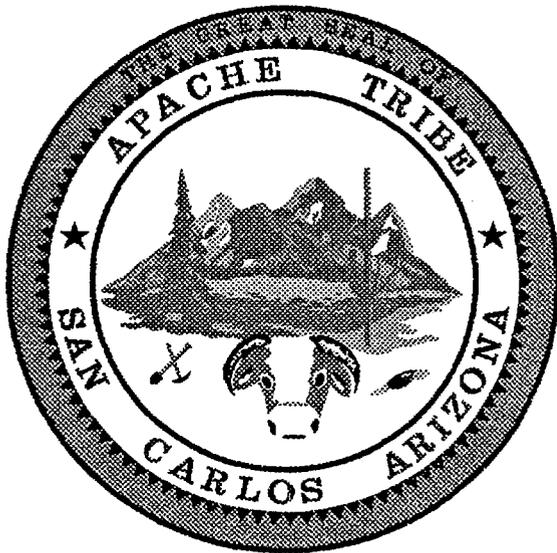




Chapter

1

CONCLUSIONS AND RECOMMENDATIONS



CONCLUSIONS AND RECOMMENDATIONS

*for the Airport Master Plan
and Environmental Assessment for the
San Carlos Apache Airport*

1.0 INTRODUCTION

The San Carlos Apache Tribe, as the Airport Sponsor, is continuing its effort to plan for future development of the San Carlos Apache Airport. This development is designed to enhance air and ground operations, improve safety, provide better airport services, and stimulate economic development through increased use of the airport facilities.

1.1 PURPOSE AND NEED

The Airport Master Plan is the culmination of a decision making process in which the Airport Sponsor, with input from the community, Local, State, and Federal agencies, and the consultant, determines the needs and priorities for the long term development of the airport. The Master Plan provides a conceptual picture of airport development through the use of the Airport Layout Plan drawing set. Airport Master Plans are prepared to support modernization of existing airports, regardless of size, complexity, or role.

This airport planning document for the San Carlos Apache Airport was developed with this purpose in mind. The San Carlos Apache Airport is a general aviation airport providing access to the region for many business and corporate aircraft. Recreational flying is also conducted at the airport, and with the opening of the Apache Gold Casino across the street from the airport, use of the airport by Casino customers has significantly increased. The demands being placed on the airport are creating a need for a safer and more efficient facility for its users. The most pressing needs for the airport are to rehabilitate the existing runway, taxiway, and apron surfaces, meet FAA Safety and Design Standards, and extend the runway to accommodate the existing and forecasted fleet mix of aircraft. A future runway length of 6,500 feet and an ultimate runway length of 8,500 feet are recommended to meet this need.

The airport currently has 23 based aircraft, including 17 single-engine, three multi-engine, one business jet, and two rotorcraft. Based aircraft operations at San Carlos Apache Airport consist primarily of single and multi-engine piston aircraft mentioned above. Examples of these aircraft include the Cessna 172s and 182s and Piper Cherokees. Transient aircraft operations consist of a wide variety of single and multi-engine piston aircraft; however, use of the airport by twin turboprop and business jet aircraft is increasing. Examples of transient aircraft using San Carlos Apache Airport include, Beech King Air 90s, Cessna Citation, Gates Learjets, and the Grumman Gulfstream III.

1.2 GOALS AND OBJECTIVES

The overall objective of this airport planning document was to evaluate alternatives for the ultimate development of the airport and to assess the compatibility of such development with the environment and the goals of the San Carlos Apache Tribe. Specific objectives of this study were defined as follows:

- An inventory of existing air operations and facilities.
- A forecast of aviation demand based on socioeconomic and population information and available historical air traffic data.
- Determine current types of aircraft which use the San Carlos Apache Airport and from there, determine whether or not the current facilities are adequate for this traffic.
- Requirements for new or expanded airport facilities, such as runway extensions, taxiways, aircraft parking aprons, hangars, lighting systems, navigational aids, ground access, and overall land needs to assure airport expansion as needed and future long-term land use compatibility. These facilities were also examined in terms of meeting FAA design criteria.
- An alternative analysis of new facilities and/or reconfiguration of existing facilities that will be required, and a proposed development schedule, including cost estimates.
- Preparation of a new Airport Layout Plan Drawing Set.
- Accomplish an Environmental Assessment for the proposed development to ensure compliance with the National Environmental Policy Act of 1969 (NEPA).

1.3 FORECASTS

Numerous sources of information including area and regional socioeconomic characteristics, the National Plan of Integrated Airport Systems (NPIAS), Arizona State Aviation Needs Study (SANS), Arizona State Aviation System Plan (ASASP), and Airport User Surveys led to the development of forecast scenarios which reflect potential aviation growth at the airport. The selected planning forecasts expect approximately 17,000 total annual aircraft operations by the year 2016 at the San Carlos Apache Airport.

Estimates of aircraft fleet mix were also developed to aid in determining the airport's existing and future Airport Reference Code (ARC) and facility requirements. The Airport Reference Code is a system used to relate airport design criteria to the operational and physical characteristics of the aircraft intended to operate at the airport. The ARC has two components. The first component is depicted by a letter and relates to aircraft approach speed. The second component is depicted by a Roman numeral and relates to the aircraft wingspan. The existing ARC is a B-II based on the aircraft currently using the airport. The future design aircraft for the San Carlos Apache Airport are those aircraft which have an ARC of C-II weighing 60,000 pounds or less.

1.4 FACILITY REQUIREMENTS

By using FAA criteria and various other airport planning formulas, Armstrong Consultants has developed numerous recommendations to meet the forecasted aviation demand at the San Carlos Apache Airport. For example, the existing length of Runway 9/27 is 5,804 feet. This runway length is sufficient for the aircraft that currently use the airport. Future and ultimate recommended runway lengths are 6,500 and 8,500 feet respectively to accommodate the forecasted design aircraft. Proposed improvements to the existing site include the relocation of Runway 9/27 by 100 feet to the south to meet FAA Safety and Design Standards, widening the Runway to 100 feet, and extending the Runway to 6,500 feet in the first Phase. Rehabilitation and strengthening of the taxiway and apron pavements is also necessary. Other recommendations include expanding the aircraft parking apron and constructing taxilanes to the T-hangar development area.

1.5 DEVELOPMENT ALTERNATIVES

Alternatives for development of the existing site are presented in Chapter VI. The alternatives include the "do nothing alternative", rehabilitating existing airfield pavements only, relocating the taxiway versus the runway, and relocating the runway. These alternatives were discussed in Airport Technical Advisory Committee (ATAC) and Tribal Council meetings. Based on these discussions, the Tribal Council selected to relocate and extend the runway in order to meet FAA Standards, provide a suitable runway surface for aircraft operations, and increase tourism revenues. The Tribe has resolved to move forward with the U.S. Army Section 404 Permit and engineering design of the proposed runway.

1.6 ENVIRONMENTAL ASSESSMENT

An Environmental Assessment has been accomplished in accordance with the National Environmental Policy Act of 1969 (NEPA) and FAA Order 5050.4A, Airport Environmental Handbook. None of the thresholds of significance are expected to be exceeded and a Finding of No Significant Impact (FONSI) is anticipated pursuant to the submission of a Section 404 Permit application to the U.S. Army Corps of Engineers. The application will include a sufficient amount of engineering design to ensure the relocation of the drainage wash channel, which runs parallel to the existing runway, will not have a negative impact on water quality, floodplains, or biotic communities. Consultation with the Corps of Engineers and San Carlos Tribal Biologist yielded recommendations for mitigating the impacts and considerations to include in the application.

1.7 SUMMARY AND RECOMMENDATIONS

The Airport Master Plan has examined the existing conditions, short term development needs, and long term development needs for the San Carlos Apache Airport. A detailed Airport Layout Plan drawing set has been prepared depicting the preferred development projects selected by the Airport Sponsor. The improvements depicted in the plan identify projects for implementation which will allow the airport to serve its users both safely and efficiently in its anticipated role.

Several specific recommendations are made throughout the text of the Master Plan which address, in detail, the individual aspects of the airport's development. Equally important, however, are those recommendations which address the operation and management of the facility which is believed to have strong growth potential over the next twenty years. The following recommendations pertain to the more general aspects of the airport's management and development:

- The two most important factors influencing the sponsor's decision to carry out recommendations of the Airport Master Plan are timing and airport activity. Both of these factors can be used as references in plan implementation. While it is necessary for scheduling and budgeting purposes to focus on the timing of airport development, the actual need for facilities is in fact established by levels of activity. Proper Master Plan implementation suggests the use of airport activity rather than time as guidance in development and scheduling.
- The San Carlos Apache Tribe should establish an Airport Advisory Committee to establish and implement policy and procedures for the operation of the airport as well as setting rates and charges for leases and services. The Airport Advisory Committee Chairperson should be the point of contact for airport tenants, the Fixed Base Operator, and aircraft owners regarding airport issues.
- It is strongly recommended that the San Carlos Apache Tribe continue to operate and maintain the airport on a day-to-day basis in accordance with federal regulations and standards. Operational maintenance would include but would not

necessarily be limited to, periodic inspections of pavement, control of natural growth and obstructions to air navigation, maintenance of pavement markings and surfaces, and implementation and control of a storm water pollution prevention plan.

- The San Carlos Apache Tribe should review all proposed construction projects near the airport environs to assure that no structures are built which would violate Federal Aviation Regulation Part 77, "Obstructions Affecting Navigable Airspace", and also maintain the area so that no structures, terrain, or vegetation penetrate these surfaces.
- The San Carlos Apache Tribe should designate the appropriate airport property boundaries to protect the existing and future Runway Protection Zones, Safety Areas, and Object Free Areas.
- The San Carlos Apache Tribe should move forward with the Section 404 Permit process and engineering design to prepare for the anticipated construction of the new runway.