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AIR LAW—THE MEMORY LINGERS ON: AD COELUM IN THE 1970's—SOME NEW APPROACHES

On December 17, 1903, Orville and Wilbur Wright ushered in the age of airplanes with a fifty-nine second flight at Kitty Hawk, North Carolina. The airplane, child of the Machine Age, grew in numbers and size over the years; and, as its value as a passenger carrying vehicle became clear, air carriers came into being. By 1938 air carriers had three hundred eleven aircraft available for service. Aircraft use as a weapon in World War II speeded aircraft technology; and with the end of the war, air travel by commercial carrier spurted forward. The number of carrier aircraft mushroomed from the 1938 figure to one thousand fifty-five in 1948—over three times the number of aircraft in service in 1938. By 1969 the number had again spurted to double the 1948 total, with two thousand four hundred and fifteen aircraft in service by carriers. Add to that the aircraft in general aviation and the total in 1969 was approximately one hundred thirty-five thousand five hundred.

Aircraft, as the astute observer will readily note, cannot remain airborne indefinitely,⁶ and thus require suitable places to land. Obviously, they must also have a place from which to become airborne. The number of airports of all types in the United States is quite large, and growing every year. In 1959 there were six thousand four hundred twenty-six airports recorded with the Federal Aviation Administration (hereinafter FAA).⁷ By 1969 the number had swelled to ten thousand eight hundred forty-seven,⁸ and of these, three hundred twenty-eight had FAA-operated control towers.⁹

Every major city of today's United States has a large airport handling great quantities of passengers and planes.¹⁰ When these airports were originally built, they were placed on the outskirts of the cities in order to

^{1. 1968} Civil Aeronautics Bureau Report 157.

^{2.} Id. at 167-68.

^{3.} Id. at 157.

^{4. 1970} REPORT OF THE AIR TRANSPORT ASSOCIATION 43. (Hereinafter REPORT).

^{5.} Id.

^{6.} With apologies to the United States Air Force's inflight refueling teams.

^{7.} REPORT, supra note 4, at 44.

^{8.} REPORT, supra note 4, at 44.

^{9.} REPORT, supra note 4, at 44.

^{10.} REPORT, supra note 4, at 44-45.

have sufficient room for expansion and to avoid residential areas. But because one of the major purposes of the airports is the accommodation of air travelers, good roads had to be built to the airports to make them accessible to the central city. The growth and expansion of cities, coupled with the trend of city dwellers to beat a retreat to suburban havens, created a tendency of new residential developments to sprout up in the immediate vicinity of the airport.¹¹ It is easily understood why this took place. As previously noted, the airport was connected to the central city by a system of good roads, perhaps even freeways or expressways. It is precisely this road network which affected the location of new residential developments, since they also require good roads. Since airports are usually built first, the net effect is that residential developments follow the roads to the environs of the airport.¹²

Thus it becomes obvious that present and future decades will see, unless cities or counties prevent it, 18 large airports serving the transportation hubs of America, surrounded by row upon row of residential dwellings. Faced with a system of airports surrounded by heavily populated residential areas, an inquiry must be made into the effect of the situation. In 1959 the scheduled airlines had a total of one thousand eight hundred twenty-seven fixed-wing aircraft in service, 14 and of these one thousand five hundred thirty-one were piston driven. 15 There were only eighty-four jet aircraft in service in that year, with the remainder being turboprop craft. 16 By 1969 the total number of aircaft in commercial service had increased only five hundred seventy-six. 17 But there were now nineteen hundred seventy-three jets in service, an increase of eighteen hundred eighty-nine, 18 while piston aircraft now only numbered one hundred twenty. 19

^{11.} Tondel, Noise Litigation at Public Airports, 32 J. AIR L. & COM. 387 (1966).

^{12.} Tondel, supra note 11, citing Testimony of Frank W. Kolk, Hearings on Aircraft Noise Problems Before Subcommittees of the House Committee on Interstate and Foreign Commerce, 86th and 87th Cong. 630 (1963).

^{13.} The use of zoning or eminent domain could easily prevent residential or light commercial buildings in the approach paths and high-decibel sound areas of the airports. However, cities have in the past, perhaps motivated by the high fees for building permits, ignored this viable solution. In San Francisco and Seattle-Tacoma, for example, the city issued building permits for new airport-adjacent residential units even though owners of residences already in the area had suits for noise annoyance pending against the city. Tondel, supra note 11, at 391 n. 27.

^{14.} Report, supra note 4, at 46.

^{15.} Report, supra note 4, at 46.

^{16.} REPORT, supra note 4, at 46.

^{17.} Report, supra note 4, at 46.

^{18.} Report, supra note 4, at 46.

^{19.} REPORT, supra note 4, at 46.

To anyone but a desert-dwelling hermit, the portent of these myriad statistics is clear. The number of airports has been increasing over the years, and the residential developments have followed them, encircling the landing fields in a manner that would do justice to the Sioux at Little Big Horn. In 1969 air carrier operations at FAA-controlled fields had reached nearly eleven million²⁰ and most of these flights were by jet aircraft. In a word, this all means noise, and with the hundreds of homes surrounding the base of the jet aircraft, it means unhappy homeowners.

In an attempt to redress their grievances against their noisy neighbors, the homeowners began to take legal actions against the airports. Many actions sought injunctive relief to permanently restrain the operator of the airport from using the facilities of the field,²¹ but had little success. Only in the case of suits involving small, general-aviation airports were injunctions granted,²² while those involving major airports, which have the greatest number of operations by the largest and noisiest aircraft, were generally denied.²³

This paper concerns itself with another type of landowner action, and that more widely sought: money damages for a prescriptive easement, commonly known as inverse condemnation. The purpose of this commentary is threefold: to discuss the relationship of the *ad coelum* and overflight doctrines, and noise damage under federal and state laws to analyze the inroads made into the overflight doctrine by state constitutional provisions and court decisions; and to evaluate these changes in relation to the necessary balance of the interests of the landowner with those of the public and the airport operator.

^{20.} Report, supra note 4, at 45.

^{21.} Swetland v. Curtiss Airports Corp., 41 F.2d 929 (N.D. Ohio 1930), mod. 55 F.2d 201 (6th Cir. 1932); Brandes v. Mitterling, 67 Ariz. 349, 196 P.2d 464 (1948); Delta Air Corp. v. Kersey, 193 Ga. 862, 20 S.E.2d 245 (1942); Burnham v. Beverly Airways, Inc., 311 Mass. 628, 42 N.E.2d 575 (1942); Smith v. New England Aircraft Co., 270 Mass. 511, 170 N.E. 385 (1930); Atkinson v. Bernard, Inc., 223 Or. 624, 355 P.2d 229 (1960); Crew v. Gallagher, 358 Pa. 541, 58 A.2d 179 (1948); Atkinson v. City of Dallas, 353 S.W.2d 275 (Tex. Sup. Ct. 1962); Batcheller v. Commonwealth, 176 Va. 109, 10 S.E.2d 529 (1940).

^{22.} Swetland v. Curtiss Airports Corp., supra note 21; Brandes v. Mitterling, supra note 21 (dirt runways). In the case of some small airports, partial injunctions have been issued: e.g., Atkinson v. Bernard, Inc., supra note 21 (enjoined use of airport by planes larger than total capacity of four passengers and one-half ton cargo); Burnham v. Beverly Airways, Inc., supra note 21 (flights under five hundred feet over unimproved property).

^{23.} E.g., Atkinson v. City of Dallas, supra note 21. See Fleming, Aircraft Noise: A Taking of Private Property Without Just Compensation, 18 S.C. L. Rev. 593, 596 (1966), and Tondel, supra note 11, at 393.

THE OVERFLIGHT DOCTRINE

Cujus est solum ejus est usque ad coelum: Whose is the soil, his it is up to the sky.²⁴ This was the ancient doctrine of ad coelum; a man who owned property owned it not only on the surface, but all the way up to the heavens. Apparently it was a creature of the early Roman law²⁵ which found its way into the English common law by the time of Lord Coke.²⁶ For centuries the only conflicts which were likely to occur under the ad coelum doctrine would be caused by overhanging eaves, or perhaps a neighbor's shade tree. Seldom would more than one property be affected.

But the dawn of the air age brought new problems to conflict with ad coelum. A balloonist or aircraft pilot necessarily would pass over a great number of individual properties in the path of his flight. Lord Ellenborough recognized this when he noted:

But I am by no means prepared to say that firing across a field in vacuo, no part of the contents touching it, amounts to a clausum fregit. Nay, if this broad overhanging the plaintiff's garden be a trespass, it would follow then an aeronaut is liable to an action of trespass quare clausum fregit at the suit of the occupier of every field over which his balloon passes in the course of his voyage.²⁷

It becomes clear what a problem *ad coelum* would be in regard to a transcontinental flight, which passes over countless properties along its route.

This problem was recognized in *United States v. Causby*, ²⁸ where the court, in an opinion by Mr. Justice Douglas, stated that "that doctrine has no place in the modern world. . . . Common sense revolts at the idea." But this was not merely the opinion of the justices. Congress had already examined the *ad coelum* doctrine in relation to modern air transportation and found it unworkable. They changed the doctrine by statute, ³⁰ announcing that the United States has "complete and exclusive national"

^{24.} BLACK'S LAW DICTIONARY 453 (Rev. 4th ed. 1968).

^{25.} For a detailed dissertation on the historical development of the ad coelum doctrine see Bouvé, Private Ownership of Airspace, 1 AIR L. REV. 232, 237, 1376 (1930); and Sweeney, Adjusting the Conflicting Interests of Landowner and Aviator in Anglo-American Law, 3 J. AIR L. & Com. 329, 531 (1932).

^{26. 2} Blackstone Comm. 18 (Lewis ed. 1902); 1 Coke Institutes ch. 1, par. 1(4a)(19th ed. 1832); 3 Kent Comm. 621 (Gould ed. 1896).

^{27.} Pickering v. Rudd, 171 Eng. Rep. 70, 71-72 (N.P. 1815).

^{28. 328} U.S. 256 (1946).

^{29.} Id. at 261.

^{30.} Air Commerce Act of 1926, 49 U.S.C. § 171, as amended by the Civil Aeronautics Act of 1938, 49 U.S.C. § 401 (1966).

sovereignty in the air space. . . ."³¹ over the country. As to cases involving the United States, Congress had modified the *ad coelum* doctrine; and, as will be discussed below, subsequent statutes and cases modified it further.

In addition to the *ad coelum* theory, there are at least four other theories as to the ownership of airspace expressed in state court decisions. One is the theory that the landowner owns the land subject to an easement or privilege of flight in the public; a theory followed in Florida, Delaware, and Michigan at one time or another.³² Another theory, followed in Massachusetts, is that the landowner owns the airspace up to the height fixed by statute, and any flights under that height are trespass.³³

A more widely accepted theory is that the landowner owns the land as far as it is possible for him to use it.³⁴ Under this theory the owner of a lot in downtown Chicago or Manhatten is possessed of a greater right than, for example, the owner of two acres in Death Valley, because the possible use of the land by the former is more attuned to skyscapers. This theory and its offshoot, holding that there is ownership in what is actually occupied or probably will be, are more far-reaching and realisitic in their approach, because they balance the needs of the landowner against public transportation interests.

Since the *ad coelum* doctrine had been denied by Congress as being the law of the land, it was no longer a viable ground for suit in recompense for noise damage. The fifth amendment states: "nor shall private property be taken for public use, without just compensation." Since trespass was not a basis of attack on noisy aircraft, perhaps the fifth amendment would apply, at least in the case of United States-owned aircraft.

When farmer Causby's chickens developed their suicidal tendencies, suit was brought against the federal government on the grounds of frequent and regular overflights of the plaintiff's property by United States

^{31. 49} U.S.C. § 176(a).

^{32.} Pogue and Bell, The Legal Framework of Airport Operations, 19 J. AIR L. & Com. 253, 255 (1952), citing Reaver v. Martin Theatres of Florida, 46 So. 2d 896 (Fla. Sup. Ct. 1951); Vanderslice v. Shawn, 26 Del. Ch. 225, 27 A.2d 87 (1942); Guith v. Consumers Power Co., 36 F.2d 21 (D.C. Mich. 1940).

^{33.} Id. at 256, citing Smith v. New England Aircraft Co., supra note 21, and Burnham v. Beverly Airways, Inc., supra note 21.

^{34.} Id. at 256, citing Swetland v. Curtiss Airports Corp., supra note 21; Delta Air Corp. v. Kersey, supra note 21; Thrasher v. City of Atlanta, 178 Ga. 514, 173 S.E. 817 (1934); and Dutton v. Mendocino County, 1949 U.S. Av. R. 1 (Cal. Sup. Ct. Mendocino County 1948).

^{35.} U.S. Const., amend. V.

aircraft at low altitudes.³⁶ The United States Court of Claims had held that the flights had rendered the property unusable as a chicken farm, and that as a result the United States had acquired an easement over the Causby farm worth two thousand dollars.⁸⁷

The Court in Causby pointed out that ad coelum is not necessary for a recovery of damages by inverse condemnation—a fifth amendment taking. The government conceded that if the land were uninhabitable, there would be a taking.³⁸ The difference here was that the land still had a use and value, but the use had been limited and value diminished by the flights.³⁹ The Court went on to hold that a partial taking, duly compensable, had occurred because the flights were not within the navigable airspace defined by Congress, and because they had diminished the value of the private property.⁴⁰ However, since the Court of Claims had failed to define the easement which it found to exist, the case was remanded to it for further definition.⁴¹

The decision in Causby had many effects. It caused a change in the statutory definition of navigable airspace, to include now the "airspace needed to insure safety in take-off and landing of aircraft." This change might have had a dulling effect on Causby. In addition, Causby now became a rallying point for homeowners afflicted by frequent, low overflights, as shown in the cases which follow. It became, as well, a defense for the United States in those cases where there were no overflights.

The legislative changes of the Federal Aviation Act of 1958⁴³ would seem to put an end to *Causby* by making navigable airspace more broad. However, in *Griggs v. Allegheny County*, ⁴⁴ decided after the 1958 Act, the court upheld *Causby* while finding an easement to exist even though overflights were within the navigable airspace. In *Griggs* the flights over the plaintiff's home were in compliance with Civil Aeronautics Administration (hereinafter CAA) regulations, although they were quite low and extremely noisy. ⁴⁵ Justice Douglas again gave the opinion of the Court,

^{36.} Supra note 28, at 258.

^{37.} Supra note 28, at 259.

^{38.} Supra note 28, at 261.

^{39.} Supra note 28, at 262.

^{40.} Supra note 28, at 263-65.

^{41.} Supra note 28, at 268.

^{42.} Federal Aviation Act of 1958, 49 U.S.C. § 1301(24) (1966). (Minimum safe altitudes were defined by regulation as 1000 'in congested areas and 500' in other areas. 14 C.F.R. § 60.17).

^{43. 49} U.S.C. § 1301(24) (1966).

^{44. 369} U.S. 84 (1961).

^{45.} Id. at 86-87.

and stated that, as was pointed out in *Causby*, the use of land presupposes the use of some of the airspace above it. This, in turn, leads to the conclusion that the use of superadjacent airspace will often affect the use of the surface.⁴⁶

In making his determination that an easement had been taken, Justice Douglas drew an analogy to the case of a bridge. A bridge without approaches to it is unusable, and in acquiring the necessary approaches, at least an easement must be taken from the land adjacent.⁴⁷ "The glide path for the northeast runway is as necessary for the operation of the airport as is a surface right of way for operation of a bridge. . ."⁴⁸ The Court concluded that there was a taking without compensation because the airport authority did not acquire easements necessary to the operation of the airport.⁴⁹

The opinions in Causby and Griggs point out that the common law doctrine of ad coelum has fallen by the wayside. They still allow a recovery for noise damage by means of a taking under the fifth amendment, or as it is applied to the states via the due process clause of the fourteenth amendment. But have these cases really done away with the ad coelum theory? Causby states boldly that it has, and it does, at least to the extent of the minimum altitude for navigable airspace. But if the flight be below that imaginary line, then the possibility of use by the landowner gives him full rights to it. "We think that the landowner, as an incident to his ownership, has a claim to it and that invasions of it are in the same category as invasions of the surface." Although the flights must be of a continuous nature, is this not ad coelum modified to a point where it reads "whose is the soil, his it is up to the minimum altitude of the navigable airspace fixed by Congress?"

Griggs is even worse. While claiming to hold to the tenets of Causby, it states, in effect, that there can be a taking by a private party (the airport) of an area proclaimed to be in the public domain. We now see a theory that all navigable airspace is in the public domain, but that ad coelum applies if flights in that airspace are too frequent and too noisy. One can be certain that an animal is extinct when its spoor is no longer

^{46.} Id. at 88-89.

^{47.} Id. at 89-90.

^{48.} Id. at 90.

^{49.} *Id.* Black, J., dissenting, discusses the case and feels that, while there was indeed a taking by easement, that taking was done when Congress declared approach paths part of the navigable airspace. *Id.* at 91-94.

^{50.} Supra note 28, at 265.

found. This would, by analogy, be similar to the case of legal fictions. And the trail of ad coelum abounds in federal decisions.

In Nunnally v. United States⁵¹ there were only a few isolated overflights, not in the regular flight plans, over plaintiff's property. The court affirmed a judgment of no taking, citing Causby. "'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.' United States v. Causby, 328 U.S. 256, 266 . . . There is no evidence of frequent, low flights in this case."⁵² Is this not the modified ad coelum? Since there were no low, noisy overflights, there was no taking.

One of the more clear-cut cases in which the court-modified ad coelum doctrine shows itself is Batten v. United States. 58 In that case homeowners near Forbes Air Force Base in Kansas sued on the basis of taking by noise and shock waves in violation of the fifth amendment. Here, however, although there was little question as to the noise, the plaintiff's property lay outside the flight path of the field. There were no overflights, and for this reason alone the court held that no constitutional taking The court cites Nunnally, Causby, and Griggs; and in had occurred. dealing with plaintiffs' contentions that the actual damages in Causby resulted from noise and vibration travelling vertically; and thus, there should be no difference if they are travelling horizontally,54 it states that, "[a]bsent . . . physical invasion recovery has been uniformly denied."55 Since physical invasion, and not the damage done by it, appears to be the key, we are once again back to ad coelum, albeit modified. One question the court leaves unanswered is this: Are not shock and sound waves, and dust and smoke physical things, moving across the plaintiff's property, causing damage? Must the physical invasion be made by some object visible to the naked eye? But then smoke and dust would count. Or must it be invasion by a *large* object?

Batten is profuse in citing Causby with one breath and ignoring it with the next. "The plaintiffs do not suggest that any home has been made uninhabitable. . . ."⁵⁶ But Causby held that in total destruction of use taking was axiomatic, ⁵⁷ and that there could be a taking without com-

^{51. 239} F.2d 521 (4th Cir. 1956).

^{52.} Id. at 524.

^{53. 306} F.2d 580 (10th Cir. 1962).

^{54.} Id. at 583-84.

^{55.} Id. at 584.

^{56.} Id. at 585.

^{57.} Supra note 28, at 261.

plete destruction.⁵⁸ Batten states that although there is interference with the use and enjoyment of the land there is no taking because the causes of the interference are not directed at the plaintiff.⁵⁹ At whom are they directed? Why must they be directed at anyone? Only the ad coelum doctrine can offer escape to the government. The Batten Court also states that Causby indicates in no way that noise vibration or smoke from two thousand feet vertically could be a taking.⁶⁰ Perhaps the court has forgotten what it read in Griggs, where the taking was done from within the navigable airspace, the major distinction from Causby,⁶¹ upon which Griggs claims to rely.

Avery v. United States⁶² had all things for all men. The plaintiffs were basically in three groups: in one, there was an easement by condemnation, and a subsequent taking was alleged for overflights by new, bigger jet aircraft. In a second there were overflights, but all over five hundred feet. And in the third, a good deal of damage was caused by blast, shock, and sound waves, plus great quantities of odorous smoke; but no overflights occurred. Based on earlier decisions, the results are obvious. The first group has a subsequent easement; the second, nothing, because the overflights are in the navigable airspace (but what about Griggs!); and the third group has no grounds at all, as the court daintily sidesteps the question by relying on Batten.⁶³

Ad coelum had not really ceased to exist as a result of the Causby decision; it had primarily been modified, changed to fit the problems of the air age. No longer did the property owner hold claim via trespass to all the airspace above his land. He still had his action for trespass, but he had to prove much more than a simple entry into his airspace. To be a trespass for which compensation would be granted, there had to be frequent invasion at a flight level low enough to deprive the owner of the full use and enjoyment of his property. If he could show this, an action would lie and compensation be given by the Federal government by way of the Tucker Act. 64

AD COELUM AT THE STATE LEVEL

Approximately twenty-four of the states have constitutional provisions

^{58.} Supra note 28, at 262.

^{59.} Supra note 53, at 585.

^{60.} Supra note 53, at 585.

^{61.} Supra note 44, at 88-89.

^{62. 330} F.2d 640 (Ct. Cl. 1964).

^{63.} Id. at 645.

^{64.} Tucker Act, 28 U.S.C. § 1346(2) (1964).

concerning use of private property which are in line with the Federal Constitution's taking provisions, 65 in that they are similarly worded. Because of the similarity of wording, one would expect a certain similarity in decisions reached under these constitutional provisions and those under the fifth amendment.

In Smith v. New England Aircraft Co., Inc., 66 the court reviewed a suit for injunctive relief against overflights which were not regular and which were above land not used by the owner, some three thousand feet from the nearest building. 67 The court anticipated Causby by holding that since there were no regular, low overflights, there was no basis for injunction. 68

Post-Causby cases have generally followed the overflight rule: if there are frequent and low overflights, recovery is allowed; if not, no recovery is forthcoming. In a 1964 Florida case, recovery for a taking was allowed where there were frequent overflights at one hundred to one hundred fifty feet causing vibration and sound, air pollution, and other damage, at all times of the day and night. The area was recommended for non-residential use by the FAA, and the result of the overflights, with their attendant noise, was a depreciation of value of the land. The court held that an inverse condemnation had taken place.

Similarly, the Ohio Supreme Court found that a mandamus would lie to compel compensation under eminent domain law where the usefulness of plaintiffs' property had been destroyed by frequent, low overflights.⁷¹ The Texas courts also follow this line of reasoning. In *City of Houston*

^{65. 2} NICHOLS ON EMINENT DOMAIN § 6.1, n.28 (3rd Ed. 1970). The states, and their respective constitutional provisions are: Ala. Const. art. I, § 23 (but there is a provision for damage in art. XII, § 235 if the power of eminent domain is delegated by a municipal or other corporation); Conn. Const., art. I, § 11; Del. Const. art. I, § 8; Fla. Decl. of Rights § 12; Idaho Const. art. I, § 14; Ind. Const. art. I, § 21; Iowa Const., art. I, § 18; Kan. Const. art. XII, § 4; Maine Const. art. I, § 21; Md. Const. art. III, §§ 40, 40a; Mass. Const. part I, art. 10; Mich. Const. art. XIII, § 1; Nev. Const. art. I, § 8; N.H. Const. part I, 12th; N.J. Const. art. I, § 16; N.Y. Const. art. I, § 57; Ohio Const. art. I, § 19; Ore. Const. art. I, § 18; Pa. Const. art. I, § 10; R.I. Const. art. I, § 16; S.C. Const. art. I, § 17; Tenn. Const. art. I, § 21; Vt. Const. ch. I, art. II; Wis. Const. art. I, § 13.

^{66.} Smith v. New England Aircraft Co., supra note 21.

^{67.} Id. at 514, 516, 170 N.E. at 387.

^{68.} Id. at 526, 170 N.E. at 393-94.

^{69.} City of Jacksonville v. Schumann, 167 So. 2d 95, 96-97 (Fla. Ct. App. 1964).

^{70.} Id. at 103.

^{71.} State ex rel Royal v. City of Columbus, 3 Ohio St. 2d 154, 209 N.E.2d 405 (1965).

v. McFadden⁷² damages for taking were awarded in a case in which the plaintiff had lived in a quiet area, but suddenly found a change brought about by extension of the runway of defendants' airport to a point near his home. This in turn changed the altitude of flights over his dwelling place, causing damage.⁷³

But where no overflights at all had occurred, the state courts held to their ad coelum-oriented approach. In Ferguson v. City of Keene,⁷⁴ the defendant built an airport in 1942. In 1947 the plaintiff purchased land south of the north-south runway, and experienced no great difficulty. But in 1962 the airport authority condemned land, including the west edge of plaintiff's property, and extended the runway so that, as a final result, the warm-up apron for take-offs was situated only a few hundred feet directly west of the plaintiff's house.⁷⁵ Although the court duly noted that there was noise and shock damage to the plaintiff's home, they would not award damages because there were no overflights, hence no invasion, and therefore, no taking.⁷⁶

The state courts in those states with a "taking" constitution have held to the overflight theory, which is really a modified *ad coelum* doctrine, as have the Federal courts. As the court pointed out in *Nunnally*, ⁷⁷ a distinction is made between "taking" and "damaging" of private property. ⁷⁸ It becomes clear in that opinion that the courts are afraid of the consequences of allowing compensation for all damages:

If it should be held that the facts in the present case [Nunnally] constitute a taking, any reduction in the value of property attributable to a federal activity might be urged as a valid claim against the United States.⁷⁹

If the reduction in value of property, which is "a direct and immediate interference with the enjoyment and use of the land . . . ,"80 is not the decisive factor in determining whether or not a taking has occurred, then the only key factor remaining is overflight, a simple trespass, an *ad coelum* by another name.

But one justice in Ferguson was unimpressed with the rationale of those cases which confine inverse condemnation to overflights. A person's property rights can

^{72. 420} S.W.2d 811 (Tex. Ct. Civ. App. 1967).

^{73.} Id. Texas is a "damage" state, but the court decided the case on the basis of overflight. See note 80, infra.

^{74. 108} N.H. 409, 238 A.2d 1 (1968).

^{75.} Id. at 409-10, 238 A.2d at 1-2.

^{76.} Id. at 410-13, 238 A.2d at 2-4.

^{77.} Supra note 51.

^{78.} Supra note 51, at 524.

^{79.} Supra note 51, at 524.

^{80.} United States v. Causby, supra note 28, at 266.

be damaged as greatly by sound waves traveling horizontally as by those traveling vertically, and to draw a distinction is to ignore reality.

Apparently not all are happy with the petty distinctions drawn by the courts between taking and damaging.

CONSTITUTIONAL AND DECISION INROADS TO AD COELUM.

Not all of the state courts have been forced into the same position as those noted above. Approximately twenty-five states have constitutional provisions which include both taking and damaging.⁸¹ Such provisions were prompted by the problems entailed in the rapid growth of Chicago, and after the inclusion of the clause in the 1870 Constitution of Illinois, other states followed.⁸² Under a "damaging" provision, there is of course no problem of a hair-splitting distinction between "damaging" and "taking."

The Supreme Court of Washington discussed the matter in two cases involving the Seattle-Tacoma Airport. In the first of these cases, multiple plaintiffs sued the Port of Seattle, which operates the airport, on the grounds that it failed to acquire, either by purchase or condemnation, sufficient amounts of property in the approach paths of the airport. As a result, they contended, the airplanes flying over or adjacent to the plaintiffs' properties were causing damage by noise, substantially diminishing the value of the land. This was the *Ackerman* case.⁸³

In finding for the plaintiffs, the court discussed the taking and damaging provisions of the state constitution, and from this discussion are gleaned several informative views on what constitutes a taking. Citing both Causby and United States v. Cress, . . . the court, quoting Cress, stated that

it is the character of the invasion, not the amount of damage resulting from it, so

^{81.} NICHOLS, supra note 65, n.29. The states with "damaging" provisions, and the respective sources are: Ala. Const. art. XII, § 235 (see note 65, supra); ARIZ. CONST. art. II, § 17; Ark. CONST. art. II, § 22; Cal. Const. art. I, § 14; Colo. Const. art. II, § 15; Ga. Const. art. I, § 3 ¶ 1; Ill. Const. art. II, § 13 [art. I, § 15, 1970 constitution]; Ky. Const. § 13 (Property [shall not] "be taken or applied to public use," etc.); La. Const. art. I, § 2; Minn. Const. art. I, § 13; Miss. Const. art. III, § 17; Mo. Const. art. II, § 20, 21; Mont. Const. art. III, § 14; Neb. Const. art. I, § 21; N.M. Const. art. II, § 20; N.D. Const. art I, § 14; Okla. Const. art. II, § 23, 24; Pa. Const. art. I, § 10 (Same phraseology as in Kentucky constitution.); S.D. Const. art. VI, § 13; Tex. Const. art. I, § 17; Utah Const. art. I, § 22; Va. Const. art. IV, § 58; Wash. Const. art. I, § 16; W. Va. Const. art. III, § 9; Wyo. Const. art. I, § 32, 33.

^{82.} Nichols, supra note 65, at 486.

^{83.} Ackerman v. Port of Seattle, 55 Wash. 2d 400, 403, 348 P.2d 664, 666 (1960).

long as the damage is substantial, that determines the question whether it is a taking.84

The invasion the court speaks of is an invasion of private property, an invasion which *Causby* and its progeny appear to hold as paramount for recovery. The *Ackerman* court then seeks to define property:

What is property? In Spann v. Dallas (1921), 111 Tex. 350, 355, 235 S.W. 513, 19 A.L.R. 1387, the Texas court says: 'Property in a thing consists not merely in its ownership and possession, but in the unrestricted right of use, enjoyment and disposal. Anything which destroys any of these elements of property, to that extent destroys the property itself. The substantial value of property lies in its use. If the right of use be denied, the value of the property is annihilated and ownership is rendered a barren right.⁸⁵

What is being said here is that not only physical invasion of property, but anything which destroys its use, is not merely a "damaging," but is a "taking." Damaging may be accomplished by hampering the enjoyment of the property or the means of disposing of it, but a destruction of the use of the property is a taking to the extent of that destruction.

If the use of the land is destroyed for a public purpose, then it becomes a constitutional taking.

The taking or damaging of land to the extent reasonably necessary to the maintenance and operation of other property devoted to a public use, is a taking or damaging for a public use and subject to the provisions... of the state constitution.⁸⁶

In this case there is a taking by the Port Authority by its failure to acquire easements.

The Washington court was not content with these definitions, nor were the home owners to the south of the north-south runway. The residents of a rectangular area one mile long and a half mile wide sued the Port as the result of jet aircraft passing over on the glide path at less than five hundred feet altitude.⁸⁷ This action was for recovery for noise and vibration damage. Passage of the jets ended television reception and conversation, it produced shock waves which loosened nails in the siding of the plaintiffs' homes, and even loosened light fixtures by vibration.⁸⁸ The trial court held that there was a taking in the case of the overflights and damage for the adjacent flights.⁸⁹ But the Supreme Court tersely disagreed. While affirming the damages, the court stated that there was no

^{84.} Id. at 405, 348 P.2d at 667. United States v. Cress, 243 U.S. 316, 328 (1916).

^{85.} Id. at 409, 348 P.2d at 669.

^{86.} Id. at 413, 348 P.2d at 671-72.

^{87.} Martin v. Port of Seattle, 64 Wash. 2d 309, 311, 391 P.2d 540, 542 (1964) cert. denied 379 U.S. 989 (1965).

^{88.} Id. at 312, 391 P.2d at 542-43.

^{89.} Id.

need to distinguish taking from damaging.⁹⁰ This, of course, opens a floodgate if accepted by federal courts, since it would render the government liable for any damages done.

Although the court went a bit far in Martin v. Port of Seattle⁹¹ in its failure to distinguish between taking and damaging, the definition propounded in Ackerman would, if accepted by jurisdictions with "taking"only constitutions, be a tremendous inroad in making noise litigation solutions realistic with regard to today's problems. The line of reasoning of Ackerman and Martin is that actual physical invasion is not necessary for a taking to have occurred, but rather when the use of the property, in whole or in part, is substantially destroyed. This was also the reasoning of Chief Judge Murrah of the Tenth Circuit Court of Appeals, dissenting in Batten. 92 He, too, felt that actual physical invasion was not necessary. Although it is the case that most takings involve an invasion, this is not the universal rule. Taking may be accomplished by other means. "'If regulation goes too far it will be recognized as a taking.' Pennsylvania Coal Co. v. Mahon, supra, 260 U.S. p.415, 43 S. Ct. p.160."93 judge was of the opinion that a constitutional taking could be based on indirect interference, supported by decisions such as Pennsylvania Coal Co.94 Judge Murrah then questioned the reasoning of the Court, and indeed, the reasoning of all courts which cling tenaciously to the overflight doctrine:

As I reason, the constitutional test in each case is first, whether the asserted interest is one which the law will protect; if so, whether the interference is sufficiently peculiar, and of sufficient magnitude to cause us to conclude that fairness and justice, as between the State and the citizen, requires the burden imposed to be borne by the public and not by the individual alone.

Indeed, my brothers impliedly embrace this theory when they indicate that if the governmental interference in this case had rendered the plaintiffs' homes totally uninhabitable, the damages would have been compensable, as for a constitutional taking. But, they then say, that since there is 'nothing more than an interference with use and enjoyment' of the property, the admitted damages are merely 'consequential.' This leaves me in doubt as to whether compensation is denied because the interest asserted is not one which the law will protect, as in United States v. Willow River Power Co., supra, [324 U.S. 499(1944)] or whether the interference with a protectable property right was not sufficiently direct, peculiar and grave to justify a conclusion of 'taking.' If the decision is based on the latter premise, I must inquire at what point the interference rises to the dignity of a 'taking?' Is

^{90.} Id. at 313, 391 P.2d at 546.

^{91.} Id

^{92.} Supra note 53.

^{93.} Supra note 53, at 586.

^{94.} Supra note 53, at 586.

it when the window glass rattles, or when it falls out; when the smoke suffocates the inhabitants, or merely makes them cough; when the noise makes family conversation difficult, or when it stifles it entirely? In other words, does the 'taking' occur when the property interest is totally destroyed or when it is substantially diminished?⁹⁵

What Judge Murrah and the Ackerman line of reasoning are saying is that there is indeed a distinction between taking and damaging, but that the distinction is not one wherein taking means total destruction of use, but rather one wherein taking means substantial diminishing or destruction when viewed in relation to the interests of the parties to the suit and the public, without regard to whether or not any overflight has occurred.⁹⁶

This theory has to date not met with widespread acceptance in "taking" iurisdictions. However, a 1963 Oregon Supreme Court decision, Thornburg v. Port of Portland, 97 felt that this was indeed the better theory. In that case the plaintiffs sought recovery for inverse condemnation on the basis of noise-nuisance. Their home was situated under the glide path of one runway, but six thousand feet past the end of it. It was also about fifteen hundred feet past the end of a second runway, but one thousand feet to the side of that runway's glide path. The complaint was not based on overflight, but rather on jet aircraft noise which allegedly interferred with the use and enjoyment of their property. The plaintiffs claim that such a nuisance could become a prescriptive easement if done by a private party, and when done by the government it can likewise become an ease-They further contended that this noise easement, which could concededly be acquired by overflight, should be the same for close, but not overhead, aircraft passage. The trial court, however, found that since there was no overflight there was no taking.98

The high court, in reviewing the case, examined *Batten*, with its similar factual situation, and determined that the court there used circular reasoning in reaching its decision. They felt that the dissent of Chief Judge Murrah had been the better law.⁹⁹ The court pointed out that noise can be a nuisance,¹⁰⁰ and when the noise is unreasonable, an easement

^{95.} California, also a "damaging" jurisdiction, follows the Ackerman line of reasoning, with the modification that no recovery is allowed for mere diminution of enjoyment, but only for some physical injury, which may be shown by a loss of value. Aaron v. City of Los Angeles, 11 Avi. 17,642 (Los Angeles County Sup. Ct., 1970). The case also contains an excellent discussion of the effects of jet aircraft noise.

^{96.} Supra note 53, at 587.

^{97. 233} Ore. 178, 376 P.2d 100 (1963).

^{98.} Id. at 181-84, 376 P.2d at 101-02.

^{99.} Id. at 190, 376 P.2d at 104.

^{100.} Id. at 183, 376 P.2d at 102, citing annotation at 44 ALR 1381, 1394

by prescription could be acquired at common law.¹⁰¹ The court went on to point out that "[i]f the government substantially deprives the owner of the use of his land, such deprivation is a taking for which the government must pay."¹⁰² This being the case, if a government-caused nuisance substantially interferes with the use and enjoyment of property, that nuisance is a taking.¹⁰³

The defense raised arguments that there was no overflight, hence no invasion, hence no taking. But the court felt that if noise from above could be a nuisance amounting to an easement, the same would be true for noise coming from the side. Perhaps the court felt that since Causby had held ad coelum abolished, a simple trespassory invasion of airspace was not the basis for recovery in noise cases, but rather that the basis was a noisy invasion, that is, an invasion, continuous or often repeated, which produced damaging amounts of noise. It appeared that the noise quality of the invasions, rather than the invasions themselves, which gave rise to the finding of a taking. And if this were the case, then a noise of like or more destructive quality from the horizontal, amounting to a destructive nuisance, was also a taking, at least by way of logic.

As to the argument of no liability for noise from aircraft in the navigable airspace, the court dismissed that idea with almost a flourish. They pointed out that all flights in the navigable airspace were not per se free of liability, on the basis of the Griggs decision, in which the aircraft producing the sound were within the navigable airspace as determined by Congress. The case was remanded for a new trial, with an instruction that a five hundred foot limit on noise easements was not the law of property, and it was a question for the jury as to what damage, if any, had occurred. 106

Thus, in *Thornburg* a taking jurisdiction had found a taking to have occurred without an overflight. This, perhaps, more than the mere

^{(1953) (}dance halls); Lloyd, Noise as a Nuisance, 82 PA. L. REV. 567 (1934); de Funiak, Equitable Relief Against Nuisances, 38 Ky. L.J. 223 (1949), Note, 15 Ore. L. REV. 268 (1936).

^{101.} Id. citing Sturges v. Bridgman, L.R. 11 Ch. D. 852 (1879); RESTATEMENT OF PROPERTY § 451 comment a.

^{102. 233} Ore. 178, 189, 376 P.2d 100, 105 (1963).

^{103.} Id. at 190, 376 P.2d at 105.

^{104.} Id. at 192, 376 P.2d at 106.

^{105.} Id. at 196, 376 P.2d at 108.

^{106.} *Id.* at 198, 376 P.2d at 111. On remand the jury found for defendant and the case was again appealed. In a second decision, the Supreme Court ruled in Thornburg v. Port of Portland, 244 Ore. 69, 415 P.2d 750 (1966) that there was error in instruction on the social utility of the airport. "The question of primary

words of *Causby*, puts an end to *ad coelum*. But will *Thornburg* have any effect on the *stare decisis*-bound judicial restraint advocates? *Nunnally* noted that it feared the floodgate being opened by just such a decision.¹⁰⁷ Will *Thornburg* indeed cause a flood of taking cases?

THORNBURG AND TOMORROW—THE EFFECT ON NOISE LITIGATION PROBLEMS

To the present time *Thornburg*'s precedent remains virtually untapped. Perhaps this is due in great part to the fact that major airports, while in planning stages in Chicago, for example, are not being built at this time; and those which are in service have already been so surrounded by residential areas that there is no place left to build in airport areas. The advent of new airports and new, bigger and noisier jet aircraft may change this.

As pointed out previously, Nunnally v. United States expressed fear that a decision which held that noise alone, without physical invasion by overflight, could constitute a taking, would open a floodgate holding the United States liable for almost anything. But this is not what Thornburg says. It holds rather that noise can be a taking if it causes substantial destruction of the use and enjoyment of property. 109

The question then raised is will this decision, and its attendant line of reasoning, have a seriously detrimental effect on airport operations. As pointed out above, residential areas adjacent to airports are a fact. At least as to airports yet to be built, perhaps government units will have the foresight to protect themselves from lawsuits by effective zoning, which up until now they have not done. However, in a day of clamor in regard to overcrowding, a city cannot simply leave a large dead space around an airport. It would be forced to exercise its eminent domain powers to remove residences already in the area of new construction, by virtue of the constitutional taking provisions of state and federal constitutions. The land around an airport's periphery would not be well suited for recreational purposes, since if peace and quiet are lacking, as they

importance was whether or not the overflights and flight patterns created so substantial an interference with the use and enjoyment of plaintiff's land, as measured by a decline in the fair market value thereof, as to constitute a taking." *Id.* at 72, 415 P.2d at 751-52. The court again reversed and remanded for still a third trial.

^{107.} Supra note 51, at 524.

^{108.} Supra note 51, at 524.

^{109.} Supra note 96, at 190, 376 P.2d at 105.

^{110.} See Tondel, supra note 11.

most probably would be around an airport approach area, the main purpose of recreation would be gone. Industrial use would undoubtedly be the best purpose for land within the heavy noise areas. But here another problem is created. Large factories might be built, but the industrial area would of necessity be confined to use by light manufacture since most airports have restrictions as to height of structures and smoke in the approach areas governed by FAA safety rules.¹¹¹ Thus, while zoning can help to alleviate many of the airport's noise problems, it must be carefully planned.

In one aspect, for cetain, *Thornburg*-type decisions will be a greater burden. They will surely impose more of a liability on airports than the *Causby* overflight theory. However, it would seem that a balancing of interests between the rights of the landowner and the rights of the airport operator and the rights of the public to transportation need to be struck. *Causby* in its historical content may have struck the balance, but the advent of new, more powerful—and more noisy—aircraft made the reasoning less tenable, while the courts held to it more tenaciously. By this line of reasoning an airport merely had to keep clear a space over which aircraft would directly pass, and those on either side be damned.

It is fairly common knowledge that high-pitched sound will shatter glass. Yet the overflight doctrine holds that unless the sound comes from somewhere in the airspace overhead, the damage is as nought. This is ad coelum reasoning, for it makes trespass itself the sine qua non for recovery. Even if the noise by the jet plane passing next door is so great that it blasts out every window and door, that sound is not a taking unless it completely annihilates the premises. Such is the reasoning of overflight theory. It defies logic. This chop-logic goes to such extremes as to hold, in Avery v. United States¹¹² that no taking occurs when dust and smoke are blown across the property and the noise vibration is strong enough to shake fruit from the trees, ¹¹³ solely because there was no overflight. There is no balance of interests in such a decision.

Thornburg seeks to retain this balance in the face of technological advance. Does this hurt the airport operator unwarrantedly? Why should the airport operator be allowed to shield himself under public interest and profit by his own lack of foresight? It was the governmental unit which allowed building to go on, and now it uses public interest to profit from building permit fees and at the same time protect itself from suit. Un-

^{111.} Seago, The Airport Noise Problem and Airport Zoning, 28 Mp. L. Rev. 120 (1968).

^{112.} Supra note 62.

^{113.} Supra note 62, at 644.

fortunately, *Thornburg* has not taken hold. Cases under "taking" constitutions have arisen since its time, but they continue to follow the old fiction.¹¹⁴ In states with "taking and damaging" provisions, the problem is much smaller, but the other states continue to flaunt fiction in the face of logic, and to hold to a doctrine which swings the balance of interest disproportionately.

The late Justice Frankfurter once wrote "there comes a point where this Court should not be ignorant as judges of what we know as men." 115 Until that time comes, it appears that the homeowner will be bound by an ancient common law doctrine, far out of tune with the world of today, which, while declared legally dead, lurks in the shadows of legal fiction, disguised by judicial modification and name change. But the floodgates may have been opened at last by Ackerman, Thornburg and cases which follow their reasoning, a theory which gives better balance of interest, and which follows a more logical appoach. Perhaps these decisions will produce a flood that washes away the ad coelum doctrine back to the oblivion of the Roman Forum where it is better suited for survival. Sometimes a good washing down is a most soothing process.

Terrence J. Benshoof

^{114.} See United States v. Avery, supra note 62; Ferguson v. City of Keene, supra note 74.

^{115.} Watts v. Indiana, 338 U.S. 49, 52 (1949).