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Quiet Revolution*

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Current Status of Anti-Noise Pollution Efforts

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Excessive noise can be controlled. It is not necessarily the price of industrial and economic progress. Much can be done to retard the advance of noise pollution. There is evidence of an awakening in various levels of government and among our citizens to the problem.

AIRCRAFT NOISE

The Federal Aviation Agency requires that each particular model or make of aircraft receive an "Air-worthiness Certificate" which specifies the conditions under which the aircraft may be used. In addition, the FAA requires that an airline receive an "Air Operating Certificate" before it may operate a given aircraft and schedule service at a particular airport. It is clear that the FAA has under the Federal Aviation Act of 1958 full power to prescribe air traffic rules for the protection of persons and property on the ground, including prescription of air traffic rules in the interest of noise abatement. The FAA in exercising statutory authority has set noise limits for jet airplane takeoffs (but not landings) and has adopted flight procedures at Kennedy International and other public airports, including the adoption of preferential runway systems. Moreover, the federal government has in operation an active noise abatement program with a dedicated and technically able staff.

The emphasis of the Aircraft Noise Alleviation Program under the FAA, now combined with the new Department of Transportation (DOT), has been to develop programs to reduce noise exposure to a minimum and to improve the ability of communities affected to cope more effectively with their aircraft noise problems. Government expenditures to reduce the noise problem have advanced from \$100,000.00 in 1961 to a 1.3 million authorization for FAA alone in 1965.

* The author is an attorney associated with the Rochester law firm of Houghton, Pappas & Fink. He became interested in the field of noise pollution and its control while Legislative Assistant and Legal Counsel to Representative Theodore R. Kupferman during the 89th and 90th Sessions of Congress. In that capacity he drafted the first comprehensive noise bill introduced in the House of Representatives. He is the author of "Noise - A Problem to be Heard" presented at the National Academy of Sciences in January of 1967. In June of 1968 he attended as a consultant and speaker, the First National Conference on Noise as a Public Health Hazard, held in Washington, D. C. He is presently serving as a panel member of the Commerce Technical Advisory Board Noise Abatement Panel. The R.C.S.I. members who monitored this bulletin feel that Mr. Kaufman is probably one of the best informed individuals in the United States in the field.

Congress has hardly responded to calls for action. However, on July 12, 1968, the President signed into law HR 3400 which adds a new Section 611 to the Federal Aviation Act of 1958. This requires the FAA to establish and enforce regulations to control aircraft noise, including sonic boom. The FAA is given power to withhold or revoke certification of an airplane which is too noisy by its standards. Noise is to be considered also in the development and manufacture of new aircraft. Section 611 further directs that the FAA, in establishing noise standards, should consider whether any proposed standard "is consistent with the highest degrees of safety" and whether it is "economically reasonable, technologically practical and appropriate for the particular type of aircraft to which it will apply."

The problem has been classified by the Federal Aircraft Noise Abatement Program as one of conflict between two groups -- the producers of air transportation service and those people living or working near airports. The conflict exists because social and economic costs result from noise imposed upon land users near airports. They have little or no control over the noise and receive no direct benefits. The Federal Aircraft Noise Alleviation Program has undertaken to (a) develop and analyze alternative solutions to the aircraft-community noise problem (b) establish a rationale for selecting a "best" solution (c) achieve an equitable allocation of costs (d) establish federal financial assistance programs where necessary and appropriate, and (e) establish a functional organization for analyzing, selecting and implementing preferred solutions, and (f) recommend co-ordinated research programs in aircraft noise abatement.

NOISE SOURCES OTHER THAN AIRCRAFT

While noise from aircraft is perhaps most familiar to the public, the control of noise from other sources warrants consideration.

On April 21, 1966, Representative Theodore R. Kupferman (Congressman from Manhattan) introduced in the House of Representatives the first bill to deal comprehensively with the problem of noise in general. Congressman Kupferman's bill, re-introduced in the 90th Congress as HR 2819 and referred to the House Interstate and Foreign Commerce Committee, would establish an Office of Noise Control within the office of the Surgeon General under the Department of Health, Education and Welfare. In the writer's opinion, general noise properly should be considered a health problem. The Noise Control Office, headed by a Director and assisted by a Noise Control Advisory Council, would provide grants in aid for State and local governments in control of noise. The bill provides that the Office would cooperate fully with federal agencies and departments presently working in the field. Primary functions of the Office of Noise Control would be as a national clearing house for noise information. The wealth of its knowledge would help State and local governments on request. The Office would serve a research and educational function for noise from all sources, as the National Aircraft Noise Abatement Council (NANAC) presently serves in aircraft noise abatement. The NANAC is a non-profit noise center supported by the airplane industry.

On July 26, 1967, Dr. Donald F. Hornig, Director of the Office of Science and Technology, suggested that the Federal Council for Science and Technology's Committee on Environmental Quality consider the problem of noise in the environment. This request was made after the transfer of responsibility for coordination of federal programs on aircraft noise from the Office of Science and Technology to the Department of Transportation. The Committee on Environmental Quality established a task force to study the problem. While the task force report and recommendations are not officially available at this time, it is important to note that the noise problem is being considered by the government comprehensively, not simply in regard to aircraft.

On June 13th and 14th of this year the American Speech and Hearing Association in conjunction with the Public Health Service and many other government agencies sponsored the First National Conference on Noise as a Public Health Hazard in Washington, D. C. The conference is considered by many to be the forerunner of a concerted effort by the scientific community to communicate its wealth of knowledge to those in government interested in the problem. The Surgeon General of the United States was the keynote speaker, adding emphasis to the first consideration of noise as a national health problem.

The week following that Conference, the University of California at Berkeley held a full week symposium on "Atmospheric Noise Pollution and Measures for its Control." Both conferences considered the noise problem from various points of view. Technical papers were presented by scientists, physicians, engineers, sociologists, psychiatrists and attorneys. The transcripts of the conferences are presently being prepared for publication.

More recently, the Commerce Technical Advisory Board has been chartered by the President to undertake a comprehensive study on noise abatement. The panel is working industriously and quickly to produce a report with practical recommendations for noise control and prevention.

State and local governments in the past have been as slow as the Federal Government in initiating noise abatement programs. Many State and local governments have neither laws dealing with the noise control, nor do they have programs to study the problem. New York State became, in July 1965, the first in the United States to enact a highway anti-noise statute. The State law provides a measurable noise limit which can be enforced against motor vehicles creating excessive or unusual noise. The act defines as excessive noise sound produced by a vehicle registering 88 decibels or more on the A scale. Ninety decibels on the A scale, therefore, is the level at which violations would be charged and arrests made. The noise is measured at roadside toll stations where trucks pass at speeds of less than 34 miles per hour. As a practical matter, very few arrests have been made under this statute, and to the author's knowledge there have been no convictions after trial. The New York State Department of Motor Vehicles, through the New York State Police Department, notes that 45 arrests were made after checking 9,569 vehicles since October 1, 1965. Forty-three of the 45 arrested pled guilty without trial. California recently adopted comprehensive highway anti-noise legislation that would prohibit noise levels in excess of 82 dba for passenger cars and 92 dba for trucks and buses.

Most states have motor vehicle statutes or codes dealing with the requirement of mufflers on automobiles and trucks to prevent excessive or unusual noise. These statutes, however, usually fail to spell out quantitative measures in decibels at which violations would occur. Thus, the statutes are for the most part extremely difficult to enforce and are usually not enforced.

There are situations where inter-state action is required to control an environmental problem effectively. The Port of New York Authority is the only operative example. It governs aircraft at Kennedy International, LaGuardia, Newark, and Teterborough airports. Besides aircraft, states could join to provide uniform motor vehicle statutes which quantify prohibited levels of noise. A comprehensive motor vehicle statute could be patterned after those of New York or California. However, better means of measurement and enforcement must be sought.

Uniform state and/or city codes could also be enacted concerning housing and airborne construction noises. It would be important to coordinate the efforts of the Federal Government and the states. It is at the City Code level that noise

from garbage collection, construction, motor vehicles, loud speakers and many other sources can be controlled effectively. Aside from passing laws, education toward awareness can accomplish noise reduction. Techniques such as mufflers for foundation blasting and use of special steel wire blankets do help. Quieter methods of bolting are possible and demolition can be scheduled on weekends and off-hours. The cost of such abatement equipment and procedures is not necessarily prohibitive: a simple device to quiet an air compressor would cost about \$200.00.

One interesting new method for reducing construction noise has been recently devised by Con-Edison in New York. A road bar machine called a cookie cutter can cut through a five foot diameter into 15 inch thick asphalt and concrete with three times the speed and one-third the noise of a conventional pneumatic jack hammer. Consider how many man-holes are dug each year in our cities, and the noise reduction value of the cookie cutter becomes apparent!

The Polytechnic Institute of Brooklyn has been working on proposals which would include provisions in the New York City Building Code for the abatement of noise in multiple dwellings. In addition to reducing the amount of airborne noise between adjacent apartments and hallways, and reducing impact noises between apartments, the proposed Polytechnic Code seeks to control structure borne noises originating in moving machinery and equipment, as well as noise reaching apartments from equipment located on adjacent buildings. Perhaps when New York adopts a building noise code other states will follow its lead and write controls into their codes. If the public expresses its desire to have quieter buildings without a substantial increase in costs, by supporting uniform noise controls in building codes, the building industry will soon use materials which will insure less noise, and be safe as well.

The March 1968 issue of "Scientist and Citizen" (Volume 10, No. 2) included an article by Clifford R. Bragden entitled "Noise -- a Syndrome of Modern Society." This brief article is a convenient and useful source for a preliminary understanding of the relationship of noise to health, as well as a general consideration of other aspects of noise.

It is hoped that a future bulletin will deal with the legal aspects of noise control. Hopefully, at that time there will be considerably more progress to report in the abatement of noise pollution.