

25. Remove Section 22.361 and Table C-2 thereto.
26. Remove Section 22.363.
27. Remove Section 22.367.
28. Remove Section 22.373.
29. Remove Section 22.379.
30. Remove Section 22.381.
31. In Section 22.401, remove the words "Communications common carriers" in the first sentence of the introductory text, and add, in their place, the words "Eligible entities (see § 22.7)".
32. Remove Section 22.411.
33. Remove Section 22.415.
34. Remove Section 22.417.
35. Remove and reserve paragraphs (a) and (b) of Section 22.531.
36. Remove Section 22.539.
37. Remove Section 22.551.
38. Remove Section 22.563.
39. Remove paragraph (g) of Section 22.565.
40. Remove Section 22.569.
41. Remove Section 22.577.
42. In Section 22.591, remove from the table in the introductory text, the portion of that table which is entitled "Microwave channels", and remove and reserve paragraph (b).
43. Revise Section 22.593 in its entirety, to read as follows:

§ 22.593 Effective radiated power limits.

The effective radiated power of fixed stations operating on the channels listed in § 22.591 must not exceed 150 Watts. The equivalent isotropically radiated power of existing fixed microwave stations (2110-2130 and 2160-2180 MHz) licensed under this part (pursuant to former rules) must not exceed the applicable limits set forth in § 101.113 of this chapter.

44. Revise the heading and introductory text of Section 22.601 to read as follows:

§ 22.601 Existing microwave stations licensed under this part.

Existing microwave stations (2110-2130 and 2160-2180 MHz) licensed under this part (pursuant to former rules) are subject to the transition rules in § 22.602. No new microwave systems will be authorized under this part.

* * * * *

45. Revise the introductory paragraph of Section 22.602 to read as follows:

§ 22.602 Transition of the 2110-2130 and 2160-2180 MHz channels to emerging technologies.

The 2110-2130 and 2160-2180 MHz microwave channels formerly listed in § 22.591 have been re-allocated for use by emerging technologies (ET) services. No new systems will be authorized under this part. The rules in this section provide for a transition period during which existing Paging and Radiotelephone Service (PARS) licensees using these channels may relocate operations to other media or to other fixed channels, including those in other microwave bands. For PARS licensees relocating operations to other microwave bands, authorization must be obtained under Part 101 of this chapter.

* * * * *

46. Revise paragraph (a) of Section 22.625 to read as follows:

§ 22.625 Transmitter locations.

* * * * *

(a) *928-960 MHz.* In this frequency range, the required minimum distance separation between co-channel fixed transmitters is 113 kilometers (70 miles).

* * * * *

47. Remove Section 22.655.

48. In Section 22.725, revise the heading and the first sentence of the introductory text and remove paragraph (c), to read as follows:

§ 22.725 Channels for conventional rural radiotelephone stations and basic exchange telephone radio systems.

The following channels are allocated for paired assignment to transmitters that provide conventional rural radiotelephone service and to transmitters in basic exchange telephone radio systems. * * *

* * * * *

(c) [deleted]

49. Remove paragraph (f) of Section 22.727.
50. Remove Section 22.729.
51. Remove Section 22.757. in its entirety to read as follows:
52. Revise Section 22.801 in its entirety to read as follows:

§ 22.801 Scope.

The rules in this subpart govern the licensing and operation of air-ground stations and systems. The licensing and operation of these stations and systems is also subject to rules elsewhere in this part and in part 1 of this chapter that generally apply to the Public Mobile Services. In case of conflict, however, the rules in this subpart govern.

53. Redesignate Section 22.803 as Section 22.807, revise the heading, introductory text, and paragraph (b), and remove paragraph (c), to read as follows:

§ 22.807 General aviation air-ground station application requirements.

In addition to the information required by Subparts B and D of this part, FCC Form 601 applications for authorization to operate a general aviation air-ground station must contain the applicable supplementary information described in this section.

(a) * * *

(b) *Technical information.* The following information is required by FCC Form 601.

(1) Location description, city, county, state, geographic coordinates (NAD83) correct to ± 1 second, site elevation above mean sea level, proximity to adjacent market boundaries and international borders;

(2) Antenna height to tip above ground level, antenna gain in the maximum lobe, the electric field polarization of the wave emitted by the antenna when installed as proposed;

(3) * * *

54. Remove Section 22.811.
55. Revise Section 22.815 in its entirety to read as follows:

§ 22.815 Construction period for general aviation ground stations.

The construction period (see § 1.946) for general aviation ground stations is 12 months.

56. Remove Section 22.819.

57. Add a new Section 22.853 to read as follows:

§ 22.853 Eligibility to hold interest in licenses limited to 3 MHz of spectrum.

No individual or entity may hold, directly or indirectly, a controlling interest in licenses authorizing the use of more than three megahertz of spectrum (either shared or exclusive) in the 800 MHz commercial aviation Air-Ground Radiotelephone Service frequency bands (see § 22.857). Individuals and entities with either *de jure* or *de facto* control of a licensee in these bands will be considered to have a controlling interest in its license(s). For purposes of this rule, the definitions of "controlling interests" and "affiliate" set forth set forth in paragraphs (c)(2) and (c)(5) of § 1.2110 of this chapter shall apply.

58. Revise Section 22.857 in its entirety to read as follows:

§ 22.857 Frequency bands.

The 849-851 MHz and 894-896 MHz frequency bands are designated for paired nationwide exclusive assignment to the licensee or licensees of systems providing radio telecommunications service, including voice and/or data service, to persons on board aircraft. Air-ground systems operating in these frequency bands are referred to in this chapter as "commercial aviation" systems.

59. Revise Section 22.859 in its entirety to read as follows:

§ 22.859 Incumbent commercial aviation air-ground systems.

This section contains rules concerning continued operation of commercial aviation air-ground systems that were originally authorized prior to January 1, 2004 to provide radiotelephone service using narrowband (6 kHz) channels, and that have been providing service continuously since the original commencement of service (hereinafter "incumbent systems").

(a) An incumbent system may continue to operate under its authorization, for the remaining term of such authorization, subject to the terms and conditions attached thereto. Wherever such technical and operational conditions differ from technical and operational rules in this subpart, those conditions shall govern its operations.

(b) Notwithstanding any other provision in this chapter, the licensee of an incumbent system shall not be entitled to an expectation of renewal of said authorization.

(c) During the period that an incumbent system continues to operate and provide service pursuant to paragraph (a) of this section, air-ground systems of licensees holding a new authorization for the spectrum within which the incumbent system operates must not cause interference to the incumbent system. Protection from interference requires that the signals of

the new systems must not exceed a ground station received power of -130 dBm within a 6 kHz receive bandwidth, calculated assuming a 0 dBi vertically polarized receive antenna.

60. Revise Section 22.861 in its entirety as follows:

§ 22.861 Emission limitations.

The rules in this section govern the spectral characteristics of emissions for commercial aviation systems in the Air-Ground Radiotelephone Service. Commercial aviation air-ground systems may use any type of emission or technology that complies with the technical rules in this subpart.

(a) *Out of band emissions.* The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log (P)$ dB.

(b) *Measurement procedure.* Compliance with these rules is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater. In the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (*i.e.*, 100 kHz or 1 percent of emission bandwidth, as specified). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

(c) *Alternative out of band emission limit.* The licensee(s) of commercial aviation air-ground systems, together with affected licensees of Cellular Radiotelephone Service systems operating in the spectrum immediately below and adjacent to the commercial aviation air-ground bands, may establish an alternative out of band emission limit to be used at the 849 MHz and 894 MHz band edge(s) in specified geographical areas, in lieu of that set forth in this section, pursuant to a private contractual arrangement of all affected licensees and applicants. In this event, each party to such contract shall maintain a copy of the contract in their station files and disclose it to prospective assignees or transferees and, upon request, to the FCC.

(d) *Interference caused by out of band emissions.* If any emission from a transmitter operating in this service results in interference to users of another radio service, the FCC may require a greater attenuation of that emission than specified in this section.

61. Revise Section 22.863 in its entirety to read as follows:

§ 22.863 Frequency stability.

The frequency stability of equipment used under this subpart shall be sufficient to ensure that, after accounting for Doppler frequency shifts, the occupied bandwidth of the fundamental emissions remains within the authorized frequency bands of operation.

62. Remove Section 22.865.

63. Revise Section 22.867 in its entirety to read as follows:

§ 22.867 Effective radiated power limits.

The effective radiated power (ERP) of ground and airborne stations operating on the frequency ranges listed in § 22.857 must not exceed the limits in this section.

(a) The peak ERP of airborne mobile station transmitters must not exceed 12 Watts.

(b) The peak ERP of ground station transmitters must not exceed 500 Watts.

64. Remove Section 22.869.

65. Remove Section 22.871.

66. Revise Section 22.873 to read as follows:

§ 22.873 Construction requirements for commercial aviation air-ground systems.

Licensees authorized to use more than one megahertz (1 MHz) of the 800 MHz commercial aviation air-ground spectrum allocation (see § 22.857) must make a showing of "substantial service" as set forth in this section. Failure by any such licensee to meet this requirement will result in forfeiture of the license and the licensee will be ineligible to regain it. Licensees authorized to use one megahertz or less of the 800 MHz commercial aviation air-ground spectrum allocation are not subject to the requirements in this section.

(a) "Substantial service" is defined as service that is sound, favorable, and substantially above a level of mediocre service that just might minimally warrant renewal.

(b) Each commercial aviation air-ground system subject to the requirements of this section must demonstrate substantial service within 5 years after grant of the authorization. Substantial service may be demonstrated by, but is not limited to, either of the following "safe harbor" provisions:

(1) construction and operation of 20 ground stations, with at least one ground station located in each of the 10 Federal Aviation Administration regions; or,

(2) provision of service to the airspace of 25 of the 50 busiest airports (as measured by annual passenger boardings).

67. Remove Section 22.875.

68. Add a new Section 22.877 to read as follows:

§ 22.877 Unacceptable interference to Part 90 non-cellular 800 MHz licensees from commercial aviation air-ground systems.

The definition of unacceptable interference to non-cellular Part 90 licensees in the 800 MHz band from commercial aviation air-ground systems is the same as the definition set forth in § 22.970 of this part, which is applicable to Cellular Radiotelephone Service systems.

69. Add a new Section 22.878 to read as follows:

§ 22.878 Obligation to abate unacceptable interference.

This section applies only to commercial aviation ground stations transmitting in the 849-851 MHz band, other than commercial aviation ground stations operating under the authority of a license originally granted prior to January 1, 2004.

(a) *Strict Responsibility.* Any licensee who, knowingly or unknowingly, directly or indirectly, causes or contributes to causing unacceptable interference to a non-cellular Part 90 licensee in the 800 MHz band, as defined in § 22.877, shall be strictly accountable to abate the interference, with full cooperation and utmost diligence, in the shortest time practicable. Interfering licensees shall consider all feasible interference abatement measures, including, but not limited to, the remedies specified in the interference resolution procedures set forth in § 22.879. This strict responsibility obligation applies to all forms of interference, including out-of-band emissions and intermodulation.

(b) *Joint and Several Responsibility.* If two or more licensees, whether in the commercial aviation air-ground radiotelephone service or in the Cellular Radiotelephone Service (see § 22.971), knowingly or unknowingly, directly or indirectly, cause or contribute to causing unacceptable interference to a non-cellular Part 90 licensee in the 800 MHz band, as defined in § 22.877, such licensees shall be jointly and severally responsible for abating interference, with full cooperation and utmost diligence, in the shortest practicable time.

(1) This joint and several responsibility rule requires interfering licensees to consider all feasible interference abatement measures, including, but not limited to, the remedies specified in the interference resolution procedures set forth in § 22.879(c). This joint and several responsibility rule applies to all forms of interference, including out-of-band emissions and intermodulation.

(2) Any licensee that can show that its signal does not directly or indirectly cause or contribute to causing unacceptable interference to a non-cellular Part 90 licensee in the 800 MHz band, as defined in § 22.877, shall not be held responsible for resolving unacceptable interference. Notwithstanding, any licensee that receives an interference complaint from a public safety/CII licensee shall respond to such complaint consistent with the interference resolution procedures set forth in § 22.879.

70. Add a new Section 22.879 to read as follows:

§ 22.879 Interference resolution procedures.

This section applies only to commercial aviation ground stations transmitting in the 849-851 MHz band, other than commercial aviation ground stations operating under the authority of a license originally granted prior to January 1, 2004.

(a) *Initial Notification.* Commercial aviation air-ground system licensees may receive initial notification of interference from non-cellular Part 90 licensees in the 800 MHz band pursuant to § 90.674(a) of this chapter.

(1) Commercial aviation air-ground system licensees shall join with Part 90 ESMR licensees and Cellular Radiotelephone Service licensees in utilizing an electronic means of receiving the initial notification described in § 90.674(a) of this chapter. See § 22.972.

(2) Commercial aviation air-ground system licensees must respond to the initial notification described in § 90.674(a) of this chapter as soon as possible and no later than 24 hours after receipt of notification from a Part 90 public safety/CII licensee. This response time may be extended to 48 hours after receipt from other Part 90 non-cellular licensees provided affected communications on these systems are not safety related.

(b) *Interference Analysis.* Commercial aviation air-ground system licensees – who receive an initial notification described in § 90.674(a) of this chapter – shall perform a timely analysis of the interference to identify the possible source. Immediate on-site visits may be conducted when necessary to complete timely analysis. Interference analysis must be completed and corrective action initiated within 48 hours of the initial complaint from a Part 90 public safety/CII licensee. This response time may be extended to 96 hours after the initial complaint from other Part 90 non-cellular licensees provided affected communications on these systems are not safety related. Corrective action may be delayed if the affected licensee agrees in writing (which may be, but is not required to be, recorded via e-mail or other electronic means) to a longer period.

(c) *Mitigation Steps.* Any commercial aviation air-ground system that is responsible for causing unacceptable interference to non-cellular Part 90 licensees in the 800 MHz band shall take affirmative measures to resolve such interference.

(1) Commercial aviation air-ground system licensees found to contribute to unacceptable interference, as defined in § 22.877, shall resolve such interference in the shortest time practicable. Commercial aviation air-ground system licensees must provide all necessary test apparatus and technical personnel skilled in the operation of such equipment as may be necessary to determine the most appropriate means of timely eliminating the interference. However, the means whereby interference is abated or the technical parameters that may need to be adjusted is left to the discretion of the commercial aviation air-ground system licensee, whose affirmative measures may include, but not be limited to, the following techniques:

- (i) increasing the desired power of the public safety/CII signal;
- (ii) decreasing the power of the commercial aviation air-ground system signal;
- (iii) modifying the commercial aviation air-ground system antenna height;

- (iv) modifying the commercial aviation air-ground system antenna characteristics;
- (v) incorporating filters into the commercial aviation air-ground system transmission equipment;
- (vi) changing commercial aviation air-ground system frequencies; and
- (vii) supplying interference-resistant receivers to the affected public safety/CII licensee(s). If this technique is used, in all circumstances, commercial aviation air-ground system licensees shall be responsible for all costs thereof.

(2) Whenever short-term interference abatement measures prove inadequate, the affected Part 90 non-cellular licensee shall, consistent with but not compromising safety, make all necessary concessions to accepting interference until a longer-term remedy can be implemented.

(3) When a Part 90 public safety licensee determines that a continuing presence of interference constitutes a clear and imminent danger to life or property, the licensee causing the interference must discontinue the associated operation immediately, until a remedy can be identified and applied. The determination that a continuing presence exists that constitutes a clear and imminent danger to life or property, must be made by written statement that:

(i) is in the form of a declaration, notarized affidavit, or statement under penalty or perjury, from an officer or executive of the affected public safety licensee;

(ii) thoroughly describes the basis of the claim of clear and imminent danger;

(iii) was formulated on the basis of either personal knowledge or belief after due diligence;

(iv) is not proffered by a contractor or other third party; and,

(v) has been approved by the Chief of the Wireless Telecommunication Bureau or other designated Commission official. Prior to the authorized official making a determination that a clear and imminent danger exists, the associated written statement must be served by hand-delivery or receipted fax on the applicable offending licensee, with a copy transmitted by the fastest available means to the Washington, D.C. office of the Commission's Wireless Telecommunications Bureau.

71. Add a new Section 22.880 to read as follows:

§ 22.880 Information exchange.

(a) *Prior Notification.* Public safety/CII licensees may notify a commercial aviation air-ground system licensee that they wish to receive prior notification of the activation or modification of a commercial aviation air-ground system ground station site in their area. Thereafter, the commercial aviation air-ground system licensee must provide the following

information to the public safety/CII licensee at least 10 business days before a new ground station is activated or an existing ground station is modified:

- (1) location;
- (2) effective radiated power;
- (3) antenna manufacturer, model number, height above ground level and up tilt angle, as installed;
- (4) channels available for use.

(b) *Purpose of Prior Notification.* The prior notification of ground station activation or modification is for informational purposes only: public safety/CII licensees are not afforded the right to accept or reject the activation of a proposed ground station or to unilaterally require changes in its operating parameters. The principal purposes of prior notification are to:

- (1) allow a public safety licensee to advise the commercial aviation air-ground system licensee whether it believes a proposed ground station will generate unacceptable interference;
- (2) permit commercial aviation air-ground system licensee(s) to make voluntary changes in ground station parameters when a public safety licensee alerts them to possible interference; and
- (3) rapidly identify the source if interference is encountered when the ground station is activated.

72. Revise Section 22.1003 in its entirety to read as follows:

§ 22.1003 Eligibility.

Any eligible entity (see § 22.7) may apply for central station license(s) and/or offshore subscriber licenses under this subpart.

Title 47, Part 90 of the Code of Federal Regulations, 47 CFR Part 90, is amended as follows:

73. The authority citation for Part 90 continues to read as follows:

Authority: Sections 4(i), 11, 303(g), 303(r), and 332(c)(7) of the Communications Act of 1934, as amended, 47 U.S.C. 154(i), 161, 303(g), 303(r), 332(c)(7).

74. Revise Section 90.309(a)(1) to read as follows:

§ 90.309 Tables and figures.

(a) Directions for using the tables. (1) Using the method specified in § 1.958 of this chapter, determine the distances (i) between the proposed land mobile base station and the protected cochannel television station and (ii) between the proposed land mobile base station and the protected adjacent channel television station. If the exact mileage does not appear in table A for

protected cochannel television stations (or table B for channel 15 in New York and Cleveland and channel 16 in Detroit) or table E for protected adjacent channel television stations, the next lower mileage separation figure is to be used.

APPENDIX C
FINAL REGULATORY FLEXIBILITY ANALYSIS

1. As required by the Regulatory Flexibility Act of 1980, as amended (RFA),¹ an Initial Regulatory Flexibility Analysis (IRFA) was incorporated in the Notice of Proposed Rulemaking (*Notice*) in this proceeding, WT Docket No. 03-103.² The Commission sought written public comment on the proposals in the *Notice*, including comment on the IRFA. This present Final Regulatory Flexibility Analysis (FRFA) conforms to the RFA.³

A. Need for, and Objectives of, the Report and Order

2. The Report and Order addresses revision of the rules and spectrum band plan for the 800 MHz commercial Air-Ground Radiotelephone Service spectrum. A total of four megahertz of spectrum is currently allocated for this service. Although the Commission originally licensed six operators to provide service in this band on a shared basis using narrowband channels, only one licensee (Verizon Airfone) continues to operate in the band. Its operations are subject to a number of specific technical requirements designed to facilitate sharing among licensees. Given the constraints on current operations in this band and the changing demands of the public with respect to wireless telecommunications services, the *Notice* requested comment on how best to reconfigure this band and revise the related service rules in order to meet consumer needs and promote flexible, competitive use of this spectrum.

3. The Report and Order makes available new nationwide air-ground licenses in three band configurations: (1) band plan 1, comprised of two overlapping, shared, cross-polarized 3 MHz licenses (licenses A and B, respectively),⁴ (2) band plan 2, comprised of an exclusive 3 MHz license and an exclusive 1 MHz license (licenses C and D, respectively),⁵ and (3) band plan 3, comprised of an exclusive 1 MHz license and an exclusive 3 MHz license (licenses E and F, respectively), with the blocks at opposite ends of the band from the second configuration.⁶ Licenses will be awarded to winning bidders for the licenses comprising the configuration that receives the highest aggregate gross bid, subject to long-form license application review. Licenses will have a ten-year term.

4. The Report and Order also takes action on a range of proposals for updating the Commission's Part 1, 22, and 90 rules. Some of these steps are taken pursuant to the Commission's

¹ See 5 U.S.C. § 603. The RFA, *see* 5 U.S.C. §§ 601–612, has been amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), Pub. L. No. 104-121, Title II, 110 Stat. 857 (1996).

² Amendment of Part 22 of the Commission's 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, *Notice of Proposed Rule Making*, 18 FCC Rcd 8380, 8412 App. A (2003).

³ See 5 U.S.C. § 604.

⁴ Licenses A and B would authorize transmission of radio waves that are vertically and horizontally polarized, respectively, and would initially share 1.5 MHz at 849.000-850.500 MHz paired with 1.5 MHz at 894.000-895.500 MHz. Once Verizon Airfone's incumbent system ceases operations in the upper 0.5 MHz of each band, licensee B would shift its operations to 1.5 MHz at 849.500-851.000 MHz paired with 1.5 MHz at 894.500-896.000 MHz. If band plan 1 is implemented, the parties may agree to a different implementation scheme.

⁵ License C would be located in the lower 1.5 MHz portion of each 2 MHz band (1.5 MHz at 849.000-850.500 MHz paired with 1.5 MHz at 894.000-895.500 MHz). License D would be located in the upper 0.5 MHz portion of each 2 MHz band (0.5 MHz at 850.500-851.000 MHz paired with 0.5 MHz at 895.500-896.000 MHz).

⁶ License E would be located in the lower 0.5 MHz portion of each 2 MHz band (0.5 MHz at 849.000-849.500 MHz paired with 0.5 MHz at 894.000-894.500 MHz). License F would be located in the upper 1.5 MHz portion of each 2 MHz band (1.5 MHz at 849.500-851.000 MHz paired with 1.5 MHz at 894.500-896.000 MHz).

biennial review obligations as well as to implement the results of staff review of the Part 22 non-cellular rules. The Report and Order revises and eliminates many rule sections in light of technological change, increased competition in Commercial Mobile Radio Services, supervening changes to the Commission's rules, or a combination of factors. These rule changes also include actions to harmonize the treatment of various wireless services.

B. Summary of Significant Issues Raised by Public Comments in Response to the IRFA

5. We received no comments in response to the IRFA. As described in section E below, we have nonetheless considered potential significant economic impacts of our actions on small entities.

C. Description and Estimate of the Number of Small Entities to Which Rules Will Apply

6. The RFA directs agencies to provide a description of, and, where feasible, an estimate of, the number of small entities that may be affected by the rules adopted herein.⁷ The RFA generally defines the term "small entity" as having the same meaning as the terms "small business," "small organization," and "small governmental jurisdiction."⁸ In addition, the term "small business" has the same meaning as the term "small business concern" under the Small Business Act.⁹ A "small business concern" is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the Small Business Administration (SBA).¹⁰

7. *Wireless Service Providers.* The SBA has developed a small business size standard for wireless firms within the two broad economic census categories of "Paging"¹¹ and "Cellular and Other Wireless Telecommunications."¹² Under both SBA categories, a wireless business is small if it has 1,500 or fewer employees. For the census category of Paging, Census Bureau data for 1997 show that there were 1,320 firms in this category, total, that operated for the entire year.¹³ Of this total, 1,303 firms had employment of 999 or fewer employees, and an additional 17 firms had employment of 1,000 employees or more.¹⁴ Thus, under this category and associated small business size standard, the great majority of firms can be considered small. For the census category Cellular and Other Wireless Telecommunications, Census Bureau data for 1997 show that there were 977 firms in this category, total, that operated for the

⁷ 5 U.S.C. § 604(a)(3).

⁸ 5 U.S.C. § 601(6).

⁹ 5 U.S.C. § 601(3) (incorporating by reference the definition of "small-business concern" in the Small Business Act, 15 U.S.C. § 632). Pursuant to 5 U.S.C. § 601(3), the statutory definition of a small business applies "unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register."

¹⁰ 15 U.S.C. § 632.

¹¹ 13 C.F.R. § 121.201, NAICS code 513321 (changed to 517211 in October 2002).

¹² *Id.*

¹³ U.S. Census Bureau, 1997 Economic Census, Subject Series: "Information," Table 5, Employment Size of Firms Subject to Federal Income Tax: 1997, NAICS code 513321 (issued Oct. 2000).

¹⁴ *Id.* The census data do not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees; the largest category provided is "Firms with 1000 employees or more."

entire year.¹⁵ Of this total, 965 firms had employment of 999 or fewer employees, and an additional 12 firms had employment of 1,000 employees or more.¹⁶ Thus, under this second category and size standard, the great majority of firms can, again, be considered small.

8. *Cellular Licensees.* The SBA has developed a small business size standard for wireless firms within the broad economic census category "Cellular and Other Wireless Telecommunications."¹⁷ Under this SBA category, a wireless business is small if it has 1,500 or fewer employees. For the census category Cellular and Other Wireless Telecommunications firms, Census Bureau data for 1997 show that there were 977 firms in this category, total, that operated for the entire year.¹⁸ Of this total, 965 firms had employment of 999 or fewer employees, and an additional 12 firms had employment of 1,000 employees or more.¹⁹ Thus, under this category and size standard, the great majority of firms can be considered small. According to the most recent Trends in Telephone Service data, 719 carriers reported that they were engaged in the provision of cellular service, personal communications service, or specialized mobile radio telephony services, which are placed together in the data.²⁰ We have estimated that 294 of these are small, under the SBA small business size standard.²¹

9. *Common Carrier Paging.* The SBA has developed a small business size standard for wireless firms within the broad economic census categories of "Cellular and Other Wireless Telecommunications."²² Under this SBA category, a wireless business is small if it has 1,500 or fewer employees. For the census category of Paging, Census Bureau data for 1997 show that there were 1,320 firms in this category, total, that operated for the entire year.²³ Of this total, 1,303 firms had employment of 999 or fewer employees, and an additional 17 firms had employment of 1,000 employees or more.²⁴ Thus, under this category and associated small business size standard, the great majority of firms can be considered small.

10. In the *Paging Second Report and Order*, the Commission adopted a size standard for "small businesses" for purposes of determining their eligibility for special provisions such as bidding

¹⁵ U.S. Census Bureau, 1997 Economic Census, Subject Series: "Information," Table 5, Employment Size of Firms Subject to Federal Income Tax: 1997, NAICS code 513322 (issued Oct. 2000).

¹⁶ *Id.* The census data do not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees; the largest category provided is "Firms with 1000 employees or more."

¹⁷ 13 C.F.R. § 121.201, NAICS code 513322 (changed to 517212 in October 2002).

¹⁸ U.S. Census Bureau, 1997 Economic Census, Subject Series: "Information," Table 5, Employment Size of Firms Subject to Federal Income Tax: 1997, NAICS code 513322 (issued Oct. 2000).

¹⁹ *Id.* The census data do not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees; the largest category provided is "Firms with 1000 employees or more."

²⁰ FCC, Wireline Competition Bureau, Industry Analysis and Technology Division, "Trends in Telephone Service" at Table 5.3, page 5-5 (August 2003). This source uses data that are current as of December 31, 2001.

²¹ *Id.*

²² 13 C.F.R. § 121.201, NAICS code 513322 (changed to 517212 in October 2002).

²³ U.S. Census Bureau, 1997 Economic Census, Subject Series: "Information," Table 5, Employment Size of Firms Subject to Federal Income Tax: 1997, NAICS code 513321 (issued Oct. 2000).

²⁴ *Id.* The census data do not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees; the largest category provided is "Firms with 1000 employees or more."

credits and installment payments.²⁵ A small business is an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding \$15 million for the preceding three years.²⁶ The SBA has approved this definition.²⁷ An auction of Metropolitan Economic Area (MEA) licenses commenced on February 24, 2000, and closed on March 2, 2000. Of the 2,499 licenses auctioned, 985 were sold.²⁸ Fifty-seven companies claiming small business status won 440 licenses.²⁹ An auction of MEA and Economic Area (EA) licenses commenced on October 30, 2001, and closed on December 5, 2001. Of the 15,514 licenses auctioned, 5,323 were sold.³⁰ One hundred thirty-two companies claiming small business status purchased 3,724 licenses. A third auction, consisting of 8,874 licenses in each of 175 EAs and 1,328 licenses in all but three of the 51 MEAs commenced on May 13, 2003, and closed on May 28, 2003. Seventy-seven bidders claiming small or very small business status won 2,093 licenses.³¹ Currently, there are approximately 74,000 Common Carrier Paging licenses. According to the most recent Trends in Telephone Service, 608 private and common carriers reported that they were engaged in the provision of either paging or "other mobile" services.³² Of these, we estimate that 589 are small, under the SBA-approved small business size standard.³³ We estimate that the majority of common carrier paging providers would qualify as small entities under the SBA definition.

11. *Offshore Radiotelephone Service.* This service operates on several ultra high frequency (UHF) television broadcast channels that are not used for television broadcasting in the coastal areas of states bordering the Gulf of Mexico.³⁴ There are currently approximately 55 licensees in this service. We are unable to estimate at this time the number of licensees that would qualify as small under the SBA's small business size standard for "Cellular and Other Wireless Telecommunications" services.³⁵ Under that SBA small business size standard, a business is small if it has 1,500 or fewer employees.³⁶

12. *Rural Radiotelephone Service.* The Commission has not adopted a size standard for small businesses specific to the Rural Radiotelephone Service.³⁷ A significant subset of the Rural Radiotelephone Service is the Basic Exchange Telephone Radio System (BETRS).³⁸ The Commission

²⁵ Revision of Part 22 and Part 90 of the Commission's Rules to Facilitate Future Development of Paging Systems, *Second Report and Order*, 12 FCC Rcd 2732, 2811-2812 ¶¶178-181 ("Paging Second Report and Order"); see also Revision of Part 22 and Part 90 of the Commission's Rules to Facilitate Future Development of Paging Systems, *Memorandum Opinion and Order on Reconsideration*, 14 FCC Rcd 10030, 10085-10088 ¶¶98-107 (1999).

²⁶ *Paging Second Report and Order*, 12 FCC Rcd at 2811, ¶179.

²⁷ See Letter to Amy Zoslov, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, from Aida Alvarez, Administrator, Small Business Administration, dated Dec. 2, 1998.

²⁸ See "929 and 931 MHz Paging Auction Closes," *Public Notice*, 15 FCC Rcd 4858 (WTB 2000).

²⁹ See *id.*

³⁰ See "Lower and Upper Paging Band Auction Closes," *Public Notice*, 16 FCC Rcd 21821 (WTB 2002).

³¹ See "Lower and Upper Paging Bands Auction Closes," *Public Notice*, 18 FCC Rcd 11154 (WTB 2003).

³² See Trends in Telephone Service, Industry Analysis Division, Wireline Competition Bureau, Table 5.3 (Number of Telecommunications Service Providers that are Small Businesses) (May 2002).

³³ 13 C.F.R. § 121.201, NAICS code 517211.

³⁴ This service is governed by Subpart I of Part 22 of the Commission's Rules. See 47 C.F.R. §§ 22.1001-22.1037.

³⁵ 13 C.F.R. § 121.201, NAICS code 513322 (changed to 517212 in October 2002).

³⁶ *Id.*

³⁷ The service is defined in Section 22.99 of the Commission's Rules, 47 C.F.R. § 22.99.

³⁸ BETRS is defined in Sections 22.757 and 22.759 of the Commission's Rules, 47 C.F.R. §§ 22.757, 22.759.

uses the SBA's small business size standard applicable to "Cellular and Other Wireless Telecommunications," *i.e.*, an entity employing no more than 1,500 persons.³⁹ There are approximately 1,000 licensees in the Rural Radiotelephone Service, and the Commission estimates that there are 1,000 or fewer small entity licensees in the Rural Radiotelephone Service that may be affected by the rules and policies adopted herein.

13. *Air-Ground Radiotelephone Service.* The Commission has not adopted a small business size standard specific to the Air-Ground Radiotelephone Service.⁴⁰ We will use SBA's small business size standard applicable to "Cellular and Other Wireless Telecommunications," *i.e.*, an entity employing no more than 1,500 persons.⁴¹ There are approximately 100 licensees in the Air-Ground Radiotelephone Service, and we estimate that almost all of them qualify as small under the SBA small business size standard.

14. *Wireless Communications Equipment Manufacturers.* Some of the actions in the Report and Order could also benefit equipment manufacturers. The SBA has established a small business size standard for Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing. Examples of products in this category include "transmitting and receiving antennas, cable television equipment, GPS equipment, pagers, cellular phones, mobile communications equipment, and radio and television studio and broadcasting equipment"⁴² and may include other devices that transmit and receive IP-enabled services, such as personal digital assistants (PDAs). Under the SBA size standard, firms are considered small if they have 750 or fewer employees.⁴³ According to Census Bureau data for 1997, there were 1,215 establishments⁴⁴ in this category that operated for the entire year.⁴⁵ Of those, there were 1,150 that had employment of under 500, and an additional 37 that had employment of 500 to 999. The percentage of wireless equipment manufacturers in this category was approximately 61.35 percent⁴⁶ so we estimate that the number of wireless equipment manufacturers with employment of under 500 was actually closer to 706, with an additional 23 establishments having employment of between 500 and 999. Consequently, we estimate that the majority of wireless communications equipment manufacturers are small entities that may be affected by our action.

³⁹ 13 C.F.R. § 121.201, NAICS code 513322 (changed to 517212 in October 2002).

⁴⁰ The service is defined in Section 22.99 of the Commission's Rules, 47 C.F.R. § 22.99.

⁴¹ 13 CFR § 121.201, NAICS codes 513322 (changed to 517212 in October 2002).

⁴² Office of Management and Budget, North American Industry Classification System, pages 308-09 (1997) (NAICS code 334220).

⁴³ 13 C.F.R. § 121.201, NAICS code 334220.

⁴⁴ The number of "establishments" is a less helpful indicator of small business prevalence in this context than would be the number of "firms" or "companies," because the latter take into account the concept of common ownership or control. Any single physical location for an entity is an establishment, even though that location may be owned by a different establishment. Thus, the numbers given may reflect inflated numbers of businesses in this category, including the numbers of small businesses. In this category, the Census breaks out data for firms or companies only to give the total number of such entities for 1997, which was 1,089.

⁴⁵ U.S. Census Bureau, 1997 Economic Census, Industry Series: Manufacturing, "Industry Statistics by Employment Size," Table 4, NAICS code 334220 (issued Aug. 1999).

⁴⁶ *Id.* Table 5.

D. Description of Projected Reporting, Recordkeeping and Other Compliance Requirements

15. In this Report and Order, we are not adopting any new rules that would add reporting, recordkeeping, or other compliance requirements.⁴⁷ We only modify or eliminate certain rules, thereby eliminating economic burdens for small and other sized entities. For example, we amend Section 1.929(c)(1) of our rules to specify that expansion of a composite interference contour (CIC) of a site-based licensee in the Paging and Radiotelephone Service—as well as the Rural Radiotelephone Service and 800 MHz Specialized Mobile Radio Service—over water on a secondary, non-interference basis should be classified as a minor (rather than major) modification of license. See para. 143, *supra*. Such reclassification should substantially reduce the filing requirements associated with these license modifications.

E. Steps Taken To Minimize Significant Economic Impact On Small Entities, And Significant Alternatives Considered

16. The RFA requires an agency to describe any significant alternatives that it has considered in developing its approach, which may include the following four alternatives (among others): “(1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance and reporting requirements under the rule for such small entities; (3) the use of performance rather than design standards; and (4) an exemption from coverage of the rule, or any part thereof, for such small entities.”⁴⁸

17. We do not anticipate any adverse impact on small entities resulting from either reconfiguration of the 800 MHz Air-Ground Radiotelephone Service band plan or revision of the related service rules, see paras. 1-85, *supra*. Currently, there is only one licensee in this band and demand for its service has markedly declined, see para. 23, *supra*. The flexible approach to reconfiguration of the 800 MHz air-ground band adopted in the Report and Order will promote our goal of facilitating the highest valued use of this spectrum, resulting in the provision of wireless communications services that better meet the needs of the traveling public onboard aircraft.

18. In order to promote competition in the 800 MHz air-ground band, the Report and Order prohibits any party from obtaining a controlling interest, either at auction or by a post-auction transaction, in more than three megahertz of spectrum (either shared or exclusive) in the band, see paras. 39-44, *supra*. No single entity, therefore, may hold more than one license in any of the available band configurations. The Report and Order adopts limited technical constraints in order to provide the eventual licensees with significant operational flexibility to provide broadband telecommunications services to commercial airline passengers and others while onboard aircraft, see paras. 54-72, *supra*. We note that the technical rules will, among other things, ensure that operations in this band do not cause harmful interference to adjacent bands, including cellular, SMR, and public safety. The Report and Order provides that future licensees in the 800 MHz air-ground band, as well as other interested parties, will have the opportunity to engage in spectrum leasing under the Commission’s rules, see para. 32, *supra*. Future licensees will also be permitted to engage in partitioning and/or disaggregation of their licenses, *id.* These regulatory

⁴⁷ If band plan 1 is implemented as a result of the Commission’s auction of new 800 MHz commercial Air-Ground Radiotelephone Service licenses (*see supra* FRFA n.4), the new licensees will be required to jointly file a spectrum sharing and site selection plan with the Wireless Telecommunications Bureau. *See supra* Report and Order at para. 34.

⁴⁸ 5 U.S.C. §§ 603(c)(1)-(c)(4).

opportunities are intended to provide the air-ground marketplace greater flexibility to respond to consumer demand. The regulatory approach adopted in the Report and Order will benefit both small and large entities.

19. Regarding the modification or elimination of rules stemming from our Biennial Regulatory Review responsibilities, see paras. 86-168, *supra*, we do not anticipate any adverse impact on small entities. To the contrary, to the extent that there is any direct impact at all, streamlining and harmonizing technical and operational rules should result in decreasing regulatory burdens that benefit both small and large entities.

20. *Report to Congress:* The Commission will send a copy of the Report and Order and Notice of Proposed Rulemaking, including this FRFA, in a report to be sent to Congress pursuant to the Congressional Review Act.⁴⁹ In addition, the Commission will send a copy of the Report and Order and Notice of Proposed Rulemaking, including this FRFA, to the Chief Counsel for Advocacy of the SBA. A summary of the Report and Order and Notice of Proposed Rulemaking and this FRFA will also be published in the Federal Register.⁵⁰

⁴⁹ See 5 U.S.C. § 801(a)(1)(A).

⁵⁰ See 5 U.S.C. § 604(b).

APPENDIX D

INITIAL REGULATORY FLEXIBILITY ANALYSIS

1. As required by the Regulatory Flexibility Act of 1980, as amended (RFA),¹ the Commission has prepared this present Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on a substantial number of small entities by the policies and rules proposed in the Notice of Proposed Rulemaking (*Notice*), WT Docket No. 05-42.² Written public comments are requested on this IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadlines for comments on the *Notice* provided in paragraph 179 of the item. The Commission will send a copy of the *Notice*, including this IRFA, to the Chief Counsel for Advocacy of the Small Business Administration (SBA).³ In addition, summaries of the *Notice* and IRFA will be published in the Federal Register.⁴

A. Need for, and Objectives of, the Proposed Rules

2. The Report and Order addresses revisions to the rules and spectrum band plan for the 800 MHz commercial Air-Ground Radiotelephone Service spectrum. The Report and Order makes available new nationwide air-ground licenses in three band configurations: (1) band plan 1, comprised of two overlapping, shared, cross-polarized 3 MHz licenses (licenses A and B, respectively),⁵ (2) band plan 2, comprised of an exclusive 3 MHz license and an exclusive 1 MHz license (licenses C and D, respectively),⁶ and (3) band plan 3, comprised of an exclusive 1 MHz license and an exclusive 3 MHz license (licenses E and F, respectively), with the blocks at opposite ends of the band from the second configuration.⁷ Licenses will be awarded to winning bidders for the licenses comprising the configuration that receives the highest aggregate gross bid, subject to long-form license application review. Licenses will have a ten-year term.

3. If mutually exclusive applications are filed for the commercial air-ground licenses that comprise the three band configurations defined in the Report and Order, the Commission will be required to resolve such applications by competitive bidding pursuant to the requirements of Section 309(j) of the

¹ See 5 U.S.C. § 603. The RFA, see 5 U.S.C. §§ 601-612, has been amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), Pub. L. No. 104-121, Title II, 110 Stat. 857 (1996).

² See *Notice*, Section III, *supra*.

³ See 5 U.S.C. § 603(a).

⁴ See *id.*

⁵ Licenses A and B would authorize transmission of radio waves that are vertically and horizontally polarized, respectively, and would initially share 1.5 MHz at 849.000-850.500 MHz paired with 1.5 MHz at 894.000-895.500 MHz. Once Verizon Airfone's incumbent system ceases operations in the upper 0.5 MHz of each band, licensee B would shift its operations to 1.5 MHz at 849.500-851.000 MHz paired with 1.5 MHz at 894.500-896.000 MHz. If band plan 1 is implemented, the parties may agree to a different implementation scheme.

⁶ License C would be located in the lower 1.5 MHz portion of each 2 MHz band (1.5 MHz at 849.000-850.500 MHz paired with 1.5 MHz at 894.000-895.500 MHz). License D would be located in the upper 0.5 MHz portion of each 2 MHz band (0.5 MHz at 850.500-851.000 MHz paired with 0.5 MHz at 895.500-896.000 MHz).

⁷ License E would be located in the lower 0.5 MHz portion of each 2 MHz band (0.5 MHz at 849.000-849.500 MHz paired with 0.5 MHz at 894.000-894.500 MHz). License F would be located in the upper 1.5 MHz portion of each 2 MHz band (1.5 MHz at 849.500-851.000 MHz paired with 1.5 MHz at 894.500-896.000 MHz).

Communications Act.⁸ Similarly, the Commission is required to resolve by competitive bidding mutually exclusive general aviation air-ground applications.⁹ To date, the Commission has accepted for filing nine groups of mutually exclusive general aviation applications, which are currently pending. Therefore, the Wireless Telecommunications Bureau ("WTB") will, pursuant to its delegated authority, schedule an auction to resolve these applications.¹⁰

4. In the *Notice*, we request comment on a number of issues relating to competitive bidding procedures for both commercial air-ground and general aviation licenses. We propose to conduct auctions of both commercial and general aviation air-ground licenses in conformity with the general competitive bidding rules set forth in Part 1, Subpart Q, of the Commission's Rules, and substantially consistent with the bidding procedures that have been employed in previous Commission auctions.¹¹ Specifically, we propose to employ the Part 1 rules governing, among other things, designated entities, application and payment procedures, collusion issues, and unjust enrichment. Under this proposal, such rules would be subject to any modifications that the Commission may adopt in its Part 1 Competitive Bidding proceeding. In addition, consistent with current practice, matters such as the appropriate competitive bidding design, as well as minimum opening bids and reserve prices, would be determined by WTB pursuant to its delegated authority.¹² We seek comment on this proposal as well as on whether any of our Part 1 competitive bidding rules would be inappropriate, or should be modified, for auctions of either commercial or general aviation air-ground licenses.

5. With respect to the commercial air-ground licenses we are making available, we are providing applicants with the opportunity to bid on licenses constituting different band configurations. Accordingly, the determination of whether individual commercial air-ground license applications are mutually exclusive for purposes of Section 309(j) will be based on whether different applicants have applied for licenses in different band plan license configurations as well as on whether different applicants have applied for the same licenses. In other words, because only one band configuration will be implemented, applicants that apply for licenses in different configurations will be considered to have

⁸ 47 U.S.C. § 309(j).

⁹ The Balanced Budget Act of 1997, Pub. L. No. 105-33, Title III, 111 Stat. 251 (1997), amended Section 309(j) to require the Commission to award mutually exclusive applications for initial licenses or permits using competitive bidding procedures, with very limited exceptions. These exceptions are licenses and construction permits for public safety radio services, digital television service licenses and permits given to existing terrestrial broadcast licensees to replace their analog television service licenses, and licenses and construction permits for noncommercial educational broadcast stations and public broadcast stations under 47 U.S.C. § 397(6). See 47 U.S.C. § 309(j)(1), (2).

¹⁰ This auction will be limited to the parties in each of the nine groups of applicants that have filed mutually exclusive applications, which constitute closed filing groups. See 47 C.F.R. § 22.131. These parties will be required to file short-form applications (FCC Form 175) and submit upfront payments to participate in the auction. See 47 C.F.R. §§ 1.2105(a) & (b), 1.2106.

¹¹ See 47 C.F.R. §§ 1.2101-1.2113.

¹² See Amendment of Part 1 of the Commission's Rules - Competitive Bidding Procedures, Allocation of Spectrum Below 5 GHz Transferred from Federal Government Use, 4660-4685 MHz, *Third Report and Order and Second Further Notice of Proposed Rule Making*, 13 FCC Rcd 374, 448 ¶¶124-125 (1997) ("*Part 1 Third R&O*") (directing WTB to seek comment on specific mechanisms related to day-to-day auction conduct such as the structure of bidding rounds and stages, establishment of minimum opening bids or reserve prices, minimum accepted bids, activity requirements for each stage of the auction, and stopping rules); Amendment of Part 1 of the Commission's Rules - Competitive Bidding Procedures, *Order, Memorandum Opinion and Order and Notice of Proposed Rule Making*, 12 FCC Rcd 5686, 5697 ¶16 (1997) (clarifying that, pursuant to Section 0.131 of the Commission's Rules, 47 C.F.R. § 0.131, the Chief, Wireless Telecommunications Bureau, has delegated authority to implement all of the Commission's rules pertaining to auctions procedures).

filed mutually exclusive applications. We tentatively conclude, however, that this and any other differences from our past auctions do not necessitate any changes to our Part 1 competitive bidding rules, and that WTB can address such differences through its standard practice of seeking comment on and adopting procedures for specific auctions. We seek comment on this tentative conclusion.

6. We tentatively conclude that small business bidding credits are appropriate for the commercial air-ground service.¹³ We base this conclusion on the fact that no commercial air-ground license will authorize the use of as much spectrum as other nationwide services for which the Commission has declined to adopt small business bidding credits. In addition, we believe that the operation of a commercial air-ground service may require lower capital expenditures than other nationwide services, such as satellite services, because the necessary infrastructure may be less costly.¹⁴ Thus, we tentatively conclude that small businesses may be able to attract the necessary capital to provide commercial air-ground service, particularly if they are assisted by bidding credits.¹⁵ We seek comment on these tentative conclusions.

7. Having tentatively concluded that small businesses may be able to provide commercial air-ground service, we nonetheless recognize that such operations may be very capital-intensive relative to other services provided to smaller geographic areas. We therefore propose to use the same small business definitions we have adopted for other capital-intensive services that serve large geographic areas. Specifically, we propose to define a small business as an entity with average annual gross revenues for the three preceding years not exceeding \$40 million, and to define a very small business as an entity with average annual gross revenues for the three preceding years not exceeding \$15 million. We also propose a 15 percent bidding credit for small businesses and a 25 percent bidding credit for very small businesses, as set forth in our standardized schedule at 47 C.F.R. § 1.2110(f)(2). These are the same tiered small business definitions and bidding credits that we adopted, for example, for EAG-based licenses in the upper and lower 700 MHz bands.¹⁶ We note also that AirCell and Space Data, in *ex parte* comments, support these small business definitions and bidding credits as appropriate for commercial air-ground service.¹⁷

8. We request comment on these proposals. In particular, we invite commenters to discuss the expected capital requirements and other characteristics of the commercial air-ground operations that

¹³ We are coordinating these size standards with the U.S. Small Business Administration.

¹⁴ Air-ground service may also require fewer ground (base) stations than other terrestrial services that are provided on a nationwide basis, such as broadband PCS.

¹⁵ In *ex parte* comments, AirCell and Space Data urge the Commission to adopt small business bidding credits for commercial air-ground licenses, arguing that they are small businesses that have the resources and expertise to provide air-ground service but may not be able to compete for a license without bidding credits. Letter from Michele C. Farquhar, Counsel to AirCell, Inc., to Marlene H. Dortch, Secretary, Federal Communications Commission, dated Sept. 17, 2004 (AirCell Sept. 17 *Ex parte* letter); Letter from Jerry Knoblach, CEO, Space Data Corporation, to Marlene H. Dortch, Secretary, Federal Communications Commission, dated Oct. 28, 2004 (Space Data Oct. 28 *Ex parte* letter).

¹⁶ See Reallocation and Service Rules for the 698-746 MHz Spectrum Band (Television Channels 52-59), *Report and Order*, 17 FCC Rcd 2153 (2002); Service Rules for the 746-764 and 776-794 MHz Bands, and Revisions of Part 27 of the Commission's Rules, *First Report and Order*, 15 FCC Rcd 25495 (2000). The country is divided into six Economic Area Groupings (EAGs); thus, EAGs are very large geographic areas.

¹⁷ AirCell Sept. 17 *Ex parte* letter, at 2; Space Data Oct. 28 *Ex parte* letter, at 2-3. AirCell and Space Data also suggest that the Commission consider higher bidding credits. However, neither company makes a specific proposal or supplies specific facts to support such a proposal.

may be provided using the licenses made available by today's Report and Order, and the relationship of such requirements and characteristics to small business definitions and bidding credits. We invite commenters to provide comparisons with other services for which the Commission has established bidding credits. To the extent commenters support a different bidding credit regime than the one proposed here, they should support their proposals with relevant information. Such comments should provide information on, for example, the technology that a commercial air-ground licensee is likely to employ, the cost of deployment, and other factors that may affect capital requirements for commercial air-ground operations.

9. We also seek comment on whether our proposed designated entity provisions, if applied to the commercial air-ground service, would promote participation by businesses owned by minorities and by women, as well as participation by rural telephone companies. To the extent that commenters propose additional provisions to enhance participation by minority-owned or women-owned businesses, commenters should address how we should craft such provisions to meet the relevant standards of judicial review.¹⁸

10. In contrast to the commercial air-ground licenses made available by today's Report and Order, general aviation air-ground licenses are specialized licenses that are generally valued by relatively small businesses. For this reason, we expect that small businesses interested in acquiring these licenses are unlikely to have difficulty obtaining the capital needed to participate in an auction.¹⁹ We seek comment on whether small business bidding credits would be appropriate for the general aviation air-ground service.

B. Legal Basis

11. The proposed action is authorized under Sections 1, 4(i), 11, 303(r) and (y), 308, 309, and 332 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 154(i), 161, 303(r), 303(y), 308, 309, and 332.

C. Description and Estimate of the Number of Small Entities to Which the Rules Will Apply

12. The RFA directs agencies to provide a description of, and, where feasible, an estimate of, the number of small entities that may be affected by the rules adopted herein.²⁰ The RFA generally defines the term "small entity" as having the same meaning as the terms "small business," "small organization," and "small governmental jurisdiction."²¹ In addition, the term "small business" has the same meaning as the term "small business concern" under the Small Business Act.²² A "small business

¹⁸ See *United States v. Virginia*, 518 U.S. 515 (1996); *Adarand Constructors v. Peña*, 515 U.S. 200 (1995).

¹⁹ We note that the Commission did not adopt small business bidding credits for cellular unserved area authorizations, which it found were valued primarily by a discrete group of small businesses. See Implementation of Section 309(j) of the Communications Act - Competitive Bidding, *Ninth Report and Order*, 11 FCC Rcd 14769, 14791 ¶45 (1996).

²⁰ 5 U.S.C. § 603.

²¹ 5 U.S.C. § 601(6).

²² 5 U.S.C. § 601(3) (incorporating by reference the definition of "small-business concern" in the Small Business Act, 15 U.S.C. § 632). Pursuant to 5 U.S.C. § 601(3), the statutory definition of a small business applies "unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register."

concern” is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the Small Business Administration (SBA).²³

13. *Wireless Service Providers.* The SBA has developed a small business size standard for wireless firms within the two broad economic census categories of “Paging”²⁴ and “Cellular and Other Wireless Telecommunications.”²⁵ Under both SBA categories, a wireless business is small if it has 1,500 or fewer employees. For the census category of Paging, Census Bureau data for 1997 show that there were 1,320 firms in this category, total, that operated for the entire year.²⁶ Of this total, 1,303 firms had employment of 999 or fewer employees, and an additional 17 firms had employment of 1,000 employees or more.²⁷ Thus, under this category and associated small business size standard, the great majority of firms can be considered small. For the census category Cellular and Other Wireless Telecommunications, Census Bureau data for 1997 show that there were 977 firms in this category, total, that operated for the entire year.²⁸ Of this total, 965 firms had employment of 999 or fewer employees, and an additional 12 firms had employment of 1,000 employees or more.²⁹ Thus, under this second category and size standard, the great majority of firms can, again, be considered small.

14. *Cellular Licensees.* The SBA has developed a small business size standard for wireless firms within the broad economic census category “Cellular and Other Wireless Telecommunications.”³⁰ Under this SBA category, a wireless business is small if it has 1,500 or fewer employees. For the census category Cellular and Other Wireless Telecommunications firms, Census Bureau data for 1997 show that there were 977 firms in this category, total, that operated for the entire year.³¹ Of this total, 965 firms had employment of 999 or fewer employees, and an additional 12 firms had employment of 1,000 employees or more.³² Thus, under this category and size standard, the great majority of firms can be considered small. According to the most recent Trends in Telephone Service data, 719 carriers reported that they were engaged in the provision of cellular service, personal communications service, or specialized mobile radio telephony services, which are placed together in the data.³³ We have estimated that 294 of these are

²³ 15 U.S.C. § 632.

²⁴ 13 C.F.R. § 121.201, NAICS code 513321 (changed to 517211 in October 2002).

²⁵ *Id.*

²⁶ U.S. Census Bureau, 1997 Economic Census, Subject Series: “Information,” Table 5, Employment Size of Firms Subject to Federal Income Tax: 1997, NAICS code 513321 (issued Oct. 2000).

²⁷ *Id.* The census data do not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees; the largest category provided is “Firms with 1000 employees or more.”

²⁸ U.S. Census Bureau, 1997 Economic Census, Subject Series: “Information,” Table 5, Employment Size of Firms Subject to Federal Income Tax: 1997, NAICS code 513322 (issued Oct. 2000).

²⁹ *Id.* The census data do not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees; the largest category provided is “Firms with 1000 employees or more.”

³⁰ 13 C.F.R. § 121.201, NAICS code 513322 (changed to 517212 in October 2002).

³¹ U.S. Census Bureau, 1997 Economic Census, Subject Series: “Information,” Table 5, Employment Size of Firms Subject to Federal Income Tax: 1997, NAICS code 513322 (issued Oct. 2000).

³² *Id.* The census data do not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees; the largest category provided is “Firms with 1000 employees or more.”

³³ FCC, Wireline Competition Bureau, Industry Analysis and Technology Division, “Trends in Telephone Service” at Table 5.3, page 5-5 (August 2003). This source uses data that are current as of December 31, 2001.

small, under the SBA small business size standard.³⁴

15. *Air-Ground Radiotelephone Service*. The Commission has not adopted a small business size standard specific to the Air-Ground Radiotelephone Service.³⁵ We will use SBA's small business size standard applicable to "Cellular and Other Wireless Telecommunications," *i.e.*, an entity employing no more than 1,500 persons.³⁶ There are approximately 100 licensees in the Air-Ground Radiotelephone Service, and we estimate that almost all of them qualify as small under the SBA small business size standard.

D. Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements for Small Entities

16. The *Notice* does not propose any new reporting, recordkeeping, or other compliance requirements but merely proposes to extend the Commission's existing Part 1 competitive bidding and application requirements to the commercial and general aviation Air-Ground Radiotelephone Service.

E. Steps Taken to Minimize Significant Economic Impact on Small Entities, and Significant Alternatives Considered

17. The RFA requires an agency to describe any significant alternatives that it has considered in reaching its proposed approach, which may include the following four alternatives: "(1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance or reporting requirements under the rule for small entities; (3) the use of performance, rather than design, standards; and (4) an exemption from coverage of the rule, or any part thereof, for small entities."³⁷

18. Specifically to assist small businesses, the *Notice* proposes to establish the same small business size standards and associated small business bidding credits for the commercial Air-Ground Radiotelephone Service as the Commission has adopted for a number of other wireless services, and also asks whether those small business size standards and associated small business bidding credits would be appropriate for the general aviation Air-Ground Radiotelephone Service.³⁸ The Commission will continue to examine alternatives in the future with the objectives of eliminating unnecessary regulations and minimizing any significant economic impact on small entities. We invite comment on any additional significant alternatives parties believe should be considered and on how the approach outlined in the *Notice* will impact small entities, including small non-profits and small governmental entities.

F. Federal Rules that May Duplicate, Overlap, or Conflict with the Proposed Rules

19. None.

³⁴ *Id.*

³⁵ The service is defined in Section 22.99 of the Commission's Rules, 47 C.F.R. § 22.99.

³⁶ 13 CFR § 121.201, NAICS codes 513322 (changed to 517212 in October 2002).

³⁷ 5 U.S.C. §§ 603(c)(1)-(c)(4).

³⁸ See *Notice* at ¶¶ 175 & 178, *supra*.

**STATEMENT OF
CHAIRMAN MICHAEL K. POWELL**

In the Matter of Amendment of Part 22 of the Commission's 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, WT Docket No. 03-103

Amendment of Parts 1 and 22 of the Commission's Rules To Adopt Competitive Bidding Rules for Commercial and General Aviation Air-Ground Radiotelephone Service, WT Docket No. 05-42

Application of Verizon Airfone Inc. for Renewal of 800 MHz Air-Ground Radiotelephone License, Call Sign KNKG804, File No. 0001716212

Report and Order and Notice of Proposed Rulemaking, adopted December 15, 2004.

The world of wireless telecommunications has seen immense technological and marketplace developments in the last decade. During that time, however, the 800 MHz commercial air-ground service has been locked in a narrowly defined technological and regulatory box. With this action today, we take important steps to bring this service up-to-date as both a technical and marketplace matter. We adopt an innovative new licensing approach that will allow the marketplace to help direct the most highly valued use of the commercial air-ground spectrum. We grant future licensees significant flexibility to meet consumer demand for broadband and other wireless services onboard aircraft while providing a reasonable transition period for the single remaining incumbent system. We lift the archaic technical constraints currently imposed on the 800 MHz service, while implementing the requirements and procedures necessary to ensure that public safety and other operations in adjacent bands are protected from harmful interference. We thus bring the 800 MHz commercial air-ground service into the 21st century and lay the groundwork for its continued growth and expansion as well as its participation in the marketplace of air-ground services provided to airplane passengers via multiple modes.