

# STELLUNGNAHMEN

## New Developments in Outer Space Law and their Role in Increasing International Security

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### *1. Introductory Remarks*

The great importance of man's first steps on the moon in July and November 1969 for the development of science and technology is not disputed by anyone. However, there is some controversy as to the space program's political and social value. Many see the program as another expression of a negative tendency in the history of mankind, a tendency symbolized by the waste of tremendous resources on projects – such as the building of the pyramids and of giant palaces – devoid of socially-progressive importance. These same circles contend that the space program is inseparable from the arms race, and as such only increases the dangers of global war. It distracts attention from the need for energetic treatment of complicated problems here on earth – the growing gap between developed and underdeveloped countries, poverty pockets, racial prejudice and bloody disputes which threaten the peace in various parts of the world<sup>1</sup>).

It need hardly be emphasized that any substantial clarification of these concepts would require extensive and diversified research. The present paper cannot, and does not seek to thoroughly investigate these concepts; rather it offers several comments on new developments in international law with regard to this subject, with primary attention to the requirements of international security.

Notably, however, the progress of even the scientific and technological fields most important for the human and societal situation was not always accompanied by immediate results. Certainly steps taken by scientists were never all influenced by a demand for immediate results, it being of utmost

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<sup>1</sup>) Cfr. A. T o y n b e e, in "New York Post", July 19, 1969, and L. M u m f o r d, in "Newsweek", July 7, 1969.

importance that specific goals do not bind their hands or hinder their efforts to unravel the mysteries of the universe. There is nearly complete consensus that atomic weaponry, with all its inherent dangers is also the factor currently blocking the powers' bellicose tendencies, and that it forces the powers to observe maximum caution and to avoid any step which could lead them toward confrontation. The conquest of space and the celestial bodies should have an immeasurably greater effect on this tendency. Today it is already apparent that tremendous benefits have sprung from the space-conquest program, as it has enhanced the value of science and technology in general, and directed more means and manpower than ever before to all echelons of scholarly learning – and particularly the upper levels and research institutions. The space program has improved the information placed at the disposal of agriculture as a result of the use of meteorological missiles. It has improved the information which is increasingly being placed at the disposal of countries devoid of energy sources, through the application of solar batteries which were originally planned for missiles. It has contributed to the truly revolutionary development of electronics and materials capable of withstanding high temperatures, and their applications in diverse industries, and has led to the improvement of world communications systems and to important improvements in numerous other fields<sup>2)</sup>.

Hence the increasing interest displayed by the underdeveloped countries in this program. India and Sierra Leone have made proposals relating to the services which could be obtainable through a suitable UN data center and attached teams of experts. In this way the fruits of science and technology could be applied to such problems as the increasing of food sources and improvement of broadcasting facilities for use in education, and international scientific and technical cooperation could be expanded as required by these and other goals. Cooperation of this nature has already begun to encompass not only diverse industrial countries in Europe, but also countries such as Argentina, Brazil and Pakistan, as well as several small Eastern Bloc countries included in Soviet space-related activities<sup>3)</sup>.

Thus while there is some degree of justice in the pessimistic reflections and questioning attitude concerning the conquest of outer space and the elements of display and danger involved – particularly in view of the continued

<sup>2)</sup> Cfr. P. L. Hesselund-Jensen, Some Problems concerning the creation and implementation of the Treaty on Principles governing the Activities of States in the exploration and use of outer space, including the moon and other celestial bodies, *Acta Scandinavica juris gentium*, vol. 38 No. 3-4/68, p. 98 and see also S. Gnanaalingam, Some of the Benefits of Space exploration, *Tribune (Ceylon)* No. 17/1969, p. 3.

<sup>3)</sup> Cfr. Issues Before the 24th General Assembly, *International Conciliation*, No. 574/Sept. 1969, pp. 67-71.

existence of negative moral factors here on earth, the widening gap between politics and morality and between egotistic national interests and the general need, and the slow pace of change in human living conditions – there is undoubtedly also room for praise and hope<sup>4</sup>), primarily for the standards of behaviour of countries in this field.

Hence the interest, extending beyond juridical science, in elucidating the relevant principles, their evolution and codification<sup>5</sup>), and of course their role in guiding this behaviour for the benefit of peace only<sup>6</sup>).

## 2. *Outer Space Law and the Question of Disarmament*

It is often said that in studying the fundamental directions of development of international law, account should particularly be taken of the changes which have transformed it from a largely customary law in the past to a predominantly conventional and institutional law today; from a purely political law to a law increasingly wealthy in economic and social elements, including elements of aid to underdeveloped countries and the guarantee of human rights and the independence of all peoples; and particularly, from a law of war, its laws and customs, to a law of obligation to maintain international peace. Of late international law has called not only for the maintenance of peace through settlement of disputes without reliance on force, but also for the prevention of aggression through the crystallization of conditions capable of helping to realize the actual prohibition of aggressive wars. This has been reflected *inter alia* in obligations removing entire regions from the influence of those who could involve them in the consequences of wars which may in spite of all efforts broke out – by neutralization and demilitarization, particularly nuclear, or by declaring their objective to be for the benefit of all mankind. An additional step has been the reduction of activities for warlike purposes. All of these efforts on the part of international law express the general aspiration of stopping the arms race and beginning a step-by-step process of disarmament, with the initial steps affecting the most dangerous fields.

The most important landmarks in this development are: the 1959 Washington Treaty concerning demilitarization of Antarctica and its status

<sup>4</sup>) Cfr. B. Russell, in "The Wall Street Journal", July 16, 1969.

<sup>5</sup>) For more details on the relevant evolution see among others M. M u s h k a t, From the Principles of Maritime Law to the Foundations of the Law of the Outer Space (Hebr.), Hatoren No. 38, Febr. 1962, and M. M u s h k a t, Recent Developments in International Law and International Organizations (Hebr.) (Tel Aviv 1967), p. XIII.

<sup>6</sup>) These problems have also previously been analysed by the author, see for instance M. M u s h k a t, On Some Political and Legal Questions, relative to Outer Space, The Bulletin of the Research Council of Israel (Weitzmann Press) vol. I, No. 1/1960.

as an international preserve for peaceful purposes and research only; the 1963 Moscow Treaty banning nuclear weapon tests in the atmosphere, in outer space and under water; declarations concerning the denuclearization of South America and the African continent from 1963 to 1965; the 1968 Treaty on the Non-Proliferation of Nuclear Weapons; and the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and other Celestial Bodies from January 27, 1967 (cited below as the Outer Space Treaty)<sup>7</sup>).

In point of fact there are few real innovations in this Treaty in comparison with early UN resolutions. Beginning with the UN GA Resolution 1348 (XIII) of December 13, 1958, at the beginning of the conquest of outer space, when most of the problems requiring clarification and settlement were already apparent<sup>8</sup>), and concluding with the important UN GA Resolution 1963 (XVIII) from December 13, 1963, the principles were drafted which have become the foundations of Outer Space Law and which have led to its gradual codification<sup>9</sup>). This process has already reached the stage symbolized by the aforementioned Outer Space Treaty and by the Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space (April 22, 1968). The problems most recently considered by the UN are primarily concerned with responsibility for damages caused as a result of the use of outer space, and a definition of outer space<sup>10</sup>).

This last problem is probably among the most important of those not yet solved by the aforementioned documents. These documents have established that "Outer 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" (Outer Space Treaty, Article II. This statement is discussed further below). These documents further include specific obligations for the demilitarization of outer space, its use for peaceful purposes only, and a specific prohibition of its use for military purposes. Yet in order to execute this declaration and its inherent obligations, we must

<sup>7</sup>) Most of these documents are among the annexes of N. Mateesco Matte's book, *Aerospace* (London-Toronto 1969), for the Latin American and African Denuclearization Declarations see UN Doc. A/5912, 21. IV. 1965, A/5985 22. IX. 1965 and GA R 2033 (XX).

<sup>8</sup>) An attempt to summarize the arising issues has also already been undertaken among others by the author, see M. Mushkat, *Essential Problems of the emerging Outer-space Law*, *International Studies* (Israel) No. 1/26/Sept.-Oct. 1958.

<sup>9</sup>) More details of the process of this codification are analysed *inter alia*, in: *On the Legal Foundations of the Outer Space*, by M. Mushkat, *International Problems*, vol. II, No. 1-2/1964.

<sup>10</sup>) *International Conciliation*, No. 574/Sept. 1969, pp. 61-2.

know what we mean by outer space, where it begins and where it ends and, therefore, where the border is drawn with regard to the application of States' sovereign rights – including their rights of rule, ownership and actions not related to peaceful goals, which may be of a military and even bellicose nature.

Moreover, the Outer Space Treaty is not unequivocal with regard to certain problems of fundamental importance to international security.

Article IV obligates the signing parties to “undertake not to place in orbit around the Earth any objects carrying nuclear weapons or any other kinds of weapons of mass destruction, install such weapons on celestial bodies, or station such weapons in outer space in any other manner”. The moon is not included in this paragraph. Yet in the second paragraph of the same article it is stated that the moon as well as other celestial bodies shall be used exclusively for peaceful purposes, and that “The establishment of military bases, installations and fortifications, the testing of any type of weapons and the conduct of military manoeuvres on celestial bodies shall be forbidden,” while there is no prohibition either of “The use of military personnel for scientific research or for any other peaceful purposes” or of “The use of any equipment or facility necessary” for these purposes.

There is, however, no mention here whatsoever of outer space, thus clearly leaving an opening not only for the justification of the passage of ballistic missiles through space, but also for the use of outer space for other military purposes which do not require the placing of nuclear weapons – such as spying, monitoring, etc., and possibly even bombings. Moreover the first paragraph of the article can be interpreted as acceptance of the establishment of military bases, fortifications and nuclear installations on the moon, and of nuclear experimentation on the moon<sup>11</sup>). More specifically, the Outer Space Treaty does not decisively prohibit all military and bellicose activity; on the contrary, it knowingly and without considering the position of the small States<sup>12</sup>) permits certain activities of this nature which could obviously be extremely dangerous under various circumstances.

While the wording of the Outer Space Treaty is identical to the Antarctic Treaty, demilitarization in the Outer Space Treaty is only partial, whereas in the Antarctic Treaty it covers the entire geographical area. The Outer Space Treaty also omits any definition of weapons of mass destruction, thus inviting various interpretations of the legality of placing weapons of limited destruction both in orbit around the earth and on the celestial bodies<sup>13</sup>).

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<sup>11</sup>) Cfr. Mateesco Matte, *op. cit.* (*supra* note 7), pp. 298–300.

<sup>12</sup>) See Press Release GA/PS/1361, A. 12.1946.

<sup>13</sup>) See Hesselund-Jensen, *op. cit.* (*supra* note 2), p. 110.

Nevertheless the Treaty's significance as an instrument for improving international security should not be underestimated. Its drawbacks are of a political rather than legal nature, and are dependent on the balance between the main forces currently active in the international arena – on the polarization of their relationship which continues in the military sphere despite certain instances of political depolarization and a fraying or weakening of the various pacts and blocs. Although these instances do limit the two superpowers' freedom of action and tactical manoeuvring in their respective spheres of influence, they cannot put an end to the fundamental rivalry between them, or to the military conclusions they reach with regard to mutual continuation of the arms race, its scope and its form.

### *3. International Cooperation in Matters of Outer Space*

This bipolarism has also left its mark on the requirements of the negotiations over the Treaty, and paradoxically has given the Treaty content and validity in many spheres of activity – not least among them being international cooperation and control, an aspect significant particularly from the standpoint of international security. While the three initiating parties to the Treaty are the USA, England and the USSR, and its validation was made dependent first of all on ratification by them (it having been specified that the Treaty was to be signed and retained in Washington, London and Moscow), it is nevertheless first and foremost an American-Soviet treaty. Other countries were afterwards afforded the opportunity of signing or joining (Article XIV). Yet of greatest significance is not this generally accepted formal procedure, but rather the ramifications of the Treaty's bipolar nature.

On the one hand the Treaty restricts effective inspection on the part of other countries. Yet on the other hand it considers countries' access to "stations, installations, equipment and space vehicles on the Moon and other celestial bodies" to be conditioned on reciprocity, preliminary contacts and equality with regard to requests and agreements (Articles X, XII). This means in effect that it is possible to prevent observation of particular activities and installations on the part of countries unable to propose suitable and equal reciprocal advantages. Thus control actually remains in the hands of the two superpowers alone, since they have in effect agreed that each will establish individually its conditions for providing services requested, that they may avoid mutual contacts concerning these services, and that they can bring about a situation in which not only their activities will be privileged, but the rules set up by them for free access and international inspection will

remain on paper only – particularly in view of the fact that the UN was not brought into the picture at all, and was intended here to serve solely as an address for information on space activities (Article XI). The Treaty is retroactively based on the consequences of inequality among nations in the conquest of outer space; it provides legal authority for this situation and for the inherent limitations of the countries which could not and still cannot contribute to these activities. Hence the need to regard the Treaty as but a starting point for the efforts still required in order to realize and improve the principles included in it. These principles were constituted in consideration primarily of international welfare and security<sup>14)</sup> and it is recognized that in order to achieve them, all nations will have to participate in space activities and in an effective and generally approved inspection system.

This last requirement was duly noted in UN GA Resolution 1148 of November 14, 1957, concerning arrangements for progress in disarmament and the prohibition of weapons of mass destruction. It is also mentioned in UN GA Resolution 1884 of October 17, 1963, concerning disarmament. This latter resolution is recalled in the Treaty preamble, which mentions the motives of its proponents.

Moreover, not only is the Treaty not unequivocal concerning inspection, but it does not define the purport of activities “exclusively for peaceful purposes” (Article IV), since as noted above its initiators had no intention of preventing at least certain military activities. Nor does reference to the obligation to carry on activities “in accordance with international law, including the Charter of the United Nations” (Article III) further the solution of these problems. In fact it may actually complicate this solution, since international law and reference to it in the Charter are based on the principle of sovereignty and the right of self-defence. These difficulties must be overcome if the Outer Space Law is to account for the general benefit and humanity’s common interest in avoiding at all costs the possibility of using outer space to settle disputes or to defend national interests, real or imaginary. The rights and principles upon which this law must be based are, in the atomic age, becoming obsolete rapidly and changing radically here on earth; thus they are obviously quite unsuited to the species of law required above the earth. The result could be inestimable danger for the existence of the human race.

Moreover we must not ignore the fact that one of the starting points for contemporary international law is formal equality, *i. e.* equality before the law only. This situation retroactively confirms the actual inequality of the various countries, and the implied possibilities available to the powers for

<sup>14)</sup> Cfr. Mateesco Matte, *op. cit.*, pp. 315 – 6 and 319 – 20.

dictating their desires, forcing through decisions in international institutions and settling a variety of problems as they see fit. This situation is even an open negation of the Outer Space Treaty's official principles, in which farsighted recognition was made of "the common interest of all mankind" in the conquest of outer space and the obligation to use it "for the benefit of all peoples irrespective of the degree of their economic or scientific development" (preamble). Furthermore it is most emphatically clear that this situation cannot help to solve new problems, which have not yet arisen, involving human settlement on other celestial bodies, man's encounter with hitherto unknown social frameworks, and prolonged sojourns in outer space with all their inherent differences from earthly conditions.

Thus the Treaty embodies pseudo-arrangements, lack of clarity, and in some cases contradictions. It is characterized by total silence with regard to several most important matters. Moreover it avoids embodying the very innovations required by the pioneering character of man's new presence in outer space and his impending exploration of the secrets of the universe, at a time when it is imperative to open these experiences as much as possible to all of humanity – in order to ensure the greatest, fastest and easiest success, to further equality and development and to at least combat the most outstanding instances of the prejudice and backwardness which today are already raising serious difficulties in the path of peace.

#### 4. Definition of Outer Space

These difficulties have undoubtedly been increased by the Treaty's omission of a definition of outer space. This is a political rather than a purely juridical or technical matter. In the absence of such a definition a situation is conceivable in which a particular power could demand sovereign rights in diverse parts of outer space—rights of rule, possession, ownership and even war operations – despite Articles I and II of the Treaty.

These articles specify that the conquest of outer space, including the Moon and other celestial bodies, should functionally serve and be the province of all mankind. Outer space is here considered to be *res communis omnium universi*<sup>15</sup>); as previously noted, it cannot belong to anyone through either claims, possession or any other step; nor does it have the status of ownerless property (*res nullius*) which could be held and ruled. Thus outer space is *res extra commercium*. And while claims are no longer made to validate the Talmudic law "From the bowels of the earth to the heights of heaven" or its

<sup>15</sup>) Cfr. H. Valadao, *Droit interplanétaire et Droit «inter Gentes» planétaire*, in: *Internationalrechtliche und Strafrechtliche Abhandlungen* (Düsseldorf 1960), p. 473.



Roman counterpart *cuius est solum, eius est usque ad coelum*<sup>16</sup>), one may not ignore the possibility of such claims being made, on the grounds that the area claimed is a direct extension of the atmosphere or is one of its rarified strata (the air above a country's land or water area is recognized as being under that country's sovereignty. This was clearly defined in the Paris Treaty of 1919<sup>17</sup>). The same principles were reaffirmed in the 1944 Chicago Treaty. Since they have not been challenged since, they are considered to be still in effect).

Claims of this nature could create serious problems. For not only could various areas which are actually in outer space be employed for non-peaceful purposes; such employment in the proximity of outer space or even the atmosphere could lead to consequences detrimental to the obligation to remove outer space from the arena of any bellicose activity.

Thus the fundamental question arises, whether the development of outer space law can be properly furthered without changing the concepts of sovereignty and its implied privileges concerning the atmosphere in general, and without defining outer space in particular.

In the preceding pages we have surveyed several of the problems which reduce the importance of the Outer Space Treaty. These stem first from the Treaty's connection to international law and the UN Charter, both of which are based on the sovereignty and purely formal equality of States and which, therefore, facilitate increased bipolarism with regard to our field of interest. Secondly, these problems are related to the lack of a definition of outer space.

We may further emphasize that in fact sovereignty – particularly that related not to exclusively of jurisdiction over area and citizenry, but rather to independence of action in international relations (including defence) – here ceases to be a principle of security, even though it was the very consideration of security which strengthened the concept that sovereignty was to be scrupulously maintained. The extent of territorial waters was once determined by the need to remove the danger of bombardment of coasts; today's demands to increase this extent are justified by exclusive claims to fishing rights, the exploitation of natural resources, and other coastal economic interests which have absolutely nothing in common with the requirements of security and sovereign rule. The inadequacy of lines of sovereign rule in the air for security is indicated on the one hand by the practice of several countries, such as the USA, Canada and France, of establishing aircraft

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<sup>16</sup> Cfr. M. M u s h k a t, Problems of Astronautical Law, Hapraklit (Hebr.) vol. XV, No. 2/1959.

<sup>17</sup> See J. M. S p a i g h t, Aircraft in Peace (London 1949), p. 11.

identification zones in mid-ocean far from their borders (ZOSPER – the French “Zone of Special Responsibility” during the Algerian War; the Canadian zones, CADIZ – Canadian Air Defence Identification Zone, and DEWIZ – Distant Early Warning Air Identification Zone; and ADIZ – the US Air Identification Zone), and on the other hand by penetrations of American aircraft – the U-2 and RB-47 – into Soviet air space. These penetrations ceased, however, with the downing of U-2 pilot Powers, and today the functions fulfilled by these aircraft can be carried out high above the altitudes then recorded, without penetrating the sovereign air space of individual countries, and while nevertheless not violating the Outer Space Treaty<sup>18</sup>). These instances only emphasize the fact that greater security does not lie in reinforcing of sovereignty and in wider borders, but rather in mutual contact. This fact is becoming increasingly evident as interdependence grows among the powers and other countries of all sizes, and as war technology becomes more sophisticated. Today no borders are immune, and despite the existence of restraints on the use of weapons of mass destruction, any one of numerous local conflicts could deteriorate in such a way as to initiate a global confrontation using any weaponry from any point in space.

It is emphasized that a definition of outer space cannot serve as an antidote to these dangers. Nor can other additions and corrections in the Treaty. Nevertheless improvements in any law – national as well as international – are of positive value. Just as with the codification of war laws and customs, the definition of international crimes, the maritime and air transport law, diplomatic, consular, treaty and other types of law – so with an additional, improved codification of outer space law, there is evident an expression not only of aspirations for continuing progress, but also of new obligations. Their adjustment to the consequences of technological development and the diverse requirements of international security, often applied in a spirit of liberation from all traditional routine and concepts, is a most honourable and important task<sup>19</sup>).

Conceivably this task can only be accomplished through complete rejection of any attempt to apply legal rules which have been developed on earth, to problems of space<sup>20</sup>). Today already, in defining the borders of the atmosphere and of space, special areas similar to those pertaining to territorial sea claims (contiguous zone and even open sea) are no longer de-

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<sup>18</sup>) Cfr. Hesselund - Jensen, *op. cit.* (*supra* note 2), pp. 112–115.

<sup>19</sup>) Cfr. M. Cohen, *Law and Politics in Space* (McGill University Montreal 1964), pp. 11–12.

<sup>20</sup>) See A. W. G. Haley, *Parameters of Space Law: Present and Future*, in: *World Peace Through Law* (St. Paul Minn. 1967), pp. 158, *passim*.

manded<sup>21</sup>). Proposals for establishing the border of sovereignty at a defined altitude over land have also been rejected. The accepted approach today is the purely functional, which takes into account altitude and velocity, and the "Kármán Line" – the theoretically critical limit of aerodynamic flights at an approximate velocity of 25,000 feet per second and altitude of 275,000 feet, where gravity ceases and the "Kepler force", or more specifically the beginning of satellite flight at self-sustained velocity, commences<sup>22</sup>). While this approach also invites certain doubts, and various amendments have been proposed<sup>23</sup>), it is nevertheless clear that an accepted single line cannot be generally established as the border dividing the atmosphere from outer space. This fact too, then, proves the artificiality of attempts to fix a border of sovereignty in the heavens, where there are not and cannot be reliable and accepted criteria<sup>24</sup>).

Deliberations in the UN Committee for the Peaceful Exploration of Outer Space and its sub-committees continue to deal with this problem<sup>25</sup>). However it would appear that the necessary progress cannot be achieved as long as there is no recognition of the fact that the problem cannot involve self-defeating attempts to delineate sovereign borders<sup>26</sup>), nor of course the principle of "effectiveness" – which would leave the decision up to the two superpowers<sup>27</sup>). The solution, on the contrary, must be part and parcel of the political and legal-international efforts to restrain the arms race, reduce international tension and settle armed and unarmed conflicts. Only in this way can progress be made toward the conversion of outer space into an area of research and peaceful exploration. Subsequently in the atmosphere too the need to maintain exclusive sovereign rights will decrease and a functional approach will be introduced which will further scientific, transportation and communication tasks without, of course, impinging on the security of individual countries<sup>28</sup>).

<sup>21</sup>) See J. C. Cooper, in: *Legal Problems of Space Exploration, a Symposium* (U.S. Govt. Print. Office, Wash. 1961), p. 71.

<sup>22</sup>) See A. W. S. Haley, *Space Exploration*, in: *Proceedings of the 2nd Colloquium on the Law of Outer Space, 1959*, pp. 44 ss., and Hesselund-Jensen, *op. cit.* (*supra* note 2), pp. 104 and 121.

<sup>23</sup>) See A. R. Javitch, in: *Proceedings of the 2nd Colloquium on the Law of Outer Space*, p. 61, and Hesselund-Jensen, *op. cit.*, pp. 107 and 122.

<sup>24</sup>) Cfr. Mateesco Matte, *op. cit.* (*supra* note 7), p. 56.

<sup>25</sup>) See *supra* note 10.

<sup>26</sup>) Cfr. M. McDougal, in: *Law and Politics in Space, op. cit.* (*supra* note 19), p. 110.

<sup>27</sup>) See A. Dean's proposal in "New York Times", 25. 10. 1960.

<sup>28</sup>) Cfr. R. Quadri, *Rec. d. C. vol. 98* (1959), pp. 510, 553, and Ch. Chamont, *Le Droit de l'Espace* (Paris 1961), p. 51.

The various proposals made in the past for increased equality and cooperation in the conquest of outer space and the supervision of its exploration<sup>29)</sup> are rooted in the aforementioned concept. True, they were not taken into account by the drafters of the Outer Space Treaty. However, this is no reason not to direct current work toward these goals. For if outer space law is to go forward – and there is no alternative in light of continuing achievements in this field – the countries of the world, including the powers, will have to agree to alter<sup>30)</sup> their sovereign rights in the atmosphere. They have already done this in the past, through agreements at international conferences and organizations, direct negotiations and even through silent recognition of changing realities. This has been the case with several scientific operations, such as approval of the foundations for the legality of passage by artificial satellites through foreign skies. These instances occurred by means of contacts during the international geophysical year, and as a consequence of the lack of protest on the part of any side and the recognition that sovereign rights cannot be exercised exclusively in the circumstances prevailing in the upper atmosphere or, of course, in outer space – despite the knowledge that this exploration could also infringe upon the security of sovereign air space.

One of the motives for putting outer space at the disposal of all was the implied benefit to be derived. Evidently such advantages could also be derived from efforts to obtain a similar status for the atmosphere – with all the restrictions still required in view of the present state of international relations in order to maintain certain sovereign rights. Presumably, as the political, legal and technical importance of this principle seems to be recognized, it will also be easier for the UN to successfully conclude the deliberations which have been going on over this question for years<sup>31)</sup>. Such an achievement would simultaneously raise a considerable contribution to the other important deliberations over the strengthening of peace<sup>32)</sup>.

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<sup>29)</sup> C. W. Jenkins, *Space Law* (Washington 1965), pp. 47, 54, 99, 200–4.

<sup>30)</sup> Cfr. Mateesco Matte, *op. cit.* (*supra* note 7), pp. 70–74.

<sup>31)</sup> See *supra* note 10.

<sup>32)</sup> Cfr. M. Mushkat, *International Co-operation and International Organisation* (Tel Aviv 1967), 2nd ed., p. 95.