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ACT OF 1972
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THE
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HEARING

BEFORE THE

SUBCOMMITTEE ON
ENVIRONMENTAL POLLUTION
OF THE
COMMITTEE ON PUBLIC WORKS

UNITED STATES SENATE

NINETY-THIRD CONGRESS

SECOND SESSION

MARCH 22, 1974

PART 2

SERIAL NO. 93-H31

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CONTENTS

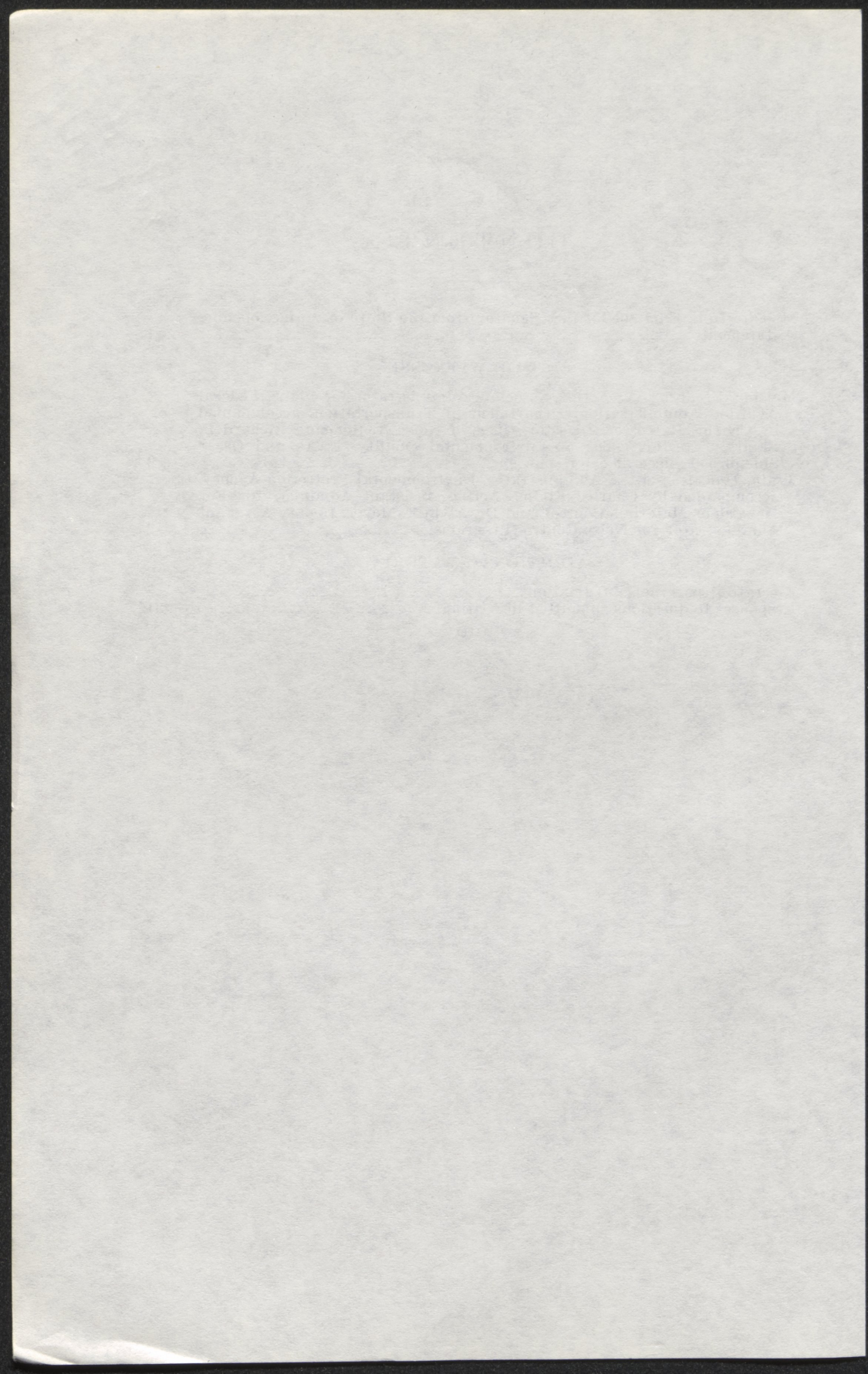
Muskie, Hon. Edmund S., U.S. Senator from the State of Maine, opening statement-----	Page. 1
--	------------

LIST OF WITNESSES

Meister, Frederick A., Acting Associate Administrator for Plans, Federal Aviation Administration, Department of Transportation, accompanied by Charles R. Foster, Director, Office of Noise Abatement; Richard P. Skully, Director, Office of Environmental Quality, FAA; and Oscar Shienbrood, office of chief counsel-----	9
Train, Hon. Russell E., Administrator, Environmental Protection Agency, accompanied by Charles Elkins, Acting Assistant Administrator For Hazardous Materials Control, and Dr. Alvin F. Meyer, Deputy Assistant Administrator for Noise Control Programs-----	2

ADDITIONAL MATERIAL

Aircraft-airport noise regulations-----	3
Responses to questions submitted in writing-----	31



IMPLEMENTATION OF NOISE CONTROL ACT OF 1972

FRIDAY, MARCH 22, 1974

U.S. SENATE,
COMMITTEE ON PUBLIC WORKS,
SUBCOMMITTEE ON ENVIRONMENTAL POLLUTION,
Washington, D.C.

The subcommittee met at 10 a.m., pursuant to call, in room 4200, Dirksen Senate Office Building, Hon. Edmund S. Muskie (chairman of the subcommittee) presiding.

Present: Senators Muskie (chairman), Buckley, and Domenici.

Senator BUCKLEY (presiding). This meeting of the Subcommittee on Environmental Pollution will now come to order.

The chairman of the subcommittee, Senator Muskie, regrets that because he is tied up on the floor he cannot be here at the opening, but will be joining us as soon as he can.

He has a statement that in his absence will be put into the record.

[The statement referred to follows:]

OPENING STATEMENT OF HON. EDMUND S. MUSKIE, U.S. SENATOR
FROM THE STATE OF MAINE

Two years ago I co-sponsored S. 3342, a bill which required the Federal Government to adopt strong measures to abate and control noise pollution. That bill was later amended and passed both houses of Congress to become the Noise Control Act of 1972.

Included in that legislation were provisions granting the environmental protection agency and the Federal Aviation Administration the authority to develop regulations to control and abate aircraft noise. I did not vote for the bill as finally passed for two reasons: first, I could not support preemption which protected product manufacturers and the air transportation industry without effective regulatory programs designed to protect public health and environment. I noted in my minority views on S. 3342 and I state again today that the substitution of federal law for state law without assurance that public health will be protected is poor public policy.

Second, I did not vote for that legislation because it maintained the Federal Aviation Administration's authority to issue all regulations affecting aircraft noise. At the time that the Senate considered S. 3342 I had concluded that the Federal Aviation Administration's record in reducing noise did not justify continuation of responsibility.

I continue to be pessimistic about the possibility that a mission agency like F.A.A. will make a sincere effort, even with a strong mandate to work with E.P.A. to reduce the adverse impact of aircraft noise. In light of that pessimism it is appropriate to review the record of both of these agencies under the 1972 act.

The noise control act required the administrator of E.P.A. to conduct a study on aircraft and airport noise and report to Congress.

The act also required E.P.A. to . . . "submit to the F.A.A. proposed regulations to provide such control and abatement of aircraft noise and sonic boom . . . as E.P.A. determines is necessary to protect the public health and welfare."

Today, I want to find out specifically what both E.P.A. and F.A.A. have or have not done to implement the requirement. But more importantly, I want to know how both of these agencies plan to achieve the intent of the act—and whether legislative redirection of federal efforts to achieve significant reductions of aircraft noise will be required to protect the public health from the adverse impact of environmental noise.

Senator BUCKLEY. We are, of course, meeting on the first oversight hearings on the legislation adopted in 1972 to control noise pollution.

I am happy to welcome to the meeting, to lead off the testimony, the distinguished Administrator of the Environmental Protection Agency, Mr. Russell E. Train.

Mr. Train, we will be happy to hear your statement.

**STATEMENT OF HON. RUSSELL E. TRAIN, ADMINISTRATOR,
ENVIRONMENTAL PROTECTION AGENCY, ACCOMPANIED BY
CHARLES ELKINS, ACTING ASSISTANT ADMINISTRATOR FOR
HAZARDOUS MATERIALS CONTROL, AND DR. ALVIN F. MEYER,
DEPUTY ASSISTANT ADMINISTRATOR FOR NOISE CONTROL
PROGRAMS**

Mr. TRAIN. Thank you, Mr. Chairman.

Since this is a fairly technical field with which I am not as familiar as other areas, I should like to present my full statement, Mr. Chairman.

I am accompanied by Charles Elkins on my right, the Acting Assistant Administrator for Hazardous Materials Control, which includes the Office of Noise Abatement and Control, directed by Dr. Alvin F. Meyer, who is on my left.

Mr. Chairman and members of the subcommittee:

I am pleased to be here this morning to review the actions which have been and are being undertaken by EPA to carry out our authority under the Noise Control Act of 1972 to reduce aircraft and airport noise.

In reviewing our activities in this area, I will first summarize our actions under our authority in section 7 of the act to develop proposals for operational and equipment noise control regulations for aircraft and to develop proposed regulations for airport noise control. I also will outline some of our activities being carried out under section 4 in coordinating Federal aviation noise control research and development, and the work leading to a coordinated national aviation noise abatement decisionmaking plan.

When we submitted our Report on Aircraft-Airport Noise to the Congress last July, we indicated that we had identified a need for new or improved regulatory actions on aviation noise in several areas. We now have determined that an effective program to protect the public health and welfare with respect to aircraft noise requires the development and proposal to FAA of three complementary types of regulations, namely: (1) noise abatement flight procedures; (2) noise source emission regulations; and (3) an airport noise regulation.

As to the first category, three regulations, suitable for safe operation of all civil turbojet airplanes, are expected to be proposed relating to flight procedures—takeoff, approach and landing, and minimum altitudes.

Under consideration is a set of three standard takeoff procedures for use, as appropriate, to minimize the noise exposure to the noise sensitive communities. Two standardized approach procedures are in preparation for use, as appropriate, to minimize community noise exposure. These cover reduced flap settings, that is, using the minimum safety certificated flap setting during a standard approach procedure; and the two-segment approach, which involves a final aircraft descent on a 6° glide angle to a specified altitude at which point to touchdown the aircraft descent is on the standard 3° glide angle.

Under the second category, five proposed noise source emission regulations for certification of aircraft by the FAA under consideration cover: (a) retrofit/fleet noise levels; (b) supersonic civil aircraft; (c) modification of Federal Aviation Regulations (FAR 36); (d) propeller driven small airplanes; and (e) short haul aircraft.

The major source of noise impact in the vicinity of most commercial airports is from the existing large turbojet airplanes, nearly 1,800 of which are not covered by any noise rule. Regulations are under consideration in this regard to insure that both the existing and future civil aircraft fleet are controlled to noise levels protective of public health and welfare commensurate with the requirements of the Noise Control Act. Modifications to FAR 36 are under consideration to lower the noise levels to be met by all new airplane types in order to be certified.

In addition, various amendments may be proposed to require more stringent consideration of altitude and temperature factors, and of test procedures governing approvals for requests for design changes to assure compliance with existing prescribed noise levels; and in general, to make the rule clearer and more effective.

Noise emission standards which may be proposed for propeller driven small aircraft would apply to new type designs and to new airplanes of older type designs.

As to short-haul aircraft, standards are under consideration for all aircraft capable of vertical, short or reduced takeoff or landing procedures.

All of the above regulatory actions under consideration were identified by EPA in the Federal Register of February 9, 1974. A copy of this notice is submitted for the record.

[The notice referred to follows:]

ENVIRONMENTAL PROTECTION AGENCY—AIRCRAFT AND AIRPORT
NOISE REGULATIONS

NOTICE OF PUBLIC COMMENT PERIOD

Section 7(a) of the Noise Control Act of 1972 (Pub. L. 92-574, 86 Stat. 1234) required the Administrator of the Environmental Protection Agency to conduct a study of aircraft and airport noise and report thereon to the Congress by July 27, 1973. That report was submitted as required.

Section 7(b) of the Noise Control Act, amending Section 611 of the Federal Aviation Act of 1958 (49 U.S.C. § 1437), required the Administrator of EPA to submit proposed regulations on aircraft and airport noise to the Federal Aviation Administration (FAA) following submittal of the report required by section 7(a) of the Noise Control Act.

In the section 7(a) report, the Administrator of EPA discussed the adequacy of FAA aircraft noise regulations and made tentative assessment of a number of regulatory actions that could be effective in controlling aircraft noise. After further review of those possible actions, the EPA Administrator is now consider-

ing the development of ten regulations which may be submitted to the FAA for its consideration under section 611 of the Federal Aviation Act as amended.

A short title and synopsis of the ten regulatory proposals which EPA is considering follows:

1. *Noise abatement takeoff operating procedures.* Individual airports, or runways of the airports, can be placed into the following three main categories regarding community noise exposure: Sideline noise sensitive, near downrange noise sensitive, and far downrange noise sensitive. A set of three standard takeoff procedures suitable for safe operation of each type of civil turbojet aircraft is being considered for use, as appropriate, to minimize the noise exposure of the noise sensitive communities.

2. *Noise abatement approach operating procedures.* A set of standardized approach procedures suitable for safe operation of each type of civil turbojet aircraft is being considered for use as appropriate to minimize community noise exposure. The set of procedures includes: all Instrument Landing Systems (ILS) standardized for a three-degree approach angle, two-segment approaches for use under Visual Flight Rules (VFR) conditions, and minimum flap settings for use under VFR conditions.

3. *Noise abatement minimum altitudes.* Minimum safe altitudes higher than are presently specified in the Federal Aviation regulations, are being considered for the purpose of noise abatement, applicable to civil turbojet powered aircraft regardless of category.

4. *Civil aircraft fleet noise requirements.* Regulations are being considered that would establish civil aircraft noise requirements, prevent an immediate escalation of fleet noise levels (FNL), and require a reduction in FNL within specified time limits.

5. *Supersonic civil aircraft noise.* Regulations are under consideration that would limit the noise generated by civil supersonic aircraft regardless of category.

6. *Modifications to Federal Aviation Regulation (FAR) Part 36.* Modifications to FAR 36 for lowering the noise limits for all new aircraft types that must comply are being considered. In addition, various amendments may be proposed that would require altitude and temperature accountability, strengthen test conditions for acoustical change approvals, and, in general make the rule clearer and more effective.

7. *Propeller driven small aircraft.* Noise standards may be proposed for propeller driven small aircraft applicable to new type designs, newly produced aircraft of older type designs, and to the prohibition of "acoustical changes" in type design of those aircraft that increase their noise levels.

8. *Reduced or short takeoff or landing (R/STOL) aircraft.* Noise standards may be proposed for all aircraft capable of operating from short or reduced length runways. (Official definitions for these lengths have not been established but 2,000 and 4,000 feet, respectively, are being considered.)

9. *Vertical takeoff or landing (VTOL) aircraft.* Noise standards may be proposed for all aircraft capable of takeoff or approach operations in a vertical (or nearly vertical) mode.

10. *Airport noise regulation.* The intent of the airport noise regulation which is under consideration will be to establish goals, set up mechanisms and set into motion processes by which the noise exposure of communities around airports can be limited to levels consistent with public health and welfare requirements.

The achievement and maintenance of noise exposure limits for communities around airports will require a comprehensive program:

(a) To make aircraft inherently quieter and to have them flown as quietly as possible.

(b) To design or modify the total operating plan of the airport so as to minimize the extent of the airport noise impact zone and tailor its shape to avoid existing noise-sensitive land uses.

(c) To prevent buildup of new housing or other noise-sensitive land uses in present and anticipated future noise impact zones and, where necessary, resolve by land use measures (soundproofing or conversion) those few impacted areas where the noise exposure cannot be adequately decreased by other means.

Item (a) is the objective of regulations listed as items 1 through 9 above while items (b) and (c) are the objectives of the Airport Noise Regulation.

The airport noise regulation should be structured so as to provide a quantitative framework within which all levels of government and affected persons can work together effectively, gradually to reduce existing and prevent new noise

exposure situations inconsistent with public health and welfare, and to provide an impetus for their cooperative actions. The implementation process being considered is as follows: After the promulgation of the Federal airport noise regulation by the FAA, the existing airports with jet operations would be reviewed by the FAA. Proprietors of airports identified by the FAA as a result of this review would be required to submit to the FAA their time-phased implementation plans. Development of implementation plans for each airport would be done by a process of consultation involving local governments and the public. Quantitative prediction of the effectiveness of various alternative operational modes for the airport would be carried out by the airport proprietor as part of the local development of the implementation plan.

The implementation plan for the airport would then be submitted by the proprietor to the FAA for approval. Any final adjustments of the plan required during the approval process would be incorporated, and the implementation plan adopted as a Federal regulation for the airport. Specific elements of the plan would be promulgated as FAA regulations or operating rules and thus become subject to FAA enforcement. Progress in implementing approved implementation plans would be reviewed on a periodic basis. An airport's compliance with its Federally-approved implementation plan would be made a condition for receiving the benefit of further Federal support, possibly including but not limited to an operating certificate for the airport, further use of Federal funds, and approval of environmental impact statements respecting proposed projects at the airport or within its noise impact zone.

It is the intention of the Environmental Protection Agency to submit any proposed regulations in such legal form as to make them capable of immediate incorporation in notices of proposed rulemaking to amend the Federal Aviation Regulations (which are contained in Title 14 of the Code of Federal Regulations).

Among the first nine regulations being considered, as listed above, it is to be noted that rulemaking processes have already been initiated by the FAA, by publication of advance notices of proposed rulemaking or, in some cases, notices of proposed rulemaking. The processes available to EPA nevertheless include those set forth in Section 611 as amended, and comments of the public to EPA on all ten of the above proposals are therefore invited. It is anticipated that each of the ten proposals would be submitted to the FAA as it is developed. An airport noise regulation proposal must consider the effects of the other proposed regulations and therefore would be submitted last.

The Agency publishes this notice in order to invite early public participation in the development of EPA's draft regulations for proposal to the FAA. EPA expects, to the extent possible within the time frame for EPA development of each regulatory proposal, to make available mechanisms for further public comment as our draft proposals become more specific. This participation does not affect the right of the public to participate in the later review of these regulations by FAA, according to processes set forth in section 611 as amended and the Administrative Procedure Act (5 U.S.C. 500 et seq.)

That opportunity for later public participation can be summarized as follows:

EPA will transmit the proposed regulations to the FAA by letter will publish notice of the transmittal in the Federal Register, and will make the proposed regulations and the supporting "project reports" available to the public. Under section 611, the FAA must publish EPA's proposed regulations in the Federal Register within 30 days and commence public hearings within 60 days thereafter.

The purpose of this notice is to invite interested persons to participate in EPA's development of the regulations to be proposed, by submitting such written data, views of arguments as they may desire. Communications should identify the public file number and title of the regulation being addressed, and be submitted in triplicate to the: Office of Noise Control Programs, Environmental Protection Agency, Crystal Mall Building No. 2, 11th Floor, 1921 Jefferson Davis Highway, Washington, D.C. 20460.

Data, views or arguments submitted on any topic related to the regulatory action being addressed will be considered. However, information of the following kinds will be particularly useful:

(I) For the aircraft-related regulations (Items 1 through 9 above), any information relating to the basic requirement that the regulations contribute to the promotion of an environment for all Americans free from noise that jeopardizes their health or welfare, or to the four statutory constraints:

(a) Consistency with the highest degree of safety in air commerce or air transportation in the public interest;

- (b) Economic reasonableness;
- (c) Technological practicability; and
- (d) Appropriateness for the particular type of aircraft, aircraft engine, appliance or certificate to which it will apply.

(II) For the airport-related regulation (Item 10 above), any information relating to the foregoing statutory criteria; and in addition any information or views on the following subjects:

- (a) Potential methods for classifying airports as may be appropriate for differential regulatory treatment;
- (b) Data on the extent of the current noise impact problem at U.S. airports, both civil and military;
- (c) Analytical models for estimating the noise environments generated by complex noise sources in communities (such as highways, airports, industrial plants) and the strengths and weaknesses of each model;
- (d) Information on airport noise monitoring systems including their performance characteristics, costs and modes of use;
- (e) Views and study results regarding alternative methods of financing various actions implicit in carrying out an airport noise regulation (including reduction of the noise characteristics of existing aircraft), not limited to financing methods available only under existing legislation;
- (f) Information and experience on various legal mechanisms for controlling the land use aspect of the airport/community interface;
- (g) Methodologies and data concerning the social and economic impacts, on airport influence regions, of potential restrictions on either airport activity level or surrounding land development;
- (h) Methodologies and data on the quantifiable effects upon interstate and foreign commerce of potential actions stemming from an airport noise regulation;
- (i) Potential interactions with other environmental and energy conservation considerations; and
- (j) Recommendations concerning cooperative Federal/State/local mechanisms for efficient implementation of an airport noise regulation.

All communications received within the time limits listed in the following table will be considered. All comments received will be made available for examination by interested persons, both before and after the closing date, at Office of Public Affairs, Environmental Protection Agency, 4th and M Streets, SW Washington, D.C. 20460.

NOTE: Priority attention would be given to those air carrier airports with significant noise problems (i.e., whose noise impact zones presently encompass large populated areas). However, it is presently envisioned that the regulation would be structured to be applicable to airports of all sizes and uses, and to require that all new airport sitings, airport expansions or other airport actions tending to increase cumulative noise exposure be conditioned upon continual compliance with the exposure limits established for application to new projects as defined in the regulation.

Public file No.	Title	Comment period, time from date of this notice
A/A 73-1	Noise Abatement Takeoff Operating Procedures	60 days.
A/A 73-2	Noise Abatement Approach Operation Procedures	Do.
A/A 73-3	Noise Abatement Minimum Altitudes	Do.
A/A 73-4	Civil Aircraft Fleet Noise Requirements	Do.
A/A 73-5	Supersonic Civil Aircraft Noise	Do.
A/A 73-6	Modifications to FAR Part 36	Do.
A/A 73-7	Propeller Driven Small Aircraft	Do.
A/A 73-8	Reduced or Short Takeoff or Landing (R/STOL) Aircraft	Do.
A/A 73-9	Vertical Takeoff or Landing (VTOL) Aircraft	Do.
A/A 73-10	Airport Noise Regulation	90 days.

RUSSELL E. TRAIN,
Administrator.

FEBRUARY 13, 1974.

[FR Doc. 74-3915 Filed 2-15-74; 8:45 am]

Mr. TRAIN. I call attention to the fact that item 8, reduced or short takeoff or landing aircraft, and item 9, vertical takeoff or landing aircraft, are now being combined for the consideration of proposed regulations relating to short haul aircraft.

The development of each of these eight regulations under consideration in the first two categories starts with the preparation of a project report which is primarily a technical document providing as much definitive information as possible. The project report in fact provides the basic data necessary for the preparation of the proposed rulemaking. Project reports have been drafted for five of these eight regulations under consideration. The remaining three should be available within 6 weeks. These draft project reports are circulated for comment to a broad segment of interested representatives of government, the aviation community, environmental groups and private citizens. We have had a great deal of cooperation from all of these groups and in particular from the Department of Transportation and other Federal agencies. This cooperation is an essential element in the development of regulations in this highly technical and controversial field.

I am aware of the committee's concern regarding the length of time EPA is taking in developing these proposals. It has been our view, however, that we must prepare them with almost as much detail as if the EPA, rather than the FAA, were to promulgate the regulations. If we do not, it is possible that there would be needlessly protracted dialog between the two agencies before any final regulatory action is taken. We expect to be able to submit the first of our recommendations to the FAA by the end of the summer.

Going to the third category, the airport noise regulatory program, we are especially sensitive to the fact that the Noise Control Act, taken together with the *Burbank* decision has, in effect, created an apparent void in the ability of local and State governments to deal with airport noise through their regulatory powers. The purpose of the airport regulatory program is to establish processes for limiting the noise exposure in communities around airports.

This program, in conjunction with aircraft noise regulations, is intended to provide for mutual compatibility between airports and communities. This requires control of the aviation activities associated with the airport operations so as to minimize the cumulative noise exposure pattern generated, and control of the surrounding land use patterns. A development program is underway to prepare the airport noise regulations, together with action programs for its implementation, to be submitted to the FAA early in 1975. We are working on a community noise prediction model that promises to be a valuable tool in developing comprehensive airport noise regulations. It is presently envisioned that the regulation would be structured to be applicable to all airports, with priority given to airports with significant noise impact on large populated areas.

Components of the airport noise regulation program include aircraft source noise control and operating rules, land use controls, and airport operational optimization to minimize noise impact. Objectives include near-term resolution of severe public health and welfare impacts; improvement of compatibility between presently impacted airports and neighboring communities, and prevention of new impact

situations. Planned end products of the airport regulatory program include a draft regulation, project report, land use plan, financing plan, monitoring and enforcement plan, interagency implementation plan, public health and welfare, economic, energy, and environmental impacts; and implementation tools such as a handbook for developing airport implementation plans and a computerized community noise model. Our plans also include consideration of local flexibility in selecting preferred goals and at the same time assuring continuation of a viable air transportation system through Federal review and approval of locally developed implementation plans. Compliance could be made a condition for receiving further Federal support, possibly including but not limited to an operating certificate for the airport, further use of Federal funds, and approval of environmental impact statements respecting proposed projects at the airport or within its noise impact zone. The coordinated participation of other Federal agencies—both in direct Federal actions and through indirect processes acting through State and local agencies—is needed to support the realization of each airport implementation plan, through prevention of conflicting projects and through Federal encouragement of local government land use control decisions in support of the implementation plan.

With respect to our coordinating efforts, a plan to coordinate all federally supported noise research has recently been developed by the EPA Office of Research and Development. We are now working with the other Federal agencies to implement this plan. An important component of the plan is the development of an Interagency Aircraft Noise Research Panel to provide a mechanism to consider, review and assess the status of all significant aircraft noise control research, technology and demonstration. This Panel has been formed and is being chaired by a member of our Office of Research and Development. Its membership includes representatives for our Office of Noise Abatement and Control and from DOT, NASA, DOC, HUD and DOD. The first meeting was held on March 5, and specific goals have been established for the coordinating activities, which include reviewing and reporting on the status of and making recommendations on aircraft noise control research, technology, development and demonstration programs. We expect to complete a status report by June 1974.

Concurrently, our Office of Noise Abatement and Control has initiated a study to develop a National Aircraft Noise-Abatement Management Plan for establishing long-range technical requirements to meet EPA-established health and welfare objectives with planned regulatory actions. The principal output of this study will be a proposed procedure for insuring that the results of technology developments are used expeditiously to reduce the impact of aircraft noise on a continuing basis.

Discussions have been initiated with other Government agencies and we are optimistic that this total plan for the abatement and control of aircraft noise will provide the Federal Government an opportunity for overall management review to assure that noise control objectives, based on public health and welfare requirements, can be met in a coordinated, phased program.

This concludes my prepared statement, Mr. Chairman. I would be glad to respond to any questions.

Senator BUCKLEY. Mr. Train, you observed correctly that this is a highly technical statement. I think each one of us is in for a period of education on some of the problems. You also mentioned the protracted dialog that is involved with the authorities of the FAA.

Under the circumstances, I wonder if it would not be useful if, instead of asking you questions at this time, we invited Mr. Frederick Meister to present his statement on behalf of the FAA. Perhaps we could then have joint responses to the questions that would arise.

Mr. TRAIN. I think that is a very good idea, Mr. Chairman.

STATEMENT OF FREDERICK A. MEISTER, ACTING ASSOCIATE ADMINISTRATOR FOR PLANS, FEDERAL AVIATION ADMINISTRATION, DEPARTMENT OF TRANSPORTATION, ACCOMPANIED BY CHARLES R. FOSTER, DIRECTOR, OFFICE OF NOISE ABATEMENT; RICHARD P. SKULLY, DIRECTOR, OFFICE OF ENVIRONMENTAL QUALITY, FAA; AND OSCAR SHIENBROOD, OFFICE OF CHIEF COUNSEL

Mr. MEISTER. Mr. Chairman and committee members.

The Administrator of the FAA has asked me to express his regrets that he could not be here himself today because of prior commitments.

I am Frederick A. Meister, Acting Associate Administrator for Plans of the FAA. With me are Mr. Charles R. Foster, Director of the Office of Noise Abatement in the Department of Transportation, Mr. Richard P. Skully, Director of the FAA's Office of Environmental Quality, and Oscar Shienbrood of the Office of Chief Counsel.

We are pleased to be here today to discuss the implementation of section 7 of the Noise Control Act of 1972. I welcome this opportunity to appear before you to report on some of the results of our programs which have come to fruition since the act's passage.

First I would like to state that the Noise Control Act of 1972 has proven to be very constructive legislation. The act has been a successful attention getter and has catalyzed the attitude and actions of the public, industry and Government in undertaking active support of noise control efforts. The act also served to focus attention on the fact that the problem of noise comes from a variety of sources and affects our society in many ways. Thus, we believe the act has served to bring the role of aircraft noise into proper focus with respect to the total noise problem our society is faced with.

Assessment of this total noise picture will lead to an increased appreciation for the complexities of noise control in general and will lead to a deeper understanding of our past efforts to control aircraft noise.

In addition to these benefits, the Noise Control Act has brought into perspective all factors which must be properly balanced when seeking environmental improvement. Air transportation is a prime and vital element of our Nation's transportation system. In view of its prominence as a major national asset, its economic viability through reasonable growth must be assured; hence, environmental safeguards must be accomplished within the economic constraints which insure rather than deter growth.

Additionally, the Noise Control Act has brought into focus the complexity of the administrative process of implementing governmental actions. The administrative rulemaking process necessarily prolongs the time between the conception of a regulatory scheme and its final implementation, but in doing so the rights of all segments of our society to be heard are protected.

While these procedures may have lessened the immediacy of impact of the Noise Control Act of 1972, I believe they are a necessary and important part of our democratic process and in my opinion will serve to increase public confidence and appreciation for this "checks and balances" procedure.

Having reviewed some of the favorable aspects of the Noise Control Act of 1972, I would now like to report on a subject which this subcommittee has expressed specific interest in, the EPA/FAA working relationship under the act.

In the first 17 months under the act there has been extensive interchange between the two agencies. The FAA/DOT has made staff level regulatory project reports and all of the technical research and development reports on aircraft noise suppression available to the EPA.

In exchange we have received many reports from the EPA. We have had representation at most of the EPA task force meetings and have actively participated in the public working group meeting prior to the submittal of the July 1973 EPA report to the Senate Public Works Committee. Frequent contact has been made at the staff level to exchange technical views on the development of project reports which serve as the base for the pending regulatory recommendations.

Additionally, continuous contact was made at the policymaking levels between the two agencies to insure coordination.

Further related to the implementation of the EPA/FAA consultative process defined by the Noise Control Act, the EPA has commented on rulemaking proposed independently by the FAA. We have generally found this consultation to be constructive, objective and timely. Our prior experience in the setting of aircraft emission standards is a case in point. FAA's initiatives and cooperation with EPA were major factors in arriving at reasonable standards. Another example of joint EPA/FAA effort is a program recently conducted at Atlanta Airport to determine the feasibility of aircraft ground operational procedures to reduce emissions and to save fuel. This has resulted in FAA issuance of an advisory circular.

In summation, we welcome EPA's participation in noise rulemaking, and believe that the intent of the consultative provisions of the act are being accomplished.

The first formal EPA implementation of section 7 was the July 1973 report to the Senate Public Works Committee. That report in broad terms points to problem areas related to aircraft noise. It was not intended to serve as a viable base for particular FAA action, but rather to highlight these problem areas.

Subsequently, on February 19, 1974, EPA published in the Federal Register the titles and a synopsis of 10 regulatory proposals for public comment which EPA is considering for ultimate submittal to FAA.

I would now like to turn to what FAA has done to date, and has in the planning stage, for implementing our statutory duties under the Federal Aviation Act of 1958, as amended, with respect to noise control.

The FAA's plans, programs and accomplishments have followed a consistent and orderly process. In November 1969, we published Federal Aviation Regulation Part 36, which put a lid on the escalation of aircraft noise. Examples of significantly quieted aircraft certified under this regulation are the DC-10, L-1011, B-747, F-28 Cessna Citation and the Dassault Falcon 10. There are currently in excess of 600 aircraft which have been certificated to FAR 36 levels operating today.

The FAA has accomplished over 100 certification actions under FAR 36 which have insured that modifications to existing aircraft were accomplished without increasing the aircrafts' noise levels.

Having put a lid on the escalation of aircraft noise, the FAA next addressed the issue of noise levels of aircraft coming off production lines under certificates issued before FAR 36 became effective. A Notice of Proposed Rulemaking was issued dealing with this subject in July 1972, and a final rule was published in October 1973. That rule requires compliance with the FAR 36 noise levels as a condition for the issuance of a standard airworthiness certificate. As a result all newly produced large turbojet aircraft have had to meet FAR 36 requirements.

We are currently addressing the quieting of inservice commercial aircraft through the development of fleet noise regulations. The feasibility of quieting turbojet aircraft was demonstrated by the FAA for the Congress and the public by flyover noise comparisons at Dulles Airport in May 1973. That project, conducted by the FAA and the Boeing Co., demonstrated takeoff noise reduction of 11 EPNdb and approach noise reductions of 15 EPNdb were achievable using quiet engine nacelles on a B-707.

In connection with this area of effort an Advance Notice of Proposed Rulemaking was published in January 1973.

Mr. Chairman, I am pleased to announce today that a Notice of Proposed Rulemaking will be published next week which proposes a means of assuring that all currently available acoustic technology is applied to inservice commercial aircraft. The proposal, if adopted, will be costly (\$600 million to \$800 million), but the benefits of the program will provide noise relief parallel to that of the Dulles Airport flyover noise comparisons to literally hundreds of thousands of persons located near our busier airports.

Dealing further with aircraft source noise the FAA issued an NPRM, 73-26, in October 1973, which proposed noise standards for propeller-driven aircraft. This proposal would accomplish objectives essentially parallel to those of FAR 36 for turbojet aircraft. First a lid will be put on this type of noise.

Next all newly produced propeller-driven aircraft would be required to meet that noise standard. An environmental impact statement has been prepared for the final rule, and we are hopeful that the rule will be in effect before the end of 1974.

With regard to supersonic civil aircraft noise, rulemaking action dated April 1973 prohibits all supersonic flights over the United States by civil aircraft. The FAA has been monitoring the development of civil supersonic aircraft by the British and French.

As you know, the Concorde is not yet being operated by air carriers; it is still under development. Recent press reports have indicated further design changes are being considered. Consequently, at this time it would be premature to promulgate standards for this aircraft pur-

suant to section 7(b) of the Noise Control Act which amends section 611(d) of the Federal Aviation Act. Nevertheless, we are actively developing a regulatory position with regard to civil supersonic aircraft noise certification.

We are also looking at future aircraft types and future noise level requirements. In December 1973 the FAA issued an Advance Notice of Proposed Rulemaking seeking comment related to noise standards for shorthaul aircraft. This ANPRM will deal with aircraft capable of taking off and landing vertically or having short takeoff and landing capabilities.

The shorthaul air transport concept has been studied for many years, and since this aircraft type implies city center as well as suburban operation, noise standards must be established at an early date to insure environmental acceptability of shorthaul facilities by the communities served.

The development of future noise level requirements for all commercial aircraft—and here we are talking about reducing current FAR 36 for advanced aircraft—is in advanced stages at the FAA staff level. Our 4 plus years of experience in the implementation of FAR 36 has highlighted many areas for regulatory modification which can provide further noise relief. FAA's desire to revise present noise level standards downward was made clear to the aircraft industry in August 1972 in a letter.

Based on our regulatory experience and the extensive governmental noise reduction research and development effort, it is believed that we can issue a notice presenting the new, more stringent regulatory requirements for comment by the end of 1974.

The FAA views the control of aircraft noise through the use of operational procedures to be a promising and practical means toward obtaining early noise relief. We have for many years been experimenting with different takeoff and approach procedures, runway procedures, noise abatement routing and terminal area handling of aircraft to achieve noise control.

Noise abatement takeoff operating procedures designed to provide maximum separation between aircraft and the communities overflown were developed jointly by FAA and ATA. On August 1, 1972, the so-called "Get em high earlier" procedure was implemented nationwide. This procedure, which defines climb speed and altitudes for configurational and power changes, and slightly modified in late 1973 and published as a recommended noise abatement takeoff and departure procedure for civil turbojet aircraft in FAA Advisory Circular 91-39, dated January 18, 1974. We are currently developing additional procedures along these same lines.

Noise abatement approach operating procedures have been developed jointly by FAA and NASA which includes a two-segment glide slope and provides noise reduction by use of lower power settings. The FAA just this week issued an Advance Notice of Proposed Rulemaking seeking advice and comments on this two-segment approach procedure.

In connection with this proposed rulemaking the FAA has identified approximately 60 candidate airports for installation of onground guidance equipment, which will enable aircraft to use the two-segment

approach. We hope to fund this distance measuring equipment through the aviation trust fund as part of our facilities and equipment program.

Another aspect of maximizing aircraft to ground separation distances to provide community noise relief is that of allowable minimum altitudes. The FAA had historically viewed this issue as one of safety; however, utilization of higher minimum altitudes as a means of achieving noise relief as well as safety has now been recognized. After extensive study the FAA issued in early 1972 agency Order 7110.22 and Advisory Circular 90-59 dealing with arrival and departure handling of high performance aircraft.

The objective of these directives was to keep aircraft as high as possible at all times in the terminal control area. This program has been referred to as the "Keep em high" program and has been effective in providing significant noise relief.

A later but related Advisory Circular, 91-36, was published in August 1972 to deal directly with VFR flight near noise sensitive areas. The purpose of this advisory was to encourage pilots making VFR flights near recreational and park areas, churches, hospitals, schools, and similar areas to fly at altitudes higher than the minimum permitted by regulation in order to reduce aircraft noise impact on the ground.

The FAA's regulatory plans and programs could not be accomplished without a substantial technical data base, which was necessary in all cases prior to the rules that I mentioned. To date the Government has spent in excess of \$200 million on research and development in the aircraft noise abatement area.

For example, since the issuance of FAR 36 the FAA/DOT has spent approximately \$34 million and NASA \$150 million. The FAA's program and plans encompass the following areas of research and development:

1. Source noise prediction and reduction
2. Core engine noise control
3. Configurational effects on noise
4. General aviation aircraft noise
5. Retrofit feasibility for commercial and executive jet aircraft
6. V/STOL jet and rotary propulsor noise control
7. Operational noise control
8. Noise measurement systems
9. Noise exposure evaluation and community response
10. Noise certification criteria
11. Sonic boom reduction and control

Our \$16 million spent in particular on the quiet nacelles program was the major factor permitting us to issue next week in the Federal Register our proposed Notice of Rulemaking for Retrofit, as I mentioned earlier.

Mr. Chairman, this concludes my list of accomplishments we in the FAA look to with pride in the area of noise control.

I would call your attention to the fact that, in publishing the list of 10 items it is considering for submittal to FAA, EPA stated, and I quote, "among the first nine regulations being considered, as listed above, it is to be noted that rule making processes have already been

initiated by the FAA" It is true that FAA has already taken action in 9 of the 10 areas where noise relief may be achieved. In the tenth area, airport noise certification, we are working very closely with EPA in examining a host of legal and technical issues. We strongly believe that our efforts have been considerable and have resulted in substantial progress in affording noise relief. These efforts are continuing as we learn more and understand more about the noise problem.

This concludes my prepared statement, Mr. Chairman, and I am available to answer any questions you may have.

Senator BUCKLEY. Thank you, Mr. Meister. We appreciate your very full statement.

I would like to say at this time that the chairman of the full committee, Senator Randolph, has not been present. As many of you know, he has had a longstanding personal interest in aviation. He is preparing a full set of questions which he will be submitting to both of you in due course for your replies.

Given the highly technical nature of this discussion, I believe we better hold the record open for all members of the subcommittee to submit questions.

Mr. Meister, I have one question about the certification procedures for the SST. You mentioned that you are following the development of the Concorde. Is there a similar following of the Russian SST?

Mr. MEISTER. Yes, sir. I would like Mr. Skully, the Director of our Office of Environmental Quality to comment in more detail on that.

Mr. SKULLY. Concerning information on the TU-144, which is the Russian supersonic aircraft, we have considerably less data as compared with the British and French. We do have the noise levels which they have provided us relative to part 36. They provide this data through the International Civil Aviation Organization. They are comparable to the Concorde levels.

Senator BUCKLEY. I assume that the normal certification procedures will ultimately be applicable to any aircraft granted landing rights in this country?

Mr. SKULLY. Yes.

Senator DOMENICI. Mr. Chairman, I didn't hear the question.

Senator BUCKLEY. I said I assumed that the normal certification procedures will be applicable to the Russian SST as well as any other aircraft.

Mr. SKULLY. They would be identical to the Concorde, yes, sir.

Senator BUCKLEY. I note that the chairman of the subcommittee has appeared from the floor. So I would turn the Chair over to him. I am sure he may wish to introduce his opening statement at this time.

Senator MUSKIE. Thank you, Senator Buckley. I should say that I may be called to the floor any minute.

I am sorry I didn't hear all of both statements. I might therefore ask questions that have already been answered by your statements. I hope you will understand.

I do have an opening statement. I won't undertake to read it all. I would simply like to make the point which I make in the statement, that I was originally a cosponsor of S. 3342. I opposed the bill on the floor for reasons that I state in my opening statement, which I would be glad to place in the record. [The statement appears at p. 1.]

I simply felt that it was bad public policy to substitute Federal law for State law without assurance that the public health would be protected.

I was also skeptical about the arrangements which gave FAA a dominant role with respect to setting regulations affecting public health. I hope that our developing experience under the law does not justify my pessimism and that we will move on to effective public policy in this area.

Without belaboring those points, which I am sure are a matter of record and I am sure not a mystery to the agencies that are involved, I would like to get at three basic issues that may be covered in our opening statements. It might, therefore, be beneficial to have you add to your opening statements.

First of all, Mr. Train, I wonder if you could comment upon the extent of the cooperation between EPA and the FAA in reducing aircraft and airport noise, and the specific results of that cooperation. I take it from what I heard in Mr. Meister's statement that, from his point of view, the relationship has been satisfactory.

Not having heard your comments and not having had a chance to read your statement on that score, I wonder if you or your people would comment on that.

Mr. TRAIN. I will start and then ask Dr. Meyer, who has the direct responsibility and who has been working much more closely with the FAA, to expand upon my answer.

The cooperation between EPA and FAA is progressing satisfactorily, in my opinion, at this time. I think a judgment as to how effective this cooperation really is probably will have to be made as we proceed further along with the results of the regulatory process. We are sort of in midstream at the present time, so I think you would probably want to withhold judgment on that.

We are, as has been said, in the opening statements, in close communication at all levels between the two agencies. I have met with the Administrator of FAA as well as the Under Secretary and discussed some of these problems myself. This has been true right on down through the two agencies. So from that standpoint I think we have developed—and this is an evolving matter, obviously—a satisfactory and, hopefully, an effective working relationship.

I will ask Dr. Meyer to expand on that.

Senator MUSKIE. As you do, would you touch upon this point: Would you describe what reaction the FAA gave to your July 1973 Aircraft-Airport Noise Study as a specific?

Dr. MEYER. Senator, the situation that Administrator Train has described is the same from my perspective. There has been an evolution of increasing understanding between the two agencies. Obviously, when we started out there was some natural feeling of distance between the two, as each was feeling their way along as to what their authorities were and whose authorities were being imperiled or jeopardized. This has taken, as it would in any situation, good understanding, some working out of arrangements and coming to understand each other.

There has been a steady acceleration in working out some of the earlier problems so that now there is exchange of data, and there is participation by FAA personnel in our very critical work on the airport noise certification regulations. We exchange our project reports.

As I see it, we have established a steadily accelerating cooperative attitude.

With regard to the specific question of the 1973 report, quite candidly we organized some task groups, with which you are familiar. In the early phases of those task groups the FAA was extremely involved in some very critical efforts of its own so it could not put full time manpower into that study. Subsequently FAA did have people involved in those activities and, in fact, some of our follow-on work with regard to that report has arisen from discussions between myself and the head of the FAA's office and the head of the Department of Transportation's office.

Obviously there are going to be disagreements. I don't think one should sit here and not admit that at times there are going to be disagreements. But as I see it, these disagreements have gotten to the point where we can disagree without being disagreeable and try to explore them in a scientific and technical manner rather than an adversary procedure.

Senator MUSKIE. So all disagreements have been fully communicated between the two agencies?

Mr. TRAIN. Sometimes emphatically.

Senator MUSKIE. Do the disagreements suggest a pattern? I understand the difficulty of getting two agencies to speak frankly one about the other, especially in public. Do the disagreements suggest a pattern of resistance on the part of FAA to regulations that would discipline the industry in any way, or the airlines?

Mr. TRAIN. Mr. Chairman, in my perspective, these are honest disagreements as to, "Why do you want to do it that way?"

I think FAA would agree with me that these disagreements do not reflect some insinuated type of pressure. They indicate, "We know a lot about this. Why are you doing it that way?" We have to explain it. It is the same with them. We say, "Why are you doing it that way? We know more about it than you do."

Senator MUSKIE. Do the disagreements reflect any pressures from the industries involved?

Mr. TRAIN. I cannot answer that question. I do not think they do. I think they reflect honest views of the other agency.

Senator MUSKIE. Let me ask you specifically. On the status of the Noise Level Document, section 5 of the act requires EPA to publish Noise Criteria Documents followed by publication of information on the levels of environmental noise at which health and welfare risks occur.

This document was to have been published in October. It was to be basis for local noise control efforts. It was the question of how public policy should deal with that problem that was one of the controversial items in the debate over the act.

Naturally, I focus on this because I was skeptical about the willingness of FAA to allow local operators and local communities to control noise levels. So this document and its publication and the delay in its publication are important to me as evidence of the integrity of the effort to move ahead.

Would you comment on that? Why haven't we had the Noise Levels Document? Why has it been delayed since October? If there has been resistance or industry pressure, what is its nature?

Mr. TRAIN. Mr. Chairman, I have been concerned about the same topic because it is an important matter. Dr. Meyer can add if he wishes to.

Many of the delays, and there have been, as you know, extensive delays in this program, have been due to two overriding factors.

One is the very real complexity of the scientific and technical matters involved, the fact that our staffs are really plowing new ground in many respects. These have made it difficult to achieve the deadlines sought by the act. In addition, and you doubtless will have further discussion of this, there have been resource constraints within the agency which have not permitted us to put as much funding or personnel to work on achieving the objectives of the statute as we might otherwise wish.

With respect to the Noise Levels Document, itself, it has been under interagency review. I believe we have now received within the last day or two the final comments from another agency.

We are under court order, as I recall, to issue this document by the 4th of April or I am in contempt. This is not an unfamiliar status to be in. But we are under a court order to proceed, and we do intend to proceed. Having gotten the last comment in from other agencies, we have for the information of this committee and the committee on the other side, transmitted the final draft document for the consideration of the committee and any comments that it might have.

We certainly intend to proceed with the document by the 4th of April.

Dr. Meyer, are there any other reasons you might give?

Senator MUSKIE. Would you also comment, Dr. Meyer, on your staff deficiencies in this respect? I am concerned about that. This is a new responsibility which the Congress imposed upon EPA.

I understand it is going to take considerable staff to do the job, considering the state of knowledge. So I would like you to comment on this as well as the other question, if you will.

Dr. MEYER. Very well, Senator. First, let me clarify where we stand on the lawsuit. We have until April 2 to respond to the EDF's complaint that the document hasn't been produced. If we produce it by that date, their complaint then is no longer valid.

If we fail to do so, then we have to go into the usual court procedure.

Let me briefly say that most of the reasons with regard to the delays in the Levels Document relate to the difficulty of amassing the scientific data and resolving the disagreements in the scientific community about the level of noise requisite to protect public health and welfare with an adequate margin of safety.

It would have been simple perhaps for the agency to proceed on very sketchy assessment of the information out of the Criteria Document, with the information out of the 800-page proceedings of the International Conference, which, as you know, we sponsored, and make some sweeping judgments.

We chose to mobilize the resources that we had available to us and to maximize the consultative process. As you recollect, the act calls for us to prepare this document after consultation with the other Federal agencies.

We went even beyond that and consulted widely with the professional community and with the interested parties who might be affected by this.

As a result of this, some fairly distinct problems relating to how to define an adequate margin of safety, and about the subjective area of annoyance, arose.

The reason for the delay was our conscious effort to recognize these differences and to try to reconcile them by bringing together scientific interests with differing opinions and then to make judgments about them that would stand up under the scrutiny of any test that might be given.

That is the real reason for the delay, sir. The job was just bigger than the time allowed. With regard to this particular problem, while we might have done it faster had we had more inhouse life scientists and social scientists, I don't think that the number of staff available in the agency would have precluded the need for the extensive discussion.

I hope I have answered that part of your question.

Senator MUSKIE. How large is your staff?

Mr. MEYER. At the present time, sir, we have a total of 63 people, plus consultants. Of those, some 43 are permanent employees.

Senator MUSKIE. How many of them are involved in the preparation of this Criteria Document?

Dr. MEYER. In one way or another there were some five or six of our permanent staff involved. We supplemented this. As you know, we have an interagency agreement with the Department of Air Force, with its well-established Aerospace Medical Research Laboratory, and we supplemented the staff through that interagency agreement with virtually the full-time efforts of three of their people.

In addition, the National Research Council provided a group of 10 recognized, eminent scientists to serve as advisers, reviewers and participants in the development of the document.

Mr. TRAIN. Senator Muskie, let me add one point here. As Dr. Meyer said, he has a permanent staff of 43. Just for the record, my recollection is that that has been increased by 10 for fiscal 1975 and those 10 positions have already been made availability within the Agency for this program for the balance of this year as well.

We are in the process—I wouldn't say this is true across the board within the Agency—of taking a look at the program and the resources available and the priorities which are being accorded to it, and giving a thorough going review to this problem.

There is no question in my mind that the program is being constrained by resource limitations.

Senator MUSKIE. I understand that a version of the Noise Levels Document was introduced in the Congressional Record recently with an indication that the document was sent to OMB on February 27. Is that factual?

Dr. MEYER. Sir, I must say that while we review the Record as most agencies do, I wasn't aware of that submission in the Record, nor do I know anything about it. But I can answer the question about the submission to OMB.

Senator MUSKIE. Has it been sent to OMB?

Dr. MEYER. As you know, one normally includes OMB in the inter-agency review process. Indeed, we have transmitted a copy of the document to them.

Senator MUSKIE. Senator Tunney introduced it and he had this among other things to say:

I regret to say that the Levels Document seems to be mired in further delay at this stage even though it has been fully approved by the agency whose research and findings we asked for.

Mr. TRAIN. It is becoming unmired.

Dr. MEYER. I presume you were not alluding to Al Meyer being mired.

Senator, if I may remind you, the law did require us to consult with other agencies. We had several formal consultations, including extensive, several day reviews, at which all of the other agencies were present.

Before sending the document out for final publication we distributed to all other agencies a copy of the document. This was about 2 or 3 weeks ago. It was just to see what their last comments are.

As the Administrator mentioned, we have finally gotten, I believe, the last of these or the next to the last of these comments. That was yesterday. We must, of course, look at them to insure that we have not, in some way or another, made some last error in judgment, that the document contains no scientific errors which our review may have overlooked.

Senator MUSKIE. The heart of my question is this: I share the skepticism that I think many Members of the Senate have about the role that OMB plays in many of these substantive matters.

OMB has a way of getting its cotton pickin' fingers into a lot of matters that are none of its business, from my point of view.

When it comes to setting health standards, for example, unless OMB has some expertise in this field, of which I am unaware, standards set by an agency which has expertise ought not to be compromised by OMB's budget people.

It is none of their "cotton pickin' business" in my judgment. What I am really trying to get at is not a case for or against Senator Tunney's aversion, but the point of whether or not OMB has injected itself into this document and, if so, what its influence has been. I am asking you without any prejudgment on that point.

Mr. TRAIN. I really can't give you any direct answer, Senator Muskie, as to what influence OMB has had in this particular process. I have had no discussions with OMB on this matter at all.

OMB's role generally is to insure that the interagency process works effectively and to insure that the comments of agencies that do have an expertise or a concern for a subject matter are appropriately brought to the attention of the originating agency and given fair attention and consideration.

So this does involve a role for OMB. I am sure I haven't satisfied your concern.

Senator MUSKIE. We will keep probing. It is going to be published by April 2?

Mr. TRAIN. That certainly is our intention.

Senator MUSKIE. Senator Buckley, I apologize for taking too much time. I was afraid I might be called and would not have a chance to nail this point down.

Mr. TRAIN. I think the committee does know this, but to make certain that we all know what we are talking about, this is not a standards document. It is, I suppose you would call it, a best information document developed on the basis of impacts on health without taking into account any social cost, economic cost, or technology factors at all.

As you know, it has given rise to some concern in some areas on the outside as to whether communities may then jump to using the levels indicated as, in fact, recommended Federal standards, which, of course, it is not intended to be at all.

Senator MUSKIE. I gather similar to the criteria document we have under the Clean Air Act.

Mr. TRAIN. Yes. That is a close parallel.

Senator MUSKIE. The FAA may want to comment on these questions, especially the implications that some may draw from some of my questions. I think I should defer to other members of the committee at this point.

Senator BUCKLEY. Mr. Chairman, given the fact that we are called upon to vote on an amendment, perhaps this might be a good time to break. I would like to ask one question, however.

Is it not true, Mr. Train, that very often informational standards take on the character of standards to be applied?

Mr. TRAIN. That, I would suppose, is a possibility. I think we share responsibility in presenting these to the public to try to insure that the purpose is fully understood and that the congressional purpose implicit in the statute is fully understood.

We, of course, will use this document as part of the data base upon which we will be recommending to the FAA actual airport standards about a year hence.

The numbers that appear in the Noise Levels Document would not necessarily be the numbers we use in recommending standards. They are, again, criteria arrived at without regard to technological feasibility or availability or to economic costs or anything of this sort. They are purely health data numbers.

Senator MUSKIE. They would be a legally defensible basis for standards?

Mr. TRAIN. We believe that the data set forth as information in the Levels Document are fully defensible as providing protection for public health.

Senator MUSKIE. I hope I can get back to get into this whole question of the airport noise control problem. I would like to put some questions to FAA as well as EPA.

I am interested in the legal liabilities which are involved which so frustrate airport managers and operators. If I am not here, I hope the members of the subcommittee will probe. If you don't, I would like to get some questions into the record.

Senator BUCKLEY (presiding). We will recess while we go to the floor.

[Brief recess.]

Senator BUCKLEY (presiding). We shall reconvene the hearings. I want to thank you for your patience. It is one of the occupational hazards we have.

I understand that Administrator Train had to move on to other commitments, but that the members of his organization who are here are fully competent to answer the questions.

We left at the point when Administrator Train was talking about the Levels Document, the draft that has been circulated and that presumably will be promulgated the first week of April. I was wondering if Mr. Meister might have any comment.

Mr. MEISTER. Yes, Senator. We subscribe to EPA's theory that the Levels Document should be published, but we are concerned, as they are, that the data in that document does not get interpreted within the community as legal standards for lawsuits or standards by which regulation should be forthcoming.

I would like Mr. Foster, the Director of our Office of Joint Noise Abatement, to discuss this in more detail.

Mr. FOSTER. In our comments to the EPA in response to a review of the draft document, I think first I should say that we concurred with all the statements that Dr. Meyer has put forth as to the reasons that it has taken more time than many may have anticipated in putting such a document out.

In addition to the point that Mr. Meister just made, the issue of the agreement among the scientific community, itself, as to the validity of the data that is being utilized, coming up with the information that may be misinterpreted is a major concern of ours.

Also, we were concerned with the actual format, for example, as to how this information would be presented. I think probably a specific example that I could give you would more clearly indicate our position on this.

In the summary of the maximum noise levels section of the report, for example, the titles are such that they imply that any noise levels in excess of those tabulated at any time would be harmful.

For example, a level of 76 dB for any occupational-educational settings as one of the maximum levels would create a damage of hearing loss since table I identifies 75 dB as the maximum noise level required to protect against this effect.

The important point that many people may miss reading in this document is the fact that if you go to the footnote, which is on table 1, it states that the identified levels are intended to represent long-term annual average of the daily level, or long-term exposures rather than extreme values.

The appendixes contain the fact that an exposure of 40-year duration is required for a less than 4-percent danger of a just noticeable hearing impairment at the most sensitive hearing frequency. These qualifications, however aggregate in detail elsewhere they may be in the report, do not offset the possibility that someone reading this document and seeing a value of 75 dB as a maximum level would not be aware of the other qualifications in the document.

These are the kinds of concerns that we have as far as the document is presently in the draft form. We certainly support fully the value and the importance to getting this information compiled in one document

from some source of the Government so that it can be used for the purpose as to identify that contained in the law.

Senator BUCKLEY. Is it fair to say, then, that your concern is not so much content as it is presentation, the draftsmanship of the report?

Mr. FOSTER. To a large extent, yes.

Senator BUCKLEY. Is this something that could be cured between now and April, in your judgment?

Mr. FOSTER. Yes, sir.

Senator BUCKLEY. Do you have any comment on that?

Dr. MEYER. We received these comments yesterday, sir, and my staff is looking at them. I don't see any major difficulty with trying to correct the kind of deficiency that has been indicated.

Senator BUCKLEY. Then it would be the conclusion, I judge, from both agencies that there is time available before the court order becomes effective within which to come up with a document that accurately describes the levels that are injurious to health with all of the qualifications up front so that someone reading that document will not be misled?

Mr. MEISTER. Yes, we think so, sir.

Senator BUCKLEY. Thank you.

Mr. Meister, in your testimony you referred to the economic considerations related to aircraft noise control. Would you give us some estimate of the percentages of the cost of the new aircraft that is attributable to noise control equipment?

Mr. MEISTER. At the present time that would be a very difficult number to bring out, but when we start talking about retrofit, for example, where we require acoustic treatment of the engines, as I mentioned earlier, we are talking there in the price range of \$600 million to \$800 million for the entire fleet. That could range up to \$1 million for some of the larger aircraft and on down for smaller ones.

I think Mr. Skully might have these numbers in more detail.

Mr. SKULLY. On new aircraft that do meet the requirements the approximate values would be on the two- and three-engine aircraft \$200,000 per aircraft.

Senator BUCKLEY. As a percentage of cost of the aircraft what would that amount to?

Mr. SKULLY. As a percentage of the cost?

Senator BUCKLEY. Yes.

Mr. SKULLY. That would be on a base level of \$8 million, so whatever that percentage is.

On the 747, which would be a \$25 million aircraft, approximately \$400,000 would be required.

Senator BUCKLEY. You are talking about 2½ percent of the cost?

Mr. SKULLY. Yes.

Senator DOMENICI. Would the Senator yield at that point?

Senator BUCKLEY. Yes.

Senator DOMENICI. Mr. Meister, in your response, you referred to aircraft engines that do meet the standard and you cited a figure. I take it, then, that you are saying that there are aircraft engines that are being produced that don't meet the standard you were referring to, and nonetheless that we are busy retrofitting and acoustically redoing some of those in existence: is that true?

Mr. SKULLY. No, sir. The regulation that Mr. Meister made reference to that was issued in October of 1973 requires all the aircraft over 75,000 pounds to meet that standard as of the end of 1973.

In other words, anything being produced from January 1, 1974, would now meet the standard.

Senator DOMENICI. How many aircraft do we have using our air facilities that don't meet it now and for those that don't what is the procedure for causing them to meet it with reference to available acoustical technology?

Mr. MEISTER. As was indicated in earlier testimony, some 90 percent of the existing major jet fleet does not now meet FAR 36 Federal standards.

As I mentioned in the proposed Notice of Rulemaking that we will be publishing in the Federal Register next week, we anticipate full coverage of all commercial aircraft that do not now meet it. That is the \$600 million to \$800 million that I referred to. We would have 100 percent of the fleet covered.

Senator DOMENICI. Your \$600 million to \$800 million figure would be to take care of the existing aircraft; is that correct?

Mr. MEISTER. Yes, sir.

Senator DOMENICI. Is that American only or international?

Mr. MEISTER. The Notice of Proposed Rulemaking will include consideration of foreign ownership aircraft.

Senator DOMENICI. What does that mean in terms of whether they are going to do it or not?

Mr. MEISTER. At this point in time, sir, since it is a notice, we will be receiving public comment and after such comment there will be a large number of issues that we will have to look at. Certainly the foreign carriers will be concerned. We will have questions of financing and a number of issues related to the technical dates by which this could be done. I think it would be premature at this time to say what the final disposition will be.

Senator DOMENICI. In your international conference, do you find a willingness at this point to cooperate in this area?

Mr. MEISTER. Yes, sir. I think some of the international countries are at least as far advanced if not more so than is the United States. Japan, Germany, and Britain are all actively considering the retrofit issues at the present time through the ICAO process.

Senator DOMENICI. Thank you, Mr. Chairman.

Senator BUCKLEY. It is clear, of course, from what we have heard thus far, that the EPA has had a problem. It has had to start from scratch, staff itself and develop a competence in new field.

At the same time the FAA has been in the business for some time. So there is a catchup factor. The FAA has been out in front.

First of all I would like to ask the EPA, Dr. Meyer, if he feels that he now has caught up in terms of the internal organization or is he still short in terms of funding, expertise and so on?

Dr. MEYER. We are still in the process of catching up in certain areas, Senator, but we have the nucleus of a key professional staff. Where we haven't had permanent, full-time people available to us, we have freely used the authority to hire part-time consultants, who are recognized, competent individuals.

Senator BUCKLEY. So you are now in a position to work in tandem from a position of parity with the FAA?

Dr. MEYER. I would say that is a correct statement, sir.

Senator BUCKLEY. Section 7(b) of the act requires that the FAA consult with EPA prior to prescribing and amending regulations. To what extent has the FAA complied with this requirement in their promulgation of: (1) final regulations; (2) notice of proposed rulemaking; and (3) advanced notices of proposed rulemaking?

Would Mr. Meister and Dr. Meyer both care to comment on that?

Mr. MEISTER. Yes, sir. We have continuous coordination. The notice of proposed rulemaking on retrofit is an example. EPA fully supports us in that effort. We have sent all of our advanced notices and notices on rules to them for coordination.

Senator BUCKLEY. Are you satisfied that you have had that kind of cooperation?

Dr. MEYER. Yes.

Senator BUCKLEY. Recently the EPA announced that the adverse noise impact of aircraft operations would increase, particularly in the vicinity of airports, as a result of the fuel shortage. What are the specific reasons for such increases in noise and what are EPA and FAA doing to counteract this trend?

Dr. MEYER. Mr. Chairman, we are making some studies in view of the energy crisis primarily to evaluate the possibility that air transport carriers might consolidate flights and use some of the less noisy, more advanced aircraft, such as the wide-body jets. This would probably lighten the noise impact.

It turns out that for economic reasons they did not do that. The calculations showed that, instead, as is publicly known, they would be taking some numbers of the wide-body jets out of service temporarily and using the older 707 and similar aircraft which are noisy.

Furthermore, because of the capacity reductions, the load factors on those aircraft would be increased so that at time of takeoff they would be somewhat heavier than normal, and this might increase the noise impact.

The facts have been debated somewhat as to whether our findings were correct but other sources have tended to substantiate this. The fact is that there is not very much we can do about it at this point.

The measures we are discussing about retrofit and improved take-off and landing procedures and other activities will tend to correct the situation. The fact still remains that if the wide-body, quieter aircraft are not in the stream of operations, those quieter aircraft are not going to be there.

Senator BUCKLEY. Do you care to comment on that matter?

Mr. MEISTER. Just briefly. It is true that some of the wide bodies have gone out. In most instances those have been 747's for fuel reasons and DC-10's are still in.

Additionally, when the airlines talk about purchasing new narrow bodies they will be the ones with the nacelle treatment already on them because of our current production rule. I think also you have to look at each and every particular airport because of the mixture of operations. If you reduce operations at a particular airport, even though you may theoretically have somewhat noisier aircraft coming in, the total noise impact would be less.

In general, I would think the impact is not substantial and certainly within a very minor detectable level by any individual who was already impacted by noise at a given airport.

Senator BUCKLEY. So the problem in your estimation is not all that significant?

Mr. MEISTER. That would be my statement, yes, sir.

Senator BUCKLEY. Are the noise levels that are specified in FAR 36 adequate for the foreseeable future or are EPA and FAA likely to develop new and more stringent regulations in accord with studies on the health and welfare impact of noise?

Mr. MEISTER. That is a good question, Senator. We are currently working on a notice that would lower substantially for new technology aircraft current FAR 36 requirements and we hope to get that out by the end of 1974 for public comment.

Senator BUCKLEY. Would you care to comment, Dr. Meyer?

Dr. MEYER. I think I would have to agree with what Mr. Meister said and carry it a step further.

Obviously, as the agency with the lead responsibilities in health and welfare we are going to have to be exercising a certain amount of independent review of health and welfare requirements around airports. We intend in this effort to cooperate and coordinate with the FAA, but also to undertake certain independent areas of investigation because that is the way we see the law. I think they understand that.

Senator BUCKLEY. I believe that is what the Congress stated.

My understanding, Dr. Meyer, is that at the Commerce Committee hearing in Los Angeles in March of 1973, you stated to the committee that you would submit your proposed regulations to the FAA as required by section 7(c) of the act not later than the end of the calendar year 1973. It now looks as though all of the proposed regulations will not be presented to the FAA until the end of calendar year 1974. Would you care to comment on the causes for this delay?

Dr. MEYER. I believe, sir, the Administrator has already indicated part of the problem. I don't think it would be necessary to elaborate upon that. I think it stands on its own.

Another part of the problem is that we are engaging in an effort to get broad public participation in this progress. Just the mere logistics of getting the draft of a project report—and I have a sample of one here—out to environmental groups, State and local interests, industry such as the Air Transport Association, airlines, airport proprietors, get it back and evaluate it in a meaningful manner takes a lot more time than we estimated.

One of the things that we were probably too optimistic about was the type of response we would get. We anticipated that only a few people would come in with fairly detailed responses. It is turning out that we are getting indepth responses from a large number of people toward whom we directed this effort. So the answer is that to do a workmanlike job, which we think the Congress expects us to do, is taking more time than we originally estimated.

We frankly admit that we have to change our schedule.

Senator BUCKLEY. I personally approve of the idea of delay rather than coming up with something that is inadequate.

I have one or two more questions, but I would like to pass the questioning on to Senator Domenici.

Senator DOMENICI. Thank you, Mr. Chairman.

Mr. Meister, in your testimony, you indicated that you were considering certain ground distance measuring equipment and the like to alleviate the situation on some existing airports. You said the aviation trust fund was contemplated as a source of funding. Is there any dispute as to the propriety of the use of funds there? Do you need any legislative help or is the trust fund enabling law broad enough to permit that?

Mr. MEISTER. Yes, sir, it is broad enough. What we are talking about here are the so-called DME's, distance measuring equipment, which we already have some in at particular airports.

However, in terms of the total cost of the retrofit program, we are talking about a potential of anywhere from \$600 million to \$800 million cost to the airlines. Of course, that is not trust fund.

Senator DOMENICI. Getting back to the problem of existing aircraft that don't comply with the FAR 36, your estimate of \$600 million to \$800 million to bring those into compliance, and Administrator Train's figure that there are some 1,800 aircraft that fit in that category, leads me to believe that we are going to be a long time getting there once we establish some time frame for them to do that.

Could you address yourself to the time it takes and the available industrial capacity for these conversions as another aspect of the economics? You have a dollar figure, but could you tell us if we went full thrust, what is the capacity and time frame within which this could be done, aside from the economics as to cost?

Mr. MEISTER. I would like Mr. Skully to address that question if he would, please.

Mr. SKULLY. The 1,800 is, as you know, an estimate because depending upon when the effective date would be has some determination as to how many candidates there would be for retrofit. By that I mean there may be air lines that elect to phase out some of the older aircraft rather than expend funds for retrofit.

To give you a feel of a cost on the four-engine equipment, it would run approximately \$800,000 per aircraft. This would not include the out-of-service time, which could be approximately 2 weeks per aircraft. The two- and three-engine aircraft would be somewhere in the neighborhood of less than \$200,000 per aircraft, with a much quicker installation time, something in the neighborhood of 2 or 3 days.

In terms of time phasing, there are a number of hardware leadtime periods before we could expect to see the retrofit progress. The longer that we delay in going with the notice, the longer the end date of compliance will be, of course.

We think the end date that we have of mid-1978 is a reasonable date and could, with maximum effort, be obtained. A number of the manufacturers have indicated 2 to 3 years to build up and they have indicated a difficulty in making that date. There may be validity to that.

Senator DOMENICI. How long do you think it will be before you have the health and welfare evaluation so as to determine whether the FAR 36 standard has to be changed? It would seem to me that if we are going to move in the direction of compliance by the existing aircraft that don't presently comply, we ought to have some idea as to how long it is going to take to come up with whether or not we need a change.

Could either or both of you respond to that?

Dr. MEYER. You are raising a very complex question, Senator. The standard obviously has to be a reasonable standard, but the objective has to be based on actual health and welfare requirements. That is the situation we are faced with right now. It is noisy around airports, and we have to get airplanes quieter. If you wait until all the technology is available to get to a level that is quiet, we might not ever do anything.

So the approach that we are taking is saying FAR 36 is in existence today. While there may be some debate about it, most of the people will agree it was never conceived of as a health standard. It was a technology standard, the best that people prognosticated that could be obtained.

The data that we have, which we are freely sharing with the FAA, indicates that this quiet nacelle retrofit will go a long way toward reducing the noise impact around airports. At the same time we are looking at what should be the objectives of producing quiet in this country as it relates to the total environment as well as airplane noise pollution.

We have come up with a tentative estimate that we should try to reduce the energy equivalent noise level around the United States by at least 10 units—we won't get into a technical discussion of decibels—by the year 1985. But that will not necessarily mean that we will have applied everything to the ultimate.

The answer to your question is that within the next few months, certainly 18 months, we should be able to lay out very clearly a more refined statement of longterm objectives. This will then be reflected in progressively important decisions regarding the specific engine emission or aircraft emission regulations in a phased pattern.

Senator DOMENICI. Much as has been done in the Clean Air Act, once we have the available health definition.

Dr. MEYER. That is correct.

Senator DOMENICI. Have you any comments?

Mr. MEISTER. Just briefly. I think it is important to recognize that our own FAR 36 standards promulgated in 1969 did state "Compliance with FAR 36 is not to be construed as a Federal determination that the aircraft is 'acceptable,' from a noise standpoint, in particular airport environments."

As I mentioned earlier, we also are pursuing lowering FAR 36 for the reasons mentioned previously.

Senator DOMENICI. That leads me to a question with reference to airport facilities, even though they are not necessarily within the purview of this testimony.

It would seem to me that certainly land use around an airport is a very important ingredient in this overall problem. We have a number of totally new airport facilities that are rather giant in nature, regional in nature, which have come into existence in the very recent past—Houston and Dallas just to name two of them. Could you address yourself to whether or not we are requiring, on the best information we have, land use patterns and locations of such new facilities taking advantage of what we know about the impropriety of the older ones with reference to land use around them? If we are, do we have some strong teeth to require that operators follow the most prudent path that we now know of, which wouldn't have permitted some of the airports to be where they are now?

Mr. MEISTER. That is a tough question, Senator. We have tried to work through our Planning Grant programs within FAA with the airport operators to insure land use planning. Certainly the Environmental Protection Act requiring extensive public hearings. Our own Airport and Airway Development Act requires extensive public hearings. We have done everything we can in conjunction with EPA and other Federal agencies to make known what the impact of the airport would be, be it a runway extension or new construction facilities.

As you well recognize, land use planning is predominantly a local jurisdictional item.

To the extent that you have numerous jurisdictions around a given airport and little Federal standards that apply to those people, it is one of moral persuasion in trying to point out the difficulties to them. But it is obvious at the same time we do find encroachment of residential areas around airports that were there long before the residents were. I think it is an ongoing problem.

I would hope that an aggressive noise abatement program, such as that we have outlined today could ameliorate those effects.

But certainly as long as people choose to build near airports, we will have noise complaint problems.

Mr. ELKINS. Senator, I might add that we feel there should be some institutional way in which land use decisions around both new and old airports can be made and that these trade-offs between land use ways of reducing noise, equipment changes, approach procedures, and so forth, can be made so as to give the appropriate level of noise for people who live around the community.

For that reason we are developing the Airport Certification Proposal, which we will submit to FAA. This will require this type of planning by the airport operator in the community in which it is located to come up with a total plan for reducing the noise in that airport.

Senator DOMENICI. Most certainly substantial sums of Federal money have gone into the Dallas and Houston airports. If I understand you correctly, the best you can do about land use patterns, the location of it and ultimate liability, perhaps, or infringement upon the airport's maximum use is persuasion at this point. Is that correct?

Mr. MEISTER. Yes, sir; through the Environmental Impact Statement we try to point out all of these things.

Mr. Skully has some more recent information on the Dallas Airport in particular which I think may illustrate these points.

Mr. SKULLY. I think the fact that the new Fort Worth-Dallas Regional Airport required 18,000 acres of land to give it built-in protection, in terms of reference Kennedy has 4,900 acres or considerably less.

The airport has only been in operation a couple of months, but the reports that we get from our people there is that it has been well received and the amount of disturbance in the area is minimum.

We are really delighted with the amount of advance planning they made, notification, trying to sterilize areas and discouraging housing paving off. It is very encouraging.

Senator DOMENICI. One last question, completely unrelated but with reference to interagency cooperation.

NASA plays a very important role and spends a substantial amount of money in the technological area and research and development area in terms of this whole field we are talking about, noise abatement.

The first question is directed to EPA. Are they brought into the discussions? As you create your own in-house capacity is NASA being totally utilized in terms of their institutional capacity in the field of R. & D. and technology?

Dr. MEYER. Senator, the answer is definitely yes. We are well aware of NASA's capabilities. They have participated with us in development of a number of our reports. We are continuing to work with them to know what they are doing, particularly in a number of areas in which they are deeply interested, as we are—noise measurement as well as sophisticated engine technology and things of this sort.

They do have extensive capability. I am sure you are aware that the Department of Transportation and NASA have a joint noise office. As Administrator Train pointed out in his testimony, EPA, under its coordinating responsibilities of section 4 of the Noise Control Act, is establishing some mechanisms to look at the research, development and demonstration activities across the board in the Federal Government so to be sure that where there are areas of mutual support among the various agencies, they can be developed and undertaken as the act envisioned.

Further, we are busily engaged at the present time in a comprehensive effort to assess just what is needed to be sure, in dealing with the noise abatement plan over the long term, that we do have a cohesive Federal effort, with all the players exercising their assigned responsibilities, but so that we are doing it toward a commonly understood and commonly acceptable goal.

We are trying to come up with a management concept or a management decisionmaking scheme to deal with that. We expect a report on this early this summer.

Senator DOMENICI. How much has the FAA spent on research and control of aircraft noise since the passage of the 1972 act?

Mr. MEISTER. I think we would have to supply that for the record, Senator. Since 1969 we have spent some \$34 million. I would guess that most of that has been spent since the early 1970 time period. We can supply the particular number for you if you would be interested.

Senator DOMENICI. Would you do that?

Mr. MEISTER. Yes, sir.

Senator DOMENICI. Thank you, Mr. Chairman.

Senator BUCKLEY. Thank you, Senator.

I would like to move the inquiry on into another direction, one that was touched upon by Mr. Train in his testimony when he referred to the impact of the *Burbank* decision on local and State regulation of airport noise. I wonder if the two of you might comment on what you believe the situation is now, between now and 1975, when airport noise regulations and programs will be issued, promulgated, and whether or not you believe that the Congress should act in the near future in order to clarify the scope of local authority.

Mr. ELKINS. Senator, the *Burbank* decision by the Supreme Court very clearly held that a local community could not use its police powers to control noise in a private airport. It did not reach the decision with regard to the authority of the owner of a private airport

to control noise, flights into the airport, and so forth, under his authority as owner of the airport.

We feel that the Airport Certification Rule which we plan to propose to the FAA will provide a Federal system, an institutional framework, in which the proprietor of the airport will be able to exercise his authority to bring about a total reduction of the noise around the airport.

We feel that the *Burbank* decision, as far as we can interpret it at this time, will not be an inhibiting factor in the reduction of noise through the use of this certification procedure.

Senator BUCKLEY. What concerns me is do we have a state of paralysis between now and the time when you do issue your regulations, which I understand will not be ready for promulgation until early 1975?

Mr. ELKINS. There is still the opportunity for the owner of the airport to exercise his authority, provided that is allowed by the Supreme Court. That is an unclear area, I will admit.

Senator BUCKLEY. He has the opportunity, but in the meantime if he doesn't exercise the opportunity wisely the people in the community suffer.

Dr. MEYER. Sir, that is correct. A number of airport proprietors do already exercise some degree of control.

As an example, the New York Port Authority, with which you are familiar, does have certain rules. The FAA and Department of Transportation representatives could address that.

The city of Los Angeles, which owns and has a proprietorship through the Los Angeles Airport Authority, has issued rules in the role of proprietor.

One of the things that has to be kept in mind here is that while there is an apparent void at most of the airports involved in interstate commerce, their proprietorship is by an authority, but that "authority" derives from a legislated or locally established mandate which theoretically is submissive to the will of the people.

If they fail to act, and I am not trying to escape Federal responsibility, the fact still remains that they are not doing all the things they maybe could.

So one of the things that is needed here is the Federal leadership such as we are proposing in our Airport Noise Control or Certification Rule. I hope I have answered your question.

Senator BUCKLEY. I think you have.

We are being called for another vote. I cannot return and neither can Senator Domenici. I would like to suggest that we adjourn the hearings but we will submit additional questions to both agencies.

Senator DOMENICI. I might suggest that, as soon as possible, we call the NASA leadership and extract from them some of the technological expertise that they have.

Senator BUCKLEY. That is a good suggestion.

We will stand adjourned.

[Whereupon, at 12:30 p.m. the subcommittee recessed, to reconvene subject to the call of the chair.]

RESPONSES TO ADDITIONAL QUESTIONS

REPRODUCTION OF THE ORIGINAL



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

THE ADMINISTRATOR

MAY 13 1974

Dear Mr. Chairman:

Thank you for your letter of April 3, 1974 concerning implementation of the Noise Control Act of 1972.

First, I will address your inquiry concerning the noise levels document. You are correct that the information in the document is scientifically sound and provides a basis from which enforceable noise standards can be derived. However, its usefulness in supporting a standard depends on the criteria prescribed for the standard in question. The criteria for many noise standards include cost, technology and feasibility considerations. The noise levels document does not consider these factors and, therefore, could not be used without additional information to support such a standard. However, it does provide scientifically sound information on levels of noise requisite for the protection of the public health and welfare which can be used by local and State officials in establishing noise control requirements based on the criteria which they are required by State law or local ordinance to consider.

Second, as I stated in the hearings on March 22, 1974, resource constraints in the Agency have not permitted us to put as much funding or personnel to work on achieving the objectives of the Noise Control Act of 1972 as we might otherwise wish. However, the President's Budget for FY 1975 adds ten positions for the Noise Program. We plan to add at least another ten positions to be taken from a pool of unoccupied positions made available from various offices within EPA. Therefore, the impact would not fall on any single office or unit.

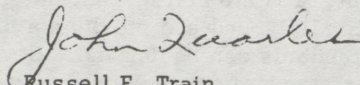
FY 1974 budget allocation for EPA's Office of Noise Abatement and Control Section 7 activities is \$1.16 million. This includes

10 professional man-years, 7 non-professional man-years, 11 contracts for \$768,500, and participation by 36 professionals on either a full-time or a part-time basis. By the end of FY 1974, we estimate that DOT (including FAA) will have provided 260 professional man-days in support of Section 7 EPA professional efforts. FAA's aircraft noise control activities (exclusive of research) amounted to 9 professional man-years, 4 non-professional man-years, and \$710,000 for contracts in FY 1973.

The attached paper provides a summary of FAA's input into EPA activities concerning noise evaluation and control. As I have stated before, the cooperation between EPA and FAA is progressing satisfactorily, in my opinion, at this time.

We also are preparing answers to the detailed questions attached to your April 3, 1974, letter. We expect to submit our response for the record shortly. I hope you find this information concerning implementation of the Noise Control Act of 1972 helpful.

Sincerely yours,


for Russell E. Train

Honorable Edmund S. Muskie
Chairman, Subcommittee on Environmental
Pollution
United States Senate
Washington, D.C. 20510

Enclosure ..

SUMMARY OF FAA INPUT TO EPA ACTIVITIES ON
AIRCRAFT NOISE EVALUATION AND CONTROL

The regulatory actions now under development by the EPA are based upon the results of the comprehensive Aircraft/Airport Noise Study conducted by the EPA and reported to Congress. As a result of the Aircraft/Airport Noise Study, the EPA determined the following eight items should be considered for development of aircraft noise regulations to be proposed by the EPA for promulgation by the FAA under Section 611 of the Federal Aviation Act as amended:

1. Takeoff
2. Approach and Landing
3. Minimum Altitudes
4. Retrofit/Fleet Noise Level
5. Supersonic Civil Aircraft
6. Modifications to FAR Part 36
7. Propeller Driven Small Airplanes
8. Short-Haul Aircraft

The development of an aircraft noise regulation by EPA starts with the preparation of a project report, which is primarily a technical document providing as much definitive information as possible on such matters as background, objectives, available technology, cost-effectiveness, and recommended criteria for levels,

measurements, and analyses. The project report will provide the basic input necessary for the preparation of a notice of proposed rulemaking (NPRM), which will be the format of each regulation to be proposed by the EPA to the FAA.

To date, the FAA has issued notices or advance notices of proposed rulemaking for the following six of the nine items:

2. Two-Segment ILS Approach (ANPRM 74-2)
4. Retrofit/Fleet Noise Level (ANPRM 70-44, 73-3, and 74-14)
5. Supersonic Civil Aircraft (ANPRM 70-33)
6. Modifications to FAR 36 (NPRM 71-26)
7. Propeller Driven Small Airplanes (NPRM 73-26)
8. Short Haul Aircraft (ANPRM 73-32)

Regarding Item 4, the first two proposals were not carried beyond the advance notice stage and the third has just been published. No further public action has been taken on Items 5 and 6. Item 7 was contested by the EPA (and supported by a draft project report) as too lenient by not requiring adequate use of current technology. Items 2 and 8, which have recently been issued, present general concepts and identify issues for public comment.

Six first draft project reports (items 1, 2, 3, 4, 5, and 7) have been distributed by the EPA for public review and comment and the remaining two are scheduled for mid May. One second draft report has been distributed and two more are scheduled for the end of April. The estimated dates for delivery of all eight NPRM's to the FAA lie within the period of August through November 1974. When the FAA precedes the EPA in proposing a regulation, the project report becomes the supporting document for the official EPA position. If the EPA is satisfied that the FAA regulations adequately protect the public health and welfare from aircraft noise, action by EPA to develop NPRMs may not be required.

The FAA has had the opportunity to cooperate and furnish input into the EPA's aircraft noise regulatory effort in essentially three ways. First by participation in the Aircraft/Airport Noise Study, second by direct initiative on their part, and third by providing comments on the six EPA project report drafts distributed to date. In addition, FAA standard publication and special data (which includes R&D reports, ANPRMs and NPRMs issued by the FAA) have been very useful to the EPA regulatory development effort.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAY 14 1974

OFFICE OF THE
ADMINISTRATOR

Dear Mr. Chairman:

This is in further response to your letter of April 3, 1974. Enclosed are the answers for the record to the series of questions relating to implementation of the Noise Control Act which were attached to your letter.

Sincerely yours,

John D. Charles
for Russell E. Train
Administrator

Honorable Edmund S. Muskie
Chairman
Subcommittee on Environmental
Pollution
Committee on Public Works
United States Senate
Washington, D. C. 20510

Enclosure

RESPONSE FOR THE RECORD

IMPLEMENTATION OF THE NOISE CONTROL ACT OF 1972

--QUESTION #1. Section 4(c)(1) of the Act requires the Administrator to coordinate the programs of all Federal agencies relating to noise research and control. What is the status of this program?

--ANSWER TO QUESTION #1. The status of the EPA's effort to coordinate the various Federal noise programs is:

-- An effort is underway to collect, analyze and assess information relating to the Federal Government's noise control programs.

-- Plans are being formulated to develop formal mechanisms to coordinate the Federal aircraft noise reduction effort. The planned mechanisms anticipate participation by all the Federal agencies involved in aircraft research and regulations development.

-- EPA is exploring with the various agencies concerned with airports and their environs (FAA, HUD, DOT, etc.) ways of coordinating the Federal effort to reduce airport noise. This is being done as a result of work in developing an airport noise regulation.

-- EPA is reviewing and commenting upon the noise standards and regulations of other Federal agencies. Recent major review efforts include the Department of Labor's proposal to modify the Occupational Safety and Health Administration's noise exposure regulations in industry and the Department of Transportation's truck interior noise regulations. Environmental impact statements are reviewed routinely for the potential noise impacts.

-- Under E.O. 11752, EPA is carrying out a coordinating role in assisting the Federal agencies to achieve compliance with environmental standards. Federal agency guidelines for noise abatement are being developed.

-- EPA is investigating public complaints regarding the action or inaction of the Federal Government regarding noise problems at particular facilities.

-- EPA is implementing a plan to coordinate all Federal noise research programs. The plan includes the establishment of four interagency noise research panels for aircraft noise, surface transportation noise, health effects of noise, and machinery noise. All Federal agencies with noise research activities have responded affirmatively to the EPA request for participation in research coordination and have designated experts to serve on the panels. Panel meetings were held on March 5 and 6, 1974, and additional meetings are scheduled for May, 1974. An initial objective of the research coordination program is to collect comprehensive information on current Federal noise research activities. The appropriate agencies are currently preparing this information and EPA expects to have most submissions in-hand by the end of April, 1974.

--QUESTION #2. Section 4(c)(1) of the Act also requires each Federal agency, upon request, to furnish to the Administrator "such information as he may reasonably require to determine the nature, scope, and results of the noise research and noise control programs."

a. What requests has the Administrator made under this section that pertain to aircraft noise research and control programs?

b. Have any requests been made to the FAA?

--ANSWER TO QUESTION #2. In December of 1972, EPA mailed a questionnaire designed to elicit information on the nature, scope and results of noise research and noise control programs to all appropriate Federal agencies. The information gathered through this mechanism served as a basis for a preliminary report on Federal noise activities. Steps are now being taken to improve the data base for a more complete and comprehensive report on Federal noise activities to be published and submitted to the President and Congress in the Fall of 1974. More specifically, for Federal noise research programs a series of informal meetings have been held with the Aircraft Noise Research Panel members representing all components of the Department of Transportation, the National Aeronautics and Space Administration and the Department of Defense to discuss improvement of the data base on aircraft noise research programs. The DOT/NASA Joint Office of Noise Abatement has agreed to supply to EPA the information it requires to determine the nature, scope, and results of their aircraft noise research programs. Information on aircraft noise research activities within the FAA will be supplied to EPA through the DOT/NASA Joint Office.

--QUESTION #3. Section 4(c)(3) requires the Administrator to "publish from time to time, a report on the status and programs of Federal activities relating to noise research and control." Such a report would be most helpful in ascertaining the overall Federal efforts in abating and controlling aircraft noise.

- a. Has the Administrator published such a report?
- b. If not, why not?
- c. What is the status of this program?

--ANSWER TO QUESTION #3.

- a. The Administrator has not published such a report.
- b. A report has not been submitted to date because other Federal agencies expressed concern that the 1973 effort did not contain complete information on all programs through FY-74. Our present effort will include as complete information as is possible through FY-74 as well as information on FY-75 and long range plans.
- c. The EPA Offices of Research and Development and Noise Abatement and Control are preparing a report on all Federal noise activities in which aircraft noise research and technology programs will be included. Currently, the Federal agencies with aircraft noise research programs are assembling information that will be submitted to EPA for use in preparing the report. EPA plans to publish the report on Federal noise activities in October, 1974. The report will supplement the data compiled in 1971 in the "Report to the President and Congress on Noise" and in 1973 in an unpublished report entitled "Noise Research and Control Activities in the Federal Government."

--QUESTION #4. How many EPA professionals have and will have worked on the levels document full time during each of the fiscal years 1973 and 1974?

--ANSWER TO QUESTION #4. The levels document was prepared during FY 1974. Three EPA professionals and two EPA non-professionals worked full time on this document for approximately five months in FY 1974. No EPA professionals worked on the levels document in FY 1973.

--QUESTION #5. Section 7(b) of the Act requires the FAA to consult with EPA prior to prescribing and amending regulations. To what extent has the FAA complied with this requirement in their promulgation.

- a. Final Regulations;
- b. Notice of proposed rulemaking; and
- c. Advanced notices of proposed rulemaking?

--ANSWER TO QUESTION #5. FAA has provided EPA an opportunity to review and comment on all aircraft noise regulatory actions.

--QUESTION #6. How fully has the FAA reviewed and responded to EPA aircraft noise reports and background documents on aircraft and airport noise?

--ANSWER TO QUESTION #6. EPA has completed six draft project reports on aircraft noise as follows: take-off procedures; approach and landing procedures; minimum altitude procedures; retrofit/fleet noise level; supersonic civil aircraft and propeller driven small airplanes. To date, the FAA has provided two responses on the draft project report for minimum altitude procedures and one response on the draft project report for supersonic civil aircraft. The comment period on the retrofit/fleet noise level draft project report is still open.

--QUESTION #7. To what extent has the FAA provided EPA with background reports on proposed regulations?

--ANSWER TO QUESTION #7. FAA technical reports, which are used as the bases for FAA actions, are made available to EPA.

--QUESTION #8. Provide an estimate in terms of dollars and EPA manpower of the cost of producing the aircraft-airport noise study which you presented to the Public Works Committee in July of 1973.

--ANSWER TO QUESTION #8. Estimated cost to produce the aircraft-airport study:

--\$312,719

--Four EPA professionals full-time for five months

--Five EPA professionals part-time for five months

--QUESTION #9. Did that (the aircraft-airport noise study) provide the major basis for drafting the proposed regulations?

--ANSWER TO QUESTION #9. The aircraft-airport noise study did provide the major basis for identifying the proposed aircraft-airport noise regulations. Drafting the proposed regulations involves additional research and development of project reports.

QUESTION #10. What additional research has been required to develop these regulations?

ANSWER TO QUESTION #10.

a. With respect to the aircraft noise regulations, most of the basic data and references were collected during the aircraft/airport noise study. Additional data collection has been conducted. Additional analysis of available data has been required to provide detailed substantiation, clarification, and criteria for the findings of the aircraft/airport noise study report.

b. With respect to the airport noise regulation, its development includes both a) studies to evaluate potential benefits and impacts of alternative forms of the regulation, and b) development of tools and procedures to be used in implementing the regulation once promulgated. Studies to evaluate potential benefits and impacts of alternative forms of the regulation include 1) estimates of the rate of improvement of public health and welfare benefit along with rate of impact reduction, 2) other potential social or economic impacts on airport regions, 3) potential economic impacts and implications for both interstate and foreign commerce, and 4) relationship to other environmental or resource considerations, such as air quality, energy and land as a resource.

Development of tools and procedures to be used in implementing the regulation involves: 1) implementation tools for use in the

development of airport/community implementation plans at the local level, and 2) procedures and policy information for Federal implementation of the regulation. The first category includes computer programs and instructional process manuals for development and evaluation of implementation plans. The second category includes studies for the development of proposed action plans in such areas as monitoring and enforcement, land-use control, financing, Federal interagency implementation of the regulations, and legislative recommendations if any are required.

In addition to significant contributions from the work of DOT and NASA, the EPA funding of these efforts has required approximately \$300,000 in FY-74 and is expected to require \$400,000 in FY-75.

-- QUESTION #11. Why will it take until early 1975 to propose these regulations to FAA?

-- ANSWER TO QUESTION #11. The last of the proposed aircraft regulations is expected to be submitted to FAA in November 1974. The airport regulation will be proposed to FAA early in 1975. The airport regulation forecast is based on (1) the interrelationship of the airport regulation with aircraft regulations, particularly the retrofit rule; and (2) the studies required to develop and defend an effective airport regulation.

--QUESTION #12. In the development of the proposed regulations which control aircraft noise at the source has EPA determined:

- a. The number of aircraft that will be covered by each regulation;
- b. The amount of noise reduction that will occur; and
- c. The effect the regulations will have in reducing aircraft noise in the vicinity of airports?

--ANSWER TO QUESTION #12.

- a. EPA has determined the number of existing aircraft by type and the number of future aircraft by type based upon demand assumptions.
- b. EPA has determined the amount of source noise reduction that could occur as a result of each of the aircraft noise regulations.

c. EPA has not as yet determined the effect the regulations will have in reducing aircraft noise in the vicinity of airports. This subject is included in EPA's aircraft/airport regulations development program and will be addressed in the regulations proposed to FAA. The potential reduction in noise exposure in the vicinity of airports must be estimated for each airport based upon its current and future operations. Noise level is dependent on the source noise levels, the number of daily operations of each source, and the time at which the operations take place.

--QUESTION #13. Will all of the regulations which EPA will propose to the FAA require mandatory action by those who will be subject to the regulations? If not, how can it be a regulation?

--ANSWER TO QUESTION #13. The regulations which EPA will propose to FAA will require mandatory compliance by those persons subject to the regulations. However, in the case of certain noise abatement flight procedures, non-compliance with the rule will be permitted if, in the judgment of the pilot, the overriding interest of safety dictates such non-compliance.

--QUESTION #14. In particular will the proposed regulations on minimum altitude procedures require mandatory action?

--ANSWER TO QUESTION #14. Proposed EPA regulations on minimum altitude procedures will require mandatory action.

--QUESTION #15. What will EPA propose to the FAA that will update Part 36 to reflect new technology and new information on abatement and control of aircraft noise?

--ANSWER TO QUESTION #15. It is planned that EPA will propose modifications to FAR Part 36 eventually lowering the noise criteria levels for new airplanes 5 to 10 decibels (depending upon aircraft type and measurement point) below the present values in Appendix C of FAR 36. In addition, various amendments may be proposed that would:

- require altitude and temperature accountability;
- strengthen test conditions for acoustical change approvals; and
- in general, make the rule clearer and more effective.

--QUESTION #16. Since the Supreme Court decision in the Burbank case, what opportunities do the airport owners and operators have to control aircraft and airport noise?

--ANSWER TO QUESTION #16. This is a question upon which there are major differences of opinion among the experts. The Supreme Court, in Burbank, studiously avoided making any change in the pre-existing abilities, "if any," of airport proprietors to exercise their powers as landlords to control the use of their airports. This avoidance was underscored in footnote 14 of the Court's opinion. The general tenor of the Court's opinion is that the existence of the Noise Control Act of 1972 has placed an increased responsibility at the Federal level to take action to control airport noise, but the Court did not draw any conclusions specifically implying diminished powers of airport proprietors.

On the one hand, a few airport proprietors believe that the actions they may take are limited by their need to protect themselves from law suits. On the other hand, a number of airports have instituted and are continuing to implement noise abatement programs involving such actions as placement of noise limits on specific runways, limitation of the number and type of jet aircraft which may use the airport, night curfews on jet operations, and complete exclusion of either all jet aircraft or jet aircraft not meeting

certain noise limits. Such actions in theory are based on the common law rights of the owner of an airport to decide who is to use his airport and under what conditions. Airport proprietors who have taken one or several of the above types of actions include at least the following: 1) the City of Los Angeles, Department of Airports (at Los Angeles International Airport); 2) the County of Orange, California (at Orange County Airport); 3) the City of Santa Monica (at Santa Monica Municipal Airport); 4) the City of Long Beach (at Long Beach Airport); and 5) the Port of Oakland (at North Field, Metropolitan Oakland International Airport).

Several instances of political or procedural challenge to these actions have arisen and in each instance the airport proprietor thus far has prevailed. Mechanisms used frequently involve leasing arrangements between the airport proprietor and its aircraft operator tenants. The airports have succeeded in applying their requirements to domestic and foreign flag carriers alike. One of the most spectacular instances is the success of Orange County Airport in denying airport access to specific domestic and foreign flag carriers, (based on their numerical limit for the number of jet air carrier movements per day), even though new route awards had already been made by the CAB. In addition, some airports have utilized their own funds to remove or prevent construction of incompatible residential developments.

In those few instances where communities are not the proprietors of the servicing airports, major community interest may not be protected under current legal interpretations. In these cases, it would appear that Federal standards would provide the major legal underpinning for protective actions.

-- QUESTION #17. Are these opportunities adequate to avoid liabilities by airport owners and operators for noise between now and the time final regulations are promulgated by the FAA?

-- ANSWER TO QUESTION #17. Airport owners and operators can be protected from the present damage and inverse condemnation claims only by a decision of the Supreme Court which holds that the final airport regulation as promulgated by the FAA preempts the airport owners responsibility and authority and, possibly, its liability. This would mean a reversal of the Court's decision in *Griggs vs Allegheny County* - 369 U.S. 84(1962). Until the airport regulation is finally promulgated by the FAA, this case cannot be presented to the Court; and during the interim period, the airport operators/owners will not be protected.

-- QUESTION #18. Will the proposed airport noise certification regulations proposed by EPA suggest increasing or altering these opportunities? If so, how?

-- ANSWER TO QUESTION #18. First, the airport operators will have increased real freedom (as opposed to theoretical freedom) to select protective measures in developing implementation plans, since their role will be clarified.

Second, official approval of airport implementation plans by the FAA and adherence to the plan by the operator will significantly increase the operator's opportunities to avoid liability. Since the FAA will have adopted the implementation plan, any litigation based on noise generated while the airport is in compliance with the official plan may possibly be directed to the Federal Government.

-- QUESTION #19. Why will it be early 1975 before EPA proposes regulations to the FAA on airport noise?

-- ANSWER TO QUESTION #19. The early 1975 forecast for EPA's proposed regulation on airport noise is based on (1) the interrelationship of the airport regulation with aircraft regulations, particularly the retrofit rule, and (2) the studies required to develop and defend an effective airport regulation.

QUESTION #20. Are parts of this program separable, and if so can EPA propose the parts individually to the FAA? As a first step, can EPA propose to the FAA that steps be taken to determine the present noise levels at FAA certified airports?

ANSWER TO QUESTION #20. EPA's management concept for the airport regulation development program is an integrated systems management approach. We do not believe the program as presently planned can be separated into parts for implementation individually. Draft project reports, however, will be submitted to the FAA as they are developed. The first draft project report will be available this month.

With respect to the present noise levels at airports, the necessary information for development of a regulation will come partly from the baseline estimates at 23 major airports being performed by DOT in their Airport Noise Reduction Forecast Program. Estimates of noise and impacted populations at individual airports at the other end of the size spectrum (general aviation and intermediate hub airports) are being obtained by EPA from existing airport studies, or will be calculated in conjunction with the airports pilot project or in separate studies so as to provide a sample across the spectrum of airports.

The actual implementation at individual airports will require precise calculations using tools being developed at EPA, probably supplemented by a few carefully defined measurement samples at each airport. It is possible that a head start can be achieved prior to promulgation of the regulation, and means of doing this with FAA participation will be thoroughly explored.

QUESTION #21. When can the Public Works Committee expect to receive the first draft of the airport noise certification regulation?

ANSWER TO QUESTION #21. We expect the first draft of EPA's proposed airport noise regulation to be available late in 1974. The first draft of the project report should be available in May 1974.

-- QUESTION #22. In the airport regulations which EPA will propose to the FAA, will the States need Federal financial assistance to implement the regulation?

-- ANSWER TO QUESTION #22. The subject of Federal financial assistance is included in airport noise regulation economics and financial studies. When completed, these studies will identify State requirements, if any, for Federal financial assistance.

--QUESTION #23. If so, how much and over what time period?

--ANSWER TO QUESTION #23. The scope and timing of possible State needs for financial assistance will be addressed in the economic and financial studies for the airport regulation.

QUESTION #24. Mr. Train noted in his opening statement that EPA has developed an Interagency Aircraft Noise Research Panel, which will be chaired by a member of EPA's Office of Research and Development.

- a. Who will have this position?
- b. What experience and expertise does this person have in the field of aircraft and airport noise?

ANSWER TO QUESTION #24.

a. The Interagency Aircraft Noise Research Panel is being chaired by Dr. Franklin D. Hart.

b. Dr. Hart is an authority on noise research and control and engineering systems design with ten years of experience in these areas. He has conducted research programs on a wide spectrum of noise pollution problems including aircraft propeller noise, prediction of airport community noise exposure, psychological and physiological response of humans to aircraft noise, truck tire noise and industrial machinery noise. In 1970 Dr. Hart organized, in cooperation with the Department of Transportation and the National Aeronautics and Space Administration, and directed an engineering systems design study of transportation noise pollution. The report resulting from that study, "Transportation Noise Pollution: Control and Abatement," has been widely used by planners and educators as a comprehensive source of information on transportation noise. Dr. Hart came to EPA from North Carolina State University where he served as Professor of Mechanical and Aerospace Engineering and Director of the Center for Acoustical Studies.

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

WASHINGTON, D.C. 20590



OFFICE OF
THE ADMINISTRATOR

MAY 22 1974

Honorable Edmund S. Muskie
Chairman, Subcommittee on
Environmental Pollution
Committee on Public Works
United States Senate
Washington, D. C. 20510

Dear Mr. Chairman:

To fully assist the Subcommittee on Environmental Pollution in its overview of the Noise Control Act of 1972, we have carefully analyzed the 38 questions enclosed with your April 8 letter to the Administrator and have developed appropriate replies which we trust are fully responsive. To develop complete coordinated answers, we had to miss your April 30 target date.

Sincerely,

A handwritten signature in cursive script that reads "F. A. Meister".

F. A. MEISTER
Associate Administrator for Plans (Acting)

Enclosure

Q1. How successful have the FAA efforts been to date in reducing the actual levels of noise in the vicinity of airports.

A. The success or rate at which the total effect of FAA action to date is perceptible around airports is difficult to state in absolute terms. This effect is dependent upon the deployment and activity of the entire civil aviation fleet. Our efforts have been and are designed to reduce the actual level of noise around airports by quieting the noise source and developing new operational procedures. As aircraft which meet or are modified to meet noise standards are phased into operation and as new operational procedures are implemented there continues to be a cumulative quieting of the areas around airports.

Q2. What measurement methodology does the FAA use in measuring levels?

A. The FAA uses several noise measurement methodologies depending on the objective of the particular analysis. For certification of large aircraft the unit of Effective Perceived Noise Level (EPNdB) is used. For certification of smaller aircraft (under 12,500 pounds) A-weighted sound level has been proposed (dB(A)). For objective descriptions of noise conditions around airports a system utilizing A-weighted sound levels combined with duration is applied (Aircraft Sound Description System). For those instances where some perception of possible community response or compatible land use planning is needed, methods such as Composite Noise Rating or Noise Exposure Forecast are brought into play. In short, the tool used depends on the job.

Q3. What reductions have actually occurred at representative major airports?

A. There has been some reduction in noise around various airports, but this is not, at this time, susceptible to being quantified. It is dependent upon various factors, one of which is the number of aircraft meeting Part 36 operating into or out of a given airport during a specific day or week. There is presently in progress a study analyzing 23 U.S. airports for noise reduction effectiveness purposes.

Q4. To what extent are U.S. airports measuring and monitoring sound in and around airports?

A. Airport noise monitoring is being conducted at these locations:

New York

JFK International (JFK)

LaGuardia (LGA)

New Jersey

Newark (EWR)

California

Orange County (Santa Ana) (SNA)

San Jose (SJC)

Q5. How long have these programs been in existence?

A. Noise monitoring at these locations commenced as follows:

JFK - 1961 SNA - 1971

LGA - 1964 SJC - 1973

EWR - 1963

Q6. Are these programs technically or financially supported by the FAA?

A. No.

Q7. What is the official policy of the FAA concerning its responsibilities for certifying airports for noise?

A. The FAA does not at this time certify airports for noise. In its report to the Congress the Environmental Protection Agency identified this as an area for possible regulatory relief. EPA is presently obtaining public comment on this concept. The specifics of this concept in terms of standards, design, application and enforcement will, we presume, be a part of the EPA proposal to FAA which we will then be in a position to evaluate.

Q8. How old is this policy?

A. See answer to Question 7.

Q9. What has the FAA accomplished to date to develop a program for certifying airports for certain noise levels?

A. See answer to Question 7.

Q10. In the hearing, Mr. Meyer stated that EPA would like to reduce the energy equivalent noise level around the United States by at least 10 units.

a. Does the FAA have a similar goal for airports and the areas immediately surrounding them?

A. The FAA's noise abatement efforts are explicitly designed to reduce noise levels near airports. Goals for noise reduction are covered in the 1971 DOT/NASA Civil Aviation Research and Development Policy Study. This will be achieved principally by noise reductions at the source, and, therefore, the aircraft has been the principal target of our regulatory efforts. However, as recognized in the Noise Control Act of 1972 (which modified Section 611 of the Federal Aviation Act), there are large variations in characteristics between different aircraft types (weight, number of engines, performance, etc.). Accordingly, the specific target increment of improvement cannot be casually generalized. If our rulemaking investigation indicates that a 10-decibel reduction is feasible across-the-board, we will so require it. However, some conditions may permit more improvement and some conditions may permit less. Under this regulatory philosophy FAR 36 has been able to provide improvements between 10 and 20 decibels over conditions which would have existed if prior trends had gone unchecked. FAR 36 is now under reappraisal and will be modified as necessary to reflect what is technologically practicable, economically reasonable, and appropriate to aircraft type.

Q11. Mr. Train in his opening statement stated that: "...the Noise Control Act, taken together with the Burbank decision has, in effect, created an apparent void in the ability of local and State governments to deal with airport noise through their regulatory powers."

- a. Does the FAA recognize this as a major problem?
- b. Has it assumed responsibility for the problem?
- c. Since the Supreme Court decision in the Burbank case, what opportunities do the airport owners and operators have to control aircraft and airport noise?
- d. Are these opportunities adequate to avoid liabilities by airport owners and operators for noise between now and the time final regulations are promulgated by the FAA?
- e. If not, what is the FAA doing to alleviate this type of liability?

- A. a. The FAA has long recognized the problem of noise surrounding airports as a major problem. There does not appear to us to be a "void"; for example, state and local government bodies have long had and still have the power to control land use around an airport by regulatory action such as zoning. Also, to assure the existence of a "void" is to ignore substantial efforts and progress being made by the Federal Government to control and reduce noise.
- b. State and local governmental bodies have the power to control land use around airports as a means to deal with airport noise. Insofar as FAA action is concerned, under the Airport and Airway Development Act of 1970, before airport development projects are approved, consideration is given to the interests

All Continued--

of local communities including the plans of local governments and written assurances that appropriate action will be taken to effect compatible land use around an airport prior to project approval.

- c. Control of aircraft in the sense of airspace consideration, air traffic control procedures, and the establishment of approach and departure procedures remains, as it was before Burbank, a Federal area. We constantly work with local airport operators to devise better procedures to achieve relief. The Los Angeles nighttime over-water approach and takeoff procedure is one such example. Land use control remains, as it was before Burbank, in the hands of state and local governments. A different alternative has been implemented by the Port of New York Authority at Kennedy International. This alternative involves the use of the contractual agreements between the airport operators and the aircraft operator to establish maximum noise limits.
- d. Probably not.
- e. These liabilities are not subject to relief by FAA as they are imposed as a result of judicial decisions after trial on issues, generally, of inverse condemnation, property valuation and legal nuisance.

Q12. Mr. Meister listed in his statement a number of measures that the FAA has adopted to abate and control aircraft noise.

a. Which of these have binding regulatory effect?

b. For each of these measures, please identify:

- (1) the approximate number of aircraft in actual operation in the United States that are covered by the measures;
- (2) the approximate noise reduction for each; and
- (3) the overall effect each measure has had in reducing the levels of noise in the vicinity of airports.

A. a. The measures given in Mr. Meister's testimony adopted by the FAA to abate and control aircraft noise are:

- (1) Issuance of FAR 36 (regulation issued)
- (2) Amendment applying FAR 36 to newly produced aircraft (regulation issued)
- (3) Fleet noise requirements (NPRM issued)
- (4) Propeller aircraft noise standards (NPRM issued)
- (5) Rule prohibiting sonic booms by civil supersonic aircraft in the United States (regulation issued)
- (6) Noise certification for SST's (ANPRM issued)
- (7) Future noise level requirements (NPRM being prepared)
- (8) Short haul aircraft (ANPRM issued)
- (9) Takeoff operational procedures (NPRM being prepared; advisory circular issued)
- (10) Noise abatement approach procedures (two segment ANPRM issued)

A12 Continued--

- (11) Passive and dynamic preferential runway procedures
(adherence in accordance with Part 91.87)
 - (12) Noise abatement routing (may be established under Part 91)
 - (13) Terminal area noise control (Air Traffic Control "Keep-'Em-High" Program - not regulatory)
 - (14) Minimum altitude requirements (established under Part 91.79)
- b. (1) All aircraft in the U.S. fleet are covered by one or more of the measures above depending on the type of aircraft and the mode of its operation. Qualifications with respect to applicability are explicitly stated in the individual regulatory material.
- (2) The noise reduction for each of the above controls is variable depending on the initial noise base. Depending on the aircraft under consideration, operational procedures may reduce the perceived noise on the ground in the order of 5 - 15 decibels. Noise source regulatory actions applied retroactively for some aircraft will reduce the perceived noise by as much as 15 decibels. The noise levels of future aircraft cannot be expressed in terms of noise reductions. However, relative to aircraft without noise controls, it is conceivable that the new aircraft will be as much as 25 decibels quieter than they could have been in the absence of the regulatory action.

A12 Continued--

- (3) Of the actions currently in effect, the overall impact on the noise levels in the vicinity of airports has had an incremental effect of varying from airport to airport. Studies currently in progress in the Department of Transportation give some indication of the overall effect of several of these noise control actions. We are, therefore, including a copy of a paper that summarizes these tentative findings.

Q13. When will FAA issue a final regulation on Fleet Noise Levels?

- A. The timing of the issuance of a final regulation on fleet noise requirements will be predicated on the responses submitted to the rule docket and an analysis of those comments. The closing date for comments on this NPRM is June 28, 1974. After that date the timing will be contingent on the time period for comment evaluation and compliance with the requirements of the National Environmental Policy Act.

Q14. At page 10, Mr. Meister stated that the FAA has for many years been experimenting with different takeoff and approach procedures.

a. What final regulations has the FAA promulgated for abating aircraft noise by requiring different takeoff and approach procedures.

b. If none, why not?

A. Efficiency and safety in the national air transportation system are major responsibilities of the FAA. Parallel with these responsibilities is the need to reduce any adverse impact aviation has on our quality of life. Pilot judgement, skill and responsibility are the prime human elements which assist the FAA in meeting the Congressional mandate for a safe and efficient air system with the need to improve our environment.

On January 18, 1974, FAA issued Advisory Circular 91-31 entitled, "Recommended Noise Abatement Takeoff and Departure Procedure for Civil Turbojet Powered Airplanes." The procedure outlined therein makes some minor refinements to the FAA "Get-'Em-High Earlier" takeoff procedure which was implemented nationwide in August 1972. Currently FAA is contemplating the issuance of a Notice of Proposed Rule Making addressing the matter of a mandatory takeoff and departure procedure.

A14. Continued--

On March 20, 1974, FAA issued an Advance Notice of Proposed Rule Making (Docket #13579, Notice #74-12) entitled, "Two-Segment ILS Noise Abatement Approach." If adopted, this approach procedure will provide the most benefits to residents living between three and eight miles from the runway threshold at selected noise sensitive locations.

Q15. In Mr. Meister's statement on page 10, he described a takeoff operating procedure developed jointly by FAA and the ATA and published as an advisory circular.

a. Is this a mandatory program at all major airports?

b. Does the FAA use it at National Airport?

A. The procedure outlined in Advisory Circular 91-39 dated January 18, 1974, is a recommended noise abatement takeoff and departure procedure for civil turbojet powered airplanes. It is not a mandatory procedure at National Airport nor at any other airport because advisory circulars contain nonregulatory material of a general nature for guidance and informational purposes. As mentioned in answer to the previous question, we are considering rulemaking concerning takeoff and departure procedures. Adoption of such a rule would require compliance.

Q16. What is the role of the ATA in developing regulatory programs to abate and control aircraft noise?

A. The Air Transport Association submits comments to the public rule dockets. ATA has a membership committee dealing with environmental issues and has taken an active role in seeking solutions to the problems of aircraft noise abatement and control.

Q17. Does the FAA regulate aircraft operations at National Airport to abate and control aircraft noise?

A. The FAA does not regulate aircraft operations at National Airport to abate and control aircraft noise other than by the application of approach and departure paths over the river in VFR weather conditions, the use of FAR Part 91.87 and a recommended noise abatement procedure.

Q18. Does the FAA allow operators and owners of other airports to similarly regulate aircraft operations to abate and control noise?

a. If not, why not?

A. Where possible, the FAA works with the airport operator to establish preferential runway systems for noise purposes and to establish routes which minimize noise impact without derogating safety.

Q19. Is it true that several commercial airlines are already using a two-segment approach to abate noise?

A. Many pilots of several commercial airlines are, during periods of visual flight rules weather conditions, making visual descending approaches at some airports. These approaches cannot be executed with the same degree of precision during periods of low visibility or low ceilings unless the aircraft and the runway are equipped to provide precision vertical guidance to the pilot.

Q20. Which airlines?

A. Pacific Southwest Airlines

Air California

National Airlines

Q21. How long have they successfully used such procedures?

A. Pacific Southwest Airlines - 1972

Air California - 1972

National Airlines - 1971

Q22. In light of this experience, why has the FAA not adopted final regulations requiring two-segment approaches?

A. FAA has been engaged in testing the operational feasibility and the safety implications of the two-segment approach for use during both visual and instrument weather conditions. We are currently evaluating the possible effects of mixing different (single and two-segment) approach procedures by aircraft of differing sizes and weights using the same runway. The wake vortex problem is one which is not fully understood, and before any investment is made in the required ground and on-board avionics we must assure ourselves that safety will not be derogated in approach zones at these runway locations. On March 20, 1974, FAA issued an ANPRM (Docket #13579, Notice #74-12) proposing the implementation of two-segment approach at selected airports.

Q23. Mr. Meister indicated in his testimony at the hearing that it would take until mid-1978 before all existing in-service aircraft would meet FAR 36.

a. Why will it take that long?

A. The time period for modifying all in-service aircraft, indicated in Mr. Meister's testimony as being mid-1978 is the FAA's best assessment of the earliest feasible compliance date for aircraft retrofit. This date reflects the time necessary for manufacturers to develop retrofit kit production lines, obtain and fabricate materials, and to install the kits.

Q24. On page 9 of his prepared statement, Mr. Meister stated: "The development of future noise level requirements for all commercial aircraft is in advanced stages at the FAA staff level.

- a. What kind of requirement is included in this statement?
 - b. What is meant by "advanced stages" at the FAA staff level?
 - c. What time table does the FAA have for developing all of these requirements into final regulations?
 - d. Finally, please provide some idea of what extent such requirements will reduce present aircraft noise in the vicinity of airports?
- A.
- a. The future noise level requirements referred to in Mr. Meister's statement are standards to be proposed through the regulatory process that will be more stringent than present FAR 36 standards.
 - b. The term "advanced stages at the staff level" is used to indicate that the technical staff has formulated regulatory ideas which have not yet been submitted for complete agency review.
 - c. The FAA hopes to have a Notice of Proposed Rule Making on this subject during 1974.
 - d. These requirements would address aircraft being considered by manufacturers for design and production in the late 1970's time period. The noise levels of these aircraft could conceivably be in the order of 5 - 10 decibels quieter than the aircraft currently complying with FAR 36.

Q25. How many commercial aircraft are presently operated in the United States?

A. The following qualities represent the approximate number of aircraft in the service of United States air carriers:

Jet - 2200

Turboprop - 300

Piston - 100

Helicopter - 10

Q26. What percentage of that number are subject to a regulatory program that controls the source of aircraft noise emissions?

A. All the aircraft operated by the United States carriers are subject to regulatory programs controlling noise emissions.

Q27. On page 8 of his prepared statement, Mr. Meister noted that one type of supersonic civil aircraft known as the Concorde is still under development. He then made apparent reliance on "recent press reports" for indication that further design changes are being considered in this aircraft. Based on this information, he concluded by saying: "Consequently, at this time it would be premature to promulgate standards for this aircraft pursuant to Section 7(b) of the Noise Control Act."

a. Why is it premature to promulgate regulations on this type of aircraft?

A. Under Section 7(b) the promulgation of regulations or standards requires consideration of economic reasonableness, technological practicability and appropriateness in relation to the particular type of aircraft. As you know, supersonic type civil aircraft are totally different in their aerodynamic and powerplant design. Recognizing that the basic engineering design for the Concorde predates the FAA's mandates in the noise control field, the extent to which certification standards can influence the design is extremely limited. The manufacturers are environmentally concerned and are aware that their aircraft would not be acceptable to many communities if its noise levels are greater than earlier generation jets. Since standards would have a limited impact on SST noise at the source, we are awaiting definition of payload, fuel supply and weight to determine standards which are economically reasonable, technologically practical and appropriate to the type. SSTs will be expected to conform with noise abatement operating procedures that are adopted by the FAA.

Q28. The FAA promulgated an advance notice of proposed rulemaking for "civil supersonic aircraft" in August of 1970.

- a. How long has this subject been studied by the FAA?
- b. Why has FAA not promulgated a final regulation for SSTs?
- c. Does an agreement exist between representatives of the FAA or any other government agency with private parties or a foreign government to delay publication of regulations or notices of proposed rulemaking on the SST?

- A.
 - a. The subject of developing noise standards or regulations applicable to supersonic aircraft have been under study by the FAA for approximately five years.
 - b. The substance as well as the timing of noise regulations or standards for supersonic type aircraft are related to the matters referred to in answer to Question 27. Additionally, there are questions of priority in the allocation of FAA resources. Since no U.S. manufacturer is, to my knowledge, contemplating the construction of a supersonic aircraft, since no U.S. airline has plans or an option to acquire supersonic aircraft and since civil supersonic flight in U.S. airspace is prohibited by regulation, the FAA has been concentrating its efforts on achieving noise relief from those aircraft which are actually being operated in the U.S. today and those planned for the immediate future.
 - c. No.

Q29. How many original type certificates have been issued since enactment of the 1972 Act?

A. Eighteen original type certificates have been issued since enactment of the Noise Control Act of 1972.

Q30. What type of aircraft have been certified and how many of these are manufactured in the United States?

A. The following is a breakdown of the type certificates and country of manufacture:

<u>Type</u>	<u>Model</u>	<u>Country of Manufacture</u>
1. Glider	Slingsby Glasflugel T.59D Kestrel	England
2. Hot air balloon	Semco Model T	U. S.
3. Glider	Peterson Model J-4	U. S.
4. Glider	Caproni-Vizzola SpA "Calif" A-21	Italy
5. Glider	Caproni-Vizzola SpA "Calif" A-12	Italy
6. Glider	Schempp-Hirth KG "Nimbus-2"	West Germany
7. Glider	Vereinigte Flugtechnische Werke Model FK. 3	West Germany
8. Agricultural helicopter	Continental Copters OH-13	U. S.
9. Acrobatic airplane	Flug-und Fahrzeugwerke AG Altenrhein (FFA) Model AS 202/15 "Bravo"	Switzerland
10. Acrobatic airplane	Morovan Zlin 526L	Czechoslovakia
11. Helicopter	Scheutzow Model B	U. S.
12. Executive turbojet airplane	AMD-BA Falcon 10	France
13. Balloon	Semco Challenger	U. S.
14. Sailplane	Schweizer Model SGS 1-35	U. S.

A30. Continued--

<u>Type</u>	<u>Model</u>	<u>Country of Manufacture</u>
15. Airplane	Air Tractor Model AT-300	U. S.
16. Balloon	Cameron Model O	England
17. Airplane	Beech Model 200	U. S.
18. Balloon	Balloon Works Model "Firefly"	U. S.

Q31. A recent EPA report concludes that the energy shortage may create increases in aircraft noise. They cite such factors as "higher load factors," "full fuel loads," and replacement of the quieter 747s with the noisier but more fuel efficient 707s and DC-8s as creating significant increases in aircraft noise.

a. What consideration has the FAA given to this problem?

b. What action does it plan to take on this matter?

A. The passenger load factor, per se, causes little change in noise as aircraft noise is relatively insensitive to the small additional weight caused by an increase in load factor. Fuel loads are generally based on stage length. Since more fuel is consumed to transport additional reserve fuel - the airlines seldom carry more than required. The FAA does not control the type of equipment the airlines operate as long as the aircraft meet FAA regulatory standards.

Q32. Can you briefly describe the cooperation between the FAA and the EPA in preparing the July 1973 report to the Senate Public Works Committee on Aircraft and Airport Noise?

A. The DOT/FAA and the Environmental Protection Agency had many consultative meetings on the preparation of the July 1973 report to the Senate Public Works Committee. These consultative meetings reviewed many issues and it is our opinion that the quality of the report was improved through the consultative process.

Q33. In particular, who officially represented the FAA at the task force meetings prior to publishing the report and approximately how many meetings did the representatives attend?

A. The FAA was represented at the EPA task force meetings by staff personnel from the Office of Environmental Quality and the DOT Office of Noise Abatement.

Q34. Describe what reaction the FAA gave to the July 1973 aircraft/airport noise study?

A. In general, the FAA was pleased to see the EPA endorsement of our program; so we therefore find the thrust of their recommendations to Congress acceptable. It should be noted that the FAA has either issued regulations or has regulatory action in progress in nine of the ten areas covered in this report. The proposed action by EPA in these areas has been overtaken by events. Our views and actions in each area follow:

a. Noise Abatement Takeoff Operating Procedures

The FAA has been working with the airlines through their representative, the Air Transport Association, to implement standard takeoff procedures which minimize noise impact on the ground. In August 1972, the ATA voluntarily implemented a standard takeoff operating procedure for each aircraft for nationwide application.

An advisory circular was issued in January 1974. A notice of proposed rulemaking covering takeoff noise abatement procedures is being developed.

b. Noise Abatement Approach Operating Procedures

The EPA proposal covers two different actions: (1) all instrument landing systems (ILS) be standardized for a three-degree approach angle and (2) use of two-segment approaches under VFR conditions.

A34. Continued--

The FAA standardized a three-degree approach angle over three years ago. The FAA has been working with the airlines regarding two-segment approach for some time and a joint FAA/NASA program is underway to evaluate this procedure in actual airline operation conditions. Possible wake vortices from the two-segment procedure which would create a hazard to other aircraft is being tested but tests to date are inconclusive. An advance notice of proposed rulemaking was issued in March 1974.

c. Noise Abatement Minimum Altitudes

FAA is presently reviewing the minimum altitude concept proposed by EPA. There are operating problems involved which may or may not be solvable. The "Keep-"Em-High" program in traffic control instituted by the FAA in 1971 accomplishes essentially what EPA is proposing in this area.

d. Civil Aircraft Fleet Noise Requirements

This proposal is similar to the advance notice issued by FAA in January 1973. A notice of proposed rulemaking was issued by FAA in March 1974.

e. Supersonic Civil Aircraft Noise

We are not clear on what EPA proposes in this area. FAA issued a regulation limiting civil aircraft sonic boom in

A34. Continued--

March 1973 and has in process the development of regulations pertaining to certification of civil supersonic aircraft for noise.

f. Modifications to Federal Aviation Regulations (FAR) Part 36

FAA has been considering the feasibility of lowering the certification levels of civil jet aircraft and will propose amendments to the present regulations to accommodate these changes during 1974.

g. Propeller-driven Small Aircraft

The FAA issued a notice of proposed rulemaking covering certification of propeller-driven aircraft for noise in October 1973, and expects to finalize the rule as soon as NEPA requirements are met and our consultation with EPA is concluded.

h. Reduced or Short Takeoff or Landing (R/STOL) Aircraft

The FAA has issued an advance notice of proposed rulemaking ANPRM for noise certification standards for this type aircraft in December 1973.

i. Vertical Takeoff or Landing (VTOL) Aircrafts

This is included in Item h.

j. Airport Noise Regulations

In the short time frame available to EPA in the development of the report, it obviously was not possible for the EPA staff to

A34. Continued--

study all of the questions of implementation and cost that would be involved in certificating airports for noise. However, we have many questions regarding the viability of this proposal. Some of these questions are as follows:

- (1) How could the buildup of new housing or other noise sensitive land uses be controlled by enforcement of the regulation since existing land uses and future zoning actions around the airport are beyond the control of the airport operator?
- (2) How would enforcement be possible with respect to the flexibility necessary to permit pilots to operate aircraft safely?
- (3) What would the cost of implementation and enforcement be?
- (4) How would the airport operator control nonairport noise which is part of the noise exposure around airports?
- (5) How would the proposal affect existing international agreements on airports use?
- (6) How can absolute noise level standards be established? The LDN technique is questionable and how can a questionable calculated sound unit be the legal basis for certification or taking sanctions?
- (7) Has the relationship between sound level and effect on health and welfare been established to any degree of acceptability?
- (8) The Act calls for controlling "all sounds." How can the airport be certificated without simultaneous certification and control of all roads in the vicinity of airports?

Q35. Did the FAA have any major disagreement with the findings and conclusions of that report?

a. If so, did the FAA communicate them to EPA?

A. Our questions concern the application of the concept of airport certification. These have been detailed in our answer to Question 34. EPA is aware of our position in this regard.

Q36. Section 7(b) of the Act requires the FAA to consult with EPA prior to prescribing and amending regulations. To what extent has the FAA complied with this requirement in their promulgation of:

a. final regulations;

b. notice of proposed rulemaking; and

c. advance notices of proposed rulemaking

A. We have consulted with EPA prior to issuance of most of our advance notices and all of our NPRMs and final regulations that have been issued since the enactment of the Noise Control Act of 1972 (see attached table).

NOISE REGULATORY ACTIONS SUBSEQUENT TO NOISE CONTROL ACT

TITLE	ANPRM ISSUED	PROJECT REPORT FORWARDED TO CHIEF COUNSEL FOR ANPRM DRAFTING	NPRM ISSUED	EIS OR NEGATIVE DECLARATION PROPOSED	RULE ISSUED
Civil Aircraft Fleet Noise Reduction Requirements	1/73*	6/73	3/74*		
Extension of Part 36 to New Production Jet Aircraft			7/72	10/73	10/73*
Amendment to Lower Part 36		3/73*			
Two-segment Approach	3/74				
Noise Type Certification for Small Propeller-driven Aircraft		3/73*	10/73	4/74	
Civil Quiet Short Haul Aircraft Noise Certification Standards	12/73*				

* EPA has reviewed

Q37. Does the FAA make available to EPA documents, information and data used in developing regulations prior to their promulgation? (Please document)

A. Yes. (see table appended in answer to Question 36.)

Q38. What is the FAA policy on preparing environmental impact statements on noise regulations?

- a. Is it the same for final regulations, notices of proposed rulemaking, and advance notices of proposed rulemaking?
- b. Are the drafts of the environmental impact statements made available to the EPA prior to publication of final regulations, notices of proposed rulemaking, or advance notices of proposed rulemaking?

A. The FAA complies with the provisions of the Environmental Policy Act for noise rulemaking procedures. In general, no environmental impact statement or negative declaration is prepared for an advance notice of proposed rulemaking. Usually a draft environmental impact statement or negative declaration is prepared for issuance at about the same time the NPRM is promulgated. Final rules are not issued until at least 30 days after notice of availability of the final environmental impact statement is published in the Federal Register. Drafts of environmental impact statements are made available to EPA as soon as they are prepared, and as noted above, this is prior to publication of the final regulation. Negative declarations are not coordinated, but upon request, are made available to EPA.

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