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FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

ET Docket No. 95-18

In the Matter of

**Amendment of Section 2.106 of the
Commission's Rules to Allocate
Spectrum at 2 GHz for Use
by the Mobile-Satellite Service**

COMMENTS OF THE BOEING COMPANY

The Boeing Company ("Boeing"), by its attorneys, hereby submits the following comments in response to the *Third Notice of Proposed Rule Making* ("Notice") in the above-captioned proceeding.¹ Boeing is one of the nine potential licensees that has filed an application or letter of intent to provide 2 GHz Mobile-Satellite Service ("MSS").² As such, it has a direct interest in the subject proceeding. Boeing limits its initial comments to the relocation of Broadcast Auxiliary Service ("BAS") licensees and Fixed Service ("FS") microwave licensees.

Boeing's comments in this proceeding reflect Boeing's dual motivations and experiences with FCC-imposed spectrum reallocation. On one hand, Boeing is seeking Commission authority to construct a MSS system designed to provide aeronautical safety communication services on a global basis. In this position, Boeing is concerned about the significant financial burden that incumbent compensation could create for MSS licensees.

¹ *Memorandum Opinion and Order and Third Notice of Proposed Rule Making and Order*, ET Docket No. 95-18, 1998 FCC LEXIS 6026 (Released November 25, 1998) ("*Memorandum Opinion and Order and Notice*").

² File Nos. 179-SAT-P/LA-97 (16), 90-SAT-AMEND-98; See *Memorandum Opinion and Order and Notice* at ¶ 8.

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On the other hand, having experienced uncompensated relocation of its own Ku-band fixed microwave network in the early 1980s, Boeing is mindful of the difficulties and expense that such relocation can entail for relocated parties. Boeing believes that its extensive background with incumbent relocation – both as a relocated incumbent and, now, as a potential new licensee – places Boeing in a unique position to provide balanced commentary on the questions raised in the *Notice*.

Boeing believes that, to the extent that incumbent relocation is necessary in the 2 GHz MSS band, the Commission should adopt relocation procedures that compensate incumbents solely for their legitimate costs of relocation, narrowly defined as comparable service using other frequency bands. Such procedures must not allow incumbents to extort payments from MSS licensees, such as by attempting to base compensation on the value of cleared spectrum to the new entrants. In addition, incumbents should only be compensated to relocate facilities that were in service at the time the Commission announced that the 2 GHz spectrum would be reallocated to emerging technologies. Moreover, incumbents should only be able to recover the depreciated basis of its equipment as of the time of the actual relocation. Boeing urges the Commission to adopt procedures that reflect reality and deter gamesmanship by relocated incumbents.

In this vein, Boeing generally concurs with the policies and procedures adopted by the Commission in its *Emerging Technologies* proceeding, as modified in the *Microwave Relocation Cost-Sharing* proceeding, which permits and then requires relocation negotiations between the parties.³ Boeing acknowledges, however, that the nature of BAS service and the transition to a

³ See *Redevelopment of Spectrum to Encourage Innovation in the Use of New Telecommunications Technologies* (“*Emerging Technologies*”), ET Docket No. 92-9, *First Report and Order and Third Notice of Proposed Rule Making*, 7 FCC Rcd 6886 (1992); *Second Report and Order*, 8 FCC Rcd 6495 (1993); *Third Report and Order and Memorandum Opinion and Order*, 8 FCC Rcd 6589 (1993); *Memorandum Opinion and Order*, 9 FCC Rcd 1943 (1994); *Second Memorandum Opinion and Order*, 9 FCC Rcd 7797 (1994); *Amendment to the Commission’s Rules Regarding a Plan for Sharing the Costs of Microwave Relocation* (“*Microwave Relocation Cost-Sharing*”), WT

new channelization plan may make it difficult for MSS licensees to negotiate with individual BAS licensees. In addition, at this time, neither the MSS licensees or the Commission has sufficient information regarding current BAS operations and equipment to propose a specific transition/relocation plan. Therefore, Boeing supports the idea of allowing the MSS and BAS communities to negotiate an appropriate transition/relocation plan. Boeing believes that the success of such negotiations is in part contingent on the speed with which terrestrial licensees are forthcoming with detailed information about their existing facilities. Finally, Boeing believes that the effectiveness of any negotiations between the MSS and BAS communities would be greatly increased if the Commission encouraged both communities to designate in a timely manner national representatives.

I. Allocation of Relocation Costs Among MSS Licensees.

The Commission proposes that MSS licensees should compensate BAS licensees for equipment costs associated with reallocation, in accordance with the *Microwave Relocation Cost-Sharing* policies.⁴ The Cost-Sharing Plan adopted in the *Microwave Relocation Cost-Sharing* proceeding allocates the costs of relocating individual microwave links among all incumbent licensees that are benefited by the relocation.⁵ Under the Commission's *Microwave Relocation Cost-Sharing* plan, a MSS licensee that paid to relocate an incumbent licensee would be entitled to reimbursement based on a cost-sharing formula.⁶ This formula takes into account the amortized cost of the relocation, the total number of licensees benefited, and the relative time

Docket No. 95-196, *First Report and Order and Further Notice of Proposed Rule Making*, 11 FCC Rcd 8825 (1996); *Second Report and Order*, 12 FCC Rcd 2705 (1997).

⁴ *Memorandum Opinion and Order and Notice* at ¶ 42.

⁵ *Microwave Relocation Cost-Sharing, First Report and Order and Further Notice of Proposed Rule Making* at ¶¶ 69-85 and Appendix A.

⁶ *Id.* at ¶ 69.

of market entry. As noted by the Commission in its *Microwave Relocation Cost-Sharing* proceeding, the benefit of being first in the marketplace far outweighs the burden of bearing the costs of relocation.⁷ Therefore, the premium costs associated with being the first new entrant should not be passed on to subsequent licensees. In addition, pursuant to the *Microwave Relocation Cost-Sharing* proceeding, reimbursement obligations should only attach to a MSS licensee when that licensee begins commercial service.⁸

Boeing also acknowledges that the nationwide licensing scheme for MSS differs from the Personal Communications Services (“PCS”) licensing scheme under which the *Microwave Relocation Cost-Sharing* rules were adopted. As such, any cost sharing formula to be used by MSS licensees must be modified accordingly. For example, one factor not addressed in the *Microwave Relocation Cost-Sharing* proceeding is the possibility that clearing some portions of the 2 GHz band may cost significantly more than clearing other portions of the band. This imbalance could result in an inequitable distribution of relocation costs between 2 GHz MSS licensees, particularly if the Commission adopts a MSS spectrum sharing policy that includes band segmentation. The Commission should avoid such competitive inequity by adopting a mechanism that fairly apportions costs between MSS licensees once those licensees begin commercial operation of their systems. Under such an approach, if the compensation expenses of later-launched MSS systems exceed the expenses of earlier-launched MSS systems (on a per-MHz basis corrected for inflation), earlier-launched MSS systems should be required to compensate later-launched systems to correct the imbalance.

⁷ *Id.* at ¶ 74.

⁸ *Id.* at ¶ 73.

II. Relocation of BAS Licensees in the 1990-2110 MHz Band.

The issues of the transition of BAS to new technology and the relocation of BAS licensees must be addressed together, despite the Commission's apparent efforts to separate the issues. As noted by the Commission, the transition of BAS to new technology is complicated by the nature of the service. The *Notice* states that BAS licensees will have difficulty coordinating the efficient use of new BAS equipment operating on 12- and 13-MHz channels with old BAS equipment operating within the same spectrum on 17- and 18-MHz channels. As such, the Commission proposes that it will not allow existing BAS systems to continue to operate on 17-MHz channels within the reduced 85 MHz band segment.⁹

The *Notice* tentatively concludes that the Commission should require simultaneous retuning or replacement of all BAS equipment nationwide on a date certain.¹⁰ The *Notice* subsequently acknowledges, however, the numerous problems that are likely to result from such an approach. For example, a simultaneous transition would place a potentially unmanageable financial burden on MSS licensees. This financial burden could be increased by the premature adoption of a single equipment replacement or retuning approach. In contrast, a phased transition would permit negotiating parties to explore and identify the most economical means to accomplish relocation. A phased approach could be particularly beneficial to BAS licensees in medium and small television markets, where decisions about changes in technology are often based on the prior experiences of licensees in major cities.

Furthermore, the *Notice* proposes to require retuning or replacement of BAS equipment, in accordance with the *Emerging Technologies* policies, as modified by the decisions in the

⁹ *Memorandum Opinion and Order and Notice* at ¶ 37.

¹⁰ *Id.* at ¶ 39.

Microwave Relocation Cost-Sharing proceeding.¹¹ It is unclear how MSS licensees would have the freedom to negotiate the relocation of BAS licensees if the Commission mandated a simultaneous retuning or replacement of all BAS equipment. Instead, the Commission should adopt the phased transitional approach advocated by the MSS coalition in its supplemental comments filed in response to the first NPRM in this proceeding.¹²

In the *Memorandum Opinion and Order* that accompanied the *Notice*, the Commission affirmed its decision in the *First Report and Order and Further Notice of Proposed Rule Making* (“*First R&O/Further Notice*”) to apply to the 2 GHz allocations the cost recovery policies established in the *Emerging Technologies* proceeding.¹³ The Commission undertook the *Notice*, *inter alia*, to consider the details of how to apply these policies to the relocation of the BAS spectrum; however, neither the MSS licensees nor the Commission has the necessary information to determine a specific relocation or transition plan.¹⁴

Once the Commission assigns specific frequencies to the MSS licensees and business plans are further developed, the MSS licensees will be better able to determine which BAS licensees must be relocated. However, only through negotiations with the BAS licensees will the MSS industry be able to determine an efficient relocation plan, including whether BAS licensees must be relocated collectively. The Commission has stated that information regarding 2 GHz incumbent licensee facilities and operations is properly part of the negotiation process.¹⁵ It is

¹¹ *Id.* at ¶ 44.

¹² See *MSS Coalition Supplemental Comments* at 14-16, 22.

¹³ *Memorandum Opinion and Order and Notice* at ¶ 35.

¹⁴ *Id.*

¹⁵ *Amendment of Section 2.106 of the Commission's Rules to Allocate Spectrum at 2 GHz for Use by the Mobile-Satellite Service*, ET Docket No. 95-18 (FCC 98-309) (released November 25, 1998), slip op. at ¶ 55.

inconsistent for the Commission to deem that information as properly part of a negotiation process and then mandate a transition plan. As such, Boeing supports the negotiation of an appropriate transition plan by the MSS and BAS communities.

The lack of sufficient information regarding BAS operations and equipment also caused the Commission to propose to defer to the business decisions of the negotiating parties whether it is most economical and efficient to retune or replace existing BAS equipment.¹⁶ The Commission states that the record suggests that in order for a BAS licensee to operate within a 12-MHz channel, as contemplated in the revised allocation proposal, existing analog BAS equipment must either be modified extensively or replaced with digital equipment. The Commission also states that the record contains little or no data on whether analog and digital BAS signals could be transmitted on adjacent channels without mutual interference.

Boeing supports the Commission's proposal to defer to the negotiating parties whether BAS equipment should be retuned or replaced. In order to ensure that the relocation of BAS licensees is done in an economical and efficient manner, the parties must have the freedom to enter into any arrangement that accomplishes that goal. Boeing agrees with the Commission's statement that innovations and changing technologies may render outdated any Commission decision about appropriate transition technologies even before the first piece of existing BAS equipment is retrofitted or replaced.¹⁷ Furthermore, the Commission should not adopt any policies without sufficient knowledge to make a well-reasoned decision. In this case, the Commission admittedly lacks sufficient knowledge to make such a decision. Finally, MSS

¹⁶ *Memorandum Opinion and Order and Notice* at ¶ 36

¹⁷ *Id.*

licensees should not be required to pay to upgrade to digital BAS licensees' equipment if the BAS licensees can be relocated and provided comparable capabilities by retuning the equipment.

This issue is directly related to the Commission's inquiry as to whether it should establish criteria to gauge the acceptability of replacement BAS equipment.¹⁸ The Commission should develop accepted criteria to determine not only the acceptability of replacement equipment, but also whether retuning provides a BAS licensee with capabilities comparable to those it had prior to relocation. Such criteria are necessary regardless of whether the Commission requires simultaneous retuning or replacement of all BAS equipment nationwide on a date certain, or if MSS licensees are permitted to negotiate the relocations of BAS licensees, either collectively or individually.

The comparable facilities criteria adopted by the Commission in the *Microwave Relocation Cost-Sharing* proceeding apply only as a condition for involuntary relocation. Similar criteria in the context of BAS equipment would provide the parties with guidance as to what the BAS licensees would be entitled to if forced to relocate.¹⁹ Such guidance would be extremely beneficial to both sides during any relocation negotiations, and would likely lead to greater voluntary relocation agreements. Therefore, Boeing supports the establishment of criteria to gauge the acceptability of replacement or retuned BAS equipment.

¹⁸ *Id.* at ¶ 43.

¹⁹ *Microwave Relocation Cost-Sharing, First Report and Order and Further Notice of Proposed Rule Making* at ¶¶ 24-34.

III. Relocation of FS Microwave Licenses in the 2110-2150 MHz and 2165-2200 MHz Bands.

With respect to incumbent FS microwave licensees, the Commission also proposes to provide for relocation pursuant to the *Microwave Relocation Cost-Sharing* policies. Specifically, the Commission proposes to provide for FS relocation using the same sunset period and good faith guidelines as those used by PCS licensees.²⁰

As the Commission concluded in the *Microwave Relocation Cost-Sharing* proceeding, a ten-year sunset period strikes a fair balance between the interests of incumbent FS licensees and the emerging technology licensee.²¹ The analysis performed by the Commission at that time remains valid. The rule serves the public interest because it provides certainty to the process and prevents MSS licensees from being required to pay for relocation expenses indefinitely. In addition, as noted properly by the Commission, a sunset date is important because it provides a 2 GHz FS incumbent with an incentive to relocate to other bands when it changes or replaces equipment.²² Finally, some of the Commission's reasoning holds more true today than it did in 1996. That is, incumbent FS licensees have had sufficient time to plan for relocation since the Commission announced in 1992 its intention to reallocate the 2 GHz spectrum.²³

The Commission's rationale for requiring that the parties negotiate in good faith during the mandatory period also remains valid today.²⁴ The guidance that the Commission provided to PCS and FS licensees, has resulted in the rapid deployment of PCS throughout the country. As

²⁰ *Memorandum Opinion and Order and Notice* at ¶ 49.

²¹ *Microwave Relocation Cost-Sharing, First Report and Order and Further Notice of Proposed Rule Making* at ¶¶ 60-68.

²² *Id.* at ¶ 67.

²³ *Id.* at ¶ 66.

²⁴ *Id.* at ¶¶ 16-22.

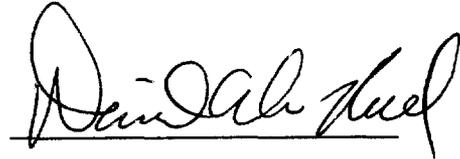
the process continues, the experiences of the PCS licensees will be available to the MSS licensees. As such, specific rules defining good faith are not necessary.

For all of the above reasons, Boeing strongly recommends that the Commission adopt rules and policies consistent with the comments provided herein.

Respectfully submitted,

The Boeing Company

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