

ViaSat, Inc.
Request for Special Temporary Authority

Attachment A

Description of Request for Special Temporary Authority

ViaSat, Inc. (“ViaSat”) hereby requests special temporary authority (“STA”), to operate a 7.3 m meter Model VA-73-KA transmit/receive antenna operating in the Ka-band in Rapid City, South Dakota for purposes of testing the uplink power control system in advance of the launch of VIASAT-1. ViaSat requests authority commencing on February 7, 2011 for a period of 30 days.

ViaSat intends to use this antenna as both a traffic gateway and as a TT&C communications point for its VIASAT-1 satellite, which is scheduled for launch during the summer of 2011. ViaSat has completed construction of this gateway antenna and performed antenna pattern tests pursuant to STA SES-STA-20100915-01165. Those tests indicated that the antenna meets all the requirements of Section 25.209 and that during normal operation it will comply with the off-axis EIRP performance levels set forth in Section 25.130 of the Commission’s rules.

The public interest will be served by the grant of this STA because it will allow ViaSat to conclude testing of the gateway’s uplink power control system in advance of the satellite launch and thereby ensure the integrity of the ground network that will support the launch of VIASAT-1 this year.

In order to perform the uplink power control testing, carriers will be transmitted from the antenna while it is tracking the WildBlue-1 satellite. The resulting off-axis EIRP density levels produced will comply with the values in Section 25.138.

A radiation hazard analysis performed pursuant to the methodology set forth in OET Bulletin 65, is on file with the Commission for this Earth station as an attachment to the previous STA SES-STA-20100915-01165. The operating levels for this testing will be within the envelope defined in that analysis. The analysis indicated that harmful levels will not be present in areas occupied by the general population and that the antenna system does not present a risk to trained personnel in the immediate vicinity of the antenna.

ViaSat respectfully requests STA to operate this antenna pursuant to the following parameters:

Location of Earth Station Site:

Latitude: 44°11’17.11” N, Longitude: 103°20’11.70” W (NAD-83)

Points of Communication:

WildBlue 1 at 111.1 (Canadian)

Frequency (GHz)	Polarization	Emission	T/R mode	Max EIRP/ Carrier	Max EIRP Density (/40 kHz)	Modulation/ Services
29.5-30.0	RHCP	52M1G7D	Tx	86	54.85	M _{ary} -PSK / Data
29.5-30.0	LHCP	52M1G7D	Tx	86	54.85	M _{ary} -PSK / Data

Max Gains: 65.39 dBi @ 29.1 GHz 65.52 dBi @ 30.0 GHz

Maximum total input power at antenna flange: 110.7 Watts

Maximum aggregate output EIRP for all carriers: 86 dBW

Frequency Coordination:

Frequency	Satellite Arc		Elevation		Azimuth		Max EIRP Density toward Horizon (dBW/40 kHz)
	East Limit	West Limit	East Limit	West Limit	East Limit	West Limit	
29.5-30.0 GHz	85W	111.1W	35.87	38.49	154.57	191.07	-17.15