INTRODUCTION

WHAT IS A MASTER PLAN?

The Federal Aviation Administration (FAA) recommends that airports update their long-term planning documents every seven to 10 years, or as necessary, to address local changes at the airport. The last master plan update for Payson Municipal Airport (PAN) was completed in 2009. The Town of Payson (town), the sponsor of the airport, received a grant from the FAA and Arizona Department of Transportation – Aeronautics Group (ADOT) to update this Airport Master Plan.

The town is responsible for funding capital improvements at the airport, as well as obtaining FAA and ADOT development grants. In addition, the town oversees facility enhancements and infrastructure development conducted by private entities at the airport. The master plan provides guidance for future development and justification for projects for which the airport may receive funding through an updated capital improvement program (CIP) to demonstrate the future investment required by the town, as well as the FAA and ADOT.

The Airport Master Plan follows a systematic approach outlined by the FAA to identify airport needs in advance of the actual need for improvements. This is done to ensure that the town can coordinate environmental reviews, project approvals, design, financing, and construction to minimize the negative effects of maintaining and operating inadequate or insufficient facilities. An important outcome of the master plan process is a recommended development plan, which reserves sufficient areas for future facility needs. Such planning will protect development areas and ensure they will be readily available when required to meet future needs. The intended outcome of this study is a detailed on-airport land use concept which outlines specific uses for all areas of airport property, including strategies for revenue enhancement.



The preparation of this study is evidence that the town recognizes the importance of the airport to the surrounding region and the associated challenges inherent in providing for its unique operating and improvement needs. The cost of maintaining an airport is an investment which yields impressive benefits to the local community. With a sound and realistic master plan, the airport can maintain its role as an important link to the regional, state, and national air transportation systems. Moreover, the plan will aid in supporting decisions for directing limited and valuable town resources for future airport development. Ultimately, the continued investments in the airport will allow the town to reap the economic benefits generated by historical investments.

Some common questions regarding what a master plan is / is not are answered in the graphic below.

An Airport Master Plan is:

- ✓ A comprehensive, long-range study of the airport and all air and landside components that describes plans to meet FAA safety standards and future aviation demand.
- ✓ Required by the FAA to be conducted every 7-10 years to ensure plans are up-to-date and reflect current conditions and FAA regulations. The last Master Plan was completed in 2009.
- ✓ Funded by the FAA through the Airport Improvement Program (AIP) or through ADOT's Aeronautics group. This study is being 91.06% funded by AIP, with the remainder funded equally between ADOT and the Town of Payson.
- ✓ A local document that will ultimately be presented for approval from the Town of Payson. The FAA approves only two elements of the Master Plan, the Aviation Demand Forecasts and the Airport Layout Plan (ALP) drawing set.
- ✓ An opportunity for airport stakeholders and the general public to engage with airport staff on issues related to the airport and its current and future operations, and environmental and socioeconomic impacts. Three (3) public information workshops will be conducted throughout the Master Plan process to facilitate this public outreach effort.

An Airport Master Plan is not:

- ✗ A guarantee that the airport will proceed with any planned projects. Master Plans are guides that help airport staff plan for future airport development; however, the need/demand for certain projects may not ever materialize.
- ✗ A guarantee that the Town of Payson, ADOT, or the FAA will fund any planned projects. Project funding is considered on a project-by-project basis requiring appropriate need and demand. Certain projects may require the completion of a benefit-cost analysis.
- ✗ Environmental clearance for any planned projects. The Master Plan includes an environmental overview that identifies potential environmental sensitivities per the National Environmental Policy Act of 1969 (NEPA); however, most planned projects will require a separate NEPA study (Environmental Impact Statement/ Environmental Assessment/Categorical Exclusion) prior to construction.

WHO IS PREPARING THE MASTER PLAN?

The town has contracted with the airport planning firm Coffman Associates, Inc. to undertake the Airport Master Plan. Coffman Associates is an airport consulting firm that specializes in master planning and environmental studies. Coffman Associates will lead the planning team, with support from the following firms:

- SWCA Environmental Consultants | Conducting field surveys in support of the environmental elements of the plan; and
- Martinez Geospatial | Aerial photography, ground survey, and Geographic Information System (GIS) products to meet FAA 5300-18B requirements for Airports GIS data submittal.

The Airport Master Plan is being prepared in accordance with FAA requirements, including Advisory Circular (AC) 150/5300-13B, *Airport Design*, and AC 150/5070-6B, *Airport Master Plans* (as amended). The plan will be closely coordinated with other planning studies relevant to the area and with aviation plans developed by the FAA and ADOT. The plan will also be coordinated with the Town of Payson, as well as other local and regional agencies as appropriate.

GOALS AND OBJECTIVES

The primary goal of this master plan is to develop and maintain a financially feasible, long-term development program, which will satisfy aviation demand of the region; be compatible with community development, other transportation modes, and the environment; and enhance employment and revenue for the local area. Accomplishing this goal requires an evaluation of the existing airport to decide what actions should be taken to maintain a safe, adequate, and reliable facility.

Specific objectives of the study include the following:

- Document the issues that proposed development will address.
- Justify the proposed development through the technical, economic, and environmental investigation of concepts and alternatives.
- Provide an effective graphic presentation of the development of the airport and anticipated land uses in the vicinity of the airport.
- Establish a realistic schedule for the implementation of the development proposed in the plan, particularly the short-term capital improvement program.
- Provide sufficient project definition and detail for subsequent environmental evaluations that may be required before the project is approved.
- Present a plan that adequately addresses the issues and satisfies local, state, and federal regulations.
- Analyze the through-the-fence (TTF) access and associated operations and their impact on future growth and development of the airport.
- Review future use and zoning of airport property and approaches to each runway for future protection. This will involve the development of new noise exposure contours.
- Analyze the potential implementation of straight-in instrument approach procedures to the runway system and impacts to appropriate approach and departure surfaces as recognized by the FAA. This includes an evaluation of runway protection zones in association with an instrument approach procedure and analysis of appropriate Part 77 and obstacle clearance surfaces that could impact the viability of an instrument approach.
- Set the stage and establish the framework for a continuing planning process. Such a process should monitor key conditions and permit changes in plan recommendations as required.
- Research and evaluate socioeconomic factors likely to affect the air transportation demand in the Town of Payson and regional area over the next 20 years including the development of forecasts for general aviation operations and based aircraft.

- Determine the projected facility needs of airport users for the next 20 years, taking into consideration recent revisions to FAA design standards and the airport's conformance requirements and the impact of general aviation fleet transitions on design standards.
- Recommend improvements that will enhance airport capacity to the maximum effect.
- Prepare landside development options to maximize revenue streams, including both aviation and non-aviation related activities.
- Produce current and accurate airport base maps and Airport Layout Plan (ALP) drawings consistent with the FAA's Standard Operating Procedure (SOP) No. 2.00.
- Establish a schedule of development priorities and a program for the improvements proposed in the master plan, consistent with the FAA's CIP planning.
- Develop productive public involvement throughout the planning process that includes the formulation of a Planning Advisory Committee (PAC) and public information workshops.
- Conduct an aeronautical survey that is compliant with the Airport Geographic Information System (AGIS) standards and includes airspace and obstruction information submitted to and approved by the FAA. Data will be submitted in the FAA's Airport Information Data Portal (ADIP) systems as an "airspace evaluation."

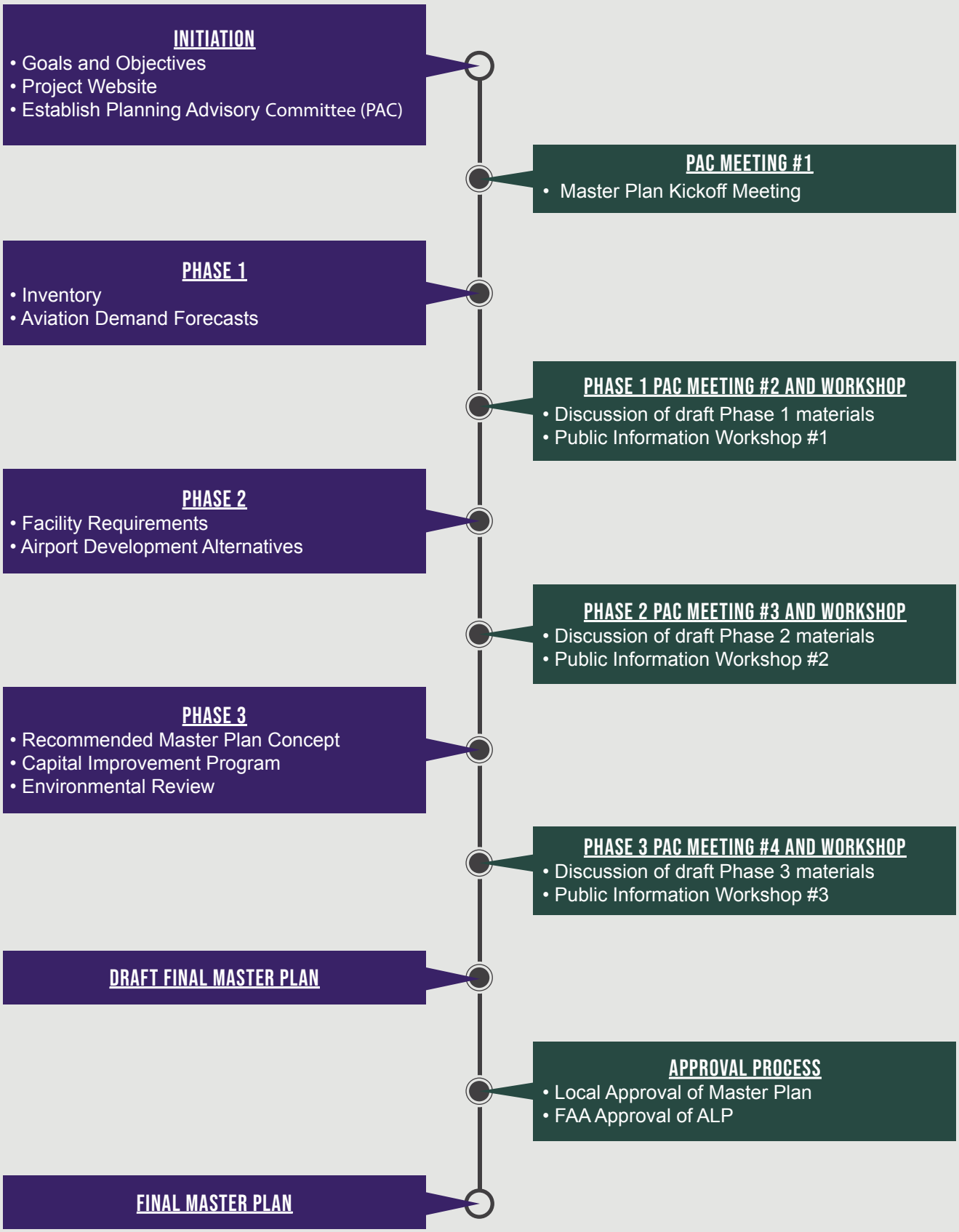
BASELINE ASSUMPTIONS

A long-range planning study requires several baseline assumptions that will be used throughout this analysis. The baseline assumptions for this study are as follows:

- PAN will continue to operate as a local general aviation airport through the 20-year planning period;
- PAN will continue to accommodate general aviation tenants, as well as itinerant and/or local aircraft operations by air taxi, general aviation, and military operators;
- The aviation industry will develop through the planning period as projected by the FAA. Specifics of projected changes in national aviation industries are described in Chapter Two – Forecasts;
- The socioeconomic characteristics of the region will generally change as forecast (see Chapter Two); and,
- A federal and state airport improvement program will be in place through the planning period to assist in funding future capital development needs.

MASTER PLAN ELEMENTS AND PROCESS

The master plan has 10 elements that are intended to assist in the evaluation of future facility needs and provide the supporting rationale for their implementation. **Exhibit iA** provides a graphical depiction of the process involved with the study.


INITIATION
• Goals and Objectives
• Project Website
• Establish Planning Advisory Committee (PAC)
PAC MEETING #1
• Master Plan Kickoff Meeting
PHASE 1
• Inventory
• Aviation Demand Forecasts
PHASE 1 PAC MEETING #2 AND WORKSHOP
• Discussion of draft Phase 1 materials
• Public Information Workshop #1
PHASE 2
• Facility Requirements
• Airport Development Alternatives
PHASE 2 PAC MEETING #3 AND WORKSHOP
• Discussion of draft Phase 2 materials
• Public Information Workshop #2
PHASE 3
• Recommended Master Plan Concept
• Capital Improvement Program
• Environmental Review
PHASE 3 PAC MEETING #4 AND WORKSHOP
• Discussion of draft Phase 3 materials
• Public Information Workshop #3
DRAFT FINAL MASTER PLAN
APPROVAL PROCESS
• Local Approval of Master Plan
• FAA Approval of ALP
FINAL MASTER PLAN

Element 1 – Initiation includes the development of the scope of services and schedule, as well as the establishment of a Planning Advisory Committee (PAC). Study materials will be assembled in a workbook format. General background information will be established that includes outlining the goals and objectives to be accomplished during the master plan.

Element 2 – Inventory is focused on collecting and assembling relevant data pertaining to the airport and the area it serves. Information is collected on existing facilities and operations. Local economic and demographic data is collected to define the local growth trends, and environmental information is gathered to identify potential environmental sensitivities that might affect future improvements. Planning studies which may have relevance to the master plan are also collected.

Element 3 – Forecasts examines the potential aviation demand at the airport. The analysis utilizes 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 PAN over a 20-year period. An existing and ultimate critical design aircraft, based upon AC 150/5000-17, *Critical Aircraft and Regular Use Determination,* are also established to determine future planning design standards. The results of this effort are used to determine the types and sizes of facilities which will be required to meet the projected aviation demand at the airport through the planning period. This element is one of two elements that are submitted to the FAA for approval.

Element 4 – Facility Requirements determines the available capacities of various facilities at the airport, whether they conform with FAA standards, and what facility updates or new facilities will be needed to comply with FAA requirements and/or the projected 20-year demand.

Element 5 – Airport Alternatives considers a variety of solutions to accommodate projected airside and landside facility needs through the long-term planning period. An analysis is completed to identify the strengths and weaknesses of each proposed development alternative, with the intention of determining a single direction for development.

Element 6 – Recommended Master Plan Concept and Capital Financial Plan provides both a graphic and narrative description of the recommended plan for the use, development, and operation of the airport. A CIP is established to define the schedules, costs, and funding sources for the recommended development projects.

Element 7 – Airport Plans is the preparation of the official ALP drawings based on the recommended development concept. The ALP set is used by the FAA and ADOT in determining grant eligibility. This element is the second element of the study that is submitted to the FAA for approval.

Element 8 – Environmental Evaluation involves providing environmental information to assist in the evaluation of airport alternatives and recommended development concepts and to provide information that will help expedite subsequent environmental review under National Environmental Policy Act (NEPA). A recycling plan is also developed to assess the airport's existing waste management program and develop recommendations for improving on-airport recycling. This element also includes an update to the Public Airport Disclosure Map to reflect operational forecasts, noise contours, airfield facilities, and the airport traffic pattern airspace.

Element 9 – Public Coordination and Communication includes tasks related to PAC meetings as the master plan develops, as well as conducting periodic public information workshops with the aim of engaging the community in the study process. A study website is also developed for the purpose of distributing study materials and notices of public meetings.

Element 10 – Final Reports and Approvals provide documents which depict the findings of the study effort and present the study and its recommendations to appropriate local organizations. The final document incorporates the revisions to previous working papers prepared under earlier elements into a usable master plan document.

COORDINATION AND OUTREACH

The Payson Municipal Airport Master Plan is of interest to many within the local community and region. This includes local citizens, local businesses, community organizations, town officials, airport users/tenants, and aviation organizations. As a component of the regional, state, and national aviation systems, PAN is of importance to both state and federal agencies responsible for overseeing the air transportation system.

To assist in the development of the master plan, a PAC was established to act in an advisory role during preparation of the study. Committee members are scheduled to meet four times at designated points during the study to review study materials and provide comments to help ensure that a realistic, viable plan is developed.

Draft working paper materials will be prepared at various milestones in the planning process. The working paper process allows for timely input and review during each step within the master plan to ensure that all issues are fully addressed as the recommended program develops.

A series of three open-house public information workshops will also be conducted as part of the study coordination and outreach efforts. Workshops are designed to allow all interested persons to become informed and provide input concerning the master plan process. Notices of meeting times and locations will be advertised through local media outlets, and all draft reports, meeting notices, and materials will be made available to the public on the project website at https://payson.airportstudy.net.

SWOT ANALYSIS

A SWOT analysis is a strategic business planning technique used to identify **S**trengths, **W**eaknesses, **O**pportunities, and **T**hreats associated with an action or plan. The SWOT analysis involves identifying an action, objective, or element, and then identifying the internal and external forces that are positively and negatively impacting that action, objective, or element in a given environment. A SWOT analysis was conducted with the PAC in January 2023. A summary of this exercise and discussion is included below.

SWOT DEFINITIONS

This SWOT analysis groups information into two categories:

- **Internal –** attributes of the airport and market area that may be considered strengths or weaknesses to the action, objective, or element.
- **External –** attributes of the aviation industry that may pose as opportunities or threats to the action, objective, or element.

The SWOT further categorizes information into one of the following:

- **Strengths –** internal attributes of the airport that are helpful to achieving the action, objective, or element.
- **Weaknesses –** internal attributes of the airport that are harmful to achieving the action, objective, or element.
- **Opportunities –** external attributes of the industry that are helpful to achieving the action, objective, or element.
- **Threats –** external attributes of the industry that are harmful to achieving the action, objective, or element.

It is important to note that some attributes may fit into multiple categories. For example, something can be considered both a strength and a weakness, depending on the perspective of the person or entity describing it. **Exhibit IB** summarizes the SWOT exercise that was conducted with the PAC.

S STRENGTHS

- Upgraded runway/taxiways in good condition
- 5,000-foot runway is capable of accommodating wide range of aircraft
- On-airport restaurant that encourages general aviation (GA) traffic
- Reasonable hangar and tiedown rates
- Active off-airport aviation community (through-the-fence [TTF] operations)
- Perimeter fencing provides enhanced security
- Good cross-country fuel stop
- Uncontrolled, uncongested airspace
- Available property on-airport for development
- Airport campground
- Great climate for GA and flight training
- Automated weather observing system (AWOS) on-site
- On-site airport manager
- Good support from Town of Payson
- Airfield lighting (runways and taxiways)
- PAN is necessary for emergency services and firefighting
- Reasonable fuel prices
- Elevation of airport is beneficial to pilots
- Motor glider instructor is world-renowned
- PAN is included in the National Plan of Integrated Airport Systems (NPIAS)

W WEAKNESSES

- Portions of ramp pavement in need of rehabilitation
- Lack of developable area along flightline without significant earthwork
- Earthwork expenses limit private investment in hangars or businesses
- Restaurant leasing is complex; portions of building are owned by different entities
- Modifications to the airport to meet FAA standards for larger, faster aircraft are challenging and potentially cost-prohibitive
- Limited existing hangar capacity
- Limited terminal services
- Residential encroachment
- No straight-in instrument approach; circling, daytime approach only
- Not enough space for a crosswind runway on existing airport property
- Airport campground is located in area that may be better suited for expanded facilities
- No run-up area on either runway end
- "Honor system" for off-airport aircraft (TTF) usage fees limit revenue
- Limited vehicle access results in automobiles on airfield pavement
- West gate malfunctions and needs attention
- Access to developable land is limited

O OPPORTUNITIES

- New instrument approach procedure (awaiting AGIS survey to move forward)
- Increased aviation operations may result in increased investment in infrastructure
- Continued national emphasis on flight training
- Improved marketing of airport for revenue generating purposes
- Local scenery and attractions (i.e., golf courses) bring visitors
- Reliever for East Valley
- New hotel in Payson will have meeting space
- Increased funding opportunities with infrastructure bill
- Possible "land swap" between Town easement and airport land could improve vehicle access
- Diversity in operations (UAS, military, flight training, firefighting, etc.)
- Stop for backcountry flying
- Interest from jet owners to base at PAN
- TTF (residential airpark and industrial park)
- New hangars
- GPS instrument approaches

T THREATS

- Further degradation of parking ramps (Charlie ramp in particular)
- Deterioration of existing hangars without a maintenance/rehabilitation plan
- Geography/topography
- Future funding availability (i.e., competition for funds)
- Expanded appetite for airport expansion without an executable plan or adequate funding
- Wildlife occasionally access airfield
- Surrounding land uses & encroachment (residential development)
- National pilot shortage
- Changes to TTF arrangements/policies that could limit airport usage
- Potential for loss of on-airport services if vendors decide to relocate
- Decrease in Town support for airport
- Young people leaving Payson due to lack of jobs