

**Request for Special Temporary Authority
to Conduct In-Orbit Testing of VIASAT-2 at 69.9° W.L.**

ViaSat, Inc. (“ViaSat”) seeks Special Temporary Authority (“STA”) to conduct in-orbit testing of ViaSat-2 at 69.9° W.L. using its gateway in Denver, Colorado. STA is requested for a period not to exceed thirty (30) days commencing on December 1, 2017, when ViaSat-2 is expected to arrive at 69.9° W.L.

In-orbit testing will consist of performance verification of each beam on ViaSat-2. The Denver gateway (E160093) will be used to transmit and receive test signals. Consistent with industry practices and as detailed below, that gateway and the satellite temporarily will need to operate at higher-than-regularly-authorized power levels during certain tests.

To enable testing of each beam in each direction (both uplink and downlink), the spacecraft will be oriented at various times to position a given beam over the Denver gateway. In closed-loop tests, the satellite will be oriented such that both the uplink and downlink beams being tested will be positioned over the Denver gateway.

Tests that involve uplink transmissions will be performed using unmodulated CW carriers transmitted from the Denver gateway. In certain cases, this will involve a maximum uplink power level of 81 dBW. Operations at these higher-than-regularly-authorized power levels will be short-term (*i.e.*, typically several minutes) and limited to three specific frequencies that, consistent with Section 25.138, are being coordinated with adjacent satellite operators and with appropriate U.S. government operators. The frequencies that will be used are at 28.35 GHz, 28.85 GHz and 29.75 GHz on the uplink, with corresponding downlink frequencies of 18.55 GHz, 19.05 GHz, and 19.95 GHz. The corresponding downlink power level of 77.5 dBW is higher than regularly-authorized for ViaSat-2, and the resulting PFD of $-85.2 \text{ dBW}/(\text{m}^2 \cdot \text{MHz})$ exceeds the limit in Section 25.208(e). To the extent necessary, ViaSat seeks a waiver of Section 25.208(e) to allow testing at the power-density levels described above.

ViaSat is coordinating the higher-power test operations with operators of commercial Ka-band satellites within six degrees of 69.9° W.L. In the unlikely event that harmful interference occurs, ViaSat will take all necessary steps to eliminate such interference.

ViaSat will make available a 24/7 point of contact should any issues arise in connection with the proposed STA operations. Personnel will be on duty at all times during the STA operations and can be contacted at (720) 493-7300.

Grant of the STA will help expedite commercial service over ViaSat-2, which will serve the public interest, convenience and necessity.