MEADOW LAKE
AIRPORT

MASTER PLAN

TECHNICAL REPORT | 2018

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1. STUDY INTRODUCTION AND GOALS

This airport master plan study (AMP or study) defines a development concept for the Meadow Lake Airport (FLY or the Airport) over a 20-year planning period. This AMP provides the Meadow Lake Airport Association, Inc. (MLAA, Airport Sponsor, or Sponsor) with a long-range vision for airport development that is designed to result in a safe, efficient, economical, and environmentally-acceptable air transportation facility that meets existing and projected aviation demand levels.

Jviation, Inc. led the AMP team that conducted the technical work. The Federal Aviation Administration (FAA) requires airport sponsors to maintain current Airport Layout Plans (ALP) and Capital Improvement Plans (CIP), and recommends that airport master plans be updated on a regular basis. The FAA recommends that airport master plans address the "unique issues at each airport."

The goal of the AMP is to provide a carefully considered, systematic approach to the Airport's overall maintenance, development, and operation over the 20-year planning period. It is intended to identify and plan for future facility needs well in advance of the actual demand for those future facilities.

The AMP also reviews and assesses FLY's current conformance with federal and state airport design and operational standards to help ensure that the Airport continues to operate in as safe a manner as possible; this is to ensure that FLY can appropriately coordinate project approvals, design, financing, and construction, while avoiding the detrimental effects that could occur due to inadequate or noncompliant airport facilities.

1.1 Master Plan Purpose and Objectives

The primary purpose of this AMP is to produce a comprehensive planning guide for the continued development of a safe, efficient, and environmentally-compatible aviation facility that meets the goals of the MLAA, Airport users and tenants, and the surrounding Airport service area.

The AMP also satisfies FAA and Colorado Department of Transportation (CDOT) guidelines for the development of AMPs and facilities, while incorporating characteristics that are unique to FLY's service area. This AMP has been prepared to be consistent with the guidance provided in FAA Advisory Circular (AC) 150/5070-6B, *Airport Master Plans*, and other industry-accepted principles and practices. The AMP focuses on aeronautical forecasts, need, and justification for development, and a staged plan for recommended development.

In addition, the AMP considered input from Airport users and tenants as well as community leaders to position the Airport to take advantage of future opportunities. Proposed airport development must adhere to standards that provide for safe aviation facilities while accommodating future demand.

This AMP looked at planning horizons of 0–5 years (short-term), 6–10 years (intermediate-term), and 11–20 years (long-term). The first phase addresses existing facility deficiencies or non-compliance to airport design standards. The subsequent phases address the facilities and resources needed to accommodate predicted growth based on reasonable assumptions. FAA acknowledges that forecast accuracy decreases the farther it extends into the future, and therefore recommends that the forecasts should be monitored and compared against actual activity levels and updated on a regular basis.

The AMP also fulfills broad master planning objectives established in AC 150/5070-6B, including:

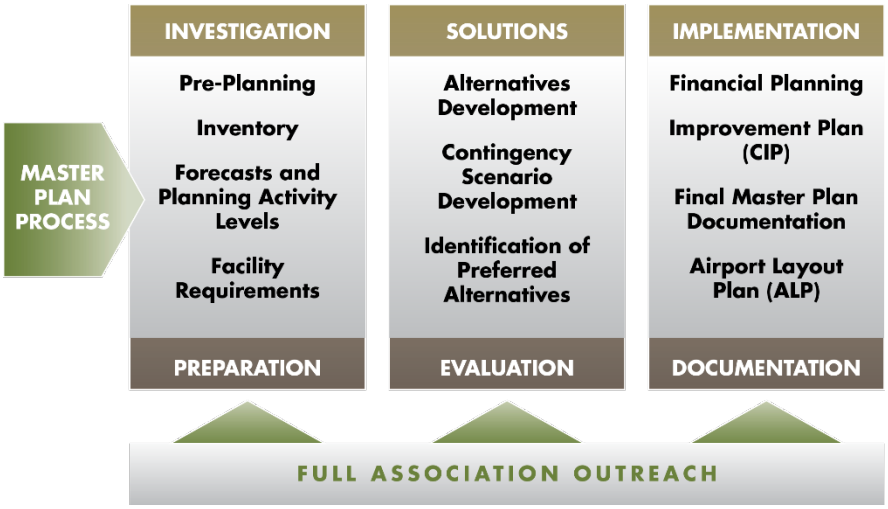
- Document the relevant issues that are considered during the preparation of the plan.
- Justify proposed development through the technical, economic, and environmental investigation of concepts and alternatives.

- Prepare a graphic presentation of development and anticipated land uses in the vicinity of the Airport.
- Develop a realistic implementation schedule, particularly the short-term CIP.
- Propose an achievable financial plan to support the implementation schedule.
- Provide sufficient project definition and detail for subsequent environmental evaluations that may be required.
- Present a plan that adequately addresses the issues and 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 continuing planning process.

1.2 Master Plan Study Elements

Figure 1-1 displays the master planning process. The process is broken down into three district phases, into which the chapters fall. Chapters One, Two, Three, and Four were written in the Investigation-Preparation phase. Chapter Five was completed during the Solutions-Evaluations phase, and the remaining chapters were written during the final phase, Implementation-Documentation.

Figure 1-1: Master Plan Process



Source: Jviation

This AMP has seven chapters that are designed to identify future facility requirements and provide the supporting rationale for their implementation.

Chapter One - Study Introduction and Goals provides an overview of the AMP, including its purpose, objectives, work products, and overall structure of the project.

Chapter Two - Inventory of Existing Conditions establishes a sound basis for plan and program development through the assimilation and documentation of relevant data. The inventory is designed to assemble essential data regarding the physical, operational, and functional characteristics of FLY, its sub-components, and its environs. For example, the Airport's facilities are analyzed in relation to current FAA airport design standards, and any non-conforming conditions are identified and subsequently analyzed in this master plan. The data collection process also includes the gathering of environmental data so that it can be considered throughout the master planning process and potential follow-on environmental efforts.

Chapter Three - Forecast of Aviation Demand essentially serves as the hub of the AMP by utilizing local socioeconomic information as well as regional and national air transportation trends to project the levels of aviation activity that can reasonably be expected to occur over the 20-year planning period. Assessing these future activity trends is especially important and the facility improvement recommendations within the plan are principally based on meeting aviation activity demand forecasts. Therefore, it is very important that the forecasts be both reasonable and defensible. FAA requires that the forecasts developed for the master plan be compared to FAA's Terminal Area Forecast prepared for FLY, and if the differences between the two forecasts exceed acceptable thresholds, then an explanation must be provided explaining the difference.

Chapter Four - Facility Requirements utilize the results of the forecast to assess the ability of existing airside and landside facilities to meet the projected level of demand for the short-, intermediate-, and long-term planning horizons. This analysis results in the determination of those facilities that will meet the forecast of demand over the course of the 20-year planning period. Beyond this, airport facilities are examined with respect to improvements needed to safely serve the type of aircraft expected to operate at the Airport in the future, including compliance with FAA design standards, as well as navigational aids to increase the safety and efficiency of operations.

Chapter Five - Alternatives Analysis considers a variety of solutions to accommodate the anticipated facility needs identified within the facility requirements analysis. Through this process, various facility and site plan alternatives are proposed and evaluated with respect to their ability to meet the projected facility needs. This analysis ultimately results in the preferred alternative that is deemed to best meet the facility requirements in the most efficient and appropriate manner available to achieve the Airport's long-term goals. As a tool for the alternatives review and evaluation, matrices are employed to help identify the strengths and weaknesses of each proposed development alternative, with the intention of determining a single direction for development. This evaluation method focuses on several key criteria, including cost, efficiency, feasibility, operational effectiveness, impacts, and other measures.

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

Chapter Seven - Airport Layout Plan Drawing Set provides graphic description of the recommended plan for the use, development, and operation of the Airport. The ALP is a set of drawings intended to illustrate the existing and future facilities at the Airport as well as other key features such as airport geometrics, airspace, property lines and interests, and other facets.

1.3 Overview of Meadow Lake Airport Issue and Concerns

Some of the Airport issues and focal points identified in the master plan have been addressed through the completion of specific projects or the updating of Airport documents. Some issues have not been addressed due to changing industry standards or master plan assumptions and have yet to be resolved.

The following issues and concerns specific to FLY have been identified and addressed in this master plan:

- **Existing Facilities and Environmental Resources:** Assess the usefulness of existing facilities and environmental impacts of proposed projects and the need for additional documentation.
- **Aviation Trends and Forecasts**: Prepare general aviation activity forecasts considering some declining industry-related activity levels. This element is based on an understanding of aviation industry trends while considering the unique operation and vision for FLY.

- **Assessments of Development Needs**: Prepare assessments of facilities needed to meet demand forecasts and analyze alternatives for major development areas. Emphasis will be made on retaining and expanding basic airport capabilities. An analysis on non-precision approaches for future aviation demand will also be completed when determining forecasted needs.
- **Capital Improvements**: Identify future capital improvements based on the analysis of existing and future demand as well as a financial evaluation and implementation plan. These will identify how improvements may be funded.

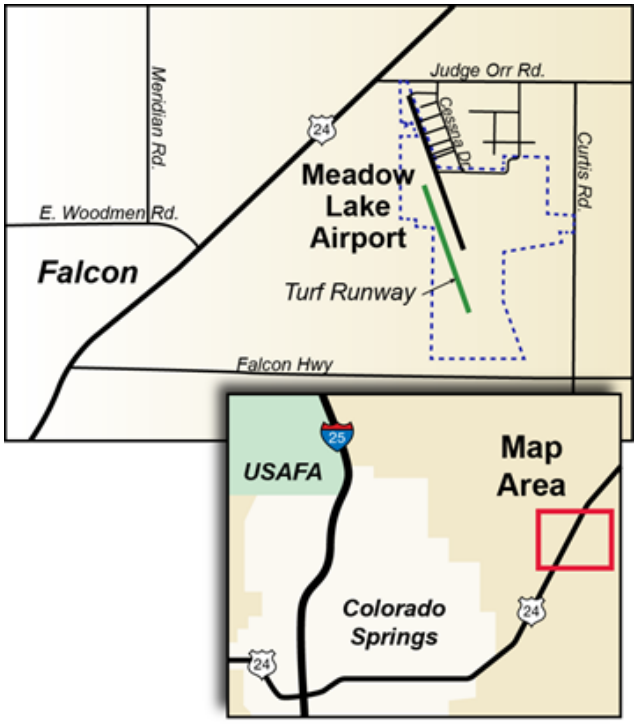
2. INVENTORY OF EXISTING CONDITIONS

2.1 Airport Overview

Meadow Lake Airport (FLY or the Airport) is a privately owned airport founded in 1965/1966 by members of the Experimental Aircraft Association as a place to own, operate, and build private airplanes. FLY is owned by the Meadow Lake Airport Association (MLAA). MLAA owns and operates the runways and primary taxiways; the existing hangars, homes, and lots east and west of Runway 15/33 are owned by individual property owners. The property and hangar owners are members of MLAA. Management of the Airport is accomplished by a Board of Directors elected in accordance with MLAA bylaws. Board members serve two-year terms. The MLAA is a not-for-profit-corporation incorporated under the provisions of the "Colorado Non-Profit Corporation Act," Article 24, Chapter 31 of the 1963 Colorado Revised Statutes, as amended[1]. It is also designated as a 501(c)(4) non-profit corporation by the Internal Revenue Service. As a result, all property and income of the MLAA are tax exempt, however, the Association does pay applicable sales taxes.

FLY is located in El Paso County, 15 miles northeast of downtown Colorado Springs, near the village of Falcon, east of US Highway 24 (US-24) and south of Judge Orr Road (**Figure 2-1**). FLY serves a diverse general aviation community. According to the Colorado Department of Transportation Division of Aeronautics (CDOT Aeronautics) 2013 Airport Economic Impact Study, FLY's economic contribution to the communities it serves was $10.1 million in output, and 130 jobs with an annual payroll of $4.9 million. The primary objective of this master plan study is to determine how best to enhance FLY, and to develop the list of priorities for capital improvements and the Capital Improvement Plan (CIP), which will be shown on the Airport Layout Plan (ALP).

Figure 2-1: FLY Vicinity Map



Source: Jviation

[1] MLAA Articles of Incorporation

Figure 2-2: Meadow Lake Airport Aerial View

Source: http://www.meadowlakeairport.com/

The general aviation industry has undergone significant changes since FLY's last master plan was prepared in 2008; those changes were examined in this study. Future trends in the general aviation industry could potentially have a significant impact on FLY's future airport facility needs, capital investment requirements, potential revenue sources, and environmental issues.

2.2 FAA General Aviation Airports ASSET Study

FLY is designated by the Federal Aviation Administration (FAA) as a General Aviation Reliever Airport to Colorado Springs Airport (COS). FLY is the only privately owned airport in Colorado in the FAA's National Plan of Integrated Airport Systems (NPIAS), and the only privately owned designated reliever airport. FLY is one of only 42 privately owned reliever airports in the FAA's NPIAS.[2]

The role of general aviation airports within the national airport system is evolving. In 2010 the FAA started examining the roles that general aviation airports play in the federally funded NPIAS. At that time, general aviation airports had not been thoroughly studied at the national level for more than 40 years. The FAA released the results in a May 2012 report, *General Aviation Airports: A National Asset (ASSET 1)*.

With the participation of aviation stakeholders, the ASSET 1 report identified the types of aeronautical functions serving the public interest that general aviation airports perform. The report defines four new categories for General Aviation (Non-primary) airports based on existing activity and roles (National, Regional, Local, and Basic), which have since been incorporated into the FAA's planning process including the NPIAS. The FAA notes that the general aviation airports serve many functions such as accommodating medical flights, search and rescue, disaster relief, aerial firefighting, law enforcement, and community access, as well as private/discretionary flying, flight training, and business aviation. The FAA classifies FLY as a General Aviation Reliever – Local Airport.

[2] FAA (2012) *General Aviation Airports: A National Asset (ASSET 1)*, Appendix B – Airport Listings

2.3 Colorado State Aviation System Plan

In 2011, CDOT Aeronautics completed the Colorado State Aviation System Plan (SASP) to provide an updated performance-based airport system plan forecast for Colorado's 76 public-use airports. The SASP's Executive Summary and Technical Report are available on the CDOT Aeronautics website: https://www.codot.gov/programs/aeronautics/colorado-airport-system. The SASP had three primary objectives:

- Use previously established performance measures and benchmarks to provide an update on how well the system is currently performing.
- Use information on system performance in 2000 and 2005 to identify 2011 changes in system performance.
- Use historic information to define the relationship between system performance measures, benchmarks, and facility/service objectives and aviation grants issued by CDOT Aeronautics.

The SASP notes: "The Division of Aeronautics offers support to Colorado airports through aviation fuel tax refunds, discretionary grants, and statewide maintenance and enhancement programs. Discretionary grants are based on aviation fuel tax refunds and are predominantly used for airfield capital improvements, airfield maintenance, capital equipment investment, local match for federal projects, and other various programs."

The SASP classifies each airport by their functional level as Major, Intermediate, and Minor, and provides information on the following:

- Actions and projects desirable to improve system performance relative to the plan's benchmarks.
- Actions and projects desirable to improve system performance relative to airport specific facility, service, and equipment objectives.
- Generalized cost estimates related to implementing improvements identified in the update.

CDOT classifies FLY as an Intermediate airport and as a reliever airport to COS. The results of the SASP are highlighted in **Table 2-1** and **Figure 2-3**.

Table 2-1: FLY's Status in the 2011 SASP

Performance Measure	Benchmark Met	Benchmark Not Met	Remarks
Activity	Operations		Estimated 62,000 annual operations = 36% of airfield capacity.
Expansion Potential	Master Plan	**Protect Airport FAR Part 77 Imaginary Surfaces**	2008 (AIP grant), **updated herewith – planned with County review and adoption of this Update in accordance with 1041 procedures**.
Economic Support	Fuel service, ground transportation, jet activity, impact greater than $1M.	**Published Instrument Approach Procedure**	**Planned with future B-II upgrade**, 100LL avgas self-serve available 24/7, rental/taxi cars available by prior arrangement.
Coverage and Emergency Access	On-Site Weather	**King Air 200 access**	AWOS IIIPT (AIP grant). FLY meets runway length, weather reporting, beacon, and MIRL … **need published instrument approach (w/ new B-II runway)**.
Investment	– Runway length – Runway strength – Taxiway – Pavement Markings	– Runway width – Runway/Taxiway Condition (PCI) – Published instrument approach	– Current length (6,000') meets standards. – Current capacity 12,500 lbs. – will be 30,000 lbs. – New B-II runway will be 75' wide. – Full parallel taxiway existing & future. – Pavement rehab in 2019-2021. – No action needed. – New non-precision GPS approaches to new runway.

Performance Measure	Benchmark Met	Benchmark Not Met	Remarks
	Runway lighting	– Visual aids – Apron Lighting	– Airport has rotating beacon, lights, wind cone, PAPI, segmented circle. – Medium intensity runway lights and runway end identifier lights.
		Terminal Building	To be reconstructed/replaced
	Primary parking apron & pavement condition		New ramp installed 2013 (Phase I). Phase II will be done when CDOT funding available.
	Hangars		419 privately owned hangar units
	Paved auto parking		As needed
	Tractors/mowers		Operated by volunteers
	Snow removal		Operated by volunteers
	Airfield maintenance vehicle & paint machine		Volunteer POVs
Security		Fencing	Partial fencing (with gate to hangars) installed in 2012

Source: 2011 CDOT SASP
Key: Red text = significant for near term
Blue text = Important for upgrade to FAA B-II design standards
Green text = Important for CIP planning

Figure 2-3: Colorado Airport Facility and Service Criteria for Recommended Roles

City	Airport	Classification	Published Approach	Fuel	Ground Transportation	Auto Parking	Jet Activity	Weather Reporting	Serves King Air B200	Meets Runway Length Objective	Meets Runway Width Objective	Meets Taxiway System Objective	Meets Visual Landing Aid Objectives	Meets Runway Lighting Objective	Telephone	Restrooms	FBO	Maintenance	Terminal	Snow Removal	Meets Criteria	Not Meet Criteria
Intermediate Airports																						
Akron	Colorado Plains Regional Airport	Non Primary - GA	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	17	1
Boulder	Boulder Municipal Airport	Non Primary - GA	No	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	14	4
Buena Vista	Central Colorado Regional Airport	Non Primary - GA	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No	Yes	Yes	16	2
Burlington	Kit Carson County Airport	Non Primary - GA	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	18	0
Canon City	Fremont County Airport	Non Primary - GA	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	17	1
Center	Leach Airport	Non NPIAS	No	Yes	No	Yes	No	No	No	Yes	No	No	No	No	Yes	Yes	No	No	No	Yes	6	12
Colorado Springs	Meadow Lake Airport**	Non Primary - Reliever	No	Yes	Yes	Yes	Yes	Yes	No	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes	13	5
Craig	Craig-Moffat County Airport	Non Primary - GA	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	No	No	No	14	4
Creede	Mineral County Memorial Airport	Non NPIAS	No	No	No	Yes	No	No	No	No	No	No	No	No	Yes	Yes	No	No	No	No	3	15
Del Norte	Astronaut Kent Rominger Airport	Non NPIAS	No	No	No	Yes	Yes	No	No	Yes	Yes	Yes	No	No	Yes	Yes	No	No	No	No	7	11
Delta	Blake Field	Non Primary - GA	No	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	14	4
Durango	Animas Airpark**	Non NPIAS	No	Yes	Yes	Yes	No	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	No	Yes	9	9

Source: Colorado 2011 Aviation System Plan Update, May 2012, Chapter 6, "Current and Future Airport Performance"

2.4 Airport Design Standards

2.4.1 Airport Reference Code

The FAA classifies airports in the United States with a coding system known as the Airport Reference Code (ARC). This classification helps apply design criteria appropriate to operational and physical characteristics of the aircraft types operating at each airport. The design standards are presented in various FAA advisory circulars, primarily in FAA AC 150/5300-13A, *Airport Design*. The ARC is made up of two components: Aircraft

Approach Category (AAC) and Airplane Design Group (ADG). FLY is currently classified as ARC B-I Small (less than 12,500 pounds) Aircraft.

The AAC is an alphabetical classification of aircraft based upon 1.3 times the stall speed in a landing configuration at their maximum certified landing weight. An airport's AAC is determined by the approach speed of the fastest aircraft that operates at the airport at least 500 times per year; Category A is the slowest approach speed, E is the fastest. Approach categories are summarized in **Table 2-2**.

Table 2-2: FLY Aircraft Approach Category

Approach Category	Approach Speed
A	Speed less than 91 knots
B*	Speed 91 knots or more but less than 121 knots
C	Speed 121 knots or more but less than 141 knots
D	Speed 141 knots or more but less than 166 knots
E	Speed 166 knots or more

Source: FAA AC 15/5300-13A, *Airport Design*
* FLY's AAC

The ADG is a numerical classification of aircraft based on wingspan and tail height. If an airplane's wingspan and tail height is in two categories, the most demanding category is used. Similar to the AAC, an airport's ADG is determined by the largest aircraft operating at least 500 times per year at the airport. For airports with multiple runways, the published ARC is based on the most demanding runway design group. ADG classifications are summarized in **Table 2-3**.

Table 2-3: Airplane Design Group

Group Number	Tail Height (Feet)	Wingspan (Feet)
I*	<20	<49
II	20≤30	49≤79
III	30≤45	79≤118
IV	45≤60	118≤171
V	60≤66	171≤214
VI	66≤80	214≤262

Source: FAA AC 15/5300-13A, *Airport Design*
* FLY's ADG

2.4.2 Runway Design Code

The Runway Design Code (RDC) is specific to each runway at an airport. The most critical aircraft which uses a runway at least 500 times per year is used to determine the RDC. The RDC uses the same AAC and ADG criteria utilized to determine the ARC, but adds a visibility minimums component. The current RDC for Runway 15/33 at FLY is B-I-5000. The RDC for Runway 8/26 is A-I-5000, as well as for the turf glider runway.

2.4.3 Taxiway Design Group

Taxiways are designed using the ADG and the Taxiway Design Group (TDG). The TDG utilizes Main Gear Width (MGW) and the Cockpit to Main Gear Distance (CMG) to determine the TDG. FLY's current taxiway design criteria is TDG-1A, which can accommodate an MGW of 15 feet and CMG of 20 feet; this encompasses ARC B-I and most B-II aircraft.

2.5 Airport Reference Point

The Airport Reference Point (ARP) is the latitude and longitude of the approximate center of the runway(s) at an airport. FLY's current ARP is located at Latitude 38˚56'44.68" north and Longitude 104˚34'11.92" west.

2.6 Airport Elevation

FLY's elevation (the highest point on an airport's runway(s)) is 6,874 feet above mean sea level (MSL).

2.7 Existing Airport Facilities

2.7.1 Airfield and Airspace

Runways

Meadow Lake Airport has three runways:

- **Runway 15/33** is the primary use runway.
- **Runway 8/26** is used during periods of strong crosswinds on Runway 15/33, emergencies, and as a taxiway.
- The **turf runway** is parallel to and west of Runway 15/33; it is used primarily by gliders and tow aircraft.

The data for each runway is depicted in **Table 2-4**.

Table 2-4: FLY Runway Data

Category	Runway 15/33	Runway 8/26	Turf/Glider Runway 15/33*
Length	6,000 feet	2,084 feet	5,000 feet
Width	60 feet	35 feet	200 feet
Surface Type & Condition	asphalt, gravel, no surface treatment, in fair condition – pavement deterioration issues	asphalt, gravel, no surface treatment, in fair condition	Turf, no surface treatment, in good condition
Pavement Design Strength	12,500 (SWG)	N/A	N/A

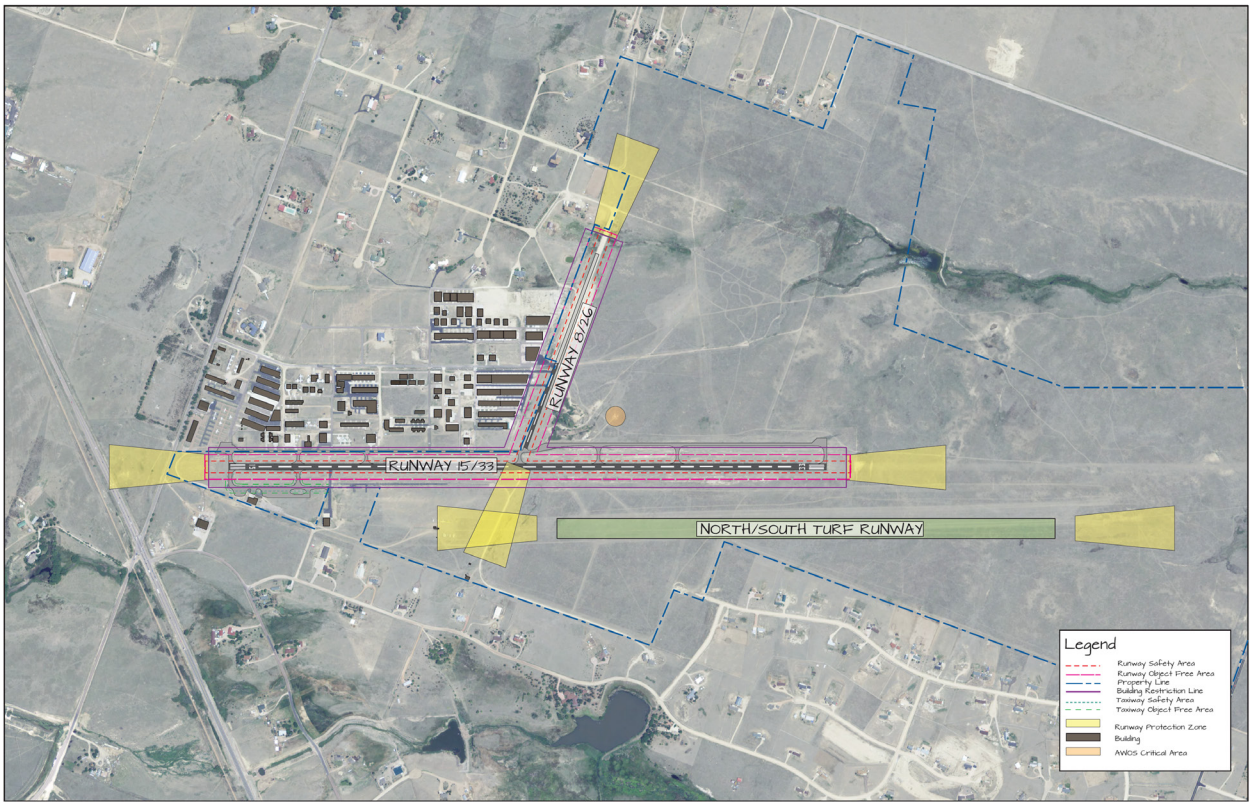
Source: Form 5010, Airport Master Record and Airport Management
* There is a conflict with FAA's Airport Facility Directory (AF/D) and Form 5010, which list the glider runway as N/S and 1,800 feet long by 15 feet wide.

Taxiways

FLY's existing taxiway system consists of a full parallel taxiway (Taxiway A) located on the east side of Runway 15/33. Taxiway A has seven connector taxiways: A1, A2, A3, A4, A5, A6, and A7. Taxiway A and all of its connecting taxiways are 25 feet wide, which meets the design standards for ARC B-I and TDG 1A criteria.

In addition, Taxiways C, D, E, and F allow access to privately owned hangars, tie-downs, and the east apron. Taxiway C also allows access to the airfield, while Taxiways D, E, and F provide access from the private parcels to the airfield. Those taxiways have doglegs to eliminate direct access from hangars and tie-downs to the airfield. Taxiway B1 and B2 provides access to the west apron from the east side of the Airport and Runway 15/33. There is a taxiway easement on the west side, mid-field, that extends to the turf runway and the west side Residential-Through-The-Fence (RTTF) access.

Figure 2-4: Meadow Lake Airport Overview

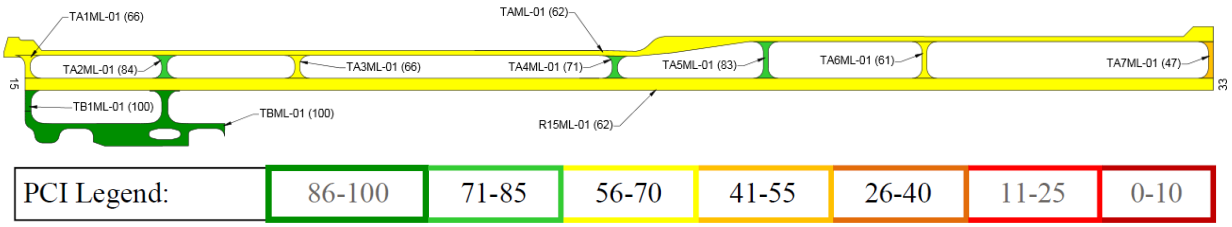


Source: Jviation

Pavement Conditions

The latest Pavement Condition Index (PCI) study conducted by CDOT Aeronautics was performed in 2014. The inspection found that the Airport's PCI varied from 47 to 100, as depicted in **Figure 2-5**. Pavement with PCI's of 56-70 may require major rehabilitation and/or preventative maintenance, while pavement with PCI's of 71 to 100 require only preventative maintenance. The study found pavement deterioration issues on Runway 15/33 along the centerline.

Figure 2-5: FLY's Taxiway System - Pavement Condition Index



Source: CDOT 2014 Pavement Evaluation and Pavement Management System Update

Airfield Lighting, Marking, and Signage of Runways and Taxiways

Runway 15/33 has Medium Intensity Runway Lighting (MIRL); parallel Taxiway A and connectors have Medium Intensity Taxiway Lighting (MITL). The lighting is Pilot Controlled Lighting (PCL)—pilots activate the lighting through the Common Traffic Advisory Frequency (CTAF) of 122.7 MHz. This enables the lights to be off when

the Airport is not in use. Runway 15/33 is marked with non-precision markings, which includes the threshold, centerline, and designation. Runway 8/26 and the turf runway are marked with red/green reflectors at each runway end, as well as white reflectors on Runway 8/26. FLY is equipped with standard airfield signage along Runway 15/33, including instruction, location, direction, and informational.

Visual Navigational Aids

Both ends of Runway 15/33 are equipped with Precision Approach Path Indicators (PAPIs), which provide visual descent guidance. A PAPI is a lighting system typically positioned on the left side of the runway, and consists of a series of light boxes positioned adjacent to each other at set intervals. Both of FLY's PAPIs are a two-box system. The PAPI lights can be detected up to five miles away during the day and 20 miles at night. The lights are positioned at an angle to cue pilots that they are approaching the runway at the required approach slope so as to clear any obstructions. Runway 15's glide path angle is 3.5 degrees; Runway 33's is 3.0 degrees. FLY's other visual aids include a rotating beacon that flashes green and white, the standard color pattern identifying a civilian-use airport. A segmented circle is located east of Runway 15/33, which consists of a lighted wind cone located at the center of a visual pattern identifying the proper direction to land and which traffic pattern to use given the current winds.

Electronic Navigational Aids

There are no electronic navigational aids (NAVAIDs) at FLY. Aircraft approaching and departing FLY have use of a nearby very high frequency radio (VOR) transmitter (Black Forest VOR, on 112.5 MHz, located three nautical miles west of FLY). The VOR also transmits distance measurement data. Many general aviation aircraft are equipped with global positioning system (GPS) receivers, and FAA air traffic control at COS provides radar coverage and services for aircraft operating in the vicinity of FLY. FLY has a Unicom radio that operates on frequency 122.7 MHz, which is also the CTAF. Pilots self-announce their position and intentions on the frequency. Pilots are not required to transmit on the CTAF, and airplanes are not required to have an operating radio to takeoff and land at FLY, however, the majority of airplanes do have radios and the majority of pilots do announce their position and intentions on the CTAF.

Airspace

FLY is similar to the majority of public-use airports in Colorado and the United States in that it does not have an air traffic control tower (ATCT). The FAA has the sole jurisdiction to manage the National Airspace System (NAS), as well as air traffic control (ATC). The FAA classifies airspace using letter designations from A to G, which is consistent with international civil aviation organization standards. Each letter classification has different pilot qualifications, aircraft equipment, weather, and ATC reporting requirements (**Table 2-5**). The airspace surrounding airports are designated using a letter classification ranging from B to G, as depicted in **Figure 2-6**. FAA designates the airspace surrounding airports without ATCTs as either Class E or G. The airspace adjacent to FLY is designated Class G, which means that aircraft arriving and departing FLY are not required to contact ATC or receive ATC clearance.

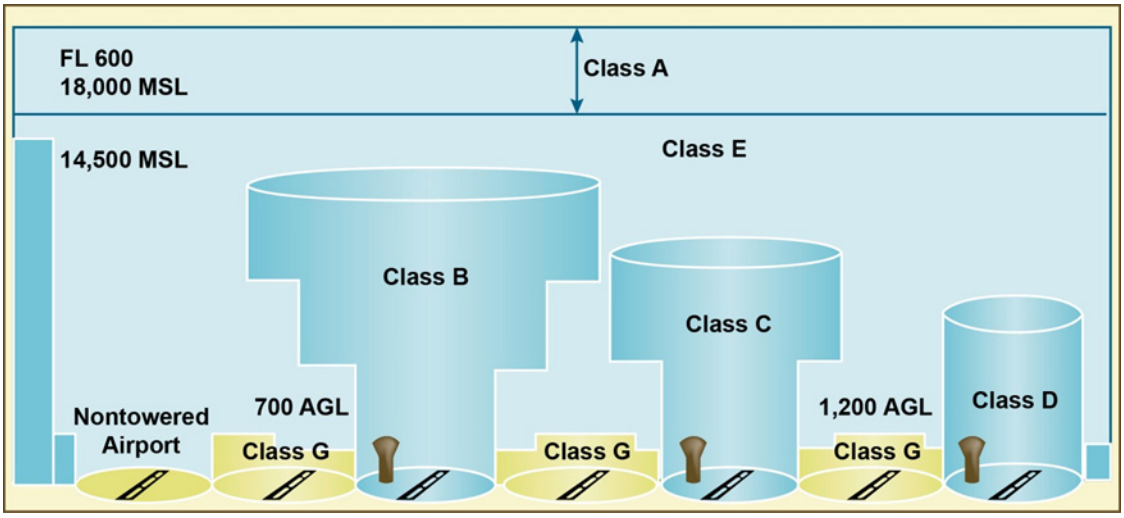
Table 2-5: FAA Airspace Classifications

Airspace Classification	Requirements
A	All airspace above 18,000' MSL – all aircraft must operate under instrument flight plan and ATC clearance with specified equipment.
B	Surrounds the largest hub airports – typically extends up to 10,000' above airport elevation. Require specific equipment and pilot qualifications, and ATC approval.
C	Surrounds towered airports (such as COS) with radar service area. Typically extends for a 10-mile radius up to 4,000' above airport elevation. Requires specific equipment & ATC approval.

Airspace Classification	Requirements
D	Surrounds towered airports (e.g. USAF Academy) – typically extends up to 2,500' above airport elevation and four-mile radius. Requires ATC permission.
E	Surrounds non-towered airports with specific limits. No ATC approval required except during periods of poor (Instrument Flight Rule) weather conditions.
G	Uncontrolled airspace – no ATC approval required.
Prohibited Area	No flights authorized.
Restricted Area	Flights allowed at specific times.
Military Operations Area (MOA)	Civilian flight allowed, but use extreme caution due to flight training activity.

Source: FAA

Figure 2-6: Airspace Classifications



Source: FAA

Obstructions

The FAA Sponsor Grant Assurances require that airport sponsors, including the Meadow Lake Airport Association (MLAA), be responsible for maintaining the airspace as defined in 14 CFR Part 77, *Safe, Efficient Use, and Preservation of the Navigable Airspace*, clear of objects and penetrations. The airspace is clearly defined as specific imaginary surfaces, many of which extend off airport property and over adjacent communities and political boundaries. FAA defines every penetration of an imaginary surface as an obstruction, but also recognizes that airport sponsors have limited jurisdiction over property and land uses situated off airport. However, FAA recommends that sponsors work with communities so that they adopt zoning ordinances to limit the construction of new objects and prevent vegetation growing into the imaginary surfaces defined for each airport. FAA also expects airport sponsors to work closely with local communities to remove existing penetrations to the imaginary surfaces. No new aerial mapping was undertaken as part of this study, but existing data identifies several obstructions to the imaginary surfaces in the vicinity of FLY and its runways, as depicted in **Table 2-6**.

In 2015, MLAA worked closely with El Paso County and the local communities of Peyton and Falcon regarding the proposed Golden West transmission poles and wires being planned by NextEra Energy Resources, to ensure that the transmission poles and wires remain clear of FLY's imaginary surfaces. NextEra expressed to MLAA that it plans to remain clear of FLY's airspace. NextEra is required to file formal notices with the FAA and obtain a written determination from FAA on the potential hazard of the proposed utility lines.

Table 2-6: Airport Obstructions

Runway	Obstruction
Runway 15	20 ft. (AGL) road (elevation), 550 ft. from runway end
Runway 33	None
Runway 8	49 ft. (AGL) power line, marked, 1,460 ft. from runway end
Runway 26	10 ft. road (AGL)

Source: FAA Form 5010-1, Airport Master Record

2.8 General Aviation Facilities

2.8.1 Hangars

FLY has 419 hangar units (which include 22 residential hangars) located on private, individually owned property (**Figure 2-7**). MLAA owns the snow removal equipment (SRE) storage hangar/garage. Most of the hangar units are east of Runway 15/33, and one is on the west side of the runway, south of the terminal building.

Figure 2-7: FLY Hangars

Source: http://www.meadowlakeairport.com/

2.8.2 Aprons and Aircraft Parking

FLY has a paved transient aircraft parking apron located west of Runway 15, south of the MLAA hangar/terminal building. The 2,080-square-yard apron was constructed in 2013, with approximately 30 parking spaces.

2.8.3 Terminal Building/Snow Removal Equipment Storage

FLY's terminal building is situated west of Runway 15/33. It is a two-story, 6,000-square-foot wood structure with electrical, water, and sewer hook-up, with a garage for airfield maintenance equipment storage. There is a dirt parking lot in front of the building, and TTF access for vehicles to drive onto the airfield. The terminal building is used for MLAA meetings and other functions. The overall structure and associated utilities are in poor condition.

2.9 Through-the-Fence Access

FLY was initially formed in 1965 by private individuals constructing their own hangars on private property and dragging a runway in the prairie on the old McCandlish Ranch. The Airport was formalized by the Meadow Lake Airport Development Corporation on September 14, 1970 with the initial recording of Meadow Lake Airport Filing No. 1 as a mix of private commercial, private non-residential, and private residential airport properties.

FLY was specifically developed with TTF operations as the operational mode, which was fully consistent with FAA policy at that time. There are seven designated access points between the private property and the public-use airfield. MLAA membership includes the land owners surrounding most of the Airport. The larger majority of based aircraft, hangar units, aprons, and businesses are privately owned by individuals (vs. the MLAA), and operate as TTF airport businesses, shown in **Figure 2-8**.

FAA defines TTF access as designated points through the airport property boundary that allow either aviation-related or non-aviation tenants located off-airport to access the airfield facilities.

FAA distinguishes between residential (RTTF) access and non-residential TTF access. FAA policy has been that for airports with accepted Airport Improvement Program (AIP) grants, allowing TTF access, particularly RTTF, increases the challenge of fully complying with the pertinent grant assurances. However, FAA acknowledges that where TTF access currently exists, it is often not feasible to close the access points. FAA requires airport sponsors to submit a plan showing how the sponsor can comply with the grant assurances, in part by exercising control over the TTF access points and charging appropriate fees for the access.

Figure 2-8: FLY Businesses and Organizations

MEADOW LAKE AIRPORT

Aviation Organizations

Experimental Aircraft Assn (EAA), Chapter 72
Aviation Education Foundation of Colorado (AEFCO)
High Flights Soaring Club (HFSC)
Soaring Eagle Foundation (SEF)
Pikes Peak Powered Para-Glider Club (PPPPC)
Popular Rotorcraft Assn (PRA), Chapter 38
Civil Air Patrol (CAP)

Aircraft Businesses

Aircraft Refinishing
American Aviation
Colorado Ultralights
Craig Aviation
Evan's Aircraft
Freeflight Composites
Great Lakes Aircraft
Harpers Aviation
Hawk Aviation
JTQ Aviation
Kirkwood Aviation
Marco's Aircraft
MB Aviation
NexAer Corporation
Pearce Aircraft
Phantom Fuels
Pikes Peak Flyers
Precision
RV Builders
Sky's the Limit
Springs Aviation
TGP Aviation Services
VANCO Aviation
Verlin's Aviation
Wilderness Spirit Wings

Hangar Associations / Businesses

7936 Cessna Drive LLC
7944 Cessna Drive LLC
8266 Cessna Drive Hangars
8460 Cessna Drive LLC
Airport Properties LLC
Cessna Drive Hangars Condominiums
Chandell LLC
CVK Condos
DELL Properties LLC
E-A-A Hangars Inc.
East Meadow Lake Hangars Assn
Envision Development
Executive Hangars
Falcon Development Corporation
Falcon Hangars Condominiums
Hangars, Inc
Hangars at Meadow Lake Airport LLC
Hughes Enterprises LLC
Johnston Enterprises LLC
Meadow Lake Airpark Hangar Condos
Meadow Lake Properties, LLC
Williwaw LLC
Wolfie's Hangars

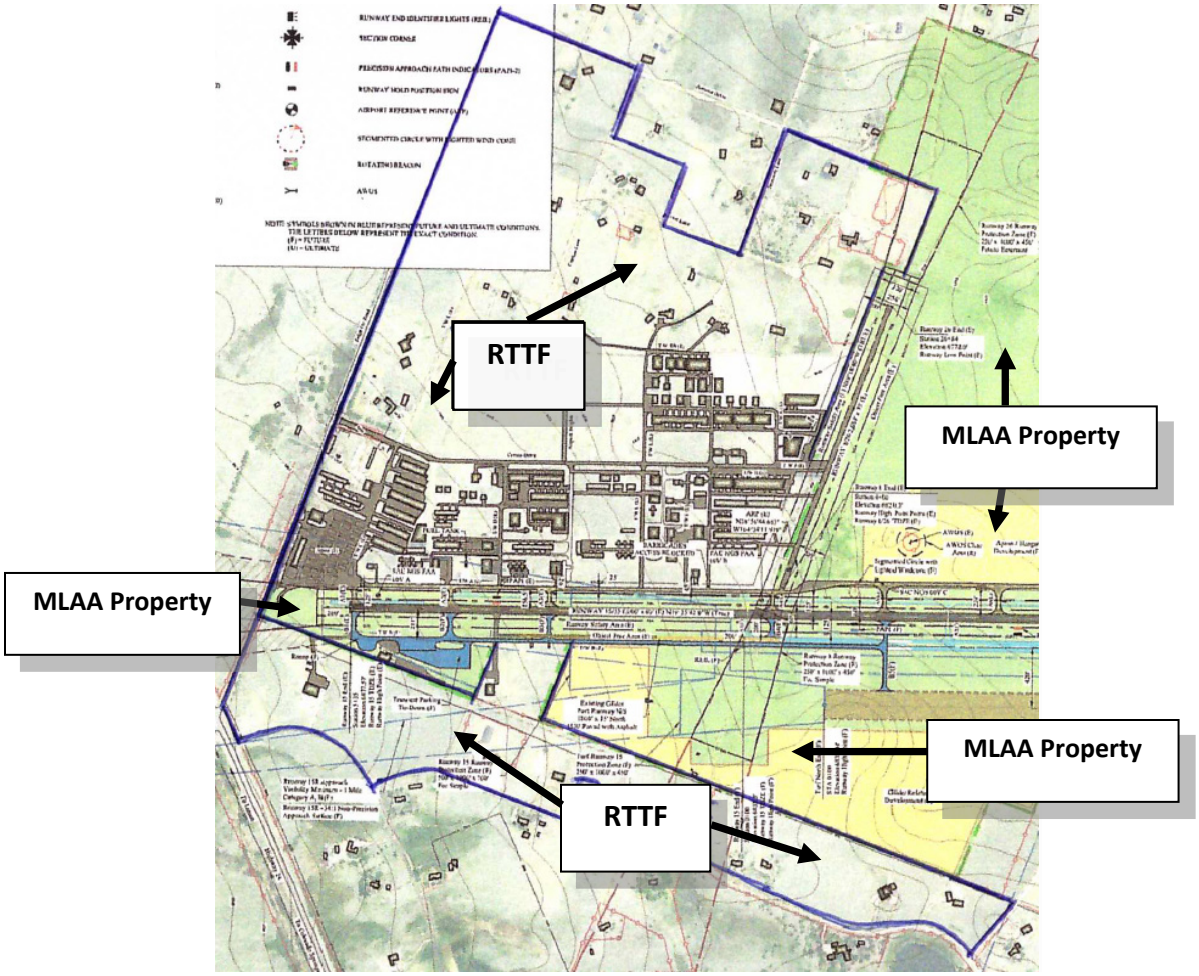
Source: MLAA, May 2015
Note: All businesses are all located on private property with TTF access

2.9.1 Residential Through-the-Fence Access

A clear distinction was made between FLY's public-use facilities (runways, taxiways, etc.) and the privately owned houses and hangars on the east and west side of Runway 15/33. There are 31 privately owned houses and hangars on the east side of Runway 15/33 and eight on the west side.

Figure 2-9 depicts FLY's property designations. Property designated as RTTF is privately owned and has TTF access to the runways and taxiways. MLAA prepared and submitted an RTTF access plan to the FAA. The RTTF issue was also addressed in detail in the Meadow Lake Airport Compliance Plan prepared in 2012 by Jviation. The Compliance Plan is attached as an appendix to this master plan.

Figure 2-9: FLY's Property Designations



Source: MLAA, April 2015

2.10 Airport Ground Access

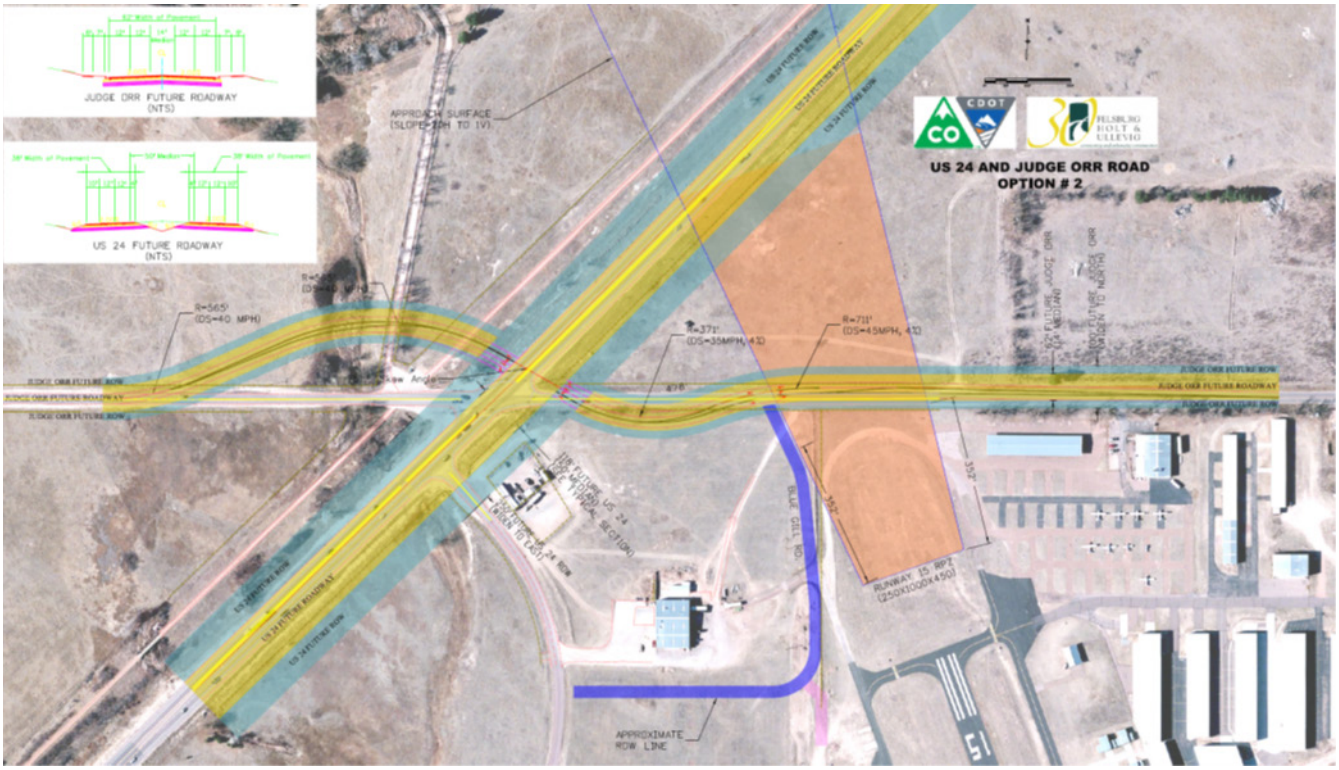
FLY is situated east of US-24 and south of Judge Orr Road. Access to the terminal building and the west side of the Airport is off of US-24, Blue Gill Drive, Mallard Drive, and Piper Lane. There is a service road from the terminal building around the north end of Runway 15/33 to the east side of the Airport. Access to the east side of the Airport (the location of the residences and most of the hangars) is off Judge Orr Road and Cessna Drive.

CDOT and El Paso County were working on three road projects in the vicinity of FLY; the widening of US-24 to four lanes, which may occur before 2020, and the relocation of Judge Orr Road so that it connects with US-24 at a 90-degree angle, consistent with current roadway design standards. In addition, CDOT is exploring relocating Blue Gill Drive so that it will intersect with the new Judge Orr Road, and eliminate its current intersection with US-24.

CDOT originally planned to construct Judge Orr Road and Blue Gill Drive in the 2015-2016 time frame. The extension of Curtis Road to Route 24/Stapleton Road intersection is also proposed. A number of meetings were held with CDOT and MLAA representatives to review and analyze various road alternatives. CDOT has stated that one goal of their project is to avoid or minimize any impact on FLY. A draft layout of the realigned Judge Orr Road and Blue Gill Drive, prepared by CDOT, is shown in **Figure 2-10**.

CDOT announced in Spring 2015 that due to funding constraints, it was putting the Judge Orr Road and Blue Gill Drive realignment project on hold indefinitely. There is currently no schedule when CDOT may revisit that project, although CDOT indicated it still wants to move forward with widening US-24 in the future.

Figure 2-10: US-24 and Judge Orr Road Proposed Changes



Source: CDOT
Note: Future layout subject to change by CDOT

2.11 Airfield Maintenance, Weather, and Wind Data

2.11.1 Airport Support Facilities and Equipment

Snow removal and airfield maintenance equipment is currently stored in the MLAA hangar adjacent to the terminal building. The Airport owns and operates several pieces of large maintenance equipment to perform routine airfield maintenance and snow removal. All of the airfield maintenance, including snow plowing, is performed by the MLAA members.

2.11.2 Weather Observation Equipment

An Automated Weather Observation System (AWOS) is a voice-synthesized automated sensor suite that provides a weather report that can be transmitted via VHF radio or navigation aid ensuring that pilots on approach have up-to-date airport weather for safe and efficient aviation operations. Most AWOS observe and record temperature and dew point in degrees Celsius, wind speed and direction in knots, visibility, cloud coverage and ceiling up to 12,000 feet, freezing rain, thunderstorm (lightning), and altimeter setting. FLY has an AWOS-3PT located east of the midpoint of Runway 15/33; it transmits weather data on 118.450 MHz and via telephone (719.683.5371).

2.11.3 Wind Coverage

Wind conditions are particularly important for runway use. Each aircraft (and pilot) has an acceptable crosswind component for landing and takeoff. The crosswind component is a calculation of the speed of wind at a right angle to the runway centerline. When the acceptable crosswind component is exceeded, the aircraft must divert to another runway or a different airport. When the current runway(s) provide less than 95 percent wind coverage for aircraft, a crosswind runway should be considered[3]. Results of the wind coverage analysis prepared for this study are presented in **Chapter 4, Facility Requirements**.

2.11.4 Mean Maximum Temperature

The mean maximum temperature of the hottest month, also known as the airport reference temperature, occurs at FLY in June at 85.4°F[4]. The mean maximum temperature affects aircraft performance. Density altitude increases as temperature (and airport elevation) rises, and aircraft performance decreases, particularly in relation to takeoff distance and climb rate.

2.11.5 Precipitation

FLY's rainiest month is typically August, with an average of 5.72 inches of rain. The total annual precipitation averages 19.21 inches. The average snowfall for the area averages 30.4 inches per year, with most of the snowfall occurring November through April.[5]

[3] FAA AC 150/5300-13, *Airport Design*
[4] U.S. Department of Commerce, National Oceanic & Atmospheric Administration, Colorado Springs Municipal, 2013
[5] U.S. Department of Commerce, National Oceanic & Atmospheric Administration, Colorado Springs Municipal, 2013

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3. FORECAST OF AVIATION DEMAND

Projecting future aviation demand is a critical element in the Airport Master Plan (AMP) process since many proposals and recommendations within the master plan are based upon aviation activity demand forecasts. As noted in FAA Advisory Circular (AC) 150/5070-6B, *Airport Master Plans*:

> Forecasts of future levels of aviation activity are the basis for effective decisions in airport planning. These projections are used to determine the need for new or expanded facilities. In general, forecasts should be realistic, based upon the latest available data, be supported by information in the study, and provide an adequate justification for airport planning and development.

The forecasts developed in this chapter will be used to project Meadow Lake Airport's (FLY or the Airport) future activity necessary to determine the type, size, and timing of future development. Because the decision to identify and execute projects is largely based on the anticipated levels of demand, forecasting acts as the hub of a master planning process. Future aviation activity also determines the ultimate role of the Airport, as well as the appropriate airport design standards, which are discussed below and in later chapters of this study.

This chapter discusses projected aviation demand at FLY over the next 20 years (2017 to 2037), the FAA's recommended outlook period for airport master plans. While forecasting considers the most accurate information available at the time the projections are completed, it is not an exact science. It must be recognized that there are likely to be some divergences of an airport's activity from a prepared forecast due to many factors that simply cannot be anticipated such as changes in aviation fuel prices, new regulations, and trends in the economy. However, when soundly established, the forecasts developed in a master plan will provide a sound, defensible, and defined rationale to guide the analysis of future airport development needs and alternatives.

The amount and type of aviation activity occurring at an airport are dependent upon many factors. These include, but are not limited to the services available to aircraft operators, the businesses located on the airport or within the host community, and the economic conditions within the surrounding area. The FLY forecast analysis considers historical aviation trends at the Airport, the surrounding region, and throughout the nation.

Projections of aviation activity for FLY were prepared for the near-term (2022), intermediate-term (2027), and long-term (2037) time frames. Other forecasts discussed below cover different planning periods, such as FAA's Terminal Area Forecast, which extends to 2040.

3.1 Aviation Activity Forecast Context

3.1.1 National Aviation Trends

National trends within aviation are often reflected in airports and the local communities they serve, and should be considered in the development of activity projections. Various sources were used to examine current and anticipated trends influencing the general aviation industry:

- Federal Aviation Administration - FAA Aerospace Forecasts, 2017-2037
- General Aviation Manufacturers Association (GAMA) – Statistical Databook, 2015
- National Business Aircraft Association (NBAA) - NBAA Business Aviation Fact Book, 2016

General Aviation Industry

General aviation (GA) aircraft are classified as all aircraft not flown by commercial airlines or the military. This includes a diverse array of flying that ranges from a personal vacation in a small single-engine plane, to overnight package delivery, to an emergency medical evacuation, to flight instruction training new pilots, to helicopter traffic reports that keep drivers informed of rush-hour delays. Simply stated, general aviation encapsulates all individual unscheduled aviation activities that enrich, enhance, preserve, and protect the lives of citizens. The FAA divides general aviation activities into six broad categories:

- Personal: About one-third of private flying in the United States is for personal reasons, which may include practicing flight skills, personal or family travel, personal enjoyment, or personal business.
- Instructional: All private flight instruction for purposes ranging from private pilot to airline pilot is conducted through general aviation.
- Corporate: About 12 percent of the total private flying in the United States is done in aircraft owned by a business and piloted by a professional. Most of these flights are in jets and cover long distances, with some flying to international destinations. Businesses elect to fly these trips to save time and expand their geographic and operational networks.
- Business: About 11 percent of private flying in the United States is done by business people flying to meetings or other events, primarily in piston or turboprop aircraft. Many pilots flying for business own or work for relatively small businesses and use the aircraft to accomplish missions that would otherwise take more time or would be infeasible.
- Air Taxi: When scheduled air service is either not available or inconvenient, businesses and individuals use charter aircraft from air taxis service providers. These flights save time and make it possible to fly directly to places that cannot be reached by scheduled service.
- Other: Given the diverse nature of general aviation, this category includes disaster relief, search and rescue, police operations, news reporting, border patrol, forest firefighting, aerial photography and surveying, crop dusting, and tourism activities, among many others.

General Aviation Trends

At the national level, business cycles and the price of aircraft ownership have impacts on general aviation demand levels. This section provides an overview of the most profound general aviation trends, as well as some of the various factors that have influenced those trends in the United States. These are important considerations in the development of projections of general aviation demand for FLY.

Business Use of General Aviation

There is a clear connection between GA activity on national and local levels and the general state of the national economy in that companies and individuals use general aviation aircraft as a tool to improve efficiency and productivity of their business and personnel. Use of aircraft gives businesses control over their travel itineraries and destinations, and can greatly reduce travel time associated with scheduled airline service. FAA has noted that business aviation has been one of the fastest growing segments of GA activity over the last 15 years. However, even business aviation activity declined between 2009-2010 during the national recession, and although it has rebounded since then, it has not returned to the activity levels seen in 2007[1]. The FAA remains optimistic about the long-term growth potential for corporate aviation, noting in their Aerospace Forecast FY 2016-2036: "the long-term outlook for general aviation, driven by turbine aircraft activity, remains favorable." The more expensive and sophisticated turbine-powered fleet (including rotorcraft) is projected to grow by 15,600 aircraft - at an average rate of 2.1 percent a year over the forecast period, with the turbine jet portion

[1] FAA Business Jet Report, February 2017 Issue

increasing at 2.5 percent a year. Private companies likewise see robust future growth in corporate jet aviation. The Honeywell Business Aviation Forecast recently noted that it "sees 4.0 to 5.0 percent average annual industry growth over next decade with up to 9,250 deliveries of new business jets valued at over $250 billion expected through 2023."

One trend to note is the popularity of fractional ownership, which began in the 1980s. These programs offer aircraft owners flexibility in their ownership and operation of their aircraft. The program uses current aircraft acquisition concepts, including shared or joint aircraft ownership, and provides for the management of the aircraft by an aircraft management company. Aircraft owners participating in the program agree to share their own aircraft with others having an ownership interest in that particular aircraft, and most also lease their aircraft to others in the program. The aircraft owners use a common management company to provide aviation management services including maintenance of the aircraft, pilot training and assignment, and leasing management of the aircraft.

Even in an unsteady economy, fractional operators continue to see growth as previous customers re-enter the market or existing customers increase their fractional aircraft usage. In addition, fractional owners witness an increasing number of new prospects making the move to fractional ownership as an alternative to flying commercially or owning a business jet outright. In the United States, fractional-share ownership makes up 15 percent of business-aviation flights.

Other users of GA aircraft operating at FLY include crop spraying, flight training, medical transports, aerial surveying and photography, equipment sales and support, aircraft servicing and maintenance companies, medical service firms, and others.

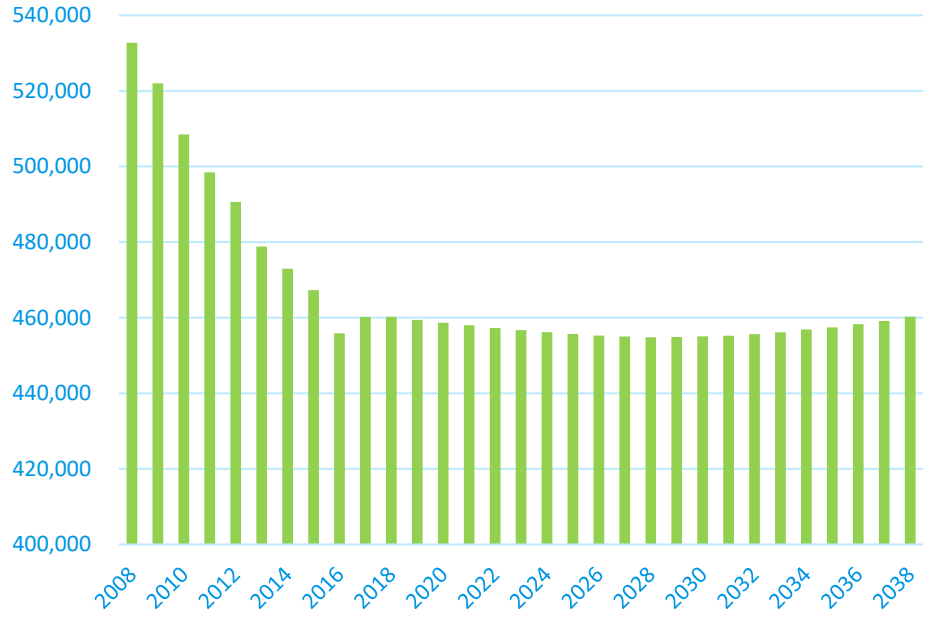
Declining Pilot Population

According to FAA records, the number of total active licensed pilots in the United States declined by 13.6 percent from 2008 to 2017, with licensed private pilots declining by 27.0 percent and commercial pilots decreasing by 21.3 percent over that same period[2]. This is the result of various factors including the pilot population aging faster than the general population, more rigorous FAA experience requirements for airline new hires, and an overall reduction of military flight training. This decline impacts demand for aircraft activity throughout the country: the fewer pilots there are, the less flying will be done, resulting in fewer operations at airports.

However, there are indications that these trends may be leveling out if not reversing, as evidenced by the overall number of student pilot licenses issued having increased 84.3 percent from 2008 to 2017. This can be seen in an examination of the FAA's forecast of future levels of aviation activity that are based on past and current trends and economic drivers. The most recent forecast available (FAA Aerospace Forecasts, Fiscal Years 2018-2038) presents historical as well as near-term and long-term pilot forecasts, depicted in **Figure 3-1**. The FAA has forecasted the number of licensed pilots to remain flat (0.0 percent growth) over the next 20 years, which is an improvement to the declining rates experienced over the past decade.

[2] https://www.faa.gov/data_research/aviation/aerospace_forecasts/

Figure 3-1: Historical and Forecasted Number of Total Pilots, Excluding Student Pilots



Source: FAA Aerospace Forecast, 2016-2036, Active Pilots by Type of Certificate

Availability and Cost of Avgas

Avgas is the only leaded fuel allowed in the United States, and the FAA has been working with companies to develop an unleaded replacement for 100LL. The majority of piston-engine aircraft use 100LL avgas. Some smaller displacement engines can use unleaded auto fuel (mogas) without ethanol, but auto fuel without ethanol is relatively scarce. Larger piston engines cannot use mogas, and they use the largest volume of 100LL. The three primary goals for the replacement of 100LL are to 1) certify an unleaded fuel that can be used in all piston-engine airplanes, 2) that can be used by the existing fuel storage and transportation system, and 3) will cost approximately the same as the retail price of existing 100LL. If those goals are not met, it is likely that that future GA activity would be negatively affected.

User Fees

Congress has considered a number of proposals to impose additional fees for the use of the National Airspace System and the services provided by FAA. There have been discussions about privatizing the air traffic control system, similar to Canada, Australia, and other countries. Aviation trade associations have recognized that user fees would likely have a direct negative impact on GA activity levels.

New Airport and Airspace Security Regulations

After Congress created the Department of Homeland Security in 2002 and the Transportation Security Administration (TSA) in 2001, those agencies imposed new security regulations for commercial service airports. GA airports were not covered by those regulations, but if they were to be subject to similar security requirements in the future, it could adversely impact GA activity. FAA has also imposed numerous temporary flight restrictions (TFR), many in response to security issues, some of which have adversely affected activity and businesses at GA airports. Any increase in the number and/or size of TFRs would further adversely impact GA activity.

Rising Costs of GA Aircraft Ownership

The cost of GA aircraft ownership has been rising faster than the overall rate of inflation for many years. A new Cessna 172, a common four-seat single-engine piston aircraft, currently retails for almost $400,000, while other high performance single-engine piston airplanes retail from $700,000 to $1 million. Because of the high price point for entering the new aircraft market, many airplane owners have elected to continue to fly older, more affordable aircraft. With the average age of a GA aircraft in the United States now over 40 years old, costs for maintenance and replacement parts for those aircraft are increasing. Since much of GA activity is based on recreational and personal uses, the continued rising aircraft ownership costs are expected to have a dampening impact on overall activity levels.

A mitigating factor to the dampening effect of the rising costs of manufactured aircraft is the growing popularity of experimental amateur-built aircraft and light sport aircraft. As demonstrated at airports like FLY throughout the country, the construction of these types of aircraft is already a prominent driver in the market. As opposed to the traditional single-engine aircraft market, which is projecting a very slow decline, the experimental and sport aviation markets are forecasting growth. While this is not sufficient to completely mitigate the larger declining trend of single-engine piston aircraft, these aircraft will demonstrate continued robust growth in future years. Currently, experimental or homebuilt aircraft comprise approximately 17.4 percent of the single-engine piston aircraft market, and is expected to grow to 22.6 percent by 2038[3]. When adding light sport aircraft, those increase to 19.1 percent and 26.3 percent respectively.

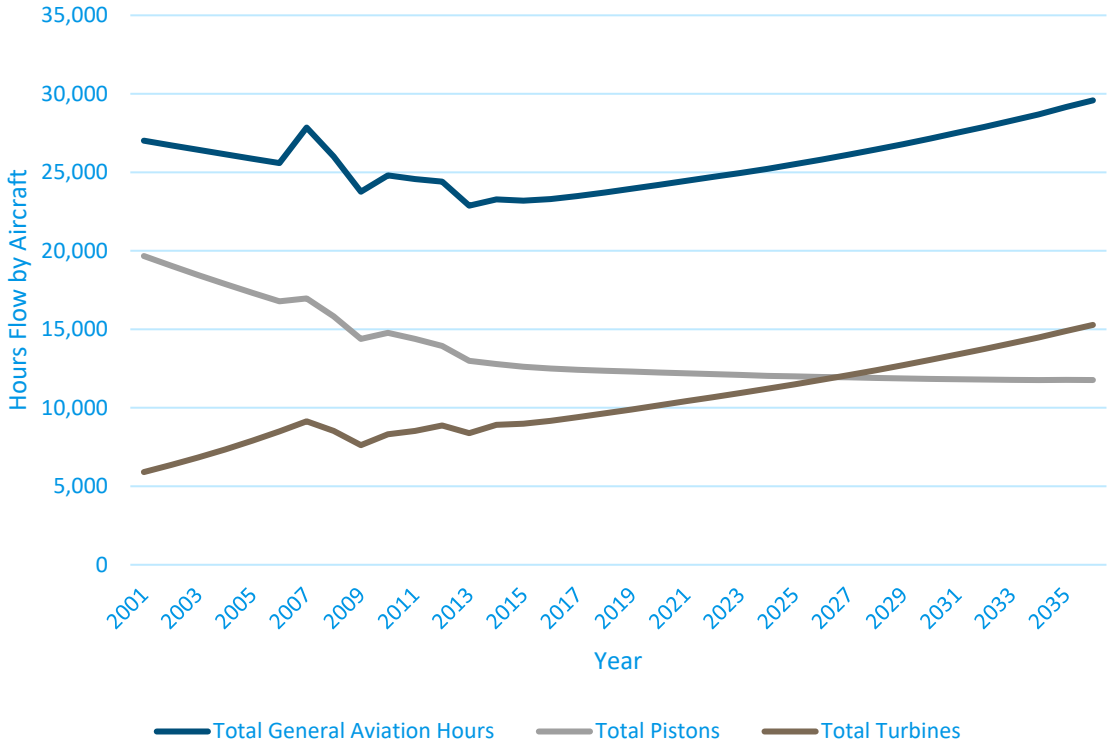
Operational Trends

The FAA also tracks and projects a valuable metric known as active general aviation and air taxi hours flown. This is done through a nationwide survey conducted every two years. This metric captures several activity-related data including aircraft utilization, frequency of use, and duration of use.

As shown in **Figure 3-2**, hours flown in general aviation piston aircraft experienced a significant decrease of 3.4 percent annually from 2000 to 2014. However, this trend is expected to lessen over the 20-year planning period with an annual decrease rate of 0.5 percent. For turboprop and jet aircraft (turbine), hours flown are expected to continue to grow at a relatively high rate of 2.7 percent per year through 2036, primarily due to the high utilization of business aviation aircraft. This trend in changing fleet distribution may be reflected in future activity and based aircraft numbers at FLY.

[3] https://www.faa.gov/data_research/aviation/aerospace_forecasts/

Figure 3-2: Historical and Forecasted GA Aircraft Hours



Source: FAA Aerospace Forecast 2016-2036, Active General Aviation and Air Taxi Hours Flown

3.1.2 State/Regional Trends

National trends offer a broad summary of what has occurred across the country, but may be different than what has occurred in a particular state or region. For this reason, it is important to consider state and regional trends that may influence FLY. The large majority of GA airports in the United States do not have a control tower, including FLY. As a result, there is often no one counting GA takeoffs and landings, and aviation activity is estimated by a number of sources including the FAA, airport managers, FBOs, and other airport users. It is not uncommon for those entities to estimate different levels of activity at a given non-towered airport. Some state agencies and airports use acoustical counters and video cameras to count flights at non-towered airports, but due to their cost and labor requirements they are not commonly used.

State/Regional General Aviation Airport Trends

The FAA issues a Terminal Area Forecast (TAF) for each airport included in its National Plan of Integrated Airport Systems (NPIAS), including FLY. Updated annually, the TAF is used to determine federal budget and staffing needs, as well as to serve as a resource for airport operators, the general public, and other interested parties. Due to resource limitations, the FAA is not able to forecast in as great of detail at smaller airports as they typically do at larger airports. Nevertheless, the TAF does provide a guideline for developing new planning-level forecasts, which is utilized as a basis for comparison with other scenario-driven planning forecasts. Generally, for the FAA to approve of an airport's master plan forecasts, those forecasts must be supported by an acceptable forecast analysis that is consistent with the FAA TAF. As stated previously, at non-towered airports, activity levels are estimated based on a variety of sources, including data provided by the Airport.

TAF data for FLY, including annual aircraft operations and based aircraft, are shown in **Table 3-1**, as well as TAF data for other neighboring airports. Analyzing airports proximate to FLY is helpful in quantifying growth in this part of the state, in recognizing potential area trends, and in identifying possible linkages among those airports. One notable observation in this table is that the FAA's TAF forecasts aircraft operational growth (in both average annual rate and total number) at FLY is higher than at all other area airports combined, including commercial service airports COS and PUB, yet shows no corresponding growth in the number of FLY's based aircraft. It is recommended the Airport follow up with FAA to resolve this inconsistency.

While there are other area airports that also showed no forecasted growth in based aircraft (e.g., LHX, LIC, and 4V1), these airports are much smaller, have much lower activity levels, and play much less significant roles in the national and state airport systems than that of FLY. It is also worth noting that Fremont County, another lower activity airport that has no forecasted growth in operations, projects growth in based aircraft that exceeds the local and national averages. Given FLY's national and state aviation system roles and its existing and predicted operational levels, it can be reasonably inferred that the TAF currently underrepresents the based aircraft growth potential of FLY.

Table 3-1: Regional General Aviation Airport Trends

Airport	FAA ID	Current Operations	Forecasted Operations (2037)	Operations AAGR	Based Aircraft	Forecasted Based Aircraft (2037)	Based Aircraft AAGR
Meadow Lake	FLY	65,813	85,748	1.3%	413	413	0%
Fremont County	1V6	13,778	13,778	0%	84	156	3.1%
La Junta Municipal	LHX	6,274	6,274	0%	12	12	0%
Limon Municipal	LIC	6,000	6,000	0%	19	19	0%
Spanish Peaks Airfield	4V1	5,000	5,000	0%	11	11	0%
Colorado Springs *	COS	133,261	144,031	0.4%	454	554	1.0%
Pueblo Memorial *	PUB	175,848	181,391	0.2%	131	208	2.3%

Source: 2017 FAA Terminal Area Forecast

Colorado Aviation System Plan

The Colorado Department of Transportation Division of Aeronautics (CDOT Aeronautics) last updated the Colorado State Aviation System Plan in 2011. "The plan helps to identify a system of airports and projects that meets the State's air transportation needs and supports its economic goals. The state aviation system plan also provides the Division of Aeronautics with an important planning tool to monitor how investment elevates overall system performance."[4] The plan measures and forecasts activity to determine if the system has sufficient capacity to meet future needs. The Colorado System Plan forecasted the growth rate of aircraft operations at general aviation airports throughout Colorado to be 0.7 percent per year through 2030. The System Plan also analyzed based aircraft and forecasted an average annual growth rate of 0.5 percent.

El Paso County Workforce Changes

Beyond aviation trends, it is important to look at how the region's economy and demographics are forecasted to change over the 20-year planning period. It is widely accepted that an airport can positively impact the growth of a community and the growth of the community can also positively affect the airport. In 2016, the El Paso County Major Transportation Corridors Plan Update was published. This plan looked at how road changes would affect different areas of the County. Included in the plan were projections of household and employment

[4] 2011 Colorado Aviation System Plan - Technical Report

growth. Both factors are projected to increase through the year 2060. This information can be seen in **Table 3-2** and **Table 3-3**.

Table 3-2: Employment Growth Projections In El Paso County

Employment	2010	2030	2040	2060	Growth 2010-2040	AAGR 2010-2040
Unincorporated El Paso County	46,709	86,346	102,241	130,200	55,532	2.7%
City	237,069	333,298	381,394	473,532	144,325	1.6%
Total	**283,778**	**419,644**	**483,635**	**603,732**	**199,857**	**1.8%**

Source: Pikes Peak Area Council of Governments

Table 3-3: Household Growth Projections In El Paso County

Households	2010	2030	2040	2060	Growth 2010-2040	AAGR 2010-2040
Unincorporated El Paso County	54,552	97,508	114,256	150,407	59,704	2.4%
City	184,302	227,750	249,469	288,288	65,167	1.0%
Total	**238,854**	**325,258**	**363,725**	**438,695**	**124,871**	**1.4%**

Source: Pikes Peak Area Council of Governments

3.1.3 Airport Market Area

Aviation demand is strongly tied to the number of people within an airport's market area, as well as their financial ability and desire to travel by air. Indicators such as trends in overall population, per capita and disposable personal income, and unemployment rates all have a bearing on aviation activity.

The Colorado Department of Local Affairs notes[5]: "Colorado's population is forecast to increase from 5,029,196 in 2010 to 6 million in 2020 and 7.01 million by 2030. This is an average annual growth rate of 1.7 percent followed by 1.5 percent. The forecasted growth rates are slightly slower than the previous decade yet faster than the U.S. rate of 0.9 percent. The largest share of the population (82.4 percent) will continue to be along the Front Range with a growing share in the Western Slope, growing from 11 to 12 percent between 2010 and 2020."

El Paso County's population in 2016 was estimated to be 690,200. The County's population has increased two percent each year from 1985 to 2016. If this trend were to continue, the population of El Paso County by the end of the planning period (2037) would be over one million.

According to the Colorado Department of Local Affairs, in 2016 the per capita personal income in El Paso County was lower than the state and national average (**Table 3-4**).

Table 3-4: Per Capita Income

Area	Income
El Paso County	$30,261
State of Colorado	$33,230
U.S. Average	$31,128

Source: https://www.census.gov/quickfacts

[5] https://demography.dola.colorado.gov/

3.2 Historical and Existing Aviation Activity

Records of historical and existing based aircraft and operations are the starting point for future projections. FLY accommodates a wide variety of aviation activity, ranging from occasional air taxi operators to recreational, corporate activity, and public service operations. Since FLY does not have an air traffic control tower, operational levels must be estimated (as opposed to counted). The following resources were used to gather and estimate activity at the Airport:

- FAA Airport Master Record Form 5010
- FAA National Based Aircraft Inventory Program
- 2017 FAA Terminal Area Forecast, issued January 2018
- Discussions with Airport Management
- Colorado Aviation System Plan

3.2.1 FLY Based Aircraft

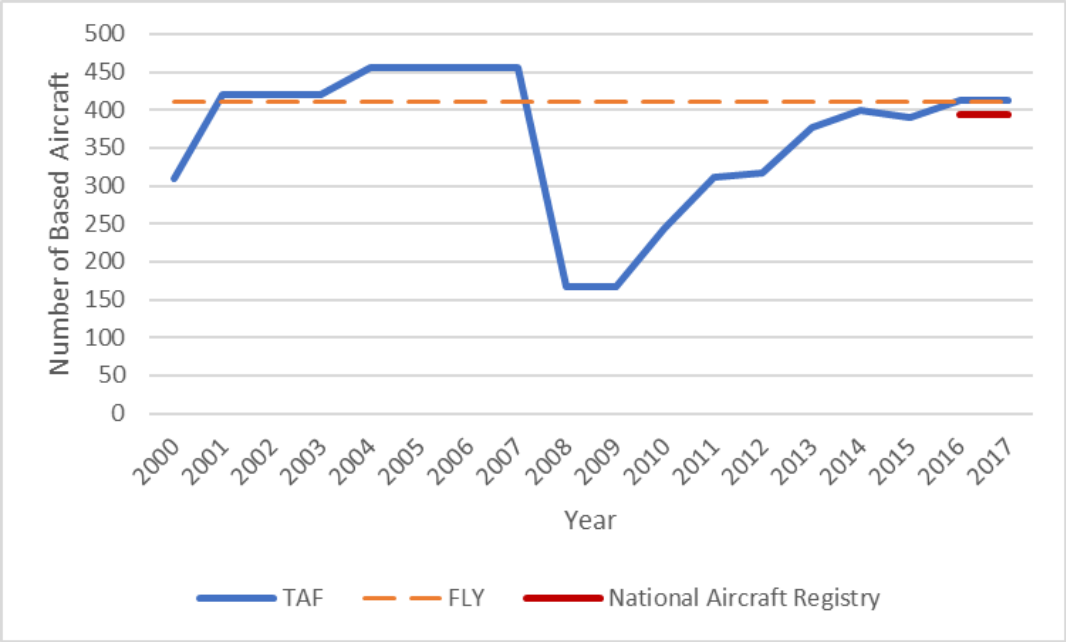
A based aircraft for a given airport is defined by the FAA as an aircraft that is operational (airworthy) and that is typically stored at the facility for most of a calendar year. It is not uncommon for primary sources of historical based aircraft data, such as the FAA TAF, the Airport Master Record FAA Form 5010, and airport records to vary from one another.

Approximately every three years, CDOT staff will update FLY's FAA Form 5010 data, which contains critical runway and taxiway information as well as estimates of based aircraft and annual operations totals. (It should be noted that FAA Form 5010 data serves as the basis of the FAA TAF at uncontrolled airports like FLY.) According to the FAA TAF and FAA Form 5010, FLY has 413 based aircraft as of 2017. Based on Airport records, FLY has maintained a consistent number of based aircraft since the year 2000 - around 410 aircraft.

Many factors influence airport operations and based aircraft, such as the price of tiedowns and hangars, the availability of fuel and support services such as maintenance, etc. **Figure 3-3** displays the number of based aircraft reported at FLY since 2000 according to the FAA TAF as well as that report by FLY management. Based on data reported by the Airport on FAA Form 5010, the TAF shows the number of based aircraft has fluctuated significantly throughout the years (ultimately having an overall average annual growth rate of two percent over the period). Current Airport management believes no such dramatic based aircraft population fluctuations occurred.

To reconcile such data discrepancies at FLY and other airports, the FAA is now requiring the current baseline for the based aircraft forecast for all airports match that of the validated based aircraft count in the FAA's National Based Aircraft Database Program. This database shows FLY currently having 393 based aircraft that have been validated against the FAA's National Aircraft Registry. This count includes 359 single-engine aircraft, 22 multi-engine aircraft, two jets, and 10 helicopters. Additionally, there are nine aircraft currently under construction at FLY that cannot currently be counted as based aircraft until they are registered with FAA.

Figure 3-3: Historical Number of Based Aircraft



Source: 2017 FAA Terminal Area Forecast (TAF), issued 2018; FLY Data; FAA National Aircraft Registry

When forecasting, it is also important to look at the type of aircraft based at an airport. This gives insight to the users and often gives clues as to how the mix might change in the future. Fleet mix is often more predictable based on industry trends than demographic or regional trends. As shown in **Table 3-5**, FLY's fleet mix has an overwhelming majority of single-engine aircraft. According to airport management, much of the activity at the Airport is flight training and pilots building and restoring their own aircraft. Based on the current national GA trends of active pilots and hours flown, growth in single-engine aircraft will likely continue at the Airport, but at a decreasing rate or percentage of the overall fleet mix with increases in jet/turbine aircraft and helicopters filling that void.

Table 3-5: Current Based Aircraft Fleet Mix

Aircraft	Based Aircraft	Percentage of Total
Single Engine (SE)	359	91.4%
Multi-Engine (ME)	22	5.6%
Jet (J)	2	0.5%
Helicopters	10	2.5%
Other	0	0.0%
Total	**393**	**100.0%**

Source: FAA National Aircraft Registry

3.2.2 FLY Aircraft Operations

An aircraft operation is defined as either a takeoff or landing of any aircraft on an airport. The historical operations data includes activity conducted by based aircraft as well as operations conducted by itinerant aircraft. These are defined as VFR or IFR operations performed by an aircraft that lands at an airport, arriving from outside the airport area, or departs an airport and leaves the airport area (50 miles). Information related

to aircraft operations is important in understanding the demand on the airport and helps to serve as a basis for determining where improvements are needed.

Since there is no active air traffic control tower located at FLY, estimates of annual aircraft operations are based upon information from the FAA, CDOT, Airport management records, and Airport tenants and users.

Per FAA Order 5090.3C, *Field Formulation of the National Plan of Integrated Airport Systems (NPIAS)*, Paragraph 3-2(c), aviation forecasts at uncontrolled GA airports should use the following Operations Per Based Aircraft (OPBA) numbers when estimating activity:

a. 250 operations per based aircraft for rural GA airports with little itinerant traffic,
b. 350 operations per based aircraft for busier GA airports with more itinerant traffic, and
c. 450 operations per based aircraft for busy reliever airports.

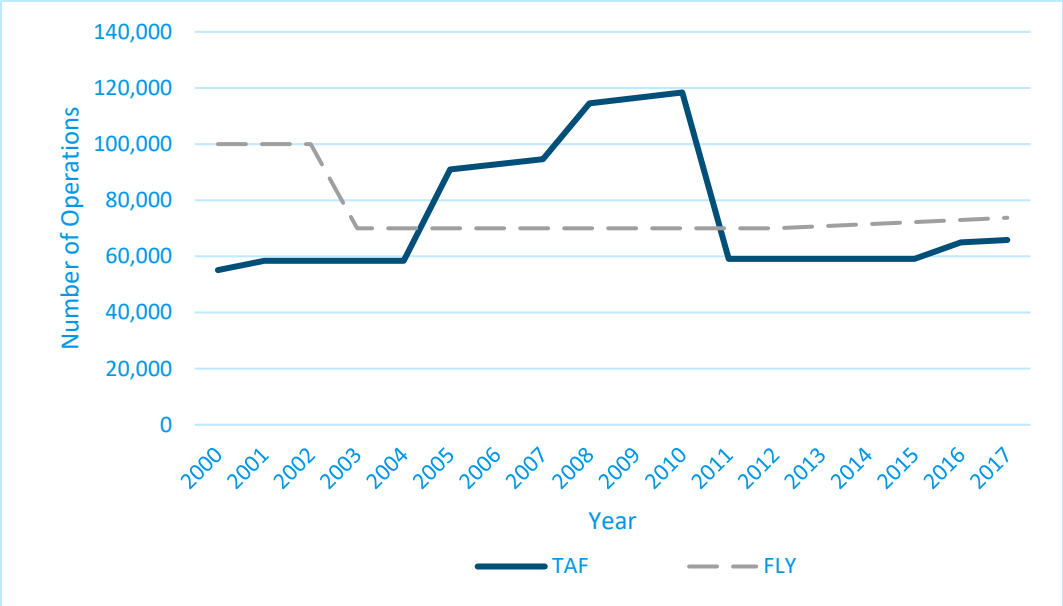
Since FLY has been classified as a reliever airport within the NPIAS, these guidelines indicate that the 450 operations per based aircraft standard be used for FLY, resulting in an estimated 176,850 (450 OPBA x 393 based aircraft) annual operations. Because the Airport Manager has reported annual activity levels much lower than the results of the OPBA model, this method has been deemed to be not an accurate measure of forecasting aircraft operations at Meadow Lake Airport.

According to the FAA TAF, aircraft operations at FLY have fluctuated from a low of 55,105 in 2000 to a high in 2010 of 118,398 followed by a dramatic decline in 2011 (**Figure 3-4**). From 2008 to 2010, many industries were severely impacted by the economic downturn throughout the country, and the aviation industry was no exception. Fewer aircraft were purchased and the high operational costs of business aircraft caused aviation activity throughout the country to decline. Even with this national downturn trend, between 2000 and 2015, the TAF's average growth rate of aircraft operations at FLY was one percent each year. The TAF currently shows 2017 annual operations for FLY to be 65,813.

Based on local observations (including considerations associated with fuel sales and periodic aircraft operation estimations by airport management), FLY's historical operational high is estimated to have occurred in the early 2000s (at approximately 100,000 annual operations), but dropped significantly in 2002. From 2003 through 2012, aircraft operations stayed at a consistent level of 70,000. Since 2012, the Airport has experienced limited but steady growth (estimated to be 1.0 percent growth each year).

Based on Airport records, the TAF estimate for 2017 aircraft operations of 65,813 will be used as the baseline for annual aircraft operations forecasts.

Figure 3-4: Historical Number Of Aircraft Operations



Source: 2017 FAA Terminal Area Forecast (TAF), issued 2018; FLY Data

FLY'S operations data includes local activity conducted by based aircraft as well as those conducted by itinerant aircraft stored at other airports arriving at FLY for a variety of reasons including maintenance, business, recreation, flight training, etc. **Table 3-6** shows the breakdown between local and itinerant operations based on data provided by the FAA TAF. While it is difficult to track the types and purposes of specific transient operations at an airport without a control tower, Airport management observations indicate that these itinerant operations consist primarily of based aircraft traveling outside of the airport area (50-mile radius), aircraft visiting the Colorado Springs area, and military training aircraft originating from the Air Force Academy and Fort Carson.

Table 3-6: Itinerant Versus Local Aircraft Operations

Year	Itinerant Operations	Location Operations	Total Operations	Itinerant Percentage of Total
2008	46,756	47,888	94,644	49%
2012	29,100	30,000	59,100	49%
2017	32,292	33,521	65,813	49%

Source: 2017 FAA Terminal Area Forecast (TAF), issued 2018

3.3 Projections of Aviation Activity

Projections of aviation activity are generated by using historical data and incorporating assumptions, conditions, and trends. Forecasting of any type is as much an art as it is a science, and no matter how sophisticated, it represents an "educated guess" at a point in time. Therefore, forecasts must be updated and revised as necessary to reflect changing conditions and developments.

During a master plan, aviation activity forecasts are typically developed using a wide variety of assumptions that can result in a wide range of outcomes. This is done intentionally to provide a broad view of future airport utilization based on a range of possible events that could affect activity. Once that broad view has been established, a careful examination of those assumptions is undertaken to determine which could be reasonably applied given that airport's current situation and opportunities.

The following resources were evaluated in the generation of a forecast for FLY:

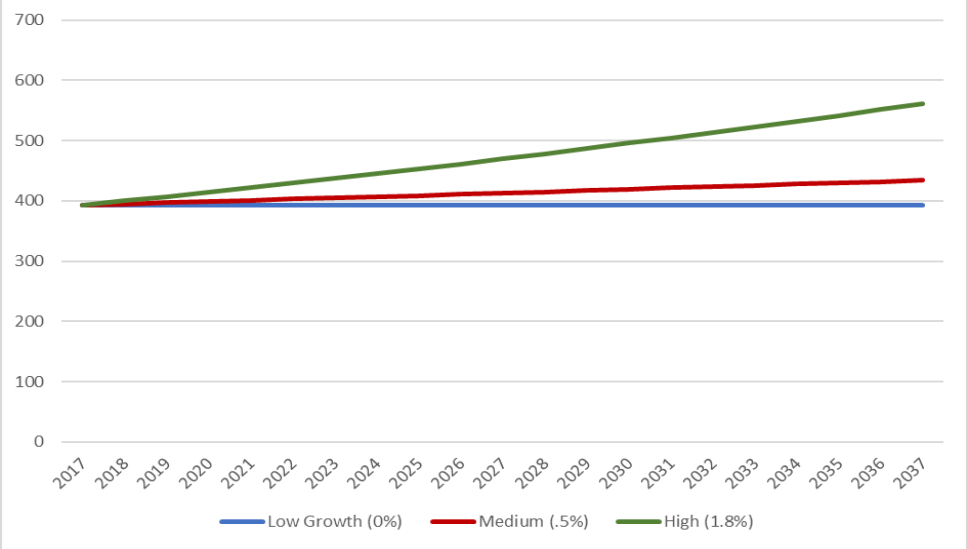
- 2017 FAA Terminal Area Forecast, issued January 2018
- Airport Market Area Demographic and Socioeconomic Projections

3.3.1 FLY Based Aircraft Forecast

Estimating the number and types of aircraft expected to be based at FLY throughout the forecasting period will impact the need for future facilities and infrastructure requirements. In one perspective related to airport growth, as the number of aircraft based at an airport increases, so does the demand for aircraft storage and other facilities required at the Airport, particularly for tiedowns and hangars, as well as for fuel and other FBO services.

Three methodologies were used to forecast based aircraft. First, the FAA TAF was referenced. The TAF incorporates many industry forecasts, but often does not look at the specifics of each airport's location and factors affecting growth there. The TAF does not predict an increase in the number of based aircraft at FLY and is illustrated in **Figure 3-5** as the low growth (0.0 percent average annual growth) scenario. CDOT's State Aviation System Plan looked more closely at factors affecting the state and FLY and shows a 0.5 percent growth as the medium growth scenario. This growth percentage is a more realistic look at state industry and local factors. The third method, high growth (1.8 percent) utilized the employment growth rate of El Paso County. Employment is often not a significant influence on the number of based aircraft. This method is also at a much higher growth rate than the other two methodologies listed.

Figure 3-5: FLY Based Aircraft Forecast



Source: Jviation

Preferred Based Aircraft Forecast

The preferred based aircraft forecast is the medium-growth projection of 0.5 percent per year, based on CDOT's System Plan forecast for FLY. It represents a reasonable and conservative growth projection for FLY while considering FAA outlooks and the downturn in the number of licensed pilots over the past few years. This projection shows that the number of based aircraft at FLY will increase from 393 to 434 based aircraft within the 20-year planning period.

Preferred Based Aircraft Fleet Mix

In addition to the forecasted growth of FLY's based aircraft population, it is also important to consider potential shifts in the Airport's future fleet mix. As described earlier, some of the more prominent national general aviation trends include the following:

- Decline in pilot population.
- No growth if not decline in the overall number of single-engine aircraft.
- Decline in the number of multi-engine aircraft.
- Strong growth in experimental and sport aircraft.
- Strong growth in jet/turbine aircraft.
- Strong growth in rotorcraft.

Based on those overarching national trends, the FLY fleet mix over the planning period is projected to exhibit the following characteristics (see **Table 3-7**):

- An overall increase in single-engine, experimental, sport aircraft, but at a declining share of the total percentage of the Airport's single-engine based aircraft (from 91.4 percent to 90.0 percent by 2037).
- A decrease in the number and percentage of the Airport's multi-engine aircraft (from 5.6 percent to 4.0 percent).
- A slight but progressive increase in the percentage of jet aircraft based at the Airport (from 0.5 percent to 2.0 percent over the 20-year planning period).
- A slight increase in the number and share of helicopters at FLY (from 2.5 percent to 4.0 percent).

Table 3-7: Projected Aircraft Fleet Mix

Aircraft	2017		2022		2027		2037	
	Based Aircraft	Percentage of Total	Based Aircraft	Percentage of Total	Based Aircraft	Percentage of Total	Based Aircraft	Percentage of Total
Single Engine (SE)	359	91.4%	367	91.0%	372	90.1%	391	90.0%
Multi-Engine (ME)	22	5.6%	21	5.3%	21	5.1%	17	4.0%
Jet (J)	2	0.5%	3	0.8%	4	1.0%	9	2.0%
Helicopters	10	2.5%	12	2.9%	16	3.8%	17	4.0%
Other	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Total	**393**	**100%**	**403**	**100%**	**413**	**100%**	**434**	**100%**

Source: FAA National Aircraft Registry; Jviation

It should be noted that even though these fleet mix projections are consistent with national trends, they remain very conservative, reflecting the slow pace at which many of these national trends are ultimately realized at a local level. However, as economic development continues to accelerate in FLY's market area, it is reasonable to assume that increased demand for aviation's growth niches (jet, helicopter, sport) will result in more aggressive shifts in FLY's fleet mix. This could also be exacerbated by increased commercial service operations at Colorado Springs.

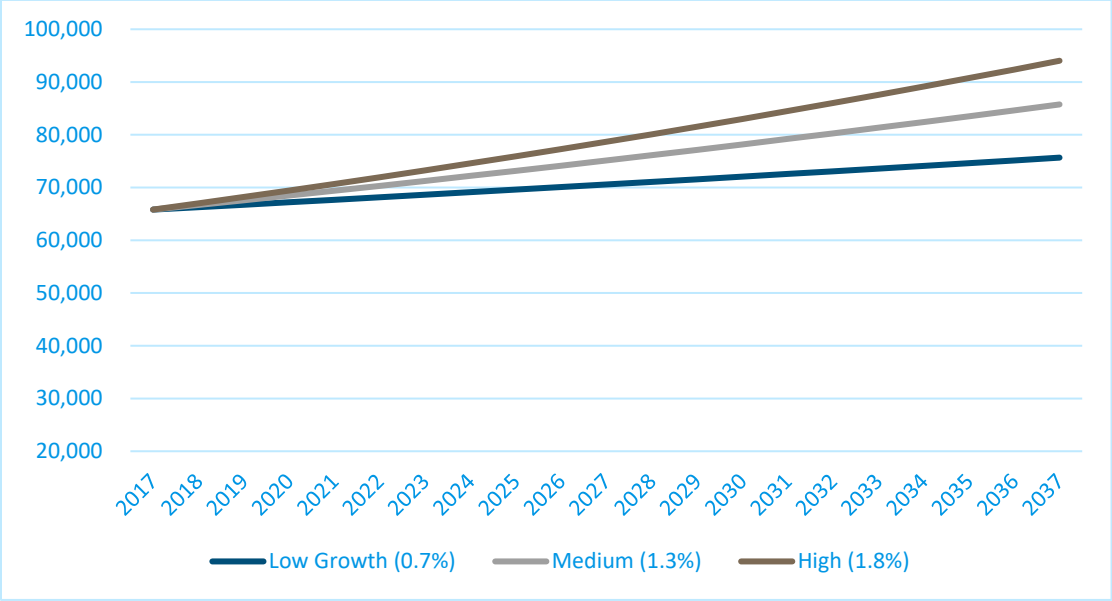
3.3.2 FLY Aircraft Operations Forecast

Annual operations represent the number of aircraft take-offs and landings at an airport in one calendar year. Many different factors can influence the number of aircraft operations at an airport, including, but not limited to, total based aircraft, area demographics, activity and policies at neighboring airports, and national, state,

and local aviation trends. These factors were used to develop projections of future aircraft operations at FLY, shown in **Figure 3-6**.

Three methodologies were studied to forecast aircraft operations at FLY. CDOT's State Aviation System Plan directly addressed FLY's forecast based on the current operations, at the time of the study. The average annual growth rate predicted by CDOT (0.7 percent average annual growth) is low compared to the other methodologies studied. The FAA TAF was referred as the medium growth rate (1.3 percent) for the Airport. The TAF is based on industry trends and the most recent reported number of operations. The third method was using the employment growth rate (1.8 percent) of El Paso County. The logic behind this forecast was that as employment in the region grows, more people will be able to afford GA activities. Also, as employment grows, the number of companies utilizing GA will grow. This method has a higher growth rate than the other two methodologies listed.

Figure 3-6: Forecasted Aircraft Operations



Source: Jviation

Preferred Aircraft Operations Forecast

The preferred operations forecast is 1.3 percent, the medium-range projection, as presented by the FAA TAF. While the forecast is higher than the Colorado System Plan growth projections, it is reasonable and considers nationwide trends in aviation.

3.4 Comparison with FAA TAF

To secure FAA approval for the aviation forecast, the FAA requires a comparison of the forecast to the annually-produced TAF, preferring that airport planning forecasts not vary significantly from the TAF. FAA looks for the two forecasts to be within ten percent of their five-year period and within fifteen percent of their ten-year period. If they are not within these tolerances, additional analysis will be required for FAA approval. **Table 3-8** compares the forecasts and shows that the preferred projections are within FAA tolerances.

Table 3-8: Preferred Forecast and TAF Comparison

	Current	2022	2027	2037	AAGR
Based Aircraft					
Preferred Forecast	393	403	413	434	.5%
TAF	413	413	413	413	0%
Percentage Variance	*-0.5%*	*-2.4%*	*0%*	*5.0%*	
Operations					
Preferred Forecast	65,813	70,121	74,848	85,748	1.3%
TAF	65,813	70,121	74,848	85,748	1.3%
Percentage Variance	*0%*	*0%*	*0%*	*0%*	

Source: Jviation

3.5 Critical Aircraft

The development of an airport is influenced by the demand for various facilities, typically represented by total based aircraft and operations at an airport, and the type of aircraft that will use those facilities. In general, airport infrastructure components are designed to accommodate the most demanding aircraft, referred to as the critical design aircraft, which will utilize the infrastructure on a regular basis. (It is important to note that a critical design aircraft can be a single type of aircraft or a family of aircraft that have similar physical and operational characteristics.)

The factors used to determine an airport's critical design aircraft are the approach speed and wing span/tail height of the most demanding class of aircraft that is anticipated to perform at least 500 annual itinerant operations at the airport during the planning period. That means that a representative of the critical design aircraft must perform at least one takeoff and landing every weekday at a given airport throughout the course of a year.

Many airports, including large commercial service airports and GA airports, accommodate occasional operations by aircraft larger than the critical design aircraft. However, if these larger airplanes do not generate sufficient activity throughout the year to meet FAA's definition of substantial use, those aircraft cannot typically be used to determine airport or airspace design standards.

After identifying an airport's critical design aircraft, it is then possible to determine the facility's Airport Reference Code (ARC). Described in greater detail in the following chapter, the ARC is a coding system defined by the FAA that relates airport design criteria to the operational and physical characteristics of the critical design aircraft. An airport's ARC is a composite designation based on the Approach Category and Airplane Design Group (wingspan and tail height) of that airport's critical aircraft.

FAA and Airport data was used to evaluate historical operations at FLY and to help identify the appropriate critical design aircraft. Many data resources, however, rely on pilots to file IFR flight plans or contact approach control to record their activity. Being that FLY is an airport that typically serves smaller piston-engine airplanes that fly under VFR flight rules (FLY does not have a published instrument procedure), accurate records are not available for these types of users are they are less likely to file IFR flight plans or use FAA air traffic control services.

Based on available data and interviews with the Airport, virtually all piston and turboprop aircraft currently operating at FLY fall within the A-I to B-I Small ARC designations (note that the "small" designation equates to an aircraft maximum takeoff weight of 12,500 pounds or less). These designations encompass nearly all single

engine and many light multi-engine piston aircraft in the general aviation fleet. Accordingly, FLY's existing ARC has been identified as being B-I Small, with a representative critical design aircraft of the Piper Navajo.

Projecting FLY's future ARC is more challenging and is based on multiple considerations. From a strategic or aviation system perspective, it is important to recognize that FLY has been included within the FAA NPIAS. Additionally, the CDOT Aeronautics aviation system plan classifies FLY as an Intermediate Airport. Airports in this category should ideally meet ARC B-I or greater standards (this goal exceeds FLY's current B-I Small designation), be designed to serve primarily single-engine and multi-engine general aviation aircraft, as well as to be able to accommodate limited business jet activity. (For FLY to better serve within its designated role, the state system plan made a series of facility and service improvement recommendations, including establishing non-precision instrument approach procedures to meet demands associated with that type of GA activity, including business jets.)

From a regional development perspective, it has already been recognized that demands for business aviation near Colorado Springs and within the greater Denver area continue to grow, a trend that is supported by national FAA forecasts that project increased business jet activity throughout the country over the next 20 years. Based on those trends, it is reasonable to conclude that as jet activity within the FLY market area grows, there will be at least some increased interest by jet aircraft operators in using FLY on a regular basis. Note that this may be due to a combination of increased congestion, a lack of available hangar space, and/or reasonable ground lease rates at COS over the 20-year planning period, as well as the location/proximity of business interests and activities as economic growth surges immediately around FLY.

These longer-term system and local trends are reflected in the forecasted fleet mix for FLY presented previously. As discussed above, FLY's jet population is projected to increase from two in 2017 to nine in 2037. When applying the Airport's current OPBA ratio of 167 (65,813 annual operations divided by 393 based aircraft), those nine based jet aircraft could reasonably result in just over 1,500 annual operations, far more than the 500-operation threshold for establishing a critical design aircraft. (It is worth noting that if FLY were to only gain one more based jet by 2037, the critical design aircraft threshold would be met.)

To accommodate this business jet activity, it is recommended that the ARC for FLY be designated as B-II, with the critical aircraft as the Cessna Citation 500 series. Although this single aircraft within the B-II ARC may not operate more than 500 times per year at FLY, it is believed that the collective group of aircraft that represent B-II will operate above the 500-operation threshold per year in the long-term planning range (11-20 years). Future facility requirements and development alternatives, presented in the following report chapters, will consider this new designation.

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4. FACILITY REQUIREMENTS

A key element in the Airport Master Plan (AMP) process is determining future requirements for airport facilities that allow for airside and landside development over a 20-year planning period. By comparing the existing conditions of an airport to its predicted growth, an AMP can define facility requirements for runways, taxiways, aprons, hangars, terminals, and other related airport facilities to accommodate growth over the short- (five-year), intermediate- (10-year), and long-term (20-year) planning periods.

An essential step in the process of estimating future airport needs is the determination of an airport's current capability to accommodate anticipated future demand. "Demand capacity" and other analyses aid in the identification of airport deficiencies, surpluses, and opportunities for future development. Ultimately, they yield information that is used to design the Airport Layout Plan (ALP) and set the stage for future facility development.

This chapter identifies facility requirements for Meadow Lake Airport (FLY or the Airport) over the next 20 years. Existing and future facility requirements and development standards are identified by comparing the Airport's existing facilities to future facility needs rooted in the forecasts of aviation demand presented in **Chapter 3, Forecasts of Aviation Activity**, as well as through consideration of El Paso County's current strategic development goals and initiatives. The results of **Chapter 4** serve as input for the next chapter, **Chapter 5, Alternatives**, which presents an examination of development alternatives to meet any current and projected deficiencies for the Airport. That analysis will result in identifying the best strategy to meet the needs of FLY, its users, and the community.

The Federal Aviation Administration (FAA) provides guidance for planning and design of airport facilities through Advisory Circulars (AC) that promote airport safety, economy, efficiency, and sustainability. Many of the facility requirements identified at FLY incorporate FAA planning and design standards presented in FAA AC 150/5300-13A, *Airport Design*, and FAA AC 150/5060-5, *Airport Capacity and Delay*. Other FAA ACs used to develop this chapter are cited throughout the document.

4.1 Airfield Demand Capacity

Airfield Demand Capacity refers to the number of aircraft operations that a given facility can accommodate on an hourly or annual basis. The capacity of an airfield is primarily a function of the major aircraft operating on infrastructure elements that comprise an airfield (i.e., runways and taxiways), as well as the alignment and configuration of those elements. The capacity is also related to and considered in concurrence with wind coverage, airspace utilization, and the availability and types of navigational aids (NAVAIDs). Each of these components has been examined as part of the airfield demand capacity analysis.

The methodology used for the measurement of airfield capacity in this study is described in FAA AC 150/5060-5, *Airport Capacity and Delay*. Key terms relative to the discussion of capacity are:

- Demand: the magnitude of aircraft operations to be accommodated in a specified period of time, provided by the forecasts.
- Capacity: a measure of the maximum number of aircraft operations accommodated on an airport.
- Annual Service Volume (ASV): a reasonable estimate of an airport's annual capacity (i.e., level of annual aircraft operations that will result in an average annual aircraft delay of approximately one to four minutes).

- Delay: the difference between the actual time it takes an aircraft to operate on the airfield and the time it would take the aircraft if it were operating without interference from other aircraft or other influences, usually expressed in minutes.

4.1.1 Airfield Capacity Guidelines

Several factors are known to influence airport capacity. Visual Flight Rule (VFR) and Instrument Flight Rule (IFR) hourly capacities for FLY are based on the following assumptions:

- Runway-use Configuration Number 1, page 8 from Advisory Circular 150/5060-5. Runway 8/26 is not considered in this determination because it is primarily used as a taxiway.
- Arrivals and Departures are equal.
- Percent of Touch-and-Go's: Touch-and-Go operations are generally attributed to flight training. FLY currently accommodates frequent flight training traffic.
- Taxiways: Types of taxiways affect the capacity at an airport. Taxiways parallel to and the same length as the runway provide the most efficient capacity levels. FLY has a full length parallel taxiway to its paved runway.
- Airspace Limitations: There are air carrier and highly active general aviation (GA) airports in proximity to FLY. Aircraft operating to/from FLY are in or near congested airspace.
- Runway Instrumentation: FLY has no published instrument approach procedures that allow access during inclement (or IFR) weather conditions.
- Mix Index: A mathematical expression used to represent the percentage of operations conducted by larger classes of aircraft (based on weight) using the Airport. Although FLY may accommodate some larger aircraft (those that exceed 12,500 pounds maximum takeoff weight), the majority of aircraft using the airport (more than 80 percent) are less than 12,500 pounds. Therefore, the Mix Index is estimated to fall between zero and 20 percent based on existing fleet usage and will continue to be in this range in the future. This index range is used as a reference for determining the ASV.

4.1.2 Airfield Capacity Assumptions

Under optimal conditions, FLY would have an ASV of 230,000 annual operations. Per the FAA, the following guidelines should be used to determine when airport capacity improvements or demand management strategies should be enacted as demand reaches designated airfield capacity levels.

- 60 percent of ASV: Threshold at which planning for capacity improvements should begin.
- 80 percent of ASV: Threshold at which planning for improvements should be complete and construction should begin.
- 100 percent of ASV: The airport has reached the total number of annual operations (demand) that it can accommodate, and capacity-enhancing improvements should be made to avoid extensive delays.

Table 4-1 reflects the percentage of total airport capacity currently being used. According to FAA's standards, FLY should start planning for capacity improvements when airport operational levels reach 138,000 operations (60 percent of ASV) and should initiate construction of those improvements at 184,000 operations (80 percent of ASV). Based on the forecast of aviation demand for FLY, capacity enhancements are not required within the planning period. As seen in the table below, FLY is not predicted to reach 38 percent of the ASV; thus, no capacity improvements are required at FLY over the planning period.

Table 4-1: Airfield Capacity and Demand

	Current	2022	2027	2037
ASV	230,000	230,000	230,000	230,000
Demand – Aircraft Operations	65,813	70,121	74,848	85,748
Percent of Capacity	28.6%	30.5%	32.5%	37.3%

Source: FAA 150/5060-5, *Airport Capacity and Delay*; FLY AMP Chapter 3, Forecasts of Aviation Activity

Conclusion: Since the operations forecasted in the 20-year planning period will not exceed 60 percent of the ASV, planning for additional airfield capacity will not be required during this planning period.

4.2 Airfield Requirements

Airfield facilities include those that support the transition of aircraft from flight to the ground or the movement of aircraft from parking or storage areas to departure. This section describes the airside requirements to accommodate the current and projected activity at FLY throughout the planning period.

4.2.1 Airport Design Standards

The FAA defines a wide variety of airport dimensional design requirements to promote safety, efficiency, and consistency at airports across the country. These standards can change due to updates to the regulatory documents, changes to local airport operational patterns, or because of some other priority, so it is important that a Master Plan review all the critical design criteria to ensure compliance and identify areas of improvement. This section reviews the standards in FAA AC 150/5300-13A, Airport Design, which presents the FAA design criteria for FLY based on its current and projected operational patterns throughout the planning period.

The improvements recommended in this section to maintain safety clearances on the airfield will be shown on the ALP prepared for this master plan.

Design Aircraft

The basis for the FAA airport design standards is the "design aircraft" or "critical design aircraft," defined as the largest aircraft or family of aircraft anticipated to utilize a given airport on a regular basis. The FAA defines "regular basis" as conducting at least 500 annual itinerant operations (defined as a takeoff or landing).

As discussed in **Chapter 3, Forecasts of Aviation Activity**, the current critical design aircraft is the Piper Navajo and the future critical design aircraft is the Cessna Citation 560XL.

Based on the design aircraft, an appropriate Airport Reference Code (ARC) can be identified. The ARC is a coding system used to relate airport design criteria to the operational and physical characteristics of the types of aircraft intended to operate at that airport. Specifically, the ARC is an airport designation that signifies the airport's highest Runway Design Code (RDC), which itself consists of the following components:

- Aircraft Approach Category (AAC) - letter, based on aircraft approach speed (**Table 4-2**).
- Airplane Design Group (ADG) - Roman numeral, based on wing span and tail height (**Table 4-3**).
- Runway Visual Range (RVR) - based on runway visibility minimums (**Table 4-4**).

Table 4-2: Aircraft Approach Category

Approach Category	Approach Speed
A	< 91 knots
B	91 knots - ≤ 121 knots
C	121 knots - ≤ 141 knots
D	141 knots - ≤ 166 knots
E	166 knots or more

Source: FAA AC 150/5300-13A, *Airport Design*

Table 4-3: Airplane Design Group

Design Group	Wingspan	Tail Height
I	< 49 feet	< 20 feet
II	49 feet - ≤ 79 feet	20 feet - ≤ 30 feet
III	79 feet - ≤ 118 feet	30 feet - ≤ 45 feet
IV	118 feet - ≤171 feet	45 feet - ≤ 60 feet
V	171 feet - ≤ 214 feet	60 feet - ≤ 66 feet
VI	214 feet - ≤ 262 feet	66 feet - ≤ 80 feet

Source: FAA AC 150/5300-13A, *Airport Design*

Table 4-4: Runway Visual Range (RVR)

RVR (feet)	Instrument Fight Visibility Category (statute mile)
Visual	No instrument approach
5,000	Not lower than 1 mile
4,000	Lower than 1 mile but not lower than ¾ mile
2,400	Lower than ¾ mile but not lower than ½ mile
1,600	Lower than ½ mile but not lower than ¼ mile
1,200	Lower than ¼ mile

Source: FAA AC 150/5300-13A, *Airport Design*

The existing ARC and RDC for FLY is **B-I (Small)-Visual**. The future ARC and RDC for FLY is **B-II-5000**. The increase in airport design standards is in anticipation of the airport accommodating an increased level of activity performed by business and corporate aircraft with more demanding performance requirements.

4.2.2 Runway Orientation

Runway orientation is the physical layout of the airfield system, including the number of runways, their orientation, and their locations relative to each other as well as to the landside facilities. Each runway configuration has a different capacity due to operational limitations and restrictions. For example, runways that converge or intersect have lower capacities than parallel runways because an aircraft on a converging runway must wait to land or take off until the aircraft on the second runway has cleared the path for aircraft arriving or departing from the other runway.

Climatological conditions specific to the location of an airport not only influence the layout of the airfield, but also affect the use of the runway system. Surface wind conditions have a direct impact on airport operations - runways not oriented to take the maximum advantage of prevailing winds will restrict the capacity of an airport to varying degrees. When landing and taking off, aircraft can operate properly on a runway as long as the wind

component perpendicular to the direction of travel (defined as a crosswind) is not excessive (generally, this is specific to the operational requirements and capabilities of individual aircraft).

Surface wind conditions (i.e., direction and speed) generally determine the desired alignment and configuration of the runway system. Wind conditions affect all airplanes in varying degrees; however, the ability to land and take off in crosswind conditions varies according to pilot proficiency and aircraft type. It can be generally stated that the smaller the aircraft, the more susceptible it is to the effects of crosswinds. To determine wind coverage at FLY, wind data from observations taken at the Airport from 2010 to 2017 obtained from the National Climatic Data Center was utilized to conduct VFR, IFR, and all-weather wind analyses. The results of this analysis are shown in **Table 4-5**.

Table 4-5: Wind Coverage Analysis (Current Runway Configuration)

Runway	10.5 Knots	13 Knots
All Weather		
Runway 8/26	82.89%	88.96%
Runway 15/33	94.19%	97.09%
Combined	*98.01%*	*99.35%*
IFR		
Runway 8/26	74.68%	82.03%
Runway 15/33	95.87%	98.70%
Combined	*97.51%*	*99.58%*
VFR		
Runway 8/26	83.57%	89.53%
Runway 15/33	94.09%	96.99%
Combined	*98.05%*	*99.33%*

Source: FAA AGIS Wind File Generator, National Climatic Data Center, and Wind Analysis
Note: Meadow Lake Airport Station; 2010-2017; 116,400 observations

The allowable crosswind component is dependent upon the types of aircraft that utilize the Airport on a regular basis. As described earlier, the future RDC for Runway 15/33 is B-II. Per FAA AC 150/5300-13A, this RDC requires that a 13-knot crosswind component be utilized for this analysis. However, because the Airport is also frequently used by aircraft smaller than B-II, the 10.5-knot crosswind component was also used for this analysis to evaluate the coverage for various sizes of aircraft.

According to the FAA, the desirable wind coverage for an airport is 95 percent during all weather conditions. This means that the runway orientation and configuration should be developed so that the maximum crosswind component is not exceeded more than five percent of the time annually. (Note that this is a recommendation, not a requirement.) As shown in **Table 4-5**, FLY's coverage with a 13-knot crosswind component in all weather conditions is 99.35 percent, exceeding FAA's recommended coverage of 95 percent. Therefore, the wind coverage at FLY by its current runway orientation is adequate for the planning period.

On closer examination of the wind analysis, it is important to note that individually, Runway 8/26 and Runway 15/33 do not meet the recommended coverage for 10.5-knot crosswind components; only when they are combined, do they meet wind coverage recommendations for small aircraft. Therefore, it is recommended that both runways continue to operate.

Conclusion: The existing configuration for FLY's runway layout provide adequate wind coverage and capacity per FAA guidance; no further alternatives will be recommended during the 20-year planning period.

4.2.3 Runway Length

The purpose of this section is to determine if the lengths of the existing runways are adequate to accommodate the aircraft fleet currently operating and projected to operate at FLY. For practical application, specific runway length requirements are individually generated for each flight originating at FLY because this length is dependent on multiple factors such as those listed in **Table 4-6**.

Table 4-6: Factors Affecting Runway Length

Environmental	Airport	Aircraft
Temperature	Runway Gradient	Length of Flight
Terrain	Airfield Elevation	Aircraft Design
Surrounding Obstructions	Runway Surface (wet/dry)	Performance Characteristics
Noise Abatement Procedures		Engine Type

Source: Jviation

For planning purposes, to normalize those factors, this runway length analysis was conducted in accordance with FAA AC 150/5325-4B, *Runway Length Requirements for Airport Design*, to ensure that the existing and future runway lengths are suitable for the forecasted critical design aircraft. The FAA methodology establishes minimum runway length requirements based primarily upon various factors that include airport elevation, average temperature, and type aircraft expected to use the runway on a regular basis.

At 6,000 feet, Runway 15/33 can accommodate an estimated 75 percent of small aircraft without aircraft weight limitations. However, based on the calculations presented in **Table 4-7**, a longer runway would allow for a greater percentage of small aircraft to operate without limitations, as well as larger aircraft weighing less than 60,000 pounds to take off with greater payloads. Given the current and anticipated increasing level of activity of larger aircraft at FLY and the runway's ability to accommodate them, it is recommended that an increase to the length of Runway 15/33 be considered to better meet future aircraft operational demands.

Table 4-7: Recommended Runway Length

Category	Runway Data
Airport Elevation (above mean sea level)	6,873.6 feet
Mean Daily Maximum Temperature of the Hottest Month	85.4°F
Small Airplanes with Approach Speeds <30 Knots	510 feet
Small Airplanes with Approach Speeds >30, <50 Knots	1,350 feet
Small Airplanes with <10 Passenger Seats	
75% of these Small Airplanes	5,860 feet
95% of these Small Airplanes	8,320 feet
100% of these Small Airplanes	8,320 feet
Large airplanes weighing less than or equal to 60,000 pounds	
75% of these Large Airplanes at 60% Useful Load	8,350 feet
75% of these Large Airplanes at 90% Useful Load	9,460 feet
100% of these Large Airplanes at 60% Useful Load	11,860 feet
100% of these Large Airplanes at 90% Useful Load	11,860 feet
Airplanes of more than 60,000 pounds	See Manufacturer Data

Source: FAA AC 150/5325- 4B, *Runway Length Requirements for Airports*

Conclusion: The existing length of Runway 15/33 is considered to be adequate for the minimum types of general aviation aircraft activity. In order to increase FLY's ability to serve the full range of general aviation aircraft, opportunities for a future extended primary runway should be explored. It is recommended that a future runway length beyond 6,000 feet be considered within the property boundary. Maximizing runway length in this way would allow a greater percentage of the fleet to utilize the Airport while avoiding the need to acquire additional property. Additionally, a longer Runway 8/26 would also allow it to accommodate a larger percentage of the small aircraft fleet, relieving Runway 15/33 of those capacity demands.

4.2.4 Runway Width

The required width of a runway, defined in FAA AC 150/5300-13A, *Airport Design*, is a function of the runway design code (RDC) and the instrument approaches available for that runway. The minimum width requirement for a B-I runway is 60 feet, which FLY currently meets.

As mentioned earlier in this section and the previous chapter, it is recommended that the ultimate ARC for FLY be designated as B-II to reflect the future need to accommodate larger general aviation aircraft. Based on that future requirement and the FAA design requirements for that type of runway, the width of Runway 15/33 should be ultimately increased to 75 feet.

Widening Runway 8/26 to meet the requirements of B-I aircraft would necessitate a future width of 60 feet. At 35 feet, Runway 8/26 does not currently meet design standards.

Conclusion: To reflect increasing future demand for larger general aviation aircraft and the resultant increase of the Runway 15/33 RDC to B-II, the existing 60-foot runway width should be increased to 75 feet to meet FAA design criteria. To fully utilize the runway system, the width of Runway 8/26 should be increased to 60 feet in order to accommodate B-I aircraft and meet design standards.

4.2.5 Pavement Strength

Airfields are constructed to provide adequate pavement strength for aircraft loads, as well as resisting the abrasive action of traffic and deterioration from adverse weather conditions and other influences. They are designed not only to withstand the loads of the heaviest aircraft expected to use the airport, but they must also be able to withstand the repetitive loadings of the entire range of aircraft expected to use the pavement over many years. Proper pavement strength represents the most economical solution for long-term aviation needs.

There are several factors that must be considered when determining appropriate pavement strength for airfield structures. These factors include, but are not limited to aircraft loads, frequency and concentration of operations, and the condition of subgrade soils. Runway pavement strength at airports is typically expressed by common aircraft landing gear configurations. The aircraft gear type and configuration dictate how aircraft weight is distributed to the pavement and determines pavement response to loading. Example aircraft for each type of gear configuration are as follows:

- Single-wheel: Each landing gear unit has a single tire; for example, light aircraft and some business jet aircraft.
- Dual-wheel: Each landing gear unit has two tires; for example, the Boeing 737, Boeing 727, MD-80, CRJ-200, and the Dash 8.
- Two Single-Wheel: Two single wheels in tandem; for example, the C130.
- Dual-tandem: Main landing gear unit has four tires arranged in the shape of a square; for example, the Boeing 757 and KC135.

While aircraft operating on a runway generally can exceed the defined pavement strength, such operations will ultimately degrade the pavement prematurely and create wear issues that require more aggressive pavement maintenance. The published pavement strength of FLY's Runway 15/33 is 12,500 pounds for single-wheel aircraft. The future pavement strength requirement for future conditions is projected to be 30,000 pounds single-wheel. Note, on-going pavement maintenance is crucial for continued maintenance of pavement strength.

Conclusion: To reflect increasing future demand for larger general aviation aircraft, the existing strength of pavements should be increased to meet the requirements of the future design aircraft.

4.2.6 Taxiways

Like runway design, taxiway design standards are based on a combination of the ADG and the Taxiway Design Group (TDG) criteria, also defined in FAA AC 150/5300-13A, *Airport Design*. The TDG is centered on the ratio of the overall Main Gear Width (MGW) and the Cockpit to Main Gear (CMG) distance of the critical design aircraft. As described previously, the current design aircraft for FLY is a Piper Navajo and the future design aircraft is projected to be a Cessna Citation 560XL. Therefore, based on the dimensions of these aircraft, the existing conditions reflect a TDG 1A classification, while the future reflects a TDG 1B.

A taxiway system should be designed to facilitate safe and efficient aircraft movement to and from the runways and aprons that serve terminal buildings, hangars, and general aviation facilities. It is generally recommended that an airport's primary runway be served by a full-length parallel taxiway to allow aircraft to enter or exit the runway environment as expeditiously as possible. There are a variety of taxiway design requirements identified in FAA AC 150/5300-13A intended to enhance the overall safety of taxiway operations and minimize opportunities for runway incursions. Many requirements are relatively new (circa 2012) and were not in effect during the previous master planning efforts. The design principles for taxiway systems are listed in **Table 4-8**.

Table 4-8: Taxiway Design Principles

Design Principle	Summarized Definition
Steering Angle	Design taxiways such that the nose gear steering angles is < 50 degrees
Fillet Design	Traditional fillet design standards have been replaced New fillet design more effectively reflects aircraft wheel tracks
Standardize Intersection Angles	90-degree turns 30-, 45-, 60-, 90-, 120-, 135-, and 150-degree preferred intersection standard angles
Safety and Object Free Areas	Areas along the edges of taxiways to protect aircraft and property
Concepts to Minimize Runway Incursions	
Increase Pilot Situational Awareness	Utilize the "three-node concept" Pilot should have three or fewer choices at an intersection (left, right, straight ahead)
Avoid Wide Expanses of Pavement	Wide pavement requires placing signs far from a pilot's eye
Limit Runway Crossings	Reduces the opportunity for human error
Avoid "High Energy" Intersections	Located in the middle third of the runways Limit the runway crossings to the outer thirds of the runway
Increase Visibility	Provide right angle intersections for best pilot visibility Acute angle runway exits should not be used as runway entrance or runway crossing
Avoid "Dual Purpose" Pavements	Runways used as taxiways and taxiways used as runways can lead to confusion
Indirect Access	Eliminate taxiways leading directly from an apron to a runway
Hot Spots	Limit the number of taxiways intersecting in one spot

Source: FAA

Conclusion: FLY has a 25-foot-wide, full-length parallel taxiway supported by seven connector taxiways on the east side of Runway 15/33 and a 1,000-foot-long, 25-foot-wide partial parallel taxiway with two connector taxiways located on the west side of the runway; all are in compliance with current FAA design criteria. Based on the taxiway design standards noted above, the following recommendations are made for the existing taxiway system:

- **Lengthen the parallel taxiway in association with any future potential runway extension(s).**
- **Install taxiway lighting.**
- **Realign the taxiway connector leading directly from the Runway 15 threshold to the apron/taxilane network so apron pavement effectively requires a pilot to make a turn before directly accessing the runway.**
- **Any additional paved runways should have a full-length, lighted taxiway.**

4.2.7 Navigational Aids

Navigational aids (NAVAIDs) consist of equipment to aid pilots in locating an airport (particularly for those airports without Air Traffic Control assistance during approach) and provide horizontal and/or vertical guidance information depending on approach criteria and minima. Approach minimums for such procedures are based upon several factors, including aircraft characteristics, obstacles, navigation equipment, approach lighting, and weather reporting equipment. FLY has no published instrument approach procedures to provide pilots with navigational guidance to the Airport during inclement weather. A summary of the existing visual and navigational aids and their conditions are shown in **Table 4-9**.

Table 4-9: Navigational Aids and Visual Aids

NAVAIDs and Visual Aids	Condition	Comments
Rotating Beacon	Good	
Automated Weather Observing System (AWOS)	Good	Would have to be relocated to allow for development in the terminal area
Precision Approach Path Indicator (PAPI)	Good	2-light PAPI on each end of Runway 15/33

Source: http://www.airnav.com/airport/KFLY, Jviation

Conclusion: Based on feedback and input from airport management and users, it is recommended that FLY establish, at a minimum, a non-precision RNAV (GPS) LPV (localizer performance with vertical guidance) approach procedure with one-mile visibility minimums. To fully achieve the benefit from a non-precision approach, it is recommended that the runway end served by the approach have a simplified approach lighting system installed.

4.2.8 Dimensional Standards

Safe and efficient operations at an airport require that certain areas on or near the airport be clear of objects or restricted from a certain function, composition, and/or height. The key FAA airport design standards shown in **Table 4-10** provide guidance for existing and future development at FLY for a safe operating environment for aircraft. The dimensions of these areas are based on the ARC B-I (small)-VIS (current) and B-II-5,000 (future).

Table 4-10: Runway/Taxiway Protection Area Standards

B-I (Small) Visual Standards	B-II One-Mile Visual Standards
Runway Centerline to Taxiway Centerline Separation	
150 ft.	240 ft.
Runway Safety Area	
Length beyond departure end: 240 ft.	Length beyond departure end: 300 ft.
Length prior to threshold: 240 ft.	Length prior to threshold: 300 ft.
Width: 120 ft.	Width: 1,500 ft.
Taxiway Safety Area (Width)	
49 ft.	79 ft.
Runway Object Free Area	
Length beyond runway end: 240 ft.	Length beyond runway end: 300 ft.
Length prior to threshold: 240 ft.	Length prior to threshold: 300 ft.
Width: 250 ft.	Width: 500 ft.
Object Free Zone (Width)	
250 ft.	400 ft.
Approach Runway Protection Zone	
Length: 1,000 ft.	Length: 1,000 ft.
Inner Width: 250 ft.	Inner Width: 500 ft.
Outer Width: 450 ft.	Outer Width: 700 ft.
Acres: 8.035	Acres: 13.77
Departure Runway Protection Zone	
Length: 1,000 ft.	Length: 1,000 ft.
Inner Width: 250 ft.	Inner Width: 500 ft.
Outer Width: 450 ft.	Outer Width: 700 ft.
Acres: 8.035	Acres: 13.77

Source: FAA AC 150/5300-13A, *Airport Design*, Tables 4-1, A7-4 and A7-9

Runway Safety Area

The Runway Safety Area (RSA) enhances the safety of aircraft which could undershoot, overrun, or veer off the runway, and it provides greater accessibility for firefighting and rescue equipment during such incidents. The RSA should generally be free of objects, except for objects that need to be located in the RSA because of their function. Objects higher than three inches above grade should be constructed of low impact resistant supports (frangible mounted structures) of the lowest practical height with the frangible point no higher than three inches above grade.

The RSA should be cleared and graded and have no potential hazardous ruts, humps, depressions, or other surface variations. It should also be drained by grading or storm sewers to prevent water accumulation. The RSA should also be capable, under dry conditions, of supporting snow removal equipment, aircraft rescue and firefighting equipment, and the occasional aircraft that veers off the runway. The area is located symmetrically about the runway; extending outward from the runway centerline (equal distance) and a specific distance beyond the runway ends that depends on the approach speed and wingspan of the critical aircraft family as well as the approach visibility minimums established or planned for the runway.

It is recommended that the airport strive to meet current and future RSA requirements during all phases of operation and development.

Taxiway Safety Area

The Taxiway Safety Area (TSA) is centered on the taxiway centerline, provides room for rescue and firefighting operations, and has the same capabilities as an RSA. It is recommended that, as taxiways are expanded at FLY, they meet the dimensional standards set forth in FAA Advisory Circular 150/5300-13A.

Object Free Area

The Object Free Area (OFA) is a two-dimensional area centered on the runway, taxiway, and taxilane centerlines. The OFA is an area clear of objects that could disrupt the flow of aircraft, except for frangible visual NAVAIDs that need to be in the OFA because of their function. Except where precluded by other clearing standards, it is acceptable to place objects that need to be in the OFA for air navigation or aircraft ground maneuvering purposes and to taxi and hold aircraft in the OFA. Objects non-essential for air navigation or aircraft ground maneuvering purposes are not to be placed in the OFA (this includes parked airplanes and agricultural operations).

Obstacle Free Zone

The Obstacle Free Zone (OFZ) is a three-dimensional volume of airspace that supports the transition of ground-to-airborne operations or vice versa. The OFZ clearing standards preclude taxiing and parked airplanes and object penetrations, except frangible visual NAVAIDs that need to be in the OFZ because of their function.

Because FLY does not have an approach lighting system, the only applicable area for the OFZ is around the runway centerline. FAA AC 150/5300-13A states that "The OFZ is the airspace below 150 feet above the established airport elevation and along the runway and extended runway centerline that is required to be clear of all objects, except for frangible visual NAVAIDs that need to be in the OFZ because of their function, in order to provide clearance protection for aircraft landing or taking off from the runway, and for missed approaches." In addition, the OFZ extends 200 feet beyond each end of the runway and is 250 feet wide for operations on runways by small aircraft with approach speeds of 50 knots or more. The width of the OFZ widens to 400 feet when large aircraft begin operating at the Airport. Additional OFZ standards apply when approach lighting systems are installed.

Runway Protection Zones

The Runway Protection Zone (RPZ) is designed to provide additional protection for people and equipment on the ground. This protection is provided through airport owner control of RPZs, preferably through the acquisition of sufficient property interest in the RPZ, and includes clearing RPZ areas of incompatible objects and activities. The RPZ represents the approach surface from the ground, is trapezoidal in shape, and is centered on the extended runway centerline. Its size depends on the approach speed and wingspan of the critical aircraft family as well as the approach visibility minimums established or planned for the runway. The RPZ consists of two components: the central portion and the controlled activity area. The central portion of the RPZ extends from the beginning to the end of the RPZ and is centered on the runway centerline; its width is equal to the runway OFA. The controlled activity area of the RPZ is the remaining area on either side of the central portion of the RPZ.

The Approach RPZ for Runway 15 currently includes Judge Orr Road. FAA AC 5300-13A states, "It is desirable to clear the entire RPZ of all above-ground objects. Where this is impractical, airport owners, as a minimum, should maintain the RPZ clear of all facilities supporting incompatible activities." FAA Memorandum, Interim

Guidance on Land Uses within the RPZ, declares public roads and highways are "incompatible" and must be addressed when runway enhancements effect a change in the approach minimums and/or RPZ. Therefore, if/when the B-II designation, reduced approach visibility minimums, and RSA/runway shift occur, it is recommended that FLY shift the runway threshold to comply with RPZ standards.

Conclusion: It is recommended that the dimensional standards associated with a B-II designation discussed above be applied to the Airport when it transitions to that ARC.

4.2.9 Airspace Requirements

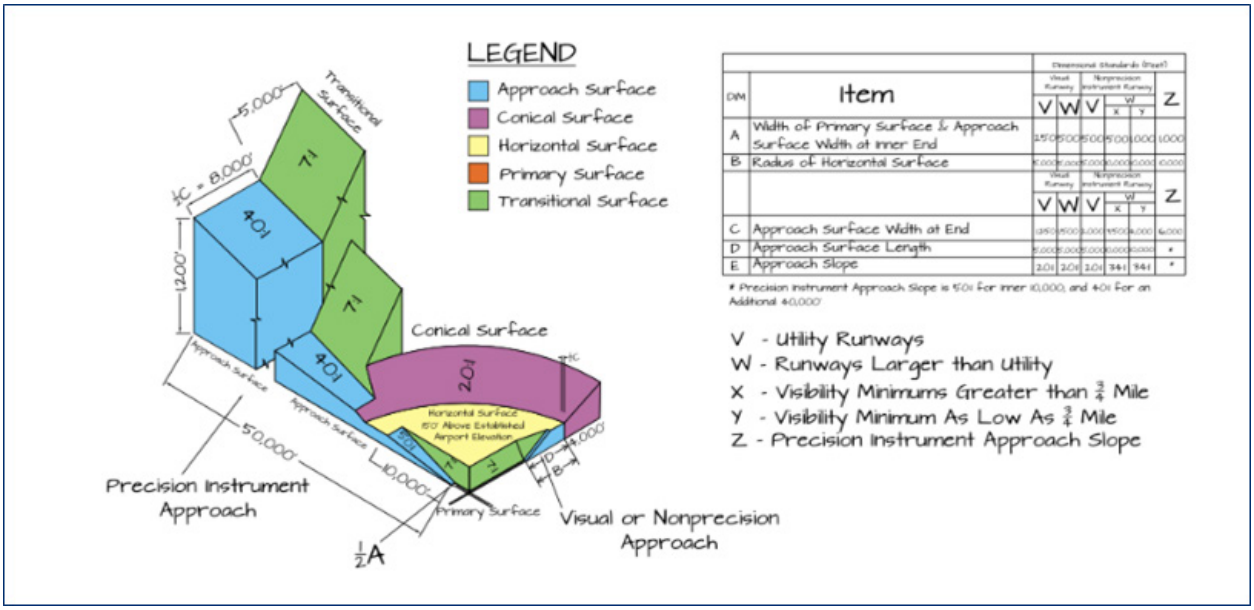
In addition to airport infrastructure on the ground, FAA also requires airports to consider airspace infrastructure that surrounds the airport. These standards apply to the use of navigable airspace by aircraft and to existing or planned airports. They are enforced primarily through the definition of imaginary airspace surfaces that are sized based on the criteria they are designed to protect. Specifically, imaginary airspace surfaces are geometric shapes with size and dimensions based on the category of each runway for existing and planned airport operations, the types of instrument approaches, and their enabling regulatory document.

Any changes to the airfield must be reviewed by the FAA to ensure appropriate obstacle clearance necessary to maintain safe airport operations. Prior to any airport development, FLY or the development sponsor must request FAA to conduct an airspace evaluation to determine the potential impact that a project may have on airport safety, regardless of scale. Part of the airspace evaluation involves the determination of the impact of proposed development on an airport's imaginary airspace surfaces. For the purposes of the master plan, there are three primary regulatory documents (and their associated airspace surfaces) to be considered:

1. Title 14, Code of Federal Regulations (CFR) Part 77, *Safe, Efficient Use, and Preservation of the Navigable Airspace*, defines five imaginary surfaces including the Primary, Approach, Horizontal, Conical, and Transitional surfaces (shown in **Figure 4-1**). Any object which penetrates these surfaces is considered to be an obstruction and may negatively impact navigable airspace. Unless these obstructions undergo additional aeronautical study to conclude they are not a hazard, obstructions are presumed to be a hazard to air navigation. Hazards to air navigation may include terrain, trees, permanent or temporary construction equipment, or permanent or temporary manufactured structures (such as power lines) penetrating one of the Part 77 surfaces[1].

[1] Title 14, Code of Federal Regulations Part 77, *Safe, Efficient Use, and Preservation of the Navigable Airspace*

Figure 4-1: Title 14 CFR Part 77 Surfaces



DIM	Item	Visual Runway V	Visual Runway W	Nonprecision Instrument Runway V	Nonprecision Instrument Runway W X	Nonprecision Instrument Runway W Y	Z
A	Width of Primary Surface & Approach Surface Width at Inner End	250'	500'	500'	500'	1,000'	1,000'
B	Radius of Horizontal Surface	5,000'	5,000'	5,000'	10,000'	10,000'	10,000'
		Visual Runway V	Visual Runway W	Nonprecision Instrument Runway V	Nonprecision Instrument Runway W X	Nonprecision Instrument Runway W Y	Z
C	Approach Surface Width at End	1,250'	1,500'	3,500'	4,000'	4,000'	16,000'
D	Approach Surface Length	5,000'	5,000'	10,000'	10,000'	10,000'	*
E	Approach Slope	20:1	20:1	20:1	34:1	34:1	*

* Precision Instrument Approach Slope is 50:1 For Inner 10,000' and 40:1 For an Additional 40,000'

Source: FAA

2. FAA AC 150/5300-13A, *Airport Design*, defines approach airspace surfaces that are separate from 14 CFR Part 77, and are designed to protect the use of the runway in both visual and instrument meteorological conditions near the airport. These approach surfaces are defined by each runway's current approach type (i.e., visual, non-precision instrument, etc.), and typically are trapezoidal in shape, extending away from the runway along the centerline and at a specific slope. To establish the location of a runway threshold, the associated approach surface must be clear of all obstructions. If it is not clear, either the obstructions must be removed, or the runway threshold must be relocated until its associated approach surface is clear.
3. FAA Order 8260.3B, *U.S. Standard for Terminal Instrument Procedures (TERPS)* generally defines a wide variety of airspace surfaces that are designed to establish and maintain safe operational conditions around an airport for aircraft using instrument approaches. Obstructions to a TERPS surface can result in impacts to the instrument approach that could include a raising of minimums, making the approach unavailable in certain conditions, or decommissioning the instrument approach altogether.

As part of this master plan, the ALP set includes airspace and inner approach drawings that document the location and height of possible obstructions and their ultimate disposition.

Conclusion: It is recommended that any airspace obstructions be subjected to an FAA Aeronautical Study and that the results of that study be acted upon.

4.3 Landside Requirements

This section describes the landside requirements needed to accommodate FLY's general aviation and business activity throughout the planning period. Areas of focus include airport access, terminal building, hangars, aprons and tiedown areas, as well as the various associated support facilities.

4.3.1 Airport Access

Meadow Lake Airport is located along US Highway 24, 13 miles east of Interstate 25 in northern Colorado Springs. This location allows convenient access for anyone driving to FLY, but there is limited roadway infrastructure as one gets close to the Airport. To improve vehicular circulation and access near FLY, it is recommended that US-24 be widened to four lanes and Judge Orr Road and Blue Gill Drive be realigned near the interchange with US-24. Access within the Airport to newly developed areas should be carried out when improvements occur.

Conclusion: Pursue airport access enhancements as opportunities avail themselves during future road reconstruction/expansion efforts and new airport development projects.

4.3.2 Terminal/Administration Building

FLY's terminal serves a variety of functions including airport administration, meeter/greeter area, airport operations, and equipment/maintenance. The terminal building has reached the end of its useful life and has many problems including: structural, electrical and Americans with Disabilities Act (ADA) access issues, inefficient interior layout, inadequate space for concessions/restaurant, limited public facilities, and poor signage/wayfinding. Therefore, it is recommended that FLY construct a new terminal within the next five to ten years.

Most terminal buildings at airports like FLY are between 5,000 and 7,000 square feet and include space for passenger waiting, flight planning, restrooms, concessions, small office/meeting areas, sales counter area, kitchenette, and other uses. The new terminal should include space for these and any other Airport/FBO specific requirements. Auto parking for the terminal building is also a key necessity and should be designed to accommodate at least 24 cars. Some terminal buildings include space for a restaurant with a view to the airfield or limited restaurant choices. Upon design of a new terminal building, FLY management should consider if this would be an attractant to the Airport and a potential revenue-enhancing opportunity.

Conclusion: Construct a new airport terminal/administration building.

4.3.3 Hangars

Hangars are used to store aircraft, provide protection from adverse weather conditions, and supply additional security. Hangars are also used for temporary storage while an aircraft is undergoing maintenance and/or repairs. The demand for hangar storage is generally a function of the number and type of based aircraft at an airport. Most the hangars at FLY are utilized for private aircraft storage, maintenance, or manufacturing.

The forecast for FLY shows growth from 393 to 434 based aircraft over the 20-year planning period. Based on an understanding of other airports and on current conditions at FLY where all hangars are occupied, almost all aircraft owners prefer to store their aircraft in a hangar. Thus, it is reasonable to assume that each new based aircraft at FLY will require 2,500 square feet of new hangar space (on average). With 41 new based aircraft projected at FLY, over 100,000 square feet of additional hangar space will be required over the planning period.

As evidenced in aerial photos of the Airport, the hangars at FLY have been built within sections of a roadway grid, but not in an organized layout. Further, many of the hangars at FLY have uses besides aircraft storage, such as aircraft maintenance, equipment, and repair facilities. Generally, a larger amount of space is needed to accommodate these types of uses and should be accounted for in the determination of additional space.

As demand warrants, future hangar construction should be carried out to best accommodate airport growth. Part of the goal of the master plan is to lay out the ideal position and access for hangar facilities to make the

best use of available land while meeting the needs of FLY users. Alternative options and a recommended layout to meet requirements will be provided in the next chapter.

Conclusion: Construct new hangar facilities of appropriate sizes and quantity to meet future demand.

4.3.4 Apron and Tiedown Areas

FLY has various apron and tiedown positions scattered throughout the property, many with "power-in, power-out" capabilities. As pavement surfaces deteriorate over time and/or new development occurs, additional apron and tiedown space should be added to accommodate based aircraft, aircraft movement, and transient parking as appropriate.

Based on planning criteria and interviews with Airport management, the current amount and condition of apron/tiedown space is inadequate to accommodate future demand. It should be noted that nearly all existing based aircraft at FLY are housed in hangar facilities with only a few rapidly deteriorating tiedowns available located north of the Runway 15 threshold. While there is limited to no real demand for additional tiedowns for based aircraft, the Airport also lacks an appropriate apron to accommodate itinerant aircraft operations. As a private airport, this has historically been an acceptable practice; however, as FLY continues to mature into its role as a reliever airport for Colorado Springs Airport (COS) and the region, it must anticipate the need for increased itinerant traffic, and thus plan for facilities to accommodate it.

A key component in the determination of the overall amount of apron space is a function of the location of facilities and proximity to the runway/taxiway system. An apron area that best suits the future location of the terminal building within available property, provides ample tiedown/parking space, and accesses existing and future hangars are determined in **Chapter 5, Alternatives**.

Conclusion: Construct new apron and tiedown facilities as required to meet future demand.

4.3.5 Utilities

Utilities such as water, sewer, electric, phone, and natural gas are supplied to the terminal building and Airport tenants. If relatively small amounts of development occur in occupied areas of the airfield, additional capacity for each utility may have to be added from existing services. If, however, significant amounts of development occur in unoccupied areas such as along the western side of Runway 15/33, or in the area south of Runway 8/26, development would likely require extensive infrastructure improvements.

Conclusion: Enhance/expand utilities as required to meet future demand.

4.4 Airport Support Facilities

Current conditions at the Airport and potential future developments may impact aviation support facilities. Potential requirements necessary to meet deficiencies or address future needs for facilities that support the Airport's infrastructure and basic services are detailed below.

4.4.1 Fuel Storage Facilities

As a major revenue source for the Airport, aviation fuel sales have significant financial impact for FLY in addition to benefiting its users. Fuel storage requirements are typically based on maintaining a two- or three-week supply of fuel during an average month. The availability for more frequent deliveries can reduce the fuel storage capacity requirement, however deliveries add to the cost of fuel. Storage beyond a four-week period is not recommended as it could degrade the quality of fuel.

The Airport currently offers 100LL fuel for piston aircraft. Based on the anticipated growth of turbine and jet activity and based aircraft, it is recommended that the airport expand fuel service options to also include Jet-A fuel. This will require dedicated Jet-A fuel systems. It is recommended that the Airport add an additional fuel tank (at least 10,000 gallon), and either a self-serve fuel pump, or, if FLY were to establish a formal FBO, a standard fuel pump and a fuel truck to sell Jet-A fuel.

Conclusion: Install new Jet-A fuel tank and distribution system to meet future demand.

4.4.2 Airport Security

Airport security is essential to the safe operation of any airport. Because FLY is not a commercial service airport, there are no mandated security regulations. The Transportation Security Administration (TSA) and Aircraft Operator's and Pilot's Association (AOPA) have published guidelines for general aviation airports, like FLY. TSA's document "Security Guidelines for General Aviation Airports" states:

> The purpose of the Security Guidelines for General Aviation Airports Information Publication (IP) is to provide owners, operators, sponsors, and other entities charged with oversight of GA airports a set of federally endorsed security enhancements and a method for determining when and where these enhancements may be appropriate. The document does not contain regulatory language nor is it intended to suggest that any recommendations or guidelines should be considered a mandatory requirement.

AOPA's Airport Watch and General Aviation Hotline are two other programs that are highly utilized throughout the industry. The consensus throughout the general aviation airport community is that airports like FLY should have perimeter fencing for security and to reduce wildlife occurrences on the airfield. Further, it is recommended that controlled-accessed gates should be installed at key access points and monitored by airport/security staff. To be consistent with that message, it is recommended that FLY construct and in-fill any gaps in the security/wildlife fence to surround the entire airport property, and continue to monitor airport access through existing and future access gates.

Conclusion: Enhance/expand existing security fencing as able in conformance with best airport management practices.

4.4.3 Airfield Maintenance Facilities

The two largest airfield maintenance categories are general snow removal and grass mowing. Equipment for these duties at FLY is stored in the hangar adjacent to the terminal building. With the recommended development of a new terminal, it is also recommended that the airfield maintenance building be redeveloped. If the Airport purchases additional maintenance equipment to keep pace with recommended airfield expansion, larger storage facilities will need to be built to ensure its safety and longevity. Based on the acreage of the airport (approximately 100 acres) and existing equipment, it is recommended that a maintenance equipment storage building from 3,000 to 4,000 square feet be added, if/when the facility is deemed necessary.

Conclusion: Construct a new airfield maintenance facility.

4.4.4 Aircraft Rescue and Firefighting

FLY currently does not accommodate air carrier aircraft, nor does it hold a Part 139 certificate; subsequently, it is not required to have Aircraft Rescue and Firefighting (ARFF) available at the airport. Future ARFF facilities at FLY are not recommended.

Conclusion: No action is recommended.

4.5 Facility Requirements Summary

Various improvements at FLY will be needed over the 20-year planning period. **Table 4-11** summarizes the airside, landside, and support facility development needs identified in this chapter, including a brief justification for each improvement. The facilities listed in the table will undergo further review and evaluation in later chapters to determine the feasibility of the requirements. Development alternatives are reviewed and a recommended concept is presented and illustrated on the ALP.

Table 4-11: Facility Recommendations

Facility	Future Requirement	Justification
Runway Development	Redevelop runway system to accommodate RDC B-II aircraft. This include longer and wider runways that meet dimension standards and service needs.	Expand primary runway width and length to meet the needs a growing and more diverse user base. Benefit to airport users.
Taxiway Improvements	Include full-length parallel taxiway for any new runway development or other enhancements.	Maintain safety and airfield efficiency. Meet design and regional airport service standards.
Approach Capabilities	Develop new non-precision instrument GPS (LPV) approach with 1-mile visibility minimums and associated approach lighting system.	Address needs of existing users and attract others during adverse weather conditions.
Airport Access	Widen Highway 24 and realign nearby local roads.	Enhance accessibility and capacity of airport and related facilities.
Terminal Construction	Construct a new terminal building and associated access and parking.	Create a safer, more updated space for staff, users, tenants, and visitors.
Hangar Development	T-hangar and box hangar development.	As demand warrants.
Apron Expansion	Pave a new apron to accommodate existing and future aircraft.	Increase safety and reduce foreign object debris (FOD), create access to newly developed facilities, promote efficient aircraft flow, accommodate demand for tiedowns and transient parking.
Fuel Storage	Jet-A fuel facilities – tank, pump, truck.	Accommodate the growing demand for Jet-A fuel. As demand warrants.
Airfield Perimeter Fencing	Supplement existing fencing to encompass entire airport property and improve gate access.	Security and wildlife management.
Maintenance Equipment Storage	Storage building for airfield maintenance equipment.	Address existing and future need for additional equipment storage to improve their longevity. Aligns with terminal development.
Runway Development	Redevelop runway system to accommodate RDC B-II aircraft. This include longer and wider runways that meet dimension standards and service needs.	Expand primary runway width and length to meet the needs a growing and more diverse user base. Benefit to airport users.
Taxiway Improvements	Include full-length parallel taxiway for any new runway development or other enhancements.	Maintain safety and airfield efficiency. Meet design and regional airport service standards.

Source: Jviation

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5. ALTERNATIVES ANALYSIS

The objective of this chapter is to present various options and provide recommendations for future development at the Meadow Lake Airport (FLY or the Airport) over the next 20 years that meet the projected levels of aviation demand, maximize economic development potential and maintain a safe aviation environment. As noted in the FAA AC 150/5070-6B, *Airport Master Plans*:

> The alternatives chapter brings together many different elements of the planning process to identify and evaluate alternatives for meeting the needs of airport users as well as the strategic vision of the airport sponsor. Airports have a wide variety of development options, so an organized approach to identifying and evaluating alternative development options is essential for effective planning.

In conformance with this FAA objective, this chapter has been structured to provide that organized approach to determine a recommended plan for future development at FLY. It includes the following five sections.

1. Summary of Airport Facility Recommendations
2. Ability of Existing Facilities to Accommodate Future Improvements
3. Identification of Development Alternatives
4. Evaluation of Alternatives
5. Conclusions and Recommendations

5.1 Summary of Airport Facility Recommendations

Meadow Lake Airport will continue in its role as a general aviation reliever airport, helping to accommodate the demand of general aviation throughout the Colorado Springs region. **Chapter 4, Facility Requirements**, documented that the overall airfield capacity at FLY, while sufficient to meet existing and forecasted activity levels, requires an improved airfield to accommodate a wider range of general aviation aircraft. Additionally, there are several airfield enhancements that are recommended to meet FAA design standards and improve aircraft safety and movement on the ground. Landside improvements will address the demands for additional aircraft storage and identify the size, placement and use of additional facilities that will bring expanded capabilities to the Airport to meet the needs of all general aviation users. The following is a summary of the key facility recommendations, as discussed in the previous chapter.

- Runway and taxiway improvements are necessary to accommodate the existing and future ARC B-II aircraft operations. This will require a longer and wider primary runway as well as appropriate taxiway improvements to provide convenient access to runway points that maximize usable runway takeoff length. Additionally, such runway and taxiway improvements will result in some increased FAA Airport Design standards (e.g., Runway Protection Zone) that would have to be addressed.
- A new instrument approach procedure(s) should be established to allow access to the airport during instrument meteorological conditions. FLY currently does not have a published instrument approach procedure.
- The existing terminal building is beyond its useful life, having inadequate public and concession facilities, inefficient interior layout, and many structural, electrical and Americans with Disabilities Act (ADA) compliance issues. With hundreds of based aircraft and thousands of annual operations, a terminal building is a valuable “welcome mat” for the Airport. A new terminal building measuring approximately 6,000 square feet is required to meet the needs of existing and future based and

transient users as well as other visitors. Improved signage and wayfinding to the terminal building is also recommended.

- In order to meet forecasted demands for transient and based aircraft operations, a Fixed Base Operator (FBO) facility is required having both pilot and aircraft maintenance accommodations.
- Auto parking will be needed to keep pace with growing based and transient aircraft operational activity.
- New hangar development is required to accommodate all types of general aviation aircraft as the number of aircraft at FLY grow and the demand for aircraft storage increases.
- Transient (and some based) aircraft will require rejuvenated and/or additional paved apron and tiedown space for short-term and long-term parking.
- Having reached the end of its reasonable lifespan, the existing snow removal equipment (SRE) storage is inadequate for current and future needs and requires replacement.
- Roadway improvements are required to provide essential access to the development of unused areas of the airport as well as enhance existing routes to key areas.

Perhaps the most significant initiative identified in this list is the development of the airfield infrastructure (runway/taxiway system) to accommodate more demanding aircraft. The core aspect of the alternatives developed in this chapter are focused on airfield development followed by ancillary development intended to make the best use out of the future airfield layout. This requires greater utilization of the existing airport property and coordination with county officials and the surrounding community.

5.2 Ability of Existing Facilities to Accommodate Future Improvements

This section evaluates the ability of existing facilities to accommodate recommended facility improvements. The availability of airport-owned property may avoid the need to acquire additional land for airfield and landside development.

5.2.1 Airfield

Before evaluating airfield improvements, it is important to further explore the need/demand for existing airfield facilities. As stated in the preceding chapters, the existing runway and taxiway system (see **Figure 5-1**) has enough capacity to accommodate the forecasted demand for future aviation activity, but is not designed appropriately for the future critical aircraft (ARC B-II). Meadow Lake Airport is a very active general aviation airport with a growing number of based aircraft and operations that warrants the development of airfield improvements to enhance the flow of aircraft movement. Additionally, as commercial service activities at COS are expected to grow in the future, FLY may likely be expected to accommodate a growing number of corporate aircraft as neighboring airports seek relieve their congestion.

Facilities recommended to enhance airfield efficiency and improve safety may require the modification of existing airport runways and taxiways or their complete redevelopment. The development of these areas may likely require expansion of existing aprons and taxiways to accommodate tenant demands and meet FAA design standards. Highly utilized apron areas should be expanded to accommodate the growing need as well as making up for the reduction in existing space due to taxiway/runway projects.

5.2.2 Landside

Much of the Airport's expected landside facility demand is placed on hangar or storage development to accommodate based aircraft, aircraft maintenance, potential new tenants or airport service facilities. As highlighted in **Chapter 3, Forecast of Aviation Demand**, future activity at FLY will include a broad range of users

and demanding general aviation aircraft. Because of this, the facility requirements established through this master plan call for a broad range of landside facilities.

It is important to again recognize that while FLY has extensive property, nearly all of its current landside development lies on private property operating in a through-the-fence capacity (see **Figure 5-2**). This is crucial in that the development alternatives associated with this master plan must therefore be limited only to airport property, since FLY has no direct interests or ability to direct development on off-airport lands.

A critical consideration related to landside development at an airport is the availability of apron space and taxiway access. These facilities connect landside facilities to the airport's runway. FLY's limited aircraft apron space, on the east side of the airport, is primarily used as staging area for based aircraft entering or exiting hangars. To meet the need for additional tiedowns, transient parking and other aircraft parking, needs it is recommended that future apron space be added in conjunction with airfield and hangar development.

The terminal, airfield maintenance/SRE building, hangars and other landside facilities mentioned in the previous section can be constructed within the existing airport boundary but should developed in a way that allows for efficient aircraft flow, convenient access and is consistent with demand. Many of the existing hangars will provide adequate short-term accommodation, although some have exceeded their useful life and may have to be redeveloped. A comprehensive landside development plan will accommodate short- and long-term needs by using available undeveloped airport property to construct facilities intended to serve a variety of users. This approach provides decision-makers with an established and organized plan for future development to avoid sporadic or haphazard development common with unplanned airports.

Figure 5-1: Existing Airport Facilities

Source: Jviation

Figure 5-2: Existing Airport Property

Source: Jviation

5.3 Identification of Development Alternatives

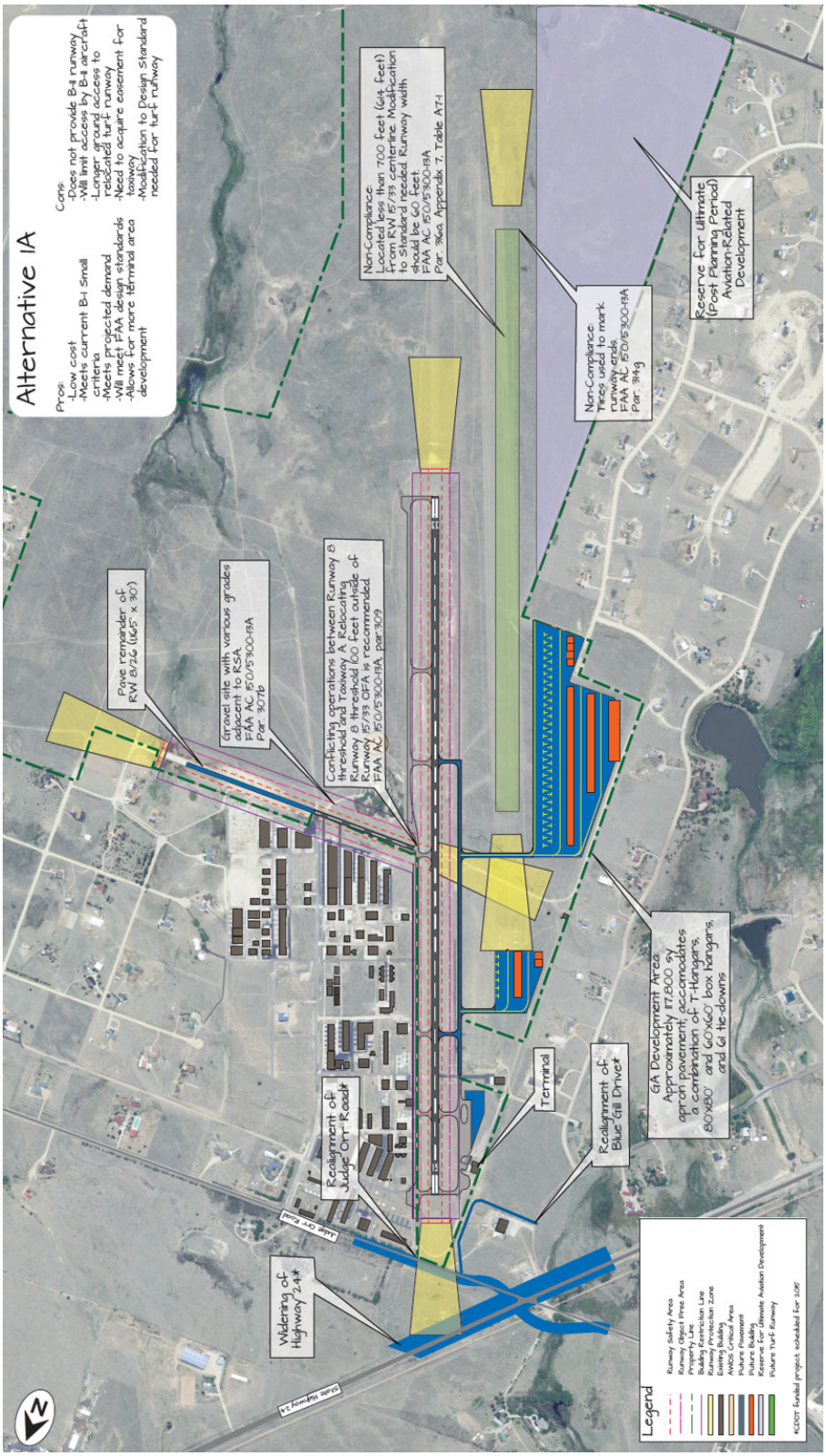
Five Alternatives for development within the existing Airport property have been prepared for consideration. Particular focus has been given to the use of existing facilities, development within the property boundary and enhancements to access and connect various components of the airfield and landside. The Alternatives have been numbered based on their projected impact to the existing airfield (with Alternative 1 representing little to no impact, and Alternative 2 resulting in more significant impacts) and named based on their runway configuration.

5.3.1 Alternative 1A: Maintain Existing Runway System

Alternative 1A shows development that takes advantage of existing available Airport property and maximizes the use of existing runways, taxiways, and other areas (see **Figure 5-3**). The following highlights are key to this Alternative:

- Runway 15/33, in its current size and alignment, continues to serve as the Airport's primary runway. Access to the west side of the Airport is enhanced through an extension of the partial parallel taxiway.
- Runway 8/26 is extended 1,165 feet to serve a greater number of small aircraft and increase its overall capacity and effectiveness.
- The existing turf runway remains unchanged.
- Much of the existing hangar areas remain as they are currently construed. A new general aviation development area (117,800 square yards) is added along the Airport's western boundary and includes a combination of T-hangars, box hangars (e.g., 60 feet by 60 feet, 80 feet by 80 feet, etc.), as well as tiedowns.
- Additional apron space is constructed on the west side of the Airport to accommodate transient users.
- Widening of Highway 24 and realignment of Judge Orr and Blue Gill Drive Roads provide improved access to the Airport.

Figure 5-3: Alternative 1A



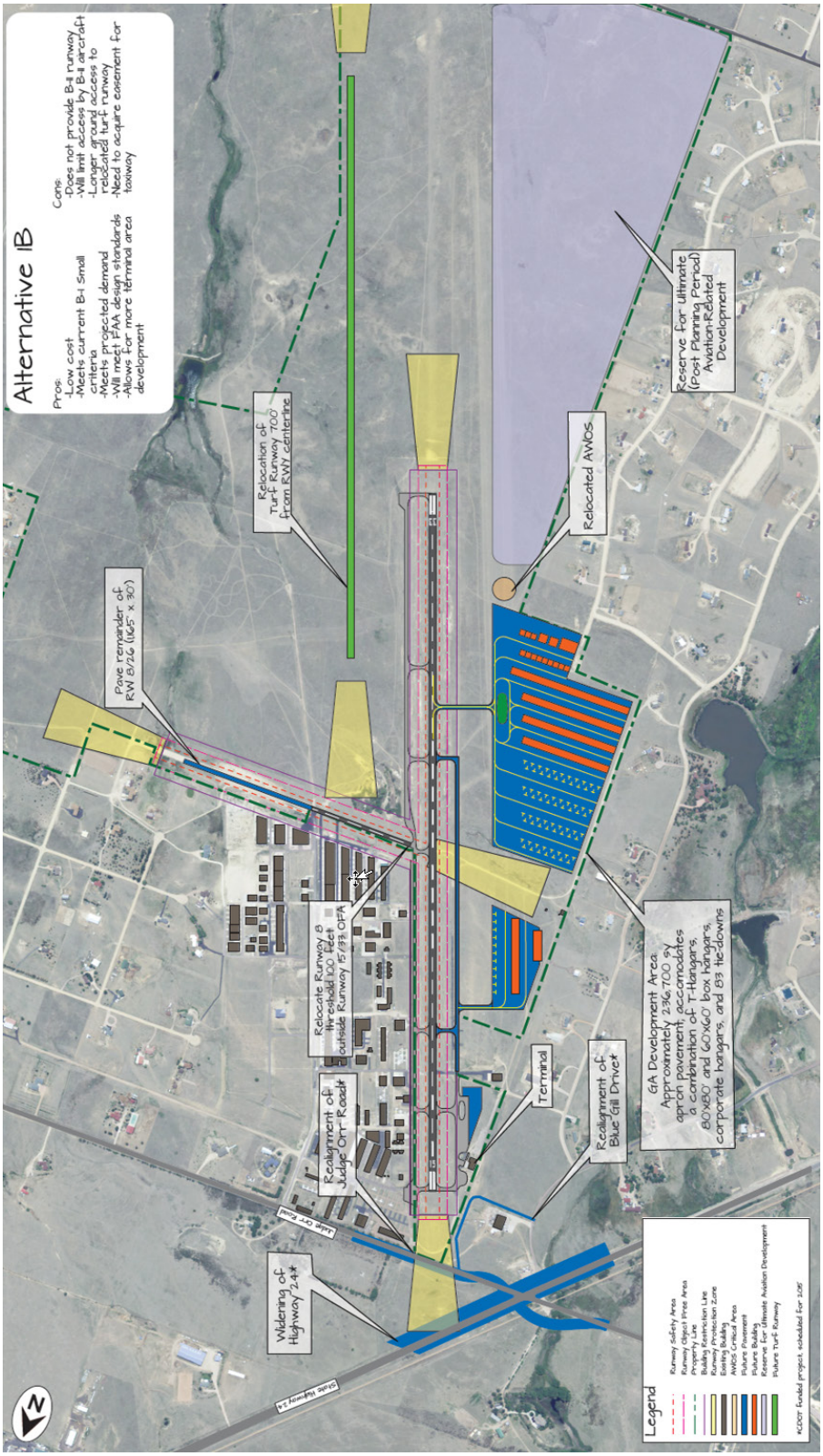
Source: Jviation

5.3.2 Alternative 1B: Existing Paved Runway System and Turf Runway Relocated East of Runway 15/33

Alternative 1B shows development that also takes advantage of existing available Airport property and maximizes the use of existing runways, taxiways, and other areas. (see **Figure 5-4**). The following highlights are key to this Alternative:

- Runway 15/33, in its current size and alignment, continues to serve as the Airport's primary runway. Taxiway access to the west side of the Airport is enhanced through an extension of the partial parallel taxiway as well as a connector to Runway 15/33.
- Runway 8/26 is extended 1,165 feet to serve a greater number of small aircraft and increase overall capacity.
- The turf runway is relocated to the east side of Runway 15/33 to improve compliance to design standards and increase landside development capacity. To remove conflict with the turf runway, the AWOS is relocated to the west side of the Airport.
- Much of the existing hangar areas remain as they currently exist. A new general aviation development area (236,700 square yards) is added along the Airport's western boundary and includes a combination of T-hangars, box hangars (e.g., 60 feet by 60 feet, 80 feet by 80 feet, etc.), as well as tiedowns.
- Additional apron space is constructed on the west side of the Airport to accommodate transient users.
- Widening of Highway 24 and realignment of Judge Orr and Blue Gill Drive Roads provide improved access to the Airport.

Figure 5-4: Alternative 1B



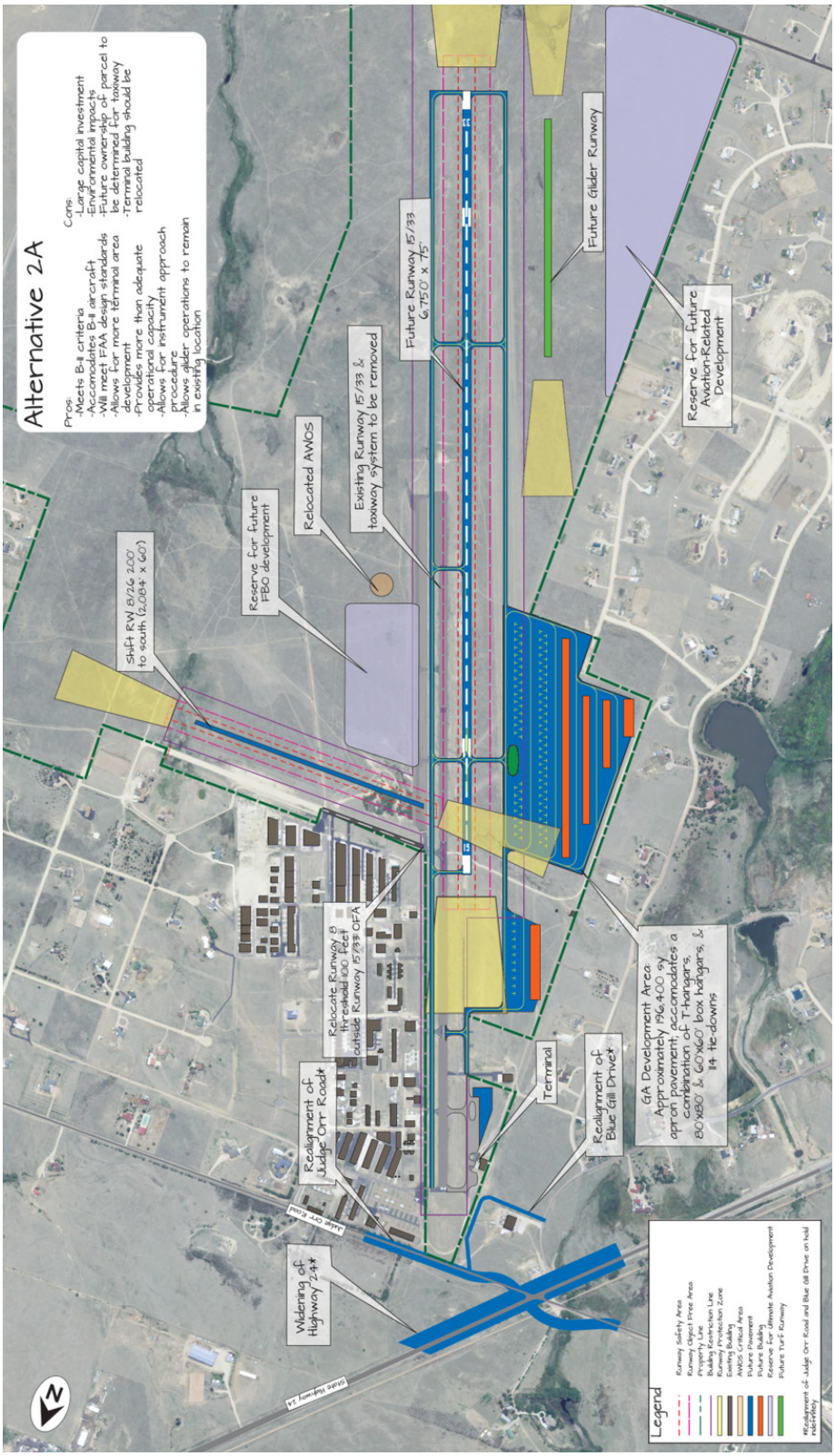
Source: Jviation

5.3.3 Alternative 2A: New B-II Runway 15/33 and Shift Runway 8/26

Alternative 2A shows development that takes advantage of available property already owned by the Airport but redevelops the runway and taxiway system to accommodate more demanding aircraft (see **Figure 5-5**). The following highlights are key to this Alternative:

- Runway 15/33 is relocated, extended and widened (6,750 feet by 75 feet) to accommodate ARC B-II aircraft and meet Runway Protection Zone standards. Aircraft access to the Runway and west side of the Airport is enhanced through the development of two full-length parallel taxiways.
- Runway 8/26 is shifted 200 feet south to avoid hangar obstructions and the Runway 8 threshold is positioned outside Runway 15/33 object free area. The runway is built to a length of 2,084 feet by 60 feet wide in order to serve a greater number of small- and medium-sized general aviation aircraft while increasing overall airfield capacity.
- The turf runway is relocated and shortened to primarily serve glider aircraft.
- Much of the existing hangar areas remain as they currently exist. A new general aviation development area (196,400 square yards) is added along the Airport's western boundary and includes a combination of T-hangars, box hangars (e.g., 60 feet by 60 feet, 80 feet by 80 feet, etc.), as well as tiedowns.
- The AWOS is relocated to reserve space for future FBO development.
- Additional apron space is constructed on the west side of the Airport to accommodate transient users.
- Widening of Highway 24 and realignment of Judge Orr and Blue Gill Drive Roads provide improved access to the Airport.

Figure 5-5: Alternative 2A



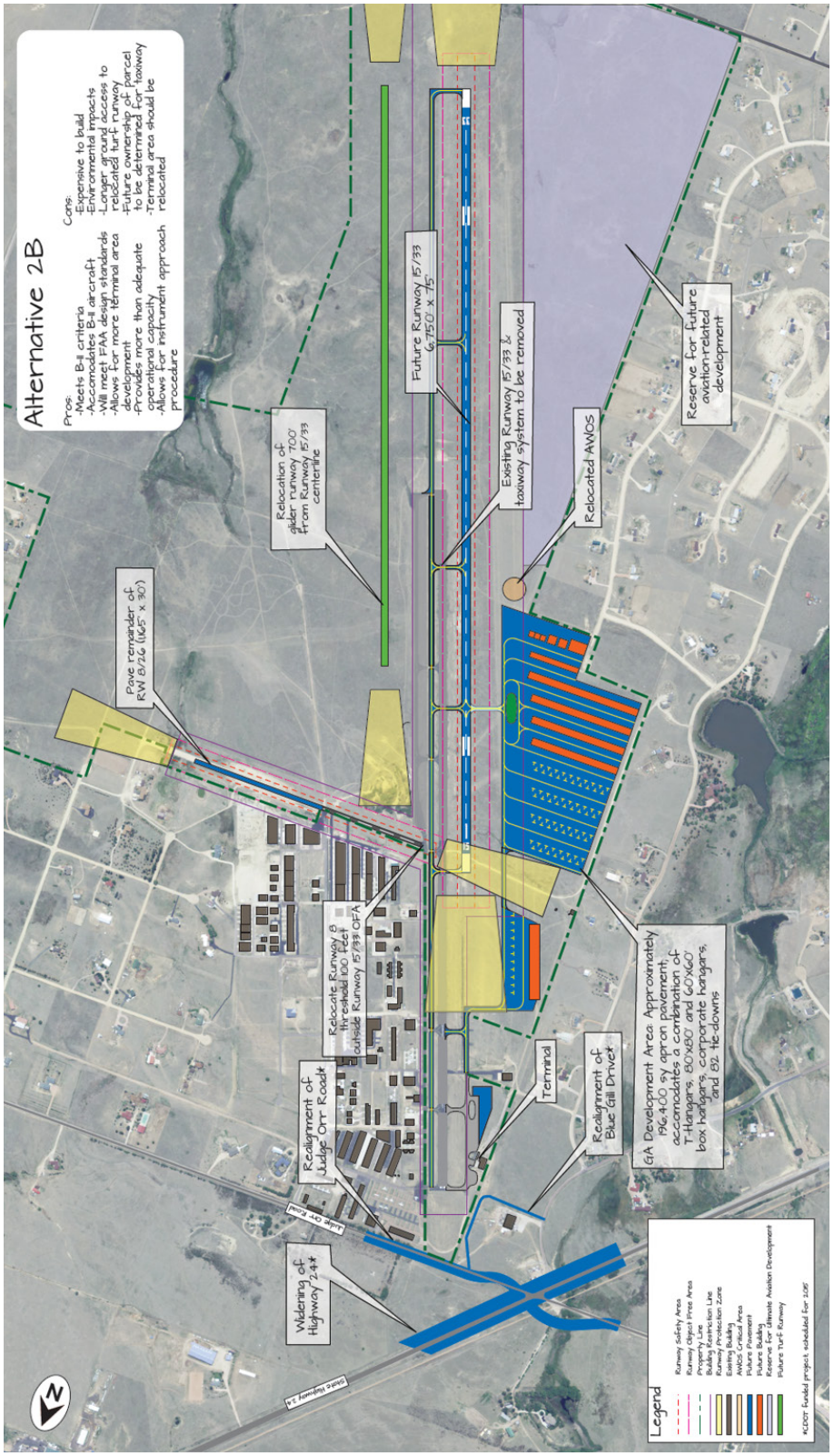
Source: Jviation

5.3.4 Alternative 2B: New B-II Runway 15/33 and New Turf Runway East of Runway 15/33

Alternative 2B shows development that takes advantage of available property already owned by the Airport but redevelops the runway and taxiway system to accommodate more demanding aircraft (see **Figure 5-6**). The following highlights are key to this Alternative:

- Runway 15/33 is relocated, extended and widened (6,750 feet by 75 feet) to accommodate ARC B-II aircraft and meet Runway Protection Zone standards. Aircraft access to the Runway is maintained through the development of a full-length parallel taxiway.
- Runway 8/26 is extended 1,165 feet to serve a greater number of small aircraft and increase overall capacity.
- The turf runway is relocated to the east side of Runway 15/33 to improve compliance to design standards and increase landside development capacity. To remove conflict with the turf runway, the AWOS is relocated to the west side of the Airport.
- Much of the existing hangar areas remain as they currently exist. A new general aviation development area (196,400 square yards) is added along the Airport's western boundary and includes a combination of T-hangars, box hangars (e.g., 60 feet by 60 feet, 80 feet by 80 feet, etc.), corporate hangars, as well as tiedowns.
- Additional apron space is constructed on the west side of the Airport to accommodate transient users.
- Widening of Highway 24 and realignment of Judge Orr and Blue Gill Drive Roads provide improved access to the Airport.

Figure 5-6: Alternative 2B



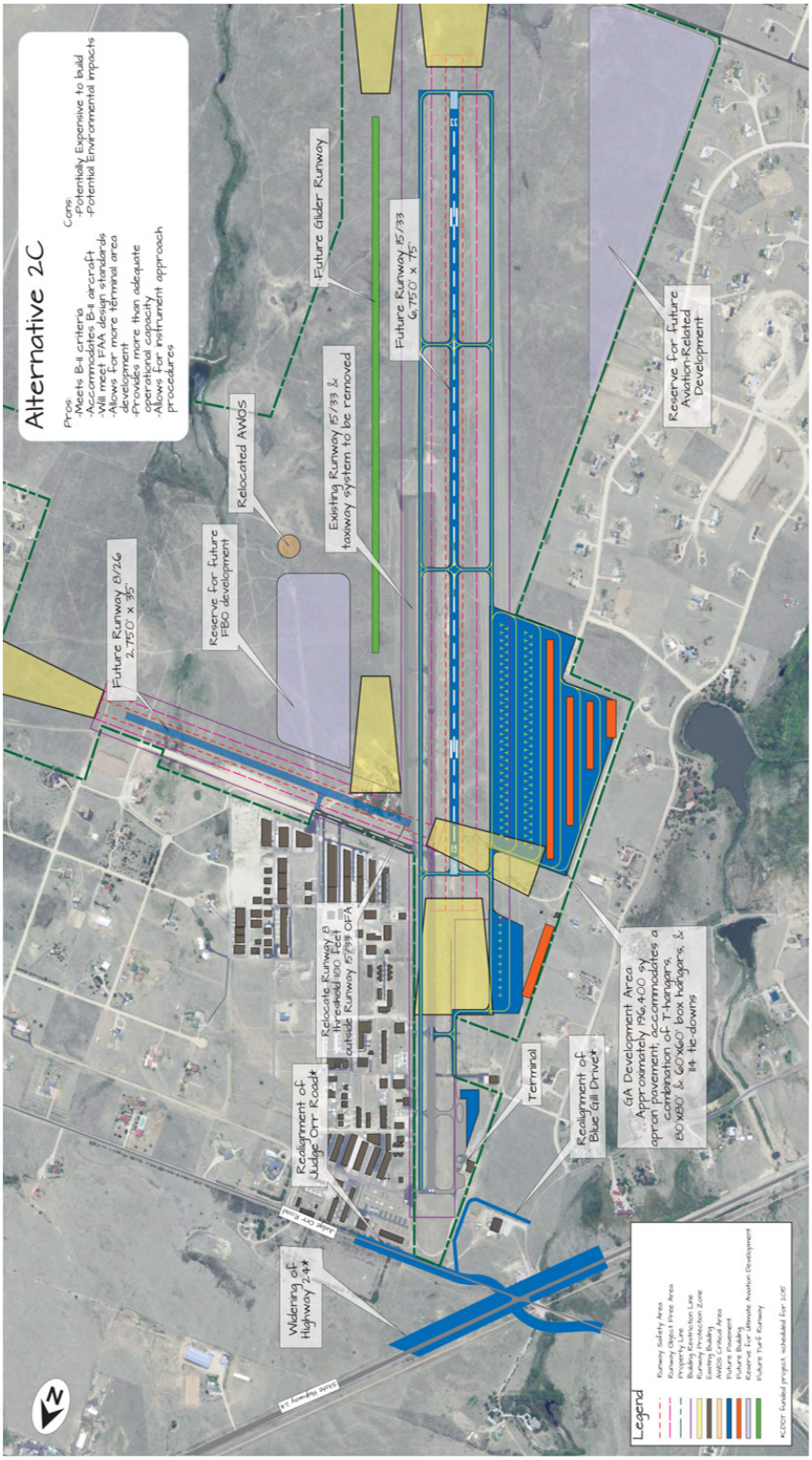
Source: Jviation

5.3.5 Alternative 2C: New B-II Runway 15/33, Shift Runway 8/26, and New Turf Runway East of Runway 15/33

Alternative 2C shows development that takes advantage of available property already owned by the Airport but redevelops the runway and taxiway system to accommodate more demanding aircraft (see **Figure 5-7**). The following highlights are key to this Alternative:

- Runway 15/33 is relocated, extended and widened (6,750 feet by 75 feet) to accommodate ARC B-II aircraft and meet Runway Protection Zone standards. Aircraft access to the Runway and west side of the Airport is enhanced through the development of two full-length parallel taxiways.
- Runway 8/26 is shifted 200 feet south to avoid hangar obstructions and the Runway 8 threshold is positioned outside Runway 15/33 object free area. The runway is built to a length of 2,084 feet by 60 feet wide in order to serve a greater number of small and medium-sized general aviation aircraft while increasing overall airfield capacity.
- The turf runway is relocated to the east side of Runway 15/33 to improve compliance to design standards and increase landside development capacity. The AWOS is relocated to remove conflict with the turf runway and reserve space for future FBO development.
- Much of the existing hangar areas remain as they currently exist. A new general aviation development area (196,400 square yards) is added along the Airport's western boundary and includes a combination of T-hangars, box hangars (e.g., 60 feet by 60 feet, 80 feet by 80 feet, etc.), as well as tiedowns.
- Additional apron space is constructed on the west side of the Airport to accommodate transient users.
- Widening of Highway 24 and realignment of Judge Orr and Blue Gill Drive Roads provide improved access to the Airport.

Figure 5-7: Alternative 2C



Source: Jviation

5.4 Evaluation of Alternatives

Each of the Alternatives presented above have positive and negative traits. They can be evaluated through understanding each Alternative's pros and cons. Using this type of evaluation, a Preferred Alternative that provides the greatest benefit with the least impact can be selected. **Table 5-1** provides a listing of the pros and cons for each development Alternative.

Table 5-1: Alternatives Evaluation Matrix

	Pros	Cons
Alternative 1A	– Relatively low cost – Accommodates ARC B-I Small aircraft – Meets projected demand – Meet FAA design standards (B-I Small) – Allows for more terminal area development	– Does not provide ARC B-II runway – Limited access by ARC B-II aircraft – Longer ground access to relocated turf runway – Need to acquire easement for taxiway – Modification to design standard needed for turf runway
Alternative 1B	– Relatively low cost – Accommodates ARC B-I Small aircraft – Meets projected demand – Meet FAA design standards (B-I Small) – Allows for more terminal area development	– Does not provide ARC B-II runway – Limited access by ARC B-II aircraft – Longer ground access to relocated turf runway – Need to acquire easement for taxiway
Alternative 2A	– Accommodates ARC B-II aircraft – Meets FAA design standards (ARC B-II) – Allows for more terminal area and FBO development – Provides more than adequate operational capacity – Allows for instrument approach procedure – Allows glider operations to remain in existing location	– Large capital investment – Environmental impacts – Future ownership of parcel to be determined for taxiway – Terminal building should be relocated – Reduced length glider runway
Alternative 2B	– Accommodates ARC B-II aircraft – Meets FAA design standards (ARC B-II) – Allows for more terminal area development – Provides more than adequate operational capacity – Allows for instrument approach procedure	– Large capital investment – Environmental impacts – Longer ground access to relocated turf runway – Future ownership of parcel to be determined for taxiway – Terminal area should be relocated
Alternative 2C	– Accommodates ARC B-II aircraft – Meets FAA design standards (ARC B-II) – Allows for more terminal area and FBO development – Provides more than adequate operational capacity – Allows for instrument approach procedure	– Large capital investment – Environmental impacts – Longer ground access to relocated turf runway – Terminal area should be relocated

Source: Jviation

5.5 Conclusions and Recommendations

Each Alternative has both positive and negative attributes, with varying importance and impacts. Utilizing the evaluation of Alternatives described in the previous section as well as feedback from Airport staff, **Alternative 2C** has been identified as being the Preferred Alternative. The following key points summarize the primary attributes that make Alternative 2C the preferred concept:

- New ARC B-II Runway 15-33 and Non-precision Approach: This development concept provides a runway system and non-precision approach capabilities that enable FLY to meet the needs of the growing segment of the general aviation population.
- New Taxiways: Dual full-length parallel taxiways serving the primary runway will allow for convenient and efficient aircraft movement. As the number of based aircraft and operations at FLY grows, an effective taxiway system will be paramount to avoid aircraft taxi conflicts and provide logical aircraft ground movement paths.
- Terminal Area and FBO Expansion: This Alternative provides an expansive area for long-term terminal and hangar development. In addition, an area for a new FBO located east of the new Runway 15/33 is centrally located on the airfield and provides convenient access to all runways.

- Runway 8/26 Shift and Extension: Shifting, extending and widening Runway 8/26 will provide greater airfield capacity as well as avoid object free area conflicts with Runway 15/33 and airspace issues with respect to hangars located along the south side of the terminal area. This Runway would meet design criteria for a majority of airport operations and provide meaningful relief to the primary runway.
- Relocated Turf Runway East of New Runway 15/33: This location allows for a full-length turf runway designed to accommodate not only glider aircraft, but smaller piston aircraft as well. The location shown in the Preferred Alternative allows for greater terminal area development west of Runway 15/33 and maximizes the use of available Airport property.
- Meets Projected Demand for Hangars and Tiedowns: The Preferred Alternative provides almost 200,000 square yards of new hangar and tiedown apron development intended to meet the future demand for based and transient aircraft. Additionally, long-term development needs beyond the 20-year planning period can easily be accommodated and added to the development area.
- Meets FAA Design Standards: The Preferred Alternative meets all B-II design criteria and runway protection zone requirements without the application of modifications to standards, declared distances or other limitations.

The Preferred Alternative will be shown on the Airport Layout Plan (ALP) set and adopted as the Airport's preferred plan with respect to airport expansion and development. Slight modifications and adjustments to the Preferred Alternative may be reflected on the Airport Layout Plan set following additional feedback from Airport management.

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6. IMPLEMENTATION AND FINANCIAL PLAN

6.1 Introduction and Background

The Meadow Lake Airport (FLY or the Airport) master plan defined and analyzed five alternatives in order to meet projected demand, as well as pertinent FAA design standards, and the goals set by the Meadow Lake Airport Association (MLAA). The analysis concluded by recommending adoption of Alternative 2C as the preferred option.

There are two features that differentiate FLY from other public-use airports included in FAA's National Plan of Integrated Airport Systems (NPIAS):

- MLAA is a private, non-profit corporation incorporated under the provisions of the "Colorado Non-Profit Corporation Act," Article 24, Chapter 31 of the 1963 Colorado Revised Statutes, as amended. It is also designated as a 501 (c) (4) non-profit corporation by the Internal Revenue Service. As a result, all property and income of the Association are tax exempt, however, the MLAA does pay appropriate (applicable) state sales tax.
- There is a large area east of Runway 15/33 that is privately owned by individuals who have constructed hangars, tiedowns, and houses. The private owners have through-the-fence (TTF) access to the airfield (taxiways and runways), and are members of the MLAA.

The master plan and the recommended improvements focused exclusively on the property owned by the MLAA. The privately-owned property is not eligible for FAA or Colorado Department of Transportation (CDOT) funding, and the master plan did not address any future demand, facility requirements, or potential development on this property.

6.1.1 Development Plan Implementation

The implementation of the recommended development plan will be dependent on a number of factors including availability of funding; the environmental coordination, review, and compliance process; the actual rate at which aviation activity increases in the future that warrants additional capacity; among others. As a result, MLAA will need to continually review and update their Capital Improvement Plan (CIP), which they currently do in coordination with CDOT and the FAA, as well as monitor their aviation activity levels in relation to the forecasts of demand presented in this master plan.

Two key factors must be considered in the overall implementation process:

1. The time required to design and construct each project, including scheduling the necessary funding from various sources, as well as the environmental review and approval process, all of which can require a number of months, and sometimes years. Construction timing and phasing is also weather and season dependent, which limits the time period available to implement the development program.
2. The sequence and priority of project development. Some projects are relatively independent stand-alone improvements, such as the renovation or replacement of the existing terminal building/SRE garage, and relocating Runway 8/26 to the south. Other projects, such as the construction of the new Runway 15/33 to B-II design standards, will require the construction of parallel taxiways and the closing of the existing Runway 15/33. The existing Runway 15/33 pavement is in poor condition and is programmed to be partially rehabilitated (primarily maintenance) in the fall of 2015. The Runway is programmed to be rehabilitated in 2019, after which it is anticipated to have a useful life of

approximately 10 years (until 2029). The new turf runway, parallel to Runway 15/33, will be constructed when the new Runway 15/33 is built.

6.2 Recommended Airport Development Projects

The FLY master plan recommends Alternative 2C, which is depicted on the ALP sheet in the following chapter and includes a number of future development projects that fall within the following broad categories:

6.2.1 Airside Development

- Reconstruct Existing Runway 15/33 (existing dimensions are 6,000 feet by 60 feet): The project is already programmed and funded, and included in the approved CIP.
- Construct new paved general aviation based aircraft tiedown apron on the west side of the Airport: The new apron will be approximately 196,400 square yards, with 114 aircraft tiedowns and a combination of T-hangars and box (executive) hangars of various sizes, as demand warrants. This capacity will accommodate more than the 20-year forecast period, but provides flexibility in case demand grows faster than projected. The actual number of tiedowns and T- and box hangars constructed will be dependent on actual demand for the facilities, as determined by the MLAA.
- Construct new T-hangars and box hangars on the west side of the Airport: The actual number, type, and size of the hangars constructed will be dependent on actual demand, and it is anticipated they will be funded by private (i.e. non-airport, CDOT, or FAA) parties.
- Relocate Runway 8/26 approximately 200 feet to the south. The existing Runway 8/26 is half paved half gravel/turf, and does not meet current FAA design criteria: it is too narrow (36 feet vs. FAA's required 60 feet), and hangars to the north penetrate the FAR Part 77 transitional surface. The relocated runway will be the same length (2,080 feet) but widened to 60 feet, will be fully paved and have visual markings. It will remain a visual, daytime runway, Runway Design code (RDC) = A-I-Visual.
- Construct a new Runway 15/33 to FAA B-II design standards, 6,705 feet by 75 feet. The new runway will have non-precision GPS instrument approaches with one-mile visibility minimums to both ends. The new runway will also have high intensity runway lights (HIRLS), PAPIs and REILS at both ends. No approach light systems are recommended to be installed on either end. There will be new parallel taxiways constructed on either side of the new runway. The existing Runway 15/33 and parallel Taxiway A pavement will be removed when the new runway and taxiways are constructed.
- Construct a new turf runway parallel to and east of the new Runway 15/33. The new runway will be used primarily by gliders and tow aircraft. It will be constructed at the same time as the new Runway 15/33, and will meet pertinent FAA design standards for turf runways. The new turf runway will be situated at least 700 feet from the centerline of the new Runway 15/33. The existing turf runway will be closed after the completion of the new turf runway.
- The existing paved transient parking apron adjacent to the terminal building will be expanded.
- An area has been identified east of Runway 15/33, south of Runway 8/26, for possible future FBO development, including an FBO terminal, ramp for transient and based aircraft parking, possible hangar development, and fuel tanks. That development would be funded by an FBO, when demand warranted or justified the investment.

6.2.2 Landside Development

Landside improvement projects include the rehabilitation or replacement of the existing terminal building/snow removal equipment (SRE) storage garage. The existing terminal building does not meet current building codes, is not handicapped accessible, and is need of renovation or replacement. There is space available in its existing location to accommodate either the renovation or replacement of the terminal building.

6.3 Capital Improvement Plan

FLY prepares and updates their CIP on a regular basis. The most current CIP is attached as an appendix to this study. The largest projects shown on the CIP between 2014 and 2022 are the design and reconstruction of existing Runway 15/33, and maintenance of Taxiway A.

The existing CIP identifies a number of projects in the "NPIAS Long-term" category, including:

- 2015 Runway Pavement Maintenance - $333,332
- 2018 Pavement maintenance - $166,666
- 2019 Rehabilitate Runway 15/33 - $1,759,660

Since FLY is a general aviation airport, it cannot impose passenger facility charges (PFC), and as a private non-profit corporation it does not have access to the bond markets. Both PFCs and general airport revenue bonds (GARBs) are typically large sources of funding for capital improvements used by commercial service airports like Colorado Springs (COS) and Denver International (DEN), in addition to FAA and state grants and internally generated cash flow.

Because FLY is a designated reliever airport and is included in both the federal and state airport system plans, FLY receives grants from CDOT and FAA. FAA has not issued discretionary grants to FLY, only non-primary entitlement grants of $150,000 per year. FAA has adopted a similar policy with other privately owned, public-use reliever airports. FAA recently issued a new edition of their Airport Improvement Program (AIP) Handbook, FAA Order 5100.38D, dated 09/30/14. The AIP Handbook lists eligible projects as well as FAA's project priority ranking system.

In general, airport facilities that are eligible for funding must be available for public use (i.e. not encumbered by an exclusive use agreement), and meet appropriate design standards. FLY is in compliance with the FAA's sponsor grant assurances. Projects that are eligible for state and federal funding are subject to priority ranking as well as funding availability. Both CDOT and FAA have identified projects that are not eligible for state or federal funding, as well as priority ranking systems for eligible costs.

The Colorado State Legislature and the U.S. Congress pass laws authorizing state and federal airport aid programs, and amend those programs from time to time. The U.S. Congress is presently studying the reauthorization of the FAA's AIP, and it is possible that FAA funding levels could change, project eligibility may change, and FAA's priority ranking system may also change depending the legislation passed by Congress and signed by the President. As a result, FLY's CIP will need to be reviewed and updated as the FAA and state airport improvement programs are reauthorized or modified.

Figure 6-1: FAA Eligible Projects

The three basic tests to determine if a project is justified are…
a. **The Project Advances an AIP Policy.** The ADO must verify that the project advances at least one of the AIP policies contained in 49 USC § 47101. The basic goals and objectives in these policies include airport safety, airport security, airport capacity, meeting an FAA standard, preserving airport infrastructure through reconstruction or rehabilitation, protecting and enhancing the environment, minimizing aircraft noise impacts, and airport planning. AIP funds must not be used for a project that does not specifically advance one of the AIP policies.
b. **There is an Actual Need.** Per FAA policy, the ADO must determine if there is an actual need for the project at the airport within the next five years (per the definition near-term development per the current version of Advisory Circular 150/5070-6, Airport Master Plans). This includes all subcomponents of the project.
c. **The Project Scope is Appropriate**. The ADO must determine that only the elements that are required to obtain the full benefit of the project are included in the project scope. Any elements that do not meet these criteria must stand on their own separate merit and justification. The current version of FAA Order 5100.39, Airports Capital Improvement Plan, discusses this concept in further detail in the discussions on overall development objective.

Source: FAA Order 5100.38D, *Airport Improvement Program Handbook*, 09/30/14, Chapter 3, Section 3

In addition, the following must also apply for FAA to consider a project for AIP funding:

- The project sponsorship requirements have been met.
- The project is reasonably consistent with the plans of planning agencies for the development of the area in which the airport is located.
- Sufficient funds are available for the portion of the project not paid for by the FAA.
- The project will be completed without undue delay.
- The airport location is included in the current version of the NPIAS.
- The project involves more than $25,000 in AIP funds.
- The project is depicted on a current airport layout plan approved by FAA.

Figure 6-2: Example of Projects Not Meeting the Basic Justification Tests

For the following situation…	Is not justified because…
a. A sponsor has a runway shown on their ALP and would like to build it to increase capacity. However, the airport already has adequate capacity and will continue to have adequate capacity in the foreseeable future.	This project does not advance an AIP policy. The actual need does not exist.
b. A sponsor would like to build a runway extension to attract a new class of aircraft or for marketing purposes. In this case, the need is speculative and not based on documented future need.	The actual need does not exist.
c. A sponsor would like include dorm rooms and day rooms in an ARFF building expansion for an airport with a class of certification that does not require 24/7 ARFF personnel.	This project scope is not appropriate.
d. A sponsor would like to replace its existing asphalt pavement with concrete even though the pavement section has existing useful life.	The actual need does not exist.

Source: FAA Order 5100.38D, *Airport Improvement Program Handbook*, 09/30/14, Chapter 3, Section 3

6.4 Project Cost Estimates

Jviation prepared cost estimates for each of the recommended projects shown on the ALP. The projects and rough order of magnitude cost estimates are in **Table 6-1**.

Table 6-1: Recommended Projects and Cost Estimates

Project	Cost Estimate	Time Frame	Notes/Potential Funding Sources
Paved Based and Transient Aircraft Parking Apron	$13,5000,000	As demand warrants between 2016 and 2034	Assume private (i.e. non-airport or public agency) funding sources.
Transient Parking Apron Expansion (adjacent to terminal building)	$315,000	Approximately 2020	Assume CDOT & possible FAA participation.
Rehabilitate or replace the terminal building and SRE garage (approx. 6,000 s.f.)	$900,000 (assumed $150/s.f.)	Before 2020	Very low priority for FAA or CDOT funding. Only public-use space eligible.
New paved Runway 8/26 (2,000' x 60'), daytime VFR	$1,800,000	2020-2025	Assume possible CDOT & FAA participation.
Construct new Runway 15/33 (6,750' x 35') B-II Non-Precision IAP to 15 & 33	$4,700,000	2036-2038	CDOT & FAA participation.
Construct new parallel Taxiway A to new Runway 15/33	$3,000,000	2036-2038	CDOT & FAA participation.
Construct new turf glider runway (approx. 5,000' x 60')	$1,000,000 (cost varies depending on turf, size, etc.)	2036-2038	Extremely low priority for FAA or CDOT funding.
	$25,215,000		**FAA & CDOT funding dependent on new airport improvement programs**

Source: Jviation
Note: Existing data used in cost estimates. No survey, soils, pavement condition, or other engineering data used in developing cost estimates. Unit prices subject to change. These cost estimates are not to be used for design, construction, or bid purposes

6.5 Implementation Plan

In Colorado, airport development projects for general aviation airports are usually funded by several sources, including the FAA AIP, CDOT Aeronautics Discretionary Grant Program, Colorado State Infrastructure Bank (SIB) Loan Program, local (Airport and/or County) funding, and private investment. Both FAA and CDOT have acknowledged that their respective funding programs are insufficient to meet the needs identified by airport sponsors. However, both programs are heavily reliant on revenues from fuel sales taxes, as well as enabling legislation passed by their respective legislatures.

6.5.1 FAA Airport Improvement Program

The FAA AIP was created by the Airport and Airways Act of 1982 to assist in the development of a nationwide system of public-use airports. AIP replaced the previous programs, including the Airport Development Aid Program (ADAP) and the earlier Federal Aid to Airports Program (FAAP). The AIP provides an increased level of funding, higher federal participation rate, and greater project eligibility. Amendments to the program since 1982 have consistently increased funding levels, participation rate, and eligibility.

The FAA AIP funding process involves two steps. The first step requires inclusion of an airport in the National Plan of Integrated Airport Systems (NPIAS) to be eligible for funding. The NPIAS is an unconstrained list of airport needs in the United States, assisting Congress in authorization and appropriation of funds for AIP. The final NPIAS is a document presented to Congress every two years showing the status of airport needs across the country. Since the NPIAS is an unconstrained list of airports' needs, the long-term list will contain several development concepts that have a small likelihood of receiving AIP funding.

The second step in the process is inclusion of FLY's capital needs list in the FAA's CIP; this is the constrained agency funding plan for a five-year period, and is a continuously changing document. A general aviation airport, such as FLY, annually submits its current CIP with new projects and project estimates to the FAA Denver Airports District Office (Denver ADO) so they can make updates to their five-year plan and the FAA Regional CIP. Each airport should receive feedback from the FAA regarding which of their projects have been included.

The AIP has limits on eligibility. Generally, grant eligible items include airfield and aeronautical related facilities, such as runways, taxiways, aprons, lighting, and visual aids, as well as land acquisition, planning, and environmental tasks needed to accomplish the airport improvement projects. Most revenue-producing items like hangars, fuel farms , and FBO facilities are not eligible for AIP funds. Additionally, equipment eligibility is limited to safety equipment such as Aircraft Rescue and Firefighting (ARFF) trucks and snow removal equipment. Mowers, earth moving equipment, and airport operations vehicles are not eligible for AIP funding. The FAA utilizes a priority system to rank development items. Generally, the smaller the airport and the farther the item is from the runway, the lower priority it receives (e.g. runways have priority over taxiways, which have greater priority than aprons, which have priority over roads, etc.). However, development or equipment required by rule or law has a high priority.

Historically, federal participation in the AIP was 90 percent of the eligible cost of airport projects, leaving the airport sponsor responsible for the other 10 percent. After September 11, 2001, Congress authorized increased federal participation from 90 percent to 95 percent because of the economic impact 9/11 had on local resources. On February 6, 2012, the Senate passed a four-year (2012 to 2015) reauthorization and reform of the FAA Bill, decreasing the federal participation on AIP grants back to the historical 90 percent.

In Colorado, CDOT Aeronautics has typically provided a grant for 50 percent of the sponsors share on AIP grants. The probable change to the AIP authorizing legislations will increase demands on CDOT funds, but there has been no indication that their support will be less than 50 percent of the sponsor share. All funding from state and federal agencies must be for planning, design, construction, or pavement maintenance projects, and cannot be used to supplement the operating expenses of the airport.

There are two types of AIP funds that FLY may or has received: entitlement and discretionary.

6.5.2 FAA Entitlement Funds

As a general aviation (GA) airport included in FAA's NPIAS, FLY is eligible to receive an entitlement of $150,000 per year. An airport can use entitlement funds on any eligible item; however, excessive use of entitlements on low priority work can have a negative effect on the FAA's discretionary funding plans for that airport.

6.5.3 FAA Discretionary Funds

Approximately half of the AIP appropriations each year can be dispersed by the FAA at their discretion, rather than the fixed entitlement grants. The FAA has many priority programs they fund each year, for example, runway safety areas, runway surface treatments, and projects that improve overall system capacity (e.g. new runways at hub airports). General aviation airports compete best for discretionary funding for safety, security, and pavement preservation projects. As a designated reliever, FLY competes for different funding sources in relation to other GA airports that are not designated relievers.

FAA has indicated, however, that as a privately-owned facility, FLY would not receive FAA discretionary grants. As noted previously, FAA has indicated verbally to the MLAA that FLY is not eligible for discretionary grants, however, that policy (i.e. statement) is contrary to the FAA AIP Handbook. As a designated reliever airport in FAA's NPIAS, FLY is subject to the same conditions and benefits, including discretionary grants, as all other designated reliever airports in the NPIAS. This discrepancy should be cleared with the FAA.

6.5.4 CDOT Aeronautics - Discretionary Aviation Grant Program

Because FLY is included in CDOT Aeronautics' Aviation System Plan, it is eligible to receive state discretionary grants. **Figure 6-3** depicts discretionary grants FLY received from CDOT between 2005 and 2015.

Figure 6-3: Grants Received from CDOT, 2005-2015

Colorado Division of Aeronautics												
Discretionary Aviation Grant Program History												
Aiport Name	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Grand Total
Meadow Lake Airport	$125,000	$200,000	$0	$121,157	$163,273	$115,947	$107,800	$293,457	$400,000	$130,500	$8,333	**$1,665,467**

Source: CDOT Aeronautics

The State of Colorado was the last state in the Nation to establish a dedicated aviation branch of state government. In 1989 the Division of Aeronautics and the Colorado Aeronautical Board was created to support, develop and maintain the Colorado Aviation System through taxes collected on aviation fuel sold within the state. There are no general funds used to meet the needs within the Colorado Aviation System, the needs are funded solely through the taxes collected by those actually using the aviation system.

CDOT published a White Paper on the state airport funding program, which is attached as an appendix. CDOT Aeronautics experienced a significant budget shortfall in their discretionary grant program in 2014 and 2015, which forced the agency to curtail some grants. CDOT also indicated that the focus of their discretionary grant program through 2018/2019 will be on matching FAA grants vs. issuing stand-alone grants, as well as limiting any grant amendments. CDOT Aeronautics personnel coordinated with each airport to review the impact of the funding shortfall and possible adjustments to CIPs.

6.5.5 Private Investment

Many airports, from small general aviation facilities to large hub commercial service airports, benefit from capital investments made by private parties. Private investment comes from a number of sources such as fixed base operators (FBO), aircraft owners and private hangar developers, aircraft and parts maintenance, repair, overhaul, and manufacturing, as well as non-aeronautical services such as restaurants, rental car companies, etc. Private investors relieve airport sponsors from having to make capital investments, which is particularly helpful for airports with limited capital resources.

The most common practice is for airport sponsors to negotiate land leases with the private entity/investor, upon which the private party constructs the improvements. In airport sponsor-tenant leases there are typically a number of clauses, including rate escalation, first right of refusal, right to review subletting, as well as reversion clause in which improvements made by private parties revert to airport ownership after a specified period, typically long enough for the private investor to amortize their costs.

The lease rates typically reflect the level of capital investment made by the private party. All leases must be consistent with the provisions of the FAA's sponsor grant assurances, and the FAA also requires that some of the grant assurance provisions, such as fair and reasonable, and non-discriminatory pricing, be applied to the airport tenants as well, even though they are private entities and not signatories to the grant assurances.

The FAA has established policies concerning the use and generation of airport revenue. Aeronautical lease rates are expected to recover aeronautical costs, but can be reduced if necessary to attract and retain commercial aeronautical services. Also, an airport can lease land which was not acquired with federal or state aid for non-aeronautical revenue production, as long as the development does not interfere with aeronautical activities.

The FAA's policy concerning revenue generation requires that non-aeronautical leases be set at fair market value per FAA Policy and Procedures Concerning the Use of Airport Revenue dated February 16, 1999. In addition, lease terms cannot exceed 50 years, beyond which FAA has determined that an airport sponsor has given up their rights and powers which are required by the FAA grant assurances to be maintained by sponsors. FLY may employ the terms outlined above to ultimately realize its full development potential, especially as it relates to the significant amount of future hangar development shown on the ALP.

7. AIRPORT LAYOUT PLAN DRAWING SET

The future development plan for the Meadow Lake Airport (FLY or the Airport) has evolved through analysis presented in this Airport Master Plan. Federal Aviation Administration (FAA) Advisory Circular (AC) 150/5060-6B, *Airport Master Plans*, states: "The Airport Layout Plan (ALP) drawing set depicts existing airport facilities and proposed developments as determined from the planners' review of the aviation activity forecasts, facility requirements, and alternatives analysis."

The AC also notes: "The ALP drawing set is a set of planning drawings and is not intended to provide design engineering accuracy. Individual items such as runway coordinates, obstruction survey data, and application of airport design standards must comply with Federal survey standards."

According to the FAA, these five primary functions of the ALP define its purpose:

1. Create a blueprint for airport development by depicting proposed facility improvements. The ALP provides a guideline by which the airport sponsor and the FAA can ensure that future development maintains FAA airport design standards and safety requirements, and is consistent with airport and community land use plans.
2. Serve as a public record of the present and future airport facility requirements, and as a reference for community deliberations on land use proposals and budget resource planning.
3. Allow the FAA to anticipate budgetary and procedural needs of the airport, as well as to protect the airspace required for future facility and/or approach procedure improvements.
4. Serve as a working tool for the airport sponsor, including its airport management, development, and maintenance staff.
5. Graphically show that FAA's requirements have been met for the airport to receive financial assistance under the terms of the Airport and Airway Improvement Act of 1982, as amended.

FAA requires that the ALP be signed by both the airport sponsor and the FAA prior to the approval or funding of an airport development project shown on that ALP. FAA approval of the ALP ensures the safety, utility, and efficiency of the airport. FAA sponsor grant assurance Number 29 requires that the airport sponsor keep the ALP up-to-date at all times.

The ALP is a graphic depiction of existing conditions of airport facilities as well as the recommended improvements identified in this Airport Master Plan. The drawing set conforms to the SOP 2.00, Standard Procedure for FAA Review and Approval of Airport Layout Plans (ALPs) and the associated checklist was completed as part of the ALP development process. The FLY ALP drawing set was prepared in full-color with aerial photo backgrounds for enhanced readability and clarity.

When the FAA conditionally approves and signs the ALP set, FAA can then fund development that is shown on the ALP and that is eligible for FAA participation, subject to environmental processing through the National Environmental Policy Act (NEPA). These conditions described in a letter that accompanies the ALP set and must be met prior to implementing depicted development.

The individual drawings presented in the ALP drawing set are listed below, with descriptions of each drawing in the following section.

- Title Sheet
- Data Sheet
- Airport Layout Plan

- Terminal Area Plan
- Airport Airspace Drawing (FAR Part 77)
- Inner Portion of the Approach Plan and Profile
- Departure Surfaces
- Land Use Plan

It is important to note that most ALPs include an Airport Property Map / Exhibit "A" drawing. As per guidance provided in AC 150/5060-6B, *Airport Master Plans*, this sheet is not required as part of the drawing set.

7.1 Title Sheet

The Title Sheet provides the project title, FAA AIP number, an index of drawings within the ALP set, as well as airport location and vicinity maps. There is also a signature box for the airport sponsor once the set has been reviewed and approved.

7.2 Data Sheet

The ALP data sheet includes wind roses, wind coverage tables, airport and runway data tables, declared distances table, legend, and vertical and horizontal datum. In addition, any existing or proposed modifications to FAA standards are identified and delineated in a table along with their proposed disposition.

7.3 Airport Layout Plan (Existing and Future)

The ALP depicts the conditions at FLY at the time of the current Airport Master Plan project, such as existing property boundary, pavement surfaces, a listing of buildings, navigation aids, FAA Part 77 approach, primary, and transitional surfaces, runway object free areas (ROFA), runway safety areas (RSA), runway protection zones (RPZ), areas designated for non-aeronautical uses, as well as the existing airport property boundary. This sheet is scaled to the standards established by FAA to ensure that the information is clearly presented. Off-airport local roads and facilities, as well general topography, are also displayed. A legend, list of abbreviations, and inventory of airport facilities are included as tables on this sheet.

The ALP also provides detailed information on future (within the 20-year period) and ultimate (beyond 20 years) airport development and runway design criteria that is necessary to define compliances with applicable FAA standards; on-airport areas designated for non-aeronautical land uses are also shown. There is a signature block for the FAA once they have reviewed and approved the ALP set.

7.4 Terminal Area Plan

The terminal area plan illustrates the existing and proposed facilities that are within and proximate to the Airport's terminal area, including the terminal building, proposed hangars, existing and future taxiway and aircraft parking aprons, vehicle access roads and parking areas, areas reserved for non-aeronautical land uses, as well as the distance between the physical facilities and the nearest taxiway and runway centerlines. The relationship with appropriate immediately surrounding airfield and landside components (i.e., runway, taxiways, object free area, runway protection zones, external roadways, on-airport navigational aids, airport boundary, among other considerations) are also illustrated, as well as the terminal area's topographical characteristics. The terminal area drawing is depicted at a smaller scale than the ALP drawing to provide more detail.

7.5 Airspace Drawing (FAR Part 77 Imaginary Surfaces)

The airspace drawing illustrates the 14 CFR Part 77 imaginary surfaces overlaid on FLY. The Airport is currently visual (i.e. no published instrument approaches). The Master Plan recommends that the FAA publish non-precision GPS instrument approaches to Runway 15 and Runway 33. When FAA publishes the non-precision GPS instrument approaches, the Part 77 imaginary surfaces will increase in size.

7.6 Inner Portion of the Approach Plan and Profiles

Inner Portion of the Approach Plan and Profile drawings are provided to provide a more detailed view of the inner portions of the Part 77 imaginary approach surfaces, the Threshold Siting Surfaces (TSS), and the RPZ areas. The RPZs are land-use planning zones within which it is desirable to clear all objects (although some land uses are normally acceptable). The size of the RPZ is a function of the design aircraft and the visibility minimums associated with the runway's instrument approach capabilities.

These drawings provide a large-scale drawing with both plan and profile delineations. They are intended to facilitate identification of the roadways, utility lines, railroads, structures, and other possible obstructions that may lie within the confines of the inner approach surface area associated with each runway end. As with the other drawings, these plans are based upon the ultimate planned runway length along with the ultimate planned non-precision instrument approaches. A table of obstructions and a key map are included on each sheet.

7.7 Departure Surfaces

Departure Surface Drawings graphically depict applicable runway departure surfaces as defined in FAA AC 150/5300-13A, *Airport Design*, Table 3-2, Approach/Departure Standards. The departure surfaces are shown for each runway end that serves instrument departures. Once the FAA publishes non-precision GPS approaches to Runway 15 and Runway 33, instrument departures can occur from FLY.

The departure surface has a slope of 40:1, and objects that penetrate the departure surface must be identified. Based on that information, the FAA develops instrument departure procedures for use by pilots. Each departure surface is shown in a plan and profile view that identifies the physical features under the surface, including the obstructions within the surface. The obstruction heights and locations are noted by dimension lines.

7.8 Land Use Plan

This drawing depicts the existing and recommended land uses within the Airport property line (on-airport), as well as within the Airport vicinity (off-airport). Land uses are depicted by general categories, such as agriculture, industrial, commercial, parks and open space, aviation-related, and public.

The purpose of the land use plan is to provide guidance to local authorities for establishing appropriate land use planning and zoning on and in the vicinity of the Airport in order to prevent future noise-sensitive land uses such as residential and institutional from being developed. Current land uses and zoning were obtained from Airport management and the County.

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Appendix A

Aviation Glossary of Terms

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A. APPENDIX A – AVIATION GLOSSARY OF TERMS

ABOVE GROUND LEVEL (AGL). An altitude that is measured with respect to the underlying ground.

ACCELERATED-STOP DISTANCE AVAILABLE (ASDA). See *Declared Distances.*

ADMINISTRATOR. Federal Aviation Administrator or any person to whom he has delegated his authority in the matter concerned.

ADVISORY CIRCULAR (AC). External communications or publications issued by the FAA to provide non-regulatory guidelines for the recommendations relative to a policy, and guidance and information relative to a specific aviation subject matter. An example of this is AC 150/1300-13A, *Airport Design*, which is frequently referenced throughout a typical master plan.

AIR CARRIER. A person or company who undertakes directly by lease, or other arrangement, to engage in air transportation.

AIR ROUTE TRAFFIC CONTROL CENTERS (ARTCC). A facility responsible for en route control of aircraft operating under IFR in a particular volume of airspace (within its area of jurisdiction) at high altitudes between airport approaches and departures. Approximately 26 such centers cover the United States.

AIR TAXI. An aircraft operating under an air taxi operating certificate for the purpose of carrying passengers, mail, cargo for revenue in accordance with FAR 121 or FAR Part 135.

AIR TRAFFIC. Any aircraft operating in the air or on an airport surface, exclusive of loading ramps and parking areas.

AIR TRAFFIC CONTROL (ATC). A service provided by ground-based controllers who direct aircraft on the ground and in the air. The primary purpose of ATC systems is to separate aircraft to prevent collisions, to organize and expedite the flow of traffic, and to provide information and other support for pilots when able.

AIR TRAFFIC CONTROL TOWER (ATCT). A facility in the terminal air traffic control system located at an airport which consists of a tower cab structure and an associated instrument flight rules rooms, if radar equipped, that uses ground-to-air and air-to-ground communications and radar, visual, signaling, and other devices to provide for the safe and expeditious movement of terminal area air traffic in the airspace and airports within its jurisdiction.

AIR TRAFFIC CONTROL (ATC) SERVICE. A service provided for the purpose of promoting the safe, orderly, and expeditious flow of air traffic, including airport, approach, and enroute air traffic control services. ATC is provided by the Federal Aviation Administration, a branch of the federal government under the Department of Transportation or, at Airport Traffic Control Tower (ATCT), through an independent service provider contracted with the Federal Aviation Administration.

AIRCRAFT. A device that is used or intended to be used for flight in the air.

- **Airplane.** An engine-driven fixed-wing aircraft heavier than air that is supported in flight by the dynamic reaction of the air against its wings.
  - **Large Airplane.** An airplane of more than 12,500 pounds maximum certified takeoff weight.
  - **Small Airplane.** An airplane of 12,500 pounds or less maximum certified takeoff weight.
- **Balloon.** A lighter-than-air aircraft that is not engine-driven, and that sustains flight through the use of either gas buoyancy or an airborne heater.

- **Glider.** A heavier-than-air aircraft that is supported in flight by the dynamic reaction of the air against its lifting surfaces and whose free flight does not depend principally on an engine.
- **Heavy Aircraft.** Aircraft capable of takeoff weight of more than 255,000 pounds whether or not they are operating at this weight during a particular phase of flight.
- **Helicopter.** A rotorcraft that, for horizontal motion, depends principally on its engine-driven rotors.
- **Large Aircraft.** Aircraft of more than 41,000 pounds maximum certified takeoff weight, up to 255,000 pounds.
- **Regional Jet (RJ).** There is no regulatory definition for an RJ; however, for FAA use, an RJ is a commercial jet airplane that carries fewer than 100 passengers.
- **Rocket**. An aircraft propelled by ejected expanding gases generate in engine from self-contained propellants and not dependent on the intake of outside substances.
- **Rotorcraft.** A heavier-than-air aircraft that depends principally for it support in flight on the lift generated by one or more rotors.
- **Small Aircraft.** Aircraft of 41,000 pounds or less maximum certified takeoff weight.

AIRCRAFT APPROACH CATEGORY (AAC). A grouping of aircraft based on approach speed, defined as 1.3 times the aircraft stall speed at maximum certificated takeoff weight. The categories are as follows:

- **Category A**: Speed less than 91 knots.
- **Category B**: Speed 91 knots or more but less than 121 knots.
- **Category C**: Speed 121 knots or more but less than 141 knots.
- **Category D**: Speed 141 knots or more but less than 166 knots.
- **Category E**: Speed 166 knots or more.

AIRCRAFT DEICING PAD. See *Deicing Pad*.

AIRCRAFT ENGINE. The component of the propulsion system for an aircraft that generates mechanical power. They are almost always either lightweight piston engines or gas turbines, although electric engines are currently in development.

- **Piston Engine.** A heat engine that uses one or more reciprocating pistons to convert pressure generated from aviation gasoline into a rotating motion.
- **Turbine Engine.** A mechanical device or engine that spins in reaction to fluid flow through or over it. This device is used in turbofan, turbojet, and turboprop-powered aircraft and utilizes jet fuel.
    - **Turbofan.** A turbojet engine whose thrust has been increased by the addition of a low-pressure compressor fan.
    - **Turbojet.** An engine that derives power from a fanned wheel spinning in reaction to burning gases escaping from a combustion chamber. The turbine in turn drives a compressor and other accessories.
    - **Turboprop.** A turbine engine in which the rotating turbine turns a propeller.

AIRCRAFT OPERATION. See *Operation*.

AIRCRAFT RESCUE AND FIRE FIGHTING (ARFF). A special category of fire fighting that involves the response, hazard mitigation, evacuation and possible rescue of passengers and crew of an aircraft involved in (typically) an airport ground emergency.

AIRPLANE. See *Aircraft.*

AIRPLANE DESIGN GROUP (ADG). A numerical classification aircraft based on wingspan or tail height. Where an airplane is in two categories, the most demanding category should be used. The groups are as follows:

- **Group I**: Up to but not including 49 feet wingspan or tail height up to but not including 20 feet (e.g. Cessna 172).
- **Group II**: 49 feet up to but not including 79 feet wingspan or tail height from 20 up to not including 30 feet (e.g. Cessna Citation Business jet).
- **Group III**: 79 feet up to but not including 118 feet wingspan or tail height from 30 up to but not including 45 feet (e.g. Boeing 737).
- **Group IV**: 118 feet up to but not including 171 feet wingspan or tail height from 60 up to but not including 66 feet (e.g. Boeing 767).
- **Group V**: 171 feet up to but not including 214 feet wingspan or tail height from 60 up to but not including 66 feet (e.g. Boeing 747).
- **Group VI**: 214 feet up to but not including 262 feet wingspan or tail height from 66 up to but not including 80 feet (e.g. Airbus A380).

AIRPORT. An area of land or water that is used or intended to be used for the landing and takeoff of aircraft, and includes its buildings and facilities, if any. Different types of airports include the following:

- **Cargo Service Airport.** An airport served by aircraft providing air transportation of property only, including mail, with an annual aggregate landed weight of at least 100 million pounds.
- **Certificated Airport.** An airport that has been issued an Airport Operating Certificate by the FAA under the authority of FAR Part 139, Certification and Operation.
- **Commercial Service Airport.** A public airport providing scheduled passenger service that enplanes at least 2,500 annual passengers.
- **General Aviation Airport.** An airport that provides air service to only general aviation.
- **Hub Airport.** An airport that an airline uses as a transfer point to get passengers to their intended destination. It is part of a hub and spoke model, where travelers moving between airports not served by direct flights change planes en route to their destinations.
    - **Large Hub Airport.** An airport that handles over 1% of the country's annual enplanements.
    - **Medium Hub Airport.** An airport that handles 0.25% ≥ 1% of the country's annual enplanements.
    - **Small Hub Airport.** An airport that handles 0.05% ≥ 0.25% of the country's annual enplanements.
    - **Non-Hub Airport.** An airport that handles over 10,000 enplanements, but less than 0.05% of the country's annual enplanements.
- **International Airport.** Relating to international flight, it means:
    - An airport of entry which has been designated by the Secretary of Treasury or Commissioner of Customs as an international airport for customs service.
    - A landing rights airport at which specific permission to land must be obtained from customs authorities in advance of contemplated use.
    - Airports designated under the Convention on ICAO as an airport for use by international commercial air transport and/or international general aviation.
- **Primary Airport.** A commercial service airport that enplanes at least 10,000 annual passengers.
- **Reliever Airport.** General aviation airports in a major metropolitan area that provides pilots with attractive alternatives to using congested hub airports.
- **Uncontrolled Airport.** An airport without an air traffic control tower at which the control of VFR traffic is not exercised. Pilots "see and avoid" other traffic without the aid of air traffic control.

AIRPORT AUTHORITY. A quasi-government public organization responsible for setting the policies governing the management and operation of an airport or system of airports under its jurisdiction.

AIRPORT CAPITAL IMPROVEMENT PLAN (CIP). The planning program used by the FAA to identify, prioritize, and distribute funds for airport development and the needs of National Airspace System (NAS) to meet specified national goals and objectives.

AIRPORT ELEVATION. The highest point of an airport's usable runway(s) expressed in feet above mean sea level (MSL).

AIRPORT FACILITY DIRECTORY (AFD). Now known as a Chart Supplement, a publication with information on all airports, seaplane bases, and heliports open to the public. This publication is issued in seven volumes according to geographical area, and includes communications data, navigational facilities, and certain special notices and procedures.

AIRPORT HAZARD. Any structure or natural object located on or in the vicinity of a public airport, or any use of land near such airport, that obstructs the airspace required for the flight of aircraft in landing or taking off at the airport or is otherwise hazardous to aircraft landing, taking of, or taxiing at the airport.

AIRPORT IMPROVEMENT PROGRAM (AIP). An FAA program authorized by the Airport and Airway Improvement Act of 1982 that serves as the primary source of funding airport planning and development. This funding is provided at specific levels, with the funding priority based on the airport's Capital Improvement Program (CIP) and available funds.

AIRPORT INFLUENCE AREA. The area defined by overlaying the FAR Part 77 Imaginary Surfaces, Aircraft Accident Safety Zone data, and Noise Contour data over the top of an existing land use map, critical areas map or other base map.

AIRPORT LAYOUT PLAN (ALP). A scaled drawing (or set of drawings), in either traditional or electronic form, of current and future airport facilities that provides a graphic representation of the existing and long-term development plan for the airport and demonstrates the preservation and continuity of safety, utility, and efficiency of the airport to the satisfaction of the FAA.

AIRPORT LIGHTING. Various lighting aids that may be installed on an airport. Types of airport lighting include:

- **ALS.** See *Approach Light System.*
- **Boundary Lights.** Lights defining the perimeter of an airport or landing area.
- **Runway Centerline Lighting.** Flush centerline lights spaced at 50-foot intervals beginning 75 feet from the landing threshold and extending to within 75 feet of the opposite end of the runway. Only used on Category II/III ILS Runways.
- **Runway Edge Lights.** Lights used to outline the edges of the runways during periods of darkness or restricted visibility conditions. They are usually uniformly spaced at intervals of approximately 200 feet, and intensity may be controlled or preset. These light systems are classified according to the intensity they are capable of producing:
  - High Intensity Runway Lights (HIRLs)
  - Medium Intensity Runway Lights (MIRLs)
  - Low Intensity Runway Lights (LIRLs)
- **Runway End Identifier Lights (REIL).** Provides rapid and positive identification of the approach end of particular runway. The system consists of a pair of synchronized flashing lights, one on each side of the runway threshold.

- **Threshold Lights.** Fixed lights arranged symmetrically left and right of the runway centerline, identifying the runway threshold. Lights are green for arriving aircraft and red for departing aircraft.
- **Touchdown Zone Lighting.** Two rows of transverse light bars located symmetrically about the runway centerline normally at 100 foot intervals. Only used on Category II/III ILS Runways.

AIRPORT MARKINGS. Markings used on runway and taxiway surfaces to identify a specific runway, a runway threshold, a centerline, a hold line, etc. A runway should be marked in accordance with its present usage such as: 1) Visual, 2) Non-precision instrument, 3) Precision Instrument.

AIRPORT MASTER PLAN. A comprehensive study of an airport that focuses on the short-, medium-, and long-term development plan to meet future aviation demand of the airport.

AIRPORT OBSTRUCTION CHART (OC). A scaled drawing depicting the FAR Part 77 imaginary airspace surfaces, a representation of objects that penetrate these surfaces, runway, taxiway, and ramp areas, navigational aids, buildings, roads, and other detail in the vicinity of the airport.

AIRPORT OPERATIONS AREA (AOA). An area of an airport used or intended to be used for landing, takeoff, or surface maneuvering of aircraft. An AOA includes such paved areas or unpaved areas that are used or intended to be used for the unobstructed movement of aircraft in addition to its associated runway, taxiways, or apron.

AIRPORT OPERATOR. The operator (private or public) or sponsor of a public-use airport.

AIRPORT REFERENCE CODE (ARC). A coding system used to relate the airport design criteria to the operational and physical characteristics of the airplanes intended to use the airport or the critical aircraft. It is a two-character code consisting of the Aircraft Approach Category and the Airplane Design Group.

AIRPORT REFERENCE POINT (ARP). The latitude and longitude of the approximate center of the runway(s) at an airport.

AIRPORT SIGNS. Signs used to identify items and locations on the airport. Following are the most common sign types:

- **Boundary Sign.** These signs are used to identify the location of the boundary of the RSA/ROFZ or ILS critical areas for a pilot, or an existing the runway. These signs have a black inscription on a yellow background.
- **Destination Sign.** These signs indicate the general direction to a remote location. They have black inscriptions on a yellow background and ALWAYS contain an arrow.
- **Direction Sign.** These signs indicate directions of taxiways leading out of an intersection. They may also be used to indicate a taxiway exit from a runway. These signs have black inscriptions on a yellow background and ALWAYS contain arrows.
- **Information Sign.** These signs are installed on the airside of an airport and are considered to be signs other than mandatory signs. They have black inscriptions on a yellow background.
- **Location Sign.** These signs identify the taxiway or runway upon which the aircraft is located. The sign has yellow inscriptions on a black background with a yellow border and does NOT use arrows.
- **Mandatory Instruction Sign.** They denote taxiway/runway intersections, runway/runway intersections, ILS critical areas, OFZ boundaries, runway approach areas, CAT II/II operations areas, military landing zones, and no entry areas. These signs have white inscriptions with a black outline on a red background.

- **Roadway Sign.** These signs are located on the airfield and are solely intended for vehicle operators. They should conform to the categorical color codes established by the Manual on Uniform Traffic Control Devices (MUTCD).
- **Runway Distance Remaining Signs.** These signs are used to provide distance remaining information to pilots during takeoff and landing operations. These signs have a white numeral inscription on a black background.

AIRPORT SPONSOR. The entity that is legally responsible for the management and operation of an airport including the fulfillment of the requirements of laws and regulations related thereto.

AIRPORT SURVEILLANCE RADAR (ASR). A radar system used at airports to detect and display the position of aircraft in the terminal area.

AIRSIDE. The portion of an airport that contains the facilities necessary for the operations of aircraft.

ANNUAL SERVICE VOLUME (ASV). The number of annual operations that can reasonably be expected to occur at the airport based on a given level of delay.

APPROACH END OF RUNWAY. The approach end of runway is the near end of the runway as viewed from the cockpit of a landing airplane.

APPROACH LIGHT SYSTEM (ALS). An airport lighting facility aids in runway identification during the transition from instrument flight to visual flight for landing. Typical approach lighting systems used at airports include:

- **Approach Light System with Sequenced Flashing (ALSF)**.
- **Lead-in-light System (LDIN).** Consists of one or more series of flashing lights installed at or near ground level that provides positive visual guidance along an approach path, either curving or straight, where special problems exist with hazardous terrain, obstructions, or noise abatement procedures.
- **Medium-Intensity Approach Light System with Runway Alignment Indicator (MALSR).** A lighting system installed on the approach end of a runway and consists of a series of lightbars, strobe lights, or a combination that extends outward from the runway end. It usually serves a runway that has an instrument approach procedure associated with it and allows the pilot to visually identify and align self with the runway environment once the pilot has arrived at a prescribed point on the approach.
- **Omnidirectional Approach Lighting System (ODALS).** Consist of seven omnidirectional flashing lights located in the approach area of a non-precision runway. Five lights are located on the runway centerline extended with the first light located 300 feet from the threshold and extending at equal intervals up to 1,500 feet from the threshold. The other two lights are located on each side of the runway, with a lateral distance of 40 feet from the runway edge, or 75v feet from the runway edge when installed on a runway equipped with VASI.
- **Runway Alignment Indicator Lights (RAILS).** Sequenced Flashing Lights which are installed only in combination with other lighting systems.

APPROACH PROCEDURES WITH VERTICAL GUIDANCE (APV). Instrument approach procedures conducted under IFR that provide both lateral and vertical guidance, but that do not meet all the accuracy requirements and navigation specifications to be classified as precision approach. Examples of APV approaches include Area Navigation (RNAV) (lateral approach procedures with vertical guidance (LPV) or lateral navigation (LNAV)/vertical navigation (VNAV) minimums) and localizer-type directional aid (LDA) with glideslope (GS).

APPROACH SURFACE. See *Imaginary Surfaces*.

APRON. A specific portion of the airfield used for passenger, cargo or freight loading and unloading, aircraft parking, and the refueling, maintenance and servicing of aircraft. Also referred to as ramp or tarmac.

ARFF BUILDING. A facility located at an airport that provides emergency vehicles, extinguishing agents, and personnel responsible for minimizing the impacts of an aircraft accident or incident.

ARRIVAL TIME. The time an aircraft touches down on arrival.

AUTOMATED FLIGHT SERVICE STATION (AFSS). An automated air traffic facility that provides information and services to aircraft pilots before, during, and after flights, but it is not responsible for giving instructions or clearances or providing separation.

AUTOMATED SURFACE OBSERVATION SYSTEM (ASOS). Similar data reporting as an AWOS, but usually owned and maintained by the National Weather Service.

AUTOMATED WEATHER OBSERVATION SYSTEM (AWOS). An automated sensor suite which is voice synthesized to provide a weather report that can be transmitted via VHF radio, NDB, or VOR ensuring that pilots on approach have up-to-date airport weather for safe and efficient aviation operations. Most AWOS observe and record temperature and dew point in degrees Celsius, wind speed and direction in knots, visibility, cloud coverage and ceiling up to 12,000 feet, freezing rain, thunderstorm (lightning), and altimeter setting.

AVGAS. Aviation fuel (gasoline) used for aircraft with internal-combustion engines. The most common Avgas is currently 100LL (Low Lead).

AVIGATION EASEMENT. A contractual right or a property interest in land over which a right of unobstructed flight in the airspace can occur.

BALLOON. See *Aircraft*.

BAGGAGE CLAIM. An area where passengers obtain luggage that was previously checked at an airline ticket counter at the departing airport.

BASED AIRCRAFT. An aircraft permanently stationed at an airport by agreement between the airport owner (management or FBO) and the aircraft owner.

BASE LEG. See *Traffic Pattern*.

BENEFIT-COST ANALYSIS (BCA). An analysis of the cost, benefit, and the uncertainty associated with a project or action. A formal BCA is required for capacity projects of $5 million or more AIP discretionary funds.

BIRDS BALLS. High-density plastic floating balls that can be used to cover ponds and prevent birds from using the sites.

BLAST FENCE. A barrier used to divert or dissipate jet blast or propeller wash.

BOUNDARY LIGHTS. See *Airport Lighting.*

BOUNDARY SIGN. See *Airport Signs.*

BUILDING RESTRICTION LINE (BRL). A line that identifies suitable building area locations on airports to limit building proximity to aircraft movement areas. Typically based on the FAR Part 77 Airport Imaginary Surfaces.

CAPACITY (THROUGHPUT CAPACITY). A measure of the maximum number of aircraft operations or their airport components which can be accommodated on the airport.

CAPITAL IMPROVEMENT PROGRAM (CIP). Provides a schedule of development for the proposed projects identified by an airport or through the development of an Airport Master Plan.

CARGO SERVICE AIRPORT. See *Airport.*

CEILING. The height above the earth's surface of the lowest layer of clouds or obscuring phenomena that is reported as broken, overcast or obscured.

CERTIFICATED AIRPORT. See *Airport.*

CIRCLING APPROACH. A maneuver initiated by the pilot to align the aircraft with a runway for landing when a straight-in landing from an instrument approach is not possible or is not desirable.

CLEARWAY (CWY). A defined rectangular area beyond the end of the runway cleared or suitable for use in lieu of runway to satisfy take off distance requirements.

COMMERCIAL SERVICE AIRPORT. See *Airport.*

COMMON TRAFFIC ADVISORY FREQUENCY (CTAF). The VHF radio frequency used for air-to-air communication at uncontrolled airports or where no control tower is currently active. Pilots use the common frequency to coordinate their arrivals and departures safely, give position reports, and acknowledge other aircraft in the airfield traffic pattern.

COMPASS ROSE. A circle, graduated in degrees, printed on some charts or marked on the ground at an airport. It is used as a reference to either true or magnetic direction. When marked on the ground it is used to calibrate an aircraft's compass.

CONICAL SURFACE. See *Imaginary Surfaces.*

CONSULTANT. A firm, individual, partnership, corporation, or joint venture that performs architectural, engineering or planning service as defined in FAA AC150/5100-14D, employed to undertake work funded under an FAA airport grant assistance program.

CONTROLLED AIRSPACE. Airspace of defined dimensions within which air traffic control service is provided to IFR flight and to VFR flights in accordance with the airspace classification. Controlled airspace is a generic term that covers Class A, Class B, Class C, Class D, and Class E Airspace.

CRITICAL (DESIGN) AIRCRAFT. The most demanding aircraft with at least 500 annual operations that operates, or is expected to operate, at the airport.

CROSSWIND. A wind that is not parallel to a runway centerline or to the intended flight path of an aircraft.

CROSSWIND COMPONENT. The component of wind that is at a right angle to the runway centerline or the intended flight path of an aircraft.

CROSSWIND LEG. See *Traffic Pattern.*

DECISION HEIGHT (DH). The lowest height or altitude in an approach descent and the point at which a missed approach shall be initiated if the required visual reference has not been established. This term is used only in procedures where an electronic glide slope provides the reference for descent, as in ILS.

DECLARED DISTANCES. The distances the airport owner declares available for an aircraft's takeoff run, takeoff distance, accelerated-stop distance, and landing distance requirements.

- **Takeoff Run Available (TORA).** The runway length declared available and suitable for the ground run of an aircraft taking off.
- **Takeoff Distance Available (TODA).** The runway length equal to the TORA plus the length of any remaining runway or clearway beyond the far end of the TORA; the full length of TODA may need to be reduced because of obstacles in the departure area.
- **Accelerated Stop Distance Available (ASDA).** The runway length equal to the runway plus stopway length declared available and suitable for the acceleration and deceleration of an aircraft aborting a takeoff.
- **Landing Distance Available (LDA).** The runway length equal to the length of runway available and suitable for the landing ground run of airplanes.

DESIGN AIRCRAFT. An aircraft whose dimensions and/or other requirements make it the most demanding aircraft for an airport's facilities (i.e. runways and taxiways). The Design Aircraft is used as the basis for airport planning and design since it is assumed that airport facilities are designed to accommodate the Design Aircraft will also be able to accommodate less demanding aircraft as well. An aircraft can be utilized as the Design Aircraft for an airport if it will (has) conduct(ed) 500 or more annual operations (250 landings) at that airport.

DECISION HEIGHT (DH). This is associated with precision approaches and the aircraft is continually descending on final approach. When the aircraft reaches the DH, the pilot must make a decision to land or execute the missed approach procedure.

DEICING. The removal, though application of a max of heated water and propylene or ethylene glycol, of frost, ice, slush, or snow from the aircraft in order to provide clean surfaces.

DEICING PAD. A facility where an aircraft received deicing or anti-icing.

DELAY. The difference between constrained and unconstrained operating time.

DEMAND. The number of aircraft operations, passengers, or other factors that are required in a specific period of time.

DEPARTMENT OF TRANSPORTATION (DOT). The United States federal department that institutes and coordinates national transportation programs; created in 1966. The FAA is an organization within the DOT.

DEPARTURE AIRSPACE. See *Approach Airspace.*

DESTINATION SIGN. See *Airport Signs.*

DETENTION PONDS. Storm water management ponds that hold storm water for short periods of time, a few hours to a few days.

DIRECTION SIGN. See *Airport Signs.*

DISCRETIONARY GRANT FUNDS. Annual Federal grant funds that may be appropriate to an airport based upon designation by the Secretary of Transportation or Congress to meet a specified national priority such as enhancing capacity, safety, and security or mitigating noise.

DISPLACED THRESHOLD. See *Threshold.*

DISTANCE MEASURING EQUIPMENT (DME). See *Navigation Aid.*

DOWNWIND LEG. See *Traffic Pattern.*

EMERGENCY LOCATOR TRANSMITTER (ELT). A radio transmitter attached to the aircraft structure that aids in locating downed aircraft by radiating an audio tone on 121.5 MHz or 243 MHz.

ENPLANEMENT. The boarding of a passenger, cargo, freight or mail on an aircraft at an airport.

END-AROUND TAXIWAY (EAT). Taxiways constructed to allow an aircraft to cross the extended centerline of the runway without specific clearance from ATC. EAT projects must be pre-approved by the FAA Office of Airport Safety and Standards, Airport Engineering Division.

ENTITLEMENT GRANT FUNDS. Annual federal funds for which all airports in the NPIAS are eligible for.

ENVIRONMENTAL ASSESSMENT (EA). An environmental analysis performed pursuant to the Nation Environmental Policy Act to determine whether an action would significantly affect the environment and thus require a more detailed environment al impact statement.

ENVIRONMENTAL IMPACT STATEMENT (EIS). A document required of federal agencies by the National Environmental Policy Act (NEPA) for major projects or legislative proposals affecting the environment. It is a tool for decision-making describing the positive. If no significant impact is found a Finding of No Significant Impact (FONSI) is issued.

FEDERAL AVIATION ADMINISTRATION (FAA). An agency of the United States Department of Transportation with authority to regulate and oversee all aspects of civil aviation in the United States.

FEDERAL AVIATION REGULATION (FAR). The general and permanent rules established by the executive departments and agencies of the Federal government for aviation which are published in the Federal Register. These are the aviation subset of the U.S. Code of Federal Regulations (CFR).

FEDERAL GRANT AGREEMENT. A Federal agreement that represents an agreement made between the FAA (on the behalf of the United States) and an airport sponsor for the grant of Federal Funding.

FEDERAL GRANT ASSURANCE. A provision within a Federal grant agreement to which the recipient of Federal airport development assistance has agreed to comply in consideration of the assistance provided.

FINAL APPROACH FIX (FAF). The fix from or over which final approach (IFR) to an airport is executed.

FINAL APPROACH. A flight path of a landing aircraft in the direction of landing along the extended runway centerline from the base leg to the runway. For instrument approaches, the final approach typically begins at the final approach fix (FAF).

FINDING OF NO SIGNIFICANT IMPACT (FONSI). A public document prepared by a Federal agency that presents the rationale why a proposed action will not have a significant effect on the environment and for which an environmental impact statement will not be prepared.

FIX. A geographical position determined by visual reference to the surface by reference to one or more radio NAVAIDs, by celestial plotting, or by another navigational device.

FIXED BASE OPERATION or FIXED BASE OPERATOR (FBO). A business enterprise located on the airport property that provides services to pilots including aircraft rental, training, fueling, maintenance, parking, and the sale of pilot supplies.

FLIGHT SERVICE STATION (FSS). An air traffic facility that provides information and services to aircraft pilots before, during, and after flights, but unlike ATC, is not responsible for giving instructions, clearances, or providing separation.

FLIGHT STANDARDS DISTRICT OFFICE (FSDO). An FAA field office serving an assigned geographical area and staffed with Flight Standard personnel who serve the aviation industry and the general public on matters relating to the certification and operation of air carrier and general aviation aircraft. Activities include general surveillance of operation safety, certification of airmen and aircraft, accident prevention, investigation, enforcement, etc.

FOREIGN OBJECT DEBRIS (FOD). Any object found on an airport that does not belong in or near airplanes, and as a result can injure personnel and damage aircraft.

FORM 7460-1, *NOTICE OF PROPOSED CONSTRUCTION OR ALTERNATION*. Federal law requires filing a Notice of Proposed Construction or Alteration (Form 7460) for all structures over 200 feet AGL or lower if closer than 20,000 feet to a public use airport with a runway over 3,200 feet in length.

FORM 7480-1, *NOTICE OF LANDING AREA PROPOSAL.* Submitted to the FAA Airport Regional Division Office or ADO as formal written notification for project involving the construction of a new airport; the construction, realigning, altering, activating, or abandoning of a runway, landing strip, or associated taxiway; or the deactivation or abandoning of an entire airport.

FUEL FLOWAGE FEE. A tax assessed on the user, which is paid at the pump. Fuel flowage fee revenues are sent to the airport governing body, usually the board or authority and are then used for airport improvements or other expenses.

GAP ANALYSIS. See *Safety Management System*.

GATE. An aircraft parking position used by a single aircraft loading or unloading passengers, mail, or cargo, etc.

GENERAL AVIATION (GA). The segment of aviation that encompasses all aspects of civil aviation except certified air carriers and other commercial operators, such as airfreight carriers.

GENERAL AVIATION AIRPORT. See *Airport.*

GEOGRAPHIC INFORMATION SYSTEM (GIS). A technology that manages, analyzes, and disseminates geographic data.

GLIDER. See *Aircraft.*

GLIDESLOPE. See *Instrument Landing System.*

GLOBAL POSITIONING SYSTEM (GPS). A satellite based navigational system that provides signals in the cockpit of aircraft defining aircraft position in terms of latitude, longitude, and altitude.

GPS RUNWAY. See *Runway.*

GRANT AGREEMENT. See *Federal Grant Agreement.*

GROUND ACCESS. The transportation system on and around the airport that provides access to and from the airport by ground transportation vehicle for passengers, employees, cargo, freight, and airport services.

HAZARD. See *Safety Management System.*

HAZARD TO AIR NAVIGATION. An existing or proposed object that the FAA, as a result of an aeronautical study, determines will have a substantial adverse effect upon the safe and efficient use of navigable airspace by aircraft, operation of air navigation facilities, or existing or potential airport capacity.

HAZARDOUS WILDLIFE. Species of wildlife (birds, mammals, reptiles) including feral animals and domesticated animals not under control, that are associated with aircraft strike problems, are capable of causing structural damage to airport facilities, or act as attractants to other wildlife that pose a strike hazard.

HEAVY AIRCRAFT. See *Aircraft.*

HEIGHT ABOVE AIRPORT (HAA). Indicates the height of the MDA above the published airport elevation. This is published in conjunction with circling minimums.

HELICOPTER. See *Aircraft.*

HELIPAD. A small, designated area, usually with prepared surface, on a heliport, airport, landing/takeoff area, apron/ramp, movement area used for takeoff, landing, or parking of helicopters.

HELIPORT. An area of land, water, or structure used or intended to be used for the landing and takeoff of helicopters.

HIGH INTENSITY RUNWAY LIGHTING (HIRL). See *Airport Lighting.*

HOLDING. A predetermined maneuver which keeps an aircraft within a specified airspace while awaiting further clearance.

HOLDING FIX. A specified geographical point or NAVAID used as a reference point in establishing and maintaining the position of an aircraft while holding.

HOLDOVER TIME. The estimated time the application of anti-icing fluid will prevent the formation of frozen contamination on the protected surfaces of an aircraft. With a one-step deicing/anti-icing operation, the holdover beings at the start of the operations; with a two-step operation, the holdover beings at the start of the final anti-icing application.

HOT SPOT. A location on an airport movement area with a history of potential risk of collision or runway incursion, and where heightened attention by pilots and drivers is necessary.

HORIZONTAL SURFACE. See *Imaginary Surfaces.*

HUB AIRPORT. See *Airport.*

IMAGINARY SURFACES. Are surfaces defined in 14 CFR Part 77, and are in relation to the airport and each runway. The size of these imaginary surfaces is based on the category of each runway for current and future airport operations. Any objects which penetrate these surfaces are considered an obstruction and affects navigable airspace.

- **Approach Surface.** An imaginary obstruction limiting surface defined in 14 CFR Part 77 which is longitudinally centered on an extended runway centerline and extends outward and upward from the primary surface at each end of a runway at a designated slope and distance upon the type of available or planned approach by aircraft to a runway.

- **Conical Surface.** An imaginary obstruction-limiting surface defined in 14 CFR Part 77 that extends from the edge of the horizontal surface outward and upward at a slope of 20 to 1 for a horizontal distance of 4,000 feet.
- **Horizontal Surface.** An imagery obstruction-limiting surface defined in 14 CFR Part 77 that is specified as a portion of a horizontal plane surrounding a runway located 150 feet above the established airport elevation. The specific horizontal dimension of this surface is a function of the types of approaches existing or planned for the runway.
- **Primary Surface.** An imaginary obstruction-limiting surface defined in 14 CFR Part 77 that is specified as a rectangular surface longitudinally centered about a runway. The specific dimensions of this surface are function of types of approaches existing or planned for the runway.
- **Transitional Surface.** An imaginary obstruction-limiting surface defined in 14 CFR Part 77 that extends outward and upward at right angles to the runway centerline and the runway centerline extended at a slope of 7 to 1 from the slides of the primary surface.

INCURSION. The unauthorized entry by an aircraft, vehicle, or obstacle into the defined protected area surrounding an active runway, taxiway, or apron.

INFORMATION SIGN. See *Airport Signs.*

INITIAL APPROACH. The segment of a standard instrument approach procedure between the initial approach fix and the intermediate fix, or the point where the aircraft is established on the intermediate segment of the final approach course.

INITIAL APPROACH ALTITUDE. The altitude prescribed for the initial approach segment of an instrument approach.

INNER MARKER (IM). See *Instrument Landing System.*

INSTRUMENT APPROACH PROCEDURE (IAP). A series of predetermined maneuvers for the orderly transfer of an aircraft under instrument flight conditions from the beginning of the initial approach to a landing or to a point from which a landing may be made visually.

INSTRUMENT FLIGHT RULES (IFR). Procedures for the conduct of flight in weather conditions below Visual Flight Rules (VFR) weather minimums. The term IFR is often also used to define weather conditions and type of flight plan under which an aircraft is operating. IFR is defined as the weather condition that occurs whenever the cloud ceiling is at least 500 feet above ground level, but less than 1,000 feet and/or visibility is at least one statue mile, but less than three statute miles.

INSTRUMENT LANDING SYSTEM (ILS). A precise ground based navigation system for aircraft that provides precision guidance to an aircraft approaching a runway. It uses a combination of radio signals and, in many cases, high-intensity lighting arrays to enable a safe landing during instrument meteorological conditions. Normally consists of the following components and visual aids:

- **Localizer.** The component of an ILS which provides horizontal guidance to the runway.
- **Glideslope.** An independent ILS subsystem that provides vertical guidance to aircraft approaching a runway. It is an antenna array that is usually located on one side of the runway touchdown zone.
- **Outer Marker (OM).** A marker beacon at or near the glideslope intercept altitude of an ILS approach and it keyed to transmit two dashes per second.
- **Middle Marker (MM).** A marker beacon that defines a point along the glideslope of an ILS normally located at or near the point of DH (CAT I). It is keyed to transmit alternate dots and dashes.

- **Inner Marker (IM).** A marker beacon used with an ILS (CAT II & CAT III) precision approach located between the middle marker and the end of the ILS runway, transmitting a radiation pattern keyed at six dots per second, and indicating that the pilot, both aurally and visually, is at the DH
- **Approach Lights.** See *Approach Lighting Systems*.

ILS CATEGORIES. The weather minimums associated with an ILS is defined by the following categories (note that to make landing under these conditions, aircraft must be equipped with special avionics, pilot must be qualified to land under specified conditions for that category, and aircraft must have proper ground equipment for conditions):

- **Category I:** 200-foot ceiling and 2,400-foot RVR;
- **Category II:** 100-foot ceiling and 1,200-foot RVR;
- **Category IIIA:** zero-foot ceiling and 700- foot RVR;
- **Category IIIB:** zero-foot ceiling and 150-foot RVR; and
- **Category IIIC:** zero-foot ceiling and zero-foot RVR.

INSTRUMENT METEOROLOGICAL CONDITIONS (IMC). Meteorological conditions expressed in terms of specific visibility and ceiling conditions that are less than the minimums specified for visual meteorological conditions. IMC are defined as period when cloud ceiling are less than 1,000 feet above ground and/or visibility less than three miles

INSTRUMENT RUNWAY. See *Runway.*

INTERNATIONAL CIVIL AVIATION ORGANIZATION (ICAO). An agency of the United Nations which codifies the principles and techniques of the international air navigation, and fosters the planning and development of international air transport to ensure safe and orderly growth. The ICAO Council adopts standards and recommended practices concerning air navigation, prevention of unlawful interference, and facilitation of border-crossing procedure for international civil aviation.

ISLAND. An unused paved or grassy area between taxiways, between runways, or between a taxiway and a runway. Paved islands are clearly marked as unusable, either by painting or the use of artificial turf.

ITINERANT OPERATIONS. See *Operation.*

JET-A. Type of aviation fuel designed for use in aircraft powered by gas-turbine engines.

KNOT. A unit of speed equal to one nautical mile per hour, or 1.15 statute mile per hour.

LAND AND HOLD SHORT OPERATIONS (LAHSO). To increase airport capacity, efficiency, and safety, LAHSO clearances usually instruct an aircraft to land, and then hold short of an intersecting runway, taxiway, or predetermined point.

LARGE HUB AIRPORT. See *Airport.*

LANDING DISTANCE AVAILABLE (LDA). See *Declared Distances.*

LANDSIDE. The portion of an airport that provides the facilities necessary for the processing of passengers, cargo, freight, and ground transportation vehicles.

LARGE AIRPLANE. See *Aircraft.*

LEAD-IN-LIGHT SYSTEM (LDIN). See *Approach Light System.*

LOCALIZER. See *Instrument Landing System.*

LOCALIZER PERFORMANCE WITH VERTICAL GUIDANCE (LPV). An instrument approach procedure that uses wide area augmentation system (WAAS) and very precise GPS capabilities to attain an airplane's position. Although it does provide vertical guidance and can provide minimums consistent with an ILS, an LPV is considered to be a non-precision approach.

LOCALIZER TYPE DIRECTIONAL AID (LDA). A facility of comparable utility and accuracy to a localizer but which is not part of a complete ILS and will not be aligned with the runway.

LOCAL OPERATIONS. See *Operation.*

LOCATION SIGN. See *Airport Signs.*

LOW INTENSITY AIRPORT LIGHTING. See *Airport Lighting.*

LOCAL OPERATION. See *Operations.*

MAGNETIC (COMPASS) HEADING. The heading relative to the magnetic poles of the Earth and indicated by a magnetic compass.

MANDATORY INSTRUCTION SIGN. See *Airport Signs.*

MAXIMUM CERTIFIED TAKEOFF WEIGHT (MTOW). The Maximum certificated weight for the airplane at takeoff, i.e. the airplane's weight at the start of the takeoff run.

MEAN SEA LEVEL (MSL). The average or mean height of the sea, with reference to a suitable reference surface.

MEDIUM HUB AIRPORT. See *Airport.*

MEDIUM INTENSITY APPROACH LIGHT SYSTEM WITH RUNWAY ALIGNMENT INDICATOR (MALSR). See *Approach Light System.*

MEDIUM INTENSITY RUNWAY LIGHTS (MIRL). See *Airport Lighting.*

MIDDLE MARKER (MM). See *Instrument Landing System.*

MILITARY OPERATIONS. See *Operation.*

MINIMUM DESCENT ALTITUDE (MDA). This is associated with non-precision approaches and is the lowest altitude an aircraft can fly until the pilot sees the airport environment. If the pilot has not found the airport environment by the Missed Approach Point (MAP) a missed approach is initiated.

MISSED APPROACH POINT (MAP). The point prescribed in an instrument approach at which a missed approach procedure shall be executed if visual reference of the runway environment is not in sight or the pilot decides it is unsafe to continue. The MAP is similar in principle to the Decision Height.

MODIFICATION TO STANDARDS (MOS). Any approved nonconformance to FAA standards, other than dimensional standards for Runway Safety Areas (RSAs), applicable to an airport design, construction, or equipment procurement project that is necessary to accommodate an unusual local condition for a specific project on a case-by-case basis while maintaining an acceptable level of safety.

MOVEMENT AREA. The runway, taxiways, and other area of an airport an airport/heliport which are utilized for taxiing, air taxiing, takeoff, and landing of aircraft, exclusive of loading ramps and parking areas. At those airports with a tower, specific approval for entry onto the movement area must be obtained from ATC.

NATIONAL AIRSPACE SYSTEM (NAS). The network of air traffic control facilities, air traffic control areas, and navigational facilities throughout the U.S.

NATIONAL ENVIRONMENTAL POLICY ACT (NEPA). Federal legislation that established environmental policy for the nation. It requires an interdisciplinary framework for federal agencies to evaluate environmental impacts and contains action-forcing procedures to ensure that federal agency decision makers take environmental factors into account.

NATIONAL PLAN OF INTEGRATED AIRPORT SYSTEMS (NPIAS). The national airport system plan developed by the Secretary of Transportation on a biannual basis for the development of public use airports to meet national air transportation needs.

NATIONAL TRANSPORTATION SAFETY BOARD (NTSB). A federal investigatory board whose mandate is to ensure safe public transportation. As part of the DOT, the NTSB investigates accidents, conducts studies, and makes recommendations to federal agencies and the transportation industry.

NAUTICAL MILE (NM). The unit measure of distance in both nautical and aeronautical context. A nautical mile equals 1.15 statute miles (6,080 feet). The measure of speed in regards to nautical miles is known as KNOTS (nautical miles per hour).

NAVIGATION AID (NAVAID). Any electronic and visual air navigation aids, lights, signs, and associated supporting equipment used or available for providing point-to-point guidance information or position data to aircraft in flight.

- **Distance Measuring Equipment (DME).** Equipment (airborne and ground) used to measure, in nautical miles, the slant range distance of an aircraft from the DME NAVAID.
- **Non-Directional Beacon (NDB).** A radio beacon transmitting non-directional signals whereby an aircraft equipped with direction finding equipment can determine headings to or from the radio beacon and "home" in on a track to or from it. The signal transmitted does not include inherent directional information.
- **Precision Approach Path Indicator (PAPI).** A path indicator that uses a single row of lights arranged to provide precision descent guidance information during approach to a runway.
- **Rotating Beacon.** A visual NAVAID used to assist pilots in finding an airport, particularly those flying in IMC or VFR at night. The beacon provides information about the type of airport through the use of a particular set of color filter:
  - Green flashed alternated with two quick white flashes: Lighted military land airport.
  - Alternating White and green flashes: Lighted civilian land airport.
  - Alternating white and yellow flashes: lighted water airport
  - Alternating yellow, green, and white: Lighted heliport.
- **Tactical Air Navigation (TACAN).** An ultra-high frequency electronic rho-theta NAVAID which provides suitably equipped aircraft a continuous indication of bearing and distance to the TACAN station.
- **Visual Approach Slope Indicator (VASI).** A system of lights arranged to provide vertical visual approach slope guidance to aircraft during approach to landing by radiating a directional pattern of high intensity red and white focused light beam.

- **VOR (Very High Frequency Omni-directional Radio-range).** A ground-based electronic NAVAID transmitting very high frequency navigation signals, 360-degree azimuth, oriented from magnetic north, used as a basis for navigation in NAS.
- **VORTAC (Very High Frequency Omni-Directional Radio-range/Tactical Aircraft Control).** A NAVAID providing VOR azimuth, TACAN azimuth, and TACAN DME at one site.

NIGHT. The time between the end of evening civil twilight and the beginning of morning civil twilight, as published in the American Air Almanac, converted to local time.

NOISE ABATEMENT PROCEDURES. Procedures developed by the FAA and community to reduce the level of noise generated by aircraft departing over populated areas.

NOISE CONTOUR. A continuous line on a map of the airport vicinity connecting all points of the same noise level. These contours represent noise levels generated from aircraft operations, takeoff and landing of aircraft. They are generated based on mythology developed by the FAA and the data provides information that can be used to identify varying degrees of noise impacts on the surrounding area.

NON-DIRECTIONAL BEACON (NDB). See *Navigation Aid.*

NON-HUB AIRPORT. See *Airport.*

NON-MOVEMENT AREA. Taxilanes and apron areas not in the movement area and therefore not under the control of traffic control.

NON-PRECISION APPROACH PROCEDURE. A standard instrument approach procedure in which no electronic glideslope is provided.

NON-PRECISION RUNWAY. See *Runway.*

NOTICE TO AIRMEN (NOTAM). A notice containing information concerning the establishment, condition, or change in any component (facility, service, procedure of, or hazard in the NAS) the timely knowledge of which is essential to personnel concerned with flight operations.

OBJECT. Includes, but is not limited to above ground structures, NAVAIDs, people, equipment, vehicles, natural growth, terrain, and parked aircraft.

OBJECT FREE AREA (OFA). An area on the ground centered on a runway (ROFA), taxiway (TOFA), or taxilane centerline provided to enhance the safety of aircraft operations by having the area free of objects, except for objects that need to be located in the OFA for air navigation or aircraft ground maneuvering purposes.

OBSTACLE. An existing object at a fixed geographical location or which may be expected at a fixed location within a prescribed area with reference to which vertical clearance is or must be provided during flight operation.

OBSTACLE FREE ZONE (OFZ). The three-dimensional airspace along the runway and extended runway centerline that is required to be clear of obstacles for protection for aircraft landing or taking off from the runway and for missed approaches. It is the airspace below 150 feet above the established airport elevation and along the runway and extended runway centerline that is required to be clear of all objects, except for frangible visual NAVAIDs that need to be located in the OFZ because of their function, in order to provide clearance protection for aircraft landing or taking off from the runway, and for missed approaches.

OBSTRUCTION. An existing or future object that is of a greater height than any of the heights or surfaces defined in 14 CFR Part 77.23 and 77.25. (Note that obstructions to air navigation are presumed to be hazards to air navigation until an FAA study has determined otherwise.)

OMNIDIRECTIONAL APPROACH LIGHTING SYSTEM (ODALS). See *Approach Light System.*

OPERATION. The landing, takeoff, or touch-and-go procedure by an aircraft on a runway at an airport. Operations can be categorized into the following categories:

- **Itinerant Operations.** Operations by aircraft that leaves the local airspace.
- **Local Operations.** Aircraft operations performed by aircraft that are based at the airport and that operate in the local traffic pattern or within sight of the airport, that are known to be departing for or arriving from flights in local practice areas within a prescribed distance from the airport, or that execute simulated instrument approaches at the airport.
- **Military Operations.** Aircraft operations performed in military aircraft. May be itinerant or local operations.
- **Transient Operations.** Operations by aircraft that are not based at a specified airport.

OUTER MARKER (OM). See *Instrument Landing System.*

PARALLEL RUNWAYS. See *Runway.*

PARALLEL TAXIWAYS. See *Taxiway.*

PASSENGER FACILITY CHARGE (PFC). The collection of PFC fees for every enplaned passenger at commercial airports controlled by public agencies to be used to fund FAA-approved projects that enhance safety, security, or Capacity; reduce noise; or increase air carrier competition.

PEAK HOUR (PH). An estimate of the busiest hour in a day. This is also known as the design hour.

PERFORMANCE-BASED NAVIGATION (PBN). It specifies that aircraft RNP and RNAV systems performance requirements be defined in terms of accuracy, integrity, availability, continuity and functionality required for the proposed operations in the context of a particular airspace, when supported by the appropriate navigation infrastructure.

- **Area Navigation (RNAV).** A method of navigation that permits aircraft operations on any desired flight path.
- **Required Navigation Performance (RNP).** A type of Performance-Based Navigation (PBN) that allows an aircraft to fly a specific path between two three-dimensionally defined points in space.

PISTON ENGINE. See *Aircraft Engine.*

PLANNING ACTIVITY LEVEL (PAL). Selected activity levels that may trigger the need for additional facilities or improvements.

PRECISION APPROACH CATEGORIES I, II, III (CAT I, CAT II, CAT III). See *Instrument Landing System.*

PRECISION APPROACH PROCEDURE. A standard precision approach procedure in which an electronic glideslope is provided, such as ILS or PAR.

PRIMARY AIRPORT. See *Airport.*

PRIMARY SURFACE. See *Imaginary Surfaces.*

POOR VISIBILITY AND CEILING (PVC). Is a condition that exists whenever the cloud ceiling is less than 500 feet and/or the visibility is less than one statue mile.

PRECISION APPROACH PATH INDICATOR (PAPI). See *Navigational Aid.*

PUBLIC USE AIRPORT. An airport that is open to the general public with or without a prior request to use the airport.

RADAR (RADIO DETECTION AND RANGING). A device which, by measuring the time interval between transmission and reception of radio pulses, provides information on range, azimuth and/or elevation of objects in the path of the transmitted pulses.

RADAR SERVICE. A term which encompasses aircraft separation, navigation guidance, and/or flight track monitoring services based on the use of radar which can be provided by a controller to a pilot of a radar-identified aircraft.

RADAR SURVEILLANCE. The radar observation of a given geographic area for the purpose of performing some radar function.

RADIAL. A magnetic bearing extending from a VOR, a VORTAC, or a TACAN navigational facility.

RAMP. Synonymous with Apron. See *Apron.*

RECORD OF DECISION (ROD). A public document that reflects the FAA's final decision of an EIS, rationale behind that decision, and commitments to enforce and monitor mitigation.

REGIONAL JET. See *Aircraft.*

REGRESSION ANALYSIS. A statistical technique that seeks to identify and quantify the relationships between factors associated with a forecast.

RELIEVER AIRPORT. See *Airport.*

RETENTION PONDS. Storm water management ponds that hold water for several months.

RISK ASSESSMENT. See *Safety Management System.*

RNAV. See *Performance Based Navigation*

RNP. See *Performance Based Navigation.*

ROADWAY SIGN. See *Airport Signs.*

ROCKET. See *Aircraft.*

ROTATING BEACON. See *Navigation Aid.*

ROTORCRAFT. See *Aircraft.*

RUNWAY (RW). Defined as rectangular surface on an airport prepared or suitable for the landing and takeoff of airplanes. Runways can be classified as the following:

- **Instrument Runway.** A runway equipped with electronic and visual navigation aids for which a precision or non-precision approach procedure having straight-in landing minimums has been approved.
- **GPS Runway.** A runway having a precision or non-precision approach procedure using GPS navigational guidance with or without vertical guidance.
- **Non-precision Instrument Runway.** A runway having an existing instrument approach procedure utilizing air navigation facilities with only horizontal guidance for which a straight-in or side-step non-precision approach procedure has been approved.
- **Non-precision Runway.** A runway with only horizontal guidance available.
- **Parallel Runways.** Two or more runways at the same airport whose centerlines are parallel. In addition to runway number, parallel runways are designated as L (left) and R (right) or, if three parallel runways exist, L (left), C (center), and R (right).
- **Precision Instrument Runway.** A runway having an existing instrument approach procedure utilizing air navigation facilities with both horizontal and vertical guidance for which a precision approach procedure has been approved.
- **Utility Runway.** A runway that is constructed for and intended to be used by propeller driven aircraft of 12,500 pounds maximum gross weight and less.
- **Visual Runway.** A runway without an existing or planned straight-in instrument approach procedure and no instrument approach procedure/equipment.

RUNWAY ALIGNMENT INDICATOR LIGHTS (RAILS). See *Approach Light System.*

RUNWAY BLAST PAD. A surface adjacent to the ends of the runways provided to reduce the erosive effect of jet blast and propeller wash.

RUNWAY CENTERLINE LIGHTING. See *Airport Lighting.*

RUNWAY DESIGN CODE (RDC). A code signifying the design standards to which a runway is to be built.

RUNWAY DISTANCE REMAINING SIGN. See *Airport Signs.*

RUNWAY EDGE LIGHTS. See *Airport Lighting.*

RUNWAY END IDENTIFIER LIGHTS (REIL). See *Airport Lighting.*

RUNWAY ENVIRONMENT. The physical runway and the areas surrounding the runway out to the hold position marking.

RUNWAY GRADIENT. The ratio of the change in elevation divided by the length of the runway expressed as a percentage.

RUNWAY HEADING. The magnetic direction that corresponds with the runway centerline extended.

RUNWAY INCURSION. Any occurrence at an airport involving the incorrect presence of an aircraft, vehicle, or person on the protected area of a surface designated for the landing and takeoff of aircraft.

RUNWAY LIGHTS. See *Airport Lighting.*

RUNWAY PROTECTION ZONE (RPZ). A trapezoidal area off the runway end intended to enhance the protection of people and property on the ground.

RUNWAY SAFETY AREA (RSA). A defined surface surrounding the runway prepared or suitable for reducing the risk of damage to airplanes in the event of an undershoot, overshoot, or excursion from the runway.

RUNWAY VISUAL RANGE (RVR). The distance over which a pilot of an aircraft on the centerline of the runway can see the runway surface markings delineating the runway or identifying its centerline. RVR is normally expressed in feet.

SAFETY ASSESSMENT. See *Safety Management System.*

SAFETY ASSURANCE. See *Safety Management System.*

SAFETY MANAGEMENT SYSTEM (SMS). The formal top-down business-like approach to managing safety risk. It includes systematic procedures, practices, and policies for the management of safety (including safety risk management, safety policy, safety assurance, and safety promotion).

- **Gap Analysis.** Identification of existing safety components, compare to SMS program requirements. Gap analysis provides an airport operator an initial SMS development plan and Safety roadmap to compliance.
- **Hazard.** Any existing or potential condition that can lead to injury, illness, or death to people; damage to or loss of a system, equipment, or property, or damage to the environment. A hazard is a condition that is a prerequisite to an accident or incident.
- **Risk Assessment.** Assessment of the system or component to compare the achieved risk level with the tolerable risk level.
- **Safety Assessment.** A systematic, comprehensive evaluation of an implemented system.
- **Safety Assurance.** SMS process management functions that systematically provides confidence that organizational products/services meet or exceed safety requirements.
- **Safety Policy.** Defines the fundamental approach to managing safety that is to be adopted within an organization. Safety policy further defines the organization's commitment to safety and overall safety vision.
- **Safety Promotion**. A combination of safety culture, training, and data sharing activities that supports the implementation and operation of an SMS in an organization.
- **Safety Risk Control.** Anything that mitigates the safety risk of a hazard. Safety risk controls necessary to mitigate an unacceptable risk should be mandatory, measurable, and monitored for effectiveness.
- **Safety Risk Management (SRM).** A formal process within the SMS composed of describing the system, identifying the hazards, assessing the risk, analyzing the risk, and controlling the risk. The SRM process is embedded in the operation system: is not a separate/distinct process.
- **Severity**. The consequence or impact of a hazard in terms of degree of loss or harm.

SAFETY POLICY. See *Safety Management System.*

SAFETY PROMOTION. See *Safety Management System.*

SAFETY RISK. See *Safety Management System.*

SAFETY RISK CONTROL. See *Safety Management System.*

SAFETY RISK MANAGEMENT (SRM). See *Safety Management System.*

SCOPE. The document that identifies and defines the tasks emphasis, and level of effort associated with a project or study.

SELF-FUELING. The fueling of an aircraft by the owner or operator of the aircraft.

SEGMENTED CIRCLE. A circle located on an airport where wind and runway pattern information are located. It performs two functions: it aids the pilot in locating the obscure airports, and it provides a centralized location for wind and traffic pattern indicators as may be required on a particular airport.

SEPARATION. The spacing of aircraft to achieve their safe and orderly movement in flight and while landing and taking off.

SEPARATION MINIMA. The minimum longitudinal, lateral, or vertical distances by which aircraft are spaced through the application of air traffic control procedures.

SEVERITY. See *Safety Management System.*

SHOULDER. An area adjacent to the edge of paved runways, taxiways, or aprons providing a transition between the pavement and the adjacent surface; support for aircraft running off the pavement; enhanced drainage; and blast protection.

SMALL AIRPLANE. *See Aircraft.*

SMALL HUB AIRPORT. See *Airport.*

SNOW REMOVAL EQUIPMENT (SRE). Equipment, such as plow trucks and brooms, to remove snow from the paved surfaces on an airport.

SPONSOR. A public agency or private owner of a public-use airport that submits to the Secretary an application for financial assistance for the airport.

STATUTE MILE. A regular "highway" mile measuring 5,280 feet.

STOP END OF RUNWAY. The far runway end as viewed from the cockpit of a landing airplane.

STOPWAY. An area beyond the stop end of the takeoff runway which is no less wide than the runway and is centered on the extended centerline of the runway. It is able to support an airplane during an aborted takeoff without causing structural damage to the airplane, and designated by airport authorities for use in decelerating the airplane during an aborted takeoff. A blast pad is not a stopway.

SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM (SMGCS). Systems providing routing, guidance, surveillance and control to aircraft and affected vehicles in order to maintain movement rates under all local weather condition within the Aerodrome Visibility Operational Level (AVOL) while maintaining the required level of safety.

SYSTEM OF AIRPORT REPORTING (SOAR). The FAA Office of Airport integrated database that contains airport planning, development, and financial information.

STRAIGHT-IN APPROACH. Entry into the traffic pattern by interception of the extended runway centerline (final approach) without executing any other portion of the traffic pattern.

TACTICAL AIR NAVIGATION (TACAN). See *Navigation Aid.*

TAILWIND. Any wind more than 90 degrees to the longitudinal axis of the runway.

TAKEOFF DISTANCE AVAILABLE (TODA). See *Declared Distances.*

TAKEOFF RUN AVAILABLE (TORA). See *Declared Distances.*

TAXI. The movement of an airplane under its own power on the surface of an airport.

TAXILANE (TL). The portion of the aircraft parking area used for access between taxiways and aircraft parking positions. A taxilane is outside the movement area, and is normally not controlled by the Air Traffic Control Tower.

TAXIWAY (TW). A defined path established for the taxiing aircraft from one part of an airport to another.

- **Parallel Taxiway.** A taxiway whose centerline is parallel to an adjacent runway.

TAXIWAY/TAXILANE OBJECT FREE AREA (TOFA). Clearing standards which prohibit service vehicle roads, parked aircraft, and other objects, except for objects that need to be located in the OFA for air navigation or aircraft ground maneuvering purposes. Vehicles may operate within the OFA provided they give right of way to oncoming aircraft.

TAXIWAY/TAXILANE SAFETY AREA (TSA). A defined surface alongside the taxiway prepared or suitable for reducing the risk of damage to an airplane unintentionally departing the taxiway.

TAXIWAY DESIGN GROUP (TDG). FAA aircraft classification system for taxiway design based on design aircraft undercarriage dimensions. These include the overall Main Gear Width (MGW) and the Cockpit to Main Gear Distance (CMG).

TECHNICAL ADVISORY COMMITTEE (TAC). A group of individuals that provide input on technical issues.

TERMINAL AREA. A general term used to describe airspace in which approach control service or airport traffic control service is provided.

TERMINAL AREA FORECAST (TAF). The official forecast of aviation activity, both aircraft and enplanements, at FAA facilities. This includes FAA-towered airports, federally contracted towered airports, non-federal towered airports, and many non-towered airports.

TERMINAL INSTRUMENT PROCEDURES (TERPS). Published flight procedure standards for conducting instrument approaches to runways under instrument meteorological conditions. Information on TERPS is contained in FAA Order 8260.3, United States Standard for Terminal Instrument Procedures (TERPS).

THRESHOLD (TH). The beginning of that portion of the runway available for landing. In some instances, the landing threshold may be displaced.

- **Displaced Threshold.** A threshold that is located at a point on the runway other than the designated beginning of the runway.

THRESHOLD LIGHTING. See *Airport Lighting.*

THROUGH-THE-FENCE (TTF) OPERATIONS. Those activities permitted by the airport sponsor through an agreement that permits access to the public landing area by independent entities or operator offering an aeronautical activity or to owners of aircraft based on land adjacent to, but not a part of, the airport property.

The obligation to make an airport available for the use and benefit of the public does not impose any requirement for the airport sponsor to permit ground access by aircraft from adjacent property.

THROUGHPUT CAPACITY. See *Capacity.*

TOUCH AND GO. A training operation in which a landing approach is made, the aircraft touches-down on the runway, but does not fully reduce speed to turn off the runway. Instead, full engine power is applied while still rolling and a takeoff is made, thereby practicing both maneuvers as part of one motion. It counts as two separate aircraft operations.

TOUCHDOWN ZONE LIGHTING. See *Airport Lighting.*

TRACK. The flight path of an aircraft over the surface of the earth.

TRAFFIC PATTERN. The traffic flow that is prescribed for aircraft landing at, taxiing on, or taking off from an airport. The following defines components of a standard traffic pattern:

- **Base Leg.** A flight path at right angles to the landing runway off its approach end. The base leg extends from the downwind leg to the intersection of the extended runway centerline.
- **Crosswind Leg**. A flight path at right angles to the landing runway off its upwind end.
- **Downwind Leg.** A flight path parallel to the landing runway in the direction opposite to landing. The downwind leg normally extends between the crosswind leg and the base leg.
- **Upwind Leg.** A flight path parallel to the landing runway in the direction of the landing.

TRANSITIONAL SURFACE. See *Imaginary Surfaces.*

TRANSIENT OPERATIONS. See *Operation.*

TRANSPORTATION SECURITY ADMINISTRATION (TSA). An agency established in 2001 to safeguard United States transportation systems and to insure safe air travel. TSA operates under the Department of Homeland Security.

TRUE HEADING. A heading relative to the actual North and South Poles of the Earth, rather than the magnetic poles.

TURBINE ENGINE. See *Aircraft Engine.*

TURBOFAN. See *Aircraft Engine.*

TURBOJET. See *Aircraft Engine.*

TURBOPROP. See *Aircraft Engine.*

UNCONTROLLED AIRPORT. See *Airport.*

UNCONTROLLED AIRSPACE. Airspace where an ATC service is not deemed necessary or cannot be provided for practical reasons. Uncontrolled airspace is a generic term that covers Class F and Class G Airspace.

UNIVERSAL INTEGRATED COMMUNICATIONS (UNICOM). An air-ground communication facility operated by a private agency to provide advisory service at uncontrolled airport. Aircraft call the ground station to make announcements of their intentions. In some cases, the ground station is not staffed. If no one is staffing the ground station, pilots broadcast their location and intentions over the UNICOM or CTAF channel. When the ground station is closed this is done without an acknowledgement.

UPWIND LEG. See *Traffic Pattern.*

UTILITY RUNWAY. See *Runway.*

VISIBILITY. A measure of the horizontal opacity of the atmosphere at which prominent unlighted objects may be seen and identified by day and prominent lighted objects may be seen and identified by night; and is expressed in terms of the horizontal distance at which a person should be able to see and identify, is measured in statute miles.

VISUAL APPROACH. An approach conducted on an IFR flight plan which authorizes the pilot to proceed visually and clear of clouds to the airport. The pilot, at all times, must have either the airport or the preceding aircraft in sight. Reported weather at the airport must be ceiling at or above 1,000 feet and visibility of three miles or greater.

VISUAL APPROACH SLOPE INDICATOR (VASI). See *Navigational Aid.*

VISUAL FLIGHT RULES (VFR). Procedures for the conduct of flight in weather conditions above Visual Flight Rules (VFR) weather minimums. The term VFR is often also used to define weather conditions and type of flight plan under which an aircraft is operating. VFR is defined as the weather condition whenever the cloud ceiling is at least 1,000 feet above ground level and visibility is at least three statue miles.

VISUAL METEOROLOGICAL CONDITIONS (VMC). Meteorological conditions expressed in terms of specific visibility and ceiling conditions which are equal to or greater than the threshold values for IMC.

VISUAL RUNWAY. See *Runway.*

VOR. See *Navigation Aid.*

VORTAC. See *Navigation Aid.*

WAKE TURBULENCE. The air turbulence caused by a moving aircraft, originating at the tips of the wings. The turbulence is caused by vortices generated by an aircraft's wingtips as it travels through the air. This turbulence is greatest when the aircraft is taking off and landing.

WIDE AREA AUGMENTATION SYSTEM (WAAS). An enhancement of the GPS that includes integrity broadcasts, differential correction, and additional ranging signals for the purpose of providing the accuracy, integrity, availability, and continuity required to support all phases of flight.

WILDLIFE ATTRACTANTS. Any human-made structure, land-use practice, or human-made or natural geographic feature that can attract or sustain hazardous wildlife within the approach or departure airspace or the airport's AOA. These attractants can include architectural features, landscaping, waste disposal sites, wastewater treatment facilities, agricultural or aquaculture activities, surface mining, or wetlands.

WILDLIFE HAZARD ASSESSMENT (WHA). An FAA assessment to assess the potential of, and mitigate the risk of wildlife strikes at an airport. It includes an analysis of the airport's wildlife strike history; the identification of the wildlife species observed and their numbers, locations, local movements, and daily and seasonal occurrences; the identification and location of features on and near the airport that attract wildlife; a description of wildlife hazards to aircraft operations; and ultimately, if required, a Wildlife Hazard Management Plan (WHMP) to identify measures to be implemented to reduce the risk of wildlife strikes.

WIND COVERAGE. The percent of time for which aeronautical operations are considered safe due to acceptable crosswind components.

WIND DIRECTION. The opposite direction in which the windsock is pointing, and is specified in terms of a magnetic heading.

WINDSOCK (WIND CONE). A conical textile tube designed to indicate wind direction and relative wind speed.

WINGSPAN. The maximum horizontal distance from one wingtip to the other wingtip, including the horizontal component of any extensions such as winglets or raked wingtips.

MEADOW LAKE
AIRPORT

Appendix B

Media Information Package

Source: Meadow Lake Airport Association, May 2015

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B. APPENDIX B – MEDIA INFORMATION PACKAGE

MEDIA NOTIFICATION
April 20, 2015

Meadow Lake Airport Association

13625 Judge Orr Road, Meadow Lake Airport (kFLY), Peyton, CO 80831-6051

From: Meadow Lake Airport (kFLY)
Falcon/Peyton, Colorado

Contact: David Elliott
President, MLAA Board of Directors
(719) 339-0928
falcon20flier@msn.com

MEDIA/OFFICIALS DAY - MEADOW LAKE AIRPORT
Saturday, May 16, 2015

The Board of Directors of the Meadow Lake Airport Association, supported by the Experimental Aircraft Association Chapter 72, is pleased to announce a presentation at Meadow Lake Airport in Falcon, Colorado on Saturday, May 16th, 2015 in conjunction with "Learn to Fly Day". This event is to familiarize public officials and the media with El Paso County's "grassroots-level" General Aviation facility and specifically, to:

- highlight "International Learn-to-Fly Day" & promote "grass-roots" general aviation;
- provide information and data of the level of aeronautical activity at Meadow Lake;
- provide background of the small businesses and aviation organizations of Meadow Lake and the positive economic impact to the local community;
- provide background for numerous public events planned for Meadow Lake for the upcoming summer season;
- provide background and context for the upcoming review of Meadow Lake Airport's Master Plan Update by the El Paso County staff and Planning Commission with respect to 1041 process and subsequent action by the Board of County Commissioners.

Location: MLAA Hangar, 13550 Piper Lane, Falcon, Peyton, CO 80831

Agenda:
0800 ... meet & greet ... and breakfast *(sponsored by Jviation, Inc.)*

0900-0930 ... briefings by:

- Meadow Lake Airport Assn (15 minutes)
- Experimental Aircraft Assn (EAA) Chapter 72 (5 minutes)
- Aviation Education Foundation of Colorado (AEFCO) (5 minutes)
- High Flights Soaring Club (5 minutes)

0930-1100 ... ramp display:

- Q&A by MLA aviation organizations and business (see attached) list
- Introductory/orientation *"Eagle"* flights by EAA 72 pilots (15-20 minutes)
- airport tours (20-30 minutes)

Please RSVP for breakfast and/or introductory flights ...
Dave Elliott: 339-0928 or falcon20flier@msn.com

MEDIA NOTIFICATION
April 20, 2015

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MEADOW LAKE AIRPORT

Aviation Organizations

Experimental Aircraft Assn (EAA), Chapter 72

Aviation Education Foundation of Colorado (AEFCO)

High Flights Soaring Club (HFSC)

Soaring Eagle Foundation (SEF)

Pikes Peak Powered Para-Glider Club (PPPPC)

Popular Rotorcraft Assn (PRA), Chapter 38

Civil Air Patrol (CAP)

Aircraft Businesses

Aircraft Refinishing

American Aviation

Colorado Ultralights

Craig Aviation

Evan's Aircraft

Freeflight Composites

Great Lakes Aircraft

Harpers Aviation

Hawk Aviation

JTQ Aviation

Kirkwood Aviation

Marco's Aircraft

MB Aviation

NexAer Corporation

Pearce Aircraft

Phantom Fuels

Pikes Peak Flyers

Precision

RV Builders

Sky's the Limit

Springs Aviation

TGP Aviation Services

VANCO Aviation

Verlin's Aviation

Wilderness Spirit Wings

Hangar Associations / Businesses

7936 Cessna Drive LLC

7944 Cessna Drive LLC

8266 Cessna Drive Hangars

8460 Cessna Drive LLC

Airport Properties LLC

Cessna Drive Hangars Condominiums

Chandell LLC

CVK Condos

DELL Properties LLC

E-A-A Hangars Inc.

East Meadow Lake Hangars Assn

Envision Development

Executive Hangars

Falcon Development Corporation

Falcon Hangars Condominiums

Hangars, Inc

Hangars at Meadow Lake Airport LLC

Hughes Enterprises LLC

Johnston Enterprises LLC

Meadow Lake Airpark Hangar Condos

Meadow Lake Properties, LLC

Williwaw LLC

Wolfie's Hangars

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Appendix C

Economic Impact of Meadow Lake Airport

Source: 2013 Economic Impact Study of Colorado Airports

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C. APPENDIX C – ECONOMIC IMPACT OF MEADOW LAKE AIRPORT

STATEWIDE

Annual Economic Impact

Jobs

Jobs supported by the operation and development of airports, by off-airport air visitor spending, and by off-airport companies that rely on air cargo services to ship their goods.

265,700

Payroll

Annual employee payroll associated with aviation supported jobs.

$12.6 billion

Output

Output or total annual economic activity which is comparable to the spending required to purchase goods and services to support operations for all activities considered in this study.

$36.7 billion

Taxes

Local and state tax revenues derived directly from airport-supported activities both on and off the airports, including sales taxes, income taxes, and fuel excise taxes.

$1.1 billion

COLORADO

Statewide Benefits from Aviation

Airports in Colorado are important underpinnings for state and local economies. Airports not only provide safe and convenient travel options but as shown in this study, they create employment opportunities and contribute to state and local tax revenues. Aside from the jobs, payroll and annual economic activity that airports in Colorado support, during fire season, airports are essential to the state's forest fire fighting efforts. Doctors routinely use Colorado airports to provide medical services for residents in less densely populated areas of the state. Patients are often transported by air in emergency situations. During Colorado's catastrophic flood in September 2013, airports played an essential role in rescuing residents who could not otherwise have been reached.

The continued maintenance and development of Colorado's public-use airports is essential. For Colorado to support the travel needs of its businesses, residents, and visitors and for the state to remain at the forefront of industries such as energy and tourism, airports are essential. Annually, airports make significant economic contributions, while at the same time the airports help to improve the quality of life for all who reside in the state.

For more information on this airport's specific annual economic impacts or on the CDOT Statewide Aviation Economic Impact Study please contact:

Colorado Department of Transportation
Division of Aeronautics
5126 Front Range Parkway
Watkins, Colorado 80137
303-512-5250
www.Colorado-Aeronautics.org

Prepared by:
ICF SH&E, Inc. with Jviation, EDR Group and KRAMER aerotek, Inc.

The Economic Impact of

MEADOW LAKE AIRPORT

Colorado Springs, Colorado

2013 ECONOMIC IMPACT STUDY FOR COLORADO AIRPORTS

COLORADO

Statewide Benefits from Aviation

Colorado is served by a diverse system of airports. These airports accommodate the needs of Colorado businesses and residents, as well as visitors who come to Colorado to conduct business, attend conventions, and vacation. Airports in Colorado support hundreds of thousands of jobs and contribute billions of dollars in annual economic activity. At the same time, airports and aviation activities are a source of tax revenues.

Important links between airports and the economy were measured in a research project undertaken by the Colorado Department of Transportation's Division of Aeronautics. Similar research efforts were undertaken in 1998, 2003 and 2008, but results from this update and previous studies are not directly comparable. This update to the Colorado Aviation Economic Impact Study found that all of Colorado's airports, including Denver International, contribute $36.7 billion in output to Colorado's economy and support 265,700 jobs. These employees earn $12.6 billion. In total, Colorado's airports contribute $1.1 billion in state and local tax revenues.

These annual economic benefits include "multiplier" effects, which capture the recycling of initial economic impacts in the economy. Successive rounds of spending associated with the economic activities of airport operators, airport tenants, capital investment, air visitors and other non-aviation businesses that rely on air cargo, support additional jobs, payroll and economic activity in Colorado. Multiplier impacts are estimated using multipliers that are specific to the state or to the market area of each study airport. Total statewide and airport-specific impacts are the sum of initial and applicable multiplier impacts.

MEADOW LAKE AIRPORT (FLY)

Annual Economic Impact on the Local Economy

The economic impact of Meadow Lake Airport (FLY) on its local economy was estimated as a part of CDOT's statewide study. The economic contributions of Meadow Lake Airport stem from on-airport activities and off-airport spending by visitors who arrive in Colorado via the airport. The economic contributions of these activities are measured through jobs, associated payroll, and economic output.

On-Airport Impacts

On-airport activities considered in this study include the administration, operation and maintenance of Meadow Lake Airport as well as the activities of airport tenants that provide aviation services or support the airport's customers. Airport operators routinely undertake improvement projects to maintain or expand infrastructure. The study also identified the economic impact of capital investment spending which supports jobs and payroll in the local economy over each project's duration.

Annual Airport, Tenant and Capital Improvement Economic Impact for Meadow Lake Airport

	Initial	Multiplier Effect	Total
Jobs	72	54	126
Payroll	$3,007,000	$1,847,000	$4,854,000
Output	$7,278,000	$2,586,000	$9,864,000

Visitor Impacts

Visitors travel to Colorado on commercial airline flights and general aviation aircraft to conduct business or vacation in the state. Annually, 1,000 visitors arrive in Colorado via Meadow Lake Airport. Some stay only for the day, but others stay longer and have higher spending rates. Air visitors spend money locally on food, lodging, transportation, entertainment and retail purchases. Visitor spending in turn supports jobs and payroll while producing additional economic impacts through multiplier effects.

Annual Visitor Economic Impact for Meadow Lake Airport

	Initial	Multiplier Effect	Total
Jobs	3	1	4
Payroll	$63,000	$24,000	$87,000
Output	$197,000	$79,000	$276,000

Annual Tax Impacts

The economic activities related to the airport and visitors using the airport generate significant local and state tax revenues. Visitors pay taxes on lodging, rental cars, restaurant meals, and other purchases. Workers whose jobs are supported by airports and visitor spending also pay sales tax and state income taxes. Annual local and state taxes linked to the operation of Meadow Lake Airport total $660,200.

Total Economic Impact of Meadow Lake Airport

Over the past five years, the aviation industry has been impacted by increased fuel costs and a lagging U.S. economy. This has resulted in consolidation in the airline industry, fewer new general aviation aircraft being manufactured in the U.S., and an overall reduction in flights. For some Colorado airports, the contraction in aviation demand over the past five years translated into lower economic impacts. In other instances, demand and economic impacts may have increased or remained constant, despite downturns.

Together, airport, tenant, capital improvement and visitor impacts, along with multiplier effects, represent the total economic contribution of Meadow Lake Airport. The airport's economic contribution to the communities it serves is $10.1 million in output and 130 jobs, with an annual payroll of $4.9 million.

How the Economic Impact of Meadow Lake Airport was Calculated

Initial Impact

ON-AIRPORT: Airport Administration; Airport Tenants; Capital Investment

OFF-AIRPORT: Commercial Visitor Spending; General Aviation Visitor Spending; Businesses Using Air Cargo Shipping

Multiplier Effect

Total Impact

Jobs	Payroll	Output
130	$4.9 million	$10.1 million

JVIATION

Appendix D

FAA Airport Master Record Form 5010

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D. APPENDIX D – FAA AIRPORT MASTER RECORD FORM 5010

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

AIRPORT MASTER RECORD

PRINT DATE: 09/14/2015
AFD EFF 08/20/2015
Form Approved OMB 2120-0015

> 1 ASSOC CITY:	COLORADO SPRINGS	4 STATE: CO	LOC ID: FLY
> 2 AIRPORT NAME:	MEADOW LAKE	5 COUNTY: EL PASO CO	FAA SITE NR: 02544.*A
3 CBD TO AIRPORT (NM):	14 NE	6 REGION/ADO: ANM/DEN	7 SECT AERO CHT: DENVER

GENERAL

10 OWNERSHIP:	PRIVATE
> 11 OWNER:	MEADOW LAKE AIRPORT ASSOC., INC.
> 12 ADDRESS:	13625 JUDGE ORR ROAD PEYTON, CO 80831
> 13 PHONE NR:	719-339-0928
> 14 MANAGER:	DAVE ELLIOTT
> 15 ADDRESS:	13625 JUDGE ORR ROAD PEYTON, CO 80831
> 16 PHONE NR:	719-339-0928
> 17 ATTENDANCE SCHEDULE:	
ALL	ALL 0800-1700

18 AIRPORT USE:	PUBLIC
19 ARPT LAT:	38-56-44.6960N ESTIMATED
20 ARPT LONG:	104-34-11.6160W
21 ARPT ELEV:	6874.0 SURVEYED
22 ACREAGE:	100
> 23 RIGHT TRAFFIC:	08, 33
> 24 NON-COMM LANDING:	NO
25 NPIAS/FED AGREEMENTS:	N
> 26 FAR 139 INDEX:	

SERVICES

> 70 FUEL:	100LL
> 71 AIRFRAME RPRS:	MAJOR
> 72 PWR PLANT RPRS:	MAJOR
> 73 BOTTLE OXYGEN:	
> 74 BULK OXYGEN:	
75 TSNT STORAGE:	HGR, TIE
76 OTHER SERVICES:	CHTR, GLD, INSTR, RNTL, SALES, TOW

FACILITIES

> 80 ARPT BCN:	CG
> 81 ARPT LGT SKED:	SEE RMK
> 82 UNICOM:	122.700
> 83 WIND INDICATOR:	YES-L
84 SEGMENTED CIRCLE:	YES
85 CONTROL TWR:	NONE
86 FSS:	DENVER
87 FSS ON ARPT:	NO
88 FSS PHONE NR:	
89 TOLL FREE NR:	1-800-WX-BRIEF

BASED AIRCRAFT

90 SINGLE ENG:	388
91 MULTI ENG:	21
92 JET:	1
TOTAL:	410
93 HELICOPTERS:	9
94 GLIDERS:	8
95 MILITARY:	0
96 ULTRA-LIGHT:	5

OPERATIONS

100 AIR CARRIER:	0
102 AIR TAXI:	0
103 G A LOCAL:	30,000
104 G A ITNRNT:	11,100
105 MILITARY:	18,000
TOTAL:	59,100
OPERATIONS FOR 12 MONTHS ENDING	12/31/2010

RUNWAY DATA

> 30 RUNWAY IDENT:		08/26	15/33	N/S
> 31 LENGTH:		2,084	6,000	1,800
> 32 WIDTH:		35	60	15
> 33 SURF TYPE-COND:		ASPH-GRVL-F	ASPH-F	ASPH-TURF-G
> 34 SURF TREATMENT:				
35 GROSS WT:	SW		12.5	
36 (IN THSDS)	DW			
37	DTW			
38	DDTW			
> 39 PCN:				
LIGHTING/APCH AIDS				
> 40 EDGE INTENSITY:			MED	
> 42 RWY MARK TYPE-COND:		- / -	BSC - F / BSC - F	- / - / -
> 43 VGSI:		/	P2L / P2L	/ /
44 THR CROSSING HGT:		/	43 / 40	/ /
45 VISUAL GLIDE ANGLE:		/	3.50 / 3.00	/ /
> 46 CNTRLN-TDZ:		- / -	- / -	- / - / -
> 47 RVR-RVV:		- / -	- / -	- / - / -
> 48 REIL:		/	/	/ /
> 49 APCH LIGHTS:		/	/	/ /
OBSTRUCTION DATA				
50 FAR 77 CATEGORY:		A(V) / A(V)	A(V) / A(V)	A(V) / A(V) / /
> 51 DISPLACED THR:		/	/	/ /
> 52 CTLG OBSTN:		PLINE / ROAD	ROAD /	BLDG / ROAD / /
> 53 OBSTN MARKED/LGTD:		M /	/	/ /
> 54 HGT ABOVE RWY END:		40 / 10	15 /	30 / 10 / /
> 55 DIST FROM RWY END:		1,450 / 0	605 /	740 / 0 / /
> 56 CNTRLN OFFSET:		0B / 0B	0B /	125R / 100B / /
57 OBSTN CLNC SLOPE:		36:1 / 0:1	27:1 / 50:1	24:1 / 0:1 / /
58 CLOSE-IN OBSTN:		N / N	N / N	N / N / /
DECLARED DISTANCES				
> 60 TAKE OFF RUN AVBL (TORA):		/	/	/ /
> 61 TAKE OFF DIST AVBL (TODA):		/	/	/ /
> 62 ACLT STOP DIST AVBL (ASDA):		/	/	/ /
> 63 LNDG DIST AVBL (LDA):		/	/	/ /

(>) ARPT MGR PLEASE ADVISE FSS IN ITEM 86 WHEN CHANGES OCCUR TO ITEMS PRECEDED BY >

> 110 REMARKS:

A 011	DAVE ELLIOTT ASSOCIATION PRESIDENT.
A 014	ADDITIONAL ON SITE CONTACT RON LEE 14255 SEMINOLE LANE PEYTON, CO 80831 PHONE 719-683-3701.
A 016	FBO ON FIELD. ALTERNATE PHONE IS (719) 641-0460
A 030	RWY 08/26 RWY 08/26 PRIMARILY USED AS A TWY, EMERGENCY RY USE ONLY.
A 031	RWY N/S NORTH 1530 FT PAVED WITH ASPHALT.
A 033	RWY 08/26 RY 08/26 E 1184 FT GRVL, W 900 FT ASPH.
A 042	RWY 08 08/26 EDGES MKD WITH WHITE REFLECTORS AND TIRES.

111 INSPECTOR: (S) 112 LAST INSP: 06/10/2011 113 LAST INFO REQ:

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

AIRPORT MASTER RECORD

PRINT DATE: 09/14/2015
AFD EFF 08/20/2015
Form Approved OMB 2120-0015

> 1 ASSOC CITY: *****CONTINUED*****	4 STATE: CO	LOC ID: FLY	FAA SITE NR: 02544.*A
> 2 AIRPORT NAME:		5 COUNTY:	
3 CBD TO AIRPORT (NM):	6 REGION/ADO: ANM/DEN	7 SECT AERO CHT:	

GENERAL

10 OWNERSHIP:
> 11 OWNER:
> 12 ADDRESS:

> 13 PHONE NR:
> 14 MANAGER:
> 15 ADDRESS:

> 16 PHONE NR:
> 17 ATTENDANCE SCHEDULE:

18 AIRPORT USE:
19 ARPT LAT:
20 ARPT LONG:
21 ARPT ELEV:
22 ACREAGE:
> 23 RIGHT TRAFFIC:
> 24 NON-COMM LANDING:
25 NPIAS/FED AGREEMENTS:
> 26 FAR 139 INDEX:

SERVICES

> 70 FUEL:

> 71 AIRFRAME RPRS:
> 72 PWR PLANT RPRS:
> 73 BOTTLE OXYGEN:
> 74 BULK OXYGEN:
75 TSNT STORAGE:
76 OTHER SERVICES:

FACILITIES

> 80 ARPT BCN:
> 81 ARPT LGT SKED:
> 82 UNICOM:
> 83 WIND INDICATOR:
84 SEGMENTED CIRCLE:
85 CONTROL TWR:
86 FSS:
87 FSS ON ARPT:
88 FSS PHONE NR:
89 TOLL FREE NR:

BASED AIRCRAFT

90 SINGLE ENG:
91 MULTI ENG:
92 JET:
TOTAL:
93 HELICOPTERS:
94 GLIDERS:
95 MILITARY:
96 ULTRA-LIGHT:

OPERATIONS

100 AIR CARRIER:
102 AIR TAXI:
103 G A LOCAL:
104 G A ITNRNT:
105 MILITARY:
TOTAL:

OPERATIONS FOR 12 MONTHS ENDING

RUNWAY DATA

> 30 RUNWAY IDENT:				
> 31 LENGTH:				
> 32 WIDTH:				
> 33 SURF TYPE-COND:				
> 34 SURF TREATMENT:				
35 GROSS WT:	SW			
36 (IN THSDS)	DW			
37	DTW			
38	DDTW			
> 39 PCN:				
LIGHTING/APCH AIDS				
> 40 EDGE INTENSITY:				
> 42 RWY MARK TYPE-COND:	- / -	- / -	- / -	- / -
> 43 VGSI:	/	/	/	/
44 THR CROSSING HGT:	/	/	/	/
45 VISUAL GLIDE ANGLE:	/	/	/	/
> 46 CNTRLN-TDZ:	- / -	- / -	- / -	- / -
> 47 RVR-RVV:	- / -	- / -	- / -	- / -
> 48 REIL:	/	/	/	/
> 49 APCH LIGHTS:	/	/	/	/
OBSTRUCTION DATA				
50 FAR 77 CATEGORY:	/	/	/	/
> 51 DISPLACED THR:	/	/	/	/
> 52 CTLG OBSTN:	/	/	/	/
> 53 OBSTN MARKED/LGTD:	/	/	/	/
> 54 HGT ABOVE RWY END:	/	/	/	/
> 55 DIST FROM RWY END:	/	/	/	/
> 56 CNTRLN OFFSET:	/	/	/	/
57 OBSTN CLNC SLOPE:	/	/	/	/
58 CLOSE-IN OBSTN:	/	/	/	/
DECLARED DISTANCES				
> 60 TAKE OFF RUN AVBL (TORA):	/	/	/	/
> 61 TAKE OFF DIST AVBL (TODA):	/	/	/	/
> 62 ACLT STOP DIST AVBL (ASDA):	/	/	/	/
> 63 LNDG DIST AVBL (LDA):	/	/	/	/

(>) ARPT MGR PLEASE ADVISE FSS IN ITEM 86 WHEN CHANGES OCCUR TO ITEMS PRECEDED BY >

> 110 REMARKS:

A 081 RWY APT ACTVT MIRL RY 15/33 AND PAPI RYS 15 & 33 - CTAF.
A 110 THIS AIRPORT HAS BEEN SURVEYED BY THE NATIONAL GEODETIC SURVEY.
A 110-002 GLIDERS OPERATING SW OF RY 15/33. ULTRALIGHTS OPERATING INVOF ARPT.
A 110-007 RY 26 HAS -4FT TERRAIN 5FT FROM RY EDGE FIRST 100FT ON BOTH SIDES OF RY.
A 110-008 WILDLIFE ON AND INVOF OF AIRPORT
A 110-009 RY 26 +4 FT FENCE 50 FT RIGHT OF CNTRLN 40 FT WEST OF THLD.
A 110-010 BE ALERT; INTENSIVE USAF STUDENT TRAINING IN VICINITY OF COLORADO SPRINGS & PUEBLO COLORADO.

111 INSPECTOR: (S) 112 LAST INSP: 06/10/2011 113 LAST INFO REQ:

JVIATION

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

AIRPORT MASTER RECORD

PRINT DATE: 09/14/2015
AFD EFF 08/20/2015
Form Approved OMB 2120-0015

> 1 ASSOC CITY: *****CONTINUED*****
> 2 AIRPORT NAME:
3 CBD TO AIRPORT (NM):
4 STATE: CO
6 REGION/ADO: ANM/DEN
LOC ID: FLY
5 COUNTY:
7 SECT AERO CHT:
FAA SITE NR: 02544.*A

GENERAL

10 OWNERSHIP:
> 11 OWNER:
> 12 ADDRESS:
> 13 PHONE NR:
> 14 MANAGER:
> 15 ADDRESS:
> 16 PHONE NR:
> 17 ATTENDANCE SCHEDULE:
18 AIRPORT USE:
19 ARPT LAT:
20 ARPT LONG:
21 ARPT ELEV:
22 ACREAGE:
> 23 RIGHT TRAFFIC:
> 24 NON-COMM LANDING:
25 NPIAS/FED AGREEMENTS:
> 26 FAR 139 INDEX:

SERVICES

> 70 FUEL:
> 71 AIRFRAME RPRS:
> 72 PWR PLANT RPRS:
> 73 BOTTLE OXYGEN:
> 74 BULK OXYGEN:
75 TSNT STORAGE:
76 OTHER SERVICES:

FACILITIES

> 80 ARPT BCN:
> 81 ARPT LGT SKED:
> 82 UNICOM:
> 83 WIND INDICATOR:
84 SEGMENTED CIRCLE:
85 CONTROL TWR:
86 FSS:
87 FSS ON ARPT:
88 FSS PHONE NR:
89 TOLL FREE NR:

BASED AIRCRAFT

90 SINGLE ENG:
91 MULTI ENG:
92 JET:
TOTAL:
93 HELICOPTERS:
94 GLIDERS:
95 MILITARY:
96 ULTRA-LIGHT:

OPERATIONS

100 AIR CARRIER:
102 AIR TAXI:
103 G A LOCAL:
104 G A ITNRNT:
105 MILITARY:
TOTAL:
OPERATIONS FOR 12 MONTHS ENDING

RUNWAY DATA

> 30 RUNWAY IDENT:
> 31 LENGTH:
> 32 WIDTH:
> 33 SURF TYPE-COND:
> 34 SURF TREATMENT:
35 GROSS WT: SW
36 (IN THSDS) DW
37 DTW
38 DDTW
> 39 PCN:

LIGHTING/APCH AIDS

> 40 EDGE INTENSITY:
> 42 RWY MARK TYPE-COND:
> 43 VGSI:
44 THR CROSSING HGT:
45 VISUAL GLIDE ANGLE:
> 46 CNTRLN-TDZ:
> 47 RVR-RVV:
> 48 REIL:
> 49 APCH LIGHTS:

OBSTRUCTION DATA

50 FAR 77 CATEGORY:
> 51 DISPLACED THR:
> 52 CTLG OBSTN:
> 53 OBSTN MARKED/LGTD:
> 54 HGT ABOVE RWY END:
> 55 DIST FROM RWY END:
> 56 CNTRLN OFFSET:
57 OBSTN CLNC SLOPE:
58 CLOSE-IN OBSTN:

DECLARED DISTANCES

> 60 TAKE OFF RUN AVBL (TORA):
> 61 TAKE OFF DIST AVBL (TODA):
> 62 ACLT STOP DIST AVBL (ASDA):
> 63 LNDG DIST AVBL (LDA):

- / -	- / -	- / -	- / -
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(>) ARPT MGR PLEASE ADVISE FSS IN ITEM 86 WHEN CHANGES OCCUR TO ITEMS PRECEDED BY >

> 110 REMARKS:

A 110-011 ROAD 15 FT NORTH AND PARALLEL TO RY 08/26.
A 110-012 PWRD PARAGLIDERS AND MOBILE AEROSTATS OPERATE SE SIDE OF ARPT SURF-500'

111 INSPECTOR: (S) 112 LAST INSP: 06/10/2011 113 LAST INFO REQ:

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Appendix E

FAA Terminal Area Forecast

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E. APPENDIX E – FAA TERMINAL AREA FORECAST

FAA APO TERMINAL AREA FORECAST - MEADOW LAKE AIRPORT (FLY)
Forecast Issued January 2015

	Itinerant Operations				Local Operations				
FY	Air Taxi & Commuter	GA	Military	Total	Civil	Military	Total	Total Ops	Based Aircraft
1990	170	48,000	4,300	52,470	56,000	0	56,000	108,470	251
1991	81	22,773	2,038	24,892	26,574	0	26,574	51,466	205
1992	2,573	5,147	17,172	24,892	26,574	0	26,574	51,466	276
1993	2,573	5,147	17,172	24,892	26,574	0	26,574	51,466	276
1994	2,573	5,147	17,172	24,892	26,574	0	26,574	51,466	276
1995	0	9,240	17,172	26,412	26,574	0	26,574	52,986	285
1996	0	9,240	17,172	26,412	26,574	0	26,574	52,986	284
1997	0	9,240	17,172	26,412	26,574	0	26,574	52,986	284
1998	0	9,240	17,172	26,412	26,574	0	26,574	52,986	284
1999	0	10,300	17,172	27,472	27,633	0	27,633	55,105	310
2000	0	10,300	17,172	27,472	27,633	0	27,633	55,105	310
2001	0	11,096	17,520	28,616	29,784	0	29,784	58,400	420
2002	0	11,096	17,520	28,616	29,784	0	29,784	58,400	420
2003	0	11,096	17,520	28,616	29,784	0	29,784	58,400	420
2004	0	11,096	17,520	28,616	29,784	0	29,784	58,400	455
2005	0	44,590	0	44,590	46,410	0	46,410	91,000	455
2006	0	45,660	0	45,660	47,143	0	47,143	92,803	455
2007	0	46,756	0	46,756	47,888	0	47,888	94,644	455
2008	0	47,878	18,000	65,878	48,645	0	48,645	114,523	167
2009	0	49,027	18,000	67,027	49,413	0	49,413	116,440	167
2010	0	50,204	18,000	68,204	50,194	0	50,194	118,398	243
2011	0	11,100	18,000	29,100	30,000	0	30,000	59,100	312
2012	0	11,100	18,000	29,100	30,000	0	30,000	59,100	317
2013	0	11,100	18,000	29,100	30,000	0	30,000	59,100	377
2014*	0	11,366	18,000	29,366	30,474	0	30,474	59,840	377
2015*	0	11,638	18,000	29,638	30,955	0	30,955	60,593	377
2016*	0	11,917	18,000	29,917	31,443	0	31,443	61,360	377
2017*	0	12,203	18,000	30,203	31,940	0	31,940	62,143	377
2018*	0	12,496	18,000	30,496	32,445	0	32,445	62,941	377
2019*	0	12,796	18,000	30,796	32,958	0	32,958	63,754	377
2020*	0	13,103	18,000	31,103	33,479	0	33,479	64,582	377
2021*	0	13,417	18,000	31,417	34,009	0	34,009	65,426	377
2022*	0	13,739	18,000	31,739	34,546	0	34,546	66,285	377
2023*	0	14,069	18,000	32,069	35,091	0	35,091	67,160	377
2024*	0	14,407	18,000	32,407	35,645	0	35,645	68,052	377
2025*	0	14,753	18,000	32,753	36,208	0	36,208	68,961	377
2026*	0	15,106	18,000	33,106	36,781	0	36,781	69,887	377
2027*	0	15,468	18,000	33,468	37,363	0	37,363	70,831	377
2028*	0	15,839	18,000	33,839	37,955	0	37,955	71,794	377
2029*	0	16,220	18,000	34,220	38,555	0	38,555	72,775	377
2030*	0	16,609	18,000	34,609	39,164	0	39,164	73,773	377
2031*	0	17,007	18,000	35,007	39,783	0	39,783	74,790	377
2032*	0	17,415	18,000	35,415	40,412	0	40,412	75,827	377
2033*	0	17,833	18,000	35,833	41,052	0	41,052	76,885	377
2034*	0	18,261	18,000	36,261	41,702	0	41,702	77,963	377
2035*	0	18,698	18,000	36,698	42,361	0	42,361	79,059	377
2036*	0	19,146	18,000	37,146	43,030	0	43,030	80,176	377
2037*	0	19,606	18,000	37,606	43,710	0	43,710	81,316	377
2038*	0	20,076	18,000	38,076	44,401	0	44,401	82,477	377
2039*	0	20,557	18,000	38,557	45,103	0	45,103	83,660	377
2040*	0	21,050	18,000	39,050	45,817	0	45,817	84,867	377

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Appendix F

Compliance Plan

Source: Jviation, 2012

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MEADOW LAKE
AIRPORT

COMPLIANCE PLAN

FINAL REPORT

May 1, 2012

Funded by grant from CDOT Aeronautics

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APPENDICES

1.0 EXECUTIVE SUMMARY

1.1 Background

The Meadow Lake Airport is owned by the Meadow Lake Airport Association, Inc. (MLAA). It is the only privately owned airport in the Federal Aviation Administration's (FAA), National Plan of Integrated Airport Systems (NPIAS) in the State of Colorado. The airport is also the only NPIAS airport in Colorado where nearly 100% of the based aircraft operate Through-the-Fence (TTF). In addition, the airport is one of the few general aviation airports in Colorado that continues to thrive during the current economic downturn. The typical NPIAS airport is a publically owned airport with all aviation activity occurring on airport property. The public entity owner has enforcement authority and establishes the rules needed to comply with the Airport Improvement Program (AIP) grant assurances. Airports with on-airport activity have significant control over tenants because of leases and agreements. While the Meadow Lake Airport is currently a nearly 100% TTF operation, the TTF users are "owners" of the airport and are governed by MLAA Bylaws.

Meadow Lake Airport has been in compliance with their AIP Grant Assurances; however the operating environment associated with private ownership and "Through-the-Fence" activity makes compliance more challenging. The unique operation of the Meadow Lake Airport was a major factor in the Colorado Department of Transportation, Division of Aeronautics (CDOT) decision to seek greater assurance that the airport is operating within the safety and compliance rules of the FAA and CDOT. Their decision was supported with a grant to develop this Airport Compliance Plan.

1.2 Compliance Plan Summary

The Compliance Plan was a thorough review of all airport requirements and an Implementation Plan for recommendations. The Compliance Review determined that the MLAA is in compliance with all AIP Grant Assurances; however there are areas where significant improvement can and should be made by MLAA. In particular two near term actions are recommended which will improve safety in one case and reduce perception of funds misuse in the other.

The nearly 100% "Through-the-Fence" activity at Meadow Lake increases the potential for inadvertent vehicle access to airport runways and parallel taxiways. Several locations exist where one mistake by a vehicle driver can lead to the vehicle being on an airport runway or parallel taxiway. The busy nature of the airport, i.e. approximately 400 based aircraft, and a difficult address system add to the potential. The Compliance Review recommended that an "Inadvertent Vehicle Access Prevention Plan" be developed. The "Inadvertent Vehicle Access Prevention Plan" has been developed, and reviewed by the FAA, State, MLAA Advisory Team, and MLAA Board. It appears that implementation can start in 2012.

MLAA members currently pay an "Assessment" as defined in MLAA Bylaws. There is no definition of what portion of the "Assessment" is airport revenue and what portion is designated for other Association

activities. There needs to be a clear indication of airport revenue so that the FAA Revenue Use Policy can be monitored. It is recommended that the MLAA "Assessment" be a two part assessment, an airport charge that must be spent on the airport, and a MLAA fee that can be spent either on or off the airport.

2.0 INTRODUCTION

The Meadow Lake Airport is a unique, successful airport. Most of the airport operation occurs "Through-the-Fence." The airport has nearly 400 based aircraft[1] with nearly 100% of the aircraft located on private property outside the airport boundary. The airport is a privately owned reliever to Colorado Springs Municipal Airport. The owner, Meadow Lake Airport Association, is a not for profit corporation incorporated under the provisions of the "Colorado Non-Profit Corporation Act," Article 24, Chapter 31 of the 1963 Colorado Revised Statutes, as amended[2].

Prior to passage of The Airport and Airway Safety and Capacity Expansion Act of 1987, the only airports eligible to receive federal airport funding were publically owned facilities. The Airport and Airway Safety and Capacity Expansion Act expanded airport eligibility to include privately owned Reliever and Commercial Service airports. The MLAA became an eligible sponsor to receive AIP grants in 1989 when the FAA designated the Meadow Lake Airport as a Reliever to Colorado Springs Municipal Airport. AIP funds have never been denied to the MLAA; however the unique operating environment is out of the norm for airports in the Colorado Aviation System Plan and the FAA's NPIAS. CDOT Aeronautics has requested that a more thorough review by accomplished to ensure that CDOT and FAA requirements are being met.

2.1 Study Objective and Approach

The MLAA is eligible to receive grants from the Airport Improvement Program (AIP) and CDOT Aeronautics Discretionary Aviation Grant Program. When airports receive AIP or CDOT Aeronautics funds they agree to meet a set of Sponsor Assurances. The MLAA desires to maintain a favorable compliance standing with the FAA to ensure receipt of AIP funds. The objective of this Compliance Plan was to complete a thorough review of the airport operation and its procedures, Bylaws, finances, etc. and develop strategies for attaining or improving compliance.

The approach to the project was a thorough physical inspection of the airport and a records review of all available MLAA, FAA, and CDOT records. The information gathered was used to determine compliance with the most recent AIP Sponsor Assurances accepted by the MLAA. In addition to determining compliance with assurances, any areas where improvements should be made were noted and implementation plans were developed. The implementation plans included cost estimates and recommended changes to the airport's Capital Improvement Program. Some recommendations involved creating documents such a draft hangar ground lease or Minimum Standards. We provided MLAA with FAA guidance on these matters and names of airport owners with excellent documents.

[1] Airport provided information
[2] MLAA Articles of Incorporation

2.2 Airport Description

Meadow Lake Airport has been developed to standards for small, B-I aircraft. The airport has two based aircraft in Airplane Design Group II, a King Air 200 with a 54.5 foot wingspan and a de Havilland Dove with a 57.0 foot wingspan. The airport has grown consistently since being designated as a Reliever to Colorado Springs Municipal in 1989. The FAA Reliever Designation Study[3] completed in 1988 showed 200 based aircraft. The current based aircraft count provided by MLAA is over 385.

2.2.1 Runways

The Airport Facility Directory shows three runways at Meadow Lake. The primary Runway 15/33, is a 6000' x 60' asphalt concrete runway with visual approaches only. The pavement was designed for 12,500 single wheel loading, and is in good condition. The runway has a PAPI-2 on both runway ends. The PAPIs are owned and maintained by MLAA.

The crosswind Runway 8/26 is 2084' x 35' with the western 900' paved with asphalt concrete and the eastern 1184' having a gravel surface. This runway doesn't meet FAA design standards and an Operational Restriction Note in AirNav.com states, "emergency runway use only[4]."

The third runway in the Airport Facility Directory is a glider strip west of the primary runway labeled Runway N/S. The 1800' x 15' runway has an obstructed approach to north runway end. The High Flights Soaring Club uses the runway for takeoffs to the south. The airport is working to open a replacement runway for glider operations.

2.2.2 Based Aircraft

A unique feature of this airport is that nearly 100% of the based aircraft operate Through-the-Fence. The landowners surrounding the airport property are the owners of the MLAA. Twenty-two aircraft[5] are in hangars on residential property. The remaining aircraft, are mostly in hangars on properties specifically developed to provide aircraft shelter. Tie-down areas are available on Through-the-Fence properties.

2.2.3 Operations

Airnav.com and FAA Master Records indicate that daily operations for the year ending December 31, 2010 averaged 162 operations per day. This equates to over 59,000 annual operations in 2010.

[3] Denver ADO records
[4] AirNav.com
[5] MLAA records, June 2011

2.2.4 Aviation Businesses

The Meadow Lake Airport supports numerous aviation businesses that provide services to the public. There are currently 45 businesses that provide services like flight training, aircraft maintenance, aircraft rental, fuel sales, transient parking, glider towing, hangar rentals, and electronics maintenance. Most of the businesses are currently located on private property in the Through-The-Fence areas.

3.0 HISTORY OF AIRPORT IMPROVEMENT PROGRAM GRANT FUNDING AT MEADOW LAKE

Federal grant funding to airports began when the Federal Airport Act was signed into law on May 13, 1946. This legislation established the Federal Aid to Airports Program (FAAP). This program and the subsequent Airport Development Aid Program (ADAP) and Airport Improvement Program (AIP) have provided federal funds to airport owners to develop a national system of airports. Until 1987, the only eligible airports to receive funds were publically owned. The Airport and Airway Safety and Capacity Expansion Act of 1987 extended and amended the AIP adding privately owned Reliever and Commercial Service Airports as eligible airport sponsors. On July 14, 1989 the FAA designated Meadow Lake Airport as a reliever to Colorado Springs Municipal Airport and Meadow Lake became eligible to receive AIP funds.[6]

The MLAA has received 20 grants from the FAA through the end of Fiscal Year 2011. One grant, the -19 project, was cancelled before the work was started. The airport currently receives a $150,000 annual entitlement as a private reliever airport in the FAA's National Plan of Integrated Airport Systems (NPIAS)[7]. The MLAA can also compete from AIP grants from State Apportionment Funds and Discretionary Funds.

[6] Denver ADO files
[7] Report to Congress, National Plan of Integrated Airport Systems (NPIAS) 2011-2015

4.0 FAA Compliance Program

4.1 Compliance Program Basis

The Meadow Lake Airport Association, Inc. (MLAA) has received twenty grants from the Federal Aviation Administration under the Airport Improvement Program (AIP), pursuant to the Airport and Airway Improvement Act of 1982 (AAIA), as amended. The AIP required MLAA to agree to certain assurances under the authorizing legislation of the AIP. Most assurances remain unchanged from one grant to the next. A few new assurances have been added with extensions of the AIP authorizing legislation. No assurance has been deleted since MLAA received its first grant. The Grant Application submitted by MLAA with AIP Project 18 was used as the applicable document for current requirements, and is included in Appendix 1 of this report. Grant Applications contain the assurances that an airport owner agrees to as a condition of receiving a grant. MLAA has received two additional grants since AIP Project 18. The assurances remained the same for Project 19; however the assurances for AIP Project 20 contained one change which is discussed in the next paragraph.

In addition to the assurances that result from federal legislation and rulemaking, the FAA has statutory authority to prescribe additional assurances or requirements to grant recipients (sponsor).[8] The FAA is currently doing this for Residential Through-The-Fence (RTTF) activities. The FAA issued Interim Policy on this activity on March 18, 2011 and amended Grant Assurance No. 5, Preserving Rights and Powers.[9] MLAA became subject to this new assurance upon accepting a grant for AIP Project 20. A copy of the rulemaking and an updated Grant Assurance No. 5 are included in Appendix 2.

The FAA can also include project-specific Special Conditions in AIP grants.[10] Beginning with AIP Project 15 during Fiscal Year 2008, the FAA began inserting a special condition in all subsequent grants, requiring FAA approval for the MLAA to terminate or dissolve the MLAA.[11] The condition reads:

> *Insofar as the Sponsor administers the public-use, federally obligated airport facilities of the Meadow Lake Airport in Peyton, Colorado, the Sponsor shall not be terminated or dissolved without out prior approval of the Federal Aviation Administration. In the event of the termination or dissolution of the Sponsor, the Sponsor shall return, convey or transfer land purchased with Federal grant funds to the Federal Aviation Administration by selling such land for the highest and best use, and otherwise comply with all terms of the Federal assistance grant assurances to return and dispose of land or assets purchased through Federal grants.*

[8] FAA Order 5190.6B, FAA Airport Compliance Manual
[9] Federal Register/Vol. 76, No. 53/Friday, March 18, 2011
[10] FAA Order 5190.6B, FAA Airport Compliance Manual
[11] Denver ADO files

AIP obligations at privately owned airports relating to the use, operation, and maintenance of the airport remain in effect throughout the useful life of the facilities developed under the project, but not to exceed ten years.[12] This can be interpreted that the requirement to "maintain" a certain piece of pavement expires ten years after the most recent grant funded construction or maintenance of the piece of pavement. The obligations concerning use and operation do not automatically expire with the maintenance requirement. *Obligations relative to use and operation extend over the entire airport operation for ten years after the most recent grant.*[13] The exception to the ten year useful life is land acquired with AIP funds.[14] Land has no useful life limit and the MLAA is required to use the land acquired with AIP funds as an airport in perpetuity.

Additionally, there are three assurances for which the obligation continues, without limit as long as the airport is used as a public use Airport[15]: Grant Assurance 23, *Exclusive Rights;* Grant Assurance 25, *Airport Revenues;* and Grant Assurance 30, *Civil Rights*.

4.2 Implementation of the FAA Compliance Program

The FAA generally reviews a sponsor's compliance with Federal Agreements in three situations. The first situation is a formal compliance inspection. These inspections are infrequent at general aviation airports. The second situation is prior to making a new Grant Offer to a sponsor. This is mainly a files review to see if compliance issues have been raised after a formal inspection. The third situation is complaint investigation. Complaints can be informal under 14 CFR Part 13 where parties are trying to resolve matters early, or formal when parties believe that negotiations have been unsuccessful and a complaint is filed with the FAA under 14 CFR Part 16.[16]

The FAA's Airport Compliance Program is mostly based upon sponsor education. Conference topics, newsletters, and website information are the primary tools to help sponsors understand their agreements. This educational effort includes commenting on proposed sponsor actions if they believe the proposed action is contrary to grant obligations.

When administering the AIP, the FAA has implemented a simplified noncompliance process to withhold sponsor entitlement funds.[17] The project grant application approval process is outlined in 49 U.S.C. § 47106. Subparagraph 47106(d) discusses withholding grant application approval and specifically calls out primary apportionment funds 47114(c) and supplemental apportionment for Alaska 47114(e) as requiring the opportunity for a hearing prior to withholding grant application approval due to a violation of grant assurances. The statute does not require a hearing to withhold grant application approval for general aviation apportionment 47114(d); this includes 47114(d)(2) state apportionment and 47114(d)(3) non-primary apportionment. Non-primary apportionment is the funds commonly referred to as General Aviation Entitlements, i.e. $150,000 maximum per fiscal year per general aviation airport. Section (g)(2) of 49 U.S.C. § 47107 states that "The Secretary of Transportation may approve an application for a project grant only if the

[12] FAA Order 5190.6B, FAA Airport Compliance Manual
[13] FAA Order 5190.6B, FAA Airport Compliance Manual
[14] FAA Order 5190.6B, FAA Airport Compliance Manual
[15] FAA Order 5190.6B, FAA Airport Compliance Manual
[16] FAA Order 5190.6B, FAA Airport Compliance Manual
[17] FAA Northwest Mountain Region Airports Division Guidance

Secretary is satisfied that the requirements prescribed under paragraph (1)(A) of this subsection have been met." Subsection 1(A) says, "To ensure compliance with this section, the Secretary of Transportation shall prescribe requirements for sponsors that the Secretary considers necessary." *The FAA can administratively determine that a sponsor is not meeting its grant assurances and withhold entitlement funds at general aviation airports.*

5.0 Specific Grant Assurance Requirements

The airport sponsor completes an Application for Federal Funds for each requested grant. As part of that application, the sponsor assures and certifies that it has and will continue to meet 39 assurances. Eighteen of the assurances relate to the continued operation of an airport and are the focus of this Compliance Plan. The titles to these eighteen assurances are in **BOLD** in the list below. The remaining 21 assurances are mostly requirements when performing AIP grants and are reviewed by the FAA when issuing or closing AIP grants. Past grants indicate that the MLAA is in good standing on these 21 requirements. An easy reading summary of the intent of each assurance follows.

1 General Federal Requirements

When accomplishing work funded by an AIP grant, the sponsor assures and certifies that it will comply with 24 Federal Laws, 6 Executive Orders, 17 Code of Federal Regulations, and 2 Office of Management and Budget Circulars. Many of these requirements are reviewed during the environmental review which is completed before a Grant Offer is made. Some requirements may not be applicable to the type of work funded by the grant. The remaining requirements are reviewed at project closeout by the FAA and the sponsor's engineer.

2 Responsibility and Authority of the Sponsor

The sponsor assures and certifies that it has the legal authority to apply for the grant, and carry out the proposed project, e.g. issue contracts, and comply with the grant assurances. The sponsor also designates an official representative in writing to legally file the application, act in connection with the application, and provide required information. The FAA Northwest Mountain Region reviewed the bylaws for the MLAA in 1989 as part of the reliever designation process.[18] The Denver ADO is reviewing MLAA's current bylaws and as of July 21, 2011 we have not received comments.

3 Sponsor Fund Availability

The sponsor is assuring the FAA on two funding matters. The first is the availability of funds for that portion of the grant work description not funded by the FAA. The grant application shows the amount and source of sponsor funds needed to complete the project. The sponsor is also assuring the FAA that they have sufficient funds available to operate, and maintain the development funded by the grant.

4 Good Title

The sponsor assures that it holds good title satisfactory to the FAA for the landing area of the airport and land upon which an AIP project will be constructed. MLAA provided an attorney's title opinion before they received their first grant. When AIP projects contain land acquisition, MLAA provides title evidence to the

[18] Denver ADO files

FAA as part of the project closeout process. Prior to each grant, MLAA must show their current land title situation on a land map (Exhibit A) attached to the project application.

5 Preserving Rights and Powers

- The sponsor assures the FAA that it will not take or permit any action which would deprive them of the rights and powers necessary to meet all the terms of a grant agreement.
- The sponsor assures the FAA that it will not sell, lease, encumber, transfer, or dispose of any part of airport property shown on the Exhibit A without approval by the FAA.
- As a private sponsor, MLAA assures the FAA that it will take steps satisfactory to the FAA to ensure that the airport will continue to function as a public-use airport for the duration of the assurances.
- The sponsor assures the FAA that it will not enter into an arrangement with an outside party for management and operation of the airport unless the sponsor reserves sufficient rights and authority to ensure compliance with grant assurances.

6 Consistency with Local Plans

The sponsor is assuring the FAA that the requested project is reasonably consistent with the development plans of public agencies that control land use surrounding the airport.

7 Consideration of Local Plans

The sponsor is assuring the FAA that it has given fair consideration to the interest of communities near the airport. This mainly involves being compatible with public agencies plans for roads, utilities, etc. The Airport Layout Plan (ALP) approval process is the main tool for assuring compliance with this grant assurance. New ALPs are reviewed by neighboring governmental bodies and they have the opportunity to object to MLAA's development plans.

8 Consideration of Local Interest

The sponsor is assuring the FAA that it has given fair consideration to the interest of communities in or near the airport. This assurance was created during the early years of National Environmental Policies Act (NEPA) implementation. The current NEPA process requires a sponsor to adequately respond to public agency comments received. FAA environmental approval documents compliance with this assurance.

9 Public Hearings

For projects involving the location of an airport, an airport runway, or a major runway extension, the airport owner must offer the opportunity for public hearings. The current NEPA process has the same requirement. FAA environmental approval documents compliance with this assurance.

10 Air and Water Quality Standards

For projects involving airport location, a major runway extension, or runway location, the sponsor will provide information to the Governor to certify in writing to the Secretary of Transportation that the project will be located, designed, constructed, and operated so as to comply with applicable air and water quality standards. The current NEPA process requires this certification on new airports, new runways, and major runway extensions. FAA environmental approval documents compliance with this assurance.

11 Pavement Preventive Maintenance

For pavement replacement or reconstruction projects approved after January 1, 1995, the sponsor assures the FAA that it has implemented an effective airport pavement maintenance management program. Most sponsors have their airport consultant develop these plans as a part of the design process. CDOT Aeronautics performs pavement condition surveys on a routine basis. The information from these surveys shows the effectiveness of individual airports' pavement preventive maintenance.

12 Terminal Development Prerequisites

The approval of a terminal building project requires a sponsor to have all of the safety equipment required by airport certification and all of the security equipment needed to meet airport security requirements. This assurance is not applicable to non-certificated general aviation airports like Meadow Lake.

13 Accounting System, Audit, and Record Keeping Requirements

The sponsor assures the FAA that it will keep all project records disclosing disposition of grant funds. The sponsor shall have an accounting system that will facilitate an audit in accordance with the Single Audit Act of 1984. The sponsor shall make available to the FAA any books, documents, papers, and records that are pertinent to the grant. The FAA may require the sponsor to conduct an appropriate audit.

14 Minimum Wage Rates

This assurance comes from the Davis-Bacon Act and requires a sponsor to include certain provisions in all contracts in excess of $2,000 that involve labor. These provisions pertain to minimum wages, as determined by the Secretary of Labor. Contract documents require contractors and subcontractors to pay these minimum wages and to submit weekly payrolls. The financial closeout of an AIP project requires sponsor review of the payrolls submitted. Sponsors must notify contractors and the FAA of any discrepancies.

15 Veteran's Preference

This assurance requires a sponsor with a grant involving labor to include contract provisions to ensure that preference is given to Veterans of the Vietnam era and disabled veterans.

16 Conformity to Plans and Specifications

This assurance requires a sponsor to construct an AIP funded project in accordance with plans, specifications, and schedules approved by the FAA. These plans, specifications, and schedules must be approved prior to commencing work. Any modification to the plans, specifications, or schedules requires approval by the FAA.

17 Construction Inspection and Approval

The sponsor must assure the FAA that it will provide competent technical supervision at the construction site throughout the project to guarantee that the work conforms to the approved plans, specifications, and schedules. The sponsor shall allow the FAA to conduct inspections and the sponsor shall submit reports as requested by the FAA. A final report is required that summarizes all aspects of the project, including test results.

18 Planning Projects

This assurance outlines the requirements for planning projects, including the ownership of material developed by the study. The sponsor also acknowledges that completion of a planning project does not imply an assurance or commitment of FAA funds for implementing the development shown on the ALP.

19 Operations and Maintenance

The sponsor assures the FAA that they will operate the airport at all times in a safe and serviceable condition, in accordance with applicable standards of the FAA, state, and local agencies. Any proposal to temporarily close the airport for non-aeronautical purposes must first be approved by the FAA.

20 Hazard Removal and Mitigation

The sponsor assures the FAA that it will take appropriate action to protect instrument and visual operations to the airport. The sponsor will clear, remove, lower, relocate, mark, light, or otherwise mitigate existing airport hazards and prevent the establishment or creation of future hazards.

21 Compatible Land Use

As a privately owned airport sponsor, MLAA will, to the extent reasonable, persuade the governmental bodies with zoning authority to implement zoning laws. These zoning laws will restrict the use of land adjacent to or in the immediate vicinity of the airport to activities and purposes compatible with normal airport operations, including landing and takeoff of aircraft. El Paso County controls zoning on all sides of the airport.

22 Economic Nondiscrimination

- The sponsor assures the FAA that it will make the airport available for public use on reasonable terms and without unjust discrimination to all types, kinds, and classes of aeronautical activities.
- The sponsor assures the FAA that it will include in any agreement, contract, lease, or other arrangement under which a right or privilege is granted to any person, firm, or corporation to conduct an aeronautical activity furnishing services to the public at the airport, provisions requiring the contractor to furnish services on a reasonable, and not unjustly discriminatory basis to all users and charge reasonable, and not unjustly discriminatory prices for each unit or service. The sponsor also agrees to enforce the provisions with its tenants.
- The sponsor assures the FAA that it will not prevent any person, firm, or corporation operating aircraft on the airport from performing any service, including fueling of its own aircraft with its own employees, subject to reasonable standards established by the sponsor.
- The sponsor may establish reasonable and not unjustly discriminatory conditions to be met by all users of the airport, as may be necessary for the safe and efficient operation of the airport.

23 Exclusive Rights

The sponsor assures the FAA that it will not permit an exclusive right to provide aeronautical services to the public.

24 Fee and Rental Structure

The sponsor will maintain a fee and rental structure for the facilities and services at the airport which will make the airport as self-sustaining as possible.

25 Airport Revenues

The sponsor assures the FAA that all revenues generated by the airport will be expended for the capital or operating costs of the airport. As part of the annual audit required under the Single Audit Act of 1984, the sponsor will direct that the audit provide an opinion concerning the use of airport revenue.

The proper use of airport revenue also involves using AIP grant funded land for the purpose intended. Land acquired with federal airport funds must be used for the intended purpose only. When the FAA provides an AIP grant to assist in land acquisition, the grant work description lists the intended purpose of the land acquisition, e.g. "Acquire Parcel 4, development land", or "Acquire Parcel IV, Runway Protection Zone".

Development land must be used for aeronautical activity including access to the airport. Airside development land includes land for runways, taxiways, associated safety areas, ramps, aprons, and land adjacent to these facilities required for separation and clearance.[19] Landside development land includes land for airport terminals and administrative buildings, hangars, equipment buildings, fixed base operator buildings, other airport buildings needed in connection with the operation and maintenance of the airport, automobile parking, access roads, and walkways.[20]

Land acquired for Clear Zones and subsequent Runway Protection Zones (RPZ), must be cleared of structures; this land was acquired to ensure clear approaches and to protect persons and property on the ground. A special condition is generally added to AIP grants for acquisition of RPZ land. The condition states: "The Sponsor agrees to prevent the erection or creation of any structure or place of public assembly in the Runway Protection Zone, except for NAVAIDS that are fixed by their functional purposes or any other structure approved by the FAA."[21] This limits the use to activities such as grazing or farming. This concurrent use requires FAA agreement through the ALP approval process.

The only allowable non-aeronautical uses for Grant Land are either concurrent use or interim use. Concurrent use is when aeronautical land can be used for its primary aeronautical purpose, while also being used for a compatible non-aeronautical revenue producing purpose. An example is low growing crops or grazing in the Runway Protection Zone. While no formal release is required, the airport owner should seek FAA approval for concurrent use. The vehicle for FAA consent is an amendment to the ALP.[22] Interim use represents a temporary arrangement for the use of aeronautical development land for non-aeronautical purposes. The FAA may consent to the interim use of dedicated aeronautical property for non-aeronautical purposes (not more than five years) when insufficient aeronautical demand exists to develop the land for aviation purposes. The airport owner must have FAA approval on the decision to temporarily use aviation land for non-aeronautical purposes.[23] It is assumed that the aeronautical need may develop quickly, the interim use will need to end, and the land be returned to aeronautical use. When the land is needed for aeronautical development, the airport owner must be able to cancel or terminate the non-aeronautical lease in a short amount of time.

26 Reports and Inspections

The sponsor shall provide the FAA with annual or special financial and operations reports as requested and make the reports available to the public. The sponsor shall make all records involving an AIP project available to the FAA upon request. The FAA currently does not request annual financial reports from general aviation airports. The typical records request for AIP projects is covered by the final report prepared by the airport's consultant.

[19] FAA Order 5100.38C, Airport Improvement Program Handbook
[20] FAA Order 5100.38C, Airport Improvement Program Handbook
[21] FAA Order 5200.38C, Airport Improvement Program Handbook
[22] FAA Order 5190.6B, FAA Airport Compliance Manual
[23] FAA Order 5190.6B, FAA Airport Compliance Manual

27 Use by Government Aircraft

The sponsor agrees to make the airport available for aircraft operated by the United States without charge unless the use by Government aircraft is substantial. Substantial use is defined on a monthly basis as five or more based aircraft, or operations equaling 300 total or five million pounds of landing and takeoff weight.

28 Land for Federal Facilities

The sponsor shall provide at no cost: land for air traffic control, air navigation facilities, or weather-reporting or communication facilities. MLAA will receive a request from the FAA or the National Weather Service if these agencies are looking at installing these facilities at Meadow Lake.

29 Airport Layout Plan

The sponsor assures the FAA that it will keep their Airport Layout Plan current. The plan must show all past development and the sponsor's plan for future development. The FAA approves ALPs and the sponsor assures the FAA that it will not construct facilities or allow tenants to construct facilities in conflict with the approved ALP. The sponsor also agrees to remove facilities that it or its tenants construct in conflict with the approved ALP. Airspace cases are the means for making changes to ALPs or requesting concurrence for development projects. The sponsor agrees to file a Notice of Proposed Construction or Alteration, FAA Form 7460-1 before allowing construction at the airport.

30 Civil Rights

The sponsor assures the FAA that no person shall on the grounds of race, creed, color, national origin, sex, age, or handicap be excluded from participating in any activity conducted with AIP grant funds. The sponsor agrees to include appropriate language in all contracts funded with AIP funds. The FAA provides current contract language for use by sponsors.

31 Disposal of Land

When land acquired with AIP grant funds is no longer needed for the intended purpose, the sponsor agrees to dispose of the land and repay the United States its proportionate share of the current fair market value of the land. This can be done through sale proceeds or repaying the United States proportionate share of the current fair market value if the land is retained. The FAA may also approve reinvestment of the United States share in needed AIP eligible work at the airport in lieu of cash payment.

32 Engineering and Design Services

The sponsor will award each contract, or sub-contract utilizing AIP funds for program management, construction management, planning studies, feasibility studies, architectural services, preliminary design, design, engineering, surveying, mapping, or related services on a qualifications-based selection. The final AIP project report documents this action.

33 Foreign Market Restrictions

The sponsor will not allow funds provided under AIP grants to be used to finance any product or service of a foreign country listed by the United States Trade

Representative as denying fair and equitable market opportunities for products and supplies of the United States. The submittal process required in construction contracts verifies compliance with this requirement.

34 Policies, Standards, and Specifications

The sponsor agrees to carry out AIP funded projects in accordance with FAA approved policies, standards, and specifications. Submittals by the sponsor to the FAA during the design and closeout processes ensure that FAA standards are met.

35 Relocation and Real Property Acquisition

The sponsor agrees to conduct all real property acquisitions and relocations of persons and businesses in accordance with 49 CFR Part 24, Uniform Relocation Assistance and Real Properties Acquisition for Federal and Federally Assisted Programs. During the AIP project closeout process, the airport sponsor signs additional assurances that the acquisition and relocations were accomplished in accordance with 49 CFR Part 24.

36 Access by Intercity Buses

The sponsor agrees to permit access to the airport by intercity buses or other modes of transportation; however, the sponsor has no obligation to fund special facilities to support these activities.

37 Disadvantaged Business Enterprises (DBE)

The sponsor agrees to not discriminate on the basis of race, color, national origin, or sex in the award and performance of any AIP funded contract. The sponsor submits a DBE plan to the FAA for approval prior to any contract awards. After project completion, the sponsor submits actual compliance numbers to the FAA Civil Rights Office. Any shortcomings in the actual project performance can generate higher performance goals for future projects.

38 Hangar Construction

The sponsor agrees to provide hangar developers with a long term lease opportunity that is subject to such terms and conditions on the hangar as the sponsor may impose. There are no privately owned hangars on MLAA airport property.

39 Competitive Access

Owners of medium or large hub airports unable to accommodate a request(s) by an air carrier for access to gates or other facilities accept a reporting requirement to the Secretary of Transportation. This assurance is not applicable at Meadow Lake.

6.0 GRANT ASSURANCE COMPLIANCE REVIEW

Eighteen grant assurances relate to the continued operation of an airport. CDOT Aeronautics provided a grant to MLAA primarily to improve compliance with these 18 assurances. A thorough review of MLAA's compliance with these assurances was conducted using field review, FAA files review, MLAA document review, and interviews with CDOT and FAA staff. A Compliance Review Checklist included as Appendix 3 to this document summarizes information discovered in the compliance review. Compliance with these assurances ranges from clearly in compliance to needing improvement.

4 Preserving Rights and Powers

The Exhibit A from AIP Project 18 shows that MLAA has satisfactory title to landing areas and other areas needed to protect the airport, such as Runway Protection Zones. *We believe MLAA is in compliance with this grant assurance.*

5 Preserving Rights and Powers

Article VII of the Amended and Restated Articles of Incorporation of Meadow Lake Airport Association, dated October 30, 2007 prohibits the termination or dissolving of the corporation without the prior approval of the FAA. The airport has no leases or agreements for airport land, so there are no known agreements in place which would interfere with the MLAA's ability to meet FAA Grant Assurances. We have reviewed the MLAA Articles of Incorporation and Bylaws and it appears that MLAA retains the rights and powers necessary to meet its grant assurances. *We believe MLAA is in compliance with this grant assurance.*

The FAA has adopted an interim policy amending and clarifying the FAA policy concerning through-the-fence access to a federally-obligated airport from an adjacent or nearby property, when the property is used as a residence, and permits continuation of existing access subject to certain standards. The action modified Grant Assurance No. 5 by adding subparagraph g: "*It will not permit or enter into any arrangement that results in permission for the owner or tenant of a property used as a residence, or zoned for residential use, to taxi an aircraft between that property and any location on airport.*" Airports with Residential Through-the-Fence (RTTF) activity have been requested by the FAA to certify that they have RTTF as defined in the FAA's Interim Policy. MLAA is prepared to certify that they have RTTF and will submit an RTTF access plan in accordance with the Interim Policy prior to requesting its first AIP grant after Fiscal Year 2012. *We believe MLAA is currently in compliance with this grant assurance; however, future compliance is dependent upon developing and implementing a satisfactory RTTF access plan.*

11 Pavement Preventive Maintenance

The pavements at Meadow Lake that have been constructed with AIP funds are the runway and the parallel taxiway, including connectors. These pavements were constructed in 1990, with the exception of connector taxiways A2 and A5 which were constructed in 1995. CDOT's Pavement Condition Survey information shows that all pavements are in good condition or better.[24] MLAA has received two recent CDOT Aeronautics grants for pavement maintenance, a $130,621 grant in 2006 and a $44,000 grant in 2009.[25] Both grants were 80/20 state/local participation for a total pavement maintenance expenditure of $218,276. MLAA also used their AIP sponsor entitlements in 2002 to rehabilitate Runway 15/33.[26] The 21 year life of the runway and taxiway pavements exceeds the FAA 20 year design goal.[27] *We believe that pavement preventive maintenance has been sufficient and MLAA is in compliance with this grant assurance.*

13 Accounting System, Audit, & Record Keeping

As a privately held corporation, the MLAA does not have routine audits like public agencies. The FAA can request an audit, but has not done so. MLAA has kept all grant records; they are available for audit if necessary. The MLAA Board of Directors is considering a project audit at the conclusion of their land acquisition program which has received AIP funds since 2003. *We believe MLAA is in compliance with this grant assurance.*

19 Operation and Maintenance

The Operation and Maintenance assurance includes physical issues like maintaining pavements, markings, lights, safety areas, etc. and procedural issues, e.g. proper plowing of snow, limiting vehicular access, issuance of NOTAMs, airfield inspections, etc. A physical safety inspection was performed on June 10, 2011. The AIRPORT SAFETY INSPECTION CHECKLIST is contained in Appendix 3. Some minor problems like

[24] CDOT Aeronautics Website
[25] CDOT Aeronautics provided
[26] FAA SOAR reports
[27] FAA AC 150/5320-6, Airport Pavement Design and Evaluation

erosion from recent rains were noted. The items should receive quick attention, but they are not an indicator of non-compliance with the maintenance assurance. The MLAA Board of Directors appears to be satisfactorily educated on FAA standards and maintenance expectations, except for safety area standards and the inspection cycle for PAPIs. Information on these two areas has been provided to the Board President. *We believe MLAA is in compliance with the maintenance portion of this grant assurance.*

Operational issues have also been reviewed. The airport is available at all times, as required by the assurance. The airport has five pieces of snow removal equipment, which is sufficient to meet snow removal needs. There are no known reported problems with the airport being available to users in a reasonable amount of time after a snow event. The Board President holds an FAA Airline Transport Certificate and is knowledgeable about NOTAM procedures. Airfield inspections are performed daily by an association volunteer. The inspections appear to be effective based upon the good condition of pavements, lights, signs, wind cones, PAPIs, and lack of FOD, etc.

Access to airport operational areas is an area of concern. The association has made improvements to decrease the risk of inadvertent entry by persons and vehicles, but additional improvements should be a priority for MLAA. Much of the airport perimeter is fenced with four strand barbed wire. In recent years, existing fences were repaired and additional fencing was installed to reduce the attraction for bikes, motorcycles, and off-road vehicles. Gates were also installed to secure the perimeter yet allowing emergency and construction access. There are a small number of gliders based aircraft at Meadow Lake. There are no on-airport aprons for transient aircraft. Nearly all aviation activity operates "Through-the-Fence." Providing sufficient access control to prevent inadvertent access to the airport operational areas from the through-the-fence areas should be a MLAA priority. Inadvertent access occurrences could result in future non-compliance with grant assurances. An Access Plan involving both physical and educational measures should be developed to reduce the potential for inadvertent entry onto airport operational areas. *We believe MLAA is in compliance with the operational portion of this grant assurance; however, an access plan to minimize inadvertent access potential is highly recommended.*

20 Hazard Removal and Mitigation

Two hangars in the through-the-fence area are obstructions to FAR Part 77 imaginary surfaces. These obstructions were noted on the last update of the ALP. No marking or lighting was recommended. There are no on-airport obstructions to Part 77 surfaces.[28] *We believe MLAA is in compliance with this grant assurance.*

21 Compatible Land Use

Meadow Lake, as a privately owned airport, has no zoning powers. Zoning around the airport is controlled by El Paso County. In the past, MLAA has requested FAA assistance to encourage El Paso County to adopt airport zoning. CDOT Aeronautics, in a letter dated September 2, 2002, requested that El Paso County adopt zoning to protect the Meadow Lake Airport.[29] The FAA, in a letter dated September 17, 2002, also encouraged the County to adopt zoning to protect the airport.[30] It is recommended that MLAA, CDOT

[28] Denver ADO files
[29] Denver ADO files
[30] Denver ADO files

Aeronautics, and the FAA routinely encourage the El Paso County Board of Commissioners to enact zoning. *We believe MLAA is in compliance with this grant assurance.*

22 Economic Nondiscrimination

The airport has no leases for airport property so there is no current economic discrimination issue. There is an old rule in the RULES and REGULATIONS of the MEADOW LAKE AIRPORT ASSOCIATION which could be discriminatory if improperly implemented. Rule 90-4 subparagraph 2.a. reads, "Use of the Glider Strip by any aircraft or ultralight must have the prior permission of the designated High Flights line chief during periods of operations by the High Flights Soaring Club." The rule is intended to promote safe operations by allowing sufficient time to remove gliders from the Glider Strip prior to operations by ultralight, STOL, and tailwheel aircraft; however the rule could be seen as allowing preferential treatment to the High Flight Soaring Club. The High Flights line chief has authority to deny access while High Flights is operating. Even though no preferential treatment has been noted, we recommend that subparagraph 2.a. of the rule be repealed or rewritten to remove any appearance of unjust discrimination.

There are several through-the-fence aeronautical businesses operated by association members that utilize the airport runways and taxiways. Examples are pilot training and aircraft maintenance. A situation that the airport should be prepared for is a request by a nonmember owned business to conduct similar activities to member through-the-fence operators. We recommend that the airport develop standards that are not discriminatory between these classes of users, i.e. member vs. nonmember. *We believe MLAA is in compliance with this grant assurance; however, subparagraph 2.a. of MLAA Rule 90-4 should be repealed or rewritten, and minimum standards for member and nonmember use of the airport for aeronautical activities should be developed.*

23 Exclusive Rights

The airport currently has no written agreements with on-airport tenants so they have not entered into any agreements which provide an operator with an exclusive right. High Flights Soaring Club currently pays a monthly fee to the airport, but doesn't have a signed agreement. There are numerous off-airport aeronautical businesses operating through-the-fence. MLAA does not have agreements with these entities and has not given an exclusive right to a provider of aeronautical services to the public. A files review at the Denver ADO also indicates that there are no known complaints concerning exclusive rights. *We believe MLAA is in*

compliance with this grant assurance.

24 Fee and Rental Structure

A review of the revenue and expenses of MLAA was conducted. The fees assessed to members have been sufficient to pay operating expenses and generate a small surplus adequate to support sponsor match for FAA and CDOT Aeronautics grants. The 2010 airport income was $95,079 and expenses were $66,343. However, additional revenue will be needed in the future to support major projects like runway and parallel taxiway rehabilitation. *We believe MLAA is currently in compliance with this grant assurance.*

25 Airport Revenues

A review of the calendar year 2010 airport financial records shows that airport expenditures can be tracked; however it is difficult to determine what MLAA income is "airport revenue." Revenue from Fuel Assessments, users such as High Flight, and CDOT Fuel Tax Refunds should be classified as "airport revenue." The annual "Assessment" to MLAA members needs to have a clear distinction between "airport revenue" and "other MLAA income." The portion of the Assessment that is "airport revenue" would be restricted to expenditures for capital or operating costs of the airport. The portion of the Assessment that is "other MLAA income" could be spent for airport costs or MLAA activities outside the airport. It is recommended that MLAA By laws be amended to establish a clear definition of "airport revenue" and "other MLAA income."Separate tracking of the expenditures for "airport revenues" and "other MLAA income" should also be established.

The MLAA Rules and Regulations were reviewed to see if procedures existed that would be contrary to grant assurances. Airport Rule 02-03, Taxiway and Roadway Improvement Plan, contains priorities for expenditures if adequate funding exists. The lowest priorities include some pavements outside the airport boundary. As a proactive step to ensure future compliance, MLAA should update this rule to indicate that the funding of projects outside the airport boundary cannot come from "airport revenues." " *We believe MLAA is in compliance with this grant assurance; however By law changes are recommended for improved tracking of airport revenues and expenses.*

27 Use by Government Aircraft

Over the years, MLAA has been used by the U.S. Air Force Academy for training flights. There have been no based U.S. Government aircraft at Meadow Lake. The training aircraft are light and should not damage airport pavements. MLAA has not assessed a fee to the U.S. Government for use of Meadow Lake. *We believe MLAA is in compliance with this grant assurance.*

28 Land for Federal Facilities

There are no known requests by the Federal Government to use land at the Meadow Lake Airport for air traffic control, air navigation activities, or weather-reporting and communication activities related to aeronautical activity. *We believe that MLAA is in compliance with this grant assurance.*

29 Airport Layout Plan (ALP)

The most recent ALP was approved by the FAA on May 30, 2008.[31] The FAA desires to have ALPs updated on a five year frequency at busy general aviation airports. Most aeronautical activity at Meadow Lake occurs from through-the-fence activity. Even transient aircraft taxi to off-airport facilities to fuel and tiedown. There has been no on-airport construction since the ALP was approved. There are no new through-the-fence access points since the ALP was approved. MLAA is attempting to open a turf landing area primarily for glider activity. They have filed a 7480-1 with the FAA. The ALP needs to be updated to show the turf landing area. This action is pending the completion of an environmental assessment. MLAA also desires to develop an on-airport transient aircraft apron. This activity would also require an update to the ALP. *We believe that MLAA is in compliance with this grant assurance; however, some proposed plans require changes to the approved ALP.*

31 Disposal of Land

The Exhibit A for the first AIP grant issued to the MLAA was compared to the most recent Exhibit A for AIP Project 18 and there has been no disposal of land. There are also no known requests for disposal by MLAA and all airport land at Meadow Lake is still needed for the intended purposes. *We believe that MLAA is in compliance with this grant assurance.*

36 Access by Intercity Buses

Airports receiving AIP funds are required to provide access to the airport for intercity buses or other modes of transportation. The City of Colorado Springs serves as the transit provider for the Colorado Springs area. The Pikes Peak Area Council of Governments adopted their Regional Transportation Plan, titled "Moving Forward Plan" in the spring of 2008. The plan does not show any current or planned bus service to the Meadow Lake Airport area.[32] *We believe that MLAA is in compliance with this grant assurance.*

38 Hangar Construction

The MLAA currently has no land leases for hangars on the airport. There is also no evidence that MLAA has denied a long term lease to a prospective hangar developer; however verbal and email requests for ground leases have been made and MLAA will soon need to initiate lease negotiations. *We believe that MLAA is in compliance with this grant assurance. As a proactive step to ensure future compliance with this assurance it is recommended that MLAA develop minimum standards and lease terms for on-airport hangar construction.*

39 Competitive Access

This grant assurance only applies to large and medium hub airports and is not applicable to Meadow Lake.

[31] Denver ADO records
[32] Pikes Peak Area Council of Governments website

7.0 Summary of Compliance Review

We believe MLAA is in full compliance with AIP Grant Assurances that relate to grant management; however, our review of the 18 grant assurances that relate to the continued operation of the airport indicates that improvement is needed in one area, Assurance No. 25, Airport Revenues. The following Table 1.0 summarizes our findings:

Table 7-1 - SUMMARY OF COMPLIANCE FINDINGS

Assurance No.	Assurance Title	Finding
4	Good Title	Compliant
5	Preserving Rights and Powers	Compliant; however, future compliance dependent upon developing and implementing satisfactory RTTF Access Plan
11	Pavement Preventative Maintenance	Compliant
13	Accounting System Audit, and Record Keeping	Compliant
19	Operations and Maintenance	Maintenance – Compliant Operations – Compliant; however, access plan to reduce risk of inadvertent access is recommended
20	Hazard Removal and Mitigation	Compliant
21	Compatible Land Use	Compliant
22	Economic Nondiscrimination	Compliant; however, Airport Rule 90-4 subparagraph 2.a. should be repealed or rewritten
23	Exclusive Rights	Compliant
24	Fee and Rental Structure	Compliant; however, development of minimum standards for member and nonmember use of the airport for aeronautical activities is recommended
25	Airport Revenues	Compliant; however, Airport Rule 02-03 needs to be updating removing reference to off airport expenditures, and a Bylaw change is recommended to improve definition of airport revenue
27	Use by Government Aircraft	Compliant
28	Land for Federal Facilities	Compliant
29	Airport Layout Plan	Compliant
31	Disposal of Land	Compliant
36	Access by City Buses	Compliant
38	Hangar Construction	Compliant; however, minimum standards and draft lease terms are recommended
39	Competitive Access	Not Applicable at Meadow Lake

8.0 IMPLEMENTATION PLANS

The Compliance Review found five areas that should receive attention. Three areas involve current situations where safety can be improved or possible perceptions of noncompliance can be eliminated. Two areas involved future situations the MLAA is facing.

8.1 Current needs

Current needs are those areas where safety improvements should be pursued immediately or existing MLAA guidance to members if misapplied or misinterpreted could place the MLAA in non compliance with FAA Grant Assurances.

8.1.1 Inadvertent Vehicle Access Prevention

The Compliance Review determined that inadvertent vehicle access to airport runways and taxiways is a concern. The Through-the-Fence nature of the Meadow Lake Airport creates more vehicle traffic than typically seen at airports. Individual property owners in the Through-the-Fence hangar and apron areas have rights to access their private property causing an increased number of vehicles within a few hundred feet of airport runways. The larger number of vehicles increases the potential for an unintended excursion by a vehicle onto an airport parallel taxiway or runway. An Inadvertent Vehicle Access Prevention Plan has been developed and is Appendix 4 of this report.

8.1.2 Economic Nondiscrimination

MLAA Rule 90-4 subparagraph 2.a. could be construed as preferential to the High Flights Soaring Club. The intent of the rule is to allow High Flights glider activity sufficient time to exit the Glider Strip prior to powered activity occurring; however the rule gives authority to the High Flights line chief to deny access to other users during periods of operations by the High Flights Soaring Club. It is recommended that the rule be rewritten or repealed to eliminate possible claims of unjust discrimination.

8.1.3 Separation of Funds

The Compliance Review determined that airport revenue is not well defined. Most MLAA revenue comes from the annual "Assessment" to members. There is no indication of what portion of the "Assessment" is airport revenue. The October, 2007 Amended and Restated Articles of Incorporation of Meadow Lake Airport Association state the purpose or purposes for which the corporation is formed. They are:

- To provide an organization to administer the public use federally-obligated airport facilities of the Meadow Lake Airport in Peyton, Colorado; to maintain, construct and provide airfield operating areas, runways, taxiways, roads and lighting facilities.

- To provide, construct and approve water and sewer systems; to provide for the insuring of all airport facilities; to provide for the payment of all taxes and other assessments on runways, taxiways, roads and other improvements or on any and all real property on the airport facility; to provide for the establishment of traffic patterns, taxi route and airfield safety in general.

- To approve any and all activities conducted at the public-use federally obligated airport; to appoint an airport manager, and any other employees required to conduct and administer the airport activities; to establish rules and regulations for the use of the Meadow Lake Airport and to enforce any and all such rules and any Federal Aviation Administration rules and regulations that are in existence or to be promulgated in the future.

The MLAA has necessary expenses that occur off the airport property. The improvements necessary to reduce the risk of inadvertent vehicular access to runways and taxiways will involve off airport expenditures. MLAA Bylaws need to be amended to create a clear separation of airport revenue and other MLAA income. The MLAA accounting system should then track airport revenue and expenses as a separate account.

8.2 Future Needs

Future needs are areas where upcoming first time actions by the MLAA could affect MLAA's compliance status. Meadow Lake Airport has Residential Through-the-Fence (RTTF) activity. RTTF is a recent high visibility subject for the FAA and is receiving great attention across the country. The airport also continues to grow and is attempting to accommodate increased commercial glider activity and develop on-airport aeronautical services and ground leases for the first time.

8.2.1 Residential Through-the-Fence Access Plan

The FAA published an Interim Policy Regarding Access to Airports from Residential Property in the Federal Register on March 18, 2011. MLAA has certified to the FAA that the airport has RTTF Access[33]. The Interim Policy established standards for compliance. The FAA will require evidence of compliance before issuing an AIP grant, beginning in Fiscal Year 2013[34]. The Interim Policy requires that the evidence be submitted in the form of a "RTTF Access Plan.[35]" It is recommended that MLAA submit its RTTF Access Plan well in advance of the start of Fiscal Year 2013 so that FAA review doesn't affect Fiscal Year 2013 entitlement funding. Jviation has provided the MLAA with a draft RTTF Access Plan.

8.2.2 Minimum Standards and Draft Leases

The airport has continued to grow while many general aviation airports have seen a decrease in based aircraft and operations. The airport is developing a turf runway to meet the demand for glider activity in the Colorado Springs area. Four commercial operators currently use the airport and four more have contacted the MLAA Board about operating at Meadow Lake. These operators would require ground leases or operating agreements. The airport currently does not have Minimum Standards for Commercial Activity or draft leases. The unique nature of having both on-airport and off-airport

[33] MLAA Sponsor Certification dated 4-27-2011
[34] Airport Improvement Program Interim Policy Regarding Access to Airports From Residential Property dated March 14, 2011
[35] Airport Improvement Program Interim Policy Regarding Access to Airports From Residential Property dated March 14, 2011

commercial activity will make the need for Minimum Standards and standard lease terms even more important if the MLAA is going to continue to be compliant with the "Economic Nondiscrimination" and "Fee and Rental Structure" grant assurances. There are airports in Colorado with excellent Minimum Standards, Rules, and Lease Agreements. We have provided the MLAA Board with contact information of airports that are willing to provide draft materials and good insight into developing agreements.

Appendix 1

Version 7/03

APPLICATION FOR FEDERAL ASSISTANCE

TYPE OF SUBMISSION: Application / Construction / ☒ Non-Construction	Preapplication ☐ Construction ☐ Non-Construction	2. DATE SUBMITTED: January 20, 2009	Applicant Identifier:
		3. DATE RECEIVED BY STATE	State Application Identifier
		4. DATE RECEIVED BY FEDERAL AGENCY	Federal Identifier: 3-08-0063-17

5. APPLICANT INFORMATION

Legal Name: Meadow Lake Airport Association

Organizational DUNS:

Address:
Street: 13625 Judge Orr Road
City: Peyton
County: El Paso
State: Colorado
Zip Code: 80831-6051
Country: United States

Organizational Unit: Privately owned reliever airport
Department:
Division:

Name and telephone number of person to be contacted on matters involving this application (give area code)
Prefix: Mr. First Name: Jim
Middle Name:
Last Name: Sirhall
Suffix:
Email: jsirhall@adgairports.com
Phone number (give area code): 303-782-0882
FAX number (give area code): 303-782-0842

6. EMPLOYER IDENTIFICATION NUMBER (EIN): 0 0 - 0 0 0 0 0 0 0 0

8. TYPE OF APPLICATION:
☒ New ☐ Continuation ☐ Revision
If Revision, enter appropriate letter(s) in box(es): (See back of form for description of letters)
Other (specify)

7. TYPE OF APPLICANT: (See back of form for Application Types)
N
Other (specify): Privately owned reliever airport corporation

9. NAME OF FEDERAL AGENCY
Federal Aviation Administration

10. CATALOG OF FEDERAL DOMESTIC ASSISTANCE NUMBER: 2 0 - 1 0 6
TITLE:

11. DESCRIPTIVE TITLE OF APPLICANT'S PROJECT:
Install AWOS and land acquisition
(See Part IV, Program Narrative)

12. AREAS AFFECTED BY PROJECT (cities, counties, states, etc.):
Town of Falcon, County of El Paso and surrounding areas

13. PROPOSED PROJECT
Start Date: 2/2009
Ending Date: 12/2009

14. CONGRESSIONAL DISTRICTS OF
a. Applicant: Five
b. Project: Five

15. ESTIMATED FUNDING

a. Federal	$	150,000.00
b. Applicant	$	3,948.00
c. State	$	3,947.00
d. Local	$	.00
e. Other	$	.00
f. Program income	$	.00
g. TOTAL	$	157,895.00

16. IS APPLICATION SUBJECT TO REVIEW BY STATE EXECUTIVE ORDER 12372 PROCESS
a. Yes. ☐ THIS PREAPPLICATION/APPLICATION WAS MADE AVAILABLE TO THE STATE EXECUTIVE ORDER 12372 PROCESS FOR REVIEW ON
DATE:
b. No. ☒ PROGRAM IS NOT COVERED BY E. O. 12372
☐ OR PROGRAM HAS NOT BEEN SELECTED BY STATE FOR REVIEW

17. IS THE APPLICANT DELINQUENT ON ANY FEDERAL DEBT?
☐ Yes If "Yes" attach an explanation ☒ No

18. TO THE BEST OF MY KNOWLEDGE AND BELIEF, ALL DATA IN THIS APPLICATION/PREAPPLICATION ARE TRUE AND CORRECT, THE DOCUMENT HAS BEEN DULY AUTHORIZED BY THE GOVERNING BODY OF THE APPLICANT AND THE APPLICANT WILL COMPLY WITH THE ATTACHED ASSURANCES IF THE ASSISTANCE IS AWARDED.

a. Authorized Representative
Prefix: Mr. First Name: David Middle Name:
Last Name: Elliott Suffix:
b. Title: President c. Telephone number (give area code): 719-339-0928
d. Signature of Authorized Representative: David Elliott e. Date Signed: January 22, 2009

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Alt. 17 $ 48,693
Alt. 18 $ 101,307
150,000 — ok

Appendix 1

U.S. DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION OMB NO. 80-R0184

PART II

PROJECT APPROVAL INFORMATION
SECTION A

Item 1
Does this assistance request require State, local, regional, or other priority rating?
☐Yes ☒No
Name of Governing Body _____
Priority _____

Item 2.
Does this assistance request require State, local advisory, educational or health clearances?
☐Yes ☒No
Name of Agency or Board _____
(Attach Documentation)

Item 3
Does this assistance request require clearinghouse review in accordance with OMB Circular A-95?
☐Yes ☒No
(Attach Comments)

Item 4
Does this assistance request require State, local, regional or other planning approval?
☐Yes ☒No
Name of Approving Agency _____
Date _____

Item 5.
Is the proposed project covered by an approved comprehensive plan?
☒Yes ☐No
Check One: State ☐ Local ☐ Regional ☐
Location of plan **Airport Layout Plan Report**

Item 6.
Will the assistance requested serve a Federal installation?
☐Yes ☒No
Name of Federal Installation _____
Federal Population benefiting from Project _____

Item 7
Will the assistance requested be on Federal land or installation?
☐Yes ☒No
Name of Federal Installation _____
Location of Federal Land _____
Percent of Project _____

Item 8
Will the assistance requested have an impact or effect on the environment?
☐Yes ☒No
See instructions for additional information to be provided.

Item 9.
Will the assistance requested cause the displacement of individuals, families, businesses, or farms?
☐Yes ☒No
Number of:
Individuals _____
Families _____
Businesses _____
Farms _____

Item 10.
Is there other related Federal assistance on this project previous, pending, or anticipated?
☐Yes ☒No
See instructions for additional information to be provided.

U.S. DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION

OMB NO 2120-0569

SECTION C - NON-FEDERAL RESOURCES

(a) GRANT PROGRAM	(b) APPLICANT	(c) STATE	(d) OTHER SOURCES	(e) TOTALS
8.	$	$	$	$
9.				
10.				
11.				
12. TOTALS	$	$	$	$

SECTION D - FORECASTED CASH NEEDS

	Total for 1st Year	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
13. Federal	$ 150,000	$	$	$	$
14. Non-Federal	7,895				
15. TOTAL	$ 157,895	$	$	$	$

SECTION E - BUDGET ESTIMATES OF FEDERAL FUNDS NEEDED FOR BALANCE OF THE PROJECT

(a) Grant Program	FUTURE FUNDING PERIODS (YEARS)			
	(b) FIRST	(c) SECOND	(d) THIRD	(e) FOURTH
16.	$	$	$	$
17.				
18.				
19.				
20. TOTALS	$	$	$	$

SECTION F - OTHER BUDGET INFORMATION

(ATTACH ADDITIONAL SHEETS IF NECESSARY)

21 Direct Charges:

22. Indirect Charges:

23. Remarks:
1. Part V Assurances (attached)
2. Title VI Assurances (attached)
3. AIP Project Required Statements (attached)
4. Certification for Contracts, Grants, Loans, and Cooperative Agreements (attached)
5. Certification Regarding Drug-Free Workplace Requirements (attached)
6. Exhibit "A" (attached)

PART IV -PROGRAM NARRATIVE *(ATTACH PER INSTRUCTION)*

FAA Form 5100-101 (6-73) SUPERSEDES FAA FORM 5910-1 AND 5920-1

PART IV
PROGRAM NARRATIVE
(Suggested Format)

DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION
OMB NO 2120-0569

PROJECT: 3-08-0063-17

AIRPORT: Meadow Lake Airport

1. Objective: Install AWOS III P/T, Land Reimbursement. Also, Credit as the complete local share Tract 1J

2. Benefits Anticipated: The new land will help protect the airport from incompatible land uses.

3. Approach: *(See approved Scope of Work in final Application)* The new land has been appraised and negotiated in accordance with FAA requirements. The previously purchased property will be used as match. The AWOS will be designed and bid and installed by qualified contractor. The AWOS will be certified and commissioned by the FAA

4. Geographic Location: The project will occur entirely on the Meadow Lake Airport, located near Falcon, Colorado in El Paso County, Colorado.

5. Justification for Force Account Work: *(if applicable)* No force account work anticipated in this project.

6: Sponsor's Representative: *(incl. address & tel. no.)*
Mr. Dave Elliott
13625 Judge Orr Road
Peyton, Colorado 80831
719-339-0928

INSTRUCTIONS

PART IV
PROGRAM NARRATIVE

Prepare the program narrative statement in accordance with the following instructions for all new grant programs. Requests for continuation or refunding and changes on an approved project should respond to item 5b only. Requests for supplemental assistance should respond to question 5c only.

1. OBJECTIVES AND NEED FOR THIS ASSISTANCE.

Pinpoint any relevant physical, economic, social; financial, institutional, or other problems requiring a solution.

Demonstrate the need for assistance and state the principal and subordinate objectives of the project. Supporting documentation or other testimonies from concerned interests other than the applicant may be used. Any relevant data based on planning studies should be included or footnoted.

2. RESULTS OF BENEFITS EXPECTED.

Identify results and benefits to be derived. For example, when applying for a grant to establish a neighborhood health center provide a description of who will occupy the facility, how the facility will be used, and how the facility will benefit the general public.

3. APPROACH.

a. Outline a plan of action pertaining to the scope and detail of how the proposed work will be accomplished for each grant program, function or activity, provided in the budget. Cite factors which might accelerate or decelerate the work and your reason for taking this approach as opposed to others. Describe any unusual features of the project such as design or technological innovations, reductions in cost or time, or extraordinary social and community involvement.

b. Provide for each grant program, function or activity, quantitative monthly or quarterly projections of the accomplishments to be achieved in such terms as the number of jobs created; the number of people served; and the number of patients treated. When accomplishments cannot be quantified by activity or function, list them in chronological order to show the schedule of accomplishments and their target dates.

c. Identify the kinds of data to be collected and maintained and discuss the criteria to be used to evaluate the results and successes of the project. Explain the methodology that will be used to determine if the needs identified and discussed are being met and if the results and benefits identified in item 2 are being achieved.

d. List each organization, cooperator, consultant, or other key individual who will work on the project along with a short description of the nature of their effort or contribution.

4. GEOGRAPHIC LOCATION.

Give a precise location of the project or area to be served by the proposed project. Maps or other graphic aids may be attached.

5. IF APPICABLE, PROVIDE THE FOLLOWING INFORMATION:

a. For research or demonstration assistance requests, present a biographical sketch of the program director with the following information; name, address, phone number, background, and other qualifying experience for the project. Also, list the name, training and background for other key personnel engaged in the project.

b. Explain the reason for all request for supplemental assistance and justify the need for additional funding.

c. Discuss accomplishments to date and list in chronological order a schedule of accomplishments, progress or milestones anticipated with a new funding request. If there have been significant changes in the project objectives, location approach, or time delays, explain and justify. For other requests for changes or amendments, explain the reason for the change(s). If the scope of objectives have changed or an extension of time is necessary, explain the circumstances and justify. If the total budget has been exceeded, or if individual budget items have changed more than the prescribed limits contained in Attachment K to Office of Management and Budget Circular No. A-102, explain and justify the change and its effect on the project.

ASSURANCES
Airport Sponsors

A. General.

1. These assurances shall be complied with in the performance of grant agreements for airport development, airport planning, and noise compatibility program grants for airport sponsors.
2. These assurances are required to be submitted as part of the project application by sponsors requesting funds under the provisions of Title 49, U.S.C., subtitle VII, as amended. As used herein, the term "public agency sponsor" means a public agency with control of a public-use airport; the term "private sponsor" means a private owner of a public-use airport; and the term "sponsor" includes both public agency sponsors and private sponsors.
3. Upon acceptance of the grant offer by the sponsor, these assurances are incorporated in and become part of the grant agreement.

B. Duration and Applicability.

1. **Airport development or Noise Compatibility Program Projects Undertaken by a Public Agency Sponsor.** The terms, conditions and assurances of the grant agreement shall remain in full force and effect throughout the useful life of the facilities developed or equipment acquired for an airport development or noise compatibility program project, or throughout the useful life of the project items installed within a facility under a noise compatibility program project, but in any event not to exceed twenty (20) years from the date of acceptance of a grant offer of Federal funds for the project. However, there shall be no limit on the duration of the assurances regarding Exclusive Rights and Airport Revenue so long as the airport is used as an airport. There shall be no limit on the duration of the terms, conditions, and assurances with respect to real property acquired with federal funds. Furthermore, the duration of the Civil Rights assurance shall be specified in the assurances.

2. **Airport Development or Noise Compatibility Projects Undertaken by a Private Sponsor.** The preceding paragraph 1 also applies to a private sponsor except that the useful life of project items installed within a facility or the useful life of the facilities developed or equipment acquired under an airport development or noise compatibility program project shall be no less than ten (10) years from the date of acceptance of Federal aid for the project.

3. **Airport Planning Undertaken by a Sponsor.** Unless otherwise specified in the grant agreement, only Assurances 1, 2, 3, 5, 6, 13, 18, 30, 32, 33, and 34 in section C apply to planning projects. The terms, conditions, and assurances of the grant agreement sball remain in full force and effect during the life of the project.

C. **Sponsor Certification.** The sponsor hereby assures and certifies, with respect to this grant that:

1. **General Federal Requirements.** It will comply with all applicable Federal laws, regulations, executive orders, policies, guidelines, and requirements as they relate to the application, acceptance and use of Federal funds for this project including but not limited to the following:

Federal Legislation

a. Title 49, U.S.C., subtitle VII, as amended.
b. Davis-Bacon Act - 40 U.S.C. 276(a), et seq.[1]
c. Federal Fair Labor Standards Act - 29 U.S.C. 201, et seq.
d. Hatch Act – 5 U.S.C. 1501, et seq.[2]

Appendix 1

e. Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 Title 42 U.S.C. 4601, et seq.[1,2]
f. National Historic Preservation Act of 1966 - Section 106 - 16 U.S.C. 470(f).[1]
g. Archeological and Historic Preservation Act of 1974 - 16 U.S.C. 469 through 469c.[1]
h. Native Americans Grave Repatriation Act - 25 U.S.C. Section 3001, et seq.
i. Clean Air Act, P.L. 90-148, as amended.
j. Coastal Zone Management Act, P.L. 93-205, as amended.
k. Flood Disaster Protection Act of 1973 - Section 102(a) - 42 U.S.C. 4012a.[1]
l. Title 49 ,U.S.C., Section 303, (formerly known as Section 4(f))
m. Rehabilitation Act of 1973 - 29 U.S.C. 794.
n. Civil Rights Act of 1964 - Title VI - 42 U.S.C. 2000d through d-4.
o. Age Discrimination Act of 1975 - 42 U.S.C. 6101, et seq.
p. American Indian Religious Freedom Act, P.L. 95-341, as amended.
q. Architectural Barriers Act of 1968 -42 U.S.C. 4151, et seq.[1]
r. Power plant and Industrial Fuel Use Act of 1978 - Section 403- 2 U.S.C. 8373.[1]
s. Contract Work Hours and Safety Standards Act - 40 U.S.C. 327, et seq.[1]
t. Copeland Anti kickback Act - 18 U.S.C. 874.1
u. National Environmental Policy Act of 1969 - 42 U.S.C. 4321, et seq.[1]
v. Wild and Scenic Rivers Act, P.L. 90-542, as amended.
w. Single Audit Act of 1984 - 31 U.S.C. 7501, et seq.[2]
x. Drug-Free Workplace Act of 1988 - 41 U.S.C. 702 through 706.

Executive Orders

Executive Order 11246 - Equal Employment Opportunity[1]
Executive Order 11990 - Protection of Wetlands
Executive Order 11998 – Flood Plain Management
Executive Order 12372 - Intergovernmental Review of Federal Programs.
Executive Order 12699 - Seismic Safety of Federal and Federally Assisted New Building Construction[1]
Executive Order 12898 - Environmental Justice

Federal Regulations

a. 14 CFR Part 13 - Investigative and Enforcement Procedures.
b. 14 CFR Part 16 - Rules of Practice For Federally Assisted Airport Enforcement Proceedings.
c. 14 CFR Part 150 - Airport noise compatibility planning.
d. 29 CFR Part 1 - Procedures for predetermination of wage rates.[1]
e. 29 CFR Part 3 - Contractors and subcontractors on public building or public work financed in whole or part by loans or grants from the United States.[1]
f. 29 CFR Part 5 - Labor standards provisions applicable to contracts covering federally financed and assisted construction (also labor standards provisions applicable to non-construction contracts subject to the Contract Work Hours and Safety Standards Act).[1]
g. 41 CFR Part 60 - Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor (Federal and federally assisted contracting requirements).[1]

Appendix 1

h. 49 CFR Part 18 - Uniform administrative requirements for grants and cooperative agreements to state and local governments.[3]

i. 49 CFR Part 20 - New restrictions on lobbying.

j. 49 CFR Part 21 - Nondiscrimination in federally-assisted programs of the Department of Transportation - effectuation of Title VI of the Civil Rights Act of 1964.

k. 49 CFR Part 23 - Participation by Disadvantage Business Enterprise in Airport Concessions.

l. 49 CFR Part 24 - Uniform relocation assistance and real property acquisition for Federal and federally assisted programs.[1 2]

m. 49 CFR Part 26 – Participation By Disadvantaged Business Enterprises in Department of Transportation Programs.

n. 49 CFR Part 27 - Nondiscrimination on the basis of handicap in programs and activities receiving or benefiting from Federal financial assistance.[1]

o. 49 CFR Part 29 – Government wide debarment and suspension (nonprocurement) and government wide requirements for drug-free workplace (grants).

p. 49 CFR Part 30 - Denial of public works contracts to suppliers of goods and services of countries that deny procurement market access to U.S. contractors.

q. 49 CFR Part 41 - Seismic safety of Federal and federally assisted or regulated new building construction.[1]

Office of Management and Budget Circulars

a. A-87 - Cost Principles Applicable to Grants and Contracts with State and Local Governments.

b A-133 - Audits of States, Local Governments, and Non-Profit Organizations

[1] These laws do not apply to airport planning sponsors.

[2] These laws do not apply to private sponsors.

[3] 49 CFR Part 18 and OMB Circular A-87 contain requirements for State and Local Governments receiving Federal assistance. Any requirement levied upon State and Local Governments by this regulation and circular shall also be applicable to private sponsors receiving Federal assistance under Title 49, United States Code.

Specific assurances required to be included in grant agreements by any of the above laws, regulations or circulars are incorporated by reference in the grant agreement.

2. Responsibility and Authority of the Sponsor.

a. **Public Agency Sponsor:** It has legal authority to apply for the grant, and to finance and carry out the proposed project; that a resolution, motion or similar action has been duly adopted or passed as an official act of the applicant's governing body authorizing the filing of the application, including all understandings and assurances contained therein, and directing and authorizing the person identified as the official representative of the applicant to act in connection with the application and to provide such additional information as may be required.

b. **Private Sponsor:** It has legal authority to apply for the grant and to finance and carry out the proposed project and comply with all terms, conditions, and assurances of this grant agreement. It shall designate an

official representative and shall in writing direct and authorize that person

to file this application, including all understandings and assurances contained therein; to act in connection with this application; and to provide such additional information as may be required.

3. **Sponsor Fund Availability.** It has sufficient funds available for that portion of the project costs which are not to be paid by the United States. It has sufficient funds available to assure operation and maintenance of items funded under the grant agreement which it will own or control.

4. **Good Title.**

   a. It, a public agency or the Federal government, holds good title, satisfactory to the Secretary, to the landing area of the airport or site thereof, or will give assurance satisfactory to the Secretary that good title will be acquired.

   b. For noise compatibility program projects to be carried out on the property of the sponsor, it holds good title satisfactory to the Secretary to that portion of the property upon which Federal funds will be expended or will give assurance to the Secretary that good title will be obtained.

5. **Preserving Rights and Powers.**

   a. It will not take or permit any action which would operate to deprive it of any of the rights and powers necessary to perform any or all of the terms, conditions, and assurances in the grant agreement without the written approval of the Secretary, and will act promptly to acquire, extinguish or modify any outstanding rights or claims of right of others which would interfere with such performance by the sponsor. This shall be done in a manner acceptable to the Secretary.

   b. It will not sell, lease, encumber, or otherwise transfer or dispose of any part of its title or other interests in the property shown on Exhibit A to this application or, for a noise compatibility program project, that portion of the property upon which Federal funds have been expended, for the duration of the terms, conditions, and assurances in the grant agreement without approval by the Secretary. If the transferee is fouud by the Secretary to be eligible uuder Title 49, United States Code, to assume the obligations of the grant agreement and to have the power, authority, and financial resources to carry ont all such obligations, the sponsor shall insert in the contract or document transferring or disposing of the sponsor's interest, and make binding upon the transferee all of the terms, conditions, and assurances contained in this grant agreement.

   c. For all noise compatibility program projects which are to be carried out by another unit of local government or are on property owned by a unit of local government other than the sponsor, it will enter into an agreement with that goverument. Except as otherwise specified by the Secretary, that agreement shall obligate that government to the same terms, conditions, and assurances that would be applicable to it if it applied directly to the FAA for a grant to undertake the noise compatibility program project. That agreement and changes thereto mnst be satisfactory to the Secretary. It will take steps to enforce this agreement against the local government if there is substantial non-compliance with the terms of the agreement.

   d. For noise compatibility program projects to be carried out on privately owned property, it will enter into an agreement with the owner of that

property which includes provisions specified by the Secretary. It will take steps to enforce this agreement against the property owner whenever there is substantial non-compliance with the terms of the agreement.

e. If the sponsor is a private sponsor, it will take steps satisfactory to the Secretary to ensure that the airport will continue to function as a public-use airport in accordance with these assurances for the duration of these assurances.

f. If an arrangement is made for management and operation of the airport by any agency or person other than the sponsor or an employee of the sponsor, the sponsor will reserve sufficient rights and authority to insure that the airport will be operated and maintained in accordance Title 49, United States Code, the regulations and the terms, conditions and assurances in the grant agreement and shall insure that such arrangement also requires compliance therewith.

6. **Consistency with Local Plans.** The project is reasonably consistent with plans (existing at the time of submission of this application) of public agencies that are authorized by the State in which the project is located to plan for the development of the area surrounding the airport.

7. **Consideration of Local Interest.** It has given fair consideration to the interest of communities in or near where the project may be located.

8. **Consultation with Users.** In making a decision to undertake any airport development project under Title 49, United States Code, it has undertaken reasonable consultations with affected parties using the airport at which project is proposed.

9. **Public Hearings.** In projects involving the location of an airport, an airport runway, or a major runway extension, it has afforded the opportunity for public hearings for the purpose of considering the economic, social, and environmental effects of the airport or runway location and its consistency with goals and objectives of such planning as has been carried out by the community and it shall, when requested by the Secretary, submit a copy of the transcript of such hearings to the Secretary. Further, for such projects, it has on its management board either voting representation from the communities where the project is located or has advised the communities that they have the right to petition the Secretary concerning a proposed project.

10. **Air and Water Quality Standards.** In projects involving airport location, a major runway extension, or runway location it will provide for the Governor of the state in which the project is located to certify in writing to the Secretary that the project will be located, designed, constructed, and operated so as to comply with applicable air and water quality standards. In any case where such standards have not been approved and where applicable air and water quality standards have been promulgated by the Administrator of the Environmental Protection Agency, certification shall be obtained from such Administrator. Notice of certification or refusal to certify shall be provided within sixty days after the project application has been received by the Secretary.

11. **Pavement Preventive Maintenance.** With respect to a project approved after January 1, 1995, for the replacement or reconstruction of pavement at the airport, it assures or certifies that it has implemented an effective airport pavement maintenance-management program and it assures that it will use such program for the useful life of any pavement constructed, reconstructed or repaired with Federal financial assistance at the airport. It will provide such

reports on pavement condition and pavement management programs as the Secretary determines may be useful.

12. **Terminal Development Prerequisites.** For projects which include terminal development at a public use airport, as defined in Title 49, it has, on the date of submittal of the project grant application, all the safety equipment required for certification of such airport under section 44706 of Title 49, United States Code, and all the security equipment required by rule or regulation, and has provided for access to the passenger enplaning and deplaning area of such airport to passengers enplaning and deplaning from aircraft other than air carrier aircraft.

13. **Accounting System, Audit, and Record Keeping Requirements.**

a. It shall keep all project accounts and records which fully disclose the amount and disposition by the recipient of the proceeds of the grant, the total cost of the project in connection with which the grant is given or used, and the amount or nature of that portion of the cost of the project supplied by other sources, and such other financial records pertinent to the project. The accounts and records shall be kept in accordance with an accounting system that will facilitate an effective audit in accordance with the Single Audit Act of 1984.

b. It shall make available to the Secretary and the Comptroller General of the United States, or any of their duly authorized representatives, for the purpose of audit and examination, any books, documents, papers, and records of the recipient that are pertinent to the grant. The Secretary may require that an appropriate audit be conducted by a recipient. In any case in which an independent audit is made of the accounts of a sponsor relating to the disposition of the proceeds of a grant or relating to the project in connection with which the grant was given or used, it shall file a certified copy of such audit with the Comptroller General of the United States not later than six (6) months following the close of the fiscal year for which the audit was made.

14. **Minimum Wage Rates.** It shall include, in all contracts in excess of $2,000 for work on any projects funded under the grant agreement which involve labor, provisions establishing minimum rates of wages, to be predetermined by the Secretary of Labor, in accordance with the Davis-Bacon Act, as amended (40 U.S.C. 276a-276a-5), which contractors shall pay to skilled and unskilled labor, and such minimum rates shall be stated in the invitation for bids and shall be included in proposals or bids for the work.

15. **Veteran's Preference.** It shall include in all contracts for work on any project funded under the grant agreement which involve labor, such provisions as are necessary to insure that, in the employment of labor (except in executive, administrative, and supervisory positions), preference shall be given to Veterans of the Vietnam era and disabled veterans as defined in Section 47112 of Title 49, United States Code. However, this preference shall apply only where the individuals are available and qualified to perform the work to which the employment relates.

16. **Conformity to Plans and Specifications.** It will execute the project subject to plans, specifications, and schedules approved by the Secretary. Such plans, specifications, and schedules shall be submitted to the Secretary prior to commencement of site preparation, construction, or other performance under this grant agreement, and, upon approval of the Secretary, shall be incorporated into this grant agreement. Any modification to the approved

plans, specifications, and schedules shall also be subject to approval of the Secretary, and incorporated into the grant agreement.

17. **Construction Inspection and Approval.** It will provide and maintain competent technical supervision at the construction site throughout the project to assure that the work conforms to the plans, specifications, and schedules approved by the Secretary for the project. It shall subject the construction work on any project contained in an approved project application to inspection and approval by the Secretary and such work shall be in accordance with regulations and procedures prescribed by the Secretary. Such regulations and procedures shall require such cost and progress reporting by the sponsor or sponsors of such project as the Secretary shall deem necessary.

18. **Planning Projects.** In carrying out planning projects:

a. It will execute the project in accordance with the approved program narrative contained in the project application or with the modifications similarly approved.

b. It will furnish the Secretary with such periodic reports as required pertaining to the planning project and planning work activities.

c. It will include in all published material prepared in connection with the planning project a notice that the material was prepared under a grant provided by the United States.

d. It will make such material available for examination by the public, and agrees that no material prepared with funds under this project shall be subject to copyright in the United States or any other country.

e. It will give the Secretary unrestricted authority to publish, disclose, distribute, and otherwise use any of the material prepared in connection with this grant.

f. It will grant the Secretary the right to disapprove the sponsor's employment of specific consultants and their subcontractors to do all or any part of this project as well as the right to disapprove the proposed scope and cost of professional services.

g. It will grant the Secretary the right to disapprove the use of the sponsor's employees to do all or any part of the project.

h. It understands and agrees that the Secretary's approval of this project grant or the Secretary's approval of any planning material developed as part of this grant does not constitute or imply any assurance or commitment on the part of the Secretary to approve any pending or future application for a Federal airport grant.

19. **Operation and Maintenance.**

a. The airport and all facilities which are necessary to serve the aeronautical users of the airport, other than facilities owned or controlled by the United States, shall be operated at all times in a safe and serviceable condition and in accordance with the minimum standards as may be required or prescribed by applicable Federal, state and local agencies for maintenance

and operation. It will not cause or permit any activity or action thereon which would interfere with its use for airport purposes. It will suitably

operate and maintain the airport and all facilities thereon or connected therewith, with due regard to climatic and flood conditions. Any proposal to temporarily close the airport for non-aeronautical purposes must first be approved by the Secretary.
In furtherance of this assurance, the sponsor will have in effect arrangements for-

(1) Operating the airport's aeronautical facilities whenever required;

(2) Promptly marking and lighting hazards resulting from airport conditions, including temporary conditions; and

(3) Promptly notifying airmen of any condition affecting aeronautical use of the airport.

Nothing contained herein shall be construed to require that the airport be operated for aeronautical use during temporary periods when snow, flood or other climatic conditions interfere with such operation and maintenance. Further, nothing herein shall be construed as requiring the maintenance, repair, restoration, or replacement of any structure or facility which is substantially damaged or destroyed due to an act of God or other condition or circumstance beyond the control of the sponsor.

b. It will suitably operate and maintain noise compatibility program items that it owns or controls upon which Federal funds have been expended.

20. **Hazard Removal and Mitigation.** It will take appropriate action to assure that such terminal airspace as is required to protect instrument and visual operations to the airport (including established minimum flight altitudes) will be adequately cleared and protected by removing, lowering, relocating, marking, or lighting or otherwise mitigating existing airport hazards and by preventing the establishment or creation of future airport hazards.

21. **Compatible Land Use.** It will take appropriate action, to the extent reasonable, including the adoption of zoning laws, to restrict the use of land adjacent to or in the immediate vicinity of the airport to activities and purposes compatible with normal airport operations, including landing and takeoff of aircraft. In addition, if the project is for noise compatibility program implementation, it will not cause or permit any change in land use, within its jurisdiction, that will reduce its compatibility, with respect to the airport, of the noise compatibility program measures upon which Federal funds have been expended.

22. **Economic Nondiscrimination.**

a. It will make the airport available as an airport for public use on reasonable terms and without unjust discrimination to all types, kinds and classes of aeronautical activities, including commercial aeronautical activities offering services to the public at the airport.

b. In any agreement, contract, lease, or other arrangement under which a right or privilege at the airport is granted to any person, firm, or corporation to conduct or to engage in any aeronautical activity for furnishing services to the public at the airport, the sponsor will insert and enforce provisions requiring the contractor to-

(1) furnish said services on a reasonable, and not unjustly discriminatory, basis to all users thereof, and

(2) charge reasonable, and not unjustly discriminatory, prices for each unit or service, provided that the contractor may be allowed to make

reasonable and nondiscriminatory discounts, rebates, or other similar types of price reductions to volume purchasers.

c. Each fixed-based operator at the airport shall be subject to the same rates, fees, rentals, and other charges as are uniformly applicable to all other fixed-based operators making the same or similar uses of such airport and utilizing the same or similar facilities.

d. Each air carrier using such airport shall have the right to service itself or to use any fixed-based operator that is authorized or permitted by the airport to serve any air carrier at such airport.

e. Each air carrier using such airport (whether as a tenant, non tenant, or subtenant of another air carrier tenant) shall be subject to such nondiscriminatory and substantially comparable rules, regulations, conditions, rates, fees, rentals, and other charges with respect to facilities directly and substantially related to providing air transportation as are applicable to all such air carriers which make similar use of such airport and utilize similar facilities, subject to reasonable classifications such as tenants or non tenants and signatory carriers and non signatory carriers. Classification or status as tenant or signatory shall not be unreasonably withheld by any airport provided an air carrier assumes obligations substantially similar to those already imposed on air carriers in such classification or status.

f. It will not exercise or grant any right or privilege which operates to prevent any person, firm, or corporation operating aircraft on the airport from performing any services on its own aircraft with its own employees [including, but not limited to maintenance, repair, and fueling] that it may choose to perform.

g. In the event the sponsor itself exercises any of the rights and privileges referred to in this assurance, the services involved will be provided on the same conditions as would apply to the furnishing of such services by commercial aeronautical service providers authorized by the sponsor under these provisions.

h. The sponsor may establish such reasonable, and not unjustly discriminatory, conditions to be met by all users of the airport as may be necessary for the safe and efficient operation of the airport.

i. The sponsor may prohibit or limit any given type, kind or class of aeronautical use of the airport if such action is necessary for the safe operation of the airport or necessary to serve the civil aviation needs of the public.

23. **Exclusive Rights.** It will permit no exclusive right for the use of the airport by any person providing, or intending to provide, aeronautical services to the public. For purposes of this paragraph, the providing of the services at an airport by a single fixed-based operator shall not be construed as an exclusive right if both of the following apply:

a. It would be unreasonably costly, burdensome, or impractical for more than one fixed-based operator to provide such services, and

b. If allowing more than one fixed-based operator to provide such services would require the reduction of space leased pursuant to an existing agreement between such single fixed-based operator and such airport.

It further agrees that it will not, either directly or indirectly, grant or permit any person, firm,
or corporation, the exclusive right at the airport to conduct any aeronautical activities, including, but not limited to charter flights, pilot training, aircraft rental and sightseeing,
aerial photography, crop dusting, aerial advertising and surveying, air carrier operations,

aircraft sales and services, sale of aviation petroleum products whether or not conducted in conjunction with other aeronautical activity, repair and maintenance of aircraft, sale of aircraft parts, and any other activities which because of their direct relationship to the operation of aircraft can be regarded as an aeronautical activity, and that it will terminate any exclusive right to conduct an aeronautical activity now existing at such an airport before the grant of any assistance under Title 49, United States Code.

24. **Fee and Rental Structure.** It will maintain a fee and rental structure for the facilities and services at the airport which will make the airport as self-sustaining as possible under the circumstances existing at the particular airport, taking into account such factors as the volume of traffic and economy of collection. No part of the Federal share of an airport development, airport planning or noise compatibility project for which a grant is made under Title 49, United States Code, the Airport and Airway Improvement Act of 1982, the Federal Airport Act or the Airport and Airway Development Act of 1970 shall be included in the rate basis in establishing fees, rates, and charges for users of that airport.

25. **Airport Revenues.**

a. All revenues generated by the airport and any local taxes on aviation fuel established after December 30, 1987, will be expended by it for the capital or operating costs of the airport; the local airport system; or other local facilities which are owned or operated by the owner or operator of the airport and which are directly and substantially related to the actual air transportation of passengers or property; or for noise mitigation purposes on or off the airport. Provided, however, that if covenants or assurances in debt obligations issued before September 3, 1982, by the owner or operator of the airport, or provisions enacted before September 3, 1982, in governing statutes controlling the owner or operator's financing, provide for the use of the revenues from any of the airport owner or operator's facilities, including the airport, to support not only the airport but also the airport owner or operator's general debt obligations or other facilities, then this limitation on the use of all revenues generated by the airport (and, in the case of a public airport, local taxes on aviation fuel) shall not apply.

b. As part of the annual audit required under the Single Audit Act of 1984, the sponsor will direct that the audit will review, and the resulting audit report will provide an opinion concerning, the use of airport revenue and taxes in paragraph (a), and indicating whether funds paid or transferred to the owner or operator are paid or transferred in a manner consistent with Title 49, United States Code and any other applicable provision of law, including any regulation promulgated by the Secretary or Administrator.

c. Any civil penalties or other sanctions will be imposed for violation of this assurance in accordance with the provisions of Section 47107 of Title 49, United States Code.

26. **Reports and Inspections.** It will:

a. submit to the Secretary such annual or special financial and operations reports as the Secretary may reasonably request and make such reports available to the public; make available to the public at reasonable times and places a report of the airport budget in a format prescribed by the Secretary;

b. for airport development projects, make the airport and all airport records and documents affecting the airport, including deeds, leases, operation and use

agreements, regulations and other instruments, available for inspection by any duly authorized agent of the Secretary upon reasonable request;

c. for noise compatibility program projects, make records and documents relating to the project and continued compliance with the terms, conditions, and assurances of the grant agreement including deeds, leases, agreements, regulations, and other instruments, available for inspection by any duly authorized agent of the Secretary upon reasonable request; and

d. in a format and time prescribed by the Secretary, provide to the Secretary and make available to the public following each of its fiscal years, an annual report listing in detail:
   (i) all amounts paid by the airport to any other unit of government and the purposes for which each such payment was made; and
   (ii) all services and property provided by the airport to other units of government and the amount of compensation received for provision of each such service and property.

27. **Use by Government Aircraft.** It will make available all of the facilities of the airport developed with Federal financial assistance and all those usable for landing and takeoff of aircraft to the United States for use by Government aircraft in common with other aircraft at all times without charge, except, if the use by Government aircraft is substantial, charge may be made for a reasonable share, proportional to such use, for the cost of operating and maintaining the facilities used. Unless otherwise determined by the Secretary, or otherwise agreed to by the sponsor and the using agency, substantial use of an airport by Government aircraft will be considered to exist when operations of such aircraft are in excess of those which, in the opinion of the Secretary, would unduly interfere with use of the landing areas by other authorized aircraft, or during any calendar month that –

   a. Five (5) or more Government aircraft are regularly based at the airport or on land adjacent thereto; or
   b. The total number of movements (counting each landing as a movement) of Government aircraft is 300 or more, or the gross accumulative weight of Government aircraft using the airport (the total movement of Government aircraft multiplied by gross weights of such aircraft) is in excess of five million pounds.

28. **Land for Federal Facilities.** It will furnish without cost to the Federal Government for use in connection with any air traffic control or air navigation activities, or weather-reporting and communication activities related to air traffic control, any areas of land or water, or estate therein, or rights in buildings of the sponsor as the Secretary considers necessary or desirable for construction, operation, and maintenance at Federal expense of space or facilities for such purposes. Such areas or any portion thereof will be made available as provided herein within four months after receipt of a written request from the Secretary.

29. **Airport Layout Plan.**

   a. It will keep up to date at all times an airport layout plan of the airport

showing (1) boundaries of the airport and all proposed additions thereto, together with the boundaries of all offsite areas owned or controlled by the sponsor for airport purposes and proposed additions thereto; (2) the location and nature of all existing and proposed airport facilities and structures (such as runways, taxiways, aprons, terminal buildings, hangars and roads), including all proposed extensions and reductions of existing airport facilities; and (3) the location of all existing and proposed nonaviation areas and of all existing improvements thereon. Such airport layout plans and each amendment, revision, or modification thereof, shall

be subject to the approval of the Secretary which approval shall be evidenced by the signature of a duly authorized representative of the Secretary on the face of the airport layout plan. The sponsor will not make or permit any changes or alterations in the airport or any of its facilities which are not in conformity with the airport layout plan as approved by the Secretary and which might, in the opinion of the Secretary, adversely affect the safety, utility or efficiency of the airport.

b. If a change or alteration in the airport or the facilities is made which the Secretary determines adversely affects the safety, utility, or efficiency of any federally owned, leased, or funded property on or off the airport and which is not in conformity with the airport layont plan as approved by the Secretary, the owner or operator will, if requested, by the Secretary (1) eliminate such adverse effect in a manner approved by the Secretary; or (2) bear all costs of relocating such property (or replacement thereof) to a site acceptable to the Secretary and all costs of restoring such property (or replacement thereof) to the level of safety, utility, efficiency, and cost of operation existing before the unapproved change in the airport or its facilities.

30. **Civil Rights.** It will comply with such rules as are promulgated to assure that no person shall, on the grounds of race, creed, color, national origin, sex, age, or handicap be excluded from participating in any activity conducted with or benefiting from funds received from this grant. This assurance obligates the sponsor for the period during which Federal financial assistance is extended to the program, except where Federal financial assistance is to provide, or is in the form of personal property or real property or interest therein or structures or improvements thereon in which case the assurance obligates the sponsor or any transferee for the longer of the following periods: (a) the period during which the property is used for a purpose for which Federal financial assistance is extended, or for another purpose involving the provision of similar services or benefits, or (b) the period during which the sponsor retains ownership or possession of the property.

31. **Disposal of Land.**

a. For land purchased under a grant for airport noise compatibility purposes, it will dispose of the land, when the land is no longer needed for such purposes, at fair market value, at the earliest practicable time. That portion of the proceeds of such disposition which is proportionate to the United States' share of acquisition of such land will, at the discretion of the Secretary, (1) be paid to the Secretary for deposit in the Trust Fund, or (2) be reinvested in an approved noise compatibility project as prescribed by the Secretary, including the purchase of nonresidential buildings or property in the vicinity of residential buildings or property previously purchased by the airport as part of a noise compatibility program.

b. For land purchased under a grant for airport development purposes (other

than noise compatibility), it will, when the land is no longer needed for airport purposes, dispose of such land at fair market value or make available to the Secretary an amount equal to the United States' proportionate share of the fair market value of the land. That portion of the proceeds of such disposition which is proportionate to the United States' share of the cost of acquisition of such land will, (1) upon application to the Secretary, be reinvested in another eligible airport improvement project or projects approved by the Secretary at that airport or within the national airport system, or (2) be paid to the Secretary for deposit in the Trust Fund if no eligible project exists.

c. Land shall be considered to be needed for airport purposes under this assurance if (1) it may be needed for aeronautical purposes (including runway protection zones) or serve as noise buffer land, and (2) the revenue from interim uses of such land contributes to the financial self-sufficiency of the airport. Further, land purchased with a grant received by an airport operator or owner before December 31, 1987, will be considered to be needed for airport purposes if the Secretary or Federal agency making such grant before December 31, 1987, was notified by the operator or owner of the uses of such land, did not object to such use, and the land continues to be used for that purpose, such use having commenced no later than December 15, 1989.

d. Disposition of such land under (a) (b) or (c) will be subject to the retention or reservation of any interest or right therein necessary to ensure that such land will only be used for purposes which are compatible with noise levels associated with operation of the airport.

32. **Engineering and Design Services.** It will award each contract, or sub-contract for program management, construction management, planning studies, feasibility studies, architectural services, preliminary engineering, design, engineering, surveying, mapping or related services with respect to the project in the same manner as a contract for architectural and engineering services is negotiated under Title IX of the Federal Property and Administrative Services Act of 1949 or an equivalent qualifications-based requirement prescribed for or by the sponsor of the airport.

33. **Foreign Market Restrictions.** It will not allow funds provided under this grant to be used to fund any project which uses any product or service of a foreign country during the period in which such foreign country is listed by the United States Trade Representative as denying fair and equitable market opportunities for products and suppliers of the United States in procurement and construction.

34. **Policies, Standards, and Specifications.** It will carry out the project in accordance with policies, standards, and specifications approved by the Secretary including but not limited to the advisory circulars listed in the Current FAA Advisory Circulars for AIP projects, dated _____ and included in this grant, and in accordance with applicable state policies, standards, and specifications approved by the Secretary.

35. **Relocation and Real Property Acquisition.** (1) It will be guided in acquiring real property, to the greatest extent practicable under State law, by the land acquisition policies in Subpart B of 49 CFR Part 24 and will pay or reimburse property owners for necessary expenses as specified in Subpart B. (2) It will provide a relocation assistance program offering the services described in Subpart C and fair and reasonable relocation payments and assistance to displaced persons as required in Subpart D and E of 49 CFR Part 24. (3) It will make available within a reasonable period of time prior to displacement, comparable replacement dwellings to displaced persons in accordance with Subpart E of 49 CFR Part 24.

36. Access By Intercity Buses. The airport owner or operator will permit, to the maximum extent practicable, intercity buses or other modes of transportation to have access to the airport, however, it has no obligation to fund special facilities for intercity buses or for other modes of transportation.

37. **Disadvantaged Business Enterprises.** The recipient shall not discriminate on the basis of race, color, national origin or sex in the award and performance of any DOT-assisted contract or in the administration of its DBE program or the requirements of 49 CFR Part 26. The Recipient shall take all necessary and reasonable steps under 49 CFR Part 26 to ensure

non discrimination in the award and administration of DOT-assisted contracts. The recipient's DBE program, as required by 49 CFR Part 26, and as approved by DOT, is incorporated by reference in this agreement. Implementation of this program is a legal obligation and failure to carry out its terms shall be treated as a violation of this agreement. Upon notification to the recipient of its failure to carry out its approved program, the Department may impose sanctions as provided for under Part 26 and may, in appropriate cases, refer the matter for enforcement under 18 U.S.C. 1001 and/or the Program Fraud Civil Remedies Act of 1986 (31 U.S.C. 3801).

38. **Hangar Construction.** If the airport owner or operator and a person who owns an aircraft agree that a hangar is to be constructed at the airport for the aircraft at the aircraft owner's expense, the airport owner or operator will grant to the aircraft owner for the hangar a long term lease that is subject to such terms and conditions on the hangar as the airport owner or operator may impose.

39. **Competitive Access.**

a. If the airport owner or operator of a medium or large hub airport (as defined in section 47102 of title 49, U.S.C.) has been unable to accommodate one or more requests by an air carrier for access to gates or other facilities at that airport in order to allow the air carrier to provide service to the airport or to expand service at the airport, the airport owner or operator shall transmit a report to the Secretary that-

1. Describes the requests;
2. Provides an explanation as to why the requests could not be accommodated; and
3. Provides a time frame within which, if any, the airport will be able to accommodate the requests.

b. Such report shall be due on either February 1 or August 1 of each year if the airport has been unable to accommodate the request(s) in the six month period prior to the applicable due date.

Appendix 1

STANDARD DOT TITLE VI ASSURANCES

The Meadow Lake Airoort Association (hereinafter referred to as the Sponsor) hereby agrees that as a condition to receiving Federal financial assistance from the Department of Transportation (DOT), it will comply with Title VI of the Civil Rights Act of 1964 (42 U.S.C. 2000d et seq.) and all requirements imposed by 49 CFR Part 21, Nondiscrimination in Federally Assisted Programs of the Department of Transportation -- Effectuation of Title VI of the Civil Rights Act of 1964 (hereinafter referred to as the "Regulations") to the end that no person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity for which the applicant receives Federal financial assistance and will immediately take any measures necessary to effectuate this agreement. Without limiting the above general assurance, the Sponsor agrees concerning this grant that:

1. Each "program" and "facility" (as defined in Section 21.23(a) and 21.23(b)) will be conducted or operated in compliance with all requirements of the Regulations.

2. It will insert the clauses of Attachment 1 of this assurance in every contract subject to the Act and the Regulations.

3. Where Federal financial assistance is received to construct a facility, or part of a facility, the assurance shall extend to the entire facility and facilities operated in connection therewith.

4. Where Federal financial assistance is in the form or for the acquisition of real property or an interest in real property, the assurance shall extend to rights to space on, over, or under such property.

5. It will include the appropriate clauses set forth in Attachment 2 of this assurance, as a covenant running with the land, in any future deeds, leases, permits, licenses, and similar agreements entered into by the Sponsor with other parties:

(a) for the subsequent transfer of real property acquired or improved with Federal financial assistance under this project; and

(b) for the construction or use of or access to space on, over, or under real property acquired or improved with Federal financial assistance under this Project.

6. This assurance obligates the Sponsor for the period during which Federal financial assistance is extended to the program, except where the Federal financial assistance is to provide, or is in the form of personal property or real property or interest therein or structures or improvements thereon, in which case the assurance obligates the Sponsor or any transferee for the longer of the following periods:

(a) the period during which the property is used for a purpose for which Federal financial assistance is extended, or for another purpose involving the provision of similar services or benefits; or

(b) the period during which the Sponsor retains ownership or possession of the property.

7. **It will provide for such methods of administration for the program as are found by the Secretary of transportation of the official to whom he delegates specific authority to give reasonable guarantees that it, other sponsors, subgrantees, contractors, subcontractors, transferees, successors in interest, and other participants of Federal financial assistance under such program will comply with all requirements imposed or pursuant to the act, the Regulations, and this assurance.**

Appendix 1

STANDARD DOT TITLE VI ASSURANCES *(Continued)*

8. It agrees that the United States has a right to seek judicial enforcement with regard to any matter arising under the Act, the Regulations, and this assurance.

THIS ASSURANCE is given in consideration of and for the purpose of obtaining Federal financial assistance for this Project and is binding on its contractors, the Sponsor, subcontractors, transferees, successors in interest and other participants in the Project. The person or persons whose signatures appear below are authorized to sign this assurance on behalf of the Sponsor.

DATED **January 22, 2009**

Meadow Lake Airport Association
(Sponsor)

(Signature of Authorized Official)

CONTRACTOR CONTRACTUAL REQUIREMENTS

ATTACHMENT 1

During the performance of this contract, the contractor, for itself, its assignees and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

1. Compliance with Regulations. The contractor shall comply with the regulations relative to nondiscrimination in federally assisted programs of the Department of Transportation (hereinafter, "DOT") Title 49, Code of Federal Regulations, Part 21, as they may be amended from time to time (hereinafter referred to as the Regulations), which are herein incorporated by reference and made a part of this contract.

2. Nondiscrimination. The contractor, with regard to the work performed by it during the contract, shall not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. the contractor shall not participate either directly of indirectly in the discrimination prohibited by section 21.5 of the Regulations, including employment practices when the contract covers a program set forth in Appendix B of the Regulations.

3. Solicitations for Subcontracts, Including Procurements of Materials and Equipment. In all solicitations either by competitive bidding or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials or lease of equipment, each potential subcontractor or supplier shall be notified by the contractor of the contractor's obligations under this contract and the Regulations relative to nondiscrimination on the grounds of race, color, or national origin.

4. Information and Reports. The contractor shall provide all information and reports required by the Regulations or directives issued pursuant thereto and shall permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Sponsor or the Federal Aviation Administration (FAA) to be pertinent to ascertain compliance with such Regulations, orders, and instructions. Where any information required of a contract is in the exclusive possession of another who fails or refuses to furnish this information, the contractor shall so certify to the sponsor or the FAA, as appropriate, and shall set forth what efforts it has made to obtain the information.

5. Sanctions for Noncompliance. In the event of the contractor's noncompliance with the nondiscrimination provisions of this contract, the sponsor shall impose such contract sanctions as it or the FAA may determine to be appropriate, including, but not limited to:

   a. Withholding of payments to the contractor under the contract until the contractor complies, and/or

   b. Cancellation, termination, or suspension of the contract, in whole or in part.

6. Incorporation of Provisions. The contractor shall include the provisions of paragraphs 1 through 5 in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Regulations or directives issued pursuant thereto. The contractor shall take such action with respect to any subcontract or procurement as the sponsor or the FAA may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, however, that in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or supplier as a result of such direction, the contractor may request the Sponsor to enter into such litigation to protect the interests of the sponsor and, in addition, the contractor may request the United States to enter into such litigation to protect the interest of the United States.

CLAUSES FOR DEEDS, LICENSES, LEASES, PERMITS OR SIMILAR INSTRUMENTS

ATTACHMENT 2

The following clauses shall be included in deeds, licenses, leases, permits, or similar instruments entered into by the Sponsor pursuant to the provisions of Assurances 5(a) and 5(b).

1. The (grantee, licensee, permittee, etc., as appropriate) for himself, his heirs, personal representatives, successors in interest, and assigns, as a part of the consideration hereof, does hereby covenant and agree (in the case of deeds and leases add "as a covenant running with the land") that in the event facilities are constructed, maintained, or otherwise operated on the said property described in this (deed, license, lease, permit, etc.) for a purpose for which a DOT program or activity is extended or for another purpose involving the provision of similar services or benefits, the (grantee, licensee, lessee, permittee, etc.) shall maintain and operate such facilities and services in compliance with all other requirements imposed pursuant to 49 CFR Part 21, Nondiscrimination in Federally Assisted Programs of the Department of Transportation, and as said Regulations may be amended.

2. The (grantee, licensee, lessee, permittee, etc., as appropriate) for himself, his heirs, personal representatives, successors in interest, and assigns, as a part of the consideration hereof, does hereby covenant and agree (in the case of deeds and leases add "as a covenant running with the land") that: (1) no person on the grounds of race, color, or national origin shall be excluded from participation in, denied the benefits of, or be otherwise subjected to discrimination in the use of said facilities, (2) that in the construction of any improvements on, over, or under such land and the furnishing of services thereon, no person on the grounds of race, color, or national origin shall be excluded from participation in, denied the benefits of, or otherwise be subjected to discrimination, (3) that the (grantee, licensee, permittee, etc.) shall use the premises in compliance with all other requirements imposed by or pursuant to 49 CFR Part 21, Nondiscrimination in Federally Assisted Programs of the Department of Transportation, and as said Regulations may be amended.

REQUIRED STATEMENTS
AIRPORT IMPROVEMENT PROGRAM PROJECTS

AIRPORT: Meadow Lake

LOCATION: Falcon, Colorado

AIP PROJECT NO.: 3-08-0063-17

STATEMENTS APPLICABLE TO THIS PROJECT: a,b,c,d

☒ a. INTEREST OF NEIGHBORING COMMUNITIES: In formulating this project, consideration has been given to the interest of communities that are near (Exact name of airport)Meadow Lake Airport.

☒ b. THE DEVELOPMENT PROPOSED IN THIS PROJECT will not require the use of publicly owned land from a public park, recreation area, wildlife and fowl refuge, or a historical site under Federal, State, or Local jurisdiction.

☒ c. FBO COORDINATION: The airport development proposed in this project has been coordinated with the Fixed Base Operator(s) utilizing (Exact name of airport) Meadow Lake Airport, and they have been informed regarding the scope and nature of this project.

☒ d. THE PROPOSED PROJECT IS CONSISTENT with existing approved plans for the area surrounding the airport.

The above statements have been duly considered and are applicable to this project. (Provide comment for any statement not checked).

BY: David Elliott DATE: January 22, 2009

TITLE: President

SPONSORING AGENCY: Meadow Lake Airport Association

NOTE: Where opposition is stated to an airport development project, whether expressly or by proposed revision, the following specific information concerning the opposition to the project must be furnished.

a. Identification of the Federal, state, or local governmental agency, or the person or persons opposing the project; **NA**

b. The nature and basis of opposition; **NA**

c. Sponsor's plan to accommodate or otherwise satisfy the opposition; **NA**

d. Whether an opportunity for a hearing was afforded, and if a hearing was held, an analysis of the facts developed at the hearing as they relate to the social, economic, and environmental aspects of the proposed project and its consistency with the goals and objectives of such urban planning as has been carried out by the community. **NA**

e. If the opponents proposed any alternatives, what these alternatives were and the reason for nonacceptance; **NA**

f. Sponsor's plans, if any, to minimize any adverse effects of the project; **NA**

g. Benefits to be gained by the proposed development; and **NA**

h. Any other pertinent information which would be of assistance in determining whether to proceed with the project. **NA**

Appendix 1

CERTIFICATION FOR CONTRACTS, GRANTS, LOANS, AND COOPERATIVE AGREEMENTS

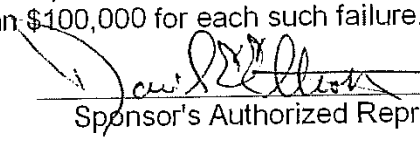
The undersigned certifies, to the best of his or her knowledge and belief, that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal Grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form LLL "Disclosure of Lobby Activities", in accordance with its instructions.

3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipents shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

Signed  Date January 22, 2009

Sponsor's Authorized Representative

Title President, Meadow Lake Airport Association

CERTIFICATION REGARDING
DRUG-FREE WORKPLACE REQUIREMENTS
Alternate I. (Grantees Other Than Individuals)

A. The grantee certifies that it will or will continue to provide a drug-free workplace by:

(a) Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the grantee's workplace and specifying the actions that will be taken against employees for violation of such prohibition:

(b) Establishing an ongoing drug-free awareness program to inform employees about-

(1) The dangers of drug abuse in the workplace;

(2) The grantee's policy of maintaining a drug-free workplace;

(3) Any available drug counseling, rehabilitation, and employee assistance programs; and

(4) The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace;

(c) Making it a requirement that each employee to be engaged in the performance of the grant be given a copy of the statement required by paragraph (a);

(d) Notifying the employee in the statement required by paragraph (a) that, as a condition of employment under the grant, the employee will-

(1) Abide by the terms of the statement; and

(2) Notify the employer in writing of his or her conviction for a violation of a criminal drug statute occurring in the workplace no later than five calendar days after such conviction;

(e) Notifying the agency in writing, within ten calendar days after receiving notice under paragraph (d)(2) from an employee or otherwise receiving actual notice of such conviction. Employers of convicted employees must provide notice, including position title, to every grant officer or other designee on whose grant activity the convicted employee was working, unless the Federal agency has designated a central point for the receipt of such notices. Notices shall include the identification number(s) of each affected grant;

(f) Taking one of the following actions, within 30 calendar days of receiving notice under paragraph (d)(2), with respect to any employee who is so convicted-

(1) Taking appropriate personnel action against such an employee, up to and including termination, consistent with the requirements of the Rehabilitation Act of 1973, as amended; or

CERTIFICATION REGARDING
DRUG-FREE WORKPLACE REQUIREMENTS
(Continued)

Alternate I. (Grantees Other Than Individuals)

(2) Requiring such employee to participate satisfactorily in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State, or local health, law enforcement, or other appropriate agency;

(g) Making a good faith effort to continue to maintain a drug-free workplace through implementation of paragraphs (a), (b), (c), (d), (e), and (f),

B. The grantee may insert in the space provided below the site(s) for the performance of work done in connection with the specific grant:

Place of Performance (Street address, city, county, state, zip code)

Meadow Lake Airport

Peyton, Colorado 80831

Check ☐ if there are workplaces on file that are not identified here.

David E. Elliott

Signature of certifying official

President, MLAA

Title

January 22, 2009

Date

Appendix 1

TITLE VI PRE-AWARD SPONSOR CHECKLIST

Airport/Sponsor: Meadow Lake Airport Association

AIP #: 3-08-0063-17

Project Description(s): Land Reimbursement and AWOS

1) Please describe any of the following IF they apply to your project: Title VI issues raised at public hearing(s) and the conclusions made; EIS data concerning the race, color, or national origin of the affected community; steps taken or proposed to guard against unnecessary impact on persons on the basis of race, color or national origin.
☒ None

2) Please list any airport related Title VI lawsuits or complaints filed in the preceding year against the sponsor. Include a summary of the findings.
☒ None (If "None", continue with questions 3 and 4).

3) Please list any current applications for federal funding (other than FAA) of airport related projects which exceed the amount for this grant.
☒ None

4) Please list any airport related Title VI compliance review(s) received by the sponsor in the preceding two years. Include who conducted the review and any findings of noncompliance.
☒ None

March

To be completed by the Civil Rights Staff

Review completed and approved: _____
Signature

Date: 01/22/09

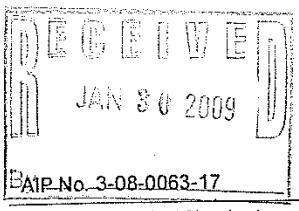
This checklist is only required for projects that involve one of the following: Environmental Assessment or Impact Statement (EIS); airport or runway relocation; major runway extension; relocation of any structure of person; or impact to access or preservation of any burial ceremonial or other sacred or historical structures or lands of any indigenous or ethnic population.

Return to: FAA, Civil Rights, Northwest Mountain Region; 1601 Lind Ave. SW; Renton, WA 98055-4056. FAX: (425) 227-1009 Phone (425) 227-2009

For more Title VI information visit the Civil Rights website at

Appendix 1

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
AIRPORT IMPROVEMENT PROGRAM
SPONSOR CERTIFICATION
SELECTION OF CONSULTANTS



Meadow Lake Airport Association
(Sponsor)

Meadow Lake Airport
(Airport)

(Project Number)

I: Install AWOS III P/T
II: Land Reimbursement
(Work Description)

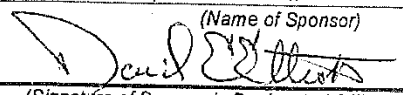
Title 49, United States Code, section 47105(d), authorizes the Secretary to require certification from the sponsor that it will comply with the statutory and administrative requirements in carrying out a project under the Airport Improvement Program (AIP). General standards for selection of consultant services within Federal grant programs are described in Title 49, Code of Federal Regulations (CFR), Part 18.36. Sponsors may use other qualifications-based procedures provided they are equivalent to specific standards in 49 CFR 18 and FAA Advisory Circular 150/5100-14, Architectural, Engineering, and Planning Consultant Services for Airport Grant Projects.

Except for the certified items below marked not applicable (N/A), the list includes major requirements for this aspect of project implementation, although it is not comprehensive, nor does it relieve the sponsor from fully complying with all applicable statutory and administrative standard.

	Yes	No	N/A
1. Solicitations were (~~will be~~) made to ensure fair and open competition from a wide area of interest.	☒	☐	☐
2. Consultants were (~~will be~~) selected using competitive procedures based on qualifications, experience, and disadvantaged enterprise requirements with the fees determined through negotiations.	☒	☐	☐
3. A record of negotiations ~~has been~~ (will be) prepared reflecting considerations involved in the establishment of fees, which are not significantly above the sponsor's independent cost estimate.	☒	☐	☐
4. If engineering or other services are to be performed by sponsor force account personnel, prior approval ~~was~~ (will be) obtained from the FAA.	☒	☐	☐
5. The consultant services contracts clearly ~~establish~~ (will establish) the scope of work and delineate the division of responsibilities between all parties engaged in carrying out elements of the project.	☒	☐	☐
6. Costs associated with work ineligible for AIP funding ~~are~~ (will be) clearly identified and separated from eligible items in solicitations, contracts, and related project documents.	☒	☐	☐
7. Mandatory contact provisions for grant-assisted contracts ~~have been~~ (will be) included in consultant services contracts.	☒	☐	☐
8. The cost-plus-percentage-of-cost methods of contracting prohibited under Federal standards ~~were not~~ (will not be) used.	☒	☐	☐
9. If the services being procured cover more than the single grant project referenced in this certification, the scope of work was (will be) specifically described in the advertisement, and future work will not be initiated beyond five years.	☒	☐	☐

I certify, for the project identified herein, responses to the forgoing items are accurate as marked and have prepared documentation attached hereto for any item marked "no" that is correct and complete.

Meadow Lake Airport Association
(Name of Sponsor)



(Signature of Sponsor's Designated Official Representative)

David Elliott
(Typed Name of Sponsor's Designated Official Representative)

Board President
(Typed Title of Sponsor's Designated Official Representative)

January 27, 2009
(Date)

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
AIRPORT IMPROVEMENT PROGRAM
SPONSOR CERTIFICATION
PROJECT PLANS AND SPECIFICATIONS

Meadow Lake Airport Association	Meadow Lake Airport	AIP No. 3-08-0063-17
(Sponsor)	*(Airport)*	*(Project Number)*

I: Install AWOS III P/T
II: Land Reimbursement
(Work Description)

Title 49, United States Code, section 47105(d), authorizes the Secretary to require certification from the sponsor that it will comply with the statutory and administrative requirements in carrying out a project under the Airport Improvement Program (AIP). AIP standards are generally described in FAA Advisory Circular (AC) 150/5100-6, Labor Requirements for the Airport Improvement Program, AC 150/5100-15, Civil Rights Requirements for the Airport Improvement Program, and AC 150/5100-16, Airport Improvement Program Grant Assurance One--General Federal Requirements. A list of current advisory circulars with specific standards for design or construction of airports as well as procurement/installation of equipment and facilities is referenced in standard airport sponsor Grant Assurance 34 contained in the grant agreement.

Except for the certified items below marked not applicable (N/A), the list includes major requirements for this aspect of project implementation, although it is not comprehensive, nor does it relieve the sponsor from fully complying with all applicable statutory and administrative standards.

	Yes	No	N/A
1. The plans and specifications ~~were~~ (will be) prepared in accordance with applicable Federal standards and requirements, so no deviation or modification to standards set forth in the advisory circulars, or State standard, is necessary other than those previously approved by the FAA.	☒	☐	☐
2. Specifications for the procurement of equipment ~~are not~~ (will not be) proprietary or written so as to restrict competition. At least two manufacturers can meet the specification.	☐	☐	☒
3. The development included (~~to be included~~) in the plans is depicted on the airport layout plan approved by the FAA.	☒	☐	☐
4. Development that is ineligible for AIP funding ~~has been~~ (will be) omitted from the plans and specifications.	☒	☐	☐
5. The process control and acceptance tests required for the project by standards contained in Advisory Circular 150/5370-10 ~~are~~ (will be) included in the project specifications.	☒	☐	☐
6. If a value engineering clause is incorporated into the contract, concurrence ~~was~~ (will be) obtained from the FAA.	☒	☐	☐
7. The plans and specifications ~~incorporate~~ (will incorporate) applicable requirements and recommendations set forth in the Federally approved environmental finding.	☒	☐	☐
8. For construction activities within or near aircraft operational areas, the requirements contained in Advisory Circular 150/5370-2 ~~have been~~ (will be) discussed with the FAA as well as incorporated into the specifications, and a safety/phasing plan has FAA's concurrence, if required.	☒	☐	☐
9. The project ~~was~~ (will be) physically completed without Federal participation in costs due to errors and omissions in the plans and specifications that were foreseeable at the time of project design.	☒	☐	☐

I certify, for the project identified herein, responses to the forgoing items are accurate as marked and have prepared documentation attached hereto for any item marked "no" that is correct and complete.

Meadow Lake Airport Authority
(Name of Sponsor)

(Signature of Sponsor's Designated Official Representative)

David Elliott
(Typed Name of Sponsor's Designated Official Representative)

Board President
(Typed Title of Sponsor's Designated Official Representative)

January 27, 2009
(Date)

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
AIRPORT IMPROVEMENT PROGRAM
SPONSOR CERTIFICATION
EQUIPMENT/CONSTRUCTION CONTRACTS

Meadow Lake Airport Association	Meadow Lake Airport	AIP No. 3-08-0063-17
(Sponsor)	*(Airport)*	*(Project Number)*

I: Install AWOS III P/T
II: Land Reimbursement
(Work Description)

Title 49, United States Code (USC), section 47105(d), authorizes the Secretary to require certification from the sponsor that it will comply with the statutory and administrative requirements in carrying out a project under the Airport Improvement Program (AIP). General standards for equipment and construction contracts within Federal grant programs are described in Title 49, Code of Federal Regulations (CFR), Part 18.36. AIP standards are generally described in FAA Advisory Circular (AC) 150/5100-6, Labor Requirements for the Airport Improvement Program, AC 150/5100-15, Civil Rights Requirements for the Airport Improvement Program, and AC 150/5100-16, Airport Improvement Program Grant Assurance One--General Federal Requirements. Sponsors may use State and local procedures provided procurements conform to these Federal standards.

Except for the certified items below marked not applicable (N/A), the list includes major requirements for this aspect of project implementation, although it is not comprehensive, nor does it relieve the sponsor from fully complying with all applicable statutory and administrative standards.

	Yes	No	N/A
1. A code or standard of conduct is (~~will be~~) in effect governing the performance of the sponsor's officers, employees, or agents in soliciting and awarding procurement contracts.	☒	☐	☐
2. Qualified personnel ~~are~~ (will be) engaged to perform contract administration, engineering supervision, construction inspection, and testing.	☒	☐	☐
3. The procurement ~~was~~ (will be) publicly advertised using the competitive sealed bid method of procurement.	☒	☐	☐
4. The bid solicitation clearly and accurately ~~describes~~ (will describe): a. The current Federal wage rate determination for all construction projects, and b. All other requirements of the equipment and/or services to be provided.	☒	☐	☐
5. Concurrence ~~was~~ (will be) obtained from FAA prior to contract award under any of the following circumstances: a. Only one qualified person/firm submits a responsive bid, b. The contract is to be awarded to other than the lowest responsible bidder, c. Life cycle costing is a factor in selecting the lowest responsive bidder, or d. Proposed contract prices are more than 10 percent over the sponsor's cost estimate.	☒	☐	☐

	Yes	No	N/A
6. All contracts exceeding $100,000 ~~require~~ (will require) the following provisions:			
a. A bid guarantee of 5 percent, a performance bond of 100 percent, and a payment bond of 100 percent;			
b. Conditions specifying administrative, contractual, and legal remedies, including contract termination, for those instances in which contractors violate or breach contact terms; and	☒	☐	☐
c. Compliance with applicable standards and requirements issued under Section 306 of the Clean Air Act (42 USC 1857(h)), Section 508 of the Clean Water Act (33 USC 1368), and Executive Order 11738.			
7. All construction contracts ~~contain~~ (will contain) provisions for:			
a. Compliance with the Copeland "Anti-Kick Back" Act, and			
b. Preference given in the employment of labor (except in executive, administrative, and supervisory positions) to honorably discharged Vietnam era veterans and disabled veterans.	☒	☐	☐
8. All construction contracts exceeding $2,000 ~~contain~~ (will contain) the following provisions:			
a. Compliance with the Davis-Bacon Act based on the current Federal wage rate determination; and	☒	☐	☐
b. Compliance with the Contract Work Hours and Safety Standards Act (40 USC 327-330), Sections 103 and 107.			
9. All construction contracts exceeding $10,000 ~~contain~~ (will contain) appropriate clauses from 41 CFR Part 60 for compliance with Executive Orders 11246 and 11375 on Equal Employment Opportunity.	☒	☐	☐
10. All contracts and subcontracts ~~contain~~ (will contain) clauses required from Title VI of the Civil Rights Act and 49 CFR 23 and 49 CFR 26 for Disadvantaged Business Enterprises.	☒	☐	☐
11. Appropriate checks ~~have been~~ (will be) made to assure that contracts or subcontracts are not awarded to those individuals or firms suspended, debarred, or voluntarily excluded from doing business with any U.S. Department of Transportation (DOT) element and appearing on the DOT Unified List.	☒	☐	☐

I certify, for the project identified herein, responses to the forgoing items are accurate as marked and have prepared documentation attached hereto for any item marked "no" that is correct and complete.

Meadow Lake Airport Association
(Name of Sponsor)

(Signature of Sponsor's Designated Official Representative)

David Elliott
(Typed Name of Sponsor's Designated Official Representative)

Board President
(Typed Title of Sponsor's Designated Official Representative)

January 27, 2009
(Date)

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
AIRPORT IMPROVEMENT PROGRAM
SPONSOR CERTIFICATION
CONSTRUCTION PROJECT FINAL ACCEPTANCE

Meadow Lake Airport Association	Meadow Lake Airport	AIP No. 3-08-0063-17
(Sponsor)	*(Airport)*	*(Project Number)*

I: Install AWOS III P/T
II: Land Reimbursement
(Work Description)

Title 49, United States Code, section 47105(d), authorizes the Secretary to require certification from the sponsor that it will comply with the statutory and administrative requirements in carrying out a project under the Airport Improvement Program. General standards for final acceptance and close out of federally funded construction projects are in Title 49, Code of Federal Regulations, Part 18.50. The sponsor shall determine that project costs are accurate and proper in accordance with specific requirements of the grant agreement and contract documents.

Except for the certified items below marked not applicable (N/A), the list includes major requirements for this aspect of project implementation, although it is not comprehensive, nor does it relieve the sponsor from fully complying with all applicable statutory and administrative standards.

	Yes	No	N/A
1. The personnel engaged in project administration, engineering supervision, construction inspection and testing ~~were~~ (will be) determined to be qualified as well as competent to perform the work.	☒	☐	☐
2. Daily construction records ~~were~~ (will be) kept by the resident engineer/construction inspector as follows:			
a. Work in progress,			
b. Quality and quantity of materials delivered,			
c. Test locations and results,			
d. Instructions provided the contractor,	☒	☐	☐
e. Weather conditions,			
f. Equipment use,			
g. Labor requirements,			
h. Safety problems, and			
i. Changes required.			
3. Weekly payroll records and statements of compliance ~~were~~ (will be) submitted by the prime contractor and reviewed by the sponsor for Federal labor and civil rights requirements (Advisory Circulars 150/5100-6 and 150/5100-15).	☒	☐	☐
4. Complaints regarding the mandated Federal provisions set forth in the contract documents ~~have been~~ (will be) submitted to the FAA.	☒	☐	☐
5. All tests specified in the plans and specifications ~~were~~ (will be) performed and the test results documented as well as made available to the FAA.	☒	☐	☐
6. For any test results outside of allowable tolerances, appropriate corrective actions ~~were~~ (will be) taken.	☒	☐	☐
7. Payments to the contractor ~~were~~ (will be) made in compliance with contract provisions as follows:			
a. Payments are verified by the sponsor's internal audit of contract records kept by the resident engineer, and	☒	☐	☐
b. If appropriate, pay reduction factors required by the specifications are applied in computing final payments and a summary of pay reductions made available to the FAA.			
8. The project ~~was~~ (will be) accomplished without significant deviations,	☒	☐	☐

changes, or modifications from the approved plans and specifications, except where approval is obtained from the FAA.

9.	A final project inspection ~~was~~ (will be) conducted with representatives of the sponsor and the contractor and project files contain documentation of the final inspection.	☒	☐	☐
10.	Work in the grant agreement ~~was~~ (will be) physically completed and corrective actions required as a result of the final inspection is completed to the satisfaction of the sponsor.	☒	☐	☐
11.	If applicable, the as-built plans, an equipment inventory, and a revised airport layout plan ~~have been~~ (will be) submitted to the FAA.	☒	☐	☐
12.	Applicable close out financial reports ~~have been~~ (will be) submitted to the FAA.	☒	☐	☐

I certify, for the project identified herein, responses to the forgoing items are accurate as marked and have prepared documentation attached hereto for any item marked "no" that is correct and complete.

Meadow Lake Airport Association
(Name of Sponsor)

(Signature of Sponsor's Designated Official Representative)

David Elliott
(Typed Name of Sponsor's Designated Official Representative)

Board President
(Typed Title of Sponsor's Designated Official Representative)

January 27, 2009
(Date)

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
AIRPORT IMPROVEMENT PROGRAM
SPONSOR CERTIFICATION
DRUG-FREE WORKPLACE

Meadow Lake Airport Association	Meadow Lake Airport	AIP No. 3-08-0063-17
(Sponsor)	*(Airport)*	*(Project Number)*

I: Install AWOS III P/T
II: Land Reimbursement
(Work Description)

Title 49, United States Code, section 47105(d), authorizes the Secretary to require certification from the sponsor that it will comply with the statutory and administrative requirements in carrying out a project under the Airport Improvement Program (AIP). General requirements on the drug-free workplace within Federal grant programs are described in Title 49, Code of Federal Regulations, Part 29. Sponsors are required to certify they will be, or will continue to provide, a drug-free workplace in accordance with the regulation. The AIP project grant agreement contains specific assurances on the Drug-Free Workplace Act of 1988.

Except for the certified items below marked not applicable (N/A), the list includes major requirements for this aspect of project implementation, although it is not comprehensive, nor does it relieve the sponsor from fully complying with all applicable statutory and administrative standards.

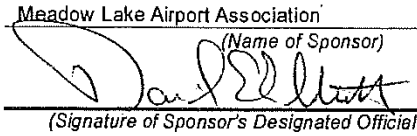
	Yes	No	N/A
1. A statement ~~has been~~ (will be) published notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the sponsor's workplace, and specifying the actions to be taken against employees for violation of such prohibition.	☒	☐	☐
2. An ongoing drug-free awareness program ~~has been~~ (will be) established to inform employees about: **a.** The dangers of drug abuse in the workplace; **b.** The sponsor's policy of maintaining a drug-free workplace; **c.** Any available drug counseling, rehabilitation, and employee assistance programs; and **d.** The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace.	☒	☐	☐
3. Each employee to be engaged in the performance of the work ~~has been~~ (will be) given a copy of the statement required within item 1 above.	☒	☐	☐
4. Employees ~~have been~~ (will be) notified in the statement required by item 1 above that, as a condition employment under the grant, the employee will: **a.** Abide by the terms of the statement; and **b.** Notify the employer in writing of his or her conviction for a violation of a criminal drug statute occurring in the workplace no later than five calendar days after such conviction.	☒	☐	☐
5. The FAA will be notified in writing within ten calendar days after receiving notice under item 4b above from an employee or otherwise receiving actual notice of such conviction. Employers of convicted employees must provide notice, including position title of the employee, to the FAA. Notices shall include the project number of each affected grant.	☒	☐	☐

	Yes	No	N/A
6. One of the following actions will be taken within 30 calendar days of receiving a notice under item 4b above with respect to any employee who is so convicted:			
a. Take appropriate personnel action against such an employee, up to and including termination, consistent with the requirements of the Rehabilitation Act of 1973, as amended; or	☒	☐	☐
b. Require such employee to participate satisfactorily in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State, or local health, law enforcement, or other appropriate agency.			
7. A good faith effort will be made to continue to maintain a drug-free workplace through implementation of items 1 through 6 above.	☒	☐	☐

I have prepared documentation attached hereto with site(s) for performance of work (street address, city, county, state, zip code). There are no such workplaces that are not identified in the attachment. I have prepared additional documentation for any above items marked "no" and attached it hereto. I certify that, for the project identified herein, responses to the forgoing items are accurate as marked and attachments are correct and complete.

Meadow Lake Airport Association

(Name of Sponsor)



(Signature of Sponsor's Designated Official Representative)

David Elliott

(Typed Name of Sponsor's Designated Official Representative)

Board President

(Typed Title of Sponsor's Designated Official Representative)

January 27, 2009

(Date)

Current Actions: New collection of information.

Type of Review: New collection.

Affected Public: Individuals and households, businesses and organizations, State, Local or Tribal Government.

Average Expected Annual Number of Activities: 125.

Respandents: 1,604,168.

Annual responses: 1,604,168 responses.

Frequency of Response: Once per request.

Average minutes per response: 5.46545 minutes.

Burden hours: 146,125 hours.

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

Dated: March 15, 2011.

Faye Lipsky,

Reports Clearance Officer, Center for Reports Clearance, Social Security Administration.

[FR Doc. 2011–6452 Filed 3–17–11; 8:45 am]

BILLING CODE 4191–02–P

DEPARTMENT OF STATE

[Public Notice: 7371]

Office of the Chief of Protocol; Gifts to Federal Employees From Foreign Government Sources Reported by Employing Agencies in Calendar Year 2009; Correction

AGENCY: Department of State.

ACTION: Notice; Correction.

SUMMARY: The Department of State published a document in the **Federal Register** of January 18, 2011 concerning Gifts to Federal Employees from Foreign Government Sources Reported to Employing Agencies in Calendar Year 2009. The document contained the incorrect title of a foreign dignitary.

FOR FURTHER INFORMATION CONTACT: David Solomon, Office of the Chief of Protocol (202) 647–1333/ *Solomonda@State.gov.*

Correction

In the **Federal Register** of January 18, 2011 in FR Vol. 76, No. 11, page 2983, in the third entry in the third column under "Identity of foreign donor and government", the title of the President of the Constitutional Court of Korea is incorrect and should be changed from "President Kang-Kook Lee, Constitutional Court of Korea, Democratic People's Republic of Korea" to read: "President Kang-Kook Lee, Constitutional Court of Korea, Republic of Korea".

Dated: March 14, 2011.

Patrick F. Kennedy,

Under Secretary for Management, Department of State.

[FR Doc. 2011–6457 Filed 3–17–11; 8:45 am]

BILLING CODE 4710–10–P

DEPARTMENT OF STATE

[Public Notice: 7324]

Advisory Committee on International Postal and Delivery Services

AGENCY: Department of State.

ACTION: Notice; FACA Committee meeting announcement.

SUMMARY: As required by the Federal Advisory Committee Act, Public Law 92–463, the Department of State gives notice of a meeting of the Advisory Committee on International Postal and Delivery Services. This Committee has been formed in fulfillment of the provisions of the 2006 Postal Accountability and Enhancement Act (Pub. L. 109–435) and in accordance with the Federal Advisory Committee Act.

DATES: April 7, 2011 from 2 p.m. to about 5 p.m. (open to the public).

Location: The American Institute of Architects (Boardroom), 1735 New York Ave., NW., Washington, DC 20006.

Meeting agenda: The agenda of the meeting will include a review of the results of the October 2010 UPU Council of Administration, the major issues to arise at tbe April 2011 UPU Postal Operations Council and other subjects related to international postal and delivery services of interest to Advisory Committee members and the public.

Public input: Any member of the public interested in providing public input to the meeting should contact Mr. Mohammed Nauage, whose contact information is listed below. Each individual providing oral input is requested to limit his or her comments to five minutes. Requests to be added to the speaker list must be received in writing (letter, e-mail or fax) prior to the close of business on March 31, 2011; written comments from members of the public for distribution at this meeting must reach Mr. Nauage by letter, e-mail or fax by this same date. A member of the public requesting reasonable accommodation should make the request to Mr. Nauage by that same date.

For further information, please contact Mohammed Nauage, Office of Global Systems (IO/GS), Bureau of International Organization Affairs, U.S. Department of State, at (202) 647–1044, *NauageM@state.gov.*

Dated: February 18, 2011.

Dennis M. Delehanty,

Foreign Affairs Officer, Department of State.

[FR Doc. 2011–6454 Filed 3–17–11; 8:45 am]

BILLING CODE 4710–19–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

[Docket No. FAA–2010–0831]

Airport Improvement Program (AIP): Interim Policy Regarding Access to Airports From Residential Property

AGENCY: Federal Aviation Administration (FAA).

ACTION: Interim policy; amendment to sponsor grant assurance 5.

SUMMARY: This action adopts an interim policy amending and clarifying FAA policy concerning through-the-fence access to a federally-obligated airport from an adjacent or nearby property, when that property is used as a residence, and permits continuation of existing access subject to certain standards. This action also modifies sponsor grant assurance 5, Preserving Rights and Powers, to prohibit new residential through-the-fence access to a federally-obligated airport. Prior FAA policy discouraged through-the-fence access to a federally-obligated airport from an off-airport residence. Owners of properties used both as a residence and for the storage of personal aircraft, sometimes called "hangar homes," had urged the agency to permit an exception to the through-the-fence policy for residents who own aircraft.

At this time, the FAA is adopting an interim policy. The policy review conducted in 2010 highlighted a number of differences among the airports identified as having residential through-the-fence arrangements. As a result, the FAA believes it will take more time and more detailed information to better understand these arrangements and how they impact each airport sponsor's ability to comply with its grant assurances. However, the agency also acknowledges that interested stakeholders have a more immediate need for resolntion. The goal of the interim policy is to strike a careful balance by accommodating residential through-the-fence access where it already exists.

To date, the FAA has not been able to clearly define the specific criteria or

Average minutes per response: 30.
Burden hours: 2,500,000.

Appendix 2

requirements that wonld allow airport sponsors to enter into new residential through-the-fence arrangements while ensnring ongoing compliance with their grant obligations. Therefore, the interim policy requires airports with existing residential through-the-fence arrangements to develop access plans outlining how the airport sponsor meets certain standards for control of airport operations and development and for self-sustaining and nondiscriminatory airport rates.

In adopting this interim policy, the FAA is announcing its intent to initiate another policy review of residential through-the-fence access to federally-obligated airports in 2014. This timeframe will give the FAA the experience it needs in reviewing residential through-the-fence arrangements via the access plans and understanding how to mitigate the real and potential adverse effects of these arrangements. Additionally, it will allow the agency to complete a separate, ongoing general aviation airport study that is analyzing the federally assisted general aviation airport system.

The interim policy adopts the changes proposed to sponsor graut assurance 5, Preserving Rights and Powers, to prohibit new residential through-the-fence access to a federally-obligated airport. However, it is the agency's intent to reconsider this change as part of the policy review that will be conducted in 2014. In the interest of ohtaining all availahle information relevant to the review, the FAA invites any person who would be interested in a specific approval of new residential through-the-fence access at a federally-obligated airport to contact the FAA Airport Compliance Division to discuss the particular circumstances so this can be considered in our 2014 review.

DATES: The effective date of this interim policy and the amendment to the grant assnrance is March 18, 2011.

FOR FURTHER INFORMATION CONTACT: Randall S. Fiertz, Director, Office of Airport Compliance and Field Operations, Federal Aviation Administration, 800 Independence Avenue, SW., Washington, DC 20591, telephone (202) 267–3085; facsimile: (202) 267–5257.

SUPPLEMENTARY INFORMATION:

Availability of Documents

You can get an electronic copy of this policy and all other documents in this docket using the Internet by:

(1) Searching the Federal eRulemaking portal (*http://www.regulations.gov/search*);

(2) Visiting the FAA's Regulations and Policies Web page at *http://www.fao.gov/regulations_policies;* or

(3) Accessing the Government Printing Office's Web page at *http://www.gpaaccess.gov/index.html.*

You can also get a copy by sending a request to the Federal Aviation Administration, Office of Airport Compliance and Field Operations, 800 Independence Avenue, SW., Washington, DC 20591, or by calling (202) 267–3085. Make sure to identify the docket number, notice number, or amendment number of this proceeding.

Authority for the Interim Policy and Grant Assurance Modification

This notice is published under the authority described in subtitle VII, part B, chapter 471, sections 47107 and 47122 of Title 49, United States Code.

Background

Sponsors of airports that accept planning and development grants from the FAA under the Airport Improvement Program (AIP), 49 U.S.C. 47101 *et seq.,* agree to a list of standard conditions, or grant assurances. Similar ohligations also attach to the transfer of federal surplus property to airport sponsors and are often contained in surplus property deeds. These include responsibilities to retain the rights and powers necessary to control and operate the airport; to maintain the airport in a safe condition; to take reasonable steps to restrict land adjacent to the airport to compatible land uses; to allow access to the airport on terms that are reasonable and not unjustly discriminatory to any category of user; and to maintain a rate structure for airport fees that makes the airport as self-sustaining as possible.

A complete list of the current grant assurances can be viewed at: *http://www.faa.gov/airports/aip/grant_assurances/.*

Administration of the AIP, including sponsor compliance with grant assurances, is the responsibility of the FAA Associate Administrator for Airports. The Airport Compliance Maunal, FAA Order 5190.6B, issued on September 30, 2009, contains policy guidance for agency employees monitoring sponsor compliance with the grant assurances.

Agency guidance that preceded Order 5190.6B discouraged through-the-fence access at airports with grant obligations, and Order 5190.6B contained specific objections to residential through-the-fence access based on more recent agency experiences. Typically, through-the-fence access allows an aircraft owner to store an aircraft at an off-airport property, and to use the airport by way of a taxiway that crosses the airport boundary and connects the owner's property or neighborhood to the airport's runway-taxiway system.

The Notice of Proposed Policy

Following review of written comments, meetings with state aviation officials, visits to airports with residential through-the-fence access, listening sessions with homeowners and homeowners' associations, and discussions with aviation membership associations, the FAA published a proposed revision in agency policy on residential through-the-fence access for public comment in September 2010: *Airport Improvement Program (AIP): Policy Regarding Access to Airports From Residential Property* (75 FR 54946; September 9, 2010). That notice contained a background history of the residential through-the-fence access issue, and addressed the comments the agency had received prior to issuing the proposed policy.

Comments Received on the Notice

The agency received more than 75 comments on the proposed policy, including comments from members of Congress, state aviation agencies, industry associations, and private homeowners with current through-the-fence access to an airport. Most commenters supported not only the continnation of existing residential through-the-fence uses, but also the accommodation of new access arrangements in the future. While commenters supportiug residential through-the-fence access were often critical of the FAA's continuing concern about such access, many of these commenters also expressed appreciation that the proposed policy would allow virtually all existing residential through-the-fence access to continue. The National Air Transportation Association commented in support of the proposed policy, and described it as striking the right balance between future needs of airports and existing residential through-the-fence access.

As a preliminary matter, some commenters apparently assumed that the FAA objected to all residential through-the-fence access, at any airport. On the contrary, the interim policy relates only to residential through-the-fence access at airports that receive taxpayer funds throngh FAA grants. The FAA has no objection whatsoever to the development of private airparks, where property owners can manage and operate the airport in any manner they like, without federal assistance.

In recent years, the FAA has identified cases in which residential

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through-the-fence access arrangements at federally-obligated airports resulted in an airport sponsor's inability to meet specific grant assurance obligations. In working with airport sponsors to correct their grant assurance violations, the FAA has found these arrangements impose long-term limitations on the airport and compromise the airport's ability to retain the inherent features expected of public use airports.

The question for the FAA, therefore, is not whether to allow hangar homes next to airports, but whether to use pnblic fnnds to support airports with hangar homes. Over time, some of these airports may function more as private airparks than as public-use airports available to all users as part of a national system of airports. The standards for compliance adopted in this interim policy are not regulations; rather, they are mitigations needed to address the sponsor's ongoing ability to meet its obligations. The FAA considers these mitigations necessary to fulfill its obligation to assnre that grant funds are used for the legal purposes for which these funds are authorized and appropriated, and that taxpayer dollars are used in the manner that will have the most benefit for the national airport system and its users.

Many of the comments supportive of residential through-the-fence access were similar to comments received in the FAA's outreach efforts in the past year, and repeated arguments that were summarized and addressed in the preamble to the proposed policy published on September 9, 2010. For example, these comments typically asserted benefits from residential through-the-fence access, including the presence of a supportive airport community; a source of income and aviation activity the airport would not otherwise have; and improved security resnlting from constant observation of the airport by close neighbors. Some commenters argued that residents who own aircraft on adjacent property should not be covered by the same policies that apply to residential land use generally. Some commenters also reiterated that a decision on residential through-the-fence access should be left to the local community. The agency believes these particular comments were addressed in the notice of proposed policy, and the agency's position remains the same on these points.

Approval of New Residential Through-the-Fence Access

A substantial number of comments criticized the proposed prohibition on approval of new residential through-the-fence arrangements. The FAA nnderstands that future residential through-the-fence access could be controlled, to a great extent, by making any approval conditioual upon the airport operator taking any steps the FAA considers necessary to mitigate potential problems with that access. Accordingly, we would agree that many of the issues experienced with existing locations could be avoided. However, as the FAA stated iu the notice, the agency has continuing concerns about the existence of residential properties on the airport boundary. First, it is virtually impossible to assure that these properties will not be used as residences by non-aircraft owners at some point. Second, even residents who now own aircraft and use the airport may still not be snpportive of changes in the airport that result in more noise or night operations, or changes in airport boundaries. Also, federal law and policy make no distinction between residents that own aircraft and those tbat do not. As a result, approval of hangar homes next to an airport makes it more difficult for the FAA and airport operators to oppose other residential communities near an airport, which are the primary source of incompatible land use encroachment at airports nationally. Finally, homeowners have an expectation of perpetual title to their homes to retain the value of their investment, to obtain financing on a long-term schedule, and to simply avoid being uprooted from their residence. As a result, residential through-the-fence uses are typically very difficult for the airport operator to relocate or terminate if the need arises. There is no option of allowing new residential tbrough-the-fence access on a trial basis; if it is allowed, it will probably be there as long as the airport. As noted in the summary, the interim policy is designed to help the FAA better understand possible ways to reconcile these issues.

The Experimental Aircraft Association (EAA) submitted detailed comments supporting approval of new residential through-the-fence locations, including several points not raised iu earlier comments. EAA commented that the FAA does not have the authority to amend the grant assurances; however, that authority does exist, at 49 U.S.C. 47107(h), and the agency has fully complied with the requirements of that statute. EAA also stated that it had done a survey of ten airports in Georgia, and found no available hangars. That fact could argue for through-the-fence access to off-airport hangars, if there were some reason the hangars could not be built on-airport, but it does not support the need for hangar homes. Residential use, not the storage of aircraft, is the issue. Through-the-fence access to private hangars at general aviation airports is not generally a compliance issue, and is not the subject of this interim policy.

EAA offered specific criteria for FAA approval of individual new projects, in lieu of the general prohibition proposed in the interim policy, similar to the standards proposed in the notice for assuring compliance at existing residential through-the-fence locations. The criteria suggested by the FAA are intended to mitigate the adverse impacts that arise from residential through-the-fence arrangements. They may not necessarily allow an airport sponsor to eliminate these impacts, and EAA did not identify any new methods to ensure that these arrangements do not compromise the public-use features of the airport.

Accordingly, as an interim measure, the FAA is adopting the proposed general policy against approval of new residential through-the-fence access at this time, and is revising AIP grant assurance 5, *Preserving Rights and Powers,* as proposed. However, the agency also accepts that both the agency and airport operators will learn more about the effects of residential through-the-fence access at airports as airports with existing access develop access plans and FAA staff has the opportunity to review and approve a substantial number of those plans. The FAA recently initiated a study of general aviation airports to better understand how these airports are utilized and the roles they serve in the national airport system. EAA, in its comments, recommended that the FAA study general aviation airport capacity through a new Future Airport Capacity Task (FACT) study. The FAA's current review of the public-use general aviation airport system is not technically a successor to the most recent FACT study (FACT 2). This study recognizes the diversity that exists within the general aviation airport community, and it will develop detailed data about the roles, operations, and profiles of these facilities to provide more useful information about our current airport system. While we believe that the majority of airports with existing residential through-the-fence arrangements fall within a category of less than 50,000 operations and less than 50 based aircraft, other characteristics that may better define their role locally and nationally are less transparent. As a result of these efforts, the agency expects to have reliable iuformation on the utilization of federally assisted general aviation airports, and also on the ability of the

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access plans to resolve potential compliance issues at airports with residential through-the-fence access. On that basis, it is the agency's intent to initiate a review of this interim policy in fiscal year 2014.

Existing Residential Through-the-Feuce Locations

As with comments received hefore the proposed policy was issued, most commenters supported FAA's proposal to allow existing residential through-the-fence access to continue, with less restrictions and oversight than proposed by the FAA in the notice. Some commenters supported the FAA's proposal to allow through-the-fence access where it exists, if the airport can meet certain standards, and not allow new access. Several commenters opposed allowing even the existing uses to continue, and urged the eventual elimination of the residential through-the-fence access at federally-obligated airports. For reasons discussed in the notice, the FAA believes it is neither feasible nor necessary to eliminate existing residential through-the-fence arrangements. The FAA's proposed alternative (haviug these airports take certain actions to mitigate the adverse effects of through-the-fence access) should be adequate to protect the government's investment in these airports in most cases and avoids unnecessary hardship on current property owners.

In addition to existing and new residential through-the-fence access, many commenters had specific comments on what if anything should be required of airport operators and residents at existing residential through-the-fence locations, and if new standards do apply, what the FAA's approval process should involve. The FAA found these comments very useful in developing the interim policy statement.

Comments not previously addressed in the notice of proposed policy can be summarized as follows:

Comment: The FAA should do a case-by-case review of new requests for residential through-the-fence access, rather than prohibit new access, because of the different conditions at each airport.

Response: The interim policy adopted toward existing uses does allow agency staff to take full account of the individual conditions at each airport. The interim policy provides certain general minimum standards of compliance for safety, cost recovery and efficient operation of these airports, for evaluation of each airport's circumstances. As the FAA explained in the introduction to comments on new access in this notice, the agency does not believe that the mitigation of existing conditions is a reason to create new through-the-fence uses, given the inherent problems with residential use next to an airport, and the fact that residential use tends to be permanent once established. However, the FAA intends to review the issue of approval of new residential through-the-fence access in fiscal year 2014, after experience with individual airport access plans and completion of an FAA study on general aviation airports now in progress. In the interest of obtaining all available information relevant to that review, the FAA invites any person who would be interested in a specific approval of new residential through-the-fence access at a federally-obligated airport in the future to contact the FAA Airport Compliance Division to discuss the particular circumstances so it can be considered as part of the FAA's 2014 review.

Comment: Residential through-the-fence access could be approved at new locations if the airport agreed to additional safety regulations, such as prohibitions on commercial flights, charter flights, and flight training.

Response: This is exactly the kind of limitation on airport nse that the interim policy is intended to avoid. An airport that receives taxpayer assistance for its role in the national system should not have limits on aviation use just so that residences can be located adjacent to the airport.

Comment: EAA proposed, as part of a request that FAA allow new residential through-the-fence access, that each airport with that access develop a safety management system (SMS).

Response: The FAA supports the adoption of SMS at airports, and the agency has recently issued a notice of proposed rulemaking proposing to require SMS at airports with 14 CFR part 139 certification, *Safety Management System for Certificated Airports* (75 FR 62008, October 7, 2010). However, the agency does not believe that it is necessary or appropriate to adopt a special requirement for SMS, as a condition of AIP grants, at airports with through-the-fence access. First, although safety issues are one of the potential problems with residential through-the-fence access, the FAA is not aware of broad evidence that such airports are necessarily more prone to specific safety problems. Second, the SMS process involves costs for airport sponsors and staff time for both sponsors and the FAA. A requirement for an SMS plan at all such airports would be an unjustified expense and administrative burden on sponsors of many small airports that have no unresolved safety issues at this time. The FAA would encourage any general aviation operator to consider an SMS program, but is not making SMS a condition of approval of residential through-the-fence access at this time.

Comment: All NAS users pay into funds through fuel taxes and should not have to pay additional fees. Paying property taxes and airport fees is "double taxation."

Response: Grant-assisted airports are required to be as self-sufficient as possible and develop rate structures that fully support the capital and operating expenses of the airport. While fuel taxes go to fund AIP grants that assist with capital projects, AIP grants are not available to pay for an airport's operating and maintenance expenses. Local and state property taxes, even taxes collected on hangars built on airports by tenants, go to support general local government expenses, and may not contrihute anything to the airport. Most airports rely almost exclusively on rent and fees from tenants and users to cover their operating and maintenance expenses. A through-the-fence nser who does not pay a fee for access may not be contributing any revenue to the airport itself, even though the user has special access to a valuable asset in the airfield.

Camment: The owner of a hangar home with through-the-fence access should not have to pay the same amount an on-airport hangar tenant pays for rent of the hangar, since that rent includes the capital costs of providing that hangar.

Response: While airport sponsors can establish their own rate-setting methodology for access through the fence, the methodology used must be consistent with the sponsor's grant assurance obligations. In other words, the methodology should provide for recovery of costs and ensure fairness to airport tenants and users. The FAA has included several examples of fees that would accomplish the general goals of recovering costs and fairly distributing costs among airport users. The example related to hangar rent has been revised to make clear the amount represents an access fee based on the gronnd rental rate, and not the full rental for lease of an on-airport hangar.

Comment: The notice used three different references to cost recovery, which made it unclear how much airport sponsors are expected to recover from through-the-fence users.

Response: The preamble to the policy summarizes standards for through-the-fence access that include recovery of

airport operating costs. That standard states the airport can collect, and does collect, fees from throngh-the-fence users that are comparable to those charged to airport tenants so that all users bear a fair proportion of airport costs. That is an accurate statement of the agency's general policy goal for through-the-fence charges. The specific list of standards the FAA expects to be included in a sponsor's access plan includes more specific gnidance on various fees that could be used to accomplish this goal, but the two statements both state the same principles of recovery of airport costs and fairness to airport tenants and users. However, nothing in the interim policy precludes an airport sponsor from establishing a higher rate for its through-the-fence users.

Comment: The compliance standards stated in the proposed policy address situations that are not common at airports with through-the-fence access. These conditions addressed by the standards are also found at airports that do not have through-the-fence access, where they have no effect on compliance.

Response: Each of the standards listed for inclusion in an airport's access plan is based on experience with conditions at airports with residential through-the-fence access. If the condition addressed by a particnlar standard does not apply at an airport (for example, the airport already recovers airport costs from both tenants and off-airport users), then the sponsor would be required to do no more than docnment that fact in the access plan.

Comment: The effective date of the policy should be the date of publication of the final policy, and not September 9, 2010.

Response: The effective date of the interim policy adopted is March 18, 2011. However, the definition of "existing access" retains the status date of September 9, 2010, the first date that the public was on notice of the FAA's intended policy. Retaining the September 9, 2010 date in the definition simply prevents an attempt to establish new residential through-the-fence access in the brief period between publication of the notice and publication of this interim policy.

Comment: The proposed policy on "additional" access provided that a change or extension of new access would be effective for 20 years. First, that is a disincentive for through-the-fence users to agree to changes in access that improve airport operation and safety; if the owner's current access rights are longer than 20 years. The developer of a through-the-fence residential project at an obligated general aviation airport in Sandpoint, Idaho, is willing to agree to relocation of its access taxiway to improve airport safety, but only if its current perpetual access rights transfer to the new configuration. Other commenters noted that the 20-year extension is not enough to amortize a standard residential mortgage of 30 years.

Response: The FAA agrees that the proposed definition of "additional access" and the 20-year limitation would have had some unintended effects. The interim policy adopted combines extensions and renewals of access into the single definition of "extend an access." The interim policy makes clear that a change that serves to improve airport safety or implement the sponsor's long-term planning decisions will not be considered an "extend an access." In this case, the 20-year limit on access extensions will not apply, and whatever rights of access the owner has in the current access location may transfer to the new access location.

On the second point, the FAA does not believe the 20-year limit on extension of access would be a hardship. First, many extensions of access would not involve financing or refinancing at all. Second, homeowners with significantly shorter access terms, such as one year, have obtained financing for construction. This is also a reasonable timeframe for airport sponsors as airport planning is typically based on a 20-year forecast and planning horizon.

Comment: Revisions to the airport layout plan (ALP) and access plans required by the policy should be eligible for AIP planning grants.

Response: By law, AIP funds may only be used for airport development projects, planning associated with airport development, and noise, air, and water quality mitigation. As a result, FAA Order 5100.38C, Airport Improvement Program Handbook, states that AIP grants may fund updates to an ALP when the update is done as part of an airport's master plan study or update. Airport master plans routinely identify adjacent land uses to determine what, if any, constraints they might have on an airport's development. Therefore, the work items associated with an airport sponsor's implementation of the interim policy are directly related to airport master planning which is eligihle for AIP grant funding. Airport sponsors should work with FAA Airports District Office (ADO) and regional division staff to develop an appropriate scope of work for their master plan. However, airport sponsors that choose to undertake these work items outside of a master planning process will need to fund them through local means.

Comment: Some commenters expressed concern that the definition of "existing access" may be too narrow. For example, how will the FAA address a situation in which a property owner develops a lot adjacent to an airport, but residential through-the-fence access is not currently being used aud has not been formally granted by the airport sponsor. The policy should permit the airport sponsor to grant those property owners residential through-the-fence access.

Response: Based on the limited information provided, the future access through the fence described in the comment would not be permitted under the interim policy if the property is used as a residence. This scenario does not meet the definition of "existing access". However, the airport sponsor will have the opportunity to demonstrate how its specific situation meets the definition of "existing access" as stated in the interim policy. The FAA notes that the interim policy would not prevent the owner from requesting that the sponsor permit through-the-feuce access for a hangar on the property if the property is not being used as a residence. Additionally, this is an interim policy and is subject to review. As stated in the introduction of the interim policy, FAA invites any person who would be interested in a specific approval of new residential through-the-fence access at a federally-obligated airport to contact the FAA Airport Compliance Division to discuss the particular circumstances so tbis can be considered in our 2014 review.

Comment: If the FAA considers removing au airport from the National Plan of Integrated Airport Systems (NPIAS), that consideration should be based on the general criteria for inclusion in the NPIAS, and not simply the fact that the airport has not met the special standards included in the policy for residential through-the-fence access.

Response: The FAA agrees with the comment. While failure to meet the compliance standards will trigger an FAA review of whether it is appropriate to retain an airport in the NPIAS, and possibly a compliance action, the final decision ou whether to remove an airport from the NPIAS will take into account all of the criteria for inclusion in the NPIAS.

Comment: The policy does not address on-airport housing. Existing on-airport housing should be subject to the same policy as off-airport properties with through-the-fence access, and the FAA should not consider the airport in noncompliance if the airport meets the

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listed standards for through-the-fence access.

Response: Airport property is not a safe or appropriate location for a residence. However, the FAA will review individual existing situations as necessary, to determine if special circumstances exist that make it appropriate to apply the criteria for through-the-fence residential use to on-airport housing.

Comment: The policy should make clear that FAA is not softening its position on commercial through-the-fence access.

Response: The interim policy on residential through-the-fence access does not affect the agency's policy on through-the-fence access from property used for commercial purposes. Through-the-fence access for any reason is generally discouraged, particularly from property used to provide aviation services. However, the FAA understands that there may be reasons for access to property used for aircraft storage or an owner's business, without the potential problems or permanent rights associated with residential use. Accordingly, a sponsor's permission for through-the-fence access for commercial purposes is not, in itself, considered a violation of the grant assurances. The FAA cautions that any attempts to convert commercial through-the-fence access into a residential arrangement is inconsistent with this interim policy and could result in a violation of sponsor assurauce 5 as amended by this interim policy.

Comment: It is not necessary for the FAA to consult the Transportation Security Administration (TSA) when reviewing access plans.

Response: The FAA lacks the expertise to determine what impact, positive or negative, through-the-fence residential access may have on airports with regard to security. The TSA did not express any preference for residential use of land near the airport in our consultation with them in 2010. As noted in the proposed policy, the TSA plans to undertake its own review, aud the FAA will review and consider any recommendations that may follow. In the interim, the FAA may consult the TSA as part of its review of the access plans.

Comment: The proposed policy is inconsistent with Homeland Security Presidential Directive 16 and its supporting Domestic Outreach Plan.

Response: The TSA did not raise any concerns related to this specific directive or any others when the FAA consulted with their staff in the spring of 2010. However, the FAA will forward these concerns to the TSA for further evaluation.

Discussion of FAA Clarifications

Interim Policy

In reviewing the comments, the FAA determined that it will take more time and more detailed information to better understand how residential through-the-fence arrangements impact a sponsor's ability to comply with its grant assurances and whether or not specific criteria can be developed to ensure a sponsor's ongoing compliance witb its assurances. Therefore, the FAA is adopting an iuterim policy and will initiate a policy review in 2014.

Changes: All references to the policy now clarify that it is an interim measure.

Applicability

In reviewing the proposed policy, the FAA determined that the scope identified for applicability was too narrow. The scope has been broadened to include federally-obligated airports where new residential-through-the-fence access is proposed. The FAA's implementation of the policy will require all federally-obligated airports to certify their status with regard to the policy.

Changes: The interim policy clarifies this statement to read, "this interim Policy applies to all federally-obligated airports, including those with existing residential through-the-fence access or proposing to establish new resideutial through-the-feuce access." Additionally, the interim policy states that all federally-obligated airports will be required to certify their status with regard to the policy.

Applicability—"Additional Through-the-Fence Access"

In reviewing the commeuts, the FAA recognized the unintentional confusion created by the use of this term. The proposed policy defined "additional through-the-fence access" to capture two specific circumstances: an airport sponsor's ability to permit a new access point and extension or renewal of access agreements at airports with existing residential through-the-fence arrangements. Upon further review, given the clear, specific conditions used to define "existing access," it is not necessary to contemplate new points of entry for the residential throngh-the-fence users covered by the interim policy at this time.

Changes: The interim policy replaces this term with a definition for "extend an access" and deletes references to the development of new access points.

Applicability—"Development"

In reviewing the comments, the FAA recognized this term was vague. The interim policy offers a refined definition to better specify residential development.

Changes: The iuterim policy amends this definition to specify the excavation or grading of land needed to coustruct a residential property or construction of a residence.

Applicability—"Residential Property"

Some comments noted that the proposed policy lacked a clear defiuition of "resideutial property". The interim policy defines this term.

Changes: The interim policy defines residential property as a piece of real property used for single- or multi-family dwellings; duplexes; apartments; primary or secondary residences even when co-located with a hangar, aerouautical facility, or bnsiness; hangars that incorporate living quarters for permaneut or long-term use; and time-share hangars with living quarters for variable occupancy of any term.

Section I. Existing Through-the-Feuce Access From Residential Property at Federally-Obligated Airports

Iu reviewing the proposed policy, the FAA found many of the statements in this section to be duplicative of statemeuts made in the preamble. The interim policy iucorporates these statements by reference to the proposed policy.

Changes: The two subsections have been combined and shortened to succiuctly summarize the interim policy.

Relocation of Access Points

One comment noted that holders of through-the-fence access rights would be discouraged from relocating their access point if that relocation triggered a higher level of review or potentially diminished their legal rights. The interim policy adopts the change proposed in the comments.

Changes: Section II of the interim policy allows the relocation of throngh-the-fence access points to be considered as "existing access" when the access point is relocated to improve the airport's overall safety or better address issues associated with the sponsor's long-term planning needs. The interim policy clarifies that the first access point mnst be removed, and this provision is not intended to be used to create new access points.

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Section III. Standards for Compliauce at Airports Proposing Additional Through-the-Fence Access at Airports Covered by This Policy

The title and text of this section has been changed to reflect the FAA's decision to replace the term "additional through-the-fence access" with "extend an access". Additionally, some of the language has been re-worded to hetter reflect FAA's intent to review these proposals carefully.

Changes: Section III of the interim policy is now titled, "Standards for compliance at airports proposing to extend through-the-fence access". Similar changes have been made throughout the text of the interim policy, and the requirements applicable to new access points have been deleted. This section clearly states the FAA's intent to review proposals to extend residential through-the-fence access carefully.

Access Fee Methadology

In reviewing the comments, the FAA found that the phrasing used to describe various fee methodologies was confusing. The interim policy revises this phrasing to clarify that residential through-the-fence access fees should, at a minimum, be equivalent to the ground rental rate for on-airport tie-downs and hangars. Additionally, the FAA identified two other potential methodologies that could be used to set rates for through-the-fence access.

Changes: Section III has been revised to better specify various methodologies that may be used to establish through-the-fence access fees, and adds two methodologies not iucluded in the notice of proposed policy.

Section III. Standards for Compliance at Airports Proposing To Extend Through-the-Fence Access

In reviewing the proposed policy, the FAA broadened the scope of some considerations to better capture the potential for au airport's growth and/or the use of new aircraft at that airport over time. Other changes were incorporated to better protect the sponsor's rights and powers.

Changes: Sectiou III is revised to better clarify:

- Sponsors should obtain perpetual avigation easements for overflight.
- Residential through-the-fence users acknowledge that their property will be affected by aircraft noise, emissions, and operations that may change over time.
- Residential through-the-fence users waive any right to bring au action against the airport sponsor for existing and future operations and activities at the airport.
- The airport sponsor has a mechanism for requiring a residential through-the-fence user to comply with the FAA's determination with regard to FAA Form 7460–1, Notice of Proposed Construction or Alteration.

In reviewing the proposed policy, the FAA identified three additional criteria it will consider when an airport sponsor proposes to extend existing through-the-fence access. Consistent with other changes made to the interim policy, one reference to new access points has been deleted.

Changes: Section III has been revised to delete the reference to additional access and include the additional considerations:

- The sponsor has a mechanism for ensuring residents with through-the-fence access do not create or permit conditions or engage in practices that could result in airport hazards, including wildlife attractants.
- The access agreement is subordinate to the sponsor's current and all futnre grant assurances.
- The airport sponsor has developed a process for educating residents with through-the-fence access about their rights and responsibilities.

Section IV. Process and Docnmentation

Some comments qnestioned the process and timeline for how the FAA will review residential through-the-fence access plans. To address this, the interim policy now states that the FAA will establish implementation guidance in the form of a Compliance Guidance Letter available on the FAA's Web site at *http://www.faa.gov/airports.*

Changes: Section IV references the forthcoming Compliance Guidance Letter on FAA Implementation of Interim Policy on Residential Through-the-Fence and Review of Access Plans. The interim policy enconrages airport sponsors to review this Compliance Guidance Letter that will be available on the FAA's Web site at www.faa.gov/airports.

In reviewing the proposed policy, the FAA re-worded some of the language in Section IV to better clarify that airport sponsors should provide residential through-the-fence access plaus.

Changes: A sentence in Section IV has been re-worded to more clearly convey airport sponsors' responsibility to provide residential through-the-fence access plans.

In reviewing the proposed policy, the FAA re-evaluated its proposal to require airport sponsors with existing residential through-the-fence arrangements to initiate a formal airport layout plan (ALP) revision after the FAA accepts their access plan. The FAA believes that the sponsor's pen and ink change should be sufficient to provide the information needed. Thus, the interim policy provides a more flexible approach and allows the airport sponsor to undertake this task on its own schedule as part of its planning process.

Changes: Section IV no longer requires airport sponsors to initiate a formal ALP revision within three years from the date their access plan is accepted. Instead, the airport sponsor will be expected to complete a formal ALP revision that fully depicts the scope of the existing residential through-the-fence arrangements the next time the sponsor initiates an airport master plan study or update.

In reviewing the proposed policy, the FAA found it was vague with regard to when an airport sponsor would need to re-evaluate its access plan. The interim policy clarifies that the FAA's acceptance of an access plan represents an agency determination, as opposed to a finding, that the airport sponsor has met the compliance standards for existing residential through-the-fence access for a period not to exceed 20 years.

Changes: The interim policy notes that the FAA will make a determination, which is more consistent with other actions made by the FAA Airport Compliance Division. It is also more specific with regard to the frequency at which sponsors will need to update their residential through-the-fence access plans. The interim policy identifies four events which would trigger an update of the access plans. Those events include: development of a new master plan, significant updates to an ALP, requests for federal participation iu land acquisition, or any changes to the access agreement.

In reviewing the proposed policy, the FAA determined that language used to describe airports serving a function iu the NPIAS, but unable to meet the standard of compliance, should be revised. The interim policy states that the FAA will consider the constraints placed on the utility of the airport to be a significant factor.

Changes: The interim policy has been revised to state, "The sponsor will not lose eligibility for entitlement grants on the basis of through-the-fence access, but the FAA will have to consider the constraints on the utility of the airport as a significant factor in AIP funding decisions."

In reviewing the proposed policy, the FAA revised the language used to describe airports that no longer have significant value in the national system. The interim policy states the FAA will address cases in which the residential

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through-the-fence access cannot be reasonably mitigated through the development of an access plan and the use of that access adversely affects the airport's public use characteristics.

Changes: The interim policy has been revised to clarify the FAA will consider removing an airport from the NPIAS if residential through-the-fence access cannot be reasonably mitigated through development of an access plan and the use of that access affects the airport's public use characteristics.

In reviewing the proposed policy, the FAA found it was vague in its treatment of airport sponsors with existing residential throngh-the-fence access that fail to suhmit an access plan. The interim policy explains that failure to submit an access plan may jeopardize an airport sponsor's ability to compete for AIP grant funding beginning in Fiscal Year 2013.

Changes: The interim policy adds paragraph 6.c. to Section IV. This paragraph discusses the FAA's expectation that airports with existing residential through-the-fence access will develop appropriate access plans. Failure to do so may jeopardize an airport sponsor's AIP eligibility beginning in Fiscal Year 2013.

In reviewing this section, the FAA replaced all references to requests for "additional" residential through-the-fence access to "extend" residential through-the-fence access. The FAA also deleted any requirements that would he necessitated by a new access point.

Changes: Paragraph B of Section IV is titled "Requests to extend residential through-the-fence access at airports covered by this interim Policy". Similar changes have been made throughout this section, and references to new access points have been deleted. The interim policy also deletes the requirement that sponsors submit a revised ALP depicting any new access points.

In reviewing the requirements for sponsors proposing to extend residential through-the-fence access, the FAA refined its intent with regard to master plans. The interim policy specifies that airport sponsors should work with FAA staff to develop an appropriate scope of work for their master plan.

Changes: The paragraph describing the master plan requirements directs airport sponsors to work with the FAA ADO or regional division staff to develop an appropriate scope of work for their master plan.

Section V. Eligibility for AIP grants

In reviewing the proposed policy, the FAA found it was not clear in its explanation of future AIP eligibility and how the Agency will evaluate requests to fund public infrastructure and facilities that provide substantial benefit to private through-the-fence users. The proposed policy states the FAA will reduce its investment in such projects; however, the FAA will consider the constraints on the utility of the airport and determine if the project is sufficiently justified before making an investment decision.

Changes: The interim policy states the FAA will have to consider the constraints on the utility of the airport as a significant factor in AIP funding decisions. It also more clearly explains that the FAA may not be able to justify the federal investment in projects that result in substantial benefit to residential through-the-fence users.

Amendment to Grant Assurance 5

In reviewing the proposed policy, the FAA found many of the statemeuts in this section to be duplicative of statements made in the preamble. The interim policy deletes these statements.

Changes: The description of item 2 has been shortened to succinctly summarize the iuterim policy.

1. Interim Policy on Existing Through-the-Fence Access From a Residential Property

In consideration of the foregoing, the Federal Aviation Administration adopts the following interim Policy on existing through-the-fence access to a federally-obligated airport from residential property:

Interim Policy on Existing Through-the-Fence Access to Airports from A Residential Property

Applicability

This interim Policy applies to all federally-obligated airports, including those with existing residential through-the-fence access or proposing to establish new residential through-the-fence access. All federally-obligated airports will be required to certify their status with regard to this policy.

For the purposes of this interim Policy statement:

In this sense "access" means:

1. An access point for taxiing aircraft across the airport boundary; *or*

2. The right of the owner of a particular off-airport residential property to use an airport access point to taxi an aircraft between the airport and that property.

"Existing access" through the fence is defined as any through-the-fence access that meets one or more of the following conditions:

1. There was a legal right of access from the property to the airport (e.g., by easement or contract) in existence as of September 9, 2010; *or*

2. There was development of the property prior to September 9, 2010, in reliance on the airport sponsor's permission for through-the-fence aircraft access to the airport; or

3. The through-the-fence access is shown on an FAA-approved airport layout plan (ALP) or has otherwise been approved by the FAA in writing, and the owner of the property has used that access prior to September 9, 2010.

"Extend an access" is defined as an airport sponsor's consent to renew or extend an existing right to access the airport from residential property or property zoned for residential use, for a specific dnration of time, not to exceed 20 years.

"Development" is defined as excavation or grading of land needed to construct a residential property; or construction of a residence.

"Residential property" is defined as a piece of real property used for single- or multi-family dwellings; duplexes; apartments; primary or secondary residences even when co-located with a hangar, aeronantical facility, or business; hangars that incorporate living quarters for permanent or long-term use; and time-share hangars with living quarters for variable occupancy of any term.

"Transfer of access" through the fence is defined as one of the following transactions:

1. Sale or transfer of a residential property or property zoned for residential use with existing through-the-fence access; or

2. Subdivision, development, or sale as individual lots of a residential property or property zoned for residential use with existiug through-the-fence access.

I. Existing Through-the-Fence Access From Residential Property at Federally-Obligated airports

The agency understands that it may not be practical or even possible to terminate through-the-fence access at many of those airports where that access already exists. Where access could be terminated, property owners have claimed that termination could have substantial adverse effects on their property value and investment, and airport sponsors seeking to terminate this access could be exposed to costly lawsuits. Accordingly, the FAA will not consider the existence of existing residential through-the-fence access by itself to be in noncompliance with the airport sponsor's grant assurances.

In some cases, the FAA has found that through-the-fence access rights can

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interfere with the sponsor's ability to meet its obligations as sponsor of a federally assisted public nse airport. This is discussed in detail at 75 FR 54946, 54948 (Sept. 9, 2010). As a result, the FAA believes that sponsors with existing through-the-fence access arrangements must adopt measures to snbstantially mitigate the potential problems with residential throngh-the-fence access where it exists to avoid future grant compliance issues. Therefore, the FAA, as a condition of continuing grants to airports with residential through-the-feuce access, will require tbat sponsors adopt the measures to snbstantially mitigate the potential problems with residential through-the-fence access to avoid futnre grant compliance issues.

Accordingly, the sponsor of an airport where residential through-the-fence access or access rights already exist will be considered in compliance with its grant assurances if the airport depicts the access on its airport layout plan (ALP) and meets certain standards for safety, efficiency, ability to generate revenne to recover airport costs, and mitigation of potential noncompatible land uses. Tbose standards are listed in section II, *Standards for compliance at airports with existing through-the-fence access.* The FAA's review of those standards will be detailed in a Compliance Guidance Letter which will be issued concurrently and published on the FAA's Web site at www.faa.gov/airports. An airport sponsor covered by this interim Policy must seek FAA approval before entering into any arrangement that would extend (including renewal of access) through-the-fence access. Sponsors are reminded that nearby homeowners possess no right to taxi aircraft across the airport's property boundary, and no off-airport property owner will have standing to file a formal complaint under 14 CFR Part 16 with the FAA to challenge the sponsor's decision not to permit snch access.

II. Standards for Compliance at Airports with Existing Througb-the-Fence Access

The FAA understands that municipally-owned airports have varying degrees of zoning authority. For example, one airport sponsor may have strong zoning powers, while another may have none. Also, the nature of existing through-the-fence rights can greatly affect the sponsor's ability to implement measures to control access. Accordingly, the FAA does not expect every airport with existing residential through-the-fence access to adopt a uniform set of rules and measures to mitigate that access. However, the FAA does expect each such sponsor to adopt reasonable rules and implement measures that accomplish the following standards for compliance, to the fullest extent feasible for that sponsor. In general, the greater the number of residential through-the-fence access points and users of the airport and the higher the number of aircraft operations, the more important it is to have formal measures in effect to ensure the sponsor retains its proprietary powers and mitigates adverse effects on the airport.

The FAA's standards for compliance for any sponsor of an airport with existing residential through-the-fence access are as follows:

1. *General authority for control of airport land and access.* The airport sponsor has sufficient control of access points and operations across airport boundaries to maintain safe operations, and to make changes in airport land use to meet future needs.

2. *Sofety of airport operotions.* By rnle, or by agreement with the sponsor, through-the-fence users are obligated to comply with the airport's rules and standards.

3. *Recovery of costs of operating the oirport.* The airport sponsor can and does collect fees from through-the-fence users comparable to those charged to airport tenants, so that through-the-fence nsers bear a fair proportion of airport costs.

4. *Protection of airport airspace.* Operatious at the airport will not be affected by hangars and residences on the airport boundary, at present or in the futnre.

5. *Compatible land uses around the airport.* The potential for noncompatible land use adjacent to the airport boundary is minimized consistent with grant assurance 21, Compatible Land Use.

These standards will be applied, on a case-by-case basis, in the FAA's evaluation of whether each airport with existing residential through-the-fence access meets the above reqnirements to the fullest extent feasible for that airport. In situations when access can be legally transferred from one owner to another without the airport sponsor's review, the FAA will treat the access as existing. Because the ability of some sponsors to control access has been compromised as a result of legal rights previously granted to through-the-fence users, existing access locations may be evaluated under the alternative criteria for some standards as indicated below, if applicable to that airport.

In some cases, an airport sponsor may seek to relocate an existing access point. If the sponsor can demonstrate that this action will improve the airport's overall safety or better address issues associated with the sponsor's long-term planuing needs, the FAA will not consider the access rights associated with the replacement access point to extend an access. In order to transfer the terms of the existing access point to a new access point without a change in compliance statns, the former existing access poiut must be removed. Such requests should be coordinated with the FAA Airports District Office (ADO) or Regional Airports Division and clearly depicted on the sponsor's ALP.

III. Staudards for Compliance at Airports Proposing to Extend Through-the-Fence Access

Once allowed, residential through-the-fence access is very difficnlt to change or eliminate in the future. This is because residential owners, more so than commercial iuterests, typically expect that their residential property will remain suitable for residential use aud protected from adverse effects for a long time. Residential buyers and their mortgage lenders may ensure that the property is purchased with rights that gnarantee no change iu the access to the airport for decades, or indefinitely. Because each additional residential through-the-fence access location introduces the potential for problems for the airport in the future, and becanse this access is effectively permanent and resistant to change once permitted, the FAA will review extensions of existing residential through-the-fence access at public use airports carefully.

The following supplemental standards will be applied to the FAA's case-by-case review of sponsors' proposals to extend residential through-the-fence access. In sitnations when the transfer of access from one owner to another requires the airport sponsor's concurrence, the FAA will treat the access as an extension. The FAA will not approve requests to extend access that are inconsistent with the sponsor's grant assurances (excluding grant assurance 5, Preserving Rights and Powers, paragraph "g" as amended by this notice). Furthermore, the sponsor will be required to demonstrate the following standards for compliance:

- The term of the access does not exceed 20 years.
- The sponsor provides a current (developed or revised within the last five years) airport master plan identifying adequate areas for growth that are not affected by the existence of through-the-fence access rights, or the sponsor has a process for amending or terminating existing through-the-fence access in order to acquire land that may

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be necessary for expansion of the airport in the future.

• The sponsor will impose and enforce safety and operating rules on through-the-feuce residents utilizing this access while on the airport identical to those imposed on airport tenants and transient users.

• The sponsor will charge through-the-fence residents utilizing this access fees that recover airport costs and fairly distribute the burden of airport fees across all airport users, to both tenants and through-the-fence users. Rates shonld increase on the same schedule as tenant fees. Fees that may be sufficient for this purpose include, without limitation:

○ Fees equal to tenant tie-down charges.

○ A fee that is based on the methodology used to establish tenant rates for land rental on the airport, e.g., 25 cents per sqnare foot.

○ Ground leases for dedicated taxiway connections to off-airport properties.

○ Assessment of capital costs for general infrastructure.

○ A local tax assessment or levy on off-airport aircraft owners that is dedicated to airport's account.

○ Any methodology that reflects the high value of through-the-fence access.

• Through-the-fence residents will bear all the costs of infrastructnre, including snow removal and maintenance, related to this access.

• Through-the-fence residents utilizing this access will grant the sponsor a perpetnal avigation easement for overflight, including unohstrncted flight through the airspace necessary for takeoff and landing at the airport.

• Through-the-fence residents ntilizing this access, by avigation easement; deed covenants, conditions or restrictions; or other agreement, have acknowledged that the property will be affected by aircraft noise and emissions and that aircraft noise and emissions may change over time.

• Through-the-fence residents utilizing this access have waived any right to bring an action against the airport sponsor for existing and futnre operations and activities at the airport associated with aircraft noise and emissions.

• The sponsor has a mechanism for ensuring through-the-fence residents ntilizing this access will file FAA Form 7460–1, Notice of Proposed Construction or Alteration, if necessary and complying with the FAA's determination related to the review of Form 7460–1.

• The sponsor has a mechanism for ensuring through-the-fence residents do not create or permit conditions or engage in practices that could result in airport hazards, including wildlife attractants.

• Where available, the airport sponsor or other local government has in effect measures to limit future use and ownership of the through-the-fence properties to aviation-related uses (in this case, hangar homes), such as through zoning or mandatory deed restrictions. The FAA recognizes this measure may not be available to the airport sponsor in all states and jurisdictions.

• If the residential community has adopted restrictions on owners for the henefit of the airport (such as a commitment not to complain about aircraft noise), those restrictions are enforceable by the airport sponsor as a third-party beneficiary, and may not be cancelled withont cause by the community association.

• The access agreement is subordinate to the sponsor's current and all future grant assurances.

• The airport sponsor has developed a process for edncating through-the-fence residents about their rights and responsibilities.

IV. Process and Documentation

A. Existing residential through-the-fence access.

1. *General.* The sponsor of an airport with existing residential through-the-fence access will be considered in compliance with its grant assnrances, and eligible for future grants, if the FAA determines that the airport meets the applicable standards listed above under *Standards for compliance at airports with existing residential through-the-fence access.* The sponsor may demonstrate that it meets these standards by providing the ADO or regional division staff with a written description of the sponsor's authority and the controls in effect at the airport ("residential throngh-the-fence access plan" or "access plan"). Airport sponsors are eucouraged to review the FAA's Compliance Guidance Letter on FAA Implementation and Review of Residential-Through-Fence Access Arrangements, which will be issued concurrently, prior to submitting their access plan. This guidance letter will be published on the FAA's Web site at *http://www.faa.gov/airports.* The ADO or regional division will review each access plan, on a case-by-case basis, to confirm that it addresses how the sponsor meets each of these standards at its airport. The ADO or regional division will forward its recommendations regarding each access plan to the Manager of Airport Compliance. Only the Manager may accept an airport sponsor's residential through-the-fence access plan. In reviewing the access plan, the Manager may consult with the Transportation Security Administration (TSA). The FAA will take into account the powers of local government in each state, and other particular circumstances at each airport. In every case, however, the access plan must address each of the basic requirements listed under section II of this interim Policy.

2. *Residential through-the-fence access plan.* The FAA will require evidence of compliance before issuing an AIP grant, beginning in Fiscal Year 2013. FY 2013 and later grants will include a special grant condition requiring the ongoing implementation of these access plans. Generally, the FAA will not award discretionary grants to the airport until the FAA accepts the sponsor's access plan as meeting the standards to the extent feasible for that airport. Therefore, airport sponsors should provide a residential through-the-fence access plan no later than the October 1st of the fiscal year in which the sponsor will reqnest an AIP grant (i.e., sponsors that will request an AIP grant in Fiscal Year 2013 must submit an access plan no later than October 1, 2012; sponsors requesting an AIP grant in Fiscal Year 2014 must submit no later than October 1, 2013).

3. *Airport Layout Plan.* The FAA will require all residential through-the-fence access points to be identified on the airport's layout plan. A temporary designation may be added through a sponsor's pen and ink change to immediately identify the locations on the airport property that serve as points of access for off-airport residents. A formal ALP revision that fully depicts the scope of the existing residential through-the-fence arrangements should be completed the next time the airport sponsor initiates an airport master plan study or update.

A sponsor's failnre to depict all residential through-the-fence access points may be considered an apparent violation of the sponsor's grant assurances, and the agency may consider grant enforcement under 14 CFR part 16.

4. *FAA review.* The FAA's acceptance of the access plan represents an agency determination that the airport has met the compliance standards for existing residential through-the-fence access for a period not to exceed 20 years. The following actions will require an airport sponsor to update its access plan prior to its 20-year expiration: development of a new master plan, significant updates

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to an ALP, requests for federal financial participation in land acquisition, or any changes to the access agreement. An airport sponsor's failure to implement its access plan could result in a violation of the special grant condition and potentially lead to a finding of noncompliance.

5. *Airports currently in noncompliance.* Airports cnrrently in noncompliance due to grant assurance violations related to through-the-fence access, such as grant assnrance 19, Operation and Maintenance, will need to continue to work with ADO and regional division staff to establish an appropriate corrective action plan. An FAA-approved corrective action plan, once accepted by the FAA, will serve as the sponsor's access plan. The decision to restore the sponsor's compliance status will be made by the Manager of Airport Compliance. In cases where the airport's safety and utility have been compromised, the Manager may require the sponsor to take definitive steps to address those concerns before restoring the sponsor to a compliant statns.

6. *Airports with existing residential through-the-fence access that do not meet the compliance standards.* The FAA recognizes that some airport sponsors will not be able to fully comply with the standards listed ahove, due to limits on the powers of the sponsor and/or other local governments, or on other legal limits on the sponsor's discretion to adopt certain measures. Other airports have the capability to adopt measures to satisfy the compliance standards bnt have not done so. The FAA will take the following action with respect to any obligated airport with existing residential through-the-fence access that does not meet the minimum compliance standards:

a. *Airports that serve a function in the National Plan of Integrated Airport Systems (NPIAS) but cannot fully meet the through-the-fence compliance standards.* Where the airport still substantially serves its intended function in the NPIAS, hut residential through-the-fence access at the airport will have an adverse effect on the airport's operations, its ability to grow, or its ability to accept new kinds of aviation use, the FAA will consider a reduced level of future AIP investment in the airport. FAA evaluation of investment needs will reflect any impairment in the airport's utility due to residential through-the-fence use. The sponsor will not lose eligibility for entitlement grants on the basis of the through-the-fence access, but the FAA will have to consider the constraints on the utility of the airport to be a significant factor in AIP funding decisions.

b. *Airports that no langer have significant value in the national system.* Where the residential through-the-fence access cannot be reasonably mitigated through the development of an access plan, and use of that access adversely affects the airport's public use characteristics, the FAA will consider removal of the airport from the NPIAS consistent with the requirements of FAA Order 5090.3C *Field Farmulation of the Natianal Plan of Integrated Airpart Systems (NPIAS).* The FAA may either take steps to recover unamortized grant funds, or may leave grant assnrances in effect for the life of existing grants but award no new grants.

c. *Airports that fail to submit an access plan.* The FAA expects airport sponsors with existing residential throngh-the-fence access to develop an access plan which preserves their proprietary rights and powers and mitigates the inherent challenges posed by this practice. Beginning in Fiscal Year 2013, a sponsor's failure to comply with the interim policy may jeopardize its ability to compete for AIP grant funding.

B. *Requests to extend residential through-the-fence access at airports covered by this interim Policy*

As of the date of this notice March 18, 2011, a sponsor proposing to extend an access arrangement must submit a current airport master plan and a revised residential through-the-fence access plan as detailed below. The ADO or regional division will forward its recommendations regarding each request to extend access to the Manager of Airport Compliance (Manager). Only the Manager may approve an airport sponsor's request to extend access. In reviewing the proposal, the Manager may consult with the TSA.

1. *Master Plan.* A sponsor wishing to extend an existing residential through-the-fence access arrangement must submit a recent airport master plan to the ADO or regional division. The FAA considers a master plan to be recent if it was developed or updated within the past five years. The master plan should explain how the sponsor plans to address future growth, development, and use of the airport property over the next 20 years; airport sponsors should work with ADO or regional division staff to develop an appropriate scope of work for these master plans.

2. *Residential through-the-fence access plan.* The sponsor is responsible for revising its access plan, as discussed under section IV.A.2 of this interim Policy, to reflect how it will meet the standards for compliance for the extended access. Once accepting the revised access plan, the FAA will condition future AIP grants upon its ongoing implementation.

3. *Continuing obligations.* Once the revised access plan is accepted by the FAA, and if required, the revised ALP, is approved by the FAA, the sponsor must continue to comply with obligations described in section IV.A of this interim Policy.

V. Eligibility for AIP grants

A. *General.* Beginning in Fiscal Year 2013, a sponsor will be required to submit their residential through-the-fence access plans prior to notifying the FAA of its intent to apply for an AIP grant. The sponsor will not lose eligibility for entitlement grants on the hasis of the through-the-fence access, but the FAA will have to consider the constraints on the utility of the airport to he a significant factor in AIP funding decisions.

B. *Public infrastructure and facilities with substantial benefit to private through-the-fence users.* The FAA may be unable to justify the federal investment in a proposed project when private residential developments with through-the-fence access will receive substantial value from that federally assisted airport infrastructure and/or facility.

C. *Exclusive or primary private benefit.* On-airport infrastructure and facilities used exclusively or primarily for accommodation of through-the-fence users are considered private-use and are ineligible for AIP grants.

2. The Proposed Amendment to the Standard AIP Sponsor Assurances

At this time, the FAA considers a sponsor's consent to any permission for through-the-fence access to the airport from a residential property that does not meet the definition of "existing access" in this interim policy to be inconsistent with the sponsor's grant assurances, specifically, the obligation to maintain rights and powers to control airport development and operation. Permitting such access to the airport may also resnlt in violations of the obligation to impose a reasonable, not unjustly discriminatory rate structure that makes the airport as self-sustaining as possible, and the obligation to restrict areas adjacent to the airport to compatible land uses.

Accordingly, the FAA will consider a new through-the-fence access arrangement from a property used as a residence or zoned for residential use to be an apparent violation of the sponsor's grant assurances, and the agency may investigate any report of such action for

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possible enforcement under 14 CFR part 16. Any action taken to strengthen, memorialize, or codify existing access in perpetnity beyond that described in an FAA approved residential through-the-fence access plan at an airport with existing access will also be considered a new grant of through-the-fence access. The sponsor will, of conrse, have the opportunity to present information and arguments to the FAA during the Part 16 process.

In consideration of the above, the FAA adds new paragraph g. to standard AIP sponsor assurance 5, to read as follows:

C. Sponsor Certification. The sponsor hereby assures and certifies, with respect to this grant that:

* * * * *

5. Preserving Rights and Powers.

* * * * *

g. It will not permit or enter into any arrangement that results in permission for the owner or tenant of a property used as a residence, or zoned for residential use, to taxi an aircraft between that property and any location on airport.

Issued in Washington, DC on March 14, 2011.

Randall S. Fiertz,

Director, Airport Compliance and Field Operations.

[FR Doc. 2011–6346 Filed 3–17–11; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

RTCA Government/Industry NextGen Advisory Committee

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of RTCA Charter Renewal.

SUMMARY: The FAA is issuing this notice to advise the pnblic of the renewal of the RTCA Charter (FAA Order 1110.77T) for two years, effective April 2, 2011. The administrator is the sponsor of the committee. The objective of the advisory committee is to seek solutions to issues and challeuges involving air transportation concepts, requirements, operational capabilities, and the associated use of technology and related considerations to aeronautical operations that impact the future Air Traffic Management System. RTCA provides the following two categories of recommendations to the FAA: Broad gauged policy aud investment priority recommendations used by FAA when considering policy and program decisions; and minimum performance standards, reports, and guidance docnments used by the FAA in regulatory decisions and rulemaking. Government regulatory and procurement practices reference or use RTCA standards (with or without change). The Secretary of Transportation has determined that that information and use of committee are necessary in the public interest in connection with the performance of duties imposed on the FAA by law.

FOR FURTHER INFORMATION CONTACT: RTCA Secretariat, 1828 L Street, NW., Suite 805, Washington, DC, 20036; telephone (202) 833–9339; fax (202) 833–9434; Web site *http://www.rtca.org* or the FAA Business Operations Group, NextGen and Operations Planning, 800 Independence Avenue, SW., Washington, DC: telephone (202) 493–4409; fax (202) 267–5071.

SUPPLEMENTARY INFORMATION: Steering Committee and Special Commnittee meetings are open to the public and announced in the **Federal Register**, except as authorized hy Section 10(d) of the Federal Advisory Committee Act.

Issued in Washington, DC, on March 15, 2011.

Kathy Hitt,

RTCA Advisory Committee.

[FR Doc. 2011–6525 Filed 3–17–11; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

Commercial Space Transportation Grants Program

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of reqnest for grant proposals for the Commercial Space Transportation Grant Program.

SUMMARY: This notice solicits Fiscal Year (FY) 2011 grant proposals to continue the development of a Commercial Space Transportation infrastructure system, which supports the National Space Policy and Congressional intent. Begun in 2010, the program supports the Commercial Space Transportation industry by identification, prioritization, and funding for Commercial Space Transportation infrastructure projects.

It must be noted that with the FY 2011 Congressional appropriation not yet enacted, the FAA's Office of Commercial Space Transportation (AST) does not cnrrently have funding for the Commercial Space Transportation Grants Program. Should there be an appropriation for the Commercial Space Transportation Grants Program; the FAA/AST intends to swiftly execute grant awards within FY 2011. To facilitate this, the FAA/AST is requesting grant applications at this time. The FAA/AST intends to receive, process, and evaluate the applications in a timely manner, and in accordance with the notional schedule listed below, so should there be an appropriation, the recipients will already he selected and the awards can be made within FY 2011. There remains the possibility that no funds will be appropriated in FY 2011 for the Commercial Space Transportation Grants Program. If no funds are appropriated, no grant applications submitted in response to this Notice will be approved and funded.

Due to time constraints, this Notice will be the only solicitation made for FY 2011 projects and proposals. The FAA/AST will review and evaluate all applications for a grant received by the deadline, pursuant to 49 United States Code (U.S.C.) Chapter 703 (to be recodified at 51 U.S.C. Chapter 511). The FAA/AST may make one or more grant awards based npon its evaluations of the submissions. All grants awarded nnder the Commercial Space Transportation Grants Program are discretionary awards. Projects to be funded under the Commercial Space Transportation Grants Program must carry out commercial space transportation infrastructure development, as defined in 49 U.S.C. 70301 (to be recodified as 51 U.S.C. 51101).

DATES: In order for the FAA/AST to award funds (if appropriated) prior to the end of FY 2011, the following notional schedule is provided.

Submission Open Period Opens: March 18, 2011

Submission Open Period Closes: May 13, 2011

Review and Approval Period: May 16, 2011 thru June 30, 2011

Announcement: July 15, 2011

ADDRESSES: Applicants can get more information about the Commercial Space Transportation Grants Program, to include a checklist for the submission package, by:

1. Accessing the Office of Commercial Space Transportation website at: *http://www.faa.gov/go/ast;* or

2. Contacting Glenn Rizner or Julie Price, AST–100, for program questions; or

3. Contacting Greg Carter, AGC–510, for legal questions.

ASSURANCES
Airport Sponsors

A. General.

1. These assurances shall be complied with in the performance of grant agreements for airport development, airport planning, and noise compatibility program grants for airport sponsors.

2. These assurances are required to be submitted as part of the project application by sponsors requesting funds under the provisions of Title 49, U.S.C., subtitle VII, as amended. As used herein, the term "public agency sponsor" means a public agency with control of a public-use airport; the term "private sponsor" means a private owner of a public-use airport; and the term "sponsor" includes both public agency sponsors and private sponsors.

3. Upon acceptance of this grant offer by the sponsor, these assurances are incorporated in and become part of this grant agreement.

B. Duration and Applicability.

1. **Airport Development or Noise Compatibility Program Projects Undertaken by a Public Agency Sponsor.** The terms, conditions and assurances of the grant agreement shall remain in full force and effect throughout the useful life of the facilities developed or equipment acquired for an airport development or noise compatibility program project, or throughout the useful life of the project items installed within a facility under a noise compatibility program project, but in any event not to exceed twenty (20) years from the date of acceptance of a grant offer of Federal funds for the project. However, there shall be no limit on the duration of the assurances regarding Exclusive Rights and Airport Revenue so long as the airport is used as an airport. There shall be no limit on the duration of the terms, conditions, and assurances with respect to real property acquired with Federal funds. Furthermore, the duration of the Civil Rights assurance shall be specified in the assurances.

2. **Airport Development or Noise Compatibility Projects Undertaken by a Private Sponsor.** The preceding paragraph 1 also applies to a private sponsor except that the useful life of project items installed within a facility or the useful life of the facilities developed or equipment acquired under an airport development or noise compatibility program project shall be no less than ten (10) years from the date of acceptance of Federal aid for the project.

3. **Airport Planning Undertaken by a Sponsor.** Unless otherwise specified in the grant agreement, only Assurances 1, 2, 3, 5, 6, 13, 18, 30, 32, 33, and 34 in section C apply to planning projects. The terms, conditions, and assurances of the grant agreement shall remain in full force and effect during the life of the project.

C. **Sponsor Certification.** The sponsor hereby assures and certifies, with respect to this grant that:

1. **General Federal Requirements.** It will comply with all applicable Federal laws, regulations, executive orders, policies, guidelines, and requirements as they relate to the application, acceptance and use of Federal funds for this project including but not limited to the following:

Federal Legislation

a. Title 49, U.S.C., subtitle VII, as amended.
b. Davis-Bacon Act - 40 U.S.C. 276(a), et seq.[1]
c. Federal Fair Labor Standards Act - 29 U.S.C. 201, et seq.
d. Hatch Act - 5 U.S.C. 1501, et seq.[2]
e. Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 - Title 42 U.S.C. 4601, et seq.[1 2]
f. National Historic Preservation Act of 1966 - Section 106 - 16 U.S.C. 470(f).[1]
g. Archeological and Historic Preservation Act of 1974 - 16 U.S.C. 469 through 469c.[1]
h. Native Americans Grave Repatriation Act - 25 U.S.C. Section 3001, et seq.
i. Clean Air Act, P.L. 90-148, as amended.
j. Coastal Zone Management Act, P.L. 93-205, as amended.
k. Flood Disaster Protection Act of 1973 - Section 102(a) - 42 U.S.C. 4012a.[1]
l. Title 49, U.S.C., Section 303, (formerly known as Section 4(f))
m. Rehabilitation Act of 1973 - 29 U.S.C. 794.
n. Civil Rights Act of 1964 - Title VI - 42 U.S.C. 2000d through d-4.
o. Age Discrimination Act of 1975 - 42 U.S.C. 6101, et seq.
p. American Indian Religious Freedom Act, P.L. 95-341, as amended.
q. Architectural Barriers Act of 1968 - 42 U.S.C. 4151, et seq.[1]
r. Power Plant and Industrial Fuel Use Act of 1978 - Section 403- 2 U.S.C. 8373.[1]
s. Contract Work Hours and Safety Standards Act - 40 U.S.C. 327, et seq.[1]
t. Copeland Anti Kickback Act - 18 U.S.C. 874.1
u. National Environmental Policy Act of 1969 - 42 U.S.C. 4321, et seq.[1]
v. Wild and Scenic Rivers Act, P.L. 90-542, as amended.
w. Single Audit Act of 1984 - 31 U.S.C. 7501, et seq.[2]
x. Drug-Free Workplace Act of 1988 - 41 U.S.C. 702 through 706.

Executive Orders

Executive Order 11246 - Equal Employment Opportunity[1]
Executive Order 11990 - Protection of Wetlands
Executive Order 11988 – Flood Plain Management
Executive Order 12372 - Intergovernmental Review of Federal Programs
Executive Order 12699 - Seismic Safety of Federal and Federally Assisted New Building Construction[1]
Executive Order 12898 - Environmental Justice

Federal Regulations

a. 14 CFR Part 13 - Investigative and Enforcement Procedures.
b. 14 CFR Part 16 - Rules of Practice For Federally Assisted Airport Enforcement Proceedings.
c. 14 CFR Part 150 - Airport noise compatibility planning.
d. 29 CFR Part 1 - Procedures for predetermination of wage rates.[1]
e. 29 CFR Part 3 - Contractors and subcontractors on public building or public work financed in whole or part by loans or grants from the United States.[1]
f. 29 CFR Part 5 - Labor standards provisions applicable to contracts covering federally financed and assisted construction (also labor standards provisions applicable to non-construction contracts subject to the Contract Work Hours and Safety Standards Act).[1]
g. 41 CFR Part 60 - Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor (Federal and federally assisted contracting requirements).[1]
h. 49 CFR Part 18 - Uniform administrative requirements for grants and cooperative agreements to state and local governments.[3]
i. 49 CFR Part 20 - New restrictions on lobbying.
j. 49 CFR Part 21 - Nondiscrimination in federally-assisted programs of the Department of Transportation - effectuation of Title VI of the Civil Rights Act of 1964.
k. 49 CFR Part 23 - Participation by Disadvantaged Business Enterprise in Airport Concessions.
l. 49 CFR Part 24 - Uniform relocation assistance and real property acquisition for Federal and federally assisted programs.[1 2]
m. 49 CFR Part 26 – Participation by Disadvantaged Business Enterprises in Department of Transportation Programs.
n. 49 CFR Part 27 - Nondiscrimination on the basis of handicap in programs and activities receiving or benefiting from Federal financial assistance.[1]
o. 49 CFR Part 29 – Government wide debarment and suspension (nonprocurement) and government wide requirements for drug-free workplace (grants).
p. 49 CFR Part 30 - Denial of public works contracts to suppliers of goods and services of countries that deny procurement market access to U.S. contractors.
q. 49 CFR Part 41 - Seismic safety of Federal and federally assisted or regulated new building construction.[1]

Office of Management and Budget (OMB) Circulars

a. A-87 - Cost Principles Applicable to Grants and Contracts with State and Local Governments.
b. A-133 - Audits of States, Local Governments, and Non-Profit Organizations

[1] These laws do not apply to airport planning sponsors.

[2] These laws do not apply to private sponsors.

[3] 49 CFR Part 18 and OMB Circular A-87 contain requirements for State and Local Governments receiving Federal assistance. Any requirement levied upon State and Local Governments by this regulation and circular shall also be applicable to private sponsors receiving Federal assistance under Title 49, United States Code.

Specific assurances required to be included in grant agreements by any of the above laws, regulations or circulars are incorporated by reference in this grant agreement.

2. **Responsibility and Authority of the Sponsor.**

   a. **Public Agency Sponsor:** It has legal authority to apply for the grant, and to finance and carry out the proposed project; that a resolution, motion or similar action has been duly adopted or passed as an official act of the applicant's governing body authorizing the filing of the application, including all understandings and assurances contained therein, and directing and authorizing the person identified as the official representative of the applicant to act in connection with the application and to provide such additional information as may be required.

   b. **Private Sponsor:** It has legal authority to apply for the grant and to finance and carry out the proposed project and comply with all terms, conditions, and assurances of this grant agreement. It shall designate an official representative and shall in writing direct and authorize that person to file this application, including all understandings and assurances contained therein; to act in connection with this application; and to provide such additional information as may be required.

3. **Sponsor Fund Availability.** It has sufficient funds available for that portion of the project costs which are not to be paid by the United States. It has sufficient funds available to assure operation and maintenance of items funded under this grant agreement which it will own or control.

4. **Good Title.**

   a. It, a public agency or the Federal government, holds good title, satisfactory to the Secretary, to the landing area of the airport or site thereof, or will give assurance satisfactory to the Secretary that good title will be acquired.

   b. For noise compatibility program projects to be carried out on the property of the sponsor, it holds good title satisfactory to the Secretary to that portion of the property upon which Federal funds will be expended or will give assurance to the Secretary that good title will be obtained.

5. **Preserving Rights and Powers.**

   a. It will not take or permit any action which would operate to deprive it of any of the rights and powers necessary to perform any or all of the terms, conditions, and assurances in the grant agreement without the written approval of the Secretary, and will act promptly to acquire, extinguish or

modify any outstanding rights or claims of right of others which would interfere with such performance by the sponsor. This shall be done in a manner acceptable to the Secretary.

b. It will not sell, lease, encumber, or otherwise transfer or dispose of any part of its title or other interests in the property shown on Exhibit A to this application or, for a noise compatibility program project, that portion of the property upon which Federal funds have been expended, for the duration of the terms, conditions, and assurances in this grant agreement without approval by the Secretary. If the transferee is found by the Secretary to be eligible under Title 49, United States Code, to assume the obligations of the grant agreement and to have the power, authority, and financial resources to carry out all such obligations, the sponsor shall insert in the contract or document transferring or disposing of the sponsor's interest, and make binding upon the transferee all of the terms, conditions, and assurances contained in this grant agreement.

c. For all noise compatibility program projects which are to be carried out by another unit of local government or are on property owned by a unit of local government other than the sponsor, it will enter into an agreement with that government. Except as otherwise specified by the Secretary, that agreement shall obligate that government to the same terms, conditions, and assurances that would be applicable to it if it applied directly to the FAA for a grant to undertake the noise compatibility program project. That agreement and changes thereto must be satisfactory to the Secretary. It will take steps to enforce this agreement against the local government if there is substantial non-compliance with the terms of the agreement.

d. For noise compatibility program projects to be carried out on privately owned property, it will enter into an agreement with the owner of that property which includes provisions specified by the Secretary. It will take steps to enforce this agreement against the property owner whenever there is substantial non-compliance with the terms of the agreement.

e. If the sponsor is a private sponsor, it will take steps satisfactory to the Secretary to ensure that the airport will continue to function as a public-use airport in accordance with these assurances for the duration of these assurances.

f. If an arrangement is made for management and operation of the airport by any agency or person other than the sponsor or an employee of the sponsor, the sponsor will reserve sufficient rights and authority to ensure that the airport will be operated and maintained in accordance with Title 49, United States Code, the regulations and the terms, conditions and assurances in the grant agreement and shall ensure that such arrangement also requires compliance therewith.

g. It will not permit or enter into any arrangement that results in permission for the owner or tenant of a property used as a residence, or zoned for residential use, to taxi an aircraft between that property and any location on airport.

6. **Consistency with Local Plans.** The project is reasonably consistent with plans (existing at the time of submission of this application) of public agencies that are authorized by the State in which the project is located to plan for the development of the area surrounding the airport.

7. **Consideration of Local Interest.** It has given fair consideration to the interest of communities in or near where the project may be located.

8. **Consultation with Users.** In making a decision to undertake any airport development project under Title 49, United States Code, it has undertaken reasonable consultations with affected parties using the airport at which the project is proposed.

9. **Public Hearings.** In projects involving the location of an airport, an airport runway, or a major runway extension, it has afforded the opportunity for public hearings for the purpose of considering the economic, social, and environmental effects of the airport or runway location and its consistency with goals and objectives of such planning as has been carried out by the community and it shall, when requested by the Secretary, submit a copy of the transcript of such hearings to the Secretary. Further, for such projects, it has on its management board either voting representation from the communities where the project is located or has advised the communities that they have the right to petition the Secretary concerning a proposed project.

10. **Air and Water Quality Standards.** In projects involving airport location, a major runway extension, or runway location it will provide for the Governor of the state in which the project is located to certify in writing to the Secretary that the project will be located, designed, constructed, and operated so as to comply with applicable air and water quality standards. In any case where such standards have not been approved and where applicable air and water quality standards have been promulgated by the Administrator of the Environmental Protection Agency, certification shall be obtained from such Administrator. Notice of certification or refusal to certify shall be provided within sixty (60) days after the project application has been received by the Secretary.

11. **Pavement Preventive Maintenance.** With respect to a project approved after January 1, 1995, for the replacement or reconstruction of pavement at the airport, it assures or certifies that it has implemented an effective airport pavement maintenance-management program and it assures that it will use such program for the useful life of any pavement constructed, reconstructed or repaired with Federal financial assistance at the airport. It will provide such reports on pavement condition and pavement management programs as the Secretary determines may be useful.

12. **Terminal Development Prerequisites.** For projects which include terminal development at a public use airport, as defined in Title 49, it has, on the date of submittal of the project grant application, all the safety equipment required for certification of such airport under section 44706 of Title 49, United States Code, and all the security equipment required by rule or regulation, and has provided for

access to the passenger enplaning and deplaning area of such airport to passengers enplaning and deplaning from aircraft other than air carrier aircraft.

13. **Accounting System, Audit, and Record Keeping Requirements.**

    a. It shall keep all project accounts and records which fully disclose the amount and disposition by the recipient of the proceeds of the grant, the total cost of the project in connection with which the grant is given or used, and the amount or nature of that portion of the cost of the project supplied by other sources, and such other financial records pertinent to the project. The accounts and records shall be kept in accordance with an accounting system that will facilitate an effective audit in accordance with the Single Audit Act of 1984.

    b. It shall make available to the Secretary and the Comptroller General of the United States, or any of their duly authorized representatives, for the purpose of audit and examination, any books, documents, papers, and records of the recipient that are pertinent to the grant. The Secretary may require that an appropriate audit be conducted by a recipient. In any case in which an independent audit is made of the accounts of a sponsor relating to the disposition of the proceeds of a grant or relating to the project in connection with which the grant was given or used, it shall file a certified copy of such audit with the Comptroller General of the United States not later than six (6) months following the close of the fiscal year for which the audit was made.

14. **Minimum Wage Rates.** It shall include, in all contracts in excess of $2,000 for work on any projects funded under the grant agreement which involve labor, provisions establishing minimum rates of wages, to be predetermined by the Secretary of Labor, in accordance with the Davis-Bacon Act, as amended (40 U.S.C. 276a-276a-5), which contractors shall pay to skilled and unskilled labor, and such minimum rates shall be stated in the invitation for bids and shall be included in proposals or bids for the work.

15. **Veteran's Preference.** It shall include in all contracts for work on any project funded under the grant agreement which involve labor, such provisions as are necessary to insure that, in the employment of labor (except in executive, administrative, and supervisory positions), preference shall be given to Veterans of the Vietnam era and disabled veterans as defined in Section 47112 of Title 49, United States Code. However, this preference shall apply only where the individuals are available and qualified to perform the work to which the employment relates.

16. **Conformity to Plans and Specifications.** It will execute the project subject to plans, specifications, and schedules approved by the Secretary. Such plans, specifications, and schedules shall be submitted to the Secretary prior to commencement of site preparation, construction, or other performance under this grant agreement, and, upon approval of the Secretary, shall be incorporated into this grant agreement. Any modification to the approved plans, specifications, and

schedules shall also be subject to approval of the Secretary, and incorporated into the grant agreement.

17. **Construction Inspection and Approval.** It will provide and maintain competent technical supervision at the construction site throughout the project to assure that the work conforms to the plans, specifications, and schedules approved by the Secretary for the project. It shall subject the construction work on any project contained in an approved project application to inspection and approval by the Secretary and such work shall be in accordance with regulations and procedures prescribed by the Secretary. Such regulations and procedures shall require such cost and progress reporting by the sponsor or sponsors of such project as the Secretary shall deem necessary.

18. **Planning Projects.** In carrying out planning projects:

    a. It will execute the project in accordance with the approved program narrative contained in the project application or with the modifications similarly approved.
    b. It will furnish the Secretary with such periodic reports as required pertaining to the planning project and planning work activities.
    c. It will include in all published material prepared in connection with the planning project a notice that the material was prepared under a grant provided by the United States.
    d. It will make such material available for examination by the public, and agrees that no material prepared with funds under this project shall be subject to copyright in the United States or any other country.
    e. It will give the Secretary unrestricted authority to publish, disclose, distribute, and otherwise use any of the material prepared in connection with this grant.
    f. It will grant the Secretary the right to disapprove the sponsor's employment of specific consultants and their subcontractors to do all or any part of this project as well as the right to disapprove the proposed scope and cost of professional services.
    g. It will grant the Secretary the right to disapprove the use of the sponsor's employees to do all or any part of the project.
    h. It understands and agrees that the Secretary's approval of this project grant or the Secretary's approval of any planning material developed as part of this grant does not constitute or imply any assurance or commitment on the part of the Secretary to approve any pending or future application for a Federal airport grant.

19. **Operation and Maintenance.**

    a. The airport and all facilities which are necessary to serve the aeronautical users of the airport, other than facilities owned or controlled by the United States, shall be operated at all times in a safe and serviceable condition and in accordance with the minimum standards as may be required or prescribed by applicable Federal, state and local agencies for maintenance and operation. It will not cause or permit any activity or action thereon

which would interfere with its use for airport purposes. It will suitably operate and maintain the airport and all facilities thereon or connected therewith, with due regard to climatic and flood conditions. Any proposal to temporarily close the airport for non-aeronautical purposes must first be approved by the Secretary. In furtherance of this assurance, the sponsor will have in effect arrangements for-

(1) Operating the airport's aeronautical facilities whenever required;
(2) Promptly marking and lighting hazards resulting from airport conditions, including temporary conditions; and
(3) Promptly notifying airmen of any condition affecting aeronautical use of the airport. Nothing contained herein shall be construed to require that the airport be operated for aeronautical use during temporary periods when snow, flood or other climatic conditions interfere with such operation and maintenance. Further, nothing herein shall be construed as requiring the maintenance, repair, restoration, or replacement of any structure or facility which is substantially damaged or destroyed due to an act of God or other condition or circumstance beyond the control of the sponsor.

b. It will suitably operate and maintain noise compatibility program items that it owns or controls upon which Federal funds have been expended.

20. Hazard Removal and Mitigation. It will take appropriate action to assure that such terminal airspace as is required to protect instrument and visual operations to the airport (including established minimum flight altitudes) will be adequately cleared and protected by removing, lowering, relocating, marking, or lighting or otherwise mitigating existing airport hazards and by preventing the establishment or creation of future airport hazards.

21. Compatible Land Use. It will take appropriate action, to the extent reasonable, including the adoption of zoning laws, to restrict the use of land adjacent to or in the immediate vicinity of the airport to activities and purposes compatible with normal airport operations, including landing and takeoff of aircraft. In addition, if the project is for noise compatibility program implementation, it will not cause or permit any change in land use, within its jurisdiction, that will reduce its compatibility, with respect to the airport, of the noise compatibility program measures upon which Federal funds have been expended.

22. Economic Nondiscrimination.

a. It will make the airport available as an airport for public use on reasonable terms and without unjust discrimination to all types, kinds and classes of aeronautical activities, including commercial aeronautical activities offering services to the public at the airport.

b. In any agreement, contract, lease, or other arrangement under which a right or privilege at the airport is granted to any person, firm, or corporation to conduct or to engage in any aeronautical activity for furnishing services to the public at the airport, the sponsor will insert and enforce provisions requiring the contractor to-

(1) furnish said services on a reasonable, and not unjustly discriminatory, basis to all users thereof, and
(2) charge reasonable, and not unjustly discriminatory, prices for each unit or service, provided that the contractor may be allowed to make reasonable and nondiscriminatory discounts, rebates, or other similar types of price reductions to volume purchasers.

c. Each fixed-based operator at the airport shall be subject to the same rates, fees, rentals, and other charges as are uniformly applicable to all other fixed-based operators making the same or similar uses of such airport and utilizing the same or similar facilities.

d. Each air carrier using such airport shall have the right to service itself or to use any fixed-based operator that is authorized or permitted by the airport to serve any air carrier at such airport.

e. Each air carrier using such airport (whether as a tenant, non tenant, or subtenant of another air carrier tenant) shall be subject to such nondiscriminatory and substantially comparable rules, regulations, conditions, rates, fees, rentals, and other charges with respect to facilities directly and substantially related to providing air transportation as are applicable to all such air carriers which make similar use of such airport and utilize similar facilities, subject to reasonable classifications such as tenants or non tenants and signatory carriers and non signatory carriers. Classification or status as tenant or signatory shall not be unreasonably withheld by any airport provided an air carrier assumes obligations substantially similar to those already imposed on air carriers in such classification or status.

f. It will not exercise or grant any right or privilege which operates to prevent any person, firm, or corporation operating aircraft on the airport from performing any services on its own aircraft with its own employees [including, but not limited to maintenance, repair, and fueling] that it may choose to perform.

g. In the event the sponsor itself exercises any of the rights and privileges referred to in this assurance, the services involved will be provided on the same conditions as would apply to the furnishing of such services by commercial aeronautical service providers authorized by the sponsor under these provisions.

h. The sponsor may establish such reasonable, and not unjustly discriminatory, conditions to be met by all users of the airport as may be necessary for the safe and efficient operation of the airport.

i. The sponsor may prohibit or limit any given type, kind or class of aeronautical use of the airport if such action is necessary for the safe operation of the airport or necessary to serve the civil aviation needs of the public.

23. Exclusive Rights. It will permit no exclusive right for the use of the airport by any person providing, or intending to provide, aeronautical services to the public. For purposes of this paragraph, the providing of the services at an airport by a

single fixed-based operator shall not be construed as an exclusive right if both of the following apply:

a. It would be unreasonably costly, burdensome, or impractical for more than one fixed-based operator to provide such services, and
b. If allowing more than one fixed-based operator to provide such services would require the reduction of space leased pursuant to an existing agreement between such single fixed-based operator and such airport.

It further agrees that it will not, either directly or indirectly, grant or permit any person, firm, or corporation, the exclusive right at the airport to conduct any aeronautical activities, including, but not limited to charter flights, pilot training, aircraft rental and sightseeing, aerial photography, crop dusting, aerial advertising and surveying, air carrier operations, aircraft sales and services, sale of aviation petroleum products whether or not conducted in conjunction with other aeronautical activity, repair and maintenance of aircraft, sale of aircraft parts, and any other activities which because of their direct relationship to the operation of aircraft can be regarded as an aeronautical activity, and that it will terminate any exclusive right to conduct an aeronautical activity now existing at such an airport before the grant of any assistance under Title 49, United States Code.

24. **Fee and Rental Structure.** It will maintain a fee and rental structure for the facilities and services at the airport which will make the airport as self-sustaining as possible under the circumstances existing at the particular airport, taking into account such factors as the volume of traffic and economy of collection. No part of the Federal share of an airport development, airport planning or noise compatibility project for which a grant is made under Title 49, United States Code, the Airport and Airway Improvement Act of 1982, the Federal Airport Act or the Airport and Airway Development Act of 1970 shall be included in the rate basis in establishing fees, rates, and charges for users of that airport.

25. **Airport Revenues.**

a. All revenues generated by the airport and any local taxes on aviation fuel established after December 30, 1987, will be expended by it for the capital or operating costs of the airport; the local airport system; or other local facilities which are owned or operated by the owner or operator of the airport and which are directly and substantially related to the actual air transportation of passengers or property; or for noise mitigation purposes on or off the airport. Provided, however, that if covenants or assurances in debt obligations issued before September 3, 1982, by the owner or operator of the airport, or provisions enacted before September 3, 1982, in governing statutes controlling the owner or operator's financing, provide for the use of the revenues from any of the airport owner or operator's facilities, including the airport, to support not only the airport but also the airport owner or operator's general debt obligations or other facilities, then this limitation on the use of all revenues generated by the airport (and, in the case of a public airport, local taxes on aviation fuel) shall not apply.
b. As part of the annual audit required under the Single Audit Act of 1984, the sponsor will direct that the audit will review, and the resulting audit

report will provide an opinion concerning, the use of airport revenue and taxes in paragraph (a), and indicating whether funds paid or transferred to the owner or operator are paid or transferred in a manner consistent with Title 49, United States Code and any other applicable provision of law, including any regulation promulgated by the Secretary or Administrator.

c. Any civil penalties or other sanctions will be imposed for violation of this assurance in accordance with the provisions of Section 47107 of Title 49, United States Code.

26. Reports and Inspections. It will:

a. submit to the Secretary such annual or special financial and operations reports as the Secretary may reasonably request and make such reports available to the public; make available to the public at reasonable times and places a report of the airport budget in a format prescribed by the Secretary;

b. for airport development projects, make the airport and all airport records and documents affecting the airport, including deeds, leases, operation and use agreements, regulations and other instruments, available for inspection by any duly authorized agent of the Secretary upon reasonable request;

c. for noise compatibility program projects, make records and documents relating to the project and continued compliance with the terms, conditions, and assurances of the grant agreement including deeds, leases, agreements, regulations, and other instruments, available for inspection by any duly authorized agent of the Secretary upon reasonable request; and

d. in a format and time prescribed by the Secretary, provide to the Secretary and make available to the public following each of its fiscal years, an annual report listing in detail:

   1) all amounts paid by the airport to any other unit of government and the purposes for which each such payment was made; and

   2) all services and property provided by the airport to other units of government and the amount of compensation received for provision of each such service and property.

27. Use by Government Aircraft. It will make available all of the facilities of the airport developed with Federal financial assistance and all those usable for landing and takeoff of aircraft to the United States for use by Government aircraft in common with other aircraft at all times without charge, except, if the use by Government aircraft is substantial, charge may be made for a reasonable share, proportional to such use, for the cost of operating and maintaining the facilities used. Unless otherwise determined by the Secretary, or otherwise agreed to by the sponsor and the using agency, substantial use of an airport by Government aircraft will be considered to exist when operations of such aircraft are in excess of those which, in the opinion of the Secretary, would unduly interfere with use of the landing areas by other authorized aircraft, or during any calendar month that –

a. Five (5) or more Government aircraft are regularly based at the airport or on land adjacent thereto; or

b. The total number of movements (counting each landing as a movement) of Government aircraft is 300 or more, or the gross accumulative weight of Government aircraft using the airport (the total movement of Government aircraft multiplied by gross weights of such aircraft) is in excess of five million pounds.

28. **Land for Federal Facilities.** It will furnish without cost to the Federal Government for use in connection with any air traffic control or air navigation activities, or weather-reporting and communication activities related to air traffic control, any areas of land or water, or estate therein, or rights in buildings of the sponsor as the Secretary considers necessary or desirable for construction, operation, and maintenance at Federal expense of space or facilities for such purposes. Such areas or any portion thereof will be made available as provided herein within four months after receipt of a written request from the Secretary.

29. **Airport Layout Plan.**

a. It will keep up to date at all times an airport layout plan of the airport showing (1) boundaries of the airport and all proposed additions thereto, together with the boundaries of all offsite areas owned or controlled by the sponsor for airport purposes and proposed additions thereto; (2) the location and nature of all existing and proposed airport facilities and structures (such as runways, taxiways, aprons, terminal buildings, hangars and roads), including all proposed extensions and reductions of existing airport facilities; and (3) the location of all existing and proposed nonaviation areas and of all existing improvements thereon. Such airport layout plans and each amendment, revision, or modification thereof, shall be subject to the approval of the Secretary which approval shall be evidenced by the signature of a duly authorized representative of the Secretary on the face of the airport layout plan. The sponsor will not make or permit any changes or alterations in the airport or any of its facilities which are not in conformity with the airport layout plan as approved by the Secretary and which might, in the opinion of the Secretary, adversely affect the safety, utility or efficiency of the airport.

b. If a change or alteration in the airport or the facilities is made which the Secretary determines adversely affects the safety, utility, or efficiency of any federally owned, leased, or funded property on or off the airport and which is not in conformity with the airport layout plan as approved by the Secretary, the owner or operator will, if requested, by the Secretary (1) eliminate such adverse effect in a manner approved by the Secretary; or (2) bear all costs of relocating such property (or replacement thereof) to a site acceptable to the Secretary and all costs of restoring such property (or replacement thereof) to the level of safety, utility, efficiency, and cost of operation existing before the unapproved change in the airport or its facilities.

30. **Civil Rights.** It will comply with such rules as are promulgated to assure that no person shall, on the grounds of race, creed, color, national origin, sex, age, or handicap be excluded from participating in any activity conducted with or

benefiting from funds received from this grant. This assurance obligates the sponsor for the period during which Federal financial assistance is extended to the program, except where Federal financial assistance is to provide, or is in the form of personal property or real property or interest therein or structures or improvements thereon in which case the assurance obligates the sponsor or any transferee for the longer of the following periods: (a) the period during which the property is used for a purpose for which Federal financial assistance is extended, or for another purpose involving the provision of similar services or benefits, or (b) the period during which the sponsor retains ownership or possession of the property.

31. Disposal of Land.

a. For land purchased under a grant for airport noise compatibility purposes, it will dispose of the land, when the land is no longer needed for such purposes, at fair market value, at the earliest practicable time. That portion of the proceeds of such disposition which is proportionate to the United States' share of acquisition of such land will, at the discretion of the Secretary, (1) be paid to the Secretary for deposit in the Trust Fund, or (2) be reinvested in an approved noise compatibility project as prescribed by the Secretary, including the purchase of nonresidential buildings or property in the vicinity of residential buildings or property previously purchased by the airport as part of a noise compatibility program.

b. For land purchased under a grant for airport development purposes (other than noise compatibility), it will, when the land is no longer needed for airport purposes, dispose of such land at fair market value or make available to the Secretary an amount equal to the United States' proportionate share of the fair market value of the land. That portion of the proceeds of such disposition which is proportionate to the United States' share of the cost of acquisition of such land will, (1) upon application to the Secretary, be reinvested in another eligible airport improvement project or projects approved by the Secretary at that airport or within the national airport system, or (2) be paid to the Secretary for deposit in the Trust Fund if no eligible project exists.

c. Land shall be considered to be needed for airport purposes under this assurance if (1) it may be needed for aeronautical purposes (including runway protection zones) or serve as noise buffer land, and (2) the revenue from interim uses of such land contributes to the financial self-sufficiency of the airport. Further, land purchased with a grant received by an airport operator or owner before December 31, 1987, will be considered to be needed for airport purposes if the Secretary or Federal agency making such grant before December 31, 1987, was notified by the operator or owner of the uses of such land, did not object to such use, and the land continues to be used for that purpose, such use having commenced no later than December 15, 1989.

d. Disposition of such land under (a) (b) or (c) will be subject to the retention or reservation of any interest or right therein necessary to ensure that such

land will only be used for purposes which are compatible with noise levels associated with operation of the airport.

32. **Engineering and Design Services.** It will award each contract, or sub-contract for program management, construction management, planning studies, feasibility studies, architectural services, preliminary engineering, design, engineering, surveying, mapping or related services with respect to the project in the same manner as a contract for architectural and engineering services is negotiated under Title IX of the Federal Property and Administrative Services Act of 1949 or an equivalent qualifications-based requirement **prescribed** for or by the sponsor of the airport.

33. **Foreign Market Restrictions.** It will not allow funds provided under this grant to be used to fund any project which uses any product or service of a foreign country during the period in which such foreign country is listed by the United States Trade Representative as denying fair and equitable market opportunities for products and suppliers of the United States in procurement and construction.

34. **Policies, Standards, and Specifications.** It will carry out the project in accordance with policies, standards, and specifications approved by the Secretary including but not limited to the advisory circulars listed in the Current FAA Advisory Circulars for AIP projects, dated _____ and included in this grant, and in accordance with applicable state policies, standards, and specifications approved by the Secretary.

35. **Relocation and Real Property Acquisition.** (1) It will be guided in acquiring real property, to the greatest extent practicable under State law, by the land acquisition policies in Subpart B of 49 CFR Part 24 and will pay or reimburse property owners for necessary expenses as specified in Subpart B. (2) It will provide a relocation assistance program offering the services described in Subpart C and fair and reasonable relocation payments and assistance to displaced persons as required in Subpart D and E of 49 CFR Part 24. (3) It will make available within a reasonable period of time prior to displacement, comparable replacement dwellings to displaced persons in accordance with Subpart E of 49 CFR Part 24.

36. **Access By Intercity Buses**. The airport owner or operator will permit, to the maximum extent practicable, intercity buses or other modes of transportation to have access to the airport; however, it has no obligation to fund special facilities for intercity buses or for other modes of transportation.

37. **Disadvantaged Business Enterprises.** The recipient shall not discriminate on the basis of race, color, national origin or sex in the award and performance of any DOT-assisted contract or in the administration of its DBE program or the requirements of 49 CFR Part 26. The Recipient shall take all necessary and reasonable steps under 49 CFR Part 26 to ensure non discrimination in the award and administration of DOT-assisted contracts. The recipient's DBE program, as required by 49 CFR Part 26, and as approved by DOT, is incorporated by reference in this agreement. Implementation of this program is a legal obligation and failure to carry out its terms shall be treated as a violation of this agreement. Upon notification to the Recipient of its failure to carry out its approved program,

the Department may impose sanctions as provided for under Part 26 and may, in appropriate cases, refer the matter for enforcement under 18 U.S.C. 1001 and/or the Program Fraud Civil Remedies Act of 1986 (31 U.S.C. 3801).

38. **Hangar Construction.** If the airport owner or operator and a person who owns an aircraft agree that a hangar is to be constructed at the airport for the aircraft at the aircraft owner's expense, the airport owner or operator will grant to the aircraft owner for the hangar a long term lease that is subject to such terms and conditions on the hangar as the airport owner or operator may impose.

39. **Competitive Access.**

a. If the airport owner or operator of a medium or large hub airport (as defined in Section 47102 of Title 49, U.S.C.) has been unable to accommodate one or more requests by an air carrier for access to gates or other facilities at that airport in order to allow the air carrier to provide service to the airport or to expand service at the airport, the airport owner or operator shall transmit a report to the Secretary that-
   (1) Describes the requests;
   (2) Provides an explanation as to why the requests could not be accommodated; and
   (3) Provides a time frame within which, if any, the airport will be able to accommodate the requests.

b. Such report shall be due on either February 1 or August 1 of each year if the airport has been unable to accommodate the request(s) in the six (6) month period prior to the applicable due date.

COMPLIANCE REVIEW CHECKLIST

AIRPORT NAME: Meadow Lake
AIRPORT OWNER: Meadow Lake Airport Association
DATE REVIEWED: June 20, 2011
REVIEWER: Alan Wiechmann, Jviation

SOURCE OF OBLIGATIONS: Grant Agreements

CHECKLIST:

A. Maintenance of Airport

1. Is the airport inspected on a regular schedule? Yes, the airport is inspected daily by an association member.
2. Physical condition for facilities:
   a. Pavements – Good
   b. Navaids – Excellent
   c. Lighting and Signs - Excellent
   d. Drainage – Good
   e. Fencing – Fair
   f. Equipment – Good

   See attached Exhibit A, June 10, 2011 AIRPORT SAFETY INSPECTION CHECKLIST for details.
3. Are sponsor-owned visual landing aids checked and calibrated on a regular schedule at least quarterly? No, last date of calibration is estimated in 2009. Also, no record of check and calibration has been made.
4. Are realistic measures being followed to preserve physical condition of paving, lighting, grading, marking, etc.? Yes, the airport has used CDOT Aeronautics pavement maintenance grants, and one AIP entitlement grant for pavement maintenance. CDOT pavement condition survey results show Meadow Lake Airport pavements in good condition or better. The 21 year life of the runway and taxiway pavements exceeds the FAA 20 year design goal. The runway and taxiway edge lights, airfield signs, and the PAPI are in excellent condition. No broken lights were noted during the physical inspection. A review of the MLAA budget documents shows that $10, 792 was spent in 2010 maintaining the lights and signs and the three year average is $11, 463. Based upon the budget information and the excellent condition of the lights and signs, MLAA's maintenance effort appears to be satisfactory.
5. Does the sponsor have a pavement maintenance program in place, with records to support maintenance activities? No, however in Colorado, CDOT Aeronautics has assumed this role for general aviation airports in Colorado with their excellent pavement management system. MLAA follows the program and does maintenance and rehabilitation projects when CDOT funds are made available.

B. Approach Protection
   1. Are noted obstructions on land under the control of the airport? No, a review of the current Meadow Lake ALP shows that existing obstructions are on privately owned land. Two hangars on the east side of Runway 15/33 penetrate the Part 77 Transitional Surface.
   2. Are there plans for removing the obstructions? No, the airport has no instrument approaches, and coordination of the current ALP did not result in a recommendation to remove the obstructions.
   3. Did the physical inspection of the airport show obstructions not noted on the ALP? No

C. Use of Airport Property
   1. Is airport land being used for the purpose intended by grant agreement? Yes, all airport land is being used for aeronautical purposes. There are no non-aeronautical activities on airport land.
   2. What kind of documentation is maintained to support the lease amounts? There are no airport leases at this time. All services to the flying public are currently provided by Through-the-Fence operators. The airport is attempting to open a turf landing area for glider operations. There are several operators who are proposing to lease airport property for their businesses. The airport will need to develop a methodology for determining lease rates.
   3. Are any areas of GRANT ACQUIRED LAND being used for non-aeronautical purposes? No, all airport land is being used for aeronautical purposes.

D. Use of Airport Revenues
   1. Is income from airport operations and revenue-producing property fully accounted for? Yes, there are currently no leases of airport property.
   2. Are records adequate to show what use is made of airport revenue? Yes, the 2010 airport income was $95,079 and expenses were $66,343. The current budget documents attached as Exhibit B to this checklist were reviewed and the documents are adequate to note any apparent problems with expenditures of airport funds.
   3. Is all revenue produced on the airport applied toward the operation, maintenance, and development of the airport? Yes, a review of the airport financial records indicates that all airport revenues were expended for the operation, maintenance, and development of the airport.

E. Exclusive Rights
   1. Has any operator been granted an exclusive right to conduct an aeronautical activity on the airport? No, there are currently no aeronautical services provided on airport property.
   2. Are there any complaints of discrimination, based on exclusive use pending? No, Staff members at CDOT Aeronautics and the FAA ADO were asked about known user complaints and there are no known problems with exclusive rights.
   3. Have any requests to conduct aeronautical activity on the airport been denied? No, however glider operators have been delayed access to the airport pending the establishment of a turf landing area parallel to Runway 15/33.

F. Control and Operation of the Airport
   1. Is the airport available to the public under fair, equitable, reasonable, and non-discriminatory conditions? Yes
   2. Describe steps routinely taken to ensure safety of aircraft and persons? An association member performs a daily inspection of the airport. The association has been educating members about FAA requirements at association meetings. While driving on the airport during the safety inspection, we were stopped by an association member checking on our purpose for operating a vehicle on the airport.
   3. Are airport facilities operated at all times in a safe and serviceable condition? Yes, the airport is open 24 hours a day, 365 days a year. The airport beacon operates continually during hours of darkness. The runway and taxiway lights are operated by pilot actuated radio control. The association has adequate snow removal capability. They have acquired five pieces of equipment including a blower through surplus programs.
   4. Is the airport ever temporarily closed for non-aeronautical purposes? No
   5. Has the airport owner entered into any agreement that deprives him of ability to carry out obligations to the U.S.? No, the Association Articles of Incorporation and By-Laws give the association the right to establish and enforce rules necessary to meet Federal Aviation Administration rules and regulations.
   6. Does the fee and rental structure provide for making the airport self-sustaining as possible under circumstances existing at the airport? Yes, the fees assessed to members have been sufficient to pay operating expenses and generate a small surplus adequate to support sponsor match for FAA and CDOT Aeronautics grants. However, additional revenue will be needed to support major projects like runway and parallel taxiway rehabilitation.

G. Conformity to Airport Layout Plan (ALP)
   1. Is the ALP current? Yes, the airport is working with the Denver ADO to add a proposed turf landing area to the ALP.
   2. Is all development in conformance to the approved ALP? Yes

H. Continuing Special Conditions
   1. Do AIP grants contain special conditions? Yes, starting with AIP-15, a special condition has been added to all AIP grants which states, “Insofar as the Sponsor administers the public-use, federally obligated airport facilities of the Meadow Lake Airport in Peyton, Colorado, the Sponsor shall not be terminated or dissolved without prior approval of the Federal Aviation Administration. In the event of the termination or dissolution of the Sponsor, the Sponsor shall return, convey or transfer land purchased with Federal grant funds to the Federal Aviation Administration by selling such land for the highest and best use, and otherwise comply with all terms of the Federal assistance grant assurances to return and dispose of land or assets purchased through Federal grants.”
   2. Has the sponsor complied with the terms of the special conditions? Yes, the association has no plans for terminating or dissolving.

I. Disposal of Grant Acquired Land
   1. Has any airport land been sold or otherwise disposed of or encumbered without FAA approval? The association still holds fee title to all land acquired with AIP grant funds.

J. Compatible Land Use

1. What actions have been taken to restrict use of lands in the vicinity of the airport to activities and purposes compatible with normal airport operations? As a private entity, MLAA has no zoning authority. El Paso County controls zoning in the vicinity of the airport. The County has not enacted specific zoning to protect the airport; however MLAA comments on all development proposals near the airport and believes that the County has been reasonable in its land use decisions which affect the airport. The last documented request by MLAA to the County to implement height restrictive zoning was in 2002. It is recommended that MLAA request El Paso County adopt an airport zoning ordinance to better protect MLAA. They should also ask the FAA and CDOT Aeronautics to send letters of support to El Paso County for adoption of airport zoning.

K. FAA Forms 7460-1 &7480-1

1. Is the sponsor aware of when it is required to submit FAA Form 7460-1, *Notice of Proposed Construction or Alteration*, and Form 7480-1, *Notice of Landing Area Proposal*? Yes, MLAA has filed 7460-1s for each of the hangars constructed in recent years and they have a 7480-1 under review by the FAA for establishment of a turf landing zone at the Airport.

AIRPORT SAFETY INSPECTION CHECKLIST

MEADOW LAKE AIRPORT **DATE:** JUNE 10, 2011

INSPECTOR: ALAN WIECHMANN, JVIATION

ACCOMPANIED BY JOHN SWEENEY, CDOT AERONAUTICS AND DAVE ELLIOTT, MLAA

FACILITIES	CONDITIONS	REMARKS	RESOLVED BY (Date/Initials)
Pavement Areas	Pavement lips over 3”	Minor areas off south edge of crosswind runway have eroded.	
	Hole – 5” diam. 3” deep	Satisfactory	
	Cracks/spalling/heaves	Satisfactory	
	FOD: gravel/debris/sand	Satisfactory	
	Rubber deposits	Satisfactory	
	Ponding/edge dams	Inspected during dry conditions, but no sign of ponding from previous rains.	
Safety Areas	Ruts/humps/erosion	Runway and Taxiway Safety Areas are generally in good condition. Erosion in RSA near Taxiway D and around some sign bases needs to be corrected.	
	Drainage/construction	Inspected in dry conditions, but no sign of drainage problems. No construction was underway.	
	Frangible bases	Density altitude sign along taxiway A near Runway 15 threshold has non frangible mounts. Could relocate to outside Taxiway Safety Area as an alternate fix.	
	Unauthorized objects	Satisfactory	
Markings	Clearly visible/standard	Satisfactory	
	Runway markings	Satisfactory	
	Taxiway markings	Satisfactory	
	Holding position markings	Satisfactory	
Signs	Standard/meet Sign Plan	Satisfactory	
	Obscured/operable	Satisfactory	

FACILITIES	CONDITIONS	REMARKS	RESOLVED BY (Date/Initials)
	Damaged/retroreflective	Satisfactory	
Lighting	Obscured/dirty/operable	Satisfactory	
	Damaged/missing	Satisfactory	
	Faulty aim/adjustment	Satisfactory	
	Runway lighting	Satisfactory	
	Taxiway lighting	Satisfactory	
	Pilot control lighting	Satisfactory	
Navigational Aids	Rotating beacon operable	Satisfactory	
	Wind indicators	Satisfactory	
	PAPIs	PAPIs operable, however aiming angle not being checked on a regular schedule.	
Obstructions	Obstruction lights operable	Satisfactory	
	Cranes/trees	Satisfactory	
Public Protection	Fencing/gates/signs	Access control and education needs work.	
Wildlife Hazards	Wildlife present/location	No wildlife noted	
	Dead birds	None seen	

Comments/Remarks: Ron Lee of MLAA inspects the airport each morning. Based upon the condition of the airport, his inspections appear to be thorough and effective. The runway and taxiway edge lights in particular are well maintained when compared to many general aviation airports. The dry climate of Colorado Springs makes growing grass challenging. The most notable maintenance problem on the airport is dealing with erosion in the safety areas, and around sign bases. During a significant rain, the large volume of water running off paved areas can damage safety areas. After rains, safety areas should have a more thorough inspection.

Public Protection/Access Control: The perimeter fence has been adequately repaired and expanded to prevent inadvertent access by persons and vehicles. The area around the airport is becoming more populated and signage along the fence should be installed to increase awareness that the property is an airport and access is not permitted.

No unauthorized vehicles were observed during this inspection or during two previous visits to Meadow Lake for meetings with the Board of Directors.

The Through-the-Fence areas of the airport have numerous roads and taxiways that are difficult to distinguish to the visitor. MLAA has improved signs to reduce the inadvertent entry potential; however an Access Plan should be developed to attain the customary Level of Safety seen at comparable general aviation airports. The plan should contain both physical and educational measures for association members.

MEADOW LAKE AIRPORT ASSOCIATION

6/16/2011 **BUDGET WORKSHEET**

Code	Category / Sub-Category	ACTUAL 2006	2007	2008	2009	2010	3 year average
ROUTINE REVENUES:							
DUES =>	Airport Owners	57,242	67,995	83,823	87,957	85,003	85,594
	Residential	1,125	1,125	1,275	1,819	1,750	1,615
	High Flight	622	1,400	1,200	1,578	1,200	1,326
	Overdue Assessments		(Cox, Dannatt, Miller, Roriguez, Saunders, Shook, Thatcher =>)				
4010	Dues	58,989	70,520	86,298	91,354	87,953	88,535
4020	Fuel Assessments	3,304	4,945	2,829	2,180	4,217	3,075
4100	CDOT Fuel Tax Refund	3,459	2,057	1,394	-1,547	1,855	567
4050	Interest	4,044	6,069	4,879	3,111	1,054	3,015
4140	Special Assessment		10,537				
	Total local revenue:	69,796	94,128	95,400	95,098	95,079	95,192
NORMAL EXPENSES: Routine Admin, Ops, Maint							
5040	Advertising	337	0	0	0	15	5
5060	Annual Meeting	0	0	0	129	0	43
5080	Bank Charges	132	112	271	48	0	106
5100	Corp Fees, Dues, Licenses	63	10,075	156	0	520	225
5150	Insurance	9,098	8,479	9,296	8,576	7,878	8,583
5170	Interest	13	0	19,347	12,036	4,663	12,015
5220	Office Supplies	262	1,309	222	356	279	286
5240	Printing & Publications	192	2,413	809	1,043	277	710
5260	Postal Expenses	394	405	780	727	713	740
5280	Property Tax	-2,019	9	10	115	115	80
5800	Travel & Entertainment	274	0	0	0	197	66
	Consultants						
5020	Accounting	2,743	8,045	5,807	3,495	2,390	3,897
5200	Legal	31,143	4,792	4,176	9,164	5,800	6,380
5300	Professional Fees	2,258	475	0	0	0	0
5500	**Ops & Maint: Airfield**						
5510	Runways	0	384	0	0	9,615	3,205
5520	Taxiways	0	22,483	-392	147	168	-26
5530	Lighting	1,308	557	11,686	13,080	6,066	10,277
5540	Signage	-420	0	-1,169	0	4,726	1,186
5550	Safety & Security	376	564	4,659	442	2,252	2,451
5570	AWOS					296	99
5580	utilities: phone	-	-	-	-	-	0
5590	utilities: elec-rwy	2,282	1,816	2,469	2,281	2,110	2,287
	subtotal:	3,546	25,804	17,253	15,950	25,233	
5600	**Ops & Maint: Property**						

6/16/2011

MEADOW LAKE AIRPORT ASSOCIATION
BUDGET WORKSHEET

	5610	Vehicles						
	5615	POL	517	682	889	1,540	459	963
	5620	parts	3,883	1,984	1,464	985	5,065	2,505
	5625	labor	0	0	0	0	2,370	790
		subtotal (vehicles):	4,400	2,666	2,353	2,525	7,894	
	5630	Roads & Grounds	0	0	0	7,828	6,259	4,696
	5640	Signage	0	0	0	0	0	0
	5650	Safety & Security	0	0	0	0	0	0
	5660	Buildings						
	5670	maint & repair	4,073	3,459	2,040	1,983	28	1,350
	5675	trash collection	303	220	573	173	889	545
	5680	utilities: gas-bldg	1,366	768	2,269	1,416	1,518	1,734
	5690	utilities: elec-bldg	2,306	2,100	2,140	2,084	1,675	1,966
		subtotal (buildings):	8,048	6,547	7,021	5,656	4,110	
		subtotal:	12,448	9,213	9,374	16,009	18,263	
5900		Miscellaneous	40	0	0	431	0	144
		Total Expenses:	60,924	71,131	67,500	68,079	66,343	67,307
		Local Revenue - Expenses	8,872	22,997	27,900	27,019	28,736	
SPECIAL REVENUES: Grants & Loans								
		AIP -12 (land reimburse)	350,000 (*)					
		AIP -13 (ALP/MP update)	62,947	28,580	8,473			
		AIP -14 (land reimburse)		250,000	(*)			
		AIP -15 (land reimburse)			500,000 (*)			
		AIP -16 (land reimburse)			126,360 (*)			
		AIP -17 (land reimburse/AWOS)				6,611	42,082	
		AIP -18 (AWOS)					73,654	
	4060	AIP -19 (land reimburse)					(final land reimbursement) =>	
		AIP -20 (FY '11)						
		AIP -21 (FY '12)						
		AIP -22 (FY '13)						
		AIP -23						
		AIP -24						
		AIP -25						
		AIP -26						
		FAA Grants	412,947	278,580	634,833	6,611	115,736	
		CDAG 06-24-15/3 (rwy rehab. ALP/I	169,789	27,174	3,037			
		CDAG 08-00V-01 (land match)			13,157			
		CDAG 08-00V-02 (SBP, beacon)			42,948	57,094		

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MEADOW LAKE AIRPORT ASSOCIATION
BUDGET WORKSHEET

	4070	CDAG 09-00V-01 (AWOS/land match, rwy mx, ffws)				144,056	11,581
		CDAG 10-00V-01 (rwy mx, land match)					6,922
		CDAG 11-00V-01 (Compliance Plan & security/access control)					
		CDAG 12-00V-01 (security/access control)					
		CDAG 13-00V-01 (security/access control)					
		CDAG 14-00V-01 (security/access control)					
		CDAG 15-00V-01 (security/access control)					
		CDAG 16-00V-01 (security/access control)					
		CDAG 17-00V-01 (security/access control)					
		CDoT Aviation Grants	169,789	27,174	59,142	201,150	18,504
	2150	**Colo SIB Loans**					
		Total Special Revs	582,736	305,754	693,975	207,761	134,240
SIB Loan Payback			300,203	198,360	603,203	158,573	40,000
	Extra Payments:			**Est'd Year end Balance =**			141,354
DISCRETIONARY EXPENSES: *Capital Investments, AIP-CIP-MLAA Special Projects*							
			(obligated projects/amounts)				
	1525	Tracts 9b,c,e,ba,bb (O'Sullivan)		6,817		18,121	
	1528	Tract 15 (Penkhus/Johnston)				5,479	
	1750	Vehicles	-800				
	1920	ALP/Master Plan Update	92,577	41,509	3,791		
		Fire Fighting Water Storage			6,800	19,373	6,250
	1930	Strategic Business Plan			48,515	74,737	0
	1730	AWOS				4,700	115,015
	FY 2010	Rwy 15 Runup Area					4,973
		Crosswind Treatment					3,680
		Cessna Drive Treatment					6,084
		Crosswind Fencing					2,145
		Aerostar Access					2,173
		Weed Control					1,645
	FY 2011	Compliance Plan					
		Rwy/Txy Maint (crackfill-seal-res	154,456	22,483		35,699	
		Security/Access Control					
		Falcon Hwy Entrance					
		Turf OpArea					
		"Bravo" Loop					
		GA Entitlement (TBD)					

MEADOW LAKE AIRPORT ASSOCIATION

6/16/2011 **BUDGET WORKSHEET**

	CIP	NPIAS	Construct New X-Wind & Drainage					
			Construct New Acft Parking Apron					
			Realign & Extend Primary Rwy/Txy					
			Construct New Parallel Rwy					
			Security & Perimeter Fencing					
			Admin/SRE Maint Bldg					
			RUNWAY UPGRADE-REHAB					
	Total Extra Expenses:			246,233	70,809	59,106	158,109	141,965
Net Gain / Loss				45,172	59,582	59,566	-81,902	-18,989

		Setaside for Runway Upgrade	
		Setaside for Falcon Hwy Access	
			start of year
	CASH ON HAND ==>	**Falcon Hwy Access Reserve =>**	0
		Runway Reserve =>	15,000
		MLAA Operating Reserve =>	95,000
		TOTAL CASH RESERVES =>	110,000

MEADOW LAKE AIRPORT ASSOCIATION

6/16/2011 **BUDGET WORKSHEET**

2011 proposed	to date (May 31st)	2012	2013	2014	2015	2016	2017	
95,700	82,377	97,577	97,577	97,577	97,577	97,577	97,577	
1,575	1,250	2,400	2,400	2,400	2,400	2,400	2,400	
1,200	500	1,200	1,200	1,200	1,200	1,200	1,200	
4,271	1,628							
102,746	85,755	101,177	101,177	101,177	101,177	101,177	101,177	
4,000	1,021	4,000	4,000	4,000	4,000	4,000	4,000	
2,000	958	2,000	2,000	2,000	2,000	2,000	2,000	
1,000	5	1,000	1,000	1,000	1,000	1,000	1,000	
109,746	87,739	108,177	108,177	108,177	108,177	108,177	108,177	
0		0	0	0	0	0	0	
100	35	100	100	100	100	100	100	
100		100	100	100	100	100	100	
700	700	610	610	610	610	610	610	
9,000		9,000	9,000	9,000	9,000	9,000	9,000	
2,000		0	0	0	0	0	0	
300	276	600	600	600	600	600	600	
750	660	1,000	1,000	1,000	1,000	1,000	1,000	
750	169	600	600	600	600	600	600	
115	160	10	10	10	10	10	10	
0	242	0	0	0	0	0	0	
4,000	2,120	2,750	2,750	2,750	2,750	2,750	2,750	
5,000	549	5,000	5,000	5,000	5,000	5,000	5,000	
0		0	0	0	0	0	0	
0		0	0	0	0	0	0	
0		0	0	0	0	0	0	
5,000	335	2,000	2,000	2,000	2,000	2,000	2,000	
1,000	-8	0	0	0	0	0	0	
250	2,563	250	250	250	250	250	250	
1,200	541	0	0	0	0	0	0	
0		600	600	600	600	600	600	
2,500	1,253	2,200	2,200	2,200	2,200	2,200	2,200	
		5,050	5,050	5,050	5,050	5,050	5,050	

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MEADOW LAKE AIRPORT ASSOCIATION
BUDGET WORKSHEET

1,000		1,500	1,500	1,500	1,500	1,500	1,500	
2,500	188	1,000	1,000	1,000	1,000	1,000	1,000	
1,500	60	500	500	500	500	500	500	
		2,000	2,000	2,000	2,000	2,000	2,000	
2,000	207	2,000	2,000	2,000	2,000	2,000	2,000	
0		0	0	0	0	0	0	
0		0	0	0	0	0	0	
2,000	108	2,000	2,000	2,000	2,000	2,000	2,000	
900	165	300	300	300	300	300	300	
1,500	1,269	1,500	1,500	1,500	1,500	1,500	1,500	
2,000	1,278	2,200	2,200	2,200	2,200	2,200	2,200	
		6,000	6,000	6,000	6,000	6,000	6,000	
		10,000	10,000	10,000	10,000	10,000	10,000	
0	0	0	0	0	0	0	0	
46,165	12,870	34,820	34,820	34,820	34,820	34,820	34,820	
63,581	74,869	73,357	73,357	73,357	73,357	73,357	73,357	
		AIP GA Entitlement grants ... plus 2.5% CDoT & 2.5% MLAA match						
27,653	34,247							
110,831	pending	39,169						
		150,000						
		150,000						
			150,000					
				150,000				
					150,000			
						150,000		
							150,000	
138,484	34,247	339,169	150,000	150,000	150,000	150,000	150,000	
		CDAG project grants ... normally with 20% MLAA cash match						
5,008	5,000							

MEADOW LAKE AIRPORT ASSOCIATION
BUDGET WORKSHEET

6/16/2011

	5,780							
105,078	162							
107,800		<= 2011 CDAG 90/10% (MLAA cash match), except Compliance 70/30%						
		87,895						
			83,947					
				83,947				
					83,947			
						83,947		
							83,947	
217,886	10,942	87,895	83,947	83,947	83,947	83,947	83,947	
356,370	45,189	427,064	233,947	233,947	233,947	233,947	233,947	
130,831	40,000							
15,000								
6,250	6,250							
26,391	25,941							
	-							
	-							
	-							
	-							
100,000	-	-	-	-	-	-	-	
	15,210	-	100,000	100,000	100,000	100,000	100,000	
42,000	-	-						
2,500								
131,348								
		315,789	157,896	157,894	157,894	157,894	157,894	

MEADOW LAKE AIRPORT ASSOCIATION

6/16/2011 **BUDGET WORKSHEET**

								3,000,000
								1,500,000
								6,500,000
								1,500,000
								1,000,000
					100,000	200,000	200,000	
323,489	47,401	315,789	257,896	257,894	357,894	457,894	457,894	13,500,000
-34,368	32,657	184,632	49,408	49,410	-50,590	-150,590	-150,590	
25,000	25,000	50,000	50,000	50,000	50,000	10,000		
5,000	5,000							
end of year (budget)	**end of year** (projected)	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	
5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	
40,000	40,000	90,000	140,000	190,000	240,000	250,000	250,000	
30,632	97,657	232,289	231,697	231,107	130,517	-30,073	-180,663	
75,632	142,657	327,289	376,697	426,107	375,517	224,927	74,337	

OBJECTIVES AND APPROACH

The Compliance Review of the Meadow Lake Airport recommended that an access plan be developed to reduce the risk of inadvertent entry by vehicles onto the runway/taxiway system. This is particularly true on the east side of the airport where more than 95% of the aircraft are located. Fencing is limited in this area, taxiway and road pavements are hard to differentiate, and there are numerous vehicles each day accessing businesses and hangars. The challenge is to significantly decrease the potential for an uninformed person to accidently drive onto a primary airport runway or taxiway. There are several locations where a driver has a direct route from the primary airport access road, Cessna Drive, to Taxiway A, the parallel taxiway to Runway 15/33. **The objective of this plan is to decrease the potential that vehicular traffic will inadvertently access Taxiway A, Runway 15/33, or Runway 8/26.**

The approach to developing a plan is based on six steps which will tailor the plan to fit Meadow Lake Airport's situation. The steps are:

1. Identify principles and practices that decrease the potential for inadvertent access
2. Identify physical and educational measures that support the principles and practices
3. Identify airport locations with the potential for inadvertent vehicular access
4. Identify options at vehicle access points
5. Develop cost estimates and Capital Improvement Program (CIP) information
6. Recommend near term and long term actions

PRINCIPLES AND PRACTICES THAT DECREASE THE POTENTIAL FOR INADVERTENT VEHICULAR ACCESS

The principles that decrease the potential for inadvertent vehicular access to critical airport areas are:

- Limitation of vehicular traffic
- Increasing driver awareness of their location and situation while driving on the airport

Practices that reduce the potential for inadvertent vehicular access include:

- Gated restriction to vehicles where practical
- Elimination of direct vehicular routes to operational areas
- Standard markings and location identification of roads, taxiways, and buildings
- Separation of vehicles and aircraft where practical
- Education of users on rules, marking, and signage
- Multiple indicators to drivers of the need to STOP and not proceed into an operational area

Fencing, marking, and signage are the primary physical measures available to implement the practices. A variety of fencing, marking, and signage options are presented in this working paper, giving latitude to match cost with potential funds. Educational measures include providing information to all Meadow Lake Airport Authority (MLAA) members about standard signs, markings, and routes.

IDENTIFICATION OF LOCATIONS AT MEADOW LAKE AIRPORT WITH POTENTIAL FOR INADVERTENT VEHICULAR ACCESS

Locating the points with inadvertent vehicular access potential was accomplished by a review of maps and a physical inspection of the airport and surrounding land. Two maps were developed from the review. The first, Existing Traffic Patterns (**Exhibit A**), illustrates the primary vehicular and aircraft routes at the airport. The second, Access Point Map (**Exhibit B**), highlights the primary vehicular access points to the runway/taxiway environment. The unique through-the-fence environment of Meadow Lake yielded many more access points than at a typical airport. **One challenge is to reduce the number of locations where a single mistake would end with a vehicle on an airport runway or parallel taxiway.** Locations currently exist where a vehicle driver has a straight uninterrupted path to the airport runways or parallel taxiways.

IDENTIFICATION OF OPTIONS AT VEHICLE ACCESS POINTS

Fencing, marking, and signage alternatives that are available are shown in **Exhibit C**. Each location with vehicle access was initially reviewed by Jviation staff to recommend options. A preliminary meeting was held with the Federal Aviation Administration (FAA) and State Aeronautics staff on August 30, 2011 to review access points and measures available for each point. Further input was obtained from the Meadow Lake Compliance Plan Working Group on September 6, 2011. Comments from these meetings were used to refine a presentation to the Meadow Lake Airport Board. A summary of options for each access point is shown in **Exhibit D**. Visual pictures of the primary options can be found in **Exhibit E**.

Some recommended measures require actions in addition to fencing, marking, and lighting. **One highly recommended action to reduce inadvertent vehicular access is an improved location identifier system, i.e. address changes.** At the present time, all businesses, hangars, homes, and other buildings in the vicinity of the airport have a Cessna Drive address. The development of a better address system should significantly reduce the number of drivers wandering among hangars trying to find a location. Another recommended action is the education of MLAA members to only use established roads when accessing their hangars or businesses. Association members can lead by example if they follow established procedures.

DEVELOP COST ESTIMATES AND CAPITAL IMPROVEMENT PLAN (CIP) INFORMATION

The location of options determines the funding sources available to MLAA. Airport Improvement Program funds are limited to work on airport property. Colorado Department of Transportation (CDOT) Aeronautics funds appear to be available for projects on areas with easements in place allowing public use. The optimum answer to most access concerns is a fence and electric gate system on taxiways connected to Taxiway A. Funding for this option is probably not available in the near term. Short of complete fencing near Taxiway A, less expensive measures at numerous points are being considered. A cost estimate for fencing and electric gates along Taxiway A is shown in **Exhibit F**. **Exhibit F** also includes the cost of individual measures that may be implemented in the short term in lieu of a complete fence and gate solution.

RECOMMENDED NEAR TERM AND LONG TERM ACTIONS

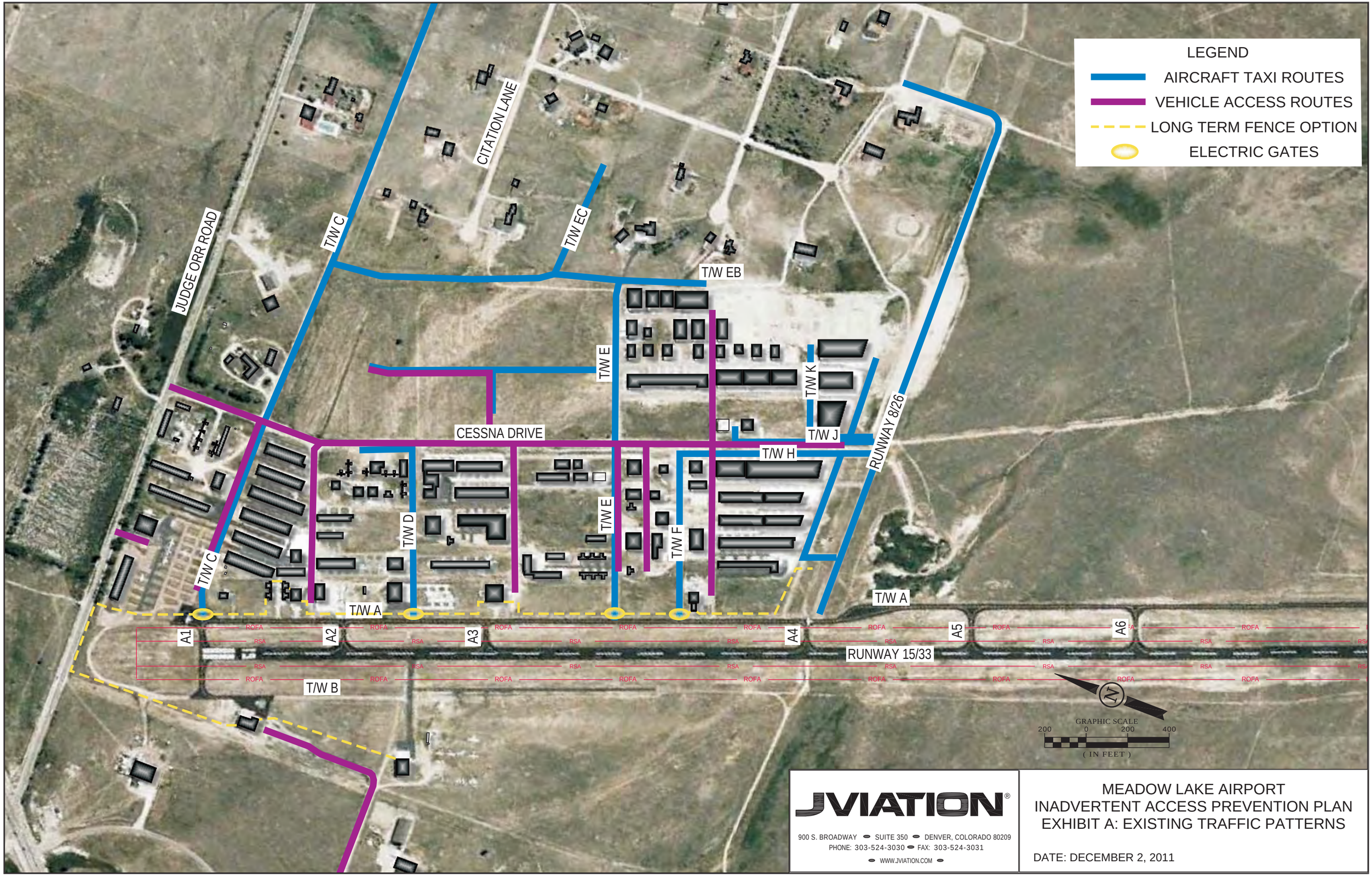
During the development of this Compliance Plan, several high priority projects came to light, in addition to the recommendations made in the Compliance Plan. Airport Board members, the FAA, and CDOT Aeronautics all provided information that was used to develop a five year Capital Improvement Plan (CIP) for Meadow Lake Airport. In addition, longer term projects were considered and were presented to the FAA for inclusion in the National Plan of Integrated Airports System (NPIAS).

The highest priority project for consideration is the implementation of the Inadvertent Vehicle Access Prevention Plan from this Compliance Plan. The optimum solution involves a fence with manual and electric gates to prevent unauthorized vehicular access to airport runways and parallel taxiways. This solution on the west side of Runway 15/33 is considered to be implementable in the near term. The construction of fence and gates on the east side of Runway 15/33 is significantly more difficult for several reasons, the most significant of which is that the bulk of construction would be on private property. Significant time is estimated to fine tune a plan and enter into agreements with the numerous private parties involved. This fact was recognized during the development of the Vehicle Access Prevention Plan. Alternative measures were developed that could be implemented much more quickly. These near term measures, while not an optimum solution, should greatly increase driver awareness of location and better identify off limit areas. **Individual meetings with the MLAA, FAA, and CDOT Aeronautics generated similar comments that implementing the alternative measures quickly was the preferred scenario.**

Another important need of MLAA is initiating development west of Runway 15/33 to accommodate proposed on-airport tenants. The MLAA has received several verbal and email inquiries about leasing property for hangars and aviation businesses. This project, labeled Taxiway Bravo Loop, was presented by the MLAA Board as four smaller projects for possible phasing.

In 2011, the MLAA filed a FAA Form 7480-1, Notice of Landing Area Proposal, to establish a turf landing area parallel to Runway 15/33. This request received a satisfactory review; however, the FAA requires an Environmental Assessment (EA) prior to publishing the proposed runway on aviation charts, etc. Completing an EA to allow opening of the turf runway is necessary for the MLAA to proceed with leases.

Other important projects presented by the MLAA Board, FAA, and CDOT Aeronautics include pavement maintenance and the replacement of Runway 15/33 MIRL. A CIP meeting was held with the Denver ADO and CDOT Aeronautics staff on December 8, 2011 and a final CIP was developed for Meadow Lake Airport. The CIP presented to the FAA and CDOT Aeronautics is included as **Exhibit G**. Longer term development items, i.e. beyond five years, are included as NPIAS projects for future consideration.



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MEADOW LAKE AIRPORT
INADVERTENT ACCESS PREVENTION PLAN
EXHIBIT A: EXISTING TRAFFIC PATTERNS

DATE: DECEMBER 2, 2011

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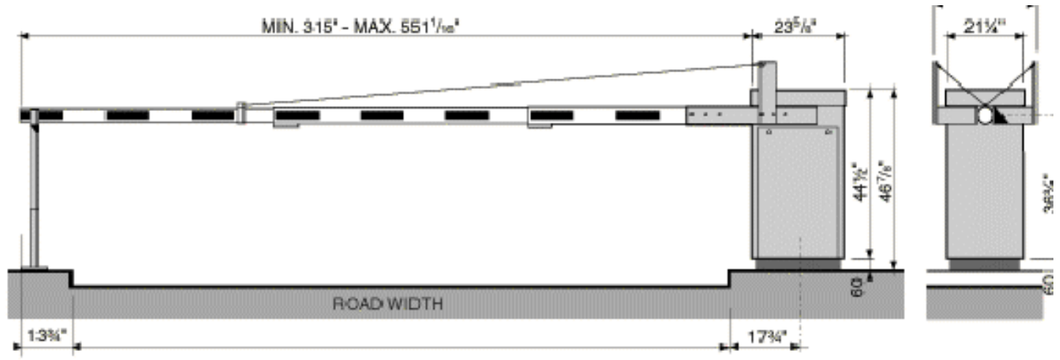
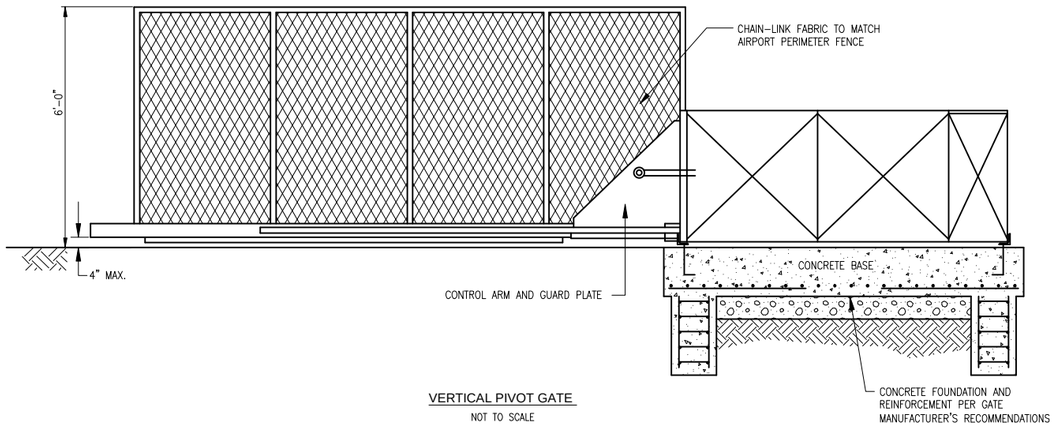
MEADOW LAKE AIRPORT
INADVERTENT ACCESS PREVENTION PLAN
EXHIBIT B: ACCESS POINT MAP

DATE: DECEMBER 2, 2011



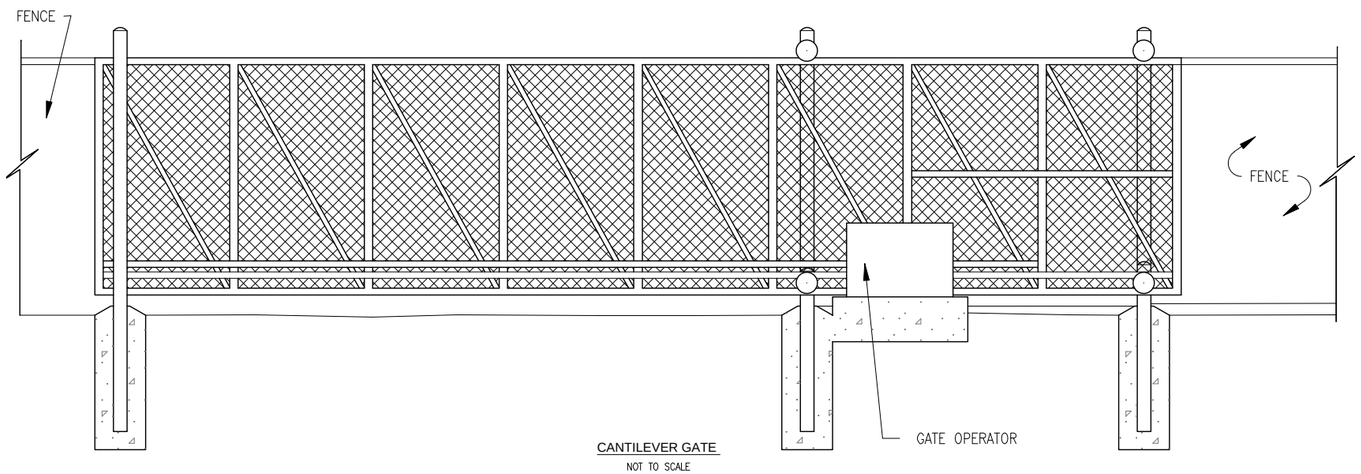
AUTOMATIC BARRIER GATE
NOT TO SCALE

GATE ALTERNATIVE NO. 1



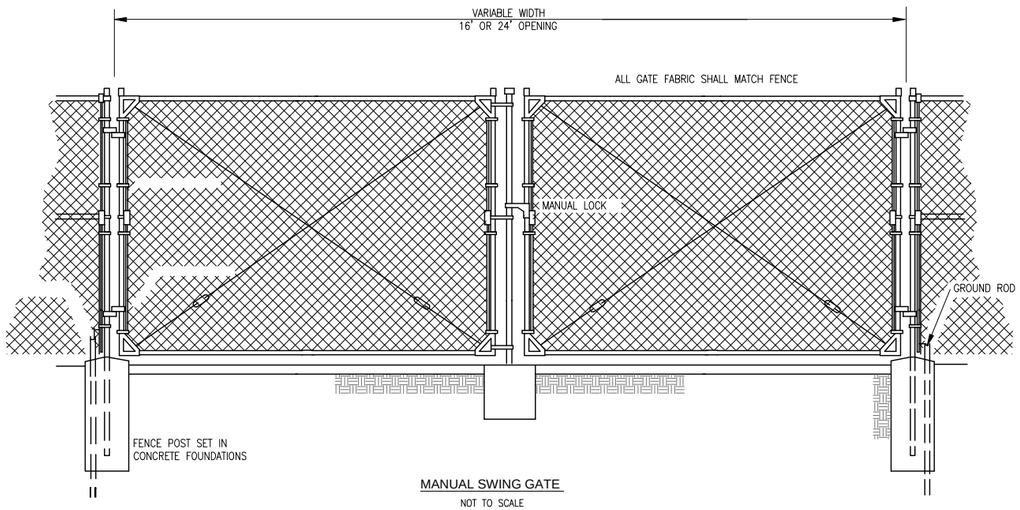
VERTICAL PIVOT GATE
NOT TO SCALE

GATE ALTERNATIVE NO. 3



CANTILEVER GATE
NOT TO SCALE

GATE ALTERNATIVE NO. 2



MANUAL SWING GATE
NOT TO SCALE

GATE ALTERNATIVE NO. 4

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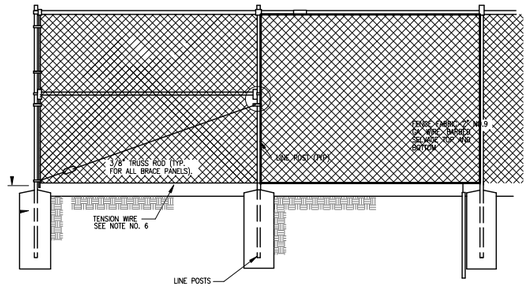
MEADOW LAKE AIRPORT
INADVERTENT ACCESS PREVENTION PLAN
EXHIBIT C: PROPOSED GATE EXHIBIT

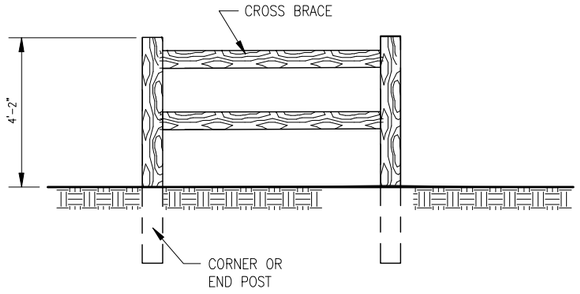
DATE: DECEMBER 2, 2011



TYPICAL CHAIN LINK FENCE

NOT TO SCALE

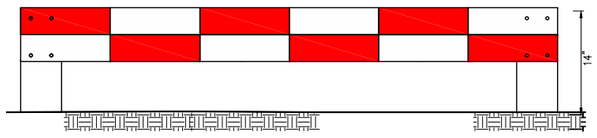
PROPOSED FENCE NO. 1



TYPICAL WOOD FENCE

NOT TO SCALE

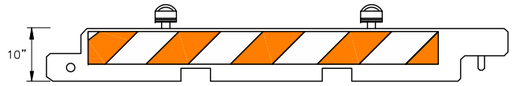
FENCE ALTERNATIVE NO. 2



LOW PROFILE BARRICADE

NOT TO SCALE

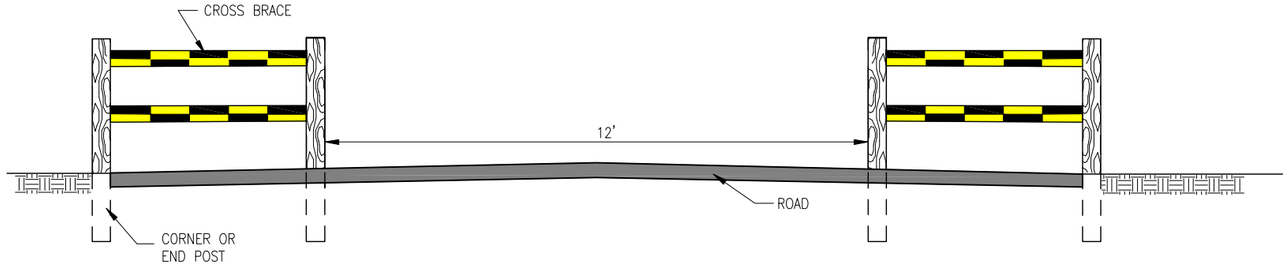
FENCE ALTERNATIVE NO. 3



FLASHER BARRICADE DETAIL

NOT TO SCALE

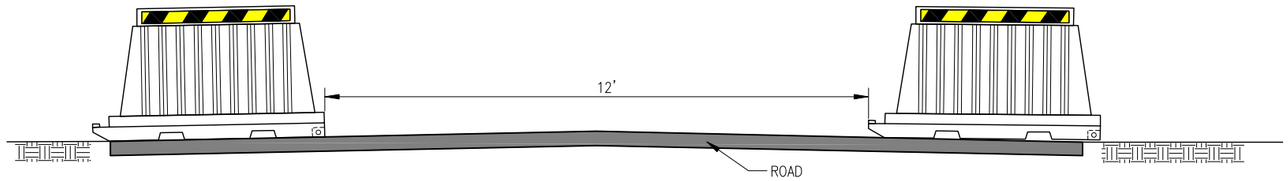
PROPOSED FENCE NO. 4



REDUCED DRIVE LANE DETERRENT #1

NOT TO SCALE

FENCE ALTERNATIVE NO. 5



REDUCED DRIVE LANE DETERRENT #2

NOT TO SCALE

FENCE ALTERNATIVE NO. 6

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MEADOW LAKE AIRPORT
INADVERTENT ACCESS PREVENTION PLAN
EXHIBIT C: PROPOSED FENCE EXHIBIT

DATE: DECEMBER 2, 2011

SIGN OPTIONS:

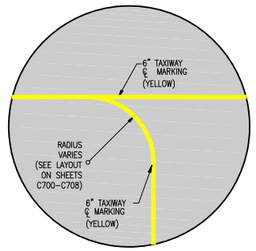
PROPOSED SIGN NO. 1

PROPOSED SIGN NO. 2

PROPOSED SIGN NO. 3

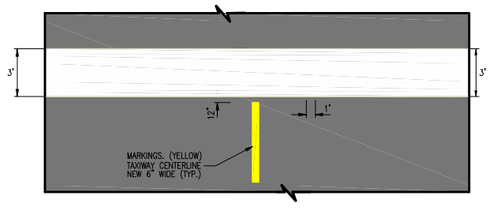
PROPOSED SIGN NO. 4

PAINT OPTIONS:



TAXIWAY
CENTERLINE DETAIL
NOT TO SCALE

PROPOSED PAINT NO. 1



STOP BAR MARKING
NOT TO SCALE

PROPOSED PAINT NO. 2

RUNWAY HOLDING POSITION SIGN
NOT TO SCALE

PROPOSED PAINT NO. 3

TAXIWAY IDENTIFICATION MARKING
NOT TO SCALE

PROPOSED PAINT NO. 4

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MEADOW LAKE AIRPORT
INADVERTENT ACCESS PREVENTION PLAN
EXHIBIT C: PROPOSED SIGN EXHIBIT

DATE: DECEMBER 2, 2011

EXHIBIT D - 1
Summary of Options

Number	Critical Areas of the Airport	Public Protection/Access Control		Recommended Improvement				Notes
		Aircraft Access	Vehicular Access	Paint Alternative	Signage	Gate	Fence	
Airport Main Entrance (North)								
1	Airport Main Entrance (North) from Judge Orr Road	Prohibit	Yes	2	1,2	2,3	N/A	Important to notify visitors upon entry of the operational rules of the airport. A push button gate opener would require motorists to make a deliberate action to enter the airport environment.
2	Airport Entrance (West)	Prohibit	Yes	N/A	1	N/A	1	Fence would have manual swing gates
3	Glider Entrance (South) from Falcon Highway	Allow Gliders	Yes	N/A	Existing Signs : "No Trespassing Property of Meadow Lake	Existing Gate in good condition	Existing Gate in good condition	Not a problematic entrance point. The existing gate requires exiting the vehicle to gain access to the airport.
Runways								
4	Runway 15/33 (Main)	Allow	Prohibit	3	N/A	N/A	N/A	Install surface painted signage at hold bars as an added precaution to reduce chance of Runway Incursions
Taxiways								
Overall	Taxiway A	Allow	Prohibit	2	1	2	1	Eliminate pavement at all vehicle only access points to T/W A. Install continuous fencing/marking along the setback/OFA for Taxiway "A" on private property
Overall	Taxiway B	Allow	Prohibit	N/A	1	4	1	
Overall	Cessna Drive	An alternative taxiway in the existing 40' easement could separate vehicles and aircraft		1	N/A	N/A	N/A	This is the first line of defense to reduce inadvertent access. Improvements would clarify signage and promote aircraft/vehicle segregation and deter unintending motorists from entering the hangar areas. Stripe all paved T/W Centerlines.
5	Taxiway B	Allow	Prohibit	2	1,2	4	1	
6	Taxiway C	Allow	Allow	1,4	2	N/A	3,4	Aircraft crossing, vehicles entering airport. Replace existing yield sign with a stop sign.
7	Driveway	Prohibit Aircraft Taxiing between 8 and 11	Allow	N/A	N/A	N/A	5,6	Fence off half of Cessna Drive to prohibit aircraft taxiing, and deter unintending motorists.
8	Taxiway D	Prohibit Aircraft Taxiing between 8 and 11	Allow	1,4	N/A	N/A	3,4	Fence off half of Cessna Drive to prohibit aircraft taxiing, and deter unintending motorists.
9	Driveway	Prohibit Aircraft Taxiing between 8 and 11	Allow	N/A	N/A	N/A	5,6	Fence off half of Cessna Drive to prohibit aircraft taxiing, and deter unintending motorists.
10	Driveway	Prohibit Aircraft Taxiing between 8 and 11, allow T/W	Allow	N/A	2	N/A	5,6	Fence off half of Cessna Drive with low fencing to prohibit aircraft taxiing, and deter unintending motorists, but allow aircraft crossing from T/W E.
11	Taxiway E	Allow	Allow	1,4	2	N/A	3,4	Aircraft, vehicle crossing

EXHIBIT D - 2
Summary of Options

Number	Critical Areas of the Airport	Public Protection/Access Control		Recommended Improvement				Notes
		Aircraft Access	Vehicular Access	Paint Alternative	Signage	Gate	Fence	
12	Driveway	Prohibit Aircraft Taxiing between 8 and 11	Allow	N/A	2	N/A	5,6	Fence off half of driveway to prohibit aircraft taxiing, and deter unintending motorists.
13	Driveway	Prohibit	Allow	N/A	N/A	N/A	5,6	Fence off half of driveway to prohibit aircraft taxiing, and deter unintending motorists.
14	Cessna Drive	Prohibit Aircraft to the North	Allow	1	1,2	N/A	5,6	Fence off half of driveway to prohibit aircraft taxiing, and deter unintending motorists.
15	Driveway from Judge Orr Road	Prohibit	Allow			1		Install an access control gate
16	Taxiway C	Allow	Prohibit	1,2	2,4	N/A	3,4	Install low barricades to clearly demarcate the airfield entrance.
17	Driveway	Prohibit	Prohibit - Remove pavement to T/W A	N/A	N/A	N/A	N/A	Sever direct route from driveway to Taxiway A, fencing between hangars and/or removal of pavement
18	Taxiway D	Allow	Prohibit	1,2	2,4	N/A	3,4	Install low barricades to clearly demarcate the airfield entrance.
19	Driveway	Prohibit	Prohibit - Remove pavement to T/W A	N/A	N/A	N/A	1,2	Sever direct route from driveway to Taxiway A, fencing with a gate to allow hangar owner access
20	Taxiway E	Allow	Prohibit	1,2	2,4	N/A	3,4	Install low barricades to clearly demarcate the airfield entrance.
21	Taxiway F	Allow	Prohibit	1,2	2,4	N/A	3,4	Install low barricades to clearly demarcate the airfield entrance.
22	Driveway	Prohibit	Prohibit - Remove pavement to T/W A	N/A	N/A	N/A	N/A	Sever direct route from driveway to Taxiway A, fence off and/or removal pavement
23	Taxiway	Allow	Prohibit	1,2	2,4	N/A	3,4	Install low barricades to clearly demarcate the airfield entrance.
24	Driveway	Prohibit	Prohibit - Remove pavement to T/W A	N/A	N/A	N/A	N/A	Sever direct route from driveway to Taxiway A, fence off and/or removal pavement
25	Entrance to Crosswing Runway 8/26	Allow	Prohibit	N/A	2,4	N/A	N/A	Add signage to indicate entrance to airfield

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INADVERTENT ACCESS PREVENTION PLAN
EXHIBIT E: RENDERING OF GATE ALT. 1
AT MAIN ENTRANCE
DATE: DECEMBER 2, 2011

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MEADOW LAKE AIRPORT
INADVERTENT ACCESS PREVENTION PLAN
EXHIBIT E: RENDERING OF GATE ALT. 2
AT MAIN ENTRANCE
DATE: DECEMBER 2, 2011

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MEADOW LAKE AIRPORT
INADVERTENT ACCESS PREVENTION PLAN
EXHIBIT E: RENDERING OF FENCE ALT. 3
AT TAXIWAY A ENTRANCE
DATE: DECEMBER 2, 2011

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MEADOW LAKE AIRPORT
INADVERTENT ACCESS PREVENTION PLAN
EXHIBIT E: RENDERING OF FENCE ALT. 5
AT CESSNA DRIVE
DATE: DECEMBER 2, 2011

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MEADOW LAKE AIRPORT
INADVERTENT ACCESS PREVENTION PLAN
EXHIBIT E: RENDERING OF FENCE ALT. 6
AT CESSNA DRIVE
DATE: DECEMBER 2, 2011

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EXHIBIT F - Meadow Lake Airport
Inadvertent Access Prevention Alternatives
Preliminary Cost Estimate
December 2, 2011

Alternative Unit Prices

Fence Alternatives	Description	Unit	Engineer's Estimate
Fence Alternative No. 1	6' Chain Link Fence	LF	$ 40
Fence Alternative No. 2	Wooden Fence (5' wide)	EA	$ 32
Fence Alternative No. 3	Low Profile Barricade (5' Wide)	EA	$ 100
Fence Alternative No. 4	Flasher Barricade	EA	$ 150
Fence Alternative No. 5	Reduced Drive Lane Deterrent No. 1	Pair	$ 160
Fence Alternative No. 6	Reduced Drive Lane Deterrent No. 2	Pair	$ 400

Gate Alternatives	Description	Unit	Engineer's Estimate
Gate Alternative No. 1	Automatic Barrier Gate	EA	$ 12,000
Gate Alternative No. 2	20' Vertical Pivot Gate	Pair	$ 70,000
Gate Alternative No. 3	40' Cantilever Gate	EA	$ 42,000
Gate Alternative No. 4	20' Manual Swing Gate	EA	$ 3,500

Access Control System, Vehicle Loop Sensors, Card Readers, are Included in Prices

Sign Alternatives	Description	Unit	Engineer's Estimate
Sign Alternative No. 1	AOA only Sign	EA	$ 100
Sign Alternative No. 2	Stop Sign	EA	$ 60
Sign Alternative No. 3	Speed Limit Sign	EA	$ 60
Sign Alternative No. 4	Aircraft Only Beyond This Point	EA	$ 100

Paint Alternatives	Description	Unit	Engineer's Estimate
Paint Alternative No. 1	Taxiway Centerline	SF	$ 5
Paint Alternative No. 2	Stop Bar Marking	EA	$ 500
Paint Alternative No. 3	Runway Holding Position	EA	$ 1,250
Paint Alternative No. 4	Taxiway ID Marking	EA	$ 500

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EXHIBIT F - Meadow Lake Airport
Inadvertent Access Prevention Alternatives
Preliminary Cost Estimate
December 2, 2011

Airport Operations Area (AOA) Perimeter Fence

Item	Description	Engineer's Estimate			
		Quantity	Unit	Unit Cost	Total Cost
Fence Alternative					
Fence Alternative No. 1	6' Chain Link Fence	6000	LF	$ 40	$ 240,000
Gate Alternatives					
Gate Alternative No. 3	40' Cantilever Gate at East Side Access Points	4	EA	$ 42,000	$ 168,000
Gate Alternative No. 4	20' Manual Swing Gates at West Side Access Points	2	EA	$ 3,500	$ 7,000
Signs & Paint Alternatives					
Sign Alternative No. 1	AOA only Sign	30	EA	$ 100	$ 3,000
Sign Alternative No. 4	Aircraft Only Beyond This Point	8	EA	$ 100	$ 800
Paint Alternative No. 2	Stop Bar Marking	4	EA	$ 500	$ 2,000
Additional Project Costs					
Contractor	Mobilization, Overhead and Profit				$ 45,000
Contingency					$ 65,000
Engineering					
Design					$ 42,000
Construction Management					$ 47,000
Total					**$619,800**

EXHIBIT F
Summary of Options with High/Low Costs

Number	Critical Areas of the Airport	Paint Alternative		Signage		Gate		Fence		Low Cost Alternative	High Cost Alternative
		Low Cost	High Cost	Low Cost	High Cost	Low Cost	High Cost	Low Cost	High Cost		
1	Airport Main Entrance (North) from Judge Orr Road	N/A	2	1,2	1,2	3	2	N/A	N/A	$42,160	$70,660
2	Airport Entrance (West)	N/A	N/A	1	1	N/A	N/A	1	1	$28,100	$28,100
3	Glider Entrance (South) from Falcon Highway	N/A	N/A	Existing Signs	Existing Signs	Existing Gate	Existing Gate	Existing Gate	Existing Gate	$0	$0
4	Runway 15/33 (Main)	3	3	N/A	N/A	N/A	N/A	N/A	N/A	$1,250	$1,250
5	Taxiway B	N/A	2	1,2	1,2	4	4	1	1	$71,660	$72,160
6	Taxiway C	4	1,4	2	2	N/A	N/A	3	4	$760	$3,860
7	Driveway	N/A	N/A	N/A	N/A	N/A	N/A	5	6	$160	$400
8	Taxiway D	4	1,4	N/A	N/A	N/A	N/A	3	4	$700	$2,675
9	Driveway	N/A	N/A	N/A	N/A	N/A	N/A	5	6	$160	$400
10	Driveway	N/A	N/A	2	2	N/A	N/A	5	6	$220	$460
11	Taxiway E	4	1,4	2	2	N/A	N/A	3	4	$760	$2,948
12	Driveway	N/A	N/A	2	2	N/A	N/A	5	6	$220	$460
13	Driveway	N/A	N/A	N/A	N/A	N/A	N/A	5	6	$160	$400
14	Cessna Drive	N/A	1	1,2	1,2	N/A	N/A	5	6	$320	$2,685
15	Driveway from Judge Orr Road	N/A	N/A	N/A	N/A	1	1	N/A	N/A	$12,000	$12,000

EXHIBIT F
Summary of Options with High/Low Costs

Number	Critical Areas of the Airport	Paint Alternative		Signage		Gate		Fence		Low Cost Alternative	High Cost Alternative
16	Taxiway C	2	1,2	2,4	2,4	N/A	N/A	3	4	$860	$1,335
17	Driveway	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	$0	$0
18	Taxiway D	2	1,2	2,4	2,4	N/A	N/A	3	4	$860	$2,298
19	Driveway	N/A	N/A	N/A	N/A	N/A	N/A	2	1	$160	$1,000
20	Taxiway E	2	1,2	2,4	2,4	N/A	N/A	3	4	$860	$960
21	Taxiway F	2	1,2	2,4	2,4	N/A	N/A	3	4	$860	$2,710
22	Driveway	N/A	N/A	N/A	N/A	N/A	N/A	2	1	$160	$1,000
23	Taxiway	2	1,2	2,4	2,4	N/A	N/A	3	4	$860	$1,960
24	Driveway	N/A	N/A	N/A	N/A	N/A	N/A	2	1	$160	$1,000
25	Entrance to Crosswing Runway 8/26	N/A	N/A	2,4	2,4	N/A	N/A	N/A	N/A	$160	$160
	TOTAL									$163,570	$210,880
	Electrical for Gates									$25,000	$25,000
	Contingency									$28,286	$35,382
	Engineering & CM									$32,528	$40,689
	GRAND TOTAL									**$216,856**	**$271,262**

SIX YEAR CAPITAL IMPROVEMENT PROGRAM (CIP) WORKSHEET

Airport Name	**Meadow Lake Airport (FLY)**			CIP Update 2012		
Airport Manager	Dave Elliott (Board President)			Airport Engineer/ Consultant: Jviation, Inc. (Alan Weichmann)		
Airport Sponsor	Meadow Lake Airport Assn.			ADO Contact:		
Address	13625 Judge Orr Rd Peyton, CO 80831-6051					
Phone	cell: (719) 339-0928 fax: (719) 683-7736 email: falcon20flier@msn.com					
Project Description	*FAA State Apport.*	*GA Entitlement*	*State*	*Local*	*Total*	*Comments*
Year - 2011						
AWOS overage		6,594.00			6,594.00	
Land Reimbursement (final) - AIP -20		120,000.00			120,000.00	
GA Entitlement (Carryover)					-	carryover $23,406
Compliance Review			70,000.00	30,000.00	100,000.00	
Runway Maintenance			37,800.00	4,200.00	42,000.00	
Total Year 2011	-	126,594.00	107,800.00	34,200.00	268,594.00	
Year - 2012						
Environmental Assessment (Turf Runway)		-	82,800.00	9,200.00	92,000.00	
Access Control (fencing on airport property)		127,300.00	3,350.00	3,350.00	134,000.00	
Access Control (fencing and signs off airport property)			179,010.00	19,890.00	198,900.00	
Taxiway Bravo Loop - Phase 1		227,700.00	5,992.00	5,993.00	239,685.00	
					-	
Total Year 2012	-	355,000.00	271,152.00	38,433.00	664,585.00	
Year - 2013						
Construct Taxiway Bravo Loop - Phase 2		150,000.00	3,947.00	3,948.00	157,895.00	
Construct Westside Transient Apron - Phase 1			198,000.00	22,000.00	220,000.00	
Total Year 2013	-	150,000.00	201,947.00	25,948.00	377,895.00	
Year 2014						
Pavement Maintenance		150,000.00	3,947.00	3,948.00	157,895.00	
Runway & Taxiway maintenance and repair			396,000.00	44,000.00	440,000.00	
Totals - Year 2014	-	150,000.00	399,947.00	47,948.00	597,895.00	
Year 2015						
Construct Westside Transient Apron (Phase 2)		150,000.00	448,948.00	48,948.00	647,896.00	
Security access control (phase 3)			90,000.00	10,000.00	100,000.00	
Totals - Year 2015	-	150,000.00	538,948.00	58,948.00	747,896.00	
Year 2016						
GA Entitlement (Carryover to 2017)						
Pavement maintenance			90,000.00	10,000.00	100,000.00	
TOTALS - Year 2016	-	-	90,000.00	10,000.00	100,000.00	
Year 2017						
Replace MIRL		300,000.00	7,896.00	7,896.00	315,792.00	
Replace MIRL (overmatch)			54,000.00	6,000.00	60,000.00	
					-	
					-	
					-	
Total Year 2017	-	300,000.00	61,896.00	13,896.00	375,792.00	
TOTAL 6-YEAR COSTS	-	931,594.00	1,609,794.00	215,477.00	2,756,865.00	

SIX YEAR CAPITAL IMPROVEMENT PROGRAM (CIP) WORKSHEET

Airport Name	**Meadow Lake Airport (FLY)**			CIP Update 2012		
Airport Manager	Dave Elliott (Board President)			Airport Engineer/ Consultant: Jviation, Inc. (Alan Weichmann)		
Airport Sponsor	Meadow Lake Airport Assn.			ADO Contact:		
Address	13625 Judge Orr Rd Peyton, CO 80831-6051					
Phone	cell: (719) 339-0928 fax: (719) 683-7736 email: falcon20flier@msn.com					
Project Description	*FAA State Apport.*	*GA Entitlement*	*State*	*Local*	*Total*	*Comments*
NPIAS projects for long-term completion - by priority						
Johnston Property (& Hangar?) Purchase					500,000.00	
Admin/SRE Building					300,000.00	
Realign and Extend Primary RWY and TWY					6,500,000.00	
Construct New Aircraft Parking Apron					1,500,000.00	
Construct New X-Wind Runway and Drainage Improvements					3,000,000.00	
Security and Perimeter Fencing					1,000,000.00	
NPIAS Long Term Total					**12,800,000.00**	

Appendix G

Colorado Airport Operators Association

The Colorado Aviation Fund White Paper

Updated May 31, 2012

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G. APPENDIX G – THE COLORADO AVIATION FUND WHITE PAPER

Colorado Airport Operators Association

THE COLORADO AVIATION FUND

WHITE PAPER

Updated May 31, 2012

Colorado Airport Operators Association

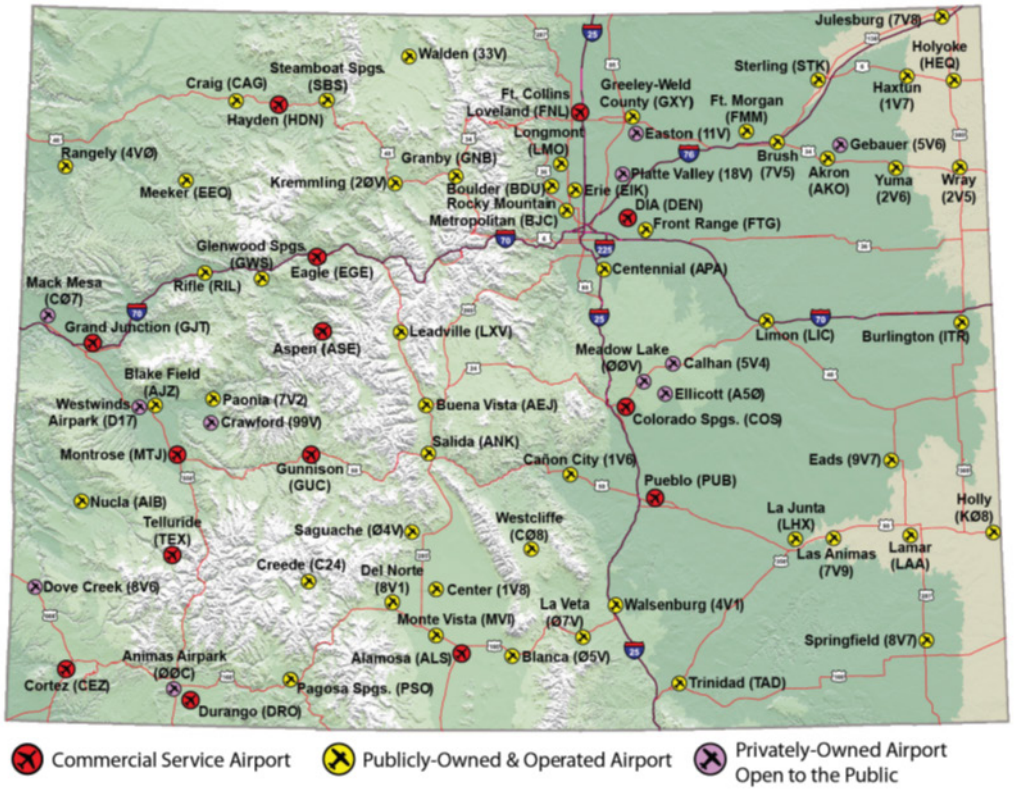
THE HISTORY

The State of Colorado was the last State in the Nation to establish a dedicated aviation branch of state government. In 1989 the Division of Aeronautics and the Colorado Aeronautical Board was created to support, develop and maintain the Colorado Aviation System through taxes collected on aviation fuel sold within the state. There are no general funds used to meet the needs within the Colorado Aviation System, the needs are funded solely through the taxes collected by those actually using the aviation system.

THE COLORADO AVIATION SYSTEM

Just like our surface transportation system which includes many different types of Interstates, State Highways and local roads, the aviation system is made up of many different sizes of airports that serve the various needs of the citizens of the state of Colorado. According to the 2008 Colorado Economic Impact Study, the Statewide aviation system is comprised of 14 commercial service airports and 62 general aviation airports which support **340,800 jobs** and have a combined annual economic impact of **$32.2 billion to the local, regional and statewide economy**. The importance aviation plays in the success of the Colorado economy is evident in our strong recreational, energy and business climates which directly benefit Colorado communities through direct access via their local airports to the nation and the world.

THE COLORADO AIRPORT SYSTEM

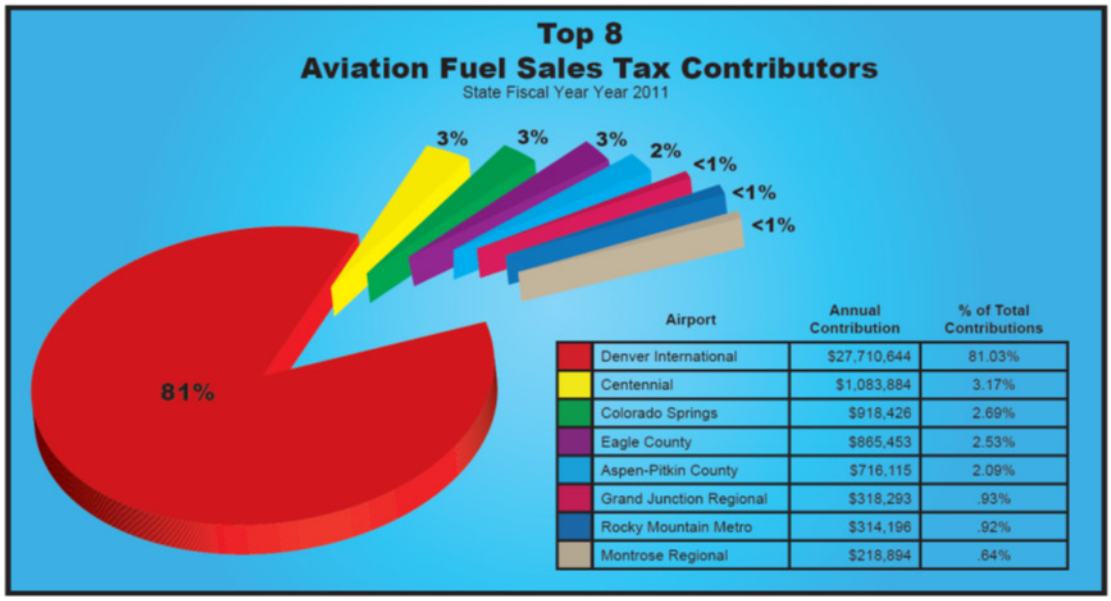


Colorado Airport Operators Association

COLORADO AVIATION TAXES

There are two different taxes collected on aviation fuel; sales tax and excise tax. The excise tax on av-gas which is used by smaller propeller driven aircraft is 6 cents per gallon. The excise tax on jet fuel for privately-owned turbine aircraft is 4 cents per gallon. Commercial airlines are exempt from paying the excise tax. In 2011 excise taxes produced $1.3M which is roughly 4.5% of the total aviation fuel tax collected for the year.

The second type of tax on aviation fuel is a sales tax on the retail cost of jet fuel only, there isn't sales tax on av-gas. The state sales tax rate of 2.9% is paid by both airlines and private/business aircraft owners. In FY2011, sales tax on jet fuel produced $34.2M which is 95% of the total aviation fuel tax collected for the year. The following chart shows the largest producers of aviation fuel tax in FY2011.



Airport	Annual Contribution	% of Total Contributions
Denver International	$27,710,644	81.03%
Centennial	$1,083,884	3.17%
Colorado Springs	$918,426	2.69%
Eagle County	$865,453	2.53%
Aspen-Pitkin County	$716,115	2.09%
Grand Junction Regional	$318,293	.93%
Rocky Mountain Metro	$314,196	.92%
Montrose Regional	$218,894	.64%

FUEL TAX REVENUES

Historically, 97% of revenues generated by the aviation fuel taxes are returned to the Aviation System and the local governments who own and operate Colorado airports. The revenues are returned to the airports in two ways. The first is fuel tax reimbursements, the second is discretionary aviation grants. Fuel tax reimbursements return $.04 of every gallon of excise tax and 65% of sales tax revenues directly to the airport sponsor to maintain , operate and to offset the cost of the day-to-day activities of the airport. Discretionary aviation grants are administered by CDOT to enhance the safety and condition of Colorado Aviation System.

In FY2011 $21.5 million was returned to Colorado airports in the form of fuel tax reimbursements, and $14 million was awarded in the form discretionary aviation grants. Additionally, $22 million of discretionary aviation grants were awarded FY2012. The administration costs for the Colorado Division of Aeronautics is legislatively capped at 5% of the total aviation fund. Today, administrative expenses

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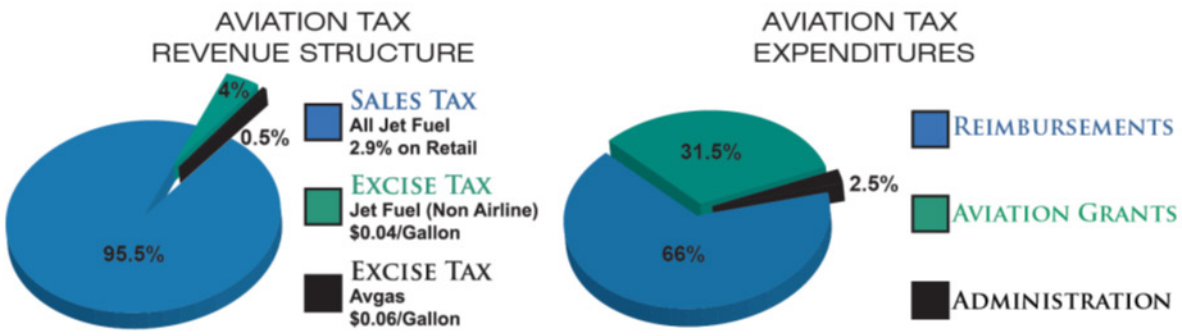


are less than 3%, providing maximum value and investment into aviation infrastructure throughout the state.

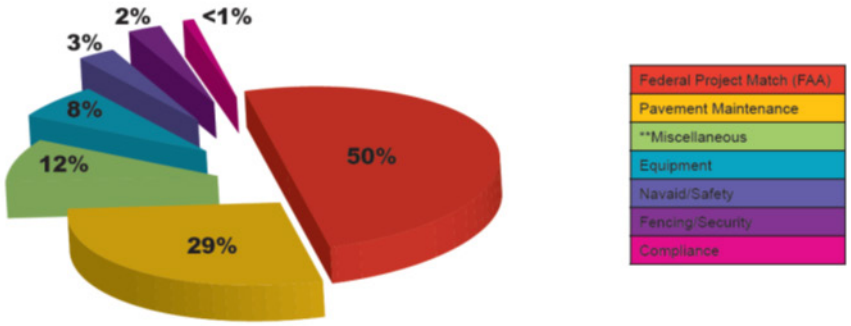
One of the primary uses for the grant program has been to assist local governments in matching FAA Airport Improvement Program (AIP) grants. Since the inception of the Colorado Discretionary Grant Program in 1992, CDOT has awarded over $90 million in discretionary aviation grants which was combined with local funds to leverage federal funds for a combined investment of over $900 million into the Colorado aviation system. The Colorado aviation system requires an average annual investment of $110 million in order to maintain and expand the current infrastructure to meet future demands on the system.

Aviation Grant Project History

1992-2012

Number of Projects	Project Type	CDOT Grant Total	Local Funds	FAA/Other Funds	TOTAL
388	Federal Match	$42,904,241.00	$51,880,909.00	$728,857,791.00	$823,642,941.00
256	Pavement Maint.	$24,965,960.00	$8,012,329.00	$4,273,801.00	$37,252,090.00
74	Equipment	$7,192,535.00	$6,664,816.00	$0.00	$13,857,351.00
62	**Miscellaneous	$11,415,521.00	$2,482,208.00	$210,500.00	$14,108,229.00
59	Navaid/Safety	$2,533,859.00	$1,193,400.00	$8,484,300.00	$12,211,559.00
38	Fencing/Security	$1,983,584.00	$564,450.00	$0.00	$2,548,034.00
28	Compliance	$654,495.00	$351,862.00	0.00	$1,006,357.00
TOTALS		**$91,650,195.00**	**$71,149,974.00**	**$741,826,392.00**	**$904,626,561.00**

***Example of "Misc" includes: Planning, Education, Land Purchase, Airport expansion, etc.*



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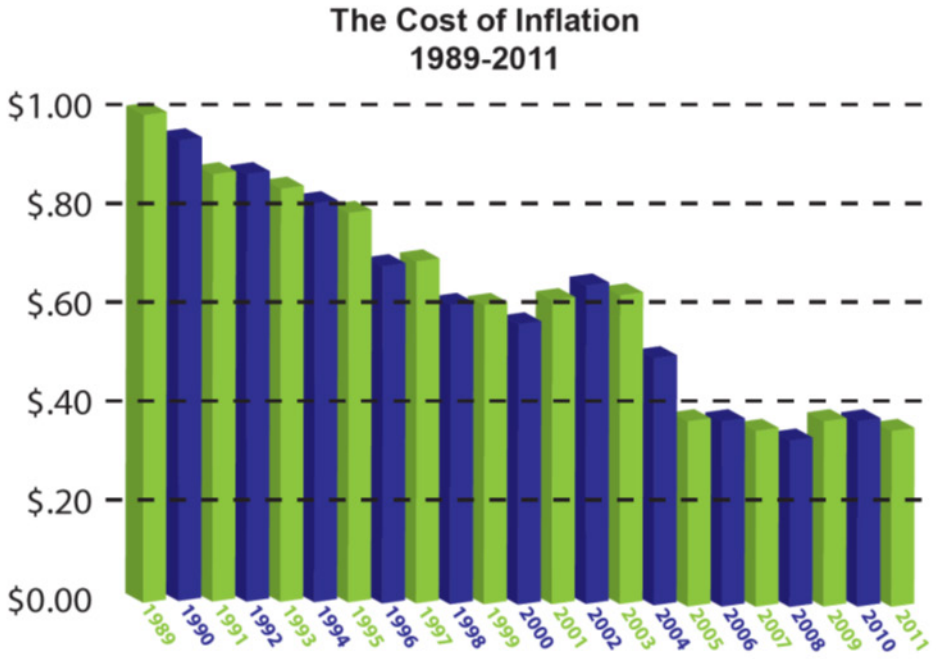
AVIATION FUNDING SHORTFALL

CDOT tracks the future needs of the transportation system through a comprehensive statewide five year plan updated annually. In addition, a long-range 20 year plan and outlook is developed every five years. The aviation infrastructures investments needed to meet the demands of the statewide aviation system according to the long-range plan is $2.2 billion, exclusive of Denver International Airport. The annual average investment required is $110 million for the 20 year planning period. Combined funding from CDOT and the Federal Aviation Administration is estimated around $65 million annually. The annual funding shortfall of $45 million is managed by prioritization of immediate needs through the planning process and shifting investments to future years as funding sources are identified and available. The funding gap is approximately $900 million during the current 20 year plan. The shortfall is widening as the cost of transportation infrastructure construction continues to grow, according to a 2007 study by the US Department of Transportation's Inspector General (source).

The situation in Colorado is no different as the Colorado Construction Cost Index published by CDOT has grown at an average annual rate of 6.4% from 1992 through 2005. Settling at a rate



SOURCE: http://www.coloradodot.info/business/eema/documents/2011/CCI11Q4annual.pdf/at_download/file

where an available dollar generated for investment in 2005 is worth 39 cents compared to 1992. Recent years, 2005 through 2011 have experienced a minimal increase due to the current economic condition, yet remain at 37 cents on a dollar compared to compared to 1992 dollars (chart.) Growing global demand for core construction materials, such as asphalt, concrete and steel, result in fewer projects being completed with available Federal, State, and Local resources.

Colorado Airport Operators Association

STATE FUNDING

There is no single approach on how other States provide funding to their collective State Airport Systems. There are three basic ways to raise revenue: sales and use tax on aircraft, personal property tax on aviation assets, and fuel taxes. Colorado has choose the fuel tax to fund aviation in the state. There are also a number of states who support aviation infrastructure through general fund commitments. Colorado would be unable to invest in its infrastructure through the general fund due to TABOR and other constitutional restrictions.

Other State Aviation Fuel Tax

California	7.25%	
Indiana	7%	
Arkansas	6%	
Kentucky	6%	*Capped at $1M per user
Michigan	6%	
Vermont	6%	
West Virginia	5%	
New Mexico	5%	*40% of the fuel sold for commercial use is rebated back to the user
Missouri	4.2%	*Airlines are capped at $1.5M per calendar year
Louisiana	4%	
North Carolina	4%	*Airlines are capped at $2.5M per calendar year
Georgia	4%	*Airlines are capped at $15M
Hawaii	4%	

The States of Florida, Georgia, Hawaii, Arkansas, Connecticut, Kentucky, Michigan, Kansas, New Hampshire, New Mexico, New York, North Dakota, Ohio, West Virginia, Wisconsin and Wyoming fund aviation through State General Fund appropriations and/or state DOT funds.

Colorado Airport Operators Association

For further information please visit
www.coloradoairports.org

MEADOW LAKE
AIRPORT

Appendix H

Capital Improvement Plan

Updated July 2015

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H. APPENDIX H – CAPITAL IMPROVEMENT PLAN

COLORADO
Department of Transportation
Division of Aeronautics

Meadow Lake Airport (FLY)

Meadow Lake Airport Association

13625 Judge Orr Road
Peyton, CO 80831

Manager: Dave Elliott

Project Name	Project Year	Non primary Entitlement	CDAG Funds	Local Funding	Total Project Cost	Notes
Carryover to 2018	2015				$0.00	
Runway Pavement Maintenance	2015	$300,000.00	$16,666.00	$16,666.00	$333,332.00	Using 2013 and 2014 NPE
Carryover to 2019	2016	$0.00	$0.00	$0.00	$0.00	
Carryover to 2019	2017				$0.00	
Pavement Maintenance	2018	$150,000.00	$8,333.00	$8,333.00	$166,666.00	Using 2015 Ent
Carryover to 2019	2018				$0.00	
Rwy 15/33 Rehab Overmatch	2019	$0.00	$983,695.00	$109,299.00	$1,092,994.00	
Rwy 15/33 Rehab	2019	$600,000.00	$33,333.00	$33,333.00	$666,666.00	using 16, 17, 18, 19 NPE

CIP printed 7/27/15
Printed By: Kaitlyn Westendorf – Aviation Planner

FOR PLANNING PURPOSES ONLY – This is not a guarantee of funds.

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Appendix I

Capital Improvement Cost Estimate Worksheets

Prepared by Jviation, 2015

Note: These cost estimates were prepared based on existing information. Site specific survey, soils, pavement, or other engineering evaluation data were not obtained prior to preparing these cost estimates.

These cost estimates are not to be used for project design, budgeting, or bid purposes.

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I. APPENDIX I – CAPITAL IMPROVEMENT COST ESTIMATE WORKSHEETS

JVIATION
900 S. Broadway, Suite 350, Denver, CO 80209
Main 303.524.3030 Fax 303.524.3031
JVIATION.COM

			GA Apron		
ITEM	ITEM DESCRIPTION	UNIT	QNTY	Engineer's Estimate	
				Unit $	Item $
P-100	Mobilization				
P-100a	Mobilization	LS	1	$ 967,800.00	$ 967,800.00
P-140	Pavement Removal				
P-140a	Pavement Removal - 2.5" Profile Mill	SY		$ 5.00	$ -
P-152	Excavation and Embankment				
P-152a	Unclassified Excavation	CY	40,000	$ 10.00	$ 400,000.00
P-156	Erosion Control				
P-156a	Temporary Erosion Control	LS	1	$ 50,000.00	$ 50,000.00
P-222	Soil Sterilization				
P-222	Soil Sterilization	SY	225,556	$ 1.00	$ 225,555.56
CDOT 304	Aggregate Base Course				
CDOT 304	Aggregate Base Course	CY	37,593	$ 65.00	$ 2,443,518.52
P-403	Plant Mix Asphalt Pavements				
P-403a	Bituminous Paving Course Mixture	TON	50,800	$ 110.00	$ 5,588,000.00
P-601	Crack Sealing				
P-601a	Crack Sealing	LF		$ 3.00	$ -
P-601b	Major Crack Repair	LF		$ 20.00	$ -
P-603	Bituminous Tack Coat				
P-603a	Bituminous Tack Coat	GAL	67,700	$ 3.00	$ 203,100.00
P-620	Runway and Taxiway Painting				
P-620a	Temporary Pavement Markings	SF	101,500	$ 2.00	$ 203,000.00
P-620b	Permanent Pavement Markings	SF	101,500	$ 2.00	$ 203,000.00
P-620c	Surface Painted Hold Sign	EA		$ 1,500.00	$ -
P-620d	Paint Obliteration, Complete	SF		$ 3.00	$ -
	Tie downs				
	Tie downs	EA	336	$ 1,000.00	$ 336,000.00
T-901	Seeding with Hydromulch				
T-901a	Seeding with Hydromulch	AC	5	$ 5,000.00	$ 25,000.00
ITEM SUBTOTAL					$ 10,644,974.07
10% CONTIGENCY					$ 1,064,500.00
8% ENGINEERING - DESIGN					$ 851,597.93
8% CONSTRUCTION MANAGEMENT & ACCEPTANCE TESTING					$ 851,597.93
TOTAL					$ 13,412,669.93

Assumptions:
- Mobilization is 10%.
- Pavement markings are based of 5 percent of paved area
- Bituminous Tack Coat to be placed at 0.15 gal/sy for one lift.

$ 13,500,000

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			Transient Apron Phase 2		
				Engineer's Estimate	
ITEM	ITEM DESCRIPTION	UNIT	QNTY	Unit $	Item $
P-100	Mobilization				
P-100a	Mobilization	LS	1	$ 22,700.00	$ 22,700.00
P-140	Pavement Removal				
P-140a	Pavement Removal - 2.5" Profile Mill	SY		$ 5.00	$ -
P-152	Excavation and Embankment				
P-152a	Unclassified Excavation	CY	790	$ 15.00	$ 11,850.00
P-156	Erosion Control				
P-156a	Temporary Erosion Control	LS	1	$ 20,000.00	$ 20,000.00
P-222	Soil Sterilization				
P-222	Soil Sterilization	SY	4,708	$ 1.00	$ 4,708.33
CDOT 304	Aggregate Base Course				
CDOT 304	Aggregate Base Course	CY	785	$ 65.00	$ 51,006.94
P-403	Plant Mix Asphalt Pavements				
P-403a	Bituminous Paving Course Mixture	TON	1,100	$ 110.00	$ 121,000.00
P-601	Crack Sealing				
P-601a	Crack Sealing	LF		$ 3.00	$ -
P-601b	Major Crack Repair	LF		$ 20.00	$ -
P-603	Bituminous Tack Coat				
P-603a	Bituminous Tack Coat	GAL	1,500	$ 3.00	$ 4,500.00
P-620	Runway and Taxiway Painting				
P-620a	Temporary Pavement Markings	SF	2,119	$ 2.00	$ 4,237.50
P-620b	Permanent Pavement Markings	SF	2,119	$ 2.00	$ 4,237.50
P-620c	Surface Painted Hold Sign	EA		$ 1,500.00	$ -
P-620d	Paint Obliteration, Complete	SF		$ 3.00	$ -
T-901	Seeding with Hydromulch				
T-901a	Seeding with Hydromulch	AC	1	$ 5,000.00	$ 5,000.00
ITEM SUBTOTAL					$ 249,240.28
10% CONTIGENCY					$ 24,930.00
8% ENGINEERING - DESIGN					$ 19,939.22
8% CONSTRUCTION MANAGEMENT & ACCEPTANCE TESTING					$ 19,939.22
TOTAL					$ 314,048.72

Assumptions:
- Mobilization is 10%.
- Pavement markings are based of 5 percent of paved area
- Bituminous Tack Coat to be placed at 0.15 gal/sy for one lift.

$315,000

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			Runway 8-26		
ITEM	ITEM DESCRIPTION	UNIT	QNTY	Engineer's Estimate	
				Unit $	Item $
P-100	Mobilization				
P-100a	Mobilization	LS	1	$ 7,900.00	$ 7,900.00
P-140	Pavement Removal				
P-140a	Place millings (12" thick and compact)	SY	4,556	$ 8.00	$ 36,444.44
P-152	Excavation and Embankment				
P-152a	Unclassified Excavation	CY	2,000	$ 15.00	$ 30,000.00
P-156	Erosion Control				
P-156a	Temporary Erosion Control	LS	1	$ 5,000.00	$ 5,000.00
P-222	Soil Sterilization				
P-222	Soil Sterilization	SY	0	$ 1.00	$ -
CDOT 304	Aggregate Base Course				
CDOT 304	Aggregate Base Course	CY	0	$ 65.00	$ -
P-403	Plant Mix Asphalt Pavements				
P-403a	Bituminous Paving Course Mixture	TON	0	$ 110.00	$ -
P-601	Crack Sealing				
P-601a	Crack Sealing	LF		$ 3.00	$ -
P-601b	Major Crack Repair	LF		$ 20.00	$ -
P-603	Bituminous Tack Coat				
P-603a	Bituminous Tack Coat	GAL	0	$ 3.00	$ -
P-620	Runway and Taxiway Painting				
P-620a	Temporary Pavement Markings	SF	500	$ 2.00	$ 1,000.00
P-620b	Permanent Pavement Markings	SF	500	$ 2.00	$ 1,000.00
P-620c	Surface Painted Hold Sign	EA		$ 1,500.00	$ -
P-620d	Paint Obliteration, Complete	SF		$ 3.00	$ -
T-901	Seeding with Hydromulch				
T-901a	Seeding with Hydromulch	AC	1	$ 5,000.00	$ 5,000.00
	Lights				
	Reflectors/Signs	LS		$ 2,590.33	$ -
ITEM SUBTOTAL					$ 86,344.44
10% CONTIGENCY					$ 8,640.00
8% ENGINEERING - DESIGN					$ 6,907.56
8% CONSTRUCTION MANAGEMENT & ACCEPTANCE TESTING					$ 6,907.56
TOTAL					$ 108,799.56

Assumptions:
- Mobilization is 10%.
- Assumes one foot of material will be excavated and embanked near by.
- Assumes asphalt millings are stockpiled near by

$110,000

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			Runway 15-33 Relocation		
ITEM	ITEM DESCRIPTION	UNIT	QNTY	Engineer's Estimate	
				Unit $	Item $
P-100	Mobilization				
P-100a	Mobilization	LS	1	$ 304,200.00	$ 304,200.00
P-140	Pavement Removal				
P-140a	Pavement Removal - 2.5" Profile Mill	SY		$ 5.00	$ -
P-152	Excavation and Embankment				
P-152a	Unclassified Excavation	CY	37,500	$ 10.00	$ 375,000.00
P-156	Erosion Control				
P-156a	Temporary Erosion Control	LS	1	$ 50,000.00	$ 50,000.00
P-222	Soil Sterilization				
P-222	Soil Sterilization	SY	56,250	$ 1.00	$ 56,250.00
CDOT 304	Aggregate Base Course				
CDOT 304	Aggregate Base Course	CY	9,375	$ 65.00	$ 609,375.00
P-403	Plant Mix Asphalt Pavements				
P-403a	Bituminous Paving Course Mixture	TON	15,900	$ 110.00	$ 1,749,000.00
P-601	Crack Sealing				
P-601a	Crack Sealing	LF		$ 3.00	$ -
P-601b	Major Crack Repair	LF		$ 20.00	$ -
P-603	Bituminous Tack Coat				
P-603a	Bituminous Tack Coat	GAL	16,900	$ 3.00	$ 50,700.00
P-620	Runway and Taxiway Painting				
P-620a	Temporary Pavement Markings	SF	25,313	$ 2.00	$ 50,625.00
P-620b	Permanent Pavement Markings	SF	25,313	$ 2.00	$ 50,625.00
P-620c	Surface Painted Hold Sign	EA		$ 1,500.00	$ -
P-620d	Paint Obliteration, Complete	SF		$ 3.00	$ -
T-901	Seeding with Hydromulch				
T-901a	Seeding with Hydromulch	AC	10	$ 5,000.00	$ 50,000.00
	Lights				
	MIRL/Signs	LS	1	$ 334,577.50	$ 334,577.50
ITEM SUBTOTAL					$ 3,680,352.50
10% CONTIGENCY					$ 368,040.00
8% ENGINEERING - DESIGN					$ 294,428.20
8% CONSTRUCTION MANAGEMENT & ACCEPTANCE TESTING					$ 294,428.20
TOTAL					$ 4,637,248.90

Assumptions:
- Mobilization is 10%.
- Pavement markings are based of 5 percent of paved area
- Bituminous Tack Coat to be placed at 0.15 gal/sy for one lift.
- Lights and signs were assume to be 10 percent of total construction of all other items

$ 4,700,000

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			Taxiway A Relocation		
ITEM	ITEM DESCRIPTION	UNIT	QNTY	Engineer's Estimate	
				Unit $	Item $
P-100	Mobilization				
P-100a	Mobilization	LS	1	$ 207,700.00	$ 207,700.00
P-140	Pavement Removal				
P-140a	Pavement Removal - 2.5" Profile Mill	SY		$ 5.00	$ -
P-152	Excavation and Embankment				
P-152a	Unclassified Excavation	CY	28,500	$ 10.00	$ 285,000.00
P-156	Erosion Control				
P-156a	Temporary Erosion Control	LS	1	$ 50,000.00	$ 50,000.00
P-222	Soil Sterilization				
P-222	Soil Sterilization	SY	42,947	$ 1.00	$ 42,946.67
CDOT 304	Aggregate Base Course				
CDOT 304	Aggregate Base Course	CY	7,158	$ 65.00	$ 465,255.56
P-403	Plant Mix Asphalt Pavements				
P-403a	Bituminous Paving Course Mixture	TON	9,700	$ 110.00	$ 1,067,000.00
P-601	Crack Sealing				
P-601a	Crack Sealing	LF		$ 3.00	$ -
P-601b	Major Crack Repair	LF		$ 20.00	$ -
P-603	Bituminous Tack Coat				
P-603a	Bituminous Tack Coat	GAL	12,900	$ 3.00	$ 38,700.00
P-620	Runway and Taxiway Painting				
P-620a	Temporary Pavement Markings	SF	19,326	$ 2.00	$ 38,652.00
P-620b	Permanent Pavement Markings	SF	19,326	$ 2.00	$ 38,652.00
P-620c	Surface Painted Hold Sign	EA		$ 1,500.00	$ -
P-620d	Paint Obliteration, Complete	SF		$ 3.00	$ -
T-901	Seeding with Hydromulch				
T-901a	Seeding with Hydromulch	AC	10	$ 5,000.00	$ 50,000.00
	Lights				
	Reflectors/Signs	LS	1	$ 68,517.19	$ 68,517.19
ITEM SUBTOTAL					$ 2,352,423.41
10% CONTIGENCY					$ 235,250.00
8% ENGINEERING - DESIGN					$ 188,193.87
8% CONSTRUCTION MANAGEMENT & ACCEPTANCE TESTING					$ 188,193.87
TOTAL					$ 2,964,061.15

Assumptions:
- Mobilization is 10%.
- Pavement markings are based of 5 percent of paved area
- Bituminous Tack Coat to be placed at 0.15 gal/sy for one lift.
- Reflectors and signs were assume to be 3 percent of total construction of all other items

$ 3,000,000

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