

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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In the Matter of)
)
Implementation of Sections 309(j) and)
337 of the Communications Act of 1934)
as Amended)
)
Promotion of Spectrum Efficient Technologies)
On Certain Part 90 Frequencies)
)
Establishment of Public Service Radio Pool)
in the Private Mobile Frequencies Below 800 MHz)

WT Docket 99-87

RM 9332

COMMENTS OF THE BOEING COMPANY

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COMMENTS OF THE BOEING COMPANY

I. INTRODUCTION AND SUMMARY

The Boeing Company (Boeing), hereby respectfully submits the following comments in response to the *Notice of Proposed Rulemaking* released on March 25, 1999, in the above captioned proceeding.¹ As set forth fully below, Boeing believes that in implementing the Balanced Budget Act amendments of 1997, the Commission must heed its principal Congressional directive “to continue to use engineering solutions, negotiation, threshold qualifications, and other means in order to avoid mutual exclusivity.”² Further, nothing in the Budget Act amendments suggests that Congress intended the Commission to reevaluate its previous determinations regarding spectrum allocations for private wireless users or to reallocate the overall amount of spectrum available for auction.

¹ “In Re Implementation of Sections 309(j) and 337 of the Communications Act of 1934 as Amended, Promotion of Spectrum Efficient Technologies on Certain Part 90 Frequencies, Establishment of Public Service Radio Pool in the Private Mobile Frequencies Below 800 MHz,” WT Docket No. 99-87, *Notice of Proposed Rulemaking*, FCC 99-52 (rel. Mar. 25, 1999) (*NPRM*).

² 47 U.S.C. § 309(j)(6)(E).

Rather, the statutory exemption for public safety radio services expressly limits the Commission's authority to auction spectrum used by certain private wireless users. By carving out this exemption, Congress recognized that the use of private wireless spectrum raises very distinct considerations and important public interest considerations. Many licensees, like Boeing, depend on private radio spectrum to fulfill highly specialized and critical communications needs for which commercial service is either unsuitable, economically impractical, or simply unavailable. Boeing therefore urges the Commission to implement the Balanced Budget Act amendments, as Congress intended it to, in a manner that acknowledges that auctions are inherently improper for private wireless users who employ their own internal systems and rely on private radio spectrum to protect the safety of life, health and property, and to meet the specialized and critical needs of their day-to-day business operations.

II. BACKGROUND

As the world's largest manufacturer of commercial aircraft and a leading space and defense contractor, Boeing heavily relies on the use of its industrial private land mobile radio (PLMR) licenses, and has an keen interest in this proceeding. Like thousands of other business and industrial (B/ILT) PLMR licensees, Boeing utilizes private radio spectrum to fulfill a wide variety of specialized and critical internal communications needs.

Although many of Boeing's communication demands can be met with wireline or commercial wireless services, there are many more which simply cannot. For example, Boeing's factory floor operations require constant communications between its employees which cannot efficiently, economically, and safely be served without the use

of private mobile radio spectrum. In “man down” situations, and in the remote control of overhead cranes, Boeing heavily relies on its private internal radio systems to protect the safety of life, health and property.

Further, Boeing uses its private radio licenses for a number of different purposes ranging from compliance with aeronautical and industrial regulations; communications with personnel in confined and isolated areas; deployment of fire, security and emergency services; research and development; and, robotics to the control and monitoring of production; material handling; machine programming; inventory management; and, transportation. In all of these applications, Boeing uses its private radio systems to provide internal communications that protect the safety of life, health and property, and enhance the productivity of its manufacturing operations.

From a business perspective, Boeing believes that the benefits of private radio use are intrinsically woven into the fabric of the American economy. Private wireless spectrum offers a productivity and safety tool without substitute, which increases the competitiveness and effectiveness of American businesses. Boeing believes that the principles of coordination and cooperation have served private wireless users well and that competitive bidding is a particularly inappropriate method for the allocation of private radio spectrum. Boeing therefore urges the Commission to embrace the Congressional intent of the Budget Act amendments in a manner that recognizes the needs and the public interest benefits of users of private wireless spectrum.

III. DISCUSSION

A. **The Commission Must Comply With the Congressional Mandate To Avoid Mutual Exclusivity.**

Any implementation of the Balanced Budget Act amendments of 1997 must first acknowledge that Congress flatly restricted the Commission's competitive bidding authority with Section 309(j)(6)(E), which requires the Commission "to continue to use engineering solutions, negotiation, threshold qualifications, and other means in order to avoid mutual exclusivity."³ As specifically stated in the *NPRM*, "notwithstanding the Commission's expanded auction authority, its determinations regarding mutual exclusivity must still be consistent with and not minimize its obligations under Section 309(j)(6)(E)."⁴

The Commission should therefore not attempt to manipulate its private wireless licensing processes in a manner that fabricates the increased occurrence of mutual exclusivity simply as a pretext to pursue auctions. As noted in the *NPRM*, most private wireless spectrum is generally "licensed by processes that do not result in the filing of mutually exclusive applications."⁵ Further, as the Commission itself notes, unless it alters current private wireless "licensing schemes, licenses in these services will not be auctionable under the Balanced Budget Act."⁶

As evidenced by the statutory restrictions of Section 309(j)(6)(E), Congress did not intend for auctions to serve as a wholesale substitute for current methods of allocating private wireless spectrum.⁷ Nor does Boeing believe that Congress intended for the

³ 47 U.S.C. § 309(j)(6)(E).

⁴ See *NPRM* at ¶ 19.

⁵ *NPRM* at ¶ 58.

⁶ *Id.*

⁷ See Congressional Letter from Representative William Tauzin *et. al* to the Honorable William E. Kennard of the Federal Communications Commission dated December 22, 1998 (Wherein discussing the

Commission, through the adoption of new rules or policies, to create mutual exclusivity where it otherwise would not exist. Instead, Boeing maintains that the Balanced Budget Act amendments provide the Commission with a straightforward directive, one which it is obligated to heed. Through the use of spectrum coordinators, the Commission should continue to license private wireless spectrum in an atmosphere of cooperation and on a first come, first served basis. If mutual exclusivity does arise between private wireless users then the Commission should comply with its statutory obligations and resolve such occurrences through technical coordination, negotiation, and threshold eligibility qualifications.

Moreover, as a matter of statutory construction, Boeing believes that Congress intended the obligations specified the Commission's general auction authority of Section 309(j)(1) to take priority over the public interest criteria found in Section 309(j)(3). Thus, as clearly set forth in Section 309(j)(1), before the Commission can employ competitive bidding, it must first hurdle the restrictions outlined in Section 309(j)(6)(E). Then, and only if the public safety radio exemption does not apply, can the Commission utilize the criteria of Section 309(j)(3) to determine a particular service's auction design. Accordingly, Boeing believes any Commission action to convert currently allocated private wireless spectrum for auctionable services must be rejected as inherently inconsistent with the Commission's primary obligations under its competitive bidding authority.

Boeing does not intend to suggest, however, that the Balanced Budget Act amendments of 1997 had no effect on the Commission's auction authority. The

Section 309(j) amendments four Senators and two Congressmen note, "Congress did not engage in an idle act when it legislated this change. It did so for a reason. The Commission must not ignore what Congress enacted by reading this provision out of the law and adopting policies inconsistent with statutory requirements.").

amendments to Section 309(j) do instruct the Commission to resolve, through the use of competitive bidding, instances of mutual exclusivity that cannot otherwise be avoided and are not otherwise exempt. Moreover, Boeing recognizes that for commercial wireless services, auctions are indeed the appropriate market mechanism to allocate spectrum among potential licensees who share common markets and therefore should share common market incentives.⁸ In such cases, the scarcity of the resource translates to an auction value which a bidder can weigh against the anticipation of revenues to be gained through the sale of the use of such spectrum to third parties. Generally speaking, more spectrum should equate to more revenues, and the reduced availability of spectrum to potential competitors should foster greater market share and higher margins. And, under the Budget Act amendments, where the Commission is faced with unavoidable instances of mutual exclusivity, such as for commercial wireless services, it is free to employ competitive bidding to achieve such benefits. But the Budget Act amendments did not direct the Commission to revise its rules or to reallocate any spectrum to achieve a result that would benefit only commercial wireless service providers.

Because commercial users of spectrum anticipate recouping auction costs through the provision of service to third parties for profit, such users would almost always be willing to pay far more than bona fide users of private wireless spectrum in a competitive bidding environment. Consequently, if the Commission were to start auctioning previously allocated private spectrum, users such as Boeing, who have an absolute need for private wireless radio, would be left without recourse but to try to outbid commercial

⁸ See *Ex Parte* Letter to Magalie Roman Salas of the Federal Communications Commission from Kelly Quinn of Squire, Sanders & Dempsey on behalf of The Boeing Company dated May 21, 1999 attaching Boeing's *Ex Parte* Presentation to the FCC, "Frequency Spectrum Issues - Inefficiency License Fees" (filed Feb. 21, 1997).

providers for necessary spectrum. Similarly, pitting private wireless users against each other in tailored auctions for like users would force such users to pay inflated market prices without the potential benefit of recouping their costs through the sale of such spectrum to third parties. Therefore, even if private wireless users were compelled to take time and money away from their core businesses and could successfully compete in an auction environment, these added expenses of obtaining spectrum would trickle down to their product consumers through higher costs, thereby reducing the ability of those businesses to compete in today's global economy. Such a result was not intended by the Balanced Budget Act amendments. Instead, and as discussed fully below, Congress tempered the Commission's auction authority by acknowledging that auctions are not appropriate in all instances, and that auctions should not be the first, last nor only method for spectrum allocation.

Rather than prematurely focusing its attention on whether it should develop methods to reallocate private wireless spectrum for commercial auction purposes, Boeing believes that the Commission should pursue alternative private wireless licensing policies designed to maximize the efficient use of such spectrum. In this regard, Boeing proposes that efficiency-based lease fees are consistent with the Congressional intent embodied in Section 309(j)(6)(E), and provide an appropriate fiscal based incentive for private users who employ their own internal systems. As a practical matter, an efficiency-based system of lease fees (not tied to auction receipts) could consist of a graduated fee structure based upon objectively verifiable efficiency-related factors, such as the amount of assigned bandwidth,

system coverage area, the licensee's use of spectrally efficient technology, the number of channels per unit of spectrum, and/or the amount of throughput per channel.⁹

Whereas auctions would result in negative consequences for private radio users, Boeing believes efficiency based lease fees could reward efficient users of private spectrum with lower fees and discourage inefficient use through higher fees. Such a system would also encourage the deployment of spectrally efficient technologies, thereby speeding the transition to narrowband equipment sought by the Commission's *Refarming* Order, while at the same time recovering for the taxpayer an appropriate portion of the value of the private wireless spectrum being licensed.

Yet, Boeing recognizes that the Commission does not believe it has the authority to pursue such licensing methods. However, in examining alternatives to auctioning spectrum, especially in instances where it is clear that auctions are inappropriate, Boeing implores the Commission to seek the authority it may need to adopt efficient and equitable lease fees. Moreover, and as discussed further below, Boeing believes the instant rulemaking proceeding provides the Commission with a valuable vehicle to address and acknowledge the varying degrees of private wireless users. By evaluating the many market, financial and economic differences between users of private wireless spectrum, the Commission can ensure that private wireless spectrum for internal systems is not diverted for commercial purposes.

⁹ See Boeing's Ex Parte Presentation to the FCC, PR Doc. No. 92-235, "Frequency Spectrum Issues", at 16 (filed Sept. 25, 1995), "Comments of The Boeing Co., PR Docket No. 92-235, at 3 (filed Nov. 20, 1995), Reply Comments of The Boeing Co., PR Docket No. 92-235, at ii (filed Jan. 11, 1996), and Boeing's Ex Parte Presentation to the FCC, "Frequency Spectrum Issues - Inefficiency License Fees" (filed Feb. 21, 1997).

B. Congress Specifically Excluded Bona Fide Private Wireless Users From the Commission's Competitive Bidding Authority.

By limiting its statutory auction authority, Congress sent the Commission an unequivocal message that auctions are not the chief method for allocating spectrum. Further by carving out a broad exemption for public safety radio services, Congress made even clearer the fact that auctions were wholly inappropriate for the allocation of spectrum for certain private wireless purposes.

Specifically, Section 309(j)(2) states that the Commission's auction authority does not apply to "public safety radio services, including private internal radio services used by State and local governments and non-government entities and including emergency road services provided by not-for profit organizations that -- (i) are used to protect the safety of life, health, or property; and (ii) are not made commercially available to the public."¹⁰ In interpreting this exemption for public safety radio services, the *NPRM* seeks comment regarding whether the Commission should adopt language from Part 90 of its rules and define a private internal radio service as:

"a service in which the licensee does not receive compensation, and all messages are transmitted between fixed operating positions located on premises controlled by the licensee and the associated fixed or mobile stations or other transmitting or receiving devices of the licensee."¹¹

While Boeing agrees with the Commission's adoption of the language from Part 90 to define "internal systems", it is concerned that the Commission's proposal to qualify that language with the phrase "*a service in which the licensee does not receive compensation*" might be misconstrued as applying only to private internal radio systems

¹⁰ 47 U.S.C. § 309(j)(2)(A).

¹¹ See *NPRM* at ¶ 32.

used by not-for-profit organizations. In this regard, Boeing notes that the Commission itself acknowledged that the “not-for-profit” restriction applies only to emergency road services and not to other private internal radio systems.¹² Boeing therefore believes a more accurate definition for private internal radio service would be:

“a service for which the licensee does not receive compensation from a third party for the use of spectrum licensed to it, and all messages are transmitted between fixed operating positions located on premises controlled by the licensee and the associated fixed or mobile stations or other transmitting or receiving devices of the licensee.”

By adopting such a precise definition of private internal radio system, the Commission can exclude commercial users of private radio spectrum from the public safety radio services exemption. Boeing believes that such a definition is appropriate and is what Congress intended by including only private internal radio systems within the public safety radio services exemption. As a practical matter, private radio users “share” in a coordinating and cooperating environment while, by definition, providers selling their services to third parties operate in a commercially competitive environment. To continue to blur the distinction between the spectrum needs of private internal radio users and those who are commercial vendors of private radio spectrum creates inequities, regulatory confusion, and reduces the base of commercial service providers to which the Commission should apply auctions.

As the Commission correctly notes, “[p]rivate internal systems are traditionally operated by licensees that require highly customized mobile radio facilities for the conduct of the licensee’s underlying business.”¹³ Yet, despite its understanding of private internal systems, the Commission nonetheless seeks comment on the scope of the

¹² *Id.* at ¶ 34.

¹³ *NPRM* at ¶ 31.

permissible uses for auction-exempt services. Boeing therefore urges the Commission to recognize that Section 309(j)(2) requires only that an exempt service be used to protect the safety of life, health, or property; and not be made commercially available to the public. There is no restriction in the statute to prevent a private internal wireless user from also using its systems in a routine business nature. Boeing indeed relies heavily on its private internal radio system for both productivity and safety. It would therefore be impractical to restrict a business, like Boeing, to using its private internal radio system to protect the safety of its employees and property, but not for the purposes of improved productivity and for day to day business needs. Such a restriction would be illogical as it would lead to inefficient use of valuable radio spectrum. Thus, Boeing believes that any restrictions on the use of private internal radio systems would be contrary to the public interest.

C. The Commission Must Avoid the Further Commercialization of Private Wireless Spectrum

Boeing strongly believes that in implementing the Balanced Budget Act amendments of 1997, the Commission has an opportunity to analyze the policy issues confronting the allocation and use of private radio spectrum, and to take all steps necessary to avoid further commercialization of such spectrum. Boeing therefore urges the Commission to refrain from adopting its proposals to create band manager licenses. Such privatization of currently allocated private wireless spectrum will only serve to further deplete the available spectrum for private wireless users, and force such users to pay market fees plus profit margins for the use of spectrum necessary to meet their critical internal communications needs. Further, by endorsing such a method of licensing, the Commission runs the risk of Band Managers slipping into the role of Band Monopolists. Moreover, such licensing abandons the Commission's public interest role in administering a valuable

commodity, thereby vesting a significant amount of power in the hands of private parties seeking commercial gain.

Likewise, and as Boeing has fully stated on the record in DA 98-2206, the Commission must deny Nextel's requests for waiver to convert private spectrum for commercial purposes.¹⁴ There is no justification in the Balanced Budget Act amendments of 1997 to lead the Commission to the conclusion that it should amend its licensing rules in any band to allow the incorporation of PMRS channels into a commercial system. The spectrum allocated to private wireless eligibles is still needed by private wireless users. Congress has recognized the importance and unique characteristics of private wireless use. Given this recognition, the Commission is obligated to ensure that private wireless spectrum remains available to eligible users. By denying Nextel's waiver requests the Commission has a chance to avoid the further commercialization of private wireless spectrum and to ensure that its policies safeguard spectrum allocated for bona fide users of internally employed private radio systems.

D. The Commission Should Take this Opportunity to Explore the Varying Degrees of Private Wireless Use.

The phrase "private wireless" broadly encompasses many different users. Currently, the varied use of private wireless spectrum ranges from proper public safety purposes to improper commercial applications. Boeing believes that the Commission has the chance in this proceeding to evaluate this varying use and to halt the erosion and improper commercialization of spectrum that has been allocated for private purposes. By examining the differing business interests of spectrum users, the Commission can assess whether their use corresponds with the intended allocation for the spectrum, and can ensure equitable

allocation methods for the varied use. Thus, Boeing proposes that the Commission should examine the variety of users that currently hold private wireless licenses and determine whether, in wake of the Balanced Budget Act amendments, such users remain eligible to operate on frequencies allocated for private wireless purposes.

To reach its determinations, Boeing suggests that the Commission consider all spectrum users on a continuum that stretches from pure private to commercial use. At one pole of the continuum should lie public safety services and pure private wireless users, like Boeing, who use spectrum for private internal radio systems; at the other pole should rest commercial service providers. Public safety services and private internal users, like Boeing, should be considered pure private wireless users and should continue to have access to spectrum without participating in auctions but via efficiency-based fees. Likewise commercial service providers, such as Nextel, should continue to participate in competitive bidding, and should be flatly restricted from gaining access to spectrum reserved for private wireless use (except for their own private internal systems). For all other users of spectrum who lie in the middle of the continuum, including: (1) users of private wireless spectrum for efficiency purposes, such as community repeaters and shared cost systems; (2) private mobile radio system providers that use private frequencies to sell services to other companies, but are not interconnected to the public switched network; and, (3) quasi-commercial users that utilize private wireless frequencies to sell a packaged service in the marketplace, such as certain specialized mobile service providers, the Commission must now determine the most equitable and efficient methods for allocating spectrum for their communication demands and their eligibility for access to private wireless frequencies. In

¹⁴ Boeing hereby incorporates all of its objections to Nextel's waiver request by reference.

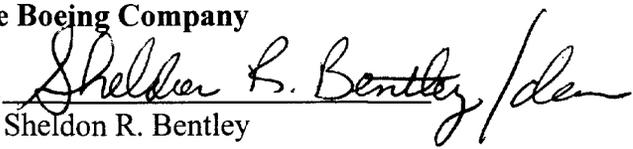
this regard, the Commission might allow community repeater services and certain PRMS providers whose use is predominately private to remain eligible for private wireless frequencies and impose varying degrees of user fees (as opposed to auctions for spectrum allocation), but find that quasi-commercial applications, such as certain SMR use, are ineligible for private wireless spectrum and are better served through competitive bidding. In all of the Commission's determinations, however, Boeing believes that it must ensure that it continues to equitably allocate sufficient spectrum for pure private wireless users, who rely on radio use as an integral part of their day to day business operations to improve productivity and to protect the safety of life, health and property. And, it must continue to do so without the use of competitive bidding.

IV. CONCLUSION

For all of the reasons set forth above, Boeing urges the Commission to implement the Balanced Budget Act amendments, as Congress intended it to, in a manner that acknowledges that auctions are inherently improper for pure private wireless users.

Respectfully submitted,

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