

## 2 INTERAGENCY AIRCRAFT NOISE ABATEMENT PROGRAM

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I would like to express my appreciation to NASA for inviting the Department of Transportation (DOT) to attend this conference, and I also appreciate the opportunity to discuss the Interagency Aircraft Noise Abatement Program. As you are well aware, noise is one of the major contributors to the environmental pollution problem which is plaguing our society today. In our context, it is a waste product of transportation systems and, along with air and water waste, is rapidly deteriorating our environment.

The need for a national program attacking aircraft noise was first acted on by Dr. Hornig, the President's Science Advisor, who established an Ad Hoc Jet Aircraft Noise Panel in October 1965, composed of representatives from NASA, FAA, and industry. The panel developed recommendations concerning the implementation of a coordinated noise abatement program.

The President of the United States in his transportation message to the Congress on March 2, 1966, gave particular attention to aircraft noise. He directed Dr. Hornig to work with NASA, FAA, Department of Commerce, and Department of Housing & Urban Development (HUD) to frame an action program to attack this problem. Specifically, he asked these Departments and Agencies to develop noise standards and compatible uses of land near airports, to consult with local communities and industry, and to recommend needed legislative or administrative actions. On March 22, 1967, in a memorandum for Heads of Departments and Agencies, the President directed all organizations to take into explicit and due account aircraft noise whenever it is relevant to any program and to cooperate with DOT and HUD in efforts to control and reduce the problems of aircraft noise. Under Dr. Hornig's leadership, the Federal Aircraft Noise Abatement Program was subsequently organized. This program resulted in the initiation of several projects structured to carry out the recommendations reported by the Jet Aircraft Noise Panel.

With the formation of the Department of Transportation the responsibility for both the Federal Aircraft Noise Abatement Program and the Sonic Boom Coordinating Committee, which was initially under Dr. Hornig's direction to provide policy and technical direction for national studies on sonic boom, were transferred to DOT.

As recent as March 8, 1968, the President, in his message to the Congress on conservation, restated his concern with the ever-mounting volume of aircraft noise, along with other types of noise. Specifically, he directed all departments of government to take account of noise factors in choosing the location and design of buildings, highways, and

other facilities whose construction is assisted by federal funds. He also urged the Congress to take prompt action on the pending legislation to deal with aircraft noise.

Public Law 90-411, an act to amend the Federal Aviation Act of 1958 to require aircraft-noise-abatement regulations, was passed by the Congress and signed into law by the President on July 21, 1968. I think it is important to note that the House passed this bill by a vote of 312 to 0 - one of the very few times that a bill has passed unanimously. There were only 10 dissenting votes in the Senate.

The FAA now has authority to prescribe and amend such rules and regulations as may be necessary to provide for the control and abatement of aircraft noise and sonic boom. The forthcoming regulations on noise abatement and the ability of our industry to comply will be vitally influenced by the work that NASA is doing - that is, by the work that you will hear about during this conference.

Now, with this historical background, I would like to present briefly the organizational structure of the Interagency Aircraft Noise Abatement Program which was developed to discharge efficiently the overall responsibilities of the Department of Transportation and other appropriate government agencies.

The Advisory Committee is composed of the top officials of the government agencies listed. (See chart presented as fig. 1.) There is also participation from nongovernmental interests such as the National Academy of Sciences. This group provides advice and guidance to the Secretary, Department of Transportation. The detailed coordination and review of the program is concentrated in the Coordination Committee. You will note that the agencies represented on the Coordination Committee are largely the same as those represented on the Advisory Committee. You will also note from the chart that we have established eight functional panels, chaired by the agency shown. Membership on these eight panels is selected based on the best individual expertise available in each functional area.

The Noise Research Panel is primarily involved with the problems of quieting engines and aircraft. Here we find coordination of projects such as those that will be discussed at this conference.

The Sonic Boom Research Panel, as its name implies, is primarily concerned with the problems of sonic-boom generation and propagation.

The Land Use/Airports Panel is concerned primarily with the problems of noise exposure forecasts and their implication on communities adjacent to airports. Guidance concerning criteria for compatible land use is developed in this panel, and appropriate government programs in the areas of land use are coordinated to ensure that the noise problem is taken into consideration in the conduct of these programs.

The Operations Panel is the forum which looks at how to fly the aircraft and where to fly to create minimum noise exposure which must be consistent with overriding safety requirements. Projects such as developing optimum-noise-abatement take-off profiles, developing the capability to execute steeper approaches to landing, and developing noise-abatement Air Traffic Control procedures are the sort of things that are being evaluated by this panel. You will learn more about these projects from subsequent papers.

The Human Response Panel is concerned primarily with the psychoacoustic aspects of aircraft noise. It is the primary group working on the development of meaningful yardsticks and units of measurement that will be used in rating and evaluating noise from the human response viewpoint. The last day of the conference will cover this area.

The Natural Environment Panel is concerned with the impact of aircraft noise, including sonic booms, on our national parks, natural artifacts, and wildlife. These are problems about which much concern has been expressed.

The Legislative/Legal Panel includes lawyers who are involved in the aircraft-noise problem. There has been a great deal of litigation concerning alleged damage incurred as a result of aircraft noise and sonic booms. This panel keeps abreast of current activities in the legal field of aircraft noise and develops and recommends legislative proposals as required.

The Structures Panel is concerned, as the title implies, with impact and effects of noise on manmade structures. Here is where we find a concentration of effort in developing sound-proofing materials and techniques that may be applied to existing as well as new structures in the vicinity of airports. Here we also find effort underway that will be useful in developing criteria to be incorporated in uniform building codes which can assist in reducing noise intrusion in homes and other structures. Papers that relate to this subject area will also be presented at this conference.

In discussing aeronautical research, Secretary Boyd, just over a week ago, before the Subcommittee on Advanced Research and Technology of the House Committee on Science and Astronautics, stated that the Federal Government has to do a tremendous amount of research and invest a great deal of money in noise. He further stressed the point that we cannot buy quiet overnight.

As this conference progresses, we will see the important role that NASA plays in the national noise-abatement effort. We feel that the outstanding contributions made in the past will be matched by even greater contributions in the future as we all endeavor to remove the noise albatross from around the neck of air transportation.

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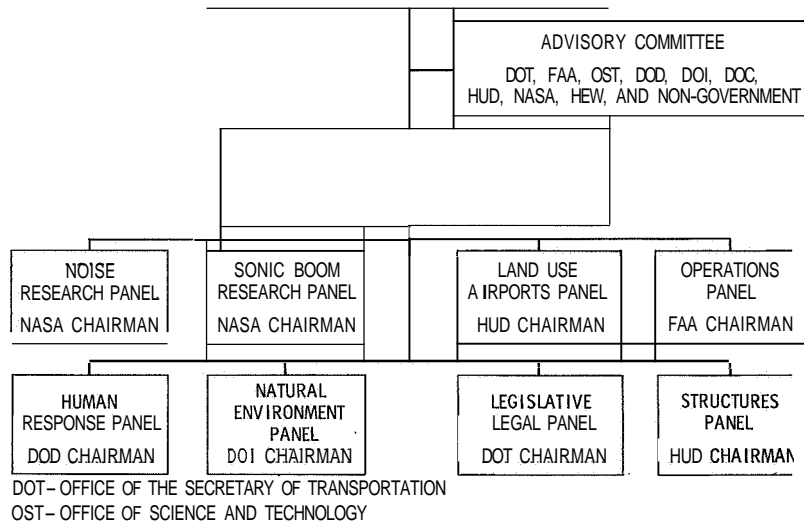


Figure 1