Proposed Site Change for W291CC at Sanford, Maine

Technical Statement

Allowed Move

The 60 dBu service contour of the proposed amended facility overlaps that of the existing permit (File No. BNPFT-20030829API), and the proposed 60 dBu fill-in service contour lies entirely within the 60 dBu service contour of proposed primary station WNHI, as illustrated in Figure 1.

74.1204 Study

All facilities not meeting the spacing requirements of Section 73.207 with respect to the proposed facility considered as a Class A were studied. These are:

Call Sign	Location	Channel No.
WHDQ	Claremont, NH	291B
WSCA-LP	Portsmouth, NH	291LP100
WHXR	Scarborough, ME	292A
WNHI	Farmington, NH	293A

A composite array of two Scala CA-2 horizontally polarized antennas driven with equal power and oriented at 48 degrees and 210 degrees respectively will be employed to achieve a directional pattern that avoids prohibited overlap, as illustrated in Figure 2 below depicting the proposed translator interfering contours and the pertinent service contours of WHDQ, WSCA-LP, and WHXR. (Same color may not overlap.)

As shown in Figure 3, WNHI places an 83.5 dBu F(50,50) service contour over the proposed site. The Commission's free space equation indicates that for an ERP of 0.25 kW, the 123.5 dBu F(50,10) interfering contour to WNHI extends 74 meters from the antenna. As shown in Figure 4, the proposed site is on a remote mountaintop and there are no residences or public roads located within 88 meters. The applicant therefore believes its application meets the requirements of Section 74.1204(d) with respect to "other factors" insuring there will be no actual interference to WNHI.

Nevertheless, as required by the Commission's Rules, in the event of any complaints that the proposed translator interferes with reception of WNHI, the applicant will take steps to eliminate the interference, including, if necessary, reducing power or cessation of translator operation.

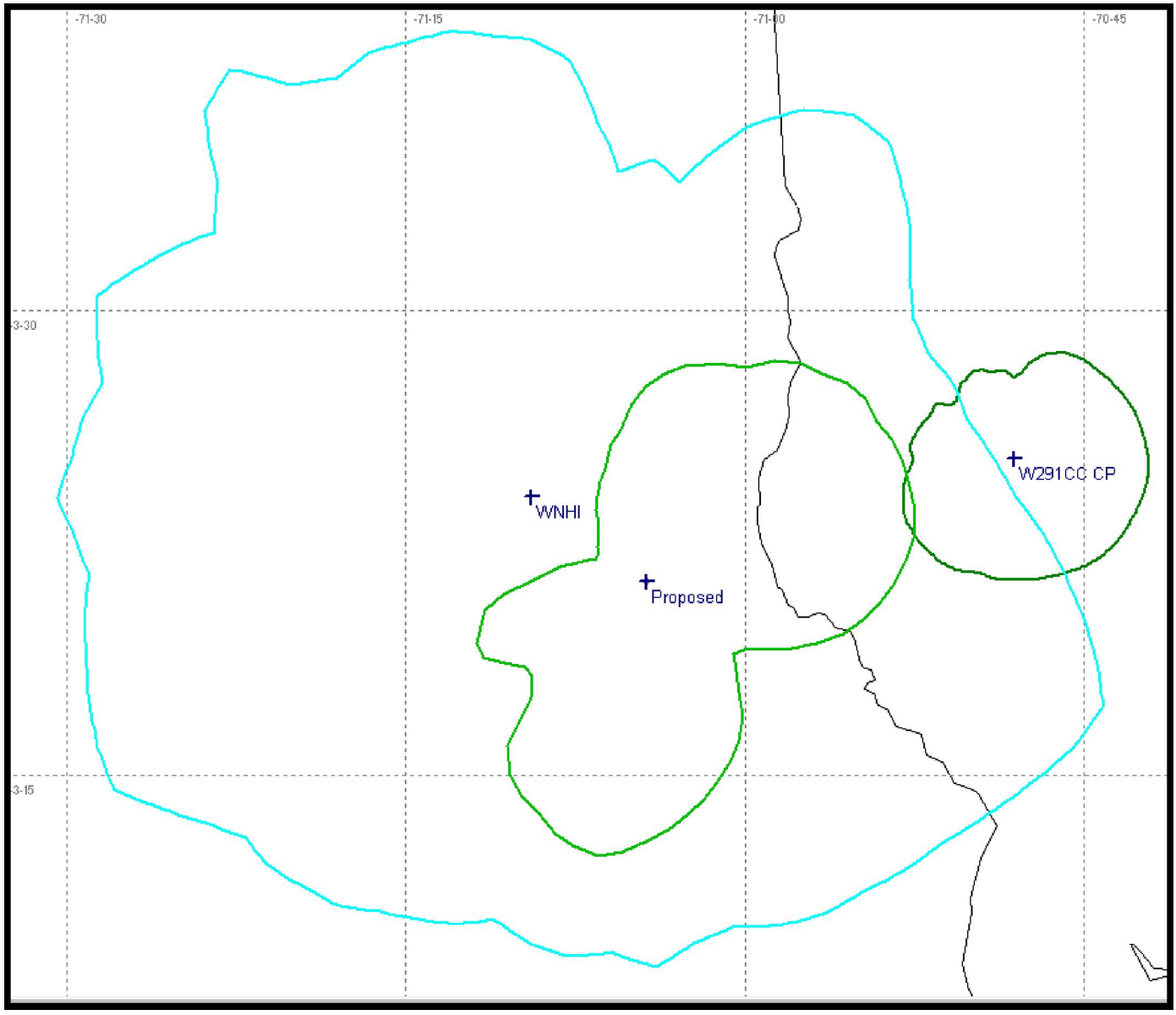
Environmental Considerations

As shown in Figure 5, the proposed facility will not exceed RFR limits. The Commission's FM Model program was employed, and use of Phelps-Dodge Ring-Stub or Dipole (EPA) was assumed in order to establish worst case. The maximum RFR exposure level is 92.7 uW/cm2 at 2.88 meters from the antenna. This is 46.4% of the 200 uW/cm2 MPE limit for uncontrolled exposure to the general public. Therefore, the applicant will cease operation or reduce power as necessary, in order to prevent uncontrolled or controlled exposure in excess of the guidelines of OET-65 Appendix A.

Respectfully submitted,

Dennis Jackson
December 1, 2010

<u>Figure 1</u> - Proposed new 60 dBu service contour overlaps that of existing permit and does not exceed the 60 dBu service contour of proposed primary station WNHI.



<u>Figure 2</u> - Proposed interfering contour does not overlap service contours of WHDQ (54 dBu) , or WSCA-LP, or WHXR (both 60 dBu.)

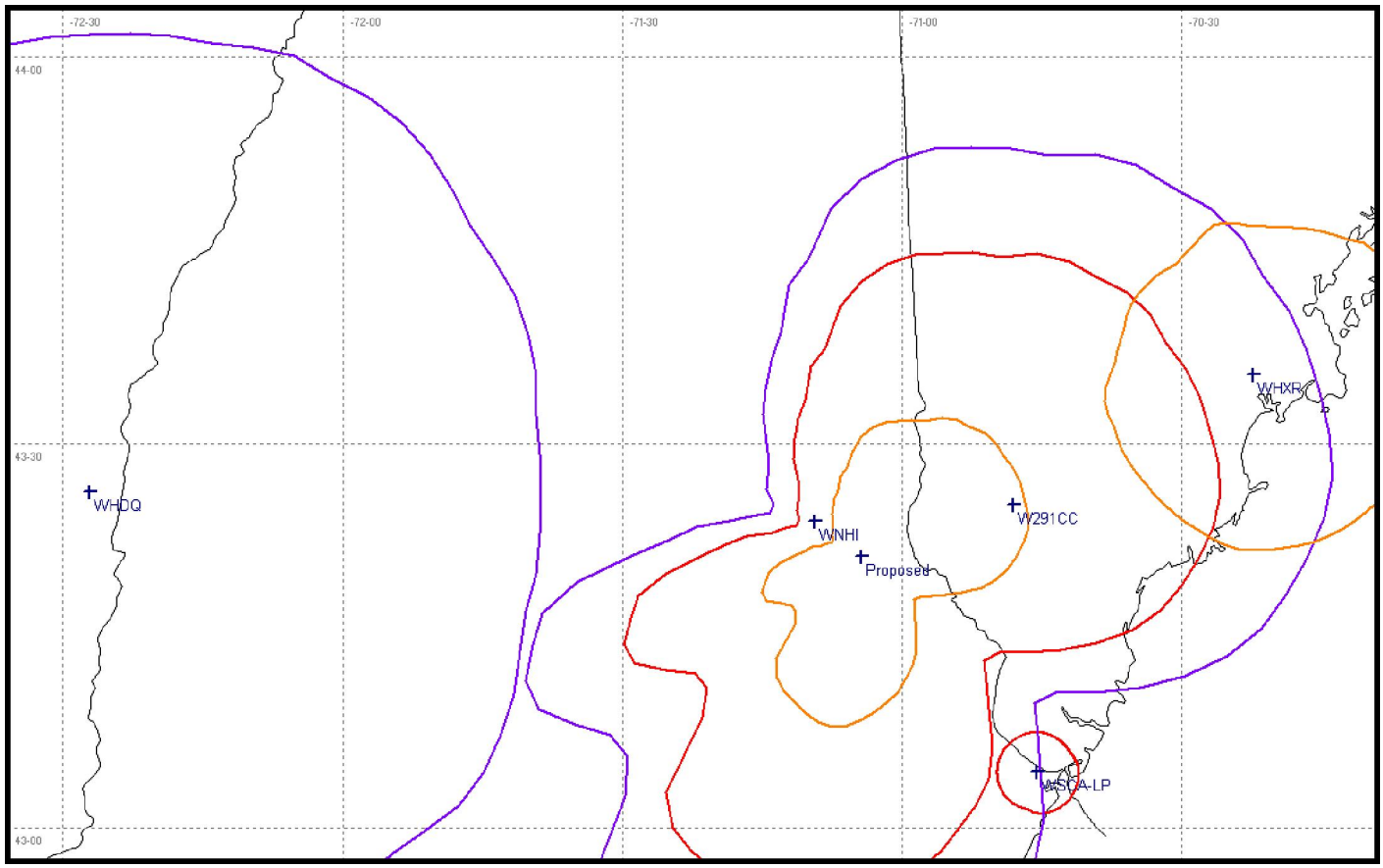
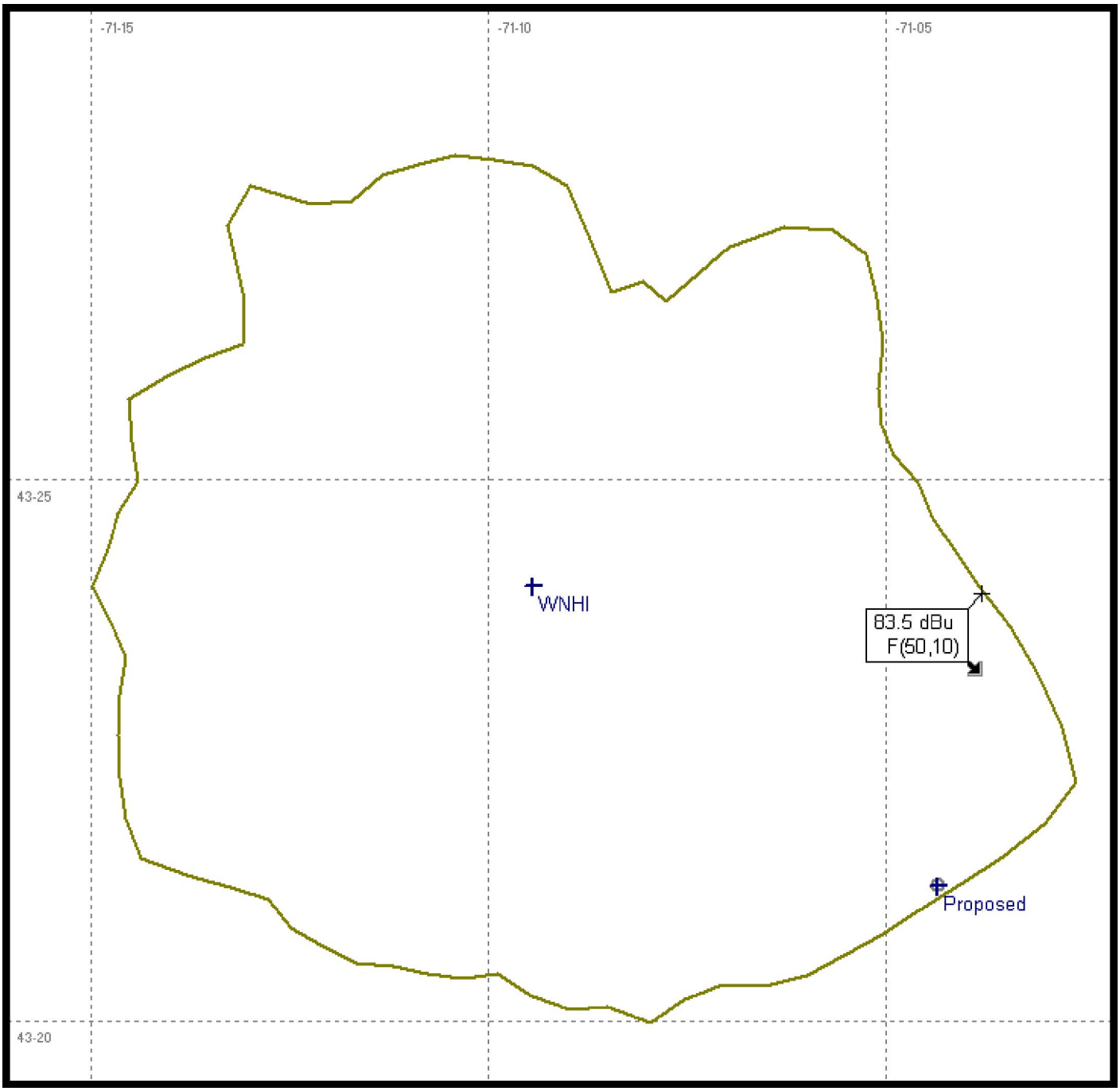
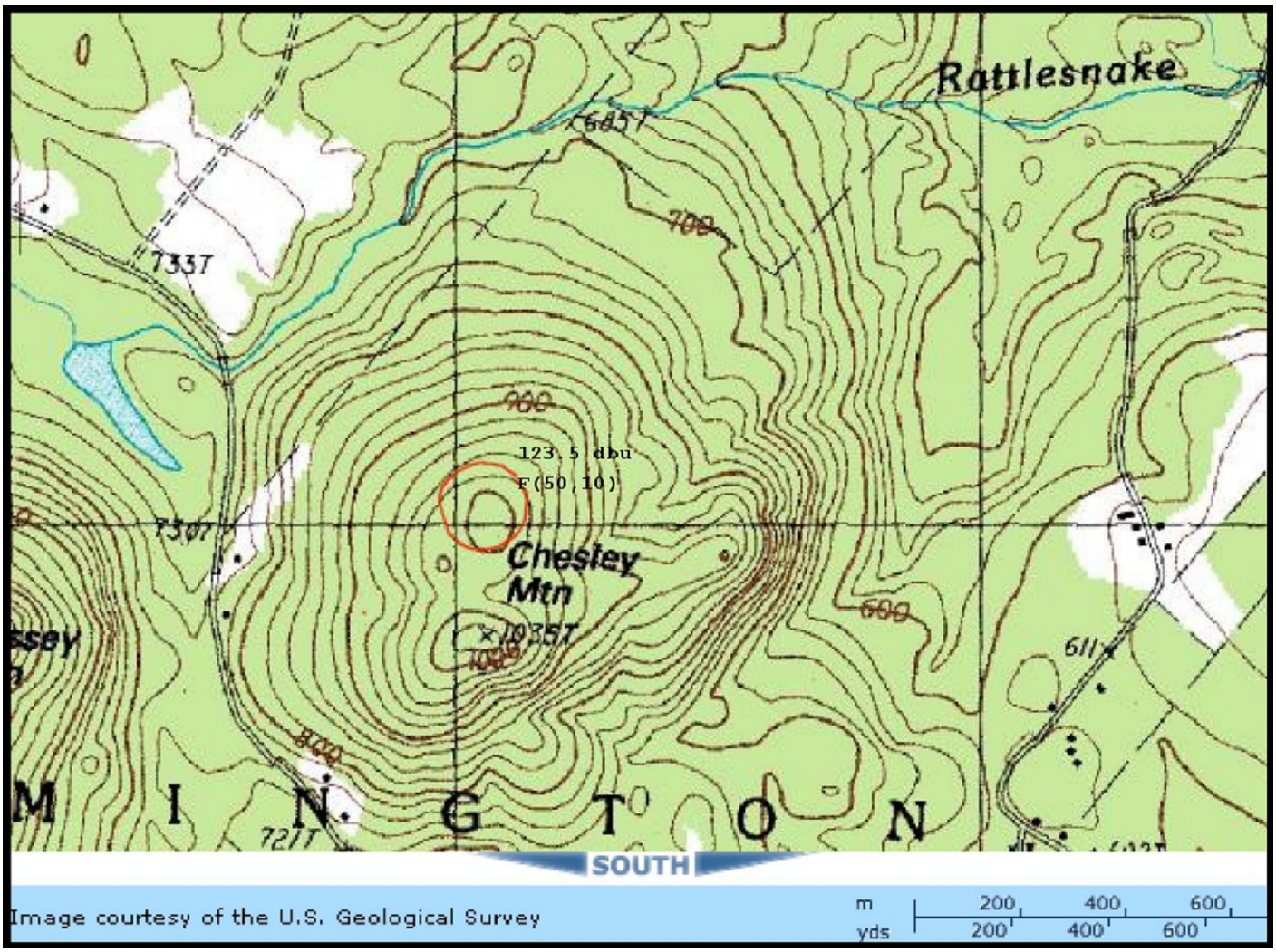


Figure 3 - WNHI Service Contour is 83.5 dBu F(50,50) at Proposed Site.



<u>Figure 4</u> – Proposed 123.5 dBu F(50,10) interfering contour to WNHI extends 78 meters and does not overlap any residence or major road.



<u>Figure 5</u> – RFR Exposure levels from proposed facility

FM Model display of power density vs distance from proposed antenna,
assuming use of Phelps-Dodge Ring-Stub or Dipole (EPA) to establish worst case.
Maximum RFR exposure level is 92.7 uW/cm2 or 46.4% of the 200 uW/cm2 MPE limit
for uncontrolled exposure to the general public at 2.88 meters from the antenna,.