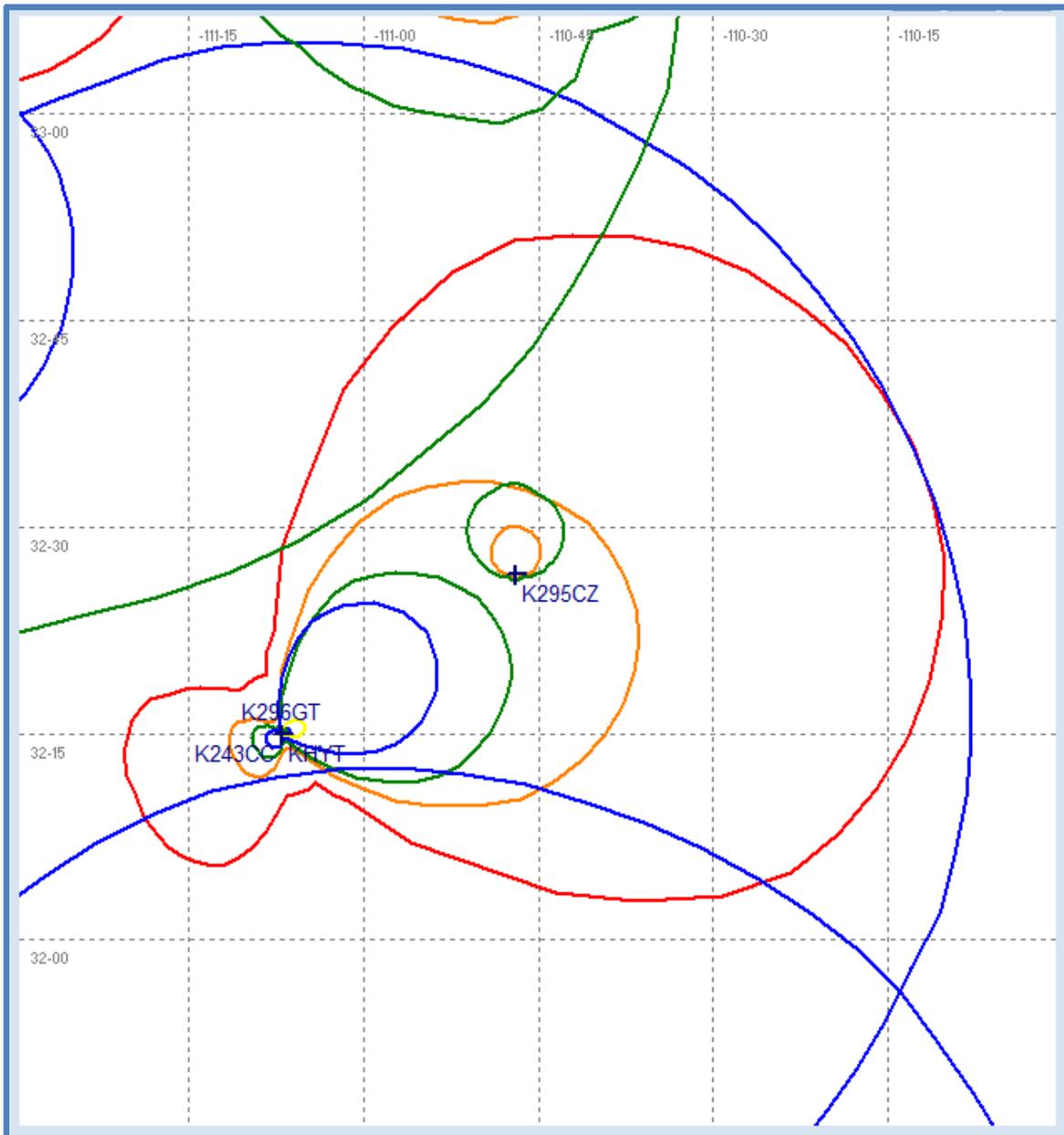


## Purpose of Application & Technical Statement

This minor change to the licensed facility requests a new tower location, elevation and antenna at a modified effective radiated power on the licensed operating channel. The translator will repeat KNST (AM) as a fill in translator facility. The maps below will demonstrate compliance with fill-in requirements.

### OVERLAP REQUIREMENTS:

The map of contours depicts the proposed allocation situation with respect to all pertinent co and adjacent facilities. All facilities have been depicted utilizing either the maximum ERP or directional pattern data as on file with the commission and 1 degree radial intervals on close in contours in the interest of accuracy. AAT data for the proposed facility was derived from the FCC's 30 second database, *Comstudy*.



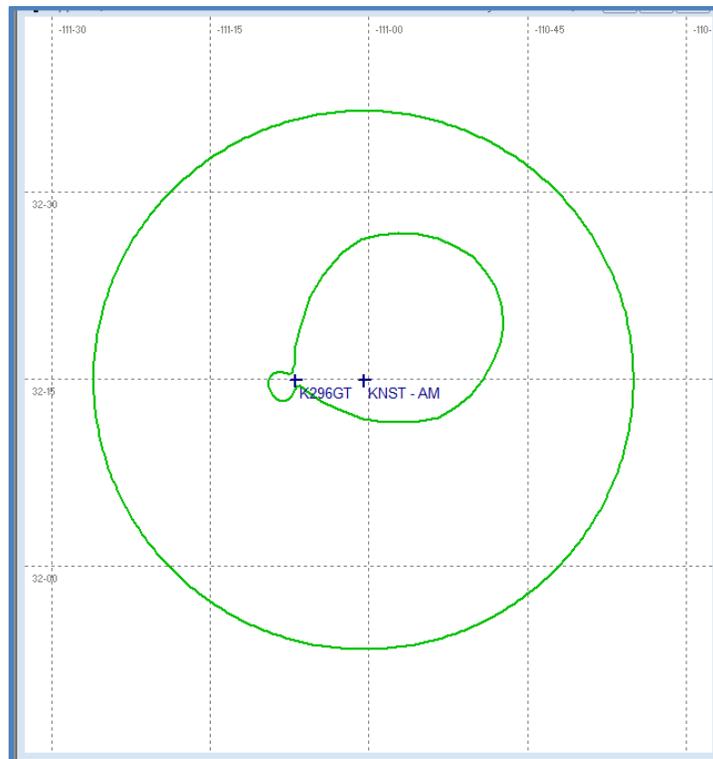
As seen on the map of contours, channel 296-D is operable at the proposed location with the following facility notes:

- In compliance with 47 CFR 74.1204(g) the proposed facility operates at an effective radiated power which is over 100 watts, therefore protection to intermediate frequency facilities has been calculated and meet all mileage separation requirements.
- Overlap to K295 translator is received-only interference and is not calculated
- The proposed location is within the protected 60dbu (50,50) contour of second -adjacent station KHYT (FM) channel 298C and second-adjacent translator facility K294CR, both located mere meters away on adjacent towers in the multiple tower farm array. An interference analysis would be conducted based on the u/d ratio of +40 dB at the proposed site and both adjacent channel facilities would have very high signal levels at the proposed translator site. The free space distance to the corresponding interference contour in a worse-case scenario utilizing a single dipole antenna would be mere meters from the aperture of the proposed antenna. Even with an antenna height of only 27.2 meters above ground, this interfering contour cannot come in contact with the general public at any point.

Based on this showing, a waiver of section 74.1204 is requested in accordance with Living Way Ministries, Inc. (FCC 08-242) on the basis of zero population in the area of interference. It should be noted that should any actual real world interference occur, the applicant acknowledges that it will promptly suspend operation of this translator in accordance with 47 CFR. 74.1203.

**PRIMARY STATION:**

The translator proposes to provide fill-in service for AM station KNST, FACID 53589, owned by iHM Licenses, LLC. The applicant herein has obtained written permission to specify this AM station as primary on the application and it meets the requirements for fill-in service.



## International

Translators near the US/Mexican border are treated as low power FM stations (LPFMs) as defined by Section 2, Annex 1 of the US/Mexican FM Broadcasting Service Agreement. This amended proposal is within 125 km of the border with the country of Mexico.

A LPFM located within 125 km of the US/Mexican border is permitted to operate with an ERP that shall not exceed 50 watts in the direction of the other country and produce an interfering contour not to exceed 32 km in the direction of the other country.

In addition, the maximum distance to the proposed protected contour (60 dBu F(50,50)) cannot exceed 8.7 km in the direction of the other country.

**Figure 1** demonstrates that the 125 km limit in the direction of Mexico is an arc bound on the east by the 143° radial and on the west by the 242° radial from the proposed site. Also provided are the 8.7 km and 35 km limits from the site.

**Figure 2** demonstrates in smaller scale that using the proposed directional antenna, the 60 dBu F(50,50) protected contour does not exceed 8.7 km in the direction of Mexico.

**Figure 3** demonstrates in smaller scale that using the proposed directional antenna, the 40 dBu F(50,10) interfering contour does not exceed 32 km in the direction of Mexico.

**Figure 4** demonstrates that this proposal does not exceed 50 watts in the direction of Mexico. Only between 10° and 120° will the power exceed 50 watts.

## Contingent Grant Request

The applicant requests a grant prior to FCC receipt of Mexican concurrence, and contingent upon such concurrence. The applicant understands and accepts the consequences of a potential objection by Mexico.

Figure 1. Map Demonstrating Area of Concern Towards Mexico

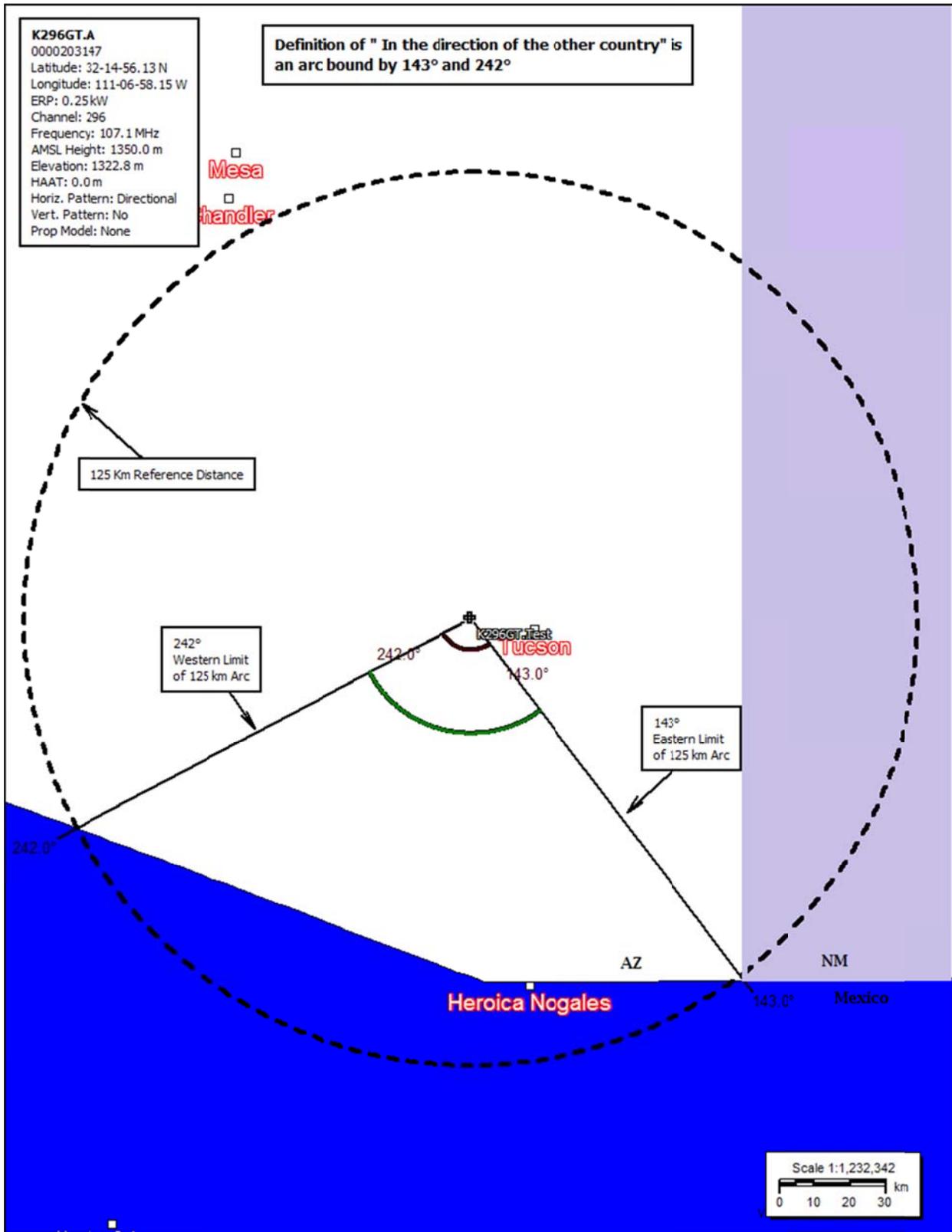


Figure 2. Map Demonstrating Area of 60 dBu F(50,50) Compliance Towards Mexico

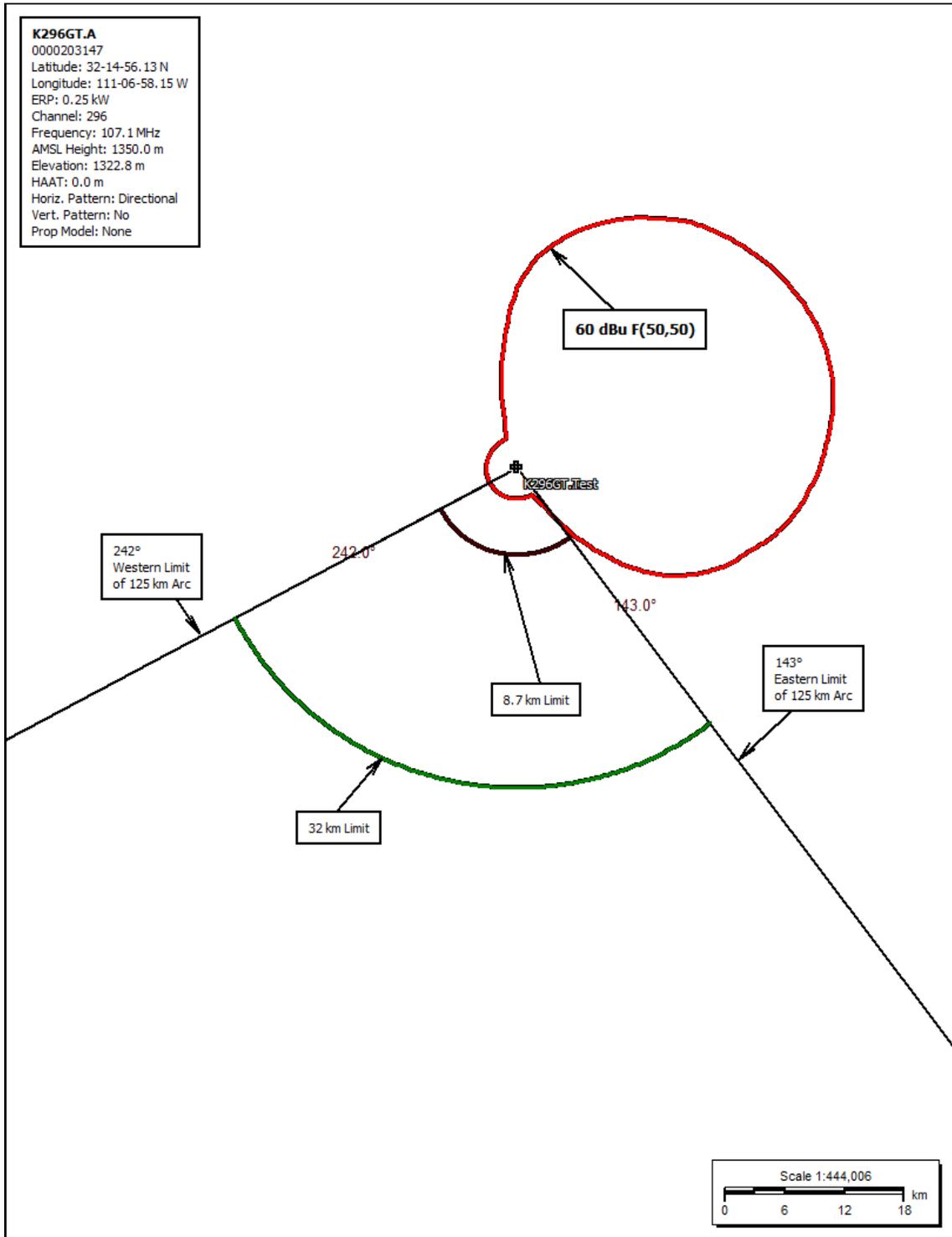


Figure 3. Map Demonstrating Area of 40 dBu F(50,10) Compliance Towards Mexico

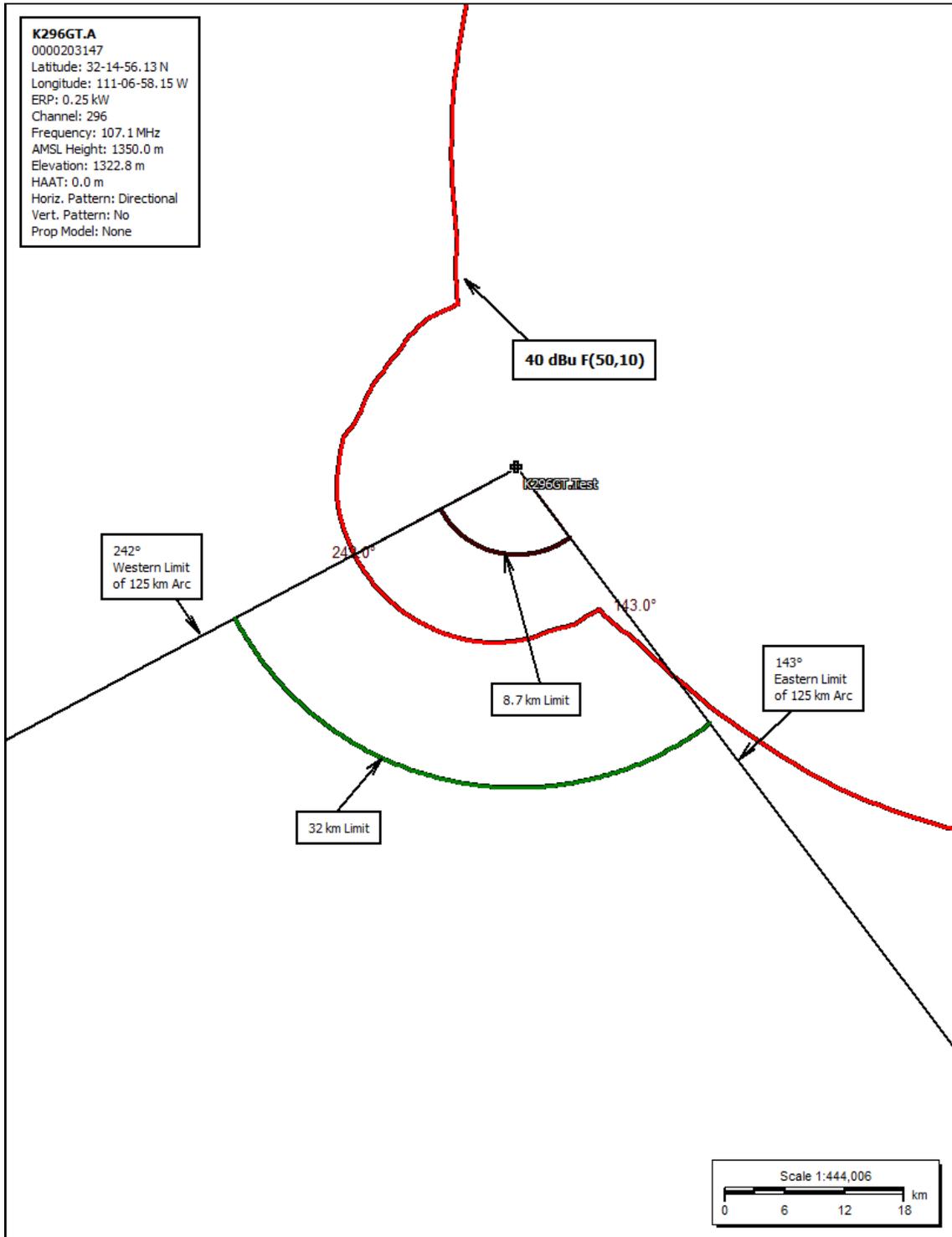


Figure 4. Antenna Field/Power Graph

