

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

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In the Matter of)	
)	
Amendment of Part 22 of the Commission's)	WT Docket No. 03-103
Rules To Benefit the Consumers of Air-)	
Ground Telecommunications Services)	
)	
Biennial Regulatory Review - Amendment of)	
Parts 1, 22, and 90 of the Commission's Rules)	
)	
Application of Verizon Airfone Inc. for)	File No. 0001716212
Renewal of 800 MHz Air-Ground)	
Radiotelephone License, Call Sign KNKG804)	
_____)	

**REPLY OF SPACE DATA CORPORATION TO OPPOSITIONS TO PETITION FOR
CLARIFICATION AND RECONSIDERATION**

Space Data Corporation (“Space Data”), pursuant to Section 1.429 of the Commission’s rules,¹ replies to oppositions to Space Data’s petition for clarification and reconsideration (“Petition”) of certain aspects of the Commission’s February 22, 2005 Report and Order that adopted new service rules for commercial air-to-ground (“ATG”) licenses (the “*ATG Order*”).² The oppositions, in effect, would unreasonably deny Space Data the ability to use its network of balloon-borne stratospheric platforms to provide ATG and limited terrestrial services, in violation of longstanding Commission policies to promote new, innovative, and affordable wireless services and to increase regulatory flexibility for the provision of those services. Moreover, the oppositions do not raise any valid concerns that would prevent ATG licensees

¹ 47 C.F.R. § 1.429.

² *Amendment of Part 22 of the Commission’s Rules to Benefit the Consumers of Air-Ground Telecommunications Services*, 20 FCC Rcd 4403 (2005) (“*ATG Order*”).

from offering ancillary terrestrial services on a limited and non-interfering basis to unserved and underserved areas. Accordingly, the Commission should: (1) confirm that the new ATG service rules encompass the use of balloon-borne stratospheric platforms (and similar technologies) to provide ATG services, and (2) reconsider its decision prohibiting an ATG operator from providing ancillary terrestrial services using its license in the ATG band on a secondary basis.

I. NEXTEL OFFERS NO VALID SUPPORT FOR ITS OPPOSITION TO USING BALLOON-BORNE STRATOSPHERIC PLATFORMS TO PROVIDE COMMERCIAL ATG SERVICES.

Only Nextel Communications, Inc. (“Nextel”), alone among the commenters, opposes Space Data’s request that the Commission clarify that operators may use balloon-borne stratospheric platforms to provide commercial ATG services. The Commission should reject Nextel’s baseless attempt to stymie the development and use of a proven, innovative wireless technology. Although the operability of Space Data’s balloon-borne wireless network appears to form the general basis of Nextel’s opposition,³ Nextel never questioned the technical capabilities of Space Data’s system at any time during the Commission’s deliberations to revisit the service rules for the ATG band. Space Data thoroughly documented in this proceeding how its network functions, how it can be used to provide ATG services, and how the use of stratospheric platforms will not create harmful interference to other wireless licensees.⁴ Space Data also has

³ Nextel Communications, Inc., Opposition to Petition for Reconsideration, at 2, 6-7, WT Docket No. 03-103 (June 16, 2005). Oppositions to Space Data’s Petition will hereinafter be short-cited.

⁴ See Reply Comments of Space Data, WT Docket No. 03-103 (Oct. 23, 2003); Ex Parte Letter from Cheryl A. Tritt, counsel to Space Data, to Marlene H. Dortch, Secretary, Federal Communications Commission, and attached presentation (June 14, 2004) (“Space Data June 14 Ex Parte”); Ex Parte Letter from Cheryl A. Tritt, counsel to Space Data, to Marlene H. Dortch, Secretary, Federal Communications Commission, and attached Air-to-Ground Analysis (Sept. 9, 2004) (“Space Data Sept. 9 Ex Parte”); Ex Parte Letter from Cheryl A. Tritt, counsel to Space Data, to Marlene H. Dortch, Secretary, Federal Communications Commission, and attached presentation (Nov. 2, 2004).

repeatedly demonstrated that its commercially operational stratospheric network performs extremely well and offers high quality, reliable service.⁵

Moreover, the *ATG Order* acknowledges Space Data's expressed interest in participating in an ATG spectrum auction and adopts in large part a Space Data ATG licensing proposal. The Commission specifically concludes that an exclusive license approach as supported by Space Data "can be deployed without causing harmful interference to adjacent services..., provided that the licensees are aware of the potential for such interference and take necessary measures to comply with our rules to prevent such interference."⁶ At no time during the proceeding or anywhere in the *ATG Order* did the Commission express any concerns about Space Data's network and its ability to provide competitive ATG services. Space Data simply requests that the Commission correct an oversight by clarifying that its decision to ensure technologically neutral ATG services extends to airborne balloon systems.

Nextel also argues that Space Data does not demonstrate whether or how a "four-stage" (referring to the number of communications links needed to provide ATG services) balloon-based network can operate in the ATG band, which Nextel claims is allocated for a "two-stage" system.⁷ As an initial matter, Nextel provides no support whatsoever for its suggestion that the ATG band is limited to "two-stage" communications networks. Neither the Commission's rules nor the *ATG Order* limits ATG system design or regulates the number of communications links

⁵ See e.g., Space Data June 14 Ex Parte (detailing Space Data's existing coverage and commercially deployed wireless services and applications); Space Data Sept. 9 Ex Parte (further describing Space Data's network); ULS File No. 0001900882 (granting Space Data's construction showing for a nationwide narrowband PCS license that is based upon its balloon-borne stratospheric network).

⁶ *ATG Order*, 20 FCC Rcd at 4437.

⁷ Nextel Opposition at 6-7.

that those systems might employ. Nextel's suggestion that the Commission preclude Space Data from providing ATG services using stratospheric platforms undermines the Commission's support for technology neutral telecommunications services and longstanding Commission policy. In fact, the Commission specifically sought to adopt new ATG service rules in order to promote the provision of efficient, competitive wireless services. Indiscriminately restricting the operations of ATG providers, as Nextel proposes, would deny consumers the ability to choose among a full array of innovative services and products.

Nextel also erroneously singles out Space Data to explain how its stratospheric-based network would correspond with existing bilateral agreements with Canada and Mexico.⁸ The Commission, however, explicitly acknowledges in the *ATG Order* that the significant amendments made to the ATG service rules may require it to renegotiate bilateral agreements as a general matter, regardless of which bidders win the auction.⁹ Moreover, the Commission conditioned Space Data's existing narrowband PCS operations to ensure that interference will be avoided near the Canadian and Mexican borders, and Space Data is fully compliant with those conditions.¹⁰ Accordingly, the Commission should reject Nextel's opposition and clarify that Space Data's balloon-borne stratospheric networks are encompassed within the new ATG rules.

⁸ Nextel Opposition at 7.

⁹ *ATG Order*, 20 FCC Rcd at 4431 (recognizing that the existing bilateral agreements with Canada and Mexico are based upon the former ATG licensing and service rules and thus "may need to be renegotiated to provide for more flexible use of this spectrum").

¹⁰ *See Petition for a Declaratory Ruling, a Clarification or, in the Alternative, a Waiver of Certain Narrowband Personal Communications Services (PCS) Rules as they Apply to a High-Altitude Balloon-Based Communications System*, 16 FCC Rcd 16421 (WTB 2001).

II. THE COMMISSION SHOULD ALLOW ATG OPERATORS TO PROVIDE ANCILLARY TERRESTRIAL SERVICES ON A SECONDARY BASIS TO UNSERVED AND UNDERSERVED AREAS.

The Petition detailed the public interest benefits of allowing ATG operators to provide ancillary terrestrial services using their ATG licenses on a secondary basis to unserved and underserved areas. The oppositions offer only exaggerated and unsupported technical and policy arguments, urging the Commission to deny consumers and public safety officials the benefits of those services. The Commission should reconsider its decision to prohibit ATG licensees from providing ancillary terrestrial services in the ATG band on a secondary basis.

A. Allowing ATG Operators To Provide Ancillary Terrestrial Services Provides Previously Unserved Consumers With Access To Wireless Services Without Interfering With The Operations Of Adjacent Or Other ATG Licensees.

Although some wireless carriers have been building out their networks to remote and underserved areas, those efforts understandably focus on areas with pockets of larger population and major highways and roads.¹¹ These deployments also have been slow, despite the immediate need for wireless services in unserved or underserved areas. According to the Commission, the lack of ubiquitous wireless coverage prevents consumers using handsets with CDMA,

¹¹ The service coverage maps of the five largest U.S. wireless carriers show large holes in their networks in which service either is not available, or have very weak signals. To the extent a wireless carrier may have some minimal level of wireless coverage in a less populated area, it often is the case that there is no competitive provider and only one operating standard (e.g., GSM, TDMA, etc.) would be available. See <http://onlinestorez.cingular.com/cell-phone-service/wireless-phone-plans/plan-details.jsp?skuid=csku00020> (Cingular coverage); <http://www.verizonwireless.com/b2c/CoverageLocatorController?requesttype=NEWREQUEST> (Verizon Wireless coverage); <http://www.t-mobile.com/coverage/Default.asp?class=coverage> (T-Mobile coverage); http://www.nextel.com/en/coverage/index.shtml?id4=left_nav;coverage (Nextel coverage); http://www1.sprintpcs.com/explore/coverage/NatwideNetwk.jsp?FOLDER%3C%3Efolder_id=1441749&CURRENT_USER%3C%3EATR_SCID=ECOMM&CURRENT_USER%3C%3EATR_PCode=None&CURRENT_USER%3C%3EATR_cartState=group&bmUID=1119490667890 (Sprint coverage).

GSM/TMDA, or iDEN protocols from making calls within a quarter to a half of the country.¹² Approximately 80 percent of the population in the United States lives in 10 percent of the country's landmass.¹³ It is simple economics that it is more affordable and profitable for tower-based wireless carriers to focus on increasing coverage in areas of higher population. Even though spectrum has already been allocated in rural markets to tower-based wireless carriers, large areas remain unserved or underserved because there is an insufficient number of potential customers to cost-justify building additional towers. Thus, the need for wireless service remains essential to those Americans that live in or travel to those less populated areas.¹⁴

Space Data agrees with the Commission and other parties – as it has done throughout this proceeding – that the ATG band should be used primarily to provide wireless service to airplane passengers. The terrestrial services proposed by Space Data would operate only on an ancillary and secondary basis. Terrestrial services would have to accept interference from ATG transmissions and could not interfere with ATG and adjacent operations. Allowing an ATG licensee to provide terrestrial services using its ATG frequencies could provide another vehicle for the Commission to ensure that consumers in unserved and underserved areas have access to wireless services.

¹² *Annual Report and Analysis of Competitive Market Conditions With Respect to Commercial Mobile Services*, Ninth Report, 19 FCC Rcd 20597, 20699 (2004) (stating that consumers using handsets with CDMA, GSM/TMDA, or iDEN protocols cannot make calls from at least 29 percent, 39 percent, or 54 percent of the country, respectively). The Commission also notes that its data overestimates the amount of wireless coverage in the United States. *Id.* at 20607.

¹³ See Reply Comments of Space Data, WT Docket No. 03-237, at 6-12 (May 5, 2004) (“Space Data Interference Temperature Reply”).

¹⁴ Space Data's comments in the Interference Temperature Proceeding also discusses in detail how CMRS spectrum is not used efficiently in non-urban areas of the country, including the potential ramifications of the sunset of analog service that is compatible with Advanced Mobile Phone Service (AMPS) specifications. *See id.*

The oppositions also fail to demonstrate that the provision of ancillary terrestrial service only in underserved and unserved markets on a non-interfering basis will cause harmful interference to licensees in adjacent spectrum bands.¹⁵ From a technical perspective there is little difference between using ATG spectrum for ATG services and using it to provide ancillary terrestrial services on a secondary basis. The Commission addressed concerns in the *ATG Order* that operations in the ATG band generally could interfere with adjacent operations by adopting stringent out-of-band-emission limits and agreeing that actual harmful interference could be solved on a case-by-case basis.¹⁶ These solutions apply equally to providing ancillary terrestrial services.

To the extent ancillary secondary terrestrial services may interfere with adjacent licensees, the Commission acknowledges in the *ATG Order* that any technical issues that may be triggered by such services can be resolved with proper coordination between the ATG licensee and the adjacent band licensees.¹⁷ Commission rules would require that any ancillary terrestrial services using ATG frequencies would be subject to technical limitations that would control interference to adjacent licensees. Proper coordination between licensees and further technical analyses also will be informed by the still developing ATG systems.

¹⁵ See CTIA Opposition at 3-4; AirCell Opposition at 4-5; Boeing Opposition at 3-4; Nextel Opposition at 3-6. No party opposing the Petition actually provides data purportedly contradicting the technical analyses and interference conclusions Space Data previously submitted in this proceeding. Rather, the oppositions cite to prior ex partes previously submitted in this proceeding by other parties that simply express concern regarding adjacent band interference or a previously submitted Nextel technical analysis regarding potential interference caused by ATG services. The Commission addresses Nextel's and other parties' interference concerns in the *ATG Order*. See Ex Parte Letter of Nextel Communications, Inc., WT Docket No. 03-103 (Nov. 16, 2004).

¹⁶ *ATG Order* at 4432-37.

¹⁷ *Id.* at 4431.

Furthermore, ancillary terrestrial use would not limit the capacity that is available to airplane passengers for ATG services.¹⁸ Because of its secondary status, terrestrial services would utilize ATG frequencies to the extent that they are not being used by airline passengers. Despite claims that ATG spectrum should not be used for ancillary terrestrial services because there is already sufficient spectrum available to provide terrestrial wireless services, as noted above, terrestrial carriers are not using that spectrum to provide service to many areas of the United States. Therefore, the need for reliable competitive wireless services in those areas remains unsatisfied.

AirCell's complaint that allowing ATG licensees to provide ancillary terrestrial services may skew the results of the ATG auction is wildly speculative and irrelevant.¹⁹ Auction participants base their bids on many technical, market and business factors that differ in importance for each bidder. Simply because one participant may value one factor more than another does not invalidate or skew the auction. Further, an ATG operator that develops a technology that can maximize use of the auctioned spectrum by inexpensively providing ancillary terrestrial services (and increasing consumer benefits) should not be penalized for its innovativeness.

B. The Commission Must Ensure That Any Rules Allowing Ancillary Terrestrial Services Using ATG Spectrum Are Technology Neutral.

AirCell erroneously claims that Space Data's proposal to allow ATG operators to provide ancillary terrestrial services using their ATG frequencies is not technology neutral because it assumes Space Data's proposal accommodates only one technology – stratospheric platforms –

¹⁸ AirCell Opposition at 2; Boeing Opposition at 2.

¹⁹ AirCell Opposition at 3.

and that the proposal only benefits Space Data.²⁰ As an initial matter, AirCell misinterprets the concept of “technological neutrality.” This concept embraces rules and policies that accommodate all potential operators that meet the technical requirements for a specific service, regardless of the particular technology or network configuration used by a licensee.²¹ Competition and lower prices are driven by innovation and new technologies. In contrast, AirCell would simply disregard any proposal that is based upon a technology that differs from “tried-and-true ground-based facilities.” Such logic is short-sighted, discriminatory, and contrary to longstanding Commission policy.

The Commission also should reject AirCell’s unsupported assertion that Space Data only seeks Commission approval for ATG licensees to provide ancillary terrestrial services as a “back-up” business plan because Space Data has concerns about its ability to provide ATG services.²² AirCell’s supposition is completely baseless and amounts to another attempt to discriminate against new and future technologies. Space Data’s proposed innovative solution regarding the use wireless devices on airplanes is a part of a wholly separate proceeding and is irrelevant to whether the Commission should allow ATG licensees to provide ancillary terrestrial services to unserved and undeserved areas.²³

²⁰ *Id.* at 6.

²¹ It also is incorrect to assume that Space Data may be the only company to benefit from its ancillary services proposal. In the last decade there have been significant developments in the use of stratospheric platforms and multiple companies are developing stratospheric technologies in the United States, Europe and Asia. *See* International Telecommunications Union World Radio Conference Final Acts (Istanbul, 2000 and Geneva, 2003) (making a specific allocation for stratospheric platforms).

²² AirCell Opposition at 7-8.

²³ The Commission’s pending proceeding regarding the use of wireless handsets and devices on airplanes is the proper forum to voice any concerns AirCell may have with Space Data’s solution. *Amendment of the Commission’s Rules to Facilitate the Use of Cellular Telephones*

III. CONCLUSION.

Space Data strongly urges the Commission to reject the oppositions to Space Data's Petition and confirm that its new ATG rules encompass the use of balloon-borne stratospheric platforms to provide ATG services and find that an ATG licensee can provide ancillary terrestrial services in the ATG band on a secondary basis.

Respectfully submitted,

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and Other Wireless Devices Aboard Airborne Aircraft, Notice of Proposed Rulemaking, 20 FCC Rcd 3753 (2005).

CERTIFICATE OF SERVICE

I, Theresa Rollins, certify on this 29th day of June, 2005, a copy of the foregoing Reply of Space Data Corporation to Oppositions to Petition for Clarification and Reconsideration has been served via electronic mail (*) or first class mail, postage pre-paid, to the following:

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