

ELOY MUNICIPAL AIRPORT



AIRPORT MASTER PLAN

Introduction

The Eloy Municipal Airport Master Plan Update has been undertaken to evaluate the airport's capabilities and role, to forecast future aviation demand, and to plan for the timely development of new or expanded facilities that may be required to meet that demand. The ultimate goal of the Master Plan is to provide systematic guidelines for the future development, operation, and maintenance of the airport.

The Master Plan is intended to be a proactive document which identifies and then plans for future facility needs well in advance of the actual need. This is done to ensure that the City of Eloy can coordinate project approvals, design, financing, and construction in a timely manner, prior to experiencing the negative effects of inadequate facilities.

An important result of the Master Plan is reserving sufficient areas for future facility needs. This protects development areas and allows the airport to readily meet future demands when required. The intended result is a detailed land use concept which outlines specific uses for all areas of airport property.

The preparation of this Master Plan is evidence that the City of Eloy recognizes the importance of air transportation to the area and the associated challenges inherent in providing for its unique operating improvement needs. The cost of maintaining an airport is an investment which yields impressive benefits for the community. With a sound and realistic Master Plan, Eloy Municipal Airport can maintain its role as an important link to the national air transportation system for the community.



Eloy Municipal Airport is located approximately three miles northwest of downtown Eloy. The airport provides a vital economic base for the local community having several aviation related businesses dependant on its facilities to operate. Skydive Arizona, the primary airport user, is one of the busiest skydiving operators in the United States, attracting visitors from all over the country. As such, Eloy Municipal Airport should be carefully and thoughtfully planned and subsequently developed in a manner which matches the development goals of the community. The City of Eloy initiated this Master Plan as an update to the previous Master Plan for Eloy Municipal Airport completed in 2001. Since that time, the City of Eloy has invested significant funds into the continued growth and development of the airport.

MASTER PLAN GOALS AND OBJECTIVES

The primary objective of the Eloy Municipal Airport Master Plan is to develop a financially feasible, long term development program which will satisfy aviation demand and be compatible with area development, other transportation modes, and the environment. Accomplishing this objective requires an evaluation of the existing airport so as to make a determination of what actions should be taken to maintain adequate, safe, and reliable airport facilities. The completed Master Plan provides a detailed development plan which provides responsible

officials with a schedule of future capital needs to aid in planning, scheduling, and budgeting.

An Airport Master Plan must be developed according to Federal Aviation Administration (FAA) requirements which contain specific components. These components, to be detailed in the following section, are guidelines which allow for a systematic and technical approach to reach the final development plan.

The Master Plan provides a vision for the airport covering the next 20 years and beyond. With this vision, the City of Eloy will have advance notice of potential future airport funding needs so that appropriate steps can be taken to ensure that adequate funds are budgeted and planned.

Specific goals and objectives of the Eloy Municipal Airport Master Plan Update are:

- **Preserve Public and Private Investments**

The City of Eloy, the FAA, and the Arizona Department of Transportation (ADOT)-Aeronautics Group have made considerable investments in the airport's infrastructure. Private individuals and businesses have made investments in buildings and other facilities. The Master Plan will provide for continued maintenance as well as necessary improvements to the airport's infrastructure to ensure maximum utility of public and private facilities at Eloy Municipal Airport.

- **Be Reflective of Community Goals and Objectives**

Eloy Municipal Airport is a public facility serving the needs of the local residents and businesses. The Master Plan needs to be reflective of the goals and visions of the City, especially those related to quality of life, business and development, and land use. As a result, the Master Plan incorporates existing planning efforts by the City of Eloy into the ultimate design and use of the airport.

- **Maintain Safety**

Safety is an essential consideration in the planning and development at the airport. The Master Plan focuses on maintaining the highest levels of safety for airport users, visitors, employees, and the surrounding community in general.

- **Preserve the Environment**

Protection and preservation of the local environment are essential concerns in the Master Plan. Any improvements called for are mindful of environmental sensitivities.

- **Attract Public Participation**

To ensure that the Master Plan reflects the concerns of the public, the local community, airport tenants, airport users, and businesses throughout the region, the Master Plan process included an active public outreach program. The intent of the program was to solicit comments and suggestions which then were included in the

final Master Plan report, as appropriate.

- **Strengthen the Economy**

In continuing support of the area's economy, the Master Plan is aimed at retaining and increasing jobs and revenue for the area and its businesses.

MASTER PLAN TASKS

The Master Plan accomplished these objectives by carrying out the following:

- Examined the projected aviation demand and identified the facilities necessary to accommodate the demand.
- Determined projected needs of airport users for the next 20 years by which to support airport development alternatives.
- Recommended improvements that will enhance the airport's safety and capacity to the maximum extent possible.
- Established a schedule of development priorities and a program for the improvements proposed in the Master Plan Update.
- Prioritized the airport capital improvement program.
- Prepared a new Airport Layout Plan in accordance with FAA and ADOT guidelines.

- Conducted active and productive public involvement throughout the planning process.

BASELINE ASSUMPTIONS

A study such as this typically requires some baseline assumptions to be used throughout the planning process. The baseline assumptions for the Eloy Municipal Airport Master Plan are as follows:

- Eloy Municipal Airport will continue to operate as a general aviation airport serving the City of Eloy and surrounding area.
- Eloy Municipal Airport intends to seek general aviation and commercial business aviation based tenants and transient operations.
- The aviation industry on the national level will grow as forecast by the FAA in its annual Aerospace Forecasts.
- The socioeconomic characteristics of the region will remain as forecast (see Chapter Two).
- Both a federal and a state program will be in place through the planning period to assist in funding future capital development needs.

MASTER PLAN ELEMENTS AND PROCESS

The Eloy Municipal Airport Master Plan was prepared in a systematic fashion following FAA guidelines and

industry-accepted principles and practices. The master plan has six chapters that are intended to assist in the discovery of future facility needs and provide the supporting rationale for their implementation.

Chapter One - Inventory summarizes the inventory efforts. The inventory efforts are focused on collecting and assembling relevant data pertaining to the airport and the area it serves. Information is collected on existing airport facilities and operations. Local economic and demographic data is collected to define the local growth trends. Planning studies which may have relevance to the master plan are also collected.

Chapter Two - Forecasts examines the potential aviation demand for aviation activity at the airport. This analysis reviews and updates the Eloy Municipal Airport demand forecasts previously prepared for the City of Eloy in the 2001 *Eloy Municipal Airport Master Plan*. The forecast effort takes into account local socioeconomic information, as well as national air transportation trends to quantify the levels of aviation activity which can reasonably be expected to occur at Eloy Municipal Airport through the year 2029. The results of this effort are used to determine the types and sizes of facilities which will be required to meet the projected aviation demands on the airport through the planning period.

Chapter Three - Facility Requirements comprises the demand/capacity and facility requirements analyses. The intent of these analyses is to com-

pare the existing facility capacities to forecast aviation demand and determine where deficiencies in capacities (as well as excess capacities) may exist. Where deficiencies are identified, the size and type of new facilities to accommodate the demand are identified. The airfield analysis focuses on improvements needed to serve the type of aircraft expected to operate at the airport in the future, as well as navigational aids to increase the safety and efficiency of operations. This element also examines the terminal area facilities, general aviation facilities, and support needs.

Chapter Four - Alternatives considers a variety of solutions to accommodate the projected facility needs. This element proposes various facility and site plan configurations which can meet the projected facility needs. An analysis is completed to identify the strengths and weaknesses of each proposed development alternative, with the intention of determining a conceptual direction for development.

Chapter Five - Recommended Master Plan Concept provides both a graphic and narrative description of the recommended plan for the use, development, and operation of the airport. The Master Plan also supports the official Airport Layout Plan (ALP) and detailed technical drawings depicting related airspace, land use, and property data.

Chapter Six - Financial Plan establishes the capital needs program, which defines the schedules and costs for the recommended development projects. The plan then evaluates the

potential funding sources to analyze financial strategies for successful implementation of the plan.

Appendices – Appendices are included in the final Master Plan report. This includes a glossary of aviation terms used in the study in Appendix A.

A review of the potential environmental impacts associated with proposed airport improvements as well as federal environmental requirements applicable to Eloy Municipal Airport is included as an Appendix B.

Finally, the official ALP drawings used by the FAA and ADOT-Aeronautics Group in determining grant eligibility and funding is included as Appendix C in the Master Plan.

COORDINATION

Eloy Municipal Airport is of interest to many within the local community and surrounding area. This includes local citizens, community organizations, airport users, airport tenants, area-wide planning agencies, and aviation organizations. As an important component of the regional, state, and national aviation systems, the Master Plan is of importance to both state and federal agencies responsible for overseeing air transportation.

To assist in the development of the Eloy Municipal Airport Master Plan Update, a cross-section of interested persons was identified to act in an advisory role. As members of this Plan-

ning Advisory Committee (PAC), the committee members reviewed phase reports and provided comments throughout the study to help ensure that a realistic, viable plan was developed.

To assist in the review process, a series of draft phase reports were prepared at various milestones in the planning process, as shown on **Exhibit IA**. The draft phase reports allow for input and review during each step of the Master Plan process to ensure that all Master Plan issues are fully addressed as the recommended program develops.

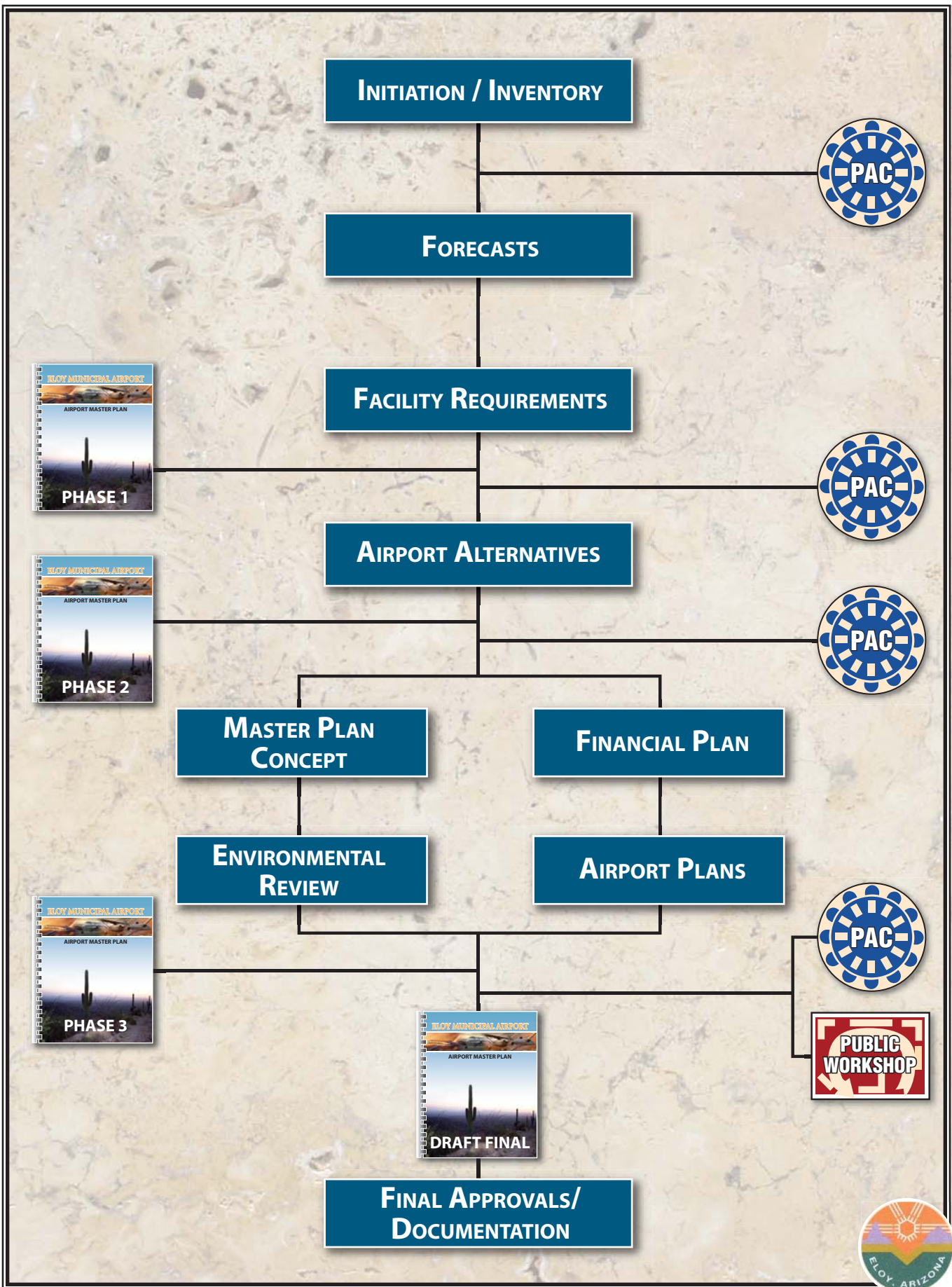
One public information workshop was also included as part of the plan coordination. The public information workshop allowed the public to provide input and learn about general information concerning the Master Plan. The Master Plan report was also made available on the internet via a website dedicated to the study:
www.elyomp.airportstudy.com.

SUMMARY AND RECOMMENDATIONS

The proper planning of a facility of any type must consider the demand that may occur in the future. For Eloy Municipal Airport, this involved updating forecasts to identify potential future aviation demand. Because of the cyclical nature of the economy, it is virtually impossible to predict with certainty year-to-year fluctuations in activity when looking five, ten, and twenty years into the future.

Recognizing this reality, the Master Plan is keyed more towards potential demand “horizon” levels than future dates in time. These “planning horizons” were established as levels of activity that will call for consideration of the implementation of the next step in the Master Plan program. By developing the airport to meet the aviation demand levels instead of specific points in time, the airport will serve as a safe and efficient aviation facility, which will meet the operational demands of its users while being developed in a cost efficient manner. This program allows the City of Eloy to adjust specific development in response to unanticipated needs or demand. The forecast planning horizons are summarized in **Table A**.

TABLE A Aviation Demand Planning Horizons Eloy Municipal Airport				
	Base Demand	Short Term	Intermediate Term	Long Term
ANNUAL OPERATIONS				
Military	100	100	100	100
General Aviation				
Itinerant	9,900	10,500	12,200	16,400
Local	18,550	20,300	22,300	29,000
Total Operations	28,550	30,900	34,600	45,500
Based Aircraft	41	50	60	100



The Airport Layout Plan set has also been updated to act as a blueprint for everyday use by management, planners, programmers, and designers. These plans were prepared on computer to help ensure their continued use as an everyday working tool for airport management.

This Master Plan is an update of the previous *Eloy Municipal Airport Master Plan* completed in April 2001. Recommended airfield improvements included widening the runway to 75 feet and increasing the runway/taxiway centerline separation distance to 240 feet. Runway 2-20 was planned to be strengthened from 12,000 pounds single-wheel loading to 30,000 pounds dual-wheel loading. It was also recommended that Runway 2-20 be extended by 1,600 feet to the northeast to a length of 5,500 feet to accommodate anticipated corporate aircraft users. Landside recommendations included additional aircraft storage hangar facilities and a general aviation terminal facility. Since the completion of the previous master plan, Runway 2-20 has been widened to 75 feet and strengthened to 27,500 pounds single-wheel loading.

The updated Master Plan focuses on meeting FAA design and safety standards; improving Runway 2-20 and Taxiway A to accommodate the long range fleet mix of aircraft to include increased operations by Beechcraft King Air turboprops and small to medium size business jets such as the Cessna Mustang very light jet (VLJ), Cessna 560XL (Citation Excel), and the Hawker Beechjet 400. Recommended landside development focuses on identifying locations for hangar and

apron development and the installation of an on-site automated weather observation station (AWOS) and an aircraft wash rack. **Exhibit IA** depicts the updated plan.

With a single asphalt runway measuring 3,900 feet, the airport currently operates as a general aviation airport. To accommodate the fleet mix of aircraft anticipated to use the airport in the future, the master plan recommends extending the runway 650 feet in both directions to 5,200 feet.

Airfield facilities are planned to meet Airport Reference Code (ARC) B-II FAA airfield design standards, which meets the needs of most small to medium sized turboprop and business jet aircraft. The master plan also allows for the potential future expansion of airside facilities to meet the needs of faster business jet aircraft by relocating Taxiway A to a 300 foot separation distance from the runway centerline. Landside facilities have also been planned to an appropriate separation distance to allow for the future transition to applicable airfield design standards for faster business jet aircraft.

The protection of the future expansion of airfield facilities and of the runway approaches requires the acquisition of approximately 32 acres via fee simple acquisition or by avigation easement. In addition, a 4 acre parcel of city owned property located along Taxiway A will be transferred to the airport for the development of hangar facilities.

Additional airfield improvements recommended include the establishment of GPS localizer performance with vertical guidance (LPV) one-mile visibility non-precision instrument approach-

es to both runway ends, the restoration of the precision approach path indicator (PAPI-2), rotating beacon, and runway end identification lighting (REIL) systems that are currently out of service, and the installation of on-site automated weather observation system (AWOS).

The development of additional aircraft storage hangars, parking aprons, a dual-use terminal/maintenance facility to provide general aviation services and the construction of an aircraft wash rack have been planned to provide adequate facilities for existing and forecast users of the airport.

SHORT TERM PLANNING HORIZON IMPROVEMENTS

- Acquire 26 acres for the expansion of airfield facilities
- Relocate Taxiway A
- Relocate segmented circle/lighted wind cone
- Install AWOS
- Construct aircraft storage hangars
- Extend Runway 2-20 & Taxiway A 650 feet southwest
- Construct terminal/maintenance facility
- Rehab and preservation of existing airfield pavements

INTERMEDIATE TERM PLANNING HORIZON IMPROVEMENTS

- Acquire six acres for the expansion of landside facilities
- Construct aircraft storage hangars
- Construct aircraft parking apron at southwest end of the airfield

- Construct aircraft wash rack
- Pavement preservation

LONG TERM PLANNING HORIZON IMPROVEMENTS

- Extend Runway 2-20 and Taxiway A 650 feet northeast
- Construct aircraft storage hangars
- Pavement preservation

Detailed costs were prepared for each development item included in the capital improvement program. As shown in **Table B**, implementation of the total program will require a total financial commitment of approximately \$17.5 million dollars over the long-term planning horizon. Over 92 percent of the recommended program funding could be funded through state or federal grant-in-aid programs. The source for federal monies is through the Airport Improvement Program (AIP), administered by the FAA, which was established to maintain the integrity of the air transportation system. Federal monies could come from the Aviation Trust Fund, which is the depository for federal aviation taxes such as those from airline tickets, aviation fuel, aircraft registrations, and other aviation-related fees. Federal AIP funding of 95 percent can be received from the FAA for eligible projects.

ADOT also provides a separate state funding mechanism which receives annual funding appropriation from collection of statewide aviation related taxes. Eligible projects can receive up to 90 percent funding from ADOT for non-federally funded projects, and one-half (2.5 percent) of the local share

for projects receiving federal AIP funding. The following table depicts the breakdown of federal, state, and local

funding for the implementation of the short term capital improvement program.

TABLE B Development Funding Summary Eloy Municipal Airport				
PLANNING HORIZON	Total Costs	FAA Share	ADOT Share	Local Share
Short Term Program	\$8,570,000	\$6,518,425	\$1,709,188	\$342,388
Intermediate Term Program	\$3,672,450	\$3,013,828	\$79,311	\$579,311
Long Term Program	\$5,251,200	\$4,798,640	\$126,280	\$326,280
TOTAL PROGRAM COST	\$17,493,650	\$14,330,893	\$1,914,779	\$1,247,979

With the airport master plan completed, the most important challenge is implementation. The cost of developing and maintaining aviation facilities is an investment which yields impressive benefits for the community. This plan and associated development

program provides the tools the City of Eloy will require to meet the challenges of the future. By providing a safe and efficient facility, Eloy Municipal Airport will continue to be a valuable asset to the City of Eloy and the surrounding region.