REQUEST FOR EXTENSION OF SPECIAL TEMPORARY AUTHORITY

Following the successful launch of the TerreStar-1 satellite on July 1, 2009, TerreStar conducted and successfully completed, pursuant to grants of special temporary authority ("STA"), satellite payload In-Orbit-Testing (IOT) activity. Since the third quarter of 2009, also pursuant to STAs, TerreStar has been engaged in "Phase II" SBN-IOT (Satellite Beamforming Network – In-Orbit-Testing) of its Ground Based Beam Forming (GBBF) and other subsystems. The STAs for SBN-IOT will expire on February 10, 2010.

Due to the complex and ground-breaking nature of the GBBF and the base station technologies involved, TerreStar's SBN-IOT test activities need to be extended beyond the February 10. Therefore, it is seeking an extension of the STAs to June 30, 2010.

As before, the following four facilities will be used for SBN-IOT: (1) TerreStar-1, a Canadian-licensed satellite as to which TerreStar holds a letter of intent ("LOI") authorization (Call Sign S2633) to serve the United States; (2) the 6.3-m and 9.3-m antennas associated with TerreStar's licensed gateway earth station located in North Las Vegas, Nevada (Call Sign E070098); (3) an unlicensed 1.8-m mobile earth terminal ("MET")[1] that is co-located with TerreStar's North Las Vegas gateway earth station; and (4) TerreStar's Calibration Earth Stations ("CES").

A copy of this exhibit accompanies each STA extension request TerreStar is filing in connection with SBN-IOT. The STA request form this exhibit is attached to identifies, for each STA extension request: (1) the time period for which an STA is sought; and (2) the facility for which an STA is sought.[2]

The essence of the continuing SBN-IOT testing activity is described below:

- The test involves over-the-satellite debugging and performance improvement of the GBBF and related element channel amplitude/phase calibration and pointing subsystems.
- The activity will also involve the testing of a new beam-forming algorithm, called Enhanced Beam Forming (EBF), which will significantly improve the performance of the system.
- Two tests that were authorized by the previously-granted STA, specifically Payload Bake-out test and the Interface Verification test under the Forward

---

[1] The 1.8-m MET, operating in a temporary fixed mode, uses a custom antenna that is designed for the express purpose of testing service link performance on TerreStar-1. The 1.8-m MET is entirely different from the MET handsets that will be used by TerreStar's customers.

[2] Based on discussions with the FCC's staff, and in light of the fact that no FCC radio license has been issued for TerreStar-1, TerreStar did not file any request for special temporary authority for the satellite in connection with IOT. Rather, TerreStar identified in the initial IOT STA requests the parameters for TerreStar-1's operations during IOT that deviate from the parameters on which the LOI authorization for TerreStar-1 are based.

Payload Tests, have been completed and will not need to be executed during the STA extension period requested in this filing.

In addition to the SBN-IOT test activity described above, for the information of the Commission, TerreStar has also been engaged, in parallel, in the end-to-end testing of its satellite system under the existing licenses of its North Las Vegas (NLV) gateway station and the handsets (i.e. user terminals). Test calls have been placed over the S-band and Ku-band satellite channels. Major ground subsystems being tested include the satellite base station (S-BSS), GBBF, handsets, and the Core Network. A new version of the S-BSS is scheduled to be tested during the coming STA extension period that will result in improved system capability and performance. Finally, TerreStar handsets, with a trade name Genus, have been subject to numerous satellite field tests to improve their functionalities and performance.