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Douglas Brandon  
General Counsel & Secretary

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Federal Communications Commission  
Office of the Secretary

October 15, 2009

**VIA HAND DELIVERY**

Marlene H. Dortch  
Secretary  
Federal Communications Commission  
445 12th St., S.W.  
Washington, DC 20554

**Re: TerreStar Licensee Inc.  
2009 Annual Report for 2 GHz Mobile Satellite Service System**

Dear Ms. Dortch:

TerreStar Licensee Inc. ("TerreStar"), pursuant to Section 25.143(e)(1) of the Commission's rules,<sup>1</sup> hereby submits its annual report for its 2 GHz Mobile Satellite Service ("MSS") system. The information in this report is current, except as otherwise stated, as of September 30, 2009.

**Introduction**

TerreStar holds a letter of intent ("LOI") authorization to provide MSS in the United States via the TerreStar-1 satellite using spectrum in the 2 GHz band.<sup>2</sup> The LOI authorization permits the use of 10 MHz of 2 GHz MSS spectrum in each direction.<sup>3</sup> TerreStar Networks (Canada) Inc., which

<sup>1</sup> 47 C.F.R. § 25.143(e)(1).

<sup>2</sup> See Order, DA 07-2028 (Int'l Bur., May 10, 2007); *TMI Communications and Company, Limited Partnership*, Order, 16 FCC Rcd 13808 (Int'l Bur. 2001); *TMI Communications and Company, Limited Partnership, and TerreStar Networks Inc. Application for Review and Request for Stay*, Memorandum Opinion and Order, 19 FCC Rcd 12603 (2004). On February 4, 2008, the Commission was notified of a *pro forma* assignment of the LOI authorization from TerreStar Networks Inc. to TerreStar Licensee Inc., which is a wholly owned subsidiary of TerreStar Networks Inc. See Letter from Joseph A. Godles, Counsel to TerreStar Networks Inc., to Marlene H. Dortch, Secretary, FCC, Re: Call Sign LOI-TMI (Feb. 4, 2008).

<sup>3</sup> See *Use of Returned Spectrum in the 2 GHz Mobile Satellite Service Frequency Bands*, Order, 20 FCC Rcd 19696 (December 9, 2005).



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is owned by TerreStar Networks Inc. and a Canadian company, holds an approval in principle issued by Industry Canada to operate TerreStar-1 in Canada.<sup>4</sup>

### **Status of Satellite Construction and Anticipated Launch Date**

Construction of TerreStar-1 has been completed and, on July 1, 2009, the satellite was launched successfully. TerreStar has completed in-orbit testing of TerreStar-1 and expects to complete testing of the ground based beam forming system for the satellite in the near future.

Based on commitments Sprint Nextel undertook as an inducement for the Commission to give it access to valuable additional spectrum, TerreStar continues to rely on Sprint Nextel to relocate broadcast auxiliary service ("BAS") terrestrial users from the 2000-2020 MHz MSS band TerreStar uses for uplink transmissions. The Commission has granted Sprint Nextel a number of waivers extending the time it must complete BAS relocation, most recently until February 8, 2010.<sup>5</sup> Assuming that Sprint Nextel meets this deadline, there will only be a small number of markets in which TerreStar will need to coordinate its uplink transmission pursuant to the Commission's MSS Third Report and Order by the time TerreStar begins providing commercial service.

TerreStar has satisfied its non-interference obligations regarding fixed service ("FS") microwave licensees from the 2180-2200 MHz band TerreStar uses for downlink transmissions. The ability to steer TerreStar's satellite spot beams and the location of the relevant microwave paths meant that a much smaller universe of links needed to be cleared than are required to be relocated by Sprint Nextel in the 2000-2020 MHz uplink band. A number of links have been cleared, and TerreStar has implemented network and technology solutions targeted at minimizing the number of links that could potentially be compromised.

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<sup>4</sup> See Letter from Michael D. Connolly, Industry Canada, to Steven Nichols, TerreStar Networks (Canada) Inc., File No. 46215-1 (113554 CL) (April 27, 2007).

<sup>5</sup> *In the Matter of Improving Public Safety Communications in the 800 MHz Band; Consolidating the 800 and 900 MHz Industrial/Land Transportation and Business Pool Channels; Amendment of Part 2 of the Commission's Rules to Allocate Spectrum Below 3 GHz for Mobile and Fixed Services to Support the Introduction of New Advanced Wireless Services, including Third Generation Wireless Systems; Amendment of Section 2.106 of the Commission's Rules to Allocate Spectrum at 2 GHz for use by the Mobile Satellite Service; Application for Review of Grant of ATC authority to New ICO Satellite Services G.P.*, Report and Order and Order and Further Notice of Proposed Rulemaking, 24 FCC Rcd 7904 (2009).



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## **Listing of Non-Scheduled Outages**

There have not been any non-scheduled outages of TerreStar-1.

## **Description of the Utilization of the In-Orbit Satellite System**

TerreStar-1 has been placed into its assigned orbital slot in the geosynchronous arc. TerreStar-1's 18 meter 2 GHz S Band reflector, which is the world's largest commercial satellite antenna in orbit, has been successfully deployed. On July 20, 2009, TerreStar announced the successful completion of an end-to-end phone call over TerreStar-1, between two of TerreStar's quad-band GSM and tri-band WCDMA/HSPA smartphones with integrated satellite-terrestrial voice and data capabilities.

TerreStar-1 is fully operational, and the satellite is poised to deliver voice, data and video services over TerreStar's all IP next-generation mobile broadband network that combines the power of TerreStar-1, an all-IP core network, and the latest in smartphone technology. On September 30, 2009, TerreStar announced that it had entered into an agreement with AT&T to bring to market the first fully integrated satellite cellular smartphone. The smartphone combines 3G terrestrial wireless capability with satellite voice and data in a standard smartphone size and form factor. Using one phone number and one device, users will be able to access voice and data services in the United States, Puerto Rico, the U.S. Virgin Islands and offshore coastal waters over either the AT&T cellular network or the TerreStar satellite network. TerreStar expects to start commercial wholesale service in late 2009 or early 2010.



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**Identification of any Space Stations Not Available for Service or Not Performing to Specifications**

TerreStar has no space stations that are unavailable for service or not performing to specifications.

Please direct any questions concerning this report to the undersigned.

Sincerely,

A handwritten signature in black ink that reads "Douglas Brandon" with a stylized flourish at the end.

Douglas Brandon  
General Counsel and Secretary  
TerreStar License Inc.

cc: Roderick Porter, IB  
Cassandra Thomas, IB  
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