ViaSat, Inc.
Request for Special Temporary Authority

## **ATTACHMENT**

## Why is a STA necessary?

ViaSat requests Special Temporary Authority (STA) to perform antenna design and acceptance testing on two satellite communications systems manufactured by ViaSat to the specifications of a ViaSat customer. As part of the test, a calibrated source antenna will transmit to each of the systems at ViaSat's antenna test range in order to perform antenna pattern measurements. To test one system, the source antenna will transmit in the range of 5.85-6.425 GHz and to test the other antenna, the source antenna will transmit in the range of 13.75-14.5 GHz. Measurements will then be taken as the antennas are moved across the required angular range.

The transmissions are expected to occur as required over a six month period from the date the STA becomes effective through April 8, 2013. ViaSat requests an STA due to the temporary nature of the operations and the short duration of the testing.

## Purpose of the Operation:

Approval of this STA will allow ViaSat to perform design and acceptance testing of an RF Terminal (RFT), which will be manufactured to the specifications of a ViaSat customer. The antenna diameter of RFT under test is 6.1 m, but during the testing no transmissions will take place from the antenna. The only transmissions that will occur will be from a calibrated source antenna at a low EIRP of 20 dBW which is sufficient to produce the desired dynamic range of received signals on the antenna under test. Note that the source antenna in question is currently licensed under call sign WD2XHT, but not at the desired test frequencies.

The test transmissions from the calibrated source antenna as proposed by this application are not likely to cause interference to any other licensed services or systems because the antenna will be pointed away from the geostationary satellite arc and toward the horizon. The potential for interference into and terrestrial systems is remote due to additional RF shielding provided by the surrounding terrain, trees, and heavy foliage.

The operation of the source antenna will be in full compliance with the Commission's radio frequency (RF) exposure guidelines – see RF hazard analysis exhibit. The source antenna will be secured from access by the general public and will be operated by experienced test personnel.

The 7/24 contact number in case of interference is 1-888-272-7232.