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Ownership of the Airspace

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Ownership of the Airspace

The Court of Appeals of the State of New York has laid down the doctrine that the space above land is real estate the same as the soil beneath, and that the law regards empty space as if it were solid, inseparable from the soil and protects it from hostile occupation accordingly.[1]

Doubtless to-day the question of ownership of the airspace is one of but remote interest to the average person. This lack of interest will be shortlived when airplanes, dirigibles and other aircrafts become as numerous as were motor cars a decade ago. That day is not far away. There were over sixty-seven per cent more airplanes manufactured in this country in 1927 than were manufactured in the previous year and for the year 1928 there were about five thousand airplanes produced. Furthermore there were over thirty-nine millions of miles flown by aircrafts in the United States during 1927,[2] and over sixty-five millions in 1928. With improved safety factors receiving every attention it will be only a matter of a few years before airplanes will be used universally, as one uses a motor car to-day; although not in the same volume that cars are now in use, it is true. But as to numbers, the airplane total will gain rapidly within the next few years on the number of automobiles. The present average daily air mileage in the United States is about ninety thousand miles. To-day the airplane is one of the safest forms of travel. This statement may doubtless cause some surprise and evoke at-

[1]Butler v. Frontier Telephone Co., 186 N. Y. 486.
[2]Aircraft Year Book for 1928, 421.

tempts of refutation. It is true nevertheless. In the United States Government air mail service there was but one pilot killed for every 1,413,381 miles flown in 1927.[3] In the air transport service but one fatality for every 1,414,330 miles flown in the United States occurred in the same period.[3] Of the 52,934 passengers flown in schedule flying in 1928 there were but thirteen fatalities. The dreaded spin or spiral nose dive about which the average layman has in the past heard so often is now a rarity in aerial navigation. In fact there is now in wide general use a type of commercial plane which it is claimed cannot spin accidentally or otherwise. The plane, in place of taking a spiral nose dive, when stalled will settle on an even keel and under full control. There are many other safety features in the conventional plane of to-day such as the slotted wing but their enumeration is beyond the scope of this article. In fact this digression was made merely to point out the fact that the airplane is a safe vehicle of travel and that its use is increasing so rapidly that it will be but a short time when planes will be seen constantly in flight. What then will be the extent of Mr. Average Citizen's interest when he awakens from his lethargy to discover that the airspace over his house and forty by one hundred feet suburban plot is being traversed constantly by airplanes? The presence of odors and noises, the occasional dropping of refuse and probably other objects on his property will arouse him to a realization that his possible domains are being used by others to whom he has not given any consent, actively at least. True the Air Commerce Regulation's air traffic rules require flight at a minimum height of one thousand feet in congested areas and five hundred feet[4] elsewhere but noise, odors, and refuse can penetrate both distances. Furthermore in taking off from a small field a plane must of necessity fly at lower altitudes over adjoining private property before gaining the minimum altitude requirements of the traffic rules. If Mr. Average

[3]Aircraft Year Book for 1928, 119.
[4]Section 74 (g).

Citizen is too deep in his slumber to be aroused by the aforementioned occurrences, he and his hard working helpmate may be greeted some morning by an embryo Lindberg, Chamberlin or Byrd crashing through their roof into the sanctity of their boudoir.

The extent to which one's proprietorship in property extends upward, and downward, also, is expressed in the ancient maxim *cujus est solum ejus est usque ad coelum et ad inferos.* Translated the maxim means that he who owns the soil also owns everything from the center of the earth to zenith. The principle laid down finds its inception in the Roman Law. Napoleon in formulating his famous code of laws incorporated the maxim therein.[5] Likewise it is found in modern civil codes, viz., that of Germany, Austria, Spain, Portugal, Italy, Holland, Uruguay, Argentine, Mexico, Japan and Switzerland. The provision in the German Code[6] limits the exclusive right to the superincumbent airspace and the extreme depth below the surface only to that part thereof for which the owner may ever have any practical use. The codes of the other nations mentioned also contain a similar limitation. This is an important limitation and should be borne in mind. Some of the states of the Union have adopted the maxim as part of their civil codes, notably California,[7] and the doctrine laid down in the maxim with some possible limitation is the common law of this country and is supported by court decisions.[8] This will be discussed at more length later.

A better understanding of the whole problem may be gathered by going back about twenty-five years into the history of the development of aeronautical law from that time on with occasional glimpses much further back in years.

In his Institutes, Justinian states that the air like the sea is by natural right common to all. And in the latter

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[5]Code Napoleon, Section 552.
[6]Section 905.
[7]Section 829.
[8]Ryan v. Ward, 48 New York 204.

part of the sixteenth century Queen Elizabeth said, "The use of the sea and the air is common to all." Justinian and the great Queen of course had no prophetic vision of the future of aerial navigation by modern aircraft, yet their statements were the basis, to some extent at least, of the so called doctrine of "freedom of the air" which was strongly advocated in the first years of the present century. It was from about the year 1902 that the history of air transportation really began. True, balloons were used by the late Count Zeppelin in our Civil War and also in the Franco-Prussian War, but the powered aircraft did not come until Orville Wright's epochal flight in 1903. From 1902 up to the time of the outbreak of the World War there were two schools of thought. One favored the doctrine of "freedom of the air" while the other advocated the principle of "sovereignty in airspace". Fauchille, the French writer and lawyer, and a German writer, Dr. F. Meili, favored the former doctrine while English authorities opposed it. The latter contended very strongly that the presence of any vehicle overhead was always a source of danger to the lands and waters beneath. The British authorities thus realized that Justinian's and Queen Elizabeth's pronouncements of "freedom of the air" had not withstood the acid test of practical application. Here was evidenced the first indication of the breaking down of the doctrine of "freedom of the air". The practical problems of the World War sounded the death knell to the doctrine that the air is free as is the sea, for soon thereafter the doctrine of air sovereignty gained the preponderance of the weight of expert authority. The World War proved that in time of crises national governments assert their sovereignty in the airspace over their territory. At the first international convention held after the war the doctrine of air sovereignty was definitely settled. This was the International Air Navigation Convention held in Europe in October 1919, and it adopted the provision that the contracting States recognize that every State has complete and exclusive sovereignty in the airspace above its territory and territorial

waters.[9] On May 31, 1920, the United States signed the Convention but as the Senate has not ratified it, it never became binding on this country. It appears that in 1913, at Madrid, Spain, the International Law Association had adopted the doctrine of air sovereignty but of course it had not the authority and element of finality because of the very nature of the organization that adopted it. The convention of 1919 also adopted a provision which accorded the right of innocent passage by subjects of one sovereignty over the lands of another but such right is merely a temporary and contractional one which can be revoked when occasions require its nullification.[10] Thus came about a complete abandonment of the principle of "freedom of the air". Here is seen a tightening and restricting of the use of airspace. It is now well settled that the sovereignty in airspace is in the country whose lands and waters are beneath. In the United States, the sovereignty in airspace is in each state, subject to the disputed federal jurisdiction over interstate aerial navigation.

Many of the states of the Union have by specific legislative enactments declared their sovereignty in the airspace over the lands and waters within their respective jurisdictional boundaries. Among those that have so declared themselves are Pennsylvania*, Vermont, Delaware, Maryland, Tennessee, Indiana, Michigan, North Dakota, South Dakota, Utah, Idaho, Nevada, Rhode Island and the Territory of Hawaii. These states have expressed themselves by stating that the sovereignty in the space above the lands and waters of the State is declared to rest in the State, except where granted to and assumed by the United States, pursuant to a constitutional grant by the people of the State.[11] Michigan and Hawaii omit the exception.[12] Other states have indirectly asserted their sovereignty in airspace

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[9]Article 1.

[10]Article 2.

*Act of April 25, 1929, P. L. 753, Sec. 3.

[11]Uniform State Law For Aeronautics, Section 2.

[12]Michigan 1923, No. 224; Hawaii 1923, Act 109.

through the enactment of certain statutory provisions with reference to the operation of aircraft.[13] Only recently New York State passed a law which became operative on September 1, 1928 declaring it a crime to navigate an aircraft while intoxicated.[14] Again it is found that because of our dual organization of government that the sovereignty in airspace is divided among the several states, subject to the possible qualification of control over interstate commercial traffic by the federal government. On account of this division of power between the federal government and the states problems in jurisprudence have arisen.

With this digression showing the development of aerial law first as between nations and then local states, comes the question of individual proprietorship in airspace by the owners of the subjacent lands. Pennsylvania*, Vermont, Delaware, Indiana, Michigan, Rhode Island, North Dakota, South Dakota, Utah, Nevada, Tennessee and the Territory of Hawaii have again spoken and enacted a law which provides that the ownership of space above the lands and waters of the State is declared to be vested in the several owners of the surface beneath, subject to the right of flight.[15] Idaho however has eliminated the clause "subject to the right of flight".[16] Hence there are thirteen states in the Union that by statutory enactments indirectly indorse, at least in part, the maxim *cujus est solum ejus est usque ad coelum et ad inferos,* subject however to the important limitation of the right of flight in twelve of them. California, as heretofore stated, has adopted the principle of the maxim in her civil code. The particular provision states that the owner of land in fee has the right to the surface and to everything permanently situated beneath or above it.[17] This with the Idaho Law is another challenge to the

[13]Chapter 233, Laws of New York 1928, General Business Law 240-244.

[14]Chapter 408, Laws of 1928, Penal Law 1222.

*Act of April 25, 1929, P. L. 753, Sec. 4.

[15]Uniform State Law For Aeronautics, Section 3.

[16]Idaho 1925, Chapter 92.

[17]California Civil Code, Section 829.

soundness of the doctrine that the "air is free". Of course this doctrine was originally applied as between sovereign states, but the general expression "the air is free" is being denied now to persons within political subdivisions, in some instances. It can be seen readily that there is conflict on the question among the states. The twelve states which have conceded the ownership in the airspace to the subjacent land owners subject to the right of flight, as well as the state of Idaho, have further amplified their position in the matter by stating that flight in aircraft over the lands and waters of a state is lawful, unless at such a low altitude as to interfere with the then existing use to which the land or water, or the space above the land or water, is put by the owner, or unless so conducted as to be imminently dangerous to persons or property lawfully on the land or on the water beneath.[18] This restriction of the subjacent landowner's right of proprietorship in the superincumbent airspace, it will be recalled, is similar to that imposed by the German Code.[19] Idaho's stand in legalizing flight is an assertion of her police powers, and its legality is open to question.

If the *usque ad coelum* principle is still law then the constitutionality of the provisions of the law of those states which have specifically declared that the ownership of space above the land and waters is invested in the owners of the surface beneath, subject to the right of flight, is open to serious question because of the limitation "subject to the right of flight". One must not be unmindful of the provisions of the Fifth and Fourteenth Amendments of the Federal Constitution which provide, among other things, that no one shall be deprived of his property without due process of law nor shall private property be taken for public use without just compensation therefore.[20] Such provisions are a part of our Bill of Rights and must be carefully guarded. Any infringement thereof strikes at

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[18]Uniform State Law For Aeronautics, Section 4.

[19]Section 905.

[20]Story v. New York Elevated R. R. Co., 90 N. Y. 122.

the very roots and foundation of our governmental structure. At this juncture it should be borne in mind that property rights of an individual and the sovereignty of a State are two distinct concepts. True a state in the exercise of one of its sovereign powers, viz., that of police, may authorize the right of flight over the private property without compensation and the exercise of such governmental function may be due process of law, provided its very exercise is a proper use of such police powers. In other words the necessity for evoking such police powers must exist.[21] If there is no such necessity then the use of police power by a state must not be a guise for circumventing or defeating those provisions of the Fourteenth Amendment which prohibit the taking of private property without compensation or the depriving of one of his property without due process of law. If the necessity is said to exist solely as a matter of expediency, then the question arises as to whether or not private property rights are to be regarded so lightly and dismissed so readily. The Supreme Court of the United States has stated that it is the duty of the courts to avoid encroachments on the constitution.[22] Furthermore that which may be of no consequence today, insofar as the property owner is concerned, because of the infrequent passage of aircraft may be of great importance when the use of aircraft becomes more general. That day is not far off. To-day no one objects to the occasional airplane that passes over his property. This is true no matter how soured one may be toward his fellow men. In fact the passing of an aircraft usually arouses curiosity and sufficient excitement to cause the whole family to stumble over the house cat and out the back door to wave a friendly greeting to the aeronaut in flight. When aircrafts become so numerous however, their frequent passing will cease to be a novelty and if the presence of planes is so constant as to amount to a nuisance, the present day friendly attitude may unfortunately turn to

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[21]State of Mo. v. Kansas City Ft. S. & G. R. Co., 32 Fed. 723.
[22]Boyd v. United States, 116 U. S. 635.

one of open hostility. Might it not be far wiser to meet the question of the ownership of the airspace now while it is not so acute? It certainly would be considerably more simple and surely would be fairer to aircraft in general. In justice to aeronautical interest, both financial and industrial, a policy of submissiveness should not be turned into one of open obstruction after capital has been heavily invested and the industry well established. What will be the condition of mind of the private pilot a year or two hence when upon embarking on a flight some fine Spring Sunday morning with his wife and kiddies and perhaps his mother-in-law, but with good intentions as to her to be sure, he will learn that his next door neighbor or some more distant one objects to him passing in flight over their property? True, if the adjoining neighbor likewise has a plane there will be reciprocal arrangements. If there are a number of less fortunate or timid neighbors who do not possess an airplane, it can be imagined easily the zigzagged course that our family pilot will be compelled to pursue in order to proceed with his journey. This calls attention to the wisdom of encouraging everyone to become airminded. With such psychological assistance the difficulties of the situation would be considerable mitigated.

A brief review of some of the judicial decisions to determine what practical application has been given to the doctrine set forth in the maxim *cujus est solum ejus est usque ad coelum et ad inferos,* should prove illuminating. In a Georgia case it was stated that the owner of realty having title downwards and upwards indefinitely, an unlawful interference with his rights, below or above the surface, alike gave him a right of action.[23] An Iowa court decided that the placing of one's arm over into the space above the land of another was a trespass for which one was liable.[24] This court stated that it is one of the oldest rules of property known to the law that the title of the owner of the soil extends not only downward to the center of the

[23]Markham v. Brown, 37 Ga. 277.

[24]Hannabalson v. Sessions, 116 Iowa 457.

earth but upward *usque ad coelum.* It was stated by a foreign court that it would be reluctant to hold that a landowner had not the right to object to one putting anything over the owner's land at any height.[25] Firing a shot across the lands of another was ruled an actionable wrong in Minnesota[26] and English courts.[27] The stringing of telephone and telegraph wires was held to be a trespass by a New York court.[28] In this case the Court said that so far as the case before it was concerned, the plaintiff as the owner of the soil owned upward to an indefinite extent. In California it was decided that an owner of land had the right to cut off the limb of a tree which overhung his property, although the tree grew upon the land of another.[29] In this connection a New York Court held that an action for trespass would lie against one whose trees hung over into the space of another's property.[30] An English court has decided that an action would lie against one whose horse kicked into the space over the land of an adjoining owner. Pollock states that it does not seem possible, on the principles of the common law, to assign any reason why an entry above the surface should not be a trespass. The Law Journal, London, April 27, 1929 states as follows:—

> "To the question, therefore, whether an action for aerial trespass will lie, no definite answer can be given. But, as Pollock observes, there seems no reason or principle why there should not be such a trespass. The development of civil aviation may bring this aspect of trespass into prominence and lead to a clarification of the present obscurity."

On the other hand there have been two quite recent decisions, one in Pennsylvania and one in Minnesota in which

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[25]Wadsworth Dist. v. United Tel. Co., 13 Q. B. D. 904.
[26]Whitaker v. Stangvick, 100 Minn. 386.
[27]Clifton v. Bury, 4 T. L. R. 8.
[28]Butler v. Frontier Tel. Co., 186 N. Y. 486.
[29]Grandona v. Lovdal, 78 Cal. 611.
[30]Hoffman v. Armstrong, 48 N. Y. 201.

it was held in effect that an aircraft does not commit a trespass in passing in flight over the lands of another. In the Pennsylvania case* an owner of land sued an aeronaut for trespass because of the noise created in flying over his property. The Minnesota case also was one for damages and to enjoin the defendant from flying over plaintiff's property. In this case[31] the Court said that the upper airspace is a natural heritage common to all of the people, and its reasonable use ought not to be hampered by any ancient and artificial maxim of law as "Whose the soil is, his it is from the heavens to the depth of the earth", and that to apply the rule as contended for would render lawful air navigation impossible because if the plaintiff could prevent flights over his land, then every other land owner could do the same thing. While those two cases were decided by lower courts they are important because they have ruled directly on the question of the right of aircraft to use the superincumbent airspace over the private property of others.

For support the proponents of the maxim rely on the judicial decisions, the maxim itself, its incorporation in various judicial codes, its acceptance and adoption by expert legal authorities from Blackstone[32] and Cooke[33] down to more modern and contemporary authorities. A United States Senator at one time introduced a bill in Congress which recognized the private landowner's right to forbid flight over his property with the right to collect damages in the event of the violation of such alleged right. The measure also provided for the right of injunction to prevent such flights.[34] A former committee of the American Bar Association has stated that it confesses that the maxim *cujus est solum, ejus et usque ad coelum* does not in terms at least admit of the invasion of private right in time of peace

*Commonwealth v. Nevin and Smith, 2 D. & C. 241.

[31]Johnson v. Curtis Northwest Airplane Co. et al. (unreported).

[32]Blackstone Comm. 4th Edition, 18.

[33]Coke on Littleton, 4 a.

[34]Senate 2593, July 1919.

for military purposes. Another authority on aeronautical law admits that two of our states treat an aircraft passing in flight over the private property as a trespasser. Major Elza C. Johnson while Legal Adviser of the Air Service of the United States stated that the space above the earth is fixed and all that belongs to it is private property, to which the owner is entitled to unmolested enjoyment without added and unnecessary dangers. That is very strong support for the *usque ad coelum* theory. A quotation or two of the Major's in an Air Information Circular published by the Chief of Air Service should prove interesting at this juncture. He wrote:—

> "The navigation of the air must depend entirely upon the question of who owns the space above the earth. If the common law rule is recognized that the space above the earth belongs to the owner of the earth, then no power exists in the Constitution of either State or Nation to deprive the individual owner of any rights to the free use and occupancy of that space as long as he does not molest the private ownership of his neighbor. No one has any right to cross his property with an airplane and trespass upon his right to enjoy it without danger or fear of danger."

This is a frank statement from one so closely interested in the development of aviation. Major Johnson deserves considerable commendation for his courageous stand. He is whole heartedly for the advancement of aeronautics, but he believed that it should be developed on a legal foundation along constructive lines rather than by means of make shift measures and subterfuge. Writing further he said:—

> "The basis of all starting of air navigation then must necessarily be the grant from the individual".
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> "It is my opinion that the question should be stripped of all camouflage and hope of getting by, and met squarely as it is. I do not believe that we can long hide behind the provisions of police power, interstate commerce, post roads, general welfare, or common de-

> fense, if we do not first settle the individual right and obtain Federal control of the air".

Major Johnson also stated that any use of the air is unauthorized and the air is used in the navigation of aircraft, other than Government, by mere permission which does not establish either right or jurisdiction; and that even the Government, other than in war times, would have no inherent right to operate aircraft over private property for carrying mail or military training, and therefore it is highly desirable to face the situation as it is in order that steps may be taken to open up avenues of aeronautical interest sufficient to insure the best results in military and naval aviation. He further stated that under the present grants and prohibitions of the Constitution and the common law rule of ownership of space above property, neither the United States Government nor the States have any jurisdiction over the air. Major Johnson further wrote:—

> "It would appear, and it is my opinion, that steps should be taken at once to obtain federal control of the air by direct grant of the people. I am of the opinion that this must be done before any rights to use the air exist, notwithstanding the claims to the contrary."

There appears to be no reason why the sound law as stated by Major Johnson a few years ago is not equally sound law to-day.

Many arguments, ingenious and otherwise, have been advanced against the proposition that the superincumbent airspace is not free to aerial navigation. Opponents of the maxim contend that it is obsolete and has no modern application in the light of present inventions and that if aircraft are to be of any practical use, such ancient and obsolete maxims are to be disregarded. Furthermore they contend that if the maxim is to have any application at all it must be liberally construed. In other words the proprietorship in the overlying airspace insofar as the subjacent owners are concerned is to be limited to such airspace that is ap-

purtenant to the land, or stated in other words, the ownership of property extends only as far upward as the necessities and protection of it require. To that extent and that only it is claimed the maxim is to receive any application. It is further asserted that the mere passage of aircraft over one's lands and waters at such a height as not to interfere with the use thereof by the owners is not an actionable wrong. This it will be recalled is the view taken by the twelve states previously mentioned which have adopted the Uniform State Law for Aeronautics. It is also stated that the ownership in the overlying airspace has been lost by subjacent owners by reason of failure to use the space. Such claim is certainly highly amusing for without modern aircraft or the general use of the balloon it is inconceivable how the upper strata could have been previously used. If one had so used the upper airspace above his property would it then be conceded as private property? Carl Zollman in his "Law of the Air" also has advanced the argument that in the South and West in years gone by no one ever objected to cattle roaming over one's land which was not inclosed, therefore an aircraft flying over one's property should be free from a claim of trespass.[35] He further states that no one would complain about a baseball[36] being thrown across one's land or of one's pigeons[37] or other birds flying over another's property. This is probably true if the baseballs and pigeons were not too numerous. So the analogies run. Some have objected that to strictly construe the maxim would be to impede the progress of science and that therefore strict application should not be extended to conditions which did not exist when the maxim was in the process of development. The ancient doctrine of minerals with reference to the ownership beneath the surface which limited such ownership is claimed by analogy to apply to the limitation of the ownership of the airspace by the subjacent owner. Likewise the modern

[35]Law of the Air—Zollman p. 16.
[36]Law of the Air—Zollman p. 20.
[37]Law of the Air—Zollman p. 21.

doctrine of the ownership of a vein under another's land through ownership of its apex, in the law of mines, is sought to be applied to the superincumbent airspace.[38] Under the ancient law of roads the element of passage or the right to proceed with one's journey was deemed a superior right over the right of adjacent ownership and consequently if a road was blocked, the traveler had a perfect right to pass over the property adjoining the road. The traveler had the right to pass even if in doing so he had to walk over growing crops. This is presented as another example of the limitations to which the airspace ownership is subject. Another analogy is advanced in the private ownership in the bed of a stream. It is contended that the easement or right of the public to pass over the waters, the bed of which is the private property of another is identical with the right to pass in flight through the airspace over private property. The analogy is admittedly a very excellent one. Another ancient law evoked is the one which required a property owner to keep his land clear of bushes for a distance of some two hundred feet on each side of a highway in order that no highwaymen might be able to hide behind bushes bordering the road. This is claimed to be similar to the right to leave free for the passage of aircraft a certain border or part of the overlying airspace. The ancient law made the adjacent owner liable to any person robbed by reason of the highwaymen being offered a hiding place due to the failure of the owner to keep clear the strip of land for the required distances. At the risk of being facetious it might be stated that no mention is now made by those offering the analogy that if the clouds are not swept away by the subjacent land owner he might be liable for any robbery committed by highwaymen navigating in the upper strata. Even the legality of the New York rent laws is advanced to illustrate the extent to which private property is subordinated to the public interest and so in the interest of air navigation the ownership of the

[38]Report of Special Committee on the Law of Aviation, Amer. Bar Assn., 1921, p. 19.

airspace should be so restricted.[39] Also it is pointed out that the decisions of the courts with the exception of the Pennsylvania and Minnesota decisions heretofore mentioned have applied the latin maxim to airspace only immediately adjacent to the soil and not to the upper airspace in which aircraft pass in flight. A former committee on aviation of the American Bar Association has called the *usque ad coelum* theory a prepossession and a bugaboo.[40] This same committee maintained that it is incumbent upon private owners to demonstrate the extent of their private ownership in the upper airspace to the exclusion of common right. The committee has further stated:—[41]

> "We feel that this committee can do no more beneficial service to the public and the common interest of all the people than to challenge the proposition that it is an invasion of the rights of private ownerships of property to utilize the air for purpose of flight."
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> "We feel that the essential interest of air flight demands that jurists and lawyers should not be led into any supine concession that our law already invests in private ownership the the private right to exclude fliers from the air."
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> "We cannot too often urge that the extent of private ownership in the airspace so as to embarrass public travel through the air is itself a new question in jurisprudence not to be passed over by concession or properly solved by indifferently yielding to claims of private ownership which are not a necessary consequence of principles already recognized in the law ot private property.[42]

The committee concludes with the statement that the question of ownership of airspace should be discussed, debated and yielded only to the extent that the private owner may

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[39]Id. Page 19.
[40]Id. Page 14.
[41]Id. Page 18.
[42]Id. Page 20.

demonstrate according to the accepted tested principles of jurisprudence that the claim is an essential part of private property. In an article published in the American Law Review, Edmund F. Trabue has also reiterated the proposition that the latin maxim in question is applicable only to such airspace as is appurtenant to the land.[43] The late Simeon E. Baldwin, former Governor of Connecticut and a high legal authority on aeronautical as well as general law, stated that the owner of land has no legal right in the airspace above it except as far as its occupation by others could be of injury to his property.[44] Two opposing latin maxims have been offered to combat the *usque ad coelum* doctrine. One is *damnum absque injuria* which means of course damage without injury. If one is passing in flight over the private property of another and causes no damage, then it is contended that even though the upper airspace might be conceded to be the property of the subjacent owner, he has no cause to complain because he suffered no damage resulting in injury. The other maxim is *de minibus non lex curat.* Translated it means the law gives no reward or damages for insignificant things. It is urged that the mere passing in an airplane through the airspace at a considerable height is so inconsequential insofar as interfering with the subjacent owner's use and enjoyment of the land beneath that no court would be bothered with any trivial action for damages or trespasses.

Professor George Bogert in an article in the Cornell Law Review stated, in speaking of the *usque ad coelum* rule:[45]

> "But, notwithstanding the persistence of the rule, its application in the space not immediately adjacent to the soil and structures on the soil is wanting. All the decisions are regarding intrusion into the space very

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[43]The Law of Aviation, American Law Review, Page 87, Vol. 58, No. 1, 1924.

[44]4 Am. J. Int. L. 95.

[45]Problems in Aviation Law, Cornell Law Quarterly, Vol. VI, p. 271.

near the surface, where the actual use of the soil by the surface occupant was disturbed. It is believed that an examination of the cases will show that *cujus est solum* is not law, but is merely a nice theory, easily passed down from medieval days because there has not been until recently any occasion to apply it to its full extent."

Opposed to Major Johnson's pronouncements in the Air Service Information Circular, is a more recent circular prepared by Captain Rowan A. Greer, likewise of the Judge Advocate General's Department of the United States Army. In the circular the Captain has written:

"If the maxim of '*cujus est solum ejus usque ad coelum*' be conceded as the law without limitation of its broad terms, then it may likewise be conceded that the conclusions advanced by Major Johnson are logically sound. However it is respectfully but earnestly submitted that no court or authority has gone so far as to announce that this old latin phrase of 'who owns the soil owns also up to heaven' means that no one has the right of passage through the air spaces that in no way interferes with the full enjoyment of the possession of the subjacent soil and causes no actual damage to the owner of that soil. A careful examination of the origin of this maxim shows it merely to have been the pronouncement in a textbook or treatise of a black-letter principle. Indeed, until the last quarter of a century man has not developed any inventions or facilities that would give rise to the necessity of an acceptance of this precept in its broadest aspect, and it is not therefore fair to say that it is a recognized 'common-law rule'."

Here we have two opposing views by officers of the Judge Advocate General's Department of the United States Army. It should be here noted however that they do not differ on the question of who owns the airspace, but only as to the extent of the subjacent owner's proprietorship in

the superincumbent airspace. Major Johnson appears to have gone more exhaustively into the subject, whereas Captain Greer seems to have been content to accept the dicta of—well let it be said—the more popular viewpoint. This is said in no criticism of the Captain however, but on the contrary it can be stated that his arguments do not lack the element of consistency. This is something that cannot be said of a number of the opponents of the *usque ad coelum* rule.

If there can be no agreement between the advocates of the two opposing doctrines, the proposition might be advanced that the superincumbent airspace is new territory like some undiscovered lands of the arctic region or some newly discovered island and therefore the airspace is free to all of those citizens of the nations whose territories lie beneath. But of course this proposition presents other questions. How much of the airspace is free and undiscovered territory? How much of it is appurtenant to and necessary to the full enjoyment of the private owners of the land beneath? Who is to decide how much of the subjacent owner's common law right in the space above his land is to be allowed to him and what part is to be denied to him? This only brings one back again to the *usque ad coelum* maxim. The proposition of newly discovered territory and the questions that arise therefrom illustrate that for all practical present day purposes the problem is one of degree. In other words where is the line of demarcation to be drawn and at what height is the exclusive right of possession by the subjacent owner to terminate?

Some opponents of the maxim who attack it on the ground that it is ancient and obsolete, in their contention that the air is free, themselves evoke other ancient and obsolete maxims. In one statement they say that an owner of land has no proprietorship in the superincumbent airspace and in the next statement they admit indirectly that he has such ownership by advancing such doctrines as the ancient law of roads, ownership of minerals, the public easement of the use of navigable waters and others as well as legal maxims which have been mentioned pre-

viously. Through their indirect admissions by their application of analogies they admit proprietorship by the land owners in the superincumbent airspace, but in fairness it should be observed that such indirectly admitted ownership is restricted and limited. To some extent this has been the reasoning of the committee of the American Bar Association in spite of some of its utterances heretofore quoted. This is not offered as a criticism but is submitted as proof that after all there is not such a great difference of opinion between the two schools of thought on the question of ownership of the upper airspace by the subjacent owners. A careful analysis of the contentions on both sides of the proposition will disclose the fact that ownership is admitted either directly or indirectly, but with the important distinction made by those opposed to the *usque ad coelum* theory that ownership is limited to those uses which are appurtenant to the land and to the full enjoyment thereof. In other words ownership is limited to the zone of effective possession. This it will be recalled is the position taken by those states that have adopted the Uniform State Law For Aeronautics.[46]

Likewise this stand is in accord with the civil code of the various nations previously noted. In other words private owners own the airspace above their property subject to the right of flight and the non-interference with any use they may choose to make of their property. Of course this limitation is a significant one. No one can foretell or possesses a vision sufficiently keen that he can prophesy in the least what new scientific inventions may be in use within the next quarter of a century or less, that in the use thereof in connection with one's land may conflict in no small degree with the theory of the right of flight. It is for this very reason that fundamental property rights should not be too readily cast aside. That which may be denied to subjacent owners to-day may be an urgent necessity to them and the world in general tomorrow. Even with reference to modern structures, only recently the

[46]Uniform State Law For Aeronautics, Section 4.

president of one of the foremost engineering and construction concerns stated that two hundred-story buildings offered no structural engineering impossibilities and that engineers welcomed an opportunity to design such structures. While the zone of effective possession of the upper air strata may to-day be but five hundred to one thousand feet, with two hundred-story structures such zone will embrace the airspace up to twenty-five hundred feet. With the passage of time and new developments the ultimate zone of effective possession may reach to five thousand or even ten thousand feet. No one can actually predict the future and attempt to place any limitation with respect to future physical possibilities. Great as are the benefits to be derived by mankind through the use of aircraft, and those benefits cannot be exaggerated or their full scope prophecised, yet who can deny that some invention may yet arise within the lives of the next generation or two which may be a far greater benefit to mankind than is that of aeronautics. If the needs of the one conflict with the other the weaker must yield. As a means of local travel the horse-drawn vehicle and the bicycle have become almost extinct. Who would have dared to predict that thirty years ago? Who can tell what is the future of the motor car now that the airplane is here? The ultimate vehicle may be a combination automobile and airplane that will permit of both air and land travel.

The provision of the Air Commerce Act providing that the airspace above the minimum safe altitude of flight prescribed by the Secretary of Commerce shall be subject to a public right of freedom of interstate and foreign air navigation in conformity with the requirements of the Act,[47] has not settled the question as to what extent the legal maxim *usque ad coelum etc.*, is to have legal application in the light of the development of modern air navigation. Through the alleged power of the Commerce Clause in the Federal Constitution, the aforementioned provisions of the Air Commerce Act do however attempt to assert the

[47]Section 180.

right of freedom of aerial navigation for interstate and foreign commerce purposes superior to the right of subjacent landowners to use the airspace to any extent or degree which may interfere or conflict with the use thereof by interstate and foreign air commerce. The legality of this assertion of the right of freedom of aerial navigation for interstate and foreign commerce is not to go unchallenged.[48] The theory, of course, is that Congress has the power under the Commerce Clause of the Federal Constitution to regulate all foreign and interstate commerce whether it be on the water, on the land, or in the airspace. Also has been advanced the analogy that the Supreme Court of the United States has regarded the right of the owner of shore or submerged land as being restricted to the superior right of the public in general, and as the result the United States may assert its right against individual owners of land in the interest of interstate and foreign air commercial navigation. In this connection the United States Supreme Court has decided that the right to improve navigation is paramount to the riparian owner's right of access to a stream.[49] Consequently it evoked the Commerce Clause, that "cure all" for all doubtful legislative action. Congress's power to regulate interstate and foreign commerce through the medium of the Commerce Clause is subject to the limitation of other provisions of the Federal Constitution.[50] Reference is made particularly to the Fifth Amendment, and which it will be recalled provides in part that no person shall be deprived of life, liberty or property without due process of law nor shall private property be taken for public use without compensation. Whether or not the provisions of the Air Commerce Act in providing that the airspace over private property is free to interstate and foreign air navigation, is depriving one of his property without due process of law and is an un-

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[48]Story v. N. Y. Elevated R. R. Co., 90 N. Y. 122.

[49]Scranton v. Wheeler, 179 U. S. 141.

[50]U. S. v. Delaware & Hudson Co., 164 Fed. 215; Monongahela Navigation Co. v. United States, 148 U. S. 312.

warranted exercise of federal power are questions for very serious consideration. On this latter proposition the Special Committee on the Law of Aviation of the American Bar Association has stated:

> "The Constitution neither expressly delegates to the United States powers over air flight as such nor prohibits them to the states; presumptively, therefore, they still reside either with the states or the people, but they do not reside with the United States nor with Congress."
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> "While we also recognize that as incidental to the power to lay taxes, or to regulate interstate or foreign commerce, or to pass laws to carry out the provisions of treaties, or in the exercise of other specific powers, Congress may legislate respecting air flight, we also recognize that without an unprecedented extension of the claims of the exercise of constitutional power, and unprecedented judicial recognition of an unprecedented claim, there can be no complete control of the subject matter by national legislation."

It will be recalled that this same committee opposed the *usque ad coelum* doctrine. Their objection however to the application of the Commerce Clause to aerial navigation is on other constitutional grounds and has nothing to do with the question whether or not subjacent owners have proprietorship in the superincumbent airspace. This directs attention to the fact that federal control of aerial navigation not only involves the question whether or not private property rights are being invaded under the *usque ad coelum* doctrine, but it raises the additional question whether such assumption of power by the federal government is not an encroachment on the sovereign powers of the individual states. The Federal Constitution provides that the powers not delegated to the United States by the Constitution or prohibited by it to the States, are reserved to the States, respectively, or to the people.[51] It has been held that the

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[51] 10th Amendment.

sovereignty of a state embraces the power to execute its laws and the right to exercise supreme dominion and authority except as limited by the fundamental law.[52] Also it has been ruled that, speaking generally, the police power is reserved to the state because there is no grant thereof to Congress.[53] In the exercise of police powers by a state, it has the authority to regulate, among other things, matters which promote public peace, comfort and convenience.[54] It will be recalled that Major Johnson contended that the United States Government had no jurisdiction over the air under the Constitution. But if the Air Commerce Act is constitutional and authorizes the control by the federal government over interstate and foreign commercial aerial navigation, what about the legality of intra-state and non-commercial aerial navigation in those states which have not authorized flight through statutory enactment or otherwise? If the aircraft which is engaged in interstate commerce is not to be treated as a tresasser for flying over private property, are the commercial crafts which confine their flights within the boundary of a state and the private aeronaut who flies from state to state to be regarded as committing a trespass everytime they pass in flight over the same private property? Can the subjacent landowners enjoin the intrastate commercial pilot and the private pilot who may or may not fly out of the state for passing over their lands and waters? If such designated pilots do so are they to be subjected to damage claims? Why this discrimination? Why make fish of one and flesh of another? Is there any justification for the distinction? Is a penalty to be imposed upon private and intrastate commercial flying? Such are the legal day. The law must be clarified. Something must be radically wrong with our system of jurisprudence which legalizes interstate commercial flights but which leaves the law pertaining to the private pilot and the commercial aircraft

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[52]People v. Tool, 117 Am. St. Rep. 198.
[53]Keller v. U. S., 213 U. S. 138.
[54]Boston Beer Co. v. Mass., 97 U. S. 25.

which confines its activities within the boundaries of a state, in an unsettled and confused condition. True the Air Traffic Rules of the Air Commerce Regulations apply to all air traffic, whether commercial or non-commercial, intrastate or interstate, domestic or foreign.[55] But the rules regulate only the method of flight and not the right to fly. If this chaotic condition is to continue for any length of time aeronautical progress will be greatly impeded. Baseball in America is so universally popular because anyone may play who chooses. It knows no discrimination. No activity gains universal popularity which does not permit of nationwide participation by every able-bodied inhabitant. If the Air Commerce Act, by virtue of the power in the Commercial Clause, can survive the acid test of legality, then it would seem that the legality of intrastate and non-commercial air navigation over the private property of others might sustain some foundation through the decisions of our highest courts which have stated that Congress may lawfully affect intrastate commerce so far as necessary to regulate effectually and completely interstate commerce.[56] The federal governmnt has not assumed this power except as to the air traffic rules. This is probably because of the reluctance to interfere with the police powers of the states.[57]

The American Bar Association Special Committee favored at the time of its existence an amendment to the Federal Constitution giving federal control over aeronautics. Former Assistant Secretary of Commerce William P. MacCracken, Jr., and who was in charge of the Aeronautics Branch of the Department of Commerce was a member of the committee. It stated as follows:

> "And in our judgment the unquestionable method is a constitutional amendment conferring the power on Congress to legislate respecting aeronautics and aerography. Any other method will be the method of in-

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[55]Air Commerce Regulations, Sec. 73.
[56]U. S. v. Colorado & N. W. R. Co., 157 Fed. 321.
[57]Keller v. U. S., 213 U. S. 138.

direction, subterfuge and consequent conflict; and such indirect methods, though they appear to have been the methods of national growth in our body politic, are fraught with the danger, which is constantly manifest, of practical repeal by aggression and in an unconstitutional way of those constitutional limitations, which are our fundamental bill of rights—the main feature of that monument of our institutions, the Constitution."

"While we are in entire accord with the view that independent and conflicting state legislation will hamper the development of aviation, we see in this no constitutional excuse for assuming unconstitutional powers or for making unconstitutional use of existing powers. In our judgment it points to the necessity of constitutional amendment."

"The interest of aeronautics demands that the power of the federal government shall be extended (but by constitutional amendment) to this subject matter, they (the members of the committee) do not regard the existence of the subject matter as sufficient excuse for ignoring either the Constitution or the States."

"Constitutional problems and fundamental theories respecting an indestructible union of indestructible states, each operating within its own sphere of sovereignty, with the national government a government of delegated powers and all other powers reserved to the states or the people, make no appeal to those who are impatient to see the actual commercial development of air flight and who recognize, or think they recognize, its possibilities; and who also recognize that the economic barriers now existing to such development are barriers whose foundation is law, or uncertainty of law, or absence of law."

The prounouncements of the Committee were made several years ago, but if they were correct exposition of the constitutional phases of the question then they are equally

sound to-day. Both Major Johnson and the Committee are in accord on the question that it is expedient that the federal government have entire control over air navigation and both favored the constitutional amendment to that effect. Major Johnson in addition desired that the individual citizen should grant by vote to their states the authority to approve a constitutional amendment giving to the United States the absolute control over all airspace above some uniform distance from the earth. A subsequent joint committee representing the American Bar Association and the Conference of Commissioners on Uniform State Laws declared that agitation in favor of a constitutional amendment granting to the Federal Government exclusive jurisdiction over all aeronautics would be apt to impede needed legislation. Later on a Committee on the Law of Aeronautics of the American Bar Association of which the Honorable William P. MacCracken, Jr., was chairman, recommended to the Association that until Congress has enacted legislation fostering and regulating aeronautics, and until the Supreme Court has determined the extent of federal control over aeronautics, no further consideration should be given to the question of a constitutional amendment to vest exclusive jurisdiction over aeronautics in the federal government. This recommendation was approved by the Association. It will be recalled that former Assistant Secretary of Commerce MacCracken was a member of the Special Committee on the Law of Aviation of the American Bar Association whose decided pronouncements on the desirability of a constitutional amendment have been heretofore quoted. This is said in no criticism of the Assistant Secretary, but clearly emphasizes the wisdom of proceeding slowly and in accordance with fundamental law.

It has been suggested that there may be difficulty in securing the ratification of a constitutional amendment by the necessary thirty-six states. If this opposition proves too formidable resort should be made to the power of eminent domain. That is the states or the federal government, should, through condemnation proceedings acquire

from private owners with just compensation, sufficient airspace for well defined airways. No necessity exists for acquiring the airspace above all the lands and waters but only a sufficient portion thereof for airways. In the interest of safety for both the public and the aeronaut, airways are to be the ultimate paths for aerial navigation. Opposition to this has been made on the ground that aircraft in flight cannot always because of storms, fogs and high altitudes maintain their course over airways. Through recent inventions and those in the process of experimentation this difficulty will be largely overcome. Furthermore airways of a mile or more in width will not be difficult to adhere to under ordinary circumstances. It is realized that the acquiring of necessary airspace for airways through condemnation proceedings is not without its difficulties. Equally difficult are the obstacles to be met with reference to endeavoring to secure a constitutional amendment but the difficulties to be met under both situations are not insurmountable. Furthermore the problems must be solved in one way or another. If the process of eminent domain is less difficult such should be pursued. Better not delay until the situation becomes too acute.

With certain portions of the airspace acquired through eminent domain, the only remaining problem left is that of supervision and control. At the present time the state and federal governments have assumed concurrent control over aerial navigation. Under the assumed power, the federal government now effectively controls interstate and foreign aerial navigation and the states control intrastate and noncommercial flights. However as previously mentioned the United States might be able to assume control of intrastate navigation as an incidence to the effective control of interstate and foreign air commerce. This it will be recalled the federal government does now with respect to air traffic rules. However, through uniform regulations by the states there should be no difficulty insofar as control by the states is concerned. In fact the thirteen states which have adopted the Uniform State Law for Aeronautics have thus far taken uniform action. Furthermore a number of the states,

New York[58] and New Jersey[59] for instance, have adopted the federal laws for the supervision of pilots and aircraft. Eventually however in order to secure uniformity of control over air navigation there should be adopted by all of the states the same rules and regulations as those promulgated by the federal authorities.

The situation of aeronautical law at the present time finds the federal government through the Air Commerce Act acting under the doubtful authority of the Commerce Clause of foreign commercial aerial navigation and all navigation whether commercial or non-commercial, interstate or intrastate insofar as air traffic rules are concerned. On the other hand most of the states have assumed control over certain phases of intrastate aerial navigation through the exercise of their respective police powers.[60] But if the common law rule of unrestricted ownership in the superincumbent airspace by the subjacent land owners is still law, then neither the federal nor the state governments have any authority to authorize flight of aircraft over private property.

In justice to aeronautics the law should not be left in this unsettled state. Obviously there are very serious legal problems that must be solved. The law should not remain in any befogged condition. Only complete clarification will suffice. The policy in the past to some extent at least has been to take the easiest road, to legalize flight regardless of fundamental and vested property rights and constitutional restrictions. Indirection and invasion are only makeshifts at best. True, the progress of aeronautics should receive every encouragement and nothing should be done to retard its advancement. Evry red-blooded American should become "air-minded" and give at least his moral

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[58]New York 1928, Chap. 233.

[59]New Jersey 1928, Chap. 63.

[60]Connecticut 1927, Chap. 324; Arkansas 1927, Act 17; Colorado 1927, H. B. 79; Kansas 1921, Chap. 264; Louisiana 1926, Act 52; Maine 1925, Chap. 185; Mass. 1925, Act 189, Sec. 41-59; Michigan 1927, Act 138, Pa. 1929, P. L. 724; Wyoming 1927, Chap. 72.

support to the progress of the art. The advancement of aeronautics is to the enrichment of the country as well as a very potential arm of national defense. But virile young industry as it is, it is in need of no easy road to progress. In its limited years of life it has met many almost insurmountable obstacles and it has overcome them. Let it not be made weak and sterile insofar as its legal phases are concerned just because a certain mode of procedure may be the least difficult one. Better meet the problem squarely at this time than to work a severe hardship upon a matured industry in later years by undermining it through legal entanglements. Far better that aeronautics grow up with established legal rights than in opposition to them. Within twenty-five years a body of law, both case and statutory, will be developed around aeronautics which will be far more comprehensive than any body of law with relation to any other activity. This will be so because of the very extensive nature, literally as well as figuratively, of aeronautics. Such law must not be obstructive but constructive. It must not be clouded through legal complexities. It shall be a beacon of enlightenment and guidance.

In the meantime, with the conflicting legal opinions, dual control over aeronautics by the states and the federal governments, the multiplicity of and variation in state laws, the apparent confusion in judicial decisions, what is Mr. Average American Citizen going to do about the question of the ownership of the airspace?

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