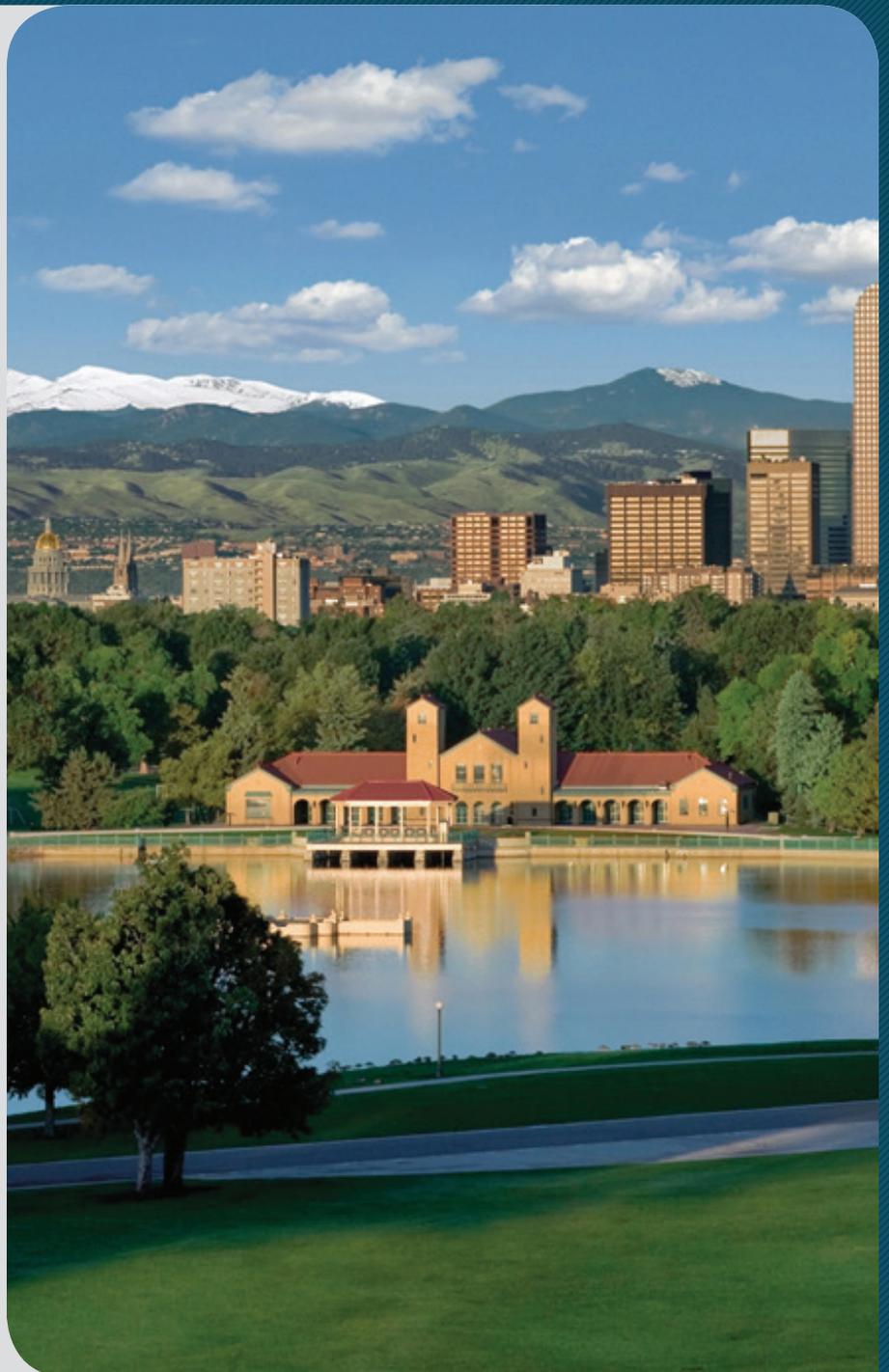


**FOLLOW-UP REPORT**  
**Denver International Airport**  
***Emergency Preparedness Program Audit***  
**March 2017**

Office of the Auditor  
Audit Services Division  
City and County of Denver



Timothy M. O'Brien, CPA  
Denver Auditor



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Report number: **A2015-010**



**Timothy M. O'Brien, CPA**  
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# City and County of Denver

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March 2, 2017

Kim Day, Chief Executive Officer  
Department of Aviation  
City and County of Denver

Re: Audit Follow-Up Report

Dear Ms. Day:

In keeping with generally accepted government auditing standards and the Audit Services Division's policy, as authorized by D.R.M.C. § 20-276, our Division has a responsibility to monitor and follow-up on audit recommendations to ensure that audit findings are being addressed through appropriate corrective action and to aid us in planning future audits.

This report is to inform you that we have completed our follow-up effort for the Denver International Airport (DIA) Emergency Preparedness Program audit issued November 19, 2015. Our review determined that the recommendations for the DIA Emergency Preparedness Program audit have been either completely or partially implemented. Despite the DIA Emergency Preparedness Program personnel's efforts, auditors determined that the risks associated with the audit team's initial findings have not been fully mitigated. As a result, the Division may revisit these risk areas in future audits to ensure that appropriate corrective action is taken.

For your reference, this report includes a highlights page that provides background and summary information on the original audit and the completed follow-up effort. Following the highlights page is a detailed implementation status update for each recommendation.

This concludes audit follow-up work related to this audit. I would like to express our sincere appreciation to you and to the DIA Emergency Preparedness Program personnel who assisted us throughout the audit and follow-up process. If you have any questions, please feel free to contact me at 720-913-5000 or Sonia Montano, Internal Audit Supervisor, at 720-913-5157.

Denver Auditor's Office

A handwritten signature in black ink, appearing to read "Timothy M. O'Brien".

Timothy M. O'Brien, CPA  
Auditor



# DIA Emergency Preparedness Program

## March 2017

### Status

The DIA Emergency Preparedness Program has fully implemented four of the six recommendations made in the November 2015 audit report. The other two recommendations have been partially implemented.

### Background

As one of the busiest airports in the nation, it is imperative that DIA is prepared for emergency situations. The Federal Aviation Administration (FAA) is responsible for providing oversight to ensure airports comply with federal requirements. DIA has developed an Airport Emergency Plan to comply with FAA requirements. In addition, DIA has developed supplemental guidance on specific emergency situations. DIA has full-time staff dedicated to emergency preparedness activities, which include developing and implementing training and exercises.

### Purpose

The purpose of the audit was to determine whether DIA has developed standardized emergency planning that complies with relevant federal guidelines. We also examined the effectiveness of DIA's approach to developing supplemental policies, strategies, and guidance. In addition, we examined DIA's approach to emergency preparedness training and corrective action implementation, and we reviewed the roles and responsibilities of community partners also responsible for emergency preparedness.

## REPORT HIGHLIGHTS

### Highlights from Original Audit

We found that DIA had a comprehensive system in place for emergency management, and emergency planning documents were well developed. In addition, DIA's Airport Emergency Plan (AEP) had been certified by the FAA. DIA has a staff whose sole responsibility is emergency preparedness training, and we found strong coordination and collaboration between airport personnel and first responder groups who are involved in emergency management at DIA. However, opportunities existed to strengthen some emergency response processes.

Specifically, although DIA had developed adequate supplemental guidance to support the AEP, some enhancements were needed. For example, while the Standard Operating Guidelines and Operating Instructions address specific actions to take during emergencies, these supplemental documents did not reference each other, which can impact the understanding of new users and could increase the amount of time it takes for personnel to carry out their response tasks.

In addition, there was no formal documentation of the prioritization discussions that take place when developing the training plan. Without formally documenting the analysis and decision-making processes that are carried out to create and prioritize the annual training plan, management could not ensure that they had appropriately designed and prioritized trainings.

Lastly, improvements were needed in tracking costs related to emergency activities, tracking lessons learned from emergency events, and developing policies and procedures for emergency event documentation.

### Findings at Follow-up

*The DIA Emergency Preparedness Program personnel have updated guiding documents to include lists of corresponding instructions, incorporated budget and risk analysis into their Annual Training and Exercise Plan Workshop summary, implemented a solution for sharing information between interested parties, and have improved guidance on documenting emergency events. However, improvement is still needed to the Program's methodology for determining the allocation of the budget that goes toward emergency management, and concerns about the use of the Action Items Issue Log still exist.*

For a complete copy of this report, visit [www.denvergov.org/auditor](http://www.denvergov.org/auditor)  
Or contact the Auditor's Office at 720.913.5000

# Recommendations: Status of Implementation

Recommendation	Auditee Action	Status
<b>FINDING: Minimal Process Improvements Will Strengthen Denver International Airport’s Comprehensive Emergency Preparedness Program</b>		
<p><b>1.1</b> Guidelines and Instructions – The Assistant Director of Airside Operations should update each Standard Operating Guideline to include a comprehensive list of corresponding Operating Instructions that relate to the primary emergency. In addition, the documents should be optimized for digital use.</p>	<p>The Standard Operating Guidelines have been updated to include a comprehensive list of corresponding Operating Instructions which relate to the primary emergency. DIA has also begun to research a solution to make their documents optimized for digital use.</p>	<p><b>Implemented</b></p>
<p><b>1.2</b> Annual Training Plan – The Training and Exercise Design Manager should formally document the risk and budget analysis and other decision-making justifications utilized to determine the annual training plan.</p>	<p>The Annual Training and Exercise Plan Workshop summary now includes analysis of risk and budget considerations.</p>	<p><b>Implemented</b></p>
<p><b>1.3</b> Airside Operations Budget Estimate – The Assistant Director of Airside Operations should develop a methodology to estimate the allocation of the budget that is related to each essential function, including emergency management, to assist in determining effective and efficient use of resources and staffing needs.</p>	<p>While Airside Operations has worked to detail the breakdown of time they spend on emergency management tasks, Airport Operations can still improve upon their methodologies for determining the allocation of resources needed for emergency management. Without determining how Airport Operations’ budget is allocated, it limits the City’s ability to calculate total costs of the DIA Emergency Preparedness Program.</p>	<p><b>Partially Implemented</b></p>

# Recommendations: Status of Implementation

Recommendation	Auditee Action	Status
<p><b>1.4</b></p>	<p>Action Items Issue Log – The Airport Operations Manager should enhance the Action Items Issue Log to monitor needed corrective actions identified during emergency events by including all issues in the log; ensuring that all fields are completed sufficiently; adding an actions-taken field to describe in detail how, by whom, and when each issue is resolved; and utilizing priority levels.</p>	<p><b>Partially Implemented</b></p>
<p><b>1.5</b></p>	<p>Technology Solution – The Airside Operations section and the Training and Exercise Design group should continue to work together to identify an appropriate information technology solution to securely house all of DIA’s emergency management lessons learned information in one easy-to-access location.</p>	<p><b>Implemented</b></p>
<p><b>1.6</b></p>	<p>Written Procedures – The Assistant Director of Airside Operations should develop written procedures for documenting emergency events as well as for tracking and monitoring corrective action items identified during emergency events.</p>	<p><b>Implemented</b></p>

# Conclusion

While DIA Emergency Preparedness Program personnel have fully implemented four of the six recommendations made in the DIA Emergency Preparedness Program performance audit report, two have yet to be fully implemented. Despite the DIA Emergency Preparedness Program personnel's efforts, auditors determined that the risks associated with the audit team's initial findings have not been fully mitigated. For example, in response to Recommendation 1.3, Airside Operations has made efforts to develop a methodology to calculate the allocation of their budget; however, it is still not possible for decision-makers to calculate a precise total cost of emergency management services at the airport. Therefore, we encourage Airside Operations to continue to develop their methodology for calculating the amount of their budget that goes toward emergency management. Also, in response to Recommendation 1.4, while Airside Operations made improvements to the Action Items Issue Log, they should ensure this tracking log is utilized to the fullest extent, including completely filling out each cell, incorporating the ability to trend issues across years, and separating out any on-going tasks from those that can be immediately resolved. As a result, the Audit Services Division may revisit these risk areas in future audits to ensure that appropriate corrective action is taken.

On behalf of the citizens of the City and County of Denver, we thank staff and leadership from the DIA Emergency Preparedness Program for their cooperation during our follow-up effort and their dedicated public service.