



INTRODUCTION AND SUMMARY

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The San Manuel Airport Master Plan is a cooperative effort between Pinal County, the Arizona Department of Transportation, Aeronautics Division (ADOT), and the Federal Aviation Administration (FAA). This Airport Master Plan is a comprehensive analysis of airport needs and alternatives with the purpose of providing direction for the future development of this facility.

This Master Plan replaces the previous Master Plan completed in 1991. Typically, airport sponsors periodically update their master plans to ensure that their airport can continue to provide the necessary facilities required to meet aviation demand. The commitment to this Master Plan on the part of Pinal County is evidence that the County recognizes the challenges inherent in accommodating future aviation needs, as well as the importance, of San Manuel

Airport to the county, the local community, and the surrounding region. The cost of maintaining a viable airport is an investment which yields significant benefits to a community. By maintaining a sound and flexible Master Plan, San Manuel Airport can increase its value as an economic asset, and continue to be a source of pride to the residents of the community.

MASTER PLAN OBJECTIVES

The primary objective of this Airport Master Plan is to determine short, intermediate, and long term development needs for the Airport to insure that it will continue to be a safe, efficient, economical, and environmentally acceptable air transportation facility. The accomplishment of this objective requires the evaluation of the existing



airport facility and needs to determine what actions should be taken to maintain an adequate, safe, and reliable airport facility to meet the needs of Pinal County and the surrounding community. The completed Master Plan will provide an outline of the necessary development and give county, state, and federal officials advance notice of future needs to aid in planning, scheduling, and budgeting. In addition, the finalized document includes a set of airport layout plans which depicts the proposed development for the Airport.

The Master Plan provides a continuous planning process through a phased outline of the proposed improvements required to meet the ultimate aviation needs of the community. This continuous planning process benefits responsible officials by giving advanced notice of future airport funding needs so that the appropriate steps can be taken to assure that adequate funds are budgeted or planned.

In order to accomplish the objectives set forth in this study, the Airport Master Plan provides the following information:

- **Inventory of Existing Conditions** - Collects, assembles, and organizes relevant information and data regarding the airport, the San Manuel and Tri-Community area, and the south-central region of Arizona.
- **Forecasts** - Projections of aviation demand, by quantity and type.

- **Facility Requirements** - Determines available capacities of various facilities at the airport and identify the facilities required to meet projected demand over the 20-year planning horizon.
- **Airport Alternatives** - Develops and evaluate various alternatives for airport development as determined by current and future facility requirements.
- **Airport Layout Plan** - Refines the recommended master plan development concept into the airport's final plan for implementation.
- **Financial Plan** - Prepares the airport development schedule and cost estimates for the recommended master plan development concept. This plan will ensure that logical staging of improvements are given proper consideration in the development of an overall financial plan and capital improvement program.
- **Environmental Evaluation** - Prepares a preliminary environmental overview to identify potential environmental concerns that will need to be addressed prior to implementing aspects of the plan.

In addition to Pinal County, ADOT, the FAA, and the consultant team, a Planning Advisory Committee (PAC)

was established to review the various aspects of the plan as it was developed. This committee reviewed draft phase reports on the project and provided comments and input throughout the study to help insure that a realistic, viable plan is developed. A public information workshop is also conducted to allow the public to learn about the study and provide input. The final master plan technical report incorporates changes as a result of applicable comments gained from this review process.

***SUMMARY OF THE
RECOMMENDED
MASTER PLAN
CONCEPT***

The Master Plan for San Manuel Airport provides for the orderly use of existing airport facilities to enhance the safety of aircraft operations, maintain existing airfield facilities and support future aviation demand (should new levels of demand be experienced). The Master Plan includes provisions to ensure the long-term viability and self-sufficiency of the airport by maximizing available areas at the airport for aviation-related opportunities. **Exhibit 5A** depicts elements of the Master Plan for San Manuel Airport.

Specifics of the recommended development plan and capital improvement program (together the Recommended Master Plan Concept) are provided in Chapters Five and Six of this Master Plan. In conjunction with the PAC and Pinal County, the

following recommendations have been developed for San Manuel Airport:

AIRFIELD

- Acquire fee simple title to the existing airport site.
- Acquire approximately 21 acres of land to protect the Runway 11 approach from incompatible development and meet FAA design standards.
- Extend Runway 11-29 and the parallel taxiway to 4,800 feet.
- Remove hangars, apron, and other buildings at the Runway 29 end that are located in FAA mandated safety and obstruction free areas.
- Pave the parallel taxiway (Taxiway A) the full length of Runway 11-29.
- Add holding aprons at each runway end.
- Install medium intensity runway lighting (MIRL) and medium intensity taxiway (MITL) pavement edge lighting.
- Install a rotating beacon to aid in the identification of the airport location at a night and during poor visibility conditions.
- Install a precision approach path indicator (PAPI) at each runway end to assist pilots in deter-

mining the correct descent path to each runway end.

- Install runway end identifier lighting (REILs) at each runway end to assist pilots in locating the runway ends at night and during poor visibility conditions.
- In cooperation with the FAA, establish instrument approach procedures to Runway 11 and Runway 29 to assist pilots in locating and landing at the airport during inclement weather conditions.
- Mark Runway 11-29 with non-precision runway markings.
- Install an Automated Weather Observation System (AWOS) south of Runway 11-29 to collect and disseminate weather information pertinent to San Manuel Airport.

LANDSIDE

- Acquire the land south of the airport's existing lease boundary (45 acres) to the railroad. This area will be retained for long term general aviation development needs. The AWOS and relocated segmented circle and lighted wind cone will be located in this area as well.
- Realign airport entrance road to connect with State Highway 76 directly south of the airport.

Pave the airport access road to the main apron area.

- Extend electrical, water, and telecommunication utilities to the north side of the airport.
- Expand the existing apron to the north to provide sufficient clearance between the taxilane and future buildings.
- Construct an additional taxiway connection to Taxiway A.
- Construct four, 10-unit T-hangars west of the existing main apron area. One of these 10-unit T-hangars is assumed to replace the existing hangar facilities at the Runway 29 end that are planned to be removed to meet FAA safety and obstruction clearance standards.
- Reserve area on the north side of the main apron for the development of large clearspan hangars that would be used to provide commercial general aviation services such as (but not limited to) aircraft maintenance and repair, aircraft sales, and aircraft charter services.
- Reserve an area on the north side of the main apron for the development of a public terminal building.
- Construct a public parking area north of the main apron to serve the T-hangars, clear span

commercial hangars, and public terminal building.

- Reserve an area on the north side of the main apron for the development of an above ground fuel storage location for both 100LL and Jet-A fuel. This location is ideally suited to serve as a selfservice fuel island.
- Reserve an area on the north side of the apron for the development of an aircraft wash rack. The aircraft wash rack will provide for cleaning of aircraft and proper collection of aircraft cleaning fluids and debris.
- Reserve an area east of the main apron area for the construction of individual clear span hangars. These hangars would be developed on a lower terrain elevation to reduce fill requirements. The hangars would face north with the access taxiway located north of the hangars. Vehicle access would be south of the hangars.
- Construct a helipad east of the main apron. The helipad is designed to segregated fixed-wing and helicopter traffic operations for safety.

CAPITAL NEEDS

The Master Plan has identified approximately \$6.8 million in capital needs over the planning period

(Exhibit 6A). Nearly 87 percent of the total costs are eligible for grants-in-aid administered by the FAA and ADOT. The source for FAA grant funding assistance is the Federal Aviation Trust Fund and State Aviation Fund. The federal Aviation Trust Fund is a depository for aviation taxes such as those from airline tickets, aviation fuel, aircraft registrations, and other aviation-related fees. The State Aviation Fund is a depository for flight property taxes and other fees. The FAA distributes funds from the Aviation Trust Fund through the Airport Improvement Program (AIP). Under the AIP, eligible projects can receive up to 91.06 percent funding from the FAA. ADOT distributes funds from through the State Transportation Board.

Since San Manuel Airport is not currently included in the federal *National Plan of Integrated Airports* (NPIAS), the airport does not receive any federal dollars for capital improvements at the airport. However, it is anticipated that San Manuel Airport will eventually be included in the NPIAS as the Airport meets all eligibility criterion. The NPIAS is updated every five years, with the next update scheduled for 2005. The primary advantages of being federally eligible include: a larger funding source and annual entitlements. If the AIP authorization is enacted into law as expected in mid 2003, over \$3.0 billion in annual funding will be available for the Federal AIP program through 2008. The Federal AIP program also provides for an annual entitlement in the amount of \$150,000 for general aviation airports such as San Manuel Airport

that can be applied for AIP eligible projects.

San Manuel Airport is also eligible to receive discretionary funding from the AIP. The FAA prioritizes discretionary needs, regionally and nationally prior to making discretionary funding decisions. Unlike entitlement funding, discretionary funding is not guaranteed. Once eligible, Pinal County will need to pursue discretionary funding as entitlement funding is not expected to cover the identified capital needs (see Exhibit 6A).

In support of the state airport system, the State of Arizona also participates in airport development projects. Presently, the State funds 95 percent of eligible airport improvement projects at San Manuel Airport. Once San Manuel Airport is included in the NPIAS and receives FAA funding, the State will fund half of the airport's 8.92 percent matching share (4.47 percent) for all AIP eligible projects. The State of

Arizona also participates in terminal development projects but at varying levels and not to exceed to 90 percent if the airport is included in the NPIAS or 95 percent if not included in the NPIAS.

Pinal County will need to utilize its own resources to provide the remaining project costs. The airport is not generating an operating income at this time. Therefore, most funding will need to come from the County's general funds. The Master Plan anticipates the need to increase the airport's operating income to assist in funding the operation and development of the airport. The Master Plan has designated areas for new hangar development as a means of developing an income stream for the airport through hangar rents or land lease payments. The expansion of general aviation services and fuel sales could provide additional revenue streams through the collection of a percentage of gross receipts and fuel flowage fees.