

Before the  
**U.S. DEPARTMENT OF COMMERCE**  
Washington, D.C. 20230

In the Matter of )  
)  
National Telecommunications and ) 060602142-6142-01  
Information Administration )  
The President’s Spectrum Policy Initiative )  
Spectrum Sharing Innovation Test-Bed )

**COMMENTS OF TERRESTAR NETWORKS, INC.**

TerreStar Networks, Inc. (“TerreStar”) hereby comments on the above captioned proceeding. TerreStar files these brief comments in response to the Federal Communications Commission’s (“Commission” or “FCC”) Public Notice and the National Telecommunications and Information Administration’s (“NTIA”) Notice of Inquiry regarding the development of a spectrum sharing innovation Test-Bed for use in planning how spectrum can best be shared between federal and non-federal users.<sup>1</sup>

TerreStar, in cooperation with its Canadian partner, TMI Communications and Company Limited Partnership, is preparing an innovative communications system to provide mobile satellite and ancillary terrestrial coverage (“ATC”) services throughout the United States and Canada using small, lightweight and inexpensive handsets similar to today’s mobile devices. TerreStar plans to provide a seamless, ubiquitous system – based on integrated satellite and ground-based technology – that will allow

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<sup>1</sup> See *Federal Communications Commission Seeks Public Comment on Creation of a Spectrum Sharing Innovation Test-Bed*, Public Notice, ET Docket No. 06-89 (rel. June 8, 2006) (“FCC Notice”); National Telecommunications and Information Administration, *The President’s Spectrum Policy Initiative Spectrum Sharing Innovation Test-Bed*, Notice of Inquiry, 71 Fed. Reg. 33282 (June 8, 2006) (“NTIA NOI”).

service to even the most hard-to-reach areas, and will finally allow for the interoperable, survivable and critical communications infrastructure that our nation's first responders need.

TerreStar strongly supports the Test-Bed effort to evaluate innovative methods for federal and non-federal spectrum sharing. We support this initiative not only to enable more intensive use of the radio spectrum, but as a practical experiment with ways to achieve a greater degree of interoperability among federal, state, local, and critical infrastructure entities to improve homeland security, national defense, and public safety.

## DISCUSSION

The Commission and NTIA raise questions with regard to a potential Test-Bed plan, which TerreStar addresses below.

*Test-Bed Goals.* TerreStar, as a future provider of communications services to public safety entities, believes that one focus of the initiative should be to allow use of the Test-Bed for the development of new technologies for public safety, particularly those that foster interoperability. As ongoing FCC proceedings make clear, industry is still working to develop a consensus on appropriate technologies for use by public safety entities, and the FCC is grappling with establishing interoperability plans for first responders.<sup>2</sup>

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<sup>2</sup> See *In the Matter of Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State, and Local Public Safety Communications Requirements Through the Year 2010*, Eighth

*Single or multiple Test-Bed experiments.* TerreStar supports the use of multiple Test-Bed experiments, as long as homeland security and public safety interoperability matters are included in whatever experiments are conducted. In this regard, TerreStar notes NTIA's suggestion regarding testing of sharing between federal and non-federal mobile satellite systems.<sup>3</sup>

*Criteria for identifying candidate frequency band(s) for the Test-Bed program.* TerreStar supports the use of nonfederal bands that already are earmarked for emergency communications and that are either contiguous with or relatively close in frequency so that single instruments can use both federal and non-federal spectrum. Additionally, spectrum should be selected to allow operational equipment so that interoperability can be analyzed.

*Authorization for use of the Test-Bed through use of the experimental licensing program.* The Commission seeks comment on whether use of the Test-Bed may be authorized through its experimental licensing procedures or through a rulemaking specifically for the authorization of use and selection of the frequency bands. TerreStar believes that the Commission's experimental licensing program provides sufficient scope and flexibility for the Test-Bed and has the advantage of quick implementation without the regulatory delay of a rulemaking proceeding. This would also preserve Commission resources for overseeing and evaluating the program. Moreover, use of the

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Notice of Proposed Rulemaking, 21 FCC Rcd 3668 (2006) (seeking comment on what technical standards should be allowed for the public safety portions of the 700 MHz spectrum).

<sup>3</sup> 71 Fed. Reg. at 33282.

experimental licensing program would resolve how users of the Test-Bed would affect primary users. Similarly, TerreStar supports use of NTIA's Cooperative Research and Development Agreement ("CRADA") program.

*Roles of the FCC and NTIA in overseeing the Test-Bed program.* TerreStar fully supports the active involvement of both FCC and NITA personnel as overseers of the Test-Bed program. Personnel from both entities can offer valuable experience in evaluating use of the spectrum, and both should take an active role in all phases of the Test-Bed experimentation.

*Challenges of spectrum users that can be resolved by the Test-Bed.* In the homeland security/public safety domain, the communications challenges of first responders have been examined meticulously in the various reports of studies undertaken in the aftermath of the last year's natural disasters and in response to the attacks of 9/11.<sup>4</sup> A well-constructed Test-Bed could produce valuable information on the extent to which sharing spectrum, and experimenting with technologies that take full advantage of shared spectrum, can resolve the issue of public safety interoperability.

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<sup>4</sup> See, e.g., *In the Matter of Recommendations of the Independent Panel Reviewing the Impact of Hurricane Katrina on Communications Networks*, Report and Recommendations to the Federal Communications Commission, EB Docket No. 06-119 (June 12, 2006).

