

STA Request

Talia International Inc. (“Talia”) respectfully requests experimental authority to test and demonstrate a flyaway very small aperture terminal (“VSAT”) mobile satellite unit – the 1.2m GroundControl TOUGHSAT XP (“TOUGHSAT-1.2”) – at various test locations throughout the continental United States. The requested authority will allow Talia to demonstrate the commercial viability of its new Portable Satellite Internet System (“PSIS”), which provides an integrated wireless access point for users in remote terrestrial environments, where traditional means of communication are not available.

In this filing, Talia seeks grant of an experimental STA for a period of six (6) months, commencing on August 10, 2015, to test terminal uplink transmissions in the 14.0-14.5 GHz band (“Ku-band”). Talia will operate the TOUGHSAT-1.2 for testing and demonstration purposes only during private and corporate demos, trade shows, and industry events throughout the United States.

Discussion. The TOUGHSAT-1.2 Field Service Rapid Deployment VSAT (“FSRD/VSAT”) unit is a Vehicle-Mounted Earth Station (“VMES”) equipped with a Prodelin Model 1123 reflector mounted on a skid base, making it ideal to install in truck beds and roof racks of terrestrial vehicles. The portable flyaway antenna fully integrates with Talia’s PSIS to provide immediate Internet and phone connection services. Talia is demonstrating and testing the TOUGHSAT-1.2 unit to communicate with a single Ku-band geostationary satellite orbit (“GSO”) fixed-satellite service (“FSS”) satellite, the Eutelsat 113WA (formerly Satmex 6) located at the 113° orbital location, a Mexico-licensed satellite on the Commission’s Permitted Space Station List.¹

The Commission has previously licensed the TOUGHSAT-1.2 in the Ku-band for commercial purposes,² and Talia certifies that the brief and intermittent nature of its proposed demonstrations will operate within the parameters of that approval. Furthermore, the Prodelin Model 1123 reflector has also been individually authorized as part of a number of Ku-band VSAT networks.³ Exhibit A contains relevant information

¹ See File No. SAT-PPL-20060329-00030.

² See File No. SES-MOD-20140319-00149.

³ See File No. SES-LIC-20110210-00136; see File No. SES-MOD-20140318-00147.

relating to the terminal technical parameters, antenna performance, link budgets, radiation hazard and general antenna specifications for Ku-band testing.

Grant of the requested authority will serve the public interest by allowing Talia to effectively prepare for its United States market commercial initiative⁴ by demonstrating the real-world viability of the TOUGHSAT-1.2 to potential government and commercial customers. Moreover, the proposed experimental operations will be conducted on an unprotected non-interference basis, where applicable, and will otherwise comply with Part 5 of the FCC Rules.

Demonstrations. Talia proposes to demonstrate the TOUGHSAT-1.2 in the Ku-band at various test locations throughout the continental United States. Given the portable and compact nature of the TOUGHSAT-1.2, Talia plans to travel to trade shows and industry events to perform installation and operation demonstrations. Talia will also engage in on-site testing of the unit for private and corporate customers. At all demonstration locations, Talia will demonstrate the TOUGHSAT-1.2 with the Eutelsat 113WA satellite and use the hub located at Telesat's Mount Jackson, Virginia teleport facility.

As the Commission is aware, the Ku-band is designated for primary use by FSS systems, so there is little risk of interference from test operations in this band. Nonetheless, Talia certifies that it will comply with all FCC restrictions on Ku-band VMES uplink operations and take all other actions necessary to avoid interference to U.S. government and other users at each test location.⁵ Furthermore, consistent with the Commission's Part 5 rules, Talia agrees to accept all interference from other authorized spectrum users and will immediately suspend operations in the event of interference to other systems and services.

Stop Buzzer Contact and Other Information. The Talia point of contact with the authority to suspend immediately the proposed TOUGHSAT-1.2 operations is:

⁴ Talia is concurrently seeking Commission authority for Section 214 authorization to provide international facilities-based and resale services to the United States. (*See* File No. ITC-214-INTR2015-01383).

⁵ *See, e.g.*, 47 C.F.R. § 25.226.

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The following Exhibit A contain additional technical information relating to the proposed experimental operations:

- TOUGHSATXP-1.2 Antenna Characteristics and Technical Parameters;
- Annex 1 – Antenna Performance Plots (demonstrating compliance with the gain envelope delineated in Section 25.209 of the Commission’s Rules);
- Annex 2 –Link Budgets; and
- Annex 3 – Radiation Hazard Study (Talia will follow standard industry procedures to mitigate potential radiation hazards to personnel in controlled environments).

Expedited Processing. Talia respectfully requests expedited processing of this experimental STA application. As discussed, the TOUGHSAT-1.2 unit and Prodelin Model 1123 reflector have been previously reviewed and approved by the Commission for commercial purposes in the Ku-band. Furthermore, because Ku-band experimental operations do not raise issues associated with spectrum sharing/coordination with terrestrial services, expedited processing of this application is merited. Accordingly, Talia respectfully requests that this experimental STA be granted for an approximately six (6) month period commencing on or about August 10, 2015 to allow demonstration of the TOUGHSAT-1.2 in preparation for Talia’s commercial initiative.

Conclusion. The requested experimental STA will allow Talia to perform testing and demonstration of the TOUGHSAT-1.2 in preparation to serve the United States market. Moreover, grant of the requested authority will not result in harmful interference to or require protection from other authorized spectrum users. Accordingly, the proposed operations are consistent with Part 5 of the FCC’s rules and expedited grant would strongly serve the public interest.