

Enclosure (15)

Miscellaneous Exhibits - Colorado

- a. Correspondence
 - (1) Colorado Aeronautical Board letter dated April 19, 2019 (with attach)
 - (2) Colorado Airport Operators Association letter dated May 5, 2019
- b. 2011 Colorado Aviation System Plan: Executive Summary
 - (1) Chap 2. Inventory | Technical Report, May 2012 (pages 2-1 thru 2-9)
- c. Colorado Discretionary Aviation Grant Assurances
- d. General Aviation Airport Sustainability Program
- e. Pavement Evaluation and Management



COLORADO

Aeronautical Board

April 19, 2019

El Paso County Board of County Commissioners
2880 International Cir # 110
Colorado Springs, CO 80910

Re: Proposed Development Near the Meadow Lake Airport

Dear Commissioners:

In 1991, the Colorado Legislature created the Colorado Aeronautical Board (CAB), recognizing the need to “promote the safe operation and accessibility of general aviation and intrastate commercial aviation in this state; [and] that improvement of general aviation and intrastate commercial aviation transportation facilities will promote diversified economic development across the state...” (C.R.S. 43-10-101).

The CAB has become aware that the El Paso County Board of County Commissioners may soon be reviewing as many as seven development proposals for areas surrounding the Meadow Lake Airport. The Meadow Lake Airport is one of Colorado’s busiest general aviation airports, and one of just three Federal Aviation Administration (FAA) designated reliever airports in Colorado. It is an airport that plays an important role in the regional and statewide aviation system. The airport’s importance to the local community and statewide aviation system is also articulated in the most recent Colorado Aviation Economic Impact Study completed in 2013. According to that study, the Meadow Lake Airport supports 126 jobs and generates \$9,864,000 of economic output, making it a clear contributor to the community’s economic vitality.¹

The CAB recognizes that these proposals may modify presently existing airport influence areas, the modification of which could affect the health, safety and welfare of El Paso County citizens as well as the air traveling public. Although the CAB recognizes that El Paso County is responsible for its own land use planning, zoning, building code enforcement and regulation, airports such as Meadow Lake Airport are an important component of our state’s general aviation system. In supporting that system, the CAB is responsible for funding public airport needs through discretionary grants, which provide for maintaining and improving airport infrastructure. The CAB has recently approved grants totaling \$2.6 million for airfield improvements at the Meadow Lake Airport, and with this investment, the CAB is compelled to weigh in on the compatibility of potential development around the Meadow Lake Airport.

¹ 2013 Colorado Department of Transportation Aviation Economic Impact Study- <https://bit.ly/2luHJM>

The CAB understands that new housing demands in El Paso County have generated the desire of developers to meet those demands in the open areas which surround airports like Meadow Lake Airport. However, this increased demand for housing and increased population is one of the contributing factors to incompatible land uses. Incompatible land uses around airports jeopardizes the efficiency of flying activities, and the quality of life of the community residents. With extensive residential development, the development of additional incompatible land uses such as schools, community centers, libraries and commercial support for the residences come to fruition. When the developments are too close to airports, noise incompatibility, potential bodily injury and death to persons on the ground and aircraft occupants as well as other unintended consequences come into play.

The CAB also understands that El Paso County may be confronted with the need and desire to expand their tax base by increasing residential development, versus a plan that will ensure safety of the public. There are a wide variety of citizens affected by airport activity, including those who travel through airports; those who work at airports; those who have or will have property interests near airports; as well as those impacted by airport and airport activities, particularly aircraft noise. Residential development, particularly high-density development on airport arrival or departure corridors, is not compatible with airport operations due to aircraft noise impacts and for safety reasons in the event an aircraft experiences difficulty on takeoff or landing.

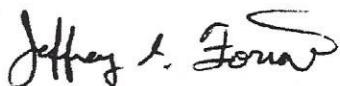
The CAB suggests the preparation and adoption of a comprehensive development plan as a critical and effective part of the process of ensuring land use compatibility. If a comprehensive development plan that addresses zoning and land-use standards reflective of state and federal law requirements has not been created prior to development, citizens may be placed in harm's way. Any rezoning for development purposes that jeopardizes public health, safety and welfare, or the vibrancy of the Meadow Airport should be thoughtfully considered with a vision towards long term impacts.

For your convenience, excerpts of applicable State and Federal Legislation are attached. The purpose of the attached legislation requires the development of acceptable and consistent compatible land use standards.

The CAB appreciates the opportunity to provide this input, and again strongly encourages the El Paso County Commissioners to ensure that development around the Meadow Lake Airport be consistent with providing a safe environment to El Paso County residents.

We appreciate your consideration of our input. If you have any questions or need additional information, please contact me at (303) 615-1194, or Aeronautics Director David Ulane at (303) 512-5254.

Sincerely,



Dr. Jeffrey Forrest, Ph.D.
Chair, Colorado Aeronautical Board

State Legislation

C.R.S. 43-1-113. Safe operating areas around airports-establishment. (1) The general assembly hereby declares commercial service airports, public airports, reliever airports, as defined in 49 U.S.C. sec. 47102, and the land areas surrounding such airports, as defined in 14 CFR part 77, to be a matter of state interest as provided in article 65.1 of title 24, C.R.S.

(2) Governmental entities with zoning and building permit authority shall adopt and enforce, at a minimum, rules and regulations to protect the land areas defined in 14 CFR part 77.

C.R.S. 24-65.1-202. Criteria for administration of areas of state interest. (4) The following criteria shall be applicable to areas around key facilities:

(a) If the operation of a key facility may cause a danger to public health and safety or to property, as determined by local government, the area around the key facility shall be designated and administered so as to minimize danger; and

(b) Areas around key facilities shall be developed in a manner that will discourage traffic congestion, incompatible uses, and expansion of the demand for government services beyond the reasonable capacity of the community or region to provide such services as determined by local government. Compatibility with non-motorized traffic shall be encouraged. A development that imposes burdens or deprivation on the communities of a region cannot be justified on the basis of local benefit alone.

(5) In addition to the criteria described in section (4) of this section, the following criteria shall be applicable to areas around particular key facilities:

(a) Areas around airports shall be administered so as to:

(I) Encourage land use patterns for housing and other local government needs that will separate uncontrollable noise sources from residential and other noise-sensitive areas; and

(II) Avoid danger to public safety and health or to property due to aircraft crashes.

Federal Legislation

Airport Noise Compatibility Planning

14 CFR Part 150.1 Scope and Purpose. This part describes the procedures, standards, and methodology governing the development, submission, and review of airport noise... compatibility programs, including the process for evaluating and approving or disapproving those programs. It prescribes single systems for - (a) measuring noise at airports and surrounding areas that generally provides a highly reliable relationship between projected noise exposure and surveyed reaction of people to noise; and (b) determining exposure of individuals to noise that results from operation of an airport. This part identifies those land uses which are normally compatible with various levels of exposure to noise by individuals. It provides technical assistance to airport operators in conjunction with other local, State, and federal authorities, to prepare and execute appropriate noise compatibility planning and implementation programs.

150.11 Identification of land uses. ... Determination of land use must be based on professional planning criteria and procedures utilizing comprehensive, or master, land use

planning, zoning, and building and site designing as appropriate. If more than one current or future land use is permissible, determination of compatibility must be based on that use most adversely affected by noise.

14 CFR Part 77 Safe, Efficient Use, and Preservation of the Navigable Airspace.

77.15 Scope (a) This subpart describes standards used to determine obstructions to air navigation that may affect the safe and efficient use of navigable airspace and the operation of planned or existing air navigation and communication facilities. Such facilities include air navigation aids, communication equipment, airports, Federal airways, instrument approach or departure procedures, and approved off-airway routes.

77.27 Initiation of studies. The FAA will conduct an aeronautical study when:

(a) Requested by the sponsor of any proposed construction or alteration for which notice is submitted; or (b) The FAA determines a study is necessary.

77.29 Evaluating aeronautical effect.

(a) The FAA conducts an aeronautical study to determine the impact of a proposed structure... an alteration of an existing structure on aeronautical operations, procedures, and the safety of flight. These studies include evaluating:

- (1) The impact on arrival, departure, and enroute procedures for aircraft operating under visual flight rules;
- (2) The impact on arrival, departure, and enroute procedures under instrument flight rules;
- (3) The impact on existing and planned public use airports;
- (4) Airport traffic capacity of existing public use airports and public use airport development plans received before the issuance of final determination....



Colorado Airport Operators Association

1140 US Highway 287, #400-277 • Broomfield, CO 80020
(303) 947-7815 • coloradoairports@gmail.com

May 5, 2019

Mr. Craig Dossey
Executive Director,
El Paso County Planning and Community Development
2880 International Circle, Suite 110
Colorado Springs, CO 80910

Re: Encroachment on Colorado Airports

Dear Mr. Dossey,

The Colorado Airport Operators Association (CAOA) serves the common interests of the owners, operators, and users of the 74 public use airports located throughout the State of Colorado. CAOA provides a unified voice for airport operators to State and Federal agencies, the General Assembly and the Congress of the United States of America, on proposed or pending legislation and regulations.

I am writing to you specifically concerning Meadow Lake Airport, located, just east of Colorado Springs. According to the 2013 Economic Impact Study that was conducted by the Colorado Division of Aeronautics, Meadow Lake Airport'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. I expect that this has grown considerably in the years since that study and will continue to act as an economic driver for the community.

One of the most significant threats to airports is the growth of non-compatible development around them. This encroachment can significantly restrict an airport's ability to provide the services to the local community that it was intended to. Centennial Airport and former Stapleton Airport provide cautionary examples of the impact of residential and non-compatible business development that will begin to negatively impact airport operations and, in some cases, force the airport to dramatically alter or restrict flight operations.

CAOA strongly encourages communities with airports to carefully evaluate their zoning and land use planning to ensure that appropriate Airport Influence Zones are identified and compatible zoning established in the areas surrounding their airports to help protect the ongoing viability of the airport and prevent situations that may result in land use conflicts. The most direct approach involves early adoption of compatible zoning and land use standards allowing only business and industrial uses that will not be negatively impacted by the noise and aviation activity that is naturally a part of airport operation. Second, ensuring that residential

growth is carefully restricted in the Airport Influence Zone to both clearly establish the impacts of locating within the zone and protect airport approach and departure areas from all non-compatible development.

We understand that Meadow Lake Airport is currently facing six development proposals for projects that will be directly adjacent to the airport, three of which are directly in line with its runways and approach/departure corridors. One is in the main runway clear zone and the other two are in areas that are used often for "off-airport" precautionary landings. Development in approach and departure zones like this will create unnecessary hazards to both aircraft and persons on the ground. CAOA strongly recommends that you develop proper zoning and land-use standards in these areas to protect the Meadow Lake Airport.

Please don't hesitate to contact us if we can help with providing understanding to these potential threats to your airport's continued operation.

Sincerely,



Jason R. Licon
President

Cc: Mark Waller, Commissioner (District 2), and Planning Commission Liaison (200 South Cascade Avenue, Suite 100, Colorado Springs, CO 80903)

Stan VanderWerf, County Commissioner, Commissioner (District 3) and Airport Liaison (200 South Cascade Avenue, Suite 100, Colorado Springs, CO 80903)

Dave Elliott, Meadow Lake Airport Director (8489 Cessna Dr, Peyton, CO 80831)

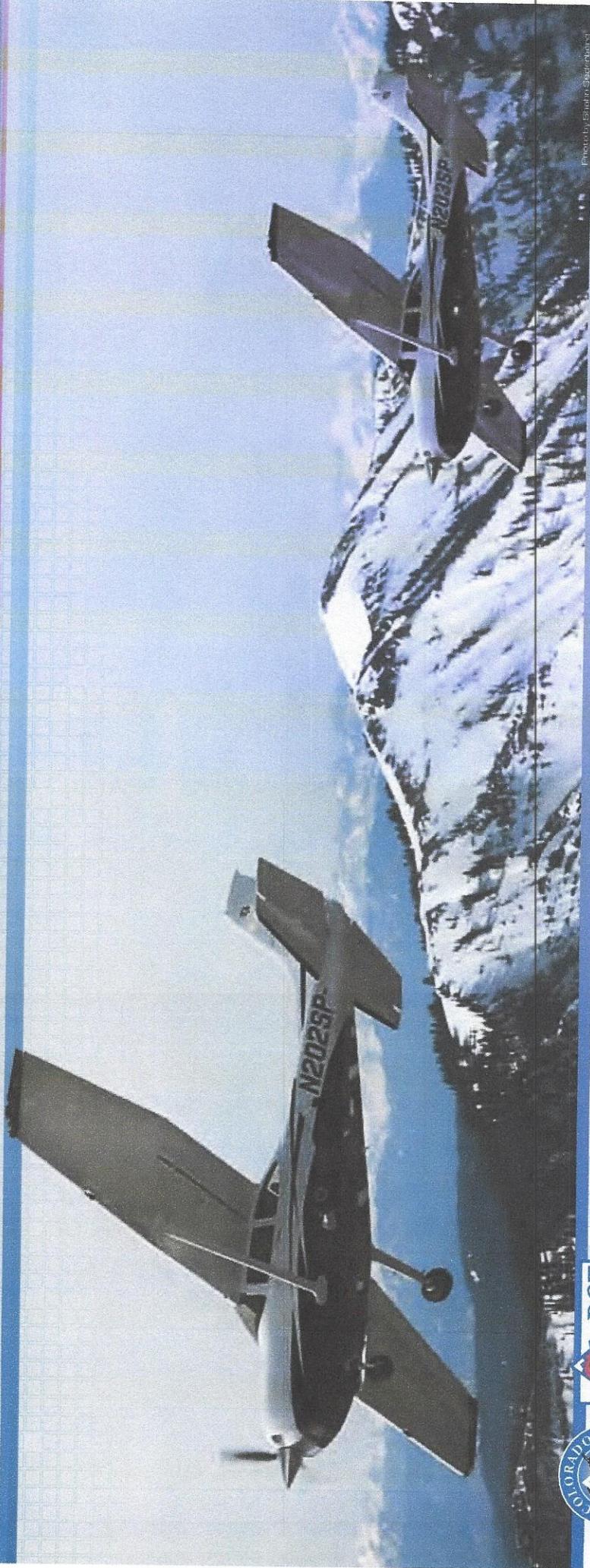
EXECUTIVE SUMMAR



Photo by Shannen Gosselin



COLORADO 2011 AVIATION SYSTEM PLAN



ppg1.com/01

INTRODUCTION

Under the direction of the Colorado Department of Transportation (CDOT), Division of Aeronautics, Colorado was among the first states to prepare a performance-based aviation system plan. 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.

Building on the 2000 and 2005 state aviation system plans, the 2011 Colorado Aviation System Plan Update has 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 the Division of Aeronautics.

The process to evaluate the airport system's performance results in a report card for the system. System performance measures are the categories in which the system is graded or evaluated, and individual benchmarks are the actual tests used to determine how well the system is performing. The system performance measures are commensurate with Federal Aviation Administration (FAA) descriptors for a balanced and viable airport system.

Performance Measures



Activity

The system should have sufficient capacity to meet current and future needs.

Expansion Potential

The system should have the ability to respond to unforeseen changes in the aviation industry from a demand and technological standpoint or in the local market area.



Economic Support

The system should provide support to the economy.



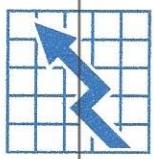
Coverage & Emergency Access

The system should be accessible for customers and users from both the ground and the air.



Investment

The system should be developed to leverage historic investment and to make the most out of future investment.



Security

The system should be operated to address security and safety considerations, relative to perceived risks.





THE COLORADO AIRPORT SYSTEM

All airports in the Colorado system are assigned to one of three roles: A Major, Intermediate, or Minor. Roles were initially assigned in 2000, but adjusted in 2005 and again in 2011 to reflect changes in the system and the aviation industry. Airport roles generally reflect the relative importance of the airport to the system and provide a backdrop for the system evaluation. As the system is evaluated, it is important to know which airports are privately versus publicly-owned and which airports are included in the National Plan of Integrated Airport Systems (NPIAS); Colorado airports included in the NPIAS are eligible for Federal funding from the FAA.

Using the framework established during this update to the Colorado Aviation System Plan, the plan shows how individual grants issued by the Division of Aeronautics relate to and help to support the broader measures that are used to evaluate and monitor the performance of Colorado's airport system. The system plan provides information on the following:

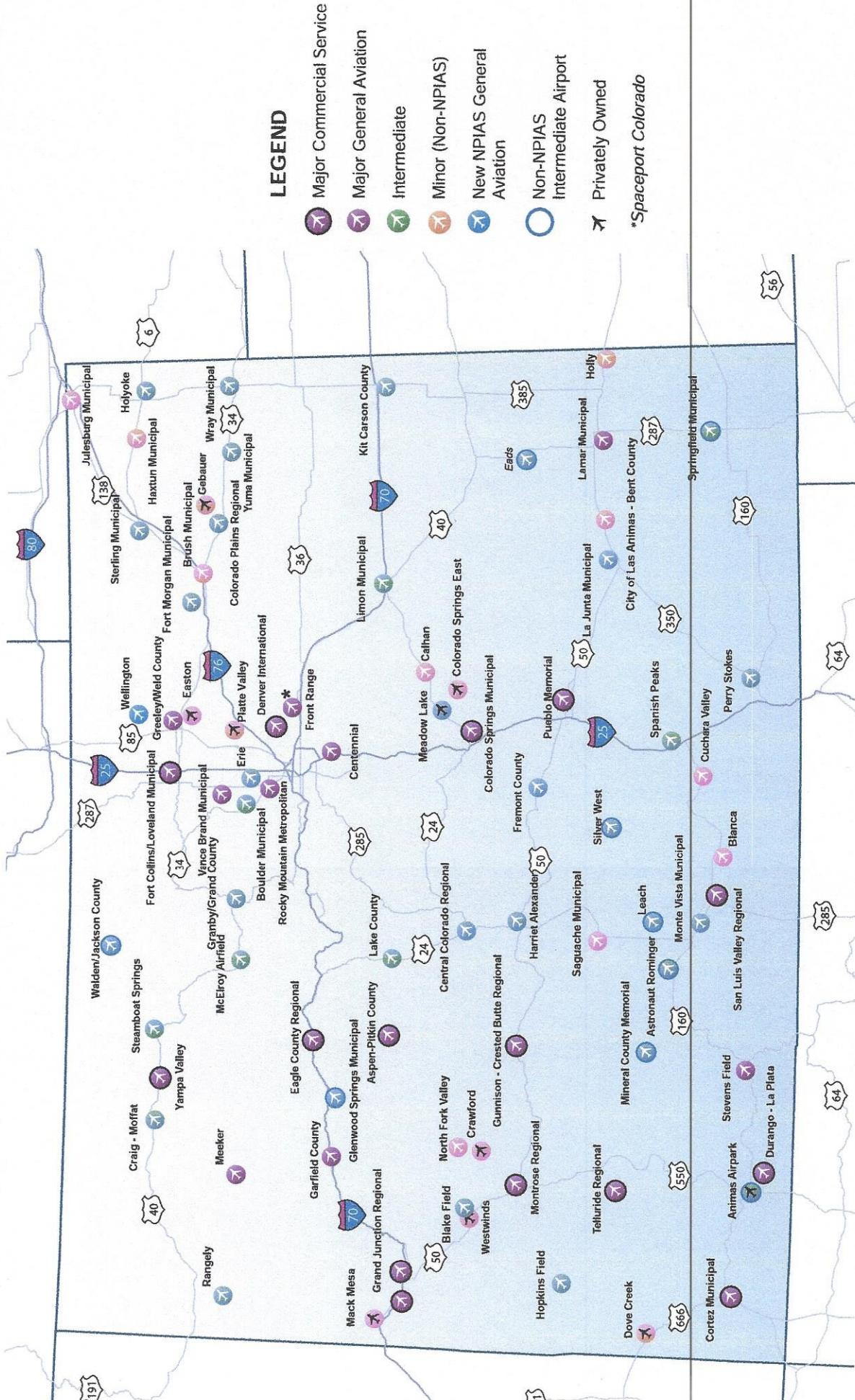
- Actions and projects desirable to improve system performance relative to the plan's benchmarks.
- Actions and projects desirable to improve system performance relative to airport-specific facility, service, and equipment objectives.
- Generalized cost estimates related to implementing improvements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

The remainder of this document summarizes results from Colorado's 2011 Aviation System Plan Update.



Lake County Airport - Leadville, CO Photo by Shawn Soderberg

THE COLORADO AIRPORT SYSTEM





Performance Measure: ACTIVITY

For airports in Colorado to effectively serve their customers, they should have adequate operational capacity. The system plan benchmarked the annual operational capacity of each airport to current and future total annual aircraft landings and takeoffs. This was accomplished using each airport's annual service volume (ASV). ASV reflects the ability of each airport's runway and taxiway system to accommodate annual operational demand; an ASV for each system airport was estimated using accepted FAA guidance. Projections of aviation demand were developed to support activity benchmarking. Activity recorded in 2005 and 2010 was a major building block to develop projections for various demand components. The critical component considered in the demand/capacity analysis was each airport's total annual operational estimate.

As information presented here indicates, while commercial aircraft operations at Denver International increased between 2005 and 2010, statewide operations in all other categories declined. In particular, Colorado experienced a decrease in general aviation operations. This was a national trend which was not specific to Colorado. At some non-towered airports, this reported decrease may have been a result of better estimates of activity and not actual declines in demand, but even at the system's largest general aviation airports that have air traffic control towers, decreases in general aviation demand were reported.

Colorado Airport Demand Projections

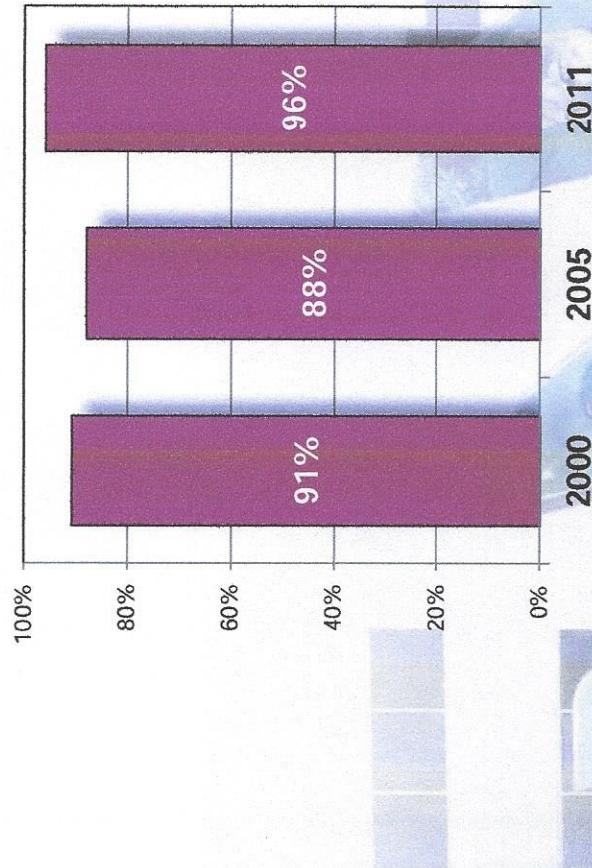
| | 2005 | 2010 | 2015 | 2020 | 2030 |
|------------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Enplanements | | | | | |
| Denver International | 21,701,980 | 26,024,920 | 28,877,700 | 33,153,400 | 42,270,200 |
| Other Commercial Airports | 2,015,010 | 1,998,140 | 2,191,400 | 2,504,900 | 3,176,700 |
| Total | 23,716,990 | 28,023,060 | 31,069,100 | 35,658,300 | 45,446,900 |
| Commercial Operations | | | | | |
| Denver International | 527,160 | 608,060 | 654,730 | 730,000 | 880,600 |
| Other Commercial Airports | 95,250 | 83,680 | 88,550 | 95,860 | 110,970 |
| Total | 622,410 | 691,740 | 743,280 | 825,860 | 991,570 |
| General Aviation/Other Ops. | | | | | |
| Denver International | 40,390 | 27,380 | 27,800 | 30,450 | 37,560 |
| All Other System Airports | 1,998,220 | 1,712,340 | 1,792,540 | 1,861,040 | 2,036,570 |
| Total | 2,038,610 | 1,739,720 | 1,820,340 | 1,891,490 | 2,074,130 |
| Total Annual Operations | | | | | |
| Denver International | 567,550 | 635,440 | 682,530 | 760,450 | 918,160 |
| All Other System Airports | 2,093,470 | 1,796,020 | 1,881,090 | 1,956,900 | 2,147,540 |
| Total | 2,661,020 | 2,431,460 | 2,563,620 | 2,717,350 | 3,065,700 |
| Based Aircraft | | | | | |
| All System Airports | 5,359 | 5,245 | 5,351 | 5,470 | 5,756 |

Ft. Collins-Loveland Municipal Airport - Loveland, CO. Photo by Shawn Seelbach

Performance Measure: ACTIVITY



**Percent of Major Airports
Projected to Operate Under 80% Capacity**



The FAA recommends that when annual demand saturates 80 percent of an airport's ASV, steps should be taken to address operational capacity shortfalls. The system plan includes a target to have all airports operating under an 80 percent demand/capacity ratio. No airports in the Intermediate or Minor categories reached critical demand/capacity thresholds in 2000, 2005, or 2011.

Decreases in annual operations, along with capacity enhancing projects at Centennial and Pueblo Memorial, resulted in fewer airports reaching critical demand/capacity thresholds than did in previous reporting periods. Based on its current ASV, Denver International is the only airport expected to exceed the 80 percent demand/capacity ratio by 2030. In recognition of the need to enhance its operational capacity, Denver International is currently in the process to plan and determine the actual timing for building its seventh runway. This project will provide a significant increase to the airport's operating capacity.

In 2000, nine percent of the airports in the Major category were expected to exceed an 80 percent demand/capacity ratio by the end of the planning period, and this increased to 12 percent by 2005. In 2011, with lower activity levels projected by the end of the planning period and other noted increases in operational capacity, only four percent (or one airport) of the airports in the Major category are expected to reach or exceed the critical 80 percent demand/capacity threshold. This airport, as noted, is Denver International.

It is also important to note that the Division of Aeronautics and FAA investment in Phases I and II of the Colorado Surveillance Project has or will increase operational capacity especially during instrument flight rule conditions. Airports that have benefitted from the surveillance project include those serving Rifle, Craig, Hayden, Steamboat, Gunnison, Telluride, Durango, and Montrose.

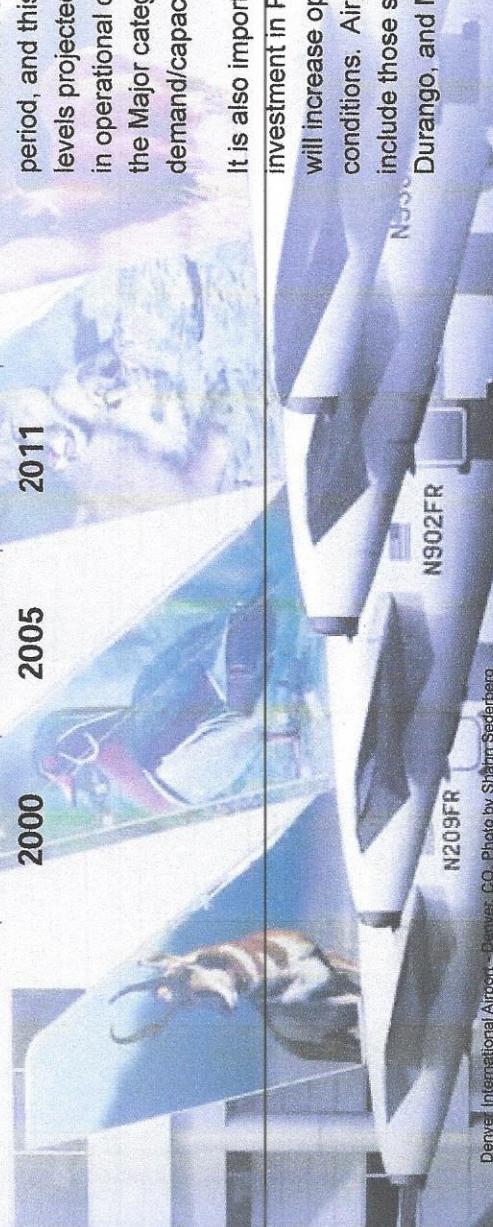
Denver International Airport - Denver, CO. Photo by Shahn Soderberg

N209FR

N902FR

N300

NEEDED



Performance Measure: EXPANSION POTENTIAL



An important part of the mission for the Division of Aeronautics is to help system airports expand to meet the needs of their users. There are many types of projects related to expansion needs that are funded annually by the Division of Aeronautics. To put themselves in the best position to expand, system airports should have current master plans. Airports should also have current Part 77 surfaces and compatible land use planning in place which identify the areas around each airport that need to be protected from height obstructions and from activities that might interfere with the safety of aircraft operations. In addition to identifying their Part 77 surfaces, airports in Colorado should also take steps to have these surfaces incorporated into local planning documents and zoning ordinances. Once Part 77 surfaces are in place, the Division of Aeronautics is often called upon to help address height related obstructions in these areas.

Benchmarks related to current master plans and Part 77 surfaces have been incorporated into the system plan to help evaluate system performance relative to expansion needs. These benchmarks were also used in the 2000 and the 2005 system plans.

The master planning benchmark applies to publicly-owned and NPIAS airports. During this update, the Division of Aeronautics and FAA worked together to adjust the objective for current master plans. The revised objective is for all commercial airports to have a master plan that is current within seven years and for publicly-owned and NPIAS general aviation airports to have master plans that are current within 10 years.

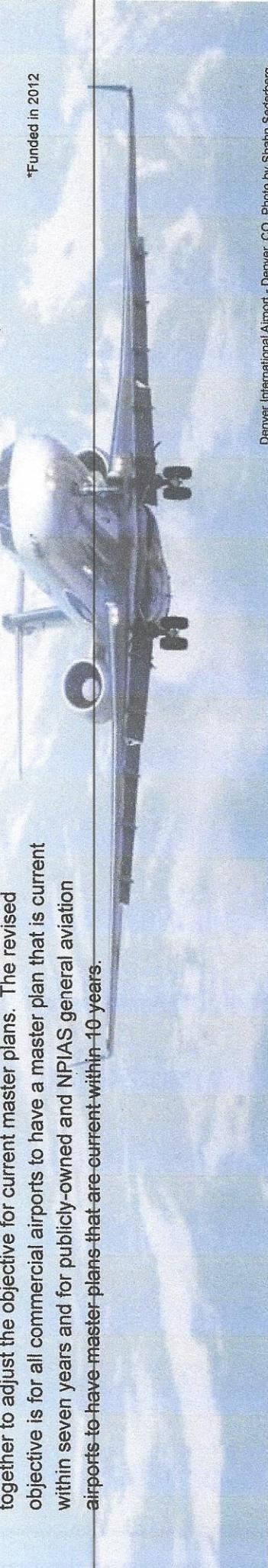
The currency of master plans will change continually over the planning period; a target has been established to have 70 percent of applicable airports with current master plans in any reporting period. Between now and 2030, applicable system airports will need one or more master plan updates to meet the system plan objectives. Airports that currently need a master plan to meet objectives set in the system plan are shown here. It is worth noting that some of these airports report that they are actually planning to undertake master plans in the near term.

Airports Needing a Master Plan to Meet Objectives

| Major Airports | Intermediate Airports | Minor Airports |
|-----------------------|-----------------------|---------------------|
| Yampa Valley Regional | Leach Airport | Brush Municipal* |
| Telluride Regional | Eads Airport | Haxtun Municipal |
| | Glenwood Springs | Holly Airport |
| | Springfield Municipal | Julesburg Municipal |
| | Silver West | Cuchara Valley |

La Animas City & County
North Fork Valley

*Funded in 2012



Denver International Airport - Denver, CO. Photo by Shahn Soderberg

Performance Measure: **EXPANSION POTENTIAL**



Measure:

EXPANSION POTENTIAL

Airports with Current Master Plans

| | 2000 | 2005 | 2011 |
|-----------------------------------|------|------|------|
| Major Airports | 88% | 92% | 92% |
| Intermediate Airports | 53% | 87% | 84% |
| Minor Airports | 9% | 22% | 30% |
| Applicable System Airports | 58% | 80% | 79% |

To meet the Part 77 benchmark, airports had to report that current Part 77 surfaces are recognized within the planning documents of surrounding communities. In 2011, fewer Major Airports report that they meet the Part 77 benchmark than did in 2005. In addition to helping airports address Part 77 obstructions, it is recommended that the Division of Aeronautics undertake a focused effort to address the lack of compliance with the Part 77 benchmark at all applicable airports. Major and Intermediate Airports, included in the NPIAS, reporting they do not meet the Part 77 benchmark, are shown here.

Airports with Part 77 Compliance

| | 2000 | 2005 | 2011 |
|-----------------------------------|------|------|------|
| Major Airports | 54% | 92% | 73% |
| Intermediate Airports | 23% | 61% | 61% |
| Minor Airports | 0% | 11% | 25% |
| Applicable System Airports | 31% | 66% | 69% |

Airports Not Meeting Part 77 Benchmark

| Major Airports | Intermediate Airports |
|--------------------------|-----------------------|
| Colorado Springs | Meadow Lake |
| Durango-La Plata County | Blake Field |
| Eagle County Regional | Erie Municipal |
| Lamar Municipal | Fort Morgan Municipal |
| Pueblo Municipal | McElroy Field |
| Garfield County Regional | Rangely |
| | Harriet Alexander |
| | Sterling Municipal |
| | Perry Stokes |



Performance Measure: ECONOMIC SUPPORT

For airports in Colorado to effectively support both the State and local economies, they must be accessible and have various support services. For airports to be accessible from the air, the system plan has adopted an objective for Major Airports to have a precision approach or an approach with vertical guidance and for airports in the Intermediate category to have a non-precision approach. With evolving satellite technology, options for airports to have a published approach are more diverse. However, there are other requirements that airports must also meet before an approach can be approved; it is these additional requirements that occasionally prohibit an airport from having a published approach.

The incorporation of the vertical approach objective is new to this 2011 update of the system plan. Airports in the Major category, both commercial and general aviation, that should continue to be considered for an approach with vertical guidance are shown below. Intermediate Airports that lack a published approach are shown separately.

Intermediate Airports Needing Published Approach

| | |
|--------------------------|----------------------------------|
| Boulder Municipal | Ft. Morgan Municipal (pending) |
| Leach Field* | Glenwood Springs Municipal* |
| Meadow Lake | Granby-Grand County |
| Mineral County* | Limon Municipal |
| Astronaut Kent Rominger* | Rangely |
| Blake Field | Spanish Peaks Airfield (pending) |
| Animas Airpark* | Silver West** |
| Eads* | Yuma Municipal |

*Non-NPIAS Airports

Further investigation by the FAA is needed to determine which approaches can actually be implemented. As information in this section shows, the percentage of system airports with a published approach increased between the 2005 and the 2011 reporting periods.

Airports Needing Vertical Guidance Approach Major Airports: Commercial & General Aviation

Aspen-Pitkin County
Eagle County
Vance Brand Municipal

| | 2000 | 2005 | 2011 |
|-----------------------|------|------|------|
| Major Airports | 96% | 96% | 100% |
| Intermediate Airports | 39% | 39% | 50% |
| All NPIAS Airports | 63% | 63% | 82% |

Grand County Airport - Granby, CO. Photo by Shawn Sederberg

Performance Measure: ECONOMIC SUPPORT



Other services which help each airport to support both the statewide and local economies include access to fuel and ground transportation services. Colorado's last statewide economic impact study, released in 2008, showed that aviation contributes over \$32 billion each year to the State's economy. When customers have access to fuel and to ground transportation services, the role that airports play in supporting the economy is increased. Ground transportation is especially important to the millions of visitors who reach Colorado each year by air. The system plan has established objectives for all airports in the Major and Intermediate categories to have access to fuel and ground transportation services.

As indicated, system performance related to airports with fuel has improved. However, the percent of system airports in the Intermediate category that have access to ground transportation services for their customers has actually declined. Information on airports in the Intermediate category that need fuel and access to ground transportation services for their customers are shown here.

Intermediate Airports Needing Improved Services

| Fuel Service | Ground Transportation |
|----------------------------|----------------------------|
| Mineral County Memorial | Leach Airport |
| Astronaut Rominger Airport | Mineral County Memorial |
| Eads Airport | Astronaut Rominger Airport |
| Springfield Municipal | Eads Airport |
| | Limon Municipal |
| | Monte Vista Municipal |
| | Rangely Airport |
| | Springfield Municipal |
| | Silver West Airport |
| | Yuma Municipal |

Airports With Fuel Service

| | 2000 | 2005 | 2011 |
|-----------------------|------|------|------|
| Major Airports | 100% | 100% | 100% |
| Intermediate Airports | 85% | 84% | 88% |

Airports With Ground Transportation Services

| | 2000 | 2005 | 2011 |
|-----------------------|------|------|------|
| Major Airports | 100% | 96% | 100% |
| Intermediate Airports | 79% | 72% | 69% |



McElroy Field - Kremmling, CO. Photo by Shahn Sederberg



COVERAGE/EMERGENCY ACCESS

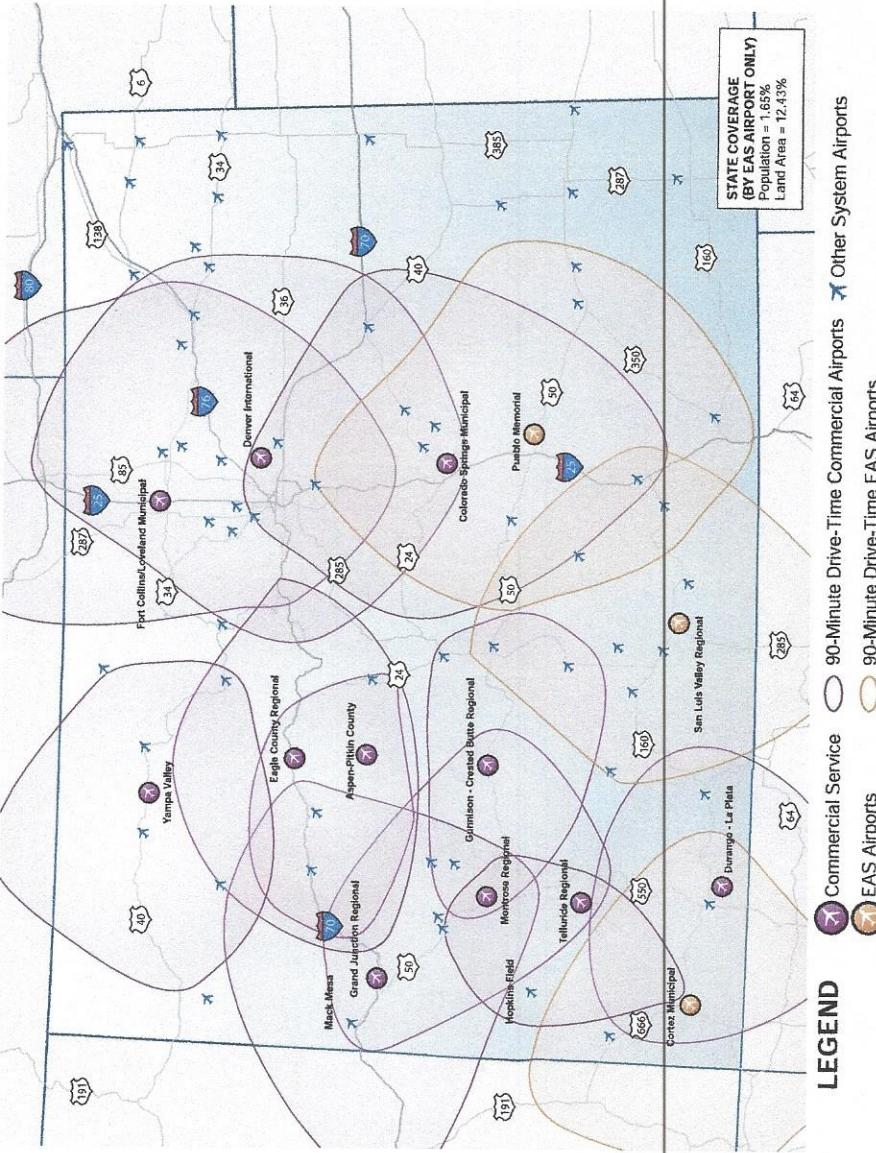
For Colorado to have an effective airport system, the system must be accessible from the ground and from the air. In addition, given its topography and the distribution of its population, it is also essential for airports in Colorado to support the needs of emergency aircraft.

GIS analysis completed in the system plan shows that 94 percent of Colorado's population is within 30 minutes or less of any system airport, and 99 percent of the State's population is within 90 minutes or less of an airport with scheduled commercial airline service. This includes commercial airports in Colorado as well as commercial airports in neighboring states. With the exception of Eastern Colorado, almost all of the remainder of the State is within a 90-minute drive time of one or more commercial airports. Residents in this area of the State most often use Denver International, Colorado Springs Municipal, or Pueblo Memorial for their commercial air travel needs.

For Colorado to have an effective airport program; future changes in EAS program eligibility could impact some airports in Colorado; and the number of carriers participating in this program and the aircraft equipment types suited to EAS routes are dwindling. Loss of commercial airline service at EAS airports would have a greater impact on land area as opposed to population within a 90-minute drive of a commercial service airport.

program; future changes in EAS program eligibility could impact some airports in Colorado; and the number of carriers participating in this program and the aircraft equipment types suited to EAS routes are dwindling. Loss of commercial airline service at EAS airports would have a greater impact on land area as opposed to population within a 90-minute drive of a commercial service airport.

Service Areas of Commercial Airports in Colorado



It is worth noting that there are airports that help meet Colorado's commercial air travel needs with service supported by operating subsidies from the Essential Air Service (EAS) program. The Division of Aeronautics should monitor the status of this program for the following reasons: future re-authorizations of the Airport Improvement Program (AIP) may not include funding for this

Performance Measure: COVERAGE/EMERGENCY ACCESS

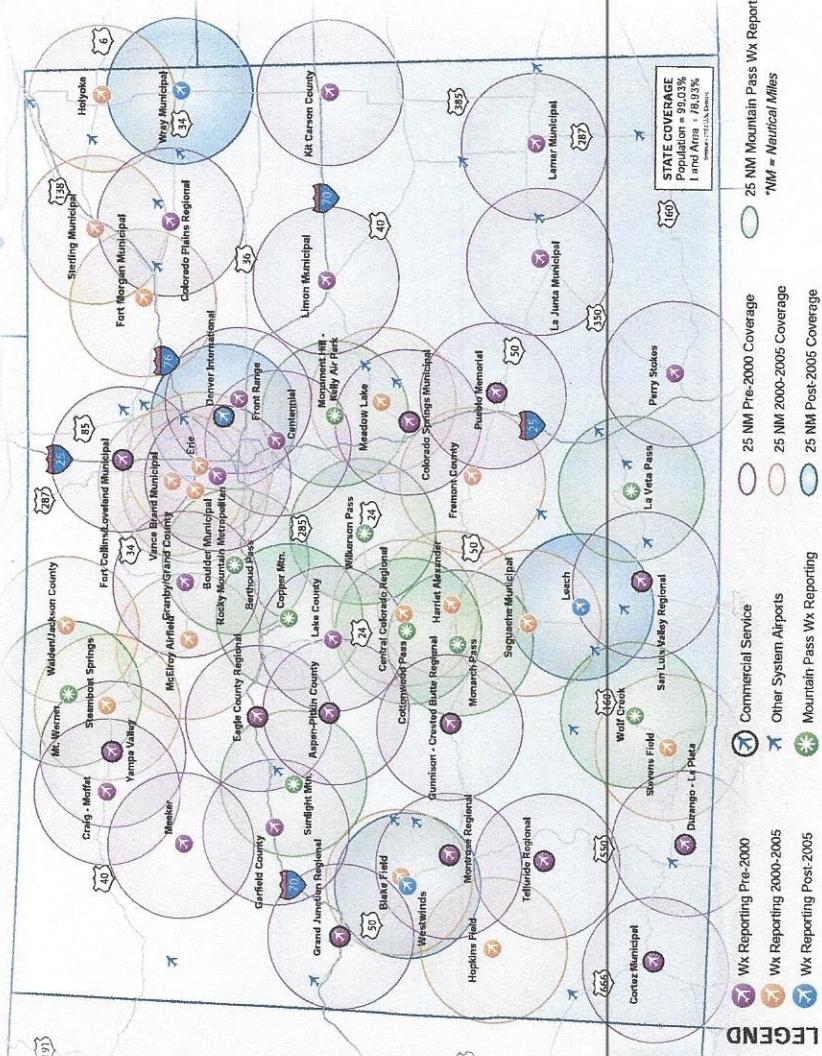
An important aspect of accessibility for Colorado's airports relates to weather reporting equipment. The system plan's objective is for all airports in the Major and Intermediate categories to have on-site weather reporting equipment. Investing to meet the objectives for weather reporting equipment has been important to the Division of Aeronautics, and the system has improved accordingly. There are, however, nine airports in the Intermediate category that still need weather reporting equipment in order for the system to be fully compliant with the weather reporting objective.

The number of airports with weather reporting improved as did the percent of land area and population within 25 nautical miles of an airport with weather reporting. The Division of Aeronautics recently issued a grant to provide weather reporting equipment for Astronaut Rominger Airport.

Intermediate Airports Needing On-Site Weather Reporting Equipment

| | |
|--------------------|------------------------|
| Leach Airport | Monte Vista Municipal |
| Mineral County | Springfield Municipal |
| Astronaut Rominger | Spanish Peaks Airfield |
| Animas Airport | Silver West Airport |
| Eads Airport | Yuma Municipal |

Coverage Provided by Weather Reporting Facilities Since 2000



Airports with Weather Reporting Equipment

| | 2000 | 2005 | 2011 |
|-------------------------------|------|------|------|
| Major Airports | 92% | 100% | 100% |
| Intermediate Airports | 24% | 63% | 69% |
| Major / Intermediate Airports | 52% | 79% | 83% |

Area and Population within 25 Nautical Miles of Weather Reporting Equipment

| | 2000 | 2005 | 2011 |
|------------|------|------|------|
| Population | 94% | 99% | 99% |
| Land Area | 53% | 76% | 79% |

McElroy Field - Kremmling, CO. Photo by Shahn Sederberg



Performance Measures: **EMERGENCY ACCESS**

There are two types of aircraft that are most often used to support both patient and physician emergency transport needs in Colorado, the King Air B200 and Learjet 35. Operators of these aircraft provided input to the system plan to identify minimum operating requirements for these aircraft; these include a minimum runway length based on the aircraft type and the elevation of the airport, a published approach, weather reporting equipment, HIRL or MIRL, and a rotating beacon.

Emergency operators of the Learjet 35 have requirements similar to those of the King Air B200 emergency aircraft, but this aircraft has a longer minimum runway length requirement. There are only two airports in the Major category that do not meet the minimum runway length for the Learjet 35. The runway at the Meeker Airport is approximately 300 feet short of the objective and the runway at Vance Brand Municipal is approximately 1,600 feet less than the minimum objective for the Learjet 35. All other Major Airports meet all minimum operating requirements for the Learjet 35 emergency aircraft. There are also four Intermediate Airports that meet all minimum operating requirements for the Learjet 35; these airports are Colorado Plains Regional Airport, Central Colorado Regional Airport, La Junta Municipal Airport, and Harriet Alexander Airport.

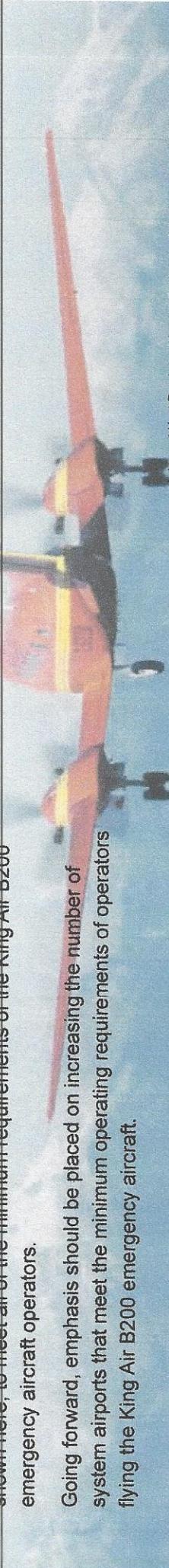
All Major Airports currently have all facilities in place to meet the minimum requirements of emergency operators flying the King Air B200. There are 14 airports in the Intermediate category that also meet all minimum requirements identified by the operators of the King Air B200. The remainder of the airports in the Intermediate category need one or more facilities, as shown here, to meet all of the minimum requirements of the King Air B200 emergency aircraft operators.

Going forward, emphasis should be placed on increasing the number of system airports that meet the minimum operating requirements of operators flying the King Air B200 emergency aircraft.

Facility Needs for King Air Emergency Aircraft Operators

| Airport | Runway Length | Approach | Runway Lighting | Weather Reporting | Rotating Beacon |
|-----------------------|---------------|----------|-----------------|-------------------|-----------------|
| Boulder Municipal | 900 feet | Needed | In Place | In Place | In Place |
| Leach Airport | In Place | Needed | Needed | Needed | In Place |
| Meadow Lake | In Place | Needed | In Place | In Place | In Place |
| Mineral County | In Place | Needed | Needed | Needed | Needed |
| Blake Field | In Place | Needed | In Place | In Place | In Place |
| Astronaut Rominger | In Place | Needed | Needed | Needed | Needed |
| Animas Airpark | 290 feet | Needed | Needed | Needed | Needed |
| Eads Airport | 740 feet | Needed | Needed | Needed | Needed |
| Erie Municipal | 100 feet | In Place | In Place | In Place | In Place |
| Fort Morgan | In Place | Pending | In Place | In Place | In Place |
| Glenwood Springs | 2,000 feet | Needed | Needed | Needed | Needed |
| Granby-Grand County | 300 feet | Needed | In Place | In Place | In Place |
| Limon Municipal | 100 feet | Needed | In Place | In Place | In Place |
| Monte Vista Municipal | In Place | In Place | In Place | Needed | In Place |
| Hopkins Field | 700 feet | In Place | In Place | In Place | In Place |
| Rangely Airport | In Place | Needed | In Place | In Place | In Place |
| Springfield Municipal | In Place | In Place | Needed | Needed | In Place |
| Steamboat Springs | 900 feet | In Place | In Place | In Place | In Place |
| Spanish Peaks | In Place | Pending | Needed | Needed | Needed |
| Silver West | In Place | Needed | Needed | Needed | Needed |
| Yuma Municipal | 1,100 feet | Needed | In Place | Needed | In Place |

✓ Denotes airport needing fewest improvements to meet emergency operator needs.



Astronaut Kent Rominger Airport - Del Norte, CO. Photo by Shawn Soderberg

Performance Measure: INVESTMENT



The investment performance measure is designed to ensure that the Division of Aeronautics is maximizing its historic investment. This is accomplished by identifying airports that could benefit from extensions to primary runways that are already in place and by identifying primary runway, taxiway, and apron pavements that could benefit from maintenance to improve their pavement condition index (PCI) rating.

Primary runway length objectives for system airports were established by the system plan as follows:

- Major commercial and reliever airports – 75 percent of large aircraft at 90 percent useful load
- Other Major general aviation airports – 100 percent of all small aircraft
- All Intermediate Airports – 75 percent of small aircraft
- All Minor Airports – Maintain existing runway length

The 2011 update to the system plan incorporated new FAA guidance on calculating runway length requirements; this resulted in longer runway length objectives for several airports in the Major category. As a result, fewer airports in the Major category meet their runway length objective in 2011 than did in 2005.

Previous analysis has shown that it is not feasible for all airports to meet their runway length objectives identified in the system plan; and the system plan, as part of its recommendations, considers these previous findings. Airports in the Major category that could be considered for runway extensions to help them better meet system plan runway length objectives are as follows:

| | |
|-------------------------|---------------|
| Cortez-Montezuma County | Stevens Field |
| Vance Brand Municipal | Front Range |
| Meeker | |

Actual lengths for runway extensions should be confirmed in an airport master plan and should be pursued based on actual need. Airports in the Intermediate category that could be considered for runway extensions include:

| | |
|----------------|------------------------|
| Mineral County | Hopkins Field |
| McElroy Field | Steamboat Springs |
| Lake County | Walden-Jackson County |
| Monte Vista | Spanish Peaks Airfield |

Again, all runway extensions should be vetted through an airport master plan. For Intermediate Airports shown above, any runway extension should also consider minimum length requirements for the predominant types of emergency aircraft that serve the State.



Performance Measure: INVESTMENT

There are many types of projects that the Division of Aeronautics funds to help maintain and improve the condition of primary runway, taxiway, and apron pavements. A benchmark to evaluate the condition of primary runway pavements has been in place since 2000. New benchmarks to report on the pavement condition for primary taxiways and apron areas were added as part of this 2011 system plan update. Since the condition of primary pavement areas continually change, for any given reporting period, results will differ. The system plan has established an objective for all primary pavements to have a PCI rating of 75 or greater. At a rating of 75, pavements are generally considered to be in good condition but may still benefit from certain types of investment for pavement maintenance. All airports in the Major, Intermediate, and Minor categories that are included in the Division of Aeronautics Pavement Management Program are analyzed in association with the three pavement benchmarks. Airports currently needing a pavement project to meet system plan objectives for a PCI of 75 or greater on its primary runway, taxiway, and/or apron area are shown below.

PRIMARY RUNWAY PCI

| Major Airports | Lamar | Meeker* | Perry Stokes* | Leach Field* |
|-----------------------|---------------------------|-----------------------------|----------------|---------------------------|
| | Colorado Plains Regional* | Kit Carson County | Animas Airpark | Eads |
| | Meadow Lake* | Mineral County* | McElroy Field | Lake County* |
| Intermediate Airports | Fort Morgan Municipal | Glenwood Springs Municipal* | Spanish Peaks* | Yuma* |
| | Hopkins Field* | Walden-Jackson County* | Cuchara Valley | Las Animas City & County* |
| Minor Airports | Brush Municipal | | | |

PRIMARY TAXIWAY PCI

| Major Airports | Grand Junction | Lamar | Ft. Collins Loveland | Front Range* |
|-----------------------|----------------|--------------|----------------------|--------------|
| Intermediate Airports | Fremont County | Meadow Lake* | La Junta* | Springfield* |
| Minor Airports | | | | |

PRIMARY APRON PCI

| Major Airports | Rocky Mountain Metropolitan* | Durango-La Plata County* | Lamar* | Meeker* |
|----------------|------------------------------|--------------------------|---------------------|---------------------------|
| | Stevens Field* | Pueblo* | | |
| Intermediate | Colorado Plains Regional | Boulder* | Astronaut Rominger | Blake Field* |
| | Animas Airpark | Fort Morgan Municipal* | Glenwood Springs | Springfield* |
| | Walden-Jackson County | Yuma* | Sterling Municipal* | |
| Minor Airports | Brush | Julesburg | Cuchara Valley | Las Animas City & County* |

*Pavement related grant issued by the Division of Aeronautics

Performance Measure: INVESTMENT



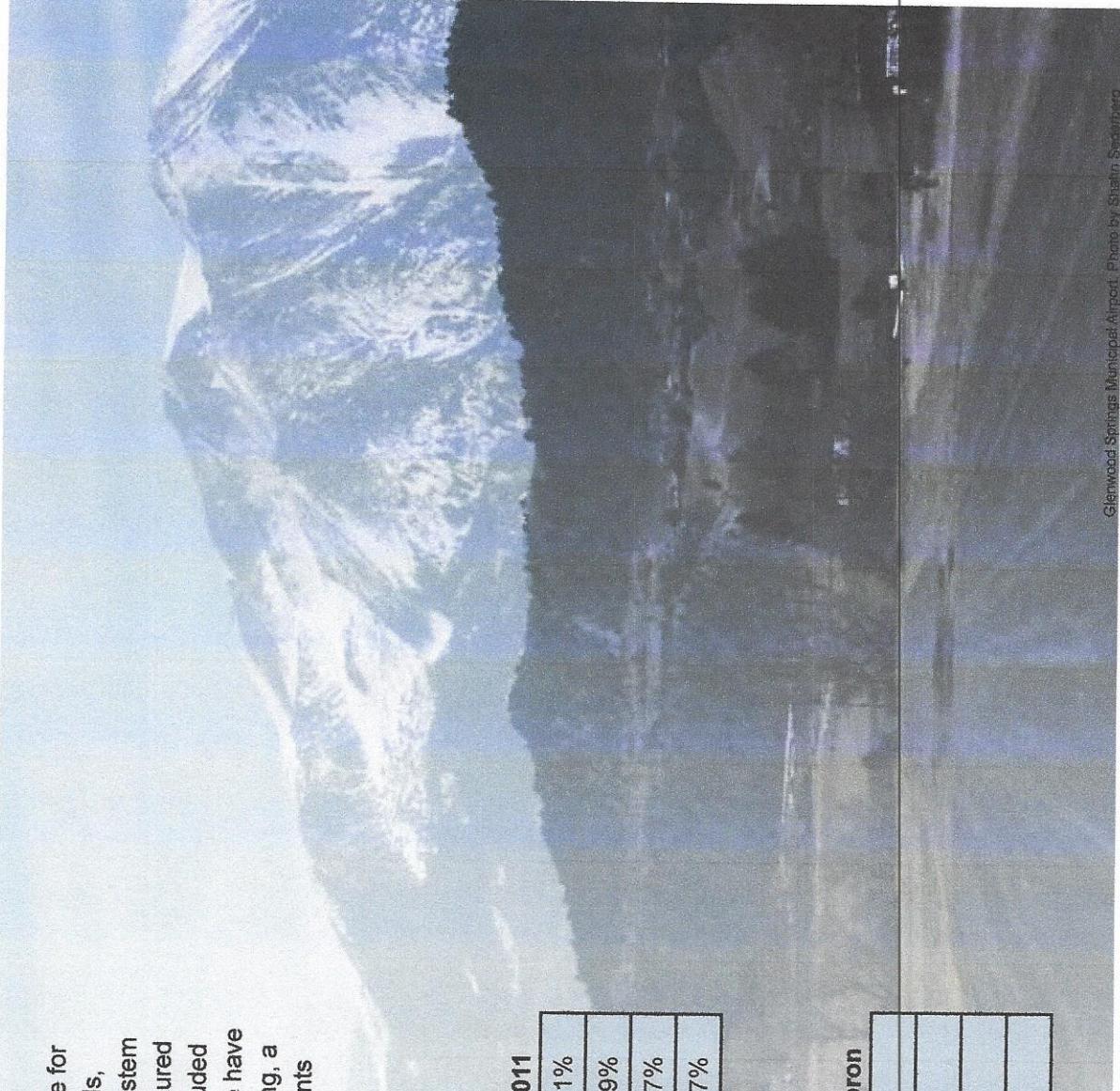
As shown, the percent of system airports meeting the PCI objective for their primary runway has varied among the three reporting periods, but has remained somewhat similar. In subsequent updates to the system plan, PCIs for primary taxiways and primary apron areas will be measured against performance reported in this plan. For the Minor Airports included in the Division of Aeronautics' Pavement Management Program, none have a paved primary taxiway. Given the fact that PCIs are always changing, a target has been established to have 70 percent of all primary pavements meet a PCI of 75 or above.

Primary Runway PCI Ratings of 75 or Above

| | 2000 | 2005 | 2011 |
|----------------------------|------|------|------|
| Major Airports | 83% | 80% | 81% |
| Intermediate Airports | 55% | 69% | 59% |
| Minor Airports | 10% | 11% | 17% |
| Applicable System Airports | 63% | 70% | 67% |

Airports Meeting PCI Objectives in 2011

| | Primary Taxiway | Primary Apron |
|----------------------------|-----------------|---------------|
| Major Airports | 83% | 73% |
| Intermediate Airports | 75% | 66% |
| Minor Airports | N/A | 20% |
| Applicable System Airports | 80% | 65% |



Climax Mountain, Municipal Airport. Photo by Steve Sauer.

Performance Measure: SECURITY

The Security Performance Measure was added as part of the 2005 system plan update in response to TSA security guidelines for general aviation airports released in 2004. In order to identify security measures and equipment most appropriate for each general aviation airport, TSA also provides a procedure for assigning airports to levels of relative and perceived risk. In its guidelines, TSA identified 18 different types of security related equipment or procedures. As an airport's perceived level of risk increases, the types of security related equipment and procedures that it should have in place also increases.

As part of the 2005 system plan update, the Division of Aeronautics determined that it was appropriate for all airports in the Colorado system to have six basic security related enhancements in place. These six enhancements are as follows:

- All Aircraft Secured
- Community Watch Programs
- Positive Identification of Passengers, Cargo, and Baggage
- Emergency/Security Contact List
- Documented Security Procedures
- Signs Providing Information to Report Suspicious Activity

Information on system progress related to these six factors between 2005 and 2011 is shown here. System performance increased between 2005 and 2011 for four of the factors and decreased for the other two factors. The technical report for the system plan provides airport specific information on appropriate security related procedures and equipment.

| | 2005 | | 2011 | | All Aircraft Secured | 2005 | 2011 |
|--------------|-------|--------------|-------|--------------|----------------------|------|------|
| | Major | Intermediate | Major | Intermediate | | | |
| Major | 73% | 19% | 67% | 16% | Major | 91% | 100% |
| Intermediate | 18% | 28% | 17% | 26% | Intermediate | 84% | 84% |
| Minor | 28% | 28% | 26% | 26% | Minor | 76% | 72% |
| All Airports | | | | | All Airports | 83% | 84% |

| | 2005 | | 2011 | | Community Watch Program | 2005 | 2011 |
|--------------|-------|--------------|-------|--------------|-------------------------|------|------|
| | Major | Intermediate | Major | Intermediate | | | |
| Major | 100% | 63% | 100% | 63% | Major | 91% | 100% |
| Intermediate | 41% | 44% | 44% | 44% | Intermediate | 63% | 66% |
| Minor | 60% | 65% | 65% | 65% | Minor | 29% | 33% |
| All Airports | | | | | All Airports | 58% | 63% |

| | 2005 | | 2011 | | Contact List | 2005 | 2011 |
|--------------|-------|--------------|-------|--------------|--------------|------|------|
| | Major | Intermediate | Major | Intermediate | | | |
| Major | 82% | 44% | 83% | 41% | Major | 91% | 100% |
| Intermediate | 35% | 48% | 33% | 47% | Intermediate | 91% | 91% |
| Minor | 48% | 48% | 47% | 47% | Minor | 65% | 61% |
| All Airports | | | | | All Airports | 83% | 84% |



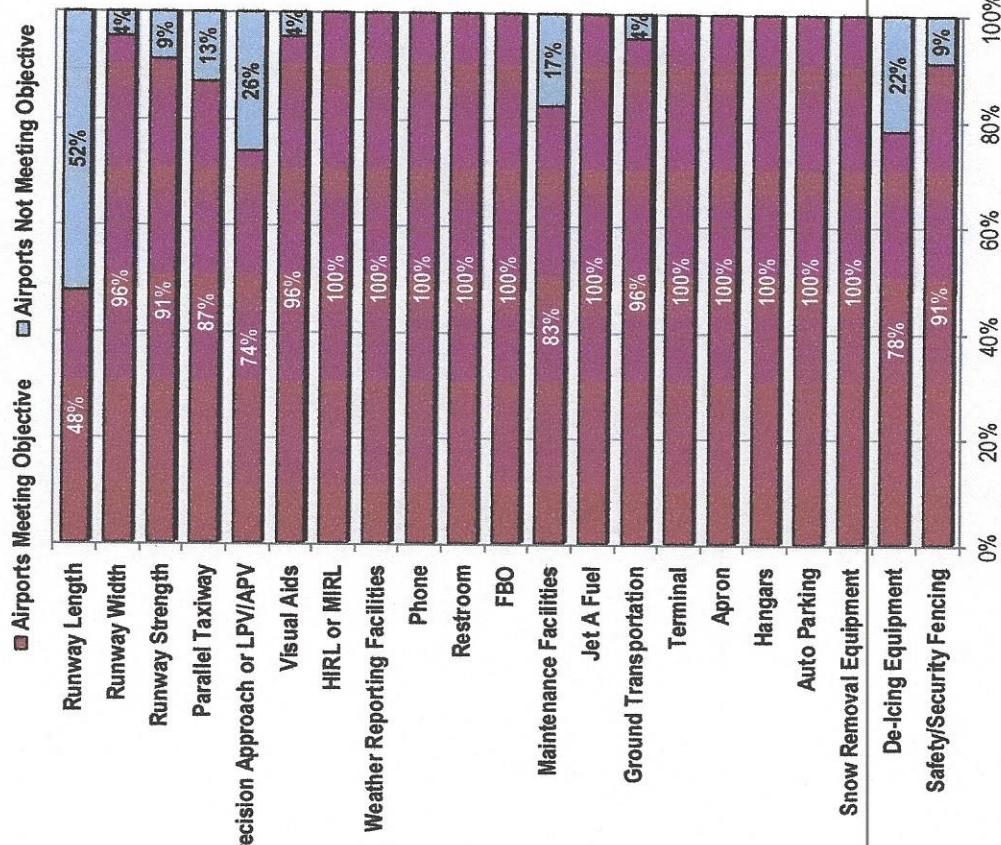
FACILITY & SERVICE OBJECTIVES

The system plan includes facility, service, and equipment objectives for airports assigned to each of the three role categories. These objectives have been refined and expanded as appropriate since they were established in 2000. Objectives reflect desirable development to best fulfill airport roles. Facility, service, and equipment objectives are not standards or requirements. Establishment of these objectives does not constitute a funding commitment on behalf of either the Division of Aeronautics or the FAA. When airport master plans are developed, applicable facility, service, and equipment objectives should be considered. The need for and sizing of more complex facilities is best verified within the context of an airport master plan.

Since the 2005 system plan update, Major Airports have shown improvement in their ability to meet objectives related to runway strength, parallel taxiway systems, visual landing aids, and runway lighting. Intermediate airports have shown improvement related to published approaches, on-site weather reporting equipment, taxiway systems, and visual landing aids. A higher percentage of Minor Airports meet their runway lighting and strength objectives.

The accompanying charts report on the ability of airports in each of the three role categories to meet their assigned facility, service, and equipment objectives. Projects needed to improve system performance relative to performance measures and their associated benchmarks and to improve airport performance relative to the plan's facility, service, and equipment objectives form the basis for cost estimates to improve and maintain Colorado's airport system in the coming years.

Major Airports

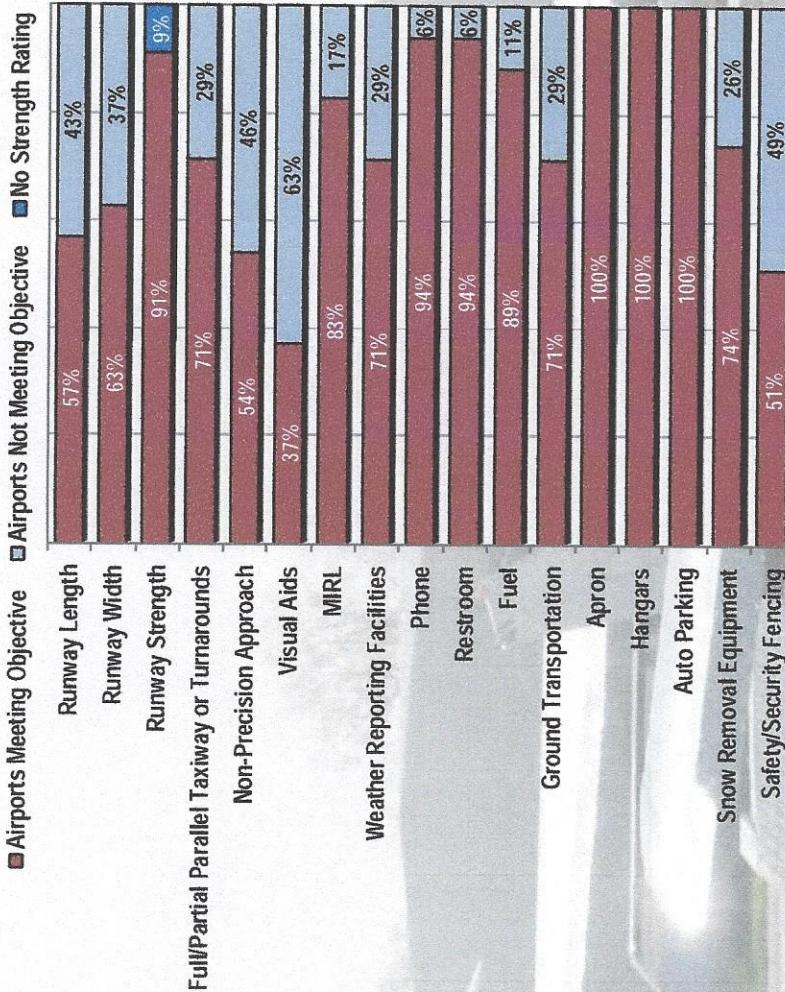


(Charts for Intermediate & Minor Airports continued on Page 18)

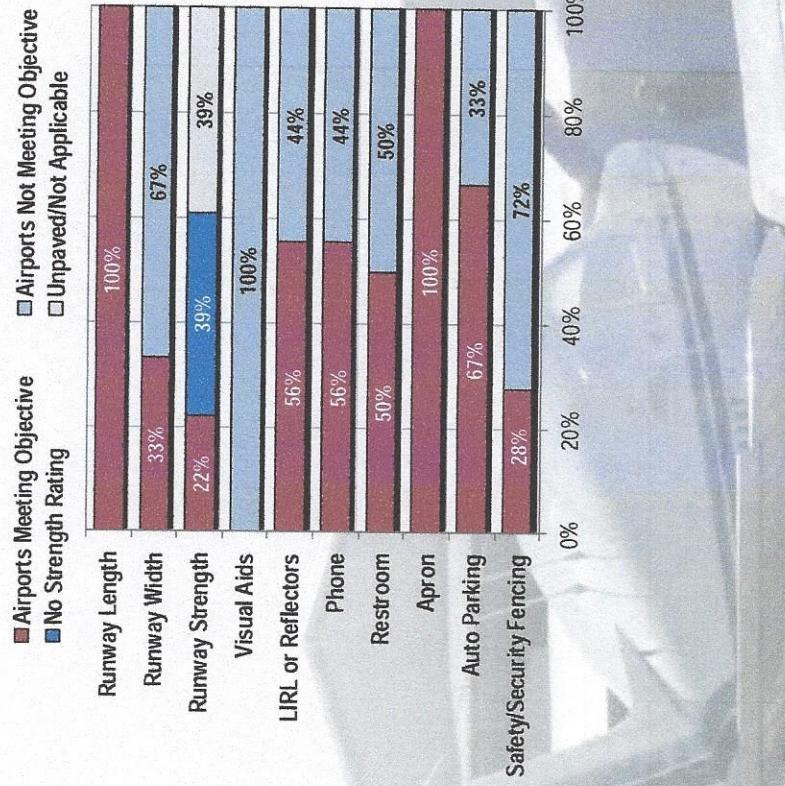
FACILITY & SERVICE OBJECTIVES



Intermediate Airports



Minor Airports



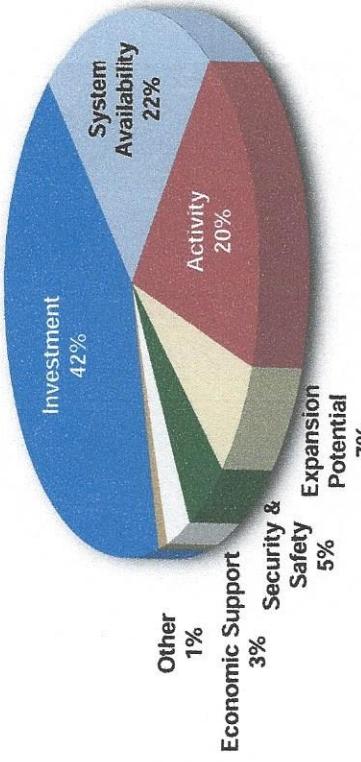
Vance Brand Municipal Airport - Longmont, CO. Photo by Shahn Soderberg



PLAN IMPLEMENTATION

The 2011 update to Colorado's Aviation System Plan identified projects needed to elevate system performance. All airports in the State Airport System are eligible for funding from the Division of Aeronautics, when the Division responds to an airport's grant request, they consider how the project relates to the system plan. The accompanying chart shows how grants issued by the Division of Aeronautics over the past four years relate to the system plan's performance measures.

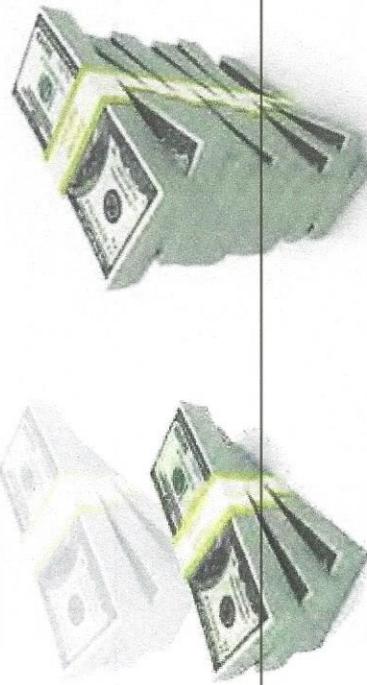
Investment by Performance Measure 2009-2012



Funds for the Division of Aeronautics' grant program are derived from a State tax on aviation fuel. FAA grants come from the Airport Improvement Program (AIP); AIP is 100 percent funded by airport user taxes. When anticipated funds from the Division of Aeronautics, FAA, and local airport sponsors are considered, it is estimated that over the next 20 years, \$1.3 billion in funding could be available to respond to combined system plan and CIP costs. This leaves a potential funding gap of \$900 million. Reductions in AIP or in funds available from CDOT through the State fuel tax program have the potential to widen the funding gap.

For Colorado to have a balanced and viable airport system, strategic investment in those airports and those projects that are most essential to the success of the system is important. The 2011 Colorado Aviation System plan provides the Division of Aeronautics with information to support future investment decisions.

FUNDING SHORTFALL **\$900 Million**



Cost estimates prepared for the system plan show that over the 20-year planning period, over \$615 million could be needed to elevate system performance relative to this plan's benchmarks and facility, service, and equipment objectives. In addition to costs to implement the system plan, six-year capital improvement plans (CIP) submitted to the Division of Aeronautics by system airports show another \$474 million in development needs. Over the 20-year planning period, total CIP costs for all system airports could reach \$1.6 billion. Combined, system plan and current and estimated CIP costs for Colorado airports, with the exception of Denver International, could total approximately \$2.2 billion over the next 20 years.

**Estimated Available
FAA/State/Local Funding
\$1.3 Billion**

**Estimated Colorado Airport
Funding Needs
\$2.2 Billion**

SUMMARY

Colorado's Aviation System Plan is an important planning tool. The State's system plan provides an important bridge between the NPIAS and individual airport master plans that are prepared for airports in Colorado. Through its performance measures, the system plan helps Colorado achieve a balanced and viable airport system. The system plan identifies projects that are desirable to meet Colorado's transportation needs and its economic objectives.

Evaluation measures and airport roles, which form the basis for Colorado's system planning process, were first established in 2000. As FAA planning standards, technology, and airport and community conditions have changed; the framework for Colorado's Aviation System Plan has been modified accordingly. Based on the current aviation environment, the process to evaluate system performance and the procedures for determining airport roles remain solid.

When Colorado's Aviation System Plan is again updated in the 2017 time frame, it would be appropriate to re-visit system performance measures and their associated benchmarks to determine needed additions or adjustments. Likewise, as FAA planning guidance changes, facility, service, and equipment objectives contained in the system plan should also be adjusted, as appropriate, to reflect any change. Sometime in 2012, FAA is scheduled to release its ASSET Study, in this study, for the first time, FAA will distinguish roles for general aviation airports. Previously, FAA has classified general aviation airports in the NPIAS as being only ~~reliever~~ or general aviation. When Colorado's Aviation System Plan is next updated, it would be appropriate to review the Division of Aeronautics' airport role assignments and identify changes based on FAA's role assignments for general aviation airports.

Aviation will continue to change and technology will continue to evolve. Colorado is already on the leading edge of many technology changes as a result of its ground-breaking surveillance projects for mountain airports. This project made Colorado a leader in the implementation of FAA's NextGen airspace systems. As commercial applications for aviation technology change, projects are underway which will identify airports to be designated as spaceports and to serve flights by unmanned aerial systems (UASS).

By updating its aviation system plan on regular intervals, Colorado has the opportunity to expand and adjust the plan to reflect changes in technology; changes in FAA planning guidance; and changes in State, community, or airport conditions. On an annual basis, commercial and general aviation airports in Colorado support an estimated \$10 billion in economic activity. When the annual economic impact of Denver International is considered, this figure increases to \$32 billion. Airports in Colorado are important transportation and economic resources, and the 2011 update to the Colorado Aviation System Plan provides a blueprint to direct system growth and development in the coming years.



Silver West Airport - Westcliffe, CO. Photo by Shatam Seedorff



2 Inventory

The Inventory chapter of the 2011 Colorado Aviation System Plan serves two primary purposes. First, it provides an accurate account of data to be used throughout the entirety of the study. Secondly, the data collected during the inventory creates a database to be used by the Colorado Department of Transportation (CDOT) Aeronautics Division and the Federal Aviation Administration (FAA) for future reference. The database can also be updated and enhanced by the Colorado Division of Aeronautics as changes occur.

The data collected to support the development of this plan is presented throughout subsequent chapters. Additional information can also be found in the comprehensive database. The airports in the plan are grouped by functional level (Major, Intermediate, and Minor), and then grouped alphabetically by their associated city. The data included in this chapter are organized as follows:

- Existing Facilities
- Approach Types and Weather Reporting Facilities
- Approach Lighting and Visual Aids
- Airport Planning Documentation
- Airport Economic Information

2.1 Data Collection Methods

The system plan data were collected primarily from an internet-based survey, which was distributed by the Division of Aeronautics through an e-mail to all Colorado system airports. The survey was comprised of questions regarding existing airport facilities, activity levels, operations, FAR Part 77 implementation, and security. The surveys were completed by airport managers, sponsors, and/or Fixed Based Operators (FBOs); 62 of the 76 system airports provided survey responses for a completion rate of 82 percent. For missing or incomplete surveys, data items were collected from a combination of published information sources and the data provided in the 2005 System Plan.

Airports included in the study are predominantly publicly-owned airports, with the addition of some privately-owned facilities that are open to the public. The public-use airport system includes 76 airports in total, of which 65 are publicly-owned and 11 are privately-owned. Of these, 14 are commercial service airports and 62 are general aviation airports.



The data collected through the inventory survey was supplemented with information compiled from the following sources:

- FAA Data/Records/Terminal Area Forecasts (TAF)
- Airport Master Records (5010's)
- Individual Airport Master Plans and Forecasts
- Colorado Division of Aeronautics Data
- 2005 Colorado Airport System Plan

2.2 Existing Facilities

This section presents an overview of existing facilities at Colorado airports. Basic facilities information including airport elevation, runway dimensions and surface type, and parallel taxiway information (full or partial) is provided in Table 2-1. Information on the functional role of airports within the Colorado airport system and the National Plan of Integrated Airport System (NPIAS) service level is also provided.

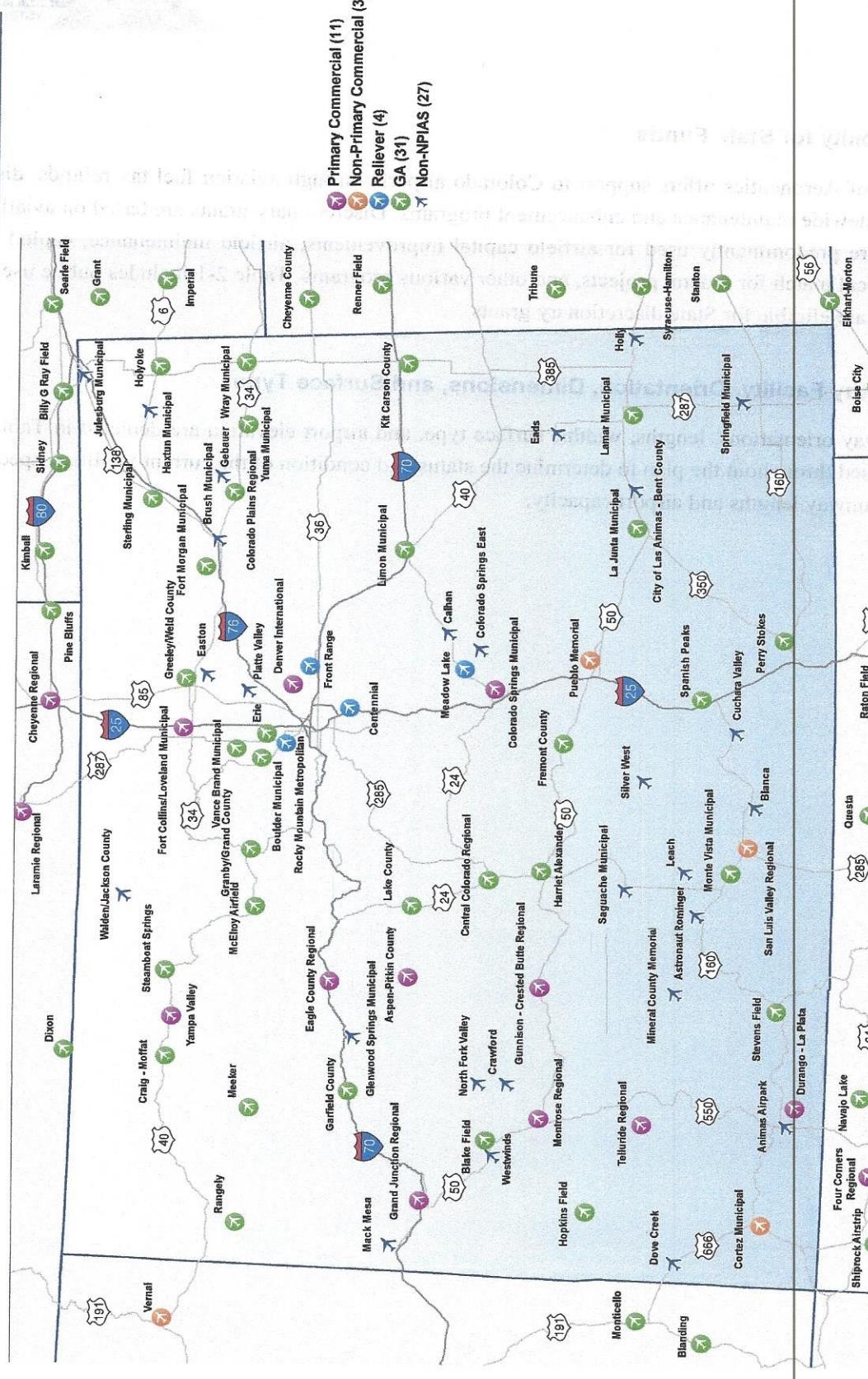
2.2.1 National Plan of Integrated Airport Systems (NPIAS) and Service Level

The NPIAS is developed by the FAA to identify airports that are significant to the national air transportation system. The FAA's criteria for an airport's inclusion in the NPIAS include a variety of factors such as airport demand, geographic location, and airport sponsorship. Airports included in the NPIAS are eligible to receive federal grants for airport planning and various capital improvements to keep the airports current with design standards and to meet system capacity needs. Airports are defined within the NPIAS by their service level, which reflects the type of service the airport provides to the surrounding community. The service level also determines the airport's funding category, as established by Congress, to assist in airport development. The NPIAS categories are:

- **Primary Commercial Service (PR)** - Publicly or privately owned airports that enplane more than 10,000 passengers per year and receive scheduled passenger service.
- **Non-Primary Commercial Service (CS)** - Publicly or privately owned airports that enplane at least 2,500-10,000 passengers per year and receive scheduled passenger service.
- **Reliever (RL)** - Publicly or privately owned airports that relieve congestion at commercial service hub airports by improving and offering alternative access to busy metropolitan areas for general aviation and non-airline commercial operators.
- **General Aviation (GA)** - Publicly-owned airports that primarily serve general aviation users.

Exhibit 2-1 depicts the existing Colorado NPIAS and non-NPIAS airports and several of the neighboring out-of-state NPIAS airports.

Exhibit 2-1: Colorado System Airports and Surrounding Out-of-State Airports by NPIAS Category



2.2.2 Eligibility for State Funds

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. Table 2-1 includes public use airports in Colorado that are eligible for State discretionary grants.

2.2.3 Runway Facility, Orientation, Dimensions, and Surface Type

Existing runway orientations, lengths, widths, surface type, and airport elevation are depicted in Table 2-1. This data will be used throughout the plan to determine the status and condition of the current facilities, specifically the adequacy of runway lengths and airport capacity.

Table 2-1: Existing Facilities

| Major Airports | City | Airport | NPIAS | Elevation (Ft.) | Runway Orientation | Length (Ft.) | Width (Ft.) | Surface | Parallel Taxiway | Taxiway Width (Ft.) |
|-------------------|-------------------------------------|---------|-------|-----------------|--------------------|--------------|-------------|---------|------------------|---------------------|
| Akron | Colorado Plains Regional Airport | GA | 4,714 | 11/29 | 7,000 | 100 | Asphalt | PP | 35 | |
| Alamosa | San Luis Valley Airport | CS | 7,539 | 2/20 | 8,519 | 100 | Asphalt | Yes | 35 | |
| Aspen | Aspen-Pitkin County Airport | P | 7,820 | 15/33 | 8,000 | 100 | Dirt | No | - | |
| Broomfield/Denver | Rocky Mountain Metropolitan Airport | R | 5,673 | 11L/29R | 9,000 | 100 | Asphalt | PP | 50 | |
| Burlington | Kit Carson County Airport | GA | 4,219 | 15/33 | 5,201 | 75 | Asphalt | Yes | 50 | |
| Colorado Springs | Colorado Springs Municipal Airport | P | 6,184 | 17L/35R | 13,501 | 150 | Concrete | Yes | 75 | |
| Contez | Contez-Montezuma Municipal Airport | CS | 5,918 | 3/21 | 7,205 | 100 | Asphalt | Yes | 75 | |
| Denver | Denver International Airport | P | 5,431 | 16R/34L | 16,000 | 200 | Concrete | Yes | 75 | |
| Durango | Durango-La Plata County Airport | P | 6,685 | 3/21 | 9,201 | 150 | Asphalt | Yes | 50 | |
| Eagle | Eagle County Regional Airport | P | 6,535 | 7/25 | 9,000 | 150 | Asphalt | Yes | 75 | |
| Englewood/Denver | Centennial Airport | R | 5,885 | 17L/35R | 10,001 | 100 | Asphalt | Yes | 50 | |
| Grand Junction | Grand Junction Regional Airport | P | 4,858 | 11/29 | 10,501 | 150 | Asphalt | Yes | 30 | |
| | | | 4/22 | 5,502 | 75 | Asphalt | Yes | 75 | | |
| | | | | | | | | | | 35 |

Table 2-1: Existing Facilities

| City | Airport | NPIAS | Elevation (Ft.) | Runway Orientation | Length (Ft.) | Width (Ft.) | Surface | Parallel Taxiway | Taxiway Width (Ft.) |
|-------------------------------|---|-------|-----------------|--------------------|--------------|-------------|-------------|------------------|---------------------|
| Major Airports, cont'd | | | | | | | | | |
| Greeley | Greeley-Weld County Airport | GA | 4,697 | 16/34 | 10,000 | 100 | Asphalt | Yes | 35 |
| | | | | 9/27 | 5,801 | 100 | Asphalt | Yes | 35 |
| Gunnison | Gunnison-Crested Butte Regional Airport | P | 7,678 | 6/24 | 9,400 | 150 | Asphalt | Yes | 75 |
| | | | | 17/35 | 3,000 | 150 | Turf | No | - |
| Hayden | Yampa Valley Regional Airport | P | 6,602 | 10/28 | 9,998 | 150 | Asphalt | Yes | 75 |
| Lamar | Lamar Municipal Airport | GA | 3,706 | 18/36 | 6,304 | 100 | Concrete | Yes | 35 |
| | | | | 8/26 | 5,001 | 60 | Asphalt | No | - |
| Longmont | Vance Brand Municipal Airport | GA | 5,055 | 11/29 | 4,800 | 75 | Concrete | Yes | 35 |
| Loveland | Fort Collins-Loveland Municipal Airport | P | 5,016 | 15/33 | 8,500 | 100 | Asphalt | Yes | 50 |
| Meeker | Meeker Airport | GA | 6,421 | 3/21 | 6,497 | 60 | Asphalt | No | - |
| Montrose | Montrose Regional Airport | P | 5,759 | 17/35 | 10,000 | 150 | Asphalt | No | - |
| Pagosa Springs | Stevens Field | GA | 7,664 | 1/19 | 8,100 | 100 | Asphalt | PP | 50 |
| Pueblo | Pueblo Memorial Airport | CS | 4,726 | 8L/26R | 10,498 | 150 | Asphalt | PP | 35 |
| Rifle | | | | 13/31 | 7,500 | 100 | Asphalt | Yes | 75 |
| Telluride | Garfield County Regional Airport | GA | 5,548 | 8/26 | 7,000 | 100 | Asphalt | No | - |
| Trinidad | Telluride Regional Airport | P | 9,070 | 9/27 | 7,111 | 100 | Asphalt | PP | 35 |
| | Perry Stokes Airport | GA | 5,762 | 3/21 | 5,500 | 100 | Asphalt | No | - |
| Walsenburg | Front Range Airport | R | 5,512 | 17/35 | 8,000 | 100 | Turf/Gravel | No | - |
| Intermediate Airports | | | | | | | | | |
| Boulder | Boulder Municipal Airport | GA | 5,288 | 8/26 | 4,100 | 75 | Asphalt | Yes | 35 |
| | | | | 8G/26G | 4,100 | 20 | Asphalt | No | - |

Table 2-1: Existing Facilities

| City | Airport | NPIAS | Elevation (Ft.) | Runway Orientation | Length (Ft.) | Width (Ft.) | Surface | Parallel Taxiway | Taxiway Width (Ft.) |
|--------------------------------------|------------------------------------|-------|-----------------|--------------------|--------------|-------------|-------------|------------------|---------------------|
| <i>Intermediate Airports, cont'd</i> | | | | | | | | | |
| Buena Vista | Central Colorado Regional Airport | GA | 7,946 | 15/33 | 8,300 | 75 | Asphalt | Yes | 50 |
| Canon City | Fremont County Airport | GA | 5,439 | 11/29 | 5,399 | 75 | Asphalt | PP | 35 |
| Center | Leach Airport | - | 7,598 | 17/35 | 3,261 | 35 | Turf/Gravel | No | - |
| Colorado Springs | Meadow Lake Airport ** | R | 6,874 | 12/30 | 7,000 | 50 | Asphalt | No | - |
| Craig | Craig-Moffat County Airport | GA | 6,193 | 15/33 | 6,000 | 60 | Asphalt | Yes | 25 |
| Creede | Mineral County Memorial Airport | - | 8,680 | 8/26 | 2,084 | 35 | Asphalt | No | - |
| Del Norte | Astronaut Kent Rominger Airport | - | 7,949 | 6/24 | 1,800 | 15 | Asphalt | No | - |
| Delta | Blake Field | GA | 5,193 | 7/25 | 5,606 | 100 | Asphalt | No | - |
| Durango | Animas Airpark ** | - | 6,684 | 3/21 | 5,598 | 75 | Asphalt | No | - |
| Eads | Eads Airport | - | 4,245 | 1/19 | 5,010 | 50 | Asphalt | No | - |
| Erie | Erie Municipal Airport | GA | 5,130 | 17/35 | 3,860 | 60 | Turf/Dirt | No | - |
| Fort Morgan | Fort Morgan Municipal Airport | GA | 4,569 | 14/32 | 4,700 | 60 | Asphalt | PP | 35 |
| Glenwood Springs | Glenwood Springs Municipal Airport | - | 5,916 | 14/32 | 5,219 | 60 | Concrete | Yes | 25 |
| Granby | Granby-Grand County Airport | GA | 8,203 | 17/35 | 3,305 | 50 | Asphalt | No | - |
| Holyoke | Holyoke Municipal Airport | GA | 3,730 | 8/26 | 5,000 | 75 | Asphalt | PP | 35 |
| Kremmling | McElroy Field | GA | 7,411 | 12/30 | 5,540 | 75 | Asphalt | No | - |
| La Junta | La Junta Municipal Airport | GA | 4,229 | 9/27 | 6,849 | 75 | Asphalt | Yes | 75 |
| | | | | | 5,803 | 60 | Asphalt | No | - |
| | | | | | H1 | 145 | 145 | Asphalt | N/A |

Table 2-1: Existing Facilities

| City | Airport | Elevation (Ft.) | NPIAS | Elevation (Ft.) | Runway Orientation | Length (Ft.) | Width (Ft.) | Surface | Parallel Taxiway | Taxiway Width (Ft.) |
|--------------------------------------|-----------------------------------|--------------------|-------|--------------------|-----------------------|-----------------|----------------|---------|---------------------|------------------------|
| <i>Intermediate Airports, con'td</i> | | | | | | | | | | |
| Leadville | Lake County Airport | GA | 9,927 | 16/34 | 6,400 | 75 | Asphalt | PP | 35 | |
| Limon | Limon Municipal Airport | GA | 5,374 | 16/34 | 4,700 | 60 | Concrete | N/A | - | |
| Monte Vista | Monte Vista Municipal Airport | GA | 7,611 | 2/20 | 5,900 | 60 | Asphalt | PP | 25 | |
| Nucla | Hopkins Field | GA | 5,940 | 5/23 | 4,600 | 75 | Asphalt | No | - | |
| Rangely | Rangely Airport | GA | 5,275 | 6/24 | 6,408 | 75 | Asphalt | Yes | 35 | |
| Salida | Harriet Alexander Airport | GA | 7,523 | 6/24 | 7,347 | 75 | Asphalt | PP | 35 | |
| Springfield | Springfield Municipal Airport | - | 4,390 | 17/35 | 5,000 | 60 | Concrete | PP | 35 | |
| Steamboat Springs | Steamboat Springs-Bob Adams Field | GA | 6,882 | 14/32 | 4,452 | 100 | Asphalt | No | - | |
| Sterling | Sterling Municipal Airport | GA | 4,040 | 15/33 | 5,200 | 75 | Concrete | N/A | - | |
| Walden | Walden-Jackson County Airport | - | 8,153 | 4/22 | 5,900 | 75 | Turf/Gravel | No | - | |
| Walsenburg | Spanish Peaks Airfield | GA | 6,050 | 8/26 | 4,896 | 60 | Asphalt | Yes | 35 | |
| Westcliffe | Silver West Airport | - | 8,290 | 13/31 | 7,000 | 55 | Asphalt | No | - | |
| Wray | Wray Municipal Airport | GA | 3,667 | 17/35 | 5,400 | 75 | Asphalt | No | - | |
| Yuma | Yuma Municipal Airport | GA | 4,136 | 16/34 | 4,200 | 75 | Concrete | PP | 35 | |
| <i>Minor Airports</i> | | | | | | | | | | |
| Akron | Gebauer Airport ** | - | 4,509 | 8/26 | 3,000 | 70 | Turf/Gravel | No | - | |
| Bianca | Blanca Airport | - | 7,720 | 3/21 | 2,150 | 70 | Turf/Gravel | No | - | |
| | | | | | | | | | | |

Table 2-1: Existing Facilities

| City | Airport | NPIAS | Elevation (Ft.) | Runway Orientation | Length (Ft.) | Width (Ft.) | Surface | Parallel Taxiway | Taxiway Width (Ft.) |
|-------------------------------|----------------------------------|-------|-----------------|--------------------|--------------|-------------|-------------|------------------|---------------------|
| <i>Minor Airports, cont'd</i> | | | | | | | | | |
| Brush | Brush Municipal Airport | - | 4,280 | 7/25 | 4,300 | 60 | Asphalt | No | - |
| Calhan | Calhan Airport ** | - | 6,450 | 17/35 | 4,565 | 50 | Turf | No | - |
| Crawford | Crawford Airport ** | - | 6,470 | 7/25 | 4,900 | 20 | Asphalt | No | - |
| Delta | Westwinds Airpark ** | - | 5,000 | 4/22 | 4,100 | 40 | Asphalt | No | - |
| Dove Creek | Dove Creek Airport ** | - | 6,975 | 1/19 | 4,200 | 50 | Dirt | No | - |
| Ellicott | Colorado Springs East Airport ** | - | 6,145 | 17R/35L | 4,500 | 42 | Asphalt | Yes | 50 |
| Greeley | Easton-Valley View Airport ** | - | 4,820 | 8/26 | 4,000 | 25 | Turf | No | - |
| Haxtun | Haxtun Municipal Airport | - | 4,035 | 8/26 | 3,440 | 60 | Gravel/Dirt | No | - |
| Holly | Holly Airport | - | 3,390 | 17/35 | 4,140 | 40 | Gravel/Dirt | No | - |
| Hudson | Platte Valley Airpark ** | - | 4,965 | 15/33 | 4,100 | 40 | Asphalt | Yes | 25 |
| Julesburg | Julesburg Municipal Airport | - | 3,520 | 13/31 | 4,100 | 90 | Turf/Gravel | No | - |
| La Veta | Cuchara Valley Airport | - | 7,153 | 6/24 | 5,793 | 60 | Asphalt | No | - |
| Las Animas | Las Animas City & County Airport | - | 3,915 | 8/26 | 3,870 | 40 | Asphalt | No | - |
| Mack | Mack Mesa Airport ** | - | 4,724 | 7/25 | 2,600 | 60 | Asphalt | No | - |
| Paonia | North Fork Valley Airport | - | 5,798 | 5/23 | 4,500 | 60 | Asphalt | No | - |
| Saguache | Saguache Municipal Airport | - | 7,826 | 11/29 | 7,957 | 55 | Gravel | No | - |

Notes: ** Indicates Private Ownership. PP = Partial Parallel Taxiway.

Source: Jvtiation, Inc