

Attachment A

Description of Minor Modification

Pursuant to Section 25.118(a) of the Commission's rules, WB Holdings 1 LLC ("WildBlue") hereby notifies the Commission of a minor modification to its Ka-band blanket license E050033 (File No. SES-MFS-20090317-00319). Specifically, WildBlue will soon deploy a new user antenna type that will supersede the currently authorized 0.7 meter Raven antenna (Antenna ID WB1000-C3) and which meets the criteria set forth in Section 25.118(a)(2) of the rules. Although WildBlue will no longer deploy new 0.7 meter Raven antennas once current inventory is exhausted, it must maintain the authorization for those terminals on this license since they will continue to be operated for the remaining life of the equipment. All other license parameters remain the same.

The addition of the new antenna type is a minor modification because the potential for interference into other licensed radio facilities is not increased. The new antenna type conforms to the antenna performance standards in Section 25.209, as demonstrated by the antenna gain patterns attached hereto as Attachment B. As set forth in the accompanying Form 312, Schedule B, the particulars of operations of the new antennas (including the emissions, polarization, modulation, maximum EIRP/carrier and maximum EIRP density) are the same as the currently authorized 0.7 meter user antennas. The antennas will operate using the 19.7-20.2 GHz and 29.5-30.0 GHz frequency bands, which do not require frequency coordination with terrestrial users. The satellite points of communication in the license have already been coordinated with federal users and are not changing for purposes of this modification.¹

Finally, because the new antenna has slightly higher antenna gain, less power is required to be delivered into the new antenna. Thus, the maximum power and power density delivered into the new antenna will be slightly lower as well for a given e.i.r.p. The WildBlue network management system employs uplink power control which maintains the on-axis e.i.r.p. and e.i.r.p. density output of the terminal to less than or equal to the maximum authorized on-axis e.i.r.p. and e.i.r.p. density values for the currently authorized 0.7 meter antenna. Due to the slightly larger diameter of the new antenna, the beamwidth is narrower which improves the off-axis performance.

The new antenna meets the performance requirements in Section 25.138(a), as illustrated by the off-axis EIRP spectral density plots attached hereto as Attachment C. In

¹ The frequency coordination data in the Form 312 Schedule B is consistent with the data included in WildBlue's most recent modification application to add points of communication. *See* FCC File No. SES-MFS-2009317-00319. However, the current license does not reflect the satellite arc and elevation/azimuth angles identified in that modification, even though it reflects the addition of AMC-15 at 105° W.L. and AMC-16 at 85° W.L.

addition, the power flux-density at the earth's surface produced by emissions from the satellite points of communication are within the -118 dBW/m²/MHz limit set forth in Section 25.138(a)(6). Therefore, these antennas do not require coordination with adjacent satellites and are subject to routine processing.

A radiation hazard analysis for the new antenna is attached hereto as Attachment D.