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A LOOK AT AIRSPACE SOVEREIGNTY

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I. INTRODUCTION

WITH the rapid advances being made in modern technology, new legal problems are arising continuously. An interesting one which has caused quite a few comments in recent years is the extent of a country's sovereignty over the airspace above its territory.

This particular problem has been brought into focus by two major technological advances. One of these of course is the launching of man-made satellites and their dramatic orbiting about the earth.¹ The second is the advent of high-speed, long-range jet aircraft into commercial airline service.²

These two events emphasize two different aspects of the question of airspace sovereignty. The orbits of the satellites are such that they cover a large portion of the earth's surface,³ and in so doing they pass directly over many states of the world at extremely high altitudes, measured in hundreds of miles.⁴ Therefore we have the question of what upward limit, if any, should be placed upon a state's sovereignty. The use of jet liners by commercial airlines brings out another aspect concerning economics. With the use of high-speed jets, longer non-stop flights will become more common, and economic considerations will increase the desirability of great-circle routes for those flights in all parts of the world.⁵ However, state sovereignty at high altitudes would be a definite hindrance to many such long flights. The legal controls and restrictions now placed upon foreign aircraft entering the boundaries of some countries would make certain great-circle routes economically unfeasible.⁶

In considering these and other aspects of the airspace sovereignty question (national security, private property rights, etc.), this article will first present the historical background leading to the development of present law in the area. Following this will be a discussion of some of the suggestions advanced by leading writers on the subject. It will then conclude with a practical appraisal of the over-all problem, supporting somewhat similar views expressed by several others.

II. HISTORICAL DEVELOPMENT

The historical development of the concept of air sovereignty covers many years, and is concerned with both private property rights and state territory. Throughout this development, up to and including the present, there

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¹ See generally, Jane's All The World's Aircraft 1962-63, London (1962); 1962 Space Volume, Government Data Publications, Wash., D.C. (1962).

² See generally, Jane's All The World's Aircraft 1962-63, London (1962).

³ See Jane's and 1962 Space Volume, *op. cit. supra* note 1.

⁴ *Ibid.*

⁵ Air Navigation, Air Force Manual 51-40, pp. 2-2, 2-8. Vol. 1, Wash., D.C. (1959).

⁶ Sand, Lyon, and Pratt, *An Historical Survey of International Air Law Since 1944*, 7 McGill L.J. 125 (1961).

have been two main schools of thought; those who consider the airspace as free and not a property interest, e.g., Fauchille and Nys,⁷ and those who maintain that property or sovereignty extends upward into the air indefinitely, e.g., Westlake, Balwin and Collard.⁸ Of course there were many modifications of both these views, generally representing compromises between the two extremes.⁹

A. Private Property Ownership

As far back as the days of the Roman Empire it was considered that the state had legal rights to the airspace over its territory.¹⁰ However, this determination, as was the case generally until fairly modern times, was concerned only with very low altitudes, affecting such things as trees, man-made structures, etc.¹¹ Of course, most of the actual cases concerning airspace had to do with private property rights rather than the State's rights. Lord Ellenborough, in an 1815 case,¹² where the defendant had nailed upon his house a board which projected several inches from the wall and overhung the plaintiff's garden, stated:

I do not think it is a trespass to interfere with the column of air superincumbent on the close. I once had occasion to rule upon the circuit, that a man who, from the outside of a field, discharged a gun into it, so as that the shot must have struck the soil, was guilty of breaking and entering it. A very learned judge, who went the circuit with me, at first doubted the decision, but I believe he afterwards approved of it, and that it met with the general concurrence of those to whom it was mentioned. But I am by no means prepared to say, that firing across a field *in vacuo*, no part of the contents touching it, amounts to a *clausum fregit*. Nay, if this board overhanging the plaintiff's garden be a trespass, it would follow that an aeronaut is liable to an action of trespass *quare clausum fregit* at the suit of the occupier of every field over which his balloon passes in the course of his voyage. Whether the action may be maintained cannot depend upon the length of time for which the superincumbent air is invaded. If any damage arises from the object which overhangs the close, the remedy is by an action on the case.¹³

This ruling was followed in other English cases.¹⁴ However, in an 1884 case¹⁵ the court felt that a telephone wire passing through the airspace above private property was a trespass, and this general viewpoint has been upheld in recent cases.¹⁶

As with the English cases, American courts have also shown a diversity

⁷ For a more extensive list, see Sand, Freitas, and Pratt, *An Historical Survey of International Air Law Before the Second World War*, 7 McGill L.J. 24, 28 (1960).

⁸ See, Lyon, *Space Vehicles, Satellites, and the Law*, 7 McGill L.J. 271 (1961). For a more extensive list, see generally Sand, Freitas, and Pratt, *supra* note 7.

⁹ Nijeholt, *Air Sovereignty*, 11-14, The Hague, Martinus Nijhoff (1910).

¹⁰ Cooper, *High Altitude Flight and National Sovereignty*, 4 Int'l L.Q. 411, 412 (1951); Cooper, *Roman Law and the Maxim "Cujus Est Solum"* in *International Air Law*, Pub. No. 1, Institute of International Air Law, McGill University (1952).

¹¹ Lardone, *Airspace Rights in Roman Law*, 2 Air L. Rev. 455 (1931). See generally, Cooper, *Roman Law and the Maxim "Cujus Est Solum"* in *International Air Law*, *op. cit. supra* note 10.

¹² *Pickering v. Rudd*, 4 Camp. 219 (Eng. 1815).

¹³ *Id.* at 220-221.

¹⁴ *Clifton v. Bury (Viscount)*, 4 T.L.R. 8 (1887), concerning bullets fired from a musketry range passing about seventy-five feet above the surface of the land but not striking it.

¹⁵ *Wandsworth Board of Works v. United Telephone Co.*, 13 Q.B.D. 904 (1884).

¹⁶ Cooper, *Roman Law and the Maxim "Cujus Est Solum"* in *International Air Law*, *op. cit. supra* note 10.

of opinions concerning private property owners' rights to the airspace above their property.

In *Hinman v. Pacific Air Transport*¹⁷ it was stated that the landowner owns so much of the space above the ground as he can occupy or make use of, in connection with the enjoyment of the land. This right was said to vary with the owner's needs and to be coextensive with them. As regards trespass, the court held that traversing the airspace above the land was not, of itself, a trespass at all, but was a lawful act unless done under circumstances which would cause injury to the owner's possession. However, in another case,¹⁸ it was held that flight of airplanes at altitudes as low as one hundred feet over private land constituted a trespass by reason of the noise and presence of the aircraft and its occupants.

In the more recent case of *United States v. Causby*,¹⁹ Mr. Justice Douglas made the following pertinent statement:

It is ancient doctrine that at common law ownership of the land extended to the periphery of the universe—*Cujus est solum ejus est usque ad coelum*. But that doctrine has no place in the modern world. The air is a public highway, as Congress has declared. Were that not true, every transcontinental flight would subject the operator to countless trespass suits. Common sense revolts at the idea. To recognize such private claims to the airspace would clog these highways, seriously interfere with their control and development in the public interest, and transfer into private ownership that to which only the public has a just claim.²⁰

B. National Sovereignty

From the standpoint of a state's sovereignty over airspace, there has been an equally wide divergence of opinion. Toward the end of the seventeenth century, Pufendorf thought that man's sovereignty in the air was limited by the ability for effective control.²¹ Most of the controversy about state sovereignty of airspace began around the start of the twentieth century. It was at this time that serious consideration was being given to the use of balloons, dirigibles, and airplanes for both commercial and military purposes. The leaders of the two main schools of thought were Fauchille and Westlake. Fauchille introduced the celebrated theory of "freedom of the air" in 1902.²² Professor Westlake, at a 1906 meeting of the Institute of International Law, expressed the thought that the state's sovereignty had no limit upward.²³ Apparently the main basis for his opinion was the idea that there was danger of greater damage from falling objects the higher the altitude from which they fell.

At that time, the states mainly concerned with the problem, because of their size and geographical location, were the European nations. In May, 1910, the French Government sponsored a Paris meeting of an International Conference on Air Navigation.²⁴ The nineteen state conference

¹⁷ 84 F.2d 755 (9th Cir. 1936), cert. denied, 300 U.S. 654 (1936).

¹⁸ *Smith v. New England Aircraft Co.*, 270 Mass. 511, 170 N.E. 385 (1930).

¹⁹ 328 U.S. 256 (1945).

²⁰ *Id.* at 260-261.

²¹ Cooper, *High Altitude Flight and National Sovereignty*, *supra* note 10, at 412.

²² Hazeltine, *The Law of the Air*, 4 London, Univ. of London Press (1911); Cooper, *The Right to Fly*, 17 Henry Holt and Co., New York (1947).

²³ Cooper, *High Altitude Flight and National Sovereignty*, *supra* note 10, at 412; Hazeltine, *op. cit. supra* note 22, at 34.

²⁴ Cooper, *The International Air Navigation Conference in Paris 1910*, 19 J. Air L. & Com. 12 (1952); Cooper, *The Right to Fly*, *op. cit. supra* note 22, at 18.

which followed, though technically a diplomatic failure, was of great historical importance. When the conference met, there existed no acceptable plan for international flight regulation. When the conference adjourned, it had completed a draft convention of fifty-five articles and three annexes, including such subjects as aircraft nationality, registration, rules of the road and photographic and radio equipment in aircraft. The conference agreed on the following principles which were to re-appear in the Paris Convention of 1919 and which influenced the Chicago Convention of 1944: the subjacent State may set up prohibited zones above which no international flight was lawful; cabotage traffic may be reserved for national aircraft; the establishment of international airlines will depend upon the assent of interested States. In Professor Cooper's opinion, the conference first evidenced general international agreement that usable space above the lands and waters of a State is part of the territory of that State.²⁵ Thus, the cause of failure of the conference was not, as generally supposed, the impossibility of reaching agreement as to the legal status of airspace. The real causes of breakdown were political.²⁶

The next important event was the Versailles Peace Conference of 1919 which established the Paris Convention. Article 1 of the Convention stated: "The High Contracting Parties recognize that every Power has complete and exclusive sovereignty over the airspace above its territory."²⁷ Since this idea was used almost verbatim in later international agreements, one of the problems still existing today is what was meant by the term "airspace" as it was used there. It has been argued convincingly that this "airspace" refers to the atmosphere with sufficient air to support mechanics dependent on reaction with the air for their aerodynamic lift.²⁸

It is also important to determine how much power was given to the states. Goedhuis analyzed the situation thusly:

The Minutes of the Conference show that the delegates were unanimous in considering freedom of passage for foreign aircraft as being indispensable for the international community but—and here we come to the heart of the matter—from this international community the delegates wanted to exclude the ex-enemy states. . . . It was not realized that the proclamation of such an over-strained concept of sovereignty in the first article of the Convention would of necessity be of consequence, not only for ex-enemies' aviation but for the *whole* of international aviation. It was thought that this indispensable freedom for the 'trustworthy' community of states could be guaranteed by stipulating in Article 2 of the Convention that each Contracting State undertakes to accord freedom of innocent passage to the aircraft of the other Contracting States. By this a *conventional* basis was therefore given to the right of passage. On account of the wish to exclude ex-enemy states, the view was formed that there was no way of acting otherwise. Eventually, however, this led to the right of passage becoming regarded as no more than a concession, whereas it is very clear from observations by the authors of the Convention that this right was considered a "*conditio sine qua non*" for international aviation.²⁹

²⁵ Cooper, *The International Air Navigation Conference in Paris 1910*, *supra* note 24.

²⁶ Sands, Freitas, and Pratt, *supra* note 7, at 30.

²⁷ *Convention for the Regulation of Aerial Navigation*, 11 League of Nations Treaty Series 173 (1922); 17 Am. J. Int'l L. (Supp.) 195 (1923).

²⁸ Cooper, *High Altitude Flight and National Sovereignty*, *supra* note 10, at 413-414.

²⁹ Goedhuis, *The Air Sovereignty Concept and United States Influence on Its Future Development*, 22 J. Air L. & Com. 209, 212 (1955).

The United States, although a strong advocate of freedom of the air, assisted in drafting the final convention and later signed but did not ratify it.³⁰ It then formally asserted this country's sovereignty over its airspace by means of the Air Commerce Act of 1926³¹ and the Civil Aeronautics Act of 1938,³² and by signing the Pan American Convention at Havana in 1928.³³

In 1929, the United States, along with thirty other nations, took part in an International Air Conference.³⁴ One year before, the first question concerning intercontinental aviation arose. The Imperial Airways wanted to initiate a route over the Belgian Congo. The United Kingdom, in opposition to Belgium, thought that such service could be put into operation without special permission, since they believed in the principle of freedom of passage. However, at the Air Conference of 1929, twenty-seven of the thirty-one states represented completely abandoned the principle of freedom of traffic.³⁵ Only the Netherlands, Sweden, the United Kingdom, and the United States continued to consider the restriction of air sovereignty as necessary. As to the motives for the attitude of the great majority of states:

Considerations of security were put forward, but it was fear of competition and uncertainty with regard to the state's own ability by which this unimaginative attitude was prompted. Not the slightest attention was paid to the question what consequences the proclamation of the principle of total unrestrictedness (of sovereignty) would have on the development of world airlines.³⁶

With such feelings among the various nations, modified or possibly strengthened by World War II, the International Civil Aviation Conference convened at Chicago in 1944. The United States:

insisted on the maintenance of sovereignty of the airspace but, subject to such sovereignty, desired that air international transport restrictions be kept at a minimum. . . . The United States desired that each government should have transit privileges for its aircraft engaged in scheduled international service and commercial rights approaching those long customary in the carriage of commerce at sea, but without the wide and wandering privileges of a typical tramp steamer.³⁷

However, the American delegation failed in its efforts, and Article I of the Chicago Convention was adopted in words almost identical to those used in the Paris Convention of 1919: "The contracting States recognize that every State has complete and exclusive sovereignty over the airspace above its territory."³⁸

Two companion agreements were annexed to the Convention. The first, a "five freedoms" plan, embodied most of the liberal restrictions on

³⁰ Cooper, *The Rule of Law in Outer Space*, 47 A.B.A.J. 23 (1961).

³¹ 44 Stat. 568, 49 USC § 171 (1958).

³² 52 Stat. 973, 49 USC § 681 (1958).

³³ *International American Conference*, 6th, Havana, 1928, Washington, U.S. Govt. Print. Off., 1931. Treaty Series No. 840.

³⁴ Cooper, *The Right to Fly*, *op. cit. supra* note 22, at 142.

³⁵ Goedhuis, *supra* note 29, at 213.

³⁶ *Ibid.*

³⁷ Cooper, *The Right to Fly*, *op. cit. supra* note 22 at 164.

³⁸ *Proceedings of the International Civil Aviation Conference, Chicago, 1944*, 147 (Vol. I) Dep't of State Pub. 2820, U.S. Gov't. Print. Off. (1949).

sovereignty which the United States wanted.³⁹ This attempt to modify the Convention proper failed, as only a few states supported it.⁴⁰ The second plan, the so-called "two freedoms," granted airplanes of a Contracting State the right to fly over another Contracting State without stopping and the right to land and take off without a foreign Contracting State if no cargo or passengers were loaded or unloaded.⁴¹ This agreement was successful in that it was ratified by thirty states originally, and since then other nations have endorsed it.⁴²

Since the Chicago Convention, there have been several attempts to arrive at other multilateral air transport agreements⁴³ which have been unsuccessful.⁴⁴ This remains the situation even today. International air service is bound up in many strict bilateral agreements and restrictions of all sorts which are imposed on airlines the world over.⁴⁵ Such express statements indicative of international law such as Article 1 of the Chicago Convention are not accepted by all nations, and even those accepting them cannot agree on the exact interpretations. In such a situation as confronts the world, it is fortunate that farsighted legal authorities are now expressing their dissatisfaction and suggesting possible solutions to the problem.

C. *Analogy To Private Property*

As was mentioned previously, private ownership of airspace over property has been subjugated to the good of the general public. The old doctrine of private property extending upward indefinitely was fine as long as it was merely a theoretical concept. At that time the air at higher altitudes was not being exploited. However, with the advent of man's flight and modern technology, the air was being used, and it became expedient to transfer whatever theoretical property rights the individual formerly had to the state.

A somewhat similar situation seems to have arisen with regard to national sovereignty. There seems little doubt that each State now has absolute sovereignty over the air above its territory. Yet, isn't this a merely theoretical concept as regards extremely high altitudes? By far the greatest part of the commercial exploitation of the air is within the relatively low altitudes of just a few miles from the surface of the earth. Perhaps then, with the coming of greater use of the air at higher altitudes, it might be better for the good of the international public to create an international sovereignty over the airspace at the higher altitudes.

III. SUGGESTED CHANGES AND CLARIFICATIONS

In this section, suggestions advanced by contemporary writers will be discussed. There has been no attempt to include comments on all the published writings in this field. Rather, some of the better known and more provocative ideas are included.

³⁹ International Air Transport Agreement.

⁴⁰ *Proceedings*, *supra* note 38, (Vol. II) at 1399.

⁴¹ International Air Services Transit Agreement.

⁴² *Proceedings*, *supra* note 38.

⁴³ E.g., Geneva Conference of 1947, and the *Conference on Coordination of Air Transport in Europe* at Strasbourg in 1954.

⁴⁴ Sand, Lyon, and Pratt, *supra* note 6.

⁴⁵ *International Agreements and International Air Transportation*, Section VII of Aviation Study presented by Senator John W. Bricker, Chairman, Interstate and Foreign Commerce Committee S. Doc. No. 163, 83rd Cong., 2nd Sess. (Released Jan. 11, 1955); 22 J. Air L. & Com. 65 (1955).

One of the leading authorities in international air law is Professor John C. Cooper. It is interesting to examine the way his ideas about airspace sovereignty have changed in the last few years. Professor Cooper's original thoughts on the subject were expressed in a 1951 paper.⁴⁶ Here, he discussed the term "airspace" as it was used in the first articles of the Paris Convention of 1919 and the Chicago Convention of 1944. He presents a rather logical argument toward the view that this "airspace" was intended to include only that region of the atmosphere in which aircraft deriving their support from reactions of the air might operate. He goes on to say that the state of international law is such that now, "The territory of the State extends upward *at least* as far above the surface as to include a region which can be roughly defined as 'airspace.' And international law contains no presently accepted rule as to whether usable space above and beyond the 'airspace' is or is not part of the territory of the State below."⁴⁷ Cooper concludes with his suggestion for a possible sovereignty limitation: "At any particular time the territory of each State extends upward into space as far as then scientific progress of any State in the international community permits such State to control space above it."⁴⁸ This plan is of course an extension of Pufendorf's ideas of the seventeenth century. However, Cooper is more explicit in recognizing that each State should have equal sovereignty rights above its territory regardless of how weak or strong it is in relation to other States.

Cooper later realized that the above solution was impractical, and in 1956 he published a different suggestion:

Long and careful consideration during the past five years has convinced me of the existence of almost insuperable difficulties in applying the rule which I then suggested. The only practical way to solve the questions as to the legal status of areas above those covered by a strict construction of Article 1 of the Chicago Convention will be the adoption of some form of international agreement. Such a new convention might include these solutions:

(a) Reaffirm Article 1 of the Chicago Convention, giving the subjacent state full sovereignty in the areas of atmospheric space above it, up to the height where "aircraft" as now defined, may be operated, such areas to be designated "territorial space."

(b) Extend the sovereignty of the subjacent state upward to 300 miles above the earth's surface, designating this second area as "contiguous space," and provide for a right of transit through this zone for all non-military flight instrumentalities when ascending or descending.

(c) Accept the principle that all space above "contiguous space" is free for the passage of all instrumentalities.⁴⁹

This later suggestion by Cooper is an improvement over his original idea, but there are still weaknesses and drawbacks to its actual application. Of course, the basic idea of some form of international agreement, such as a new convention, is good, and is probably the only practical way to put a new international air law into operation. However, there are two main difficulties involved in the three-region set-up as visualized by Cooper. One is the determination of the boundary for the first region of

⁴⁶ Cooper, *High Altitude Flight and National Sovereignty*, *supra* note 10.

⁴⁷ *Id.* at 414.

⁴⁸ *Id.* at 418.

⁴⁹ Cooper, *Legal Problems of Upper Space*, 23 J. Air L. & Com. 308 (1956), reprinted from the Proceedings of the American Soc'y of Int'l Law, 85-93 (1956).

"territorial space." The definition as stated is based upon the area in which "aircraft" may be operated. Even if it were possible to give an acceptable definition of such "aircraft," it would still be difficult, if not impossible, to draw an exact line of demarcation. For instance, where would such a line be drawn for an aircraft such as the United States experimental vehicle, the X-15. This is a modern experimental ship with aerodynamic surfaces for flight in the heavier atmosphere, combined with rocket engines and jet exhausts for flight in upper space.⁵⁰ In other words, this manned aircraft is designed to operate both at low altitudes, such as those used by commercial airlines, and at extremely high altitudes of several hundred miles, as a manned satellite of the earth. In between these extremes, there is a wide region where the X-15 derives support both from its aerodynamic surfaces and from the thrust of its rockets. This situation is actually applicable to all heavier-than-air vehicles, whether they are rocket missiles or propellor-driven airplanes. Their continued flight at any given altitude is a function of both the aerodynamic surfaces and the thrust of their propulsion units. An airplane flying at a low altitude must still have sufficient thrust to stay aloft, as a man-made satellite at an altitude of several hundred miles must have sufficient velocity to develop a centrifugal force to counterbalance the earth's gravity. Therefore it is difficult to envisage any definition which would draw an exact line at the edge of the "air."

The second difficulty concerning Cooper's three-part solution might be shown by asking, what good does it do? In other words, what practical benefit can be obtained in marking off these three regions? The only reason for the establishment of the "contiguous space" is to permit free passage of "all non-military flight instrumentalities when ascending or descending." Apparently, Cooper feels that the airspace above the "atmosphere" should be free, but for purposes of national security the upper sovereignty limit is arbitrarily fixed at 300 miles. This has little practical use, especially in view of the fact that the state of military technology is such that it is just as easy to operate military missiles or satellites at a "legal" altitude of say 320 miles as it is at an "illegal" altitude of 280 miles. A further difficulty in definition is encountered in the phrase "ascending or descending." For example, most man-made satellites such as are now in existence follow an elliptical orbit.⁵¹ If the orbit of a particular satellite were to have an apogee of about 1,000 miles altitude and a perigee of say 150 miles altitude, could it be said to be ascending or descending when it happened to be below the 300 mile limit? In other words, the satellite is merely *coasting* around the earth. The distance the satellite is from the surface of the earth would be constantly changing, but it would be in a state of equilibrium (dynamically) with the earth; while the ordinary definitions of the terms "ascending" and "descending" imply a state of non-equilibrium. The situation is further complicated when it is realized that the point of perigee in the orbit of a satellite will be directly above a different part of the earth's surface nearly every time it goes around the world. It seems reasonable to conclude therefore that Professor Cooper's basic idea of the need for a new international convention is good, but the details of his three-area plan of airspace sovereignty make it impractical.

⁵⁰ Stambler, *X-15 Design Details*, Aviation Age, July 1958, p. 22.

⁵¹ Jane's and 1962 Space Volume, *op. cit.* *supra* note 1.

Now, in 1963, Cooper has published another article⁵² in which he briefly touches upon this point. This recent article is an excellent discussion of the need for uniformity in an "Aerospace Law" which would cover all types of man-made flight vehicles from ordinary balloons and airplanes to rockets and space ships. As part of the discussion it is explained that such a body of laws and regulations will necessarily involve the entire flight regime of such vehicles, all the way from the surface of the earth to the outer reaches of space navigated by space ships of the future.

Here again, Cooper has apparently altered his previous views, as expressed in the 1956 paper. He admits that "airspace," as used in most definitions, is an uncertain boundary.⁵³ He then apparently agrees with and adopts the definition included in the *Draft Code of Rules on the Exploration and Uses of Outer Space*,⁵⁴ prepared by a Study Group of the David Davies Memorial Institute of International Studies, London: "'airspace' means the volume of space between the surface of the earth at sea level and an altitude of 80,000 metres above it."⁵⁵ This somewhat arbitrary altitude limitation was arrived at by the Study Group after considering such factors as the altitudes at which the atmosphere has a substantial "braking" effect on satellites and the altitude at which the air has lost most of its character of a continuous medium.⁵⁶

By accepting this new definition of airspace and adding it to Article I of the Chicago Convention, Cooper has now adopted a more reasonable and realistic limit to a State's airspace sovereignty. The use of an arbitrary limit to airspace sovereignty seems to be the only practical solution, since it appears impossible to set up a reasonable definition of airspace based exclusively on physical characteristics of the atmosphere, as will be more obvious in the discussion of other writers' suggestions later in this paper.

However, the altitude of 80,000 meters, which is about fifty miles, seems to be too high for practical commercial reasons. It is extremely unlikely that any commercial airliners will ever travel at such heights, and therefore the use of such a high limit to sovereignty would not alleviate any of the problems encountered in the obstacles to international air travel which presently hinder the maximum efficient use of the air lanes. By allowing each country to have absolute control over the use of its adjacent airspace up to fifty miles, we would continue to have a hodge-podge of both realistic and unrealistic restrictions and red tape affecting commercial air travel. Likewise, a similar argument can be used as set forth previously in relation to Cooper's 300-mile limit in that, with respect to the fifty-mile limit, it would be just as easy to build an aircraft or rocket, perhaps an advanced design of the X-15, which could operate at a "legal" altitude of fifty-five miles as one that would ordinarily cruise at an "illegal" altitude of forty miles. In conclusion, then, this latest idea as set forth in Cooper's article appears to be a practical and workable limit to airspace sovereignty, but it entails the serious disadvantage of not showing any improvement over the existing situation involving the many impediments to international commercial aviation.

⁵² Cooper, *Aerospace Law—Subject Matter and Terminology*, 29 J. Air L. & Com. 89 (1963).

⁵³ *Id.* at 90.

⁵⁴ *Draft Code of Rules on the Exploration and Uses of Outer Space*, 29 J. Air L. & Com. 141 (1963).

⁵⁵ *Id.* at 143.

⁵⁶ *Id.* at 143-144.

Another authority who has expressed himself on this subject is C. W. Jenks. Jenks apparently supports the idea of national sovereignty up to an altitude where the "atmosphere" ends. However, he is mainly concerned with outer space above the atmosphere. He has a very good argument showing how illogical the claims of unlimited upward sovereignty are:

any projection of territorial sovereignty into space beyond the atmosphere would be inconsistent with the basic astronomical facts. The revolution of the earth on its own axis, its rotation around the sun, and the motions of the sun and the planets through the galaxy all require that the relationship of particular sovereignties on the surface of the earth to space beyond the atmosphere is never constant for the smallest conceivable fraction of time. Such a projection into space of sovereignties based on particular areas of the earth's surface would give us a series of adjacent irregularly shaped cones with a constantly changing content. Celestial bodies would move in and out of these cones all the time. In these circumstances, the concept of a space cone of sovereignty is a meaningless and dangerous abstraction. . . . By reason of the basic astronomical facts, space beyond the atmosphere of the earth is and must always be *res extra commercium* incapable of appropriation by the projection into such space of any particular sovereignty based on a fraction of the earth's surface.⁵⁷

Concerning jurisdiction over matters in this space outside the atmosphere, Jenks goes on to say: "It is most desirable that jurisdiction over activities in space beyond the atmosphere should be recognized to be vested in the United Nations and that legislative authority over activities beyond the atmosphere of the earth should be exercised by the General Assembly acting through or on the advice of an appropriately constituted body."⁵⁸ Failing this: "it will be necessary to determine such jurisdiction on the basis of appropriate criteria inspired by analogies drawn from maritime and aviation law and to develop common international rules and standards governing the wide range of problems which would arise."⁵⁹

Although Jenks presents a very cogent argument against unlimited upward projection of sovereignty, most of the rest of his paper, while very interesting, has little practical value today. While it is true that it is never too early to start thinking about a subject such as jurisdiction in outer space, it is rather difficult to say anything concrete about it until more facts are known. Jenks also talks about the "atmosphere" as the region limiting airspace sovereignty. Scientifically, it is impossible to say where the atmosphere ends.⁶⁰ The atmosphere of the earth, consisting of many different gases, merely becomes less and less dense as measured further from the earth's surface.⁶¹ Of course, some sort of limit such as a certain per centage of density of oxygen or nitrogen might be used as a limit for the atmosphere, but any system like that would be purely arbitrary and unrealistic. As was the case with Cooper's plan, the matter of difficulty involved in any definition of atmosphere makes any solution based upon an atmospheric limit impractical.

The same criticism can be applied to the suggestions of two other writers, D. B. Craig and Michael Aaronson. Craig seems to apply the same upper

⁵⁷ Jenks, *International Law and Activities in Space*, 5 Int'l & Comp. L.Q. 99, 103-104 (1956).

⁵⁸ *Id.* at 113.

⁵⁹ *Ibid.*

⁶⁰ Mitra, *The Upper Atmosphere*, The Asiatic Society, Calcutta (1952); Massey and Boyd, *The Upper Atmosphere*, Philosophical Library, New York (1959).

⁶¹ *Ibid.*

limit, although he begs the issue, by stating: "For present purposes, however, it seems sufficient to conclude that above the altitudes in which the Chicago Convention of 1944 is applicable the principle of free space should reign."⁶² Aaronson becomes even more specific, however, in defining the term "airspace" in the Chicago Convention "as that space enclosed by the radii of the earth passing through and above surface political boundaries, until such radii reach the notional frontier dividing the earth's atmospheric envelope from the sparse interplanetary gas which is reputed to permeate interplanetary space."⁶³ Even he admits that there is no agreement as to the altitude of this notional frontier.⁶⁴ Any definition of this type seems to be ineffective as a practical matter.

Another writer, H. B. Jacobini, goes back to Pufendorf's idea of airspace sovereignty based upon effective control:

It may be concluded, then, that in regard to the extension of national sovereignty over territorial space, the upper limits of this jurisdiction will be determined by the extent upward to which the subjacent state can exert effective control, and that the drawing of this line at a point short of the farthest extent of effective control may be tolerated only insofar as such action does not appear to bear adversely upon the State's feeling of security.⁶⁵

This suggestion of course is practical; in fact, this type of thinking is very common in those states which exhibit more possessive and isolationist tendencies.

However, such harsh reasoning is unacceptable under any reasonable and just standard of international law. As Cooper said:

Can we be said to live in such a world where the physical power at any one time of any particular State determines its *international right* to consider the region above its surface territories as part of its national territory? I may say here that my own belief is and has always been that if the rule of effectiveness is to be applied to determine the limit of State territory in space, then the rule should be that every State, no matter how small or how weak, as a State of equal sovereignty with every other State, has and should be admitted to have territorial rights upwards above its surface territories as high as the rights of every other State no matter how powerful.⁶⁶

Another criticism of Jacobini's plan can be based on even more practical reasoning. That is the difficulty entailed in the notification of and acceptance by other States of each individual State's upward limit of sovereignty. How is this limit to be established? Can each state arbitrarily express an altitude to which it can maintain control, thereby necessitating an acceptance, based on faith, of this limit by other States? Or, would it be necessary for each State to have an actual scientific or military demonstration of effective control by means of airplanes, guided missiles, etc.? Assuming that realistic limits could be established, varying with each state's capacity for control, a very complicated maze of restrictions would thereby be placed on international air travel. It is conceivable that a situation could arise whereby in a short horizontal flight of say 400 miles over the

⁶² Craig, *National Sovereignty at High Altitudes*, 24 J. Air L. and Com. 384 (1957).

⁶³ Aaronson, *Altitude of Territorial Sovereignty*, 225 L.T. 148 (1958).

⁶⁴ *Id.* at 148-149.

⁶⁵ Jacobini, *Effective Control as Related to the Extension of Sovereignty in Space*, 7 J. Pub. L. 97 (1958).

⁶⁶ Cooper, *High Altitude Flight and National Sovereignty*, 4 Int. L.Q. 411, 412 (1951).

territories of several States, there could be variations in airspace sovereignty limits of as much as several hundred miles vertically. This type of situation would be unbearable and certainly restrictive as far as the development of international air service is concerned. Therefore, Jacobini's suggestion, while perhaps expressing the practical attitude of some nations today, is far from being an optimum or desirable solution to the problem of airspace sovereignty.

Of all the writers, Mr. Andrew G. Haley has suggested what is probably the most exact limitation of sovereignty. The fact that he is an official of the American Rocket Society and of the International Astronautical Federation probably influenced his decision to use a more technical standard. This standard is the Masson and Gazley flight regime diagram; a curve plotted on graph paper using one coordinate of velocity and the other of altitude.⁶⁷ The curve, although irregular in shape, generally follows points of increasing altitude as the value of velocity is increased. The curving line of this diagram describes the upper limits of flight possible with vehicles using aerodynamic lift for support. In other words, for any given velocity, up to about 35,000 feet per second (the velocity necessary for escape from the earth's gravitational field), there is an upward limit on the altitude at which an aircraft could derive aerodynamic lift. Haley explains:

To establish sound bases for demarcation of air and space jurisdiction it is necessary to consider that the conditions for accomplishing aerial flight, that is to circle at constant altitude, are weight equals aerodynamic lift plus centrifugal force. The aerodynamic lift decreases with altitude because of the decreasing density of the air and in order to maintain continued flight beyond zero air lift, centrifugal force must take over. Consider the flight of Captain Ivan C. Kincheloe, in which he took the X-2 rocket plane to 126,000 feet altitude. His flight was strictly an aeronautical adventure and did not partake in space flight. At the altitude indicated aerodynamic lift carries ninety-eight per cent of the weight and only two per cent is centrifugal force, or "Kepler force." It will be noted that in the corridor of continuous flight when an object reaches approximately 275,000 feet and is traveling at 35,000 feet per second, the Kepler force takes over and aerodynamic lift is gone. This is a critical jurisdictional boundary.⁶⁸

In other words, Haley supports the idea of national sovereignty over the airspace above a State's territory up to a certain limit. However, instead of using the vague limit of the "atmosphere," as other writers have done, he uses the much more exact limit of the Masson and Gazley diagram. Although this line cannot be criticized scientifically, practical difficulties would arise in its legal application or enforcement. This is mainly due to the fact that this flight-regime limit is a function of both altitude and velocity. By using such a limit, the anomalous situation could arise whereby an aircraft, flying at a given, constant altitude, could be flying either in territorial space or in free space, depending only on its speed. The sense of physical propriety rebels at such an idea. Furthermore, there seems to be no practical purpose achieved in defining airspace sovereignty according to the type of aircraft used. It is probable that commercial aircraft in the foreseeable future will use other means of support besides aerodynamic

⁶⁷ Haley, *Space Law and Metalaw—Jurisdiction Defined*, 24 J. Air L. & Com. 286 (1957).

⁶⁸ *Ibid.*

lift, such as rocket thrust.⁶⁹ Such a rocket craft, being able to operate outside of the aerodynamic-lift flight-regime diagram, would therefore not be subject to sovereignty limits placed on conventional airplanes. It then seems reasonable to conclude that Haley's plan to use the Masson and Gazley diagram is workable for our present-day commercial aircraft, but is not practical for some present experimental vehicles or for all commercial craft of the near future.

One of the more recent ideas is that put forth by Scafuri, which he calls the jurisdictional theory. He would exempt from the jurisdiction of subjacent states all peaceful vehicles in orbital flight, on the basis that they could not pose a "clear and present fall hazard on the ground." On the other hand, all other craft whose fall could be reasonably predicted would remain subject to the sovereign jurisdiction of states beneath its path. The author explains that: "the jurisdictional dichotomization is based on an *action* regime rather than an area regime, i.e., *what* the vehicle is doing, rather than *where* it is."⁷⁰

This approach, like some others, runs into the difficulty of technical definitions. Although it is possible to make an accurate delimitation between vehicles which are in an orbital flight path and vehicles which are in a path that will bring them back to the surface of the earth, there will be problems encountered in the practical application of such a theory. It would seem that the only valid determination of whether a particular craft falls into one or the other of these two categories would have to come from the country of its origin. Not only would its intended flight path be important, but also someone would have to decide whether its mission was peaceful. Of course its flight path could eventually be determined by observation outside of the state from which the vehicle was launched, but there would be a necessary time lag in so doing. And needless to say, it would be impossible for another country to determine easily the contents or use of the craft within the peaceful-military spectrum. Another inherent difficulty with this plan lies in the fact that a powered vehicle or space craft could change its "falling" flight path to an orbital path, and vice versa, thereby resulting in a change of jurisdiction at the whim of those controlling the vehicle.

In this section, some of the ideas and plans suggested as solutions to the problem of airspace sovereignty by leading authorities have been reviewed and discussed. It is interesting to note that most of these writers have agreed that there should be an upward limit to state sovereignty, and they only disagree basically as to how to establish or define the limit.

IV. A PRACTICAL APPRAISAL

It seems obvious that the situation now existing with regard to airspace sovereignty and its effect upon international air travel is definitely unsatisfactory and should be improved in some way. A quotation from the beginning of the article by Goedhuis seems very appropriate:

In the year 414 B.C., a play was produced in Athens in which Aristophanes described how the birds when building a free city in the air beat off the legislators who came to offer their services. If Aristophanes could look at

⁶⁹ Cornog, *Economics of Rocket-Propelled Airplanes*, Aeronautical Engineering Review, Sept. 1956, p. 30.

⁷⁰ Scafuri, *Space Law: A Plea for the Technological Approach*, 41 Mich. S.B.J. 42 (1962).

the present situation in the air and see in what measure the legislators have prevented the birds of this day from unfolding their wings, he would have prided himself on his foresight.⁷¹

There are two main factors involved in attempting to appraise such a problem as entailed in airspace sovereignty. First, there is the question of what effect an international agreement such as a treaty or convention would have when applied to all the nations of the world. Second, bearing this effect in mind, what type of plan would be reasonable and practical?

In considering the effect of an international agreement, it is necessary to look at international law in general and its function. The eminent jurist, Max Huber, as Arbitrator in the *Island of Palmas* case, stated: "international law, like law in general, has the object of assuring the co-existence of different interests which are worthy of legal protection."⁷² Aaronson, in discussing Huber's opinion in this case, commented:

As regards the question which of different legal systems prevailing at successive periods should be applied in a particular case (the so-called inter-temporal law), the arbitrator distinguished between the creation of rights and the existence of rights. "The same principle which subjects the act creative of the right of the law in force at the time the right arises demands that the existence of the right, in other words its continued manifestation, shall follow the conditions manifested by the evolution of law." He held that international law is a living organism passing through many evolutionary stages. While recognizing established rules of positive law, it nevertheless must pay due regard to the tendencies of the era.⁷³

An illustration of this last remark is the situation created by the launching of American and Russian satellites. The Chicago Convention of 1944 specifically prohibits the unauthorized passage of pilotless aircraft over the territory of a contracting state.⁷⁴ The Convention is definitely a positive part of international law, at least for the participating states (Russia is not one of these). Yet there have been no complaints from any other contracting states concerning the fact that American satellites have been passing directly over the territories of many of these countries without authorization and regardless of the fact that there is no accepted definition of "aircraft" or "airspace" as used in the Convention. It might be said that tacit authorization was obtained when no objections were forthcoming after the United States announced the plan to launch satellites two years in advance of launching. In any case, although it might be said that the United States "technically" did not follow its international agreement under the Chicago Convention, no state is going to object vigorously, since little harm can be done by these scientific satellites. This is just one example of the application of common sense to the interpretation of accepted international law.

Wheaton defined international law as follows: "International law, as understood among civilized nations, may be defined as consisting of those rules of conduct which reason deduces, as consonant to justice, from the nature of the society existing among independent nations; with such defi-

⁷¹ Goedhuis, *supra* note 29, at 209.

⁷² The *Island of Palmas* (Miangas) Arbitration, Reports of International Arbitral Awards, II, 829; 22 Am. J. Int'l L. 867 (1928).

⁷³ Aaronson, *Aspects of the Law of Space*, 224 L.T. 219 (1957).

⁷⁴ *Proceedings*, *supra* note 38, (Vol. I) at 149.

nitions and modifications as may be established by general consent."⁷⁵ It is important to realize that international law is mainly concerned and most effective with respect to commercial relations between states. Because it is usually of mutual advantage, most countries are willing to compromise to a certain extent in arriving at international commercial agreements. However, when it comes to national security, each state considers this to be of prime importance, and international commercial agreements will be violated whenever a nation feels that its security demands such violation. Examples of this are pointed out in an article by Dr. Pepin.⁷⁶ Freedom of the high seas has been an established principle of international maritime law for many years, and since the Chicago Convention, the same principle has been established for the airspace over these international waters. Yet, as Pepin points out, these principles have been violated often in the establishment of restricted or danger areas concerning national security. "Thus, in the Pacific, around the atolls of Eniwetok and Bikini there has been declared an enormous danger area covering fourteen degrees of longitude and eight degrees of latitude."⁷⁷ Off the coast of the United States and of Canada, there have existed for several years new air defense identification zones extending at some points for a distance of 200 miles out to sea.⁷⁸

It seems apparent then that any particular international law will be accepted and followed by a state only when it is to that state's advantage, either directly or indirectly, to do so. It is also true, as brought out in the previous definition, that international law can come into being immediately by means of an express agreement, such as a treaty, or gradually through years of acceptance of custom or precedent. Applying these facts to the problem at hand, it would seem most useful and practical therefore to establish a reasonable international air law by means of an international treaty or convention, based on the realization that such law would mainly be effective for commercial uses rather than for military or scientific purposes.

Since the problems concerning international aviation are becoming more involved every day, particularly with the advent of greater technological advances, the suggestion of establishing new law in this field by means of some international agreement is certainly practical and most expeditious. Having reached this conclusion, the next question is what plan should be the basis of such an agreement?

An obscure, new idea, no matter how meritorious, would have little chance of success at an international convention, just because it would be something unfamiliar and therefore suspicious. It would be best then to suggest a plan which would have some familiarity for all nations. It might be well to adopt a plan or law analogous to the law of the sea, as suggested by other writers. Such law would have the advantage of familiarity, and at the same time be a practical solution to the problem.

The historical background of maritime law is analogous to our recent aviation law history, as has been recognized by several writers;⁷⁹ this is

⁷⁵ Wheaton, *Elements of International Law*, 23 (8th ed. 1866).

⁷⁶ Pepin, *The Legal Status of the Airspace in the Light of Progress in Aviation and Astronautics*, 3 McGill L.J. 70 (1956).

⁷⁷ Notice to Aviators, 12th March 1956.

⁷⁸ These zones, called ADIZ and CADIZ, were established respectively by the U.S. Reg. Sect. 620, 2b, and by the Canadian Information Circular 0/19/51 of 12th May 1951.

⁷⁹ E.g., see Ward, *Projecting the Law of the Sea Into the Law of Space*, Jag J. 3-8 (March 1957); Jenks, *supra* note 57.

especially true from an economic or commercial point of view. In the early development of the law of the sea, States claimed sovereignty over entire oceans.⁸⁰ And sometimes the State with such a claim also had effective control of the sea area so claimed.⁸¹ However, as Ward commented: "The broad claims of sovereignty over ocean areas withered away to meet the needs of the commercial community. We can now see the beginnings of the same movement with respect to the law of the air and a law of outer space."⁸² Jenks also commented upon the same idea:

The principle of the freedom of the seas, despite recent encroachments upon it, has stood the test of centuries of practical application; the principle of the sovereignty of each State over the air space above its territory, which principle developed rapidly during the first quarter of the twentieth century in response to what may prove in retrospect to have been transitional phases in the development of both air navigation and military security, has already been considerably qualified by conventional limitations, and may become increasingly unreal as greater use is made of the upper air space; we cannot disregard the possibility that the present law relating to sovereignty over air space, while well established at the present time, may be regarded by future generations much as we regard the claims to maritime sovereignty which were more or less successfully asserted for several hundreds of years before Grotius and Bynkershoek established the principle of the freedom of the seas.⁸³

While the idea is well accepted that the principle of freedom of the seas should be applied to freedom of the air, an important practical problem comes forth in the determination of an upward altitude limit to national sovereignty, before reaching this area of free space. Again looking to maritime law, it is seen that national sovereignty, that is the limit to territorial water, was generally accepted to be one marine league (three nautical miles).⁸⁴ Some historians claim that this distance had its origin in the effective range of the ancient cannon⁸⁵ (the idea of effective control for valid sovereignty). Be that as it may, for many years now, various nations have had weapons with effective ranges greater than three miles. However, regardless of the ability for effective control at much greater distances, this three mile limit is still generally accepted as an international standard of maritime law,⁸⁶ despite many disputes and unilateral disagreements with such a limit in recent years. In the same way, with the advanced military technologies of today, any reasonable altitude limit on airspace sovereignty will be less than the effective range of military weapons. Therefore, by looking at the parallel situation in the law of the sea, it can be seen that any objection (to an altitude limit) based on the fact that effective military control could be exerted beyond such a limit would be ill taken. As previously shown, many ideas have been expressed concerning this upward limit, with the most popular one being the use

⁸⁰ See generally Colombos, *The International Law of the Sea* (4th rev. ed., 1959); Hall, *International Law*, 178 (8th ed., Higgins 1924); Oppenheim, *International Law*, Vol. 1, §82 (8th ed. Lauterpacht 1955).

⁸¹ *Ibid.*

⁸² Ward, *supra* note 79.

⁸³ Jenks, *supra* note 57, at 102-103.

⁸⁴ Kent, *The Historical Origins of the Three-Mile Limit*, 48 Am. J. Int'l L. 537 (1954); Oppenheim, *op. cit. supra* note 80, at 490-492; Colombos, *op. cit. supra* note 80; Hall, *op. cit. supra* note 80, at 190.

⁸⁵ *Ibid.*

⁸⁶ *Ibid.*

of the atmosphere as a limit. Considering the objections already stated about these various plans, it is now suggested by this author that an arbitrary, rather low, altitude of say five miles be used as the upward limit to national sovereignty. A low altitude such as this would seem to be practical, particularly since its use would mainly concern commercial vehicles.

An altitude limit of around five miles was chosen for two main reasons. First, this would be an ample height up to which local restrictions and laws could apply for effective control and protection. In other words, these applications would cover such things as regulations governing landings on and departures from airports, protection of the rights of private property owners, such as freedom from excessive noise or vibration, etc. The second reason is that such a limit would be low enough to allow flights above it by international airlines using many of today's propeller-driven commercial aircraft,⁸⁷ and certainly low enough to allow jet airliners to cruise above the limit when passing over any State.⁸⁸

From the standpoint of international commercial aviation, there could be few objections to such a limit. Any necessary local regulations could still be effective, yet there would be freedom of flight in the space above the altitude limit. This is not to say of course that there would be no international law in the area of free space. Just as with the present situation concerning flight above international waters, there would be certain necessary regulations affecting the relationships of all vehicles. In order to provide safety precautions, such regulations would undoubtedly include descriptions and limitations of air lanes for travel in certain directions at certain altitudes. Such air traffic control procedures are now being provided for air travel over international waters by the International Civil Aviation Organization (ICAO). Although some nations, such as the U.S.S.R., are not members of the ICAO, and therefore are not legally bound by ICAO rules, there have been few, if any, problems encountered with the air traffic control over international waters involving aircraft of both members and non-members of ICAO. Whether or not a particular country is legally bound to observe international air traffic procedures, most of the regulations will be observed, as a practical matter, in order to make such flights as safe as possible. In any case, it is hoped that all nations of the world would be signatories to such an international agreement as proposed here, since that would be the only rapid and effective way to bring into being a new international law. Even without the agreement of all nations, it is likely that a slower process of acceptance would take place, resulting in an international air law generally accepted by all, as is the present situation with regard to the law of the high seas.

From the point of view of the scientific community, there also could be few objections. An altitude limit of about five miles would merely be an express statement of the situation that has been tacitly accepted anyway. In other words, there would be no official, legal objection to experimental vehicles, such as scientific satellites and research rockets, passing over the territory of a foreign state at a high altitude.

However, from the military standpoint concerning national security, there is a different problem. It is very doubtful, in the present situation

⁸⁷ Jane's All The World's Aircraft 1962-63, London (1962).

⁸⁸ *Ibid.*

of the international cold war, that any state would allow the military aircraft or missiles of a potential enemy to pass over its territory regardless of the altitude involved. This type of attitude was strongly evident, both here in America and abroad, after President Eisenhower suggested the "open skies" inspection plan with regard to disarmament agreements.⁸⁹ And, of course, it was most obvious in the U-2 incident.⁹⁰ It is here that more common sense must be applied. The attitude of distrust that has grown up among nations in the cold war will probably be present for many years to come. Therefore, it seems useless to try to apply any criterion such as freedom of the air when it concerns military vehicles. No matter what international agreements are in effect, if a situation arises where a State fears that it is about to be attacked or its national security violated in some way, it will take immediate steps for self-protection regardless of the incidental violation of a prior international treaty. In all of this discussion, therefore, the legal viewpoint is most important and should not be confused with military problems.

Thus, the same conclusion can be reached as was stated previously. An effective, truly international, agreement should be reached concerning a more reasonable international air law, based on the realization that such law will be mainly applicable to commercial uses. Even with an express agreement that all space above five miles is free space analogous to the high seas, each nation could still prohibit suspicious or threatening military vehicles from passing over its territory or for that matter, even approaching too near, under an application of the accepted doctrine of self-defense. It should be emphasized that any such international agreement would certainly not be accepted unanimously by the nations concerned. Regardless of the advantages such a plan might have over the existing situation or other proposed ideas, there would be a natural reluctance, based on selfish interests and mutual distrust, which would tend to slow down the rate of acceptance by the individual states. In any case, such an agreement, if truly beneficial to all nations, would become more popular with the passing of time.

The acceptance of such a plan as suggested here, using a low altitude limit to national sovereignty, while not being a comprehensive solution to all of international aviation's problems, would certainly be a step in the right direction. At least some of the red tape regulations now hindering international commercial aviation could be removed. While the spectacular growth of commercial aviation in recent years has been marred by the assertion of too many selfish interests, there has been a growing tendency, particularly by legal authorities, to support the side of more freedom and liberalization. It is hoped that this trend will continue. As Goedhuis said:

As the legal conscience tends to further the factors that protect, promote and enhance life, it is the task of the lawyers to help to create in the minds of the public a realization of the social element in aviation. It is this element that Sir Winston Churchill undoubtedly had in mind when he declared Civil Aviation to be "the greatest instrument for international solidarity."⁹¹

⁸⁹ See *The New York Times*, July 22, 1955, and Aug. 1 & 2, 1955.

⁹⁰ Wright, *Legal Aspect of the U-2 Incident*, 54 *Am. J. Int'l L.* 836 (1960).

⁹¹ Goedhuis, *The Air Sovereignty Concept and United States Influence on Its Future Development*, 22 *J. Air L. & Com.* 209, 212 (1955).