

JUL - 7 1993

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

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of)

)
)
Amendment of the Commission's Rules)
to Establish Rules and Policies)
Pertaining to a Non-Voice, Non-)
Geostationary Mobile Satellite)
Service)

CC Docket No. 92-76

**REPLY TO SUPPLEMENTAL COMMENTS OF
ORBITAL COMMUNICATIONS CORPORATION
AND STARSYS GLOBAL POSITIONING, INC.**

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EXECUTIVE SUMMARY

dbX Corporation ("dbX") hereby responds to the June 18, 1993 Supplemental Comments of Orbital Communications Corporation ("ORBCOMM") and the June 25, 1993 Supplemental Comments of Starsys Global Positioning, Inc. ("STARSYS") in the above-captioned proceeding. dbX requests that the Commission reject the untimely and procedurally defective ORBCOMM and STARSYS Supplemental Comments. Additionally, dbX reiterates its position that both ORBCOMM and STARSYS, now after three rounds of pleadings, have thwarted any meaningful discussion of competitive issues and provided nothing more than unproductive rhetoric in response to dbX's concerns about a lack of competition and opportunity for multiple entry in the Non-Voice, Non-Geostationary Mobile Satellite Service ("NVNG MSS").

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Service ("NVNG MSS").

I. The Supplemental Comments undermine the integrity of the Commission's rulemaking proceeding and should be rejected

In filing their supplemental comments both ORBCOMM and STARSYS have ignored the procedures the Commission established for this proceeding. In the Notice of Proposed Rulemaking,¹ the Commission established filing deadlines for comments and reply comments. Those two pleading cycles were completed on May 26, 1993. Notwithstanding the Commission's schedule, both ORBCOMM and STARSYS have ignored the Commission's procedures and submitted untimely filings. Neither ORBCOMM nor STARSYS has identified any change in circumstances or new information that was not available when these parties submitted their May 26, 1993 reply comments. Instead, each has unilaterally extended the pleading cycle, without sufficient justification and without contributing information that was not already before the Commission. In light of ORBCOMM's and STARSYS' failure to follow the Commission's procedures and their failure to provide an adequate explanation for these untimely filings, the Supplemental Comments should be rejected. Any other response by the Commission will undermine the integrity of this proceeding. In the event the Commission accepts the supplemental comments, dbX offers its response below.

¹ Amendment of the Commission's Rules to Establish Rules and Policies Pertaining to a Non-Voice, Non-Geostationary Mobile Satellite Service, FCC 93-28 (February 10, 1993) ("Notice").

If the Commission does accept these Supplemental Comments, dbX urges the Commission to reject additional rounds of comments in this proceeding. dbX has not raised any new issues in the context of this reply to the Supplemental Comments and does not intend to participate in endless rounds of unproductive pleadings which will merely serve to delay the introduction of this important new service.

- II. **dbX's May 26, 1993 Reply Comments responded directly to the repeated assertions in the initial comments that the proposed rules will provide sufficient protection for competition**

Both ORBCOMM and STARSYS assert that the May 26, 1993 dbX reply comments were not responsive to the initial comments filed on April 26, 1993.² These assertions mischaracterize the dbX pleading and must be viewed as self-serving attempts to justify the ORBCOMM and STARSYS untimely filings.

Both ORBCOMM and STARSYS have repeatedly noted their support for competition in the NVNG MSS, but neither has provided any specific information as to how competition would be achieved. For example, ORBCOMM stated in its initial comments that the proposed rules "should allow the Commission to license the current applicants expeditiously, while also allowing for entry by future applicants."³

² ORBCOMM Supplemental Comments at 1; STARSYS Supplemental Comments at 1.

³ ORBCOMM Comments at 4.



repeatedly raised. ORBCOMM stated that the Negotiated Rulemaking ("NRM") concluded that "future entry should be possible"⁷ and that there will be "intraservice competition among the current applicants (along with the potential for future entry)".⁸ Similarly, STARSYS stated that the proposed rules "provide sufficient opportunities for future entry". Unfortunately, neither ORBCOMM nor STARSYS has felt compelled to demonstrate what part of the proposed rules it relied on in drawing these conclusions, and dbX is unable to find any explanation of how future entry will be accomplished or made possible.

Although dbX accepts STARSYS' polite protestations that it "is not out to abet the duopolization of the NVNG MSS market",⁹ dbX recognizes that this statement is nothing more than a smoke screen. Neither ORBCOMM nor STARSYS has been able to justify its statements concerning competition during the three years of discussion in this proceeding, including the three rounds of comments. The best they can do is to offer bland platitudes supporting competition and multiple entry and to portray dbX as an outsider, a newcomer to the process of developing the NVNG MSS rules.¹⁰

⁷ NRM Report at 7.

⁸ ORBCOMM Supplemental Comments at 2.

⁹ STARSYS Supplemental Comments at 2.

¹⁰ STARSYS Supplemental Comments at 4.

IV. ORBCOMM and STARSYS have misinterpreted the purpose of the dbX Reply Comments and proposed rules

Contrary to ORBCOMM's and STARSYS' assertions, the dbX Reply Comments and proposed rules were merely an attempt to balance the needs of the initial applicants against the interest of the Commission and the public in preventing the warehousing of frequency and promoting competition and multiple entry for the NVNG MSS. It should be made clear that dbX does not support the adoption of a rigid plan for this service. To the contrary, dbX believes that the Commission should allow different systems to evolve in a manner responsive to the market. What the Commission should not and must not do is allow the applicants to use the regulatory process to impede competition.

To ensure that the Commission's regulations would promote competition, dbX attempted to craft rules which would prevent licensees from warehousing all the available frequency without an explicit demonstration of actual need. It is not dbX's intention to have the Commission reduce power flux density ("PFD") levels or limit frequency for NVNG MSS systems operating at or near capacity. Rather, dbX has proposed that the Commission reduce the initial frequency assignments and power flux density levels for the initial licensees without impairing the economic viability of these systems. As these licensees fill their systems and demonstrate sufficient usage levels to the Commission, additional frequency or higher PFD levels may be authorized, if possible. This approach will encourage the initial

licensees to efficiently use their systems. Moreover, it will permit additional entities to enter the market if spectrum remains unused.¹¹

STARSYS has objected to the dbX regulatory proposals stating that dbX would "throttle the nascent industry and the current applicants with regulations that cast a cloud over the future of the services."¹² STARSYS also claims that the dbX proposal "would have a devastating economic impact" and "would threaten the viability of the STARSYS project."¹³ Although dbX appreciates the hyperbole contained in STARSYS' prose, it finds the lack of analysis to support any of these statements particularly ironic in light of STARSYS' claim that the dbX reply comments were "bereft of any analysis."¹⁴ dbX has an especially difficult time reconciling STARSYS' view that the proposed rules will allow for future entry but the dbX rules will destroy the viability of the entire NVNG MSS service.

V. Responses to Specific Issues Raised by ORBCOMM and STARSYS

There are several specific issues raised in the Supplemental Comments that dbX must answer. First, ORBCOMM argues that dbX's statement that it is not economically feasible for NVNG satellite systems to operate in the UHF and VHF

¹¹ It is interesting to note that ORBCOMM believes that the proposed rules will allow future entry but feels compelled to argue that a creation of a duopoly for this service is not anti-competitive.

¹² STARSYS Supplemental Comments at 2-3.

¹³ Id.

¹⁴ STARSYS Supplemental Comments at 6.

band is unsubstantiated. As ORBCOMM knows, it is generally understood that any communications system that uses widely spaced frequency segments to achieve sufficient aggregate bandwidth (and hence capacity) will incur a cost penalty in terms of both extra satellite communications payload equipment and higher cost ground and satellite equipment. Certainly, the more costly an operator's equipment (especially the user terminal), the less viable that operator can be as a competitor.

Second, ORBCOMM states that multiple applicants can share the same pool of channels using the Dynamic Channel Activity Assignment System ("DCAAS"). Although dbX recognizes that this may be technically feasible (and indeed dbX proposed this as an alternative in its reply comments, contrary to the assertions of ORBCOMM), it is important that ORBCOMM implement a DCAAS scheme that specifically allows for the use of a shared pool of channels between multiple operators and that ORBCOMM's license be conditioned upon demonstrating that this is the case. Otherwise, future entrants proposing to use TDMA-based technology will be forced to allow ORBCOMM to control access to frequency for their new satellite systems. dbX is puzzled by ORBCOMM's position on this issue since, in the same pleading, ORBCOMM argues that future applicants should be provided the opportunity to "propose systems vastly different than those proposed by the current applicants."¹⁵ If different systems are to be implemented, the Commission cannot allow ORBCOMM to use vast amounts of the available spectrum for DCAAS.

¹⁵ ORBCOMM Supplemental Comments at 4.

Third, STARSYS completely misconstrued dbX's coordination proposals. At no time did dbX propose pre-licensing coordination. Rather, dbX's proposals are designed to facilitate coordination between Commission licensees. dbX believes very strongly that if the Commission is going to institute a new service with minimal technical rules, it must establish a detailed coordination process that protects the interests of new licensees. This means that existing operators should be under an affirmative obligation to accommodate new entrants and should provide public disclosure of all coordination agreements. Without such disclosure it will be virtually impossible for future applicants to design and propose compatible systems. Certainly any burdens or delays associated with the dbX proposals will be minimal, especially when balanced against the public interest in promoting competition.

Fourth, STARSYS argues that additional entry will be possible after additional frequency is made available in 1997. This is preposterous. In 1997, two 150 kHz segments will become available. Both of these segments, however, are

to imagine that STARSYS will not incorporate all allocated frequencies into its satellite design from the outset. STARSYS is aware that there will be some countries that will allow the use of particular frequencies that other countries prohibit, and the cost of incorporating flexibility to overcome this problem is negligible. Besides, one of the advantages of a CDMA system is that increased traffic requires increased aggregate power levels, and not necessarily increased bandwidth. Such power levels will be controlled from the ground with the satellite in orbit. The issue of retro-fitting spectrum capability is therefore not relevant to a CDMA system. Even dbX as a "newcomer" to this proceeding has determined that it would be foolish not to incorporate maximum frequency flexibility on the front end when the cost is minor. dbX certainly recognizes that modifications to the satellite would be expensive or impossible once the satellites are in space.

Finally, STARSYS' claims that dbX's technical analysis suffers from a series of fatal oversights, is not substantive and is in fact wrong. STARSYS indicates that dbX ignores the fact that government used frequencies will be available in the future. The dbX technical analysis' conclusion that the STARSYS PFD levels almost saturate the available spectrum¹⁶ is true regardless of any other users (government and commercial) in that spectrum. Additionally, STARSYS suggests that by some magic of advanced technology, future NVNG MSS systems will not be similar to the
ORPCOMM or STARSYS systems and may be economically viable using much less

spectrum. If STARSYS believes that there are more efficient technologies, dbX is curious why such technologies are not being used now. STARSYS concludes by stating that "dbX's technical analysis simply does not support dbX's central tenet that approval of the applicants' proposed frequency plan would consciously or otherwise freeze out future competition".¹⁷ This is not true. The dbX Reply Comments (Figure A-2) clearly demonstrate that STARSYS will saturate the available spectrum and, by definition, exclude future systems from that frequency band.

CONCLUSION

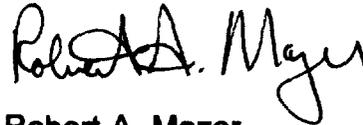
The Commission's consideration of the issues presented in this proceeding commenced approximately three years ago with the submission of NVNG MSS applications by ORBCOMM, STARSYS and VITA. Since these applications were filed, the Commission has used the Negotiated Rulemaking and this proceeding for the purpose of developing a regulatory framework for the NVNG MSS. In the Negotiated Rulemaking, the three applicants carefully crafted rules and policies that would allow their pending applications to be granted. These rules and policies were opened for public comment in the Notice.¹⁸ In its comments, dbX provided a detailed and comprehensive technical analysis of the competitive implications of these rules and concluded that their practical effect would be the creation of a duopoly for the NVNG MSS. Today, there is no record in this proceeding to support the creation of a

¹⁷ STARSYS Supplemental Comments at 7.

¹⁸ See Notice at ¶ 6.

duopoly for the NVNG MSS. The tenor and emotion of the Supplemental Comments demonstrate the applicants' sensitivity to this issue. Certainly, ORBCOMM and STARSYS are well aware that the Commission cannot ignore the competitive implications of the proposed rules and must properly balance the public interest with the interests of the applicants. The dbX proposals were designed with this in mind. It is for this reason that dbX urges the Commission to closely scrutinize the rules developed by ORBCOMM, STARSYS and VITA so that they adequately promote competition and minimize the likelihood that a duopoly will develop for this important new service.

Respectfully submitted,



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CERTIFICATE OF SERVICE

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