



OFFICE OF INSPECTOR GENERAL

UNITED STATES POSTAL SERVICE

Response to Extreme Weather Events — Southern Area

Audit Report

Report Number
DR-AR-17-003

April 3, 2017





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UNITED STATES POSTAL SERVICE

Highlights

Background

In 2016, the U.S. Postal Service's Southern Area was impacted by extreme weather events that inundated large areas with severe flooding, wind damage, and storm surges. Two land-based storms impacted the Houston and Louisiana districts with rapid and unpredictable flash flooding. One of the storms in Louisiana poured 7 trillion gallons of rain in the area in 3 days — three times more rain than did Hurricane Katrina. This flood has been called the worst natural disaster in the U.S. since Hurricane Sandy.

In addition, the Southern Area's Gulf Atlantic District experienced two hurricanes — Hermine and Matthew — that made landfall in or otherwise impacted the southeastern U.S., flooding large areas from Florida through the Carolinas. The Gulf Atlantic, Louisiana, and Houston districts combined account for 654 post offices containing 12,872 routes and 11,998 vehicles that deliver to 8.1 million delivery points. The extreme weather events caused damage to some postal vehicles and mail.

In the Gulf Atlantic District, two different processing and distribution centers lost power for about 2 days as a result of hurricanes making landfall. This resulted in about 1.7 million delayed mailpieces at the Tallahassee P&DC and 8.8 million delayed mailpieces at the Jacksonville P&DC over that 2-day period. Extreme weather events also impacted individual post offices.

On August 13, 2016, the Denham Springs Post Office in the Louisiana District was flooded as a result of extremely heavy localized rainstorms. The facility received heavy damage and was unable to reopen following the flooding. Thirty days prior to the flooding, the facility reported no delayed mail. The facility later reported about 422,000 delayed mailpieces.

In September 2013, the Postal Service deployed an Integrated Emergency Management Plan for customer service sites. According to Southern Area officials, this plan was updated in 2015 to include area, district, and facility management to help prepare for, respond to, and recover from emergencies.

Our objective was to evaluate the effectiveness of the Southern Area's actions to safeguard the mail and delivery vehicles in response to extreme weather events in 2016.

What the OIG Found

The Southern Area responded effectively to safeguard the mail and delivery vehicles by following its emergency management plan to mitigate the effects of extreme weather events in the Gulf Atlantic, Houston, and Louisiana districts that occurred in a 6-month time frame in 2016.

Specifically, area and district personnel implemented emergency management preparedness plans for operations, monitored the weather on a daily basis (sometimes more frequently); provided guidance to the stations prior to the event;



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monitored operations before, during, and after these extreme events; and helped restore operations.

The Gulf Atlantic District had a small amount of mail damage, but no vehicle damage. The district followed the Integrated Emergency Management Plan checklists, held table top exercises, and updated emergency contact lists to prepare for these events. They also moved vehicles from seven units to protect them from possible storm related damage. The Houston District had no mail damage or vehicle loss. The district followed the Integrated Emergency Management Plan checklist for vehicle relocations and moved vehicles at one unit as a precautionary measure.

The Louisiana District had 45 vehicles and about 165,000 mailpieces damaged or destroyed at one unit as a result of flash flooding. The district used daily telecons to monitor weather conditions and made operational decisions as needed. For example, the district moved vehicles at one unit based on changing weather conditions in the area. Unexpected flash flooding at one unit prevented unit personnel from moving vehicles; however, mail in the unit at the time of the flooding was moved to the highest point possible to prevent further damage. The Southern Area incurred \$193,871 in costs for vehicle repairs as a result of the flooding.

Postal Service management could not have anticipated the extent, severity, and speed of the flash flooding the storms produced in the Louisiana District. Southern Area management's emergency preparedness, planning, and response minimized damage to vehicles and loss of mail during these extreme weather events.

What the OIG Recommended

Southern Area management's appropriate and timely response to these weather events minimized damage and loss of mail and vehicles; therefore, we are not making any recommendations in this report.

Transmittal Letter



OFFICE OF INSPECTOR GENERAL
UNITED STATES POSTAL SERVICE

April 3, 2017

MEMORANDUM FOR: SHAUN E. MOSSMAN
VICE PRESIDENT OPERATIONS, SOUTHERN AREA

E-Signed by Janet Sorensen
VERIFY authenticity with eSign Desktop


FROM: Janet M. Sorensen
Deputy Assistant Inspector General
for Retail, Delivery and Marketing

SUBJECT: Audit Report – Response to Extreme Weather Events-
Southern Area (Report Number DR-AR-17-003)

This report presents the results of our audit of the Response to Extreme Weather Events – Southern Area (Project Number 17RG006DR000).

We appreciate the cooperation and courtesies provided by your staff. If you have any questions or need additional information, please contact Rita Oliver, director, Delivery, or me at 703-248-2100.

Attachment

cc: Vice President, Delivery Operations
Corporate Audit and Response Management

Table of Contents

Cover	1
Highlights	1
Background	1
What the OIG Found	1
What the OIG Recommended	2
Transmittal Letter	3
Table of Contents	4
Findings	5
Introduction	5
Summary	5
Response to Extreme Weather	6
Recommendations	10
Management’s Comments	10
Evaluation of Management’s Comments	10
Appendices	11
Appendix A: Additional Information	12
Background	12
Objective, Scope, and Methodology	12
Prior Audit Coverage	12
Appendix B: Management’s Comments	13
Contact Information	15

Findings

In 2016, the Southern Area was impacted by extreme weather events that inundated large areas with severe flooding, wind damage, and storm surges.

The Southern Area responded effectively to safeguard the mail and delivery vehicles by following its emergency management plan to mitigate the effects of extreme weather events in the Gulf Atlantic, Houston, and Louisiana districts .

Introduction

This report presents the results of our self-initiated audit of the U.S. Postal Service's Response to extreme weather events in the Southern Area (Project Number 17RG006DR000). Our objective was to evaluate the effectiveness of the Southern Area's actions to safeguard the mail and delivery vehicles in response to extreme weather events.

In 2016, the Southern Area was impacted by extreme weather events that inundated large areas with severe flooding, wind damage, and storm surges. Two land-based storms impacted the Houston and Louisiana districts with rapid and unpredictable flash flooding. One of the storms in Louisiana poured 6.9 trillion gallons of rain in the area in 3 days — three times more rain than Hurricane Katrina. This flood has been called the worst natural disaster in the U.S. since Hurricane Sandy.

In the Gulf Atlantic District, two different processing and distribution centers (P&DC) lost power for about 2 days as a result of hurricanes making landfall. This resulted in about 1.7 million delayed mailpieces at the Tallahassee P&DC and 8.8 million delayed mailpieces at the Jacksonville P&DC over that 2-day period. Extreme weather events also impacted individual post offices.

In August 2016 the Denham Springs Post Office in the Louisiana District was flooded in as a result of extremely heavy localized rainstorms. The facility received heavy damage and was unable to reopen following the flooding. Thirty days prior to the flooding, the facility reported no delayed mail. The facility later reported about 422,000 delayed mailpieces.

In addition, the Southern Area's Gulf Atlantic District experienced two hurricanes — Hermine and Matthew — that made landfall in or otherwise impacted the southeastern U.S., flooding large areas. The Gulf Atlantic, Louisiana, and Houston districts combined accounted for 654 post offices containing 12,872 routes and 11,998 vehicles that deliver to 8.1 million delivery points. These extreme weather events caused damage to some postal vehicles and mail.

In September 2013, the Postal Service deployed an Integrated Emergency Management Plan (IEMP) for customer service sites. According to Southern Area officials, this plan was updated in 2015 to include area, district, and facility management to help prepare for, respond to, and recover from emergencies¹.

Summary

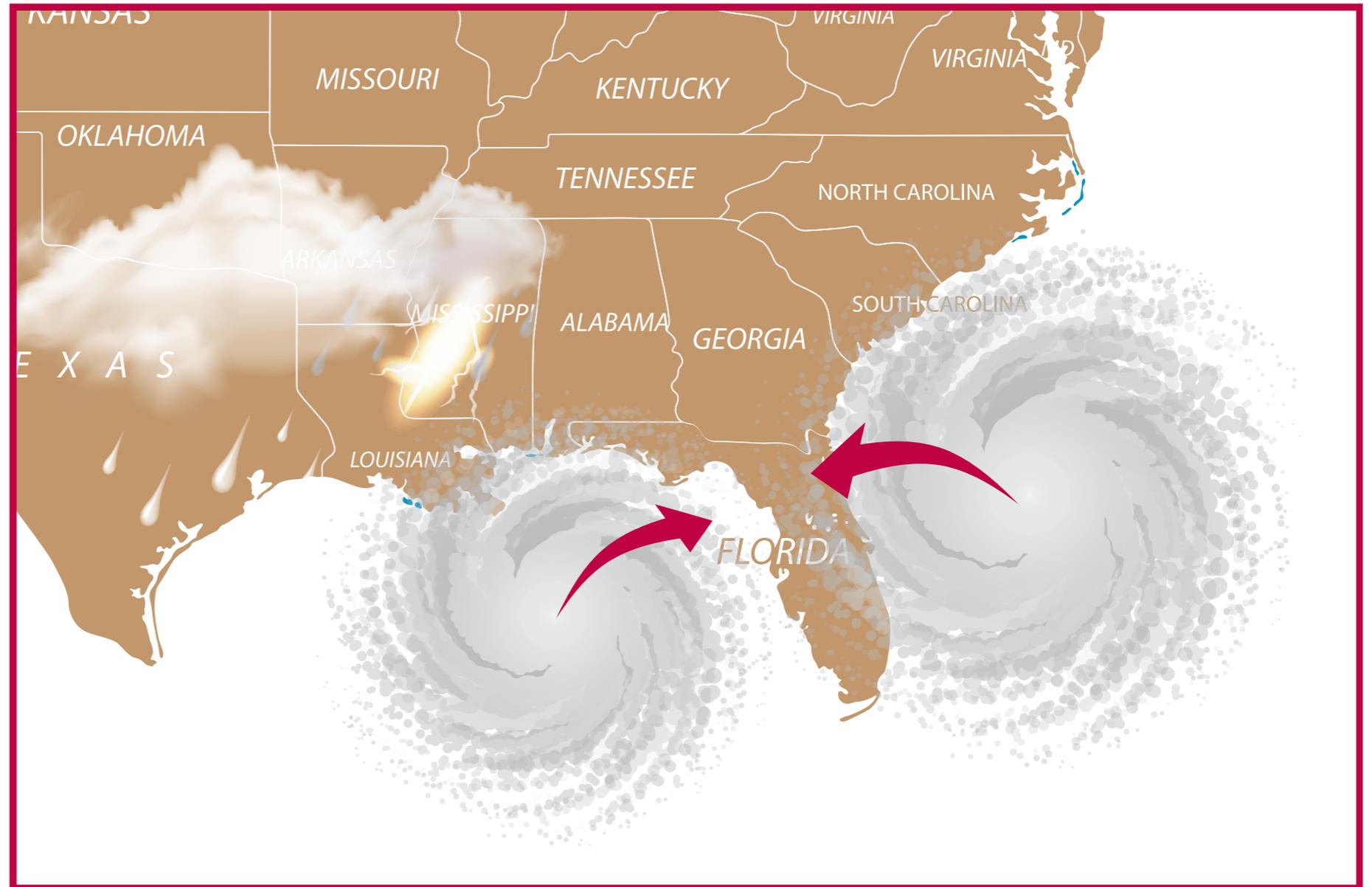
The Southern Area responded effectively to safeguard the mail and delivery vehicles by following its emergency management plan to mitigate the effects of extreme weather events in the Gulf Atlantic, Houston, and Louisiana districts that occurred in a 6-month time frame in 2016. Specifically, area and district personnel implemented emergency management preparedness plans for operations, monitored the weather daily (sometimes more frequently), provided guidance to the stations prior to the event, monitored operations before, during, and after these extreme events, and helped restore operations.

The Gulf Atlantic District had a small amount of mail damage, no vehicle damage and followed the IEMP checklists. The district held table top exercises, and updated emergency contact lists to prepare for these events. They also moved vehicles from seven units to protect them from possible storm related damage. The Houston District had no mail damage or vehicle loss and followed the IEMP checklist for vehicle relocations and moved vehicles as a precautionary measure.

The Louisiana District had 45 vehicles and about 165,000 mail pieces damaged or destroyed at one unit as a result of flash flooding. The district used daily telecons to monitor weather conditions and made operational decisions as needed. For example,

¹ The IEMP covers all hazards.

the district moved vehicles at one unit based on changing weather conditions in the area. Unexpected flash flooding at one unit prevented unit personnel from moving vehicles; however, mail was moved to the highest point possible to prevent further damage. The Southern Area incurred \$193,871 in costs for vehicle repairs as a result of the flooding.



Response to Extreme Weather

The Southern Area responded effectively to safeguard the mail and delivery vehicles by following its emergency management plan to mitigate the effects of extreme weather events (two hurricanes and major flooding) in the Gulf Atlantic, Houston, and Louisiana districts that occurred within a 6-month time frame in 2016. Specifically, area and district personnel implemented emergency management preparedness plans for operations, monitored the weather daily (sometimes more frequently), provided guidance to the stations prior to the event, monitored operations before, during, and after these extreme events, and helped restore operations. The Gulf Atlantic District had a small amount of mail damage (less than 250 pieces in two locations), but no vehicle damage. The Houston District had no mail damage or no vehicle loss. The Louisiana District had 45 vehicles and about 165,000 mail pieces damaged or destroyed as a result of the flash flooding.

The Louisiana District monitored weather and flood conditions at about 136 facilities (post offices, stations, and processing facilities). Management used Mobile Delivery Devices, which use a cellular network and Global Positioning System technology, to communicate with carriers during these weather conditions. However, due to the speed of flood waters and how high they rose, some vehicles could not be moved to higher ground in time and some mail was damaged as a result. Specifically, 45 of 3,455 vehicles in the district were damaged due to flood waters (see Figures 1 and 2).

Figure 1. Water Line Visible on Windshields of Long Life Vehicles



Denham Springs, LA, August 2016.
Provided to the U.S. Postal Service Office of Inspector General (OIG) by Postal Service management on December 1, 2016.

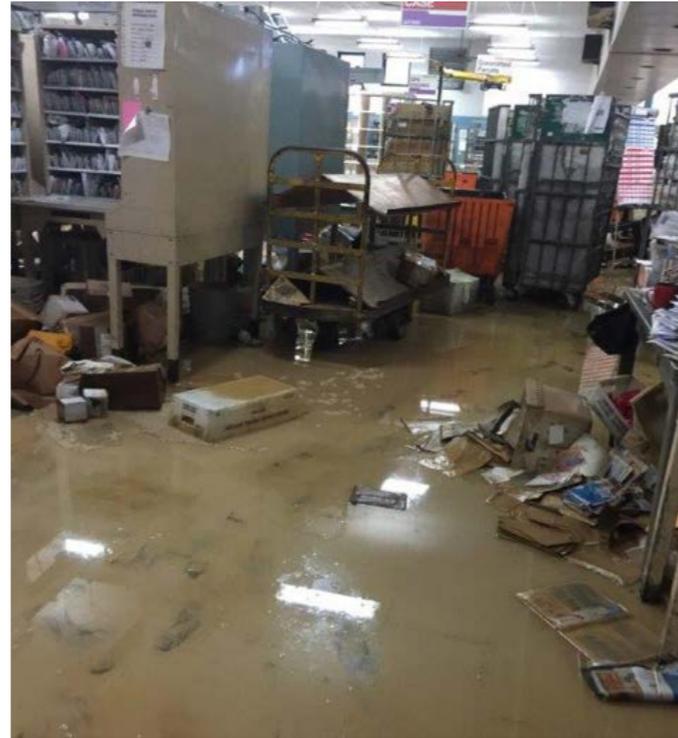
Figure 2. Long Life Vehicles with Tire and Board on Mirror



Denham Springs, LA, August 2016.
Provided to the OIG by Postal Service management on December 1, 2016.

After flood waters receded, management ensured that all damaged delivery vehicles were repaired prior to being returned to service. The area incurred \$193,871 in costs for these repairs at a Louisiana facility. In addition, about 150,000 letters and 15,000 parcels were damaged (see Figures 3 and 4).

Figure 3. Denham Springs Post Office — Flooded Interior



Denham Springs, LA, August 2016.
Provided to the OIG by Postal Service management on December 1, 2016.

Figure 4. Denham Springs Post Office — Flooded Workroom Floor



Denham Springs, LA, August 2016.
Provided to the OIG by Postal Service management on December 1, 2016.

All three districts monitored weather conditions and communicated operational decisions with field locations on daily telecons.

Postal Service management could not have anticipated the extent, severity, and speed of the flash flooding the storms produced in the impacted districts. Management followed Postal Service policy² in designating alternate storage facilities not prone to the same type of potential hazards, for staging mail in the event of an emergency and proactively relocating vehicles if time permits to safeguard them from damage. All three districts moved vehicles to alternate locations ahead of the weather events. The Gulf Atlantic District moved vehicles from seven sites ahead of the hurricane and the Houston and Louisiana districts moved vehicles from one site during their flooding events. All three districts monitored weather conditions and communicated operational decisions with field locations on daily telecons. Due to these actions, the Gulf Atlantic District only had a small amount of mail damage, but no vehicle damage and the Houston District had no mail damage or vehicle loss. The Louisiana District had 45 vehicles and about 165,000 mail pieces damaged or destroyed as a result of the flash flooding.

² *User's Guide Integrated Emergency Management Module*, Section 4.8, February 2, 2016.

Recommendations

The Southern Area's response, actions, and compliance with emergency management preparedness guidance minimized the loss of mail, reduced vehicle damage, quickly restored operations, and protected employees in the affected facilities; therefore, we are not making any recommendations in this report.

Management's Comments

Management agreed with the finding in our report and stated that they appreciate our recognition of the Southern Area's efforts in addressing extreme weather events in 2016, and will continue to look for opportunities to improve their processes. In their response, management requested that we add language stating that the Postal Service updated the IEMP in 2015 and that it covers all hazards.

See [Appendix B](#) for management's comments in their entirety.

Evaluation of Management's Comments

The OIG considers management's comments responsive to the finding in this report. Regarding management's request to add language regarding the IEMP update, we have clarified our report accordingly.

Appendices

*Click on the appendix title
to the right to navigate
to the section content.*

Appendix A: Additional Information	12
Background	12
Objective, Scope, and Methodology	12
Prior Audit Coverage.....	12
Appendix B: Management’s Comments.....	13

Appendix A: Additional Information

Background

The Postal Service operates one of the largest vehicle fleets in the U.S. In 2016, there were over 218,000 vehicles used primarily to deliver and collect over 154 billion pieces of mail at more than 35,000 retail units. During 2016, the Southern Area experienced extreme weather in several districts due to intense rain systems and hurricanes. These weather events resulted in heavy flooding in the Houston, Louisiana, and Gulf Atlantic districts, impacting postal operations across these districts.

In 2016, the Southern Area experienced severe storms that inundated large areas with severe flooding, wind damage, and storm surges. Two land-based storms impacted Houston and southern Louisiana with very rapid and unpredictable flash flooding. For example, the Louisiana storm dumped 7 trillion gallons of rain in the area in three days, three times as much rain as Hurricane Katrina. It has been called the worst natural disaster in the U.S. since Hurricane Sandy by major news affiliates and an official for the Red Cross.

In addition, two hurricanes — Hermine and Matthew — hit the East Coast, flooding large areas of Florida through the Carolinas. The storms in Louisiana seriously damaged some postal facilities, vehicles, and mail, impacting employees in those areas as well.

In the Gulf Atlantic District, two different P&DCs lost power for about 2 days as a result of hurricanes making landfall. This resulted in about 1.7 million delayed mailpieces at the Tallahassee P&DC and 8.8 million delayed mailpieces at the Jacksonville P&DC over that 2-day period. Extreme weather events also impacted individual post offices.

In the Louisiana District, the Denham Springs Post Office was flooded on August 2016 as a result of extremely heavy localized rain storms. The facility received heavy damage and was unable to reopen following the flooding. Thirty days prior to the flooding, the facility reported no delayed mail. The facility later reported about 422,000 delayed mailpieces.

Objective, Scope, and Methodology

Our objective was to evaluate the effectiveness of the Southern Area's actions to safeguard the mail and delivery vehicles in response to extreme weather events. We met with area, district, and local personnel to accomplish our objective. We reviewed information they provided to determine actions taken. We also reviewed Solution for Enterprise Asset Management (SEAM) data to assess vehicle damage and costs.

We conducted this performance audit from October 2016 through April 2017, in accordance with generally accepted government auditing standards and included such tests of internal controls as we considered necessary under the circumstances. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives. We discussed our observations and conclusions with management on February 28, 2017, and included their comments where appropriate.

We assessed the reliability of SEAM data by reviewing existing information about the data and the systems that produced them. We determined that the data were sufficiently reliable for the purposes of this report.

Prior Audit Coverage

The OIG did not identify any prior audits or reviews related to the objective of this audit.

Appendix B: Management's Comments

SHAUN E. MOSSMAN
VICE PRESIDENT, AREA OPERATIONS
SOUTHERN AREA



March 17, 2017

LORI LAU DILLARD
DIRECTOR, AUDIT OPERATIONS

SUBJECT: Draft Audit Report-Response to Extreme Weather Events Southern Area
Report Number DR-AR-17-DRAFT

The Southern Area appreciates acknowledgement of our efforts to address the challenges associated with the extreme weather events in 2016. The emergency preparedness teams for the Districts and the Southern Area were able to mitigate the effects of the weather events to the Postal Service, our employees, and our customers. We continue to look for opportunities to improve our processes.

We would like to provide an update to the paragraph on the first page after the cover page, and partially duplicated, again, on Page 1 that states;

In September 2013, the Postal Service deployed an Integrated Emergency Management Plan (IEMP). This plan is designed to help area, district, and facility management prepare for, respond to, and recover from emergencies. Headquarters is in the process of updating the plan for other emergency events such as fire and tornados.

We request the updated paragraph to read:

In 2015, the Postal Service deployed an updated Integrated Emergency Management Plan (IEMP) which is designed to help area, district, and facility management prepare for, respond to, and recover from emergencies. The IEMP covers all hazards.

Please let me know if I can assist further.



for Shaun E. Mossman

cc: Mike L. Barber, Manager, Operations Support
Tammy J. Rose, Area Controller
Michael Halbrooks, Manager, National Preparedness
Manager, Corporate Audit and Response Management

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