COORDINATION OF A SEPARATE COMMUNICATIONS SATELLITE SYSTEM UNDER THE INTELSAT AGREEMENTS: LEGAL ANALYSIS

by

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This thesis is dedicated with love to my wife and daughter, Dewi and Annisa Bella.

ABSTRACT

Since the early 1980s, significant changes have occurred in the field of international telecommunications. This thesis examines how changes in the telecommunications environment have affected inter-system coordination procedures and what the future application of these procedures may be. The historical background and organizational structure of INTELSAT are discussed in order to obtain a better understanding of the issue. The inter-system coordination procedures in the INTELSAT Agreements, including examples of coordinations that have been completed, are examined. Three main changes in international telecommunications that have affected INTELSAT are discussed : private satellite systems and deregulatory changes; fiber optic cable systems; and technical constraints as the result of increasing orbital congestion. In turn, the possible future of inter-system coordination procedures is analyzed in the light of the new strategic plan INTELSAT has adopted as a response to the changing environment.

R E S U M É

Depuis le début des années 80, les télécommunications internationales ont subi d'importants changements. C'est pourquoi, cette thèse examine les conséquences de tels changements sur les procédures de coordination des systèmes de communication, et l'avenir possible de celles-ci. Les origines historiques et la structure organique d'INTELSAT seront donc étudiées afin de mieux comprendre le problème. Les procédures de coordination prévues dans les Accords INTELSAT, ainsi que des exemples concrets de coordination ayant été accomplies, seront examinés. De plus, trois changements principaux dans les communications internationales ayant affecté INTELSAT seront étudiés à savoir, les systèmes privés de satellites et la derèglementation; les systémes de cables de fibre optique; et les contraintes techniques résultant de l'encombrement croissant orbital. Enfin, l'avenir possible des procédures de coordination sera analysé à la lumière de la nouvelle strategie adoptée par INTELSAT en réponse à ces évolutions.

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TABLE OF CONTENTS

INTRODUCTION

The International Telecommunications Satellite Organization (INTELSAT) is an international organization of 121 members that operates a satellite telecommunications system on commercial principles. Starting from one satellite with limited capacity in 1965, the "Early Bird", currently INTELSAT has fifteen satellites providing services to almost 180 countries and territories. With the experience and capacity it has obtained, it seems INTELSAT will not have difficulty with its future. Its recent capacity development and aggressive marketing policy may provide evidence for this strength. However, this performance does not reveal the whole truth.

Since the early 1980s, significant changes have occurred in the field of international telecommunications. These changes have taken form in liberal national policies, the establishment of private satellite systems, and the introduction of fiber optic cables. As a result, competition has been introduced into the telecommunications market. All of these changes have influenced the position of INTELSAT in the marketplace, forcing the Organization to review its policy.

One crucial issue heavily debated since the formation of INTELSAT, and even more so recently, is the coordination of separate systems as set forth in the INTELSAT Agreements. This thesis will discuss the issue with the purpose to examine how the changes in the telecommunications environment have affected inter-system coordination

procedures and how these procedures may be applied in the future, particularly in light of the new strategic plan adopted by INTELSAT.

Chapter I of this thesis reviews the historical background of INTELSAT in order to provide a better understanding of the issue of inter-system coordination. A brief analysis of the organizational structure will be provided after the historical background. Chapter II discusses the content of Article XIV of the INTELSAT Agreement : general rights and obligations, and inter-system procedures. Attention will be given to the development of the methodology for the application of inter-system procedures. This section will be followed by examples of coordinations that have been completed. Chapter III will focus on the strategic issues facing INTELSAT in light of the changes in international telecommunications. Three main changes will be discussed : private satellite systems and deregulatory changes, fiber optic cable systems, and technical constraints as the result of increasing orbital congestion. The last chapter will be devoted to discussions of the future of inter-system coordination procedures in light of the new strategic plan INTELSAT has adopted to face competition.

CHAPTER I

INTERNATIONAL TELECOMMUNICATIONS SATELLITE ORGANIZATION (INTELSAT)

1. Historical Background

An overview of the historical background of INTELSAT is necessary for two reasons. First, the present debate on inter-system coordination cannot be separated from the technological, economic, and political circumstances that have influenced the present regulatory framework of INTELSAT. Several issues discussed during the formative stage were not solved satisfactorily and came out again in the operational stage of INTELSAT. Secondly, for a simple reason, the present debate on inter-system coordination is not a new issue. It has been discussed ever since the idea of INTELSAT was still an embryo in the mind of American policy-makers. Therefore, the following discussion is important to obtain a better understanding of the issue. Due to constraint of space, only those issues which are relevant to the subject matter of this thesis will be discussed.

a. The U.S. Communications Satellite Act of 1962

1) Background

The launching of the first Soviet satellite, Sputnik 1, in 1957 was a shock to the common belief that the United States (U.S.) was superior in the scientific and technological fields. This challenge forced the U.S. government to review its space policy goals. The result was a change in American policy goals, among which, satellite development was given priority.[1] The first American Satellite, Explorer I, was orbited on January 31, 1958. Thereafter, U.S. capability in satellite technology rapidly developed.

The unprecedented development of satellite communications technology provided an impetus to recover the U.S. image. In December 1960, President Dwight D. Eisenhower declared a policy guideline.[2] While the establishment of a commercial communications satellite would require the concerted capabilities and funds of both Government and private enterprise, he specifically emphasized that the Government should encourage private enterprise in the establishment and operation of satellite communications for commercial purposes. This private-oriented policy was put into effect on January 4, 1961, when the administration published an offer for competitive proposals for the development of an experimental communications satellite system.[3]

Eisenhower's successor, John F. Kennedy, opposed Eisenhower's competitive

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[1] Jonathan F. Galloway, *The Politics and Technology of Satellite Communications* (Toronto: Lexington, 1972) at 12.

[2] New York Times, December 31, 1960, as cited in *ibid.* at 22-23.

[3] At that time, AT&T was already a giant telecommunication company. Actually, AT&T submitted a proposal for the establishment of a satellite communications system. But without giving its reply to this proposal, the administration made a public offer. See in *ibid.* at 23.

bidding proposal whose outcome, he believed, would turn over satellite communications to AT&T.[4] Instead, he adopted broad, public interest objectives as reflected in his subsequent policy statements.

On January 30, 1961, President Kennedy invited all nations, including the Soviet Union, to join the U.S. in developing a new communications satellite program. A complete description of his policy was given in the President's Statement on Communication Satellite Policy of July 24, 1961.[5] After repeating the invitation for all nations to participate in a communication satellite system, he elaborated the elements of the proposed system. In that system, private ownership and operation of the U.S. portion of the system was favored provided that certain policy considerations were met. These considerations included the availability, at the earliest possible date, of both new and expanded services and the extension of the system to provide global coverage; foreign participation through ownership of the system or otherwise to be made possible; the non-discriminatory use of, and equitable access to, the system by authorized carriers; effective competition in equipment acquisition and in the operation of the system; compliance with anti-trust legislation; and the development of an economic system, the benefits to be reflected in overseas rates. Governmental responsibilities were also laid down. These included the conducting and encouraging of research; conducting or supervision of international agreements and negotiations; control of US spacecraft launchings; use of the system for government purposes except where government needs

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[4] *Ibid.*

[5] Reprinted in *Public Papers of the President : John F. Kennedy* (Washington, DC: US Government Printing Office, 1961) at 529-532.

indicated otherwise; and assuring effective use of the radio spectrum and the shutting-down of satellites when required for effectiveness and efficiency. In addition, the government would provide technical assistance to newly developing countries in order to help attain an effective global system as soon as possible and examine, with other countries, the most constructive role for the UN, including the ITU, in international space communications. All government agencies were to help attain these objectives.

Based upon Kennedy's policy. several U.S. agencies, the Congress, and industries were involved in the discussions regarding the establishment of a commercial satellite communications system. Their views were divided on two main issues. The first issue being the form and ownership of the commercial enterprise. There were three main alternative proposals for the commercial structure of the system : a government-owned corporation, a wholly private corporation dominated by the U.S. international common carriers, and a hybrid corporation with ownership divided among private investors, the US carriers, and the U.S. government.[6]

The second issue was about the level of government control in the system. Historically, the involvement of the U.S. government in the field of telecommunication has varied from merely providing assistance to fledgling companies to the setting up of regulation both domestically and internationally.[7] Therefore, the discussion was centered mostly on how to set up one company which would not bring with it the disadvantages of monopoly. For that reason, the majority thought that government

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[6] For a good background of the debate, see *supra,* note 1, at 28 et.seq.

[7] *Ibid.* at 10.

interference in the system might be necessary.

The debate continued in the Congress. The dominant opinion favored a private venture with government regulation if competitive bidding and non-discriminatory access to the system could be assured.[8] Thus, for political and economic reasons, there was a stronger support for a single system than for multi-systems.

After lengthy consideration, legislative activity finally culminated in the Communications Satellite Act of 1962.[9] On August 31, 1962, President John F. Kennedy signed into law the Communications Satellite Act of 1962. Several factors contributed to the adoption of this Act. First, a fear of Soviet superiority precipitated consensus. Secondly, there was strong belief that a commercial satellite communication system would benefit the U.S. politically and economically.[10] These benefits would be easily achieved through American ownership and control of the system.

2) Objectives

The Declaration of Policy and Purpose as contained in Section 102 of the Satellite Act clearly echoes the Kennedy statement of 1961. The policy addresses external and internal relations.

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[8] *Ibid.* at 34.

[9] *Communications Satellite Act*, Public Law 87-264, 87th Congress, August 31, 1962 (hereinafter "the Satellite Act").

[10] *Supra,* note 1 at 26.

Concerning external relations, the policy of the United States is to establish, in cooperation with other countries and as expeditiously as practicable, a commercial satellite system as part of an improved global communications network that will be responsive to public needs and national objectives, which will serve the communication needs of the United States and other countries, and which will contribute to world peace and understanding.[11] The new and expanded telecommunication services are to be made available as promptly as possible and are to be extended to provide global coverage at the earliest practical date.[12] Attention is directed toward providing such services to economically, less developed countries as well as to those more highly developed, toward efficient and economical use of the electromagnetic frequency spectrum, and toward the reflection of the benefits of this new technology in both quality of services and changes for such services.[13]

The second aspect of the policy deals with U.S. participation in the "global system". The Act states that U.S. participation shall be in the form of a private corporation, subject to appropriate governmental regulation.[14] Furthermore, the Act specifies "the rules of conduct" for the corporation : non-discriminatory access for all authorized users, competition is to be maintained, and the activities of the corporation are to be consistent with the Federal antitrust laws.[15]

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[11] *Supra*, note 9, Sec. 102(a).

[12] *Ibid.*, Sec. 102(b).

[13] *Ibid.*

[14] *Ibid.*, Sec. 102(c).

[15] *Ibid.*

The abovementioned policy reflected a consensus during the legislative history concerning the establishment of a commercial communications satellite system. The dominant view was that the system should be a private one, owned and controlled by United States industry. However, there was concern about the capability of a U.S. company setting up its own system.[16] Therefore, besides promoting the cooperation of American companies in the proposed system, there also was a strong economic reason to invite foreign participation in the system.

But the benefit from foreign participation went beyond economic reasons. There also were political benefits that the U.S. might obtain : reduce potential suspicions that the U.S. really intended to monopolize the system; preclude the establishment of competitive systems by the Soviet Union or West Europe; minimize the propaganda opprtunities for the Soviet Union; and improve the U.S. image in space activities.[17]

However, the concept of foreign participation in the Act is ambiguous. The wording of the Act can be interpreted as promoting international cooperation, but the Act is silent on the form of cooperation. It does not mention that the cooperation will take place in the form of an international organization. Understandably, this ambiguity leaves the concept open to interpretation.

Two major interpretations have arisen from the Act. First, the Act gives a

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16 On January 12, 1961, the Weisner Report, named after the Chairman of an Ad Hoc Committee on Space appointed by President Kennedy, asserted that "the development investment required is so large that it is beyond the financial resources of even our largest private industry". As cited in *supra*, note 1, at 23.

17 Cf. Murray L. Schwartz and Joseph Goldsen, *Foreign Participation in Communications Satellite Systems*, RAND Corporation, Santa Monica, California, Memo RM-3484-RC, 1963, at 29, as cited in Judith T. Kildow, *INTELSAT - Policy-Maker's Dilemma* (Toronto: Lexington Books, 1973) at 11.

mandate to the corporation to establish an international organization with extensive foreign participation in the global system. Another interpretation is that the Act gives a mandate for COMSAT to set its own system and invite foreign use of it.[18] As discussed in the next section, the initial position of COMSAT favored the second interpretation.

From an international perspective, this Act contains contradictory elements. On the one hand, it envisages the establishment of a global system. Whatever the form of cooperation, the Act leaves little doubt that U.S. policy makers saw the proposed global system as an American-controlled system.[19] On the other hand, the Act put restrictions on foreign participation, as will be discussed in the following section. Therefore, the Act creates possibility for conflict of interest. It is not clear, then, how to reconcile "the public needs and national objectives" of the U.S. with "the communication needs of ... other countries", as described in the Act, once a conflict of interest arises. Also, question arises as to how to assure that the system "will contribute to world peace and understanding".

3) The Creation of COMSAT

The Satellite Act created the Communications Satellite Corporation (COMSAT).

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[18] *Ibid.* at xiii.

[19] See *ibid.* at 5. The Rand Corporation's memo cited above also lists the disadvantages of foreign participation in terms of efficiency and profit making. In turn, these disadvantages were used to restrict foreign participation in the system. *Ibid.* at 11-12.

The corporation is a private enterprise, not an agency or establishment of the United States Government.[20] COMSAT is given extensive powers to

> (1) plan, initiate, construct, own, manage, and operate itself or in conjunction with foreign governments or business entities a commercial communications satellite system;
> (2) furnish, for hire, channels of communication to United States communication carriers and to other authorized entities, foreign and domestic; and
> (3) own and operate satellite terminal stations when licensed by the Commission under section 201(c)(7).[21]

The Act also states that COMSAT activities are subject to governmental controls which are to be exercised primarily through the President, NASA, the FCC, the State Department, and Congress. In particular, the President and the FCC are given broad powers and duties by the Satellite Act which are very important to justify their roles in the launching of the private system in the 1980's, as will be discussed in Chapter III.[22]

The President has powers in relation both to the internal constitution of the COMSAT as originally set up, and its business activities.[23] Among other powers, he appoints three (that is, one-fifth of all) directors of COMSAT. With regard to the business activities of COMSAT, he assists in the execution of a national programme for the establishment of the global satellite telecommunication system; provide for the

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[20] *Supra*, note 9, Sec. 301.

[21] *Ibid.*, Sec. 305(a).

[22] Section 402 of the Satellite Act requires COMSAT to notify the Department of State of its negotiations with a foreign entity, and that the Department shall advise the corporation of relevant foreign policy considerations. However, since the formation of COMSAT, and during the early years of INTELSAT, the power of the Department of State was very little since COMSAT dominated the negotiations. See Kildow, *supra*, note 17, at 12 et.seq.

[23] See Francis Lyall, *Law and Space Telecommunications* (England: Darmouth, 1989) at 39.

continuous review of the development and operation of the system, including the Corporation's activities; coordinate governmental agencies with telecommunications responsibilities to secure their compliance with the Act; supervise the relationships of the Corporation with foreign governments, relevant entities, and international bodies to ensure that the corporation's relationships are consistent with U.S. national interest and foreign policy; ensure that timely arrangements are made for foreign participation in the establishment and use of the system; ensure the availability and use of the system for U.S. government purposes, except where a separate system is needed for unique governmental needs or (notably) as "otherwise required in the national interest"; and to help attain a proper use of the radio spectrum and the technical compatibility of the system with existing facilities at home and abroad.[24] This list of powers and duties is wide enough for the President if he/she wants to influence directly development of the system and the Corporation itself.[25]

The FCC has powers to ensure effective competition in the procurement of equipment and services through the requirement of competitive bidding, if appropriate, together with a duty to see that small business gets a share of the contracts.[26] FCC has authority with regard to the technical aspect of the system.[27] It also supervises the allocation of facilities in the new system to ensure the non-discriminatory use of, and

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[24] *Supra*, note 9, Sec. 210(a).

[25] See *supra*, note 23.

[26] *Supra*, note 9, Sec. 201 (c)(1).

[27] *Ibid.*, Sections 201(c)(1), 201(c)(3), 201(c)(4), 201(c)(6), 201(c)7), 201(c)(9), 201(c)(10).

equitable access to, the system on just and reasonable terms and conditions to all present and future communications common carriers authorized to use the system.[28] In addition, the FCC has power to prescribe accounting regulations and systems for the Corporation, and sets rate-making procedures intended to ensure that rates for public services reflect the economies of the new facility.[29]

The Act contains four main restrictions on foreign participation in the Corporation. First, only a limited foreign ownership is allowed of COMSAT stock. Foreign participation is being limited to a maximum of 20 per cent of the stock held by persons other than communications carriers which is the same as 10 per cent of the total stock.[30] Secondly, a non-U.S. citizen cannot be a member of the Board of Directors or be appointed an officer of the Corporation.[31] Consequently, foreign stockholders have no voice in the management of the Corporation. Thirdly, the Act authorizes the FCC to require COMSAT to establish satellite communications to any particular foreign point upon the advice of the Secretary of State.[32] Fourthly, the Satellite Act states that satellite launch facilities are to be purchased from the U.S. government.[33] These restrictions create an anomalous situation. If a foreign stockholder is a governmental

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[28] *Ibid.*, Sec. 201(c)(2).

[29] *Ibid.*, Sec. 210(c)(5).

[30] *Ibid.*, Sec. 304(d); *Articles of Incorporation of Communications Satellite Corporation*, Article V, Sec. 5.02(d), (March 1963) 2 *International Legal Material* 395.

[31] *Ibid.*, note 9, Sections 303(a) and 303(b); *Articles of Incorporation*, Article VIII, Sections 8.02 and 8.10.

[32] *Ibid.*, Sec. 201(c)(3).

[33] *Ibid.*, Sec. 305(b)(3).

agency or establishment of a foreign government, a strange situation may occur in which this agency or the government's establishment will be subject to U.S. control, either by COMSAT stockholders or U.S. agencies authorized by the Satellite Act. Therefore, it is understandable that these restrictions have discouraged participation by foreigners in the COMSAT Corporation.

4) The Issue of Separate Systems

The U.S. policy under the Act was to establish "a commercial communications satellite system". As already mentioned, the Act also speaks about "the global system" which is intended to provide "global coverage".[34] This is known as the concept of a "single global system". However, the Act does not eliminate the possibility of the separate system. Sec. 102 (d) of the Satellite Act states that

> It is not the intent of Congress by this Act to preclude the use of the communications satellite system for domestic communication services where consistent with the provisions of this Act nor to preclude the creation of additional communications satellite systems, if required to meet unique governmental needs or otherwise in the national interest.

This policy is strengthened in Sec. 210(a)(6) of the Satellite Act. Accordingly, in order to achieve the objectives and to carry out the purposes of the Act, the President shall "take all necessary steps to insure the availability and appropriate utilization of the communications satellite system for general governmental purposes except where a separate communications satellite system is required to meet unique governmental

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[34] *Ibid.*, Sec. 102(b),(c).

needs, or is otherwise required in the national interest." This formulation, added after a proposed amendment by Senator Church, gives the President the power to determine whether the need for an additional system exists.[35]

The Act does not clearly define the kinds of separate systems that are allowed in terms of the type of service and the area of coverage. Section 102(d) only mentions the system for "domestic communication services where consistent with the provisions of this Act" and "additional communications satellite systems". It is not clear whether, besides the domestic system, the Act also envisages regional, or even a separate, global system. Another question arises about the meaning of the terms "unique governmental needs" and "the national interest" in this section that seemingly were designed to restrict the possibilities for establishing a separate system. The legislative history of the Act indicates that these terms were intended primarily to allow the continuation of government programs, such as Program ADVENT and other national security satellite systems.[36] Nevertheless, Senator Church of Idaho described a wider basis for the establishment of such an alternative system.[37] He stated that an alternative system, either public or private, might be required if the rates charged by COMSAT were too high, the service too limited to provide the greatest possible benefits to the public, or simply if the service was too costly.

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[35] Initially, Congress reserves the right to create additional communications systems. See Glassie, Jefferson C., "Analysis of the Legal Authority for Establishment of Private International Communications Satellite Systems" (1984) 18 *George Washington Journal of International Law and Economics* 355 at 368, under footnote 96.

[36] *Ibid.* at 365.

[37] As cited in *ibid.*

Therefore, although the Kennedy Administration and Congress primarily "restricted" the possible establishment of an additional system only for security or military needs, discussions in Congress clearly reflected a wider basis for the establishment of such a system. In fact, the terms "unique governmental needs" and "national interest" are open to different interpretations. Such a formulation provides a broad discretionary power for the President to determine the existence of such needs or requirements. Once such needs arise, they also may open the possibility for establishing either a governmental system or a non-governmental system subject to the approval of the government.

The above discussions indicate that, despite strong U.S. pressure for the inclusion of the concept of "single global system" in the Interim Arrangements and Definitive Agreements, the Act itself, which gives authorization for negotiation with foreign countries, already contained an ambiguous policy. The drafters of the Act clearly did not ignore the fact that changing situations could hamper the realization of the objectives of the Act. The formulation in the Act provides enough room for maneuver. In this regard, Sec. 102(d) of the Act is best described as a "safeguard clause" in case the policy goals fail.

b. The Interim Agreements

1) Background

Soon after the Communications Satellite Act of 1962 was enacted by Congress and approved by the President on August 31, 1962, the United States initiated discussions with other countries to explore the feasibility of concluding arrangements for the establishment of a global commercial communications satellite system. The policy goals set up by the Act, as already discussed, determined the U.S. positions in the negotiations.

As noted earlier, the Satellite Act does not mention in what form cooperation with other countries is to be established. Also, no fixed time limit has been set up. Besides noting that services are to be made available as promptly as possible, and are to be extended to provide global coverage at the earliest practicable date, the Act only mentions that the President shall "insure that timely arrangements are made under which there can be foreign participation in the establishment and use of a communication satellite system."[38]

COMSAT had three possible types of organizational structures in mind prior to the negotiations for INTELSAT.[39] In the first scenario, COMSAT would envisage that it would own the entire system, and merely lease channels to the foreign agency. Cooperation was to be arranged through a series of bilateral agreements. The second model was an intergovernmental organization with universal membership, like the ITU, but the U.S. participation in the system would be in the form of a private corporation. The third model was a combination of the first and the second model. The initial

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[38] *Supra*, note 9, Sections 102(b) and 201(a)(5).

[39] See Kildow, *supra*, note 17, at 12-13.

position held by COMSAT, when it started to negotiate the bilateral arrangements, was the first model.[40]

During the initial negotiations, it was clear that the U.S. could not maintain its position. The Europeans did not accept the COMSAT's initial position which they perceived would only give COMSAT monopoly over the system. Understanding this response, the U.S. changed its approach toward a multilateral arrangement. A preparatory meeting was held in early 1964 in London and, subsequently, a conference was held in Washington in July 1964, and attended by 19 countries.[41]

Conflicting positions occurred on main issues, such as the form, juridical status and ownership of the Organization. The European Countries sought participation in financial investment and technological development of the system. They wished that through their participation, besides economical benefit, they would obtain technological spin-offs from the development of the system for domestic industries in their home countries.[42] Therefore, in line with their objection to the COMSAT monopoly,

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[40] See *ibid.*

[41] An extreme position was taken by the Soviet Union. At a meeting between the U.S. and Soviet Union on June 15 and 16, 1964, the Soviet Union indicated she did not wish to participate in such arrangements. Later, after the conclusion of the Interim Arrangements, the Soviet Union elaborated her objections, as follows : first, the Agreements were inconsistent with resolutions on outer space adopted by the General Assembly; secondly, the Agreements by-passed the United Nations and the ITU. Therefore, they were being carried on outside the framework of the two organizations; thirdly, the Agreements were drafted with a view to profit-making by the communication entities financing the arrangements; fourthly, the weighted voting provided for in the Agreements was incompatible with the principle of sovereign equality. See J. Simsarian, "International Arrangements for A Global Commercial Communications Satellite System" (1965) 59 *The American Journal of International Law* 347-351.

[42] U.K.'s concerns were even bigger, as she not only feared the threat of the satellite system to the UK cable investment and its future plans, as the U.K. was a leader in international communications in the early 1960's, but she was also afraid of being excluded from participation in the new system. See *supra*, note 23, at 75-6.

European Countries sought a multinational organization.[43] Two main structures were described : a general conference, as a governing body, in which all members would be represented, and a Board of Management responsible for the daily operation of the organization and in which repesentation would be based on investment. In both bodies, each member would have one vote.

The European positions were clearly unacceptable to the U.S., taking into account the mandate given by the Satellite Act. The U.S. opposed the establishment of an organization with a separate legal personality. However, realizing that it was impossible to maintain its initial position, COMSAT finally submitted a compromise formula, as follows :[44]

1. A consortium of telecommunications entities, rather than an intergovernmental organization;
2. Membership to be limited to those willing to share in the capital costs of the system;
3. COMSAT to contribute a preponderant share of the capital;
4. COMSAT to manage the system under contract to the consortium.

In addition to this compromise formula, the U.S. stressed that the paramount objective of the negotiations was to establish a satellite system as rapidly as possible.

Realizing that their bargaining power was not strong enough to impose its position within the limited time asserted by the U.S. negotiators, the European countries were obliged to accept the U.S. formula. However, they perceived the U.S. dominant

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[43] In the meeting of the European Conference on November 26, 1963, the European Conference proposed the setting-up of a counterpart to the COMSAT, to be financed by shared capital contributions from the members of the consortium (consortium approach). See *ibid.* at 78.

[44] Abram Chayes, "Unilateralism in US Satellite Communications Policy", in Edward McWhinney, ed., *The International Law of Communications* (Leyden: AW Sijthoff, 1971) at 44.

role as being a passing phenomenon which they did not want to incorporate as a permanent feature in any institutional arrangements. Therefore, in spite of the recognition of the strong COMSAT role, the Europeans were successful in setting the "temporary" or "interim status" of the agreements and established important conditions to be met in the negotiations of the Definitive Agreement.

The Interim INTELSAT Agreements consisted of two agreements :

1. An Agreement among governments establishing interim arrangements for a global commercial communications satellite system.
2. A Special Agreement, signed by designated communications entities of each nation, setting up the mechanism to carry out the interim arrangements.[45]

The Arrangements established an Interim Communications Satellite Committee (ICSC) to give effect to the cooperation between the Parties as set forth in Article I.[46] The ICSC had the responsibility for establishing and operating the space segment of the global communications system. Any Signatory of the Special Agreement with an investment quota of 1.5 % or more in the system was entitled to membership on the Committee. Signatories of quotas of less than 1.5 % might combine their quotas and thus be represented on the Committee. Therefore, the Committee introduced a weighted voting system based on the quota allocations.

Article IX of the Interim Agreement provided that within one year after the

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[45] The complete title is the *Agreement Establishing Interim Arrangements for A Global Commercial Communications Satellite System and Special Agreement*, done at Washington, DC, August 20, 1964; entered into force August 20, 1964, TIAS 5646 (hereinafter the Interim Arrangements and Special Agreement).

[46] *Interim Arrangements*, Article IV.

initial global system became operational and in any case not later than January 1, 1969, the ICSC should submit a report containing its recommendations concerning the Definitive Arrangements. The parties should seek to ensure that the definitive agreements would be established at the earliest practicable date, with a view to their entry into force by January 1, 1970. Paragraph b of this Article put certain conditions for the definitive agreements to be negotiated, as follows :

(i) their aims shall be consonant with the principles set forth in the Preamble to the Interim Agreement.;
(ii) they shall be open to all States members of the ITU;
(iii) they shall safeguard the investment made by signatories to the special agreement.
(iv) they shall be such that all parties to the definitive arrangements may have an opportunity of contributing to the determination of general policy.

The inclusion of these conditions in the Interim Agreement was very important for the European countries. These conditions would protect them from the control of the U.S. in the definitive agreements yet to be negotiated. On the other hand, the provisions which provided COMSAT a strong power were subject to further negotiation.

2) The Concept of A Single Global System

The Preamble provided for a desire "to establish a single global commercial communications satellite system" (paragraph 2) and "to conclude interim arrangements providing for the establishment of a single global commercial communications satellite system" (paragraph 5). In short, the Interim Arrangements envisaged the establishment of a "single global system". Nothing in the operating part of the Agreement precluded

or restricted the establishment of a separate system.

As already discussed, the Satellite Act does not preclude the establishment of separate systems. However, the initial U.S. policy, formed between 1962 and 1964, was to establish a single global system.[47] This position was based on technological, commercial and political arguments. Based on the level of technology in existence at that time, the use of a single global system would avoid the need for complex and expensive equipment and rescheduling. With no comparable competitor at that time, the U.S. believed it would obtain this monopoly power. Furthermore, the single system would facilitate technical compatibility between satellites and ground terminals, assure the best use of scarce frequency spectrum, and promote operational efficiency and flexibility in routing.[48] However, the development of synchronous orbit satellites has weakened this argument.[49]

The U.S. also saw a single system as an opportunity for promoting international cooperation. This system can enhance the possibility of fruitful exchange of communications among all countries and avoid destructive competition among the communication systems of political blocs. However, this position implicitly presupposed that the system would be controlled by the U.S. - even if necessary, the COMSAT was

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[47] Kildow, *supra*, note 17, at 60.

[48] Richard N. Gardner, "Space Meteorology and Communications : A Challenge to Science and Diplomacy", Department of State Bulletin, May 13, 1963, at 774, as cited in Kimberly A. Godwin, "The Proposed Orion and ISI Transatlantic Satellite Systems : A Challenge to the Status Quo" (1984) 24 *Jurimetrics Journal* 297 at 299.

[49] With the operation of satellite in the geostationary orbit, only three satellites are needed to cover the populated world. See Kildow, *supra*, note 17, at 60.

prepared to finance the entire cost of establishing the system.[50] In summarizing the U.S. policy during the negotiations for the Interim Agreements, Kildow gives the following opinion:[51]

> The commercial objectives of the Comsat Corporation - using technical and economic efficiency as the only criteria for developing the system - compelemented the political objectives of the United States to have a system in operation as soon as possible in order to 'beat the Russians'. In the final analysis, the political objectives were the most important for the United States interests during the early years of negotiations for the Interim Agreements and after the system began operating.

Realizing that they had a weak bargaining position, the Europeans agreed to accept the concept of a single global communications systems, but added that nothing should prevent "any party from creating additional communications satellite systems, if required to meet unique governmental needs or if otherwise required in the national interest."[52] Therefore, the U.S. believed it was necessary to declare that agreement had been reached on a single global system. In addition to the language in the Preamble, a text was proposed for Article I of the Interim Agreement, as follows :[53]

> Each of the parties to this agreement agrees that it will not participate in any commercial communications satellite system other than the single global system

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[50] *Supra*, note 41 at 348.

[51] *Supra*, note 17 at 63.

[52] *Draft Agreement Establishing Interim Agreements for International Communications Satellite System*, Doc. SCL/CO5/8E, Art. 23, 1964, as cited in *ibid.* at 59.

[53] *1964 Washington Plenipotentiary Conference to Establish Interim Agreements for A Global Communications System of Commercial Satellite Communications, Proposed Changes in the Draft Agreement*, Doc. 1, submitted by the US Delegation, Doc. 5, items 1 and 2, July 17. 1964, as cited in *ibid.*

> which is the subject of this Agreement. Nothing in this Agreement shall preclude the creation of additional communications satellite systems if required to meet the unique governmental needs of any of the Parties to this Agreement."

However, the United States failed to get support from the European countries. The European group felt the proposed paragraph was unnecessary as in the European Conference they asserted that they would not participate in any separate system.[54] Following this argument, the U.S. withdrew its draft.

The Europeans' argument clearly was a rhetorical one. As with the U.S. position, economic and political considerations played an important role in the European countries' position. They did not want to let the U.S. monopoly, especially if negotiations for definitive agreements failed. By objecting to the proposed clause, they reserved the freedom to establish their domestic or regional system.

3) The Role of COMSAT

Pursuant to the Satellite Act of 1962, COMSAT is designated as the US entity in any international satellite organization. In the Interim Agreements, COMSAT obtained a dominant power. Article VIII of the Interim Arrangements named COMSAT as the manager in the design, development, construction, establishment, operation, and maintenance of the space segment. Consequently, the Arrangements also awarded COMSAT the ultimate power over procurement decisions.[55] This power, together with

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[54] See *ibid.* at 59.

[55] *Interim Arrangements*, Article X.

the instructions for contracting stated in the Special Agreement, guaranteed COMSAT and the United States almost all contracts for the space segment.[56] In addition, this dominant power was strengthened by the ownership and voting arrangements which, in practice, gave the U.S. control over the decision-making process.[57]

COMSAT's duties were elaborated in some articles of the Special Agreement. Article 9(c) required that COMSAT collect revenues from INTELSAT users. Article 10 set the guidelines for COMSAT's dealings with contractors and with INTELSAT's governing body. Article 12 charged COMSAT, among other duties, with recommending the type or types of space segment to be established, operating and maintaining the space segments, and preparing and submitting annual programs and budgets.

c. The Definitive Agreements

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[56] See *supra,* note 17, at 52.

[57] Article III of the Interim Agreement states that :

> The space segment shall be owned in undivided shares by the signatories to the Special Agreement in proportion to their respective contributions to the costs of the design, development, construction and establishment of the space segment.

Article VI(a) states :

> The contributions of the Signatories to the Special Agreement toward the costs of the design, construction and establishment of the space segment during the interim arrangements shall be based upon an estimate of United States $ 200,000,000 for such costs. Each Signatory to the Special Agreement shall pay its quota of such costs in accordance with the provisions of the Special Agreement.

Article V(a) states :

> Each Signatory to the Special Agreement or group of signatories to the Special Agreement represented on the Committee shall have a number of votes equal to its quota, or to their combined quotas, as the case may be.

1) Background

During the operation of INTELSAT under the Interim Arrangements, significant changes occurred.[58] The number of INTELSAT members increased from 11 to 83 countries. The composition of its members also changed as the majority coming from developing countries. This fact became an impetus for developing countries to secure their rights, particularly with respect to voting rights. Despite their increasing use of the total system, developing countries did not have commensurable voice in the decision making process at the ICSC.[59]

Other influential change was the growth in satellite capacity. With significant technological progress, INTELSAT was able to increase its satellite capacity to meet increasing demand. Four generations of satellites had been launched.[60] In addition, the number of earth stations grew significantly from only five earth stations to a total of 79 antennas operated by entities in 49 different countries.[61]

By the time the negotiations for definitive agreements were started, the European countries had already reached significant development in satellite technology programs. Industrial consortia were being formed in France and Germany to develop satellite

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[58] For the changing nature of INTELSAT under the Interim Arrangements, see Richard R. Colino, *The INTELSAT Definitive Arrangements : Ushering in A New Era in Satellite Telecommunications* (Switzerland: EBU, 1973), at 7-12.

[59] Under the Interim Arrangements, there was no provision for updating or reevaluating quotas.

[60] *Supra*, note 58.

[61] *Ibid.* at 8-9.

systems.[62] This development, in turn, strengthened the bargaining position of the Europeans in the negotiations.

Since disappointment arose with the way INTELSAT was operated by COMSAT, the pressure for changing the Interim Arrangements quickly grew. The positions of various countries concerning unresolved issues during the negotiations for the Interim Arrangements significantly changed. As described by several writers, the climate for negotiations became politicized.[63]

The negotiating parties finally concluded the Definitive Agreements on May 20, 1971. The Agreements, which came into force on February 12, 1973, consist of two texts : an Agreement Relating to the International Telecommunications Satellite Organization (INTELSAT Agreement), with four annexes and open for signature by States; and an Operating Agreement Relating to the International Telecommunications Satellite Organization (Operating Agreement), with one annex and open for signature by governments or their public or private telecommunication entities.[64]

2) A Single Global System Versus Separate Systems

Despite the failure to solve the controversy on the concept of " a single system", the practice during the period of the Interim Arrangements revealed significant changes

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[62] See *supra*, note 17, at 68.

[63] See *supra*, note 1 at 155-159, note 23 at 49-51, and note 58 at 155-169.

[64] *Agreements Relating to the International Telecommunications Satellite Organization "INTELSAT"* (1971) 10 International Legal Material 909; 23 UST 3813; TIAS no. 7532.

in the positions countries held. During this period, by the action of ICSC, INTELSAT accepted the right of its members to establish domestic systems subject to a technical compatibility test between its system and the system of its members.[65] For the first time, in May 1968, this test was applied to the proposed Canadian Domestic system, which resulted in a unanimous approval by the ICSC.[66]

The European countries argued that INTELSAT should not be granted a monopoly over all international satellite communications. They were concerned that the U.S. would threaten them with new forms of technical, political, or economic domination.[67] Therefore, as noted earlier, they wanted to keep options open for establishing their own system. Accordingly, in their opinion, regional, public telecommunications satellite systems should be permitted after coordination with INTELSAT.[68]

Under the changed circumstances and strong pressure from other countries, the United States changed its initial position. Since 1965, the U.S. had considered a separate domestic system and, by 1967, COMSAT agreed that domestic systems could be compatible with a single global system.[69] Upon pressure by Europeans, President

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[65] *Supra*, note 58 at 97-8.

[66] This system was later known as TELESAT. In December 1971, the ICSC also approved the Symphonie programme.

[67] *Supra*, note 17 at 64.

[68] Besides the Europeans, by 1967 several other countries like Canada, Rusia, Japan also were considering their own separate systems. For the Europeans, considering geographical position of each country, regional system is more appropriate than domestic system.

[69] *Supra*, note 17 at 66.

Johnson indicated a sign in August 1967 that the U.S. would tolerate domestic and regional systems as long as economic harm to the global system was avoided and technical compatibility assured.[70] Therefore, in the fall of 1969, the U.S. agreed to the establishment of regional systems if a two-thirds vote of the Assembly decided there would be no economic or technical incompatibility between the two systems.[71]

The ICSC Report of December 1968 revealed the majority of the committee members supported the rights of each participating State to establish separate domestic or regional satellites, subject to compliance with pertinent international regulations, particularly those of the ITU, and subject to consultation with the governing body.[72]

The above developments in the negotiations were finally reflected in the INTELSAT Agreements. The Preamble provides a commitment for "achieving a single global commercial telecommuncation satellite system." However, unlike the Interim Arrangements, Article XIV of the INTELSAT Agreement contains "coordination procedures" with respect to separate systems. With the inclusion of these procedures,

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[70] In his Communication Policy (1967), President Johnson stated :

> In view of ... our commitment under the INTELSAT Agreement of 1964, we should take no action in the establishment of a domestic system which is incompatible with [our] support for a global system. This does not mean that the United States-or any other nation-will give up *vital sovereignty over domestic communications.* (Italics added)

Communication Policy: Message from President Johnson to the Congress (1967) 57 U.S. Department of State Bulletin at 299 as cited in Nicolas M. Matte, *Aerospace Law - Telecommunications Satellite* (Toronto: Butterwoths, 1982), at 127.

[71] See *supra*, note 1, at 161.

[72] *Report of the Interim Communication Satellite Committee on Definitive Agreements for An International Global Communications Satellite System*, ICSC-36-58, December 13, 1968, at 93.

the possibility of establishing separate systems is recognized explicitly. However, since Article XIV sets certain conditions for the establishment of separate systems, as will be discussed in Chapter II, this Article is a safeguard for the INTELSAT System in order to protect the integrity of the INTELSAT global system.

The question arose about the meaning of the single global system concept. One may see the erosion of this concept through the history of INTELSAT. In response to the French objection over the inclusion of the word "single" in the Preamble, the U.S. argued that "single" referred specifically to the fact that there was only one global system.[73] Under this concept, domestic and regional systems are allowed, subject to certain conditions specified in the INTELSAT Agreements. With the establishment of separate systems, the meaning of "a single global system" has changed from "the only satellite system in the world" to become "the only satelite system which provides global coverage". It is interesting to see the implication of the increasing number of private systems, in operation or still under planning, in different regions of the world on the concept of a single global system, particularly if the systems owned by a private enterprise will provide a global coverage.[74] A question may arise whether this concept of a single global system is still relevant in the present changing environment.

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[73] INTELSAT *Travaux Preparatoires* PC(III)/WG-C/SR/14, February 25, 1970 at 2, as cited in Irwin B. Schwartz, "Pirates or Pioneers in Orbit ? Private International Communications Satellite Systems and Article XIV (d) of the INTELSAT Agreements" (1986) IX *Boston College International and Comparative Law Review* 199, under fn. 122, at 211.

[74] Actually, PanAmSat already envisaged this possibility. See discussion in Chapter III under footnote 79.

3) The Changing Role of COMSAT

The negotiations on definitive arrangements gave opportunity for other countries to change the arrangements with respect to the role of COMSAT in the organization. They considered that such a dominant role could not be maintained in a global-type organization.

During the negotiations, the European countries wanted to promote their industrial interest through participation in INTELSAT. They complained that Comsat practice made INTELSAT entirely a U.S. Program.[75] Accordingly, some European countries submitted a proposal for a full internationalization of the management under a director general, within a specific period of time.[76] Although not objecting to this proposal, another group of countries felt a fixed time limit for achieving internationalization might interfere with the objective of ensuring efficient and effective management.

The U.S. position still favored the role of COMSAT as INTELSAT's manager. According to the U.S., the internationalization of the manager should not be a primary goal or common aim of INTELSAT. Instead, the U.S. asserted that "efficient management should be the only goal of the organization regarding the structure of the management body. Internationalization of the organization should be addressed in the

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[75] See *supra*, note 17, at 52-53.

[76] See discussions in *supra*, note 1, at 160-1.

Assembly and the governing body."[77]

However, under the pressure of other countries, the U.S. modified its early positions. In its compromise formula, submitted to the 1969 Conference, the U.S. proposed that COMSAT be retained as the manager for INTELSAT. COMSAT would provide management service under the terms of a contract concluded between itself and the board.[78] Therefore, the United States agreed to the division of the function into an administrative, financial, and legal manager on the one hand, and a technical, operational manager on the other.[79] The first could be internationalized but the second would require proven expertise and would be lodged in COMSAT under a management contract with the Board of Governors for a period of six years.

Under the Definitive Agreements, there would be a transition period.[80] During this period, COMSAT would act as "the management services contractor responsible for the performance of technical and operational management services for INTELSAT."[81] The Board of Governors would appoint the Secretary General who would report COMSAT's activities to the Board. The Secretary General would be the legal

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[77] *Report of the United States Delegation to the Plenipotentiary Conference on Definitive Arrangements for the International Telecommunications Satellite Consortium (First Session)* (Washington, DC, April 10, 1969), as cited in *ibid.* at 161.

[78] Donahue, Thomas E.,"A Discussion of the Positions Taken by the United States in the Negotiations of Definitive Arrangements for INTELSAT" (1969) 12 *Colloquium on the Law of Outer Space* 30 at 31.

[79] *Supra*, note 1 at 161.

[80] *Supra*, note 64, Article XII.

[81] During this transition period a large amount of INTELSAT management was contracted to COMSAT under a Management Services Contract. Ibid., Article XII(e) and Annex B.

representative of INTELSAT until the first Director General assumed office. The Agreement set up the deadline for the Director General to assume office, namely one year before the end of the management services contract, or by December 31, 1976, whichever was earlier.[82] The Director General would be responsible for all management services, both administrative and technical.

The Director General assumed office on December 31, 1976, whereas the Management Service Contract with COMSAT terminated two years later. This situation initiated a significant change : from January 1, 1979, the management of INTELSAT has been served by an executive organ working under the direction of the Director General. COMSAT, since that time, no longer has acted as the Manager of INTELSAT.

With its replacement as managing authority, COMSAT lost significant influence it enjoyed when it still had a monopoly of power under the INTERIM Arrangements. In combination with some other changes in INTELSAT, the U.S. power has declined.[83] Therefore, it is understandable if, initially, the U.S. was a strong opponent of separate systems. But since the early 1980s, the U.S. policy has been moving toward supporting the establishment of private communications satellite systems.

2. Scope and Purpose

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[82] *Ibid.*, Article XII(i).

[83] The US investment share in INTELSAT has declined from 61 % when INTELSAT was established to 23.89 % as of 1989/1990. *INTELSAT Report*, 1989/90, at 42.

The Preamble of the INTELSAT Agreement contains the principles upon which the INTELSAT Organization is established and operated, as follows :[84]

- communication by means of satellites should be available to the nations of the world on a global and non-discriminatory basis (UNGA Resolution 1721 (XVI));
- outer space shall be used for the benefit and in the interests of all countries (Article I of the Outer Space Treaty);
- the establishment of a single global system which will provide expanded telecommunications services to all areas of the world and which will contribute to world peace and understanding;
- the right of all peoples to have access to the global system and of those ITU members to participate in the design, development, construction, including the provision of equipment, establishment, operation, maintenance and ownership of the system.

The Agreement established the International Telecommunications Satellite Organization (INTELSAT) with the main purpose being "to continue and carry forward on a definitive basis the design, development, construction, establishment, operation and maintenance of the space segment of the global commercial telecommunications satellite system...."[85]

Article III of the Agreement delineates INTELSAT's scope of activities. In addition to the specification of how the INTELSAT space segment will be used, this

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84 As noted earlier, Article IX of the Interim Arrangements required that all the principles enumerated in the Preamble to that Agreement be retained in the Definitive Agreements. Therefore, the Preamble of the INTELSAT Agreement reiterated the principles of the Interim Arrangements.

85 *Supra*, note 64, Article II(a).

Article also sets forth general principles pursuant to which INTELSAT may establish space segment capacity.[86]

The INTELSAT Agreement divides telecommunications services into two main categories : Public and specialized telecommunications services. INTELSAT's prime objective is the provision, on a commercial basis, of the space segment required for international public telecommunications services.[87] "Public telecommunication services" is defined in Article I(k) of the INTELSAT Agreement as

> fixed or mobile telecommunications services which can be provided by satellite and which are available for use 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, and leased circuits for any of these purposes; but excluding those mobile services of a type not provided under the Interim Agreement and the Special Agreement prior to the opening for signature of this Agreement, which are provided through mobile stations operating directly to a satellite which is designed , in whole or in part, to provide services relating to the safety or flight control of aircraft or to aviation or maritime radio navigation.

In Article III(l) of the INTELSAT Agreement, "specialized telecommunications services" is defined as "telecommunications services which can be provided by satellite, other than those defined in paragraph (k) of this 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".

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[86] David M. Leive, "International Telecommunications and Satellite Systems II : INTELSAT" (1987) 15 *International Business Lawyer* 316 at 317.

[87] *Supra*, note 64, Article III(a).

Subject to the exception provided in this provision, the above definition referring to fixed or mobile services provides a wide scope of activity for INTELSAT. Although for mobile services, past activities of INTELSAT were limited to leasing its satellite capacity to INMARSAT, there were some proposals for extending its activities to the provision of aeronautical services. On the other hand, with the increasing use of telecommunications services and the development of technology, questions arose about the difference between the term "international public telecommunications services" and "specialized telecommunications services".[88]

In a response to a controversy over the difference between the public and specialized services, INTELSAT asserted that the criterion for the distinction should be the nature of the service, rather than the type of facility (fixed or mobile station) used to provide it. Therefore, the concept of "availability to the public" was suggested as a means for determining whether a mobile service was public or specialized for purposes of the Agreement.[89]

Some specific, domestic public telecommunications services also are treated on

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[88] Particularly, arguments have been raised by two applicants before the Federal Communications Commission (FCC) for separate international satellite systems, i.e., Orion Satellite (Orion) and International Satellite, Inc. (ISI). See discussions in Chapter III, concerning private systems.

[89] *Legal Opinion on the Scope of INTELSAT's "Public Telecommunications Services"*, INTELSAT Doc. no. BG-60-48E W/9/84, Attachment no. 1, August 10, 1984, at 6. Furthermore, it states :

> The purpose of dividing INTELSAT's services into these two categories under the Agreements was to delineate the conditions under which each category of services could be offered by INTELSAT. ...
> ... [S]ervices are regarded as public because they may be made available for use by the general public. Thus the actual number of users, or whether an individual customer intends to make the capacity available to others or use it, itself, is irrelevant to characterizing a service as "public".

Ibid. at 5.

the same basis as international public telecommunications services, i.e., services between areas separated by areas not under the jurisdiction of the State concerned, or between areas separated by the high seas, and between the areas which are not linked by any terrestrial wide-band facilities and which are separated by natural barriers of such an exceptional nature that they impede the viable establishment of such facilities, if appropriate approval of the Meeting of Signatories, upon the advice of the Board of Governors, is obtained in advance.[90] Other kinds of domestic telecommunications services may be supplied by INTELSAT on a non-discriminatory basis, provided they do not impair the achievement of INTELSAT's prime objective.[91]

INTELSAT may, upon request and under appropriate terms, provide separate satellites or associated facilities for domestic or international, specialized telecommunications services, other than for military purposes, if the provision of public telecommunications services is not unfavorably affected and the arrangements are acceptable from a technical and economic point of view.[92] Therefore, under this provision, specialized services should be provided by INTELSAT on the secondary basis.[93]

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[90] *Supra*, note 64, Article III(b).

[91] *Ibid.*, Article III(c).

[92] *Ibid.*, Article III(d). This provision was a compromise between those members who supported INTELSAT to provide all types of communications services and those who would like to restrict INTELSAT's scope only for international public telecommunications services. See David M. Leive, "INTELSAT in A Changing Global Environment" (1988) 30 *Colloquium on the Law of Outer Space* 361 at 364-5.

[93] It can be interpreted that this compromise put a restriction on the extension of INTELSAT's scope. In recent years, in facing competition from private systems, INTELSAT capacity for the provision of specialized telecommunications services has grown significantly. It is interesting to see how

The Agreement also provides that INTELSAT may, on request and under appropriate terms and conditions, provide separate satellites or associated facilities for domestic, international, or specialized telecommunications services, if the efficient and economic operation of its own space segment is not affected.[94] Such separate satellites or associated facilities may be financed and owned by INTELSAT as part of its space segment if the signatories unanimously give their approval.[95] This flexibility has been used in the development and implementation of INTELSAT's planned domestic service offering which gives users the option to purchase space segment capacity from INTELSAT to meet domestic needs. In practice, for domestic service, once purchase arrangements are completed and agreed the capacity sold is no longer considered part of the INTELSAT space segment.[96]

Under the INTELSAT Agreements, INTELSAT does not offer service directly to the end users of communications services. Individual governments determine how INTELSAT's satellite services are provided and the tariff will be set up in their countries for which they have total control. The result is that the degree of domestic competition found in each country varies widely, reflecting the differences in

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INTELSAT's expansion will be compatible with the "restriction" provided in Article III(b).

[94] *Supra*, note 64, Article III(e).

[95] *Ibid.*, Article V(e).

[96] See *supra*, note 86, at 317. This situation creates a disadvantage for developing countries. Despite their increasing use of INTELSAT's space segment for domestic services, it does not automatically increase their quota. Interview with Dr. Ram Jakhu, professor at the Institute of Air and Space Law, McGill University Faculty of Law, May 11, 1991.

philosophies and regulatory approaches among nations.[97]

3. Juridical Personality

The Organization established under the Agreement is an international organization. It has a legal personality.[98] The Agreement provides that the Organization shall enjoy "the full capacity necessary for the exercise of its functions and the achievement of its purposes, including the capacity to conclude agreements with states or international organizations, conctract, acquire and dispose of property and be a party to legal proceedings". Furthermore, the Agreement requires each party to take necessary legal action within its own jurisdiction for the purpose of making the provisions of Article IV effective.[99]

The present INTELSAT status is quite different from the one under the Interim Arrangements where the Organization was established as a joint venture or a consortium.[100] It did not have a legal personality separate from its members.[101] In the negotiations for the definitive agreements, the U.S. originally wanted the

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[97] *Ibid.*, note 86.

[98] *Supra*, note 64, Article IV.

[99] This paragraph can be said as "an added safeguard". In accordance with Article XV(c), a Protocol on INTELSAT Privileges, Exemptions and Immunities was opened for Signature on 19 May 1978 and entered into force on 9 October 1980. *Protocol on INTELSAT Privileges, Exemptions and Immunities* (1981) UKTS 2, Cmnd.8103.

[100] J. Johnson, "Satellite Communications : The Challenge and the Opportunity for International Cooperation" (1964-5) 19 *Fed. Com. Bar Jl* 91-2; as cited in *supra*, note 70, *at 113*

[101] *Ibid.*

consortium to continue as a joint venture without legal personality. However, the majority of the members rejected the U.S. position on the basis that "INTELSAT would be better able to make contracts, own property, sue or be sued, obtain privileges and immunities, and incur and dispose of liabilities if it were a separate legal entity."[102] Faced with this objection, the US finally acquiesced.

Therefore, the INTELSAT Agreements have created a new form of international organization, a hybrid one where the governments and their operating agencies run the organization hand-in-hand. Although not intended for profit, INTELSAT can be said to be a "truly international, commercial corporation".[103]

4. Structure

Significant changes occurred with respect to the INTELSAT organizational structure. Among the factors contributing to this change were the solution of issues, according to some, in an unsatisfactory manner during the interim arrangements negotiations; the increasing interest of newer, smaller, participants in having a greater role in the future organization; the desire to "institutionalize" a role for governments; a strong desire to rectify deficiencies which emerged from the experience of the interim arrangements by creating an organization more traditional than the existing one, and by

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[102] *Supra*, note 1 at 163.

[103] See *supra*, note 70, at 114.

laying down its mandate with great specification in the constitutive agreements.[104] This caused a significant change to a "two-plane structure" in the interim arrangements, a governing body (ICSC) and a manager (COMSAT).[105] Dissatisfaction arose not only with U.S. dominance of INTELSAT through provision of COMSAT management, but also with the composition of the ICSC, which consisted of "telecommunications entities as signatories to the special agreement rather than as representatives of States."[106]

Under the Definitive Agreement, INTELSAT has four deliberative bodies, i.e., the Assembly of Parties, the Meeting of Signatories, the Board of Governors and an Executive Organ. The Agreement provides that no organ is to interfere with the discharge of any function attributed to another organ except to the extent provided for by the Agreements.[107] Accordingly, each body "shall ... take note of and give due and proper consideration to any resolution, recommendation or view made or expressed by another of these organs" acting within its responsibilities.[108] A literal reading of this provision may lead to a conclusion that there is no legal obligation for an organ to follow the actions of the other.[109] However, in practice the conclusion is not quite so simple.

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[104] *Supra*, note 58 at 36.

[105] *Ibid.*

[106] *Supra*, note 70 at 116.

[107] *Supra*, note 64, Article VI(b).

[108] *Ibid.*, Article VI(c).

[109] See *supra*, note 23, at 91.

a. The Assembly of Parties

The Assembly is composed of all the member States which are parties to the INTELSAT Agreement and is the principal deliberative organ of INTELSAT.[110] The Assembly "shall consider those aspects of INTELSAT which are primarily of interest to the Parties as sovereign States".[111] This also includes the power to consider and make recommendations on INTELSAT's general policy and long-term objectives.[112] The Agreement lists 14 (fourteen) functions and powers of the Assembly in Article VII(c) of the INTELSAT Agreement. Most of the Assembly's powers are recommendatory in nature, including its findings about the establishment, acquisition, or use of space segment facilities separate from the INTELSAT system.[113]

The ordinary meetings of the Assembly are held every two years.[114] An extraordinary meeting of the Assembly, however, may be convened upon request by the Board of Governors acting pursuant to Article XIV (inter-system coordination), by application of Article XVI (withdrawal of a party), or upon a request of one or more Parties that obtains a minimum support of one-third of the Parties including the requesting Party or Parties.[115] The quorum for any meeting shall be a majority of the

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[110] *Supra*, note 64, Article VII(a).

[111] *Ibid.*, Article VII(b).

[112] *Ibid.*

[113] Ibid., Article VII(c)(vii).

[114] *Ibid.*, Article VII(d).

[115] *Supra*, note 64, Article VII(e).

Parties present. Decisions on substantive matters are taken on an affirmative vote cast by at least two-thirds of the Parties whose representatives are present and voting, while on procedural matters by a simple majority of Parties present and voting. Decision on whether a specific matter is procedural or substantive is taken by a vote cast by a simple majority of the Parties whose representatives are present and voting.

b. The Meeting of Signatories

The Meeting of Signatories is composed of representatives of all Signatories to the Operating Agreement.[116] The Meeting was created to provide all the investors with the possibility of participating equally in the making of INTELSAT's general policies.[117] The Agreement provides the Meeting with a list of powers and functions that are mainly concerned with matters of high policy (financial, technical, and operational aspects).[118] The powers and functions include views on the Annual Report and financial statements; views and recommendations on proposed amendments to the Agreement; decisions on proposed amendments to the Operating Agreement; views on future programs submitted by the Board of Governors; decisions on any recommendations made by the Board of Governors concerning an increase in the capital

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[116] *Ibid.*, Article VIII(a). "Signatory" means "a Party, or the telecommunications entity designated by a Party, which has signed the Operating Agreement and for which it has entered into force or been provisionally applied". Ibid., Article I(g).

[117] *Supra*, note 70 at 117-8.

[118] *Supra*, note 64, Article VIII(b). See *ibid.* at 118; *supra*, note 23 at 96.

ceiling provided for in Article 5 of the Operating Agreement; approvals of earth stations; allotment of the INTELSAT space segment capacity; proposals on the rate to charge for use of the INTELSAT space segment; decisions in connection with the withdrawal of a signatory from INTELSAT; examination of complaints submitted by signatories or by users of the space segment who are not signatories; study and analysis of the general policy as proposed by the Assembly of Parties; and annual assessments for the purpose of representation on the Board of Governors.

The Meeting of Signatories is held every year. An extraordinary meeting, however, also may be convened. The quorum for the Meeting consists of the representatives of a majority of Signatories.[119] Each Signatory has one vote. Decisions on substantive matters shall be taken by at least two-thirds of the Signatories whose representatives are present and voting, while on procedural matters a simple majority is sufficient. Decisions on whether a specific matter is substantive or procedural will be decided by a simple majority of the Signatories whose representatives are present and voting.

c. The Board of Governors

The Board of Governors is the principal managing organ of INTELSAT.[120] It has the responsibility for the design, development, construction, establishment,

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[119] *Ibid.*, Article VIII(e).

[120] *Supra*, note 70 at 118.

operation, and maintenance of the INTELSAT space segment.[121] To fulfill this responsibility, the Agreement provides the Board with extensive power and functions.[122] The Functions of the Board of Governors are listed in Article X of the Agreement, consisting of 27 headings.[123] The list confirms the strong authority of the Board of Governors in the INTELSAT Organization.

The composition of the Board includes three categories of Governors : those representing the Signatories whose investment share is not less than the determined minimum; those representing a group of signatories, not represented in the first category, whose combined investment share is not less than the minimum; and those representing any group of at least five signatories, not represented otherwise, from any one of the five ITU regions, regardless of the total investment shares held by the signatories comprising the group.[124] The number of such Governors from the last category, however, must not exceed a total of two from any one region, and five from all regions.[125] At present, the Board consists of 29 members.

The concept of "minimum share" is very important for the purpose of establishing the membership of the Board of Governors. Article IX(b) of the Agreement, in conjunction with Article 6 of the Operating Agreement, elaborates the

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121 *Supra*, note 64, Article X(a).

122 *Ibid.*

123 See also *supra*, note 23, at 104.

124 *Ibid.*, Article IX(a).

125 Special rules are provided for "regional representation" in Article IX(c) and (d) of the INTELSAT Agreement. See also *supra*, note 23, at 99.

calculation method for the minimum shares required for representation on the Board of Governors. For this purpose, annual determinations will be made at the Meeting of Signatories.[126] As a general rule, the Operating Agreement provides that the investment share of a Signatory is equal to its percentage of the utilization of the INTELSAT space segment by all signatories.[127] The investment share was first determined at the date of entry into force of the operating agreement. It will be redetermined for the purposes of composition of the Board of Governors and voting participation at the Board on March 1st of each year.[128]

Once determined, a member of the Board of Governors remains seated until the next determination of the minimum investment shares.[129] Changes in the investment shares during that period do not affect positions in place. However, in the case of "group representation" (category 2 and 3 as mentioned above), if one or more Signatories withdraw from the organization or a group, and make the group ineligible to be represented on the Board, the Governor loses his/her position.

Voting power of each Governor is determined by the investment share of the Signatory, or group of Signatories, he represents. The investment share is derived from the use of the INTELSAT space segment for international public telecommunications services and specific domestic services, as defined in Article III(b)(i) and (ii) of the

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[126] *Supra*, note 64, Articles VIII(b)(xi), IX(b).

[127] *Ibid.*, *The Operating Agreement*, Article 6(a). There are some exceptions to the general rule provided in this Article.

[128] *Ibid.*, Article IX(h); *The Operating Agreement*, Article 6(c)(ii).

[129] *Ibid.*, Article IX(e).

INTELSAT Agreement.[130]

Unlike the provisions of the Interim Arrangements, under the INTELSAT Agreement no Governor may cast more than forty per cent of the total voting participation of all Signatories and groups represented on the Board.[131] If the voting participation of any Governor exceeds forty per cent, the excess shall be distributed equally to the other Governors on the Board of Governors. This voting provision is important to prevent the dominance of any signatory or group of signatories in the Board of Governors. As noted earlier, the voting power of the U.S. Governor (COMSAT) in the Board has declined significantly, from 61 per cent in the first days of the interim INTELSAT to 24 per cent at present.

The quorum of the Board of Governors consists of a majority of the members having at least two-thirds of the total voting participation of all Signatories and groups of Signatories represented on the Board.[132] Another possibility for achieving a quorum is the total number constituting the Board of Governors minus three, regardless of the amount of voting participation they represent.[133] The latter rule was made to avoid the situation where three Governors representing major investment shareholders are absent.[134]

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130 Ibid., Article IX(f).

131 *Ibid.*, Article IX(g)(iv).

132 *Ibid.*, Article IX(i).

133 *Ibid.*

134 *Supra*, note 23 at 100.

The Board holds meetings at least four times a year.[135] It shall endeavour to take decisions unanimously.[136] If it fails, it shall take decisions under two situations,[137] that is for substantive matters, decisions will be made by an affirmative vote of at least four Governors having at least two-thirds of the total voting participation of all signatories represented on the Board, or by an affirmative vote by at least the total number constituting the Board of Governors minus three, regardless of the amount of voting participation they represent. On all procedural matters, decision will be taken on a simple majority of Governors present and voting, each having one vote. Decision whether a specific matter is procedural or substantive shall be taken by the Chairman of the Board of Governors.[138] This decision, nevertheless, may be overruled by a two-thirds majority of the Governors present and voting, each having one vote.

d. The Executive Organ

The Executive Organ is headed by the Director General, who is the chief executive and the legal representative of INTELSAT.[139] He is directly responsible

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[135] *Supra*, note 64, Article IX(n).

[136] *Ibid.*, Article IX(j).

[137] *Ibid.*, Article IX(j)(i) and (ii).

[138] *Ibid.*, Article IX(k).

[139] *Ibid.*, Article XI(a). Before the first Director General was appointed, a Secretary General acted as the head of the executive organ and the legal representative of INTELSAT. As Lyall observed, "although the former Secretary General, Santiago Astrain, became the first Director General, the change involved more than a mere change of title." See *supra*, note 23, at 105.

to the Board of Governors for the performance of all management functions. These management functions include those performed by the Secretary General.[140] On behalf of INTELSAT, he contracts out technical and operational functions to one or more competent entities.[141] These entities may be of various nationalities, or may be an international corporation owned and controlled by INTELSAT.[142]

The Agreement requires the executive organ to have its organizational structure implemented not later than six years after the entry into force of the Agreement. This requirement was fulfilled on January 1, 1979, as all management and operational functions under the Director's supervision are performed by INTELSAT's own "internationally-recruited staff".[143] This brought a significant change to INTELSAT, as previously its management was operated, and therefore controlled, by the U.S. Signatory, COMSAT.[144]

The Director General is appointed by the Board of Governors.[145] The main criteria for the appointment of a Director General and the selection of other personnel of the executive organ shall be "the necessity of ensuring the highest standards of

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[140] *Ibid.*, Annex A : Functions of the Secretary General. Among the functions is "17) for the purpose of paragraph (d) of Article XIV of this Agreement, analyze and report to the Board of Governors on the estimated economic effects to INTELSAT of any proposed space segment facilities separate from the INTELSAT space segment facilities."

[141] *Ibid.*, Article XI(c)(ii).

[142] *Ibid.*

[143] *Supra*, note 70 at 121.

[144] When the management change occurred, many employees originated from COMSAT when it was operating under the Management Services Contract. See *supra*, note 23, at 105.

[145] *Supra*, note 64, Article XI(b)(iii).

integrity, competency and efficiency".[146] Further, the Director General and the personnel of the executive organ shall refrain from any action incompatible with their responsibilities to INTELSAT. The Director General may be removed from office "for cause" by the Board of Governors on its own authority.[147]

5. Membership

The practice of INTELSAT, as under the Interim Arrangements, continued in the Definitive Agreement. Accession to the Agreement can only be undertaken by the Government of any State Party to the Interim Arrangements and by the Government of any other State Member of the International Telecommunication Union.[148]

It is interesting that INTELSAT services are not limited only to its members. Non-members can also use its space segment facilities. The Soviet Union and other countries in East Europe used these facilities even before they became members of

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146 *Ibid.*, Article XI(b)(iv).

147 Ibid., Article XI(b)(iii). This happened with the former Director General, Mr. R. Colino.

148 The requirement of prior ITU membership under the interim agreement originally was intended to block the German Democratic Republic and the People's Republic of China from becoming members of INTELSAT. See *supra*, note 70, at 123. Matte argues that

> Perhaps the main reason for favoring prior membership in the ITU was that ITU rules and regulations, which bind members only, were essential for the proper and effective operation of the INTELSAT telecommunications satellite systems.

Ibid. at 123. But see further at 124, arguing that this requirement "appears to be contrary" to the principle of non-discrimination contained in the UNGA Res 1721 (XVI) of December 20, 1961, as also repeated in the Preamble of the INTELSAT Interim Arrangements.

INTELSAT. This practice remains compatible with the main purpose of INTELSAT, i.e. to provide a global communications satellite services on a non-discriminatory basis. Furthermore, the rate charges for space segment utilization must be the same for all users for that type of utilization, regardless of whether the users are INTELSAT members.[149]

[149] *Supra*, note 64, Article V(d).

CHAPTER II

INTER-SYSTEM COORDINATION PROCEDURES UNDER THE INTELSAT AGREEMENTS

1. Legal Nature of Inter-System Coordination[1]

a. Duty to Consult

The scope of Article XIV is much wider than merely regulating inter-system coordinations. The title of the Article is "Rights and Obligations of Members", which, in itself, explains its broad scope. Accordingly, besides rules for separate systems, this Article also contains general rights and obligations. Paragraph (a) asserts that the Parties and Signatories shall exercise their rights and meet their obligations under the Agreement in a manner fully consistent with, and in furtherance of, the principles stated in the Preamble and other provisions of the Agreement. This obligation is of a general nature, since it does not refer to a specific obligation. The legal nature and implementation of the obligation may vary from one clause to another in the INTELSAT Agreements, depending on the wording of the clause and its relation to other parts of the Agreement. Paragraph (b) describes the rights of the Parties and

[1] In this thesis, the term "coordination" has the same meaning as "consultation".

Signatories for participating in all conferences and meetings of the INTELSAT Organization. The rest of the Article deals with inter-system coordination procedures, i.e., paragraphs (c), (d), and (e), which will be the center of discussion in the following section.

Paragraphs (c), (d) and (e) of Article XIV oblige the INTELSAT Parties or Signatories to coordinate their proposed systems with the INTELSAT system if the proposed systems will provide either domestic, international public telecommunication, or specialized services.[2] Although, theoretically, any system intended to provide services outside the three terms is excluded from coordination procedures, the terms used in Article XIV are broad enough to cover all types of services. In addition, the burden of proof, which lies with the concerned Party or Signatory to provide relevant information, will make it difficult for the Party or Signatory concerned to avoid the coordination process. Two clear examples where the Party or Signatory does not have to follow coordination concern satellites for national security purposes and experimental satellites.[3] By excluding experimental satellites, the coordination process is required only for proposed operational satellites.

Another important factor in determining the duty of the Party or Signatory is the time element. Paragraphs (c), (d) and (e) of Article XIV all require that coordination

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[2] In practice, the initiative for coordination does not always come from the Party or Signatory concerned. The Director General of INTELSAT, on some occasions, has invited the Party or Signatory concerned to initiate coordination. For instance, on March 12, 1982, the Director General invited the Signatory of Columbia to initiate technical coordination under Article XIV(c) for SATCOL IA, IB, and II satellite networks. In the same year, the Signatory of France was also invited to initiate coordination under Article XIV(e) for the TDF-1 broadcasting satellite network. *Intersystem Coordination Status Report*, INTELSAT Doc. no. BG-52-14E W/9/82, August 27, 1982, at 2.

[3] *INTELSAT Agreement*, Article XIV(g).

shall take place "prior to the establishment, acquisition or utilization of such facilities". There are two reasons why this phrase leads to uncertainty when there is a breach of the duty to consult. First, no fixed time limit is set up with respect to the last date for a coordination process, and even as to when the coordination should be started. The problems may be triggered as the Board of Governors have described two types of coordination, i.e., informal and formal, without any reference to the time limit.[4] Secondly, the Agreement also does not define the terms "the establishment, acquisition or utilization". However, these terms can be interpreted as decribing two situations. "Establishment" refers to a new separate system, whereas "acquisition" and "utilization" indicate an existing system."[5]

In Director General's Memorandum, it was stated that :[6]

> With respect to the [establishment of a separate system] ... it follows that the coordination procedure has to be initiated at a point in time in the development of the separate system that would make it possible to incorporate the Assembly recommendations in the proposed system....[I]t may be said that the legal obligation to carry out the Article XIV(d) coordination should take place no later than during the preparation of the RFP because it is at this time that the Assembly of Parties recommendation can still be taken into consideration in the process of establishing the separate system.
>
> In the case of utilization of an existing separate system ... the [coordination] procedure must be concluded in time for the Assembly's recommendation to be available to the Party or Signatory when there is still time to take it into consideration in the development of the Party's or Signatory's plans to use the separate facilities.

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[4] See below under footnote 27.

[5] *Review of Certain Obligations of INTELSAT Members under the INTELSAT Agreements, with Particular Reference to Article XIV(d)*, INTELSAT Doc. no. BG-60-62E W/9/84, August 15, 1984, at 2. (hereinafter "Director General's Memorandum").

[6] *Ibid.* at 2-3.

Furthermore, the Memorandum asserted that :

> [A]n infringement of the INTELSAT Agreement occurs if the Party or Signatory (i) does not initiate the Article XIV(d) procedure, or (ii) initiates the procedure so late in the process of establishment or utilization of the separate system (or does not actively pursue the procedure by providing all the required information in a timely manner) so as to make the possibility of following the Assembly's recommendation in fact improbable, or (iii) withdraws from the procedure.

This Memorandum, however, still did not indicate a fixed time limit for the Party or Signatory concerned to start coordination. If the time for submitting relevant information and to conduct informal consultation is defined as X, the 6(six) months time limit for the Assembly of Parties or the Board of Directors to give its recommendations,[7] and the time needed to incorporate the Assembly or the Board's recommendations in the proposed system as Y, then the total time needed for the coordination of a separate system can be formulated as = X + Y + 6 months. "X" and "Y", of course, are still unknowns, since no one can give a definite answer of how long they are. This situation may cause uncertainty as to when the Party or Signatory has legally breached its obligation.

b. Legal Effects of the Findings

The findings of the Assembly of Parties (under Article XIV paragraphs (d) and (e)) and the Board of Governors (under Article XIV(c)) are given in the form of recommendations. The question arises when the Assembly or the Board gives a negative finding, i.e., when it finds that the proposed system is technically incompatible with, or

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[7] *INTELSAT Agreement*, Article XIV(f).

will cause significant economic harm to or prejudice the establishment of direct telecommunications links through the INTELSAT system, or when it makes a positive recommendation subject to a certain condition to be met by the Party or Signatory in order to eliminate negative findings. A question arises in such a situation to what extent is the Party or Signatory concerned legally bound or affected by the Assembly's or the Board of Governors' recommendations ?

Article XIV states that the Party or Signatory "shall consult the Board of Governors" (paragraph c) or "shall consult with the Assembly of Parties" (paragraph d). Article XIV(e) only contains the phrase "shall furnish all relevant information to the Assembly of Parties through the Board of Governors", without mentioning any "duty to consult." These three paragraphs state that the findings, either by the Assembly of Parties or by the Board of Governors, will be made in the form of recommendations. The language of this Article clearly indicates the advisory nature of the procedures and findings. From both the language of Article XIV and its negotiating history, it appears that the Assembly of Parties' or the Board of Governors' findings are not legally binding on the Party or Signatory concerned.[8] In the other words, they do not create a legal obligation to follow the cause of action set forth in the recommendation.[9] In addition, there are no legal remedies in the Agreements that would apply to Parties or Signatories which fail to fulfill the course of action the Assembly of Parties or the Board of

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[8] *Ibid.* at 4.

[9] *Ibid.*

Governors recommend them to follow.[10]

Despite the lack of a legally binding obligation, a recommendation resulting from a consultation process has significant legal effect. It is an expression of the collective will of the Organization reflecting the membership's overall interests and a proposal to its addressee (s) to proceed in a manner consistent with those overall interests.[11] Its effect also derives from the compliance of its members in the past to follow the coordination procedures. It may be difficult to draw this effect from the practice of states concerning negative findings based on the "significant economic harm" test since, so far, in only one case has INTELSAT made a negative finding.[12] However, from technical consultations, a practice has developed in which Parties or Signatories concerned have complied with INTELSAT's conditions before it can give its recommendations. In addition to protecting INTELSAT's system from interference, technical coordination also contributes to the greater safety of the separate systems' operation.

As noted earlier, Article XIV started with a general obligation clause. A principle of treaty law provides that State Parties to a Treaty have an obligation to refrain from

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[10] *Ibid.* at 5.

[11] *Ibid.* at 5. The purposes of INTELSAT as set forth in the INTELSAT Agreements clearly reflect the desire to promote international cooperation in the field of international telecommunications. Therefore, INTELSAT is a good example of how nation states give their approval to limit their sovereignty in the creation of satellite communications. Although it seems contrary to the general principle of law that no one should be a judge in his own case, the desire for international cooperation through INTELSAT also explains why INTELSAT is given power to make decisions on coordination of separate systems.

[12] See coordination of Orion system, below.

acts which may defeat the object and purpose of Treaty.[13] With regard to the INTELSAT Agreement, the object and purpose are elaborated in the Preamble and Article II of the Agreement. The problem is about how INTELSAT will and can secure the achievement of its object and purpose. Discussions in Chapter I reveal uncertainty about the concept of a single global system, particularly as the INTELSAT Agreement opens possibility for separate systems under certain requirements, while, at the same time, no clear criterion is given in the Agreement. As will be discussed below, the guidelines developed by the INTELSAT Assembly of Parties also have been changed several times as a response to the changing telecommunication environment. While, on the one hand, these changing guidelines may be necessary to encounter new situations, this may lead to uncertainty of how INTELSAT will determine that a Party or Signatory has defeated the object and purpose of the Agreement.

2. Scope and Criteria of Inter-System Coordination

INTELSAT members have the right to establish separate satellite

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[13] Article 18 of the Vienna Convention on the Law of Treaties (1969) provides that

> A State is obliged to refrain from acts which would defeat the object and purpose of a Treaty when:
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> (a) it has signed the treaty or has exchanged instruments constituting the treaty subject to ratification, acceptance or approval, until it shall have made its intention clear not to become a party to the treaty; or
> (b) it has expressed its consent to be bound by the treaty, pending the entry into force of the treaty and provided that such entry into force is not unduly delayed.

Vienna Convention on the Law of Treaties, done at Vienna, May 23, 1969, entered into force January 27, 1980 (1980) Can. TS 37.

telecommunications systems subject to certain conditions set forth in the INTELSAT Agreements. The conditions are elaborated in Article XIV of the INTELSAT Agreements.

Paragraphs (c), (d), and (e) deal with three types of coordinations. No duty to consult is required, however, concerning the establishment, acquisition, or use of satellites for national security purposes.[14] Paragraph (f) provides a fixed time limit for the coordinations process in the INTELSAT bodies since it requires the recommendations by the Assembly of Parties or the Board of Governors to be given within a period of six months from the date of commencing the coordination procedures. An extraordinary meeting of the Assembly of Parties may be convened for this purpose.

a. Domestic Public Telecommunications

1) Procedures and Criteria

Article XIV(c) of the INTELSAT Agreement provides that

> To the extent that any Party or Signatory or person within the jurisdiction of a Party intends to establish, acquire or utilize space segment facilities to meet its domestic public telecommunications service requirements, such Party or Signatory, prior to the establishment, acquisition or utilization of such facilities, shall consult the Board of Governors, which shall express, in the form of recommendations, its findings regarding the technical compatibility of such

[14] *INTELSAT Agreement*, Article XIV(g). The origin of this provision can be traced back to the debate between military and civilian systems in the drafting process of the Communications Satellite Act of 1962. Therefore, this provision provides protection to those states which are able and want to launch military satellites. The term "solely," however, limits the function of these "military" satellites.

facilities and their operation with the use of the radio frequency spectrum and orbital space by the existing or planned INTELSAT space segment.

The above provision only obliges the INTELSAT members to follow coordination procedures. No obligation is provided for non-members. Coordination procedures must also be followed if a "person within the jurisdiction of a Party" intends to establish or use separate systems. From this phrase, although no definition is given in the Agreements, it is clear that the drafters of the Agreement already anticipated the establishment of private systems. However, it appears from the text that the activities covered are not limited to those conducted by the nationals of a Party to the INTELSAT Agreements who initiate the coordination. It may also cover activities of foreign nationals who fall under the jurisdiction of an INTELSAT Party.[15] Apart from who intends to establish or use a separate systems, only a Party or a Signatory can represent and consult the Board of Governors.

Coordination under this provision covers the establishment of a new system or the acquisition or utilization of an existing system. It is interesting to see that the latter may include the system of non-INTELSAT members. Actually, some coordinations with respect to the proposed use by the INTELSAT members of the systems belonging to

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[15] In this regard, Article VII of the Outer Space Treaty (1967), Article II of the Liability Convention (1972), and Article II of the Registration Convention (1974), are relevant to determining the meaning of the expression "person within the jurisdiction of a Party." *Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies (Outer Space Treaty)* UNGA Res. 2222 (XXI), December 19, 1966; 610 UNTS 205, 1967; *Convention on International Liability for Damage Caused by Space Objects (Liability Convention)* UNGA Res. 2777 (XXVI), November 29, 1971, 1975 Can TS 6; *Convention on Registration of Objects Launched into Outer Space (Registration Convention)* UNGA Res. 3235 (XXIX), November 12, 1974, 1976 Can. TS 36.

non-INTELSAT members already have been undertaken.[16] Nevertheless, the systems covered by this provision only cover the ones used for domestic public telecommunications services. As already discussed, Article I(k) of the Agreement contains a definition of the term "public telecommunications services," but no definition is provided with respect to a "domestic system". It seems that it is intended to cover public telecommunications services within a national territory of a state, except certain services set forth in Article III(b) of the INTELSAT Agreement. A further extension of the services to cover areas outside that state or to provide service other than public telecommunications services will change the status of "domestic public telecommunications services" into "international public telecommunications services" or "specialized telecommunications services."[17] Consequently, in addition to the process under Article XIV(c), the Party or Signatory concerned must follow coordination procedures under Article XIV (d) or (e).

Any party or Signatory has to start coordination "prior" to establishment, acquisition, or use of such separate systems.[18] As noted earlier, no fixed time is

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16 See coordination of INTERSPUTNIK system below.

17 This is a common practice now where the type and geographical scope of the services of the existing system has been extended to meet specific needs of the users.

18 This requirement may create confusion concerning the INTERSPUTNIK system if its members join INTELSAT. Two possibilities are envisaged. First, the system will merge with the INTELSAT system. In this case, no coordination between the INTELSAT and its new members will be needed. Secondly, the former INTERSPUNIK members may still keep the system separate from the INTELSAT system. If this happens, two situations may arise. With regard to the former INTERSPUTNIK members, no coordination is necessary as their system does not meet the criterion "future system". But for other INTELSAT members who would like to use the INTERSPUTNIK system, they still must follow the coordination procedures. Cf. Nicolas M. Matte, *Aerospace Law - Telecommunications Satellite* (Toronto: Butterworths, 1982) at 130.

established, but taking into account the provision in Article XIV(f) of the Agreement, to avoid delay, the request for consultation should be given more than six months before the establishment, acquisition, or use of such system.[19]

Coordination will be held between the Party or Signatory concerned with the Board of Governors.[20] The Party or Signatory has a duty to provide information to the Board of Governors.[21] The Agreement, however, does not elaborate the required information. In 1974, for the first time, the required information was elaborated by the Board of Governors.[22]

The Board of Governors expresses its findings, in the form of recommendations, concerning technical and operational compatibility with the use of the radio frequency spectrum and orbital space by the existing or planned INTELSAT space segment. Since these are substantive matters, the Board of Governors will take decision by weighted votes, if it fails to get unanimity. From the use of the term "recommendations", it can be interpreted that once a recommendation is given, it will result in a positive finding.[23] If technical and operational incompatibility arises, it may be possible for the

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[19] The date of commencement of these procedures shall be the date of receipt by the Director General of the information required and shall apply only to requests for formal coordination. See in *Article XIV Intersystem Coordination Procedures (Technical Compatibility)*, INTELSAT Doc. no. BG-7-38E W/1/74 (Rev 1), April 5, 1977, at 2. Unfortunately, concerning this time element, no information is obtained from the practice of INTELSAT members.

[20] INTELSAT's Intersystem Coordination Office is responsible for the technical work within INTELSAT's Executive Organ. See *supra*, note 18, at 131.

[21] The Board of Governors determines that all information shall be furnished to the Director General of INTELSAT. See *supra*, note 19, at 1.

[22] See *ibid.*

[23] See Richard Colino, *The INTELSAT Definitive Arrangements : Ushering in A New Era in Satellite Telecommunications* (Switzerland: European Broadcasting Union, 1973) at 94.

Board of Governors to set conditions in order to eliminate or reduce the incompatibility. In this regard, the party or signatory will have to adjust or change the technical characteristics of the proposed system. The foregoing is confirmed in the guidelines established by the Board of Governors, as follows :[24]

> With respect to separate facilities for domestic public telecommunications services, the Board of Governors shall issue its findings in the form of recommendations regarding technical compatibility. If favorable, the Director General shall notify the appropriate officials. In the event the Board of Governors is unable to make a favorable finding, the Board shall seek to resolve the difficulties in an appropriate manner.

Nevertheless, in case the proposed system is technically incompatible and there is no other way to eliminate or reduce the incompatibility, the Board of Governors may make a negative finding.

As already discussed in Chapter I, during the period of the Interim Arrangements, technical criteria had been applied to determine the compatibility between the INTELSAT's systems and systems of its members. The reasons for applying these criteria include the following[25]

1. The electronic frequency spectrum utilized by communications satellites is a vital and limited international resource shared by all nations;
2. Satellites are potentially capable of interfering with each other, and each is, in turn, susceptible to harmful interference from other sources of electromagnetic radiation;
3. Communication satellites orbit in outer space, and the available number of orbital slots for geostationary satellites in outer space is limited;

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[24] See *supra*, note 19, at 2.

[25] *Definitive Arrangements for INTELSAT*, ICSC Doc. no. 28-40E W/9/67, 29-9E W/11/67, October 3, 1967. These reasons are also the basis of coordination of satellites under the ITU Convention. See *International Telecommunication Convention*-- Nairobi, 1982 (Geneva: ITU, 1982), Article 33.

4. Satellite communications undertaken on a global scale can result in high levels of cost savings in research, development, and production of facilities, as well as maximum flexibility of operational routing of traffic.

For the guidance to issue the findings on technical and operational compatibility, the Board of Governors has established guidelines, criteria, and procedures in 1974, with a revision in 1977.[26] According to this report, any Party or Signatory requesting such coordination shall furnish information to the Director General of INTELSAT. Considerations of the information will be given during two steps, namely an early informal and, subsequently, a formal step. The Board also sets the time for both steps. The informal coordination will begin as early as possible and preferably before the Advance Publication of Information by the IFRB. The formal step will commence subsequent to the informal consultation, but in advance of the proposed establishment, acquisition, or use of the proposed system. Attachment No.1 to this report contains the list of the required information.[27]

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[26] *Supra,* note 19.

[27] The required information is as follows :

A. Information requested for early consultation and formal coordination.

1. Satellite location, including excursions in both longitude and latitude;
2. Areas in which earth stations will be located;
3. Factors which determine or bound the arc over which service can be provided, such as location of edge of arc earth stations, etc;
4. Operating frequency bands;
5. Satellite antenna radiation patterns for both receiving and transmitting senses; directions of main area of antenna patterns or a map showing beam coverage; stability of beam pointing;
6. Envelopes of the transmitting and receiving radiation characteristics of earth station antennas, for each antenna type and diameter used in the system;
7. Maximum power density per Hz to be delivered to each antenna of the proposed satellite averaged over the worst 4 kHz band for carrier frequencies below 15 GHz, and over the worst 1 MHz band above 15 GHz;

As already mentioned, the Board of Governors will issue, with the assistance of the Director General findings regarding technical compatibility of the proposed system and the existing or planned INTELSAT space segment.[28] The INTELSAT Agreement does not define the meaning of "the planned INTELSAT system." Therefore, it leaves the door open for INTELSAT Board of Governors to determine the meaning of "the planned system."

2) Previous Coordinations

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8. Maximum power density per kHz to be delivered to the antenna of the proposed earth stations averaged as under 7 above, for each type and diameter of the antenna,
9. Maximum single carrier total power and the associated minimum bandwidth delivered to each antenna of the proposed satellite;
10. Maximum single carrier total power and the associated minimum bandwidth delivered to each antenna of the proposed earth stations, for each diameter of antenna;
11. Minimum equivalent link noise temperature of the earth station receiving systems, for each type and diameter of earth station antenna;
12. Maximum transmission gain of the satellite link between the output terminals of the satellite receiving antenna and the output terminals of the receiving earth station's antenna, for each type and diameter of receiving antenna, and for each satellite transmit antenna beam.

B. Additional information that may be requested for formal coordination.

13. Satellite receiving system noise temperature, in each type of satellite receive beam;
14. Satellite transmitter power to be delivered to the satellite transmit antenna for each type of carrier together with a listing of all modulation parameters, including baseband, modulation method, modulation parameters, energy dispersal applied, etc.
15. Receiving system noise temperature of earth station, for each type and diameter of antenna;
16. Earth station e.i.r.p. associated with each type of transmitted carrier together with a listing of all modulation parameters, for each type and diameter of earth station antenna, as well as energy dispersal, its level and control, if used;
17. E.i.r.p. of satellite beacon emissions;
18. Technical description and system parameters of command and telemetry emissions except for coding data;
19. Partial or complete carrier frequency plan including all pertinent transmission parameters, identity of associated earth stations, and types and diameter of earth station antennas. This information need be furnished when necessary to effect coordination of individual carriers.

[28] Article I(h) of the INTELSAT Agreement defines "space segment" as "the telecommunications satellites, and the tracking, telemetry, command, control, monitoring and related facilities and equipment required to support the operation these satellites".

So far, coordinations for domestic systems do not create a big problem. INTELSAT's members accept the rationales for technical compatibility as necessary to ensure an orderly, efficient, and economic úse of the radio spectrum and orbital space.

The first consultation was held in 1968-1969 with respect to the proposed Canadian domestic satellite communications system. This system was later known as TELESAT. In October 1969, the ICSC decided that the proposed system would be technically compatible with INTELSAT and that Canada had adhered to the recommended coordination procedure.[29]

Coordinations have also been taken concerning the following systems :

- Canada (Anik-B);
- Columbia (SATCOL 1 and 2);
- Indonesia (PALAPA-A and PALAPA-B); and
- the US (SATCOM and WESTAR).

The coordination of Palapa-A satellite provided a lesson for INTELSAT to develop its technical criteria. Indonesian Signatory informed the Board that its satellite would not cause interference in accordance with ITU coordination procedures.[30] However, INTELSAT believed the proposed system might subject INTELSAT satellites to an "un acceptable level of interference." In this case, Indonesia showed its willingness to cooperate, in order to avoid a mutual harmful interference. Following this case, INTELSAT revised its technical criteria in 1977, as noted earlier. The main reason for

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[29] See in *supra*, note 18, at 132.

[30] See Richard R. Colino, "International Cooperation Between Communications Satellite Systems: An Overview of Current Practices and Future Prospects" (1977) 5 *Journal of Space Law* 65 at 85.

this revision is that, as held by some members of INTELSAT's Board, the ITU procedures are inadequate "to meet all the INTELSAT's requirements."[31] Consequently, the revised criteria are more stringent than the ITU procedures set forth in the ITU Convention and the relevant Radio Regulations. These criteria, which are designed to protect the INTELSAT system, impose constraints in the establishment of separate systems,[32] particularly as spectrum and orbit resources become increasingly scarce.

A controversy arose concerning whether it was necessary under Article XIV to coordinate separate satellite systems of the INTELSAT members for experimental purposes. This question arose when France and Germany planned the launch of an experimental satellite Symphonie.[33] The Board of Governors decided that experimental satellite systems were not required to be coordinated under the terms of Article XIV.[34] However, in the interests of INTELSAT and all Parties and Signatories, the Board expected all Parties and Signatories to effect technical coordination with INTELSAT of the experimental satellites which might interfere with the existing or planned INTELSAT system. Therefore, the Board introduced a "voluntary coordination" for experimental satellites.[35] Furthermore, the Board determined that an experimental

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[31] *Ibid.*

[32] Ram S. Jakhu, "Some Legal Aspects of Commercialisation of Telecommunications Satellites" (1991) (unpublished) at 8.

[33] See detail in *ibid.* at 132-3.

[34] See *Letter of the Director General to All Parties to the Agreement and All Signatories to the Operating Agreement of INTELSAT*, INTELSAT Doc. no. BG-7-38E W/1/74, February 15, 1974.

[35] See *supra*, note 18, at 132.

satellite which is used or planned for operational commercial traffic at a later date is fully subject to the coordination procedures under Article XIV of the INTELSAT Agreement.[36] These voluntary, technical coordinations have been followed by the European Space Agency countries for their Orbital Test Satellites and by Italy for its SIRIO satellites.[37]

b. International Public telecommunications Services

1) Procedures and Criteria

Article XIV(d) of the INTELSAT Agreement provides:

> 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 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 telecommunications links through the INTELSAT space segment among all the participants.

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[36] *Supra*, note 34.

[37] *Supra* , note 30 at 80.

The origin of this provision goes back to the debate over the concept of a single global system. Accordingly, this provision is a compromise between the supporters of a single global system and those in favor of separate regional systems. A careful look at the provision will not find any refernce to a regional system. The provision only refers to "international public telecommunications services", which is much wider than "regional services." It is not clear why there is no reference to "regional services," despite the hot debate preceding the drafting of this provision.[38]

The above-mentioned provision allows the possibility for any party, signatory, or person within the jurisdiction of a party to establish, acquire, or utilize separate systems for international public telecommunications services. They can do it individually or jointly. As discussed with respect to domestic systems, the expression "persons within the jurisdiction of a party" will cover individuals or private corporations who or which intend to establish, acquire, or use that system. It is interesting to see, despite the hot debates on the provision of international public telecommnication services, the Agreement itself has already envisaged the possibility for private entities to establish their own systems.

Some provisions are similar to the ones for a domestic system. Only a Party or

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[38] Commenting on the argument that the term "international" excludes "regional services," the Director General asserted that

> ... the legislative history of the Agreement makes it evident that there is little basis for this argument. While earlier versions of the Agreements had contained references to "regional telecommunications services" the final version replaced all such references with the phrase "international services," thereby making a distinction only between international and domestic services; the clear intention was to include regional services within the broader reference to international services.

Article XIV(d) Consultation Concerning Potential Economic Harm to INTELSAT by the Planned European Communications Satellite System, INTELSAT Doc. no. BG-52-41E W/9/82, August 20, 1982, at 9.

Signatory may request coordination. Consistent with this limitation, the duty to consult only applies to INTELSAT members. Coordination must take place before the establishment, acquisition, or use of such facilities. Similarly, the proposed system will be coordinated with the existing or planned INTELSAT system. As in the case of a domestic satellite system, no distinction is made concerning the permanent and temporary use of the proposed system.[39]

Unlike coordination for domestic systems, coordination for public telecommunications services shall be held between the respective Party or Signatory and the Assembly of Parties, through the Board of Governors. In addition, unlike Article XIV(c), Article XIV(d) explicitly requires such Party or Signatory to "furnish all relevant information." During the coordination, discussions will be held with the Party or Signatory requesting the coordination with a view to achieving the necessary clarifications and/or resolutions of any potential problems.[40] The Assembly, taking into account the advice of the Board of Governors, shall express its findings in the form of recommendations.

The requirements for international public telecommunications services are more stringent than the ones for domestic system. The proposed system must meet the following requirements :

- The proposed system must be technically and operationally compatible with the existing and planned space segment of INTELSAT;

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[39] Recently, the Assembly of Parties made significant decisions in the cases of unexpected and urgent need to use separate systems, such as for disaster or emergency communications. See, below, at 106.

[40] *Supra*, note 19 at 1 (particularly with respect to technical compatibility).

- The proposed system must not cause "significant economic harm" to the global system of INTELSAT;
- The proposed system shall not prejudice the establisment of direct telecommunication links through the INTELSAT space segment among all the participants.

These requirements are discussed in detail, below.

a) Technical and Operational Compatibility

The same procedure and criteria for a domestic system applies to international public telecommunications services.[41] The only difference relates to the role of the Board of Governors. With respect to separate satellites for international public telecommunications, the Board would advise the Assembly of Parties as to the technical compatibility of the proposed system, so that the Assembly of Parties may issue its findings.[42]

b) Significant Economic Harm

The origin of this requirement also can be traced back to the debate over the concept of "a single global system". Realizing that its attempt to maintain INTELSAT as the only provider of telecommunication services could not capture support from the

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[41] *Ibid.*

[42] *Ibid.*; *INTELSAT Agreement*, Article XIV(d).

majority of States, the U.S. made a compromise by proposing the concept of "economic harm." This proposal was embodied in a draft Article XIV which required the member to consult the Assembly through the Board to ensure technical compatibility with, and avoid economic harm to, the INTELSAT space segment.[43] The rationale for this requirement is that the separate system shall not compete with INTELSAT.[44] Therefore, the parties to the compromise did not envisage that the separate regional systems would offer service along INTELSAT routes.[45]

The question arose about the degree of economic harm which would be intolerable to the INTELSAT space segment. The U.S. originally objected to any qualifying objectives, whereas many states proposed the use of the term "substantial" to qualify the degree of economic harm not permitted.[46] As the negotiations continued, more states began to favor the use of a qualification. At the suggestion of New Zealand, the word "significant" was substituted for the word "substantial" as a qualification for the degree of economic harm to be considered by the Assembly of Parties in making recommendations.[47] This change, then, was included in Article XIV(d) of the

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[43] *Supra*, note 23 at 93.

[44] The Representative of Japan asserted that "separate regional public communications services would be acceptable if they did not compete with the global INTELSAT system." See *INTELSAT Travaux Preparatoires Com I/SR/5 at 6*, as cited in Irwin B. Schwartz, "Pirates or Pioneers in Orbit ? Private International Communications satellite Systems and Article XIV(d) of INTELSAT Agreement" (1986) IX *Boston College International and Comparative Law Review* 199 at 206, fn. 64.

[45] *Ibid.* at 206.

[46] The U.S. clearly expected that INTELSAT would apply a more stringent requirement. For contrary opinions, see PC(III)/54 as cited in *supra*, note 23, at 93.

[47] *Ibid.*

INTELSAT Agreement.

Despite the acceptance of the term "significant economic harm" in the Agreement, its practical meaning did not really become clear during the negotiations. Also, the INTELSAT Agreement does not contain a definition of this term. As discussed in Chapter I, the single system concept was refined to include a global system that could be complemented by separate regional systems. With the increasing development of satellite communications, this concept becomes blurred and its practical meaning needs clarification.

The Board of Governors adopted procedures for implementation of Article XIV (d) requirements concerning significant economic harm.[48] The Party or Signatory requesting consultation shall furnish all relevant information to the Director General, including the following :[49]

1. Expected date of commencement of operation and expected duration of operations of the separate space segment facilities;
2. Types of international public telecommunications services to be provided and coverage zone(s) of the separate space segment facilities;
3. Other INTELSAT Parties or Signatories or other entities to utilize the separate facilities;
4. Identification of all existing or projected international public telecommunications traffic or service to be provided by the separate satellite system for the period specified in item 1. Included should be the identification of any such traffic or service presently contained in the INTELSAT Traffic data Base for the same period.

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[48] *Intersystem Coordination Procedures : Proposed Procedures for Implementation of Article XIV(d) Requirements Concerning Significant Economic Harm*, INTELSAT Doc. no. BG-5-43E Cl/10/73 (rev. 1), April 5, 1977.

[49] *Ibid.* at 2.

In assessing the economic impact, the Board will use, as principal indicators, the impact on projected INTELSAT space segment costs and utilization charges, INTELSAT planning and operations, and the resulting impact on the Signatories' investments.[50] Specifically, this impact will be measured by comparing the level of projected INTELSAT costs and utilization charges if the service requirements are met by existing or planned INTELSAT facilities.[51] INTELSAT shall also consider the extent to which Signatories not participating in the separate satellite system will have their investment shares increased as a consequence of international public telecommunications traffic or services, which might otherwise have been provided by INTELSAT, being provided by a separate satellite system. This will include assessment of immediate and long-term additional capital payments, based on existing and planned INTELSAT facilities, required by Signatories. These tests, however, are not exhaustive since the Board can decide that other factors for assessing economic harm may be relevant on a case-by-case basis.[52]

The Board of Governors will apply the above mentioned test and advise the Assembly of Parties of its findings. The Board will be assisted by the Director General who will analyze and report to the Board the estimated economic effects on INTELSAT of any proposed separate system, based on the information obtained from the Party or

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[50] *Ibid.* These tests indicate that the primary mechanism to determine the existence of "significant economic harm" is through the diversion of communication services from the INTELSAT facilities.

[51] *Ibid.*

[52] *Ibid.* at 3.

Signatory responsible.[53] In the event the Director General finds that there would be economic harm to the global system of INTELSAT, he will include in his reports any recommendations that he considers appropriate, including recommendations on how such economic harm could be avoided and the nature of any discussions which he may consider to be desirable.[54] As this matter is a substantive one, the Board will take decision by a weighted vote. To adopt a recommendation in the Assembly of Parties, a two-thirds majority of the votes of the parties present and voting is required.

The above guidelines set up by the Board, however, do not provide a satisfactory solution to the question as to when economic harm is "significant." A look at previous decisions of INTELSAT under Article XIV(d) is necessary, so as to come to know how INTELSAT has implemented this test.[55]

c) Prejudice to Direct Telecommunications Links

Like the other two requirements, there is no definition of this requirement in the INTELSAT Agreements. This test was not given enough attention until the Board of Governors received a legal memorandum in 1984 from INTELSAT's Director General

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[53] *INTELSAT Agreement*, Paragraph 17, Annex A.

[54] *Intersystem Coordination procedures : Proposed Procedures for Implementation of Article XIV(d) Requirements Concerning Significant Economic harm*, INTELSAT Doc no. BG-28-63E M/6/77, June 29, 1977, at 3.

[55] See discussions on previous coordinations, below.

regarding direct communication links.[56] The question which arises was about the practical meaning of this requirement. The Leive Memorandum raised two basic issues: first, what types of "direct telecommunication links" are intended to be protected ? and secondly, what types of "prejudice" are prohibited ?[57]

The original clause was introduced by the Japanese delegation during the debate before the Plenipotentiary Conference in March 1969 as to whether regional satellite systems separate from the INTELSAT system should be permitted. The Japanese delegate stated that[58]

> [Any] total denial of regional satellite system (sic) may be interpreted as being contrary to the spirit of freedom of use of outer space by all nations as provided for in the Outer Space Treaty. However, we have to recognize, as already recognized by a number of speakers, that the emergence of many regional systems in the field of public telecommunication services *will hamper the direct telecommunication between such regions and be contrary to the objective of global telecommunication system as envisaged by the INTELSAT organization.*
>
> Taking into consideration these two conflicting factors, my delegation is of the view that the regional systems in the field of public telecommunication shall also be permitted *insofar as they do not compete with the global INTELSAT system.* (italics added.)

Furthermore, Japan also described three general principles for establishing separate regional systems. First, such a system would have to be supported by countries

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[56] This memorandum was prepared by the INTELSAT's Legal Advisor, David M. Leive. *Legal Memorandum : Scope of the Article XIV(d) Assurance Concerning "Direct Telecommunications Links*, Attachment no. 1 to INTELSAT Doc. no. BG-60-61E W/9/84, August 15, 1984 (hereinafter the "Leive Memorandum").

[57] *Ibid.* at 3.

[58] Com. I/35 as cited in *ibid.* at 2.

of the region having common communications interests. Second, there should not be technical interference with the INTELSAT system. Third, "*such system should not prevent the direct communication by the member states of such region with the states of other regions through (the) INTELSAT global system*"(italics added).[59] In the second document, Japan repeated that one factor to be taken into account was that " the provision of such satellite shall ... not prevent the establishment of the direct communication link through the INTELSAT space segment *among all paricipants* ..."[60] This phrase was included in Article XIV(d) of the INTELSAT Agreement with the word "prejudice" substituting the word "prevent".[61]

Considering the *travaux preparatoires* of this requirement, several interpretations are available with regard to the question of what types of "direct links" are covered. The Leive Memorandum asserted that, at a minimum, the provision means that a separate regional system should not be used to prejudice the establishment of direct links via INTELSAT between a user of that separate system and others outside the system.[62] However, the phrase "among all participants" covers at least two additional interpretations, i.e., direct links via INTELSAT among INTELSAT participants who are also users of the same separate system are to be preserved as an alternative to that separate system, and the wording covers "prejudice" to direct links via INTELSAT

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59 *Ibid.*

60 *Com. I/74*, 13 March 1969, as cited in *ibid.* at 3. Compared with the first proposal, which focussed more on inter-regional traffic, this second proposal contained a more general form. No explanation of this change appears in the record.

61 The reason for substitution does not appear in the record. *Ibid.*

62 *Ibid.* at 4.

among INTELSAT participants who would not be part of the proposed separate system.[63]

Regarding the forms of "prejudice" which are prohibited, the Leive Memorandum states as follows :[64]

> ... [I]t is evident that the clause was not directed primarily at prevention of technical interference with INTELSAT direct links.
>
> On the other hand, the early drafts of Article XIV(d) (ir .ding the Japanese proposal) did not contain a specific reference to avoidance of economic harm. Thus, the "direct links" test probably began in part as a form of "economic harm" test.
>
> The "prejudice" could take a number of forms. [A] separate system could "prejudice" the establishment or continued viability of direct links via INTELSAT by making it necessary for the users of the separate system to go through that system to reach the INTELSAT system....These actions might not result in significant economic harm to INTELSAT since the traffic would eventually reach the INTELSAT system for further transmission but they would clearly "prejudice" the establishment of direct links connecting states within the region and the rest of the world.
>
> The word "prejudice" implies that a system which caused a far lesser degree of harm would not receive Assembly support -- that a separate system which merely hampered, injured or damaged INTELSAT's ability to provide direct links or any participant's ability to access or use those links would not be endorsed. A separate system which resulted in making it more expensive or more difficult, though not impossible, for a participant to acquire and use a direct link via INTELSAT could be said to "prejudice" that link.

As reflected in the *travaux preparatoires* and the Leive Memorandum, this requirement was intended to protect universal connectivity, the primary goal of

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[63] *Ibid.*

[64] *Ibid.* at 5-6.

INTELSAT as a global system.[65] It complements the other two requirements by focussing, not just on the protection of the space segment or the system, but also on the protection of the rights of each participant to communicate with any other. As the Levy Memorandum concluded, Article XIV(d) coordination procedures should include an analysis of the possible negative effects that a proposed separate system could have on the economic, technical, and operational ability of all INTELSAT participants to communicate directly with each other through the INTELSAT system.[66] The problems with this requirement is that it may overlap with the test of "significant economic harm."[67] It might also be the reason why, before 1984, neither the Board nor the Assembly had ever directly addressed the question of systems which would "prejudice" the establishment of direct links to all participants in the system, despite the apparently routine inclusion of this language in the written findings under Article XIV(d).[68] Even after the Leive memorandum, as will be shown in the practice of coordination procedures, this requirement was not given sufficient attention.

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[65] *Ibid.* at 1.

[66] *Ibid.* at 9.

[67] The Leive Memorandum recognized this possibility as follows :

> ...[T]he inclusion in the final version of Article XIV(d) of the specific requirement that "significant economic harm" to INTELSAT be avoided along with the technical compatibility" and "prejudice to direct links" tests shows that three different, *though perhaps to some extent overlapping*, criteria were needed. (Italics added.)

Ibid. at 6.

[68] "Mr. Colino's Responses to Additional Questions Submitted for the Record", *International Communication and Information Policy*, Hearings before the Subcommittee on Arms Control, Oceans, International Operations and Environment of the Committee on Foreign Relations, United States Senate, October 19 and 31, 1983, S. HRG. 98-483 at 197.

2) Previous Coordinations

As already discussed, with respect to the proposed system for international public telecommunication services, three tests are applied. In the coordination decisions given until 1984, the technical compatibility test, as in the case of domestic satellites, did not create serious problems. Similarly, although the Assembly always states its findings with regard to the "direct telecommunication links" test, no serious problems arose from the application of this test. Controversy arose, however, concerning the "significant economic" test.

Until 1982, a number of decisions involving the proposed systems, set forth below, were taken by the Assembly of Parties. These decisions involved the following proposed systems:

a) The MARISAT Satellite Systems

In December 1973, the First INTELSAT Assembly of Parties decided to recommend the following findings regarding the MARISAT Atlantic and Pacific Networks :[69]

(a) no unacceptable interference will occur between the proposed United States maritime satellite system and the INTELSAT system;
(b) while the economic impact on INTELSAT of the proposed United States

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[69] INTELSAT Doc. AP-1-5, as cited in *Technical Reconsultation for the MARISAT Satelite System under Article XIV(d)*, INTELSAT Doc. no. BG-52-19E W/9/82, BG/T-43-10E W/8/82, August 19, 1982, at 1.

maritime satellite systems ... cannot be assessed with any precision in the absence of any firm plans as to how, when, and at what charge INTELSAT would itself provide a maritime satellite service, no significant economic harm to the INTELSAT system need be expected; and

c) the provision and utilization of such facilities will not prejudice the establishment of direct telecommunication links through the INTELSAT space segment among all the participants;

The operation of both networks were expected to end in 1979. In 1976, coordination was concluded at the Second Assembly of Parties with a favorable finding for the third MARISAT network, i.e. the MARISAT Indian network. The technical parameters were the same as those for the previously coordinated Pacific and Atlantic Networks, but its end-of-life was projected to be the end of 1981. The Assembly of Parties extended this date to cover the two previously coordinated MARISAT networks, as well.[70]

On February 5, 1982, the United States Signatory indicated that the MARISAT space segment was to be leased to the INMARSAT organization.[71] This extended use of MARISAT would serve as an interim solution until sufficient capacity becomes available on MARECS and INTELSAT V-MCS satellites. Based on the examination of

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[70] INTELSAT Doc. no. AP-2-11, as cited in *ibid.* at 3. Also in *Findings of the Assembly of Parties with Respect to Coordination Conducted under Article XIV(d) of the INTELSAT Agreement*, INTELSAT Doc no. BG-60-69E W/9/84, Appendix A, August 22, 1984, at 2.

[71] Previously, INMARSAT had leased capacity on MARECS and INTELSAT V-MCS satellites. INTELSAT added maritime capability (MCS) to the last five of the INTELSAT V series (F-5 through F-9). On March 9, 1981, INTELSAT leased three MCS to INMARSAT with option to lease a fourth MCS, if available. This option was exercised by INMARSAT. The initial availability dates of the first MCS ended December 31, 1982, while the second and third on December 31, 1983 The estimated initial availability date for the fourth MCS, if available, was between mid-1984 and mid-1985. See *Article XIV(d) Coordination Concerning Potential Economic Harm to INTELSAT by Use of the US MARISAT System by INMARSAT*, INTELSAT Doc. no. BG-52-38E W/9/82, August 20, 1982, at 1.

the statements and agreements given by the U.S. Signatory, the Director General concluded that the operation of MARISAT networks by INMARSAT would not result in the introduction of excess interference to the INTELSAT system during the operation of the INTELSAT V generation of satellite networks.[72] Therefore, the proposed use was regarded as technically compatible with the INTELSAT system.

The Director General also recommended that the Board of Governors tender advice to the Assembly of Parties that the use of the MARISAT system to encompass use of the MARISAT space segment by INMARSAT would not result in significant economic harm to INTELSAT.[73] The extended use of MARISAT beyond 1981 for the period stated in the request was an interim measure to provide sufficient capacity to INMARSAT until sufficient capacity became available on MARECS and INTELSAT V satellites. Therefore, it would not have hindered INTELSAT's commercial lease agreement with INMARSAT and would not have been a cause of significant economic harm to the global system of INTELSAT.[74]

b) The European Communications Satellite (ECS) Network

The proposed ECS system would be integrated into the intra-European terrestrial

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[72] *Ibid.* at 9.

[73] *Supra*, note 69 at 2. Also *Report by the Board of Governors to the Seventh Assembly of Parties Pursuant to Article XIV(d) Concerning the Use of the U.S. MARISAT System by INMARSAT*, INTELSAT Doc. no. AP-7-21E W/10/82, Addendum no. 1, October 1, 1982, at 1-6.

[74] *Ibid.* at 2.

international public telecommunications network and would handle a part of the telephony, telegraphy, telex, and data traffic between some of the main international traffic centers of the participating countries in the interim-EUTELSAT.[75] The system could also handle some of the television traffic between members of the European Broadcasting Union (EBU). The operational period of the system is from early 1983 to 1993.

On the basis of specific information and undertakings, the Board decided to advise the Assembly of Parties that the proposed primary network of the ECS system and its operation was technically compatible with INTELSAT and would not prejudice the establishment of direct telecommunications links through the INTELSAT space segment among all the participants.[76]

With respect to the economic impact of the ECS primary network upon INTELSAT, it was demonstrated to the Board that intra-European telecommunications traffic is, with few exceptions, carried over a highly-developed terrestrial network; the circuits to be carried by ECS would, in the absence of ECS, have been carried by the European terrestrial network, and not by INTELSAT. The ECS system described here is a subsidized carrier, not an independent and self-supported carrier. The TV traffic to be carried by ECS would represent a loss of revenue to INTELSAT of about $ 0.5

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[75] *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. no. AP-4-7E M/4/79, BG-37-54E W/3/79, March 16, 1979, at 2. The participating countries are Austria, Belgium, Cyprus, Denmark, Finland, France, Federal Republic of Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Monaco, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, United Kingdom, and Yugoslavia. See Part A of Attachment 1 in *ibid.*

[76] *Ibid.* at 5.

million in 1983. Based on this information and assessment, the Board decided to advise the Assembly of Parties that the proposed ECS system would not cause significant economic harm to the global system of INTELSAT.[77]

On June 12, 1980, the French Signatory, on behalf of the ECS Council of the Interim EUTELSAT Organization, requested the initiation of Article XIV(d) of the EUTELSAT 1-2 network.[78] The coordination of this network obtained a positive recommendation since the EUTELSAT 1-2 network would be operated as an in-orbit spare to the ECS primary network and it would be operated in accordance with the same technical parameters and operational procedures for the primary network, should its active use become necessary.[79]

Unlike its earlier statement, in the letters dated November 26, 1981, and May 17, 1982, the French Signatory explained the planned developments of the ECS system.[80] The extension of the system included the use of the spare capacity in the EUTELSAT I-2 satellites to provide television-type transmissions to meet domestic and regional requirements at the European level.[81] Although it is not possible to estimate accurate

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[77] *Ibid.* at 7.

[78] *Article XIV(d) Consultation for the EUTELSAT 1-2 (Spare) Network of the ECS System*, INTELSAT Doc. no. BG-43-17E W/9/80, August 22, 1980, at 1.

[79] The EUTELSAT 1-2 satellite would be used only in the event of failure of the operational satellite. The French signatory informed the Director General that the satellite was not planned to route additional traffic via the spare satellite. *ibid.* at 3.

[80] *Article XIV(d) Consultation Concerning Potential Economic Harm to INTELSAT by the Planned European Communications Satellite System,* INTELSAT Doc. no. BG-52-41E W/9/82, August 20, 1982, at 1.

[81] Controversy arose about the number of the satellites. The Director General of INTELSAT learned from public reports that five flight models of the first generation of ECS were, at that time, under procurement. He also read a recent report of EUTELSAT, stating that the organization was negotiating

utilization, the Signatory emphasized that the maximum amount of spare capacity that could be made available to Interim EUTELSAT Signatories on a pre-emptible basis for occasional or full-time service was not expected to exceed a total of six 14/11 GHz transponders. In addition, it was stated that the amount of television traffic envisaged was not large and in any case would not be additional traffic for INTELSAT if the spare capacity on the EUTELSAT satellites were not to be used.[82]

The extension of the ECS system included the addition of two transponders in the EUTELSAT I and I-2 networks, and the use of a portion of the available capacity in the 14 - 14.25 GHz and 12.5 - 12.75 GHz bands in the national French TELECOM I satellites. This expansion was intended for the purpose of enhanced public telecommunication services between European countries. Unlike previous coordination, information was also given concerning additional use of a portion of available spare capacity in the EUTELSAT I and I-2 networks for emergency restoration of terrestrial circuits in contingency situations, and for domestic and regional television transmissions at the European level.

Understandably, the Director General commented that the coordination of this plan "would appear to mark a major change from the description of the ECS system which was provided to the Board in 1979 by the participants in that system."[83] The

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for three satellites in orbit, with one available as spare and two in service. Meanwhile, the French Signatory informed that the EUTELSAT I and I-2 satellites would be launched in late 1982 and mid-1983, with the other ECS satellite units under construction to be used for replacing the two in-orbit units to ensure continuity of the initial space segment over a ten-year period. *Ibid.* at 3-4.

[82] *Ibid.* at 2.

[83] *Ibid.* at 4.

plan reflected that the economic prospects for satellite operation in Europe had improved and that the ECS system was expected to be viable in its own right, instead of being a subsidized carrier of traffic that would otherwise not be trasmitted by satellite. Therefore, the Director General was concerned that if the international services within Europe were to be carried by another system, the market left to INTELSAT would be considerably reduced.

From the foregoing, it was clear that in the present coordination INTELSAT had difficulty deciding whether significant economic harm to INTELSAT would be caused by the extended ECS system. The Director General believed that the absence from a Traffic Data Base, or a possible short-term difference in date of availability, were not grounds for concluding that economic harm was not caused. In his conclusion, the Director General said that he "does not feel that they are sufficient to support a finding by him that the proposed extension of the European Satellite System would not cause significant economic harm to INTELSAT."[84] From this opinion, it appears the Director General concluded that the proposed system would cause significant economic harm.

The lack of clear guidance for the "significant economic harm" test and political pressure clearly complicated the matter. Due to strong pressures from the European countries participating in the consultation, the Assembly of Parties finally decided to express a favorable finding.[85] In its consideration, the the Board advised the Assembly

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[84] *Ibid.* at 10.

[85] INTELSAT Doc. no. AP-7-24 and addendum no. 1, as cited in Findings of the Assembly of Parties, *supra*, note 70, at 10-11.

that the proposed use did not consitute "significant economic harm", since the definition and development of INTELSAT's role in the provision of business services were still being determined, and with the five year or so lead time it will take to provide a suitable planned space segment for the provision of such service."[86] Regarding the use of spare capacity in the EUTELSAT system, the proposed use would not cause significant economic harm, since the traffic would not be routed on INTELSAT satellites, the demand for regional television service was not expected to be large, and due to the current and contemplated growth of direct broadcast satellite television networks in Europe, the EUTELSAT solution for television service could only be marginal or temporary.[87]

c) PALAPA

This system belongs to Indonesia. Originally, it was intended for domestic use. Upon the request of ASEAN Countries, namely Indonesia, Malaysia, Philippines, Singapore and Thailand, formal consultations concerning the PALAPA-A and PALAPA-B Satellite systems under Article XIV(d) were held. The PALAPA-B system is the second generation of a telecommunications satellite system, referred to as PALAPA-A, which had been coordinated by Indonesia under Article XIV(c) of the INTELSAT

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[86] *Report by the Board of Governors to the Seventh Assembly of Parties Pursuant to Article XIV(d) Concerning the Planned Use of the European Communications Satellite System*, INTELSAT Doc. no. AP-7-24E W/10/82, Addendum no. 1, October 1, 1982, at 8.

[87] *Ibid.* at 11.

Agreement.

Unlike coordination of other separate systems, various technical problems occurred between PALAPA-B and the INTELSAT systems.[88] A series of meetings were held between INTELSAT and representatives of Indonesia to solve these problems, resulting in specific measures to be taken to ensure compatibility. In the end, the Assembly of Parties decided that the PALAPA-B and the proposed Palapa-3, 4 and 5 networks were technically compatible with the use of the radio frequency spectrum and orbital space by the existing or planned INTELSAT space segment.

According to the Board of Governors, the PALAPA-B system would not cause significant economic harm to the global system of INTELSAT since the traffic carried by the PALAPA-B system would be confined to traffic originating or terminating in remote locations in the participating countries.[89] In the absence of the proposed PALAPA-B system, it is unlikely that any significant proportion of the small volume of international traffic that the system will carry would flow on the INTELSAT system in the foreseeable future.

The international traffic carried by the PALAPA-A satellites would have the

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[88] *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. no. AP-4-8E M/4/79 ; BG-37-53E W/3/79, March 16, 1979, at 4.

[89] *Ibid.* at 5. The participating countries are Indonesia, Malaysia, Philippines, Singapore, and Thailand. In the informal consultations, the Assembly of Parties took into account the cumulative effect of the Proposed PALAPA system for ASEAN news service, but this concern did not appear in a formal document. See Walter Hinchman Associates, Inc., *Significant Economic Harm*, INTELSAT Doc. no. BG-60-63E W/9/84, Attachment no. 1, August 15, 1984, at 10.

same characteristics as those carried by the PALAPA-B system.[90] Based on the advice of the Board of Governors, the Assembly of Parties concluded that the PALAPA-A networks would not cause significant economic harm to the global system of INTELSAT.

d) ARABSAT

The Arab Communications Satellite (ARABSAT) system would provide to the ARABSAT members both domestic satellite services and communications services between them.[91] In addition to international public telecommunications services, ARABSAT also would provide specialized services. Therefore, it was required to be coordinated under Article XIV(d) and (e).[92]

Like the PALAPA system, several measures were adopted to solve technical problems between the ARABSAT and INTELSAT systems before the Board decided that the ARABSAT system was technically compatible with the INTELSAT system.[93]

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[90] *Article XIV(d) Consultation Concerning Potential Economic Harm to INTELSAT by the PALAPA-A Satellite System*, INTELSAT Doc. no. BG-43-55E W/9/80, September 4, 1980, at 75.

[91] *Report of the Board of Governors to the Assembly of Parties pursuant to Article XIV concerning Coordination of the Arab Communications Satellite System*, INTELSAT Doc. no. AP-5-8E 0/4/80, BG-41-51E W/3/80, March 14, 1980, at 3. The participating countries are Algeria, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Qatar, Saudi Arabia, Sudan, Syria, Tunisia, United Arab Emirat, and Yemen.

[92] The types of services to be provided by ARABSAT were telephony (intra-region and domestic), domestic TV distribution, community TV distribution, regional TV distribution, and miscellaneous services (radio program distribution, telex, telegraph, leased lines or private lines, low-data rate transmission, and high-data rate transmission). *Ibid.*

[93] *Ibid.* at 5.

In the examination of the potential economic impact of the ARABSAT system upon it, INTELSAT received assurances that there were existing and projected terrestrial facilities between the ARABSAT members.[94] In the absence of the ARABSAT system, the traffic would not have been carried by INTELSAT because they were actually carried by the existing terrestrial facilties. With the completion of the Middle East and the Mediterranian Telecommunication Network Project under ITU/UNDP sponsorship, planned in 1983, there would be additional terrestrial links to meet the ARAB countries' telecommunication requirements, which would reduce the traffic over the INTELSAT and the proposed ARABSAT networks. However, after the completion of additional terrestrial networks, some traffic, in the absence of the ARABSAT system, would still be carried by INTELSAT. This traffic was estimated at 219 half circuits in 1983, growing to 467 in 1989. For the period 1983 through 1989, this traffic represent 0.28 % of the INTELSAT Traffic Data Base. In revenue terms, they would account for an estimated $ 9 million out of total INTELSAT revenues for the period of $ 3,300 million.[95]

Based on the above information and assessment, particularly the assurances received concerning existence of the terrestrial network in 1983, the Board decided to advise the Assembly of Parties that the proposed network would not cause significant economic harm to the global system of INTELSAT. The Board also advised that "any material change in the technical parameters or operational scope of the proposed

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[94] *Ibid.* at 6.

[95] *Ibid.*

network or any material extension of such network beyod 1990, will require new coordination of the network under Article XIV(d)."

e) Planned Use of INTERSPUTNIK by Algeria

The Signatory of Algeria planned to use the INTERSPUTNIK system to meet certain international telecommunications requirements (telephony, television). As the USSR and Rumania's traffic is frequently routed through the INTELSAT system, Algeria stated that the introduction of a direct telephone link through the INTERSPUTNIK system was part of the routing diversification for more reliable links with these countries and, thus, should have no effect on the existing INTELSAT traffic. Besides, there exist terrestrial liasons with all members of INTERSPUTNIK, except Cuba. The Board of Governors advised the Assembly of Parties, based on the Director General's considerations, that the total amount of traffic with INTERSPUTNIK countries as projected by Algeria, if included in the INTELSAT system, would not represent a significaant proportion of INTELSAT revenues. Accordingly, the Assembly of Parties decided that the Algerian use of the INTERSPUTNIK system was technically compatible with INTELSAT and would not cause significant economic harm to INTELSAT.[96]

Interestingly, for the first time the question of "cumulative harm" was discussed.

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[96] INTELSAT Doc. no. AP-6-20, as cited in Findings of the Assembly, *supra*, note 70, at 17.

The Director General stated that the economic harm test[97]

> "...should be viewed from the longer perspective of the harm that would be done by a series of such cases. What might seem to be an acceptably small percentage of revenue lost in a single case might result in a significant loss of revenue if later applicants were to use it as a precedent. In the long run, the global system could be weakened and the cost of satellite utilization higher than if the integrity of the system had been preserved".

In spite of the concern that arose in INTELSAT, no concrete measures were taken to define "cumulative harm," or to avoid the occurence of this harm.

f) Use of MARECS Network by INMARSAT

The Assembly of Parties in its Seventh Meeting, taking into account the advice of the Board of Governors, decided to express a favourable finding concerning the proposed use of the MARECS satellite networks by INMARSAT for the period up to 1989.[98] The networks are intended to form an integrated maritime satellite system with the INTELSAT V satellite network. The Board advised the Assembly that the proposed operation does not result in significant economic harm to INTELSAT since it does not impinge on existing or prospective INTELSAT V Maritime Communications

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[97] *Article XIV(d) Consultation Concerning Potential Economic Harm to INTELSAT by Algeria's Planned Use of the INTERSPUTNIK system*, INTELSAT Doc. no. BG-43-43E W/9/80, August 28, 1980, at 5. The Assembly also decided to consider "cumulative economic impact" in any future consultation requests. *Ibid.* at 18.

[98] The request for coordination was made by the following INTELSAT members: Australia, Canada, Finland, Italy, Kuwait, Norway, Sweden, United States, Brazil, Denmark, India, Japan, New Zealand, Portugal, and United Kingdom.

Subsystems (MCS) leases to INMARSAT.[99]

g) The U.S. RCA SATCOM Domestic System

On June 21, 1982, the Signatory of the United Kingdom requested the initiation of a coordination under Article XIV(d) of the INTELSAT Agreement, with respect to reception in Bermuda of television only, from the U.S. Domestic Satellite Systems.[100] The operation was expected from late 1982 or early 1983 for an indefinite duration, but the requested coordination was intended to cover operations through 1987. Bermuda's small size and limited economic resources would not permit the territory to support an equivalent television service using the INTELSAT system.

In his comments, the Director General stated that a service of this type would not be economically feasible in a small territory like Bermuda unless it was received as a by-product of an already existing, large and comprehensive service of satellite television distribution.[101] INTELSAT did not have a comparable service, nor was anything of such a nature in prospect for the period through 1987, which was the subject of the coordination request. Competition with INTELSAT would, therefore, not be

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[99] *Report of the Board of Governors to the Seventh Assembly of Parties Pursuant to Article XIV (d) Concerning the Use of the MARECS Networks by INMARSAT*, INTELSAT Doc. no. AP-7-20E W/10/82, October 1, 1982, Addendum no. 1, at 3.

[100] *Article XIV(d) Consultation Concerning Potential Economic Harm to INTELSAT by the Planned Use of the RCA SATCOM Satellite System by Bermuda*, INTELSAT Doc. no. BG-52-64E W/9/82, September 2, 1982, at 1.

[101] *Ibid.* at 2.

involved as long as the circumstances mentioned above existed.[102] Based on this consideration, it was recommended that the reception in Bermuda of television programs only, from the U.S. SATCOM III-R and U.S. SATCOM IV networks would not result in any significant economic harm to INTELSAT, and would not prejudice the establishment of direct telecommunications links through the INTELSAT space segment between the U.S. and Bermuda. Subsequently, taking into account the advice of the Board of Governors, the Assembly of Parties made a favourable finding.[103]

h) The Use of U.S. and Canadian Domestic Satellite Systems

These coordinations involved separately planned, national domestic systems. In letters dated June 8, 1982, and June 16, 1982, the U.S. and Canadian Parties informed the Director General of the intentions of both Governments to authorize the extension of their domestic satellite networks to points located in each other's country.[104] The services to be provided were business communications services, occasional point-to-point video services, and reception of television programming.

In his analysis, the Director General gave an interesting opinion over the concept of " a community of interest," as follows :[105]

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102 *Ibid.*

103 INTELSAT Doc. no. AP-7-22, as cited in *supra,* note 70, at 20.

104 *Article XIV(d) Consultation Concerning 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. no. BG-52-17E W/9/82, September 7, 1982, at 1.

105 *Ibid.* at 4.

> ... the fact that the U.S and Canada form a region with a community of interest does not make the traffic between them any less international, so far as INTELSAT is concerned, than any other traffic between countries. This accords with the Director General's opinion reached in the discussion of the terms "international" and "regional" in BG-52-41. Thus the fact that the traffic in the present case is across a common border and within a regional community of interest is not in itself a reason for applying any different criteria in the Article XIV(d) coordination process from those for any other international traffic. The sharing of a common border and economic environment can however create conditions which affect how the international telecommunications traffic across that border will flow in an era of satellite communications and this proves to be a key factor in the case under considerations....

With regard to "transborder" television programs carried on a domestic system, the Director General came to the same conclusion as in the case of the reception in Bermuda, discussed earlier : INTELSAT did not have a comparable service, nor was anything of such a nature in prospect for the period through 1987.[106]

Although the existing INTELSAT network also could provide occasional point-to-point video transmissions between the U.S. and Canada over their domestic systems, such transmissions would be in competition with U.S./Canadian terrestrial facilities, rather than with INTELSAT. The U.S. and Canadian Signatories also considered that, partly due to terrestrial competition and limited durations of the special events which could give rise to the requirements, the traffic involved would be insignificant. Accordingly, the Director General did not believe INTELSAT would suffer any significant loss of revenue from the use of the U.S. and Canadian domestic systems for occasional point-to-point video transmissions between the two countries.

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106 *Ibid.* at 6.

Concerning transborder business communications, the U.S. and Canadian Signatories stated that the services to be provided over their domestic systems were to enable their domestic business users to extend services already being provided in the other country, using small antennas on customer premises.[107] Therefore, there was an established economic interest among the business community in the U.S. and Canada. In addition, both signatories gave assurances that trunk telephony services between their countries would not form part of the proposed use of the domestic systems during the coordination period.[108] Finally, the Director General recommended that the proposed use of nine Canadian and eleven U.S. satellite systems would not result in significant economic harm to the global system of INTELSAT for the period up to 1987.

In January 1985, the Ninth Assembly of Parties expressed a favourable finding for the use of six Canadian and 20 U.S. domestic satellite networks for the period up to 1989.[109] In subsequent coordinations in October 1985, the Assembly recommended the use of four U.S. domestic networks for the period up to 1989.

In all the above consultations, the Assembly of Parties decided that the use of the non-INTELSAT system would not result in significant economic harm. Only in some cases the Assembly imposed restrictions on the use of the proposed systems. In all cases the Assembly provided a time limit, after which continued use of the alternate satellite

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107 *Ibid.*

108 *Ibid.* at 7.

109 INTELSAT Doc. no. AP-9-10, as cited in *Report by the Board of Governors to the Twelfth Assembly of Parties Pursuant to Article XIV (d) Concerning the Planned Use of US Domestic Satellites Networks to Extend Telecommunications Services Between Canada and the United States*, INTELSAT Doc. no. AP-12-24E BA/10/87, September 16, 1987, at 1.

systems would be reviewed.[110]

An analysis of previous coordinations under Article XIV(d) by Walter Hinchman Associates identified seven criteria used in past consultation cases. Those criteria are as follows :[111]

1. The amount of traffic which would be diverted from INTELSAT is "small" or "negligible";

2. In the absence of the proposed system, the traffic would be carried by terrestrial links, not INTELSAT, either because terrestrial links would be cheaper than INTELSAT, or terrestrial links would be used regardless of cost if INTELSAT were the alternative;

3. No traffic diversion would occur because the traffic that would be carried on the separate systems would never have been carried on INTELSAT because the expense would have been prohibitive;

4. INTELSAT could not provide comparable service because (a) INTELSAT does not have current or planned satellite capacity at a suitable location; (b) INTELSAT cannot provide a suitable geographic coverage; and/ or (c) INTELSAT satellites cannot provide appropriate frequency and/or power/gain characteristics;

5. The trans-border traffic involved is incidental to the provision of service to intranational users;

6. The area to be served is merely a natural fringe of the domestic area served by an established domestic satellite system whose primary purpose is the provision of domestic satellite service;

7. The separate satellite facilities are to be established by a group of countries, which, as the result of a special community of interest (e.g., by virtue of their economic or cultural ties), have grouped together in the past to provide international telecommunications services to each other.

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110 Hinchman, *supra*, note 89, at 3. This study was commissioned by INTELSAT.

111 *Ibid.* at 6-7.

A major criticism of these coordination decisions is that INTELSAT has established no operational definition or consistent interpretation of the term "significant economic harm" that could serve as a guide to future decisions.[112] The previous Board of Governors' procedures and criteria, however, only provide a general guideline. In practice, the Assembly of Parties would decide on a case-by-case basis in the context of those seven criteria. All these criteria have inherent weaknesses, i.e., that all could result in the diversion of large amounts of international satellite traffic from the INTELSAT system and cause significant economic harm to that system.[113]

Moreover, the majority of decisions neglected the cumulative effect of several individual systems that could become quite significant and harm the future of the INTELSAT system. Only in two cases did the Assembly of Parties take into account the cumulative effect of the proposed systems, i.e., the Algeria-Intersputnik and the Palapa ASEAN news service (informal) coordinations. In both coordinations, the Assembly noted the potential for significant economic harm to INTELSAT if other nations followed either example. However, the lack of precise guidelines for assessing cumulative economic harm makes the practical application of this test meaningless.[114]

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[112] *Ibid.* at 3.

[113] See critics of these criteria in *Ibid.* at 7, et.seq.

[114] The Board of Governors in its 1990 review of Article XIV(d) procedures asserted as follows .

> ... [T]he data presented to the Board and the Assembly on cumulative economic effect are useful in providing to Parties and Signatories some idea of the overall impact upon INTELSAT of separate systems. However, the Board of Governors is aware of the great difficulties in taking into account such cumulative effect in the assessment of significant economic harm and, consequently, it becomes extremely difficult to apply it to individual cases

The Report of the Board of Governors to the Sixteenth Assembly of Parties on Its Review of Article XIV(d)

If the previous decisions could not provide a clear guideline for future coordination, the question arises whether INTELSAT can set up clear criteria for determining "significant economic harm" ? In addition, if such criteria can be defined, will the criteria suffice to protect the INTELSAT global system ?

The discussion in Chapter I reveals the ambiguity with respect to the concept of "a single global system." This concept has significantly changed from its original characteristics. While the Preamble of INTELSAT still speaks of the "aim of achieving a single global commercial telecommunications satellite system," Article XIV of the Agreement provides opportunity for INTELSAT's members to establish, acquire or utilize separate systems under certain conditions. The study of the requirement for the "significant economic harm" test indicates how difficult it is to interprete this term in order to give it a practical meaning without hampering the purpose of the Agreement. On the one hand, this term can be given a "too broad interpretation," which in practice may reduce the opportunities of INTELSAT members to establish, acquire, or use separate systems. "Cumulative effect" may be a good example if it were to be used as one of the criteria. Of course, it was not the intention of the drafters of the compromise formula to make Article XIV(d) a "dead article". On the other hand, this term may be given a "narrow interpretation," in the sense that the proposed system can be recommended unless it does not meet certair criteria. It seems that through its operations, INTELSAT has difficulty in finding the appropriate criteria. Interestingly,

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Non-Technical Consultation Procedures, INTELSAT Doc. no. AP-16-20E L/10/90, September 26, 1990, at 35. It appears that the changing telecommunications environment has influenced the application of the cumulative effect test by INTELSAT.

Hinchman states :[115]

> Taking these factors into consideration, we are unable to suggest a definitive, discrete threshold for significant economic harm that would be effective in protecting the economic viability of the INTELSAT system under all the varying situations and scenarios that could arise.

In spite of Hinchman's opinion, the concept of threshold was introduced in the recent INTELSAT coordination practices.

c. Specialized Telecommunications Services

1) Procedures and Criteria

Article XIV(e) of the INTELSAT Agreement provides that:

> To the extent that any Party or Signatory or person within the jurisdiction of a Party intends to establish, acquire or utilize space segment facilities separate from the INTELSAT space segment facilities to meet its specialized telecommunications services requirements, domestic or international, such Party or signatory, prior to the establishment, acquisition or utilization of such facilities, shall furnish all relevant information to the Assembly of Parties, through the Board of Governors. 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 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.

A quick look at this provision will find that in some respects, the requirements are not different from the ones for domestic systems. The concerned Party or Signatory,

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[115] *Ibid.* at 29.

either acting for itself or on behalf of any individual or corporation under its jurisdiction, shall furnish all relevant information to the Assembly of Parties, through the Board of Governors, with respect to the proposed system for specialized telecommunications services. The information shall be provided prior to the establishment, acquisition, or use of the proposed system.

The term "specialized telecommunication services" is defined in Article I(l) of the Agreement. With regard to "area of coverage," Article XIV(e) indicates that such a system can be provided for domestic or international services.

According to Article XIV(e), decisions will be taken by the Assembly of Parties, taking into account the advice of the Board of Governors. The Assembly will express its findings in the form of recommendations.

Technical compatibility is the only criterion to be used for the findings of the Assembly. The Assembly will analyze the technical compatibility of the proposed systems and their operations with the use of the radio frequency spectrum and orbital space by the existing or planned INTELSAT space segment. The reasons for applying only technical criterion can be traced back to the debates held during the negotiations of the INTELSAT Agreements.

It is interesting to see that before the negotiations of the INTELSAT Definitive Agreement, agreement was reached that INTELSAT's primary aim should be the provision of facilities for public telecommunications services, but there was strong disagreement over INTELSAT's authority to provide facilities for specialized

services.[116] The question of "specialized telecommunication services" arose in the ICSC with respect to the provision of aeronautical services via satellites. Opposition to INTELSAT authority in the specialized services field came from European and developing countries.[117] On the other hand, the United States asserted that "INTELSAT would have authority to furnish all kinds of services, not only traditional, long-distance communications services, but, indeed, all services that can be provided by means of communications satellites."[118] The ICSC Report contained a majority recommendation that INTELSAT be authorized to provide facilities for international specialized services on a secondary basis without adversely affecting the provision of international public telecommunications services.[119] This controversy was finally solved and embodied in Article III paragraphs (d), e(iii), and (f) of the INTELSAT Agreement.[120]

With the development of satellite technology and increasing volume of international business, the importance of specialized services has grown significantly. INTELSAT also has anticipated the rapidly changing situation by developing its ability

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116 *Supra*, note 23 at 99.

117 The reasons for opposition ranged from economic, national and/ or regional prestige, independence, cultural, political and bureaucratic problems to the assertion of the developing countries that specialized services were needed only by a very small number of developed countries. See in *ibid.* at 101.

118 *Ibid.* at 100.

119 See *ibid.*

120 Article III(f) specifies that the use of the INTELSAT space segment for specialized telecommunications services, and the provision of satellites or associated facilities separate from the INTELSAT space segment pursuant to paragraph (e) of this Article, shall be covered by contracts between INTELSAT and the applicants concerned.

in providing these services. On the other hand, realizing that they may take benefit from this high technology service, some private companies began to develop their own satellites and tried to get access to the global communication market. This phenomenon will be discussed in Chapter III.

2) Previous Coordinations

Some separate satellites have passed coordination tests under Article XIV (e). Examples include TV-Sat (West Germany) for television broadcast services, ARABSAT for community television distribution service, INSAT A/B satellite (India) for television broadcast and meteorological services, GMS-2 Satellite (Japan) for meteorological services, SABS satellite (Saudi Arabia) for broadcasting services, and UNISAT for broadcasting services.

As an illustration, two of these consultations will be explained below.

a) TV-SAT

The Federal Republic of Germany planned the establishment of a TV-SAT system in 1983 to provide a national direct broadcasting service.[121] The satellite would use the orbital location of 341.0E allotted to Germany for such service in the ITU Broadcasting-Satellite plan. In the informal consultation, the Signatory of the Federal

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[121] *Consultation Under Article XIV(e) for the TV-SAT Broadcasting -Satellite System*, INTELSAT Doc. no. BG-43-56E W/9/80, BG/T-34-15E W/9/80, September 4, 1980, at 1.

Republic of Germany agreed on certain undertakings to reduce the levels of the unwanted emissions which, otherwise, may have caused unacceptable interference. Based on this, it was concluded that the potential interference could be deemed acceptable. The Signatory confirmed its undertakings in the formal coordination. In assessing technical compatibility of the proposed TV-SAT system, the Director General considered that the interference was within acceptable limits.[122] Therefore, the Director General recommended the Board of Governors to tender advice to the Assembly that the proposed system was technically compatible with the INTELSAT system.[123]

b) UNISAT-1

The U.K. Signatory on May 11, 1982, requested consultation under Article XIV(e) of the INTELSAT Agreement for the proposed UNISAT-1.[124] The satellite would be used for providing television broadcasting service within the United Kingdom. It was considered by the Director General that the potential for interference from this network into the INTELSAT system is within acceptable limits. Therefore, the Director General recommended that the Board of Governors tender advice to the Assembly of Parties that the planned use of UNISAT-1 was technically compatible with the

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[122] *Ibid.* at 7.

[123] *Ibid.* at 8.

[124] *Article XIV(d) Consultation for the UNISAT-1 Broadcasting Satellite Network*, INTELSAT Doc. no. BG-52-21E W/9/82 (Rev.1), September 14, 1982, at 1.

INTELSAT system.[125]

3. Recent Application of Article XIV(d) Procedures

a. Evolution of Current Procedures and Guidelines

Since the INTELSAT Definitive Agreement does not clearly define and elaborate the requirements for the application of Article XIV(d), the Board of Governors has developed guidelines and procedures. As discussed earlier, procedures for both technical and economic (non-technical) assessment were adopted at the Fifth Meeting of the Board in October 1973. The procedures for non-technical assessment were revised and expanded at the Board's Twenty-Eighth Meeting in June 1977.[126] These procedures, set forth in document BG-28-63, remained in effect until the Board, after a comprehensive review of the effectiveness and applicability of the procedures in facing the increased number of requests for consultations, adopted new and more detailed non-technical assessment procedures in September 1985.[127] This document, *inter alia*, contains the following :[128]

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[125] *Ibid.* at 2.

[126] See *supra*, note 48.

[127] *Procedures for Non-Technical Consultation Under Article XIV(d) of the INTELSAT Agreement*, INTELSAT Doc. no. BG-64-80E (Rev.1) W/9/85, Attachment no. 1, September 6, 1985.

[128] *Ibid.*

In assessing the economic impact on INTELSAT of separate satellite facilities for international public telecommunications, principal indicators should be the impact on projected INTELSAT space segment costs and utilization charges, INTELSAT planned and operations, and the resulting impact on signatories' investment. This impact should be considered against the following questions :

- Are the services public international services as defined in Article I (k) of the Agreement ?

- Can the service be provided using the INTELSAT global system which comprises:
  - Existing space segment (including normal replacement);
  - New space segment which is under procurement; and
  - Planned space segment ?

- In the absence of the proposed system, would the traffic have been carried by INTELSAT ?

- How much traffic will be diverted from the INTELSAT global system ?

- What is the estimated effect on INTELSAT utilization charges both in the short and long term ?

- What is the estimated effect on INTELSAT planning and operations ?

- What is the estimated effect on the cost of providing the INTELSAT space segment ?

- What is the estimated effect on the other Signatories' investment of the proposed diversion of traffic in terms of:
  - changes in space segment investment requirements;
  - Variations in the proportion of total investment shares resulting from any decrease in the proposing Signatory's investment share ?

Other factors for assessing economic harm may be relevant on a case-by case basis, including :

- Variables which affect INTELSAT's ability to earn sufficient revenue to cover the cost of providing services ;
- INTELSAT's current financial condition;
- INTELSAT's overall growth opportunities and options for responding to competitive systems; and
- The effect of service restrictions that are placed on separate satellite systems.

With respect to the "direct link" requirement, the document states that the Board of Governors can be of assistance to the Assembly of Parties by considering whether the proposed separate system would prejudice the ability of an INTELSAT participant to access or be accessed through the INTELSAT system. Such consideration should include whether any constraints on access to the INTELSAT system are explicit or implicit in operating arrangements for the separate system, and such other factors as may be relevant on a case-by-case basis.[129] The Document also requires the Party or Signatory responsible for consulting with INTELSAT under Article XIV (d) to furnish to the Director General of INTELSAT all relevant information, including the best estimates of the following :

(a) Expected date of commencement of operation and expected duration of operation of the separate space segment facilities;

(b) Types of international public telecommunications services to be provided and coverage zone(s) of the separate space segment facilities;

(c) Other INTELSAT Parties or Signatories or other entities that plan to use the separate facilities;

(d) Identification of all existing or projected international public telecommunications traffic or service to be provided by the separate satellite system for the period specified in item (a). Included and separately identified should be the identification of any such traffic or service presently contained in the INTELSAT Traffic Data Base for the same period;

(e) Identification of any INTELSAT Party or Signatory which intends to modify the manner in which it accesses or to be accessed through the INTELSAT system as a result of use of the separate system;

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129 *Ibid.* at 2.

(f) Description of operating arrangements regarding use of the separate system.

The Board of Governors will present advice to the Assembly of Parties concerning the issues of significant economic harm and, if appropriate, prejudice to the establishment of direct telecommunications links.[130] The Board's advice will be given on the basis of :[131]

- consideration of the relevant documentation and of the Director General's analysis;
- apportionment of appropriate weighting of all factors; and
- taking into account of the need to consider the separate system over an appropriate period.

A look at the above procedures set forth in BG-60-80 (Rev.1) reflects a more stringent test for significant economic harm caused by the proposed separate systems. It contains an extensive list of questions. However, it is not clear how INTELSAT examines and weighs the answers to those questions and then draw conclusion over the impact of the proposed separate system on the INTELSAT system. Interestingly, a review by the Board of Governors in 1990 states the following :[132]

> The questions are designed not to produce a conclusive answer on the issue of significant economic harm, but simply to provide the information required by the Board and the Assembly of Parties to reach a conclusion on a judgmental, case-by-case basis. The procedures and guidelines in BG-64-80 (Rev.1), like the ones they replaced, did not attempt to define significant economic harm in discrete, numerical values.

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130 *Ibid.* at 4.

131 *Ibid.*

132 *Supra*, note 114 at 8.

The Tenth (Extraordinary) Assembly of Parties in October 1985 added the new procedures and guidelines by deciding to consider the cumulative economic effect of one or more systems submitted by a Party or Parties for consultation over an appropriate period of time.[133] This last addition marks the end of INTELSAT restrictive policy toward applications for separate systems. Since then, significant changes have taken place in INTELSAT. Gradually, it has moved toward a competitive policy. A comprehensive review of the past coordinations has been undertaken and, together with contributions of the Parties and Signatories, have brought some modifications to the INTELSAT coordination procedures.

During the last half decade, the number of requests for coordinations has increased significantly, most of them related with consultations for the extended use of the existing systems. These consultations have often resulted in fairly insubstantial changes in the operative terms applicable to the prior consultation.[134] In its contribution, the U.S. Party has argued that the continuation of this trend will result in a substantial increase in the likelihood of having to convene an extraordinary meeting of the Assembly of Parties, but without any discernible benefit from either the perspective of the integrity of the coordination process, or the efficient functioning of the INTELSAT organization as a whole.[135] Based on this consideration, the U.S.

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[133] *Ibid.*

[134] *Delegation of Authority by the Assembly of Parties to the Board of Governors on Certain Matters Relating to Modifications of Previously Conducted Article XIV(d) Consultations,* INTELSAT Doc. no. AP-12-27E BA/10/87, BG-73-97E W/9/87 (no date) at 2.

[135] *Ibid.* The Director General may convene an extraordinary meeting of the Assembly either upon a request of the Board of Governors or upon request of one or more Parties which receives the support of at least one-third of the Parties, including the requesting Party or Parties. The Assembly of Parties'

Party made a proposal for simplication of the coordination procedures, known as the expedited or streamlined procedure. The Board of Governors also made a similar proposal.[136]

At its Twelfth Meeting in October 1987, the Assembly of Parties began to adopt "streamlined procedures." It authorized the Board and the Director General to make findings in the form of recommendations on behalf of the Assembly under Article XIV(d).[137] The authorization to the Board of Governors is limited to requests for coordination when there is a short-term, unexpected and urgent need to use a separate system and when adequate INTELSAT facilities are unavailable to carry these services. The Assembly also requested the Board of Governors to report any findings it may have made under the new procedures to the Assembly of Parties.[138]

The Assembly's authorization to the Director General will apply when there is a short-term, unexpected and urgent need to use the separate systems to meet communications requirements in connection with disasters and natural catastrophes involving safety of life, and where time does not permit recourse to the Board. Short-

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Rules of Procedures (Rule II, c) provide that the Director general shall make arrangements for all extraordinary meetings to be held as soon as possible, but not sooner than 30 days after the date a request has been received from the Board of Governors or the required support has been received responding to a request from a Party or Parties. As cited in *Report by the Board of Governors on A Proposal for An Expedited Article XIV(d) Consultation Procedure in Certain Cases*, INTELSAT Doc. no. AP-12-31E BA/10/87, September 16, 1987, at 2.

136 Proposal for an Expedited Procedure, *ibid.* at 1-6.

137 AP-12-3E FINAL BA/10/87, at 27-28, as cited in *Report by the Board of Governors to the Fifteenth Assembly of Parties Concerning Expedited Article XIV Procedures*, INTELSAT Doc. no AP-15-36E A/10/89, Attachment no. 1, September 13, 1989.

138 *Ibid.*

term is defined as a total aggregated period not to exceed 30 days per calendar year for each separate system.The Director General will report these actions to the following meeting of the Board.[139]

In exercising its authorized power, the Board of Governors and the Director General will apply the current guidelines and criteria for the evaluation of separate systems. The coordination is concluded with the issuance of positive findings in the form of recommendations. Should the Board or the Director General fail to reach a positive finding, the matter will be referred to the Assembly, or the Board, as the case may be. Both the Board and the Director General may decline in particular instances to issue findings in the form of recommendations. This procedure will be implemented on an experimental trial basis for a period of two years, after which the Assembly of Parties may reconfirm the authorization. However, the authorization can be revoked at any time by the Assembly at any intervening ordinary or extraordinary meeting of the Assembly.[140]

At its Thirteenth Meeting in October 1988, the authorization of the Board of Governors was extended to include a request by an additional country to be associated with a separate system previously consulted under Article XIV(d). This authorization is provided under the following conditions : on the date association is requested, no ordinary or extraordinary meeting of the Assembly of Parties is already planned to be held within a period of three months from the date of such requests; the association

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139 Ibid.

140 Ibid.

does not change the results of the technical and non-technical elements, which have been previously reviewed by the Assembly; the Board will apply the guidelines and criteria for the evaluation of previous consultations; the Board may decline in particular instances to issue findings in the form of recommendations; the consultation is concluded with the issuance of positive findings; if the decision is not in the affirmative, the matter will be referred to the Assembly; any Party or Signatory shall retain the right to request that, as regards its use of a proposed separate system, a separate, full consultation process be undertaken by INTELSAT, culminating in a separate finding by the Assembly of Parties.[141] The authorization is given on a trial basis until the next ordinary Assembly of Parties, at which time the Assembly of Parties will revisit the authorization.[142]

At its Fifteenth Meeting, the Assembly of Parties decided to continue the authorizations given to the Board of Governors and the Director General at the Twelfth and Thirteenth Meetings of the Assembly of Parties.[143] The Assembly also authorized the Board of Governors to make findings under Article XIV(d) for :

- incidental reception in one country of existing domestic satellite services carried by another country's domestic satellite network(s) previously coordinated only under

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141 INTELSAT Doc. no. AP-13-3E FINAL W/10/88, at 19-20, as cited in *Ibid.*, Attachment No. 2

142 As the ordinary meeting of the Assembly is held every two years, it means that this authorization is given for the period of two years. After that, it will be subject to a review by the Assembly.

143 INTELSAT Doc. no. AP-15-3E FINAL A/10/89, at 44-46. This decision was based on the Board of Governors' report regarding the Assembly's previous authorizations to the Board of Governors and the Director General to make findings on its behalf under Article XIV(d) of the Agreement. See Report, *supra*, note 137, at 1-7.

Article XIV(c) of the Agreement. This authorization is limited to requests involving one-way television, audio, and data transmissions normally carried in the domestic satellite network(s);

- a request to extend the period of a previous consultation in which there is no change in the technical and non-technical elements upon which the original Assembly of Parties are based.

Furthermore, the Assembly made a more significant move by authorizing the Board of Governors to make findings for all requests under Article XIV(e) of the INTELSAT Agreement.

The authorization to the Director General to make findings under Article XIV(d) was also expanded where time does not permit recourse to the Board of Governors in those instances when there is a short-term, unexpected and urgent need to use a separate system to meet telecommunications requirements and the Director General determines that adequate facilities are unavailable to carry the service on the INTELSAT system.[144]

All the above authorizations given at the Fifteenth Meeting of the Assembly will not be limited to requests for consultations received at least three months prior to the commencement date of an ordinary or Extraordinary Assembly of Parties.[145] All other terms are similar to those adopted at the Twelfth and Thirteenth Meeting of the Assembly.

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[144] *Ibid.* at 45, subparagraph (c).

[145] *Ibid.* subparagraph.f.

In 1990, the Assembly of Parties adopted new procedures and guidelines for non-technical consultation under Article XIV(d) of the INTELSAT Agreement.[146] Most guidelines set forth in BG-64-80E were repeated in the 1990 decision. Changes were made with regard to the following:

- The question concerning the estimated effect on the cost of providing the INTELSAT space segment was deleted.
- The following questions were redrafted and elaborated to become:
  - How much traffic carried on INTELSAT switched networks will be diverted to non-interconnected private lines carried on the proposed system ?
  - What is the estimated effect on INTELSAT planning and operations including the economic cost of the technical and operational constraints accepted by INTELSAT in coordinating the proposed system in those instances in which the economic cost of those constraints can be clearly identfied ?
- One more factor was added for assessing economic harm on a case-by-case basis :
  - expanded use of the separate system, to be considered only at a subsequent consultation for expanded use of a system previously consulted, rather than at the first consultation.
- The following is added to the information to be provided by the Party or Signatory to the Director General responsible for consulting with INTELSAT :
  - What is the impact of the separate satellite system on the Signatory(ies) input into the Global Traffic Meeting ?

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146 *Supra*, note 114, Attachment no. 1, at 1-7.

The Assembly also clarified the guidelines for services interconnected to the Public Switched Network (PSN).[147] The economic harm assessment will be applied to all separate systems carrying traffic intended to be interconnected to the PSN. If the separate system does not pass the specified threshold, the Board of Governors is authorized to conduct the economic harm assessment and issue a finding on significant economic harm on behalf of the Assembly of Parties. The threshold is one hundred 64Kbits equivalent circuits. In particular instances, the Board may decline to issue findings pursuant to this authorization, in which case the matter will be referred to the Assembly for its consideration. If the separate system carries traffic above the specified threshold, a full, significant economic harm assessment will be carried out by the Board of Governors and the Assembly of Parties.

If the services are not interconnected to the PSN, and at no point during the period of coordination is forecasted to reach above the specified threshold, no significant economic harm assessment will be needed as the services will be deemed not to cause significant economic harm. In this instance, the threshold is defined as thirty 36 MHz equivalent transponders specified for international service. INTELSAT set this threshold based on the Orion system previously coordinated. The determination as to whether a separate system meets this requirement is made by the Board on behalf of the Assembly upon the advice of the Director General. However, the Board may decide, in particular cases, to conduct a full economic assessment and refer the matter to the Assembly, even if the traffic is below the specified threshold. If the systems carry traffic above the

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147 Ibid.

specified threshold, they are subject to the full economic harm assessment by the Board of Governors and the Assembly of Parties.

Interestingly, in Attachment no. 1 to INTELSAT Document no. AP-16-20 E, it is stated that[148]

> *Whenever applicable*, the Director general will analyze the estimated effects on the various components of the INTELSAT global system of any proposed separate segment facilties by responding on an individual basis to questions identified ... above and the other factors mentioned ... above as well as in respect of the "direct links" test. (italics added)

The words "whenever applicable", which do not appear in INTELSAT Doc. no. BG-64-80E, clearly indicate "non-mandatory" nature of all set of questions and other factors set forth in the present document. It is not clear who will have to determine when their application is necessary, but it seems that the Director General has discretion for that purpose. Consequently, it can be seen that under the new procedures and guidelines, the previous rigorous test for significant economic harm has been tempered.

In summary, the changed telecommunication environment and the increasing number of coordinations under Article XIV have forced INTELSAT to review its coordination procedures. This resulted in decisions intended to temper and simplify its procedures and guidelines.

b. Recent Coordinations

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148 *Ibid.* at 6.

During the last half decade, the number of coordinations conducted under Article XIV of the INTELSAT Agreements has increased significantly (see Table 1 in the Appendix). From 1980 to 1989, 388 consultations have been concluded. As shown in Table no. 1, the largest number of coordinations occurred during 1989-1990, i.e. for 43 domestic networks, 71 international networks, and 15 specialized networks.

Recent coordinations can be grouped into some categories. They included coordinations for the use of new satellite networks, new generation or replacement of existing satellite networks, extension of the existing services in terms of types of services and area coverage. Many satellites were coordinated, not only for one type of service, but also for two or three types of services. The latter situation would require the coordination of the proposed networks under Article XIV(c), (d), and (e), or a combination thereof. As noted, below, particularly in the PanAmSat case, as INTELSAT requires coordination for every new user of PanAmSat, a large number of coordinations may occur concerning the proposed use of a satellite system.

The set forth, below, are examples of recent coordinations concluded by INTELSAT, and do not constitute an exhaustive list.[149] They may well be useful as an indication of how, under the competitive environment and the increasing challenge from separate systems, INTELSAT implemented coordination procedures under Article XIV of the INTELSAT Agreement.

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[149] There are many other satellite networks that have been successfully coordinated under Article XIV(c) : Superbird, Telecom 2; under Article XIV(d) : the Anik D1, DFS-1, Asiasat-C, Aussat A1, A2 and A3, HISPASAT, Aurora 1 (Satcom V), Telecom 1; and under Article XIV(e) : HISPASAT, TDF-1 and TDF-2 broadcasting satellite networks. Due to the difficulty in getting complete information, these coordinations are not discussed in this section. Since most problems arose from coordination under Article XIV(d), the following examples will focus more on this type of coordination.

1) PANAMSAT

PanAmSat satellite network is owned by the Pan American Satellite Corporation (PanAmSat), a private U.S. Corporation. The PanAmSat would commence service during the second half of 1987 for the period of 12 years. The owner planned to use five transponders on the PanAmSat network for transmission of video, data, and private line services between the U.S. and Peru.[150] The proposed use would not be interconnected with the facilities of common carriers to provide public switched services.

The U.S. Party gave assurance that it would be responsible for observance by PanAmsat of the operational parameters and conditions for use of its network.[151] The same assurance was also given by the U.S. Party and the Party of Peru with respect to the five Latin beam transponders between the United States and Peru. The U.S. Party also gave assurance that no use of the PanAmSat for the provision of telecommunication services by any INTELSAT member will be permitted unless that member has informed the U.S. Party via PanAmSat that it has met its obligations under Article XIV(c) or (d) of the Agreement.

In its analysis, the Assembly stated that the services planned to be provided by PanAmSat were public international telecommunications services. These services

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150 *Report by the Board of Governors to the Eleventh Assembly of Parties Pursuant to Article XIV(d) on the PanAmSat Satellite Network*, INTELSAT Doc. no. AP-11-10E W/4/87, February 20, 1987, at 1. Altogether, the PanAmSat network has 24 transponders. However, in this coordination, no firm plan existed for the use of the remaining thirteen C-band transponders intended for domestic services and six Ku-band transponders intended for services between North America and Europe/North America. *Ibid.* at 3.

151 *Ibid.* at 2.

constituted an increasingly large proportion of INTELSAT's traffic.[152] In the absence of the proposed PanAmsat System, there was no reason to believe that this traffic would not be carried by INTELSAT. This diversion of traffic from the INTELSAT system would cause a potential maximum loss of revenue to INTELSAT over the period 1987 - 1992 of up to 0.9 percent of INTELSAT global revenue requirements.[153] The Board recognized that with the existence of the PanAmSat system, constraints would be imposed on INTELSAT in regard to the use of special carriers (IBS, SCPC, VISTA, INTELNET). This constraint would limit INTELSAT's flexibility to assign specific services to certain transponders and carriers, but, with careful planning by INTELSAT and cooperation from Signatories, the potential problems could be minimized.[154] Also, the proposed use would have an effect on the cost of providing the INTELSAT space segment, but since it might not be significant and could not be quantified, this effect was not specifically included in the economic harm assessment. The diversion of traffic would also lead to an increase in INTELSAT tariffs to make up the previously established revenue requirement and would have a direct correlation on Signatory investment shares.[155]

The above assurances, together with the technical agreement for operation of all twenty-four PanAmSat transponders, formed the basis on which the Board of Governors

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[152] *Ibid.* at 9.

[153] *Ibid.* at 15.

[154] *Ibid.* at 15.

[155] *Ibid.* at 16.

recommended that the proposed use would be technically compatible with the INTELSAT system, would not cause significant economic harm to the global system of INTELSAT and would not prejudice the establishment of direct telecommunication links through the INTELSAT space segment among all the participants.[156]

On September 14, 1988, the Assembly of Parties gave a favorable finding on the use of the five Latin Beam transponders of the PanAmSat Network for the provision of public international telecommunications between the United States and the Dominican Republic, and the United States and Costa Rica.[157] Upon the request of the U.S. Signatory, the Assembly also approved the extension, to a ten year period, through December 1988, of Article XIV(d) Consultation Concerning the five Latin Beam transponders of the PanAmSat network.[158] No alteration was made in the technical parameters as well as the non-technical, economic, and operational information provided in the 1987 Coordination.

Following the above consultations, the Board has given favorable findings concerning the proposed use of PanAmSat Network by Argentina,[159] Bahamas,[160]

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[156] *Ibid.* at 1.

[157] *Report by the Board of Governors to the Thirteenth Assembly of Parties Pursuant to Article XIV(d) Concerning the Use of the PanAmSat Satellite Network to Provide Telecommunications Services Between the United States and Peru, the Dominican Republic and Costa Rica*, INTELSAT Doc. no. AP-13-11E W/10/88, September 14, 1988, at 1-2.

[158] *Ibid.* at 4.

[159] *Report by the Board of Governors to the Fourteenth Assembly of Parties Pursuant to Article XIV(d) Concerning the Use of the Latin Beam Transponders of the PanAmSat Satellite Network by Argentina*, INTELSAT Doc. no. AP-14-26E W/7/89, June 21, 1989, at 1-3.

[160] This coordination and the following are listed in *Parties and Signatories Who Have Been Associated with Previous Article XIV(d) Consultations Concerning the Use of the C-Band Transponders of the PanAmSat Satellite Network*, INTELSAT Doc. no. BG-86-26E W/9/90, Attachment no. 1, August 1,

Bolivia, Brazil, Chile, Columbia, Ecuador, Guatemala, Haiti, Honduras, Mexico, Netherlands (Antilles), Panama, Trinidad and Tobago, Uruguay,[161] Venezuela,[162] Austria,[163] and the United Kingdom.[164] Board of Governors' recommendations also were given with regard to the proposed use of the PanAmSat satellite network for the provision of international public telecommunications services between the United States and the countries that are not members of INTELSAT : Antigua and Bermuda, Dominica, Grenada, St. Christopher (St. Kitts) and Nevis, St. Lucia, St. Vincent and the Grenadines, Suriname, Guyana, and Belize.[165] One of the basic arguments forwarded by the United States' Signatory in justifying these proposed uses was that the traffic

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1990.

[161] This coordination concerning the proposed use by Uruguay of the C-band transponders of the Latin, North, and Central beams of the PanAmSat satellite network. *Article XIV(c) and (d) Technical Consultation Concerning the Proposed Use of the PanAmSat Satellite Network by Uruguay*, INTELSAT Doc. no. BG-86-25E W/9/90, BG/T-75-12E W/8/90, August 1, 1990, at 1-3; *Article XIV(d) Consultation Concerning the Proposed Use of the PanAmSat Satellite Network by Uruguay*, INTELSAT Doc. no. BG-86-26E W/9/90, August 1, 1990, at 1-6.

[162] *Article XIV(d) Technical Consultation Concerning the Proposed Use of the PanAmSat Satellite Network by Venezuela*, INTELSAT Doc. no. BG-86-27E W/9/90, BG/T-75-13E W/8/90, August 1, 1990, at 1-3.

[163] This coordination concerning the proposed use of the Ku-band transponders of the PanAmSat satellite Network. The consultation concerning the use of the Ku-band transponders of the PanAmSat network, initiated by the Signatories of the United States and the United Kingdom, was concluded at the Thirteenth Meeting of the Assembly of Parties (INTELSAT Doc. AP-13-12). *Article XIV(d) Consultation Concerning the proposed Use of the PanAmSat Satellite Network by Austria*, INTELSAT Doc. no. BG-83-61E W/12/89, November 22, 1989, at 1-5.

[164] *INTELSAT*, Release 90-22 (September 21, 1990) at 2. This coordination was held for the provision of domestic public telecommunications services within the United Kingdom dependent territories in the Caribbean Region, and international public telecommunications services between the United Kingdom and these territories up to the end of 1998.

[165] *Article XIV(d) Consultation Concerning the Proposed Use of the PanAmSat Satellite Network for Provision of Services Between the United States and Non-Member Countries in the Caribbean Region and in Latin America*, INTELSAT Doc. no. BG-85-75E B/6/90, June 1, 1990, at 1-5.

estimates relating to the use of the PanAmSat satellite over the period 1988-1998, provided for in the initial consultations, represent fully-saturated transponders and, as such, represented the upper limit of potential, maximum, economic effect on INTELSAT due to the use of these transponders by other parties and Signatories which may join those consultations.[166]

2) The U.S. Domestic Satellites

As a continuation of the previous coordinations in 1982 and 1985, as already discussed, the U.S. and Canadian Signatories have requested coordination concerning the use of eight additional U.S. domestic satellite networks for the provision of telecommunications services between the two countries.[167] The services to be provided by these additional networks are the same as have been previously coordinated. The Signatories stated that traffic projections provided at the time of the previous coordination remain unchanged and that trunk television service between the two countries were intended to be excluded.

The Board of Governors confirmed the earlier conclusion for occasional point-to-point video services. With respect to reception of television programming, the Board raised a serious concern that, since there was an inevitable spill-over of broadcast type satellite transmissions into the neighbouring countries, an indiscriminate increase in the

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166 *Ibid.* at 4.

167 *Supra*, note 109 at 2.

number of networks providing the service and in the coverage areas being serviced might induce domestic systems to offer international services into the neighbouring countries.[168] Therefore, these services would be excluded from the definition of a "by-product" of a domestic TV System.[169]

With regard to business services, significant changes have occurred in INTELSAT's capability. INTELSAT has deployed an INTELSAT V Satellite with coverage of the United States and much of Canada, and offers the same type of business services as the U.S. and Canadian domestic systems. Therefore, the economic analysis concerning the potential economic harm of the U.S. / Canadian transborder business services are premised on the condition that such services are not extended beyond the existing business community network presently served by the domestic satellite networks and the established high capacity terrestrial networks.[170] Based on these considerations, the Board of Governors concluded that the proposed services would be technically compatible with INTELSAT, would not cause significant economic harm to INTELSAT, and would not prejudice direct telecommunication links through

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[168] *Ibid.* at 5.

[169] *Ibid.*

[170] *Ibid.* at 6. Accordingly, the extension through 1989 of the use of the U.S. and Canadian domestic satellites for business services would not change the present situation since

(i) the domestic satellites will extend or add transborder circuits solely to complement established domestic business networks;

(ii) accordingly, such traffic would not have been included in the INTELSAT Traffic Data Base;

(iii) and, in any case, this use was limited to a maximum of 500 digital business services circuits and 100 circuits for SCPC.

Ibid. at 7.

the INTELSAT space segment.[171]

Besides the services between the United States and Canada, there also were consultations concerning the use of U.S. domestic satellite networks for extension of services to countries in Latin America and the Caribbean. The Ninth Assembly of Parties in January 1985 expressed a favorable finding for the use of 18 U.S. domestic satellite networks to extend television, audio and data receive-only services to nine INTELSAT Signatories which associated themselves with the U.S. request and to nine countries that were not members of INTELSAT.[172] In October 1985, a similar favorable finding was made with regard to three additional U.S. domestic satellite networks for services to thirteen INTELSAT members and eight countries that were not members of INTELSAT. In February 1987 the list of recipient countries was updated to include a fourteenth INTELSAT member country. On August 1987, the number of satellites successfully coordinated had already reached 27 satellite networks.[173]

3) INTERSPUTNIK

Since the coordination for the use of the INTERSPUTNIK system by Algeria's Signatory in 1980, the Signatories of Iraq, Nicaragua, U.S., and Vietnam have also

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171 *Ibid.*

172 As cited in *Article XIV(d) Consultation Concerning the Use of US Domestic Satellite Networks for Extension of Services to Countries in Latin America and the Caribbean*, INTELSAT Doc. no. BG-73-22E W/9/87, August 28, 1987, at 1.

173 *Ibid.* at 1-8.

successfully passed the coordination process under Article XIV(d) for the same use.[174] In spite of INTELSAT concern over the cumulative effects in previous INTERSPUTNIK coordinations, this concern did not halt the use of INTERSPUTNIK by other INTELSAT members.

In a 1987 request for coordination, Israel's Signatory planned to use the INTERSPUTNIK system for the reception of television programming for a period extending to 1992. In its assessment, the Board found that Israel planned to use an international public telecommunications service, that this proposed service could be provided by INTELSAT, and in the absence of INTERSPUTNIK, the traffic would have been carried by INTELSAT. However, the Board estimated the forecast usage was "only" 1.15 minutes per day - 260 days per year. This diversion of traffic would cause 0.01 per cent of INTELSAT revenue projections, which for the period of 1987-1992 amounted to US $ 0.326 M. As this coordination only involved a small amount of traffic, the Board concluded that the use of INTERSPUTNIK by Israel would not cause significant economic harm to INTELSAT.[175] The Board of Governors also advised the Assembly of Parties that the proposed use was technically compatible with INTELSAT, and that it would not prejudice the establishment of direct telecommunications links through the INTELSAT space segment.[176]

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[174] As cited in *Report by the Board of Governors to the Twelfth Assembly of Parties Pursuant to Article XIV(d) on the Use of the INTERSPUTNIK System by Israel*, INTELSAT Doc. no. AP-12-25 E BA/10/87, September 16, 1987, at 1.

[175] *Ibid.* at 3-5.

[176] *Ibid.*

Similar findings were also made concerning the proposed use of INTERSPUTNIK by Syria for the provision of SCPC and multidestination TV services between Syria and other INTERSPUTNIK users.[177] The Board of Governors also recommended the proposed use of the INTERSPUTNIK system for the provision of television transmissions from the Democratic People's Republic of Korea to Japan for the period of 24 to 28 September 1990, and for the transmission and reception of video and associated audio program services between Canada and the USSR and other Eastern European countries, which are not members of INTELSAT for the period extending to December 31, 1999.[178] Recommendations also were provided for urgent, short-term use by the United States' Signatory of the INTERSPUTNIK system for a four-day period in December 1988, a three day period in January 1989, and for the same type of use by the Signatory of Japan in December 1988.[179]

4) INMARSAT Networks

The proposed INMARSAT Second Generation networks would provide capacity for the continued growth of the system, and would replace the ageing first-generation space segment.[180] These networks would consist of three new satellites launched in

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[177] *Article XIV(d) Consultation Concerning the Use of the INTERSPUTNIK by Syria*, INTELSAT Doc. no. BG-73-33E W/9/87, August 20, 1987, at 1.

[178] INTELSAT, Release 90-22 (September 21, 1990) at 2,4.

[179] INTELSAT, Release 88-24 (December 14, 1988) at 2.

[180] *Article XIV(d) Consultation for the INMARSAT Second Generation Networks*, INTELSAT Doc. no. BG-73-14E W/9/87, August 20, 1987, at 2.

1988/89. The services provided by these networks would include telephony, telex, data, and facsimile, together with distress and safety communication. INMARSAT also proposed to add aeronautical services.

As noted earlier, INMARSAT leases capacity on the INTELSAT V(MCS) satellites. As long as that lease agreement is in effect, which INMARSAT expects will continue into the early 1990s, INTELSAT will not be capable of providing these services, nor procuring a space segment that will permit such services. Accordingly, the Director General recommended that no significant economic harm would occur. The Director General also recommended that the proposed networks were technically compatible with INTELSAT, and would not prejudice the establishment of direct telecommunications links through the INTELSAT space segment among all participants.[181]

In addition to coordination under Article XIV(d), the INMARSAT second generation satellite networks also successfully passed coordination under Article XIV(e) for the provision of specialized communications services for aircrews, including voice, data, navigation and air traffic control services.[182]

Similar findings also were given concerning MARECS Aeronautical services.[183] These networks would be used for the provision of aeronautical services

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181 *Ibid.* at 3-4.

182 *Article XIV(e) Consultation for the INMARSAT Second Generation Satellite Networks*, INTELSAT Doc. no. BG-73-95E W/9/87, September 9, 1987, at 1-3.

183 *Technical Consultation for MARECS Aeronautical Services under Article XIV(d) and XIV(e)*, INTELSAT Doc. no. BG-73-15E (Rev.1) W/9/87, BG/T-63-12E (Rev.1) W/8/87, August 14, 1987, at 1-6; *Article XIV(d) Consultation Concerning the Use of the MARECS Satellite Network for the Provision of Aeronautical Services*, INTELSAT Doc. no. BG-73-16E (Rev. 1) W/9/87, August 24, 1987, at 1-5.

in the Atlantic, Indian, and Pacific Ocean regions. They also would provide operational communications for aircrews, including voice, data, navigation, and air traffic control, which fall under the provisions of Article XIV(e). The initial trials of the services were planned in the second half of 1987, with an expected inauguration of a full commercial aeronautical service by the end of 1988.[184]

5) ASTRA (GDL-6)

The Party of Luxembourg and the Signatory of the United Kingdom requested coordination for the provision of public telecommunications services between Luxembourg and the United Kingdom using the ASTRA (GDL-6) satellite.[185] The satellite would provide television distribution services. It would be launched in September 1988, and would be operational in January 1989. The expected lifetime of the satellite is 10 years.

The Board found that INTELSAT could provide the proposed services. In the absence of the proposed system, the traffic would have been carried by INTELSAT. Interestingly, although both applicants used the classic argument that a large number of the services would not have existed had there been no ASTRA satellite, the Director General was of the view that, based on comparable capabilities of INTELSAT, including

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184 Ibid.

185 Article XIV(d) Consultation Concerning the Use of the ASTRA (GDL-6) Satellite Network to Provide Telecommunications Services Between Luxembourg and the United Kingdom, INTELSAT Doc. no. BG-73-12E W/9/87, August 27, 1987, at 1.

the higher power INTELSAT VI satellites, all of the projected international traffic to be provided through ASTRA could be viewed as traffic which would be diverted from the INTELSAT global system.[186] The proposed use of the ASTRA system represents a potential maximum loss of revenue to INTELSAT over the period 1989-1993 of approximately 3.1 percent of INTELSAT global revenue projections and 26.6 percent of INTELSAT total revenue projections for television services.[187] But when it came to the question whether the harmful economic consequences of the ASTRA system is "significant," the Board found difficulty deciding since the INTELSAT Agreements do not quantify what degree of harm constitutes significant economic harm. Therefore, the assessment by the Board and the Assembly continued on a case-by-case basis. With respect to this coordination, the Director General judged that the individual use of the ASTRA system, as proposed, would not result in significant economic harm to the global INTELSAT system.

The Board also discussed the cumulative economic effect of all previous consultations. Previous study made by INTELSAT suggested that "it would be difficult to that effects of less than 5-10 percent for the cumulative impact of a number of systems were significant for a 5-10 year planning horizon. If the economic impact of an individual system being coordinated fell below the lower figure and the cumulative impact of all systems did not exceed the upper figure, this may provide some indication

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[186] Actually, the Signatory of United Kingdom admitted that there would be traffic diversion from INTELSAT to ASTRA. *Ibid.* at 4.

[187] *Ibid.* at 5.

that such an effect would not cause significant economic harm".[188] Before the operation of the ASTRA system, the aggregate potential revenue loss to INTELSAT caused by all separate systems coordinated under Article XIV(d) amounted to 3.6 percent of the INTELSAT global revenue projections. With 3.1 percent revenue diversion caused by the ASTRA network, it would produce an overall total of 6.7 percent diversion of the INTELSAT global revenue projections.[189] Therefore, the Director General concluded that the use of the ASTRA network would not have a cumulative effect resulting in significant economic harm to INTELSAT. In addition, the Director General concluded that the proposed use was technically compatible with INTELSAT and would not prejudice the establishment of direct telecommunications links through the INTELSAT system.[190]

After the above coordination, on June 21, 1989, the Assembly of Parties made a favorable finding concerning the proposed use by Switzerland of the ASTRA (GDL-6) satellite network for the reception of international television programs within Switzerland.[191] According to the Board, the proposed use did not change the non-technical elements, including traffic allocation between services, provided by the Party

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[188] INTELSAT Doc. no. BG-60-63, as cited in *ibid.* at 7.

[189] *Ibid.* at 8.

[190] *Ibid.* at 8-9; *Article XIV(d) Technical Consultation for the ASTRA Satellite Network*, INTELSAT Doc. no. BG-73-11E W/9/87, BG/T-63-10E W/8/87, July 29, 1987, at 2.

[191] *Report by the Board of Governors to the Fourteenth Assembly of Parties Pursuant to Article XIV(d) Concerning the Use of the ASTRA (GDL-6) Satellite Network by Switzerland*, INTELSAT Doc. no. AP-14-8E W/7/89, June 21, 1989, at 1-3.

of Luxembourg and the Signatory of the United Kingdom.[192]

Another satellite network, ASTRA 1B, was successfully coordinated upon requests from the Party of Luxembourg and the Signatory of the United Kingdom for the provision of domestic television and audio services within Luxembourg and within the United Kingdom, respectively, up to the end of the year 2000.[193]

6) EUTELSAT Network

Certain EUTELSAT Signatories planned to lease part of the available capacity of the EUTELSAT I(F1) satellite to meet domestic service requirements, primarily the distribution of television programs to cable TV networks.[194] The signals transmitted could also be received on an incidental basis in neighbouring countries. The French Signatory, on behalf of itself and other EUTELSAT member countries, indicated that reception would be limited to member countries of EUTELSAT. This coordination will be conducted into mid-1990, consistent with the expected lifetime of the EUTELSAT I(F1) satellite.

The Board of Governors indicated that the extension of domestic programming to transborder international users, falling in the antenna beam coverage of a domestic

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[192] *Ibid.* at 2.

[193] INTELSAT, Release 90-22 (September 21, 1990) at 2.

[194] *Report by the Board of Governors to the Thirteenth Assembly of Parties Pursuant to Article XIV(d) Concerning the Incidental Reception of Television Programs Carried on the EUTELSAT I-4 Network*, INTELSAT Doc. no. AP-13-10E W/10/88, September 14, 1988, at 3.

satellite system, could be accepted as incidental as long as the services offered were those provided for domestic audiences and not programs tailored to meet specific requirements in other countries.[195] The proposed use of EUTELSAT I-4 satellite network for incidental reception of domestic television programs in member countries of EUTELSAT met this condition and, consequently, it would not cause economic harm to INTELSAT, would be technically compatible with INTELSAT, and would not prejudice the establishment of direct telecommunication links through the INTELSAT space segment.[196]

Subsequently, the Signatory of France requested consultation regarding the transfer of services from the EUTELSAT I-3 network to the EUTELSAT I-4 network, and *vice versa*.[197] In this coordination process, the Director General concluded that the transfer of international services from EUTELSAT I-3 to the EUTELSAT I-4 was not a material change that would require a new coordination under Article XIV(d) of the INTELSAT Agreement.[198] Based on the advice from the Director General, the Board of Governors made a favourable finding.

Similar findings also were made concerning the proposed use of the EUTELSAT I satellite system by Morocco.[199] Previously, in 1987, the Assembly of Parties

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[195] *Ibid.* at 3.

[196] *Ibid.* at 1.

[197] *Article XIV(d) Consultation Concerning the Use of the EUTELSAT I-3 and I-4 Satellite Networks*, INTELSAT Doc. no. BG-83-57E W/12/89, November 21, 1989, at 1.

[198] *Ibid.* at 1-2.

[199] *Article XIV(d) Consultation Concerning the Proposed Use of the EUTELSAT I Satellite System by Morocco*, INTELSAT Doc. no. BG-83-60E W/12/89, November 22, 1989, at 1-2.

expressed its favorable findings concerning extension of the use of the EUTELSAT I system, including the EUTELSAT I-1 and I-2 networks, until the end of 1992.[200]

7) Orion

The Orion satellite system consists of two networks that are planned to be brought into use in December 1991 and April 1992 each for a period of 12 years.[201] Each ORION satellite uses 34 transponders (mainly of 54 MHz bandwidth) in eight fixed beams, covering North America and Western Europe. On August 4, 1988, the U.S. and U.K. Signatories requested coordination pursuant to Article XIV(d) of the INTELSAT Agreement.

After the lengthy and arduous technical coordination process between INTELSAT and both Signatories, agreement was reached on the set of conditions under which technical compatibility will be established between the INTELSAT and the ORION systems.[202] Also, the proposed system will not prejudice the establishment of direct telecommunications links through the INTELSAT system.[203]

The Board of Governors determined that the use by the United Kingdom and the United States of thirty three 36MHz equivalent transponders for the provision of

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[200] *Ibid.* at 2.

[201] *Report by the Board of Governors to the Fourteenth Assembly of Parties Pursuant to Article XIV(d) Concerning the Use of the Orion Satellite System*, INTELSAT Doc. no. AP-14-9E W/7/89, June 21, 1989, at 3.

[202] *Ibid.* at 7.

[203] *Ibid.* at 2.

international public telecommunications services will cause significant economic harm to the global system of INTELSAT.[204] This harm will result from diversion of traffic and revenues affecting charges for all INTELSAT services and/or compensation for the use of capital; signatories' investment shares, reduced operational flexibility; and the potential loss of the use capacity on INTELSAT satellites at several locations.[205] However, the proposing Parties and Signatories have given assurances to mitigate the impact of the Orion system on INTELSAT, as follows :[206]

> (i) ... that the Orion System will not be interconnected with the public switched networks;
> (ii) that the international use of the Orion system will be limited to the thirty-three 36MHz equivalent transponders upon which the consultation is based;
> (iii) that INTELSAT will continue to receive the support of the proposing Parties and Signatories in the development and implementation of plans for acquisition of cost-effective space segment capacity sufficient to meet its requirements, in efforts to acquire and maintain access to the requisite orbital slots in the geostationary orbit, and in the implementation of equitable INTELSAT charges that will allow the Organization to compete effectively;

In spite of the assurances given, the Board of Governor believed that the

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204 *Ibid.* at 2. In a separate contribution, the U.S. stated its disagreement with the Board's finding of significant economic harm. According to the U.S., the prohibition upon Orion from interconnection with the public switched network and the fact that use of Orion will stimulate demand and expand the overall market for satellite telecommunications services, will ensure that there will not be any significant economic harm to INTELSAT. *Article XIV(d) Consultation of the Orion Satellite System*, INTELSAT Doc. no. AP-14-28E W/7/89, July 7, 1989, at 1. The U.K. also raised disagreement with the Board's finding While repeating the U.S. argument, the U.K. critized INTELSAT that "[I]n the liberal environment which is developing in telecommunications generally and which has major benefits to users and providers alike, it would be a nonsense to construe [the concept of significant economic harm] narrowly in relation to INTELSAT's revenue stream without taking into account of the impact on the continuing achievement of INTELSAT's global mission". *Article XIV(d) Consultation on the Orion Satellite System*, INTELSAT Doc. no. AP-14-29E W/7/89, July 11, 1989, at 1.

205 *Supra*, note 201 at 2.

206 *Ibid.* at 2-3.

assurances may not, by themselves, fully mitigating the impact of the Orion system on INTELSAT's ability to achieve its objectives without prejudicing the commercial interests of individual Signatories. Therefore, for the first time in the INTELSAT coordination process, the Board has stated that[207]

> ... the Board will address on a priority basis the commercial implications of such competitive systems with the intention of developing business policies and procedures that will preserve the commercial viability of the Organization and equitability amongs the Signatories, while pursuing vigorously and achieving the objectives set forth in the Agreement even in the face of competition from the Orion system.

8) BSB Broadcasting Satellite

This satellite was coordinated with INTELSAT under Article XIV(c), (d), and (e). A coordination under Article XIV(e) was held in 1988 for the provision of television broadcasting services (BG-77-54), continued with coordination under Article XIV(c) for the provision of domestic ancillary services consisting of one-way, point-to-multipoint telecommunication transmissions using spare capacity within the time-division multiplex of the D-MAC television signal as an integral part of the BSB TV transmissions (BG-77-61).[208] In 1989 it was also coordinated under Article XIV(c) for the provision of the

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[207] *Ibid.*

[208] As cited in *Article XIV(d) Consultation Concerning the Proposed Use of the BSB Broadcasting Satellite Network by the United Kingdom and Ireland*, INTELSAT Doc. no. BG-85-77E B/6/90, June 1, 1990, at 2.

same ancillary services in the absence of a video signal (BG-80-55).[209] Finally, on May 23, 1990, coordination under Article XIV(d) of the INTELSAT Agreement was conducted with respect to the proposed use of the BSB broadcasting satellite network for provision of international public telecommunications services between the United Kingdom and Ireland.[210] In this regard, the Director General recommended that the Board of Governor tender advice to the Assembly of Parties that the proposed use was technically compatible with INTELSAT, would not cause significant economic harm to INTELSAT and would not prejudice the establishment of direct telecommunication links through the INTELSAT space segment.[211]

9) PALAPA

On November 22, 1989, the Board of Governors made a favorable finding concerning the proposed use of the Palapa B-2 satellite network by the Signatory of Portugal for the provision of international public telecommunications services between Macau and the ASEAN countries.[212]

Similar findings also were made concerning the proposed use of the Palapa B-2 satellite network for the provision of international television and audio services from

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[209] As cited in *ibid.*

[210] *Ibid.* at 1-4.

[211] *Ibid.* at 1-2.

[212] *Article XIV(d) Consultation Concerning the Proposed Use of the Palapa B-2 Satellite Network by Portugal*, INTELSAT Doc. no. BG-83-59E W/12/89, November 22, 1989, at 1-2.

Australia to Indonesia and Thailand through 1990.[213] Subsequently, under Article XIV(c), the Board of Governors expressed its favorable findings with regard to the proposed use of the Palapa B satellite system by the Papua New Guinea for the provision of domestic public telecommunications services within Papua New Guinea through the end of 1996.[214]

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213 INTELSAT, Release 88-18 (September 16, 1988) at 2.

214 INTELSAT, Release 90-22 (September 21, 1990) at 2.

CHAPTER III

DEVELOPMENTS IN INTERNATIONAL TELECOMMUNICATIONS

The international telecommunications environment has experienced considerable changes since the establishment of INTELSAT. These changes are of two kinds -- technological and regulatory.[1]

Telecommunications technology has developed quickly since World War II. The microwave system was developed, followed later by satellite communications and fiber optic cable systems.[2] Throughout this development, the role of the computer became very important, making possible the introduction of various services. Development in technology still continues, but its impact on policy and regulations is quite significant.

Since the 1980s, a world-wide shift has occurred towards economic deregulation of domestic and international business.[3] The telecommunication industry is not an exception. Initiated by the United States, many countries have changed their protectionist policy in favor of competition. In turn, the liberalization of national policy has been extended to the international market. It is against this background that the impact of liberalization of international market on INTELSAT will be examined. Based

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[1] David M. Leive, "INTELSAT in A Changing Global Environment" (1988) 30 *Colloquium on the Law of Outer Space* 361 at 363.

[2] Henry Geller, "US Telecommunications Policy : Increasing Competition and Deregulation" in B. Wellenius, et.al., eds., *Restructuring and Managing the Telecommunications Sector* (Washington, DC: The World Bank, 1989) at 79.

[3] Richard A. Gershon, "Global Cooperation in An Era of Deregulation" (1990) 14 *Telecommunications Policy* 249 at 250.

on the ensuing discussion, Chapter IV of this thesis discusses the future of INTELSAT intersystem coordination procedures.

1. The Emergence of Private Satellite Systems

a. Changes in the U.S. Toward Pro-Competitive Regulatory Policy

The establishment of private satellite systems in the U.S. may occur because of significant changes in the U.S. policy. Initially, the U.S. government exercised comprehensive regulatory controls over its international communications services.[4] The development of new facilities, the increasing need for telecommunications services, and the decline of U.S. control over INTELSAT have caused the U.S. to shift its regulatory policy. Ultimately, these changes resulted in the withdrawal of government control over telecommunications services.[5]

The changes started in 1970 with respect to domestic satellite policies. Specifically, the FCC dealt with the question of whether to authorize - and how to

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[4] These regulatory controls included : (1) supervision by the Federal Communication Commission (FCC) and the executive branch over the total circuit capacity on all U.S. international routes, regardless of whether such capacity was generated by satellites, undersea cables, or landline facilities; (2) allocation by the FCC of transoceanic traffic between all available facilities under "balanced loading principles"; and (3) endorsement by the FCC of tariff levels for COMSAT, permitting recovery of fully allocated costs of INTELSAT operations. Bert W. Rein and Carl R. Frank, "The Legal Commitment of the United States to the INTELSAT System" (1989) 14 *North Carolina Journal of International Law and Commercial Regulation* 219 at 220.

[5] *Ibid.*

regulate - a domestic satellite market.[6] As a result, the FCC adopted an aggressive domestic satellite policy that would maximize competition, open the market for new providers and promote the diversification of services. Through its Order private parties (and not just carriers or governmental organizations) can own and operate domestic satellites (domsats).[7] No limitation is set up on the types of systems and services that can be authorized. By doing so, the FCC rejected Comsat's argument that the 1962 Satellite Act provides Comsat with a mandate to own and operate domestic satellites.[8]

The importance of the FCC decision on Domsat I is that it introduced the "open skies" policy in the provision of domestic satellite communications services. In 1972 FCC clarified its policy decisions in 1970. It stated that while its entry policy might be open, it was not without any restrictions or limitations.[9] In order to protect new domestic satellite owners and encourage multiple entries, the FCC restricted entry by AT&T and Comsat. Restriction also was imposed on Comsat's possible service configurations to prevent it from giving AT&T (Comsat's primary customer for international services) any undue advantages in the domestic market.[10]

The first domestic satellite, Western Union Telegraph, was launched in 1974.

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[6] Robert R. Bruce, *From Telecommunications to Electronic Services: A Global Spectrum of Definitions, Boundary Lines, and Structures* (Great Britain: Butterworths, 1986) at 261.

[7] *Establishment of Domestic Communication-Satellite Facilities by Non-Governmental Entities* (1970) 26 FCC 2d 86 (hereinafter as Domsat I).

[8] According to the FCC, the 1962 Act dealt only with international services, leaving domestic radio communications (including satellite communications) wholly within the Commission's broad powers under the 1934 Act. *Ibid.* app c (Memorandum on Legal Issues), at 128-33.

[9] *Second Report and Order* (1972) 38 FCC 2d 850 (hereinafter Domsat II).

[10] *Ibid.*; *Supra*, note 6 at 264.

Since that time, the number of domestic satellites has grown significantly. This development has forced the FCC to review its previous policy in order to accomodate increasing demands and to solve problems caused by the increasing scarcity of available orbital positions.[11] In addition, the Commission authorized licensees to sell individual transponders.[12] This decision has spurred the competitiveness of the satellite market.

With the changes in the FCC policy, the extension of the "open skies" policy to international satellite services by private companies was only a matter of time. The FCC policy changes on international telecommunications services occurred primarily with respect to two matters : access to INTELSAT circuits and ownership of earth stations.

One important issue heavily debated for many years is the question of access to INTELSAT circuits. The U.S. access to INTELSAT is provided only through Comsat. In Authorized User I decision, the FCC considered who would be classified as an "authorized user" of Comsat services and facilities.[13] The FCC concluded that, although it had authority, pursuant to the Satellite Act, to designate non-carriers as

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[11] Among the measures taken, the FCC authorized the replacements of the first generation of satellites, allowed satellites to operate in new frequency bands - 12/14 GHz (Ku-band) and 18/30 GHz (Ka-band), permitted future applications for satellites using both the Ku- and C-bands, eliminated licensing requirements for receive-only satellite earth stations, authorized Direct Broadcasting Service to operate in the 12 GHz (Ku) band, reduced the orbital spacing, and proposed the establishment of Mobile Satellite Services. The authorization procedure was simplified from a multi-step to a one-step, although the FCC became more rigid in the application of cut-off dates (a time limit provided for any additional applications seeking to compete for any of the orbital locations requested by initial applicants ("the processing group")). See *ibid.* at 266-268.

[12] According to the FCC, transponder sales were not common carrier services. The Commission also authorized large users of satellite capacity to resell unused space to others. See *Southern Satellite Systems, Inc.* (1976) 62 FCC 2d 153; *Regulatory Policies Concerning Resale and Shared Use of Common Carrier Facilities* (1976) 60 FCC 2d 261, 297, modified in part, 62 FCC 2d.

[13] See *Authorized Entities and Authorized Users* (1966) 4 FCC 2d 421 (hereinafter Authorized User I); *Reconsiderations granted in part* (1967) 6 FCC 2d 593 (hereinafter Authorized User I Recon.)

authorized users, it limited the class of users to carriers, and permitted Comsat to serve others only in "unique and exceptional circumstances."[14] On the other hand, the FCC limited the role of Comsat as the "carrier's carrier."[15] The carriers, in turn, retail the circuits by leasing them directly to end users.[16] In addition, to protect the "authorized users,"[17] the decision to restrict Comsat's direct operations was intended to neutralize competition between cable and satellite transmission services.[18]

Significant growth in international services market has encouraged the FCC to review its protective policy toward authorized users. As a result, Comsat is authorized to enter the retail market and deal directly with end users through a separate common carrier subsidiary.[19] Because Comsat remains the monopoly provider of INTELSAT space segments in the U.S., the FCC required it to separate the business of providing INTELSAT circuits from the competitive activity of offering end-to-end services, which include earth station services. This decision was confirmed in Authorized decision III, where the FCC permitted Comsat, through World System Division, to offer INTELSAT

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[14] See Authorized User I Recon., *ibid.* at 594-5.

[15] "Carrier's carrier" means that Comsat can only lease INTELSAT circuits to established carriers. It is prohibited from competing directly against the carriers in the retailing of its services. See Cheryl L. Sarreals, "International Telecommunications Satellite Services : The Spirit of Cooperation Versus the Battle for Competition" (1986) 26 *Jurimetrics Journal* 267 at 273-4.

[16] See, *supra*, note 6, at 282.

[17] The FCC feared that allowing Comsat to compete directly with the IRCs for leased channel revenues could threaten the IRC who, in 1960s, just started to benefit from the growth in their leased channel business. *Ibid.*

[18] See Authorized User I, *supra*, note 13, at 1401.

[19] *Proposed Modifications of the Commission's Authorized User Policy Concerning Access to the International Satellite Services of the Communication Satellite Corporation* (1982) 90 FCC 2d 1394 (hereinafter Authorized User II).

space segment capacity to all users at any U.S. Station.[20] In this decision, the FCC also authorized Comsat, through a separate common carrier subsidiary, to provide switched, leased channel and other end-to-end services. The International Service Carriers (ISCs), on the other hand, is given the discretion to decomposite rates.[21]

The remaining issue to be considered by the FCC is about the International Record Carriers' (IRCs) request to "by-pass" Comsat and acquire space segment capacity directly from INTELSAT. The carriers argued that direct, or cost-based, access to INTELSAT satellite capacity would allow them to compete with Comsat for providing services to end users. They also asserted that direct access would minimize Comsat's ability to use its "monopoly" position to engage in discriminatory space segment pricing, cross subsidization, and other anticompetitive practices.[22] However, the FCC rejected these proposals, as it was unconvinced that any kind of "direct access" would produce substantial public benefits. Particularly, the FCC rejected the arguments that Comsat's functions were purely administrative, and that Comsat charged an excessive rate for the INTELSAT space segment.[23]

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[20] *Proposed Modification of the Commission's Authorized User Policy Concerning Access to the International Satellite Services of the Communications Satellite Corporation (Second Report and Order)* (1985) 50 Federal Regulation 2552.

[21] *Ibid.* Prior to 1982, the ISCs were divided into two groups : the international voice carriers and international record carriers (IRCs). This division was made partially because of a belief that full competition between AT&T, the only voice carrier, and the IRCs would eliminate rather than promote innovation and would eventually diminish customer options and quality of service. See Frieden, Robert M., "International Telecommunications and the Federal Communications Commission" (1983) 21 *Columbia Journal of Transnational Law* 423 at 433-434.

[22] *Supra*, note 15 at 286.

[23] *Ibid.* at 285-6.

The competition between cable and satellite telecommunication also affected the FCC policy. It appears that the FCC feared one mode of communication would dominate the international services market and, subsequently, eliminate the other mode.[24] With regard to satellite services, the FCC "believed that satellite circuits would be so much cheaper than cable circuits that whoever offered satellite-based leased channel would capture virtually all the leased channel market."[25] On the other hand, it was concerned that because AT&T and the IRCs owned cable facilities, "they would prefer cable use and expansion... even though satellite offered a less expensive means of transmission."[26]

Regarding cable networks, intially the FCC regulated the allocation of traffic between cables and satellites to assure that adequate capacity would be available, there would be no excess capacity, and that satellite facilities would be used effectively.[27] Accordingly, the FCC imposed certain restrictions to avoid diversion of traffic from

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[24] There were some critics that FCC's intervention has created negative effects. Trezise writes that this intervention was detrimental to foreign communications entities, since their arrangements with AT&T had been subjected to *ex post* and unilateral review and revision by the U S government Philip H. Trezise, "INTELSAT and Competing Private Satellite Systems", in Ernst Joachim Mestmacker, ed , *The Law and Economics of Transborder Telecommunications* (Germany: Nomos Verlagsgesellschaft, Baden-Baden, 1987) at 337. From a different angle, McKnight states that FCC regulatory interventions "have had a significant (distorting ?) effect on competition between the two technologies [cables and satellites]". Lee McKnight, "Comment", in *ibid.* at 346.

[25] Authorized User II, *supra*, note 19, at 1400.

[26] *Ibid.* at 1401.

[27] The U.S. may choose to use cable rather than satellite facilities, since AT&T and the other carriers own cable and, in many instances, the utilization cost of cable is lower than satellite facilities. Kimberly A. Godwin, "The Proposed Orion and ISI TransAtlantic Satellite Systems : A Challenge to the Status Quo" (1984) 24 *Jurimetrics Journal* 297 at 303, footnote 18.

satellite facilities to cable facilities.[28] In 1971, the FCC required AT&T to distribute its circuits equally between the TAT-5 Cable and the Atlantic Ocean Region Satellites.[29] This "balanced loading" requirement was intended to ensure a sufficient traffic base for Comsat.[30] However, since circumstances changed, the FCC has tried to limit its regulatory role by relying more on the market place.

In 1985, the FCC ruled that AT&T would be prohibited from shifting more than 2 % of its satellite traffic to cable per year, up to the 60 % limit. This gave AT&T the flexibility to load up to sixty percent of its traffic over satellites.[31] Eventually, in 1988, the FCC eliminated the balance-loading requirement. [32] Following this decision, the FCC will rely on agreement between COMSAT and AT&T.[33]

Another subject of FCC regulations is the ownership of earth stations. Starting with a limited ownership by COMSAT, the FCC changed its policy in 1966, permitting a joint ownership of all U.S. earth station facilities under the Earth Station Ownership

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[28] Among the restrictions are "prescribed use" and "composite rate" policy. Adopted first in 1966, the prescribed use plan calls for the equal distribution of activated circuits between the two modes. in 1968, the FCC approved the use of proportional fill policy for North Atlantic region. The most common method of this policy is "balanced loading" which distributes circuits among facilities with unused capacity in a manner which, to the extent possible, results in all transmission systems between the United States and a given country carrying equal number of circuits. According to composite rate policy, carriers average the cost of serving a particular route by cable and by satellite. See *supra*, note 15 at 275.

[29] *Communications Satellite Corporation* (1971) 32 FCC 2d 103.

[30] See *supra*, note 3, at 253.

[31] *Supra*, note 15 at 283.

[32] *Policy for Distribution of US International Carrier Circuits* (1988) FCC 88-122.

[33] See Francis Lyall, *Law and Space Telecommunications* (England: Darmouth, 1989) at 61; Leland L Johnson, *The Future of INTELSAT in A Competitive Environment* (The Rand Corporation, December 1988) at 18-19.

Committee (ESOC).[34] The managerial functions of ESOC was assigned to COMSAT, which also owned fifty percent shares in all U.S. earth stations. In 1984, the FCC made a radical change by ending the concept of joint ownership of U.S. earth stations. Earth stations can be owned by individual carriers, any combination of carriers with or without COMSAT, or can continue the practice through ESOC. COMSAT is authorized to own and operate earth stations independently through a separate common carrier subsidiary.[35] In 1988, Comsat ceased to operate any of the five international earth stations it has used to link carriers to the INTELSAT satellites.

b. Proposals for Private Satellite Systems

Separate systems are not new to INTELSAT. Since 1973, a large number of domestic and regional systems have been successfully coordinated with the INTELSAT system. Nevertheless, the proposals by U.S. companies for private systems have drawn much more attention since the proposed private systems were planned to provide international service in the dense traffic in North America, where most of INTELSAT's revenue comes from. Furthermore, these proposals were sponsored by giant companies, which would not find it difficult to get financial support for the establishment and

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[34] *Amendment of Part 25 of the Commission's Rules and Regulations with Respect to Ownership & Operation of Initial Earth Stations in the United States for Use in Connection with the Proposed Global Commercial Satellite System (Second Report and Order)* (1967) 5 FCC 2d 812. See also *supra*, note 15, at 277.

[35] *Modification of Policy on Ownership & Operation of US Earth Stations that Operate with INTELSAT Global Communications Satellite System (Report & Order)* (1984) FCC, CC Docket no. 82-450.

expansion of the proposed systems.

The uses of private systems for international services can be grouped into two types. The first is the extension of domestic private satellite services to provide service to other countries, particularly to bordering countries (transborder services). The extension of the services of domestic satellites into the international market has become a trend nowadays, as can be seen from the increasing number of coordinations of this type with INTELSAT. This trend, if it continues, may blur the traditional distinction between domestic and international satellites and create a serious problem for INTELSAT.[36] Nevertheless, unlike the second type, i.e. the establishment of international private systems, INTELSAT does not take this trend as a serious threat.[37]

The first attempt to eliminate restriction of access to international services by private entities was tried in the early 1980s. A number of domestic satellite operators proposed to extend the coverage of their domestic satellites on an incidental basis to Canada, Mexico, and nearby Caribbean countries.[38] The FCC accepted the argument that there was no need to test the "national interest" criteria required under the 1962

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[36] Once the door is open for private systems, it is only a matter of time for them to increase the capacity of their satellites or even to expand the area coverage of their services. As noted in the previous section, private companies have this "creeping power."

[37] As shown in Chapter II, no coordination concerning transborder services created problem in the process, or resulted a negative finding.

[38] See Irwin B. Schwartz, " Pirates or Pioneers in Orbit ? Private International Communication Satellite Systems and Article XIV(d) of the INTELSAT Agreement" (1986) IX *Boston College of International and Comparative Law Review* 199 at 210-11; Jefferson C. Glassie, "Analysis of the Legal Authority for Establishment of Private International Communications Satellite Systems" (1984) 18 *The George Washington Journal of International Law & Economics* 355 at 371-3; *supra*, note 4 at 223-225.

Satellite Act since the satellites primarily provide domestic services. However, before the FCC could determine whether such services could be authorized, it stated that it needed official guidance from the U.S. Department of State.[39]

In his letter of July 23, 1981, to the FCC Chairman, Undersecretary of State James L. Buckley stated that both the INTELSAT Agreements and the Communications Satellite Act recognize the possibility of establishing separate systems.[40] He stated that there are "certain exceptional circumstances" for the extension of domestic satellite services to international public telecommunications, i.e., in the cases where INTELSAT (1) "could not provide the service required," or (2) where "the service planned would be clearly uneconomical or impractical using the INTELSAT system." [41] However, Undersecretary Buckley emphasized that "the integrity of the INTELSAT system is important to achieving the goals established in the Communications Satellite Act of 1962." Accordingly, such proposed services would not be inaugurated unless[42]

> (a) the proposal not to utilize the INTELSAT space segment receives a favourable recommendation in the INTELSAT Assembly (for these purposes a favourable recommendation requires a two-thirds favourable vote); or
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> (b) such proposal is supported by the U.S. Government and both the U.S. and the foreign governmental authorities concerned, in the absence of a

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[39] *Transborder Satellite Video Services*, (1981) 88 FCC 2d 258, 271.

[40] *Letter from the Undersecretary of State for Security Assistance, Science and Technology to the FCC Chairman*, dated July 23, 1981, as printed in *International Satellite and Cable Television* (Resource Manual for the Fourth Biennial Communications Law Symposium, UCLA, Los Angeles, March 15-16, 1985) at 125 (hereinafter "the Buckley letter").

[41] *Ibid.*

[42] *Ibid.* The second point clearly indicates how the U.S. views the "legal nature" of the Assembly findings.

favourable recommendation by the Assembly, consider in good faith that the obligations under Article XIV have been met.

Upon the Department of State's guidance, the FCC authorized in 1981 a number of domestic satellite (domsat) operators to provide transborder service.[43] The FCC stated that although existing INTELSAT facilities might be capable of providing some of the proposed services, the use of INTELSAT would be uneconomical.[44] In accordance with the Buckley letter, before it could give permission, the FCC required such services to obtain successful consultation with INTELSAT under Article XIV(d).[45]

In the early 1980s, private systems entered a new era. A number of American companies filed applications to the FCC for the creation of international communications satellite systems separate from the INTELSAT system.[46] Those applicants were :

- Orion Satellite Corporation

On March 11, 1983, Orion Satellite Corporation filed the first application for a

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[43] *Supra*, note 39 at 258.

[44] *Ibid* at 280-81.

[45] *Ibid.* at 286.

[46] Applications of Orion Satellite Corp. File No. CSS-83-002-P (filed March 11, 1983); International Satellite, Inc., File Nos. CSS-83-004-P (LA), I-P-C-83-073 (filed Aug. 12, 1983); RCA American Communications, Inc., File No. I-T-C 84-85 (filed Feb. 13, 1984); Cygnus Satellite Corp., File No. CSS-84-002-9 (LA) (filed March 7, 1984); and Pan American Satellite Corp., File No. CSS-84-004-P (LA) (filed May 31, 1984).

separate international satellite system designed to provide video, data, and audio services using digital and analog modulation techniques. The proposed system would consist of two in-orbit satellites and one ground spare, with each having 22 transponders. The satellites would cover the eastern portion of North America and the Western portion of Europe and would transmit in the 11/14 GHz bands. Orion proposed to sell or lease transponder capacity to selected multi-national corporations.[47]

- International Satellite, Inc. (ISI)

ISI proposed a system consisting of two in-orbit satellites and one ground spare that would link the continental United States and Europe. The 32-transponder 11-12/14 GHz satellites were designed to provide video, teleconferencing, and high speed data transmission services. The total estimated cost of the system was $ 230 million. ISI offers various methods of user access to its system. It planned to offer more than fifty percent of the transponder capacity for sale and at least fifteen to thirty percent to the public on a common carrier basis.[48] ISI also planned to give the United Nations free use of one transponder.[49]

- RCA Communications, Inc. (RCA)

The RCA proposal involves the use of capacity on a U.S. domestic satellite to

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[47] Orion Application, *ibid.*, at 9-10.

[48] International Satellite, Inc., Application, *ibid.* at 2.

[49] *Ibid.* at 8.

offer international service. RCA American Communications, Inc. (RCA Americon) asked the FCC for permission to amend its authorization to construct and launch its existing C-band Satcom VI satellite to permit "coverage on command of portions of Europe and Africa on six transponders." It proposed generally tariffed services, leased channels, and transponders providing video distribution, teleconferencing and commercial/ business communications, including private-leased channel voice, low-speed data, medium speed data, and high speed data.[50]

- Cygnus Corporation

The Cygnus proposed system would consist of two in-orbit satellites and one-ground spare, with each satellite having 22 transponders. The satellites would cover the Eastern portion of North America and the Western portion of Europe.[51] The services would also be extended to cover Puerto Rico, the U.S. Virgin Islands, the Caribbean Basin, and portions of Central America. It would operate in the 11-12/14 GHz bands and be able to operate with a variety of earth stations including "micro," roof-top, earth stations. The proposed satellite would be designed to provide digital communications services including video teleconferencing, high-speed facsimile, computer to computer communications, remote printing, teletext, videotext and data collection, and distribution services. Like Orion, Cygnus also proposed the sale or long-term lease of transponder

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50 RCA Application, *ibid.*

51 In its application, Cygnus also stated that it planned to file to the FCC for a Pacific regional satellite system in the near future. Cygnus application, *ibid.*

capacity on both a preemptible and non-preemptible basis.[52]

- Pan American Satellite Corporation (PANAMSAT)

PanAmsat proposed a system consisting of two in-orbit satellites capable of providing domestic satellite service in Latin America and subregional video and audio distribution satellite services between New York and Miami and Latin American countries.[53] "Incidental" coverage of the Iberian Peninsula also was included. The types of services that the system would provide included video and audio distribution; domestic service offerings, including video and radio programming; video text and teletext; telex facsimile and electronic mail; telephone service; and data and computer communications.[54]

- Financial Satellite Corporation (FINANSAT)

FINANSAT proposed to provide, on a non-common carrier basis, customized point-to-point data communications services using two in-orbit C-band satellites and one ground spare. Both satellites would provide financial information and intracorporate data distribution. Each satellite would carry 24 transponders that would be offered for sale or long-term lease to selected customers, such as large financial institutions.[55]It

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[52] *Ibid.*, at 2.

[53] For further information, see PanAmSat coordination in Chapter II.

[54] PanAmSat Application, *supra*, note 46. See also Richard R. Colino, "A Chronicle of Policy and Procedure: The Formulation of the Reagan Administration Policy of International Satellite Communications" (1985) 13 *Journal of Space Law* 103 at 127.

[55] FINANSAT Application, *supra*, note 46.

requested an Atlantic orbital slot at 47 degrees West Longitude (W.L.) and one Pacific orbital slot at 178 degrees W.L. The Atlantic satellite would provide coverage to the continental United States, Canada, Western Europe, and the southeast portion of South America. The Pacific satellite would provide coverage to the Far East, Australia, Mexico, and the western portion of the United States.

c. The U.S. Administration Policy Response

The FCC deferred action on the Orion and subsequent applications upon a joint request from the Secretaries of State and Commerce to review the impact of separate systems on United States national interest and foreign policy. The letter explained that the Orion proposal raised complex issues and that the Executive Branch wished to review the proposal in light of national needs and priorities, treaty obligations, and relations with other countries.[56]

The Senior Interagency Group on International Communication and Information Policy (SIG) reviewed United States telecommunications policy to find whether authorizing satellite systems in addition to INTELSAT would be consistent with United States law, compatible with foreign and telecommunications policy goals, and in the national interest.[57] By December 1983, the National Telecommunications and

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[56] 49 Telecom Rep. 18-19 (April 18, 1983) as cited in *supra*, note 54, at 114.

[57] *Ibid.* The SIG is composed of representatives of the Departments of State, Justice, Defense, and Commerce; the Offices of Management and Budget, Science and Technology Policy, Policy Development, and the US Trade Representative; the National Security Council; the Central Intellegence Agency, the US Information Agency (USIA); the Board of International Broadcasting; the Agency for International

Information Administration (NTIA) staff recommended that the entry of Orion and ISI be permitted, under restrictions that they cannot use their transponders for common carrier, public switched voice services, after Article XIV(d) consultations had been completed.[58] In January 1984, the SIG unanimously recommended that the United States endorse the applications. According to the SIG, the new systems are subject to certain limitations, i.e., the same as those adopted by the NTIA staff.[59]

Based on the above recommendations, the Reagan Administration declared on November 1984 "that separate international satellite systems are required in the national interest ... The United States shall consult with INTELSAT regarding such separate systems as are authorized by the Federal Communications Commissions."[60] This determination, therefore, opens the door for private satellite operators. In doing so, it signalled a major shift in the U.S. telecommunications policy by introducing its "open skies" policy to the international marketplace.[61]

In conjunction with Reagan's determination, the Secretaries of State and Commerce had instructed the FCC that the new systems shall comply with two

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Development, and the National Aeronautics and Space Administration. Commerce and State co-chair the SIG.

[58] *Supra*, note 54 at 121. NTIA is a division of the US Department of Commerce.

[59] See *ibid.*, at 122.

[60] *Presidential Determination,* No. 85-2 49, November 28, 1984, as printed in International Satellites and Cable Television, *supra*, note 40, at 187.

[61] See *supra*, note 3, at 253.

conditions.[62] First, each system is to be restricted to provide services through the sale or long-term lease of transponders or space segments capacity not interconnected with public switched message networks (except for emergency restoration service).[63] Second, one or more foreign authorities are to authorize use of each system and enter into consultation procedures with the U.S. party under Article XIV (d) of the INTELSAT Agreements.

On February 8, 1985, the Departments of State and Commerce released the SIG's "White Paper" on the separate satellite policy.[64] The White Paper concluded that[65]

> ...It is technically feasible, economically desirable, and in the national interest to allow new entry by U.S. firms into the international satellite field. Customers should be afforded both the new service options and the benefits of competition among customized service providers that new entry promises. This can be accomplished, moreover, while maintaining the technical integrity of the INTELSAT global system and avoiding significant economic harm to that system.

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[62] *Letter from the Secretaries of State and Commerce to the Chairman of the Federal Communications Commission*(Nov. 28, 1984), as printed in *supra*, note 54 at 132-133. Under Section 303(r) of the Communications Act, FCC is authorized to prescribe these conditions as may be necessary to carry out the Act or United States obligations under treaties or conventions relating to radio or wire communications.

[63] The public-switched networks consist of transmission of voice (telephone) and record (telegraph, telex) messages via common carrier (i.e. AT&T, Western Union, etc.). The common carriers are required to provide access to the network to any party who pays the appropriate rate for such service. Under this first condition, separate satellite systems, on the other hand, will provide service via intracorporate netwroks. They will have complete control over these lines of communications. Lawrence A. Caplan, "The Case for and Against Private International Communications Satellite Systems" (1986) 26 *Jurimetrics Journal* 180 at 192, footnote 64.

[64] Senior Interagency Group (SIG) on International Communications and Information Policy, A White Paper on New International Satellite Systems, February 1985 (hereinafter the White Paper), as printed in appendix to Marcellus S. Snow, *International Commercial Satellite Communications* (Germany: Nosmos Verlagsgesellschaft, Baden-Baden, 1987) at 161-197.

[65] *Ibid.* at 163.

> U.S. foreign policy, and international communications and information policy, require a continued strong commitment to INTELSAT as 'a single global commercial telecommunications network'. But our national commitment to INTELSAT and other important goals can be accomodated provided that the new international satellite systems and services are authorized and regulated along the lines discussed in this report.

The paper showed the benefits that competition in international satellite services would bring to U.S. users. In order to fulfill the obligation under the INTELSAT Agreement, the White Paper stated that the U.S. shall impose service limitations on separate systems by limiting them to nonswitched traffic not interconnected with the public network. These restrictions, according to the White Paper, would shield about eighty six percent of INTELSAT's revenue from direct competition and therefore create only a limited challenge to the INTELSAT system.[66] The White Paper provided a broad interpretation of the "national interest" standard as required in the Satellite Act of 1962.[67] Interestingly, although the Satellite Act requires the "national interest" test to justify additional capacity, the White Paper simply assumed such capacity was a necessary element in fostering competition.[68]

Following the Presidental determination, the FCC began its examination of the separate systems proposals. On January 4, 1985, it released a Notice of Inquiry and

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[66] *Ibid.* at 183.

[67] See Sigrid A. Mendel, "Authorization of Private International Satellite Systems in Competition with COMSAT: An Analysis of the Underlying Legal Justifications and Policy Factors" (1986) 18 *Law and Policy in International Business* 279 at 297, stating that this interpretation is "indicative of an executive branch desire to extend general pro-competition and free market philosophies to the US international satellite communications market".

[68] *Supra*, note 4 at 226-7.

Proposed Rule-Making to consider both individual applications and general U.S. policies regarding private satellites.[69] On July 25, 1985, the FCC decided that the authorization of private international systems, subject to certain conditions,[70] would serve the public interest and would not cause significant economic harm to INTELSAT. The conditions are as follows :[71]

- All separate systems are restricted to the sale or long-term lease of transponders or space segment capacity for communications not interconnected with public-switched message networks, except for emergency restoration service;
- The "no-interconnection" and the "sale or long-term lease" restrictions will apply to all levels of resellers and users of separate system facilities, as well as to separate system operators;
- Licencees are required to enforce the restrictions through contractual and other means, at risk of license loss or other appropriate sanctions, and resellers are required to enforce these restrictions with respect to their customers as well.

In addition, the FCC also provided more detailed guidelines, as follows :[72]

- There is no need to establish a specific minimum unit of space segment capacity which a separate system may provide, so long as the capacity is provided on a sale or long-term lease basis;
- The minimum lease period for a "long-term lease" of capacity is one year;

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[69] *Establishment of Satellite Systems Providing International Communications* (1985) 50 Federal Regulation 1570. See *supra*, note 54, at 134-135.

[70] The FCC conditions and restrictions basically are not different from those proposed by the Executive Branch. "The FCC is not legally obliged to follow the recommendation of the President, but typically has given such recommendations substantial weight in determining the public interest". Bert W. Rein, et.al., "Implementation of A US 'Free Entry" Initiative for Transatlantic Satellite facilities - Problems, Fitfalls, and Possibilities" (1985) 18 *George Washington Journal of International Law and Economics* 459, at 463 fn. 9.

[71] As printed in *supra*, note 54, at 142.

[72] *Ibid.* at 142-143.

- Separate system operators are prohibited from operating as common carriers, but they can provide space segment capacity to common carriers and enhanced service providers, who can resell capacity for communications services not interconnected with any public-switched message network;
- There is no basis to establish a "sunset" date for the Executive Branch service restrictions; and
- Applicants can not begin construction until they have demonstrated certain financial qualifications by showing 1) the estimated costs of proposed construction and launch and any other initial expenses for the proposed stations, 2) the estimated operating expenses for one year after launch, and 3) the applicant's current financial ability to meet the costs of construction and launch and operating expenses for one year after launch.

Authorizations will be conditioned upon one or more foreign entities having authorized use of the proposed system and having entered into consultation with the United States under Article XIV(d) of the INTELSAT Agreements. Consistent with the Executive Branch restrictions, the Commission will not issue a license permitting any applicant to begin operating its proposed system until it has been declared by the Department of State that the United States had fulfilled its INTELSAT Agreement Obligations. In addition to these conditions, the FCC also elaborated the enforcement mechanisms to ensure the fulfillment of these conditions.[73]

In August 1985 the Congress approved the State Department Authorization Bill (H.R. 2068). The Bill endorsed the Presidential policy on satellite systems separate from the INTELSAT system. While on the one hand the Act states that it is the policy of the US "to authorize use and operation of any additional space segment facilities only if the obligations of the United States under Article XIV(d) of the INTELSAT Agreement have been met," the Act also imposes an additional constraint, i.e., if INTELSAT

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[73] For detail, see *ibid.* at 144-145.

renders an unfavorable finding under Article XIV(d), the President must determine that it is nevertheless in the U.S. interest to proceed with the separate system.[74] In addition, the Secretary of State must submit a report to the Congress which will have a 60-day waiting period to take action, if it so desires.[75] This new legislation reiterates the policy support for INTELSAT found in the 1962 Satellite. However, as noted, the Act explains the procedures to be followed in case INTELSAT rejects the proposed separate systems.

Finally, the FCC granted provisional construction and operation authority to RCA, ISI, PanAmSat, Cygnus, FINANSAT, and Orion Satellites. Two other satellite systems, Columbia and McCaw also obtained authorizations.[76] PanAmSat became the first private international satellite carrier when it launched its satellite in mid-1987.

The above actions, taken by the Executive Branch of the U.S., reflect a trend toward favoring free entry and competitive market behavior in international telecommunications services.[77] Although the conditions are designed to protect the INTELSAT system, there is no guarantee that they can be effective. It remains uncertain to what extent these restrictions will prove viable or useful to limit their

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[74] *Foreign Relations Authorization Act*, Fiscal years 1986 and 1987, Public Law No. 99-93, Sec. 146(d).

[75] *Ibid.* See also David M. Leive, "International Telecommunications and Satellite Systems II: INTELSAT" (1987) 15 *International Business Lawyer* 316 at 317.

[76] Columbia Communications Corporation (Columbia) proposed services to link the western continental United States, Alaska, Hawaii, western Canada and Japan with transponders for sale or long-term lease McCaw Space Technologies (McCaw) proposed satellites over the Indian Ocean and Pacific Ocean, throughout the United States, the Pacific rim and basin, Asia, the Middle East, and parts of Europe and Africa, on a non-common carrier basis. See Snow, *supra*, note 64, at 90.

[77] See *supra*, note 70, at 463-4, predicting that the changes "soon might be recognized as established U.S. international telecommunications policy objectives."

impact on INTELSAT.[78] Eventhough the private systems cannot enter the public switched network (PSN), these systems will easily expand their services to include PSN, particularly when the needs in the services market grow. PanAmSat, for example, has a plan to be the first "private global system", by expanding its networks to cover the other parts of the world.[79] Furthermore, PanAmSat has increasingly strong support in the U.S., following its petition to the FCC for lifting the PSN restriction.[80] Since no other country applies the PSN restriction, it seems that this restriction will not last long.

The conditions for authorization from one or more foreign authorities may not create much difficulty for private systems. This is so even in the case of a negative finding by the INTELSAT Assembly of Parties since the nature of the findings is only recommendatory, and the U.S. policy opens the possibility for private systems upon determination by the President. Of course, once a private system is authorized other companies will follow. The impact on INTELSAT may be triggered if other countries follow the U.S. policy.[81]

d. The Position of Foreign Countries

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[78] Robert R. Bruce, et.al., *The Telecom Mosaic: Assembling the New International Structure* (Great Britain: Butterworths, 1988) at 359

[79] PanAmSat plans to launch a smaller satellite in the Indian Ocean region in 1994-1995 See Guy M. Stephens, "Regional Systems, Liberalizing Top the Bill At PTC 91" (March 1991) *Satellite Communications* 29 at 30.

[80] See in Chapter IV under footnote 50.

[81] *Ibid.*

The response of foreign countries concerning the proposals from American private companies is very important. As a member of INTELSAT, the U.S. is bound by rights and duties derived from the Agreements establishing the organization and setting the code of conduct for the operation of the Organization and its members. The negative positions of other countries may create disadvantages to the promotion of US policy in the Organization. The response also is important for operators of private satellite system since international telecommunications services are subject to the legitimate control of multiple sovereign states.[82]

Most telecommunications facilities in foreign countries are operated, controlled, or owned by Postal, Telegraph and Telephone (PTT) ministries. They usually hold both regulatory and operational powers, and their positions in international telecommunications is very important. Each PTT controls "the half way point" between its country and a foreign country. An operating agreement between the PTT and a foreign country's carrier is signed prior to the commencement of most telecommunications services between the countries. Therefore, the PTT has discretion to choose the foreign carrier they would like to make such arrangement with, and have control over the distribution of return traffic to the foreign country.

On the other hand, the private systems may affect their revenue, particularly since the PTTs do not own the systems. Theoretically, a foreign government may decline to give approval of the proposed private satellite system, unless it benefits from these systems. Therefore, approval is generally given on a reciprocal basis.

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[82] *Supra*, note 70 at 467.

For (West) European countries, another concern is the viability of their EUTELSAT system. EUTELSAT is the European cooperative venture providing intra-European satellite and North-African communications.[83] It is responsible for the design, construction, establishment and operation of a telecommunications satellite system. Like INTELSAT, the main objective of EUTELSAT is to provide fixed satellite services that meet the needs of international public telecommunications services in Europe.[84] Indeed, as emphasized by one author, EUTELSAT is principally patterned after INTELSAT and INMARSAT.[85] EUTELSAT sets up coordination procedures to be followed by any separate system operated by its members.[86] Separate systems are required not to cause any significant economic harm to EUTELSAT and must be technically compatible with the use of the radio frequency spectrum and orbital space

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[83] The EUTELSAT Agreements were concluded in May 1982. The Agreements consist of an intergovernmental Convention that formed the organization for European satellite telecommunications, "EUTELSAT", to be signed by the member states (The EUTELSAT Convention), and an Operating Agreement relating to "EUTELSAT, to be signed by the governments or authorized telecommunications entities (The Operating Agreement). *The Convention and Operating Agreement of the European Telecommunications Satellite Organization (EUTELSAT)*, Paris, July 15, 1982, (1983) Misc No. 25, Cmnd. 9069. The Convention and the Operating Agreement were opened for signature on July 15, 1982, and would enter into force no later than December 1988, as soon as two-thirds financial participation has been achieved. *The EUTELSAT Convention*, Article XXII; *The Operating Agreement*, Article 23. However, for various reasons, the EUTELSAT Agreements came into effect on September 1, 1985 See Lyall, *supra*, note 33, at 275.

[84] *The EUTELSAT Convention*, Article III(a).

[85] Simone Courteix, "EUTELSAT : Europe's Satellite Telecommunications" (1984) *Michigan Yearbook of International Legal Studies* 85 at 91.

[86] See Article XVI of the EUTELSAT Convention. In addition to INTELSAT and EUTELSAT, there also are consultations for mobile satellite communications under the INMARSAT Agreements. So far, EUTELSAT does not provide a maritime mobile market. Unlike INTELSAT, no consultation with INMARSAT has been undertaken by EUTELSAT. See Lyall, *supra*, note 33, at 289-290.

segment by an existing or planned EUTELSAT space segment.[87] These coordination requirements do not apply to INTELSAT developments.[88] Whereas the INTELSAT Agreements have a measure of protection or priority over the EUTELSAT Convention,[89] clearly the EUTELSAT coordination procedures are intended to secure a EUTELSAT monopoly position in Europe for the provision of public telecommunications services.[90] The possible spreading of private systems, therefore, may cause economic harm to the EUTELSAT system.[91]

Developing countries were concerned that private systems may deprive them of the benefit they obtain from the utilization of the INTELSAT system. For many developing countries, the INTELSAT system is the main telecommunications link to the outside world.[92] The INTELSAT Agreements assert that the INTELSAT system will be available on a commercial, non-discriminatory basis to all nations of the world, in

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[87] Under the EUTELSAT Agreements, no direct telecommunications link test is required. For the rationales and interpretations of the coordination procedures under the EUTELSAT Agreements, see Nicolas M. Matte and Ram S. Jakhu, *Supplementary Opinion Regarding the Nature of Service to be Provided by the GDL Satellite System*, Montreal, Quebec, December 19, 1986 (unpublished), at 2, *et seq.*

[88] *The EUTELSAT Convention*, Article XVI(c)(i).

[89] Lyall, *supra*, note 33 at 289.

[90] This fact may explain why only some separate systems have been established in Europe for the provision of public telecommunications systems.

[91] Debbie Shimman asserted that the EUTELSAT's "close relationship with the PTT has put EUTELSAT in a privileged and somewhat protected position." Also, "the PTTs are naturally very supportive of EUTELSAT because this arrangement not only gives them a great deal of control in the provision of capacity, but also allows them to set tariffs such that satellite services do not undercut the prices of their own terrestrial links." Debbie Shimman, "Satellite Deregulation in the European Community" (November 1988) *Telecommunications* 65.

[92] Commission of the European Communities, *Towards A Dynamic Eurpean Economy - Green Paper on the Development of the Common Market for Telecommunications Services and Equipment*, COM(87) 290 final, (Brussels. Commission of the European Communities, June 30, 1987) at 172 (hereinafter the Green Paper).

order to provide telecommunications service. INTELSAT charges equal rates for each type of space segment use.[93] It is a common belief that this policy results in charges substantially below cost for developing countries, and charges greater than fully distributed cost on mature routes, such as that carrying the North Atlantic traffic.[94] Developing countries fear that the diversion of traffic from INTELSAT to separate systems will reduce the INTELSAT revenue and increase its cost which, in turn, may force INTELSAT to change its favorable rate policy for those countries.

For all of the above reasons, it is understandable that foreign countries reacted strongly against the introduction of separate systems to the international telecommunications market. Over 40 governments worldwide have transmitted statements to the U.S. Government authorities opposing the private systems proposals.[95] The authorities of Austria, Belgium, Cyprus, Denmark, Finland, West Germany, Greece, Iceland, Italy, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the Vatican expressly have advised the U.S. of their opposition to the proposals.[96] The proposed systems were perceived as challenging the viability of the single global INTELSAT system and threatening crippling satellite circuit cost increases for countries in "thin" telecommunications markets. In addition, as Parties and Signatories to the INTELSAT, the European governments and operating entities have

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[93] *The INTELSAT Agreement*, Article V(d). This is known as the "rate averaging" policy.

[94] *supra*, note 70 at 487.

[95] During proceedings at the FCC, 51 letters from 41 countries protesting the U.S. action were received at the U.S. Department of State. *Supra*, note 54 at 141.

[96] *Supra*, note 70 at 480-1.

sent statements rejecting the use of the proposed independent systems internationally.[97]

The European position against private systems has been softened during the last few years. One reason for this has been the planned liberalization in Europe adopted by the European Commission. The Commission, in its "Green Paper" of June 10, 1987, stated that the EEC Treaty should be fully applied by allowing competition and free market movements in space telecommunications services, goods, and infrastructure, where the monopoly of a public telecommunications agency is not absolutely justified and required by the public general interest.[98] The Paper also noted that trends are converging towards[99]

- opening of the terminal markets to competition;
- a competitive value-added services (VANs) sector;
- separation of the regulatory and operational functions;
- maintenance of exclusive or special rights for the provision of the network infrastructure and a restricted number of basic services; and
- more cost-oriented pricing for these services.

Although the Green Paper left the Role of EUTELSAT as the main satellite operator in Europe relatively untouched, it is quite significant in being the basis for future development of the satellite telecommunications market in Europe. The Paper proposed essential changes that are required to advance towards a competitive common

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[97] *Ibid.* at 481.

[98] *Supra*, note 92. See also Paul Liffens de Cerf, "International Satellite Telecommunications and EEC Law" (1987) 29 *Colloquium on the Law of Outer Space* 341, et seq.

[99] *Supra*, note 92 at 94.

market. One of the proposed changes that may affect on the present environment of international telecommunication services is "a clear separation of regulatory and operational functions." In this regard, it is still to be seen how the Green Paper will affect EUTELSAT, as well as influence the European Community's position toward INTELSAT. While recognizing that the Community Member States have a major interest in INTELSAT, the Green Paper states that "the Community will have to develop a common position with regard to the future evolution of international satellite communications."[100]

Another factor that has also influenced the European position is the proliferation of separate national systems in Europe. Spain has proposed the launch of an Ibero-American satellite system in 1992, covering the Iberian peninsula plus Latin America. The United Kingdom has planned the UNISAT system.[101] France has launched the Telecom-1 satellite, which was designed to provide services to overseas territories in the Western hemisphere and in the Indian Ocean.[102] Ireland also planned to launch its own system. Nevertheless, none of these systems would provide services that compete direcly with INTELSAT and the U.S. private systems in the transatlantic routes.[103] However, it does not mean that there will never be such a plan. All these plans indicate a part of the on-going process toward competition in the telecommunications industries

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[100] *Ibid.*, at 173.

[101] The system is owned by United Satellite Ltd., a partnership of GE Marconi, British Aerospace and British Telecom. *Supra*, note 27 at 330.

[102] Morgan, "Telecom-1" (May 1984) *Satellite Communications* at 52.

[103] *Supra*, note 70 at 494.

in many countries in Europe.[104] As circumstances change, technological and economic pressures may increase for national systems to be used for the provision of international services.[105]

Privatization of telecommunications network and private network development are rapidly increasing in South America, Southeast Asia, Mexico, and Eastern Europe.[106] This privatization and liberalization process, although just started, will affect the positions of these countries concerning the establishment of private satellite systems.

All the changes discussed above, particularly in European countries, may explain why, in spite of the initial objection, the U.S. separate systems finally obtained a recommendation from INTELSAT.[107] They may also explain the increasing number of consultations under INTELSAT Agreements for the proposed use of PanAmSat by

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104 Although telecommunications liberalization in Europe has become a hot issue as "1993" comes closer, there are still significant barriers to actual implementation of the open market. As noted by Guy M. Stephens, the Post, Telegraph and Telephone Administrations in Europe are still faced with a dilemma between the need to liberalize and the desire to maintain the status quo. See Guy M. Stephens, "Liberalizing Europe : Are They Doing It With Mirrors ?" (February 1991) *Satellite Communications* 14 at 14-15

105 *Supra*, note 6 at 131.

106 Guy M. Stephens, " Funding Telecoms in the Developing World" (October 1990) *Satellite Communications* 14 at 15.

107 It is interesting to see that, although the system was originally proposed by an American company, Orionsat will be owned by General Dynamics, Nissho Iwai, and British Aerospace Communications. It is still to be seen whether this kind of partnership will be followed by other private systems See *supra*, note 104, at 17; Walter L. Morgan, "OrionSat" (October 1990) *Satellite Communications* 19.

European countries.[108]

e. Private Satellite Systems and INTELSAT

In connection with the requirements under Article XIV of the INTELSAT Agreement, the following discussion will address the main arguments used by the private systems applicants.

First, some applicants argued that their proposed systems would provide non-common carriage services under U.S. law because they planned only the sale or long-term lease of transponder capacity to private entities.[109] Furthermore, they claimed that the definition of "public telecommunications services" in Article I(k) of the INTELSAT Agreement resembles "common carriage" under U.S. law. Consequently, they argued that their proposed systems should be exempted from requirements set forth in Article XIV(d) of the INTELSAT Agreement.

The Legal Advisor of the U.S. Department of State noted that rules of international agreement interpretation did not support the equation of public

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108 This fact indicates a significant change from what happened in 1988. Earlier that year, the operator of PanAmSat complained that it felt obliged to resort to an acrimonious and bitter publicity campaign to gain serious attention from the European PTTs. Shimman writes, " To date, only FR Germany and the U.K. have undertaken, rather grudgingly, to offer up-links to its satellite, but only where a customer specifically asks for PanAmSat rather than EUTELSAT . hardly a strong commitment to free competition between the operators ". *Supra*, note 91.

109 Examples are Orion and Cygnus applications.

telecommunications with common carriage.[110] The SIG also rejected the above interpretation and concluded that coordination with INTELSAT was required.[111] COMSAT and INTELSAT also opposed those interpretations of private systems.[112] Comsat argued that public telecommunications services were defined by the nature of their use and not the economic arrangements.[113] In addition, it argued that the distinction between private user-dedicated and common carrier facilities was incorrect because many private services were offered by common carriers.[114] Further, Comsat asserted that U.S. domestic definitions such as common carriage were not binding on international agreements.[115]

Secondly, some applicants argued that although their systems should be coordinated with INTELSAT, no significant economic harm test would be needed since their systems would only offer specialized services.[116] The proposed systems would offer private telecommunications services, and not international public telecommunications services. Therefore, according to them, INTELSAT would only

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110 Davis R. Robinson, Legal Advisor to the Department of State, *Memorandum of Law : The Orion Satellite Corporation and International Satellite , Inc. Applications for International Satellite Communication Facilities* (November 28, 1984) at 3-4.

111 The White Paper, *supra*, note 64.

112 *Hearings Before the House Subcomm. on Telecommunications, Consumer Protection and Finances of the House Comm on Commerce*, 98th Cong., 2d Sess., attach. D (1984) (Statement of Joel R. Alper, President, COMSAT World Systems Division).

113 "Comsat reply to Orion", File No. CSS-83-002-P, as cited in Schwartz, *supra*, note 38, at 222 under fn 222.

114 *Ibid.*

115 *Ibid.*

116 Examples are Orion and Cygnus.

examine technical compatibility of the proposed system with the INTELSAT system as required by Article XIV(e) of the INTELSAT Agreement. The debates led to the attempts to clarify the distinction between "public telecommunications services" and "specialized services."

The Department of State Legal Advisor asserted that both the Orion and ISI proposals fell outside the definition of specialized services, since their proposals did not contemplate truly private, non-commercial services and the "specialized services" in the INTELSAT Agreements were not intended to include the types of systems proposed by Orion and ISI.[117] INTELSAT also argued that the phrase "international public telecommunications services" expressly contemplated the offerings of Orion and Cygnus.[118] In addition, Comsat pointed that the past coordinations of domestic private facilities as public telecommunications under Article XIV (c) indicated that such services were not specialized services.[119]

Some applicants also argued that their system would not cause significant economic harm to INTELSAT because they would divert only a small portion of INTELSAT's traffic.[120] ISI estimated that it would divert just over three percent of INTELSAT's traffic during a five to seven year period. The RCA and PanAmSat argued that limited transponder capacity would constitute a lesser threat to INTELSAT than

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117 The White Paper, *supra*, note 64.

118 See discussions on the Scope of "Public Telecommunications Services" in Chapter I.

119 As cited in *Schwartz, supra*, note 38 at 223.

120 Examples are ISI, RCA Americom and PanAmSat. See *ibid.* at 226-227.

mounting full-scale separate systems. All three applicants asserted that untapped markets or unmet demand would provide the traffic to support their systems. They predicted that by offering less expensive and more flexible services they would promote an expanded demand and, therefore, spare INTELSAT from incurring significant economic harm. In addition, they argued that the continuance of the international communications satellite market growth, particularly in the United States, would provide enough traffic for both a separate system and INTELSAT.

COMSAT contended that the capacity of the proposed system and its planned routing, not its targetted markets, were the telling indicators of economic harm.[121] According to COMSAT, the proposed systems could carry much of INTELSAT's present transatlantic traffic. Comsat also challenged the untapped market theory by asking for examples of untapped market class. According to INTELSAT, it performed extensive research into the needs of its users an s unaware of any unmet demand. With respect to market growth, COMSAT denied that it would exceed the traffic diverted by the proposed, alternative system. Both COMSAT and INTELSAT argued that the applicants' proposals must be considered in their cumulative effect on INTELSAT. They contended that the United States' approval of separate intercontinental systems would signal other countries to establish separate systems, resulting in a greater impact on INTELSAT.[122]

The debates also have raised discussions on the issue of competition. The

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121 *Ibid.* at 227-8.

122 *Ibid.* at 230.

applicants argued that INTELSAT is an economically mature corporation, which can withstand the introduction of competition.[123] On the other hand, INTELSAT rejected that it has monopoly over international telecommunications satellite services, asserting that since it was established, it continues to have serious competition from submarine cables that likely will increase with the introduction of fiber optic cable systems.[124] Additionally, the Interputnik system, established under the aegis of the Soviet Union, provides another source of competition.[125]

INTELSAT contended that competition would disadvantage the INTELSAT system, which must operate under two basic constraints. First, there is the need to provide global services (global interconnectivity).[126] In contrast, separate systems would be free to choose only the most profitable routes. INTELSAT pointed to its mandate to provide world-wide telecommunications services on a discriminatory basis as a ground for a broad interpretation of its primary responsibility. Consequently, all traffic demands servicable by INTELSAT must be routed through its system in order to ensure economy of scale, the benefits of which are applied to the thin routes of developing countries.[127]

Second, legal restraint exists preventing INTELSAT from adjusting its rates to

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123 ISI argued that since INTELSAT has succeeded, it is less vulnerable to economic harm from competition in those markets outside its present traffic base. See ISI application, *supra*, note 46, at 55-56

124 Richard R. Colino, "The Possible Introduction of Separate Satellite Systems. International Satellite Communications at the Crossroad" (1985) 24 *Columbia Journal of Transnational Law* 13 at 16.

125 *Ibid.*

126 *Ibid* at 21.

127 *Ibid.*

meet the competitive threats and, consequently, from effectively engaging in competition absent some modification of the Agreement.[128] The basis for this view is the second sentence of Article V(d), which provides that:

> The rates of space segment utilization charge for each type of utilization shall be the same for all applicants for space segment capacity for that type of utilization.

This provision requires that the same rates apply to the same type of utilization (average rates), and that they will be the same for all users of that type of utilization.[129] INTELSAT has flexibility to establish new services, but once the charges for a new service are established, they must be made available to all users of that service at the same charge.[130] Therefore, INTELSAT concluded that the operator of private systems would not face these legal limitations and would be free to raise or lower the rates on any geographic route as required by competitive circumstances.[131]

It is important to note that, concerning the pricing policy, the Parties of Cameroon and Tanzania proposed amendments to Article V(d) of the Agreement in order to protect INTELSAT by providing it with authority for pricing flexibility necessary to meet competition from separate international systems.[132] At its Tenth

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128 *INTELSAT Study on the Legal Restraints Imposed upon Itself by Its Signatory*, as printed in *supra*, note 40, at 176.

129 *Ibid.*

130 *Ibid.*

131 *Ibid.*

132 INTELSAT Assembly of Parties, *Record of the Decisions of the Tenth Meeting*, INTELSAT Doc. no. AP-10-3E, October 11, 1985. It is interesting that the Foreign Relations Authorizations Act also deals with this issue. Section 146 (c)(3) states :

Meeting, the Assembly decided to consider the proposed amendment at its next meeting.[133] However, the Eleventh (Extraordinary) Meeting of the Assembly postponed consideration of the issue until the Twelfth Meeting. Although the Twelfth Meeting of the Assembly also postponed further consideration of the issue, the Assembly took note of the actions taken by the Board in testing the flexibility inherent in Article V(d).[134] The Assembly also cited the Meeting of Signatories' request to the Board to "continue to use the flexibility of Article V(d) by establishing market-responsive tariffs for services which are subject to competition...."[135] No amendment of Article V(d) was made by the Assembly. Instead, INTELSAT chose to use the flexibility inherent in Article V(d) in order to compete in the market.

A number of resolutions were adopted by INTELSAT organs expressing the members' concern and urging for concrete actions. In April 1983 at INTELSAT's Meeting of Signatories, the Signatories expressed their concern in a resolution that the proposal for separate international systems challenges the underlying purposes of INTELSAT, and that the establishment of one or more competitive satellite systems diverting international transoceanic or other heavy route traffic from the INTELSAT

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(3) ..., the United States shall support an appropriate modification to article V(d) of the INTELSAT Agreement ....

Supra, note 74.

133 *Ibid.*

134 *Report of the Board of Governors to the Twelfth Assembly of Parties on Article V(d) of the INTELSAT Agreement*, INTELSAT Doc. no. AP-12-32E BA/10/87, September 16, 1987, at 1.

135 *Ibid.* at 2.

system would have a fundamental impact on the viability of a single, global, commercial telecommunications satellite system; and also would entail serious financial consequences for all INTELSAT users.[136] The Assembly of Parties Meeting in October 1983 adopted a decision that, *inter alia*, urged "all parties to ensure that their commitments to the INTELSAT system set forth in the INTELSAT Agreements continue to be fulfilled and that the objectives of INTELSAT continue to be achieved." The Meeting's decision also reaffirmed "the importance that all Parties refrain from actions that would imperil the viability of the single global system."[137] Further, in April 1984, the Meeting of Signatories decided to "urge all Signatories to refrain from entering into any arrangements which may lead to the establishment and subsequent use of the types of the systems ... to carry traffic to or from their respective countries."[138]

The above-mentioned decisions and resolutions were reaffirmed in two subsequent Meetings of the Assembly of Parties.[139] In its Ninth Meeting, the Assembly urged all Parties to express any concerns on this matter, either directly,

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136 INTELSAT Meeting of Signatories, *Record of the Thirteenth Meeting*, INTELSAT Doc. no. MS-13-3, April 18-21, 1983, as printed in appendix to *supra*, note 124, at 29.

137 INTELSAT Assembly of Parties, *Record of Decisions of the Eight Meeting*, INTELSAT Doc. no. AP-8-3E, October 3-6, 1986, as printed in *ibid.* at 33.

138 INTELSAT Meeting of Signatories, *Record of Decisions of the Fourteenth Meeting*, INTELSAT Doc. no. MS-14-3E, April 9-12, 1984, as printed in appendix to *ibid.* at 31.

139 INTELSAT Assembly of Parties, *Record of Decisions of the Ninth (Extraordinary) Meeting*, INTELSAT Doc no. AP-9-3E # 14, January 29-31, 1985; INTELSAT Assembly of Parties, *Record of Decisions of the Tenth Meeting*, INTELSAT Doc. no. AP-10-3E # 32(c), October 11, 1985. Both documents are printed in appendix to *ibid.* at 33-35.

through their Signatories, or both, to the U.S. Government.[140] Noting that separate satellite systems have received preliminary authorization from only one of the INTELSAT Parties, in the Tenth Meeting, the Assembly asserted that in the absence "of corresponding authorization from one or more other INTELSAT parties, as well as operating agreements with Signatories or other telecommunications organizations, the proposed separate systems cannot become operational nor be submitted for consultation under Article XIV(d) of the Agreement and action by the Assembly".[141]

After 1985, the INTELSAT position was tempered. As discussed in Chapter II, above, a series of modifications to the application of Article XIV Consultation procedures were adopted without formally amending the Article. A number of consultations were successfully conducted, which also involved separate private systems. All these actions could be possible because of the changes in INTELSAT policy. As will be discussed in Chapter IV, during the last five years INTELSAT has been moving toward a competitive strategy.

2. The Challenge from Fiber Optic Cable Systems

In addition to satellites, international public services are also provided through submarine cable systems. These systems are quite extensive throughout in the world, and

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[140] *Ibid.* at 34. The Assembly also urged the Parties to undertake an overall review of the functioning of the Organization and requested that the Board of Governors give priority to the examination of the guidelines and procedures for the consideration of applications under Article XIV(d) of the INTELSAT Agreement, and to submit to the Assembly any Board recommendations on this matter.

[141] *Ibid.* at 35.

are owned by international carriers, such as AT&T, the IRCs, and foreign entities.[142] With the creation of fiber optic cable,[143] plans have been developed to expand the coverage area and increase the capacities of cable systems.

Several U.S. carriers have developed their own transoceanic fiber optic networks, which will serve the same routes as those of the satellite systems. In December 1988, AT&T and a consortium of 29 other countries completed the Transatlantic 8 (TAT-8) project, which will provide 44,000 simultaneous voice circuits. This project provides sub-oceanic communications between the U.S., the U.K., and France. The TAT-9 project, which will deliver an additional 80,000 voice circuits, is expected to be completed this year and will be connected to fiber optics in the Mediteranian. The other project, Transatlantic PTAT-1, will have a capacity at least the same as TAT-9. The Haw-4/TPC-3, which has the same capacity as TAT-8, will provide service to Japan. The private North Pacific Cable is scheduled for completion in 1991 between the United States and Japan, with a spur to Alaska The Transpacific cables will be connected with other fiber links to serve Korea, Hongkong, Taiwan, the Philippines, and Guam.[144] Other proposed fiber optic cables offer far more capacity for a lower unit cost.[145]

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[142] See *supra*, note 63, at 185, footnote no. 7.

[143] The term "fiber optics" is defined as "a branch of communications technology in which information is transmitted as light pulses along specially constructed fibers". The fibers are made of a central core bounded by a sheath of material with a much lower refractive index. Light signals applied at one end of the fiber, are conducted along the core because the light is reflected from the outer sheath. John Graham, *Dictionary of Telecommunications* (Great Britain: Penguin Books, 1983) at 69.

[144] Johnson, *supra*, note 33, at. 2.

[145] See Lee McKnight, "The Deregulation of International Satellite Communications : US Policy and the INTELSAT Response" (1985) 3 *Space Communication and Broadcasting* 39 at 58-59.

Submarine Lightware Cable Co. has proposed a Transatlantic Video (TAV-1) cable that would have a capacity of 6.7 gigabits per second at a cost of $ 450 million. TAV-1's unit costs would be 15 % of TAT-8's unit costs, and significantly below INTELSAT VI's unit costs.[146]

The advent of fiber optic cable will pose a significant challenge to INTELSAT's continued dominance in international telecommunications. Unlike private satellite systems, no consultation process with INTELSAT is required for fiber optic cable systems. Fiber optic cables offer certain economic and technical advantages when compared to satellite communications, i.e., it provides greater bandwidth, immunity from electronic interference, greater speed (no a quarter-second delay as in the case of satellite communications), and lower cost for point-to-point voice communications.[147]

It is often argued that cables and satellites are complementary.[148] There is doubt that this argument can be maintained for all situations. A paper of the Rand Corporation states that the arguments can be supported for routes where cable circuits are needed on one segment and satellite circuits are needed on another to provide end-to-end service.[149] It is also true that diversity and balance in routing and use of transmissions media are needed to ensure reliable service.[150] But in the case where

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[146] *Ibid.*

[147] *Ibid.*

[148] In its new strategic plan, INTELSAT recognizes this "complementary relations". See Chapter IV Section 1.

[149] Johnson, *supra*, note 33, at 2.

[150] *Ibid.*

fiber optic circuits can provide end-to-end services, as expected in the Atlantic and Pacific's fiber optic plan, it is doubted that the "complementary" theory can be maintained. Instead, carriers will have freedom and flexibility to choose between cable and satellite circuits in meeting their requirements.[151]

Another reason for doubting the "complementary nature" of satellites and cables is the fact that the owners of fiber optic cable are also the biggest users of satellite services. The owners and operators of fiber-optic cables are major long-distance carriers. AT&T, for example, is the biggest user of INTELSAT services in the United States. With relaxation of FCC "balanced loading" requirements, it may not be difficult for AT&T to divert its services from INTELSAT system to its own fiber-optic system. In this regard, the Legal Advisor of INTELSAT, David Leive, has expressed his serious concern .[152]

> ... [C]are must be taken to ensure that the global telecommunications network established by INTELSAT is not fatally harmed in the process. It would be disastrous to depart from balanced satellite-cable loading policies without simultaneously adopting measures to negate the artificial incentives that encourage carriers to allocate international traffic to undersea cables instead of satellites. The resulting imbalance can only stifle economic efficiency by favouring international cables, public and private, at the expense of satellites.

Fiber optic systems may also cause excess capacity, once they become operationally available. It is estimated that 650,000 voice-grade circuits will become

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151 *Ibid.*

152 Another problem arises from the fact that whereas for cable systems US international carriers may obtain ownership and direct access, with respect to the INTELSAT system only COMSAT has acquired ownership interest and direct access. See Leive, *supra*, note 75, at 319.

available between the U.S. and Western Europe by 1995, while projected demand is estimated to be only 82,000 circuits.[153] If this prediction becomes a reality, the situation may not be favorable for INTELSAT.

The probable impact of fiber-optics in the future is summarized by Lee McKnight:[154]

> By the mid-1990's, advances in fiber optic technology may
> (1) undermine the economic rationale for INTELSAT's concentration on high-volume routes;
> (2) threaten the economic viability of alternative international satellite systems intending to compete on these routes;
> (3) slow the growth in demand for radio frequency spectrum and orbital slots.

However, before fiber optic cable systems become operational, there will be an opportunity for INTELSAT. The restoration of cable has benefitted INTELSAT as traffic from cable systems are diverted to its system.[155]

3. Technical Constraints : Spectrum and Orbit Resources

For several decades, the issue of spectrum and orbit resources has been discussed intensively in international fora, particularly at the ITU. The main concern is the scarcity of the resources and the unequal use of the resources.[156] As a result of continuous

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153 "International Communications Update", a study performed by the Yankee Group for the Office of Technology Assessment, March 1988, at 38-44, as cited in *supra*, note 3, at 255.

154 *supra*, note 145 at 59.

155 See Chapter IV Section 1 a.

156 The scarcity of orbital positions has raised serious problems in the fierce competition of the U.S. for geostationary orbital positions desirable for domestic satellite services. See Ram S. Jakhu, *The Legal Regime of the Geostationary Orbit* (Doctorate Thesis: Institute of Air and Space Law, McGill University,

pressure from developing countries, and particularly equatorial countries, attention has been given to find the way of regulating the use of the geostationary satellite orbit.

Traditionally, the geostationary orbit is used on the basis of the "first come first served" principle. During the last few decades discussions were held within the International Telecommunication Organization (ITU) to introduce the "planning system" as a way to assure the equitable use of the orbit.

Although not a member of the ITU, INTELSAT has an observer status in the ITU conferences.[157] The INTELSAT position toward geostationary orbit is guided by its policy to assure the availability of the resources for its satellites, in operation or under planning. To assure that the future of its system will obtain the necessary spectrum and orbital resources, INTELSAT has registered a number of positions which became possible under the first come first served principle.[158] This practice, in turn, has raised criticism.[159]

On the other hand, as the owner and operator of satellite systems, INTELSAT is very much concerned with the introduction of new regulatory regime for the use of geostationary satellite orbits. It raised concern that the planning system is in conflict with

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1983) at 42-54 (unpublished).

157 Throughout the Space WARCs, INTELSAT provided formal input to ITU, and attended the conference as an observer. In practice, it "wielded a considerable strength through its developing country members." Milton Smith, *International Regulation of Satellite Communication* (Boston: Martinus Nijhoff, 1990) at 30. For the meaning of WARCS, see footnote 161 below.

158 Jakhu noted that, as of May 4, 1982, 113 positions in the geostationary orbit have been taken up by the developed countries, 47 by INTELSAT, and only 16 by the developing countries. *Supra*, note 156 at 33.

159 Jakhu named this practice as "abuse in the form of excessive recording of orbital positions and radio frequencies". *Ibid* at 299.

the fact that a large part of the international telecommunication requirements of ITU members are provided by INTELSAT.[160]

In the 1985/1988 WARC, planning principles for multiadministration systems were discussed and, subsequently, adopted.[161] Examples of these systems are INTELSAT, INMARSAT, and EUTELSAT.[162] These provisions resulted from a compromise over a Swiss proposal with the suppport of some 30 delegations.[163] These delegations wanted a special recognition of common user-type organizations, such as INTELSAT, that are essential to small countries with no other means of access to communication satellite service, in the planning process with respect to present and future requirements for geostationary orbital positions and radio frequencies necessary to provide international service. In addition, they proposed that the spectrum-orbit resources necessary for multiadministration organizations to provide domestic services to be

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160 David M. Leive, "INTELSAT in A Changing Telecommunications Environment" (1984) 25 *Jurimetrics Journal* 82 at 91.

161 WARCs stands for World Administrative Radio Conferences. These conferences are held to consider specific telecommunications matters dealing with radiocommunications. The Space WARC 1985/1988 consisted of two sessions. The First Session was held between August 8 and September 15, 1985, in Geneva, and was attended by representatives from 112 nations. The Second Session was held in Geneva between August 29 and October 6, 1988, and attended by representatives from 105 administrations and 14 organizations. For discussions of the issues in both sessions, see *supra*, note 157, at 87-104 and 117-156.

162 The Report to the Second Session contains no definition of "multiadministration systems." A broad interpretation of this term may include a common user system owned by one nation and used by others, such as the PALAPA system. However, INTELSAT defines it to include only systems that are "owned and operated by global or regional organizations whose member states cooperatively share in telecommunications facilities and in joint decision-making". Ram S. Jakhu, "A Legal Analysis of the 1985 ITU Space Conference Report" (1986) 29 *Colloquium on the Law of Outer Space* 103 at 107. See also *ibid.*, at 93.

163 Rita L. White and Harold M. White, *The Law and Regulation of International Space Communication* (London: Artech House, 1988) at 216.

treated equally with the requirements of administration planning to operate their own domestic systems.[164]

The United States felt that the above proposal afforded preferential treatment to multiadministration systems. Besides, some members of the U.S. delegation to WARC-ORB-85 were also concerned that the treatment of multiadministration satellite systems was intended to block the U.S. private, separate satellite systems.[165] Accordingly, the U.S. sought for a compromise which eventually led to the addition of the phrase "without affecting the rights of administrations with respect to national systems" into the planning principle provisions for multiadministration systems.[166]

Recently, INTELSAT raised concern over the TONGASAT claim to numerous orbital slots in the Pacific Ocean Region.[167] During 1988 and 1989, the Administration of Tonga, on behalf of TONGASAT, submitted to the IFRB for advance publication sixteen (16) C-band networks, to be located between 105.5 and 189 E in the Pacific Ocean Region. Besides, it also submitted ten additional networks to be located in the same region. In a letter to the ITU Secretary General, the Director General of INTELSAT, after hearing and reading from a series of public statements and press releases issued by TONGASAT, states that "the mass filings with the IFRB are primarily

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[164] Donna A. Demac, et.al., *Access to Orbit : After the 1985 ITU Space WARC* (London: International Institute of Communications, 1988) at 8, as cited in *ibid.* at 216.

[165] *Ibid* at 217.

[166] Although the term "national system" is not defined, the United States and the others repeatedly stated that they used the term "national systems" to include all systems that a nation might choose to establish As cited in *ibid*

[167] Tongasat is established in and sponsored by the Kingdom of Tonga.

for the purpose of gaining control over an excessive number of orbital slots which could then be speculated in or sold for financial gain".[168] Further, the INTELSAT Director General asserts that "Tongasat's attempts to convert the ITU registration process into an opportunity for financial speculation in the geostationary orbit constitute an abuse of the ITU Radio Regulations and undermine the intended purpose of such regulations."[169] Accordingly, in a separate letter, INTELSAT requested the IFRB not to accept or recognize the Tongasat filings.[170] The Director General believes that the IFRB has adequate authority under the Radio Regulations to refuse to recognize the Tongasat filings.[171]

In a letter of July 18, 1990, to the Chairman and Members of the IFRB, the INTELSAT Director General reaffirmed that "the attempt by Tongasat is contrary to the spirit of Article 29 of the ITU Constitution (Nice, 1989) and constitutes an abuse of the ITU Radio Regulations (RR)".[172] He also stated that "Tongasat's misuse of the publication and registration procedures of the RR leads to the subversion of the

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[168] *Letter from INTELSAT Director General to ITU Secretary General*, no date, as printed in INTELSAT Doc. no. BG-86-70E W/9/90, Attachment no. 1, at 1.

[169] *Ibid.* at 1-2.

[170] *Letter from INTELSAT Director General to the Chairman and Members of the IFRB*, June 12, 1990, as printed in INTELSAT Doc. BG-86-70E W/9/90, Attachment no 2, at 3

[171] *Ibid.* at 6.

[172] Letter from INTELSAT Director General to the Chairman and Members of the IFRB, ITU, dated July 18, 1990, as printed in INTELSAT Doc. no BG-86-70E W/9/90, Attachment no. 3. Letters were also sent to the Kingdom of Tonga In a letter of July 5, 1990, after repeating the alleged abuse of the ITU Regulations, INTELSAT Director General asserted that "the actions of Tongasat, if allowed to be unchallenged, could establish a precedent that would seriously jeopardize the ability of all administrations to gain access to the gestationary orbit on an equal and equitable basis, and make technical coordination and efficient use of the frequency spectrum extraordinary difficult"

spirit and intent of Article 33 of the ITU Convention (Nairobi, 1982), RR 339 and the underlying principles of Resolutions 2 and 4 of WARC-79."[173]

In its response, the Kingdom of Tonga rejected INTELSAT's accusation of the abuse of the ITU Radio Regulation and that the actions of Tongasat could establish a precedent.[174] Instead, it asserted that Tonga operates in conformity with the Radio Regulations. Further, it stated that Tonga's offer of temporary use of its orbital positions was meant as a friendly gesture and that TONGASAT fully intends to establish an Asia-Pacific regional satellite telecommunications system.

The legality of TONGASAT registration, however, is beyond the scope of this thesis.[175] It is sufficient to note that the increasing scarcity of spectrum and orbit resources has raised serious problems for INTELSAT. In this regard, it is interesting to see how INTELSAT, in order to preserve its monopoly, has acted against the practice similar to what INTELSAT itself had also done before.

Another recent development concers the use of low Earth orbits (LEO) for satellite telecommunications. During the last 18 months, a number of satellite operators

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173 *Ibid.*

174 Letter from Mr. Sione Kite, Acting Chief Secretary & Acting Secretary to Cabinet Office of the Prime Minister of the Kingdom of Tonga, to the INTELSAT Director General, dated July 10, 1990, as printed in Attachment no. 4 to BG-86-70E W/9/90. In the letter, Tonga complained why INTELSAT did not object to the plans of ASIASAT and "lash out" at the Papua New Guinea, series of USASAT, registrations of orbital positions. *Ibid.*

175 It is doubtful, however, that IFRB, based on its power, will reject the Tongasat application for registration on the basis of Tongasat's "financial ability". On November 30, 1990, the IFRB offered Tonga to pick six of the sixteen sites it had claimed. *New York Times*, December 1, 1990. In June 1991 IFRB approved the application for six sites. See Jonathan Ezor, "Costs Overhead: Tonga's Acquisition of Sixteen Geostationary Orbital Sites and the Implications for U.S. Space Policy" (student paper at the Third Annual Symposium on the Law & Outer Space, Georgetown University Law Center, Washington, DC, September 7, 1991)(unpublished).

have applied for a license to operate LEO satellites (LEOSATs).[176] LEOSATs, which consist of small, light, but powerful commercial satellites, will operate at below the geostationary orbit.[177] There are two groups of LEOSAT applicants. One group of satellites will operate below 1 GHz.[178] The other group is the Radiodetermination Satellite Service (RDSS) spectrum LEOSAT applicants.[179] While the FCC already has given decision on some applications from the first group, no rule making has been made concerning the applications from the second group.

Despite their benefits, LEOSATs will be facing a major problem of obtaining interference-free access to the most suitable radio frequencies.[180] In this regard, LEOSATs operators must follow the coordination process under the INTELSAT Agreements.[181] In order to protect the INTELSAT system from interference, INTELSAT may require LEOSAT operators to make technical adjustments of their systems. Regardless of the possible interference problems, it is interesting to note that

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[176] See Stefan M. Lopatkiewicz, "FCC Non-Fixed-Service Satellite Regulatory Developments 1990-91" (paper presented at the Third Annual Symposium on the Law & Outer Space, Georgetown University Law Center, Washington DC, September 6, 1991) at 1.

[177] These satellites are being developed as an alternative to geostationary satellites. See Ram S. Jakhu, "Some Legal Aspects of Commercialization of Telecommunications Satellites" (1991) (unpublished paper) at 3.

[178] Proposals came from the following companies : Orbital Communications Corp., Starsys, Inc., Volunteers in Technical Assistance, Inc., and LEOSAT Corporation. For a description of these proposals, see *supra*, note 176.

[179] The applicants are Motorola Satellite Communications (Iridium System), Ellipsat Corporation, TRW "Odyssey" System, Loral Cellular Systems Corp, and Constellation Communications (Aries System). *Supra*, notes 176 and 177.

[180] *Ibid.*, note 177, at 7.

[181] Furthermore, LEOSATs operators also must follow coordination under Article 8 of the INMARSAT Convention and Article XVI of the EUTELSAT Convention. See *ibid.* at 9.

INTELSAT recently gave significant attention to the use of low-earth orbit.[182] At present, INTELSAT is studying the use of inter-satellite links for satellites in low earth orbit, or even for connecting LEOSATs to geostationary satellites. It is not clear at the moment whether INTELSAT will launch its own LEOSATs, or envisage cooperation with private LEOSAT operators.

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182 See John D. Hampton, "INTELSAT Adapting to Change" (INTELSAT, Washington, D.C., February 15 1991) (unpublished paper) at 4.

CHAPTER IV

THE FUTURE OF INTER-SYSTEM COORDINATION

1. INTELSAT STRATEGY FOR A COMPETITIVE ENVIRONMENT

In 1990, INTELSAT celebrated its 25th anniversary. During 25 years of its operation, INTELSAT has achieved significant development. From only eleven members, when it was established in 1964, the membership has grown to 121. Its services also have continued to grow. Almost 180 countries, territories, and dependencies now access the INTELSAT system via more than 2,200 separate communications pathways for international telephone, television, facsimile, and data communications.[1] The INTELSAT system carries 113,639 full-time channels and over 100 full-time leases for television, domestic and specialized business applications, submarine fiber optic and analog cable restoration, capacity for the International Maritime Satellite Organization (INMARSAT), and capacity for United Nations peace-keeping operations.[2]

As discussed in previous chapters, INTELSAT at present is not the only satellite operator in the world. There are many other domestic, regional and international satellites operated by public or private entities in competition with INTELSAT services.

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[1] *INTELSAT Report*, 1989/1990, at 5.

[2] *Ibid.* at 5-6.

Deregulation, privatization and competition in many countries have dramatically changed the positions of the INTELSAT Signatories.[3] In addition, challenge also comes from fiber optic cable systems. All of these changing circumstances have forced INTELSAT to review its own policy.

During the last five years, INTELSAT has been moving from a protectionist policy towards pro-competition. The replacement of INTELSAT's former Director General, Richard R. Colino, with Dean Burch, former FCC Chairman, spurred the changes in INTELSAT. Differing from the policy under Colino's leadership, INTELSAT is now ready to devise a strategy encountering the increasing threat of separate satellite and fibre optic cable systems.

In 1988, INTELSAT started to develop a strategic plan by asking its members to give opinions on the future environment, their needs from INTELSAT, INTELSAT's strengths, weaknesses, or limitations, the strategic objectives INTELSAT should set, and the methods to achieve those objectives.[4] A year later, in April 1989, the Signatories approved a new strategic plan that was designed to bring the INTELSAT system into the twenty-first century. The plan reflected INTELSAT's confidence in its readiness to meet the critical needs of its customers.[5] Former INTELSAT Director General, Dean

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[3] D. M. Leive, "Flexibility of the INTELSAT Agreements" (September 1988) 4 *INTELSAT News* at 2.

[4] Dean Burch, "INTELSAT's Strategic Plan: A Blueprint for Action Through the 21st Century" (June 1989) 5 *INTELSAT News* 1 at 4.

[5] INTELSAT, Release 89-13, "Statement by INTELSAT Director General Dean Burch on the INTELSAT Strategic Plan" (April 25, 1989) at 1-2.

Burch, stated as follows :[6]

> ... INTELSAT offers a resource that is even more essential now to worldwide communications and commerce than it has ever before been. The system's global interconnectivity cannot be replicated and its high standards of quality, reliability and security must be sustained as the infrastructure for the world's telecommunications. The plan, therefore builds on these and other strengths of INTELSAT so that the customers of the future will find us not only useful, but also the most attractive market option.

In summary, the Strategic Plan contains nine strategic objectives, as follows :[7]

1. Retain and attract thick route traffic; enhance coexistence with fiber optic cables and strengthen competitiveness with separate satellite systems;
2. Enhance, strengthen, and extend the interconnectivity of the INTELSAT system;
3. Develop and upgrade INTELSAT's services offerings to changing customer needs;
4. Adopt pricing concepts, service terms, and financial arrangements that enhance members' abilities to use INTELSAT effectively within their markets;
5. Ensure the availability of adequate capacity and improve forecasting methods;
6. Enhance service quality, security, and reliability;
7. Pursue technical and operational means to enhance the value of the INTELSAT system to members;
8. Strengthen member relations; assist members in developing services and revenues using INTELSAT capacity;
9. Adapt the organization and management to support the objectives of the strategic plan, and to function effectively in the changing telecommunications environment.

The implementation of this plan will include a wide array of strategies, such as various pricing incentives, enhancement of system quality, greater service flexibility and

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[6] *Ibid.*

[7] *Supra*, note 4 at 5-7.

ease of access, improvements in market forecasting, use of the most advanced technologies and efficiency techniques, more responsive and aggressive service offerings, increasing the system's interconnectivity, and balancing the use of competitive measures with the special and different requirements of developing and industrialized countries. Despite the actions included in the strategic plan, it is stated that no amendement of the INTELSAT Agreements is required.[8]

Since the last few years INTELSAT has been implemeting its new strategic policy. The Set forth, below, is a summary of actions taken in some main issues.

a. Capacity

INTELSAT's first satellite, INTELSAT I, more commonly known as as "Early Bird", was launched from Cape Kennedy on April 6, 1965 by a Thrust-Augmented Delta Rocket.[9] The satellite was designed initially to operate for 18 months, but it was still functioning 10 years after launch.[10] With useful capacity of only 240 simultaneous telephone circuits, the satellite also was used to restore service during a transatlantic submarine cable outage. When it was launched, INTELSAT had only eleven members.

Within 26 years after the launching of the first satellite, INTELSAT has progressed to a system of fifteen satellites, including the first of the INTELSAT VI

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[8] *Ibid.* at 4.

[9] For a story of Early Bird Satellite, see Simon B. Bennett, "We Have Liftoff - A Personal Reminiscence of Early Bird" (1990) 6 *INTELSAT News* 4 at 4-5.

[10] In 1984, this satellite was reactivated. *Ibid.* at 5.

satellites.[11] Each of the INTELSAT VI Satellites has capacity up to 120,000 simultaneous telephone circuits.[12] In addition to being the world's largest communications satellite, INTELSAT VI is the first commercial satellite to provide switched time division multiple access, a new technology that enables flexible interconnection of beams according to traffic requirements.[13] The first satellite from the next generation, INTELSAT VII, was launched on August 14, 1991.[14] INTELSAT also has planned to launch INTELSAT VIII.

INTELSAT VI and VII satellites are high-powered and capable of working with very small earth stations.[15] e more flexible, portable and inexpensive ground technology will serve the growing business applications and the specialized requirements of INTELSAT's smaller members.

It is interesting to note that in June 1989, INTELSAT purchased a Ku-band satellite from General Electric Astro-Space Division. This satellite, INTELSAT K, will

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[11] At the end of 1991, INTELSAT will have 16 satellites in operation. These satellites will consist of 10 INTELSAT Vs, five INTELSAT VIs and one INTELSAT-K. See Leslie Taylor, "INTELSAT and the 90's" (January 1990) *Satellite Communications* 25 at 26.

[12] Dean Burch, "An Era of Progress" (1990) 6 *INTELSAT News* 2; Arthur Hill and Steve Shaw, "INTELSAT Faces the 21st Century" (1989) *Interavia Space Markets* 274 at 275. On October 27, 1989, INTELSAT launched the first of the INTELSAT VI series for the provision of services in the Atlantic Ocean region. The second satellite (INTELSAT VI F-2) was launched on October 27, 1989, and the third on July 23, 1990.

[13] *Supra*, note 11 at 25.

[14] INTELSAT contracted, in October 1988, with Space Systems/Loral (then known as Ford Aerospace Company) for five INTELSAT VII spacecraft. Meanwhile, in December 1990, INTELSAT also purchased two modified satellites, to be called INTELSAT VII-As, from the same company. These satellites will replace INTELSAT V-As ending their operational lives in 1995-6 and will provide Ku-band enhancement in the Atlantic, Indian and Pacific Ocean regions. "Board of Governors Meeting" (1991) 7 *INTELSAT News* 7 at 7-8.

[15] See Arthur Hill and Steve Shaw, *supra*, note 12, at 276.

start to provide services in the last quarter of 1991, primarily for the global consortium's video and business services, in the Atlantic Ocean region.[16] In October 1989, INTELSAT purchased the rights to lease 24 unused C-Band transponders on two in-orbit Tracking and Data Relay Satellites. In addition, INTELSAT also is considering acquiring the ARABSAT-1C spacecraft for services in the Indian Ocean region.[17]

Lack of capacity is the main argument used to justify INTELSAT's purchase of additional satellites and lease of transponders. INTELSAT has explained that it needs the capacity as a stopgap measure to meet circuit demands that have exceeded the Organization's current capacity.[18] However, there is no satisfactory explanation why INTELSAT could have this problem. One possible argument is that lack of capacity was caused by the launching failure of INTELSAT VI F-3.[19]

Another argument may be that the market demand, as a result of the development in international business, has increased beyond INTELSAT's capacity. The increase also is caused by the implementation of fiber optic submarine cables. During the last three years, INTELSAT has restored almost one million channel days of

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[16] *Ibid.*

[17] See *supra*, note 11, at 25.

[18] *Ibid.*

[19] Lauched on March 14, 1990, this satellite failed to reach the proper orbit as the result of a serious injection problem resulting from a mis-wiring of the upper stage of a Titan launcher. A shuttle is planned to replace the upper stage propulsion system so the satellite can get to geostationary orbit. See Walter Morgan, "INTELSAT VI" (April 1991) *Satellite Communications* 25 at 26.

submarine cable outage.[20]

On the other hand, it is often argued that the demand estimates by INTELSAT, submitted at the Global Traffic Meeting, are very conservative.[21] For instance, the Director General's forecast in 1987 predicted 56,428 bearer half circuits in use by the end of 1989.[22] By year-end 1988, 107,538 bearer half circuits were in use.[23] The question is whether market demand will continue to increase. If so, the second question is whether the increase in market demand is proportionate to the increase in telecommunications capacity resulting from the INTELSAT's expansion, the establishment of new separate systems and the operations of fiber optic cable systems. If the answers to these questions are positive, it can be said that INTELSAT has assumed a mistaken prediction that the market was saturated.[24] No accurate data, however, is available to answer these questions. With the lack of data, it is difficult to give an answer whether the lack of capacity will continue in the future.

Besides the above-mentioned efforts, INTELSAT has been trying to introduce new technology, such as Time Multiplexed Television (TMTV) that could substantially

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[20] Robert Kinzie, "INTELSAT's Strategic Plan" (1989) 5 *INTELSAT News* 2. During 1990, INTELSAT restored TAT-8 four times, PTAT twice and HAW4/TPC3 once. These failures accounted for almost one million digital bearer channel days of restoration. INTELSAT also restored almost 350,000 channel days of analog cables. See John D. Hampton, "INTELSAT Adapting to Change", Remarks (INTELSAT, Washington DC, February 15, 1991) at 3 (unpublished).

[21] Actually, former INTELSAT Director General, Dean Burch, recognized this. See The Director General, "INTELSAT Strategic Planning Activities" (Presentation to the 21st Meeting of Signatories, Kobe, Japan, April 15-18, 1991) at 2.

[22] *Supra*, note 11 at 26.

[23] *Ibid.*

[24] The argument that "the market is already saturated" was often used by INTELSAT in preventing the launching of private systems.

increase capacity for television. In addition, it seeks to expand available bandwidth for use with the fixed satellite service. INTELSAT also is investigating collocated spacecraft as an option to alleviate orbit congestion and extend frequency reuse. Furthermore, it is considering the use of optical intersatellite links, as well optical links between the satellite and the ground.[25]

b. New Services

INTELSAT has introduced various new services. The main areas are digital services, international occasional use video service, domestic sales and leases.[26] Recently, INTELSAT offered Intermediate Data Rate (IDR) service, which has been described as being the digital equivalent of analog frequency-division multiplexing/frequency modulation service, and was designed to be compatible with public switched telephony networks and future ISDN systems, as well as private networks.[27] Since IDR service was introduced in 1984, usage had grown to the equivalent of 1738 64kbit/sec channels by end-1988, an increase of 250 % over 1987.

Business network services represent another fast-growing portion of INTELSAT's services. INTELSAT Business Services (IBS) traffic on INTELSAT has increased by

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[25] John D. Hampton, *supra*, note 20 at 4; Also John D. Hampton, "The Future of INTELSAT" (Address to the Society of Satellite Professionals, April 4, 1991) at 4 (unpublished).

[26] *Supra*, note 11 at 26.

[27] Arthur Hill and Steve Shaw, *supra*, note 12, at 276.

more than six times since 1986.[28] INTELSAT has made improvements to business service offerings, including system availability and back-up capacity.[29]

For domestic services, INTELSAT introduced a new service in 1989 offering leases of 36 MHz transponder capacity for regional use and a plan for Signatories to convert from domestic to regional leases.[30] INTELSAT also introduced transponders for unrestricted use (TUU).[31] INTELSAT news indicated in 1989 that since the inception of the Planned Domestic Service (PDS) program in December 1985, 19 countries have purchased a total of 57 transponders.[32]

c. Pricing Policy

INTELSAT has consistently reduced the rates it charges the Signatories as technical efficiency has improved, traffic increased, and operational overhead was reduced.[33] INTELSAT figures show that over the past quarter-century, the cost of its

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[28] IBS is "a totally integrated digital satellite service, designed to accomodate the full range of private network business requirements. IBS offers worldwide coverage and connectivity for a broad range of international and domestic, point-to-point and point-to-multipoint applications". "IBS - An INTELSAT Service"(Washington, DC. INTELSAT, no date).

[29] *Supra*, note 4 at 6.

[30] *Supra*, note 11 at 26.

[31] TUUs allow the use of INTELSAT capacity for a mix of domestic and international traffic with the goal of enhancing telecommunications interconnectivity between neighbouring countries with geographic, cultural and economic ties. *Supra*, note 1 at 7.

[32] "INTELSAT Board of Governors' Actions" (1989) 5 *INTELSAT News* 3.

[33] Arthur Hill and Steve Shaw, *supra*, note 12 at 276. Despite the lower payments they made to INTELSAT, only few signatories have lowered their own tariffs. Even, many countries have increased their rates. *Ibid* at 278.

satellite capacity to its users has continuously declined.[34]

Under the new strategic plan, INTELSAT offers lower rates for both large and small users.[35] These acts are designed to provide incentives for increased use of INTELSAT and for long-term commitments to INTELSAT.[36] They also are designed to stimulate conversion to digital service and to enable members to obtain the benefits of their efficient use through resource-based pricing. Finally, INTELSAT plans to remove restrictions on usage of capacity so as to provide the members more flexibility in providing services to their customers.[37]

As an example, in December 1990, the Board of Governors approved an occasional-use tariff reduction of almost 20 percent, effective from July 1, 1991.[38] Other occasional-use action included a new, multiple destination policy replacing charges per downlink with a per-minute space segment charge; reduced tariff for "off-peak" usage; and a simplified tariff and ordering procedure for multiple downlink participants.[39]

Related to pricing policy is INTELSAT's effort to obtain commitments from its signatories in the form of long-term agreements. Long term discounts, "sign-up bonuses" involving free use of a space segment for up to six months, and similar enticements

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[34] *Ibid.* at 276.

[35] Robert Kinzie, *supra*, note 20.

[36] *Ibid.*

[37] *Ibid.*

[38] "INTELSAT Announces Tariff Revisions" (February 1991) *Satellite Communications* 10.

[39] *Ibid.* See also *supra*, note 14.

await signatories who attract customers to INTELSAT for five years or longer. This effort has been successful. More than 80 percent of international public switched telephony traffic currently carried on the INTELSAT system is under long term contract in which more than 75 percent is for 15-year contracts.[40]

How INTELSAT can compete with others and survive is far from certain. It is true that, at present, traffic growth over the system has exceeded expectations. INTELSAT's rates of growth for the international video market grew by 50 per cent between 1987 and 1988. Occasional use television also expanded significantly in the same period. However, despite these increases, for the first time in its history, its revenue has declined. INTELSAT's revenue in 1989 was U.S. $ 614 million,[41] whereas in 1990 its revenue was US $ 498.6 million.[42] It seems that this decline has been caused mainly by INTELSAT's pricing policy offering free use incentives for long term sign-ups and tariff reductions.[43] Under the present changing circumstances, it may be difficult to predict the future of INTELSAT. It is still too early to evaluate the result of INTELSAT's new strategic plan. The alternative systems, i.e. private and fiber optic cable systems, either just commenced or will start their operations. Therefore, their long-term effect on INTELSAT is still uncertain. Former INTELSAT Director General,

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[40] David T. Tudge, Keynote Address (Global Satellite Communications Symposium, Nanjing, People's China, May 28-31, 1991) at 5 (unpublished). COMSAT's role has been instrumental in persuading its major international customers to commit to long-term contracts (up to 15 years) for use of international space segment. See Arthur Hill and Steve Shaw, *supra*, note 12, at 280.

[41] *Supra*, note 1 at 10.

[42] "The Future of INTELSAT", *supra*, note 25, at 2.

[43] See *Ibid.*

Dean Burch, voiced his doubt:[44]

> We cannot predict where INTELSAT and satellite communications will be 25 years from now, what new technologies may be introduced, or how the nations of the world will be affected by the changes yet to come.

However, It appears that it will not be easy for INTELSAT to implement its strategic plan. Despite its moderate policy toward private systems, INTELSAT and its Signatories continue to be under attack. To its critics, INTELSAT has outlived its usefulness. Many even believe the 25 year-old organization should be scrapped.[45] Its Signatories, they charge, have abused their position, setting predatory, anti-competitive fees and conspiring to prevent competitors from sharing the fruits of their closely-held international satellite communications monopoly.[46]

INTELSAT's new policy also may cause conflicts of interest among its own signatories. For instance, the new satellite system, INTELSAT-K, can cover Western Europe and the U.S. East Coast. It also will pose direct competition to similar services offered by PanAmsat, and the system also worries some European signatories since it may affect the EUTELSAT system.[47]

Furthermore, by entering competition, INTELSAT may lose the protection it has

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[44] Dean Burch, *supra*, note 12.

[45] Arthur Hill and Steve Shaw, *supra*, note 12, at 274.

[46] *Ibid.*

[47] Arthur Hill and Steve Shaw, "Orion Stalks Big Game" (1989) 5 *Interavia Space Markets* 283 at 284.

enjoyed since its establishment.[48] PanAmSat has accused INTELSAT with setting predatory pricing in implementing its Strategic Plan.[49] As noted in Chapter III, PanAmSat has also filed a petition for the lifting of the PSN restriction. Although a decision is still pending, it appears that the support for this petition from the U.S. industry has increased significantly.[50] If this restriction is eliminated by the FCC, a question arises whether INTELSAT can continue to apply the PSN concept, including the "threshold" adopted by the Assembly of Parties.

It seems now that INTELSAT is more than ready to enter the market and compete with other systems. The remaining question, then, is whether INTELSAT will succeed in this competitive environment, particularly if the protective policy in the INTELSAT Agreements is dismantled. The additional question arises whether INTELSAT can continue to serve developing countries under the same pricing policy

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[48] This argument is supported by the statement of Mr. Robert Kinzie, INTELSAT Director of Strategic Planning:

> In the competitive telecommunications environment, market positions that INTELSAT and its members enjoys in the past may be eroded.

As cited in *supra*, note 11, at 26. Correspondingly, it may be difficult for INTELSAT to use the argument that it cannot compete because of average rate policy.

[49] See Pan American Satellite, *Petition for Rule Making*, Before the Federal Communications Commission, July 1990 at 15-17; Alpha Lyracom (PanAmerican Satellite) and Alpha Lyracom Space Communications, Inc. v. Communications Satellite Corporation, *Complaint for the Violation of the Antitrust Laws of the United States*, U.S. District Court for the Southern District of New York, July 25, 1989, at 22.

[50] See "Momentum Builds to Explode International Satellite Service Ban" (1991) 10 *FCC Week* 1. As noted in Chapter II, INTELSAT also adopted the "PSN" concept. No other country follows this concept which was introduced by the U.S. In its report to the Assembly of Parties last year, the Board of Governors recognized that the "distinction between switched and non-switched services may need to be reviewed in the coming years, as increased digitization blurs or eliminates traditional service distinctions". *The Report of the Board of Governors to the Sixteenth Assembly of Parties on Its Review of Article XIV(d) Non-Technical Consultation Procedures*, INTELSAT Doc. no. AP-16-20E L/10/90, September 26, 1990, at 21.

that exists today. If the Parties are still committed to their purposes in creating INTELSAT, they may have to find ways for INTELSAT to continue serving these purposes, while, at the same time, maintaining the Organization's survival.[51]

2. The Future of Inter-System Coordination Procedures

Previous discussions in Chapter III reveal the changes in the application of Consultation Procedures under Article XIV of the INTELSAT Agreements. Although formally no amendment of Article XIV has been made, the changes constitute *de facto* amendment. As discussed in Chapter II, the changes have, in practice, eliminated consultation requirements for certain uses of separate systems and have shifted the decision-making power in the consultation process from the Assembly of Parties to the Board of Governors and the Director General.

The importance of past changes cannot be ignored since this process is still on-going. As former INTELSAT Director General Dean Burch has written, "these changes are likely to represent only the first step in the continuing evolution of the application of Article XIV(d)".[52] In the same article, he even used the expression "sweeping

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[51] For a comprehensive review of the future of INTELSAT's organization, see Marcellus S. Snow, *International Commercial Satellite Communications* (Germany: Nomos Verlagsgesellschaft, Baden-Baden, 1987), at 143-147. Rodriguez discussed the idea to replace the organization with a more limited international organization whose primary mission is to oversee and maintain satellite interconnectivity between regional satellite systems. See Raul R. Rodriguez, "International telecommunications and Satellite Systems - INTELSAT and Separate Systems : Cold War Revisited" (1987) *15 International Business Lawyer* 321 at 323.

[52] Dean Burch, "The Evaluation of Article XIV(d)" (1991) 7 *INTELSAT News* 2.

changes" in the Article XIV(d) coordination process to describe the past changes.[53] The remaining question is what the next step will be.

It may not be easy to predict the next change INTELSAT will make concerning coordination process. From the discussions during the Sixteenth Assembly of Parties, opinions were divided concerning the changes that have been made. Some parties feel the changes adopted do not go far enough on the side of simplifying the coordination procedures, while others feel that the changes go too far.[54] However, one should not ignore that the coordination process is only a part of INTELSAT regulatory mechanisms.

The future of Article XIV coordination procedures cannot be separated from the future of INTELSAT, in general, as an organization. On the one hand, the changes in coordination procedures may affect INTELSAT's financial arrangements.[55] This issue, however, is still being debated in INTELSAT. The Signatory of Canada requested, *inter alia*, analysis of the "commercial impact of potential revenue diversion by competing systems on the financing, share, and investment determination processes, and on INTELSAT's ability to maintain the current equitability among its Signatories".[56] The Signatory also raised the issue of "the effect upon other Signatories of a possible

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[53] *Ibid.* at 8.

[54] *Ibid.* at 2.

[55] *Effects of Separate Systems on INTELSAT Financing Arrangements*, INTELSAT Doc. no. BG-85-32E B/6/90, June 7, 1990, at 1.

[56] *Study of the Implications of Competitive Systems for INTELSAT*, INTELSAT Doc. no. BG-83-58E W/12/89, November 20, 1989, at 1-7.

substantial drop in the investment shares of certain Signatories as a result of the member countries' participation in separate systems." In its response, the United States asserted:[57]

> First, the changes in investment share may arise for a number of reasons independent of separate system competition and therefore the occurence of such changes may not, in themselves, be indicative of deleterious effect of such competition. Second, there is no basis to expect that the existence of separate system will, in fact, result in a substantial drop in investment share of the participating Signatories such that the investment process inequitably altered.

Despite this response, the INTELSAT Director General stated that the impact of the changes on INTELSAT's present financial arrangements needs to be assessed.[58]

On the other hand, the INTELSAT policy decision to face competition will strongly affect the changes to be taken with respect to consultation procedures. Under the present changes included in INTELSAT strategic plan, and with a belief that this process will continue, it is unavoidable that the provisions for the consultation process will be "swept-out."[59]

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[57] *Ibid.*

[58] *Article XIV(d) Review*, INTELSAT Doc. no. BG-84-59E W/3/90, March 1, 1990, at 4.

[59] Strong support for further change to INTELSAT Coordination Procedures was provided by Bruce Crockett, U.S. Signatory and Chair of INTELSAT's Board of Governors. In his statement, he emphasized his opinions that

1. INTELSAT cannot and does not determine the telecommunications policies of its member countries;
2. INTELSAT procedures do not create or maintain monopolies, neither can changing INTELSAT's procedures change a country's telecommunications policies. A country's telecommunications policies are determined by its national government;
3. Each country's commitment to INTELSAT consists of a commitment to sharing a scarce resource, to a shared investment in facilities, and to shared usage of the global system in order to communicate worldwide.

Two scenarios can be described for the possible changes.[60] Since the main issue is "significant harm," the first scenario is the elimination of this test from requirements under Article XIV(d). This elimination can be done by amending the Article XIV (d) procedure. However, it presently appears that amendment of INTELSAT Agreements is not desirable, perhaps because this process is time-consuming.[61] INTELSAT itself often argues that the Agreements provide flexibility permitting the Organization to adapt

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"Statement Issued by Bruce Crockett, U.S. Signatory and Chair of INTELSAT's Board of Governors", at 1-2, as printed in appendix to "COMSAT Corporation Advocates Further Change to INTELSAT Coordination Procedures" (November 9, 1990) *COMSAT News and Information* No. 90-18.

[60] The change in the position of INTELSAT is indicated In the Sixteenth Meeting of the Assembly, as the Board opined that :

> ... Article XIV d) remains a useful tool to INTELSAT, and the consultation process provides INTELSAT with information useful in the future planning of the INTELSAT global system. But it was not intended to, and should not, be used to impose barriers to entry by other satellite systems. In fact, the net effect of the proposed changes to the economic harm methodologies is to make the analysis more realistic, and without any assumption, explicit or implicit, that INTELSAT is "entitled" to a certain proportion of international traffic.

Supra, note 50 at 12-13.

[61] The Assembly of Parties shall take decisions on each proposed amendment. Since the consultation process is a substantive matter, decisions shall be taken by an affirmative vote cast by at least two-thirds of the Parties whose representatives are present and voting. To enter into force, the amendment which has been approved by the Assembly of Parties requires approval, acceptance or ratification from either

> (i) two-thirds of the States which were Parties as of the date upon which the amendment was approved by the Assembly of Parties, provided that such two-third include Parties which then held, or whose designated Signatories then held, at least two-thirds of the total investment shares; or
> (ii) a number of States equal to or exceeding eighty-five per cent of the total number of States which were Parties as of the date upon which the amendment was approved by the Assembly of Parties, regardless of the amount of investment shares such Parties or their designated Signatories then held.

The amendment will enter into force ninety days after the Depository notifies all the Parties that it has received the required acceptances, approvals or ratifications.

INTELSAT Agreement, Articles XVII and VII(f).

to changes.[62] The second scenario is to leave Article XIV(d) unamended, but the methodology or guidelines for its application will be changed.[63] The Assembly may do so by continuing the present changes, for instance, by extending the power of the Board of Governors and the Director General to include other uses of satellites not covered under the past changes, or by tempering any rigid application of the guidelines.

Another possibility is by introducing a new approach for the application of Article XIV(d). The Signatory and Party of Australia have submitted a proposal for the development of a new approach to Article XIV(d).[64] Under this approach, instead of relying on the consultation process as a way to prevent the establishment or use of separate systems,[65] INTELSAT would focus on developing a strategic plan as its response to a competitive environment and ensuring sufficient space segment capacity for INTELSAT to compete effectively in the marketplace.[66]

According to Australia, "economic regulation by INTELSAT is neither desirable nor necessary in order for INTELSAT to meet its objectives". In its opinion, INTELSAT has to move away from the determination of economic harm by calculating traffic

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62 See *supra*, note 3.

63 In his contribution, the INTELSAT's Director General proposed that "greater flexibility is necessary and appropriate in the application of the Article XIV(d) economic harm assessment", without having to amend Article XIV(d). *Supra*, note 56 at 2.

64 *Review of Article XIV(d) of the INTELSAT Agreement*, INTELSAT Doc. no BG-84-67E W/3/90, March 6, 1990, at 1-6.

65 Australia criticised that "in reality the consultation process may at best only serve to slow down the introduction of separate systems but, as any decision of the Assembly is not binding, this provision cannot prevent the establishment or use of separate systems". *Ibid.* at 2.

66 *Ibid.* at 1.

diversion in a static field context. Instead, the use of planning mechanisms was suggested to ensure the avoidance of significant economic harm from separate satellite systems.[67] For that purpose, assessment of the impact of the separate system upon market demand will be included in consulting Signatory's input to the Global Traffic Meeting (GTM). Under this process, technical consultation will remain unchanged.[68]

As an international organization, INTELSAT is dependent on its members' willingness. As stated in the Australian proposal, "the future viability and effectiveness of INTELSAT is based upon its members' continuing support."[69] Correspondingly, to implement the Australian proposal, INTELSAT members are required to consider[70]

- the responsibility of members to provide information on the effects of separate systems on demand for INTELSAT capacity;
- the role of the Board of Governors in ensuring that INTELSAT invests in sufficient capacity to compete efficiently in the market; and
- the role of INTELSAT, Signatories, and users in the effective marketing of INTELSAT capacity.

The Board of Governors and a working committee of Parties will examine all aspects related to the application of Article XIV(d) in the longer term, including review of the application of the revised consultation process, and then report the result to the 1992 Meeting of Assembly of Parties.[71] The Meeting in 1992 also will review the

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[67] Therefore, Article XIV(d) will be used not as regulatory protection, but for strategic planning purposes. *Ibid.* at 3.

[68] In its second proposal, Australia described the detail of the proposed process. See *Review of Article XIV(d)*, INTELSAT Doc. no. BG-85-59E B/6/90, May 21, 1990, at 3-4.

[69] *Ibid* at 3.

[70] *Ibid.*

[71] *Ibid.*

Australian proposal. If this proposal is accepted, it will mark a significant change from the past and present guidelines and practices of the consultation process under Article XIV of the INTELSAT Agreements. As noted in an INTELSAT Report of 1990, the effect of the Australian proposal is that "INTELSAT would no longer make an economic harm assessment under Article XIV(d), but would concentrate on a commercial response."[72] As noted in the conclusion of the Australian proposal, this new approach "would eliminate the need for consideration of other factors such as demand stimulation, public vs. private services, expanded use, thresholds, cumulative economic harm."[73] Since regulatory protection will be eliminated from INTELSAT practices, INTELSAT may focus its activities on the implementation of its operational function.[74] Therefore, if this proposal is adopted, there is no doubt that radical change will occur in the INTELSAT Organization.

In light of the possible changes to be taken by INTELSAT, attention should be given to the original purposes of INTELSAT Agreements. The Agreements contain provisions necessary to guide the conduct of the Organization and its members in an orderly manner. Therefore, flexibility of the Agreements cannot always be used as an

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[72] *Supra*, note 50 at 36. Concerning technical requirements, the Board of Governors viewed that this procedure should continue to apply even if under revised guidelines for non-technical assessment a given system may be deemed to have caused no significant economic harm. However, the Board asserted that this test will "not become a de facto substitute for the economic assessment test and that it not be perceived as a barrier to the implementation of separate systems." *Supra*, note 50 at 15. It is still to be seen how INTELSAT will apply this test in light of increasing technical constraints facing INTELSAT, as already discussed in Chapter III.

[73] *Ibid.* at 4.

[74] As noted in Chapter III, the Green Paper of the European Community suggested separation between regulatory and operational function in the provision of telecommunications services.

argument for giving different interpretation or application of the Agreements as it may cause the Organization and its members to lose the main reason for having the Agreements, i.e., legal certainty and assurance of their rights and obligations. Accordingly, if the changes to be made concerning the application of Article XIV go too far, eventually the INTELSAT Agreements must be amended in order not to lose their legal significance. It will be the task of its members to decide so.

CONCLUSION

Despite the compromise incorporated in the INTELSAT Agreements, different political and economic interests among its members continuously affect the Organization. Instead of legal reasoning, political and economic considerations play a dominant role in the decision-making process.

Throughout the history of INTELSAT, its underlying concept, i.e. INTELSAT as a single global system, has been significantly eroded. The erosion is best described in the controversy concerning inter-system coordination procedures. The lack of clarity in Article XIV of the INTELSAT Definitive Agreement opens possibilities for different interpretations. The problem is triggered by the lack of power on the part of INTELSAT organs to make a legally binding decision. As a result, not only does INTELSAT have difficulty in finding an appropriate formula for the application of Article XIV, particularly paragraph (d), but the Organization, in practice, also has failed to make an objective assessment of significant harm caused by separate systems. The fact that no negative finding is made confirms the opinion that, in practice, these coordination procedures have only resulted in slowing down the establishment of separate systems.

The changing telecommunications environment has brought INTELSAT into a new era since it has to face competition. In fact, it has decided to enter competition as

confirmed in its new strategic plan. This policy change eventually will affect the realization of the objectives of the Organization as set forth in the Agreement. Now, perhaps, is the best time for its members to make an overall review of the Organization. Furthermore, since inter-system coordination procedures are inseparable from the objectives of the Organization, these procedures also may face considerable changes.

The developments in INTELSAT indicate that changes in methodology for the application of inter-system coordination will continue. The next changes will, of course, depend on the extent competition will affect INTELSAT's operation and the way INTELSAT members look to the future of the Organization. It will be wise for its members not to forget the experience of INTELSAT, including the problems caused by ambiguity in the Agreements, and, based on it, try to find a better way for the future operation of the Organization.

APPENDIX

Table 1

NUMBER OF NETWORKS CONSULTED UNDER ARTICLE XIV

YEAR	XIV(c)	XIV(d)	XIV(e)	TOTAL/YEAR
1973	7	0	0	7
1974	0	2	2	4
1975	2	0	0	2
1976	3	3	1	7
1977	4	0	0	4
1978	7	2	1	10
1979	3	4	0	7
1980	17	6	7	30
1981	3	0	0	3
1982	7	31	8	46
1983	24	1	0	25
1984	34	0	0	34
1985	8	87	5	100
1986	5	0	0	5
1987	17	76	22	115
1988	22	15	8	45
1989	65	179	15	259
1990*	15	54	6	75
TOTAL	243	460	75	778

* Includes all networks consulted up to BG-86; does not include networks to be consulted during AP-16.

Source : *The Report of the Board of Governors to the Sixteenth Assembly of Parties on Its Review of Article XIV(d) non-Technical Consultation Procedures*, INTELSAT Doc. no. AP-16-20E L/10/90, September 16, 1990, at 47.

BIBLIOGRAPHY

BOOKS

Bruce, Robert R., *From Telecommunications to Electronic Services: A Global Spectrum of Definitions, Boundary Lines, and Structures* (Great Britain: Butterworths, 1986).

Bruce, Robert R., et.al., *The Telecom Mosaic: Assembling the New International Structure* (Great Britain: Butterworths, 1988).

Colino, Richard R., *The INTELSAT Definitive Arrangements : Ushering in A New Era in Satellite Telecommunications* (Switzerland: EBU,1973).

Commission of the European Communities, *Towards A Dynamic European Economy - Green Paper on the Development of the Common Market for Telecommunications Services and Equipment*, COM(87) 290 final (Brussel,: European Communities, 1987).

Galloway, Jonathan F., *The Politics and Technology of Satellite Communications* (Toronto: Lexington, 1972)

Graham, John, *Dictionary of Telecommunications* (Great Britain: Penguin Books, 1983).

International Communication and Information Policy (Hearings before the Subcommittee on Arms Control, Oceans, International Operations and Environment of the Committee on Foreign Relations United States Senate, October 19 and 31, 1983, S. HRG. 98-483).

International Satellite and Cable Television (Resource Manual for the Fourth Biennial Communications Law Symposium, UCLA, Los Angeles, March 15-16, 1985).

Jakhu, Ram S., *The Legal Regime of the Geostationary Orbit* (Doctorate thesis, Institute of Air and Space Law, McGill University, 1983) (unpublished).

Jasentuliyana, Nandasiri and Lee, Roy S.K., *Manual on Space Law*, (New York: Oceana Publications, 1979) (v.1).

Johnson, Leland L., *The Future of INTELSAT in A Competitive Environment* (The Rand Corporation, December 1988).

Kildow, Judith T., *INTELSAT-Policy-Maker's Dilemma* (Toronto: Lexington Books, 1973).

Lyall, Francis, *Law and Space Telecommunications* (England: Darmouth,1989).

Matte, Nicolas M., *Aerospace Law - Telecommunications Satellite* (Toronto: Butterworths,1982).

Mestmacker, Ernst Joachim, *The Law and Economics of Transborder Telecommunications* (Germany: Nomos Verlagsgesellschaft, Baden-Baden, 1987).

McWhinney, Edward, ed., *The International Law of Communications* (Leyden: AW Sijthoff, 1971).

Pelton, Joseph N. and Howkins, John, *Satellites International* (United Kingdom: MacMillan Press, 1987).

Public Papers of the President: John F. Kennedy (Washington, DC: US Government Printing Office, 1961).

Reynolds, GH, and Merges, Robert P, *Outer Space - Problems of Law and Policy* (San Francesco: Westview Press, 1989).

Smith, Milton L., *International Regulation of Satellite Communications* (Boston. Martinus Nijhoff, 1990)

Snow, Marcellus S., *International Commercial Satellite Communications* (New York: Praeger Publishers, 1976).

Snow, Marcellus, *The INTELSAT* (Germany: Nomos Verlagsgesellschaft, Baden-Baden, 1987)

Wellenius B., et.al., eds., *Restructuring and Managing the Telecommunications Sector* (Washington, DC: The World Bank, 1989).

White, Rita Lauria and White, Harold M., *The Law and Regulation of International Space Communications* (London: Artech House, 1988).

PAPERS AND ARTICLES

Bennett, Simon B., "We Have Liftoff-A Personal Reminiscence of Early Bird" (1990) 6 *INTELSAT News* 4.

Blumel, Robert, "Bucking the (INTELSAT) System" (December 1990) *Satellite Communications* 20.

"Board of Governors Meeting" (1991) 7 *INTELSAT News* 7.

Burch, Dean, "INTELSAT's Strategic Plan: A Blueprint for Action Through the 21st Century" (June 1989) 5 *INTELSAT News* 1.

Burch, Dean, "An Era of Progress" (1990) 6 *INTELSAT News* 2.

Burch, Dean, "The Evaluation of Article XIV (d)" (1991) 7 *INTELSAT News* 2.

Caplan, Lawrence A, "The Case for and Against Private International Communications Satellite Systems" (1986) 26 *Jurimetrics Journal* 180.

Colino, Richard R., "International Cooperation between Communications Satellite Systems: An Overview of Current Practices and Future Prospects" (1977) 5 *Journal of Space Law* 65.

Colino, Richard R., "A Chronicle of Policy and Procedure : the Formulation of the Reagan Administration Policy on International Satellite Telecommunications" (1985) 13 *Journal of Space Law* 103.

Colino, Richard R., "INTELSAT : Facing the Challenge of Tomorrow" (1985) 39 *Journal of International Affairs* 129.

Colino, Richard R., "The Possible Introduction of Separate Satellite Systems : International Satellite Communications on the Crossroad" (1985) 24 *Columbia Journal of Transnational Law* 13.

"COMSAT Corporation Advocates Further Change to INTELSAT Coordination Procedures" (November 9, 1990) *COMSAT News and Information*, No. 90-18.

Courteix, Simone, "EUTELSAT: Europe's Satellite Telecommunications" (1984) *Michigan Yearbook of International Legal Studies* 85.

De Cerf, Paul Liffens, "International Satellite Telecommunications and EEC Law" (1987) 29 *Colloquium on the Law of Outer Space* 341.

Donahue, Thomas E., "A Discussion of the Positions Taken by the United States in the Negotiations of Definitive Arrangements for INTELSAT" (1969) 12 *Colloquium on the Law of Outer Space* 30.

Ezor, Jonathan, "Costs Overhead: Tonga's Acquisition of Sixteen Geostationary Orbit Sites and the Implications for U.S. Space Policy" (student paper presented at the Third Annual Symposium on the Law & Outer Space, Georgetown University Law Center, Washington, DC, September 6, 1991)(unpublished).

Fawcett, JES, "INTELSAT", in Berhardt (ed.), *Encyclopedia of Public International Law,* Instalment 5 (Amsterdam, Elsevier) at 37-41.

Frieden, Robert M.,"International Telecommunications and the Federal Communications Commission" (1983) 21 *Columbia Journal of Transnational Law* 423.

Gershon, Richard A., "Global Cooperation in an Era of Deregulation" (1990) 14 *Telecommunication Policy* 249.

Glassie, Jefferson C., "Analysis of the Legal Authority for Establishment of Private International Communications Satellite Systems" (1984) 18 *George Washington Journal of International Law and Economics* 355.

Godwin, Kimberly A., "The Proposed Orion and ISI Transatlantic Satellite Systems : A Challenge to the Status Quo" (1984) 24 *Jurimetrics Journal* 297.

Hampton, John D., "INTELSAT Adapting to Change", Remarks (INTELSAT, Washington DC, February 15, 1991) (unpublished).

Hampton, John D., "The Future of INTELSAT" (Address to the Society of Satellite Professionals, April 4, 1991) (unpublished).

Hill, Arthur and Shaw, Steve, "INTELSAT Faces the 21st Century" (1989) 5 *Interavia Space Markets* 274.

Hill, Arthur and Shaw, Steve, "Orion Stalks Big Game" (1989) 5 *Interavia Space Markets* 283.

"IBS - An INTELSAT Service" (Washington, DC: INTELSAT, without year).

"INTELSAT Announces Tariff Revisions" (February 1991) *Satellite Communications* 10.

"INTELSAT Board of Governors' Actions" (1989) 5 *INTELSAT News* 3.

INTELSAT Director General, "INTELSAT Strategic Planning Activities" (Presentation to the 21st Meeting of Signatories, Kobe, Japan, 15-18 April 1991).

Jakhu, Ram S., "A Legal Analysis of the 1985 ITU Space Conference Report" (1986) 29 *Colloquium on the Law of Outer Space* 103.

Jakhu, Ram S., "Some Legal Aspects of Commercialization of Telecommunications Satellites" (1991) (unpublished).

Kinzie, Robert, "INTELSAT's Strategic Plan" (1989) 5 *INTELSAT News* 2.

Leister, Valnora, "Competitive Ventures in International Telecommunications" (1987) 29 *Colloquium on the Law of Outer Space* 339.

Leive, David M., "The INTELSAT Arrangements", in Matte, NM and DeSaussure (eds.), *Legal Implications of Remote Sensing from Outer Space* (Leyden: AW Sijthoff, 1976) at 167-172.

Leive, David M., "Some Conflicting Trends in Satellite Telecommunications" (1984) *Michigan Yearbook of International Legal Studies* 73.

Leive, David M., "INTELSAT in A Changing Telecommunications Environment" (1984) 25 *Jurimetrics Journal* 82.

Leive, David M., "International Telecommunication and Satellite Systems II : INTELSAT" (1987) 15 *International Business Lawyer* 316.

Leive, David M., "Flexibility of the INTELSAT Agreements" (September 1988) 4 *INTELSAT News* 2.

Leive, David M., "INTELSAT in A Changing Global Environment" (1988) 30 *Colloquium on the Law of Outer Space* 361.

Lopatkiewicz, "FCC Non-Fixed Service Satellite Regulatory Developments 1990-91" (paper presented at the Third Annual Symposium on the Law & Outer Space, Georgetown University Law Center, Washington, DC, September 6, 1991)(to be published in the proceeding).

Lyall, Francis, "Space Telecommunication Organization and the Developing Countries'(1989) 31 *Colloquium on the Law of Outer Space* 242.

Matte, Nicolas M. and Jakhu, Ram S., *Supplementary Opinion Regarding the Nature of Service to be Provided by the GDL Satellite System*, Montreal, Quebec, December 19, 1986 (unpublished paper).

McKnight, Lee, "The Deregulation of International Satellite Communications : US Policy and the INTELSAT Response" (1985) 3 *Space Communication and Broadcasting* 39.

Mendel, Sigrid A., "Authorization of Private International Satellite Systems in Competition with COMSAT: An Analysis of the Underlying Legal Justifications and Policy Factors" (1986) 18 *Law and Policy in International Business* 279.

"Momentum Builds to Explode International Satellite Service Ban" (1991) 10 *FCC Week* 1.

Morgan, Walter L., "Telecom-1" (May 1984) *Satellite Communications* 52.

Morgan, Walter L. "OrionSat" (October 1990) *Satellite Communications* 19.

Morgan, Walter L., "INTELSAT VI" (April 1991) *Satellite Communications* 25.

Muskie E.S. "International Telecommunications and Satellite Systems I" (1987) 15 *International Business Lawyer* 311.

Nugter, Adriana CM, and Smits, Jan M., "The Regulation of International Telecommunication Services : A New Approach" (1989) 14 *North Carolina Journal of International Law and Commercial Regulation* 191.

Potamitis, Stathis, "Competition in International Satellite Telecommunications Services" (1986) 44 *University of Toronto Faculty of Law Review* 33.

Rein, Bert W., et.al., "Implementation of A US "Free Entry" Initiative for Transatlantic Satellite Facilities - Problems, Pitfalls, and Possibilities" (1985) 18 *George Washington Journal of International Law and Economics* 459.

Rein, Bert W. and Frank, Carl L, "The Legal Commitment of the United States to the INTELSAT System" (1989) 14 *North Carolina Journal of International Law and Commerce Regulation* 219.

Robinson, Davis R., *Memorandum of Law : The Orion Satellite Corporation and International Satellite, Inc. Applications for International Satellite Communication Facilities* (November 28, 1984)(unpublished).

Rodriguez, Raul R., "INTELSAT and Separate System" (1987) 15 *International Business Lawyer* 321.

Sarreals, Cheryl L., "International Telecommunication Satellite Services : The Spirit of Cooperation Versus the Battle for Competition" (1986) 26 *Jurimetrics Journal* 267.

Schwartz, Irwin B., "Pirates or Pioneers in Orbit ? Private International Communication Satellite Systems and Article XIV (d) of INTELSAT Agreement" (1986) IX *Boston College International and Comperative Law Review* 199.

Shimman, Debbie, "Satellite Deregulation in the European Community" (November 1988) 22 *Telecommunications* 65.

Simsarian J., "Interim Arrangements for A Global Commercial Communications Satellite System" (1965) 59 *American Journal of International Law* 347.

Snow, Marcellus S., "Evaluating INTELSAT's Performance and Prospects" (February 1990) 14 *Telecommunications Policy* 15.

Stephens Guy M., "Funding Telecoms in the Developing World" (October 1990) *Satellite Communications* 14.

Stephens, Guy M., "Liberalizing Europe: Are They Doing It With Mirrors ?" (February 1991) *Satellite Communications* 14.

Stephens, Guy M., "Regional Systems, Liberalizing Top the Bill At PTC 91" (March 91) *Satellite Communications* 29.

Sugar, Eva Melissa, "The Deregulation of COMSAT : Will Competition Alone be the Answer ?" (1986) 13 *Syracuse Journal of International Law and Commerce* 185.

Taylor, Leslie, "INTELSAT and the '90's" (January 1990) *Satellite Communications* 25.

Tudge, David T., Keynote Address (Global Satellite Communications Symposium, Nanjing, People Republic of China, May 28-31, 1991) (unpublished).

TREATIES AND LEGISLATION

Communications Satellite Act of 1962, Public Law 87-264, 87th Congress, August 31, 1962

Articles of Incorporation of Communications Satellite Corporation (March 1963) 2 International Legal Material 395.

Agreement Establishing Interim Arrangements for A Global Commercial Communications Satellite System and Special Agreement, done at Washington, DC, August 20, 1964, entered into force August 20, 1964, TIAS 5646; 514 UNTS 25.

Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies, UNGA Res. 2222 (XXI), December 19, 1966; (1967) 610 UNTS 205.

Vienna Convention on the Law of Treaties, done at Vienna, May 23, 1969, entered into force January 27, 1980. (1980) Can. TS 37.

Agreements Relating to the International Telecommunications Satellite Organization "INTELSAT" (1971) 10 International Legal Material 909; 23 UST 3813; TIAS 7532.

Convention on International Liability for Damage Caused by Space Objects, UNGA Res. 2777 (XXVI), November 29, 1971; 1975 Can. TS 6.

Convention on Registration of Objects Launched into Outer Space, UNGA Res. 3235 (XXIX), November 12, 1974, 1976 Can. TS 36.

Protocol on INTELSAT Privileges, Exemptions and Immunities, (1981) UKTS 2, Cmnd 8103.

International Telecommunication Convention -- Nairobi, 1982 (Geneva: ITU, 1982).

The Convention and Operating Agreement of the European Telecommunications Satellite Organization (EUTELSAT), Paris, July 15, 1982, (1983) Misc No. 25, Cmnd. 9069.

Foreign Relations Authorization Act, Fiscal Years 1986 and 1987, Public Law no. 99-93.

CASES

Authorized Entities and Authorized Users (1966) 4 FCC 2d.

Amendment of Part 25 of the Commission's Rules and Regulations with Respect to Ownership & Operation of Initial Earth Stations in the United States for Use in Connection with the Proposed Global Commercial Satellite System (Second Report and Order) (1967) 5 FCC 2d.

Reconsiderations granted in part (1967) 6 FCC 2d.

Establishment of Domestic Communication-Satellite Facilities by Non-Governmental Entities (1970) 26 FCC 2d.

Communications Satellite Corporation (1971) 32 FCC 2d.

Second Report and Order (1972) 38 FCC 2d.

Southern Satellite Systems, Inc (1976) 62 FCC 2d.

Regulatory Policies Concerning Resale and Shared Use of Common Carrier Facilities (1976) 60 FCC 2d.; modified in Part, 62 FCC 2d.

Transborder Satellite Video Services (1981) 88 FCC 2d.

Proposed Modifications of the Commission's Authorized User Policy Concerning Access to the International Satellite Services of the Communication Satellite Corporation (1982) 90 FCC 2d.

Modification of Policy on Ownership & Operation of US Earth Stations that Operate with INTELSAT Global Communications Satellite System (Report & Order) (1984) FCC, CC Docket no. 82-450.

Establishment of Satellite Systems Providing International Communications (1985) 50 Federal Regulation.

Proposed Modification of the Commission's Authorized User Policy Concerning Access to the International Satellite Services of the Communications Satellite Corporation (Second Report and Order) (1985) 50 Federal Regulation.

Policy for Distribution of US International Carrier Circuits (1988) FCC 88-122.

Alpha Lyracom (PanAmerican Satellite) and Alpha Lyracom Space Communications, Inc. v. Communications Satellite Corporation, *Complaint for the Violation of the Antitrust Laws of the United States*, US District Court for the Southern District of New York, July 25, 1989.

Pan American Satellite, *Petition for Rule Making*, Before the Federal Communications Commission, July 1990.

INTELSAT'S DOCUMENTS ON COORDINATION PROCEDURES

Intersystem Coordination Procedures : Proposed Procedures for Implementation of Article XIV (d) Requirements Concerning Significant Economic Harm, INTELSAT Doc. no. BG-5-43A CI/10/73, October 11, 1973.

Letter of the Director General to All Parties to the Agreement and All Signatories to the Operating Agreement of INTELSAT, INTELSAT Doc. no. BG-7-38E W/1/74, February 15, 1974.

Article XIV Intersystem Coordination Procedures (Technical Compatibility), INTELSAT Doc. no. BG-7-38E W/1/74 (Rev.1), April 5, 1977.

Intersystem Coordination Procedures : Proposed Procedures for Implementation of Article XIV (d) Requirements Concerning Significant Economic Harm, INTELSAT Doc. no. BG-28-63E M/6/77, June 29,

1977.

Summary minutes : Agenda Item No. 5 : Consideration of the Consultations Conducted pursuant to Article XIV (d) of the Agreement by Parties and Signatories Who Intend to Establish, Acquire or Utilize Space Segment Facilities Separate from the INTELSAT Space Segment, INTELSAT Doc. no AP-4-4E M/4/79, April 3, 1979.

Report of the Board of Governors to the Assembly of Parties Pursuant to Article XIV (d) Concerning Coordination of the European Communications Satellite Systems, INTELSAT Doc no. AP-4-7E M/4/79, BG-37-54E, March 16, 1979.

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. no. AP-4-8E M/4/79, BG-37-53E W/3/79, March 16, 1979.

Article XIV (d) Consultation for the EUTELSAT 1-2 (SPARE) Network of the ECS System, INTELSAT Doc. no. BG-43-17E W/9/80, August 22, 1980.

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. no. AP-5-8E O/4/80, BG-41-51E W/3/80, March 14, 1980.

Article XIV (d) Consultation Concerning Potential Economic Harm to INTELSAT by Algeria's Planned Use of the INTERSPUTNIK System, INTELSAT Doc. no. BG-43-43E W/9/80, August 28, 1980.

Article XIV (d) Consultation Concerning Potential Economic Harm to INTELSAT by the PALAPA-A Satellite System, INTELSAT Doc. no. BG-43-55E W/9/80, September 4, 1980.

Consultation under Article XIV e) for the TV-SAT Broadcasting-Satellite System, INTELSAT Doc. no. BG-43-56E W/9/80, BG/T-34-15E W/9/80, September 4, 1980.

Relations between INTELSAT and Other International Organizations, INTELSAT Doc. no. BG-52-61E W/9/82, August 27, 1982.

Technical Reconsultation for the MARISAT Satellite System under Article XIV (d), INTELSAT Doc. no. BG-52-19E W/9/82, BG/T-43-10E W/8/82, August 19, 1982.

Intersystem Coordination Status Report, INTELSAT Doc. no. BG-52-14E W/9/82, August 27, 1982.

Article XIV (d) Consultation Concerning 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. no. BG-52-17E W/9/82, September 7, 1982.

Article XIV (e) Consultation for the UNISAT-1 Broadcasting Satellite Network, INTELSAT Doc. no. BG-52-21 E W/9/82(Rev. 1), September 14, 1982.

Article XIV (d) Coordination Concerning Potential Economic Harm to INTELSAT by Use of the US MARISAT System by INMARSAT, INTELSAT Doc. no. BG-52-38E W/9/82, August 20, 1982.

Article XIV (d) Consultation Concerning Potential Economic Harm to INTELSAT by the Planned European Communications Satellite System, INTELSAT Doc. no. BG-52-41E W/9/82, August 20, 1982.

Article XIV(d) Consultation Concerning Potential Economic Harm to INTELSAT by the Planned Use of the RCA SATCOM Satellite System by Bermuda, INTELSAT Doc. no. BG-52-64E W/9/82, September 2, 1982.

Report of the Board of Governors to the Seventh Assembly of Parties Pursuant to Article XIV(d) Concerning the Use of the MARECS Networks by INMARSAT, INTELSAT Doc. no. AP-7-20E W/10/82, Addendum no. 1, October 1, 1982.

Report by the Board of Governors to the Seventh Assembly of Parties Pursuant to Article XIV(d) Concerning the Use of the US Marisat System by INMARSAT, INTELSAT Doc. no. AP-7-21E W/10/82, Addendum no. 1, October 1, 1982

Report by the Board of Governors to the Seventh Assembly of Parties Pursuant to Article XIV(d) Concerning the Planned Use of the European Communications Satellite System, INTELSAT Doc. no. AP-7-24E W/10/82, Addendum no. 1, October 1982.

Technical Consultations for the Use of US and Canadian Domestic Satellite Networks under Article XIV (d), INTELSAT Doc. no. BG-52-43E W/9/82, September 14, 1982.

Guidelines and Procedures for the Consideration of Article III (b) (u) Requests, INTELSAT Doc. no. BG-52-57E W/9/82, August 26, 1982.

Article XIV (d) Consultation concerning Potential Economic Harm to INTELSAT by the Planned Use of the RCA Satcom Satellite System by Bermuda, INTELSAT Doc. no. BG-52-64E W/9/82, September 2, 1982.

Legal Opinion on the Scope of INTELSAT's "Public Telecommunications Services", INTELSAT Doc. no. BG-60-48E W/9/84, Attachment no. 1, August 10, 1984.

Legal Memorandum: Scope of the Article XIV(d) Assurance Concerning "Direct Telecommunications Links, Attachment no. 1 to INTELSAT Doc. no. BG-60-61E W/9/84, August 15, 1984.

Review of Certain Obligations of INTELSAT Members under the INTELSAT Agreements with Particular Reference to Article XIV (d), INTELSAT Doc. no. BG-60-62E W/9/84, August 15, 1984.

Report on the Study of Significant Economic Harm (Hinchman Report), INTELSAT Doc. no. BG-60-63E W/9/84, Attachment no. 1, August 15, 1984.

Findings of the Assembly of Parties with Respect to Coordination Conducted under Article XIV(d) of the INTELSAT Agreement, INTELSAT Doc. no. BG-60-69E W/9/84, Appendix A, August 22, 1984.

Policies, Criteria and Procedures for the Evaluation of Separate Systems under Article XIV (d), INTELSAT Doc. no. BG-60-69E W/9/84, August 22, 1984.

Article XIV (d) Consultation Procedure, INTELSAT Doc. no. BG-64-80E (rev 1) W/9/85, September 6, 1985.

Procedures for Non-Technical Consultation Under Article XIV(d) of the INTELSAT Agreement, INTELSAT Doc. no. BG-64-80E (Rev.1) W/9/85, Attachment no. 1, September 6, 1985.

INTELSAT Assembly of Parties, *Record of the Decisions of the Tenth Meeting*, INTELSAT Doc. no. AP-10-3E, October 11, 1985.

Report by the Board of Governors to the Eleventh Assembly of Parties Pursuant to Article XIV (d) on the PANAMSAT Satellite Network, INTELSAT Doc. no. AP-11-10E W/4/87, February 20, 1987.

Article XIV(d) Technical Consultation for the ASTRA Satellite Network, INTELSAT Doc. no. BG-73-11E W/9/87, BG/T-63-10E W/8/87, July 29, 1987.

Article XIV(d) Consultation Concerning the Use of the ASTRA (GDL-6) Satellite Network to Provide Telecommunications Services Between Luxembourg and the United Kingdom, INTELSAT Doc no. BG-73-12E W/9/87, August 27, 1987.

Article XIV(d) Consultation for the INMARSAT Second Generation Networks, INTELSAT Doc. no BG-73-14E W/9/87, August 20, 1987.

Technical Consultation for MARECS Aeronautical Services under Article XIV(d) and XIV(e), INTELSAT Doc. no. BG-73-15E (Rev. 1) W/9/87, BG/T-63-12E (Rev.1) W/8/87, August 14, 1987

Article XIV(d) Consultation Concerning the Use of the MARECS Satellite Network for the Provision of Aeronautical Services, INTELSAT Doc. no. BG-73-16E (Rev.1) W/9/87, August 24, 1987.

Article XIV(d) Consultation Concerning the Use of the INTERSPUTNIK by Syria, INTELSAT Doc. no. BG-73-33E W/9/87, August 20, 1987.

Article XIV(d) Consultation Concerning the Use of US Domestic Satellite Networks for Extension of Services to Countries in Latin America and the Caribbean, INTELSAT Doc. no. BG-73-22E W/9/87, August 28, 1987.

Article XIV(e) Consultation for the INMARSAT Second Generation Satellite Networks, INTELSAT Doc. no. BG-73-95E W/9/87, September 9, 1987.

Report by the Board of Governors to the Twelfth Assembly of Parties Pursuant to Article XIV (d) Concerning the Planned Use of US Domestic Satellite Networks to Extend Telecommunications Services between Canada and the United States, INTELSAT Doc. no. AP-12-24E BA/10/87, September 16, 1987.

Report by the Board of Governors to the Twelfth Assembly of Parties Pursuant to Article XIV (d) on the Use of the INTERSPUTNIK System by Israel, INTELSAT Doc. no. AP-12-25E BA/10/87, September 16, 1987

Report by the Board of Governors to the Twelfth Assembly of Parties on Cumulative Economic Impact on INTELSAT due to Article XIV (d) Consultation, INTELSAT Doc no. AP-12-26E BA/10/87, September 16, 1987.

Delegation of Authority by the Assembly of Parties to the Board of Governors on Certain Matters relating to Modifications of Previously Conducted Article XIV(d) Consultations, INTELSAT Doc. no. AP-12-27E BA/10/87, BG-73-97E W/9/87 (no date).

Report by the Board of Governors to the Twelfth Assembly of Parties on Issues of Specific Concern to INTELSAT in Connection with the Second Session of WARC-ORB-85/88, INTELSAT Doc. no. AP-12-30E BA/10/87, September 15, 1987.

Report by the Board of Governors on A Proposal for an Expedited Article XIV (d) Consultations Procedure in Certain Cases, INTELSAT Doc. no. AP-12-31E BA/10/87, September 16, 1987.

Report of the Board of Governors to the Twelfth Assembly of Parties on Article V (d) of the INTELSAT Agreement, INTELSAT Doc. no. AP-12-32E BA/10/87, September 16, 1987.

Report of the Board of Governors to the Twelfth Assembly of Parties on Functioning of the Organization, INTELSAT Doc. no AP-12-33E BA/10/87, September 16, 1987.

Developments in the International Telecommunications Environment and Related Activities, INTELSAT Doc. no. AP-12-34E BA/10/87, September 24, 1987.

Summary Minutes of Discussions : Article XIV Consultation by Parties and Signatories Who Intend to Establish, Acquire or Utilize Space Segment Facilities Separate from the INTELSAT Space Segment (Article XIV (d) and (e)), INTELSAT Doc. no. AP-13-4E W/10/88, October 13, 1988.

Report by the Board of Governors on Procedures for Consultation of Separate Systems under Article XIV (d) of the Agreement, INTELSAT Doc. no. AP-13-7E W/10/88, September 14, 1988.

Developments in the International Telecommunications Environment, INTELSAT Doc. no. AP-13-8E W/10/88 and BG-76 15E S/6/88, September 20, 1988.

Report by the Board of Governors to the Thirteenth Assembly of Parties Pursuant to Article XIV (d) on the BSB Broadcasting Satellite Network, INTELSAT Doc. no. AP-13-9E W/10/88, September 12, 1988.

Report by the Board of Governors to the Thirteenth Assembly of Parties Pursuant to Article XIV (d) Concerning the Incidental Reception of Television Programs Carried on the EUTELSAT I-4 Network, INTELSAT Doc no. AP-13-10E W/10/88, September 14, 1988

Report by the Board of Governors to the Thirteenth Assembly of Parties Pursuant to Article XIV (d) Concerning the Use of the PANAMSAT Satellite Network to Provide Telecommunications Services between the United States and Peru, the Dominican Republic and Costa Rica, INTELSAT Doc. no. AP-13-11E W/10/88, September 14, 1988.

Article XIV (d) Study, INTELSAT Doc. no. AP-14-7E W/7/89, May 30, 1989.

Report by the Board of Governors to the Fourteenth Assembly of Parties Pursuant to Article XIV (d) Concerning the Use of the ASTRA (GDL-6) Satellite Network by Switzerland, INTELSAT Doc. no. AP-14-8E W/7/89, June 21, 1989.

Report by the Board of Governors to the Fourteenth Assembly of Parties Pursuant to Article XIV (d) Concerning the Use of the ORION Satellite System, INTELSAT Doc. no. AP-14-9E W/7/89, June 21, 1989.

Report by the Board of Governors to the Furteenth Assembly of Parties Pursuant to Article XIV(d) Concerning the Use of the Latin Beam Transponders of the PanAmSat Satellite Network by Argentina, INTELSAT Doc. no AP-14-26E W/7/89, June 21, 1989.

Article XIV (d) Consultation of the ORION Satellite System, INTELSAT Doc. no. AP-14-28E W/7/89, July 7, 1989.

Article XIV (d) Consultation of the ORION Satellite System, INTELSAT Doc. no. AP-14-29E W/7/89, July 11, 1989.

Agenda Item no 9 (c) - Article XIV Consultation by Parties and Signatories Who Intend to Establish, Acquire

or Utilize Space Segment Facilities Separate from the INTELSAT Space Segment, INTELSAT Doc no AP-15-3E FINAL A/10/89 (no date).

Report by the Board of Governors to the Fifteenth Assembly of Parties Concerning Expedited Article XIV Procedures, INTELSAT Doc. no. AP-15-36E A/10/89, September 13, 1989

Study of the Implications of Competitive Systems for INTELSAT, INTELSAT Doc no. BG-83-58E W/12/89, November 20, 1989.

Article XIV(d) Consultation Concerning the Proposed Use of the Palapa B-2 Satellite Network by Portugal, INTELSAT Doc. no. BG-83-59E W/12/89, November 22, 1989.

Article XIV(d) Consultation Concerning the Proposed Use of the EUTELSAT I Satellite System by Morocco, INTELSAT Doc. no. BG-83-60E W/12/89, November 22, 1989.

Effects of Separate Systems on INTELSAT Financing Arrangements, INTELSAT Doc. no. BG-85-32E B/6/90, June 7, 1990.

Article XIV(d) Review, INTELSAT Doc. no. BG-84-59E W/3/90, March 1, 1990.

Review of Article XIV(d) of the INTELSAT Agreement, INTELSAT Doc. no BG-84-67E W/3/90, March 6, 1990.

Review of Article XIV(d), INTELSAT Doc. no. BG-85-59E B/6/90, May 21, 1990.

Article XIV (d) Consultation Concerning the Proposed Use of the PANAMSAT Satellite Network for Provision of Services Between the United States and Non-Member Countries in the Caribbean Region and in Latin America, INTELSAT Doc. no. BG-85-75E B/6/90, June 1, 1990

Article XIV (d) Consultation Concerning the Proposed Use of the BSB Broadcasting Satellite Network by the United Kingdom and Ireland, INTELSAT Doc. no. BG-85-77E B/6/90, June 1, 1990

Article XIV (d) Consultation Concerning the Proposed Use of the PANAMSAT Satellite Network by Uruguay, INTELSAT Doc. no. BG-86-26E W/9/90, August 1, 1990.

Article XIV (d) Technical Consultation Concerning the Proposed Use of the PANAMSAT Satellite Network by Venezuela, INTELSAT Doc. no. BG-86-27E W/9/90, BG/T-75-13E W/8/90, August 1, 1990.

Article XIV(d) Consultation Concerning the Proposed Use of the PanAmSat Satellite Network by Austria, INTELSAT Doc. no. BG-86-61E W/12/89, November 22, 1989.

Letter from INTELSAT Director General to ITU Secretary General, no date, INTELSAT Doc. no. BG-86-70E W/9/90, Attachment no. 1.

Letter from INTELSAT Director General to the Chairman and Members of the IFRB, dated June 12, 1990, INTELSAT Doc no. BG-86-70E W/9/90.

Letter from INTELSAT Director General to the Chairman and Members of the IFRB, ITU, dated July 18, 1990, INTELSAT Doc. no. BG-86-70E W/9/90, Attachment no. 3.

Letter from Mr. Sione Kite, The Kingdom of Tonga, to INTELSAT Director General, dated July 10, 1990,

INTELSAT Doc. no. BG-86-70E W/9/90, Attachment no. 4.

The Report of the Board of Governors to the Sixteenth Assembly of Parties on Its Review of Article XIV (d) non-Technical Consultation Procedures, INTELSAT Doc. no. AP-16-20E L/10/90, September 26, 1990.

OTHER REPORTS AND NEWS

INTELSAT Release September 16, 1988; December 14, 1988, July 13,1989; April 25, 1989; January 29,1990; June 15,1990, September 21,1990.

INTELSAT Report . 1987/88; 1988/89; 1989/90.

Public Notice FCC, Report No. IS-0002, March 22, 1991.

Definitive Arrangements for INTELSAT, ICSC 28-40E W/9/67, ICSC-29-9E W/11/67, October 3, 1967.

Report of the Interim Communication Satellite Committee on Definitive Agreements for An International Global Communications Satellite System, ICSC-36-58, December 13, 1968.