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## Pirates or Pioneers in Orbit? Private International Communications Satellite Systems and Article XIV(d) of the INTELSAT Agreements

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# Pirates or Pioneers in Orbit? Private International Communications Satellite Systems and Article XIV(d) of the INTELSAT Agreements

## I. INTRODUCTION

Under pressure from five applicant corporations wishing to provide intercontinental communications satellite service,<sup>1</sup> the United States has reexamined its objectives in participating in the international communications network.<sup>2</sup> The United States now routes all of its commercial intercontinental communications satellite traffic over the International Telecommunications Satellite System (IN-

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<sup>1</sup> The applicants wish to offer international communications satellite services between the United States and either Europe or Latin America. The implementation of such an enterprise requires authorization by the Federal Communications Commission (F.C.C.). See Application of Orion Satellite Corporation, File No. CSS 83-002-P (March 11, 1983) [hereinafter cited as Orion Application]; Application of International Satellite, Inc. (ISI), File Nos. CSS-83-004-P(LA); I-P-C-83-073 (August 12, 1983) [hereinafter cited as ISI Application]; Application of RCA American Communications, Inc. for Modification of Authority, File Nos. 909-DSS-MP-84; I-T-C-84-085 (February 13, 1984) [hereinafter cited as RCA Americom Application]; Application of Cygnus Satellite Corporation, File No. CSS-84-002-P(LA) (March 7, 1984) [hereinafter cited as Cygnus Application]; Application of Pan American Satellite Corporation (PanAmSat), File No. CSS-84-004-P(LA) (May 31, 1984) [hereinafter cited as PanAmSat Application].

<sup>2</sup> In 1983, a Senior Interagency Group on International Communication and Information policy [hereinafter cited as SIG] studied the the applications. The SIG is co-chaired by representatives of the Departments of Commerce and State and consisted of representatives of the following agencies: the Departments of Justice and Defense; the Offices of Management and Budget, Science and Technology Policy, Policy Development, and the U.S. Trade Representative; the National Security Council; the Central Intelligence Agency; the U.S. Information Agency; the Board of International Broadcasting; the Agency for International Development; and the National Aeronautics and Space Administration. SENIOR INTERAGENCY GROUP ON INTERNATIONAL COMMUNICATION AND INFORMATION POLICY, A WHITE PAPER ON NEW INTERNATIONAL SATELLITE SYSTEMS 1 n.1 (1985) (available in F.C.C. file for CC Docket No. 84-1299) [hereinafter cited as SIG Report] In 1983 the SIG recommended to President Reagan that new international systems were warranted, subject to certain restrictions. *Id.* at 2. See generally *International Satellite Issues: Hearings on H.R. 4464 & H.R. 5724 Before the Subcomm. on Telecommunications, Consumer Protection, and Finance of the House Comm. on Energy and Commerce*, 98th Cong., 2d Sess. 302-30 (1984) [hereinafter cited as *Hearings before the House Subcomm.*] (Statement of David J. Markey, Assistant Secretary for Communications and Information, U.S. Department of Commerce), July 25, 1984. The SIG Report was released in February of 1985 with the intention of providing both background information regarding the President's separate satellite system determination, see *infra* note 5, and information on regulatory measures necessary to implement the executive policy goals. SIG Report at 2. See generally *Hearings before the House Subcomm.* at 3-4 (statement of Rep. John D. Dingell) (framing the issues presented by the applications).

TELSAT).<sup>3</sup> Until recently, the United States advocated a single international system and opposed those countries which sought a world-wide network of regional satellite systems.<sup>4</sup> On November 28, 1984, President Reagan determined that the national interest required international communications satellite systems, separate from the INTELSAT system.<sup>5</sup> The President's determination supports a bifurcated approach; the INTELSAT global system will serve telephone, record carrier, and data networks,<sup>6</sup> while separate private systems may carry customized communications networks not interconnected with public switched message networks.<sup>7</sup> On July 25, 1985 the Federal Communications Commission (F.C.C.) applied the Presidential Determination by conditionally authorizing international satellite systems separate from INTELSAT.<sup>8</sup> The U.S. shift<sup>9</sup> from supporting a single global system to advocating multiple international regional systems calls into question the permissibility of separate systems under the Agreement Relating to the International Communications Satellite Organization.<sup>10</sup>

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<sup>3</sup> INTELSAT is a multilateral corporation owned, in part, by communications entities from 109 countries. It operates a system of communications satellites that are accessible from anywhere on the globe. See generally THE INTELSAT GLOBAL SYSTEM, (S. Alper & J. Pelton, eds. 1984); R. COLINO, THE INTELSAT DEFINITIVE ARRANGEMENTS: USHERING IN A NEW ERA IN SATELLITE TELECOMMUNICATIONS, (EBU Monograph No. 9 1973) [hereinafter cited as Monograph].

<sup>4</sup> In the late 1960's France envisioned INTELSAT as an intercontinental system, linking a series of regional systems. See *infra* notes 33-34.

<sup>5</sup> Memorandum for the Secretary of State, the Secretary of Commerce, Presidential Determination No. 85-2, 49 Fed. Reg. 46,987 (1984).

<sup>6</sup> See Letter from George P. Shultz, Secretary of State, and Malcomb Baldrige, Secretary of Commerce, to Mark S. Fowler, Federal Communications Commission Chairman (November 28, 1984) [hereinafter cited as the SIG letter] (indicates the United States supports separate systems offering non-public-switched message services). See also SIG Report, *supra* note 2, at 34. A telecommunications satellite operates as a relay station in the sky. It receives and retransmits signals. See A. BELENDIUK & S. ROBB, BROADCASTING VIA SATELLITE: LEGAL AND BUSINESS CONSIDERATIONS 46-47 (1979). The SIG Report would restrict INTELSAT to carrying telephone, telegram, telex, TWX, facsimile, and high speed data services offered by international telephone carriers and international record carriers. See Report and Order, In re Establishment of Satellite Systems Providing International Communications, CC Docket No. 84-1299; FCC 85-399 at ¶ 114, 50 Fed. Reg. 42,266, 42,286 (1980) (effective on September 3, 1985) [hereinafter cited as Report and Order]. See also ITT World Communications, Inc. v. F.C.C., 725 F.2d 732, 736-38 (1984); Overseas Communications Services, 92 F.C.C.2d 641, 641-42 (1982) (historical background on the international telephone/record carrier dichotomy).

<sup>7</sup> The SIG Report indicates customized services "involve the sale or long-term lease" of satellite capacity for "intracorporate networks and television transmission." SIG Report, *supra* note 2, at 30.

<sup>8</sup> See Report and Order, *supra* note 6.

<sup>9</sup> The shift reflects a change in U.S. communications priorities. In the past, the United States evaluated international communications satellite utility on the basis of global effect. See Statement by the Representative of the United States, INTELSAT *Travaux Préparatoires* Com I/SR/2 at 5. Now such concerns are secondary to heavy user needs. See SIG Report, *supra* note 2, at 26.

<sup>10</sup> Agreement Relating to the International Telecommunications Satellite Organization "INTELSAT," done August 20, 1971, 23 U.S.T. 3813, T.I.A.S. No. 7532 [hereinafter cited as INTELSAT Agreements].

Article XIV of the INTELSAT Agreements sets forth the requirements for members to establish non-INTELSAT communications satellite systems.<sup>11</sup> This Comment will therefore focus on various interpretations given to Article XIV requirements. First, the Comment will trace the history of INTELSAT and discuss its structure. The process for coordinating a separate satellite system under Article XIV of the INTELSAT Agreements will then be examined. The Comment will consider in detail three approaches to satisfying Article XIV requirements: first, that a separate system offering bulk capacity for sale or lease falls under Article XIV(e) as specialized services; second, that demand for satellite capacity will itself insulate INTELSAT from significant economic harm, Article XIV(d), caused by a separate system; and third, that, in any event, a separate system precluded from carrying public switched message service will not cause significant economic harm. Finally, the Comment will suggest the proper interpretation of Article XIV's requirements and application to the proposed international satellite systems.

## II. HISTORY AND STRUCTURE OF INTELSAT

The United States initiated the world's commercial use of communications satellites.<sup>12</sup> In doing so the United States hoped to realize a number of objectives. In the international theater, these objectives included attracting developed countries to share in the costs of the new system,<sup>13</sup> luring developing nations away from a feared Soviet system,<sup>14</sup> and capturing goodwill by sharing its new technology.<sup>15</sup> Domestically, the U.S. goals included rapid implementation of commercial communications satellite service<sup>16</sup> and maintenance of the U.S. lead and control over communications satellite technology.<sup>17</sup>

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<sup>11</sup> Article XIV, INTELSAT Agreements, *supra* note 10, 23 U.S.T. 3813, 3853.

<sup>12</sup> See BELENDIUK & ROBB, *supra* note 6, at 4.

<sup>13</sup> See generally Colino, *Global Satellite Communications and International Organization: A focus on Intelsat*, 10 COLLOQUIUM ON THE L. OF OUTER SPACE 80, 82 (1968).

<sup>14</sup> See *Hearings before the House Subcomm.*, *supra* note 2, at 598-99 (written statement of Joel R. Alper, President of COMSAT World Systems Division, quoting COMMUNICATIONS SATELLITES: TECHNICAL, ECONOMIC, AND INTERNATIONAL DEVELOPMENTS, 87 CONG., 2D SESS. 25 (Comm. Print 1962)). See also J. KILDOW, INTELSAT POLICY-MAKER'S DILEMMA 20-21 (1973).

<sup>15</sup> See *International Communication and Information Policy: Hearings Before the Subcomm. on Arms Control, Oceans, International Operations and Environment of the Senate Comm. on Foreign Relations*, 98th Cong., 1st Sess. 156 (1983) [hereinafter cited as *Hearings before the Senate Subcomm.*] (statement of Ambassador Abbott Washburn).

<sup>16</sup> See SENATE COMM. ON COMMERCE, COMMUNICATIONS SATELLITE ACT OF 1962, S. REP. NO. 1584, 87th Cong., 2d Sess. 7-8, *reprinted in* 1962 U.S. CODE CONG. & AD. NEWS 2269 (purpose of bill).

<sup>17</sup> See KILDOW, *supra* note 14, at 46-49. The 1962 United States policy objectives may be summarized as follows: 1) to provide the most advanced services available at the least cost within the shortest possible time; and 2) to make the system accessible to the world, even where such service would not be profitable. See SENATE COMM. ON COMMERCE, COMMUNICATIONS SATELLITE ACT OF 1962, S. REP.

## A. History of INTELSAT

### 1. The Communications Satellite Act of 1962

The Communications Satellite Act of 1962 served to achieve the U.S. objective of swift implementation of a commercial satellite system.<sup>18</sup> This Act created the Communications Satellite Corporation (COMSAT) to own and operate the U.S. portion of the international satellite system.<sup>19</sup> In addition, the Act provided for the President of the United States to oversee the development and foreign policy aspects of the satellite system.<sup>20</sup> The Federal Communications Commission (F.C.C.) was to regulate access and make rules regarding operation of the system.<sup>21</sup> COMSAT was to plan the system by itself or in conjunction with foreign entities.<sup>22</sup>

Evidence of the early U.S. commitment to a single global system can be found in the Communications Satellite Act of 1962,<sup>23</sup> the pertinent part of which reads, ". . . it is the policy of the United States to establish, in conjunction and in cooperation with other countries . . . a commercial communications satellite system . . ." <sup>24</sup> The United States believed that communications satellite services were most effectively provided through a natural monopoly.<sup>25</sup> There was also concern that separately controlled regional systems would be used to reestablish communications hegemonies.<sup>26</sup>

No. 1584, 87th Cong., 2d Sess. 25-27, *reprinted in* U.S. CODE CONG. & AD. NEWS 2269, 2287-88 (Statement of President John F. Kennedy on Communication Satellite Policy).

<sup>18</sup> Communications Satellite Act of 1962, Pub. L. No. 87-624, 76 Stat. 419 (codified as amended at 47 U.S.C. §§ 701-57 (1982)). *See generally* Note, *Analysis of the Legal Authority for Establishment of Private International Communications Satellite Systems*, 18 GEO. WASH. J. INT'L L. & ECON. 355, 361-68 (1984) (analysis of the Communications Satellite Act's legislative history). *See also* J. GALLOWAY, *THE POLITICS AND TECHNOLOGY OF SATELLITE COMMUNICATIONS* 47-73 (1972) (political analysis of passage of the 1962 Act).

<sup>19</sup> Communications Satellite Act of 1962, Pub. L. 87-624, 76 Stat. 423 (codified as amended at 47 U.S.C. § 731 (1982)). *See also* BELENDIUK & ROBB, *supra* note 6, at 4.

<sup>20</sup> Communications Satellite Act of 1962, § 201 (codified as amended at 47 U.S.C. § 721(a) (1982)). *See also* GALLOWAY, *supra* note 18, at 81-87 (description of the initial relationship between the executive branch and COMSAT).

<sup>21</sup> Communications Satellite Act of 1962, § 201 (codified as amended at 47 U.S.C. § 721(c) (1982)).

<sup>22</sup> Communications Satellite Act of 1962, § 305 (codified as amended at 47 U.S.C. § 735(a)(1) (1982)).

<sup>23</sup> *See Hearings before the House Subcomm.*, *supra* note 2, at 77 (Washburn statement).

<sup>24</sup> Communications Satellite Act of 1962, § 102 (codified as amended at 47 U.S.C. 701(a) (1982)). The Communications Satellite Act of 1962 specifically reserves the right to create ". . . additional communications satellite systems, if required . . . in the national interest." Communications Satellite Act of 1962, § 102 (codified as amended at 47 U.S.C. § 701(d) (1982)).

<sup>25</sup> *See also* M. SNOW, *INTERNATIONAL COMMERCIAL SATELLITE COMMUNICATIONS—ECONOMIC AND POLITICAL ISSUES OF THE FIRST DECADE OF INTELSAT* 99-100 (1976). *See generally* Colino, *Global Satellite Communications*, *supra* note 13, at 82.

<sup>26</sup> *See* Trooboff, *INTELSAT: Approaches to the Renegotiation*, 9 HARV. INT'L L.J. 1, 58 (1968).

## 2. The Interim Arrangements

In February of 1964, the United States began formal negotiations with foreign governments to set up an international communications satellite system.<sup>27</sup> These negotiations were concluded with the signing of Interim Arrangements on August 20, 1964.<sup>28</sup> Under the Interim Arrangements, each signatory owned a share of the system.<sup>29</sup> COMSAT acted as manager, planning and constructing the system.<sup>30</sup> The Interim Arrangements required that negotiations for definitive arrangements begin after January 1, 1969.<sup>31</sup>

In the Interim Arrangements negotiation the United States championed the establishment of a single global system and opposed the use of separate systems.<sup>32</sup> The Europeans proposed that any party might establish additional communications satellite systems if its national interest so required.<sup>33</sup> The negotiations faltered on this issue.<sup>34</sup> Three considerations temporarily resolved this impasse. First, the negotiators included language in the Preamble which advo-

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<sup>27</sup> See GALLOWAY, *supra* note 18, at 95.

<sup>28</sup> Agreement Establishing Interim Arrangements for a Global Commercial Communications Satellite System, done August 20, 1964, 15 U.S.T. 1705, T.I.A.S. 5646, 514 U.N.T.S. 25 [hereinafter cited as Interim Arrangements]. Original signatories were Australia, Canada, Denmark, France, the Federal Republic of Germany, Italy, Japan, Netherlands, Norway, Spain, Switzerland, the United Kingdom, the United States, and the Vatican City. The Interim Arrangements consisted of two documents, one to be signed by participating countries (parties), 15 U.S.T. 1705, T.I.A.S. 5646, 514 U.N.T.S. 25, and one to be signed by the participating communications entities (signatories). Special Agreement, Aug. 20, 1964, 15 U.S.T. 1745, T.I.A.S. 5646, 514 U.N.T.S. 48. The parties were the governments signatory to the Interim Arrangements who agreed to cooperate in the establishment of the space segment of INTELSAT. Article I, Interim Arrangements, 15 U.S.T. 1705, 1707; 514 U.N.T.S. 25, 28. The signatories were the governments or communications entities who agreed to pay the particular country's share of the development of the INTELSAT system. Article 3, Special Agreement, 15 U.S.T. 1745, 1746; 514 U.N.T.S. 48, 50. For example, the United States was a party and COMSAT was a signatory.

<sup>29</sup> Article III, Interim Arrangements, *supra* note 28, 15 U.S.T. 1705, 1708; 514 U.N.T.S. 25, 30. Ownership of INTELSAT was determined in proportion to the signatories' respective contributions to the costs of establishing the system. See Article 5, Special Agreement, *supra* note 28, 15 U.S.T. 1745, 1749; 514 U.N.T.S. 48, 52. The signatories contributions were determined under a quota system listed in the Annex of the Special Agreement, 15 U.S.T. 1778; 514 U.N.T.S. 68, as modified by Article XII(c), 12 U.S.T. 1718; 514 U.N.T.S. 40-42.

<sup>30</sup> Article VIII, Interim Arrangements, *supra* note 28, 15 U.S.T. 1705, 1713; 514 U.N.T.S. 25, 36. INTELSAT was governed by an Interim Communication Satellite Committee consisting of signatories' representatives. Article IV, Interim Arrangements, 15 U.S.T. 1705, 1708-09; 514 U.N.T.S. 25, 30.

<sup>31</sup> Article IX(a), Interim Arrangements, *supra* note 28, 15 U.S.T. 1705, 1713-14; 514 U.N.T.S. 25, 36.

<sup>32</sup> See *supra* text accompanying notes 25-26.

<sup>33</sup> See GALLOWAY, *supra* note 18, at 94 (European countries sought to speak with one voice). See KILDOW, *supra* note 14, at 59 (Europeans advocated separate satellite systems as required by national interest).

<sup>34</sup> See Colino, *International Telecommunications Satellite Organization (INTELSAT)*, I MANUAL ON SPACE LAW 363, 374 (N. Jasantuliyana & R. Lee ed. 1979).

cated a single satellite system.<sup>35</sup> Second, the effectiveness of the Interim Arrangements was limited to five years, after which the issue would be open again.<sup>36</sup> Finally, verbal exchanges between negotiators restricted members to satellite systems established under INTELSAT.<sup>37</sup>

With the success of the geo-synchronous Early Bird satellite in 1965, the necessity for a single global system may have shifted from a technical one to an economic one.<sup>38</sup> Prior to 1965, the possibility existed that the international system would consist of twenty to fifty low-altitude random-orbiting satellites, thus necessitating an extensive network of earth stations addressed to a single global system.<sup>39</sup> A complex random-orbit satellite system would have required global participation to finance equipment and coordinate scheduling.<sup>40</sup> The geo-synchronous<sup>41</sup> system required only three satellites for global coverage thus requiring much less investment and coordination.<sup>42</sup> The United States, however, maintained its strong commitment to the single global system concept based on the dual considerations of efficiency and benefit to developing countries.<sup>43</sup> European participants, on the other hand, asserted that non-INTELSAT regional systems should be permitted.<sup>44</sup> As the integrity of the U.S. single system position began to decline with the U.S. proposal to establish separate domestic satellite systems,<sup>45</sup> the Europeans became more aggressive in their demands for separate regional systems.<sup>46</sup>

<sup>35</sup> See Preamble, Interim Arrangements, *supra* note 28, 15 U.S.T. 1705-06; 514 U.N.T.S. 25, 26-27.

<sup>36</sup> See generally GALLOWAY, *supra* note 18, at 95-98. See generally Colino, *International Telecommunications Satellite Organization*, *supra* note 34, at 374.

<sup>37</sup> Colino, *International Telecommunications Satellite Organization*, *supra* note 34, at 374.

<sup>38</sup> See Trooboff, *supra* note 26, at 57-59. See also KILDOW, *supra* note 14, at 60. See generally E. ROSTOW, FINAL REPORT: PRESIDENT'S TASK FORCE ON COMMUNICATIONS POLICY, Chapter 3 at 10 (December 7, 1968) [hereinafter cited as ROSTOW REPORT] (the success of the geo-synchronous satellite changed INTELSAT's future).

<sup>39</sup> See Trooboff, *supra* note 26, at 57.

<sup>40</sup> See KILDOW, *supra* note 14, at 60.

<sup>41</sup> Geosynchronous satellites orbit the earth at 22,300 miles above the equator at the same speed as the globe turns. Thus the satellite appears stationary relative to the earth's surface. More advanced geostationary satellites also move north to south with the earth's seasonal changes. The satellites receive signals and relay them to other locations on the earth. See BELENDIUK & ROBB, *supra* note 6, at 13-14. See also E. FTHENAKIS, MANUAL OF SATELLITE COMMUNICATIONS, at 16-20 (1984) (a detailed explanation of orbital considerations).

<sup>42</sup> See KILDOW, *supra* note 14, at 60.

<sup>43</sup> See President's Message to Congress transmitting Recommendations Relative to World Communications, H.R. Doc. No. 157, 90th Cong., 1st Sess. 4 (August 14, 1967), reprinted in ROSTOW REPORT, *supra* note 38, Appendix at Tab A.

<sup>44</sup> In Europe, the global system concept was portrayed as merely a declaration of intention in the Interim Arrangements. See Trooboff, *supra* note 26, at 61-62. The European Aerospace Industry Association proposed that INTELSAT should only serve as an interconnection between regional systems. *Id.* For a juxtaposition of the arguments for and against the single system concept see generally KILDOW, *supra* note 14, at 59-71.

<sup>45</sup> KILDOW, *supra* note 14, at 68-69.

<sup>46</sup> *Id.* at 67-68.

By the beginning of the Definitive Arrangements<sup>47</sup> negotiations in February of 1969, the INTELSAT global system was fully operational with satellites over the Atlantic (AOR), Pacific (POR), and Indian (IOR) Oceans.<sup>48</sup> Membership increased from fourteen countries in 1964 to sixty eight in 1969.<sup>49</sup> The negotiations to create a permanent INTELSAT took place in Washington, D.C. and were held as three annual plenipotentiary conferences during late winter and spring from 1969 to 1971.<sup>50</sup>

### 3. The Definitive Arrangements

The negotiations for the INTELSAT Agreements were concluded on May 21, 1971,<sup>51</sup> and entered into force in February of 1973.<sup>52</sup> As with the Interim Arrangements, the Definitive Arrangements consist of two documents, a governmental agreement signed by the parties and one signed by the signatories.<sup>53</sup> The Definitive Arrangements indicate that INTELSAT's prime objective is to provide ". . . the space segment required for international public telecommunications services . . . on a nondiscriminatory basis to all areas of the world."<sup>54</sup>

In the Definitive Arrangements negotiations, the United States argued that INTELSAT should serve all the present and future international satellite communications needs of its members.<sup>55</sup> The United States asserted that parties and signatories should ". . . agree that they shall not establish, or join in the establishment of, or use, any space segment other than INTELSAT space segment to meet international public telecommunications service requirements."<sup>56</sup> Further, the United States requested that the use of any non-INTELSAT space

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<sup>47</sup> In the 1960s the permanent INTELSAT Agreements were often referred to as the "Definitive Arrangements." See *supra* text accompanying note 31.

<sup>48</sup> See GALLOWAY, *supra* note 18, at 148.

<sup>49</sup> See Note by the Department of State, Interim Arrangements, *supra* note 28, 17 U.S.T. 1705, 1743-44; Colino, *International Telecommunications Satellite Organization*, *supra* note 34, at 372-73.

<sup>50</sup> Colino, *International Telecommunications Satellite Organization*, *supra* note 34, at 372.

<sup>51</sup> See generally, COLINO, Monograph, *supra* note 3, at 20.

<sup>52</sup> INTELSAT Agreements, *supra* note 10, 23 U.S.T. 3813.

<sup>53</sup> See Article I(f) & (g), INTELSAT Agreements, *supra* note 10, 23 U.S.T. 3813, 3816 (definitions of parties and signatories). See also *supra* note 29. The signatories signed the Operating Agreement Relating to the International Telecommunications Satellite Organization "INTELSAT", done Aug. 20, 1971, 23 U.S.T. 4091, T.I.A.S. No. 7532 [hereinafter cited as Operating Agreement].

<sup>54</sup> Article III(a), INTELSAT Agreements, *supra* note 10, 23 U.S.T. 3813, 3819.

<sup>55</sup> See COLINO, Monograph, *supra* note 3, at 90.

<sup>56</sup> INTELSAT *Travaux Préparatoires* Doc. 10 at 17. Space segment is the portion of the communications service which is relayed by the satellite. Ground segment is the portion of the communications service received from or transmitted to the satellite. See BELENDIUK & ROBB, *supra* note 6, at 44-47 (explanation of space segment facilities), 56-68 (explanation of ground segment facilities).



segment be subject to the approval of the Board when used for domestic, specialized or international specialized services.<sup>57</sup>

Another group of countries, led by France, argued that INTELSAT should not be granted a monopoly position over all international satellite communications.<sup>58</sup> Their position was that regional public telecommunications satellite systems should be permitted upon coordination with INTELSAT.<sup>59</sup> The regional system advocates were concerned that INTELSAT was not awarding enough contracts outside the United States, and feared that an INTELSAT monopoly would impinge on their sovereignty in the area of communications.<sup>60</sup>

Due to this conflict in the Definitive Arrangements negotiations, the United States made a compromise settlement whereby separate regional satellite systems would be permitted upon the approval of two-thirds of INTELSAT members.<sup>61</sup> While proposals had been made to allow separate regional systems defined by area of coverage,<sup>62</sup> the U.S. compromise would allow separate systems if the members determined that such systems would not cause economic harm to INTELSAT.<sup>63</sup> The parties to this compromise did not envision that the separate regional systems would offer service along INTELSAT routes.<sup>64</sup> The single system concept was refined to include a global system that could be augmented by separate fringe regional systems.<sup>65</sup>

### B. *Structure of INTELSAT*

Under the Definitive Arrangements, INTELSAT is organized in a four-tier structure.<sup>66</sup> The participating countries meet in an Assembly of Parties [hereinafter cited as the Assembly] every two years, or as needed, to set policy and render decisions on major changes in the status quo, for example, initiating

<sup>57</sup> See INTELSAT *Travaux Préparatoires* Doc. 10 at 17-18. See generally Donahue, *A Discussion Of The Positions Taken By The United States In The Negotiations Of Definitive Arrangements For INTELSAT*, 12 COLLOQUIUM ON THE L. OF OUTER SPACE 30, 35-36 (1970).

<sup>58</sup> See INTELSAT *Travaux Préparatoires* Com I/SR/3 at 3.

<sup>59</sup> See COLINO, Monograph, *supra* note 3, at 92.

<sup>60</sup> See KILDOW, *supra* note 14, at 66.

<sup>61</sup> This settlement was eventually incorporated in Article XIV(d). See GALLOWAY, *supra* note 18, at 161-62. See also KILDOW, *supra* note 14, at 72-73.

<sup>62</sup> See, e.g., Statement by the Representative of the Netherlands, INTELSAT *Travaux Préparatoires* Com I/22.

<sup>63</sup> See GALLOWAY, *supra* note 18, at 161-62.

<sup>64</sup> The principal proponents of separate regional systems agreed that these systems should not compete with INTELSAT. See Statement by the Representative of Japan, INTELSAT *Travaux Préparatoires* Com I/SR/5 at 6 ("Separate regional public communications services would be acceptable if they did not compete with the global INTELSAT system . . ."). Accord Statement by the Representative of France, INTELSAT *Travaux Préparatoires* Com I/SR/11 at 2.

<sup>65</sup> See *Hearings before the House Subcomm. supra* note 2, at 77 (Washburn statement).

<sup>66</sup> Article VI, INTELSAT Agreements, *supra* note 10, 23 U.S.T. 3813, 3824.

new INTELSAT services.<sup>67</sup> The participating communications entities (signatories) meet at least annually to consider issues relating to the operation of the system.<sup>68</sup> The third tier is a Board of Governors [hereinafter referred to as the Board], made up of signatories' representatives with voting powers weighted in relation to investment share in the system.<sup>69</sup> The representatives' voting participation is determined by the investment share of their corresponding signatory or signatories.<sup>70</sup> Investment share is determined by the signatories' international public telecommunications use.<sup>71</sup> The Board oversees the ongoing operation of the system and advises the Assembly and the Meeting of Signatories.<sup>72</sup> Finally, a Director General, appointed by the Board, and confirmed by the Assembly,<sup>73</sup> is responsible for management of the system and reports to the Board.<sup>74</sup>

The financial principles of the Definitive Arrangements call for each signatory to contribute capital to INTELSAT at a percentage rate relative to use.<sup>75</sup> A service tariff scheme charges uniform prices for all users by type of use.<sup>76</sup> INTELSAT computes its tariffs by dividing total administrative capital and operating costs by the member's relative use for each type of service.<sup>77</sup> Users are charged a unit cost by type of service regardless of volume.<sup>78</sup> This nondiscriminatory pricing structure insures that the lighter-volume users such as developing countries will have access to the system at the same rate as the large-volume users.<sup>79</sup> Moreover, lighter users do not have sufficient financial resources

<sup>67</sup> Article VII, INTELSAT Agreements, *supra* note 10, 23 U.S.T. 3813, 3824–28. The Assembly is governed by a one-party-one-vote rule and substantive decisions require approval by a two-thirds majority. Article VII(f), INTELSAT Agreements, *supra* note 10, 23 U.S.T. 3813, 3827.

<sup>68</sup> Article VIII, INTELSAT Agreements, *supra* note 10, 23 U.S.T. 3813, 3828–31 (Meeting of Signatories). The Meeting of Signatories is governed by a one-signatory-one-vote rule and substantive decisions require approval by a two-thirds majority. Article VIII(e), INTELSAT Agreements, *supra* note 10, 23 U.S.T. 3813, 3831.

<sup>69</sup> The board consists of representatives of the 13 heaviest users of the system plus between seven and nine at-large representatives of the lighter users. Article IX(a) & (b), INTELSAT Agreements, *supra* note 10, 23 U.S.T. 3813, 3832–33. Decisions on substantive matters demand either an affirmative vote of at least four governors representing at least two-thirds of the total voting participation or approval by at least the entire board minus three. Article IX(j)(i), INTELSAT Agreements, *supra* note 10, 23 U.S.T. 3813, 3839.

<sup>70</sup> Article IX(f), INTELSAT Agreements, *supra* note 10, 23 U.S.T. 3813, 3836–37.

<sup>71</sup> Article IX(f) & (g), INTELSAT Agreements, *supra* note 10, 23 U.S.T. 3813, 3836–38.

<sup>72</sup> Article X, INTELSAT Agreements, *supra* note 10, 23 U.S.T. 3813, 3840–45.

<sup>73</sup> Article XI(b)(iii), INTELSAT Agreements, *supra* note 10, 23 U.S.T. 3813, 3845.

<sup>74</sup> Article XI, INTELSAT Agreements, *supra* note 10, 23 U.S.T. 3813, 3845–47.

<sup>75</sup> Article V, INTELSAT Agreements, *supra* note 10, 23 U.S.T. 3813, 3822–23; Articles 6 & 7, Operating Agreement, *supra* note 53, 23 U.S.T. 4091, 4096–4102.

<sup>76</sup> Article V(d), INTELSAT Agreements, *supra* note 10, 23 U.S.T. 3813, 3823; Article 8, Operating Agreement, *supra* note 53, 23 U.S.T. 4091, 4103.

<sup>77</sup> Article 8(a), Operating Agreement, *supra* note 53, 23 U.S.T. 4091, 4103.

<sup>78</sup> Article V(d), INTELSAT Agreements, *supra* note 76.

<sup>79</sup> See *Hearings before the Senate Subcomm.*, *supra* note 15, at 152–53 (Colino statement) (deployment of facilities and non-discrimination mandate).

or technical capability to utilize their own separate satellite systems and thus benefit by the global availability of INTELSAT.<sup>80</sup>

Innovations in satellite technology and further disparity in economic development among participating countries, however, has created a split over the nondiscrimination objective.<sup>81</sup> The SIG Report implies U.S. demand for advanced services has outstripped INTELSAT's development and implementation of services.<sup>82</sup> Furthermore, the F.C.C.'s report and order infer that INTELSAT's nondiscrimination mandate binds it to less efficient technology from the single high volume user's point of view.<sup>83</sup>

### III. RECENT DEVELOPMENTS

Since the signing of the Definitive Arrangements, INTELSAT parties have coordinated the creation of six separate international satellite systems.<sup>84</sup> In each of these cases, INTELSAT determined that the separate system would not significantly harm the global system.<sup>85</sup> The first and second Assembly of Parties considered the U.S. MARISAT system.<sup>86</sup> The initial proposal was approved in 1974 and was renewed in 1982.<sup>87</sup> In 1979, twenty-two countries proposed the European Communications Satellite Network (ECS).<sup>88</sup> The ECS system was originally approved to carry international public telecommunications traffic and some television traffic.<sup>89</sup> In 1980, and again in 1982, INTELSAT reviewed the expansion of the ECS system, first for spare capacity and then for new digital

<sup>80</sup> See *id.* at 157 (Washburn statement). INTELSAT may vary prices by type of service. Its charges reflect volume to a degree, offering preferential rates for long-term leases of bulk capacity and higher per unit rates for capacity-on-demand services. See generally *id.* at 109-131 (Appendix No. 5 to Colino written statement) (elements of INTELSAT service charges). See also SNOW, *supra* note 25, at 47-86.

<sup>81</sup> Cost averaging is premised on uniform use of the facilities. As long as all members are well served by one technology, cost averaging only incorporates price subsidies. When there are disparities in technology demands, however, non-discrimination may adversely affect communications utility. If the United States and Great Britain, for example, require a satellite system tailored to their needs but the INTELSAT Agreements restrict them to the use of less focused and less sophisticated INTELSAT facilities, for the purposes of subsidy by cost averaging, cost averaging undermines the usefulness of the medium.

<sup>82</sup> SIG Report, *supra* note 2, at 26-27.

<sup>83</sup> Report and Order, *supra* note 6, at 42,278 ¶ 69.

<sup>84</sup> See Policies, Criteria and Procedures for the Evaluation of Separate Systems Under Article XIV(d), INTELSAT Doc. BG-60-69E W/9/84 (22 August 1984) at 34-35 [hereinafter cited as Policies, Criteria and Procedures] (Table No. 1).

<sup>85</sup> See *infra* text accompanying notes 169-203 (criteria for coordination).

<sup>86</sup> The United States proposed the provision of international maritime radio satellite service on the MARISAT system. See Policies, Criteria and Procedures, *supra* note 84, at Appendix A, 1-3.

<sup>87</sup> *Id.* at 8.

<sup>88</sup> Report of the Board of Governors to the Assembly of Parties Pursuant to Article XIV(d) Concerning Coordination of the European Communications Satellite System, INTELSAT Doc. AP-4/7E M/4/79 BG-37-54E W/3/79 (March 16, 1979) [hereinafter cited as ECS I Coordination]

<sup>89</sup> *Id.* at 3.

business services.<sup>90</sup> The Polynesian countries of Indonesia, Malaysia, the Philippines, Singapore, and Thailand submitted the PALAPA-B network for coordination in 1978.<sup>91</sup> The system was approved by INTELSAT in 1979<sup>92</sup> and 1980.<sup>93</sup> In 1979, all the Arab states within the Arab League sponsored ARABSAT for coordination.<sup>94</sup> The ARABSAT system was approved in 1980 to provide public telecommunications, television and direct broadcast television, and business services.<sup>95</sup> In 1980, Algeria received approval to use the Soviet INTERSPUTNIK satellite system for telephone and television service.<sup>96</sup>

The United States' involvement in separate public international systems has been the use of domestic satellites for telecommunications with neighboring countries.<sup>97</sup> In *Transborder Satellite Video Services*,<sup>98</sup> the F.C.C. ruled that the Communications Satellite Act of 1962 permitted such use only "where necessary to meet U.S. needs and respond to the rapidly changing satellite technology."<sup>99</sup> The F.C.C. approved the U.S. applications to permit: 1) U.S.-Canada television service via Canadian domestic satellites; 2) U.S.-Canada television service via U.S. domestic satellites; 3) U.S.-Caribbean television service via U.S. domestic satellites; and 4) U.S.-Costa Rica television service via U.S. domestic satellites.<sup>100</sup>

<sup>90</sup> Article XIV(d) Consultation For The EUTELSAT 1-2 (Spare) Network Of The ECS System, INTELSAT Doc. BG-43-17E W/9/80 at 3 (August 22, 1980). Article XIV(d) Consultation Concerning Potential Economic Harm to INTELSAT By The Planned European Communications Satellite System, INTELSAT Doc. BG-52-41E W/9/82 at 2 (August 20, 1982) [hereinafter cited as ECS II Coordination]. Satellites have digital business uses such as interactive computer communications, sales ordering, and graphics transmission. See J. MARTIN, COMMUNICATIONS SATELLITE SYSTEMS, 291-94 (1978).

<sup>91</sup> Report of the Board of Governors to the Assembly Of Parties Pursuant To Article XIV(d) Concerning Coordination Of The PALAPA-B Satellite System, INTELSAT Doc. AP-4-8E M/4/79 BG-37-53E W/3/79 (March 16, 1979) [hereinafter cited as PALAPA-B Coordination].

<sup>92</sup> *Id.*

<sup>93</sup> In 1980, the members of the PALAPA-B satellite system asked that the PALAPA-A system be expanded to international status. Article XIV(d) Consultation Concerning Potential Economic Harm to INTELSAT by the PALAPA-A Satellite System, INTELSAT Doc. BG-43-55E W/9/80 (September 4, 1980) [hereinafter cited as PALAPA-A Coordination].

<sup>94</sup> Report of the Board of Governors to the Assembly of Parties Pursuant to Article XIV Concerning Coordination Of The Arab Communications Satellite System (ARABSAT), INTELSAT Doc. AP-5-8E 0/4/80 BG-41-51E W/3/80 (March 14, 1980) [hereinafter cited as ARABSAT Coordination].

<sup>95</sup> *Id.* at 3.

<sup>96</sup> Article XIV(d) Consultation Concerning Potential Economic Harm To INTELSAT By Algeria's Planned Use Of The INTERSPUTNIK System, INTELSAT Doc. BG-43-43E W/9/80 (August 28, 1980) [hereinafter cited as Algeria/INTERSPUTNIK Coordination].

<sup>97</sup> Article XIV(d) Consultation Concerning The Potential Economic Harm To INTELSAT By The Planned Use Of Domestic Satellite Systems To Extend Telecommunications Services Between Canada And The United States, INTELSAT Doc. BG-52-17E W/9/82 (September 7, 1982) [hereinafter cited as Transborder I Coordinations]. Article XIV(d) Consultation Concerning Potential Economic Harm To INTELSAT By The Planned Use Of The RCA SATCOM Satellite System By Bermuda, BG-52-64E W/9/82 (September 2, 1982). See also SIG Report, *supra* note 2, at 21.

<sup>98</sup> *Transborder Satellite Video Services*, 88 F.C.C.2d 258 (1981).

<sup>99</sup> *Id.* at 273.

<sup>100</sup> *Id.* at 286.

In a related decision, the F.C.C. approved U.S.-Canada private networks over a U.S. domestic satellite.<sup>101</sup> The F.C.C. reasoned that while existing INTELSAT facilities might be capable of providing some of these services,<sup>102</sup> the use of INTELSAT would be uneconomical for the services proposed.<sup>103</sup> The F.C.C. order permitting such services was conditioned upon successful coordination with INTELSAT under Article XIV(d).<sup>104</sup>

Currently, the U.S. is experiencing an increased need for international communications capabilities.<sup>105</sup> After reviewing U.S. needs for international satellite communications, the SIG recommended that separate systems be permitted for nonpublic-switched message transmissions.<sup>106</sup> The F.C.C.'s Report and Order accepting the SIG findings implies that the INTELSAT system does not fulfill U.S. needs for services.<sup>107</sup> While the precise deficiencies in the INTELSAT system remain unclear,<sup>108</sup> they are perhaps best discovered by examining the proposals of the various applicants. The majority of applicants wish to offer east/west service between the continental United States (CONUS), Western Europe and Northern Africa.<sup>109</sup> The proposed traffic services over these routes include: sold and leased transponder capacity,<sup>110</sup> video distribution,<sup>111</sup> teleconferencing,<sup>112</sup> high, medium, and low speed data communications,<sup>113</sup> high speed

<sup>101</sup> Satellite Business Systems, 88 F.C.C.2d 195, 212 (1981).

<sup>102</sup> *Satellite*, 88 F.C.C.2d at 205-06; *Transborder*, 88 F.C.C.2d at 279-80.

<sup>103</sup> *Satellite*, 88 F.C.C.2d at 206-07; *Transborder*, 88 F.C.C.2d at 280-81.

<sup>104</sup> *Satellite*, 88 F.C.C.2d at 212; *Transborder*, 88 F.C.C.2d at 286.

<sup>105</sup> See NATIONAL TELECOMMUNICATIONS INFORMATION AGENCY (N.T.I.A.) FOR THE SENATE COMM. ON COMMERCE, SCIENCE AND TRANSPORTATION, 98TH CONG., 1ST SESS. LONG RANGE GOALS IN INTERNATIONAL TELECOMMUNICATIONS AND INFORMATION: AN OUTLINE FOR UNITED STATES POLICY, 5-6 (Comm. Print 22, 1983) [hereinafter cited as N.T.I.A., LONG RANGE GOALS]; SIG Report, *supra* note 2, at 6.

<sup>106</sup> SIG Report, *supra* note 2, at 30-31.

<sup>107</sup> Report and Order, *supra* note 6, at 42,278 ¶¶ 69-71.

<sup>108</sup> The SIG Report merely cites "diversity and flexibility" as the basis for approving new systems. SIG Report, *supra* note 2, at 26. The Report and Order lists the differences between current INTELSAT offerings and the applicants' proposed services as: 1) satellite power capacities; 2) area of coverage and connectivity; and 3) opportunity to purchase or lease transponders on a long-term basis. Report and Order, *supra* note 6, at 42,278 ¶ 73.

<sup>109</sup> Orion Application, *supra* note 1, at I-1; ISI Application, *supra* note 1, at 1, 3; RCA Americom Application, *supra* note 1, at 1; Cygnus Application, *supra* note 1, at 18. The application by PanAmSat differs in that it proposes a primarily north/south service between the eastern United States and Latin America as well as domestic services for Latin American countries. PanAmSat Application, *supra* note 1, at 2. The PanAmSat proposal also includes service between the Iberian Peninsula and Latin America.

<sup>110</sup> A satellite's capacity may be sold or leased as personal property by the satellite operator/vendor. The purchaser has a property interest in a portion of the satellite's capacity. See Orion Application, *supra* note 1, at I-9-11.

<sup>111</sup> Video distribution is the communication of television and video images by satellite. See BELENDIUK & ROBB, *supra* note 6, at 18-20.

<sup>112</sup> By means of satellite transmission of voice and images, meetings may be conducted in disparate locations connected electronically. See *id.* at 174.

<sup>113</sup> Data may be transmitted between computers and terminals at various speeds via satellite. See MARTIN, *supra* note 90, at 276-77.

facsimile,<sup>114</sup> and electronic mail.<sup>115</sup> A common advantage of the separate systems is greater flexibility in earth station requirements.<sup>116</sup> The applicants propose to use small, inexpensive dish antennae for access to their satellites.<sup>117</sup>

#### IV. ARTICLE XIV

Article XIV of the INTELSAT Agreement contains the rights and obligations of parties and signatories.<sup>118</sup> Provisions within Article XIV outline the process and criteria for the parties' use of separate systems.<sup>119</sup> These provisions incorporate a series of steps designed to avoid inflammatory actions and to preserve the economic viability of INTELSAT international public telecommunications services.<sup>120</sup> This section reviews the provisions of Article XIV, the process for coordination of separate systems with INTELSAT under Article XIV(d), and the criteria applied in previous Article XIV(d) system coordinations.

Article XIV(a), (b), (c), and (g) set out the parties' rights and obligations concerning matters not directly related to the establishment of separate international public telecommunications satellite systems. Article XIV of the INTELSAT Agreement demands<sup>121</sup> that the parties " . . . continue the development of [the INTELSAT] telecommunications satellite system with the aim of achieving a single<sup>122</sup> global commercial telecommunications satellite system . . . ."<sup>123</sup>

<sup>114</sup> Facsimile telecommunication is the transmission of images such as pages of text via satellite.

<sup>115</sup> Letters may be telecommunicated between computers via satellite. *See generally* ISI Application, *supra* note 1, at 9-16; RCA Americom Application, *supra* note 1, at 4-10; Cygnus Application, *supra* 1, at 15-29.

<sup>116</sup> The earth station is the antenna/transmitter device located on the ground as part of the satellite system. *See, e.g.*, ISI Application, *supra* note 1, at 10. *See generally* BELENDIUK & ROBB, *supra* note 6, at 56-68.

<sup>117</sup> *See* Orion Application, *supra* note 1, at 11-47; ISI Application, *supra* note 1, at 32-33; Cygnus Application, *supra* note 1, at 17.

<sup>118</sup> Article XIV, INTELSAT Agreements, *supra* note 10, 23 U.S.T. 3813, 3853-55.

<sup>119</sup> Article XIV(c), (d), (e) & (g), INTELSAT Agreements, *supra* note 10, 23 U.S.T. 3813, 3853-55.

<sup>120</sup> *See* COLINO, Monograph, *supra* note 3, at 92-94.

<sup>121</sup> Article XIV(a), INTELSAT Agreements, *supra* note 10, 23 U.S.T. 3813, 3853.

The Parties and Signatories shall exercise their rights and meet their obligations under this Agreement in a manner fully consistent with and in furtherance of the principles stated in the Preamble and other provisions of this Agreement.

INTELSAT Director General Richard R. Colino has opined that Article XIV(a) may bind a Party to refrain from acts which might defeat INTELSAT's object and purpose. *See* Review of Certain Obligations of INTELSAT Members Under the INTELSAT Agreements, With Particular Reference to Article XIV(d), Attachment No. 1 to INTELSAT Doc. BG-60-62E W/9/84 at 6-8 (August 15, 1984) [hereinafter cited as Certain Obligations].

<sup>122</sup> In the INTELSAT Agreements negotiations, France objected repeatedly to the word "single" in the Preamble. A particularly sticky point was the interrelationship between the single system concept in the Preamble, *see supra* text accompanying notes 55-60, and the rights and obligations of the Parties now found in Article XIV. In attempting to persuade France to abandon its reservations on the word "single," the United States argued "single" referred specifically to the fact that there was only one global system. The United States suggested that the word be retained with the understanding that it

The Preamble also indicates INTELSAT should be organized to "permit all peoples to have access," and that the system be available on a "global and nondiscriminatory basis."<sup>124</sup> Thus, Article XIV(a) requires the parties and signatories to support the single system concept.<sup>125</sup>

Article XIV(c) relates to a party or signatory using a system separate from INTELSAT for *domestic* public telecommunications requirements.<sup>126</sup> Proposals for domestic service routing over a separate system are presented only to the Board for consultation on technical compatibility with the INTELSAT system.<sup>127</sup> While the Definitive Arrangements do not define precisely domestic services, Article III(b)(i) indicates such transmissions are between areas within a single state.<sup>128</sup> Recently, the distinction between domestic and international satellite systems has been blurred by U.S. use of domestic facilities for communication with Bermuda and Canada.<sup>129</sup> Ultimately, however, international use of domestic facilities has been coordinated under Article XIV(d).<sup>130</sup>

Satellite systems established for national defense purposes are exempted from Article XIV considerations by Article XIV(g).<sup>131</sup> Although the United States Department of Defense is the largest single U.S. user of INTELSAT facilities,<sup>132</sup> there exists a highly sophisticated network of satellites separate from INTELSAT dedicated to national security purposes.<sup>133</sup>

#### A. Article XIV(d)

Article XIV(d) provides the criteria for establishing separate systems for international public telecommunications services.<sup>134</sup> The provision was designed

was not intended to modify the Article on rights and obligations. See INTELSAT *Travaux Préparatoires* PC(III)/WG-C/SR/14 at 2 (February 25, 1970).

<sup>123</sup> Preamble, INTELSAT Agreements, *supra* note 10, 23 U.S.T. 3813, 3814.

<sup>124</sup> *Id.* at 3814-15.

<sup>125</sup> Sweden, France, and Jamaica questioned the need for Article XIV(a). See INTELSAT *Travaux Préparatoires* IWG/SR/10 (May 22, 1970). The Article was ultimately adopted because "it stated a clear recognition of the commitment being entered into, and the intention to meet the obligations set forth in the Agreement." INTELSAT *Travaux Préparatoires* Com A/SR/14 at 3 (April 29, 1971).

<sup>126</sup> Article XIV(c), INTELSAT Agreements, *supra* note 119.

<sup>127</sup> Article XIV(c), INTELSAT Agreements, *supra* note 119. See *Domestic Communications-Satellite Facilities*, 22 F.C.C.2d 86, 94 (1970). See also Colino, *International Telecommunications Satellite Organization*, *supra* note 34, at 388-89; COLINO, Monograph *supra* note 3, at 96-98.

<sup>128</sup> Article III(a) defines INTELSAT's prime objective as being "the provision, on a commercial basis, of the space segment required for *international* public telecommunications . . ." (emphasis added). Article III(b)(i) indicates that *domestic* services, ". . . between areas separated by areas not under the jurisdiction of the State concerned . . . shall be considered international." It may be inferred that domestic services are those between contiguous areas of the state. Article III, INTELSAT Agreements, *supra* note 54.

<sup>129</sup> See text accompanying notes 98-104.

<sup>130</sup> See generally *Transborder I Coordinations*, *supra* note 97.

<sup>131</sup> Article XIV(g), INTELSAT Agreements, *supra* note 10, 23 U.S.T. 3813, 3855.

<sup>132</sup> See SIG Report, *supra* note 2, at 43.

<sup>133</sup> See SNOW, *supra* note 25, at 100-01.

<sup>134</sup> Article XIV(d), INTELSAT Agreements, *supra* note 10, 23 U.S.T. 3813, 3854.

to discourage INTELSAT members from participating in separate satellite systems that might offer services in competition with INTELSAT's international public telecommunications service offerings.<sup>135</sup> Prior to using a separate system, members or persons within the member's jurisdiction must consult with INTELSAT to avoid technical interference,<sup>136</sup> significant economic harm,<sup>137</sup> and prejudice to direct links between INTELSAT participants over the INTELSAT system.<sup>138</sup>

#### B. Article XIV(e)

Article XIV(e) applies to a member proposing to use a separate system offering "specialized telecommunications services."<sup>139</sup> Under Article XIV(e) the proposal is coordinated through the Board and the Assembly to avoid technical

To the extent that any Party or Signatory or person within the jurisdiction of a Party intends individually or jointly to establish, acquire or utilize space segment facilities separate from the INTELSAT space segment facilities to meet its international public telecommunications services requirements, such Party or Signatory, prior to the establishment, acquisition or utilization of such facilities, shall furnish all relevant information to and shall consult with the Assembly of Parties, through the Board of Governors, to ensure technical compatibility of such facilities and their operation with the use of the radio frequency spectrum and orbital space by the existing or planned INTELSAT space segment and to avoid significant economic harm to the global system of INTELSAT. Upon such consultation, the Assembly of Parties, taking into account the advice of the Board of Governors, shall express, in the form of recommendations, its findings regarding the considerations set out in this paragraph, and further regarding the assurance that the provision or utilization of such facilities shall not prejudice the establishment of direct telecommunication links through the INTELSAT space segment among all the participants.

*Id.*

<sup>135</sup> Article XIV(d) protections are triggered when potential competition would arise from the proposed separate system. See INTELSAT Doc. ICSC-36-58 W/12/68 at 92, ¶ 598-600

K. *Rights and Obligations of the Parties* . . .

1. General Obligations,

*A majority of the Committee recommends that each Participating State obligate itself not to establish, or join in the establishment of, a space segment in competition with the space segment of the Organization.*

(emphasis added). Compare Article XIV(d), *supra* note 134, protections (technical compatibility, no significant economic harm, and no prejudice to direct communications links) with Article XIV(c), *supra* note 119, protections (technical compatibility). See also *supra* text accompanying notes 61-65.

Public telecommunications are defined in Article I(k) as between approved earth stations having access to INTELSAT. Article I(k), INTELSAT Agreements, *supra* note 10, 23 U.S.T. 3813, 3816. International public telecommunications has been equated with the Article I(k) definition. See Colino, *International Telecommunications Satellite Organization*, *supra* note 34, at 376. See *infra* note 232 for the full text of Article I(k). See also *infra* text accompanying notes 366-67.

<sup>136</sup> See *infra* text accompanying notes 172-75.

<sup>137</sup> See *infra* text accompanying notes 176-95.

<sup>138</sup> Article XIV(d), INTELSAT Agreements, *supra* note 134. See *infra* text accompanying notes 196-203.

<sup>139</sup> Article XIV(e), INTELSAT Agreements, *supra* note 10, 23 U.S.T. 3813, 3854-55. Generally, specialized services are those not offered by INTELSAT signatories. See *infra* text accompanying notes 238-42.



interference.<sup>140</sup> Specialized services are defined in Article I(l) as satellite services that are not public as defined in Article I(k).<sup>141</sup>

### C. Article XIV(f)

Upon the submission of a proposal under Article XIV(c), (d), or (e), Article XIV(f) sets out the time frame for the coordination procedures.<sup>142</sup> Within six months of the presentation to INTELSAT of the formal proposal, the appropriate body must render its recommendations.<sup>143</sup> Article XIV(f) supplements Article VII to permit an extraordinary meeting of the Assembly of Parties to be convened to render recommendations if mandated by Articles XIV(d) or (e).<sup>144</sup>

### D. Article XIV(d) Coordination Process

The authorization process for separate systems begins with a proposal considered internally by the country or countries wishing to launch the system.<sup>145</sup> In the United States, the private interest wishing to offer service initiates the process with an application to the F.C.C.<sup>146</sup> Upon the F.C.C.'s passage of the application, the Department of State consults with the foreign communications authority involved in the proposal.<sup>147</sup> COMSAT and the corresponding signatory then formally submit the proposal to INTELSAT to be coordinated under Article XIV.<sup>148</sup>

Under Article XIV(d), the Director General analyzes the potential economic and technical effects of the separate system on INTELSAT and reports to the

<sup>140</sup> Article XIV(e), INTELSAT Agreements, *supra* note 139.

<sup>141</sup> See *infra* note 232 (discussion of the public/specialized dichotomy and full text of Article I(l)).

<sup>142</sup> Article XIV(f), INTELSAT Agreements, *supra* note 10, 23 U.S.T. 3813, 3855.

<sup>143</sup> *Id.* Formal consultation is deemed to commence when INTELSAT has all the information necessary to make its findings. See, e.g., ECS I Coordination, *supra* note 88, at 2.

<sup>144</sup> Article VII(d) calls for biennial meetings of the Assembly of Parties. Article VII(d), INTELSAT Agreements, *supra* note 10, 23 U.S.T. 3813, 3827. Article VII(e)(i) permits extraordinary meetings of that body. Article VII(e)(i), INTELSAT Agreements, *supra* note 10, 23 U.S.T. 3813, 3827; Article XIV(f), INTELSAT Agreements, *supra* note 10, 23 U.S.T. 3813, 3855.

<sup>145</sup> See, e.g., ARABSAT Coordination, *supra* note 94, at 3; see also *Hearings before the House Subcomm.*, *supra* note 2, at 338–39 (Statement of William Schneider, Jr., Undersecretary to the Department of State).

<sup>146</sup> See, e.g., Transborder Satellite Video Service, 88 F.C.C.2d 258, 261–66 (1981). See *supra* text accompanying notes 98–107.

<sup>147</sup> The foreign communications authority is usually the communications entity to be linked with the United States through the separate system. See *Transborder*, 88 F.C.C.2d at 283–84.

<sup>148</sup> See, e.g., Attachment No. 1 to the Transborder I Coordinations, *supra* note 97 (example of a joint submission by COMSAT and Teleglobe Canada).

Board.<sup>149</sup> The Director General assesses the economic effects of the proposed system in accordance with four criteria: 1) expected date of commencement; 2) type of service and area of coverage; 3) participants; and 4) intended traffic and duration.<sup>150</sup> The proposing party bears the burden of proving that its system causes neither technical interference nor "significant economic harm" to INTELSAT.<sup>151</sup> The Board reviews the Director General's report and then may either request more information<sup>152</sup> or express its recommendations and advice to the Assembly.<sup>153</sup>

The Board must perform its analysis and the Assembly must make recommendations within six months of the proposal's submission.<sup>154</sup> These recommendations are made in the form of findings regarding the technical compatibility, economic consequences and the effect on direct telecommunications links within the INTELSAT system.<sup>155</sup> Further, the Assembly may recommend time or scope limitations, which, if exceeded, would require a new Article XIV(d) process.<sup>156</sup> The Assembly may, upon a negative recommendation, propose a resolution to make the alternative system technically and economically compatible.<sup>157</sup>

INTELSAT, the United States, and the applicants agree that the recommendations of the Assembly of Parties are not legally binding on the parties.<sup>158</sup> The United States has indicated it will not be bound by a negative finding under Article XIV(d) if it considers itself to have met its obligations in good faith.<sup>159</sup>

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<sup>149</sup> Annex A, ¶ 17 & Annex B, § (1)(p) INTELSAT Agreements, *supra* note 10, 23 U.S.T. 3813, 3873 & 3877. The Director General has absorbed the functions of both the Secretary General and the Management Services Contractor. Article XII(i), INTELSAT Agreements, *supra* note 10, 23 U.S.T. 3813, 3851.

<sup>150</sup> As prescribed by INTELSAT Doc. BG-28-63. *See, e.g.*, Transborder I Coordinations, *supra* note 97, Attachment No. 1 at 2-3.

<sup>151</sup> *See Transborder*, 88 F.C.C.2d at 284. *See also* COLINO, Monograph, *supra* note 3, at 94.

<sup>152</sup> *See, e.g.*, ECS II Coordination, *supra* note 90; Transborder I Coordinations, *supra* note 97, at Attachment No. 2 (letter to Joel R. Alper and Robert Seguin).

<sup>153</sup> Article X(a)(xxv), INTELSAT Agreements, *supra* note 10, 23 U.S.T. 3813, 3844. The United States position in the Definitive Arrangements negotiations was that the Board should have binding authority over the establishment of separate systems. *See* Donahue, *supra* note 57, at 36.

<sup>154</sup> Article XIV(f), INTELSAT Agreements, *supra* note 142 (six months from the date the coordination material is received); Article VII(c)(vii), INTELSAT Agreements, *supra* note 10, 23 U.S.T. 3813, 3826.

<sup>155</sup> *See, e.g.*, Policies, Criteria and Procedures, *supra* note 84, at Appendix A (findings of the Assembly regarding Article XIV(d) coordinations).

<sup>156</sup> *See, e.g.*, ECS I Coordination, *supra* at 88, at 8 ¶ 18d.

<sup>157</sup> *See* Certain Obligations, *supra* note 121, at 3-4.

<sup>158</sup> *See id.* at 4; *Transborder*, 88 F.C.C.2d at 284; N.T.I.A., LONG RANGE GOALS, *supra* note 105, at 119; *Hearings before the House Subcomm.*, *supra* note 2, at 513 (statement of William L. Fishman, ISI Attorney); *See also* Colino, *International Telecommunications Satellite Organization*, *supra* note 34, at 389.

<sup>159</sup> *See* Letter from James L. Buckley, Under Secretary of State for Security Assistance, Science and Technology, to Mark Fowler, Federal Communications Commission Chairman (July 23, 1981) (Appendix A to *Transborder* at 287-89). *See also* COLINO, Monograph, *supra* note 3, at 94-95. The SIG

INTELSAT asserts that the parties must consider the Assembly's recommendations in good faith and explain any reasoning behind a decision not to follow them.<sup>160</sup>

Should a dispute arise in establishing separate systems, the Definitive Arrangements provide for settlement through arbitration.<sup>161</sup> Before going to arbitration the conflicting parties must first attempt to settle the disagreement through negotiation.<sup>162</sup> If such efforts are not fruitful within a reasonable time, the dispute is submitted to arbitration.<sup>163</sup> The three-member arbitration tribunal is made up of a president, selected from a pool of legal experts,<sup>164</sup> and one member designated by each side.<sup>165</sup> The tribunal's decision is binding on the parties.<sup>166</sup> In extreme cases, the alleged offending party may be subject to legal sanctions<sup>167</sup> or INTELSAT internal actions, such as expulsion.<sup>168</sup>

#### E. *Criteria for Article XIV(d) Coordination*

The coordination of a separate system under Article XIV(d) requires the Assembly make recommendations under three categories: 1) technical; 2) economic; and 3) direct communications links.<sup>169</sup> Previous separate system coordinations with INTELSAT have been evaluated on a case-by-case basis.<sup>170</sup> This process has yielded a confused array of criteria developed specifically to address

approach to Article XIV(d) obligations may shed new light on such good faith requirements by defining the U.S. position on what constitutes good faith consideration. If the United States considers user-dedicated facilities as beyond the scope of economic harm consideration, it may not follow Assembly of Parties recommendations which would incorporate such services in INTELSAT's traffic base. See SIG Report, *supra* note 2, at 34-35.

<sup>160</sup> See Certain Obligations, *supra* note 121, at 5.

<sup>161</sup> Disputes between parties or between parties and INTELSAT "... shall be submitted to arbitration ..." under Annex C if not "... settled within a reasonable time ..." Article XVIII(a), INTELSAT Agreements, *supra* note 10, 23 U.S.T. 3813, 3865; Annex C, INTELSAT Agreements, *supra* note 10, 23 U.S.T. 3813, 3880-89. See generally Colino, *Arbitration Provisions Governing International Commercial Communications Satellites*, 15 COLLOQUIUM ON THE L. OF OUTER SPACE 59 (1973).

<sup>162</sup> Annex C Article 4(a)(iii), INTELSAT Agreements, *supra* note 10, 23 U.S.T. 3813, 3883.

<sup>163</sup> Article XVIII(a), INTELSAT Agreements, *supra* note 161. See also Certain Obligations, *supra* note 121, at 20-21.

<sup>164</sup> Annex C, Article 3(a) & (b), INTELSAT Agreements, *supra* note 10, 23 U.S.T. 3813, 3880-81.

<sup>165</sup> Annex C, Articles 4(a)(v) & 5(a), INTELSAT Agreements, *supra* note 10, 23 U.S.T. 3813, 3883-84.

<sup>166</sup> Annex C Article 13(b), INTELSAT Agreements, *supra* note 10, 23 U.S.T. 3813, 3889. See generally Colino, *Arbitration Provisions*, *supra* note 161, at 64-65.

<sup>167</sup> See Certain Obligations, *supra* note 121, at 11-16 (analysis of remedies under international law).

<sup>168</sup> Article XVI(b)(i), INTELSAT Agreements, *supra* note 10, 23 U.S.T. 3813, 3857. Article XVI empowers the Assembly to oust parties. It is unlikely that the United States would be expelled, however, because such a move would be highly disruptive to world communications and self-destructive to INTELSAT. Other INTELSAT internal sanctions include restricting the offending party's rights to receive documentation concerning Assembly actions, vote, and be a member. Other sanctions are available against an offending signatory. See Certain Obligations, *supra* note 121, at 9-11, 16-18.

<sup>169</sup> Article XIV(d), INTELSAT Agreements, *supra* note 134.

<sup>170</sup> See Policies, Criteria and Procedures, *supra* note 84, at 3.

the provisions of each individual proposal.<sup>171</sup> This section examines the criteria applied by the Assembly in making its findings.

### 1. Technical Coordination

A separate system that is coordinated with INTELSAT under Article XIV(d) must not interfere technically with the INTELSAT system.<sup>172</sup> The Board conducts a detailed analysis of the potential interference of the separate system with the INTELSAT system.<sup>173</sup> The Board meets with planners of the separate system to examine and resolve technical problems identified by the analysis.<sup>174</sup> When the projected levels of interference are reduced to an acceptable level, the Board forwards a report on technical compatibility.<sup>175</sup>

### 2. Significant Economic Harm

Economic harm hinges on whether the proposed market is currently served by INTELSAT or could, within the life time of the proposed facilities, be included in the INTELSAT traffic base.<sup>176</sup> Services beyond international public telecommunications are outside the economic harm analysis.<sup>177</sup> Thus, the proposed system must be examined under two standards: 1) those services duplicative of INTELSAT international public telecommunications offerings; and 2) those services competing with planned INTELSAT offerings.<sup>178</sup>

#### a. Duplicative Offerings

When a separate system's offerings are already available over INTELSAT, no significant economic harm is deemed present if the Board recommends that, for the most part, the proposed system's traffic would not have been routed

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<sup>171</sup> For a detailed analysis of these criteria commissioned by INTELSAT, see Walter Hinchman Associates, Inc., Significant Economic Harm, Attachment No. 1 to INTELSAT Doc. BG-60-63E W/9/84 (August 15, 1984).

<sup>172</sup> The language of Article XIV(d) places greater emphasis on technical compatibility than on economic harm. Article XIV(d), INTELSAT Agreements, *supra* note 134.

<sup>173</sup> See, e.g., Attachment No. 5 to ARABSAT Coordination, *supra* note 94 (example of a technical Coordination).

<sup>174</sup> See ARABSAT Coordination, *supra* note 94, at 5.

<sup>175</sup> The demands of technical coordination are set out in INTELSAT documents BG-28-70 (Rev. 1) and BG-43-71, Addendum # 1.

<sup>176</sup> See, e.g., Transborder I Coordinations, *supra* note 97, at 8 ¶ 14 (INTELSAT's prospects depend on its own state of readiness in the time period involved). See also Policies, Criteria and Procedures, *supra* note 84, at 14-15.

<sup>177</sup> See INTELSAT Agreements, Article XIV(c) and (e), *supra* note 119. See also *supra* text accompanying notes 126-30, 139-41.

<sup>178</sup> Both duplicative and planned services standards have been applied in previous coordinations. In the Transborder and ECS II coordinations some of the offerings were duplicative of services available over INTELSAT and some were similar to planned INTELSAT offerings. See ECS II Coordination, *supra* note 90, at 6-7; Transborder I Coordinations, *supra* note 97, at 3, 8.

over INTELSAT.<sup>179</sup> Applicants have succeeded in proving their systems' traffic would not be carried by INTELSAT using two approaches. First, technical constraints are likely to keep the proposed traffic off the INTELSAT system for the separate system's useful life.<sup>180</sup> Second, economic realities arising from the nature of the proposed services effectively exclude such traffic from INTELSAT's base.<sup>181</sup>

*i. Technical limitations*

The Transborder coordinations indicate that the Assembly must assess the technical feasibility of INTELSAT itself offering the proposed services along the proposed routes.<sup>182</sup> In the PALAPA-A coordination, the Board recommended that the system would not cause economic harm because, in part, technical hurdles made the use of the INTELSAT system unlikely.<sup>183</sup> Thus, one technical limitation is the accessibility of INTELSAT facilities from various points on the earth.

Another technical limitations consideration is the possibility an existing terrestrial network preempts INTELSAT's service to the proposed market. In the ARABSAT coordination, the Board found that, absent the proposed system, the traffic in question would be routed over terrestrial facilities.<sup>184</sup> In the ECS I coordination, the Board found that existing terrestrial facilities and the short distances involved did not warrant satellite operation.<sup>185</sup> Thus, the Board found that significant economic harm did not exist because, in part, the traffic should not be routed via satellite.<sup>186</sup> Despite INTELSAT's offering of similar services over other routes, if INTELSAT was unlikely to carry the proposed services, the Assembly has recommended that separate systems be deemed not to cause significant economic harm.<sup>187</sup>

*ii. Economic limitations*

A second factor in an analysis of potentially duplicative markets is whether INTELSAT currently offers the services but at prohibitive costs. In the Transborder I coordination, the Board recognized that the routing of the proposed services through INTELSAT as well as the domestic systems would be economically unsound for the customers.<sup>188</sup> In the ECS I coordination the Board

<sup>179</sup> See, e.g., ARABSAT Coordination, *supra* note 94, at 6-7.

<sup>180</sup> See *infra* text accompanying notes 182-87.

<sup>181</sup> See *infra* text accompanying notes 188-90.

<sup>182</sup> See, e.g., Transborder I Coordinations, *supra* note 97, at 6 ¶ 11.

<sup>183</sup> See PALAPA-A Coordination, *supra* note 93, at 2.

<sup>184</sup> See ARABSAT Coordination, *supra* note 94, at 6.

<sup>185</sup> See ECS I Coordination, *supra* note 88, at 6.

<sup>186</sup> *Id. Cf.* Article XIV(d) Consultation Concerning Potential Economic Harm To INTELSAT By The Planned Use Of The RCA SATCOM Satellite System By Bermuda, *supra* note 97, at 2.

<sup>187</sup> See *generally* Policies, Criteria and Procedures, *supra* note 84, at 10-16.

<sup>188</sup> See, e.g., Transborder I Coordinations, *supra* note 97, at 5.

recommended that, political incentives aside, it would not be economically useful to send the proposed traffic over INTELSAT or any satellite system.<sup>189</sup> Where an INTELSAT market exists, but is latent due to prohibitive costs or inefficiency of using the INTELSAT system, a separate system is not deemed to cause significant economic harm.<sup>190</sup>

### b. Planned Offerings

With regard to separate systems proposing to carry services similar to planned INTELSAT offerings, the ECS coordinations indicate that the Board must first determine whether demand warrants an INTELSAT investment in the market.<sup>191</sup> Even if INTELSAT has contractual commitments to offer the new service, the Transborder I coordinations indicate that the Assembly must evaluate whether such service will be implemented within the time period proposed by the applicant.<sup>192</sup> Should the applicant propose to implement a sophisticated service at an accelerated pace, the benefits of developing markets<sup>193</sup> and shifting of investment risks<sup>194</sup> make such service acceptable to INTELSAT within the economic harm analysis.<sup>195</sup>

## 3. Prejudice to Direct Communications Links

Article XIV(d) also demands that the Assembly make recommendations "regarding the assurance that the provision or utilization of such [separate] facilities shall not prejudice the establishment of direct telecommunications links through the INTELSAT space segment among all the participants."<sup>196</sup> In a 1984 memorandum to the Board of Directors, INTELSAT Legal Advisor David M. Leive asserted that the links language protects the rights of INTELSAT participants

<sup>189</sup> See ECS I Coordination, *supra* note 88, at 6.

<sup>190</sup> See generally Policies, Criteria and Procedures, *supra* note 84, at 12-14.

<sup>191</sup> See, e.g., ECS II Coordination, *supra* note 90, at 8 ¶ 12.

<sup>192</sup> See, e.g., Transborder I Coordinations, *supra* note 97, at 5-6.

<sup>193</sup> The ECS II coordination reveals INTELSAT reasoning that early implementation of digital business service "could assist INTELSAT by developing a readily identifiable market." See Policies, Criteria and Procedures, *supra* note 84, at 34 ¶¶ 3(a) & (b).

<sup>194</sup> INTELSAT believed the services proposed in the ECS II coordination were short-term and risky due to the development of the terrestrial ISDN in Europe and the growth of direct broadcast television. Thus, the ECS system would bear the risk of the failure of the satellite digital business and satellite points to point TV services markets in Europe. See Policies, Criteria and Procedures, *supra* note 84, at 34.

<sup>195</sup> This assumes INTELSAT may set a time limit on the service offered so as to preserve its long term economic interest. INTELSAT has set time limitations on separate systems in previous coordinations. See, e.g., ECS I Coordination, *supra* note 88, at 8.

<sup>196</sup> Article XIV(d), INTELSAT Agreements, *supra* note 134.

to communicate directly with each other.<sup>197</sup> In a separate memorandum INTELSAT Director General Richard R. Colino recommended that the direct links protection be interpreted to apply to financial, operational or technical effects of alternative systems.<sup>198</sup> Under the Colino interpretation, should a proposed system hamper universal connectivity by causing price variations, it would not pass the links test.<sup>199</sup>

In opening remarks to the Definitive Arrangements negotiations, U.S. Ambassador Abbott Washburn warned against mounting two or more mutually exclusive satellite systems.<sup>200</sup> In proposing the direct links language, the Japanese delegation supported smaller regional systems as long as they did not compete with INTELSAT and did not interfere with "direct communications with other nations through the INTELSAT system."<sup>201</sup> Taken in the context of Washburn's warnings, Japan was concerned that its support of non-INTELSAT regional systems would be taken as a threat to the existing INTELSAT routes and the expansion of INTELSAT to new members.<sup>202</sup> The direct links provision was intended to avert possible mutually exclusive systems and to insure that systems coordinated under Article XIV(d) would not technically or politically interfere with INTELSAT or its growth.<sup>203</sup>

#### V. THEORIES OF ARTICLE XIV(d) COORDINATION

Article XIV coordination begins with a member country's submission to INTELSAT of a notice of intention to use a separate satellite system.<sup>204</sup> The

<sup>197</sup> D. Leive, Legal Memorandum, Scope of the Article XIV(d) Assurance Concerning "Direct Telecommunications Links," Attachment No. 1 to INTELSAT Doc. BG-60-61E W/9/84 (August 15, 1984) at 9. The Leive memorandum suggests that a proposed separate system that restricts its members from using INTELSAT facilities would be violative of the links language. *Id.* at 6. In the previous Article XIV(d) coordinations the services proposed engendered no prejudice to direct communications links. *But see* Algeria/INTERSPUTNIK Coordination, *supra* note 96, at 6 (a type of problem that might impose such a threat).

<sup>198</sup> *See* Policies, Criteria and Procedures, *supra* note 84, at 21.

<sup>199</sup> *Id.* at 22. The applicants reacted to the Director General's proposals with understandable ire. *See, e.g.,* Letter from Cygnus to Mr. Glenn deChabert, Federal Communications Commission Common Carrier Bureau, September 6, 1984 (on file with the F.C.C. with the Cygnus Application, *supra* note 1).

<sup>200</sup> *See* Statement by the Representative of France, INTELSAT *Travaux Préparatoires* Com I/96 at 3.

<sup>201</sup> *See* Statement by the Representative of Japan, INTELSAT *Travaux Préparatoires* Com I/SR/5 at 6. *See also* Statement by the Representative of Japan, INTELSAT *Travaux Préparatoires* Com I/SR/11 at 3 (concern is with technical interference posed by regional systems). *See generally* Leive, *supra* note 197, at 2-3.

<sup>202</sup> *See* INTELSAT *Travaux Préparatoires* Com I/SR/5 (discussion of services properly offered by INTELSAT).

<sup>203</sup> To read the links language as setting up economic hurdles to separate systems would render the significant economic harm language surplusage. A more likely reading would apply links protections to separate systems serving non-INTELSAT routes because the technical and economic protections found in Article XIV(d) only go to the existing or planned INTELSAT traffic. Thus the links language would insure against exclusive non-INTELSAT systems.

<sup>204</sup> Article XIV(d), INTELSAT Agreements, *supra* note 134.

submission states the member's intention to use a separate international system and presents information regarding the technical and economic effects on INTELSAT of such a system.<sup>205</sup> If the system would have significant adverse impact on INTELSAT, the Assembly may recommend that it not be used.<sup>206</sup> Because there is little disagreement over the need for technical compatibility between INTELSAT and the proposed separate systems, this section examines the applicants' and the SIG's proposed interpretations of Article XIV requirements for economic coordination.<sup>207</sup>

Against the backdrop of the INTELSAT Agreement's economic protectionism,<sup>208</sup> the proponents of separate systems have advanced three interpretations of the economic demands of Article XIV. First, Orion and Cygnus argue that their systems will not generate significant economic harm to INTELSAT because the systems will not offer international public telecommunications services.<sup>209</sup> Second, ISI, RCA Americom, and PanAmSat argue that their systems will divert only a small portion of INTELSAT's traffic and thus will not cause significant economic harm.<sup>210</sup> Third, a letter from Secretaries George P. Shultz and Malcolm Baldrige to F.C.C. Chairman Mark S. Fowler asserts that separate systems restricted from carrying public-switched message network traffic will meet the economic obligations imposed by Article XIV.<sup>211</sup>

## A. *Specialized Telecommunications Services*

### 1. Orion/Cygnus Position

Orion and Cygnus assert that their proposals do not fall under Article XIV(d) because their user-dedicated offerings are distinguishable from international public telecommunications services.<sup>212</sup> Rather, they urge that their applications should be considered under the contingency provisions of Article XIV(e) which require only technical compatibility.<sup>213</sup> Orion proposes to sell or lease transpon-

<sup>205</sup> See *supra* notes 150 & 173 and accompanying text.

<sup>206</sup> See *supra* text accompanying notes 155-57.

<sup>207</sup> All parties agree that the U.S. proposed separate systems must not technically interfere with the INTELSAT system. See Orion Application, *supra* note 1, at 11-5; ISI Application, *supra* note 1, at 62-63 & Appendix C; RCA Americom Application, *supra* note 1, at Attachment 2; Cygnus Application, *supra* note 1, at 66-68; PanAmSat Application, *supra* note 1, at 78; SIG Report, *supra* note 2, at 17.

<sup>208</sup> See *supra* text accompanying notes 134-38.

<sup>209</sup> See Opposition to Petition to Deny 11-14, In re Orion Satellite Corporation, File No. CSS-83-002-P (April 28, 1983) [hereinafter cited as Orion Opposition]; Consolidated Opposition to Petition to Deny and Reply to Comments 11-15, In re Cygnus Satellite Corporation, File No. CSS-84-002-P(LA) (April 26, 1984) [hereinafter cited as Cygnus Opposition].

<sup>210</sup> See ISI Application, *supra* note 1, at 48-56; PanAmSat Application, *supra* note 1, at 42; RCA Americom Application, *supra* note 1, at 15.

<sup>211</sup> See SIG Letter, *supra* note 6 (suggesting criteria for F.C.C. approval of separate systems).

<sup>212</sup> Orion Application, *supra* note 1, at 1-8, Cygnus Application, *supra* note 1, at 64-65.

<sup>213</sup> Orion Application, *supra* note 1, at 1-8, Cygnus Application, *supra* note 1, at 65. See *supra* text accompanying notes 134-41 (demands of Article XIV(d) and (e)).



der capacity to selected multi-national corporations in need of CONUS/Western European service.<sup>214</sup> Cygnus intends to make its facility available under economic arrangements similar to Orion's proposal and vows to take precautions against its clients using the system to transmit public switched message traffic.<sup>215</sup> Orion and Cygnus contemplate that their facilities would be used for data transmission and video distribution.<sup>216</sup> They rely on the economic nature of their offerings to distinguish them from the international public telecommunications services regulated by Article XIV(d).<sup>217</sup>

Under the Orion/Cygnus definition of public telecommunications, the economic harm analysis found in Article XIV(d) does not apply to their proposals because their systems would not offer "international public telecommunications services."<sup>218</sup> In order to substantiate their interpretations, Orion and Cygnus equate the INTELSAT Agreement's "public telecommunications" definition with the F.C.C. definition for common carriage.<sup>219</sup> They argue that because their proposals contemplate only the sale or long-term lease of transponder capacity to private entities, their services are neither common-carrier offerings nor international public telecommunications.<sup>220</sup>

## 2. COMSAT/INTELSAT Position

COMSAT and INTELSAT challenge the Orion/Cygnus definition of public telecommunications. First, COMSAT charges that the scope of international public telecommunications is broader than the Orion/Cygnus interpretation.<sup>221</sup> COMSAT argues that public telecommunications services are defined by the nature of their use and not the economic arrangements.<sup>222</sup> Further, in response to the argument that leased circuits are private user-dedicated services, INTELSAT argues that the phrase "international public telecommunications" expressly contemplates the offerings of Orion and Cygnus.<sup>223</sup> Finally, COMSAT points to

<sup>214</sup> Orion Application, *supra* note 1, at I-9-I-10.

<sup>215</sup> Cygnus Application, *supra* note 1, at 64-65.

<sup>216</sup> Orion Application, *supra* note 1, at II-34-II-35; Cygnus Application, *supra* note 1, at 17.

<sup>217</sup> See Orion Opposition, *supra* note 209, at 28-29.

<sup>218</sup> *Id.*; Cygnus Opposition, *supra* note 209, at 13.

<sup>219</sup> Orion Opposition, *supra* note 209, at 17-29; Cygnus Opposition, *supra* note 209, at 12-13.

<sup>220</sup> Orion Application, *supra* note 1, at I-8; Cygnus Application, *supra* note 1, at 65.

<sup>221</sup> Reply Of Communications Satellite Corporation To Opposition To Petition To Deny 5-7, In re Orion Satellite Corporation, File No. CSS-83-002-P (May 10, 1983) [hereinafter cited as COMSAT Reply to Orion]; Petition To Deny Of Communications Satellite Corporation 8, In re Application of Cygnus Satellite Corporation, File No. CSS-84-002-P(LA) (April 13, 1984) [hereinafter cited as COMSAT Petition to Deny Cygnus].

<sup>222</sup> See, e.g., COMSAT Reply to Orion, *supra* note 221, at 9.

<sup>223</sup> Article I(k), INTELSAT Agreements, *infra* note 232 (full text). See *Hearings before the House Subcomm.*, *supra* note 2, at 624-25, Legal Opinion On the Scope Of Intelsat's "Public Telecommunications Services" (attachment to Alper written statement). INTELSAT asserts that at the time of the Definitive Arrangements' negotiation there was little distinction between public and private facilities.

the coordination of domestic private facilities as public telecommunications under Article XIV(c) as an indication that such services are not specialized services.<sup>224</sup>

In addition to disputing the public versus private distinction, COMSAT challenges the equation of public telecommunications services with common carrier offerings.<sup>225</sup> COMSAT argues that the distinction between private user-dedicated and common carrier facilities is incorrect because many private services are offered by common carriers.<sup>226</sup> Further, COMSAT asserts that U.S. domestic definitions such as common carriage are not binding on international agreements.<sup>227</sup>

### 3. SIG Position

As did COMSAT, the Department of State rejected the Orion and Cygnus public versus private distinction as a basis for avoiding the Article XIV(d) determination of economic harm.<sup>228</sup> The Department of State Legal Advisor noted that rules of international agreement interpretation do not support the equation of public telecommunications with common carriage.<sup>229</sup> The Legal Advisor reasoned that a reading of the INTELSAT Agreements which would allow the establishment of separate systems regardless of economic harm to INTELSAT runs "counter to the object and purpose of the Agreement."<sup>230</sup> The Legal Advisor concluded that both the Orion and ISI proposals fall outside the definition of specialized services.<sup>231</sup>

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*See Hearings before the Senate Subcomm., supra* note 15, at 207 (Colino responses to additional questions submitted for the record).

<sup>224</sup> COMSAT Reply to Orion, *supra* note 221, at 7-8 n.14.

<sup>225</sup> *Id.* at 7; COMSAT Petition to Deny Cygnus, *supra* note 221, at 8.

<sup>226</sup> COMSAT Reply to Orion, *supra* note 221, at 6.

<sup>227</sup> *Id.* at 7; COMSAT Petition to Deny Cygnus, *supra* note 221, at 8.

<sup>228</sup> *See* D. Robinson, U.S. Dep't of State, Memorandum of Law, The Orion Satellite Corporation and International Satellite, Inc. Applications for International Satellite Communications Facilities 3-6 (November 28, 1984) (attached to SIG letter, *supra* note 6). The Department of State analysis was initiated before Cygnus, RCA Americom, and PanAmSat made application to the F.C.C., therefore, it addresses only the Orion and ISI proposals.

<sup>229</sup> *Id.* at 3-4.

<sup>230</sup> *Id.* at 6.

<sup>231</sup> *Id.* at 7-8. The Department of State memorandum analyzed the Orion and ISI Applications in four parts. First, all international public telecommunications satellite systems separate from INTELSAT must be coordinated for technical interference and economic harm. Second, the INTELSAT Agreements' "public telecommunications services" do not equate with F.C.C. "common carrier services." Third, the Orion and ISI proposals do not contemplate truly private non-commercial services. Finally, the INTELSAT Agreements' "specialized services" provisions were not intended to include the types of systems proposed by Orion and ISI. *See* ARABSAT Coordination, *supra* note 94, at 4 (ARABSAT direct broadcast services as an example of specialized services coordination).

#### 4. Analysis

The issue of whether private facilities may avoid meeting the economic criteria of coordination with INTELSAT turns on the definition of "public telecommunications services"<sup>232</sup> and the nature of the services proposed. The original distinction between public and specialized telecommunications grew out of a dispute at the Definitive Arrangements negotiations concerning the services which could be provided by INTELSAT without the approval of the Assembly of Parties.<sup>233</sup> While the United States wished to insure heavy use of the INTELSAT system by including all possible satellite services in its mandate,<sup>234</sup> developing countries feared that the inclusion of sophisticated services would tax the financial resources of the system.<sup>235</sup> A compromise resulted in the Article XIV(d) economic protections applying to INTELSAT's primary concern, international public telecommunications as defined in Articles I(k) and III(a) & (b).<sup>236</sup> Services outside INTELSAT's public scope could be provided, but only after approval of the Assembly of Parties under Article III(d), (e) & (f).<sup>237</sup>

The debate over this distinction revealed a number of considerations in determining whether a service is public or specialized. In negotiating the public versus specialized distinction found in Articles I, III, and XIV, the delegates to the plenipotentiary conferences were concerned with protecting INTELSAT's

<sup>232</sup> Article I(k) defines public telecommunications services as

... fixed or mobile telecommunications services which can be provided by satellite and which are available for use by the public such as telephony, telegraphy, telex, facsimile, data transmission, transmission of radio and television programs between approved earth stations having access to the INTELSAT space segment for further transmission to the public, leased circuits for any of these purposes; but excluding those mobile services ... which are provided through mobile stations operating directly to a satellite which is designed in whole or in part to provide services relating to safety or flight control of aircraft or to aviation or maritime radio navigation.

Article I(k), INTELSAT Agreements, *supra* note 10, 23 U.S.T. 3813, 3816-17.

Article I(l) defines specialized telecommunications services as

... telecommunications services which can be provided by satellite, other than those defined in paragraph (k) of the Article, including, but not limited to, radio navigation services, broadcasting satellite services for reception by the general public, space research services, meteorological services, and earth resources services.

Article I(l), INTELSAT Agreements, *supra* note 10, 23 U.S.T. 3813, 3817.

Those services which might be offered under INTELSAT's prime objective are defined in Article I(k) as public telecommunications services. See *Hearings before the Senate Subcomm.*, *supra* note 15, at 206-07 (Colino statement). Those which were not within INTELSAT's primary scope must be specifically approved by the Assembly of Parties as specialized telecommunications services prior to being offered by INTELSAT. Article VII(c)(iv), INTELSAT Agreements, *supra* note 10, 23 U.S.T. 3813, 3825.

<sup>233</sup> See GALLOWAY, *supra* note 18, at 162-63.

<sup>234</sup> See COLINO, Monograph, *supra* note 3, at 100.

<sup>235</sup> *Id.* at 101.

<sup>236</sup> See Article I(k), INTELSAT Agreements, *supra* note 232; Article III(a) & (b), INTELSAT Agreements, *supra* note 10, 23 U.S.T. 3813, 3819.

<sup>237</sup> Article III(d), (e) & (f), INTELSAT Agreements, *supra* note 10, 23 U.S.T. 3813, 3820-22.

economic health.<sup>238</sup> The delegates saw two potential threats to INTELSAT's economic health: 1) competition from separate systems;<sup>239</sup> and 2) specialized services offered by INTELSAT that might tax INTELSAT's financial base to the benefit of only a few member countries.<sup>240</sup> The delegates to the negotiations considered specialized services such as direct broadcast satellites and aeronautical and maritime navigational facilities to be outside those provided by telecommunications entities.<sup>241</sup> Specialized services were those the delegates considered not commercially practicable for INTELSAT to carry.<sup>242</sup> Conversely, international public services are those currently offered or planned by INTELSAT signatories.

The delegates designed the Definitive Arrangements to guard against perceived economic threats by INTELSAT. Members' use of systems competing with INTELSAT was inhibited through Articles I(k) and XIV(d).<sup>243</sup> Addition of services that might otherwise burden the INTELSAT system was inhibited by Articles I(l) and III.<sup>244</sup> In sum, the negotiating history of the Definitive Arrangements indicates that proposed separate systems will be subject to consideration of Article XIV(d) economic parameters if the systems would offer services in competition with those available through INTELSAT signatories.<sup>245</sup>

## B. *Market Diversion Theory*

ISI, RCA Americom, and PanAmSat assert that, as measured by a diversion of traffic or revenues from the INTELSAT system, their systems would not

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<sup>238</sup> See Main Points Expressed in Committee I's Discussion of the Rights and Obligations of Members and the Relationship with the ITU, INTELSAT *Travaux Préparatoires* Com I/107 (Rev. 1) (agreement that members should not participate in competing systems, disagreement over whether separate regional systems were permissible). See also COLINO, Monograph, *supra* note 3, at 100-01.

<sup>239</sup> See, e.g., Statement by the Representative of India, INTELSAT *Travaux Préparatoires* Com I/SR/3 at 4; see also Statement by the Representative of Japan, INTELSAT *Travaux Préparatoires* Com I/SR/5 at 6; but see Statement by the Representative of France, INTELSAT *Travaux Préparatoires* Com I/SR/11 at 2 (separate regional systems linking INTELSAT and non-INTELSAT systems may be beneficial).

<sup>240</sup> See Statement by the Representative of the Federal Republic of Germany, INTELSAT *Travaux Préparatoires* Com I/32 at 1-2 (discussing the financial arrangements for the provision of specialized services).

<sup>241</sup> See Statement By The Delegate Of Sweden Concerning Draft Article III At The Ninth Session, May 22, 1970, INTELSAT *Travaux Préparatoires* IWG/Doc. 16 ("Telecommunications entities, the prospective 'Signatories,' are not users of specialized services.").

<sup>242</sup> See Specialised Telecommunications Services: Inter-Relationship Of Article 3 Of The Operating Agreement And Articles I(k) And III(f) Of The Inter-Governmental Agreement, Submitted by the Delegation of the United Kingdom, INTELSAT *Travaux Préparatoires* Doc. 226, May 15, 1971 (specialized services are those which INTELSAT has not provided).

<sup>243</sup> Articles I(k) & XIV(d), INTELSAT Agreements, *supra* notes 232 & 134.

<sup>244</sup> *Id.*; Articles I(l) & III(d), (e), and (f), INTELSAT Agreements, *supra* notes 232 & 237.

<sup>245</sup> Orion and Cygnus admit that part of the proposed services are in competition with INTELSAT offerings when they argue price elasticity as a basis for approval. See, e.g., Cygnus Application, *supra* note 1, at 60-61.

cause significant economic harm to INTELSAT.<sup>246</sup> These proposals advance three theories concerning the avoidance of economic harm: 1) the proposed system will only cause a *de minimus* diversion of traffic;<sup>247</sup> 2) the existence of unmet demand or untapped markets will insulate INTELSAT from economic harm;<sup>248</sup> and 3) the continuance of international communications satellite market growth will provide enough traffic for both a separate system and a healthy INTELSAT.<sup>249</sup>

## 1. Applicants' Position

### a. *De Minimus* Diversion

ISI estimates that it will divert just over three percent of INTELSAT's traffic during a five to seven year period.<sup>250</sup> This diversion, according to ISI, is not significant considering INTELSAT's expected growth and present economic health.<sup>251</sup> The ISI analysis is based on assertions that little public-switched message service traffic will be diverted from INTELSAT to its system.<sup>252</sup> ISI claims that its principle customers will be the audio and video distribution and high-speed data transmission markets.<sup>253</sup> ISI claims that its forbearance of current INTELSAT public-switched message traffic and a new range of developing markets spurred by competition will insulate INTELSAT from significant economic harm.<sup>254</sup> This argument is echoed by other applicants.<sup>255</sup>

A variation on the *de minimus* diversion argument is found in the RCA Americom and PanAmSat proposals.<sup>256</sup> This version argues that limited tran-

<sup>246</sup> ISI Application, *supra* note 1, at 56; RCA Americom Application, *supra* note 1, at 15; Pan American Satellite Corporation's Combined Opposition To Petition To Deny Filed By ComSat And Response To Comments Filed By AT&T and Digital Telesat, Inc. Appendix B at 13, In re Pan American Satellite Corporation, File No. CSS-84-004-P(LA) (August 27, 1984) [hereinafter cited as PanAmSat Opposition]. See also Cygnus Application, *supra* note 1, at 70-71 (secondary argument).

<sup>247</sup> See, e.g., ISI Application, *supra* note 1, at 58.

<sup>248</sup> See, e.g., PanAmSat Opposition, *supra* note 246, Appendix B at 16 (economic harm as measured by diversion of INTELSAT traffic).

<sup>249</sup> See, e.g., ISI Application, *supra* note 1, at 56.

<sup>250</sup> *Id.* at Appendix F at 15.

<sup>251</sup> *Id.* at 56-58.

<sup>252</sup> *Id.* at 53-54. COMSAT vigorously contested the ISI estimates in its *Petition To Deny*, but relied on attacking the bases of ISI estimation rather than asserting its own economic analysis. Petition to Deny of Communications Satellite Corporation 9, In Re International Satellite, Inc., File Nos. CSS-83-004-P(LA), I-P-C-83-073 (September 19, 1983) [hereinafter cited as COMSAT Petition to Deny ISI].

<sup>253</sup> ISI Application, *supra* note 1, at 6.

<sup>254</sup> *Id.* at 48, 51-52.

<sup>255</sup> See, e.g., Cygnus Application, *supra* note 1, at 61-62.

<sup>256</sup> RCA Americom Application, *supra* note 1, at 2 (six transponders); PanAmSat Opposition, *supra* note 246, Appendix B at 13 (12 or less transponders). A transponder is the device on the satellite that receives, amplifies, and transmits the signal. See BELENDIUK & ROBB, *supra* note 6, at 47. Each tran-

sponder capacity will constitute a lesser threat to INTELSAT than mounting full-scale separate systems.<sup>257</sup> Here the applicants rely on the limited international capacities of their systems as insurance against economic harm to INTELSAT and thus seek to satisfy Article XIV(d).

#### b. Untapped Markets

All the applicants assert that untapped markets or unmet demand will provide the traffic to support their systems.<sup>258</sup> Under this theory, alternative systems offering less expensive and more flexible services will attract those potential users inhibited by INTELSAT price and service restrictions.<sup>259</sup> Thus, new services and competition will spur an expanded demand and therefore spare INTELSAT from incurring significant economic harm.<sup>260</sup>

#### c. Market Growth

The projected growth of U.S. demand for international communications services is the third factor and panacea for the separate systems' economic threat to INTELSAT.<sup>261</sup> ISI asserts that INTELSAT may expect an annual compounded service growth rate of approximately 16 percent.<sup>262</sup> Thus, the argument states, diversion of a portion of such growth would not constitute significant economic harm to INTELSAT.<sup>263</sup>

### 2. COMSAT/INTELSAT Response

COMSAT contends that the capacity of the proposed system and its planned routing, not its targeted markets, are the telling indicators of economic harm.<sup>264</sup>

sponder has a limited capacity. *Id.* Therefore, the number of transponders dedicated to any group of routes limits that total traffic over those routes for that satellite.

<sup>257</sup> See, e.g., RCA Americom Application, *supra* note 1, at 2

<sup>258</sup> See, e.g., ISI Application, *supra* note 1, at 27-28; Cygnus Application, *supra* note 1, at 71-73.

<sup>259</sup> ISI Application, *supra* note 1, at 35; Cygnus Application, *supra* note 1, at 71.

<sup>260</sup> As of this writing the applicants had yet to prove the existence of the latent markets. See K. Dunmore, Dale N. Hatfield Associates, Issues In International Telecommunication Telecommunications Pricing And Demand at 35-38 (November 27, 1984) (on file at the F.C.C. with Orion Application, *supra* note 1) [hereinafter cited as Pricing and Demand] (general assertions on the existence of international markets outside the INTELSAT traffic base prepared for Orion). While the applications are replete with references to the benefits of competition in the international communications satellite marketplace, domestic experience is not so rosy. See Comment, *International Regulation of Digital Communications Satellite Systems*, 32 FED. COM. L.J. 393, 398 (early marketing of Satellite Business Systems capacity failed to secure more than five customers).

<sup>261</sup> See Dunmore, Pricing and Demand, *supra* note 260, at 39.

<sup>262</sup> ISI Application, *supra* note 1, at 57.

<sup>263</sup> *Id.* at 58.

<sup>264</sup> Reply Of Communications Satellite Corporation To Opposition To Petition To Deny at 7-8, In re International Satellite, Inc., File Nos. CSS-83-004-P(LA), I-P-C-83-073 (October 24, 1983) [hereinafter cited as COMSAT Reply to ISI].

Under the COMSAT analysis the proposed systems are especially threatening due to the fact that they could carry much of INTELSAT's present transatlantic traffic.<sup>265</sup> COMSAT argues that even the limited RCA Americom and PanAmSat proposals carry sufficient capacity to cause economic harm to INTELSAT.<sup>266</sup>

In addition to rejecting the use of the proposed systems' estimated diversion of traffic as the indicator of economic harm to INTELSAT, COMSAT challenges the untapped market theory by asking for examples of the untapped market class.<sup>267</sup> INTELSAT contends that it performs extensive research into the needs of its users and is unaware of any unmet demand.<sup>268</sup> COMSAT also denies that market growth will exceed the traffic diverted by the proposed alternative systems.<sup>269</sup> COMSAT's statistics indicate that the INTELSAT growth rate has dropped dramatically over the last two years.<sup>270</sup>

### 3. Analysis

The theories for economic coordination with INTELSAT as presented by the applicants are threefold: *de minimus* diversion, untapped markets, and market growth. Furthermore, each of these arguments rests on the critical assumptions concerning: 1) the scope of Article XIV(d) protections;<sup>271</sup> 2) the time period to which these protections apply;<sup>272</sup> and 3) assessment of the proposed systems individually as opposed to their cumulative effect on INTELSAT.

#### a. INTELSAT's Scope

The applicants argue generally that their systems will not cause economic harm to INTELSAT due to distinguishing characteristics in either their facilities or pricing structure.<sup>273</sup> The applicants argue that INTELSAT is an economically

<sup>265</sup> *Id.*

<sup>266</sup> Petition To Deny Of Communications Satellite Corporation at 6, In re RCA American Communications, Inc., File Nos. 909-DSS-MP-84, I-T-C-84-085 (April 2, 1984) [hereinafter cited as COMSAT Petition to Deny RCA Americom]; Petition To Deny Of Communications Satellite Corporation at 14, In re Pan American Satellite Corporation, File No. CSS-84-004-P(LA) (July 13, 1984) [hereinafter cited as COMSAT Petition to Deny PanAmSat].

<sup>267</sup> See, e.g., COMSAT Reply to ISI, *supra* note 264, at 8.

<sup>268</sup> See *Hearings before the Senate Subcomm.*, *supra* note 15, at 151-52 (Colino statement). But see PanAmSat Opposition, *supra* note 246, Appendix B at 16-17; RCA Americom Application, *supra* note 1, at 2.

<sup>269</sup> COMSAT Reply to ISI, *supra* note 284, at 6.

<sup>270</sup> *Hearings before the House Subcomm.*, *supra* note 2, at 614-15 (Alper written statement).

<sup>271</sup> Article XIV(d) protections apply only to international public telecommunications services as defined in Article I(k). The issue, therefore, is the scope of such services as defined by Article I(k).

<sup>272</sup> The INTELSAT Agreements are silent as to the length of time the Article XIV(d) protections apply.

<sup>273</sup> See Orion Application, *supra* note 1, at I-4 (user-dedicated facilities); ISI Application, *supra* note 1, at 10 (unique technical and business characteristics); PanAmSat Opposition, *supra* note 246, Appendix B at 6 (subregional video and audio transmission).

mature corporation, which can withstand the introduction of competition.<sup>274</sup> Further, the applicants assert that market growth, spurred by competition, will insulate INTELSAT from any negative effects caused by the introduction of the competition.<sup>275</sup> This assertion incorporates the assumption that Article XIV(d) protections only apply to existing INTELSAT traffic levels as defined by market forces.<sup>276</sup> If markets are latent due to deficiencies in INTELSAT offerings, then those markets should not be INTELSAT's primary concern.<sup>277</sup>

Although shying away from the term,<sup>278</sup> INTELSAT views itself as a natural monopoly.<sup>279</sup> INTELSAT points to its mandate to serve all nations on a non-discriminatory basis<sup>280</sup> as ground for a broad interpretation of its primary responsibility.<sup>281</sup> Under such an interpretation, all traffic demands serviceable by INTELSAT must be routed through its system in order to insure economy of scale, the benefits of which are applied to the thin routes of developing countries.<sup>282</sup> Thus, INTELSAT makes the assumption that Article XIV(d) protections apply to all commercial satellite telecommunications between accessible countries.<sup>283</sup>

#### b. Time Period for Economic Protections

Under the market diversion theory, the effect of a proposed system on INTELSAT is to be evaluated by estimating the potential diversion of present INTELSAT traffic.<sup>284</sup> As stated by ISI, "markets not served or services not provided by INTELSAT or on facility or other plans that INTELSAT has not implemented" need not be considered.<sup>285</sup> Thus, the applicants assume an immediate time period for determining economic harm.

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<sup>274</sup> The mature corporation argument reasons that because INTELSAT has succeeded, it is less vulnerable to economic harm from competition in those markets outside its present traffic base. ISI Application, *supra* note 1, at 56-58.

<sup>275</sup> See *id.* at 52.

<sup>276</sup> *Id.* at 51.

<sup>277</sup> See, e.g., Cygnus Application, *supra* note 1, at 70-74.

<sup>278</sup> See *Hearings before the Senate Subcomm.*, *supra* note 15, at 77-78 (Colino written statement).

<sup>279</sup> See SNOW, *supra* note 25, at 99-101. See also ROSTOW REPORT, *supra* note 38, Chapter Two at 25-26.

<sup>280</sup> See *supra* text accompanying notes 77-80.

<sup>281</sup> See *Hearings before the Senate Subcomm.*, *supra* note 15, at 83-84 (Colino written statement).

<sup>282</sup> *Id.* at 195 (Colino responses to additional questions submitted for the record).

<sup>283</sup> Support for this assumption is found in the INTELSAT negotiating history in the debate over what constituted specialized as opposed to public services. See Statement By The Delegate Of Sweden Concerning Draft Article III At The Ninth Session, May 22, 1970, INTELSAT *Travaux Préparatoires* IWG/Doc. 16.

<sup>284</sup> See, e.g., RCA Americom Application, *supra* note 1, at 2. This means of evaluation is present in all arguments of untapped markets or market growth as protections against economic harm. The basis of the argument is that INTELSAT's future traffic is relative to its *present* traffic and separate systems will not engender significant economic harm.

<sup>285</sup> ISI Application, *supra* note 1, at 52. ISI did perform its economic harm analysis over a five to



INTELSAT argues that the economic harm analysis applies to all services proposed by the applicants because these services are already within its market base.<sup>286</sup> While INTELSAT nonpublic-switched message traffic is presently light, INTELSAT asserts that its entry into these markets entails Article XIV(d) protections.<sup>287</sup> Thus, INTELSAT argues that its expected growth should be included in its protected traffic base.<sup>288</sup> This argument incorporates an assumption that the significant economic harm analysis applies to present as well as future traffic.

### c. Cumulative Effect

The market diversion theory assumes that only a single alternative system will be taken into account when determining the effect on INTELSAT traffic and revenues.<sup>289</sup> Support for this assumption is found in the F.C.C.'s case-by-case approach to previous alternative systems applications.<sup>290</sup> Thus, the applicants seek to have the economic effects of their systems weighed separately.

COMSAT and INTELSAT argue that the applicants' proposals must be considered in their cumulative effect on INTELSAT.<sup>291</sup> They argue that the United States' approval of separate intercontinental systems would signal other countries also to establish separate systems, thereby having a greater economic impact on INTELSAT than a single system or the U.S. systems alone.<sup>292</sup> Pointing to its coordination of the Algeria/INTERSPUTNIK proposals as precedent, INTELSAT argues that the cumulative effect of the proposals is the true basis for the determination of economic harm.<sup>293</sup> COMSAT points out that the creation of the present U.S. proposed alternative systems, excluding similar actions by other parties, would almost triple the transponder capacity for existing INTELSAT transatlantic routes.<sup>294</sup>

seven-year time period. *See id.* at 56. The ISI estimates, however, are based on present INTELSAT offerings and technology, thus the ISI estimates of economic harm are relative to the present, and then indexed to estimated growth. *See id.* at Appendix F.

<sup>286</sup> *See Hearings before the Senate Subcomm.*, *supra* note 15, at 151-52 (Colino statement).

<sup>287</sup> *Id.* at 83-86 (Colino written statement) (future INTELSAT viability depends on new services to broaden its revenue base).

<sup>288</sup> *Id.* at 59-60.

<sup>289</sup> *See, e.g.*, RCA Americom Application, *supra* note 1, at 2; ISI Application, *supra* note 1, Appendix F at 1. Further, PanAmSat argues that the planning of alternative systems by parties other than the United States is evidence that its proposal should be approved. *See PanAmSat Opposition*, *supra* note 246, at 4-6.

<sup>290</sup> *See, e.g.*, *Transborder*, 88 F.C.C.2d 258 (1981).

<sup>291</sup> *See Hearings before the Senate Subcomm.*, *supra* note 15, at 193 (Colino responses to additional questions submitted for the record). *See, e.g.*, COMSAT Petition to Deny ISI, *supra* note 252, at 12.

<sup>292</sup> *See, e.g.*, COMSAT Petition to Deny ISI, *supra* note 252, at 14. *See generally Hearings before the House Subcomm.*, *supra* note 2, at 364-68 (Statement of Rep. Dingell).

<sup>293</sup> *See Policies, Criteria and Procedures*, *supra* note 84, at 11-12.

<sup>294</sup> *See Hearings before the House Subcomm.*, *supra* note 2, at 601 (Alper statement).

The cumulative effect issue incorporates many considerations beyond the merits of the proposals. A number of regional systems in the planning stages would have the capability to serve the United States should the F.C.C. authorize the use of non-INTELSAT space segment for international purposes.<sup>295</sup> Further, considerations of orbital slot availability,<sup>296</sup> potential duplicative service,<sup>297</sup> and additional proposed alternative systems<sup>298</sup> all must be weighed in examining the effect of establishing non-INTELSAT systems.

#### 4. Summary

The various assertions under market diversion theory rest on assumptions that the scope of Article XIV(d) protections are limited to present INTELSAT offerings<sup>299</sup> and traffic<sup>300</sup> and are applied to each proposal separately.<sup>301</sup> COMSAT and INTELSAT's response rests on assumptions that Article XIV(d) protections apply to all communications markets serviceable by international satellite facilities<sup>302</sup> and traffic within those markets.<sup>303</sup> Further, COMSAT and INTELSAT argue that the magnitude of economic harm threatened by separate systems is to be weighed cumulatively.<sup>304</sup>

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<sup>295</sup> See PanAmSat Opposition, *supra* note 246, at 5.

<sup>296</sup> At present, only a limited number of satellites may operate in geostationary orbit without interfering with each other. Therefore, orbital positions or slots are a scarce resource. Viewed from the orbital slot and frequency spectrum perspective, the main barrier to alternative systems is political rather than technical. A report released in March, 1983, indicates the geostationary orbit capacity is far beyond the foreseeable demand for world-wide telecommunications use. See N.T.I.A., LONG RANGE GOALS, *supra* note 105, at 104-06. The process for allocation of orbital slots, however, is a first-come first-served basis as coordinated through the ITU. See *id.* at 103-04. Some countries believe that orbital slots should be allocated on a future use *a priori* basis. See SIG Report, *supra* note 2, at 22-24; *Hearings before the House Subcomm.*, *supra* note 2, at 607 (Alper statement). Thus, politically, some argue it is improper for the United States to appropriate geostationary slots on a unilateral or bilateral basis. *Id.*

<sup>297</sup> From an efficiency standpoint, the use of non-INTELSAT systems for duplicative services has been frowned upon by the United States. See *Transborder*, 88 F.C.C.2d at 281 n. 30. In the *Transborder* cases the F.C.C. based its approval of the use of domestic satellites for U.S./Canada service on the inefficiency of duplicative services. *Id.* at 281. If the untapped markets fail to materialize multiple alternative systems would constitute inefficient use of the geostationary orbit and frequency spectrum. See ROSTOW REPORT, *supra* note 38, Chapter Two at 25.

<sup>298</sup> Venture capital markets will probably limit the U.S. mounting of \$250 million systems. This private enterprise limit, however, is no barrier to alternative systems underwritten by foreign Post, Telephone and Telegraph (PTT) Authorities. The history of INTELSAT is full of promised alternative systems to be mounted by PTT's for nationalistic purposes. See Trooboff, *supra* note 26, at 13-14. The principal disincentive to these alternatives systems was the United States support of the single global system concept.

<sup>299</sup> See *supra* text accompanying notes 273-76.

<sup>300</sup> See *supra* text accompanying notes 284-85.

<sup>301</sup> See *supra* text accompanying notes 289-90.

<sup>302</sup> See *supra* text accompanying notes 278-83.

<sup>303</sup> See *supra* text accompanying notes 306-08.

<sup>304</sup> See *supra* text accompanying notes 291-94.

### C. Market Division Theory

#### 1. SIG Proposal

The SIG recommended that the permissibility of separate systems be conditioned upon a restriction that such systems provide only customized services.<sup>305</sup> The SIG Report states that significant economic harm to INTELSAT may be avoided if the separate systems are precluded from carrying traffic originating in public-switched message networks.<sup>306</sup> The SIG recommendations are a hybrid of the percentage diversion theory, asserting that Article XIV protections will be met because the diversion of nonpublic-switched message traffic will not cause significant economic harm.<sup>307</sup>

The SIG asserts that over 80 percent of INTELSAT's traffic arises from public-switched message networks.<sup>308</sup> Further, the SIG projects an annual growth rate of close to 15 percent for this traffic over the 1988–2000 time period.<sup>309</sup> The combination of these factors, the SIG Report states, will insulate INTELSAT from economic harm.<sup>310</sup> This analysis is also found in the ISI offer to forgo traffic now carried by A.T.& T.<sup>311</sup> and in the Cygnus intent to preclude use of its proposed system for common carrier purposes.<sup>312</sup>

#### 2. COMSAT/INTELSAT Position

COMSAT and INTELSAT respond by restating the issue of whether protection of INTELSAT public-switched message traffic insulates against significant economic harm as, simply, whether the INTELSAT system is capable of carrying

<sup>305</sup> SIG Report, *supra* note 2, at 30. The SIG Report does not clearly define customized services beyond such services involving "the sale or long-term lease of transponders or space segment capacity" for services including intracorporate networks, television transmission, and emergency restoration services. *Id.*

<sup>306</sup> *Id.*

<sup>307</sup> *Id.*; see also ISI Application, *supra* note 1, at 54; Cygnus Application, *supra* note 1, at 31.

<sup>308</sup> SIG Report, *supra* note 2, at 7–8.

<sup>309</sup> *Id.* at 8.

<sup>310</sup> *Id.* at 35. The SIG Report outlines three potential scenarios resulting in significant economic harm to INTELSAT:

Since public-switched services comprise by far the largest part of international traffic, any significant adverse impact on INTELSAT could result only if: (i) customized communications quickly supplant conventional services as the mainstay of the international communications business; (ii) such new services constitute a uniquely profitable line of commerce, the profits from which are essential to subsidize other necessary but unprofitable INTELSAT undertakings; and (iii) INTELSAT proves unable effectively to match new entrants, by, among other things, achieving end-user price reductions, broadening its service repertoire, and providing carriers and users direct access options.

*Id.* at 34.

<sup>311</sup> ISI Application, *supra* note 1, at 54.

<sup>312</sup> Cygnus Application, *supra* note 1, at 65, 68–74.

customized services such as international television and business services.<sup>313</sup> Thus, they argue, the consideration of potential economic harm to INTELSAT must extend beyond the confines of the INTELSAT public-switched message traffic base.<sup>314</sup> Further, INTELSAT has cautioned that the separate systems constitute a real threat to the viability of its fledgling business service offerings.<sup>315</sup>

COMSAT further asserts that any protection of INTELSAT's interests based on a public-switched message traffic preclusion would not be enforceable by either the applicants<sup>316</sup> or the F.C.C.<sup>317</sup> COMSAT points out that many companies have their own telephone switching equipment allowing them to connect local and long-distance telephone calls within their systems.<sup>318</sup> These facilities, COMSAT warns, could be used to channel public-switched message traffic into a private customized facility thereby circumventing the SIG Report's recommended restrictions.<sup>319</sup> Internationally, COMSAT states, foreign separate systems might also offer intercontinental routes upon approval of such services for the U.S. applicants.<sup>320</sup> The F.C.C. would not be able to restrict the traffic on these non-U.S. systems to nonpublic-switched message service for traffic outside the United States.<sup>321</sup>

Finally, COMSAT and INTELSAT point to market realities as a flaw in the SIG proposed restrictions.<sup>322</sup> COMSAT argues that nearly 60 percent of international communications revenues are generated by those corporations which are targeted as users of the alternative systems.<sup>323</sup> Thus, COMSAT reasons, the customized market is likely to be diverted from INTELSAT's current interna-

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<sup>313</sup> See *Hearings before the House Subcomm.*, *supra* note 2, at 614 (Alper written statement); see also COMSAT Petition to Deny ISI, *supra* note 252, at 9.

<sup>314</sup> See *Hearings before the House Subcomm.*, *supra* note 2, at 602-03, 614 (Alper written statement).

<sup>315</sup> See *Policies, Criteria and Procedure*, *supra* note 84, at 12. INTELSAT Business Services (IBS) offers a flexible variety of satellite services allowing small earth stations on the customers premises. INTELSAT has made this service available for "all types of telecommunications services." See *Hearings before the Senate Subcomm.*, *supra* note 15, at 130-31 (Colino written statement). Although it is unclear, the SIG Report seems to define customized services as carrying the same offerings as IBS. See SIG Report, *supra* note 2, at 30.

<sup>316</sup> See *Hearings before the House Subcomm.*, *supra* note 2, at 603-04 (Alper statement). See also Reply Of Communications Satellite Corporation To Opposition To Petition To Deny at 6-7, In re Cygnus Satellite Corporation, File No. CSS-84-002-P(LA) (May 8, 1984) [hereinafter cited as COMSAT Reply to Cygnus].

<sup>317</sup> See *Hearings before the House Subcomm.*, *supra* note 2, at 604, 610-11 (Alper statement).

<sup>318</sup> This switching equipment is known as private branch exchange (PBX) facilities. While the PBX systems ostensibly are used for intrapremises connection and transfer of telephone calls, the system may be used to connect an incoming local call with an outgoing long distance call. See *Customer Interconnection*, 61 F.C.C.2d 766, 798 (1976) (description of PBX systems); *Hearings before the House Subcomm.*, *supra* note 2, at 603-04 (Alper statement) (identification of routing practices).

<sup>319</sup> *Hearings before the House Subcomm.*, *supra* note 2, at 604 (Alper statement).

<sup>320</sup> *Id.* at 611-12.

<sup>321</sup> *Id.* at 611.

<sup>322</sup> *Id.* at 603.

<sup>323</sup> *Id.* at 596.

tional traffic rather than latent markets.<sup>324</sup> A second consideration is the development of international fiber optic undersea cables.<sup>325</sup> These cables, owned by the public-switched message carriers themselves, are likely to erode INTELSAT's traffic volume for those services which would be protected under the SIG recommendations.<sup>326</sup>

### 3. The SIG Analysis

The SIG Report's underlying assumptions are different from those presented by the applicants or by COMSAT and INTELSAT.

#### a. INTELSAT's Scope

While the SIG Report would submit the applications to INTELSAT under Article XIV(d), the Report's proposed restrictions indicate the SIG believes INTELSAT's primary scope to be limited by the needs of developing countries.<sup>327</sup> The SIG approach would introduce competition to all international communication satellite markets except public-switched message service.<sup>328</sup> Thus, the SIG approach would limit the protection of INTELSAT's international public telecommunications services to public-switched message services.<sup>329</sup>

#### b. Time Period

Since the adoption of the Definitive Arrangements, INTELSAT's primary source of revenue has been the international public-switched message market.<sup>330</sup> The SIG proposal argues that, because public-switched message service has made up the bulk of INTELSAT's traffic, the significant economic harm analysis should be limited to such services.<sup>331</sup> This approach would limit Article XIV(d) economic protections to the past INTELSAT traffic patterns.

<sup>324</sup> *Id.* at 602, 604.

<sup>325</sup> High volume fiber optic undersea cables established to meet U.S. communications requirements will be INTELSAT's principal competition absent separate systems. *See Hearings before the Senate Subcomm.*, *supra* note 15, at 153 (Colino statement).

<sup>326</sup> *See Hearings before the House Subcomm.*, *supra* note 2, at 888-89 (letter from John J. McLucas, COMSAT Executive Vice President, to Rep. John Dingell, Chairman of House Committee on Energy and Commerce (August 10, 1984) answering question by Rep. Dingell on effective competitive structures in international telecommunications). *See generally* Policies for Overseas Common Carriers, 82 F.C.C.2d 407, 411 (1980).

<sup>327</sup> *See* SIG Report, *supra* note 2, at 21-22.

<sup>328</sup> *See* SIG Report, *supra* note 2, at 30-31. *See also* PanAmSat Opposition, *supra* note 246, at 2.

<sup>329</sup> SIG Report, *supra* note 2, at 52. *But see* Robinson, *supra* note 228, at 3-6.

<sup>330</sup> SIG Report, *supra* note 2, at 30.

<sup>331</sup> *Id.* at 30-31 (in offering protections only to INTELSAT's public-switched message traffic the SIG approach impliedly exempts customized services from the Article XIV(d) analysis).

### c. Cumulative Effects

The market division theory essentially side steps the cumulative issue, since the economic harm analysis principally applies to public-switched message service.<sup>332</sup> Under SIG analysis, the applicants' proposals offer only nonpublic-switched message services, the cumulative effect of which would be insignificant to INTELSAT.<sup>333</sup> Thus, following the SIG reasoning, the cumulative effects analysis is superfluous because all entrants are limited to the customized services market.<sup>334</sup>

### D. Summary

In order to satisfy Article XIV(d) principles, the applicants present a series of economic protections springing from U.S. domestic market principles,<sup>335</sup> and estimates of unmet demands and untapped markets.<sup>336</sup> The SIG Report represents a shift in U.S. policy for evaluation of separate systems.<sup>337</sup> The method of analysis in the SIG Report rests on admittedly unknown market considerations and vague promises of market benefits.<sup>338</sup>

## VI. CONCLUSION

The change of the U.S. position against separate intercontinental satellite systems leaves only Article XIV to protect INTELSAT's economic health. It is unclear whether Article XIV was intended to bear the full weight of protecting the INTELSAT system.<sup>339</sup> Nevertheless, those who wish to create separate sys-

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<sup>332</sup> *Id.* at 30.

<sup>333</sup> *Id.* at 34-36.

<sup>334</sup> *Id.* at 30.

<sup>335</sup> See, e.g., ISI Application, *supra* note 1, at 35.

<sup>336</sup> See generally *id.* at 10.

<sup>337</sup> The previous United States interpretation of economic harm is found in a letter from James L. Buckley, Under Secretary for Security Assistance, Science and Technology for the Department of State, to Mark S. Fowler, Chairman, Federal Communications Commission, regarding applications by U.S. domestic satellite facilities to international service authorization. *Transborder Satellite Video Services*, *supra* note 98, at 287, Appendix A. Under Secretary Buckley indicated that while the United States fully supported INTELSAT, U.S. domestic systems might be used for international public telecommunications "... where the global system could not provide the service required ... [or] the service planned would be clearly uneconomical or impractical using the INTELSAT system." *Id.* at 288. The Buckley analysis is a clear one, asking whether INTELSAT can technically and efficiently provide the proposed route.

<sup>338</sup> SIG Report, *supra* note 2, at 35.

<sup>339</sup> Article XIV reflects a balance between the signatories' business interests in protecting their investment and the parties demands for freedom in constructing communications facilities to serve their public. The matrix of non-binding recommendations and good faith requirements are the trappings of diplomacy and not arms-length business dealings. At the INTELSAT Agreements negotiation it was thought that the members' investment in the system was a sufficient disincentive to their participation in threatening separate systems. See Statement of the Representative of the United Kingdom, INTELSAT *Travaux Préparatoires* SR/19 at 3 (March 3, 1970).

tems have presented theories according to which their proposals would be consistent with Article XIV protections.<sup>340</sup>

The inclusion of Article XIV, paragraphs (c), (d), and (e)<sup>341</sup> and the procedure for subsequent coordination of separate domestic<sup>342</sup> and regional systems<sup>343</sup> make it clear that INTELSAT is not mandated to carry *all* satellite telecommunications. Thus, though INTELSAT is not a monopoly in the strict sense, by precluding competitive systems it maintains a monopolist's power to set prices and average costs across all international routes.<sup>344</sup> The technical, economic requirements, and direct communications links provisions of Article XIV(d) are obstacles to member undercutting of the price averaging power.<sup>345</sup>

The specialized services argument presented by Orion and Cygnus<sup>346</sup> is an insubstantial veil, created by applying F.C.C. definitions to the INTELSAT Agreement.<sup>347</sup> Orion and Cygnus hope to exempt their systems from the economic protections afforded INTELSAT under Article XIV(d) through the novel nature of their proposed marketing arrangements and the contingency nature of Article XIV(e).<sup>348</sup> While the Orion and Cygnus economic arrangements may be unique, INTELSAT has, in a previous coordination, considered the very services contemplated by Orion and Cygnus to be public telecommunications services under Article XIV(d).<sup>349</sup>

The various market diversion theories presented by ISI, RCA Americom, and PanAmSat<sup>350</sup> stand on tenuous ground. The promise of latent markets, long term growth, and the benefits of competition in international telecom-

<sup>340</sup> See *supra* text accompanying notes 204–20, 246–63, 305–12.

<sup>341</sup> See *supra* text accompanying notes 126–41.

<sup>342</sup> See *Domestic Communications Satellite Facilities*, 22 F.C.C.2d 86, 94 (1970).

<sup>343</sup> See *generally* Policies, Criteria and Procedures, *supra* note 84, at 16.

<sup>344</sup> See Article V(d), INTELSAT Agreements, 23 U.S.T. 3813, 3823. See also *infra* note 351 (whether cross-subsidization exists). A decrease in traffic in one region may affect the price for services in another region because INTELSAT services are broken between three regional systems, yet the rates are set globally. The introduction of competition in the AOR will usurp INTELSAT's power to set prices along the duplicative routes, thus forcing either competitive tariffs or traffic loss to lower priced systems. There must either be disparity in pricing between regions or an effect on the average pricing. See SNOW, *supra* note 25, at 47–50. See also Walter Hinchman Associates, Inc., *The Economics of International Satellite Communications* at 14–18, Attachments No. 1 to INTELSAT Doc. BT-59-34E W/6/84 (May 18, 1984) (prepared for INTELSAT) [hereinafter cited as *Walter Hinchman Associates, Economics*].

<sup>345</sup> Article XIV(d) is intended to protect that price-averaging power. See *Hearings before the House Subcomm.*, *supra* note 2, at 77–78 (Washburn statement). See also *supra* text accompanying notes 135–38.

<sup>346</sup> See *supra* notes 212–20 and accompanying text.

<sup>347</sup> See, e.g., Orion Opposition, *supra* note 209, at 14–17. See also *supra* text accompanying notes 212–20.

<sup>348</sup> See *generally* Cygnus Application, *supra* note 1, at 60–66.

<sup>349</sup> See ECS II Coordination, *supra* note 90, at 1.

<sup>350</sup> See *supra* text accompanying notes 246–63.

munications are as of yet unproven.<sup>351</sup> Further, focus on the traffic diversion of a single transatlantic system against the entire traffic base of the INTELSAT system masks the true effect of the competition.<sup>352</sup> With the introduction of competition, INTELSAT would lose the monopolist's power to average rates on a global basis.<sup>353</sup> A proper diversion analysis should focus on the impact on rates along duplicative routes and the resulting effects on INTELSAT's capitalization requirements and ratemaking procedures.<sup>354</sup>

The SIG approach<sup>355</sup> is perhaps the least defensible. The SIG Report incorporates the fallacies of the specialized services theory<sup>356</sup> and the unproven

<sup>351</sup> The analogies drawn to the benefits of competition in the U.S. domestic satellite telecommunications industry, *see e.g.*, Cygnus Application, *supra* note 1, at 72-74, nn. 64 & 65, do not necessarily apply to international satellite telecommunications. While the domestic industry may be totally controlled by the F.C.C., the international industry is effected by each of the PTT's. *See Hearings before the House Subcomm.*, *supra* note 2, at 857 (Washburn written statement). In light of the wrench-like control foreign authorities maintain over communications intercourse across their borders, the promise of tapping latent markets and the other benefits of domestic competition are not assured. *See generally* E. Kwerel, Fed. Com. Commission, OPP Working Paper Series, Promoting Competition Piecemeal in International Telecommunications, at 10-12 (Dec. 1984). *See also* B. Rein, B. McDonald, D. Adams, R. Nielsen & C. Frank, Implementation of a U.S. "Free Entry" Initiative for Transatlantic Satellite Facilities: Problems, Pitfalls and Possibilities, at 13-14 (July 3, 1984). *But see* PanAmSat Opposition, *supra* note 246, at 5-6.

<sup>352</sup> The INTELSAT system consists of satellite facilities serving the Atlantic (AOR), Pacific (POR), and Indian (IOR) Ocean regions. *See* Snow, *supra* note 25, at 87-91 (discussion of the economics of three separate regional satellite systems). In that four of the five applicants hope to offer transatlantic service, the resulting diversion would have a more profound effect on the AOR traffic than on the estimated global traffic.

<sup>353</sup> *See Hearings before the House Subcomm.*, *supra* note 2, at 605-06 (Alper written statement).

<sup>354</sup> *See generally* Walter Hinchman Associates, Inc., The Economics of International Satellite Communications, Vol. 1, at 4-8 (May 18, 1984) (Attachment No. 1 to INTELSAT Doc. BG-59-34E H/6/84). *See also* Walter Hinchman Associates, Inc., Significant Economic Harm, at 21-23 (August 15, 1984) (Attachment No. 1 to INTELSAT Doc. BG-60-63E W/9/84). *But also* K. Dunmore, Dale N. Hatfield Associates, An Analysis of the INTELSAT Subsidy Issue, at 39-40 (August 1983) (on file at the F.C.C. with the Orion Application, *supra* note 1) (a counter-analysis by INTELSAT region). Much debate has been aired over whether route cross-subsidization exists within the INTELSAT system. *See, e.g.*, *Hearings before the Senate Subcomm.*, *supra* note 15, at 151, (Colino statement). This is unfortunate because the issue of route cross-subsidization is superfluous to a United States cost/benefit analysis concerning the separate systems. The INTELSAT Agreements expressly contemplate rate-averaging regardless of route cross-subsidization. Article V(d), INTELSAT Agreements, *supra* note 344; *see also Hearings before the Senate Subcomm.*, *supra* note 2, at 87-88, (Colino statement). Thus, unless one is debating whether to change the financial principles of INTELSAT, the issue is the global effect of the introduction of separate systems.

Furthermore, in practice the United States benefits from the INTELSAT members' *belief* that the cost-averaging dynamic subsidizes their telecommunications expenses. This benefit is manifest in international political goodwill garnered by the United States, regardless of the truth of the underlying belief. In other words, the United States enjoys the appreciation of developing countries for the *believed* less than unit cost of their international telecommunications charges, not the actual cost.

Should the subsidy exist, the Agreements are operating as envisioned and the issue is whether to amend them. Should no subsidy or a reverse subsidy exist, the United States is being charged at or below cost for its space segment use and still receives the global goodwill benefit.

<sup>355</sup> *See supra* text accompanying notes 305-12.

<sup>356</sup> The SIG Report indicates that market entry of user-dedicated satellite systems will not cause INTELSAT economic harm. SIG Report, *supra* note 2, at 34-36.



assertions of market diversion theory<sup>357</sup> in presenting an approach for protecting INTELSAT. The SIG approach divides the international telecommunications markets into protected and competitive segments without a hint of legislative or precedential authority.<sup>358</sup> The porous protections proposed by the SIG Report are subject to immediate circumvention,<sup>359</sup> incapable of being policed,<sup>360</sup> and diminish with time.<sup>361</sup> The SIG Report is a strained attempt to justify a unilateral U.S. decision to restructure the international communications satellite industry.

Ultimately, the Federal Communications Commission must weigh its communications requirements and the perceived benefits of the alternative systems against the economic damage that the creation of such systems will cause to INTELSAT.<sup>362</sup> The framework for making the required determination rests on three significant factors: 1) the scope of INTELSAT's economic protections;<sup>363</sup> 2) the time period for which economic harm is to be analyzed; and 3) the scope of the proposed systems. The determination is particularly vexing because the arguments presented by the applicants, by COMSAT, and by INTELSAT are all based on disparate underlying assumptions regarding these factors.

INTELSAT's primary objective is to supply satellite facilities for its signatories on a nondiscriminatory basis.<sup>364</sup> Article XIV(d)'s protections were aimed at precluding competitive systems.<sup>365</sup> Should the service in question be between signatories,<sup>366</sup> the economic protections found in Article XIV(d) would apply.

<sup>357</sup> See *supra* note 351 and accompanying text.

<sup>358</sup> The SIG reasoning rests entirely on the economic insulation of INTELSAT through predicted market trends. A similar argument concerning the protection of IRCs upon the entry of COMSAT to the retail leased circuits market was rejected by the D.C. Circuit Court of Appeals in *ITT World Communications, Inc. v. F.C.C.*, 725 F.2d 732, 749-50 (1984).

<sup>359</sup> See *supra* text accompanying notes 318-19.

<sup>360</sup> Should separate systems be restricted to customized services, the question arises as to who will monitor the competitors to insure their compliance.

<sup>361</sup> With the introduction of fiber optic undersea cables owned by the U.S. public-switched message networks, more of that traffic is likely to be routed away from the INTELSAT system and over the carrier-owned facilities. See *supra* note 325.

<sup>362</sup> 47 U.S.C. § 701(d) (1982). Although the F.C.C. granted conditional approval of five separate satellite systems, *supra* note 6, the INTELSAT coordination process may require that the F.C.C. reconsider the applications. See *supra* text accompanying notes 159 & 160.

<sup>363</sup> INTELSAT's primary objective is to provide facilities for "International public telecommunications." Article III(a), INTELSAT Agreements, *supra* note 54.

<sup>364</sup> See Article I(k), INTELSAT Agreements, *supra* note 232 (between approved earth stations having access to INTELSAT). See also Article III(a), INTELSAT Agreements, *supra* note 54 (scope of INTELSAT services).

<sup>365</sup> See *supra* note 135.

<sup>366</sup> Services which are *not* "for further transmission to the public," such as direct broadcast or, perhaps, mobile point to mobile point, are outside INTELSAT's prime objective by way of Article I(k) and (l). See *supra* note 232 (public and specialized service definitions). In the Algeria/INTERSPUTNIK

Thus "international public telecommunications" under the INTELSAT Agreements should be interpreted as all international satellite traffic generated by the INTELSAT signatories.<sup>367</sup>

The INTELSAT Agreement is clearly forward looking.<sup>368</sup> The text of Article XIV(d) specifically refers to planned INTELSAT space segment.<sup>369</sup> At issue is how far forward the economic harm analysis should be applied to future markets.<sup>370</sup> The answer may be found in the intent of the Article XIV protections. Ultimately, the competition sought to be avoided by Article XIV(d) is that which would threaten the signatories' investments in the system. In the event a party should violate its obligations, Article XVI outlines the process for withdrawal. Article XVI(k) specifically provides that the offending party may be liable for its share of capital contributions in *contractual* commitments and liabilities arising from acts prior to removal.<sup>371</sup> Clearly, the negotiators of the Definitive Arrangements were concerned with protecting the capitalization of INTELSAT's con-

coordination INTELSAT was presented with the issue of whether signatory/non-signatory traffic was within economic harm consideration. Algeria/INTERSPUTNIK Coordination, *supra* note 96. While finding no significant economic harm in the Algerian proposal, INTELSAT warned, "... if INTELSAT Signatories in general were prepared to see their *satellite* traffic with *non-member* countries carried on another system instead of their own system, the potential for economic harm to INTELSAT would not be insignificant." *Id.* at 6. (emphasis added). Thus, service between a signatory and a non-signatory is within the scope of international public telecommunications services and Article XIV(d) protections apply. *But see* Statement by the Representative of France, INTELSAT *Travaux Préparatoires* Com I/SR/11 at 2 (such non-signatory systems should be outside economic harm analysis).

<sup>367</sup> See, e.g., ECS II Coordination, *supra* note 90, at 8. This analysis is supported by the conservative economic nature of INTELSAT. It is a commercially-oriented cooperative that is insulated from competition by Article XIV. The public telecommunications/specialized services dichotomy and the one-party-one-vote rule of the Assembly act as disincentives to risk-taking in the introduction of new services. Thus, INTELSAT offers all public international telecommunications services which are safely profitable and, therefore, is less likely to either enter expensive high-risk markets or offer services of use to only a few member countries.

Under the equation of signatory-offered international services with international public telecommunications, all such services which have been deemed commercially unprofitable by the signatories are outside the INTELSAT primary objective. This shields INTELSAT from pressures to invest in risky or sophisticated services of use to only a few members. It also shifts the risk for developing such services to non-INTELSAT entities. See Statement by the Federal Republic of Germany, INTELSAT *Travaux Préparatoires* Com I/32 at 1 (inclusion of services in INTELSAT depends on their rentability). The definition of international public telecommunications services as signatories' international traffic is supported by the ECS II coordination through INTELSAT's reasoning that the separate system would develop markets which INTELSAT could then access upon its provision of the service. See Policies, Criteria and Procedures, *supra* note 84, at 34 ¶ 3(b).

<sup>368</sup> The Preamble expresses the parties desire to continue the development of the single system INTELSAT. Preamble, INTELSAT Agreements, *supra* note 35. The INTELSAT Agreements' Articles II(a) and III(a) refer to carrying forward the INTELSAT organization. Articles II(a) & III(a), INTELSAT Agreements, *supra* note 10, 23 U.S.T. 3813, 3818 & 3819.

<sup>369</sup> The word "planned" is used in the context of technical coordination. Article XIV(d), INTELSAT Agreements, *supra* note 134.

<sup>370</sup> See *supra* text accompanying notes 284-88. The SIG recommendations' historical orientation is without support in the text, spirit, or negotiating history of INTELSAT.

<sup>371</sup> Article XVI(k), INTELSAT Agreements, *supra* note 10, 23 U.S.T. 3813, 3861.

tractual commitments. Although the INTELSAT Agreements are silent on the length of time that Article XIV(d) protections apply, Article XVI(k) would indicate that the economic harm analysis should be applied over a time period extending to the length of applicable INTELSAT contractual commitments.<sup>372</sup>

The potential for numerous private alternative system applications is unique to the United States. Other countries, due to centralization of services in their PTT's, have no pressure to diversify and thus would propose a *single* alternative system.<sup>373</sup> This situation was foreseen in the Definitive Arrangements negotiations and addressed in both the structure of the Agreement<sup>374</sup> and in Article XIV.<sup>375</sup> According to the *Transborder* decisions, a party is responsible for making a preliminary case-by-case analysis of the possible economic harm posed by a proposed system.<sup>376</sup> The proposal is then submitted to INTELSAT for findings regarding the technical and economic impact of the system.<sup>377</sup> INTELSAT may, if appropriate, consider the proposal in light of simultaneous or expected future proposals of the same nature and their cumulative effects on INTELSAT's traffic base.<sup>378</sup>

While all the U.S. applications may be reviewed together before being submitted to INTELSAT, it is unrealistic for the F.C.C. to evaluate foreign systems in its initial consideration.<sup>379</sup> The Assembly, however, is specifically tasked to evaluate such alternatives and make its recommendations known to the applicant parties.<sup>380</sup> Thus, the cumulative effect of U.S. applications should be weighed by the F.C.C. in making its original determinations and the cumulative effect

<sup>372</sup> For a proposed transatlantic system, for example, the time period for economic analysis should be the length of INTELSAT's contractual commitments for transatlantic route facilities.

<sup>373</sup> See, e.g., ARABSAT Coordination, *supra* note 94 (system proposed to INTELSAT jointly by parties and signatories).

<sup>374</sup> Articles VII & VIII, INTELSAT Agreements, *supra* notes 67 & 68 (allowing membership by parties and signatories).

<sup>375</sup> Article XIV(d), INTELSAT Agreements, *supra* note 134.

<sup>376</sup> See, e.g., 88 F.C.C.2d at 283-85. It should be noted that in the *Transborder* case the various applications were considered by type of service. Under this method, PanAmSat which is proposing a north/south routing, should be considered separately from the other applications which propose east/west routing.

<sup>377</sup> See, e.g., *Transborder I* Coordinations, *supra* note 97.

<sup>378</sup> Compare Policies, Criteria and Procedures, *supra* note 84, at 34 ¶ 3(b) (coordination for applicant countries as well as certain potential future users) with ECS II Coordination, *supra* note 90 (coordination for increased scope of the ECS system). The point here is that INTELSAT sets the parameters of its inquiry into economic harm which may be as wide as all potential systems.

<sup>379</sup> Indeed, under the Communications Satellite Act of 1962, foreign policy questions were specifically delegated to the President. The F.C.C. was charged with the technicalities of promulgating the international system and regulating U.S. access. 47 U.S.C. § 721(a) & (c) (1982). It is unclear to what extent the SIG and the President considered the cumulative impact of alternative systems in making their recommendations. See *supra* text accompanying notes 332-34.

<sup>380</sup> Article XIV(d), INTELSAT Agreements, *supra* note 134. Article VII(c)(vii), INTELSAT Agreements, *supra* note 154.

of the foreign systems should be considered by the Assembly in making its recommendations.

A close reading of the negotiating history, the INTELSAT Agreements, and previous coordinations uncovers a framework for evaluating economic harm. The Article XIV(d) analysis should apply to all international markets presently served or serviceable by INTELSAT signatories within a time period set by relevant contractual commitments.<sup>381</sup> The cumulative effect on INTELSAT of U.S.-proposed separate international systems should be weighed by the F.C.C. and the cumulative effect of all separate international systems should be considered in the Assembly's recommendations under Article XIV(d).<sup>382</sup>

INTELSAT must first determine whether the proposed market is technically or economically within INTELSAT's traffic base, the base being limited by the contractual commitment time period.<sup>383</sup> If the proposed services are duplicative, then INTELSAT must perform a diversion analysis,<sup>384</sup> estimating the economic effect of the proposed system(s) and the maximum level of diversion permissible without damaging the capitalization of INTELSAT investments.<sup>385</sup> For future markets, INTELSAT must determine the amount of use and consequent revenue required to capitalize its investment.<sup>386</sup>

Perhaps one solution would be to read Article XIV(d) in light of its true intent: to protect the signatories' investments. Should the United States conclude that separate systems are necessary, the F.C.C. might set a floor for the volume for U.S. traffic to be carried by INTELSAT over a specified time period.<sup>387</sup> As long as INTELSAT traffic remains above these levels, separate systems would be welcome to develop new markets.<sup>388</sup>

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<sup>381</sup> See *supra* text accompanying notes 367 & 371.

<sup>382</sup> See *supra* notes 379 & 380 and accompanying text.

<sup>383</sup> Inherent in this analysis is a determination of INTELSAT's present and future markets as well as the separate systems' future markets. In making this determination, INTELSAT has traditionally looked to both the type of message being communicated (e.g., television, switched message, teleconferencing), see ECS II Coordination, *supra* note 90, and the equipment used (e.g., micro-dish antennae, bandwidth requirements), see Transborder I Coordinations, *supra* note 97. The applicants must prove the proposed services will not usurp INTELSAT traffic. See COLINO, Monograph, *supra* note 3, at 94.

<sup>384</sup> See *supra* text accompanying note 354.

<sup>385</sup> This analysis may weigh the combined effects of all proposed systems but should be done on a basis that estimates the effects in terms of the planned routes (e.g., CONUS to Western Europe). See *supra* text accompanying notes 353 & 354.

<sup>386</sup> For example, with IBS, INTELSAT should identify the calculated transponder space allocated to that service to determine the traffic needed to capitalize the associated investment.

<sup>387</sup> A mandated minimum traffic flow as an economic protection is not unfamiliar to the INTELSAT parties. In the First Plenipotentiary conference France suggested mandatory traffic routing as a protection for INTELSAT against threatening regional systems. See Statement by the Representative of France, INTELSAT *Travaux Préparatoires* Com I/SR/12 at 3.

<sup>388</sup> The United States might negotiate as to the minimum traffic levels necessary for capitalization

The United States shift to endorse separate international satellite systems need not preface INTELSAT's decline. While the applicants, COMSAT, INTELSAT, and the U.S. government shape their arguments to fit the obligations of the INTELSAT Agreements, a workable short-term solution is available. Mandated minimum U.S. traffic loading of the INTELSAT system would satisfy the demands of all the concerned parties. Such a solution would demand a new reading of the INTELSAT Agreements and the jettison of the traditional diplomatic compromises which trail in the wake of previous coordinations. The reality is that the INTELSAT Agreements establish a satellite system to carry international signatory traffic. When technology reaches beyond the limits of signatories' facilities, the INTELSAT Agreement should not be read to forestall progress.

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of facilities. INTELSAT would be free to capture additional traffic. Further, the F.C.C. has a long history of enforcing mandatory routing levels.

While differing with this method of regulation, the SIG agrees that separate systems "should be authorized under regulatory terms and conditions that will hold them to their commitments and ensure that their attention is focused on serving and developing the customized service market." SIG Report, *supra* note 2, at 30.