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INTELSAT

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INTELSAT

INTRODUCTION

The International Telecommunications Satellite Organization (INTELSAT)¹ is a non-profit cooperative that owns and operates a global commercial satellite system.² The Organization consists of one hundred and ten member countries with representatives chosen to make administrative decisions on their government's behalf.³ INTELSAT's aim is to provide a communication satellite system to the entire world community on a non-discriminatory basis.⁴

Although INTELSAT has been able to maintain a "monopoly" in international satellite communications, recent developments in the field of international telecommunications threaten to jeopardize that position. Not only must INTELSAT contend with technological advances in optical fiber transmission facilities,⁵ but it now also must prepare

1. Agreement relating to the International Telecommunications Satellite Organization (INTELSAT), with annexes, done Aug. 20, 1971, 23 U.S.T. 3813, T.I.A.S. No. 7532 [hereinafter cited as INTELSAT Agreement]; Operating Agreement Relating to the International Telecommunication Satellite Organization, with annexes, done Aug. 20, 1971, 23 U.S.T. 40091, T.I.A.S. No. 7532 [hereinafter cited as INTELSAT Operating Agreement]. These two multilateral treaties established INTELSAT.

2. See INTELSAT Operating Agreement, *supra* note 1, at art. IV. INTELSAT operates on a commercial basis as each system user, whether a member of the organization or not, pays for the services it receives. *Id.* Accordingly, INTELSAT member's investment entitles it to part ownership and guarantees that member a return on its net investment. *Id.*

3. See INTELSAT Agreement, *supra* note 1, at art. VII. INTELSAT is organized into four operating units. *Id.* The Assembly of Parties is the main organ and is composed of representatives of the member country governments with each representative having one vote. The Meeting of Signatories includes all governments or their designated telecommunication entities that have signed the Operating Agreement. See INTELSAT Operating Agreement, *supra* note 1, at art. VIII. Similar to the procedure of the Assembly, each signatory has one vote. *Id.* The Board of Governors, acting as the executive branch of INTELSAT, is composed of those Operating Agreement signatories that have achieved the minimum share requirements determined annually by the Meeting of Signatories. *Id.* The Board is responsible for all decisions concerning the development, operation and maintenance of INTELSAT satellites. *Id.* at art. IX. The final unit is INTELSAT's staff, headed by the Director General, who manages and oversees INTELSAT's daily operations. *Id.*

4. See INTELSAT Agreement, *supra* note 1, at preamble (observing that one of the principle goals of INTELSAT is to provide communication by means of satellite to all nations of the world on a non-discriminatory basis). Any nation seeking membership into INTELSAT, therefore, must agree to promote these aims. *Id.* at art. II(a).

5. W. STOVER, INFORMATION TECHNOLOGY IN THE THIRD WORLD 34 (1984) (discussing the impact optical fibers would have in that they would permit large amounts of information to be transmitted through glass tubes wrapped in cables and placed

itself for inevitable competition with entirely separate international satellite systems.⁶

This Article examines these current developments in international telecommunications and considers the possible impact they will likely have on INTELSAT. More specifically, the Article focuses on the recent United States initiative to encourage its private corporations to infiltrate those satellite markets traditionally reserved for INTELSAT. The Article will also briefly discuss the recent breakthroughs in fiber optics technology and its potential impact on INTELSAT's satellite system. Lastly, the Article will identify other events that have and will continue to affect INTELSAT.

I. INTELSAT AND THE NEW COMPETITION FROM PRIVATE SATELLITE CORPORATIONS

A. IMPACT OF NEW UNITED STATES POLICY ON INTELSAT

Private United States corporations' attempts to establish their own satellite systems raises a number of foreign policy questions for the Executive Branch because of the United States' commitment to the INTELSAT Agreement.⁷ Several foreign policy-makers, therefore, requested that the Federal Communication Commission (FCC) delay its authorization decision of the first application for the private development of such a system until after they reviewed the matter. On November 28, 1984, President Reagan declared that the development of separate international satellite systems is in the United States' national interest.⁸ The President qualified this declaration, however, with a suggestion⁹ that the FCC impose two restrictions on private firms seeking to operate such systems. The United States Departments of State and

underground or underwater, making them a viable alternative to the use of satellites). See also *infra* notes 28-34 and accompanying text (discussing the fiber optic challenge to INTELSAT).

6. See *infra* notes 7-27 and accompanying text (discussing how the development of separate satellite systems will effect INTELSAT).

7. See INTELSAT Agreement, *supra* note 1, at art. XIV. As a signatory to both INTELSAT agreements, the United States is, of course, bound by its terms. One of the Agreement's provisions states that INTELSAT members may only establish separate satellite systems for the purposes of their respective national security unless they are authorized by a certain number of other members. *Id.* Hence, any attempt by private United States firms to establish such separate, non-security satellite systems would likely place the United States government at odds with the Agreement to which it is bound. *Id.*

8. Presidential Determination No. 85-2 (Nov. 28, 1984), *reprinted in* 50 Fed. Reg. 1570, 1579 (1985) [hereinafter cited as Presidential Determination].

9. It should be mentioned that a Presidential Determination or Interagency foreign policy guideline is not legally binding on the FCC.

Commerce sent a letter, the White Paper, to the FCC explaining the scope of these restrictions.¹⁰ The White Paper recommended that the FCC only authorize licenses for communication services not interconnected with public-switch message networks,¹¹ and that the FCC consult one or more foreign authorities to ensure United States compliance with the INTELSAT Agreement.¹² It is clear that these restrictions were formulated in order to bring United States policy in line with Article XIV(d) of the INTELSAT Agreement.¹³ Article XIV(a) provides that where INTELSAT members intend to establish separate space segment facilities, they must consult with the Assembly of Parties through the Board of Governors to ensure that their facilities are technically compatible with those at INTELSAT and to avoid significantly harming the INTELSAT global system.¹⁴ Accepting the White Paper's

10. White Paper in International Satellite Systems: Senior Interagency Group on International Communications and Information Policy, 1 (Feb. 1985). The Presidential Determination directed both the Secretary of Commerce and Secretary of State to inform the FCC of the criteria that should be used in authorizing private international satellite ventures. *Id.* Following a joint study conducted by the Senior Interagency Group on International Communications and Information Policy, the White Paper was produced purporting to delineate the Executive branch's non-binding policy on the matter and to explain the basis behind the President's determination. *Id.*

11. See *The World on the Line*, THE ECONOMIST 6, 7 (1985) (providing an example of how the many telecommunication systems operate). A public switch network delivers communication services through various publicly owned transmission facilities. *Id.* Persons wishing to communicate through these systems must interconnect their transmissions with common carriers, such as AT&T. *Id.* A public switch network is often considered synonymous with the telephone network. *Id.*

12. Federal Communications Commission, Report and Order in the Matter of Establishment of Satellite Systems Providing International Communications, C.C. Docket No. 48-1299, F.C.C. 85-399 (adopted July 25, 1985; released Sept. 3, 1985) [hereinafter cited as Report and Order]. The precise language of the restrictions reads:

(1) Each system is to be restricted to providing services through the sale or long term lease of transponders of space segment capacity for communications not interconnected with public-switch message networks (except for emergency service); and,

2) one or more foreign authorities are to authorize use of each system and enter into consultation procedures with the United States party under Article XIV(d) of the INTELSAT Agreement to ensure technical compatibility and avoid significant economic harm.

Id.

13. See INTELSAT Agreement, *supra* note 1, at art. XIV(d). This provision authorizes the establishment, acquisition, and utilization of other satellite systems. *Id.* Generally, to obtain such authorization, a party or signatory of the agreements must prove to the other INTELSAT members that the proposed systems are technically compatible with and will not cause significant economic harm to INTELSAT. *Id.* The President's two restrictions were meant to guarantee U.S. compliance with this provision. *Id.*

14. *Id.* See also INTELSAT, "Procedural Manual for Consultation Under Article XIV(d) of the INTELSAT Agreement," May 1986 (available upon request at INTELSAT Headquarters, Washington, D.C.) (issuing guidelines for INTELSAT members and users clarifying the consultation procedure under Article XIV(d) of the Agree-

recommendations almost without reservation, the FCC, in September, 1985, approved several corporate applications and thereby gave the private applicants the authority to operate new international satellite facilities.¹⁵

The crucial issue now facing INTELSAT is the economic impact the new United States policies, favoring the establishment of separate transoceanic satellite systems, will have on the organization. The substance of the policy guidelines coupled with the restrictive legal structure of INTELSAT indicate that economic harm is inevitable.

The White Paper's two constraints on the new United States policy will not limit INTELSAT's exposure to direct competition. Rather, the problems resulting from the constraints are two-fold. First, the consultation restriction provides a means to evade specific consulting procedures set forth in the Agreement,¹⁶ in that it allows the FCC considera-

ment). The document describes the procedural stages of the process and lists eight steps specifically. *Id.* First, the party or signatory requests in writing consultation under the Article. *Id.* This request is made to the Executive Organ which then must make efforts to obtain sufficient information for an effective evaluation of the request. *Id.* Thereafter, the Director General's staff must evaluate the technical and economic elements of the request. *Id.* The fourth step involves the Director General submitting his technical compatibility assessment to the Board of Governors and the Board's Technical Committee. *Id.* Following some internal coordination of the staff, the Director General then submits his overall evaluation and suggestions to the Board. *Id.* Sixth, the Board of Governors Technical Committee makes an independent assessment of the Director General's technical compatibility conclusion. *Id.* The Board of Governors reviews these two conclusions and reports its own determination to the Assembly of Parties. *Id.* Finally, the Assembly then makes its recommendation based on both its reading of the Article XIV(d) elements and its findings in regard to the advice given. *Id.*

15. See Report and Order, *supra* note 12, at 3-4 (providing a list of companies that filed applications). The companies are Orion Satellite Corporation (Orion) filing on March 11, 1983; International Satellite, Inc. (ISI) filing on August 12, 1983; RCA America Communications, Inc. (RCA) filing on February 13, 1984; Cygnus Satellite Corporation (Cygnus) filing on March 7, 1984; Pan American Satellite Corporation (PanAmSat) filing on May 31, 1984; and Financial Satellite Corporation (FINANSAT) filing on May 17, 1985. In its Report and Order, the FCC made a lengthy analysis of the issues it reviewed in examining the applications. There were five major issues considered. First, potential economic benefits to the public. *Id.* at 4. Second, the impact and enforceability of Executive Branch restrictions (*i.e.*, the Presidential Determination). *Id.* Third, whether competing satellite systems will cause economic harm to INTELSAT rising to the standard of "significant" as provided for in Article XIV(d) of the INTELSAT Agreement. *Id.* Fourth, issues effecting authorization of the separate satellite systems. *Id.* at 5. Fifth, a discussion of the licensing policies to enforce the qualifications of a satellite system operator. *Id.* The FCC concluded that although separate satellite systems are justified economically and legally, Executive Branch restrictions are necessary to maintain United States obligations under the INTELSAT agreement. *Id.*

16. See INTELSAT Agreement, *supra* note 1, at art. XIV. Article XIV states that prior to the establishment of a separate satellite facility, a party or signatory:

shall furnish all relevant information to and shall consult with the Assembly of Parties, through the Board of Governors, to ensure technical compatibility of

ble flexibility to circumvent the Agreement's requirements and that it authorizes the FCC to grant licenses to private firms that would otherwise represent harmful competition for INTELSAT. Because certain countries with high density communication needs would benefit significantly from separate satellite services,¹⁷ it is unlikely that such countries, acting in a consultant capacity, would force the United States to comply strictly with Article XIV(d). Second, the restriction limiting the corporate applicant's proposed service operations to private—switch services¹⁸ is equally ineffective in controlling a direct competitive confrontation between the new private satellite systems and INTELSAT. The Executive policy purports to leave INTELSAT with a monopoly on those services (public-switch networks) that comprise the vast majority of international telecommunications traffic.¹⁹ Because the telecommunications services that are demanded are continually changing, this constraint is deceptively fragile. Indeed, most market experts agree that telecommunications traffic is becoming increasingly saturated with higher levels of private customized services.²⁰ It appears, therefore, that

such facilities and their operation with the use of radio frequency and orbital space by existing or planned INTELSAT space segment [satellite] and to avoid significant economic harm to the global system of INTELSAT.

Id. The provision also requires that the consultation provides "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.* Obviously by requiring only that the FCC consult with a few foreign authorities, the United States is encouraging the circumvention of the Agreement procedure mandating consultation with the entire Assembly of Parties.

17. See Taylor, *Current Trends in Regulation*, in ISSUES IN INTERNATIONAL TELECOMMUNICATIONS POLICY: A SOURCEBOOK, at 90 (ed. J. Yurow 1983) [hereinafter cited as *Current Trends*] (noting that high volume communication routes often subsidize the lower volume route). If the high volume routes actually do subsidize the low volume routes, it would follow that areas with high volume communication demands, such as the United States and Western Europe, would stand to gain from services catering specifically to these needs.

18. See generally Rohwer, *The World on the Line*, THE ECONOMIST 5-40 (1985) [hereinafter cited as *World on Line*] (providing a good introductory discussion on the entire networking process). Private switched services are generally those communication services that do not rely on the facilities of the public switched networks. *Id.* Through the use of private switched services, the user bypasses both local and long distance public carriers by sending signals directly to another user, usually by satellite. *Id.*

19. See *id.* at 5 (estimating that voice traffic carried on public switched (telephone) networks today still accounts for approximately 90% of telecommunication services).

20. *Id.* at 7. Computer networking would be very responsive to the kind of services provided by private switched systems. Users operating out of the same computer data bases could be linked directly without having to hook into the public switched network. Consequently, some observers question whether President Reagan's restriction on providing such a hook-up for the new systems will even have an impact on the new competitors. *Id.* Moreover, given this inherent compatibility between the private switched networks and computer data transmissions, an increase in the use of personal com-

because INTELSAT would expect to carry such services in the near future,²¹ the new United States systems would undoubtedly pose a threat to INTELSAT²² and would thereby be distinguishable from previously authorized separate satellite systems.²³

B. IMPACT OF PRIVATE SATELLITE CORPORATIONS ON INTELSAT

The assumption that direct competition will cause INTELSAT great economic harm is completely justified. There are a number of legal constraints on INTELSAT that would limit its ability to compete with the newer separate systems. Article III(a) of the Agreement, for example, requires INTELSAT to provide global services regardless of the cost inefficiencies connected with certain geographic areas.²⁴ The private satellite systems, however, are free to service only the high density, profitable areas. INTELSAT, therefore, is now placed at a devastating

puters will only benefit the new independent satellite corporations more. *Id.* The Gartner Group, a private Connecticut consultant, predicts that while only 1 of the 4 million office personal computers were in the networks in 1984, by 1989 nearly 19 million or 75% will be linked to other computers. *Id.*

21. See INTELSAT, Press Release 86-33 (May 22, 1986) (available upon request at INTELSAT Headquarters, Washington, D.C.) (suggesting that INTELSAT is already introducing a new line of services gauged for customized private users. In addressing the Second General Assembly and Congress of the World Teleport Association on May 22, Deputy Director General of INTELSAT David T. Tudge declared INTELSAT's commitment to providing smaller, more efficient and more easily accessible earth stations that would offer a greater variety of service options. *Id.* He stated further that two new services, INTELSAT Business Service (IBS) and INTELNET, will encourage more use of these stations. *Id.* Both services provide the user with an array of applications similar to those that would be used through private customized services (e.g., distribution of financial information, environmental and scientific data, cash management operations, and video-conferencing).

22. See Colino, *The Possible Introduction of Separate Satellite Systems: International Satellite Communications at the Crossroads*, 24 COLUM. J. TRANS. L. 13, 20 (1985) [hereinafter cited as *At the Crossroads*] (expressing Director General's view that the United States system will essentially duplicate INTELSAT services); see also INTELSAT, ANNUAL REPORT 1984-1985, at 9 (detailing the resolution passed at the Ninth [extraordinary] Meeting of the Assembly of Parties wherein the delegations expressed deep concern over the potential impact the similar services of the United States might have on INTELSAT).

23. See *At the Crossroads*, *supra* note 22, at 19-20 n.18 (noting that the INTELSAT Assembly has approved a number of separate satellite systems on the basis that they do not divert much traffic from the INTELSAT system (e.g., the Indonesian system of PALAPA)). Other times, however, INTELSAT has been reluctant to prohibit international traffic that was merely incidental to transmissions from already existing domestic systems (e.g., the use of Galaxy I between the United States and Mexico). *Id.*

24. INTELSAT Agreement, *supra* note 1, at art. III(a). It has been estimated that over 50% of the 1,500 INTELSAT earth stations generate less than 10% of its revenues. See Intelsat, Final Report of the Study of the Economics of International Satellite Communications 8 (May 18, 1984) (Attachment No. 1 to BG-59-34E) (prepared by Walter Hinchman & Associates, Inc.), cited in *At the Crossroads*, *supra* note 22, at 21.

economic disadvantage. In addition, the Agreement provision setting forth the concept of global averaging of prices also limits INTELSAT's ability to effectively compete with the private sector.²⁵ These price restraints prohibit INTELSAT from charging different rates for services between different locations. INTELSAT is legally required to charge the same rate for services among highly dense areas as for services among highly remote, low density areas. New private firms, however, would be free to charge different rates for different links and hence market their services to the most lucrative communication links.

The United States Congress has recently addressed INTELSAT's inflexibility to compete. Both the Senate and the House of Representatives approved the Department of State Authorization Bill that authorized COMSAT,²⁶ as the United States signatory, to propose amendments to the INTELSAT Agreement that would give the organization greater pricing flexibility.²⁷ Until such amendments are enacted, however, INTELSAT does not have the means to effectively compete with the emerging private satellite systems. Moreover, because the current United States policy does not discourage such competition, it is safe to assume that INTELSAT must soon revise its current policies and by-laws so that it can maintain its strong position in the international satellite market.

II. INTELSAT AND THE CHALLENGE OF FIBER OPTIC TECHNOLOGY

Whereas the emergence of separate satellite systems threatens INTELSAT's hold on certain service markets, new technological developments in fiber optics imperil the entire satellite industry in that they provide alternative telecommunication facilities.

A controversy has recently emerged as to which means of telecom-

25. See INTELSAT Agreement, *supra* note 1, at art. V(d) (providing that rates "for each type of utilization shall be the same for all applicants for space segment capacity for that type of utilization"). The principle behind adopting this provision is spelled out in the Agreement's preamble which states that "communications by means of satellite should be available to the nations of the world on a global and non-discriminating basis." *Id.* at preamble.

26. See *Current Trends*, *supra* note 17, at 88-94. COMSAT is the Communication Satellite Corporation created by Congress under the Communication Satellite Act of 1962, 47 U.S.C. § 767, *et seq.* (1976). *Id.* COMSAT is the United States signatory to INTELSAT and generally functions as a carriers carrier which, in turn provide services directly to the public or end users. *Id.* In this capacity, under the auspices of the United States government, COMSAT serves as a monopoly supplier of international transmission facilities within the United States. *Id.*

27. Foreign Relations Authorization Act, Pub. L. No. 99-93, § 146, 99 Stat. 405, 425 (to be codified at 22 U.S.C. § 2651) (1985).

munications provides greater efficiency at lower costs.²⁸ Although different in the form of their transmission,²⁹ each industry claims that its system has greater loading capacity which allows it to transmit more information. Studies indicate that due to refinements in the production of fiber optics, cables using this medium may have triple the capacity by the early 1990's.³⁰ With the prospect of transoceanic fiber optic cable systems becoming a reality, there is speculation that the number of cable transmissions will increase tremendously.³¹ A special INTELSAT commissioned study of fiber optic cables and satellites concluded, however, that when the two systems are compared, the use of satellites is a more cost efficient system for the same quality of services rendered.³² Despite having been commissioned by INTELSAT, the study recommended that INTELSAT and the private sector use both technologies to strengthen and compliment one another.³³

Although debates over which system is more efficient will no doubt continue, it is clear that for the immediate future both types of facilities are needed to meet the rising demands of the communications

28. See INTELSAT, Press Release 86-36 (June 4, 1986) (available upon request at INTELSAT Headquarters, Washington, D.C.) (providing Deputy Director General of INTELSAT's argument for Satellite superiority over fiber optic networking in communication services); see also *Current Trends*, *supra* note 17, at 89-91 (comparing the two systems by exploring their strengths and weaknesses).

29. See Cummins, Lemus, Reyna, and Crispin, *Satellites versus Fiber Optic Cables*, INTELSAT, 1985, at 4 [hereinafter cited as *Satellite versus Fiber Optics*] (prepared for the Pacific Telecommunications Council Conference of 1985 and available upon request at INTELSAT Headquarters, Washington, D.C.) (describing the applications and technical aspects of satellite communications and fiber optics). A fiber optic cable is a direct point-to-point transmission facility. *Id.* For example, where a cable is installed from point A to point B, another cable must be installed to point C if either point A or B wants to transmit to C. *Id.* By contrast, satellites are multipoint to multipoint communication facilities. *Id.* Consequently, many different earth stations may access a single satellite to receive transmissions. *Id.*

30. *Current Trends*, *supra* note 17, at 89-90. The first transoceanic submarine cable, placed in the Atlantic in 1956, was capable of furnishing only thirty-six, two-way voice circuits. Today, the newest cable authorized for construction can provide 4000 voice circuits. *Id.* By the late 1980's or early 1990's, fiberoptic submarine cables will have, at the very least, a capacity of 12,000 voice grade circuits plus television transmission capability. *Id.*

31. See *Current Trends*, *supra* note 17, at 91 (stating that with the development of fiber optics, digital technology will also expand the variety of services cable systems will be able to offer).

32. *Satellite versus Fiber Optics*, *supra* note 29, at 2-5. The study concluded that cable's point-to-point capacity is the less cost effective use of communication transmission facilities. *Id.* It is also observed that satellite facilities are advantageous in that they have an already established global transmissions network. *Id.*

33. *Id.* See also INTELSAT, Press Release 86-36 (June 4, 1986) (available upon request at INTELSAT Headquarters, Washington, D.C.) (noting that the INTELSAT satellite system may provide total "back-up" capabilities for fiber optic undersea cables and that the two systems are by no means mutually incompatible).

revolution.³⁴ Until that revolution subsides, the competitive threat of fiber optic cables for INTELSAT will be more remote than the threat of separate satellite systems.

IV. OTHER RECENT DEVELOPMENTS

A. INTELSAT And The Geostationary Satellite Orbit

The geostationary satellite orbit (G.S.O.) is an orbital ring approximately 22,300 miles (35,800 kilometers) above the earth's equator. In this orbit, a satellite may maintain a fairly stable position relative to the earth, turning around the earth's equator in the same direction and time period as the earth.³⁵ Since the space available for satellites in this "three-dimensional corridor" is limited,³⁶ a major international issue exists regarding the method of assigning countries to the G.S.O. This question of allocating access is divided along economic lines with the United States and other developed nations favoring allocation on a first-come, first-serve basis,³⁷ while the lesser technologically developed nations support a more equitable access that guarantees G.S.O. use through advance planning.³⁸

The International Telecommunications Union (ITU)³⁹ recently attempted to resolve this issue at the September, 1985, World Administrative Conference in Geneva.⁴⁰ The Conference for the first time rec-

34. See generally *World on Line*, *supra* note 18 (describing how the merging of computer and traditional voice and wire communications will ultimately change both the commercial and technological aspects of telecommunications).

35. See Final Acts of the 1929 World Administrative Radio Conference, Radio Regulations, No. 182, at 47, 47 C.F.R. § 2.1 (defining the term geostationary satellite orbit).

36. See Gorove, *The Geostationary Orbit: Issues of Law and Policy*, 73 AM. J. INT'L L. 144 (1979) (discussing generally the allocation of space problem). There are a number of problems that the rejected orbital space presents. Considerable concern centers on preventing electromagnetic interference with other satellites and radio spectrum users. Consequently, some form of cooperation must be developed between countries to share this area.

37. See THE CONGRESSIONAL RESEARCH SERVICE LIBRARY OF CONGRESS, INTERNATIONAL TELECOMMUNICATIONS AND INFORMATION POLICY, SELECTED ISSUES FOR THE 1980'S: A REPORT PREPARED FOR THE SENATE COMM. ON FOREIGN RELATIONS, 98th Cong., 1st Sess. 9-10 (Comm. Print 1983) (Summerizing major issues in telecommunications within a framework of international entities that regulate telecommunications).

38. *Id.* at 10.

39. International Telecommunication Convention, Final Acts of the International Telecommunications Union (I.T.U.) Plenipotentiary Conference, done Oct. 25, 1973, 28 U.S.T. 2495, T.I.A.S. No. 8572. The I.T.U. is a specialized agency of the United Nations that provides a forum for the development and coordination of international telecommunications. *Id.*

40. See Report on the World Administrative Radio Conference on the Use of the Geostationary Satellite Orbit and the Planning of Space Services Utilizing It: A Report

ognized INTELSAT as a common-user organization. Before this recognition, developing nations had to rely on other, regional common-user systems. This recognition means that INTELSAT could hereafter provide developing nations with actual, direct access to the G.S.O.⁴¹ Consequently, INTELSAT's role in providing access to the G.S.O. is now considerably more significant.

B. INTELSAT AND THE RECENT SET-BACKS IN SATELLITE LAUNCHES

On May 30, 1986, INTELSAT's attempt to launch its V-A (F-14) communications satellite failed as the European Space Agency, Arianespace, was compelled to blow up the rocket minutes after its launch from Kourou, French Guiana. According to the officials at Arianespace, the action to abort the launch occurred when the rocket and its \$55 million satellite payload moved out of its trajectory and threatened to disappear from the reach of the radio detonation signal.⁴² Although NASA has recently experienced similar launch failures,⁴³ Director General Richard R. Colino has made it clear that INTELSAT will not alter its commitment to launch its satellites with both Arianespace and NASA in the future.

CONCLUSION

Both the imminent emergence of private United States satellite corporations in the satellite service marketplace and the technological development of fiber optic cables will fundamentally transform international telecommunications. While recent, less significant developments

to the INTELSAT Assembly of Parties Tenth Meeting, Oct. 7-10, 1985, at 28 (available upon request at INTELSAT Headquarters, Washington, D.C.) (providing a condensed fact paper about the I.T.U. Conference).

41. Many commentators had already recommended employing INTELSAT as a common-user. See Pelton, *INTELSAT States ITS Case*, *SATELLITE WORLD*, 20-24 (1985) (discussing how developing countries could take advantage of common-user systems, such as INTELSAT, and obtain reliable and inexpensive satellite technology); D. Demac, et al., *Equity in Orbit: The 1985 I.T.U. Space W.A.R.C.: A Background Paper*, International Institute of Communications, London, England, June, 1985, at 7-8 (emphasizing that common-user systems could provide a critical step to solving the problems of equitable access to the G.S.O.).

42. *N.Y. Times*, May 31, 1986, at 33, col. 3.

43. *Id.* The U.S. has experienced five launched failures in the past year. In addition to the space shuttle on January 28, 1986, two Air Force Titan 34-D rockets, a Delta rocket launched by NASA, and a Nike-Orien rocket have all failed to be successfully launched. See also INTELSAT, Press Release 8686-35 (May 30, 1986) (available upon request at INTELSAT Headquarters, Washington, D.C.) (labeling launch failure as merely a temporary setback).

indicate that INTELSAT can adapt to a changing telecommunications environment, the dual competitive threat of separate satellite networks and new fiber optic technology will clearly present INTELSAT with its greatest challenge. More specifically, INTELSAT is now faced with having to meet this competition without damaging its own cooperative structure; a structure that has enjoyed considerable success over the past twenty years.

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