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INTERNATIONAL TECHNOLOGICAL NEGOTIATIONS : A FRAMEWORK
FOR ANALYSIS.

University — Université

CARLETON UNIVERSITY

Degree for which thesis was presented — Grade pour lequel cette thèse fut présentée

MASTER OF ARTS

Year this degree conferred — Année d'obtention de ce grade

1983

Name of Supervisor — Nom du directeur de thèse

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INTERNATIONAL TECHNOLOGICAL NEGOTIATIONS : A FRAMEWORK FOR ANALYSIS

by

Karen Diane Patrick, B.A.

(c) 1983 by Karen Diane Patrick

A thesis submitted to the Faculty of Graduate Studies and Research in
partial fulfillment of the requirements for the degree of Master of Arts
in International Affairs

The Norman Paterson School of International Affairs

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ABSTRACT

This study examines the political process by which one of the last remaining "unowned" areas of the planet - outer space - is being brought under legal control in the context of a proposed model of international negotiation. Two controversial issues - direct broadcasting by satellite and remote sensing of the earth from outer space - are put to the test to determine the usefulness of the model in explaining the process of negotiation on issues involving advanced technology in a multilateral setting.

The proposed model proves to be a valuable tool for analyzing the international negotiation process with respect to direct broadcasting and remote sensing by satellite - it is found to have substantial explanatory value and may be said to be mildly prescriptive. In a comprehensive manner, it succeeds in explaining what happens when members of the international community negotiate with each other in the endeavour to create international regimes to govern the activities of technological innovations, how it happens and why. As such, the proposed model serves to supplement existing international negotiation theory and to act as a prototype for further investigations into negotiations on other assorted issues involving advanced technology.

ACKNOWLEDGEMENTS

Many people have contributed to the development of this thesis. Although I alone am responsible for any errors or omissions, I gratefully acknowledge the contributions of those who gave generously of their time and insight in suggesting improvements in the manuscript. I am especially indebted to Professor R.P. Saunders from the Department of Law for his encouragement at various stages of writing, and his thorough and constructive critique of the draft version was indispensable. Others who assisted in bringing this thesis to completion were Professor Harald von Riekhoff from the Department of Political Science and numerous colleagues from the Norman Paterson School of International Affairs.

I wish to acknowledge with special appreciation and affection the contributions made by my family, my fiance and my friend Cathy Ryan. I owe them all untold gratitude for the understanding, support and encouragement they provided me throughout the writing of this thesis.

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INTRODUCTION

Without question, man has witnessed extraordinary advances in science (1) and technology (2) which have opened up to him the unknown frontier of outer space, a frontier as yet largely unaffected by the perilous rivalries that have continually characterized and marred his existence on earth. Man's unceasing efforts to harness this vast, new physical dimension and to place it at the service of mankind, underscore the vital importance of international cooperation in the peaceful uses of outer space. If man truly desires that the exploration of outer space and the practical applications that will be derived from it be used for peaceful purposes and in the interests of all peoples, a body of law, capable of keeping pace with developments in science and technology, must be established.

While traditionally the international law (3) relevant to new scientific and technological developments has evolved slowly from custom and the practices of states before being codified in international agreements, there has been less reliance on the painstakingly slow work of the "invisible hand" to harmonize national interests and avoid conflict in the latter half of the twentieth century. (4) The rapid pace of scientific and technological advances and the subsequent growth of the interdependence (5) and interpenetration of societies have increased

pressure on the international system to accommodate immediately these developments before any points of no return are reached. An organized effort on the part of members of the international community, commensurate and integrated with the progress they have achieved in the sphere of science and technology, is required in order for international law to develop within a reasonable period of time.

Advancements in science and technology with regard to outer space have given rise to multilateral negotiations (6) aimed at producing international "innovation" agreements (7). According to Ikle :

...negotiations for the purpose of such an [innovation] agreement deal with the setting up of new relationships or obligations [among] the parties, with the founding of a new institution, or with a new arrangement for controlling objects and arenas. (8)

It is the objective of the United Nations Committee on the Peaceful Uses of Outer Space (hereinafter the UNCOPUOS or the Outer Space Committee) to create new relationships and undertakings among the members of the international community in the form of international agreements. (9)

The purpose of this study is to examine, in the context of a proposed model of international negotiation, the political process by which one of the last remaining "unowned" areas of the planet - outer space - is being brought under legal control. Two controversial issues - direct broadcasting by satellite and remote sensing of the earth - will be put to the test to determine the usefulness of the model in explaining the process of negotiation in a multilateral setting. The aim is to develop an understanding of what happens when members of the

international community negotiate with each other in the endeavour to create new international regimes which are acceptable to all states concerned, how it happens and why.

The investigation begins with the creation of a proposed model of international negotiation as the framework of analysis. Chapter One provides the instruments necessary for examining the process of negotiation in a multilateral situation characterized by issues involving advanced technology. A comprehensive, albeit succinct analysis of each phase of the process is presented, and the various outcomes are categorized and examined. The variables that contribute to the determination of these outcomes are clearly identified and assessed.

Chapters Two and Three present detailed examinations of the negotiations carried out in the Outer Space Committee on direct broadcasting and remote sensing by satellite respectively. The effort is made to acquaint the reader with the developmental process, from the initial recognition of the situation to the outcome.

Chapter Four determines the "fit" of the proposed model to these multilateral negotiations. This section addresses the crucial questions : does the model advance general understanding of what happens in the negotiations, how they happen and why ? In answering these, each of the phases is briefly re-examined, and their explanatory value is determined.

The exploration and use of outer space are continuing processes. As ventures in direct broadcasting by satellite and remote sensing of the earth from outer space proceed, it is essential to add new pages of

law to those already written. The development of law is an ongoing process. Imperfect as these rules and regulations might be, they would have the distinction of timeliness, of evolving in the immediate wake of scientific progress.

FOOTNOTES

(1) Science may be defined as a systematized body of knowledge; or, the methods and assumptions characterizing the search for verifiable, transmissible knowledge.

(2) Technology may be defined as the application of scientific knowledge and human skills to the solution of problems in the field of practical or industrial arts.

(3) International law may be defined as a body of rules and principles that guide the relations among nations and between governments and both domestic and foreign nationals.

(4) In international law, legal principles have found their origin in custom. Customary rules have generally evolved after a long historical process culminating in their recognition by the international community. However, with the emergence of rules of custom in air and space law, after only a brief period of application, the international community has come to the realization that there can be no time limit in determining custom. As long as there is a repetition of acts and a general recognition among states of a certain practice as obligatory, custom can be said to have been established. The four space treaties that now exist, which regulate the exploration and use of outer space, are examples of rules that solidified rather quickly. In these instances, simultaneous interest in the same objective occurred broadly in the community of nations. These interests resulted in various national pronouncements, together with little or no protest on the part of nations.

(5) Interdependence is defined as "...situations characterized by reciprocal effects among countries or among actors in different countries..." by Robert O. Keohane and Joseph S. Nye, Power and Interdependence. Toronto: Little, Brown and Company, 1977 at 8.

(6) The expression "multilateral negotiations" refers to a particular type of diplomatic conference where some or all participants are members of rival groups which are highly structured and organized, such as alliances, economic communities, or regional organizations.

(7) An "innovation" agreement is one of the five types of agreement Ikle outlines in the third chapter of his book, How Nations Negotiate. The other four are "normalization", "extension", "redistribution", and "effects not concerning".

(8) Fred Charles Ikle, How Nations Negotiate. New York : Frederick A. Praeger, Publishers, 1968 at 27.

(9) The establishment and work of the UNCOPUOS is dealt with extensively in Chapter One.

CHAPTER ONE

A MODEL OF INTERNATIONAL NEGOTIATION

In order to advance general understanding of the negotiation process in a multilateral setting, a model of international negotiation has been created. (See Appendix A). Seven sequential, inter-connected, overlapping phases are identified as characterizing this process with some kind of outcome being inevitable. Allowance is made, in the form of feedback loops, for considerable flexibility in the actual negotiations. Negotiators are able to return, for whatever reasons, to an earlier phase or phases in order to facilitate the creation of an international regime. A comprehensive analysis of each phase is presented, including an evaluation of the variables influencing the process. Specific examples are drawn from the UNCOPUOS negotiating record to illustrate the successes and failures characteristic of international negotiations.

PRESSURE TO COMMENCE NEGOTIATIONS ON AN INTERNATIONAL AGREEMENT

Negotiation is essentially a diplomatic instrument, the purpose of which is to produce an outcome preferred by all parties to a situation or a dispute. Several elements must be present for negotiations to take place. First, there must be two or more states (represented by diplomats, lawyers and scientists) involved in the process, so that the situation or dispute is international in character rather than simply a problem within the domestic jurisdiction of one member of the world community. Second, something which requires the attention of the states involved must be in the offing or must have occurred. Third, the states concerned must agree that this situation giving rise to or portending friction, or that this international dispute exists and must be actively interested in the effort to achieve a measure of accommodation or a settlement. So, with common interests, there is something to negotiate for; with issues of conflict, there is something to negotiate about. Although highly controversial issues may be discussed and agreements may be reached, negotiations do not always resolve underlying conflicts. For example, SALT did not resolve the principal conflicts between the United States and the Soviet Union.

According to Ikle, there are a number of ways in which governments can relate their common interests to their conflicting interests :

They may be isolationist and try to stay apart to avoid all conflict while sacrificing the pursuit of possible common interests. Or they may simply follow habits and rules that regulate their interests and conflicts automatically without bargaining. (1)

However, with the unprecedented growth of the interdependence and interpenetration of societies, a government usually realizes that the interests of the other members of the international community and their ability to pursue national objectives will be influenced by its own activities. Likewise, it takes account of the fact that it will be affected by the activities of other nation states. In no sector of international relations is this more apparent than in that pertaining to new technological developments. Therefore, members of the international community agree on an "irreducible minimum objective" (2) - the necessity to convene negotiations in order to produce an outcome preferred by all.

The route that governments choose is one in which they communicate with other governments for the explicit purpose of working out a particular combination of common and conflicting interests in order to reach an agreement. Members of the international community usually want to share the same object or benefit from the same arrangement which they can bring about only by joining together. Also, parties are often interested in an exchange; they may want different things, things they cannot obtain themselves but can only grant to each other. Thus, negotiation, "...a process in which explicit proposals are put forward ostensibly for the purpose of reaching an agreement on an exchange or on

the realization of a common interest where conflicting interests are present..." (3), is necessary for any arrangement where an explicit agreement is essential, for any arrangement that establishes complicated forms of collaboration and for the setting up of formal international institutions.

While current international pressures have made the conduct of international negotiations and the contemplation of international institutional arrangements difficult to avoid, the appropriateness and timing of international negotiations remain a subject of continuing debate. For example, widespread controversy arose in connection with efforts to conduct early negotiations on outer space law. A number of arguments were raised in urgent recommendation that new prescriptions to govern activities in outer space be elaborated by a most explicit, formal, comprehensive, and early multilateral agreement. The diverse proposals for what McDougal and Lipson called a "Big Solution Now" seem to have proceeded upon one or more of several underlying assumptions :

- 1) paper agreements solve problems whether or not effective sanctions exist to assure compliance;
- 2) the necessary objective of negotiations is agreement;
- 3) almost any agreement is better than no agreement;
- 4) overall solutions that fail are superior to particular adjustments that succeed;
- 5) international control of appropriation or ownership is somehow demanded by the supposed supranationality of extra-terrestrial activity; and
- 6) the tidiness of a treaty is so preferable to an uncertain legal situation that it may be worth a substantial price. (4)

Opinions to the contrary attacked these assumptions as dubious and declared that "...it [was] unrealistic to expect to resolve major political issues simply through the generation of a new international agreement". (5) A paper agreement, conceived without genuine political agreement, would be a pointless effort. In fact, it might even have negative repercussions by raising false expectations. However, this is very much a legalistic interpretation - diplomats such as Henry Kissinger often preferred the flexibility afforded by an imperfectly defined agreement to the rigidity cum conflict inherent in a precise agreement which one or more parties may come to find intolerable in the future.

Foreseeability is a major problem encountered at early negotiations called to respond to new technological developments. Unfortunately, not enough is usually known about the actual and potential impacts that new technological developments will have on national and international society to make a comprehensive code practicable or desirable at an early date. An example of this problem is the attempt to define the boundary between airspace and outer space. The initial debate took place in 1958 between the representatives of two schools of thought. While a number of scholars believed that the question of boundaries between airspace and outer space "...[was] not so much a question of creating new authority to fill a void as it [was] of changing existing authority, already supposedly projected to the ends of the universe", others felt that "... the existing prescriptions on sovereignty in airspace [could] not be applied to flight at altitudes where there [was]

no air". (6) The fact that some speculators would have had all flight instrumentalities subject to existing rules and regulations, regardless of the altitude at which they flew, indicates that these people were armed with incomplete and inadequate information about the workability of this rather premature solution.

Premature international agreements can produce "solutions" that may not only be technically incorrect but unworkable. Jaffe, an international lawyer, reiterates this view :

...we [international lawyers] should wait for the scientists and technicians to point up the necessitous situation or to call upon us as need exists when they can provide ample relevant facts with respect to which we can display our shining professional brilliance, lest we risk imposing limitations, expressed in language however sublime, which are not known to be realistic and necessary in society's behalf.
(7)

The attempt to solve hypothetical problems before they arise, relying on incomplete and inadequate knowledge of the nature of the activity and its requirements and consequences, can only tend to promote confusion and conflict.

The national positions of members of the international community may be so diametrically opposed as to stymie any effort to reconcile them at early negotiation sessions. The more diverse the national objectives are when formal negotiation begins, the more difficult the negotiation will be. (8) The process of international law development, which consists of the continual narrowing of differences among nations, may be made more efficient, and the quality of results may be improved

if, prior to formal negotiations, these differences are narrowed through interstate communications. The spectrum of positions members of the international community have brought to the Outer Space Committee, especially those of the space powers, have contributed greatly to the negotiating difficulties. Little effort, if any, was made to narrow these differences of opinion prior to the negotiation of a number of issues. However, substantive issues, such as that of providing information on activities concerned with the exploration and use of the Moon, were resolved readily where customary international law developed along with negotiations.

Arguments for the early negotiation of new international technological regimes are supported by those members of the international community who view multilateral negotiations as an opportunity to exercise leverage over international decision-making -- a chance that would not be available to them if the decisions were made through the development of customary international law. The developing nations (9), which do not have the new technology, hold this view. They fear that deferred resolution of these legal questions may prejudice their interests. (For example, totally unregulated development of outer space applications, profound in their implications for the traditional concept of national sovereignty, could result in a situation whereby a small number of technologically advanced countries are exploiting their relations with less developed countries.) After all, these newly independent countries often feel that present international law sacrifices their interests to those of the older and richer states who

played the major role in shaping that law. As these countries did not participate significantly in the process of formation and development of the numerous juridical institutions and rules of law that were consolidated and systematized during the nineteenth century - they had not yet become independent - it was thought that "...inequality of states with respect to power was translated in practice into inequality of rights". (10) They do not want history to repeat itself. With their promulgation of the New International Economic Order (NIEO), premised on the assumption that there should be a shift of political and economic power from the developed to the developing countries to eliminate the widening gap between them, the developing countries have succeeded in acquiring unanimous agreement from the developed countries upon the procedural point that the members of the Third World, usually acting as a group, have a right to negotiate with them in the formulation and application of all decisions that concern the international community. Also, the developed nations which are not in possession of the new technology may believe that they too lack the power to directly influence the development of the pertinent customary international law and would anticipate an increase in their leverage at a multilateral negotiation. This confluence of interests was demonstrated during the formulation of the Draft Moon Treaty and continues to be demonstrated during the formulation of draft principles on the legal implications of remote sensing of the earth from space, of supplementary norms of international law relevant to the use of nuclear power sources in outer space and of principles governing the use of artificial earth satellites

by states for direct broadcasting by satellite.

As the preceding discussion suggests, conflicting judgements are involved in the course of deciding when and whether to start a negotiation. Although arguments in favour of deferred negotiations are rather persuasive, the concerns of the technological "have-nots" are legitimate. Without early negotiations leading to the formulation of international agreements, there is no guarantee that these countries will be able to obtain their fair share of the benefits from these emerging technologies.

In essence, debate has erupted between the representatives of two approaches to the regulation of technological innovation. On the one hand, there are those (e.g., the Soviet Union and the Eastern bloc countries, France and Brazil) who commend the advantages of a legislative orientation that eventually culminates in an international convention while, on the other, there are those (e.g., the United States, the United Kingdom, the Federal Republic of Germany, and Japan) who favour an operational orientation that emphasizes international cooperation in establishing and operating actual systems using new technology. (11)

The legislative approach is depicted as being "...an interweaving process of building on existing norms of international law and of drawing principles and analogies from related legal fields in both international and domestic law". (12) In this way :

...'vertical' legal cumulation and 'horizontal' legal borrowing are fused to provide an overall strengthening of the general framework of international law, as it applies to new specific activities that require regulation and mutual accommodation. (13)

While this approach is able to chronicle the express interests of members of the international community and the principles on which they are in agreement, a priori legal codes and abstract general principles could prescribe artificial responses to non-existent problems that may impose unnecessary constraints on newly emerging technologies.

An alternative approach is found in the operational process of bilateral and multilateral cooperation in outer space activities. It advocates the development of rules and regulations on the basis of actual practice and therefore stresses custom. It is distinctly advantageous in "...its ability to circumvent hypothetical problems and to build rules on proven patterns of workable cooperation...". (14) However, "...countries which are masters of technology are in advantageous positions to dictate the terms of cooperation without fully taking into account the interests of third parties." (15)

The development of the international law of outer space is revolutionary in its importance. In the past, it has been a somewhat complex combination of the two approaches, and a number of countries (e.g., Canada and Sweden) are trying to ensure that the international community continues to take this successful "middle-of-the-road" orientation to the regulation of technological innovation.

The international community began to be concerned about the non-terrestrial domain of outer space immediately following the premiere flight of the Soviet Sputnik in 1957. From the very day that his instruments entered outer space, man was confronted with a wide range of important questions and problems that have proliferated with the rapid development of science and technology. It was realized, rather suddenly, that this vast, unexplored area would soon be accessible to man and could become the scene of a new national rivalry, perhaps more bitter and more dangerous than any previously known. The problems were obvious :

There was the possibility of competition to occupy the Moon or other bodies; of military experiments that could have serious consequences in harming the environment permanently; of vital strategic gains for one country at the expense of others. (16)

As a result, there was widespread sentiment that this great scientific revolution of global significance had created the urgent need for a fundamentally international approach to cope with the multitude of queries regarding already existing or future situations which were likely to arise with man's venture into space. The extension of international law to outer space, a largely unknown environment, became a necessity. Technological progress is "...an inexhaustible source of new demands, identifications and expectations presenting the law with an everchanging pattern and a variety of situations which it must attempt to tackle if it is to avert instability and chaos". (17) The value of international law in shaping and stabilizing international behaviour

would certainly be greatly increased should it respond promptly to such challenges and sometimes even plunge forward to prevent the use of a particular invention to the detriment of all mankind.

PHASE 1 : THE SEARCH FOR AN ARENA

When members of the international community acknowledge the presence of both common interests and issues of conflict, there is a genuine need to agree on a location where the negotiations may take place. Of course, this presupposes that the parties recognize that conflicting interests are not resolvable immediately -

1) parties may consider the disagreement less than tolerable and anticipate a negotiated outcome that is preferable to the status quo;

2) parties may have little choice but to accede to almost any attempt to deal with the problem in order to allow the continuation of what is an advantageous relationship, [this was very much the position of the space powers - the United States and the Soviet Union], or to permit them to salvage what they can, [this was the position of the developing countries with respect to outer space]; and

3) the unresolved disagreement may concern interests that cannot easily be neglected [for example, matters of territorial integrity]. (18)

- and that they are prepared to enter into negotiations for the ostensible purpose of seeking to discover some tolerable resolution.

The United Nations

The United Nations, generally recognized as the most advanced and universal expression of humanity's interdependence today, constitutes a natural organizational basis and framework to ensure that this worldwide distribution of technology is conducted in such a manner as to minimize potential sources of conflict among nations. Consequently, momentum toward resolution of controversial issues with regard to outer space activities has come from the United Nations, the organization which has been established "...to maintain international peace and security..." and whose General Assembly has been entrusted to "...initiate studies and make recommendations for the purpose of ... promoting international cooperation in the political field and encouraging the progressive development of international law and its codification". (19) The General Assembly has made a concerted effort "...to revitalize international law..." and "...to deal with the fundamentals of a new international legal order". (20) It has contributed substantially to the development and codification of traditional law and to the formulation of principles in areas not yet governed by international law. In order to achieve or promote these objectives, the General Assembly has proceeded pragmatically, using a variety of media (from ad hoc committees to conferences) and has embodied the results in conventions and resolutions. (21)

Establishment of the United Nations Committee on the Peaceful

Uses of Outer Space

By Resolution 1472 (XIV) of 12 December 1959, the General Assembly established the 24 nation Committee on the Peaceful Uses of Outer Space to succeed the 18 nation Ad Hoc Committee of the same name (22), established by General Assembly Resolution 1348 (XIII) of 13 December 1958, one year after the launch of Sputnik and simultaneous with the birth of the National Aeronautics and Space Act (NASA). The member nations of the Committee mirrored the United Nations membership as a whole having African, Asian, Latin American, West European, East European, Middle Eastern, First World and Third World countries. (23) Its charter authorized the Committee to review the scope of international cooperation in peaceful uses of outer space, to devise programmes in this field which would be undertaken under United Nations auspices, to encourage continued research and disseminate information on research, and to study legal problems arising from the exploration of outer space.

By General Assembly Resolution 1721 (XVI) of 20 December 1961, the Committee was made permanent, and its membership was increased to 28, to 37 in 1974, to 47 in 1977, and today, after the addition of six new members, it has 53 member nations participating. Despite these increases, however, the Committee's membership has been small enough to be viable and facilitate personal contacts and negotiation. There is a certain point beyond which expansion of membership could undoubtedly delay the process of achieving agreement and could even be completely

counter-productive.

These increases in membership evidence the developing international interest in the purposes for which outer space is explored and used and in the achievement of an orderly basis for the conduct of space activities. They also demonstrate that a great many nations are eager to participate directly through international cooperation in the various aspects of outer space. Members of the international community show a great willingness to engage in a concerted and sustained effort to define and adopt international legal norms of behaviour through a process of general multilateral agreement.

Subsidiary Bodies of the UNCOPUOS

To facilitate the management of actors and issues, the labour of the UNCOPUOS is distributed between two specialized Sub-Committees, each of which has the same membership as the Committee. The Scientific and Technical Sub-Committee deals mainly with the exchange and dissemination of information about international cooperation in outer space matters, with the encouragement of international programmes of space research and with making the results of exploration accessible to countries which are not engaged in it. It also operates in education and training in the field of space and in the evaluation of work done by the specialized agencies engaged in space research. The Legal Sub-Committee plays an important, central role in the formulation and development of the law of

outer space. It was entrusted with the task to study legal problems which may arise from the exploration and use of outer space. It is upon the work of this Sub-Committee that this examination will focus.

The Legal Sub-Committee is the principal organ concerned with the elaboration of international draft treaties on outer space submitted by states for the consideration of the United Nations. Concerted texts of draft treaties are considered at the UNCOPUOS and finalized and approved by the General Assembly in the form of resolutions. (24) After that, they are sent directly to states for signature without diplomatic conferences. Upon the deposit to the depository governments of the necessary number of ratifications, an agreement enters into force. At this stage of the elaboration of legal rules, states express by individual acts their consent to recognize this or that provision as a rule of international law.

There is a great deal of existing international law immediately applicable to the activities of states in space. Activities of states do not cease to be subject to international law when they extend beyond the atmosphere. For example, the law governing recourse to force, providing for the peaceful settlement of disputes and defining the limits of the right of self defence, has an immediate and direct application to space activities. The international law of tort, though in many respects less developed than the law concerning the contractual relations of states, is in the process of rapid growth. Also, Chapter XIV of the United Nations Charter, relating to the International Court of Justice, and the Statute of the Court itself, are applicable in

respect of disputes, and legal questions relating to space matters. Space law is obviously :

...a basic dimension, a constitutive element of any legal system; the subjects of law perform acts achieved in space, it is within space that the events law is concerned with take place, that the consequences of compliance with or violations of the rules of law materialize". (25)

United Nations Declarations and International Agreements

The early efforts of the UNCOPUOS, although arrested on numerous occasions as the result of Cold War tensions, eventuated in General Assembly Resolution 1721 (XVI) in 1961, which commended to states the following guiding principles : a) that international law, including the Charter of the United Nations, applies in outer space, and b) that outer space, including celestial bodies, is free for exploration and use by all states in conformity with international law and is not subject to national appropriations. Six years later, these principles became the main pillars of the 1967 Outer Space Treaty.

In a rather short span from 1958 to 1974, the Legal Sub-Committee demonstrated a high degree of achievement in the drafting of a declaration and four space treaties which have been ratified by many nations.

The two main landmarks in the legislative work of the United Nations are the Declaration of the Legal Principles Governing the Activities of States in the Exploration and Use of Outer Space (United

Nations General Assembly Resolution 1962 (XVIII)), unanimously adopted by the General Assembly in December, 1963 and the Treaty on Legal Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies (United Nations General Assembly Resolution 2222 (XXI)), drafted and unanimously adopted by the General Assembly in December, 1966, which, in part, reproduces and is designed to replace the former. The Outer Space Treaty, which was opened for signature in London, Moscow and Washington in January, 1967, entered into force October 10, 1967.

It is generally accepted that the Outer Space Treaty is the basic charter or constitution governing space activities. It includes articles establishing a number of basic principles, such as "States, Parties to the Treaty, shall bear international responsibility for national activities in outer space" and thus, "each State that launches or procures the launching of an object into outer space ... is internationally liable for damage to another State, Party to the Treaty" (Articles VI and VII); "States ... shall regard astronauts as envoys of mankind in outer space and shall render to them all possible assistance in the event of accident, distress or emergency landing ..." (Article V); and "a State ... on whose registry and object launched into outer space is carried shall retain jurisdiction and control over such object ... while in outer space ..." (Article VIII). (26)

Among the commonly held basic assumptions was that the 1967 Treaty on Outer Space consisted of general guidelines which could be implemented in a more detailed manner by subsequent international

agreements.. Building upon, but not contravening the Treaty's provisions, new instruments could be drawn, as required, by developments in space science and technology. This is the philosophy which underlies the formulation of the three treaty texts worked out since 1967 : the 1968 Agreement on the Rescue of Astronauts, Return of Astronauts and the Return of Objects Launched into Outer Space (Rescue Agreement); the 1972 Convention on International Liability for Damage Caused by Space Objects (Liability Convention); and the 1974 Convention of the Registration of Objects Launched into Outer Space (Registration Convention).

Use of International Fora Whose Function is not Formation of

Binding International Agreements

An important feature of international law development is the role played by multilateral fora whose function is not the formulation of binding international agreements. While a good deal of controversy exists with the respect to the question of whether the United Nations General Assembly has competence to create customary international law by the process of reiteration of resolutions, the proposition that the General Assembly may play a role in the development of customary international law is unobjectionable. The adoption of a resolution may create, may indeed be based on, the expectation that the members of the international community will generally act in accordance with the resolution and thus will initiate the process culminating in the emergence of a new rule of customary international law. This first step is usually followed by the elaboration and adoption of international conventions along similar or identical lines as long as the usual

requirements for the formation of custom, practice of states and sense of legal obligation are fulfilled.

Several authors (27) claim that resolutions by the United Nations General Assembly present an especially valuable vehicle for law development. According to Schachter :

...states [are] more willing to adopt declaratory resolutions in the framework of international organizations precisely because they have the character of general statements and therefore do not purport to circumscribe the activities of states as much as detailed treaty provisions. (28)

As a result, while members of the international community discuss the issues on the agenda and often negotiate the text of the resolutions, their non-binding nature arguably provides essential flexibility and may eliminate problems of timing and claims for exclusive national competence posed by the negotiation of binding agreements.

The significance of this form of law-making is probably greater in the realm of science and technology than in other fields, for a paramount feature of science and technology is the rapidity of change. Resolutions do not appear to imply the degree of permanent commitment characteristic of treaties; they have a suppleness which permits practice and later resolutions to make the necessary adjustments - a highly desirable quality in areas of rapid change. General Assembly resolutions have played a beneficial role in the formative stages of international law development, particularly the law of outer space. (29)

On the other hand, mention must be made of the fact that the very forum and the non-binding nature of the resolutions may create counterproductive forces. According to Charney :

... the high visibility of the General Assembly, the absence of real political and economic stakes, and the recent use of the forum as a premier staging ground for the high politics of the New International Economic Order argue against using United Nations General Assembly resolutions as devices for establishing needed and useful legal norms. (30)

Such counterproductivity is evidenced in many a negotiation of technological issues where discussion has tended to polarize positions rather than encourage a process of accommodation and exploration.

Several examples of this polarization of views can be extracted from the Moon Treaty negotiations that have taken place over the years. One of the main stumbling blocks on the way to a final elaboration of a Draft Moon Treaty was whether or not a moratorium should be placed on the exploitation of the natural resources of the Moon and Other Celestial Bodies until an international regime could be established to regulate exploitation. Several countries were in favour of such a moratorium. However, the United States was not prepared to accept an express or implied pre-regime prohibition on the exploitation of possible natural resources. Whether the Draft Moon Treaty should pertain, apart from the Moon, to Other Celestial Bodies was another issue on which the opinions of the delegates did not concur. While some delegates were in favour of different treaties for different celestial bodies, others insisted on the Moon Treaty being applicable also to the

other celestial bodies still subject to research. Two different approaches were taken with respect to providing information to the United Nations Secretary General as well as to the public and to the international scientific community of activities concerned with the exploration and use of the Moon. The Soviet Union was willing to perform such duties after the completion of each mission while the United States insisted on the fulfilling of such duties prior to starting any mission.

PHASE 2 : DEFINITION OF ISSUES AND COMPOSITION OF AGENDA

Management of Issues Involving Advanced Technology

Although the members of the international community have recognized the emergence of potentially controversial situations and have agreed upon an arena, it cannot be assumed that they are each clear, let alone in agreement, concerning the exact nature of the situation or what issues are to be negotiated. The significance of this caveat is probably greater in the realm of science and technology than in other fields. In addition to the routine difficulties encountered and dealt with at international negotiations, the technological basis of the subject matter - the law of outer space - gives rise to a number of specific problems which are not as easily solved. There are always a large number of issues involved in technological negotiations, many of

which are complicated in their own right and many of which are complicated by interaction with other issues both within and outside the negotiations. The management of such questions often involves consideration of the advanced technology and of the technical analysis of its impacts. The integration of this information into political negotiations has been a major concern.

A paramount feature of negotiations on technological issues is that few of the participating nations and diplomats have much knowledge of the subject under consideration, at least in the early stages of negotiation, and thus are ill-prepared to conduct the consultations and negotiations necessary to produce an agenda. Clearly, in 1969, few knew anything about remote sensing of the earth from outer space, and only a limited number of diplomats knew much about other evolving commercial, scientific and military uses of orbiting artificial satellites. Armed with the necessary knowledge about new technological, scientific and business developments, these officials would better understand the controversial nature of the situation and would be better able to address the issues to be negotiated. Several approaches to the management of technical issues can and have been taken with varying degrees of success. (31)

The negotiations at the UNCOPUOS have been and continue to be concerned with the establishment of legal regimes to govern the exploration and use of outer space. The task often confronting the negotiators is that of constructing entirely new legal systems for technologies that have never been put to use, such as the commercial

exploitation of the natural resources of the Moon.

Prior to formal negotiations, (beginning with Phase 5), relevant technical studies are often undertaken by the secretariats of the United Nations and UNCTAD. While these well-distributed reports do contain vital information that has not been previously available to the negotiators in any functional form, their utility is limited because they do not always induce a shift in the focus of the debate among parties from the broad political-ideological issues of the East-West/North-South confrontations to the critical issues under negotiation and because the reliability of the studies is questionable, and the objectivity and credibility of the analyses made in the reports are, more often than not, controversial. However, the Committee on Space Research (COSPAR), the International Academy of Astronomy (IAA), the International Astronautical Federation (IAF), the International Atomic Energy Agency (IAEA), and the International Institute of Space Law (IISL) have served as important sources of information and analysis for the UNCTAD, as is evidenced in a subsequent discussion on information generation.

"Off-the-record" seminars, staffed with experts from interested parties, are often set up for the purpose of elucidating the issues. Unfortunately, the experts, speaking from the seats of their sponsoring delegations and often representing the delegation itself, are under pressure not to make any "inappropriate" statements.

However, over the years, the general level of knowledge on technical issues has increased substantially. Information on the

subject does flow to the delegates from published studies such as the annual Proceedings of the Colloquiums on the Law of Outer Space, from informal discussions, and from conferences sponsored by governments, industry and nongovernmental organizations. Of course, the United Nations Conferences on the Peaceful Uses of Outer Space are also an important source of information. As well, many governments are increasingly staffing their negotiating teams with professional diplomats who are being allowed to specialize so much in one particular area, (e.g., Roger Eaton and Murray Strome in the Law of Outer Space and Alan Beesley in the Law of the Sea) that they become internationally recognized experts in their respective fields. Consequently, an increasing number of nations are armed with substantial knowledge about the subject under consideration and thus are in better positions to address the issues being negotiated.

Issue Definition and Agenda Formulation

As the issues emerge, each participant, with his supporters, clarifies and formulates his ideas and expectations in light of the situation and the possibilities available. Although the circumstances may have originally been straightforward, they may now be complicated with the introduction of old and new issues (in terms of a participants' own interests and potential advantages), underlying complaints and demands, ideological considerations, and other matters. Rational

decisions then have to be made about which issues to include on the agenda. Members participating in negotiations take the development of the agenda seriously as the choice of conflict often allocates power. From the outset, the nature of the issues to be discussed puts some negotiators in an offensive position and some others in a defensive one.

The size and balance of an agenda is important to consider here as they may actually become a condition for negotiations to take place. The size of an agenda may be said to be influenced by three factors : the number of parties involved, inherent momentum and the dynamics of negotiations. The greater the number of negotiating parties, the greater the chance that national attributes are likely to give rise to different concerns and thus, the more likely the agenda will be lengthy. Agenda development has its own built-in momentum. Some items will engender others under the pressure of logical consistency, one issue often flows naturally from another, and of tactical maneuvering - in order to get a country to agree to a specific agenda item, it may demand that the agenda be expanded to launch one of its own national pet issues. The fundamental dynamics of negotiations also lend themselves to a long agenda. According to Fisher :

It seems clear that if a subject is too narrowly defined, there will be little possibility of a bargain. The narrower the point, the more likely it is that a change will benefit one party only. It would seem desirable to expand the subject until it is large enough for a bargain which benefits each, if not to the same extent, at least to some degree. (32)

Generally speaking, a long and heterogenous agenda seems inevitable in order to accommodate the interests of all parties concerned in a multilateral negotiation. As a result, each party will have to deal with issues in which it is little interested but for which other parties feel very enthusiastic. Certainly, this will be conducive to frustration and will accentuate conference fatigue.

When discussing the problems relating to the definition of issues and the formulation of the agenda, it is wise to bear in mind the elements that must be present for negotiations to take place. Since all the participants must share a common interest, there has to be some agreement on the choice of, and relative emphasis on, various issues to be included on, at least, a preliminary working agenda. Agenda formulation may occur through :

- 1) the production, by each participant, of his own list of issues - this establishes a loose framework that necessarily will be reduced and clarified in due course;
- 2) discussions specifically focused on that goal - it is seldom a once-in-for-all agreement that precludes later additions and amendments; or
- 3) the early exchange of information - the presentation of demands, counterdemands, and complaints, and the reactions to them. (33)

However, there must also be issues of conflict present among members of the international community. There are bound to be differences among negotiating nations with regard to the relative saliency of issues - an indicator of underlying divergent interests or at least of dissimilar concerns - "...which may lead to misunderstanding, negative attitudes,

hostile interaction, fewer concessions, and a lower probability of eventual agreement". (34) Also, a participant may refuse to consider an issue introduced by an opponent on the grounds that it was not suitable, (e.g., a more appropriate framework existed to deal with it), or that it would complicate and impede the work of the committee or conference (35) or that it touches upon interests and values that the participant is hesitant to reveal. Also, a nation state might raise objections regarding an item simply to delay negotiations on an issue. Parties to the negotiation have several options from which to choose in order to find some sort of agreement :

- 1) the participant may admit negotiability or at least agree to further discussion of the issue - he may consider the issue to be relatively unimportant;
- 2) the opponent may accept non-negotiability on the grounds that he believes the participant's position is so strong that he is not liable to make large concessions, and the issue is withdrawn;
- 3) the matter may be reformulated in a manner acceptable to both parties - trading, where one party accepts an issue or a particular definition of it as proposed by the opponent in return for acceptance of one proposed by him, may occur;
- 4) clarification and improved appreciation of the issue, of the situation in general, and of each party's position, may result; or
- 5) there may be limited agreement to disagree temporarily until the issue can be reconsidered later when the negotiations have developed further. (36)

But an early test of strength, most often followed by accusations of failure to cooperate, may lead to an impasse or a breakdown of negotiations.

During the 1982 session of the Legal Sub-Committee, the procedural discussion concerning allocation of remaining time among the various agenda items was reopened. Members of the Sub-Committee expressed diametrically opposed opinions on inclusion of "other business" on the agenda. On the one hand, a number of countries (Sweden, France, the United Kingdom, the United States, and Brazil) felt that the Legal Sub-Committee should examine any matter which it deemed legitimate to consider. On the other, several members (the Soviet Union, Chile and Nigeria) argued that no item should be added to the agenda in view of the importance of the three substantive questions - definition/delimitation of outer space, nuclear power sources and remote sensing. (37) With the parties accusing each other of accusing each other of failing to cooperate, only intervention on the part of the chairman prevented the breakdown of substantial negotiations before they even began.

PHASE 3 : ADOPTION OF RULES OF PROCEDURE

Consensus Decision-Making

There is no more difficult a problem confronting international organizations ... than that of evolving modes of taking important decisions which will command general respect and give such decisions the weight necessary to make them effective in practice. (38)

The problem of adopting a suitable method of decision-making has been a persistent one, continuing throughout the history of international organizations. In the days of the League of Nations, the problem was primarily one of facilitating decisions which the restraining influence of the principle of unanimity (39) frequently made it virtually impossible to secure. With the establishment of the United Nations, the veto (40) became the apparent cause of the problem. Today, with the emergence of numerous international fora, the problem is principally one of devising procedures and safeguards to ensure that decisions are taken with a degree of deliberation and a sense of responsibility commensurate with their importance. Thus, a trend toward the use of consensus (41) in international fora (42), instead of other techniques, has existed since the mid-1960's.

There are political arguments that advocate the merit of consensus as compared with alternative decision-making procedures. (43) The key problem in contemporary international decision-making is the separation of power from voting majorities resulting from the expansion of membership in the international system. Given the prominence of ideological divisions in the system, majority voting is rendered increasingly useless for law-making decisions because of the high risk of producing artificial voting victories in which important minorities are alienated. The concept of weighted voting is politically unacceptable except in some international economic organizations (44). Consequently, the traditional decision-making procedures of the United Nations and its predecessors are frowned upon as being inadequate to the

task of international rule-making. A technique that will ensure that decisions reflect a very broad base of support is recognized as the only realistic approach :

The consensus system assures that decision-making at a multilateral negotiation of a convention will not be dominated by the numerical superiority of any group of nations. Rather, procedural significance will be given to the variations in the power of nations. Since it is difficult to obtain acceptance of voting systems that overtly recognize the differences in nation's importance, the consensus approach permits the maintenance of an egalitarian procedure which in practice may assure that multilateral negotiations reflect the real geopolitical power of the participating nations. (45)

This procedure, a major component of the model, represents an effective compromise between the developing states, desirous of a simple one-state/one-vote system, and the developed states, seeking to ensure that the distribution of power within reflects that outside. While the approach accommodates developing states by allowing all members of the international community to participate with an equal vote, it prevents a majority from abusing its numerical advantage by providing for the use of a procedure whereby all, or nearly all, nations must agree on substantive matters.

Five Strategies

In order to maximize the results of their efforts, negotiators employ one or more of five principal, joint strategies (46) in dealing with intricate problems. While, in theory, these strategies are

analytical ideal types that are mutually exclusive, in practice, they are likely to be less precise and clear, and two or more may be employed more or less simultaneously.

First, there is the "simple agenda method". Issues are merely taken ad seriatim as prescribed by the agenda and dealt with on an individual basis. As there is always a high probability that a number of issues earlier in the order cannot be dealt with immediately, and thus must be put aside for further re-examination, manipulative tactics, such as deliberately delaying progress on an issue in order to gain leverage on a second one or in order to induce the opponent's stronger commitment on a third, abound.

A second strategy is for the participants to arrive at an agreement as to which issues (one or two) are, for them, most important. Attention is then focused on the solving of these issues in the expectation that, having reached some kind of agreement on them, the residual issues can be much more easily resolved - if only because the negotiators will be unwilling to jeopardize the success already achieved. Perhaps the most difficult task is gaining agreement as to which are the most salient issues.

To reduce most or all relevant issues to the effective attributes of a common objective is another strategy employed by negotiators. The simplified set of attributes, initially perceived as dissimilar and incommensurable items, are then aggregated so as to suggest a limited number of potential outcomes that the participants can consider and compare. This method requires, of course, agreement, by the

participants, on the common objective.

A fourth strategy is for the participants to come to an agreement as to which issues are, for them, the least contentious (47) so as to treat and settle them first. Druckman argues, however, that :

...by focussing on specific narrowly defined issues which are bargainable, the parties may only be achieving minor adjustments which serve to preserve the system in which hostility and broader ideological divergences are maintained.
(48)

Again, whether or not the negotiators will be able to come to an agreement on which issues are least difficult is a question in itself.

The adoption of a "package deal" approach - one that requires either a "yes" or "no" vote on the entire package of issues in question - is the fifth strategy. It necessarily creates the kind of linkages and political give-and-take over issues so critical to the negotiating process by allowing states to determine priorities and then trade defeat on lesser issues for success on those of importance. The concessions granted during negotiations on one issue may translate into bargaining leverage on other issues.

In multilateral negotiations of technological issues, where there are a vast number of inter-related issues to be resolved, the package approach is recognized as being the most efficient method, although other strategies have been employed as well. However, it can complicate and thus delay the decision-making process by relating the resolution of each individual issue to the negotiation of other issues. Despite its weaknesses, it is necessary in any large, essentially political

negotiation dealing with an extensive number of issues.

Strategies four and five have been adopted by the UNCOPUOS. Conflict resolution, as practised by the Legal Sub-Committee, is characterized by a step-by-step procedure of eliminating disagreements over particular principles, paragraphs and words. International lawyers tend to dominate the negotiations. The entire package of issues in question is then accepted or rejected.

The Role of the Chairman

Crucial to the effective working of the consensus procedure and the "package deal" approach is the position of the chairman. A chairman must be a multi-faceted individual (49) capable of performing effectively in a variety of complex and difficult circumstances without alienating delegates from the process of negotiation. If the wrong type of person is selected for the task, not only is the efficacy of the method disrupted, but circumvention of an unsuitable chairman, once he is established, is difficult to achieve. The problem in the United Nations and various other international organizations is that the chairmen are elected on a rotational basis according to geographical distribution - thus, often persons who are entirely unsuitable for such a role acquire the position. In the UNCOPUOS, chairmen are appointed on the basis of a gentleman's agreement - the chairman of the UNCOPUOS will be from a neutral country (currently an Austrian), the chairman of the Scientific and Technical Sub-Committee will be from the West (currently

from Australia), and a representative of the Eastern bloc (currently a Czechoslovakian) will sit as chairman of the Legal Sub-Committee. The problem here is that chairmen retain their positions until they resign. Those who do not take their work seriously are difficult to remove.

Quality of Output

The kind of output one can expect from a decision-making procedure is worth examining, as the only valid test of the value of international organization is the effectiveness of the results secured. The vague and ambiguous drafting of an agreement - a not uncommon product of consensus and "package deal" procedures - commonly indicates a failure to resolve political differences and a consequent decision either to blur the meaning or else to formulate the provision in such a way as to "paper over" conflicting viewpoints. A number of delegations usually issue statements in order "...to clarify their understandings and reservations concerning specific problem areas - in effect, to record their continuing differences despite having agreed to the package". (50) Although ambiguity is a politically useful tool in negotiations (51), it, more often than not, makes for ineffective, "lowest common denominator" law that is difficult to implement, especially where the objective of the negotiation is the formation of an international agreement requiring great clarity and involving precise legal consequences for states.

Time Constraints

The consensus and "package deal" procedures are, by nature, slow moving. Global interdependence issues, and outer space issues are no exception, are, for the most part, very complex and controversial. Thus, without the pressure of voting, the reconciliation of differences is bound to be a painstakingly incremental process. While the search for consensus and an agreement on an all-encompassing package is often slow and sometimes difficult, it is not at all clear that there are more efficient ways of proceeding toward general agreement.

Generally speaking, the international community has failed to appreciate the slowness of these procedures. The snail's pace at which negotiations have progressed has caused a great deal of frustration and disappointment, has built up "conference fatigue" and has persistently been taken as a sign that negotiations were stalling or breaking down. (52) Also, there is a widespread fear that progress in the negotiation of an international agreement will be outrun by developments in events if the former is too slow. (53) Former United States Secretary of State Henry A. Kissinger has said :

The pace of legal evolution cannot be allowed to lag behind the headlong pace of change in the world at large ... If our goal is a new standard of international restraint and cooperation, then let us fashion the institutions and practices that will bring it about. (54)

If events are outpacing negotiations then :

... the consequences may be myriad problems of shifting alignments, eroding commitments to agreements already achieved, and change in the nature of objectives. Such additional complications can slow the progress of negotiations even further, and thus compound the problem. (55)

Under any circumstances, however, the use of the consensus procedure is more than likely to generate high uncertainties, which have a potentially corrosive effect on commitment to the negotiation, over the rate of progress, if only because of the "all-or-nothing" character of the "package deal" approach.

The UNCOPUOS and each of its Sub-Committees have operated on the basis of genuine consensus, namely that no decision is made if any participating member raises an objection. The Committee recognized at an early stage of its history that dealing as it would be in an entirely new area of human activity, a new frontier of law with virtually no precedent, the most authoritative way of proceeding would be through a common appreciation of the problems and common agreement on their solutions. The principle of consensus was adopted as the only acceptable procedure for obtaining workable, effective solutions.

The UNCOPUOS has more or less adopted the "package deal" approach to conflict resolution, although, it has tended to treat and settle the least contentious issues first. When the Committee was first established, the developing countries were adamant in arguing that the issues of the UNCOPUOS be negotiated as a package. Their rationale was probably that a comprehensive package approach, coupled with the impact

of their collective majority, would maximize their gains in any final agreement.

An example of an agreement reached via the "package deal" approach is the Moon Treaty. Its 21 articles include not only an elaboration of some of the provisions established originally in the Outer Space Treaty of 1967 but a number of inter-related issues such as the provision of information; international cooperation for scientific investigation; international consultations; the problem of natural resources: the inadmissibility of property claims, the principles of the "common heritage of mankind", and the establishment of an international regime including a machinery; and jurisdiction and control.

Give-and-take over issues was evident on a number of critical questions in the negotiation of the Draft Moon Treaty. On the question as to whether or not a moratorium should be placed on the exploitation of natural resources until an international regime could be established to regulate the exploitation, the United States was not willing to accept any kind of pre-regime prohibition on the exploitation of possible natural resources. The Draft Treaty, as part of the compromise of many delegates, placed no moratorium upon exploitation of natural resources on celestial bodies pending establishment of an international regime. On the issue of notification of activities concerned with exploration and use of the Moon, the United States insisted on the fulfilling of such duties prior to starting any mission. However, according to Article 5 of the Treaty, information on time, purposes, locations, orbital parameters and duration was to be given as soon as

possible after launching, and information on the results of each mission was to be furnished upon completion of the mission. Thus, while the United States was able to "take" on the rather crucial moratorium issue, it had to "give" on the question of notification.

The search for a consensus and an agreement on an overall "package" has often been very slow and difficult; however, these procedures have ensured that the Committee's recommendations have contained a realistic compromise between the views of a widely representative group of space and non-space powers. In effect, the use of consensus as a method of decision-making and of the "package deal" as a strategy in resolving intricate problems has proved remarkably successful in bringing about legal agreement for international space cooperation. They have worked well, notwithstanding that Committee membership consists of countries with differing systems of jurisprudence, political philosophies, social customs, and levels of scientific and economic development.

These processes have worked because there was, at the beginning of the space age, "...a strong and prevailing motivation for international cooperation and agreement because of the realization that space science and technology could be used for peace and war". (56) To promote peaceful purposes and to avoid hostile conflicts for the benefit of all mankind were objectives which unified those who were responsible for planning guidelines for the future. Success in achieving a consensus and a "package deal" has also depended on the delegations not presenting issues in such irreconcilable terms that there is no margin for negotiation, the sensitivity of the Chairman in recognizing when some

development occurs which permits opposing views to be drawn together, the creation of a feeling of momentum within the group, and a psychological forward motion stemming from the desire of members to accomplish a given task. (57)

While the contribution made by the Legal Sub-Committee towards the establishment of legal rules for outer space applying to all nations has been hailed as being of the highest significance in guaranteeing international peace and security, a number of shortcomings in the various agreements conceived have been pointed out by the non-space powers :

- 1) The Treaties are essentially bilateral agreements, emerging from private negotiations between the United States and the Soviet Union. (Although this appears to be true, the benefits derived therein could certainly not be called one-sidedly in favour of the space powers).
- 2) Many of the provisions are obscure, ambiguous and lead to confusion and uncertainty. (The haste in which the final texts were prepared and rushed through the United Nations made them very poorly conceived and drafted instruments).
- 3) Not all the agreements contain provisions respecting the settlement of disputes. (58)

These factors are not the shortcomings of the Outer Space Treaty alone - they are the basic problems of the present outer space law as a whole.

With the increasing shift of outer space ventures to activities related to the surface of the earth, the situation has changed radically. Now, practically all states are involved, and the interests of their peoples affected. Here, the differences in value systems have come to the forefront. One country's privilege became another's right.

uncontrolled development of direct broadcast satellite and remote sensing applications would result in the obliteration of the traditional concept of national sovereignty, others saw it as in keeping with the right to seek, receive and impart information and ideas.

The success in achieving a consensus has been minimal because delegations have presented issues in such irreconcilable terms that there is no margin for negotiation. In particular, the duopole of the two space powers, the United States and the Soviet Union, has frustrated the work of the international community in its attempts to arrive at worldwide agreements. Also, the Chairman, taking a less active role than in the past, has not been particularly helpful in facilitating the progress of the negotiations. As a result, present efforts of international law to respond to the great strides of modern science have lagged behind in a number of areas - the legal implications of remote sensing of the earth from space with the aim of formulating draft principles on the subject, the elaboration of the principles governing the use of artificial earth satellites by states for direct television broadcasting and the supplementing of the norms of international law relevant to the use of nuclear power sources in outer space.

PHASE 4 : ESTABLISHING MAXIMAL LIMITS TO ISSUES IN DISPUTE

By this phase of the proposed model, the tone of the negotiations to follow has often been established. In practice, a great deal of negotiating relative to crucial matters has already occurred :

What the dispute is about, the ground rules, and the constitution of the parties are determined by the agreed arena and agenda; the bases and something of the relative strengths of the parties are initially probed and demonstrated by the discussions and jockeying for position in respect to the agenda. (59)

As problems of the arena, agenda and rules of procedure are resolved, the negotiators, continuing on in a similar spirit, begin a new phase.

This fourth phase is characterized by offers of information. Each participant reiterates and develops, in a deliberately imprecise and rhetorical fashion, his initial positions, both in general and on particular issues, on what his delegation "absolutely" must have from and will not concede to the opponent. All this is carried out in an extremist, antagonistic fashion, emphasizing differences and separateness. Douglas has described this phase as having "...all the outward signs of deep and irreversible cleavage between the parties". (60) "Each side shows prodigious zeal for exposing and discrediting its opposite, and sooner or later, there almost invariably comes from each side a conscious, studied, hard-hitting critique of the other". (61) The participants in the negotiations are not only diametrically opposed but each is insisting on the inviolability and strength of his own position, with a rejection of worth in the opponent's position. Under these circumstances, it appears that there does not and cannot exist any

common ground, any concession or any possibility of an agreed outcome.

The process of "social" interaction is such that separation, difference and antagonism are to be emphasized in this stage. However, were this not achieved, the essential subsequent movement of the parties toward each other would be less obvious, they would not have adequately explored the dimensions of the field within which further negotiations are to occur, and later negotiations would be affected by the open articulation of resentment, frustration and anger. Thus, this phase serves a useful function in facilitating progress in the negotiations to follow.

The members of the Legal Sub-Committee have brought and continue to bring with them, to Phase 4, the spirit of cooperation that had previously surrounded earlier negotiations. However, on a number of subjects under discussion, there have been heated debates. For example, during discussions on the status of the geostationary orbit and the purposes for which it is used, the equatorial countries propounded their initial maximalist stand in a highly rhetorical fashion. They laid claim to exclusive sovereignty over portions of the orbital belt; and, in insisting on the inviolability and strength of their own positions, these countries accused the technologically advanced countries of usurping certain aspects of space use and demanded that they be given a share of the technology.

PHASE 5 : NARROWING THE DIFFERENCES

This phase of the negotiating process commences with a shift in orientation by the parties - it may be gradual or abrupt - in the mode of interaction between them. Emphasis on differences, separateness and antagonism gives way to coordination, collusion and cooperation. Instead of emphasizing conflict and real or contrived intransigence, the parties focus their attention on working toward actual outcomes. This reversal of processes begins as one party makes a "real" proposal - one intended as, and taken to be, a possible outcome rather than expressive of ideal preferences - on one or more issues. Thus, specific outcomes, often in the form of working papers, are examined for possible areas of agreement. The Soviet Union presented a working paper to the Legal Sub-Committee on the drafting of a Moon Treaty from which a text of articles was produced.

Where there are several or many issues and their attributes being negotiated, this phase is generally prolonged as the participants grapple with the considerable complexities necessarily involved. Agreement, often reached through concessions by both sides, may result from the negotiations. Negotiators may return to the previous stage in order to further clarify the maximal limits to issues. It is also equally possible that negotiations may break down should participants

decide not to modify rather diverse national opinions. Group characteristics, the nature of the issues and the setting of the negotiations are variables which affect this converging process.

Group Characteristics

From the very beginning of international organization, nation states have grouped themselves largely on the basis of geographical location and with regard to a number of political and economic factors. In a constantly changing international environment, these factors are not liable to remain static. As a result, there are constant shifts in the alignments of nation states in multilateral diplomacy.

The several groups in the United Nations today, which are also discernible in the UNCOPUOS, are : 1) the African States, 2) the Asian States, 3) the East European States, 4) the Latin American States, and 5) the West European and Other States. Africa, Asia and Latin America are the three groups which comprise the "supercoalition" known as the Group of 77. Although there is :

"... a considerable diversity of interest on substantive issues given great differences in the capabilities, geographical location and natural endowments of its members, ... [this supergroup, comprising 122 + members,] is based on an assumed commonality of interests of all 'have-nots' against all 'haves'". (62)

A group may be defined as any political collection of nation states operating as a unit - ranging from those with formal organizations and binding commitments to those with no organization and only with like areas of interest. (63) Groups may be categorized as caucusing, geographical, regional, common interest, and temporary, (64) although it must be understood that these categories are not necessarily mutually exclusive. (65)

The functions performed by groups may be distinguished in the following manner :

- 1) To exchange information on all or part of the agenda of a committee of conference, either in advance or during a committee meeting or conference
- 2) To develop common general positions on important agenda items, without defining voting commitment
- 3) To develop common positions on certain agenda items or initiatives with agreement on how to vote
- 4) To agree on candidates to be put forward by the group or on a common vote for candidates outside the group
- 5) To agree on a common spokesman, and on the contents of the statement to be delivered
- 6) To undertake joint action for or against a certain proposal (66).

However, groups do not necessarily display all of these characteristics.

Although each international negotiation is unique in its "make-up" of groups, one can make a few generalizations about the effect of groups on the negotiating process. As international organizations in general, and the United Nations in particular, have grown in their membership,

the negotiating situation tends to become less lucid, more complex, and therefore, in some respects, more demanding. As size increases, there will be more values, interests and perceptions to be integrated or accommodated; and since there are more values, interests and perceptions to consider, there will probably also be more uncertainty as to the motives of others and as to their perceptions of one's own utilities. This suggests that committee or conference size tends to increase situational complexity and individual "powerlessness" and thus make it more difficult to find satisfactory solutions that will be readily accepted by everyone to the problems involved. As a result, group arrangements have become a necessity for effective negotiation. Participation by member states in groups is advantageous as :

"...it provides an opportunity to create combined ... power which can be a critical factor in negotiating with other groups, ... [opens] avenues for a variety of diplomatic techniques ... [and] indicates a willingness to seek areas of acceptable compromises". (67)

It may also contribute greatly to the negotiating process by introducing single collective proposals rather than a multiplicity of individual ones.

Although participation in groups is advantageous to the nation state, it has become increasingly apparent that willingness to seek areas of acceptable international compromise out of national compromises has been replaced by group inflexibility - a group of countries presents

maximum demands to another group which tends to respond with minimum offers - which makes the negotiation of compromise agreements much more difficult. Several factors account for this intransigence :

- 1) a group's position is generally the product of careful intragroup negotiation and may not be altered readily without disrupting the group;
 - 2) a group often is controlled by an obstinate and vocal minority; and,
 - 3) a group may be committed to adhere to a rigid ideology.
- (68)

Also, the very complex nature of the policy formulation process, when a large number of issues are to be negotiated, has produced a certain inherent rigidity in the policy position of individual states and groups. Divergent interest groups contribute to a national or group policy process; and once a common and collectively satisfactory position has been declared, it is often difficult - and invariably time-consuming - to change that position for the sake of compromise. However, at this point, perhaps the commitment to negotiate an agreement on the part of the negotiating groups should be questioned.

Participation by nation states in groups is, therefore, not an unmixed blessing. As Lester B. Pearson points out with respect to the United Nations :

[It] is a place where we can meet either to settle problems or to make settlement more difficult. It is a place where we can try to find collective solutions, or one which we can use to get support and publicity for purely national solutions. (69)

Of course, this holds true for the UNCOPIUS, as forthcoming evidence will prove.

Nature of Issues

Issues that are put before a committee or conference negotiating an agreement range from the simple to the very complex. Simple issues are those in which differences are found to be relatively insignificant, and concessions come to be considered less damaging and more tolerable as they are less encumbered with emotional and symbolic loads. Very complicated issues are often, in a sense, "public issues" - ones with public implications and repercussions such as reputation, morality and status. These issues often become obdurate in the context of particular negotiations as the participants' preference sets develop and harden. Positions are usually taken on irreconcilable principles and inflexible commitments so that to concede involves a great deal more than simple concession. Also, participants often get locked, emotionally and symbolically, into mutual antagonism (Phase 4), into fear of losing face and into states of apprehension of the unknown consequences of making fundamental change. As a result, these issues are "the ones on which agreement is seen to be most difficult, where demands and offers, even mutual understanding are farthest apart". (70) Unfortunately, they are also the issues which are too important to be withdrawn if an acceptable

resolution of the controversial situation is to be reached. Therefore, when it becomes clear that the difference between the parties is so great, and likely to remain so, negotiations often break down.

Setting for Negotiations

Unofficial negotiations that take place in sessions of "working groups", in meetings of issue-related coalitions and in sessions of small independent negotiating groups with memberships representing parties in conflict, produce most of the progress that is achieved in the narrowing of differences (Phase 5), in the preparation of a single negotiating text (Phase 6) and in the article-by-article negotiation of the proposed agreement (Phase 7). (71) While the size of these "groups" is not usually pre-determined, the number of active participants is small enough to permit effective communication and large enough to permit all interested parties to be represented. As dialogue is "off-the-record", delegates are able to express their candid opinions without fear of subsequent official repercussions. Although the discussions occasionally lapse into political rhetoric, most of the time and effort is devoted to a slow and careful analysis of the critical issues and to becoming familiar with the needs of other delegates. In general then, these unofficial type of negotiations, which take place in

a relatively collegial atmosphere, permit the group to make tangible progress and are thus a central and very important part of any effort to reach an international agreement.

As mentioned above, the members of the Legal Sub-Committee of the UNCOPUOS have, for the most part, been able to share in a common appreciation of the problems in an entirely new area of human activity and in a common agreement on their solutions. Negotiations that took place in working groups and issue-related coalitions, which were geared toward cooperation, were largely responsible for this success. However, with the increasing membership of the UNCOPUOS and the ensuing increase in situational complexity and individual "powerlessness", with the changing nature of the issues put before the Sub-Committee and with the promulgation of the NIEO, a number of difficulties have been encountered in formulating outer space law.

While past agreements concluded by the members of the international community have focussed on the international regulation of the "common heritage of mankind", that is, outer space, issues before the Legal Sub-Committee today are essentially "public" ones - ones which have had significant implications for state sovereignty. For example, negotiations on the draft principles on direct broadcast satellites have been concerned with the balance that should be struck between the "free flow of information" and the right of the receiving state to "agree" before radio and television signals can be beamed from the satellite of one state directly into individual home or small community receivers in the territory of other states while detailed consideration of the legal

implications of remote sensing has attempted to provide a practical balance between the traditional imperatives of state sovereignty and a realization of the considerable benefits of remote sensing that will likely accrue to mankind. On matters such as these, where the differing political philosophies, social customs and levels of scientific and economic development have come to the forefront, the negotiating parties have become mutually antagonistic and apprehensive of the unknown consequences of making fundamental changes. This is especially true of the countries of the Third World. They value their independence because they are newly independent and because their independence and sovereignty are highly tenuous. These countries, as a result, tend to be suspicious of rules which limit their sovereignty. Efforts on the part of "honest brokers", such as Canada and Sweden, to initiate a more positive and conciliatory approach toward agreement have been repeatedly defeated and have given way to a multiplicity of irreconcilable individual proposals.

The codification and progressive development of the international law of outer space has been hampered further by North-South differences. According to Oxman, "...negotiations have been seized as an occasion to press these differences in a display of group utility - in a sense, the law is being held hostage". (72) With the use by the South of the UNCOPUOS for political grandstanding rather than for responsible negotiation and compromise, the quality of output from this international arena has deteriorated perceptibly.

The North-South confrontation is clear and dominating here since capabilities to exploit outer space are concentrated in a very few hands. The activities of the Group of 77 have centred around its sole objective which is to assure the developing countries a "fair share" of the important benefits from outer space activities that are not fully vested and to prevent the developed countries from extending their "hegemony" to the new area of outer space, which is recognized as the "common heritage of mankind" - res communis omnium. In view of the tensions and strains that exist in the contemporary international community, it becomes of cardinal importance to ensure that equitable legal rules are in place so that existing sources of conflict or competition can be dealt with peacefully and new sources of conflict can be reduced to the greatest possible degree.

The East-West confrontation has also diverted the Legal Sub-Committee away from the many serious problems on its agenda. Each "side" has accused the other of not displaying the necessary political will to strive for acceptable legal solutions and of planning to militarize outer space. Basically divergent views on the free flow of information, reminiscent of the Helsinki Accords negotiations, have made the task of reconciling differences between the parties almost impossible.

As the resolution of outer space issues requires that technical subjects be considered, an effort is made to structure negotiations so that they can satisfy efficiently the needs of the negotiators and

facilitate the political discussions. According to Charney (73), there are three stages in the management of technical questions in general: the generation of relevant information, its delivery to the negotiators and its integration into the product of the negotiations.

Information Generation

The Committee on Space Research (COSPAR) of the International Council of Scientific Unions, a distinguished interdisciplinary scientific organization that is generally known for its accuracy and objectivity and for its working knowledge of international negotiations on outer space, has served as an important source of information and analysis for the UNCOPUOS and its Sub-Committees. Reports and studies are also provided by the International Academy of Astronomy, the International Astronautical Federation, the International Atomic Energy Agency, the International Institute of Space Law, and the secretariats of the United Nations (Outer Space Affairs Division) and of the UNCTAD.

Introducing Information into the Negotiation

The timing and credibility are important considerations in the delivery of technical information to the negotiators. It is best to release technical information when political differences have narrowed to the point that the information can be useful in resolving the

remaining disagreements. (74) Reports and studies, prematurely released, are thrown into the confusion of political debate. Information should be packaged and introduced to maximize its credibility. Most of the information generated for use in the UNCOPUOS has been generally accepted as credible.

Evaluating and Integrating Technical Data into the Negotiation

The use of Technical Experts Groups to integrate reports and studies into the negotiations represents an effective method of managing information. While the reasons for the success of particular negotiating groups may be fairly difficult to establish, two authors (75) identify some general characteristics that appear to optimize the opportunity for success :

1) Size : Preferably between 12 and 30 participants should be included to assure the inclusion of the key interests and necessary experts while permitting operational efficiency.

2) Quality of Membership : The group should include persons of high intellectual caliber who represent important interests and others with technical expertise.

3) Quality of Leadership : The chairman should be a person of exceptional qualities

4) Procedures : The meetings of the group should be announced to the conference participants but closed to the public and conducted in a relatively informal collegial atmosphere, preferably in one language without a record. The agenda of the group should be well defined and manageable.

Technical working groups have been used for years with notable success at the UNCOPUOS. The groups have been relatively small, although in recent years, membership has increased substantially. Delegations are being staffed more and more with very technically competent persons who facilitate the communication of technical information and therefore its evaluation and possible integration into political negotiations. Nations which have not been able to have their own experts in all relevant fields have obtained the necessary expertise jointly with nations with similar interests. The chairmen of the working groups have been, for the most part, capable of performing effectively in a variety of complex and difficult circumstances.

PHASE 6 : PREPARATION OF A SINGLE NEGOTIATING TEXT

Once the maximal limits to issues in dispute are established and differences between parties are narrowed, a single negotiating text (SNT) can be prepared. It serves to focus and provide a concrete starting point for future negotiations.

The drafting of a SNT is often undertaken by the chairman of the committee or conference, to whom the delegations have agreed to transfer their collective right and responsibility, or by an informal group established especially for that purpose. The role of the chairman or

informal group in preparing a ~~SNT~~ greatly facilitates the progress achieved. Resorting to this mode of procedure is often essential in overcoming a variety of difficulties :

[It is] ... a valuable vehicle for getting something done and building negotiations that would not otherwise occur It avoids government posturing and nitpicking that would preclude movement; ... [and] it helps to clarify where the constellation of viewpoints is and what can largely be agreed upon. (76)

Although the chairman and the drafting group have been charged with producing a negotiating text that works to the advantage of all parties concerned, it is always possible that a one-sided text that does not in fact reflect the sense of the negotiations will be produced; this is more likely to occur if the responsibility for the drafting of a text is left in the hands of one person than an entire group. If an oversight committee (77), made up of a small number of delegates of the major interest groups, is formed to review the text, confer with the chairman or group and suggest alternative articles for a new draft, this problem can be minimized. However, if this problem cannot be overcome, the delegations may return to Phase 5, or even Phase 4, in an attempt to further clarify the controversial issue(s), or negotiations may break down altogether.

Preparation of a ~~SNT~~, in the Legal Sub-Committee, is the responsibility of an informal drafting group. This group is established by its corresponding working group and is presided over by the Sub-Committee's Chairman. All members of the Sub-Committee are able to

attend meetings of the drafting group if they so wish.

In the past, the drafting groups have been very successful in producing texts that do reflect the sense of the negotiations and that work to the equal advantage of all parties concerned. This success can be attributed largely to the sensitivity of the Sub-Committee Chairman in recognizing when some development occurs which permits opposing views to be drawn together.

However, as the issues have become increasingly complex, the rate of progress in drafting SNTs has decreased. Not only has progress been slow, but what headway there has been is rather questionable in terms of quality. Major portions of original texts have been placed within square brackets (and some have square brackets within square brackets !) indicating that substantial disagreement still exists. This is true of the draft principles on direct broadcast satellites and those on remote sensing of the earth from space.

Also, the Chairman has taken an increasingly low profile role. Less activity on the part of the Chairman has left individual delegations with the task of formulating texts that reflect the interests of the international community as a whole. Success in reaching general agreement has thus been undermined as delegations have become increasingly preoccupied with attaining their own objectives.

PHASE 7 : ARTICLE BY ARTICLE NEGOTIATION

Article by article discussion of a SNT, open to all members, is often carried out in the working group prior to formal negotiation of the text. This informal procedure facilitates subsequent progress in moving directly from an initial to a revised text.

In the formal negotiation of the text, each article is considered on an individual basis, although other techniques have been used. Sometimes consideration of each article is seen as simply unnecessary as there is general agreement with the language of the text. In an effort to proceed expeditiously then, only the key unresolved issues are deliberated.

OUTCOMES OF NEGOTIATION

Once begun, negotiations produce some kind of outcome. "The outcome of negotiation", as stated by Ikle, "may range from total disagreement to complete agreement, with varying mixtures of ambiguity and specificity in the eventual settlement". (78) Should the delegations arrive at consensus on the text, a general agreement will have been reached. Once the text has been finalized, it is opened for signature

and ratification. However, should the culmination of the negotiations be dissensus, a negotiator is confronted with a "continual threefold choice" :

- 1) to accept agreement at the terms he expects the opponent would settle for (the "available terms"),
- 2) to discontinue negotiations without agreement and with no intention of resuming them, and
- 3) to improve the "available terms" through further bargaining. (79)

The first of the three options, to choose the available terms, is often not available to governments taking part in multilateral negotiations as the other parties to the dispute disagree among themselves. To choose no agreement, the second option, is often disregarded by Western governments. The termination of multilateral negotiations could possibly mean a return to bilateralism which would reactivate the suspicions of smaller states about dealings among superpowers and great powers. The more popular third option, to engage in further bargaining, includes a further confrontation of explicit proposals and other tactical moves by the government for the purpose of strengthening its own bargaining position and weakening that of the opponent.

Another option, that of deferred negotiations, is also a possibility. There are advantages to deferring negotiation of issues that require the consideration of unavailable or highly contentious data. Issues that loom large at an early date might be resolved easily once more information is acquired and assimilated. However, it is not

often an appealing choice. It could impose unacceptable costs on the interested parties, especially those who would not be able to contribute to the development of customary international law, due to the resulting uncertainties and the absence of an effective legal regime during a critical period. It often takes a number of years for national interests to develop fully and for information to become available on a world wide scale. Generally speaking, very few international issues could be deferred for such a considerable length of time.

The culmination of article-by-article negotiation in the working groups on issues related to the regulation of outer space activities has generally been a formal agreement. In the rather short span from 1958-1974, the Legal Sub-Committee has demonstrated a high degree of success in the drafting of a declaration and four space treaties (80) which have been ratified by many nations.

However, in recent years, the Sub-Committee has encountered numerous difficulties. Article-by-article discussions of SNTs, carried out in the working groups, have not been useful in making way for future progress. Meetings have been used for political grandstanding rather than serious deliberations and, as a result, the output has been of poor quality. Although a text was negotiated with respect to the Moon and Other Celestial Bodies, the resulting Moon Treaty has not been very well received and has not yet come into force. Negotiations on direct broadcast satellites have produced an agreement unfavourable to an important minority. With substantial disagreement remaining, the conflict continues by other means. In the formal negotiation of texts

on remote sensing of the earth from outer space and on nuclear power satellites, progress has seemingly ground to a halt. Annually, these issues reappear on the agenda of the Legal Sub-Committee as top priorities in the hope that delegations will try again to come to general agreement on the proposed texts. If something is not concluded soon, the chances for agreement will decline sharply.

With a proposed model of international negotiation firmly established, it is now necessary to examine two case studies. These will provide a sound basis for judging the practical application of the model to issues involving advanced technology.

FOOTNOTES

(1) Fred Charles Ikle, How Nations Negotiate. New York : Frederick A. Praeger, Publishers, 1968 at 2.

(2) This is the term used by Arthur Lall, Modern International Negotiations. New York : Colombia University Press, 1966 at 54.

(3) supra, note 1 at 3 - 4.

(4) M. McDougal and L. Lipson, "Perspectives for a Law of Outer Space" in 52 American Journal of International Law 407 (1958) at 420.

(5) Jonathan Charney, "Technology and International Negotiations" in 76 American Journal of International Law 78 (1982) at 85.

(6) supra, note 4 at 424.

(7) Morton S. Jaffee, "Reliance Upon International Custom and General Principles in the Growth of Space Law" in 7 St. Louis University Law Journal 125 (1962) at 133.

(8) Jeffrey Rubin and Bert Brown, The Social Psychology of Bargaining and Negotiation. New York : Academic Press, 1975 at 145 and P.H. Gulliver, Disputes and Negotiations. Toronto : Academic Press, 1979 at 145.

(9) The developing nations include a large portion of the population in Africa and Asia and, to a lesser extent, in Latin America and the Caribbean and Polynesian Islands.

(10) Jorge Castaneda, "The Underdeveloped Nations and the Development of International Law" in 15 International Organization 38 (1961) at 42.

(11) This dual approach has been elaborated and refined by C. Dalfen, "The International Legislative Process : Direct Broadcasting by Satellite and Remote Earth Sensing by Satellite Compared" in 10 Canadian Yearbook of International Law 57 (1972).

(12) A. Gotlieb and C. Dalfen, "DBS : A Case Study in the Development of the Law of Space Communications" in 7 Canadian Yearbook of International Law 33 (1969) at 60.

(13) supra, note 11 at 186.

(14) supra, note 11 at 210.

(15) supra, note 11 at 210.

(16) Evan Luard, International Agencies : The Emerging Framework of Interdependence. New York : The Macmillan Press, Limited, 1977 at 80.

(17) Stephen Gorove, Studies in Space Law : Its Challenges and Prospects. The Hague : A.W. Sijthoff-Leyden, 1977 at 6.

(18) P.H. Gulliver, supra, note 8 at 122 - 123.

(19) Charter of the United Nations : Article XIII (a).

(20) Leo Gross, "The United Nations and the Role of Law" in 19 International Organization 537 (1965) at 542.

(21) Although resolutions are an institutionalized form of public opinion and can exercise great political pressure, in functioning under Article 13 of the United Nations Charter, the General Assembly is, of course, not making recommendations which have any legally binding effect upon the members of the United Nations. As a result, there is often a considerable gap between a United Nations Resolution and the requisite behaviour of relevant national actors. Evidence of the existence of such a gap is found between the recent United Nations Resolution calling for a freeze of the arms race between the two superpowers and the subsequent non-action on the part of the members of the international community involved.

(22) This committee was, at first, boycotted by the Communist states who objected to its composition. Only when it was re-established with seven Communist representatives out of 24 did they begin to take part.

(23) African States : Benin, Chad, Egypt, Kenya, Morocco, Niger, Nigeria, Sierra Leone, Sudan, United Republic of Cameroon, Upper Volta.

Asian States : China, India, Indonesia, Iran, Iraq, Japan, Lebanon, Mongolia, Pakistan, Philippines, Syria, Viet Nam.

East European States : Albania, Bulgaria, Czechoslovakia, German Democratic Republic, Hungary, Poland, Romania, USSR, Yugoslavia.

Latin American States : Argentina, Brazil, Chile, Colombia, Ecuador, Mexico, Uruguay, Venezuela.

West European and Other States : Australia, Austria, Belgium, Canada, France, Federal Republic of Germany, Greece, Italy, Netherlands, Spain, Sweden, United Kingdom and the United States.

(24) According to Article 10 of the United Nations Charter, General Assembly resolutions only serve as recommendations except those which are obligatory to states as provided for in the Charter. However, resolutions adopted by all member states are of moral and political importance.

(25) M. Lach, The Law of Outer Space. The Hague : A.W. Sijthoff-Leyden, 1976 at 12.

(26) These general principles appear, almost verbatim, in the treaties that were to follow.

(27) Oscar Schachter, "Scientific Advances and International Law Making" in 55 California Law Review 423 (1967) and Mohammed Bedjaoui, Towards a new international economic order. Paris : UNESCO, 1979.

(28) Oscar Schachter, supra, note 27 at 424 - 427.

(29) General Assembly Resolutions 1962 (XVIII) and 2222 (XXI) established the 1963 Declaration and the 1967 Treaty. The other three agreements were also established via General Assembly Resolutions.

(30) supra, note 5 at 91.

(31) While the approaches to be discussed are those Charney supra, note 5 at 97 - 100 describes in looking at the deep seabed mining negotiations, they are also applicable to the negotiations carried out in the UNCOPUOS.

(32) Roger Fisher, "Fractionating Conflict" in Clagett G. Smith (ed.), Conflict Resolution. Notre Dame : University of Notre Dame Press, 1971 at 161.

(33) P.H. Gulliver, supra, note 8 at 127.

(34) G. Matthew Bonham, "Simulating International Disarmament Negotiations" in 15 Journal of Conflict Resolution 299 (1971) at 313.

(35) If this argument were to become a guideline for every negotiation, some outstanding problems would always remain unsolved.

(36) P.H. Gulliver, supra, note 8 at 127.

(37) UN Doc. A/AC.105/C.2/L.132.

(38) C. Wilfred Jenks, "Unanimity, The Veto, Weighted Voting, Special and Simple Majorities and Consensus as Modes of Decision in International Organizations" in Cambridge Essays in International Law : Essays in Honour of Lord McNair. Dobbs Ferry, New York : Oceana Publications, Inc., 1965 at 48.

(39) Unanimity may be defined as the voting procedure in international organs that provides that no state may be bound by a decision without giving its consent; the complete agreement in opinion of all concerned.

(40) The veto is a vote that forbids or blocks the making of a decision.

(41) Consensus refers to a collective opinion, to general agreement or acquiescence by all members of a group. By others, it has been defined as "...some form of decision-making by consent that does not involve recourse to voting". Barry Buzan, "Negotiating by Consensus : Developments in Technique at the UNCLOS" in 75 American Journal of International Law 324 (1981) at 326.

(42) Numerous examples of fora that practice decision-making by consensus are listed in supra, note 41 at 326.

(43) The arguments are essentially those propagated by supra, note 41 at 326 - 327.

(44) For a complete discussion of weighted voting in international economic organizations see Zamora, "Voting in International Economic Organizations" in 74 American Journal of International Law 566 (1980).

(45) Jonathan Charney, "U.S. Interest in a convention on the law of the sea : the case for continued efforts" in 11 Vanderbilt Journal of International Law 39 (1978) at 43.

(46) These are essentially the strategies outlined by P.H. Gulliver, supra, note 8 at 142 - 149.

(47) The least contentious issues are those in which differences are found to be relatively small, are less encumbered with emotional and symbolic loads, and concessions come to be considered less damaging and more tolerable.

(48) Daniel Druckman (ed), Negotiations : Socio-Psychological Perspectives. London : Sage Publications, 1977 at 17.

(49) For a description of an 'ideal' chairman, see supra, note 41 at 340 and Johan Kaufmann, Conference Diplomacy. Dobbs Ferry, New York : Oceana Publications, Inc., 1968 at 83 - 84.

(50) Ronald I. Meltzer, "Restructuring the United Nations System : Institutional Reform Efforts in the Context of North-South Relations" in 32 International Organization 993 (1978) at 1008 - 1015 points to this danger.

(51) On the functions of ambiguity in diplomatic language, see Robert Jervis, The Logic of Images in International Relations. Princeton : Princeton University Press, 1970 at 113 - 138.

(52) supra, note 5 discusses this problem in detail as a constant feature of UNCLOS.

(ATS - 6) in 1974. This very successful "trial and error" effort was followed in subsequent years by several international cooperative projects between the United States and India, using the ATS - F, and between the United States and Canada, using the first Communications Technology Satellite (CTS). Studies of the worldwide use of broadcast satellite services for general and particularly for educational purposes have been and continue to be undertaken by international organizations such as the International Telecommunications Union (ITU), UNESCO and the United Nations Development Program (UNDP) and numerous regional organizations.

Potential Problems

Along with the potential benefits of direct broadcasting by satellite (DBS), however, it was recognized that serious adverse effects could result if the new technology was abused. There were three main areas - the technical, legal and programme content aspects of direct satellite broadcasting - that captured the concern of the international community.

The technical problems involved the allocation of frequencies along the radio frequency spectrum and the corresponding allocation of "slots" in the geostationary orbit for satellites. Both the spectrum and the orbit are finite resources. Communications satellites must share the spectrum with other types of satellites as well as with all terrestrial

(69) Quoted in Sydney D. Bailey, The General Assembly of the United Nations : A Study of Procedure and Practice. London : Stevens, 1960 at 7 - 8.

(70) P.H. Gulliver, supra, note 8 at 146.

(71) The three distinct contexts in which negotiations take place are those of supra, note 68 at 246.

(72) Bernard H. Oxman, "The Third UNCLOS : The 1976 New York Sessions" in 71 American Journal of International Law 247 (1977) at 247.

(73) supra, note 5 at 112.

(74) E. Haas, "Is There a Hole in the Whole ? Knowledge, Technology, Interdependence, and the Construction of International Regimes" in 29 International Organization 827 (1975) at 850.

(75) supra, note 5 at 116 and Barry Buzan, "United We Stand ... Informal Negotiating Groups at UNCLOS III", 4 Marine Policy 183 (1980) at 199.

(76) supra, note 50 at 1016.

(77) This is the suggestion put forth by supra, note 68 at 254 in relation to the SNT for the Law of the Sea.

(78) supra, note 1 at 59.

(79) supra, note 1 at 59-60.

(80) Declaration of Legal Principles Governing the Activities of States in the Exploration and Use of Outer Space, the Outer Space Treaty, the Rescue Agreement, the Liability Convention, and the Registration Convention.

CHAPTER TWO

DIRECT BROADCASTING BY SATELLITE

Definition of Direct Broadcast Satellite Service

Satellites, which are manmade objects launched from and revolving around the earth, are used for a variety of purposes - communications, navigation, sensing earth resources, and monitoring outer space. Communications satellites, which are the focus of this discussion, are categorized as either "fixed service" or "direct broadcast". Virtually all the communications satellites in operation today are of the former type. "Fixed service" satellites are characterized by low signal strength and, as such, require large, expensive earth receiving stations. The new generation of satellites - the "direct broadcast" - are more powerful than the "fixed service" and, as such, require smaller dishes. Several experiments of direct broadcasting by satellite have been carried out, and a number of direct broadcast satellite systems are operational in some countries and may be commercialized in the very near future.

There are a number of important differences between these two kinds of satellites which have evoked mixed feelings from the international

community. First, fixed service satellites are more easily controlled than direct broadcast. With fixed service, all receiving locations (1) are controlled, and the use of signals is prescribed. These communications are considered private and are, therefore, not intended for general reception. Direct broadcast satellites (DBS) are designed to transmit signals to the houses (2) or communities (3) of the general public. Second, DBS are more powerful in strength of signal and more cost-competitive than fixed service. Fixed service satellites operate in the 4-6 gigaHertz (4) region where it is necessary to share frequencies with terrestrial microwave services. As a result, the signal strength of satellites is kept very low, and earth stations have to be carefully located to avoid interfering or being interfered with. DBS operate in the 12 gigaHertz region where it is not necessary to share frequencies or coordinate the ground terminals with terrestrial services. As a result, the signal strength of these satellites is optimized, and the cost of receivers is relatively inexpensive. (5) Third, while fixed service satellites have continental or transoceanic coverage patterns which are too expensive to maintain on a small scale, DBS accommodate regional beams which are relatively economical. So DBS service promises to provide the international community with considerable benefits at an economical price.

Communications satellites are parked in the geostationary orbit, a doughnut-shaped area located at a distance of about 36,000 kilometres over the earth's equator. A satellite placed in this orbit turns about the polar axis of the earth in the same direction and with the same

period as that of the earth's rotation. The geostationary orbit is the 'choice' orbit for satellite transmission as it allows coverage to individual countries using spot beams and continental coverage with global beams, and transmission time is continuous provided sufficient power is available on the satellite. (6)

In light of the above facts, the significance of this technological innovation is evident. This way of utilizing communications satellites could increase considerably the diffusion of information regarding current events and developments in the international community as well as improve the knowledge of peoples in the world of each other's cultures, customs, beliefs, and social attitudes, which, in turn, could contribute to international awareness, understanding and tolerance. Also, there is great potential for DBS service to contribute toward the development of the Third World through the integration of isolated rural communities and distant centres of population into national life as well as through the implementation of educational programmes and programmes of economic and social development in such areas as agriculture, health and family planning, and community development. (7) In essence, DBS could be of paramount importance to the attainment of a more deeply felt spirit of international cooperation between members of the world community.

Plans for experiments in the use of direct broadcast satellites or the establishment of such satellite systems have advanced in many parts of the world. The United States, the first to experiment with the use of this technology, launched the Applications Technology Satellite 6

(ATS - 6) in 1974. This very successful "trial and error" effort was followed in subsequent years by several international cooperative projects between the United States and India, using the ATS - F, and between the United States and Canada, using the first Communications Technology Satellite (CTS). Studies of the worldwide use of broadcast satellite services for general and particularly for educational purposes have been and continue to be undertaken by international organizations such as the International Telecommunications Union (ITU), UNESCO and the United Nations Development Program (UNDP) and numerous regional organizations.

Potential Problems

Along with the potential benefits of direct broadcasting by satellite (DBS), however, it was recognized that serious adverse effects could result if the new technology was abused. There were three main areas - the technical, legal and programme content aspects of direct satellite broadcasting - that captured the concern of the international community.

The technical problems involved the allocation of frequencies along the radio frequency spectrum and the corresponding allocation of "slots" in the geostationary orbit for satellites. Both the spectrum and the orbit are finite resources. Communications satellites must share the spectrum with other types of satellites as well as with all terrestrial

radio communication systems. The number of satellites which can safely use the geostationary orbital belt is limited to 180 by the following important factors :

- 1) Satellites must be placed within a direct line of sight to the area it serves in order to do its work.
- 2) Radio frequencies used by satellites limit their degree of physical proximity. If satellites are positioned too closely together, their transmissions overlap causing ground receivers to pick up unwanted signals which distort the desired ones.
- 3) "Dead" satellites limit the usable "slots" by occupying paths within the geostationary orbit. (8)

Although satellites placed in the geostationary orbit have a short life span, the demand on the orbit is growing at an increasing rate. As the number of claims laid to these resources rose, so did the chance that less developed countries would be squeezed out of the spectrum and the orbit by prior occupation by satellites of technologically advanced countries.

Questions regarding the framework of regulation of DBS in general and the substantive issues of copyright and neighbouring rights, and the protection of broadcasts in particular also came to the fore of international attention and discussion. The United Nations Charter, the Outer Space Treaty and the ITU Convention were among the international legal instruments found to contain principles applicable to DBS. However, none of these principles were formulated with DBS specifically in mind. The question of copyright and neighbouring rights in connection with DBS was seen as problematic. The extent and kind of

protection provided, whether on a national or international basis, was found to differ substantially and to be unacceptable to a number of the members of the international community. (9)

In view of the very real possibility of "spillover" of broadcasts into neighbouring countries, it was conceivable that their programme content, whether it be political, socio-cultural or commercial, might be offensive to the receiving state. Undesirable political content would include :

... interference in the internal affairs of states, incitement to racial or religious intolerance, violation of fundamental human freedoms, ... the use of subliminal techniques, and war propaganda. (10)

Satellite broadcasting of programmes, lawful in the country of origin but unlawful in receiving countries, might disturb cultural, religious and social mores. Commercial problems that the content of broadcasts might pose would have to do primarily with advertising and its financial implications. (11)

PRESSURE TO COMMENCE NEGOTIATIONS ON AN INTERNATIONAL AGREEMENT TO
REGULATE DIRECT BROADCASTING BY SATELLITE

The issue of DBS, (i.e., its potential and its problems), was raised indirectly and directly on numerous occasions during the early to mid-1960's. A Brazilian delegate, in discussing the 1963 draft declaration of legal principles governing the use of states in the exploration and use of outer space, stated that :

...it should also incorporate a ban on the utilization of a communication system based on satellites for purposes of encouraging national, racial or class rivalries and a reference to some international scrutiny of global satellite communication. (12)

A working paper prepared by the United Nations Secretariat for the Scientific and Technical Sub-Committee pointed out that :

... a viable program in the field of space communication should look to the future when the possibility of direct broadcast satellites able to transmit programs direct to the receiving radio or television sets of ordinary listeners and viewers at their homes becomes feasible. (13)

It was proposed that the agenda of the United Nations Conference on the Peaceful Uses of Outer Space include a discussion of the DBS issue, particularly the question of the cultural and political impact of programmes transmitted by satellites. (14) During the discussion of the draft treaty on outer space, the Soviet Union stated that :

[i]t will soon be possible for conventional television sets to receive broadcasts direct from satellites. Hence, legal measures were urgently needed to prevent a great technical achievement from being used against the interests of peace (15)

and the United Arab Republic went so far as to submit a working paper proposing a new article for the draft treaty. (16) However, it was not until 1967 that the General Assembly specifically requested the UNCOPUOS

:

... to study the technical feasibility of communications by direct broadcasts from satellites and the current and foreseeable developments in this field, as well as the implications of such developments. (17)

While the Committee was the natural "focal point" of international cooperation with regard to the exploration and use of outer space for peaceful purposes, and thus with regard to DBS activities, there was some question as to the urgency surrounding the DBS issue and the approach (legal or technical) to take in fulfilling the General Assembly's request. There were those (Czechoslovakia, France, the Soviet Union, Sweden, and the United Arab Republic) who felt that with something to negotiate for (the enormous potentialities of space applications for television broadcasting) and something to negotiate about (the protection of the sovereignty of states from external interference and the prevention of the conversion of direct television broadcasting into a source of international conflict) it was imperative to adopt immediately a legislative approach to the issue. In the words of a Swedish delegate :

... if we are to avoid chaos it will be necessary, before technical developments have reached the stage when such satellites are put into operation, to establish some rules governing their utilization. (18)

However, suspicious of hasty action toward formulating international legal rules and regulations to govern activities in this domain before a careful and detailed examination of all the technical and economic elements involved could be carried out, the United States preferred a study approach.

American apprehension here, in this writer's view, was justified. At this early stage of the Committee's consideration of DBS, only a handful of delegations would have had sufficient knowledge of the subject to address seriously the controversial issues that would inevitably arise. With information available from studies prepared by the Scientific and Technical Sub-Committee and various specialized agencies, such as the ITU, UNESCO, the European Space Research Organization (ESRO), and the World Intellectual Property Organization (WIPO) and from working papers presented at the 1968 Vienna Conference on the Peaceful Uses of Outer Space, the general level of knowledge in the Legal Sub-Committee would increase substantially. Delegations, on the whole, would have a better understanding of the nature of the subject matter and thus would be better prepared to conduct the consultations and negotiations necessary to produce an agenda. This, in effect, was the position eventually adopted by Sweden in its proposal (19) and by the Legal Sub-Committee in its resolution (20).

Establishment and Activities of the Working Group on Direct
Broadcast Satellites

In light of the new information made available that emphasized the potential value and imminent operationalization of direct broadcast satellites, Sweden and Canada jointly proposed the setting up of a special Working Group on Direct Broadcast Satellites (hereinafter the Working Group) with a mandate :

... to study and to report to the Committee on the technical feasibility of communications by direct broadcast from satellites and the current and foreseeable developments in this field as well as the implications of such developments, including comparative user costs and other economic considerations, as well as social, cultural, legal and other questions. (21)

To this effect, General Assembly Resolution 2453 B/XXIII was adopted.

The activity of the Working Group, in the years that followed its establishment, was characterized by the desire of the international community to find out more about direct satellite broadcasting and the political, technical, economic, administrative, cultural, financial, and legal issues it raised. During the 1969-70 period, the Working Group issued its first three reports.

The contribution of the first report (22) was its discussion of the technical feasibility of communication by direct broadcasts from satellites, the current and foreseeable developments in this field, and the costs of DBS systems.

The second report (23) provided a broad overview of the key problem areas related to DBS, specifically with regard to the allocation of frequencies along the radio frequency spectrum and to the corresponding allocation of "slots" in the geostationary orbit for satellites, to the applicability of international law, and to the content of programmes that might be broadcast by satellite. Of particular importance here was the examination of the international norms and understandings that related to this activity and their relevance as "sources" (24) of legal

principles and concepts that might govern a system of DBS. This was instrumental in determining whether there ~~was~~ a requirement for general United Nations principles.

Applicability of Existing International Law

Outer Space Treaty

Incorporated within the 1967 Treaty were a number of important general principles which could be said to constitute a framework for the international regulation of all types of activities of outer space use and exploration. As such, they were relevant to direct satellite broadcasting. (25) First, three principles enshrined in Article I were directly applicable :

- 1) "... free use, in conformity with international law ...",
- 2) "... sovereign equality of states ...", and
- 3) "... common interest of all mankind ...".

Also relevant to this activity was Article II which stipulates that "... outer space... is not subject to national appropriation by claim of sovereignty, by means of use or occupation, or by any other means." In broader terms, Sweden and Canada concluded, in a working paper they submitted to the Working Group, that :

... it seems reasonable to suggest ... that sovereignty and state responsibility [Articles VI, VII and VIII], international cooperation [Articles I, II and III], and mutuality of interests [Article IX], are likely to be major principles of international law relating to direct satellite broadcasting. (26)

However, definition and interpretation of the principles were and are not universally agreed upon.

International Telecommunications Convention and Radio
Regulations

The Convention and Radio Regulations of the ITU, the body of rules governing international telecommunications, constituted another source of legal norms. (27) The primary responsibility of 'the ITU is to administer the radio frequency spectrum and geostationary orbital "slots". As regards DBS, the ITU would also be responsible for stationing these satellites in orbit. In compliance with these instruments, states had undertaken :

... to recognize the right of the ITU ... to carry out the allocation of different portions of the spectrum for the different services that [made] use it ... and to coordinate and register frequencies assigned by individual countries to particular users of the different services within their national boundaries [under Article IV]; ... [to] notify the ITU's International Frequency Registration Board (IFRB) that it [had] assigned a certain frequency and must specify certain required information; ... [to] ensure that earth stations conform to the power limits and minimum angles of elevation specified in the Radio Regulations and to the power flux density limits for space stations; [and] ... to see that stations within their jurisdiction are established and operated in such a manner as not to cause harmful interference to the services of others [under Article XLVIII]. (28)

These obligations, however, were, in a number of instances, inadequate as comprising a basic framework for international telecommunication regulation.

Other Sources

Although a body of comprehensive legal norms with regard to international broadcasting did not exist in the 1960's, there were a number of customs that could have been considered applicable to direct broadcasting by satellite. Principles of cooperative programming had been developed among numerous broadcasting entities and unions. It was generally accepted that copyrights be guaranteed internationally and that programmes transmitted via satellites be protected against re-transmission and public utilization without the authorization of the originating television organization. Also, with regard to programme content, propaganda designed or likely to provoke or encourage any threat to the peace, breach of the peace or act of aggression was condemned by a General Assembly Resolution. (29) These few norms, however, in no way constituted a comprehensive body of international broadcasting law.

The third meeting, which was basically an extension of the second, produced a final report (30) marking the end of the investigatory stage. Here, as a number of the participants presented their working papers, the issues of prior consent, programme content, free use, state

sovereignty, common interest of all mankind, international responsibility and spillover, began to emerge. General debate on these issues was marked by differences and separateness. Even on less controversial issues, such as whether the Working Group should concern itself with individual or community receivers or both, there was a decisive rift between the United States, Belgium and the United Kingdom on the one hand and the Soviet Union, France and Czechoslovakia on the other. (31) The basic differences between the positions proposed on the aforementioned issues even extended to the more fundamental question of whether the elaboration of principles to guide DBS was appropriate. (32) While a majority of the delegations, (France and the Soviet Union in particular), supported the basic idea of a certain amount of regulation of this activity, the United Kingdom and the United States argued that to draft principles would be premature. The French delegate observed that the development of space law lagged behind technology and said that it was necessary to ensure that "... the development of a new technology [did] not become a factor of discord among nations ..."; to avoid "...dangers of anarchical development", states must seek a common philosophy concerning this new means of communication. (33) In contradistinction to this view, the United States opposed the elaboration of principles on the grounds that it would be wrong to attempt to establish globally applicable rules and regulations concerning a technology that was still so far in the future. Similarly, the Americans argued that :

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... we must have a clearer picture of what it is we are dealing with and, indeed, what concrete and specific problems are foreseen in the use of the technology before we establish principles designed to govern it. (34)

According to this view, it would be imprudent to run the risk of inhibiting technological progress by freezing international behaviour, in connection with direct satellite broadcasts, at an unduly early stage of its development.

Three Developments

Several developments occurred outside the UNCOPUOS in 1971-72 :

1) The decision and recommendations adopted by the ITU at the World Administrative Radio Conference for Space Telecommunications (WARC-ST) in 1971.

- these decisions, upon ratification, were in force as of January, 1973.

- the recommendations dealt with the allocation of frequencies for all kinds of space communications, including satellite broadcasting, as well as with the technical and administrative regulations concerning the establishment and operation of satellite communication systems.

2) The adoption of the UNESCO Declaration of Guiding Principles on the Use of Satellite Broadcasting for the Free Flow of Information, the Spread of Education and Greater Cultural Exchange in 1972. (35)

- the philosophy of the Declaration was restrictive, stressing sovereignty (Article II(1)), the requirement that news broadcasts be accurate (Article V), the right of each country to decide the contents of education programmes broadcast to it (Article VI(2)), the need for broadcasts to respect cultural distinctiveness (Article VII) and varied laws (Article X), and the requirement for prior consent especially regarding advertising (Article IX(1)).

In 1976, some further progress was made. Agreement was reached on four new provisions dealing with minor issues such as purposes and objectives; international consultation; copyright, neighbouring rights, and protection of television signals; and notification to the United Nations system; and as such were incorporated into the aforementioned text. However, basically divergent views on the more fundamental and difficult issues made the task of reconciling differences extremely difficult.

THE NEW ITU REGULATIONS FOR THE USE OF THE GEOSTATIONARY ORBIT

While the UNCOPUOS, and the Legal Sub-Committee in particular, had been struggling with the controversial issues surrounding DBS, the ITU had been effectively regulating the technical aspects of its use, seemingly oblivious to the political, cultural and legal problems frustrating the Committee. In response to the rapid advances in science and technology and conscious of potential technical problems and the concerns of the technological "have-nots", the ITU had begun to formulate new rules and regulations for the orderly, efficient and equitable use of the geostationary orbit.

The discussions on DBS, in 1974, were based on four major working papers which contained detailed proposals for regulation in a future agreement or agreements :

- 1) Draft Principles governing the Use by States of Artificial Earth Satellites for Direct Television Broadcasting submitted by the delegation of the Soviet Union pursuant to General Assembly Resolution 2916 and based on an earlier submitted Soviet Draft Convention of August, 1972. (39)
- 2) Draft Principles governing Direct Television Broadcasting by Satellite jointly submitted by Canada and Sweden and based on a joint Working Paper of May, 1973. (40)
- 3) Draft Principles on Direct Broadcast Satellites submitted by the delegation of the United States in March, 1974. (41)
- 4) Working Paper listing the problems involved in formulating principles governing the use by satellites for direct television broadcasting along with suggestions for the solutions of such problems, submitted by Argentina and serving as a basis for a Draft International Convention on Direct Broadcasting by Satellite submitted by Argentina in July, 1974. (42)

Working papers are generally seen as efforts made, on the part of members of the international community, to facilitate the task of the Working Group so that a compromise can be achieved and substantial progress made. However, based on the content of the Soviet and the United States proposals, there did not appear to exist any common ground. The Soviet principles were weighted heavily in favour of the right of the receiving state to protect its national sovereignty while those of the United States placed emphasis upon the right of the broadcasting state "...to encourage and expand the free and open exchange of information and ideas...". (43) Not only did these two

diametrically opposed schools of thought emerge but the Soviet Union and the United States each insisted on the inviolability and strength of its own position, with a rejection of the worth in its opponent's. The Canada/Sweden Proposal and the Argentine Draft Convention seemed to hold the only possibilities of producing an agreed outcome. Canada and Sweden, and Argentina, in attempts to occupy the middle ground, drafted principles to achieve a workable and responsible balance between the individual's fundamental right to the "free flow of information" and national sovereignty of states over their airspace.

The Soviet Proposal

The Soviet Union, supported by the members of the Eastern bloc and a number of the developing countries, sought to enshrine the principles of prior consent and programme content and the concept of unlawful or inadmissible broadcasts. While not recognizing a right to free flow of information via direct broadcast satellite signals across national borders, whether intentional or unintentional, the Soviet Proposal called upon states "... to carry-out [direct broadcasting by satellite] to foreign States only with the express consent of the latter." (44) The Soviets based their argument on the Revised Radio Regulations adopted by the WARC-ST in 1971, interpreted as meaning that intentional coverage of the territory of another member of the international community requires

the "agreement" of that country. In their view, there should be excluded from television programmes, transmitted by means of artificial earth satellites :

... any material which is detrimental to the maintenance of international peace and security, which publicizes ideas of war, militarism, national and racial hatred and enmity between peoples, which is aimed at interfering in the internal domestic affairs of other States, or which undermines the foundations of the local civilization, culture, way of life, traditions, or language. (45)

This view was endorsed by France and Poland.

The Soviets argued that they were negotiating in good faith and had even compromised their position by modifying their 1972 draft to produce the present one. However, according to McWhinney, the earlier Soviet proposal was deliberately made to contain expendable "giveaway" provisions and phrasing, "...drafted with the conscious knowledge that they would be objectionable to Western interests and also go well beyond Soviet needs". (46) This is a negotiating strategy not uncommon to the Soviet Union and has been used time and again on a number of similar occasions. (47)

The United States Proposal

In contradistinction to the Soviet proposal was that of the United States. The American view, supported by Japan, the Federal Republic of Germany and others, had been to decisively reject both the notion that

consent must be obtained by a broadcasting state from the receiving state prior to the transmission and the notion of programme content. While recognizing that there was an obligation of a technical nature, under ITU instruments, to reduce radiation over the territory of other countries to the maximum extent possible (48), the United States pointed out that if such an obligation was fulfilled, there was no further requirement for any other consultation or international agreement in order to protect national sovereignty. The freedom to receive information was just as important as the freedom to impart it; in the principle of prior consent there was an inherent danger of sanctioning not only total censorship "...but such arbitrary and diverse application of the principle as to nullify the basic human right to exchange ideas and information". (49) As a result, the Americans were unwilling to agree to a principle of political consultation; they preferred, instead, a consultation obligation of a very general character, falling well short of the need for the agreement of the receiving state to establish a broadcast service intended to reach its viewers. (50) The American position was based upon the premise that there should be no derogation from the principle of freedom of thought and expression which guaranteed the freedom to seek, receive and impart information and ideas, as set out in Article 17 of the Universal Declaration of Human Rights and Article 19 of the International Covenant on Civil and Political Rights. (51)

The United States, too, had modified its position. While the Americans had rejected the desirability and the necessity of principles in general on several previous occasions, in 1974, they had presented 11 draft principles which were not put in binding form. (52) However, the United States, supported by Belgium, Japan, the United Kingdom, and Italy, continued to posit that considerably more analysis and experimentation were needed to arrive at a consensus on an international approach to such satellite broadcasting.

The Canada/Sweden Proposal and the Argentine Draft Convention

The Canada/Sweden Proposal and the Argentine Draft Convention took an intermediate position as to the compatibility of free international broadcasting with the demands of national sovereignty and the doctrine of non-intervention in the internal affairs of states. While, for these states, any control of programme content represented censorship and a fundamental inconsistency with the principle of the free flow of information and was thus deemed inappropriate, there was a requirement, in light of the extraordinary power and potential influence of the new technology, for the consent of the receiving state prior to the establishment of a broadcast service by one state directed toward another. (53) However, there was to be a distinction between direct television broadcasts by satellites specifically intended for foreign states and those resulting from unintentional spillover. The prior

consent principle would apply to the former category and not to the latter as long as the relevant technical instruments of the ITU were respected. (54)

These working papers were based on the assumption, unlike that of the United States, that :

...[t]he principle of freedom of information and free flow of communications [was] not incompatible with the adoption of additional principles designed to harmonize the rights of States and to protect the economic, social and cultural values of their peoples. (55)

However, these states, and Canada in particular, thought that it would be more appropriate, at this time, if a body of principles was to be declared by the General Assembly as governing DBS activities rather than if members of the international community proceeded hastily in developing legal rules and regulations in binding treaty form. (56)

The considerable efforts of the members of the Working Group to facilitate progress so that a reasonable compromise could be achieved produced mixed results. A high degree of consensus was achieved on such issues as applicability of international law, rights and benefits of states, international cooperation, state responsibility, and the peaceful settlement of disputes. The Working Group consolidated these into what was to become a single negotiating text (SNT). However, the crucial issues of prior consent, spillover and programme content remained unresolved. National positions proved to be very durable and closely attached to ideological and philosophical foundations. This frustrated the achievement of collective group judgement.

In 1976, some further progress was made. Agreement was reached on four new provisions dealing with minor issues such as purposes and objectives; international consultation; copyright, neighbouring rights, and protection of television signals; and notification to the United Nations system; and as such were incorporated into the aforementioned text. However, basically divergent views on the more fundamental and difficult issues made the task of reconciling differences extremely difficult.

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While the UNCOPUOS, and the Legal Sub-Committee in particular, had been struggling with the controversial issues surrounding DBS, the ITU had been effectively regulating the technical aspects of its use, seemingly oblivious to the political, cultural and legal problems frustrating the Committee. In response to the rapid advances in science and technology and conscious of potential technical problems and the concerns of the technological "have-nots", the ITU had begun to formulate new rules and regulations for the orderly, efficient and equitable use of the geostationary orbit.

The Claims and Arguments of the Equatorial Countries

While members of the international community had been well aware of the fact that the geostationary orbit was of a limited nature and had recognized the possibility of technical problems, such as satellite collisions, disruption of communications, et cetera, there had not been an equal appreciation of the position of those countries which did not and would not have in their possession, for some time to come, the technology necessary to exploit this natural resource. Concerned that developing countries would be squeezed out of what was rightfully theirs, Colombia, in 1975, laid claim to a segment of the geostationary orbit lying over its national territory, arguing that this segment was part of the territory of Colombia and that it was not included in the conception of outer space alluded to in the Outer Space Treaty. (57) Colombia, in its call for the establishment of a New International Economic Order, had emphasized that there was :

... an unquestionable need for a more just and equitable legal order to correct in some measure the unbalanced situation resulting from the differing degree of technical development among nations, since only a very small number of States possessed a genuine space technology and the remainder were no more than helpless spectators of the application of such technology, often for the exclusive benefit of the minority. (58)

The call had gone forth for a NIEO; now it was time for a new international order for outer space.

This avant-garde move by Colombia led to the signing, in 1976, of a common Declaration, known as the Bogota Declaration, which set forth in a systematic and detailed fashion the position of eight equatorial countries on the legal status of the geostationary orbit. (59) The signatories stated that :

... the orbit was created by the Earth's gravity ... such that the existence of the geostationary orbit depended upon its relation to the gravitational phenomena of the Earth, and the orbit therefore did not fall within the concept of outer space. In view of these characteristics of the geostationary orbit, [some equatorial nations] felt that [their] segment of the orbit was a natural resource which had from the outset been part of the third dimension of [their] national sovereignty. [They] therefore believed that the use, enjoyment and occupation of that segment were subject to the prior consent rule and that the placing in it of space devices must be subject to the domestic legislation of the equatorial state involved. (60)

This claim, which could give them territorial rights over the geostationary orbit, is still pending. As to the segments of the orbit over the open sea, the equatorial countries declared that they considered these segments as the "common heritage of mankind" since they are beyond the national jurisdiction of states. (61)

This position should not have been unexpected. It reflected the apprehension of the lesser developed countries, as latecomers to the space age, that the technologically advanced countries might usurp

certain aspects of space use. These emerging poverty-stricken nations wanted a fair share of the technology, including access to the geostationary orbit, and the benefits derived therefrom.

The validity of the arguments

The claim to national jurisdiction over segments of the geostationary orbit by the eight equatorial states has met with no recognition from other countries represented before the UNCOPUOS, and the arguments for it have been discussed or rejected as technically unsound or ill-founded in international law. Among the states rejecting this claim and the arguments for it have been Czechoslovakia, France, the German Democratic Republic, Iran, Italy, Mexico, the Soviet Union, the United Kingdom, and the United States. They have pointed out that :

...the geostationary orbit is inseparable from outer space, and the location of states did not create any right of ownership to it or to any segment of it...(62)

and that :

...[i]t is quite nonsensical to maintain that the alleged rights of a sovereign over segments of the geostationary orbit derive from the action of the gravitational force of the terrestrial territories belonging to equatorial countries - [t]he force of the Earth's gravity derives from the mass of the whole of our planet, and the sub-division demanded by the equatorial countries is unfeasible and preposterous. (63)

In effect, these members of the international community were simply emphasizing what had already been broadly accepted. There is a general consensus, although not universal agreement, that the geostationary orbit is part of outer space. This has been the prevailing viewpoint despite the fact that there has been no internationally accepted determination of where air space ends and outer space begins (64) and that the Outer Space Treaty does not define its area of application. (65) Thus, there seems little basis in fact or in law for supporting a claim to national sovereignty.

While the strictly legal and technical arguments of the equatorial countries do not appear convincing, it is instructive to examine the underlying motivations that prompted this claim. Section I of the Bogota Declaration stipulates that :

...the ITU solutions are impracticable and unfair and would considerably increase the exploitation costs of the geostationary orbit, especially for developing countries whose technical and financial resources are not equal to those of industrialized countries, who enjoy an apparent monopoly in the exploitation and use of the geostationary orbit. (66)

The argument for the claim of the equatorial countries then has its origin in the fear, shared by developing countries in general, that only the richest or technologically advanced states will be able to obtain benefits from outer space and that states, especially the United States and the Soviet Union, will obtain an unfair share. Accordingly, it is

argued that there ought to be recognition of the principles of equity and sharing in the Outer Space Treaty or the establishment of an international authority that would take into account the special interests of the equatorial states.

The 1977 World Administrative Radio Conference

At the 1977 WARC, the ITU set out to develop an adequate and equitable system for the utilization by states of radio frequencies and the geostationary orbit and succeeded in producing Final Acts that were signed by the representatives of 106 members of the international community. It contained a detailed technical plan assigning nominal positions in the geostationary orbit for DBS and radio frequency channels in the 11.7-12.2 GHz band to states in the ITU Region III (Asia and the Pacific) and in the 11.7-12.5 GHz band in Region I (Africa, Europe, Mongolia, and the Soviet Union). For the ITU Region II (the Americas), an interim plan was adopted for the period pending the conclusion of a more detailed technical plan by the Regional Radio Administrative Conference (RARC) to be held in 1983.

The 1977 Plan was a significant step in the direction of adequate and equitable sharing. Although it did not exclude the operation of the "first-come first-served" rule (67), the Plan did pre-assign orbital positions for a large part of the world for an important new technological phenomenon - direct-broadcasting satellite service. (68)

While acknowledging the advantage of the ITU initiative in preventing the less developed countries from being squeezed out of the geostationary orbital belt and the radio frequency spectrum by prior occupation by satellites of the technologically advanced countries, it must be recognized that the decisions of the 1977 WARC posed a number of potential problems. In particular, there was a real possibility that geostationary orbital "slots" would be reserved for states that would never use them. Considering the relatively short life span of a geostationary satellite and the likelihood that outer space could be profitably used by several generations of satellites before these states could utilize the orbital belt, the practicality of pre-assigning orbital positions was debatable. (69) Moreover, in reserving the entire frequency band for a particular purpose and the orbital positions for particular states, the "slots" could not be used by other types of geostationary satellites. In light of the fact that the geostationary orbit could be used for the production of energy and meteorological studies, it could be argued that the pre-assignment concept was not an efficient method of utilizing the vast potential of the geostationary orbit.

Despite these reservations, the ITU initiative must be seen as an important accomplishment. The development of a sophisticated system for the utilization of the geostationary orbit was a significant step forward in the formulation of new legal space regulations. In particular, the conclusion of a Plan for the GHz frequency band was of direct relevance to the formulation of draft principles on DBS, since

legally, the United Nations principles are subject to the relevant provisions of the ITU Convention and its Regulations.

In future, more substantial progress is expected to be made. The international community, in an effort to give more explicit recognition to the need for equity between the technological "haves" and "have nots", will be setting out to guarantee equitable access to all space services for all countries at the 1984 WARC.

THE LEGAL SUB-COMMITTEE : SUCCESSES AND FAILURES IN REACHING

INTERNATIONAL AGREEMENT

While in 1977 the WARC had made significant progress in its formulation of a system for the utilization by states of radio frequencies and the geostationary orbit, the Legal Sub-Committee was faced with a state of affairs similar to that of 1976. As a result of lengthy discussions and informal consultations, the Working Group on Direct Broadcast Satellites had been successful in formulating nine principles. The decision had been made not to formulate principles on spillover and disruption, and the more fundamental, controversial issues, i.e., consultation and agreement (70), programme content and unlawful/ inadmissible broadcasts, had proved irreconcilable.

The strategy adopted by the Legal Sub-Committee, at this stage in the negotiations, was to attain consensus on the key outstanding issue in the hope that other unsettled issues would fall into place. The conditions under which DBS might be carried out and, in particular, whether the consent of the receiving state was required for such broadcasts as were specifically aimed at that state and whether the

receiving state should be accorded the right to participate in activities involving coverage of territory under its jurisdiction, was the matter under consideration. From the efforts of delegations to achieve consensus on the difficult issue there emerged two alternative texts (71) and a compromise proposal (72), indicating a divergence of views among members of the international community. Alternative A, requiring the prior consent of the receiving state, received general support from Canada, Sweden, France, the Soviet Union, and a number of developing countries. Alternative B, reflecting the general approach adopted by the United States, the United Kingdom, the Federal Republic of Germany, and Japan, did not require the prior consent of the receiving state but stipulated that consultations should be carried out between the broadcasting and receiving states concerning any restrictions to be imposed by the latter. The compromise proposal, put forward jointly by Canada and Sweden, contained reference to the legal framework of the ITU, including the 1977 WARC Plan, and its relationship to the draft principles. For example, its requirement for the agreement of the receiving state to the establishment of a DBS service reflected the terminology of the ITU instruments and excluded the necessity for restrictive principles regulating programme content and unlawful/inadmissible broadcasts. It also incorporated wording that lent itself to subjective interpretation in order to accommodate inevitable differences of opinion between members of the international community. However, despite this effort to develop a text which would represent a responsible and workable balance between the two divergent

points of view, consensus was not achieved. The United States refused to compromise its position and to accept the text at either the 1977 or the 1978 session.

In advance of the 1979 session, Canada and Sweden jointly circulated a "clean text". In producing this version of the draft principles containing no square brackets, footnotes or alternative texts, they tried to end the impasse that had perennially troubled the Committee. Unfortunately, no progress towards the achievement of consensus on the key outstanding issue was made in the 1979 or the 1980 session. The United States, the Federal Republic of Germany, Belgium, the Netherlands, and Italy remained opposed to the requirement of the agreement of the receiving state to the establishment of a direct television broadcasting service. To have "watered down" this key principle, to the extent required to satisfy these members of the international community, would have jeopardized the support of the Eastern bloc countries who had agreed to live without principles on programme content and unlawful/inadmissible broadcasts and with the principle on the duty and right to consult, for fear that 1979 might be "now or never" to break the impasse, and a number of the developing countries who would have preferred to insert strong references to the "sovereign rights" of the receiving states. As a result, this attempt to strike the balance necessary to attract consensus failed. Although it was regrettable that it had proved impossible to find a compromise

solution on the basis of the "clean text", it remained a good basis for further negotiations. In fact, it became the guiding framework for the negotiating text that followed.

Further attempts to complete the elaboration of draft principles governing the use by states of artificial earth satellites for direct television broadcasting were made by the Sub-Committee in the 1981 and 1982 sessions. These efforts were prompted by General Assembly Resolution 36/35 which called for the Legal Sub-Committee to exert its best endeavours in one final attempt to conclude the draft principles. A negotiating text, emphasizing both the sovereign rights of states and the right to seek, receive and impart information and ideas, was jointly submitted by Argentina, Brazil, Canada, Chile, Colombia, India, Indonesia, Iraq, Kenya, Mexico, Niger, and Venezuela, in the hope that it could serve as a basis for reaching an overall agreement. (73) Although the sponsors exhibited tremendous flexibility in the drafting of the text, other delegations did not appear to approach the negotiation of this problem in a constructive spirit. The United States and its small following were singled out as maintaining a position that rebuked the approach of the overwhelming majority of states to this problem. They were accused of not negotiating in good faith and of upholding an unbending position that did not take into account the interests of the world community as a whole. Consequently, it was impossible to complete work on the United Nations draft principles.

MOST RECENT DEVELOPMENTS

In compliance with Resolution 36/35, the adoption of a draft set of principles governing the use by States of artificial earth satellites for international direct television broadcasting was considered in the Special Political Committee of the General Assembly. In November 1982, a draft resolution (74) on an international convention was introduced and adopted by a recorded vote of 38 in favour (including the Soviet Union) to 15 against (including the United States), with 11 abstentions (including Canada and Sweden).

The passing of this General Assembly Resolution can be seen as both a success and a failure. In essence, the principles embody not only rules and regulations forming part of positive law today (75) but also several new principles (76). However, with the adoption of this set of principles by a majority vote, instead of a consensus, an artificial voting victory was manufactured in which an important minority was alienated. A resolution on which the West (including an important space power) either abstained or voted against can hardly be considered a triumphant achievement. With the voting strength of the Third World and the East European countries carrying the day, the result was a meaningless international resolution, a state of affairs the world community had seen in the Law of the Sea negotiations and had strived so hard to avoid for a second time. A number of states applying the

principle of prior consent and others not recognizing anything but unlimited freedom of information will not be conducive to a harmonious application of this new technology but rather will constitute a new source of friction and conflict between nations.

FOOTNOTES

(1) Receiving locations are ground terminals which have large parabolic dish antennas to collect the relatively weak signals from outer space. P.G. Bowers, "A Satellite Primer for Non-Experts", The Ontario Education Authority at 2.

(2) Individual reception is "...the reception of emissions from a space station in the broadcasting satellite service by simple domestic installations and, in particular, those possessing small antennas". International Telecommunications Union, Final Acts (of the WARC-ST), Geneva, 1971 at 42.

(3) Community reception is the reception of emissions from a space station in the broadcasting satellite service by receiving equipment, which in some cases may be complex and have antennas larger than those used for individual reception. It is intended for use either by a group or the general public at one location, or through a distribution system covering a limited area. supra, note 2.

(4) GigaHertz is frequency of a billion cycles per second.. For comparative purposes :

AM radio operates in the 500-1600 KiloHertz region.

VHF television is in the 50-200 MegaHertz band.

(5) supra, note 1 at 3 - 4.

(6) The positioning of artificial earth satellites in this orbit is also of great practical importance for weather studies. It is expected that the geostationary orbit will be used in the future for several other applications, such as the generation of electricity from solar radiation in outer space. Edward W. Ploman, A Guide to Satellite Communication. Paris : UNESCO, 1972 at 9.

(7) UN Doc. A/AC.105/66.

(8) Andrzej Gorbiel, "The Legal Status of the Geostationary Orbit : Some Remarks" in 6 Journal of Space Law 171 (1978) at 171. However, there is a possibility of a change of circumstances here. An increasing number of experiments are being conducted with regard to new spectrums. New

developments could guarantee better precision in the use of frequency spectrums - with smaller parking spaces and an increasing number of frequencies, a greater number of satellites could be accommodated.

(9) supra, note 5 at paragraph 27.

(10) supra, note 7 at paragraph 27.

(11) A. Gotlieb and C. Dalfen, "Direct Satellite Broadcasting : A Case Study in the Development of the Law of Space Communications" in 7 Canadian Yearbook of International Law 33 (1969) at 55.

(12) UN Doc. A/5549, Add. 1.

(13) Conference room paper no. 1 of March 23, 1964.

(14) UN Doc. A/AC.105/W.G.1 ; SR.7 at 6.

(15) UN Doc. A/AC.105/C.2/SR.57 at 13.

(16) The proposed article was as follows :

The parties to the treaty, recognizing the enormous potentialities of space applications for sound and television broadcasting, undertake to make use of such applications only in accordance with the resolutions of the General Assembly which condemn using the media of information for hostile propaganda, and urge states to utilize them for promoting friendly relations among nations, based upon the purposes and principles of the charter. In part, they shall undertake to regulate at the worldwide level, direct broadcasting by artificial satellite, as regards both its technical and program contents aspects. They undertake to refrain from using communication satellites for direct broadcasting until such regulations are set by the competent international organizations.

UN Doc. A/AC.105/C.2/WP.No.19.

(17) UNGA Res.2260 (XXII).

(18) UN Doc. A/C.1PV.1501 at 17.

(19) UN Doc. A/AC.105/C.2/L.49.

(20) UN Doc. A/7285, Annex III at 136.

(21) UN Doc. A/7285 at 5-6.

(22) UN Doc. A/AC.105/51.

(23) UN Doc. A/AC.105/66.

(24) "Sources", as it is used here, refers to the bodies of norms, arrangements or understandings applicable to spheres of activity that are relevant to direct satellite broadcasting.

(25) C.W.Jenks, "Space Law Becomes a Reality" in Current Problems in Space Law : A Symposium 15 (1966) at 16.

(26) UN Doc. A/AC.105/59 at 8-9.

(27) The applicability of these instruments to outer space communications is implicit in UNGA Res.1721 (XVI) D, requesting the ITU to take appropriate action in respect of outer space telecommunications, and in the fact that the Revised Radio Regulations now constitute the elements of an outer space telecommunications code.

(28) supra, note 11 at 38.

(29) UNGA Res.110(II). The contents of this resolution are referred to in the preamble to the 1967 Outer Space Treaty and are thus considered applicable to outer space.

(30) UN Doc. A/AC.105/83.

(31) Benno Signitzer, Regulation of Direct Broadcasting from Satellites : The UN Involvement. New York : Praeger Publishers, 1976 at 43.

(32) UN Doc. A/AC.105/83, Annex V at 29-31.

(33) UN Press Release OS/381 at 4-5.

(34) "United States Mission to the United Nations. Press Release USUN-59 (June 15, 1973)" at 6.

(35) The 11 article Declaration, which is not binding on governments, was adopted by a vote of 55 (including the USSR) to 7 (including the United States) with 22 abstentions. UN Doc. A/AC.105/109/Corr.1. The Declaration is reproduced in Appendix B.

(36) Attached to the request was the first draft convention to be elaborated on direct broadcasting by satellite. In addition to eight preambular paragraphs, it contained 17 comprehensive articles covering the whole range of legal aspects surrounding this new technology. UN Doc. A/8771 at 1-2.

(37) UN Doc. A/8720 at 11.

(38) UN Doc. A/8730 at 14.

(39) UN Doc. A/AC.105/127, Annex II (hereinafter the Soviet proposal) is reproduced in Appendix B.

(40) UN Doc. A/AC.105/127, Annex III (hereinafter the Canada/Sweden proposal) is reproduced in Appendix B.

(41) UN Doc. A/AC.105/127, Annex IV (hereinafter the United States proposal) is reproduced in Appendix B.

(42) UN Doc. A/AC.105/127, Annex V (hereinafter the Argentine Draft Convention) is reproduced in Appendix B.

(43) Note : it is "consultation" to "resolve disagreement without such "consultation" necessarily having to result in "agreement".

(44) Article V

(45) Article IV

(46) Edward McWhinney, "The Antimony of Policy and Function in the Institutionalization of International Telecommunications Broadcasting" in 13 Colombia Journal of Transnational Law 1 (1974) at 20.

(47) Although the Soviet Union is seen as the champion of this kind of negotiating strategy, especially with respect to arms control negotiations, it must be understood that other members of the international community have also used these tactics.

(48) Radio Regulation No. 428A reads :

...in devising the characters of a space station in the Broadcasting Satellite Service, all technical means available shall be used to reduce, to the maximum extent practicable, the radiation over the territory of other countries unless an agreement has been previously reached with such countries.

(49) supra, note 34 at 6 - 7.

(50) Article X stipulates that :

...States should seek to resolve any disagreements which may arise concerning the carrying out of international direct television broadcasting by satellite through consultation and, as may be necessary, through established procedures for the settlement of disputes.

(51) The Helsinki Accords would also guarantee these freedoms in the 1975 Final Acts.

(52) The United States continued to have serious reservations about the advisability of adopting binding principles governing direct satellite broadcasting.

(53) The prior consent requirement is incorporated in Articles V and VI of the Canada/Sweden proposal and Article X of the Argentine Draft Convention.

(54) Article VI of the Canada/Sweden proposal and Article XIV of the Argentine Draft Convention.

(55) Article XIII of the Argentine Draft Convention.

(56) "Canadian Delegation to the United Nations. Press Release No. 3 (June 12, 1973)" at 5.

(57) UN Doc. A/C.1/PV.2052 at 45-46.

(58) UN Doc. A/AC.105SR.366 at 3.

(59) The representative of Brazil signed the Declaration as an observer. The Declaration is reproduced in Appendix B.

(60) Kim G. Gibbons, "Orbital Saturation : The Necessity for International Regulation of Geosynchronous Orbits" in 9 California Western International Law Journal 139 (1979) at 149.

(61) Article III(b).

(62) A statement made by the representative of the Soviet Union. UN Doc. A/AC.105 C.2 SR.282 at 3.

(63) A statement made by the representative of the United Kingdom. supra, note 6 at 176.

(64) From the beginning of the space age, there have been many theories and proposals advanced to determine the precise demarcation line between air space and outer space from a legal point of view.

(65) Although the 1967 Treaty does not define its area of application, it would seem that the use of the geostationary orbit is consistent with its provisions. For an excellent examination of the Treaty provisions with regard to the geostationary orbit, see A. Gotlieb, "The Impact of Technology on Contemporary International Law". The Hague : unpublished manuscript, 1982 at 168 - 170.

(66) It was essentially the basic "first-come first-served" rule governing utilization of the geostationary orbit that was perceived to be inequitable by the equatorial countries. This rule was enshrined and refined in the ITU's Radio Regulations, adopted at the WARC in 1971. However, the "first-come first-served" rule had undergone change. At the 1971 WARC-ST (Resolution No.Spa2-1) and in the new International Telecommunications Convention of 1973 (Article XXXIII), reference was made both to the fact that radio frequencies and the geostationary orbit are limited natural resources and that countries should have equitable access to them. This rule would undergo further, more significant, changes in the years that followed.

(67) The 1977 Plan did not pre-assign specific orbital positions within the pre-assigned portion of the geostationary orbital belt. However, it removed the priority of status accorded to earlier registration and thus modified the traditional rule with respect to its application to the direct broadcasting satellite service.

(68) It did not do this for all geostationary satellites, just for those that broadcast directly.

(69) However, recent developments may be said to have rendered this argument invalid. In light of the fact that the space shuttle could make it feasible to place much larger structures in orbit and to make repairs on and refuel satellites already in orbit, satellites might be able to stay in orbit indefinitely. Consequently, the less developed countries voice a genuine concern.

(70) Until 1977, this was referred to as the issue of "prior consent".

(71) These alternative texts were each entitled "Consent and Participation".

(72) This compromise proposal was entitled "Consultation and Agreement".

(73) UN Doc. A/AC.105/C.2/L.131.

(74) UN Doc. A/SPC/37/L.5//Rev.1. The draft resolution on an international convention adopted by the Special Political Committee is reproduced in Appendix B.

(75) For example, the idea behind the principle pertaining to the peaceful settlement of disputes is incorporated in detailed procedures in the Liability Convention and is now extended, in a general manner, to international DBS.

(76) For example, the principle on the protection of copyright and neighbouring rights is a new addition to international space law, and, although applied specifically to DBS, it is of general interest to other relevant subjects.

CHAPTER THREE

REMOTE SENSING OF THE EARTH FROM OUTER SPACE

Definition of Remote Sensing

Remote sensing is the perception of external objects and outstanding characteristics at an intermediate distance from the sensor. Remote sensing of the earth from outer space has been defined as :

... a methodology to assist in characterizing the nature and conditions of the natural resources, the natural features and phenomena, and the environment of the earth by means of observation and measurements from space platforms. (1)

While any observation of the earth and its environment from a point above and beyond it is remote sensing, the term has acquired the meaning of electronic detection and perception.

Remote sensing from outer space is a sophisticated technique that is profound in its implications for the observation and improvement of our planet. This technological innovation, through which heretofore untapped data about the earth and its environment can be acquired and assessed, has facilitated greater detection of animal, plant and tree

disease, and the extent of wind and flood damage; has effected better definition of the geographic boundaries of the state and distribution of crops, water supplies and vegetation, and provided yield estimates for resource management; has provided greater accuracy for mapping; has defined pollution areas on land, in the air space, and at sea for greater environmental control; and has located areas of potentially rich mineral and petroleum reserves. At a time when supplies of food, water and energy are dwindling, and natural disasters and man-made hazards are threatening the earth's environment, the ability to acquire data about our planet from the vantage point of outer space is contributing to worldwide efforts to assess, develop and manage precious natural resources and eventually to control the environment.

Earth resource satellite systems are operating, sensing and transmitting in association with ground equipment for satellite command, control, data reception, and data analysis and interpretation; they have been for over a decade. Satellites for military reconnaissance were launched as early as the late 1950's and maintained, over the years, by both the United States and the Soviet Union. The first earth resources satellite, intended exclusively for earth observation, was launched into orbit in 1972 by the United States. (2) Its mission was :

... to ascertain which natural resources and environmental data could be best acquired from the use of space-craft; to test data acquisition and methods for interpreting it in such diverse areas as forestry, geology, hydrology, oceanography, and ecology; and to determine how outer space remote sensing could serve the commercial, scientific and governmental communities. (3)

The Soviet Union, Japan, India, and the European Space Agency launched similar satellites in the years that followed. Today, however, the United States LANDSAT system is the principal remote sensing network with approximately 50 member states of the international community participating in its operation. (4)

The Question of National Sovereignty

The development of global technologies, such as remote sensing, has had a significant impact on the conduct of international relations - it has created unprecedented growth of the interpenetration of societies and new patterns of potential conflict. Evidence of this increasing interdependence between the members of the international community is seen in the erosion of the traditional, already weakened, concept of national sovereignty - the right to maintain a closed society. Remote sensing is a technology which has no regard for national frontiers. Segments of the earth's surface can be scanned on each orbit, and the valuable information acquired takes no measure of political frontiers marked out by the international community's nation-state system. As a result, "[u]nhibited remote sensing ... has cast a cloud over the sovereign right of a State to be let alone." (5) According to Gotlieb, "...[it has destroyed] what little [was] left of the self-image of national states as powers sitting comfortably behind defined national boundaries, secure in their territorial integrity." (6) In a world

composed of approximately 155 independent nation-states, all with their own heritage and their own religious, legal and cultural traditions, remote sensing poses potential threats to a state's sovereignty, right to privacy, property interest in one's own natural resources and economic security. These threats appear more real in closed rather than open societies and in developing rather than developed countries. At present, there is a widespread fear among many members of the international community, particularly among the technological "have nots" of the Third World whose natural resources are their livelihood, that their sovereignty is being compromised, that their national "privacy" is being invaded through unwanted observation of their territories by alien entities.

Applicability of Existing International Law

As with the many other technological innovations in our time which have posed myriad international legal problems, remote sensing by satellite must be examined in the light of existing international law. Numerous arguments have been put forward with respect to its applicability.

The Outer Space Treaty

With regard to the applicability of the 1967 Outer Space Treaty, two diametrically opposed positions have emerged. On the one hand, because there is no concrete evidence that the drafters of the Treaty considered the question of earth resource satellites, a problem which came to the fore of international attention and discussion after the completion of the Outer Space Treaty, it has been argued that the provisions of the 1967 agreement are not applicable to such satellites.

(7) In fact, one author has even gone so far as to posit that remote sensing by satellite is a terrestrial matter and should, as such, fall under terrestrial, not space law. (8) On the other hand, however, a great many academics and statesmen alike subscribe to the principle that, in the absence of disapproval on the part of states of the activities of military reconnaissance satellites and of the operations of LANDSAT and INTER-COSMOS, and in view of the broad overall scope of the Outer Space Treaty, its provisions would be applicable to the positioning of earth resource satellites in orbit and their sensing activities in outer space. (9) In order to determine whether and how the Outer Space Treaty regulates the activity of earth resource satellites, it is necessary to scrutinize a number of the most relevant Treaty provisions.

The references in Articles I, III, IX, X, XI, and XIII of the Treaty to "exploration and use" may be or may not be interpreted to apply to the use of earth resource satellites. From the ambiguous wording of the provisions, it is difficult to determine whether "exploration" has to precede "use" or whether "use" must be accompanied by "exploration". (10) As a result, "...[t]he use of outer space by these satellites without exploration of outer space and solely for exploration of earth resources may preclude applicability of ... [these] provision[s]." (11) Although the drafters of the Treaty could have clarified the situation by using the phrase exploration "or" use, a broad interpretation of the provisions of the Outer Space Treaty - the norm with vaguely worded agreements - would include any outer space activity, even though use is only accompanied by exploration of earth resources and not by exploration of outer space.

Freedom of scientific investigation "in" (rather than scientific investigation "of") outer space, guaranteed by the last paragraph of Article I, appears to be applicable to the scientific investigation of the earth. However, the complex question, to which there is no definitive answer, arises as to whether or not an orbiting earth resources satellite is engaged in scientific investigation "in" outer space and if so, whether or not it necessarily and always takes place in outer space. (12)

The applicability of Article III, stipulating that activities in the exploration and use of outer space must be carried out in accordance with international law, to the surveying of earth resources by satellite

poses another problem of interpretation. If this particular provision is interpreted as applying to outer space activities performed by earth resource satellites, it is debatable whether any country could legitimately object to the surveying of its natural resources. At present, "there appears to be nothing in international law which could specifically be invoked as a prohibition of the type of activities performed by satellites surveying earth resources." (13) According to Cocca :

International law imposes no restrictions on observations from outside the limits of national jurisdiction. Observations from outer space, like observations from the high seas or from airspace above the high seas, are consistent with international law. (14)

Although this article appears to permit remote sensing of the earth's resources, there are obligations, set forth in the 1967 Treaty, which its parties are required to observe. Earth resource surveying by satellite must "...facilitate and encourage international cooperation..." (Article I) and must be carried out "...exclusively for peaceful purposes..." (Article IV), "...with due regard to the corresponding interests of all other States..." (Article IX). These terms and conditions might limit remote sensing activity.

Article VII of the Outer Space Treaty as well as Article I of the Liability Convention, guaranteeing international liability for damage, can be interpreted as applying to damage caused by the device used in a satellite for gathering information about resources on earth but not applying to damage which results from the use or dissemination of

information collected by one state pertaining to the natural resources of another state. Damage, as it is defined in the two space treaties, implies direct damage caused "by" the space object itself. Although the taking of pictures or the use of other remote sensing equipment from outer space could not "in itself" hurt the interests of other members of the international community, it is possible that the instrument used to accomplish the survey or remote sensing could emit substances (radar or laser beams) which would have harmful effects on health or might cause damage to property. In this case, the sensor used in the course of a satellite's surveying mission is recognized as a "space object" or a component part of a spacecraft and is thus the cause of the damage. However, where "property" is construed to include the national interests of a state, the damage - the use and dissemination of information of considerable economic and commercial value to the detriment of the economic interests of a state - is done by the activities of an individual, nation-state or organization subsequent to the survey accomplished by the satellite and not by the "space object" itself.

The right to retain jurisdiction and control over "space objects", as guaranteed in Article VIII, does not necessarily make the particular functions performed by earth resource satellites or the subsequent use or dissemination of the data collected permissible. The wording of this article sheds no light on the subject.

Stipulating that in the exploration and use of outer space the members of the international community must conduct all of their activities in outer space with due consideration of the corresponding

interests of all other states, Article IX implies that the provision relates to "corresponding" interests in the exploration and use of "outer space" and not of the "earth". Other provisions of the same article, which deal with "potentially harmful interference" with activities of other states in the exploration and use of "outer space" and not of the "earth", lend support to this position.

Finally, the interpretation of Article XI, stating the obligation, on the part of states, to notify the Secretary General of the United Nations of the activities conducted in outer space, is open to question as no agreement has yet been reached as to whether or not the earth resources data collection function involves only "activities in outer space" or also activities on earth. If this function does entail only "activities in outer space", (and this, apparently, is the predominant view), "...it is indeed difficult to understand on what grounds a nation could object to the dissemination of data resulting from such activities." (15) Not only does the use of earth resource satellites seem permissible with there being no indication that any sovereign rights are violated, but there equally appears to be no stipulation prohibiting the use and dissemination of the data collected. However, the primary purpose of this article is "... to promote international cooperation on the peaceful exploration and use of outer space". If the dissemination of information about the resources of a state would not promote such an objective but would create international friction instead, then the obligation imposed herein would not be applicable.

Other Sources of International Law

There are fundamental principles of international law, other than those embodied in the Outer Space Treaty of 1967, applicable to remote sensing of the earth from outer space which have led to inconsistent conclusions as to the proper framework for remote sensing operations.

Prior to the advent of remote sensing techniques, the United Nations General Assembly adopted a number of resolutions relating to the sovereignty of states over their natural resources. Pioneering resolution 626, entitled "Right to Exploit Freely Natural Wealth and Resources", states that :

...the right of peoples freely to use and exploit their natural wealth and resources is inherent in their sovereignty and is in accordance with the Purposes and Principles of the Charter of the United Nations

and calls upon :

...all States to refrain from activities, direct or indirect, designed to impede the exercise of the sovereignty of any State over its natural resources. (16)

The inalienable right of nations to exercise permanent sovereignty over their natural resources has been confirmed and restated in Resolutions 1314 (XIII), 1803 (XVII) - "Permanent Sovereignty over Natural Resources" - 2158 (XXI), and 2692 (XXV). Argentina and Brazil,

Czechoslovakia and the Soviet Union, went even further in the definitions of state sovereignty over natural resources they submitted to the General Assembly. Their common position was essentially that :

...permanent sovereignty embraces more than the physical or material wealth within state frontiers and extends to information about such wealth as well It is an intrusion on this sovereignty to derive data which produces information as to territorial resources through unrestricted sensing activity. (17)

Also, the principles of sovereign equality and non-interference in internal affairs of states form the basis of the United Nations Charter (Article II, paragraphs 1 and 7).

However, a number of important international instruments advocate a very open world system free from restrictions. Article I of the Charter of the United Nations provides for the promotion and encouragement of respect for human rights and for the fundamental freedoms - including the freedom of information - for all, without distinction. Also, the Universal Declaration of Human Rights, the International Covenant on Civil and Political Rights and the Helsinki Accords provide that everyone has the right to "...seek, receive and impart information and ideas through any media regardless of frontiers".

How far can the principles of the Outer Space Treaty of 1967 or other international law be considered to cover satisfactorily remote sensing satellite activities ? Upon examination of the "relevant international legal principles, there does not appear to be any specific rule of existing international law that makes it unlawful for a state to

observe another, as long as it carries out its observations from beyond the limits of national sovereignty. Conversely, international law recognizes the right of each state to protect itself against observational activities conducted within its borders deemed harmful to its national interests. The few restrictions, which might possibly relate to the observation from outer space of the territory of one state by another, are those contained in the obligation to act in accordance with international law and to respect the "corresponding" interests of other states, as well as the duty to inform the Secretary General of the United Nations and the public of national space activities. Whether states have a legal basis for a claim over data acquired by satellite surveying of earth resources is but one of a number of questions that is not expressly dealt with by international law.

As responsible members of the international community, states made the decision to determine whether this technological innovation required a fundamentally novel approach to cope with the multitude of queries regarding earth resource surveying by satellite. The argument was made by Galloway that :

[i]t is not practical to assume that another space treaty could result in adequate methods for meeting problems incident to an operational earth resource satellite system. As far as general guiding principles are concerned, a fundamental basis has already been laid in the Treaty on Outer Space so that this new environment is recognized as the province of all mankind and its use for the benefit of all countries. (18)

This position was supported by Bordounov :

Actions in outer space directed at collecting data do not require working out a special legal order different from that already established in respect to any space activity concerning research and use of outer space. (19)

The United States and some other Western countries, proponents of this position, felt that an elaboration of international principles in this field was not a matter of priority and that a solution to organizational issues was most likely to make legal regulations unnecessary altogether.

Conversely, the predominant line of reasoning among the members of the international community was that :

[e]xisting and pending treaties on outer space, [while representing] great advances, ... do not provide adequately for problems anticipated from an operational remote sensing system. This new space technology is worldwide in scope and will also have an impact on individual nations, particularly with regard to economic, political and legal matters. It is, therefore, a subject requiring international agreement among nations with regard to its development and control. (20)

Dausies lent support to this view by stating :

Existing law, in particular the Outer Space Treaty of 1967, provides certain basic guidelines for the conduct of earth resource surveying by satellites but is too vague to cover the wide array of legal, political and economic problems involved with remote monitoring systems. (21)

In the view of the majority then, (this included representatives of socialist countries, most of the developing nations and some Western states), existing rules of international law dealt unsatisfactorily with remote sensing activities. Thus, there was a need for elaborating

international principles governing the activities in the field of remote sensing of the earth from outer space alongside with settling the scientific, technical and organizational questions of cooperation.

PRESSURE TO COMMENCE NEGOTIATIONS ON AN INTERNATIONAL AGREEMENT

Detection of earth resources by remote sensors creates both new opportunities and new problems for humanity. With common interests and issues of conflict present and existing international law inadequate to govern properly remote sensing activities, members of the international community opted to convene negotiations in order to produce an outcome preferred by all.

The potential economic, social, cultural and scientific benefits, as well as the political hazards of remote sensing from outer space, have been evident since the beginning of earth observation by satellite, and "...it was only a matter of time before states would begin to call for the development of an international code of conduct designed to regulate these activities." (22) Totally unregulated development of remote sensing activities could result in a situation whereby a small number of technically advanced countries acquire a considerable comparative advantage in the exploration for and the exploitation of the world's natural resources. Further still, a powerful minority could exploit this advantage in their international economic relations with less developed countries. Therefore, "...[it was] incumbent upon the

legal technicians and policy makers to attempt to clarify the problem areas and provide a framework within which these new developments [could] take place with a minimum of friction." (23)

It was imperative that a new international legal regime, set up to guide future activities in this field, be formulated with a great deal of care. It must not be so restrictive as to unduly inhibit the future development of this invaluable space technology which has so many obvious potential benefits for all members of the international community and may very well become one of the most powerful tools for the welfare of mankind. Legal principles must be realistic - they must not impose unjustifiable institutional, legal or technological limitations that would impede the access of countries unable to launch their own satellites to the fruits of remote sensing activities. The detailed consideration of the legal implications of remote sensing from space should take into account and attempt to provide "...a practical balance between the traditional imperatives of state sovereignty...", as evidenced in particular in resolutions of the United Nations General Assembly on the permanent sovereignty of states over their natural resources, "...and a realization of the considerable benefits of remote sensing that will likely accrue to all mankind in various technical fields". (24) Acceptable principles must close possible gaps in existing space law by building and drawing upon -ex analogia- related legal areas, such as those pertaining to sovereign rights of states and to domestic and international acquisition and dissemination of scientific and commercial data. They must also be broad enough to encompass

foreseeable and perhaps unforeseeable developments in the future.

THE SEARCH FOR AN INTERNATIONAL CODE OF CONDUCT TO GOVERN REMOTE

SENSING BY SATELLITE

Since the UNCOPUOS, working through its Sub-Committees, had been highly successful in encouraging international programmes of space research and in formulating four major space treaties which have gained widespread acceptance, the General Assembly, in 1969, entrusted the Committee to study the possibilities of international cooperation in the field of remote sensing. In keeping with its mandate "...to initiate studies and make recommendations for the purpose of ... promoting international cooperation in the political field and encouraging the progressive development of international law and its codification", the United Nations General Assembly, in 1971, adopted unanimously a resolution on "...convening of the Working Group on Remote Sensing of the Earth by Satellites..." and thereby set in motion an inquiry into substantive matters involving earth surveys by satellites. It requested that the Secretary General and the members of the international community submit reports, comments and working papers to the Working Group with regard to the feasibility of remote sensing activities. The Working Group was also charged with soliciting information from United Nations' bodies and specialized agencies as well as other international organizations having an interest in earth resources satellites and with keeping the General Assembly "...informed in a comprehensive fashion on the progress of its work". (25) This fact-finding initiative was seen by those who were to construct an entirely new legal system for a

technology that would have only been in use for two years, as a positive step toward clarifying the exact nature of remote sensing activity and the issues and specific problems that would inevitably arise as a result of a technical analysis of its impacts.

The Work of the UNCOPUOS Legal Sub-Committee

In 1974, the Legal Sub-Committee took up the question of earth resource surveying by satellite for the first time. Its mandate was :

...to continue detailed legal consideration of remote sensing from space of the earth ... taking into account the various views of States expressed on the subject, including proposals for draft international instruments, and taking into account all relevant discussions, views and conclusions concerning organizational, economic and technical aspects of remote sensing in the Scientific and Technical Sub-Committee of the UNCOPUOS, ... with a view to identifying further common elements among the views of States and to proceed to the drafting of principles in regard to those particular areas of the subject where common elements in the view of States are identified. (26)

Once assigned such an enormous task, the members of the Legal Sub-Committee made a concerted effort to raise the general level of knowledge on remote sensing of the earth from outer space and on other evolving commercial, scientific and military uses of orbiting artificial satellites. Information was provided in the form of "off-the-record" seminars and reports by representatives of various specialized agencies such as the Food and Agricultural Organization, the World Health Organization, the International Telecommunications Union, and the

International Bank for Reconstruction and Development; the European Space Research Organization; the International Astronautical Federation; COSPAR; and, of course, the Scientific and Technical Sub-Committee. Well informed delegations were better able to understand the controversial, highly technical nature of the situation and to address the subject to be negotiated within a "reasonable" period of time. It was generally felt that the negotiation of a legal regime for a technology that was already operating had to "catch up" to the advancements in science and technology if it was to avoid complications that could slow the overall pace of legal evolution. Armed with the necessary knowledge on the possibilities and problems of remote sensing techniques, these officials began to define the issues to be discussed and to compose an agenda.

Definition of Issues and Agenda Formulation

With the negotiators feeling more comfortable with the subject matter under consideration than when the issue of remote sensing was first raised, delegations began to introduce problems in terms of their own interests and potential advantages and to express their opinions on the various other queries that arose. For example, the concern was raised that the gathering and worldwide dissemination of primary data about earth resources, data which could be of considerable economic and commercial value, might be detrimental to the economic interests of

other countries. The United States and its supporters argued that "...[the sensed states] had little to fear from data about their resources falling into the hands of other states for the basic reason that they still controlled the resources themselves." However, sensed states generally, and the developing countries which are largely dependent upon the economical exploitation of their mineral and biological resources for their livelihood in particular, responded by stating that valuable "...resource-related data could enhance the knowledge and thus the bargaining power of the states possessing it, in connection with commercial arrangements being negotiated". (27)

Although the scope and nature of the subject matter at hand had never been entirely straight forward, they now became immensely complicated with the introduction of ideological considerations, the condition of national development, views toward the concept of national sovereignty over natural resources, and, in particular, the manner in which and the conditions under which sensing takes place, and the procedures used in disclosing the product of sensing. Differences in opinion were found to be significant, and, as a result, discussions in general, and on some issues such as data collection and dissemination in particular, erupted into debates between the technological "haves" and "have-nots", the potentially "data-rich" and the "data-poor". In essence, it was between the industrialized space powers of the North with the technology to derive economic advantage from the new systems and those advocates of the NIEO from the South who would only be recipients of data or information that the major disagreements broke

out. Earth resource surveying by satellite became a conflict between the proponents of the "free flow of information" or the free exchange of information and scientific knowledge and the proponents of national sovereignty including sovereignty over natural resources and the extension of national sovereignty to information about natural resources. With all the outward signs of deep and irreversible cleavage between the parties, it appeared that there did not and could not exist any common ground on any of the "public" issues that had emerged. (Here we begin to see an important overlapping of the phases of the model - "establishing the maximal limits to issues in disputes" appears to have its beginnings in the "definition of issues and agenda formulation"). As a result, virtually anything and everything was included on the agenda, regardless of the possibility of resolution.

Agenda formulation occurred through discussions focussed on the possibilities and problems of the remote sensing technique with participants, some jointly, producing lists of issues they wanted negotiated in the form of preliminary drafts of legal principles. However, in no way was this a once-and-for-all effort that would preclude later additions and amendments. As a result of one issue leading to another, (e.g., the making available of technical assistance seemed to flow from the promotion of international cooperation), and of trying to accommodate the divergent interests of all parties, especially the developing countries, a lengthy agenda - 17 items - emerged. Parties who had to deal with issues in which they were little interested but for which other parties felt very enthusiastic, became frustrated.

This was especially true of those who did not consider the elaboration of international principles in this field a matter of priority.

Proposals for Draft Principles to Govern Remote Sensing

- the Range of Legal Viewpoints

In 1974, the Legal Sub-Committee had before it the texts of five documents. (28) These instruments, submitted by Argentina (29), Brazil (30), France (31), the Soviet Union (32), and jointly by France and the Soviet Union (33), stimulated energetic discussion and served as a preliminary working base for further proposals.

The basis for deliberations in the 1975 session of the Legal Sub-Committee was :

- 1) the Latin American proposal - the proposals by Argentina and Brazil listed above had been replaced by a joint proposal on draft basic articles for a treaty on remote sensing of natural resources by means of space technology (34) that was co-sponsored by Chile, Mexico and Venezuela,
- 2) the 1974 Franco-Soviet Working Paper, and
- 3) a Working Paper introduced by the United States on the development of guidelines on remote sensing of the natural environment of the earth from outer space. (35)

An element common to all these drafts was a strong emphasis on international cooperation in remote sensing activities. As a result, five draft principles (not unbracketed), dealing with such basic issues as international cooperation, applicability of international law, participation, protection of environment, and technical assistance, were formulated. (36)

However, strikingly divergent views emerged from the three drafts. As Polter indicates, "...a first, very obvious difference between the three drafts is the proposed degree of legal commitment". (37) At one end of the spectrum was the Latin American proposal, formulated for the purpose of facilitating agreement, while at the other end were the American "guidelines", a rather informal code of conduct for desirable international behaviour. The "principles" proposed by France and the Soviet Union occupied the middle position and were intended to become legally binding.

The subject of the various drafts was also different. The Latin American and Franco-Soviet drafts both had "natural resources" as their theme, while the American draft referred to the entire "human environment". (38)

The most significant differences with regard to the content of the drafts referred to the collection and dissemination of data gained by means of remote sensing. Two diametrically opposite approaches to the legal regulation of remote sensing of the earth's resources by satellite emerged.

The proposals submitted and sponsored by Latin American countries were also supported by Egypt, the German Democratic Republic, India, and Mexico. These countries contended that :

...the principle of freedom of outer space is, or should be, subject to certain restrictions so as to protect the sovereign rights of states over information about their natural resources. (39)

The proponents of the position were of the view that an operating state, before undertaking a satellite survey of another state, must first obtain the consent of the "target" state. Furthermore, the dissemination of information relating to natural resources of another state, which had been obtained through remote sensing satellites, was unlawful without the express consent of that state. There was widespread fear that the permanent sovereignty rights of each nation to its natural resources would be compromised by the activities undertaken by foreign states without their consent and beyond their control unless international principles governing remote sensing activities were elaborated.

A comparable view, expounded by the Franco-Soviet "principles", favoured strict controls over the distribution and use of information gathered by satellite sensors. According to the Soviet delegation :

... the interests of States whose natural resources might be subject to remote sensing must be protected; ... the legal regulation of the problems must not go beyond the framework of existing international law, notably the principle of unconditional respect of state sovereignty, including the right to dispose of natural resources and information about them. (40)

This follows along with the traditional Soviet interpretation of international law as being subordinate to domestic law and the Soviet practice of using sovereignty as "a weapon against alleged imperialist encroachments". (41)

However, the principles did depart from the Latin American proposals in one very important instance. The French and the Soviets claimed that actions in outer space directed at collecting data did not require working out a special legal order different from that already established in regard to any outer space activity concerning research and use of outer space.

In contrast to these two drafts was the American set of "guidelines" which was also supported by Great Britain, the Federal Republic of Germany, Italy, Japan, and Sweden. These nations, aspiring to the "open skies" policy, held the view that "...the present state of international law, particularly the Outer Space Treaty, adequately covers this activity" and that "...sensing states do not require the consent of sensed states either to collect or disseminate data, even if the dissemination is to third parties". (42)

These states argued that international cooperation would be frustrated if international law were to require that a system for collecting data from satellites be based upon prior consent of all states sensed. It would be extremely difficult for any state to operate such a system in a manner entirely consistent with the law, and compliance with such a prohibition would be practically impossible to verify. In fact, such a prohibition might force sensing states to abandon their earth resource surveying activities that could be beneficial to many other members of the international community if it becomes too complicated and too costly to separate such activities from the ones which would be subject to limitation.

In response to Third World cries of exploitation on the part of sensing states who disseminate data of considerable economic and commercial value to the world community, the United States has argued that :

...open data dissemination to all interested parties is in fact more likely to enhance than diminish the ability of States to control their natural resources as a practical matter; the adoption of a restricted dissemination policy would probably establish a privileged class of countries technically advanced enough to have their own remote sensing programs and therefore capable of obtaining worldwide or broad regional data directly, and a class consisting of most other countries which could obtain only limited portions of the available data processed by others. Further, restricting data dissemination in order to protect local control over natural resources would seem to be an unnecessary and counterproductive legal overkill, particularly in light of the fact that neither the dissemination nor the analysis of the data could affect that control. Only at the point that someone attempts to apply that information to implement an actual plan for development or exploitation of particular natural resources is the question of State control affected.
(43)

These views were reaffirmed in a Presidential Directive, outlining the national policy to guide the conduct of American activities in space programmes. Several important principles were enunciated :

- 1) The United States rejects any claims to the sovereignty over outer space or over celestial bodies, or any portion thereof, and rejects any limitations on the fundamental right to acquire data from space.
- 2) The United States will develop and operate, on a global basis, active and passive remote sensing operations in support of national objectives.

3) Data and results from the civil space programmes will be provided the widest practical dissemination to improve the condition of human beings on earth and to provide improved space services for the United States and other nations of the world. (44)

This policy has been characterized as "...unbending...on the question of open collection and dissemination of satellite acquired environmental and resource data." (45) According to the Americans, it is rooted in democratic concepts of freedom which would be untenable to abandon. In advocating that the remote sensing activity be marked by a spirit of fraternal cooperation, the United States has attempted to associate its position with the best interests of the world community.

While Canada is "on record" as recognizing the desirability of elaborating legal principles for remote sensing, the Canadian delegation has not articulated a definitive legal position. It chose instead to emphasize the experimental and developmental nature of remote sensing technology and the need to ensure that any legal principles which may be elaborated do not seriously impede the development of this valuable technology. According to a Canadian official, the "...[Canadian] posture is essentially one of keeping [the] options open ... as to the future development of a set of rules ..., testing the propositions put forward". (46) The Canadian delegation, in keeping with this position, submitted to the UNCOPUOS Secretariat "possible options" illustrating rights and obligations of states at the various phases of remote sensing. (47) These "options" effectively anticipated the range of issues that were to become central to subsequent considerations of

remote sensing principles.

Overall, it was on the basis of these official positions that the members of the Legal Sub-Committee tried to carry out meaningful negotiations then and in the years that followed. Although several working papers were put forward on various occasions, none of them departed significantly from the proposals that had already been submitted.

WORKING GROUP : PROGRESS REPORT

In order to permit slow and careful analysis of the critical issues on the agenda and the eventual drafting of a SNT, the Legal Sub-Committee established a Working Group in which unofficial negotiations could take place. It was concerned with the formulation of principles on the common elements agreed upon and the consideration and identification of further common elements on the various aspects of remote sensing.

After 14 years of effort, all attempts by members of the international community to reconcile the conflicting positions that existed have failed. Despite the fact that the Working Group had succeeded in drawing up a SNT, (in formulating the text of five draft principles of the future international agreement in 1976, six new principles in 1977 and another six new principles in 1978), there has been disappointingly little rapprochement between the two schools of

thought with regard to the fundamental issues. Only Principles I, on the definitions of the terms "primary data" and "analyzed information", and VIII, on the protection of mankind from natural disaster, can be regarded as reflecting genuine consensus among the participating nations. Even then, there is a qualification - the terms "remote sensing of the earth" and "natural disaster" are subject to further discussion. Most importantly, efforts to come to agreement on the key issue - whether a state has, or should have, any rights to data or information about its resources, as opposed to rights in the resources themselves - have ended in deadlock.

This failure is all too evident in the text of the principles prepared. First, key issues, such as the questions of "prior consent" and of a regime to govern the dissemination of information, are not dealt with in the draft principles as they presently exist. As long as these critical issues remain unresolved, there can be no agreement on an international "code of conduct" concerning remote sensing from outer space. Second, out of the 17 principles included in the 1982 draft, only two are free of bracketed provisions. This is a clear indication of a continuing lack of consensus on most of the subjects under consideration. In fact, six of the principles (XI and XIII to XVII), dealing with some of the most controversial issues - international responsibility, notification and publication, consultation, dissemination of data and information, the principle of sovereignty, and the peaceful settlement of disputes - are bracketed in toto. Third, in many respects, the proposed draft principles fail to create new rights

and duties, and they also do not strengthen existing obligations of operating states under international law. Only in rare instances does the text of principles materially depart from a mere reiteration of principles already incorporated in the Outer Space Treaty. As a result, most of the draft principles do not improve the ambiguous terms of the 1967 Treaty and do not introduce any new concepts particularly relevant to international cooperation in the field. (48) Fourth, there is evidence that a few of the draft principles are inconsistent with the terms of the Outer Space Treaty. For example, Principles II and X state that remote sensing must take into consideration the particular needs of the developing countries. However, the 1967 Treaty requires that all members of the international community be treated alike in the exploration and use of outer space irrespective of their degree of economic or scientific development.

FUTURE INTERNATIONAL AGREEMENT

In regard to earth resource surveying from satellites, technology is, by and large, well ahead of law. The development of legal norms to govern remote sensing activities has progressed at a "snail's pace".

After years of study, discussion, proposals and counter-proposals in the Legal Sub-Committee and its Working Group, the international community still stands far removed from an agreement on the fundamental principles for earth resource surveying by satellite. There has been

community still stands far removed from an agreement on the fundamental principles for earth resource surveying by satellite. There has been almost no "narrowing of differences" with regard to the key issues between "...the expansive school," espoused by the United States, calling for a system of open dissemination...", on the one hand and "...the restrictive school calling for various kinds of controls, prohibitions and restrictions, as reflected in the Soviet-French draft and the Argentine-Brazilian draft..." on the other. (49) Differing national interests have proven too deep-seated to be reconciled. The outlook remains one of stalemate.

This tendency towards the polarization of views has made Canadians, and other "middle-of-the-rovers" interested in an intermediate solution, slightly uneasy about the international debate. It appears that :

...either the developing countries are going to have to accept the technology on a complete open dissemination basis or they are going to be denied all benefits. Either we put into effect a strict rule of consent or our sovereignty will be irreparably damaged. (50)

Unless a dramatic change in the attitudes of member states occurs in the near future, prospects are great that satellite remote sensing technology will continue to operate with no guidelines other than those found in the general provisions of the Outer Space Treaty and related international law. As particular practices become established and vested interests develop, it will be almost impossible to obtain an agreement which will have the effect of altering the status quo.

At present, the impetus toward international agreement is in the technical and organizational aspects of remote sensing activities. (For example, the Scientific and Technical Sub-Committee has recommended that the United Nations Secretariat undertake studies on the organizational and financial requirements of establishing regional and/or international centres for education and training, and data storage and dissemination. (51) A step in this direction would help to ensure that the potential benefits of modern remote sensing technology are shared by all interested members of the international community, rather than exacerbate the existing separation between those who are technologically advanced and those who are not. There is always hope that investigations such as these will have the effect of providing some focus for the legally-oriented questions and of clarifying a number of legal issues currently under negotiation. However, in view of the complexity of the issues and the lack of flexibility, common sense, imagination, and determination on the part of the delegations and the chairman, it seems most likely that remote sensing of the earth will remain a matter of priority to the Legal Sub-Committee for some time to come.

FOOTNOTES

(1) This is the definition formulated by the United Nations Working Group in 1973. UN Doc.A/AC.105/111 at 2.

(2) The American ERTS-1, the first earth resource satellite to be launched, renamed LANDSAT 1, was followed in 1975 by LANDSAT 2, by LANDSAT 3 in 1978, and LANDSAT 4 in 1982.

(3) N.M. Matte and H. DeSaussure (eds), Legal Implications of Remote Sensing from Outer Space. The Hague : Sijthoff-Leyden, 1976 at XI.

(4) The United States LANDSAT system is an open one - information is available to individuals, states and foreign institutions at nominal cost from the various receiving stations in the United States, Canada, Italy, Brazil, Sweden, Japan, India, and Argentina.

(5) Carl Q. Christol, "Remote Sensing and International Law" in 5 Annals of Air and Space Law 375 (1980) at 376.

(6) A. Gotlieb, "The Impact of Technology on Contemporary International Law". The Hague : unpublished manuscript, 1982 at 5.

(7) F. Fiorio, "International Implications of Earth Resource Surveys by Satellite" in 1 Journal of Space Law 1 (1973) at 1.

(8) W.P. Heere, "Earth Resources" in Mortimer Schwartz (ed), Proceedings of the XVIIth Colloquium on the Law of Outer Space. Amsterdam, The Netherlands, 1-4 October 1974. Davis, 1975 (209-210).

(9) supra, note 6 at 207-209.

(10) Stephen Gorove, "Freedom of Exploration and Use in the Outer Space Treaty : A Textual Analysis and Interpretation" in 1 Denver Journal of International Law and Politics 93 (1971) at 97.

(11) supra, note 8 at 81.

(12) Here, the controversial and, as yet, unresolved problem of precise definition/delimitation of outer space from air space is brought to the forefront. Until this question is decided, the applicability of this provision will always be challenged.

(13) supra, note 8 at 82.

(13) supra, note 11 at 82.

(14) A.A. Cocca, "Legal Problems Relating to Evaluation, Conservation and Development of Earth Resources by Means of Space Objects" in Mortimer Schwartz (ed), Proceedings of the XIVth Colloquium on the Law of Outer Space. Brussels, Belgium, 20-25 September 1971. Davis, 1972 (99-109) at 104.

(15) supra, note 11 at 84.

(16) United Nations General Assembly Resolution 626, VII Session, Supp. N. 20 (A/2361) at 18.

(17) UN Doc.A/AC.105/C.2/SR.20 at 36.

(18) Eilene Galloway, "Should the United Nations Draft a Treaty on Earth Resource Satellites ? A Pro and Con Analysis" in 1 Journal of Space Law 72 (1973) at 76.

(19) V.D. Bordounov, "Legal Problems of Use the Data Remote Sensing" in Mortimer Schwartz (ed), Proceedings of the XIXth Colloquium on the Law of Outer Space. Anaheim, California, 12-15 October 1976. Davis, 1977 (240-242) at 240.

(20) supra, note 18 at 74.

(21) M.A. Dausen, "National Sovereignty and Remote Sensing of Earth Resources by Satellite" in Mortimer Schwartz (ed), Proceedings of the XVth Colloquium on the Law of Outer Space. Baku, USSR, 7-13 October 1973. Davis, 1974 (121-136) at 121.

(22) I. Vlasic, "The Evolution of the International Code of Conduct to Govern Remote Sensing by Satellite : Progress Report" in 3 Annals of Air and Space Law 561 (1978) at 561.

(23) supra, note 11 at 80.

(24) J.G. Castel, International Law (3rd ed). Toronto : University of Toronto Press, 1976 at 213.

(25) UN Doc.A/RES/2778 (XXVI).

(26) UN Doc.A/RES/(XXX).

(27) supra, note 6 at 210.

(28) The five proposals are reproduced in Appendix C.

(29) UN Doc.A/AC.105/C.2/L.73. Although the Argentine proposal was to be superseded by the combined Argentine-Brazilian draft treaty, it was an important document. It constituted the first step towards the conclusion of an international instrument on remote sensing of the earth by satellites and was the only proposal containing provisions for the establishment of a remote sensing data bank to which all nations would have access.

(30) UN Doc.A/AC.105/122.

(31) UN Doc.A/AC.105/L.69.

(32) UN Doc.A/AC.105/C.2/L.88.

(33) UN Doc.A/AC.105/C.2/L.99.

(34) UN Doc.A/C.1/1047.

(35) UN Doc.A/AC.105/C.2/L.103.

(36) UN Doc.A/AC.105/171, Annex III at 2-3.

(37) D.M. Polter, "Remote Sensing and State Sovereignty" in 4 Journal of Space Law 99 (1976) at 103.

(38) While the meaning of these terms is not explained in any of the drafts, it must be understood that "natural resources" and "human environment" are not identical. For example, the former would certainly not include air and water pollution while the latter would.

(39) supra, note 22 at 563,

(40) UN Doc.A/AC.105/C.2/SR.226-245.

(41) John S. Reshetar, The Soviet Polity (2nd ed). New York : Harper and Row, 1978 at 309.

(42) supra, note 22 at 562.

(43) R. Stowe, "The Development of International Law Relating to Remote Sensing of the Earth from Outer Space" in 5 Journal of Space Law 101 (1977) at 106.

(44) supra, note 5 at 396. A Presidential Directive is a government pronouncement that has the force of an order or regulation.

(45) supra, note 22 at 563.

(46) Erik B. Wang, "Canada and the International Principles Governing Remote Sensing" in N.M. Matte and H. DeSaussure (eds), Legal Implications of Remote Sensing From Outer Space. The Hague : Sijthoff-Leyden, 1976 (151-155) at 153-154.

(47) UN Doc.A/AC.105/C.1/WG.4/L.6 at 13-14. These options are reproduced in Appendix C.

(48) For example, Principle II, urging states to carry out their remote sensing activities for the benefit and in the interests of all countries, merely summarizes the provisions of Article I of the Outer Space Treaty. Principle III, directing states to conduct their earth resource and environment remote sensing programmes in accordance with international law reiterates an already existing legal obligation. Freedom of exploration and use of outer space, mentioned in Principle XVI, is also guaranteed by the Outer Space Treaty.

(49) supra, note 46 at 153.

(50) supra, note 46 at 154.

(51) P. Jankowitsch, "Contributions of the UNCOPUOS : An Overview" in 5 Journal of Space Law 7 (1977) at 12.

CHAPTER FOUR

THE PROPOSED MODEL REVISITED : AN EVALUATION

With the establishment of a proposed model of international negotiation and the detailed examination of two case studies, it is now necessary to evaluate the practical application of the model to issues involving advanced technology. Each of the phases of the proposed model will be briefly re-examined in order to determine whether the demarcation of step-by-step conditions contributed to a better understanding of what took place in the negotiations on the two controversial outer space issues of direct broadcasting and remote sensing of the earth by satellite.

PRESSURE TO COMMENCE NEGOTIATIONS ON AN INTERNATIONAL AGREEMENT

Without question, direct broadcasting by satellite and remote sensing of the earth from outer space are evidence of the rapid advances being made in science and technology. These sophisticated space applications, are profound in their implications for the attainment of international awareness, understanding and tolerance, and for the

observation and improvement of the earth and its environment respectively.

However, during the 1970's, with the advent of these global technologies which have no regard for national frontiers close at hand, it was becoming increasingly evident that "...national governments' independence of action and ability to control events have become increasingly compromised...". (1) In an international community composed of well over 100 independent nation states, these technological innovations posed potential threats to a state's sovereignty; cultural, religious and social mores; property interest in its own natural resources; and economic security. These threats appeared more real in closed rather than open societies and in developing rather than developed countries as was evidenced in the restrictive positions taken by members of the Eastern bloc and the Third World and in the free and open position taken by the United States and several West European countries during the negotiations.

As DBS and remote sensing applications conferred a truly worldwide character on outer space activities, it became imperative to ensure that they served the purpose of promoting overall progress and understanding instead of becoming a new source of friction and misunderstanding among members of the international community. With existing international law generally seen as providing inadequately for DBS and remote sensing activities, states were convinced that it was indispensable, first and foremost, to guarantee the development of international rules and regulations to protect the sovereign rights of all members of the world

community. While this was obviously an objective the international community was striving to attain, the formulation of such international law which could reconcile very diverse kinds of national interest with respect to these activities was not necessarily within its grasp.

While international pressures made the conduct of international negotiations and the contemplation of international institutional arrangements difficult to avoid, their appropriateness and timing remained subjects of continuing debate for representatives of the two approaches to the regulation of technological innovations referred to in the proposed model. (2) On the one hand, advocates of the operational approach (e.g., the United States) challenged the idea that the elaboration of international principles in the DBS and remote sensing fields was necessary. According to this view, not enough was known about the actual and potential impacts these new technological developments would have on society to make a comprehensive code of conduct practicable or desirable at such an early date. On the other hand, supporters of the legislative approach (e.g., the Soviet Union and the developing countries) argued for early negotiation of the new international technological regimes in the hope of being able to exercise some leverage over the international decision-making process. In the end, states chose to communicate with each other for the explicit purpose of working out a particular combination of common and conflicting interests in order to set up an international regime governing DBS and remote sensing activities - one of a number of the possible routes available to states referred to in the proposed model.

(3) While the United States believed that it had been left with little choice but to accede to almost any attempt to deal with these issues in order to preserve its advantageous position vis-a-vis the rest of the world, the technological "have-nots" considered it an opportunity to salvage what they could in terms of rights and benefits.

The commencement of early negotiations on the issues of DBS and remote sensing may be criticized as being somewhat premature. Members of the international community brought national positions to the deliberations which were in diametric opposition to one another. With such diverse national objectives present when the negotiations began, any effort to reconcile them was destined to fail. Had an effort been made to narrow these differences of opinion through interstate communications, prior to formal negotiations, the process of harmonizing divergent views may have been more efficient, and superior results may have emerged. (4)

Certainly, though, the concerns of the Third World and other technological "have-nots" must be appreciated. In these matters, their interests were very much at stake. Given a history of deprivation and exploitation, it was only natural that they would want to ensure that a regime providing for the equitable sharing of the benefits of these space applications be established.

PHASE 1 : THE SEARCH FOR AN ARENA

With respect to issues involving the exploration and use of outer space, the search for a location where negotiations may take place is really not an issue. In the past, the UNCOPUOS has committed itself successfully to the drafting of a number of international instruments which have become the primary constituent elements of outer space law.(5) At present, it is engaged in the formulation of international regimes to govern a number of outer space activities, including DBS and remote sensing. These technological innovations, which only yesterday would have been considered instruments of the future, are, because of the incessant progress of science and technology, in the process of becoming elements of our daily lives. Despite the fact that the momentum toward the resolution of controversial issues surrounding the creation of international regimes has slowed considerably, the United Nations is still generally recognized as constituting a natural organizational basis and framework to ensure that the worldwide distribution of these technologies is conducted in such a manner as to minimize potential sources of conflict among nations.

However, the UNCOPUOS is not without its drawbacks. A number of specific management problems, of a housekeeping nature, have hindered the progress of negotiations in this arena. (6) These problems are not unique to the UNCOPUOS but are characteristic of the United Nations as a

whole.

First, there is the question of general debate. Under the present system, old and new issues, underlying complaints and demands, ideological considerations, and seeming irrelevancies are introduced at the beginning of every session, often delaying and complicating formal negotiations. Recognizing that efficiency of process and quality of output are of the essence, perhaps general debate should be confined to the plenary meeting of the Outer Space Committee. Although general debate serves a useful function in the negotiation process, it has its place like any other item on the agenda. As the model explains, were separation, difference and antagonism not achieved, the subsequent movement of parties toward each other would be less obvious. (7) However, if separation, difference and antagonism are emphasized at every stage of the negotiations, no common ground will emerge among the parties.*

Second, there has been a lack of coordination between the Sub-Committees and between the Sub-Committees and their Working Groups. The result has been a tremendous duplication of work. In order to increase efficiency and reduce workloads, this problem should be remedied, perhaps by a more careful delineation of tasks on the part of the parent Committee.

Third, the possible further enlargement of UNCOPUOS membership is a potential problem. One Canadian scholar from the McGill Institute of Air and Space Law feels that :

...the existing membership is the largest that can deal effectively, and on a basis of assured continuity of participation, with the subjects within the Committee's competence. (8)

He has a substantial following. However, a prominent Canadian official from the Department of External Affairs believes that size is not a key issue in the reduction of progress. (9) Members of the international community are used to working in large groups (e.g., the Law of the Sea Conferences). Besides, the contributions of the new participants have helped to broaden the scope of opinions and expertise available and thus to strengthen the value of the conclusions reached.

The relationship between size and the achievement of success may be said to be a curvilinear one. Initially, as the size of a committee increases, there is no corresponding decrease in the probability of reaching an agreement. However, there is a critical point whereby an increase of more than a certain number of members will indeed reduce the probability of achieving consensus.

While size does not have, to reduce the probability of reaching consensus, it does increase the time required to attain this goal. Certainly, the greater the number of members participating in a set of negotiations, the greater the number of views to be accommodated and the greater the amount of time required to accommodate these views.

While size may be an important variable to consider in order to determine the probability of achieving success in a number of international negotiations, this does not appear to be the case with regard to the UNCOPUOS deliberations. The size of the Committee seems

to be somewhat irrelevant. From the period 1958-1974, the size of the UNCOPUOS was increased four times, during which time one declaration and four space treaties were negotiated. This indicates that a substantial amount of progress was achieved. Only when the nature of the problems being discussed changed from "motherhood" issues to questions of national sovereignty was there an obvious reduction in progress toward the achievement of consensus.

These are problems the United Nations as a whole has been encumbered with for years and will likely remain as such for some time to come.

PHASE 2 : DEFINITION OF ISSUES AND COMPOSITION OF AGENDA

Management of Issues Involving Advanced Technology

The task confronting the members of the Legal Sub-Committee in the early 1970's was that of elaborating an entirely new legal system for a technology that had not yet been put to use (DBS) and a technology that had only been in use for a couple of years (remote sensing). As a result, a paramount feature of these negotiations on DBS and remote sensing was that few of the participants had a great deal of knowledge of the subject matter under consideration, at least in the early stages of the deliberations. Delegations were ill-prepared to conduct the consultations and negotiations necessary to produce an agenda and to

address the controversial issues being negotiated. This problem was alluded to in the model. (10)

The delegations themselves were well aware of this deficiency. A concerted effort was made to raise the general level of knowledge on the potential and the problems associated with DBS and remote sensing activities. Information in the form of "off-the-record" seminars and reports was requested from and provided by representatives of a variety of specialized agencies, the International Astronautical Federation, COSPAR, and the Scientific and Technical Sub-Committee. This fact-finding initiative proved to be well worth the effort. Armed with the necessary knowledge, delegations were able to clarify their ideas and expectations about these space applications.

At this stage in the negotiations, where the issues were defined, an overlap in the phases of the proposed model is noticeable. "Establishing the Maximal Limits to Issues in Dispute" appears to have its beginnings here. In both of these fields of outer space activity, delegations introduced problems in terms of their own interests and potential advantages. Discussions erupted into debates between the technological "haves" and "have-nots", between the industrialized space powers of the North with the technology to derive economic advantage from the new systems and those advocates of the NIEO from the poverty-stricken South. Evidence of antagonistic deliberations, characteristic of Phase 4, so early in the negotiation process is perhaps indicative of the fact that the phases do not necessarily have to occur in the order set out in the proposed model.

Agenda formulation flowed naturally from the definition of issues. Issues of general interest on which there was much discussion and items for which there was little enthusiasm and negligible debate became part of the agenda. With so many divergent interests to accommodate, the agenda was long and heterogeneous. The proposed model explains the inevitability of a lengthy agenda in multilateral negotiations. (11)

PHASE 3 : ADOPTION OF RULES OF PROCEDURE

Despite various setbacks in recent negotiations, the members of the international community appear to be generally satisfied with the rules of procedure adopted for use in Committee deliberations. (12) Consensus decision-making is by far the favoured mode of taking important decisions. (13) This technique ensures that decisions reflect a broad base of support and is thus recognized as the only realistic approach. There is strict adherence to a working method which consists of selecting the points on which common views emerge and drafting principles on the basis of these common views. A final set of principles is presented as a "package deal" for delegations to accept or reject in toto.

While these rules of procedure are advocated, in theory, by members of the international community, in practice, there is some digression from the norm. For example, the principles governing DBS activities, like the Convention on the Law of the Sea, were adopted via the

principle of majority voting, a situation the consensus procedure strives to avoid. Majority voting is useless for law-making decisions because artificial voting victories (in this case, the East Europeans and members of the Third World) are produced, and important minorities (the United States as a space power and the West Europeans as active members of the European Space Agency) are alienated. Another example of deviation from the accepted rules of procedure is the lack of political give-and-take, on the part of delegations, over issues involving remote sensing of the earth from outer space, a condition critical to the negotiating process and the eventual adoption of a package deal. (14)

The Role of the Chairman

As stipulated in the proposed model, the position of chairman and the way in which it is fulfilled is indeed crucial to the effective working of the rules of procedure. (15) Taken seriously, the work of a chairman can make an invaluable contribution toward promoting international cooperation in the peaceful uses of outer space and can advance the negotiation process substantially. A disinterested chairman can negate the effectiveness of the method.

The chairmen of the two Sub-Committees are often praised for the excellent manner in which they have guided their respective deliberations. However, there appears to have been some dissent among the delegations represented at the UNCOPUOS. According to a former Canadian delegate to the Outer Space Committee, the recently replaced

chairman of the Legal Sub-Committee was not active enough. (16) He did not make a concerted effort to pull together negotiating texts that reflected the sense of the negotiations and that worked to the equal advantage of all members of the international community concerned. In abdicating his responsibility, he left the delegations to put aside their own interests and objectives in order to produce a text that would be acceptable to everyone involved. Unfortunately, delegates have found it difficult to carry out such a responsibility. Besides the numerous joint efforts on the part of Canada and Sweden to come up with a compromise proposal on DBS, no initiatives have been taken in formulating texts that reflect the interests of the international community as a whole. In taking a rather low profile role, the chairman did little to facilitate progress in the negotiation of any of the issues before the Sub-Committee and was thus at least partially responsible for the overall failure of the negotiations to produce agreements acceptable to all participants. Given this past experience and the recent election of a new chairman, perhaps a new approach will be taken to the fulfillment of this position.

Quality of Output

While the contributions made by the Legal Sub-Committee toward the establishment of legal rules and regulations for outer space activities to date have been hailed as being significant, the outcome of recent efforts to govern DBS and remote sensing has been mixed in terms of

quality. Although the principles governing DBS activities embodied important rules and regulations, indicating that some success was achieved, their adoption by a majority vote, instead of consensus, indicates a failure to resolve political differences. Delegations that abstained or voted against the adoption of the draft principles issued statements recording their continuing differences of opinion. As for the draft principles on remote sensing, the failure to reconcile conflicting viewpoints is evident in the bracketed text. Should the key issues continue to be presented in such irreconcilable terms that there is no margin for negotiation, perhaps the remote sensing issue will encounter a fate similar to that of DBS.

Time Constraints

The rules of procedure by which the UNCOPUOS conducts its work make for slow-moving negotiations. The search for consensus and an agreement on an all-encompassing package has been a difficult process with regard to the very complex and controversial issues of DBS and remote sensing of the earth. (17)

With earth resource satellite systems operating, sensing and transmitting, and with several satellite direct broadcasting experiments being carried out, a sense of urgency has developed among the majority of the members of the international community. They feel that the sooner a General Assembly resolution of principles governing DBS and remote sensing activities can be achieved, the better it will be from

the point of view of realizing the maximum benefit from these space applications which hold so much promise for all mankind. However, keeping in mind the dubious assumptions made in calling for a "Big Solution Now" (18), is it realistic to expect to resolve major controversial issues simply through the generation of an international agreement? This certainly does not appear to have been the case with regard to DBS. The adoption of the DBS principles after almost 20 years of deliberation, without the reconciliation of divergent viewpoints and the resolution of the principal underlying conflicts, was a rather pointless effort. With a number of states applying the principle of prior consent and others not recognizing anything but unlimited freedom of information, the application of this new technology will constitute a new source of friction and conflict between nations. However, there is always the possibility that the United States and others will become parties to the convention at a later date. With regard to the remote sensing question, the outlook remains one of continued negotiation until such time as an agreement is reached or the General Assembly elects to decide the issue.

PHASE 4 : ESTABLISHING MAXIMAL LIMITS TO ISSUES IN DISPUTE

Where this phase of the proposed model begins and ends is often difficult to distinguish. Although the proposed model identifies this as Phase 4, oftentimes, in the negotiation of controversial issues, a

belligerent tone is set much earlier in the process. This appears to have been the case during negotiations on DBS and remote sensing of the earth where there were demands and counterdemands on what each delegation absolutely must have from and will not concede to the other during Phase 2. By Phase 4 of the model, there was deep and seemingly irreversible cleavage among the members of the international community on the various agenda items.

On several key issues, such as consultation and agreement, programme content, inadmissible broadcasts, and prior consent, the negotiation process appeared to end with this phase. There was no shift in orientation by the delegates in the mode of interaction among them and thus, no rapprochement between the two schools of thought.

On several occasions in the later phases of negotiation, delegations returned to this emphasis on differences and separateness. (This ability to return to earlier phases of the negotiation process is recognized as a considerable asset of the proposed model). Feeling that the dimensions of the key issues had been inadequately explored the first time, frustrated and angry delegates aired their divergent positions once more. It was hoped that there would be some subsequent movement of the Committee members toward each other. Unfortunately, this was not to be the case. Instead, this process became a perpetually circular one and has thus built up "conference fatigue".

PHASE 5 : NARROWING THE DIFFERENCES

At this phase of the negotiation process, attention is focussed on working toward an outcome acceptable to all members of the international community. Negotiating in good faith, delegations make "real" proposals - ones intended as, and taken to be, possible outcomes rather than expressive of ideal preferences - on the issues under consideration. Without this willingness to make a sincere effort, the proposed model explains that no progress will be made toward the resolution of the issue. (19)

During the negotiations on DBS and remote sensing, there has been a proliferation of working papers proposing specific solutions. Unfortunately, however, American and Soviet offers of solutions have been presented as being unchangeable. Inflexible positions on key issues have resulted in a worthless DBS convention and have compromised work on articles relating to remote sensing already agreed upon, thus precluding overall agreement. In order to avoid repeating the unfortunate outcome witnessed with regard to DBS and having a legal vacuum in law relating to remote sensing, the space powers would have to rise above their national interests for the benefit of the world community. However, if the so-called community interest does not accord with the national interests of the superpowers, it is unlikely that such a sacrifice would be made.

Group Characteristics

The proposed model explains that the participation by members of the international community in groups is not an unmixed blessing. (20) Committee negotiations on DBS and remote sensing give evidence to this fact. As the UNCOPUOS grows in its membership, it becomes more and more difficult to find immediate solutions to the problems under consideration that will be readily acceptable by everyone. As a result, group arrangements have become essential for effective negotiation.

Their single most important asset is that of introducing collective proposals rather than a multiplicity of individual ones. For example, during negotiations on DBS and remote sensing activities, a number of distinct groups emerged. The Soviet Union put forward proposals on behalf of the members from Eastern Europe and a number of developing countries. (21) The Americans spoke on behalf of several West European countries, such as the United Kingdom and the Federal Republic of Germany, and several others (often Japan). (22) Canada, often in conjunction with Sweden, stood outside these arrangements. Instead, it offered its services as an honest broker, working for the benefit of the world community as a whole. On the question of the geostationary orbit, equatorial countries developed a common position. (23) Countries of Latin America banded together on the remote sensing issue of prior consent. (24)

However, as the proposed model points out, this concentration of

power has served to stimulate group confrontation. (25) The East-West and North-South dichotomies, clear and dominating in the DBS and remote sensing deliberations, have hampered the progressive development of international law in these areas. Sessions of the Sub-Committee were seized as occasions for political grandstanding and for emphasizing differences rather than for pursuing responsible negotiation of a compromise. (This seems to be a return to Phase 4 of the model).

As a result, it appeared that group inflexibility had replaced a willingness to seek areas of acceptable international compromise out of national compromises. (26) First and foremost, the group arrangements led by the United States and the Soviet Union were committed to adhere to rigid ideologies. While other members of these groups may have been more willing to compromise, an obstinate and vocal minority - the space powers themselves - controlled the course of events by acting as the common spokesman. In the case of the equatorial and Latin American groups, their positions were steeped in the traditions of the NIEO and were, therefore, the product of careful intragroup negotiation. Any alteration in policy positions would conflict with the goals the developing world had set for itself and thus would disrupt the entire group. Consequently, group arrangements were found both to facilitate and to obstruct the process of negotiations.

Nature of Issues

The issues that were put before the Legal Sub-Committee in negotiating international agreements to govern DBS and remote sensing activities ranged from the simple to the very complex. Issues such as international cooperation, applicability of international law, the peaceful settlements of disputes, et cetera, provoked relatively insignificant differences of opinion among Sub-Committee members. However, with regard to the complicated "public" issues which have significant implications for state sovereignty, such as consultation and agreement, and prior consent, positions developed and hardened on the irreconcilable principles of "free flow of information" and the right of the receiving state to "agree". To compromise a position staunchly held, especially on the part of the space powers, would involve a great deal more than simple concession; it would also entail the possibility of losing face. Although Canada and Sweden, in the negotiation of the DBS principles, were able to draw up a face-saving compromise text which necessitated "give-and-take" on the part of both the United States and the Soviet Union, the space powers locked themselves into a state of mutual antagonism, and no rapprochement between the two schools of thought took place. It would appear then, that a direct relationship exists between the nature of the issue and the probability of achieving consensus. In effect, the more complicated and the more "public" the issue, the more difficult it is to reach consensus. Unfortunately, these "public" issues, which have proved impossible to resolve, form the crux of any acceptable resolution of the controversial situations.

As explained in the proposed model, this is an undesirable set of

circumstances. (27) Such deadlock should have been avoidable. Sufficient time had been allocated to establishing the maximal limits to the issues in dispute (Phase 4) before efforts were made to breach the gap between the "seemingly" irreconcilable positions (Phase 5). Unfortunately, the "seemingly" irreconcilable positions put forward by the delegations proved to be genuinely impossible to resolve.

Setting for Negotiations

Unofficial negotiations that took place in sessions of the Working Groups on Direct Broadcast Satellites and Remote Sensing produced most of what little progress there was in "narrowing the differences" (Phase 5), in the preparation of a single negotiating text (Phase 6) and in article-by-article negotiation of the draft principles (Phase 7). The proposed model explains that this was to be expected. (28) In essence, these Working Groups were seen as competent multidisciplinary bodies of optimal size whose output in terms of information generation, introduction, evaluation, and integration has been of great assistance to the Legal Sub-Committee. Only here, where dialogue was "off-the-record", were delegates able to express their candid opinions without fear of subsequent official repercussions.

However, despite the fact that their contribution from the interdisciplinary standpoint and from the political and legal points of view to the fundamental problems involved in DBS and remote sensing was substantial, these Working Groups were not considered to be

CONCLUSION

Social scientists have been preoccupied with determining ways and means by which to explain the process of negotiation, whether it be on the bilateral or multilateral level of analysis. However, the progress to date has not been characterized by unusual, exciting or unexpected findings. Consequently, the discipline is still without a unified theory of negotiation. This study was an attempt to make some progress in this direction. Every effort was made to conceptualize the negotiation process in a manner that was both meaningful and sufficiently simple to permit theoretical analysis.

As a researcher interested in constructing a theory of negotiation, this author must specify to what use this study should be put. For all intents and purposes, it should serve to supplement the somewhat meagre theory of international negotiation that exists and to act as a prototype for further investigations into negotiations on issues involving advanced technology. While the original intent was to formulate a theoretical framework having purely explanatory value, it is apparent that the proposed model of international negotiation has a moderate amount of prescriptive power. Certain courses of action were indicated as, having higher or lower probabilities of success than others.

preclude agreement. (31) However, during this phase of the negotiation process, while the questions relating to DBS and remote sensing were being discussed, the opposite set of circumstances seems to have occurred.

Progress in drafting SNT's for these complex issues was slow and poor in terms of quality. The informal drafting groups, lacking direction from their leaders, did not succeed in producing texts that reflected the true sense of the negotiations or that worked to the equal advantage of all parties concerned. With individual delegations, preoccupied with attaining their own objectives, left to draw opposing views together, one-sided texts, reflecting the interests of a handful of countries, were produced. As a result, major portions of the original texts were placed within square brackets, indicating that substantial disagreement still existed among the members of the international community. These problems were not overcome, and consequently, the delegations returned to Phases 4 and 5 in an effort to further clarify the controversial issues. (32)

According to the proposed model, the drafting of a SNT is crucial to providing a concrete starting point for future negotiation. (33) In order to produce a negotiable text, this responsibility must rest with an objective party who is interested in safeguarding the interests of the international community as a whole. The Sub-Committee Chairman is the obvious choice to guide such a task. However, as the model explains, this entails playing a high profile role, not just sitting back and letting events run their course. Under competent tutelage, a

drafting group might be better able to perform its function.

PHASE 7 : ARTICLE-BY-ARTICLE NEGOTIATION

Article-by-article negotiation is described in the proposed model as facilitating subsequent progress in moving directly from an initial to a revised text. However, during the DBS and remote sensing text negotiations, the Legal Sub-Committee encountered difficulties. Instead of being useful in making way for future progress, article-by-article discussions of SNT's were seized as occasions for political grandstanding. As a result, the output was of poor quality.

OUTCOMES OF NEGOTIATION

The culmination of article-by-article negotiation is some kind of outcome. In the formal negotiation of DBS and remote sensing texts, proceedings ground to a halt in a number of the controversial areas. (34) The 'resolution' of the DBS question is outside the scope of this model in that it side-stepped the consensus rule of procedure. The outcome could perhaps be described as general agreement on the part of a majority of the Committee members with an important minority dissenting. Those engaged in negotiating a regime to regulate remote sensing of the earth from outer space have chosen to bargain further in the hope of

obtaining general agreement. Should a consensus on the key issue prove impossible to achieve, it is quite likely that this question will encounter a fate similar to that of DBS.

In a comprehensive manner, the proposed model of international negotiation has succeeded in explaining what happened when members of the international community negotiated with each other in the endeavour to create international regimes to govern DBS and remote sensing activities, how it happened and why. The general construct of the proposed model, in its seven phases, proved invaluable in explaining what happened from the time members of the international community determined that there was something to negotiate for and something to negotiate about until such time when an outcome was reached during the negotiations on these controversial issues involving advanced technology. Also, the model provided for considerable scope and flexibility by allowing negotiators to return to an earlier phase or phases to take up previously neglected matters, to clarify others and to begin again in light of later experience. The delegations found this freedom to manoeuvre particularly useful, especially when they decided that further bargaining was necessary. The inclusion of numerous variables in the proposed model served to further enhance the model's explanatory value. As such, the proposed model proved to be a valuable tool for analyzing the international negotiation process with respect to DBS and remote sensing of the earth from outer space.

FOOTNOTES

(1) Eugene B. Skolnikoff, "Science and Technology : The Implications for International Institutions" in 25 International Organization 759 (1971) at 767.

(2) Chapter One, Pressure to Commence Negotiations on an International Agreement at 15-16.

(3) supra, note 2 at 8-10.

(4) The proposed model offers this as a possible explanation of why the early negotiation of a technological regime fails. supra, note 2 at 12-13.

(5) Chapter One, Phase 1 : The Search for an Arena at 17-19.

(6) A number of these problems are dealt with in a French Working Paper submitted to the Committee in 1979. UN Doc. A/AC.105/PV.201.

(7) Chapter One, Phase 4 : Establishing Maximal Limits to Issues in Dispute at 49.

(8) Confidential Interview, 6 June 1983.

(9) Confidential Interview, 16 June 1983.

(10) Chapter One, Phase 2 : Definition of Issues and Composition of Agenda at 28-31.

(11) supra, note 10 at 32-34.

(12) There have been no proposals put forward for the adoption of any other methods of conducting business in the Outer Space Committee.

(13) Reasons for this are explained in the proposed model. Chapter One, Phase 3 : Adoption of Rules of Procedure at 35-37.

(14) The proposed model explains the complications and delays in the decision-making process as the result of few concessions being granted during the negotiation of issues. supra, note 13 at 37-39.

(15) The role of the chairman is discussed in supra, note 13 at 40.

(16) Confidential Interview, 16 June 1983. The Polish Chairman of the Legal Sub-Committee was replaced by a member of the Czechoslovakian delegation in early 1983.

(17) The proposed model explains that a number of factors account for this painstakingly incremental process. See supra, note 13 at 42-43.

(18) The reference made here is found in supra, note 2 at 10-11.

(19) Chapter One, Phase 5 : Narrowing the Differences at 50-51.

(20) supra, note 19 at 52-55.

(21) This group may be categorized as both common interest and regional.

(22) This group may be classified as common interest.

(23) This group may be categorized as both common interest and geographical.

(24) This group may be classified as both common interest and regional.

(25) supra, note 19 at 53-54.

(26) The factors accounting for this intransigence are explained in the proposed model. supra, note 19 at 53-54.

(27) supra, note 19 at 55-56.

(28) supra, note 19 at 56-57.

(29) UN Doc. A/AC.105/PV.137 at 21.

(30) supra, note 29 at 23.

(31) Chapter One, Phase 6 : Preparation of a Single Negotiating Text at 62-63.

(32) See Chapter Two at 104-107 and Chapter Three at 143-144.

(33) supra, note 31 at 62-63.

(34) supra, note 32.

CONCLUSION

Social scientists have been preoccupied with determining ways and means by which to explain the process of negotiation, whether it be on the bilateral or multilateral level of analysis. However, the progress to date has not been characterized by unusual, exciting or unexpected findings. Consequently, the discipline is still without a unified theory of negotiation. This study was an attempt to make some progress in this direction. Every effort was made to conceptualize the negotiation process in a manner that was both meaningful and sufficiently simple to permit theoretical analysis.

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The proposed model serves as a comprehensive framework for the analysis of international negotiations on issues involving advanced technology. Although this study examines international negotiations aimed at producing innovation agreements to accommodate significant scientific and technological developments in the field of outer space, this model could certainly have much wider application. Any negotiations having multilateral, high technology, neo-functional characteristics, such as those on arms control, development, food, and trade, would conform to the proposed model. If these negotiations do indeed have the aforementioned characteristics, then the political processes by which these issue areas are being brought under control are likely to be quite similar to the negotiations on the law of outer space.

Unprecedented developments have occurred in man's exploration and use of outer space in the 25 years since the launching of the first artificial earth satellite. These advancements in space science and technology have left a lasting impression upon the history of mankind and have permeated and stimulated all areas of human existence. In accordance with its mandate, the UNCOPUOS has kept pace with these developments, formulating codes of conduct as tangible by-products of international cooperation in this field. It is hoped that this spirit of cooperation, which has characterized the Outer Space Committee proceedings for more than two decades, will also prevail during the

continuing efforts to resolve all problems, potential and actual, on which the views of the members of the international community still differ.

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APPENDICES

APPENDIX A
A CONFLICT THEORY MODEL OF INTERNATIONAL NEGOTIATION APPLICABLE
TO TECHNOLOGICAL ISSUES.

ANTICIPATED CONDITIONS

NEGOTIATING PROCESSES
Informal Negotiations
(throughout all phases)

OUTCOMES

APPENDIX B

United Nations Educational, Scientific and Cultural Organization

DECLARATION OF GUIDING PRINCIPLES ON THE USE OF
SATELLITE BROADCASTING FOR THE FREE FLOW OF INFORMATION
THE SPREAD OF EDUCATION AND GREATER CULTURAL EXCHANGE

The General Conference of the United Nations Educational, Scientific and Cultural Organization meeting in Paris at its seventeenth session in 1972,

Recognizing that the development of communication satellites capable of broadcasting programmes for community or individual reception establishes a new dimension in international communication,

Recalling that under its Constitution the purpose of Unesco is to contribute to peace and security by promoting collaboration among the nations through education, science and culture, and that, to realize this purpose, the Organization will collaborate in the work of advancing the mutual knowledge and understanding of peoples through all means of mass communication and to that end recommend such international agreements as may be necessary to promote the free flow of ideas by word and image,

Recalling that the Charter of the United Nations specifies, among the purposes and principles of the United Nations, the development of friendly relations among nations based on respect for the principle of equal rights, the non-interference in matters within the domestic jurisdiction of any State, the achievement of international co-operation and the respect for human rights and fundamental freedoms,

Bearing in mind that the Universal Declaration of Human Rights proclaims that everyone has the right to seek, receive and impart information and ideas through any media and regardless of frontiers, that everyone has the right to education and that everyone has the right freely to participate in the cultural life of the community, as well as the right to the protection of the moral and material interests resulting from any scientific, literary or artistic production of which he is the author,

Recalling the Declaration of Legal Principles Governing the Activities of States in the Exploration and Use of Outer Space (resolution 1962 (XVIII) of 13 December 1963), and the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, of 1967 (hereinafter referred to as the Outer Space Treaty),

Taking account of United Nations General Assembly resolution 110 (II) of 3 November 1947, condemning propaganda designed or likely to provoke or encourage any threat to the peace, breach of the peace or act of aggression, which resolution as stated in the preamble to the Outer Space Treaty is applicable to outer space; and the United Nations General Assembly resolution 1721 D (XVI) of 20 December 1961 declaring that communication by means of satellites should be available as soon as practicable on a global and non-discriminatory basis,

Bearing in mind the Declaration of the Principles of International Cultural Co-operation adopted by the General Conference of Unesco, at its fourteenth session,

Considering that radio frequencies are a limited natural resource belonging to all nations, that their use is regulated by the International Telecommunications Convention and its Radio Regulations and that the assignment of adequate frequencies is essential to the use of satellite broadcasting for education, science, culture and information,

Noting the United Nations General Assembly resolution 2733 (XXV) of 16 December 1970 recommending that Member States, regional and international organizations, including broadcasting associations, should promote and encourage international co-operation at regional and other levels in order to allow all participating parties to share in the establishment and operation of regional satellite broadcasting services,

Noting further that the same resolution invites Unesco to continue to promote the use of satellite broadcasting for the advancement of education and training, science and culture, and in consultation with appropriate intergovernmental and non-governmental organizations and broadcasting associations, to direct its efforts towards the solution of problems falling within its mandate,

96750

Proclaims on the 15th day of November 1972, this Declaration of Guiding Principles on the Use of Satellite Broadcasting for the Free Flow of Information, the Spread of Education and Greater Cultural Exchange:

Article I

The use of Outer Space being governed by international law, the development of satellite broadcasting shall be guided by the principles and rules of international law, in particular the Charter of the United Nations and the Outer Space Treaty.

Article II

1. Satellite broadcasting shall respect the sovereignty and equality of all States.
2. Satellite broadcasting shall be apolitical and conducted with due regard for the rights of individual persons and non-governmental entities, as recognized by States and international law.

Article III

1. The benefits of satellite broadcasting should be available to all countries without discrimination and regardless of their degree of development.
2. The use of satellites for broadcasting should be based on international co-operation, world-wide and regional, intergovernmental and professional.

Article IV

1. Satellite broadcasting provides a new means of disseminating knowledge and promoting better understanding among peoples.
2. The fulfilment of these potentialities requires that account be taken of the needs and rights of audiences, as well as the objectives of peace, friendship and co-operation between peoples, and of economic, social and cultural progress.

Article V

1. The objective of satellite broadcasting for the free flow of information is to ensure the widest possible dissemination, among the people of the world, of news of all countries, developed and developing alike.
2. Satellite broadcasting, making possible instantaneous world-wide dissemination of news, requires that every effort be made to ensure the factual accuracy of the information reaching the public. News broadcasts shall identify the body which assumes responsibility for the news programme as a whole, attributing where appropriate particular news items to their source.

Article VI

1. The objectives of satellite broadcasting for the spread of education are to accelerate the expansion of education, extend educational opportunities, improve the content of school curricula, further the training of educators, assist in the struggle against illiteracy, and help ensure life-long education.
2. Each country has the right to decide on the content of the educational programmes broadcast by satellite to its people and, in cases where such programmes are produced in co-operation with other countries, to take part in their planning and production, on a free and equal footing.

Article VII

1. The objective of satellite broadcasting for the promotion of cultural exchange is to foster greater contact and mutual understanding between peoples by permitting audiences to enjoy, on an unprecedented scale, programmes on each other's social and cultural life including artistic performances and sporting and other events.

2. Cultural programmes, while promoting the enrichment of all cultures, should respect the distinctive character, the value and the dignity of each, and the right of all countries and peoples to preserve their cultures as part of the common heritage of mankind.

Article VIII

Broadcasters and their national, regional and international associations should be encouraged to co-operate in the production and exchange of programmes and in all other aspects of satellite broadcasting including the training of technical and programme personnel.

Article IX

1. In order to further the objectives set out in the preceding articles, it is necessary that States, taking into account the principle of freedom of information, reach or promote prior agreements concerning direct satellite broadcasting to the population of countries other than the country of origin of the transmission.

2. With respect to commercial advertising, its transmission shall be subject to specific agreement between the originating and receiving countries.

Article X

In the preparation of programmes for direct broadcasting to other countries, account shall be taken of differences in the national laws of the countries of reception.

Article XI

The principles of this Declaration shall be applied with due regard for human rights and fundamental freedoms.

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the Working Group in paragraph 30 of its report

PRINCIPLES GOVERNING THE USE BY STATES OF ARTIFICIAL EARTH SATELLITES FOR DIRECT TELEVISION BROADCASTING.

being elaborated pursuant to General Assembly
resolution 2916 (XXVII) with a view to the
conclusion of an international agreement or
agreements.

Article I

1. All States shall have an equal right to carry out direct television broadcasting by means of artificial earth satellites. Such broadcasting shall be carried out exclusively in the interests of peace, progress, the development of mutual understanding and the strengthening of friendly relations between all States and peoples.

2. All States shall have an equal right to enjoy the benefits arising from direct television broadcasting by means of artificial earth satellites, without discrimination of any kind.

Article II

States agree to base themselves, in their television broadcasting activity using artificial earth satellites, on the generally recognized principles of international law, including the United Nations Charter and the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, of 27 January 1967.

Article III

States shall carry out direct television broadcasting by means of artificial earth satellites for the purposes of enhancing the educational level of the population, developing culture and expanding international exchanges in the fields of science, culture and sport. The transmission of advertising and other commercial material may be carried out only on the basis of specific agreements specially concluded between the States concerned.

Article IV

States undertake to exclude from television programmes transmitted by means of artificial earth satellites any material which is detrimental to the maintenance of international peace and security, which publicizes ideas of war, militarism, national and racial hatred and enmity between peoples, which is aimed at interfering in the internal domestic affairs of other States, or which undermines the foundations of the local civilization, culture, way of life, traditions or language.

Article V

States may carry out direct television broadcasting by means of artificial earth satellites to foreign States only with the express consent of the latter.

Article VI

States shall regard as illegal and as giving rise to the international liability of States direct television broadcasts specifically aimed at a foreign State but carried out without the express consent of the latter, containing material which according to these principles should be excluded from programmes, or received as a result of unintentional radiation if the broadcasting State has refused to hold appropriate consultations with the State in which the broadcasts are received.

Article VII

States shall bear international responsibility for all national activities connected with the use of artificial earth satellites for the purposes of direct television broadcasting, irrespective of whether such broadcasting is carried out by governmental agencies or by non-governmental organizations and juridical persons and of whether it is carried out by States acting independently or through international organizations. Television broadcasting with artificial earth satellites to foreign States may be carried out only by organizations which are under the control of the Governments of the States concerned.

Article VIII

1. If any State has reason to believe that activities connected with direct television broadcasting planning by that State will cause potentially harmful interference to other States or will lead to unintentional radiation of their territory, it shall hold appropriate consultations before undertaking such activities.

2. If a State has reason to believe that unintentional radiation of its territory will occur as a result of direct television broadcasts by another State, it may request that appropriate consultations be held. If, as a result of such unintentional radiation, foreign programmes can be received in the territory of a State by ordinary receivers or by receivers fitted with simple additional devices, the broadcasting State shall immediately enter into consultations with the former State on its request regarding the content of the programmes received.

Article IX

1. In case of the transmission to any State of broadcasts which are illegal in the meaning of article VI, that State may take in respect of such broadcasts measures which are recognized as legal under international law.
2. States agree to give every assistance in stopping illegal television broadcasting.

Article X

1. States shall co-operate on a bilateral and multilateral basis in matters relating to the establishment of technical standards for direct television broadcasting by means of artificial earth satellites and, in particular, in matters connected with the assignment of frequencies for direct broadcasting and with the placing in geostationary orbit of artificial satellites for direct television broadcasting, with due regard to the pertinent recommendations and resolutions of the International Telecommunication Union.

2. When making direct television broadcasts by means of artificial earth satellites, States shall take all necessary measures in order to prevent interference with sea and air traffic.

Article XI

States shall co-operate with each other on a bilateral and multilateral basis in matters connected with protection of copyright in television broadcasts by means of artificial earth satellites. The precise conditions for such co-operation shall be established in appropriate agreements between the interested States.

In such co-operation they shall give special consideration to the interests of those developing countries which have expressed an interest in the use of direct television broadcasting for the purpose of accelerating their national development.

Article XII

States undertake not to include in international agreements which they conclude in connexion with bilateral or multilateral co-operation in the field of direct television broadcasting by means of artificial earth satellites provisions which conflict with their obligations under these principles.

Article XIII

In order to promote international co-operation in respect of direct television broadcasting by means of artificial earth satellites, States agree to inform the Secretary-General of the United Nations and the United Nations Educational, Scientific and Cultural Organization to the greatest extent possible of the nature of television programmes transmitted by them or by their organizations for foreign States.

Article XIV

States shall endeavour to ensure that the international organizations in which they participate and whose activities are relevant to direct television broadcasting by means of artificial earth satellites carry on their activities in accordance with these principles.

Canada and Sweden: proposal reproduced from document A/AC.105/WG.3/L.4, in accordance with the decision of the Working Group in paragraph 30 of the report

DRAFT PRINCIPLES GOVERNING DIRECT TELEVISION BROADCASTING BY SATELLITE*

The General Assembly,

Convinced that direct television broadcasting by satellite has the potential to further the social and cultural progress of peoples, to broaden the dissemination of information and cultural values, to facilitate mutual understanding and thereby to strengthen the foundations of world peace,

Convinced also that this technology can be utilized beneficially in the service of important national and international goals such as the enhancement of education, national development and the transmission of television to people in all geographical areas,

Convinced further that satellite television broadcasting, at the world-wide and regional levels, can only be realized fully on the basis of broad international co-operation, between Governments and non-governmental entities in accord with the principles set out below,

Believing that direct television broadcasting by satellite must be governed by international law so as to ensure the free flow of communications on a basis of respect for the sovereign rights of States and the principles of non-intervention and equality,

Bearing in mind the Universal Declaration on Human Rights, the International Covenants on Human Rights, the Declaration on Principles of International Law Concerning Friendly Relations and Co-operation among States in Accordance with the Charter of the United Nations and the Declaration of Guiding Principles on the Use of Satellite Broadcasting for the Free Flow of Information, the Spread of Education and Greater Cultural Exchange, adopted by the 1972 UNESCO General Conference,

Considering that the radio frequency spectrum is a limited natural resource belonging to all nations and that its use is governed by the International Telecommunication Convention and its Radio Regulations,

Recalling resolution No. Spa2-1 adopted by the ITU WARC-ST in 1971, which in its preamble states that all countries shall have equal rights in the use of both the radio frequencies allocated to various space radiocommunications services and the geostationary satellite orbit for those services,

Taking into account resolution 1721 (XVI) of 20 December 1961 declaring that communication by means of satellites should be available as soon as practicable on a global and non-discriminatory basis,

Recalling resolution 2733 (XXV) of 16 December 1970 which recommended that Member States, regional and international organizations including broadcasting associations, should promote and encourage international co-operation on regional and other levels in order, *inter alia*, to allow all participating parties to share in the establishment and operation of regional satellite broadcasting services and/or in programme planning and production

Recalling finally resolution 2916 (XXVII) of 14 November 1972 in which the General Assembly considered it necessary to elaborate principles governing the use by States of artificial earth satellites for direct television broadcasting with a view to concluding an international agreement or agreements.

Solemnly declares that in the conduct of their activities in the field of direct television broadcasting by satellites, States shall be guided by the following principles:

United States of America: proposal reproduced from document A/LAC.105/WG.3(V)/CRP.2 in accordance with the decision of the Working Group in paragraph 30 of the report

DRAFT PRINCIPLES ON DIRECT BROADCAST SATELLITES*

The use of outer space for international direct television broadcasting by satellites should be conducted in accordance with international law, including in particular the Charter of the United Nations, the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and other Celestial Bodies, and in the light of relevant provisions of the Universal Declaration of Human Rights and the Declaration on Principles of International Law Concerning Friendly Relations and Co-operation Among States.

II

International direct television broadcasting should be conducted within the technical parameters and procedures established by the International Telecommunication Convention and its Radio Regulations.

III

Such activity should be carried out in a manner compatible with the maintenance of international peace and security with a view to enhancing co-operation, mutual understanding and friendly relations among all States and peoples.

IV

Such activity should also be conducted in a manner which will encourage and expand the free and open exchange of information and ideas while taking into account differences among cultures and maximizing the beneficial use of new space communications technologies.

V

Every State is entitled to carry out international direct television broadcasting by satellites and to share in benefits derived from this activity. Such sharing should increasingly include, as practical difficulties are overcome, opportunities for access to the use of this technology for the purpose of sending as well as receiving broadcasts.

VI

States and international and regional organizations, particularly the United Nations, and other entities where appropriate, should co-operate in efforts to strengthen the capability of interested States, including in particular developing countries, to make use of international direct television broadcasting by satellites as the technology may become available. Such efforts should include increased training in technical and programme production fields, in which connexion consideration should be given to the establishment of regional centres, and the expanded exchange of programmes and personnel.

VII

Practical approaches to the use of this technology on a regional or other international co-operative basis should be given particular consideration by States having shared needs and mutual interests.

VIII

States should encourage the potential contributions of international professional associations, in fields such as medicine, engineering, education and the arts, in solving social development problems and in enhancing the quality of life through the effective use of this technology.

X

States should seek to resolve any disagreements which may arise concerning the carrying out of international direct television broadcasting by satellites through consultation and, as may be necessary, through established procedures for the settlement of disputes.

IX

States should recognize the desirability of creating conditions favourable to the promotion of international co-operation among broadcasters and regional broadcast associations as an effective means of advancing the objectives of these principles.

XI

The United Nations and Member States should undertake to review the questions of the use of satellites for international direct television broadcasting if practical experience indicates the need for such a review.

United States of America: proposal reproduced from document A/AC.105/LWG.3(V)/CRP.2 in accordance with the decision of the Working Group in paragraph 30 of the report

DRAFT PRINCIPLES ON DIRECT BROADCAST SATELLITES*

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II

International direct television broadcasting should be conducted within the technical parameters and procedures established by the International Telecommunication Convention and its Radio Regulations.

III

Such activity should be carried out in a manner compatible with the maintenance of international peace and security with a view to enhancing co-operation, mutual understanding and friendly relations among all States and peoples.

IV

Such activity should also be conducted in a manner which will encourage and expand the free and open exchange of information and ideas while taking into account differences among cultures and maximizing the beneficial use of new space communications technologies.

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Every State is entitled to carry out international direct television broadcasting by satellites and to share in benefits derived from this activity. Such sharing should increasingly include, as practical difficulties are overcome, opportunities for access to the use of this technology for the purpose of sending as well as receiving broadcasts.

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States and international and regional organizations, particularly the United Nations, and other entities where appropriate, should co-operate in efforts to strengthen the capability of interested States, including in particular developing countries, to make use of international direct television broadcasting by satellites as the technology may become available. Such efforts should include increased training in technical and programme production fields, in which connexion consideration should be given to the establishment of regional centres, and the expanded exchange of programmes and personnel.

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Practical approaches to the use of this technology on a regional or other international co-operative basis should be given particular consideration by States having shared needs and mutual interests.

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States should encourage the potential contributions of international professional associations, in fields such as medicine, engineering, education and the arts, in solving social development problems and in enhancing the quality of life through the effective use of this technology.

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States should seek to resolve any disagreements which may arise concerning the carrying out of international direct television broadcasting by satellites through consultation and, as may be necessary, through established procedures for the settlement of disputes.

IX

States should recognize the desirability of creating conditions favourable to the promotion of international co-operation among broadcasters and regional broadcast associations as an effective means of advancing the objectives of these principles.

XI

The United Nations and Member States should undertake to review the questions of the use of satellites for international direct television broadcasting if practical experience indicates the need for such a review.

ANNEX

Principles Governing the Use by States of Artificial Earth Satellites
for International Direct Television Broadcasting

A. Purposes and objectives

1. Activities in the field of international direct television broadcasting by satellite should be carried out in a manner compatible with the sovereign rights of States, including the principle of non-intervention, as well as with the right of everyone to seek, receive and impart information and ideas as enshrined in the relevant United Nations instruments.

2. Such activities should promote the free dissemination and mutual exchange of information and knowledge in cultural and scientific fields, assist in educational, social and economic development, particularly in the developing countries, enhance the qualities of life of all peoples and provide recreation with due respect to the political and cultural integrity of States.

3. These activities should accordingly be carried out in a manner compatible with the development of mutual understanding and the strengthening of friendly relations and co-operation among all States and peoples in the interest of maintaining international peace and security.

B. Applicability of international law

4. Activities in the field of international direct television broadcasting by satellite should be conducted in accordance with international law, including the Charter of the United Nations, the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, of 27 January 1967, the relevant provisions of the International Telecommunication Convention and its Radio Regulations and of international instruments relating to friendly relations and co-operation among States and to human rights.

C. Rights and benefits

5. Every State has an equal right to conduct activities in the field of international direct television broadcasting by satellite and to authorize such activities by persons and entities under its jurisdiction. All States and peoples are entitled to and should enjoy the benefits from such activities. Access to the technology in this field should be available to all States without discrimination on terms mutually agreed by all concerned.

11. International responsibility: The State shall bear prime and inalienable responsibility, in accordance with the 1967 Treaty on Outer Space, for international activities it undertakes in the use of direct broadcasting by satellite. This responsibility includes broadcasts by governmental agencies, non-governmental organizations and legal entities, which shall be subject to the control of the State concerned.

4. Access: Radio frequencies are a limited natural resource, forming the common heritage of mankind and their use is governed by the International Telecommunication Convention and Radio Regulations.

Equitable access to frequencies and to the geostationary orbit for direct broadcasting by satellite shall be guaranteed for all States, according to their needs.

5. Facilitation of access: States and international organizations must co-operate at the international and regional levels in order to facilitate the access of countries which are not yet fully developed to activities in the field of direct broadcasting by satellite.

6. International co-operation: States and international organizations must encourage and promote international co-operation at all levels. Such co-operation is reflected, among other ways, in close collaboration between the specialized agencies of the United Nations system, intergovernmental regional organizations and national bodies.

International co-operation, on the basis of the 1967 Treaty on Outer Space, is a legal obligation and is a precondition for the legality of activities carried on in outer space, including direct broadcasting by satellite.

Accordingly, States and their broadcasting authorities shall co-operate with one another in respect of programming, programme content, production, interchange of programmes and all other aspects, including the training of technical and programming personnel.

7. Regional systems: The expression "regional" is used here in a broad sense. We take regional systems to mean arrangements between States or groups of States which, on the basis of cultural, religious, linguistic, social or economic affinities, geographical proximity or any other grounds of common interest, decide to conclude agreements for joint systems of direct broadcasting by satellite; such agreements must comply with existing international arrangements. Regional agreements cover a variety of different situations and the system itself is regarded as a common regional facility for national, subregional and regional use. Such agreements presuppose and necessarily affect various functions, namely, the legislative, operational and administrative, and programming functions.

Regional co-operation in programming, particularly for educational and developmental purposes, requires co-ordination and joint planning with all of the interests involved: Governments, educational authorities, development agencies, broadcasting stations.

Regional broadcasting organizations must participate in all stages of the exercise.

In the case of broadcasts made by an international organization, responsibility for compliance with the principles and standards which have been established, or may be established, shall lie with the international organization.

12. Responsibility of broadcasting authorities and organizations: The responsibility of broadcasting organizations is increased by the new prospects opened up by direct broadcasting by satellite. These organizations shall ensure that the service is well regulated, effective and economical, and conforms to the principles and standards adopted by States. They shall also establish, as appropriate, their own codes of ethics.

13. Free flow of information and social communication: The free flow of information and, in general, of social communication shall not be impaired in any way or measure as a result of direct broadcasting by satellite and, as in the case of traditional communications, the emerging rights of the national sovereignty of States shall be respected.

The principle of freedom of information and free flow of communications is not incompatible with the adoption of additional principles designed to harmonize the rights of States and to protect the economic, social and cultural values of their peoples.

It is appropriate to ensure the veracity of the information imparted to the public, and to indicate the body which assumes responsibility for any news programme and the origin of any news item.

The right of reply forms a complement to freedom of information.

14. Cases in which prior consent should be sought, and case of prior acceptance.

In cases where direct broadcasts by satellite are intended for a foreign State, express prior consent is required; the possibility of tacit or extemporaneous consent is not acceptable in such cases.

The ITU spill-over standards do not appear to be applicable to all cases and can have no other scope than that of the Union itself.

Prior consent allows for the solution of many questions and reserves the solution concerning programme content.

The freedom enshrined in the 1967 Treaty on Outer Space is not an unlimited freedom, but is subject to international co-operation, which determines the legality or illegality of any activity conducted in space or in the sphere of space communications.

Consent implies participation in scheduled activities.

Unintentional, technically unavoidable radiation from a national programme intended specifically for a national audience of the broadcasting State shall conform to the standards provided for in the International Telecommunication Convention and its radio regulations.

Notwithstanding this, if a State experiencing spill-over has reason to suppose that it may be affected and exercises its right vis-à-vis the broadcasting State, through consultation, prior acceptance is in order.

The prior acceptance of the receiving State in this case does not imply authorization for it to participate in the programming of the broadcasting State.

15. Programme content and participation.

Content should be described in very general, broad, non-specific and non-detailed terms. It does not appear feasible to regulate the content of direct broadcasts at the global level.

Participation in the preparation of programmes should encompass content. Any person participating will have access to all stages and aspects of the programme, among which prime importance should be attached to content.

Any State is entitled to participate in activities which involve broadcasts whose scope encompasses territories under its jurisdiction.

Any State is also entitled to determine the content of the educational programmes broadcast to its population and to participate freely on equal terms in their preparation and production, when such programmes are the outcome of the co-operation of a number of States.

The question at issue is not merely the requirement of prior consent or prior acceptance in the cases provided for in the previous section. Participation must also be encouraged. The technical feasibility of confining a broadcast within national frontiers would solve only one aspect of the problem and would do so in a negative manner. We would like to see the problem solved in a specifically positive manner: in other words, not only should recognition be given to the right to say "no" and to the consequent obligation of the broadcasting State to exclude from the broadcasting area the geographical area which has withheld its consent, but we should like the right to say "yes" to be established and recognized, so that there should be no exclusion and that all States should participate, in order that the aspirations of all peoples, as expressed and ratified in formal instruments of the United Nations and its specialized agencies, should be fulfilled. In short, to the freedom to say "no" we should like to add the freedom to say "yes".

The word "participation" is peculiar to our times. States and individuals do not nowadays wish benefits to be transmitted to them in any of the traditional forms; they want to participate, and the first step towards this goal is achieved by acquitting the necessary technology and taking part in the planning and preparation of programmes, in all their stages, of which the benefit is the last.

16. Copyright and allied rights.

Copyright and the rights of interpretative artists and performers shall not be affected by the use of the new technique of direct broadcasting by satellite.

17. Protection of television signals.

Consideration must be given to efforts to establish principles and standards relating to the unauthorized transmission of signals carrying programmes broadcast by satellite. Such legal protection shall have the same scope as when applied to direct radio broadcasting.

18. Dissemination of education and the intensification of cultural exchanges.

Direct broadcasting by satellites shall seek to achieve the most rapid possible development of education, increase educational opportunities, improve the content of school programmes, facilitate teacher training, eliminate illiteracy and contribute to the achievement of a continuous process of education, while at the same time avoiding the inclusion of subjects which give rise to conflict.

In order to promote cultural exchanges, direct broadcasting by satellite shall stimulate greater contact and mutual understanding among peoples, so that they may have the greatest possible opportunities of enjoying programmes relating to social and cultural life, including artistic and sporting events.

Cultural programmes must respect the distinctive character, value and dignity of every culture, and the right of all States and peoples to preserve their culture as an element of the common heritage of mankind.

19. Commercial aspects.

Direct broadcasting for commercial and advertising purposes to countries other than the country of origin shall be the subject of specific agreements between the States and broadcasting associations concerned.

20. Publicity of activities.

All activities undertaken through direct broadcasting by satellite must conform to a system of maximum publicity and dissemination, aimed at making direct broadcasting better known.

States will inform the Secretary-General of the United Nations and the Director-General of UNESCO of the nature of any direct broadcasting programme to foreign States that they undertake themselves or through agencies under their jurisdiction.

21. Inadmissible broadcasts

Any broadcasts that a State does not wish to be made in its territories or among its population are inadmissible.

Every State and every transmitter shall refrain from making such broadcasts.

22. Regime of consultation.

Consultation is in order if a State has reason to suppose that the activities relating to direct broadcasting by satellites for which it has made provision may cause interference prejudicial to other States or give rise to unintentional radiation in their territories.

It is also in order if a State has reason to suppose that unintentional radiation will occur in its national territory as a result of direct broadcasts by another State. In this case it may request that consultations be held.

Consultation is the prior step to the acceptance provided for in section 14.

23. Right to take counter-measures.

If, nevertheless, an illegal situation arises, the State affected is entitled to take appropriate counter-measures to re-establish the legal order that has been upset. That right shall be recognized by means of a legal instrument and may arise from the agreements that are concluded.

24. Disruption of shipping, air traffic and radioastronomy.

In using direct broadcasting by satellites, States will adopt all necessary measures to prevent the disruption of shipping, air traffic and radioastronomy.

25. Settlement of of disputes

Any disputes that may arise in connexion with direct broadcasting by satellite will be resolved by the procedures established for the settlement of disputes and, with the consent of the parties in dispute, by judicial arbitration or settlement.

THE BOGOTA DECLARATION

1. The geostationary orbit as a natural resource

The geostationary orbit is a circular orbit in the equatorial plane in which the period of sidereal revolution of the satellite is equal to the period of sidereal rotation of the Earth and the satellite moves in the same direction as the Earth's rotation. When a satellite describes this particular orbit, it is said to be geostationary; such a satellite appears to be stationary in the sky when viewed from the earth, and is fixed at the zenith of a given point on the Equator, whose longitude is by definition that of the satellite.

This orbit is located at an approximate distance of 35,871 km above the Earth's Equator.

The equatorial countries declare that the synchronous geostationary orbit is a physical fact arising from the nature of our planet, because its existence depends exclusively on its relation to gravitational phenomena caused by the Earth, and that for that reason it must not be considered part of outer space. Therefore, the segments of the synchronous geostationary orbit are an integral part of the territory over which the equatorial States exercise their national sovereignty. The geostationary orbit is a scarce, natural resource whose importance and value is increasing rapidly with the development of space technology and with the growing need for communication, therefore, the equatorial countries meeting in Bogota have decided to proclaim and defend on behalf of their peoples the existence of their sovereignty over this natural resource. The geostationary orbit represents a unique facility which it alone can offer for telecommunication services and other uses requiring geostationary satellites.

The frequencies and orbit of geostationary satellites are natural resources fully accepted as such under the current rules of the International Telecommunication Union. Technological progress has caused a continuous increase in the number of satellites using this orbit, which could lead to saturation in the near future.

The solutions proposed by the International Telecommunication Union in the relevant documents with a view to achieving a better use of the geostationary orbit and preventing its imminent saturation are at present impracticable, and are also unfair, because they would considerably increase the cost of utilizing this resource, especially for developing countries. Such countries do not have the same technological and financial resources as industrialized countries, which enjoy an evident monopoly in the

exploitation and use of the synchronous geostationary orbit. In spite of the principle established by Article 33, paragraph 2, of the 1973 International Telecommunication Convention, that in using frequency bands for space radio services, members shall bear in mind that radio frequencies and the geostationary satellite orbit are limited natural resources and that they must be used efficiently and economically, so as to allow equitable access to this orbit and to its frequencies, we can see that both the geostationary orbit and the frequencies have been used in a way that does not allow equitable access to the developing countries, which do not have the technical and financial means that the great Powers have. Therefore, it is essential for the equatorial countries to state their determination to exercise their sovereignty over the corresponding segments of the geostationary orbit.

2. *Sovereignty of equatorial States over the corresponding segments of the geostationary orbit.*

In describing this orbit as a natural resource, the equatorial States reaffirm "the right of peoples and nations to permanent sovereignty over their natural wealth and resources, which must be exercised in the interest of their national development and of the well-being of the people of the State concerned", as stated in Resolution 2692 (XXV) of the United Nations General Assembly, entitled "Permanent Sovereignty Over Natural Resources of Developing Countries and Expansion of Domestic Sources of Accumulation for Economic Development".

Furthermore, the Charter of Economic Rights and Duties of States solemnly adopted by the United Nations General Assembly in Resolution 3281 (XXIX) natural resources, in Article 2 paragraph 1, reads: "Every State has and shall freely exercise full permanent sovereignty, including possession, use and disposal, over all its wealth, natural resources and economic activities".

The above-mentioned provisions lead the equatorial States to affirm that the synchronous geostationary orbit, being a natural resource, is under the sovereignty of the equatorial States.

3. *Legal status of the geostationary orbit*

Bearing in mind the existence of sovereign rights over the segments of the geostationary orbit, the equatorial countries consider that the legal system applicable in this area must take into account the following:

- a) The sovereign rights put forward by the equatorial countries are directed towards rendering real benefits to their respective peoples and to the world community, in complete contrast to the present state of affairs, in which the orbit is used primarily for the benefit of the most developed countries.

- b) The segments of the orbit corresponding to the areas of the high seas beyond the national jurisdiction of States shall be considered as the common heritage of mankind. Consequently, the competent international agencies may regulate their use and exploitation whenever that is for the benefit of mankind.

- c) The equatorial States do not object to free orbital transit or the transit of communications requiring satellites covered and authorized by the International Telecommunication Convention, when these satellites pass through their space territory in gravitational flight outside their geostationary orbit.

- d) Devices to be placed in a fixed position on an equatorial State's segment of the geostationary orbit shall require previous and express authorization on the part of the State concerned, and the operation of the device shall be governed by the national law of that State. It is to be understood that this authorization is different from the coordination requested in cases of interference among satellite systems, as specified in the Radio Regulations. The authorization in question clearly relates to countries' right to allow the operation of fixed radio stations within their territory.

- e) The equatorial States do not acquiesce in the presence of satellites on their segments of the geostationary orbit and declare that the existence of such satellites does not confer any right to place satellites there or to use the segment unless expressly authorized by the State exercising sovereignty over the segment in question.

4. *Treaty of 1967*

The Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, signed on 27 January 1967, cannot be considered as a final answer to the problem of the exploration and use of outer space, particularly since the international community is now calling in question all the terms of international law which were drawn up at a time when the developing countries could not count on adequate scientific advice and were thus not able to detect and assess the omissions, contradictions and inconsistencies in the texts, which were prepared with great ability by the industrialized Powers for their own benefit.

There is no definition of outer space that is valid and satisfactory for the international community such as might be cited to support the argument that the geostationary orbit is included in outer space. The Legal Subcommittee of the United Nations Committee on the Peaceful Uses of Outer Space has been working for a long time on a definition of outer space but has not yet been able to reach agreement on the matter.

Therefore, it is imperative to arrive at a legal definition of outer space, since to apply the 1967 Treaty without one would merely be to ratify the presence of the states that are already, using the geostationary orbit. In the name of the principle of non-appropriation by states, what was actually developed was a technological sharing out of the orbit, which in the end simply comes down to national appropriation, and this must be denounced by the equatorial countries. Experience so far and the developments foreseeable in the years ahead show up the obvious gaps in the 1967 Treaty which force the equatorial states to take the position that the geostationary orbit is not covered by its provisions.

The lack of a definition of outer space in the 1967 Treaty, which has already been referred to, means that Article II can not apply to the geostationary orbit and therefore does not affect the rights of the equatorial states that have already ratified the Treaty.

5. Diplomatic and political action

While Article II of the aforementioned Treaty does not make an express exception for the synchronous geostationary orbit, as an integral part of the territory of equatorial states, the countries that have not ratified the Treaty should refrain from undertaking any steps to put into effect provisions whose legal invalidity has already been exposed.

The representatives of the equatorial countries attending the meeting in Bogota wish to make clear their position regarding the declarations by Colombia and Ecuador in the United Nations, affirming that they consider the geostationary orbit to be an integral part of their sovereign territory; this declaration is the historical background for the defense of the equatorial countries' sovereign rights. These countries will do their utmost to see that similar declarations are made in international agencies and to bring their international policies into line with the principles set forth in this document."

Signed in Bogota 3rd December 1976 by the Heads of Delegations.

Geraldo Nascimento Silva
Observateur du BRESIL

Soehardjono
Indonesia

Sara Ordonez de Londono
Colombia

Peterson John Kinya
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Congo

Khalid Younis Kinene
Uganda

Jose Ayala Lasso
Ecuador

Wabali Bakitambisa
Zaire

General Assembly

Distr.
GENERAL

A/RES/37/92
4 February 1983

330538

Thirty-seventh session
Agenda items 62, 63 and 131

RESOLUTION ADOPTED BY THE GENERAL ASSEMBLY

[on the report of the Special Political Committee (A/37/646)]

37/92. Principles Governing the Use by States of Artificial Earth Satellites for International Direct Television Broadcasting

The General Assembly,

Recalling its resolution 2916 (XXVII) of 9 November 1972, in which it stressed the necessity of elaborating principles governing the use by States of artificial earth satellites for international direct television broadcasting, and mindful of the importance of concluding an international agreement or agreements,

Recalling further its resolutions 3182 (XXVIII) of 18 December 1973, 3234 (XXIX) of 12 November 1974, 3388 (XXX) of 18 November 1975, 31/8 of 8 November 1976, 32/196 of 20 December 1977, 33/16 of 10 November 1978, 34/66 of 5 December 1979 and 35/14 of 3 November 1980, and its resolution 36/35 of 18 November 1981 in which it decided to consider at its thirty-seventh session the adoption of a draft set of principles governing the use by States of artificial earth satellites for international direct television broadcasting,

Noting with appreciation the efforts made in the Committee on the Peaceful Uses of Outer Space and its Legal Sub-Committee to comply with the directives issued in the above-mentioned resolutions,

Considering that several experiments of direct broadcasting by satellite have been carried out and that a number of direct broadcasting satellite systems are operational in some countries and may be commercialized in the very near future,

Taking into consideration that the operation of international direct broadcasting satellites will have significant international political, economic, social and cultural implications,

A/RES/37/92

Believing that the establishment of principles for international direct television broadcasting will contribute to the strengthening of international co-operation in this field and further the purposes and principles of the Charter of the United Nations,

Adopts the Principles Governing the Use by States of Artificial Earth Satellites for International Direct Television Broadcasting set forth in the annex to the present resolution.

100th plenary meeting
10 December 1982

ANNEX

Principles Governing the Use by States of Artificial Earth Satellites
for International Direct Television Broadcasting

A. Purposes and objectives

1. Activities in the field of international direct television broadcasting by satellite should be carried out in a manner compatible with the sovereign rights of States, including the principle of non-intervention, as well as with the right of everyone to seek, receive and impart information and ideas as enshrined in the relevant United Nations instruments.

2. Such activities should promote the free dissemination and mutual exchange of information and knowledge in cultural and scientific fields, assist in educational, social and economic development, particularly in the developing countries, enhance the qualities of life of all peoples and provide recreation with due respect to the political and cultural integrity of States.

3. These activities should accordingly be carried out in a manner compatible with the development of mutual understanding and the strengthening of friendly relations and co-operation among all States and peoples in the interest of maintaining international peace and security.

B. Applicability of international law

4. Activities in the field of international direct television broadcasting by satellite should be conducted in accordance with international law, including the Charter of the United Nations, the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, of 27 January 1967, the relevant provisions of the International Telecommunication Convention and its Radio Regulations, and of international instruments relating to friendly relations and co-operation among States and to human rights.

C. Rights and benefits

5. Every State has an equal right to conduct activities in the field of international direct television broadcasting by satellite and to authorize such activities by persons and entities under its jurisdiction. All States and peoples are entitled to and should enjoy the benefits from such activities. Access to the technology in this field should be available to all States without discrimination on terms mutually agreed by all concerned.

D. International co-operation

6. Activities in the field of international direct television broadcasting by satellite should be based upon and encourage international co-operation. Such co-operation should be the subject of appropriate arrangements. Special consideration should be given to the needs of the developing countries in the use of international direct television broadcasting by satellite for the purpose of accelerating their national development.

E. Peaceful settlement of disputes

7. Any international dispute that may arise from activities covered by these principles should be settled through established procedures for the peaceful settlement of disputes agreed upon by the parties to the dispute in accordance with the provisions of the Charter of the United Nations.

F. State responsibility

8. States should bear international responsibility for activities in the field of international direct television broadcasting by satellite carried out by them or under their jurisdiction and for the conformity of any such activities with the principles set forth in this document.

9. When international direct television broadcasting by satellite is carried out by an international intergovernmental organization, the responsibility referred to in paragraph 8 above should be borne both by that organization and by the States participating in it.

G. Duty and right to consult

10. Any broadcasting or receiving State within an international direct television broadcasting satellite service established between them requested to do so by any other broadcasting or receiving State within the same service should promptly enter into consultations with the requesting State regarding its activities in the field of international direct television broadcasting by satellite, without prejudice to other consultations which these States may undertake with any other State on that subject.

H. Copyright and neighbouring rights

11. Without prejudice to the relevant provisions of international law, States should co-operate on a bilateral and multilateral basis for protection of copyright and neighbouring rights by means of appropriate agreements between the interested States or the competent legal entities acting under their jurisdiction. In such co-operation they should give special consideration to the interests of developing countries in the use of direct television broadcasting for the purpose of accelerating their national development.

I. Notification to the United Nations

12. In order to promote international co-operation in the peaceful exploration and use of outer space, States conducting or authorizing activities in the field of international direct television broadcasting by satellite should inform the Secretary-General of the United Nations, to the greatest extent possible, of the nature of such activities. On receiving this information, the Secretary-General should disseminate it immediately and effectively to the relevant specialized agencies, as well as to the public and the international scientific community.

J. Consultations and agreements between States

13. A State which intends to establish or authorize the establishment of an international direct television broadcasting satellite service shall without delay notify the proposed receiving State or States of such intention and shall promptly enter into consultation with any of those States which so requests.

14. An international direct television broadcasting satellite service shall only be established after the conditions set forth in paragraph 13 above have been met and on the basis of agreements and/or arrangements in conformity with the relevant instruments of the International Telecommunication Union and in accordance with these principles.

15. With respect to the unavoidable overspill of the radiation of the satellite signal, the relevant instruments of the International Telecommunication Union shall be exclusively applicable.

APPENDIX C

DOCUMENTS RELATING TO AGENDA ITEM 5

(MATTERS RELATING TO THE ACTIVITIES CARRIED OUT THROUGH REMOTE-SENSING
SATELLITE SURVEYS OF EARTH RESOURCES)

Argentina: draft international agreement on activities
carried out through remote-sensing satellite surveys of
earth resources (A/AC.105/C.2/L.73)

The States Parties to the present Agreement:

Considering that there is an urgent need for over-all surveys of earth resources by means of remote sensors installed in satellites and that the expected benefits will only be obtained through a general international convention and agreements on collaboration,

Further considering that the principal economic assets of any country are human and natural resources, provided that these are identified and used,

Convinced that the promise of such benefits raises legal problems which must be solved without delay,

Reaffirming that these new techniques will act as an effective stimulus to economic and social development, and materially contribute to the welfare of all mankind by enabling the inventory, planning, development, exploitation and conservation of natural resources to be undertaken on the basis of international co-operation.

Bearing in mind United Nations General Assembly resolution 2600 (XXIV) of 16 December 1969, which is concerned, in particular, with the techniques of remote earth resources surveying, and requests greater international co-operation with a view to reaping practical benefits from the new technology,

Believing that the rights of the States to which the resources belong should be established at the international level in relation to collective consumption requirements,

Recalling United Nations General Assembly resolutions 1803 (XVII) of 14 December 1962 and 2158 (XXI) of 25 November 1966 on permanent sovereignty over natural resources,

Bearing in mind United Nations General Assembly resolution 1314 (XIII) of 12 December 1958, which declares that the permanent sovereignty of peoples and nations over their natural wealth and resources is a basic constituent of the right to self-determination,

/...

Inspired by the Treaty on the Principles Governing the Activities of States in the Exploration and Use of Outer Space including the Moon and Other Celestial Bodies, of 27 January 1967,

Have agreed on the following:

Article 1

The techniques of remote-sensing satellite inventory and study of earth resources shall be used in close international co-operation for the benefit of all mankind.

Article 2

Until such time as some other appropriate body is available, the United Nations Secretariat shall be responsible for the functions of planning, consultation, information, inventorying and co-ordination of such activities in the initial stage to meet immediate needs, with a view of internationalizing over-all surveys of resources.

Article 3

A data bank shall be established for that purpose, to which all States shall have access. When appropriate, the data bank shall disseminate on a world-wide basis the findings and practical results in respect of the use of such techniques to inventory and survey earth resources, with special reference to the interests and needs of the developing countries.

Article 4

The programmes for world-wide remote sensing will prevent the exploitation of natural resources from causing the spoliation or destruction of the environment, and will make for the preservation of a satisfactory balance through the increase of renewable resources in those areas which are best able to help maintain it.

Article 5

Until remote-sensing satellite surveys of earth resources have been placed on an international footing, the activities of the States which undertake such surveys must be based on the principle of equality between States and of the honourable fulfilment of international commitments, as well as the other principles of international law regarding friendly relations and co-operation between States.

/...

Article 6

Surveys of natural resources and their findings with respect to the sea beyond State jurisdiction or of the ocean floor and subsoil beyond the limits of national jurisdiction shall be transmitted to the data bank. If the surveys involve the national territory and jurisdictional waters of one or more States, the facts and findings shall be promptly communicated to the State or States concerned and transmitted to the data bank.

Article 7

The principle of equality of rights and the self-determination of peoples embraces not only the right to internal sovereignty and independence, but also the economic aspect of the freedom to use and distribute their wealth, whereby the peoples may exercise their legitimate and exclusive rights over their natural resources. By virtue of this principle, the States shall exchange information among themselves on the discovery of new areas or of improved methods of exploiting natural resources, and shall transmit such information to the data bank.

Article 8

The exploitation of the natural resources of each State in its territory and in its jurisdictional waters shall be governed solely by national laws and regulations. Efforts shall be made by means of international agreements to improve the distribution of the resources and to plan concerted action to meet collective consumption requirements, with respect to the basic elements for subsistence essential raw materials and natural processes the knowledge of which would raise mankind's level of living.

(The final articles follow.)

Brazil: proposal
(Document A/AC.105/122)

Treaty on remote sensing of natural resources by satellites

Draft basic articles

1. National and international programmes for remote sensing of natural resources by satellites shall promote international co-operation and their implementation shall benefit and serve the interests of all countries, taking especially into consideration benefits to and the interests of the developing countries.

2. States Parties shall carry out activities of remote sensing of natural resources by satellites in accordance with international law, including the Charter

/...

of the United Nations, the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and other Celestial Bodies, and the principles contained in the resolutions of the United Nations General Assembly concerning permanent sovereignty of peoples and nations over their natural resources, in particular resolutions 1803 (XVII), of 14 December 1962, and 2158 (XXI), of 25 November 1966.

3. States Parties shall refrain from undertaking activities of remote sensing of natural resources belonging to another State Party, including the resources located in maritime areas under national jurisdiction, without the consent of the latter.

4. States Parties are entitled to take measures, in accordance with international law, to protect their territory and maritime areas under their jurisdiction from remote sensing activities for which they had denied their consent.

5. States Parties whose territory and maritime areas under their jurisdiction are the object of remote sensing of natural resources are entitled, if they so request, to participate in those activities.

6. States Parties whose territory and maritime areas under their jurisdiction are the object of remote sensing of natural resources are entitled to full and unrestricted access to all data obtained through those activities.

7. States Parties obtaining information relating to the natural resources of another State Party through remote sensing shall neither divulge such information nor transmit or transfer it in any manner to a third State, international organization or private entity, without the express authorization of the State Party to which the natural resources belong, nor can they utilize the information thus obtained to the detriment of the latter.

8. States Parties shall refrain from soliciting, accepting and, in any manner, receiving from a third State, international organization or private entity, information regarding the natural resources of another State Party obtained through remote sensing without the express authorization of the State Party to which the natural resources belong; nor can they utilize such information to the detriment of the latter.

9. States Parties possessing the technological capability for remote sensing shall endeavour to assist other States Parties lacking this technology in the implementation of national programmes for surveying natural resources planned by the latter.

10. States Parties acknowledge the right of all States to participate fully in activities of remote sensing of natural resources of terrestrial and maritime areas outside national sovereignty or jurisdiction, as well as the need to guarantee free access to information obtained through these activities.

11. States Parties shall be held internationally responsible for national activities of remote sensing of natural resources, irrespective of whether such activities are carried out by governmental or non-governmental entities, and shall guarantee that such activities will comply with the provisions of the present treaty.

12. Disputes resulting from activities of remote sensing of natural resources shall be resolved in accordance with the methods envisaged in Article 33 of the Charter of the United Nations.

13. States Parties are entitled to conclude agreements in conformity with stipulations of the present treaty.

14. Nothing in these articles shall affect the rights and obligations contracted by States Parties through bilateral or regional agreements.

Paper submitted by France
(Document A/AC.105/L.69)

Draft principles governing remote sensing of earth resources
from outer space

1. Outer space may be used freely by all States, without any discrimination, under conditions of equality and in accordance with international law, including the United Nations Charter and the 1967 Outer Space Treaty, for engaging in the remote sensing of earth resources exclusively for peaceful purposes.

2. Such use shall, in particular, respect the principle of the sovereignty of States, with special reference to the right of permanent sovereignty of peoples and nations over their wealth and resources as a basic constituent of their right to self-determination, in accordance with the principles laid down in United Nations General Assembly resolutions 1803 (XVII) of 14 December 1962 and 2158 (XXI) of 25 November 1966.

3. Remote sensing of earth resources from outer space shall be carried out for the good and in the interests of all countries, whatever their state of economic or scientific development, and the results of such activity should contribute to an improvement in the balance of the natural environment.

4. Every State engaging in remote sensing of earth resources from outer space shall inform the Secretary-General of the United Nations of the date, duration, nature and objectives of that activity and of the areas which may be affected. In addition, every State whose territory or territorial sea is affected by remote sensing shall receive prior notification thereof from the State, States or international organization responsible for such activity.

5. (1) Every State territorially affected by remote sensing of earth resources shall have the right, if it so requests, to participate therein on fair and reasonable terms.

A/AC.105/133
English

(2) Use of the documents resulting from a remote-sensing operation may not be granted to third parties, whether Governments or private persons, without the consent of the State whose territory is affected.

6. Where remote-sensing activities cover land or sea areas outside the jurisdiction of States, all States shall have the right to participate therein on fair and reasonable terms; they shall also have the right to receive the results of such activities, on the same terms, within the framework of an organized system of international co-operation.

Annex

SAMPLE ORGANIZATION OF REMOTE-SENSING ACTIVITIES

(1) The satellite may be built by one or more States. There may be co-operation in either the designing or the financing of the on-board equipment, or in both.

Launching of the satellite may be either a unilateral or a co-operative project.

(2) The stations will transmit remote commands and receive telemetry data relating to remote sensing for all the areas scanned by the satellite when it is visible to the stations.

Where the satellite has an on-board memory, one or more stations may collect all the telemetry data stored on board. The data will then be transmitted to the Regional Centres, or to the services acting as such, for distribution to users.

(3) The Regional Data Centre may be either national or international; as part of an organized system of co-operation, it will:

Receive all raw data from the stations and convert them into processed data (photographs, tapes, etc.),

Be responsible for the distribution of the processed data to those authorized to receive them (the users),

Receive from the users information on the methods of exploiting the data and ensure that the information is disseminated,

Receive from designated correspondents information on the application of the results achieved by the users (planning, resource management, monitoring of the environment, etc.),

Receive guidelines from the Co-ordination Centre concerning data distribution and transmit any useful information to that Centre.

(4) The users will:

Receive from the Regional Centre the processed data and such information on methods for exploiting those data as it collects,

Exploit the processed data in a purely national context,

Be able to call upon the services of any competent foreign body;

Transmit to the Regional Centre information concerning the methods of exploitation and the qualitative results obtained.

(5) The International Co-ordination Centre will be under the supervision of the United Nations. It will ensure that the rules for the distribution of processed data are observed and will act as a focal point for the collection of information concerning methods of exploitation and the application of results, subsequently it will distribute the information to the Regional Centres for the benefit of the various States.

The information will be distributed by means of a report which the Centre will prepare and publish at intervals to be specified.

(6) Application of the data will be the responsibility of regional or national institutions, which will employ the results obtained by the users to control resources (management, planning, inventories, monitoring of the environment, etc.).

The Regional Centres will receive information on such application (structures, effects, economic aspects).

Union of Soviet Socialist Republics: proposal
(Document A/AC.105/C.2/L.88)

Model draft principles governing the use of space technology
by States for the study of earth resources

1. Activities connected with the study of the natural resources of the earth by means of space technology shall be conducted in accordance with the principles of international law, including the United Nations Charter, and in the interests of peace and progress for all peoples.
2. States which make use of space technology for the purpose of studying earth resources undertake to respect the sovereignty of other States and, in particular, their inalienable right to dispose of their natural resources and of information concerning those resources.
3. International co-operation in the use of space technology to study the natural resources of the earth must contribute to the independent economic development of all States and be undertaken on the basis of respect by States for each other's interests.
4. A State which makes use of space technology for the purpose of studying the natural resources of the earth and which, in the course of such activities, obtains information concerning the natural resources of another State shall be required to transmit such information to the latter State on mutually acceptable terms.
5. A State which obtains information concerning the natural resources of another State through the use of space technology shall not be entitled to make it public or transmit it to third States or international organizations without the clearly expressed consent of the State to which the natural resources belong, nor shall it be entitled to use the information in any other manner to the detriment of the latter State.

France and USSR: working paper
(Document A/AC.105/C.2/L.99 of 27 May 1974)

Draft principles governing the activities of States in the field of
remote sensing of earth resources by means of space technology

1. Outer space shall be free for use by all States, without discrimination of any kind on a basis of equality and in accordance with international law, including the United Nations Charter and the 1967 Outer Space Treaty, for carrying out remote sensing of earth resources exclusively for peaceful purposes.
2. Such use shall, in particular, respect the principle of the sovereignty of States and especially the right of peoples and States to exercise permanent sovereignty over their wealth and resources as a basic element of their right to

self-determination as well as their inalienable right to dispose of their natural resources and of information concerning those resources.

3. Activities in the field of remote sensing of earth resources from outer space and international co-operation in that field shall be carried out for the benefit and in the interests of all countries, irrespective of their degree of economic or scientific development, and their results should contribute to an improvement in the balance of the natural environment.

4. A State engaged in the exploration of natural resources by means of space technology which, in the course of such activities, obtains information on the natural resources of another State must transmit such information to the latter State on mutually acceptable terms.

5.(a) Any State whose territory is affected by activities connected with the remote sensing of earth resources may, in agreement with the State conducting the remote sensing, participate in those activities on equal and mutually acceptable terms.

(b) A State which obtains information concerning the natural resources of another State as a result of remote sensing activities shall not be entitled to make it public without the clearly expressed consent of the State to which the natural resources belong or to use it in any other manner to the detriment of such State. Documentation resulting from remote sensing activities may not be communicated to third parties, whether Governments, international organizations or private persons, without the consent of the State whose territory is affected.

(c) Exception from the principle contained in subparagraph (b) above is made for information on natural disasters and phenomena which can be detrimental to the environment in general.

6. All States shall be entitled on equal and mutually acceptable terms to receive and process data resulting from activities in the remote sensing of areas situated outside the national jurisdiction of any State. They shall also be entitled to access, on the same terms, to the results of such activities within the framework of institutionalized international co-operation.

7. Every State conducting activities in the field of remote sensing of earth resources shall inform the Secretary-General thereof, in accordance with article XI of the Outer Space Treaty.

TEXT OF JOINT PROPOSAL OF ARGENTINA AND BRAZIL ON
DRAFT BASIC ARTICLES FOR A TREATY ON REMOTE SENSING
OF NATURAL RESOURCES BY MEANS OF TECHNOLOGY

The States Parties to this Treaty:

Considering that the global research of earth resources by means of space technology is an effective way of determining the existence and the location of these resources, as well as the possibilities of increasing them, with a view to cope with the growing scarcity of food and raw materials;

Considering further that the main economic assets of every State are its human and natural resources;

Convinced that the new techniques of remote sensing of earth resources, as an effective stimulus for economic and social development, will admittedly contribute to the well-being of humanity as a whole, and allow for international co-operation, taking particularly into account the needs and interests of the developing countries;

Conscious of the multiple and relevant international effects derived from the use of the technology of remote sensing of earth resources, which create legal problems that require an immediate and equitable solution in the framework of a general treaty and agreements of mutual co-operation;

Reaffirming the principles contained in the United Nations General Assembly resolutions concerning the permanent sovereignty of peoples and nations over their own natural resources, in particular resolutions 1803 (XVII) of 14 December 1962 and 2158 (XXI) of 25 November 1966;

Desiring to safeguard the exercise of the sovereign rights of States over their own natural resources;

Taking into account the principles of international law, the Charter of the United Nations and the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies;

Have agreed on the following:

Article I

National and international programmes for remote sensing of natural resources by means of space technology shall promote international co-operation and their implementation shall benefit and serve the interest of all mankind, taking especially into consideration benefits to and the interest and needs of the developing countries.

Article II

States parties shall carry out activities of remote sensing of natural resources by means of space technology in accordance with the principles of international law, the Charter of the United Nations and the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies.

Article III

Programmes for world-wide remote sensing shall take into account the need to prevent the exploitation of natural resources from causing the spoliation or destruction of the environment.

Article IV

Activities of remote sensing of natural resources by means of space technology must be based on the principle of sovereign equality of States and of the honourable fulfilment of international commitments, as well as other relevant principles of international law regarding friendly relations and co-operation among States. The principles of sovereign equality of States and self-determination of peoples embrace not only the right to internal sovereignty and independence, but also the economic aspect of the freedom to use and distribute their wealth, whereby peoples may exercise their legitimate and exclusive sovereign rights over their own natural resources.

Article V

States parties shall refrain from undertaking activities of remote sensing of natural resources belonging to another State party, including the resources located in maritime areas under national jurisdiction, without the consent of the latter.

Article VI

States parties will take all measures authorized by international law to protect their territory and maritime areas under their jurisdiction from remote sensing activities for which they had denied their consent.

Article VII

States parties which have given consent for their territory and maritime areas under their jurisdiction to be the objects of remote sensing of natural resources are entitled to participate in those activities in a manner to be decided upon by specific arrangements between the parties concerned, which will include the guarantee of technical assistance to be provided by the sensing State to the sensed State during the whole process of these activities.

Article VIII

States parties whose territory and maritime areas under their jurisdiction are the object of remote sensing of natural resources are entitled to full and unrestricted access to all data obtained through those activities.

Article IX

States parties obtaining information relating to the natural resources of another State party through remote sensing shall neither divulge such information nor transmit or transfer it in any manner to a third State, international organization or private entity, without the express authorization of the party to which the natural resources belong, nor can they utilize the information thus obtained to the detriment of the latter.

Article X

States parties shall refrain from soliciting, accepting or, in any manner, receiving from a third State, international organization or private entity, information regarding the natural resources of another State party obtained through remote sensing without the express authorization of the State party to which the natural resources belong, nor can they utilize such information to the detriment of the latter.

Article XI

States parties possessing the technological capability of remote sensing shall endeavour to assist other States parties lacking this technology in the implementation of national programmes for surveying natural resources planned by the latter.

Article XII

States parties acknowledge the right of all States to participate fully in activities of remote sensing of natural resources of territorial and maritime areas outside national sovereignty or jurisdiction, as well as the need to guarantee free access to all information obtained through these activities.

Article XIII

States parties shall be held internationally responsible for national activities of remote sensing of natural resources, irrespective of whether such activities are carried out by governmental or non-governmental entities, and shall guarantee that such activities will comply with the provisions of the present treaty.

Article XIV

Disputes resulting from activities of remote sensing of natural resources shall be resolved in accordance with the methods envisaged in Article 33 of the Charter of the United Nations.

Article XV

States parties are entitled to elaborate international agreements confirming, completing and developing the provisions of the present treaty.

Article XVI

Nothing in this treaty shall affect the rights and duties contracted by States parties through bilateral or regional agreements.

WORKING PAPER BY THE UNITED STATES ON THE DEVELOPMENT OF ADDITIONAL GUIDELINES ON REMOTE SENSING OF THE NATURAL ENVIRONMENT OF THE EARTH FROM OUTER SPACE

Possible Preambular Provisions:

Recalling the provisions of the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies.

Reaffirming that the common interest of mankind is served by the exploration and use of outer space for peaceful purposes.

Considering that international cooperation in the continuing development of technology enabling mankind to undertake remote sensing of the natural environment of the Earth from outer space may provide unique opportunities for all peoples to gain useful understanding of the Earth and its environment.

Recognizing that the most valuable potential advantages to mankind from these technological developments, including among others preservation of the environment and effective management and control by States of their natural resources, will depend on the sharing of data and its use on a regional and global basis.

Source: Statement by Ronald Stowe, United States representative to the Legal Subcommittee of UNCOPUOS Press Release USUN 10 (75) February 19th, 1975.

Possible Operative Provisions:

I. Remote sensing of the natural environment of the Earth from outer space shall be conducted in accordance with the principles of the United Nations Charter, the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies, and other generally accepted principles of international law relating to man's activities in outer space.

II. Satellites designed for remote sensing of the natural environment of the Earth shall be registered with the Secretary-General of the United Nations in accordance with the Convention on the Registration of Objects Launched into Outer Space. States shall as appropriate inform the Secretary-General of the progress of such remote sensing space programs they have undertaken.

III. Remote sensing of the natural environment of the Earth from outer space should promote *inter alia* (a) international cooperation in the solution of international problems relating to natural resources and the environment, (b) the development of friendly relations among States, (c) cooperation in scientific investigation, and (d) the use of outer space for the benefit and in the interest of all mankind.

IV. States undertaking programs designed for remote sensing of the natural environment from satellites shall encourage the broadest feasible international participation in appropriate phases of those programs.

V. States receiving data directly from satellites designed for remote sensing of the natural environment of the Earth shall make those data available to interested States, international organizations, individuals, scientific communities and others on an equitable, timely, and nondiscriminatory basis. To enhance the ability of all States, organizations and individuals to share in the knowledge gained from remote sensing of the natural environment from outer space, States should publish catalogues or other appropriate listings of publicly available data which they have received directly from such remote sensing satellites.

VI. States receiving data directly from such remote sensing satellites shall ensure in particular that data of a sensed area within the territory of any other State are available to the sensed State as soon as practicable, and in any event as soon as they are available to any State other than the sensing States. States owning such remote sensing satellites shall facilitate the direct reception of data from those satellites by other interested States when technically possible and on equitable terms.

VII. States engaged in such remote sensing programs shall within their capabilities endeavor to assist on an equitable basis other interested States, organizations and individuals to develop an understanding of the techniques, potential benefits and costs of remote sensing. Such assistance could include the provision of opportunities to learn what data are available, how to handle and interpret the data, and, where appropriate, how to apply the knowledge gained to meet national, regional and global needs.

VIII. States should cooperate with other States in the same geographical region in the use of data from such remote sensing programs, whether regional or global in nature, to promote the common development of knowledge about that region.

IX. States which undertake such remote sensing programs should encourage relevant international organizations to which they belong to assist other member States in acquiring and using data from those programs so that the maximum number of States can share in potential benefits which may result from the development of this technology.

SUBMISSION OF CANADA TO THE COPUOS SECRETARIAT ON
"POSSIBLE OPTIONS" ILLUSTRATING RIGHTS AND
OBLIGATIONS REGARDING THE THREE PHASES OF REMOTE
SENSING BY SATELLITE

Sensing phase

- (1) Complete freedom for sensing States and an absence of rights for sensed States;
- (2) A right for sensed States to be informed that their territories are being sensed, with a concomitant duty for the sensing States fully to disclose information about their programmes-but without the right for sensed States to object;
- (3) A right for sensed States to participate in programme formulation and implementation;
- (4) A right for sensed States to be informed while the sensing is taking place, and to object on the grounds that it would be contrary to the national interest to reveal certain features of their territories;
- (5) A requirement of the sensed States' consent before sensing.

Receipt of raw data and processing phase

- (1) An absence of rights for sensed States to determine whether, to whom and under what conditions raw data pertaining to their territories will be distributed for processing;
- (2) Universal and expeditious dissemination of all raw data by sensing States;
- (3) Priority of access by sensed States to raw data pertaining to their territories, involving the right to receive such data as soon as they become available to the sensing States;
- (4) Exclusive rights for sensed States in raw data pertaining to their territories, including the right to determine their distribution.

Dissemination and interpretation of processed data

- (1) Universal and expeditious dissemination by sensing States of all processed data;
- (2) Priority of access by sensed States to processed data pertaining to their territories, involving the right to receive such data as soon as processed;
- (3) Exclusive rights for sensed States to receive processed data pertaining to their territories and to determine their dissemination;
- (4) Universal and expeditious dissemination by States which have developed advance interpretation methods of information regarding such methods.

Section A

TEXTS OF DRAFT PRINCIPLES AS CONTAINED IN THE REPORT OF THE LEGAL
SUB-COMMITTEE ON THE WORK OF ITS TWENTIETH SESSION (A/AC.105/288,
ANNEX I, APPENDIX)

Principle I 1/

For the purpose of these principles with respect to remote sensing of the
natural resources of the earth and its environment: 2/

(a) The term "remote sensing of the earth" means "remote sensing of the
natural resources of the earth and its environment". 3/

(b) The term "primary data" means those primary data which are acquired by
satellite-borne remote sensors and transmitted from a satellite either by telemetry
in the form of electromagnetic signals or physically in any form such as
photographic film or magnetic tape, as well as preprocessed products derived from
those data which may be used for later analysis.

(c) The term "analysed information"* means the end-product resulting from the
analytical process performed on the primary data as defined in paragraph (b) above
combined with data and/or knowledge obtained from sources other than
satellite-borne remote sensors.

Principle II

Remote sensing of the earth from outer space and international co-operation in
that field [shall] [should] be carried out for the benefit and in the interests of

* The content, definition and necessity of the term "analysed information"
is still to be clarified.

1/ The question of the application of these principles to international
intergovernmental organizations will be considered later.

2/ The formulation "with respect to remote sensing of the natural resources
of the earth and its environment" will be reviewed in light of the title to be
given to the principles.

3/ This term is still subject to further discussion. In the view of some
delegations, it would be necessary in the future work to further define the meaning
of the words "remote sensing of the earth and its environment".

all countries, irrespective of their degree of economic or scientific development, and taking into consideration, in international co-operation, the particular needs of the developing countries.

Principle III

Remote sensing of the earth from outer space [shall] [should] be conducted in accordance with international law, including the Charter of the United Nations and the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, and the relevant instruments of ITU.

Principle IV

1. States carrying out programmes for remote sensing of the earth from outer space [should] [shall] promote international co-operation in these programmes. To this end, sensing States [should] [shall] make available to other States opportunities for participation in these programmes. Such participation should be based in each case on equitable and mutually acceptable terms due regard being paid to principles ...
2. In order to maximize the availability of benefits from such remote sensing data, States are encouraged to consider agreements for the establishment of shared regional facilities.

Principle V

Remote sensing of the earth from outer space [should] [shall] promote the protection of the natural environment of the earth. To this end States participating in remote sensing [should] [shall] identify and make available information useful for the prevention of phenomena detrimental to the natural environment of the earth.

Principle VI

States participating in remote sensing of the earth from outer space [should] [shall] make available technical assistance to other interested States on mutually agreed terms.

Principle VII

1. The United Nations and the relevant agencies within the United Nations system should promote international co-operation, including technical assistance, and play a role of co-ordination in the area of remote sensing of the earth.
- /...

2. States conducting activities in the field of remote sensing of the earth [shall] [should] notify the Secretary-General thereof, in compliance with article XI of the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies.

Principle VIII

Remote sensing of the earth from outer space should promote the protection of mankind from natural disaster.*** To this end, States which have identified primary data from remote sensing of the earth and/or analysed information in their possession which would be useful in helping to alert States to impending natural disasters, or in assisting States to deal with natural disasters should, as promptly as possible, notify those States affected or likely to be affected of the existence and availability of such data and/or information. Such data and/or information should, upon request, be disseminated as promptly as possible.

Principle IX 1/

Taking into account the principles II and III above, remote sensing data or information derived therefrom [shall] [should] be used by States in a manner compatible with the legitimate rights and interests of other States.* **

Principle X

States participating in remote sensing of the earth either directly or through relevant international organization [shall] [should] be prepared to make available to the United Nations and other interested States, particularly the developing countries, upon their request, any relevant technical information involving possible operational systems which they are free to disclose.

* Some delegations were of the view that, for the sake of consistency it was necessary to consider this principle in the light of draft principle II* and III.

** A delegation reserved its position on removing the square brackets around the words "in a manner compatible with" and on the deletion of the words "not" and "to the detriment of".

*** The meaning of this term is subject to further discussion.

1/ Should be considered in connexion with the formulation of a principle on dissemination of data or information and subject to later discussion of the terms "information" and "data".

Principle XI

[States [shall] [should] bear international responsibility for [national] activities of remote sensing of the earth [irrespective of whether] [where] such activities are carried out by governmental [or non-governmental] entities, and [shall] [should] [guarantee that such activities will] comply with the provisions of these principles.]

Principle XII

A sensed State [shall] [should] have timely and non-discriminating access to primary data obtained by remote sensing of the earth from outer space, concerning its territory, on [agreed] reasonable terms and [no later than] [before] access is granted to any third State. 1/ 2/ [[To the greatest extent feasible/and practicable,] this principle shall also apply to analysed information.]

Principle XIII

[A State [intending to conduct] [conducting] remote sensing activities of the earth from outer space shall notify the Secretary-General of the United Nations and [upon request] the States whose territory is intended to be covered by such activities [to the fullest extent feasible and as soon as practicable] of the intended launch, [nature of the] mission, duration and coverage of such activities. The Secretary-General shall publish information thus received.]

Principle XIV

[A State carrying out remote sensing of the earth [shall] [should] without delay consult with a State whose territory is sensed upon request of the latter in regard to such activity, [in particular dissemination of data and information,] in order to promote international co-operation, friendly relations among States and to enhance the mutual benefits to be derived from this activity.]

1/ The question of from which States access to and provision of data should be obtained, needs further consideration.

2/ Subject to review in the light of the discussion on access by third States.

Principle XV

[States carrying out remote sensing of the earth shall not, without the approval of the States whose territories are affected by these activities, disseminate or dispose of any data or information on the natural resources of these States to third States, international organizations, public or private entities.]

Principle XVI

[Without prejudice to the principle of the freedom of exploration and use of outer space, as set forth in article I of the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, remote sensing of the earth [should] [shall] be conducted with respect for the principle of full and permanent sovereignty of all States and peoples over their own wealth and natural resources [with due regard to the rights and interests of other States and their natural and juridical persons in accordance with international law] [as well as their inalienable right to dispose of their natural resources] [and of information concerning those resources].]

Principle XVII

[Any dispute that may arise with respect to the application of [Activities covered by] these principles [shall] [should] be resolved by prompt consultations among the parties to the dispute. Where a mutually acceptable solution cannot be found by such consultations it [shall] [should] be sought through other [established] [existing] procedures for the peaceful means of settlement of disputes mutually agreed upon by the parties concerned.]*

* Subject to review in the light of the full set of agreed principles and a decision on the legal nature of the principles.

END

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