CITY OF SAN ANTONIO OFFICE OF THE CITY AUDITOR



Follow-Up Audit of Police and Fire Departments

9-1-1 Operations and Response Time Reporting

Project No. AU18-F10

December 17, 2018

Kevin W. Barthold, CPA, CIA, CISA City Auditor

As part of our annual Audit Plan approved by City Council, we conducted a follow-up audit of the recommendations made in the *Audit of Police and Fire Departments 9-1-1 Operations and Response Time Reporting* report dated December 21, 2016. The objective for this follow-up audit is:

Determine if prior audit recommendations are successfully implemented and working as intended.

We determined that seven of 12 action plans were successfully implemented.

The San Antonio Police Department (SAPD) and San Antonio Fire Department (SAFD) have collaborated to develop and test a joint business continuity plan for the 9-1-1 call center, increase public education on the use of 9-1-1, and implement an interlocal agreement with Bexar Metro 9-1-1 that outlines responsibilities and roles related to 9-1-1 operations.

Additionally, the SAPD has successfully implemented three department-specific action plans. The SAPD adjusted call center staffing levels to meet call answering standards, implemented controls to ensure that Criminal Justice Information Services (CJIS) mandated security training is completed and properly documented, and developed and implemented a call quality review process.

The SAFD has successfully implemented its action plan to adopt a formal standard for answering calls. The SAFD has also partially implemented three action plans relating to reducing call answer times, implementing a call quality review process, and reporting emergency response times; however, additional effort is needed.

Two action plans were not implemented. The SAPD did not implement the action plan relating to reported response times. Additionally, the SAFD did not implement adequate controls to ensure that their personnel meet CJIS Security Policy requirements pertaining to background checks.

Status of Recommendations/Action Plans						
Implemented	7					
Partially Implemented	3					
Not Implemented	2					
Total	12					

A summary of the prior audit recommendations and current statuses is in Appendix A on page 15.

SAPD and SAFD management agreed with the audit findings and developed positive action plans to address them. Management's verbatim response is in Appendix C on page 18.

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Background

In December of 2016, the Office of the City Auditor completed an audit of 9-1-1 operations and response time reporting. The objectives and conclusions of the audit were as follows:

Determine if the City's 9-1-1 call answering process is properly managed.

The Office of the City Auditor concluded that the City's call answering process was properly managed. However, 11 recommendations were made to further strengthen existing controls and processes surrounding the 9-1-1 call answering process.

Determine if the Police and Fire Departments' response times are accurately calculated and properly reported.

The Office of the City Auditor concluded that the Police and Fire Departments' response times were accurately calculated and properly reported based on the departmental reporting models in use. However, two recommendations were made to further enhance transparency and accuracy.

SAPD and SAFD management agreed with the conclusions and developed action plans to address 12 of the 13 audit recommendations. The SAFD declined an audit recommendation to reduce staffing costs in the call answering process by incorporating civilian call takers and dispatchers.

Audit Scope and Methodology

The audit scope was limited to the recommendations and corrective action plans made in the original report for January 2017 through February 2018, as well as current and/or continuing activities observed during the audit (e.g. public education and business continuity planning).

We interviewed management and staff from SAPD and SAFD. Testing criteria included the FBI's *Criminal Justice Information Services (CJIS) Security Policy, Version 5.6* and National Emergency Number Association (NENA) standards.

We relied on computer-processed data and reports from SAP, the 9-1-1 Computer Aided Dispatch System, and eCATS (the call answering reporting system) to validate progress on action plans. Our reliance was based on performing direct tests on the data rather than evaluating the system's general and application controls. We do not believe that the absence of testing general and application controls had an effect on the results of our audit.

We conducted this follow-up audit in accordance with generally accepted government auditing standards. 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.

Prior Audit Recommendations and Status

A. General 9-1-1 Call Center Results

The prior audit identified the following areas that the SAPD and SAFD should address to further strengthen existing controls and processes surrounding the 9-1-1 call answering process.

A.1 Business Continuity Plan

Prior Recommendation:

The Police Chief and the Fire Chief should develop, document, and test a joint business continuity plan for the 9-1-1 call center.

Status: Implemented

The City has an adequate, up-to-date business continuity plan for 9-1-1 call center operations. Bexar Metro 9-1-1's call center will serve as an alternate location if the City's call center is inoperable. Additionally, the SAPD and the SAFD have coordinated with the City of Austin to temporarily route calls to Austin's 9-1-1 call center if needed.

To expeditiously resume operations in the event that they are disrupted, the SAPD and the SAFD participate in ongoing planning activities including training and testing of alternative procedures. SAPD and SAFD personnel are familiar with Bexar Metro 9-1-1's call center and have performed call taking and dispatch functions from that location. Additionally, periodic tests are performed to verify that calls can be routed to Austin. The SAPD and the SAFD have also created detailed written instructions to assist staff.

A.2 Public Education on the Use of 9-1-1

Prior Recommendation:

The Police Chief and the Fire Chief should develop an outreach plan to educate the public on appropriate use of 9-1-1 and non-emergency numbers. This effort could include public service announcements, city highway billboards, updating city websites, and social media.

Status: Implemented

The City has provided public outreach and education regarding the appropriate use of 9-1-1. Specifically, the SAPD and the SAFD coordinated with the City's Government and Public Affairs Department to create a series of videos that provided humorous examples of when not to call 9-1-1. These videos were shared on YouTube in February 2018 and viewed via FaceBook and various news websites.

A.3 Service Level Agreement with Bexar Metro 9-1-1

Prior Recommendation:

The City and the Bexar Metro 9-1-1 Network District should formalize responsibilities, expectations, obligations, and the nature of their arrangement through a defined service level agreement or memorandum of understanding.

Status: Implemented

The City formalized an interlocal agreement with Bexar Metro 9-1-1. The agreement, which was implemented in December 2016, outlines responsibilities and roles related to the 9-1-1 system and call centers.

B. San Antonio Police Department Results

The prior audit identified the following areas that the SAPD should address to further strengthen existing controls and processes surrounding the 9-1-1 call answering process.

B.1 Police Staffing Levels

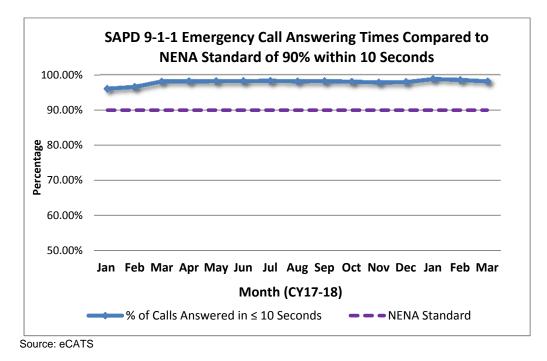
Prior Recommendation:

The Police Chief should increase and adjust staffing levels and schedules to meet NENA and internal call answering standards for emergency and non-emergency calls.

Status: Implemented

The SAPD is meeting NENA and internal call answering standards for emergency and non-emergency calls. The improvement in call answering times is the result of significant increases in staffing levels that have continued through 2018. The department doubled the number of call takers and increased the number of dispatcher and supervisor positions at the call center.

The NENA standard for answering calls is 90 percent of all emergency calls answered in 10 seconds or less. As illustrated below, the SAPD is now consistently meeting this standard:

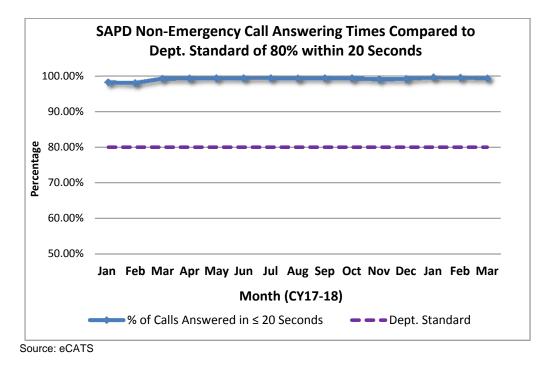


Within the last three years, the SAPD improved from answering less than 60 percent of emergency calls within 10 seconds to answering almost all emergency calls within 10 seconds:

SAPD Emergency Calls Answered within 10 Seconds						
Year Percentage						
2015	58.24%					
2016	87.60%					
2017	97.92%					
2018, 1 st Qtr.	98.56%					

Source: eCATS

Additionally, the SAPD is consistently meeting the goal of answering 80 percent of non-emergency calls in in 20 seconds or less:



Since 2015, response times for non-emergency calls has improved from answering less than 70 percent within 20 seconds to answering nearly 100 percent within 20 seconds:

SAPD Non-Emergency Calls Answered within 20 Seconds								
Year	Year Percentage							
2015	68.25%							
2016	91.64%							
2017	99.24%							
2018, 1 st Qtr.	99.61%							

Source: eCATS

B.2 CJIS Security Training

Prior Recommendation:

The Police Chief should:

1) Verify that every employee working in the call center has completed the required CJIS security awareness training.

2) Develop and maintain a sufficient documentation process (including backup records) of all required training.

Status: Implemented

The SAPD has adequate controls to ensure that CJIS mandated security training is completed every two years and properly documented.

The SAPD created a detailed manual to facilitate the process. A training log is used for monitoring, and certificates of completion document that training was received. We tested a random sample of 30 employees in a population of approximately 260 and verified that training was current and adequately documented.

B.3 Call Quality Review

Prior Recommendation:

The Police Chief should develop and implement a call quality review process that: 1) regularly reviews calls for compliance to standards, and 2) provides feedback on a regular basis to individual call takers.

Status: Implemented

The SAPD developed and implemented a call quality review process. Policies and procedures were created to ensure a consistent and continuous review of call quality.

We tested a random sample of 25 call takers in a population of approximately 120 for the months of December 2017 through February 2018. For all 25 call takers, semimonthly call quality reviews were performed.

The SAPD also plans to expand the quality review process to dispatchers and expediters.

B.4 Emergency Response Times

Prior Recommendation:

The Police Chief should:

1) Expand the police response time definition of an emergency to include all life-threatening events.

2) Expand the categories of responses reported (life-threatening, non-life threatening in progress, non-life-threatening, other service requests, etc.).

Status: Not Implemented

While SAPD's management response included an action plan to modify its reporting of response times to include three categories (two emergency and one non-emergency), the changes have not been implemented. Instead, the SAPD continues to use a narrow definition of what constitutes an emergency when reporting response times to the public. The following types of crimes are currently included:

- Officer/EMS in trouble in progress
- Officer in trouble in progress
- Rape in progress
- Robbery in progress
- Robbery of individual in progress
- Shooting In progress
- Cutting in progress

Other life-threatening events such as assault in progress, suicide in progress, hold-up alarm in progress, etc., are excluded from the emergency response times reported to the public.

Updated Recommendation

The Police Chief should ensure the prior recommendation is implemented by updating the categories of responses reported. Life threatening emergencies that are not included in the current definition of an emergency should be added or reported as a separate category (e.g. Emergency Calls, Code 2).

C. San Antonio Fire Department Results

The prior audit identified the following areas that the SAFD should address to further strengthen existing controls and processes surrounding the 9-1-1 call answering process.

C.1 Formal Call Taking Standards

Prior Recommendation:

The Fire Chief should evaluate and formally adopt a standard such as the NENA standard for call taking operations.

Status: Implemented

The SAFD has adopted a formal standard for answering calls.

The National Emergency Number Association (NENA) Standard/Model Recommendation was formally adopted and communicated to staff via a division order in August 2016.

The SAFD adopted standard for call answering states that "ninety percent (90%) of all 9-1-1 calls arriving at the Public Safety Answering Point (PSAP) shall be answered within ten (10) seconds during the busy hour (the hour each day with the greatest call volume, as defined in the NENA Master Glossary 00-001). Ninety-five (95%) of all 9-1-1 calls should be answered within twenty (20) seconds."

C.2 Fire Department 9-1-1 Call Center Staffing Levels

Prior Recommendation:

The Fire Chief should adjust staffing levels and schedules to meet the NENA call answering standards for emergency calls and the Fire Department's informal standard of 80 percent in 20 seconds for non-emergency calls. This may include, but is not limited to:

1) Reducing downtime, particularly during high call volume times.

2) Moving to a standard 8-, 10-, or 12-hour shift.

3) Increasing staffing levels to cover normal employee vacancies and unscheduled time off.

Status: Partially Implemented

The SAFD has improved call answering times; however, they have not reached compliance with the NENA call answering standard for emergency calls or their own standard for non-emergency calls.

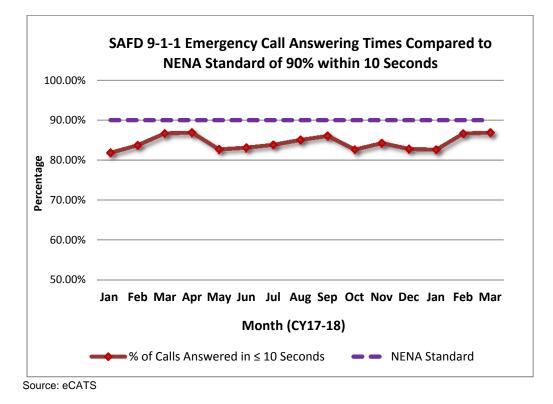
The SAFD 9-1-1 call center staffing levels and shift structure are not sufficient to adequately meet call demand. The SAFD added one additional call taker position.

The NENA standard for answering calls is 90 percent of all emergency calls answered in 10 seconds or less. As illustrated below, the SAFD has made progress reaching the standard, but additional effort is needed:

SAFD Emergency Calls Answered within 10 Seconds						
Year	Percentage					
2015	63.29%					
2016	79.65%					
2017	84.13%					
2018, 1 st Qtr.	85.26%					

Source: eCATS

Between January 2017 and March 2018, the SAFD answered between 81 percent and 87 percent of emergency calls within 10 seconds:

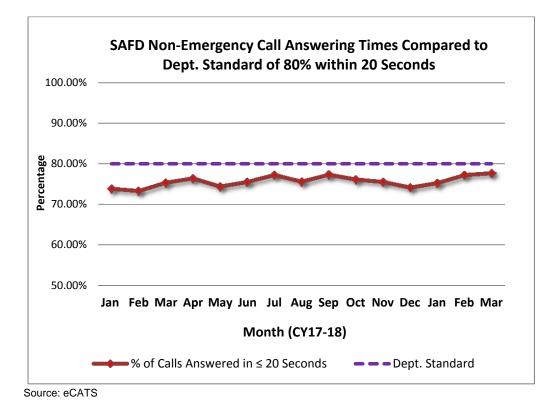


The SAFD's goal for non-emergency calls is answering 80 percent in 20 seconds or less. However, the department has not yet reached that standard:

SAFD Non-Emergency Calls Answered within 20 Seconds						
Year Percentage						
2015	72.14%					
2016	73.34%					
2017	75.38%					
2018, 1 st Qtr.	76.65%					

Source: eCATS

Between January 2017 and March 2018, the SAFD has consistently only answered between 73 percent and 78 percent of non-emergency calls within 20 seconds:



Updated Recommendation

The Fire Chief should continue to adjust staffing levels and/or schedules to meet the NENA call answering standards for emergency calls and the Fire Department's informal standard of 80 percent in 20 seconds for non-emergency calls. This may include, but is not limited to:

1) Reducing downtime, particularly during high call volume times.

2) Moving to a standard 8-, 10-, or 12-hour shift.

3) Increasing staffing levels to cover normal employee vacancies and unscheduled time off.

C.3 CJIS Criminal History Reviews

Prior Recommendation:

The Fire Chief should develop a process to periodically (at least every five years) perform background checks on existing personnel working in the 9-1-1 call center.

Status: Not Implemented

The SAFD has not implemented adequate controls to ensure that background checks are performed for their 9-1-1 call center personnel.

We tested the population of 62 SAFD employees who were assigned to the 9-1-1 call center and determined that 42 of the employees had the required background checks, while seven employees (newly assigned to the area) were being processed for background checks. However, for the remaining 13 employees, background checks were not documented. Additionally, for three of the 42 employees with background checks, documentation was not adequate to clear potentially disqualifying events.

In a May 2018 Division Memo, the SAFD outlined policies and procedures to improve compliance with the CJIS Security Policy's minimum requirements relating to background checks and training. Under the SAFD policy, background checks will be conducted every three years, with the next set of periodic checks occurring in 2019. Additionally, staff new to the division will have background checks as part of the application process.

Updated Recommendation

The Fire Chief should verify that background checks are performed at the time of application and periodically thereafter for all SAFD 9-1-1 call center personnel. Additionally, any results that might impact the SAFD's CJIS compliance should be promptly addressed.

C.4 Call Quality Review

Prior Recommendation:

The Fire Chief should develop and implement a call quality review process that: 1) regularly reviews calls for compliance with standards, and 2) provides feedback on a regular basis to individual call takers.

Status: Partially Implemented

The SAFD has made progress implementing a call quality review process. Policies and procedures were created to ensure a consistent and continuous review of call quality. However, the frequency of quality assurance reviews does not yet meet the department's policy of one quality review per month for all call takers.

We tested a random sample of 25 call takers for the months of December 2017 through February 2018. For 14 of 25 call takers, no quality assurance reviews were found. For the other 11, quality assurance reviews were only available for

one of the three months. Additionally, the review forms lack signatures to show supervisors communicated outcomes of evaluations with call takers.

The SAFD has purchased quality assurance software which should facilitate the performance of quality assurance reviews. According to SAFD management, the software should be implemented in fiscal year 2019. Future plans also include incorporating reviews for the dispatcher function.

Updated Recommendation

The Fire Chief should continue to implement a call quality review process that: 1) regularly reviews calls for compliance with standards, and 2) provides feedback on a regular basis to individual call takers.

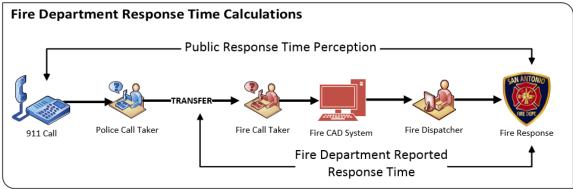
C.5 Reported Emergency Response Times

Prior Recommendation:

The Fire Chief should track and report the average initial answer and Police call process times for medical and fire related calls as an element of the Fire Department's response time reporting to the public.

Status: Partially Implemented

The SAFD's reported emergency response times exclude the initial answer and Police call process times as shown in the diagram below:



Source: OCA

According to SAFD management, SAPD regularly provides this data to the SAFD. However, the SAFD does not report the SAPD portion of fire and medical service response times to the public.

Updated Recommendation

The Fire Chief should report the average initial answer and Police call process times for medical and fire related calls as an element of the Fire Department's response time reporting to the public.

Appendix A – Recommendation Status Summary

No.	Original Report Recommendation	Current Status
San A	Antonio Police and Fire Departments	
1	A.1 The Police Chief and the Fire Chief should develop, document, and test a joint business continuity plan for the 9-1-1 call center.	Implemented
2	The Police Chief and the Fire Chief should develop an outreach plan to educate the public on appropriate use of 9-1-1 and non-emergency numbers. This effort could include public service announcements, city highway billboards, updating city websites, and social media.	Implemented
3	The City and the Bexar Metro 9-1-1 Network District should formalize responsibilities, expectations, obligations, and the nature of their arrangement through a defined service level agreement or memorandum of understanding.	Implemented
San A	Antonio Police Department	
4	The Police Chief should increase and adjust staffing levels and schedules to meet NENA and internal call answering standards for emergency and non- emergency calls.	Implemented
5	 The Police Chief should: 1) Verify that every employee working in the call center has completed the required CJIS security awareness training. 2) Develop and maintain a sufficient documentation process (including backup records) of all required training. 	Implemented
6	The Police Chief should develop and implement a call quality review process that: 1) regularly reviews calls for compliance to standards, and 2) provides feedback on a regular basis to individual call takers.	Implemented
7	 The Police Chief should: 1) Expand the police response time definition of an emergency to include all life-threatening events. 2) Expand the categories of responses reported (life-threatening, non-life threatening in progress, non-life-threatening, other service requests, etc.). 	Not Implemented

Appendix A – Recommendation Status Summary (cont.)

No.	Original Report Recommendation	Current Status
San A	ntonio Fire Department	
8	The Fire Chief should evaluate and formally adopt a standard such as the NENA standard for call taking operations.	Implemented
9	 The Fire Chief should adjust staffing levels and schedules to meet the NENA call answering standards for emergency calls and the Fire Department's informal standard of 80 percent in 20 seconds for non-emergency calls. This may include, but is not limited to: 1) Reducing downtime, particularly during high call volume times. 2) Moving to a standard 8-, 10-, or 12-hour shift. 3) Increasing staffing levels to cover normal employee vacancies and unscheduled time off. 	Partially Implemented
10	The Fire Chief should develop a process to periodically (at least every five years) perform background checks on existing personnel working in the 9-1-1 call center.	Not Implemented
11	The Fire Chief should develop and implement a call quality review process that: 1) regularly reviews calls for compliance with standards, and 2) provides feedback on a regular basis to individual call takers.	Partially Implemented
12	The Fire Chief should track and report the average initial answer and Police call process times for medical and fire related calls as an element of the Fire Department's response time reporting to the public.	Partially Implemented

Appendix B – Staff Acknowledgement

Mark Bigler, CPA-UTAH, CISA, CFE, Audit Manager Rebecca Moulder, CIA, CISA, Auditor in Charge Sheryl Wardashki, CPA, Auditor Daniel Kuntzelman, CIA, Auditor

City /	W. Barthold, CPA, CIA, CISA				
San	Auditor Antonio, Texas				
RE:	Management's Acknowledgment a and Fire Departments 9-1-1 Operat	ind Corre tions and	ctive Action Response Ti	Plan for the Follo me Reporting	w-Up Audit of Police
\boxtimes	Fully Agree (provide detailed corr	nments)			
	Agree Except For (provide detaile	ed comme	ents)		
	Do Not Agree (provide detailed c	omments)		
SAPI belov	D and SAFD have reviewed the aud v for the five updated recommenda	dit report a tions.	and have dev	eloped the Correct	tive Action Plans
		Recomm	endation		
	Description	Audit Report Page	Accept, Decline	Responsible Person's Name/Title	Completion Date
#	Emergency Response Times	, age			

Appendix C – Management Response

Appendix C – Management Response (cont.)

#	Description	Audit Report Page	endation Accept, Decline	Responsible Person's Name/Title	Completion Date
	Action plan: With the reformulation of comput- times in this sub-category can no 1 October, the average citywide (Emergency response times durin seconds while responses to all ca metrics are and will continue to b Leadership and the community.	w be calc Code 2 re g the san alls were	culated. Curr sponse time ne reporting 18 minutes a	ently for 2018 for 1 is 11 minutes 35 s period were 6 minu nd 8 seconds. The	January through econds. Average ites and 48 ese Code 2
2	Fire Department 9-1-1 Call Center Staffing Levels The Fire Chief should continue to adjust staffing levels and/or schedules to meet the NENA call answering standards for emergency calls and the Fire Department's informal standard of 80 percent in 20 seconds for non-emergency calls. This may include, but is not limited to: 1) Reducing downtime, particularly during high call volume times. 2) Moving to a standard 8-, 10-, or 12-hour shift. 3) Increasing staffing levels to cover normal employee vacancies and unscheduled time off.	11	Accept	Assistant Chief Valerie Frausto, SAFD Support Services	COMPLETED One additional Call Taker/Dispatche included in daily manpower, effective July, 1 2018
	Action plan: SAFD has maintained an averag seconds over the last three mont of staffing and schedules. This is average of 78.9% answer times. current level in order to meet the	hs (July 1 a signific SAFD Co	I through Sep cant increase	over the previous over the previous as will continue ope	by management nine month erating at this

Appendix C – Management Response (cont.)

		Recomm	endation		
#	Description	Audit Report Page	Accept, Decline	Responsible Person's Name/Title	Completion Date
3	CJIS Criminal History Reviews The Fire Chief should verify that background checks are performed at the time of application and periodically thereafter for all SAFD 9-1-1 call center personnel. Additionally, any results that might impact the SAFD's CJIS compliance should be promptly addressed.	12	Accept	Assistant Chief Valerie Frausto, SAFD Support Services	Baroad borrador
	condition of employment for SAF	D person	nel assigned	CJIS compliance in to the Communication	tions Division
4	condition of employment for SAF Upon notice of noncompliance, a the 911 call center. Call Quality Review The Fire Chief should continue to implement a call quality review process that: 1) regularly reviews calls for compliance with standards, and 2) provides feedback on a regular basis to individual call takers.	D personi ffected S/	nel assigned	to the Communica	tions Division

Appendix C – Management Response (cont.)

		Recomm	endation		
#	Description	Audit Report Page	Accept, Decline	Responsible Person's Name/Title	Completion Date
5	Reported Emergency Response Times The Fire Chief should report the average initial answer and Police call process times for medical and fire related calls as an element of the Fire Department's response time reporting to the public.	14	Accept	Assistant Chief Valerie Frausto, SAFD Support Services	Division with a "PD Call Transfer Time Report" on the 1 st of every
	Action plan: Police Department call takers are Fire dispatchers. The transfer tim dispatchers will be tracked and re process is efficiently executed. T Management and Budget, and w	eported se hese tran	en the Police eparately on sfer times ar	e Call Takers and F a regular basis to e re reported to the C	fer of 911 call Fire Departme ensure the office of

We are committed to addressing the recommendations in the audit report and the plan of actions presented above.

Sincerely,

William McManus Police Chief San Antonie Fire Department

Date

Date

Charles N. Hood Fire Chief San Antonio Fire Department

ala

Elik Walsh Deputy City Manager City Manager's Office

12/7/18 Date