Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of the Applications of	)	
	)	
INTELSAT LLC	)	
	)	File Nos:
For Authority to Operate, and to Further Construct,	)	SAT-A/O-20000119-00002 to SAT-A/O-20000119-00018;
Launch, and Operate C-band and Ku-band Satellites that Form a Global Communications System in Geostationary Orbit	)	SAT-AMD-20000119-00029 to SAT-AMD-20000119-00041; SAT-LOA-20000119-00019 to SAT-LOA-20000119-00028

MEMORANDUM OPINION ORDER AND AUTHORIZATION

Adopted: August 2, 2000 **Released:** August 8, 2000

By the Commission: Chairman Kennard issuing a statement; Commissioner Furchtgott-Roth approving in part, dissenting in part, and issuing a statement;

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I. INTRODUCTION

1. By this Order, we grant applications of Intelsat LLC requesting licenses to operate 17 existing C-band and Ku-band satellites presently owned and operated by the International

Telecommunications Satellite Organization ("INTELSAT").[1] We also grant applications by Intelsat LLC requesting licenses to construct, launch, and operate 10 satellites planned by INTELSAT for operation in these bands. In addition, we grant Intelsat LLC authority to relocate, among 22 orbit locations, certain currently operating satellites upon the launch of the 10 planned satellites.

2. Intelsat LLC has filed these applications in anticipation of the privatization of INTELSAT. Because INTELSAT is an intergovernmental organization ("IGO"), its global satellite system is not licensed by any national licensing authority. Intelsat LLC is a U.S. corporation created by INTELSAT for the purpose of owning and operating INTELSAT's C-band and Ku-band satellites upon privatization.[2] Intelsat LLC has submitted these applications so that it may obtain timely authorization to operate as a U.S-licensed satellite system. Intelsat LLC would begin operation upon INTELSAT's transfer of the satellites and assets necessary to operate the satellites on the effective date of privatization—currently targeted for April 1, 2001.

3. Our action here will promote competition in the provision of satellite communications services through the privatization of INTELSAT in a manner consistent with U.S. law. The licenses granted here will become effective upon the date of such privatization, under the provisions of this Order. Upon effect, the licenses will permit Intelsat LLC to operate pursuant to the principles upon which the 1999 INTELSAT Assembly of Parties based its decision to privatize INTELSAT. These principles include maintaining global connectivity and coverage of the INTELSAT system, protecting lifeline users and connectivity, and ensuring continual non-discriminatory access to the global system. The United States agreed to these principles in joining the Assembly decision to privatize.[3]

4. By fulfilling the requirements of this Order and accepting these licenses, Intelsat LLC will have access to the U.S. domestic and international markets for the provision of satellite services in the C-band and Ku-band.[4] If Intelsat LLC decides to obtain operating authority from another national licensing authority we would consider, in a separate proceeding, its access to the U.S. market as a non-U.S. licensed satellite system upon the filing of appropriate applications, under our 1997 *DISCO II decision* and

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[1] The Intelsat LLC application was filed on January 18, 2000.

[2] For purposes of this proceeding, the C-band encompasses the 3.420-4.200 GHz and 5.850-6.650 GHz frequency bands. The Ku-band encompasses the 10.950-11.200 GHz, 11.450-12.200 GHz, 12.500-12.750 GHz, and 13.750-14.500 GHz frequency bands. In referring to the C-band and Ku-band in the United States, the frequency bands 3.700-4.200 GHz, 5.925-6.425 GHz, 11.7-12.2 GHz, and 14.0-14.5 GHz are considered the "conventional" C-band and Ku-band. The remaining frequency bands – 3.420-3.700 GHz, 5.850-5.925 GHz, 6.425-6.650 GHz, 10.95-11.20 GHz, 11.45-11.70 GHz, and 13.75-14.00 GHz – are considered the "extended" C-band and Ku-band and are either not allocated or are shared with other services in the United States, including the Federal Government, and subject to special conditions when used for the fixed-satellite service ("FSS").

[3] INTELSAT Assembly of Parties, Record of Decisions of the Twenty-Fourth Meeting, AP 24-3E Final August 10, 1999 (Penang, Malaysia, October 26-29, 1999) ("1999 Assembly Decision").

[4] *See Amendment to the Commission's Regulatory Policies Governing Domestic Fixed-Satellites and Separate International Satellite Systems*, Report and Order, 11 FCC Rcd 2429, 2420 (1996) ("*DISCO I decision*") (allowing all U.S.-licensed satellites in the fixed-satellite service to provide both domestic and international services).

pursuant to applicable U. S. law.[5]

II. BACKGROUND

5. INTELSAT is a 143-member intergovernmental organization created by international agreement.[6] INTELSAT owns and operates a global satellite system over which much of the world's international telephone, video, data, Internet, and other communications are transmitted. It operates 17 satellites and serves tens of thousands of earth stations. INTELSAT currently has a two-tier governance structure: (1) an Assembly of Parties, which is comprised of government representatives that determines overall policy; and (2) a Board of Governors, which is comprised of Signatories that are the investors in the system, that make commercial decisions. Comsat is the U.S. Signatory to the INTELSAT Operating Agreement and is a member of the Board of Governors.

6. INTELSAT was created as a result of initiatives undertaken in the early days of development of space technology by the United States under the Communications Satellite Act of 1962 ("1962 Satellite Act").[7] The 1962 Satellite Act declared it U.S. policy to join with other countries to create a commercial, global communications satellite system that would provide services on a non-discriminatory basis.[8] As one of the first commercial satellite service providers, INTELSAT benefited from U.S. taxpayer-funded research and development carried out during the early days of space communications.[9] It also benefited from Commission policies intended to assure its early commercial success so that the broader public policy goals intended through its creation would be satisfied.[10] Subsequently, the United States and other countries introduced competition into the satellite communications market by authorizing private and government-owned separate satellite systems.[11] Today, INTELSAT faces competition globally from both

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5 *See* Amendment *of the Commission's Regulatory Policies to Allow Non-U.S. Licensed Space Stations to Provide Domestic and International Satellite Services in the United States,* Report and Order, 12 FCC Rcd 24094, 24112 (1997) ("*DISCO II decision*"), petitions for reconsideration pending, petition for review pending *sub nom. Comsat Corp. v. Federal Communications Commission,* Case No. 1011 (D.C. Cir.). *See also, e.g.,* Open-Market Reorganization for the Betterment of International Telecommunications Act, Pub. L. 106-180, 114 Stat. 48 (2000) ("ORBIT Act").

6 *See* Agreement Relating to the International Telecommunications Satellite Organization, "INTELSAT," 23 U.S.T. 3813; TIAS No. 7532, (February 12, 1973) ("INTELSAT Agreement"). *See also* Operating Agreement Relating to the International Telecommunications Satellite Organization, "INTELSAT," 23 U.S.T. 4091, (August 20, 1971) ("INTELSAT Operating Agreement").

7 Communications Satellite Act of 1962, as amended, 47 U.S.C. §§ 701 *et. seq.*.

8 *Id.* §§ 701 (a) and (b).

9 *See Comsat Study*, 77 FCC 2d 564, 582-599 (1980).

10 *See Policy for the Distribution of United States International Carrier Circuits Among Available Facilities during the Post-1988 Period*, 3 FCC Rcd 2156 (1988) ("*Circuit Distribution decision*").

11 *See Separate Satellite Systems decision*, 101 FCC 2d 1046 (1985), imposing restrictions on coverage of Public Switched Network (PSN) traffic by competing private satellite systems; *on recon.*, 61 RR 649 (1986); *further recon.*, 1 FCC 2d 439 (1986) ("*Separate Satellite Systems decision*").

private and government-owned satellite systems and fiber optic submarine cable systems.[12] INTELSAT continues to be an important provider of satellite services for commercial and Federal government use in the United States.

7. INTELSAT currently operates as a cost-sharing cooperative, with the long-term objective of providing, on a commercial basis, service at prices that meet its revenue requirements. It provides space segment capacity to users of its global satellite system at charges determined by the INTELSAT Board of Governors and reflected in the INTELSAT Tariff Manual. As an intergovernmental organization, INTELSAT is immune from taxes and from suits in national courts, unless it waives its immunity.[13] Its treaty status helps ensure its access to the national markets of member countries.

8. In response to competition, and the desire of governments to promote a more level playing field, INTELSAT and investing Signatories decided to restructure as a private commercial entity.[14] The Board of Governors has set a target date of April 1, 2001 to complete this transaction.[15] The final decision on all significant aspects of the privatization is anticipated to be taken by the INTELSAT Assembly of Parties in November 2000. The Board of Governors will thereafter take actions necessary to implement the Assembly decision by the target date.

9. At its September 2000 meeting, the Board of Governors is expected to make decisions and recommendations on a comprehensive plan to privatize INTELSAT, to be considered at the November 2000 meeting of the Assembly of Parties. The plan is expected to include the selection of a country or countries that will serve as the national licensing jurisdiction for the privatized company. INTELSAT is considering other countries in addition to the United States as licensing jurisdictions. Intelsat LLC filed the instant applications with the expectation of acquiring the respective INTELSAT C-band and Ku-band global satellites upon privatization of INTELSAT. The applications are contingent upon INTELSAT's decision to transfer the operating and 10 planned satellites to Intelsat LLC and the related INTELSAT network filings with the International Telecommunication Union ("ITU") to the U.S. registry.

10. Our action here on the Intelsat LLC applications, and on any future applications that may be filed by or on behalf of a privatized INTELSAT, is and will be in accordance with the recently enacted Open-Market Reorganization for the Betterment of International Telecommunications Act ("ORBIT

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12 *See Comsat Corporation*, Order and Notice of Proposed Rulemaking, 13 FCC Rcd 14083 (1998) ("*Comsat Non-Dominant Order and NPRM*").

13 INTELSAT and its Signatories, including Comsat, enjoy three categories of immunities: immunity from jurisdiction, which prevents courts from considering lawsuits of any type against INTELSAT; archival and testimonial immunity, which protects INTELSAT from being compelled to provide documents or testimony of its employees; and immunity of assets, which prevents courts from enforcing monetary judgements against INTELSAT. *See Comsat Non-Dominant Order*, 13 FCC Rcd at 14161-14163; *DISCO II decision*, 2 FCC Rcd at 24149. *See also* Headquarters Agreement between the Government of the United States of America and the International Telecommunications Satellite Organization, effective November 24, 1976 ("Headquarters Agreement") that provides that INTELSAT and the representatives of the parties and of the Signatories shall be immune from suit and legal process relating to acts performed by them in their official capacity and falling within their functions, except as such immunity is waived by INTELSAT.

14 1999 Assembly Decision, AP 24-24-3E Final.

15 Intelsat LLC Application for C-Band and Ku-Band Global Satellite System Volume I at 5-6, January 18, 2000 ("Intelsat LLC Application" Vol. I).

Act").[16] In March 2000, by the ORBIT Act, Congress amended the 1962 Satellite Act by promoting a competitive market for satellite communications services through a fully privatized INTELSAT.[17] Specifically, the ORBIT Act (1) provides for the privatization of INTELSAT by April 1, 2001;[18] (2) establishes criteria to ensure a pro-competitive privatization;[19] (3) requires the Commission to determine, after April 1, 2001, whether INTELSAT has been privatized in a manner that will harm competition in the United States;[20] (4) requires the Commission to use the licensing criteria specified in the ORBIT Act as a basis for making its competition determination;[21] and (5) directs the Commission to "limit through conditions or deny" applications or requests to provide "non-core" services to, from or within the United States if it finds that competition will be harmed.[22] The ORBIT Act provides for certain exceptions to limitations on non-core services in the event of such a determination.[23] It also provides that, in making determinations and decisions under its provisions, the Commission shall construe such provisions "in a manner consistent with the United States obligations and commitments for satellite services under the Fourth Protocol to the General Agreement on Trade in Services."[24]

III. SYSTEM APPLICATION

11. Intelsat LLC requests licenses to operate 17 existing satellites in the C-band and Ku-band at the orbital locations specified in Appendix A, Table 1. Intelsat LLC also requests licenses to launch and operate 10 planned satellites in the C-band and Ku-band at the orbital locations specified in Appendix A, Table 2. Additionally, Intelsat LLC requests authority to make 13 orbital location changes specified in Appendix A, Table 3. The changes are associated with the launch of the 10 planned satellites and resulting relocation of existing satellites to different orbital locations. Ultimately, Intelsat LLC seeks to operate satellites at 22 orbit locations and all modifications pertain to these 22 orbit locations.

12. INTELSAT's ITU network filings for all orbital locations associated with the applications before us have been filed by the United States on behalf of INTELSAT and its members. They are currently shown in the ITU listing of network filings as "USA-IT" filings.[25] Upon privatization and Intelsat LLC's acceptance of the licenses granted by this Order, these network filings would be transferred to the

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16 ORBIT Act, Pub. L. 106-180, 114 Stat. 48.

17 Pub. L. 106-180, § 2.

18 *Id.* at § 621(1).

19 *Id.* at §§ 621 and 622.

20 *Id.* at § 601(b).

21 *Id.*

22 *Id.* The ORBIT Act states that "non-core" INTELSAT services are services other than public switched network voice telephony and occasional use television services. Pub. L. 106-180 at 681(ll).

23 *Id.*at § 601(b).

24 *Id.* This refers to the U.S. commitments under the World Trade Organization ("WTO") Agreement on Basic Telecommunications Services ("WTO Basic Telecom Agreement").

25 *See* Intelsat LLC Application Vol. II, Annex 1 at 61.

U.S. national registry as "USA" filings.[26] The INTELSAT 1999 Assembly of Parties decided, however, as a precondition to transferring registrations to the U.S. national registry, that the Commission would have to provide assurance that any satellites and ITU network filings transferred to the United States would be licensed to the applicant in a manner that would allow it to compete on a level playing field with U.S. and foreign commercial satellite operators.[27] Intelsat LLC states that our approval of the applications before us "would satisfy these preconditions and permit INTELSAT to move forward."[28]

13. Intelsat LLC views the existing and proposed components of the INTELSAT system as reflected in its applications as an integrated whole and requests authorization of the system in total.[29] It states that only authorization of the entire system will enable it to preserve service offerings, including lifeline connectivity for thin-route countries.[30] Intelsat LLC also asks that its licenses permit flexibility to operate on both a private and common carrier basis.[31] Further, the applicant states that its anticipated ownership structure comports with Section 310(b)(4) of the Communications Act.[32]

14. Finally, Intelsat LLC requests waivers of a number of rules in order to accommodate existing design and operation of the INTELSAT system. The applicant requests waivers of: (1) Section 25.140(b)(2), requiring a demonstration of capability to operate with two-degree geostationary satellite orbit ("GSO") spacing and interference protection; (2) Section 25.140(f), prohibiting authorization of an additional GSO location when the applicant has two or more unused orbital positions in a frequency band;[33] (3) Section 25.202(a)(1), specifying the frequency bands covered by Part 25 of our rules;[34] (4) Section 25.202(g), requiring telemetry, tracking and telecommand ("TT&C") functions for U.S. satellite systems to be conducted at either or both edges of the allocated bands;[35] (5) Section 25.210(a)(1) and (a)(3), requiring that C-band operations use orthogonal linear polarization with one of the planes defined by the equatorial plane that can be switched upon ground command;[36] (6) Section 25.210(c), requiring that space stations have a minimum capability to change transponder saturation flux densities by ground command in 4 dB steps over a range of 12 dB;[37] (7) Section 25.210(i), requiring that space stations be designed to provide a

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26 Intelsat LLC Application Vol. I at 7.

27 *Id.* at 7.

28 *Id.* at 8.

29 *Id.* at 10.

30 *Id.*

31 *Id.* at 14. Intelsat LLC states that it has no current plans to provide common carrier services in the United States and will seek Section 214 authority if it decides to offer such services.

32 *Id.* at 19-21.

33 *Id.* at 59-61.

34 *Id.* at 61-64.

35 *Id.* at 64.

36 *Id.* at 64-65.

37 *Id.* at 66.

cross-polarization isolation such that the ratio of the on-axis co-polar gain to the on-axis cross-polar gain of the antenna in the assigned frequency band is at least 30dB within its primary coverage area;[38] (8) Section 25.211(a), requiring that downlink analog video transmissions in the 3700-4200 MHz band be transmitted only on a specific center frequencies;[39] (9) Section 25.210(j)(1), requiring that U.S. satellites be designed and maintained in orbit within ±0.05° of their assigned orbital longitude;[40] and (10) Section 25.210(g)(1), requiring space stations to employ dual polarization so that they are able to reuse both the uplink and downlink frequency bands.[41]

IV. PLEADINGS

15. The Intelsat LLC application was placed on public notice on February 2, 2000.[42] Seven parties filed comments or petitions to deny. Comments were filed by Comsat Corporation (Comsat), New Skies Satellites N.V. (New Skies), Lockheed Martin Corporation (Lockheed Martin), and Loral Space and Communications Ltd. (Loral). GE American Communications Inc. (GE Americom) and PanAmSat Corporation (PanAmSat) filed petitions to deny or defer action on the applications. Japan Satellite Systems, Inc. (JSAT) filed a petition to deny the applications. Intelsat LLC filed a joint opposition to the petitions to deny and a reply to the comments. GE Americom, Comsat, Lockheed Martin, PanAmSat, and Spacelink International ("Spacelink") filed responses to the joint opposition. Intelsat LLC, GE Americom, and PanAmSat also filed *ex parte* or supplemental information on several occasions.

16. Comsat, Lockheed Martin, Loral, and Spacelink support grant of Intelsat LLC's applications. They jointly or separately contend that the applications will: (1) promote privatization of INTELSAT consistent with U.S. pro-competitive goals;[43] (2) ensure a smooth transition of commercial operations upon privatization;[44] (3) ensure that Intelsat LLC is subject to equitable, transparent and fair regulation upon privatization;[45] (4) promote U.S. consumer, manufacturing, and economic interests;[46] and (5) maintain U.S. leadership in satellite communications.[47] They each support grant of Intelsat LLC's

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38 *Id.* at 66-67.

39 *Id.* at 67-68.

40 *Id.* at 68.

41 *Id.* at 68-69.

42 Public Notice, DA No. 00-192 (February 2, 2000).

43 Comments of Comsat Corporation (March 6, 2000) ("Comsat Comments") at 3; Comments of Lockheed Martin Corporation (March 6, 2000) ("Lockheed Martin Comments") at 1; Comments of Loral Space and Communications Ltd. (March 6, 2000) ("Loral Comments") at 2; Response of Spacelink International (March 23, 2000) ("Spacelink Response") at 1.

44 Lockheed Martin Comments at 4; Spacelink Response at 2.

45 Lockheed Martin Comments at 3.

46 Lockheed Martin Comments at 3; Loral Comments at 1-2; Spacelink Response at 7-8.

47 Loral Comments at 1-2; Spacelink Response at 8-9.

waiver requests.[48] They also maintain that grant of the applications would be consistent with the ORBIT Act.[49]

17. New Skies generally supports INTELSAT's privatization, and once privatized, the future Commission grant of its licensing request.[50] New Skies, however, requests that the Commission ensure that a privatized INTELSAT is not unduly advantaged by its legacy as an intergovernmental organization.[51] It states that the Commission must assess INTELSAT's relationships with the regulatory authorities of key service providers to assure that there are no exclusive service providers. It asks that the Commission look beyond the legal regimes and assess practical barriers to entry as well.[52] Notwithstanding, New Skies also asserts that it is too early to consider the Intelsat LLC system application because the Commission is unable to reliably determine how the new INTELSAT will be structured, based on the present status of the proposed privatization process.[53]

18. In its petition to deny, JSAT contends that INTELSAT should be dissolved and its assets redistributed.[54] It states that the Commission should restrict INTELSAT's access to the U.S. market to achieve this goal.[55] At a minimum, JSAT contends that the Commission: (1) should not authorize use of orbital positions not presently occupied by operating satellites;[56] and (2) require Intelsat LLC to meet all Commission technical standards for satellites not currently operating.[57]

19. Neither PanAmSat nor GE Americom object in principle to granting FCC licenses to a privatized INTELSAT.[58] They both contend, however, that Commission action on the applications is premature. Without the details of INTELSAT's privatization, they argue that the Commission cannot make a decision regarding the basis for issuing licenses to Intelsat LLC in general, and the ORBIT Act, in

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48 Response of Comsat Corporation (March 23, 2000) ("Comsat Response") at 10-18; Lockheed Martin Comments at 6; Loral Comments at 4; Spacelink Response at 5-6.

49 Comsat Comments at 2; Lockheed Martin Comments at 5; Spacelink Response at 6-7.

50 Comments of New Skies Satellites N.V. (March 6, 2000) ("New Skies Comments") at 2.

51 *Id.*

52 *Id.* at 4.

53 *Id.* at 5.

54 Japan Satellite Systems, Inc., Petition to Deny (March 6, 2000) ("JSAT Petition") at 2.

55 *Id.*

56 *Id.* at 6-7

57 *Id.* at 7-8.

58 PanAmsat Corporation Petition to Deny in Part or Defer (March 6, 2000) ("PanAmSat Petition") at 4; Petition to Deny or Defer of GE American Communications, Inc. (March 6, 2000) ("GE Americom Petition") at 1; and Reply of GE American Communications, Inc. (March 23, 2000) ("GE Americom Response") at 1.

particular.[59] Either jointly or separately, they also maintain that Intelsat LLC: (1) must show that its privatization is consistent with the ORBIT Act;[60] (2) must be subject to a full competitive analysis under the Commission's *DISCO II decision*, without a presumption of entry into the U.S. market;[61] (3) is precluded by Section 310(a) from holding a Commission license;[62] (4) should not be authorized to operate satellites at six currently unoccupied orbital locations, in violation of Commission anti-warehousing rules;[63] (5) must be regulated as a dominant carrier on non-competitive routes;[64] and (6) must be subject to the Commission's prohibition on exclusive arrangements.[65] PanAmSat and GE Americom also contend that Intelsat LLC should not be permitted to evade the Commission's two-degree spacing requirements.[66] They oppose granting Intelsat LLC's request for waiver of Commission technical rules for satellites that are neither operational nor substantially under construction, and any waivers granted should require that satellite operations by Intelsat LLC be on a secondary, non-harmful interference basis.[67] Finally, they assert that the Commission must dismiss or defer action on the applications until Intelsat LLC re-files or amends them to demonstrate compliance with applicable U.S. law and Commission rules.[68]

20. Intelsat LLC responds that there would be significant benefits to the United States from being the licensing authority for the future privatized INTELSAT.[69] Intelsat LLC states that delaying or deferring action on its application would only prevent privatization of INTELSAT as an FCC licensee by April 1, 2001.[70] It contends that its applications are ripe for decision and that any uncertainty about the characteristics of the applicant upon privatization or consistency with the ORBIT Act can be addressed through conditioning the license grant.[71] Intelsat LLC states that it is legally qualified to become a

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59 PanAmSat Petition at 8-10 and Response of PanAmSat Corporation (March 23, 2000) ("PanAmSat Response") at 6-7; GE Americom Petition at 4 and GE Americom Response at 4.

60 PanAmSat Response at 6-7; GE Americom Response at 4.

61 PanAmSat Petition at 7-8 and PanAmSat Response at 7; GE Americom Petition at 5-8.

62 PanAmSat Petition at 11-13 and PanAmSat Response at 10-13.

63 PanAmSat Petition at 5 and 13-15 and PanAmSat Response at 18-21; GE Americom Petition at 12-18 and GE Americom Response at 8-12.

64 PanAmSat Petition at 29-31 and PanAmSat Response at 20-22.

65 PanAmSat Petition at 32; GE Americom Petition at 23 and GE Americom Response at 18.

66 PanAmSat Petition at 18-26 and PanAmSat Response at 14-15; GE Americom Petition at 18-22 and GE Americom Response at 13-16.

67 PanAmSat Petition at 18-29 and PanAmSat Response at 13-17; GE Americom Petition at 11 and 18-23 and GE Americom Response at 13-17.

68 PanAmSat Response at 23; GE Americom Response at 19.

69 Reply of Intelsat LLC to Comments and Opposition to Petitions to Deny (March 16, 2000) ("Intelsat LLC Reply") at 2-3.

70 *Id.*

71 *Id.* at 3-5.

Commission licensee and that grant of such licenses would be consistent with Section 310 of the Communications Act.[72] It also states that such a grant would satisfy the competition policies set forth in the *DISCO II decision*.[73] Intelsat LLC does not oppose a condition to its licenses prohibiting it from seeking exclusive arrangements.[74] It does, however, oppose imposition of dominant carrier treatment on thin routes as premature because it is not now seeking to provide common carrier service in the United States. It also contends that dominant carrier treatment would be unnecessary because INTELSAT will undertake a Lifeline Connectivity Obligation (LCO) to thin route countries as a part of the privatization, which will prevent exercise of monopoly power.[75]

21. Intelsat LLC further maintains that: (1) authorization of its operation from currently unoccupied orbital locations is consistent with the Commission's anti-warehousing policy;[76] (2) imposition of two-degree spacing is unwarranted because the cost of compliance would exceed the benefits and few other international systems comply with these requirements, including U.S. systems;[77] and (3) requiring operation on a secondary, non-harmful interference basis is unnecessary for a pre-existing system that already is coordinated and that such a requirement would be harmful to Intelsat LLC's business plan.[78] Finally, Intelsat LLC contends that grant of its requests for waiver of technical rules is justified in view of the fact that the INTELSAT global system was developed apart from U.S. systems, that international coordination of the satellites is already complete or nearing completion, and that the costs of conversion outweigh the benefits of strict compliance with those technical rules.[79]

V. DISCUSSION

A. Policy Considerations

1. Privatization as a Policy Goal

22. The privatization of INTELSAT is a policy goal of the United States.[80] The Executive

[72] *Id.* at 7-10.

[73] *Id.* at 10-12.

[74] *Id.* 27-28.

[75] *Id.* 28-33.

[76] *Id.* 22-26.

[77] *Id.* at 15-17.

[78] *Id.* at 17.

[79] *Id.* at 13-15.

[80] *See Direct Access to the INTELSAT System*, Report and Order, 14 FCC Rcd 15703, 15759 (1999) (*"Direct Access decision*"), stating Commission support for privatization and citing the Statement of Administration Position by Ambassador Vonya B. McCann, United States Coordinator, International Communications and Information Policy, Department of State, before Senate Committee on Commerce, Science and Transportation, Subcommittee on Commerce, dated March 25, 1999. *See also In the Matter of New Skies Satellites, N.V. for Authorization to Access the U.S. Market*, Order and Authorization, 14 FCC Rcd. 13003 (1999) *("New Skies decision"*).

Branch and this Commission both have long supported this goal.[81] Comsat, as the U.S. Signatory to INTELSAT, has promoted privatization of INTELSAT.[82] Privatization is now embodied in U.S. law as the stated purpose of the ORBIT Act. The ORBIT Act received widespread endorsement in the United States from telecommunications service providers, satellite manufacturers and suppliers of telecommunications and information technology products, and competing satellite operators.[83] In addition, it also was endorsed by two European satellite service providers, the International Maritime Satellite Organization ("Inmarsat") and New Skies Satellites N.V.[84] Privatization of INTELSAT is supported by all parties in this proceeding, except JSAT.[85]

23. According to Intelsat LLC, INTELSAT intends to transfer INTELSAT's assets to a national stock corporation with a holding company structure.[86] The holding company likely would be incorporated and located in Bermuda. A service company is expected to be located in the United States. It would be comprised of the current INTELSAT headquarters building, staff and operations center. The service company would provide both satellite and business support services to Intelsat LLC. One or more licensing companies would own and operate INTELSAT satellites and be located in jurisdictions yet to be determined, including, possibly, the United States.[87] If the United States is selected as a licensing jurisdiction, Intelsat LLC would acquire and operate INTELSAT's existing and 10 planned satellites in the C-band and Ku-band in accordance with Commission authorizations.[88] As a private company, INTELSAT would neither have treaty-based access to national markets nor any privileges and immunities.[89] It would be subject to and obtain orbital locations and spectrum from the ITU pursuant to a national licensing regime.[90] According to Comsat, the privatized INTELSAT expects to hold an initial public offering

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[81] *See* Comsat Comments filed in the *Direct Access proceeding* and in the *Comsat Non-Dominant proceeding.*

[82] *Id.*

[83] *See* Joint letters from American Mobile Satellite Corporation, AT&T Corp., Columbia Communications Corporation, Ellipse, Inc., General Electric Company, Hughes Electronics Corporation, Iridium LLC, Level 3 Communications, Inc., MCI Worldcom, PanAmSat Corporation, Sprint, and Teledesic Corporation to President Clinton, dated March 16, 2000, and to Representative Thomas J. Bliley, Jr., dated February 28, 2000; Letter from the Telecommunications Industry Association (TIA) to President Clinton, dated March 6, 2000.

[84] *See* Letter from Robert W. Ross, CEO, New Skies Satellites N.V., to Senator Conrad Burns and Representative Thomas J. Bliley, dated March 8, 2000; Letter from W. Allen Moore on behalf of Inmarsat Holdings Ltd., to President Clinton, dated March 1, 2000.

[85] *See* Comsat Comments at 1-5; GE Americom Petition at 3; Lockheed Martin Comments at 2 and 5; Loral Comments at 3; New Skies Comments at 2; PanAmSat Petition at 2; Spacelink Response at 6-8; JSAT Petition at 2.

[86] Intelsat LLC Application Vol. I at 15-22.

[87] Location and incorporation of the licensing company in the United States would not affect INTELSAT's flexibility in selecting jurisdictions for location and incorporation of the holding and service companies, either initially or at a later date, should it choose to relocate those companies.

[88] Intelsat LLC Application Vol. I at 21-22; Comsat Response at 5.

[89] 1999 Assembly Decision at 7 and 9; Intelsat LLC Reply at 2; Comsat Comments at 5.

("IPO") in the future that will broaden its ownership profile.[91] These changes would eliminate attributes of the current intergovernmental structure that we have found inconsistent with fair competition.[92]

24. As a privatized company, INTELSAT would be a more effective competitor. Intelsat LLC states that privatization will give the INTELSAT system more commercial flexibility to competitively respond to market changes and customer demands.[93] It points out that INTELSAT's intergovernmental structure constrains its ability to react to competition because of a time-consuming deliberative process that involves the need to reach consensus on important decisions and at times multi-lateral negotiations among 143 Parties and Signatories.[94] Intelsat LLC also points out that INTELSAT currently is prevented from providing competing end-to-end services in the international market because it is limited to providing space segment to Signatories, direct access users and entities appointed by non-member governments. Additionally, it is precluded from owning and operating earth stations or providing vertically integrated communications solutions to deliver services to end users.[95] Privatization of INTELSAT would eliminate its current cumbersome decision-making process, and provide INTELSAT with greater flexibility to respond to consumer demand in a manner similar to its private competitors. No party in this proceeding challenges the benefits of making INTELSAT a more effective competitor, provided that the privatized INTELSAT does not retain anti-competitive attributes associated with its current intergovernmental status.

2. INTELSAT Principles of Privatization

25. INTELSAT has decided that certain "core principles" of its current mission must be retained after privatization. The United States supported the 1999 Assembly decision that INTELSAT must continue to maintain global coverage and connectivities and ensure non-discriminatory access to the system.[96] The final Assembly decision to privatize INTELSAT will depend on receiving assurances from the prospective licensing jurisdictions that the privatized entity will continue to operate in accordance with these principles.[97] The 1999 Assembly also created the Penang Working Party ("PWP") to study certain issues connected with privatization and report its recommendations to the 2000 Assembly of Parties and

(Continued from previous page)

[90] Intelsat LLC Application Vol. I at 7.

[91] *Id.*.

[92] *See DISCO II decision*, 12 FCC Rcd at 24149; *Comsat Non-Dominant Order*, 13 FCC Rcd at 14161-14163; *Direct Access decision*, 14 FCC Rcd at 15746-15748.

[93] Intelsat LLC Application Vol. I at 5 and Intelsat Reply at 2.

[94] Intelsat LLC Application Vol. I at 31.

[95] *Id.* at 31-32.

[96] 1999 Assembly Decision at 8.

[97] *Id.* The Assembly stated that: "Before any final decision on selecting a jurisdiction for New INTELSAT is made, the Board of Governors must receive adequate assurances that the laws and regulations of the jurisdiction(s) ultimately selected for New INTELSAT will not impair New INTELSAT's ability to provide global connectivity and, in the case of the jurisdiction(s) for physical location, that New INTELSAT will be able to locate its staff and facilities within that jurisdiction(s)."

PWP further defined these concepts.[98]

26. Both the 1999 Assembly and the PWP also determined that lifeline users and connectivity must be protected through the creation of a residual intergovernmental organization that would ensure such connectivity to countries satisfying certain criteria.[99] The residual IGO would neither function as a commercial provider of space segment capacity nor a Signatory, as this role would cease to exist.[100] Rather, it would supervise the commitment of Intelsat LLC to provide satellite capacity to lifeline users for a predetermined number of years with price protection during the life of the commitment.[101] This commitment would be contained in an intergovernmental agreement creating the IGO and implemented through a "public services" agreement between the company and the residual IGO. This arrangement reflects the underlying agreement among INTELSAT Parties to privatize INTELSAT – INTELSAT's satellites and other assets and personnel necessary to operate the satellites will be transferred to a private company that no longer has privileges and immunities and is subject to a national licensing authority, as long as that company assures continued services to lifeline users under the "core principles." The United States supported creation of a residual IGO for this purpose.[102]

27. The concept of a global satellite system that provides services on a non-discriminatory basis has been embodied in U.S. satellite policy since 1962, when the Satellite Act was enacted. The 1962 Satellite Act declares it the policy of the United States to establish a commercial communications satellite system with global coverage "in conjunction and in cooperation with other countries."[103] The 1962 Act also requires that "care and attention" be directed toward providing services to economically less developed countries and areas, as well as more economically developed countries.[104] In addition, it requires that "all authorized users have nondiscriminatory access to the system."[105] The recently enacted ORBIT Act, which amends the Satellite Act, retains these provisions until the Commission determines at a future date that the

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98 The PWP recommended to the Assembly the following definitions: (1) "non-discriminatory access" would mean the provision of fair and equal opportunity to access the company's [Intelsat LLC's] system; (2) "global connectivity" would mean the interconnection capabilities available to the company's users through the global coverage the company provides to make communication possible within and between the five International Telecommunication Union (ITU) regions defined by the plenipotentiary conference of the ITU, held in Montreux in 1965; and (3) "global coverage" would mean the maximum geographic coverage of the earth toward the parallels of the northern and southern hemispheres from satellites deployed in geostationary orbital locations. *See Report of the Penang Working Party to the Twenty-fifth (Extraordinary) Assembly of Parties*. AP-25-7EW/11/00, June 27, 2000.

99 *Id.* 8 and 10-12. The Assembly directed Intelsat LLC to extend lifeline connectivity protection to jurisdictions: (1) defined by the World Bank as "[l]ow income," or (2) possessing a teledensity of less than three as defined by the ITU; or (3) lacking any "cost effective alternative provider of equivalent service." *See also* Intelsat LLC Reply and Opposition at 30-31.

100 Comsat Comments at 5.

101 1999 Assembly Decision, AP 24-3E Final at 2.

102 *Id.*

103 47 U.S.C. § 701(a).

104 47 U.S.C. § 701(b).

105 47 U.S.C. § 701(c).

INTELSAT privatization is consistent with requirements of the ORBIT Act.[106]

28. In view of United States participation in the consensus 1999 Assembly Decision adopting privatization principles, and the longstanding provisions in U.S. law and policy, U.S. satellite licenses will allow Intelsat LLC to continue to provide global coverage and connectivities on a commercial and non-discriminatory basis so as to protect lifeline users and global connectivities. Because of the importance of these principles, we will expect that the U.S. Party to the residual IGO would continue to facilitate Intelsat LLC's fulfillment of these objectives as a U.S. licensee.

3. Mutual Benefits of Licensing in the United States

29. Intelsat LLC states that INTELSAT selected the United States as a candidate licensing jurisdiction because the United States "is a WTO [World Trade Organization] Member with favorable access to global markets, maintains a stable and predictable national regulatory regime, has experience representing satellite providers interests in the ITU, and offers a vibrant commercial market for expanded communications services."[107] Like other satellite operators licensed in the United States, Intelsat LLC would benefit from U.S. government efforts to advance independent regulator objectives in other countries and to promote competition in the global market, on behalf of all U.S. licensees, without special regard to any single U.S. licensee. We anticipate that a privatized INTELSAT licensed in the United States would support U.S. efforts in this regard. Furthermore, as it does for other U. S. licensees, the Commission would represent Intelsat LLC in ITU coordination negotiations with non-U.S. licensed satellite systems. In addition, Intelsat LLC would be accorded the benefits, policies and procedures under U.S. law, which ensure fair and transparent treatment of all Commission licensees and protects them from arbitrary actions that may threaten their right to operate their satellites.[108] These benefits would provide Intelsat LLC the ability to make long-term business plans on the introduction of facilities and services.

30. Additionally, as an FCC licensee, Intelsat LLC would have access to both the United States domestic as well as international satellite service market. The U.S. portion of the global satellite market is significant. U.S. transponder leasing revenue is estimated to be 8.7 billion dollars in 2000.[109] The U.S. very small aperture terminals ("VSAT") service revenue was 684 million dollars in 1999.[110]

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106 Pub. L. 106-180 at 645(4).

107 Intelsat LLC Application Vol. I at 7.

108 INTELSAT thus would have the same prospects of replacing satellites at their end-of-life as any other U.S. licensee. The Commission has stated that if a location is available for assignment to another U.S. satellite with the technical characteristics of the proposed replacement, we will generally authorize the replacement satellite at the same location. *See, e.g., In The Matter of Assignment of Orbital Locations To Space Stations in the Domestic Fixed-Satellite Service and the Application of GE American Communications, Inc.*, Memorandum Opinion and Order, 14 FCC Rcd. 686, 689 (1998); *In the Matter of the Applications of GE American Communications, Inc.*, Memorandum Opinion and Order, 11 FCC Rcd 15,030, 15034-35 (1996); *In the Matter if the Application of GE American Communications, Inc*., Order and Authorization, 10 FCC Rcd 13,775 (1995); *In the Matter of Assignment of Orbital Locations to Space Stations in the Domestic Fixed- Satellite Service*, Memorandum Opinion and Order, 3 FCC Rcd 6972, n.31(1988).

109 See Letter from Elaine C. Gresham on behalf of Futron Corporation to Mr. Donald Abelson, Chief, International Bureau, Federal Communications Commission, dated June 20, 2000.

110 Satellite Industry Indicators Fact Sheet, p. 15, Satellite Industry Association ("SIA") and Futron Corporation, June 5, 2000. *See also* Satellite Broadcasting & Communications Association (SBCA) and Satellite (continued….)

According to Publications Resource Group, the number of global broadband subscribers will grow from under one million in 1999 to nearly 40 million in 2007.[111] Access to the U.S. market will be critical to these global broadband subscribers.

31. The benefits that will accrue to Intelsat LLC by being an FCC licensee will be matched by benefits to the United States in serving as its licensing jurisdiction. Licensing Intelsat LLC should provide a strong impetus to achieve timely privatization in a manner consistent with U.S. pro-competitive policy objectives.[112] This consideration is particularly important in view of the clear objectives of the ORBIT Act. In addition, the INTELSAT global system is and will remain after privatization an important source of satellite transmission capacity for commercial and Federal Governmental needs in the United States.[113] In particular, the INTELSAT system also is the primary, if not only, means of international connectivity between the United States and most thin-route countries.[114] Licensing Intelsat LLC would give the United States jurisdiction over the global satellite system and enable it to ensure the continued availability of services to U.S. commercial and Federal Governmental users of the system.[115] It also would facilitate INTELSAT's fulfillment of its principles of privatization, including lifeline service to thin-route countries as provided for by the ORBIT Act.[116]

32. Furthermore, satellite coordination between Intelsat LLC and other U.S. licensed satellite systems would be accomplished without resorting to the more formal international negotiation process that would be required if Intelsat LLC were licensed by another country. This informal process would particularly benefit Intelsat LLC and current U.S. satellite operators in view of the historical technical and operational differences between the INTELSAT system and U.S. satellite systems. Coordination between U.S. licensed satellite operators is normally conducted without direct Commission intervention except as may be necessary to address issues that might not be resolved by licensees, consistent with Commission rules that reflect ITU requirements. Coordination between non-U.S. licensed satellite operators and Intelsat LLC would be conducted in accordance with ITU procedures. In this respect, licensing the Intelsat LLC global system would facilitate greater U.S. flexibility in negotiations with non-U.S.-licensed operators in instances where solutions to satellite coordination issues impact both the operation of Intelsat LLC satellites and other U.S. licensed systems.

33. Finally, as Intelsat LLC points out, the INTELSAT system has been and would continue to be a major purchaser of satellite construction and launch services for years to come. The ability of U.S. suppliers to compete for such services "would not be harmed and may be enhanced if Intelsat LLC were to

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Industry Association (SIA), *The Global Satellite Industry: Proven Success & Future Growth*, citing DTT Consulting May 5, 2000..

111 Pioneer Consulting, LLC, *Next Generation Broadband Satellite Networks: A Market & Technology Assessment Report* (1999).

112 Comsat Comments at 2-3 and Comsat Response at 10; Spacelink Response at 1.

113 *See Direct Access decision*, 14 FCC Rcd at 15723-15727.

114 *See Comsat Non-Dominant Order*, 13 FCC Rcd at 14141-14148.

115 Intelsat LLC Application Vol. I at 36-37 (stating that approval of the Intelsat LLC applications would assure no disruption of customer service). *See also* Spacelink Response at 2-5.

116 Loral Comments at 3-4.

have a status of a U.S. licensee."[117]

4. Timeliness of Commission Action

34. We disagree with PanAmSat and GE Americom that we cannot act on the Intelsat LLC applications now.[118] The petitioners argue that Intelsat LLC cannot show that it is qualified to be a Commission licensee or that privatization of INTELSAT will not harm competition in the U.S. market until it can present all the facts of the privatization. They also contend that Intelsat LLC cannot hold a space station license pending privatization while it is owned and controlled by INTELSAT – an intergovernmental organization.[119] We find that it is appropriate to act on these applications at this time. We note that the licenses we grant to Intelsat LLC are effective only upon privatization and are conditioned in a manner consistent with applicable U.S. law.

35. We have authority to act on the Intelsat LLC applications at this time, under the existing statutory framework and subject to the requirements established in our decisions today. The ORBIT Act specifically permits, and arguably requires, timely action on the applications before us. Section 601(b)(1)(d) permits the Commission to act on applications from INTELSAT "including such actions as may be necessary for the United States to become the licensing jurisdiction for INTELSAT."[120] It provides, however, that the Commission shall "condition a grant of authority pursuant to this subsection upon compliance with Sections 621 and 622."[121] Sections 621 and 622 specify the privatization criteria upon which we are directed to review applications for access to the U.S. market.[122] In addition, Section 644(b) requires the Commission to "take the action necessary to ensure that the United States remains the ITU notifying administration for the privatized INTELSAT's existing and future orbital slot registrations."[123] The United States cannot remain a notifying administration unless it licenses Intelsat LLC's 17 existing and 10 planned C-band and Ku-band operations.

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117 Intelsat LLC Application Vol. I at 37.

118 PanAmSat Petition at 8-10 and PanAmSat Response at 7; GE Americom Petition at 4 and Response at 4.

119 PanAmSat Petition at 12; GE Americom Petition at 4.

120 *Id.*

121 Pub. L. 106-180 § 601(b)(1)(d).

122 *Id.* at §§ 621 and 622. Criteria specified in these provisions for privatization of INTELSAT include: (1) conversion to a national corporation or similar accepted commercial structure; (2) conducting an IPO by October 1, 2001, but no later than December 31, 2002, giving consideration of market conditions and relevant business factors; (3) creation of a fiduciary board of directors, the majority of which must be independent of former signatories, and none of which hold positions with an intergovernmental organization; (4) elimination of privileges and immunities; (5) maintenance of arms length relationships with spin-offs (New Skies); (6) reliance on a national licensing authority for ITU network filings; (7) location in a jurisdiction that has effective competition laws, is a signatory to the WTO Agreement and has a schedule of commitments under the Agreement that includes non-discriminatory access to its satellite market; and (8) conducting technical coordinations under ITU procedures.

123 Pub. L. 106-180 § 644(b).

36. We find it appropriate to act on these applications at this time. We take such action recognizing that INTELSAT must undertake to resolve a variety of issues and make requisite decisions in order to privatize by April 1, 2001. Commission action on the instant applications will provide the September Board of Governors and November Assembly of Parties opportunity to fully consider the United States as a licensing jurisdiction. In particular, timely action will make clear U.S. requirements for authorizing Intelsat LLC operations in the U.S. market upon privatization. Failure of the Commission to act prior to the September Board meeting would deprive INTELSAT members of knowledge of terms of licensing enabling them to determine whether its already agreed upon core principles for privatization will be satisfied through an FCC license.

37. Intelsat LLC does not object to conditioned licenses. The applicant anticipates supplementing the applications as the full parameters of the INTELSAT privatization becomes defined.[124] Intelsat LLC further states that to the extent there is residual uncertainty about the characteristics of the applicant – such as the non-governmental identity of its future controlling shareholders and its precise relationship to any residual IGO – these issues can be addressed through conditioning the grant upon transfer of INTELSAT's satellites to Intelsat LLC and its ITU satellite network filings to the U.S. registry.[125] Our action based upon fulfillment of this contingent event would be similar to authorizing a license transfer based upon future closure between the parties. Although we normally do not act on satellite applications on a contingent basis, the highly unique circumstances presented clearly warrant the approach here.[126] These goals have been a U.S. objective for a number of years and are now mandated by Congress. Action now with appropriate conditions would promote privatization and the public interest benefits flowing from licensing the privatized INTELSAT in the United States. We therefore disagree with PanAmSat that the application should be dismissed.[127]

38. We reject the contention of PanAmSat and GE Americom that we cannot grant Intelsat LLC licenses now because it is owned and controlled by an intergovernmental organization. The licenses we grant today will become effective only upon privatization when the applicant is no longer owned and controlled by an intergovernmental organization. Operating authority would be conferred upon Intelsat LLC only upon the date on which INTELSAT transfers its satellite and associated assets to Intelsat LLC and its ITU network filings to the U.S. registry. We will, moreover, review the INTELSAT privatization under the ORBIT Act prior to the effective date of the licenses. We will require Intelsat LLC to supplement its application following the November 2000 Assembly of Parties decision to provide the details of INTELSAT's privatization as reflected in the Assembly decision. We will provide notice and opportunity for comment on Intelsat LLC's supplemental information and further address any issues raised with respect to Intelsat LLC's satisfaction of the provisions of this Order. We will render any further decision before the final Board of Governors meeting in 2001 prior to the date of privatization. This approach will satisfy procedural and substantive licensing requirements under U.S. law and provide INTELSAT the information it needs to evaluate the United States as a licensing jurisdiction.

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[124] Intelsat LLC Application Vol. I at 8-9.

[125] Intelsat LLC Reply at 5-6; Intelsat LLC Application Vol. I at 7-8 and n.18; Comsat Response at 6-7.

[126] These unique circumstances include ongoing international negotiations in order to achieve an important national policy goal with substantial competition and other public interest benefits.

[127] PanAmSat Response at 10.

5. Application of *DISCO II* Standards

39. We do not now need to make a *DISCO II decision* analysis as PanAmSat, GE Americom and New Skies contend.[128] Nor do we find at this time that the application satisfies our *DISCO II* standards as Intelsat LLC maintains.[129] The *DISCO II decision* provides a framework upon which we determine whether to authorize non-U.S. licensed satellites to enter the U.S. market. Because our decision conditionally awards U.S. licenses to Intelsat LLC, *DISCO II* is not applicable. Should INTELSAT choose to operate its satellite facilities under the jurisdiction of another country, we would consider its provision of service into the U.S. market under a *DISCO II* analysis, upon the filing of appropriate applications in a separate proceeding. Any competition analysis that we make under *DISCO II* would be subject to the ORBIT Act.[130]

6. Dominant-Carrier Treatment

40. At this time, we also do not need to address the issue of dominant-carrier status, or declare Intelsat LLC a dominant carrier for service to thin route countries as PanAmSat requests.[131] PanAmSat appears to base its contention primarily on the fact that we regulate Comsat as a dominant carrier for the provision of INTELSAT services between the United States and thin route countries.[132] Addressing this question now would be premature. First, at least initially, Intelsat LLC does not propose to provide services solely on a common carrier basis nor do we now require it to operate in this manner. The question of whether it will have market power will depend on the services it offers on a common carrier basis and routes on which it offers such services. PanAmSat also appears to assume that Intelsat LLC will step into Comsat's place in providing satellite capacity to U.S. users and service providers for the provision of services to thin route countries – thus, requiring regulation in the same manner now imposed on Comsat. It is not clear at this time, however, what satellite capacity not already committed to Comsat and other Signatories on the existing and 10 planned satellites will be available for Intelsat LLC to offer directly additional services to U.S. users and service providers. We recently initiated a proceeding to consider this question as required by the ORBIT Act.[133] The availability of satellite capacity to provide services must be a key consideration in any market power analysis.

41. Additionally, if Intelsat LLC does provide satellite capacity directly to U.S. users and service providers for the purpose of serving thin route countries, we would use the two-part analysis enunciated by the D.C. Circuit in *National Association of Regulatory Utility Commissioners v. FCC*, to determine whether a space station operator offering service to another entity, that then offers service to end

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128 PanAmSat Petition at 7 and PanAmSat Response at 6-8; GE Americom Petition at 6; New Skies Comments at 3.

129 Intelsat LLC Reply at 10-12.

130 Pub. L. 106-180, §§ 621 and 622.

131 PanAmSat Petition at 29-31.

132 *Id.*, citing the *Comsat Non-Dominant Order*, 13 FCC Rcd at 14090.

133 *See Availability of INTELSAT Space Segment Capacity to Users and Service Providers Seeking to Access INTELSAT Directly*, IB Docket No. 00-91, FCC 00-186 (rel. May 24, 2000).

users, should be regulated as a common carrier.[134] *NARUC I* requires a determination of whether: (1) there is or should be any legal compulsion to serve the public indifferently; or (2) whether the service is such that the provider is likely to hold itself out to serve indifferently all eligible users. Whether Intelsat LLC should be deemed a common carrier, in part, will require consideration of the post-privatization distribution arrangements currently subject to negotiation within INTELSAT. If we determine that Intelsat LLC should be treated as a common carrier, any consideration of imposing dominant carrier regulation on INTELSAT would take into account the commitment INTELSAT will make to lifeline users as part of the privatization. That commitment is to entail (1) providing satellite capacity to maintain connectivity; (2) a twelve-year price ceiling; and (3) a reduction in rates if market prices decline.[135] In view of our decision ending rate base regulation of Comsat under similar circumstances,[136] we question whether imposing the full range of dominant carrier regulation on INTELSAT would be justified.

7. Exclusivity

42. We agree with PanAmSat, GE Americom, and New Skies that we should condition Intelsat LLC licenses to preclude it from entering into exclusive arrangements for the provision of satellite services between the United States and other countries. The ORBIT Act is specific on this question. Section 648 provides:

> (a) IN GENERAL--No satellite operator shall acquire or enjoy the exclusive right of handling telecommunications to or from the United States, its territories or possessions, and any other country or territory by reason of any concession, contract, understanding, or working arrangement to which the satellite operator or any persons or companies controlling or controlled by the operator are parties.
>
> (b) Exception: In enforcing the provisions of this section the Commission--
>
> > (1) shall not require the termination of existing satellite telecommunications services under contract with, or tariff commitment to, such satellite operator; but
> >
> > (2) may require the termination of new services only to the country that has provided the exclusive right to handle telecommunications, if the Commission determines the public interest, convenience, and necessity so requires.[137]

43. We will accordingly condition the licenses we issue to Intelsat LLC on its compliance with

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134 *National Association of Regulatory Utility Commissioners v. FCC*, 525 F.2d 630, 642 (D.C. Cir. 1976) ("*NARUC I*"). *See also DISCO I decision*, 11 FCC Rcd at 2436 (in which we decided to allow U.S. FSS licensees to elect between providing service on a common carrier or non-common carrier basis, subject to *NARUC I*) .

135 Intelsat LLC Application Vol. I at 31.

136 *See Policies and Rules for the Alternative Incentive Based Regulation of Comsat*, 14 FCC Rcd 3065 (1999).

137 Pub. L. 106-180, § 648(b).

these provisions. In doing so, we note that Intelsat LLC accepts this condition.[138] In addition, the 1999 Assembly of Parties decided, as a precondition to privatization, that Intelsat LLC would not seek arrangements that exclude competitors from markets.[139]

B. Foreign Ownership

44. Intelsat LLC is a limited liability company incorporated in the state of Delaware.[140] It is wholly owned and controlled by Intelsat Holdings LLC ("Intelsat Holdings"), also a Delaware limited liability company.[141] Intelsat Holdings is wholly owned by Intelsat, Ltd., a company incorporated under the laws of Bermuda. Currently, Intelsat, Ltd. is wholly owned by INTELSAT. U.S. ownership in INTELSAT, through Comsat, is just over 20 percent and the remaining foreign ownership is just under 80 percent.[142] Foreign government-owned Signatories account for approximately 30 percent of INTELSAT's total ownership, distributed among 80 Signatories.[143] The remaining 70 percent ownership is held by 63 private Signatories, including Comsat.[144] In addition, approximately 91 percent of the shares are owned by entities from WTO Member countries, including the United States, and approximately nine percent of the shares are owned by entities from non-WTO Member countries.[145]

45. Upon privatization, INTELSAT Signatories and other investing entities will receive shares of Intelsat, Ltd., directly, and thus Intelsat LLC indirectly, in accordance with their investment shares in INTELSAT as of a date to be determined by the Assembly of Parties, expected to be March 1, 2001.[146] This share distribution is unlikely to change ownership substantially in terms of proportional distributions among former INTELSAT Signatories and investing entities.

46. PanAmSat maintains that Section 310(a) of the Communications Act[147] precludes

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138 Intelsat LLC Reply at 27-28, citing 1999 Assembly Decision.

139 *Id.*

140 Intelsat LLC Application Vol I at 15.

141 *Id.*

142 *See ex parte* letter from Intelsat LLC Counsel, Carl Frank, to Magalie Salas, Secretary, Federal Communications Commission, May 17, 2000 at Exhibit 1. Comsat has a 20.42 percent ownership share and 79.58 percent is held by other Signatories and Investing Entities.

143 *Id. See also* Intelsat LLC Reply at 9.

144 *Id.*

145 *Id.* at Exhibit 3. *See also* Intelsat LLC Application Vol I at Attachment B (for the names and investment share amounts of each member country). Investment shares in INTELSAT are apportioned annually on March 1 and, historically, there have been relatively small shifts in INTELSAT shareholding. Intelsat LLC seeks Commission approval for the ownership changes that will occur on March 1, 2001. *Id.* at 15-16. For a list of current Members of the World Trade Organization, s*ee* http://www.wto.org/english/thewto_e/whatis_e/tif_e/org6_e.htm.

146 Intelsat LLC Application Vol I at 17.

147 PanAmSat Petition at 11-13.

INTELSAT, and by association Intelsat LLC, from holding FCC radio station licenses.[148] PanAmSat suggests that the 30 percent foreign government ownership interest in INTELSAT could "easily be a controlling one," even after privatization.[149] PanAmSat also argues that Section 310(b)(4) does not provide an exception to Section 310(a) ownership restrictions. It states that the Intelsat LLC applications principally seek authority to operate as a non-common carrier and that Section 310(b)(4) applies only to broadcast, common carriers and aeronautical licensee applicants.[150] It maintains that Congress meant for Section 310(a) to stand as an absolute prohibition against foreign governmental control and that Section 310(b)(4) does not create an exception to this prohibition.[151]

47. Intelsat LLC replies that Section 310(a) does not prevent foreign governments or their representatives from holding non-controlling interests in Title III licenses.[152] It states that INTELSAT is not the applicant here and will not control Intelsat LLC when the licenses become effective.[153] It argues that the approximate 30 percent foreign government ownership, dispersed among 80 foreign governments, does not allow foreign government control of Intelsat LLC upon privatization of INTELSAT.[154] In any event, Intelsat LLC asserts that Section 310(b)(4) provides an exception to 310(a) that makes its ownership structure permissible.[155] Intelsat LLC states that its ownership structure is consistent with Section 310(b)(4) and is in the public interest under the Commission's foreign ownership policies.[156] Intelsat LLC points out that the Commission has "adopted a strong presumption that indirect foreign ownership of common carrier radio licenses . . . in WTO Member countries serves the public interest."[157]

1. Section 310(a) Review

48. Section 310(a) prohibits any foreign government or the representative of any foreign governments from holding radio station licenses. In reviewing applications under Section 310(a), the Commission applies a "control" test that considers whether a foreign government or representative thereof exercises either direct *de jure* or *de facto* control over a licensee. Neither form of foreign government

148 PanAmSat Petition at 13; PanAmSat Response at 11.

149 PanAmSat Response at 11.

150 *Id.* at 12.

151 *Id.* at 11-12.

152 Intelsat LLC Reply at 8.

153 *Id.*

154 *See* Intelsat LLC Reply at 9 n.20; Intelsat LLC Application Vol I at Attachment B, "INTELSAT Signatories and Investing Entities."

155 Intelsat LLC Reply at 9-10.

156 47 U.S.C. § 310(b)(4). Intelsat LLC Application Vol I at 19; Comsat Comments at 6-8.

157 *See* Intelsat LLC Application Vol I at 20. *See also Rules and Policies on Foreign Participation in the U.S. Telecommunications Market and Market Entry and Regulation of Foreign-Affiliated Entities*, 12 FCC Rcd 23891, 23940 (1997) ("*Foreign Participation Order*"), *recon. pending*.

control is permissible under Section 310(a).[158]

49. The Commission defines *de jure* control as control as a matter of law, as evidenced by a 50 percent or greater voting interest in a corporation.[159] There is no basis to believe that the present 30 percent government-controlled interest in INTELSAT will substantially increase upon privatization.[160] Of the aggregate 30 percent ownership by 80 foreign government Signatories, no one foreign government has greater than a 4.5 percent share of INTELSAT. Therefore, we find that no foreign government or group of foreign governments has or is likely to have *de jure* control over Intelsat LLC at the effective date of its licensing. We note that this finding is predicated on no material changes occurring in the current proposed ownership structure that may result in government-owned shareholders obtaining *de jure* control upon the effective date of privatization.

50. *De facto* control is found to exist if an entity that lacks a voting majority is nonetheless in actual control of a company. *De facto* control is determined on a case-by-case basis and, as a result, decisions regarding *de facto* control are fact-specific. Under Commission precedent, a *de facto* control determination is based on the "totality of the circumstances," and is governed chiefly by the power to dominate the management of corporate affairs.[161] PanAmSat does not explain how the 30 percent aggregate ownership interest held by 80 different foreign government Signatories will provide any foreign country or countries with the ability to dominate the management of Intelsat LLC corporate affairs or otherwise exercise control over its operators. While INTELSAT has yet to decide the specifics of how management and day-to-day operations are to be structured, it has determined that it will have a fiduciary board of directors upon privatization. We find no basis for concluding that the 30 percent ownership held by various foreign government-controlled stockholders will result in *de facto* control of the applicant by foreign governments, based on corporate structure and management arrangements. Nor does PanAmSat provide any basis upon which we should conclude that non-governmental shareholders will privatize INTELSAT only to turn over *de facto* control to government-controlled shareholders through corporate structure and management arrangements.[162] For these reasons, we conclude that at this time there is no

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158 *Starsys Global Positioning, Inc.*, Order, 10 FCC Rcd 9392, 9393 (Int'l. Bur. 1995) ("*Starsys decision*"); *Alpha Lyracom, d/b/a Pan American Satellite, et al.*, Order, 8 FCC Rcd 376, 378 n.21 (Comm. Car. Bur. 1992); *Orion Satellite Corp.*, Order, 5 FCC Rcd 4937, 4939 n.26 (1990).

159 Albert J. Feyl, 15 F.C.C. 823, 825-26, 7 Rad. Reg. 83, 86 (1951), and Section 1.948(b)(1) of our rules, providing that: "A change from less than 50% ownership to 50% or more ownership shall always be considered a transfer of control." 47 C.F.R. § 1.948(b)(1); *see also* Berns Enters, Inc., 55 F.C.C.2d 721, 35 R.R.2d 174 (1975).

160 The share distribution provided in the application is based on March 1999 information and is not materially altered by new information submitted by Intelsat LLC that is based on INTELSAT March 2000 distribution information.

161 *See e.g., In re Application of Brian L. O'Neill*, Memorandum Opinion and Order and Notice of Apparent Liability, 6 FCC Rcd 2572, 2574-75 (1991); *In re Application of Stereo Broadcasters, Inc*., Memorandum Opinion and Order, 55 FCC 2d 819, ¶ 7 (1975); *In re News International*, Order, 97 FCC 2d 349 (1984).

162 The Commission has held that: "it is not appropriate to infer, in the absence of information to the contrary, that [a party] will not faithfully carry out its representations or that it will be controlled and operated in a manner that differs from the agreement under consideration." *In re News International, PLC*, Memorandum (continued….)

material question of fact as to whether there will be *de facto* control of Intelsat LLC by a foreign government or group of foreign governments that trigger a Section 310(a) review. We note that this finding is predicated on no material changes occurring in the current proposed ownership structure that may result in government-owned shareholders obtaining *de facto* control upon the effective date of licensing.

2. Section 310(b)(4) Review

51. Intelsat LLC requests space station licenses that designate it as a provider of service on both a private and a common carrier basis. While Intelsat LLC has no current plans to offer common carrier service in the United States, it requests this dual carrier status (private/non-common carrier and common carrier) now in order to have business flexibility in the future.[163] The Commission allows dual carrier status, as requested, as part of its space station licenses, subject to obtaining Section 214 authority prior to the provision of international common carrier services.[164] Thus, prior to providing common carrier services, Intelsat LLC will need to obtain this additional authority under Section 214 of the Communications Act and Part 63 of our rules.[165]

52. Section 310(b) addresses the level of direct and indirect interest that a foreign company, foreign government or representative of a foreign government may hold in common carrier, broadcast, or aeronautical station licensed by the Commission.[166] Section 310(b)(4) declares that no common carrier authorization "shall be granted to or held by . . . (4) any corporation directly or indirectly controlled by any other corporation of which more than one-fourth of the capital stock is owned of record or voted by aliens, their representatives, or by a foreign government or representative thereof, or by any corporation organized under the laws of a foreign country, if the Commission finds that the public interest will be served by the refusal or revocation of such license."[167]

53. Comsat's current ownership interest in INTELSAT is expected to be its, and the United States', approximate ownership interest in Intelsat LLC upon privatization.[168] Thus, the ownership structure upon privatization would place approximately 80 percent of the capital stock owned of record under the indirect control of aliens, foreign governments, and/or foreign corporations, within the meaning of Section 310(b).[169] This level of indirect foreign ownership exceeds the 25 percent level noted in Section 310(b)(4) and, therefore, we consider whether such foreign ownership is in the public interest.

(Continued from previous page)
Opinion and Order, 97 FCC 2d 349, 356 (1984). Prospective representations by the parties regarding control, however, may be highly self-serving, and thus must be accorded the weight indicated by a review of the complete record. *In re Baker Creek* ¶ 8.

163 Intelsat LLC Application Vol I at 14.

164 47 U.S.C. § 214; 47 C.F.R. §§ 63.01 *et seq*.

165 *Id.*

166 *Id.* at § 310(b).

167 *Id.* Section 310(b)(4) does not limit the level of alien ownership interest where the Commission does not find that the public interest will be served by refusing to grant a particular license.

168 *See* Appendix B**.**

169 47 U.S.C. § 310(b).

54. In general, we see no public interest reason to refuse to authorize Intelsat LLC under Section 310(b)(4). To the contrary, as addressed herein, the authorization of a privatized INTELSAT is in the U.S. public interest. The ORBIT Act requires privatization of INTELSAT as a means to promote a competitive market for the benefit of consumers and satellite service and equipment providers.[170] The Act specifically contemplates licensing the privatized entity in the United States and establishes a process toward that end.[171] INTELSAT's diverse foreign ownership was a fact known to Congress when it enacted this legislation. Moreover, as a private entity, flexibility to provide service on a common carrier as well as a private carrier basis would enable INTELSAT to more effectively compete and satisfy consumer demands. Under these circumstances, we find that authorizing Intelsat LLC under Section 310(b)(4) would carry out the purpose of the ORBIT Act and serve the public interest.

55. In addition, in the *Foreign Participation Order*, the Commission found that foreign investment can promote competition in the U.S. market and that therefore the public interest is served by permitting more open investment by entities from Members of the World Trade Organization in U.S. common carrier radio licenses.[172] Approximately 91 percent of the ownership of Intelsat LLC falls into this category and only nine percent of the ownership is by individuals and entities that do not have their principal place of business in WTO Member countries. Consistent with the *Foreign Participation Order* and the market-opening commitments made by the U.S. as a Signatory to the WTO Basic Telecom Agreement, we presume that indirect foreign ownership by WTO Members serves the public interest.[173] No party in this proceeding rebuts this presumption and we are aware of no other reason to rebut the presumption here. Because the nine percent non-WTO Member ownership in INTELSAT is below the 25 percent level referred to in Section 310(b)(4), we do not review this ownership under the "effective competitive opportunities" ("ECO") test as set forth in the *Foreign Participation Order*, applicable to ownership interests of 25 percent or more from non-WTO Members.[174] The 91 percent ownership by WTO members is sufficient to support our conclusion here. Therefore, we find, pursuant to Section 310(b)(4), that the indirect foreign ownership of Intelsat LLC, as described in this Order, is in the public interest.[175] We note that this finding is subject to the condition that no material changes occur in the current proposed ownership upon the effective date of privatization.[176]

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170 Pub L. 106-180 § 2.

171 Pub L. 106-180 §§ 601(b)(1)(D) and 644(b).

172 *Foreign Participation Order*, 12 FCC Rcd at 23940.

173 *Id.* at 23940.

174 *Id.* at 23946 (stating that "We will deny an application if we find that more than 25 percent of the ownership of an entity that controls a common carrier radio licensee is attributable to parties whose principal place(s) of business are in non-WTO Member countries that do not offer effective competitive opportunities to U.S. investors…"); *see also, e.g., In re Applications of VoiceStream Wireless Corporation or Omnipoint Corporation for Consent to Transfer of Control and Assignment of Licenses and Authorizations*, FCC 00-53, DA 99-2737 (Int'l Bur. rel. Feb. 15, 2000) ¶ 20 (stating that "the merged company may acquire up to and including 25 percent indirect foreign ownership in addition to [the already-approved ownership]…").

175 47 U.S.C. § 310(b)(4).

176 *See* Appendix B.

C. Technical Requirements and Waivers

56. Intelsat LLC requests multiple waivers of our technical rules "to accommodate the existing design and operations of the INTELSAT system."[177] Intelsat LLC emphasizes that the waivers are necessary because certain technical parameters of the INTELSAT system are historically different and firmly established.[178] It states that, unlike typical satellite applications, the INTELSAT system already is operational and was neither designed nor initially authorized under Commission licensing jurisdiction.[179] Intelsat LLC contends that it would be "patently unfair and inequitable to apply the Commission's current technical rules and regulations retroactively."[180] Intelsat LLC also asserts that grant of waivers would not cause increased interference because all of its 17 operational satellites are fully coordinated and coordination of the 10 planned satellites has been initiated and is underway, and will be mostly complete by the effective date of the respective licenses.[181] Finally, it asserts that it would not be in the public interest to apply strictly the technical rules because to do so would require interrupting service to customers, including lifeline customers, and would be extremely costly.[182]

57. Comsat, Lockheed Martin, Loral, and Spacelink also urge that we grant the various technical waivers, for reasons similar to those presented by Intelsat LLC.[183] Comsat, in particular, states that "granting the requested waivers will promote the public interest without undercutting the policies underlying the rules."[184]

58. New Skies asserts that Intelsat LLC should not be given "preferential" treatment by a grant of waivers.[185] PanAmSat, GE Americom, and JSAT have no objection to waivers for the operating satellites, but state that Intelsat LLC should have to meet Commission technical standards for those of the

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177 Intelsat LLC Application Vol. I at 38.

178 *Id.* at 40.

179 *Id.* at 38

180 *Id.* at 43-46.

181 *Id.* at 42-43. *See also ex parte* letter from Intelsat LLC Counsel, Jennifer Hindin, to Magalie Salas, Secretary, Federal Communications Commission, July 17, 2000, at Attachment B. Coordination refers to the negotiations undertaken between administrations of operators of satellites in orbit or those having coordination requests filed with and published by the ITU. The agreements between administrations ensure harmonious operation of all adjacent satellite systems and frequently include alterations to the technical characteristics of the system, including satellites and earth stations. Successful conclusion of all coordination requirements leads to notification to the ITU and inclusion in the ITU Master Register. Entry in the Master Registry grants protection from interference from future satellite networks.

182 *Id.* at 46-48.

183 Comsat Comments at 11; Lockheed Martin Comments at 6; Loral Comments at 4; Spacelink Response at 5.

184 Comsat Comments at 11.

185 New Skies Comments 3-4.

10 planned satellites that are not substantially under construction.[186] PanAmSat and GE Americom assert that any waivers granted should be on a temporary, secondary, non-harmful interference basis.[187] In any event, PanAmSat generally maintains that no waivers should be granted if the justification is related to the design of earth stations, which can be modified at any time.[188] PanAmSat also asserts that the existence of coordination agreements does not signify harmonious system operation, because PanAmSat was forced to make technical concessions, due to the INTELSAT system design, that it normally would not have made.[189]

1. Waiver Standard

59. Under our rules, the Commission may grant a waiver where good cause is shown.[190] Good cause is demonstrated where special circumstances warrant a deviation from the general rule, such deviation serves the public interest, and a waiver would be consistent with the principles underlying the rule.[191] In reviewing the Commission's waiver rule, the United States Court of Appeals has stated that granting a waiver may be appropriate if: (1) special circumstances support a finding that strict adherence would not be in the public interest; and (2) a grant would not undermine the underlying policy objectives of the rule in question.[192] The Court further stated, that although "an agency may discharge its responsibilities by promulgating rules of general application which, in the overall perspective, establish the 'public interest' for a broad range of situations, [this] does not relieve it of an obligation to seek out the 'public interest' in particular, individualized cases."[193] For the following reasons, we find that good cause exists to grant various waivers to Intelsat LLC, subject to conditions.

60. We consider here a "particular individualized" situation – the authorization of an already operating system of an intergovernmental organization that is undergoing privatization that heretofore has not been subject to a national licensing regime.[194] The special circumstances surrounding creation of the

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186 PanAmSat Petition at 23; GE Americom Petition at 22; JSAT Petition at 2.

187 PanAmSat Petition at 18; GE Americom Response at 13.

188 PanAmSat Petition at 29.

189 *Id.* at 20.

190 47 C.F.R. § 1.3 ("Any provision of the rules may be waived by the Commission on its own motion or on petition if good cause therefore is shown."). *WAIT Radio v. FCC*, 418 F.2d 1153 (D.C. Cir. 1969) ("*WAIT Radio*").

191 *See In the Matter of 1998 Biennial Regulatory Review -- Review of Depreciation Requirements for Incumbent Local Exchange Carriers*, CC Docket No. 98-137, *Ameritech Corporation Telephone Operating Companies' Continuing Property Records Audit, et. al.*, CC Docket No. 99-117, *GTE Telephone Operating Companies Release of Information Obtained during Joint Audit*, AAD File No. 98-26, Further Notice of Proposed Rulemaking, FCC 00-119, 2000 WL 339773 (F.C.C.) (rel. April 3, 2000) at n.8 (citing *Northeast Cellular Tel. Co. v. FCC*, 897 F.2d 1164 (D.C. Cir. 1990)); *WAIT Radio*, 418 F.2d 1153; *Thomas Radio v. FCC*, 716 F.2d 921 (D.C. Circ. 1983).

192 *WAIT Radio*, 418 F.2d at 1157.

193 *Id.*

194 *Id.*

INTELSAT global system -- including the fact that the basic design characteristics of INTELSAT satellites were conceived before most of our technical rules were adopted -- show that strict adherence to our technical rules, with respect to the authorizations granted herein, would not be in the public interest. Furthermore, as detailed below, the principles underlying our policy objectives for these technical rules – those of minimizing interference, maximizing efficient use of the radio frequency spectrum, and encouraging competition -- will not be undermined by grant of the requested waivers, as conditioned.[195] Denial of these waivers could lead to increased interference, unnecessary costs, and major service disruptions.[196] Below, we generally consider the special circumstances present and the underlying principles of our rules before addressing separately each waiver request.

2. Special Circumstances

61. The INTELSAT system was developed as a result of a U.S. policy initiative to work with other countries in the early days of space technology to develop a commercial satellite system to provide services on a global basis. This policy initiative, born out of the 1962 Satellite Act, was grounded in the concept that communications satellite technology should be utilized as an instrument to improve global communications. The INTELSAT Agreement reflects the basic tenet of this U.S. policy -- the availability of commercial satellite services "on a non-discriminatory basis to all areas of the world."[197]

62. The 1962 Satellite Act created Comsat and made it subject to U.S. government oversight to assure that the newly created global satellite system satisfied these objectives.[198] Comsat was required to obtain Commission approval to provide services in the United States via INTELSAT and to participate in procuring INTELSAT satellite assets.[199] The 1962 Satellite Act also provided for the National Aeronautics and Space Administration ("NASA") to advise the Commission on technical characteristics of the INTELSAT satellite system.[200] Thus, the design and technical parameters of the INTELSAT system have always been subject to U.S. government review and oversight.

63. The development of the INTELSAT system preceded the creation of commercial U.S. satellite systems. INTELSAT, in fact, faced little competition in the provision of international satellite services for many years. Consequently, at that time, it was able to design its system to accomplish its

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195 *See, e.g., In the Matter of Establishment of Domestic Communication-Satellite Facilities by Non-Government Entities*, Report and Order, 22 FCC 2d 86 (1970), Second Report and Order, 35 FCC 2d 844 (1972), *recon. in part*, Memorandum Opinion and Order, 38 FCC 2d 665 (1972) ("*Open Skies decisions*"); *In the matter of Licensing of Space Stations in the Domestic Fixed-Satellite Service and Related Revisions of Part 25 of the Rules and Regulations*, Report and Order, FCC 83-184, 48 FR 40233, 54 RR 2d (P&F) 577 (1983) ("*Two-degree Spacing decision*").

196 Intelsat LLC Application Vol. I at 38

197 INTELSAT Agreement, 23 U.S.T. 3813, Article III. *See also Comsat Study*, 77 FCC 2d at 584-588.

198 Communications Satellite Act of 1962, as amended, 47 U.S.C. § 701 *et. seq.*

199 *See Comsat Study* at 723-742. *See also Communications Satellite Corp.*, 46 FCC 2d 338 (1974) (establishing procedures for Comsat to obtain Commission authorization to participate in the construction and operation of INTELSAT facilities, pursuant to Title III and Section 214 of the Communications Act, and Section 201(c) of the Communications Satellite Act).

200 *See* 47 U.S.C. § 201(b), terminated by the ORBIT Act, Pub. L. 106-180 § 645(1).

mission and operate alongside other satellites in a relatively uncrowded geostationary satellite orbit. For example, INTELSAT was able to achieve its mission of global coverage and connectivity, essential for life-line areas, through the use of global beams dedicated for this purpose and other beams having diverse pointing directions.[201] While global coverage and connectivity usually could be achieved more efficiently without global beams, this technology provides assurance to thin-route users that their service needs will continue to be satisfied, consistent with U.S. policy and the INTELSAT Agreement. The web of coverage created by multiple satellites having some transponders with global beams will continue to be part of INTELSAT's business plan following privatization. At this time, the INTELSAT system is composed of 17 satellites serving tens of thousands of earth stations with an extensive customer base.

64. After the INTELSAT system was operating, the United States began to implement policies and rules for supporting commercial satellite systems with footprints in the United States.[202] The Commission adopted an "open skies" policy with the objective of accommodating as many satellite operators as possible in the U.S. domestic orbital arc.[203] These policies and rules included implementation of spectrum efficiency requirements such as two-degree orbital spacing and frequency reuse by means of orthogonal linear polarization.[204] Initially, these policies only applied to the traditional domestic arc.[205] While U.S.-licensed international systems later were made subject to these policies and rules,[206] some technical rules have not been fully implemented on U.S.-licensed international systems to date.[207] These technical requirements never have been applicable to INTELSAT because, as an intergovernmental

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201 *See* Intelsat LLC Application Vol. I at 53.

202 *Domestic Communication Satellite Facilities*, 22 FCC 2d 86 (1970); 35 FCC 2d 844 (1972); 38 FCC 2d 665 (1972) ("Open Skies decisions").

203 *Id.* The domestic arc historically has been considered to approximately encompass 60º W.L. to 140º W.L.

204 Orthogonal linear (dual) polarization is a means of achieving frequency reuse by taking advantage of inherent characteristics of radio waves. It is possible to transmit two radio waves at the same frequency with different polarizations, for example horizontal and vertical polarizations, without mutual interference. In this manner, the spectrum can be reused through "polarization isolation." This is also achievable with orthogonal circular polarization.

205 *Two-Degree Spacing decision*, FCC 83-184, 48 FR 40233, 54 RR 2d (P&F) 577, 581 (1983) ("*Two-degree Spacing* decision"). To "maintain entrepreneurial opportunities for expansion and new entry in the U.S.-domestic arc . . . given the limited portion of the geo-stationary orbit usable to serve the United States," the Commission adopted a uniform two-degree orbital spacing policy for newly launched C-band and Ku-band domestic fixed-satellites. *Id*.

206 The United States did not adopt a policy for competition from private international satellite systems until the mid-1980s. *See Establishment of Satellite Systems Providing International Communications*, Report and Order, 101 FCC 2d 1046, 1048, 1167-1169 (1985) ("*Separate Systems decision*"). *See also* Presidential Determination (PD No. 85-2), dated November 28, 1984, declaring that competing satellite systems are "required in the national interest." 47 U.S.C. 701(d).

207 For example, U.S.-licensed international system licensees usually operate their FM video transmissions at frequencies agreed to with foreign operators, under the ITU coordination procedures. These frequencies may not correspond to the frequency requirements of Section 25.211(a), 47 C.F.R. § 25.211(a), FM video center frequency requirements.

organization, it is not directly under U.S. jurisdiction and INTELSAT has provided only international service to and from the United States. INTELSAT, however, has provided services to the United States for over 30 years in coordination with U.S.-licensed systems. The INTELSAT system, while technically different from later satellite systems in certain respects, is nevertheless their technological equivalent.

65. Accordingly, we find that these are special circumstances that exist with respect to the Intelsat LLC system application, including its 17 operational and the 10 planned satellites, and the subsequent 13 orbit location reassignments addressed herein.

3. Underlying Principles of FCC Technical Rules

66. The principles underlying Commission's rules and policies that are the subject of waiver requests in this proceeding are minimizing interference, maximizing efficient use of the radio frequency spectrum and encouraging competition.[208] These principles have been enumerated in Commission decisions establishing our satellite licensing policies and rules.[209] The Commission has minimized interference among satellites through uniform technical rules and coordination requirements. It has attempted to achieve efficiency in the use of orbit locations and frequencies through a variety of rules and policies. For instance, Commission rules require U.S.-authorized satellites to comply with two-degree orbital spacing and to construct spacecraft using state-of-the-art technology.[210] The Commission also has instituted policies especially designed to promote competition.[211] As discussed below, granting the various waiver requests will not undermine these policies.

67. Granting the requested waivers will not undermine the principle of non-interference. INTELSAT satellites have operated for many years without unacceptable interference with U.S. licensees. All the INTELSAT satellite orbit locations at issue have been coordinated or are in the process of being coordinated with U.S.-licensed satellite systems. Therefore, in general, the grant of these waivers will not increase interference potential. On the other hand, strictly applying the rules would actually increase interference to both U.S.-licensed and Intelsat LLC satellites in those cases where the satellites were moved closer together. If there were a high number of small antennas accessing either of the satellites affected by the move, the useable communications capacity could effectively be reduced. Moreover, any orbital location move would require re-coordination with all affected satellites, both U.S.-licensed and non-U.S. licensed. Such coordination would be time-consuming and costly for multiple providers. It would also change the priority of the filings at the ITU, which could place certain of the Intelsat LLC operations at risk for interference from systems of other countries that had entered into coordination.

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208 *See, e.g., Open Skies decisions*, 22 FCC 2d 86 (1970); 35 FCC 2d 844 (1972), 38 FCC 2d 665 (1972); *Two-Degree Spacing decision*, FCC 83-184, 48 FR 40233, 54 RR 2d (P&F) 577 (1983); *Separate Systems decision*, 101 FCC 2d 1046, 1048, 1167-1169 (1985); *DISCO I decision*, 11 FCC Rcd. 2429 (1996).

209 *Id.*

210 *Two-Degree Spacing decision*, 54 RR 2d at 598. We have preserved a "strong commitment to maintaining efficient use of the orbit/spectrum resource," while recognizing that the satellite industry would continue to experience continual change. Therefore, we entertained showings "by applicants that particular satellite configurations which do not meet the standards . . . should be permitted." *Separate Systems decision*, 101 FCC 2d at 1173**.**

211 *See, e.g., supra* at n.4.

68. Further, with Intelsat LLC as a U.S. licensee, the Commission would have direct jurisdiction over operation of its satellites. As note above, Intelsat LLC could participate in a relatively informal coordination process with other U.S. licensees.[212] In this manner, without special regard to any single entity, Intelsat LLC and other U.S. licensees would more readily be able to resolve interference issues. On the other hand, if Intelsat LLC were licensed in another country, this process would require more formal and protracted international coordination procedures. In addition, if Intelsat LLC were to request waiver of our technical rules pursuant to a *DISCO II* application to serve the U.S. market, the Commission would evaluate the effect on our underlying principles, such as non-interference, based on a separate record. We would weigh, among other things, the lack of direct jurisdiction over the satellites in considering any such waiver requests.

69. Granting the waivers requested generally also will not undermine our efficiency goals. INTELSAT's technical design differences make INTELSAT satellites at least as efficient as other U.S.-licensed satellites that comply completely with our rules. INTELSAT traditionally has been at the forefront of satellite efficiency, particularly in the areas of antenna design and frequency reuse. The number of times a particular frequency band is reused on a given satellite is one measure of efficiency. From any one orbital location, a particular frequency band can be used, at most, twice at any given point on earth. This is accomplished by polarization isolation.[213] Additionally, with the use of spatial isolation, the same frequency band may be used again at other points on Earth, provided the geographic spatial separation is adequate. Spatial isolation is a technique that allows reuse of the frequency spectrum by transmitting signals of the same frequency and polarization over separate satellite antenna beams that are pointing to areas of the Earth sufficiently far apart from each other that the isolation inherent in spot beam antennas allows transmissions to occur without harmful mutual interference. This is accomplished by multiple-beam antenna technology. INTELSAT technology first implemented dual-polarization on the INTELSAT-IVA series and multiple-beam technology on the INTELSAT-V series. Today INTELSAT is constructing the INTELSAT-IX series with seven-fold frequency reuse, comprising two beams in one polarization and five beams in the other. INTELSAT also has been a pioneer and is a leader in the commercial application of satellite-switched time division multiple access ("SS/TDMA") technology to improve further the achievable efficiency on the INTELSAT-VI and the INTELSAT-IX series. SS/TDMA is a technology that allows the connections among multiple satellite antenna beams to be dynamically switched in a manner that matches the beam-to-beam traffic demand. In this manner, the utilization efficiency of the satellite capacity is maximized.

70. In view of the above, as a general matter, we find that our underlying policy principles of minimizing interference and maximizing efficiency, as well as promoting competition, will not be undermined by a grant of the requested waivers with regard to both existing and the 10 planned satellites.

4. Operating and Planned Satellites

71. No party opposes waivers for the 17 operating satellites. Indeed, it would be unreasonably and unnecessarily costly to require Intelsat LLC to make the requisite technical changes immediately, in order to strictly comply with our rules. Since most of the technical parameters of a satellite already in orbit cannot be changed, compliance would require replacing entire satellites immediately – a costly option that would be compounded by losing the full lifetime use of the respective satellites and as discussed below,

212 *See supra* paragraph 32.

213 *See supra* n.204.

customers having to construct new or modify existing earth stations in order to communicate with the differently configured satellites.[214]

72. As for the 10 planned satellite, nine will be in the manufacturing cycle by the time the instant authorizations are expected to take effect.[215] Assembly has either begun or been completed on the first five. Component manufacturing has begun on the next two satellites and assembly will have begun by the effective date of privatization.[216] The eighth and ninth satellites are in the design stages and will be under construction by the effective date of their authorizations.[217] Thus, by the effective date of the respective licenses, nine of the 10 satellites will be substantially in the assembly process, fully assembled, undergoing system testing, or delivered for launch and operation. The last spacecraft is in the initial planning stages and is not yet under contract. In particular, Intelsat LLC states that the specific status of each of the 10 planned satellites is as follows:

INTELSAT 901	is fully constructed and is in the final stages of testing;
INTELSAT 902	is fully constructed and the initial system tests are completed. It still needs to complete environmental and final tests;
INTELSAT 903	communication payload is fully constructed and tested but it is not yet mated with the rest of the satellite;[218]
INTELSAT 904	communications payload is under construction and the service module is fully assembled;[219]
INTELSAT 905	assembly has begun;
INTELSAT 906	manufacturing is in progress as components are separately being built;
INTELSAT 907	manufacturing is in progress as components are separately being built;
ALPHA 1	preliminary design review is complete, including initial system design and engineering analysis, and final design process is underway;
ALPHA 2	preliminary design review is scheduled for September 2000; and
BETA 1	contract is due to be in place by June 2001.

214 Certain modifications to earth stations, such as converting from circular to linear polarization, typically cannot be accomplished without taking the earth station out of service.

215 *See ex parte* letter from Intelsat LLC Counsel, Jennifer Wheatley, to Magalie Salas, Secretary, Federal Communications Commission, June 20, 2000 at Attachment A. The BETA-1 spacecraft will not yet be under construction on the effective date of these authorizations.

216 *Id.*

217 For purposes of this opinion, the "manufacturing cycle" refers to either the design, assembly, or testing phases of the satellite construction process. The farther along one is in this process the more "advanced" is the manufacturing cycle.

218 The Communications payload is the receivers, transmitters, antennas, etc., that accomplish the communications service.

219 The service module comprises the telemetry and command subsystem, the power subsystem, the thermal control subsystem, and the attitude and orbit control subsystems.

73. The first seven satellites are clearly in advanced stages of the manufacturing cycle. GE Americom and PanAmSat, apparently, do not contest waivers for these planned satellites because they can be classified as "substantially" under construction.[220] Given these advanced stages, the cost for redesigning, remanufacturing and reassembling the 10 planned satellites likely would total in the tens of millions of dollars. For example, Intelsat LLC estimates that a changeover from circular polarization to linear polarization of those satellites under construction would lead to related costs of between $270 million and $3 billion for earth station modifications or replacement.[221] Intelsat LLC also asserts that there would be lost revenue amounting to between $4.8-$6.4 billion caused by resultant service disruptions and delays over the implementation period. Additionally, Intelsat LLC states that there would be non-quantifiable costs, such as service interruptions, departure of customers, and loss of credibility, among others.[222]

74. The next two satellites will also be in advanced stages of the manufacturing cycle by the effective date of privatization. These two satellites are now in the design phase and would have to be redesigned to strictly comply with our technical requirements before beginning the construction process anew. In particular, the eighth satellite has undergone its preliminary design review and is undergoing its final design process. The preliminary design review for the ninth satellite is scheduled next month. We expect by the effective of date of authorizations that component manufacturing and some assembly will have begun for the eighth and ninth satellites. If Intelsat LLC were required to make the changes to its satellites it would incur redesign and remanufacturing costs. Additionally, there would be costs in redesigning the earth stations that communicate with these satellites. The costs of redesigning the earth stations accessing each of these two satellites would be roughly the same as for each of the seven satellites noted above. As with the first seven spacecraft, there also would be contract penalties and launch and service delays, and their associated costs.

75. As for the final satellite not yet under contract, waivers are requested for only three of our rules: two-degree spacing, TT&C frequencies, and on-axis polarization isolation. The 85º E.L. orbit location where this satellite will be placed is well outside the domestic arc. The only U.S. possession it will be able to serve is Guam. No U.S.-licensed satellite is adjacent to the 85º E.L. where it could be directly affected. Further, there are no prospects of future U.S.-licensed satellites being located adjacent to the 85º E.L. orbital location that could be affected. Thus, there would be *de minimis* benefit from compliance as this waiver only involves one satellite in the INTELSAT system and no other U.S. licensed satellite would be impacted. With respect to a waiver of the TT&C frequency requirement, it would be unreasonable to require Intelsat LLC to bear the costs to build new Ku-band TT&C earth stations to replace existing ones at C-band, in view of these considerations.[223]

76. GE Americom and PanAmSat, assert that Intelsat LLC's cost estimates for modifying its

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220 GE Americom Further Response at 5. PanAmSat Opposition at 29 (it would only agree with waivers for those planned spacecraft so far advanced that changes to the design are no longer possible).

221 *Ex parte* letter from Intelsat LLC Counsel, Jennifer Wheatley, to Magalie Salas, Secretary, Federal Communications Commission, June 20, 2000 at Attachment C. This cost range applies to all ten of the planned satellites.

222 GE Americom Further Response at 5.

223 The NI-BETA satellite will only operate at Ku-band and therefore our rules would require the TT&C to operate in the Ku-band as well.

earth and space segment are substantially overstated.[224] GE Americom specifically contends that there would be virtually no impact on space and earth segment costs and revenues. It asserts that there are ways to make these changes which would result in reduced costs.[225] However, GE Americom provides only rough estimates and PanAmSat does not include figures. Based on GE Americom's cost figures, Intelsat LLC would still incur some significant financial costs to changeover, even without taking into account the additional costs associated with delays and disruption of services.

77. In view of the above, we conclude that it would be unreasonable to subject Intelsat LLC to the added costs, and its customers to potential service delays or disruptions, that would be associated with requiring it to redesign and/or remanufacture its 10 planned satellites in order to comply with those technical rules for which it seeks waivers. It also would be inefficient to require that INTELSAT's planned satellites immediately conform to our technical requirements at this time because it would require Intelsat LLC to institute redundant operations of its space and ground segments in order to have the ability for continuous service. Without redundant operations there likely would be service interruptions. The cost and complexity of such a changeover would be exacerbated by the necessity to modify tens of thousands of earth stations in order to comply.[226] The costs associated with complying with the rule requiring linear polarization ("LP"), as opposed to the circular polarization employed by INTELSAT, would be significant. We anticipate that Intelsat LLC will transition over time toward a system that complies with the technical rules upon which other U.S. systems operate. However, we do not agree with Intelsat LLC's competitors that we should impose requirements on it that would weaken it as a competitor.

5. Specific Waiver Requests

a. Two-degree Spacing of Satellite Orbit Locations - Section 25.140(b)(2)

78. In 1983, the Commission instituted its uniform geostationary two-degree spacing satellite orbit assignment policy for domestic FSS space stations.[227] It was established to advance efficient use of the radio frequency spectrum by maximizing the number of domestic U.S. satellites in the portion of the geostationary satellite orbit used to serve the United States.[228] The policy was also meant to provide more opportunities for new entry.[229] The *Separate Systems decision* extended this policy to include international satellite systems (or "separate systems") licensed by the United States. It confirmed that U.S.-licensed

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224 *See ex parte* letter from PanAmSat Corporation Counsel, Joseph Godles, to Magalie Salas, Secretary, Federal Communications Commission, July 26, 2000 (July 26, 2000 PanAmSat letter"). Further Response of GE American Communications, Inc., In the Matter of Intelsat LLC, July 26, 2000 ("GE Americom Further Response").

225 GE Americom Further Response at 4-8. PanAmSat concludes that the costs of not switching to linear polarization, to other satellite operators, the public, and INTELSAT's customers, are not being considered. It provided no additional support for this debatable statement. PanAmSat July 25 letter at 2.

226 Intelsat LLC Application Vol. I at 46-48.

227 *Two-degree Spacing decision,* Report and Order, 54 RR 2d (P&F) 577 (1983). *See also* 47 C.F.R. § 25.209.

228 *Id.*

229 *Id.*

international separate systems would also be subject to our two-degree spacing requirement, even though technical issues were not specifically addressed.[230] In 1996, the Commission adopted its *DISCO I decision*, allowing both domestic and international U.S.-licensed satellites to provide both domestic and international services.[231] The result was that all U.S.-authorized FSS satellites, domestic and international, would be under a single regulatory regime – including two-degree spacing requirements.[232]

79. Intelsat LLC requests a waiver of our two-degree spacing requirements, including a specific waiver of Section 25.140(b)(2) of our rules.[233] Intelsat LLC generally seeks a minimum orbital spacing of 2.5 degrees from non-INTELSAT satellites.[234] It is unclear, states Intelsat LLC, how the two-degree requirement applies to satellites "providing principally international services."[235] It further contends that licensing its satellites on a "secondary, non-harmful interference" basis would be unfair, because it would result in unknowable and unpredictable technical limitations.[236] PanAmSat and GE Americom disagree, asserting that a waiver would impose an unfair burden on other operators and Commission precedent requires compliance.[237]

80. We conclude that a waiver of the two-degree orbital spacing requirement is justified with respect to the orbit locations and current service now being provided as well as for the 10 planned satellites. The Commission's ability to impose two-degree spacing on our licensees in the international arc is limited by practical reasons, such as the difficulty of coordinating such operations with satellites from other administrations. Further, it would be excessively burdensome to require compliance in this case, given the prohibitive financial costs necessary to reconfigure the INTELSAT system. Finally, converting the system to make it two-degree compliant also would result in service disruptions.

81. First, from a practical standpoint, the two-degree spacing requirement normally only can be applied where the neighboring satellites are licensed by the United States (or are foreign satellites authorized to provide service to the United States). We routinely have been able to apply two-degree spacing in the domestic arc because most neighboring satellites are U.S.-authorized. In the international arc, it has been more difficult because of the number of administrations that do not restrict their licensees to

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230 *Separate Systems decision*, 101 FCC 2d at 1167.

231 *In the Matter of Amendment to the Commission's Regulatory Policies Governing Domestic Fixed Satellites and Separate International Satellite* Systems, Report and Order, 11 FCC Rcd 2429 (1996) ("*DISCO I decision*").

232 *Id.*

233 47 C.F.R. § 25.140(b) (requires each applicant to provide an "interference analysis to demonstrate the compatibility of its proposed system 2 degrees from any authorized space station."). *See also Two-degree Spacing decision* at 598.

234 We recognize that many of INTELSAT's satellites currently operate two-degrees from each other.

235 Intelsat LLC Application Vol. I at 48.

236 Intelsat LLC Reply at 17; PanAmSat Petition at 18; GE Americom Response at 13.

237 *Id.*

two-degree spacing.[238] Even though we may require two-degree spacing of our licensees in the international arc, to date, there have been no mutually exclusive license applications (in the C-band and Ku-band) that would have required assigning U.S. licensed satellites strictly on the basis of our two-degree policy. Thus, historically, the Commission has licensed satellite systems at spacing greater than two-degrees when coordination agreements have been reached and when the demand for orbital locations allows. For example, PanAmSat has coordinated its networks as far away as 2.5 degrees from INTELSAT, and Columbia and Loral Orion have coordinated their networks as far away as 3 degrees from INTELSAT.[239] In these cases, strictly applying our two-degree spacing rules would have imposed an undue burden on the U.S. licensees without a practical need or benefit.[240] Nevertheless, licensees have been aware that at any time, we may authorize U.S.-licensed satellites or U.S.-licensed services on foreign satellites as close as two-degrees away from the U.S. licensees' respective locations.[241]

82. All INTELSAT satellites currently operating and planned are, or are proposed to be, located in the "international arc," outside the traditional "domestic arc," though service to at least part of the United States from several INTELSAT orbital locations would be possible. With the exception of two orbital arc segments, it would be practically impossible to impose two-degree spacing on Intelsat LLC given the present orbital population, including INTELSAT satellites, and satellites licensed by the United States and other administrations. Any additional satellite orbital locations could only be created by

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238 It was easier to apply this policy to satellites located in the traditional domestic arc in light of how the U.S. satellite industry first developed. The "international arc" refers to orbit locations outside the domestic arc. All INTELSAT's operating and planned satellites are located in the international arc, though several are able to serve at least part of the United States.

239 PanAmSat's satellites PAS-7 and PAS-21 are operating at 68.5º E.L., 2.5º away from the INTELSAT 704 located at the 66º E.L. orbital location. The PAS-9 is operating at 58.0º W.L., 2.5º away from INTELSAT 805 located at the 55.5º W.L. orbital location. Loral Orion's Telstar 12 is operating at 15.0º W.L., 3º away from INTELSAT 705 located at the 18.0º W.L. orbital location. Similarly, the Loral Orion Telstar 11 (Ku-band) and the Columbia 515 (C-band) are operating at the nominal 37.5º W.L. orbital location, 3º away from the INTELSAT 601 at the 34.5º W.L. orbital location. Finally, Columbia (TDRS-6 - C-band) and Loral Orion (Ku-band) are authorized at 47º W.L., 3º away from the INTELSAT 709 located at the 50.0º W.L. orbital location.

240 We have not applied our two-degree spacing policy when coordinating with satellite systems from other administrations that are not subject to two-degree spacing requirements within their respective licensing jurisdictions. Any enforcement of two-degree spacing has been confined to U.S.-authorized satellites. Nevertheless, we generally require that other countries wishing to serve the U.S. domestic market be two-degree compliant. Satellites serving the United States that are not two-degree compliant have normally been authorized subject to coordination with future two-degree compliant satellites two degrees away or, absent coordination agreement, subject to operation on a non-harmful interference basis.

241 We note that for that portion of the arc between 30º W.L. and 60º W.L., the Commission has imposed a freeze on C-band and Ku-band applications since 1985, due to congestion in this part of the arc. *Processing of Pending Applications for Space stations to Provide International Communications Service*, FCC 85-296 (*rel.* June 6, 1985) ("*Freeze decision*"). The Commission has waived the application of the freeze to allow the authorization of several C-band and Ku-band satellite systems. *In the Matter of the Application of Columbia Communications Corporation*, Order and Authorization, 14 FCC Rcd 3318 (1999) ("*Columbia decision*"); *In the Matter of PanAmSat Licensee Corp.*, Order and Conditional Authorization, 11 FCC Rcd 22098 (1996); *In the Matter of PanAmSat Licensee Corp.*, Memorandum Opinion, Order and Authorization, 8 FCC Rcd 3905 (1993).

reassigning U.S.-licensed or INTELSAT satellites two degrees apart in those two exceptional cases.[242] In implementing such a plan, however, the in-orbit satellites, whether INTELSAT or U.S.-licensed satellites, would be operating closer to each other and therefore would experience a higher level of interference than that currently coordinated. This incremental interference would be more significant if the preponderance of existing earth station antennas were smaller than our routinely licensed antennas.[243] Thus, rearranging U.S.-licensed satellites (including INTELSAT) would not necessarily result in a more efficient use of the orbital arc and spectrum in view of the practical constraints on operations that may result from such a rearrangement. It may result in the need to modify existing earth stations with larger antennas, or a possible loss of service or satellite capacity in order to achieve this two-degree spacing.

83. Second, a waiver of the two-degree spacing rule under the present circumstances would not materially undermine our ability to maintain a reasonable level of efficiency – that is, maximizing the number of satellites in the geostationary arc without unduly increasing interference – for the practical reasons discussed above. Further, most of the orbital locations at or around the orbital location of the INTELSAT satellites currently are occupied and have completed the coordination process. These coordinations represent agreements negotiated in good faith by all sides under the rules and charters then in effect. If we were to enforce two-degree spacing on Intelsat LLC at the time of privatization, we would effectively unilaterally terminate these coordination agreements. To do so would violate the trust that was assumed by all parties when the agreements were reached. In addition it would create uncertainty and confusion among users of the affected satellites, as well as create unfavorable precedent. It would also affect the priority status of INTELSAT filings with the ITU and may subject INTELSAT to significantly more constraints in the coordination process.

84. We disagree with PanAmSat's assertion, in this regard, that an earlier coordination agreement with INTELSAT does not necessarily signify harmonious operations.[244] By its very nature, the coordination process involves give-and-take that may lead to a less than perfect agreement from the perspective of each participant. In any event, we take, on face value, that once a coordination agreement is reached it is agreeable to all parties involved and should be respected. Reopening these agreements to coordinate anew under these circumstances would set a dangerous precedent, while, in this case, not producing a practical benefit.

85. Third, a waiver here will not increase interference concerns for currently operational and the 10 planned INTELSAT satellites, at the relevant orbital locations, including subsequent reassignments of INTELSAT satellites. All of INTELSAT's orbital locations and satellites have been coordinated or are in the coordination process. Those fully coordinated have not previously raised serious interference issues. Those still needing to complete coordination (to resolve any potential interference issues) will mostly do so prior to the effective date of these authorizations. If we were to require compliance with our rule, interference would likely increase to both INTELSAT and adjacent satellites. This is largely due to the inherent antenna performance characteristics of the current earth station population – particularly those

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242 The two possible exceptions where rearranging satellites to within two-degrees of each other could create an additional orbit location include the (1) Loral authorization and Columbia satellite at 47º W.L. and the two INTELSAT satellites at 50º W.L and 53º W.L., and (2) the Loral and Columbia satellites at 37.5º W.L and the two INTELSAT satellites at 34.5º W.L and 31.5º W.L. However, in both cases, there are additional complications created by satellite networks from other administrations that would have to be taken into account.

243 *See* 47 C.F.R. §§ 25.212 (c) and 25.212 (d).

244 PanAmSat Petition at 20.

using smaller dishes than routinely licensed antennas.

86. We note that the most significant factor leading to a need for spacing greater than two degrees is the size of the smallest earth station antennas in either network and their associated power spectral densities.[245] We recognize this in our rules by allowing for the routine licensing of C-band earth station antennas 4.5 meters or larger and Ku-band earth station antennas 1.2 meters or larger.[246] We are confident that for earth station antennas that qualify for routine licensing, coordination at C-band and Ku-band between INTELSAT and other U.S. licensed satellites could be accomplished at two-degree spacing without significant constraints on either Intelsat LLC or other U.S. licensed networks.

87. With respect to whether Intelsat LLC should be required to operate on a secondary, non-harmful interference basis with respect to future U.S. licensees at two degree orbital spacing, we find that the detriments of requiring such here would outweigh the benefits.[247] Previously, the Commission has conditioned any non-conforming satellite network operations on the licensee accommodating future satellite networks serving the United States that are two-degree compliant. Such was the case in the *New Skies decision*.[248] If we applied this to Intelsat LLC, its U.S. customers could be subject to interruption of service by satellites that are two-degree compliant and authorized two degrees or more from an INTELSAT satellite. In this case, we believe the resultant detriment to U.S. customers through service disruptions makes this unsound. In the *New Skies Order* we waived certain technical requirements related to two-degree spacing. Because the New Skies satellites already had been coordinated with all satellites in their vicinity, they were not expected to cause harmful interference.[249] New Skies was required to coordinate with future satellites or operate on a non-harmful interference basis.[250] We waived the two-degree policy on our own motion. In doing so, we did not extend the waiver to include future two-degree compliant satellites authorized in the vicinity of the New Skies satellites, nor grant New Skies the right to claim protection against interference should New Skies be unable to coordinate. On the other hand, Intelsat LLC has justified its requests for waivers. We base our findings on the record here, including the special circumstances present. Therefore, the waivers apply to Intelsat LLC satellites authorized herein relative to two-degree compliant satellites prospectively authorized in their vicinity.[251]

88. Finally, we believe that a grant of a waiver of our two-degree spacing policy and rules would be appropriate because the associated financial costs of requiring two-degree spacing would outweigh the benefits.[252] To effect compliance with this policy would require repointing all the antennas

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245 Power spectral density is a measure of the amount of power transmitted within a segment of frequency spectrum and is usually listed in terms of power per hertz, per four kilohertz or per megahertz.

246 *See* 47 C.F.R. §§ 25.212 (c) and 25.212 (d).

247 This would normally apply to non-routinely licensed earth stations as well as space station parameters that exceed what is required for two-degree orbital spacing.

248 *New Skies decision,* 14 FCC Rcd at 35.

249 *Id.* at 13051.

250 *Id.*

251 *See* PanAmSat Petition at 27-29 which asserts that Intelsat LLC should be treated similar to New Skies.

252 Intelsat LLC Application Vol. I at 58 ("requiring compliance with any two degree spacing policy would cost billions of dollars to displace virtually all existing services to nearly all existing customers.").

accessing the satellites that are moved. This could not be done simultaneously and, therefore, would lead to service disruptions.[253] Further, if the impact of implementing two-degree spacing were a severe increase in interference, certain antennas accessing either Intelsat LLC satellites or neighboring U.S. or non-U.S. licensed satellites might need to be replaced with larger antennas in order to overcome the interference or be re-coordinated.[254] Although compliance with two-degree spacing would be accomplished, there would be little accompanying benefit and it would not solve a current problem.

89. Nevertheless, we note that we already have authorized Columbia Communications to operate a satellite at 172º E.L., two degrees away from INTELSAT 802 at 174º E.L.[255] In this instance, we require Columbia and INTELSAT to coordinate these two locations with each other on an equal footing where associated earth station sizes are smaller than our routinely licensed earth station antenna sizes. However, for antennas meeting our routinely licensed earth station requirements, as noted above, we are confident that there will be no significant coordination difficulties and so we place no further restrictions on the parties.

90. For the foregoing reasons, we find that requiring full compliance with the two-degree requirement would not be in the public interest. Thus, we grant a waiver of Section 25.140(b)(2) and our two-degree spacing policy enumerated in the *Two-degree Spacing decision* and its progeny.[256] We waive this requirement for satellites at their respective and proposed locations listed in Appendix A, Tables 1-3, with the exception of the INTELSAT 802 spacecraft. INTELSAT 802 is located at the 174º E.L. orbital location. In this case we waive Section 25.140(b)(2) only, contingent on coordination with the Columbia satellite at 172º E.L., as this satellite will operate at two-degree spacing with regard to the Columbia satellite, as discussed above.[257]

b. C-band Frequency Bands – Section 25.202(a)(1)

91. Intelsat LLC requests a waiver of Section 25.202(a)(1), which requires that C-band use in the United States be between 3700-4200 MHz on the downlink and 5925-6425 MHz on the uplink (conventional C-band).[258] The international allocation permits operations in a larger part of the C-band, which additionally includes 3400-3700 MHz on the downlink and both 6425-6725 MHz and 5850-5925 MHz on the uplink (extended C-band).[259] Parts of these extended C-band frequency ranges also are allocated to the fixed-satellite service under Section 2.106, but subject to certain restrictions. Intelsat LLC seeks to continue using the extended C-band frequencies, internationally allocated for fixed-satellite service

253 Most of these earth stations do not have tracking antennas so they would have to be manually repointed.

254 Intelsat LLC Application Vol. I at 58.

255 *See In the Matter of Columbia Communications Corporation*, Order and Authorization, 14 FCC Rcd 3318 (1999) ("*Columbia Order*").

256 47 C.F.R. § 25.140(b).

257 *Id.*

258 *See* 47 C.F.R. § 2.106 (Table of Frequency Allocations).

259 *Id.*

use.[260]

92. We find that, except for the 3400-3600 MHz band, a waiver of Section 25.202(a)(1) is unnecessary because INTELSAT's use of extended C-band complies with established regulations. Section 25.202(b) of our Rules provides that other frequencies and associated bandwidths of emission may be assigned on a case-by-case basis to space systems in conformance with Section 2.106 and the Commission's rules and policies. Given that Intelsat LLC's operations are consistent with Section 2.106, for all the extended C-band operations except for 3400-3600 MHz, a waiver of Section 25.202(a)(1) is not necessary for these bands. We find that this request is consistent with the aforementioned rules and policies and we allow it based upon demonstrated compliance with Section 25.202(b) with the exception that follows.

93. The band 3400-3600 MHz is not compliant with Section 2.106. However, INTELSAT's use of this band is compliant with Commission precedent as discussed below. We grant a waiver of Section 25.202(a)(1) for the band 3400-3600 MHz on INTELSAT 805 only, as indicated in Appendix C, with the conditions.

c. Telemetry, Tracking and Telecommand Functions – Section 25.202(g)

94. Intelsat LLC requests a waiver of Section 25.202(g) of our rules, which requires that TT&C functions be conducted, "at either or both edges of the allocated band(s)."[261] Intelsat LLC seeks to continue using its TT&C functions at the center of the conventional C-band (3700-4200 MHz and 5925-6425 MHz).[262]

95. PanAmSat objects to this waiver contending that in coordinations with INTELSAT, adjacent satellite operators were forced to accept restrictions on type and power of carriers that they may transmit in co-frequency transponders. This was necessary, it states, in order to provide the level of protection upon which INTELSAT has arbitrarily insisted because of INTELSAT's TT&C being located in the center of the band.[263]

96. INTELSAT's earliest satellites utilized the 500-megahertz bandwidth ordinarily allocated by dividing it into two broadband service channels with a narrow guard band in the center. TT&C was accomplished within this guard band. As technology advanced, INTELSAT replaced each broadband channel with six 36 megahertz channels, each separated by 4 megahertz guard bands, leaving a guard band of approximately 20 megahertz in the center of the 500 megahertz band, where it continued to conduct its TT&C. In licensing U.S. satellite systems, we specified center frequencies for analog video service channels at C-band.[264] This requirement in the C-band led to satellite designs with service channels in the center of the band for U.S.-licensed satellites. As a result, the logical placement of the TT&C frequencies for U.S. systems was in the narrow guard-bands (approximately 2 megahertz), at either end of the service

260 Intelsat LLC Application Vol. 1 at 61-62.

261 *See* 47 C.F.R. § 25.202(g).

262 Intelsat LLC Application Vol. I at 64.

263 PanAmSat Petition at 17-18.

264 *See* 47 C.F.R. § 25.211(a).

band. This became a regulatory requirement. The impact of these differences in system evolution is to cause INTELSAT's TT&C to coincide with service frequencies in two service channels at the center of the band on an adjacent U.S.-licensed satellite.

97. As discussed above, with one exception, the satellites for which the waiver is requested are either in orbit or will be under construction at the time of INTELSAT privatization and are either fully coordinated at the locations for which authorization is sought or are in the process of coordination. In addition, there are relatively few INTELSAT locations where U.S.-licensed satellites are the nearest neighbor and all of those are spaced 2.5 degrees or more from INTELSAT satellites, with one exception noted above at INTELSAT's 174° E.L. orbital location. The satellites that are under construction can not be modified without significant redesign. In particular, the frequencies of the telemetry transmitters and command receivers would need to be changed, as well as any filters that may be used to combine the command and telemetry signals with the communication signals when they are routed to the same antenna.

98. While we are sensitive to the fact that the differences between INTELSAT TT&C frequencies and those of U.S.-licensed satellites can lead to coordination difficulties, we are not swayed by PanAmSat's arguments, which would effectively require re-coordination of the Intelsat LLC TT&C frequencies. We assume that once a coordination agreement has been reached, operations of both networks are in harmony with each other. We see no justification for revisiting these coordination agreements by denying this waiver.

99. We note that there are only five U.S.-authorized locations and seven U.S.-authorized satellites at C-band that are, or would be, the nearest neighbor to an INTELSAT satellite. These are the Columbia-172 at 172° E.L., the PAS-9 and PAS-23 at 58° W.L., the Columbia TDRS C-band payload and the Columbia-47 at 47° W.L., the Columbia-515 at 37.7° W.L. and the PAS-7 and the PAS-21 at 68.5° E.L.[265] Of these, only the Columbia-172 has yet to be coordinated.

100. For the foregoing reasons, we grant this waiver of Section 25.202(g) as indicated in Appendix C. This waiver applies to those satellites transmitting at their respective or proposed locations listed in Appendix A, Tables 1-3. In addition, we waive our usual requirement that TT&C be accomplished in the same band as the service channels for the NI-Beta spacecraft. It will only operate service channels in the Ku-band, but will operate TT&C in the C-band. The NI-Beta satellite will be operating in the Asia Pacific region at 85° E.L. as a follow-on to the INTELSAT 601 satellite. INTELSAT 601, currently provides service in the C-band and Ku-band. It is planned to be relocated to the 85º E.L. orbital location in October 2001. We would anticipate that any coordination issues involving C-band frequencies would be addressed in connection with INTELSAT 601. Therefore, we do not anticipate that operation of TT&C frequencies outside the service band will complicate unduly the coordination process. Further, as noted above, denying this waiver would lead to unreasonable and unnecessary costs associated with the construction or modification of Ku-band TT&C stations.

d. Orthogonal Linear Polarization – Sections 25.210(a)(1) and (3)

101. Intelsat LLC requests a waiver of Section 25.210(a), the relevant portions of which provide that all space stations in the Fixed Satellite Service used for domestic service in the 4/6 GHz frequency band shall use orthogonal linear polarization and shall be capable of switching polarization sense

[265] PanAmSat satellite names included here are as licensed. Its commercial names are PAS-5 (at 58º W.L.) and PAS-4 and PAS-7 (at 68.5º E.L.).

upon ground command. Intelsat LLC seeks to use circular polarization and will not be able to switch polarization sense between right-hand circular and left-hand-circular polarization upon ground command.

102. The purpose of this rule, in conjunction with the center frequency requirements of Section 25.211(a) for analog video transmissions at C-band, is to allow adjacent satellites to operate with opposite sense polarization on the same frequency in order to reduce the potential interference between analog video signals. In addition, satellites that are moved to new orbital locations during their lifetimes may be required to switch polarization in order to retain opposite-sense polarization to their new neighbors. Intelsat LLC asserts that the aggregate effect of adjacent satellite interference is approximately the same from a dual circularly polarized satellite into a linearly polarized satellite as it is from a dual linearly polarized satellite, assuming the same power spectral densities.[266] Thus, its use of circular polarization will have negligible impact on the aggregate interference to and from adjacent linearly polarized satellites.[267] However, Intelsat LLC points out that there are well-understood techniques for sharing between linear and circular polarization. It contends that uniform polarization is less relevant due to the waning importance of analog TV in favor of digital emissions.

103. Comsat supports this waiver and agrees with Intelsat LLC's assertions.[268] In addition, Comsat states that the use of digital transmission makes circular polarization versus linear polarization irrelevant for adjacent networks. Intelsat LLC's remaining analog video transmission and its use of dual circular polarization already is coordinated. Further, Comsat contends that circular polarization does not increase interference compared to a requirement to operate at two degree spacing. Finally, Comsat points out that the sum of interference from dual circularly polarized signals into dual linearly polarized receivers is nearly the same as dual linearly polarized into dual linearly polarized systems of the same power spectral densities (evidence is supported by ITU Rec. S.736-3 and ITU-R Document PDNR 4A/TEMP/200 (2/24/00)).[269]

104. PanAmSat states that "the claim made by Intelsat and Comsat that there is no more

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266 Intelsat LLC Application Vol. I at 65.

267 *Id*.

268 Comsat Comments at 13-16.

269 These documents are International Telecommunication Union – Radiocommunication Sector (ITU-R) Recommendation S.736-3 (Rec S.736-3) and ITU-R Preliminary Draft New Recommendation (PDNR) Document 4A/TEMP/200 (2/24/00), which represent theoretical analyses of interference between dual orthogonal circularly polarized transmissions and dual orthogonal linearly polarized transmissions. Identical power spectral densities are also assumed. This PDNR demonstrates that the use of dual circular polarization in a satellite network adjacent to a network employing dual linear polarization typically results in worst case incremental downlink interference of less than 1dB decrease in C/I. (C/I is the ratio of the wanted signal power to the interfering signal power.) The worst case uplink interference would be somewhat higher than the downlink interference. (The uplink interference is higher than the downlink interference because the two cross-polar interference sources typically emanate from separate earth station antennas, whereas, in the downlink case, the two sources come from the same satellite antenna.) On average however, the aggregate interference from a dual circularly polarized system into a dual linearly polarized system is nearly equal to the aggregate average interference between two dual linearly polarized systems when of equal power density. We note that the continuing replacement of analog video emissions with digital emissions by satellites also tends to reduce the requirement for standardized polarization types. This stems from the fact that digital emissions tend to have uniform spectral densities compared to analog video emissions, which have non-uniform spectral densities.

interference from an adjacent circularly polarized satellite network into a linearly polarized network than would result from an adjacent linearly polarized network is misleading."[270] PanAmSat's position is based on the fact that the assumptions of ITU-R Rec S.736-3 and ITU-R Document PDNR 4A/TEMP/200 (2/24/00) may not apply in all cases. These documents assume that the interfering network is subject to approximately equal levels of interference from two orthogonally polarized carriers on the adjacent satellite.[271] PanAmSat states that "when that assumption is inapplicable, it matters considerably whether the adjacent satellite utilizes circular or linear polarization."[272]

105. Adjacent satellites with linear orthogonal polarizations will gain 10 dB of isolation on the transponder with opposite sense polarization, thereby facilitating frequency planning. If one of the satellites is circularly polarized, this benefit is absent.[273] We note that in some cases -- where co-channel transponders employ different power spectral densities such as with analog video transmissions -- this may be the case. However, all of INTELSAT's use of analog video transmissions is currently coordinated and no new use of analog emissions is anticipated. Finally, because Intelsat LLC will use circular polarization, the lack of capacity to switch polarization sense is irrelevant. A circularly polarized emission causes the same amount of interference to a linearly polarized system regardless of its sense of polarization (left- or right-hand).

106. We grant a waiver of Section 25.210(a)(1) and (3) of our rules for those satellites transmitting in the C-band frequency spectrum, at their respective or proposed locations, as indicated in Appendix C, with the exception of the INTELSAT 805 spacecraft, which complies with the requirement for orthogonal linear polarization. However, INTELSAT 805 is not capable of switching polarization sense by ground command. We waive Section 25.210(a)(3) in this case, as the satellite is already in orbit.

e. Control of Transponder Saturation Flux Densities – Section 25.210(c)

107. Intelsat LLC requests a waiver of Section 25.210(c), which requires that "[a]ll space stations in the Fixed Satellite Service shall have a minimum capability to change transponder saturation flux densities by ground command in 4 dB steps over a range of 12 dB."[274] The more recent series of INTELSAT satellites meet this requirement.[275] However, the INTELSAT VA and VI series have minimum gain steps between 5.0 dB and 7.5 dB. Intelsat LLC seeks to continue using the one series VA satellite and the five series VI satellites that do not comply with this rule.[276]

108. We waive Section 25.210(c) of our rules for the operational satellites identified below

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270 PanAmSat Response at 16.

271 *Supra* n.269, ITU-R PDNR Document 4A/TEMP/200 (2/24/00).

272 PanAmSat Response at 16-17.

273 *Id.* at 17.

274 *See* 47 C.F.R. § 25.210(c). Transponder saturation flux densities is a measure of a satellite's sensitivity or overall transponder gain. The higher the saturation flux density, the more interfering is the uplink and the more resistant to interference.

275 This includes the VII-IX series and the ALPHA and BETA satellites.

276 Intelsat LLC Application Vol. I at 66.

because the satellites are already in orbit and cannot be modified. Further, Intelsat LLC's existing series VA and VI satellites, for which this waiver applies, are already coordinated so the objective of the rule will not be undermined. This waiver will be temporary in nature, since all current and future Intelsat LLC satellites from the VII series onward will meet the requirements of Sections 25.210(c). This waiver applies to the following satellites at their respective locations and proposed locations in the instant application: 511, 601, 602, 603, 604, 605, as indicated in Appendix C.[277]

f. Cross-Polarization Isolation – Section 25.210(i)

109. Intelsat LLC requests a waiver of Section 25.210(i), which requires that all "[s]pace station antennas in the Fixed-Satellite Services be designed to provide a cross-polarization isolation such that the ratio of the on axis co-polar gain to the on axis cross-polar gain of the antenna in the assigned frequency band will be at least 30 dB within its primary coverage area."[278] Intelsat LLC seeks to continue using its existing satellites at their current level although their current satellite beams fall short of the 30 dB requirement.[279] Comsat agrees with Intelsat LLC that only Intelsat LLC will experience interference resulting from cross-polarization isolation of less than 30 dB.[280]

110. Intelsat LLC has indicated that the ratio of the on-axis co-polar gain to the on-axis cross-polar gain of the antennas in the assigned frequency is band in the 17-35 dB range,[281] typically will be around 27 dB.[282] Moreover, Intelsat LLC's satellites are already coordinated with existing U.S. systems and non-compliance with Section 25.210(i) will not result in a significant increase in interference except to Intelsat LLC, which has taken it into account. Therefore, we grant a waiver of Section 25.210(i). This waiver applies to those satellites transmitting at their respective or proposed locations, as indicated in Appendix C.

g. C-band Downlink Analog Video Transmissions – Section 25.211(a)

111. Intelsat LLC requests a waiver of Section 25.211(a), which provides that downlink analog video transmissions in the band 3700-4200 MHz shall be transmitted only on a center frequency of 3700+20N MHz, where N=1 to 24. The corresponding uplink frequency shall be 2225 megahertz higher.[283] Intelsat LLC seeks to continue operating its satellites according to its existing analog video

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277 *See also* Appendix A, Tables 1 and 3.

278 *See* 47 C.F.R. § 25.210(i).

279 Intelsat LLC Application Vol. I at 67.

280 Comsat Comments at 20.

281 The impact on a neighboring satellite system would be negligible ("second order") because the additional interference would be further reduced by the sidelobe isolation of the earth station. For example, an on-axis cross-polarization isolation of 30 dB (meeting our requirements of Section 25.210(i)) increases the off-axis interference power into the neighboring satellite system by one part per thousand. Whereas, a cross-polarization isolation of 17 dB would increase the interference power by two parts per hundred. Both are negligible.

282 *See ex parte* letter from Intelsat LLC Counsel, Jennifer Wheatley, to Magalie Salas, Secretary, Federal Communications Commission, June 20, 2000 at Attachment B.

283 *See* 47 C.F.R. § 25.211(a).

operations. As discussed in the TT&C waiver section above, the channel configuration of Intelsat LLC's satellites precludes complete compliance with this rule. Further, requiring Intelsat LLC to comply with this rule would seriously limit its flexibility in the operation of multicarrier television, wherein, for example, video carriers can be 18, 24 or 36 megahertz apart within the same 72 megahertz transponder, a transponder whose center frequency and bandwidth are not consistent with Section 25.211(a).

112. Intelsat LLC's existing analog video operations already are coordinated and have operated this way for years without interference. In addition, Section 25.211(a) does not apply to digital emissions. Eventually, Intelsat LLC will replace all analog video operations with digital operations. Therefore, we grant a waiver of Section 25.211(a). This waiver applies to those satellites transmitting at their respective or proposed locations, as indicated in Appendix C.

h. Orbital Longitude Maintenance – Section 25.210(j)(1)

113. Intelsat LLC requests a waiver of Section 25.210(j)(1) which states that space stations in the geostationary satellite orbit must be designed with the capability of being maintained in orbit within 0.05° of the assigned orbital longitude.[284] Intelsat LLC seeks to utilize its 511 satellite, which is designed to operate within 0.1° of its assigned orbital longitude. Another satellite, which is in compliance with Section 25.210(j)(1), eventually will replace the existing, non-compliant satellite. By its nature, this waiver is temporary given the expected end of life for INTELSAT 511 (late 2001). In addition, concerns by parties such as PanAmSat over future Intelsat satellites conforming to the rule are satisfied, as Intelsat LLC will replace the existing satellite with one having the required specifications. Therefore, we grant this waiver of Section 25.210(j) for the INTELSAT 511 for the remainder of its lifetime, as indicated in Appendix C.

i. Frequency Reuse – Sections 25.210(g)(1)

114. Intelsat LLC requests a waiver of Section 25.210(g)(1), which requires that U.S.-licensed space stations providing international service employ dual polarization so that they are able to re-use both the uplink and downlink frequency band assignments.[285] Intelsat LLC seeks to continue using its INTELSAT 805 satellite with only one polarization on the uplink and one on the downlink at Ku-band. It indicates that this satellite was built and launched to satisfy special requirements and a specific mission that existed at the time the satellite was constructed and launched and that it cannot be changed now because it is already in orbit.[286]

115. For reasons previously noted, and in view of the fact that INTELSAT 805 is operating and coordinated, we grant waivers of Section 25.210(g)(1) at its current location, as indicated in Appendix C.

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284 Intelsat LLC actually requests waiver of Section 25.210(j), 47 C.F.R. § 25.210(j), however, in the details of the waiver request, Intelsat LLC is clearly requesting waiver of only sub-paragraph (1) of 25.210(j), 47 C.F.R. § 25.210(j)(1). Intelsat LLC Application Vol. I at 68, as amended by letter from Intelsat LLC Counsel, Jennifer Wheatley, to Magalie Salas, Secretary, Federal Communications Commission, May 18, 2000.

285 47 C.F.R. § 25.210(g)(1).

286 Intelsat LLC Application Vol. I at 68.

j. Unused Orbital Locations – Section 25.140(f)

116. Section 25.140(f) of our rules limits to one the number of GSO orbit locations a licensee may be assigned beyond any current authorizations.[287] The intent of this rule is twofold: to prevent applicants from warehousing orbital locations and frequencies, and to allow for later entry by qualified applicants.[288] INTELSAT comes to us, through Intelsat LLC, with the unusual circumstances of holding six "unused" orbital locations acquired under ITU procedures.[289] It presently holds these orbital locations in its capacity as an intergovernmental organization and has near-term plans for their use. In light of this, it requests a waiver of Section 25.140(f).[290]

117. Lockheed Martin supports the Intelsat LLC request. It maintains that there is no justification for treating INTELSAT satellites intended for deployment at orbital locations registered with the ITU any differently than those already operating.[291] GE Americom, JSAT, and PanAmSat, however, oppose a waiver asserting that such would violate the purpose served by the rule and result in the assignment of "an excessive number of slots to one entity," prejudicing future applicants.[292] These parties contend that the Commission should instead initiate a competitive processing round for the six currently unused orbital locations identified for use in the Intelsat LLC application.[293] PanAmSat states that a waiver would perpetuate INTELSAT's special IGO privileges.[294] It also asserts that five of the 10 new satellites for which Intelsat LLC seeks authority, were not "committed" at the time the privatization process began in 1998 and others are just now under construction.[295]

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287 *See* 47 C.F.R. § 25.140(f). Section 25.140(f) provides that "each applicant found to be qualified pursuant to this section may be assigned no more than one additional orbital location beyond its current authorizations in each frequency band in which it is authorized to operate, provided that its in-orbit satellites are essentially filled and that it has no more than two unused orbital locations for previously authorized but unlaunched satellites in that band." *Id.*

288 *See In the Matter of Licensing Space Stations in Domestic Fixed-Satellite Service*, Report and Order, 1 FCC Rcd 682, 685 (1986).

289 Intelsat LLC will have a net of five orbit locations registered with the ITU, that are presently "unused" because the sixth involves an orbital location exchange. Of these six orbit locations, none are located in Region 2 where the U.S. domestic arc is located. Three of the orbital locations, however, are capable of serving Region 2 (which includes North and South America), including the 178.0º E.L. (Region 3), 176.0º E.L. (Region 3), and 20.0º W.L. (340.0º E.L.) (Region 1) orbital locations. The 157.0º E.L. (Region 3), 85.0º E.L. (Region 3), 33.0º E.L. (Region 1) orbital locations generally serve Regions 1 and 3 only.

290 47 C.F.R. § 25.140(f).

291 Lockheed Comments at 2. Comsat also generally supports the Intelsat LLC request. *See* Comsat Reply at 11.

292 GE Americom Petition at 16; PanAmSat Petition at 14-15; JSAT Petition at 7.

293 GE Americom Petition at 14-15; PanAmSat Petition at 15; JSAT Petition at 7.

294 PanAmSat Petition at 15, 16, citing Intelsat LLC Application Vol. I at 10, 13.

295 PanAmSat Petition at 16-17.

118. In opposing the grant of a waiver here the various parties appear to assume that Intelsat LLC has no claim whatsoever to the "unused" orbit locations at issue and, as such, Section 25.140(f), would prohibit authorization at most of these orbital locations.[296] PanAmSat goes further, claiming that INTELSAT's orbital locations belong to the United States because of the historical U.S. role in making network filings with the ITU on behalf of INTELSAT.[297] We disagree. We find that there is good cause to waive Section 25.140(f) given the special circumstances associated with Intelsat LLC's origins through INTELSAT, as well as the implementation milestones we impose on its licenses, which will assure that the rule is not undermined.

119. INTELSAT's present right to use these orbital locations is reflected in the ITU satellite network filings made on its behalf by the United States, on behalf of INTELSAT member countries, under ITU procedures. INTELSAT was created to carry out the "design, development, contraction, establishment, operation and maintenance of the space segment of the global commercial telecommunications satellite system" that provides services on a non-discriminatory basis.[298] In its status as an intergovernmental organization, INTELSAT possesses juridical personality with capacity to execute functions necessary to carry out its objectives.[299] These functions include notifying the ITU of the frequencies to be used for the INTELSAT space segment.[300] Through special arrangement and longstanding practice, the U.S. has served as the notifying administration to the ITU of INTELSAT's assignments. ITU filings are prepared by INTELSAT reflecting the technical parameters of INTELSAT satellites, but are submitted to the ITU by the Commission on behalf of INTELSAT's concurring administration members for transmission to the ITU. INTELSAT orbital registrations, therefore, appear under a special United States designation (USA-IT) on behalf of INTELSAT and its member countries.[301] They are unavailable for assignment to operators licensed by the United States or any other INTELSAT member country. Any decision to require INTELSAT to relinquish its claim to these orbital locations would be inconsistent with the INTELSAT Agreement and with longstanding arrangements the United States has had with INTELSAT in its intergovernmental organization role.

120. Many INTELSAT members are concerned that a national licensing authority could assign INTELSAT orbital locations to its own licensed operators, and fear that such a result would jeopardize

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296 PanAmSat Petition at 13-16; JSAT Petition at 6-7; GE Americom Petition at 12-18.

297 Letter from Joseph A. Godless on behalf of PanAmSat Corporation to the Secretary, Federal Communications Commission, dated July 26, 2000. ("July 26 PanAmSat letter")

298 INTELSAT Agreement, Article II(a).

299 INTELSAT Agreement, Article IV.

300 INTELSAT Agreement, Article X(a)(xxxiii).

301 As the notifying administration on behalf of INTELSAT, the Commission has not asserted any regulatory authority over INTELSAT's decision to register with the ITU for spectrum and orbital locations. The Commission only acts as a "copper wire" or "mail box" in officially submitting the filings to the ITU on INTELSAT's behalf. There currently is no regulatory review of INTELSAT's submissions; they are often transmitted to the ITU the day after being submitted to the Commission by INTELSAT. *See Comsat Non-Dominant Order and NPRM*, 13 FCC Rcd at 14130-14131.

INTELSAT's ability to maintain global coverage and connectivity, including to lifeline users.[302] Indeed, as discussed below, INTELSAT has determined that it would not consent to transfer its ITU filings to an administration that would reassign these orbital locations to other licensees and is considering alternatives to ensure that no one administration is able to appropriate INTELSAT orbital locations for its own use after privatization. INTELSAT's concerns are, however, unnecessary. INTELSAT's privatization will be implemented by a transfer of its satellites and other assets from the intergovernmental organization to Intelsat LLC and a transfer of INTELSAT's ITU network filings to a national licensing jurisdiction. Effectively, this presents the Commission with a unique situation where the applicant for licenses is already in control of the orbital locations at issue. In an analogous situation involving a transfer of control of a U.S.-licensed system – where a licensee would already be in control of the respective orbital locations at issue – the Commission would not open up these respective licenses (orbital locations) to a competitive process. In fact, the Communications Act forbids the Commission to consider reassigning the licenses (or orbital locations) "to a person other than the proposed transferee or assignee."[303] We see no reason to deny INTELSAT's present standing in regard to these "unused" orbital locations as well. No arguments persuasively demonstrate why INTELSAT's privatization should occasion INTELSAT relinquishing to another U.S. licensed operator orbital locations that it acquired as an intergovernmental organization and which it is transferring to Intelsat LLC upon privatization. Instead, as discussed below, we believe it is more appropriate to condition INTELSAT's use of these six orbital locations on a going-forward basis to ensure that they are timely brought into use. Therefore, we conclude that these orbital locations are not available for reassignment to U.S.-licensed satellite systems, and cannot be subject to a processing round.[304]

121. Furthermore, authorizing Intelsat LLC to use these orbital locations will not undermine the policy objectives of the "warehousing" rule. Intelsat LLC has committed contracts and firm construction and operational deadlines for nine of the 10 planned satellites, and has already completed or is in the process of completing ITU coordination on most of these satellites.[305] Consequently, we expect that all of the "unused" orbit locations will have satellites placed in service by mid-2003, due to the relocation of older satellites.[306] As a result of U.S. licensing, however, Intelsat LLC will be subject to milestone requirements for new satellite construction and operation, consistent with these target dates.[307] Intelsat

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302 *See* Letter from Nancy J. Victory on behalf of Intelsat LLC to Secretary, FCC, dated June 30, 2000 ("June 30 Intelsat LLC letter").

303 47 USC § 310(d).

304 While the recently enacted ORBIT Act conditionally provides for U.S. licensing of INTELSAT satellites upon privatization and for the continuation of the United States as the notifying administration, it does not require INTELSAT orbital locations to be made available to U.S. satellite operators. *See* Pub. L. 106-180, §§ 601(b)(1)(D) and 644(b).

305 *See also* Appendix A, Table 3 which shows the respective orbit locations at issue -- 178.0º E.L., 176.0º E.L., 157.0º E.L., 85.0º E.L., 33.0º E.L., and 20.0º W.L. (340.0º E.L.) – and the approximate times these orbit locations will be put into use. *See also ex parte* letter from Intelsat LLC Counsel, Jennifer Hindin, to Magalie Salas, Secretary, Federal Communications Commission, July 17, 2000, at Attachment A.

306 *See ex parte* letter from Intelsat LLC Counsel, Jennifer Wheatley, to Magalie Salas, Secretary, Federal Communications Commission, June 20, 2000 at Attachment A. *See also* Intelsat LLC Application Vol. I at 12.

307 *See infra*.

LLC recognizes that it will be subject to milestones.[308] Imposing such milestones will ensure, on a going forward basis, that Intelsat LLC will make expeditious use of all orbital locations to be transferred to the United States upon privatization. As a result, our warehousing policy will not be undermined. In addition, this approach will implement the ORBIT Act which requires application of due diligence to INTELSAT to prevent warehousing of orbital locations.[309]

122. Finally, we note that if INTELSAT selects another national licensing authority and subsequently seeks access to the United States under our *DISCO II decision*, it would not be required to include its orbital locations in a processing round, since it would not be a licensee, nor would it be required to surrender these orbit locations to the ITU for cancellation.

123. For these reasons, we conclude that there is good cause to grant waiver of Section 25.140(f) for the authorizations associated with the 178.0º E.L., 176.0º E.L., 157.0º E.L., 85.0º E.L., 33.0º E.L., and 20.0º W.L. (340.0º E.L.) orbit locations, included in Appendix A. Therefore, none of these orbital locations are available for assignment to another satellite system. In particular, we should not be considering assigning orbit locations to U.S. licensees where we have specifically recognized through coordination agreements that these orbit locations/frequency bands are being used by INTELSAT.

D. Financial Requirements

124. Commission rules require fixed-satellite space station applicants to demonstrate financial ability to construct, launch, and operate proposed satellites.[310] As a part of this showing, applicants must include an estimate of the cost of construction and launch, as well as operating expenses for the first year after launch.[311] An applicant may demonstrate financial ability by submitting a balance sheet current for the latest fiscal year and documentation of any financial commitments that show current assets and operating income sufficient to meet these costs.[312] The applicant must further submit evidence of a financial commitment by the corporate parent when it is owned by more than one corporate parent.[313] If this submission does not reflect sufficient financial resources to meet the costs, the applicant must submit either (1) the terms of any fully negotiated loan or credit arrangement;[314] (2) the terms of any fully negotiated sale or placement of any equity;[315] (3) the terms of any grant or other external funding commitment;[316] or (4) the terms of any contingent financing arrangements.[317]

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308 Intelsat LLC Reply and Opposition at 26-27.

309 *See* Pub. Law 106-180, § 62 (3)(c).

310 47 C.F.R. §§ 25.114(c)(13) and 25.140(c) & (d).

311 47 C.F.R. §§ 25.114(c)(13) and 25.140(b)(3) & (4).

312 47 C.F.R. § 25.140(c)(1).

313 *Id.*

314 47 C.F.R. § 25.140(c)(2)(i).

315 47 C.F.R. § 25.140(c)(2)(ii).

316 47 C.F.R. § 25.140(c)(2)(iii).

125. Of the 27 satellites for which Intelsat LLC is seeking 10-year licenses, 17 are operating.[318] Consequently, we need only consider the financial qualifications for the 10 planned satellites that have not yet been fully constructed and launched.[319] All of these proposed spacecraft either have been committed to or are currently under construction.[320]

126. Intelsat LLC estimates total system construction and launch costs for the 10 planned satellites to be approximately $2.28 billion U.S. dollars over the four-year period from 2000 to 2004.[321] These estimated costs are based on contractual commitments, price proposals, and INTELSAT industry experience.[322] Estimated operating expenses for the first full year of operation is $110 million.[323] These operating expenses include TT&C, in-orbit insurance, selling, marketing, administrative, and satellite performance incentive payments.[324]

127. Intelsat LLC has submitted certain financial information, including the following: (1) INTELSAT Audited Financial Statements from its 1999 Annual Report; (2) Unaudited (Internal Format) Financial Status for the Nine Months Ending 30 September 1999; (3) Unaudited (Internal Format) Balance Sheets as of 30 September 1999 and 31 December 1998; and (4) Certification Verification for the 1999 Financial Statements.[325] Intelsat LLC states that the source of funds to meet the costs described above will come primarily through revenue received from its existing operating system, which it expects to be approximately $1 billion a year over the next four years.[326] It specifically projects revenues for the 2000-2004 period to be $1.014 billion, $1.064 billion, $1.151 billion, $1.309 billion, and $1.439 billion, respectively.[327] Intelsat LLC notes that revenues from the period of 1997-1999 were $962 million, $1.020

(Continued from previous page)

317 47 C.F.R. § 25.140 (c)(2)(iv). The Commission may also require other information or details. 47 C.F.R. § 25.140(c)(3).

318 47 C.F.R. § 25.140 (b)(4).

319 *See, e.g., In the Matter of BT North America and CBS Broadcasting,* Order, File Nos. SES-MOD-19990811-01485 and SES-MOD-19990831-01488, respectively, DA 00-162 (Feb. 1, 2000) at ¶ 11.

320 Intelsat LLC Application Vol. I at 23.

321 *Id.* The $2.28 billion figure includes: (1) Capital expenditures of $2.14 billion, associated with the spacecraft, launch vehicle, launch support, launch and post-separation insurance, capitalized management, and other support costs; (2) approximately $36 million for ground network upgrades; and (3) approximately $109 million on pre-operating expenses for the four-year period.

322 *Id.* at 24.

323 *Id.* at 25. The $110 million figure breaks down to $44 million in 2002, $33 million in 2003, and $33 million in 2004. The particular satellites expected to be operating during these years are INTELSAT's 901, 902, 903, & 904 in 2002; INTELSAT's 905, 906, & 907 in 2003; and INTELSAT's NI-ALPHA 1, NI-ALPHA-2 & NI-BETA 1 in 2004.

324 *Id.*

325 *Id.* at Attachment D.

326 *Id.* at 25-26.

327 *Id.* at 26.

billion, and $977 million, respectively.[328] Its most recently submitted financials in this proceeding, including balance sheet and investments, as of December 31, 1999, show a combined total of operating income (of about $384 million) and current assets (approximately $324 million) of $708 million, with total assets of over $3 billion.[329] With total revenues of approximately $1 billion, operating income exceeded $383 million.[330] The total specific costs that Intelsat LLC states that it will incur during the 2000-2003 period are as follows: $641 million in 2000, $763 million in 2001; $635 million in 2002; and $242 million in 2003.[331]

128. The financial showing, including Intelsat LLC's assertions and financial documents are undisputed. Comsat's comments fully support the INTELSAT financial showing.[332] Moreover, INTELSAT's documented financial track record over the past several years supports Intelsat LLC's operating income projections. However, strictly speaking, the Intelsat LLC financial showing does not satisfy our financial qualification requirements because it does not presently have enough current assets and operating income sufficient to cover the $2.28 billion U.S. dollar costs to construct, launch, and operate its entire proposed system. However, its showing does demonstrate an otherwise unusual financial ability to carry out its proposal. Given the special circumstances present here, as well as the fact that a waiver will not undermine the principles underlying our financial rule, we conclude that good cause exists for waiver of our financial qualification requirements.

129. The primary policy reason for our financial qualification requirements is to insure that a prospective licensee has the financial ability to proceed expeditiously with the implementation of its proposed system. In adhering to this policy, the Commission has recognized the financial difficulty of constructing, launching, and operating a satellite system without a present ability to obtain the necessary funds. The special circumstances present here illustrate that this concern by the Commission -- that our rules are not undermined -- is certainly tempered with respect to Intelsat LLC. In particular, the INTELSAT satellite system is already operational with 17 C-band and Ku-band satellites that are producing income and have demonstrated the ability to do so over the course of several years. Consequently, its revenue projections seem reasonable in light of its past financial revenue history. Most proposed systems that the Commission considers do not have such a large fleet that can be relied in this capacity. Secondly, Intelsat LLC's projected costs anticipate staggered launch and construction over the next three to four years. Therefore, in practical terms, Intelsat LLC will not need the entire funds to cover the cost immediately. Finally, Intelsat has demonstrated it financial commitment by commencing construction on nine of the 10 new satellites that make up the bulk of the associated financial costs. Consequently, we find that a waiver of our financial qualification requirements is warranted. Therefore, on our own motion, we waive Section 25.140(c)(1) of rules.[333] This finding is conditioned on Intelsat LLC

328 *Id.* at 26 n.50.

329 Supplement to Application of Intelsat LLC, File Nos.: SAT-A/O-20000119-00002 through SAT-A/O-2000019-00018; SAT-LOA-20000119-00019 through SAT-LOA-20000119-00028; SAT-AMD-20000119-00029 through SAT-AMD-20000119-00041, May 17, 2000.

330 *Id.*

331 Intelsat LLC Application Vol. I at 24.

332 Comsat Comments at 9-10.

333 47 C.F.R. § 25.140(c)(1)

having comparable financially ability, as is demonstrated here, upon its privatization and the effective date of its authorizations.

E. Other Issues

1. Transfer of USA-IT Network Filings

130. Following the recently concluded Penang Working Party ("PWP"), Intelsat LLC advised the Commission of recommendations of the PWP to the November 2000 Assembly of Parties concerning the transfer of INTELSAT ITU network filings to licensing jurisdictions upon privatization.[334] The PWP recommended for consideration three alternatives.[335] Under the first two alternatives, the United States (or other selected licensing jurisdiction) either would (1) cancel any transferred frequency assignments and orbital locations under ITU procedures should Intelsat LLC or its successors no longer be authorized by the licensing jurisdiction to use such frequency assignments and orbital locations, or (2) transfer such frequency assignments and orbital locations, pursuant to ITU procedures (if available), to another party designated by the residual IGO being created to supervise INTELSAT's provision of service to lifeline users after privatization. Intelsat LLC states that these two alternatives are being considered because of the concerns of PWP participants that a licensing jurisdiction may authorize use of INTELSAT frequency assignments and orbital locations by other operators or adopt policies that threaten global coverage and connectivity. The third alternative would involve the residual IGO continuing to hold frequency assignments and orbital locations on behalf of the privatized company. Intelsat LLC points out that this alternative would moot the application before us.

131. Both PanAmSat and GE Americom oppose any of the alternatives posed by Intelsat LLC.[336] They contend that alternatives would be inconsistent with Commission responsibilities under the ORBIT Act to "take all action necessary to ensure that the United States remains the ITU notifying administration for the privatized INTELSAT's existing and future orbital slot registration."[337]

132. In view of the unique nature of INTELSAT's ITU network filings as discussed above, we find that we can issue authorizations to Intelsat LLC based on the first alternative. The second and third alternatives, however, would raise unacceptable competition concerns and could undermine ITU procedures. Should INTELSAT select other licensing jurisdictions that agree to authorize its operations based on either the second or third alternative, we would consider potential effects on competition in acting upon any applications under our *DISCO II* decision to enter the U.S. market as a non-U.S.-licensed system.

133. As Intelsat LLC points out, the first alternative preserves the international status quo with respect to frequency assignments and orbital locations to be transferred to selected licensing jurisdictions.

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334 Intelsat LLC June 30 letter.

335 The alternatives are presented in the context of text for amendments to the current INTELSAT Agreement which would provide for the residual intergovernmental organization that supervises Intelsat LLCs fulfillment of the "core principles". *See* Report of the Penan Working Part to the twenty-fifth (Extraordinary) Assembly of Parties, AP-25-7E W/11/00, June 27, 2000.

336 July 26 PanAmSat letter; Further Response of GE Americom Communications, Inc., at 10, dated July 26, 2000.

337 Pub. L. 106-180, § 644(b).

INTELSAT's current policy is that it cancels any ITU network filings that it does not intend to use. In the event of such cancellation, the cancelled orbital locations previously registered on behalf of all INTELSAT member countries, are returned to the ITU to be made available to the next administration eligible to use the locations under ITU procedures. Under the first alternative, the licensing jurisdictions selected upon privatization would have no ability to assign INTELSAT frequencies and orbital locations to other licensees. However, Intelsat LLC would have incentive to comply with the rules of the licensing jurisdiction at the risk of losing its licenses and cancellation of its orbital locations with the ITU.

134. In comparison, Intelsat LLC may not have the same incentives under either alternatives two and three. Alternative two would permit it to appeal to the residual IGO in order to require transfer of frequency assignments and orbital locations to another licensing jurisdiction, should Intelsat LLC be dissatisfied with its current licensing jurisdiction. The ability to "forum shop" in this manner, under the auspices of the residual IGO, would give Intelsat LLC a clear competitive advantage over other private operators, whether licensed in the United States or other countries. The third alternative clearly would not constitute full privatization because it would effectively make Intelsat LLC immune from the rules of any licensing jurisdiction. Nor would it appear to be consistent with the ORBIT Act, which requires that INTELSAT, when privatized, be subject to "the legal and regulatory process of a national government that applies due diligence requirements intended to prevent warehousing of orbital locations."[338] Both alternatives two and three would also raise substantial questions with respect to compliance with ITU procedures. Alternative two raises trafficking concerns with respect to the international resources of orbital locations and frequency assignments among ITU Administrations. Alternative three raises the question of whether a private company should be permitted under to ITU procedures to use orbital locations and frequency assignments held by an intergovernmental organization.

135. Finally, PanAmSat and GE Americom misread the ORBIT Act as to the responsibilities it places on this Commission. Section 644(b) directs the Commission to take the action necessary to remain the notifying administration of privatized INTELSAT's orbital locations.[339] Licensing Intelsat LLC operations in the C-band and the Ku-band furthers the intent of Section 644(b).[340] We also note that the ORBIT Act does not direct the Commission to take any particular action should it no longer license these locations for use by Intelsat LLC.[341] Thus, nothing in the ORBIT Act precludes the Commission from

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338 Pub. Law 106-180 § 221(2)(c).

339 Pub. L. 106-180, § 644(b) ("ITU Notifying Administration.—The President and the Commission shall take the action necessary to ensure that the United States remains the ITU notifying administration for the privatized INTELSAT's existing and future orbital slot registrations.")

340 *See supra*, paragraph 35. While the C-band and Ku-band orbital locations associated with satellites we are licensing would be transferred to the U.S. registry, other INTELSAT orbital locations would not be transferred due to legal and procedural complications associated with the Commission processing rounds. INTELSAT has not filed with the Commission for licenses for its Ka-band locations, three C-band and Ku-band locations that will be associated with its Ka-band broadband plans, or for DBS-band and V-band orbital locations. All of these locations would be transferred to the registry of another licensing jurisdiction upon privatization.

341 A draft compromise bill under consideration by the House and Senate conference committee contained a provision prohibiting the FCC from transferring INTELSAT orbital locations and spectrum to another administration in the event that INTELSAT selected that administration. That provision was not, however, included in the ORBIT Act upon enactment by Congress. *See* Letter of William E. Kennard, Chairman, Federal (continued….)

canceling ITU filings for orbital locations as provided in international agreements entered into as part of the privatization of INTELSAT.

136. For the above reasons, we would not authorize Intelsat LLC as a U.S. licensee on the basis of alternatives two and three. We will condition Intelsat LLC's license on the basis of alternative one provided that this condition applies only to those orbital locations identified in Attachment A, as being transferred from the USA-IT to the USA registration upon privatization. Any other locations assigned to Intelsat LLC at a later date will be subject to our normal procedures.

2. Milestones

137. Commission authority for satellite launch and operation includes a milestone schedule that assigns dates by which the satellite licensee shall construct, launch, and operate the proposed satellites.[342] It is designed to ensure that licensees proceed expeditiously to implement their systems. A milestone schedule generally concludes five years after the date of grant.[343] Failure to proceed consistent with the milestone schedule, unless the licensee requests an extension that demonstrates delay is due to circumstances beyond the licensee's control, results in nullification of the license.

138. Intelsat LLC has 10 proposed satellites, in various stages of construction, which will be subject to milestones as a U.S. licensee.[344] All, according to Intelsat LLC, are scheduled to commence operations within approximately the next three years.[345] The milestone schedule we implement here takes into account the Intelsat LLC proposed schedule.[346] This milestone schedule is consistent with typical milestone schedules set for U.S. licenses.[347]

(Continued from previous page)
Communications Commission, to Tom Bliley, Chairman, House Committee on Commerce, dated February 28, 2000.

342 *See Licensing Space Stations in Domestic Fixed-Satellite Service*, 1 FCC Rcd 682, 685 (1986) ("*1986 Domsat Report and Order*").

343 *See In The Matter of GE American Communications, Inc*., Report and Order, 12 FCC Rcd. 6475 (1997).

344 They include INTELSATs 901-907, ALPHA-1 and -2, and BETA-1.

345 Intelsat LLC proposes to begin operating its 10 planned satellites according to the following schedule: I-901 – August 2001; I-902 – August 2001; I-903 – November 2001 2001; I-904 – February 2002; I-905 – August 2002; I-906 – November 2002; I-907 – February 20032; ALPHA-1 – May 2003; BETA-1 – August 2003; and ALPHA-2 –November 2003.

346 *See ex parte* letter from Intelsat LLC Counsel, Jennifer Wheatley, to Magalie Salas, Secretary, Federal Communications Commission, June 20, 2000 at Attachment A.

347 *See In the Matter of the Applications of AT&T Corp.*, Memorandum Opinion and Order, 11 FCC Rcd 15,038 (1996) ; *In the Matter of the Applications of Echostar Satellite Corporation*, Memorandum Opinion and Order, 11 FCC Rcd 20,446 (1996); *In the Matter of the Applications of GE American Communications, Inc.*, Memorandum Opinion and Order, 11 FCC Rcd 15,030 (1996); *In the Matter of the Applications of Hughes Communications Galaxy, Inc.*, Memorandum Opinion and Order, 11 FCC Rcd 16,425 (1996); *In the Matter of the Applications of Loral Space and Communications, Ltd.*, Memorandum Opinion and Order, 11 FCC Rcd 20,441 (1996); *In the Matter of the Applications of Orion Network Systems, Inc.*, Memorandum Opinion and Order, 11 FCC Rcd 20,434 (1996).

3. Frequency Band Use

a. 3.42-3.6 GHz Frequency Band

139. The 3.40-3.6 GHz frequency band is not allocated to the FSS service in the United States and its possessions. Accordingly, we will not authorize earth stations operating in this band within the United States and its possessions. We recognize, however, that the 3.42-3.6 GHz extended C-band (the portion of the band for which Intelsat LLC has applied) is allocated to the FSS (space-to-Earth) on a worldwide basis in the ITU Radio Regulations. Therefore, we will permit Intelsat LLC to continue to utilize the frequency band on its INTELSAT 805 satellite to serve earth stations outside the United States and its possessions, consistent with Intelsat LLC's ability to acquire appropriate authority to use these frequency bands in other countries. We also note, however, that the U.S. government utilizes the 3.40-3.6 GHz band on a worldwide basis as part of its military operations, including high-powered, highly mobile, shipborne and airborne radar systems. When these satellites were procured, INTELSAT was informed of this situation through the INTELSAT Board of Governors process. Because INTELSAT currently is operating in this band it, of course, has been aware of this situation. This is especially true in areas where INTELSAT has had to address certain interference situations that may have resulted from the use of these radars in areas of conflict. INTELSAT, therefore, understands this environment and has undertaken appropriate steps to address such situations in its current operations. We anticipate that INTELSAT will continue its operations in accordance with these constraints and will inform its customers, as appropriate, or as circumstances dictate these constraints on its operations.

b. 3.6-3.7 GHz Frequency Band

140. The band 3.6-3.7 GHz is allocated to the non-government fixed satellite service (space-to-Earth) and to the Government radiolocation and aeronautical radionavigation services on a co-primary basis. FSS operations in the United States and possessions in the 3.6-3.7 GHz frequency band are limited by footnote US245 to the U.S. domestic table of allocations, which states, "the fixed satellite service is limited to international intercontinental systems and subject to case-by-case electromagnetic compatibility analysis."[348] We also note, however, that the U.S. government utilizes the 3.6-3.65 GHz band on a worldwide basis as part of its military operation, including high-powered, highly mobile, shipborne, and airborne radar systems. Based on US 245, the coordination of receiving FSS earth stations operating in the United States and possessions will be required with respect to Federal Government transmitting radio location stations. In February 1995, the National Telecommunications and Information Administration ("NTIA"), pursuant to the Omnibus Budget Reconciliation Act of 1993, identified the 3650-3700 MHz band for transfer, effective January 1999, from Government/non-Government shared-use status to a mixed-use status.[349] The Commission later adopted a Notice of Proposed Rulemaking and Order proposing to allocate the 3650-3700 MHz band to non-government fixed service on a primary basis while imposing a freeze on applications for new earth stations and major modifications to existing earth stations in this band.[350] In May of this year, the Commission modified this NPRM by partially lifting the freeze to allow

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348 47 C.F.R. § 2.106 n.US245.

349 *See* Omnibus Reconciliation Act of 1993, Pub. L. No. 103-66, Title VI, § 6001 (2) (3), 107 Stat. 312 (enacted Aug. 10, 1993); *see also* H.R. Rep. No. 103-213, 103rd Cong., 1st Sess. (1993).

350 The 3650-3700 MHz band is a portion of the "extended C-band." *See In the Matter of Amendment of the Commission's Rules with Regard to the 3650-3700 MHz Government Transfer Band*, Notice of Proposed Rulemaking and Order, 14 FCC Rcd 1295 (1998).

new applications or major modifications (of existing) for extended C-band earth stations that are within 10 miles of an existing grandfathered extended C-band earth station receive site.[351] Any future use of this band by Intelsat LLC or any other entity in the United States will be subject to the provisions of these Orders and the pending Report and Order, which will establish the domestic allocation of this band.

c. 5.850-5.925 GHz Frequency Band

141. In the United States, the 5.850-5.925 GHz band is allocated to the government radiolocation service on a co-primary basis with non-government FSS (Earth-to-space) and mobile service use. As a result, FSS operations in the United States and possessions in the 5.850-5.925 GHz frequency band are also limited by footnote US245 to the U.S. domestic table of allocations, which states, "the fixed satellite service is limited to international intercontinental systems and subject to case-by-case electromagnetic compatibility analysis."[352] We also note, however, that the U.S. government utilizes the 5.850-5.925 GHz band as part of its military operations, including high-powered radar systems. Although INTELSAT has been operating in this band on a worldwide basis, there have been limited operations in this frequency band in the United States and its possessions. Consequently, any future Intelsat LLC operations will need to be coordinated with the U.S. government operations in this band in accordance with footnote US245. Additionally, on October 21, 1999, the Commission adopted a Report and Order in ET Docket 98-95, which allocated this band for Intelligent Transportation Services ("ITS") on a co-primary basis. The Report and Order concluded that ITS operations could share this band with FSS operations due to the nature of each system's deployment and because of the limited number of FSS earth stations.[353] Also, we note that this band is normally paired with the 3625-3700 MHz band and, consequently, these operations will be similarly constrained by the requirements of the 3650-3700 MHz band in the United States

d. 6.425-6.650 GHz Frequency Band

142. The uplink portion of the extended C-band, 6.425-6.650 GHz, is subject to coordination for all FSS licensees. The frequency range 6.425-6.525 GHz is shared in the United States on a primary basis with the mobile service, including the Television ("TV") Broadcast Auxiliary Service, Cable TV Relay Service, Private Operational Fixed Point-to-Point Microwave Service, and Local Television Transmission Service. The frequency range 6.525-6.650 GHz is shared on a primary basis with the fixed service, including the Common Carrier Fixed Point-to-Point Microwave Service and Private Operational Fixed Point-to-Point Microwave Service. Any future applicants for earth stations located within the United States requesting access to the Intelsat LLC satellites using this frequency band must coordinate with these services prior to receiving an earth station license.[354]

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351 *In the Matter of Amendment of the Commission's Rules With Regard to the 3650-3700 MHz Government Transfer Band*, Memorandum Opinion and Order, ET Docket No. 98-237, FCC 00-181 (*rel*. May 22, 2000).

352 47 C.F.R. § 2.106 n.US245.

353 *In the Matter of Amendment of Parts 2 and 90 of the Commission's Rules to Allocate the 5.850-5.925 GHz Band to the Mobile Service for Dedicated Short Range Communications of Intelligent Transportation Services*, Report and Order, FCC 99-305, 17 Comm. Reg. (P&F) 1015 (1999).

354 We recognize that the Intelsat LLC proposed use includes the 6.425-6.650 GHz portion of the band.

e. 10.95-11.2 GHz and 11.45-11.7 GHz Frequency Band

143. The use of the 10.95-11.20 GHz and 11.45-11.7 GHz frequency bands by the FSS in the United States is limited to international service under footnote NG104 to the United States Table of Frequency Allocations in Section 2.106 of the Commission's rules.[355] We note that INTELSAT is currently using these bands in the United States to provide international services. Accordingly, Intelsat LLC may provide international service only and is not authorized to provide domestic service within the United States in this frequency band.

f. 13.75-14.0 GHz Frequency Band

144. The 13.75-14.0 GHz frequency band has been allocated domestically and internationally to the FSS subject to certain restrictions. In particular, footnotes S5.502 (WRC-97), S5.503 (WRC-97), and S5.503A (WRC-97) to the International Telecommunication Union (ITU) Radio Regulations place certain restrictions on FSS operations.[356] Footnote US337 to Section 2.106 of the Commission's rules requires that earth stations operating in the 13.75-13.8 GHz band be coordinated through NTIA Interdepartment Radio Advisory Committee's ("IRAC") Frequency Assignment Subcommittee to minimize interference to the forward space-to-space link of the National Aeronautics and Space Administration's ("NASA") Tracking and Data Relay Satellite System.[357] In this regard, we have received a letter from the NTIA requesting that we identify these requirements in any grant of authority to operate a satellite in the 13.75-14.0 GHz frequency band.[358] Taking these considerations into account, we require that the operations of Intelsat LLC satellites in the 13.75-14.0 GHz band be consistent with these various international and domestic regulatory footnotes.

4. Request to Modify Authorizations

145. Intelsat LLC requests authority to modify certain licenses, that we grant herein, in order

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[355] 47 C.F.R. § 2.106 n.NG104.

[356] Footnote S5.502 (WRC-97) to the international Radio Regulations places certain restrictions on the minimum effective isotropically radiated power (E.I.R.P.) and minimum antenna size for earth stations operating in this band. Footnote S5.503 (WRC-97) limits FSS earth station E.I.R.P. spectral density in the 13.772-13.778 GHz frequency band until those geostationary space stations in the space research service, for which advance publication information was received by the ITU prior to January 31, 1992, cease to operate in this band. Footnote S5.503A (WRC-97) states that "[u]ntil 1 January 2000, stations in the fixed-satellite service shall not cause harmful interference to non-geostationary space stations in the space research and Earth exploration satellite services. After that date, these non-geostationary space stations will operate on a secondary basis in relation to the fixed-satellite service. Additionally, when planning earth stations in the fixed-satellite service to be brought into service between 1 January 2000 and 1 January 2001, in order to accommodate the needs of spaceborne precipitation radars in the band 13.793-13.805 GHz, advantage should be taken of the consultation process and the information given in Recommendation ITU-R SA.1071."

[357] 47 C.F.R. § 2.106 n.US337 specifically states the following: "in the band 13.75-13.80 GHz, earth stations in the fixed-satellite service shall be coordinated on a case-by-case basis through the frequency assignment subcommittee in order to minimize harmful interference to the Tracking and Data Satellite System's forward space-to-space link (TDRSS forward link-to-LEO)."

[358] *See* Letter from William Hatch, Acting Associate Administrator, Office of Spectrum Management, NTIA, to Roderick Porter, Acting Chief, International Bureau, FCC (May 11, 1999).

that they may be reassigned to alternative orbital locations.[359] It presently holds the orbital locations and frequency bands at issue in its capacity as an intergovernmental organization.[360] In this Order, we authorize Intelsat LLC to operate at the orbital locations for which it seeks modification. No party specifically opposes the modification requests. Intelsat LLC makes this request now due to the unique circumstances surrounding the authorization of an existing satellite system and its particular need to have its system application acted upon in total, as part of its privatization process.[361] Ordinarily, a request for modification would come subsequent to any authorization. Upon the effective date of these modification authorizations, Intelsat LLC will have the requisite authority to operate space stations at the proposed orbital reassignment locations.

146. Accordingly, we find that Intelsat LLC is legally and technically qualified to receive authorizations for the various orbit reassignment modification requests, notwithstanding the waivers granted in this proceeding.[362] Therefore, we grant Intelsat LLC authority to make these modifications, in accordance with our rules and policies and the terms of this Order, as also indicated in Appendices A and C, Table 3. Intelsat LLC shall inform the Commission within 48 hours each time it relocates a satellite pursuant to this authority.

5. License Terms

147. Section 25.121(a) of our rules states that "[l]icenses for facilities governed by this part will be issued for a period of 10 years." Section 25.121(b) states that "[t]he Commission reserves the right to grant or renew station licenses for less than 10 years if, in its judgment, the public interest, convenience and necessity will be served by such action." Section 25.121(d) notes that "[f]or geostationary satellite orbit satellites, the license term will begin a 3 a.m. EST on the date the licensee certifies to the Commission that the satellite has been successfully placed into orbit and that the operations of the satellite fully conform to the terms and conditions of the space station radio authorization."

148. For the applicant's 17 currently operating satellites, some of which have been operating for several years, we grant license terms for 10 years or end of life, whichever comes first.[363] With respect to the 10 planned satellites in the instant application, we grant license terms for a ten-year period, beginning at 3 a.m. EST on the date Intelsat LLC certifies that the respective satellites have been successfully placed in orbit.[364]

VI. ORDERING CLAUSES

149. Accordingly, IT IS ORDERED that application File Nos. SAT-A/O-20000119-00002 to SAT-A/O-20000119-00018 ARE GRANTED, subject to the terms of this Order, and Intelsat LLC IS

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359 The satellites at issue are INTELSAT's 601-605, 702, 704, 705, 707, 709, and 801. *See* Appendix A, Table 3.

360 *See* Appendix A, Table 3.

361 Intelsat LLC Application Vol. I at 10.

362 *See* 47 C.F.R. §§ 25.101 *et. seq.*

363 *See* Appendix A, Table 1.

364 *See* Appendix A, Table 2. 47 C.F.R. §§ 25.114(c)(13) and 25.140(c) & (d).

AUTHORIZED to operate at the orbital locations specified in Appendix A, Table 1, 17 satellites operating in the C-band and Ku-band in accordance with the technical specifications set forth the application and this Order.

150. IT IS FURTHER ORDERED that the license terms for application File Nos. SAT-A/O-20000119-00002 to SAT-A/O-20000119-00018 is ten years or end of life, whichever comes first, and will commence on the date of privatization, which is the effective date of this authorization.

151. IT IS FURTHER ORDERED that application File Nos. SAT-LOA-20000119-00019 to SAT-LOA-20000119-00028 ARE GRANTED, subject to the terms of this Order, and Intelsat LLC IS AUTHORIZED to launch and operate at the orbital locations specified in Appendix A, Table 2, 10 satellites operating in the C-band and/or Ku-band, in accordance with the technical specifications set forth in the application and this Order.

152. IT IS FURTHER ORDERED that the license term for application File Nos. SAT-LOA-20000119-00019 to SAT-LOA-20000119-00028 is ten years and will commence on the date the licensee certifies to the Commission that the particular satellite has been successfully placed into orbit and the operations conform to the terms and conditions of this authorization.

153. IT IS FURTHER ORDERED that the Intelsat LLC requests for waiver of Sections 25.140(b), 25.202(a)(1), 25.202(g), 25.210(a)(1)&(3), 25.210(c), 25.210(i), 25.211(a), 25.210(j)(1), and 25.210(g)(1) of the Commission's rules, 47 C.F.R. §§ 25.140(b), 25.202(a)(1), 25.202(g), 25.210(a), 25.210(c), 25.210(i), 25.211(a), 25.210(j)(1), and 25.210(g)(1), pursuant to Section 1.3 of the Commission's rules, 47 C.F.R. § 1.3, ARE GRANTED as provided in this Order for the satellites as specifically indicated in Appendix C.

154. IT IS FURTHER ORDERED that the Intelsat LLC requests for waiver of Section 25.140(f) of our Rules, 47 C.F.R. § 25.140(f), pursuant to Section 1.3 of the Commission's rules, 47 C.F.R. § 1.3, ARE GRANTED, as provided in this Order.

155. IT IS FURTHER ORDERED that a waiver of Section 25.140(c)(1) of our rules, 47 C.F.R. § 25.140(c)(1), IS GRANTED, as provided in this Order. This finding is conditioned on Intelsat LLC having comparable financially ability, as is demonstrated herein, upon the effective date of its authorizations.

156. IT IS FURTHER ORDERED that unless extended by the Commission for good cause shown, each of the authorizations for launch and operation, File Numbers SAT-LOA-20000119-00019 - SAT-LOA-20000119-00028, shall become null and void in the event the space station is not constructed, launched, and successfully placed into operation in accordance with the technical parameters, terms, and conditions of the authorizations by the following dates.

Satellite*	Finish Construction	Launch**
INTELSAT 901:	June 2001	August 2001
INTELSAT 902:	June 2001	August 2001
INTELSAT 903:	September 2001	November 2001
INTELSAT 904:	December 2001	February 2002
INTELSAT 905:	June 2002	August 2002
INTELSAT 906:	September 2002	November 2002
INTELSAT 907:	December 2002	February 2003
ALPHA-1:	March 2003	May 2003

BETA-1:	June 2003	August 2003
ALPHA-2:	September 2003	November 2003

*All contracts for delivery of spacecraft are in place except for the BETA-1, which is expected to be finalized by June 2001.

**In-Service date is six to eight weeks after a successful launch.

157. IT IS FURTHER ORDERED that application File Nos. SAT-AMD-20000119-00029 to SAT-AMD-2000119-00041 ARE GRANTED, subject to the terms of this Order, and Intelsat LLC IS AUTHORIZED to modify its orbital assignments as specified in Appendix A, Table 3 and in accordance with the technical specifications set forth in its system application and this Order.

158. IT IS FURTHER ORDERED that the authorizations herein shall be effective upon the date in which INTELSAT transfers its satellites and associated assets to Intelsat LLC and INTELSAT's ITU network filings, for the orbital locations associated with the operation of its satellites, are transferred on a permanent basis to the United States national registry, subject to the paragraph below.

159. IT IS FURTHER ORDERED that in the event that any of the orbital locations identified in Appendix A are no longer assigned for use by Intelsat LLC or its successors, such orbital locations shall be cancelled in accordance with procedures of the International Telecommunication Union.

160. IT IS FURTHER ORDERED that the authorizations granted herein upon the condition that INTELSAT privatizes in a manner consistent with Sections 621 and 622 of the ORBIT Act.

161. IT IS FURTHER ORDERED that Intelsat LLC shall file with the Commission 15 days after conclusion of the 25th Assembly of Parties, supplemental information describing fully all aspects of the decision of the Assembly to privatize INTELSAT.

162. IT IS FURTHER ORDERED that Intelsat LLC shall prepare the remaining information necessary for submission to the International Telecommunication Union, to the extent applicable, to initiate the advance publication, international coordination, and notification process, in accordance with the International Telecommunication Union Radio Regulations. No protection from interference caused by radio stations authorized by other Administrations is guaranteed unless coordination procedures are timely completed or, with respect to individual administrations, by successfully completing coordination agreements. Any radio stations authorization for which coordination has not been completed may be subject to additional terms and conditions as required to effect coordination of the frequency assignments of other Administrations, 47 C.F.R. § 25.111(b).

163. IT IS FURTHER ORDERED that the Petition to Deny or Defer filed by GE American Communications, Inc. IS DENIED.

164. IT IS FURTHER ORDERED that the Petition to Deny filed by Japan Satellite Systems, Inc., IS DENIED.

165. IT IS FURTHER ORDERED that the Petition to Deny in part or Defer filed by PanAmSat Corporation IS DENIED.

166. IT IS FURTHER ORDERED that Intelsat LLC shall not permit any earth station in the United States and its possessions to operate with the INTELSAT 805 satellite in the frequency band 3.42 GHz to 3.6 GHz.

167. IT IS FURTHER ORDERED that Intelsat LLC shall coordinate its future operations in the frequency bands 3.6-3.65 GHz and 5.850-5.925 GHz, in accordance with footnote US245, with the U.S. government in order to minimize the potential for interference between U.S. government radiolocation systems and Intelsat LLC operations.

168. IT IS FURTHER ORDERED that Intelsat LLC operations in the 13.75-14.00 GHz frequency band shall be in accordance with footnotes S5.502 (WRC-97), S5.503 (WRC-97), and S5.503A (WRC-97) to the ITU Radio Regulations.

169. IT IS FURTHER ORDERED that, pursuant to footnote US337 to 47 C.F.R. § 2.106, Intelsat LLC shall coordinate operations in the 13.75-13.80 GHz frequency band through NTIA's Interdepartment Radio Advisory Committee's Frequency Assignment Subcommittee to minimize interference to the forward space-to-space link of the National Aeronautics and Space Administration's Tracking and Data Relay Satellite System.

170. IT IS FURTHER ORDERED that transmissions from Intelsat LLC space stations in the 10.95-11.20 GHz and 11.45-11.7 GHz frequency bands shall be limited to the provision of Fixed-Satellite Service between the United States and international points, in accordance with NG104 or our rules, 47 C.F.R. § 2.106.

171. IT IS FURTHER ORDERED that Intelsat LLC shall comply with the applicable laws, regulations, rules, and licensing procedures in those countries in which it provides service.

172. IT IS FURTHER ORDERED that, subject to Section 648 of the ORBIT Act, Intelsat LLC shall not acquire or enjoy the exclusive right of handling telecommunications to or from the United States, its territories or Possessions, and any other country or territory by reason of any concession, contract, understanding or working arrangement to which the satellite operator or any persons or companies controlling or controlled by the operator or parties.

173. IT IS FURTHER ORDERED that neither this authorization, nor any right granted by this authorization, shall be transferred to any person except upon application to the Commission and upon a finding by the Commission that the public interest, convenience, and necessity will be served thereby.

FEDERAL COMMUNICATIONS COMMISSION

Magalie Roman Salas
Secretary

APPENDIX A

Table 1

17 Currently Operating Satellites

Satellite	August/2000
511	29.5º W.L. (330.5º E.L.)
601	34.5º W.L. (325.5º E.L.)
602	62.0º E.L.
603	24.5º W.L. (335.5º E.L.)
604	60.0º E.L
605	27.5º W.L. (332.5º E.L.)
701	180.0º E.L.
702	177.0º E.L.
704	66.0º E.L.
705	18.0º W.L. (342.0º E.L.)
706	53.0º W.L. (307.0º E.L.)
707	1.0º W.L. (359.0º E.L.)
709	50.0º W.L. (310.0º E.L.)
801	31.5º W.L. (328.5º E.L.)
802	174.0º E.L.
804	64.0º E.L.
805	55.5º W.L. (304 .5º E.L.)

Table 2

10 Planned Satellites

Satellite	Location	Operational Date
901	62.0º E.L.	August 31, 2001
902	60.0º E.L.	August 31, 2001
903	24.5º W.L. (335.5º E.L.)	November 30, 2001
904	34.5º W.L. (325.5º E.L.)	February 28, 2002
905	27.5º W.L. (332.5º E.L.)	August 31, 2002
906	18.0º W.L. (342.0º E.L.)	November 30, 2002
907	31.5º W.L. (328.5º E.L.)	February 28, 2003
A-1	50.0º W.L. (310.0º E.L.)	May 31, 2003
A-2	1.0º W.L. (359.0º E.L.)	November 30, 2003
B-1	85.0º E.L.	August 31, 2003

APPENDIX A
Table 3

13 Orbit Reassignment Modifications

Satellite	August/2000	First Modification Location	First Mod Month	Second Mod Location	Second Mod Month
601	34.5º W.L. (325.5º E.L.)	85º E.L.	10/2001		
602	62.0º E.L.	178º E.L.	4/2001	157º E.L.	8/2002
603	24.5º W.L. (335.5º E.L.)	62º E.L.	8/2001		
604	60.0º E.L	33º E.L.	5/2001	62º E.L.	9/2003
605	27.5º W.L. (332.5º E.L.)	20º W.L. (340º E.L.)	1/2002		
702	177.0º E.L.	176º E.L.	10/2000		
704	66.0º E.L	33º E.L.	8/2003		
705	18.0º W.L. (342.0º E.L.)	178º E.L.	7/2002		
707	1.0º W.L. (359.0º E.L.)	66º E.L.	7/2003		
709	50.0º W.L. (310.0º E.L.)	157º E.L.	4/2003		
801	31.5º W.L. (328.5º E.L.)	29.5º W.L. (330.5º E.L.)	10/2002		

APPENDIX B

INTELSAT Signatories (S) and Investing Entities (IE)

Names and investment share amounts, following the annual determination of investment shares on 1 March 2000

Country	Signatory (S) / Investing Entity (IE)	Investment Share (%)	WTO Member
Afghanistan	Ministry of Communications of the Islamic State of Afghanistan (S)	0.050000	No
Algeria	Government of the Democratic and Popular Republic of Algeria (S)	0.361785	No
Angola	Empresa de Telecomunicações de Angola, Angola Telecom, E.P. (S)	0.228888	Yes
Argentina	Total Country	3.240205	Yes
	Secretaría de Comunicaciones (S)	0.050000	
	Advance Telecom (IE)	0.090385	
	Comsat Argentina (IE)	1.071186	
	GTECH Argentina S.A. (IE)	0.013110	
	Impsat S.A. (IE)	0.428431	
	Kavulakian Comunicaciones S.A. (IE)	0.000000	
	Pramer S.C.A. (IE)	0.008833	
	Servicios Para El Transporte De Informacion S.A. (SPTI) (IE)	0.012711	
	Servicios Satelitales S.A. (SERSAT) (IE)	0.000474	
	Tecoar S.A. (IE)	0.155282	
	Telecom Soluciones S.A. (IE)	0.156658	
	Telefonica de Argentina (IE)	0.122145	
	Tiba, S.A. (IE)	1.116522	
	Wold Internacional, S.A. (IE)	0.014468	
Armenia	Ministry of Telecommunications (S)	0.050000	No
Australia	Telstra Corporation Limited (S)	2.534281	Yes
Austria	Telekom Austria Aktiengesellschaft (S)	0.213868	Yes
Azerbaijan	Ministry of Communication of Azerbaijan Republic (S)	0.050000	No
Bahamas	The Bahamas Telecommunication Corporation (BATELCO) (S)	0.118957	No
Bahrain	Bahrain Telecommunications Company (BATELCO) (S)	0.373412	Yes
Bangladesh	Telegraph and Telephone Board of Bangladesh (S)	0.234820	Yes
Barbados	Cable & Wireless BET Limited (S)	0.089269	Yes
Belgium	BELGACOM (S)	0.238965	Yes
Benin	Office des Postes et Télécommunications de la République du Bénin (S)	0.057417	Yes
Bhutan	Department of Telecommunications, Ministry of Communications (S)	0.050000	No
Bolivia	Empresa Nacional de Telecomunicaciones (ENTEL) (S)	0.255617	Yes
Bosnia and Herzegovina	Public Enterprise PTT Bosnia and Herzegovina (S)	0.051692	No
Botswana	Botswana Telecommunications Corporation (S)	0.050000	Yes
Brazil	Total Country	2.104549	Yes
	Empresa Brasileira de Telecomunicações S.A. (EMBRATEL) (S)	2.104549	
	Impsat Brazil (IE)	0.000000	
	Linksat Sistemas de Co. (IE)	0.000000	
	Tectelcom Brazil (IE)	0.000000	
Brunei Darussalam	Department of Telecommunications, Ministry of Communications (S)	0.249352	Yes

Country	Signatory (S) / Investing Entity (IE)	Investment Share (%)	WTO Member
Bulgaria	Bulgarian Telecommunications Company Ltd. (BTC) (S)	0.050000	Yes
Burkina Faso	Office National des Télécommunications (ONATEL) (S)	0.051437	Yes
Cameroon	Cameroon Telecommunications (CAMTEL) *(S)	0.153313	Yes
Canada	Teleglobe Canada Inc. (S)	3.058182	Yes
Cape Verde, Rep. Of	Cabo Verde Telecom, SARL (S)	0.050000	No
Central Africa Republic	Government of the Central African Republic (S)	0.060000	Yes
Chad	Société des Télécommunications Internationales du Tchad (T.I.T.) (S)	0.050000	Yes
Chile	Total Country	0.741694	Yes
	Empresa Nacional de Telecomunicaciones S.A. (ENTEL) (S)	0.646702	
	Bellsouth Chile S.A.(IE)	0.029454	
	Chilesat (IE)	0.000000	
	CTC Mundo S.A. (IE)	0.057758	
	Firstcom Long Distance (IE)	0.007780	
China, People's Republic of	Total Country	2.347435	No
	CHINA TELECOM (S)	1.665799	
	Cable & Wireless HKT (IE)	0.681636	
Colombia	Empresa Nacional de Telecomunicaciones de Colombia (TELECOM)(S)	1.504048	Yes
Comoros, Fed. and Islamic Rep. of	Office Nationale des Postes et Télécommunications (S)	0.050000	No
Congo, Dem. Rep. of	Office Congolais des Postes et Télécommunications (OCPT) (S)	0.151737	Yes
Congo, Rep. of	Government of the Republic of Congo (S)	0.050000	Yes
Costa Rica	Instituto Costarricense de Electricidad (S)	0.099994	Yes
Côte D'Ivoire	Total Country	0.198319	Yes
	Agence des Télécommunications de Côte d'Ivoire (ATCI)(S)	0.198319	
	CI-Telecom (IE)	0.000000	
Croatia	Ministry of Maritime Affairs, Transport and Communications (S)	0.060009	No
Cyprus	Cyprus Telecommunications Authority (S)	0.066005	Yes
Czech Republic	CESKÉ RADIOKOMUNIKACE A.S. (S)	0.100874	Yes
Denmark	Total Country	0.427331	Yes
	Tele Danmark A/S (S)	0.197248	
	TELE Greenland (IE)	0.230083	
Dominican Republic	Compañía Dominicana de Teléfonos, C. por A. (S)	0.286305	Yes
Ecuador	Total Country	0.230238	Yes
	Consejo Nacional de Telecomunicaciones (CONATEL) (S)	0.000000	
	Andinatel S.A. (IE)	0.152229	
	E.T.A.P.A. (IE)	0.000000	
	Impsatel de Ecuador (IE)	0.000000	
	Occidental Exploration (IE)	0.000000	
	Pacifictel S.A. (IE)	0.078009	
	Radio HCJB (IE)	0.000000	
Egypt	TELECOM EGYPT (S)	0.482729	Yes
El Salvador		0.059133	Yes
	Compañía de Telecomunicaciones de El Salvado S.A. de C.V. (CTE, S.A. de C.V.) (S)	0.059133	

Country	Signatory (S) / Investing Entity (IE)	Investment Share (%)	WTO Member
	Americatel El Salvador, S.A. (IE)	0.000000	
	Telefonical De El Salvador (IE)	0.000000	
Equatorial Guinea	Ministry of Transportation and Communications of the Republic of Equatorial Guinea (S)	0.050000	No
Ethiopia	Ethiopian Telecommunication Corporation (S)	0.138477	No
Fiji	Fiji International Telecommunications Limited (FINTEL) (S)	0.069126	Yes
Finland	SONORA Limited (S)	0.072651	Yes
France	Total Country	2.319689	Yes
	FRANCE TELECOM (S)	2.230384	
	Afripa Telecom (IE)	0.000001	
	Belgacom Teleport S.A. (IE)	0.000000	
	Gensat (France) (IE)	0.000001	
	Informatique Telematique SA, I & T (IE)	0.001846	
	Mensat Service (IE)	0.000001	
	Offices des Postes et Télécommunications de Polynesie Francaise (IE)	0.087455	
	Protel (IE)	0.000001	
Gabon	Office des Postes et Télécommunications (S)	0.085697	Yes
Germany	Deutsche Telekom AG (S)	3.450000	Yes
Ghana	Total Country	0.222302	Yes
	Ghana Telecommunications Company Limited (S)	0.209056	
	Western Telesystems (Ghana) Ltd	0.013246	
Greece	Hellenic Telecommunications Organization S.A. (OTE) (S)	0.312210	Yes
Guatemala	Telecomunicaciones de Guatemala S.A. (S)	0.279568	Yes
Guinea	Total Country	0.067763	Yes
	Ministère des Postes et Télécommunications	0.057570	
	Sotelgui	0.010193	
Haiti	Total Country	0.088148	Yes
	Conseil National des Télécommunications (CONATEL) (S)	0.000000	
	Haitel S.A. (IE)	0.006586	
	Telecom Haiti (IE)	0.081562	
Honduras	Total Country	0.050000	Yes
	Comisión Nacional de Telecomunicaciones (CONATEL) (S)	0.000000	
	Empresa Hondurena de Telecomunicaciones (HONDUTEL) (IE)	0.050000	
Hungary	Hungarian Satellite Communications Associations (HUNSAT) (S)	0.108716	Yes
Iceland	Iceland Telecom Ltd. (S)	0.131691	Yes
India	Videsh Sanchar Nigam Limited (S)	5.233549	Yes
Indonesia	PT INDOSAT (S)	0.576327	Yes
Iran, Islamic Republic of	Telecommunication Company of Iran (S)	1.464398	No
Iraq	Government of the Republic of Iraq (S)	0.211100	No
Ireland	Total County	0.131217	Yes
	Bord Telecom Eireann plc (S)	0.038795	
	Radio Telefis Eireann (IE)	0.092422	
Israel	"BEZEQ" The Israel Telecommunication Corp. Ltd. (S)	0.973546	Yes
Italy	Telecom Italia S.p.A. (S)	3.382934	Yes
Jamaica	Cable & Wireless Jamaica Limited* (S)	0.221626	Yes
Japan	KDD Corporation (S)	1.427487	Yes
Jordan	Total Country	0.250000	No
	Ministry of Post & Communications (S)	0.050000	
	Jordan Telecom (IE)	0.200000	

Country	Signatory (S) / Investing Entity (IE)	Investment Share (%)	WTO Member
Kazakhstan	Total Country	0.180171	No
	Ministry of Transportation and Communication of the Republic of Kazakhstan (S)	0.000000	
	Inkatel (IE)	0.000000	
	JSC TNS-Plus (IE)	0.180171	
	Kazakh Telecom (IE)	0.000000	
	Kazinform Telecom (IE)	0.000000	
	Rahat Telecom (IE)	0.000000	
Kenya	Kenya Posts and Telecommunications Corporation (S)*	0.324625	Yes
Korea, Rep. of	Korea Telecom (S)	1.341693	Yes
Kuwait	The Ministry of Communications, The State of Kuwait (S)	0.778646	Yes
Kyrgyzstan	Ministry of Transport and Communications (S)	0.050000	Yes
Lebanon	Government of Lebanon (S)	0.169091	No
Libyan Arab Jamahiriya	Government of the Great Socialist People's Libyan Arab Jamahiriya (S)	0.314050	No
Liechtenstein	Government of the Principality of Liechtenstein (S)	0.050000	Yes
Luxembourg	Government of Luxembourg (S)	0.050000	Yes
Madagascar	Total Country	0.083228	Yes
	TELECOM MALAGASY S.A. (S)	0.083228	
	Digital Telecommunications Inc. (IE)	0.000000	
Malawi	Malawi Posts and Telecommunications Corporation* (S)	0.058984	Yes
Malaysia	Telekom Malaysia Berhad* (S)	0.741817	Yes
Mali	Société des Télécommunications Internationales du Mali (SOTELMA) (S)	0.099994	Yes
Malta	MALTACOM p.l.c. (S)	0.068271	Yes
Mauritania	Government of the Islamic Republic of Mauritania (S)	0.053154	Yes
Mauritius	Mauritius Telecom Limited (S)	0.170000	Yes
Mexico	TELECOMICACIONES DE MEXICO (TELECOMM) (S)	0.328050	Yes
Micronesia	Federated States of Micronesia Telecommunications Corporation (S)	0.050000	No
Monaco	MONACO TELECOMS.A.M. (S)	0.104666	No
Mongolia	Mongolia Telecom (S)	0.050000	Yes
Morocco	Itissalat Al Maghrib S.A.	0.163135	Yes
Mozambique	Empresa Nacional de Telecomunicações de Moçambique (S)	0.155039	Yes
Namibia	Telecom Namibia (Ltd.) (S)	0.050000	Yes
Nepal	Nepal Telecommunications Corporation (S)	0.072692	No
Netherlands	Koninklijke PTT Nederland NV (KPN) (S)	1.217503	Yes
New Zealand	Total Country	0.495658	Yes
	Telecom Corporation of New Zealand Ltd. (S)	0.493608	
	Gennet Services Ltd. (IE)	0.000000	
	Television New Zealand Ltd. (IE)	0.002050	
Nicaragua	Instituto Nicaragüense de Telecomunicaciones y Correos (TELCOR) (S)	0.053805	Yes
Niger	Government of the Republic of Niger (S)	0.073926	Yes
Nigeria	Nigerian Telecommunications Limited (NITEL) (S)	0.600000	Yes
Norway	Total Country	4.478431	Yes
	Telenor Satellite Services AS (S)	4.478431	
	Norse Electronics AS (IE)	0.000000	
Oman	General Telecommunications Organization (GTO) (S)	0.216711	No
Pakistan	Government of the Islamic Republic of Pakistan (S)	0.675645	Yes
Panama	C&W Panamá S.A. (S)	0.377174	Yes
Papua New Guinea	Telikom PNG Limited (S)	0.067592	Yes

Country	Signatory (S) / Investing Entity (IE)	Investment Share (%)	WTO Member
Paraguay	Comisión Nacional de Telecomunicaciones (CONATEL) (S)	0.151229	Yes
Peru	Total Country	0.986851	Yes
	Ministry of Transportation, Communications, Housing and Construction (S)	0.000000	
	Panamericana Television S.A. (IE)	0.000000	
	Radio A Frecurencia Modulada Sa (IE)	0.000000	
	Radio Sabor Mix Sa (IE)	0.000000	
	Radio San Luis Sri (IE)	0.000000	
	Studio Stereo (IE)	0.000000	
	Telefonica del Peru (IE)	0.986851	
Philippines	Philippine Communications Satellite Corporation (PHILCOMSAT) (S)	0.279385	Yes
Poland	The Polish Telecommunications Company (S)	0.259876	Yes
Portugal	Companhia Portuguesa Rádio Marconi (S)	0.874788	Yes
Qatar	Qatar Telecom Q.S.C. (Q-TEL)* (S)	0.228110	Yes
Romania	Societatea Nationala de Radiocomicatii S.A. (S)	0.153436	Yes
Russian Federation	Total Country	0.201684	No
	The State Committee for Telecommunications of the Russian Federation* (S)	0.201684	
	Central Bank of Russia (IE)	0.000000	
	JSC Teleport (IE)	0.000000	
	Russian Satellite Communication (IE)	0.000000	
Rwanda	RWANDATEL S.A.* (S)	0.050000	Yes
Saudi Arabia	Saudi Telecom Company (S)	0.925892	No
Senegal	Sonatel (S)	0.228789	Yes
Singapore	Total Country	0.992468	Yes
	Singapore Telecommunications Limited (S)	0.992424	
	St Teleport Pte Ltd. (IE)	0.000044	
Somalia	Ministry of Posts and Telecommunications of the Somali Democratic Republic (S)	0.050000	No
South Africa	TELKOM SA Limited (S)	1.161013	Yes
Spain	Telefónica de España, S.A.	0.815864	Yes
Sri Lanka	Total Country	0.257268	Yes
	Sri Lanka Telecom* (IE)	0.257035	
	M-S Electroteks Ltd. (IE)	0.000233	
Sudan	Government of the Republic of the Sudan (S)	0.093878	No
Swaziland	Posts and Telecommunications Corporation (Public) (S)	0.050000	Yes
Sweden	Total Country	0.430455	Yes
	Telia AB (S)	0.429851	
	Nordiska Tele8 AB (IE)	0.000603	
	TELE2 AB (IE)	0.000001	
Switzerland	Swisscom AG* (S)	1.075870	Yes
Syrian Arab Republic	Government of the Syrian Arab Republic	0.140168	No
Tajikistan	Ministry of Communications, Public (S)	0.050000	No
Tanzania	Total Country	0.130000	Yes
	Tanzania Telecommunications Company Ltd. (S)	0.130000	
	Zanzibar Telecom Ltd. (IE)	0.000000	
Thailand	Communications Authority of Thailand (S)	0.627591	Yes
Togo	Société des Télécommunications du Togo (TOGO TELECOM) (S)	0.087445	Yes
Trinidad & Tobago	Telecommunications Services of Trinidad and Tobago Limited (TSTT) (S)	0.067591	Yes

Country	Signatory (S) / Investing Entity (IE)	Investment Share (%)	WTO Member
Tunisia	Ministère des Transport et des Communications (S)	0.050000	Yes
Turkey	Türk Telekomünikasyon A.S. (S)	1.505094	Yes
Uganda	Total Country	0.050000	Yes
	Uganda Communications Commission (S)	0.050000	
	Mtn Uganda Ltd. (IE)	0.000000	
	Uganda Telecom Ltd. (IE)	0.000000	
United Arab Emirates	Ministry of Communications of the Government of the United Arab Emirates (S)	1.091369	Yes
United Kingdom	Total Country	8.310633	Yes
	British Telecommunications plc (S)	5.185172	
	Cable & Wireless PLC (IE)	1.472973	
	Cable and Wireless Communications PLC (IE)	0.383006	
	Caprock UK LTD. (IE)	0.000001	
	Comsat General (UK) (IE)	1.037407	
	Comsat International Ventures (IE)	0.000001	
	Datasat Comm. (IE)	0.051954	
	Data Marine Systems Ltd. (IE)	0.004906	
	Detesat Deutsche Telekom (IE)	0.005459	
	Globecast Northern Europe Ltd. (IE)	0.018601	
	Kingston TLI (IE)	0.057930	
	Loral Orion (IE)	0.000001	
	Loral Orion Europe GmbH (IE)	0.000000	
	Lyman Brothers (IE)	0.000000	
	Muslim Television (IE)	0.000001	
	Multipoint Communications Ltd. (IE)	0.000001	
	Natl Transcom. Ltd. (IE)	0.000001	
	Newsforce (IE)	0.017403	
	Primus telecommunications UK Ltd	0.000001	
	Radio Telefis Eirean (UK)	0.000001	
	RedWing Satellite Solutions Ltd. (IE)	0.019803	
	Satellite Media Services (IE)	0.003242	
	Spaceline Communications Services (UK) (IE)	0.000001	
	Spacelink Int'l Ltd. (IE)	0.046682	
	Spacetel International UK (IE)	0.006084	
	TeleBermuda International Ltd. (IE)	0.000000	
	Teleglobe - Canada (IE)	0.000001	
	Williams Communication Group (IE)	0.000001	
United States	COMSAT Corporation (S)	20.424065	Yes
Uruguay	Administración Naçional de Telecomuniçaciones (S)	0.052693	Yes
Uzbekistan	Posts and Telecommunications Agency of Uzbekistan (S)	0.050000	No
Vatican City State	Government of the Vatican City State (S)	0.060009	No
Venezuela	Venezuelan Telephone Company (Compañia Anónima Nacional Teléfonos de Venezuela) (S)	1.427508	Yes
Viet Nam	Vietnam Posts and Telecommunications Corporation (S)	0.315446	No
Yemen	Government of the Republic of Yemen (S)	0.086106	No
Yugoslavia	Community of the Yugoslav Posts, Telegraphs and Telephones	0.060009	No
Zambia	Zambia Telecommunications Company Limited (S)	0.083584	Yes
Zimbabwe	Government of Zimbabwe (S)	0.050000	Yes

"*" denotes new names for Signatories or investing entities for which formal diplomatic notifications have

not yet been completed.

APPENDIX C

Part 25 Waivers Granted to the Particular Satellites

Satellites/ Location	140(b)(2)	202(a)(1)	202(g)	210(a)(1) & 210(a)(3)	210(c)	210(i)	211(a)	210(j)(1)	210(g)(1)
OPERATING									
511/330.5E	X		X	X	X	X	X	X	
601/325.5E	X		X	X	X	X	X		
602/62E	X		X	X	X	X	X		
603/335.5E	X		X	X	X	X	X		
604/60E	X		X	X	X	X	X		
605/332.5E	X		X	X	X	X	X		
701/180E	X		X	X		X	X		
702/177E	X		X	X		X	X		
704/66E	X		X	X		X	X		
705/342E	X		X	X		X	X		
706/307E	X		X	X		X	X		
707/359E	X		X	X		X	X		
709/310E	X		X	X		X	X		
801/328.5E	X		X	X		X	X		
802/174E	X		X	X		X	X		
804/64E	X		X	X		X	X		
805/304.5E	X	X	X	X*		X	X		X
PLANNED									
901/62E	X		X	X		X	X		
902/60E	X		X	X		X	X		
903/335.5E	X		X	X		X	X		
904/325.5E	X		X	X		X	X		
905/332.5E	X		X	X		X	X		
906/342E	X		X	X		X	X		
907/328.5E	X		X	X		X	X		
NI-Alpha 1/310E	X		X	X		X	X		
NI-Alpha 2/359E	X		X	X		X	X		
NI-Beta/85E	X		X			X			
MODS									
601/85E	X		X	X	X	X	X		
602/178E	X		X	X	X	X	X		
602/157E	X		X	X	X	X	X		
603/62E	X		X	X	X	X	X		
604/33E	X		X	X	X	X	X		
604/62E	X		X	X	X	X	X		
605/340E	X		X	X	X	X	X		
702/176E	X		X	X		X	X		
704/33E	X		X	X		X	X		
705/178E	X		X	X		X	X		
707/66E	X		X	X		X	X		
709/157E	X		X	X		X	X		
801/330.5E	X		X	X		X	X		

"X" denotes a granted waiver **"*" 805 receives a waiver for 210(a)(3) but not 210(a)(1).**

SEPARATE STATEMENT OF
CHAIRMAN WILLIAM E. KENNARD

The approval of Intelsat LLC's licenses is an important step in promoting competition for the benefit of consumers.

Congress, the Administration and this Commission have long viewed the privatization of INTELSAT as necessary for achieving competition in satellite communications. Through this action, we are implementing the recently-enacted ORBIT Act, which establishes a framework for U.S. satellite policy. Authorizing Intelsat LLC to become an FCC licensee should provide a strong impetus to the international negotiations that are now taking place to privatize INTELSAT next year. Today's action also should demonstrate to other countries in those negotiations that U.S. policies and procedures are fair and transparent, and that the Commission issues licenses with the goal of promoting competition.

This action also provides the opportunity to pursue one of the goals I feel most strongly about - expanding access in developing countries. Many countries rely on INTELSAT as the primary, if not only, means of connecting to the rest of the world. Maintaining global connectivity is essential to the economies of those countries as they seek to expand their telecom infrastructures. The licenses that we issue today permit INTELSAT to continue to undertake its obligation to provide lifeline connectivity services. In addition, FCC licensing of Intelsat LLC allows the Commission to work more closely with INTELSAT to support our common goals to support expanded access to thin route countries. I am deeply and personally committed to ensuring that the needs of INTELSAT's lifeline users are met and look forward to working with INTELSAT towards that goal in the future.

Finally, we have before us a unique situation: the authorization of the already operating system of an intergovernmental organization that is undergoing privatization. This system has never been subject to a national licensing regime. In this respect, we are rejecting the demands of those who believe we should not take steps to accommodate this transition. Our failure to take these steps would have resulted in added costs and service delays that would weaken INTELSAT both as a competitor and provider of access to the developing world.

SEPARATE STATEMENT OF
COMMISSIONER HAROLD FURCHTGOTT-ROTH
APPROVING IN PART, DISSENTING IN PART

I generally support today's decision that paves the way for Intelsat's privatization and potential licensing in the United States. Despite my support for these public policy objectives, I write separately to express my continued concern about the Commission's practice of regulating licensees (or in this case a potential licensee) on a company-specific basis.[1] Today's Order grants no less than 10 types of waivers ultimately applying to 22 Intelsat LLC satellites. Although I am not convinced that all of these waivers are necessary, I am most concerned about the ad hoc public policy process that produced them.

In the past, license transfer proceedings have all too often involved the Commission imposing conditions that have handicapped one company relative to others in an industry. In these instances, license transfers have led to industrial policy--different rules applying to different companies within the same industry--to the detriment of one company. In this proceeding, the Commission chooses to waive certain rules for one company that apply to other companies. Again, we have industrial policy--different rules applying to different companies within the same industry--to the benefit of one company. Industrial policy that favors one company is no more to be applauded than industrial policy that disfavors one company.

If our technical rules are too stringent, we should change them. Indeed, I have long supported a more flexible approach to our technical rules and interference concerns generally.[2] However, a company-specific proceeding is not the ideal forum for such increased flexibility. Once again, members of the public looking to discover the technical rules applicable to one of our licensees will find no relevant information in the CFR. Once again, we will be faced with the prospect of a series of "me too" waivers. The better course is to conduct industry-wide rulemakings to modify our rules to more accurately reflect the state of the industry and technology. I look forward to such a proceeding here to bring our rules into conformity with our more flexible Intelsat regulatory approach.

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1 *See* Separate Statement of Commissioner Furchtgott-Roth, concurring in part, dissenting in part, *in Order, In re Matter of MCI Worldcom Communications, Inc.*, 2000 WL 725473 (File No. EB-00-TC-055) (rel. June 6, 2000); *See also* Separate Statement of Commissioner Furchtgott-Roth, *In re Applications of Ameritech Corp., Transferor, and SBC Communications Inc*., 14 FCC Rcd. 14,712 (rel. October 8, 1999).

2 *See* Separate Statement of Commissioner Furchtgott-Roth, approving in part and concurring in part, *In re Service Rules For 746-764, 776-794 MHz Bands*, 15 FCC Rcd. 5299 (rel. Mar 09, 2000).