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A Part of the Third National Conference on the Peaceful Uses of Space, Chicago, May 1963

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Foreword

Northwestern University School of Law organized a Conference on the Law of Space and of Satellite Communications, held in Chicago on May 1 and 2, 1963, as part of the Third National Conference on the Peaceful Uses of Space in cooperation with the National Aeronautics and Space Administration and other interested groups. The two-day conference was made possible by the Ford Grant for International Legal Studies and the Charles Clarence Linthicum Foundation of Northwestern University School of Law. The conference was also a regional meeting of the American Society of International Law. Professors Brunson MacChesney and John E. Coons of Northwestern University Law School were codirectors of the conference.

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Part I

THE LAW OF SPACE

Introduction to Part I

THE FIRST DAY of the Conference on the Law of Space and of Satellite Communications was devoted to The Law of Space. The purpose of this part of the program was to provide a broad perspective of the legal problems that have arisen and will emerge in the space age and to indicate to what degree informal legal thought had reached a consensus or formulated tentative conclusions as to their resolution. The interested reader will find in the following pages that the distinguished principal speakers and commentators performed their assigned tasks with imagination and perception.

Their contributions not only give a valuable picture of the existing state of agreement and disagreement but also project the possibilities of future development. One cannot have heard or read these papers without realizing how truly remarkable it is that so much has been thought and done in this existing new frontier of international law in so short a space of time. It is hoped that these proceedings, in turn, will serve to stimulate further thought and progress toward the achievement of the rule of law in space and international affairs.

BRUNSON MACCHESNEY

The Emerging Customary Law of Space

Myres S. McDougal

THE MOST INSISTENT QUESTION for any conference on the law of space today must be how the peoples of the world can best clarify the necessary general community policies, for resolution of the many important problems arising from their interactions in space, in a way which will appropriately reflect their genuine, common interests. My assignment in this conference is that of outlining a framework of inquiry in response to this question and of making a brief assessment of the degree to which peoples have already begun, through processes of customary development, to achieve an authoritative consensus upon preferred policies.

MISCONCEPTIONS

The importance of the problems in legal regulation with which we are concerned is, unfortunately, paralleled only by the pervasiveness of the misconceptions and confusions about them. Perhaps the most pervasive, certainly the most destructive, misconception is that which insists that we do not yet have any law of space at all. This particular misconception is, further, commonly accompanied by a clarion call for the assembling of a great multilateral conference to create vast new law—perhaps even to agree upon a comprehensive code for the regulation of all space activities. The enormous hold which such misconceptions have upon both popular and professional imagination could be illustrated from many different sources.

One particularly lucid illustration from popular sources is offered by a recurrent editorial in the generally more dependable New York Times. Thus, in one instance, following the launching of Telstar, the Times complained that despite all man's great technological achievements, we still have no law of space. In its words:

> Yet the cosmos today is a lawless dimension and there is no universal agreement even on so elementary a question as where space begins—no boundary

line between the region in which existing national and international law holds sway and the region in which it does not.[1]

Summarizing some of the controversies which have already arisen between states, the editorial continued:

But in the absence of space law, the cosmos bears some resemblance to a jungle. Each nation with space capabilities does as it pleases. Such license must surely become intolerable with the rapid expansion of man's capabilities in this new arena of human action and with the certain increase in the years ahead of the nations able to launch satellites, luniks and the like.[2]

A most influential illustration from professional sources is offered by Professor John C. Cooper, the dean of all air and space law scholars. As late as 1961 Professor Cooper wrote:

It is quite impossible to apply international legal principles in a satisfactory manner in any geographic area whose legal status is unknown. Today the legal status of outer space is as vague and uncertain as was the legal status of the high seas in the centuries before Grotius, in the *Mare Liberum*, focused attention on the need of the world to accept the doctrine of the freedom of the seas. . . . My own view has also long been that no general customary international law exists covering the legal status of outer space.[3]

The point I would emphasize, and will seek to demonstrate in detail, is that these misconceptions do a great disservice to what we have already achieved. They grievously undercut an existing consensus among states about a great many problems, and by their overemphasis on explicit agreement and underemphasis upon custom in the creation of international law, may make more difficult the taking of appropriate measures to achieve a still greater consensus. What these misconceptions ignore is that in any legal system formalized agreements are of much less importance in affecting the expectations of peoples about the requirements of future decision than is the whole flow of their cooperative behavior and communication in the shaping and sharing of values, sometimes called custom, in which they must perforce at least approximate a realistic common interest.

One of the dangers inherent in these misconceptions may be documented by reference to a position recently taken by the Soviet Union. In a meeting of the United Nations General Assembly Committee on the Peaceful Uses of Outer Space in April 1963 the representative of the Soviet Union, Mr. Fedorenko, as advocate for a new platform of principles submitted by his country for governing activities in space, spoke as follows:

In the Soviet Delegation's view, the aim of the declaration should be the imposition of binding legal obligations on States which would serve as the foun-

[1] New York Times, July 12, 1962, p. 28, col. 1.
[2] *Id.*
[3] Cooper, *The Rule of Law in Outer Space*, 47 A.B.A.J. 23, 24, 25 (1961).

dation of a permanent system of space law imbued with the ideas of peace and friendly relations among the peoples. In international practice, questions concerning the law of the land, sea and air were regulated by special multilateral and bilateral agreements. In the past, the rules governing such subjects as the law of the sea and diplomatic relations had taken shape very slowly, but technological and scientific progress dictated its own time-limits. The rapid development of aviation at the beginning of the twentieth century had necessitated the prompt conclusion of special agreements in that field. Now, the extremely rapid development of space technology made the legal regulation of activity in outer space even more imperative. It was sometimes contended that space law would develop by itself, through the accumulation of precedent and experience. It was doubtful, however, that in that process the law would be able to keep pace with the facts. Moreover, if reliance was to be placed on custom, there was no point to the existence of the Sub-Committee.[4]

It should be noted that this distortion of the historic role of custom in the prescription of international law principles, a distortion not uncharacteristic of the Soviets,[5] was accompanied by demands for inclusion in the proposed explicit agreement of certain new principles—such as those limiting space activities to state-owned craft, prohibiting the use of artificial satellites for collection of intelligence information, and requiring the consent of other states for many activities—which could only be wholly unacceptable to non-Communist countries and which would completely undercut other important principles which had previously been regarded by many peoples, including the Soviets, as accepted principles of international space law.

DELIMITATIONS OF GENERAL PROBLEM

It is not of course my pretense to dispose of some minor miracle whereby we can easily erase these pervasive misconceptions, and their attendant dangers, and move unerringly toward a public order of space representing only unquestionable common interest. It is, however, my strong conviction, fortified by a recent comprehensive study,[6] that we can by a more careful delimitation of our general problem and by the disciplined, systematic performance of certain intellectual tasks, indispensable to any policy-oriented inquiry, greatly increase our understanding as scholars and lawyers and perhaps increase the probability of rational community decision. The more careful delimitation of our general problem will require that we seek (1) a com-

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[4] U.N. Gen. Ass. Off. Rec., Comm. on Peaceful Uses of Outer Space, Legal Sub-Comm. (A/AC.105/C.2/Sr.17) (April 19, 1963).

[5] *Cf.* Tunkin, *Remarks on the Juridical Nature of Customary Norms of International Law*, 49 CALIF. L. REV. 419 (1961); Korovin, *Peaceful Cooperation in Space*, Int'l Aff., March 1961, p. 6 [Moscow].

[6] MCDOUGAL, LASSWELL & VLASIC, LAW AND PUBLIC ORDER IN SPACE (1963). All the remarks offered here build heavily upon this book.

prehensive orientation in the Earth-space social processes which will give rise to claims to authoritative decision, (2) an economic categorization of the probable types of particular claims to authority, and (3) a realistic perspective of the processes of authoritative decision which the general community can be expected to maintain for the resolution of controversies. The relevant intellectual tasks are interrelated and include at least the following: Clarification of the policies about particular types of specific claims which we as responsible citizens of the larger community of mankind are willing to recommend to other responsible citizens; survey of past trends in decision to ascertain the degree to which the contemporary expectations of the peoples of the world presently agree upon these policies as requirements for future decision; observation of the factors which have affected the present degree of consensus and which may affect the course of future decision; and, finally, consideration of the alternatives which may be available to us to move future decision more into conformity with the policies we recommend. I propose to attempt to indicate, of necessity quite impressionistically, the potentialities of this type of approach.

Earth-Space Social Processes

For more careful delimitation of our general problem, it is necessary that we begin, as in any legal discussion, with the facts to which authoritative decision, the law, must respond. The facts with respect to which a law of space is demanded are constituted, as was suggested above, by our most comprehensive Earth-space community process. Though in the beginning of space activity we have a community process largely confined to the Earth, we are expanding out from the Earth to the more distant reaches of space, farther and farther as technological development accelerates. Two aspects of this expanding process, easily observable in its major features, require especial emphasis: First, the continuity of the process and, second, the interdependences of all participants in it.

In a quick look at the major features of this process, it is easily observable that the people conducting activities in space are the same people who have been acting on Earth. For convenience in inquiry we may categorize effective participants as states, international governmental organizations, political parties, pressure groups, private associations, and individual human beings. It is observable also that these actors, group and individual, pursue precisely the same objectives which they have sought on Earth: they seek power, wealth, enlightenment, respect, and so on—the whole range of human values.

The situations in which activities occur continue to remain, as previously, both organized and unorganized. The greatest changes are

perhaps in the time and geographical features of interaction. One aspect of the geographical features requiring special note is that space activities occur in a domain which, like the oceans, admits of being shared by many participants with only minor physical accommodation. Space is potentially a great sharable resource which can be enjoyed by all mankind.

The base values initially employed in the exploitation are the same as those previously employed on Earth and are, despite the contemporary predominance in activity by the two major powers, widely distributed among mankind. The strategies employed by participants in the management of base values may change in modality as access to space increases, but are still conveniently categorized as diplomatic, ideological, economic, and military.

The outcomes in the shaping and sharing of values obtainable from space activity we can only begin to anticipate. The potentialities for both gain and loss are still largely beyond our imagination. Man's knowledge about his Earth and the universe have already been extraordinarily enriched. The possibilities for increased production of goods and services from new modes of communication, transportation, and weather control and from newly discovered resources can scarcely be overestimated. Similar forecasts might be made for many other values, such as health, skill, respect, and rectitude. Conversely, the possibilities of equally unprecedented loss cannot rationally be minimized: as the values acquirable in space increase, effective power dispositions on Earth will vastly change, and access to space has obviously given mankind a new capability for destroying itself.

The most obvious aspect of these possible outcomes from space activity is the high degree of their collective impact upon all peoples of the world. The interdependences in the shaping and sharing of values which have in recent decades characterized the Earth arena can only intensify with the expanding conquest of space.

Types of Claims to Authority

With this brief orientation in the most comprehensive process of interaction, we may now turn to the economic categorization of probable types of specific claims to authority. It has already been indicated that space is, like the oceans, potentially a great sharable resource which can with appropriate minor accommodations be enjoyed by all; hence the most relevant model for anticipating the probable pattern of future claims about space would appear to be our past experience with respect to the oceans and the air space above the

oceans.[7] Building upon this model, as well as upon the types of claims concerning space which have already been made or anticipated, we may suggest a categorization under the following headings:

1. Claims relating to the establishment and maintenance of a process of authoritative decision for resolving controversies
2. Claims relating to inclusive access to the domain of space—for freedom of access to space, as to the oceans
3. Claims relating to inclusive competence over, and responsibility for, activities in space
4. Claims relating to an occasional exclusive competence in space—after the analogy of contiguous zones upon the oceans
5. Claims relating to the accommodation of inclusive and exclusive competences in outer space and air space—the pseudo-problem of boundaries
6. Claims relating to minimum order—preservation of peace
7. Claims relating to minimizing losses from lesser coercions and deprivations—torts and crimes
8. Claims relating to the enjoyment and acquisition of the resources of space
9. Claims relating to the conduct of organized, enterprisory activities in space
10. Claims relating to interactions with non-Earth advanced forms of life

Process of Authoritative Decision

Shifting now to characterization of the process of authoritative decision maintained by the general community for resolving controversies about space activities, we may observe, contrary to those who can see only a "lawless cosmos," that this process is, again, precisely the same as is maintained for resolving controversies about Earth, including ocean and air space, activities. The effective power elites who have found it economic to maintain the comprehensive process of authoritative decision on Earth, which we call international law, are the same elites who dispose of effective power with respect to space activities. These effective elites include, it may require emphasis, not merely representatives of the Soviet Union and the United States, but of all territorial communities, as well as of many nongovernmental groups, such as political parties, pressure groups, private associations,

[7] For categorization of historic claims to authority with respect to ocean activities see McDOUGAL & BURKE, THE PUBLIC ORDER OF THE OCEANS: A CONTEMPORARY INTERNATIONAL LAW OF THE SEA (1962). The various analogies from the international law of the sea invoked in the subsequent sections of this paper are discussed in this book.

and so on; nonspace powers may obviously apply sanctions to space powers on Earth for securing conformity to general community prescriptions about space activities. It is not to be expected that these elites will find it economic either to establish a new process of authoritative decision or to dispense altogether with such process. Indeed, it is easily observable that for the resolution of controversies about space activities they are already making resort, as in the United Nations, to the inherited Earth process.

It is common knowledge that the principal features of this inherited Earth process—its "constitutive" features—are themselves a product of customary development, though of course with a considerable assist from the making and interpretation of great international agreements such as the United Nations Charter. These constitutive features are those which identify authoritative decision-makers, stipulate basic objectives or policies, establish structures of authority, confer bases of power, legitimize the employment of strategies or procedures, and provide for the taking of specific decisions in the prescription and application of policies. Some understanding of these features is indispensable to realistic appreciation of how much space law we already have.

The more important decision-makers in contemporary international law are still the officials of nation-states. State officials serve not only as claimants before authority on behalf of their particular communities but also, in reciprocal judgment upon each other, as prescribers and appliers of policy on behalf of the general community. International governmental organizations and their officials are, however, playing an increasingly important role, and especially in relation to space activities. Parties, pressure groups, and private associations continue to perform functions in intelligence and recommendation.

The overriding community objective for which the process is maintained is that of identifying and securing common interests, while rejecting assertions of egocentric special interest. The common interests sought to be protected are both inclusive, shared in like manner by all states, and exclusive, unique in specific modality to particular states but common in generic character to all. Both inclusive and exclusive interests embrace both minimum order (the minimization of unauthorized coercion) and optimum order (the promotion of the greater production and wider sharing of all values).

The structures of authority maintained are both unorganized and organized. The unorganized structures are in the day-to-day interactions between foreign office and foreign office, the direct confrontations of the officials of one state with those of another. The organized structures are those of international governmental organizations, such

as the United Nations, the International Court of Justice, and the specialized agencies.

The most important base of power conferred upon decision-makers, whether in organized or unorganized structures, is authority itself, in the sense of community expectations about the lawfulness of decisions. In addition to authority, international governmental organizations have all the effective bases of power—control over military forces, resources, and so on—which their member states are willing to accord them. State officials have at their disposal for support of authoritative decision the same base values they enjoy for its subversion.

Similarly, authoritative decision-makers may employ in support of public order the same familiar strategies—diplomatic, ideological, economic, and military—that are commonly employed in attacks upon it. The improvements in technology which intensify the dangers from these strategies when they are employed against community interest could conceivably also enhance their effectiveness for sanctioning purposes.

A complete itemization of the specific kinds of decisions presently authorized and employed by Earth-space constitutional process in the making and application of authoritative general community policies, about space and other activities, would include those relating to prescribing, intelligence-serving, recommending, invoking, appraising, and terminating. Though the particular modalities which are established for the taking of some types of these decisions are much more primitive than in the legislative, executive, judicial, and administrative institutions of the more mature nation-states, some provision in principles and procedures is made for all. In view of our immediate concern for the emerging principles of a customary law of space, we may focus most sharply upon the decisions by which the prescribing function is performed—with special emphasis upon the role of custom in establishing community expectation.[8]

The modalities by which the prescribing function is performed in the contemporary Earth-space arena are commonly described as two: Explicit agreement and the implicit communications of customary behavior. The importance of relatively explicit agreement is indicated not only by the recurrent calls, noted above, for the convening of a great multilateral conference to agree upon a code of space law, but also by the reasonably well developed, historic international law of treaties, designed to facilitate identification and application of the

[8] A more detailed description of the comprehensive "constitutive" process of the Earth-space arena and documentation of the assertions here made about the nature of customary international law may be found in McDOUGAL, LASSWELL & VLASIC, *supra* note 6, at ch. 1.

parties' genuine shared expectations. It is believed, however, that in the international arena, as in even the more mature national communities, the implicit communications of customary behavior play a much more important role than agreement or other deliberate formulation.

Consider, for example, the case within the United States. We all know that our "constitution" is not a collocation of words put on parchment 170-odd years ago; it is rather the contemporary expectations, the subjectivities, of presently living people about all the phases of constitutive process—about who should make the decisions, in what structures of authority, by what criteria, and so on. These contemporary expectations are affected not merely by what was said and written in the beginning but by the whole flow of communications and cooperative behavior in applications since that time. Even the simplest problem in interpretation must require recourse to many of the same features in the context that are ordinarily consulted in identification of customary law. If this is true even in a relatively mature national community, how much more true it must be in the international community, which has even less agreement upon basic charter.

The traditional formulation of the requirements for establishing customary international law is relatively simple. It is commonly stated that two essential elements are required: a "material" element and a "psychological" element. The material element is said to consist of certain uniformities in behavior, and the psychological of certain subjectivities of "oughtness" attending the behavior. The flow of past decisions suggests, however, that both these elements are highly flexible and easily adapted to pursuit of peoples' genuine expectations in context.

The uniformities in behavior considered relevant have included not only the acts and utterances of officials, both national and international, but also those of private individuals and of representatives of private associations and nongovernmental pressure groups. The amount of repetition required in the behavior has varied greatly and many different sources, oral as well as written, have been authorized for evidence of uniformities.

The subjectivities of oughtness which have been honored for transforming uniformities in behavior into expressions of authoritative expectation have related to many different kinds of norms, as from authority, morality, natural law, reason, and religion. The required subjectivities have even been found to attend behavior which in the beginning was commonly regarded as unlawful. It was in this fashion that the law of blockade and war zones was drastically changed during two world wars.

It is important to note that the "uniformity" which has been required for behavior and attendant subjectivities is not that of universality, but of generality. The explicit consent of all states has not been demanded for establishing the authority of a particular customary decision—else custom would be equated with agreement. One principal function of honoring prescription inferred from customary behavior has been to permit states to submit to external law, without too obvious affront to overblown conceptions of sovereignty.

The length of time required for the establishment of a customary prescription has, further, been related to the certainty with which contemporary expectations about the requirements of future decision can be identified. In instances in which there has been no doubt about these expectations, a very short time has been held to suffice. Thus, the doctrine of the "continental shelf," authorizing a coastal state to monopolize the subsoil riches of an adjacent shelf, was established in less than 10 years by a series of unilateral claims, made with promise of reciprocity by the claimant and without protest by others; the Geneva Convention of 1958 merely ceremonialized what many decision-makers had already accepted. Similarly, many of the rules of the road at sea were, as illustrated in the famous *Scotia* case,[9] established by reference to a very brief practice of uniform national statutes long before being embodied in international conventions. Fortunately, the new authority structures provided by the United Nations, especially in the General Assembly and in the Security Council, make it much easier today quickly and certainly to ascertain peoples' expectations about the requirements of future decision and may, hence, among their other services greatly facilitate the traditional process of customary prescription.

DISCUSSION OF CLAIMS TO AUTHORITY

With these broad outlines of a more careful delimitation of our problem to reinforce us, we may now turn to a brief, systematic examination of past decisions and future prospects with respect to the various types of probably recurrent particular problems that have been identified. In the compass available to us the most we can attempt by way of performance of the several relevant intellectual tasks must, however, be to give some indication of the general community policies we would recommend and to note the degree to which general community expectations already project these policies as requirements for decision. We consider seriatim the types of claims previously itemized.

[9] 81 U.S. (14 Wall.) 170 (1871).

1. Establishment and Maintenance of Process of Authoritative Decision

The constitutive process which presently regulates space activities is, as we have seen, an inclusive process, established largely by customary expectation. Few would suggest that this process is adequate for the needs of the new Earth-space arena, but improvements will be hard to come by because of the contention between free-society and totalitarian public orders. Important changes are more likely to come from the implicit communications of necessary collaboration than from explicit agreement.

The very specific changes presently being proposed by the Soviet Union would appear to be most destructive. The troika principle of organization which they demand for structures of authority is obviously a denial of that common interest for which constitutive process is ordinarily established. The conception of the role of custom in the prescription of international law which they presently project, as in the quotation above from Mr. Fedorenko, would equate custom and explicit agreement and give a single state a veto over the clarification of general community expectations. The conceptions of state sovereignty, of aggression, and of intervention in their much heralded principles of "peaceful coexistence" would change many of the overriding "constitutional" principles of the comprehensive process in a way greatly to favor the ultimate triumph of a totalitarian world public order. Certainly we cannot accept such changes by agreement, and it is to be hoped that they will not be forced upon us by customary development.[10]

2. Inclusive Access to Domain of Space

The overwhelmingly significant feature of space for policy purposes is of course its vastness—its boundlessness and inexhaustibility—which makes it preeminently suitable for shared used by multiple participants at a minimum cost in mutual interference. The rich outcomes in the production and distribution of values which mankind has achieved in recent decades through the inclusive enjoyment of the oceans, the airspace above the oceans, international rivers, and the polar regions clearly suggest that this newly accessible, sharable domain of space, with all of its potential riches, should be held open for the free and equal access of all peoples who can attain the necessary capabilities.

Fortunately, this recommended policy would appear today to be already, without formal convention, an accepted principle of international law. It is the policy which, since the advent of the first

[10] *Cf.* McWhinney, *"Peaceful Coexistence" and Soviet-Western International Law*, 56 AM. J. INT'L L. 951 (1962).

sputnik, has been consistently demanded by all national and international officials as well as by the most eminent private spokesmen. The states with space capabilities have uniformly projected and acted upon a claim of inclusive, reciprocal right; and even the states as yet without capabilities have participated in this practice both by sustaining, cooperative activity and by failing to protest over-flights. The policy has, further, been stated in utter explicitness by a United Nations General Assembly resolution, unanimously adopted in 1961.[11] Under these circumstances, general community expectations about the requirements of future decision would appear completely certain, and the traditional tests—both material and psychological—for the establishment of a customary prescription fully met.

Some of the provisions included by the Soviet Union in its latest draft declaration of principles for governing space activities could, as has been suggested above, gravely encroach upon this previously existing consensus. One such provision stipulates: "All activities of any kind pertaining to the exploration and use of outer space shall be carried out solely by States." [12] Another would require that "any measures that might in any way hinder the exploration and use of outer space for peaceful purposes by other countries may be implemented only after prior discussion of and agreement upon such measures between the countries concerned." [13] Still another, without even effort at definition insists: "The use of outer space for propagating war, national or racial hatred or enmity between nations is inadmissible." [14] It should be clear that responsibility for space activities can be fixed without limiting such activities only to states, that protection from extraordinarily dangerous activities in space can be secured without according every state a veto upon all activity, and that harmful propaganda can be appropriately regulated without impairing rights of access to space. The importunate demands made by the Soviet Union with respect to these matters might suggest that immediate, explicit agreement offers no brighter prospects than customary development for a clarification of genuine, common interest.

3. Inclusive Competence Over Activities

Man's experience upon the oceans would appear to suggest that inclusive rights of access to a sharable resource can be secured and protected only by an equally inclusive competence over the specific

[11] U.N. Gen. Ass. Off. Rec. 16th Sess., Agenda Item No. 21 (A/RES/1721 (XVI)) (Jan. 3, 1962).

[12] U.N. Gen. Ass. Off. Rec., Comm. on Peaceful Uses of Outer Space, Legal Sub-Comm. (A/AC.105/C.2/L.6) (April 16, 1963).

[13] *Id.*

[14] *Id.*

activities undertaken in exploitation of the resource. Indeed, even the empirical reference of "inclusive access," as historically developed, includes the notions that no state may claim the resource as its exclusive base of power, with a continuing, comprehensive, and arbitrary competence to exclude others from its use, and that all states have an equal competence to prescribe and apply policies for regulating the activities of their nationals in enjoyment of the resource.

The principles of jurisdiction developed for the relatively unorganized arena of the oceans would appear, again, to afford an excellent model for a regime of unorganized, inclusive competence in space. One set of these provides, as we have seen in the discussion of protection of freedom of access, that every state may decide for itself whether to send ships out upon the oceans and that no state may arbitrarily preclude access by another state. A second set of principles, designed to secure at least a minimum public order upon the oceans, provides that every state has competence to prescribe and apply policies in control of its ships upon the oceans and that no state may prescribe and apply policies to the ships of other states save for violations of international law. A final set of principles—designed to establish with certainty what ships belong to what states and, hence, to identify both who is responsible for the activities of a ship and who may protect it against unauthorized assertions by others—provides that no state may unilaterally question the competence of another state to confer its nationality upon a ship and that, in cases of conflicting claim, simple priority in time in conferment of nationality is to prevail.

In most of the utterances and behavior invoked above to establish a customary prescription of freedom of access to space, jurisdictional principles comparable to those which have been achieved for the oceans were either explicitly stated or assumed to be applicable for the regulation of activities in space. Hence, little, if any, further crystallization of consensus would appear to be required to permit the conclusion that these principles, too, represent established customary international law.

How much beyond the establishment of this minimum, relatively unorganized, inclusive competence for the regulation of activities in space the peoples of the world may be willing to go must be left to the future. It may be appropriate to hope, however, that no emerging consensus about space will include the newly invented notion of "genuine link" as a test for appraising the lawfulness of conferments of nationality upon spacecraft. This notion, derived from the highly questionable *Nottebohm* [15] decision about individual human beings

[15] 1955 I.C.J. REP. 4. These strictures are developed in MCDOUGAL & BURKE, *supra* note 7, at 1013 *et seq.*

and recently applied by the Geneva Convention to ships, has never been given empirical meaning in terms of rational community policy and could carry as much threat to freedom of access to space as it does to the freedom of the oceans.

4. Occasional Exclusive Competence

Just as particular coastal states have in the past found themselves uniquely and substantially threatened by activities upon the adjacent ocean and in the adjacent air space over the oceans, so also may the surface states of the Earth find themselves in the future uniquely and substantially affected by activities in space. The threats to coastal states have come from relatively proximate areas of the oceans, but have extended to all basic internal community values, such as security, health, economic well-being, and so on. The threats from space may not be so geographically limited; they may come from the most distant reaches of space, but could be equally extensive in their impacts upon internal community values.

For the protection of coastal states subjected to unique threat the general community has in recent decades under the concept of "contiguous zones" and various equivalents honored the assertion, in adjacent areas of the oceans or airspace above the oceans, of such an occasional exclusive competence in relation to the ships or aircraft of other states as is reasonably necessary and proportionate to secure certain important interests. The interests thus authorized to be protected have been regarded as open ended and have ranged from security through health measures and immigration policies to fiscal integrity. Even upon the oceans the concept of contiguity has been regarded as a relative one, and assertions of competence have been honored at different distances for different purposes, and often at a very considerable distance. Thus, during World War II countries in this hemisphere claimed a contiguous zone for security purposes of some 1,300 miles at its utmost extent, and the United States and Canada presently assert a contiguous zone for security with respect to aircraft of 1 hour's flying time from their coasts. The kinds of authority authorized to be applied have involved varying degrees of effective control, from mere requirement of identification or surveillance to seizure and destruction.

The test which has been developed in historic practice for appraising the lawfulness of particular assertions of occasional exclusive competence by coastal states has been that of reasonableness—of necessity and proportionality—as determined by the careful balancing of important variables in context. The burden of establishing reasonableness is of course upon the state asserting the competence to apply its authority to the craft of other states within the shared domain.

The factors taken into account in determinations of reasonableness have included the importance of the interests sought to be protected, the particular measures in authority claimed to be applicable to the craft of other states, the relation between the interests sought to be protected and the measures demanded, the kind of activities engaged in by the craft of other states and the interests of the other states in these activities, the relation between claimed immunities from competence and such interests, the precise location of the contested activities and the degree of their impact upon the coastal community, any conditions suggesting necessity for unilateral action, and, finally, the alternatives open to the various states for avoiding both injury and the imposition of injury upon others.

Considering the enormous threats to security and other values which space activities may impose upon particular states, it would appear highly probable that the states of the world will demand, and reciprocally honor, an occasional exclusive competence within the domain of space not unlike that which has been established upon the oceans. The consistent statements of the spokesmen of the Soviet Union with respect to what they call "spy satellites" and of spokesmen of the United States with respect to nuclear-tipped missiles or other craft would suggest such a development. Certainly, this would appear to be the most economic modality by which the inclusive interests of all states in the utmost freedom in enjoyment of space can be reconciled with the occasional unique needs of particular states to take unilateral measures for their self-protection. With respect to activities in space, the notion of contiguity as a factor for determining reasonableness will of course become largely irrelevant. By this anticipation and recommendation of customary development, we do not intend to minimize the difficulties which may ensue in making determinations of reasonableness—as, for example, in distinguishing between scientific observation and espionage. In the contemporary highly unorganized Earth-space arena, in which the states of the world cannot effectively be denied a competence to protect themselves under conditions of grave threat, there would appear to be simply no alternative. It is to be hoped that the requirements of reciprocity and the potentialities of retaliation may serve an appropriate policing function.

5. Accommodation of Inclusive and Exclusive Competences

If the general community is to authorize and protect both inclusive and exclusive competences in outer space and also to continue to recognize the relatively exclusive competence of states within their territorial airspace, quite obviously some method must be provided for accommodating these two very different types of competences

when they conflict in particular instances. The modalities presently being proposed for securing this necessary accommodation include both the establishment of a boundary, such as is still being sought between the territorial sea and the high seas, between "airspace" and "outer space" and the adoption of a functional mode of analysis, comparable to that employed with respect to contiguous zones upon the oceans and recommended above for the resolution of conflicts arising even in the most distant reaches of space, which would assess the reasonableness of particular types of activities in context and regard the geographic location of activities as only one of many variables affecting reasonableness.

The proposals for seeking accommodation by the establishment of an explicit boundary between airspace and outer space are legion, and invoke many different criteria for the location of such a boundary. The criteria most commonly invoked include interpretative derivations from prescriptions in contemporary conventions relating to airspace, the varying physical characteristics of space, the varying capabilities of flight instrumentalities, the effective power of the claimant state to assert its authority in space, and the physical limits of the Earth's gravitational effect. It is not believed, however, that any of these proposed criteria have any chance of general acceptance—for the reason that none of them bear any demonstrable relation to the common interests of the peoples being asked to accept them.

Consider for a moment what the common interests of all peoples are in the accommodation of inclusive and exclusive competences. First, there is the inclusive interest of everyone, emphasized in the discussion of access claims, in the utmost possible use and exploitation of a great sharable resource for common benefit. Second, there are the exclusive interests of all particular communities, noted in the discussion of claims to an occasional exclusive competence, in protecting themselves from unique threats and injuries from activities in space. The fullest protection of the first interest would, contrary to the various criteria being proposed, establish the surface of the Earth as appropriate boundary—an outcome no one immediately expects. For the protection of the second set of interests, no boundary, whatever the criteria invoked, can have a very great relevance. Substantial threats to particular territorial communities may come from anywhere in space and may come horizontally as well as vertically. Should every state seek to extend the boundaries of its comprehensive, continuing competence upward and sidewise in the degree it deems necessary for protecting its unique exclusive interests, the result could only be endless strife and defeat of common interest.

The one type of boundary which might make sense in common interest would be a very low, somewhat arbitrarily fixed boundary, such as the historic 3-mile limit for the territorial sea. A boundary of this type might, like the territorial sea, serve two functions: it could minimize the number of controversies which arise and it could aid in fixing the burden of proof for such controversies as do arise. Operators of spacecraft able to distinguish between the established inclusive and exclusive domains might shun the exclusive; this may of course be a very difficult judgment to make, even with a very low boundary. Similarly, if a surface state interfered with activities above the boundary, the burden could be placed upon it of justifying the reasonableness of its assertion of exclusive competence; for activities below the boundary, the burden could be placed upon the state of the nationality of the spacecraft to establish innocent passage and absence of injury. In a context, however, in which states are attempting to disturb their long established consensus on a relatively narrow territorial sea, the prospects would not appear overly bright for quick and universal agreement upon a low boundary between airspace and outer space.

Fortunately, the alternative proposal for accommodation by functional, contextual, multifactoral analysis has behind it the general community's rich experience with contiguous zones and other forms of occasional competence asserted upon the oceans. This experience would appear to confirm such analysis as a most economic mode for achieving the necessary delicate balance of inclusive and exclusive interests, with an appropriate priority for overriding inclusive interests. The requirements of mutual restraint and reciprocal tolerance inherent in the shared enjoyment of any resource would, again, appear most likely to stimulate a customary development toward adoption of this mode of accommodation so soon as states acquire the technological competence seriously to interfere with each other's space activities. The public utterances of statesmen tend in this direction and the peoples of the world are not likely to tolerate arbitrary destructiveness.

6. Preservation of Minimum Order

Man's new access to space, along with the advent of thermonuclear weapons, has increased enormously the comprehensiveness and intensity of the major coercions which may be directed against the territorial integrity and independence of states and has, hence, added vast new dimensions to the task of maintaining minimum order among the different territorial communities. The new Earth-space arena is, as was its Earth forerunner, a military arena; highly intense expectations of violence, parochial identifications, and compulsions to sacri-

fice on behalf of special interests continue to prevail. The claims to authority that are already being made parallel those previously made with respect to earth activities and exhibit two principal modalities: First, demands for the characterization of particular coercions as permissible or impermissible and, second, demands for the employment of a wide range of community sanctioning techniques in the regulation and control of impermissible coercions.[16]

With respect to the first modality of claim, that demanding the characterization of particular coercions as permissible or impermissible, a practically universal consensus has emerged, without benefit of formal agreement, that the basic distinctions of the United Nations Charter are fully as applicable to states' activities in space as on Earth. By virtue of these distinctions, it may be remembered, "acts of aggression," "threats to the peace," and "breaches of the peace" are regarded as impermissible, while "self-defense," "collective self-defense," and "community police action" are regarded as permissible. In more factual terms, coercions which create in the target state realistic expectations, as third parties might determine, that it must employ the military instrument in defense of its territorial integrity and political independence are prohibited; coercions undertaken, whether by the target state or the general community, in defense against such initial, precipitating coercions are permissible.

As indispensable as are the basic distinctions of the United Nations Charter to the maintenance of even a minimum public order in the Earth-space community, the application of these distinctions under the conditions of man's access to space must be infinitely more difficult than ever before. Some indication of this difficulty may be observed in the contemporary debate about the lawfulness of the Soviet-Cuban quarantine imposed by the United States in the fall of 1962. Many observers emphasizing various significant features of the context, such as the bypassing of the United States' DEW warning line and the expansionist objectives of the Soviets, have concluded that the United States was justified in making a proportional use of the military instrument in self-defense; other observers, emphasizing other features of the context, have come to a different conclusion. If, however, the case of the Soviet-Cuban quarantine is difficult, consider how much more difficult rational general community decision will be when the Earth is being circled by nuclear-tipped warheads, when reconnaissance spacecraft can catch the most minute details of activities on Earth, and so on. It is not my suggestion that reliance upon the

[16] More detailed discussion of these claims may be found in McDOUGAL & FELICIANO, LAW AND MINIMUM WORLD PUBLIC ORDER: THE LEGAL REGULATION OF INTERNATIONAL COERCION, chs. 3, 4 (1961).

development of a customary consensus, or any other presently known alternative, can make this problem easy of solution.

With respect to the second modality of claim, that demanding the employment of appropriate general community sanctioning techniques in promotion of minimum order, certain other distinctions must be taken. When the overriding goal of minimizing unauthorized coercion and violence across particular community lines is closely examined, it may be seen to include a variety of subgoals, such as prevention (the long-term preclusion of occasion for resort to unauthorized coercion), deterrence (short-term preclusion of resort to unauthorized coercion in contexts of immediate threat), restoration of order (the stopping or arrest of unauthorized coercion after it is underway), rehabilitation (the short-term binding up of wounds), and reconstruction (long-term efforts to affect participants and conditions in such a way as to preclude further resort to unauthorized coercion). For the more immediate, better securing of such particularized subgoals as these, the promise of customary development is of course quite limited. The appropriate promotion of such objectives must require new, explicit agreement—as difficult as it is to achieve—upon new structures of authority and new sanctioning procedures capable of employing our developing technology for defense of, rather than attack upon, public order. Should the necessary new agreement continue to be unobtainable, however, our only recourse will be to unilateral action projected in the hope of creating expectations of future uniformities in conduct. Thus, the contemporary statements by United States officials that the United States does not intend to place nuclear-tipped warheads in orbit are obviously being made in invitation to the Russians to engage in reciprocal restraint. Reciprocal restraint in minimizing one threat could, in the historic manner of customary development, expand to embrace the minimization of other threats.

7. Minimizing Losses From Lesser Coercions and Deprivations

In the future exploration and enjoyment of space it can only be anticipated that many different injuries, other than those sufficiently substantial to amount to violations of minimum order, will be imposed upon many participants in Earth-space social process. The occasions of such injuries may include the conduct of hazardous activities, disregard of safety standards, unsuccessful performance of launching apparatus, malfunction of spacecraft, and so on. In any particular instance, the injury may have been deliberately sought or may be merely an incidental or unintended outcome. The range in types of potential injury is enormous, but some of the more probable types of events arising out of space activity about which states may make

claims against other states include surface impacts, collisions, pollutions or contaminations, interference with telecommunications, and invasions of privacy.

The difficult policy issue confronting the general community with respect to probable injuries from space activities is that of balancing the inclusive interest of all peoples in encouraging the utmost possible exploration and exploitation of space against the exclusive interest of particular participants in not being subjected to unique burdens, without deriving unique benefits, from space activities. Comprehensively considered, an appropriate general community policy of minimizing losses from unauthorized deprivations would include subgoals, comparable to those noted above with respect to major coercions, of prevention, deterrence, restoration, rehabilitation, and reconstruction. With respect to all five of the types of events specified as offering possibilities of claims to authority, the general community can, fortunately, draw upon a rich experience derived from analogous situations. Though the future space problems may not be precisely the same, this experience in analogous situations does create certain expectations about appropriate future decision.

Thus, with respect to claims concerning impact with the surface of the Earth, there is the experience from the regulation of extra-hazardous activities within particular states, from air transport law, and from the recent regulation of atomic energy. The sum of this experience suggests certain trends in decision discernible with reasonable clarity: (a) Toward the imposition of absolute liability; (b) toward the limitation, by fixed maximums, of the aggregate amount of liability; (c) toward the use of money damages, rather than the injunction, as a remedy when the questioned activity is generally beneficial; and (d) toward a requirement of compulsory insurances.

With respect to claims arising from collisions, there is the experience with ships and aircraft. This would suggest that the rules of the road will be highly determinative and that liability will not be based upon conceptions of absolute liability. When fault cannot be ascertained, responsibility will probably be shared.

For claims concerning pollutions, there is a developing experience from activities upon the oceans and in airspace and the traditional national laws of nuisance. It may be recalled that in the famous *Trail Smelter* [17] case Canada was held responsible for injuries caused within the United States by noxious fumes originating in Canada. Though it did not concede liability, the United States paid a large sum to Japanese fishermen injured by its nuclear tests in the Pacific. The probability is that distinctions will be taken between different

[17] 3 U.N. REP. INT'L ARBITRAL AWARDS 1905 (1963).

types of pollutions: for ultrahazardous activities, deliberately undertaken, absolute liability may be imposed; for less hazardous, ordinarily beneficial activities the less onerous test of reasonableness from historic "nuisance" doctrines may be applied.

For claims arising from interferences with telecommunications, the processes of customary crystallization of consensus are not likely to prove adequate. Even within national communities special agencies have been required for allocation of uses, for the licensing of users, for the assignment of frequencies to specific users, and for the formulation and application of standards with respect to transmission techniques and equipment designed to minimize interferences. Future developments with respect to space activities will largely depend upon achievement of appropriate comprehensive arrangement for all uses of the radio spectrum, including those relating to space activities, and the establishment of effective structures of authority and sanctioning techniques.

The claims concerning invasions of privacy by observations from space, other than those which endanger military security, will probably get pretty short shrift. The interests of all mankind in the exploration and use of space are too great to encourage the protection of a "right of privacy" in territorial communities comparable to that which some mature societies protect in the individual.

8. Enjoyment and Acquisition of Resources

Like the resources of the Earth, the presently known or anticipated resources of space may conveniently be classified into three main categories: Spatial-extension resources, such as surfaces or voids, whose distinctive characteristic is their utility as media of transportation and communication; flow or renewable resources, which have "successively available quantities" becoming available at different intervals and are variously affected by human action; and stock or nonrenewable resources, whose characteristic is that the "total physical quantity does not increase significantly with time" and which may be either abundant or scarce.[18] Space resources of the first kind include the void of space, the surfaces of celestial bodies, and the contiguous space surrounding celestial bodies. The more important known flow resources are represented by cosmic rays, other radiations, magnetic and gravitational forces, gases, meteorites, asteroids, and the atmospheres of celestial bodies. Stock resources may include supplies of minerals or other useful materials found on celestial bodies. With

[18] The quoted words are from CIRIACY-WANTRUP, RESOURCE CONSERVATION: ECONOMICS AND POLICIES 37–38, 35 (1952), from whom the second and third categorizations are adopted.

respect to all these resources, and others still to be discovered, the two principal types of claims to authority to be anticipated, if man's experience on Earth affords a useful guide, are, first, those relating to whether or not a resource may be subjected to exclusive appropriation and, second, those relating to the modalities by which a resource, decided to be subject to such claim, may be appropriated.

It is familiar knowledge that, in response to claims of the first type, many important resources of the Earth have been held to be not subject to exclusive appropriation. Among such resources are the oceans and their riches, the airspace above the oceans, international rivers, and the polar areas. The only resources which have been generally held subject to exclusive appropriation are the indispensable components of state territory: the land masses, immediately superincumbent airspace, internal waters, and closely proximate ocean areas. The recognition has in recent times been nearly universal that, when resources technologically admit of sharing, inclusive use and competence make possible both a much greater production of all values and a more certain fairness in the distribution of values. The different decision with respect to land masses may be accounted for both by their physical characteristics, combining both spatial-extension and stock resources and exhibiting difficult natural barriers to movement, and by the whole history of the development of the family and tribe into the nation-state.

The expectations of the peoples of the world would appear, happily, already to have crystallized into a consensus, as explicit and precise as customary consensus ever is, that the sharable resources of space, like those of the Earth, are to be held free of exclusive appropriation and open to enjoyment by all on a basis of equality. The documentation of this consensus for the void of space was offered in the discussion of the claims to inclusive access. The same official spokesmen, national and international, and the same formal resolutions demanding inclusive access to the void have, however, equally demanded inclusive access and enjoyment with respect to other resources. Thus, the important United Nations General Assembly Resolution on International Cooperation in the Peaceful Uses of Outer Space, of December 20, 1961, adopted with the support of both the United States and the Soviet Union and without a single dissenting vote, reads simply: "Outer space and celestial bodies are free for exploration and use by all States in conformity with international law and are not subject to national appropriation." [19] In the light of our present knowledge, it would not appear likely that any of the resources of space, other per-

[19] *Supra* note 12. See also U.N. Gen. Ass. Off. Rec. 16th Sess., Supp. No. 17 at 6 (A/5026) (1961).

haps than some of the scarce stock resources of the celestial bodies, will be held subject to exclusive appropriation.

With respect to the second type of claim, that relating to the modalities by which a resource subject to appropriation can be appropriated, man's rich experience in the allocation of the continents of the Earth has, again, created expectations that only "effective occupation," as contrasted with discovery and symbolic annexation, can serve common interest. It is only with respect to a few isolated islands in the Pacific that symbolic activities have been found adequate to establish exclusive title. The kind of "effective occupation" historically required for establishing exclusive claim to the larger land masses of the Earth has, further, been not merely some single act of assertion of naked power but rather a continuous and comprehensive process in utilization and enjoyment. Such process has been required to include, as elsewhere summarized:

> . . . an identifiable participant taking effective control of the resource, as effectiveness may be determined by the varying characteristics of the resource and context, giving notice to the world through appropriate ceremonials or otherwise of its intent to acquire, asserting authority over the resource in its management as a continuing base of power, and employing the resource in strategies appropriate to its characteristics in the production of values.[20]

The adoption of a comparable requirement for any space resources which may be held to be subject to exclusive appropriation could of course, because of the very great difficulties which may be encountered in establishing such effective occupation, greatly reinforce the substantive policy favoring the greatest possible inclusiveness in access and enjoyment.

9. Conduct of Organized Enterprisory Activities

It is not to be expected that the peoples of the world, in their demands for new values, will stop short with the *unorganized* inclusive exploitation of space; much greater promise inheres, because of the augmentation in resources and skills made possible, in *organized* inclusive exploitation. Increasing demands can be expected for the establishment of many new international organizations, both public and private, for the direct conduct of enterprisory activities, as contrasted with mere supervision or regulation, in exploitation and enjoyment of the great sharable resources of space. This demand is already insistently being made with respect to the communication activities, which are to be subject to more detailed consideration later in this conference. The kinds of claims to authority which can be expected

[20] McDougal, Lasswell, Vlasic & Smith, *The Enjoyment and Acquisition of Resources in Outer Space*, 111 U. PA. L. REV. 521, 529 (1963).

to accompany these demands for new inclusive organizations will no doubt parallel those which have hitherto attended the establishment and operation of any international organization. They will relate to the constitution of an enterprise as a legal personality, separate from its members or agents; to the recognition of this separate legal personality by nonmembers; to the imposition of community limitations upon the objectives of the enterprise; to regulation of access by the enterprise for conduct of activities both to outer space and to the territorial domains of particular states; to the allocation and protection of base values (finances, powers of operation, privileges, and immunities); to regulation of employment by the enterprise of strategies in agreement and deprivation; to the appropriate distribution of the benefits achieved or the losses incurred by the enterprise; and to the termination of the enterprise.

The common interest of all peoples would appear to require the utmost general community encouragement of the establishment of appropriately inclusive, organized enterprisory activities. Important models for this encouragement, creating expectations of the course of future decision, can, fortunately, be found both in the vast customary, constitutional law of international governmental organizations, developed during the last century, and in the even older private international law principles, designed to promote and sustain an international economy, which protect private enterprises in their activities transcending state lines.

10. Interaction With Non-Earth Advanced Forms of Life

Many leading scientists now regard the presence of life, perhaps in strange new forms, elsewhere in the universe as highly probable. It may perhaps be conceded, without too great detriment to our general thesis, that with respect to possible interactions between man and non-Earth advanced forms of life, the historic expectations of customary law forecast future decision with somewhat less clarity than they do with respect to the other more definitely anticipatable problems we have been considering. Such expectations may not, however, be entirely irrelevant.

In considering the conceivable relevance of our Earth experience in the management of these esoteric claims, we may pose three possibilities: The non-Earth advanced forms of life may be our inferiors, our equals, or our superiors in culture and technology. If they are our inferiors, our experience with spheres-of-influence mandate or trusteeship devices, direct intergovernmental administration, and a vast variety of internal techniques in the devolution of authority and control may all become relevant. If they are our equals, our whole

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Earth experience—as unfortunate as it has been in movement toward unity—will of course continue to be relevant. If they are our superiors, the relevant decisions may not be ours to take. The problem confronting more advanced forms of life may be that of segregating and isolating us, pending our reeducation or elimination; some of man's experience on Earth might possibly be pertinent to their required choices. Our problem might possibly be that of how gracefully to commit mass suicide.

CONCLUDING REMARKS

Even so brief a résumé of contemporary expectations about probable future decision on the various types of important problems expected to arise from space activities should suffice to establish, as we made initial promise, that the critics who so clamantly bemoan the lack of a law of space are needlessly, and dangerously, destructive of existing achievement. The most comprehensive process of authoritative decision previously established for the Earth arena—the basic "constitutive" process of public and private international law—has already clearly been extended by customary consensus to the whole of the Earth-space arena, and remains as available for the regulation of activities in space as for the regulation of activities upon the oceans or elsewhere. The more fundamental general community prescriptions presently being formulated and projected by this progress for the regulation of the various types of problems, furthermore, do not depart importantly from the policies which a responsible citizen of the larger community of mankind might recommend to other responsible citizens in promotion of a comprehensive public order of human dignity. In view of these developments, the fact that some of the problems are not amenable to prescription other than by explicit agreement should not be made cause, in responsible performance of intelligence and recommending functions, for undercutting the substantial consensus already achieved on many problems without formal agreement.

Whether the peoples of the world will be able to continue to maintain a comprehensive constitutive process capable of clarifying and implementing their common interests with respect to space activities, or with respect to any other activities anywhere located, must of course depend upon many changing conditions in the whole Earth-space community process. Should the Communists prevail in the contemporary confrontation of totalitarian and free-society world public orders, they can be expected to establish a monolithic, centralized constitutive process quite unlikely to clarify human dignity values with respect to space or any other activities. In support of more op-

timistic expectations, it may, however, be noted that in recent centuries, at least, no single power or bloc of powers has been able to achieve the scientific and technological capabilities necessary to domination of the whole Earth arena and that during these centuries the oceans of the world have been established and maintained, by states having very different internal structures of effective control and authority, as a great sharable resource, open for the free and inclusive enjoyment of all peoples. Indeed, it may be emphasized that all the progress toward a public order of space compatible with human dignity values, recounted above, has been achieved despite the deep division between the totalitarian and free-society public orders and the expanding confrontation of rich and impoverished communities; the inexorable necessities of interdependence or interdetermination in shared enjoyment have exacted compromise in both ideological and material aspirations. In line with these past trends, it is hardly to be expected that in the calculable future any single power or bloc of powers will attain the scientific and technological capability of establishing a durable effective control over the whole Earth-space arena, but it can be realistically expected, as was indicated at the beginning of this discussion, that the interdependences for all values of all peoples everywhere will tremendously intensify. Under such conditions it would not appear an entirely forlorn hope for proponents of a free society to continue to seek alternatives for the promotion of a constitutive process and public-order decisions more in accord with their preferred values.

The alternatives open to us as responsible citizens of the larger community of mankind for promoting a more appropriate comprehensive law and public order for the Earth-space arena depend in measure upon who we are. For those of us who are observers or scholars—legal craftsmen outside government—the most urgent task is that of improving our intelligence procedures and activities for the better clarification of common interest and for the more effective instigation of appropriate action by both officials and private citizens at all levels in every particular community. It is our responsibility to clarify in all necessary detail the relevant goals of a comprehensive public order of human dignity, to supply the flow of information which will give peoples a clearer perception of the realities which condition their choices, and to suggest the measures which may affect peoples' identifications toward a greater inclusivity, perhaps even embracing non-Earth advanced forms of life. For those of us who are officials, the responsibility is even greater: it is that of building upon appropriate intelligence to make and implement the decisions which will move mankind more certainly toward the preferred com-

prehensive law and public order. The new technological capabilities afforded us by access to space give us, fortunately, some added hope that we may eventually be able to discharge these responsibilities.

Comments

Carl Q. Christol

In his paper Professor McDougal has referred to many areas of the law in addition to international law, including property, contracts, torts, evidence, criminal law, constitutional law, negotiable instruments in the sense that he mentioned the law merchant—in fact, the whole field of jurisprudence. He has given us a great amount to think about. My remarks will deal with four questions related to Professor McDougal comments, with which I agree almost entirely except possibly for slight differences in emphasis.

My first question is: What is going on in space? There is nothing going on in space that is not going on upon the Earth. It seems to me that space is man oriented. The same old problems will arise there that have been arising on the Earth for a long time. In addressing ourselves to the social complex in the context of outer space there is something that is new, however, and we should not lose sight of it. The new factor is the matter of tempo.

Professor McDougal commented on this. He noted in effect that, because of the rapidity with which things are happening, space and time do not have quite the same meaning for the development of the law of outer space that they had for the law of the sea. Tempo has presented some new and interesting challenges, and if we lawyers do not take into account the tempo of our times as it is affected by what is going on in space, we are surely going to be overtaken by events.

The second question is: From a strictly nationalistic point of view, should there be a law for outer space? In other words, before we get to the problem of the specific forms for international space agreements, and even before we get to the problem of customary law, which is so important here, the question must be asked: Is it in the interest of the United States to have a law of outer space? Or is it in our interest to support the existence of a somewhat chaotic condition in outer space—that is, a legal vacuum?

The answer to this depends upon our analysis of American military and scientific capability. Possibly, on an even broader scale,

it depends upon our intellectual preeminence. Although I do not pretend to have any special information, it is my impression that we in the free world are at a position in the world's scientific-technological competition which permits us to think in terms of a legal order. It seems unreasonable at this time to believe that one nation is so far ahead of the others in science and technology that it can control and dominate space, and therefore eliminate the notions of mutuality of interest and reciprocity in the peaceful use of outer space.

In short, on balance, the United States is in a very favorable competitive position in this whole area of intellectual preeminence. And as a result of this, it seems to me we can talk in terms of sponsoring and participating in a legal order for outer space.

Third, What has been and is the role of custom? As has been pointed out, you cannot get away from the subject of custom in the field of law. You cannot get away from it any more than you can live without air. Despite the protestations of the Soviets, custom is very much a part of the international decisional process and cannot be ignored in our thinking about space.

Professor McDougal has talked about claims, claims as put forth in the international community. It is true that this is a way in which custom grows and develops, and in which customary international law —which is a fundamental source of international law—operates. The claim concept recognizes that custom is a major process for the development of international law. The world community lacks an effectively centralized institutional process. At this point I might disagree just a little with Professor McDougal, who seems to hold that such a process is perhaps less primitive than I regard it. In any event, it is true that the national organization of institutions on legislative-executive-judicial-administrative bases is quite different from the situation at the international level. And, certainly, the United Nations and other international organizations are doing a great deal to formulate and put forward customary concepts. For this they are to be applauded, but there is still a very great need to continue with the development of space law through the processes of custom.

In considering the claim process one has to take into account all of the factors in the social complex—the political, the legal, the scientific, the technological, and even the spiritual—and put these together and let them work. Out of the working—the boiling in the caldron—of these factors will come a crystallization of ideas; concepts will harden, and the dross will be rejected. Customary principles will be accepted and in the course of time will be refined by rules.

But all of the claims which Professor McDougal has emphasized depend on the mutuality of relationships, on rights and duties, on

mutual self-interest, and on a certain amount of good faith. As he pointed out, the claim process works only in the context of reciprocal tolerances.

It is necessary to remember, with respect to the development of customary law, that claims are first put forth unilaterally by a nation, later by several nations, by the resource states, and finally, by the entire community. Whereas I subscribe to the point made by Professor McDougal that the entire community has to be consulted with respect to the growth of the custom and customary law, still it is important to recognize that the resource states—in this instance, the Unied States and the Soviet Union— by reason of their capabilities or conduct, their practices and activities, have a great deal of responsibility and do preponderately guide and lead in the development of custom.

Now, what do international lawyers look for when they seek to determine whether a rule of customary international law does exist? It is easy to talk about custom, but how do we ascertain in a practical way whether it exists, whether it has been recognized, and so on?

First of all, we must look at conduct—conduct in the form of practice or usage. Second, we consider the length of time that the practice has been engaged in. Professor McDougal was completely correct when he said there is no fixed requirement as to any period of time. Some writers say custom develops like a glacier, very slowly. Others say it develops gradually. Others have pointed to situations in which custom has developed rapidly. You cannot generalize; you have to look at specific conduct or activity. Custom has developed slowly in such areas as diplomatic practices, the immunities granted to coastal fishing ships, and the law merchant. It has developed rapidly where physical assets need to be used, such as in maritime rules of the road, sovereignty over air space, rights in the continental shelf, and, even, the free and peaceful uses of outer space. Rapid development has resulted where proprietary rights, as in commercial activities, and national security are at stake. Therefore, I would say with Professor McDougal that the customary law of space in these tempestuous times is developing rapidly.

Then there is the matter of frequency of occurrence—the matter of repetition. Here we can turn to the satellites that were launched during the International Geophysical Year (IGY) and subsequently. We can also observe the specific functions, principally scientific, for which such satellites were designed. By looking carefully at the practical operations actually pursued we can draw some conclusions as to the real nature of customary space law.

Uniformity of practice is another aspect. Is practice continuous and uninterrupted? Practice by whom? Here again I would agree with Professor McDougal that the practice can be that of individual persons or groups of persons as well as of states or groups of states. The practices of international organizations are also pertinent. The IGY was logistically supported by national governments, but it was certainly planned and contemplated by private persons. They had a great deal to do with the development of the orbiting of spacecraft and vehicles for so-called "peaceful purposes."

Now, in addition, there is the matter of resource states—the effort to broaden the base of resource states. When the United States has launched meteorological or weather-forecasting satellites, it has given advance notice to the entire world of the prospective dates of such launches. The United States has also made it possible for many states with limited financial resources to equip themselves with machinery and devices whereby they can monitor and participate in the read-outs that have been coming from the weather satellites. So here are the efforts to broaden the bases of participation and practice.

And certainly the United Nations—all of the nation-states participating there—have considered themselves entitled to discuss the development of customary law and to participate in its formulation.

Another problem the international lawyer has to consider in thinking about existing customary law is: Upon whom is it binding? This is something that Professor McDougal did not touch upon very specifically. It is true that there are new nation-states in the world today that say, "We came into being after your customary law was developed. And the customary law which is now in existence, to the extent that it does exist, was based upon legal principles and concepts over which we had no control and which are foreign to us." So they are occasionally suggesting that they may challenge the efficacy of customary law. This stand, of course, is being rejected, and properly so, by those who derive advantages from an orderly way of doing things, including orderly space activities.

This leads to the additional question, which was well stressed: Can major states thwart the development of international customary law? Here the Soviet Union's sovereignty begins to show through. Their concepts of peaceful coexistence, equal rights, respect for sovereignty, nonaggression, and nonintervention all point in the direction that international law—in their view—is to be produced essentially through specific agreement. To use the terms of contract law, they seem to follow the "will" theory, the concept of the express agreement, memorialized in writing; whereas the Western World seems to be following, at least in part, the "injurious reliance" theory, based upon

the concept that acts speak louder than words. Custom is a suitable source of such law.

Existing law must be found, and for customary law this presents a serious difficulty. A statute is tangible. Customary law is much less so, and therefore demands recourse to many references. One can examine the statements of publicists, the records of diplomatic instructions and negotiations, the statements of diplomats, judicial decisions, resolutions of international organizations, the practices of international organizations, municipal laws, treaties, and most importantly, the existence of observable common conduct. For the last, the searcher must always hope that such conduct is so broadly respected as to eliminate doubts as to its existence and the duty to conform.

If the existence of customary international law is assumed, there still remains the problem of conforming to it in the forum of claim. Diplomatic negotiations may result in so much persuasion that customary international law is honored. The international courts, however, have raised hard problems respecting proof of custom. In the *Asylum* case, for example, the World Court indicated that the party relying on custom must prove that a rule exists and that it is binding on the adversary party. The Court declared that it must be shown that the rule invoked "is in accordance with a constant and uniform practice by the States in question." In view of such difficulties as these, it is my view that the concept of a customary international law, possessing great utility as it does, should not be subjected to overly tendentious strictures. It should be given a fair opportunity to demonstrate the large services which it can provide to the international community.

My fourth and final question is: Do we have any tentative answers to the problem of customary law at this time? There is great reluctance among lawyers to talk about answers, so I use the qualifying adjective "tentative." The answer is assuredly yes; we do have some tentative answers.

This is to be seen in the conduct of states. This is to be seen in the writings of international lawyers. Since conduct literally cannot speak itself, one must speak for it. It is the role of international lawyers to announce the existence of customary rules of laws. They have been pointing out certain fundamental principles—not necessarily rules, but fundamental principles—of customary international law. These are to be found in writings, in conduct, and more officially in the resolutions adopted by the United Nations. The United Nations resolutions, which have sometimes been referred to as soft laws, as opposed to hard laws in the treaty sense, do, I think, reflect the situation with respect to customary international law at the present time.

In conclusion I will point up what I consider these customary principles, promulgated unanimously by the General Assembly, to be. The first principle is that outer space is to be used for peaceful purposes. This raises an important question as to the meaning of "peaceful." The position taken by our own State Department is that peaceful means a use which is nonaggressive and beneficial to mankind. Therefore, it would appear that there can be peaceful nonaggressive military uses of outer space. The current uses of space would seem to come within the category of peaceful. Certainly the definition of peaceful, whatever it may ultimately be, is going to be the product of political-legal thinking. It will be the product of customary law no less than express agreement.

Second, it is quite clear that the free use of space for exploration and for peaceful purposes has worked its way into customary international law. Further, I think the resolutions of the United Nations, particularly Resolution 1721 (XVI) of 1961, indicate there may be no national appropriation of outer space or of celestial bodies. And also, this particular resolution requires that space be governed by international law and by the U.N. Charter. Here it seems to me are the principles that have been developed by a customary process.

This is not to say that the Soviets, as the other major resource state, have completely agreed with other states as to the detailed meaning of such principles. As Professor McDougal pointed out, they have been attacking the notion that space operations may be carried out by private corporations. They are opposed to Telestar's private status and to the United States Communications Satellite Corporation, which I judge most of us would consider to have certain private aspects at least. They are hostile to the notion of propaganda being carried out in space, and seem to make some implied threats in terms of reciprocity when they interject the problem of racial ideas into the propaganda field.

Further, they have been inclined to argue that "espionage," that is, collection of intelligence data in a state by satellites, is contrary to international law. I think this is highly debatable. It may be that espionage is contrary to national law. Whether international law takes a stand on this use of space, I am inclined to doubt. But at least the Soviets are trying to work these ideas into the customary caldron, and past the rejection process of custom. At the same time, by attacking custom, they are making it difficult, as I see it, for the basic principles of Resolution 1721 (XVI) to be extended and enlarged.

If we can agree that there are some of these principles in existence—at least tentatively—then the next step is to derive rules from these principles; for instance, to work out the specific agreements with respect to liability and the return of individuals in spacecraft that fall within one country while carrying the flag of another country.

The "Freedom" of Outer Space: Some Problems of Sovereignty, Control, and Jurisdiction

John A. Johnson

OUTER SPACE IS NOT A LAWLESS DOMAIN. This is true despite the alarms raised by some who seem to think that the absence of international agreements legislating a new code for outer space signifies a total lack of law and order in that new sphere of human activity.

As we become accustomed to the prospect of man's exploration and utilization of outer space, and as we see more clearly the great diversity of space operations—scientific, commercial, and military—I think there is a growing awareness that the existing international legal order embraces outer space and all of man's activities there. The legal framework within which space activities have been conducted is by no means a static one. It has been steadily growing and evolving from the time of the first satellite launching.

The element of this legal structure which first excited the interest of commentators is the relation of space activities to the principle of territorial sovereignty. The rule of territorial sovereignty in the airspace became firmly established as the direct result of World War I and the world's first experience with the potential power of military aviation. The Convention for the Regulation of Aerial Navigation signed at Paris in 1919 proclaimed the "complete and exclusive" sovereignty of each state in the airspace over its territory. This rule was restated in Article 1 of the Chicago Convention on International Civil Aviation of 1944. Although the Soviet Union is still not a party to the Convention, it has asserted by its statutes, and has vigorously enforced, claims to absolute sovereignty in its airspace.

"Airspace" is undefined in the Chicago Convention, and the Convention places no limit on the upward extent of territorial sovereignty. Although it is inconceivable that the Convention was intended to assert an infinite extension of sovereignty, the fact remains

that no nation has yet agreed that the airspace above its land and territorial waters has any definite upward limit.

International law recognizes the right of each nation to exclude from its "airspace" any object or activity whatsoever, regardless of its use or purpose. It is on the foundation of this unqualified power of exclusion residing in the territorial sovereign that the various nations have erected the present structure of bilateral and multilateral aviation agreements which determine the conditions on which entry into and the use of a nation's airspace are permitted.

Prior to the launching of the first Earth-orbiting satellites, it had become apparent that the absence of agreement on the upward extent of the space which is under the exclusive control of the underlying state presented a potential legal problem. If territorial sovereignty were to be regarded as reaching to the altitudes at which orbital flight took place, space activities could be conducted only on the same basis as aviation, namely, by the explicit consent of every nation over whose territory the spacecraft passed.

With this background in mind, the actual behavior of both the space powers as well as all the other members of the community of nations during the past 5½ years is most significant. Neither the United States nor the Soviet Union proceeded on the basis of obtaining prior consent of other states in the conduct of their space activities. Beginning with the launching of the first sputnik in October 1957, during the International Geophysical Year, numerous Earth-orbiting satellites launched by both the United States and the Soviet Union have repeatedly passed over the land and territorial waters of every nation on Earth. No permission was sought in advance by the launching state, none was expressly given by any other state, and not a single protest has been registered by any state to the overflight of spacecraft during these 5½ years. The conclusion seems inescapable that the nations of the world have not regarded territorial sovereignty—that is, their power of unilateral exclusion—as extending as high as the point at which the orbiting of these satellites has occurred.

It is not necessary, however, to conclude from this that territorial sovereignty embraces, or should embrace, all of the space below the lowest altitude at which satellites have orbited. A wide variety of proposed solutions to the so-called boundary problem have, in fact, been put forward by commentators writing on the subject; and I shall have more to say about this subject later. At this point, however, I wish to emphasize that neither the United States nor the Soviet Union has made any proposal for an international agreement dealing with this problem, nor has it been the subject of systematic study in the United Nations. Rather, the emphasis up to the present

time has been on establishing a rule of freedom in outer space, and on recognizing that no portion of outer space, wherever the border between it and territorial airspace may be, is subject to the exclusive control of the underlying state.

In June 1959, the first United Nations committee to deal with outer-space matters, the Ad Hoc Committee for the Peaceful Uses of Outer Space (in which the Soviet Union did not participate), included the following statement in its report:

> During the International Geophysical Year 1957–1958 and subsequently, countries throughout the world proceeded on the premise of the permissibility of the launching and flight of the space vehicles which were launched regardless of what territory they passed "over" during the course of their flight through outer space. The Committee, bearing in mind that its terms of reference refer exclusively to the peaceful uses of outer space, believes that, with this practice, there may have been initiated the recognition or establishment of a generally accepted rule to the effect that, in principle, outer space is, on conditions of equality, freely available for exploration and use by all in accordance with existing or future international law or agreements.

The Ad Hoc Committee was aware, of course, of the so-called boundary problem. Noting that "under the terms of existing international conventions and customary international law, States have complete and exclusive sovereignty in the air space above their territories and territorial waters," the Committee made the following observation:

> The current existence of a region in space which is not subject to the same regime [as air space] raises such questions as where air space ends and outer space begins. It was noted that these limits do not necessarily coincide. While they have been much discussed in scholarly writing, there is no consensus among publicists concerning the location of these limits.

The Committe concluded by recording the general belief of its members "that the determination of precise limits for air space and outer space did not present a legal problem calling for priority consideration at this time.

In the period following the Committee report, the United States and the Soviet Union continued their satellite launchings with increasing frequency, without seeking the prior consent of other states, and without encountering any objections to their overflight. When the subject of outer space again came before the United Nations in December 1961, the tentative tone of the Ad Hoc Committee was replaced by a forthright declaration. Without a single dissenting vote, the United Nations General Assembly adopted, on December 20, 1961, a resolution dealing with space activities which contains the following:

> The General Assembly . . .
>
> 1. Commends to States for their guidance in the exploration and use of outer space the following principles:

(a) International law, including the Charter of the United Nations, applies to outer space and celestial bodies;

(b) Outer space and celestial bodies are free for exploration and use by all States in conformity with international law and are not subject to national appropriation. . . .

The General Assembly's resolution did not attempt to define "outer space." In commenting on this aspect of the subject prior to adoption of the resolution, Ambassador Stevenson remarked:

The members of the committee will note that we have not attempted to define where outer space begins. In our judgment, it is premature to do this now. The attempt to draw a boundary between air space and outer space must await further experience and a consensus among nations.

Fortunately the value of the principles of freedom of space and celestial bodies does not depend on the drawing of a boundary line. If I may cite the analogy of the high seas, we have been able to confirm the principle of freedom of the seas even in the absence of complete agreement as to where the seas begin.

The problem, however, it not "where outer space begins" but where the upward reach of the exclusive power of the underlying state ends. Under the existing state of the law, there is an area of space extending upward from the surface of the Earth for an indefinite distance which is controlled solely by the state below, with the unqualified power of excluding others from its use. While it is safe to conclude that this area does not extend so high as to include the orbital paths of satellites, there is no agreement that it terminates at any lower altitude.

If the legal situation were to be left in this condition, it is doubtful that it would provide a satisfactory basis for assuring the freedom of space exploration during the coming years. If we are to achieve the goal so clearly enunciated by our spokesmen in the United Nations—namely, that man should enjoy the freedom to explore space just as he has been free to venture forth on the high seas—international law must recognize appropriate limitations on the "closed" space which is under the exclusive control of each underlying state.

If we were concerned solely with the actual orbiting of spacecraft about the Earth, there would be no problem. The problem exists, however, because all spacecraft, before injection into orbit, must first be launched through the airspace. Likewise, all space missions involving reentry and landing—and here is where manned space flight dominates the scene—require that the spacecraft move back through the airspace on their return to Earth.

In the case of manned space flight, both the initial phase of launch and injection into orbit and the terminal phase of reentry and landing involve traverses of considerable distance, horizontally measured, at altitudes less than that at which orbital flight occurs. Typically, the terminal phase follows a "flatter" flight path, covering a greater horizontal distance, than does the initial phase of manned space flight.

Project Mercury demonstrates the point. At the time of firing the retro-rockets which initiate reentry, the astronaut is at an altitude of about 100 miles, approximately 2,600 miles from the intended point of landing. In the first 2,000 miles after retro-fire, the astronaut comes down to an altitude of about 50 miles. While descending to an altitude of 25 miles, he moves another 550 miles horizontally and reaches a point only 50 miles from his destination. Thereafter he descends very rapidly; and by the time he comes down to an altitude of 10 miles, he is over the landing site and making a vertical descent.

As we proceed beyond Mercury with the Gemini and Apollo spacecraft, more extended and flatter reentry flight paths are clearly foreseeable. It now appears that the manned vehicles which will be developed over the next 5 to 10 years will reenter the atmosphere rather steeply, level out, and glide at altitudes ranging from about 25 to 60 miles for distances perhaps as great as 7,000 to 10,000 miles before landing. Such flights inevitably will pose the question of whether the permission of any or all of the states underlying the reentry flight path must be obtained because of the altitude of overflight.

I mentioned earlier that a wide variety of proposed solutions to the so-called boundary problem have been put forward by commentators writing about the subject. These proposals, in the main, have suggested boundaries derived from the physical characteristics of the aerospace environment. For example, it has been suggested that the territorial airspace should be defined as extending as high as flight on purely aerodynamic principles is theoretically possible, which is believed to be at an altitude of about 50 miles. It has also been proposed that the line of demarcation be set at the lowest altitude at which orbital flight of a satellite can occur.

It seems clear, however, that the problem of delimiting the territorial air space is essentially a political one which will not be solved in this manner.

The X–15, the latest of our research airplanes, provides a good starting point for an appreciation of the problems involved in trying to draw a line on scientific or technological grounds between airspace and outer space. Although the X–15 is an aircraft in that it has wings and is supported in flight by aerodynamically generated lift, it is also capable of semiballistic flight. Its maximum altitude for sustained level flight is around 125,000 feet at a speed of about Mach 7. In semiballistic flight, however, it can achieve altitudes in excess of 50 miles; and at the peak of such a climb, it may be said to be in a purely ballistic flight for a short period of time.

The difficulties are not reduced by an examination of the characteristics of Earth-orbiting satellites. Any attempt to solve this problem

by reference to the lowest altitude above the Earth's surface at which an artificial satellite may be placed in orbit raises at least two questions. First, what kind of a satellite are we talking about; and second, what kind of an orbit are we talking about?

It appears that 90 to 100 miles is probably the lowest altitude at which satellites of the average size and density of those which the United States has launched to date can be placed in a purely circular orbit and accomplish at least one revolution about the Earth. These satellites are of very lightweight construction, having only about one-tenth the density of water. However, as we increase the density of the satellite, we lower the altitude at which it is capable of orbital flight. For example, it has been estimated that a tenfold increase in density over that of our present satellites would probably reduce the minimum altitude for a purely circular orbit by some 15 miles or so.

With respect to the nature of the orbit, it is evident that a satellite in an elliptical orbit may come closer to the Earth at perigee and still accomplish a single revolution than is possible for the same satellite in a purely circular orbit.

A long-range object of advanced research and technology in the aerospace field is to develop the capability of moving freely from Earth to outer space and back again to Earth with a single craft capable of utilizing aerodynamic flight, ballistic flight, and orbital flight. The achievement of this goal will demonstrate in the most convincing manner that there is in fact an air-space continuum, and that it is not possible to arrive at a useful solution of the so-called boundary problem on the basis of the difference between the regimes of aerial flight and space flight or by reference to the physical characteristics of the aerospace environment.

All such efforts are, in fact, somewhat akin to setting the boundary between the high seas and territorial waters by reference to the height of waves, the strength of ocean currents, or the depth of the sea, or by seeking to determine the maximum distance from shore that certain types of small craft might safely venture. Just to state such an analogy is, of course, to demonstrate how useless and irrelevant such criteria would be to the national and international interests involved in such a determination.

The boundary problem, however, does not disappear with recognition of the fact of the air-space continuum. Resorting again to the analogy of the sea, it is obvious that the ability of the same vessel to sail close to shore and in the middle of the ocean, utilizing with equal facility the territorial waters and the high seas, has never suggested that there should be no definable limit to the exclusive power of the littoral state, even though agreement on such a limit

is difficult to achieve. In fact, strenuous efforts have been made by the United States and other nations in recent years to reach agreement on such a limit.

Similarly, the prospect that a single craft may eventually operate at all altitudes in the air-space continuum does not mean that there is no need to limit with precision the exclusive power of the underlying state. In fact, it probably emphasizes the need for an eventual solution. It might be preferable, however, not to refer to this delimitation as a "boundary" between airspace and outer space, as those terms seem to imply a distinction based on physical characteristics, such as attentuation of the atmosphere, minimum orbital altitude, maximum altitude for aerodynamic lift, and so on.

Incidentally, the confusion resulting from the misplaced emphasis by many commentators on physical characteristics and technological criteria in seeking a solution of the boundary problem quite naturally led to a reaction by others that went to the opposite extreme of denying the problem altogether.

I am certainly not suggesting that it would be easy to reach agreement on the upward reach of territorial sovereignty, or even that the time is ripe to make a serious effort in that direction. Nor do I suggest that such an agreement would assist in distinguishing between what space activities should be permitted and what should be prohibited in outer space. An agreed upward limit on territorial sovereignty would not mean that activities which threaten peace and security are to be tolerated in outer space, nor would it mean that a state would not be free to take legitimate self-defensive measures in relation to activities in outer space. The extent of territorial sovereignty is obviously not the criterion for such matters; the right of self-defense is not confined to actions within the defending nation's own territory.

While the concept of freedom has provided the dominant theme in the development of the law of outer space up to the present time, it by no means stands alone. There is another key term in our developing space law vocabulary: "control."

You will recall that the General Assembly resolution speaks of freedom "in conformity with international law." Ambassador Stevenson, in his remarks in support of the resolution, did not spell out what the restraints imposed by international law might be. However, the Deputy Assistant Secretary of State for International Organization Affairs, Mr. Richard Gardner, took a cautious step in that direction in his remarks to the Section of International and Comparative Law of the American Bar Association in August 1962. He said:

> The U.N. program takes international law and the U.N. Charter as the standard for space activities. Mankind would thus be free to use space on the same

basis as it uses the high seas—free of any restraint except those on illegal activity such as aggression and exclusive use. This formula is designed to promote the maximum exploitation of space technology in the service of human needs. It is designed to prevent space and celestial bodies from becoming the objects of competing national claims.

The records of the meetings of the U.N. Committee on the Peaceful Uses of Outer Space are a fruitful source of material in pursuing this theme of freedom and control. In addressing the Committee in March of last year, the U.S. Representative, Ambassador Plimpton, after referring to the orbital flights of Colonel John Glenn and of the Soviet astronauts Gagarin and Titov, said:

It is up to us to ensure that the freedom of space first enjoyed by those intrepid explorers will remain unchallenged for all who follow them.

He went on to describe the principles of the General Assembly's resolution as forming, in his words, "the basic foundation of a legal regime for outer space," and said: "They represent a forward-looking expression by the Assembly that outer space is indeed the province of all mankind."

When the time came for the representative of the Soviet Union to speak on the subject, he introduced some different terms, saying:

The principles which have already been approved by the General Assembly signify, in our view, that the activities of the States in outer space research should be conducted in keeping with the recognized principles of peaceful coexistence, sovereignty, equality, and noninterference in domestic affairs.

And then a new note comes into the dialogue. The Soviet representative went on to say:

. . . we believe that the juridical subcommittee and our Committee, too, should and must prepare provisions which would make it possible to control outer space, and which would prohibit such experiments as might have a negative influence on research conducted by other countries—research in the interests of mankind—or which would create any kind of impediment or obstacle to exploration or utilization of outer space for peaceful purposes by other countries.

At the meeting of the Legal Subcommittee of the United Nations Committee on the Peaceful Uses of Outer Space in Geneva in June 1962, the Soviet Union submitted a document entitled "Draft Declaration of the Basic Principles Governing Activities of States Pertaining to the Exploration and Use of Outer Space." Two of its provisions are of particular interest in connection with our subject of the freedom of outer space. The first of these, paragraph 6 of the draft declaration, reads as follows:

Cooperation and mutual assistance in the conquest of outer space shall be a duty incumbent upon all States; the implementation of any measures that might in any way hinder the exploration or use of outer space for peaceful purposes by other countries shall be permitted only after prior discussion of and agreement upon such measures between the countries concerned.

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The Soviet proposal was accompanied by a strongly worded attack on the United States, with particular emphasis on the announced intention of the United States to carry out high-altitude nuclear explosions over the Pacific Ocean. The summary record of the meeting of June 7, 1962, attributes the following to Professor Tunkin, the Soviet representative:

> The conquest of outer space raised another important problem, the solution of which would do much to further international cooperation. He regretted that the United States Government had not, despite criticism, stopped such experiments as the scattering of copper needles and high-altitude nuclear explosions, the effects of which might impede the use of outer space by other countries and be extremely dangerous. Cooperation in outer space was the duty of all States, and it was therefore quite clear that actions by a State which might hinder the exploration or use of outer space for peaceful purposes by other countries could be permitted only by agreement between the countries concerned.

The United States firmly opposed the Soviet proposal as an attempt to introduce the veto into outer space activities, since it implied that no state could carry out a space project if objections were raised by one or more other countries that might consider themselves "concerned." The United States has not failed, however, to recognize the problem presented by a particular use of outer space which may interfere with or have undesirable effects upon other uses of, or scientific experiments in, outer space. The United States position was stated in December 1962 at the United Nations by Senator Gore, U.S. Representative to the General Assembly of the United Nations, in these words:

> The United States believes that nations which conduct activities in outer space should take all reasonable steps to avoid experiments or other activities which seriously threaten to deny or to limit the use of outer space to other nations. This is consistent with well-established principles of international law. We encourage prior international discussion concerning experimental activities in space which may have undesirable effects, and we are prepared in the future, as in the past, to consult with scientists of other countries as well as United States scientists wherever practicable and consistent with our national security.

The testing of nuclear weapons in outer space is a special case involving considerations going far beyond the freedom of outer space itself. Without question, nuclear explosions in outer space may have serious adverse effects upon the conduct of both manned and unmanned space activities at certain altitudes. The remedy, however, cannot be found in a simple prohibition of nuclear explosions in outer space while the testing of nuclear weapons in the atmosphere is permitted to go on unchecked. Whatever the undesirable consequences of nuclear explosions in outer space may be, they are relatively less

harmful in their total cumulative effect than nuclear explosions in the atmosphere.

The possible adverse effects of high-altitude nuclear explosions on space activities is but one of many reasons for attaching the greatest urgency to the achievement of an effectively policed prohibition of all nuclear weapons testing. Until that is accomplished, the decision on whether to utilize outer space for this purpose will be made in each instance by the individual state concerned on the basis of its own evaluation of the security interests to be served in relation to the possibly detrimental effects on certain other uses of outer space. It will obviously be unacceptable to permit a single nation or group of nations to exercise a veto over the testing of nuclear weapons in outer space so long as testing in other environments remains uncontrolled.

The other provision of the Soviet Draft Declaration of Basic Principles submitted at the Geneva meeting which is of particular interest is paragraph 8, which reads as follows:

> **The use of artificial satellites for the collection of intelligence information in the territory of foreign States is incompatible with the objectives of mankind in its conquest of outer space.**

The United States responded to this provision by pointing out that international law in no way prohibits the observation of objects situated inside a country's territory from a point outside of that territory, and that observation from outer space is no exception to the general rule. In April 1963 Mr. Meeker, the United States representative to the Legal Subcommittee, in an address at Montreal reiterated the United States position that observation from outer space, like observation from the high seas or from airspace above the high seas, is consistent with international law. The fact that observation satellites have military as well as scientific and commercial applications provides no basis for objection to them, Mr. Meeker said.

In the statement of United States policy made by Senator Gore at the United Nations in December 1962, he reaffirmed the view of the United States that outer space should be used for peaceful purposes only. Defining "peaceful" purposes as those which are "nonaggressive and beneficial," he said:

> **The question of military activities in space cannot be divorced from the question of military activities on earth. To banish these activities in both environments, we must continue our efforts for general and complete disarmament. Until this is achieved, the test of any space activity must not be whether it is military or nonmilitary, but whether or not it is consistent with the United Nations Charter and other obligations of international law.**

In the Geneva disarmament conference, the United States has proposed that there be prohibited, in the very first stage of the disarma-

ment process, the placing in orbit of weapons capable of producing mass destruction, and that limitations be imposed on the production, stockpiling, and testing of boosters for space vehicles. States conducting launchings of space vehicles would be required to provide timely advance notification of such launchings to other states and to the International Disarmament Organization in order to permit prelaunch inspection of the space vehicle or missile to be launched. The International Disarmament Organization would also establish and operate any arrangements necessary for detecting unreported launchings.

In addition to seeking an agreement along these lines that would prevent the extension of armaments to outer space, the United States repeatedly has made it clear that it has no intention of placing weapons in outer space unless compelled to do so by actions of the Soviet Union; and the United States has called upon the Soviet Union likewise to refrain from taking steps which will extend the arms race into outer space.

It is obvious that in the field of space activities the concept of "control" embraces a wide range of possible prohibitions and restraints. Some would advance the freedom of space exploration and exploitation, and others would virtually annihilate it. Freedom, of course, is never totally unrestrained in any ordered society, and the freedom to explore and use outer space is no exception. The freedom of which the General Assembly resolution speaks is, I believe, freedom from the claims of individual states, based on concepts of territorial sovereignty, to prohibit or exclude, by unilateral action, the use by others of outer space—freedom from the power of an individual state to exclude others from enjoyment of this great new resource. In other words, the resolution is intended to make it clear that outer space is not subject to a legal regime like that of the territorial airspace.

The resolution does not, however, mean that a state is free to use outer space in such a manner as to preclude its use by others. It would be of little worth to secure the freedom of outer space and celestial bodies from individual claims of "national appropriation," as proclaimed by the General Assembly resolution, if enjoyment of that freedom could be destroyed by the use which a single state might make of it. Neither does the resolution imply that space activities shall never be subjected to restraints imposed by the collective action of the community of nations in the interest of a greater freedom for all. Controls properly designed and rightly administered should have the effect of freeing space for scientific exploration and beneficial uses while, at the same time, freeing the peoples of the world from the fear that their own safety is being jeopardized by space activities.

Comments

Spencer M. Beresford

Certainly, I should agree in general with the emphasis placed by Professor McDougal on the applicability and the importance of customary law in relation to space activities. I further agree with him and Mr. Johnson that outer space is not "a legal vacuum." On the other hand, it is not a plenum either. Of course, international law in general is not a plenum by any means, but I would like to think that it is a seamless web. And while I agree that the ultimate structure of space law will be stronger if it is built on existing foundations, there are many gaps to be filled. It may not be a vacuum, but it is nonetheless full of holes. Whether these gaps are filled by explicit agreement or by custom really does not make very much difference.

International law has grown in both ways, by custom and by agreement, and they frequently work together as well as against each other. There are many substantial doubts concerning the applicability or appropriateness of particular principles or rules, whether customary or explicit, to space activities. Furthermore, the fact that outer space is not an absolute legal vacuum, or that particular rules of international law could apply to space activities, does not make a convincing argument against attempting international unification of law relating to space activities.

In this connection, I think a distinction ought to be made between customary international laws as a set of rules, as something that could be stated in terms of propositions relating to practices in the past, and, on the other hand, the process of formulating rules through practice and custom and acquiescence. At the beginning of his discussion Professor McDougal seemed to me to be using the term mainly in the first sense, as a set of rules. And what he said is, I think, valid in that sense. But perhaps even more important is the process of rule formation, the establishment of principles relating to space activities through current and future practice and custom.

Both Professor McDougal and Mr. Johnson spoke about Soviet attitudes and practices in customary international law and space activities. I would like to make several additional remarks on that subject.

To go back a little, I think Professor McDougal characterized the United States and the Soviet Union as the "resource states," or the "main resource states," meaning, I suppose, the chief nations participating in space activities at the present time. We should be careful not to assume that these will be the only two spacefaring nations in

the future. Several of the advanced nations of Western Europe have made plans and, in fact, are beginning to make preparations for their own entry into space activities, and by no means will or should be left out of the formation of space law, whether by explicit agreement or by custom.

Another matter is the role of such so-called principles as peaceful coexistence and equality, and the like. These phrases are not used in relation to space activities alone. They have been used in many other contexts by the Soviet Union and by other Communist nations. We should know that these phrases do not mean the same things that they would mean if we used them. We should also know from experience that the role of these phrases is not simply negative—to deny the existence or validity of customary international law, for example—but is also to substitute new concepts and new categories for those which are now traditional.

Of course, the Soviets do not recognize the binding character of customary international law. They regard it as a historical instrument of domination and exploitation of other peoples by the bourgeois, imperialist governments that dominated the scene at the time most of this law was formed, and by their ruling classes, particularly those of Great Britain.

This does not mean, of course, that the Soviet Union disregards custom and practice as a creative force in forming international law. On the contrary, what Mr. Johnson said about the Soviet view of United Nations resolutions—that they were regarded as very soft law, or mere recommendations until they were acted upon and given substance by custom and practice—shows that the Soviet Union does respect custom and practice as a creator of law, but only if it is current or future custom and practice, and only, of course, if the Communists themselves are active in the process.

The Soviet attitude toward customary international law, regarded as a set of rules formed in the past by practice and acquiescence, is not very different from some of the attitudes that have been expressed by colonial peoples, or recently colonial peoples, such as the Indians. An article by S. N. Guha Roy in the American Journal of International Law in 1961 brings out this point. His view, reminiscent of the Soviet view, is that the set of rules formed mainly by the imperialist nations in previous centuries is not binding on peoples who had no part in this formation. This view is extreme but, obviously, it has some basis, and even more obviously it must be taken into account. We must deal with it not only by insisting that customary legal principles and rules in international law are valid and should be binding on others, as we regard them as binding on us, but by continuously pointing out and demonstrating their current relevance and justification, and by con-

tinuously modifying, extending, and adapting them by practice or custom or explicit agreement in the light of changing conditions.

Now I would like to consider more specifically the present legal regime of outer space. It has been said that the absence of requests for permission to put spacecraft into orbit and the absence of official protests against the orbiting of spacecraft above national territory demonstrate the speed with which customary law can develop. This conclusion embodies a number of assumptions that I am not sure are correct, by any means, about the status of customary international law on this point.

It can be argued that there was never any need for such a rule of customary international law—that is, a rule that outer space is free to all nations for all uses, or for peaceful uses, or what have you, along the lines of United Nations Resolution 1721. I would not say, myself, that such a rule was created by the United Nations resolution, nor would I say that it was created by the practice which was initiated with the orbiting of Sputnik I and has been continued since by the United States and the Soviet Union.

For it can be argued that satellite flights simply did not violate existing international law, either customary or explicit. As to explicit international agreements, the argument would run that nothing prohibits this sort of activity. No general international agreement exists that would prohibit it, other than the Chicago Convention, and space vehicles, although flight devices, are clearly not "aircraft" within the meaning of the Chicago Convention, particularly article 8 relating to pilotless aircraft.

As to customary international law, the argument, which is necessarily historical, becomes so complicated that it cannot be treated in a short time. Suffice it to say that if we go back to the early days of the formation of air law in the late 19th century—the days of Fauchille, for example, and Westlake—the assumption was that the air, like the high seas, was necessarily free in a sort of philosophical sense, and should also be free as a matter of policy. It was not until the experience of World War I, when, of course, the threat from the air became obvious—the threat to national security and commercial interests—and the economic nationalism which developed after World War I, that the principle of air sovereignty became a fundamental part of international law, by explicit agreement in the Paris Convention. That provision, which was incorporated word for word in article I of the Chicago Convention in 1944, states that every power has complete and exclusive sovereignty over the airspace above its territory.

If we inquire into the legal status of the airspace before this principle of air sovereignty was incorporated in the Paris and Chicago

Conventions, it is, as I say, possible to argue that under customary international law, which we could find only by looking to an earlier date than these conventions, access to the air was free to all nations. In other words, the air sovereignty provision of the Paris Convention may not have declared, but may rather have changed, the previous customary international law. If this is so, satellite flights would not need to be sanctioned by international law unless national sovereignty in airspace is regarded as continuing indefinitely upward, or unless there is some other form of national jurisdiction which permits national control of activities at such altitudes. In this regard, I am reminded of Mr. Johnson's quotation of the argument that observation from outer space is permissible unless it is prohibited by some specific principle or rule of international law.

In regard to the matter of a boundary between the regimes governing aeronautics or aerodynamic flight and space activities or astronautics, a question which has been debated at great length is whether it is necessary to distinguish at all. Some legal distinction must be made, however, in order to reconcile aviation and space activities simply because air-space, as Mr. Johnson said, is a continuum—and hence there is a practical problem, primarily a political problem.

The problem has several possible solutions. Proposals have been made, of course, to solve it by the criterion of velocity, perhaps orbital velocity, rather than altitude, or by defining specific proscribed uses of outer space.

Mr. Johnson and Professor McDougal both advocated a relatively low boundary, although they did not say why. And what do they mean by low?

Mr. Johnson says that the boundary would necessarily be arbitrary. I suppose that means it would not bear any necessary relation to physical characteristics or operating criteria of space vehicles. Yet, clearly, he thinks it should lie between the upper limit of aerodynamic flight and the lower limit or burnout altitude of extended orbital flight. To that extent, it is not arbitrary, of course. These are reasons, and sound ones. In addition, for reasons which he did not state but which clearly exist, Mr. Johnson wants it to be low. In that sense also, the boundary will not be arbitrary.

Mr. Johnson also quoted statements by Ambassador Stevenson and Mr. Gardner, in which they assimilate the law of the sea and the law of outer space with respect to United Nations Resolution 1721. I think this deserves one final comment. Ambassador Stevenson said to Committee I of the United Nations General Assembly that Resolution 1721 would permit any nation to use outer space in the same way that it could use the high seas. And Mr. Gardner said, at a later date,

that under the resolution outer space will be free like the high seas, "except for certain illegal activities."

I would like to raise a question about both these statements. I am not sure that they are obvious, and I am not sure that they are correct. When President Kennedy submitted his four-point program to the United Nations in the fall of 1961, one of his proposals was that the use of weapons of mass destruction be banned in outer space. Although his other proposals were generally embodied in United Nations Resolution 1721, this particular point was not. If it were accepted that weapons of mass destruction should be banned from outer space, there would then be a difference in that respect between the use of outer space and the use of the high seas. That question has not been resolved, nor have questions relating to the right of self-defense or to peaceful uses of outer space—about which, of course, there is a strong difference in interpretation between us and the Soviet bloc—or on other questions that Mr. Johnson mentioned such as satellite communications, which the Soviets say may be used for war propaganda or for fanning the fires of racial hatred.

In other words, it is not enough to say that now, under the resolution, outer space can be used as freely as the high seas. Very few countries would really agree with that statement. They have mental reservations as to restrictions that they would like to impose upon the uses of outer space. Until these matters are brought into the open and some agreement one way or another is reached on each of them, the question of freedom to use outer space will not be resolved in international law.

Maxwell Cohen

Like Mr. Beresford, I feel that I can hardly ignore the impingement of Mr. Johnson's paper and Professor McDougal's paper on each other and on our thinking. Though I have been assigned particularly to the problem of jurisdiction and control in space, the intellectual infrastructure—the jurisprudential infrastructure—that is explicit in Professor McDougal's paper necessarily affects anything that will be said here about the problem of jurisdiction.

The first comment I would like to make is that in space problems the analogy of jurisdiction in airspace, to which Mr. Beresford and, of course, Mr. Johnson, referred, has a certain utility but also it is distinctly limited in its value. Mr. Johnson did not mention a possibly significant aspect which the discussion about airspace should be pointing to, as it affects the problem of outer space, namely, the role of the International Civil Aviation Organization.

The Chicago Convention may be viewed in two ways. It may be viewed as in article I, as a statement declaratory of jurisdiction in airspace. But it also must be seen as a great constitutional instrument setting up an effective international organization, managing a very large part of the problems of international transportation, particularly in regard to safety and navigation, and encouraging, of course, the development of legal conventions to solve many important and subordinate matters. This being so, one must ask whether there are any lessons from the specialized agency experience of ICAO which are projectable with respect to what may be taking place in space? This question was not explored by Mr. Johnson or Mr. Beresford.

If Mr. Johnson is right—and I entirely agree with him—that we are slowly losing the sense of difference between "airspace" and "space" that we once had, then we must also lose the very substantial diffidence we have had for a very long time in these discussions about the role of ICAO.

In fact, ICAO is not even invited to the discussions of the United Nations Outer Space Legal Subcommittee. The USSR is not a member of ICAO. The feeling, therefore, has been that ICAO has no direct role in space discussions and that it is concerned primarily with the international air transportation problem.

If it is admitted that a continuum exists between airspace and space, and that instrumentalities have become more sophisticated and move easily between airspace and space, then the role of ICAO appears to be somewhat different. Indeed, ICAO already is directly concerned with at least two aspects of space—reentry, which involves safety navigation problems, and ICAO's share of space telecommunications, since that share will affect the needs of international air transportation.

Therefore, our discussions might have dealt concretely with the enlargement of the function of a well-established specialized agency and the use which could be made of existing machinery with which the international family has already had much experience. It seems wrong to say that there is no machinery and that customary law must suffice until we develop a sufficient sophistication or experience to justify the machinery, when machinery of a high order does exist and is at the very edge of being able to assert jurisdiction in some space matters.

My next point concerns the boundary problem. This problem has had four rather interesting historical phases of development in a very short time. The boundary problem becomes more and more irrelevant, however, for the reasons put forward by Mr. Johnson and Mr. Beresford. But even the irrelevance of the boundary problem is more

clearly apparent if "irrelevance" is put into the historical context out of which irrelevance developed.

Between 1946–47 and 1957, before Sputnik I was launched, pioneers such as John Cobb Cooper were writing articles asserting a 300-mile zone and then, becoming unhappy with a 300-mile zone, switched to 600, found a lot of opposition to that, and came back to 300. In any case, there was a movement to have a zone of jurisdiction, a "contiguous" zone, somewhere out in space—a theory approximating that familiar in the law of the seas.

This first period lasted for a very short time but it certainly was part of the conventional wisdom that continued until the middle 1950's, or a little later. With the reality of Sputnik I in 1957, we lost confidence in the notion that airspace boundaries were manageable. Although the satellite was orbiting at 100 miles, there were no protests by any state and no effective way of expressing a protest except in words.

The facts of life now were that instrumentalities were being orbited in areas below the outer limits of the zones that had been talked about—the 300- or 600-mile zones—and no one could do anything about it and no one was even protesting. Therefore we lost confidence, during that early sputnik period, in boundaries. And I think the correlative to the loss of confidence in the boundary theory and the management of space was the emerging conception that space is entirely free for everyone to use.

Hence, as Mr. Johnson implied in one part of his paper, there was no immediate regime which could in fact determine who should or should not be in space apart from very broad emerging conceptions, perhaps the "mal-use" of space. So you have, on the one hand, the disintegration of the zonal theory; on the other hand, the emergence of the concept that if you are lucky enough to be up there and have the technology to use it, you are free to use it. And if you are free, there are no limitations on the peaceful use of space, whatever "peaceful" may mean.

The third period—and this was all telescoped in not much more than 12 years—is when we recognized that "pure freedom" in space itself was in some respects as unsatisfactory an answer to the emerging problems of technology as the zonal theory had been earlier. Also, it was evident now that a new level of voluntary cooperation had been reached in the international cooperation that emerged in the International Geophysical Year, in the preparations for the International Quiet Year of the Sun, and in the growing interest of the International Telecommunications Union in the problems of space. The idea that there could be massive cooperation even among those who were ideologically and politically at odds with each other was

proved sound by the great success of IGY, and I think the lessons of the IGY are still with us.

I suggest, too, that the Kennedy-Khrushchev statement of December 5, 1962, on the possibility of joint enterprises in space with particular reference to scientific and meteorological problems is a document of some importance. Here are the two superpowers engaging in a dialogue, whatever the success or failure that may take place at other levels, and stating that there are certain space activities they ought to pursue together. I do not know what has happened since the declaration of December 5, 1962, in the Kennedy-Khrushchev exchange. Perhaps Mr. Carter from the State Department or Mr. Johnson from NASA could tell us what flowed from the Kennedy-Khrushchev exchange.

The fourth phase of the boundary question is the one we now are entering. It is the reassertion of an interest in boundaries because of the reevaluation of certain aspects of the technology. Our concern with pollution, our concern with "observation" or espionage, the recognition that orbiting instrumentalities can carry nuclear warheads and be directed with great accuracy to any spot on earth or within a reasonable distance of that spot, and, generally speaking, the new and sophisticated approach to reentry questions with the expectation of instrumentalities that can reenter and glide under manned control back to some chosen spot—all of these advances have reasserted the need to take a fresh look at the boundary question.

Therefore, in the 1962–63 period we are boundary-minded again but for a quite different series of reasons. No longer is it the abstract, *a priori* reasoning of John Cobb Cooper who 10 years ago advocated a 300-mile boundary, but now it is something quite specific and practical; namely, ought there be a roof over the subjacent state below which no other state ought to be able to penetrate from space without consent?

Since we have these problems of pollution, problems of espionage, and reentry developments of a new order, should we not begin to require the consent of states in some way before a certain height of space above them is utilized by other states? The David Davies Memorial Institute Draft Code suggested that 75 miles upward would be the most desirable distance but proposed that we settle for 50 miles. Arbitrary limits, however, are not as satisfactory as those that are based on some knowledge and policy. What is significant is the reconsideration of the boundary idea as a result of the factors that have been mentioned.

The Cooper period is now behind us. The other three phases—the loss of confidence in boundaries and the reassertion or the assertion of freedom to use space; the discovery of great avenues of interna-

tional cooperation; and the reassertion of boundaries within the last couple of years because of pollution, espionage, observation, aggression, and reentry—these overlap in point of time and to some extent in point of function. And, it seems to me, these must color any future debate we shall have about the nature of boundaries.

My third general point is that, on the whole, there seems to be a wide measure of agreement, despite the "exclusive uses" to which Professor McDougal refers, as to the fact that international cooperation is here. It seems to me to be already well appreciated. The December 5th declaration of Mr. Khrushchev and Mr. Kennedy indicates how far that possibility may go between the two superpowers concerned.

However, two questions must be asked. To what areas does international cooperation in space lend itself easily? These would be McDougal's "inclusive" areas, I presume. And second, What is the machinery which naturally seems to be required—as men of experience would view the matter when they approach these problems—for the implementation of these cooperative uses? If the machinery is to be largely that of customary law, what areas might better be suited to conventional law? If it is to be the machinery of treaty law, will it take the form of international cooperation between nations or the coordination of international activities through international agencies, public and private?

There is the nation-to-nation cooperation, bilateral or multilateral, or there is the establishment of supernational agencies, such as ICAO itself—agencies that have an identity of their own. Within the problem of nation-to-nation cooperation, there is the subordinate question which is peculiar to the United States, the "private-public agency" debate as to whether the agencies which express a nation's activity in space may be privately owned. Do these problems raise particular questions of either international law or international politics? They obviously raise ideological questions for some states, as the USSR indicates in its draft of June 1962 to the Legal Subcommittee of the United Nations Committee on Peaceful Uses of Outer Space and the draft of April 1963 presented at the Committee's meetings in New York. One cannot be indifferent, therefore, to that subordinate debate on the private-public aspects of nation-to-nation cooperative techniques, even within the framework of a treaty.

I hope subsequent papers will look realistically at that problem and ask whether the communications satellite system does not, by the very nature of its expression of a particular American ideological position, in the attempt to mix the private and public sectors of this activity, unduly raise certain questions in the international forum

which ought not to be there. Had there been a more realistic appraisal of the international significance of mechanisms of this kind, which are going to be utilized by many states, perhaps the notion of emphasizing the private corporate side might have taken a subordinate place in American thinking.

Once we ask "what machinery" is the most effective for implementation in "what areas," the problems of evaluating the role of customary versus conventional law in this whole field arise. Here, of course, we are back very deeply into Professor McDougal's own primary area of analysis.

Before going any further, I should like to say a word about Professor McDougal—about his methods, his materials, his consequences for law, and his consequences for space law. His is perhaps the most original and creative mind in the English language, in our time, with respect to some of the fundamental materials and concepts of public international law. Characteristically, his paper suggests some very profound jurisprudential questions. His method seems to me to be a kind of sociology of law, reminiscent of Ehrlich, in which there is more sociology than law—where law becomes drowned in the search for a theory of society. It seems also to have something of the later Pound, in that there is an attempt to have a value structure or a hierarchy of postulates upon which to build a system.

McDougal also has a good deal about him, of course, of the later American realist, in that he penetrates beyond the norms and obviously wishes to dispose of law as a normative system. In the end, I have the feeling that, methodologically, we are dealing here with a kind of modern Protestant, peripatetic St. Thomas, from whom a new empirical natural law is emerging in the guise of policy, or policy is emerging in the guise of natural law.

Not long ago Roscoe Pound, in the Natural Law Forum, made a distinction between "natural natural law" and "positive natural law." I am going to suggest that we have a third one now because of McDougal—an "empirical natural law." The concern for "minimum order," the concern for placing his value structure on a factual basis, the emphasis on reciprocity, and the emphasis on reasonableness which dominate the McDougal analysis—all of this would not be as meaningful if it were not put in its historical context. It must not be taken out of the general stream of legal thought.

In the stream of that legal thought, many men for over 2,000 years have sought for "order." They have sought for the reasons why law takes the form it does. They have sought exactly the same answers that McDougal is seeking, but the tools they employed were

somewhat less elaborate and they did not have the immense range of modern disciplines at their disposal, nor, perhaps, did they have the courage to go as far afield meta-legally as McDougal does. Methodologically, he belongs to that great tradition.

Therefore, it seems to me his is an effort to restate in mid-20th-century terms, with all the disciplines of the behavioral and other sciences at his disposal, what law looks like from the outside. This often does not help too much the men operating from the inside. But these ideas, in due course, percolate down to men on the inside who must operate the machine, and on the inside they help develop a certain overriding humility about so-called "norms." The operators see the norms for the relativities they really are, the "subjectivities" they are, to use McDougal's own term.

I once asked a student of McDougal's whether he taught international law with the apparatus of language he learned from McDougal at Yale, and he said, "No, it really is difficult to do." I do not entirely agree. The language Professor McDougal has given us is slowly penetrating in many ways. Even Richard Gardner's term "exclusive use" bears a very close relationship to Professor McDougal's own terminology. What I am suggesting, therefore, is that Professor McDougal's method must be seen as a part of a very old tradition in terms of natural law, in terms of the sociology of law, and in terms of the American realists, all now brought together in a special and highly personal format.

Second, his materials are what makes his presentation in some respects so dynamic and interesting, and in other respects so unmanageable from the point of view of lawyership, because the materials are so widely ranging. In a way, his illustrations are too rich.

One cannot look at his enormous production without having great respect for his ability to prod a generation of graduate students into doing research for him. At the same time, one has respect for his own conceptions that underlie these massive materials.

But there are some difficulties in his methods and materials. Some kind of normative system is part of a law-managing process. There is a danger that his materials flood the processes of "abstraction," which is part of the art of lawyership and which must go on if the lawyership is to exist at all. McDougal has a tendency, as his articles on policy science have indicated and as his articles on international law have revealed, to be so policy-minded that the emergence of a means to manage an "order" gets lost in the process.

If law is merely a reflection of "subjectivities" and of reciprocity limiting these subjectivities—if I misuse his language, I must apologize for it—then, in a way, we cannot look with much hope to disci-

plining regimes that are not merely momentary reflections of policy. I would think that the history of law is more than this, and that ideal element in law, even if one wishes to be partly Hegelian, plays some significant part in the management of a legal order. It seems to me that ideal element does have an inhibiting effect on behavior apart from self-interest and apart from reciprocity, although the latter may be dominant. The legal order may have an intrinsic quality of its own independently—or, if not idependently, at least identifiably—apart from the larger questions of policy, where law is only a mirror of policy.

Finally, the effect of this for space law is that Professor McDougal tends to emphasize that there is no use in judging the needs of a law of space by drafting or adopting codes prematurely. I agree on the matter of timing but not on the outright rejection of codes as a technique. We can have declarations of principle; we can have very useful conventions on limited matters which may even be "premature," but the prematurity has a disciplining effect thereafter.

Let me give you an illustration. In many of the common-law provinces of Canada, if you had taken a public opinion poll as to the desirability of fair-employment-practice acts forbidding the hiring of persons on grounds of race, creed, or color, you probably would have had a public opinion 65 percent against. The attitude would have been, "We will get along without it." And yet, legislatures passed these statutes because of the working idealism of the moment plus pressure groups or for other reasons. The very existence of the new norm itelf, legislatively enacted, had a profoundly educative effect so that 10 years later, if you had taken the same poll, there would have been quite a difference in the complexion of public opinion. It seems to me one can push too far in the direction of depending on public opinion and be somewhat excessively critical of experiments with legislation, however imperfect and however premature at some stages they may be.

To leave Professor McDougal now and return to the subject of customary law versus treaty law, I would suggest that there are at least two or three areas clearly ready for conventional activity for which customary law is quite unsuited. If one divides the subject matter of the emerging regime of space into the "harmful" and "non-harmful"—let us not use the word "peaceful"—the harmful certainly includes such aspects as contamination, pollution, espionage, and testing.

Here are four areas in which we should be working for conventional arrangements. I believe there is no likelihood that a satisfactory customary rule, which will be inhibiting by itself for the benefit of

mankind, will emerge soon enough. As a citizen of Canada, a smaller power, I am not prepared to risk my future on the early emergence of such customary rules.

One of the dangers of relying upon customary law to the extent that Professor McDougal and others seem to rely upon it is that it tends to give the impression that you are rationalizing in policy terms and, therefore, in law terms the technological headstart of the superpowers by giving them a legal basis to justify what they are doing now and will be doing in the future. It reminds me very much of economic theory from Adam Smith to Ricardo in the early 19th century, when that body of theory seemed devoted to justifying free trade. Since the British had a 75-year headstart in the industrial revolution, free trade was very good for the United Kingdom. Whatever may be the ultimate theoretical validity of free trade—and I presume there is a strong case for it—it happened to be an extremely valuable ideological instrument to rationalize the headstart of the British and to delay industrialization in many of the markets from which primary resources were obtained and to which manufactured goods were sold by the British.

With only two major powers in space, we are unlikely to be able to resist the effect of the dominant position they occupy in creating particular habits of mind about the use of space in a customary way. For these reasons I would certainly like to see serious conventional arrangements applied to a number of the problems which some might prefer to leave to custamary law.

I believe we are coming quite close to decisions in a number of these areas. I am an optimist in the case of testing. I think the "overkill" concern is so dominant in both Moscow and Washington that we may not be more than a few years away from a major test-ban agreement, and it may come even sooner.

With respect to such things as pollution and contamination in space, we should be able to reach some conventional arrangements very soon. But I would suggest that despite the great success of Resolution 1721 as declaratory of main principles, we need more than the evidence of some few customary rules in evolution. The management of space is going to be extremely difficult, but I am not necessarily a pessimist about the evolution of effective regimes of law in outer space—both conventional and customary.

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International Organization and Space

Abram Chayes

THE FIRST ARTIFICIAL EARTH SATELLITE, Sputnik I, was launched on October 4, 1957. Thus the space age began within the lifetime of all of us. I remember the sense of awe with which I watched from the deck of our home in Lexington, Massachusetts, the thin white line marking the orbit of one of man's first ventures into space climb toward the zenith.

It is worth the effort to recollect your own reactions of those days. In the intervening few years, space activity has become, if not a commonplace, at least a familiar feature of our world. Between the early months of 1962, when a United Nations registry of space flights was established pursuant to General Assembly Resolution 1721 (XVI), and May 1963, 127 launches of objects into orbit and beyond had been registered, 6 of them involving manned flight.

Now it is perhaps not quite as awe-inspiring that, so soon after the first space flight, Northwestern University Law School has been able to assemble a 2-day conference on space law covering a half dozen or more detailed topics to be discussed before an informed audience by a score of men who have already attained the status of experts. But I think it does deserve remark. The most familiar of clichés has it that the ills our modern flesh is heir to derive in large part from the fact that man's social, political, and legal institutions have failed to keep up with the breakneck pace of developing technology. But conferences like this one exemplify an effort to subject this new domain of action to the rein of law, an effort that may seem wholly natural, even instinctive, but that in fact reflects attitudes that are historically very recent.

If man's law has not overtaken his science, at least it is gaining on it. I am very sure that 6 years after the invention of the wheel, there was no such conference on legal implications. And one wonders what the course of human history would have looked like if at that

time there had been even a verbal consensus that the wheel should be devoted to peaceful uses.

THE AGE OF EXPLORATION

Perhaps it seems farfetched to hark back to prehistory for evidence that the gap has narrowed between the power of man's technology and the power of his institutions of social control. Let me direct your attention then to the three centuries from 1500 to 1800, the last great era of exploration, when again our ancestors penetrated and subdued a new environment—unknown, mysterious, hostile, forbidding.

Then as now the technology of exploration and that of weapons were closely associated. The conquest of the New World provided adventure, employment, reputation for men, and probably, on the whole, deficits for states. Then too the barometer of national prestige followed closely upon success or failure in exploration, exploitation, and colonization.

Seen in the perspective of history, this was a joint European effort and brilliantly successful. When it is asked, as some do ask, what good is served by a massive commitment of means to a race to the Moon, when some indulge in a narrow calculus of resources and ends, it is well to reflect on the results of this last age of exploration. The growth in knowledge, the burgeoning of art, the expansion of political and intellectual freedom we name the Renaissance, coincide in time with those years of exploration and cannot be unconnected with them in some casual sense. None in Tudor England, for instance, deciding how much royal treasure should be ventured with Cabot or Drake, could have foreseen these consequences. Exploration of the unknown seems to have the effect of releasing enormous human energies of all kinds. This thought may serve to induce a certain moderation in those who deprecate our national space programs.

But the Age of Exploration, examined in detail, was also marked by ruthless competition among the states involved and by almost continuous war. It is certainly too soon to say that we will be able to avoid such hazards in our contemporary venture into the unknown. After all, at the turn of the 16th century, Thomas More, Erasmus, and their fellow humanists foresaw the dawn of a golden age of universal peace and harmony, a vision that was to be bitterly betrayed before many decades were out.

Yet there are features of the contemporary effort that we may regard as hopeful and that contrast sharply with the situation 4 centuries ago. In the first place, the technology of space itself imposes an important degree of interdependence and cooperation among states. Second, and

most important, are the international institutions in being and the considerable experience with international organization, both of which bear directly on the development of space law and the regulation of activities in space.

GUIDING PRINCIPLES

In the last age of exploration there was little law, and what there was derived from custom. In a world of nomadic nation-states, the principal teaching of custom was "hands off." Each state was left free to pursue its own activities as it willed, subject, perhaps, to a not very effective limitation that first in time was first in right. The Papal effort to organize rights and opportunities by dividing the New World between Spain and Portugal seems to us, and must have seemed even then, a peculiarly ineffectual gesture.

Custom has had its role in the development of space law, as the preceding papers have testified. Perhaps its most important contribution thus far has been the notion that activities in space may be carried on without the consent of the sovereign of the subjacent territory, at least in the absence of harm or threat of harm.

But custom is slow to accumulate and its teaching cannot always be read with clarity. Something faster and surer was needed if space law was to stay within hailing distance of space science. Thus there has been a remarkable thrust for codification and for explicit formulation in this newest branch of law. The traditional mechanism of bilateral and multilateral agreement fashioned through negotiation and embodied in conventional form is ill-adapted to meet this demand under existing circumstances. The demand has been able both to make itself felt and to get itself satisfied to a certain extent, largely because of the existence of the United Nations General Assembly as an international forum. The most important action of the Assembly in this connection has been the adoption of the well-known Resolution 1721 (XVI) which commended certain principles to states for their guidance in the exploration and use of outer space. They were first, that "International law, including the Charter of the United Nations, applies to outer space and celestial bodies"; and second, that "Outer space and celestial bodies are free for exploration and use by all states in conformity with international law and are not subject to national appropriation."

These principles are of course very general. They were intended to be so, and at this stage of space exploration it is appropriate that they should be. They are obviously not self-executing. Their application to specific space activities is already the subject of considerable exegesis, both political and scholarly. They do however provide a

basic and, I think, a sound legal framework for the conduct of space activities at this stage.

There are certain things about the statement of guiding principles that are noteworthy:

1. They were unanimously endorsed by the General Assembly, although this action was not forthcoming until agreement between the United States and the USSR had been achieved.

2. They involve one very significant and quite specific substantive innovation, the principle of nonappropriation. There is no solid customary basis for this rule, and of course it directly contradicts the bulk of prior human experience with exploration.

3. They look toward a freely developing pattern of activity in exploration and use of space, limited only by relevant provisions of international law and the Charter.

In the legal subcommittee of the Committee on Peaceful Uses of Outer Space work has gone forward on the articulation of additional general principles. Discussions in the legal subcommittee have revealed a wide area of consensus on such matters as liability for damage caused by space vehicles, obligation to assist and return space vehicles and personnel in distress or landing by accident and mistake, the principle that jurisdiction over a space vehicle and personnel in transit shall be retained by the state or international organization which had it before launch, and the obligation to conduct space activities in such a way as to minimize the possibilities of contamination. There is little doubt that agreement on these points could be reached were it not for the insistence of the Soviet Union that a number of controversial provisions also be included, on a package basis, in any agreed statement of principles to emerge from the legal subcommittee.

The United States recognizes the principles announced in Resolution 1721 as stating existing law. And I believe it would so regard any principles that came from the legal subcommittee and were unanimously approved by the Assembly. I will leave it to jurisprudes to tell us what the source of law is in this case. I suppose it would have been possible to argue for the principles *a priori*, though that would have been difficult in the case of nonappropriation. Moreover, we have here an explicit formulation that is exceedingly hard to reach by a process of pure ratiocination. There is no formal international agreement establishing consensual obligations. Of course the Assembly is not a legislature, so we can discard enactment as a source of law. Perhaps the unanimous assent of the United Nations membership to Resolution 1721 can be taken as denoting common acceptance of the principles expressed, though here again the existence of a specific verbal formula is not wholly consistent with that notion.

Whatever the source may be, the United States, as I have said, accepts these principles as stating the law, and I suspect most other states would also. We have witnessed in this field a significant and novel kind of lawmaking activity that has established a sound and useful base for more intensive legal development and that is attributable in large part to the presence and action of international organization.

ADMINISTRATIVE DEVELOPMENTS

Familiar administrative processes also have their analogies in the activities of international organizations in the field of space law.

The UN Secretary-General, pursuant to Resolution 1721, has established a registry of space launches. The resolution calls upon states launching objects into orbit to furnish information for the registration of such launchings. Although it does not really serve as a traffic control it does tend to encourage a pattern of openness in space activity that is very much in the interests of the United States. The impact of disclosure requirements as well as the various intricacies of this administrative technique are of course well known to us on the basis of a wide range of domestic experience with it.

Even more comfortably familiar are the administrative developments in the field of space communications. In space, as on the earth, the limits of the spectrum of radio frequencies are inexorable. Unless an allocation of frequencies among users is accepted and respected, the result will be that no one can use the facility at all. The International Telecommunication Union, established in 1865, has of course no compulsory jurisdiction in the allocation of frequencies. Its function is essentially coordination and its method is essentially recommendation. Yet, the necessities of the case being what they are, the member states have no choice but to accept the allocations made by the ITU. In 1959, the Union assigned certain radio frequency bands for research activities in outer space including tracking and communication. The ITU plans to convene an Extraordinary Administrative Radio Conference in October 1963 for fundamental allocation of frequencies for operating space communications.

INTERNATIONAL ORGANIZATIONS

The existence of the United Nations and associated international organizations has had a manifold and a decisive influence on early developments in the field of space law. I believe this influence will continue. Nations engaging in the conduct of space activities will wish to do so, in general, in accordance with standards that are ac-

cepted internationally. This is so not only because of the international political consequences of conduct in space. Space flight is global. States conducting space programs need the cooperation of other countries for tracking and like purposes. Even the Soviet bloc is not autarchic in this respect. Existing international organizations will continue to provide the major forum for arriving at and articulating consensus on standards of national conduct in space.

But in space as in other environments, the decisive questions will be associated with the control of the use of force. The United States has frequently expressed its view that outer space should be devoted to peaceful uses. And it has so conducted its own space programs. The United States has no intention of placing nuclear weapons in orbit. Disarmament negotiations continue for the actual elimination of nuclear weapons and the means of delivering them as well as for dealing with other types of armaments. But it is important to do everything now that can be done to avoid an arms race in outer space. It is clearly easier not to arm an environment that has never been armed than to disarm one that has been armed. It is the earnest hope of the United States that the Soviet Union will likewise refrain from taking steps to extend the arms race into space.

More generally, it is well to be precise about what is meant when we talk of *peaceful* uses of outer space. It is perfectly clear that the dividing line cannot be drawn on the basis that a particular space activity has military applications or is carried out by military personnel. A navigational satellite can guide a naval vessel as well as a merchant ship. A communications satellite can serve a military establishment as well as civilian communities. Photographic observation from space may be used for mapping or for military planning. The instruments which guide a space vehicle on a scientific quest may also guide a space vehicle on a military mission. American and Russian astronauts have been members of national armed forces, but this has afforded no reason to challenge their activities.

The dangers to peace which exist and which may exist in the future stem from the threat or use of force in violation of international legal obligations. The standards which must be used in determining and controlling exertions of national power have not been altered by the new world which outer-space activities have opened. This is explicit in the United Nations General Assembly declaration that "international law, including the Charter of the United Nations, applies to outer space and celestial bodies."

The standards of judgment remain those set forth in the Charter of the United Nations. Article 2, paragraph 4, imposes the obligation to refrain from the threat or use of force against the territorial integrity or political independence of the United Nations. Article 2,

paragraph 3, imposes the obligation to settle international disputes by peaceful means in such a manner that international peace and security, and justice, are not endangered. These principles laid down in the United Nations Charter bind nations in space as on earth. In the celestial as in the terrestrial sphere, they represent the judgment of the organized international community.

CONCLUSION

It is a commonplace to say that we are only at the threshold of space law. But, as with many commonplaces, this one is true. Nevertheless I think we have made an encouraging beginning. A prominent feature of that beginning has been the part played in developing standards and in administrative regulation by the ordinary machinery of the international community, that is to say the United Nations and its associated bodies. The capacity these bodies have shown in these directions is an important asset for the rapid development of law to govern the conduct of man in outer space.

Comments

David F. Maxwell

I am delighted that Professor Chayes has referred to Resolution 1721 and the dedication of the United States to the principle that the uses of outer space should be confined to peaceful purposes. But I feel that we should read the expression "The freedom of outer space," which is set forth in Resolution 1721, in the context of the entire Resolution, noting that the preamble states: "Recognizing the common interest of mankind in furthering the peaceful uses of outer space, and the urgent need to strengthen international cooperation in this important field . . . ."

The whole subject of freedom of outer space is thus tied in to the peaceful uses of outer space. What is meant by "peaceful uses"? Here I would like to illustrate the difference between the Russian and United States views on this question, especially as this difference was pointed up in the recent discussions of the Committee on the Peaceful Uses of Outer Space of the United Nations. During this conference, the Soviet delegate, expressing the official policy of his government, declared that observation from space for the purpose of collecting intelligence data is not to be construed as a peaceful purpose. In fact

he held such use to be not only violative of international law but also incompatible with the purposes of the United Nations charter.

The United States' official position is that any use of outer space is "peaceful" if it is not intended for aggression. In short, the problem resolves itself into the determination of whether outer space may be used for military purposes of a nonaggressive character.

The Russians' attitude toward this question is reflected by the conditions which they impose upon the return of salvaged spacecraft. It is interesting to note that the Soviets propose to return only such spacecraft that may have landed within their borders, even through inadvertence, as are not equipped with devices for the collection of intelligence information. To quote the Soviet delegate: "The use of artificial satellites for the collection of intelligence information in a territory of foreign states is incompatible with the objectives of mankind in its conquest of outer space."

Contrast that with the United States' proposed resolution which provides: "States shall return to the launching authority any space vehicle or part that is landed by reason of accident, distress, or mistake. Upon request, the launching authority shall furnish indentifying data prior to the return period."

I should like to comment also on the difference in attitude between the United States and the Soviets with respect to free enterprise in space. The Russians maintain that the use of outer space must be restricted to the spacecraft of nations, thereby barring exploration initiated by private enterprise. In effect the Soviets are attempting to project into outer space the basic philosophy of their monolithic form of government—individual rights must be submerged by the rights of the state.

If this proposal is adopted, the cornerstone of international law as now understood by the community of nations would crumble and a new concept of the law of nations inspired by Communist concepts would prevail. The Russians would thereby succeed in establishing through the "back door" of outer space that which they have thus far failed to achieve on Earth.

Not only would such a result be contrary to accepted principles of international law but it would also constitute an indirect blow at those voluntary international organizations which have contributed so much to man's knowledge of outer space. As Mr. Chayes pointed out, these international agencies have been involved in space activities since 1948. An outstanding example is the wholly voluntary effort of the International Council of Scientific Unions. If encouraged, such voluntary organizations, composed of citizens of many nations, can contribute as much as, if not more than, the United Nations.

Finally, a word as to why the American delegation must exercise such great care in the language used in any internationl agreement involving the Soviets. The meaning of the word "peaceful" is clear enough to us. It is definite, precise, and invariable. But the Russians' interpretation may vary to suit their purpose at the moment. On the one hand, they condemn the United States for its view that the use of outer space for reconnaissance purposes is legitimate. Yet would the same standard govern them in their own uses of outer space? Listen to Marshal S. S. Biryuzov boasting about the exploits of the Russians in rocketry:

> It has now become possible at command from earth to launch rockets from satellites at any desirable time and at any point of the satellite's trajectory. The successful development of Soviet weapons and their high quality, reliability, and precision are demonstrated by the rockets used in the exploration of the cosmos. It must also be said that the problem of destroying enemy rockets in flight has been successfully solved in our country.

Thus, while the Soviets express disapproval of satellite reconnaissance in outer space, they would apparently not hesitate to project into the cosmos the most destructive space satellites ever devised by man.

Given the Soviets' present unreliable and unpredictable disposition toward the uses of outer space, it would seem wise for the United States delegation at the United Nations to guard zealously our right to use outer space for any purpose which our government deems necessary for our national security.

Howard J. Taubenfeld

The only major point of issue I take with Professor McDougal is that his magnificent system for description describes what is and how it comes about, and probably prognosticates the slow way that things may develop, but it does not at all help me in discussing what would be the best way to do things. It describes how things will probably be done, but it does not describe for me the alternative ways in which they might be done better.

This I think is, in a different context, also a limitation, and a very important one, that inevitably predominates in the formal, prepared addresses of government people and others who have vested interests which they must defend. It has been said that politics is the art of the possible. That might be reinterpreted to indicate that politics is the art of the lowest common denominator, or often the art of the not quite good enough in international relations.

As a consequence, I thought it might be possible to pursue an older theme of mine, which turns not so much on the law as it is, but on the

framework in which the law might be made—not existing framework at all, but other frameworks, other relationships, in which this problem as well as any number of other problems could be approached.

I once heard Professor Oliver, a very distinguished international law professor, start a speech with something which I can't quote directly, but which I thought was entirely appropriate. He described himself, in talking about the United Nations, as one who is paid by society to comment on the passing scene, and to propose better ways of doing things without being limited by any necessity of describing exactly how they are to be done. It may well be quite enough at this stage to comment only on the political framework, not "the law."

Prime among the problems that have been discussed in this conference are those of avoiding conflict over the use of space and space resources, avoiding conflict in space when it becomes possible to have conflict there, and, on the other side of the coin, developing patterns within which space resources could be used for the highest good of all.

I am going to suggest, as I have done elsewhere, a pattern of organizational framework within which these questions could be approached. This has nothing to do with "reality." But these are alternative ways in which these problems could be approached.

Of the solutions that I shall propose, the one that would be most likely to resolve all these problems is the least likely to be acceptable politically; that is, the readiness with which my various proposals would probably be accepted by states is in inverse proportion to their intellectual fruitfulness with respect to resolving my three issues.

You can start, of course, if you are model building, with a model of an all-embracing, democratically operating world government. This would solve the problems of avoiding conflict in space, avoiding conflict over space resources, and using space resources for the highest good of all mankind.

There is the small problem that there is no likelihood of having this at present; that there is no consensus for it; that creating a *democratic* world government would be an extraordinarily difficult problem. But it would resolve these space-associated problems.

In fact, if such a government were to evolve in the reasonably near future, it would oversolve some of the problems in that a democratic world government with power to redistribute resources would be unlikely to devote any vast amount of these resources to space exploration. With two of the three billion people in the world in a state of development, and many of them near starvation, a democratic world government would be unlikely to devote very much to anything but some of the near-in space resources—communications and meteorology, perhaps. It would probably not allocate to the exploration of

the moon the $4 or $5 billion we are now spending, plus the several billions perhaps being spent in Russia.

If you reject this unlikely alternative, and come down my scale, you will find a proposal to solve the same problems by means of an organization that would embrace every outer-space activity, near in or far out. This organization would handle all launchings of objects, including intercontinental missiles and the like. This suggestion, if somewhat less unlikely politically than world government, is also an unlikely possibility, particularly since it includes total control of intercontinental missiles and other missiles, which are or are becoming the prime reliance of national states in their military postures.

In addition, such an organization, having space resources ultimately available to it, would be an extremely powerful entity in the world. It would be another government, if you like. The difficulties in forming it—in getting political consensus—are probably as great as for world government. Its results probably would not be as useful, so we can pass on from it as well.

The next alternative is to leave to the states all of their own manufacturing possibilities, including intercontinental missiles for defense. After all, there is only one definition that can be used today for outer-space activities in dividing the military-aggressive from the peaceful. That is the standard definition: theirs are military-aggressive; ours are peaceful. And that, in effect, is the definition that the Soviet Union and, I might say, we too have used. The missiles in Cuba obviously are hostile to the United States, though the Cubans might argue that they are not likely to attack us and, therefore, the missiles are for defensive purposes only, to prevent us from attacking them. The Soviet Union may argue that a satellite that passes over the Soviet Union to find targets is clearly an aggressive weapon. We say that since we are not going to attack, we need this information to defend ourselves. This is about all there is to say, I think, about definitions.

You can imagine, then, the next order of a partial outer space regime. It is one which leaves to the national states their military capacities, their ICBM's, and the like, but provides an international entity to handle all other space activities—anything that is going into space to orbit or to travel to the celestial bodies. This would presumably avoid conflict arising in space. It would avoid conflict over space resources because the national states would be cut off from them completely.

Whether it would lead to the highest utilization of all space resources is hard to judge. We argue, for example, that private companies in the space field are very useful; national states competing in

outer-space activities may also prove very useful. This regime, too, is unlikely to be acceptable, but, again, it would deal with the three chief problems. It would not deal with keeping peace on earth or avoiding the use of the space highway for ICBM's, since we have left to the national states their missiles.

The next alternative, coming down the scale again, is to have no general outer-space regime to make rules for the use of outer space, but to encourage the higher development of international functional organs.

It is conceivable to me that there could be an international telecommunications system, an operating system that might rent out channels to national entities or to multinational entities. It is equally conceivable, though it might not be the best thing to do, that there could be an operating international meteorological organization making forecasts, doing research, trying to control weather, and so on. This might be accomplished without any general overall regime.

If none of these solutions is accepted, you come down to what is, I think, much the present situation—that is, no overall organization for outer space and no international operating entities in outer space, though of course the ITU already has a role in the field of space communications. And there is the enunciation, whether we call it law in this sense or not, of general, self-policed, self-denying ordinances such as the United Nations resolution of December 1961, which has been discussed here repeatedly. To the extent that man's capacity to use space is limited, to the extent that space and the celestial bodies prove ultimately to have no military value, and to the extent that the resources are really sharable by the states, these may be satisfactory.

On the other hand, it can be demonstrated in history that no self-denying, self-policed ordinance has ever succeeded in any area which was in fact suffused with security or rich in resources. There are many examples, often involving solemn treaties. Mandates are an obvious example from the League of Nations period. Freedom of access was guaranteed to all nations in the mandates arrangements. The national state controlling the mandate had no sovereignty over it. What has this meant with respect to the position of the Union of South Africa in Southwest Africa, an example which still exists? It is obviously entirely possible to have exclusionary activities which are real and rigorous, without any claim to sovereignty at all.

Thus, a self-policed, self-denying ordinance that a state will not claim sovereignty does not necessarily indicate the shape of the future. There are many historic examples of unilateral exclusive claims to use areas without claims of sovereignty. Freedom of access is one ex-

ample. Freedom to defend oneself anywhere without claiming sovereignity in the area is another obvious example.

For outer space this type of regime, a regime with a certain amount of functional cooperation and with self-denying, self-policed ordinances, is what we have and what we are likely to see. And it is entirely possible that there will be no *major* conflicts in and over outer-space uses. These other patterns of more general international control may not be necessary. But as one who is paid by society to observe all of the possibilities, I do think that at least some attention should be called to them as other ways in which mankind might rationally proceed.

John A. Johnson

I would like to comment on a remark made by Mr. Beresford. That was the reference to an upward limit on territorial sovereignty set arbitrarily at a low altitude. I freely concede that the word "arbitrary" is a dangerous one to use, and that we would not expect nations to act in complete disregard of all rational considerations. As I have pointed out, the only area with which I was concerned was the area above the airspace that has actually been used up to the present time by aircraft operating on aerodynamic principles and below the lowest levels of orbital flight.

What I meant was, simply, that the only limit that would have any practical utility would be one that was set quite arbitrarily in the lower portion of that area. The area we are talking about is roughly between the altitudes of 25 and 90 miles. I would prefer, if a limit were to be set by agreement, that it be set near the lower rather than the upper end of that area. And it would be determined in an arbitrary way; that is, it would not be derived from scientific or technological considerations, but would be agreed upon by the states concerned with reference to their security interests and whatever other national interests were to be served by it.

I would also like to say, in connection with some of Mr. Maxwell's comments, that there really is no prospect of any considerable amount of support being gained by the Soviet Union in the United Nations for the principle that space activity should be conducted only by states. In the general debate that occurred in June of 1962 at Geneva and again in April 1963 at New York, I don't believe that the Soviet Union has picked up one shred of support for that principle outside of the Soviet bloc itself. Recognizing that the committee is composed of 28 members—12 from the so-called Western bloc, 8 from the Soviet bloc, and 8 from the nonalined nations—what the nonalined nations say

about this subject is, of course, most interesting. This is an area in which no support has been gained for the Soviet position. I think the same can be said for the proposal of the Soviet Union that outer space may not be used for what they refer to as espionage or intelligence-gathering purposes.

The very forthright statements that we have made concerning the legality under international law of observation from outer space have found, I think, a good reception among the members of the committee. Here, too, it appears that the Soviet position is supported by only a small minority.

This does not mean, however, that the Soviet Union is going to yield easily on these points. They have taken a firm position, and they have reiterated it constantly.

In 1962 at Geneva they firmly refused to permit any kind of a report to go forward to the parent committee indicating the extent of agreement that had been reached. The only kind of report they would approve was one which said there had been a useful exchange of views but that no agreement had been reached. Their position was, in effect, that if the other nations would not buy the complete Soviet package, dealing with those problems which they said were of the greatest concern to the peoples of the world, they did not want to mislead the world into thinking that any kind of useful progress had been made on issues with which they were not primarily concerned and which they regarded as trivial.

Whether this position will be repeated in the 1963 session remains to be seen.

Myres S. McDougal

We have had a surprising degree of unanimity at this conference. We should all be grateful to Professor Cohen for stirring up a little trouble.

I do have a few comments to address to each of the commentators. Let me begin with Professor Christol, my former student, a member of the first class I ever taught international law. It is now painfully apparent that I did not then know much about the law of espionage. When Professor Christol suggested that it was questionable whether espionage was unlawful under international law, I could not help but think that it would be small comfort to the man who was caught, and lawfully shot as a spy, to be told that espionage was lawful under international law.

The difficulty is perhaps in the common use of the legalistic word "espionage" to refer to all kinds of factual observation of others. It

should be obvious, however, that observation from satellites can be fully the equivalent of observation from planes or ships or photography on earth and can gravely endanger the security interests of a particular state. In such instances the target state may, as suggested above, be accorded an occasional exclusive competence, comparable to that in contiguous zones on the high seas, for its protection.

The details in application of such a competence will have to be adapted to space conditions, but I should think it highly probable that the peoples of the world will clarify a common interest in this kind of competence. Official utterances from both the United States and Russia would appear to support this view.

I was particularly grateful to Professor Christol for his insightful elaboration of the concept of customary international law. To the broad structure he presented should be added the remarks of Mr. Chayes about resolutions of the United Nations General Assembly. The role of such resolutions in implementing the traditional requirements about customary law is reasonably clear.

The requirements of customary law, as we have seen, are that there should be certain past uniformities of behavior accompanied by certain subjectivities that these uniformities are required. We found also that a very short period of time was necessary to the crystallization of a customary consensus when there was no doubt about the expectations of future requirements. We found that the requirement in uniformity was not that of universality, but of generality.

The new role that the United Nations plays is that of providing, in the General Assembly, a forum where these expectations of the peoples of the world about what future decisions are required can be ascertained easily and quickly and with relative certainty. Hence, everything which Mr. Chayes said should be included within a realistic conception of customary international law. The only relevance of the past is for its clarification of contemporary expectations about the future; what the United Nations does is tremendously to improve the efficiency of the historic process.

I would join with Mr. Beresford in his emphasis that the opposition by the Soviet to customary international law—in fact, their whole use of these doctrines of peaceful coexistence—is designed not simply to undercut our inheritance, our contemporary expectations of the future, but also to project certain very positive and retrogressive conceptions of their own. This amendment I accept with great pleasure.

I would, however, differ with Mr. Beresford when he suggests that it is not necessary to take the position that we already have a customary principle that access to outer space is free. As I recall, I believe he said that the only thing necessary was simply the conclusion that the free use of outer space was not prohibited.

This suggestion raises the ghosts of the arguments in the famous *Lotus* case. You will remember that in this case a French vessel ran down a Turkish steamer upon the high seas and killed several people on board the Turkish steamer. The Turks claimed that they could punish a French officer whom they caught in Turkey because they could do anything that was not expressly prohibited by international law. This was comparable to the suggestion by Mr. Beresford. The French claimed that the Turks could not punish their officer because the Turks could do only what was expressly permitted under international law.

I submit that both arguments are fallacious. They both build from the conception of law as a body of fixed, inherited rules. If one thinks rather in terms of a continuous process—a process in which law is continuously being prescribed and applied and is being made and remade all the time by the collaborative behavior of people—neither argument does justice to a very rich reality. There are no necessary gaps in international prescription; courts and other bodies create rules as they apply them.

I would, however, agree with Mr. Beresford in the importance of application; no matter how carefully we formulate prescriptions in opinions, resolutions, and otherwise, they almost always travel in complementary form and in highly ambiguous language. They have to be interpreted and adapted to concrete instances.

On the problem of boundaries, I would like to say a few words in supplement to Mr. Johnson's remarks. I once took him to account for the use of the word "arbitrary," but later bethought myself that I was wrong and adopted the word from him. In my principal remarks, I tried to indicate reasons for both "arbitrary" and "low." I suggested that the generic problem with which the general community is here confronted is that of the accommodation, in specific instances of application, of the inclusive claims of all states to freedom of use and of the exclusive interests of all states in protecting the healthy functioning, the security, the internal welfare, of their territorial communities.

From the perspective of the inclusive interests of states in the greatest possible productive use of space, any boundary agreed upon would have to be the surface of the earth, the lowest possible. This is the justification of "low."

From the perspective of the exclusive interests of states, no boundary anywhere located can offer adequate protection. Immediate threats may come, as observed above, from anywhere in space. If every state began to try to extend its boundaries to the extent necessary to protect its exclusive interests, we would have complete anarchy.

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What we meant by references to an "arbitrary" boundary was that no boundary could serve the major purposes of common interest. The only purposes a boundary could serve would be the relatively minor administrative ones of keeping down the number of controversies and of shifting the burden of proof in instances where there were controversies.

Another point by Mr. Beresford was that some of us had taken the analogy of the oceans a little too seriously. I would agree that for some of the problems the analogies of the ocean and airspace, and the processes of customary development, are not entirely adequate. The purpose, however, of the careful discrimination of ten different types of problems which I attempted was to indicate upon which problems the analogies might be relevant.

Thus, with respect to the problems of minimum order, the keeping of the peace, the analogies may not be completely helpful. If we can reach agreement with the Russians on arms control problems—if we are ever able to project a series of arrangements for prevention, deterrence, and so forth—the measures taken with respect to space activities might be very different from those previously taken with respect to ocean activities. The threat from space conceivably could be much greater than the threat from the oceans. Certainly for purposes of observation, the threat from space is greater.

With respect to the major problems of freedom of access, of non-appropriation, and of an occasional exclusive competence for security and self-defense, I would, however, take a very strong position that the best experience we have from the past is that from the oceans and the airspace above the oceans. The only concession I would make is that the conditions of space activity will make it much more difficult than ever before to apply the experience of the past.

The next man on our list is Professor Cohen. The principal point upon which I would differ with him is, again, the question of boundaries. In his fourth phase, he found that we were again coming back to boundaries because of the difficulties about the problems of pollution, nuclear tests, and so on.

May I suggest again that no management of the problem of boundaries can cope with these problems. Until we get some general arrangement, until we can achieve a new and different clarification of common interests, the underlying state will, I think, claim the competence to act unilaterally to protect itself. It would be most unfortunate if this claim is made in the form of an attempted extension of boundaries. It would be much more economic and effective to honor the occasional exclusive competence of the contiguous zone—with the requirement of contiguity removed—than to accept any territorial claim.

For Professor Cohen's brilliant lecture upon jurisprudence, and especially upon the beauties of sociological jurisprudence, I have little but applause. There are, nonetheless, certain points even here upon which I would hope that he might achieve a little further clarification.

Those of us who recommend a policy-oriented approach to the study of law certainly do not intend to minimize the importance of norms, rules, or principles. We do like to emphasize the importance of identifying and clarifying the policies that norms express and serve.

Hence, we would reject the notion that there is something unique, autonomous—I forget the exact words used—that separates norms from policies. The only meaning of norms with which we are concerned is the empirical one of who uses them with respect to whom, for what purposes, and with what outcomes, under what conditions. What is important are the value consequences of the prescription and application of norms.

Beyond concern with norms, appropriately understood, I would accept the emphasis several commentators have offered, that we should also be concerned with improving institutions and procedures. I believe both Professor Cohen and Professor Taubenfeld made this point. It is in no way incompatible with recognition of the importance of customary law to demand invention of new institutions and new procedures.

With great deference to Professor Cohen, I believe that the intellectual tasks required of the scholar and those required of the decision-maker are much the same. The first task is to clarify the policies, the overriding goals for which the individual is willing to take personal responsibility as a citizen of the larger community of mankind, speaking to other such citizens.

The next task is to assess the experience of the past, to draw upon the best wisdom of what we have called customary law. A third task is to consider what are the factors which have affected this past behavior. Still another is to consider whether such factors will be operative in the future. The final task is that of ascertaining and recommending the alternatives which will best promote the clarified policies we recommend.

In answer to Professor Taubenfeld, let me say that I never intended to neglect the broad goals he mentions. I would share his concern for future improvement. Where I would differ would perhaps be on certain modalities of emphasis.

I do not, for the moment, put a very high premium upon the projection of grandiose plans of world government. It would appear much more important to concentrate upon clarification of the common interests of peoples on the very specific types of problems itemized

earlier. There are many different institutional arrangements by which such clarification could be implemented.

There remains the problem of persuading peoples to accept any institutional modality. How is it that we can best appeal to the effective elites in Russia and in the other totalitarian countries, and persuade them that it is in their interest to put an end to his divided world and to cooperate more fully on these many problems? Fortunately, our new access to space will tremendously improve our facilities for communicating with other peoples. It becomes the responsibility of all of us who pretend to scholarship to use all of our knowledge about the past regulation of the legal problems and all of our knowledge of the behavioral sciences, including psychology and public relations, to attempt to move a world which is in a very dangerous and precarious condition toward a public order much more in conformity with the values of human dignity.

Part II

COMMUNICATIONS SATELLITES AND THE LAW

Introduction to Part II

THE COMMUNICATIONS SATELLITE ACT OF 1962 is a reminder that the decisions that men make do count in the shaping of history. The legislative creation hammered out in bitter controversy in the summer of 1962 appears to have shaped for the forseeable future the course of development for international communications in the Western World and possibly for all men. In its final form the legislation is also a reminder of both the vitality and the puzzling complexity of the concept of a national interest realized through private decision making. In this respect the act is a typically Yankee invention. In a world not sharing in a like degree the American commitment to free enterprise, its administration will present unique and absorbing problems of law and diplomacy.

In an effort to shape the intellectual outlines of both the domestic and international aspects of the new legislation, Northwestern University Law School presented on May 2, 1963, a symposium on Communications Satellites and the Law as part of the Conference on the Law of Space and of Satellite Communications. In the following pages are the three principal papers prepared for and presented at the symposium and the extensive comments upon these papers by a group of distinguished lawyers. For convenient reference, the Communications Satellite Act of 1962 is reprinted here as an appendix.

JOHN E. COONS

Monopoly and Antitrust Aspects of Communications Satellite Operations

Bennett Boskey

"Monopoly and Antitrust Aspects of Communications Satellite Operations" is a subject with many lively ramifications. It marks out an area which is a meeting place for the old and the new—an area where the theoretical and the practical interact—an area virtually certain to be the breeding ground of controversy as the communications satellite program moves forward.

Communications satellite activities constitute an integral part of our space programs, which today are reaching far out beyond existing frontiers of knowledge and technology. The process will be not only challenging and difficult, but also exceptionally expensive. The President's budget message gives some idea of the magnitude. It estimates that during fiscal year 1964 the Federal Government will spend on space research and technology (apart from the "national defense" portions of the budget) a sum in excess of $4 billion—or nearly 4 percent of the total Federal expenditures.[1]

Communications satellites offer real opportunities for important and relatively early practical applications of space technology. As yet we do not have any very clear notion of the practical uses of landing a man on the moon. But we can already see ahead to the massive improvements achievable in global communications through communications satellites—achievable at least if there can be developed reliable communications satellites which will have sufficiently long operating lifetimes in orbit so that replacement costs will not make the satellite system prohibitively expensive.[2]

[1] See the President's Budget Message, in H. Doc. No. 15, 88th Cong., 1st Sess. (1963).

[2] The problem of satellite reliability has been described as the key technological problem. See REIGER, NICHOLS, EARLY & DEWS, COMMUNICATIONS SATELLITES: TECHNOLOGY, ECONOMICS, AND SYSTEM CHOICES, The Rand Corporation Memorandum RM-3487-RC (Feb. 1963).

Such considerations underscore the need for wisdom and ingenuity in devising the best available combination of private and governmental actions to assure effective development and results. This is what the Communications Satellite Act of 1962 [3]—or at least its sponsors and supporters—hoped to do. The act was designed to serve as basic legislation. It provides, among other things, for the establishment of a private corporation which, nevertheless, is endowed with many quasi-public characteristics and functions—including nomination of all the incorporators (and 3 of the 15 directors) by the President of the United States subject to confirmation by the Senate.[4] Sharp differences emerged during the congressional consideration of this legislation—so sharp that for the first time since 1927 the Senate voted cloture.[5]

Thus was established a United States legislative framework for the conduct of communications satellite operations. Now we find ourselves at the threshold of the experiment which the legislation launched.

COMPLEXITIES

The monopoly and antitrust aspects of activities to be carried out under this legislation have every potential for giving rise to major controversy. For one thing, implicit in them are some of the difficulties which were responsible for the diverging views when the legislation was pending in Congress. For another, they are inherently complex matters, of legitimate concern to many people, and they involve a rather delicate balancing of conflicting interests.

By way of illustration, the following considerations may be mentioned:

(1) Problems as to allocation of proprietary and other rights, as well as allocation of responsibilities between the Government and private industry, particularly in the light of increasing evidence of a strong need for extensive Government funds to support the research and development effort.

(2) The fact that initial costs and size of investment loom so large, and profits are so uncertain, that great initial encouragement may be given to monopoly.

[3] Pub. L. 87–624, enacted Aug. 31, 1962; 76 Stat. 419, 47 U.S.C.A. §§ 701–44.

[4] In the confirmation debates a minority suggested that the Constitution does not permit Senate confirmation of the officials of a private corporation who are not public officers. The Senate rejected the point 75 to 15, voting that the consideration and confirmation of the nominations was in accordance with the Constitution. 109 CONG. REC. 6608–18, 6621–58, 6693–99 (Daily ed. April 24 & 25, 1963).

[5] The legislative history of the act is summarized, and the act is extensively analyzed, in Legislation Note, *The Communications Satellite of 1962*, 76 HARV. L. REV. 388 (1962).

(3) Problems arising out of affiliation between communications carriers and equipment manufacturers (most notably illustrated by the structure of AT&T).

(4) Competing claims and interests of different communications carriers—the largest and the not-so-large.

(5) Possible anticompetitive effects of creating a statutory joint venture in which competitors work together.

(6) Practical problems of assuring a proper degree of participation by "small business."

(7) Dangers of undue dominance accruing to those companies which have made a headstart, which are represented on the board of the new corporation, which have access to all the information, and which in some instances may occupy what appears to be a most valuable "inside track" position.

(8) Longer-range problems as to whether, when communications satellite systems have become established on a working and regular basis, there will be room for (or undue restraint upon) effective competition between the new corporation and the communication-carrier companies which own part of its stock and have a voice in its management.

Problems such as these are by no means simple; and perhaps additional complexities arise by virtue of the fact that some of the large companies involved (or likely to be involved) in the communications satellite program are not strangers to antitrust proceedings and problems.

Congress of course was sensitive to the need for protecting the public interest and tried to deal effectively with factors of this kind. Naturally it wished to assure that opportunities to participate in the communications satellite program would be established and maintained on a broad basis. Indeed, it is fair to say that Congress wished to encourage competition wherever practicable and wholesome.

The act approaches such problems by three principal routes. First, it creates a federal regulatory system in which competitive principles are given strong express recognition. Second, it makes extensive use of a system of checks and balances. And third, it leaves no doubt that Congress intends to maintain watchful surveillance over this aspect of the program.

REGULATORY SYSTEM

Experience has shown that regulated industries give rise to somewhat special types of monopoly and antitrust problems. Normally, the regulated industry, having a status in the nature of that of a public

utility, is subject to the jurisdiction of an agency deemed to have considerable expertise in bringing the industry's problems into harmony with the public interest. Through the operation of the "primary jurisdiction" rule and in many other ways, the existence of such a regulatory system has substantial impact upon the regulated industry's antitrust phases. This tends to be so even in those situations where the applicable statute makes clear that the agency's express regulatory approval does not relieve the licensee from the operation of the antitrust laws in connection with the licensed activity.[6] Such problems are not novel; we have been dealing with them in fields such as shipping, motor carriers, aviation, natural gas, and atomic energy. While drawing on this experience, however, we must also recognize the likelihood that communications satellite operations will present new and substantial problems.

The regulatory system imposed by the Communications Satellite Act does have rather distinct features, including a number of provisions especially pertinent to monopoly and antitrust considerations. These begin, appropriately enough, with the declaration of policy and purpose in section 102 of the act. In the drafting of important legislation, there has developed a modern tendency to include in legislative declarations of purpose, generalizations which are commendable but sometimes not wholly consistent—leaving it to others to worry about how all the stated objectives can be reconciled and achieved. Perhaps this tendency is reflected, in part, in section 102 of the Communications Satellite Act. Nevertheless, subsection (c) of section 102 does set forth one of the major objectives which Congress felt it important to declare:

> In order to facilitate this development and to provide the widest possible participation by private enterprise, United States participation in the global system shall be in the form of a private corporation, subject to appropriate governmental regulation. It is the intent of Congress that all authorized users shall have nondiscriminatory access to the system; that maximum competition be maintained in the provision of equipment and services utilized by the system; that the corporation created under this Act be so organized and operated as to maintain and strengthen competition in the provision of communications services to the public; and that the activities of the corporation created under this Act and of the persons or companies participating in the ownership of the corporation shall be consistent with the Federal antitrust laws.

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[6] See *Symposium on Antitrust and the Regulated and Exempt Industries*, 19 ABA ANTITRUST SECTION 261–421 (1961). During recent terms the Supreme Court has had occasion to decide a number of such issues: Pan American World Airways, Inc. v. United States, 371 U.S. 296 (1963); California v. FPC, 369 U.S. 482 (1962); Maryland & Virginia Milk Producers Ass'n v. United States, 362 U.S. 458 (1960); United States v. R.C.A., 358 U.S. 334 (1959); Federal Maritime Bd. v. Isbrandtsen Co., 356 U.S. 481 (1958).

This statement of purpose serves to furnish guidance to those who must administer and interpret the act, as well as those who must live under its provisions.

We turn next to section 201(c)(1) and section 201(c)(2), which give specific content to the definition of certain of the responsibilities lodged in the Federal Communications Commission. Here it is provided that:

> (c) the Federal Communications Commission, in its administration of the provisions of the Communications Act of 1934, as amended, and as supplemented by this Act, shall—
>
> (1) insure effective competition, including the use of competitive bidding where appropriate, in the procurement by the corporation and communications common carriers of apparatus, equipment, and services required for the establishment and operation of the communications satellite system and satellite terminal stations; and the Commission shall consult with the Small Business Administration and solicit its recommendations on measures and procedures which will insure that small business concerns are given an equitable opportunity to share in the procurement program of the corporation for property and services, including but not limited to research, development, construction, maintenance, and repair.
>
> (2) insure that all present and future authorized carriers shall have nondiscriminatory use of, and equitable access to, the communications satellite system and satellite terminal stations under just and reasonable charges, classifications, practices, regulations, and other terms and conditions and regulate the manner in which available facilities of the system and stations are allocated among such users thereof . . . .

To these should be added the more general standard of the "public interest, convenience, and necessity"—a standard which recurs in other subsections as the measure of the FCC's responsibilities.

As to monopoly and antitrust matters, it will be seen that the act leaves in some doubt the limits of the respective responsibilities of the Federal Communications Commission, the Justice Department, and (with respect to foreign negotiations and commitments) the State Department. It would be easy to exaggerate the amount of confusion thus engendered. In many ways the jurisdictional doubts and uncertainties are comparable to those besetting other regulated industries; certainly nothing here seems to be so acute or unusual as to give special cause for alarm.

CHECKS AND BALANCES

In formulating the structure for the new Communications Satellite Corporation, Congress imposed a system of checks and balances—both with respect to the corporation's board, section 303(a), and with respect to the corporation's stock, section 304. The board is to have three members—intended to represent the public interest—appointed by the President of the United States subject to Senate confirmation;

six members elected by those stockholders which are communications common carriers; and six members elected by the other stockholders. In addition, no single stockholder which is a communications common carrier may vote, either directly or indirectly, for more than three board members.

Fifty percent of the stock authorized for issuance at any time by the corporation is to be reserved for purchase by communications common carriers authorized by the FCC to make such purchases. At no time may these carriers own or control, in the aggregate, more than 50 percent of the voting stock issued and outstanding. In addition, the FCC is given power to compel a communications common carrier to transfer some or all of its stock, for a fair and reasonable consideration, to another communications carrier, to the extent that the FCC determines that this "will advance the public interest and the purposes" of the act, Congress having also specified that the FCC, "whenever consistent with the public interest, shall promote the widest possible distribution of stock among the authorized carriers."

The statutory directions governing the corporation's structure have by now been implemented through the adoption of articles of incorporation and bylaws.[7] With respect to its stock, however, the corporation has not yet arrived at even tentative and preliminary decisions concerning the amount of stock to be issued, the timing and the terms of the offering, or other aspects of stock distribution.

Section 403 of the act, containing provisions relating to sanctions, is of particular interest in connection with monopoly and antitrust aspects. Subsection (a) of section 403 expressly confers on the Attorney General a right to obtain such equitable relief as may be necessary or appropriate to prevent or terminate conduct or threat of conduct violating the act's provisions, policies, or purposes. Subsection (b) of section 403 goes on to provide that nothing contained in the section "shall be construed as relieving any person of any punishment, liability or sanction which may be imposed otherwise than under this Act." This provision, particularly in conjunction with the language of section 102(c) already referred to, will give strong support to the position that the act is in no way a *pro tanto* repeal or modification of the antitrust laws.

In addition, section 404(c) manifests the intention of Congress to keep watch on these matters. It requires that, among the reports which the FCC is to transmit to Congress "annually and at such other times as it deems desirable," there shall be included "a report

[7] The corporation's articles of incorporation (filed Feb. 1, 1963) and the bylaws are both reproduced in *Hearings on Nominations of Incorporators of the Communications Satellite Corporation Before the Senate Committee on Aeronautical and Space Sciences*, 88th Cong., 1st Sess. 43–63 (1963).

of its activities and actions on anticompetitive practices as they apply to the communications satellite programs."

Some of the monopoly and antitrust problems, as we have seen, may be expected to arise by virtue of the communications carrier affiliations through at least six members of the new corporation's board of directors. Accordingly it is worth noting that, to help minimize these problems, the articles of incorporation and bylaws include a set of provisions intended to prescribe certain rules for the disqualification of directors, officers, and employees, to pass upon specific transactions in which they may have some other interest.[8]

The ambiguities and uncertainties in the provisions of major legislation emerge quickly. The Communications Satellite Act is no exception. For example, as the act has been interpreted, the new corporation could not require its communications-carrier stockholders actually to purchase 50 percent of the voting stock as a condition to exercising their statutory right to elect all six of their group of directors. This interpretation has been received with surprise and dismay by some of the Senators who were strong supporters of the legislation. But the suggestion has been made that before initiating measures to amend the law in this respect, Congress might well wait

[8] Section 8.07 of the articles of incorporation provides:

No director shall participate in the negotiation of any contract between the Corporation and any firm, corporation, association, or other entity in which such director has a substantial financial interest or of which he is a director, officer, trustee, or employee. If a director knows that the Board of Directors of the Corporation or any committee of the Board proposes, at a meeting at which such director will not be present, to act upon or in reference to any such contract, it shall be his duty to advise the Board or committee, at or before the meeting, of his interest in such contract. If a director is present at any meeting at which the Board or any committee of the Board acts upon or in reference to any such contract or any contract between the Corporation and such director himself, it shall be his duty to advise the Board or committee of his interest, and to abstain from participation in any discussion of or vote upon such contract. If any director knowingly violates this Section in connection with any contract, and if such contract was unfair to the Corporation at the time it was entered into, such director shall be liable to the Corporation for any damages resulting from such unfairness.

Section 5.17 of the bylaws provides:

Outside Interests of Officers and Employees. The Board of Directors from time to time may adopt rules and regulations governing the conduct of officers or key employees with respect to matters in which they have a financial interest adverse to the interests of the Corporation. Such rules and regulations may forbid officers or key employees from participating personally and substantially in corporate action with respect to any contract, transaction or other matter in which, to the knowledge of any such officer or employee, he or any member of his immediate family has a financial interest, unless (a) such officer or employee makes full disclosure of the circumstances to the Board or its delegate and the Board or its delegate determines that the interest is not so substantial as to affect the integrity of the services of such officer or employee, or (b) on the basis of standards to be established in such rules or regulations, the financial interest is too remote or too inconsequential to affect the integrity of such services. Such rules and regulations may also prohibit, or establish appropriate limits upon, the ownership by such officer or employee, or member of his immediate family, of securities of any communications common carrier or any other firm or corporation doing a substantial volume of business with the Corporation.

to see whether the carriers nevertheless decide to buy the full 50 percent available to them.[9]

How important this and other ambiguities in the legislation may prove to be in their practical effects is by no means clear. Certainly it is still too early to tell whether the act is reasonably adequate for the next few years, or whether it will require drastic amendment.

So much for the general legislative structure which will furnish guidelines for dealing with monopoly and antitrust problems in the communications-satellite program. Obviously many such problems may arise in connection with the practical conduct of the new corporation's affairs. Fortunately, not all of these are likely to arise either immediately or simultaneously. Here it may be useful to explore, briefly and in a preliminary way, three groups of the problems: (1) procurement; (2) foreign negotiations; and (3) service and rates.

PROCUREMENT

As already indicated, procurement matters pose many difficulties. Not all of them can be postponed; indeed, some of them must be dealt with virtually immediately. Moreover, the FCC is already considering what kind of procurement regulations it should issue in order to fulfill its statutory responsibilities.

Decisions must be arrived at progessively, as the program moves forward, which will make choices between different communications-satellite systems and will establish orders of priority in development. Often it can be expected that the merits will be highly debatable and as we know from the current TFX controversy, such decisions are apt to bear the imprint of the personal judgment of those responsible for making them. Accordingly, it becomes especially important to safeguard against solidifying some preferred position which may accrue to a company having both a headstart and an "inside track."

In the act, as we have seen, Congress proclaimed its adherence to broad competitive principles. But this alone cannot assure that in practice such competitive principles will be given the scope required by the public interest; continuous planning and effort on the part of both the regulators and the regulated is required. On the other hand, it must be recognized that if, in order to facilitate open competitive bidding, equipment specifications are frozen too early, the price may be high in terms of a resulting inefficiency or partial inoperability of the communications satellite systems.

[9] See especially *Hearings, supra* note 7, at 96–106, which included interpretative opinions rendered both by the Justice Department and by the corporation's special counsel.

To state these problems is not to solve them. Nor is this an area where it will be easy for the Federal Communications Commission to exercise its regulatory authority wisely and well. It is understood that by now the FCC has circulated to other Government agencies and to industry representatives a very tentative working draft of proposed procurement regulations, seeking to obtain their comments and suggestions before any formal rule-making proceeding is initiated by publication in the *Federal Register*.

Needless to say, many different approaches could be made to the exercise of this important regulatory responsibility. At one extreme, the FCC might embark upon a detailed system of transaction regulation, requiring that specific advance approvals be obtained from the FCC before any procurement of goods or services in excess, for example, of some minimum figure such as $10,000 or $15,000 or $20,000 could be entered into by prime contractors, subcontractors, and so on down the line, as long as the procurement comes within the scope of the communications-satellite program. At the other end of the spectrum might be a regulation providing merely for a kind of postaudit, under which the FCC would periodically examine, after the event, certain types of procurement transactions to see whether competitive principles appeared to have been followed. Numerous intermediate approaches suggest themselves. One is to require advance FCC transaction approval only on certain critical or unusually important categories of procurement. Another would be to develop an extensive list of exemptions for those categories of transactions which seemed less likely to be a source of difficulty. Another possibility would be to require companies engaging in procurement to submit to the FCC, for advance approval, a proposed general procurement procedure, and then to provide that specific transaction approvals need be obtained from the FCC only in instances where it was planned to depart from the approved procedure in some material respect.

These and other variations doubtless will be canvassed by the FCC before the procurement regulations are adopted in final form. The FCC is an agency which, as compared with the Defense Department, the Atomic Energy Commission, and various other federal agencies, has had very limited experience in the regulation and control of procurement by private corporations. This lack of experience would aggravate the normal difficulties of putting into effect a smoothly functioning regulatory system if the FCC undertook too large an administrative burden. Indeed, by being overzealous in the early stages of the program, the FCC might succeed only in stifling development, in introducing intolerable delays, and generally in frustrating the

possibilities of working out reasonable procurement practices. It will not be an easy task to achieve a proper balance.

FOREIGN NEGOTIATIONS

The application of the United States antitrust laws to activities abroad has long been a thorny and complex subject.[10] In the case of communications-satellite activities, the complexities will be enhanced by the close interrelationship—which obviously exists and which the act tends to emphasize—between United States foreign policy and the new corporation's foreign negotiations and foreign operations.[11]

Much diversity of opinion can be found concerning the role which the corporation should play in foreign negotiations. Some think the corporation should maximize its independent position; others, that foreign negotiations constitute an area in which the corporation should tend to follow rather than lead the Government.

In any event, the approach of foreign legal systems to matters such as monopoly, allocation, and price control is often very different from the approach of the United States antitrust laws. Possibilities of collision accordingly exist when such matters arise in a context which directly affects the commerce, foreign and domestic, of the United States.

To what extent will the Communications Satellite Corporation, in its negotiation of foreign commitments, be limited and inhibited by the traditional scope of the United States antitrust laws as they have been applied to other industries carrying on activities abroad? To what extent will special circumstances and the special regulatory system cause any modification in the impact which the antitrust laws might otherwise have on the making and the scope of the corporation's foreign commitments? The outcome of questions such as these will surely be watched with interest as the communications satellite program develops.

SERVICE AND RATES

The general expectation is that, initially, when a communications satellite system can first be put into practical operation, there will

[10] See, *e.g.*, ALI, LAW GOVERNING INTERNATIONAL TRANSACTIONS ch. V (1962); BREWSTER, ANTITRUST AND AMERICAN BUSINESS ABROAD (1958); FUGATE, FOREIGN COMMERCE AND THE ANTITRUST LAWS (1958); RESTATEMENT, THE FOREIGN RELATIONS LAW OF THE UNITED STATES §§ 18, 39, 40 (Proposed Official Draft 1962); References cited in Weston, *Developments in Antitrust During the Past Year*, 21 ABA ANTITRUST SECTION 46, 97–98 (1962).

[11] See generally SCHWARTZ & GOLDSEN, FOREIGN PARTICIPATION IN COMMUNICATIONS SATELLITE SYSTEMS: IMPLICATIONS OF THE COMMUNICATIONS SATELLITE ACT OF 1962, The Rand Corporation Memorandum RM-3484-RC (Feb. 1963).

probably be an excess of capacity. This would mean that the system's ability to meet the demand is not likely to be a problem at the beginning. Nevertheless, the basic decisions made as to types of systems and order of priority of development will have substantial implications for the nature of service furnished, the persons to whom such service shall be available, and the kinds of rate structures which are practicable and just.

Inherent in these matters are many problems as to preferential treatment, discrimination, and similar issues on which a great body of experience has developed during the past half century of public-utility regulation. It is a part of the challenge of our times to adapt such experience to new situations as they emerge.

THE ROLE OF CONGRESS

However important may be the role of the FCC and other parts of the Executive Branch in regulating the corporation and in administering the policies of the Communications Satellite Act, careful attention should also be given to the central position of Congress. The controversy surrounding enactment of the statute, and the continuing importance of the subject matter with which it deals, assure that congressional scrutiny will be intensive.

Here indeed is one of the great safeguards against preferential treatment, monopolistic tendencies, and other anticompetitive practices. One reason for the effectiveness of this safeguard is that from time to time particular transactions and activities in the communications satellite program will be the subject of thorough review by Congress. Another is that, because Congress has made so plain its high interest in the subject matter, those who participate in the program are likely to be more careful and deliberate in their actions and to try to be more sure that adequate justification exists for what is done.

Congress is by no means limiting itself to a watchdog function in connection with the communications satellite program. For example, questions are now pending—and can be expected to be of a continuing nature—concerning whether federal funds should be appropriated for research and development efforts in which the Communications Satellite Corporation is directly and immediately interested. The public importance of such questions will help to assure that this program stays in the limelight on Capitol Hill.

Comments

Carl H. Fulda

With respect to the subject of competition in a regulated industry, Mr. Boskey has pointed out that under the Communications Satellite Act the FCC is given the duty to enforce certain antitrust principles, and that this is, of course, not very new because the same mixture of administrative enforcement of some competition, but not too much competition, applies in many of the other regulated industries.

This arrangement raises, among other things, the psychological question of the reaction of regulators to the phenomenon of competition, which by itself seems to be irreconcilable with regulation in the sense that regulation is a command to do thus and so, rather than to compete freely. The situation has produced in some agencies a rather schizophrenic attitude in that some of the members seem to feel the word "competition" is almost an obscene expression, while other members think it is their duty to enforce competition to the maximum extent.

Perhaps, among all the agencies, the only one that has taken this command very seriously is the Civil Aeronautics Board. But that agency is now being condemned for allowing too much competition.

Now, what is the point of all this? The satellite corporation is a monopoly, a legalized joint venture, in spite of the phrase in section 102 [47 U.S.C.A. § 701(d)] that indicates new systems might be permitted. It will remain a monopoly for a considerable time to come. Its immunity from competition is granted only on condition of effective regulation by the regulatory agency. That is the reason why enforcement of the antitrust principles brilliantly described by Mr. Boskey is one of the primary duties of the agency. Consequently, the compartmentalization of this program into three acts, if I may call them so—Act I, Antitrust; Act II, Administrative Aspects; and Act III, International Aspects—is a device of convenience, but no more than that. At least Acts I and II, Antitrust and Administrative Aspects, are in fact and in legal theory part and parcel of the same general scheme: the administrative supervision must be directed toward achieving these antitrust safeguards. And I think that past experience certainly justifies the admonition that this should be emphasized as strongly as it possibly can be emphasized.

With respect to some of the specific problems, Mr. Boskey suggested that competition in procurement of equipment is perhaps the most crucial one. Indeed, the hearings before the various committees—particularly the hearings before Senator Kefauver's Subcommittee on

Antitrust and Monopoly of the Senate Judiciary Committee and Senator Long's Subcommittee on Monopoly of the Senate Select Committee on Small Business—are replete with very vigorous debates on this question of procurement.

One provision of the act which Mr. Boskey cited, but on which he did not comment further—which was, incidentally inserted into the statute at the suggestion of the representatives of the FCC [1]—includes discretionary authority for the commission to prescribe competitive bidding in procurement "where appropriate" [47 U.S.C.A. § 721(c)(1)]. This differs from section 10 of the Clayton Act, which makes competitive bidding mandatory for common carriers in surface transportation whenever there are interlocking directors. Significantly, the Interstate Commerce Commission has gone beyond what section 10 of the Clayton Act ordains by requiring competitive bidding in practically all instances, including the flotation of bonds and equipment trust certificates, without any inquiry as to whether there are interlocking directors.

One question would therefore be, What are the intentions of the Federal Communications Commission with respect to this all-important discretionary authority and, particularly, how does the Commission propose to give concrete content to the mysterious words "where appropriate."

It would be relevant to our discussion to find out whether the most recent attempt at enforcing competition in procurement of communications equipment has any relevance for the future experience under the 1962 statute. I am referring, of course, to the lawsuit by which the Department of Justice attempted to compel AT&T to divest itself of its control of its wholly-owned subsidiary, Western Electric.

The complaint filed in 1949 charged that AT&T and Western Electric had been engaged in a continuing conspiracy to restrain and monopolize the manufacture, distribution, and sale of telephones, telephone apparatus, and telephone equipment in violation of sections 1 and 2 of the Sherman Act. The suit was settled in 1956 by the Government's giving up the demand for divestiture and also giving up the alternative demand for the limitation of the role of Western as an exclusive supplier of AT&T, and settling for provisions opening up some patents for general licensing.[2]

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[1] *Hearings on Antitrust Problems of the Space Satellite Communications System Before the Subcommittee on Antitrust and Monopoly of the Senate Committee on the Judiciary*, 87th Cong., 2d Sess. 286 (1962). (Hereafter cited as *Kefauver Hearings.*)

[2] See *Report of the Antitrust Subcommittee of House Judiciary Committee on Consent Decree Program of the Department of Justice*, ch. II: *The A.T.&T. Consent Decree*, pp. 29 *et seq.* (86th Cong., 1st Sess. 1959). (Hereafter cited as *Consent Decree Report.*).

In the negotiations which preceded the entry of this consent decree, the defendant urged that Western was selling equipment to AT&T at prices considerably below those which independent suppliers could afford to charge, and that divestiture or limitation of Western's role would therefore be damaging to the public interest.[3]

Now, here is question number 1 for the future experience under the 1962 act. Will this argument be repeated? What is there to it? Can it be substantiated?

Moreover, in the Western Electric case—and this relates to another aspect of administrative supervision as a substitute for competition in the protection of the public interest—the defendant pressed the argument that the FCC had jurisdiction over AT&T's interstate and international rates and the state commissions over their intrastate rates; and that even the prices which Western Electric charged to AT&T were subject to scrutiny because they affected the rate base of AT&T. Accordingly, so the argument went in the negotiations preceding the consent decree, the application of Sherman Act principles would not only make no sense, but it would actually be contrary to the public interest.[4]

I believe it is unfortunate that these contentions were never tested at a trial. But it would seem to me—and if I am wrong, I trust that the gentleman who will speak for AT&T will prove this—that a similar problem may arise again, because the hearings are replete with the question as to how antitrust principles in procurement can be effectuated when the most important company in the picture is being supplied by a wholly owned subsidiary.[5] And apparently the same subsidiary relationship does exist in some other companies.[6]

At this point, perhaps it is important to mention two pending bills—one in the Senate [7] and one in the House [8]—which would direct the chairman of the Federal Communications Commission and the Administrator of the Small Business Administration to "cooperatively develop a small business contracting program to be applicable to the contracting and procurement activities" of the corporation. This implies, so it would seem, that the authors of these bills do not have great faith that the commandment of the statute—there shall be competition—will be enough. They seem to feel that the FCC, in view of its lack of experience in procurement regulations, cannot entirely be left to its own devices; in other words, the apprehension is that without

[3] *Consent Decree Report*, p. 77. *Kefauver Hearings*, p. 228.
[4] *Consent Decree Report*, p. 96.
[5] See *Kefauver Hearings*, pp. 78, 79, 80, 130, 151, 324, 326, 335, 345, 357, 359.
[6] *Id.*, p. 78. (Reference to General Telephone.)
[7] S. 223, 88th Cong., 1st Sess. (1963).
[8] H.R. 3619, 88th Cong., 1st Sess. (1963).

a further affirmative push, the competitive policy in this area will not get off the ground and, obviously, anything which cannot get off the ground has no place in the satellite system.

The formal and technical questions which Mr. Boskey mentioned with respect to the continued validity of the antitrust law in this area presents another problem. Perhaps Mr. Boskey has been a little too sanguine in predicting there would be no difficulties. Under section 201(c) [47 U.S.C.A. § 721(c)(1)] the Commission shall "insure effective competition." This would seem to indicate that the Commission may prosecute a complaint. However, the legislative history is replete with assertions that the Commission is not expert in enforcing competition, and presumably for that reason section 403(a) [47 U.S.C.A. § 743(a)] provides that the Attorney General shall file a complaint in equity against the corporation if it violates any provisions of the act. On the other hand, section 403(b) states that 403(a) is not to be construed as relieving any person of any liability under any other law. Although the antitrust laws are not specifically mentioned, they are presumably included in the general clause of section 403(b). Consequently, it would seem that the Attorney General may have the choice of proceeding under the Communications Satellite Act or under the antitrust laws, or possibly under both at the same time, and that treble damage actions are also available.

The real point of all this will be raised by a defendant in an antitrust suit brought by the Attorney General, who may invoke the provision that the Commission shall insure effective competition. He is likely to say: "This means at least something in the nature of primary jurisdiction, or prior resort. And you, Mr. Plaintiff, must first go to the Commission and see whether the Commission will give you satisfaction. This may take quite some time, but in any event, until the Commission has decided this, nothing further can be done about it."

Now, as to rate regulation, it is of course obvious that effective rate control is a *quid pro quo* for monopoly status. But only effective rate control can secure the consumer protection which normally comes about through competition. Thus, here again, antitrust and administrative aspects are indivisible.

In this connection it is significant that the Commission in 1961 persuaded Western Electric to reduce its prices to the Bell System. The fact was brought out in the later stages of Senator Kefauver's Hearings.[9] But the people who believe very strongly in the policy

[9] *Kefauver Hearings*, pp. 283, 284.

of competition, even though gratified by this contrast with previous inactivity on the part of the Commission, nevertheless raised the question whether an adversary rate proceeding may not have had greater effect than a private negotiation.[10] In the international field, there is the further difficulty of dividing the rates between the American and foreign carriers. The administrative part of the program may enlighten us further on these matters.

The next point, which in any discussion of monopoly is an unavoidable one, is the problem of technological improvement. The hearings devoted a great deal of time to this; it was charged that the incentive to always keep ahead, to do the best possible, to use the most recent and the most modern devices and inventions—that this incentive could be weakened by the monopoly status which is accorded to this corporation.

Two specific examples from the Hearings are pertinent to this question. One is a quotation from Judge Loevinger's testimony before Senator Long's Committee. And again, of course, I do not know whether there is merit to these charges. I merely bring them out here because it seems to me this is a problem which ought to be discussed. Said Judge Loevinger:

> We understand, for example, that evidence developed in the trial of the GE lamp case indicated that fluorescent lamps were developed in the 1930's. However, there was some apprehension by GE that the introduction of fluorescent lamps might have disturbed GE's activities in the incandescent lamp field. . . .
>
> AT&T started development of a mobile hand set to meet Army and Navy demands, and actually produced some hand sets in 1907. However, no effort was made to introduce the hand set for public use until 1937.
>
> There is also some evidence that it failed to introduce automatic switching equipment as rapidly as it was available because it was waiting for the obsolescence of equipment it had then on hand.[11]

The other quotation is from Congressman Ryan of New York, who told the Kefauver Committee:

> AT&T, which laid one undersea cable in 1956, contemplates another in 1963. If the satellite system goes up quickly, and is used to capacity, these cables will become obsolete.
>
> Moreover, it is very likely that the first system to be in operation will be low orbit, which . . . should be superseded by the high orbit system which will be far more economical. . . . Once a private corporation invests hundreds of thousands of dollars in a low orbit system its investors and directors will

[10] Senator Long in *Kefauver Hearings*, pp. 359, 360; Dr. D. W. Smythe, *id.* p. 195; Congressman Celler (*id.* p. 131) charged that the Commission has never established "fundamental principles or standards by which to judge the reasonableness of Bell System's interstate telephone rates."

[11] *Space Satellite Communications, Hearings Before Subcommittee on Monopoly of Senate Select Committee on Small Business*, 87th Cong., 1st Sess. 52, 53 (1961).

not be inclined to proceed expeditiously with research and development which will make equipment purchased by those hundreds of millions obsolete.[12]

Perhaps one answer to this is that the Government will insist that always the newest equipment be used. Chairman Minow referred to section 214(d) of the Communications Act, which authorizes the Commission to require any carrier to provide itself with adequate facilities for the expeditious and efficient performance of its services as a common carrier.[13]

It would be interesting to have some further elaboration, from the gentlemen who represent the Federal Communications Commission, as to the feasibility of this suggestion, where the stumbling block again may be what is meant by adequate.

In regard to prevention of domination and guarantee of equal use, Mr. Boskey mentions the limitation to 50 percent of the carrier-owned shares. This leaves open the question of how that overall share is to be apportioned among the carriers. The provision that only nonvoting securities shall be eligible for inclusion in the rate base seems to be designed to encourage carrier investment without simultaneous carrier control. Whether it will work out that way, of course, remains to be seen.

As to the bylaws, I have some question about the provision (section 2.06) which fixes one-third of the outstanding voting shares as a quorum. I am wondering whether that is enough to implement the statutory objective of not permitting domination by one firm or one group.

It seems, however—and again, this is a matter for discussion—that the question of ownership and control is less important than that of equal access for everybody [§ 201(c)(2), 47 U.S.C.A. § 721(c)(2)]. It is conceivable that ownership and control in a few hands might, nevertheless, under the gentle prodding of the Commission, be managed in such a way as to assure equal access to all.

Therefore, the guarantee of equal and nondiscriminatory access to a facility of such earth-shaking importance is the most crucial prerequisite of reconciling this corporation with our general legal traditions.

W. A. Schlotterbeck

It is a very challenging assignment for a nonspace expert to comment on two papers which seem to me to deal with completely different subjects. But I am going to try to do it anyhow.

[12] *Kefauver Hearings*, p. 179. (For similar charges see *id.*, pp. 133, 151.)
[13] *Kefauver Hearings*, p. 304.

Mr. Boskey's analysis of the regulatory and competitive problems presented by the Communications Satellite Act seems to me to be thoughtful, practical, and comprehensive. The problems that he describes have been recognized by everyone who is interested in the legislation—everyone who is interested in getting a space satellite system. They are not new. The statute was designed to provide a number of ways to solve them.

I do, however, differ a little with Mr. Boskey and more particularly with Professor Fulda with respect to whether there are "antitrust" issues. Terms like "monopoly" and "antitrust" can be very useful tools of analysis and debate. They are, however, very controversial symbols. If misapplied, these tools can create images that obstruct analysis.

It seems to me that, as applied to the particular situation we are discussing today, "antitrust" is a somewhat misleading term. I would prefer to substitute (what I believe Mr. Boskey also substituted during his talk) the idea that we are dealing with a regulated, reregulated, and perhaps overregulated enterprise. Regulation *has been substituted for antitrust* as has been done in other situations.

It seems to me the essence of "antitrust" is encompassed in the federal antitrust statutes—principally the Sherman and Clayton Acts. Under these laws the business venturer retains the initiative to decide what objectives he will try to reach and how he will get there. In seeking to reach these goals, he is prohibited from using certain techniques. Whether his objectives and techniques for attaining them are lawful is resolved in accordance with our regular judicial processes. This has very little in common with our regulatory processes.

The Communications Satellite Act is not an exemption from antitrust or an immunity from competition, but an imposition (for well-understood and well-considered reasons) of the restraints of regulations.

We all know that things are not always what they seem. Not infrequently things can be the converse of what they seem. Some comment on the Communications Satellite Act assumes that it creates a "monopoly." It seems to me that the law we are discussing, rather than being an example of the creation of a monopoly, is designed to prevent monopoly, if we can use that term to apply to this particular potential medium of communication.

What the statute does is recognize an economic and technological fact which was described by Mr. Boskey; namely, that in the near future there isn't the money and interest to put up more than one system. The act does not legislate that as a law. It is a background fact that the act takes into account.

Therefore, this one system for the time being is not a creature of the law. The act prevents monopoly by insuring access to the communications satellite system on nondiscriminatory terms, with public participation in the ownership, with rate regulation, and with the federal antitrust laws thrown in.

Professor Fulda's paper deals with a wide range of different subjects. It was very provocative and, so far as I was concerned, provoking. I realize that he assumed the role of the picador. The picador is well protected, as is his horse. This looks like a bull ring, and I feel like a bull. I can see what is intended for the bull. But it is in his nature to charge, nevertheless.

With respect to the question of insuring competitive procurement of equipment for the satellite system (a question which everyone has recognized will present problems, as it frequently does in government contract procurement), Professor Fulda takes a detour into the Western Electric case. This was a lawsuit brought under the antitrust laws and has nothing to do with the subject of a regulated communications satellite system.

He asks whether or not the same kind of problem—that is, the danger of "insider" influence and self-dealing—will arise in this case. Here we have a statute that answers the question. The Communications Satellite Act empowers and obligates the Federal Communications Commission to "insure effective competition" in the procurement of equipment and services by the satellite corporation. Comprehensive regulations are being drafted.

Professor Fulda also identifies Mr. Cook and myself as representatives of two industrial concerns. I do not know about Mr. Cook, but I can make more than a *pro forma* disclaimer. I am not here in any representative capacity other than representing myself.

Professor Fulda repeats certain charges which Judge Loevinger is said to have made. I sometimes think there must be a Bartlett's Familiar Quotations of Charges, particularly for antitrust specialists, because certain quotable gems crop up all the time.

Now, Judge Loevinger is reported to have said, with respect to electric light bulbs (I don't know whether there will be any on the satellites), that while the fluorescent lamp was developed in the 1930's, it did not in fact come on the market until after the Government successfully concluded an antitrust case against General Electric Company.

I will have to take on the role—which was thrust upon me—of being the lawyer for my client. I spent four years as a counsel for the people in the Lamp Division of General Electric in Cleveland.

There were two government antitrust cases against the Lamp Division, one involving incandescent lamps and one involving fluorescent

lamps. The trial of the incandescent lamp case was completed and the judge's opinion rendered in 1949. A decree was entered by consent in the fluorescent case in 1954.

Quick research into some of the government figures has unearthed the following facts—which are not hard to get. It is true that fluorescent lamps were developed in the 1930's. They also were introduced commercially in that decade and sold to the World's Fairs at New York and San Francisco.

The statistics which are at hand only go through 1947. Therefore, I cannot state precisely how many fluorescent lamps were sold prior to the termination of the government antitrust case, which is either 1949 or 1954, depending on how you want to look at it. But the industry had sold, by the end of 1947, over 300 million fluorescent lamps.

Professor Fulda asks what is industry's answer to these charges of technological suppression. My answer is that the charges are inaccurate and, under the circumstances, somewhat reckless. On top of that, and much more important to our discussion of communications satellites, they are irrelevant. The very concerns about which Professor Fulda raises questions with regard to technological suppression are the ones that want to go ahead with this particular technological improvement in communications, as Professor Fulda himself points out.

I think that this kind of argument demonstrates that the policy question which Congress has decided does not sit well with many people. It is going to be debated for a long time.

My personal hope is that we accept President Kennedy's characterization of the Communications Satellite Act as a national program to get the space satellite system up and operating, and that those who can and want to do the job—whoever they are—be allowed to get on with it. I don't see any critical antitrust issues at this time, nor has Professor Fulda pointed one out. We have fully adequate statutory provisions for addressing any future problems in procurement or competitive relationships. Deputy Attorney General Katzenbach has made it very clear that the Department of Justice is entirely satisfied that this corporation is the best answer we can devise to a realistic cooperation of private industry and the Government in a program of national and international significance.

The real issue is whether we can get the system up, get some leadership for the United States with respect to the very difficult foreign negotiations that will take place. This goal requires the recognition that there is a common national interest to be served here rather than the denial that government and business can have such a common in-

terest. The policy issue, it seems to me, should be accepted as settled in favor of a unique regulated private enterprise.

Under these circumstances, I would like to see the academic world, people in industry, and government work on the development of means of going forward with what is going to be a very complex political and foreign relations problem.

George V. Cook*

I shall endeavor to emphasize certain matters which have not been developed by the other speakers but which deserve consideration before any meaningful appraisal can be made of the "Monopoly and Antitrust Aspects of Communications Satellite Operations."

I am torn between my basic obligation to comment on Mr. Boskey's very reflective paper and fine contribution to the learning on this subject, on the one hand, and the desire to accept Professor Fulda's invitation, on the other hand, to comment on certain statements he has made in which he attempts to draw parallels which I think Mr. Schlotterbeck has already demonstrated do not exist, and which I think overlook the very language and purpose of the statute we are discussing.[1] In fairness I should note that Professor Fulda furthered the principles of the free exchange of ideas by sending me a copy of his comments which I received as I was running for a plane. Consequently, I have had some opportunity to reflect briefly on his paper prior to this meeting.

In his prepared paper, Professor Fulda included some statements which he did not repeat in his oral presentation but which serve to fortify my views. I was somewhat surprised, in this connection, at the references that were made to the statements of the distinguished chairman of the House Judiciary Committee, Mr. Celler, which apparently Professor Fulda (if I understood him correctly) though cast doubt on

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*I have taken the liberty of extending my comments to include a discussion of the case law relating to joint ventures which time did not permit to be covered in my oral presentation, and otherwise to annotate or amplify my remarks for the benefit of the reader—G. V. C.

[1] See Pub. L. 87-624, 87th Cong., 2d Sess. (1962), 76 Stat. 419, §§ 102(c) and 201(c)(1). *Cf.* the testimony of Deputy Attorney General Katzenbach before the Senate Commerce Committee, 87th Cong., 2d Sess., April 26, 1962, at 347:

Senator Kefauver, as I understood him, seemed to feel that in some way the antitrust laws were suspended by the creation of this corporation. That is certainly not the view of the Department of Justice. They aren't in any sense suspended. The antitrust laws apply to what is done in this corporation, to any conspiracies which are created with an intent to dominate or to lessen competition. Indeed, the whole thrust of the Department of Justice participation in this bill has been to make the communications system more competitive and to use this as a device for insuring that no single carrier would get monopoly control over this great new satellite system. And that has been our thrust. We believe that this bill, as drafted, accomplishes that purpose insofar as it is possible to accomplish it.

the wisdom of the Communications Satellite Act. I found these references rather misplaced, however, in that Representative Celler was recorded among the multitude who cast their votes affirmatively for the Satellite Act.[2] It seems to me, therefore, that the matters raised by Professor Fulda are either based on a misconception of what this act is all about, and what Congress was attempting to do, or they are simply not pertinent to the general discussion of the law of space and satellite communications.

My remarks will focus primarily on Mr. Boskey's paper, especially those phases of it which are peculiarly within my competence, namely those which relate to the communications aspects of this subject. I will return to Professor Fulda's specific questions to the extent time permits.

It is obvious that antitrust is just one interesting aspect of the Communications Satellite Act—one of many of its public-interest features. The act is, as Mr. Boskey has said, permeated with overlapping safeguards which certainly must be taken into account in appraising the antitrust posture of this legislation.[3]

The act contains so much to spark the imagination and excite wonderment that I really hardly know where to begin. So I will begin with a few simple scientific facts which I believe are indispensable to an understanding of this subject.

1. *Despite the glamour and excitement created by Telstar, technologically speaking communication via satellite is but another means of relaying, point-to-point, long-distance communications.* We do this today. We do it with cables. We do it with high-frequency radio, troposcatter radio, and other facilities. Every telephone in the United States today, for example, is a part of a worldwide communication network connecting such far-off lands as the United Kingdom, Liechtenstein, Italy, Iceland, Monaco, Russia, Bulgaria, France, Germany, San Marino, Argentina, El Salvador, Brazil, Kuwait, Ethiopia, Malagasy, Iran, and Singapore. Recently the telephone systems of Basutoland, Bechuanaland, Sarawak, Burundi, French Somaliland, Reunion, Swaziland, and New Hebrides were added to those accessible from the telephones of the United States.

Satellites will help us to provide better service. They will provide another high-capacity facility to help us meet the ever-growing demands for more and more circuits. But in terms of service to the

[2] The vote in the House was 372 to 10, including Rep. Celler's vote in the affirmative, 108 CONG. REC. 16615 (August 27, 1962, daily ed.), and 66 to 11 in the Senate, 108 CONG. REC. 15874 (August 17, 1962, daily ed.).

[3] For a detailed exposition of these safeguards, see also the statement of Senate Majority Leader Mansfield, 108 CONG. REC. 15828–29 (Daily ed. August 17, 1962).

customer there is nothing that a satellite system can do that we cannot do in communications today, or that we will not be able to do with conventional facilities when the system comes into being.

The use of Telstar for intercontinental television has apparently led some people to think that communications satellites will provide a complete communications service. This is not so. Satellites will not be used to broadcast directly to home receivers, certainly not in the foreseeable future, but rather will operate on a point-to-point basis between existing common-carrier networks.[4] In short, and this is crucial in evaluating the antitrust posture of communications satellites, they will not constitute a communications system in themselves. They will simply serve as a bridge, an intermediate link, in a system that provides complete communications service, much like high-frequency radio and modern submarine cables.

Stated another way, any commercial satellite communications system must perforce become a part of existing worldwide communications. Its efficient use will depend on its proper integration into the vast terrestrial networks of the international and domestic communications carriers. And without those networks, as Dr. Dryden of NASA has noted, communications satellites will be relatively useless.[5] This leads me to my next postulate.

2. *In the foreseeable future, there can be but one commercial communications satellite system.* This is a basic economic fact. I could not agree more in this respect with Mr. Schlotterbeck's observations; and I think Mr. Boskey also developed this quite adequately in his remarks. The Communications Satellite Act did not create this condition. On the contrary, that act was a direct outgrowth of this condition. This is primarily a matter of the high initial cost of a satellite system, low initial demand, and very large circuit capacities of the microwave radio amplifiers to be used in the satellites.

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[4] See *Draft Proposals of U.S.A. for the Extraordinary Administrative Radio Conference for Space Radiocommunication (Geneva, 1963)*, Oct. 22, 1962, at 4:

Recent experimental programs have demonstrated the technical feasibility of relaying aural and television broadcast program material via communication satellite stations. However, these demonstrations consisted of transmissions to special receiving stations on the earth's surface from which the program material was distributed over conventional terrestrial communication systems to the broadcasting stations which serve the general public. . . . Studies indicate that there is little likelihood of the general public receiving direct broadcasts from satellites in the near future. The proposals of the U.S.A. do not include provision for a broadcasting satellite service.

For an appraisal of the practical uses of communications satellites, see L. L. Johnson, *The Commercial Uses of Communications Satellites*, V CALIF. MGMT. REV. 55 (Spring 1963), and Jaffee & Smith, *The Impact of Communications Satellites on the Less Developed Areas*, a paper submitted at the UN Conference on the Application of Science and Technology for Benefit of the Less Developed Areas (Geneva, Jan. 1963).

[5] Testimony of Dr. H. L. Dryden, Deputy Administrator of NASA, before the Senate Space Committee, 87th Cong., 2d Sess., at 19 (Feb. 27, 1962).

It is this situation—where there can be but one system in which a number of carriers desire to participate in ownership and use—which required resolution so as to assure the use of the system on equitable and nondiscriminatory terms, and so as to prevent any unfair advantage or preference to any one carrier or supplier.

This is precisely what the Satellite Act is all about. And this is exactly what it does. There is nothing novel in it in this sense at all. It involves no exemption from the Sherman Act or the Clayton Act, Professor Fulda to the contrary notwithstanding. This is evidenced by the fact that the courts on many occasions have held similar ventures—in railroad terminals, involving the Pullman Company, involving newspaper distributorships, and the like—not to constitute an unreasonable restraint of trade or a violation of the antimerger law.

Even without the Communications Satellite Act, the provision of a communications satellite system by means of a joint venture authorized by the Federal Communications Commission would not of itself violate the antitrust laws. This was recognized by the Department of Justice during the debates on the Satellite Act [6] and is implicit in the four criteria which Mr. Loevinger advanced and which were quoted by Professor Fulda.

The mere fact that there would be a combination of parties is not a violation. There must be conduct "significantly and unreasonably anticompetitive in character or effect." [7] The test to be applied has been succinctly stated by Mr. Justice Brandeis in *Board of Trade of the City of Chicago* v. *United States*, 246 U.S. 231, 238 (1918):

> . . . Every agreement concerning trade, every regulation of trade, restrains. To bind, to restrain, is of their very essence. The true test of legality is whether the restraint imposed is such as merely regulates and perhaps thereby promotes competition or whether it is such as may suppress or even destroy competition. To determine that question the court must ordinarily consider the facts peculiar to the business to which the restraint is applied; its condition before and after the restraint was imposed; the nature of the restraint and its effect, actual or probable. The history of the restraint, the evil believed to exist, the reason for adopting the particular remedy, the purpose or end sought to be attained, are all relevant facts. . . .

The legal test to be applied in determining the validity of a joint venture of existing carriers to provide themselves with joint facilities

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[6] See the testimony of Assistant Attorney General Loevinger before the House Committee on Interstate and Foreign Commerce, 87th Cong., 1st Sess., at 153 (July 26, 1961) and Mackay Radio and Telegraph Co. v. F.C.C., 97 F. 2d 641, 644 (D.C. Cir. 1938). See also Kohlmeier, *President May Order Message Satellite Operation if Congress Fails to Pass Bill*, Wall Street Journal, at 7 (August 3, 1962).

[7] Report of the Attorney General's National Committee to Study the Antitrust Laws, at 11 (1955).

so long as the facilities are available to all who use them was set forth in *United States* v. *Terminal Railroad Ass'n*, 224 U.S. 383 (1912). Here, the Supreme Court held that the existence of one railroad terminal, which was owned by 14 of the 24 railroads doing business in the St. Louis area, did not constitute an illegal restraint or unlawful monopoly provided access to the facilities was made available on an impartial basis to each interested carrier. Accordingly, it held that all existing and future railroads should be given an opportunity to participate in ownership and that those not electing to participate in ownership be authorized to use the facilities upon just and reasonable terms.

Similar arrangements by which parties otherwise competitive could jointly operate a necessary common facility have been universally held to be permissible under the antitrust laws. In *United States* v. *Pullman Co.*, 64 F. Supp. 108 (1946), *aff'd*, 330 U.S. 806 (1947), the court authorized the acquisition of the Pullman sleeping car service by a group of competing railroads doing more than 95 percent of the passenger carrying business in the United States. In *United States* v. *Yellow Cab Co.*, 332 U.S. 218, 228 (1947) and in *Parmelee Transportation Co.* v. *Keechin*, 186 F. Supp. 533, 542–43 (N.D. Ill. 1960), *aff'd*, 292 F. 2d 794 (7th Cir. 1961), the validity of joint selection by all railroads whose facilities terminated in Chicago of a transfer agent to exclusively provide transfer facilities between various railroad stations was upheld. In *Interboro News Co.* v. *Curtis Publishing Co.*, 225 F. 2d 289 (2d Cir. 1955), the court upheld the joint utilization by competing magazine publishers of the same local wholesaler even though other distributors were available, where the facts showed that no one publisher had sufficient business to support its own wholesaler.

Litigation has frequently occurred on the legality of joint ventures of existing competitors to provide common service in foreign countries. In this series of cases as well, the courts have recognized that the mere existence of the joint venture does not itself violate the antitrust laws in the absence of agreements to fix price or unduly restrain competition. See, for example, *United States* v. *Imperial Chemical Industries*, 100 F. Supp. 504, 557 (S.D.N.Y. 1951); *United States* v. *E. I. duPont de Nemours Co.*, 118 F. Supp. 41 (D. Del. 1953), *aff'd* 351 U.S. 377 (1956), and *Cutter Laboratories* v. *Lyophile-Cryochem Corp.*, 179 F. Supp. 80 (9th Cir. 1949).

Joint ventures have been condemned only where the venture unfairly impeded the competitive market place. Thus such joint arrangements have been held illegal where competitors have been unfairly hampered thereby: *United States* v. *Terminal Railroad Ass'n*, 224 U.S. 383 (1912); *Associated Press* v. *United States*, 326 U.S. 1 (1944); and

Gamco, Inc. v. *Providence Fruit and Produce Building*, 194 F. 2d 484 (1st Cir. 1952). The joint use of common facilities by competitors would also violate the antitrust laws if such use were pursuant to agreement which restrained competition between the parties or reduced the services and facilities available to the public. See *Norfolk Southern Bus Corp.* v. *Virginia Dare Transit Co.*, 159 F. 2d 306 (4th Cir. 1947), and *Eastern States Retail Lumber Corp.* v. *United States*, 234 U.S. 600 (1914).

Moreover, only recently, the court in *United States* v. *Penn-Olin Chemical Co.*, 1963 Trade Cases, para. 70, 762 (D. Del. May 1, 1963), rejected the theory that any joint venture between companies having the capacity to go into a line of business by themselves is illegal *per se* under section 7 of the Clayton Act.

From these cases the following legal criteria can be developed:

(a) Where natural economic or technical considerations present situations in which all parties desirous of obtaining a given facility or service are unable to obtain independent facilities or services, a joint venture of such parties, limited to this situation, is not, without more, a violation of the antitrust laws;

(b) Such joint ventures may consist of parties who are otherwise competitors in cases where the shared arrangement is one which is not provided directly to the public, but is one which the sharers themselves use in their own service; and

(c) The antitrust laws are violated only where outside competitors or suppliers are unduly restrained or the public is deprived of service.

This brings me to my third postulate which is also a very important one to understand in placing this legislation in its proper perspective:

3. *It is clear that U.S. interests alone cannot construct and operate a communications satellite system.* Many people, it seems to me, have ignored this basic political fact and have assumed that we in the United States could go it alone. But this will just not be done. This country is at only one end of each international communications message which originates or terminates within it boundaries. Much of the satellite traffic, moreover, will be between other countries and will not involve the continental United States at all.

Experience in international communications, which goes back more than a hundred years, has shown over and over again that the major nations of the world, and many of the smaller ones as well, will wish to participate as equals in this system through their own communications administrations, agencies, and companies. They will want to own a part interest in the satellites and they will want to

provide their own ground terminal facilities, just as they do in the case of conventional facilities.[8]

The system will not be a United States monopoly. Thus, I think what Mr. Boskey has said about procurement problems—and he had, I think, some very reflective remarks to make, in this connection—has to to be placed in the further context of active foreign participation in the construction and establishment of this system. In short, foreign interests will want to provide equipment as well, just as they have done with the cable systems that now circle the globe.

I also should add in answer to Mr. Boskey that I do not see that the negotiations with foreign communications interests should pose any serious antitrust problems. The very nature of international communications requires their participation, and the long and successful history of past negotiations between American carriers and these interests without antitrust difficulties provides a strong precedent for future use.

Against the background of these three postulates, what is it that the Communications Satellite Act charges the new Satellite Corporation to do? Well, the act says it is going to do two basic things:

First, it is to cooperate with the foreign interests in planning, constructing, maintaining, and operating a worldwide system of communications satellites.[9]

Second, it is to lease communications capacity, or channels in the satellites, to United States communications common carriers who are authorized by the FCC to provide service to the public via satellites, and to other authorized entities, foreign and domestic.[10] This means in essence that the corporation will not serve the public directly but, rather, is to operate as " a carriers' carrier" in providing communications capacity in the satellites to the carriers who, in turn, will derive the circuits over which they will provide service to the public.

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[8] See Moulton, *Some Legal Aspects of International Communications*, an address at the Southeastern Regional Annual Meeting of the American Society of International Law, February 2, 1963, to be published in the North Carolina Law Review.

[9] Section 305(a)(1).

[10] Section 305(a)(2). In addition, of course, the Corporation is authorized by § 305(a)(3) to own and operate satellite terminal stations when licensed by the FCC pursuant to § 201(c)(7). Under § 201, Congress authorized the FCC to license the Corporation and/or carriers, jointly or severally, to construct and operate ground stations. Congress obviously had antitrust considerations in mind when it rejected a proposal that the Corporation own and operate all domestic ground stations. Thus, the Senate Space Committee stated in its report, S. REP. No. 1319, 87th Cong., 2d Sess., at 5 (1962):

> Another important consideration is that, while as a practical matter there probably can be only one system of commercial satellites, there can be a number of ground stations all served by the same satellite system. Thus, competition might well be fostered if the carriers establish and operate their own ground stations.

Thus, the corporation will depend upon the carriers for revenues, and the carriers will depend upon the corporation for satellite capacity, to assist them in supplementing their alternative means of providing communications service to the public. This, I should note in answer to Professor Fulda, is a situation which has no parallel in domestic or in other international communications situations.

In this way—through the corporation acting as a carriers' carrier, through the corporation's structure, through FCC regulation, and through the elaborate system of checks and balances which Mr. Boskey developed—all carriers will be assured nondiscriminatory use of the system and all suppliers given an opportunity to compete for its business.

Let me repeat, there is no antitrust exemption or immunity granted in the act. It embodies all the criteria which the Department of Justice said over and over again must be taken into account, and then some.

I think Mr. Schlotterbeck's concluding observations deserve reemphasis at this point. If we are to keep our national lead in this field—which I am proud to say Telstar has contributed to, which NASA's Relay satellite has contributed to, and which I hope Telstar II will further contribute to—then I think it is time we apply ourselves in a constructive way to make this venture a success. The President has said this is the best way to do it and the Congress has agreed overwhelmingly with him. The time has come to go forward and this will not be done by reliving the past.

Now, let me turn to some of the specific points raised by Professor Fulda.

He speaks of the Western Electric price reduction in 1961 as being an isolated and unusual case. The fact is that since 1948 Western has reduced its prices materially on seven separate occasions, to a point where the aggregate level of its prices today is about 20 percent lower than the 1948 level.[11] This, mind you, was during a period in which Western's material and labor costs climbed substantially and when, according to the Government's BLS data, the prices on electrical machinery and equipment rose by more than 50 percent. Western's prices and profits, moreover, have been under review in

[11] See *Report of NARUC–FCC Telephone Staff Subcommittee on Manufacturing and Service Affiliates to the Staff Committee on Communications Problems, Transmitting Western Electric Data for 1962*, at 3–4.

literally hundreds of state cases apart from FCC regulation and consistently have passed muster.[12]

Professor Fulda also asked for industry's answer to the charge that there is an inherent temptation here to retard technological advances. I think again Mr. Schlotterbeck has exploded that myth. I am hardly qualified to speak for industry, but it seems to me that Professor Fulda could not have chosen a poorer illustration to make his point. Anyone familiar with the operations of the Bell Telephone Laboratories, which developed the Telstar satellites in the first place, I submit, could not seriously accuse the Bell System of such activity.[13]

Any entity which has produced four Nobel prize winners in physics can hardly be accused of "sleeping at the throttle."[14] And it is of some interest that during the current year Bell is spending at the rate of $165 million on basic research and development which in a very real sense is designed to render obsolete its entire plant.

I think the converse observation is the one I hear more frequently: that the Bell System moves too aggressively and too rapidly and that others find it hard to keep up with it.

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[12] It should be emphasized in this connection that, both before and after the Consent Decree referred to by Professor Fulda, Western Electric had *no* exclusive rights to supply the Bell System. Thus to state that a limitation of Western's status "as exclusive supplier of AT&T" was an alternative to divestiture is misleading. But when Bell operating companies do in fact purchase from Western they have the burden, under the doctrine of Smith v. Illinois Bell Tel. Co., 282 U.S. 133 (1930), of showing the reasonableness of the prices they have paid. See City of Columbus v. P.U.C., 154 OHIO ST. 107, 93 N.E. 2d 693, 698 (1950).

[13] Professor Fulda quoted from a statement made by Mr. Loevinger that it had been alleged that AT&T delayed the introductions of the so-called handset and failed to introduce certain switching equipment as rapidly as it was available. These allegations, which were made more than a quarter of a century ago, have long since been refuted. (See *Comments Submitted to the FCC by AT&T on Commission Exhibits 293 and 2096G, Telephone Investigation 1935–1937.*) They were in fact based on unsupported assertions made during the so-called Walker investigation in the 1930's in which no opportunity was afforded for cross-examination. The individual who advanced these allegations was subsequently discredited after cross-examination in the first major rate case in which he appeared after making these allegations. See Wisconsin Telephone Co. v. P.S.C., 287 N.W. 122, 157 (1939):

> While we cannot adopt the view of the trial court with respect to the testimony given by the witness Hill in its entirety, a reading of the record convinces us that it is so unfair and biased as to be unreliable.

In contrast to these allegations compared *The Annual Report*, N.Y. P.S.C., at 54–57 (1953).

[14] Clinton J. Davisson, John Bardeen, Walter H. Brattain, and William Shockley. See Bello, *The World's Greatest Industrial Laboratory*, Fortune, (Nov. 1958).

To be specific, Professor Fulda quotes from a statement by Representative Ryan that the communications carriers will seek primarily to protect their cable investments. This overlooks the fact that the foreigners, who will have a strong say in the establishment of a satellite system regardless of the structure of American participation, have much more substantial cable investments than any of the American companies. It further fails to note that the Bell system has been working on communications satellites since 1954, and has spent in the last 2 years alone $50 million on the Telstar program.[15]

So, suddenly, the charge changes. Now, the Bell System's interests, it is asserted, are in establishing and maintaining a preferential position for a low- or medium-orbit system. This overlooks the fact that Dr. John Pierce of the Bell Laboratories, in the first detailed analysis of the potential of communications satellites in 1954, pointed out certain advantages that the so-called synchronous system will have when it becomes available.[16] Mind you, John Pierce's comments were made 3 years prior to the time that Sputnik I was launched. Moreover, Mr. J. E. Dingman, an Executive Vice President of AT&T, has testified that "if a high altitude system became available at approximately the same time, and the other carriers or the overseas countries wanted the high altitude system, and there are advantages and disadvantages to each, AT&T would put its money in a high altitude system also." [17]

I find these allegations rather startling, and maybe Professor Fulda does too, for he has stated that AT&T is expected to put up most of the money to make the satellite corporation go. Here we have a very anomalous situation: AT&T under this novel theory is expected to put up most of the money to support a system which it must know will make obsolete its equipment, while others argue that AT&T's development of new high-capacity cables will create problems in establishing a satellite system.[18] I find this all very confusing indeed.

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[15] Letter of Mr. J. E. Dingman to Senator W. G. Magnuson, dated April 19, 1962, contained in *Hearings on Communications Satellite Legislation before Senate Commerce Committee*, 87th Cong., 2d Sess. 207–08 (1962).

[16] *Orbital Radio Relays*, a technical paper written in November 1954 and published in the April 1955 issue of Jet Propulsion, at 153–57.

[17] *Hearings Before the Senate Space Committee*, 87th Cong., 2d Sess. 321 (March 6, 1962).

[18] See the statement of Senator Gruening, 109 CONG. REC. 9207–09 (Daily ed. May 28, 1963).

In short, AT&T is chastised if it does, and criticized if it doesn't—all without regard to the overriding necessity of providing the circuits, by satellite and cable, for the continued growth in overseas communications requirements.

I would like to conclude, and I can assure you that there was no intent on my part to overlap with some of Mr. Schlotterbeck's remarks, by referring to another part of the statement made by Deputy Attorney General Katzenbach:

> Another and somewhat similar attack on this legislation is the charge that it will create a monopoly. It is true that, at least for a number of years, only one commercial communications satellite system will probably be feasible. Therefore, under any system of organization, including Government ownership, there will be only a single system for some time, and in that sense a monopoly. However, the proposed corporation under the pending bill will certainly not be a monopoly in the accepted and invidious sense of an enterprise which enables its owners to dominate and exploit the market. The important objective with respect to the communications satellite system is to make sure, as the pending bill does, that the system will not be controlled by a favored few but rather will reflect broadly the interests of all those who are concerned with the system, whether as communications carriers, manufacturers, suppliers, investors, citizens, and taxpayers.[19]

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[19] Letter to Senator M. J. Mansfield, 108 CONG. REC. 13919–20 (Daily ed. July 27, 1962).

Regulation in Orbit: Administrative Aspects of the Communications Satellite Act of 1962

Victor G. Rosenblum

FOCUSING THE ROLE OF FREE MEN in what he termed "an ever-renewing society," Carnegie Corporation President John W. Gardner recently observed:

> [M]any of the qualities crucial to a society's continued vitality are qualities of youth, vigor, flexibility, enthusiasm, readiness to learn. . . . Every society must mature, but a society whose maturing consists simply of acquiring more firmly established ways of doing things is headed for the graveyard. In the ever-renewing society what matures is a system or framework within which continuous innovation, renewal and rebirth can occur.[1]

The Communications Satellite Act[2] viewed in the context of the Carnegie president's observations is a significant innovation. Alternative methods of organizing and administering a satellite system, in greater consonance with our "established ways" than the resulting statute, could certainly have been developed. But would greater conformity to those established ways have produced a better statute? Let us examine the potential alternatives.

Either of two major courses could have been adopted. One was the FCC's original proposal embodied in its First Report of May 24, 1961, dealing with administrative and regulatory problems of communications satellite systems.[3] That report proposed consideration and exploration of a joint venture composed of international common

[1] Gardner, *Free Men in an Ever-Renewing Society*, Chicago Daily News, April 13, 1963 (Panorama section), p. 6.

[2] Pub. L. No. 87-624, 87th Cong., 2d Sess. (Aug. 31, 1962), 76 Stat. 419, 47 U.S.C.A. §§ 701-44 (1962) [hereinafter cited to sections of the act]. An excellent analysis of the statute is Legislation Note, *The Communications Satellite Act of 1962*, 76 HARV. L. REV. 388 (1962).

[3] FCC Doc. No. 14024, *In the Matter of an Inquiry Into the Administrative and Regulatory Problems Relating to the Authorization of Commercially Operable Space Communications Systems*, First Report, May 24, 1961.

carriers, subject to the FCC's regulatory jurisdiction, as an effective means of promoting the orderly development and effectuation of such a system. New enabling legislation was not deemed necessary. It was urged that the FCC could handle the matter administratively.

The second alternative would have been to establish a Communications Satellite Authority as an agency of the United States to acquire, own, and operate the United States portion of the satellite system.[4]

By what criteria might either of these alternatives have been preferable to the bill finally adopted? If the FCC's plan had been followed, a handful of international communications companies would have controlled our satellite system, accountable only to an agency whose record of regulation of common carriers over the years has been bleak.[5] The Department of Justice's statement of May 5, 1961, reminding the FCC of the Antitrust Division's responsibility for enforcement of the antitrust laws and cautioning the Commission that "a project so important to the national interest should not be owned or controlled by a single private organization irrespective of the extent to which such a system will be subject to governmental regulation," was a necessary reassertion of national policy in opposition to monopolistic controls.[6] The Justice Department set out four conditions that any plan for the development and operation of a satellite communications system must meet in order to be consistent with the antitrust laws. These included the opportunity for all interested communication common carriers and all interested producers and sellers of communications equipment to participate in ownership, for all interested common carriers to have unrestricted use of the system on nondiscriminatory terms, and for all interested producers and sellers

[4] This was the essence of bills like S. 2890, 87th Cong., 2d Sess. (1962), and of the amendment to S. 2814, 87th Cong., 2d Sess. (1962), proposed by Senator Kefauver for himself and Senators Morse, Yarborough, Gore, Gruening, Burdick and Neuberger. The minority views of Senators Yarborough and Bartlett to S. REP. No. 1584, 87th Cong., 2d Sess. (1962) (Senate Committee on Interstate and Foreign Commerce) and of Senators Morse, Long, and Gore to S. REP. No. 1873, 87th Cong., 2d Sess. (1962) (Senate Committee on Foreign Relations), summarize the position of proponents of government ownership of the satellite system, 14 U.S. CODE CONG. & AD. NEWS 2531–42, 2545–51 (1962).

[5] In their "Organization and Management Survey of the Federal Communications Commission" in March 1962, the Management Consulting firm of Booz, Allen and Hamilton noted that the responsibility of the Common Carrier Bureau of the FCC is "of an order of magnitude and significance which exceeds the Bureau's resources. Neither the physical facilities, the staff, nor the budget provided the Bureau properly reflects a recognition of the Bureau's statutory obligations." *Minority Views*, pt. 1, S. REP. No. 1584, 87th Cong., 2d Sess. 54 n. 1 (1962).

[6] Statement of Department of Justice, FCC Doc. No. 14024, May 5, 1961, in *Hearings on Establishment, Ownership, Operation and Regulation of a Commercial Communications Satellite System Before the House Committee on Interstate and Foreign Commerce*, 87th Cong., 1st Sess., pt. 1, at 132, 134 (1961).

of communications equipment to furnish such equipment to the system.

President Kennedy's statement on communications satellite policy of July 24, 1961,[7] made clear that more was at stake in the establishment of a satellite system than what the FCC alone could handle. The President stated his preference for private ownership and operation of the United States satellite system provided such ownership and operation could meet eight policy requirements, such as expanded international communications services at the earliest possible date, global coverage including service to unprofitable areas, opportunities for foreign participation in the satellite system, nondiscriminatory use of and equitable access to the system by present and future authorized communications carriers, maximum possible competition in the acquisition of equipment and of ownership or control of the system, full compliance with governmental regulatory controls and antitrust legislation, and development of an economical system to be reflected in beneficial rates. Since these requirements could not be met by FCC action alone, congressional action embodying a comprehensive regulatory plan was proposed.[8]

The other alternative to the President's proposal was Government ownership and operation of the satellite system. Government ownership would not have eliminated but would merely have reduced the visibility of problems like securing the technical knowledge and expertise indispensable to the success of a satellite system. Deputy Attorney General Katzenbach's views on the subject in a letter to the Senate Majority Leader on July 27, 1962, emphasized that it was with the communications common carriers and their related corporate subsidiaries, rather than with Government personnel, "that the bulk of experience, knowledge, and expertise rests."

> Either they will dominate the system through ownership, as the communications industries initially proposed to the FCC, or under a government-owned system they will dominate it through contract. We cannot avoid the simple fact that the Government does not have, and would have great difficulty in acquiring the personnel needed to operate this system under Government ownership and would, in my judgment, be forced to contract actual operation to the communications industries.[9]

Surely our experience with Government contracts has not been so economical, pleasant, or nonpolitical as to warrant a preference for

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[7] In *Hearings on Antitrust Problems of the Space Communications Satellite System Before the Subcommittee on Antitrust and Monopoly of the Senate Committee on the Judiciary*, 87th Cong., 2d Sess. 271–72 (1962).

[8] On February 7, 1962, S. 2814, a bill transmitted by the President, was introduced in the Senate by Senators Kerr and Magnuson. For the legislative history, see S. REP. No. 1584, 87th Cong., 2d Sess. (1962).

[9] Letter from Deputy Attorney General Katzenbach to Senate Majority Leader Mansfield, July 27, 1962, in *Hearings on H.R. 11040 Before the Senate Committee on Foreign Relations*, 87th Cong., 2d Sess. 30, 33 (1962).

domination by contract over shared responsibility through broadly based ownership. From World War I to the recent dispute over the TFX [10] we have been confronted by manifold problems involving procurement, profits, and politics in contracting.[11] One cannot be critical of the effort to devise a mechanism for ownership and control of the satellite system that would maximize responsibility for and commitment to its success and minimize costly inefficiencies in procurement and administration that might have been inevitable byproducts of the plan for exclusive Government ownership.

The Satellite Communications Act embodies the effort to establish the broadest possible base of ownership, control, and commitment; to render a vital service to people throughout the world; and to show that the American enterprise system, requiring neither subservience of private business to the Government nor dominance of Government by private business, can thrive on a bona fide partnership of interests.

Is the statute's effort successful? It is, of course, too early to know the precise answer to that; but there are major uncertainties in its language and potential pitfalls in its administration that call for careful consideration.

Examination of the Communications Satellite Act from administrative perspectives suggests three broad problem areas for analysis. The first relates to clarity of draftsmanship and demands a detailed exploration of the ambiguities, intentional and otherwise, that cloud the act. The second focuses on the role of the Executive, who is given unprecedented power in a peacetime measure. The third centers on the conflicts that may arise among the various agencies and departments that have a role, however loosely defined, to play in the administration of the act.

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[10] For an examination of the measures of decision making by the Defense Department in the case of the TFX contract, see Smith, *The $7-Billion Contract That Changed the Rules* (2 pts.), Fortune, March 1963, p. 96; April 1963, p. 110.

[11] A typical day's reading of the Congressional Record—for example, remarks of Rep. Pillion of New York on April 9, 1963—reveals charges such as the following redolent prose.

> Mr. Speaker, the Comptroller General of the United States, in his reports to the Congress, has disclosed innumerable instances where business firms, in concert with, or independent of, government procurement officials, have extorted countless millions of dollars out of United States taxpayers. Our government procurement programs are riddled with flagrant violations of law. There exists a combination of utter incompetency, negligence and civil and criminal conspiracy.

The Congressman then proceeded to quote the Comptroller General's charges that Hazeltine Corporation had been unjustly enriched by $428,000 under a subcontract with Grumman Aircraft, that alleged Air Force negligence in a Boeing-Westinghouse contract for the production of interceptor missiles produced $404,500 in unwarranted profits for the contractors, and that the U.S. Army Corps of Engineers incurred unnecessary costs of $1,200,000 in the procurement of high cost portable fire extinguishers.

STATUTORY AMBIGUITIES: INTENTIONAL AND OTHERWISE

Apparently Congress does not take its cues on prescribing specificity of administrative standards from the corps of observers and critics of the administrative process. Despite numerous scholarly condemnations of the vagaries of existing statutory guides to administrators,[12] Congress goes right on functioning as a political body seeking to bypass storm centers of controversy through deliberate utilization of vagueness. The avoidance of overt conflict through vagueness, especially where strong policy arguments and strong political pulls may be exerted from both sides, can speed adoption of statutes even though it delays our understanding of them.[13]

While we may recognize the salutary effect of the practice of imprecision on full employment for the legal profession, the trouble with such practice is that it applies a "mañana" approach to key problems that cry out for resolution today. To take an example from another regulatory area, Congress employed deliberate vagueness at best and inherently contradictory language at worst in section 15(a)(3) of the Transportation Act of 1958 [14] in order to avoid conflict between truckers and railroads that might have made adoption of the statue impossible. The buck was passed from the legislature to the Interstate Commerce Commission and then to the courts. Five years of uncertainty and confusion preceded an interpretation by the Supreme Court of just what Congress had in mind when the legislature instructed

[12] Judge Henry Friendly's 1962 *Holmes Lectures* pursue this theme comprehensively and eloquently. FRIENDLY, THE FEDERAL ADMINISTRATIVE AGENCIES: THE NEED FOR BETTER DEFINITION OF STANDARDS (1962). Noteworthy predecessors of the judge in perceiving the evils of statutory ambivalence and amorphousness include former CAB member Louis Hector [see Hector, *Problems of the CAB and the Independent Regulatory Commissions*, 69 YALE L.J. 931 (1960)], Mr. Justice Jackson [see his dissent in FTC v. Ruberoid Co., 343 U.S. 470, 480, 486 (1952)], and Professor Louis Jaffe [see Jaffe, *An Essay on Delegation of Legislative Power*, 47 COLUM. L. REV. 359 (1947)].

[13] Earl Latham suggests that "every statute tends to represent compromise," since the process of accommodating conflicts of group interest is one of deliberation and consent. LATHAM, THE GROUP BASIS OF POLITICS 35–36 (1952). A similar point is made by Bertram Gross in GROSS, THE LEGISLATIVE STRUGGLE (1953), when he comments that many issues which are determined by judges in accordance with the intent of Congress "were in the first instance deliberately left unsolved because any effort to resolve them in Congress would have made too many people unhappy." *Id.* at 106. See also Frank Newman's discussion of *The Art of Deliberate Ambiguity*, in LEGAL INSTITUTIONS TODAY AND TOMORROW (Paulsen ed. 1960).

[14] 72 Stat. 572, 49 U.S.C. § 15(a)(3) (1958), provides:

> In a proceeding involving competition between carriers of different modes of transportation subject to . . . [this act], the Commission, in determining whether a rate is lower than a reasonable minimum rate, shall consider the facts and circumstances attending the movement of the traffic by the carrier or carriers to which the rate is applicable. Rates of a carrier shall not be held up to a particular level to protect the traffic of any other mode of transportation, giving due consideration to the objectives of the national transportation policy declared in . . . [this act].

the ICC not to hold up rates of one mode of transportation because of their competitive effect on other modes, but, at the same time, instructed the ICC to proceed consistently with the national transportation policy which had been regularly interpreted to require holding up rates of one mode because of their competitive effects on other modes.[15] There is a similar proclivity toward vagueness in the basic controversy in the Satellite Communications Act over the construction and operation of terminal or ground stations. As if the FCC did not have enough other problems under the statute, it must decide, for each of potentially dozens of ground stations, whether to award it to the Satellite Corporation, to an authorized carrier like AT&T or RCA, or to the Corporation and one or more carriers jointly. The applicable section of the statute, 201(c)(7), requires the FCC to

> grant appropriate authorizations for the construction and operation of each satellite terminal station, either to the corporation or to one or more authorized carriers or to the corporation and one or more such carriers jointly, as will best serve the public interest, convenience, and necessity. In determining the public interest, convenience, and necessity the Commission shall authorize the construction and operation of such stations by communications common carriers or the corporation, without preference to either[.]

The fact that the second sentence omits reference to joint construction and operation is only a minor defect. The major problem is to determine what instructions the FCC has in fact been given. Does this section contemplate the horror of comparative proceedings as in the case of TV channel awards, in which the award of each authorization for a terminal station could require months or years of hearings and deliberations? This could be disastrous since the satellite system cannot operate without terminal stations capable of transmitting telecommunications to and receiving them from a communications satellite. If the FCC were to handle the buck passed to it by Congress as gingerly as the ICC did in section 15(a)(3) of the Transportation Act, we could look forward to a state of uncertainty until a test case reaches the Supreme Court some time around 1968.

Congress did, of course, try to cope with the problem on its own at first. The original draft of the statute, embodied in S. 2814 and H.R. 10115, as introduced on February 7, 1962, at the request of President Kennedy, proposed that the Satellite Corporation "acquire the physical facilities and hardware necessary to its operations, including com-

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[15] The Supreme Court's decision of April 22 in ICC v. New York, N. H. & H. R.R., 372 U.S. 744 (1963), albeit unanimous, did not resolve definitely the meaning of § 15(a)(3). The Court reversed and remanded an ICC order rejecting proposed railroad rate decreases but explicitly declared it "inappropriate to approve of other aspects" of the comprehensive District Court opinion, Sea-Land Serv. v. New York, N. H. & H. R.R., 199 F. Supp. 635 (D. Conn. 1961), construing § 15(a)(3).

munications satellites, earth stations, and associated ground equipment, whether by construction, purchase or gift" and that the Corporation "develop plans for the number and location of earth stations and for the technical specification of all elements of the communications satellite system." [16]

There was vehement opposition by carriers to ownership of ground stations by the Corporation, however. The remarks of James E. Dingman, Executive Vice President of AT&T, before the House Interstate and Foreign Commerce Committee were typical:

> I have said that we believe the ground stations should be owned and operated by the carriers. I think you can now see that the ground stations will be the key to the proper coordination of the communications satellite channels into the domestic network. As such, we look upon them as an integral part of that network.
>
> We therefore believe ground stations should be owned and operated by the carriers who are responsible for the operation of these networks. . . . [A]ny other arrangements providing for divided responsibility for operation of these facilities will prove impractical and will degrade service to the public.[17]

The provisions of the statute regarding acquisition and control of the earth or ground or terminal stations were substantially altered in subsequent drafts. In H.R. 11040, introduced by Chairman Harris of the House Interstate and Foreign Commerce Committee on April 2, 1962, the Satellite Corporation's authorization in section 305(b)(2) to acquire physical facilities and hardware necessary to its operations no longer included "earth stations." The Corporation's originally proposed authority to "develop plans for the number and

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[16] Section 305 of the original draft of S. 2814 and H.R. 10115 provided:

(a) In order to achieve the objectives and to carry out the purposes of this Act, the corporation is organized to—

(1) plan, initiate, construct, own, manage, and operate itself or in conjunction with foreign governments or business entities a commercial communications satellite system.

(2) furnish for hire, channels of communication to United States communications common carriers and to other authorized entities, foreign and domestic.

(b) Included in the activities authorized to the corporation for accomplishment of the purposes indicated in subsection (a) of this section, are among others not specifically named—

(1) conduct or contract for research and development related to its mission;

(2) acquire the physical facilities and hardware necessary to its operations, including communications satellites, earth stations, and associated ground equipment, whether by construction, purchase, or gift;

(3) purchase satellite launching and related services from the United States Government;

(4) contract with authorized users, including the United States Government, for the services of the communications satellite system;

(5) develop plans for the number and location of earth stations, and for the technical specifications of all elements of the communications satellite system.

[17] *Hearings on H.R. 10115 and H.R. 10138 Before the House Committee on Interstate and Foreign Commerce*, 87th Cong., 2d Sess., pt. 2, at 521 (1962).

location of earth stations" was also deleted from section 305(b)(5).[18] Added to the FCC's duties in section 201(c)(7) was the responsibility to "grant a license for the construction and operation of each satellite terminal station, either to the Corporation or to one or more authorized carriers, or to the Corporation and one or more such carriers jointly as will best serve the public interest, convenience and necessity." The original draft of section 201(c)(7) in H.R. 11040 instructed the FCC that in determining the public interest, convenience and necessity, it "shall encourage the construction and operation of such stations by communications common carriers wherever, in the judgment of the Commission, such construction and operation are not inconsistent with the policies of the Act." [19]

Some federal agencies, including the Department of Defense, objected discreetly to the requirement that the FCC "encourage" common carrier operation of the terminal stations. The defense Department maintained that:

> [A] unified satellite system, in which the ground stations are an integral part of the overall system, would better achieve operational and technical compatibility within the system, would provide the desirable single authority for negotiation with foreign participants in the system, and would be better accommodated to the needs of a major communications customer like the Department of Defense.[20]

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[18] The text of § 305 in the original draft of H.R. 11040 was as follows:

(a) In order to achieve the objectives and to carry out the purposes of this Act, the corporation is authorized to

(1) plan, initiate, construct, own, manage, and operate, itself or in conjunction with foreign governments or business entities, commercial communications satellite systems;

(2) furnish, for hire channels of communication to United States communications common carriers and to other entities, foreign and domestic; and

(3) construct and operate satellite terminal stations when licensed by the Commission under section 201(c)(7).

(b) Included in the activities authorized to the corporation for accomplishment of the purposes indicated in subsection (a) of this section, are, among others not specifically named:

(1) to conduct or contract for research and development related to its mission;

(2) to acquire the physical facilities and hardware necessary to its operations, including communications satellites and associated equipment and facilities, whether by construction, purchase, or gift;

(3) to purchase satellite launching and related services from the United States Government;

(4) to contract with users, including the United States Government, for the services of the communications satellite system; and

(5) to develop plans for the technical specifications of all elements of the communications satellite system.

[19] The text of § 201(c)(7) in the original draft of H.R. 11040 authorized the FCC to:

> grant a license for the construction and operation of each satellite terminal station, either to the corporation or to one or more authorized carriers or to the corporation and one or more such carriers jointly, as will best serve the public interest, convenience, and necessity. In determining the public interest, convenience, and necessity the Commission shall encourage the construction and operation of such stations by communications common carriers wherever, in the judgment of the Commission, such construction and operation are not inconsistent with the policies of this Act. The Commission shall insure that each authorized carrier shall have equitable access to, and nondiscriminatory use of, such stations on just and reasonable terms.

[20] Letter from Cyrus R. Vance, General Counsel, Dep't of Defense, to Sen. Warren Magnuson, Chairman, Senate Committee on Commerce, May 10, 1962, in S. REP. No. 1584, 87th Cong., 2d Sess. 37, 38–39 (1962).

The Department of Justice had urged in stronger language that the ground stations be operated by the Corporation. Deputy Attorney General Katzenbach warned:

> There is a real danger that ground stations if separately owned by the carriers may, because of their high cost, represent an obstacle to technical growth so as prematurely to freeze the type of system. . . . Having the corporation own and operate its own ground stations also could mean greater reliability, guaranteeing continuity of service in emergencies, such as failure at one ground station, by the ability quickly to reroute traffic through other ground stations under its own management.[21]

The final form of the statute—after first assigning responsibility for ground stations to the Corporation, then changing this and ordering the FCC to encourage operation by the common carriers—requires the FCC to allocate ground stations according to the public interest but without preference for either the Satellite Corporation or the common carriers.[22] The Senate Commerce Committee, which proposed the language adopted in the final draft, assured the Senate in its report:

> Your Committee is confident that the FCC will take into account all relevant technological, economic, operating, and policy factors . . . which are related to the public interest as they are presented in each case making its determination as to whom it will authorize to operate the ground stations.[23]

The reasons for creating the organizational framework for our satellite communications system before the technical details of the system became final were stated vehemently by the Department of Justice in July 1962. Deputy Attorney General Katzenbach pointed out:

> [F]urther delay in enacting such legislation could only serve to impair the organization and impetus of the overall effort, to create uncertainties among

[21] *Minority Views*, pt. 1, *id.* at 56–57.

[22] The final draft of § 201(c)(7) instructs the FCC to:

> grant appropriate authorizations for the construction and operation of each satellite terminal station, either to the corporation or to one or more authorized carriers or to the corporation and one or more such carriers jointly, as will best serve the public interest, convenience, and necessity. In determining the public interest, convenience, and necessity the Commission shall authorize the construction and operation of such stations by communications common carriers or the corporation, without preference to either.

[23] S. REP. No. 1584, 87th Cong., 2d Sess. 12–13 (1962). At a later stage in its Report, the Senate Committee repeated its intent that there be "no legislative prejudgment as to who shall establish a ground terminal station," but in reciting the factors the FCC was to consider, the Committee this time specified "all relevant technological, economic, and operating factors" but neglected to include the factor of "policy." *Id.* at 18. Reference should be made also to the absence of the word "ownership" from the FCC's licensing powers under § 201(c)(7). The FCC has power only to license "construction and operation." The Corporation under § 305(a)(3) has power to "own and operate" terminal stations when licensed by the FCC under § 201(c)(7), but the FCC is not given a role in the allocation of "ownership." The Committee Reports do not deal with this discrepancy.

other nations now interested in cooperating with us, and to weaken our own sense of national commitment to this program, especially on the part of those enterprises, agencies, and individuals who must plan now if there is to be prompt availability and utilization of talents and energies, productive resources, and facilities and capital funds.[24]

In passing the bill, however, it seems that Congress made only half a decision.

It would be horrendous but not beyond the realm of possibility to envisage dozens of communications satellites dancing resplendently above us in their random, polar, and synchronous orbits while current equivalents of the Messrs. Whiteside, Katzentine, Palmer, Mack, and Schwartz (part of the cast of characters in the FCC nightmare from another drawn out era of comparative proceedings) are battling endlessly over who properly should be given the ground stations so that we can communicate with and through our satellites.

There are, of course, other vagaries in the statute. The problem of stock allocation strikes one as another potential nightmare for an agency that has had difficulty enough with the technical and allocative aspects of the communications spectrum. To have to decide who gets how much of the pie without instruction from Congress under section 304(f) could be debilitating. That section provides:

Upon application to the Commission by any authorized carrier and after notice and hearing, the Commission may compel any other authorized carrier which owns shares of stock in the corporation to transfer to the applicant, for a fair and reasonable consideration, a number of such shares as the Commission determines will advance the public interest and the purposes of this Act. In its determination with respect to ownership of shares of stock in the corporation, the Commission, whenever consistent with the public interest, shall promote the widest possible distribution of stock among the authorized carriers.[25]

An earlier draft of the stock transfer provision had called upon the FCC to order the transfer of the number of shares that would be reasonable "in the light of the estimated proportionate use of the corporation's facilities by the applicant."[26] Fearing that this might enable a carrier using a large portion of the Corporation's facilities to increase its stock ownership and thereby gain a dominant position in the Corporation, the Senate Commerce Committee removed the specific standard and ordered the FCC to promote the widest possible

[24] Letter From Deputy Attorney General Katzenbach to Senate Majority Leader Mansfield, July 27, 1962, in *Hearings on H.R. 11040 Before the Senate Committee on Foreign Relations*, 87th Cong., 2d Sess. 30, 32 (1962).

[25] This is the only section of the statute explicitly requiring notice and hearing and makes one wonder whether the inclusion of the requirement here impliedly excludes it from all other areas of Agency power conferred by the statute.

[26] The "estimated proportionate use" standard was embodied in § 304(h) of H.R. 10110 and in § 304(f) of subsequent drafts of S. 2814 and H.R. 11040, until the Senate Commerce Committee deleted it.

distribution of stock among the authorized carriers whenever consistent with the public interest.[27]

The FCC's discretion was nominally enlarged, but a peculiar phraseology may plague the agency in the future. The stock transfer the FCC is empowered to compel is from "any other authorized carrier." The plural is not used. This suggests that a new carrier applicant for stock can receive his share only from another single carrier rather than from a plurality or pool of carriers' stock. On gloomier days, one foresees once again arduous, prolonged hearings over who gets what stock from whom.

One of the most perplexing ambiguities of the statute is the meaning of "other authorized entities" and "users" under sections 305(a)(2) and 305(b)(4). Section 305(a)(2) authorizes the Corporation to "furnish, for hire, channels of communication to United States communications common carriers and to *other authorized entities*, foreign and domestic." (Emphasis added.) Section 305(b)(4) allows the Corporation "to contract with *authorized* users, including the United States Government, for the services of the communications satellite system." (Emphasis added.) The Chairman of the FCC noted his own confusion over the meaning of the terms in testimony before the House Committee on Interstate and Foreign Commerce in March 1962.[28] Chairman Minow said that insofar as the bill provides that the Corporation is to furnish facilities not only to communications common carriers but also to authorized users, "We think that the bill is somewhat ambiguous. . . ." He pointed out that "The bill can be construed to permit entities, such as the Government, who otherwise would be customers of the carriers, to directly lease channel facilities from the Satellite Corporation." The FCC Chairman objected to such a construction of the statute because it "could result in the Satellite Corporation competing directly with the common carriers, and possibly deprive those carriers of essential revenues, thereby leading to financial difficulties for the carriers. We think that this matter should be clarified."[29] The amorphous language was not altered or clarified in the final draft, and we have yet to learn precisely who besides the carriers and the United States Government might be an "authorized entity" or an "authorized user" entitled to hire facilities directly from the Satellite Corporation.

[27] S. REP. No. 1584, 87th Cong., 2d Sess. 21–22 (1962).

[28] *Hearings on H.R. 10115 and H.R. 10138 Before the House Committee on Interstate and Foreign Commerce*, 87th Cong., 2d Sess. pt. 2, at 399–440 (1962).

[29] *Id.* at 408.

THE OVERRIDING ROLE OF THE EXECUTIVE BRANCH

The assignment of ultimate responsibilities and sanctions under the statute has not been included under vagueness. One might in this instance prefer vagueness to the massive grant of decision-making power conferred on the President by the statute. While the FCC's regulatory powers are broad, they are neither exclusive nor final under the statute. In several respects the FCC may become no more than "water boy" to the Attorney General and the President.

Recent testimony by the FCC's General Counsel, Max Paglin, certainly expresses no fear that the statute has downgraded his Agency's position. In the course of an appearance before the Subcommittee on Communications of the Committee on Commerce, Mr. Paglin referred to the FCC's comprehensive regulatory role and to its obligation to report extensively to Congres under section 404(c) of the statute. He stated that "section 404c contemplates that the Commission . . . report to the Congress, among other things, on an evaluation of the activities within the scope of its authority, with a view to recommending such additional legislation which the Commission may consider necessary in the public interest." [30]

But section 404 may not be as broad in its allocation of functions to the Commission as one might wish. The meaning of "such" may be significant here. It is the President who, under section 404(a), is to transmit to Congress each year a report

> which shall include a comprehensive description of the activities and accomplishments during the preceding calendar year under the national program referred to in section 201(a)(1), together with an evaluation of *such* activities and accomplishments in terms of the objectives of this Act and any recommendations for additional legislative or other action which the President may consider necessary or desirable of the attainment of *such* objectives. [Emphasis added.]

The FCC, under section 404(c), is to transmit to Congress "a report of its activities and actions on anticompetitive practices as they apply to the communications satellite programs" and "an evaluation of *such* activities and actions taken by it within the scope of its authority with a view to recommending *such* additional legislation which the Commission may consider necessary in the public interest." (Emphasis added.) The "such" of section 404(c) may well refer only to activities and actions on anticompetitive practices. This restricted view is given support by the next clause that specifically calls upon the Commission to evaluate the capital structure of the Corporation, a function that would not need specification if the preceding clause were as broad as Mr. Paglin construed it. The President, in his

[30] *Hearings on Satellite Communications Before the Subcommittee on Communications of the Senate Committee on Commerce*, 88th Cong., 1st Sess., ser. 3, at 11 (1963).

initial report to Congress under section 404, reported on all phases of the FCC's actions under the statute as well as those of NASA and the State Department,[31] as though the chain of reporting is now from the FCC to the President to Congress rather than from the FCC to Congress directly. This point could be classified as a professor's cavil if it were not part of a pattern running through the statute that enlarges to unprecedented proportions the powers of the Chief Executive.

That a provision of an earlier draft, which would have facilitated further intrusion of the executive branch into areas beyond its traditional domain, was subsequently stricken is indicative of partial recognition of the problem but not of partial solution. The draft of H.R. 10115 contained an eighth paragraph in section 201(a) authorizing the President to

> designate an official or officials of the Government to assist in the accomplishment of the purposes of this Act who shall have access to all books, records, papers, correspondence and files of the corporation, shall have the right to attend any and all meetings of the board of directors or of stockholders of the corporation and shall make certain that what is being done and what needs to be done, both by the corporation and by departments and agencies of government, are known at all times to the President and that recommendations are made to him, whenever necessary, to attain full compliance with the national policy regarding international communications through space satellites.

Criticized along with other regulatory provisions by representatives of the common carriers as a deprivation of the Satellite Corporation management's responsibilities and prerogatives, the "overseer" clause was deleted from H.R. 11040. It could be argued that the provision was superfluous at best since the President appoints the incorporators and three of the fifteen directors. His power over the three directors is not made explicit. With regard to removal, for example, the statute provides, in section 303(a), only that the three members of the board appointed by the President with the advice and consent of the Senate shall serve "for terms of three years *or until their successors have been appointed and qualified.* . . ." (Emphasis added.) Whether or not this language be construed to authorize presidential removal,[32] it may be expected that the presidentially appointed directors will perform the functions originally prescribed in the deleted section 201(a)(8). Although the Attorney General has expressed the opinion that the incorporators and directors appointed by the President "will occupy private posts and not be offi-

[31] *Report by the President of the United States on Activities and Accomplishments Under the Communications Satellite Act of 1962*, Jan. 31, 1963.

[32] The original draft of this paper suggested the probability that the President had the power of removal. Subsequent comments by others should be read with this in mind.

cers of the United States." [33] it would be the height of political naivete to assume that directors appointed by the President would not owe their primary allegiance to him.

Let us proceed to examine the specific powers conferred on the President by the statute, especially in section 201(a). He is, in section 201(a)(1), empowered to "aid" in planning and development and to "foster" execution of a national program for establishment and operation of a communications satellite system. Section 201 (a)(2) directs him to "provide for review" of "all phases" of the development and operation of the system, "including the activities" of the Satellite Corporation.

Pursuant to section 201(a)(3) the President must "coordinate" the activities of the Government agencies with responsibilities in telecommunication "so as *to insure* that there is full and effective compliance at all times with the policies set forth in this Act." (Emphasis added.) The President in short is named guardian of the policies of the act and is to coordinate the activities not only of the executive branch but of "governmental agencies." I believe this means that the FCC is now subject directly to the President's control insofar as it deals with the substance and policies of the statute. Section 201(a)(4) requires the President to "exercise such supervision" (earlier drafts limited him to "general supervision") over the Corporation's relationships with foreign governments and international bodies as will assure that "such relationships shall be consistent with the national interest and foreign policy of the United States." The President has traditionally, of course, been responsible for our foreign policy, but he is now also made guardian over the "national interest."

While section 402, dealing with foreign business negotiations, requires the Satellite Corporation only "to notify" the State Department of its business negotiations with other countries and to keep the Department informed with respect to relevant foreign policy considerations, it would appear that section 201(a)(4) overrides section 402 on this point. The Report of the Senate Commerce Committee supports this interpretation, asserting that section 402 should be read with section 201(a)(4) which "recognizes the President's authority to take *whatever steps he deems appropriate* to assure that the relationships of the Corporation with foreign governments,

[33] Letter From Attorney General Robert Kennedy to President John F. Kennedy, Oct. 25, 1962, in *Hearings on Nomination of Incorporators of the Communications Satellite Corporation Before the Senate Committee on Aeronautical and Space Sciences*, 88th Cong., 1st Sess. 107, 110 (1963).

entities, or international agencies are consistent with the foreign policy of the United States."[34]

Paragraphs (5) and (6) of section 201(a) again instruct the President "to insure" the taking of specific actions, paragraph (5) admonishing that timely arrangements be made for foreign participation in the establishment and use of the satellite system. Such insurance implies the statute's approval of presidential action at both the foreign level in negotiating participation and at the domestic level in prescribing the policies of the Corporation and the regulatory agencies to facilitate such use. Paragraph (6) calls upon the President "to insure" the availability and utilization of the system for general governmental purposes, except where a separate system is required "to meet unique governmental needs, or is otherwise required in the national interest." Is the President to be judge of when such a separate system is required? Apparently so, since section 201(a)(4) makes the President guardian of the "national interest."

Opponents of the bill, such as Senators Yarborough and Bartlett, viewed section 201(a)(6) as requiring the President to see that all Government communications are channeled through the commercial system, thereby providing a continuing subsidy to the private Corporation.[35] The broad scope of the President's discretion dispels the likelihood of that interpretation. Of greater interest and concern, however, is the view of agencies such as the Department of Defense that this section reserves to the President power to assign priority to governmental traffic over commercial traffic.[36] Thus section 201(a)(6), according to this view, gives the President broad powers to allocate the communication system's facilities.

While paragraph (7) of section 201(a) replaces the "insure" phraseology with "help attain," it nonetheless facilitates a role for the President in an area belonging to the FCC. Attaining "coordinated and efficient use of the electromagnetic spectrum and the technical compatibility of the system with existing communications facilities" has hardly been the historic domain of the Chief Executive. If this view is correct, the great give-away of the statute is not so much any grant of power or influence to private corporations as it is the give-away of conceptions of private enterprise and of independent regulatory commission to the ultimate control of the executive branch.

[34] S. REP. No. 1584, 87th Cong., 2d Sess. 24 (1962). (Emphasis added.)
[35] *Minority Views*, pt. 1, *id.* at 51.
[36] Letter From Cyrus R. Vance, General Counsel, Dep't of Defense, to Sen. Warren Magnuson, Chairman, Senate Committee on Commerce, May 10, 1962, in S. REP. No. 1584, 87th Cong., 2d Sess. 37–39 (1962).

More detailed examination of the meaning and implications of section 201(a)(3) is desirable, for this paragraph, most of all, seems the equivalent of a conventional-appearing missile that carries a concealed hydrogen warhead. The President is to insure full and effective compliance with the policies of the act by coordinating the activities of governmental agencies with responsibilities in telecommunications. The statute enumerates at least five agencies with such responsibilities: the FCC,[37] NASA,[38] Justice,[39] State,[40] and, to a lesser extent than the others, Small Business.[41] In addition, the SEC has stated that securities issued by the Corporation are subject to the registration provisions of the Securities Act of 1933 and the qualification provisions of the Trust Indenture Act of 1939 and that the Corporation itself is subject to the SEC's reporting requirements as detailed in the Securities Exchange Act of 1934.[42] Ordinarily, policy objectives of a statute, like the Preamble to the Constitution, do not constitute a grant of power to anyone. But here, through the device of tying the statute's policy objectives in section 102 to the President's coordinating power in section 201(a)(3), executive power of devastating potential is created.

The President can "coordinate" agency activities in telecommunications for any or all of these reasons: To serve the communications needs of the United States, to contribute to world peace and understanding, to provide telecommunications services to economically underdeveloped countries, to make expanded telecommunications services available as promptly as possible, to provide efficient and economical use of the electromagnetic spectrum, to maintain and strengthen competition in the provision of communications services to the public, and to maintain consistency with the antitrust laws. Since the power to coordinate includes the power to allocate priorities, it would appear that any action contemplated or taken by any regulatory body under the statute could be nullified by the President's invocation of section 201(a)(3) along with any appropriate subsection of section 102. Even the FCC's powers under the Communications Act of 1934 may have been made subordinate to the President's powers, for while section 403(b) preserves the sanctions under the Communications Act, section 401 declares that whenever application of the provisions of the Com-

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[37] Sections 201(c) & 304(b).

[38] Section 201(b).

[39] Section 403(a).

[40] Sections 201(c)(3) & 402.

[41] Section 201(c)(1).

[42] Memorandum of the SEC to the Senate Committee on Commerce, May 14, 1962, in S. REP. No. 1584, 87th Cong., 2d Sess. 32–33 (1962).

munications Satellite Statute shall be inconsistent with the application of the provisions of the Communications Act of 1934, the provisions of the Satellite Act shall govern.

That at least some legislators were aware of the scope of power conferred on the President by the use of "to insure" is shown in the Senate Commerce Committee Report's statement that "to help attain" was substituted for "to insure" in section 201(a)(7) in order to show that the statute conferred no new powers on the President under paragraph (7).[43] The converse of that statement would be, of course, that wherever "to insure" was retained, new powers were being conferred on the President.

The Chief Executive may thus control the application of sanctions as well as the interpretation of policies. Pursuant to section 403 of the Satellite Act, it is "the President's lawyer," not the FCC, who is in charge of enforcement.[44] The Attorney General can seek equitable relief in the United States district courts not only for violations of explicit provisions of the act, but for "any action, practices, or policies" of the Corporation which are "inconsistent with the policy and purposes declared in section 102 of this Act." Relief may be sought against anyone subject to the act for both active or affirmative violations, such as obstruction or interference with any activities authorized by it, and passive or negative conduct such as refusal, failure, or neglect to discharge duties and responsibilities under the act. Pursuant to this provision, the Chief Executive conceivably can determine priorities of action for private management by charging a firm with "neglect" of any of the myriad of vague statutory duties.

One can appreciate the dilemma faced in the typical industry board meeting when the question arose whether or not to endorse the Satellite Act. The alternatives were probably presented as "either this bill or a Space Age TVA," and the specter of the latter must have induced such trauma in the public utilities that they neglected to look for the booby traps in the former. The zeal with which the first Senate cloture vote since 1927 was sought and greeted might more appropriately have been channeled into joint political action by industry[45] to delimit domination of management and the regulatory agencies by the Chief Executive.

[43] S. REP. No. 1584, 87th Cong., 2d Sess. 15 (1962).
[44] Section 403(a).
[45] On the legality of such action, see Eastern R.R. Presidents Conference v. Noerr Motor Freight, Inc., 365 U.S. 127 (1961).

ADMINISTRATIVE RELATIONSHIP AMONG THE AGENCIES AND DEPARTMENTS

There are so many uncertainties in the statute that the act may become technologically outmoded before we know authoritatively its legal meaning. Not the least of these uncertainties concern the regulatory roles of the agencies vis-a-vis one another, a matter made specially confusing by the tendency of the statute to play "musical chairs" with agencies' traditional responsibilities. For example, whereas we think traditionally of the Federal Trade Commission and the antitrust division of the Justice Department as guardians of our antitrust policy, broad responsibility for insuring effective competition is now conferred on the FCC under sections 201(c)(1) and 404(c). Whether the FCC's authority is sufficiently broad and paramount to meet the "pervasive regulatory scheme" test of *United States* v. *RCA* [46] is not at all clear however, and the hearings on the bill reveal little more than coyness on the part of Department of Justice officials insofar as the effect of the statute on the applicability of the *RCA* case doctrine is concerned.[47]

As another illustration, consider NASA's role vis-a-vis the FCC in approving technical characteristics of the system. While one associates the FCC traditionally with matters affecting regulation of technical characteristics of communications, one also associates NASA with matters concerning outer space. Small wonder that confusion should accompany the regulation of space communications. Under section 201(b)(1), NASA is to "advise" the FCC on technical characteristics of the communications satellite system. NASA is also to "consult" with the Satellite Corporation with respect to the technical characteristics of the communications satellite system under section 201(b)(4). The FCC, however, is to "approve" the technical characteristics of the operational communications satellite system and of the satellite terminal stations pursuant to section 201(c)(6) and to "insure" that facilities of the satellite system and satellite terminal stations are "technically compatible" and interconnected operationally with each other and with existing communications facilities pursuant to section 201(c)(4). Who has the power of decision over technical characteristics, NASA or the FCC? Specifically, the FCC "approves" while NASA only "advises." But can the FCC approve without NASA's advice? Could the FCC be successfully challenged

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[46] 358 U.S. 334 (1959).

[47] See, *e.g.*, Testimony of Assistant Attorney General Lee Loevinger, *Hearings on the Establishment, Ownership, Operation and Regulation of a Commercial Communications Satellite System Before the House Committee on Interstate and Foreign Commerce*, 87th Cong., 1st Sess., pt. 1, at 131–67 (1962), especially the dialogue with Rep. Dingell at 157–60.

if it approved technical characteristics contrary to NASA's advice? Could the FCC be successfully challenged if it refused to approve technical characteristics adopted by the Corporation after the Corporation's consultations with NASA under section 201(b)(4) and receipt of NASA's advice under section 201(b)(1) supporting the Corporation? In short, is the FCC's approval a ministerial act or an act calling for the exercise of its own discretion?

This uncertainty is compounded when the Secretary of State joins the fray. Section 201(c)(3) calls upon the FCC to "institute forthwith" proceedings to require establishment of communication by means of the satellite system to a particular foreign point "in any case where the Secretary of State after obtaining the advice of the Administration [NASA] as to technical feasibility, has advised that [such] communication . . . should be established in the national interest." Here the advice of the Secretary of State would appear to be binding on the FCC; the FCC's function seems ministerial. But can the FCC refuse to follow the Secretary's advice if the Secretary has failed to follow NASA's advice? Would it be an adequate defense to an action brought by the Attorney General against the Corporation pursuant to sections 403(a) and 403(c), alleging the Corporation's neglect in fulfilling the purposes of the act by failing to provide telecommunication services to underdeveloped countries under section 102(b), for the Corporation to show that the Secretary of State had not yet advised the FCC that such commercial communication should be established in the national interest or that the FCC had not yet instituted a proceeding under section 214(d) of the Communications Act of 1934 pursuant to the Secretary's advice? One could continue with unresolved questions like these ad infinitum. The uncertainties stemming from overlapping jurisdiction suggest that, short of resolution of interagency conflicts by the President acting under section 201(a), a single agency is made the recipient or custodian of "primary jurisdiction" under the statute as a whole.

It could be argued that the FCC does have primary jurisdiction over the rate-making segment of the statute. Whereas other agencies share regulatory power with the Commission in matters such as antitrust and technical standards, the FCC alone is assigned the rate-making functions.[48] It thus appears that the FCC's greatest power under the Satellite Act is the power it has administered with the least success in the past.

Congressman Celler's testimony before the House Interstate and Foreign Commerce Committee was not all political puffing when he charged that the FCC had never yet established fundamental principles or standards by which to judge the reasonableness of the Bell

[48] Sections 201(c)(2), 201(c)(5), 304(c).

System's interstate rates.[49] Even Chairman Minow's defense of the Agency's rate-making functions acknowledged that "additional funds would enable us to improve our performance and afford a greater degree of protection to the public interest." [50]

More depressing than critiques of the FCC's capacities by Congress, presidential advisers, management consultants, or bar groups, were the words of then Chairman Minow before the National Association of Broadcasters in April 1963. Mr. Minow stated:

> I must confess that I have found the FCC, too, a prisoner of its own procedures. The Commission is a vast and sometimes dark forest where we seven FCC hunters are often required to spend weeks of our time shooting down mosquitoes with elephant guns. In the interest of our governmental processes, and of American communications, that forest must be thinned out and wider, better marked roads have to be cut through the jungles of red tape. Though we have made substantial improvements in recent years, the administrative process is a never-never land which we call quasi-legislative and quasi-judicial. The results are often quasi-solutions.[51]

If Mr. Minow's statement is an accurate reflection of the Commission's present capacities, administration of the Satellite Act may turn out to be even more confusing and dilatory than is feared.

The possibility of censorship under the Communications Satellite Act is a final point for examination here. On the one hand, representatives of the FCC and the USIA stressed during the hearings that there could and would be no censorship of what is transmitted through the satellite system.[52]

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[49] *Hearings on H.R. 10115 and H.R. 10138 Before the House Committee on Interstate and Foreign Commerce*, 87th Cong., 1st Sess., pt. 2, at 595–606 (1962).

[50] Letter From Newton Minow, FCC Chairman, to Senate Majority Leader Mansfield, July 26, 1962, in *Hearings on H.R. 11040 Before the Senate Committee on Foreign Relations*, 87th Cong., 2d Sess. 25, 29 (1962).

[51] Address by Newton Minow Before the Annual Convention of the National Association of Broadcasters, Chicago, April 2, 1963.

[52] In testimony before the Senate Committee on Foreign Relations in August 1962, for example, Mr. Minow emphasized that "broadcasting in this country has developed on the whole premise that there will be no censorship. It is a free medium of expression, and that is true of international broadcasting as well. I would assume that this will continue." *Hearings on H.R. 11040 Before the Senate Committee on Foreign Relations*, 87th Cong., 2d Sess. 102 (1962). To the same end, USIA Director Murrow stated, "I do not believe that the U.S. Government or any agency or division thereof should exercise control over the content of programs sent abroad, whether they be television programs, books, or any other method of communication." *Id.* at 132. Mr. Murrow at the same time, however, pointed out the need for attention to the content of what is sent over the satellite system.

> A communication system is totally neutral. It will transmit both pap and inspiration with equal facility. . . . [T]he satellite will neither solve our dilemmas nor salve our consciences. . . . We now confront the age old problem fundamental to all communications: what are we to say, and how are we to say it?

Id. at 130.

Section 201(a)(3) invoked in conjunction with section 102(a) conceivably could, however, provide an opening wedge for the censorship of program content in the name of contributing to world peace and understanding.

Similarly the President could seek under section 201(a)(3) to "coordinate" the FCC's policy so as to make section 201(c)(2) a vehicle for censorship by the agency. That provision requires the FCC to insure nondiscriminatory use of and equitable access to the communications satellite system by all authorized carriers "under just and reasonable charges, classifications, practices, regulations, and other terms and conditions and regulate the manner in which available facilities of the system and stations are allocated among such users thereof." The interactions of considerations of national interest and foreign policy under section 201(a)(4) with the provisions for control over access to the system and over the "other terms and conditions" of section 201(c)(2) could plunge us, however unwillingly, into the censorship of ideas and beliefs.

CONCLUSION

Many of the vagaries and pitfalls of the Satellite Act have been raked and bemoaned in the preceding pages. Nonetheless, without adopting Pollyanna or Pangloss as a patron saint we should recognize that creative innovation cannot be achieved without some equivalent risk. As complex and unwieldy as the Communications Satellite Act may appear to be, its potentiality for success is greater than either of the alternative proposals that might have been adopted. If it is not panacea or deus ex machina, neither is it a work of Caliban. Administered with a sense of practicality and restraint, this strange new vehicle might just soar into orbit.

Comments

Max D. Paglin

If I were asked about Professor Rosenblum's paper, "What did he say?" I would answer, "He says we have problems." I agree with him on that. And I also agree with him that the approach taken in the Communications Satellite Act of 1962 was a novel one. It is, as you have been told, a unique blend of private enterprise, governmental regulation, and participation which has never before been tried.

I also agree with Professor Rosenblum—or at least I think I agree with him—that this approach is one well worth trying. Finally, I agree that it is too soon to tell whether it will be labeled success or failure, or perhaps some in-between verdict.

But I am afraid that is the end of my agreement with Professor Rosenblum. He sets forth some three problem areas: in his words, statutory ambiguities, the overriding role of the executive branch, and administrative relationship among the agencies. I should start fresh by saying I disagree with most of what he has to say in each of these areas.

Let me make clear, first, that I do not regard this act as a perfect piece of legislation. It deals with a novel problem, and it proposes novel solutions. It was forged under tremendous pressures. Indeed, I think it is fair to say that, because of the possibility of further filibuster, one of the usual legislative steps was omitted—that of a conference between the two Houses to iron out details.

In these circumstances, passed as it was, the act will inevitably have bugs. As a matter of fact, the Communications Act of 1934 itself has required considerable revision over the years, in order to meet new and originally unforeseen problems.

But I am afraid that Professor Rosenblum is a poor entomologist. He sees bugs where I see buds!

My comments will touch only on the highlights of each of his three problem areas. First, with regard to statutory ambiguities, Professor Rosenblum deplores the fact that Congress adopted a "mañana" approach to key problems which, in his view, cry out for resolution today. He cites as the prime example the issue of construction, ownership, and operation of the ground stations. Shall the corporation alone, or the carriers and the corporation, construct, own, and operate these stations? he asks.

I think the professor is quite right in saying this is a question of great importance. At one point the Congress did, in practical effect, resolve the question. It told the Federal Communications Commission to authorize ground stations in the public interest, but in doing so, to encourage the construction and operation of the stations by carriers, whenever it would not be inconsistent with the Act and its policies.

The various agencies that were interested in this legislation protested that this weighted the scales of the Commission's judgment in favor of carrier ownership of the ground stations. And, incidentally, it was the FCC that strongly urged deletion of this preferential provision, and Congress did delete it. It specified that there was no legislative prejudgment; that the Commission was to decide the

issue on the basis of its evaluation of all the relevant public-interest considerations.

Professor Rosenblum protests that this is not decision, but postponement. Of course it is. But he is wrong when he says this issue cries out for resolution today.

If it is resolved today, or if it had been in 1962, it would have been resolved in almost total ignorance. We do not know today what the system will be. We do not know what kind of ground stations will be called for, how many will be required for optimum service, what parts of the frequency spectrum will be used, with what other radio services the bands will be shared, or what kind of protection against interference with these sharing services will be required; nor do we even know, at this time, which arrangement will be most economically beneficial from the standpoint of the users of the telecommunications services.

Remember, when these things were put into the statute, the corporation was not yet even in being. In short, we do not know how many ground stations are technically or economically feasible. How can we possibly decide an important policy question without knowing the critical policy considerations?

I think that Congress clearly did the right thing when it delegated the decision without fetters to the Commission, to act upon the basis of the facts when those facts are available.

Let me digress for a moment by saying that I am a firm believer in broad legislative standards like "in the public interest." The Commission would have been in an impossible position if it had been operating over the last quarter of a century under a narrow, confining statute which purported to make the critical policy decisions on the basis of the state of the radio industry as it existed in 1927 or even 1934.

Professor Rosenblum then raises the specter of lengthy comparative hearings in this field, and, of course, he refers to some of the blacker days in our history. But I say there is no reason or basis for assuming the worst.

The Commission has the power—not only by this statute, but the basic power—to implement the statute with regulations. We could, for example, adopt a rule permitting only the corporation to have ground stations, or assigning ground stations to specific locations and specifying which locations could be applied for by the corporation and which by the carriers, or specifying some other plan. We might make a detailed policy determination as to ground stations. We might call in all the carriers at that time, and we might secure informal agreement on a plan to implement that policy.

But one thing I can assure you: we would never delay the United States' effort in this field by awaiting the outcome of a lengthy comparative hearing before authorizing ground stations. Before allowing that, we could employ, and we would employ, our authority to make conditional grants, because the public interest imperatively required such action. We do have that authority, and it has been confirmed by the courts.

We have a host of procedures available to us, and the act does not bind us to any one procedure or solution.

As to the role of the Executive, Professor Rosenblum finds the Executive has been given an overriding role in the Satellite Act, and one which, he claims, ends the independence of the FCC in the regulation of space communications.

Of course the President has been given wide powers. Space communications, by its very nature, necessarily involves negotiations with other countries. And the President is just as necessarily the logical one to be in charge of all these negotiations and the critical foreign-affairs aspects of the satellite system.

It should be obvious that someone has to coordinate the activities of the agencies and the government as a whole. Someone has to be continually reviewing the program. Who should it be—the Commission, coordinating and reviewing the President? The Commission overseeing the foreign-affairs aspects?

Clearly, in our form of government, it has to be the President. This is not, in fact, a novel thing. An Executive Order of the President under date of February 16, 1962 (E.O. 10995) assigns the President's telecommunications management functions to the Director of Telecommunications Management. He is the one who is delegated the authority by the President to coordinate the activities and policies of the government, as a whole, in the field of communications.

Congress was obviously aware of this, as the order was issued in February of 1962, before the Satellite Act was passed. In the following extracts from E.O. 10995 note the close similarity to the type of language in the Satellite Act to which Professor Rosenblum has referred.

Among the provisions in section 6 is this: "The Director of Telecommunications Management shall consider the following objectives: Implementation of the national policy of development and effective use of space satellites for international telecommunications services." In section 8: "The Director of Telecommunications Management shall assist and give policy advice to the Department of State in the discharge of its functions in the field of international telecommunications policies, positions, and negotiations." Similarly, in section 2: "to coordinate telecommunications activities of the executive branch of

government and be responsible for formulation, after consultation with responsible agencies, of over-all policies and standards therefor."

And the significant provision of this executive order is in section 7, which says: "Nothing contained in this order shall be deemed to impair any existing authority or jurisdiction of the Federal Communications Commission."

Nor do I think there is any impropriety whatsoever in specifying that the President shall aid in the planning and development, and foster the execution, of a national program of space satellite communications. At one point during the legislative process, the statutory language included the term "supervise." This was deleted because it was realized that the President could not supervise the Commission's activities, but I cannot understand why it is wrong to say that he should "aid" in the planning or the development, or that he should "foster" the establishment and operation, of the system.

There is not a single substantive activity of the Commission, under either the Communications Act or the Satellite Act, that the President can control or direct. He cannot say to us, "Fix the rates at that figure," or "Approve that system," or "Authorize ground stations to so-and-so," or "Issue the following competitive bidding regulations."

Of course, he can review what we have done, and he can suggest legislative reforms. But he can do that now with any function of the Commission or, for that matter, any other regulatory body. Think for a moment of his far-reaching proposals now before the Congress affecting the ICC, and the entire transportation field. That is the type of thing that he can do, and he can do it now.

Professor Rosenblum says that, under section 404, only the President can make general recommendations to the Congress on legislative reforms to the Satellite Act. And here we get that typographical error to which Professor Rosenblum refers—that the Commission is restricted to making recommendations only in the field of anticompetitive practices.

I have grave doubts as to Professor Rosenblum's construction of the section. I leave to your reading the plain language of the section in its entirety. The point is, it does not really matter. Because under section 4(k) of the Communications Act, the Commission is not only given the authority, but given the mandate, by the Congress to make an annual report containing specific recommendations as to additional legislation which we think desirable in the entire field of our complex of authority, including all legislative proposals which we have sent, in the normal course, to the Bureau of the Budget.

Even if Professor Rosenblum is correct in his interpretation, it could well be that the reason is simply that it would have been superfluous to require the Commission to do something general, already

required in section 4(k) of the Communications Act. Congress did want, however, to be specific in the anticompetitive field, in order to emphasize the Commission's responsibility in this area, because we were being given new and added responsibilities here.

The professor also finds fault with the provisions of section 201(a)(7) which calls upon the President to help attain coordinated and efficient use of the spectrum. He says that it facilitates a role for the President in an area belonging to the FCC. You need only read section 305 of the Communications Act to perceive the error of this position. The President, from the very beginning, has had an extremely important role in the use of the spectrum.

The Communications Act has a dual kind of setup—there is dual authority over the entire area of the spectrum, the President having, in effect, complete authority in the spectrum insofar as use by Government stations is concerned, and the FCC likewise having authority over the complete spectrum, insofar as non-Government use of the radio spectrum is concerned.

Today, as for many years past, the President is the one who allocates the spectrum to Government users, just as the Commission allocates it to non-Government users. Of course, to make such an arrangement work, there has to be coordination and cooperation between the President's delegates and the FCC. In fact, such coordination-cooperation has been going on since 1922, long before the Federal Radio Commission.

To conserve the spectrum and see to its efficient utilization, there has to be the same effort on both sides. Here again, the Executive Order setting up the so-called DTM, the Director of Telecommunications Management, meant to centralize the authority given, on the Government's side, with respect to the Government's use of the spectrum. And this is how we have been working it out.

Professor Rosenblum again finds it amiss that under section 403 it is the Attorney General, and not the Commission, who is in charge of enforcement. He says we will become merely the "water boy" for the Attorney General. Again, you have to read the Communications Act; this fact is true with respect to the entire Communications Act of 1934. Under section 401, it is the Attorney General, and not the Commission, who is in charge of enforcement of the Communications Act. Yet no one, I think, has suggested that the Commission has ceased to be an independent agency because of the Congressional recognition that enforcement of laws of the United States is within the province of the Attorney General of the United States.

Finally, the professor finds that there are great uncertainties concerning the regulatory roles of the agencies vis-a-vis one another. Again, I find his supporting examples unpersuasive. He says broad

responsibility for insuring effective competition is now conferred on the Federal Communications Commission, in addition to the Federal Trade Commission and Department of Justice. But we have always had this responsibility, under cases such as *McLean Trucking* and *RCA Communications* v. *FCC*. The public-interest standard necessarily subsumes consideration of the policies underlying the antitrust laws. And for many years, in our day-to-day operations, we have had liaison with the Justice Department because of this joint concern.

Professor Rosenblum thinks that the roles of NASA and the Commission are unclear as to the approval of the technical system. In my view, nothing could be clearer. The Commission and the Commission alone, according to this act, is charged with making that determination. An ambiguity which existed in an earlier draft of section 101(b)(5) was removed in order to be explicit on this point.

What the professor seems to be objecting to is that the Commission, in making its decision, will receive advice from NASA. We would be completely irresponsible if we did not seek such advice, whether or not NASA was required to give it. NASA has spent many millions in this field, and it has an expert staff. Would it have made any sense for us to ignore this expertise? The statute simply recognizes the obvious.

A parallel has been in existence since 1934, in our act with respect to the recognition of air navigation hazards. The Commission is given the authority, in section 303, to determine whether or not an antenna tower constitutes an air navigation hazard. The expert judgment, of course, is that of the Federal Aviation Agency. But we have the duty under the law to make the final determination. And the same thing is present here.

Further, I do not understand Professor Rosenblum's objection with regard to section 201(c). There the statute requires the Commission to initiate, upon the advice of the Secretary of State, a so-called section 214(d) proceeding to determine whether the corporation or a carrier shall be required, at least, to give service to a particular point. The Commission *has* to institute the proceeding. But the decision in the proceeding is one for the Commission alone, on the basis of the hearing record. As a quasi-judicial agency, we would be bound to be held to account by a court of review for our decision. I think the roles of the agencies are clearly defined, in rather appropriate circumstances.

On this point of agency functions, I do not mean to indicate there would be no problems. It would be surprising, under the circumstances, if none arose. But I do not regard the act as in any way seriously defective. Rather, it seems to me to define the agency roles fairly well.

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Now, as counsel for the defense, I would like to reply to the charge of "a rather barren and bleak record" of the Commission as a regulatory agency. I would hope, in the interest of fairness and objectivity, that Professor Rosenblum would make his own appraisal of the facts before adopting these criticisms as proof of their own validity. In fact, in the course of the legislative hearings, in the days leading to the enactment of the Satellite Act, the Commission's regulatory practices were inquired into in depth. We made a full presentation of all the facts. And as recently as February 28 of 1963 the Communications Subcommittee of the Senate Commerce Committee devoted a full hearing to all the facets of our regulatory program. We are confident that the printed hearings will show that we have answered all questions to the satisfaction of the Committee. In this regard, Senator Pastore, Chairman of The Senate Subcommittee, spoke as follows:

I want to congratulate you, Mr. Minow, and all your colleagues and members of your staff, for the fine statement. I hope that we accomplished something here this morning. I do seriously hope that the matter we suggested be reviewed and see if something could not be worked out..

I merely want to make this concluding statement: that I hope this will serve to quiet the suspicions and the doubts of any of those who have been questioning just what the department does in supervising the rates on behalf of the people of the United States of America.

My personal reaction to it is that you did about as competent a job as can be done under the circumstances.

I could go on for some time with my rebuttal, but I am afraid I would be reminding you of the famous filibuster that was connected with this subject.

Let me say again that we do not know whether this approach will work or not. I think time will give us an answer to this and to a lot of other questions.

Mr. Bernard Strassburg, head of the Commission's Office of Satellite Communications, and I are both optimistic. Of course, they say that if you see good in everything, you may be an optimist. Then, again, you may be nuts!

We prefer, under the circumstances, to be optimists. I think, on the whole, it will work out well. My final word to the critics in the academic world and elsewhere is: I think you have to give the Satellite Act a good and fair chance. Then you can criticize all you want, but you will be criticizing on facts, and not on conjecture!

John A. Johnson

I want to line myself up with the optimists. I think this bird can fly and will fly. Perhaps it is just coincidence, but it seems as though most of the optimists are in the Government these days.

We are indebted to Professor Rosenblum for his analysis of the statute and for pointing out to us the kinds of legal problems that are going to result in the administration of this act.

But I don't suppose there has ever been an act that has dealt with a complex problem that did not raise comparable legal questions. We can go all the way back to the Constitution of the United States and put ourselves in the position of someone analyzing that document before the Federal Government began to function. I am sure that volumes could have been written on its ambiguities and, perhaps, on some deliberate vagueness it contains.

I think that a good deal of Professor Rosenblum's thesis is that, somehow, the act should have been more detailed, more specific; that many more things should have been settled in the legislative process than were settled, and should not have been left for the discretion of regulatory and administrative agencies in the Government. This is a thesis to which I would make a fundamental objection. If anything, I think that some of the difficulties presented by the statute are the result of being too specific, of overelaborating many things that could have been left out entirely.

As Mr. Paglin said, it probably would not have been necessary to spell out the relationship between NASA and the FCC. The ordinary processes of reasonably intelligent and efficient administration in the Government would have taken care of most of these things if they had not been spelled out. I don't think it is a very serious problem that they may have been spelled out with some vagueness.

I prefer the approach of Mr. Boskey, who recognized that while there may be a number of difficulties, and many questions can be asked, none of the problems is insuperable, given reasonably intelligent administration. I think that will turn out to be the case, although I am not minimizing the fact that this is a very significant legislative innovation.

While recognizing some of the defects in draftsmanship, we should not overlook the fact that the statute is the expression of a very important decision by both the executive and legislative branches of the government. The act ought to be evaluated, I think, primarily in terms of how well the government made that basic decision and how well the act expresses the conclusions that are connected with it.

The problem that faced the Government, when the commercial prospects of satellite communications became clear, was that of deciding what should be the chosen instrument of the United States for the ownership and operation of the United States' portion of a global communications satellite system. Given the fact that this is a truly natural monopoly, the chosen-instrument problem was inescapable.

One of the alternatives, of course, was that a single existing corpo-

ration would become the chosen instrument by virtue of its dominant position and its aggressive entry into this field.

The other extreme was that, as Professor Rosenblum said, we could have had a sort of space-age TVA.

In between these two extremes, there was the possibility of some kind of new entity being created; and that was the decision that was made. The problem was, What should be the structure of that new entity? A proposal was made to the FCC (which was, to some extent, reflected in the first bill that was introduced—the Kerr Bill) that this be a new corporate entity put together solely by the international carriers that would be utilizing the services of this system. But that alternative was rejected and we finally came out with the corporate structure that is described in this act.

That represents, I think, a considerable amount of progress in dealing in advance with a problem that wasn't exactly knocking at everybody's door. This was a far-reaching effort by the executive and legislative branches to anticipate a problem, albeit an unavoidable one, and to deal with it intelligently in advance.

I think that in that respect it is almost unique; it is an unprecedented piece of legislation. So when we criticize the detail, we should not lose sight of the really tremendous amount of creative thinking and energy in the executive branch and the Congress that went into the concept and the execution of this piece of legislation.

Now, so much for philosophy. Mr. Paglin made a number of comments which I had thought of making. I will not repeat them, but I will summarize a few of them. I don't think that the particular provision concerning ground stations, which occupied a good deal of Professor Rosenblum's attention, is an example of deliberate vagueness. I think it is an example of a very clear-cut expression of a legislative decision. I think the meaning of it is absolutely clear and unambiguous.

It does represent a deliberate and well-defined delegation of authority to the Federal Communications Commission. The fact that it does not set up a lot of standards under which this authority shall be exercised is not at all unusual. I think it would have been a great mistake for the Congress, with its limited knowledge of this technical subject, to have done anything else.

The history of this is well expressed by Professor Rosenblum. You can see the kind of dilemma that the congressional committees were in. To prescribe deliberately that this shall be decided by the FCC at the appropriate time was, I think, the wisest decision. Whether that is true or not, I don't think it is a decision that can be criticized on the grounds of deliberate vagueness. I think it is a carefully articulated decision, although some may disagree with its wisdom.

Now, another point that he raised has to do with the power of the President over the three directors appointed by the President. Professor Rosenblum suggested that the President's power over the three directors apparently extends to removing them. In support of that conclusion, he cited the statutory language which provides that the directors shall serve "for terms of three years or until their successors have been appointed and qualified."

Bearing in mind some of the constitutional cases on the removal of officers, ranging from postmasters to members of the Federal Trade Commission, and the considerations that entered into those decisions, I doubt that this is a defensible conclusion. I should think this language simply means that if the successor has not been appointed and qualified before the end of the 3-year term, the one in office will continue.

I do not think that such an extensive degree of control over the directors as would result from the power of removal should be implied simply from those words. But I must confess I have not done any research on this point. I simply want to put a question mark on Professor Rosenblum's suggestion.

On the question of the relationship of NASA to the FCC, I agree with Mr. Paglin entirely. I do not think there is any ambiguity in this section. I think it is quite clear that the Federal Communications Commission has the sole and final power of decision. It is true that the Commission is obligated by statute to receive the advice of NASA, and NASA is obligated to give it. But I do not think they are obligated to follow it.

On the other hand, this becomes somewhat academic, considering the way government agencies actually operate. It is not very likely that the Federal Communications Commission is going to disregard the kind of advice they will get from NASA on these subjects. Where else would they turn for advice on which to base the decisions they will make?

So far as the relationships between the Secretary of State and NASA and the FCC are concerned, I must say I am not quite so clear as to whether the advice of the Secretary of State does or does not impose a mandatory duty upon the FCC. But since NASA's only responsibility is to render advice to the Secretary of State, I would not think that the decision of the Secretary of State in choosing to follow that advice or to disregard it would affect the jurisdictional competence of the FCC.

My final remarks concern another example of the kind of problem that can be picked out of statutory language if one reads it very closely.

Mr. Boskey has borne down rather heavily on section 201(c)(1). He said that one of the most urgent actions required would be the implementation of this section by the Federal Communications Commission through issuance of appropriate regulations, because some of the very first acts of the corporation are going to be in the procurement field. This is true. However, for some time to come, the corporation's major contracting activities will be for research and development. This presents a problem insofar as the statutory language is concerned.

Referring back to section 201(b)(3) we see that NASA shall

> assist the corporation in the conduct of its research and development program by furnishing to the corporation, when requested, on a reimbursable basis, such satellite launching and associated services as the Administration deems necessary for the most expeditious and economical development of the communications satellite system.

The statute, at that point, does not impose a mandatory duty upon NASA. It is left to NASA's discretion.

On the other hand, section 201(b)(5) imposes a mandatory duty upon NASA to "furnish to the corporation, on request and on a reimbursable basis, satellite launching and associated services required for the establishment, operation, and maintenance of the communications satellite system." The words "establishment, operation, and maintenance" of the system were carefully chosen to make a clear-cut distinction between that phase of the corporation's activities and the conduct of its research and development program. You can see the importance of that because in one case NASA has no discretion, while in the other case it has unbounded discretion.

Now, when we proceed to section 201(c)(1), we find that the only words that are included in the first clause are "establishment and operation of the . . . system." No mention is made of the "research and development program" of the corporation until the second clause of 201(c)(1), in which "research" and "development" are specifically mentioned. So I think there is a serious question as to whether the FCC has the same authority under 201(c)(1) in relation to the contracting process involved in the corporation's research and development program that it has in relation to procurement of equipment for the "establishment and operation" of the system.

Furthermore, there are some very serious differences in practice between procurement in connection with research and development programs and procurement for an operating system. In the Armed Services Procurement Act, under which the Army, Navy, Air Force, and NASA all operate, the requirement for procurement by formal advertising is qualified by a provision which permits the agencies

to exempt research and development contracting from that requirement.

Incidentally, the term "competitive bidding" is a very poor term to employ in the statute. The term that has a well-established usage is "procurement by formal advertising." I suppose that is what is meant by the reference to competitive bidding. But procurement by formal advertising is rarely appropriate for research and development contracting.

I think the kind of question I am raising is one that the Congress simply did not focus on. But it is the kind of problem that arises when the words of the statute are read very carefully. And someone will have to come to a decision on the point.

Stanley Plesent

Although I was a member of the interagency team which met for hours and days to put together a proposed draft of legislation for the Congress, and although I participated with my boss, Ed Murrow, for many, many hearings, it has been some months since I have been connected with the workings of the Communications Satellite Act as finally passed. So this has been a valuable review for me in going back to the ton of material that accumulated in my files on this subject.

In doing so, frankly, I was amazed at just how much effort had gone into all of this. And I can only say congratulations to Professor Rosenblum, whose paper—with which I disagree in many respects—reflects a tremendous amount of research into the work that went into this act. The hearings were endless, as those who participated know. However, the result, I think, must be read against the purposes, as Mr. Johnson has just iterated, to which everyone addressed himself from the beginning.

Both Mr. Paglin and Mr. Johnson have focused on some specifics in the professor's paper. I will do that very infrequently and will, rather, offer some general comments, part of which may be in the nature of special pleading for the agency I represent here today, the United States Information Agency.

Our concern with this particular piece of legislation is basically twofold: first, the impact abroad of what this nation does—this is, after all, our mission—and second, the potential utility of an operable or an operating system to the Information Agency as a mode of communication.

The impact abroad of what this nation does in this field has a very special significance. This is true since there must be foreign participation, or else the system is of no value whatever. It is a matter of

definition, since it takes two or more to communicate. And in the field of information it is not enough to speak the truth unless there is another to hear it. There will have to be foreign participation, deep and constant. Hence, the way this legislation operates with respect to the ability of foreign entities to come into a system is of paramount importance.

That is part of the background that I want to make very clear here. I don't believe anybody has, so far, read a few of the words from the Declaration of Policy and Purpose of this statute. Though this bill went through many phases and many drafts and many changes, and though there was tremendous pressure from a portion of the private sector as well as pressure from certain government agencies, there seemed little effort at any time to deviate in any meaningful way from what the President had set down in July of 1961 as the purpose of the statute: that this be an important demonstration of the peaceful applications of space.

The statute had said from the very outset:

> The Congress hereby declares that it is the policy of the United States to establish, in conjunction and in cooperation with other countries, as expeditiously as practicable a commercial communications satellite system, as part of an improved global communications network, which will be responsive to public needs and national objectives . . . which will contribute to world peace and understanding.

The next part of the declaration goes into the subject of making service available—if I might quote Ed Murrow—"to serve the lean as well as the lucrative." At the heart of all this was the notion in the administration that this was not—and here I take issue with George Cook—this was not just another system, just a natural extension of one communication device to a new communication device. That would be the same as saying that jet air travel is but an extension of the covered wagon, or that atomic energy is but an extension of steam.

There are qualitative differences between the world of space communication and the world of terrestrial or more traditional communication. One of the private entities throughout the debate was making the point that this was, as Mr. Cook said, nothing to be excited about. Some have been of the opinion that we should just stick with the old because it worked. AT&T negotiated with the British and negotiated with the French. What is the State Department so concerned about? We have done it before.

Well, they are right, and they have great experience in this field; except that those negotiations took place with the British Post Office and with the French Post and Telegraph Authority. They were working business relationships. The fact is that the foreign min-

istries, the space authorities, and the information ministries of all these countries are in this field as much as, and indeed more than, the traditional communicating authorities of those countries.

The point I make here is that we are dealing with a matter that goes to the heart of this nation, as an effort in the space field. It goes deeply into the realm of foreign policy and relationships with foreign governments. At the very outset, the pragmatic approach that was taken had as its backdrop the desire to advance the national interest.

With respect to Telstar, so brilliantly conceived, launched, and operated with AT&T and NASA doing the job, our agency did in the normal course of its business gather foreign reaction to it. The results were interesting because AT&T's role in this, which was paramount, had had tremendous publicity. The foreign reaction throughout—and I will furnish a few quotes to make the point—was that this whole effort was a national effort. This is not an AT&T effort or a GE effort; this is a national effort. And we have got to bring together the very best minds, the very best administrators, the very best scientists from all sectors of our economy to make this work.

From Italy came the line, "Telstar is the symbol of the new space frontier desired by Kennedy." Sweden referred to it as a "brilliant American overture." Tunisia called it "the gigantic American breakthrough" and from Ghana came the words "The Americans deserve every congratulation."

I could go on through many, many more. Telstar was a victory for the United States as an entity.

The point I want to make here is that there is deep involvement of the various agencies of the Government. And there is deep involvement of the Chief Executive, probably with the continuing advice of the Director of Telecommunications Management, to make this thing go.

Professor Rosenblum started with a quote from Dr. Gardner which was a plug for innovation—for trying new ways. But I am afraid Professor Rosenblum's acceptance of that proposition in justifying not legislating a space-age TVA on the one hand, or leaving the field solely to international communications carriers on the other, stopped short at the frontier, either the space frontier or the new frontier. We innovated with respect to interagency relationships. An effort was made here to use the expertise that exists in the Government and to coordinate it.

Now, who can coordinate? The statute might have said the Bureau of the Budget. That is a traditional coordinating organization. But the Bureau of the Budget is part of the White House. The recognition was made early that there would have to be somebody to

pull these strings together because this was a national effort, because it involved space, launching, and so forth, as well as communications, and because it was deeply involved in foreign policy. The choice was the President. For those of us who drafted the statute, this was a natural choice. As Mr. Paglin and, I think, Mr. Johnson also stressed, there is nothing very new about this.

With respect to the potential use by our agency of this system, our business as you know is an overseas business. Many people don't know much about us, because we are not in the business of publicizing in this country. Our business is to publicize this country's efforts around the world, starting at the water's edge. We use every known means of communication, from the word of mouth of our officers in 220 posts in 107 countries around the world, through films, television, books and magazines, exhibits, and even wandering minstrels in certain areas of Southeast Asia.

To the extent that there is an advance in the art of communication, this agency must be prepared to use it. Space communication is such an advance. We are interested.

We testified at length, before many committees, that the way the system is currently constructed, certain arithmetical calculations from existing phone rates and testimony of the executive vice president of AT&T convinced us that our agency would be priced out of the market.

The history on this controversy, I think, you will find fascinating; a very interesting interchange took place between us and Senator Symington during the hearings before the Senate Foreign Relations Committee.

We felt that something had to be said at those hearings about a couple of shortcomings in the bill. We tried to present our criticisms within the confines of all-out support for the bill. This was a tough road to walk. We think we did. As a matter of fact there was one change at least. Senator Frank Church introduced what is now known as the Church Amendment, which I think was just clarifying language. But it was a plus from our point of view, because it made clear that when the Government—the President, in Professor Rosenblum's analysis—felt that the national interest required another system, or there were unique governmental needs for another system, there could be another system. This was a last-minute improvement in the situation. It gives us one additional way in which we can look to potential communicating devices for ourselves.

As for having this massive grant of authority to the President—and this is one of the examples given—I should remind Professor Rosenblum of the Appropriations Committee. Any decision by the

Executive to set up an additional system would grind its way through the process of getting the funds to do it. There will be plenty of chance for the Congress to speak at this point.

I just want to cite one or two examples on this rate issue. Right now, the Government does not enjoy any preferred rate. This was not always the case. Until 1947, the Government, in connection with telegraphy, did enjoy preferred rates.

This went on from about 1867, I believe, to 1947—a long period of time. The issue was constantly raised, "Why should the Government be in a preferred position?" There was a set of hearings, and one of the conclusions was that the company's business—at that time of vast proportions—was fostered in its infancy by the Federal Government. It was concluded that the difference, if any, between the cost of handling Government business and the amount paid by the Government for such service should be regarded as consideration to the Government for the rights and privileges granted by the act of 1866, and the preferential rate was continued.

I submit that the investment of the national weal in this system, as of today—and for a long time to come—is phenomenal. I forget the exact figures from the hearings, but the estimate goes up to $500 million already spent by the Government in research on space communications.

The national investment has been great. Some recognition of that fact should be made. Our forum for this effort, of course, will ultimately be the FCC. We will make the best case we can before that body to acquire special rates that we can afford.

Interestingly, the question of ground-station ownership adverted to by various speakers is involved in this, too. In our judgment it would have been better if the ground stations were vested in the corporation, as they were in the original Administration-drafted bill.

This is so for a variety of reasons, not the least of which is that if we want to negotiate for special rates, it is better to negotiate with the corporation directly than to have to go through a ground station owned by a common carrier. History in the field is such that we don't think we would do too well taking that route. We are not protected from that possibility right now, since the FCC may put the ground stations into non-satellite-corporation hands.

George Cook commented that everyone is going to have to go through a common-carrier-owned ground station. That is just not so—at least not yet. There has been no determination of that yet, and we hope it will be possible to do some direct negotiating.

With respect to the question of censorship, which Professor Rosenblum raised, I would like only to point out that this is not a new prob-

lem. Our agency is flooded with mail, most of which comes to my desk from the Hill, passing along such questions from constituents as "Why don't we do something about stopping certain American motion pictures from being shown in foreign countries?" or "Why are we permitting certain television series to be sent abroad?"

Our answer has been, and is, that we are not in the business of censorship and it would be wrong for our agency to engage in it. We have no authority to do it.

But the fact is that Mr. Murrow, respected as he is in the industry, is doing what he can as a fellow communicator in forums in Hollywood and in New York, to urge the film and television industry to pay a little more attention to the impact their product may have abroad. I believe it is a legitimate activity of the Government to urge voluntary efforts to do a better job with our product. So I think that though Professor Rosenblum's concern is legitimate, taken against the backdrop of history it need not be quite such a concern.

Nathaniel L. Nathanson

This is not exactly a question, but as the other half of the administrative law faculty in this institution, I want partly to associate myself with, and partly to disassociate myself from, my colleague.

In the first place, I notice that at least one of the commentators jumped on Professor Rosenblum because of his suggestion that the President probably had discretionary authority to remove the directors that he appointed. And, of course, Professor Rosenblum suggested one particular clause of the statute which he thought tended to go in that direction.

And Mr. Johnson said he didn't think that had that significance.

But leaving aside the particular argument Professor Rosenblum made in support of his conclusion, I would be surprised if Mr. Johnson were to take the position that the President did not have authority to remove one of the directors that he appointed—discretionary authority—in the light of the characteristics of this corporation. As far as I know, it is different from the quasi-judicial bodies where the exception from the President's appointing authority has been made.

Before Mr. Johnson answers, I want to complete my disassociation. Professor Rosenblum is apparently concerned that the President may have such authority. I am glad if he has that authority. In general, that is the point where I would disagree with Professor Rosenblum's thesis that maybe the President has too much authority.

If anything, I might be a little concerned that the President does not have enough authority in this statute. That is why I would be

anxious to preserve at least this measure of his control with respect to the corporation. I think it is a rather small item of control, as a matter of fact.

John A. Johnson

I don't really know the answer to this question, quite obviously. I gathered that the conclusion Mr. Rosenblum expressed was from that statutory language. I think all one can say is that this will be an interesting constitutional question.

You don't have a legislative quasi-judicial agency. It isn't the Federal Communications Commission. We know about that case.

It isn't the Post Office Department. It isn't a purely executive agency. In fact, it isn't any agency at all.

So I suppose, as lawyers, we can all be arguing what we think is more or less persuasive analogy.

Bernard Strassburg

For the last 20 years I have been associated with common-carrier regulation in the Federal Communications Commission. The Common Carrier Bureau is charged with administering for the Commission the common-carrier provisions of Title II of the Communications Act. I am associate chief of that Bureau and also chief of its Office of Satellite Communications which the Commission established following the enactment of the Communications Satellite Act.

In view of my 20 years of common-carrier regulation at the FCC, I can't help but feel that good, bad, or indifferent, I am sort of a personification of the Commission's regulatory record. I don't want to belabor the point; it has already been treated by Mr. Paglin. But I would like to say just a few words with regard to our "bleak and barren record." Believe me, it is not bleak and barren. Perhaps it is not always as fertile as some people think it might be or could be.

On the whole, judging by results, we do not have a bleak and barren record at the Commission. The essential public interests have been protected. You can look at the results in the domestic field of communications. We have something that we are quite satisfied with: over the years, during the period of inflation, we have brought down interstate telephone rates considerably in the United States. We have done it without fanfare and formal hearing; that is true. We have negotiated a great number of rate reductions since our inception in 1934—rates have been reduced 19 percent since 1941. And every reduction has been initiated by the Commission rather than by the

company—as a result of the alertness and diligence of the Commission.

There has been some criticism that our procedural mechanisms are too involved, too cumbersome, full of delay, and so forth. This is the very thing that the Commission has avoided in the common-carrier regulatory field. That fact has provoked accusations of a bleak and barren record. We avoided prolonged drawn-out public hearings wherever possible. That has been the basis for criticism. But the fact remains that it is because we have designed procedures which are better suited to what we consider to be the regulatory mission that we have accomplished what we have.

My office has been actively engaged in the last few months in drafting rules and regulations to implement the provisions of section 201-(c) (1), relative to effective competition. In this connection, we have made rather wide distribution of a staff effort that has come forth in the form of rules and regulations which, at some stage, will be presented to the Commission with the recommendation that the Commission institute proposed rule-making under the Administrative Procedures Act.

With what we have been learning from the exchanges we have had with various members of industry and government, who have considerable expertise and experience in the field of procurement, and with what I have learned at this conference, I feel that we are well ahead of the game.

Some of Mr. Boskey's thoughts, I would say, were novel so far as my own thinking was concerned, or the thinking of my staff. This is the kind of input that is required in a field which is as novel as this field is—a field in which the FCC quite admittedly has to develop an expertise. There were a few specific questions regarding the interpretation and possible applications of section 201(c), and the provision dealing with competitive bidding in particular. I don't think I will be able to give definitive replies to some of the questions that have been raised.

Regarding Mr. John's observations as to the lack of clarity in the statute, as to whether it really applies or was intended to apply to research and development, I agree that the statute leaves some doubt on that subject. I don't recall that Congress focused very sharply on that particular aspect. But I would think that any research and development program could be fostered consistent with maintaining maximum competition, but maximum competition compatible with the realities of research and development.

This does not mean that competitive bidding, as distinguished from some other forms of negotiations, would be required or indicated under those circumstances. This is something that will need very care-

ful thought and study. It is very much before us now at the office, and we hope to come up with a constructive recommendation.

I would like to emphasize that our rules, whatever rules are adopted, will be adopted by seven commissioners after the public has been given an opportunity to comment on the proposed rules through the process of rule-making that is required by the Administrative Procedures Act. Even in advance of undertaking that process, we have been canvassing the industry and government so that we can do the job as realistically and effectively as possible.

Professor Fulda asked just what we meant by competitive bidding and how we intended to apply competitive bidding in light of the qualifying language of the statute, which states that the Commission shall employ competitive bidding where appropriate.

Well, our major mission is to assure competition. It may be that competitive bidding in the context of the research and development program may not be suitable. But there are other devices and techniques which may be equally appropriate to fostering a competitive environment.

Professor Fulda raised a question about adequate facilities, in the context of the choice that carriers will have as to whether they are going to utilize the modern new satellite channel or favor and protect their own "obsolete" facilities. For one thing, I don't think there will be very many obsolete facilities in the overseas communications field. We have relatively few obsolete facilities today, compared with the total channel capacity that we have in overseas facilities. The telephone and the modern-day telephone cables are by no means obsolete facilities, and will not be obsolete, technically or economically, for a long time to come. They have all of the capability—with the exception, perhaps, of transmission of television—that we need. Also, the telegraph carriers who need additional facilities are getting them from the modern telephone cables that have been available since 1956.

I think there is going to be a place in the overall complex of things for high-capacity cable and satellite facilities. High-capacity cables cannot be readily brushed aside as being obsolete or inferior to satellite communications. We will want both from the standpoint of redundancy and reliability in communications.

As far as the Commission's authority in the matter is concerned, the Commission has control over any new facilities that are to be installed, whether they be satellite facilities, conventional cable, or the high-frequency radio facilities.

In the field of overseas radio circuits, the commission has the power—every 3 years, I believe—to review outstanding authorizations to determine whether there is a public need for renewing them.

If there are any obsolete radio facilities that are not serving a useful purpose, the Commission has the control over them by that device. The Commission also has control over the extension of cable facilities, simply because to lay any new cables requires an authorization under the Cable Landing License Act.

Thus, the Commision does have control over these matters. I don't think the problem of obsolescence is any real cause for concern.

Spencer M. Beresford

I feel obliged to say some things in reply to Professor Rosenblum, because I had a personal concern with the Communications Satellite Act, and no longer have. I think that in the conjunction of those two conditions I am unique among those in this conference.

Mr. Paglin's predicament, following—not pursuing but following—Professor Rosenblum's tour de force reminded me of an incident that I understand took place in the 18th century. Frederick the Great was in the habit of inviting scholarly or at least vociferous men to attend conferences such as this one, and then would set them against each other in a kind of bullbaiting sport. On one occasion, he was supposed to have invited Diderot, the French encyclopedist, who was widely regarded as an atheist, and the German mathematician, Euler, who was a believer in the Deity. Following the procedure of these events, Euler was, first of all, to present a thesis. Then, after a suitable interval, Diderot would have his chance for rebuttal and the presentation of a contrary thesis.

Euler said only, "Two plus two equals four; therefore, God exists."

And when the time came for Diderot's rebuttal, it was found that he had departed by stage for Paris.

I don't tell this story merely to praise Mr. Paglin's courage in standing by his guns and making his reply to Professor Rosenblum, rather than running out. I tell it also because I think that Mr. Paglin could do, and to some extent has done, what Diderot should have done; that is, point out that the conclusion did not follow from the premise.

Professor Rosenblum has pointed out—I think correctly in some instances, at least—that this act does contain many gaps, overlaps, and areas of vagueness. But I think it would be premature, at least, to conclude that for those reasons the act will not work.

I think the act certainly deserves a chance. It was a great institutional and legislative innovation. It may perhaps be compared to a research and development contract. In an ordinary supply contract for standard items, there are usually rather detailed specifications. This is not true of research and development contracts, in which there

are, characteristically, no specifications. The contract necessarily leaves gaps, and contains overlaps and areas of vagueness.

So it is, I think, with this act. Congress did not know enough—nobody knew enough at that time, and I doubt if anybody knows enough yet—to specify correctly all the details of operation and administration of a communications satellite system.

Professor Rosenblum, as was his job—the job he set for himself as a devil's advocate—put the worst possible interpretation on various provisions of the act. But we should remember that the administrative agencies of the Government will try to find interpretations that will make sense and will made the act work. The possibility of administrative interpretation can make all the difference, as it often does, between workable and unworkable legislation. I have not heard anyone say that the act cannot work—only that it can be interpreted in such a way that it will not work. But this is a mere exercise in statutory construction. As a practical matter, the act will be interpreted and applied administratively so that it will work.

George V. Cook

Judging from Mr. Plesent's observations about ground stations, my statement has resulted in a difference in understanding. The basic point I was making in attempting to clarify the role of this "system"—and I use that term in its statutory sense as *not* including ground stations—was that there would not be direct broadcasts, at least in the foreseeable future, from the satellite to home receivers. The immediate future will require the interception of the satellite signals by means of a sophisticated ground terminal facility for transmission, in turn, over the established networks of the carriers. Whether that ground facility is owned by carriers or the corporation is another matter.

That was all I intended to say. I do not believe I said that the carriers would own all the ground stations, nor do I think I implied this.

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Some International Aspects of Communications Satellite Systems *

Samuel D. Estep

ENACTMENT OF THE COMMUNICATIONS SATELLITE ACT OF 1962[1] brought into being a new type of legal organism. The Communications Satellite Corporation, incorporated pursuant to the act, is an unusual organization directed to carry out certain Government policies and at the same time operate as a profit-making private business concern. These two functions may not always be compatible. In one sense, of course, many of our public utility companies serve these dual purposes, and examples can even be found where the national government has created private corporations to carry out specific national goals.[2] The degree of Government involvement in the Communications Satellite Corporation, however, the emphasis on profit-making, and the use of this technique in international affairs make this organization a most unusual one.

The final version of the bill as enacted by Congress and approved by the President obviously was a compromise between those who wanted existing private communications carriers to own and operate this new communications satellite service and those who desired a separate corporation with a broadly based general-public ownership. Another vociferous minority group fought hard for complete governmental ownership and operation. One might argue about the feasibility or at least the desirability of creating this strange hybrid

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[1] 76 Stat. 419, 47 U.S.C.A. §§ 701–44 (1962) [hereinafter cited to sections of the act].

[2] The construction of the Union Pacific Railroad provides an example of a private corporation created to carry out a government objective.

corporation with the multiple objectives of making money for the stockholders, furnishing cheap global communication services, and relieving the Government of some financial burdens, all hopefully in the near future and, more particularly, before the Russians establish a competing system. Whatever the merits of this solution to the original dispute, however, it is now clear that we must live with this new organism and our concern should be to make it viable.

To derive anything like the maximum benefits, both economic and psychological, from creation of this new service, nobody interested in the project should sit back and attempt to recriminate or place blame on those they think were shortsighted. The imminence of the 1963 International Telecommunications Union Conference to allocate frequencies for space communications [3] precludes the luxury of such Monday morning quarterbacking. The legal, economic, and policy questions facing the Communications Satellite Corporation, the Department of State, NASA, and the FCC are numerous and difficult. These problems need immediate discussion, and at least tentative policy positions must soon be taken by the business and Government administrators who are involved in the creation and operation of the satellite communication system.

Although the corporation may not be a truly unique organization, it certainly has sufficient new characteristics and problems to be called sui generis. Consequently, although many of the international problems were created years ago when Marconi's invention first came into use, there are no really appropriate international legal precedents to use in analyzing the new dimensions which were added by the different character of communications through satellites. There will be new and challenging questions to be faced. In addition, in a new area such as this, it is particularly difficult to separate the legal from the economic and political policy questions which will inevitably arise. The purpose of this paper is to identify the questions and suggest possible answers.

In one form or another, many of the questions have already been asked, particularly by Mr. Schwartz and Mr. Goldsen in The Rand Corporation study.[4] For the most part, however, the existing published legal discussions have only raised the questions; they have not been primarily directed to suggesting definite solutions which should be adopted by the corporation and the various Government agencies that are vitally involved in the establishment of a communications

[3] The conference will begin Oct. 6, 1963, in Geneva, Switzerland.

[4] SCHWARTZ & GOLDSEN, FOREIGN PARTICIPATION IN COMMUNICATIONS SATELLITE SYSTEMS: IMPLICATIONS OF THE COMMUNICATIONS SATELLITE ACT OF 1962, The Rand Corporation Memorandum RM-3484-RC (Feb. 1963).

satellite system. The task now is to identify and discuss the merits of various positions which might be taken. A word of caution is in order, however. The suggestions that will be made in this paper are presented for the purpose of stimulating critical thinking. No person, particularly not this writer, has any right to claim unusual insight or infallibility in suggesting answers to these problems. Nevertheless, the basic positions to be taken by the United States representatives at the 1963 ITU Conference should be well in hand, even though in March 1963 the Administrative Council decided to limit the scope of the discussions in Geneva [5] in the fall. Many of these items will not be on the formal agenda, but they will be the subject of informal discussions among the various delegates, and it is important that the position of the United States be as firm and well-considered as possible.

ASSUMPTIONS

To understand and discuss the suggestions made here concerning various legal, economic, and political policy questions, certain facts and positions must be assumed. These assumptions should be made explicit, not left to implication. Therefore, at the risk of reciting familiar information, the following statements or assumptions are made and are believed by this writer to be justifiable in the light of present knowledge.

1. Perhaps the most important fact of all, and one which has been often overlooked in discussions of communications satellites, is that an extensive, diversified, nonpolitical, and efficient international telecommunications network has been operated for many years by existing U.S. carriers and their foreign partners. AT&T alone has over 175 formal operating agreements with partners in practically every country in the world, including the U.S.S.R., Red China, and Cuba.[6] Actually, the Communications Satellite Act of 1962 recognizes this fact and makes it clear that the Communications Satellite Corporation is not to be an operating company which serves the ultimate consumer in the normal sense of communications common-carrier operations.[7] Instead it is to furnish the channels and possibly the equipment with which the satellites can be used to supplement worldwide telecommunications services. The act makes it clear that the corporation is not to engage in telecommunications strictly within the boundaries

[5] This was done despite some attempts to expand the agenda to consider other and broader questions.

[6] This information was obtained from AT&T personnel.

[7] This is made clear by the act's definitions of "communications satellite system" [§ 103(1)], and "associated equipment and facilities" [§ 103(4)], and also by the provisions of §§ 305(a) & (b). See also discussion of this point in SCHWARTZ & GOLDSEN, *op. cit. supra* note 4, at 11–12.

of a single country even if land facilities owned by ComSat were used to send messages between land points.[8]

2. The act states that the Communications Satellite Corporation legally is a privately owned, profit-making company organized under the laws of the District of Columbia.[9] Nevertheless, the act also recognizes that the corporation will be carrying out activities and functions which in many respects are inextricably entwined with important governmental policies of the United States.[10] In some significant respects, therefore, the corporation will be performing governmental functions.

3. The corporation is expected to make money; some Congressmen during recent hearings stated that they even expect the corporation to furnish much of the money for research and development work leading to an operational system.[11] Realistically, however, it is extremely doubtful that any profits will be made for a long time, certainly not for 8 or 10 years.[12] Also, contrary to what may have been the hopes of these Senators and Congressmen, the corporation probably cannot provide enough money for research and development, if vehicle and launching work is included. A great deal of money will have to be spent by Government agencies such as NASA. This is imperative if one of the purposes that Congress and the Administration had in mind—that the U.S. should be the first to prove commercial feasibility of international communications satellites—is to be fulfilled. Otherwise we run the risk of losing our existing leadership to Russia, thereby suffering another tremendous psychological setback in the cold war.

On the other hand, ComSat surely can be expected to contribute a considerable amount of research and development money, perhaps as much as $100 million.[13] A substantial share might be spent on a good attitude- or orientation-control system which would make the antenna problem much simpler. Certainly work on the satellites and their

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[8] *Ibid.*

[9] COMMUNICATIONS SATELLITE ACT OF 1962, § 301.

[10] *Id.*, § 201 generally, and specifically subsection (4), directing the President to supervise "relationships of the corporation with foreign governments or entities or with international bodies" so as to be consistent with the foreign policy of the United States, and *id.*, § 402, which requires the corporation to report to the Department of State all of its "business negotiations" with any "international or foreign entity."

[11] *Hearings on Nominations of Incorporators of the Communications Satellite Corporation Before the Senate Committee on Aeronautical and Space Sciences*, 88th Cong., 1st Sess. 70–73, 80–81, 90–91 (1963).

[12] Of necessity this is a judgment, or guess, and cannot be demonstrated factually. The incorporators refused to hazard a guess at the *Hearings*, *id.* at 86–87.

[13] This too is a guess, albeit an educated one.

electronic equipment could be financed with non-governmental funds. But the launching work could best be done by making use of existing Government facilities. No extra money would have to be spent to develop launching capabilities for communication satellites as such. Even present technical capabilities would probably permit establishment of a limited but operational and useful satellite system if the Government were to put no more money into communications satellite work.

4. The act provides, although only by implication, that the corporation is to have a monopoly on communications that make use of space satellites.[14] It also explicitly states, however, that the corporation is to foster competition in the manufacture of equipment which will be used by the corporation.[15] The economic and manufacturing facts of life in the communications business must be taken into account in considering how these policies should be carried out. First, space satellites will not have a monopoly on international communications but must compete with and can only complement existing facilities, largely privately owned in the U.S. At the present time such carriers as AT&T, ITT, WU, and RCA, jointly with their foreign counterparts, own the facilities and operate the international communications network. Second, we must accept the fact that a satellite system will undoubtedly be better and more reliably engineered and will be put into operation more quickly if the existing giants of the industry are given overall responsibility. Several other important conclusions or assumptions can be drawn from these facts.

5. For this new form of communication service to be most useful, it is essential that it be integrated into existing systems using underwater cable and tropospheric-scatter and other radio techniques for international telecommunications. The normal customer who sends or receives an international message does not care which channel is used—long-range radio, cable, or satellites. From this it follows that there would be no economic basis for charging a customer more per minute for use of a communications satellite than for an undersea cable or a long-range tropospheric-scatter radio channel. This fact will create serious channel-rental rate problems for the Communications Satellite

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[14] Section 102(d) of the act states, *inter alia*, that Congress did not intend to "preclude the creation of additional communications satellite systems, *if required to meet unique governmental needs or if otherwise required in the national interest.*" (Emphasis added.) This implies that such services are to be provided only if Congress enacts further legislation. See discussion in *Hearings on H.R. 11040 Before the Senate Committee on Foreign Relations*, 87th Cong., 2d Sess. 144–47, 162–63, 194–95, 265–66 (1962).

[15] Sections 102(c) & 201(c)(1).

Corporation and the FCC.[16] In the long run, of course, international message costs should be reduced and this saving must be passed on to all users of such service.

6. For the next 10 years, the only type of service which will be needed or even available through communications satellites will undoubtedly be the normal message and TV relay (not broadcast) channels now provided by overseas telephone, radio, and telegraph facilities. This is dictated not only by the economics of the situation in terms of demand for service, but also by the economics involved in the technical limitations inherent in existing equipment itself. For example, the same facilities needed to transmit a full-range TV program will carry 600 two-way telephone conversations. If available equipment is used for data transmission the economy is even more startling: 22 times better than voice transmission. These technical limitations make it clear that the most economical use of these channels will be for sending ordinary telephone and telegraph messages or for data transmission. Certainly for a good many years there is no likelihood of any kind of transmission from satellites directly to home receivers for purposes of general radio or TV broadcasting. Arguably, existing regulations would even prohibit such broadcasts through space.[17]

7. Another economic fact of communications satellites is that, at least for a good many years, the primary use of the system will be to transmit messages between large traffic areas, as from the United States to Europe and the United Kingdom. The satellite system simply cannot be operated economically unless there is a very high load factor. This factor is inevitably tied to the number of people making use of telephone and telegraph services at each end. At the present stage of technical development small countries cannot afford to spend the necessary money to build ground terminal stations required for full use of the satellite system, although some use of channels would be available to them and they could afford limited terminal facilities.[18] The economics of the satellite system are such that even transmissions between the two coasts of the United States would be uneconomical when compared with other systems, such as microwave relay or cable telephone lines. This may not be true, however, for countries with

[16] Under § 201(c)(1) of the act the FCC is given responsibility for establishing charges for the corporation's services.

[17] See Estep & Kearse, *Space Communications and the Law: Adequate International Control After 1963?*, 60 MICH. L. REV. 873 (1962); Persin, *Will Space be Open to Piracy?*, 30 TELECOMMUNICATION J. 112 (1963).

[18] The regular ground terminals are extremely expensive, but much smaller ones capable of handling a few channels rather than hundreds might be within the financial resources of developing countries.

very large land masses and widely dispersed population centers, such as Brazil or India.

8. The short-range viability of the Satellite Corporation is extremely dependent upon assurance that the U.S. Government and the existing overseas carriers, such as AT&T, will make significant use of the channels available through the satellite. Without substantial use from these two sources, it is clearly unrealistic to think that the message load would be sufficient to make the satellite system an economically successful operation. This fact, when added to the need for large amounts of capital if the Satellite Corporation is to put up the necessary satellite equipment and also build and own the ground terminals, leads to another economic conclusion that seems inevitable to this writer—that the large communications common carriers must be vitally involved financially in the operations of the Satellite Corporation. Even if the necessary money could be raised without help from the carriers, they should be involved, if only to the extent of large stockholdings, in such a way that the absolutely essential coordination between the Satellite Corporation services and those furnished by existing communications common carriers will be assured.[19] This does mean, of course, that there may be some conflict with the statutory dictate that the corporation foster competition in the furnishing and purchase of equipment and apparatus.[20] Such corporations as AT&T and other carriers have their own supplier affiliates in whom they have great faith and whose profits are also important to the carrier corporation. This may be more of a domestic than an international problem, but it has some international repercussions. In any event, these companies and their supplier affiliates are obviously working hard to create new and cheaper communication systems, including cheaper underwater cables. For the next 10 years, the economic advantage of the satellite communications system, if any, over underseas cables will be marginal at best. It is therefore essential, if the communications satellite system is to be used sufficiently to make it economical, that there be real coordination between the services already available and those to be furnished by the Satellite Corporation.

9. Another legal-economic fact of significance in analyzing the satellite problems is the degree of foreign ownership and participation which is desirable, but which is limited by the Communications Satellite Act,[21] at least so far as stock ownership is concerned. For-

[19] There is reason to believe that several of the large communications carriers will subscribe in substantial amounts.

[20] COMMUNICATIONS SATELLITE ACT OF 1962, §§ 102(c) & 201(c)(1).

[21] *Id.*, § 304(d).

eign persons or groups may not own, either directly or indirectly, more than 20 percent of the Satellite Corporation's stock to be offered to the general public. This means that if any one foreign group owns all of this 20 percent, it could have a very significant impact on the control of the Communications Satellite Corporation. Although this is not likely to be the case, it is perfectly clear that foreign communications groups, most of which are owned by governments, will be most insistent upon having a large role in the establishment and control of the communications satellite system. All existing evidence from past associations between American concerns and foreign groups shows that the latter want a significant voice in the operations and a very substantial financial interest in the form of ownership of equipment. There is every reason to think that they would like to have, for example, at least the same rough 50–50 ownership ratio which now exists between AT&T and the British Post Office in underseas cables.[22] Nothing in the U.S. statutes would preclude this kind of arrangement between the Satellite Corporation and a foreign telecommunications authority, but it could not be done in the form of ownership of stock of the Communications Satellite Corporation itself. *Participation by foreign groups in ownership of the network, however, is essential if a worldwide system is to succeed.* The desire of foreign countries to have a share of the facilities themselves extends also to the manufacture of parts and equipment, participation in research, and perhaps even in launching operations. Each of these countries, at least in the more industrialized areas of the world, will undoubtedly want the right to furnish some of the equipment. Certainly the past experience of U.S. communications common carriers which have established such links with foreign countries so indicates.

10. Another fact of space communications life is that international political considerations will have a large influence on the operating policies of the Satellite Corporation and its foreign partners. There will be more direct government involvement in the actual operation of corporate business than ever before. This will certainly be true in the United States, where in the past such involvement has been indirect and spasmodic at most. Even in Europe, where most of the communication companies are government-owned, the same will be true. Although they must go to public treasuries for funds, these government-owned companies have, for most purposes, operated as separate and independent bodies. Typically, the administrative personnel in these countries have been able to make their decisions as businessmen

[22] Based on information provided by AT&T personnel. While details of ownership vary from agreement to agreement, this is the general pattern.

operating a communications common carrier, rather than as officials in the political arm of the government, and will probably continue to do so for nonsatellite service. Nevertheless, the U.N.[23] and the developing countries have already indicated their interest in the communications satellite system even though they do not have the technological or economic facilities for creating or even participating in use of the service in the near future. Therefore, the establishment of such a system does have political ramifications of tremendous significance to U.S. foreign policy. Several provisions of the Communications Satellite Act itself take cognizance of these facts,[24] which are known to all who are working in this area. To greater extent than has ever been the case in the past in international telecommunications, the actions of the Communications Satellite Corporation will be of concern to the foreign offices of many countries, and particularly to the officials of the United States. The operating officials who have been managing existing international communications carriers, both U.S. and foreign and whether private or government-owned, are very reluctant to see the politicians begin to participate in communications matters with any degree of directness. Nevertheless, in this writer's opinion, the political arms of the various governments are going to participate in considerably greater degree in the operating decisions of the Communications Satellite Corporation and its counterparts abroad. This could mean involvement of foreign-offices personnel. One consequence of this prediction, if accurate, is that the traditional attitude of the International Telecommunications Union engineers and other technical communications experts, that their decisions are scientific rather than political in character, may have to change. More and more countries will come to recognize that even the frequency allocation decisions made by the International Telecommunications Union are inherently political as well as technical matters.

11. Economically, and even technically and politically, the only communications satellite service which makes sense is one which serves all needs through one coordinated system, regardless of what method or combination of methods is used. There may be some serious question as to whether or not the satellite Corporation can persuade the other countries of the world to accept the system developed and now sponsored by the United States as the single operating unit. Certainly the U.S.S.R. is technically capable of creating such a system; probably the European Community could soon have such capabilities

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[23] See summary of U.N. actions and resolutions in Gardner, *Coöperation in Outer Space*, 41 FOREIGN AFFAIRS 344 (1963); SCHWARTZ & GOLDSEN, *op. cit. supra* note 4, at 44–48.

[24] See note 10 *supra*.

as well. For a good many years, however, there would be no economic sense in duplicating such service. If this is the case, as Schwartz and Goldsen argue,[25] the Satellite Corporation must move "with all deliberate speed" in deciding on the course it will follow in negotiating with foreign partners to put a system into operation. Realistically the Satellite Corporation must start with a medium-altitude system which will require from 12 to 18 and eventually 25 to 50 active repeater satellites continuously in orbit; the signals transmitted will be very weak.[26] If the service is to be economically competitive only a minimum number of ground terminal facilities should be established, because the tracking of a medium-altitude, low-signal-strength satellite is a difficult and complicated matter. Technical limitations may also dictate this policy. It follows that hard choices must be made in locating these facilities. For example, maximum economy dictates that there should be only one or possibly two receiving units in Europe, although at the present time such units are in existence or nearing completion in the United Kingdom, France, Germany, and Italy. This does not make the best economic sense, but national pride if nothing else may well require that each of the major countries have ground terminals. Possibly some of the developing countries will want the same prestige. If the system is to operate economically, this matter will have to be solved in some realistic way. This problem would be greatly reduced if regional cooperation could be achieved, as hopefully will be the case in Europe. We should encourage such efforts.

12. Some have suggested that the size and character of the problems involved in establishing an economically feasible system necessitate the creation of an international body to operate the satellite service. Certainly no existing international body is in any way equipped or organized to handle this task.[27] Up to the present time the International Telecommunications Union has been largely a technical organ which limited its function to the allocation and coordination of frequencies for various types of services and to formulation of technical design and operating standards. The decision of what companies or organizations are to use the frequencies within a given area has been left to the individual countries to decide as they see fit.[28] Secretary General Gross of the ITU has stated that this body is not equipped

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[25] *Op. cit. supra* note 4, at 71–74.

[26] No other system has been proven to the point where large commitments of money for an operating system's hardware should be spent. If another system were used, a delay of at least several years would be necessary. See discussion in *Hearings*, *supra* note 14, at 107–14, 191–93, 200–01, 293–96.

[27] See discussions of these problems in SCHWARTZ & GOLDSEN, *op. cit. supra* note 4, at 77–81; Estep & Kearse, *supra* note 17; Gardner, *supra* note 23, at 354.

[28] Estep & Kearse, *supra* note 17.

at the present time to handle this kind of job, although he now feels it might be.[29] If an international group were to be formed to carry out this function, and should the ITU be selected, great changes would undoubtedly have to be made in its organization, and establishment of the satellite system would be delayed for many years. There would be no hope of having an operational system by 1967. At the present time, of course, there is much opposition both within and without the ITU to giving that body such regulatory power.[30]

13. If the Telstar or Relay satellite is used, an area will be needed around each ground terminal in which restrictions will have to be placed on band and range of other radio broadcasts. The area, depending upon the surrounding circumstances and terrain, may have to be as large as 100 square miles or more to make sure that the signals from other sources will not interfere with the very weak signals to be received by the terminal station. Although in the United States either the Satellite Corporation or private communications common carriers will own the ground terminals, these U.S. organizations will not generally own them in other countries. The only likely exception is one or more of the areas where the United States might, for foreign policy reasons, decide to furnish the money for such facilities to developing countries which could not afford to pay for them. The United States might also need to own terminals on some of the developing continents such as Africa, South America, and Asia to serve the rest of the countries by land channels.

In neither of these cases, however, is it likely that there will be U.S. ownership, but rather only U.S. financial assistance. The legislative history of the act indicates members of Congress did not contemplate such ownership of foreign ground facilities.[31] The establishment of such expensive terminal facilities in developing areas where traffic will not really carry the economic burden will create a difficult problem for the Satellite Corporation because of its character as a private profit-making concern. Nevertheless, in the long run it may be essential that these be established to assure a single global system operated jointly by the U.S. and its foreign partners. As suggested by Schwartz and Goldsen,[32] any such uneconomical terminals should be financed through regular foreign-aid channels as a foreign-affairs

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[29] Gross, *Space Communications: The Need and Scope for Action*, 29 TELECOMMUNICATION J. 229 (1962).

[30] Some of those within the ITU object principally because they do not want the ITU making politically significant policy decisions while some of those on the outside feel that it would be unwise to entrust such decisions to the ITU.

[31] See, *e.g.*, Statement of Newton Minow, FCC Chairman, during *Hearings*, *supra* note 14, at 20.

[32] *Op. cit. supra* note 4, at 57–58.

policy matter, rather than by the Satellite Corporation. Undoubtedly, this will disappoint the expectations of some Congressmen as expressed in hearings[33] on the desirability of having the Satellite Corporation bear a great deal of the cost of developing the satellite system. In any event, financial assistance would be needed only for these uneconomical ground facilities. None should be required for launching operations. For these the Government should be fully recompensed by the operating company.[34]

14. The same satellites which will be used to communicate between the major communications centers such as the United States and Europe can be made available for service between other points when they are over other parts of the world and not in use for the United States-Europe service. For example, the same satellites that will transmit signals between New York and London, Paris, Rome, or Munich could be used during much of the time of one orbit around the earth to transmit signals from London to Delhi, or Delhi to Tokyo. Use of satellite channels between these non-U.S. terminals might be treated simply as a service which could be sold to these other countries by the Satellite Corporation. U.S. terminal facilities would not be used and there would not have to be any connection with existing consumer services in this country or even in Europe. On the other hand, a totally integrated global communication system would be the best for all concerned. Therefore, here again the Satellite Corporation might decide to lease the channels to existing carriers who would themselves make arrangements with countries throughout the world for use of the available channel time that is not being used between the major traffic areas.

15. Another technological and economic fact of life must be kept in mind in establishing the communications satellite system. The cooperation of the Government, particularly through NASA and to some extent the Defense Department, is absolutely essential to the success of the operation. A good deal of the work even on the development of the satellites themselves, not to mention all the work on the launching vehicles, was done at Government expense, largely through NASA. Early realization of our goal of establishing a communications satellite system is absolutely dependent upon taking advantage of this great pool of Government knowledge and facilities. With respect to Telstar, of course, AT&T developed and built the satellites with its own money, and also paid for the launching. This

[33] *Supra* note 11.

[34] Such compensation was made by AT&T for Telstars 1 and 2 and this writer is convinced that a fair price was paid. See discussions of the problem in *Hearings, supra* note 14, at 263–64.

was not true of Relay, however, and in any event, Government launching facilities must be used, even though launching expenses could be paid by ComSat. Certainly the number of communications launches that would be needed over a period of years would not justify establishment of a separate launching facility by the Communications Satellite Corporation.

Even though the Government has put tremendous amounts of money into research and development of rocketry and some money into communications satellite aspects of the program,[35] it is unrealistic and doctrinaire to think of this as a give-away to private industry. This great public expense should not preclude turning over the use of these facilities or knowledge to private enterprise *if private enterprise can utilize them best for the benefit of the most people.*

In any event, it is important that extensive cooperation from NASA be continued, if for no other reason than that it is necessary to launch the satellites. If only medium-altitude, active repeater satellites are used, anywhere from 25 to 50 will be needed to have a continuously serviceable channel having about 99 percent reliability. Just to launch this number within a relatively short period of time will be a formidable task. Even if one could be launched every other day—a very unrealistic expectation in view of existing launching facilities—from 50 to 100 days would be needed. It is one thing to launch an occasional Telstar, Relay, or Syncom satellite. It is quite another to launch a whole series over a short period of time. Actually the very reliable Thor-Delta boosters which have been used to launch Relay and Telstar are not powerful enough to do the job for the permanent operational system. Threfore, greater reliability will have to be developed in the more powerful Atlas-Agena vehicles, or new vehicles now being developed by NASA and the Defense Department will have to be used. With these new rocketry developments it should be possible to have a multiple launching of three or more satellites simultaneously from one rocket vehicle. It would be ridiculous not to use this kind of research and development effort, although financed by the federal government. In any event, a very close working relationship must be established between NASA and the Communications Satellite Corporation.

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[35] Of the several billions of dollars invested in our space program to date, much has gone for installations and hardware such as launching and tracking stations and missiles. Perhaps as much as $283 million has gone into general communications related research. See discussions in *Hearings, supra* note 14, at 65–66; *Hearings, supra* note 11, at 74. The Defense Department is also spending perhaps $100 million a year on communications satellite work. See *Hearings, supra* note 14, at 300. NASA proposes to spend $55 million in fiscal 1964. *Hearings, supra* note 11, at 88–92.

When all of these facts or assumptions are taken into consideration, it is obvious that there are many conflicting policies and forces at work in the creation of a communications satellite system ready to operate in the international telecommunications service. As others have pointed out,[36] it will not be possible to satisfy all of these requirements; compromises will have to be made. In approaching the problem, however, the paramount concern of all those involved should be to place a reliable and usable system in orbit at the earliest possible moment. Inevitably there will be a great deal of Government control of the whole venture; this would be true regardless of who legally owned the facilities. In spite of all the difficulties—economic, technical, and political—it is essential that the overall goal be kept in mind: to get the system in operation as soon as feasible.

If these assumptions are correct, several major problems having considerable international significance are raised by the creation and operation of the communications satellite system.

INTERNATIONAL NEGOTIATIONS

One of the very first nontechnical decisions which the Satellite Corporation officials will have to make is the degree to which they will conduct negotiations with communications administrations of other countries. Although the officers of the corporation have been so recently selected that they have had no occasion to make any statements about these matters, a significant conflict could arise between the business interests and such agencies of the U.S. Government as the State Department. Certainly Secretary of State Rusk in his colloquy with Senator Sparkman during the hearings on the bill in August 1962 made it clear that many of the problems of negotiation were to be dealt with by the State Department.[37] They were undoubtedly attempting to create legislative history to support this interpretation of the act. On the other hand, representatives of business have made it equally clear in their statements that they consider most of the international negotiations to come within the statutory concept of "business negotiations" and that past operating experience demon-

[36] SCHWARTZ & GOLDSEN, *op. cit. supra* note 4, at 1–3.

[37] *Hearings*, *supra* note 14, at 178–81. See also exchange between Senator Gore and Secretary of State Rusk, *id.* at 209–13, and other testimony concerning the meaning of "business negotiations," *id.* at 426–31.

strates the validity of this approach.[38] Section 402 places responsibility for such matters on the corporation itself, although notification must always be given to the State Department.

Government officials, on the other hand, can point to the language of section 201(a)(4) and (5) which states that

> [T]he President shall . . . exercise such supervision over relationships of the corporation with foreign governments or entities or with international bodies as may be appropriate to assure that such relationships shall be consistent with the national interest and foreign policy of the United States; . . . [and shall] insure that timely arrangements are made . . . [for] foreign participation in the establishment and use of a communications satellite system . . . .

They can also point to section 201(c)(3) which states that the Secretary of State may determine that a particular foreign point should be connected with the satellite system. When he does so the FCC is then directed to "institute forthwith appropriate proceedings . . . to require the establishment of such communication by the corporation and the appropriate common carrier or carriers . . . ." Surely this question of which things are within the prerogative of the Secretary of State will prove to be one of the most critical of all those presented by this new system of communications, although many expect or at least hope that this matter will be handled in the same way that previous international telecommunications negotiations have been handled.

In this writer's opinion, this problem creates the most nearly unique question raised by the Communications Satellite Act. Personal observations in the atomic-energy area have left the strong impression that European businessmen and government officials work much more closely with each other in establishing overall national government and business policies than has been true in this country.[39] At the risk of overgeneralizing from experience in this one area and without tracing the history of why this is so, the picture in this country is quite a different one. In general, there tends to be something of an arm's length attitude between Government and business, each being somewhat skeptical of the other. This may be attributable to a suspicion of the motives of the other, or a feeling of lack of understanding on the part of the other for one's own problems and needs. In

[38] Much, but not all, of the negotiating between American carriers and their foreign counterparts has been accomplished without calling on the State Department for help. See testimony of Mr. Farley of the State Department, *Hearings on Antitrust Problems of the Space Satellite Communications System Before the Subcommittee on Antitrust and Monopoly of the Senate Committee on the Judiciary*, 87th Cong., 2d Sess. 99–100 (1962).

[39] This cannot be proven by any specific evidence, but the impression was a very strong one.

this country, in fact, we have traditionally been very suspicious of too close cooperation between Government officials and businessmen out of fear that there will be some kind of overreaching, although this is less true in the communications industry than most others, perhaps partly because of the extremely technical nature of foreign negotiations in this field. In other areas some such fear is certainly justified, but in this case, where we have an already highly regulated industry which has worked well in close cooperation with the Government, it is crucial that there be no reluctance to work out common policies which will serve our foreign relations needs and also make possible such reasonable business decisions as are required to operate a viable Satellite Corporation.

Negotiations for establishment of land terminals for transocean cables and long-range radio have thus far been almost wholly a matter of business negotiations between private U.S. companies and their foreign counterparts. These arrangements cover the questions of responsibility for design and construction of the various parts of the systems, including the terminal facilities; the division of ownership between the various parties; the responsibilities for maintenance; and circuit assignments, including the number of circuits each party may use. Typically the ownership of the equipment is in the form of undivided shares, and the capital contributions as well as maintenance and repair costs are split in proportion to the relative use of available channels. Separate agreements have usually covered the questions of services to be rendered jointly and the division of revenues. The arrangements between AT&T and the British and Canadian companies for the first transatlantic cable were of this type. The same pattern was followed in the second transatlantic cable, which was a joint project of AT&T and the French and German telecommunications administrations. These arrangements well illustrate the technique of working out basic terms and principles with major partners and then permitting other users to share some of the available facilities on the same basis. The French-German agreement soon became a multilateral one involving many European countries.

Even assuming similar arrangements for communications satellites, the real question is whether ComSat or the State Department will do the negotiating. This decision cannot be made intelligently if the skeptical, arm's length attitude which has existed in the past in many other areas of international business is assumed by either party. It must be a joint venture. On the other hand, one is inclined to think that it will be much wiser if the lead in negotiations can be taken by corporate officials. If State Department officials can be convinced that U.S. foreign affairs policies will be given proper attention by the

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corporate officials, this may be possible. It may prove necessary, however, to make distinctions between various matters and have the lead taken by Government officials on some, leaving others to corporate personnel.

The location of ground terminal facilities in foreign areas is a good example to illustrate the basic problems here suggested. Some have argued that this is a political matter which should be handled by the State Department.[40] But officials of existing common carriers will undoubtedly hope that the Satellite Corporation itself will handle these negotiations.[41] Location of such facilities is an extremely important operational matter, vital to the whole system, as pointed out above in the assumptions. Certainly the choice of sites for ground terminal facilities in regional areas such as Africa, South America, and Asia, not to mention the much more immediate problem of locations within Europe, will create serious negotiation problems and may well involve important foreign-policy questions. Nevertheless, the primary concern in the first few years should be to put a viable system in operation. Therefore, the first terminal facilities will have to be in Europe and, in fact, it would probably be wise to limit the operation initially to this area. Unless operations between the United States and Europe are successful, a self-supporting global system is impossible for a long time to come. For at least the first 5 years, business expediency should determine whether one system or another is to be used, whether one or more ground terminals are to be built in Europe, what types of service will be offered, and what satellite channel-rental rates will be charged, although this last item will create troublesome regulatory problems for the FCC.[42] This will not be a disservice to the developing areas in those continents where full-fledged service and terminal facilities will not be established for some time. The system should be proved in the areas where it is most likely to be economically feasible; not until this has been done should these other countries invest the time, money, and trained personnel needed to build and operate such facilities. Nevertheless, the public repercussions and consequent pressures of such a decision may be very great. Therefore, the decisions cannot be made by ComSat without regard to the political position of the United States as a government. But the lead in actual negotiations could be placed in the hands of corporation officials. The political problem will be made somewhat less critical, of course, by the fact that establishment of the main service does not preclude incidental use

[40] *Supra* note 37.

[41] See discussions of this general problem, *ibid.*

[42] Chairman Minow of the FCC, in his testimony, pointed to this difficulty. *Hearings*, *supra* note 14, at 60. See also *id.* at 118–24.

for less complete services to areas with fewer demands for international telecommunications.

An equally delicate problem having both business and foreign-policy overtones is that of dividing the revenues with other countries which help establish and have joint ownership of the system. This will be an even greater problem, and expenses as well as revenues will be involved, when other countries join after the system is established. Privately owned communications common carriers in this country have, to date, been able to work out satisfactory arrangements in their international negotiations with their counterparts abroad. For the most part, roughly a 50–50 basis has been used for sharing ownership, supply of equipment, maintenance costs, and revenues. In connection with the communications satellite system, however, this problem will not be so easy to solve.

One obvious example of this problem is determining how much of the development costs already incurred by the U.S. Government should be allocated to each one of the foreign countries that wishes to join the system either initially or later. An argument could be made for charging not only for all of the development costs of Telstar and Relay but also something for the cost of research and development of the launching systems. On the other hand, if a realistic compensatory charge is made for this contribution the figure would be extremely high. For some of the countries, particularly in the developing areas but probably also in Europe, the amount might be so high as to block effectively their participation. In this writer's opinion, expenditures for rocketry development should not be charged to our foreign partners. In addition, such a charge might well cause such countries as the U.S.S.R. or a European group to insist on use of their own vehicles and launching facilities. The rate-base question should not be a very large factor in these decisions because surely the rate will have to be reasonably competitive with costs of long-range radio and underseas cables. The chief consequence of a high rate base will be to reduce the possibility of realizing profits for the stockholders within a reasonable number of years, although capital-value appreciation will probably be the only real dividend for several years in any case.

Rather than have foreign partners jointly own the satellite system, one possible solution to this problem would be for the Satellite Corporation to place the satellites in orbit and then turn over to U.S. international carriers the right to use the channels. The overseas carriers could then negotiate in the traditional way on such matters as ownership and division of revenues. If this solution were adopted, however, the foreign companies could not have ownership in the equipment itself other than in their own ground terminals, inasmuch

as the U.S. common carrier would not have any title to sell, but only a right to use the channels. It is almost certain, therefore, that foreign countries would not accept this arrangement.

In the alternative, the Satellite Corporation could make arrangements with foreign countries for ownership, and agree on costs to be charged to the other countries who subsequently want to join in the project. Even in this situation, of course, the State Department would not have to participate if it was satisfied that the arrangements also served U.S. foreign policies. Under either approach it would not be necessary to charge other countries for rocketry development expenses, and in fact such charges should not be made. Because these expenses were incurred primarily for our own military purposes, foreign countries would be loath to help pay for them, quite aside from considerations of cost. On the other hand, if a reasonable charge is made for the basic research and development work contributed by the United States Government, developing countries can be practically excluded from participation without giving the appearance of discriminating against them.

This decision will not be easy to make, and certainly it cannot be made without proper regard for foreign policy matters. Nevertheless, if a close working relationship could be created between the State Department and the Satellite Corporation officials, as has been possible in the past between communications common carriers and the Department, it would be much better for the corporation officials themselves to negotiate these arrangements with their counterpart administrations in foreign countries.

Another problem related to this question of the division of negotiating roles between the Satellite Corporation and the State Department arises in connection with the customers that may want to make use of the communications satellite facilities. One example of this problem is the degree to which U.S. Government requirements for international communications services are met by use of satellite channels. At the present time U.S. communications common carriers lease channels to the U.S. Government for use in military and diplomatic communications. This service is dependent upon the cooperation of other countries. So far, at least, no serious difficulties have been raised in these countries about carrying such messages over what are clearly international communication lines running through their territory. Whether or not the same kind of willingness to accept these messages will carry over into the communications satellite system is a question that cannot now be answered, but past experience indicates that there will be no problem if the facilities are privately owned and operated.

If the Federal Government should set up its own separate satellite system to carry messages, particularly of a military or secret diplomatic nature, as it fully intends to do, a problem could be created for ComSat. At least at the beginning, it is hard to believe that the satellite system can be economically operated without the message load provided by our diplomatic and military agencies' needs for international communications. Actually, the reasons for a separate Government satellite system are not to reduce costs, but to provide a system cryptographically secure and relatively immune to incapacitating jamming. There is every reason to expect continuance of the present policy of making maximum use of private carrier facilities for most Government international messages.[43]

Perhaps here again the negotiations problem can be minimized if the Satellite Corporation itself is given the primary negotiating authority, provided there is a close working relationship with the State Department. In this way it would be possible for the privately owned U.S. international carrier to agree with its counterparts abroad that this was no more than what all carriers do—that is, lease channels to any customer, including military and diplomatic agencies of any government.

The question of State Department or corporation primacy in foreign negotiations becomes most sensitive when relationships with the U.S.S.R. are involved. At present the position of the U.S.S.R. with respect to joining a satellite system established primarily with U.S. ideas, materials, and money cannot be known. Some statements made in 1961 and 1962 indicate that the U.S.S.R. might be willing to cooperate.[44] On the other hand, the Soviets have not taken any clear-cut line in these matters and here, as in other areas, their position will undoubtedly derive from their overall foreign affairs policy. A realistic U.S. position on this question again might be worked out through the Satellite Corporation itself, although this certainly is much more debatable than in the other cases suggested above.

Some European and other countries have shown enough interest in joining a communications satellite system for us to go ahead regardless of what position is taken by the U.S.S.R. In general, there may be a greater chance for cooperation if the satellite communications channels are simply fitted into existing normal operating procedures of overseas communications, the channels then becoming an alternate route for sending messages. At the present time, our carriers have been able to work out satisfactory arrangements with the operating personnel in the U.S.S.R., and relations have been maintained with

[43] See testimony of Secretary of Defense McNamara, *id.* at 290, 304.

[44] See discussion of the attitude of the Soviet Union, SCHWARTZ & GOLSEN, *op. cit. supra* note 4, at 41–50. See also Gardner, *supra* note 23.

Castro's Cuba. Here again, perhaps we would be wise to treat the system as simply another communication channel. If this is not feasible, of course, the question whether to go ahead with the system on our own in spite of a failure by the U.S.S.R., and perhaps others, to join, will be presented. In this writer's opinion, we would be well advised to go ahead with establishment of a system with those countries who want to participate. If we move fairly rapidly there is every reason to believe that some European countries will join us.

In the future a very difficult matter involving much greater foreign-policy effects will arise when it becomes possible to have general broadcasting directly to home receivers without the intervention of the terminal facilities required for Telstar or Relay. Nevertheless, as stated before, the initial operation, probably for a good 10 years, will undoubtedly be in the form of a message and channel service, much as is now provided by telephone cables and long-range radio. The necessary operating arrangements including the division of ownership, service revenues, and other aspects of operation, should be worked out as far as possible through normal procedures of international carriers. Thus it will be possible to determine the technical and operational feasibility of the system before worrying about other problems which will involve much greater political-policy questions than the ordinary message service.[45]

Another very important policy question demanding an early decision from the Satellite Corporation is the price to be charged for satellite channels. As stated before, this writer believes the pricing policy will have to be answered primarily in terms of the costs of existing cable and radio channels; communications common carriers cannot charge a significantly higher or lower price for messages carried over satellite channels. Existing facilities as well as the new ones must be used nearly to capacity, and a substantial difference in charges would upset the balance. It would be best if all of the various channels, the total nonvoting investment of the carriers, and the many services are considered as a whole in establishing reasonable charges which will assure a fair return. Here again, this can be achieved more easily in the long run if the common carriers themselves are given the primary policy-making role, subject, of course, to rate regulations.

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[45] See Estep & Kearse, *supra* note 17. See also testimony of Mr. Carter of the State Department, *Hearings on Commercial Communications Satellites Before the Subcommittee on Applications and Tracking and Data Acquisition of the House Committee on Science and Astronautics*, 87th Cong., 2d Sess. 149 (1962); Testimony of Mr. Murrow, USIA Director, *Hearings*, *supra* note 14, at 154.

At least in the beginning, the Government should not set special rates merely to make the system appear to be an economic success or to make it more attractive to developing countries. If some subsidy is to be granted to certain areas of the world or to certain countries, this should be in the form of direct financial grants to these countries as a part of our foreign assistance program.

One great potential difficulty with the suggestion frequently made above, that ComSat carry out most of the negotiations concerning foreign participation, is that foreign offices of other countries might take over negotiations from their communications carriers, whether publicly or privately owned. If this should happen, our own State Department would feel under great pressure to assume the lead, rather than leave it to corporate personnel. Perhaps the only feasible solution would be to form an *official* negotiating team for the United States made up of both industry and Government personnel. This has been done in the past in an informal way [46] but now may be the time to create such a group on a formal, official basis. The question of who takes the lead in negotiations will still be an important and perhaps delicate question, and various situations might have to be distinguished in deciding it. Keeping the team stable, however, should build mutual confidence and respect, and close cooperation could be achieved with a minimum of wasted motion and friction. Certainly as to ITU, frequency allocations, and perhaps location of ground terminals, it would be necessary to have a Government agent speak officially for the United States. On most other matters, surely corporate personnel could take the lead, and even on the matters named it is essential that an industry-Government official team participate in formulating the policy to be followed by all U.S. groups and speak for the United States in most cases. If the negotiating team is made the *official* U.S. spokesman, it is of no legal concern to other countries that industry people are included any more than it is our legal concern that government personnel run communications in other countries, including the U.S.S.R.[47]

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[46] This is exemplified by the communications negotiations carried out in the past through ITU where representatives from private industry have worked closely with State Department officials and have attended ITU conferences.

[47] Russia has been taking the propaganda line that only governments should launch and operate vehicles in space and will perhaps seek to embarrass the U.S. position of making use of a profit-making private corporation. See colloquy between Senator Morse and Director Murrow, *Hearings*, *supra* note 14, at 156. They unsuccessfully proposed this viewpoint before the Legal Subcommittee of the United Nations Committee on the Peaceful Uses of Outer Space. See SCHWARTZ & GOLDSEN, *op. cit. supra* note 4, at 45–48. See also Gardner, *supra* note 23.

The proper relationship between the State Department and the Satellite Corporation in negotiations with foreign countries is also involved in applying the "most favored nation" provisions found in our commercial treaties with foreign countries. Although this will be discussed later,[48] a good working relationship between the Satellite Corporation and the Federal Government on this matter is clearly necessary because of the possibility of violation of our treaty agreements. In this area it is essential that some kind of State Department approval be obtained. This will undoubtedly cause considerable delays in the establishment of the system if all arrangements must be made on a come-one-come-all basis even though an economical service, at least at the beginning, will necessarily be limited to Europe and possibly one or two other places.

RELATIONSHIPS WITH INTERNATIONAL TELECOMMUNICATIONS UNION

The official agenda of the 1963 Conference does not include consideration of any fundamental reorganization of the International Telecommunications Union. Instead, it will be limited to frequency allocations. In preparation for this fall conference, some of the major countries have reached agreement as to the general character of the frequency allocations that should be made for space communications. If, as is hoped, these allocations, largely suggested by the United States, are adopted, it will be possible to use a Telstar or Relay system. This strictly limited agenda for the Geneva Conference will not resolve some important problems that will certainly arise in the future. But neither will the official agenda preclude informal discussion during the conference of the need for reorganization of international regulatory bodies. It is worthwhile, therefore, to point out some questions which will be raised by the establishment of a communications satellite system.

One involves registration of use of frequencies allotted to space communications. The necessity for interference coordination around the very sensitive receiving and sending ground terminals has already been mentioned. In the United States this will probably not create too much difficulty because of the large expanse of land and the possibility of finding a sheltered area close to places where the signals can be connected into the regular communications service within the country. The same may not be true in Europe, where density of population, scarcity of land, and flat terrain may make location a real problem. In some situations the potential interference zone might cut across national boundaries. Therefore, for the first time

[48] See text accompanying and following note 61 *infra*.

it may become necessary for the ITU to regulate and register receiving stations specifically.[49] At present, through the CCIR, suggestions as to power levels and zones are made and users have adhered to them without legal sanctions. This might work for satellite receiving equipment. In general, only sending stations have been required to register to assure noninterference, but it may be necessary to register the sensitive satellite-system receiving stations as well. Existing rules might be used because the receiving terminal is also typically the sending station. Nevertheless, the real problem certainly arises in connection with receiving, and this may present some difficulty under existing ITU procedures.

Another problem could arise if military systems are established. Although military communications are generally considered exempt from the ITU regulations,[50] a question can occur if the military needs of a country such as the U.S.S.R. or the United States make it desirable or necessary to create separate military communications satellite systems. Certainly our own government is interested in this possibility. If one is established, the international regulatory problem will be much greater than is the case with existing military communications. The signal strength and transmitting characteristics of an orbiting satellite must be compatible with existing ground uses because the same frequencies now being used for microwave transmissions from point to point on the ground will probably be used for communications satellite transmissions. This raises the very serious question whether we can continue to exempt military communications from ITU regulation.

Revision of this provision is not an item on the agenda for the 1963 Conference and, in fact, it could not be; but it is a matter calling for relatively immediate attention when countries such as the United States do create a separate military communications satellite network. Perhaps inauguration of such systems will be the opening wedge permitting a reevaluation of this exemption of military communications from ITU regulations. This potential interference probably makes necessary registration and regulation of military communications satellite systems, at least in peacetime. Otherwise the limited bands which will be made available for nonmilitary communications satellite services might be made useless for reliable transmission. If a hot war should occur, of course, the ITU regulations will be disregarded, but

[49] For a description of existing procedures as to registration and criticisms concerning them, see Estep & Kearse, *supra* note 17; Glazer, *The Law-Making Treaties of International Telecommunication Union Through Time and in Space*, 60 MICH. L. REV. 269 (1962).

[50] See discussion in Estep & Kearse, *supra* note 17, at 890–94.

during peacetime there is much to be said for bringing military communications, at least those accomplished via satellites, within the regulatory power of the ITU. One of the matters badly in need of clarification through ITU procedures is the definition of military installations, particularly as it applies to space.[51] Under existing provisions, to mention only one problem, it will be almost impossible to determine the military character of observation, as opposed to spy, satellites.

Another crucial issue is that of providing for the case where interference does occur. The important deficiencies presently existing in the enforcement powers of the ITU have been discussed elsewhere.[52] The creation of a commercial communications satellite system presents a perfect opportunity to formulate some method for strengthening the enforcement provisions of the ITU convention and regulations. Some type of compulsory arbitration or adjudication should probably be adopted. Because the use of the frequencies now proposed will overlap with existing microwave uses, disputes will inevitably arise. Possibly a specialized court could be created to handle these disputes, such as that which now handles disputes within the common-market countries.[53] Such a court might be acceptable for this specialized purpose and might even demonstrate the feasibility of greater use of international judicial tribunals to solve international disputes generally.

The problem of international regulations in this area will become much more acute when a general broadcasting system is put into use, as it surely will be at some time in the future. When direct broadcasts are made from the satellite to home receivers the question of allocation of frequencies becomes an extremely crucial one with serious political ramifications. Such a system would be open for use as a propaganda medium. Although one can always hope such channels would be used solely for educational and news purposes, this would be unrealistic in the light of past experience. If they were used for propaganda purposes the likelihood of jamming, with its consequence of rendering the whole system inoperable, would become particularly relevant.[54] On the other hand, if some attempt is made to control the content of such broadcasts, very serious censorship problems will arise. Our theories of noninterference by government with normal channels of communications to the general public are not

[51] *Ibid.*

[52] Estep & Kearse, *supra* note 17; Glazer, *supra* note 49.

[53] The European court is discussed in 1 STEIN & NICHOLSON, AMERICAN ENTERPRISE IN THE EUROPEAN COMMON MARKET: A LEGAL PROFILE 68–72 (1960).

[54] See Estep & Kearse, *supra* note 17.

accepted by many other countries. One fact, however, should be emphasized in considering this problem: general broadcasting should be clearly distinguished from the message and channel services which would be available under the presently proposed satellite system. This is true not only as to regulatory policy criteria but also technically, because different frequencies and even separate satellites would be used.

It is not too early to consider what kind of international control of such general broadcasts should be adopted. If this is to be done, the general character of the ITU will obviously have to be changed significantly and perhaps some use might be made of a specialized tribunal to license such broadcasts. In making these decisions, however, it would be important to draw clear lines, to the extent this is possible, between these general broadcasts and normal message services such as are now provided by long-range radio and underseas cables. Basically, general broadcasts would very likely be a continuation of the services now performed by the U.S. Information Agency and it would be unwise to mix this with the message services, at least if propaganda broadcasts were involved. One the other hand, one cannot really divorce news and general-education programs from propaganda broadcasts. Such broadcasts in any event, even though not of a military character, might be considered aggressive acts and dangerous to the security of some country. Under present ITU regulations jamming in such cases would not be precluded.[55] Jamming an active repeater satellite at the present time would not be difficult if the satellites were constructed to make maximum use of the transmission capabilities of Telstar or Relay. If one had to build a system to preclude jamming, utilization of the available power and channels would be cut so drastically that the system would not be economically feasible. Jamming has not been a problem in the past, however, even in wartime, when radio transmissions were used for the normal message service.

Another problem area in which the services of ITU might be very helpful is that of equipment compatibility. If the Satellite Corporation, with the advice of our Government agencies, should unilaterally decide what equipment to use, at least for the initial system, this would have tremendous long-range repercussions for other countries which might later want to participate. These other countries will have to be given some voice in the initial decision on equipment to be used; equipment incompatibility would otherwise become a serious matter. The FCC will have to take this into account in its regulations concerning equipment, and it must not be ignored in informal negotiations at the Geneva Conference when frequency allocations are

[55] *Id.* at 890.

made. Without doubt the best weapon other countries have in this bargaining process is that of allocation of frequencies for space communications. The very narrow research and band limitations now imposed under the 1959 allocation make an operational commercial system impractical.[56] Therefore, it is essential that the proposals put forth by the United States and others for broader allocations of frequencies for space communications be accepted. It is important, then, to reach agreement, probably through the ITU, on standards which will assure equipment compatibility and provide nations not yet ready to participate a reasonable opportunity to become a part of the global system sometime in the future. The problem has been solved successfully as to cables and radio transmissions in the past, and this experience should be followed as to satellite equipment.

In any event, within 1 year, thinking has changed somewhat concerning the role to be played by ITU. Speeches made by Secretary General Gross of ITU in October 1961 [57] and February 1963 [58] indicate a significant shift concerning the desirability of giving some real regulatory responsibilities to the Union. This would significantly change the role of the ITU, but very likely some such regulatory role will have to be played by that body. The Communications Satellite Corporation and the State Department must take cognizance of this fact; they must take into account the desires and rights of other countries. Ultimately, some type of international regulation will be imposed. If the type of organization and the regulatory pattern can be developed in the early stages before there are too many vested interests in the area, the problem will be easier to solve. This is a vital policy question needing immediate attention.

NATIONAL PRIORITIES

With what areas or countries will we first establish a communications satellite system? The economic and technical matters which give rise to this problem have already been set out. If, as the 1962 Act contemplates, the corporation is to make profits, agreements must be made first with England and Europe, where even one or two ground terminals would make it possible to connect into terrestrial facilities throughout the continent. The European connection

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[56] *Id.* at 886–87.

[57] Address by Secretary General Gross, *The ITU and Space Communications*, Twelfth International Astronautical Congress, Washington, D.C., Oct. 4, 1961.

[58] Address by Secretary General Gross, *Telecommunications and the Peaceful Uses of Outer Space*, U.N. Conference on the Applications of Science and Technology for the Benefit of the Less Developed Areas; Feb. 1963. (Though delivered in Feb. 1963, the speech is dated Oct. 1962.)

could be with major countries such as France, Germany, and Italy, or hopefully with a multilateral European operating group. If the fastest possible establishment of an operational and economical system is our goal, there is no alternative. Such a decision, however, would raise a very interesting legal problem under existing commercial treaties which the United States has executed with many other countries.

Germany and Denmark can be used as examples to illustrate this problem. One is a potential terminal country, the other is not. Our treaties with both of these countries contain the typical "most favored nation" and "national treatment" clauses. The peculiar bifurcated nature of the Satellite Corporation raises some rather interesting possibilities under these provisions. Even though a later act of Congress will supersede an earlier treaty [59] and, therefore, the provisions of the Communications Satellite Act of 1962 supersede any inconsistent treaty clauses, it would be unwise to violate our international agreements, no matter what the domestic law on this matter may be. If the corporation should decide, for economic reasons, to make connections only with Germany, would this be considered a violation of our governmental obligations to Denmark under these two treaty clauses, if Denmark requested the same privilege?

Article XVII(2)(c) of the treaty with Denmark [60] provides that each Party must give the other's "nationals, companies and commerce" "fair and equitable treatment" as compared with any third country "with respect to . . . the sale of any service sold by the Government or by any monopoly or agency granted exclusive or special privileges." If the Satellite Corporation were considered the U.S. Government, Denmark could argue that it had a right to full terminal facilities on the same sharing basis as that granted to Germany, even though ComSat would not want to contribute its share because the amount of traffic would not justify this expenditure. Denmark might be willing to do so for reasons of national prestige and could claim that it had a right to the same U.S. contribution made to establish a connection with Germany.

If the Satellite Corporation were truly a privately owned company, even though regulated as a common carrier, surely no difficulty would arise under existing treaty obligations. It has never been suggested that AT&T's decision to lay a cable first to Great Britain, then to France and Germany, and eventually to a few other places in the

[59] Chae Chan Ping v. United States (*The Chinese Exclusion Case*), 130 U.S. 581 (1889).

[60] Treaty of Friendship, Commerce and Navigation With Denmark, Oct. 1, 1951, T.I.A.S. No. 4797.

world in any way violates the "most favored nation" clause. On the other hand, if the satellite system were owned by the Government itself, there would be a serious problem of whether we could offer to share expenses with a few countries and refuse such rights to others who might wish to participate on the usual "joint ownership determined by use" basis possibly applied in agreements with those groups having large concentrations of communication customers. The answer to this question may depend upon whether the Satellite Corporation is a private or a Government operation, at least for purposes of application of these treaty provisions.

As pointed out before, the corporation is sui generis so there are no clear authorities or precedents which give a satisfactory answer to this question. In many respects, as indicated in the initial statement of facts and assumptions, the Satellite Corporation nominally is a private company. Nevertheless, as pointed out by Secretary of State Rusk and other federal officials, many provisions in the act attempt to insure that the policies of the corporation will be consistent with those of the U.S. Government.

In at least one case corporate policy can be dictated by the Government. The Government can apparently insist that ComSat take whatever steps are necessary to permit connections with countries which construct the necessary ground terminals, even if, for economic reasons, the Satellite Corporation would not desire connection with such places.[61] From this it might be argued that the making of these important decisions, particularly those dealing with establishment of ground terminals, constitutes U.S. Government action. On the other hand, in recent hearings before the Senate Commerce Committee concerning approval of the initial incorporators appointed by President Kennedy, the Attorney General took the position that the Satellite Corporation is not a Government agency for purposes, *inter alia*, of the federal-employee conflict-of-interest statute.[62] Employees, including subsequent officers as well as the original incorporators, are not Government employees because the corporation itself is not a Government agency, according to the Attorney General. This opinion, of course, does not settle the basic question whether, for purposes of these treaty provisions, the actions of the Satellite Corporation are those of the U.S. Government.

Perhaps this is another reason why the negotiations leading to these international agreements should be carried on by the Satellite Corpora-

[61] COMMUNICATIONS SATELLITE ACT OF 1962, §§ 201(c) (3) and (10). See discussion of this problem by FCC Chairman Minow, *Hearings, supra* note 14, at 19–22, 93–94.

[62] *Hearings, supra* note 11, at 107–10.

tion staff rather than by Government representatives. Success in this undertaking, however, will call for an extremely close degree of cooperation between the State Department and other federal agencies on the one hand and the Satellite Corporation on the other. It is arguable that in effect the corporation is just another arm of the Government, being only nominally private in character.

Even if, for purposes of the most-favored-nation clauses, it should be decided that the Satellite Corporation is not an agency of the U.S. Government, it may be considered a "monopoly or agency granted exclusive or special privileges" and thus be required to give to Denmark the same rights as are given to Germany. Certainly Congress gave ComSat a very privileged monopoly position.

One other problem should at least be mentioned at this point. Under the "national treatment" clauses, consideration should be given to the provision of the Communications Satellite Act of 1962 which limits stock participation by non-U.S. citizens to 20 percent.[63] Does this deny "national treatment" to foreigners? Article VII(1) of the treaty with Denmark [64] provides that the nationals of either party must be given national treatment by the other "with respect to engaging in commercial . . . activities." U.S. nationals can buy stock without the 20 percent limitation imposed by the Satellite Act upon foreign nationals. Clearly these other nationals are not given the same treatment as our own, and arguably the "national treatment" clauses have been violated.

Similar limitations on foreign ownership or control of activities in the United States are found in other statutes such as the Atomic Energy Act [65] but, at least as to atomic energy, our commercial treaties specifically except it from the "national treatment" clause.[66] It may be more difficult to justify the difference in treatment in the case of the communications satellite. An *expressio unius* argument could be made. In addition, as now set up, this is clearly a peacetime activity having no very direct connection with our national security, as is the case with the atomic energy limitation and some of the others. One possible answer to this problem is that no other country will raise this objection, but it may be that we are in violation of our treaty obligations.

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[63] COMMUNICATONS SATELLITE ACT OF 1962, § 304(d).

[64] *Supra* note 60.

[65] Sections 103(d) & 104(d) of the Atomic Energy Act of 1954, 68 Stat. 936–37 (1954), 42 U.S.C. §§ 2133(d) & 2134(d) (1958).

[66] *E.g.*, Treaty With Denmark, *supra* note 60, Art. XXI(1)(b).

CAUTION

An attempt has been made to set out some of the "facts of life" which we will face in making policy decisions concerning establishment of the communications satellite system. In addition, several problems that have some legal significance and will arise out of the international negotiations necessary to establishment of this service have been suggested. The caution given at the beginning, however, bears repeating. Although assumptions have been stated confidently and specific solutions or at least policy lines to follow for some of the problems have been suggested, no person can feel he has *the* answers, particularly when he cannot possess knowledge which both carrier operators and Government administrators have acquired as a consequence of their official positions. Therefore, the assumptions, suggestions, and conclusions here stated should be considered an attempt to stimulate thoughtful consideration of the questions which must be faced and in some way answered before a successful international communications satellite system can be established. If the critical thought of those in Government, business, and the academic community can be focused on these problems, we should be better prepared to make maximum use of our opportunity at the forthcoming conference in Geneva and in later negotiations, to assure successful creation of a global system of communications by means of space satellites. If critical evaluation of these problems is stimulated, a large part of the purpose of this paper has been realized.

Comments

Maxwell Cohen

Having put on a space law conference myself, in Montreal, I'm impressed with the difference between doing some things "in area" and doing the same things "in depth." We covered in some respects a little wider spectrum of subject matter than you did, but I think that on the communications side you handled it in far greater depth than we were able to do.

As a Canadian, it seems to me that the first question one must ask is, Why is so much attention being paid to this subject in the United States anyway? Why would you devote this much time to what seems to be another experiment with a semiregulated industry which has some substantive novelty but which, after all, fits into the main-

stream of the communications pattern—an industry which, as Professor Estep already has indicated, is only one more aspect of the development of international communications. What is there, apart perhaps from the "mixed enterprise" aspect, that makes this subject so much of a novelty?

I suggest that the real reason for the preoccupation—apart from the peculiarities of your own municipal law system and the mystique of your own social order which allows you to engage in fanciful notions of uniqueness in this area—is something that has not, in my opinion, been touched on. That is, that the satellite program is not simply another system of communications, having its own special national and international aspects, but it also is symbolic of a whole new international experience.

There are three features that are worth thinking about, but to which I shall refer only briefly here.

There is, first of all, the actual symbolism of the communications satellite, commonly shared by mankind. It is perhaps, par excellence, an illustration of a "sharable resource."

Even though it is no more than another transmission channel, its symbolism, it seems to me, is of a different order from that of a cable from Newfoundland to Ireland. Spinning out a cable once perhaps had drama, but nothing like the drama of putting up a system in space for intercontinental communications. The symbolism itself is important and gives these instrumentalities a unique status.

Second, there is the international interest in the uses of space—apart from the symbolism. How is space going to be used? Here is one use of space in which all nations are interested, since this is one of the first nonmilitary, constructive uses of space to be achieved.

Apart from other scientific activities that do not have an immediate impact on the individual, such as meteorological surveys, none of the present satellites in orbit has had as significant a public interest as Telstar or Relay. The average person and the chanceries of the world, reflecting the evolution of mass opinion, are all concerned about the uses of space. And here, now, is a dramatic, peaceful use of space in which everyone wants to share. So this is not merely another communications system rivaling cables or high-frequency radio. It is a unique and special use of space in which everyone has an interest.

Third, I think there is another aspect which marks this as quite distinct from merely the evolution of international communications. It is the fact that a communications system in space has not merely a positive side of peaceful use, but also a negative side, in the sense of threat. The threat takes the form of possible propaganda and cold-war abuses in their many variations. These potentially threatening

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aspects seem to me to be something that we will have with us for a long time to come.

Consequently, there is a desire to share in the regulation of a potential threat, whatever it may be—a threat of propaganda or a threat of interference with the use on the ground of existing communications, either in an economic or educational way.

For these three reasons—the sense of uniqueness, the desire to share in its use, and the threat—I think there is a special quality that attaches to this new experiment in intercontinental communications, which renders it *sui generis*. It cannot, therefore, be put in the same class as other intercontinental communications.

My second general point is one to which Professor McDougal would do more justice than myself. I think the communication system is par excellence an example of a common international exercise, an example of an "inclusive use" of resources. Here we can see the need to express that use in jural terms—customary or conventional law.

This brings me to an examination of the substantive issues arising from this "inclusive use." I see four problems: The monopoly problem, the participation problem, the military-civilian problem, and the regulatory problem.

The monopoly problem is rather curious because there is the domestic image of monopoly and the international image of monopoly. The domestic image seems to raise certain special problems for you in the United States. You, in fact, have tried not to have either a governmental monopoly or a private monopoly.

You are now engaged in a great experiment in a "joint" or "mixed" venture. But what has happened is that somehow or other there has been projected internationally this sense of a monopoly. The insistence, expressed in Congress, that there be private participation gave a monopoly image in part—or gave to the private acquisition of this user certain attributes which, when projected internationally, have resulted in propaganda consequences that should have been predictable.

Any friend of the United States could have predicted that if you played this kind of necessary domestic game, you were bound to get into some difficulty with your international image. That image was partly going to be the image of the United States permitting AT&T to go up there and deprive the rest of the world of its rights in space—however wrong, in fact, that view might be. Perhaps the international image would not have been as difficult, from the monopoly aspect, had there been a purely governmental activity here.

The United States has been somewhat reluctant to accept mixed ventures abroad for purposes of its foreign-aid program, as shown,

for example, in the kind of things that are said in Congress about cutting out aid to countries that encourage state-owned enterprises. The Telstar joint venture, then, is a welcome line of development in your public policy.

All that I am saying is it was bad public-relations luck on your part. The United States may have to bear this erroneous image for some time. This monopoly image is partly based on the technological headstart of the existing great American corporations—already years ahead of everyone else except a few states in the Western World—since it appears as if you are taking this particular communal resource and allowing it to become a private venture.

We know this is not wholly true *de facto* or *de jure*. But it is partly true—sufficiently true to give you some difficulty in the future.

The second problem is the question of participation. In Montreal we raised this matter by asking, "Wouldn't it have been wiser for the United States, in creating this hybrid, to have given the feeling to the rest of the world that it could share in this great novel activity with its symbolic values?" An expert replied, "Oh, you haven't done your homework, because all non-nationals can own up to 20 percent of Comsat's stock."

I was taken in by this myself until I realized that this privilege was, after all, of only limited value. The President is not likely to appoint a Canadian, a Yugoslav, and a Korean to the board of directors in the near future. It seems to me the likelihood of any real participation in the policy-making activities of the Satellite Corporation here for non-nationals is very remote indeed.

Apart from shareholding privileges and their real or fictional attributes, we are talking about what must be an essentially American enterprise. Participation in such an enterprise, therefore—whatever the stockholding may be—involves, I suggest, five or six related aspects.

The first is research and development. What chance is there going to be for Canadians, for Frenchmen, for bright young men in Ghana and Nigeria, to share in research and development?

Is this going to be simply "to him who has," with the race for excellence in this field progressing geometrically on your part but not even arithmetically elsewhere? If so, the United States will become technically better and better, and the others will simply go along. Or are you going to subcontract out parts of the R&D work because Congress has said, in the declaration of policy in section 102, "in conjunction and in cooperation with other countries."

Does this legislative language mean that, in fact, some part of the program of research and development will be allocated to the technical

colleges and universities, the industrial laboratories, and the telephone systems of the rest of the world? It would be very helpful to know something about the policy here.

The second aspect is manufacture. Obviously, the suppliers of Comsat are going to be American suppliers in the first instance. The ground stations, if they are going to meet certain technical specifications, presumably will be supplied partly by Comsat itself or, with the encouragement of the United States, be manufactured abroad.

Will it be possible for countries which are not sites for ground stations but which have a first-class electronics industry—for example, Sweden might fall in this category—to share in this great international experiment with this new communications resource which "inclusively" ought to be shared between us?

Nothing in the discussions at this conference has indicated that there has been much thinking with respect to the international manufacturing and sharing in the various items required, both for the instrumentality upstairs and for the ground stations downstairs.

A third problem of participation is general policy making. The directors, like all directors who make policy, presumably will be under the influence of the various branches of the U.S. Government that have an interest in the activities of the corporation—Defense, State Department, NASA, and so forth. Can there really be a sense of satisfaction in other advanced countries, to say nothing of the rational and irrational resentments in the less developed countries, if there is no sense of participation, even if there is only a remote chance of contributing technically?

There are very sound political reasons for giving states in Africa, Asia, and Latin America a sense of participating in policy making, even though many of them may have very little to contribute technically. For this is a symbolic effort. Unless the flavor of the symbolism is caught and translated into the politics to which it relates, a great deal of the benefits that are likely to flow from it in political terms will be lost.

It will not be sufficient for states merely to be told, "We will give you a fair break, and you can lease channels or lease facilities from Comsat itself." To many states, advanced and less advanced, the idea of participation will mean something more than being lessees of a channel. Participation means, somehow or other, feeling that they are making a contribution to the total evolution of Comsat and whatever other systems may follow in the development of the satellite communications program.

The fourth aspect is rate making. Multinational experience with rate making, I learn from Professor Estep's paper, already exists in

dealing with existing international communications. We ought therefore to be able to have a rate-making system that satisfies most countries. But again, let me remind you of the uniqueness of the instrumentality. You may wish to invite into the rate-making mechanism users who are only marginal users, or even submarginal users, for purely symbolic and political reasons. I think the degree of resentment on the part of the other, "poorer" half of mankind against the northern family of mankind often is so profound that the more items we can add to the list of developing-country participation, the greater the benefits to our other relations with these developing states.

The fifth aspect is profits and the use of profits. Presumably, again, this is part of policy making. However, there are two aspects which may prove to be of some difficulty. One is to determine the position of states which have no ground station but which may have claims such as that which Professor Christol suggested when he was at Montreal—less a claim than a position. If you have a synchronous system with your three communications satellites positioned directly above Liberia, Sumatra, and Ottawa, for example, can you work out a theory of rental? It sounds absurd and is of course absurd.

Also, you face the possibility of a second system; that is the British Commonwealth communications system. The British Commonwealth has, for a long time, had an approach to communications uniquely its own. It has recently, as a result of the Commonwealth Conference—I think in 1959 or 1960—put forward a new communications policy. There is a new cable now being laid across the Pacific to improve communications between the members of the Commonwealth. There are institutions which link the Commonwealth administratively for this purely intra-Commonwealth system.

Perhaps they may evince a desire to somehow or other be in this game. Are you inviting the Commonwealth communications structure to come in as a cooperating entity before certain vested patterns of administration develop? Nothing was said here about that prospect. The question is worth asking.

And finally, on this matter of participation, I ask how you are going to get a decision very soon on the point that Professor Estep made with such force; namely, that technically we wish a single system, a single "compatible" system that integrates easily with all other ground systems. How do we make sure of this? What is to be the mechanism by which we prevent nonintegrated and noncompatible systems from being sent up into space? So much for the question of participation.

Now, the third major problem is the military one, about which I know very little. I will therefore pass on with one remark: it strikes me that the chanceries of the world, and whatever part of literate

public opinion cares about these things, will wonder about the relationship between the military and the peaceful uses of the Comsat system. It is one thing for Professor Estep to say that, in fact, part of the existing cable and high-frequency load now carries military and diplomatic messages without arousing complaints and that these messages may even go through countries which are very much at odds with each other.

I suggest to you that undersea cables and high-frequency and telegraph wires do not have the same effect symbolically as Telstar, Relay, and the others. Objections, possibly linked to the general problems of propaganda and malusage, may be raised and we should be prepared for them.

This brings me, finally, to the regulatory problem. I can see several aspects to the matter of regulation.

One view is that the world, as Professor Estep says, can be very well served by a system of private carriers, as it is now served except for those countries in which the communications systems are owned by governments. But I was impressed by Professor Estep's summary of the number of agreements that AT&T has abroad—175 individual agreements. They have done this with no fanfare and with great success. Communications "on the ground," therefore, seem to be carried on with very considerable success, without the intervention of government except in emergencies.

Therefore one possible system of regulation is to leave it to this mixed enterprise of private carriers and government-owned carriers to carry on as if it were any ordinary communications business. For the reasons I have set out this is likely to be unacceptable psychologically and politically.

A second method is to set up regulations as a state-to-state matter. Though the Comsat Corporation in municipal law terms is a private corporation, with certain mixed private-public attributes, for purposes of the international forums it may be represented by the government of the United States in state-to-state dealings. Then all of the dealings would have as an implied regulatory mechanism negotiations between governments.

It was Professor Estep's view that this might be unnecessary. United States private carriers have been very successful in private negotiations, keeping the State Department informed. Negotiating teams would be organized—if I understood him—and the leadership of the team would depend upon the situation. In an awkward situation the United States State Department would lead the team. Given a less awkward framework, normal commercial techniques would be

employed with the State Department's participants rather more in the background.

Perhaps this would work quite well. But a third aspect of the regulatory problem is what seems to me to be the almost inevitable emergence of international organizational techniques to deal with the communications problem very soon, because already there are so many interests involved.

It is true that ITU is sometimes looked upon with a good deal of—not contempt—but concern for its lack of sanctions, the rather limited areas of jurisdiction in which it operates. One forgets that the ITU charter contains provisions dealing with arbitration. I do not think that clause has ever been invoked, but it is there. Thus, the machinery for the administration of the disputes to which Professor Estep referred is already in existence. ICAO also has interests here on behalf of international air transport. At the ITU conference in the fall of 1963, if ICAO requests and receives frequency protection for its air transportation needs with respect to Telstar, this may be a first step on the road to a much more elaborate systematic approach to international regulation.

There are those who argue that excessive regulations at a premature stage tend to inhibit those who wish to get out into space and do a job. I have no desire to see that happen. Indeed, on balance, I think we can only congratulate ourselves that the United States has had the technology and initiative to get out into space as quickly as it has done. Those who see her as the leader in the free world wish her to stay in space in all of its aspects.

But because space communications systems are as important as they are to all of mankind, they are a natural subject for multinational arrangements rather than the commercial, entrepreneurial engagements heretofore employed.

What I look forward to, over a period of time, is a partial solution of the participation and regulation problems through some good will and much ingenuity, perhaps expressed ultimately in the evolution of some new specialized agency or some advances in ITU itself far beyond its present structure.

Myres S. McDougal

Mr. Boskey has suggested that my task now is to put all wisdom into a single sentence. I will at least try to be brief.

I don't remember when I have been asked to comment upon a major address with which I have agreed more than with Professor Estep's. It isn't often, either, that I have an opportunity to call a legal audience back to a discussion of legal problems. You highly

practical lawyers, who ordinarily don't have much use for international law, may be getting yourselves into trouble. Thus far, you have largely ignored the international-law aspects of your problems. Though it is by the authority of the United States—the District of Columbia according to this statute—that you have launched a new legal entity upon the world, many other nation-states will in fact have to decide whether you have succeeded by international-law criteria in launching a new entity and will apply their authority to activities undertaken in the name of this entity.

Let us build upon some of the facts developed by Professor Estep in his paper and alluded to by Professor Cohen. It is the international aspect of this enterprise that I would like to emphasize, and very concretely. By international aspect I do not mean simply that your enterprise is going to have effects and consequences for all mankind. The most important point is that your enterprise will have continuously to operate, largely beyond the territorial bonds of the United States, within a domain of shared competence to which all states have access. It will also have to operate (in very considerable measure) within the territorial domains of other states.

These facts about the domain of operation must require very considerable accommodations and adjustments from you who undertake the enterprise. Professors Lasswell and Vlasic and I have just completed a chapter in a book on the law of space in which we deal with these problems.

In this book we characterize all organized inclusive activities as "enterprisory activities." On the first day of this conference a case was made for the unorganized inclusive use of the domain of space. What we are now concerned with is *organized* inclusive use. Within this concept of "enterprisory" we include all organizations which undertake direct international operations or administration: the public international organizations to which states are the parties whether comprehensive, partial, or regional; the mixed corporations which have both governmental and private parties, such as that established by the Communications Satellite Act; and even the solely private corporations which have multinational ownerships. It may be recalled that the Communications Satellite Act makes provision for multinational ownership.

For all these various organizations, we have tried both to identify the specific types of problems which may arise under customary international law and to observe what past community experience has been in the management of such problems. Here I will not do much more than identify some of these problems and note some of the difficulties you may confront.

The first type of problem relates to the establishment of the enterprise as a legal personality, separate from its members or agents. The assurance you require is that you have a legal personality which will be respected and honored by the states in which the organization will have to operate and upon which it will have impact. Maybe you will get away with saying that this organization has all of the competence which is provided by the corporation statutes of the District of Columbia. Maybe not.

There has been a very strong trend in recent decisions in public-private international law, in recognition that we do in fact have an international economy, to accept and honor the legal personality of entities established by other states. We must all hope that this trend may continue.

The famous case of *Reparation for Injuries Suffered in the Service of the United Nations* (1949 I.C.J. Reports 174) which established beyond dispute the "international personality" of the United Nations, may give you further support. The Court there concluded that the United Nations had under customary international law the necessary legal personality even against nonmembers.

By legal personality I mean, of course, simply the minimum of access to formal authority—the capacity to make a claim and to be subjected to claim. This claim to a legal personality is almost always accompanied by other claims. There are a whole host of claims—in private international law and in the law of public international organizations—which are described as relating to the internal affairs or the constitutive processes of a corporation or an entity.

If you will look at Mr. Wilfred Jenks' little book on *The Proper Law of International Organizations*, or Rabel's second volume on *Conflict of Laws*, you will find that most states accord a very considerable deference to the law of the chartering state on this great range of problems said to refer to the internal affairs or constitutive process of the entity—problems which relate to the structure of the organization, the duties and competences of agents, the control of assets, the distribution of losses and benefits, and so on. There is, however, no assurance of uniformity in decision. Policies vary not only on specific problems but even in the identification of the chartering state.

When we shift from the problems of constituting the entity to problems relating to access to various geographical domains for the purpose of carrying on activities, our inquiry becomes even more difficult.

It seems generally agreed that all states should enjoy free and equal access to the sharable domain of space. This freedom of access would

appear to extend to all craft having state nationality, not merely to state-owned craft; it is highly improbable that the Soviets will be able to establish their new claim to confine access to state-owned craft. You are not likely to be treated as a pirate because of some private ownership.

In parenthesis, let me say further that you cannot even take for granted that the recital in this act that you are a private company and not an agency or establishment of the United States Government will be accepted by decision-makers outside of the United States. What is a governmental enterprise for this country will be determined by other countries and by international decision-makers by their own criteria. This determination may vary from problem to problem. You may be private for some purposes, and governmental for others.

With respect to access to the territorial domains of particular states, the doctrine is almost unqualified that you will not get access except with the explicit consent of the particular state. The doctrine still is that a state may, as an Englishman bars his oak, keep everybody else out at its arbitrary pleasure. It may be that you can claim the benefits of some of the treaties of "friendship, commerce, and navigation." If not, this is one of the matters which will require negotiation.

Another type of problem will relate to the permissible objectives of enterprise. Upon these problems there is some question whether the provision in this statute about the Sherman Antitrust Act, about monopoly, will stand you in very good stead. Other states have very different conceptions of monopoly and competition. They prefer their conceptions to ours. They will regard it as somewhat awkward, somewhat egocentric, that we claim to regulate by our national agency activities which are in fact international and which have impacts upon them just as consequential as upon us.

Still other important problems will relate to control over base values. The most indispensable bases for your purposes will of course be the frequencies of the radio spectrum. A general community consensus appears to be emerging that these frequencies, like other space resources, must be regarded as sharable and that every particular user must manage his enjoyment of the frequencies so as not unreasonably to prejudice or interfere with the enjoyment of others. In the absence of generally accepted inclusive allocation and regulation, the situation may become most difficult. I do not, however, share Professor Cohen's anticipation that underlying states may seek to subject stationary satellites to actions in trespass: the general consensus upon freedom of access would appear to preclude this. The more probable

claim by other states will be for participation in the enjoyment of the resource which they regard as held in common.

The traditional immunities and facilities accorded state agencies could serve as important bases of power. Whether you will be afforded these immunities and facilities will depend upon whether other states decide that you are governmental or nongovernmental. You may of course not even claim to be governmental for this purpose. The more recent trend is to regard enterprises as subject to jurisdiction of the states, of the particular states in which they operate, if they are engaged in commercial activities. You are engaged in commercial activities, but we hope that you are also engaged in much more.

It is conceivable, if you should internationalize the operation more, that you could get many facilities and immunities not otherwise obtainable. There is an established community policy of protecting international organizations from the dominance of any particular state that is broader than the traditional immunities of state instrumentalities.

If we turn from the control of bases of power to problems concerning responsibility for agreements and deprivations, it is possible that you may be allowed some option about the law which will control your agreements. You may specify that the agreements you make which have an international element will be governed by such-and-such law, preferably by the general principles of the more mature societies. If you do not so specify, a thousand results are possible.

With respect to deprivations—torts and crimes—there are very grave problems for counsel. What is the responsibility of the United States? What is the responsibility of the corporation? What is the responsibility of the individual human beings who engage in activities? The answers to these questions involve not only the problems mentioned above about the consequences of the presence or absence of "legal personality" but also many delicate issues about responsibility across state lines.

When we turn to the regulation of outcomes achieved—to the distribution of profits and allocation of losses—decisions will obviously be affected by many different laws, and not simply by United States law. In the interest of the widest possible distribution of benefits for all mankind, I would join with Professor Cohen in hoping that, perhaps, sometime an undertaking like this could be more internationalized, and not unilaterally operated by many differing states.

I won't deal with the problems of terminating and modifying the enterprise, since we hope that it will endure for a very long time.

It has been my purpose in calling your attention to all these problems to emphasize that they are the kinds of problems to which inter-

national lawyers and others should be addressing themselves. This is not intended in criticism of Professor Estep's presentation. My only purpose has been to build upon his foundations.

I would especially like to join with Professor Estep in his strong appeal that we bury the hatchet on all internal parochial differences. We should recognize that the initiative and authority of government and the initiative, the skills, the resources, and the manpower of private industry are all needed if we are to take advantage of an unparalleled opportunity.

I am not very much shocked by the brilliant exegesis of Professor Rosenblum. One could do this to any charter of any great enterprise; certainly, as suggested by others, to our own national Constitution. A constitutional document is just an invitation to bargain.

Several of us at this conference worked for some years under the Lend-Lease Act, which was even vaguer than this statute. One of the reasons why it worked very well was its vagueness. Possible abuses were avoided by the responsibility to the Congress for money and by the responsibility of the President to the electorate.

Given an understanding of the objectives of the Communications Satellite Act and the circumstances of its enactment, there are many principles of interpretation, other than that of the allegedly literal meaning of the words, which may be invoked to insure a viable, effective enterprise.

In conclusion, I would like to urge again that we not forget the benefits to all of us, and all mankind, that may be involved in this enterprise. Professor Estep interpreted correctly when he said I was suggesting that we shouldn't look too closely at where the funds come from, or by whom they are spent, so long as they are used to increase our knowledge and understanding of space and our capabilities of getting greater benefits from space. It is this same concern for maximizing activities which inure for the benefit of all that causes me to join with Professor Cohen in his hope that activities of this kind may be increasingly internationalized as rapidly as possible.

APPENDIX

Public Law 87-624
87th Congress, H. R. 11040
August 31, 1962

An Act

76 STAT. 419.

To provide for the establishment, ownership, operation, and regulation of a commercial communications satellite system, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

TITLE I—SHORT TITLE, DECLARATION OF POLICY AND DEFINITIONS

SHORT TITLE

SEC. 101. This Act may be cited as the "Communications Satellite Act of 1962". Communications Satellite Act of 1962.

DECLARATION OF POLICY AND PURPOSE

SEC. 102. (a) The Congress hereby declares that it is the policy of the United States to establish, in conjunction and in cooperation with other countries, as expeditiously as practicable a commercial communications satellite system, as part of an improved global communications network, which will be responsive to public needs and national objectives, which will serve the communication needs of the United States and other countries, and which will contribute to world peace and understanding.

(b) The new and expanded telecommunication services are to be made available as promptly as possible and are to be extended to provide global coverage at the earliest practicable date. In effectuating this program, care and attention will be directed toward providing such services to economically less developed countries and areas as well as those more highly developed, toward efficient and economical use of the electromagnetic frequency spectrum, and toward the reflection of the benefits of this new technology in both quality of services and charges for such services.

(c) In order to facilitate this development and to provide for the widest possible participation by private enterprise, United States participation in the global system shall be in the form of a private corporation, subject to appropriate governmental regulation. It is the intent of Congress that all authorized users shall have nondiscriminatory access to the system; that maximum competition be maintained in the provision of equipment and services utilized by the system; that the corporation created under this Act be so organized and operated as to maintain and strengthen competition in the provision of communicat ons services to the public; and that the activities of the corporation created under this Act and of the persons or companies participating in the ownership of the corporation shall be consistent with the Federal antitrust laws.

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

DEFINITIONS

SEC. 103. As used in this Act, and unless the context otherwise requires—

(1) the term "communications satellite system" refers to a system of communications satellites in space whose purpose is to relay telecommunication information between satellite terminal stations, together with such associated equipment and facilities for tracking, guidance, control, and command functions as are not part of the generalized launching, tracking, control, and command facilities for all space purposes;

(2) the term "satellite terminal station" refers to a complex of communication equipment located on the earth's surface, operationally connected with one or more terrestrial communication systems, and capable of transmitting telecommunications to or receiving telecommunications from a communications satellite system.

(3) the term "communications satellite" means an earth satellite which is intentionally used to relay telecommunication information;

(4) the term "associated equipment and facilities" refers to facilities other than satellite terminal stations and communications satellites, to be constructed and operated for the primary purpose of a communications satellite system, whether for administration and management, for research and development, or for direct support of space operations;

(5) the term "research and development" refers to the conception, design, and first creation of experimental or prototype operational devices for the operation of a communications satellite system, including the assembly of separate components into a working whole, as distinguished from the term "production," which relates to the construction of such devices to fixed specifications compatible with repetitive duplication for operational applications; and

(6) the term "telecommunication" means any transmission, emission or reception of signs, signals, writings, images, and sounds or intelligence of any nature by wire, radio, optical, or other electromagnetic systems.

(7) the term "communications common carrier" has the same meaning as the term "common carrier" has when used in the Communications Act of 1934, as amended, and in addition includes, but only for purposes of sections 303 and 304, any individual, partnership, association, joint-stock company, trust, corporation, or other entity which owns or controls, directly or indirectly, or is under direct or indirect common control with, any such carrier; and the term "authorized carrier", except as otherwise provided for purposes of section 304 by section 304(b)(1), means a communications common carrier which has been authorized by the Federal Communications Commission under the Communications Act of 1934, as amended, to provide services by means of communications satellites;

48 Stat. 1064.
47 USC 609.

(8) the term "corporation" means the corporation authorized by title III of this Act.

(9) the term "Administration" means the National Aeronautics and Space Administration; and

(10) the term "Commission" means the Federal Communications Commission.

August 31, 1962 Pub. Law 87-624
76 STAT. 421.

TITLE II—FEDERAL COORDINATION, PLANNING, AND REGULATION

IMPLEMENTATION OF POLICY

SEC. 201. In order to achieve the objectives and to carry out the purposes of this Act—

(a) the President shall—

(1) aid in the planning and development and foster the execution of a national program for the establishment and operation, as expeditiously as possible, of a commercial communications satellite system;

(2) provide for continuous review of all phases of the development and operation of such a system, including the activities of a communications satellite corporation authorized under title III of this Act;

(3) coordinate the activities of governmental agencies with responsibilities in the field of telecommunication, so as to insure that there is full and effective compliance at all times with the policies set forth in this Act;

(4) exercise such supervision over relationships of the corporation with foreign governments or entities or with international bodies as may be appropriate to assure that such relationships shall be consistent with the national interest and foreign policy of the United States;

(5) insure that timely arrangements are made under which there can be foreign participation in the establishment and use of a communications satellite system;

(6) take all necessary steps to insure the availability and appropriate utilization of the communications satellite system for general governmental purposes except where a separate communications satellite system is required to meet unique governmental needs, or is otherwise required in the national interest; and

(7) so exercise his authority as to help attain coordinated and efficient use of the electromagnetic spectrum and the technical compatibility of the system with existing communications facilities both in the United States and abroad.

(b) the National Aeronautics and Space Administration shall—

(1) advise the Commission on technical characteristics of the communications satellite system;

(2) cooperate with the corporation in research and development to the extent deemed appropriate by the Administration in the public interest;

(3) assist the corporation in the conduct of its research and development program by furnishing to the corporation, when requested, on a reimbursable basis, such satellite launching and associated services as the Administration deems necessary for the most expeditious and economical development of the communications satellite system;

(4) consult with the corporation with respect to the technical characteristics of the communications satellite system;

(5) furnish to the corporation, on request and on a reimbursable basis, satellite launching and associated services required for the establishment, operation, and maintenance of the communications satellite system approved by the Commission; and

(6) to the extent feasible, furnish other services, on a reimbursable basis, to the corporation in connection with the establishment and operation of the system.

(c) the Federal Communications Commission, in its administration of the provisions of the Communications Act of 1934, as amended, and as supplemented by this Act, shall—

48 Stat. 1064.
47 USC 609.

(1) insure effective competition, including the use of competitive bidding where appropriate, in the procurement by the corporation and communications common carriers of apparatus, equipment, and services required for the establishment and operation of the communications satellite system and satellite terminal stations; and the Commission shall consult with the Small Business Administration and solicit its recommendations on measures and procedures which will insure that small business concerns are given an equitable opportunity to share in the procurement program of the corporation for property and services, including but not limited to research, development, construction, maintenance, and repair.

(2) insure that all present and future authorized carriers shall have nondiscriminatory use of, and equitable access to, the communications satellite system and satellite terminal stations under just and reasonable charges, classifications, practices, regulations, and other terms and conditions and regulate the manner in which available facilities of the system and stations are allocated among such users thereof;

(3) in any case where the Secretary of State, after obtaining the advice of the Administration as to technical feasibility, has advised that commercial communication to a particular foreign point by means of the communications satellite system and satellite terminal stations should be established in the national interest, institute forthwith appropriate proceedings under section 214(d) of the Communications Act of 1934, as amended, to require the establishment of such communication by the corporation and the appropriate common carrier or carriers;

57 Stat. 12.
47 USC 214.

(4) insure that facilities of the communications satellite system and satellite terminal stations are technically compatible and interconnected operationally with each other and with existing communications facilities;

(5) prescribe such accounting regulations and systems and engage in such ratemaking procedures as will insure that any economies made possible by a communications satellite system are appropriately reflected in rates for public communication services;

(6) approve technical characteristics of the operational communications satellite system to be employed by the corporation and of the satellite terminal stations; and

(7) grant appropriate authorizations for the construction and operation of each satellite terminal station, either to the corporation or to one or more authorized carriers or to the corporation and one or more such carriers jointly, as will best serve the public interest, convenience, and necessity. In determining the public interest, convenience, and necessity the Commission shall authorize the construction and operation of such stations by communications common carriers or the corporation, without preference to either;

(8) authorize the corporation to issue any shares of capital stock, except the initial issue of capital stock referred to in section 304(a), or to borrow any moneys, or to assume any

obligation in respect of the securities of any other person, upon a finding that such issuance, borrowing, or assumption is compatible with the public interest, convenience, and necessity and is necessary or appropriate for or consistent with carrying out the purposes and objectives of this Act by the corporation;

(9) insure that no substantial additions are made by the corporation or carriers with respect to facilities of the system or satellite terminal stations unless such additions are required by the public interest, convenience, and necessity;

(10) require, in accordance with the procedural requirements of section 214 of the Communications Act of 1934, as amended, that additions be made by the corporation or carriers with respect to facilities of the system or satellite terminal stations where such additions would serve the public interest, convenience, and necessity; and 57 Stat. 11. 47 USC 214.

(11) make rules and regulations to carry out the provisions of this Act.

TITLE III—CREATION OF A COMMUNICATIONS SATELLITE CORPORATION

CREATION OF CORPORATION

SEC. 301. There is hereby authorized to be created a communications satellite corporation for profit which will not be an agency or establishment of the United States Government. The corporation shall be subject to the provisions of this Act and, to the extent consistent with this Act, to the District of Columbia Business Corporation Act. The right to repeal, alter, or amend this Act at any time is expressly reserved. 68 Stat. 177. D. C. Code 29-901.

PROCESS OF ORGANIZATION

SEC. 302. The President of the United States shall appoint incorporators, by and with the advice and consent of the Senate, who shall serve as the initial board of directors until the first annual meeting of stockholders or, until their successors are elected and qualified. Such incorporators shall arrange for an initial stock offering and take whatever other actions are necessary to establish the corporation, including the filing of articles of incorporation, as approved by the President.

DIRECTORS AND OFFICERS

SEC. 303. (a) The corporation shall have a board of directors consisting of individuals who are citizens of the United States, of whom one shall be elected annually by the board to serve as chairman. Three members of the board shall be appointed by the President of the United States, by and with the advice and consent of the Senate, effective the date on which the other members are elected, and for terms of three years or until their successors have been appointed and qualified, except that the first three members of the board so appointed shall continue in office for terms of one, two, and three years, respectively, and any member so appointed to fill a vacancy shall be appointed only for the unexpired term of the director whom he succeeds. Six members of the board shall be elected annually by those stockholders who are communications common carriers and six shall be elected annually by the other stockholders of the corporation. No stockholder who is a communications common carrier and no trustee for such a stockholder shall vote, either directly or indirectly, through the votes of subsidiaries or affiliated companies, nominees, or any persons subject to

his direction or control, for more than three candidates for membership on the board. Subject to such limitation, the articles of incorporation to be filed by the incorporators designated under section 302 shall provide for cumulative voting under section 27(d) of the District of Columbia Business Corporation Act (D.C. Code, sec. 29-911(d)).

68 Stat. 191.

(b) The corporation shall have a president, and such other officers as may be named and appointed by the board, at rates of compensation fixed by the board, and serving at the pleasure of the board. No individual other than a citizen of the United States may be an officer of the corporation. No officer of the corporation shall receive any salary from any source other than the corporation during the period of his employment by the corporation.

FINANCING OF THE CORPORATION

SEC. 304. (a) The corporation is authorized to issue and have outstanding, in such amounts as it shall determine, shares of capital stock, without par value, which shall carry voting rights and be eligible for dividends. The shares of such stock initially offered shall be sold at a price not in excess of $100 for each share and in a manner to encourage the widest distribution to the American public. Subject to the provisions of subsections (b) and (d) of this section, shares of stock offered under this subsection may be issued to and held by any person.

"Authorized carrier."

(b)(1) For the purposes of this section the term "authorized carrier" shall mean a communications common carrier which is specifically authorized or which is a member of a class of carriers authorized by the Commission to own shares of stock in the corporation upon a finding that such ownership will be consistent with the public interest, convenience, and necessity.

(2) Only those communications common carriers which are authorized carriers shall own shares of stock in the corporation at any time, and no other communications common carrier shall own shares either directly or indirectly through subsidiaries or affiliated companies, nominees, or any persons subject to its direction or control. Fifty per centum of the shares of stock authorized for issuance at any time by the corporation shall be reserved for purchase by authorized carriers and such carriers shall in the aggregate be entitled to make purchases of the reserved shares in a total number not exceeding the total number of the nonreserved shares of any issue purchased by other persons. At no time after the initial issue is completed shall the aggregate of the shares of voting stock of the corporation owned by authorized carriers directly or indirectly through subsidiaries or affiliated companies, nominees, or any persons subject to their direction or control exceed 50 per centum of such shares issued and outstanding.

(3) At no time shall any stockholder who is not an authorized carrier, or any syndicate or affiliated group of such stockholders, own more than 10 per centum of the shares of voting stock of the corporation issued and outstanding.

(c) The corporation is authorized to issue, in addition to the stock authorized by subsection (a) of this section, nonvoting securities, bonds, debentures, and other certificates of indebtedness as it may determine. Such nonvoting securities, bonds, debentures, or other certificates of indebtedness of the corporation as a communications common carrier may own shall be eligible for inclusion in the rate base of the carrier to the extent allowed by the Commission. The vot-

ing stock of the corporation shall not be eligible for inclusion in the rate base of the carrier.

(d) Not more than an aggregate of 20 per centum of the shares of stock of the corporation authorized by subsection (a) of this section which are held by holders other than authorized carriers may be held by persons of the classes described in paragraphs (1), (2), (3), (4), and (5) of section 310(a) of the Communications Act of 1934, as amended (47 U.S.C. 310). 48 Stat. 1086.

(e) The requirement of section 45(b) of the District of Columbia Business Corporation Act (D.C. Code, sec. 29-920(b)) as to the percentage of stock which a stockholder must hold in order to have the rights of inspection and copying set forth in that subsection shall not be applicable in the case of holders of the stock of the corporation, and they may exercise such rights without regard to the percentage of stock they hold. 68 Stat. 197.

(f) Upon application to the Commission by any authorized carrier and after notice and hearing, the Commission may compel any other authorized carrier which owns shares of stock in the corporation to transfer to the applicant, for a fair and reasonable consideration, a number of such shares as the Commission determines will advance the public interest and the purposes of this Act. In its determination with respect to ownership of shares of stock in the corporation, the Commission, whenever consistent with the public interest, shall promote the widest possible distribution of stock among the authorized carriers.

PURPOSES AND POWERS OF THE CORPORATION

SEC. 305. (a) In order to achieve the objectives and to carry out the purposes of this Act, the corporation is authorized to—

(1) plan, initiate, construct, own, manage, and operate itself or in conjunction with foreign governments or business entities a commercial communications satellite system;

(2) furnish, for hire, channels of communication to United States communications common carriers and to other authorized entities, foreign and domestic; and

(3) own and operate satellite terminal stations when licensed by the Commission under section 201(c)(7).

(b) Included in the activities authorized to the corporation for accomplishment of the purposes indicated in subsection (a) of this section, are, among others not specifically named—

(1) to conduct or contract for research and development related to its mission;

(2) to acquire the physical facilities, equipment and devices necessary to its operations, including communications satellites and associated equipment and facilities, whether by construction, purchase, or gift;

(3) to purchase satellite launching and related services from the United States Government;

(4) to contract with authorized users, including the United States Government, for the services of the communications satellite system; and

(5) to develop plans for the technical specifications of all elements of the communications satellite system.

(c) To carry out the foregoing purposes, the corporation shall have the usual powers conferred upon a stock corporation by the District of Columbia Business Corporation Act. 68 Stat. 177. D. C. Code 29-901.

TTLE IV—MISCELLANEOUS

APPLICABILITY OF COMMUNICATIONS ACT OF 1934

SEC. 401. The corporation shall be deemed to be a common carrier within the meaning of section 3(h) of the Communications Act of 1934, as amended, and as such shall be fully subject to the provisions of title II and title III of that Act. The provision of satellite terminal station facilities by one communication common carrier to one or more other communications common carriers shall be deemed to be a common carrier activity fully subject to the Communications Act. Whenever the application of the provisions of this Act shall be inconsistent with the application of the provisions of the Communications Act, the provisions of this Act shall govern.

48 Stat. 1066.
47 USC 153.
48 Stat. 1070; Ante, p. 64.
47 USC 201-222, 301-397.

NOTICE OF FOREIGN BUSINESS NEGOTIATIONS

SEC. 402. Whenever the corporation shall enter into business negotiations with respect to facilities, operations, or services authorized by this Act with any international or foreign entity, it shall notify the Department of State of the negotiations, and the Department of State shall advise the corporation of relevant foreign policy considerations. Throughout such negotiations the corporation shall keep the Department of State informed with respect to such considerations. The corporation may request the Department of State to assist in the negotiations, and that Department shall render such assistance as may be appropriate.

SANCTIONS

SEC. 403. (a) If the corporation created pursuant to this Act shall engage in or adhere to any action, practices, or policies inconsistent with the policy and purposes declared in section 102 of this Act, or if the corporation or any other person shall violate any provision of this Act, or shall obstruct or interfere with any activities authorized by this Act, or shall refuse, fail, or neglect to discharge his duties and responsibilities under this Act, or shall threaten any such violation, obstruction, interference, refusal, failure, or neglect, the district court of the United States for any district in which such corporation or other person resides or may be found shall have jurisdiction, except as otherwise prohibited by law, upon petition of the Attorney General of the United States, to grant such equitable relief as may be necessary or appropriate to prevent or terminate such conduct or threat.

(b) Nothing contained in this section shall be construed as relieving any person of any punishment, liability, or sanction which may be imposed otherwise than under this Act.

(c) It shall be the duty of the corporation and all communications common carriers to comply, insofar as applicable, with all provisions of this Act and all rules and regulations promulgated thereunder.

REPORTS TO THE CONGRESS

SEC. 404. (a) The President shall transmit to the Congress in January of each year a report which shall include a comprehensive description of the activities and accomplishments during the preceding calendar year under the national program referred to in section 201(a)(1), together with an evaluation of such activities and accomplishments in terms of the attainment of the objectives of this Act and any recommendations for additional legislative or other action which the President may consider necessary or desirable for the attainment of such objectives.

(b) The corporation shall transmit to the President and the Congress, annually and at such other times as it deems desirable, a comprehensive and detailed report of its operations, activities, and accomplishments under this Act.

(c) The Commission shall transmit to the Congress, annually and at such other times as it deems desirable, (i) a report of its activities and actions on anticompetitive practices as they apply to the communications satellite programs; (ii) an evaluation of such activities and actions taken by it within the scope of its authority with a view to recommending such additional legislation which the Commission may consider necessary in the public interest; and (iii) an evaluation of the capital structure of the corporation so as to assure the Congress that such structure is consistent with the most efficient and economical operation of the corporation.

Approved August 31, 1962, 9:51 a.m.

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