

## DOCUMENT RESUME

07022 - [B2367426]

Environmental Effects of Airport Development: Better Assessment Needed. CED-78-156; B-164497(1). August 22, 1978. 24 pp. + appendix (6 pp.).

Report to Secretary, Department of Transportation; by Baltas E. Birkle (for Henry Eschwege, Director, Community and Economic Development Div.).

Issue Area: Transportation Systems and Policies: Domestic Air Carrier System (2413); Environmental Protection Programs: Effectiveness of Regulatory Strategies (2208).

Contact: Community and Economic Development Div.

Budget Function: Commerce and Transportation: Air Transportation (405); Natural Resources, Environment, and Energy (300).

Organization Concerned: Federal Aviation Administration.

Congressional Relevance: House Committee on Interstate and Foreign Commerce; Senate Committee on Environment and Public Works.

Authority: National Environmental Policy Act of 1969 (42 U.S.C. 4321). Airport and Airway Development Act of 1970 (49 U.S.C. 1701). 40 C.F.R. 1500. 40 Fed. Reg. 25230. Town of New Windsor v. Ronan, 13 Avi. 17 (S.L.N.Y. 1974). Friends of the Earth v. Coleman, 518 F.2d 323 (9th Cir. 1975). Boston v. Coleman, 397 F. Supp. 698 (D. Mass. 1975).

Airports are having difficulty gaining acceptance by neighboring communities because of environmental impacts such as noise, air quality, displacement of people and businesses, and disruption of communities. The National Environmental Policy Act of 1969 requires Federal agencies to prepare environmental impact statements on proposals for major Federal actions which affect the environment. Findings/Conclusions: The Federal Aviation Administration (FAA) has a broad definition of what constitutes a major Federal action and does not require an environmental finding for an airport's total planned development. Instead, it allows projects in airport plans to be assessed individually. Such a requirement would further environmental objectives, assure that consideration is given to alternatives available to minimize adverse environmental effects, provide a forum for public comments, and eliminate the need for most extensive environmental reviews for follow-on airport projects. FAA makes grants to finance airport master plans and airport development projects. However, in approving grants, FAA has not always followed its instructions which require consideration of the overall effects of major airport projects and subsequent projects. Recommendations: FAA should: require an environmental finding for airport plans, remind its staff that they are responsible for obtaining environmental findings which consider the cumulative effect of present projects and the consequences of subsequent projects, and provide the necessary staff to assure compliance with its

environmental instructions. (HTW)

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REPORT BY THE U.S.

# General Accounting Office

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## Environmental Effects Of Airport Development: Better Assessment Needed

Airports have problems being accepted by neighboring communities because of their noise and other environmental effects, but this acceptance is vital to the growth of aviation.

The Federal Aviation Administration could help rectify this problem by requiring environmental findings for an airport's planned development. This would facilitate community acceptance and reduce the cost and time spent complying later with the National Environmental Policy Act.





UNITED STATES GENERAL ACCOUNTING OFFICE  
WASHINGTON, D.C. 20548

COMMUNITY AND ECONOMIC  
DEVELOPMENT DIVISION

B-164497(1)

The Honorable  
The Secretary of Transportation

Dear Mr. Secretary:

This report summarizes the results of our review of Federal Aviation Administration policies and practices for assessing environmental effects when it administers airport development assistance programs authorized by the Airport and Airway Development Act of 1970, as amended.

This report contains recommendations to you on pages 13 and 24. As you know, Section 236 of the Legislative Reorganization Act of 1970 requires the head of a Federal agency to submit a written statement of actions taken on our recommendations to the Senate Committee on Governmental Affairs and the House Committee on Government Operations not later than 60 days after the date of the report and to the House and Senate Committees on Appropriations with the agency's first request for appropriations made more than 60 days after the date of the report.

We are sending copies of this report to the Director, Office of Management and Budget; the Chairman, Council of Environmental Quality; the Senate Committees on Appropriations; Commerce, Science and Transportation; Environment and Public Works; and Governmental Affairs; the House Committees on Appropriation; Government Operations; Interstate and Foreign Commerce; and Public Works and Transportation; interested members of the Congress; and other interested parties.

Sincerely yours,

A handwritten signature in cursive script, appearing to read "H. Eschwege".

*for* Henry Eschwege  
Director

D I G E S T

Environmental impacts--noise, air quality, displacement of people and businesses, and disruption of established communities--are leading to community aversion of airports even though airport development is vital to the community economy.

The Federal Aviation Administration could ease this problem by requiring environmental findings for airport plans.

The Federal Aviation Administration, however, does not require an environmental finding--impact statement or negative declaration--for an airport's total planned development as provided for in airport master and layout plans and, as a matter of convenience, allows projects in airport plans to be assessed individually.

Such a requirement would:

- Further environmental objectives consistent with the recognition given by the Aviation Administration, the Council of Environmental Quality, and the Courts to the importance of assessing the total development of airports.
- Assure that consideration is given to the broader alternatives available to minimize adverse environmental effects, thus enhancing decisionmaking.
- Provide a forum for public comments on the effects of total planned development, thus possibly facilitating community acceptance.
- Eliminate, with certain exceptions, the need for extensive environmental reviews for follow on airport projects and thus reduce the cost and time required to comply with environmental requirements. (See p. 6.)

Under the Airport and Airway Development Act of 1970, the Aviation Administration makes grants to finance airport master plans and airport development projects to provide for the orderly and systematic development of the U.S. airport system. As of September 1977 about \$2.3 billion in grants had been made for such projects-- land acquisition, and runway and terminal construction--and also for airport systems and master plans.

Airport sponsors must have an agency-approved airport layout plan to obtain development grants. A layout plan provides a graphic presentation or blueprint of the existing airport and the proposed projects necessary for its development. Airport master plans provide the documentation for the development and may include the development of an airport layout plan. Many layout plans, however, have been developed without a master plan; thus the development projects may be uncertain.

GAO found that the Aviation Administration had not always followed its instructions in approving grants for airport development. These instructions require consideration of the overall effects of major airport projects and the consequences of subsequent projects. As a result:

- Full and meaningful public participation was not obtained as early as possible, nor were all alternatives explored to assure that any adverse environmental effects would be minimized.
- Public investments in airport development were jeopardized and delays were invited in approving grants for future projects because of uncertainty over the ecological effects and community acceptance of future projects. (See p. 14.)

The Federal Aviation Administration should:

- Require an environmental finding for airport plans. (See p. 13.)

--Remind its staff that they are responsible for obtaining environmental findings which consider the cumulative effect of present projects and the consequences of subsequent projects.

--Provide the necessary staff to assure compliance with its environmental instructions. (See p. 24.)

Federal Aviation Administration officials believe too much paperwork, red tape, and expense would result from processing an environmental finding for airport development that is planned beyond 5 or 6 years. The Council of Environmental Quality proposed environmental regulations for Federal agencies should minimize this problem. (See p. 13.)

Aviation Administration officials also stated that (1) the Aviation Administration was not opposed to reminding its staff to consider the cumulative effect of present projects and the consequences of subsequent projects and (2) both the House and Senate had authorized additional positions for environmentalists in the Aviation Administration's proposed budget for fiscal year 1979. GAO believes the agency should make sure that these new positions are sufficient, and assigned to minimize delays and assure compliance. (See p. 24.)

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ABBREVIATIONS

CEQ	Council of Environmental Quality
FAA	Federal Aviation Administration
GAO	General Accounting Office
NEPA	National Environmental Policy Act of 1969

## CHAPTER 1

### INTRODUCTION

Airports are having difficulty gaining environmental acceptance by neighboring communities, but community acceptance is vital to the growth of aviation.

The Department of Transportation's Federal Aviation Administration (FAA) faces a major challenge in developing new or expanding existing airports in a manner compatible with the environment and surrounding community.

Noise is the most important environmental effect from airports. The jet engine and its widespread use has increased noise levels near airports. Other effects include air quality, water quality, and social effects such as displacement of people and business and disruption of established communities.

Opposition to further expansion has become vocal and well organized, resulting in the creation of new legislation, regulations, and procedures designed to protect the environment and community interests. It appears that such protections could become more, rather than less numerous in the future.

### ENVIRONMENTAL LEGISLATION

The primary environmental legislation affecting airport development is the National Environmental Policy Act of 1969 (NEPA) (42 U.S.C. 4321 et seq.).

NEPA was passed to improve the environment; to accomplish this goal, NEPA requires Federal agencies to

- direct, to the fullest possible extent, their policies, plans, and programs to protect and enhance environmental quality;
- prepare environmental impact statements for all recommendations and reports on proposals for major Federal actions that significantly affect the environment;
- integrate the natural and social sciences and the environmental design arts in the planning and decisionmaking stages of any proposed major Federal action;

--give environmental factors appropriate consideration in decisionmaking along with economic and technical factors; and

--explore and evaluate the environmental effects of all reasonable alternatives to the proposed action.

NEPA does not specifically define a proposed major Federal action; it left this determination to the agencies.

NEPA established the Council of Environmental Quality (CEQ) to appraise Federal programs and activities from the NEPA perspective. To help agencies implement NEPA, CEQ established guidelines (40 CFR. 1500 et seq.) for preparing environmental impact statements. These guidelines provide for assessing, as early as possible and in detail, the potential environmental affects of proposed major Federal actions, preferably when technical and economic studies are conducted.

The guidelines state that the statutory clause that delineates proposed major Federal actions should be interpreted with a view to the overall, cumulative effect of the proposed action, related Federal actions and projects in the area, and further contemplated actions. This was considered important because the environmental effects of many Federal decisions about a project or complex of projects can be limited individually, but cumulatively they can be considerable--for example, when one decision is precedent for a much larger case or represents a decision in principle about a future major course of action.

The guidelines also state that agencies should use environmental impact statements to explore alternative actions to avoid or minimize adverse effects.

In May 1977 the President authorized CEQ to issue regulations for implementing NEPA. The CEQ proposed regulations which would replace CEQ guidelines were published on June 9, 1978 (43 F.R. 25230 (DI)). The proposed regulations aim to reduce paperwork and delays and produce better decisions. Among other things, the proposed regulations would require Federal agencies to

--integrate the NEPA process with other planning at the earliest possible time to assure that planning reflects environmental values, avoids delays later, and head off potential conflicts;

- consider the cumulative environmental effect which results from the action when the effect is added to other past, present, and reasonably foreseeable future actions, regardless of what agency (Federal or non-Federal) or person undertakes such other actions and
- adopt procedures to supplement the regulation within 8 months of its effective date.

### AIRPORT ASSISTANCE PROGRAMS

The FAA grant-in-aid program was authorized by the Airport and Airway Development Act of 1970 (49 U.S.C. 1701). Under this program, public airports are eligible for Federal grants for a wide variety of projects to improve their safety and capacity. Projects eligible for Federal grants include land acquisition; runway, apron, and taxiway construction; airport lighting; the nonrevenue-producing parts of terminal buildings; airport roads; and electronic and visual approach aids. The Federal share of project costs ranges from 50 to 90 percent, depending on the project and class of airport. As of September 1977 FAA had approved about \$2.2 billion for airport development projects.

To promote the orderly development of airports, the Airport and Airway Development Act of 1970 also directed the Secretary of Transportation to prepare and periodically publish a National Airport System Plan that set forth, for at least 10 years, the airport development considered necessary to meet civil aviation needs, national defense requirements, and postal needs. The plan as revised by FAA in January 1978 contains 3,603 U.S. airports (mostly public airports) that are considered essential to the U.S. air transportation system.

As a condition for eligibility for airport development grants an airport must be included in the National Airport System Plan and have an FAA approved airport layout plan. An airport layout plan, in general, is a graphic presentation or blueprint of an airport's existing and proposed facilities.

The Airport and Airway Development Act of 1970 also authorizes FAA to make planning grants to public agencies for airport master plans. Airport master plans present the research and logic from which an airport layout plan can be developed. Master plans consist of aviation demand forecasts, capacity analysis, land use planning, terminal area plans, airport access plans, financial feasibility studies, analysis of feedback from public hearings, and

environmental assessments. As of September 1977 about 1,250 grants totaling \$42 million had been made to prepare airport master plans.

#### FAA ENVIRONMENTAL INSTRUCTIONS

FAA has a rather broad and comprehensive definition of what constitute a proposed major Federal action (see para. 20 of app. I) for which an environmental impact statement is required. At a minimum, an environmental assessment and finding--approval of either an environmental impact statement or a negative declaration--is required for all major Federal projects such as new airport site selections and development, new runways, major runway extensions, runway strengthening which permits jets for the first time or larger or noiser jets, major new construction or expansion of passenger handling or parking facilities, and land acquisitions for any of these projects.

The environmental impact assessment, which is generally prepared by the project sponsor, analyzes the environmental effects of the proposed project for which Federal financial assistance is being requested. In preparing the assessment, sponsors are required to describe the project and its stated purpose; describe and appraise its probable effects on the environment; evaluate thoroughly and objectively the environmental effects of all reasonable alternatives, particularly those that would mitigate environmental effects including analysis of the environmental benefits, costs, and risks to show that an alternative that might enhance environmental quality or have a less detrimental effect has not been prematurely rejected or foreclosed; specify the actions taken to minimize unavoidable adverse effects; and document the environmental issues raised from citizen involvement such as public hearings and meetings. The opportunity for public hearings is required for environmental assessments on new airport locations, new runways and runway extensions.

Although prepared by the sponsor, the environmental impact assessment is the primary basis for an environmental impact statement or negative declaration. In deciding whether an environmental impact statement is required, FAA instructions state that it is necessary to consider not only the direct and indirect effects of the proposed project but also the overall, cumulative effect of the proposed project and the consequences of subsequent actions.

A negative declaration is an FAA evaluation that the proposed project will not significantly alter the airport's effect on the environment and is not highly controversial on environmental grounds. However, if significant adverse

impacts are contemplated or if the proposed project is highly controversial, FAA will draft and process an environmental impact statement.

The draft statement is sent to other Federal agencies and CEQ for review and coordination, and public notices are issued to solicit comments on the environmental effect of the proposed project. All substantive comments received on the proposal are to be included and addressed in the final impact statement.

The final environmental impact statement consists of the draft statement (as revised or rewritten to integrate comments on the draft) and a decision memorandum and Federal Finding (which signifies approval or disapproval of the final environmental impact statement). Approval does not constitute a decision to proceed with the project-- that decision occurs when the appropriate FAA official reviews all project requirements including the final impact statement and determines that a grant for the project should be approved.

#### SCOPE OF REVIEW

The objective of our review was to evaluate the adequacy of the FAA environmental instructions and to assess FAA regional offices compliance with these instructions.

We reviewed FAA environmental instructions and practices, interviewed FAA officials, and reviewed their airport development and environmental files. We also interviewed the CEQ official responsible for providing environmental guidance to the Department of Transportation. Our review was made at FAA headquarters in Washington, D.C., and at the agency's central and western regions.

## CHAPTER 2

### AIRPORT PLANS SHOULD BE COVERED BY ENVIRONMENTAL FINDINGS

FAA does not require an environmental finding--impact statement or negative declaration--for an airport's total planned development as set forth in airport master and layout plans and as a matter of convenience allows separate projects to be assessed individually.

Requiring an environmental finding for the total planned development would:

- Further environmental objectives consistent with the recognition given by FAA, CEQ, and the Courts to the importance of assessing total planned development.
- Assure consideration of a broader range of alternatives available for minimizing adverse environmental impacts, thus enhancing the decisionmaking process.
- Provide a forum for obtaining and considering public comments on the effects of total planned development, thus possibly facilitating community acceptance.
- Eliminate, with certain exceptions, the need for extensive environmental reviews for succeeding airport development projects, thus reducing the cost and time required to comply with environmental requirements.

### AIRPORT SPONSORS ADDRESS ENVIRONMENTAL ISSUES PIECEMEAL

FAA has extensive environmental instruction for airport development (see app. 1.), but these instructions do not require an environmental finding for an airport's total planned development as contained in airport master and layout plans. The instructions do allow and encourage sponsors to assess the total planned, and if their plans are acceptable FAA will even process and approve an environmental finding. Because the instructions are permissive rather than mandatory, FAA has allowed projects in airport plans to be assessed individually.

FAA officials said that it was often easier to get community acceptance of airport development on a project-by-project basis rather than presenting the overall development plan to the public. An example is the FAA experience in processing

an environmental impact statement on the 1974 master plan for the 20-year development of the Cedar Rapids Municipal Airport, Iowa.

The 1974 master plan for the Cedar Rapids airport included a wide variety of alternatives, four proposed layout plans, consideration of the adequacy of the present airport location, and an environmental assessment covering the overall 20-year development recommended in the plan. In May 1974 FAA prepared a draft environmental impact statement on the 20-year planned development, circulated it to various Federal and State agencies and presented it in public hearings. A number of citizens from the surrounding communities objected to the plan for environmental reasons. Based on the environmental controversy that arose, FAA and the Cedar Rapids airport manager agreed to withdraw the draft statement and to proceed on a project-by-project basis. The Cedar Rapids airport manager acknowledged that it was easier to get community acceptance on a project-by-project basis.

#### FINDINGS FURTHER ENVIRONMENTAL OBJECTIVES

The importance of requiring an environmental finding on an airport's total plan has been recognized in FAA instructions, CEQ guidelines, and in the Courts.

#### FAA instructions

FAA instructions and advisory circulars recognize that NEPA requires the preparation of detailed environmental impact statements for all major airport development which significantly affects the environment; often, the master plan is the basis for these development actions. From this perspective the instructions state that the ideal planning process (1) should include a comprehensive analysis that identifies and considers all important social, economic, and environmental issues, and the future effects of the plan and (2) dictates full community knowledge of the plan's need, content, and objectives and seeks a reasonable degree of long-term community support for its appropriate and timely implementation. When appropriate, this process should culminate in the preparation of an environmental impact assessment report and public hearings to enable the community to consider the plan's potential economic, social, and environmental effects.

According to FAA instructions and advisory circulars, an environmental impact assessment and public hearings are



generally required, as a matter of policy, for new airports whenever it is apparent that a request for Federal approval of the new airport site or a request for FAA grants will follow within 5 years. For plans on an existing airport, applicants are encouraged to include an environmental impact assessment and hold hearings if there is an early need for significant airport development such as an expanded or new runway. However, this assessment need not cover the airport's total planned development; it can cover stages instead.

When an environmental impact assessment is included in the plan, FAA will normally develop, process, and approve an environmental finding, provided FAA endorses or approves the plan. Also, in approving the resulting layout plan FAA will denote that its approval includes Federal environmental approval under NEPA.

FAA instructions specify that it will not approve a new airport layout plan, or a revised one which contains new projects (such as runway expansion) that will have environmental effects, unless an environmental finding has been processed. (See para. 19, app. 1 for a listing of projects known to have environmental effects.) However, plans containing projects with known environmental effects but not covered by an environmental finding can be conditionally approved provided that such projects will not be undertaken before environmental approval by FAA. With a conditionally approved plan the airport can obtain, without conducting an environmental assessment, FAA development grants for any project not (1) requiring prior FAA environmental approval or (2) considered a major Federal action.

According to FAA officials, many master plans contain environmental assessments that cover the significant development projects presented in the plan. FAA officials also said that they encourage airport sponsors to prepare environmental assessments for the overall development presented in airport layout plans which are the products of a master plan. However, complete environmental assessments were usually not encouraged for airport layout plans that were not part of a master plan because such plans may be merely blueprints of the present and proposed airport layout with little documented support for such projects.

### CEQ guidelines

CEQ guidelines for implementing NEPA (see p. 2) state that Federal agencies should remember when defining proposed major Federal actions that the effect of many decisions about complex projects presented in a plan can be individually

limited so that they will not have much effect on the human environment; however, when the plan is assessed in total, the environmental effect may be significant. Further, Federal agencies were to also give careful attention to identifying and defining the purpose and scope of the action, which would most appropriately be the subject of the environmental study. According to CEQ broad program statements in many cases will be required to assess (1) the environmental effects of many individual actions on a given area, or (2) the environmental effects that are common to a series of agency actions, or (3) the overall effect of a large-scale program or chain of contemplated projects.

### The Courts

Federal Courts have not yielded clear and consistent criteria about what constitutes a proposed major Federal action for which an environmental impact statement is required. One court held that the award of an FAA airport master planning grant did not require an impact statement;<sup>1/</sup> another similarly held that FAA approval of an airport layout plan did not require an impact statement.<sup>2/</sup> Another court, however, indicated that approval of an airport layout plan could require an impact statement.<sup>3/</sup>

One of the more recent cases in this area, Environmental Defense Fund, Inc. v. Adams, held that an environmental impact statement was required for revisions to the National Airport System Plan. (See p. 3.) In reaching this conclusion, the court applied a two-part test: (1) there must be a proposal--that is a goal towards which the responsible Federal official intends to direct his energies--and (2) the proposal must have sufficiently defined geographic, temporal, and subject matter limits to address the NEPA requirements.

Like the National Airport System Plan, airport master plans and airport layout plans provide a goal toward which airport officials, with FAA help, intend to direct their energies and have sufficiently defined geographic, temporal, and subject matter limits. FAA also uses airport master plans to help develop and revise the National Airport System Plan.

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<sup>1/</sup> Town of New Windsor v. Ronan, 13 Avi. 17 (S.D.N.Y. 1974).

<sup>2/</sup> Friends of the Earth v. Coleman, 518 F.2d 323 (9th CIR. 1975).

<sup>3/</sup> Boston v. Coleman, 397 F. Supp. 698 (D. Mass. 1975).

<sup>4/</sup> No. 74-340 (D.D.C.), filed June 21, 1977).

According to FAA instructions and circulars, an airport master plan is to

- provide an effective graphic presentation of the ultimate development of the airport and anticipated adjacent land uses,
- establish a schedule of priorities and phasing for various improvements proposed in the plan,
- present pertinent backup information and data (such as aviation forecast, demand capacity analysis, and economic feasibility studies) which are essential to the plan's development,
- describe the various concepts and alternatives which were considered in establishing the proposed plan, and
- provide a concise and descriptive report so that the effect and logic of the plans' recommendations can be clearly understood.

FAA instructions and circulars state that master plans are used by sponsors to provide a focal point for discussion and decisionmaking, provide input into local comprehensive planning activities, inform the public of the need for airport development, afford the public the opportunity to express their views and choices between the achievement of socioeconomic benefits and potential environmental consequences, and to establish priorities. FAA instructions and circulars state that a master plan should be implemented after it is adopted.

FAA uses master plans to provide input into its National Airport System Plan and for planning air traffic control facilities and services. Airport layout plans and environmental impact statements developed, processed, and approved by FAA for the master plan and public hearings thereon are used by FAA to approve grants for specific airport projects.

Under FAA regulations, an FAA-approved airport layout plan is a prerequisite to FAA approval of an initial development grant. Further, upon receipt of a development grant, FAA requires the airport sponsor, as an obligation of the grant, to maintain an up-dated plan; obtain FAA approval for each amendment, revision, or modification; and conform to the plan so as not to adversely affect airport safety, utility, or efficiency.

FINDINGS BROADEN ALTERNATIVES AND ASSURE  
THAT PUBLIC COMMENTS ARE CONSIDERED

The available alternatives for consideration in an environmental impact statement on a plan are broader and more meaningful than those available for a single project. For example, the environmental impact statement for re-locating the levee at Omaha's Eppley Airfield included only two serious alternatives--relocation of the levee or abandonment of the project. (See p. 22.) At Reno Airport the alternatives to purchasing the land were not to buy or a variation in the boundaries of land acquisition. (See p. 15.) In comparison, the draft environmental impact statement on the Cedar Rapids Airport master plan contained four alternative development schemes in addition to the alternative of no development. (See p. 7.)

Further, processing an environmental impact statement on the total planned development of an airport assures that public comments will be obtained and considered in preparing the final environmental impact statement. (See p. 5.) At the Cedar Rapids Airport, public comments were obtained, but unfortunately FAA and airport officials chose to not proceed with a final environmental impact statement and thereby avoided the issues raised by the public.

FINDINGS REDUCE COST AND THE TIME FOR COMPLYING  
WITH ENVIRONMENTAL REQUIREMENTS

The preparation and approval of an environmental impact statement for the overall development of an airport can reduce the cost and time required to comply with environmental requirements for succeeding projects.

According to FAA instructions, projects that are covered by a previously approved environmental impact statement and that have no substantial changes to the project or its environmental effects

--need not be subjected to any additional environmental requirements if undertaken with 2 years or

--need only be supported by a prior finding affirmation which validates the previous environmental determination if it is undertaken within 2 to 5 years.

Projects undertaken after 5 years also can be supported by a prior finding affirmation, but generally a new environmental impact assessment/statement is required.

The Wichita Municipal Airport in Kansas shows the cost and time that can be saved by covering succeeding projects with an approved environmental impact statement on the airport's master plan. In March 1973 FAA completed a comprehensive environmental impact statement on the Wichita Airport master plan which covered development through 1990. Since then, the airport has submitted four projects for FAA development grants; two of the projects submitted (one in September 1976 and the other in September 1977) were for extension of a major runway, which are required by FAA instructions to have an environmental finding. However, FAA did not have to prepare a finding because both projects had already been assessed in the environmental impact statement on the airport master plan. FAA officials said, as a result, the time required to process the two projects was significantly reduced and the preparation of a costly environmental impact statement was avoided.

FAA officials estimated that a separate environmental impact statement for runway extension at the Wichita Airport would have cost at least \$15,000. In comparison, FAA was able to issue a prior finding affirmation at little cost. FAA officials also estimated that the total cost attributed to the environmental impact statement on the airport master plan was only about \$4,800. They said the costs to process a statement on a master plan were low in many cases because much of the data needed for the statement was similar to the data needed and gathered to support the master plan.

## CONCLUSIONS

An environmental finding should be required for an airport's total planned development. Allowing airport sponsors to assess the environmental impacts of development projects individually or on a piecemeal basis serves only to defer or postpone environmental issues which are likely to surface later as planned development unfolds.

In some cases airports may need projects which will not, either individually or combined, greatly affect the environment; requiring an environmental finding for such plans would not be cost effective. However, in such cases a negative declaration could be prepared. (See p. 4.) According to FAA instructions, a negative declaration can consist of a simple factual statement that no significant environmental effects are anticipated or take the form and content required for an environmental impact statement.

Our proposal would not assure that getting an environmental impact statement approved for an airport plan would not be delayed or that subsequent projects would not be

challenged on environmental grounds. But we believe it is better to give appropriate attention to environmental factors as well as economic and technical ones as early as practicable, before investments are made which tend to lock the sponsor and FAA into a limited course of action.

### RECOMMENDATIONS

We recommend that the Secretary of Transportation, to further environmental objectives, direct the FAA Administrator to

- eliminate FAA conditional approval of airport layout plans and
- require an environmental finding on an airport's development contained in airport master and layout plans that are acceptable to FAA. This action could be best accomplished when preparing supplemental procedures to implement the regulations being promulgated by CEQ. (See p. 2.)

### AGENCY COMMENTS AND OUR EVALUATION

FAA officials said our proposal would require too much paperwork, red tape, and cost to process an environmental finding for development planned beyond 5 or 6 years. They also said that there was less piecemealing now than 2 years ago.

The tiering concept contained in the CEQ proposed regulations for implementing NEPA should help minimize this problem. The CEQ proposed regulations aim to reduce delay, and the tiering concept is one way to accomplish this objective. Under this concept a broad environmental impact statement could be prepared on an airport's total development and a subsequent narrower statement could be prepared for development planned within 5 or 6 years. Further, it should be remembered that FAA instructions allow an environmental finding to be processed on an airport's total development; an action FAA attempted to carry out for the master plan for the Cedar Rapids Municipal Airport. (See p. 7.)

## CHAPTER 3

### FAA ENVIRONMENTAL INSTRUCTIONS NOT FOLLOWED

FAA has not always followed its environmental instructions, which require it to consider the overall environmental effects of major airport projects and the consequences of subsequent related actions (see p. 4), when approving grants to acquire or reclaim land needed for future airport expansion.

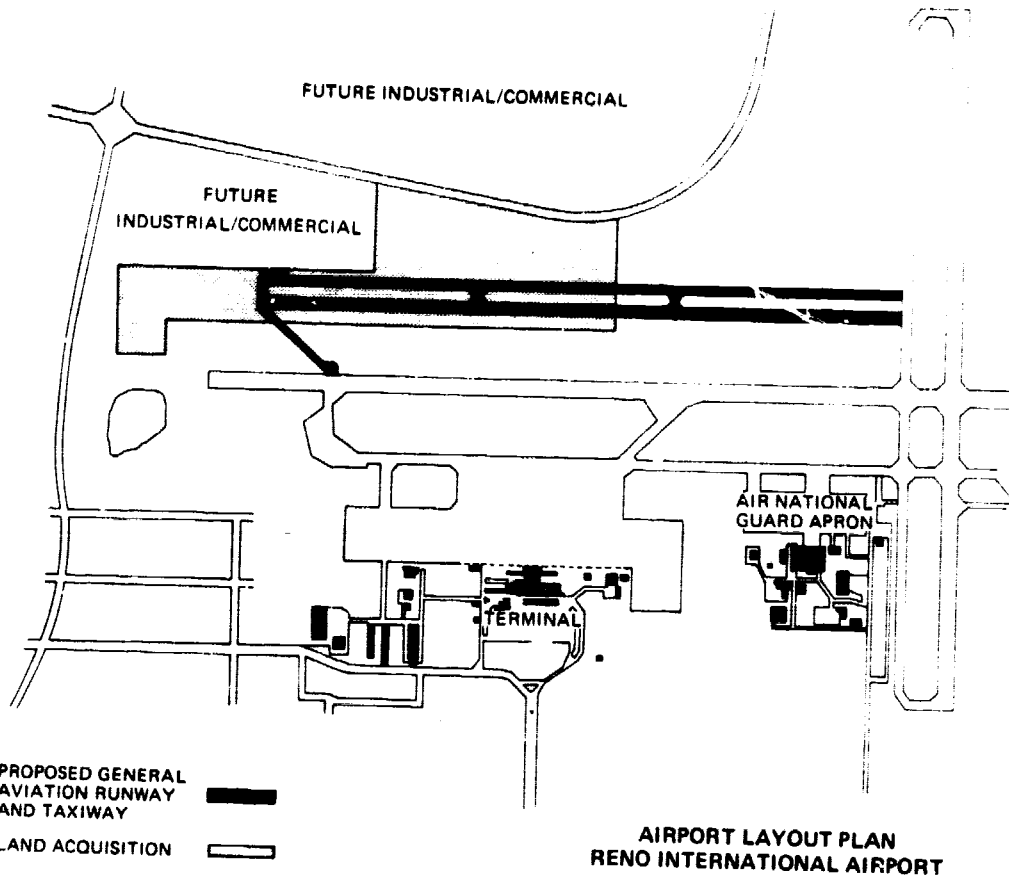
As a result

- Full and meaningful public participation was not obtained as early as possible, nor were all alternatives explored in an effort to find reasonable solutions.
- Public investments in airport development were jeopardized and delays were invited in approving grants for future projects because of uncertainty over the ecological effect and community acceptance of future projects.

FAA had not always followed its instructions because (1) some projects were believed to have separate independent utility, (2) FAA officials were under pressure to make grants on a timely basis and (3) enough FAA environmentalists may not have been available to help expedite processing grant applications. Examples of FAA noncompliance with its instructions follow.

#### RENO INTERNATIONAL AIRPORT

In fiscal year 1977 FAA approved a \$3.8 million grant to allow Nevada's Reno International Airport to acquire about 70 acres of land. In its grant request, the airport sponsors said the land was needed to assure compatible land use with current airport operations and to provide land for a new runway in 6 to 10 years as provided for in its airport layout plan which follows.



FAA treated the acquisition as only a change in ownership, with no adverse environmental impact, and issued a negative declaration. The environmental impact assessment on which the negative declaration was issued did not assess the environmental effect of the proposed new runway as required by FAA instructions.

An FAA official stated that if the project can be justified on its benefits to current airport operations, the environmental consequences of subsequent projects made possible by the new runway need not be addressed. This current utility theory, however, is contrary to FAA instructions.

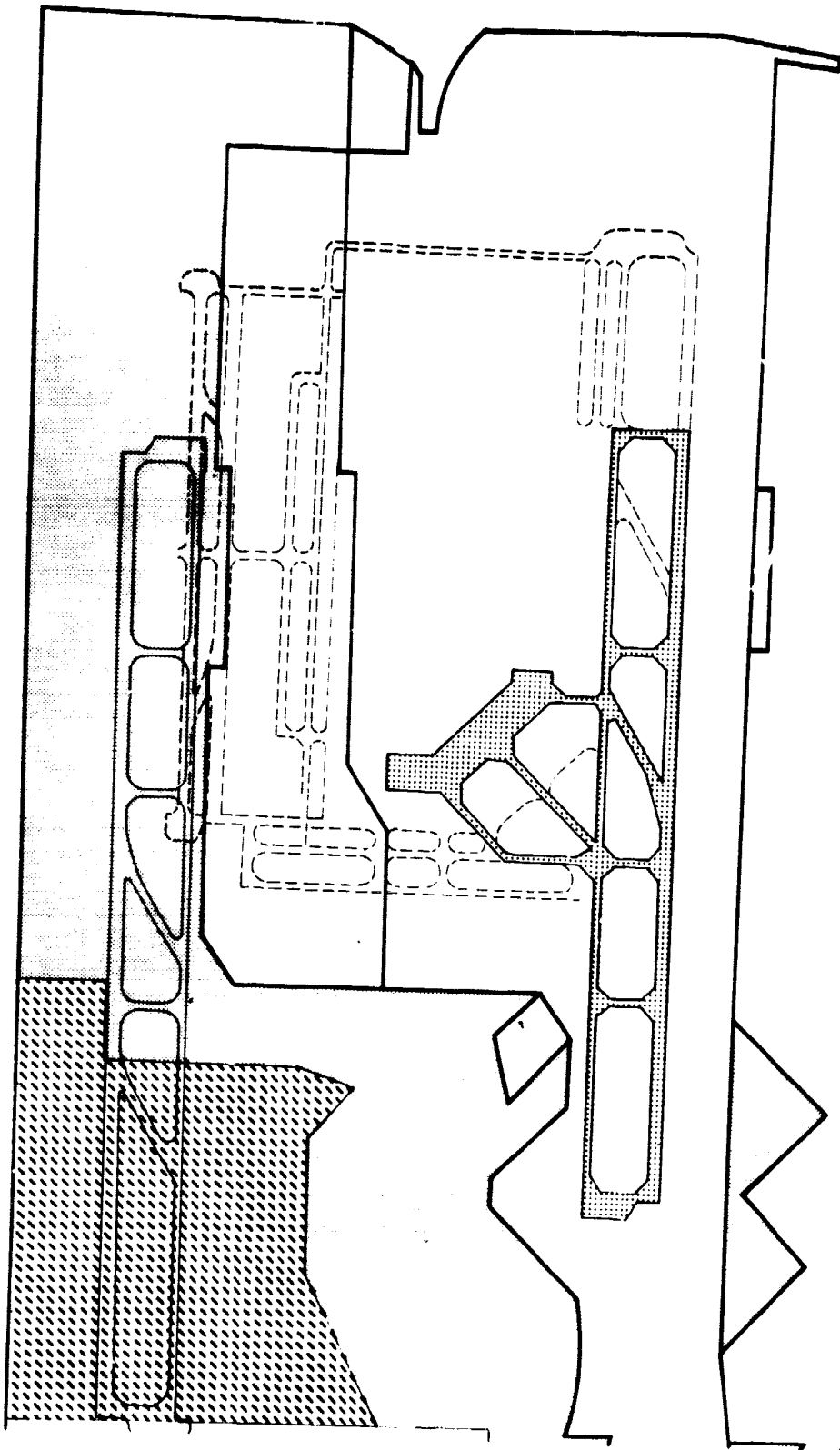
Also, the range of alternatives considered in the environmental assessment were so narrow that its value in planning airport expansion was negligible. The environmental assessment report stated "The principle alternatives to the proposed action would be no acquisition of the property or a variation in the limits of the parcel to be acquired."








According to FAA, an environmental statement will be required before any Federal funding for the construction of the runway can be approved. At that time, public hearings will be held and alternatives to the proposed runway will be assessed--including the alternative of no runway construction. Also at that time the proposed runway could be rejected or a better alternative found.

#### SACRAMENTO METROPOLITAN AIRPORT

FAA approved two grants totaling about \$2.5 million to finance land purchase at the Sacramento Metropolitan Airport in California. The first project grant for \$1.4 million was made during fiscal year 1972 to reimburse the airport for the cost of 1,089 acres of land it had acquired for a clear zone area and future development. In its request, the Sacramento Airport sponsors stated that the land needed for future airport development was needed for both the existing runway and proposed runways included in its airport layout plan, which follows.



**SACRAMENTO METRO AIRPORT**

-  FY 72 LAND ACQUISITION
-  FY 76 LAND ACQUISITION
-  EXISTING RUNWAY AND TAXIWAY
-  PROPOSED RUNWAY TAXIWAY IN EXISTING AIRPORT LAYOUT PLAN
-  RUNWAY PROPOSED FOR INCLUSION IN NEW AIRPORT LAYOUT PLAN

FAA viewed the project as merely a reimbursement for land which had already been acquired and issued a negative declaration. FAA did not address the environmental effect of the proposed runway and other development as required by its environmental instructions because the development was not planned for the immediate future.

The second grant for \$1.1 million was made in September 1976--to reimburse the airport for the cost of about 321 acres of land it had acquired to square off airport property and to assure compatible land use with airport operations. FAA concluded that the reimbursement for land costs would not alter the airport's effect on its surrounding environment and issued a negative declaration.

Although the airport layout plan in effect when the project was approved showed no development on this land, in 1973 the Sacramento Airport started an extensive study for a new airport layout plan. The most important change recommended by the plan was a new 12,000-foot jet runway located on the land financed by the September 1976 and 1977 grant. (See plan on p. 17.) Sacramento Airport officials advised FAA of the proposed airport layout changes in 1973; the plan had been approved by the Sacramento Airport in June 1976 and had been submitted for FAA approval 13 days before the September 1977 grant was approved. The FAA January 1978 National Airport System Plan showed that this runway would be needed within 5 years.

An FAA regional official stated that FAA considered only the environmental effect of the airport layout plan on file when a development grant was considered. Because the approved airport layout plan on file did not show the proposed runway, the environmental effect of the runway was not assessed even though the regional office knew it was included in the new airport layout plan that was awaiting approval.

Two local organizations expressed concern about the planned expansion of the airport. The Sutter County Board of Supervisors passed the following resolution:

"That this Board strongly opposes the proposed expansion of the Sacramento Metro Airport and that every legal avenue possible be taken to enjoin the expansion of said airport to prevent the creation of a public nuisance injurious to the interest of the County of Sutter."

The Sacramento Regional Area Planning organization also questioned the expansion and received the following response from FAA:

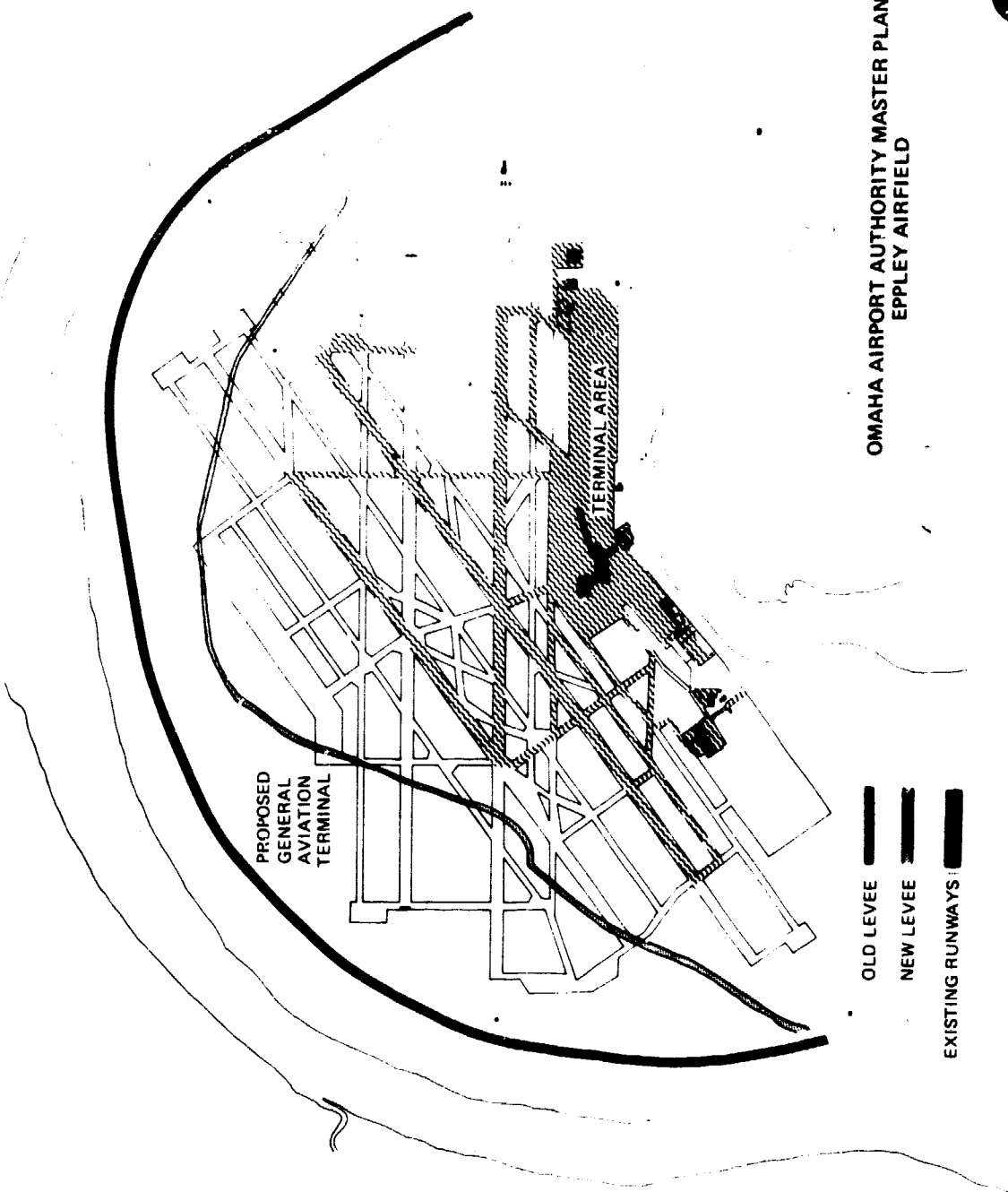
"The Federal Aviation Administration believes the proposed land acquisition would protect the existing runway from incompatible development and does not comit or initiate a commitment to build a planned parallel runway.\* \* \* "

#### EPPLEY AIRFIELD

In 1974, FAA approved a \$2.5 million grant to construct a new levee and remove the existing one at Eppley Airfield in Omaha, Nebraska. According to the draft environmental impact statement, the new levee would allow the airport to reclaim about 610 acres of land for future airport expansion and development, such as extension of existing runways, construction of new runways, and addition of a new general aviation area. A diagram of the airport layout plan follows.



OMAHA AIRPORT AUTHORITY MASTER PLAN  
EPPLEY AIRFIELD



PROPOSED  
GENERAL  
AVIATION  
TERMINAL

TERMINAL AREA

- OLD LEVEL
- NEW LEVEL
- EXISTING RUNWAYS

The draft environmental impact statement did not assess the effect of development made possible by the new levee, as required by FAA environmental instructions. Officials of the Department of Interior, Environmental Protection Agency, and the FAA Environmental Law Branch questioned the adequacy of the draft statement. The Chief of the Environmental Law Branch refused to give legal clearance to the draft because, in his opinion, the environmental effects of planned use of the reclaimed land could be so adverse that such development might not be undertaken--thus removing the need to relocate the levee.

FAA subsequently changed the stated purpose of the levee project in the environmental statement to read:

"Relocation of the Missouri River Levee will provide many benefits to the further improvement of safety, efficiency, environmental compatibility and utilization of the airport facility."

Although the stated purpose of the levee project was changed, the final environmental impact statement also stated that levee relocation was needed for separating operations and expanding general aviation as soon as possible and that levee relocation would provide for possible future runway expansion, although there was no evidence that such expansion would be required in the immediate future.

After FAA changed the stated purpose of the levee project, the Department of the Interior and the Environmental Protection Agency removed their objections to the project. The FAA Environmental Law Branch and Office of Chief Counsel determined that the final environmental impact statement demonstrated that there was sufficient independent utility for the proposed project. The final environmental impact statement was approved on June 20, 1974.

FAA officials have stated that no future expansion made possible by the new levee would be initiated until an environmental impact assessment has been made.

The FAA Office of Chief Counsel conclusion that the levee could be justified by its benefit to current operations ignored FAA environmental instructions which require that the cumulative effects and consequences of subsequent projects to be considered.

This situation at Eppley Airfield was discussed in our report to Senator Dick Clark, "Eppley Airfield, Nebraska: Problems Caused In Council Bluffs, Iowa" (CED-77-73,

May 27, 1977). In that report, we concluded that the citizens in Council Bluffs, Iowa, (which is adjacent to the airport) were denied the opportunity at the time the levee project was considered to provide input on the potential changes in aircraft traffic over Council Bluffs that might be caused by subsequent projects. We believe FAA avoided assessing the environmental effect of the extensive airport development made possible by the new levee to avoid a possible confrontation with Council Bluffs citizens who were already sensitive to the noise from existing airport operations. In turn, we believe that this contributed to the misunderstandings and mistrust that existed among all parties concerned.

As in the preceding Reno International Airport example, the range of alternatives considered in the environmental statement on the levee project was so narrow that its value in planning airport expansion in light of environmental considerations was negligible. The environmental statement stated:

"It is evident there are only two alternatives that deserve serious consideration, relocation of the Eppley Airfield riverbend levee \* \* \* or abandonment of the project."

#### REASONS FOR NONCOMPLIANCE

Avoiding delays in approving grants for airport development projects and possible shortages in FAA environmental staff were two reasons FAA had not always complied with its instructions.

Major delays have been experienced in preparing environmental impact studies for individual projects. For example, the environmental impact study to acquire land for a new runway for the Brackett Field in La Verne, California, was started in 1971 but not approved until January 1977. Similarly, the environmental impact statement to acquire land for a runway extension at Ontario International Airport (California) was started in 1971 but was still pending approval as of March 1978. In addition, in testimony before the Subcommittee on Transportation, House Committee on Appropriations, on the FAA fiscal year 1979 budget request, the Airport Operators Council International, which represents the principal airports served by scheduled airlines, said the overall environmental approval process usually took from 2 to 2 1/2 years, and many projects, due to complexity or controversy, took much longer.

FAA officials stated that they are under pressure to make grants on a timely basis. They said that to do this in many cases, they must choose between delaying a project to complete a proper, well-documented environmental impact statement which assesses cumulative effects or issuing a timely grant to the detriment of the environmental study.

Although cumulative effects were not always considered to avoid project delay, the Airport Operators Council also testified that most delays in processing environmental studies occurred in FAA regional and district offices where, with only three exceptions, no full-time environmental staff was provided. The Council believed 25 full-time environmentalists were needed to avoid excessive delays.

### CONCLUSIONS

All environmental issues associated with a major project should be raised as early as possible so that full and meaningful public participation can be obtained, alternatives explored, and reasonable solutions found so that needed development can proceed without undue delays. Little public benefit is derived by doing otherwise.

When FAA fails to consider the cumulative environmental effects of projects and the consequences of subsequent projects, it risks the public investment by gambling on ecological uncertainty and community acceptance of future projects. As total expansion unfolds and the public is able to comprehend the environmental implications of this expansion, opposition could be raised on environmental grounds and the project could be delayed for several years, or a current reassessment could surface an alternative too late to avoid unnecessary investments of Federal and local funds. In addition, these prior investments prejudice any future alternatives that are surfaced by making them less financially attractive.

Delays in approving grants for airport development projects, although partly attributable to the preparation of well-documented environmental impact statements and possible shortages in staffing, are also attributed to the environmental controversy and opposition surrounding proposed projects. We believe that delays for these reasons could be minimized if total planned development (see ch. 2) was subject to NEPA environmental requirements when master plans are prepared or layout plans are approved.



Because environmental impact statements on airport master or layout plans are generally valid for only 5 years, FAA will still need to assess, in the absence of new plans, the cumulative effects of projects undertaken beyond the 5-year period and the consequences of any subsequent projects. To assure compliance with this requirement, FAA needs to remind those responsible for developing, reviewing, and approving environmental findings for airport development projects that they are to consider, especially for projects involving the acquisition or reclamation of land, the cumulative effects and consequences of any subsequent projects. And to minimize related delays FAA also needs to assure that it has sufficient staff to develop and process complete and well-documented environmental findings.

### RECOMMENDATIONS

We recommend that the Secretary of Transportation direct the FAA Administrator to:

- Remind its staff that they are responsible for obtaining environmental findings on airport development projects which consider the cumulative impact and consequences of any subsequent projects,
- Assess whether FAA has sufficient environmentalists to properly carry out its environmental instructions and to do so in a manner that minimizes delays in approving grants for airport development projects.

### AGENCY COMMENTS AND OUR EVALUATION

FAA officials said that the House and Senate Appropriations Committees had provided for additional environmentalist positions in the proposed FAA fiscal year 1979 budget--10 new positions in the House bill and 25 new positions in the Senate version. Although the House and Senate conferees agreed in June 1978 to provide 25 new environmentalist positions for FAA, we believe FAA should assure that these new positions are sufficient and assigned to minimize delays and assure compliance with its environmental instructions, including the changes recommended in chapter 2 of this report.

An FAA official said that FAA would not oppose reminding its staff to consider the cumulative effect and consequences of subsequent projects, but that it must also be recognized that projects do have independent utility. Although we recognize that projects may be justified on their own merit and therefore have independent utility, this is no basis under either FAA instructions or CEQ guidelines for ignoring the consequences of any contemplated subsequent projects.

EXCERPTS FROM FAA ENVIRONMENTAL INSTRUCTIONSParagraph1. "DEFINITIONS

- a. Major Federal Action Significantly Affecting the Quality of the Human Environment. This is any Federal action falling within the scope of paragraph 20 of this appendix. These actions require the preparation of an environmental impact statement."

19. "GENERAL

- a. All proposed Federal actions involving the following categories of airport development actions (including development shown on the airport layout plan) must be supported by an environmental assessment and resultant finding:
- (1) New airport site selection and development.
  - (2) New runway.
  - (3) Major runway extension.
  - (4) Runway strengthening which would permit first time jet use or use by larger or noisier type aircraft.
  - (5) Major new construction or expansion of passenger handling or parking facilities with Federal funding.
  - (6) Land acquisition associated with all the above items plus any land acquisition which causes relocation of residential or business activities or involves land covered under Section 4(f) of the Department of Transportation Act.
  - (7) Establishment or relocation of instrument landing system (ILS), approach lighting system (ALS), or runway and identification lights (REILS) (when airport development aid funds are used).

Paragraph

- (8) Any airport development action that falls within the scope of paragraph 20 or which involves any of the following, as more particularly described in paragraph 44:
  - (a) Use of any Department of Transportation Act Section 4(f) land.
  - (b) Effect on property included in or eligible for inclusion in the National Register of Historic Places or other property of state or local historical, architectural, archaeological, or cultural significance.
  - (c) Wetlands or coastal zones.
  - (d) Endangered or threatened species.
- b. The actions identified in subparagraph a. above must be supported through one of the following action choices:
  - (1) Fully coordinated environmental impact statements (paragraph 20).
  - (2) Negative declaration actions:
    - (a) As a result of changing a draft environmental impact statement (paragraph 21);
    - (b) Requiring limited coordination per Section 16(c)(4) of the Airport Act (paragraph 22); or
    - (c) Requiring limited assessment (paragraph 23).
  - (3) Actions affirming prior findings (paragraph 24)."

20. "FULLY COORDINATED NEPA SECTION 102(2)(C) ACTIONS.

- a. An environmental impact statement shall be prepared for the following proposed Federal action:
  - (1) Any action that has an effect that is not minimal on properties protected under Section 4(f) of the DOT Act or Section 106

Paragraph

of the Historic Preservation Act.

- (2) Any action that is likely to be highly controversial on environmental grounds.
- (3) Any action that is likely to have a significant impact on natural, ecological, cultural, or scenic resources of national, state, or local significance, including endangered species and wetlands.
- (4) Any action that is likely to be highly controversial with respect to the availability of adequate relocation housing.
- (5) Any action that:
  - (a) Causes substantial division or disruption of an established community, or disrupts orderly, planned development, or is determined to be not reasonably consistent with plans or goals that have been adopted by the community in which the project is located; or
  - (b) Causes a significant increase in surface traffic congestion.
- (6) Any action that:
  - (a) Has a significant impact on noise levels of noise sensitive areas;
  - (b) Has a significant impact on air quality or violates the standards for air quality of an affected locality, the state, or the Environmental Protection Agency;
  - (c) Has a significant impact on water quality or may contaminate a public water supply system; or
  - (d) Is determined to be inconsistent with any Federal, state, or local law or administrative determination relating to the environment.

Paragraph

- (7) Other action that directly or indirectly affects human beings by creating a significant impact on the environment.
- b. In determining whether an environmental impact statement is required for a proposed Federal action, it is necessary to consider the overall, cumulative impact of the proposed action and the consequences of subsequent related actions. This is important because the effect of a number of decisions about a complex of projects can be individually limited to the extent that a negative declaration would appear to be appropriate for each project; however, when considered together, the projects may have a considerable cumulative impact. If an action would permit further contemplated actions (either by the FAA, another agency, or the sponsor), than in determining whether to prepare an environmental impact statement, the impacts of the further contemplated actions, as well as the impacts of the proposed action, must be considered. If an environmental statement is required, it must be processed before a commitment is made that would enable the further contemplated action or foreclose or narrow the consideration of alternatives to such contemplated action.
- c. A proposed Federal action is considered highly controversial when the action is opposed by a Federal, state, or local government agency or by a substantial number of the persons affected by such action on environmental grounds. If the responsible official has any doubt as to whether a given number of opposing persons is "substantial," that doubt should be resolved by processing the action as a highly controversial one. In an action involving relocation of persons or businesses, a controversy over the amount of the acquisition or relocation payments is not considered to be a controversy with respect to availability of adequate relocation housing."

32. "AIRPORT LAYOUT PLAN APPROVALS.

- a. Applicability. This paragraph applies only to items of development approved for the first time by FAA, shown on a new or revised airport layout plan (ALP).

Paragraph

- b. General. Proposals to construct new runways, runways, runway extensions, terminal buildings or other major and supportive development are shown on an ALP. Inclusion on the plan signifies only that the proposed development has been identified by public sponsors for planning purposes. It does not represent a commitment by the sponsor to implement the indicated development. FAA reviews the planned development with respect to safety, efficiency, and utility. FAA's action does not represent a commitment to provide financial assistance to implement the proposed plan.
- c. Approval.
- (1) When all items of development covered by paragraph 19a of this appendix have been the subject of environmental findings pursuant to the provisions of this order, then the ALP may be approved unconditionally.
  - (2) When such environmental action has not been completed, the ALP may be approved subject to the following condition which shall be included in the ALP approval letter:

"The approval indicated by my signature is given subject to the condition that the proposed airport development identified by item herein as requiring environmental processing may not be undertaken without prior written environmental approval by the FAA."
  - (3) The approval letter will identify, by item, those items shown on the ALP which are covered by paragraph 19a and have not yet been environmentally approved by FAA.
  - (4) The FAA approval of an ALP shall be indicated as follows:

Paragraph

- (a) The FAA unconditional approval shall be shown on the face of the ALP by the use of the term "approved."
  - (b) The FAA conditional approval shall be shown on the face of the ALP by use of the term conditionally approved and cross-referencing the ALP approval letter."
33. "MASTER PLANNING GRANTS. Master planning grants are not considered major Federal actions for purposes of Section 102(2)(C) of NEPA; and, therefore, an environmental impact assessment report or statement is not required for issuance of the grant. Preparation of an environmental impact assessment report is usually included as one of the elements of the master plan, as is the preparation of a new or revised airport layout plan. The airport layout plan is the vehicle through which FAA acts with respect to airport planning and which is subject to the requirements in paragraph 32 of this appendix. The environmental impact assessment report may be submitted as a separate document or as an element of the master planning document. Assessment reports may be prepared to cover either the ultimate plan as developed by the study or stages of such development, depending on the independent utility of each stage and the certainty of ultimate development."