

The Boeing Company
Experimental STA Application

Pursuant to Section 5.61 of the Rules, The Boeing Company (“Boeing”) respectfully requests that the Commission authorize it, on a temporary basis during the pendency of Boeing’s application to modify existing experimental station license Call Sign WC2XVE, for a period commencing on **July 3, 2002** and not to exceed six months, to operate within the United States up to two (2) of its ten authorized mobile earth stations with phased array antennas installed on a High-Mobility Multipurpose Wheeled Vehicle (“HMMWV”) Mobile Wideband Testbed (“MWT”) (a Boeing-owned “Humvee” with a mobile satellite earth station mounted atop a customized S710 aluminum/rigid-foam shelter) for demonstration purposes and to fulfill a contract with the United States Government. *See* The Boeing Company, Experimental Radio Station Application, File No. 0038-EX-ML-2003 (filed June 13, 2003) at Supplemental Narrative Statement (“Experimental Modification Application”). As demonstrated in the Experimental Modification Application, as supplemented herein, permitting Boeing’s new experimental operations on a temporary basis would serve the public interest.

The public interest factors, technical data and other information supporting grant of Boeing’s Experimental Modification Application are set forth fully therein and, in the interests of administrative convenience, are hereby incorporated by reference. Accordingly, this STA request focuses on the need for expedited grant of temporary authority to conduct the additional experimental operations described in the Experimental Modification Application.

Boeing’s request for special temporary authority commencing on **July 3, 2002** is prompted by the immediate desire to test the HMMWV MWT using the currently authorized phased array antenna earth station, and to demonstrate the HMMWV MWT’s capabilities to U.S. military personnel beginning the week of July 7, 2003. Boeing will use the HMMWV MWT to

The Boeing Company
Experimental STA Application

demonstrate its IDENet data fusion product, which organizes and graphically displays comprehensive battlefield information. This demonstration will show how the IDENet product increases overall battle management awareness by fusing data from geographically separated sources, and the HMMWV MWT will provide communications links for beyond line-of-sight sources. Boeing also may use the HMMWV MWT to conduct testing and demonstrations in support of research and development Contract No. DAB07-01-C-L845 (Topic No. S0102), entered into by Boeing with the U.S. Army Communications-Electronics Command (“CECOM”), to perform stationary and in-motion satellite communications link blockage mitigation and quick-recovery protocol development.

Because the significant benefits of expanding Boeing’s experimental authorization extend well beyond this specific requirements of its near-term testing and demonstrations, Boeing requests temporary authority to conduct the requested additional experimental operations until its underlying Experimental Modification Application is granted. Notably, as discussed in the Experimental Modification Application, Boeing’s experimental operations would help develop techniques for mitigating satellite signal disruption in U.S. military operational environments, would advance the use of broadband satellite communications services to support battlefield and other critical military communications, and would further the development of future combat communications systems. Granting Boeing special temporary authority to conduct experiments to support the development of advanced satellite communications systems for the United States military plainly would serve the public interest.

Moreover, unlike Boeing’s existing experimental and regularly authorized mobile earth station operations, which are conducted on a non-conforming use basis in the 14.0-14.5 GHz uplink band, the experiments proposed herein are fully consistent with the existing secondary

The Boeing Company
Experimental STA Application

Land Mobile-Satellite Service (“LMSS”) allocation in the 14.0-14.5 GHz band. That said, Boeing confirms that it will continue to meet the stated criteria necessary to protect NASA’s TDRSS operations, as well as Radio Astronomy stations observing in the 14 GHz band, as set forth in the applicable agreement and letter referenced in the Commission order granting Boeing’s regular transmit-receive authority. *See The Boeing Company*, Order and Authorization, 16 FCC Rcd. 22645 (Int’l Bur./OET 2001) at n. 20, 21. Boeing also will accept the existing condition in its experimental authorization that its operations will not cause harmful interference to, and shall not claim protection from, any other authorized station operating in accordance with the provisions of the ITU Constitution, ITU Convention and the ITU Radio Regulations. Furthermore, Boeing will continue to operate within the parameters notified to adjacent satellites as documented in previous filings, so this modification will not adversely affect adjacent satellite operators.

Accordingly, Boeing respectfully requests that the Commission expeditiously grant this STA request prior to **July 3, 2003**. If there are any questions concerning this request, please contact the Boeing representatives indicated herein.