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THE INTERNATIONAL TELECOMMUNICATION UNION:

ADAPTING TO

TECHNOLOGICAL AND GEOPOLITICAL CHANGE

(2)

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XII

ABSTRACT

This paper examines the ability of the International Telecommunication Union to adapt its structure and regulatory regime to meet the demands of technological and geopolitical change. The study is particularly concerned with the introduction and growth of space radiocommunications technology, and with the rapid increase in the number of independent states in the international system. Both saw their greatest impact during the decade of the 1960s.

The study draws comparisons between differing levels of decision-making in the Union, providing data for comparison of decisional outputs of the 1973 Plenipotentiary Conference and the 1963 and 1971 Administrative Space conferences. The paper also compares decisional outputs between technical conferences, the 1963 Space Conference with that of 1971. By this means, the study attempts to show that the expectations of functional theorists, that an increasingly stable international situation would result from functional co-operation, is not supported by the evidence. The paper attempts to show that the introduction of political issues into the deliberations by certain states has led to instability. It will also attempt to show that a discriminatory regulatory regime at the technical level has encouraged this politicization.

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Chapter I

Introductory

The International Telecommunication Union (ITU) is one of the world's oldest international organizations. In more than a century of existence it has taken a number of forms, its most recent being that of a specialized agency of the United Nations Organization (UN). The modern Union's antecedents were various treaties between two or three neighbouring, European states. At the time of the 1973 Plenipotentiary Conference of the Union, the highest level conference of the ITU, 146 states and territories from all parts of the world were listed as members,¹ giving the ITU its largest-ever recorded membership.

This paper examines the ability of the Union to adapt to technological developments in the field of telecommunications, and to the rapid expansion of the state system as they have taken place during the post-World War II period. The discussion centres upon certain decision-making processes in the organization, and on the using of international law in telecommunications matters. In the process, the paper will attempt to show the weakness of certain assumptions of the 'functionalist'

¹For a list of members by region, see Appendix I.

approach to 'international organisation' as expressed by David Mitrany during the Second World War (WWII).²

A number of terms which will be used throughout the paper must first be defined. These terms are: (1) international telecommunications; (2) international law-making; and (3) 'functionalism' as it applies to the functional organisation.

While the paper uses the term 'international telecommunications,' the activities of the Union extend beyond matters of communication between states, as the term might ordinarily suggest. Though the ITU's historical origins can be traced to the desire to bring about communications between points on alternate sides of international borders, the modern application of the word 'international' must be extended to include relationships across national frontiers which are incidental to the purely domestic application of telecommunications technology.

The characteristic of the radio telecommunications signal which is most important to the ITU is its ability to penetrate national frontiers. This can take place even though it is not intended. Once transmitted, the radio signal theoretically goes on forever. National frontiers do not possess the features required by bar entry of the signal to the national territory, that is, most international borders are not defined

²David Mitrany, A Working Paper Series (Chicago: Quadrangle Books, 1966).

by physical features such as mountain chains which might serve to prevent passage of signals of foreign origin into the territory of the domestic state. Without a means of setting down universally applicable rules, radio communications would soon become impossible as states compete for access to the radio spectrum.³ The ITU attempts to bring order to the international system of radio communications by establishing a common, international regulatory regime. It identifies the various applications to which radio technology might be put, establishes standards of operation for radio transmission equipment, and determines the most appropriate use to which the available radio spectrum may be put. In this context, then, the term 'international telecommunications' as used by the International Telecommunication Union must apply, not only to communications intentionally directed from one state's territory to that of another, but to telecommunications activities which are intended for domestic application only and have the effect of interfering with or intervening in the telecommunications activities of the other state.

The second definition to be dealt with is that of international law-making. International law-making can be defined

³ For the Canadian aspect of this problem as it emerged in North America during the post-WWI period, see Frank E. Pease, *The Evolution of Canadian Broadcasting, 1922-1932*, (Toronto: University of Toronto Press, 1962.) and, Margaret Pease, "The Origins of Public Broadcasting in Canada," *Canadian Historical Review*, XLVI, 1 (March 1965), 1-31.

as the process of developing and declaring rules and regulations to govern the behaviour of states in their relations with one another. Law-making in the ITU emerges at a number of levels. This paper is concerned with law-making at the Plenipotentiary Conference level and at the level of the technical, administrative conferences. The Plenipotentiary Conference determines the general policy of the Union and the rules of general behaviour which obtain between members. The administrative conference attempts to provide rules and regulations for the amelioration of problems which result from the development and application of telecommunications technology and which could have implications for all states using telecommunications technology.

Finally, it is necessary to determine what is meant by the term 'functionalism.' The term is almost self-defining. It refers to the identification of certain 'functions' which must be performed in a society. In this case, the word 'society' refers to the concept of the national society, the state and its population, and it refers to a presumed international society, the world and its component states. John Glavin, Jr. has said,

The "functional sector of international organization is that part of the mass of organized international activities which relates directly to economic, social,

technical, and humanitarian matters--that is, to problems which may be tentatively described as non-political. Functional activities are immediately and explicitly concerned with such values as prosperity, welfare, social justice, and the "good life," rather than the prevention of war and elimination of national insecurity.⁴

The International Telecommunication Union falls within the category of functional organizations headed 'technical.' Its field of competence is telecommunications. Its economic, social and humanitarian impact on the international system result from the Union's essential technical activities.

Mitrany defines the functional approach as, seeking, "... by linking authority to a specific activity, to break away from the traditional link between authority and a definite territory (perpetuated by either an association or a federation of nations)."⁵ He assumes that, as this approach proceeds through various specific activities authority will become collaborative as between states for world-wide populations rather than centralized in territorially-based states for particular national populations. Mitrany identifies his as an incrementalist approach to the transfer of sovereignty away from the state. Mitrany takes the position that,

It would indeed be sounder and wiser to speak not of

⁴Isis L. Glavin, Jr., *Summa into Pluribus: The Problems and Progress of International Communication*, 4th ed., (New York: Random House, 1971), p. 170.

⁵Mitrany, *op. cit.*, p. 27.

the surrender but of a sharing of sovereignty. When ten or twenty national authorities, each of whom had performed a certain task for itself, can be induced to perform that task jointly, they will to that and quite naturally pool their sovereign authority insofar as the good performance of the task demands it.

It becomes apparent, then, that 'self-interest' is a primary factor in the functionalist hypothesis. Where self-interest can be seen to be best served by concerted action, then concerted action will be undertaken.

The assumption of the evolution of a system of shared sovereignty appears to fall prey to at least one major weakness. It does not indicate when shared sovereignty can be expected to be achieved. This paper will suggest that Mitrany's view of what a functional approach is able to achieve is overly optimistic, at least with respect to the International Telecommunication Union. While the Union does satisfy the definition of a functional organization, it would appear that the Union has not yet achieved a condition of shared sovereignty. This paper will attempt to show that, given the dynamic conditions of technological development and a changing world-state structure, a dichotomous situation has emerged. The paper will attempt to show that, at the political level, the Union helps to reinforce the sovereignty of its member states, while in its functional

1964, pp. 11-12.

capacity the ITU does achieve some degree of shared sovereignty.

In international law, all members of the international system which claim to be and are recognized as sovereign states are regarded as having sovereign equality with all other states. Mitran's view of 'functionalism' holds that the concept of 'equality' among states is a legal fiction which is recognized as such by the members of the international system. Mitran states that functionalism attempts

. . . to find an arrangement which would show a measurable and acceptable relation between authority and responsibility, which would exclude no participant arbitrarily from a share in authority, while bringing that share into relation not to sheer power but to the weight of responsibility carried by the several members.⁷

Mitran goes on to explain how this relationship would appear in fact.

Instead of the legal fiction of equality there would . . . be an evident and factual inequality in certain spheres, springing from real differences in capacity and interest with regard to some specific function but also limited to that function. It would neither trespass upon fundamental principles nor offend against sentiments of national dignity. Any state can, and usually does, claim in conferences, etc., formal equality with Britain and America. But Rumania is not likely to insist on it if it were a matter of organizing shipping, or Norway if it were a matter of the production of mineral oil; nor would Britain claim it when it came to deal with river pollution and controls on the Continent.⁸

⁷ Ibid., p. 64.

⁸ Ibid., p. 65.

This expression of faith assumes that the self-interest of any particular member of the international system can be recognized and identified on the basis of some commonly held frame of reference. It also suggests that self-interest in a particular functional area operates in degrees such that certain members will refrain from participation if they see that their interests are not found in the functional area to the degree that the interests of other states are found in the functional area. It assumes, therefore, that states will voluntarily withdraw from participation where they see that their interests are not the same as those being discussed. This paper will attempt to show that this is a fallacious assumption. It will try to show that states, and developing states in particular, are not prepared to accept what might be called 'functional inequality'. They do not regard 'equality' as a legal fiction but as a legal fact.

Hitruay has stated that,

One aim [of the functional approach to international organization] is to create a forum for the expression of progressive world opinions; the other aim is to build up an effective instrument of common policy. The two functions are not identical, and an assembly which was over-zealous in the first would become ineffective in the second.

Ibid., p. 14.

This study will attempt to show that the evidence which is emerging from the recent deliberations of the Plenipotentiary Conference of the ITU supports this assumption. The data which is presented in Chapter III of this paper suggests that there is a failure to distinguish between 'progressive world opinion' and that 'common world opinion' which might lead to common policy. There would seem to be an assumption on the part of a number of members of the Union that this so-called 'progressive world opinion' is, or, ought to be 'common world opinion,' and that 'common world opinion' is, or, ought to be 'common world policy.' The evidence presented in this study would seem to suggest that the 'fictionality/fact' debate over the concept of sovereign equality among states is just such a debate, and that it is the source of some measure of instability in the international system.

Finally, Mittrany has said about functionalism that it is a method

. . . which would . . . overcome political divisions with a spreading web of international activities and agencies, in which and through which the interests and life of all the nations would be gradually integrated.¹⁰

While Mittrany is expressing the view that integration takes place as a result of the development of a network of functional

¹⁰ Ibid., p. 18.

organizations, it is necessary for the purposes of this paper, to examine integration in terms of only a single organization. It is necessary, therefore, to select a definition for the notion and to examine the ITU in terms of that definition.

Stanley Hoffmann defines integration as "a process that devalues sovereignty, gradually brings about the demise of the nation-state, and leads to the emergence of new forms of loyalty and authority. . . ."¹¹ Karl Deutsch has defined integration as ". . . the attainment, within a territory, of a 'sense of community' and of institutions and practices strong enough and widespread enough to assure, for a 'long' time, dependable expectations of 'peaceful change' among its population."¹² Hoffmann sees integration as a process while Deutsch views it as a condition which either exists or does not exist. In this respect, Deutsch rejects an evolutionary approach to integration.

Hoffmann's definition rests on a similar definition set down some years earlier by Ernst Haas. Haas chose to

conceive of integration as referring evaluatively to a process that links a given concrete international system with a dimly discernible future concrete system. If the present international scene is conceived of as a series of intersecting and mingling national

¹¹ Stanley Hoffmann, "International Organization and the International System," International Organization, XXIV (Summer 1970), p. 309.

¹² Karl E. Deutsch, et al, Political Community and the North Atlantic Area: International Organization in the Light of Political Science (Princeton, N.J.: Princeton U. P., 1957), p. 5.

environments, and in terms of their participation in international organizations, then integration would describe the process of ~~increasing~~ the interaction and the mingling so as to obscure the boundaries between the system of international organizations and the environment provided by their nation-state members.¹³

In spite of the merits which might be found in the arguments made by each side, the debate remains purely definitional. Further examination (a study which would be inappropriate here) might conclude that there is no debate, integration as a process and integration as a condition being shown to be mutually exclusive concepts. Be that as it may, a definition of 'integration' is still required.

Johan De Vree, developing David Easton's definition of 'polities' offers a definition which would seem to be most useful for the purposes of this paper. He defines 'integration' as "... the process of the formation and development of institutions through which certain values are authoritatively allocated for a certain group of political actors or units."¹⁴ De Vree has introduced both the notions of 'international organization' and of 'polities.' 'Polities,' or, the authoritative allocation of values, plays a central role in the process. As will be shown, the Union is involved in the process of authoritative allocation, but the question which arises is

¹³ Ernst A. Shuss, Beyond the Nation-State: Functionalism and Organization (Stanford: Stanford U. P., 1964), p. 22.

¹⁴ Johan K. De Vree, Political Integration: The Formation of Theory and Its Problems (The Hague: Mouton & Co., 1972), p. 11.

whether the Union exercises an allocative authority independently of the membership, a condition which appears to be essential to the definition. This study will attempt to show that the ITU does not exercise such an independent existence and that its integrative role in the international system is accordingly limited.

This paper examines the role of the ITU in the international system in terms of two levels of decisional output, the Plenipotentiary Conference, the highest level of decision-making; and the Administrative Conference. Chapter II of the study provides a brief summary of the development of the Union from its beginning to the present day. Chapter III looks at the debate and decisions of the 1973 Plenipotentiary Conference in the context of a changing geo-political world structure. Chapter IV compares technical decision-making on similar subjects, space radio communications, in differing time periods, in terms of the changing technological demands. The concluding chapter draws together the observations of the entire study and attempts to assess the ability of the Union to adapt to changing technological and geo-political circumstances.

Chapter II

The Emergence of the Union

The origins of the International Telecommunication Union can be traced directly to the founding of the International Telegraph Union in Paris in 1865, and indirectly to the multiplicity of bilateral and multilateral treaties and agreements established as early as October 1849. The modern-day Union is the outgrowth of more than a century of development in the electronic means of communication and of attempts by governments to achieve the orderly expansion of electronic communications in terms of both the distances over which communications can take place and the variety of applications which can be made of the technology. Throughout the history of the Union, the variety of means of electronic communication has grown from the telegraph to the telephone, to radio and television, utilizing overland and undersea cables and the radio spectrum. The most recent augmentation has been the introduction of space satellites as originators, transmitters and re-transmitters of radio signals. Each has required the development of a regulatory regime which satisfies its own peculiarities and which helps to facilitate the most efficient use of the available

radio frequency spectrum and, in the case of cable transmissions, the available transmission space.

A. Telecommunications Treaty AGREEMENTS

The countries of Central Europe appear to have been the first to enter international telegraphic communication by means of formal international treaties. On October 3, 1849, Prussia and Austria signed the first recorded treaty to link two independent telegraph systems across an international border. The linking station was constructed at Oderberg, Austria and housed telegraphists of the signing countries. "Similar bilateral agreements were reached between Prussia and Saxony on October 17, 1849, and between Austria and Bavaria on January 21, 1850."¹ Nine months later, the four states met at Dresden to establish the Austro-German Telegraph Union. The agreement dealt with standardization of telegraph legislation, the exchange of scientific and administrative information, and with telegraphic fees. The Vienna Convention, signed in October 1851, supplemented the Dresden Convention. It resolved to link, physically, the individual state telegraph systems discarding the method then in use of passing messages by hand across international borders from the operator of one state to the operator of another. Further standardization of tariff

¹George Arthur Gedding, Jr., The International Telecommunications Union: A History of the International Union of Telegraphic Unions (Geneva, reprint edition, 1911), (London, Routledge & Sons, 1932), p. 11.

arrangements were agreed and telegraphic equipment was standardized. Two further conferences were held, one at Berlin (September 1853), and another at Munich (May 1855).

At Stuttgart in 1857, a fifth conference undertook to codify and revise the four previous conventions. Further revisions to the 1857 Convention were carried out at the 1861 conference at The Hague and at the 1863 conference at Hanover.

In Western Europe, a series of bilateral agreements on telegraphic communications between France and Belgium, 1851; Switzerland, 1852; Sardinia, 1853; and Spain, 1854; led to the creation, in 1855, of the West European Telegraph Union (WETU). The Union was formed after a meeting at Paris in June of that year. The Netherlands and Portugal joined the Union in 1856. Subsequent conferences of revision were held at Paris in 1857 and at Rome in 1858, at the latter of which, "... the Vatican Government and the Two Sicilies adhered in 1860, and two others, *San Marino* and *San Marino* and *San Marino* [the latter, apparently by agreement between the Union and *San Marino's* privately operated telegraph system,]] agreed to be bound by it."

Notably, the 1855 Paris Convention of the WETU bore a striking resemblance to the earlier *Austro-German Telegraph*

Union treaty in its terms and conditions. This probably resulted from the earlier associations of France with the Central European group by way of a tripartite agreement with Belgium and Prussia (which signed for itself and for the Austro-German Telegraph Union). That agreement was signed in October 1852, more than two-and-a-half years before the Union of the Western European States.

The agreement between France and the Austro-German Telegraph Union, the Paris Convention of 1852, brought about a link between Western and Central Europe. The Convention was augmented by a further agreement in 1854 and by a new convention signed at Berlin in June 1855 by the same three partners. A significant feature of the agreement was the commitment to provide for uninterrupted telegraphic service between the capital cities of the respective signatory states, but it also guaranteed the sovereign right of each party to control and restrict all traffic on moral or public security grounds.³

A third major convention was signed at Brussels in June 1858. This agreement was between France, Belgium and Prussia, but by 1861, eleven states and three submarine cable companies had agreed to undertake commitments to its provisions.⁴

³ Ibid., p. 12.

⁴ Netherlands, Spain, Austria, Portugal, Turkey, 1858; Denmark, Sweden and Norway, Papal Government, Russia, the two Sicilies, 1860, and Luxembourg 1860; and the submarine cable companies of Algeria, 1858 and Genoa. Ibid., p. 12.

In spite of their similarities, enough differences still remained among the three conventions to lead to confusion within the telegraphic system of the continent. This was probably compounded by the fact that some countries belonged to more than one convention requiring them to operate simultaneously under varying sets of regulations. The immediate solution to the problem was found in a closer co-ordination of the provisions of the Austro-German Telegraphic Union and the West European Telegraph Union. Following an abortive attempt by the WETU to meet with the Austro-German Union in Bern in 1858, a meeting was held at Friedrichshafen in October 1858, where this goal was achieved. The Conference was attended by Switzerland and a delegation acting for the Austro-German Union (Austria, Baden and Württemberg). The final modification of the Convention took place at Bregenz in 1863. The conditions were now created for the establishment of a more broadly-based union which would take shape as the International Telegraph Union.

The International Telegraph Union. The French Government initiated the attempt to establish a co-ordinated international telegraph system. At its invitation, twenty European states⁵

⁵Austria, Baden, Bavaria, Belgium, Denmark, France, Greece, Hanover, Prussia, Italy, the Netherlands, Portugal, Romania, Russia, Saxony, Spain, Sweden-Norway, Switzerland, Turkey, and Württemberg. *Ibid.* pp. 22-23.

met at Paris in May 1865 to establish the International Telegraph Union (ITU). (Britain was not included because, unlike the other countries which were involved, the British telegraphic system was privately controlled.) The Convention which was produced was a virtual duplication of the Berne Convention of 1858, with only eleven innovations in a total of 63 articles. One annex to the Convention was a table of uniform tariffs applicable to all signatories with the exceptions of the vast eastern territories of Russia and Turkey. The effective date for the Convention and Regulations to come into force was January 1, 1866, and the French Government took on the role of depository for notifications of adherence from non-signatory countries. Within two years, seven new signatures were added to the role of the Convention, two of which were the Asiatic Territories of Russia and Turkey. Additionally, the telegraph companies of Malta and Corfu agreed to comply with the provisions of the convention and regulations. By the time of the first conference to revise the Convention of the Union, held at Vienna in June 1868, the Union's membership was about to extend half-way around the world by the adherence of Persia and India (the latter represented by Britain).

Twenty-two signatories and Britain (representing India) met at Vienna in June 1868 to propose a new Convention which came into force on the 1st of January 1869. Three new provisions were added to those of the Paris Convention. All served

to strengthen the position of the International Telegraph Union, 1865, in the international system of the 19th century. The first new provision allowed private companies to accede to the Convention and Regulations through their own governments. This had the effect of reinforcing the relationship between the respective governments and the emerging international organization. Second, only countries and private companies granting the lower telegraphic rates of the Union table of rates could insist on the application of these charges to themselves by the other signatories. Third, telegrams to or from a non-member state were to be treated in the same manner as telegrams to or from member states.⁶ These last two principles clearly illustrated the desire of the Union's membership to establish codes of behaviour common to all members by making the rules generally applicable and enforceable by means of self-implementing sanctions.

At the next Telegraph Union conference held in Rome from December to January, 1871-72, Britain and Persia act as new members and Japan held observer status. The major decision of this meeting was that to have the Convention and Regulations of the Union redrafted so that the areas which would be revised periodically would be located in the Regulations while the

⁶ *Ibid.*, pp. 24-25.

more permanent provisions would be left in the Convention.

The resulting draft convention became the basis for a new convention drawn up at St. Petersburg, Russia, during the early summer of 1875. The convention was reduced from 64 to 21 articles under four major divisions:

. . . 1) relations of the contracting parties with the users of the international telegraph; 2) relations of the members of the Union to each other; 3) composition of the Union; and 4) provisions concerning the application of the Convention and Regulations.

The convention was to have an indeterminate lifetime while the Regulations and Table of Telegraph Rates were to be revised at periodical Administrative Conferences for which rules were set down. Subsequent discussion will attempt to show that the effect of the reorganization of the Convention was to separate highly political issues from less political, technical matters.

The thirty-year period over which the Union had been developing was remarkable for the high number of conferences at the diplomatic level for which communications were the theme. An examination of the types of conferences held after the 1875 Convention came into force reveals that the vast majority of these conferences dealt with technical matters. Though not solely because of its age, the St. Petersburg Convention saved the International Telegraph Union for 37 years,

~~1875-1912~~ 30 22.

until the Madrid Conference of 1932, when the International Telegraph Union was merged with a similar organization dealing with radio-telegraph matters. It is noteworthy that, at the Lisbon Administrative Telegraph Conference (ATC) of 1908, Bulgaria proposed that the St. Petersburg Convention be revised. The proposal was rejected on the grounds that the Lisbon Conference, being an administrative conference, did not have the legal competence to revise the Union convention. Any subsequent revising conference which might have taken place shortly thereafter was further frustrated by the occurrence of the First World War (WWI).

Radiotelegraph Traffic. During the latter years of the nineteenth century, another dimension was added to the means of communication. Radiotelegraph now linked ships with one another and with shore-based stations. Communications difficulties were encountered by radiotelegraph users because of the policy of the British Marconi Wireless Company to contract purchasers of Marconi equipment to communicate only with other Marconi users. This situation led the German government to convene a conference at Berlin in 1903. The Final Protocol of the conference, which was signed by six of the eight attending states, required coastal stations to receive signals from ship-based stations

without regard for the type of equipment used to send the message.⁸ The protocol did not go as far as to establish any form of prior rights on the use of any frequency in the radio spectrum.⁹

Three years later, again meeting at Berlin, 27 states signed the first International Radiotelegraph Convention. The Convention and its annexed Regulations dealt only with ship-to-ship and ship-to-shore communications. In effect, the Berlin Convention established a parallel organization to the International Telegraph Union, though an 'International Radiotelegraph Union' was not formally created. The ITU recognized that there was a close association of radio with telegraphy because of the use of the Morse Code in radio-telegraph communication prior to the First World War, but the Union did not immediately attempt to encompass radio-telegraphy within its jurisdiction. The ITU did, however, undertake to co-ordinate its activities with those of the Radiotelegraph Convention.¹⁰ The Radiotelegraph Convention and Regulations came into force on July 1, 1908.

The next Radiotelegraph Conference held at London in 1912 was very much influenced by the sinking of the Titanic only

⁸ Ibid., p. 86.

⁹ David N. Leive, International Telecommunications and International Law: The Regulation of the Radio Spectrum (New York, New York: Oceana, 1970), pp. 25-26. [Hereafter cited as Leive, International Telecommunications.]

¹⁰ Convention, pp. 213, pp. 79-80.

two months previously. One of the most significant outputs of the Conference was the decision to make communication between ships obligatory and to grant universal priority to distress signals.

Radio communications technology and applications made impressive advances during the First World War, but international organization suffered its first major set-back. The requirements of war demanded the suspension of co-operative activities even among allies. After the end of the war, radio took on the roles of entertainer and information-giver to the general public in most countries of the world. An abortive attempt was made to establish a Draft Convention and set of Regulations for a Universal Electric-communications Union, to meet these new conditions. The world-wide conference was proposed at a meeting in Washington in November 1920, but it was not held. An International Technical Committee on Radiocommunications was established by the Washington meeting, and it met at Paris in the summer of 1921.

The growth of direct broadcasting to the general public resulted in confusion in its early stages, eventually leading to both bilateral and multilateral agreements in the attempt to bring order. In Europe, the Union internationale de

Radio-telegraphia (UIR) was established, the result of a meeting held in London in 1925 (from 1929 the organization was called the Union Internationale de Radiotelegraphie), with headquarters at Geneva. The UIR did bring order to the European broadcasting system, but at the risk of interfering with some maritime stations.¹¹

In October, 1927, with the United States as chairman and Canada as deputy-chairman, eighty countries and sixty-four private companies and private and intergovernmental organizations (non-voting delegations) met at Washington for the first post-World War I Radiotelegraph Union conference. Two-and-a-half months passed by in the deliberations before conclusion of a new Convention with General and Additional Regulations. The scope of responsibilities of the Union was expanded from the maritime radio connected in the London Convention (1912) to include all international public radio communication. The Convention also expanded its attention against interference by one station with another by including, not only stations open to public communication, but private communication facilities also. Though a rule guaranteeing the privacy and secrecy of radio correspondence could not be agreed upon (opposition to the concept was expressed most strongly by the United

¹¹ Radio, pp. 208-213.

States and Canada), a rule intended to be a constraint against eavesdropping, amateur radio operators,

[a] general obligation on governments was agreed to . . . according to which all the "contracting governments" undertook to adopt or to propose to their respective legislatures measures necessary to prevent: a) unauthorized transmission and reception of correspondence of a private nature; b) the divulgence of the contents, "or merely of the existence," of correspondence illicitly intercepted; c) the unauthorized publication or use of correspondence received; and d) the transmission or circulation of false or deceptive distress signals or distress calls.¹¹

The major decision of the Washington Conference of 1927 was that to consider unification with the International Telegraph Union. The proposal had originated with the International Telegraph Conference held in Paris in 1925. As a result, the Radiotelegraph Union agreed to hold its next conference at Madrid in 1932 concurrently with that of the ITU.

The International Telecommunication Union. The Radiotelegraph Union and the ITU met at Madrid as scheduled in 1932. It was the first diplomatic, or plenipotentiary, meeting for the ITU since St. Petersburg in 1875, and the fourth consecutive meeting for the Radiotelegraph Union. The resulting Madrid Telecommunication Convention was an amalgam of the 1927 Radiotelegraph Convention and the St. Petersburg Convention of 1875. No major changes were made to the regulatory regime established by the

¹¹ Id., p. 121.

previous Washington Conference of 1927.

When the time came to hold the next meeting of the ITU in Rome in 1942, war again prevented the meeting from taking place. As in the First World War, radio technology underwent astounding advances. These improvements included the development of radar and sonar, and the greater availability of broadcasting and receiving technology. Unlike the post-WWI period, radio communications during the period immediately after the termination of hostilities of the Second World War (WWII) were quickly re-established under the influence of international organization. An announcement by the United States was made at the 3rd Inter-American Radio Conference in 1943 that the next ITU conference would take place in the United States. The proposed meeting was preceded by a Preparatory Conference in Moscow in 1946, attended by China, France, Britain, the United States and the Soviet Union, where the initial proposal was made for a major restructuring of the International Telecommunication Union which had emerged under its new name from the 1932 Madrid Conference. It was also suggested that the Union should be brought into association with the new United Nations Organization (UN). The proposal to restructure the ITU involved the transfer of the Union secretariat from the control of one state, Switzerland, to become more representative of the entire

membership.¹³ Swiss domination resulted from the fact that Geneva was the seat of the Union.

In spite of wide-ranging opposition to the location, the ITU Conference was held at Atlantic City in 1947. The majority of states questioned on the matter would have preferred the meeting to be held in Europe. One of the most important resolutions of the 1947 Conference was that to enlarge the role of the organs of the Union in such areas as recording the frequency assignments of the member states and in terms of implementing policy decisions of the Plenipotentiary Conferences and Administrative Conferences of the Union.

Since 1947, two major diplomatic conferences of the Union have been held, one at Montreal in 1965 and another in 1973 at Malaga-Torremolinos. The most significant feature of each of these conferences has been the markedly increased politicization of debate. It is also noteworthy that plenipotentiary conferences are being held more frequently than at any time since 1875. Two factors seem to contribute to this phenomenon. First, extensive international wars have not prevented scheduled meetings from taking place; and secondly, issues of high politics appear to have taken on a greater importance as the world has polarized in terms of ideological debate and with

¹³ Ibid., pp. 194-204.

the increase since the late 1950s in the number of new and independent states actively participating in world affairs.

Revision of the basic constitutional document of the Union has been one of the primary interests of the diplomatic meetings of communications organizations since the earliest days. The 1875 St. Petersburg Convention was the first to recognize that some parts of the Union's basic documents tended to be revised more frequently than others. Generally speaking, articles dealing with technical matters needed to be amended or changed as technological developments appeared and as communications systems became more complicated and extensive. Articles dealing with general statements of principles such as the goals and ambitions of the organization tended to be less subject to technological innovation and extension and were, therefore, less likely to require change. Over the years, the members of the Union have seen fit to entrust the organization with more responsibilities, but they have not yet substituted a formal constitution for the Union's convention. In 1965, the Plenipotentiary Conference decided to undertake a re-drafting of the basic documents of the Union. The same principles were to be used as had been stated at the Rome Conference of 1871-1872, but with an additional consideration. As well as dividing

the document into one part containing the more permanent provisions and another part containing those provisions more likely to be altered, consideration was to be given to a new document on the basis of whether it would be of a more permanent nature such as a constitution rather than a convention.

The draft basic document was presented at the Preparatory Conference held at Malaga-Torremolines in Spain. The 1973 Conference decided to re-organize the basic document along the lines of the draft proposal. No decision was made, however, about the nature of the new document except to retain the Convention and General Regulations, leaving further discussion of a Constitution to a future conference. While many delegations had come to the 1973 Conference prepared to discuss the draft document, many others claimed that they had not had enough time to study the document properly so as to make a decision on a Constitution. Also, so many amendments were proposed that it was felt that the Conference would be unduly delayed by an extended discussion.

B. Administrative Conferences

The St. Petersburg Convention of 1875 introduced the clear distinction between the diplomatic conference and the administrative conference. While the former dealt with general matters

such as the structure of the Union and relations between members, the latter was assigned the responsibility of revising the Regulations and Table of Telegraph Rates. The Regulations dealt with such matters as the way in which telegraph systems would be linked across borders, standardization of equipment and operating procedures.

The first Administrative Conference subsequent to the St. Petersburg Conference was held in London in 1879, followed by five further Conferences before the First World War forced the cancellation of the scheduled 1914 Conference: Berlin, 1885; Paris, 1890; Budapest, 1896; London, 1903; and Lisbon, 1908. In 1885, at the Berlin Administrative Telegraph Conference, five paragraphs dealing with the newly developing telephone systems were added to the Regulations. It was not until the London Administrative Telegraph Conference (ATC) in 1903 that the drafting of regulations specifically for the control of international telephone communications was assigned to a special committee. The result was fifteen articles devoted to telephonic communication.¹⁴

By 1908, some members of the Union were beginning to express dissatisfaction with the continuing St. Petersburg document of 1875. At the Lisbon ATC, 1908, Bulgaria proposed that

¹⁴ Id., pp. 29-32.

the St. Petersburg Convention be revised, but, as already indicated, the Lisbon Administrative Conference was regarded as not having the legal competence to revise the overall Union convention. This decision clearly reflects the assumption of an hierarchy of conferences and authority within the administrative structure of the Union.

The disruptive effects of the First War

were felt by the Administrative Conferences which did not resume until the Paris Administrative Conference of 1925. In 1924, however, the International Consultative Committee on Longdistance Telephone was founded as a committee of experts on telephonic communication. At the 1925 Paris Conference it was decided to bring the Committee into a relationship with the ITU and another committee, the International Telegraphic Consultative Committee (CCIT), was established to take its place. The 1925 Paris Conference, which had also been called to revise the St. Petersburg Convention, decided to await the results of a proposal for unification with the International Radiotelegraph Union before undertaking this revision. At the Brussels Telegraph Conference of 1928, the ITU accepted a recommendation to hold its next meeting at Madrid in 1932 concurrently with the IRI.¹⁵

¹⁵ Ibid., pp. 33-37.

separate conferences were held at Cairo in 1938 for telegraph and telephone, and for radio. Four primary areas of concern to the Radio Conference were the allocations of frequencies, limitation of the type of transmitters to be used (spark sets producing type A emissions were banned), the use of spark transmitters, and the re-organization of the International Consultative Committee for Radio, the International Radio Consultative Committee (CCIR). The authority of the committee was enlarged. In addition to its existing responsibilities concerning technical criteria, the committee was granted permission to study matters dealing with operating procedures. CCIR meetings were to be held every three years and non-adherents to the Regulations were allowed to participate in the meetings. Finally, contributions to the support of the committee were linked to the class-unit system of the Union, those contributing at the rates of the first three classes, the highest levels, being maintained, with all others assigned to the 10-unit 4th class.¹⁶

At the meeting of the International Telephone Consultative Committee (CCIT), an attempt to establish a unified rate system for both telegraph messages shortened by codification and for regular service messages failed to achieve its goal. Procedures for settlement of accounts were drawn up, a particularly important

¹⁶ Ibid., pp. 164-169.

decision in view of the unstable economic conditions of the time. Finally, the Telephone section of the Conference established principles for 'reversed-charge calls,' and for granting emergency access to telephone service for commercial aircraft pilots in cases of emergency landings. They would be allowed to contact the home airport or the aircraft operator. Some revisions were made in the role of the Telegraph Consultative Committee while the Telephone Consultative Committee's responsibilities were left unchanged.¹⁷

The importance of orderly electronic telecommunications links between the nations of the North Atlantic area and Europe are reflected in the speed with which attempts were made to re-establish an international regulatory regime after WWII. By October 1945, the International Telephone Consultative Committee met in London, and in the same year, the 3rd Inter-American Radio Conference was held. The enthusiasm during the immediate post-WWII period for bringing about international order through the creation of international organizations encouraged endeavours which were seen to be recognised as having impossibly high goals.

The 1959 Geneva Radio Conference, following more than 10 years of effort, finally recognised the futility of trying to define

¹⁷ Id., pp. 170-176.

a world-wide, engineered radio frequency spectrum, a proposal which had emerged from the 1947 Atlantic City Conference.

The Conference's basic objective was the ultimate establishment of an "engineered spectrum" through the international adoption of frequency allotment or assignment plans, which would accommodate the requirements of ITU members for adequate frequency space. It was anticipated that frequency assignments would fall into two categories: assignments in conformity with such plans and the Convention and Regulations (hopefully the great majority), and assignments not in conformity; the former class would have a legal status substantially greater than the latter class, and it was to be one of the tasks of the [International Frequency Registration] Board [one of the organs of the ITU,] to place a notified assignment in one category or other.¹⁸

The project was found to be exceedingly complex. Demands for assignment space outpaced the amount of available space. At the 1959 Radio Conference, it was decided to abandon the attempt to plan the radio spectrum, and an evolutionary approach was adopted in its place.¹⁹

While the attempt to establish a planned radio spectrum was in progress, the Union was also undertaking to re-organize its Frequency Allocation List. The List had been established many years previously as a means whereby states could make their radio frequency assignments known to other members of the international system and thereby claim protection for them

¹⁸ *Idem*, pp. 211-2. p. 26.

¹⁹ *Idem*, pp. 63-69.

against interference from the frequency assignments of other states. The list required re-organizing after WWII. The initial attempt to carry this out was frustrated by the limited radio spectrum. As a result, an Extraordinary Administrative Radio Conference (EARC) was called, in 1951, to identify new ground rules by which to arrive at a list.

In December 1951, the EARC adopted an Agreement defining the varied measures to be taken to bring the entire Atlantic City Table of Frequency Allocations into force: (i) the adoption of new International Frequency Lists in specified bands; (ii) the adoption of frequency allotment plans for various special services; and (iii) interim measures to be taken by administrations and the Board with respect to the transfer to the new list of older assignments, and the gradual bringing into force of various provisions of the 1947 Radio Regulations.²⁰

As space telecommunications began to enter into the general telecommunications picture during the 1950s, it began to become apparent that the application of space technology to radio communications demanded a regulatory regime which would be able to deal with the problems that might emerge from the increased variety of radio applications. In 1963, an Extraordinary Administrative Radio Conference for Space Telecommunications (EARC-ST; the 1963 Space Conference) was called to examine the extension of the regulatory regime to cover broadcasting which would use the new concepts. The Conference made space radiocommunication

subject to the same principles and procedures as other types of radiocommunication, but, while the principles and procedures were the same, they were not expressed to the same definitive extent as were the provisions governing the other types of radio communication. This weakness was resolved at another Union Conference held in 1971. Not only did the 1971 Conference express the provisions and procedures of the regulations in greater detail, it enlarged the portion of the radio frequency spectrum over which the radio regulations applied. (Detailed discussion of certain of these regulatory provisions is the subject of Chapter IV.)

This discussion has not dealt with all of the administrative conferences which have taken place since they were first established as part of the ITU system in 1875. It has not, for example, dealt with the most recent Maritime Radio Conferences which continue to deal with problems of safety at sea as they concern radiocommunications. Also, only brief mention was made of Telephone Conferences. The discussion does suggest, however, that administrative conferences are playing an increasingly important role in the law-making and standard-setting activities of the Union with regard to narrow technical issue areas.

C. Berns Bureau and the IPRB

The formation of the International Telegraph Union in 1865 suggested to the French Government that certain of the desired functions of the Union could best be achieved by establishing an organ within the ITU which could undertake such activities. France proposed the establishment of a permanent commission, . . . charged with the task of drawing up a general map of the international telegraph networks and with the study of all special matters pertaining to the telegraph service."²¹ The commission would have its seat in the capital of the country in which the last previous telegraph conference had been held. Though the need for such work was recognized by the Union, the proposal to set up a permanent commission was rejected. The responsibility for mapping was, however, delegated to the French Telegraph Administration, as the national body most capable of carrying out this function at the time.

When the Union met again at Vienna in 1868, France again proposed the creation of a commission, but withdrew the suggestion in favour of a Swiss proposal for the establishment of a permanent International Bureau of Telegraph Administrations (the Berns Bureau) charged with wider responsibilities than originally envisaged. The Swiss proposal was accepted.

²¹ Codding, op. cit., p. 22.

The Bureau was given the duties of: gathering all information relating to international telegraph; publishing a table of telegraph rates; collecting general statistics; undertaking special studies as directed; and publishing, in French, a journal on telegraph matters.²²

The members were to support the Bureau by contributing to the budget. Each member would select one of six payment classifications ranging from a minimum of three contribution units, through five, ten, fifteen, twenty, to a maximum of twenty-five units, according to ability to contribute. Contributions would be calculated on the basis of the proportion of the total number of units voluntarily selected by the state concerned. The Bureau duly took up its responsibilities.

When the third diplomatic conference of the Union was held in Rome during the winter of 1871-1872, the Bureau was commissioned to redraft the Convention and Regulations so that the areas which were normally revised at frequent intervals would be located in the Regulations while the more permanent provisions were to be left in the Convention of the Union. The Bureau's draft convention became the basis for a new convention drawn up at St. Petersburg in 1875. Clearly, the Bureau was taking on the role of a 'secretariat' for the organization, carrying out administrative activities of the type indicated above.

When the International Radiotelegraph Convention was

²² *Ibid.*, p. 24.

signed in 1906, the Bureau was appointed to provide services required by the agreement.

Contracting states undertook to forward to the 32-year-old [Bureau] certain information, including detailed technical characteristics concerning the coastal or ship stations open to public correspondence under their jurisdiction, and the Bureau was directed to publish a list containing such information.²³

Though the ITU, as has already been pointed out, did not take over the activities of the Radiotelegraph Convention, the Berne Bureau clearly did serve to provide an administrative link between the two conventions, that of the ITU and the Radiotelegraph Convention.

The Berne Bureau was able to function in a limited capacity throughout WWI because it was located in the neutral territory of Switzerland. When, in 1932, the International Telecommunications Union was established at the Madrid conference of the Telegraph Union and the 'Radio Union', the provisions of the new convention included the adoption of the Berne Frequency List. This action indicates the effectiveness with which the Bureau had carried out its responsibilities.

As had been the case during WWI, the existence of the seat of the Bureau of the Union on the neutral territory of Switzerland enabled the survival of the Union through the Second World

²³ Leve, op. cit., p. 42.

war. After the war ended, it was resolved that the Union would become one of the specialized agencies of the new United Nations Organisation. In order to become more representative of its international membership, the Union decided to end the monopoly of Swiss control over the Bureau, which had been the case since the office was established, and to make its membership multi-national.²⁴ It was decided that the former Bureau would be replaced by an International Frequency Registration Board (IFRB). The Board was intended to administer the frequency listings and supervise the development of an 'engineered radio spectrum' (a project which, as has already been pointed out, was abandoned in 1959). Though it was intended that states, whose radio frequency assignments were in conformity with the plan, would be able to claim protection for their assignments against interference from assignments of other states, the Board was not given the authority to deny a state the right to make an assignment on a particular frequency. Any sanction would emerge only from the publicly recorded complaint of one state against another.

The Board did not immediately take on its new role. In the interim, a Provisional Frequency Board consisting of members of the IFRB and representatives of interested administrations

²⁴ Collins, *op. cit.*, 194-204.

was assigned to draw up a new Frequency List. When the limitations of the radio spectrum prevented the Provisional Board from carrying out its mandate, the WARC of 1951 established a set of procedures which would be used in formulating a list. In response to the decisions of the WARC, the Board took on full responsibility for implementing the directives of the 1951 Conference. It developed procedures to deal with frequency assignments which were either not dealt with in the Radio Regulations, or for which the Radio Regulations were too vague.

The 1963 and 1971 Space Conferences extended the activities of the IFRB into the area of space radio communications. Examination of this will not be undertaken in this chapter as this is the specific subject-matter of Chapter IV.

In recent years, the IFRB has been subject to attack. A major debate at the 1965 Plenipotentiary Conference of the Union saw the most important industrial states in the forefront of an attempt to replace the Board with a frequency registration office within the General Secretariat of the Union. The move was defeated by the opposition originating primarily among the developing states. Instead, the Board was reduced in size from eleven to five members, one member for each of the five

regions into which the world is divided for ITU purposes. One writer has pointed out that dissension among the members of the larger Board may be the reason for the proposal for abolition, though this has not been confirmed.^{25, 26}

²⁵Leiva, op. cit., pp. 72-80.

²⁶For a membership list of the ITU by Region see Appendix I. For detailed membership of the Administrative Council see Appendices II, III, and IV.

Chapter III

World Politics

and

The 1973 Plenipotentiary Conference

The International Telecommunication Union is an organization whereby states attempt to achieve and maintain order in the complex of global telecommunications. The central principle of the organization's activities is that it is in the interests of all of the parties that the behaviour of states in their telecommunications activities should be governed by a single, universally applicable set of standards which does not discriminate against or in favour of any individual member (or group of members) in the international system. While this principle can be said to be generally supported by the membership of the ITU, these members cannot be said to agree as to the issues which are most central to achieving this goal. Some states argue that there are certain international norms of behaviour which are peremptory. These states are of the opinion that, where an organization which is a specialized agency of the United Nations Organization, as is the ITU,

then these peremptory norms are definitionally the foundation stones upon which the organisational and regulatory framework on which the Union must be constructed. They conclude that only when these peremptory norms are acknowledged can the Union proceed to substantive issues. This chapter will suggest that the states which support this view are essentially the states of the developing world, and that it is their goal to have certain non-technical norms recognised as fundamental to the development of the Union.

The other side of the debate is taken up by those states which held the view that discussion within the ITU should be restricted to technical questions and to organizational matters which are related to the technical priorities of the Union. To these parties, primarily the industrialized states of the world, debate on issues of peremptory norms are highly political and have little or no place in the deliberations of a technical organization. They argue that debates of this type, better left to the forum of the United Nations, serve only to divide the membership of the Union into competing factions and to distract the membership from its essential purpose, the creation of an environment in which telecommunications technology can be developed and extended.

The Plenipotentiary Conference is the Union's forum for debate on policy and program. The 1973 Conference was notable for the amount of debate on issues which can be regarded as an attempt to achieve the reification of certain norms of international behaviour and general international law which might

be described as 'peremptory'.¹ Peremptory norms can be defined as those norms of behaviour among actors in the international system, which determine certain rights and duties to be 'fundamental' or 'inalienable'.¹ Ian Brownlie has stated that,

In the recent past some eminent opinions have supported the view that certain overriding principles of international law exist forming a body of ~~ius cogens~~. Suggestions for its content include the following: the rules prohibiting aggressive war, the law of genocide, trade in slaves, piracy, other crimes against humanity, and the principle of self-determination. To these could be added the United Nations Declaration on Permanent Sovereignty over Natural Resources and the United Nations Convention on Racial Discrimination. The concept of ~~ius cogens~~ has the authority of the International Law Commission behind it. . . .²

The concept was finally codified in the Vienna Convention on the Law of Treaty. According to Article 53 of the Convention,

A treaty is void if at the time of its conclusion, it conflicts with a peremptory norm of general international law. For the purposes of the present Convention, a peremptory norm of general international

¹ Ian Brownlie, Principles of Public International Law, (London: Oxford University Press, 1985), p. 417.

² ibid.

al law is a norm accepted and recognised by the international community of States as a whole as a norm from which no derogation is permitted and which can be modified only by a subsequent norm of general international law having the same character.

Article 64 of the Law of Treaties sets the condition that, "If a new peremptory norm of general international law emerges, any existing treaty which is in conflict with that norm becomes void and terminates."⁴ This latter article illustrates the authority which states have attached to the concept of the peremptory norm. Brownlie has gone on to point out that major problems exist with respect to the particular content of the category of ~~peremptory norms~~, namely, 'what can be regarded as peremptory norms?' As this chapter will suggest, the inability of the international system to clearly identify what is, in fact, a peremptory norm has encouraged a number of states to take actions to formalise concepts which they believe to be basic rights of this type. This paper will be particularly concerned with the issue of self-determination as it emerged in the debates of the 1973 Plenipotentiary Conference.

It is apparent that this chapter deals with decision-making in an international organisation; it becomes apparent, also, that much of the discussion is concerned with world politics.

⁴"Vienna Convention on the Law of Treaties," in Ian Brownlie, ed. et al., *Basic Documents in International Law* (London: Oxford University Press, 1978), p. 234. [Hereafter cited as Brownlie, *Basic Documents*.]

⁴*Ibid.*, p. 234.

David Easton has defined politics as "... the authoritative allocation of values for a society."^{4a} By extending the definition to include the international society, the definition proves to be adequate for the purposes of this paper. 'Authority to allocate' is vested in the appropriate organ of the Union, at the general level (the level of high politics) in the Plenipotentiary Conference, and at the specialist level in the Administrative Radio Conference. The 'value' being allocated is the radio resource.

William E. Riker identifies two general categories of authoritative decisions on allocations of value: (A) decisions made by individuals, and (B) decisions made by groups. The second category is divided into two sub-categories: (1) decisions made by conscious process, and (2) decisions made in a quasi-mechanical way.^{4b} Riker establishes that most decisions fit into category B1. This category is typified by determinate persons while category B2 can be seen in such automatic decisions as those made in economies in the market and price system. Riker goes on to state that coalitions are invariably formed where conscious decisions are made by groups.

Typically some part of the authority-possessing group comes together in alliance to render a decision binding on the group as a whole and on all who recognize

^{4a}David Easton, *The Political System An Inquiry into the State of Political Science* (New York: Alfred A. Knopf, 1965), p. 119.

^{4b}William E. Riker, *The Theory of Political Coalitions* (New Haven: Yale University Press, 1962), p. 11.

its authority. This decisive "part" may be more or less than one-half, indeed it may be two persons or the whole group itself. But regardless of the number of persons conventionally believed to be decisive, the process of reaching a decision in a group is a process of forming a subgroup which, by the rules accepted by all members, can decide for the whole. This subgroup is a coalition.⁴⁸

This chapter uses this definition of the coalition group in examination of the interactions of coalitions in decision-making at the Plenums of the Union.⁴⁹ Coalitions will be shown to form in a number of ways. First, contending coalitions may emerge where groups can be shown to have opposing interests in a particular issue area. The dispute may be resolved by means of a ballot on the issue or by a consensus approach on the issue between opposing sides. Alternatively, an unsupported coalition may emerge which is able to achieve its ambitions because of the lack of unity among any potential opposition, or because the non-coalesced parties do not regard the issue as of such significance as to warrant their attention and opposition. Finally, winning coalitions need not be the largest coalitions. The paper will show that where consensus is the means of deciding an issue, numerically inferior coalitions may be able to win by exploiting resources other than numbers. They may employ a favourable body of counter-evidence or a prestigious or persuasive spokesman.

⁴⁸ Ibid., p. 12.

⁴⁹ It should be noted that this paper does not set out to determine a theory of coalitions or decision-making.

This chapter examines certain decisional outputs of the 1973 Plenipotentiary Conference of the Union in terms of the concepts adumbrated above. The Union Convention, which was agreed at this conference held at Malaga-Torremolinos, Spain, entered into force on January 1st, 1975. This chapter examines six decisions made at the time of the writing of the convention. They are: (a) the decision to exclude from the membership of the Union and its committees, two full members of the organization, Portugal and South Africa; (b) the decision to refrain from using in the Convention of the Union the terms 'territory' and 'groups of territories', the effect of which was to exclude from membership in the Union all non-sovereign populations; (c) the admission of national liberation organisations as observers to conferences of the Union; (d) the enlargement of the Administrative Council of the Union; (e) the role of the International Frequency Registration Board and its relationship to the Plenum of the Union; and (f) the proposal to revise the contributory fee structure of the Union.

a. South Africa and Portugal

Two resolutions were proposed at the 1973 Conference, seeking the exclusion of two members of the Union from all of the conferences and meetings of the ITU. These draft resolutions,⁵ which were directed against Portugal and the Republic of South Africa, were sponsored by a coalition of 32 African states,⁶ and discussion at both the eighth and ninth Plenary meetings of the conference revealed both support for and opposition to the draft resolutions.

The resolution on South Africa criticized the Government of the Republic of South Africa (i) for failing to meet United Nations demands that it surrender its trusteeship over the territory of Namibia (South-west Africa), and (ii) for its failure to end its internal apartheid policies and to institute racial equality within South Africa. Portugal was criticized for its efforts to deny independence to its African overseas territories, the control of which had been maintained by military force.

⁵International Telecommunication Union, Plenipotentiary Conference, Malaga-Tenunelinas, 1973, Document Number 102-S, Draft Resolution on South Africa. [Hereafter, references to documents of this conference will be cited in the following form: ITU, Plenipot-73, Doc. No. 102-S, Draft Resolution on South Africa.] See also, ITU, Plenipot-73, Doc. No. 102-S, Draft Resolution on Portugal, 21 September 1973.

⁶Algeria, Angola, Tanzania, Kenya, Botswana, Swaziland, Central African Republic, Gabon, Senegal, Senegal, Equatorial Guinea, Liberia, Sierra Leone, Ivory Coast, Mauritania, Sudan, Madagascar, Tunisia, Egypt, Mali, Upper Volta, Ghana, Niger, Sierra Leone, Nigeria, Morocco, Cameroon, Libya, Saudi Arabia, Ethiopia, Togo, Chad.

Support for the resolutions was expressed by the Arab States (Iraq taking the opportunity to criticize Israel for its policies with respect to the Palestinian Arabs), the countries of Eastern Europe, and some South American members. Spain also expressed its support for the resolutions. Opposition to the resolution was based on the contention that the International Union of Pure and Applied Chemistry was not the proper forum for the discussion of international political issues, rather, such issues, it was argued, should be discussed at the United Nations.⁷ The United States expressed its opposition to the resolutions on the grounds that the resolutions were in violation of Article 2 of the Montreux Convention, sections 1, 2, and 3 of which guarantee all members the right to full participation in the activities of the Union, including voting privileges.

The submission of the draft resolution followed a pattern set by the previous Plenipotentiary Conference held at Montreux in 1965 where South Africa was excluded from participation in

⁷ITU, Pleniset-73, Doc. No. 154-E, 4 October 1973, Minutes of the Eighth Plenary Meeting, Wednesday, 26 September 1973. ITU, Pleniset-73, Doc. No. 155-E, 5 October 1973, Minutes of the Ninth Plenary Meeting, Wednesday, 26 September 1973.

⁸Doc. No. 154-E, pp. 212, pp. 19-20.

⁹International Telecommunication Union, International Telecommunication Convention (Geneva, 1964), (Geneva General Secretariat of the International Telecommunication Union, 1965), Article 2, sections 1, 2, 3. [Hereafter cited as The Montreux Convention, 1965.]

the Plenipotentiary Conference¹⁰ and Portugal was asked to comply with a United Nations resolution supporting national self-determination.¹¹ Prior to the commencement of the debates, the chairman of the Plenary Meetings reminded the delegates of what had transpired at the 1965 Conference in the discussion

... the questions of a so-called political nature which were raised there.

There was an extensive debate which took up seven Plenary Meetings and, in the course of which, a number of brilliant statements were made. The point was made that there was a special force for politics, i.e. the United Nations. It was also stated that, inevitably, politics were all-embracing and that the ITU could not be an exception. Finally, it was decided to exclude one delegation [South Africa] from the Conference and a course of action was traced . . . on which the present [1973] Plenipotentiary Conference, which is no less sovereign than the last, will again have to take a decision now.¹²

The statement clearly asserts the sovereign independence of the organization to address questions of a political nature, and was in direct contradiction to the opinions of a number of the members, as exemplified by the negative opinions expressed by the delegation of the Netherlands.¹³

Secret ballots (for which Canada was one of the tellers)

¹⁰ ITU, Resolutions 44, and 45, pp. 227-229.

¹¹ ITU, Resolution 46, pp. 229-230.

¹² Doc. No. 154-E, pp. 514, p. 2.

¹³ ITU, pp. 12-13.

resulted in approval of the resolutions. The resolution sanctioning South Africa was supported by 77 of the delegations in attendance, opposed by 39, and there were 10 abstentions. That for the exclusion of Portugal was supported by 73 delegations, and opposed by 42, with 11 abstentions. One-hundred-and-twenty-six delegations cast ballots.¹⁴

The consequences of these decisions were the immediate exclusion of the Portuguese¹⁵ and the South African¹⁶ delegations. "... from the Plenipotentiary Conference and from all other conferences and meetings of the International Telecommunication Union." This creates a contentious situation which is illustrated in the statements of the Secretary-General of the ITU and in those of the Chairman of the 1973 Plenipotentiary Conference. While the delegations of Zaire argued that the Convention did not forbid the exclusion of members of the Union from participation, the Secretary-General of the Union, M. Mili, has stated that

[t]here . . . seems to be no possibility of expelling any Member of the Union. In any case, the Convention contains no provision for such exclusion.

Consequently, any country which became a Member of the ITU at any date after 1945 will remain a Member indefinitely unless it itself denounces the Convention

¹⁴ Doc. No. 173-E, pp. 211, p. 22.

¹⁵ International Telecommunication, International Telecommunication Convention, (Milaga-Ferrenalino, 1973), (Geneva: General Secretariat of the ITU, 1974), Resolution Number 10, pp. 223-224. [Hereafter cited as Milaga-Ferrenalino Convention, 1973.]

¹⁶ Ibid., Resolution Number 11, pp. 230-231.

it once ratified or acceded to in accordance with the procedure laid down in the appropriate Article of the Convention concerned.¹⁷

The chairman of the Conference, Leon Herrera Esteban, of the Spanish Ministry of the Interior, supports the notion that the decisions simply reflect the 'inviolable sovereignty' of the Union. ~~the~~ the Union has not, like other specialised agencies of the United Nations, surrendered its independence to the United Nations—thus, South Africa and Portugal were excluded from the Plenipotentiary Conferences and the other meetings of the ITU.¹⁸ While a decision of the majority of the membership of the Union attending the Plenipotentiary Conference has been enough to deprive South Africa and Portugal of the right to exercise all of the privileges of membership, the members of the Union have not yet seen fit to test the possibility of expelling members from the organisation. But, at least one decision of the 1973 conference has had the effect of expelling certain members who had not achieved statehood. This resulted from the rejection of certain terminology which had been used in previous conventions of the Union.

¹⁷ M. Hill, "International Jurisdiction in Telecommunication Affairs," Editorial section, *Telecommunication Journal*, XL, iv (April 1973), p. 181.

¹⁸ Leon Herrera Esteban, "The Malaga-Ferrol-Lines Conference," *Telecommunication Journal*, XLII, v (May 1974), p. 296.

b. "Territories"

The importance to the developing countries of national self-determination is further illustrated by the decision of the Plenipotentiary Conference of 1973 to discontinue the use of the terms "territories" and "groups of territories" in the Union's convention. Unlike the resolutions dealing with South Africa and Portugal, the issue was first raised as a proposal for discussion at the committee level rather than at the Plenum of the Union. This took place at the second meeting of Committee 8,¹⁹ the committee assigned to examine and discuss submissions dealing with questions of rights and obligations of the members of the Union. This proposal did not take the form of a resolution because it dealt directly with the wording of various paragraphs of the Convention and did not pass opinions or give instructions with respect to the actions or activities of members of the Union.

In comparison with the discussion on the resolutions dealing with South Africa and Portugal, the proposal to discontinue the use of the terms "territories" and "groups of territories" resulted in considerably more objection from the opponents of the proposal. Opposition was not limited to the United Kingdom,

¹⁹ITU, Plenary-73, Doc. No. 123-2, 21 September 1973, summary record of the Second Meeting of Committee 8 (Rights and obligations), Thursday, 20 September 1973.

the United States and France, members which represented the largest number of territories. Jamaica supported the position of the United Kingdom²⁰ that, by eliminating the use of the terms, a number of countries which, though internally independent, had undertaken to allow other countries to act on their behalf in international affairs, would be deprived of representation. Britain and Jamaica were particularly concerned that parts of the former British West Indies would lose representation.

A number of African and South American countries, led by Zaire and Argentina, maintained that the terms were identified with 'colonialism' and should not be part of a document of an organization which "ought" to be encouraging the sovereign equality of its members. On this basis, then, the proposal went to a secret ballot in the committee, the outcome of which revealed 58 in support of the proposal, 41 opposed,²¹ and 12 abstaining for a total of 111 votes cast.²²

²⁰IRU, Flanipet-73, Doc. No. 139-E, 1 October 1973, Summary Record of the Third Meeting of Committee 8 (rights and obligations), Tuesday, 25 September 1973, pp. 2, 9.

²¹"Although sympathetic to the desires of those states wishing to limit membership in the Union to fully sovereign states, the Canadian delegation chose not to support this attempt to deny membership to those territories in view of the possible practical, including financial, consequences." Department of Communications, Report of the Canadian Delegation to the Plenary Meeting of the Council of the International Communication Union (ICU) on Rights and Obligations, September - October 25, 1973, (Ottawa: Department of Communications, 1974, p. 5. [Hereafter cited Canadian Delegation Report.]

²²IRU, p. 10.

The matter, however, was not yet settled. When the report of the 8th Committee was taken to the Plenum of the Union for approval, discussion resumed. Britain, the United States and France restated their opposition to the proposal, while the supporters of the proposal restated their desire to omit any language from the convention which suggested colonialism.²³

The full meaning of this decision [to dispense with the use of the terms "territories" and "groups of territories"] was not immediately clear. Some delegation had hoped that the suppression of the words . . . in Article 1 [identifying the eligible membership of the Union] would not affect the membership status of the five dependent territories which were listed as Members of the Union in an Annex to the Montreux Convention. However, three weeks later the African and Latin American states which had first raised the issue also insisted that the list of Members in the Annex be modified so as to omit any reference to the dependent territories as a consequence of the decision earlier taken with respect to Article 1. They also insisted . . . that Articles 20, 21 and 24 of the Montreux Convention ("Application of the Convention to Countries or Territories for whose Foreign Relations Members of the Union are Responsible", "Application of the Convention to Trust Territories of the United Nations", and "Denunciation of the Convention on behalf of Countries or Territories for whose Foreign Relations Members of the Union are Responsible", respectively) be deleted, apparently because of their references to the term "territory". In spite of interventions by many delegations, including Canada, France, Switzerland and the representative of the United Nations, attempting to explain the very different nature of these three articles, the Africans and Latin Americans were unconvinced and the articles were deleted.²⁴

²³ITU, Flanipet-73, Doc. No. 442-2, 16 January 1974, Minutes of the Twenty-second Plenary Meeting, Monday, 22 October 1973, pp. 2-15.

²⁴Canadian Delegation Report, op. cit., pp. 5-6.

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These proceedings appear to have played a major role in the decision of the countries opposed to the deletion of the terms to re-open the discussions at the Plenary Meetings of the conference.

When the debate at the 22nd Plenary Meeting had subsided, the Plenum was asked to decide by secret ballot whether it was prepared to accept the decision of Committee 8. The conclusion of Committee 8 was approved by 61 votes to 31 with 12 abstentions. . . .²⁵ Notably, neither side in the dispute received more than 30 per cent of the total number of votes cast, and, while the number of abstainers remained the same as in the vote in Committee 8, the opposition vote had increased by 10 votes (nearly 25 per cent) while support for the proposal had increased by only three votes.

This casts doubt on the decision-making processes of the organization since, as this example shows, a ballot held on a matter of such crucial importance to the organization as was this issue²⁶ can be decided by a bloc representing less

²⁵ Doc. No. 448-II, pp. 214, p. 15.

²⁶ The importance of this issue for the Conference and the ITU was two-fold. An immediate consequence of the decision [was] the loss of the contribution paid to the ITU by these territories. In the case of the United States Territories, which currently contribute \$5 units towards the defraying of Union expenses, this loss [is] significant. In addition, however, this issue proved to be one of the most emotional and divisive matters dealt with by the Conference. Many delegations from the Northern countries, notably the USA and France, were openly critical of both the tone and outcome of the debate on this issue. They were of the view that the infusion of political issues, such as this one, into the ITU could not help but destroy the effectiveness of the Union." *Canadian Delegation Report*, op. cit., p. 6.

than fifty per cent of the total membership. "It must be recognized that such a decision is more political than practical in nature. From a strictly pragmatic point of view, it may be that the consequences [of this decision and others in similar circumstances] will tend to be unfavourable. . . ." ²⁷

Liberation Organizations

One issue which had the potential for developing into a major political question, the admission of Liberation Organizations as observers to the deliberations of the ITU, failed to generate any debate at all. The draft resolution introduced by the Republic of Guinea called for the "[a]dmission to the ITU as Members with observer status of Liberation Organizations recognized by the United Nations." ²⁸ Both Australia and Canada expressed support for the proposal, but the United States was not convinced that the organizations had a role to play in the Union as they might have in the United Nations. Belgium opposed the resolution on the grounds that the ITU had not made provision for such participation, citing ²⁹ the restrictive definition of 'observer' given in the 1965 Convention

²⁷ *Harvard Notes*, 22, 213, p. 294.

²⁸ ITU, Plenary-73, Doc. No. 303-2, 22 October 1973, Draft Resolution, Republic of Guinea.

²⁹ *Harvard Convention*, 1965, 22, 213, No. 407, p. 94.

which clearly does not include Liberation Organizations.³⁰ The Plenary of the Union adopted the resolution³¹ without a vote being called. Unlike the opposition which built up around the proposal to eliminate from the Convention references to territorial opponents which may have existed apparently took to action the inclusion of Liberation Organizations in the Convention to make a serious debate around it.

d. Enlarging the Administrative Council

When the Administrative Council of the Union was established by the Atlantic City Telecommunication Conference of 1947, it was charged with the responsibility of directing the Union's activities between Plenipotentiary Conferences. Reflecting the growth in the membership of the Union between 1947 and 1973, the Council has increased in size from eighteen members to 36 members, more than half of the new membership coming from the Africa and Australasia regions. To accommodate regional concerns, the Union membership is divided into five geographical regions, each of which is granted a specified number of representatives on the Administrative Council so as to provide

³⁰ITU, Plenipot-73, Doc. No. 44-2, 3 January 1974, Minutes of the Twenty-sixth Plenary Meeting, Thursday, 23, October 1973, pp. 13-14.

³¹Salerno-Torresalinas Convention, 1973, pp. 213, Resolution No. 29, p. 222.

for equitable representation and distribution of seats throughout the world.³²

Since 1947, five Administrative Councils have been elected. The most recent adjustment in the membership took place at the 1973 Biennial Conference, but not without meeting some resistance. Although a proposal for the enlargement of the Council met with the approval of most of the members, in its initial stages, it was resisted by the United States, the Netherlands, Belgium and the Soviet Union. The United States, supported by the other three countries, argued (in summary) that

... it was doubtful . . . whether the efficiency of [the Administrative Council] would be enhanced by the increase, with a membership much in excess of about 25, the Council was likely to become a forum for discussions, rather than the executive board it was meant to be. Moreover, the additional cost of the increased membership should be borne in mind, at a time when the Union should be particularly anxious to reduce its expenditures and to use its available funds for such essential purposes as technical co-operation.³³

In spite of this argument, the developing countries held to the view that the existing number of Council seats did not adequately provide the many new members of the Union with the opportunity to participate in the Council's activities. During the discussions, India, supporting an increase in the size

³² *Statute of the Council of the Union*, 1947, pp. 211, Article 9, section 1, p. 2. *Statute of the Council of the Union*, 1973, pp. 211, Article 9, section 1, pp. 2-3.

³³ *Statute of the Council of the Union*, 1973, pp. 211-2, 26 September 1973, Summary Record of the First Meeting of Committee 7 (Organ of the Union), Wednesday, 29 September 1973, p. 4.

of the Union)³⁸ was approved by the Plenum of the PCU, thereby increasing the number of seats from 29 to 36³⁹ with no further discussion.

It is apparent from this examination that coalitions again played an important role in the debates and the final outcome. In this instance, in general, the coalition was between developing countries on one side and developed countries (North America - USA; Western Europe - Europe - USSR) on the other. As indicated, though, the developing states received the support of many developed countries including Canada. The situation, therefore, suggests a division based on the levels of development rather than on one of politics or ideology, contrasting sharply with the debates over the membership participation of South Africa and Portugal, and the use of the term "territories", wherein political and philosophical motivations were highly significant, and generated extremely heated debates.

Significantly, the shift from opposition to support by the United States and its allies, including the Soviet Union, did not result from a massive coercive action on the part of

³⁸ PCU, Plenary-73, Doc. No. 98-2, 20 September 1973, First Report of Committee 7 (organs of the Union), pp. 1-2.

³⁹ PCU, Plenary-73, Doc. No. 132-2, 27 September 1973, Minutes of the Sixth Plenary Meeting, Friday, 21 September 1973, p. 1.

the other coalition to impose its will either by threatening serious consequences or by the result of a vote on the issue. While the opposition was based upon the fear that the Council would turn into a forum for confrontation, the change in the United States' position indicates that the continuance of the Council membership at 15 seats was not a matter of great concern to the opposition side. This may have been a function of the allocation of the additional seats: Region A, Latin America receiving seven seats (increase of one); Region B, Western Europe, seven members (increase of one); Region C, Eastern Europe and Northern Asia, four members (increase of one); Region D, Africa, nine members (increase of two); and Region E, Asia and Australia, nine members (increase of two).⁴⁰ Though the balance shifted to give half of the total membership in the Council to Regions D and E, essentially the developing world, it cannot necessarily be assumed that these regions will form a unified voting bloc which will be used to press a particular point of view. This would require bloc-voting by regions, an occurrence which would be difficult to accomplish. In addition, the distribution of Council seats is not essentially different from the previous Council.

⁴⁰ For detailed tables identifying the membership of the Council, see Appendices II, III, and IV.

4. The Plenipotentiary Conference and the IPFRB

The study to this point has tended to give the impression that all issues dealt with at the Plenipotentiary Conferences of the ITU are highly politicized. Though the nature of the international system is such that there is a clear potential for politicization, it is not inevitable. The study of the discussions and subsequent decisions at the 1947 Atlantic City Radio Conference and concerning the International Frequency Registration Board and concerning the election of the members of the Board show how the structure of the Union and the relevant articles of the Union's convention can be altered in an atmosphere of minimal politicization. The question of the frequency of election of the Board was, of necessity, closely linked with the question of the frequency with which the Plenipotentiary Conference would, in the future, be convened. This discussion illustrates how the Union's tendency to centralize power in the Plenipotentiary Conference has been developing without the occurrence of a major political debate on the matter.

Changing the Mandate. The International Frequency Registration Board (IFRB) was established in 1947 at the Atlantic City Radio Conference under the assumption that it would become the

body to administer a proposed 'engineered radio frequency spectrum.'⁴⁰ Although the concept of the engineered spectrum failed to materialize, the Board continued to act. The IPRB was given the responsibility of recording frequency assignments by the countries carrying out these undertakings, but more importantly, . . . was . . . granted . . . of power . . . and legal and technical examination of new notices and the recording of findings with respect thereto which the former Bureau, [predecessor of the Board,] had never possessed."⁴¹ As was the case with the former Bureau, technological developments have thrust added responsibilities onto the Board, the most recent of which has been the expansion of the IPRB's role into the field of satellite communication.

The rapid development of space radiocommunication in the decade preceding the 1973 Plenipotentiary Conference encouraged the delegates to the conference to revise the 'official' mandate of the Board so as to bring it into conformity with the responsibilities of the Board as they actually had developed and to make the Board's mandate consistent with the needs of the time. The Madrid-Ferrol-Valencia Convention which came out of the 1973 Plenipotentiary Conference states that

The Atlantic City Conference had established a principle whereby the use of the radio frequency spectrum would be planned for the entire world. Frequency allocations and assignments would be made on the basis of the proposed plan on the assumption that this would clearly indicate the number of frequency locations in use and the number vacant.

⁴¹ *Ibid.*, pp. 211-2. p. 216.

The essential duties of the [Board] shall be:

- a) to effect an orderly recording of frequency assignments made by the different countries so as to establish, in accordance with the procedure provided for in the Radio Regulations and in accordance with any decision which may be taken by competent conferences of the Union, the date, purpose and technical characteristics of each of these assignments, with a view to ensuring formal international recognition thereof;
- b) to effect, in the same conditions and for the same purpose, an orderly recording of the position assigned by countries to geostationary satellites
- c) to furnish advice to Members with a view to the operation of the maximum practicable number of radio channels in those portions of the spectrum where harmful interference may occur, and with a view to the available, effective and economical use of the geostationary satellite orbit
- d) to perform any additional duties, concerned with the assignment and utilization of frequencies and with the utilization of the geostationary satellite orbit, in accordance with the procedures provided for in the Radio Regulations, and as prescribed by a competent conference of the Union, or by the Administrative Council with the consent of a majority of the Members of the Union, in preparation for or in pursuance of the decisions of such a conference;
- e) to maintain such essential records as may be related to the performance of its duties. ⁴² [Emphasis added.]

The new convention represents an alteration from the wording of Article 13 of the 1965 Montreux Convention as indicated by the underlined sections, above. Although the changes in the mandate of the Board are, in themselves, relatively significant, the revised article only represents an attempt to bring the

⁴² Radio Regulations Convention, 1973, op. cit., Article 10, section 1, pp. 9-10.

Union's convention up to date with the previously revised Radio Regulations, wherein these changes had already been made effective. In this respect, then, the changes in the convention are significant only in as much as they formalize a situation which was already in existence.

One part of the discussion did lead to some discussion which identified existing positions. This was in paragraph 10, above, wherein one of the Board's responsibilities was identified as the administration of " . . . equitable . . . use of the geostationary satellite orbit [emphasis added]" The introduction of the concept of 'equity' by Algeria (supported by the USSR, East Germany, Bulgaria, the Peoples' Democratic Republic of Yemen, Zaire, and Lebanon) was strongly opposed by France, Australia, Belgium, and Brazil. In the opinion of the latter:

It was outside the terms of reference of the IPRB, as set out in the Radio Regulations, to consider factors other than economy and efficiency when making recommendations. The Board could not act as a judge of equity in the use of the geostationary satellite orbit as that was a matter to be settled by individual agreement between Members of the Union.⁴³

The Algerian proposal was approved by the Plenum of the Conference by a vote of 65 in favour, 43 against and 12 abstentions.

⁴³ITU, Plenipot-73, Doc. No. 438-II, 16 January 1974, Minutes of the Eighteenth Plenary Meeting, Friday, 19 October 1973, p. 4.

Though the concept expresses the desire of developing nations to have access to the geostationary orbit, the statement seems to be of more hortatory than practical significance, as the Union does not appear to have the tools capable of determining what is an equitable use of the orbit, or for imposing equity where it may, in fact, be impossible to enforce. It seems, therefore, that the value of the concept resides only in its identification of a desirable state of affairs. The concept alludes to the existence of a prescriptive norm of equity in the distribution of the space resources. Unlike the situations which dealt with matters of national self-determination, the concept of 'equity' does not appear to have immediate implications for the organization as a whole. It remains to be seen, however, whether any of the members will insist on the enforcement of some notion of equity.

Election of the Board. The discussion pertaining to the election of the members of the IPRB resulted from the concern of many members of the Union with respect to the increasing irregularity of the Administrative Radio Conferences which were responsible for electing the Board. Because the Administrative Radio Conferences (ARCs) were being held at increasingly irregular intervals, the term of office of the Board was becoming increasingly irregular.

At the third meeting of Committee 7 (structure of the Union),

. . . the delegates of Switzerland, the United Kingdom, Czechoslovakia, Canada, Kuwait, Italy and India introduced their proposals . . . all to the effect that the members of the IPRS should be elected by the Plenipotentiary Conference, in view of the fact that general administrative radio conferences were no longer held at regular intervals. The delegates of Canada and Italy also considered that the Plenipotentiary Conference was the most representative of all Union meetings as radio conferences were attended only by experts in specialized fields.⁴⁴

Other members preferred to have the administrative radio conferences continue to elect the Board, although they did express concern for the need to regularize the terms of office of the Board (Belgium, Mexico, Australia, Japan, and the Congo). Some of those who opposed assigning the responsibility to the Plenipotentiary Conference were concerned that the members of the delegations which participate in the Plenipotentiary Conferences might not be competent in radio matters and therefore, might not have the knowledge required to select wisely a Board which would be dealing in radio matters. The United States, though initially in support of the Plenipotentiary Conference as the proper body to choose the Board, recognizing the possible validity of the criticism, declared that it would withhold its decision until a consensus was reached.⁴⁵

⁴⁴ITU, Plenipot-73, Doc. No. 134-S, 27 September 1973, Summary Record of the Third Meeting of Committee 7 (structure of the Union), Friday, 21 September 1973, p. 8.

⁴⁵ITU, Doc. 8-2.

Eventually, the United States joined with the United Kingdom to prepare a draft proposal to the effect that the Board should be elected by an appropriate world administrative radio conference (WARC), or, when a WARC would not be scheduled at an appropriate date, the Administrative Council could designate the Plenipotentiary Conference as the competent body.⁴⁶ Canada, Nigeria and Venezuela submitted a counter-proposal designating the Plenipotentiary Conference as the only competent body.⁴⁷ The US-UK proposal was defeated in Committee by a vote of 72 in favour and 42 against with 1 abstention, the counter-proposal being accepted automatically.⁴⁸ The decision was approved by the Plenum.

The discussions pertaining to the proposals concerning the IFRB reveal limited politicisation with respect to that issue area. This possibly results from the fact that many of the major decisions concerning the Board's activities and functions are made outside of the Plenipotentiary Conference and that the decisions of the Plenipotentiary Conference simply formalise in the convention a situation which has already been established in the Radio Regulations. The low level of

⁴⁶ITU, Plenipot-73, Doc. No. IT/15, 25 September 1973, United States, United Kingdom Proposal.

⁴⁷ITU, Plenipot-73, Doc. No. IT/14, 25 September 1973, Canada, Nigeria, and Venezuela Draft Resolution.

⁴⁸ITU, Plenipot-73, Doc. No. 150-1, 8 October 1973, Summary Record of the Sixth Meeting of Committee 7 (Structure of the Union), Thursday, 27 September 1973.

politicisation suggests that questions of this type do not strike at the basic political, economic and social interests of the members of the Union, and thereby reduce the potential level of conflict between the members.

The decision does reflect a tendency to centralise decision-making in the Plenipotentiary Conference. The effect of this is not yet clearly apparent, but it does suggest that the deliberations may become increasingly political as national delegations headed by political personalities rather than by technician-civil servants take over the decision-making functions. This is particularly significant with respect to developing countries which may see a greater role for themselves in the Plenipotentiary Conference than in the technical conferences where their own participation is limited by their particular technical needs and by their lack of expertise, especially in terms of research and development.

f. Revising the Contributory Fee Structure

The issue of voluntary contributions to the Union Finances has been revealed as being a particularly sensitive issue to all members of the Union.

The expenses of the Union are met from contributions of the Members, each paying a sum proportional to the number of units in one of the 14 classes of contribution (ranging from one-half through 30 units) it has voluntarily chosen. Since 1959, Canada has contributed 18 units towards the defraying of Union expenses.⁴⁹

At the 1973 Plenipotentiary Conference, a group of developing nations led by Mexico and Venezuela proposed to alter the system of contributions on the grounds that the contributions of the countries at the lower end of the scale were disproportionately large while the contributions of those at the upper end of the scale, most notably the United States, were disproportionately small. "[T]he delegation of Mexico introduced a proposal whereby Members' contributions would be established primarily on the basis of the percentage of a country's [gross national product] as is done in the United Nations."⁵⁰ Opposition to the proposal was expressed by a broad cross-section of the participants in the deliberations of Committee 4 (finances). Much of it centered on two points: (1) that the members would lose their freedom to choose the level of contribution which they would undertake, and (2) that the proposed formula could cause radically altered sums to be contributed by each member.

⁴⁹ Canadian Delegation Report, op. cit., p. 20.

⁵⁰ Id.

Cuba objected to the proposal on the grounds that its delegation had not had enough time to study the presentation. The Federal Republic of Germany, the USSR, Yugoslavia, Canada, the United Kingdom, Rwanda, Poland and Byelorussia objected to the proposed abolition of the concept of free choice of contributory level, and ~~no~~ support was expressed for the introduction of a smaller unit level at the lowest end of the scale. The local countries objected to the loss of the freedom to choose a level of contribution, but suggested creating a scale of groups ranging from one to 120 units. Lebanon favoured the status quo stating that the proposals had come too late to be given adequate consideration and suggesting that the Administrative Council should be directed to examine the matter. France said that it could not make a decision without consulting the French Ministry of Economics and Finance. The only express support came from Chile, Bolivia, Peru and Costa Rica. The proposal was defeated in committee by a vote of 42 against, 7 in favour, and 5 abstaining.⁵¹

This, however, did not end the debate. At the Plenary level of the Conference, Mexico undertook to introduce a document drawn up by a group of developing nations which was

⁵¹ IRU, Flanipet-73, Doc. No. 237-E, 16 October 1973, Summary Record of the Eighth Meeting of Committee 4 (finance), Tuesday, 9 October 1973, pp. 1-3.

critical of the existing system of contribution.⁵² Cairo, Somalia and Afghanistan expressed support for the concept expressed by Harlow, while the Netherlands and Australia sympathised with the concerns of the developing nations but declared their support for the existing system. Japan opposed the proposal, and the United States, the USSR and Poland expressed a strongly threatening position, stating that should such a proposal be accepted by the Plenum, then they might be compelled to withdraw from the convention. The proposal was not pursued.

The most notable feature of the discussion was the wide economic and political diversity of the countries making up the group opposing the proposal. All sectors were represented, this suggests that, although coalitions form, they do not remain united across all issues, rather, coalition formation in the IVU Pleni-potentiary Conference appears to be subject to the centrality of the issue to the priorities of the parties or actors in the coalition. Expressed in other terms, the centrality of the issue to the priorities of the actors in the system determines the structure of coalitions which might be formed. The financial implications of a decision in favour of changing the con-

stitution system brought together countries of differing

⁵² IVU, Pleni-pot-73, Doc. No. 224-B, 25 October 1971, Afghanistan, Algeria, Argentina, Burma, Bolivia, Cameroon, Congo (Brazzaville), Costa Rica, Ekuerry, Dominican Republic, Ecuador, Guatemala, Upper Volta, Iraq, Kuwait, Madagascar, Morocco, Mauritania, Mexico, Nicaragua, Panama, Paraguay, Peru, Venezuela, Yemen Arab Republic, Yemen, United Arab Emirates.

ideological commitments (eg. USA and USSR) to defeat the proposal.

Conclusions

The general subject matter of the Plenipotentiary Conference of the Union remains essentially unchanged from what was identified by the St. Petersburg Convention, 1875. As pointed out in Chapter II, the St. Petersburg Convention distinguished between those aspects of the Union's documents which could be regarded as relatively permanent and unchanging and those which required frequent modification. The former were, for the most part, the rules and regulations comprising the Convention of the organization, while the latter were rule and regulations dealing with technical matters. Constitutions were to be drawn up by the diplomatic conferences of the organization while rules and regulations concerned with the technology of communications were to be set down and revised in administrative conferences. Over the long term, the decision of 1875 seems to have had the effect of isolating issues of a political nature such that they would be dealt with only at the diplomatic level of the Union.

The six issues examined in this chapter reveal varying degrees of politicization of issues within the Plenipotentiary Conference of the Union. The most notable feature of this

politicization process is the tendency of the members of the Union to divide into contending groups in terms of their respective levels of economic and technological development: developing countries v. industrialized countries. Each of these groups has differing interests, these interests being reflected in the political positions taken in the Union. Developing countries support the cause of anti-colonialism, national self-determination, and generally attempt to establish and assert their sovereign equality with all other members of the international system. In contrast, highly industrialized states do not exhibit a ready propensity to strive for change in the structure and organization of the Union, but rather, are satisfied to maintain an order which has proven satisfactory in meeting their particular goals. The self-interest of the developing countries seems frequently to centre upon their desire to establish their legitimacy as actors in the international system. Industrialized states see their interest in a continuing international order which will enable them to exploit their economic capabilities for the expansion of their technical development.

It would appear from the decisions taken, the nature of the debate and the questions addressed, that each group has its own definition of the role of the Union in the international

system. The industrialized states tend to see the Union in limited, functional terms, that is to say, for the ordering and expansion of telecommunications in its purely technological context. Developing states, on the other hand, appear to view the Union as an organization which ought to serve the advancement of certain norms of international relations which are regarded as emerging 'peremptory' norms. These include the right to nations' self-determination and decolonization, and the equitable distribution of global resources, the radio spectrum being the particular concern of the ITU. The codification process appears to be an attempt to circumvent the problem of defining these norms as 'peremptory,' the boundaries of which have not yet been clearly defined, as Broulie has pointed out. While the notion of equitable allocation of resources may not yet be regarded as a peremptory norm, 'self-determination' as a right of all nationalities is defined by some authorities as falling within the category. Clearly, potential for dispute arises when the attempt is made to give force to such norms defined as 'fundamental rights.'

Developing countries have taken the position that the ITU, as a UN specialized agency, must, by definition, support both implicitly and explicitly the highest ambitions of international organization. They suggest that the role of the Union must

not stop at the purely functional issues of technical regulation. These countries support the view that institutions such as the ITU should strive to implement general policy of the overall international system within the specific subject-areas of their competence. In the case of the Union this implies a more comprehensive approach.

Consequently, the developing countries often have different expectations to the establishing of a regulatory regime which deals essentially with technical standards. They tend to regard prescriptive norms as either having no place in an organization such as the ITU, or at most, as long-term objectives.

The source of this difference of view-point would seem to arise from the divergent levels of technical development between the two groups. The lesser developed states have less direct interest in the short-term technical issues with which the Union deals than is the case for developed countries. As this situation tends to leave developing countries out of the decision-making activities at the purely technical level, they endeavour to participate in the activities of the organization by seeking out areas other than the purely technical. The only common ground they find between themselves and the developed

countries, therefore, appears to be in the area of general principles of international behaviour.

That these issues tend to become highly political is illustrated by the emergence of contending coalitions and extended debate. The debate on the structure of the fee structure was essentially a continuation of a debate begun in 1965 and continued in 1971. The question of terminology in the use of the word "coalition" was debated at both the committee level and at the Plenum. Coalitions have been shown to form when parties holding opposing points of view are able to muster support from other members for their respective opinions. The coalitions formed rarely comprised a majority of the membership and it is apparent, as in the debate over the contributory fee structure, that extremely small coalitions can win. In that debate, the USA and the USSR were the major forces in a small coalition to prevent the issue from going to a vote and to prevent a change in the structure. (The important point in this latter debate concerning coalition formation is that the coalition was able to prevent a vote from taking place. This does not ignore the fact that a majority of states did appear to oppose the recommended change in the fee structure.)

Chapter IV

Modifying a Regulatory Regime

INTRODUCTION

The world's first artificial satellite, Sputnik I, was successfully launched into earth orbit by the Soviet Union in 1957. This event marked the beginning of the most recent and one of the most significant series of technological developments in the telecommunications field. Within a few years, earth-satellites had been developed or were being planned which were capable of providing communication links between virtually any two locations on the surface of the earth.

Like any other form of radio communication, telecommunications techniques using satellites required access to the radio frequency spectrum, and as this technology was put into use by an ever increasing number of nations, the demands for access to the spectrum increased. To accommodate this demand, the International Telecommunication Union convened an Extraordinary Administrative Radio Conference for Space Telecommunications, in 1963 (the 1963 Space Conference; EARC-ST) at Geneva. The Conference set down preliminary procedures to guide the planning and establishment of frequency assignments to space radio-communication uses. The International Telecommunication

Union reported:

The conference successfully discharged the tasks entrusted to it as outlined in its agenda. In the first place it allocated, on a shared or exclusive basis, frequency bands . . . for the various kinds of space services. . . . Thus, the 1959 allocation which was made only for research purposes was considerably extended by the 1963 conference in order to meet the requirements not only of space research but also of the practical uses of outer space. . . .

The Conference also adopted a number of revisions and additions to other parts of the Radio Regulations, mainly concerned with the general rules for the assignment and use of frequencies; notification and recording of frequencies in the Master International Frequency Register which is maintained by the International Frequency Registration Board (IFRB) . . . ; the identification of stations; service documents; terms and definitions; and special rules relating to particular services. These revisions and additions were necessitated to make provision for the space services.

In recognizing the further advancement of a necessary international co-operation in the administration of telecommunication resources, the report was justifiably glowing, but the 1963 arrangement did not go far enough. It did not cover a wide enough piece of the radio spectrum and thereby left open the possibility for unilateral exploitation of unregulated parts of the spectrum by individual states, or by small groups

Third Report by the International Telecommunication Union on Telecommunication and the Peaceful Uses of Outer Space, Geneva, 1964, E/3890/Add. 1, May 7, 1964, pp. 1-3. Quoted in Marjorie M. Whitman, ed., Digest of International Law (Washington: Department of State, December 1968), pp. 955-956.

of states. This situation could easily lead to uneconomic allocation of the resource and to conflicts over rights to the unreserved portion of the spectrum. This freedom of action left to the states interested in setting up telecommunication systems was a major factor in the lack of the unallocated spectrum. As will be shown, the 1963 agreement did not do what it might have done in restricting the independence of action left to the individual states. The delegates to the 1963 WARC-ST rightly expected that further developments would necessitate additional changes in these controls. These further revisions were pursued in 1971 at the World Administrative Radio Conference for Space Telecommunications (1971 Space Conference; WARC-ST), held at Geneva.

The 1971 Space Conference was held to revise the procedures which had been established in 1963, and to bring these into line with current requirements.² The conference expanded the obligations incumbent upon countries undertaking to establish the space radiocommunication assignment, countries which might be affected by these assignments, and the International Frequency Registration Board. A major revision of the Radio Regulations,

²The summary record of the International Frequency Registration Board, "The World Administrative Radio Conference for Space Telecommunications: Geneva, 7 June - 17 July 1971," *Telecommunication Journal*, XXVIII, 2 (October 1971), 673. [Hereafter cited as 1971, "WARC-ST," summary record,] stated that the object of the conference was to revise "... various provisions of the Radio Regulations, with a view to enabling space communications ... to continue to develop harmoniously, as techniques are perfected, for some years to come."

replaced resolution 1A of the 1963 conference which was appended to the radio regulations.³ This resolution set down the steps which were to be taken in establishing a radio frequency assignment and the 1971 revision had the effect of increasing the duration and extent upon all of the parties to the radio regulations; the party proposing to undertake the assignment; the parties whose own assignments or proposals may be subject to interference from the new proposal; and the International Frequency Registration Board, the body responsible for recording new assignments and for intervening to prevent interference between assignments. In addition, the 1971 conference increased seven-fold the portion of the frequency spectrum which was regulated; it enlarged the portion of the spectrum usable for space applications by a multiple of nearly 35; and, it decided that "stations in the broadcasting satellite service shall be established and operated in accordance with agreements and associated plans adopted by world or regional administrative conferences, as the case may be. . . ."⁴ Not only was the regulatory regime extended to cover a broader portion of the radio spectrum, it has been expanded in such a way as to

³Radio Regulations, (Geneva: General Secretariat, International Telecommunication Union, 1968), Resolution Number Spa 1. [Hereafter, the Radio Regulations, 1968 edition, will be cited as: RR(1968); this resolution will be cited as RES Spa 1.]

⁴ITRU, "WARC-71," summary record, 682.

Further restrict a state's freedom to assign frequencies as it will and to use its frequency assignments without due consideration for potential interference which they may cause the assignments of other states. The discussion in this chapter will

show that the condition of increased co-operation among states and international organisations in the utilisation of the radio spectrum in space telecommunications, it will also serve to show that many members of the international system are excluded from any decision-making process in this matter. In effect, the radio regulations introduce a condition of 'locus standi', that is to say that states must be able to prove an interest in the proposal before they are allowed to present an objection to a proposal. An 'interest' can only be claimed where frequency assignments are either in operation or in the implementation stages. Long-term projections of frequency requirements will not suffice. This suggests that only the major industrialised states of the world and possibly also China and India will have adequate economic resources to become extensive users of the

While the following discussion illustrates the favourable condition of increased co-operation among states and international organisations in the utilisation of the radio spectrum in space telecommunications, it will also serve to show that many members of the international system are excluded from any decision-making process in this matter. In effect, the radio regulations introduce a condition of 'locus standi', that is to say that states must be able to prove an interest in the proposal before they are allowed to present an objection to a proposal. An 'interest' can only be claimed where frequency assignments are either in operation or in the implementation stages. Long-term projections of frequency requirements will not suffice. This suggests that only the major industrialised states of the world and possibly also China and India will have adequate economic resources to become extensive users of the

portion of the radio spectrum allocated to space telecommunications. Most of the countries of Africa, Asia and South America will be excluded from this group, not to mention the smaller industrial and agricultural states of Europe. While the radio regulations do serve to extend the role of international organization in the international system and encourage cooperation among the users of the radio spectrum, they also serve to create an exclusive club whose membership is determined by short-term self-interest rather than by long-term, general interest.

The Advance Publication and Co-ordination Procedures

This chapter examines the rules and regulations of the Advance Publication and Co-ordination Procedures separately to enable a comparison between the two procedures, and to facilitate a comparison of the procedures as announced by the 1963 Space Conference and by the 1971 Space-Conference. It is hoped that this will help to show the impact of technological innovation on a regulatory regime in a specific subject area (space radio-communications) over a relatively brief time period (1963 - 1971).

Under the 1971 Revision of the Radio Regulations,
the measures governing the use of a frequency by a
satellite network (or by a group of networks forming

a satellite system) generally comprise the following steps:

- advance publication of the relevant information in the IFRB weekly Circular;
- co-ordination between geostationary satellite networks or systems . . .
- notification of frequency assignments . . .
- examination of the frequency notices . . .
- recording of assignments in the Master Register of the IFRB].

This chapter examines the obligation to carry out advanced publication and co-ordination imposed upon the parties (the individual countries involved and the IFRB) and the extent to which these obligations have been expanded relative to those of the 1963 Space Conference. It will identify the nature of the obligations established by the 1971 Space Conference, and draw comparisons between the new or revised obligations and the obligations as they existed under Resolution 1A.

1. Advance Publication

Advance publication was an innovation of the 1971 space conference designed to avoid unnecessary expenditures in the engineering and implementation of a proposed space system which might lead to the delay or total frustration of the project. The procedure set out to prevent costly interference which might eventually result from conflicting proposals for space telecommunications systems. It has made the ITU and the countries concerned subject to a variety of obligations, some of which are enforceable by sanctions threatening the limitation or loss of protection for existing or proposed frequency assignments. The goal of the procedure is

... to inform all other administrations that an administration intends within a time limit not exceeding five years to carry out a project for a satellite system or for adding[any] satellite network to an existing system, irrespective of whether geostationary satellites are involved.

This procedure takes place in advance of the co-ordination procedure (hence, its title), and is a responsibility which is separate and additional to the obligation to co-ordinate the proposal with existing networks. (It should be noted that the term 'advance publication procedure' is a misnomer, 'advance

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publication' being one part only of the procedure. This examination will, therefore, refer to the procedure as 'preliminary co-ordination'.)

Obligation to seek Preliminary Co-ordination.

The preliminary co-ordination procedure is a tripartite activity in the sense that the party (X) proposing to establish a satellite system must co-ordinate its proposal with the space services of other parties (Y) using the IPRS as an intermediary. X is required to submit to the Board, in accordance with Appendix 18 of the Radio Regulations (1971),⁷ information concerning the characteristics of the proposal. The Board's intermediary role is to publish the information in its weekly Circular and to notify the other countries of the publication.⁸ This situation differs from the obligations envisaged in provisions Numbers 4921 and 6394N of the Radio Regulations (1971) for terrestrial⁹ and earth¹⁰ station assignments in the frequency bands allocated with equal rights to space and terrestrial radiocommunication services in the radio frequency spectrum above 1 gigahertz (GHz). The difference results from the diffusing propagation characteristics of satellite stations

⁷ RR(1971), pp. 213, Article 34, paragraph number 6394A. [Hereafter, references to paragraphs in the Radio Regulations will be cited in the following form: No. 6394A, RR(1971).]

⁸ No. 6394C, RR(1971).

⁹ ¹⁰ For definitions, see glossary appended.

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and ground stations.¹¹ In making assignments to ground stations (terrestrial and earth station assignments), X is required to provide information to the Board and to the other countries, with the effect that both X and the Board are responsible for informing the other countries of the proposal. For assignments to space satellite systems, only the Board is responsible for informing the administrations¹² of the proposal requiring preliminary co-ordination, X's obligation is limited to providing the Board with the required information.

Upon receipt of comments from Y concerning the proposal, X is required to "... endeavour to resolve any difficulties that may arise."¹³ Two mandatory steps and a third optional step are indicated as X's obligations in the procedure.

... [X] shall first explore all possible means of meeting its requirements, taking into account the characteristics of the geostationary satellite network of other systems, and without considering the

¹¹The reason for this is that the co-ordination area for terrestrial and earth stations, the area within which interference between systems can potentially occur, can be identified quite accurately. The co-ordination area for satellite systems cannot be specified and the interference possibilities can be global, to the effect that it becomes very difficult to identify the assignments which might suffer unacceptable levels of interference. In the case of earth stations and terrestrial systems, the interference is localized and, in general, assignments which might suffer interference can be identified by the administration proposing to undertake a frequency assignment. For satellite system proposals, the most efficient approach is to require countries to estimate the implications of a proposal for its own services.

¹²The term 'administrations' is used synonymously with 'countries'.

¹³See, Annex, WPA (1971).

possibility of adjustment to systems of other administrations. If no such means can be found, the administration concerned is then free to apply to other administrations concerned to solve these difficulties; [in the event of further failure]

... the administrations concerned shall together make every possible effort to resolve these difficulties by means of mutually acceptable adjustments, for example, to geo-stationary space station locations and to other characteristics of the systems involved in order to provide for the normal operation of both planned and existing systems.¹⁴

Finally, the administrations ~~may~~ request assistance from the Board if their endeavours fail.¹⁵ The optional nature of the third step is suggested by the use of the word 'may' request assistance, the obligation being only to consider requesting the Board's assistance.

An important qualification exists with respect to X's obligation to resolve difficulties. X is required only to resolve difficulties which are brought to its attention by a comment received from Y, making X subject to Y's decision to comment. (Y's obligation to comment will be discussed in detail in the next sub-section.) X's obligation is, therefore, broadened or narrowed as determined by its receipt of comments from Y.

¹⁴See 63245, NPSA (1971).

¹⁵See 63242, NPSA (1971).

Finally, X's obligation to resolve difficulties can, under certain circumstances, have consequences for the commencement of the co-ordination procedure, the second major step preceding the use of a frequency by a satellite network as established by the 1971 Space Conference. Where the difficulties have not been resolved, X is required to "... defer its commencement of the co-ordination procedure, or where this is not applicable, the sending of its notices to the Board, until one hundred and fifty days after the date of the weekly circular containing the information. . . ."¹⁶ If the difficulties have been resolved, these submissions may be made before the expiry of one hundred and fifty days from the date of publication of the information. The speed with which X's proposal moves forward is then dependent upon X's ability to find a solution to the difficulties cited, and upon Y's willingness to accept the solution.

ii) Obligation to Comment

As the provisions of the Radio Regulations (1971) are written, the obligation to comment on the information made available through the advance publication procedure is not certain. The regulations provide that:

If, after studying the information published [by the

~~regulations~~
¹⁶ See. 6304E, RRA (1971).

Board in its weekly circular as supplied by the country making the proposal], any administration [Y] is of the opinion that interference which may be unacceptable, may be caused to its existing or planned space radiocommunication service, it shall within ninety days after the date of the weekly circular publishing the information listed in Appendix 1B [of the Radio Regulations (1971)], send its comments to the administration concerned. A copy of these comments shall also be sent to the Board. If no such comments are received from the administration within the period mentioned above, it may be assumed that that administration has no basic objections to the planned satellite network(s) of that system on which details have been published.²⁷

Uncertainty as to the obligation is aroused by the lack of any later provision in the regulations which would indicate the implications of the right granted (above) to X to assume that Y's failure to comment indicates that Y "... has no basic objections to the planned satellite network(s) of that system on which details have been published." It is possible to assume, however, that the implications for failing to comment at this stage (should such a comment emerge at a later stage, such as during the later co-ordination procedure) would be the loss of some measure of protection for Y's existing and proposed space services. Y would be less able to argue against a proposal if it failed to comment at the appropriate time. The obligation to comment, then, becomes highly important because of its implications for the satisfactory implementation of the proposal

²⁷ See GPPAR, WPA (1971).

and for Y's future status.

The provision indicating Y's obligations to comment has the effect of qualifying X's obligation to attempt to resolve difficulties which may occur as a result of the satellite proposal. X is only required to resolve difficulties in those cases for which comments indicating difficulties have been received from Y. The provision clearly leaves Y to assess the characteristics of the proposal and to decide whether the interference which might be caused its assignments is unacceptable. If Y does regard the interference as unacceptable, then it has the right to invoke X's obligation to endeavour to resolve the difficulty. Y, however, may not comment with respect to implications for any of its telecommunications services other than "... its existing or planned space radio-communication service."

Y's decision to comment also commits it to assist in the resolution of the difficulties it identifies. If X is unable to resolve the difficulties by its own devices, Y may be requested to assist. Y shall,

... in consultation with [X], explore all possible means of meeting the requirements of the requesting administration, for example, by relocating one or more of its own geostationary space stations involved, or by changing the channels, frequency usage (including changes in frequency bands) or other technical or

operational characteristics; [or, in the event of this failing,]

. . . [join with X to] make every possible effort to resolve these difficulties by means of mutually acceptable adjustments, for example, to geostationary space station locations and to other characteristics of the systems involved in order to provide for the normal¹⁸ operation of both the planned and existing systems.

Finally, Y may seek the assistance of the Board.¹⁹

iii) Role of the Board

The role of the IFBB in the preliminary co-ordination procedure begins with its receipt of the information supplied by any country proposing to establish a satellite system. The Board then publishes the information in its weekly Circular and notifies all other countries that the data has been published.²⁰ Because X is not responsible for providing the other countries with information about its proposal in the attempt to seek preliminary co-ordination, the Board becomes the link between the administration making the proposal and the other countries. This excuses X from having to determine whether there are any other administrations whose space services would be compromised by its proposal, an exercise of such a scale as to be impossible to accomplish because of the characteristics of the co-ordination even which must be studied.²¹ Beyond notifying the

¹⁸ Doc. C/3047, NPSA (1971).

¹⁹ Doc. C/3048, NPSA (1971).

²⁰ Doc. C/3049, NPSA (1971).

²¹ *ibid.*, n. 11.

administrations of the publication of the data, the Board has no obligation to pursue the submission of comments by Y.

Throughout the preliminary co-ordination period, the Board is required to receive both amendments to the proposal²² and reports concerning the progress being made in the resolution of difficulties.²³ This information, too, is to be published in the Board's circular.²⁴ In addition, the IPRB is required to assist in resolving difficulties at the request of the countries concerned.²⁵

The Board's role as the organ responsible for notifying all administrations of the publication of information concerning proposals has a special significance in light of the 1967 Space Treaty which was signed by numerous members of the United Nations.²⁶ Article II of the Treaty states that "[e]xter space, including the moon and other celestial bodies is not subject to national appropriation by claim of sovereignty, by means of use or occupation, or by any other means."²⁷ This

²²No. 639AE, REPA (1971).

²³No. 639AI, REPA (1971).

²⁴No. 639AE, No. 639AI, REPA (1971).

²⁵No. 639AG, REPA (1971).

²⁶"Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies," *International Legal Materials*, VI, 11 (March 1967), 386-390. [Hereafter cited as 1967 Space Treaty.]

²⁷Id., 397.

article has particular application to the use of earth-orbiting satellites, especially to geostationary satellites which occupy particular physical locations in the geostationary orbit. By acting as the link between countries interested in using the space resources, the IPRS asserts the claim by the signatories to the Space Treaty that no nation may appropriate any part of outer space, thereby helping to establish international control over the use of outer space. The provisions of the Radio Regulations (1971) clearly reject the notion of unilateralism in the effort to initiate preliminary co-ordination by involving the ITU in the procedure through the intervening practices of the IPRS. A multilateral approach is encouraged. This involves the state making the proposal, any state which undertakes to consent, and the IPRS in its 'middle-man' capacity. The Board's role with respect to the preservation of the space resource appears to serve more of a symbolic than a functional purpose, its intended effect being to assure the rights of all members of the international system to claim access to the space resource.²⁵

²⁵ This analysis does not overlook the right of all countries to claim international protection for their frequency assignments and satellite systems.

3. The Co-ordination Procedure

When the 1971 Space Conference met, the Radio Regulations already contained a co-ordination procedure for frequency assignments to earth stations in the space service in frequency bands to which space and terrestrial radiocommunication services had equal rights of access. Using these procedures as guide, the Conference established a co-ordination procedure to deal with

. . . any frequency assignment to a space station on a geostationary satellite or to an earth station that is to communicate with a space station on a geostationary satellite. . . .

This part of the chapter will examine this latter co-ordination procedure.

The co-ordination procedure can be divided into three parts. The first part establishes the obligation to seek co-ordination of a proposed frequency assignment with the assignments of other countries. The second part establishes the obligation to respond to a request for co-ordination. The third establishes the role of the Board in the co-ordination procedure.

The co-ordination procedure tries to achieve the efficient use of the communications resources by encouraging countries to

²⁵ Res. 639AS, WPA (1971).

engage in bilateral discussions to resolve points of conflict between the proposal and existing services. These bilateral interactions commence with the initial stages of the co-ordination procedure, the initial undertaking to seek co-ordination, and continue through the response stage and the stage wherein difficulties are to be resolved. Unlike its role in the preliminary co-ordination procedure, the Board does not assume the sole responsibility of providing a link between the administrations making the proposals and the administrations with which co-ordination is sought; rather, the IPRB acts jointly with the proposing administration to bring about co-ordination of its proposal with the assignments of other countries.

1) The Obligation to Co-ordinate

The co-ordination procedure which follows the advance notification procedure, examined above, deals only with ". . . any frequency assignment to a space station on a ~~geostationary~~ satellite or to an earth station that is to communicate with a space station on a geostationary satellite. . . ." ³⁰ [Emphasis added.] This suggests that assignments involving satellites other than geostationary satellites are dealt with elsewhere in the Radio Regulations. Any country proposing an assignment of this type is required to

. . . effect co-ordination of the assignment with any other administration whose assignment is in the same band

~~the~~ ~~the~~

for a space station on a geostationary satellite or for an earth station that communicates with a space station on a geostationary satellite is recorded in the Master Register [of the IFRB], or has been co-ordinated or is being co-ordinated under the provisions of [the Radio Regulations].³¹

The obligation is no longer in doubt as was the case with the original Convention. At that time,

[t]here [were] no . . . procedures or obligations to co-ordinate the proposed use of satellite systems, either with each other, with earth stations, or with stations in terrestrial services [comparable to those dealing with terrestrial or earth stations operating in the shared bands].³²

Additionally, the co-ordination is to be carried out ". . . between geostationary satellite space systems . . . on a frequency assignment by frequency assignment basis."³³ The obligation to seek co-ordination was thus firmly established.

It should be noted that the revised regulations excuse the proposing administration from seeking co-ordination in a number of situations. Co-ordination is not required when the level of interference caused by the proposed assignment is less than the accepted maximum as calculated in accordance with the instructions given in the regulations,³⁴ or, if the proposal is for a change in the characteristics of an existing assignment,

³¹ ~~1979~~ 1979.

³² ~~1979~~ 1979, pp. 213, p. 224.

³³ IFRB, "WARC-87," summary record, 600.

³⁴ The method of calculation is given in Appendix AP29, RR (1971).

when the level of interference caused by the proposed change is less than the accepted maximum as calculated in accordance with the regulations, or does not exceed a level agreed during the original co-ordination.³⁵

It becomes apparent that the obligation to effect co-ordination resides essentially with the administration making the proposal. In order to "effect co-ordination" the country proposing the frequency assignment is required to supply the Board and any other country ". . . with the information listed in Appendix 1A [of the Radio Regulations (1971)]"³⁶ This contrasts sharply with Resolution 1A wherein the administration was only required to provide ". . . information similar to the data mentioned in Appendix 1A such as will provide a general description of the satellite system. . . ."³⁷ [Emphasis added.] The revised regulations remove the discretionary powers implied by Resolution 1A. The revised regulations do not, as in Resolution 1A simply provide examples of the type of information required, but states specifically the information which must be forwarded.

A notable feature of the co-ordination procedure is that, beyond stating that the administration proposing a frequency

³⁵ No. 6304X, RRA (1971).

³⁶ No. 6304X, No. 6304L, RRA (1971).

³⁷ RRA Reg 2, RR (1968).

assignment must "affect co-ordination", it does not indicate the procedure to be followed by the administration once a response has been received from other administrations. While this situation suggests that an administration proposing an assignment need not undertake to resolve difficulties, it is possible to assume that by failing to attempt to resolve any difficulties, the administration will be likely to lose some measure of protection for its proposal in later stages of implementation. Such a threat may be enough to impel the administration to undertake to resolve difficulties, thereby creating an obligation.

Although the obligation to seek co-ordination resides primarily with the administration proposing to undertake a frequency assignment, No. 639AN of the Radio Regulations (1971) provides that a country which has not been asked to participate in the co-ordination procedure may request to be included if it concludes that its assignments will be affected by the proposed assignments. This provision implies that, while it is the responsibility of an administration proposing to establish a frequency assignment in the space service using geostationary satellites to effect co-ordination with all affected administrations, the other administrations have an equal, and possibly greater, responsibility to see that their own frequency assignments are co-ordinated with the proposed frequency assignment(s).

1.3

As was mentioned during the examination of the advance publication procedure, this results from the technical characteristics of the co-ordination areas of the assignments, particularly with respect to those of space satellites. This provision suggests that an administration which intends to undertake a frequency assignment may claim some degree of protection for its proposal as against assignments which are already established by another administration, where that administration has failed to request co-ordination.

Finally, the country seeking co-ordination "may" request the assistance of the Board in the endeavour to effect co-ordination in those cases where:

- a) an administration with which co-ordination is sought . . . fails to acknowledge receipt, . . . within sixty days after the date of the weekly circular publishing the information relating to the request for co-ordination [to be discussed under the section dealing with the role of the Board, following];
.....
- b) an administration has acknowledged receipt . . . , but fails to give a decision within ninety days from the date of the relevant weekly circular;
.....
- c) there is a disagreement between the administration seeking co-ordination and an administration with which co-ordination is sought as to the acceptable level of interference;
.....
- f) co-ordination between administrations is not possible for any other reason.

The noteworthy feature of this provision is that there is no obligation to request the assistance of the Board. If, however, the Board's assistance is sought, the administration is obliged to "... furnish the Board with the necessary information to enable it to endeavour to effect such co-ordination."³⁹

11) The Obligation to Respond

Resolution 1A of the 1963 Space Conference left the obligation to respond in a very ambiguous state. The administration with which co-ordination was sought was granted the opportunity to comment on the proposed frequency assignment with respect to its own space services, either existing or being developed in accordance with the regulations. If the administration chose not to respond, the requesting administration was "... entitled to assume that there [were] no comments on the action proposed. . . ."⁴⁰ The resolution did not state whether the entitlement to make this assumption rendered the administration requesting co-ordination immune from criticism at some future date. There was no indication of the degree of protection afforded the proposal. At the same time, the resolution did not provide the country with which co-ordination was sought with any indication of the amount of time it had to criticize

³⁹ *ibid.*

⁴⁰ *ibid.* Apr 1, 12 (1963).

a proposal. Although the resolution stated that comments were to be addressed "... within ninety days of receipt of the relevant circular [published by the Board and bearing the information concerning the characteristics of the proposal],"⁴¹ ambiguity existed in the fact that the date of receipt of the circular was likely to vary with the administration concerned, depending upon the length of time for delivery to be achieved.

The 1971 revision of the Radio Regulations provides that the country with which co-ordination is being sought (1) must acknowledge receipt of the information within sixty days of the date of its publication in the Board's weekly Circular; and (2) must examine the proposal "... with regard to interference which would be caused to the service rendered by its stations in respect of which co-ordination is sought. . . ,"⁴² notifying the administration seeking co-ordination and the Board of any objections it may have.

As mentioned in the previous section dealing with the obligation to co-ordinate assignments, countries which believe their existing assignments to be in some way jeopardized by an assignment proposal, may request to be included in the co-ordination

⁴¹See CCPR, WPA (1971).

procedure.⁴³ This is, in effect, a response to the request for co-ordination implied by the Board in its publication of the information supplied to it by the country proposing the frequency assignment. It may be assumed that the failure of the administration to respond to this request limits its claim to protection for its existing assignments at a later stage in the implementation procedure.

iii) The Role of the Board

The initial responsibility of the IPHF in the co-ordination procedure is to publish the information provided by the country proposing the undertaking of frequency assignments, and to notify the other administrations of the publication.⁴⁴ A number of questions concerning the Board's obligation to publish have been removed, apparently because of the decision of the 1971 Conference to specify the information to be supplied by the country making the proposal. Previously,

The Board's role in implementing the procedure set forth in Regulation 1A [was] not clear. For example, it [was not] clear whether the Board [was to examine] the data regarding a proposed system submitted to it by an administration pursuant to that Regulation to determine whether all required data [had] been submitted. The Regulations [did] not appear to bar the Board from pointing out to the administration concerned

⁴³ No. 63044, MPA (1972).

⁴⁴ No. 63041, MPA (1972).

that certain required data [had] not been submitted, and perhaps from delaying publication in the Circular until such data [had] been provided. It seems clear, however, that the Board [could] not refuse to publish such data if the administration concerned [insisted] on publication. Nor [could] it refuse because other administrations may have objected.⁴⁵

Although the primary responsibility for initiating the co-ordination procedure rests with the country proposing the frequency assignment, the revised Radio Regulations (1971) clearly establish the IFRB as a partner in the undertaking. Under Resolution 1A, the administration was required to submit the information "... as early as practicable during the co-ordination procedure. . . ."⁴⁶ Co-ordination was clearly initiated before the Board's publication was released, though it must be noted that publication was necessary for the determination of the dates of response to the request for co-ordination. By making the Board a partner in the co-ordination procedure from the initial stages, the proposing administration loses its discretionary right to decide when it will forward the data to the Board, which was implied by Resolution 1A. The effect of establishing these specific dates is to permit the Board to impose the concept of equity on all the members of the Union since both sides in a dispute would be equally aware of the obligations incumbent upon them and would be granted rights under the provisions of

⁴⁵Letter, GPO, 21/1/70, pp. 226-227.

⁴⁶RRS para 1, RR (1968).

the radio regulations equal to those of other countries involved.

Resolution 1A allowed ". . . that, if an agreement is not reached the Board may be asked for such suggestions as it may be able to offer in the circumstances. . . ."⁴⁷ By the revisions of the 1971 Space Conference, the circumstances within which the Board may be asked to intervene have been extensively broadened. The Board's intervention may now be sought: (1) if the administration with which co-ordination is being sought fails to respond within sixty days to the request for co-ordination; (2) if the administration has acknowledged receipt of the information but has failed to return a decision indicating its concurrence with or objection to the proposal within ninety days of the date of the weekly circular; (3) if the administration cannot agree on an acceptable level of interference; and (4) if co-ordination cannot be effected due to other reasons⁴⁸ such as the lack of diplomatic relations between the administrations. The participants in the 1971 Space Conference have indicated a willingness to permit the ITU, an international organization, to increase its participation in the resolution of difficulties concerning telecommunications.

⁴⁷ Ibid. 212.

⁴⁸ See, GSA, NSG (1971).

Conclusions

In the latter half of the twentieth century, three occurrences have had special impact on the regulation of radio communication. First, the exploitable range of the radio spectrum has been vastly increased because of developments in telecommunications technology. Second, the decolonization of most of Africa and Asia has resulted in a vast increase in the number of administrations seeking access to the radio spectrum. Third, the number of states demanding access to the radio spectrum has increased from a minority of the members of the international system to a situation where almost every member seeks to acquire space for frequency assignments. These changes have made regulation and control of the use of the radio spectrum increasingly problematical. The members of the ITU have been forced to be ever more specific in the uses to be made of certain portions of the radio spectrum. They have been required to define those radio communication applications which require special protection from interference from neighbouring signals. Further, the actors in the international system, both states and international organizations, have been forced into closer co-operation with one another so as to resolve the potential problems which might hamper satisfactory telecommunications as the

technological and geo-political revolution continues.

In examining the attempt to resolve some of these problems, this chapter has dealt only with the preliminary co-ordination and co-ordination procedures of the regulatory regime concerning space telecommunications. It is apparent that the introduction of the preliminary co-ordination obligations represents a major expansion of the responsibilities of the administrations seeking to establish assignments in the space radiocommunication service. These obligations are additional to the obligations to co-ordinate both frequency assignments and geostationary orbits to be used in the proposed system. The extent of the obligation is dependent upon the decision of the other countries, which, as has been shown, have sole responsibility to decide whether the preliminary co-ordination procedure will proceed based upon their assessment of the amount of interference which will be caused to their existing services by the proposed service. Essentially, though, the obligations of the proposing states are two-fold: (1) to provide the information for advance publication by the Board, and (2) to attempt to resolve any difficulties identified by the other administrations.

The 1971 revision of the Radio Regulations imposed a series of procedural obligations at the preliminary co-ordination stage upon countries whose radio frequency assignments (both those already in operation or those in the process of being constructed) might suffer interference from the proposal. Those states whose assignments might be so affected must decide whether to comment on the proposal. This decision is made after examining the information published by the Board. If comment is made, the preliminary co-ordination procedure commits the members of the Union to assist in the resolution of difficulties in those cases where the proposing state is unable to reach a solution on its own. The decision to comment, then, may force the commenting authority to alter its own radio-communication services to accommodate those which are proposed. In addition, the decision to comment invokes the proposing state's obligation to seek a solution to the difficulties identified.

The role of the ITU in the preliminary co-ordination procedure is limited, but specific and central to the successful completion of preliminary co-ordination. The Board serves both a symbolic and practical function. First, it provides an intermediary function which asserts the right of universal access to the resources of outer space (the symbolic role). Secondly,

the IFRB acts as a source of information for all administrations, and provides expert assistance when requested to do so. In this way, international organization becomes party to interactions which might formerly have been restricted to states. This procedure, which requires states to publish information through the offices of the Board, in effect, precludes the unilateral appropriation of radio frequencies. Such claims would be a complete violation of the rules and regulations of the Union and would lead to sanctions being sought against the offending state, for example, a refusal to recognize a state's frequency assignment thus depriving it of any protection from interference by other authorities.

The intervention of the IFRB extends far beyond the matter of communication across international borders, i.e., communications between states. As indicated in the introductory chapter, the concept of 'international telecommunications' is not limited to communications between states. In its modern form, international telecommunications includes domestic communications which have implications for communications services outside of the territory of the domestic state. The intervention principle may be extended to countries such as Canada who seek to apply space telecommunications technology to

domestic applications where these applications threaten to interfere with the services of other states. It can be concluded, then, that international organisations, the ITU in particular, are extending their range of influence beyond the strictly international and into the domestic affairs of certain states. The states most likely to be subject to the intervention of the Union are those states with an abundance of technological capacity, and with the economic and social resources required to apply that technology; essentially, the industrialised states.

Having fulfilled the requirements of the preliminary co-ordination procedure, states proposing to undertake frequency assignments are in the position to carry out detailed engineering and project development. These revised and expanded plans are then submitted for a final co-ordination with the existing assignments of the other administrations. The obligation to co-ordinate reflects a recognition by the Union members of the complexity of the world's telecommunications system resulting from technological development and the growing demand for access to the communications resources. When compared with the obligations of Resolution 1A of the 1963 Space Conference, the Radio Regulations (1971) impose upon an administration proposing to undertake a frequency assignment, an onerous system of

obligations. These can be summarised as: (1) the obligation to seek co-ordination with other administrations; (2) the obligation to provide to the other countries and to the Board, information outlining the characteristics of the proposal; and (3) when the IFRB is requested to help effect co-ordination, the obligation to provide the Board with the necessary information to undertake the task.

The obligation imposed on the other states to respond to the request for co-ordination was not extended significantly beyond that set down in Resolution 1A of the 1963 Conference. Those changes which were made specified the dates on which responses to the request are required to be made and thereby removed this discretionary aspect of the 1963 regulations.

The members of the Union have greatly expanded the role of the IFRB in the administration of the telecommunications resource. The Board now shares in the initiation of the co-ordination procedure, and when requested, has a responsibility to help obtain completed replies to the request for co-ordination and to assist in the resolution of difficulties between the countries concerned.

The regulatory techniques developed since the end of WWII have been designed to achieve essential goals. The first can

be summarised as the endeavour to use the available radio spectrum in the most efficient and economical way possible. Particular segments of the radio spectrum are more suitable for one application than for another, eg., space communications as opposed to maritime applications. This has led the ITU to define specific roles for the segments, and to limit its members' freedom of action in making frequency assignments which might be inconsistent with these intended applications. The second primary goal is to avoid unnecessary expenditures by states. The high cost of developing and implementing telecommunications projects rules out a trial-and-error approach to engineering the proposals. Even the wealthiest nations cannot readily afford to waste resources, including time, and engineering talent, in projects which may be rendered useless due to interference from other claimants to the frequencies.

The development in 1963 of procedures to co-ordinate frequency assignment proposals with existing frequency assignments and the major revision of these procedures in 1971 brought the members of the Union into closer co-operation with one another and with the International Frequency Registration Board of the Union. In theory, the member-states of the Union still retain their freedom to make radio frequency assignments in any portion of the radio spectrum, but the fact is that these states:

accepting the radio regulations, have agreed to limit their exercise of this freedom. In addition, the ITRB has been granted a role in the revised procedures emerging from the 1971 Conference such that its failure to fulfil this role would frustrate any attempt to co-ordinate proposals with existing assignments. The board, which owes loyalty only to the Union and not to the individual member states, has been granted a central position in the development of telecommunications throughout the world.

States are now mutually dependent on each other and the agreements of the ITU in order to fulfil their respective roles in the co-ordination procedures. The failure of a state to comment upon the proposal of another state to establish a frequency assignment could have at least two serious effects. First, it could lead the proposing state to establish a communications system which might interfere with the existing systems of other states rendering both the new system and the established system useless. Second, the failure to comment might deprive the negligent state of some protection for its existing frequency assignments if it should find at a later date that interference does, in fact, result.

It thus appears that the members of the international system are surrendering, if only slowly, their freedom to act

unilaterally in the establishment of telecommunications networks. They have agreed to be controlled by universally applicable regulations which are periodically revised so as to accommodate both technological and geo-political developments which have the effect of altering the relationships between the actors in the international system. Technological developments of the same, and has had, the effect of bringing about contacts between actors which previously had no contacts. As the number of actors in the system increases, the pattern of interactions becomes more complex throughout the system as a whole. In relation to telecommunications, the Radio Regulations serve to provide a predictable pattern of behaviour for the actors concerned by means of operative rules and measures for the resolution of conflicts between the parties.

The Radio Regulations have been modified in response to changes in the world's geo-political structure. However, a large group of states is eliminated from consideration because the Radio Regulations affect only those states which are proposing to establish radio frequency assignments and those states which might possess radio networks that are potentially subject to interference. For all practical purposes this means that only industrial states and certain developing states are party to the co-ordination procedures. The two levels of

co-ordination provided for in the regulations deal only with immediate-term projected frequency assignments. A state cannot request protection for a frequency based on some hypothetical future need. It should be noted that, for similar reasons, requirements to base objections only on existing or approved frequency assignment projects, a like fate befell the ambitions of some of the smaller industrialized states of the world. This situation could hold particular significance for the future deliberations of the Union both at the Plenipotentiary Conferences and at the Administrative Conferences. It may, in fact, account in part for the introduction of the concept of 'equity' into the articles of the Union convention at the 1973 Plenipotentiary Conference. The continuing existence of the Union in its present or similar form may be found to be subject to attempts to enforce the notion of equity.

Chapter V

Conclusions

This paper has examined the International Telecommunication Union and its endeavours to meet the challenges of technological innovation and alterations in the world's geo-political structure. The study has been carried out in terms of world politics and international law-making in the ITU. The century-old Union began its life in an attempt to bring about the creation of a continental telegraph system in Europe. Over the past hundred years, the ITU has become a global organization with interests far broader than telegraphic communication over a simple network of wires and the more complicated submarine cables. In its contemporary form, the Union includes in its undertakings almost all forms of international telecommunications by both the traditional wire and cable methods and by utilization of the radio spectrum.

This study has been focused on the Plenipotentiary Conferences and on the Administrative Conferences dealing with space telecommunications matters. It has attempted to assess the value of the functional approach to meeting technological and

geopolitical change. By comparing the issues discussed at each of the conference levels and the decisional output of the respective conferences, a number of interesting characteristics can be identified.

First, as the conferences are attended by higher level officials of the administrations concerned, the issues tend to be of an increasingly general nature. The Plenipotentiary Conference tends to concentrate on issues of the general relations between states primarily issues concerning international behaviour. At the Administrative level, issues are chiefly technical and are dealt with by technical experts. While the output of the Plenipotentiary Conference seems to be the expression of broad general principles of international conduct, at the Administrative Conferences, output is concentrated in the formulation of specific technical standards and practices. Though it is the Plenipotentiary Conference which determines the long-term goals of the Union, it is the technical administrative conference which provides the tools whereby these goals may be achieved. If it can be said that it is at the Plenipotentiary Conference where states agree to the concept of concerted international action to achieve specific ends, it is at the Administrative Conferences that the limitations

are imposed on the freedom of states to act unilaterally. The members of the international system agree, at the Plenipotentiary Conference, to bring order to the international telecommunications system. The practices and standards which are intended to achieve the desired order are set down at the administrative conference.

The second characteristic which can be identified is the recent tendency of the deliberations of the Plenipotentiary Conference to become imbued with politics. As the level of generality of issues increases, debate on these issues tends to become politicized. This became particularly apparent at the 1973 Plenipotentiary Conference. Differing points of view as to the mandate of the Union and the environment within which the Union should operate led states into confrontation in a number of instances. The contending sides in these issues were essentially determined by the economic status of the countries involved. Most of the industrialized states (and this group frequently included both western and Soviet bloc states) see the role of the Union in purely functional terms, that is, that the Union's chief purpose is to provide a regulatory regime for the development and extension of telecommunications. The developing states generally take the position that, in addition to providing a regulatory regime, the Union should

take an active part in altering the general international environment within which this regulatory regime is to operate. As a result of this point of view, the developing states have undertaken to codify certain principles within the articles of the Union Convention. These countries maintain that it is inconsistent with the Union's claim to represent the international community that territories which do not exercise the full rights of sovereignty should be represented in the Union. On this basis the developing states argued for and won the elimination of certain terminology from the Union Convention (i.e.: "territories" and "groups of territories"). This had the effect of expelling from the Union those territories and colonial possessions and those states which were represented by other states. These states also held that countries which support policies which are in direct contradiction to what might otherwise be called general international standards of behaviour, that is to say, peremptory norms of international behaviour and general international law, should not be permitted to participate in the deliberations of the organization. The debates over the continued standing of South Africa and Portugal illustrate the introduction of this type of issue into the Union. The Union voted to exclude these two countries from further

participation because of their colonial and racial policies in Africa. It should be noted, however, that, though South Africa and Portugal were excluded from participation in the meetings of the Union, they were not expelled from membership in the Union.

The major cause for concern for the future of the ECU is the effect of politicization on the relations between the members of the organization. Contending coalitions tend to form when issues become politicized, but coalition formation also depends upon the saliency of the issue to the parties concerned. In the debate over the admission of Liberation Organizations with observer status to the deliberations of the Union, there was little opposition to the proposal. The proposal was passed without a vote being called. By contrast, the opposition to revision of the contributory fee structure was so strongly expressed as to defeat the proposal without a vote being called. Both the Soviet Union and the United States expressed doubts that they would be able to sign a Union Convention which revised the fee structure. This situation can do nothing but leave in doubt the future stability of the organization should insoluble politicization emerge around an issue. "Non-voting"

For later comments on this phenomenon see: Henry Kissinger, "Global Challenges and International Co-operation," address delivered July 14, 1973, to the Institute of World Affairs, University of Wisconsin, Milwaukee, Wisconsin, United States Information Service, file number 75-36.

appears to be emerging as a common feature of decision-making within the Plenipotentiary Conference of the ITU, and it would seem that this could be the source of a 'bottle-neck' of the type described.

As has already been established, the Administrative Conference attempts to implement the general policy which is set out by the Plenum of the ITU. This requires a re-definition of the general policy in terms of specific technical issues and problems. The resulting outputs of the Administrative Conference are the technical regulations and standards enunciated in the Radio Regulations. This paper has concentrated on the revision of the regulatory regime with respect to space radio telecommunications by comparing the output of the 1971 Space Conference with that of the 1963 Space Conference.

The study has revealed a progressive restriction of the independence of action of the members of the international system with respect to the implementation of space radio frequency assignments. The 1971 revisions have attempted to interject the ITU as a third party into the co-ordination activities between the concerned states. The effect of this is to turn what was essentially a bilateral interaction into an open, international interaction.

While the Radio Regulations do provide a well-structured formula for behaviour for those administrations with immediate interests in establishing radio frequency assignments, they appear to have created a situation, the dangers of which are manifesting themselves in the Plenipotentiary Conference. As was indicated in the conclusions of Chapter IV, the Radio Regulations have the effect of eliminating many states from participation in the functional role of the Union. Though all members of the Union do have the right to participate in the Administrative Conferences and to assist, there, in establishing long-term functional policies, not all states are permitted to participate in short-term policy implementation. When a state announces its intention to undertake a frequency assignment project, only those states with existing frequency assignments or with radio networks under construction which are threatened with interference from the proposed network may comment on the proposed assignment. In effect, states must be able to show that they have a direct and immediate interest in the proposal before they may comment on the proposal. It is apparent, then, that states which possess highly developed technology and a large base of economic resources have a distinct advantage over small industrial states and the developing

states in taking immediate advantage of the radio resource. That this situation exists may help to explain the endeavours of the less advantaged members of the international system to codify certain principles, such as the principle of 'equity', in the Union Convention. As indicated in Chapter III, one of the decisions of the 1973 Plenipotentiary Conference was that to include among the responsibilities of the IPRB, the obligation to advise members of the Union of achieving the 'equitable . . . use of the geo-stationary satellite orbit.' The introduction of such a concept through the Plenipotentiary Conference suggests a lack of faith in the rules and regulations set down by the Administrative Conference as they apply to developing countries. These countries seem to hope that they are establishing the basis for the enforced sharing of the radio resource by codifying notions of this type. It must be pointed out that the danger inherent in this approach may lie in the inability of the system to identify tools and techniques for enforcement. Without appropriate tools whose authority is accepted by all parties to the Union Convention, such principles as 'equity' bear only hortatory significance. The less advantaged countries would find their options in the establishment of radio frequency assignments gradually whittled away in spite of good intentions. This could lead to a loss of faith in

international organization in general among those states whose long-term goals are frustrated.

A number of ways to resolve this problem can be suggested. First, the entire resource could be turned over to the control of a central international agency which would take over all licensing of radio frequency assignments with the primary goal of achieving an equitable distribution of the resource among interested members of the international system. Second, the ITU or other international organization could establish a central funding agency which might provide financial and technical assistance to countries in need. This, however, would require some form of contribution or taxation from the system as a whole. Third, an attempt could be made to plan the radio spectrum with a view to making long-term frequency allocations to specific states so that less advantaged countries might be assured appropriate slots in the spectrum in the long-term future when they come to establish a frequency assignment. It should be noted that an attempt to plan the radio spectrum in the immediate post-WWII period proved to be a failure. Fourth, the members of the Union might be encouraged to set up multi-state broadcasting and radio authorities which would finance and develop frequency assignments for the members of the group.

The next question to address is whether the Union is serving an 'integrative' role in the international system. As indicated in the introductory chapter to the paper, functionalist theory assumes the eventual attainment of a state of integration among the members of the international system. In that chapter, 'integration' was defined as "the process of the formation and development of institutions through which certain values are authoritatively allocated for a certain group of political actors or units." This definition now appears to be inappropriate with regard to the ITU. It suggests that states are prepared to transfer decision-making to a central international authority. This does not appear to be the case with the ITU. In the Union, decision-making is still firmly in the hands of the members of the organization and as became apparent during the discussion of coalition formation at the Plenipotentiary Conference, authoritative allocation was not made on behalf of the members but by the members. Though centralized institutions and organs do exist in the Union, their responsibilities are essentially limited to secretarial and recording functions.

Discussion in the Plenipotentiary Conference of the Union suggests that the role of the state in international activities is increasing. This would appear to be in contradiction to the

assumption of the functionalists that the growth of functional organizations would lead to a decline of the state as the central allocative mechanism for certain public services. The ITU has been in existence in various configurations for 110 years. Throughout this period, centralized federal state systems have emerged as the major force in world politics.

The final question to address is whether the Union has succeeded in meeting the demands of technological change and geo-political alterations in the international system. To a great extent the answer to this question can only be speculative. It is possible to assert that telecommunications organizations have been in existence for more than a century and that through that time their structures and roles have altered. The post-World War II period has probably been the most dynamic of any in the period under discussion. This was the period in which space activities were added to the already wide range of radio communications applications. As the number of independent nations in the world increased during this period, so did the demand for access to the radio spectrum. Recent occurrences in the Plenipotentiary Conferences of the Union and in international organization in general create some fears as to the future stability of the ITU. Technical rules, regulations, and

standards appear to have been established with relative ease, but little regard appears to have been shown for the effects of some of these technical decisions at the political level. Unless the problems which have emerged, some of which were identified in the conclusion to Chapter IV, can be resolved, the deliberations of the Union can be expected to become increasingly politicized, the final outcome of which cannot be predicted.

APPENDIX I

MEMBERSHIP OF THE INTERNATIONAL TELECOMMUNICATION UNION

AS OF

24 SEPTEMBER 1973

(INCLUDING TERRITORIES LATER SUSPENDED)

Region A - The Americas (27 Members)

Argentina	Dominican Republic	Nicaragua
Barbados	Ecuador	Panama
Bolivia	El Salvador	Paraguay
Brazil	Guatemala	Peru
Canada	Guyana	Trinidad & Tobago
Chile	Haiti	United States
Colombia	Honduras	Uruguay
Costa Rica	Jamaica	Venezuela
Cuba	Mexico	

*Territories of the United States of America

continued/

Region B - Western Europe (26 Members)

Austria	Iceland	Norway
Belgium	Ireland	Portugal
Cyprus	Italy	Spain
Denmark	Liechtenstein	Sweden
Finland	Luxembourg	Switzerland
France	Malta	Turkey
Germany, West (FRG)	Monaco	United Kingdom
Greece	Netherlands	Vatican City

* Group of Territories represented by the French Overseas Post and Telecommunication Agency

* Overseas Territories for the international relations of which the Government of the United Kingdom is responsible

Region C - Eastern Europe and Northern Asia (12 Members)

Albania	Mongolia
Bulgaria	Poland
Byelorussia	Romania
Czechoslovakia	Ukraine
Germany, East (DDR)	U.S.S.R.
Hungary	Yugoslavia

continued/

Region D - Africa (44 Members)

Algeria	Mali
Botswana	Mauritania
Burundi	Mauritius
Cameroon	Morocco
Central African Republic	Niger
Chad	Nigeria
Congo	Rhodesia
Dahomey	Rwanda
Egypt	Senegal
Equatorial Guinea	Sierra Leone
Ethiopia	Somalia
Gabon	South Africa
Ghana	Sudan
Guinea	Swaziland
Ivory Coast	Tanzania
Kenya	Togo
Lesotho	Tunisia
Liberia	Uganda
Libya	Upper Volta
Malagasy Republic	Zaire
Malawi	Zambia

* Portuguese Overseas Provinces

* Spanish Sahara Territory

continued/

Region E - Asia and Australasia (37 Members)

Afghanistan	Jordan	Philippines
Australia	Khmer Republic	Qatar
Bangladesh	Korea, South	Saudi Arabia
Burma	Kuwait	Singapore
China (PRC)	Laos	Sri Lanka
Fiji	Lebanon	Syria
India	Malaysia	Thailand
Indonesia	Maldives Islands	Tonga
Iran	Nauru	United Arab Emirates
Iraq	Nepal	Viet Nam, South
Israel	New Zealand	Yemen Arab Republic
Japan	Oman	Yemen (Peoples' Dem. Rep.)
	Pakistan	

Source: ITU, Plenipot-73, Doc. No. 107-B, 24 September 1973, approved document of the 7th Plenary Meeting, pp. 1-2.

APPENDIX II

ADMINISTRATIVE COUNCIL

MEMBERSHIP BY REGION SINCE 1948

Region	Sessions				
	1-7	8-14	15-20	21-28	29-
	1948- 1952	1953- 1959	1960- 1965	1966- 1973	1974-
A) The Americas					
Argentina	x	x	x	x	x
Brazil	x	x	x	x	x
Canada	x	x	x	x	x
Colombia	x		x		
Mexico		x	x	x	x
Trinidad & Tobago					x
United States	x	x	x	x	x
Venezuela				x	x
TOTAL	<u>5</u>	<u>5</u>	<u>6</u>	<u>6</u>	<u>7</u>

continued/

Region	Sessions				
	1-7	8-14	15-20	21-28	29-
	1948- 1952	1953- 1959	1960- 1965	1966- 1973	1974-
B) Western Europe					
France	X	X	X	X	X
Germany, West (FRG)			X	X	X
Ireland				X	
Italy	X	X	X	X	X
Portugal	X				
Spain		X	X		X
Sweden					X
Switzerland	X	X	X	X	X
United Kingdom	X	X	X	X	X
TOTAL	<u>5</u>	<u>5</u>	<u>6</u>	<u>6</u>	<u>7</u>
C) Eastern Europe and Northern Asia					
Czechoslovakia		X	X		
Hungary					X
Poland	X			X	X
Romania					X
U.S.S.R.	X	X	X	X	X
Yugoslavia	X	X	X	X	
TOTAL	<u>3</u>	<u>3</u>	<u>3</u>	<u>3</u>	<u>4</u>

continued/

Region	Sessions				
	1-7	8-14	15-20	21-28	29-
	1948- 1952	1953- 1959	1960- 1965	1966- 1973	1974-
D) Africa					
Algeria				x	x
Cameroon					x
Dahomey				x	
Egypt	x	x	x		x
Ethiopia			x	x	x
Malagasy Republic				x	
Morocco			x	x	x
Nigeria				x	x
Senegal					x
Tanzania					x
Tunisia			x		
Uganda				x	
Zaire					x
TOTAL	1	1	4	7	9

continued/

Region	Sessions				
	1-7	8-14	15-20	21-28	29-
	1948- 1952	1953- 1959	1960- 1965	1966- 1973	1974-
R) Asia and Australasia					
Australia			X	X	X
China (PRC)					X
China (Republic of) ^a	X	X	X	X	
India		X	X	X	X
Iran			X		X
Japan			X	X	X
Lebanon	X			X	X
Malaysia					X
Pakistan	X	X		X	
Philippines			X		
Saudi Arabia				X	X
Thailand					X
Turkey ^b	X	X			
TOTAL	<u>4</u>	<u>4</u>	<u>6</u>	<u>7</u>	<u>9</u>

^aThe replacement of the Republic of China by the People's Republic of China in the United Nations, in part accounts for the similar substitution in the Administrative Council of the ITU in 1971.

^bNote that at the 1973 Plenipotentiary Conference, Turkey sought and was granted permission to move from Region R, Asia and Australasia, to Region E, Western Europe.

Sources: ITU, Plenipot-73, Doc. No. 14-E, Annex, 8 February 1973, No. 3-4.

APPENDIX III

ADMINISTRATIVE COUNCIL

MEMBERSHIP BY REGION SINCE 1948

Regions	Sessions				
	1-7	8-14	15-20	21-26	29-
	1948-1952	1953-1959	1960-1965	1966-1973	1974-
A) The Americas	5	5	6	6	7
B) Western Europe	5	5	6	6	7
C) Eastern Europe and Northern Asia	3	3	3	3	4
D) Africa	1	1	4	7	9
E) Asia & Australasia	4	4	6	7	9
TOTAL	18	18	25	29	36

Sources: *ICU, Flanigan-71, Doc. No. 14-B, Annex, 8 February 1971, pp. 1-4.*

APPENDIX IV

ADMINISTRATIVE COUNCIL MEMBERSHIP SINCE 1948

Members	Sessions ^a				
	1-7	8-14	15-20	21-28	29-
	1948- 1952	1953- 1957	1960- 1965	1966- 1973	1974-
Algeria				X	X
Argentina	X	X	X	X	X
Australia			X	X	X
Brazil	X	X	X	X	X
Cameroon					X
Canada	X	X	X	X	X
China (PRC)					X
China (Republic of) ^a	X	X	X	X	
Colombia	X		X		
Czechoslovakia		X	X		
Dahomey				X	
Egypt	X	X	X		X
Ethiopia			X	X	X
France	X	X	X	X	X
Germany, West (FRG)			X	X	X

^a The seat of the Republic of China was taken over by the delegation of the People's Republic of China at the time of the mission of the PRC to the United Nations, China, in 1971, following for the replacement of the Republic of China on the Administrative Council by the People's Republic of China.

Members	Sessions				
	1-7	8-14	15-20	21-28	29-
	1948- 1952	1953- 1959	1960- 1965	1966- 1973	1974-
Hungary					x
India			x	x	x
Iran			x		x
Ireland				x	
Italy	x	x	x	x	x
Japan			x	x	x
Lebanon	x			x	x
Malagasy Republic				x	
Malaysia					x
Mexico		x	x	x	x
Morocco			x	x	x
Nigeria				x	x
Pakistan	x	x		x	
Philippines			x		
Poland	x			x	x
Portugal	x				
Romania					x
Saudi Arabia				x	x
Senegal					x
Spain		x	x		x
Sweden					x
Switzerland	x	x	x	x	x

Members	Sessions				
	1-7	8-14	15-20	21-28	29-
	1948-1952	1953-1959	1960-1965	1966-1973	1974-
Tanzania					X
Thailand					X
Trinidad and Tobago					X
Tunisia			X		
Turkey	X	X			
Uganda				X	
U.S.S.R.	X	X	X	X	X
United Kingdom	X	X	X	X	X
United States	X	X	X	X	X
Venezuela				X	X
Yugoslavia	X	X	X	X	
Zaire					X

- 1) Under the Atlantic City Convention (1947), 18 Members.
- 2) Under the Buenos Aires Convention (1952), 18 Members.
- 3) Under the Geneva Convention (1959), 25 Members.
- 4) Under the Montreux Convention (1965), 29 Members.
- 5) Under the Malaga-Fontvieille Convention (1973), 36 Members.

Sources: ITU, Flanigan-73, Doc. No. 14-B, Annex, 8 February 1973, pp. 3-4.

GLOSSARY

(The definitions included herein are taken from the Radio Regulations, 1968 and 1971 editions. Where the terms are redefined, both original and new definitions are given. The date of the edition of the Radio Regulations from which the definition is taken is given in brackets following the definition.)

Active Satellite An earth satellite carrying a station intended to transmit or retransmit radiocommunication signals. (1968)

Assigned Frequency The centre of the frequency band assigned to a station. (1968)

Assigned Frequency Band The frequency band the centre of which coincides with the frequency assigned to the station and the width of which equals the necessary bandwidth plus twice the absolute value of the frequency tolerance. (1968)

Broadcasting-Satellite Service A space service in which signals transmitted or retransmitted by space stations, or transmitted by reflection from objects in orbit around the Earth, are intended for direct reception by the general public. (1968)

Broadcasting-Satellite Service A radiocommunication service in which signals transmitted or retransmitted by space stations are intended for direct reception by the general public. (1971)

Broadcasting Service A radiocommunication service in which the transmissions are intended for direct reception by the general public. This service may include sound transmissions, television transmissions or other types of transmissions. (1968)

Broadcasting Station A station in the broadcasting service. (1968)

Coast Station: A land station in the maritime mobile service. (1968)

Communication-Satellite Earth Station: An earth station in the communication-satellite service. (1968)

Communication-Satellite Service: A space service - (i) between earth stations, when using active or passive satellites for the exchange of communications of the fixed or mobile service; or (ii) between an earth station and stations on active satellites for the exchange of communication of the mobile service, with a view to their re-transmission to or from stations in the mobile service. ~~and~~ Fixed-satellite service.] (1968)

Communication-Satellite Space Station: A space station in the communication-satellite service, on an earth satellite. (1968)

Co-ordination area: Area around an earth station enclosed by the co-ordination contour. (1971)

Co-ordination Contour: The line joining the points which are on all azimuths around an earth station at a distance from this station equal to the co-ordination distance corresponding to each azimuth. (1971)

Co-ordination Distance: Distance from an earth station in a given azimuth within which a terrestrial station sharing the same frequency band may cause or be subject to more than a permissible level of interference. (1971)

Earth Exploration-Satellite Service: A radiocommunication service between earth stations and one or more space stations in which: (i) information relating to the characteristics of the Earth and its natural phenomena is obtained from instruments on earth satellites; (ii) similar information is collected from air-borne or earth-based platforms; (iii) such information may be distributed to earth stations within the system concerned; (iv) platform interruption may be included. (1971)

Earth Station: A station in the space service located either on the earth's surface, including on board a ship, or on board an aircraft. (1968)

Earth Station: A station located either on the Earth's surface or within the major portion of the Earth's atmosphere intended for communication - (i) with one or more space stations; or (ii) with one or more stations of the same kind by means of one or more passive satellites or other objects in space. (1971)

Fixed-Satellite Service: A radiocommunication service: (i) between earth stations at specified fixed points when one or more satellites are used; in some cases this service includes satellite-to-satellite links, which may also be effected in the inter-satellite service; (ii) for connection between one or more earth stations at specified fixed points and satellites used for a service other than the fixed-satellite service (for example, the mobile-satellite service, broadcasting-satellite service, etc.). [See: Communication-Satellite Service.] (1971)

Fixed Service: A service of radiocommunication between specified fixed points. (1968)

Fixed Station: A station in the fixed service. (1968)

Geostationary Satellite: A satellite, the circular orbit of which lies in the plane of the Earth's equator and which turns about the polar axis of the Earth in the same direction and with the same period as those of the Earth's rotation.

The orbit on which a satellite should be placed to be a geostationary satellite is called the "geostationary satellite orbit". [See: Stationary Satellite.] (1971)

Geosynchronous Satellite: An earth satellite whose period of revolution is equal to the period of rotation of the Earth about its axis. (1971)

Harmful Interference: Any emission, radiation or induction which endangers the functioning of a radionavigation service or of other safety services or seriously degrades, obstructs or repeatedly interrupts a radiocommunication service operating in accordance with these Regulations. (1968)

Inter-Satellite Service: A radiocommunication service providing links between artificial earth satellites. (1971)

Land Mobile-Satellite Service: A mobile-satellite service in which mobile earth stations are located on land. (1971)

Land Mobile Service: A mobile service between base stations and land mobile stations, or between land mobile stations. (1968)

Land Mobile Station: A mobile station in the land mobile service capable of surface movement within the geographical limits of a country or continent. (1968)

Land Station: Station in the mobile service not intended to be used while in motion. (1968)

Maritime Mobile-Satellite Service: A mobile-satellite service in which mobile earth stations are located on board ships; survival craft stations and emergency position indicating radiobeacon stations may also participate in this service. (1971)

Maritime Mobile Service: A mobile service between coast stations and ship stations, or between ship stations, in which survival craft stations may also participate. (1968)

Maritime Radiocommunication-Satellite Service: A radionavigation-satellite service in which mobile earth stations are located on board ships. (1971)

Maritime Radiocommunication Service: A radionavigation service intended for the benefit of ships. (1968)

Mobile-Satellite Service: A radiocommunication service -
 (i) between mobile earth stations and one or more space stations; or between space stations used by this service; (ii) or between mobile earth stations by means of one or more space stations; (iii) and if the system so requires, for connection between these space stations and one or more earth stations at specified fixed points. (1971)

Mobile Service: A service of radiocommunication between mobile and land stations, or between mobile stations. (1968)

Mobile Station: A station in the mobile service intended to be used while in motion or during halts at unspecified points. (1968)

Multi-Satellite Link: A radio link between a transmitting earth station and a receiving earth station through two or more satellites, without any intermediate earth station.

A multi-satellite link comprises one up-path, one or more satellite-to-satellite paths and one down-path. (1971)

Orbit: The path in space described by the centre of mass of a satellite or other object in space. (1968)

Orbit: 1. The path, relative to a specified frame of reference, described by the centre of mass of a satellite or other object in space, subjected solely to natural forces, mainly the force of gravity.

2. By extension, the path described by the centre of mass of an object in space subjected to natural forces and occasional low-energy corrective forces exerted by a propulsive device in order to achieve and maintain a desired path. (1971)

Passive Satellite: An earth satellite intended to transmit radiocommunication signals by reflection. (1968)

Passive Satellite: An earth satellite intended to transmit radiocommunication signals by reflection. (1971)

Radio: A general term applied to the use of radio waves. (1968)

Radiocommunication: Telecommunication by means of radio waves. (1968)

Radio Waves (or Hertzian Waves): Electromagnetic waves of frequencies lower than 3,000 Gc/s, propagated in space without artificial guide. (1968)

Satellite: A body which revolves around another body of preponderant mass and which has a motion primarily and permanently determined by the force of attraction of that other body. (1971)

Satellite Link: A radio link between a transmitting earth station and a receiving earth station through one satellite. A satellite link comprises one up-path and one down-path. (1971)

Satellite Network: A satellite system or a part of a satellite system, consisting of only one satellite and the co-operating earth stations. (1971)

Satellite System: Any group of co-operating stations providing a given space service and including one or more active or passive satellites. (1968)

Satellite System: A space system using one or more artificial earth satellites. (1971)

Station: One or more transmitters or receivers or a combination of transmitters and receivers, including the necessary equipment, necessary at one location for carrying on a radiocommunication service. Such station shall be classified by the service in which it operates permanently or temporarily. (1968)

Stationary Satellite: A satellite, the circular orbit of which lies in the plane of the earth's equator and which turns about the polar axis of the earth in the same direction and with the same period as those of the earth's rotation. (1968)

Telecommunication: Any transmission, emission or reception of signs, signals, writing, images and sounds or intelligence of any nature by wire, radio, visual or other electromagnetic system. (1968)

Terrestrial Radiocommunication: Any radiocommunication other than space radiocommunication or radio astronomy. (1971)

Terrestrial Service: Any radio service defined in the Regulations, other than a space service or the radio astronomy service. (1968)

Terrestrial Station: A station in a terrestrial service. (1968)

Terrestrial Station: Station effecting terrestrial radiocommunication. (1971)

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