

1. Study Introduction

Introduction

This Airport Master Plan Update (MPU) for the Colorado Springs Airport (COS or the Airport) is being conducted to provide the City of Colorado Springs (City) and the Airport Advisory Commission (AAC) with a long-range plan for airport development that is visionary yet also reasonable and practicable. This plan is designed to produce a safe, efficient, economical, and environmentally sustainable air transportation facility that meets the region's existing and projected aviation demand levels in a thoughtful manner. The MPU, along with the accompanying Airport Layout Plan (ALP), is funded by the Federal Aviation Administration (FAA) and the Airport. It has been prepared in compliance with the Advisory Circular (AC) 150/5070-6B, *Airport Master Plans*. Technical work is being conducted by a project team led by Jviation, a Woolpert Company, and supported by Felsburg Holt & Ullevig (FHU).

The principal goal of the MPU is to provide a carefully considered, systematic approach to the Airport's overall maintenance, development, and operation over a 20-year planning period. At its core, this planning effort was designed to identify and plan for current and future airport facility needs well in advance of the actual demand for those facilities. The MPU is also designed to review and assess the Airport's current conformance with federal and state airport design and operational standards to ensure that the Airport continues to operate as safely as possible. The MPU will also ensure that COS can appropriately coordinate project approvals, design, financing, and construction, while avoiding noncompliance issues.

Master Plan Purpose and Objectives

The overall purpose of the COS MPU is to define the City's approach for long-term airport development. This MPU will provide the framework to guide the future development that will satisfy current and future aviation demand in a logical and financially feasible manner, while also considering and incorporating relevant environmental and community factors. Consistent with this purpose, the project team is coordinating with the Airport to identify objectives to be addressed in this MPU, which are listed below.

- Prepare a vision of future airport development.
- Effectively engage stakeholders and the public.
- Evaluate the design of Runway 17R-35L to address Hot Spot #1 by decoupling the Runway 13-31 and Runway 17R-35L intersection.

- Inventory existing facilities and demonstrate the significance of the Airport within the community.
- Inventory existing environmental resources and assess environmental impacts of proposed projects and the need for additional environmental documentation. Study the resiliency of the Airport's energy and water resources.
- Integrate the findings from the 2020 Land Use Study to harmonize and strengthen a land-use vision for the Airport and its surroundings.
- Conduct a Geographic Information Systems (GIS) Needs Assessment to identify current utilization and make recommendations to improve and maximize capabilities of GIS at the Airport.
- Obtain new aerial imagery to support the ALP and acquire survey data required for runway design.
- Re-evaluate the Forecast of Aviation Demand from the 2020 Land Use Study, to address impacts resulting from COVID-19, the FAA's updated Terminal Area Forecast, and the recent growth in air service, including the introduction of passenger service at COS by Southwest Airlines.
- Assess facility requirements and analyze runway utilization, the future need for improved instrument approaches, and the costs/benefits of decoupling the existing runway configuration.
- Plan surface transportation at and to the Airport to improve connectivity and convenience.
- Analyze alternatives for development areas by identifying potential land acquisitions to accommodate airport growth and appropriately controlling areas sensitive to aircraft safety.
- Study and provide recommendations to address taxiway Hot Spots as identified by the FAA.
- Review alternative locations for airside, landside, terminal, and support features to accommodate long-term demands with specific attention to Peak Innovation Park.
- Identify future capital improvements based on the analysis of existing and future demand, as well as a financial evaluation to identify how those improvements may be funded through a 20-year Capital Improvement Plan (CIP). New cost estimates that can be 'escalated' based on inflation and other factors will be prepared for AIP projects to assist the Airport in this long-term financial planning effort.

These key issues and their potential solutions align with goals included in the 2020 Colorado Aviation System Plan (CASP). The goals defined for the entire state airport system help guide future development at individual airports (including the Colorado Springs Airport) and include the following:

- **Safety and Efficiency:** Advance Colorado’s airport system by promoting and preserving safe and efficient facilities, on and off airports.
- **Access and Mobility:** Provide Colorado’s airports with infrastructure and sufficient capacity to enable adequate public access and mobility utilizing the aviation system.
- **Economic Sustainability:** Support sustainable economic growth and development to continue Colorado’s existing status as a leader in technology, testing, and aerospace industry.
- **System Viability:** Preserve airport system assets to promote fiscal responsibility and sustainable, cost-effective investments to ensure the system’s long-term viability.

Additionally, the COS MPU must also fulfill the broad master planning goals established by the FAA in AC 150/5070-6B, *Airport Master Plans*:

- Document issues that the 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 airport development and anticipated land uses in the vicinity.
- Establish a realistic schedule for implementing the development proposed in the MPU, particularly the short-term capital improvement program.
- Propose an achievable financial plan to support the implementation schedule.
- Provide sufficient project definition and detail for subsequent environmental evaluations that may be required before the project is approved.
- Present a plan that satisfies local, state, and federal regulations.
- Document policies and future aeronautical demand to support municipal or local deliberations on spending, debt, land use controls, and other policies necessary to preserve the integrity of the Airport and its surroundings.
- Establish the framework for a continual planning process.

Overview of Airport Issues and Concerns

COS's previous MPU was completed in 2013 with an ALP update conducted in 2018. Since those efforts, several Airport issues and focal points identified in that master planning effort have been addressed through the completion of specific projects and the update of specific airport documents. Other issues that have not been addressed in prior planning efforts or resolved due to changing industry circumstances and master plan assumptions will be identified and addressed in this MPU.

Some of the following specific issues and concerns have already been identified to be addressed within this MPU:

- **Public Outreach:** Collaborate with Airport staff, stakeholders, users, community leaders, businesses, and residential neighbors to generate an inclusive and useful MPU for all audiences.
- **Hot Spot Analysis:** Identify a solution for decoupling Runway 17R-35L and Runway 13-31 at the northwest end of the airfield to eliminate a safety concern.
- **Geographic Information Systems Integration:** A complete GIS Needs Assessment will be included in this MPU will assist in ongoing management of ALP and Airport data. The assessment will identify capabilities, existing systems, and needs; create a catalog of Airport GIS data; coordinate external resources; and establish platform recommendations and an implementation plan.
- **Transportation Connectivity:** Address the Airport's internal transportation and regional connectivity needs. An assessment of existing facilities, plans, and travel patterns will be conducted to understand how these elements are integrated with the Airport's vision and goals. Strategic alternatives will be developed to guide future connectivity.

Airport Master Plan Communication & Coordination

Public involvement is an integral part of any airport master planning effort. Such participation encourages information sharing and collaboration among the community and the airport stakeholders to generate collective interest in the outcome of the study. Stakeholders typically include airport management, advisory boards or commissions, tenants, users, local businesses and residents, resource agencies, elected and appointed public officials, and the general public. With such a diverse pool of participants, a variety of forums will be employed to enhance the effectiveness of the project coordination effort.

- Establish a Planning Advisory Committee (PAC) to ensure the MPU addressed the key issues facing the Airport and its surrounding community. The PAC will

convene three times in conjunction with project delivery milestones deliverables. The PAC membership will represent the following groups:

- Stakeholders
 - Tenants
 - Users
 - Community Leaders
 - FAA and Colorado Department of Transportation (CDOT) Division of Aeronautics representatives
- A Technical Work Group (TWG) may be assembled on an ad hoc basis and meet as required to provide feedback and input on technical aspects of the work effort. The TWG may consist of the following members:
 - Colorado Springs Airport Staff
 - City Planning Staff
 - El Paso County Staff
 - Tenants
 - Users
 - FAA Air Traffic Control
 - Use an online survey of key airport stakeholders (including users, tenants, based aircraft owners/pilots, transient pilots, and airport users at large) to solicit feedback regarding a variety of topics like Airport strengths and weaknesses, the future of the Airport, and the participant's individual activities at the Airport. The survey results will guide planning actions documented in **Chapter 4, Airfield Capacity & Facility Requirements**.
 - Create/employ various public outreach materials and methods to generate public awareness of the MPU. The materials and outreach program will keep interested parties informed of the planning process, solicited input, and facilitate decision-making during the process. The outreach materials will include a project website, press releases for local media, meeting advertisements, and social media campaigns.
 - Other forms of public involvement will include regular public briefings to the AAC, as well as two open houses following key MPU milestones. The open houses will provide an opportunity to engage the public in meaningful conversation about the Airport and the MPU. Other additional briefings and technical meetings will be organized with key agencies, stakeholders, and public officials, as required. Meeting notes are included in the appendices.

Master Plan Study Elements

The COS MPU will be consistent with the guidance provided in FAA AC 150/5070-6B, *Airport Master Plans*, and other industry-accepted principles and practices. Specifically, this Master Plan's chapters identify future facility requirements and provide the supporting rationale for their implementation.

Chapter 1, Introduction provides an overview of the MPU, including its purpose, objectives, work products, and the overall structure of the project.

Chapter 2, Inventory establishes a sound basis for plan and program development. The Inventory compiles essential data regarding the physical, operational, and functional characteristics of COS, its sub-components, and its environs. It should be recognized that environmental factors are considered and weighed throughout the master planning process starting in this chapter.

Chapter 3, Aviation Activity Forecast provides a foundation for the MPU by utilizing local socioeconomic information and national air transportation trends to project levels of aviation activity that can reasonably be expected at COS over the 20-year planning period. Because many of the proposals and recommendations in the MPU are principally based on these forecasts, it is critical that they be both reasonable and defensible. ***Note that the aviation forecasts must be officially reviewed and approved by the FAA.***

Chapter 4, Airfield Capacity & Facility Requirements utilizes the results of Chapter 3 to assess the ability of existing airside and landside facilities to meet the projected level of demand for the planning horizon. This analysis defines requirements for facilities, outlines expansion of existing facilities, and determines if the facilities will meet the forecasted demand over the 20-year planning period. Additionally, airport facilities will be examined to identify operational and safety improvements needed to accommodate current and future aircraft. This analysis includes compliance with FAA airport design standards, airspace clearance requirements, facility improvements, and possible navigational aids to enhance the safety and efficiency of aircraft operations.

Chapter 5, Development Alternatives & Recommended Plan presents a variety of solutions to accommodate the anticipated facility needs identified in Chapter 4. Various facility and site plan alternatives will be proposed and compared to weigh their ability to meet the projected facility needs. This analysis will produce a preferred development alternative that will best meet the Airport's facility requirements and its long-term goals in an efficient and appropriate manner. Comparative matrices of each alternative's strengths and weaknesses will be employed to determine a single direction for development. This evaluation method focuses on several key criteria, including, but not limited to, cost, efficiency, feasibility, operational effectiveness. An environmental screening of the preferred development plan will also be included in this chapter.



Chapter 6, Airport Layout Plan provides both a graphical and narrative description of the recommended plan for the use, development, and operation of the Airport. ***Note that the Airport Layout Plan set must be officially reviewed, approved, and signed by the Airport and the FAA.***

Chapter 7, Financial Plan focuses on the capital improvement program which defines the schedules, costs, and funding sources for the recommended development plan. It is important that the development program is practical, reasonable, and capable of enhancing the economic viability of the Airport.