

**WORLD SPACE CONGRESS: "LEGAL AND POLICY FACTORS"****Thierry THORIN**

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To start with, I would like to explain why some years ago I became interested in the topic addressed today. The reason is that at the time I conducted a study on the impact of 'defective products related to space activities' for insurance purposes. You may be legitimate in objecting that the link with an attempt to set a boundary between both spaces is somewhat tenuous but I shall try to demonstrate that the opposite is true. As part of said study, I had tried to inventory not only the products but also the objects that contribute to the implementation of space activities. In doing so, I had underlined how difficult it was to determine the precise moment when a given object acquires or, on the contrary, loses its "space" nature. Nevertheless, as my research was progressing, I realized that it was not easy to dissociate the products that I wanted to analyze from the physical framework in which they were implemented. Through a misleading short cut I was tempted to affirm first of all that the defective products I was concerned with and related space activities occurred exclusively in space. However, this was not as straightforward as it could appear, as the example of such activities known as pre-launching showed it. First and foremost, it was necessary to define the concept of "space". In retaining only the restrictive meaning of this term by reasoning a contrario i.e. all that is not located on the ground is in space, we can see that all activities for the last thirty years, generated first by mere machines of elementary design then by man himself and now by his varied robots and instruments, cover many locations and positions. The extent of such

diversity is due both to technological development and the objectives to be reached.

This said, we could assert that the concept of space over the years has shifted from our terrestrial suburbs towards the boundaries of our galaxy due in particular to deep-space probes. As for the question regarding the activities we are concerned with, we cannot dodge the fundamental issue of space delimitation. However, it can arguably be said that, from a statutory standpoint, no accurate and universally accepted definition has been adopted yet, although this topic has been a concern of the international "space" community for a few decades already, encompassing so-called "space" powers as well as international bodies. As a matter of fact, beyond the unilateral stance or claims of a given state more particularly involved, it is obvious that the international community has abstained from legislating on the matter, except through sparse ad hoc or even symbolic provisions.

Most certainly this deliberate legal vagueness reflects the assertion of nations stepping up their demands in addition to discrepancies or even antagonism between states fueled by hypothetical profits, as was the case during attempts to delimit the ocean space.

In addition to the purely binary apprehension of space i.e. all that is not located on the ground is in space, another approach has to be considered whose scope keeps on developing as far as space activities are concerned. In this approach, space is no longer considered only in its metaphysical

and geophysical aspects. More prosaically, space is seen as a virgin experimentation ground similar to a new boundary and mankind, after pursuing scientific goals in a disinterested manner, has quickly realized the profit to be made from a commercial exploitation of space.

Thus, space activities shall encompass a dual aspect involving transport, routing and design operations on the one hand, to put things simply while accurately reflecting reality, as well as research and development, pre-industrialization and even marketing on the other hand.

### SPACE ACTIVITIES – SPACE

As these two concepts overlap, we are led to ask a fundamental question: what does the concept of space –within which space activities are supposed to take place, thus so called simply because these activities physically occur in space– cover?

If space is endless, does it have at least a beginning? By opposition, one can affirm that although Earth is located itself in space, it represents, when legally apprehending this concept, the item zero from which indeed space starts insofar as our current knowledge allows us to spatially position the immediate satellites of the Earth like the Moon and also a great number of planets and celestial bodies.

Actually, to give a legal or even physical definition of space would be difficult since on the international level, the so-called space powers themselves have not imposed a common meaning to date. According to certain authors who were precursors in this field such as professor Bin Cheng, three different schools of thought have formed, namely the spatialist, the functionalist and the negativist ones. First, let us examine the "Spatialist" approach which could also be described as pragmatic. In the Spatialist approach, it is basically logical that national airspace is clearly and legally delimited. Regarding delimitation, it goes without

saying that one should understand height or more correctly altitude.

Consequently, and logically, the end of airspace would mark the beginning of outer space.

The second school of thought known as the "Functionalist" questions the legitimate existence and even the capacity to implement such a delimitation of space. According to the functionalist approach in the delimitation of airspace from outer space, only the character of the (space) activity performed, coupled with the related objects, should make it possible to put them under regulation or conversely, to let them evolve in a realm of lawlessness.

Lastly, a third and last alternative that could be described as negativist considers the principle of the right to know as legitimate. For its supporters, only a minority would be likely to assert the right to know where space is and this based only on the need to know. Consequently, according to defenders of this theory, raising the issue of locating outer space, let alone discussing it, is useless. At the end of the day, we should agree this is a somewhat obscurantist vision of our environment and, beyond that, of the place of the human being in the universe.

Questionable as they may appear, these last two theories find substantiation in the fact that to delimit precisely airspace as opposed to outer space seems extremely difficult not to say impossible even when considering only the geophysical aspect of the problem. Moreover, even if that proved to be possible, after all the distance from the Earth to the Moon has been precisely calculated, this virtual boundary would remain abstract for most people, and that is all it would be. Although this analysis is far from being totally illogical, it plays down the case of a famous precedent, the maritime field. Indeed, how to be unaware of the efforts made since centuries by countries with a maritime frontage to attempt to set a spatial

boundary between territorial sea and high seas and to reign there?

When searching for international texts of a statutory nature or other, it becomes quickly obvious that few reference texts exist to define outer space. As Mr. G. LAFFERANDERIE stresses it, it is not necessary to search for an additional definition in the Astronauts Rescue Convention of 1968 or in the Convention on the Moon and other celestial bodies of 1979. Nonetheless, one might attempt to refer to the Treaty on principles governing the activities of states in the exploration and use of outer space, including the moon and other celestial bodies of 1967. First of all, it is to be noted that both the title and the recitals of this text underline the innovative nature of this concept since they feature both the terms "entry" and "exploration", the latter being mentioned six times in a row.

Although the situation has considerably evolved since 1967, we find ourselves in an almost virgin field, especially legally speaking. The prime objective of the Treaty being so clearly enunciated, one could expect that its authors would be somewhat more explicit regarding its object of application. The Treaty fails however to define outer space, since from the title to article XIII (the last four articles being dedicated to the implementation of the treaty), only "outer space, including the moon and other celestial bodies" is mentioned. No definition, even a contrario, is given to tell us what the outer space covers. Nonetheless, we should not be too critical. Indeed, even if the authors did not wish to codify this point, they have, voluntarily or not, provided us with the beginning of an answer through article VII in mentioning the liability of the states "on the Earth, in air space or in outer space". One can therefore conclude, keeping a simplistic terminology, that the lower boundary of outer space is located at the upper limit of air space and that its upper

boundary remains indefinite to date. This interpretation is reinforced by the use of the exclusive prefix "extra" which leads us to assume that all that is not covered by air space is taken into account by the broad sense definition of outer space. We are forced to admit however that the phrase "outer space" has a meaning unanimously acknowledged without any other form of definition. For example, a convention on international liability for damage caused by space objects in 1972 mentions the outer space without going into further details.

Although international conventions have almost unanimously retained the term of outer space, they do not give any precise definition, as we have just seen it. Thus, able as we may be to scientifically position our planet and most of the celestial bodies, if not in our universe at least within our galaxy, we are however unable to delimit outer space. In fact, in observing international practice, one would be tempted to affirm that despite everything, a consensus based on logic exists to recognize and define outer space. The result is that all artificial satellites orbiting or having orbited around the Earth are located in outer space. This analysis could be also extended to natural satellites and go also beyond the concept of strict gravitation, irrespective of the planet concerned, Earth, Moon or other. For example, comets and meteorites or deep-space probes do not relate to a phenomenon of gravitation or orbit but fall within a course from a given point to another, both being located in outer space. However, this is not exactly the case for space probes insofar as their starting point is Earth therefore out of the outer space, which can have an impact regarding involvement in the scope of responsibility.

According to professor Bin Cheng still, the establishment of a rule of public international law setting the beginning of

outer space at the lowest perigee or altitude of an artificial satellite of the Earth initially stems from the absence of any claim from a state denouncing violation of the sovereignty of its national space because of satellites placed in terrestrial orbit. Secondly, there is the explicit acknowledgment by certain states of the fact that artificial satellites of the Earth orbit *de facto* in outer space. Generally speaking, this boundary could be set at an altitude of approximately a hundred kilometers subject to the application by certain states of a policy similar to that adopted regarding delimitation of territorial waters, namely a claim aimed at modifying the boundary separating the national airspace from the outer space by extending it or restricting it.

Historically speaking, the dissension between the spatialist and the functionalist approach, the very people who aimed at defining outer space, appeared even before the beginning of the space era. The views expressed on the issue at the time emanated from multiple and varied interlocutors and horizons, be it authors specialized in space law (a topic hardly tackled by international law), politicians, learned societies, or even governments or specialized agencies and other bodies from the United Nations. Within the latter, the supporters of a functionalist approach, initially backed by the great space powers which had no interest in setting boundaries likely to limit their freedom in space (for civil or military purposes), asserted the preponderance of their doctrine. To this end, they used the conclusions of the report from the ad hoc Committee on the Peaceful Uses of Outer Space. According to this report, the definition of outer space was not a priority issue, as we shall see it later on.

In 1966, the spatialist school of thought also expressed their views by means of resolution 2222 (XXI) adopted by the General Assembly, which invited the space

committee to study the question. This resolution resulted from the approach chosen by some countries including Mexico, with a view to define outer space as part of the Outer Space Treaty to come. The chance or the handicap of the spatialist school in this debate laid in the existence of major and persistent dissensions within their community regarding universal acceptance of outer space. In this polemic, the most elementary debate consisted in delimiting air space as opposed to outer space. Another spatialist approach yet insisted on the introduction of triple zones or even multiple zones. In this respect, the diversity of methods and criteria used to set the higher or lower limits depending on whether airspace or outer space is considered reflects the variety of participants in this topic. Those methods and criteria included gravitational effect, effective control of a space object, lowest theoretical or actual perigee point regarding orbiting satellites, air resistance effect, farthest atmosphere layer, maximum capacity of an air flight or more arbitrarily a point representing the thousandth of the distance measured on a meridian line from the equator to the pole i.e. 100 kilometers or eventually the hundredth of the Earth radius i.e. 64 kilometers as the Canadian government suggested.

In fact, the United Nations Legal Sub-Committee in charge of outer space answered the General Assembly's interrogations by soliciting the scientific and technical sub-committee. At the time, in 1967, this sub-committee concluded that it was impossible to retain technical or scientific criteria making it possible to lead to a precise and unanimously acknowledged definition of outer space. Consequently, it was agreed that the Legal Sub-Committee had to come to a definitive conclusion on the topic. However, over the years, the functionalist supporters were gradually supplanted by the spatialist school even

though they had widened their spectrum of outer space by including not only the nature of activities performed but also the missions carried out by "space vehicles". Italy in particular shared the spatialist approach. As early as 1958, the Italian representative at the United Nations committee demanded that a country national sovereignty apply at the outer space boundaryline, which according to this representative was set at approximately a hundred kilometers starting from the Earth surface. Thereafter, an increasing number of countries abandoned the functionalist theory in favor of the spatialist approach. For instance Belgium which, following the Italian example, suggested a delimitation based on the 100-kilometer limit. The Soviet Union, the other space power, also aligned with the spatialist doctrine by declaring in 1979:

1) Outer space is at a distance of 110 kilometers above the sea level.

2) The boundary of the airspace and outer space shall have to be the subject of agreements between the states and shall in consequence give rise to a treaty in which the outer space shall appear at an altitude which shall not exceed 110 kilometers above sea level.

3) The space objects concerned with the sovereignty of a state shall have the right to fly over the territory of other states at an altitude lower than 110 kilometers only for the purpose of reaching the necessary orbit or to return to Earth on the territory of the state of launching.

This last detail is very important because it confirms the fact that any object leaving the terrestrial ground shall have to cross the airspace of several states, made necessary by orbit positioning, before reaching this kind of "No man's land" which is the outer space and conversely on the return trip. However, in this last case, only the American shuttle is to date concerned, recoverable launch vehicles still being in the state of prototypes. The question has then arisen of whether air

law must apply in such cases or on the contrary must one resort to the rules of the international space law insofar as a space type vehicle is involved. One of the explanations put forward on the change to the Soviet Union policy, consisted of the claim on behalf of the equatorial states in favor of the positioning of the geostationary orbit at a 36,000 kilometers altitude and this at the time of the declaration in Bogota of December 3, 1979. As for the United States, followed by the Federal Republic of Germany and the United Kingdom, they continued to support the uselessness of a delimitation to airspace and outer space for the following reasons:

- The incapacity of most states to manage such a concept

- The insufficiency of a scientific, legal, technical analysis and suitable policy

- Lastly, the obstacles that the introduction of such a boundary could represent if one considers future ambitions with regards to commercial use and exploration of outer space.

The controversy between the two schools of thought continued beyond the reasoning and the analyses of the respective supporters of each school. However, it is essential to reconsider the spatialist and functionalist approaches within the framework of the bases of the international law if one wants to succeed in better understanding them. It should first of all be recalled that contrary to a generally spread belief, there is no independent legal system on "space laws" treating outer space amongst other matters.

In this case, space law is more like a compilation of national and international legal provisions treating outer space as well as artificial objects whether or not human activities take place there. One can thus say that there are international rules of space law and the rules of space law depending on the different national legal systems. The debate must however be primarily focused on international law insofar as the various

national legal provisions should in this field only clarify international rules and not replace them. As regards international law and more precisely international space law, two jurisdictional sources can be identified. The first jurisdictional source stems from international law in its broadest sense, the second results from treaties, to which one could give a quasi contractual character insofar as only the signatories are named. It is indeed unanimously accepted that, even if there are many signatories to a treaty, it cannot be a creator of rights with regard to third parties without their prior assent, principle reaffirmed by article 24 of the convention of Vienna in 1969 on the right of treaties. It is thus fundamental, being international law, to dissociate the universal rules of international law applicable to all, from those which only the adherent states of a treaty belong. This distinction is all the more significant in space law as legal provisions on the matter are relatively very few whereas multiple international treaties concluded on the initiative the United Nations govern them in this field. Besides, it is not superfluous to point out that the charter of the United Nations itself does not form part as such of the international rules of law, that the United Nations, if I am not mistaken, do not have any legislative authority and that finally the resolutions of the General Assembly, as far as I know, are not binding to members except on budgetary matters.

I believe that we all agree to consider that the territorial delimitation of the competence of a state represents one of the basic functions of international law. Thus, the development of the national organization of the states during recent centuries and in parallel the development of international law have confirmed the principle of the exclusive competence of the sovereign state over its own territory. Territorial sovereignty always belongs to a single state excluding any other. On the contrary, the fact that state

prerogatives can be exerted by other states on a determined area concerns the legal situation prevailing in certain places of the globe such as the high seas, which cannot constitute the territory of a state.

Generally, territorial sovereignty is based on natural and uncontested boundaries or reciprocal engagements between neighboring states such as conventions on territorial divisions or acts of reconnaissance of states based on given boundaries. This concept of territorial sovereignty makes it possible to divide between the nations the air space in which the activities of the citizens of this state are carried out. According to international law, the world including outer space is thus divided into three categories, namely: the "national territory", "territorium extra-commercium" and "territorium nullius".

- "national territory" is that on which a state exerts its national sovereignty without any interventions by any other state.

- "territorium extra-commercium" is defined on the contrary as that not being able to constitute the territory of a state, such as for example, the high seas.

- "territorium nullius" does not yet represent the territory of a state. In fact, they are territories which do not yet depend on the sovereignty of a subject of international law no matter, but which may nevertheless be acquired by a state according to the international legal provisions applicable to this type of procedure. Moreover, the treaty of 1979 on the Moon introduced a new and fourth category of territory under the name of "territorium commune humanitatis". This territory, like territorium extra-commercium, cannot be the subject of appropriation by a state but the two concepts defer for other reasons. Thus being "territorium extra-commercium" and in normal circumstances of peace as long as a state respects the sovereignty of other states regarding their aircraft, ships and other objects, international law confers on the said state a particularly

wide freedom of use of the territory concerned. It can indeed take over the resources, carry out military type tests and even what seems to be the latest trend, make use of it as immense discharge for its industrial waste.

Concerning this last point, if the open sea has for a long time and still continues to occupy the front of the scene, the fate reserved for outer space becomes increasingly crucial with in particular the problem of the space debris. In this matter, the International Instrument adopted by the International Law Association (ILA) conference in Buenos Aires in 1994 defined space debris as "man-made objects in outer space".

On the other hand, the emergent concept of "territorium commune humanitatis" considers that sharing of the resource of these territories and, generally, the problem of their appropriation, come under the responsibility of the international community (or more restrictively to the signatories to a given treaty as in the case of the treaty on the moon). However, certainly not in any case to individual states and even less their nationals. The objective of this classification is to determine above all, through international law, what states can or cannot do and this whether on their own territory or on the territories enumerated above. Consequently, the functionalist classification of the state activities between those which are legal and those which are not can only be consecutive and not precede classification spatialist. In fact, in international law, there are very few state activities that are of totally legal or totally illegal nature.

For example, the question of whether a state has the right to hail a ship to control its electronic monitoring means shall not depend on the nature of the act on boarding itself but above all on the place where the act of spying and the act of boarding occurred;

being in the territorial waters of the state concerned, in those of a non-member state, in open sea or in one of the territories listed above. A second element in answer to this question shall consist in identifying the links existing between the spy vessel and the boarding state. Is it the act of a ship under the flag of its original country, or a ship of a non-member nationality or without any nationality?

#### NATURE, EXTENT AND LIMIT OF THE JURISDICTION OF A STATE

As regards international law, three types of jurisdiction are conferred to states.

- a) Territorial jurisdiction that the state is entitled to exert on its own territory.
- b) Quasi territorial jurisdiction exerted on the ships, aircraft, spacecraft in the broadest sense and generally any means of transport whose vocation is to travel through territories other than its own territory and which belong to a given state due to their membership, nationality or registration.
- c) Personal jurisdiction that a state can take over on nationals, whether they are natural persons or corporate entities except for material objects indicated in the preceding subparagraph. Each type of jurisdiction is subdivided in two subcategories:
  - capacity of a state to enact laws applicable to its territory and its nationals and also capacity to interpret these same laws if need be,
  - capacity of a state to apply these laws.

At this stage in our study, it is now time to examine in detail the functionalist approach on the delimitation of outer space vs. the Spatialist approach.

If, as we saw previously, the Spatialist school can not manage to harmonize their approach for the delimitation of airspace as well as for outer space, nor the functionalist approach proposes a standardized vision. They only converge on the point that the delimitation as meant by the spatialist school

is not useful and this even less nowadays. For the functionalist school, spatialist delimitation is not essential because only reference to the nature of the activities and objects involved make it possible to find an answer for present. For the functionalist school, it does not matter where an event takes place to determine its legality or its illegality, what is crucial is the nature of this event. However this approach goes against the international law as shown in the example of the ship boarded, referred to above. As defined by international law, monitoring the defense of a foreign state constitutes an act which is neither legal nor illegal and the functionalist analysis of this act does not make it possible to qualify it. Only the localization of the act makes it possible to determine its legality. Insofar as it is performed from the territory of the observing state or even at high seas, but not on the territory of the state observed, it is at first sight a perfectly legal act. On the other hand, assuming that this act is located above the territory of a sovereign state, this state has full rights to declare this act illegal in accordance with its own national law. This is the well-known case of the U2 American spy planes, one of which was shot down in 1960 above the territory of the Soviet Union: the United States acknowledged the legality of this act without hesitating. On the other hand, if this act of spying occurs outside the jurisdiction of the state observed, it does not violate international law and consequently any hostile attempt from spied state would be against this right. This is what happened in the same situation as in the preceding example but two months later in July 1960 above the high seas.

What is true for ships and aircraft also applies more and more to satellites. The monitoring activity of a state by means of spy satellites shall or shall not constitute an international statutory offence according to whether the activity carried out is or is not above the territory of the state in question.

In this line of thought, it is difficult to solve the problem of the limit between airspace and outer space by supporting the fact that satellite monitoring is against international law irrespectively of the place where this activity is carried out, as defended by the functionalist theory. This line of thought is backed up by the fact that current technologies give the possibility to a satellite of a state A to observe a state B while remaining above the territory of state A. Another line of thought has been put forward according to which the absence of total consent as to the precise delimitation of territorial waters is not likely to generate a particular prejudice, which itself is questionable, and that the same should apply to outer space. This line of thought is true except that the limit of territorial waters claimed by any state is always known even if there is no international agreement. The same does not apply to outer space, perhaps because for a number of states the determination of its limits is not of a character as economically crucial as for territorial waters. In this respect, the functionalist school should contemplate the hypothetical situation according to which a state would not claim any limitation for its territorial waters and only retain the criterion of act contrary to its safety in its "near waters". Without reaching such a level of indetermination, the case of Pueblo, the American spy ship, which hit the news back in 1968 is revealing. At the time, the problem was not to know if the activity in question, spying, was or was not against the law but rather to know where the limit of sovereignty of the spied state was — North Korea in this case: 3 miles, 12 miles, and where the ship was when it was spying and when it was boarded.

While spatialist and functionalist schools were still confronting each other, an agreement on where air space ends and outer space begins had yet to be reached. The said



Professor Bin Cheng thought in 1965 that states were sufficiently advanced in this field to make it possible to define a new rule according to which airspace would be that reserved to conventional aircraft and outer space that devoted to satellites. Consequently this implied an upper boundary or a lower limit of approximately 50 miles i.e. 80 kilometers with a 25-mile tolerance in either direction. For the professor, the question lay in the interpretation by the states of a pre-existing rule of international law, i.e. the emergence of a new customary rule. His theory of a 50-mile limit was based on implicit recognition by the states discussing the matter at the United Nations that, when orbiting, satellites never penetrate in the airspace except when stationing or returning to earth and consequently, the question of satellites within airspace is irrelevant. This opinion was the basis for the draft resolution introduced at the Helsinki conference of the International Law Association (ILA) in 1966. In this resolution, the ILA legitimized the principle of the lowest perigee point. According to the same professor, this draft resolution was no more than an acknowledgment of an established fact and a consensus between states that all satellites to date orbited in outer space. Conversely, states could consider that their air sovereignty did not reach beyond the lowest perigee of an orbiting satellite. Hence the conclusion that the position adopted by states during the conference did not prejudice on any account their attitude towards future generations of satellites.

In addition, this draft resolution was far from establishing a precise and final boundary and did not even set the top limit of air sovereignty; it simply claimed that the top limit was not located beyond the point indicated in the project. Consequently, it could be located below the lowest point of perigee but never above. In conclusion, the

professor mentioned three different layers hence three different legal statutes superimposed above the earth surface. Airspace is the first layer and undeniably depends on a state national sovereignty. Outer space is the second layer, starting above the lowest point of perigee, and incontestably independent of any state. Lastly, sandwiched in-between these two strata lies a relatively undetermined area above airspace and below outer space, undetermined due to satellite technical capabilities. However, original as it may be, this "three zone" approach does not reflect the stance of most states in favor of the more conventional coexistence of two spaces. For all that, the relevance of the lowest perigee rule has often been questioned, considering the factor of inaccuracy implied by this rule. At the most, it can be said that this rule reflects a latent finding at a given moment. As we have just seen, the definition and delimitation of outer space is far from being the subject of an international consensus. Quite the opposite in fact since this question seems to have been and remain a favorite showcase for the display of national peculiarities and specificities. This is perhaps the distinctive sign of great international law issues: in dealing with unexplored areas, devoid of any preexisting legal framework, such issues raise the most antagonistic claims under cover of protecting national interests. This said, and though unexplored, this question has been examined within the most prestigious existing international authority, i.e. the United Nations and ensuingly through its various committees. Given the rapid technological breakthroughs in the space field, this question was bound to trigger off attempts at codification if only to answer money-driven concerns — hidden though undoubtedly actual — of the main players on the international space stage.

Though not an immediate issue and still one unresolved, the topic discussed here has been thought about deeply and reflected upon giving rise to numerous suggestions over the last decades. France was the first country to put forward a proposition at a General Assembly of the United Nations in 1966. However, for lack of interest or conflicting opinions from certain participants, the work undertaken within the Legal Sub-Committee following the French initiative has been really slow, how else to explain that still no regulation on the matter has been laid down?

For the first time in 1967 during its sixth Session, the Legal Sub-Committee started to debate over matters relating to the "definition and delimitation" of outer space. These were the concerns of a number of delegations whose admitted objective was to found a legal regime applicable to space activities that were still in their infancy at the time. Opposite what was then best described as a legal void, it was only natural to take as a starting point the intangible principles of international law including the supremacy of sovereignty and national independence, equal rights, and noninterference in current home affairs. As commendable as they may be, we shall see that unfortunately these noble intentions were to conflict with the expression of national interests, as already mentioned. Nevertheless, at this very early stage of progress, two schools of thought emerged. The first school of thought favored a direct and pragmatic approach based on a distinction between two natural environments. In my opinion, the second school of thought was more subtle and augured of the difficulties to come. Its theory was based on the location or environment in which spacecraft would fly and where related activities would take place. It is easy to imagine how difficult it can be to define and delimit outer space based on this approach. In opposition to this, supporters of a direct approach —

including France and Italy in line with their stance — presented a precise and concrete proposition based on an altitude determined from the earth surface and setting a boundary between the two spaces. Bearing in mind these positions, the Legal Sub-Committee thereafter consulted the Scientific Sub-Committee with the aim of getting a broader perspective on the question. Out of prudence or for lack of relevant information on the subject — we were then in the 1960's —, the Scientific Sub-Committee declared itself unqualified thus giving the go-ahead to lawyers who, although qualified, would have appreciated a scientific and technical opinion. Thereafter and as I mentioned previously, the question remained pending between 1970 and 1976. No doubt it was not considered a priority in comparison with what was at stake at a world level. Only in 1971 did France and Argentina request the reopening of the debate on the occasion of the tenth Session of the Sub-Committee. The delegates were certainly aware of the difficulties raised by such a large field of investigations related to the problem as presented initially, and so they scaled down their approach by dividing the question into two distinct interrogations. The elected terminology was from now on: "Questions relating to the definition AND/OR the delimitation of outer space and space activities". Only in 1975 did Italy suggest setting a precise limit of the two spaces according to a "vertical boundary" located at approximately 90 kilometers above the surface of the Earth. We had to wait until 1978 during the seventeenth Session for two issues to be raised which are essential in my eyes, i.e. the need to define "space objects" on the one hand and "space activities" on the other hand. Bearing in mind that at the time, artificial satellites had been orbiting for nearly twenty years, it was high time to define these terms. But this said, there is the risk of overlooking that any yearning for codification, however positive

and constructive it may be, is likely to trigger an opposite reaction stating that such codification could infringe a pseudo freedom found in the absence of law. This explains that some delegations inferred that there was no need to legislate with regard to the smooth operation of space activities over the last twenty years. The same delegations added that any attempt at codification was in itself a potential hindrance to the development of space activities. They also evoked the difficulties related to the incapacity of most states to observe and control a conventional limit.

However, more and more delegations had a different view, being aware that the development of space activities and also of the states operating in space would ineluctably generate problems of liability in the short or medium term, which the existing bases of air law could not resolve. Some states had even anticipated the problem of dual localization according to which a space vehicle, acting first as a launch vehicle and then a shuttle, would be led to operate under both the legal provisions of air law and space law. In spite of that, the supporters of a space approach were still opposed to the supporters of a functional theory. The former wanted to apply a legal regime suitable according to the criterion of altitude, while the latter preferred as a preliminary to define objects and activities.

In 1983, on the occasion of the twenty-second Session of the Sub-Committee, the USSR, one of the two main players in worldwide space policy, proposed a boundary at an altitude of 110 km which had to be confirmed by a mandatory instrument of international law. This proposition incorporated a key provision in that it recognized the right to peacefully overfly states' territories at a lower altitude for orbit insertion and Earth return.

In the same year, the General Assembly drew again the attention of the Legal Sub-Committee to this topic that was still

pending but also wanted for the first time to start thinking about drafting general principles relating to the use of geostationary orbit. The USSR, in line with its propositions drafted in 1983, again expressed its will to reach an agreement by introducing a draft text laying the basis for a future treaty, which unfortunately did not meet with approval by the delegations. Failing to reach an agreement in 1987, i.e. nearly twenty years after this question was first brought to light, some delegations went as far as expressing their wish to see this question banned from the Sub-committee's agenda. Despite these reactions, the Russian Federation presented an innovative approach in 1992 by listing a certain number of questions referring to the legal regime of space objects. Again this attempt met a refusal in 1996 after the delegations had deemed it useless to revive such a debate. Nevertheless, during the thirty-seventh meeting held in 1998, a trend emerged aiming at dividing into two the problems relating to space objects. This new approach could seem relatively logical in that it established a distinction between two periods, from 2000 to 2005 and from 2005 to 2010. These two phases were supposed to be representative of the increase in space activities. During the first period, it was planned that the design and the relatively limited use of space objects and related legal questions would be based on a legal status quo between the existing air law and space law provisions. Subsequently, during the second period supposed to be that of increased space activities, the experience gained was to lead to the development of a genuine legal corpus including both air law and space law concepts and legal provisions. This proposition came to naught. In 1999, the thirty-eighth session of the Legal Sub-Committee saw the emergence of a consensual approach in that it based its legitimacy on the reference to the 1967 Treaty on the Principles governing the

activities of states in the exploration and use of outer space, including the moon and other celestial bodies. According to the delegation that initiated this proposition, it was necessary to follow a reasoning by analogy with existing and effective texts. This methodology was logical and eliminated at the same time any divergence inherent to the unilateral character of any given proposition. Such reasoning consisted in stating that any legal principle, part of a possible legal regime which would be applicable in the future, was to comply with the principles and rules stated in the Outer Space Treaty which constituted the general framework of all activities carried out in space.

However and since then, one can but notice that despite the reappointment of the working group entrusted with examining the item on the agenda concerning "the questions relating to the definition and the delimitation of outer space... ", no consensus has yet emerged among the delegations. Some delegations remain convinced that legislation is necessary with regard to the increasing risks of damage related to the possible collisions between airspace objects and aircraft. Other delegations persist in their position according to which the absence of codification had in no way hampered the development of the space-related activities.