

Durango-La Plata County Airport

Master Plan

# **EXECUTIVE SUMMARY**

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### **EXECUTIVE SUMMARY**

### **INTRODUCTION**

This master plan documents an extensive process to identify the future of the Durango-La Plata County Airport (DRO or the Airport). The product of the study is a long-range airport plan that leaders and staff can implement to achieve transportation objectives for Durango and the Four Corners Region. The study period covers 2015 to 2035, which is expected to see significant change in airline activity and economic growth in the region. This executive summary provides an overview to the study results and conclusions.

The Master Plan is a 20-year plan to understand the needs of current and future users of the Airport. This is important to ensure that safe and orderly development occurs in a manner that is reflective of the community's values and goals. The plan is developed through a purposeful, inclusive, and educational process.

### STUDY PROCESS

FAA specifies the master plan study process in advisory circulars that guide airports and consultants in their preparation. Master plans can also be tailored to meet the specific needs of the individual airport. For this study, the process was divided into three main study phases as shown in **Figure 1** -

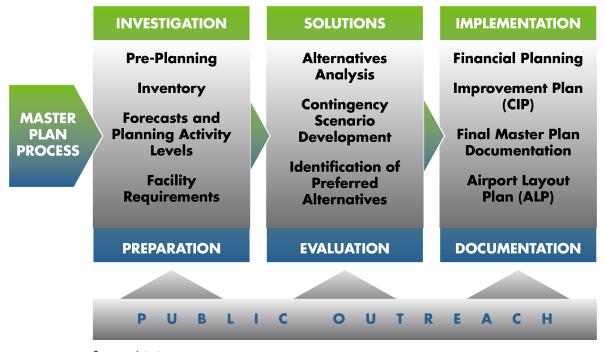


FIGURE 1 - THE MASTER PLAN PROCESS

Source: Jviation

### The Master Plan Process.

A Planning Advisory Committee (PAC) provided input during each phase. Many different types of public outreach were used to ensure that the study reflected the community's desires and direction for airport facilities as the Airport responds to past growth and prepares for the future of airline travel. The PAC met five times to provide valuable technical input and guidance. In addition, the study team provided study updates to joint study sessions of the governing bodies for La Plata County and the City of Durango, as well as presentations to each separate governing body in their regularly scheduled sessions. This was supplemented by many other meetings, press briefings, open houses, white papers, videos, surveys, focus groups, and presentations to civic groups in order to reach the public and provide them with key study output and to receive their feedback.



In addition to providing a location to start and complete an airline trip, DRO contributes a tremendous amount of economic impact to the region. The 2013 Economic Impact Study, sponsored by the Colorado Department of Transportation (CDOT) Division of Aeronautics, concludes that the Airport contributes over \$282 million annually to the region's economy, and supports 2,646 jobs in the region.







# INVESTIGATION PHASE

# **Existing Facilities**

The investigation phase begins with the evaluation of existing facilities. Most importantly, DRO's airfield facilities meet or exceed FAA's requirements for the aircraft the Airport is designed to accommodate. This includes the runway, the taxiway system, and the electronic navigational aids (NAVAIDs).



However, there are significant deficiencies in the passenger handling facilities owing to the rapid growth over the past 10 years. Further complicating the shortfall is the location of the existing airport facilities. While the Airport has abundant land that can be connected to the airfield and used for aviation purposes, only a portion of that land has been improved to date. The existing development area, which is nearly built out, is situated between the airfield and terrain that drops sharply down to the Florida River. Thus, the total increases in capacity for passenger services needed for the full 20-year study period are not easily implemented and likely to require significant funding.

General aviation facilities, along with a parcel leased to the U.S. Forest Service, round out the existing development. The remainder of the Airport's land is either undeveloped, reserved for agricultural use, or not suitable for aviation use due to terrain that limits access to the airfield.

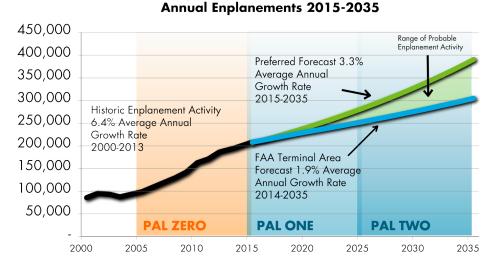
### **Forecasts**

Quantifying the needed passenger facilities begins with an understanding of the demand for future aviation services. Following FAA criteria for the development of aviation forecasts, planners identified two growth scenarios covering the 20-year period from 2015 to 2035. When graphed as shown in **Figure 2 - Enplanements Forecast**, the historical activity shows the dramatic growth since 2005 along with the two growth scenarios.

Figure 2 also shows three different Planning Activity Levels (PALs). The total activity has been divided into 10-year intervals to enable planners to identify the intermediate activity levels that will be used to determine the recommended amount of terminal capacity for each phase of the

FIGURE 2 - ENPLANEMENTS FORECAST

**Enplanements: Forecast Range** 



PAL Zero Identifies a Level of activity that has already been

achieved

Capital Improvement Program.

A summary of forecasts shows that passenger enplanements are projected to nearly reach 400,000 by the end of the study period. This is four times the annual passenger level that the current terminal facilities were designed to accommodate.

Source: Jviation



TABLE 1 - FORECAST SUMMARY

	2015	2020	2025	2030
Passenger Enplanements	205,594	241,427	283,505	332,917
Peak Hour Enplanements	263		340	
Commercial Operations	7,965	8,471	9,010	9,583
General Aviation Operations	21,475	23,487	25,429	27,528
Based Aircraft	72	77	82	87

Source: Jviation, 2014

# **Facility Requirements**

The third element of the investigation phase is the determination of the facilities needed to meet the expected demand levels. The requirements for major terminal facility components are shown in **Figure**3 - Facility Requirements. The upper two chevrons highlight the difference between the present facilities and the capacity required to meet industry standards for today's passenger activity.

This clearly presents the challenge for the master plan. The terminal needs to triple in size and the plan needs to identify room to park more than twice as many cars on a constrained site.

Other critical facility requirements relate to the reservation of sufficient area for the growth of general aviation facilities and reservation of land that can be leased for aviation development. The Airport has an adequate inventory of land that can be developed, but only the land in the current terminal area is reasonably feasible for private development. With that land nearly built out and vacant land not currently accessible by aircraft or public roadways, it is not presently feasible for private development.

The remaining facilities required during the planning period are those that are normally needed to operate a thriving and growing airport. These projects are identified in the Capital Improvement Program which

FIGURE 3 - FACILITY REQUIREMENTS



is contained in the full narrative report in **Chapter 7**, **Capital Improvement Program & Financial Implementation**.

## **SOLUTIONS PHASE**

### **Alternatives Considered**

Three main alternatives were developed that are capable of meeting the needs identified in the facility requirements. Two alternatives are focused on keeping the terminal on, or adjacent to, its present location, while the third relocates the terminal complex to undeveloped land across the runway.

The alternatives were evaluated using the following criteria that were developed in consultation with the Planning Advisory Committee.

### **Quantitative**

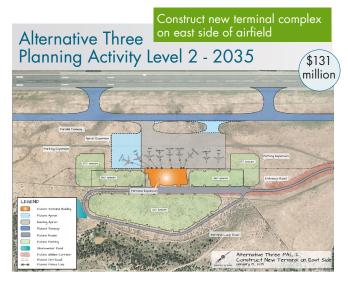
- Complies with FAA safety and design standards
- Maximizes operational efficiency
- Meets the 20-year facility requirements as defined in the Master Plan, plus has room to grow
- Balances benefits with costs

# Alternative One Planning Activity Level 2 - 2035 State Private Private Baday Control Private Control Baday Control Baday Control Private Control Baday



# **Qualitative**

- Promotes safety and efficiency of Airport operations
- Enhances security of Airport and airline operations
- ▼ Improves customer satisfaction/convenience
- ➤ Fosters Durango/Four Corners' image
- Minimizes construction phasing impacts to tenants and users
- ▼ Incorporates sustainable design elements where appropriate
- Sensitive to environmental resources



After careful deliberation and in spite of its higher initial cost, Alternative Three was chosen as the recommended option due to its many advantages and additional room for growth for all uses even beyond the planning period.

Following the recommendation, planners were instructed to identify cost savings in order to bring the first phase of development within a funding level that could be reasonably secured. The resulting Preferred Alternative is a concept that meets the PAL Zero activity level, or in other words, meets today's needs.

Additional projects will be included in the Capital Improvement Program that completes the program elements for PAL 1 and PAL 2. These projects will be undertaken if and when actual demand warrants implementation.

**Figure 4 - Preferred Development Alternative** depicts the elements and key costs for the preferred development alternative. With an estimated development cost of \$75 million in 2015 dollars, this concept is within budget constraints established by key stakeholders and will set the Airport on a sustainable path both in terms of meeting passenger demand and maintaining solid financial footing.

FIGURE 4 - PREFERRED DEVELOPMENT ALTERNATIVE

Note: Not to Scale

Source: Iviation

### IMPLEMENTATION PHASE

# **Financial Planning**

Anticipated funding for the development program primarily comes from three main sources, see **Figure 5 - Program Funding**.

• Annual Entitlement - Approx \$1.6 M **FAA GRANTS**  Discretionary Funding DRO Fuel Tax Rebates CDOT **AERONAUTICS AIRPORT**  Tiered Discretionary Grants **PROJECTS** • Infrastructure Bank Loans **GRANTS**  Revenue from Operations **LOCAL MATCH** • Passenger Facility Charges **FUNDING** • Third-party Funding Publicly Backed Bonds

FIGURE 5 - PROGRAM FUNDING

The typical airport project is funded with a combination of all three types. The FAA has the ability to contribute as much as 90 percent of eligible project costs, with the remainder shared between CDOT Aeronautics and the Airport sponsor. However, with terminal projects FAA participation is typically lower. Because of the relatively high funding requirements and the fact that much of the program is related to the passenger terminal, this study has planned for FAA participation to be approximately 50 percent of the program cost.

The anticipated funding scenario to implement the preferred terminal development alternative is shown **Table 2 - Funding Sources**. These amounts are considered available for planning purposes, however there are no guarantees when it comes to public funding.



TABLE 2 - FUNDING SOURCES

FAA GRANTS	CDOT AERONAUTICS GRANTS	LOCAL MATCH FUNDING
\$35 million to \$40 million	\$2 million	Airport Funds: \$5 million to \$7 million
		Local Sources: \$35 million to \$40 million

Source: Jviation

# **Funding the Local Share**

The terminal program funding scenario requires \$35 million to \$40 million from local sources to match the FAA's grants. This amount of funding is beyond the reach of funds that DRO could secure and service without assistance. With the assistance of both La Plata County and the City of Durango, planners have included assumptions that the local funds would need to come from tax-supported bonds. Likely La Plata County voters were polled in 2015 to determine what support such a ballot measure may receive.



While tax questions are divisive, a solid base of support and understanding of the Airport's needs was confirmed. With continued education and appropriate ballot question language it is quite reasonable to plan for success.

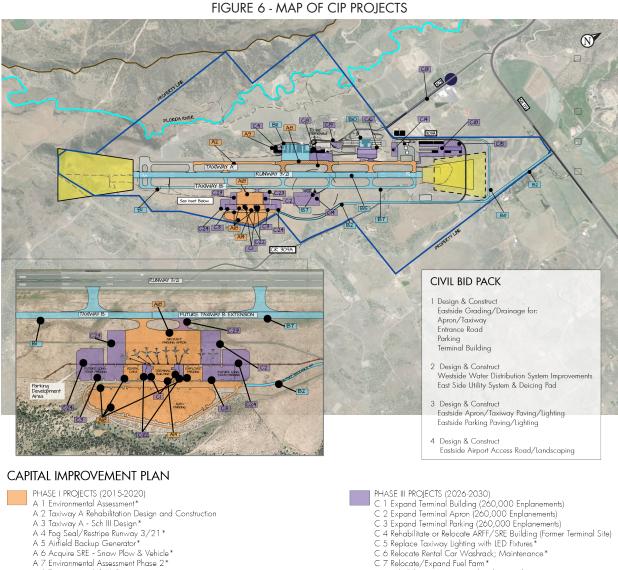
Following the implementation of the terminal program, this plan demonstrates that the Airport will require no more assistance to fund the balance of the plan's recommendations.

# **Capital Improvement Program**

The Capital Improvement Program (CIP) is a sequenced and prioritized list of projects that, when implemented, will meet the Airport's long-term needs as envisioned in the preferred development program. The CIP also provides detail on which phase of the development program the project will be accomplished, the sources of funding, and the justification or purpose for the project. **Figure 6 - Map of CIP Projects** depicts (where applicable) the location and phase of each project. **Table 3 - Summary of Sources And Uses of Capital Funding for the Capital Improvement Program** summarizes the sources and uses of the capital funding.

Significant planning effort went into identifying funding sources for all of the needed projects. That said, it is also necessary for plans to be reviewed prior to making major investment in capacity-justified projects. The upcoming terminal program is unquestionably justified for immediate implementation because existing facility capacity is so far below industry standards for today's activity. However, future increases should be examined carefully to make sure the projected activity levels have been achieved prior to implementation.





- A 8 Taxiway A Sch III Construction A 9 Modify ARFF Bay Openings
- A 10 Replace Passenger Terminal Civil Bid Pack 1 Design\* A 11 Replace Passenger Terminal Civil Bid Pack 2 Design\*
- A 12 Replace Passenger Terminal Architecture Design\*
- A 13 Replace Passenger Terminal Civil Bid Pack 1 Construction\*
- A 14 Replace Passenger Terminal Terminal Building Construction
- A 15 Replace Passenger Terminal Civil Bid Pack 3 Design\*
  A 16 Replace Passenger Terminal Civil Bid Pack 4 Design\*
  A 17 Replace Passenger Terminal Civil Bid Pack 2 Construction\*
  A 18 Replace Passenger Terminal Civil Bid Pack 3 Construction
- PHASE II PROJECTS (2021-2025)
  - B 1 Replace Passenger Terminal Civil Bid Pack 3 Construction B 2 Replace Passenger Terminal Civil Bid Pack 4 Construction B 3 Conduct Strategic Business Plan\* B 4 Replace ARFF Vehicle\*

  - B 5 Rehabilitate Runway 3/21 and Taxiway A (Between A2-A3)

  - B 6 Acquire Passenger Boarding Bridges (4)\*
    B 7 Extend Parallel Taxiway B to RW21 End/Relocate VOR/NEPA Documentation
    B 8 Relocate CR 309A outside RPZ

  - B 9 Acquire SRE\*
  - B 10 Modify Former Terminal Prepare for Lease
  - B 11 Rehabilitate South GA Apron/Taxilanes Phase 1 B 12 Conduct Airport Master Plan\*

Source: Jviation

- C 8 Rehabilitate S GA Apron/Taxilanes Phase 2
- C 9 Acquire SRE Vehicle\*
- C 10 Conduct Airport Master Plan\*
- C 11 Fog Seal and Restripe Runway 3/21\*
  C 12 Holding Apron Taxiway A at RW21 End\*

#### PHASE III PROJECTS 2031-2035

- PHASE III PROJECTS 2031-2035
  C 13 Prepare Lease Lots North of Passenger Terminal\*
  C 14 Expand USFS Apron (assist only)
  C 15 Construct GA Apron/Taxilanes for Large Hangar Sites
  C 16 Rehabilitate Former Westside Terminal Apron
  C 17 Acquire ARFF Vehicle\*
  C 18 Rehabilitate N GA Apron/Taxilanes

- C 19 Expand Water Facility
  C 20 Acquire SRE\*
  C 21 Conduct EA for Terminal Expansion\*
- C 22 Expand Terminal Building (380,000 Enplanements)
- C 23 Expand Terminal Apron (380,000 Enplanements) C 24 Expand Terminal Parking (380,000 Enplanements)
- C 25 Fog Seal/Restripe Taxiway B\*



<sup>\*</sup> Item not shown

### **Master Plan Documentation**

As the last step in the master plan, final documents are prepared, reviewed, approved, and distributed. The documents include the full narrative report that provides all of the detailed analysis and discussion that supports the conclusions outlined in this executive summary. The full report also provides extensive technical resource documentation on the environmental setting, which was used to guide the selection of the preferred terminal site.

The Airport Layout Plan (ALP) is the other major deliverable from the master plan. The ALP provides the Airport and FAA with a detailed depiction of all existing and planned facilities, as well as all objects in the vicinity that could pose a hazard to aircraft. The ALP also contains plan sheets depicting the land use pattern surrounding the Airport along with recommendations to maintain compatible land uses. Finally, a plan sheet depicts the parcels of land that comprise the Airport along with details regarding its acquisition.

TABLE 3 - SUMMARY OF SOURCES AND USES OF CAPITAL FUNDING FOR THE CAPITAL IMPROVEMENT PROGRAM

SOURCES OF CAPITAL FUNDING	PHASE I	PHASE II	PHASE III	TOTALS
Airport Improvement Program (AIP) Entitlement Grants	\$15,170,339	\$10,514,363	\$25,000,258	\$50,684,960
AIP Discretionary Grants	\$26,854,231	\$27,553,152	\$13,126,166	\$67,533,549
CDOT Aviation Grants	\$1,286,593	\$969,975	\$2,126,518	\$4,383,086
Passenger Facility Charges	\$3,804,253	\$4,702,830	\$18,125,620	\$26,632,703
City/County Capital Contribution	\$28,561,883	\$11,149,345	\$0	\$39,711,228
Private Third Party Funding	\$0	\$2,388,105	\$16,358,658	\$18 <i>,7</i> 46 <i>,7</i> 62
Cash Reserves/Net Ops Cash Flow	\$917,472	\$678,930	\$28,789,714	\$30,386,116
TOTAL SOURCES OF CAPITAL FUNDING	\$76,594,770	\$57,956,698	\$103,526,935	\$238,078,404
USES OF CAPITAL FUNDING	PHASE I	PHASE II	PHASE III	TOTALS
Runway/Taxiway Improvements	\$9,1 <i>77</i> ,095	\$38,629,150	\$2,648,545	\$50,454,790
Aircraft Apron Improvements	\$10,195,862	\$0	\$22,590,528	\$32,786,389
Terminal & Related Landside			1 / /	ψ32,700,307
Improvements	\$55,987,400	\$13,041,449	\$46,894,819	\$115,923,669
	\$55,987,400 \$0	\$13,041,449 \$368,962		
Improvements General Aviation Facility			\$46,894,819	\$115,923,669
Improvements General Aviation Facility Improvements	\$0	\$368,962	\$46,894,819 \$7,010,853	\$115,923,669 \$7,379,816
Improvements General Aviation Facility Improvements SRE Facilities & Equipment	\$0 \$498,623	\$368,962 \$895,539	\$46,894,819 \$7,010,853 \$2,149,995	\$115,923,669 \$7,379,816 \$3,544,157

Note: Addition errors are due to rounding of calculated amounts.

Source: Leibowitz and Horton

# **Durango-La Plata County Airport Master Plan**

# **Summary**

Durango-La Plata County Airport has been stretched to the limit by the remarkable growth experienced in the last 10 years. This speaks volumes about the region's ability to attract business growth and visitors who come to experience the abundant resources in the area. It also speaks to the attractiveness to the airlines that are finding it to be a successful place to operate and compete for passengers. This shows that DRO has a winning combination for continued future success.

As a gateway facility for the region's best customers and the daily workplace for the vital airline operations, a terminal facility that meets industry standards for design, modern concessions, and can be affordably expanded to meet the needs of future generations is a must. The success of this master plan began over a year ago when the region's leaders came together to produce a solution that achieves all of these objectives and more. This master plan reflects that commitment and its success will contribute to the opportunities enjoyed by future generations.





# www.flydurango.com



The Durango-La Plata County Airport would like to thank the Airport Commission, Planning Advisory Committee, elected officials, public, organizations, businesses, and tenants that participated in the master plan process. The wide range of input received resulted in a variety of alternatives, and ultimately, a phased approach to meet both the immediate and future demands of the Airport and community it serves. The master plan will allow the Airport to serve as the preferred gateway and economic catalyst for the Four Corners Region.