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October 27, 2006

VIA ELECTRONIC FILING

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

Re: **Written *Ex Parte* Presentation in
ET Docket No. 04-151 and WT Docket No. 05-96**

Dear Ms. Dortch:

The Boeing Company, by its attorneys, hereby provides written *ex parte* comments on the petitions for reconsideration that were filed in response to the Commission's Report and Order and Memorandum Opinion and Order ("Order") regarding wireless operations in the 3650-3700 MHz ("3650 MHz") band.¹

Boeing has a wide breadth of interests in the Commission's consideration of wireless operations in the 3650 MHz band. As the world's largest manufacturer of commercial and governmental aircraft, Boeing is a heavy user of licensed and unlicensed spectrum in its aircraft manufacturing plants for emergency communications and remote operations of equipment. Boeing also installs numerous wireless communications and passenger support systems on aircraft. Boeing envisions the 3650 MHz band as a source of new wireless spectrum capacity to support some of these mission-critical operations.

Boeing is also a global leader in the design, construction and launch of satellites and other space systems. In this role, Boeing provides ongoing support to satellite operators through out the world in

¹ See *Wireless Operations in the 3650-3700 MHz Band, Rules for Wireless Broadband Services in the 3650-3700 MHz Band, Additional Spectrum for Unlicensed Devices Below 900 MHz and in the 3 GHz Band, Amendment of the Commission's Rules With Regard to the 3650-3700 MHz Government Transfer Band*, Report and Order and Memorandum Opinion and Order, 20 FCC Rcd 6502 (2005) ("Order").

Ms. Marlene H. Dortch
October 27, 2006
Page 2

order to ensure the integrity and reliability of critically-important commercial and governmental satellite communications networks.

Boeing's dual interests in this proceeding place it in a unique position to recommend a compromise approach that the Commission can employ to facilitate wireless operations in the 3650 MHz band that make robust and efficient use of the spectrum, while protecting adequately C-band satellite communications networks that are used in the United States to distribute network news, information, entertainment and emergency video programming to the nation's public.

As an initial matter, Boeing believes that the Commission generally got it right in developing rules for wireless operations in the 3650 MHz band. Boeing therefore recommends that only modest adjustments are warranted in the rules that were adopted, albeit very important adjustments to ensure the protection of C-band satellite communications networks in the United States.

First, Boeing opposes the imposition of an exclusive licensing regime in any portion of the 3650 MHz band. The Commission's adoption of a streamlined licensing mechanism, using a contention-based protocol to rapidly mitigate interference, will enable Boeing and other private entities to use spectrum in the 3650 MHz band on a shared basis with wireless Internet service providers ("WISPs") and other commercial operators that plan to provide broadband services to the public.

The availability of the 3650 MHz band for wireless services provides an opportunity for equipment manufacturers to develop cognitive radio systems that can intelligently share spectrum, both with each other and with adjacent spectrum users, such as C-band satellite earth stations. In contrast, an exclusive licensing approach would greatly limit the number of users that could simultaneously provide services in the 3650 MHz band. A restrictive licensing approach could also stifle innovation in the wireless equipment industry, in part by greatly limiting mass market distribution opportunities for wireless systems designed to operate in the 3650 MHz band.

Second, Boeing urges the Commission to make adjustments in its rules to ensure that wireless operations in the band do not cause harmful interference to C-band satellite earth stations that are used to carry multichannel video programming to television stations and cable headends throughout the country. Boeing supports the petition for reconsideration of the Satellite Industry Association, which detailed the need for reduced EIRP emission limits for terrestrial wireless systems in the upper half of the 3650 MHz band and the need for imposition of the out-of-band ("OOB") emission limits that are specified in Section 15.209(a) of the Commission's rules.

Reduced EIRP limits are necessary in the upper half of the 3650 MHz band to ensure that wireless transmissions do not saturate the low-noise block downconverters ("LNBs") of satellite earth stations operating in the adjacent 3700-4200 MHz band. Operators of wireless systems could accommodate the EIRP limits either by segregating high-power base stations in the lower half of the band or by using the same intelligent spectrum sharing technologies that will enable intra-service spectrum sharing in the 3650 MHz band to ensure that wireless transmitters operate at reduced power levels above 3675 MHz.

Ms. Marlene H. Dortch

October 27, 2006

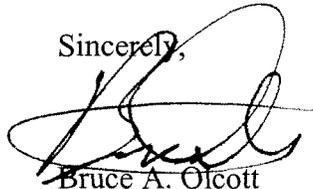
Page 3

In addition, the Commission should adopt an OOB limit for wireless operations in the 3650 MHz band that is no greater than -71.25 dBW/MHz, as proposed in the Commission's Notice of Proposed Rulemaking in this proceeding. A tighter OOB limit is necessary because the Commission's adoption of a light touch licensing regime for the 3650 MHz band is likely to result in heavy use of the band by new wireless technologies. Although Boeing supports robust use of the band, the greater concentration of users will inevitably result in significant harmful interference to conventional C-band receivers operating in the adjacent band unless more stringent OOB limits are adopted.

For the reasons explained herein, the Commission should make only modest adjustments to its Order on reconsideration in this proceeding. The Commission should refrain from adopting an exclusive licensing regime for the 3650 MHz band, relying instead on the minimal licensing and innovative spectrum sharing requirements that were adopted in the Order. At the same time, the Commission should alter its rules to protect adequately C-band satellite earth stations operating in the adjacent spectrum band. The modest changes that are required by the satellite industry are necessary to protect the public interest and will not inhibit robust use of the 3650 MHz band by wireless technologies.

Thank you for your attention to these matters. Please let us know if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read 'Bruce A. Olcott', with a large, stylized flourish above the name.

Bruce A. Olcott

Counsel to The Boeing Company