

## Exhibit 12

### Interference Analysis Overlap Requirements

According to CFR 47 §74.1204(a), translators are required to protect all existing FM stations from interference due to overlap of the protected contours of the existing stations with the interfering contours of the new translators.

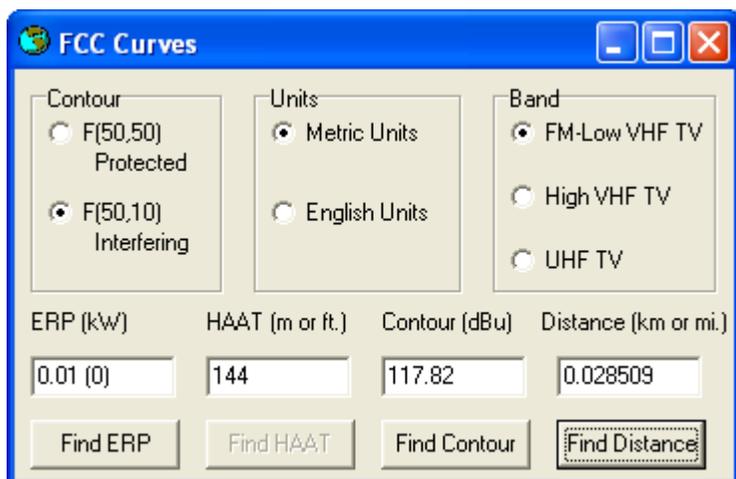
#### US Stations

In the attached tabular printout, only WTHT and WYNZ have outgoing contour overlaps from the proposed translator, so no interference to other stations is anticipated. Incoming overlap is not prohibited.

WTHT and WYNZ are second adjacent to the proposed translator, and, according to §74.1204(d),

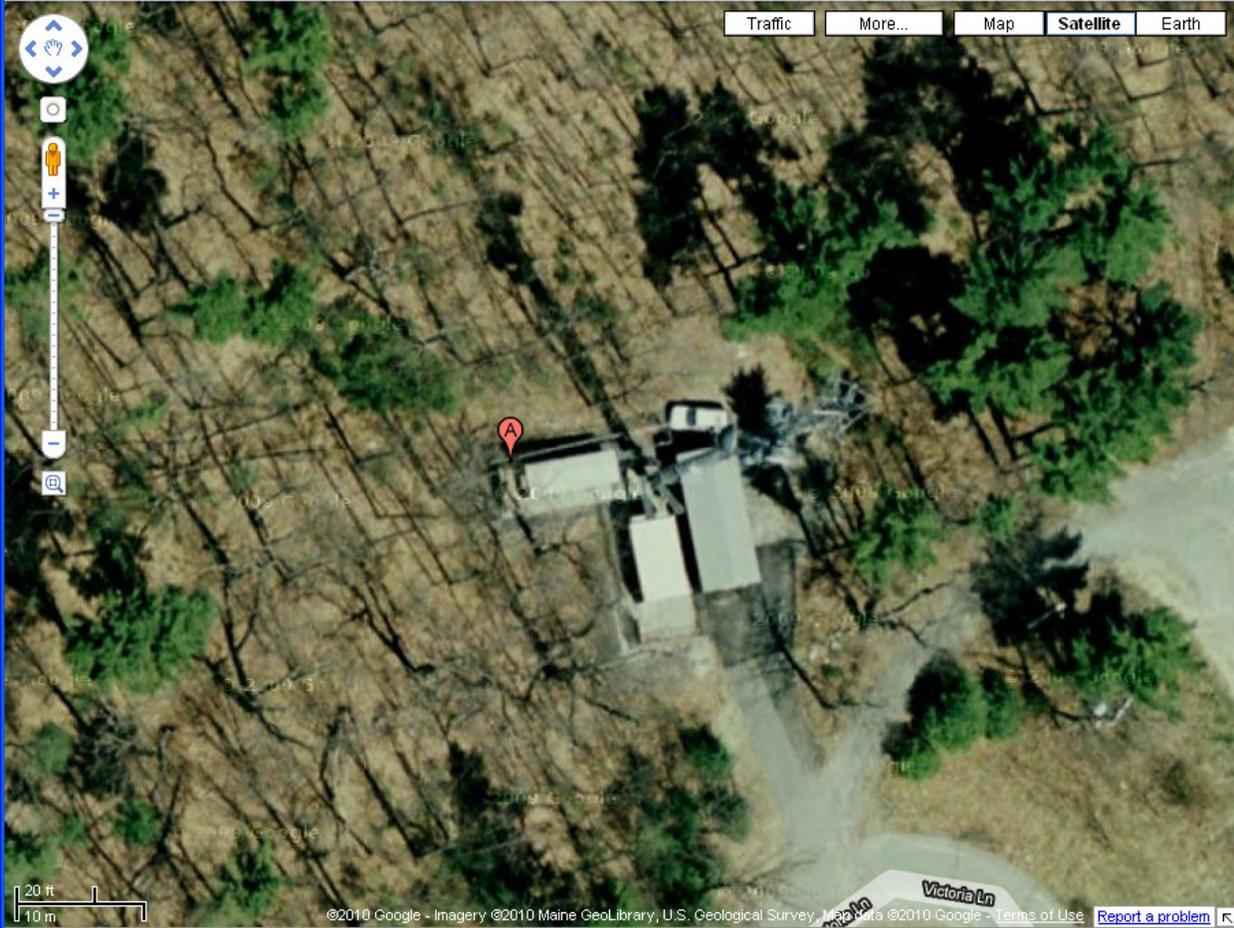
**"The provisions of this section concerning prohibited overlap will not apply where the area of such overlap lies entirely over water. In addition, an application otherwise precluded by this section will be accepted if it can be demonstrated that no actual interference will occur due to ... lack of population ... ."**

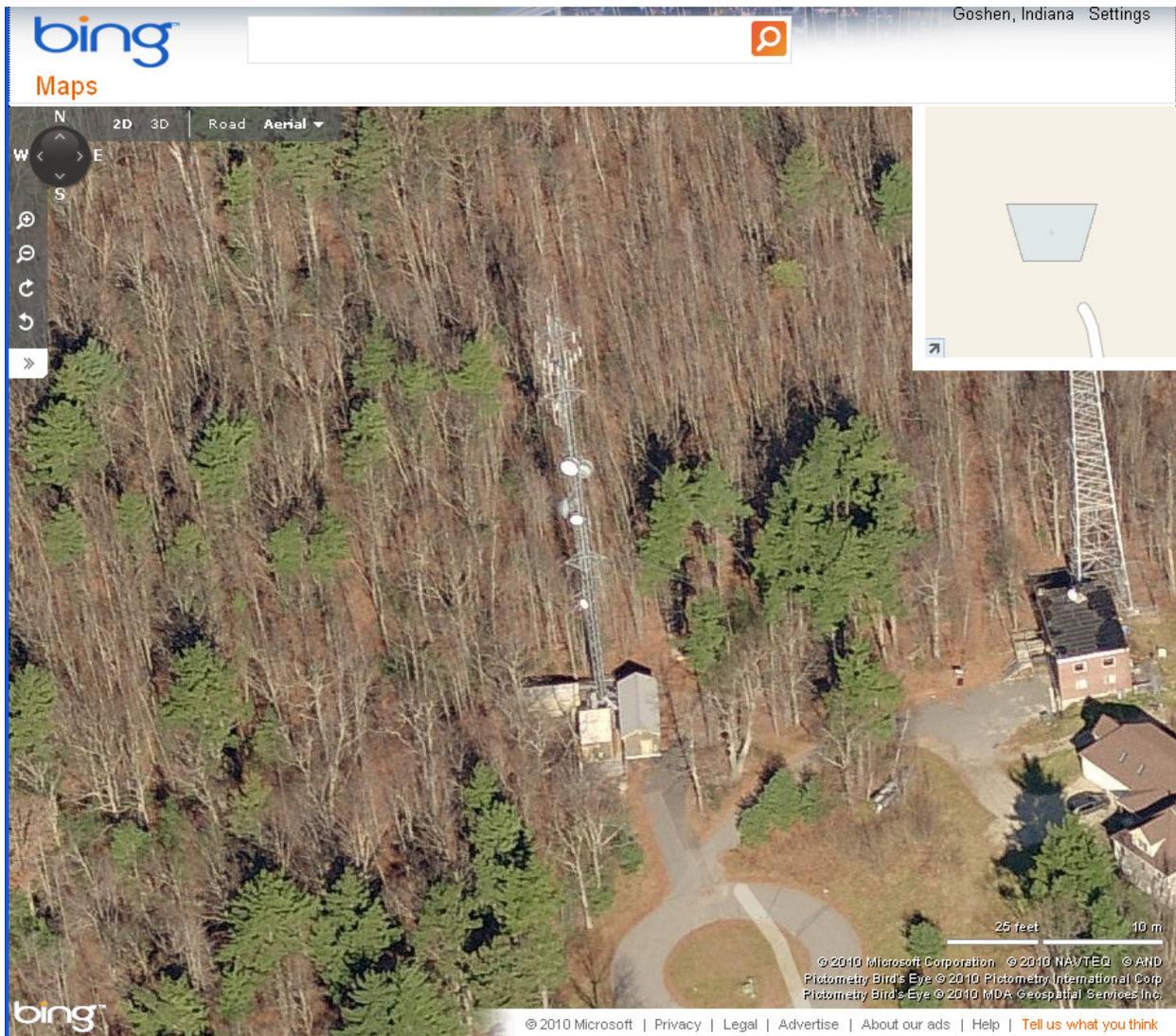
The F(50,50) signal from WTHT at the proposed site is 77.82 dBu. The F(50,50) signal from WYNZ at the proposed site is 83.10 dBu. Since WTHT is the more fragile of the two signals, only it need be considered further. A 40 dB ratio of undesired to desired signal strength gives an allowable interfering F(50,10) field strength of 117.82 dBu. With 10 Watts ERP, the free-space equations give the distance to this contour of 28.5 meters from the antenna.



ERP (kW)	HAAT (m or ft.)	Contour (dBu)	Distance (km or mi.)
0.01 (0)	144	117.82	0.028509

The antenna is 47 meters from the ground, so the interfering signal strength never reaches the ground. Examination of aerial photos (Google maps and Bing maps are best here) show that no building (other than the three transmitter buildings) is within 30 meters of the tower. This leaves the area of interference 18.5 meters above the ground. Hence §74.1204(d) applies, and the predicted area of interference is acceptable to the Commission.





A map is attached to demonstrate clearance to WHEB.

No other entries are sufficiently close to the proposed translator to require analysis.

### **IF Separation**

The proposal is fully spaced to WTBP.C.

### **Canadian Consideration**

The proposed translator is 168.6063 km from the nearest point in Canada, within the 320 km limit established by treaty. The 0.010 kW ERP does not exceed the maximum 250 Watts, and the maximum 37.0 km F(50,10) 34 dBu contour (see attachment) does not exceed the statutory 60 km. No Canadian stations were found in the above search. Hence there is no outgoing interference with any Canadian stations. Because the 34 dBu F(50,10) contour does not cross the common border (37.0 km maximum contour distance is less than the 168.6063 km minimum distance to Canada), Canadian concurrence is not required. The relevant document for this analysis is the July 9, 1997 modification to the February 25, 1991 agreement.