APPENDIX A

I. IB Docket No. 02-34

A. Comments, filed June 3, 2002

1. Boeing Company (Boeing)
2. Cellular Telecommunications & Internet Association (CTIA)
3. Final Analysis Communication Services, Inc. (Final Analysis)
4. Hughes Network Systems, Inc., Hughes Communications, Inc., and Hughes Communications Galaxy, Inc. (Hughes)
5. Inmarsat Ventures PLC (Inmarsat)
6. Intelsat LLC (Intelsat)
7. PanAmSat Corporation (PanAmSat)
8. Pegasus Development Corporation (Pegasus)
9. Satellite Industry Association (SIA)
10. SES Americom, Inc. (SES Americom)
11. Telesat Canada (Telesat)
12. Teledesic LLC (Teledesic)

B. Replies, filed July 2, 2002

1. ICO Global Communications (Holdings) Ltd. (ICO)
2. Intelsat
3. ORBCOMM LLC (Orbcomm)
4. PanAmSat
5. SES Americom
6. Teledesic
7. Telesat

II. IB Docket No. 02-54

A. Comments

AON Space, Inc.
Arianespace Inc.
Dr. Constantine Cassapakis
Jan King
National Remote Sensing and Space Law Center
Nickolaus E. Leggett
Orbcomm LLC
PanAmSat Corp.
Radio Amateur Satellite Corp.
Satellite Industry Association ("SIA")
Telesat Canada
Victor J. Slabinski

B. Reply Comments

Radio Amateur Satellite Corp.
SES Americom, Inc.
Telesat Canada
Victor J. Slabinski

C. Late-Filed Comments

Massachusetts Institute of Technology Lincoln Laboratory

APPENDIX B

Rule Changes

For the reasons discussed above, the Federal Communications Commission amends title 47 of the Code of Federal Regulations, part 25, as follows:

PART 1 -- PRACTICE AND PROCEDURE

1. The authority citation for Part 1 continues to read as follows:

Authority: 47 U.S.C. 151, 154(i), 154(j), 155, 225, 303(r), 309 and 325(e).

2. Amend §1.1113 by adding paragraph (d) to read as follows:

§1.1113 Return or refund of charges.

* * * * *

(d) Applicants for space station licenses under the first-come, first served procedure set forth in part 25 of this title will be entitled to a refund of the fee if, before the Commission has placed the application on public notice, the applicant notifies the Commission that it no longer wishes to keep its application on file behind the licensee and any other applicants who filed their applications before its application, and specifically requests a refund of the fee and dismissal of its application.

PART 25 -- SATELLITE COMMUNICATIONS

3. The authority citation for Part 25 continues to read as follows:

Authority: 47 U.S.C. 701-744. Interprets or applies Sections 4, 301, 302, 303, 307, 309, and 332 of the Communications Act, as amended, 47 U.S.C. Sections 154, 301, 302, 303, 307, 309, 332, unless otherwise noted.

4. Amend § 25.112 by adding paragraph (a)(3) and revising the introductory language in paragraph (b) to read as follows:

§ 25.112 Defective applications.

(a) * * *

(3) The application requests authority to operate a space station in a frequency band that is not allocated internationally for such operations under the Radio Regulations of the International Telecommunication Union.

(b) Applications for space station authority found defective under paragraph (a)(3) of this section will not be considered. Applications for authority found defective under paragraphs (a)(1) or (a)(2) of this section may be accepted for filing if:

* * * * *

5. Amend § 25.113 by revising paragraph (g) to read as follows:

§ 25.113 Construction permits, station licenses and launch authority.

* * * * *

(g) A launch authorization and station license (i.e., operating authority) must be applied for and granted before a space station may be launched and operated in orbit. Request for launch authorization may be included in an application for space station license. However, an application for authority to launch and operate an on-ground spare satellite will be considered pursuant to the following procedures:

(1) Applications for launch and operation of an on-ground spare NGSO-like satellite will be considered pursuant to the procedures set forth in Section 25.157 of this Chapter, except as set forth in paragraph (g)(3) of this section.

(2) Applications for launch and operation of an on-ground spare GSO-like satellite will be considered pursuant to the procedures set forth in Section 25.158 of this Chapter, except as set forth in paragraph (g)(3) of this section.

(3) Neither paragraph (g)(1) nor (g)(2) will apply in cases where the space station to be launched is determined to be an emergency replacement for a previously authorized space station that has been lost as a result of a launch failure or a catastrophic in-orbit failure.

6. Amend § 25.114 by revising paragraphs (b) and removing and reserving paragraph (c)(13), to read as follows:

§ 25.114 Applications for space station authorizations.

* * * * *

(b) Each application for a new or modified space station authorization must constitute a concrete proposal for Commission evaluation, although the applicant may propose alternatives that increase flexibility in accommodating the satellite in orbit. Each application must also contain the formal waiver required by Section 304 of the Communications Act, 47 U.S.C. 304. The technical information for a proposed satellite system need not be filed on any prescribed form but should be complete in all pertinent details. Applications for new space station authorizations other than authorizations for the Direct Broadcast Service (DBS) and Digital Audio Radio Satellite (DARS) service must be filed electronically through the International Bureau Filing System (IBFS).

(c) * * *
(13) [reserved].
* * * * *

7. Amend § 25.116 by removing and reserving paragraph (b)(3); adding paragraph (b)(5); revising the introductory language in paragraph (c), redesignating paragraph (d) as (e), and adding new paragraph (d) to read as follows:

§ 25.116 Amendments to applications.

(b) * * *
(3) [reserved].
(5) Amendments to "defective" space station applications, within the meaning of section 25.112 of this Chapter will not be considered.

* * * * *

(c) Any application for an NGSO-like satellite license within the meaning of Section 25.157 of this chapter will be considered to be a newly filed application if it is amended by a major amendment (as defined by paragraph (b) of this section) after a "cut-off" date applicable to the application, except under the following circumstances:

* * * * *

(d) Any application for a GSO-like satellite license within the meaning of Section 25.158 of this chapter will be considered to be a newly filed application if it is amended by a major amendment (as defined by paragraph (b) of this section), and will cause the application to lose its status relative to later-filed applications in the "queue" as described in Section 25.158 of this Chapter.

* * * * *

8. Amend § 25.117 by redesignating paragraph (d) as (d)(1), and adding paragraph (d)(2) to read as follows:

§ 25.117 Modification of station license.

* * * * *

(d) * * *

(2) Applications for modifications of space station authorizations will be granted except under the following circumstances:

(i) Granting the modification would make the applicant unqualified to operate a space station under the Commission's rules.

(ii) Granting the modification request would not serve the public interest, convenience, and necessity.

(iii) Except as set forth in paragraph (d)(2)(iv) of this section, applications for modifications of GSO-like space station authorizations granted pursuant to the procedure set forth in Section 25.158 of this Chapter, which seek to relocate a GSO satellite or add a frequency band to the authorization, will be placed in a queue pursuant to Section 25.158 of this Chapter and considered only after previously filed space station license applications or space station modification applications have been considered.

(iv) Applications for modifications of space station authorizations to increase the authorized bandwidth will not be considered in cases in which the original space station authorization was granted pursuant to the procedures set forth in Section 25.157(e) or 25.158(c)(4) of this Chapter.

* * * * *

~~9. Amend § 25.119 by adding paragraph (g) to read as follows:~~

§ 25.119 Assignment or transfer of control of station authorization.

* * * * *

(g) The Commission retains discretion in reviewing assignments and transfers of control of space station licenses to determine whether the initial license was obtained in good faith with the intent to construct a satellite system.

10. Amend § 25.120 by revising paragraph (b) to read as follows:

§ 25.120 Application for special temporary authorization.

* * * * *

(b)(1) The Commission may grant a temporary authorization only upon a finding that there are extraordinary circumstances requiring temporary operations in the public interest and that delay in the institution of these temporary operations would seriously prejudice the public interest. Convenience to the applicant, such as marketing considerations or meeting scheduled customer in-service dates, will not be deemed sufficient for this purpose.
(2) The Commission may grant a temporary authorization for a period not to exceed 180 days, with additional periods not exceeding 180 days, if the Commission has placed the special temporary authority (STA) request on public notice.
(3) The Commission may grant a temporary authorization for a period not to exceed 60 days, if the STA request has not been placed on public notice, and the applicant plans to file a request for regular authority for the service.
(4) The Commission may grant a temporary authorization for a period not to exceed 30 days, if the STA request has not been placed on public notice, and an application for regular authority is not contemplated.

* * * * *

11. Amend § 25.121 by revising paragraph (e) to read as follows:

§ 25.121 License term and renewals.

* * * * *

(e) Renewal of licenses. Applications for renewals of earth station licenses must be submitted on FCC Form 405 (Application for Renewal of Radio Station License in Specified Services) no earlier than 90 days, and no later than 30 days, before the expiration date of the license. Applications for space station system replacement authorization for non-geostationary orbit satellites shall be filed no earlier than 90 days, and no later than 30 days, prior to the end of the twelfth year of the existing license term.

12. Amend § 25.137 by revising paragraphs (b), (c), and (d), and adding paragraphs (e), (f), and (g), to read as follows:

§ 25.137 Application requirements for earth stations operating with non-U.S. licensed space stations.

* * * * *

(b) Earth station applicants, or entities filing a "letter of intent," or "Petition for Declaratory Ruling," requesting authority to operate with a non-U.S. licensed space station must attach to their FCC Form 312 an exhibit providing legal and technical information for the non-U.S. licensed space station in accordance with part 25 of this Chapter. Applications addressed in this paragraph must be filed electronically through the International Bureau Filing System (IBFS).

(c) A non-U.S. licensed NGSO-like satellite system seeking to serve the United States can be considered contemporaneously with other U.S. NGSO-like satellite system pursuant to Section 25.157 of this Chapter and considered before later-filed applications of other U.S. satellite system operators, and a non-U.S.-licensed GSO-like satellite system seeking to serve the United States can have its request placed in a queue pursuant to Section 25.158 of this Chapter and considered before later-filed applications of other U.S. satellite system operators, if the non-U.S. licensed satellite system is:

(1) In orbit and operating;
(2) Has a license from another administration; or
(3) Has been submitted for coordination to the International Telecommunication Union.

(d) Earth station applicants requesting authority to operate with a non-U.S. licensed space station must demonstrate that the space station the applicant seeks to access has complied with all applicable Commission requirements for non-U.S. licensed systems to operate in the United States, including but not limited to the following:

(1) Milestones,
(2) Reporting requirements,
(3) Any other applicable service rules;
(4) Posting a bond of $7.5 million for NGSO-like satellite systems, or $5 million for GSO-like satellites, denominated in U.S. dollars, compliant with the terms of Section 25.149 of this Chapter;
(5) Non-U.S. licensed GSO-like space station operators with a total of five requests for access to the U.S. market in a particular frequency band, or a total of five previously granted requests for access to the U.S. market with unbuilt GSO-like space stations in a particular frequency band, or a combination of pending GSO-like requests and granted requests for unbuilt GSO-like space stations in a particular frequency band that equals five, will not be permitted to request access to the U.S. market with another GSO-like space station license in that frequency band. In addition, non-U.S.-licensed NGSO-like satellite system operators with one request on file with the Commission in a particular frequency band, or one granted request for an unbuilt NGSO-like satellite system in a particular frequency band, will not be permitted to request access to the U.S. market with another NGSO-like satellite system in that frequency band.

(e) A non-U.S.-licensed satellite operator that is seeking to serve the United States pursuant to a Letter of Intent may amend its request by submitting an additional Letter of Intent. Such additional Letters of Intent will be treated as amendments filed by U.S. space station applicants for purposes of determining the order in which the Letters of Intent will be considered relative to other pending applications.

(f) A non-U.S.-licensed satellite operator that has been permitted to serve the United States pursuant to a Letter of Intent or Petition for Declaratory Ruling, may modify its U.S. operations under the procedures set forth in Section 25.117(d) of this Chapter.

(g) A non-U.S.-licensed satellite operator that has been permitted to serve the United States pursuant to a Petition for Declaratory Ruling must notify the Commission if it plans to transfer control or assign its license to another party, so that the Commission can afford interested parties an opportunity to comment on whether the proposed transaction affects any of the considerations we made when we allowed the satellite operator to enter the U.S. market. If the transferee or assignee is not licensed by or seeking a license from a country that is a member of the World Trade Organization for services covered under the World Trade Organization Basic Telecommunications Agreement, the non-U.S.-licensed satellite operator will be required to make the showing described in paragraph (a) of this Section.

13. Amend § 25.140 by revising paragraph (b) and removing and reserving paragraphs (c) and (d) to read as follows:

§ 25.140 Qualifications of fixed-satellite space station licensees.

* * * * *

(b) Each applicant for a space station authorization in the fixed-satellite service must demonstrate, on the basis of the documentation contained in its application, that it is legally, technically, and otherwise qualified to proceed expeditiously with the construction, launch and/or operation of each proposed space station facility immediately upon grant of the requested authorization. Each applicant must provide the following information:

(1) The information specified in § 25.114; and

(2) An interference analysis to demonstrate the compatibility of its proposed system 2 degrees from any authorized space station. An applicant should provide details of its proposed r.f. carriers which it believes should be taken into account in this analysis. At a minimum, the applicant must include, for each type of r.f. carrier, the link noise budget, modulation parameters, and overall link performance analysis. (See, e.g., appendices B and C to Licensing of Space Stations in the Domestic Fixed-Satellite Service (available at address in §0.445 of this chapter)).

(c) [reserved].
(d) [reserved].

* * * * *

§ 25.141 [Amended].
14. Amend § 25.141 by removing and reserving paragraph (b).

15. Amend § 25.142 by revising paragraph (a)(1), and by removing and reserving paragraph (a)(4) to read as follows:

§ 25.142 Licensing provisions for the non-voice, non-geostationary mobile-satellite service.

(a) Space station application requirements. (1) Each application for a space station system authorization in the non-voice, non-geostationary mobile-satellite service shall describe in detail the proposed non-voice, non-geostationary mobile-satellite system, setting forth all pertinent technical and operational aspects of the system, and the technical and legal qualifications of the

applicant. In particular, each application shall include the information specified in § 25.114. Applicants must also file information demonstrating compliance with all requirements of this section, and showing, based on existing system information publicly available at the Commission at the time of filing, that they will not cause unacceptable interference to any non-voice, non-geostationary mobile-satellite service system authorized to construct or operate.

* * *

(a)(4) [reserved.]

* * * * *

§ 25.143 [Amended].
16. Amend § 25.143 by removing and reserving paragraphs (b)(3) and (g).

17. Amend § 25.144 by revising paragraph (b) to read as follows:

§ 25.144 Licensing provisions for the 2.3 GHz satellite digital audio radio service.

* * * * *

(b) Milestone Requirements. Each applicant for system authorization in the satellite digital audio radio service must demonstrate within 10 days after a required implementation milestone as specified in the system authorization, and on the basis of the documentation contained in its application, certify to the Commission by affidavit that the milestone has been met or notify the Commission by letter that it has not been met. At its discretion, the Commission may require the submission of additional information (supported by affidavit of a person or persons with knowledge thereof) to demonstrate that the milestone has been met. The satellite DARS milestones are as follows, based on the date of authorization:

* * * * *

§ 25.145 [Amended].
18. Amend § 25.145 by removing and reserving paragraph (d).

§ 25.146 [Amended].
19. Amend § 25.146 by removing and reserving paragraph (i).

20. Amend part 25 by adding § 25.149 to read as follows:

§ 25.149 Posting of Bonds.

(a) For all satellite licenses other than DBS and DARS licenses issued after **[Insert effective date of rule]**, the licensee is required to post a bond within 30 days of the grant of its license. Failure to post the required bond will render the license null and void automatically.

(1) NGSO-like licensees are required to post a bond in the amount of $7.5 million.

(2) GSO-like licensees are required to post a bond in the amount of $5 million.

(b) The licensee must use a surety company deemed acceptable within the meaning of 31 U.S.C. § 9304 et seq. (See, e.g., Department of Treasury Fiscal Service, Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and As Acceptable Reinsurance Companies, 57 Fed. Reg. 29356 (1992).) The bond must name the U.S. Treasury as beneficiary in the event of the licensee's default. The licensee must provide the Commission with a copy of the performance bond, including all details and conditions.

(c) A licensee will be considered to be in default if it fails to meet any milestone deadline set forth in section 25.164 of this Chapter, and, at the time of milestone deadline, the licensee has not provided a sufficient basis for extending the milestone.

(d) An NGSO-like licensee will be permitted to reduce the amount of the bond by 20 percent of the original bond amount upon successfully meeting a milestone deadline set forth in section 25.164(b) of this Chapter. A GSO-like licensee will be permitted to reduce the amount of the bond by 25 percent of the original bond amount upon successfully meeting a milestone deadline set forth in section 25.164(a) of this Chapter.

21. Revise § 25.155 to read as follows:

§ 25.155 Mutually exclusive applications.

(a) The Commission will consider applications to be mutually exclusive if their conflicts are such that the grant of one application would effectively preclude by reason of harmful electrical interference, or other practical reason, the grant of one or more other applications.

(b) An application for an NGSO-like space station license, within the meaning of Section 25.157 of this Chapter, will be entitled to comparative consideration with one or more conflicting applications only if:

(1) The application is mutually exclusive with another NGSO-like space station application; and

(2) The application is received by the Commission in a condition acceptable for filing by the "cut-off" date specified in a public notice.

(c) An application for a GSO-like space station license, within the meaning of Section 25.158 of this Chapter, will be entitled to comparative consideration with one or more conflicting applications only if:

(1) The application is mutually exclusive with another GSO-like space station application; and

(2) The application is received by the Commission in a condition acceptable for filing at the same millisecond as another GSO-like space station application with which it is mutually exclusive.

22. Amend § 25.156 by adding paragraph (d) to read as follows:

§ 25.156 Consideration of applications.

* * * * *

(d)(1) Applications for NGSO-like satellite systems will be considered pursuant to the procedures set forth in Section 25.157 of this part.

(2) Applications for GSO-like satellite systems will be considered pursuant to the procedures set forth in Section 25.158 of this part.

(3) Applications for NGSO-like satellite and GSO-like systems employing two or more service bands will be treated like separate applications for each service band, and each service band request will considered pursuant to Section 25.157 or Section 25.158, as appropriate.

(4) Applications for feeder link authority or intersatellite link authority will be treated like an application separate from its associated service band. Each feeder link request or intersatellite link request will be considered pursuant to the procedure applicable to the associated service band request.

(5) In cases where the Commission has not adopted frequency-band specific service rules, the Commission will not consider NGSO-like applications after it has granted a GSO-like application, and it will not consider GSO-like applications after it has granted an NGSO-like application, unless and until the Commission establishes NGSO/GSO sharing criteria for that frequency band. In the event that the Commission receives NGSO-like applications and GSO-like applications at the same time, and the Commission has not adopted sharing criteria in that band, the Commission will divide the spectrum between GSO-like and NGSO-like licensees based on the proportion of qualified GSO-like and NGSO-like applicants.

(6) An application for DBS or DARS services will be entitled to comparative consideration with one or more conflicting applications only if:

(i) The application is mutually exclusive with another application; and

(ii) The application is received by the Commission in a condition acceptable for filing by the "cut-off" date specified in a public notice.

23. Amend part 25 by adding § 25.157 to read as follows:

§ 25.157 Consideration of NGSO-like satellite applications.

(a) This section specifies the Commission's procedures for considering license applications "NGSO-like satellite systems." For purposes of this section, the term "NGSO-like satellite system" is defined as:

(1) All NGSO satellite systems, and

(2) All GSO MSS satellite systems, in which the satellites are designed to communicate with earth stations with omni-directional antennas.

(b) Each NGSO-like satellite system application will be reviewed to determine whether it is acceptable for filing within the meaning of Section 25.112 of this Chapter. Any application that is not acceptable for filing would be returned to the applicant.

(c) Each NGSO-like satellite system application that is acceptable for filing will be reviewed to determine whether it is a "competing application," *i.e.*, filed in response to a public notice initiating a processing round, or a "lead application," *i.e.*, all other NGSO-like satellite system applications.

(1) Competing applications that are acceptable for filing will be placed on public notice to provide interested parties an opportunity to file pleadings in response to the application pursuant to Section 25.154 of this Chapter.

(2) Lead applications that are acceptable for filing will be placed on public notice. This public notice will initiate a processing round, establish a cut-off date for competing NGSO-like satellite system applications, and provide interested parties an opportunity to file pleadings in response to the application pursuant to Section 25.154 of this Chapter.

(d) After review of each of the applications in the processing round, and all the pleadings filed in response to each application, the Commission will grant all the applications that meet the standards of Section 25.156(a) of this Chapter, and deny the other applications.

(e) (1) In the event that there is insufficient spectrum in the frequency band available to accommodate all the qualified applicants in a processing round, the available spectrum will be divided equally among the licensees whose applications are granted pursuant to paragraph (d) of this Section, except as set forth in paragraph (e)(2) or (e)(3) of this Section.

(2) In cases where there are only one or two applications in a processing round granted pursuant to paragraph (d) of this Section, each applicant will be assigned 1/3 of the available spectrum, and the remaining spectrum will be made available to other licensees in an additional processing round pursuant to paragraph (c) of this Section.

(3) In cases where there are three or more applications in a processing round granted pursuant to paragraph (d) of this Section, and one or more applicants apply for less spectrum than they would be warranted under paragraph (e)(1) of this Section, those applicants will be assigned the bandwidth amount they requested in their applications. In those cases, the remaining qualified applicants will be assigned the lesser of the amount of spectrum they requested in their applications and the amount spectrum that they would be assigned if the available spectrum were divided equally among the remaining qualified applicants.

(f) (1) Each licensee will be allowed to select the particular band segment it wishes to use no earlier than 60 days before they plan to launch the first satellite in its system, and no later than 30 days before that date, by submitting a letter to the Secretary of the Commission. The licensee shall serve copies of this letter to the other participants in the processing round pursuant to Section 1.47 of this title.

(2) The licensee shall request contiguous bandwidth in both the uplink and downlink band. Each licensee's bandwidth selection in both the uplink and downlink band shall not preclude other licensees from selecting contiguous bandwidth.

(3) If two or more licensees in a processing round request the same band segment, all licensees other than the first one to request that particular band segment will be required to make another selection.

(g) (1) In the event that an applicants' license is cancelled for any reason, the Commission will redistribute the bandwidth allocated to that applicant equally among the remaining applicants whose licenses were granted concurrently with the cancelled license, unless the Commission determines that such a redistribution would not result in a sufficient number of licensees remaining to make reasonably efficient use of the frequency band.

(2) In the event that the redistribution of bandwidth set forth in paragraph (g)(1) of this section would not result in a sufficient number of licensees remaining to make reasonably efficient use of the frequency band, the Commission will issue a public notice initiating a processing round, as set forth in paragraph (c) of this section, to invite parties to apply for an NGSO-like satellite system license to operate in a portion of the bandwidth made available as a result of the cancellation of the initial applicant's license. Parties already holding licenses to operate an NGSO-like satellite system in that frequency band will not be permitted to participate in that processing round.

(3) There is a presumption that three satellite licensees in a frequency band are sufficient to make reasonably efficient use of the frequency band.

(h) Services offered pursuant to an NGSO-like license in a frequency band granted before the Commission has adopted frequency-band-specific service rules for that band will be subject to the default service rules in Section 25.217 of this part.

24. Amend part 25 by adding § 25.158 to read as follows:

§ 25.158 Consideration of GSO-like satellite applications.

(a) This section specifies the Commission's procedures for considering license applications "GSO-like satellite systems." For purposes of this section, the term "GSO-like satellite system" is defined as a GSO satellite designed to communicate with earth stations with directional antennas. Examples of GSO-like satellite systems are those which use earth stations with antennas with directivity towards the satellites, such as FSS, and MSS feeder links which use GSO satellites. GSO-like satellite systems are satellite systems that are not NGSO-like satellite systems within the meaning of Section 25.157(a).

(b) Applications for GSO-like satellite system licenses will be placed in a queue and considered in the order that they are filed, pursuant to the following procedure:

(1) The application will be reviewed to determine whether it is acceptable for filing within the meaning of Section 25.112 of this Chapter. If not, the application will be returned to the applicant.

(2) If the application is acceptable for filing, the application will be placed on public notice pursuant to Section 25.151 of this Chapter, and interested parties will be given an opportunity to file pleadings pursuant to Section 25.154 of this Chapter.

(3) The application will be granted only if it meets each of the following criteria:

(i) After review of the application and any pleadings filed in response to that application, the Commission finds that the application meets the standards of Section 25.156(a) of this Chapter; and

(ii) The proposed satellite will not cause harmful interference to any previously licensed operations.

(c) An applicant for a GSO-like satellite system license is not allowed to transfer, assign, or otherwise permit any other entity to assume its place in any queue.

(d) In the event that two or more GSO-like satellite system license applications are mutually exclusive within the meaning of Section 25.155(c) of this Chapter, the Commission will consider those applications pursuant to the following procedure:

(1) Each application will be reviewed to determine whether it is acceptable for filing within the meaning of Section 25.112 of this Chapter. Any application not found acceptable for filing will be returned to the applicant.

(2) All applications that are acceptable for filing will be placed on public notice pursuant to Section 25.151 of this Chapter, and interested parties will be given an opportunity to file pleadings pursuant to Section 25.154 of this Chapter.

(3) Each application will be granted if it meets the criteria of paragraph (b)(3), and otherwise will be denied.

(4) In the event that two or more applications are granted pursuant to paragraph (e)(3) of this Section, the available bandwidth at the orbital location or locations in question will be divided equally among those licensees.

(5) Licensees whose licenses are granted pursuant to paragraph (c)(4) will be allowed to select the particular band segment it wishes to use no earlier than 60 days before they plan to launch the first satellite in its system, and no later than 30 days before that date, by submitting a letter to the Secretary of the Commission. The licensee shall serve copies of this letter to the other participants in the processing round pursuant to Section 1.47 of this title.

(6) Licensees whose licenses are granted pursuant to paragraph (c)(4) shall request contiguous bandwidth in both the uplink and downlink band. Each licensee's bandwidth selection shall not preclude other licensees from selecting contiguous bandwidth.

(7) If two or more licensees whose licenses are granted pursuant to paragraph (c)(4) request the same band segment, all licensees other than the first one to request that particular band segment will be required to make another selection.

(e) Services offered pursuant to a GSO-like license in a frequency band granted before the Commission has adopted frequency-band-specific service rules for that band will be subject to the default service rules in Section 25.217 of this part.

25. Amend part 25 by adding § 25.159 to read as follows:

§ 25.159 Limits on pending applications and unbuilt satellite systems.

(a) Applicants with a total of five applications for GSO-like space station licenses on file with the Commission in a particular frequency band, or a total of five licensed-but-unbuilt GSO-like space stations in a particular frequency band, or a combination of pending GSO-like applications and licensed-but-unbuilt GSO-like space stations in a particular frequency band that equals five, will not be permitted to apply for another GSO-like space station license in that frequency band.
(b) Applicants with an application for one NGSO-like satellite system license on file with the Commission in a particular frequency band, or one licensed-but-unbuilt NGSO-like satellite system in a particular frequency band, will not be permitted to apply for another NGSO-like satellite system license in that frequency band.
(c) If an applicant has an attributable interest in one or more other entities seeking one or more space station licenses, the pending applications and licensed-but-unbuilt satellite systems filed by those other entities will be counted as filed by the applicant for purposes of the limits on the number of pending space station applications and licensed-but-unbuilt satellite systems in this paragraph. For purposes of this paragraph, an applicant has an "attributable interest" in another entity if

(1) it holds equity (including all stockholdings, whether voting or nonvoting, common or preferred) and debt interest or interests, in the aggregate, exceed thirty-three (33) percent of the total asset value (defined as the aggregate of all equity plus all debt) of that entity, or

(2) it holds a controlling interest in that entity, or is the subsidiary of a party holding a controlling interest in that entity, within the meaning of 47 C.F.R. § 1.2110(b)(2).

(3) For purposes of paragraphs (c)(1) and (c)(2), ownership interests shall be calculated on a fully diluted basis, *i.e.*, all agreements, such as warrants, stock options, and convertible debentures, will generally be treated as if the rights thereunder already have been fully exercised.

(d) In the event that a licensee misses three or more milestones within any three-year period, the Commission will presume that the licensee obtained one or more of those licenses for speculative purposes. Unless the licensee rebuts this presumption, it will not be permitted to apply for a GSO-like satellite or an NGSO-like satellite system in any frequency band if it has two or more satellite applications pending, or two licensed-but-unbuilt satellite systems of any kind. This limit will remain in effect until the licensee provides adequate information to demonstrate that it is very likely to construct its licensed facilities if it were allowed to file more applications.
(e) For purposes of this section, "frequency band" means one of the paired frequency bands available for satellite service listed in Section 25.202 of this Chapter.

26. Amend § 25.161 by revising paragraph (a) to read as follows:

§ 25.161 Automatic termination of station authorization.

A station authorization shall be automatically terminated in whole or in part without further notice to the licensee upon:

(a)(1) Failure to meet any applicable milestone for implementation of the licensed satellite system specified in Sections 25.164(a) or (b) of this Chapter, without demonstrating that the failure was caused by circumstances beyond the licensee's control, or

(2) If there are no applicable milestones for implementation of the licensed satellite system specified in Sections 25.164(a) or (b) of this Chapter, the expiration of the required date of completion of construction or other required action specified in the authorization, or after any additional time authorized by the Commission, if a certification of completion of the required action has not been filed with the Commission unless a request for an extension of time has been filed with the Commission but has not been acted on;

* * * * *

27. Amend part 25 by adding § 25.164 to read as follows:

§ 25.164 Milestones.

(a) Licensees of geostationary orbit satellite systems other than DBS and DARS satellite systems, including GSO MSS satellite systems, licensed on or after **[insert effective date of rule]** will be required to comply with the schedule set forth below in implementing their satellite systems, unless a different schedule is established by this Chapter, or by Commission Order, or by Order adopted pursuant to delegated authority. These dates are to be measured from the date the license is issued.
One year: Enter into a binding non-contingent contract to construct the licensed satellite system.
Two years: Complete the critical design review of the licensed satellite system.
Three years: Begin the construction of the satellite.
Five years: Launch and operate the satellite.

(b) Licensees of non-geostationary orbit satellite systems other than DBS and DARS satellite systems licensed on or after **[insert effective date of rule]** will be required to comply with the schedule set forth below in implementing their satellite systems, unless a different schedule is established by this Chapter, or by Commission Order, or by Order adopted pursuant to delegated authority. These dates are to be measured from the date the license is issued.
One year: Enter into a binding non-contingent contract to construct the licensed satellite system.
Two years: Complete the critical design review of the licensed satellite system.
Two years, six months: Begin the construction of the first satellite in the licensed satellite system.
Three years, six months: Launch and operate the first satellite in the licensed satellite system.
Six years: Bring all the satellites in the licensed satellite system into operation.

(c) Licensees of all satellite systems, other than DBS and DARS satellite systems, licensed on or after **[insert effective date of rule]**, will be required to submit a copy of their binding non-contingent contract with the Commission on or before the date scheduled for entering into such a contract.

(d) Licensees of all satellite systems, other than DBS and DARS satellite systems, licensed on or after **[insert effective date of rule]**, will be required to submit information to the Commission sufficient to demonstrate that the licensee has completed the critical design review of the licensed satellite system on or before the date scheduled for entering into such a contract.

(e) Licensees of all satellite systems, other than DBS and DARS satellite systems, licensed on or after **[insert effective date of rule]**, will be required to submit information to the Commission sufficient to demonstrate that the licensee has commenced physical construction of its licensed spacecraft.
(f) In cases where the Commission grants a satellite authorization in different stages, such as a license for a satellite system using feeder links or intersatellite links, the earliest of the milestone schedules shall be applied to the entire satellite system.

28. Amend § 25.210 by removing and reserving paragraphs (e) and (g), and revising paragraph (f) to read as follows:

§ 25.210 Technical requirements for space stations in the Fixed-Satellite Service.

* * * * *

(e) [reserved.]

(f) All space stations in the Fixed Satellite Service in the 3600-3700 MHz, 3700-4200 MHz, 5091-5250 MHz, 5825-5925 MHz, 5925-6425 MHz, 6425-6525 MHz, 6525-6700 MHz, 6700-7025 MHz, 10.7-10.95 GHz, 10.95-11.2 GHz, 11.2-11.45 GHz, 11.45-11.7 GHz, 11.7-12.2 GHz, 12.2-12.7 GHz, 12.75-13.15 GHz, 13.15-13.2125 GHz, 13.2125-13.25 GHz, 13.75-14.0 GHz, 14.0-14.5 GHz and 15.43-15.63 GHz bands shall employ state-of-the-art full frequency reuse either through the use of orthogonal polarizations within the same beam and/or the use of spatially independent beams.

(g) [reserved.]

* * * * *

29. Revise part 25 by adding new § 25.217 to read as follows:

§ 25.217 Default Service Rules.

(a) The technical rules in this section apply only to licenses to operate a satellite system in a frequency band granted after a domestic frequency allocation has been adopted for that frequency band, but before any frequency-band-specific service rules have been adopted for that frequency band.

(b) (1) For all NGSO-like satellite licenses for which the application was filed pursuant to the procedures set forth in Section 25.157 of this Chapter after **[insert effective date of this rule]**, authorizing operations in a frequency band for which the Commission has not adopted frequency band-specific service rules at the time the license is granted, the licensee will be required to comply with the following technical requirements, notwithstanding the frequency bands specified in these rule provisions: Sections 25.142(d), 25.143(b)(2)(ii), 25.143(b)(2)(iii), 25.204(g), 25.210(c), 25.210(d), 25.210(f), 25.210(i), 25.210(k), and 25.210(l) of this Chapter.

(2) In addition to the requirements set forth in paragraph (b)(1) of this paragraph, the Commission will coordinate with the National Telecommunications and Information Administration (NTIA) regarding the operations of any licensees authorized to operate in a shared government/non-government frequency band, pursuant to the procedure set forth in Section 25.142(b)(2)(ii) of this Chapter.

(3) Earth station licensees authorized to operate with one or more space stations described in paragraph (b)(1) of this paragraph shall comply with the requirements in Section 25.136 of this Chapter. In addition, earth station licensees authorized to operate with one or more space stations described in paragraph (b)(1) of this paragraph in frequency bands shared with terrestrial wireless services shall comply with the requirements in Section 25.203(c) of this Chapter.

(c) (1) For all GSO-like satellite licenses for which the application was filed pursuant to the procedures set forth in Section 25.158 of this Chapter after **[insert effective date of this rule]**, authorizing operations in a frequency band for which the Commission has not adopted frequency band-specific service rules at the time the license is granted, the licensee will be required to comply with the following technical requirements, notwithstanding the frequency bands specified in these rule provisions: Sections 25.142(d), 25.143(b)(2)(iv), 25.204(g), 25.210(c), 25.210(d), 25.210(f), 25.210(i), 25.210(j), 25.210(k), and 25.210(l) of this Chapter.

(2) In addition to the requirements set forth in paragraph (c)(1) of this paragraph, the Commission will coordinate with the National Telecommunications and Information Administration (NTIA) regarding the operations of any licensees authorized to operate in a shared government/non-government frequency band, pursuant to the procedure set forth in Section 25.142(b)(2)(ii) of this Chapter.

(3) Earth station licensees authorized to operate with one or more space stations described in described in paragraph (c)(1) of this paragraph shall comply with the earth station antenna performance verification requirements in Section 25.132 of this Chapter, and the antenna gain pattern requirements in Sections 25.209(a) and (b) of this Chapter. In addition, earth station licensees authorized to operate with one or more space stations described in paragraph (c)(1) of this paragraph in frequency bands shared with terrestrial wireless services shall comply with the requirements in Section 25.203(c) of this Chapter.

(4) In addition to the requirements set forth in paragraph (c)(3) of this paragraph, earth station licensees with a gain equivalent or higher than the gain of a 1.2 meter antenna operating in the 14.0-14.5 GHz band, authorized to operate with one or more space stations described in paragraph (c)(1) of this paragraph in frequency bands greater than 14.5 GHz shall be required to comply with the antenna input power density requirements set forth in Section 25.212(c) of this Chapter.

(d) Applicants requesting authorization of a satellite subject to paragraphs (b) or (c) of this section must submit a narrative statement describing the debris mitigation design and operational strategies, if any, that they will use. Applicants are specifically required to submit a casualty risk assessment if planned post-mission disposal involves atmospheric re-entry of the spacecraft.

(e) In the event that the Commission adopts frequency band-specific service rules for a particular frequency band after it has granted one or more space station or earth station licenses for operations in that frequency band, those licensees will be required to come into compliance with the frequency band-specific service rules within 30 days of the effective date of those rules, unless otherwise specified by Commission or Bureau Order.

APPENDIX C

Default Service Rules

Below is a list of current Part 25 rules that we will apply as default service rules in cases where we grant satellite license applications in frequency bands for which we have not adopted frequency band-specific service rules. These requirements are also set forth in Section 25.217, a new rule set forth in Appendix B to this Order.

Default Service Rules for NGSO-Like Satellite Licenses

Rule Section	Additional Provisions
25.136	Standards for mobile earth stations licensed to operate with these satellites.
25.142(b)(2)(ii)	Coordination in shared government/non-government frequency bands.
25.142(d)	Prohibition of certain agreements.
25.143(b)(2)(ii)	Geographic service area requirements.
25.143(b)(2)(iii)	Geographic service area requirements.
25.204(g)	Power level requirements.
25.210(c)	Ability to change saturation flux densities in 4 dB steps over a 12 dB range.
25.210(d)	Orthogonal polarization.
25.210(f)	Full Frequency Reuse.
25.210(i)	Cross-polarization isolation of at least 30 dB.
25.210(k)	Co-polarized and cross-polarized antenna measurements required.
25.210(l)	Annual reports.

Default Service Rules for GSO-Like Satellite Licenses

Rule Section	Additional Provisions
25.132	Earth station performance verification requirements for earth stations licensed to operate with these satellites.
25.142(b)(2)(ii)	Coordination in shared government/non-government frequency bands.
25.142(d)	Prohibition of certain agreements.
25.143(b)(2)(iv)	Geographic service area requirements.
25.204(g)	Power level requirements.
25.209(a), (b)	Earth station antenna gain pattern requirements.
25.210(c)	Ability to change saturation flux densities in 4 dB steps over a 12 dB range.
25.210(d)	Orthogonal polarization.
25.210(f)	Full Frequency Reuse.
25.210(i)	Cross-polarization isolation of at least 30 dB.
25.210(j)	Station keeping.
25.210(k)	Co-polarized and cross-polarized antenna measurements required.
25.210(l)	Annual reports.
25.212(c)	EIRP limits applicable to earth stations licensed to operate with these satellites in frequency bands greater than 14.5 GHz.

APPENDIX D

FINAL REGULATORY FLEXIBILITY ANALYSIS

As required by the Regulatory Flexibility Act (RFA),[1] an Initial Regulatory Flexibility Analysis (IRFA) was incorporated in the *Notice of Proposed Rule Making* (*Notice*) in IB Docket No. 02-34.[2] The Commission sought written public comment on the proposals in the *NPRM*, including comment on the IRFA. This Final Regulatory Flexibility Analysis (FRFA) conforms to the RFA.[3]

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

The objective of the *First Report and Order* is to develop satellite licensing procedures that enable the Commission to license satellites more quickly than is possible under the current procedure. We need to adopt new satellite licensing procedures because, among other things, the current space station licensing procedure was developed in 1983, and it impedes U.S. satellite operators' compliance with recently adopted ITU rules. The need for new satellite licensing procedures is explained fully in Section IV.A. of the *First Report and Order*.

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

No comments were submitted in response to the IRFA.

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

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 proposed rules, if adopted.[4] The RFA generally defines the term "small entity " as having the same meaning as the terms "small business," "small organization," and "small governmental jurisdiction."[5] In addition, the term "small business" has the same meaning as the term "small business concern" under the Small Business Act.[6] 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).[7] A small organization is generally "any not-for-profit enterprise which is independently owned and operated and is not dominant in its field."[8]

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[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 the Commission's Space Station Licensing Rules and Policies, *Notice of Proposed Rulemaking*, IB Docket No. 02-34, 17 FCC Rcd 3847 (2002) (*Space Station Reform NPRM* or *Notice*).

[3] *See* 5 U.S.C. § 604.

[4] 5 U.S.C. § 604(a)(3).

[5] *Id.* § 601(6).

[6] 5 U.S.C. § 601(3) (incorporating by reference the definition of "small business concern" in 15 U.S.C. § 632). Pursuant to the RFA, 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." 5 U.S.C. § 601(3).

[7] Small Business Act, 15 U.S.C. § 632 (1996).

[8] 5 U.S.C. § 601(4).

Nationwide, as of 1992, there were approximately 275,801 small organizations.[9] "Small governmental jurisdiction" generally means "governments of cities, counties, towns, townships, villages, school districts, or special districts, with a population of less than 50,000."[10] As of 1992, there were approximately 85,006 such jurisdictions in the United States.[11] This number includes 38,978 counties, cities, and towns; of these, 37,566, or 96 percent, have populations of fewer than 50,000.[12] The Census Bureau estimates that this ratio is approximately accurate for all governmental entities. Thus, of the 85,006 governmental entities, we estimate that 81,600 (91 percent) are small entities. Below, we further describe and estimate the number of small entity licensees that may be affected by the proposed rules, if adopted.

The rules adopted in this *First Report and Order* affect satellite operators. The Commission has not developed a definition of small entities applicable to satellite operators. Therefore, the applicable definition of small entity is generally the definition under the SBA rules applicable to Satellite Telecommunications.[13] This definition provides that a small entity is expressed as one with $11.0 million or less in annual receipts.[14] 1997 Census Bureau data indicate that, for 1997, 273 satellite communication firms had annual receipts of under $10 million. In addition, 24 firms had receipts for that year of $10 million to $24,999,990.[15]

In addition, Commission records reveal that there are approximately 240 space station operators licensed by this Commission. We do not request or collect annual revenue information, and thus are unable to estimate of the number of licensees that would constitute a small business under the SBA definition. Small businesses may not have the financial ability to become space station licensees because of the high implementation costs associated with satellite systems and services.

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

In this *First Report and Order*, the Commission adopts a mandatory electronic filing requirement for space station license applicants. The Commission believes that filing satellite license applications electronically is no more burdensome than submitting paper applications, because a majority of satellite applicants currently file their applications electronically on a voluntary basis.

None of the other rules adopted in this *First Report and Order* are expected to increase the reporting, record keeping and other compliance requirements of any licensee.

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

[9] 1992 Economic Census, U.S. Bureau of the Census, Table 6 (special tabulation of data under contract to Office of Advocacy of the U.S. Small Business Administration).
[10] 5 U.S.C. § 601(5).
[11] U.S. Dept. of Commerce, Bureau of the Census, "1992 Census of Governments."
[12] *Id.*
[13] "This industry comprises establishments primarily engaged in providing point-to-point telecommunications services to other establishments in the telecommunications and broadcasting industries by forwarding and receiving communications signals via a system of satellites or reselling satellite telecommunications." Small Business Administration, 1997 NAICS Definitions, NAICS 513340.
[14] 13 C.F.R. § 120.121, NAICS code 513340.
[15] U.S. Census Bureau, 1997 Economic Census, Subject Service: Information, "Establishment and Firm Size," Table 4, NAICS 513340 (Issued Oct. 2000).

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."[16]

In this proceeding, we adopt rule revisions designed to allow the Commission to issue satellite licenses faster than is now possible, which will enable satellite operators to provide service faster, and to attract investors faster. This will have a positive economic impact on all satellite licensees, including small entities.

In the *Notice of Proposed Rulemaking*, the Commission proposed applying a first-come, first-served procedure to all satellite applications, including non-geostationary satellite applications. In the *First Report and Order,* the Commission concluded that applying a first-come, first-served procedure to non-geostationary satellite applications could enable one applicant to unreasonably exclude others, including small entities, from the market. Accordingly, the Commission rejected this proposal. *See* Section V.B. of the *First Report and Order*.

Report to Congress: The Commission will send a copy of the *First Report and Order*, including this FRFA, in a report to be sent to Congress pursuant to the Congressional Review Act, *see* 5 U.S.C. § 801(a)(1)(A). In addition, the Commission will send a copy of the *First Report and Order*, including FRFA, to the Chief Counsel for Advocacy of the Small Business Administration. A copy of the *First Report and Order* and FRFA (or summaries thereof) will also be published in the Federal Register. *See* 5 U.S.C. § 604(b).

[16] 5 U.S.C. § 603(c)(1) – (c)(4).

APPENDIX E

INITIAL REGULATORY FLEXIBILITY ANALYSIS

As required by the Regulatory Flexibility Act (RFA),[1] the Commission has prepared this present Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on small entities by the policies and rules proposed in this Further Notice of Proposed Rulemaking. 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 Further Notice of Proposed Rulemaking provided above in Section XI. The Commission will send a copy of the Further Notice of Proposed Rulemaking, including this IRFA, to the Chief Counsel for Advocacy of the Small Business Administration. *See* 5 U.S.C. § 603(a). In addition, the Further Notice of Proposed Rulemaking and IRFA (or summaries thereof) will be published in the Federal Register. *See id.*

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

The objective of the proposed rules is to discourage parties from filing "speculative" satellite applications, *i.e.*, applying for a satellite license without intending to construct the satellite facilities. These rule revisions are needed because speculative satellite applications can delay or preclude other parties from obtaining a satellite license and providing service to the public.

B. Legal Basis

The proposed action is supported by Sections 4(i), 7(a), 303(c), 303(f), 303(g), and 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 157(a), 303(c), 303(f), 303(g), 303(r).

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

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 proposed rules, if adopted.[2] The RFA generally defines the term "small entity " as having the same meaning as the terms "small business," "small organization," and "small governmental jurisdiction."[3] In addition, the term "small business" has the same meaning as the term "small business concern" under the Small Business Act.[4] 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).[5] A small organization is generally "any not-for-profit

[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] 5 U.S.C. § 603(b)(3).
[3] *Id.* § 601(6).
[4] 5 U.S.C. § 601(3) (incorporating by reference the definition of "small business concern" in 15 U.S.C. § 632). Pursuant to the RFA, 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." 5 U.S.C. § 601(3).
[5] Small Business Act, 15 U.S.C. § 632 (1996).

enterprise which is independently owned and operated and is not dominant in its field."[6] Nationwide, as of 1992, there were approximately 275,801 small organizations.[7] "Small governmental jurisdiction" generally means "governments of cities, counties, towns, townships, villages, school districts, or special districts, with a population of less than 50,000."[8] As of 1992, there were approximately 85,006 such jurisdictions in the United States.[9] This number includes 38,978 counties, cities, and towns; of these, 37,566, or 96 percent, have populations of fewer than 50,000.[10] The Census Bureau estimates that this ratio is approximately accurate for all governmental entities. Thus, of the 85,006 governmental entities, we estimate that 81,600 (91 percent) are small entities. Below, we further describe and estimate the number of small entity licensees that may be affected by the proposed rules, if adopted.

The rules proposed in this Notice of Proposed Rulemaking would affect satellite operators, if adopted. The Commission has not developed a definition of small entities applicable to satellite operators. Therefore, the applicable definition of small entity is generally the definition under the SBA rules applicable to Satellite Telecommunications.[11] This definition provides that a small entity is expressed as one with $11.0 million or less in annual receipts.[12] 1997 Census Bureau data indicate that, for 1997, 273 satellite communication firms had annual receipts of under $10 million. In addition, 24 firms had receipts for that year of $10 million to $24,999,990.[13]

In addition, Commission records reveal that there are approximately 240 space station operators licensed by this Commission. We do not request or collect annual revenue information, and thus are unable to estimate of the number of licensees that would constitute a small business under the SBA definition. Small businesses may not have the financial ability to become space station licensees because of the high implementation costs associated with satellite systems and services.

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

In this Further Notice of Proposed Rulemaking, the Commission invites comment on whether to revise the bond requirement adopted in the First Report and Order in this proceeding. None of the proposed revisions are intended to increase the projected reporting, record keeping, or other compliance requirements associated with the bond requirement.

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

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[6] 5 U.S.C. § 601(4).

[7] 1992 Economic Census, U.S. Bureau of the Census, Table 6 (special tabulation of data under contract to Office of Advocacy of the U.S. Small Business Administration).

[8] 5 U.S.C. § 601(5).

[9] U.S. Dept. of Commerce, Bureau of the Census, "1992 Census of Governments."

[10] *Id.*

[11] "This industry comprises establishments primarily engaged in providing point-to-point telecommunications services to other establishments in the telecommunications and broadcasting industries by forwarding and receiving communications signals via a system of satellites or reselling satellite telecommunications." Small Business Administration, 1997 NAICS Definitions, NAICS 513340.

[12] 13 C.F.R. § 120.121, NAICS code 513340.

[13] U.S. Census Bureau, 1997 Economic Census, Subject Service: Information, "Establishment and Firm Size," Table 4, NAICS 513340 (Issued Oct. 2000).

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 (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 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. 5 U.S.C. § 603(c).

We have attempted not to foreclose any option. In addition, we invite comment on allowing licensees to create an escrow account as an alternative to a bond requirement. We also invite interested parties to propose alternatives for a standard for a waiver of the bond requirement for licensees providing public safety services, including small entities.

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

None.

SEPARATE STATEMENT OF CHAIRMAN MICHAEL K. POWELL

Re: Amendment of the Commission's Space Station Licensing Rules and Policies; IB Docket No. 02-34

The growth of the satellite industry and demand for satellite services – like all spectrum-based services – have placed an increasing strain on the Commission's satellite licensing policies. Today we take a regulatory leap forward to meet this challenge. By this Order, we adopt a flexible framework that accelerates licensing, increasing access to satellite spectrum for existing providers and new entrants alike.

The imperatives of the broadband marketplace require that innovative services and applications blossom quickly or lose out to more robust competitors. Unfortunately under the existing licensing regime, the bloom of satellite innovation too often has been lost to the frost of delay. The current satellite space station licensing process often takes years to complete, as applicants become tangled up in technological challenges, international coordination, and wrangling with competitors over the terms of spectrum sharing. For example, in our recent 2 GHz processing round, it took some licensees ten years from the moment they walked through our doors with an idea to the date they received a license. Advancing the twin pillars of competition and broadband through satellite platforms requires greater expedition. Our regulatory regime must provide for prompt licensing, so that entrepreneurs can test their ideas in the marketplace. Commercial satellite ventures should live or die on Wall Street, not 12th Street. Today's action moves our policies in that direction.

Our decision is expected to reduce the sometimes decade-long wait for a license to a period of six months. This change should translate to more efficient spectrum use overall and more rapid deployment of services for all Americans. One of my core priorities as chairman has been to modernize the agency – to make the FCC smarter and faster. Today we re-tool our satellite space station licensing processes for the 21st century and continue America's satellite leadership.

The satellite industry is a vital partner in the digital migration. The fundamental changes we have made today will enhance the ability of the market to encourage competition both within the satellite industry and across technologies with other types of facilities-based providers. Today satellites provide the key facilities-based competitor to cable television. Increasingly satellite services are also playing a key role in voice and data applications. This role has been highlighted by recent events in Iraq, where satellite communications were critical to the military effort as well as the humanitarian efforts now underway. However, satellites are not only useful in remote areas of the globe. As the events of 9/11 illustrated, homeland security requires that vital communications have redundant and diverse paths. Satellite capacity is an essential component of that equation as well. Today's licensing changes should speed the deployment of these valuable technologies – and move us closer to a more secure homeland.

SEPARATE STATEMENT OF
COMMISSIONER KATHLEEN Q. ABERNATHY
Amendment of the Commission's Space Station Licensing Rules and Policies,
IB Docket No. 02-34

The satellite industry has matured dramatically over the past several decades. While the United States domestic satellite market has been open to competition from its inception, it was only in the 1980s that we began to see competition in the international market to the then treaty-based organization INTELSAT's global satellite system. Today, INTELSAT's first international competitor and the FCC's first licensed international separate system, PanAmSat, rivals INTELSAT in the number of satellites it has operational. Further, today there are multiple competitors providing domestic and international satellite services from both GSO and NGSO systems. The success of these systems can be seen in the provision of many day-to-day applications, such as video broadcasting, internet and data services, and voice services over satellite, as well as reliance on satellite systems for much of the communications needs of the United States armed forces during Operation Iraqi Freedom.

Although there have been significant technological and other advances in the satellite industry, the FCC's rules governing the licensing of satellite systems have not kept pace. Under our existing rules, obtaining a satellite license can take several years and the award of the license is often based on which company can last the longest in the negotiated processing rounds. I believe that such an approach is arbitrary, negatively impacts business plans, makes it difficult for licensees to meet international deadlines for bringing new systems into use, and most importantly, delays the introduction of new services to customers. The time is ripe for a change.

Last year the FCC began reexamining its rules to develop procedures that would be efficient and fair in processing satellite applications and not hinder licensees through prolonged delays. Today's order is the culmination of that effort through the adoption of a more market-based form of licensing regulation. I believe that the first come-first serve licensing approach for GSOs and the modified processing round licensing approach for NGSOs, coupled with strengthened milestones and increased enforcement, will ensure that satellite services are deployed quickly, spectrum is utilized efficiently and satellite operators are able to offer innovative services to the American public expeditiously.

SEPARATE STATEMENT OF COMMISSIONER MICHAEL J. COPPS

Approving in Part, Concurring in Part

RE: Amendment of the Commission's Space Station Licensing Rules and Policies; Mitigation of Orbital Rules and Policies.

First of all, my thanks to the Bureau for tackling these complex issues and for bringing a very formidable item to us today. I am pleased that we are moving toward a more timely process for satellite licensing and there is much in the item to recommend it and to merit the Commission's approval.

I write separately because I am concerned about trafficking and arbitrage in FCC licenses. Congress has given the Commission the responsibility to administer and protect the public spectrum. This includes defending our rules against abuse by those who wish to profit by "flipping" licenses rather than offering satellite services to Americans.

Today the Commission eliminates the Anti-Trafficking Rule. Many satellite companies believe that this will lead to increased speculation. At the same time the Commission creates a first-come-first-serve system that, for all its merits, many in the satellite industry believe will lead to a gold rush for licenses.

The combination of these two major changes makes me uneasy. The Order does, I realize, provide actions designed to reduce the opportunities for such speculation. It creates benchmarks that all licensees must meet to keep their licenses. It creates a multi-million dollar bond that will be forfeited if a company fails to meet its benchmarks. It states that the Commission will conduct a public interest review of all satellite license transfers, and that it will not approve a transfer if the licensee is engaged only in speculation and intends never to build a satellite system. And all licensees must incur substantial costs in licensing and ITU fees that will hopefully make speculating in satellite licenses less likely.

I hope these defenses hold. But we are radically changing the satellite licensing system, and we simply do not know how these changes will change the nature of satellite applications or how they might induce speculation. The decision to pull away the safety net of the Anti-Trafficking Rule therefore leads me to concur, as I would have maintained some, even if not all, of its protections.

SEPARATE STATEMENT OF COMMISSIONER JONATHAN S. ADELSTEIN

Re: Amendment of the Commission's Space Station Licensing Rules and Policies; First Report and Order and Further Notice of Proposed Rule Making; IB Docket No. 02-34

I believe that our actions today will revolutionize our approach to satellite licensing by adding much needed regulatory certainty to a process that recently has been encumbered with delays and uncertainty. I recognize that our decision may not be embraced by everyone within the satellite industry. But just as the industry has evolved over the past two decades to literal and figurative heights, I believe that the satellite community also will grow to embrace the certainty offered by our revised licensing rules.

Change can be difficult. But something must be done to improve the current system that governs the Commission's approach to satellite licensing. We have processing rounds that are measured in years not months, and applications that were filed in 1997, but still have not yet even been accepted for filing. However, this is not an exercise to point fingers or assess blame – we simply have a licensing approach adopted 20 years ago, when the commercial satellite industry was not as developed and technologically advanced as it is today. Procedures that were appropriate then to nurture a relatively new commercial industry are no longer needed today. Indeed, these very same rules now have the opposite effect of stifling technological growth and development of new satellite systems.

I thus welcome the change to our satellite licensing rules and commend the International Bureau for embarking on this often-challenging process. The Bureau has devoted to this endeavor a great deal of resources and thought, which are such important components of our rulemaking procedure.

With these changes, however, I have one lingering concern that I hope we have successfully addressed in today's item. To limit the filing of speculative applications, the Commission previously has relied on an anti-trafficking rule in the satellite service, which prohibited the sale of "bare licenses," except those licenses obtained through a competitive bidding process. I recognize that elimination of this rule may facilitate the development of a secondary market, which can play such an important role in expediting service to the public. However, in eliminating this rule, we potentially also enable speculators to reap financial gains from filing applications for the principal purpose of speculation or other gaming of our revised satellite licensing process.

Rightly, we have adopted and strengthened a number of important provisions to minimize the possibility of such an occurrence, which I think everyone recognizes is anathema to the Commission's approach to spectrum policy. In particular, we have adopted a provision that specifically enunciates the Commission's discretion to review the assignments and transfers of control of space station licenses to determine whether the initial license was obtained in good faith with the intent to construct a satellite system. I am hopeful that, taken together, all of these provisions put applicants on notice that our revised satellite process is intended to promote technology and innovation, not the filing of speculative applications.