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SOME ASPECTS OF AIRSPACE TRESPASS

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This paper recently brought to its author the Braniff Essay Award in Aviation Law, an annual award in memory of the late Thomas E. Braniff, airline pioneer, established by Roger J. Whiteford and Hubert A. Schneider of the law firm of Whiteford, Hart, Carmody and Wilson, Washington, D. C.

INTRODUCTION

THE common law view of ownership of airspace was originally *"cujus est solum ejus est usque ad coelum,"* or, "he who owns the soil owns everything above."[1] The owner's interest in superjacent airspace, as well as the land itself, was protected by the writ of trespass *quare clausum fregit* (q.c.f.), which was granted as a sort of punitive compensation, notwithstanding the fact that in the usual case little, if any, actual damage was inflicted.[2] The civil remedy was afforded to discourage trespassers to private realty and grew out of the high value placed on the integrity and sanctity of the borders of land. The "ad coelum" doctrine was, however, necessarily limited to cases involving overhanging objects or missiles that encroached on the landowner's airspace.[3]

It is obvious that in the context of latter-day air commerce a rigid application of the "ad coelum" doctrine could not long survive, at least without substantial modifications. Various and diverse theories, doctrines and interpretations of airspace trespass have appeared with the growth of aeronautical technology. The purpose of this paper is to examine some of these often-conflicting views with reference to the goals or policy that the courts appear to espouse.

Lord Ellenborough was among the first to question the unqualified application of the "ad coelum" doctrine. As early as 1815, in a case involving a wooden board overhanging the plaintiff's land, he doubted whether an aeronaut flying over the land of another in a balloon would be liable to the latter in trespass q.c.f.[4] As aviation became more common, it was questioned whether the "ad coelum" doctrine ever had been a statement of the common law, since in none of the common law cases was it necessary to determine that the landowner's rights extended more than a few feet vertically. If the landowner's rights did not extend upward infinitely, the question to resolve was, how far did they extend?

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[1] For a history of the "ad coelum" maxim, see Klein, "Cujus Est Solum—Quousque Tandem" 26 J. Air L. & Comm. 237 (1959); Hotchkiss, The Law of Aviation 13, (2d ed.); McNair, The Law of the Air 294 (2d ed.); Broom, Legal Maxims 395 (8th ed.).

[2] See Reppy, Introduction to Civil Procedure, C. III, Sec. 1 (1954), where the writ of trespass q.c.f. is traced to the reign of Edward I when it was fully established by the Statute of Westminister II in the year 1285. Originally the writ required a showing of injury and damage resulting immediately therefrom.

[3] The following have been held to constitute trespass to superjacent airspace: an overhanging roof, Penruddock's Case, 5 Coke's Rep. 100, 77 Eng. Rep. 210 (1597); telephone lines suspended over the land of another, Butler v. New Frontier Telephone Co., 186 N.Y. 486, 79 N.E. 716 (1906); shooting across the land of another, Portsmouth Harbor Land and Hotel Co. v. United States, 260 U.S. 327 (1922).

[4] Pickering v. Rudd, 4 Campb. 219, 171 Eng. Rep. 70 (1815).

Rhyne[5] sets out five theories which determine the extent of ownership of airspace. They are:

1. The landowner owns all the airspace above his property without limit or extent (the "ad coelum" doctrine).

2. The landowner owns the airspace above his property to an unlimited extent subject to an "easement" or "privilege" of flight in public.

3. The landowner owns the airspace above his property up to such a height as is fixed by statute.

4. The landowner owns the airspace up as far as it is possible for him to take effective possession, but beyond the "possible effective possession zone" there is no ownership in airspace.

5. The landowner owns only the airspace he actually occupies and can only object to such uses of the airspace over his property as do actual damage.

These five theories roughly represent successive deviations from the "ad coelum" doctrine. The second theory is adopted by the Restatement of Torts[6] and the Uniform Aeronautics Act.[7] Most states seem to follow the third theory, at least to the extent of giving some effect to the federal statute[8] declaring that the airspace above the minimum altitudes of flight prescribed by regulation is navigable airspace. The fourth view represents an attempt to establish a fixed third dimension to realty which is commensurate with the proposition that trespass is an invasion of possessory rights. Applied literally, the last view gives the landowner little relief on trespass theory, since it appears to require a collision of the aircraft with property of the landowner; it has, however, been applied more liberally.

A landowner who cannot establish trespass may be able to get relief in an action based on nuisance. Although nuisance and trespass are in some respects analogous, each has important distinguishing characteristics. Since an invasion of realty constitutes trespass, the invasion is actionable *per se*. A nuisance, however, must involve some interference with the use and enjoyment of property or of personal rights and privileges,[9] and it is therefore the consequences which flow from the invasion which are actionable.[10] The invasion, in nuisance, must be unreasonable, unwarrantable, or unlawful.[11] Further, since nuisance developed separately from trespass, different considerations are used by the courts. For example, continuity or recurrence has been given such great weight that it can generally be considered an element that must be proved to establish nuisance.[12]

Unfortunately, the courts have often failed to distinguish properly between nuisance and trespass. In most cases, the two causes of action are both pleaded but are often treated as a single cause. Consequently, nuisance and trespass, together with the rules and considerations accompanying them, have often become so entangled that it is impossible to determine exactly how the case was decided. One cannot infer from this confusion, however, that the courts have an unclear understanding of the nature of these funda-

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[5] Rhyne, Airports and the Courts, 165; see also Manion, Law of the Air, 70 (1955).

[6] Restatement, Torts, Secs. 159 and 194.

[7] 9 Uniform Laws Annotated 17 (1923); The Uniform Aeronautics Act was withdrawn by the Commissioners on Uniform State Laws in 1943. It has, however, been enacted, at one time or another, in 23 states.

[8] 49 U.S.C.A. 1301 (24), 72 Stat. 739.

[9] Kercher v. City of Conneaut, 76 Ohio App. 491, 65 N.E. 2d 272 (1945); Rose v. Socony-Vacuum Corp., 54 R.I. 411, 173 Atl. 627 (1934).

[10] 66 C.J.S. 736; Kromer v. Pittsburgh Coal Co., 341 Pa. 379, 19 A. 2d 362 (1941).

[11] Maier v. Publicker Commercial Alcohol Co., 62 F. Supp. 161, 165 (E.D. Pa. 1945); Phoenix v. Johnson, 51 Ariz. 115, 75 P. 2d 30, 34 (1938).

[12] Ford v. Grand Union Co., 240 App. Div. 294, 270 N.Y.S. 162 (1934); People ex rel. Dowling v. Bitonti, 306 Mich. 115, 10 N.W. 2d 329 (1943).

mental actions. Rather, the confusion seems to result from a desire to give some protection to the sanctity of land boundaries while limiting recovery to situations where some actual damage occurs.

The apparent policy of the courts, in general, is to treat the landowner as a preferred claimant for damages resulting from aircraft flights over his land. The preferred status of the landowner is most easily appreciated in eminent domain cases. For example, if government airplanes are found to trespass continually upon his property (his superjacent airspace), the flights may amount to a seizure of an easement, and hence a "taking" requiring due compensation.[13] If no trespass is involved, there can be no taking of an easement, and generally, in the absence of an appropriate statute, the landowner's only remedy is in tort on a nuisance theory. The damages may be found to be consequential, in which case, under the doctrine of "legalized nuisance," the landowner may not be allowed recovery.[14]

ACTUAL DAMAGE AS AN ELEMENT OF TRESPASS

The Restatement of Torts has adopted a view that modifies, rather than discards, the "ad coelum" doctrine. This view states that every unauthorized flight through the airspace above another's land is a trespass unless the flight is conducted (a) for the purpose of travel through the airspace or for any other legitimate purpose, (b) in a reasonable manner, (c) at such a height as not to interfere unreasonably with the possessor's enjoyment of the earth and airspace above it, and (d) in conformity with such regulations of the state and federal aeronautical authorities as are in force in the particular state.[15] It may be noticed that condition (c) brings into issue an element which is actually the basis for nuisance. The Uniform Aeronautics Law, Sec. 4, states this proposition in a more positive manner: "Flight in aircraft over the lands and waters of this State is lawful, unless at such a low altitude as to interfere with the then existing use to which 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 water beneath."[16] Again, the controlling element is interference with use and enjoyment.

A leading case, involving the Uniform Aeronautics Law,[17] is *Vanderslice v. Shawn.*[18] In that case, plaintiffs sued to enjoin the operation of a small private airport, alleging that airplanes therefrom flew over their land at dangerously low altitudes, that dust, noise, etc., interfered with the enjoyment of their land, that their land had thereby been depreciated, and that the defendants could avoid these injuries by an alternative use of the airport. The court harmonized the Uniform Law with the position taken by the Restatement, stating: "Whether in landing, taking off, or otherwise, flight over another's land, so low as to interfere with the then existing use to which land is put, is expressly outside the statutory definition of lawful flight; and being an unprivileged intrusion in the space above the land, such flight is trespass."[19] The court then found that low flights over the houses of plain-

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[13] United States v. Causby, 328 U.S. 256 (1945).

[14] "Consequential damages is the term applied to damages to, or destruction of, property not actually taken, and they arise when property is not actually taken or entered, but an injury occurs as the natural result of an act lawfully done by another . . . They are, in general, recoverable only where statutory or constitutional provisions require the payment of compensation for property damaged or injured." 29 C.S.J. 919.

[15] *Supra*, note 6, this is the combined effect of Sections 194 and 159, comment (e).

[16] *Supra*, note 7.

[17] The revised Code of Delaware 1935, Sec. 5779, Sec. 16, is an enactment of 9 Uniform Laws Annotated 17.

[18] 26 Del. Ch. Rep. 225, 27 A. 2d 87, (1942).

[19] Other cite 27 A. 2d at 90.

tiffs constituted an unreasonable interference with their use. After establishing trespass, however, the court decided the case on nuisance grounds: " * * * the repeated low flights over houses and buildings and lands used in connection therewith have been shown to be an unreasonable annoyance and disturbance of the neighboring landowners in the possession of their property, rendering its ordinary use or occupation physically uncomfortable, and should be enjoined as a nuisance."[20]

The *Vanderslice* case illustrates several interesting ramifications of the Restatement view on privileged flights (the second of Rhyne's theories of airspace ownership). For example, the most important qualification of the privilege is that it must be at such a height as not to interfere unreasonably with the use and enjoyment of the owner's land. This qualification is just a backward way of saying that unreasonable interference is unlawful. The theory of nuisance is, under the *Vanderslice* case, more direct when suit is brought against a private person because all of the elements of nuisance (unreasonableness, substantial damage, and, presumably, continuity[21]) must be established in order to establish trespass.[22] The Restatement position was referred to as backward because the term "privilege" connotes an exception to the general rule, whereas flights in general are obviously not trespasses.

The element of unreasonable interference (resulting in actual damage) has been characterized as the most important restriction of privileged flight because it naturally is the most frequent cause of litigation. The only other restriction of real concern is that relating to regulations, and more particularly, to minimum altitude regulations. The Tentative Draft of the Restatement, Second,[23] reflects this position. Section 194 of the Draft says:

> An entry above the surface of the earth, in the airspace above the land of another, by the flight of aircraft for any legitimate purpose, is privileged unless the flight is conducted:
>
> (a) below the minimum altitude permitted by such regulations of the federal and state authorities as are in force in the particular state,[24] or
>
> (b) at such an altitude or in such a manner as to interfere unreasonably with the possessor's use or enjoyment of the surface of the earth or the airspace above it.

A leading case involving a state statute imposing a minimum altitude is *Burnham v. Beverly Airways*.[25] The statute defined "navigable air space" as airspace above the minimum safe altitudes of flight prescribed by regulation. The minimum prescribed altitude over populated areas was 500 feet, except in taking off or landing. The court found that in determining whether

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[20] Ibid. The court also found trespass to land through the taxiing of certain airplanes onto plaintiffs' land. In giving the plaintiffs an injunction, the court balanced the equities by considering the practicability of a proposed runway that would avoid the complained of harm. The question of low flights was probably decided on nuisance, rather than trespass, grounds because the plaintiffs failed to allege trespass.

[21] Another element of nuisance, but not of trespass, is intention. This element has not been discussed because in virtually all the cases dealt with, the flights, and airspace encroachments, were intentional.

[22] The defense of "legalized nuisance" was not open to the defendants because of the court's finding that the airport could be operated in such a way as to avoid the nuisance. For a more complete discussion of this view, see Swetland v. Curtiss Airports Corporation, 55 F. 2d 201 (6th Cir. 1932).

[23] Tentative Draft No. 1, Restatement of the Law, Second, Torts, submitted by the Council to the Members for discussion at the Thirty-fourth Annual Meeting, May, 1957.

[24] "Under the Old Restatement section any unreasonable flight, or flight in violation of regulations (for example, without proper inspection before take-off) becomes a technical trespass even at an altitude of ten miles, and entitles the landowner to nominal damages, or conceivably to an injunction. This is manifestly wrong and requires a change." Ibid.

[25] 311 Mass. 628, 42 N.E. 2d 575 (1942).

or not a trespass had occurred, two different standards must be applied, depending upon whether the flight was above or below 500 feet: if the flight was above 500 feet, it would not be trespass unless it interfered substantially with the use or enjoyment of the land beneath; if the flight was below 500 feet, it was a trespass "unless substantially harmless and unless justified upon striking a reasonable balance between the landowner's right to exclusive possession free from intrusion and the public interest in necessary and convenient travel by air."[26]

It therefore appears that if the plane flies over 500 feet, the burden in establishing trespass is the same as in the *Vanderslice* case, i.e., nuisance must be proved. However, below 500 feet, one must only prove that the flight was not "substantially harmless." Upon this subtle distinction, the plaintiffs prevailed: "Flying over the house or surrounding grounds at a level below five hundred feet is certain to produce noise to which the plaintiffs have a right to object, even if, in view of all the factors, it does not amount to a nuisance. * * * Here the injunction was rightly granted."[27] It can be inferred that the "substantially harmless" test differs from the "nuisance" test in at least two respects: the invasion need not be unreasonable and the damage involved need not be "substantial damage." It is quite clear that under the *Burnham* case, the landowner is given an additional cause of action, besides nuisance, for flights made directly overhead; this may not be true under the *Vanderslice* case.

A line of cases in the Georgia courts has increasingly referred to the preferred status of the landowner. In *Thrasher v. City of Atlanta*,[28] plaintiff sued to enjoin the operation of an airport alleging apprehension of injury and impairment of health due to dust. The legislature had effectively enacted the "ad coelum" doctrine.[29] The court refused to give effect to the statute and stated that legal title only extends to an altitude representing the reasonable possibility of man's occupation and dominion. After the case was decided, Georgia enacted the Uniform Aeronautics Law.

The leading case of *Kersey v. City of Atlanta*[30] appeared to hold that the rule of the *Thrasher* case had been modified by the new enactment. In the *Kersey* case, plaintiff sued to enjoin the operation of an airport alleging that airplanes therefrom flew from 25 to 50 feet over his residence. In discussing the statute, the court said:

> Thus it appears to be clear that flights over lands at such a height as not to interfere with the then existing reasonable use thereof by owner can not be said to constitute a nuisance or a trespass. However, the owner of the land is a 'preferred claimant' to the airspace above his land, and is entitled to redress for any use thereof which results in injury to him or his property.[31]

This language appears to indicate that if an airplane flew over a neighborhood, causing noise or other damage to all the landowners, the owner of the land over which it flew would be in a better position than the others to recover damages or get an injunction. The court, however, did not elaborate on the preferred status of the landowner because it found that the injury was sufficient to warrant an injunction as a continuing nuisance.

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[26] Other cite 42 N.E. 2d at 579.
[27] Id. at 580.
[28] 178 Ga. 514, 173 S.E. 817 (1934).
[29] The Civil Code (1910), Sec. 3617 declared that "the right of the owner of lands extends downward and upward indefinitely." Section 4477 stated that "the owner of realty having title downwards and upwards indefinitely, an unlawful interference with his rights, below or above the surface, alike gives him a right of action."
[30] 193 Ga. 862, 20 S.E. 2d 245.
[31] 20 S.E. 2d at 249.

On the question of "legalized nuisance," it is significant that there were no allegations that the airport was negligently operated or that the runways were improvidently located. The noise and dust resulting from its normal use were therefore found to be natural concomitants of the airport operation and hence, *damnum absque injuria.* Although the low flights were treated as nuisances, rather than trespasses, they were not considered natural concomitants of airport operation because the city could have condemned more land for take-offs and landing. It would seem that this argument could apply to all such nuisances; if enough land is condemned, any operation can be sufficiently isolated as not to cause any injury. The dissent of Jenkins, J., accordingly considered the damages from low flights to be consequential damages.

In the more recent case of *Scott v. Dudley*[32] plaintiff sued to enjoin flights that had been made within 75 feet of his school building. The court said: "Still the owner of the land is a 'preferred claimant' to the airspace above it * * * and we think it can safely be asserted that the owner of land has title to and a right to control the airspace above it to a distance of at least 75 feet above his buildings thereon, but we are not here holding that his title to the airspace above his land is limited to an altitude of that height."[33] The court then granted an injunction, not against trespass, but against nuisance.

Heretofore, we have been discussing nuisance as an element defining trespass; the *Scott* case seems to do the opposite and define trespass as an element of nuisance. As stated previously, this interchange of terms is found quite frequently, and, though it may confuse anyone who is trying to categorize the various cases, it does not change the nature of things. Here, the court found that plaintiff's airspace was a column at least 75 feet high and that defendant was a trespasser.

The *Scott* case was decided by the Georgia Supreme Court. In *Chronister v. City of Atlanta,*[34] the Georgia Court of Appeals found that, under the *Scott* case, flights within 75 feet over any residence constituted "nuisance" as a matter of law. The concurring opinion of Gardner, P. J., took what seems to be a better view in contending that no specific height requirements should be set out by the court and that, according to the Georgia statute (Uniform Act), the issue should turn on the interference with the use of land; this, he said, is a jury question and not a matter of law.

Various other leading cases that are categorized in one of Rhyne's five classifications either require proof of actual or substantial damage as an element of trespass. The court in *Hinman v. Pacific Transport,*[35] for example, said: "The owner of land owns as much of the space above him as he uses, but only so long as he uses it. All that lies beyond belongs to the world." This seems to be a clear definition of airspace ownership; only an encroachment on airspace "used" by the landowner would be trespass. The court, however, explained that the airspace that a landowner "uses" and has a right to, is that which he uses as a part of his enjoyment of the land. Therefore:

> Any use of such air or space by others which is injurious to his land, or which constitutes an actual interference with his use or beneficial use thereof, would be trespass for which he would have remedy. But any claim of the landowner beyond this cannot find a precedent in law, nor support in reason.[36]

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[32] 214 Ga. 565, 105 S.E. 2d 752 (1959).
[33] Other cite 105 S.E. 2d at 754.
[34] 90 Ga. App. 447, 108 S.E. 2d 731 (1959).
[35] 84 F. 2d 755, 758 (9th Cir. 1936).
[36] Id. at 758.

The court then found that the plaintiffs were not entitled to injunctive relief because no facts were alleged which would give rise to the inference that any actual or substantial damage would accrue from the acts complained of. It cannot be inferred, however, that the court had any misconceptions about the distinction between trespass and nuisance:

> The case differs from the usual case of enjoining trespass. Ordinarily, if a trespass is committed upon land, the plaintiff is entitled to at least nominal damages without proving or alleging any actual damage. In the instant case, traversing the airspace above appellants' land is not, of itself, a trespass at all, but it is a lawful act unless it is done under circumstances which will cause injury to appellants' possessions.[37]

Like the *Vanderslice* case, the *Hinman* case seems to indicate that trespass offers little, if any, relief beyond that which can be gained by a suit in nuisance. *Cory v. Physical Culture Hotel, Inc.*,[38] is also cited as holding that ownership is defined by actual use:

> out of it has grown the rule * * * that the owner of land has the exclusive right to so much of the space above as may be actually occupied and used by him and necessarily incident to such occupation and use, and any one passing through such space without the owner's consent is a trespasser; as to the airspace above that actually occupied or used, and necessarily incident to such occupation and use, the owner of the surface may prevent its use by others in so far as that use unreasonably interferes with his complete enjoyment of the surface and the space above which he occupies, on the theory of nuisance.[39]

Again, trespass is defined in explicit terms and distinguished from nuisance. In determining whether there had been trespass, however, the court was constrained to determine whether there had been unreasonable interferences with the land or the "use" of the airspace above it. This was apparently considered a different test than the determination of whether there was an interference with the enjoyment of the land: "The flight was made at such a height as not to unreasonably interfere with the land owned by the defendant or the airspace above it possessed by the defendant, but whether it was such as to interfere with the defendant's enjoyment of possession requires further consideration."[40] The flight complained of was an unusual one made for purposes of taking an aerial photograph. The court found that it was "dangerous" and "distasteful" and therefore an unreasonable interference with the enjoyment of property.[41]

The cases discussed above are exemplary of various attempts by the courts to define trespass. Almost invariably, the definition is made in terms that are normally associated with nuisance, although many attempts are made to distinguish trespass from nuisance through terms such as "substantially harmless," "preferred claimant," "interference with use," and the like. The substantiality of these differences is open to question, and many have argued that the theory of trespass to airspace should be discarded entirely because the landowner could get the same remedy that is now avail-

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[37] Ibid.

[38] 14 F. Supp. 977 (W.D. N.Y. 1936).

[39] Id. at 982.

[40] Ibid.

[41] The flight, however, was found to have been authorized and therefore could not constitute either a nuisance or trespass: "In my opinion, such an operation of a plane, if unauthorized would unreasonably interfere with the enjoyment and use of defendant's property as a health resort, and it is so found on the evidence of this case. This finding is made in spite of the fact which is also found that plaintiff * * * probably was not over any part of defendant's property at the time the picture was taken." 14 F. Supp. at 983.

able by bringing suit in nuisance.[42] One result of discarding the trespass theory would be to put all landowners on the same footing, regardless of whether the aircraft complained of flew directly over their land. This may or may not be desirable, but it does not seem to be the general policy of the courts. In appreciating their reluctance to discard trespass, one should consider the changing nature of aviation and the traditional sanctity of the borders of land.

In modern times, the individual has been required to contend with more and more discomfort and injury which is not recognized as actionable nuisance because of the overriding requirements of the common good. This is even more true of individuals living near airports. The increased use of larger airplanes with larger, noisier engines appears inevitable. Jet aircraft presently in use generate noise at a level of between 140 and 160 decibels.[43] It has recently been found that noises consistently above 85 decibels can seriously and permanently damage the ear. Even lower noise levels can impair efficiency and do physiological damage.[44] Obviously, "substantial damage" in nuisance cases must be narrowly defined, or the doctrine of "legalized nuisance" must be employed, if jet aircraft are to be permitted at all. Moreover, the new larger airplanes land and take off at much flatter angles than smaller planes[45] of former times. Hence, an airport would have to be extremely big to accommodate these craft while avoiding actual damage to adjacent landowners. In view of these conditions, the courts are perhaps well advised to maintain sufficient flexibility to enable them to give a landowner relief for damages from overflying airplanes in situations where relief to the entire neighborhood would be impractical.

EMINENT DOMAIN AND THE CAUSBY CASE

Another result of discarding the trespass theory would be its effect on the present state of the law of eminent domain with regard to airspace. Undoubtedly, the leading case in this area is *United States v. Causby*[46] which involved flights by government planes during take-off and landing that were so low over plaintiff's chicken farm as to ruin his business. The United States Supreme Court found these flights to be a taking of an easement of airspace for which just compensation must be paid. Although the case has been much discussed, its holding still appears to be disputed.

At the time of the decision, Congress had defined "navigable airspace" as being "airspace above the minimum safe altitudes of flight prescribed by the Civil Aeronautics Authority."[47] It also provided that "such navigable airspace shall be subject to a public right of freedom of interstate and

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[42] Rhyne, Airports and the Courts. See also Memorandum in Support of Revisions, Sec. 194 of the Tentative Draft No. 2 of the Restatement of the Law, Second, Torts, which points out that trespass is traditionally an invasion of possessory rights as distinguished from interests in the use and enjoyment of such rights. Hence, one should not talk of trespass to airspace that has not been reduced to possession.

[43] The unit for measuring the relative loudness of sounds, the decibel, is approximately the smallest degree of difference that a human ear can detect between the loudness of two sounds. Normal street noise is at about 60 decibels; subways generate about 100 decibels. Loudness varies as the square of the distance from the source.

[44] Time, the Weekly Newsmagazine, Vol. 77, No. 1, p. 29, Jan. 2, 1961.

[45] The ratio of horizontal flight to vertical climb for certain large airplanes in taking off is 50:1. This is compared with the angle of 7:1 of earlier airliners. "Landowner's Rights in the Air Age: The Airport Dilemma," 56 Mich. L. Rev. 1313, (1958).

[46] *Supra*, note 13.

[47] 49 U. S. C. 401 (24), which has now been amended by 49 U. S. C. 1301 (24), 72 Stat. 739.

foreign air navigation."[48] The C. A. A., in turn, had prescribed minimum altitudes as being 500 feet during the day and 1000 feet at night for air carriers and from 300 to 1000 feet for other aircraft depending on the type of plane and character of the terrain.[49] The airspace above these heights was found to be within the public domain, but not necessarily the airspace below that was needed for take-off and landing: "The Civil Aeronautics Authority has, of course, the power to prescribe air traffic rules. But Congress has defined navigable airspace only in terms of one of them—the minimum safe altitudes of flight."[50]

The proposition that Congress could declare, by legislative enactment, the extent of private ownership of realty may, at first glance, seem rather startling. However, the court pointed out that the "ad coelum" doctrine has no place in the modern world. Private ownership extends upward, but it never extended upward beyond the floor of the navigable airspace. The flights complained of were at an altitude of 83 feet: "If that agency (The C. A. A.) prescribed 83 feet as the minimum safe altitude then we would have presented the question of the validity of the regulation."[51] The regulation, in conjunction with the authorizing statute, therefore formally placed in the public domain airspace that had always been in the public domain. On the question of how much airspace below the minimum altitude was owned by the landowner, the court was somewhat ambiguous:

> The airplane is part of the modern environment of life, and the inconveniences it causes are normally not compensable under the Fifth Amendment. The airspace, apart from the immediate reaches above the land, is part of the public domain. We need not determine at this time what those precise limits are. Flights over private land are not a taking, unless they are so low and so frequent as to be a direct and immediate interference with the enjoyment and use of the land.[52]

First, the court defines owned airspace as that within the immediate reaches above the land. From the last sentence, however, it appears that ownership is defined in terms that sound in nuisance. The latter is in line with the decisions already discussed defining trespass in terms of actual damage, because the taking of an easement by the government impliedly indicates action that would amount to trespass if done by a private individual (this assumption is discussed more fully hereafter). The dissent by Justice Black strongly objected to the defining of constitutional taking in terms of actual damages: "But the allegation of noise and glare resulting in damages, constitutes at best an action in tort where there might be recovery if the noise and light constituted a nuisance."[53]

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[48] 49 U. S. C. 403, now 49 U. S. C. 1304, 72 Stat. 740.

[49] Civil Air Regulations, Pt. 61, Section 61.7400, 61.7401, and Pt. 60, sections 6 D.350-60. These provisions are now covered by 14 C.F.R. 60.17: "Except when necessary for take-off or landing, no person shall operate an aircraft below the following altitudes:

(a) Anywhere. An altitude which will permit in the event of a failure of a power unit, an emergency landing without undue hazard to persons or property on the surface.

(b) Over congested areas. Over the congested areas of cities, towns, settlements, or over an open-air assembly of persons, an altitude of 1,000 feet above the highest obstacle within a horizontal radius of 2,000 feet from the aircraft.

(c) Over other than congested areas. An altitude of 500 feet above the surface, except over open water or sparsely populated areas. In such event, the aircraft shall not be operated closer than 500 feet to any person, vessel, vehicle, or structure. * * "

[50] United States v. Causby, 328 U. S. 256, 264 (1945).

[51] Id. at 263.

[52] Id. at 266.

[53] Id. at 270.

At the time of the decision, the Federal Tort Claims Act[54] had not been enacted, and the dissent pointed out that no recovery could have been had against the government in tort. Consequently, one can appreciate the importance of establishing the fact that the flights constituted trespass in addition to being merely nuisances—there could not otherwise have been a taking.

The requirement of actual damage in proving a trespass or a taking is clearly pointed out in *Highland Park, Inc., v. United States.*[55] In that case, plaintiff acquired land over which propeller driven Air Force planes were flown at altitudes of between 200 and 1200 feet. The planes, however, did not interfere seriously with the use and enjoyment of the land. Later, the airfield began to be used for jet aircraft whose greater noise and vibration did cause substantial damage. The issue was whether an easement of airspace, or an aviation easement, had been taken when the propeller driven planes had begun to fly over plaintiff's land. The court held that although the former flights had been made below the floor of navigable airspace, no easement was taken until the commencement of the jet flights:

> As the Supreme Court said in Causby v. United States, supra, the airspace over the land is part of the public domain, which may be used by airplanes with impunity so long as the flights do not substantially interfere with the use and enjoyment of the surface of the ground. The proof here shows that flights of propeller driven planes over plaintiff's property did not substantially interfere with the use and enjoyment thereof. * * * It was not until the arrival of the jet bombers * * * that plaintiff's use and enjoyment of its property was seriously interfered with. We think that the taking occurred when the first jet bomber flew over plaintiff's property, with the intent on the part of the defendant to continue to fly them over it at will.[56]

The court's failure to discuss the "immediate reaches" or the "lower reaches" of airspace above the land as an element in determining private ownership of airspace has been severely criticized by a noted aviation authority:[57] "It is submitted that the government, by its admission, and the court, in the elimination of the 'lower reaches' doctrine, have devised substantially new law of questionable soundness."[58] The argument is that, although the extent of ownership of airspace can vary from landowner to landowner, the extent of ownership of a single landowner cannot vary with the type of airplane that flies overhead:

> However the court did rely on *Causby* and in so doing twists it out of shape. * * * With a finding that [the propeller driven plane] did not 'take' at 200 feet, the law of the case is that everything at that altitude and above is part of the public domain. There is no finding that the jets operated below that altitude. Consequently, *Causby* simply cannot apply.[59]

It is then contended that trespass or taking of an easement is defined, under the *Causby* case, as an invasion of the immediate or lower reaches of airspace above the land and that noise, vibration, and other interferences are taken into consideration only to ascertain damages.

Mr. Calkins, the authority referred to above, does not define immediate or lower reaches, but cites *City of Newark v. Eastern Airlines*[60] as fol-

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[54] 28 U.S.C. Secs. 1291, 1346, 1402, 1504, 2110, 2401, 2402, 2411, 2412, 2671-2680.

[55] 161 F. Supp. 597, (Ct. Cl. 1958).

[56] Id. at 600.

[57] G. Nathan Calkins, Jr., "The Landowner and the Aircraft—1958," 25 J. Air L. & Com. 373. (Mr. Calkins is presently the editor-in-chief of the Journal of Air Law and Commerce.)

[58] Id. at 393; The admission referred to was an admission by the defendant (government) that an easement had been taken. They contended, however, that the taking pre-dated plaintiff's acquisition.

[59] Calkins, op. cit. *supra* note 57, at 394.

[60] 159 F. Supp. 750, (D. N.J. 1958).

lowing this doctrine and as correctly interpreting the *Causby* case. The *Newark* case was a suit to enjoin the airborne operations of the defendant airlines to and from Newark Airport to the extent that they constituted nuisances and trespass, and specifically, to enjoin flights at less than 1,200 feet over some of the plaintiffs' property. The pertinent federal statutes were substantially the same as in the *Causby* case. New Jersey had enacted the Uniform Aeronautics Act. The plaintiffs proved substantial damage and interference with the enjoyment of their property, but did not allege any altitudes at which flights complained of were made. The court held this failure to allege specific altitudes of flight fatal to the trespass action and denied the injunction. The count alleging nuisance was dismissed for procedural reasons that will be discussed hereinafter.

The court also held it insufficient to allege that the flights were below the minimum altitudes as well as causing actual damage: "We are of the opinion that the term 'navigable airspace,' as thus defined, includes not only the space above the minimum altitude of 1000 feet prescribed by the regulation but also that space below the fixed altitude and apart from the immediate reaches above the land."[61] The court relied on the *Hinman* case in defining the "immediate reaches" as the airspace that the landowner uses in connection with his land. A confusing attempt was then made to reconcile this theory with the language of the Uniform Aeronautics Act: "There must be evidence not only that the aircraft passed over the lands from time to time but also that there was an unlawful invasion of the immediate reaches of his land; in other words there must be evidence that the aircraft flights were at such altitudes as to interfere substantially with the landowner's possession or use of the airspace."[62] There was no elaboration as to what constituted interference with the use of *airspace.* In this connection, it should be remembered that the Uniform Aeronautics Act prohibits interference with the use of *land.* There was plentiful evidence of interference with the use of the land; not only were dishes "jingled" houses "shaken" and people kept awake, but there was evidence of physical damage to one of the houses.

It is not at all clear from the opinion what effect an allegation of altitude would have had on judicial determination. The evidence must apparently do more than show that the flights are below the minimum requirements; it must show an invasion of the immediate reaches, or the airspace that may be used in connection with the end. Unlike the *Chronister case,*[63] none of the precedents cited defined trespass in terms of a specific altitude. There seemed to be no requirement that the planes must have flown lower than the highest structure, or through airspace that had been reduced to physical possession. One can only speculate as to the reasoning of the court if some specific altitude, below the minimum requirement, had been proved. In view of the uncertainty of the *Newark* decision, it is difficult to compare it with the *Highland Park*[64] case. From the statement that flights should not interfere with the use of airspace, it is conceivable that jet flights could be found to interfere more than propeller driven flights and therefore constitute trespass; from the statement that a landowner owns only the airspace that he uses, it would appear that the extent of his ownership would be unaffected by the type of aircraft flying overhead.

The majority of cases relying on or citing the *Causby* case seem to interpret it the same way as the *Highland Park* decision did, i.e., that flights below the minimum required altitudes are trespasses if they cause actual

[61] Id. at 756.
[62] Id. at 760.
[63] *Supra,* page 346.
[64] *Supra,* page 350.

damage or interfere with the use and enjoyment of the subjacent land.[65] For example, in *Matson v. United States*,[66] where the plaintiffs alleged that military aircraft flew over their land consistently at heights of 85 to 320 feet, the court said: "Evidently the Government is using the airspace as and when it chooses and expects to so use it indefinitely. If damages result, a servitude would be imposed." The evidence showed that the noise from the jet flights made plaintiff's land unsuitable for residential purposes and therefore constituted a taking. The court, however, did not ignore the "lower reaches" theory and cited dicta from the *Causby* case which apparently was thought to clarify this matter: " 'The superjacent airspace at this low altitude is so close to the land that continued invasions of it affect the use of the surface of the land itself.' "[67] The case was much like the *Highland Park* case in that propeller driven airplanes had previously been used but no easement was found taken until the commencement of jet flights: "We conclude as a matter of law from the facts of this case that the increased burden placed on this property in the lower reaches of defendant's navigable airspace is a taking * * * The taking took place August 1, 1953, when the jets began to fly."[68] From these statements, it seems that "lower reaches" is defined in part by the type of airplane that flies through it; whether the altitude is so low that continued invasions of it affect the surface depends not only upon the height, but also upon the type, of invasion.[69]

Next consider the assumption, made thus far, that the taking of an aviation easement necessarily denotes the physical appropriation of airspace belonging to the landowner. This interpretation of the *Causby* case has been questioned, and therefore merits some discussion. For example, one writer[70] has concluded that the *Causby* case rejected the theory of property rights in airspace at all altitudes.[71] The authors of the Memorandum in Support of Revisions[72] suggest that the *Causby* case may rest on the theory that the interference with the use of land was sufficient to constitute a taking of the land itself, rather than the airspace. In the light of subsequent cases, this question may be academic to the present discussion, because the *Causby*

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[65] See, e.g., Adaman Mutual Water Co., et al. v. United States, 1958, U. S. & C. Av. R. 479 (Ct. Cl. 1958), which involved substantially the same facts as the Highland Park case and was decided the same way; and United States v. 15,909 Acres, 176 F. Supp. 447 (S.D. Cal., 1958).

[66] 171 F. Supp. 283, (Ct. Cl. 1959).

[67] Id. at 285-86.

[68] Id. at 286.

[69] But the interpretation given the *Causby* case, when it was remanded to the Court of Claims, supports Mr. Calkins' position. In United States v. Causby, 75 F. Supp. 262-63 (Ct. Cl. 1948), it is stated: "Taking into consideration the situation of this property and its actual and probable future use, we are of the opinion that the flight of airplanes above this altitude of 365 feet imposed no real servitude upon it. The result of this, we recognize, is to vest the United States with the right to fly its airplanes at any height above 365 feet with impunity."

[70] Klein, op. cit. *supra* note 1.

[71] Klein's conclusion is derived from the following statements made at 264-65 of the *Causby* case: "The fact that [the landowner] does not occupy [the land] in a physical sense, by the erection of buildings and the like, is not material * * * The flight of airplanes, which skim the surface, but do not touch it, is as much an appropriation of the use of land as a more conventional entry upon it * * * While the owner does not in any physical manner occupy that stratum of airspace or make use of it in a conventional sense, he does use it in somewhat the same sense that space left between buildings for the purpose of light and air is used. The superjacent airspace at this low altitude is so close to the land that continuous invasions of it affect the use of the surface of the land itself." It seems to this writer that this statement could as readily be interpreted as supporting the opposite conclusion, i.e., that airspace property rights are recognized. Mr. Klein appears to confuse occupation with ownership; the terms are not synonymous.

[72] *Supra*, note 42.

case is almost invariably interpreted as being an authority for defining trespass to airspace. The *Newark* case illustrates the weight given by state courts to the *Causby* case in defining trespass.

The federal concept of a taking must be differentiated from the various state concepts; the former requires an actual appropriation of property, while many of the latter require only a showing of actual damages.[73] Further, while many of the state cases are based on provisions substantially identical to the Fifth Amendment of the Federal Constitution, these cases are not authority in the federal courts. If the *Causby* case had held that the taking resulted from a nuisance, rather than from continuing trespasses, it is submitted that its effect would have been to upset a long line of federal cases[74] which hold that a taking requires an ouster, or deprivation of all beneficial use, of property.

Although the *Causby* case does not specifically say that the taking was the result of continuing trespasses, this conclusion seems implicit. The Court, for example, cited as pertinent many state cases which had defined trespass. Further, the *Portsmouth Harbor*[75] case was cited approvingly. That case had specifically found that repeated artillery fire over plaintiff's land constituted continuing trespasses[76] which amounted to a taking of an easement for which compensation must be paid. *Richards v. Washington Terminal Co.*[77] had previously held that substantial actual damages resulting from the operation of a Congressionally authorized railroad were *damnum absque injuria.* The Court in the *Causby* case stated:

> "It would not be a case of incidental damages resulting from a legalized nuisance such as was involved in *Richards v. Washington Terminal Co.* * * * In that case property owners whose lands adjoined a railroad line were denied recovery for damages from the noise, vibrations, smoke and the like, incidental to the operation of the trains. In the [present] case the line of flight is over the land."[78]

From the finding that airspace above a certain altitude is part of the public domain, it seems almost self-evident that everything below belongs to the landowner. This is explicitly brought out in the *Causby* case:

> The superjacent airspace at this low altitude is so close to the land that continuous invasions of it affect the use of the surface of the land itself. We think that the landowner * * * has claim to it and that invasions of it are in the same category as invasions of the surface.
>
> In this case, as in Portsmouth Harbor Land & Hotel Co. v. United States * * * the damages were not merely consequential. They were the product of a direct invasion of [plaintiff's] domain.[79]

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[73] 29 C.J.S. Sec. 111, 919; 2 Nichols, Eminent Domain Sec. 6.1 (3) 240.

[74] See 2 Nichols, Eminent Domain Sec. 6.1 (1), p. 238, footnote 15:

"It is the character of the invasion, not the amount of damage resulting from it, so long as the damage is substantial, that determines the question whether it is a taking," United States v. Cress, 243 U.S. 316, 328 (1916).

2 Nichols, Eminent Domain Sec. 6.1 (2), p. 239 cites Gerlach Livestock Co. v. United States, 76 F. Supp. 87 (Ct. Cl., 1948) as holding that a taking may occur without an entry. That case held that the construction of a dam that interfered with plaintiff's water rights was a taking in view of the state law defining riparian rights as property.

"Acts done in the proper exercise of governmental powers, and not directly encroaching upon private property, though their consequences may impair its use, are universally held not to be a taking within the meaning of the constitutional provision" *Transportation Co. v. Chicago,* 99 U.S. 635, 637 (1878).

[75] *Supra,* note 3.

[76] See also Ackerman v. Port of Seattle 329 P. 2d 210 (Wash. 1958) which said: "Acts of a municipal corporation or its agents in the prosecution of a public work or use, which, if done by a private individual, would constitute a trespass, are deemed a constitutional taking rather than a trespass."

[77] 233 U.S. 546 (1913).

[78] United States v. Causby, 328 U.S. 256 at 262 (1945).

[79] Id. at 265.

In connection with the last sentence, it is well established that all damages accompanying an appropriation of property are compensable under the Fifth Amendment.[80] This is an important consideration, since under the Federal Tort Claims Act a plaintiff may be barred from recovery on a suit in nuisance because of the legalized nuisance doctrine. If on the other hand he can prove a taking, he is entitled to recover all actual damages resulting therefrom.

Subsequent cases seem to have followed this interpretation and have held that there must be trespasses to the plaintiff's airspace before there is a taking of an aviation easement. In *Freeman v. United States*[81] plaintiffs sued for the taking of an aviation easement, but failed to prove that the flights complained of were directly over their land. The flight patterns were not directly over their land and any trespasses were thus a result of deviations from established patterns. The court interpreted the *Causby* case as stating that "although the landowner today cannot own above his land to the reaches of the universe as under the old common law doctrine, he can own a certain portion of the airspace and treat it as if it were part of the realty to the extent that it could be invaded or trespassed upon in the same manner as invasions of the surface."[82] It was then found that any damages to plaintiffs' land were incident to the operation of a legalized nuisance. Inasmuch as there were no continuing trespasses, there could be no taking of an easement and the actual damages were not compensable under the *Richards* case.[83]

By the same token, it can be inferred that airplane flights in the navigable airspace above the minimum altitude requirements could not amount to continuing trespasses and could not constitute a taking. This was expressly pointed out in *Fitch v. United States,*[84] where plaintiffs complained of actual damages produced by Air Force planes that flew 700 feet overhead. The minimum altitude requirement was 500 feet. The Federal District Court found that, in the absence of any showing of actual physical invasion of their domain, or intentional appropriation of their property by the Government, plaintiffs could not make out a case of taking without compensation. Since the flights were in the public domain, they were merely proximate to the plaintiffs' realty and could not constitute trespasses. The damages were therefore consequential and not compensable under the Fifth Amendment.

Finally, it should be pointed out that the federal statute defining navigable airspace has been amended by the Federal Aviation Act of 1958, as follows: " 'navigable airspace' means airspace above the minimum altitudes of flight prescribed by regulations issued under this Act, and shall include airspace needed to insure safety in take-off and landing of aircraft."[85] This definition differs from that previously in effect insofar as it expressly includes airspace necessary for take-off and landing. The *Matson* case[86] held that the new enactment had not changed the law of the *Causby* case, and that any continual government flights that were below the minimum cruising altitudes and caused substantial damage to the subjacent land constituted

[80] See State v. Rascoe, 181 Tenn. 43, 178 S.W. 2d 392 (1944) for a good discussion of the added remedy of incidental damages given a plaintiff who has had some of his property appropriated, as against a plaintiff who has had no property appropriated and must sue the government in tort.

[81] 167 F. Supp. 541 (W.D. Okla., 1958).

[82] Id. at 544.

[83] *Supra,* p. 353; The consequential damages resulting from the operation of a legalized nuisance in proximity to another's land are sometimes called "proximity damages." See United States v. 26.07 Acres of Land, 126 F. Supp. 374 (E.D. N.Y., 1954).

[84] 1957 U.S. & C. Av. R. 94 (D. Kan. 1957).

[85] 49 U.S.C.A. 1301 (24), 72 Stat. 739.

[86] Supra, page 352.

a taking, even if they were made while taking-off or landing in designated flight patterns. The language of the opinion seems to indicate that the court simply refused to give any effect to the congressional declaration that airspace designated for taking-off or landing was in the public domain. It held that the test was still the minimum cruising altitude, which in this case was 500 feet. The court said: "It would appear from the *Causby* decision that flights above the 500 foot regulated ceiling are beyond the reach of the landowner's objection to interference with his property rights. As to such use he is in the position of abutting owners along public highways or railroad rights-of-way."[87]

It cannot be denied that the *Matson* decision appears to "fly in the face" of the federal statute. But one must not forget the injunction of the *Causby* case that minimum altitudes cannot be set so low as to place the "lower reaches" above the landowner's land in the navigable airspace, because the regulations may then be struck down for unreasonableness. Hence, if the new federal statute were construed literally, it is submitted that it would be unconstitutional on the grounds that Congress cannot declare private realty to be in the public domain without payment of just compensation. In effect, the *Matson* opinion construed the statute so as to avoid constitutional questions.

State Recognition of Federal Altitude Requirements

This brings us to the question of how far the state courts will recognize federal altitude requirements as limitations on ownership of airspace. It would seem that the state courts would not be constrained to give a broader interpretation to the federal statute and regulations placing navigable airspace in the public domain than the United States Supreme Court had. But in some instances they have. Certain cases, prior to the 1958 statute, seem to recognize that the airspace designated for take-off and landing is navigable airspace. This tendency may well become more pronounced as more state cases are decided under the new statute.

In *Antonik v. Chamberlain*[88] plaintiffs sued to enjoin the construction of an airport alleging that its operation would cause substantial actual damage through interference with the use and enjoyment of their homes. Planes taking off and landing from the airport allegedly committed repeated trespasses when flying below 500 feet. In denying the injunction, the court appeared to rely heavily on the language of the federal regulation that prescribes minimum altitudes "except when necessary for take-off or landing."[89] The court stated: "In order that effect may be given to the regulations permitting flight in public domain, the words of the regulations—'Except when necessary for take-off or landing'—must be construed to mean that a right is given to fly over the lands of others at heights of less than 500 feet, when necessary for take-off or landing."[90] The theory of this "right" is that the government has granted licenses to use reasonably the airspace below the navigable airspace. Its effect is considerably cushioned, however, by the pronouncement that there must be no abuse of the license. Abuse is defined as " * * * the kind of abuse considered in the *Causby* case, *supra*, which constituted the appropriation of property for public use in contravention of the Fifth Amendment of the Constitution of the United States, or, such abuse as would constitute a nuisance."[91] The decision therefore holds that take-offs

[87] 171 F. Supp. at 286.
[88] 81 Ohio App. 465, 78 N.E. 2d 752 (1947).
[89] See p. 347, *supra*.
[90] Other cite 78 N.E. 2d at 758.
[91] Ibid.

and landings are lawful if they are not nuisances or trespasses as defined by the *Causby* case.

A broader interpretation of the regulation seems to have been given in *Kuntz v. Werner Flying Service*[92] where, as in the *Causby* case, low flying planes stampeded plaintiff's chickens. It was decided that no injunction should be granted because the inconveniences and hardships to the defendant would outweigh the benefits to the plaintiff. The theory of the holding appears to be that action in trespass would not lie if the aircraft flew in conformity to state and federal regulations, even if they flew below the 500 foot minimum altitude. As for the nuisance, the court thought that it would take more than the loss of a few chickens to outweigh the inconvenience of closing a $20,000 airport. The case of *Maitland v. Twin City Aviation Corp.*[93] wherein an injunction against continuing trespass was given upon the showing of actual damages, was distinguished because the flights complained of in that case were below the designated flight patterns.

The theory has been advanced that the federal government, under the authority of the commerce clause, has pre-empted the field of air transportation through its statutes and regulations and that state interference with flights made in accordance with these regulations is unconstitutional. No case has been found where a state court has enjoined flights within the navigable airspace above the minimum cruising altitudes. Inasmuch as the *Causby* case declared that take-off and landing regulations did not define navigable airspace in the public domain, it would seem that the state courts would be unduly restricting their authority by giving the federal statute a broader interpretation. This reasoning was followed in *Gardner v. County of Alleghany*[94] which held that the government had pre-empted control over the airspace above the minimum altitude requirements, but that flights below could be enjoined by the state as trespasses, even if they were necessary for take-off and landing.[95] An injunction against continuing trespasses was granted upon a showing that flights directly over plaintiffs' land interfered substantially with the use and enjoyment of the land.

All of the foregoing cases in this chapter were decided prior to the passage of the Federal Aviation Act of 1958 which expressly defines airspace necessary for take-off and landing as navigable airspace. As we have seen, the Court of Claims[96] has refused to give effect to the new change. It would therefore not seem to be incumbent upon the state courts to recognize any new limitations on airspace ownership. The Washington Supreme Court, in considering this question (under the former federal statute) in *Ackerman v. Port of Seattle*,[97] gave reasons for not recognizing such limitations that are so clear and persuasive as to merit reiteration:

> Occasionally an extreme—seemingly absurd—illustration can be illuminating. Probably no one would assert a right to compensation for *a taking*,

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[92] 257 Wis. 405, 43 N.W. 2d 476 (1950).
[93] 254 Wis. 541, 37 N.W. 2d 74 (1949).
[94] 33 Pa. 88, 114 A. 2d 491 (1955).
[95] But the Pennsylvania Supreme Court has held that, in determining negligence, the federal minimum altitude regulations supersede the state regulations. In Yoffee v. Pennsylvania Power and Light Co., 385 Pa. 520, 123 A. 2d 636 (1956), the defendant, a power company, stretched long wires over a river at a height of 185 feet. The markings on the support towers were partially concealed by foliage and the wires were invisible to airmen. Plaintiff's testator, on a purely local flight, collided with the wires and was killed. A state statute provided a 500 minimum flight altitude over open water, while the pertinent federal regulation provided only that such flights be 500 feet away from any person, vessel, vehicle, or structure (see note 52, *supra*). It was held that the plaintiff was not guilty of contributory negligence in flying at 185 feet, because the flight complied with federal requirements, which supercede the state statute.
[96] *Supra*, p. 352.
[97] *Supra*, note 76.

> if the state constructed a road on the public domain. However, if the state first declared certain private lands to be public domain and then built a road therein, it is quite apparent that there would be a violation of Art. 1, Sec. 16, amendment 9, of the Washington Constitution. We believe this is as true with *space in the air* as it is with the *surface of land.* The government simply cannot arbitrarily declare that *all* of the airspace over a person's land is public domain and then, cavalierly, claim absolute immunity against the property owners' claims for any and all possible damages. We think that is what the court meant in the *Causby* case, *supra,* when it said that, if the Civil Aeronautics Act had prescribed the minimum safe altitude of flight to be 83 feet, there would have been a question as to the *validity of the regulation* as an articulation of government police power. Any prescribed safe minimum altitude of flight must be reasonable. The present standards of flight (500 feet over noncongested areas, and 1000 feet over the nearest obstacle over congested areas) have been accepted as reasonable. Any attempted prescription of a lower altitude is subject to examination for its reasonableness and to a determination as to whether it amounts to a constitutional taking of one's property.[98]

A discussion of the issue of federal power to pre-empt airspace necessary for take-off and landing could not be complete without reference to the recent cases, *Alleghany Airlines v. Village of Cedarhurst*[99] and *City of Newark v. Eastern Airlines,*[100] both of which contain dicta to the effect that the federal government has such power, and has exercised it. These dicta, however, were directed to issues sounding in public nuisance, rather than trespass to the airspace of individual landowners.

In the *Cedarhurst* case, the plaintiffs, certain airlines, sought to enjoin the enforcement of a municipal ordinance forbidding flights below 1000 feet, on the grounds that such flights were necessary for take-off and landing in accordance with C.A.A. flight regulations. The court granted the injunction, holding that the federal regulatory system had pre-empted the field of aircraft flight control and had therefore ousted the municipality of jurisdiction.

The portion of the *Newark* case involving trespass has already been discussed.

In the *Newark* case, a number of municipalities sued to enjoin flights below 1200 feet over the municipalities. The court held that the Civil Aeronautics Board had primary jurisdiction over questions of flight control and that it could not decide questions involving the reasonableness of flight pattern procedures.

Both of these decisions, however, specifically stated that Congress had not deprived the courts of jurisdiction over questions involving invasions of individual landowners' rights as defined by the *Causby* case. In the *Cedarhurst* case, no evidence was found that any aircraft flights constituted a trespass or nuisance to the people of the Village. The court pointed out that flights as low as 100 feet would not constitute trespass in the absence of allegations of actual and substantial damage. As discussed hereinbefore, the court in the *Newark* case found that there were no invasions of the "lower reaches" above any of the landowners' properties.

Cheskov v. Port of Seattle[101] is of particular interest since it was decided under the 1958 Federal Aviation Act. Landowners brought action against a municipal airport in nuisance, and against airlines using the airport for trespass in making flights over their property at altitudes of 300 to 500 feet. The nuisance action was dismissed as barred by the statute of limitations. Although no actual damages were proved, the trial court awarded nominal damages for technical trespass by the defendant airlines. The airlines

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[98] 329 P. 2d at 216.
[99] 238 F. 2d 812 (2d Cir. 1956).
[100] *Supra,* p. 350.
[101] 348 P. 2d 673 (Wash. 1960).

appealed, contending first, that there could be no trespass to airspace without a showing of actual damages, and secondly, that the airlines could not be guilty of trespass when conforming to take-off and landing procedures under the Federal Aviation Act. The Washington Supreme Court agreed with the airlines' first contention and found that, under the *Causby* case, no action could lie in trespass in the absence of proof of actual damages.

Although it was not necessary to decide the second contention, the case contains dicta that may be indicative of future action:

> Whether the airlines [could] be liable for invasions of the airspace belonging to the plaintiffs, as above defined, in spite of the fact that they have no control over their flight paths in landing and taking off * * * is a question not presented in this action. It would appear that the proprietor of the airport, having the power of eminent domain and the duty to provide adequate facilities for the airport operations, would bear the primary liability for invasions of this type. Whether the proprietor should alone be liable is a question which must await a proper case for decision.[102]

The above suggestion, that actions should be brought for a "taking" in cases where continual trespass occurs, seems to be a sound resolution of the conflict between the public interest in air commerce, with its attendant necessity of uniformity in flight regulation, and the landowner's interest in his superjacent airspace.

CONCLUSIONS

Most of this paper has been concerned with what the law is. Leading cases have put forth different various tests for determining trespass to airspace, but if one common thread could be said to tie them together, that thread would seem to be actual damage. The *Causby* case seems to have been the unifying force, and, ambiguous as it may be, it has provided some uniformity in a field where uniformity is clearly needed. Actual damage as an element of trespass to realty is admittedly an anomaly, and may even be a contradiction. But if proof of actual damage is a somewhat bitter pill, it is more easily taken if one considers trespass to airspace a unique portion of the law.

It further appears that the actual damage required to establish trespass must be substantial, but the flight need not necessarily have been unreasonable. Therefore, the doctrine of legalized nuisance does not bar action for damages caused by flights that constitute trespass, even if the flights are not unreasonable, illegal or unwarranted, as those terms are used in nuisance law. An injunction against continuing technical trespasses will not, however, be given upon a showing of nominal interferences with the use and enjoyment of subjacent land.

One of the more intriguing hypothetical situations in this field is the aircraft flight between two mountains. Is there any sound reason for giving the landowner in the valley (directly below the flight) a remedy that is not available to the landowners on the mountainsides who may be even closer to the aircraft and who may suffer even more actual damage from its flight? An analogous situation is presented by a railroad built along the fringes of A's land, which pours soot and smoke onto B's house nearby. Should A be given relief that is denied to B? In both cases, the doctrine of legalized nuisance may bar recovery by the landowner who cannot prove trespass. An examination of the merits of this doctrine is beyond the scope of this discussion, but perhaps a remedy for one deserving party is better than no remedy at all.

Besides actual damage, another element of trespass to airspace appears to be that the flight in question must be below the floor of the navigable

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[102] Id. at 678.

airspace as defined by the federal regulations concerning minimum cruising altitudes. It is not anticipated that courts, in general, will find that flights within federally designated take-off and landing flight patterns are immune to trespass action.

Whether or not the federal regulations are a reasonable standard also poses an interesting problem. In view of the higher minimum altitude requirements over congested areas, are not landowners in rural areas being discriminated against? The damage caused by flights at 600 feet may be the same to the farmer as to the city dweller.

Finally, it appears that in the event of a conflict between local and federal regulations concerning a definition of navigable airspace, the local regulations will probably not be given effect. This seems to be especially clear in situations where the local minimum altitudes are higher than the federal requirements.

In summary, the position taken by the authors of Tentative Draft of the Restatement of Torts, 2d[103] would probably be better if unprivileged flights were defined as those conducted below the minimum cruising altitudes permitted by the *federal* regulations, *and* in such a manner as to interfere *substantially* with the possessor's use and enjoyment of the surface of the earth or the airspace above it.

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[103] *Supra*, p. 344.