ORDER 5090.3C

FIELD FORMULATION OF THE NATIONAL PLAN OF INTEGRATED AIRPORT SYSTEMS (NPIAS)

December 4, 2000

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

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FOREWORD

This order establishes a handbook containing instructions for the continuous formulation and maintenance of the National Plan of Integrated Airport Systems (NPIAS) computer database and the Secretary of Transportation's biennial Report to Congress. The NPIAS identifies existing and proposed airports that are significant to national air transportation and estimates the infrastructure development needed to meet the needs of all segments of civil aviation.

Catherine M. Lang

Catherine M. Lang
Director, Office of Airport Planning
And Programming

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Chapter 1. Introduction and General Requirements

Section 1. Introduction

1-1. Purpose

This Order provides guidance and sets forth policies and procedures for the continuous formulation, maintenance, and periodic publication of the National Plan of Integrated Airport Systems (NPIAS).

1-2. Distribution

This order is distributed to all addressees of the ZRP-509 special mailing list and all Airports District/Field Offices.

1-3. Cancellation

Order 5090.3B, Field Formulation of the National Plan of Integrated Airport Systems (NPIAS), dated September 9, 1985, is cancelled.

1-4. Explanation of Changes

The major change involves the implementation of revised reliever airport criteria. Publicly and privately owned reliever airports currently in the NPIAS database that do not meet the new reliever criteria should be redesignated as general aviation airports or should be deleted from the NPIAS. In the case of a privately owned airport, a redesignation as a general aviation airport implies a FAA recommendation that the airport be publicly acquired to ensure its preservation and continued operation. Privately-owned airports currently designated as reliever airports that do not meet the new reliever criteria but have received AIP funds and are subject to grant obligations will retain the reliever airport designation and therefore remain eligible for AIP funds.

Additionally, the commercial reliever designation is no longer valid. An airport that meets the definition of a commercial service airport should be identified in the NPIAS as a commercial service airport.

1-5. Authorizing Legislation

a. The Federal Airport Act of 1946 established the requirement for the formulation and annual revision of the five-year National Airport Plan (NAP). The Act of 1946 also created the Federal-aid Airport Program (FAAP) in order to bring about, in conformity with the NAP, the establishment of an adequate nationwide system of public airports.

b. The Airport and Airway Development Act of 1970 (Public Law 91-258) resulted in the repeal of the NAP and FAAP and established requirements for a coordinated National Airport System Plan (NASP) and the Airport Development Aid Program (ADAP).

c. The Airport and Airway Improvement Act of 1982 (Public Law 97-248) as amended by the Airport and Airway Safety and Capacity Expansion Act of 1987, the Aviation Safety

and Capacity Expansion Act of 1990, the Airport and Airway Safety, Capacity, Noise Improvement, and Intermodal Transportation Act of 1992, requires the biennial publication of a National Plan of Integrated Airport Systems (NPIAS) and established the Airport Improvement Program (AIP).

d. In 1994 Congress consolidated and recodified all the aviation laws and statutes into Title 49 of the United States Code.

1-6. LEGISLATIVE REQUIREMENTS

a. General

(1) Section 47103 of Title 49 of U.S.C. directs the Secretary of Transportation to maintain a plan for developing public-use airports in the United States.

(2) The plan shall include the kind and estimated cost of eligible airport development the Secretary of Transportation considers necessary to provide a safe, efficient, and integrated system of public-use airports adequate to anticipate and meet the needs of civil aeronautics, to meet the national defense requirements of the Secretary of Defense, and to meet identified needs of the United States Postal Service. Airport development included in the plan may not be limited to meeting the needs of any particular classes or categories of public-use airport.

(3) In maintaining the plan the Secretary shall consider the needs of each segment of civil aviation and the relationship of each airport to the rest of the transportation system in the particular area; forecasted technological developments in aeronautics; and forecasted developments in other modes of intercity transportation.

b. Specific Requirements

(1) In maintaining the plan, the Secretary shall consult with departments, agencies, and instrumentalities of the U.S. Government, with public agencies, and with the aviation community.

(2) The Secretary shall also consider tall structures that reduce safety or airport capacity.

(3) The Secretary shall also address the needs of air cargo operations, Short Takeoff and Landing/Very Short Takeoff and Landing aircraft operations, and rotary wing aircraft operations.

(4) The Secretary of Defense shall indicate to the Secretary of Transportation which domestic military airports and airport facilities are available for civil use.

c. Frequency and Status of Publication. The Secretary of Transportation is required to publish the NPIAS every 2 years. The NPIAS computer database serves as the basis for the Report to Congress and is maintained on a continuous basis. Field updates to the database are required as soon as significant local and Federal planning and implementation decisions are made.

1-7. GUIDING PRINCIPLES OF THE NPIAS

The general principles guiding Federal involvement have remained unchanged since a national airport system was envisioned in the Federal Airport Act of 1946. The airport system should have the following attributes to meet the demand for air transportation:

(a) Airports should be safe and efficient; located at optimum sites; and developed and maintained to appropriate standards.

(b) Airports should be affordable to both users and Government, relying primarily on user fees and placing minimal burden on the general revenues of local, state, and Federal Government.

(c) Airports should be flexible and expandable, able to meet increased demand and to accommodate new aircraft types.

(d) Airports should be permanent, with assurance that they will remain open for aeronautical use over the long term.

(e) Airports should be compatible with surrounding communities, maintaining a balance between the needs of aviation and the requirements of residents of neighboring areas.

(f) Airports should be developed in concert with improvements to the air traffic control system.

(g) The airport system should support national objectives for defense, emergency readiness, and postal delivery.

(h) The airport system should be extensive, providing as many people as possible with convenient access to air transportation, typically not more than 20 miles travel to the nearest NPIAS airport.

(i) The airport system should help air transportation contribute to a productive national economy and international competitiveness.

1-8. RELATIONSHIP OF THE NPIAS TO THE AIRPORT IMPROVEMENT PROGRAM (AIP)

a. Section 47105(b)(2) of Title 49 U.S.C. requires that airport grant applications propose airport development or airport planning only in connection with public-use airports included in the current National Plan of Integrated Airport Systems. The proposed airport development must comply with approved standards for site location, airport layout, site preparation, paving, lighting, and safety of approaches.

b. The listing of any location, airport, or item of development in the plan does not in any way legally obligate or commit the Federal Government to provide funds for specific development nor does it imply environmental approval.

c. The basic support and justification for airport grants authorized by Congress are that such grants are required to help develop the airport system described in the NPIAS.

1-9. Relationship of the NPIAS to the Passenger Facility Charge Program (PFC)

a. Section 40117(b) of Title 49 U.S.C. authorizes an eligible agency to impose a passenger facility charge on each passenger at an airport the agency controls. PFC's can be used to finance eligible airport planning and development projects, to be carried out in connection with the airport or any other airport the agency controls.

b. The passenger facility charge may be imposed on passengers originating or connecting at the commercial service airport the agency controls. Commercial service airports are the only airports eligible to impose a PFC and all commercial service airports are included in the NPIAS.

c. All development that is both AIP eligible and justified should be entered into the NPIAS, regardless of funding source. Development that can be funded with PFC's but which is not AIP-eligible should not be entered. (see Appendix 1, paragraph 10)

1-10. Relationship of the NPIAS to the Military Airport Program (MAP)

a. Section 47118 of Title 49 authorizes the Secretary of Transportation to provide grants to current or former military airports each year to fund development under AIP as well as development that is not typically funded by AIP (hangars, fuel farms, terminals, utility systems, roads, equipment, cargo buildings, and parking lots).

b. An airport must be designated or forecast to be a commercial service, reliever, or general aviation airport to be included in the MAP. Development must be included in the NPIAS if it is to be funded under MAP.

1-11. Relationship of the NPIAS to the State Block Grant Program

a. Section 47128 of Title 49 authorizes the Secretary of Transportation to designate qualified states to assume administrative responsibility for all airport grant amounts available, in that state, except for amounts designated for use at primary airports. 14 CFR Part 156 sets forth regulations to implement the State block grant program.

b. AIP eligible development costs for general aviation and reliever airports in states that have been designated as block grant states are to be entered in the NPIAS database for the airport at which the development is to occur, not the state that will receive the grant funds.

Section 2. Preparation and Coordination of the NPIAS Database

1-12. Regional Responsibility

a. Regional Airports Division Managers are responsible, within national program policy parameters and program guidance, for making all decisions with respect to entry and development inputs and revisions to the NPIAS except recommendations for proposed commercial service airports (i.e., an airport that does not exist currently but is forecast to be a commercial service airport on the date the airport opens). Recommendations for proposed commercial service airports must be approved by the Director of the Office of

Airport Planning and Programming (APP-I) before being included in the NPIAS. The Regional Airports Division Managers should submit a request for concurrence for all such airports, allowing at least 30 days for review of the request.

b. Regional Airports Division Managers are to ensure that Airports personnel responsible for the formulation or maintenance of the NPIAS, including operation of the database, have a thorough working knowledge and comprehension of the instructions and criteria in this Order, the NPIAS-ACIP User's Guide, and of airport planning principles in general.

c. Currently, formulation of the NPIAS (data entry) cannot be delegated to any non-FAA Airports' Office personnel without explicit written approval by APP-1. If APP-1 approval is given, it is the responsibility of the Airports District Office/Regional Office to ensure that the data entries conform to FAA instructions and criteria before accepting them for inclusion in the FAA database.

d. Regional Handbook. Except for matters of general policy established by headquarters to ensure national consistency in certain elements of planning and procedures, Regional Airports Division Managers are responsible for amplifying these instructions by issuing regional directives to provide airport planners with additional instruction or guidance.

(1) Areas that may require additional regional guidance and instructions include: scheduling and procedures to implement the policy of continuous planning; expeditious revisions of the NPIAS to include newly identified development needs and deletion of completed development; local coordination with sponsors, industry, states, other FAA divisions, and other Federal agencies; use of agency forecasts; identification and inclusion of needed certification items; conduct of joint planning conferences; formal evaluation of district offices; and official file management.

(2) Prior to its promulgation by the Airports Division, an information copy of the appropriate directive/handbook should be forwarded to the National Planning Division, APP-400.

1-13. Planning Period

The NPIAS database should contain comprehensive data for the current and at least the next 9 years. Significant development (such as a new runway, terminal, people mover, etc.) beyond the 10-year period should also be entered in the database.

1-14. Continuous Planning

Field input to the NPIAS database should be accomplished on a continuous basis; that is, as soon as the planning inputs for airports or locations are completed, appropriate information and data should be entered into the database.

1-15. Entering Development in the Database

Development should be entered for the earliest fiscal year in which it is recommended to be undertaken. It should be coded to accurately reflect the purpose (capacity,

standards, safety, etc) and to describe the actual work (runway, terminal, ground transportation, etc.).

1-16. MULTI-YEAR PROGRAMS

Each major development component of large multi-year programs should be entered for the fiscal year in which it is expected to be undertaken and should be coded to accurately reflect its purpose and to describe the work. For example, a new runway proposed for 6-10 years should be broken out into phases (land acquisition and construction) with each phase identified for the year that phase will occur and the associated AIP eligible costs.

1-17. LETTERS OF INTENT (LOI)

Primary and reliever airports are eligible to apply to the FAA for a Letter of Intent (LOI) for a project that will significantly enhance system-wide airport capacity (See AIP Handbook). When an LOI has been approved, the project must be flagged in the Flags column as an LOI in the NPIAS database (see Appendix 1, paragraph 9).

1-18. STATE SPONSORSHIP OF AIRPORT PROJECTS

Section 47105(a)(1)(B) of Title 49 allows State sponsorship of development projects for one or more airports (see section 209 of Order 5100.38A). For purposes of the NPIAS database, the projects selected for state sponsorship under this provision should be entered for the location that the project or development is to occur, and not for the State as a single entity.

1-19. EXCLUSION OF DEVELOPMENT NEEDS

When a financial commitment is made to accomplish a development item, either through issuance of a grant, actual implementation date for a PFC or LOI project, or funded through other sources, the project is no longer an unfunded need. Therefore the project will not be included in the estimates of needed development.

1-20. CLARIFICATION

In any instance where an instruction, criterion, or intended meaning is not clear or understood; the Airports Division should contact APP-400 for advice and clarification. When appropriate, APP-400 will transmit a copy of the question and the reply to all regions for their information.

Section 3. PREPARATION AND COORDINATION OF THE REPORT TO CONGRESS

1-21. GENERAL

a. Section 47103(b) of Title 49 USC requires that in the review and revision of the plan, the Secretary of Transportation shall, to the extent feasible and appropriate, consult with other Federal and public agencies and with the aviation community. The purpose of this section is to identify the organizations with which the NPIAS should be coordinated, the level (headquarters or field) at which the coordination should be accomplished, and to provide instructions for the coordination.

b. The Secretary, in developing the NPIAS, is also obligated to consider other modes of transportation. For each revision to the NPIAS (adding or altering a project involving construction of a new airport, a new runway, a major runway extension, a new terminal, or a major terminal expansion) appropriate consideration should be given to the transportation system in that particular area, forecasted technological developments in aeronautics, and development forecasted in other modes of intercity transportation.

1-22. LEVEL OF COORDINATION

a. Field

(1) General. The initial planning for individual airports included in the NPIAS should be coordinated by the district and regional offices with the airport operator/sponsor, aviation commission, local and state governments, military representatives, aviation users, and other local planning agencies. The Regional Airports Division should accomplish internal coordination of the initial regional NPIAS with its counterparts in the other FAA lines of business. Coordination, to the extent necessary, should be conducted between regions, with individual air carriers, with aviation industry organizations (ATA, NASAO, ACI, AOPA, ALPA, GAMA, NBAA, etc.) and with field organizations of government agencies as necessary.

(2) Joint Planning Conference

(a) General. The Joint Planning Conference (JPC) is an effective mechanism for coordination of planning for a specific airport. It is recommended that a JPC be held periodically for primary and reliever airports.

(b) Composition. The invitees should include the following:

1. FAA airport planner and other FAA representatives interested in the airport.

2. Airport sponsor/operator (including consultants, if sponsor so desires).

3. Representative from the State Aeronautics Agency.

4. Local planning agency representatives.

5. Tower manager, if airport has an ATCT, or a neighboring tower manager with an interest in the airport.

6. Individual airlines, or their ATA representative.

7. Representative of general aviation users.

8. Airport tenants (fixed base operators and any other airport tenants).

9. Military representatives, as appropriate.

(c) Planning and Managing the JPC

1. The regional handbook (paragraph 1-12d) should detail the planning required for the typical JPC. It should include the timing for holding the conference, methods of conducting the conference, documentation of the discussion, and coordination and disposition of the conference record.

2. Prior to the conference, the FAA representatives should communicate to ensure there are no conflicting FAA positions.

3. The Airports program representative will usually chair the meeting and prepare and distribute the agenda and conference record.

4. Normally, the JPC is consultative; that is, to identify the problems and potential solutions and to discuss the views and recommendations of the conferees. It should be kept in mind that a JPC is concerned with the PLANNING of airport development and, as such, it should be consistent with good planning practices and concepts.

(d) Conference Discussion. Points of discussion include improvements to runways, taxiways, aprons, and the terminal area complex, changes in approach and departure procedures, and any F&E items that may affect the capacity, physical planning, and development of the airport. The conference should produce data to complete planning recommendations for the airport.

(e) Conference Record. The Chairperson should prepare a written record of the JPC, identifying as a minimum the attendees, the points of discussion, recommendations, and conclusions.

(3) Other Mechanisms. In cases where it is not possible to conduct a JPC, the annual Capital Improvement Program conference may be augmented to include airport-planning issues.

(4) Coordinating the NPIAS with Other Modes of Transportation. Airport development to be included in the NPIAS should be coordinated with other modes of transportation. This coordination shall be accomplished at the regional level by communication with the appropriate Federal modal administrations.

(5) Deleting Locations from the NPIAS. When it is determined that a location included in the NPIAS no longer meets entry criteria and will be deleted, the airport sponsor or an appropriate official of local government should be notified, in writing, and APP-4OO advised.

(6) Need for Accurate Data in the Database. The data contained in the database serves as the basis for the Report to Congress. It is critical that the database contains accurate activity and development data. Each person entering data into the database must ensure that major development items accurately reflect the purpose and describe the actual

development. Some airport development proposed at the state or local level will warrant detailed risk analysis before being included in the NPIAS because the size of the investment and uncertainty whether future activity will achieve forecast levels. For further policy information on risk analysis for airport proposals involving Federal aid contact APP-400.

c. Headquarters. The coordination described above is necessary to include or maintain an airport in the NPIAS and to coordinate the planning and development needs of individual airports. After completion of the narrative and summary for the publication of the NPIAS, further coordination will be accomplished by APP-1. APP-1 will coordinate the NPIAS with other Federal government agencies and aviation industry groups as appropriate. APP-1 will coordinate the assembled material with the Department of Transportation, Office of the Secretary, and through it, with the Office of Management and Budget. Headquarters (ARP) serves as the contact point for Congressional Committee inquiries.

Chapter 2. ENTRY CRITERIA AND PROCEDURES

Section 1. ENTRY CRITERIA

2-1. GENERAL

This section provides criteria by which airports are evaluated for entry into the National Plan of Integrated Airport Systems. In the NPIAS, the word "airport" includes landing areas developed specifically for helicopters and seaplanes as well as conventional fixed wing aircraft landing areas.

2-2. LEGISLATIVE DEFINITIONS

Airports are included in the NPIAS on the basis of their roles in providing air transportation. Eligibility for receiving Federal aid may involve additional criteria, such as the following definitions:

a. **Public Airport** is any airport that is used or to be used for public purposes, under the control of a public agency, the landing area of which is publicly owned (Section 47102(16) of Title 49 of the United States Code)

b. **Public-Use Airport** means:

(1) a public airport; or

(2) Privately owned airport used or intended to be used for public purposes that is a reliever airport or determined by the Secretary to have at least 2,500 passenger boardings each year and to receive scheduled passenger aircraft service. (Section 47102(17) of Title 49 of the United States Code)

2-3. TYPES OF AIRPORTS

Airports are divided into two categories that reflect the type of service provided the community. The service levels also represent statutory funding categories associated with the airport grant program.

a. **Commercial Service Airports** are publicly owned airports that enplane 2,500 or more passengers annually and receive scheduled passenger aircraft service. Commercial service airports are either:

(1) **Primary** - airport that enplanes more than 10,000 passengers annually; or

(2) **Nonprimary** - airport that enplanes between 2,500 and 10,000 passengers annually.

b. **General Aviation Airports** while not specifically defined are considered to be airports not classified as commercial service. General aviation airports include:

(1) Reliever is an airport designated by the FAA as having the function of relieving congestion at a commercial service airport and providing more general aviation access to the overall community. Privately owned airports may be identified as reliever airports.

(2) Privately owned public-use airports that enplane 2,500 or more passengers annually and receive scheduled passenger service are also classified as general aviation because they do not meet the criteria for commercial service (i.e., are not publicly owned).

(3) Other General Aviation are airports that are largely intended to serve the needs of general aviation users (users who conduct non-military operations not involving the carriage of passengers or cargo for hire or compensation).

2-4. COMMERCIAL SERVICE

The following criteria will be used to qualify commercial service airports for entry into the NPIAS:

a. An existing public airport that receives scheduled passenger service of aircraft and annually enplanes 2,500 or more revenue passengers as determined by the FAA will be included in the NPIAS.

b. An existing public airport which is forecast by the FAA to receive scheduled passenger service of aircraft and annually enplane 2,500 or more passengers within the plan period will be included in the NPIAS as a commercial service airport for the time periods in which it is expected to qualify.

c. A proposed public airport which is forecast by the FAA to be a commercial service airport within the plan period will be included in the NPIAS as a commercial service airport for the time period(s) in which it is expected to qualify. The inclusion of a proposed commercial service airport (i.e., an airport that currently does not exist but is forecasted to have scheduled commercial service on the opening date) must be reviewed and approved by APP-1 before inclusion in the NPIAS. The documentation provided by the airport proponent will be reviewed by FAA Airports District Office/Regional Office personnel to ensure that:

(1) the scale of the airport is warranted by an appropriate and documented level of activity,

(2) the level of support/consensus is adequate to achieve the proposed development. For instance, a proposed general aviation airport needs local and regional government support to ensure that adequate resources are available for airport development. However, a proposed major commercial service airport requires the support of multiple government jurisdictions as well as state government support and perhaps multiple state government support to ensure that adequate financial, land use, and access planning resources are available to achieve the planned airport development, and

(3) the proposed airport is financially feasible. The financial aspects can be examined by comparing estimated capital and operating costs to the probable sources of funds, including grants, subsidies, and income from rents and fees.

2-5. GENERAL AVIATION

The following criteria will be used to qualify general aviation airports for entry into the NPIAS:

a. An airport that was included in the previous NPIAS should remain in the NPIAS if it is subject to a current compliance obligation resulting from a FAAP, ADAP, or AIP grant. An exception to this rule may be airports that meet both of the following requirements:

(1) The airport is not included in an accepted state airport system plan (SASP) or metropolitan airport system plan (MASP), and

(2) There is clearly no longer a continuing system role for the airport; in other words, the justification which prompted the original grant of Federal funds is no longer valid.

(3) An airport that meets both 2-5a(1) and (2) may be deleted from the NPIAS if it is not subject to compliance obligations. An airport that meets both 2-5a(1) and (2) that is subject to compliance obligations cannot be deleted from the NPIAS until AAS-400 determines that the airport can be released from its compliance obligations. Prior to the deletion of the location from the NPIAS, the airport must be notified.

b. An existing airport that is included in an accepted SASP or MASP may be included in the NPIAS if it:

(1) has at least 10 based aircraft, and

(2) serves a community located 30 minutes or more average ground travel time (for the purpose of systems analysis, a 20 mile radius is often used as the equivalent of 30 minutes ground travel time) from the nearest existing or proposed NPIAS airport.

c. A proposed airport located 30 minutes or more average ground travel time from the nearest existing NPIAS airport may be included if there is clear evidence that at least 10 aircraft will be based at the airport within the first year of its operation.

d. An existing or proposed airport not meeting the criteria in paragraphs 2-5a, b, or c may be included in the NPIAS if it meets all four of the following requirements:

(1) It is included in an accepted SASP and/or MASP, assuming one exists, and

(2) It serves a community more than 30 minutes from the nearest existing or proposed NPIAS airport, and

(3) It is forecast to have 10 based aircraft during the short-range planning period (within 5 years), and

(4) There is an eligible sponsor willing to undertake the ownership and development of the airport.

e. An existing or proposed airport not meeting the criteria in paragraphs 2-5a, b, c, or d may be included in the NPIAS on the basis of a special justification showing a significant national interest. Such special justification includes:

(1) A determination that the benefits of the airport will exceed its development costs. This would apply in some cases where an airport is included in an accepted SASP or MASP but the community it serves is within 30 minutes of the nearest existing or proposed NPIAS airport or less than 10 based aircraft are forecast in the short-range period. A technique for estimating the benefit of an airport, in terms of time saved and cost avoided by travelers, is included in the report, "Estimating the Regional Economic Significance of Airports," DOT/FAA/PPA-92-6, September 1992.

(2) Written documentation describing, for example, isolation (communities in remote areas or on islands), airports to serve the needs of native American communities, airports needed to support recreation areas, or airports needed to develop or protect important national resources.

f. General Aviation Heliports.

(1) A public use heliport that does not meet the criteria in paragraphs 2-4 or 2-5 may be included in the plan if it makes a significant contribution to public transportation. Preferably, heliports included in the NPIAS will also be included in the state or metropolitan airport system plan. Heliport landing areas may be included in the NPIAS if they have:

(a) at least 4 based rotorcraft, or

(b) 800 annual itinerant operations, or

(c) 400 annual operations by air taxi rotorcraft.

(2) Private use heliports or special service heliports that are primarily intended to provide community services such as police patrol, traffic surveillance, or air ambulance transportation should not be included.

g. Reliever Airports. An existing or proposed public use airport may be included in the NPIAS as a reliever airport if it relieves airport congestion at a commercial service airport and provides general aviation access to the overall community. A case-by-case review should be conducted of each candidate reliever to determine whether there is a current or future significant requirement for additional general aviation capacity to relieve congestion at the commercial service airport or to enhance general aviation access to the overall community. An airport should be designated as a reliever airport only if the review documents a significant requirement. Candidate reliever airports shall meet the following criteria:

(1) The candidate reliever airport can provide substantial capacity as evidenced by:

(a) A current activity level of at least 100 based aircraft or 25,000 annual itinerant operations (a heliport may qualify as a reliever if it has one half of this activity level).

(b) In the case of a new airport or an existing airport it must have a forecasted activity level of at least 100 based aircraft or 25,000 annual itinerant operations for the time period in which it is being designated as a reliever.

(2) The relieved airport:

(a) is a commercial service airport that serves a metropolitan area (MA) with a population of at least 250,000 persons or at least 250,000 annual enplaned passengers, and

(b) operates at 60 percent of its capacity, or would be operated at such a level before being relieved by one or more reliever airports, or is subject to restrictions that limit activity that would otherwise reach 60 percent of capacity.

(3) Grandfathered Airports. Privately owned airports currently designated as reliever airports that do not meet the new reliever criteria but have received AIP funds and are subject to grant obligations will retain the reliever airport designation and therefore remain eligible for AIP funds. These grandfathered airports will retain their reliever designation until the grant obligations have been met (10 years for privately owned airports). Those airports that do not meet the new reliever criteria but have not received AIP funds should be redesignated as general aviation airports or deleted from the NPIAS.

h. Airports Receiving U.S. Mail Service. Every point which is a scheduled stop for an air carrier transporting mail pursuant to a current contract with the U.S. Postal Service (USPS) or otherwise designated by USPS, and served through a public airport should be included in the NPIAS. The airport must be adequate to satisfy the needs of the USPS.

i. Airports with U.S. Military Activity. Any public use airport where a unit of the Air National Guard or a reserve component of the Armed Forces of the United States is permanently based on or adjacent to the airport and operates permanently assigned aircraft in activities directly related to the unit's mission will be included in the NPIAS.

j. Surplus Military Airfields. Military airfields that are identified by the Department of Defense for closure should be carefully reviewed to determine if the facility could be successfully converted to a civil airport in which case it should be included in the NPIAS as a proposed airport until the facility has been transferred to a public sponsor.

k. Joint Use Airports. Airports with existing formal written joint use agreements between the military and the local sponsor should be included when the civil activity warrants it or it meets the NPIAS entry criteria. If a joint use agreement has not been formally executed, then the requirement for a proposed airport or expansion of an existing airport may be identified until the joint use agreement is formally executed.

Section 2. Planning and Operational Procedures Related to Entry Criteria

2-6. General

This section includes planning and operational procedures related to the use of the entry criteria in the preceding section.

2-7. Forecasting

In order to qualify for inclusion in the NPIAS, an existing airport must satisfy the entry criteria at the time of inclusion. Except where expressly permitted by the entry criteria, forecasting that an airport will meet entry criteria at some future time will not qualify it for inclusion prior to that time. Once an airport is included, forecasts of system roles, based aircraft, operations, and other levels of service are required for the short and intermediate time frames. Data from the FAA's forecast will be incorporated into the NPIAS annually. When a master plan's forecast varies significantly (generally more than 10% or affects the timing and/or cost of major development) from the FAA's forecast, the methodology used in the master plan should be verified and if correct, the master plan forecast should be coordinated with APO-110 and differences resolved.

2-8. Commercial Service and Primary Airport Lists

The National Planning Division, APP-400, compiles and distributes at the beginning of each fiscal year a list of primary and non-primary commercial service airports. The airport's classification as primary or commercial service will be downloaded automatically into the NPIAS database.

2-9. Redesignation of Airports

An airport that is designated as a commercial service airport should retain this designation in the NPIAS throughout the fiscal year. If scheduled service is suspended then the airport should be redesignated to the appropriate category at the beginning of the next fiscal year.

2-10. Reliever Airports

a. Complexity, General Location, and Total Number of Relievers.

(1) Where one or more reliever airports are determined to be necessary to serve a community, one should be recommended as an all-weather instrumented facility primarily to serve itinerant general aviation activity. This reliever should be located in such a manner, with respect to the city center or business or industrial district served by the relieved airport, that it will provide essentially the same user conveniences as those provided by the relieved airport.

(2) Any additional relievers, if required, may be less complex if they primarily will accommodate locally based small aircraft. They should be sited in relationship to the aircraft owners to be served or in an area well suited to instrument training, rather than in terms of access to the city center.

(3) Depending upon optimum siting conditions, there are situations where a single reliever will satisfactorily serve both transient itinerant activity and based aircraft requirements. There are also situations where more than one reliever is needed to provide the required degree of relief. Most of these latter instances occur in large, densely populated metropolitan areas where reliever airports must be planned on a system basis and where optimum airport locations are not available. There is no simple mathematical equation that will indicate the maximum number of relievers that will be needed. Each situation must be examined carefully and analytical judgment applied to determine the number of required relievers.

b. Short Runway Alternatives. Prior to recommending the inclusion of a reliever airport in the NPIAS, the airport to be relieved must be examined for alternative means of expanding its capacity and relieving congestion. In every instance, recommendation of a short runway (not necessarily parallel) should be considered to serve general aviation in lieu of or in conjunction with a reliever airport.

2-11. PROPOSED AIRPORTS

There are three types of proposed airports: replacement, supplemental, and additional.

a. Replacement Airport – a proposed airport that will replace an existing airport that is unable to meet the aviation needs of the community.

(1) It is not necessary that a replacement airport be identified in the Plan in order to provide Federal aid for a planning study related to it. If the existing airport is included in the NPIAS, Federal aid can be granted for a variety of studies, including the alternative of replacing the existing NPIAS airport with a proposed airport.

(2) When a commercial service airport is being replaced, retain the existing commercial service airport and include the proposed commercial service airport as a replacement for it. When the replacement airport becomes operational, the existing airport may be retained, perhaps as a reliever airport, or it may be closed and converted to non-aeronautical use. If the replaced airport closes then it should be deleted from the NPIAS.

(3) When a general aviation airport is being replaced, the existing airport should remain in the NPIAS until the replacement airport opens. Retaining both the existing and replacement general aviation airports is discouraged and should be limited to highly unusual situations.

b. Supplemental Airport – a proposed airport that will supplement an existing airport, helping it to meet the aviation demand of the community. Both airports will remain open.

(1) It is not necessary that a supplemental airport be identified in the Plan in order to provide Federal aid for a planning study related to it. If an existing airport is included in the NPIAS, Federal aid can be granted for a variety of studies, including the alternative of supplementing the existing NPIAS airport with a new airport.

(2) It would be unusual for a general aviation airport to need to be supplemented by another general aviation airport.

c. **Additional Airport** - a proposed airport offering air transportation to a community that does not have an existing NPIAS airport.

(1) An additional airport must be identified in the Plan before the FAA will provide Federal aid for a master planning study related to it.

(2) The additional airport must meet the entry criteria for its future service level.

2-12. EXISTING, PRIVATELY OWNED AIRPORTS

An existing privately owned airport may be included in the NPIAS when it is open to the public, meets tests of Federal interest, has the potential for FAA site approval, and it is financially feasible to develop the airport in accordance with FAA standards to meet forecasts of aviation demand. Inclusion in the NPIAS will usually include a recommendation for public acquisition of the airport.

Chapter 3. AIRFIELD DEVELOPMENT

3-1. GENERAL

a. This section provides guidance for determining airfield improvements necessary to meet the purpose of establishing, maintaining and improving a safe and efficient national system of airports. The rationale and justification for improvements and costs for existing and proposed airports included in the NPIAS should be clearly documented and well thought out.

b. The guidance contained in this section is not intended to be an all-encompassing analysis of proposed airfield improvements. Rather, the information contained herein should supplement and be consistent with, but not supersede, the recommendations contained in FAA accepted Aviation System or Airport Master Plans or shown on approved Airport Layout Plans.

c. When preparing recommendations for each existing and proposed airport included in the NPIAS, sound judgment should be used to identify appropriate and realistic development. The same judgment that was applied during the preparation of the system or master plan should be used in the development of the NPIAS. The guidance contained in this section is to be applied with considered professional judgment.

d. Airport development included in the NPIAS should conform to applicable FAA design criteria and standards contained in current advisory circulars, orders, and notices.

e. Occasionally, during the preparation of the Airport Master Plan and ALP, questions may arise whether applicable design standards can be met. If all alternatives are exhausted and it is determined that certain applicable design criteria and standards cannot be met, the sponsor may request FAA approval of a deviation from the standard. If the modification is approved by the FAA, the modification should be shown on the ALP in accordance with the specifications of AC 150-5300-13, Airport Design, and included in the NPIAS.

3-2. FORECASTS

a. Forecasts should be:

(1) realistic,

(2) based on the latest available data,

(3) reflect the current conditions at the airport,

(4) supported by information in the study,

(5) provide an adequate justification for the airport planning and development.

b. Forecasts supplied by the airport sponsor should not vary significantly (more than 10%) from the FAA's forecast. When a sponsor's forecast does vary significantly from the FAA's forecast, the sponsor's methodology should be verified, the forecast coordinated with APO-110, and only after the difference is resolved and the FAA is satisfied that the sponsor's forecast is valid will sponsor's forecast be included in the NPIAS. In the absence of other forecast information, data from the FAA's forecast are included in the NPIAS database. When FAA forecast data are not available (usually a proposed airport) the master plan forecast should be validated against FAA's regional forecasts, and if appropriate, coordinated with APO-110.

c. When forecast data of aircraft operations is not available, a satisfactory procedure is to forecast based aircraft using the statewide growth rate from the TAF and to develop activity statistics by estimating annual operations per based aircraft. A general guideline is 250 operations per based aircraft for rural general aviation airports with little itinerant traffic, 350 operations per based aircraft for busier general aviation airports with more itinerant traffic, and 450 operations per based aircraft for busy reliever airports. In unusual circumstances, such as a busy reliever airport with a large number of itinerant operations, the number of operations per based aircraft may be as high as 750 operations per based aircraft. An effort should be made to refine such estimates by comparing them to activity levels at similar airports or by conducting an activity survey.

d. However, all forecasts should be reviewed on a regular basis and updated as necessary. Forecasts approved by the FAA should be retained in the appropriate FAA field office. For further information on forecasting see Airport Master Plan AC (150-5070-6).

3-3. DETERMINATION OF AIRFIELD CAPACITY

a. Runway Capacity. Runway capacity for each existing airport in the NPIAS should be determined using the procedures described in FAA Advisory Circular 150/5060-5, Airport Capacity and Delay and included in the NPIAS database. Chapter 2 of AC 150/5060-5 describes a method for determining hourly and annual capacity for long-range planning purposes. This methodology should be used for most airports, particularly where capacity is not a constraining factor. The methods for calculating capacity as described in other chapters of the AC should be used for airports where capacity is limiting the operational capability of the airport. These methods are useful when critical development decisions warrant a more precise estimate of capacity. Complex runway capacity issues may be analyzed using a computer model. The results of computer models may be included in the NPIAS if the procedures used are shown to be logical and comparable to the procedures described in AC 150/5060-5.

b. Annual Capacity. Annual Capacity or Annual Service Volume, as reported in the NPIAS, is the level of annual activity at which the average delay per operation is 4 minutes.

c. Other Airport Components. The capacity of other airport components should be established during the preparation of the airport master plan or other similar study. The forecasts of aviation demand as previously established will be used to calculate the needs for other airfield components. Facilities such as aprons and terminals can limit the airport

from operating at its full potential. In addition, constrained airport components could lead to unacceptable levels of delay.

3-4. Airport Dimensional Standards

Airport dimensional standards (such as runway length and width, separation standards, surface gradients, etc.) should be selected which are appropriate for the critical aircraft that will make substantial use of the airport in the planning period. Substantial use means either 500 or more annual itinerant operations, or scheduled commercial service. The critical aircraft may be a single aircraft or a composite of the most demanding characteristics of several aircraft. The critical aircraft (or composite aircraft) is used to identify the appropriate Airport Reference Code for airport design criteria. Design criteria (such as dimensional standards and appropriate pavement strength) are contained within AC 150-5300-13, Airport Design.

3-5. Fundamental Development

Fundamental development is the basic configuration recommended for an airport in the national system (see Table 3-1). It is affected by the type, but generally not the amount, of activity that the airport will serve. This development would include, but not be limited to, land acquisition, aircraft movement areas, landing and navigation aids and aircraft parking areas. Fundamental development appropriate for the airport should be recommended in accordance with the standards and criteria contained in all appropriate Advisory Circulars and Orders.

Table 3-1 Fundamental Airport Development	
Development Item	**Comment**
❒ Land	Airfield development, building area, runway protection zones, approach aids, compatible land use in accordance with current criteria
❒ Single Runway	
❒ Crosswind Runway	Recommended if wind coverage on main runway is less than 95%
❒ Lighting	Type of lighting for runway and taxiway is dependent on the airport and type of approach
❒ Full Parallel Taxiway	
❒ Visual Glide Slope Indicator (VGSI)	
❒ Runway End Identification Lights (REIL)	If runway is approved for night operations and is lighted then it may qualify for a REIL
❒ Runway Marking	Marking as necessary to support the applicable approach
❒ Apron	
❒ Runway Grooving, as appropriate	
❒ Instrument Approach, as appropriate	The introduction of satellite navigation will be able to support instrument approaches to virtually all runway ends, dependent on satellite signal availability
❒ Rotating Beacon	Not required unless the airport is approved for night operations or has a published instrument approach.
❒ Wind Cone and Segmented Circle	Wind cone lighted if airport approved for night operations
❒ Obstruction Lighting and Marking	Where necessary
❒ Access and Service Roads	In accordance with Order 5100.17 (paragraph 122)
❒ Perimeter Fencing	

3-6. INCREASED OPERATIONAL EFFICIENCY

a. Capacity development beyond the fundamental airport configuration is the improvement of an airport or system of airports for the primary purpose of reducing delay and/or accommodating more passengers, cargo, aircraft operations or based aircraft.

b. Capacity development should be recommended with sufficient lead-time so that the improvement can be made before a problem becomes critical. Capacity development should be recommended when activity approaches the levels shown in Table 3-2. These levels are approximate thresholds for beginning the detailed planning of improvements. The actual implementation of capacity improvements may be deferred until such time as the airport operator and users agree that the improvement is timely and cost beneficial.

c. Inadequate capacity at an airport may constrain the number of operations or result in high delay and an unacceptable level of service.

d. Recommendations for capacity enhancement must be realistic and implementable. Recommendations for major new runways should not be made at airports until there is some possibility of implementing such development.

e. There is usually more than one alternative solution to a capacity problem. Recommendations for capacity enhancements or delay reduction should be evaluated as part of the Master Plan or Capacity Study. In order to support this type of development, a benefit/cost analysis should be conducted, and is required when an airport sponsor is requesting $5 million or more in AIP discretionary funds (see Benefit Cost Analysis Guidance dated December 15, 1999), and retained by the appropriate field office.

f. For airports where projects are being proposed to increase capacity, the new capacity must be calculated and included in the field office file and in the NPIAS database for the current, 5-year, and 10-year time periods.

3-7. ESTIMATES OF TOTAL COST

A master plan or airport layout plan report will include the estimated cost to implement the development plan. In many cases, the plan will also suggest how to finance the proposed improvements. If a planning document is not available, estimates of the total cost of eligible development should be prepared on the basis of estimated quantities, such as cubic yards of embankment or square yards of pavement, using costs prevailing at the time the NPIAS is prepared. Provision for future increases in costs due to inflation, increased labor costs, etc. should not be included. Development costs at airports can be broken down into AIP eligible and non-AIP eligible projects.

Only AIP eligible development should be included in the Plan. Fund availability should <u>not</u> be a concern when entering development into the NPIAS. Allocation of funds occurs at the time of project implementation. Inclusion of eligible project costs in the NPIAS does not constitute a commitment on behalf of the Federal government to participate financially in a project. Several criteria must be met prior to Federal funding of a project including availability of funds and priority ranking.

Table 3-2 Activity Levels for Planning Capacity Development		
Capacity Development Item	**Activity Level**	**Remarks**
❒ New Runway	60% to 75% Annual Capacity	1. Parallel preferred. 2. Same length and strength as primary if serving same aircraft.
❒ Short Runway	75,000 Total Operations 20,000 Itinerant Operations	1. Small aircraft only. 2. Not necessarily parallel.
❒ Extension of Short Runway	60% to 75% Annual Capacity	1. If the critical aircraft changes, an extension may be warranted.
❒ Additional Exit Taxiways	60% to 75% Annual Capacity	1. If the critical aircraft changes, additional exit taxiways may be warranted.
❒ Holding Aprons/ By-Pass Taxiway	75,000 Total Operations 20,000 Itinerant Operations or 30 Peak Hour Operations	1. Consider effect on NAVAID's. 2. Limit holding apron to no more than 4 positions
❒ Terminal Aprons, Aircraft Loading Aprons, Parking Aprons	60% to 75% Annual Capacity	1. Recommend 5 years before aprons are expected to be congested during peak periods.
❒ Replacement/ Supplemental Airports	60% to 75% Annual Capacity	1. Timing depends upon forecasts, type of airport, location (metropolitan area), cost and other factors.
❒ Additional Instrumentation	Recommend 5 years before airport is forecast to reach activity levels specified in APS #1.	

NOTE: NAVAID's must be justified in accordance with the criteria in Order 7031.2C, Airway Planning Standard Number One – Terminal Air Navigation Facilities and Air Traffic Control Services. Requests for visual and electronic navigation aids are to be first referred to ANI. No NAVAID is to be shown in the NPIAS if it is already included in an approved ANI budget or budget request. NAVAID's with a cost/benefit ratio greater than one (according to Order 70321.2C criteria) may be included in the NPIAS only if no funding is available from ANI).

Chapter 4. LANDSIDE DEVELOPMENT

4-1. GENERAL

a. Landside planning for ground access and terminal facilities at airports served by air carriers should be undertaken by the airport operator as part of comprehensive master planning or through other special studies that consider the unique characteristics of the airport. In general, the FAA airport planner preparing the NPIAS should refer to available master plans and other studies. The latest editions of AC 150/5360-13, Planning and Design Guidelines for Airport Terminal Facilities, and AC 150/5360-9, Planning and Design of Airport Terminal Facilities at Nonhub Locations can be used as an aid in reviewing and evaluating master plan recommendations to confirm their validity.

b. When suitable studies do not exist, the planner should develop the best possible recommendations and costs under the circumstances. An acceptable procedure is described in paragraph 4-3.

4-2. DESIGN YEAR

For most planning studies, a 5 to 10 year time frame is considered an adequate basis for detailed design. Investigation beyond 10 years is usually required only for gross approximations to determine future building footprints and to guide land reservation decisions.

4-3. GROSS ESTIMATES OF PASSENGER TERMINAL BUILDING SPACE AND COSTS

The following procedure may be used to obtain gross estimates in the absence of detailed studies:

a. Forecasts of passenger and aircraft activity should be obtained. Terminal Area Forecasts or forecasts from airport master or layout plans should be used. Estimates of peak-hour (design hour) activity should be developed using the guidance found in Chapter 2 of AC 150/5360-13.

b. Gross passenger terminal building area should be estimated. AC 150/5360-13, Chapter 5, may be helpful in making this estimate. A useful rule-of-thumb is to allow 150 square feet of gross passenger terminal building area per design peak-hour passenger.

c. Develop a cost estimate, using the prevailing cost per square foot for similar construction, obtained from recent terminal construction at a comparable airport in the same region. For purposes of entry into the NPIAS, it is assumed that only one-half of the area thus calculated is non-revenue producing, public use area and therefore eligible for grants. Therefore, only the cost of the eligible area (50% of the total) should be shown in the NPIAS.

4-4. AIRPORT GROUND ACCESS

The NPIAS should include the estimated cost of ground access improvements that are warranted within the 10-year planning period and eligible for Federal aid. This generally includes roadway and transit development that is intended exclusively for airport access and located on land owned or adequately controlled by the airport sponsor. Information regarding current and future ground access requirements will usually be obtained from the airport master plan, and will be reviewed by the FAA airport planner prior to inclusion in the NPIAS. The report Intermodal Ground Access to Airports: A Planning Guide, issued by the Federal Highway Administration and Federal Aviation Administration in December 1996, is a useful reference for evaluating ground access proposals.

Appendix 1. NPIAS-ACIP Computer Database

Section 1. General

1. Background

In 1988, APP-400 began development of a personal computer software program to be used by the regional offices and headquarters for developing the National Plan of Integrated Airport Systems (NPIAS). In 1989, APP-500 began development of a personal computer software program, Airports Capital Improvement Plan (ACIP), to manage the grant-in-aid program on the basis of national systems needs. The two database systems were combined to form the NPIAS/ACIP in 1990.

In 1999, the NPIAS/ACIP version 4.0 was replaced with version 5.0 utilizing new software and database technologies. It is a client-server application. The client portion, the user interface, is a Windows application that operates in the MS Windows 95/Windows NT environment. The server portion, the database, is a MS SQL Server database, located at the US DOT Volpe National Transportation System Center in Cambridge, MA.

2. Database Purpose

The NPIAS-ACIP is one database that serves two distinct functions: airport planning (NPIAS) and federal funding for airport capital development (ACIP).

a. The NPIAS part of the database contains information related to airport planning. Data are included for approximately 3,500 existing and proposed airports that are significant to national air transportation. The database includes estimates of AIP eligible development needed over the next 10 years to meet the needs of all segments of civil aviation. The data are primarily obtained from airport master plans and system plans prepared by planning and engineering firms for state and local agencies and concurred in by the Federal Aviation Administration (FAA). Nine FAA Airports Regional Offices are responsible for maintaining their portion of the national database. The information in the NPIAS is used to formulate the biennial National Plan of Integrated Airport Systems (NPIAS) Report to Congress.

b. The FAA formulates the ACIP to help guide the distribution of Airport Improvement Program (AIP) funding. The ACIP is formulated based on the airport development identified in the NPIAS. The airport development projects identified in the ACIP represent development needed to ensure that the national system of airports is safe, secure, efficient, remains compatible with neighboring communities and preserves existing infrastructure. Airport development projects included in the ACIP have been selected based on a formal project selection process that takes into account the type of project, type of airport, need, and significance to the national system of airports.

3. NPIAS Database Updates

Field updates to the NPIAS database should occur on a continuous basis. APP-400 will perform a comprehensive review of the national database semiannually and will notify the regions in advance of the review.

4. DATA SOURCES

Much of the data contained in the database comes from other sources (i.e., Terminal Area Forecast, Air Carrier Activity Information System, and Airport Master Record), however; some data entry is required.

5. FURTHER INFORMATION

Further information on the NPIAS-ACIP database is contained in the NPIAS-ACIP User's Guide.

Section 2. WORKSITE SCREEN

6. PROPOSED AIRPORTS (INCLUDING POTENTIAL SURPLUS MILITARY AND JOINT USE AIRFIELDS)

If a determination is made that a proposed airport is important to the national transportation system then the proposed location is included in the NPIAS. A proposed airport should ***NOT*** have a ***LOCID*** and should ***NOT*** contain any activity data for the current time period. The following information should be completed for a proposed airport:

a. Worksite – enter the word ***New***.

b. City - enter the geographical area the airport will serve.

c. Site Number – A site number for the proposed airport may be reserved by contacting AAS-330 and then enter the number here.

d. Proposed Airport – the box should be ***checked*** and select whether the airport is a ***replacement, supplemental, or additional*** airport.

e. Airport Replaced or Supplemented – If the proposed airport is to replace or supplement an existing airport the ***site number and name of the existing airport*** should be entered.

f. Service Level – the service level (GA, RL, CM, or PR) should be entered for the ***time period in which the airport is to open***. If the proposed airport is to be commercial service (CM or PR) then APP-1 must review and approve the location before inclusion in the NPIAS (see 2-4c).

g. Activity data for the ***time period in which the proposed airport is to open*** should be entered (i.e., based aircraft, total enplanements, annual operations, and capacity).

7. EXISTING AIRPORTS

Existing airports should contain data in the following critical fields for the current, 5 and 10-year periods. However, if an airport is being replaced or closed, the data for the time period in which it is being replaced or closed should be blank.

a. LOCID – this field should reflect the location identifier as shown in the most current edition of the Location Identifiers (Order 7350) or the Airport/Facility Directory.

b. **Worksite** – official airport name.

c. **City** – physical location of the airport.

d. **Site No.** – site number as shown in the 5010 database.

e. **Sponsor** – this will only be shown for primary and all-cargo airports.

f. **Ownership** – select either ***PUB*** (public) or ***PVT*** (private).

g. **Reliever Airport** – enter the site number and name of the airport relieved here ***ONLY*** if the airport is identified as a reliever airport.

h. **Service Level** – role of the airport (GA, RL, CM, or PR)

i. **Hub** – primary airports enter either: ***L*** (large), ***M*** (medium), ***S*** (small), or ***N*** (non-hub).

j. **ARC** – Airport Reference Code - this field should contain the airport reference code for the airport.

k. **Based Aircraft** – the number of aircraft based at the airport.

l. **Annual Operations** – the number of operations at the airport.

m. **Annual Capacity** - the number of operations per year that the airport can accommodate based on airport configuration, fleet mix, and procedures. If one of these factors changes then the annual capacity should be recalculated to reflect the change in number of operations for the time period in which the change will occur.

Section 3. PROJECT SUMMARY SCREEN

8. ENTERING DEVELOPMENT

Development should be entered for the ***fiscal year*** in which it is ***recommended to be undertaken***. It should be coded to accurately reflect the purpose as identified in Appendix 1, paragraph 11.

9. ENTERING LOI'S

Enter the total eligible cost for the major component(s). When an LOI has been approved, enter the word LOI in the Flags column. If the LOI is reimbursement for a project already constructed the first word in the Project Comments field should be ***REIMBURSEMENT***. Reimbursement projects will not be counted in the estimate of needed development.

10. ENTERING PFC PROJECTS

AIP eligible projects to be funded by a PFC only should be entered in the NPIAS database for the fiscal year that the project implementation is to occur (as defined in the

PFC Order, section 4-18). The total AIP eligible amount should be entered, the Federal percentage changed to 0%, and the local share equal to the total eligible amount. PFC projects should be flagged as PFC in the flag column and further information may be entered in the projects comment field.

11. WORK CODES

Development items are entered into the NPIAS using 6 character work codes that represent the purpose, component, and type of development (see Table 2-1).

a. Purpose Codes – indicates the principal purpose of development. The eight principal purposes are defined below:

(1) Safety/Security (SA) – Development that is required by Federal regulation or certification procedure and intended primarily for the protection of human life. This category includes obstruct lighting and removal, fire and rescue equipment, and security devices.

(2) Special Emphasis (SP) - Development items included in section 47101(f) of Title 49 of the United States Code, such as runway grooving, friction treatment, and distance-to-go signs on all primary and secondary runways at commercial service airports, vertical visual guidance systems on all primary runways at commercial service airports; and runway lighting, taxiway lighting, sign systems, and marking for all commercial service airports.

(3) Environment (EN) – Actions necessary to prepare or carry out projects or programs to comply with the National Environmental Protection Act (NEPA), 14 CFR Part 150, the Clean Air Act, or other laws or regulations governing environmental matters. Such actions can be defined within environmental assessments, environmental impact statements, Part 150 Noise Compatibility Plans, and compliance orders issued by courts or Federal or State agencies having jurisdiction over compliance with environmental mandates.

(4) Planning (PL) – Studies needed to define and prioritize specific airport development needs. This category includes airport master planning and system planning.

(5) Reconstruction (RE) – Development items to replace or rehabilitate airport facilities, primarily pavement and lighting systems that have deteriorated due to weather or use and reached the end of their useful lives. This includes the rehabilitation of pavement on a 15 to 20 year cycle.

(6) Capacity (CA) - Development items that improve an airport or system of airports for the primary purpose of reducing delay and/or accommodating more passengers, cargo, aircraft operations or based aircraft.

(7) Standards (ST) – Development to bring an airport up to standards recommended by the FAA based on the current design category of the airport.

(8) Other (OT) – Development other than those necessary for safe and efficient airport operations or for improvement of airside capacity.

b. Component Codes – indicates the specific physical characteristic for which the development is intended (e.g. apron, runway, terminal, taxiway, etc). There are 17 component codes.

c. Type Codes – indicates the actual work being done (e.g. construction, improvements, lighting, etc.) There are 39 type codes.

Appendix 1
Table 1. Work Codes

Purpose		Component		Type	
SA	Safety/Security	AP	Apron	60	Outside DNL 65 dB
SP	Statutory Emphasis Programs	BD	Building	65	DNL 65 – 69dB
EN	Environment	EQ	Equipment	70	DNL 70 – 74dB
PL	Planning	FI	Financing	75	Inside DNL 75dB
RE	Reconstruction	GT	Ground Transportation	AC	Access
CA	Capacity	HE	Heliport	AD	Administration Costs
ST	Standards	HO	Homes	AQ	Acquire Airport
OT	Other	LA	Land	BO	Bond Retirement
		NA	New Airport	CO	Construction
		OT	Other	DI	De-Icing Facilities
		PB	Public Building	DV	Development Land
		PL	Planning	EX	Extension/Expansion
		RW	Runway	FF	Fuel Farm Development
		SB	Seaplane Base	FR	Runway Friction
		TE	Terminal	IM	Improvements
		TW	Taxiway	IN	Instrument Approach Aid
		VT	Vertiport	LI	Lighting
				MA	Master Plan
				ME	Metropolitan Planning
				MS	Miscellaneous
				MT	Mitigation
				NO	Noise Plan/Suppress Equipment
				OB	Obstruction Removal
				PA	Parking
				PM	People Mover
				RA	Relocation Assistance
				RF	ARFF Vehicle
				RL	Rail
				SE	Security Improvement
				SF	Runway Safety Area
				SG	Runway/Taxiway Signs
				SN	Snow Removal Equipment
				SR	Sensors Runway
				ST	State Planning
				SV	Service
				SZ	Safety Zone (RPZ)
				VI	Visual Approach Aid
				VT	Construct Vertiport/Tiltrotor Plan
				WX	Weather Reporting Equipment