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AERONAUTICAL NOISE IN CANADA¹

By HUGH W. SILVERMAN, Q.C. and JOHN D. EVANS*

Introduction

The 1960's and 1970's may become known in history as the age of pollution. It is almost a commonplace of our times to be concerned about and with the environment and its pollution. Years of laissez-faire thinking, inaction and apathy have created a world which every school child today can tell you is polluted. The air, water, land, flora, fauna, everything is said to be polluted, and conservation is the prime target to achieve. It is a "hot"² topic, and any politician who wants to make news can blurt out anything he wants on the topic so long as he uses the magic word "pollution". Bills are proposed in legislatures;³ politicians are thinking of new ways to put the pollution issue on to the legislative books; and suggestions are made for noise pollution abatement legislation.⁴

The universal concern with pollution, however, may soon be a totally dead issue in the wake of new and advanced techniques and technology to cope with the problem; and it may not be too farfetched to speculate that the problem of pollution may some day be characterized as one indigenous to the 1960's and 1970's. We should recall the words of Thorstein Veblen who said in 1899: "The evolution of society is substantially a process of mental adaptation on the part of individuals under the stress of circumstances which will no longer tolerate habits of thought formed under and conforming to a different set of circumstances in the past."⁵

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¹ This study will focus only on commercial airlines and public airports.

² Hot today, but old in the annals of Jewish religious literature, for one finds in the Babylonian Talmud, Baba Bathra, chapter 2, mishnah 3 directives against the operation of a business which may be a nuisance, and against the establishment of a courtyard shop which may disturb people's sleep on account of noise.

³ See, for example, four Ontario bills which were proposed but have not become law: *The Noise Pollution Control Act*, 1971, Bill 46, First Reading on May 14, 1971; and *An Act to Provide for the Prevention of Noise Pollution and Air Pollution by Aircraft*, Bill 137, First Reading July 21, 1971; *The Noise Pollution Control Act*, 1972, Bill 59, First Reading April 10, 1972, Second Reading May 23, 1972; *An Act to regulate the Operation of Aircraft over Ontario and to investigate the Effect and Consequences of Sonic Booms*, 1972, Bill 146, First Reading May 25, 1972.

⁴ Brogan, *The Need for A Noise Pollution Abatement Act* (1971), 11 *Natural Resources Journal* 721.

⁵ *The Theory of the Leisure Class: An Economic Study of Institutions* (1899), (reprint by The Modern Library, Inc., New York, 1934) at 192. Consider also the statement by Sir George Thomson: "Science limits technology at the same time it feeds it ... We expect too much of mechanical ingenuity ... But there are things they [inventors] cannot do, things prohibited by the nature of nature as we understand it": Thomson, *The Foreseeable Future* (Cambridge: 1955) reprinted in *Science and Sensibility* ed. James R. Neuman, (New York: Simon and Schuster Paperback, 1961) at 630, 631.

While reaction ranged the full spectrum of approval for and rejection of the federal and Ontario announcements made on Thursday, March 2, 1972 for the acquisition of 18,000 acres in Pickering and Markham Townships near Toronto as the site of a second major international airport in Ontario,⁶ John Gellner tells us:

The most important question in the controversy over the new Toronto airport in Pickering Township has been completely overlooked. No one has asked — in public at least — why build an airport with long runways when revolutionary new aircraft for short runways are just around the corner?⁷

The new type of aircraft QSTOL (quiet short take-off and landing) can be used for short and medium range flights, will require shorter runways, and the “noise ‘footprint’ — the distance on the ground over which offensive noise is spread by an aircraft during take-off or landing — will reportedly be one-tenth that of a large jet. This means QSTOL-ports will take up much less land and, even if closer to the metropolitan core, will not cause unacceptable noise pollution.”⁸

A few definitions about the words noise and pollution. “Noise is unwanted sound”⁹ and the Latin word “polluere”, to defile, gives us our word “pollution”.¹⁰

When Orville and Wilbur Wright succeeded in putting the first man-made airplane into sustained flight at Kitty Hawk, North Carolina, in 1903 no doubt the sure, steady roar of the engine was music to their ears. However, the urban dweller living near an airport today would not be so enthusiastic about the music of the roar of jet engines.

Within a period of less than seventy years aviation has progressed from a one-seater, single prop machine to giant, multi-engined aircraft which can fly faster than the speed of sound, and in an age of such rapidly advancing technology, it is no surprise that new and far-reaching situations and consequences arise which the customary slow-moving process of the law has not yet been able to properly meet. With the advent of jet aircraft in commercial

⁶ The Globe and Mail, Friday, March 3, 1972 at 1, cols. 8, 9 at 10. The other Ontario major international airport is at Malton. On Tuesday, January 30, 1973, the federal government announced it would proceed with its plans for this new airport: The Globe and Mail, Wednesday, January 31, 1973, at 1, cols. 6-9.

⁷ *An Overlooked Factor in Airport Row*, The Globe and Mail, Saturday, March 18, 1972 at 7. In making the announcement to proceed with the Pickering airport plans, Transport Minister Jean Marchand is quoted as saying (in a statement filed in the Commons) that STOL and “high-speed ground transport” are not “relevant nor economic beyond 300 to 500 miles” . . . [and] “the fastest-growing air market is the long-haul — domestic, continental and international”: The Globe and Mail, Wednesday, January 31, 1973, at 1, col. 8.

⁸ *Id.*

⁹ Hart, *Pollution and Conservation* (1971), 45 Aust. L.J. 473 at 478.

¹⁰ *Id.*, at 484 (comment by R. W. Baker, who goes on to say that “Australia like all other communities in the world is faced with defilement of the air, of the land and of the sea, of our total environment.”).

operations in the late 1950's, aircraft noise and airport noise was no longer just an irritation, but became a widespread problem.¹¹

It appears that we may be obliged to live with a certain amount of noise in the interest of more efficient aeronautical transportation, *i.e.*, the balancing of interests, *the private v. the public domains*.¹²

Roscoe Pound tells us that in modern times it is appropriate "to think of law as a social institution to satisfy social wants — the claims and demands and expectations involved in the existence of civilized society — by giving effect to as much as we may with the least sacrifice, so far as such wants may be satisfied or such claims given effect by an ordering of human conduct through politically organized society."¹³ Aircraft noise pollution is a fact of living today — however, we could recall and consider the maxim, *sic utere tuo ut alienum non laedas*, which means, use your own property in such a way as not to injure that of another.¹⁴

It is interesting to note that there has been a paucity of litigation in Canada to date in regard to noise emitted by aircraft at airports and although one could speculate as to the reasons for this, nevertheless such dearth of

¹¹ After briefly mentioning the history of noise problems starting with Troy and Rome, the Aviation Planning and Research Division, Civil Aviation Branch of the federal Ministry of Transport in a paper entitled *General Comments on Aircraft Noise*, July, 1970 sublimely says, at 1: "Among the significant noise producers of today are trains, freeways, factories and aircraft, all subjecting people to what is very often an objectional level of noise." In a paper prepared by John E. K. Foreman of the Faculty of Engineering Science, University of Western Ontario on *Noise Pollution in Modern Day Society*, the divergent noise polluters of today are examined, and he says that "noise pollution is symptomatic of our modern infatuation with mechanical gadgets".

¹² Just as in nuisance the public interest may override private interests: *Shelfer v. City of London Electric Lighting Company*, [1895] 1 Ch. 287, 295 where Kekewich, J. who was upheld on appeal as to the finding of nuisance, but reversed in the remedy granted (he had refused an injunction, but it was granted on appeal), said: "It is well settled that power to do a particular thing — as, for instance, to construct a railway — does not justify the undertakers (to use the general word) in doing that thing so as to commit a nuisance, unless by express language or by necessary implication that is stated or must be inferred". For a discussion of the differences between a public nuisance (one which in its effect is widespread and indiscriminate) and a private nuisance (concentrated in its effects) see *Attorney-General for Ontario v. Orange Productions Ltd.*, [1971] 3 O.R. 585 at 588-91 (Wells, C.J.H.C.) where an interim injunction until trial was granted to restrain the holding of a rock music festival as a public nuisance on the grounds *inter alia* of the potential for excessive noise. See also Melle, *Private Legal Action for Air Pollution* (1971), 19 Clev. St. L.R. 480.

¹³ *An Introduction to the Philosophy of Law* (New Haven: Yale University Press, 1959, Yale Paperbound) at 47.

¹⁴ The maxim has not fared well. In *Rose v. Socony-Vacuum Corporation*, (1943) 173 A. 627 at 629 (Rhode Island Supreme Court), Murdock, J. notes: "This maxim, . . . affords little, if any, aid in the determination of the rights of parties in litigation. If it be taken to mean any injury to another by the use of one's own, it is not true, and if it means legal injury, it is simply a restatement of what has already been determined. 'The maxim . . . is mere verbiage. A party may damage the property of another where the law permits; and he may not where the law prohibits: so that the maxim can never be applied till the law is ascertained; and, when it is, the maxim is superfluous'. Erle, J. in *Bonomi v. Backhouse* . . . The maxim is undoubtedly a sound moral precept expressing an ideal never fully attained in the social state."

litigation does not of itself presuppose the absence of any noise problem.¹⁵ By way of contrast one finds a plenitude of such litigation in the United States where the problem has reached more critical proportions.¹⁶

Aircraft and Airports

Before they can operate, Canadian commercial air carriers must obtain

¹⁵ To date, aircraft noise litigation has mainly been confined to the situation of overflights of aircraft. See *Nova Mink Ltd. v. Trans-Canada Airlines*, [1951] 2 D.L.R. 241 (N.S.S.C.); *Lacroix v. R.*, [1954] Ex. C.R. 69; *Darowany v. The Queen*, [1956] Ex. C.R. 340; *Gagnon v. Regina*, [1970] Ex. C.R. 714; but *Shepherd v. The Queen*, [1964] Ex. C.R. 274 dealt *inter alia* with airport noise. It is suggested by the Ministry of Transport in *General Comments on Aircraft Noise*, *supra* note 11 at 7, 8, that although aircraft may be improved, and airports more effectively utilized for reduction of noise (e.g., by preferential runway utilization), it is neither practical nor possible to move airports away from built-up areas, hence "it is equally important that communities themselves be prepared to accept some degree of responsibility towards protecting their valuable economic asset the airport ... through responsible compatible land use management in the vicinity of the airport."

¹⁶ See, for example, the story which appeared in *The New York Times*, Wednesday, July 21, 1971, at 1, col. 4 *Jet Noise Dooming Homes Near Los Angeles Airport*, telling of the purchase by the City of Los Angeles of three residential neighbourhoods covering more than 400 acres at a cost of almost \$300 million.

See also the numerous articles and materials discussing the multitude of cases concerning airport and aircraft noise in the United States: *Airplane Noise: Problem in Tort Law and Federalism* (1961), 74 Harv. L.Rev. 1581; Reed, *Comment: Batten v. United States* (1962) 306 F. 2d 580, (1963), 371 U.S. 955, (1963) 372 U.S. 925, in (1963), 9 McGill L.J. 246, and *Comment* (1963), 16 Vand. L. Rev. 430; Hill, *Liability for Aircraft Noise — The Aftermath of Causby and Griggs* (1964), 19 U. Miami L. Rev. 1; Dygert, *An Economic Approach to Airport Noise* (1964), 30 J. Air L. & Com. 207; *Airplane Noise, Property Rights, and the Constitution* (1965), 65 Colum. L. Rev. 1428; Tondel, *Noise Litigation at Public Airports* (1966), 32 J. Air L. & Com. 387; Fleming, *Aircraft Noise: A Taking of Private Property Without Just Compensation* (1966), 18 So. Carolina L. Rev. 593; *Jet Noise in Airport Areas: A National Solution Required* (1967), 51 Minn. L. Rev. 1087; Haar, *Airport Noise and The Urban Dweller: A Proposed Solution* (1968), 159 N.Y.L.J. 4; Seago, *The Airport Noise Problem and Airport Zoning* (1968), 28 Maryland L. Rev. 120; *Port Noise Complaint* (1970) 6 Harv. Civ. Rights - Civ. Lib. L. Rev. 61; Larsen, *Improving the Airport Environment: Effect of the 1969 FAA Regulations On Noise* (1970), 55 Iowa L. Rev. 808; Harper, *The Dilemma of Aircraft Noise at Major Airports* (1971), 10 Transportation Journal 5; *The Airport Noise Cases: Condemnation By Nuisance and Beyond* (1971), 7 Wake Forest L. Rev. 271; *Federal vs. State Control of Aeronautical Noise Pollution* (1971), 5 Suffolk U. L. Rev. 1093; Ticer, *Legal Methods of Eliminating Certain Undesirable By-Products of the Air Transportation Industry* (1971), 11 Natural Resources Journal 177; Fadem & Berger, *A Noisy Airport is a Damned Nuisance!* (1971), 3 Southwestern U. L. Rev. 39; Benschoff, *Air Law — The Memory Lingers On: Ad Coelum in the 1970's — Some New Approaches* (1971), 20 De Paul L. Rev. 525; Lesser, *The Aircraft Noise Problem: Federal Power but Local Liability* (1971), 3 Urban Lawyer 175; Danforth, *Mercury's Children in the Urban Trap: Community Planning and Federal Regulation of the Jet Noise Source* (1971), 3 Urban Lawyer 206; Sackman, *Air Rights — A Developing Prospect* (1971), 3 Urban Lawyer 238; Gottlieb, *Land Use Controls for Airport Planning* (1971), 3 Urban Lawyer 266; Lowenfeld, *Aviation Law*, chapter V, "The Problem of Aircraft Noise" (New York: Matthew Bender, 1972); Meyer, *Air And Noise Pollution Surrounding Airports: East Haven v. Eastern Airlines, Inc.* (1972), 1 Environmental Affairs 862; Goldstein, *Aircraft Noise and the Selection of Airport Sites* (1972), 4 Urban Lawyer 548; Lloyd, *Airport Noise: An Inadequate Judicial Response* (1972), 4 Conn. L. Rev. 634; and see also Anthrop, *The Noise Crisis* (1970) 20 U. of T.L.J. 1 at 11-17.

and hold a valid and subsisting licence¹⁷ from the Canadian Transport Commission.¹⁸ The Minister of Transport looks after the licensing of pilots, registration of aircraft, and licensing, inspection and regulation of all aerodromes and air-stations.¹⁹ In the United States, section 104 of the Federal Aviation Act of 1958²⁰ specifically declares that "any citizen of the States [has] a public right of freedom of transit through the navigable airspace of the United States" whereas "the right to fly in Canada is granted in a negative sense, the inference being that only if one has proper licences and the aircraft is registered may one fly it."²¹

The major public airports in Canada "are owned and operated by the Federal Government."²² The planning, arrangement, financing and location of airports, in practice, appears to be a tri-government function (federal, provincial and municipal). The federal Minister of Transport makes regulations governing the conditions for use and operation of aircraft;²³ the height, use and location of buildings and utilization of lands therewith, by making zoning regulations;²⁴ and any person whose property is injuriously affected by the operation of a zoning regulation can recover compensation²⁵ (but there is a two year limitation period).²⁶

The whole field of aerial navigation legislation belongs to the federal government,²⁷ and accordingly when a municipality, relying upon a provincial statute, empowering it to pass bylaws for licensing, regulation and prohibition of the erection of aerodromes, passed such a bylaw, the Supreme Court of Canada held it to be *ultra vires*.²⁸ The Province of Ontario in *The Airports*

¹⁷ *Aeronautics Act*, R.S.C. 1970, c. A-3, ss. 16(1), 17(1). Damage resulting from foreign aircraft in flight gives rise to a cause of action for compensation, but not "if the damage results from the mere fact of passage of the aircraft through the airspace in conformity with existing air traffic regulations": *Foreign Aircraft Third Party Damage Act*, R.S.C. 1970, c. F-28, Schedule, chapter 1, article 1(1).

¹⁸ Established under the provisions of the *National Transportation Act*, R.S.C. 1972, c. N-17, Part I, ss. 6-28.

¹⁹ *Aeronautics Act*, *supra*, note 17 s. 6(1) (a) (b) (c).

²⁰ 72 Stat. 740, 49 U.S.C. 1304.

²¹ Rosevear, *Noise in the Vicinity of Airports and Sonic Boom* (1969), 17 Chitty's L.J.3. In a recent case, the accused in *Regina v. Joronen*, [1972] 5 W.W.R. 367 at 371, B.C.S.C.) was acquitted with respect to a charge of flying an aircraft below minimum height limits over an "open air assembly of persons" in contravention of Air Regulation 529(a) made pursuant to the *Aeronautics Act*, *supra*, note 17, and the court noted that this regulation was made "primarily for the protection of the lives and property of persons in built-up areas . . ."

²² *Id.*, at 5.

²³ *Aeronautics Act*, *supra*, note 17, s. 6(1)(d); and for aerial routes and their use and control: s. 6(1) (h).

²⁴ *Id.*, s. 6(1) (j), and see also subsection 7.

²⁵ *Id.*, s. 6(10).

²⁶ *Id.*, s. 6(11).

²⁷ *In Re the Regulation and Control of Aeronautics in Canada*, [1932] A.C. 54, at 77.

²⁸ *Johannesson v. Rural Municipality of West St. Paul*, [1952] 1 S.C.R. 292, (1953), 69 C.R.T.C. 105.

*Act*²⁹ provides that the province may enter into agreements with other governments concerning the establishment, extension, improvement or maintenance of airports in Ontario;³⁰ and can provide funds for purchasing, leasing or acquiring airport lands,³¹ and can establish, operate and maintain airports.³² In 1968 the federal Department of Transport disclaimed the right "to control land use in the vicinity of airports" except with respect to height of structures.³³ Although airport location sites are within the federal domain, the Province of Ontario controls all development and utilization of land adjacent to airports through *The Planning Act*,³⁴ and municipal councils may pass bylaws prohibiting the use of lands, erection and use of buildings, regulating the cost or type of construction of buildings,³⁵ and pass building bylaws.³⁶ Recently the Ontario Court of Appeal delineated the areas of jurisdiction between federal and provincial governments with this explanation:³⁷

... the whole object, scope, and effect of *The Aeronautics Act* ... is to provide for all matters relevant to aerial navigation ... [and] the beneficial use of any lands surrounding an airport is a matter solely under the control of the provincial authorities ... [and] any beneficial uses of the land which would not interfere with or affect aerial navigation are not the subject-matter of *The Aeronautics Act*; they remain solely within the jurisdiction of the Province.

In point of fact in establishing airport locations the federal government creates "an extensive buffer zone, sometimes called 'noise lands'"³⁸ to cope with possible noise pollution problems.³⁹ In the area of noise pollution, if we can judge by past performances, there probably will be on-going continuing consultations between the federal, provincial and local authorities on

²⁹ R.S.O. 1970, c. 17.

³⁰ *Id.*, s. 2(1).

³¹ *Id.*, s. 3.

³² *Id.*, s. 4. Municipal councils may pass bylaws to establish, operate, maintain and improve air harbours or landing grounds in compliance with the Air Regulations (Canada): *The Municipal Act*, R.S.O. 1970, c. 284, s. 352(9).

³³ Rosevear, *supra*, note 21 at 5; McNairn, *Aeronautics and The Constitution* (1971), 49 Can. Bar Rev. 411 at 443.

³⁴ R.S.O. 1970, c. 349, see especially s. 29.

³⁵ *Id.*, s. 35.

³⁶ *Id.*, s. 38.

³⁷ *Bramalea Consolidated Developments Ltd. v. Attorney-General for Ontario and the Minister of Municipal Affairs of Ontario*, [1971] 2 O.R. 570 at 571 per Aylesworth, J.A.

³⁸ McNairn, *supra*, note 33 at 441. As already indicated, the recently announced plans of the federal government to acquire lands in Pickering and Markham Townships near Toronto were met with mixed reactions: *The Globe and Mail*, Friday, March 3, 1972, at 1, 10, which entitled its editorial at 6, "We bin robbed."

³⁹ Cf. the comment of Street, J. in *Hopkin v. Hamilton Electric Light and Cataract Power Co.* (1901), 2 O.L.R. 240 at 247, in speaking of railways: "To ask a railway company to buy all the land within the limits of the nuisance they cause by smoke, fire, and vibration would be prohibitive, but the same considerations do not apply to the case of isolated works..."

the subject of airport noise pollution, as such discussions have taken place in the past.⁴⁰

Great Britain has specific legislation governing aeronautical noise,⁴¹ but there is nothing in our federal aeronautical legislation on the subject.⁴² Municipalities may have the power to pass bylaws to prohibit or regulate disturbing noises⁴³ or to abate public nuisances;⁴⁴ and there is provincial legislation to control noise pollution.⁴⁵ A municipal anti-noise bylaw was held to be *ultra vires* in *R. v. Rice*⁴⁶ as it infringed on the federal field of shipping and navigation; and a municipal air pollution bylaw likewise was held to be

⁴⁰ See *Aircraft Noise At Malton Airport*, Ontario Department of Municipal Affairs, January 1960; and Supplement No. 1, December 1961. For an in-depth study of noise at a specific airport see McClure, *Some Projected Effects of Jet Noise on Residential Property Near Los Angeles International Airport by 1970* (being a paper submitted to the University of Southern California in 1969 as a thesis). Cf. Higgins, *Economic Impact of Alternative Sites for the Proposed New Montreal International Airport* (1969); Boelter, *Environmental Law — Chicago's Third Municipal Airport — A Proposed Course of Action for Its Prevention* (1971), 21 De Paul L. Rev. 207. See also Doyle, *We May Yet Have a Quiet Environment: The New California Airport Noise Regulations* (1972), 12 Santa Clara Lawyer 79; Second Federal Airport Noise Abatement Plan FY 1970-71, January 1971, which as stated in the Preface, "is the second to be developed by the Office of the Assistant Secretary for Systems Development and Technology within the Office of the Secretary of Transportation", Superintendent of Documents, U.S. Government Printing Office, Washington, D.C.

⁴¹ See The Civil Aviation Act 1949 (12, 13 & 14 Geo. 6 c. 67), s. 41(2) which provides that no action shall lie in nuisance caused by aircraft on an aerodrome; s. 8, as amended by The Civil Aviation Act 1968, c. 61, provides that regulatory orders may be made requiring aircraft to hold certificates of compliance with respect to noise and also sets the outer limit for speed over the U.K. The Air Navigation (General) Regulations 1949, statutory instrument 374, deal with the conditions under which aircraft may make noise and vibration. Generally, see *The Law on Noise* (London: Noise Abatement Society, 1969) at 32-35; McNair, *The Law of the Air* ed. Kerr and Evans, (3rd ed. London: Stevens & Sons 1964) at 122-128; Seabrooke, *Air Law* (London: University of London Press Ltd., 1964) at 141, 190; Duerden, *Noise Abatement* (New York: New York Philosophical Library, 1971) at 229-231. The Noise Abatement Act 1960, 8 & 9 (Eliz. 2, c. 68, s. 1(7) (specifically provides that it does not apply to aircraft noise and vibration, although it may apply to model aircraft: *The Law on Noise, supra*, at 32. In England these legislative provisions "present a most substantial obstacle to the success of claims in respect of what might otherwise constitute an actionable nuisance in many cases": McNair, *supra*, at 124. The legislative effect is, as indicated by McNair, that aircraft can operate and make noise, in accordance with prescribed regulations; however, a breach thereof might, of course, be actionable. See also Zimmer and Burhenne, *Airfield Noise Abatement in the Federal Republic of Germany* (1972), 12 Natural Resources Journal 354.

⁴² Fink, *Canadian Law and Aircraft Noise Disturbance: A Comparative Study of American, British and Canadian Law* (1965), 11 McGill L.J. 55 at 60; (1969) 17 Chitty's L.J. 145 at 147.

⁴³ *The Municipal Act, supra*, note 32, s. 354 (118).

⁴⁴ *Id.*, s. 354(120).

⁴⁵ *An Act to Protect the Natural Environment*, S.O. 1971, c. 86, s. 1(a) defines contaminant as including sound and vibration; section 1(1) defines pollutant as any contaminant present in the natural environment in excess of the maximum permissible amount; section 1(i) defines natural environment as meaning the air, land and water of the Province of Ontario.

⁴⁶ [1963] 1 C.C.C. 108 (Ont., Mag's Ct.).

ultra vires as it infringed on the same federal domain in *R. v. C.S.L. Ltd.*⁴⁷ Nevertheless, the right and power to operate a transportation system authorized by federal law, such as a railway line, does not preclude recovery for nuisance, provided the railway line has not been negligent in its operations⁴⁸ *i.e.*, so long as there is compliance by the railway with its governing statute,⁴⁹ which may either expressly or impliedly permit the nuisance, there is no right of recovery for nuisance.⁵⁰ If an act has been legislatively sanctioned there is no cause of action for any consequent nuisance which is the "inevitable result" of the authorized act.⁵¹ If the federal government fails to enact legislation governing aeronautical noise, provincial or municipal noise legislation probably would not be effective *qua* aircraft and airports.⁵² In the United States local attempts to control air traffic, and thereby diminish aeronautical noise problems, have not been particularly successful.⁵³ Whether by enactment of local ordinances or applications for injunctive relief, the general trend⁵⁴ in the United States has been to reject these efforts (restricting hours

⁴⁷ [1960] O.W.N. 277, 127 C.C.C. 205, [1961] O.W.N. 89 (Ont. Co. Ct., But where the Government of Canada contracts with a motor transportation service for the carriage of passengers to and from a federally-owned airport, that falls outside federal jurisdiction: *Re Colonial Coach Lines Ltd. and Ontario Highway Transport Board*, [1967] 2 O.R. 25, 243, 62 D.L.R. (2d) 270 (H.C.J.), 63 D.L.R. (2d) 198 (C.A.).

⁴⁸ See *Shelfer v. City of London Electric Lighting Co.*, *supra*, note 12; *Bennett v. Grand Trunk R.W. Co. Ltd.*, (1901) 2 O.L.R. 425, (1902), 1 C.R.C. 451; *Mader v. The Halifax Electric Tramway Co.*, (1905) 37 S.C.R. 94, (1907), 5 C.R.C. 434.

⁴⁹ Injurious affection of property by nuisance caused by a railway which fails to comply with conditions precedent specified in statutory provisions applicable to the railway resulted in liability for the railway: *Dominion Iron and Steel Co. v. Burt*, [1917] A.C. 179; 33 D.L.R. 425; 20 C.R.C. 134.

⁵⁰ *Powell v. Toronto, Hamilton and Buffalo Railway Co.* (1898), 25 O.A.R. 209. Cf. *The Montreal Street R.W. Co. v. Felix Gareau* (1901), 31 S.C.R. 463; (1903), 2 C.R.C. 286, 10 Que. Q.B. 417, where the company was held liable in nuisance for vibrations, (as well as for chimney smoke), as the court refused to follow English precedents such as *The King v. Pease* (1832), 4 B. & Ad. 30; *Hammersmith R.W. Co. v. Brand* (1869), L.R. 4 H.L. 171; and see also *Gareau v. The Montreal Street Railway Company* (1901), 31 S.C.R. 463, 2 C.R.C. 297. See generally, Linden, *Strict Liability, Nuisance and Legislative Authorization* (1966), 4 Osgoode Hall L.J. 196; and see *Himmelman v. Nova Construction Co. Ltd.* (1969), 5 D.L.R. (3d) 56 (Gillis, J.) for a discussion of negligence, nuisance, *res ipsa loquitur*, *Rylands v. Fletcher*, and the defence of statutory authorization.

⁵¹ *Manchester Corporation v. Farnworth*, [1930] A.C. 171 at 183, quoted with approval by Lacourciere, J. in *Plater v. Town of Collingwood*, [1968] 1 O.R. 81 at 85.

⁵² *McNair*, *supra*, note 33 at 444.

⁵³ Lesser, *The Aircraft Noise Problem: Federal Power but Local Liability*, *supra*, note 16 at 184-188 where he discusses in detail decisions such as *Allegheny Airlines v. Village of Cedarhurst*, 238 F. 2d 812 (2d Cir. 1956), and *City of Newark v. Eastern Airlines, Inc.*, 159 F. Supp. 750 (D.N.J. 1958).

⁵⁴ With the exception, for example, of cases such as *Stagg v. City of Santa Monica*, 2 Cal. App. 3d 318, 82 Cal. Rptr. 578, 11 Av. Cas. 17, 404 (Ct. App. 1969) which relied on *Loma Portal Civic Club v. American Airlines, Inc.*, 61 Cal. 2d 582, 394 P. 2d 548, 39 Cal. Rptr. 708, 9 Av. Cas. 17, 165 (1964); and *Township of Hanover v. Town of Morristown*, 108 N.J. Super. 461, 261 A. 2d 692, 11 Av. Cas. 17, 436 (Ch. 1969); and see Baumeister, *Aviation Law — Federal Preemption — Efficient Utilization of Airspace* (1971), 2 Seton Hall L. Rev. 474.

of take-offs;⁵⁵ prohibiting flights below certain altitudes;⁵⁶ closure of take-off paths and landing approaches of an airport).⁵⁷

Noise Pollution

To properly assess the problem of noise pollution from a legal standpoint some familiarity with the science of noise is of assistance.

We have noted that a definition of noise, is unwanted or undesirable sound. Such a definition of course makes readily apparent that the problem of noise pollution, although objective in its measurement, is purely subjective in its assessment and this is a feature which should be remembered when considering remedies in this area.

Sound, or noise, has three constituent properties: volume, pitch and duration, and each of these properties is capable of isolation and measurement. The property we are most concerned with in noise pollution is volume which is measurable in units of decibels (dB). Since the decibel scale is logarithmic, an increase of ten decibels signifies a tenfold increase in sound level. But the *loudness* of sound perceived by the human ear depends upon frequency and the standard decibel scale does not adjust for variations in frequency. Consequently, a different scale is required in order to more accurately measure the perceived level of sound emitted by airport noise, and the most common is the *Perceived Noise Level Scale* (PNdB).⁵⁸

One further aspect of noise pollution in respect of airports, is the related problem of sonic boom.⁵⁹ Generally speaking, sonic boom may be of two types — transient and continuous. A *transient sonic boom* is produced by an aircraft diving vertically to the surface of the ground at supersonic speed thereby setting up a shock front which moves perpendicular to the ground at the speed of the aircraft as the aircraft pulls out of its dive. A *continuous*

⁵⁵ *Lockheed Air Terminal, Inc. v. City of Burbank*, 318 F. Supp. 914 (C.D. Cal. 1970).

⁵⁶ *Allegheny Airlines, Inc. v. Village of Cedarhurst*, 132 F. Supp. 871 (E.D. N.Y. 1955), aff'd. 238 F. 2d 812 (2d Cir. 1956); *American Airlines, Inc. v. Audubon Park, Kentucky*, 297 F. Supp. 207 (W.D. Ky. 1968), aff'd. 407 F. 2d 1306 (6th Cir. 1969).

⁵⁷ *American Airlines, Inc. v. Town of Hempsted*, 272 F. Supp. 226, (E.D. N.Y. 1967), aff'd. 398 F. 2d 369 (2d Cir. 1968), cert. denied 393 U.S. 1017 (1969).

⁵⁸ See generally, Hellman & Zwislocki, *Some Factors Affecting the Estimation of Loudness* (1964), 33 Jnl. Acoust. Soc. Am. 687 and Robinson, *A Note on the Subjective Evaluation of Noise* (1964), 1 Jnl. Sound & Vibration 468.

⁵⁹ For further discussion of sonic boom, see generally, Hopkins and McIntosh, *Is Sonic Boom an Explosion?* (1957), Ins. L. Jnl. 15; Roth, *Sonic Boom: A Definition and Some Legal Implications* (1958), 25 J. Air L. & Com. 68; Rosevear, *supra*, note 21; Arkin, Burdick, Joyner, *Sonic Boom — A Legal Nightmare* (1966), 19 Okla. L. Rev. 292; Baxter, *The SST: From Watts to Harlem in Two Hours* (1968), 21 Stan. L. Rev. 1; Katz, *The Function of Tort Liability in Technology Assessment* (1969), U. Cincinnati L. Rev. 587 at 655; Ticer, *supra*, note 16 at 181, 187; Stratford, *Air Transport Economics in the Supersonic Era* (London: Macmillan and Co. Ltd., 1967) at 298 *et. seq.*; Richards, *Noise Problems Associated with Supersonic Flight with Emphasis on Structural Aspects of the Problem*, Proceedings of the Sixth Israel Annual Conference on Aviation and Astronautics, February, 1964; FitzGerald, *Aircraft Noise in the Vicinity of Aerodromes and Sonic Boom* (1971), 21 U. of T. L. J. 226.

sonic boom is caused by an aircraft travelling at supersonic speed horizontal to the surface of the earth thereby setting up continuous shock fronts which move along the ground at the same speed as the aircraft.

When either type of shock front reaches a person, he will hear a loud noise similar to an explosion because a certain amount of energy has been suddenly transferred to his ears. Such shock fronts have caused property damage to glass, and plaster, and other objects, as well as disrupting rural domesticity by frightening animals to such a degree as to interfere with their productivity. The intensity of the shock front — and thus the possible damage potential — depends upon the size and speed of the aircraft, and the height of the aircraft above the earth's surface. If technical evidence can establish that a sonic boom is an explosion, it may be possible for a plaintiff to claim damages in a suit for negligence⁶⁰ and/or nuisance.

In a recent Canadian case involving sonic boom, *Gagnon v. The Queen*,⁶¹ brought in the Exchequer Court of Canada, the suppliant claimed damages for personal injuries on the ground that the pilot was negligent and reckless, and failed to comply with applicable regulations. Noel, J. in rendering the reasons for judgment, held the Crown liable even though the aircraft involved were foreign, on the ground that a breach of statutory regulations constitutes tortious conduct, (which the respondent did not rebut).⁶² After summarizing the expert evidence on sonic boom, the court points out that the suppliant, who was driving his motorcycle when he alleged he was involved in an accident caused by sonic boom, may have been affected "by the surprise or pain occasioned by the exceedingly loud noise described by those who heard it, and by the suppliant himself."⁶³

Effects of Noise Pollution

Noise pollution can have harmful effects on both the individual and his property. With respect to the individual, the principal physiological effect of noise is loss of hearing sensitivity.⁶⁴ This can be a total loss of hearing (*conductive loss* or *blast trauma*) caused by a single exposure to an intense sound impulse, *e.g.*, a sonic boom; or it can be a partial loss of hearing (*sensorineural loss*) caused by continuous routine subjection to high levels of noise — airplane departures every five minutes.⁶⁵

The most important factor in loss of hearing sensitivity is the temporary sound threshold shift, *i.e.*, the hearing level is elevated by noise exposure and then, after a time, returns to its pre-exposure level. The potential harm here, of course, is that continual exposure will not allow the threshold to descend

⁶⁰ Cf. *Gagnon v. Regina*, *supra*, note 15.

⁶¹ *Supra*, note 15.

⁶² *Id.*, at 736, relying on *Sterling Trusts Corporation v. Postma* [1965] S.C.R. 324, 329. Generally, see *Buxton v. Carriss*, [1958] S.C.R. 441, *Otash v. Sonnenberg* (1968) 67 D.L.R. (2d) 311; *Van Oudenhove v. D'Aoust* (1970), 8 D.L.R. (3d) 145.

⁶³ *Id.*, at 724.

⁶⁴ *The Physiological Effects of Noise*, address by S. E. Forshaw to the Conference on Noise in the Environment, Toronto, April 28-29, 1971.

⁶⁵ *Id.*

to its pre-exposure level, and consequently the sound perception threshold of the ear will be permanently increased.⁶⁶

Noise pollution not only can cause loss of hearing sensitivity, but also has certain non-auditory effects. For example, noise may cause blood vessels to constrict with resultant higher blood pressure and an increased propensity for strokes, heart attacks and cerebral hemorrhages.⁶⁷ It could also produce certain short term secondary effects such as vertigo, nausea, nystagmus and loss of equilibrium.⁶⁸

Apart from the physical consequences of noise pollution—both auditory and non-auditory — there are psychological and social consequences which are equally undesirable. It is known that certain frequencies (600 - 4800 c.p.s.) are particularly important in the area of verbal communication and hence background noise within this range of frequencies (for example, jet engine noise at airports) can seriously interfere with such communication.⁶⁹ This of course would include interference with radio and television enjoyment, as well as the enjoyment of music emanating from a stereo system exclusive of an earphone attachment.

Furthermore, noise pollution can interfere with the process of falling asleep and can also affect the natural "deepness" of one's normal pattern of sleep.⁷⁰

Because there is a subjective aspect in regard to the effects of noise pollution, one must speak in terms of the norm. Studies have shown that such noisy interferences with communication and with the natural pattern of sleep can cause frustration which may lead to tension, fatigue and related psychological problems and may consequently reduce the efficiency and productivity of the individual.⁷¹

It follows that noise pollution, such as that which emanates from airports, could cause serious harm to the individual not only in terms of direct physical harm such as a hearing loss, but also with respect to a person's psychological and social well-being.

The effects of noise pollution are not confined to the individual person, but also encompass and affect a person's enjoyment of his real property. The noise of jets making an approach to, or taking off from a nearby airport, is hardly a saleable feature for real estate in adjacent urban developments and hence the land values in such areas would no doubt be affected downward. Moreover, continuous airport noise can severely interfere with the individual's physical enjoyment of his property, even to the point of discouraging normal neighborly conversation over a back fence.

⁶⁶ *Id.*

⁶⁷ Rosen & Olin, *Hearing Loss & Coronary Heart Disease* (1965), 82 Archives of Otolaryngology 236.

⁶⁸ *Supra*, note 64.

⁶⁹ Kryter & Williams, *Masking of Speech by Aircraft Noise* (1966), J. Acoust. Soc. Am. 138.

⁷⁰ Kryter, *The Effects of Noise on Man* (New York: Academic Press, 1970).

⁷¹ Woodhead, *Effects of Brief, Loud Noise on Decision Making* (1959), 31 J. Acoust. Soc. Am. 1329.

In sum, as an air force officer put it:

Noise, dust, vibration, smoke, powerful lights and flights through airspace at low altitude over nearby private property are matters which are necessarily incidental to normal air operations in and around airports. However, the inconveniences, discomfort, and prejudice to the use and enjoyment of property and the resulting loss in property values [give] rise to claims for damages . . .⁷²

Judicial Consideration of Noise Pollution

Accepting the fact that noise pollution exists and interferes with and adversely affects persons, property and use and enjoyment of property, what cause of action (or causes) is available in the circumstances? *Ubi jus, ibi remedium* — where there is a right, there is a remedy. It appears that the present state of the law in Canada would permit an action in trespass, or nuisance, or negligence.⁷³ In the United States claims based upon inverse condemnation (*i.e.*, a taking of private property for public purposes without compensation)⁷⁴ have been successful.

With respect to an action in trespass one of the first issues is that of ownership or possession of the property in question, *i.e.*, who owns or has possession of the airspace superadjacent to an individual's property?^{74a}

The common law graciously adopted as a principle of land ownership the maxim expressed by Lord Coke in 1628, *cujus est solum ejus est usque ad coelum et ad inferos* — he who owns the soil, owns it from the heavens to the depths of the earth.⁷⁵ Courts modified the literal meaning of the maxim, and Lord Ellenborough in 1815 declared that in the absence of damage a balloonist was not liable in trespass "at the suit of the occupier of every field over which his balloon passes".⁷⁶ Accordingly, even before the advent of the aeroplane, it became obvious that a landowner did not have exclusive rights.

In the United States the rights of persons over and the right to use the superadjacent airspace have been classified under four headings: (1) aircraft trespass when they fly within the owner's zone of "effective possession", or (2) within the zone of the owner's actual use; (3) there is a right of action in nuisance, and probably in negligence, when there is interference with the user of land; and (4) all flights are trespass, but there is a privilege of "innocent passage" in all airspace provided there is no unreasonable interference with the landowner's use and enjoyment of his property.⁷⁷ There may be

⁷² Reed, *Comment: Batten v. United States of America*, *supra*, note 16 at 248.

⁷³ See Richardson, *Canadian Law of Civil Aviation* (1942), 53 C.R.T.C. 321 at 328-332.

⁷⁴ Sometimes also referred to as to a claim for money damages for a prescriptive easement, and also called the Avigation Easement: see generally, Lowenfeld, *supra*, note 16, section 2. 3.

^{74a} For an interesting discussion of trespass in air space see Johnson, *Rights in Air Space* (Manchester Univ. Press, 1965) at 70-74.

⁷⁵ Broom's *Legal Maxims* (8th ed., 1911) 395. Generally, see Sackman, *supra*, note 16.

⁷⁶ *Pickering v. Rudd* (1815), 4 Camp. 219, 171 E.R. 70, 71.

⁷⁷ Fleming, *The Law of Torts* (3rd ed., The Law Book Co. of Australasia Pty. Ltd., 1965) at 45, 46. Prosser, *Law of Torts* (West Publishing Co., 1964) at 70-73. Cf. Salmond, *Law of Torts*, ed. R. F. V. Heuston (15 ed. Sweet & Maxwell, 1969) at 56, 57.

interference with user at low altitudes as distinct from the "upper reaches of the atmosphere";⁷⁸ but the *ad coelum* doctrine has been restricted so that ownership is limited

...to that part of the airspace as may be effectively possessed by the surface owner or as is necessary to the reasonable use of the surface land ... [and] such ownership of the superadjacent airspace is merely a qualified ownership and ... the surface owner has title only to that part of the airspace as is in his actual possession ... [and furthermore] the upper reaches of the atmosphere are in the public domain and ... the surface owner's title, if any, is subject to the right of public passage.⁷⁹

The American position on the *cujus est solum* maxim is:

In a series of decisions such as *Thrasher v. Atlanta* in which the maxim 'Cujus est solum ...' is held to be mere dicta, *Hinman v. Pacific Air Transport*, denying the possibility of air space ownership and limiting possession to 'actual use', and *Sweetland v. Curtiss Airports Corp.*, denying recovery for trespass and basing recovery on nuisance or negligence, ownership of airspace was limited basically to the area of use of the landowner and made subject to the public need in regard to air commerce. In 1946 Justice Douglas, speaking for the Supreme Court of the United States, in *United States v. Causby*, stated that the maxim 'Cujus est solum ...' 'had no place in the modern world ...' but, the opinion went on to state, the landowner does have paramount rights of ownership in the adjacent air space to a 'reasonable' height. In effect, the decision in *Causby* provides a two-edged sword. It limits unreasonable use of air space, while insuring the rights of the landowner in the 'superadjacent' air space.⁸⁰

It appears that the Canadian jurisprudence on the subject of ownership, possession and rights in, to and over the superadjacent airspace is not definitively settled. Aside from instances where aircraft are in breach of statutory requirements and regulations, it is not too bold to suggest that in our community today the sensible approach would be to adopt and accept the concept of qualified or limited ownership (and possession) of airspace — something along the lines that there is a right of flight in the superadjacent airspace so long as there is no unreasonable interference with the landowner's use and enjoyment.

Noise pollution may be actionable as nuisance because of its deleterious effect upon the person or property (as, for example, depreciation in value of property).⁸¹ "For it is generally admitted" Professor Lloyd tells us "that noise alone may constitute a nuisance, although in determining whether it is in fact such a nuisance as to entitle the complaining party to relief at law or in equity, the character, volume, time, place and duration of its occurrence, as well as the locality, must be taken into consideration".⁸² Accordingly,

⁷⁸ Sackman, *supra*, note 16 at 239.

⁷⁹ *Id.*, at 239, 240.

⁸⁰ Ellefson, *Air Space Usage and Louisiana Law* (1970-71), 17 Loyola L. Rev. 337 at 342; and see especially Benshoof, *supra*, note 16; for civil law aspects see Ellefson, *supra*; Fink, *supra*, note 42 at 60 (McGill L.J.), at 147 (Chitty's L.J.); Mankiewicz, *Airport Noise — Compensation of Adjoining Landowners Under French Law: A Report on a Case and Some Further Considerations* (1969), 35 J. Air L. & Com. 238.

⁸¹ *Gagnon v. Dominion Stamping Co.* (1914), 7 O.W.N. 530. See also *Newell v. Izzard* (1943), 17 M.P.R. 185 (N.B.S.C.) and *Huston v. Lloyd Refineries Ltd.*, [1937] O.W.N. 53.

⁸² *Noise as a Nuisance* (1934), 82 U. Penn. L. Rev. 567 at 569.

matters to consider in an action in nuisance for noise pollution are: (1) noise by definition is a subjective matter and the plaintiff must show that his physical discomfort would be that of the average man;⁸³ (2) the character of the neighbourhood will determine the standard of nuisance;⁸⁴ (3) given the character of the neighbourhood the court must determine what is an acceptable noise level under these circumstances;⁸⁵ (4) the time and duration of the noise;⁸⁶ (5) the noise source, since some sources have been found to be legal nuisances;⁸⁷ (6) whether or not the plaintiff came to the nuisance;⁸⁸ (7) the social utility of the defendant's operation;⁸⁹ and (8) the cost of abating the noise;⁹⁰ if the noise is of a continuing, permanent nature and causes injury to property, damages rather than injunctive relief may be given.⁹¹ As for the relief the plaintiff may be entitled to (damages and/or injunction) in a nuisance action, consideration must be given to the particular fact situation *i.e.*, whether the nuisance will continue; whether the plaintiff's property will diminish in value; the type of nuisance and the practical feasibility of enjoining the defendant; and whether the property of the plaintiff has been injuriously affected.⁹² When considering whether or not aircraft noise constitutes nuisance the height of the subject aircraft and the quantum of noise must, of course, be taken into account.

In the United States the courts have provided a remedy for noise pollution through the action based on inverse condemnation, *i.e.*, the taking without compensation, or what we might call expropriation.⁹³ Such an action might be available in Canadian courts if the landowner making the claim can establish a proprietary right in the airspace over his land, and one must remember that the entire aeronautical field is within federal jurisdiction, and so long as there is no breach of any statutory or regulatory provision, aircraft

⁸³ *Betts v. Penge U.D.C.*, [1942] 2 K.B. 154.

⁸⁴ *Drysdale v. Dugas* (1896), 26 S.C.R. 20 (S.C.C.); see also *Maker v. Davanne Holdings Ltd.*, [1954] O.R. 935.

⁸⁵ *Gagnon v. Dominion Stamping Co.*, *supra*, note 81.

⁸⁶ *Cooke v. Kingston Infants' Home* (1932), 41 O.W.N. 279 (Ont. H.C.); *Gagnon v. Dominion Stamping*, *supra*, note 81; *Taylor v. Mullen Coal Co.* (1915), 21 D.L.R. 841 (Ont. C.A.); *McMaster v. Bell Bros.* (1931), 40 O.W.N. 536; *Halsey v. Esso Petroleum Co. Ltd.*, [1961] 2 All E.R. 145.

⁸⁷ *Taylor v. Mullen Coal Co.*, *supra*, note 86; *Halsey v. Esso Petroleum Co. Ltd.*, *supra*, note 86.

⁸⁸ *Bliss v. Hall* (1838), 132 E.R. 758; but note also *Pope v. Peate*, (1904) 7 O.L.R. 207.

⁸⁹ *Cotton v. Ont. Motor Co.* (1916), 11 O.W.N. 100.

⁹⁰ *Halsey v. Esso Petroleum Co. Ltd.*, *supra*, note 86.

⁹¹ *Shelfer v. City of London Electric Lighting Company*, *supra*, note 12.

⁹² See, for example, *Russell Transport Ltd. v. Ontario Malleable Iron Co. Ltd.*, [1952] 4 D.L.R. 719 at 728 *et passim*, (McRuer, C.J.H.C.); *Plater v. Town of Collingwood*, *supra*, note 51 at 86-89 (Lacourciere, J.); *Hopkin v. Hamilton Electric Light and Cataract Power Co.*, *supra* note 39; *Powell v. Toronto, Hamilton and Buffalo Railway Company*, *supra*, note 50; cf. *Boomer v. Atlantic Cement Company Inc.*, 55 Misc. 2d 1023 (1967); 30 A.D. 2d 480 (1968); 31 A.D. 2d 578; 26 N.Y. 2d 219 (1970); 309 N.Y.S. 2d 312 (1970); and see Slattery, *Private Nuisance: Abatement of Air Pollution in Boomer v. Atlantic Cement Company, Inc.* (1971), 54 Marquette L. Rev. 392.

⁹³ *U.S. v. Causby*, 328 U.S. 256 (1946).

can penetrate, use and fly over a landowner's airspace without fear of resulting action. There may be an easement covering the right to commit a nuisance,⁹⁴ and possibly even to make noises and vibrations.⁹⁵

Canadian Air Litigation

Like highways, airports become obsolete almost as soon as they are designed on the drawing boards. With modern technological and planning advances it may be possible to plan for the quiet airport through a variety of devices: the quiet aircraft engine; land use planning and zoning requirements for appropriate location of airports in relation to residential and business areas.⁹⁶

While there has not been the same spate of cases one finds in American jurisprudence on the subject of air carriers, nuisance, negligence and trespass, the matter has been before the Canadian courts.

In *Lacroix v. The Queen*⁹⁷ Fournier, J. of the Exchequer Court deals with a claim made against the Crown where the suppliant alleged, *inter alia*, that because of an expropriation of an easement on his and adjoining proper-

⁹⁴ *British Columbia Forest Products Limited v. Nordal* (1954), 11 W.W.R. (N.S.) 403 at 406 (B.C. S.C.).

⁹⁵ Megarry and Wade, *The Law of Real Property*, (3rd ed. Stevens & Sons Limited, 1966) at 874 who cite *Elliotson v. Feetham* (1835), 2 Bing. N.C. 134; *Ball v. Ray* (1873), 8 Ch. App. 467 at 471, 472, and *Sturges v. Bridgman* (1879), 11 Ch. D. 852, and then say, in footnote no. 24, at 874 that these "cases are unsatisfactory authorities, for in none did the plaintiff succeed. If twenty year's user as of right could have been shown, the question would have arisen whether such rights can lie in grant. This seems highly questionable: there is no direct authority; *contra Lemmon v. Webb*, [1895] A.C. 1..." This statement is accurate except that the *Lemmon* case is not particularly useful as it involved overhanging tree branches. It is of some interest to note that in *Sturges v. Bridgman* the defence plea of prescriptive right to commit a noise nuisance was rejected, because, prior to the plaintiff's complaint, although the defendant had created noise using his equipment, that noise was not actionable nuisance. Salmond on *Torts, supra*, note 77, 82, 83, suggests that there may be a prescriptive right to commit a private nuisance, and that the result in *Sturges v. Bridgman* is based on the fact that it was not sufficient for the defence to show a long continued "nuisance to other people in the occupation of other property" because the right "can be acquired only against specific property, not against all the world"; however, a public nuisance cannot "be legalised by prescription". In *Russell Transport, supra*, note 92, at 729, 730, McRuer, C.J.H.C. notes that the dictum in *Sturges* to the effect that whether or not a nuisance exists depends on the particular locality "is not to be broadly applied" since it "was an expression used in a case arising out of noise and vibration". An easement for access and use of air for a dwelling-house, work-shop or other building cannot be acquired by prescription: *The Limitations Act*, R.S.O. 1970, c. 246, s. 33.

⁹⁶ See, for example, the proposed new airport developments announced by the federal and Ontario governments on Thursday, March 2, 1972: *The Windsor Star*, Friday, March 3, 1972, at 1, 3, 20. With respect to the proposed Windsor air facilities it was stated (*id.*, at 20): "Location of the new runway will reduce the level of noise over adjacent communities". And a story in *The Globe and Mail*, Saturday, March 4, 1972 at 1 stated: "The province yesterday restricted development of land in what will be the high-noise zone of the international airport to be built in Pickering Township and Markham."

⁹⁷ [1954] Ex. C.R. 69, [1954] 4 D.L.R. 470, (1955) 72 C.R.T.C. 89. The Exchequer Court is now known as the Federal Court of Canada: *Federal Court Act*, R.S.C. 1970, c. 10 (2nd Supp.).

ties for a lighting system this created a flightway over his land which aircraft would use to land or take off at Dorval Airport; and the Crown is liable to him in damages in that it interfered with his right of ownership which includes the surface and what is below and above his land thereby interfering with his enjoyment of his property.

Fournier, J. explains that the lighting system was installed to assist aerial navigation and as such did not establish a flightway to and from the airport. As the subject property was in the Province of Quebec, he looks to the Civil Code which is in effect there, and which states in s. 414 "that the owner of the soil is also the owner of what is above and what is below," which contains the essence of the same provision in the Code Napoleon. Lord Coke's maxim has been restricted in its application; it is not given literal effect; and aerial flights are permitted over property so long as there is no interference with the use and enjoyment of the property by the owner.⁹⁸ The court goes on to point out that the suppliant was using the land intermittently for agricultural purposes and was not living on that land. If the suppliant's contention were accepted, Fournier, J. says, that would be an admission "that air and space may be appropriated or possessed" and he concludes:

In my view, air and space are not susceptible of ownership and fall in the category of *res omnium communis*, which does not mean that the owner of the soil is deprived of the right of using his land for plantations and constructions or in any way which is not prohibited by law or against the public interest.

It seems to me that the owner of land has a limited right in the air space over his property; it is limited by what he can possess or occupy for the use and enjoyment of his land. By putting up buildings or other constructions the owner does not take possession of the air but unites or incorporates something to the surface of his land. This which is annexed or incorporated to his land becomes part and parcel of the property.

The Crown could not expropriate that which is not susceptible of possession. *It is contrary to fact to say that by the so-called establishment of a flightway and the flying of planes it had taken any property belonging to the suppliant or interfered with his rights of ownership.*

In this instance it did not appropriate any air or space over his land and did not interfere with his rights. I need go only so far as to say that *the owner of land is not and cannot be the owner of the unlimited air space over his land*, because air and space fall in the category of *res omnium communis*. For these reasons the suppliant's claim for damages by reason of the so-called establishment of a flightway over his land fails.⁹⁹

In 1958 when Robert Shepherd purchased his house near Dorval Airport (in the Montreal area) it should have been clear to him that there would be increased aircraft activity at the airport; and further in his deed it was specified that the property was subject to the Montreal Airport Zoning Regulations. Hence when he brought suit¹⁰⁰ against the Crown for damages because of the airport's operation — low flying jet aircraft, noise, gasoline odors,

⁹⁸ This is adopted by the court from an article, Richardson, *Private Property Rights in the Air Space at Common Law* (1953), 31 Can. Bar Rev. 117 at 134-36.

⁹⁹ *Id.*, at 96 (C.R.T.C.). Emphasis added.

¹⁰⁰ [1964] Ex. C.R. 274. For cases dealing with railways and nuisance which, in general, held that the railways, exercising their rights conferred by statute, were not liable in nuisance unless they acted oppressively, see: *Bennett v. Grand Trunk R.W. Co. Ltd.*, *supra*, note 48; *Montreal Street Railway Co. v. Gareau supra*, note 50.

glaring runway lights, loss of tenants, risk hazards — and because of the registration of a servitude over his property (restricting the height of buildings, trees and obstructions), Dumoulin, J. of the Exchequer Court allowed him damages by reason of the servitude for depreciation of the value of his property and for trees felled on his property, but rejected his claim concerning the airport's operations. He cites *Lacroix* with approval, and says that the construction of the airport "is a perfectly normal enterprise, offending against no law, and therefore its activities are governed by appropriately attuned rules of objective responsibility, the law of torts," and he concludes:

Just as one may expect a hospital to create a silent zone, it is as natural for an airfield's regular trade to be carried on in an atmosphere of perpetual noise. Alone the transgression of the unavoidable measure of annoyances fosters a case of delictual liability.¹⁰¹

Highways in the air cannot be established: *Atlantic Aviation Ltd. v. Nova Scotia Light and Power Co. Ltd.*¹⁰² In this case a flying school operator alleged that the defendant's erection of transmission towers and lines near the school interfered with aircraft operations. MacQuarrie, J. dismissed the action, and said the defendant has lawfully used its own lands (but it could be so prevented if zoning regulations were passed under the *Aeronautics Act*, and none were passed herein).

Where it was claimed that low flying aircraft caused losses to mink ranches, their claim was dismissed in *Darowany v. The Queen*¹⁰³ as the suppliant could not establish that the pilots were servants of the Crown nor that the flying was negligent causing the damages claimed. Similarly where a scheduled airline flew over a mink ranch, and the rancher claimed damages for negligence because of the aircraft noise, the claim was dismissed in *Nova Mink Ltd. v. T.C.A.*¹⁰⁴ The pilot was not aware of the existence and location of this particular farm, and the court said that the situation did not present

¹⁰¹ *Id.*, at 280, 281. For a different viewpoint see Lesser, *supra*, note 16 at 195, 196, where he describes the successes of property owners; and see The New York Times, Wednesday, July 21, 1971, *Jet Noise Dooming Homes Near Los Angeles Airport*, *supra*, note 16, which tells of the acquisition by the City of Los Angeles of homes near the airport because of the jet noise. The court incidentally mentions that the Minister has authority by virtue of the *Aeronautics Act*, R.S.C. 1952, c. 2, s. 3(c) to construct and maintain government aerodromes.

¹⁰² (1965), 55 D.L.R. (2d) 554 (N.S. S.C.). The court, like Fournier, J. in *Lacroix* repeats portions of Richardson's article in 31 Can. Bar Rev. 117, *supra*, note 98. Where an aeroplane was in lawful flight in accordance with Air Regulations passed under the *Aeronautics Act*, and hit power lines over navigable waters without having obtained permission under the Navigable Waters' Protection Act, R.S.C. 1952, c. 140, s. 4, it was held the wires were a public nuisance on the navigable waters, and damages were awarded to the plaintiffs: *Stephens and Mathias v. MacMillan and MacMillan*, [1954] O.R. 133; [1954] O.W.N. 176; (1954) 71 C.R.T.C. 101 (Ont. H.C.J., McLennan, J.). Cf. *United States v. Causby*, *supra*, note 93 at 261, where Douglas, J. says: "The air is a public highway, as Congress has declared."

¹⁰³ [1956] Ex. C.R. 340.

¹⁰⁴ *Supra*, note 15.

a "foreseeable risk of contact" nor did it suggest "a probability of harm . . . as to give rise to a duty of care"¹⁰⁵ to avoid the farm by a greater distance than that at which the aircraft flew.

Some Considerations

In any discussion of aeronautical noise the remedies which are or may be available are a focal point for discussion; and the obtaining of these remedies requires action by private citizens or the public authorities or a combination of both. The customary remedies are legal actions in nuisance, trespass and negligence (and in the United States the "taking" approach by use of the inverse condemnation concept). Improvements in aircraft, managed use of runways, air traffic control devices (and even ground traffic control as the noise from motor vehicles increases), relocation of airports and zoning and land use plans for the development of airport and adjacent areas—all of these are suggested.¹⁰⁶ Actions against airport operators have been instituted in the United States.¹⁰⁷ In the Canadian context, as Rosevear, former Air Canada counsel tells us, airports and air navigation are within the federal domain, and to succeed in an action against the Crown regard must be had to the *Crown Liability Act*¹⁰⁸ which provides that no proceedings lie against the Crown for the acts or omissions of its servant "unless the act or omission would apart from the provisions of this Act have given rise to a cause of action in tort against that servant or his personal representative." From which Rosevear concludes that "it is unlikely that an action against the Crown, founded on noise levels, would be successful since there could be no suggestion of the negligence of a servant or agent of the Crown."¹⁰⁹

The Minister of Transport can pass zoning regulations governing the height and location of buildings and other structures near airports;¹¹⁰ and these must be published in two newspapers serving the airport area;¹¹¹ and any person whose property is injuriously affected by such zoning regulation can recover compensation from the Crown.¹¹² In *Roberts and Bagwell v.*

¹⁰⁵ *Id.*, at 264.

¹⁰⁶ See particularly Ticer, *supra*, note 16.

¹⁰⁷ See, for example, *Griggs v. County of Allegheny* (1961), 402 Pa. 411, 168 A. 2d 123, (1962) 369 U.S. 84; and see also Rosevear, *supra*, note 21. For a discussion of the problems concerning actions involving the air traffic controller and air traffic control systems, see Flynn, *Avigation And The Law* (1972) 4 Southwestern U.L. Rev. 176.

¹⁰⁸ R.S.C. 1970, c. C-38, s. 4(2).

¹⁰⁹ *Supra*, note 21 at 5. There may, of course, be specific exceptions to this where a Crown servant or agent disobeys or misunderstands governmental rules and regulations. Cf. *Saguenay Peat Moss Company v. The Queen*, [1966] Ex. C.R. 333, where it was alleged that one of the Crown's low flying aircraft caused a fire in a peat bog because of trails of hot flame and gases escaping during vertical ascents, Noel, J. dismissed the claim for lack of proof and noted that the particular type of aircraft could not possibly have caused the fire.

¹¹⁰ *Aeronautics Act*, *supra*, note 17 s. 6(1) (j).

¹¹¹ *Id.*, s. 6(7).

¹¹² *Id.*, s. 6(10).

*The Queen*¹¹³ such a claim was successfully made because of the enactment of certain Toronto Malton Airport Zoning Regulations. Nolan, J. in giving the Supreme Court of Canada's reasons notes that the subject area was under an official plan and was an area of subdivision control as provided by the Ontario Planning Act.¹¹⁴ The court concludes: "Vertical regulation is necessary in the vicinity of airports and the vesting of the powers mentioned operates with an immediate effect on the use and value of the land. It becomes at once a burden on the land and the resulting diminution in value is a proper subject for compensation."¹¹⁵

These zoning regulations may also cover prohibitions and requirements concerning lands adjacent to airports, or may deal with the construction or use of buildings or structures on such adjacent lands.¹¹⁶ Presumably any zoning regulations enacted by the federal government with a view to noise control could result in claims for compensation on the ground of diminution in value of property. Insofar as governmental control and regulation is concerned in interfering with private use of land, there is, as we have seen, legislative protection for any decrease in value of property;¹¹⁷ but to what extent, if any, noise pollution from aeronautical sources could be said to be related to or connected with such claims for compensation is anybody's guess. In any event, we perhaps should remember the stricture stated by Idington, J. in *Canada Paper Company v. Brown*¹¹⁸ in the conflict between private and public interests:

The invasion of rights incidental to the ownership of property, or the confiscation thereof, may suit the grasping tendencies of some and incidentally the needs or desires of the majority in any community benefiting thereby; yet such a basis or principle of action should be stoutly resisted by our courts, in answer to any such like demands or assertions of social right unless and until due compensation made by due process of law.

Conclusion

Pollution, noise or any kind, may be fadism; reality; problem and challenge for the private and public sectors of our community — but however we may characterize pollution and its effects, we face differences of opinion about our capacities to cope. In 1899 Veblen spoke of mental adaptation to new circumstances; and in 1970 Charles A. Reich in his dynamically provocative book *The Greening of America*¹¹⁹ adopts a different stance when he ponders whether we can ever catch up to advancing technology:¹²⁰

Noise, whether of jets, supersonic planes, or tote goes on a forest trail, attack us all . . . We have a large capacity to get used to such discomforts, but the technology seems to force us faster than we can adapt.¹²⁰

¹¹³ [1957] S.C.R. 28, (1957) 75 C.R.T.C. 77.

¹¹⁴ *Id.*, at 39-42 (S.C.R.).

¹¹⁵ *Id.*, at 38.

¹¹⁶ *Supra*, note 110.

¹¹⁷ *Supra*, note 113.

¹¹⁸ (1921), 63 S.C.R. 243, 248.

¹¹⁹ (Bantam Books of Canada Ltd., June 1971).

¹²⁰ *Id.*, at 186, 187.

Whether it is the local or the international arena, the problems of aeronautical noise are much the same; and, Professor Lowenfeld, succinctly and aptly knits it all together in these words:

Consider where the noise debate stands after ten years of dispute. The communities near airports seem to be forced (occasionally with monetary compensation) to put up with at least the pre-1969 generation of jets at their present level of noise, with the next generation of aircraft a little bit, but not a great deal, quieter. The aviation community, on the other hand, has come to realize that all over the world it is becoming extremely difficult to find any place to erect new and badly needed airports. Thus the outcome as of the beginning of the 1970's appears to be a stand-off. Neither side is strong enough to force its own will, but each side seems strong enough to block new developments contrary to its will.¹²¹

¹²¹ Lowenfeld, *supra*, note 16, chapter V, section 5.4, 144.