

**DELAWDER COMMUNICATIONS, INC.**

P.O. Box 1095  
Ashburn, Virginia 20146-1095  
(703) 299-9222

**ENGINEERING REPORT**

**KSBL, FM Minor Modification for 269B**

**EXHIBIT 28 –ENGINEERING STATEMENT REGARDING SECTION 73.315**

When the terrain from the transmitter site to the community of license departs significantly from the average terrain, the FCC Rules permit use of an alternative or supplemental coverage showing (see Section 73.313). The FCC has established that such an alternative showing is permitted “Where  $\Delta h$  is used as the sole determinant that the terrain along a radial widely departs from the 50 meter standard, a  $\Delta h$  value of 20 meters or less, or 100 meters or more”<sup>1</sup>.

The pertinent radials through the community of Isla Vista are:

- 349 degrees True with a  $\Delta h$  of 20 meters;
- 350 degrees True with a  $\Delta h$  of 20 meters;
- 351 degrees True with a  $\Delta h$  of 20 meters;
- 352 degrees True with a  $\Delta h$  of 15 meters;
- 353 degrees True with a  $\Delta h$  of 16 meters.

Two profiles (351 and 352 degrees) are attached as Figures E28-1 and E28-2.

Figure E28-3, attached, is a map showing the calculated 70 dBu F50,50 Service Contour and the results of a Longley-Rice alternative propagation model<sup>2</sup>. The alternative study was conducted for 360 equally-spaced radials.

Also shown on the Figure E28-3 map is the re-defined 70 dBu F50,50 Service contour based on Longley-Rice in the direction of the community of license. It is obvious from the map that the 70 dBu service contour is extended by much more than

---

<sup>1</sup>  $\Delta h$  “delta h” is terrain roughness as defined in Section 73.313 of the FCC Rules. Three arc-second USGS terrain data is used. Also, see Woodstock and Broadway, Virginia, 2 FCC Rcd 6398 (1988). *Current FCC Policy apparently no longer requires a delta h test in order for a supplemental showing to be used. The delta h qualification is herein made out of an abundance of caution.*

<sup>2</sup> Longley-Rice version 1.2.2 determined using EDX Engineering, Inc. SignalPro™ software and a 3 arc-second USGS terrain database is used. A receive antenna height of 9.1 meters AGL is also used.

**DELAWDER COMMUNICATIONS, INC.**

P.O. Box 1095  
Ashburn, Virginia 20146-1095  
(703) 299-9222

**ENGINEERING REPORT**

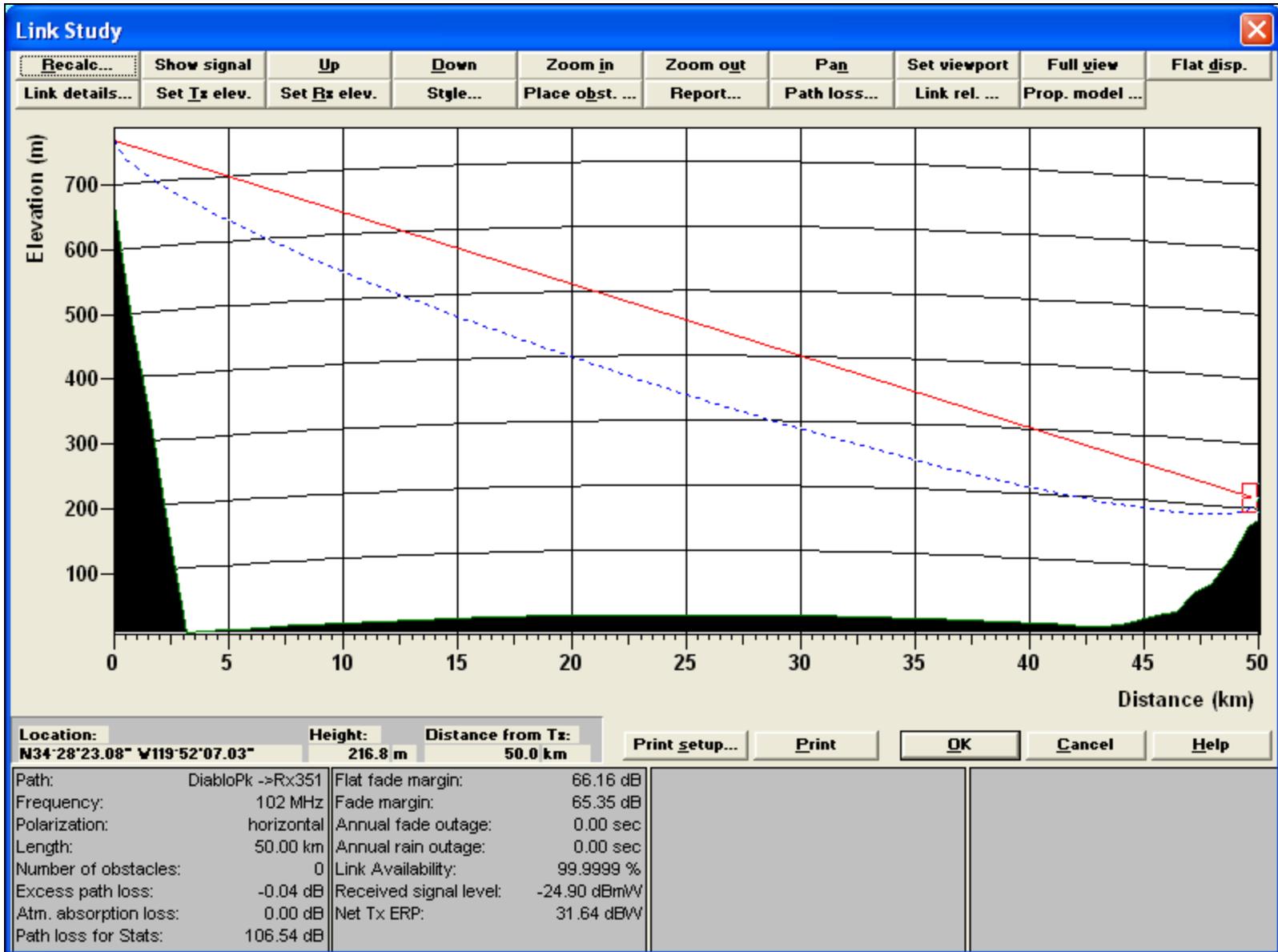
---

**KSBL, FM Minor Modification for 269B**

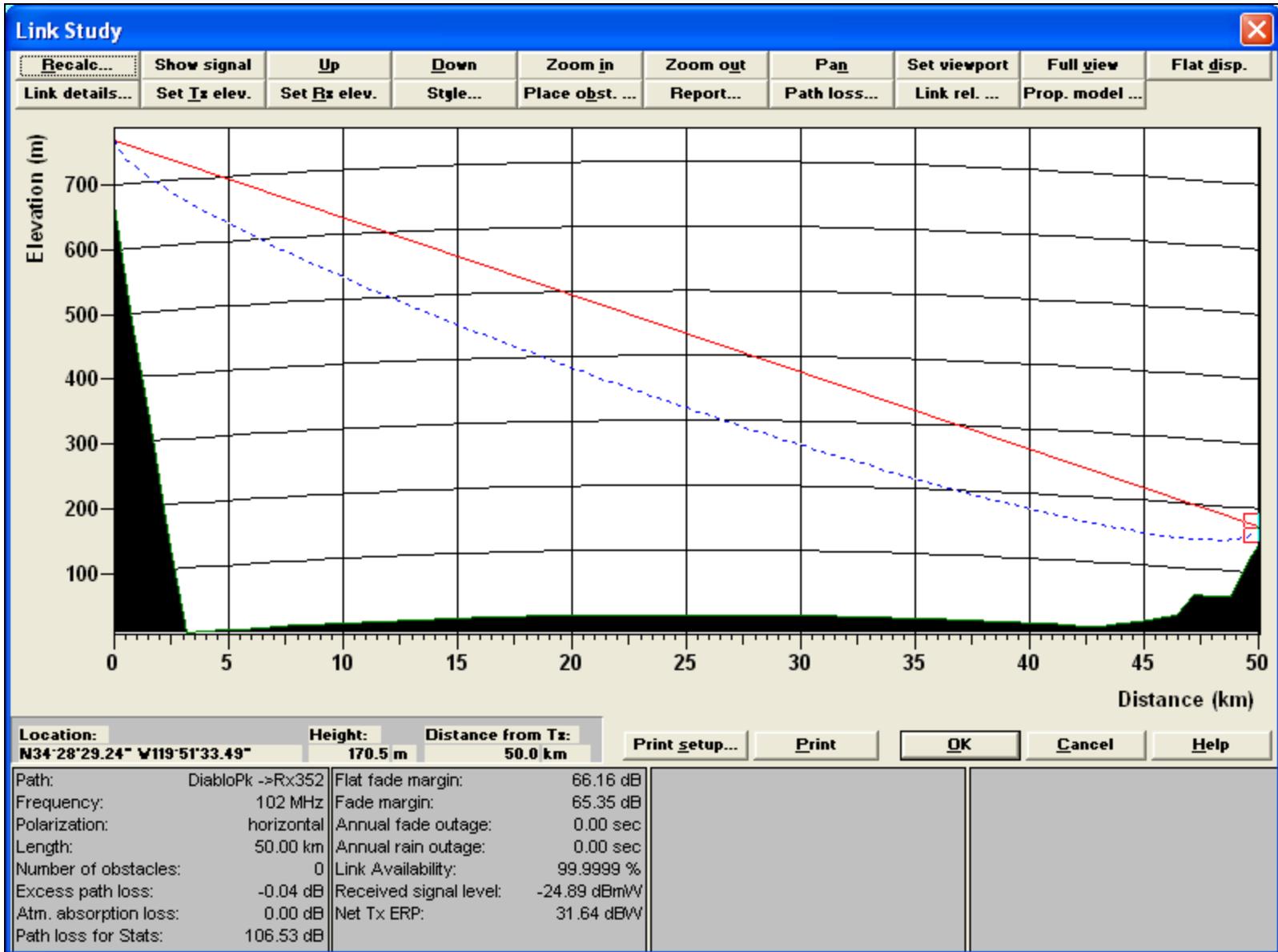
10% (another requirement for its use in establishing community of license service) than the standard 70 dBu F50,50 service contour.

Further information regarding the use of the alternative model will be provided upon request. The two terrain profiles provide sample calculations of the results.

**FIGURE E28-1: TERRAIN PROFILE FROM DIABLO PEAK AT 351 DEGREES TRUE**



**FIGURE E28-2: TERRAIN PROFILE FROM DIABLO PEAK AT 352 DEGREES TRUE**



**FIGURE E28-3: SECTION 73.315 MAP SUPPORT WITH LONGLEY-RICE RESULTS**

