

## **ATTACHMENT**

### Why is a STA necessary?

ViaSat requests Special Temporary Authority (STA) to perform acceptance testing on a transportable satellite communications system [manufactured to the specifications of a ViaSat customer]. As part of the test, the system will be transmit signals in the 6.7-7.075 GHz range in order to demonstrate that the system is capable of transmitting in accordance with specifications. The transmissions are expected to last for several hours at a time and 14 days during the period between January 20, 2009 and February 28, 2009. ViaSat requests an STA due to the temporary nature of the operations and the short duration of the testing.

Further, ViaSat respectfully requests expedited processing of this request. Due to an unexpected demand by the customer, ViaSat must conduct this testing as soon as possible.

### Purpose of the Operation:

Approval of this STA will allow ViaSat to perform timely acceptance testing of an RF Terminal (RFT), which will be a component in a transportable satellite communications system [manufactured to the specifications of a ViaSat customer]. The RFT is designed to enable communications between satellites and the satellite operations center. The RFT is a 7.3 meter temporary fixed transmit/receive antenna, which will be located at 1725 Breckinridge Plaza, Duluth, Georgia during the test. The antenna will be operated at ground level. The RFT consists of a tracking antenna, antenna feed assembly, high power amplifier, and a set of transit case mounted equipment for modulation/demodulation, satellite operations center interfaces, and system control. The RFT interfaces with the system's satellite operations center via terrestrial wired network connections.

During normal operation, the RFT will communicate with satellites in the geostationary arc. However, for purposes of testing the transmission capabilities of the RFT, certain tests required by the customer will require transmissions while pointed at the sun or moon. When not transmitting at either the sun or moon, the RFT will be pointed at zenith (a 90 degree elevation) and will transmit straight up.

The test transmissions from the RFT 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 the horizon, thereby minimizing the potential for interference into satellite and terrestrial systems. Further, the potential for interference is remote due to additional RF shielding provided by the surrounding terrain, trees, and heavy foliage.

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