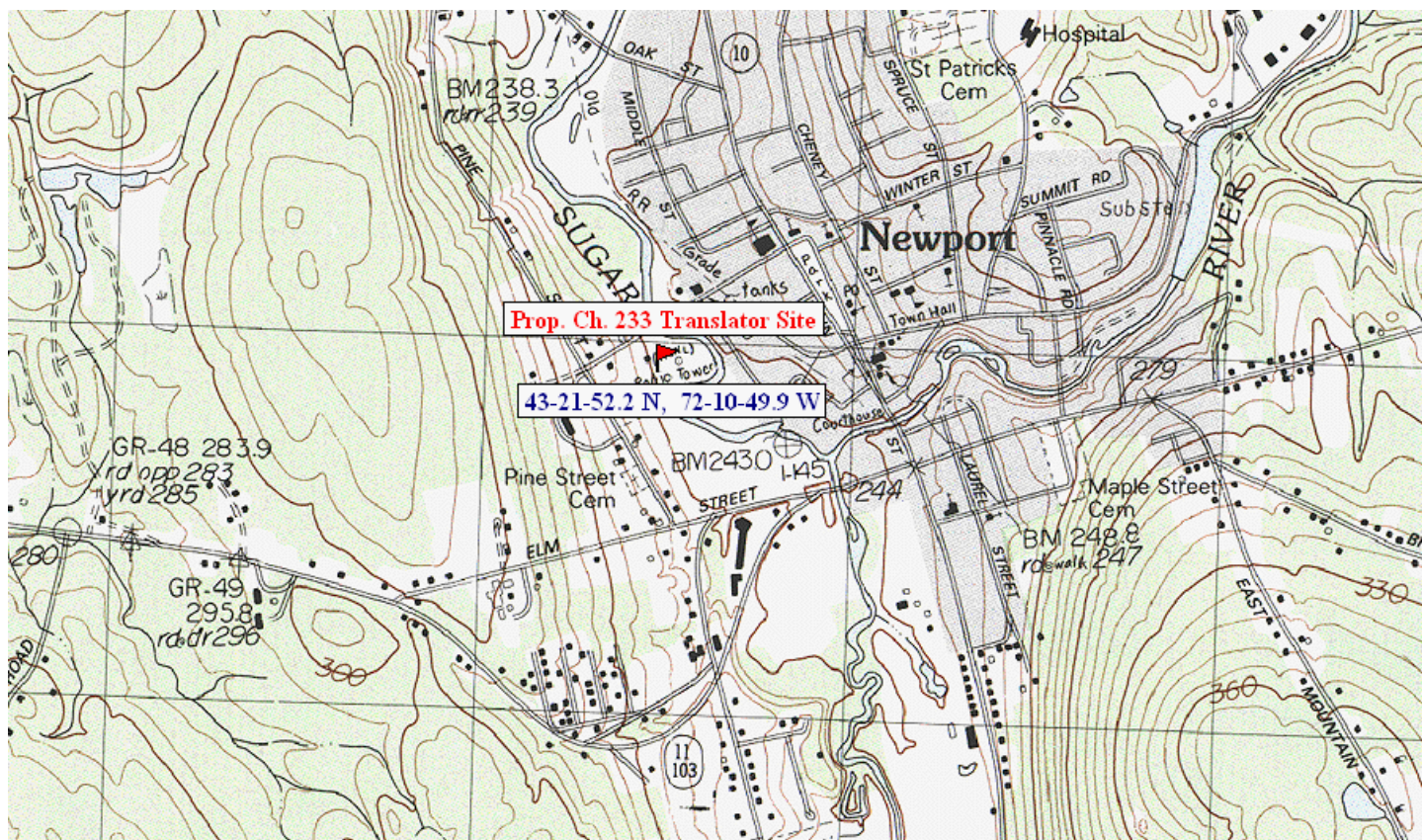
**Prop. Ch. 233, Newport, NH**  
**Distance to 34 dBu Contour**

**Site:** Prop. Ch. 233  
**Coordinates:** 43-21-52.2 N, 72-10-49.9 W  
**Freq:** 94.50000 MHz  
**ERP:** 250.00 W

| Bearing | ERP W | HAAT | DH     | Distance | Lat       | Lon      |
|---------|-------|------|--------|----------|-----------|----------|
| 0       | 250   | -85  | -21427 | 35.63    | 43.68497  | -72.1806 |
| 30      | 250   | -93  | 18774  | 35.63    | 43.68492  | -72.1728 |
| 60      | 250   | -94  | -19748 | 35.63    | 43.684773 | -72.1651 |
| 90      | 250   | -111 | 16453  | 35.63    | 43.684528 | -72.1574 |
| 120     | 250   | -199 | -30978 | 35.63    | 43.684185 | -72.1496 |
| 150     | 250   | -215 | -9659  | 35.63    | 43.683744 | -72.1419 |
| 180     | 250   | -119 | -20104 | 35.63    | 43.683205 | -72.1342 |
| 210     | 250   | -188 | 16453  | 35.63    | 43.682568 | -72.1265 |
| 240     | 250   | -123 | -19761 | 35.63    | 43.681834 | -72.1189 |
| 270     | 250   | 61   | -2052  | 35.63    | 43.681003 | -72.1112 |
| 300     | 250   | -99  | -20465 | 35.63    | 43.680076 | -72.1036 |
| 330     | 250   | -146 | 16453  | 35.63    | 43.679051 | -72.096  |

Proposed Ch. 233 Translator, Newport, NH  
Site Topo

43-21-52.2 N  
72-10-49.9 W



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[illegible]

Map Scale: 1:848400    1 cm = 8.48 km    V/H Size: 90.35 x 109.43 km



**Prop. Ch. 233 Translator, Newport, NH**  
**Frequency Separation Table**

**43-21-52.2 N**      **250 Watts ERP**  
**72-10-49.9 W**      **10 Meters AGL**

| Callsign | State | City             | Freq | Channel | ERP_w | Class | Status | Distance_km | Sep | Clr      |
|----------|-------|------------------|------|---------|-------|-------|--------|-------------|-----|----------|
|          | NH    | MT. WASHINGTON   | 94.9 | 235     | 0     | C     | USE    | 122.9       | 0   | 35.33 dB |
|          | VT    | ALBANY           | 94.5 | 233     | 0     | A     | APP    | 155.25      | 0   | 29.58 dB |
| NEW      | NH    | BERLIN           | 94.5 | 233     | 10    | D     | APP    | 150.01      | 0   | 27.76 dB |
| NEW      | NH    | KEENE            | 94.1 | 231     | 10    | D     | APP    | 51.31       | 0   | 32.70 dB |
| NEW      | VT    | BRATTLEBORO      | 94.1 | 231     | 10    | D     | APP    | 55.32       | 0   | 33.95 dB |
| W232AJ   | NH    | GREENVILLE, ETC. | 94.3 | 232     | 5     | D     | LIC    | 61.34       | 0   | 21.04 dB |
| W232AP   | VT    | WHITE RIVER Jct. | 94.3 | 232     | 10    | D     | LIC    | 33.54       | 0   | 17.26 dB |
| W233AM   | NY    | GLOVERSVILLE     | 94.5 | 233     | 1     | D     | LIC    | 180.34      | 0   | 33.24 dB |
| W233AR   | VT    | BRATTLEBORO      | 94.5 | 233     | 10    | D     | LIC    | 68.52       | 0   | 12.21 dB |
| W233BD   | VT    | BURLINGTON       | 94.5 | 233     | 27    | D     | LIC    | 139.79      | 0   | 25.89 dB |
| W233BE   | ME    | RICHMOND CENTER  | 94.5 | 233     | 250   | D     | LIC    | 199.68      | 0   | 36.97 dB |
| W234AL   | MA    | NORTH ADAMS      | 94.7 | 234     | 50    | D     | LIC    | 106.01      | 0   | 34.03 dB |
| W234BD   | VT    | BOLTON           | 94.7 | 234     | 10    | D     | LIC    | 126.44      | 0   | 36.02 dB |
| WARX     | ME    | LEWISTON         | 93.9 | 230     | 27500 | B     | LIC    | 194.19      | 0   | 35.60 dB |
| WBAR-FM  | NY    | LAKE LUZERNE     | 94.7 | 234     | 0     | A     | USE    | 134.31      | 0   | 38.99 dB |
| WBAR-FM  | NY    | LAKE LUZERNE     | 94.7 | 234     | 320   | A     | APP    | 127.61      | 0   | 32.94 dB |
| WBAR-FM  | NY    | LAKE LUZERNE     | 94.7 | 234     | 1250  | A     | LIC    | 127.6       | 0   | 31.09 dB |
| WBTN-FM  | VT    | BENNINGTON       | 94.3 | 232     | 0     | A     | USE    | 93.32       | 0   | 32.00 dB |
| WBTN-FM  | VT    | BENNINGTON       | 94.3 | 232     | 3000  | A     | LIC    | 93.28       | 0   | 28.11 dB |
| WBTN-FM  | VT    | BENNINGTON       | 94.3 | 232     | 3000  | A     | APP    | 93.26       | 0   | 28.11 dB |
| WCNH-LP  | NH    | CONCORD          | 94.7 | 234     | 0     | D     | APP    | 52.52       | 0   | 24.08 dB |
| WCNH-LP  | NH    | CONCORD          | 94.7 | 234     | 100   | LP100 | LIC    | 52.52       | 13  | 22.93 dB |
| WCYY     | ME    | BIDDEFORD        | 94.3 | 232     | 0     | B1    | USE    | 139.77      | 0   | 36.89 dB |
| WCYY     | ME    | BIDDEFORD        | 94.3 | 232     | 11500 | B1    | LIC    | 145.14      | 0   | 31.03 dB |
| WDVT     | VT    | RUTLAND          | 94.5 | 233     | 0     | A     | USE    | 76.04       | 0   | 15.01 dB |
| WDVT     | VT    | RUTLAND          | 94.5 | 233     | 3000  | A     | LIC    | 73.81       | 0   | 12.21 dB |
| WDVT     | VT    | RUTLAND          | 94.5 | 233     | 6000  | A     | APP    | 70.73       | 0   | 1.65 dB  |
| WERB     | CT    | BERLIN           | 94.5 | 233     | 24    | D     | LIC    | 199.25      | 0   | 36.97 dB |

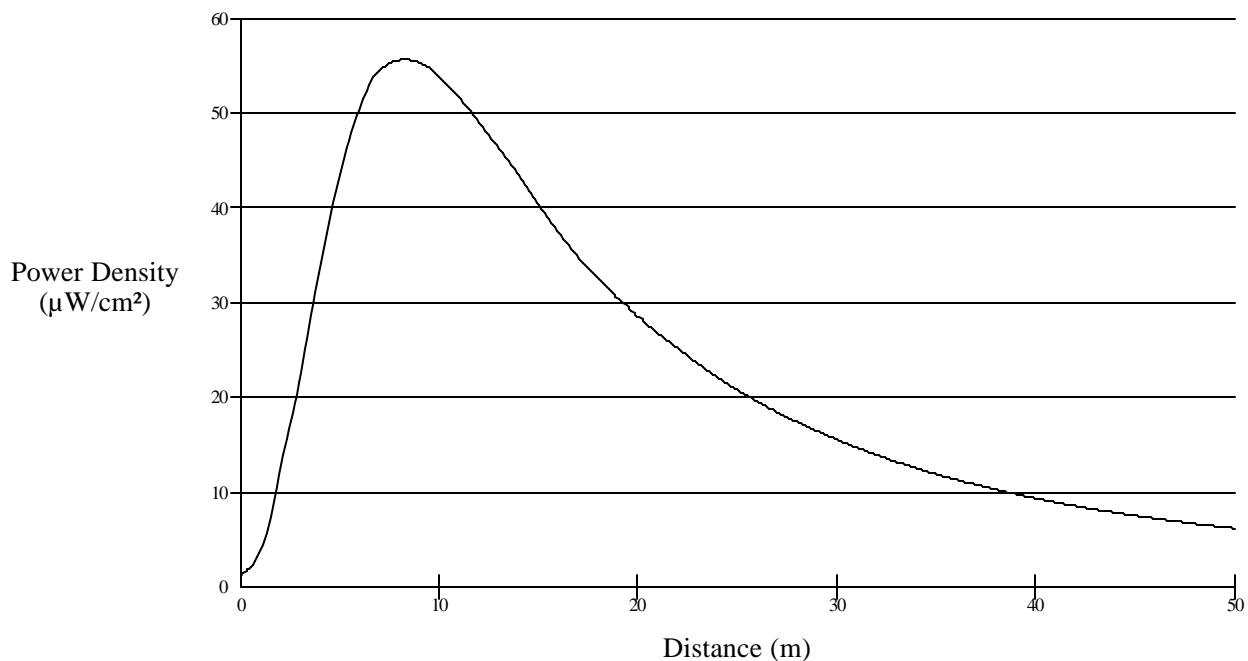


|         |    |                  |      |     |       |       |     |        |   |          |
|---------|----|------------------|------|-----|-------|-------|-----|--------|---|----------|
| WFTN-FM | NH | FRANKLIN         | 94.1 | 231 | 0     | A     | USE | 48.1   | 0 | 35.27 dB |
| WFTN-FM | NH | FRANKLIN         | 94.1 | 231 | 6000  | A     | LIC | 48.1   | 0 | 15.59 dB |
| WHJY    | RI | PROVIDENCE       | 94.1 | 231 | 50000 | B     | LIC | 183.24 | 0 | 32.49 dB |
| WHOM    | NH | MOUNT WASHINGTON | 94.9 | 235 | 20500 | C     | LIC | 122.84 | 0 | 12.70 dB |
| WHOM    | NH | MOUNT WASHINGTON | 94.9 | 235 | 20500 | C     | LIC | 122.82 | 0 | 12.66 dB |
| WHOM    | NH | MOUNT WASHINGTON | 94.9 | 235 | 48000 | C     | LIC | 122.83 | 0 | 9.02 dB  |
| WJMN    | MA | BOSTON           | 94.5 | 233 | 0     | B     | USE | 141.08 | 0 | 21.76 dB |
| WJMN    | MA | BOSTON           | 94.5 | 233 | 9200  | B     | LIC | 141.08 | 0 | 9.01 dB  |
| WKHP-LP | NH | KEENE            | 94.9 | 235 | 100   | LP100 | LIC | 47.37  | 6 | 37.74 dB |
| WMAS-FM | MA | SPRINGFIELD      | 94.7 | 234 | 0     | B     | USE | 143.89 | 0 | 35.76 dB |
| WMAS-FM | MA | SPRINGFIELD      | 94.7 | 234 | 50000 | B     | LIC | 143.89 | 0 | 25.85 dB |
| WMXR    | VT | WOODSTOCK        | 93.9 | 230 | 0     | A     | USE | 39.85  | 0 | 32.34 dB |
| WMXR    | VT | WOODSTOCK        | 93.9 | 230 | 670   | A     | LIC | 35.37  | 0 | 4.44 dB  |
| WMXR    | VT | WOODSTOCK        | 93.9 | 230 | 3500  | A     | APP | 35.26  | 0 | 1.40 dB  |
| WNYV    | NY | WHITEHALL        | 94.1 | 231 | 3000  | A     | LIC | 103.47 | 0 | 33.37 dB |
| WRSI    | MA | TURNERS FALLS    | 93.9 | 230 | 2500  | A     | LIC | 98.25  | 0 | 30.45 dB |
| WVTQ    | VT | SUNDERLAND       | 95.1 | 236 | 96    | A     | LIC | 79.18  | 0 | 21.83 dB |
| WYKV    | NY | RAVENA           | 94.5 | 233 | 0     | A     | USE | 166.28 | 0 | 31.38 dB |
| WYKV    | NY | RAVENA           | 94.5 | 233 | 3000  | A     | LIC | 164.38 | 0 | 25.89 dB |

## ENVIRONMENTAL IMPACT

The Applicant proposes to mount it's antenna with the center of radiation at 10 meters above ground level. Figure 1. below, shows the maximum power density produced by the proposed facility at a point 2 meters above ground is 55.622  $\mu\text{W}/\text{cm}^2$ , 27.8 percent of the 200  $\mu\text{W}/\text{cm}^2$  ANSI limit for uncontrolled general population exposure. Therefore, this proposal complies with ANSI standards.

Power Density vs Distance



Distance: 50 (m)

Horizontal ERP 250 (w)

Vertical ERP 250 (w)

Antenna Height 10 (m)

Antenna Type: Shively 6810

Number of Elements: 1, Spacing 1

The maximum power density was found to be 55.62240  $\mu\text{W}/\text{cm}^2$  @ 8.3 meters.