



COLORADO 2005 AVIATION SYSTEM PLAN



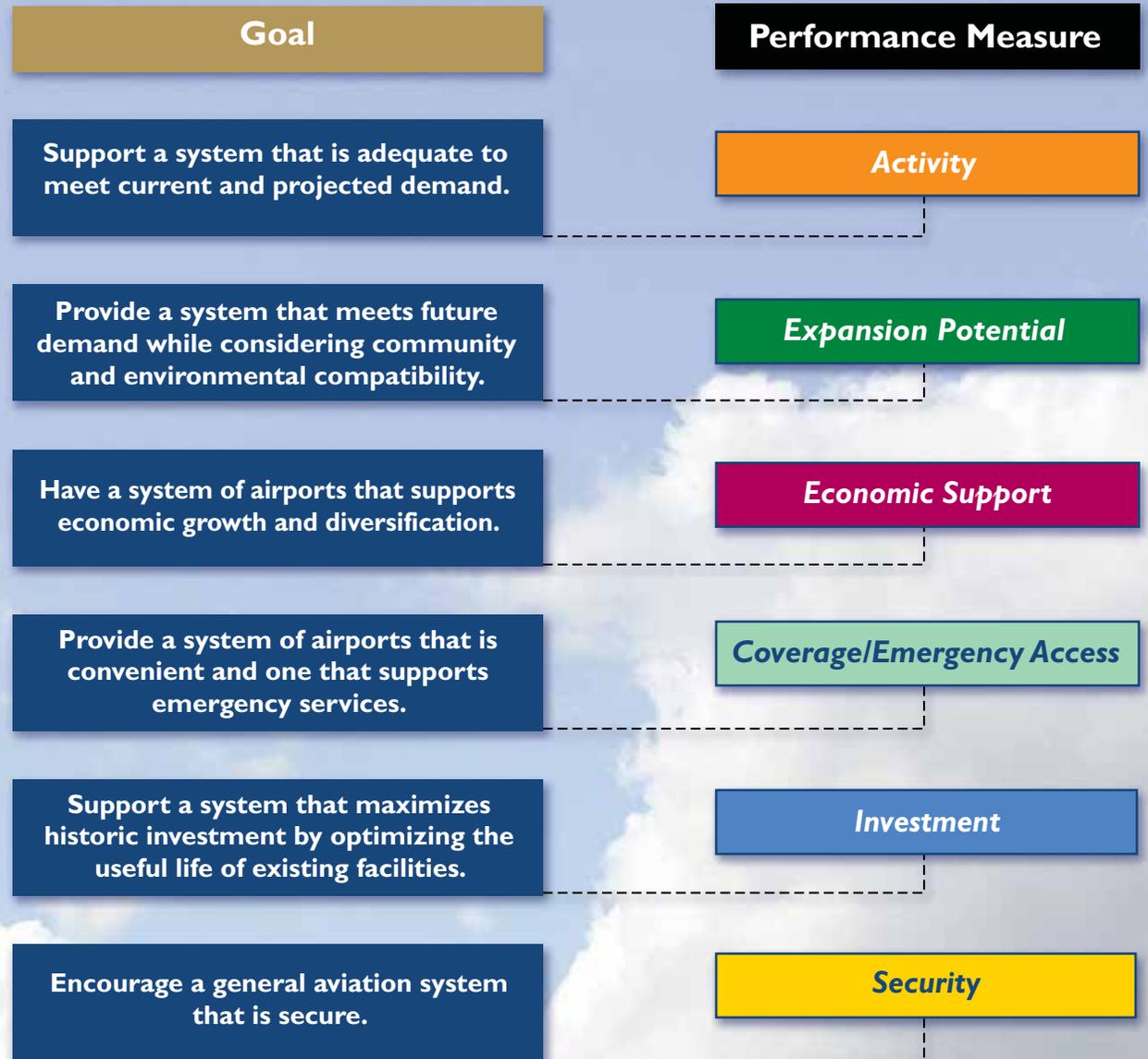
EXECUTIVE SUMMARY

INTRODUCTION TO THIS PLAN

This report highlights findings from the most recent update to Colorado's State Aviation System Plan. Since 1992, the Colorado Department of Transportation (CDOT) has updated its aviation system plan approximately every five years.

The Statewide Inventory and Implementation Plan, published in 2000, laid the groundwork for a new approach to planning for Colorado's system of airports. Goals for the Colorado airport system were established and translated into performance measures. For each of the system performance measures, benchmarks were also set. System performance measures and benchmarks were used to evaluate the airport system's performance. The aviation system plan released in 2000 provided the first report card for the Colorado airport system. In the report card, the performance measures are the categories used to grade the system and the benchmarks are actual tests applied to assess system performance.

The focus of this update was on identifying how system performance has changed since the last plan was completed in 2000. To accomplish this comparison, an updated system report card was prepared. The remainder of this summary captures performance of the Colorado system of airports as it was reported and evaluated in the 2005-2006 timeframe. The summary focuses on key performance measures and benchmarks and highlights changes in system performance. Since aviation is by far the most dynamic mode of transportation, performance should again be evaluated five years hence.



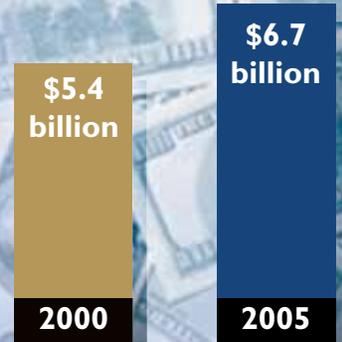
CHANGES IN AVIATION

The prior update to Colorado's aviation system plan was completed well in advance of 9/11. It goes without saying that both the commercial and the general aviation environments have changed since the prior plan. Recently, the commercial airline industry has been characterized by weak financial performance. Increasing passenger demand has been offset by even higher increases in airline operating and fuel costs. Many of the nation's legacy carriers have sought bankruptcy protection. As the legacy carriers have struggled, low cost carriers such as Frontier and Southwest have expanded in Colorado.

An increasing number of businesses rely on general aviation to meet their air travel needs. The frequency and availability of commercial airline service has diminished, and travel by commercial airlines continues to have a considerable hassle factor. With the introduction of very light jets (VLJs), it is anticipated that more travelers may use on-demand general aviation service to reach destinations throughout the State. New security guidelines for general aviation airports, prepared

by the Transportation Security Administration (TSA), were evaluated for the first time in this study.

The economic benefit of airports in Colorado is growing. When the system plan was published in 2000, the annual economic benefit of commercial (excluding Denver International) and general aviation airports in Colorado was estimated at \$5.4 billion. The most recent update to Colorado's economic impact analysis for its airport system shows that since the prior study, annual economic impact attributed to Colorado airports has increased to \$6.7 billion. In 2000, 44 of the system airports had an annual economic impact of \$1 million or greater. In 2005, 47 of the airports had an economic impact of \$1 million or greater. This helps to demonstrate not only the growing importance of the airports for the essential transportation services they support but also the very important role that airports throughout Colorado play in the statewide and local economies.



Change in Economic Benefit of Airports in Colorado

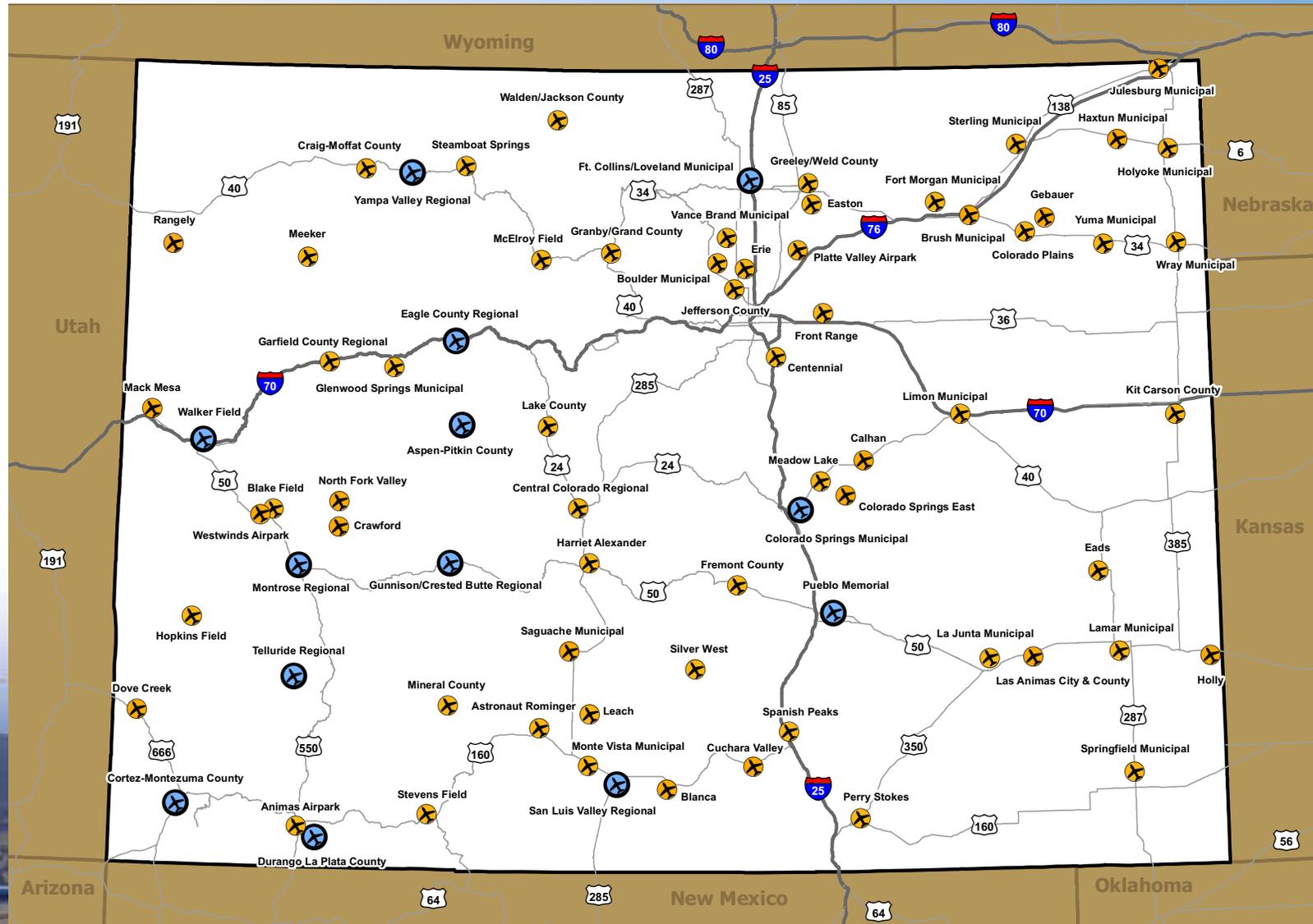


Photo: Greeley-Weld County Airport



CHANGES IN THE COLORADO AIRPORT SYSTEM

The system plan published in 2000 included 78 commercial and general aviation airports. This update considered only 75 airports. Already closed are Navajo Landing Strip in Arboles and Aurora Airpark in Watkins; scheduled to close by the end of 2006 is Fort Collins Downtown Airpark. Now and in 2000, 13 airports had scheduled commercial airline service. In the 2000 plan, Lamar Municipal was included as a commercial airport. Lamar no longer has scheduled airline service, but airline service has been initiated at Ft. Collins/Loveland Municipal Airport. Similar to conditions reported in 2000, airline service at Cortez, Pueblo, and Alamosa continues to be supported with Federal subsidies from the Essential Air Service (EAS) program.



EXISTING COLORADO STATE AIRPORT SYSTEM



-  Commercial Service
-  General Aviation

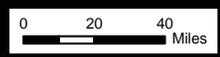
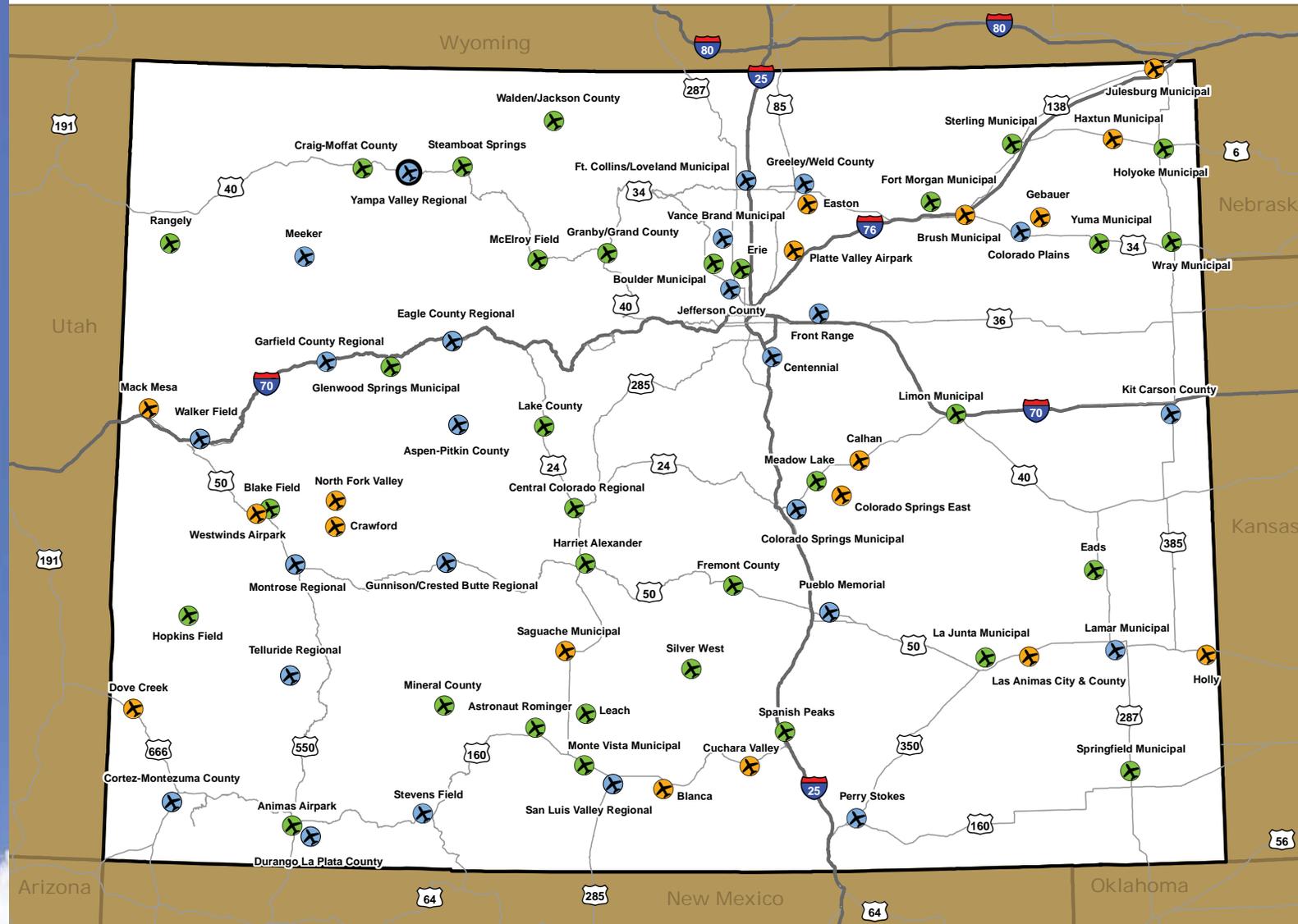


Photo: Global Express at McElroy Field



One of the cornerstones of the last aviation system plan was the establishment of roles for each of the system airports. In the 2000 plan, all airports in the Colorado system were assigned to one of three functional categories or roles. The three roles for airports in the Colorado system are Major, Intermediate, and Minor. Only two airport role assignments have changed since the 2000 plan.

Colorado Plains Regional (formerly Akron-Washington County) is now recognized as a Major Airport. Astronaut Rominger (formerly Del Norte Municipal) is now included in the Intermediate Airport category. The accompanying map shows the role assignments for all system airports.



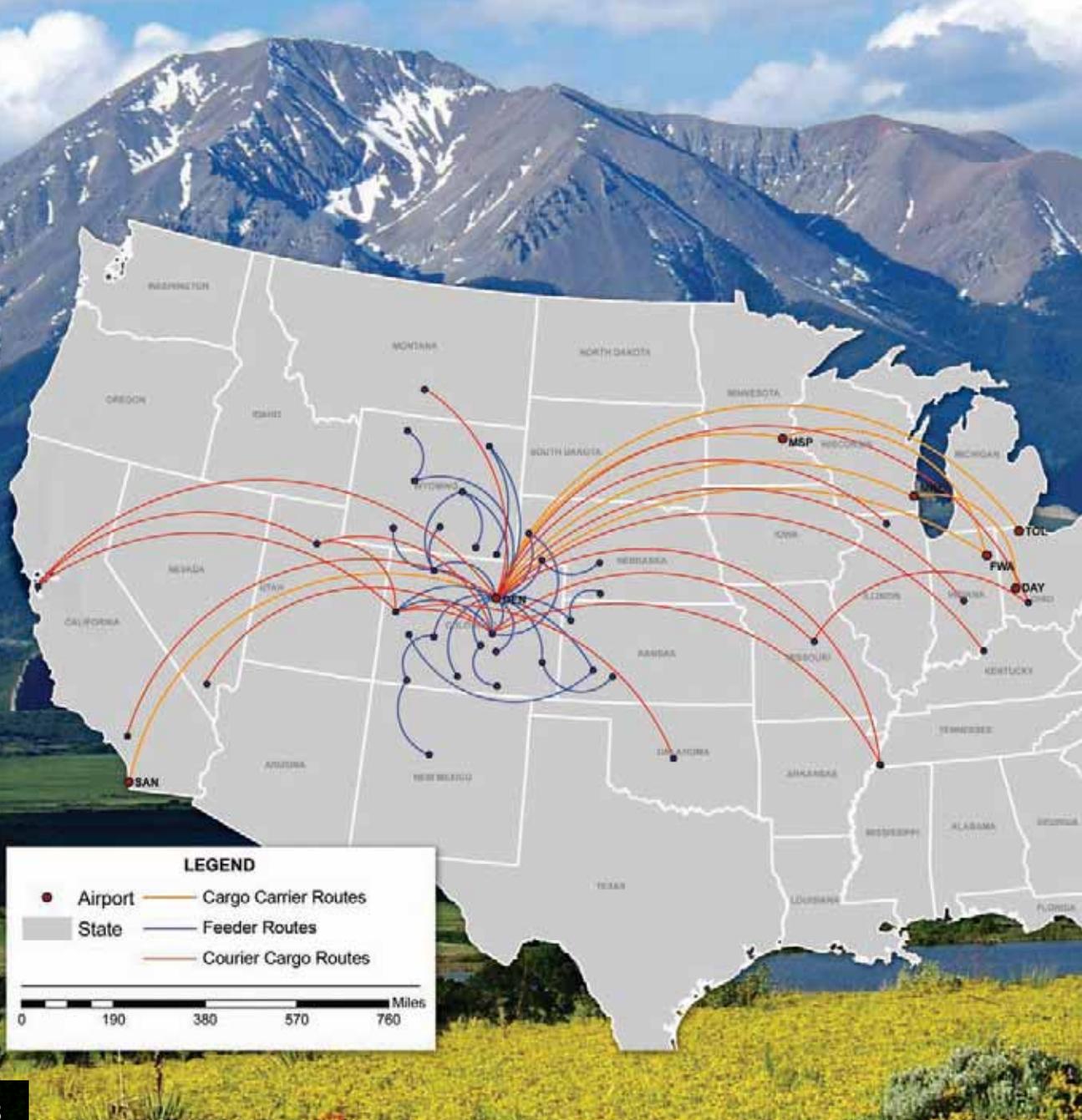
AIRPORT FUNCTIONAL ROLES



-  Major
-  Intermediate
-  Minor

Photo: Centennial Airport

AIR CARGO AND COMMERCIAL AIRLINE ACTIVITY



As part of this system plan update, air cargo in Colorado was reviewed. The State of Colorado is well covered by scheduled integrated express and all-cargo carrier networks that serve 12 of the State's airports. Denver International is the State's largest air cargo airport in terms of both volume and number of operations; it serves as a consolidation point for integrated express carriers FedEx, UPS, DHL and all-cargo carriers BAX Global, Kitty Hawk and UPS Supply Chain Solutions. Colorado Springs Municipal and Grand Junction-Walker Field are Colorado's two other primary air cargo airports that have direct mainline flights to national and regional hubs. Supporting the mainline flights is an extensive air cargo feeder network that encompasses 12 Colorado airports and 14 out-of-state airports. In addition to these scheduled air cargo airports, three Colorado airports report ad-hoc, or unscheduled, charter cargo activity to varying degrees.

Colorado's international air cargo activity is limited to commercial passenger carrier belly-space and sporadic international charter activity at Denver International Airport. It is anticipated that the State's international air cargo activity will continue to be driven by available commercial passenger carrier lift while the bulk of the State's domestic air cargo activity will continue to be handled by integrated express and all-cargo carrier networks.



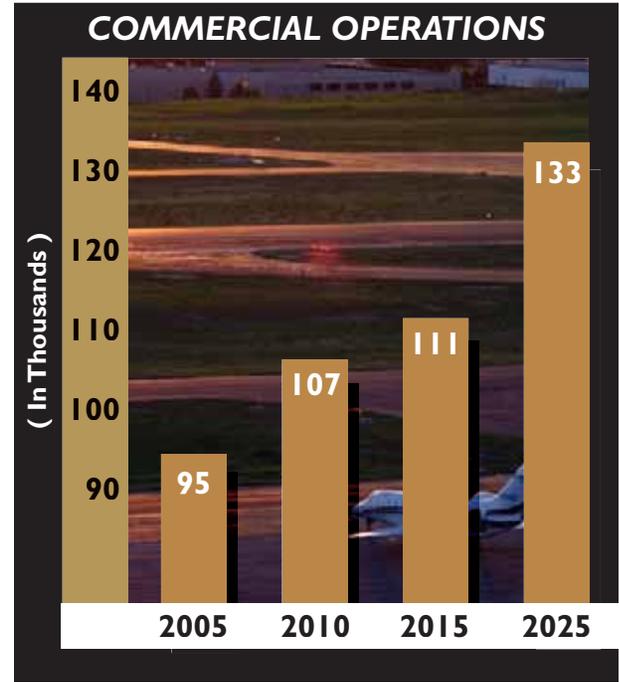
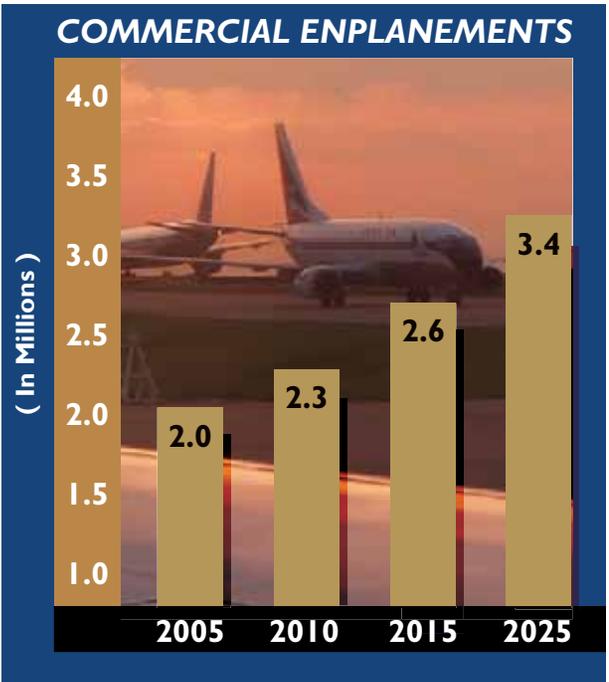
Among the commercial airports in Colorado (excluding Denver International), Colorado Springs Municipal accounts for about half of all of the State's commercial passenger enplanements. At the time of the 2000 aviation system plan, Colorado Springs had experienced notable growth, fueled by low cost carrier Western Pacific. Western Pacific ceased to operate, and passenger levels at Colorado Springs fell. Locally generated enplanement projections for Colorado Springs were adopted for the last system plan. This aggressive forecast

drove the statewide enplanement projection presented in the 2000 aviation system plan.

While demand for commercial airline travel to and from Colorado is growing, an increasing percentage of the State's commercial airline trips are ending at or originating from Denver International. This is in part due to the availability of low cost carrier service. The end result is a significant dampening of the commercial enplanement projections for Colorado's other commercial airports. As shown, statewide enplanements were reported at just over 2.0 million in 2005. By 2025, statewide enplanements (excluding Denver International) are expected to reach almost 3.4 million. This projection is down significantly from the enplanement projection for the other commercial airports in the previous system plan. Commercial airline travel to and from Colorado will continue to be heavily influenced by tourism, by the oil and natural gas industries, and by revenue guarantees provided to the airlines by some resort communities.

Using actual airline reporting information, there were a total of 95,252 total annual commercial aircraft operations in 2005. This excludes commercial operations at Denver International. Review of current commercial aircraft load factors (number of passengers in relationship to the number of seats on the aircraft)

shows that many aircraft are flying with empty seats at a ratio that is above the industry average. This means that more enplaning passengers can be served without necessarily increasing the number of airline operations. Also since the last system plan, there has been significant movement toward commercial aircraft with higher seating capacities, especially among the regional and the commuter carriers. The FAA expects this trend to continue. If the seating capacity of commercial aircraft operating in Colorado increases, fewer flights will be able to carry more passengers. This study projects total annual commercial aircraft operations to reach 133,616 in 2025.



GENERAL AVIATION ACTIVITY

One of the biggest challenges in preparing general aviation projections is the availability and the reliability of historic data. For this system plan update, projections of based general aviation aircraft and total annual non-commercial aircraft operations were prepared. Based aircraft are those planes considered to be stored on a permanent basis at a particular airport, and annual operations are the sum of all aircraft takeoffs and landings. While based aircraft can often be physically counted, annual aircraft operations, with the exception of airports with air traffic control towers, are estimates.

When annual general aviation operational data from earlier periods are compared to activity estimates prepared for this study, the conclusion could be drawn

that Colorado's annual aircraft operations which are non-commercial are decreasing. It is more likely that lower statewide annual general aviation operations are a reflection of better estimating, not lower demand.

The prior system plan estimated total statewide general aviation operations at just over 2 million. This study's 2005 estimate is for 1.9 million annual operations. Total annual general aviation operations are expected to exceed 2.5 million by 2025. Much of the projected increase in total annual general aviation operations will be attributable to the startup of a U.S. Air Force pilot screening program in Pueblo. Thousands of new military training operations are expected at this airport each year when this program is fully operational. When all operations are considered (commercial, air taxi, general aviation and military), total annual operations at all study airports are expected to increase from a 2005 level of just over 2.1 million to just over 3 million by 2025. Escalating fuel prices will almost certainly depress flying in certain segments of the industry in the coming years.

At the time of the 2000 system plan update, around 4,900 general aviation aircraft were reported as being based at commercial and general aviation airports throughout Colorado. By 2005, based aircraft at all system airports were reported at 5,358. The 2000 system plan projected that by 2018 a total of 6,446 general aviation aircraft could be based at airports in Colorado. Projections of based aircraft developed for this update show similar trends in future based aircraft. By 2025, this number is projected to reach 6,867. Over the next 20 years, approximately 1,500 additional aircraft are expected to be based at system airports.

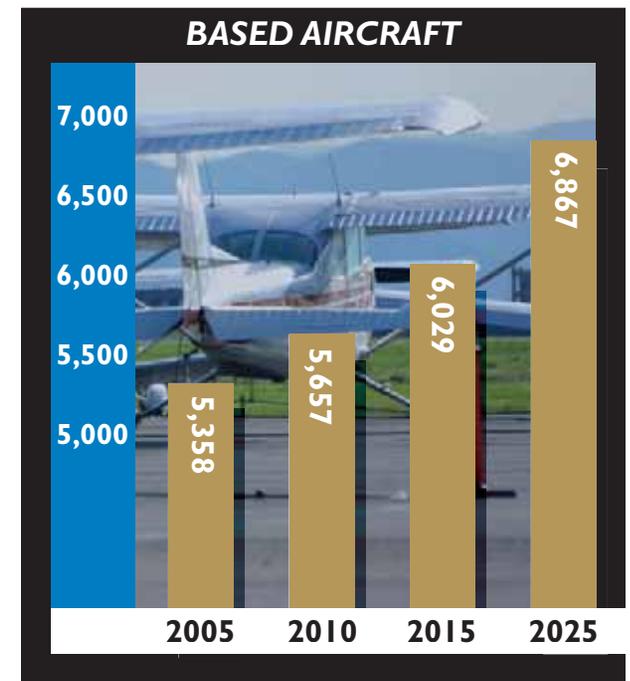


Photo: Centennial Airport

SYSTEM PERFORMANCE COMPARISON

The aviation system plan completed in 2000 established a process that enables CDOT to evaluate the airport system using a methodology similar to that used to evaluate other modes of transportation in Colorado. Beginning with the 2000 plan, CDOT Aeronautics has employed a performance-based approach to evaluate its airport system.

Through performance measures and benchmarks and the resultant system report card, Aeronautics has a sustainable planning process for its airport system. This planning process enables CDOT to measure change and to determine how investment actually improves the system or raises the bar in terms of overall performance. The airport system plan allows Aeronautics to adapt to changes that are identified between reporting periods. The end result is that Aeronautics is able to have increased accountability for its investment decisions.

The following sections of this summary contrast and compare system performance, set targets for future system performance, and identify actions that can be considered to reach established targets. Not all benchmarks considered in the system plan update are discussed in this summary report.

It is important to note that in the following sections that report on system performance, in some instances, the benchmarks apply only to airports in certain roles; in other instances, the benchmarks apply only to publicly owned airports. More detailed information from this study's technical report, on all benchmarks, and for performance of individual system airports can be obtained from CDOT Aeronautics.



Photo: Continental E-RJ at Montrose Regional Airport

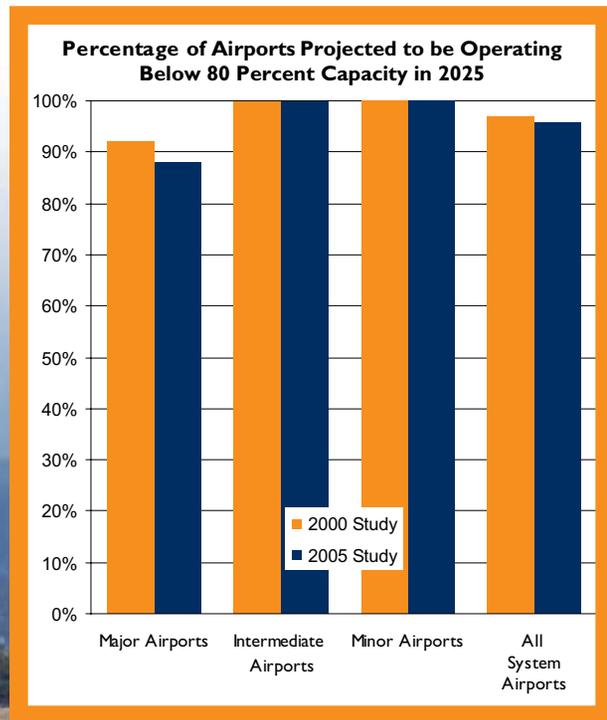
PERFORMANCE MEASURE: ACTIVITY

Benchmark

Percent of Colorado airports operating under a demand/capacity ratio of 80%.

Target Performance

100% of the Colorado airports should operate at a demand/capacity ratio under 80%.



FAA guidelines for demand/capacity triggers were used for this benchmark. FAA has determined that when an airport's annual operations consume 80% or more of that airport's calculated annual operating capacity, delays escalate exponentially. Currently, all airports analyzed in this plan operate under this ratio. With demand projected for 2025, a few system airports are projected to surpass the 80% demand/capacity ratio. Most potential shortfalls in operational capacity are expected to occur at airports in the Denver metropolitan area. Centennial and Jefferson County airports are expected to exceed the 80% demand/capacity ratio by the end of the 20-year planning period. It is also possible that with projected training activities the 80% demand/capacity ratio could also be surpassed at Pueblo.

Conclusions

Capacity-constrained airports should identify and strive to implement projects that will provide additional operational capacity. In the event that an individual system airport cannot be improved or capacity shortfalls in addition to those identified in this plan are encountered, it may be appropriate to consider small supplemental general aviation airports for the system. An additional airport may be needed north of Denver near Ft. Collins and one south of Denver, both near the Interstate 25 corridor. For new airports to be more than just a finding from this plan, a willing public entity would need to be identified as a "sponsor". If local qualified sponsors are identified, follow-on studies and analyses related to additional airports would be needed. These two additional airport sites should be included in the National Plan of Integrated Airport Systems (NPIAS).



Photo: Airbus 319 at Montrose Regional Airport

PERFORMANCE MEASURE: EXPANSION POTENTIAL

Benchmark

Percent of system airports with current master plans.

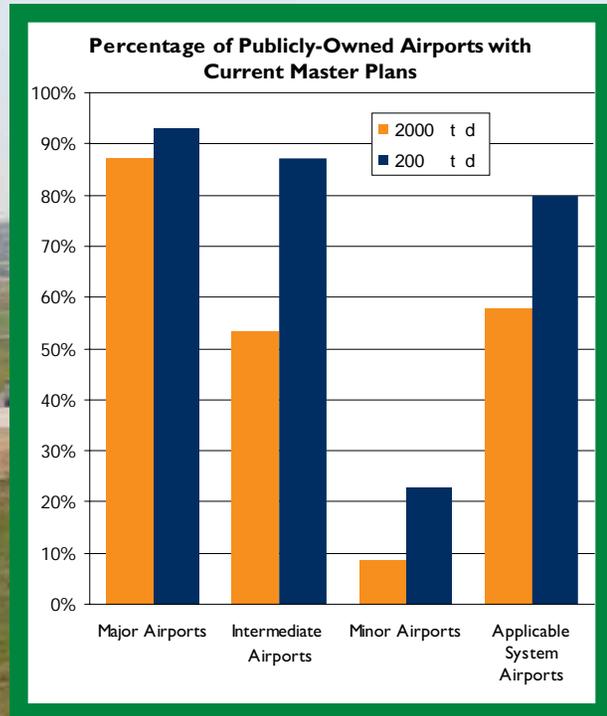
Target Performance

100% of all publicly owned system airports should have planning studies that are current, as determined by objectives set for each of the three airport roles.

This benchmark does not apply to privately owned airports. Objectives set for Colorado airports call for all Major Airports to have planning studies that are updated on five year intervals. Intermediate and Minor airports should have their plans updated every seven years. Performance for this benchmark shows improvement since 2000. In 2000, 58% of all applicable system airports reported their plans as being current; by 2005, this increased to 80%.

Conclusions

System performance for this measure will continually change as new plans are undertaken and as older plans expire. As of the conclusion of this update, the airports shown below should consider plan updates in the near term.



Major Airports	Intermediate Airports	Minor Airports
<i>Colorado Springs</i> <i>Eagle County Regional</i>	<i>Eads</i> <i>Springfield Municipal</i> <i>Spanish Peaks</i> <i>Silver West</i>	<i>Brush Municipal</i> <i>Haxtun Municipal</i> <i>Holly</i> <i>Julesburg Municipal</i> <i>Cuchara Valley</i> <i>Las Animas City & County</i> <i>North Fork Valley</i>

Photo: Centennial Airport

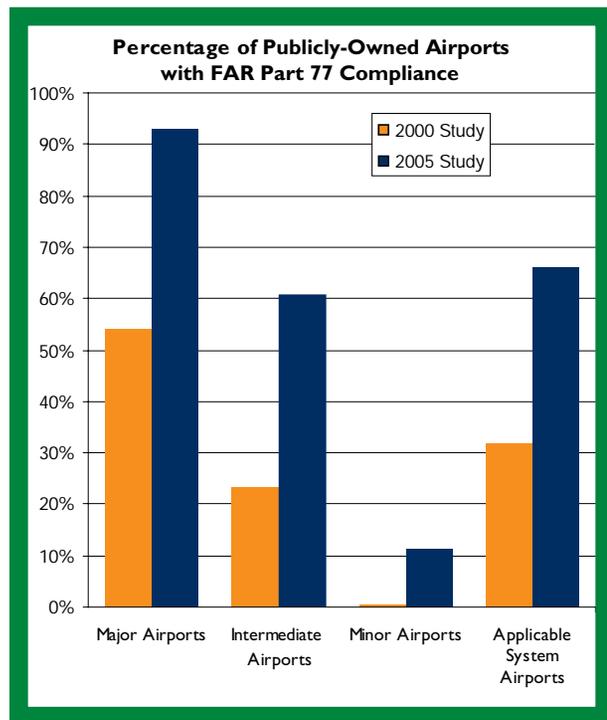
PERFORMANCE MEASURE: EXPANSION POTENTIAL

Benchmark

Percent of system airports that have identified their FAR Part 77 surfaces and have taken steps to enact height zoning within these areas.

Target Performance

100% of all publicly owned airports should identify their Part 77 surfaces and take steps to have applicable height zoning in these surfaces.



This benchmark does not apply to privately owned airports in the system. The system shows notable improvement relative to this benchmark. In 2000, 31% of all applicable system airports met the Part 77 objectives. By 2005, system performance for this benchmark improved to 66%. System performance improved for airports in each of the three airport roles.

Conclusions

System performance for this measure will continue to change over time. The airports shown below need to identify their Part 77 surfaces and/or take steps to ensure that appropriate local height zoning is enacted in all of these surfaces.

Airports Needing Part 77/Height Zoning Actions • (d=drawing z=zoning)		
Major Airports	Intermediate Airports	Minor Airports
Stevens Field (d/z) Telluride Regional (z)	Leach (d/z) Eads (d/z) Hopkins Field (d/z) Sterling Municipal (d/z) Spanish Peaks (d/z) Glenwood Springs Municipal(d) Walden/Jackson County (d) Central Colorado Municipal (z) Ft. Morgan Municipal (z) Harriet Alexander (z)	Blanca (d/z) Brush Municipal (d/z) Haxtun Municipal (d/z) Holly (d/z) Julesburg Municipal (d/z) Las Animas City & County(d/z) North Fork Valley(d/z) Saguache Municipal (d/z)

Photo: Vance Brand Airport

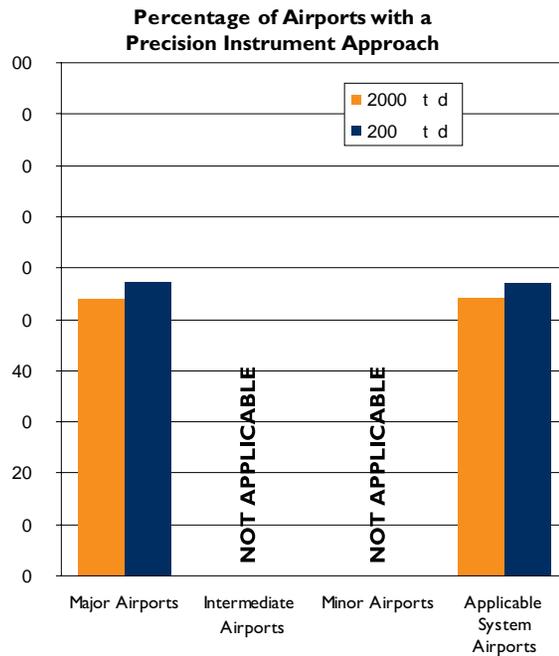
PERFORMANCE MEASURE: ECONOMIC SUPPORT

Benchmark

Percent of system airports that have a precision or near precision approach.

Target Performance

At least 75% of all airports assigned to the Major Airport category should have a precision approach.



Facility objectives established for the Colorado airports set a target for all airports assigned to the Major Airport category to have approaches aided by a precision (ILS) or near precision approach capabilities provided by LPV. Between 2000 and 2005, the system showed modest improvement relative to performance for this benchmark. In addition to being able to justify a precision approach from an activity standpoint, there are design implications for airports with an ILS or LPV approach. Natural, financial, and manmade constraints have and will continue to challenge the ability of some Major Airports to offer an LPV approach with near precision capabilities. As a result, a target to have near precision approach capabilities for at least 75% of the Major Airports was set.

Conclusions

Currently, 56% (14 of the 25) Major Airports have ILS precision approaches. While it would be ideal to have precision approaches to 100% of the Major Airports, because of recognized constraints, a target to have precision approaches or near precision approach capabilities at 19 of the 25 (75%) Major Airports was set. The Major Airports that could be considered for approach upgrades to meet the target set for this benchmark are shown.



Major Airports To Be Considered For Precision or Near Precision Approach

- Colorado Plains Regional
- Aspen-Pitkin County+
- Kit Carson County*
- Cortez/Montezuma County*
- Eagle County Regional+
- Lamar Municipal*
- Vance Brand Municipal
- Meeker+
- Stevens Field+
- Telluride Regional+
- Perry Stokes

* = airports with recently published or scheduled LPV approach

+ = airports where prior analysis has shown precision approach may not be feasible

PERFORMANCE MEASURE: ECONOMIC SUPPORT

Benchmark

Percent of system airports that have a published approach (precision or non-precision).

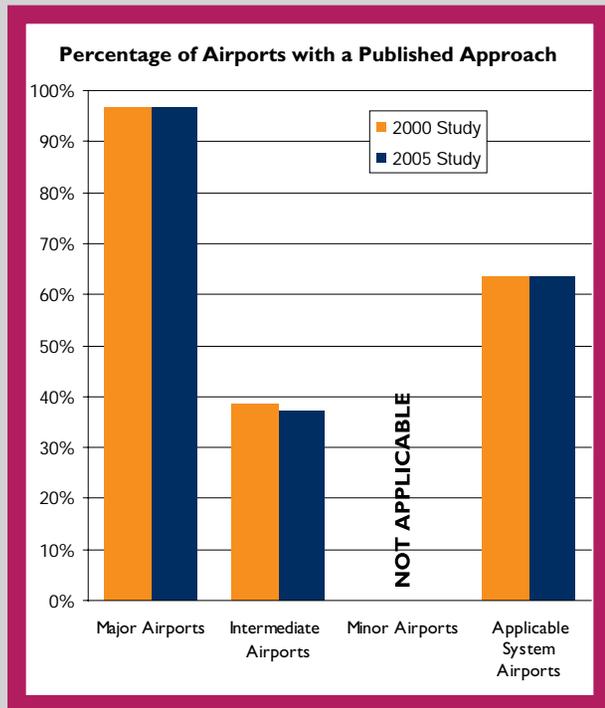
Target Performance

100% of all airports assigned to the Major and the Intermediate categories should have some type of published approach.

Facility objectives set by this plan call for approaches to all Major and Intermediate airports to be supported by some type of published approach. Since the 2000 plan was published, the system performance relative to this benchmark has changed little. Since the 2000 plan, Garfield County (which previously had a non-precision approach) secured a precision (ILS) approach. Central Colorado Regional (which previously had no published approach) secured a GPS RNAV approach.

Conclusions

If the target for this benchmark is to be met, a total of 57 system airports (25 Major Airports and 32 Intermediate Airports) would need to have some type of published approach. The challenges and costs of obtaining a published approach in the non-precision category are not as great as for a precision approach. Therefore, this study confirmed a target for 100% of all Major and Intermediate airports to have some type of published approach. Airports that should be considered for some type of published approach are shown.



Major and Intermediate Airports To Be Considered For Published Approach	
Major Airports	Intermediate Airports
Stevens Field *	Boulder Municipal*
	Leach
	Meadow Lake
	Mineral County
	Astronaut Rominger
	Blake Field*
	Animas Airpark*
	Eads *
	Fort Morgan Municipal *
	Glenwood Springs Municipal
	Granby/Grand County *
	Limon Municipal *
	Hopkins Field*
	Rangely *
	Harriet Alexander*
	Springfield Municipal *
	Walden/Jackson County *
	Spanish Peaks *
	Silver West
	Yuma Municipal *

* = Airports identified as high priority for GPS RNAV approach as part of CDOT's 2000 GPS Implementation Study



Photo: Embraer Brasilia at Montrose Regional Airport

PERFORMANCE MEASURE: ECONOMIC SUPPORT

Benchmark

Percent of system airports with fuel.

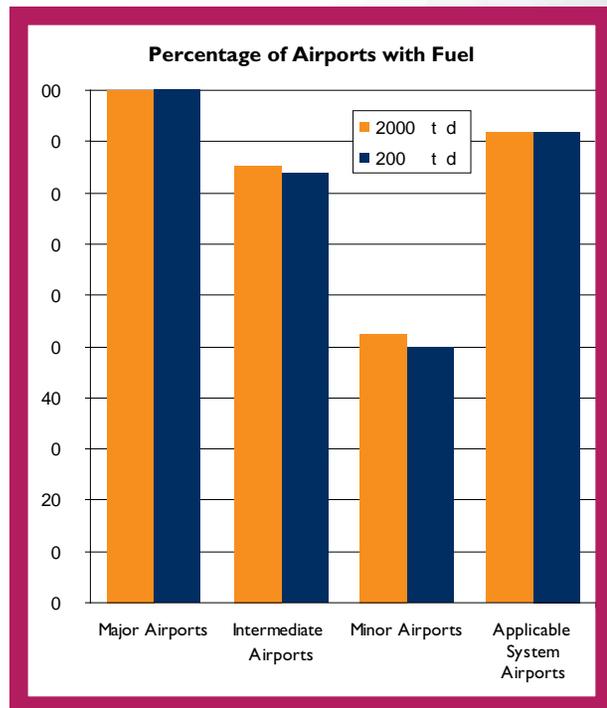
Target Performance

100% of all Major and Intermediate airports should have Jet A and/or 100LL fuel.

Facility and service objectives set for Colorado airports indicate that all Major Airports should have Jet A fuel; in both 2000 and 2005, all Major Airports had Jet A fuel. All Major and Intermediate airports should have some type of fuel. Performance relative to this benchmark has not changed. In 2000 and 2005, 52 Major and Intermediate airports had fuel.

Conclusions

All Major Airports currently meet the objectives set in the plan relative to the fuel benchmarks. Five (5) additional Intermediate Airports need fuel to meet the 100% target set for this benchmark. While it is not an objective for Minor Airports to have fuel, some do; however, fewer Minor Airports reported fuel in 2005 than did in 2000. Increased costs and regulations have made it more difficult for some airports to provide fuel.



Intermediate Airports To Be Considered For 100LL Fuel

- Mineral County*
- Astronaut Rominger*
- Eads*
- Springfield Municipal*
- Walden/Jackson County*

PERFORMANCE MEASURE: ECONOMIC SUPPORT

Benchmark

Percent of system airports with some type of ground transportation service.

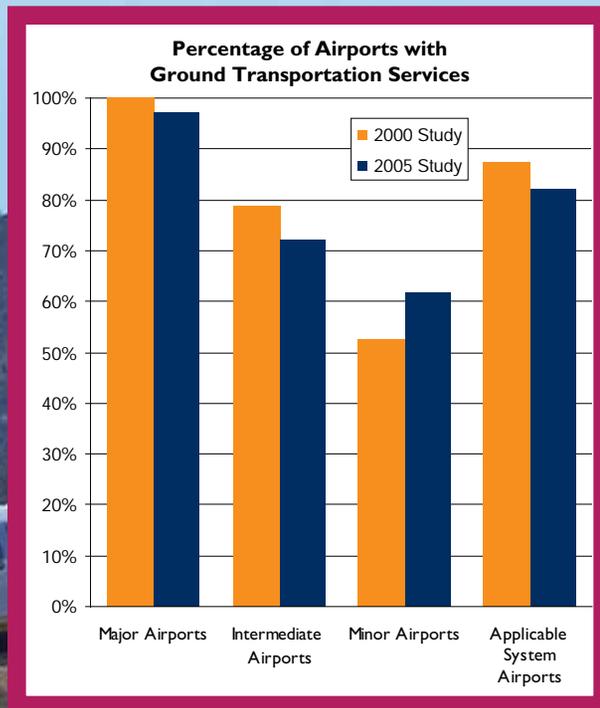
Target Performance

100% of all Major and Intermediate airports should have access to some type of ground transportation service.

Facility and service objectives set for the system indicate all Major Airports should have access to rental cars; all but one Major Airport currently does. Performance for applicable airports for this benchmark has actually declined slightly since the last plan; possibly because some airports no longer have courtesy cars. There are a total of 57 Major/Intermediate airports in the system; 47 (82%) report having access to some type of ground transportation service.

Conclusions

Ten additional airports, one in the Major category and nine in the Intermediate category, would need to have access to some type of ground transportation service for the target for this benchmark to be met. Additional airports that ideally should have access to some type of ground transportation service are shown below.



Major and Intermediate Airports Needing Ground Transportation Service

Major Airports	Intermediate Airports
Colorado Plains Regional	Leach Mineral County Astronaut Rominger Eads Rangely Springfield Municipal Walden/Jackson County Silver West Yuma Municipal



Photo: Garfield County Regional Airport

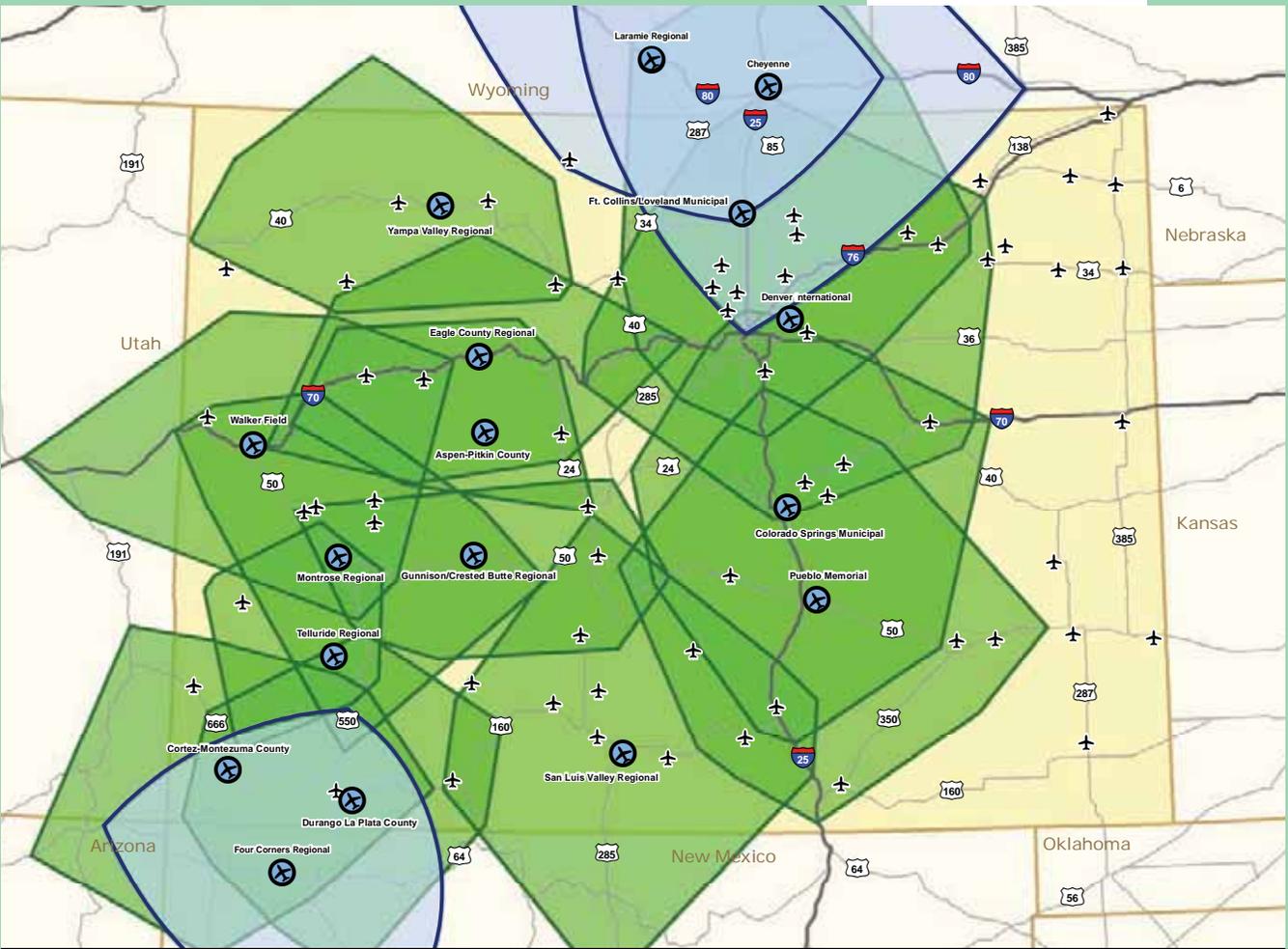
PERFORMANCE MEASURE: COVERAGE AND ACCESS

Coverages

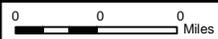
Colorado commercial airports
 population and reach
 core 2000 census

Other commercial airports
 population and reach
 core 2000 census

- Commercial airport
- Terminal airport
- 0 Minute time to state time
- 10 Minute time to state time



POPULATION WITHIN 90 MINUTES OF A COMMERCIAL SERVICE AIRPORT



Benchmark

Percent of Colorado population and land area within 90 minutes of a commercial airport.

Target Performance

95% of Colorado's population and 75% of its land area should be within 90 minutes or less of an airport served by scheduled commercial flights.

While performance for this benchmark relative to population has not changed, performance relative to land area covered has fallen. Lamar lost service and Fort Collins/Loveland Municipal gained commercial airline service in 2003. The geographic service area of the Loveland facility overlaps with other commercial airports. The service area for Lamar did not, hence the reduction in area coverage. Airline service at Lamar was supported by subsidies from the Federal EAS program. Three other Colorado commercial airports continue to receive EAS subsidies (Cortez, Alamosa, Pueblo).

Conclusions

There is little that CDOT can do to attract or maintain commercial airline service. Even without the EAS airports, targets for population coverage for this benchmark will be met. Loss of the three EAS airports, most notably San Luis Valley, would have a greater impact on area coverage. The land area target for this benchmark, without the EAS airports, would most likely not be met.

PERFORMANCE MEASURE: COVERAGE AND ACCESS

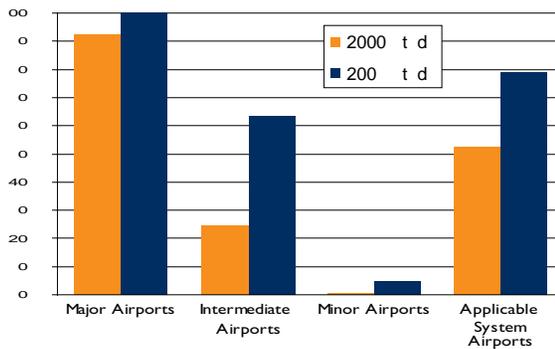
Benchmark

Percent of Colorado airports with on-site weather reporting capabilities.

Target Performance

100% of Colorado's Major and Intermediate airports should have on-site weather reporting equipment.

Airports with On-site Weather Reporting Facilities



Intermediate Airports To Be Considered For Weather Reporting Equipment

- | | |
|----------------------------|-----------------------|
| Leach | Monte Vista Municipal |
| Meadow Lake | Rangely |
| Mineral County | Springfield Municipal |
| Astronaut Rominger | Spanish Peaks |
| Animas Airpark | Silver West |
| Eads | Wray Municipal |
| Glenwood Springs Municipal | Yuma Municipal |

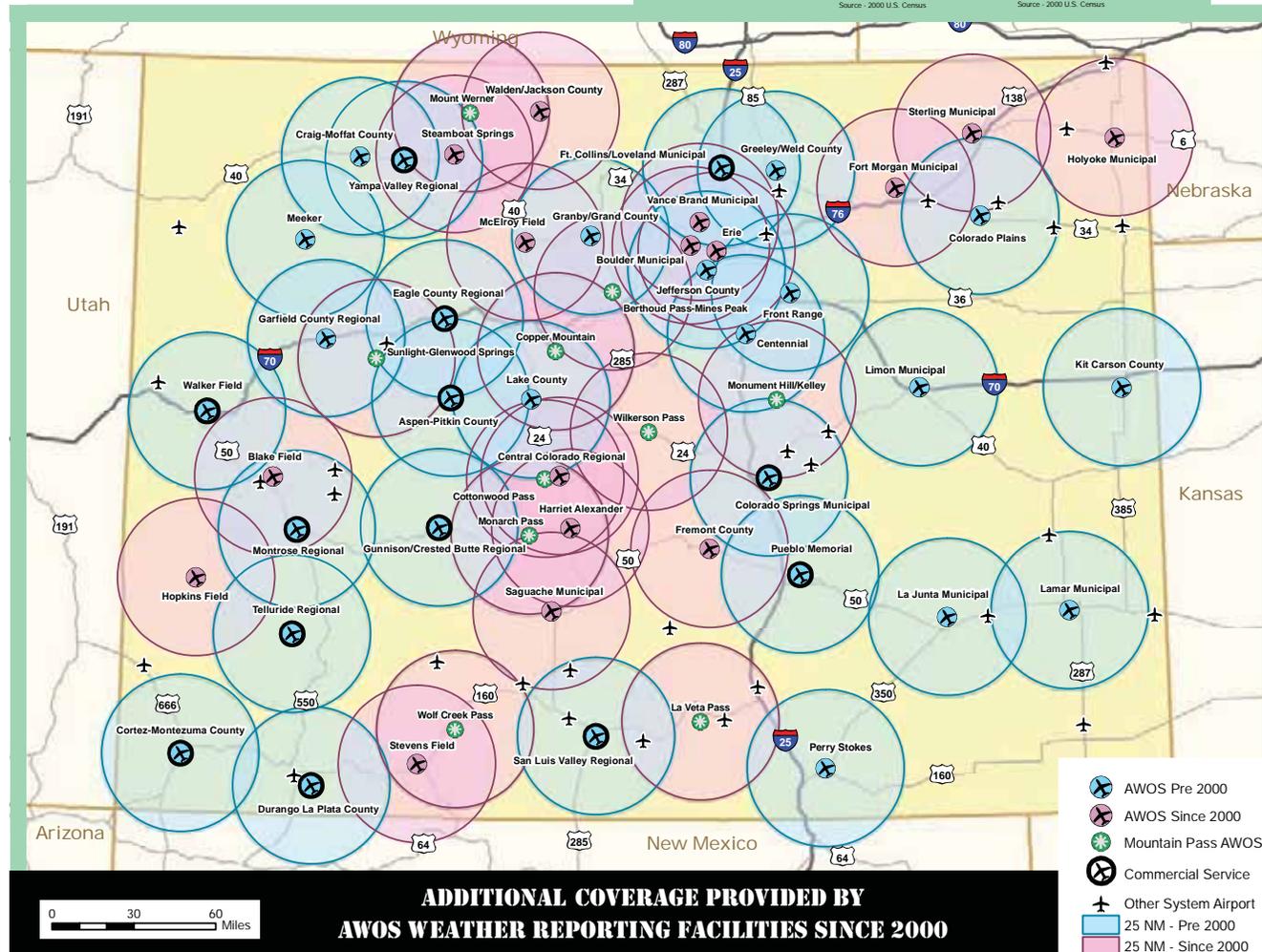
Performance relative to the benchmark has improved. Since 2000, thirteen additional airports have on-site weather reporting capabilities. All Major Airports have on-site weather reporting and 63% of the Intermediate Airports have this capability. Improvements include on-airport as well as weather reporting equipment that has been installed in mountain passes in the State.

Conclusions

Further improvement is still needed to meet established targets. Intermediate Airports shown should have on-site weather reporting to meet the target benchmark.

Coverages	Pre 2000	Since 2000
Population =	94.9 %	98.9 %
Land Area =	55.6 %	76.2 %

Source - 2000 U.S. Census



PERFORMANCE MEASURE: COVERAGE AND ACCESS

Benchmark

Percent of Colorado airports able to accommodate the King Air B200 emergency aircraft.

Target Performance

100% of the Major and Intermediate airports should be able to accommodate the King Air B200 in most emergency operating circumstances.

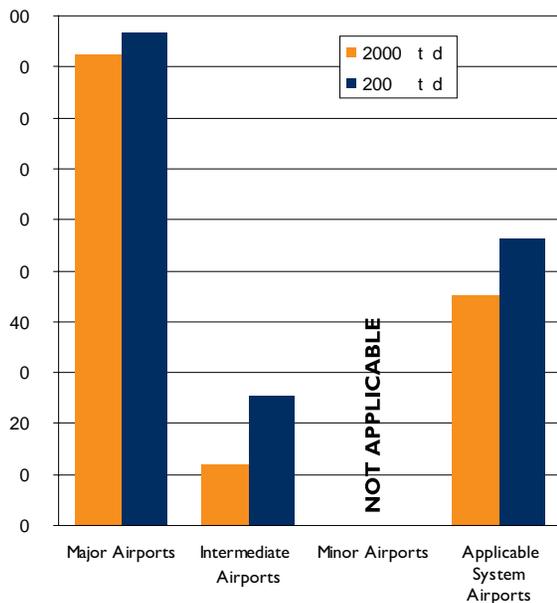
The system has shown improvement relative to this benchmark since the 2000 plan. In 2000, 45% of the

Major and Intermediate airports could meet most of the requirements of the King Air B200 emergency aircraft; by 2005, this increased to 56%. Population within a 30 minute drive of an airport equipped to serve the King Air B200 increased from 79% in 2000 to 92% in 2005, and land area within a 30 minute drive increased from 26% to 33%. To serve the King Air B200 aircraft, emergency operators have minimum requirements related to runway length, weather reporting, approach, rotating beacon, and runway lighting. All Major Airports, but Stevens Field, meet the King Air requirements; this airport needs only an improved approach to meet operator needs.

Conclusions

Eight of the 32 Intermediate Airports now have all of the facilities needed for King Air emergency operators. The following improvements at Intermediate Airports could be considered to meet the target set for this benchmark. It is worth noting that lack of these improvements does not totally preclude the King Air emergency aircraft from operating at these airports during certain operating conditions.

Percentage of Airports with a Published Approach



Intermediate Airport Improvements to Serve King Air B200

Runway Length	Weather Reporting	Published Approach	Rotating Beacon	Runway Lighting
Astronaut Rominger	Astronaut Rominger	Astronaut Rominger	Astronaut Rominger	Astronaut Rominger
Boulder	Leach	Boulder	Leach	Leach
Animas	Animas	Leach	Eads	Mineral County
Eads	Mineral County	Meadow Lake	Glenwood Springs	Glenwood Springs
Erie	Glenwood Springs	Mineral County	Mineral County	Spanish Peaks
Glenwood Springs	Eads	Blake	Silver West	Silver West
Granby/Grand County	Monte Vista	Animas	Spanish Peaks	
Limon	Springfield	Fort Morgan	Animas Airpark	
Hopkins Field	Spanish Peaks	Glenwood Springs	Granby/Grand County	
Steamboat Springs	Silver West	Granby/Grand County		
Yuma	Wray	Rangely		
	Yuma	Harriet Alexander		
		Springfield		
		Steamboat Springs		
		Walden/Jackson County		
		Spanish Peaks		
		Silver West		
		Yuma		
		Eads		
		Limon		
		Hopkins Field		

PERFORMANCE MEASURE: COVERAGE AND ACCESS

Benchmark

Percent of Colorado airports able to accommodate the Learjet 35 emergency aircraft.

Target Performance

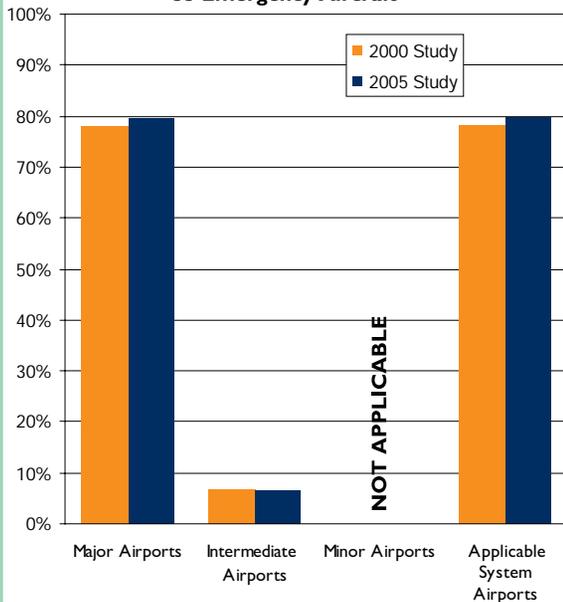
100% of the Major Airports should be able to accommodate the Learjet 35 in most emergency operating circumstances.

This plan's objectives call for only Major Airports to be developed to meet the needs of emergency aircraft such as the Learjet 35. 80% (20 out of the 25) of the airports in the Major Airport category have facilities and services to meet all needs of the Learjet 35 aircraft operating for emergency purposes. This is a slight improvement since the 2000 plan. In 2005, 89% of Colorado's population was within a 30 minute drive of an airport equipped to serve this emergency aircraft, up from 79% in 2000. Land area coverage increased slightly from 23% to 24%. While it is not an objective for Intermediate Airports to meet the needs of this emergency aircraft, two airports do.

Conclusions

In order for the system to meet the target set for this benchmark, several airports in the Major category would need facility related upgrades. These are noted below. It is important to note that lack of some or all of these upgrades does not necessarily preclude the Learjet 35 emergency aircraft from operating at these airports during some conditions.

Percentage of Airports Able to Accommodate Learjet 35 Emergency Aircraft



Major Airport Improvements To Serve Learjet 35

Runway Length	Approach
Kit Carson	Stevens Field
Vance Brand	
Meeker	
Perry Stokes	

Photo: Lear 35 at Centennial Airport

PERFORMANCE MEASURE: INVESTMENT

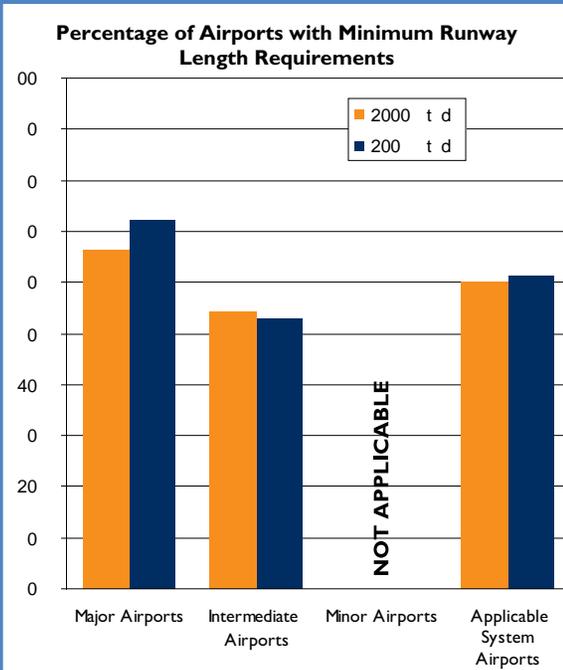
Benchmark

Colorado airports meeting minimum runway length as established by system plan facility objectives.

Target Performance

At least 75% of all Major and 75% of all Intermediate airports should ideally meet runway length objectives.

Major and Intermediate Airports to be Considered for Runway Lengthening Projects



Objectives for runway length, as established by the Colorado Aviation System Plan, call for commercial and reliever airports in the Major category to be able to accommodate 75% of all large general aviation aircraft at 90% useful load and for general aviation airports in the Major category to be able to accommodate 75% of all small general aviation aircraft. Intermediate Airports should also be able to accommodate 75% of all small aircraft. No runway length objective was set for Minor Airports. In 2000, 34 Major and Intermediate airports met their runway length objectives; in 2005, this number increased to 35 as the runway requirement for Lamar declined since it no longer has commercial airline service.

Major Airports	Intermediate Airports
Aspen-Pitkin *	Boulder+
Jefferson County+	Mineral County
Cortez-Montezuma	Monte Vista
Eagle County*	Astronaut Rominger
Fort Collins-Loveland	Eagle County *
Telluride Regional+	Animas +
Front Range	Hopkins Field
	Eads +
	Steamboat Springs *
	Telluride Regional+
	Glenwood Springs +
	Walden/Jackson
	Granby/Grand County
	Spanish Peaks
	McElroy Field
	Silver West
	Lake County

* = Airports where an extension less than optimum is more likely
 + = Airports where no extension is likely

Conclusions

As a result of its elevation and extremes in temperature, comparatively, Colorado's airports have some of the longest runway length needs. Natural, financial, and manmade constraints make it difficult, if not impossible, for some Colorado airports to extend their runways; in other instances, extensions less than the optimum objective may be more viable. There are some airports that are only a few hundred feet short of meeting the runway length objective set by this benchmark. Runway length needs are better determined at the master planning level of analysis. For this study, it appears reasonable that some runway lengthening could be considered for the noted airports.



Background Photo: Gunnison Airport

PERFORMANCE MEASURE: INVESTMENT

Benchmark

Percent of airports with a Pavement Condition Index (PCI) rating of 75% or greater on their primary runway.

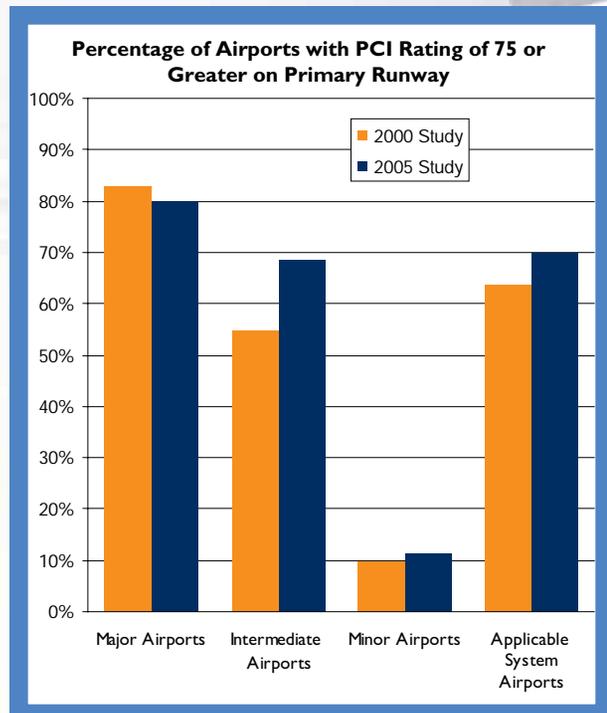
Target Performance

100% of all Major and Intermediate airports should have a paved primary runway with a PCI of 75 or greater.

This benchmark applies only to the 63 airports that are included in the CDOT pavement management program. Since pavement conditions change from year to year, a pavement that met this objective in a prior cycle may not necessarily meet the objective in a subsequent cycle. According to information analyzed in this update, performance for this benchmark has increased. In 2000, 40 of the airports met the objective set for this benchmark; by 2005, this number increased to 44.

Conclusions

CDOT places considerable emphasis in its budgetary process on maintaining and improving pavement conditions at system airports. As pavement conditions are presently reported, airports identified below are in need of pavement improvement projects for their primary runways. To meet the target set for this benchmark, CDOT will need to continue to monitor runway pavement conditions at system airports.



Major and Intermediate Airports Now Needing Primary Runway Pavement Improvement		
Major Airports	Intermediate Airports	Minor Airports
Aspen-Pitkin County Kit Carson County Meeker Pueblo Memorial Perry Stokes	Meadow Lake Astronaut Rominger Fort Morgan Municipal Granby/Grand County Lake County Hopkins Field Rangely Sterling Municipal Walden/Jackson County Yuma Municipal	Brush Municipal Haxtun Municipal Cuchara Valley North Fork Valley

Photo: Embraer Brasilia at Denver International Airport

PERFORMANCE MEASURE: SECURITY

Benchmark

Percent of system general aviation airports meeting minimum Transportation Security Administration (TSA) security guidelines.

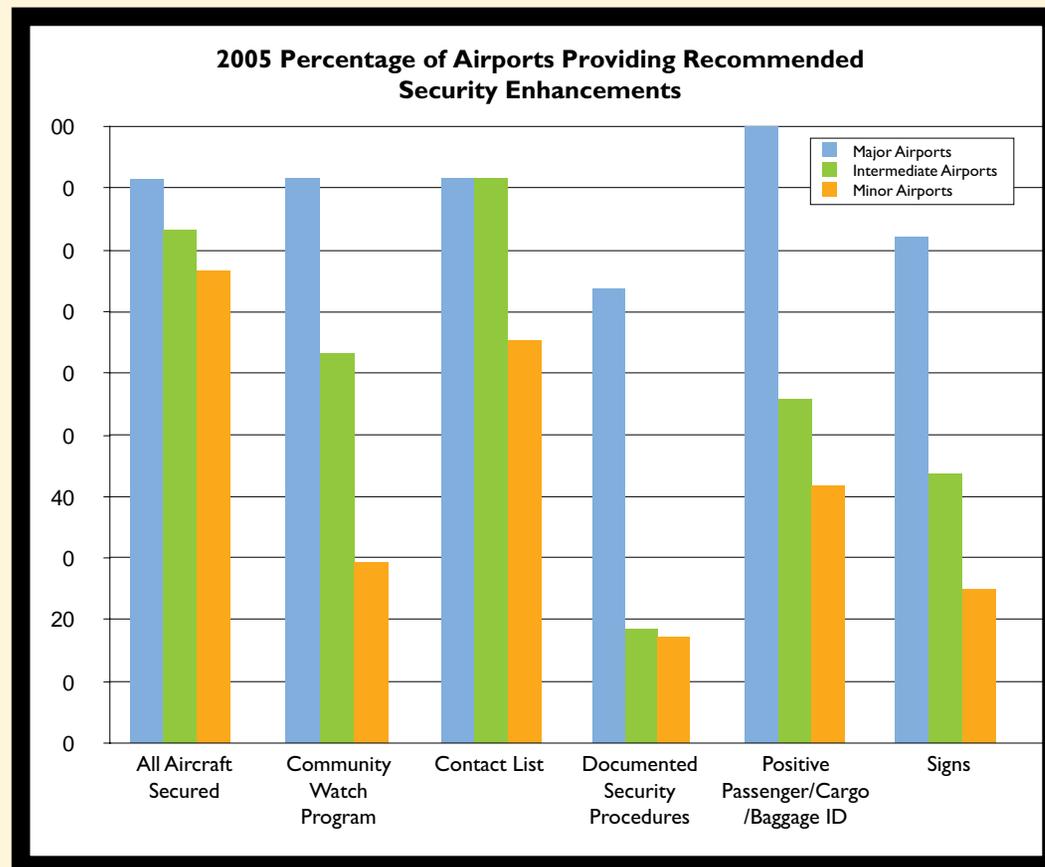
Target Performance

All airports in the Colorado system should meet at least the minimum TSA security guidelines set for airports in the “low risk” security category.

This benchmark applies only to general aviation airports; commercial airports and airports with a Part 139 certification have separate TSA security related requirements. TSA has a scoring system that assigns general aviation security enhancements in high, medium, minimum, and low categories. Since this is a new performance measure, it was determined that as a start, an objective to have all airports meet the least demanding TSA security enhancements should be adopted. These enhancements include having all aircraft secured, establishing a community watch program, having a contact list, documenting security procedures, having positive passenger/cargo/baggage identification, and posting appropriate signage.

Conclusions

The accompanying chart shows how airports in each role are currently performing relative to these security measures. More information for this benchmark is available from CDOT Aeronautics. Airports can obtain information from CDOT on their specific TSA security guidelines.

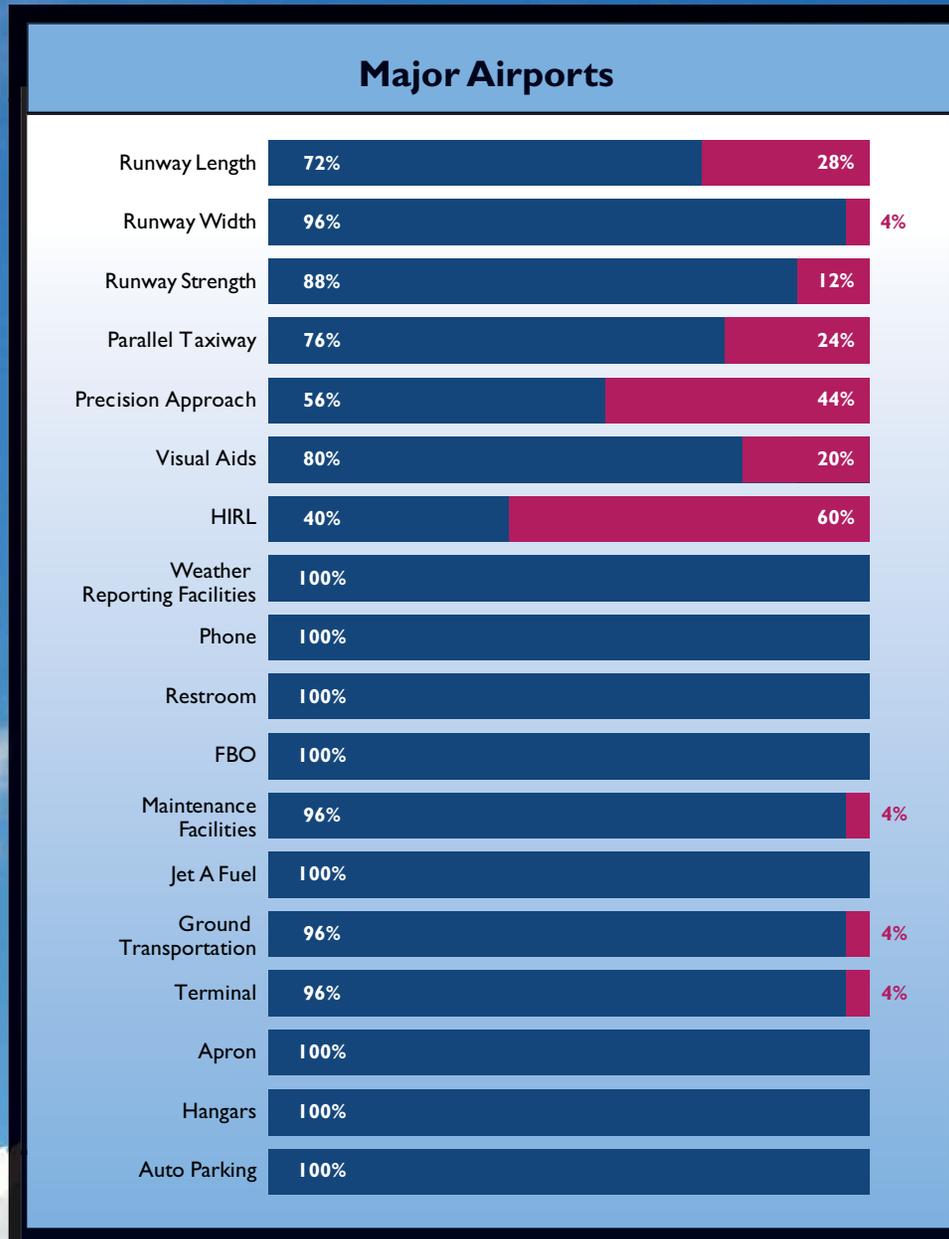
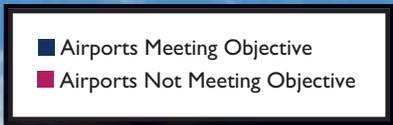


FACILITY AND SERVICE OBJECTIVES

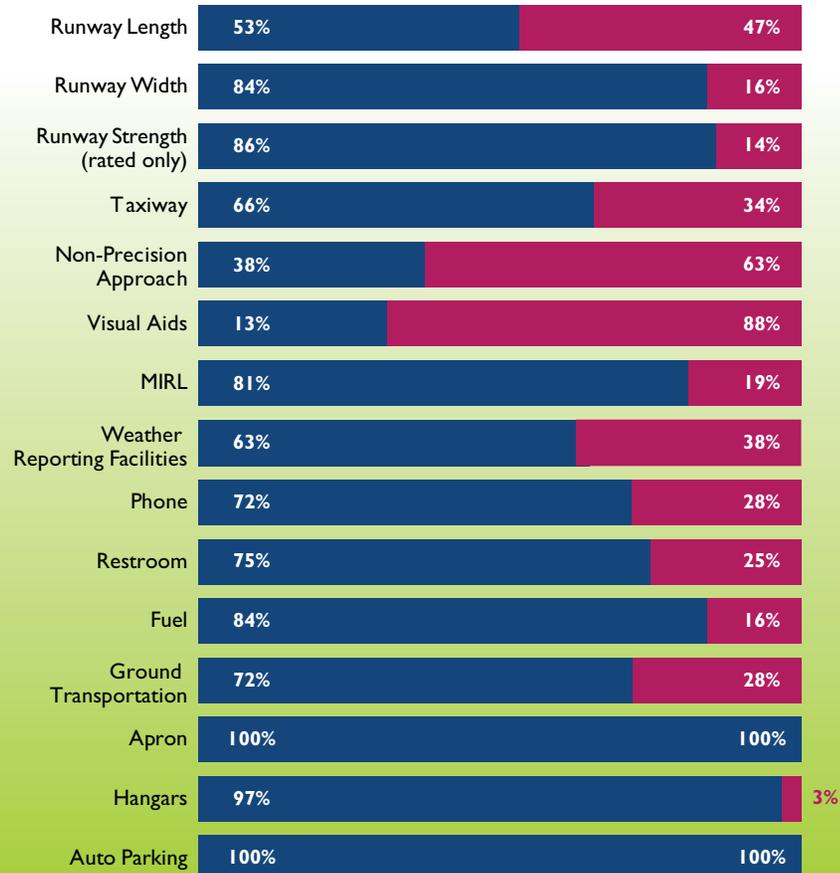
The prior pages have summarized system performance relative to key study performance measures and benchmarks. In addition, facility and service objectives for Major, Intermediate, and Minor airports were also established. By meeting facility and service objectives for their specific airport role, airports in Colorado can best fulfill their designated system role.

Facility and service objectives established as part of this plan are not standards or requirements. The objectives should, however, help airports in Colorado develop master plans and airport layout plans that are reflective of their system role. It is possible that some airports may exceed their objectives, while other airports may not be able to reach all objectives. Establishment of these facility and service objectives does not constitute a commitment on behalf of the State or the FAA to fund noted improvements.

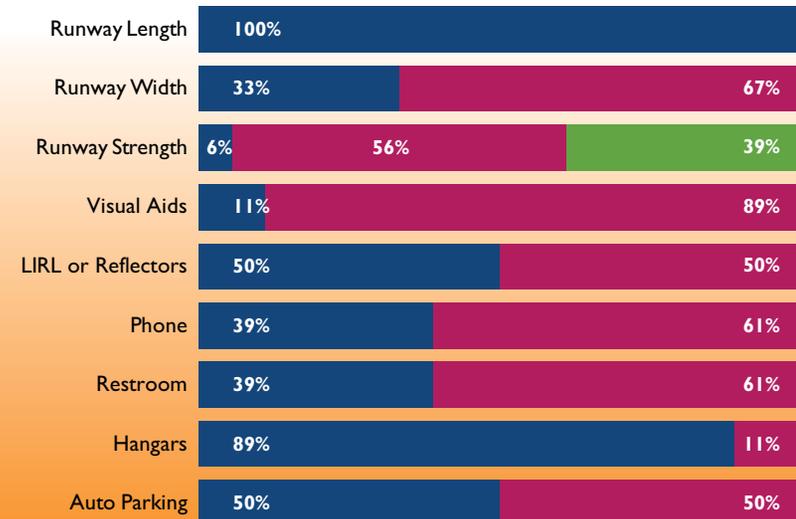
Based on data collected as part of this study's inventory effort, the following charts summarize the ability of airports in each of the three system roles to meet their respective facility and service objectives.



Intermediate Airports



Minor Airports



■ Airports Meeting Objective
■ Airports Not Meeting Objective
■ Unpaved Runway - No Strength Rating



COSTS AND FUNDING

Annually, the Colorado Aeronautical Board receives grant requests from all system airports. To be eligible for State funding, airports must have a capital improvement plan (CIP) on file with CDOT Aeronautics. Airports typically request State funds for maintenance, equipment, and capital development projects. 48 of the 75 airports in the Colorado system are also included in the National Plan of Integrated Airport Systems (NPIAS); this makes these airports eligible for Federal funding from the Federal Aviation Administration (FAA). Federally eligible airports use State grants to leverage larger Federal grants.

When reviewing individual airport grant requests for State funding, CDOT Aeronautics uses the recommendations of this plan. They compare airport actions identified at the State level with airport-specific actions formulated at the local level. This top down and bottom up comparison helps CDOT determine which projects and which funding requests are in the best interest of the State's airport system. A review of CIPs on file with Aeronautics indicates that some airports have already incorporated actions identified in this plan into their locally generated plans.

As part of the system plan update, estimates of costs that could be incurred to respond to targets set for all system benchmarks and for all airport specific facility

and service objectives were developed. Costs discussed in this section are not reflective of all airport specific conditions which might cause costs to be higher in some instances. It is the role of an airport's capital improvement plan to develop detailed cost estimates. Costs discussed in this section are general planning estimates. Costs presented in this section are presented in current dollars.

Cost estimates developed as part of this plan and for other projects in the State CIP and FAA NPIAS, indicate that costs needed through 2025 to maintain and improve the Colorado airport system could reach \$1.96 billion. This cost does not include estimates for Denver International. If this longer term estimate is annualized, it appears that at least \$108.9 million could be needed each year to respond to actions identified in the system plan and to individual airport CIPs.



Photo: Centennial Airport

Annually, funds available from Federal, State and local funding sources vary. State funds for the CDOT Aeronautics program come from fuel taxes. With increased fuel costs, State funds have recently been on the increase. Federal funding from the FAA comes from the Airport Improvement Program (AIP). AIP is 100 percent user-funded by various fees and taxes. For this analysis, an average of total funding derived from Federal, State and local sources in recent funding cycles was considered. For the most recent years, CDOT indicates that total annual Federal, State, and local funding for system airports (excluding Denver International) has averaged \$75 million.

When the average annual estimated funding need of \$108.9 million is compared to an annual average funding availability of \$73.5 million, it can be seen that an annual shortfall of \$35.4 million can be anticipated. Over the planning period, a total funding shortfall of \$637 million could be incurred if all system plan and anticipated CIP projects were to be implemented. Based on historic funding, a significant funding shortfall could exist. Securing additional funding for Colorado airports is important if actions to respond to this study's targets and objectives are to be taken.



SUMMARY

Colorado's commercial and general aviation airports are essential underpinnings of the State's transportation and economic systems. This study indicates that demand for Colorado's airport system will continue to grow. To respond to this growth and to raise the level of system performance as outlined in this plan, significant investment will be needed.

Each year, airports in Colorado (excluding Denver International) contribute an estimated \$6.7 billion to the State's economy. When the yearly economic benefit of \$6.7 billion is compared to annual investment need

of \$108.9 million, identified by this plan, it can clearly be seen that the annual benefit of the Colorado airport system is much greater than the estimated annual cost of maintaining and improving the system.

Aeronautics must now work with the FAA and airports throughout the State to insure the success of this plan. A well maintained and developed airport system is vital to Colorado. This plan provides CDOT Aeronautics with a powerful planning tool.

This plan helps Aeronautics to understand where

progress has been made since the 2000 plan was prepared. State investment in weather reporting equipment is one important example of how focused investment has improved several facets of system performance. Equally important, this update provides important information on what steps and what actions are still needed on the State and airport-specific levels to reach targets and objectives outlined in this plan. This information helps CDOT Aeronautics to develop and to prioritize its future programs, thereby insuring that Colorado has a system of commercial and general aviation airports that can support the needs of its residents, visitors, and businesses.



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