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AN HISTORICAL ANALYSIS OF THE-RELATIONSHIP BETWEEN, COMSAT AND, INTELSAT

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Major professor

Thomas Muth

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AN HISTORICAL ANALYSIS OF THE RELATIONSHIP BETWEEN COMSAT AND INTELSAT

Ву

Mark Shifflet

A Thesis

Submitted to
Michigan State University
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ABSTRACT

AN HISTORICAL ANALYSIS OF THE RELATIONSHIP BETWEEN COMSAT AND INTELSAT

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Mark Shifflet

The purpose of this study is to give an historical analysis of the development of the Communications Satellite Corporation (Comsat) and the International Satellite Organization (INTELSAT) and the relationship between these two entities, as a potential model for future international telecommunication systems. Comsat is unique in that it was a private corporation created by the United States' Government's Communications Satellite Act of 1962 to be the U.S. representative in INTELSAT which provides international and domestic communication satellite service to more than 100 nations. Changes in corporate behavior at Comsat followed major changes at INTELSAT and Comsat's role in the organization was diminished. This study proposes that Comsat's expansion into areas not mentioned in the Comsat Act occurred due to its inherent nature as a profit—making organization and the U.S. Government's inability to predict the rapid growth of communication satellites.

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CHAPTER I

INTRODUCTION

On August 31, 1962, the Communications Satellite Act was signed into law. With this act, the United States established a formal policy to create a global satellite communications system. Also created under this act was the Communications Satellite Corporation (Comsat) as the entity that would represent the United States in the global system.

Comsat is unique in that it is a private corporation with a definite profit motive. At the same time, it is also authorized to serve the interests of the United States as its representative in an international organization.

Soon after the Comsat Act went into effect, the global system was established (1964). This system, called INTELSAT (International Satellite Organization) proved to be very successful, growing from 19 countries in 1964 to 109 in 1983.

Likewise, Comsat has been successful. First, it was appointed Manager of INTELSAT when the organization was created. Second, it controlled over 50 percent of INTELSAT through ownership and voting power.

In 1973, changes were made at INTELSAT that reduced Comsat's control and removed the corporation as Manager. Comsat then became involved in other areas of the rapidly growing communications satellite industry which has also been successful for Comsat.

In 1979, the FCC expressed concern that Comsat's involvement in activities not related to INTELSAT might affect Comsat's ability to meet

its INTELSAT responsibilities. In 1980, the Commission proposed that Comsat be divided into two separate corporate entities, one for INTELSAT activities the other for non-INTELSAT activities. In 1983, legislation was introduced to the House of Representatives that would make such a separation and would give the U.S. Government more control over Comsat's activities as they relate to INTELSAT.

In this very brief synopsis, it can be seen that the relationship between Comsat and INTELSAT has changed considerably in approximately 20 years. The question that arises from looking at the history of this relationship is what has caused Comsat to deviate from its original purpose to the point, in the eyes of the U.S. Government, where such large changes in Comsat's corporate structure were necessary?

This thesis will focus on the development of Comsat up to the present to determine why Comsat deviated (if it did deviate) from its original purpose. This thesis will examine and document the premises that explain some of Comsat's behavior and the factors that led to this behavior.

- A. Because of its structure, Comsat will make investments outside of INTELSAT whenever an opportunity for the corporation to grow arises.

 This is due to the following factors:
 - 1. Comsat is a commercial organization that is motivated by profit;
 - 2. The Comsat Act of 1962 gave Comsat enough autonomy to enter into non-INTELSAT activities;
 - 3. Comsat had such a competitive advantage over domestic competitors that it was easy to enter other markets and be successful.

- B. The U.S. Government did not foresee and therefore did not plan for Comsat's diminishing role in INTELSAT nor its increasing involvement in non-INTELSAT activities. This is due to the following factors:
 - 1. It was the intention of the U.S. that Comsat would be in charge of the global system indefinitely.
 - 2. The U.S had a monopoly on satellite communications technology and expected to keep it.

These two premises can be studied by looking at two separate aspects of Comsat and its relationship to INTELSAT. The first premise deals with the structure of Comsat and how it affected the corporation's behavior. The second premise involves external forces and how Comsat and the U.S. reacted to them. Once these are thoroughly examined and established, then hypotheses can be made as to what caused changes in Comsat's activities.

These hypotheses will focus on the event that had the most significant effect on Comsat's relationship to INTELSAT (the role it was originally designed to perform), when the Definite Agreements for INTELSAT went into effect. The main differences between the Interim and Definite Agreements are:

- 1. Comsat lost majority ownership of INTELSAT which meant Comsat lost majority voting power as well.
- 2. Comsat was replaced as Manager of INTELSAT.

From this information, this thesis will put forth two hypotheses:

1. The loss of majority ownership in INTELSAT influenced

Comsat to seek other sources of revenue.

2. The removal of Comsat as Manager of INTELSAT has influenced Comsat to rechannel the activities it had invested in as Manager into other areas outside INTELSAT.

If this thesis can show why Comsat has behaved in a certain manner either through the way it was structured or the way it reacted to outside forces, then it can be determined if these hypotheses are consistent with the behavior outlined in the premises and are therefore correct. If this can be shown, then a valid explanation will have been presented. If this cannot be shown, then it must be said that Comsat has not deviated from its original purpose and the Definite Agreements did not have a major effect on the development of Comsat.

CHAPTER II

ESTABLISHMENT OF COMSAT

The idea of communicating by artificial satellites was introduced by Arthur C. Clarke in 1945. By placing a satellite 22,300 miles above the earth, it would take exactly 24 hours to make one orbit around the earth. The satellite would be in a "fixed" position above the equator where it would relay signals from distant points on earth.

Although the communications satellite became theoretically conceivable in 1945, the event that brought satellite technology to the forefront of the American people's attention was the launching of Sputnik I in 1957. This caught the United States by surprise and created a fear that the Soviet Union had moved far ahead of the U.S. in the developing space-race and its potential for military superiority. The U.S. Government then began investing large amounts of money into the space program in an effort to regain ground it had apparently lost to the Russians.

While a great amount of time was being given to the development of satellite technology, administrators were beginning to devote their attention to the establishment of satellite policy. One of the first statements made dealing with U.S. policy and the future of satellite communications was given by President Eisenhower who said:

This nation has traditionally followed a policy of conducting international telephone, telegraph and other communication services through private enterprise subject to governmental control, licensing and regulation...the Government should aggressively

encourage private enterprise in the establishment and operation of satellite relays for revenue. 1

Even at this early stage, it can be seen that it was the intention of the U.S. Government to follow the pattern of existing communication systems such as AT&T which is a private corporation that at this time was under heavy government regulation.

The idea of business and government working together in the development of satellite communications was put into practice in July of 1961 when an agreement was signed between AT&T and NASA for the development of the Telstar communications satellite. Under this agreement, Bell Laboratories would design and construct the satellites at its own expense while NASA would launch the satellite and provide tracking and telemetry information. After its successful mission in 1962, President Kennedy praised the agreement as "an outstanding example of the way in which government and business can cooperate in the most important field of human endeavor."

As the preceding two statements from two different administrations show, there was a belief held by the U.S. Government that America's free enterprise system was the best way to insure the fast development of a communications satellite system. There was also the constant pressure of getting a system set up as quickly as possible in order to "beat the Russians." Therefore, a decision needed to be made on the system's structure quickly and so the U.S. Government decided that a communication satellite system should be similar to communication services that

¹Department of State Bulletin, January 16, 1961, p. 77.

²NASA news release, July 8, pp. 1-3.

³White House press release, July 11, 1962.

already existed because they provided a model that had been successful up to this time.

Even though a satellite communications system would be similar to telephone and telegraph services, because of their cost effectiveness over very wide distances, satellites inherently lend themselves to international services. It then became necessary to determine the relationship of this organization with other nations who would become involved. In an effort to stimulate international interest, President Kennedy called for partial ownership by foreign entities with non-discriminatory use by all the countries of the world.⁴

As to how this organization would be established, nearly all the proposals made in the United States called for the formation of a domestic entity in the U.S. which would provide communications satellite service on an international basis. This idea was based on the large technological advantage that the U.S. had over the rest of the world in communications satellite technology including the Soviet Union. It was therefore believed necessary to have U.S. control over the system since it was able to develop the highest quality service in the shortest amount of time.

Looking at the proposals that were submitted before Congress concerning global satellite communications, three basic theories as to how the system should be established can be distinguished:

- 1. Private ownership (specifically the common carriers);
- 2. Public or Government ownership;
- 3. A combination of Private and Public ownership.

Hearings before the Committee on Interstate and Foreign Commerce, March 13-22, 1962, 87th Cong. 2d Session, pp. 616-617.

In the summer of 1961, the issue of satellite communications had become the focus of public attention that as one writer notes:

Between June 14 and August 24, five congressional committees held 21 days of hearings on communications satellites despite the fact that there was no legislation pending on that subject.⁵

The first proposal for a communications satellite system was introduced in Congress on January 11, 1962. It called for the creation of a communications satellite corporation which would be owned and operated by the common carriers of the United States.⁶ As was expected, this bill (S.2650) received strong support from the common carriers. It also was supported by a report from the FCC to the House Committee on Science and Astronautics which endorsed the proposed legislation. The Commission said that the system should be limited to the international common carriers for the following reasons:

- (a) Because of economics of scale and technical limitations, it wouldn't be feasible to operate more than one system;
- (b) Satellite communications will supplement, not substitute for existing communication systems and therefore will become a part of the total communications system of each carrier;
- (c) The international carriers (e.g. AT&T) are willing and capable of putting their resources into a satellite communications facility;
- (d) The international carriers are best qualified to determine the nature of the facilities that will best suit their needs and the needs of their foreign partners;
- (e) The Communication Act charges the international carriers with the responsibility of providing the best service at a reasonable price. It is therefore necessary for them to have

⁵Horace P. Moulton, "Communications Satellite-the Proposed Communications Satellite Act of 1962," <u>Business Lawyer</u>, V.18, November, 1962, p. 175.

⁶U.S. Senate, "Report No. 1319 on the Communications Satellite Act," Washington D.C., 1962, p. 1.

direct control and responsibility over these facilities in order to fulfill their obligation to the public. 7

The second basic proposal was the Kennedy Administration's bill received by Congress on February 7, 1962. This bill (S.2814) was designed to be a compromise between those favoring public ownership and those advocating private ownership. In a policy statement made in July of 1961, President Kennedy announced his objectives for a communications satellite system. They included:

- (1) Private ownership of the U.S. portion of the system;
- (2) Global coverage of the system;
- (3) Provide service to economically less developed countries as well as industrialized countries:
 - (4) Provide foreign participation through ownership;
- (5) Nondiscriminatory use of and access to the system by authorized common carriers;
 - (6) Competitive bidding for the system equipment.9

The President also outlined some responsibilities for the U.S. Government which included:

- (1) Conduct research and development to assure rapid scientific and technological progress;
 - (2) Supervise international agreements and negotiations;
 - (3) Control all launching of U.S. spacecraft;
- (4) Make use of the commercial system for government purposes;

⁷U.S. Congress, House, Committee on Science and Astronautics Commercial Applications of Space Communications Systems, H. Report No. 1279, October 11, 1961, 87th Congress 1st Session, Washington, D.C., pp. 25-26.

⁸Hearings before the Committee on Interstate and Foreign Commerce, March 13-22, 1962, 87th Congress, 2d Session, pp. 616-617.

⁹Ibid., p. 617.

(5) Maintain the effective use of the radio frequency spectrum. 10

As the president's policy guidelines state, the Administration's bill called for the establishment of a commercial communications satellite corporation. However, the bill also authorized that part of the corporation's stock be sold to the general public. The president stated his reason for doing this was that:

...such a system is by nature a Government-created monopoly-and that cannot in good conscience limit its ownership to a few existing companies and exclude automatically all other potential investors who have equal rights to own a part of the federally developed enterprise. 11

The third of these basic proposals was introduced to Congress on February 26, 1962.¹² This bill called for the satellite system to be totally government owned (S.2890). Its supporters expressed their dislike for a legalized monopoly at the U.S. Government's expense. Led by Senators Kefauver and Morse, the bill's backers pointed out that since the government had already spent millions of the taxpayer's dollars on research and development for satellite systems it was best qualified to operate such a system. One congressman said that if satellite communication services are developed into a private monopoly, it will:

- (1) Be dominated by AT&T, the greatest monopoly in our nation today;
 - (2) Be immune to any meaningful regulation;
- (3) Increase concentration and facilitate conduct inconsistent with our anti-trust laws; and

¹⁰Ibid., p. 617.

¹¹U.S. Congress, Senate, Committee on Commerce, "Communications Satellite Act of 1962, "S. Report No. 1584, June 11, 1962, 87th Cong. 2d Sess. (Washington, D.C.), p. 28.

¹²Ibid.

(4) Be inevitably inclined to lag in future research and development in order to preserve present high investments in existing and contemplated facilities. 13

With such different views being expressed over the subject of communication satellites, it was several months before any legislation was adopted despite the Administration's efforts to reach a quick agreement through its bill of compromise. The final version of the bill that passed was essentially that of the president's proposal with some minor changes made in the Senate by the Committee of Commerce and the Committee of Aeronautical and Space Sciences. There was opposition in the Senate by those who favored government ownership who tried a filibuster in hopes of gaining support for their bill. However, the opposition represented such a small minority of the Senate that they were unable to raise enough support and the Senate's version of the Administration's bill was passed in August of 1962. It then went back to the House where it passed by a larger majority than the original bill. It then became U.S. law when President Kennedy signed the bill on August 31, 1962.

In looking back at the debate over satellite communications, the underlying motivation in Congress that led to an agreement between such contrasting points of view was the urgency to get a system in place to stay ahead of the Russians in technology for space. Looking at the arguments of both sides, there are valid points that were probably overlooked in the rush to pass some type of legislation that would establish a satellite communications system. It seems likely that had the Congress not been in such a hurry to pass legislation, more thought and debate would have gone into the development of satellite communications.

¹³U.S. House of Representatives, Committee on Interstate and Foreign Commerce, "Communications Satellite," Part II, p. 685.

With the establishment of the Communications Satellite Act of 1962, there is now:

- (1) A legal and formal U.S. policy for international satellite communications:
 - (2) The Communications Satellite Corporation.

The policy is established in Sec. 102. (a) which states that the United States is to:

...establish, in conjunction and in cooperation with other countries, as expeditiously as practicable, a commercial communications satellite system, as part of an improved global communications network, which will be responsive to the 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.

The communications satellite entity is established in Sec. 102.

(c) which states:

In order to facilitate this development and to provide for the widest possible participation by private enterprise, United States participation in the global system shall be in the form of a private corporation, subject to appropriate governmental regulation.

When looking at the Communications Satellite Act, certain points demonstrate the unique powers and structure that Comsat was given. In Sec. 301, the Communications Satellite Corporation was created by stating, "There is hereby authorized to be created a communications satellite corporation for profit which will not be an agency or establishment of the United States Government." The important phrase here is "for profit." There were some suggestions that the common carriers should form a non-profit organization. However, as this section states, Comsat would be in business to make money.

As part of the president's proposal, Comsat would be partially controlled by the public as well as the common carriers. 50 percent of the shares of stock would be offered to the general public (about 130,000 individuals) while the remaining 50 percent would be sold to authorized common carriers. Also, Comsat's Board of Directors would consist of 15 members. Three of these members were appointed by the president with Senate approval while six members were elected by the common carrier stockholders and another six were chosen by the general public stockholders. Comsat was incorporated under the District of Columbia Business Corporation Act. 16

In Section 305, the powers and purposes of Comsat were given.

They are divided into two subsections. The first subsection (a) gave authority 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 communications common 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).

As this subsection shows, the Act gave Comsat a great deal of authority. It was the sole provider of international communications satellite service for the U.S. and had almost unlimited authority in establishing this international system. Along with these powers, the Comsat gave the Corporation a group of responsibilities. Under subsection (b), Comsat is authorized -

¹⁴Comsat Act, Section 303 (a) Title III.

^{15&}lt;sub>Ibid</sub>.

¹⁶Thid.

- (1) to conduct or contract for research and development related to its mission;
- (2) to acquire the physical facilities, equipment and devices necessary to its operations, including communications satellites and associated equipment and facilities, whether by construction, purchase or gift;
- (3) to purchase satellite launching and related services from the United States Government;
- (4) to contract with authorized users, including the United States Government, for the services of the communications satellite system; and
- (5) to develop plans for the technical specifications of all elements of the communications satellite system.

These powers in subsection (b) were given to Comsat in order to help achieve those purposes stated in subsection (a). They then tend to be subject more to the interpretation of Comsat and the U.S. Government.

For example, Comsat could argue in favor of almost any project it had become involved in by saying that it was "research and development related to its mission." This in fact has happened in cases that will be shown later, that whenever Comsat has asked the FCC for permission to enter into a new venture, it has often used Sec. 305 (b) to demonstrate its legality.

Since Comsat was to be a part of an international system, certain safeguards were put in the Act to assure that national interests were maintained. Section 201 gave the President (through the State Department), NASA and the FCC certain responsibilities and regulatory powers over Comsat.

The FCC in particular was given a wide range of regulatory authority over Comsat. Some of its duties included:

(1) insure effective competition, including the use of competitive bidding where appropriate, in the procurement by the corporation and communications common carriers of

apparatus, equipment, and services required for the establishment and operation of the communications satellite system and satellite terminal stations...;

- (2) insure that all present and future authorized carriers shall have nondiscriminatory use of, and equitable access to, the communications satellite system and satellite terminal stations...;
- (3) prescribe such accounting regulations and systems and engage in ratemaking procedures as will insure that any economies made possible by a communications satellite system are appropriately reflected in rates for public communications services;
- (4) approve technical characteristics of the operational communications satellite system to be employed by the corporation and of the satellite terminal stations; and
- (5) to insure that no substantial additions are made by the corporation or carriers with respect to facilities of the system or satellite terminal stations unless such additions would serve the public interest, convenience and necessity. 17

As will be shown later, the FCC will have a major impact on Comsat's most recent development.

Despite the seemingly extensive regulatory powers given to the Federal Government, the government's powers, unlike the authority given to Comsat, are not defined clearly enough when put to the test and have been the subject of speculation. There then arises the problem of weighing political decisions against economic ones. As one writer points out, "Comsat's role then is to protect U.S. national interests. At the same time Comsat must base its decisions on economic criteria, a potentially conflicting situation..."18

¹⁷Ibid., Sec. 201 (c).

¹⁸ Judith Tegger Kildron, <u>Intelsat</u>, <u>Policy-Maker's Dilemma</u>, Lexington Books, D.C. Heath and Company, Washington, D.C., 1973, p. 9.

Now that Comsat has been established, two factors under the first premise can be identified.

1. Comsat is a commercial organization that is motivated by profit.

This is written into the Comsat Act in Section 305.

2. The Comsat Act of 1962 gave Comsat enough autonomy to enter into non-INTELSAT activities.

This can be seen in the list of powers that Comsat has been given in Section 305.

Also, there is evidence for the third factor of the first premise that deals with Comsat's structure.

3. Comsat had such a competitive advantage over domestic competitors that it was easy to enter other markets and be successful.

The Comsat Act helped to give Comsat this competitive advantage because it gave the Corporation:

- 1. Monopoly power over international satellite communications.
- 2. Extensive authority to expand into areas that can be interpreted as related to its mission.

Comsat also received direct help from the Federal Government through NASA which as part of its duties is authorized to -

- (1) assist the corporation in the conduct of its research and development program...;
- (2) consult with the corporation with respect to the technical characteristics of the communications satellite system; and
- (3) furnish to the corporation, on request and on a reimbursable basis, satellite launching and associated

services required for the establishment, operation, and maintenance of the communications satellite system...

Since NASA's establishment in 1958, research and development of communication satellite systems had been a large part of its program. Through projects such as ECHO and TELSTAR, Comsat was provided the necessary technology for its systems at taxpayer expense. If Comsat had been unable to use NASA-developed space technology, it would have had to duplicate NASA's work which would have been extremely costly.²⁰

¹⁹Comsat Act. Sec. 201 (b).

²⁰⁷⁷ FCC 2d (1980 Comsat Study), p. 583.

CHAPTER III

ESTABLISHMENT OF INTELSAT

Once Comsat had been established, it was necessary to reach some type of agreement with the foreign entities who would be part of the system. Although President Kennedy's policy statement in July of 1961 called for a global organization with Comsat operating the U.S. "portion", it was the belief of most government officials involved that the system would be controlled by the United States. During testimony in 1966 concerning Comsat, a former administrative official under President Kennedy stated, "I do clearly remember what the record fully confirms—that Comsat was created for the purpose of taking and holding a position of leadership for the United States in the field of international global commercial satellite services."21

This position of leadership can be seen written into the Comsat

Act which authorizes the Corporation to "plan, initiate, construct, own,

manage and operate itself or in conjunction with foreign governments or

business entities a commercial communications satellite system."22

From this information, the first factor of the second premise can be confirmed: 1. It was the intention of the U.S. that Comsat would be in charge of the global system indefinitely.

²¹U.S. Senate, Subcommittee on Communications, "Progress Report on Space Communications", (Washington, D.C.), August 1966, p. 81.

²²Comsat Act Sec. 305 (a).

Comsat was clearly the instigator in forming that system and developed negotiations (with the assistance of the State Department) to try to achieve its best interests.

When negotiating for the international system, Comsat's original strategy was to reach a bilateral agreement with each foreign government or business entity that would be part of the organization. This was the same type of agreement that AT&T had made with foreign connumications agencies for submarine cables.

Comsat (and the U.S. Government) saw itself operating from a dominant position. It had been granted that ability to start an international communications satellite organization and had monopoly access to the technology. No other country outside the United States and the Soviet Union had satellite launching capabilities and not even the Soviets had had any success with communications satellites.

The key to the success of the negotiations for Comsat was reaching an agreement with the West European nations. This was because the vast majority of international communications traffic occurred across the North Atlantic between the U.S. and Europe.

The Europeans, however, were not willing to accept these terms. Like the United States, the European nations had a strong natural instinct to look after their own interests. They believed that if they accepted Comsat's proposal, too much power would be given to the Americans. Comsat's original proposal was to have the Corporation own the system and then lease channels of communication to those foreign agencies that were part of the system.

The West Europeans attempted to counter the U.S. strength by deciding to negotiate with the United States only as a united group. In

December of 1962, the Europeans established the European Conference of Post and Telecommunications Administrations (CEPT), which later became the European Conference on Satellite Communications, as the only entity in Western Europe that would negotiate with the United States for a global communications satellite system.

Because an international system would be virtually impossible from an economic standpoint without the West Europeans involved, Comsat changed its approach from seeking a bilateral agreement to negotiating a multilateral one. A compromise arrangement was presented to the European Conference at Rome in 1964 with the following points:

- (1) A consortium of telecommunications entities, rather than an international 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; and
- (4) Comsat to manage that system under contract to the consortium. 23

The point that proved the most favorable to the United States was having Comsat as the Manager of the organization. Since Comsat would manage this international system as a private corporation under U.S. Government regulation, the international satellite organization that was created would in essence be under U.S. Government regulation also.

When the first agreements were reached, the Europeans had basically accepted the U.S. proposal at Rome. The one stipulation that they insisted on having was that the agreements would last for only an interim period (5 years) before definite arrangements were made. It was the

²³ Abram Chayes, <u>International Legal Process</u>, Vol. 1, Little Brown and Company, New York, 1968, p. 660.

hope of the Europeans that during this interim period, they would receive some of the United States' satellite technology as part of this organization in order to strengthen their bargaining position when it came time for the definite agreements.

On August 20, 1964, the Interim Agreements were signed and the International Satellite Consortium (INTELSAT) was created. Two separate agreements were signed; one was by the communication entities that would be part of the system (all except Comsat were government agencies) and the other was for the individual governments that would be represented in INTELSAT. Altogether, 19 countries were involved in the agreements.

The most noticeable country that was not involved in INTELSAT was the Soviet Union. The United States did invite the Soviets to discuss the possibility of joining INTELSAT in 1963. However, the Soviet Union declined, saying they were not interested in a commercial system under U.S. control. There was some speculation by the U.S. Government that part of the reason the Soviets refused to become a part of INTELSAT was that it would show their lack of competence in the communications satellite area.

Looking at the Interim Agreements, there are three main areas where the United States and Comsat dominated and from which they were able to control INTELSAT:

- (1) Ownership and Voting Power;
- (2) Management and Organization;
- (3) Procurement Policy.

In Article III of the Interim Agreement it states:

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.

It goes on to say in the Interim Agreement in Article VI that,
"Each signatory to the Special Agreement shall pay its quota of such
costs in accordance with the provisions of the Special Agreement."

This "quota" was determined for each signatory by their expected use of
the system. This expected use was to be calculated by estimates of long
distance telephone use by communications satellite in 1968. The estimates were actually made by looking at current telephone traffic via
cable. This put countries who had little or no submarine cable service
at a distinct disadvantage in acquiring part ownership of the system.

The amount of ownership that a signatory had was very important in INTELSAT because it determined the voting power a country or communication entity had in the organization. Article V (a) states that:

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 quota as the case may be.

Because the United States had such a large expected usage of the system, it started with 60 percent ownership in INTELSAT which meant 60 percent voting power.

The governing body under the Interim Agreement was the Interim Communications Satellite Committee (ICSC). When matters were voted on in this committee, an effort was made to reach a unaminous decision. 24 If this were not possible, then a decision could only be reached when the total votes of the representatives exceeded the signatory with the

²⁴Interim Agreements, Article V (c).

largest percentage of ownership by 12.5 percent.²⁵ Therefore, for the United States to get a measure passed through the committee it only needed the support of about two other countries.

The United States was assured of controlling the organization as it developed by the arrangements made for nations entering the system in the future. The combined percentage of additional signatories to the organization could not exceed 17 percent.²⁶ This meant that the U.S. percentage of ownership in INTELSAT would never drop below 50.5 percent.

In Article VII of the Interim Agreement, Comsat is appointed Manager of INTELSAT. It states:

The Communications Satellite Corporation, incorporated under the laws of the District of Columbia,...shall, pursuant to general policies of the Committee and in accordance with specific determinations which may be made by the Committee, act as manager in the design, development, construction, establishment, operation and management of the space segment.

As INTELSAT's Manager, Comsat was in charge of the day-to-day operations of the organization. However, Comsat's most important functions as Manager, as specified by the President's Task Force on Communication Policy in 1967 were, "recommends the type of space segment to be established, operates and maintains the space segment, and places contracts relating to the design, development and procurement of equipment for the space segment."²⁷

This meant that Comsat was in the powerful position of determining who got the contracts for INTELSAT. The ICSC did have the final word

^{25&}lt;sub>1bid</sub>.

²⁶ Ibid., Article XII (c).

^{27&}quot;President's Task Force on Communications Policy, Established Pursuant to the President's Message on Communications Policy, August 14, 1967," December 7, 1968, Chapter 3, p. 7.

on major activities but since the United States was in control of the committee, Comsat was rarely overruled.

The third area which guaranteed Comsat and the United States control over INTELSAT was the organization's procurement policy which assured that American industry would receive nearly all the contracts that INTELSAT would reward. Article X of the Interim Agreement states:

In considering contracts and in exercising their other responsibilities, the Committee and the Corporation as manager shall be guided by the need to design, develop and procure the best equipment and services at the best price for the most efficient conduct and operation of the space segment.

Because the United States had a monopoly in satellite communications technology, this policy meant that the U.S. would get nearly all the contracts.

The Europeans had argued for some type of quota system to be used for determining who received contracts. They believed that contracts should be awarded by a proportion of the investment and ownership that a signatory had in INTELSAT. As a compromise between the U.S. and Europe (although a small consolation to the Europeans), the latter part of Article X states that:

When proposals or tenders are determined to be comparable in terms of quality, c.i.f. price and timely performance, the Committee and the Corporation as manager shall also seek to insure that contracts are so distributed that equipment is designed, developed and procured in the States whose Governments are party to this Agreement in approximate proportion to the respective quotas of their corresponding signatories to the Special Agreement.

Although the Europeans had accepted this proposal at the signing of the Interim Agreements, they soon showed their disapproval with the policy for awarding contracts. In looking at the four series of satellites produced by INTELSAT, the small percentage of foreign contracts for these satellites was highly noticeable.

For the first generation, INTELSAT I, there were no foreign contracts involved. This was because the United States had already developed the series before the Interim Agreement negotiations. For INTELSAT II, the percentage of foreign contracts was 2.3 (mostly in the form of subcontracts from U.S. contractors) and for INTELSAT III, the percentage was 4.6.28 This pattern appeared to change with the development of the INTELSAT IV series. For the first four satellites, the percentage of foreign contracts was 36. However, after complaints about technical problems and delays with the foreign contractors (mostly from Comsat), the foreign proportion of contracts for the second set of INTELSAT IV satellites fell below 10 percent.²⁹

Another area that proved frustrating to the Europeans was the amount of technology they received from the United States for communications satellites. It had been the hope of Europe that by obtaining technical know-how from the U.S. through participation in INTELSAT, its countries would be able to develop their own satellite technologies and therefore have a stronger bargaining position with the U.S.

Here can be found support for the second factor of the second premise: 2. The U.S. had a monopoly on satellite communications technology and expected to keep it.

The United States behavior during this period of time showed that it wanted to maintain the lead that it had in satellite technology. It not only arranged for INTELSAT to award the majority of contracts to U.S. companies, but was very strict with what information it gave to

²⁸Brenda Maddox, "INTELSAT, Lament for a Lost Hope," New Scientist, June 1, 1972, p. 484.

^{29&}lt;sub>Ibid</sub>.

other INTELSAT members.³⁰ The U.S. was caught in the position of either developing a truly international organization and giving up some of its power, or holding on to its leadership position by holding on to its technology at the risk of losing support from its foreign partners.

It should be pointed out that the lack of information given to other members of INTELSAT was not totally the fault of Comsat. One of the major problems with satellite technology was its similarity to military technology. INTELSAT parties found this out when U.S. contractors were unable to give certain information to foreign partners due to its possible military use. 31

As industry and the military became integrated through activities such as research and development, the U.S. Government took a more active role in the flow of technical information outside the United States.

One agency that was developed to control classified information was the Munitions Control Board under the State Department. The Board pointed out the similarities between aerospace technology and ballistic missile technology in refusing to allow certain information to leave the United States.

In several instances, the potential foreign recipients of this technical information complained that a refusal from the United States could not always be based solely on classified military information grounds. In fact, several foreign members of INTELSAT stated in 1965

³⁰ Judith Tegger Kildron, <u>Intelsat, Policy-Maker's Dilemma</u>, Lexington Books, D.C. Heath and Company, Washington, D.C., 1973, pp. 26-31.

³¹Ibid., p. 31.

^{32&}lt;sub>Ibid</sub>.

that the U.S. was using the "military excuse to justify their maintaining a monopoly on communications satellite technology."33

Whether or not these accusations are entirely true is not as important as the impression they made of the U.S. and its commitment to an international system. As one European magazine states in response to the United States alleged behavior:

The American State Department has just made the kind of move that plays directly into the hands of Europe's industrial Gaulists and could have repercussions on Anglo-American relations out of all proportion to its actual importance. 34

As the Europeans expressed their displeasure with the American-controlled INTELSAT, there was a movement developing to start a regional satellite communications system in Europe. The main force behind this development was France, which had been the United States' strongest adversary during the negotiations of the Interim Agreement. The French had long been advocates of an independent system and, along with Germany, were developing a regional system that would cover Europe and Northern Africa. This was followed soon after with an announcement by the European Aerospace Industry Association (Eurospace) of the formation of a regional system named Eurosat that would provide communications satellite service to most of Europe and North Africa.

The Europeans had timed their move toward a regional system well because it came shortly before negotiations for a definite arrangement were to begin. Europe's dissatisfaction with INTELSAT covered several points. Economically, it was stated that, "...Europe subscribes 28% of

^{33&}quot;No Satellites", Economist, March 13, 1965, p. 1175.

^{34&}lt;sub>Ibid</sub>.

³⁵Donald Fink, "Europe Unifying Policy for INTELSAT Talks," Aviation Week & Space Technology, November 27, 1967, p. 69.

the capital of INTELSAT and receives less than 4% of the money spent by this organization.³⁶ Eurospace went on to say, "If INTELSAT retains a complete monopoly on international communications satellite programs, it will perpetuate a situation in which 'European contributions finance by direct investment and non only by purchase, the development of American-oriented industry.'"³⁷

The European position was also recognized in the statement that:

The European countries are not just concerned with the technology gap which could widen between them and the United States if the center of communications satellite development remains concentrated there...It is more a feeling that the European needs might not be fulfilled under the present INTELSAT agreement, and that the countries here should be able to determine for themselves what type of system they are to have.³⁸

With the Definite Agreement negotiations beginning soon, the United States felt pressure to back down from its position for a single global system. Since negotiations for the Interim Agreements had begun, the U.S. had argued that the best communications satellite service would be provided by a single global system. The reasoning behind this was given by the President's Task Force which stated:

We deem it to be an acceptable goal of national policy that the United States remain a leader among the nations in communications science and technology, and in communications service... For the foreseeable future, moreover, our communications technology will be a principal factor in efforts to develop and perfect a global system of communications through which knowledge and information could be made universally available...³⁹

³⁶Donald Fink, "Eurospace Urges Regional Comsat System," Aviation Week & Space Technology, August 28, 1967, p. 30.

³⁷ Thid.

³⁸Donald Fink, "Europe Unifying Policy for INTELSAT Talks", Aviation Week and Space Technology, November 27, 1967, p. 69.

³⁹President's Task Force on Communications Policy, December 7, 1968, Chapter 1, p. 4.

Not only did the threat of regional systems cause Comsat and the United States to reevaluate its position, but there was a growing threat from the Soviet Union. The Soviets had never seriously considered joining INTELSAT because of the small percentage (1.5) of ownership they would receive. They began instead to design their own system that would involve the Iron Curtain countries as well as Cuba. Some West European countries, such as France, had expressed an interest in joining some part of the Soviet Satellite (called Molinya). 40 If there was anything that appeared worse to the United States than losing business to a regional system in Western Europe it was losing customers to the Soviet Union.

The U.S. stance for a single global system seemed to be on shaky ground also because of Comsat's plan for a domestic system in the United States. Comsat justified its system over the European one by pointing out that the U.S., when Alaska and Hawaii were included, was much larger than Europe. Comsat went on to say, "The domestic concept is not feasible for Europe...because European countries are too small to justify using a satellite for communications only within national boundaries."41

The Europeans countered this statement by saying:

Europe must be considered as an area comparable to the United States which will be served by the Comsat domestic system. On this basis, a regional system to serve Europe, and perhaps link it with Africa, is as justified as the establishment of a domestic system in the United States.⁴²

⁴⁰Helena Martinez, "French Space Policies," University of Miami, May, 1970, p. 34 (Found in Policy-Maker's Dilemma).

⁴¹Donald Fink, "Europe Unifying Policy for INTELSAT Talks," Aviation Week & Space Technology, November 27, 1967, p. 69.

⁴²Ibid.

The United States' efforts to meet European demands, while softening its own position, demonstrated the U.S. commitment toward INTELSAT. This could be explained in large part by the financial success that INTELSAT enjoyed during the Interim Period. For example:

- 1. The number of INTELSAT members increased from 19 in 1964 to 82 in 1971.
- 2. The number of circuits per satellite increased from 240 on the INTELSAT I (Early Bird) to 4,000 on INTELSAT IV.
- 3. The investment in the global system increased from \$69 million in 1967 to \$232 million in 1971.43

^{43&}quot;The INTELSAT Decade, 1964-1974," INTELSAT, 1974, p. 28.

CHAPTER IV

CHANGES AT INTELSAT

The negotiations for the Definite Agreement began in February of 1969 with the INTELSAT Consortium Conference which involved 98 countries. When the Conference recessed a month later, the only thing the parties agreed on was to meet again the next year.

The main question was over the management of INTELSAT. There was near unanimous support outside the United States to replace Comsat as Manager with some type of international body. These members point out that as Manager, Comsat had developed technical and financial expertise in the communications satellite industry. Therefore, other INTELSAT parties had little chance of questioning Comsat on its decisions, especially on procurement recommendations.

Along with removing it as Manager, there was also growing pressure to reduce the amount of ownership Comsat had in INTELSAT. In 1969, Comsat's percentage of ownership was 53. This meant that the Corporation could easily veto any position that it didn't agree with. During the negotiations, the Ambassador of the U.S. delegation, Leonard Marks, noted that the United States had never used its veto power and never would in the future. 44 One European spokesman responded to this statement by asking, "If there is no intention of using the veto, why does

⁴⁴Katherine Johnson, "Effort to Cut Comsat's Powers Foreseen," Aviation Week & Space Technology, February 24, 1969, p. 22.

Marks want it written into the agreements?"45 Another member of the ICSC said that because of Comsat's veto power, "It would be pointless agitation to contest the Comsat position."46

Not only did disagreement arise between the U.S. representatives and other ICSC members (particularly the Europeans), but there was also a struggle going on within the U.S. delegation between Comsat and the State Department. The argument was over how much the United States would be willing to give up in control over INTELSAT in order to keep the organization intact. Comsat wanted to maintain its leadership position as Manager. The State Department, on the other hand, wanted to maintain a spirit of international cooperation and was willing to make more concessions than Comsat. This situation was worsened by the beliefs of some observers that Comsat was trying to delay a definite decision as long as possible.

Comsat, which took a leading role in preparing the fiveyear-old interim arrangement, had little reason to rush toward one that was definite. A delay in reaching such an agreement would prolong the company's favorable position.⁴⁷

Between the INTELSAT Conferences of 1969 and 1970, an International Preparatory Committee was formed to discuss the major issues of the conference. While this committee met, the major parties presented their points of view.

In an effort to reach a compromise, the United States presented its position to help create a more internationalized organization. The major points included:

⁴⁵Ibid.

^{46&}lt;sub>Ibid</sub>.

^{47&}quot;Comsat Fights for a Job," Business Week, May 3, 1969, p. 60.

- (a) to grant separate legal personality to the International Telecommunications Satellite Consortium:
- (b) to reduce the United States vote below 50% in the governing body;
- (c) to relinquish absolute veto power in the Board of Governors (ICSC);
- (d) to create an Assembly of Governments with specified powers to review broad policies for the International Telecommunications Satellite Consortium on a one nation, one-vote basis.48

The U.S. also agreed to establish an international secretariat under a secretary-general to take over all non-technical managerial functions. However, the U.S. refused to allow the secretariat to handle the technical operation because it couldn't do the job as efficiently and economically as Comsat.⁴⁹

The other major proposal came from the West Europeans. Their major contention was reducing U.S. dominance in INTELSAT by creating a director general with an extensive international staff that was powerful enough to have full management authority. 50

These positions were drafted into agreements and presented to the Plenipotentiary Conference in February of 1970. For the first two weeks, the two opposing sides remained stalemated in their views. Then, during the third week of the Conference, when it again seemed that the Americans and Europeans were deadlocked and the future of INTELSAT was in jeopardy, a compromise package was presented by the Japanese and Australian representatives. It involved an attempt to resolve the major

⁴⁸Charles D. Ablard, "The International Telecommunications Satellite Consortium Conference-Where do we go from here?", <u>EBU Review</u>, 123B September, 1970, p. 50.

^{49&}lt;sub>Ibid</sub>.

⁵⁰Ibid.

conflicts that existed in the Conference and its key points included the following:

A. Management Issue

The Agreement will accept the principal of full internationalization of the management responsibilities, i.e., management within INTELSAT under a director-general, after a transitional period of six years. During the transitional period, Comsat would continue technical and operational management of the INTELSAT space segment under a contract to be concluded with it by the Board of Governors...

B. Voting in the Board of Governors

Voting shares in the Board of Governors will be based on international public telecommunications plus domestic public telecommunications between separated areas subject to a single jurisdiction (e.g. ...mainland U.S. and Hawaii)....There will be an upper limit of 40% on the vote that may be cast by any one member...

C. Investment

Investment will be based on all use of the INTELSAT space segment without the distinction described under B. above.

D. Structure

The Assembly of Parties (governments) and the Meeting of Signatories (operating entities) will be separate, independent organs...Each organ of INTELSAT will be endowed with specific functions and powers and, except as otherwise provided, the other organs will not infringe upon such powers.51

Although this compromise meant several large concessions by the United States, it was quick to accept the package in order to rescue the Conference from total failure which might have caused the Europeans to abandon INTELSAT altogether in favor of their own system which would have jeopardized the future of the organization. Other issues needed to be worked out as the second INTELSAT Conference on the Definite Agreement ended in March. However, the Japanese-Australian compromise

⁵¹Ibid., p. 51.

proposal was just what the Conference needed to break through the stalemate and eventually it became an outline for the Definite Agreement.

When the Plenipotentiary Conference met in 1971, it worked out the final details of the Definite Agreements and on May 21, it voted 73 to 0 to approve the final text. The agreements were then open for signature on August 21, 1971. As with the Interim Agreements, two separate agreements were signed; one for the parties' governments and the other for the communication entities that were a part of the organization.

There are some significant differences between the Interim and

Definite Agreements that need to be pointed out. First, is the presence

of a juridical personality resulting from the Definite Agreements. Some

of the privileges that INTELSAT received under these arrangements that

it didn't have under the Interim Agreements include:

- 1. The capacity to conclude contracts and other agreements,
- 2. Acquire and dispose of property,
- 3. Be a party "per se" to legal proceedings,
- 4. Own the INTELSAT space segment and all other property acquired by it.52

This juridical status has made INTELSAT an official "organization" instead of a consortium which it was under the Interim Agreements.

Another major difference between the Interim and Definite Agreements is INTELSAT's organizational structure. During the Interim

Period, INTELSAT's governing body was the ICSC where the amount of ownership was determined by the expected usage of the system. Under the Definite Agreements, INTELSAT consists of four governing bodies. They are:

⁵²Definite Agreement, Article IV (a).

A. The Assembly of Parties

The Assembly of Parties is composed of governments which are parties to the Agreement. It considers those aspects of INTELSAT that are primarily of interest to the Parties as sovereign States, and also considers resolutions, recommendations and views addressed to it by either the Meeting of Signatories or the Board of Governors. It is empowered to formulate policies and long term objectives consistent with the principles, purposes and scope of INTELSAT's activities. Each party has one vote. Decisions on substantive matters are taken by an affirmative vote cast by at least two-thirds of the Parties whose representatives are present and voting. Decisions on procedural matters require an affirmative 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 all Signatories (governments or their designated telecommunications entities) to the Operating Agreement. It considers resolutions, recommendations and views addressed to it and also considers matters relating to the financial, technical and operational aspects of the system...The decision-making process of the Meeting of Signatories is the same as that of the Assembly of Parties,

C. The Board of Governors

The Board of Governors is composed of those Signatories whose investment shares, individually or in groups, are not less than a specified amount. This minimum share is determined annually by the Meeting of Signatories, with the objective of maintaining a total of approximately 20 members on the Board. In addition, any group of at least five Signatories, all within the same ITU (International Telecommunications Union) region, is eligible to become a member of the Board. The Board of Governors is responsible for the design, development, construction, establishment, operation and maintenance of the INTELSAT space segment... Under its decision-making process, the Board endeavors to take decisions unanimously; however, if it fails to reach unanimous agreement, it takes decisions by a weighted vote.

D. The Executive Organ

The Executive Organ...is headed by a Secretary General who is responsible to the Board of Governors for management services other than those technical and operational functions performed by the Communications Satellite Corporation (Comsat), as Management Services Contractor. By no later than

31 December 1976, a Director General will assume office, at which time the Management Services Contractor will report to the Executive Organ rather than to the Board of Governors. By February 1978, as provided for in Article XII of the Agreement, permanent management arrangements for the Organization are to be adopted...⁵³

With the Definite Agreements now in effect, there are two major changes in the structure of INTELSAT that have a great impact on Comsat:

- 1. Loss of majority ownership of INTELSAT,
- 2. Removal as Manager of INTELSAT.

This brings to mind the two hypotheses stated in the beginning.

- 1. The loss of majority ownership in INTELSAT influenced Comsat to seek other sources of revenue,
- 2. The removal of Comsat as Manager of INTELSAT has influenced Comsat to rechannel the activities it had invested in as Manager into other areas outside INTELSAT.

Now that these changes have taken place, it is necessary to examine Comsat's corporate behavior after the Definite Agreements went into effect to see if these hypotheses are true. Comsat gave an idea of its future plans in the corporation's Annual Report to its Stockholders in 1973 (the same year that the Definite Agreements went into effect).

The next ten years will see continued development of the global system and, we believe, continued fulfillment of the objectives of the Communications Satellite Act of 1962. This second decade also will require us to make decisions of great significance regarding new markets and new opportunities. The challenge is to make farsighted judgements as to where we should commit our resources in a communications industry of growing variety and technical sophistication which still contains and will contain many uncertain market factors. In short, we are turning from a period in which our chief task was to establish the global system to a period in which we hope to play a more diversified role. 54

^{53&}quot;The INTELSAT Decade, 1964-1974," INTELSAT, 1974, pp. 4-7.

⁵⁴¹⁹⁷³ Comsat Annual Report, p. 2.

CHAPTER V

CHANGES AT COMSAT

The first major activity that Comsat became involved in that was outside of INTELSAT was the establishment of a domestic satellite system for the United States. Since the Comsat Act made no mention of domestic systems, it was left up to the FCC as part of its Comsat duties to decide who could provide such a service.

The FCC had previously been called upon to answer the question of ownership of the U.S. earth stations to be used for INTELSAT. The Commission's original decision was to make Comsat the sole entity authorized to own and operate the first three U.S. earth stations. 55

The FCC modified its decision by authorizing Comsat 50 percent ownership of each earth station with the other 50 percent divided among the terrestrial carriers depending on their projected use of the station.

The Commission also decided that the earth stations for a global system needed a centralized control so it designated Comsat as the manager of the U.S. earth stations involved in the system. 56

In the same year that the Commission made its decision on earth stations (1966), it asked for input, "to explore various legal, technical, and policy questions associated with possible authorization of domestic

⁵⁵74 FCC 2d (Interim Report) 1979, p. 72.

⁵⁶Ibid.

communications satellite facilities to nongovernmental entities."⁵⁷ The Commission concluded that it could authorize any nongovernment entity, including Comsat, to develop such a system.

The creation of a domestic communications satellite system in the United States was a delicate matter because of the U.S. policy against similar systems in Europe. In an effort to show the Europeans that the U.S. was still committed to INTELSAT, President Johnson stated in August of 1967:

In view of the international nature of satellite communications and our commitments under the INTELSAT Agreement of 1964, we should take no action in the establishment of a domestic system which is incompatible with our support of a global system. 58

Soon after its report, the FCC began accepting applications for the domestic system. In its application, Comsat called for a multi-purpose system that would not be limited to either television or telephone service as some of the other applicants had. It also signed a contractual agreement with AT&T to explore the possibilities of a joint system in which Comsat would own the space segment and AT&T would provide the carrier service.

In the FCC's second report on domestic communications satellites, the Commission looked closely at AT&T's relationship to Comsat. In an effort to develop a more competitive market for domestic satellite service, the FCC put certain stipulations on Comsat. It decided that if Comsat elects to serve AT&T, it will be required:

(a) to operate solely as a carier's carrier;

⁵⁷²² FCC 2d (Domestic Satellites I) March 20, 1970, p. 86.

⁵⁸H.R. Document no. 157 90th Cong. 1st Sess., August 4, 1967, p.6.

- (b) to lease transponders to AT&T under the same tariff terms applicable to other carriers leasing transponders;
- (c) to permit AT&T and other carriers to have access to their leased transponders through their own earth stations, where desired and authorized by the Commission; and
- (d) to comply with a formula, to be prescribed by further order of the Commission, concerning the maximum percentage of system capacity that can be leased to any one carrier.⁵⁹

Along with these requirements, the FCC determined that in order to protect Comsat's financial interests in the international system, it should form a separate subsidiary to deal with the domestic system it developed whether AT&T is involved or not. The Commission left up to Comsat the structure and financing of the subsidiary saying it would be better for Comsat to use its own judgement at first and then receive Commission approval for its proposal. 60

In September of 1973, the FCC gave its third report on domestic satellites with specific attention given to Comsat's proposed subsidiary. This new corporate entity, to be called Comsat General Corporation, would be financed entirely by Comsat to begin with. Comsat believed that it would be in a strong enough financial position to handle any cash requirements through its INTELSAT activities. 61

The FCC did not accept Comsat's first proposal because according to the Commission, it did not protect Comsat's INTELSAT activities from possible financial failure of its ventures in the new domestic system to the satisfaction of the FCC. It said that under Comsat's first proposal, all risks established by Comsat General will be assumed by Comsat and

⁵⁹35 FCC 2d (Domestic Satellites II) June 16, 1972, p. 852.

^{60&}lt;sub>Ibid., p. 853.</sub>

⁶¹⁴² FCC 2d (Domestic Satellites III) September 12, 1973, p. 679.

could affect the Corporation's ability to uphold its responsibilities to INTELSAT. The Commission then asked Comsat to submit another proposal that would assure Comsat General appropriate financial independence and establish definite limits on the amount of investment Comsat can make into its new subsidiary. The Commission allowed Comsat to begin construction on its domestic system with AT&T as long as a revised proposal for the financing of Comsat General was presented within 60 days of the Commission's decision. 63

The fourth FCC report concerning domestic satellite systems was released in January of 1974. It contained Comsat's revised plan for financing Comsat General. In the proposal, Comsat states that it will provide \$250 million in equity capital to Comsat General over a three to four year period. 64 Comsat presented a letter to the Commission from an investment banker in Boston saying he believed that Comsat could provide \$250 million to Comsat General and easily maintain its financial commitment to INTELSAT. 65 Along with this statement, Comsat said that it would not guarantee any of Comsat General's financial obligations, either directly or indirectly. 66

Although the Commission said that more safeguards were needed in Comsat's proposal to protect the parent company, it did, "provide an appropriate basis for permitting Comsat to proceed."67 The Commission

⁶²Ibid., p. 682.

^{63&}lt;sub>Ibid</sub>.

⁶⁴⁴⁵ FCC 2d (Domestic Satellites IV) January 3, 1974, p. 446.

^{65&}lt;sub>Ibid</sub>.

⁶⁶Ibid.

^{67&}lt;sub>Ibid</sub>.

stated an urgency for establishing a domestic communications satellite system and seemed to be willing to let small matters in the proposal that it disagreed with go by for a short period of time due to the need for quick action on the system.⁶⁸

It was the Commission's intention that Comsat General not become simply a division of Comsat. Part of the FCC's modifications in Comsat's proposal were that Comsat and Comsat General have separate officers and that all the intercorporate dealings be conducted at "arms length".69 The Commission expressed its hope that Comsat's new subsidiary would act as a separate corporate entity and not refer all its matters to Comsat's Board of Directors or management.70 The FCC's concern was that since Comsat General would be operating in the competitive market, it might be unfair to competitors for a subsidiary and its parent company (Comsat), in a monopoly position, to be closely tied.71

It is important to note that the Commission allowed Comsat and Comsat General to have the same people on their Board of Directors. The Chief Common Carrier Bureau made a decision based on section 212 of the Communications Act, that since Comsat and Comsat General were commonly owned, therefore, "duly authorized interlocking directors are authorized to perform duties thereof."

As it turned out, Comsat General's Board of Directors consisted only of members of Comsat's corporate family (either Comsat Board

^{68&}lt;sub>Ibid., p. 452</sub>.

^{69&}lt;sub>Ibid., p. 451</sub>

^{70&}lt;sub>Ibid</sub>.

^{71&}lt;sub>Ibid</sub>.

⁷²⁷⁴ FCC 2d (1979 Interim Report), p. 120.

members of corporate officers). As this relationship shows, Comsat plays a major role in the policy of its subsidiary. It should also be noted that in expressing its concern over Comsat's relationship to Comsat General, the Commission fails to mention the adverse effects that this new subsidiary might have on the competitive communications satellite market, although it does express hope that Comsat General would not exploit its connection to Comsat as mentioned earlier. As will be shown later, this issue of Comsat's effect on the competition will become very important in a few years.

With Comsat General established, Comsat began to invest in activities outside of INTELSAT through its new subsidiary. As Comsat states in its Annual Report to its Stockholders:

We are now pursuing new opportunities through our subsidiary, Comsat General Corporation. These consist chiefly of new markets and new applications for satellite communications, such as domestic communications, maritime communications, and aeronautical communications. We are already deeply committed to two avenues of effort—domestic and maritime communications; as to others, we are in various stages of exploration. We are also taking measures to find means of commercial exploitation of technology that we have developed in our laboratories.⁷⁴

Along with Comsat's domestic satellite service venture with AT&T, the Corporation's new subsidiary became involved in other services.

MARISAT -- Comsat General is manager and part-owner (86.29% in 1979) of this maritime mobile satellite system. MARISAT (no relation to INMARSAT) is a joint venture by Comsat General and three other U.S. carriers which began providing communications services to the United States Navy and to commercial users in 1976.

^{73&}lt;sub>Ibid</sub>.

⁷⁴¹⁹⁷³ Comsat Annual Report, p. 4.

AEROSAT -- Comsat General became involved in the Aeronautical Satellite Program (AEROSAT) in cooperation with the European Space Administration (ESA) and the Canadian Government. The AEROSAT program was an international effort to develop communications satellite service to aircraft flying the main transatlantic routes. The program ended in 1978 when the U.S. Congres limited the amount of funds for the program to a level that wasn't acceptable to its main potential user, the Federal Aviation Administration (FAA).

As the opportunities for satellite communications services increased, Comsat, mainly through Comsat General, began to expand its interests.

SBS -- In 1975, Satellite Business Systems (SBS) was formed. This company was a joint venture of Comsat General, Aetna Life and Casualty, and International Business Machines (IBM). SBS was developed to provide an all-digital domestic communications satellite service to government and businesses with large communication needs. To participate in SBS, Comsat General created its own wholely-owned subsidiary, Comsat General Business Communications, Inc. (BCI).75

Foreign Earth Stations -- Comsat General had invested in foreign corporations which own and operate earth stations that are part of the INTELSAT system. Comsat General had a 40 percent interest in INTERCOMSA, a corporation that provides international telecommunications services to and from the Republic of Panama. INTERCOMSA was formed by the Panamanian government which operates the system along with other entities in the country.

⁷⁵⁷⁴ FCC 2d (1979 Interim Report), p. 78.

The other foreign corporation Comsat General became involved in was located in the Republic of Nicaragua. Comsat General owns 49 percent of NICATELSAT with the remaining 51 percent owned by the telecommunications branch of the Nicaraguan Government (TELCOR).

Technical Services -- Comsat General provides technical assistance on a worldwide basis in areas such as engineering and management to help in the planning, construction and operation of telecommunication systems. One such service was created in an agreement between Comsat General and the Arab Satellite Communications Organization (ARABSAT) in which Comsat General would provide consulting services to help develop a regional satellite system for the Arab League's organization consisting of 21 countries. Comsat General later turned its part of the agreement over to Comsat when the Corporation was restructured so that Comsat would be responsible for all international consultative work. 76

Environmental Information Systems -- In an effort to expand beyond basic telecommunication services, Comsat General became involved in a program with the U.S. Geological Survey Department and Telesat of Canada to collect and monitor data from remote areas of the United States and Canada.

Comsat became more involved in environmental information services by acquiring Environmental Research and Technology, Inc. (ERT) in 1979. By developing new environmental data collection, monitoring and analysis services, ERT can assist customers in areas such as meeting federal and state environmental standards and regulations. It can also provide consulting services to help with environmental impact assessment and planning for future development.

^{76&}lt;sub>Ibid., p. 81</sub>.

Communications Products -- Comsat General Telesystems, Inc. was formed in 1979 as another wholely-owned subsidiary of Comsat General. Telesystems, Inc. is responsible for designing and manufacturing specialized communications equipment. Such products include earth station components, signal processing systems equipment and fiber optic communications equipment.

STC -- In 1980, the Satellite Television Corporation was created.

STC began developing a direct broadcast television system for home use.

Comsat Labs -- Created in 1967, the Labs main purpose was to perform research and development for INTELSAT. It has proven to be one of Comsat's most important investments because of products that have resulted from its research which have been utilized by several Comsat subsidiaries. Comsat Labs consist of five different laboratories, each specialized in a particular area of communications satellite technology. It has turned out that several of Comsat's ventures into non-INTELSAT activities were started by developments that took place at Comsat Labs. The Labs now provide service to Comsat's internal customers such as SBS and Telesystems, Inc. as well as INTELSAT.

These activities previously mentioned represent a large portion of the non-INTELSAT activities that Comsat has become involved in since 1973. Despite the amount of expansion that has taken place since the creation of Comsat General, the development of Comsat did not come under the focus of the U.S. Government until 1979.

In 1978, Congress passed the International Maritime Satellite Telecommunications Act. Under this Act, Comsat had been designated the U.S. participant in the development of a global maritime satellite system. This system, called the International Maritime Satellite Organization (INMARSAT), would be very similar in structure and operations to INTELSAT in that Comsat would be the sole provider of space segment capacity received from INMARSAT. With the passage of the Act, Congress authorized the FCC to perform an in-depth analysis of Comsat and its development to see if the Corporation could effectively manage its responsibilities to both INTELSAT and INMARSAT.

The FCC released an Interim Report on Comsat in 1979. In this report, the Commission raised its concern over Comsat's entrance into unregulated business activities and their possible effects on the Corporation's duties to INTELSAT and INMARSAT. The Commission stated that additional safeguards relating to Comsat's structure and operating activities may be required to meet the following objectives:

- (1) that Comsat's involvement in unregulated products and services markets not adversely affect its ability to carry out INTELSAT and INMARSAT duties;
- (2) that such involvement not adversely affect Comsat's provision of efficient and economic common carriers service in the telecommunications market generally;
- (3) that the costs related to such involvement not be directly or indirectly passed on to users of common carrier services;
- (4) that the revenues derived from common carrier services not be used to subsidize any unregulated activities; and
- (5) that Comsat's involvement in unregulated products and services not inhibit free and fair competition between it and other entities involved with the same or related products or services, or otherwise result in activities contrary to the policy and prohibitions of the anti-trust laws.⁷⁷

Looking at these guidelines for Comsat, there appears the Commission's recognition of possible adverse effects to the competitive market that could result from Comsat's involvement in unregulated businesses.

⁷⁷Ibid., p. 120.

Although the Commission states this concern about Comsat's expansion, it defends the Corporation's right to be active in such unregulated businesses by saying, "We do not believe that Comsat should be fore-closed from applying its corporate technology and expertise to the development of business ventures which will result in the public benefit."⁷⁸

For the Commission's next report on Comsat, the Corporation defended its structure and practices. In demonstrating that it was unlikely that conflicts of interest will arise between Comsats commitment to INTELSAT and its expansion into unregulated activities, the Corporation states that:

- (1) Comsat is not in a position to execute policies favorable to itself;
- (2) Comsat is subject to extensive government oversight;
- (3) Comsat's task oriented accounting system allocates costs among benefitting activities and thus protects against cross-subsidization; and
- (4) Comsat's corporate structure, which INTELSAT and INMARSAT activities are managed through separate divisions, also protects against conflicts of interest and cross-subsidization. 79

Comsat also argued that non-INTELSAT/INMARSAT activities are supported by:

- (1) the Commission's standard of consistency in the Interim Report;
 - (2) past Commission decisions;
 - (3) regulatory provisions of the Satellite Act; and

^{78&}lt;sub>Ibid., p. 97.</sub>

⁷⁹77 FCC 2d (1980 Comsat Study), p. 769.

(4) the policies of the Satellite Act and the Communications Act of 1934 which obligate the Commission to encourage the development of communications services in the public interest. 80

In the FCC's second report on Comsat activities (known as the 1980 Comsat Study), the issues that brought about the Commission's concern are detailed. It stated that Comsat's expansion into unregulated activities is in response to:

- (1) its declining role in INTELSAT;
- (2) the opportunities that have arisen as a result of the rapid development of satellite technology since 1962.81

Both of these factors are mentioned in the second premise of this thesis as things the U.S. Government did not foresee as it developed Comsat and the global system.

The Commission again states in the Comsat Study that it does not believe in stopping Comsat from entering businesses outside of INTELSAT/
INMARSAT because of the public service it provides. It does, however, express concern over the effect Comsat's expansion may have on the competition in the satellite communications market because of:

- (1) the substantial monopoly powers and privileges Comsat enjoys under the 1962 Act, and
- (2) the fact that Comsat developed the technology and expertise that it now seeks to commercially exploit primarily by virtue of its special INTELSAT role with the aid of early taxpayer funded technology developed by NASA.82

The Commission, in response to Comsat's statement that a conflict of interest with INTELSAT has not been proven to exist, gives a couple of examples where it believes there is a strong potential for such

⁸⁰тына.

⁸¹Ibid., p. 607.

⁸²Ibid., p. 609.

conflict. The first example reiterates evidence given in the Interim
Report that examines Comsat's relationship to ARABSAT.

As stated earlier, Comsat provides consultative services to the 21-nation ARABSAT. Comsat receives approximately \$20 million over a five-year period so the financial interest for Comsat is high. According to Article XIV (d) of the INTELSAT Agreement, these members of ARABSAT that are also members of INTELSAT are required to consult and furnish information to the Assembly of Parties of the organization. This is to insure compatibility of systems with INTELSAT facilities and to make certain that no major economic harm comes to the INTELSAT system. After ARABSAT presents its proposal, the Board of Governors presents its recommendations to Assembly of Parties on whether or not the ARABSAT system meets the required criteria. Still having the largest portion of voting power of any of the Signatories on the Board, Comsat can have a large impact on the advice that the Board ultimately gives.83

The Commission stated its concern over whether Comsat would act in the best interests of the INTELSAT global system or its own corporate interests. The FCC goes on to question Comsat's ability to objectively look at the possible economic harm to INTELSAT while involved in the establishment of ARABSAT.84

Another example where conflict of interest might have occurred was pointed out to the Commission by the National Telecommunications Information Administration (NTIA) in its comments for the study. The example

⁸³⁷⁴ FCC 2d (1979 Interim Report), p. 114.

⁸⁴Ibid., p. 115.

applications for maritime satellite facilities. One was filed by Comsat to take part in a program that would construct three Maritime

Satellite Subsystems for the INTELSAT V satellites. The other was filed by Comsat General to purchase and operate Maritime Communications Satellite Payloads for five spacecraft provided by Hughes Communications

Services, Inc., which had applied for construction rights for a satellite system that would provide communications services to the U.S. Navy.

Because INMARSAT did not come into full existence soon enough to establish its own system after the MARISAT satellites ceased to function, it had to buy or lease facilities from other entities. Therefore, the U.S. Government was left to decide which system should be developed to follow MARISAT as successor on an international scale. 86

While discussion began on this subject by the U.S. Government and the INTELSAT Board of Governors, Comsat announced it intended to participate in the Comsat General subsystem. In addition, Comsat also requested the Commission to withdraw its application to take part in the INTELSAT V maritime program. Comsat based its decision on economic reasoning saying that having both systems would not be the "lowest cost alternative" and that the system Comsat General applied for would be the most "advantageous". 87

The U.S. Government instructed Comsat to keep both proposals alive so all the alternatives available to those interested parties could be looked at. Eventually, INTELSAT decided to go ahead with its program

⁸⁵⁷⁷ FCC 2d (1980 Comsat Study), p. 622.

^{86&}lt;sub>Ibid</sub>.

⁸⁷Ibid., p. 624.

with Comsat's support, while Comsat General decided to withdraw its application.⁸⁸

The NTIA raised its concern over this series of events that a "decision was made within Comsat without consultation with governmental or regulatory authorities." Comsat replied to this statement by saying that this incident showed that the existing safeguards to protect against a conflict of interest were effective and there was no need to change them. 90

In response to Comsat's position, the Commission agreed that the Corporation's dual role in INTELSAT and INMARSAT provided an opportunity to be consistent and reinforceable in global policy decisions. However, the Commission also said that Comsat had the opportunity to look for the option between the two organizations which would be in the best corporate interest and not necessarily the best public interest.

In view of the fiduciary duty of Comsat's Board of Directors to the corporation's shareholders, we believe it reasonable to assume that the position Comsat ultimately takes, at least in part, will be based on the overall financial interest of the corporation. That position may or may not serve the public interest. Hence, effective safeguards must exist to assure that Comsat fully considers public interest factors and takes no unilateral action prior to U.S. Government consideration of such matters. 91

The other major question that the Commission raised about Comsat's activities was what type of resources would Comsat use in meeting its non-INTELSAT objectives. The Commission stated that Comsat should:

⁸⁸Ibid.

^{89&}lt;sub>Ibid</sub>.

^{90&}lt;sub>Ibid</sub>.

⁹¹Ibid., p. 625.

- (1) not be permitted to burden its regulated communications services with costs properly allocable to its non-INTELSAT/INMARSAT ventures, to the detriment of users of its communications services;
- (2) not impose on the users of its communications services the risk of loss that attend such ventures, or sacrifice the quality or efficiency of its communications services. 92

In response to the Commission's statement, Comsat agreed that there is a potential for cross-subsidization when one corporation is engaged in both regulated and unregulated activities. However, it argued that such abuses could be prevented by maintaining strict accounting practices to see that costs were allocated fairly. Comsat said that it believed the accounting system that was in place was adequate enough to insure that ratepayers for INTELSAT or INMARSAT would not subsidize other corporate enterprises. 93

In stating its case, the Commission noted that there are three criteria that put a corporation in a position to cross-subsidize:

- (1) a market in which the firm has the powers to set price above the competitive level;
- (2) the firm is subject to rate of return regulation in one or more markets; and
- (3) the firm sells products in two or more markets. 94

 Comsat meets all three of these criteria.

One practice that is possible for a corporation that is involved in both regulated and unregulated activities that provide similar services, is to have the corporation shift costs to the regulated

⁹²Ibid., p. 662.

^{93&}lt;sub>Ibid., p. 665</sub>.

⁹⁴Ibid., p. 667.

service which increases the rate base for that service and allows the corporation to charge a higher price to its customers.

The FCC pointed out a possible example of this practice of shifting costs. INMARSAT expected to lose money its first couple of years in operation. In order to recover some of its losses, Comsat, the Commission said, might try to shift as many INMARSAT costs as possible to INTELSAT's rate base.95

Another example the Commission pointed to was Comsat's Research and Development Program. The main instrument of this program was Comsat Labs. Comsat places a portion (32% in 1979) of Comsat Labs costs under its "corporate R&D" program. These costs are considered part of the INTELSAT business and are passed on to the U.S. INTELSAT ratepayer (through the rate base). The Commission stated that some of the projects that are undertaken by the "corporate R&D" program were being commercially exploited by Comsat to be used by the Corporation's private services in the competitive market. 96 This led the Commission to believe, "that Comsat's INTELSAT ratepayers may bear costs disproportionate to any benefits they may receive. 97

One thing in common with both these examples is the difficulty that any regulatory agency would have in separating costs, because in dealing with a fairly large operation with such similar products, it is almost impossible to stop all the illegitimate costs from being passed on to the customers through an increased rate base. Therefore, the Commission

^{95&}lt;sub>Ibid</sub>.

^{96&}lt;sub>Ibid., p. 669</sub>.

^{97&}lt;sub>Ibid</sub>.

said it could not agree with Comsat's assessment that the accounting system could prevent cross-subsidization.98

In its decision on Comsat, the Commission decided that much stronger safeguards needed to be installed than just improving the accounting system. It proposed that Comsat be divided into two separate entities called Comsat Global and Comsat National. Comsat Global would be limited to INTELSAT/INMARSAT activities. Comsat National would be responsible for all non-INTELSAT/INMARSAT functions including Comsat Labs. The two corporations would have separate officers, facilities, advertising and marketing, records and books of accounts, procurement and operational personnel. 99

Comsat did make some organizational changes in response to the Comsat Study. The Corporation now consisted of the parent company and three wholely-owned subsidiaries (Comsat General Corporation, Environmental and Technology, Inc. (ERT) and Satellites Television Corporation (STC). Comsat Labs remained a part of the parent company because in relocating the Labs, Comsat contended that adverse effects would be created due to the inefficiency it would cause plus the difficulties that foreign members of INTELSAT would have in accessing the Labs. 100

These arguments were not enough to change the Commission's decision from what it had proposed in the Comsat Study with its concern over U.S. ratepayers bearing the costs of projects developed in Comsat Labs on non-INTELSAT/INMARSAT ventures. The Commission repeated its

⁹⁸Ibid., p. 673.

 ⁹⁹⁹⁰ FCC 2d (Comsat Structure Order), August 1982, p. 1162.
 100 Ibid. pp. 1163-1164.

support for the separation plan it had outlined in the Comsat Study. 101

This then led to the legislation in the House of Representatives that was mentioned in the Introduction. In June of 1984, hearings began on two bills that would make changes regarding the structure of Comsat. H.R. 4464 would require:

...that Comsat divest itself of its non-INTELSAT activities. 102

While H.R. 5724 would require:

...that Comsat's non-jurisdictional activities take place only through a separate subsidiary. The terms of separation imposed by the legislation include separate board of directors, separate employees, books, records or accounts, facilities, and marketing. 103

In addition to possibly being restructured, Comsat is faced with potential problems in other areas as well. First, there is the possibility that Comsat (and INTELSAT) will no longer have a monopoly of international satellite telecommunications. In March of 1983, Orion Satellite Corporation filed an application with the FCC seeking to construct and launch satellites for international transmissions. Later in the year, similar applications were filed by ISI, RCA, Cygnus, PanAmSat, and Systemics General Corporation. 104

The Department of State requested the Commission not to process the applications until it received a recommendation from the Executive

¹⁰¹Ibid., p. 1198.

¹⁰²U.S. House of Representatives, Subcommittee on Telecommunications Consumer Protection and Finance of the Committee on Energy and Commerce, "International Satellite Issues", July 25, 1984, p. 6.

^{103&}lt;sub>Ibid., p. 7.</sub>

¹⁰⁴Ibid., p. 3.

Branch. In November of 1984, President Reagan formally endorsed the idea of competition by privately owned satellite communications companies with INTELSAT on a limited basis (approximately 15 percent of INTELSAT's business. 105

Comsat is also having some changes made due to the competitive market. In an effort to generate revenue for its direct broadcast system, STC, Comsat sold its interests in SBS which had been losing money. 106 More recently, Comsat decided to abandon its DBS system. 107 This decision was probably influenced by the deep financial difficulties that plagued the first DBS system (U.S.C.I.).

With all these different factors having an impact on the future of Comsat, it is very difficult to predict exactly how the Corporation will be changed and how it will react to this change. One thing is certain and that is the Comsat that exists today (and in the future) is different from the Comsat that was planned for in 1962.

^{105&}quot;Reagan Endorses Limited INTELSAT Competition", New York Times, November 28, 1984.

^{106&}quot;FCC approves change in SBS ownership", <u>Telephony</u>, <u>December</u> 10, 1984, p. 14.

¹⁰⁷ J.L. Freeman, "Comsat Bows Out of DBS Business", <u>Multichannel</u> News, December 10, 1984, p. 3.

CHAPTER VI

CONCLUSION

Before examining the two hypotheses to determine their validity, it is necessary to see if the premises mentioned in the Introduction are also correct.

The first premise states:

A. Because of its structure, Comsat will make investments outside of INTELSAT whenever an opportunity for the corporation to grow arises.

There are then three factors given to explain this premise that need to be documented. They are:

 Comsat is a commercial organization that is motivated by profit;

This is supported by:

- (a) Section 301 of the Comsat Act, "a communication satellite corporation for profit".
 - (b) Comsat's expansion into unregulated areas.

This factor can also be supported, if it can be assumed that motivation to control is also a part of the motivation for profit by:

- (c) Comsat's behavior in dealing with other countries in the establishment of INTELSAT.
- (d) Comsat's behavior in dealing with other countries concerning the changes in INTELSAT.
 - 2. The Comsat Act of 1962 which gave Comsat enough autonomy to enter into non-INTELSAT activities.

This is supported by:

- (a) The powers given to Comsat in the Comsat Act in Section 305.
- (b) The expansion that took place at Comsat after the Definite Agreements.
- (c) The FCC's initial approval of Comsat's involvement in non-INTELSAT activities.
 - 3. Comsat's competitive advantage over domestic competitors that made it easy to enter other markets and be successful.

This is supported by:

- (a) Comsat's monopoly of international satellite telecommunications.
- (b) Comsat receiving taxpayer funded assistance in its development from government agencies such as NASA.
- (c) Comsat developing technical and financial expertise as Manager of INTELSAT.
- (d) The history of Comsat's success in ventures outside of INTELSAT.

The second premise states:

B. The U.S. Government did not foresee and therefore did not plan for Comsat's diminishing role in INTELSAT nor its increasing involvement in non-INTELSAT activities.

There were then two factors given to explain this premise. They are:

1. It was the intention of the U.S. that Comsat would be in charge of the global system indefinitely.

This is supported by:

- (a) Section 305 (a) (1) in the Comsat Act.
- (b) Statements made by people who were involved in the creation of Comsat.
- (c) U.S. position during the negotiations for both the Interim and Definite Agreements.

2. The U.S. had a monopoly on satellite communications technology and expected to keep it.

This is supported by:

- (a) The fact that the United States was the only country at the time of Comsat's formation that had any success with communication satellites and the only country outside the Soviet Union that could launch satellites.
- (b) Behavior of the U.S. toward sharing technology with foreign members of INTELSAT.
- (c) U.S. backed policy in INTELSAT for procurement of INTELSAT contracts.

If these premises can be assumed to be true, they can then be compared to the two hypotheses of this thesis to see if they are consistent in their assessment of Comsat. The hypotheses are:

- 1. The loss of majority ownership in INTELSAT influenced
 Comsat to seek other sources of revenue.
- 2. The removal as Manager of INTELSAT has influenced Comsat to rechannel the activities it had invested in as Manager into other areas outside INTELSAT.

According to the first premise, these two hypotheses hold true because the first premise is consistent with the hypotheses' explanation of Comsat's behavior. Therefore, the first premise supports the hypotheses because it says:

- 1. Comsat is motivated to make a profit and will look to other resources to generate revenue and rechannel its activities when the opportunity arises.
- 2. Comsat has been given the freedom in the Comsat Act of 1962 to go into other areas.

3. Comsat's expertise in communication satellites allows it to enter other areas in the industry with a certain amount of confidence that it will be successful.

According to the second premise, these hypotheses hold true because they are consistent with the second premises' explanation of Comsat's behavior. The hypotheses are then supported by the second premise because it states:

- 1. The U.S. Government did not foresee the rapid growth in satellite communications and did not develop policy in the event that Comsat would decide to enter non-INTELSAT activities, especially in the area of limitations to Comsat's expansion.
- 2. Because of the lack of limitations, Comsat was able to expand freely for several years before the federal government decided that limits were necessary.
- 3. Because of the United States' monopoly position in satellite communications, the U.S. Government did not foresee Comsat's role in INTELSAT being diminished and did not make any plans for any major changes in the organization.

As this historical analysis has shown, Comsat's corporate activities changed dramatically after the Definite Agreements went into effect. The Corporation's list of non-INTELSAT activities grew to the point where it created enough concern to cause the federal government to believe that major changes in Comsat's structure were necessary to protect the public interest.

There is still the possibility that, because of the growth of satellite communications, Comsat would still be involved in the same non-INTELSAT activities today had there been no changes made in its status at INTELSAT. In this case, the above hypotheses would not be true. Because it is speculation, there is no way to totally refute this idea. However, there is evidence that makes this possibility less likely to be true.

- 1. The dramatic change in Comsat's statements and actions immediately after the Definite Agreements went into effect.
- 2. The lack of motivation to go into non-INTELSAT areas because of the strong position that Comsat would maintain at INTELSAT.
- 3. The risk that would be involved in entering the competitive market that could draw the U.S. Government's attention to Comsat's powerful status even sooner.

Therefore, this thesis can state that through the documentation of the two premises and their factors, and the general historical outline of the relationship between Comsat and INTELSAT, that strong evidence exists to support the two hypotheses' validity.

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