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Sheriff's Office Patrol Audit

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*Internal Audit Report Authorized by the
Maricopa County Board of Supervisors*

Report Highlights	Page
Sheriff's Office (MCSO) is establishing procedures to measure demand for services to align resources accordingly.	1
MCSO will improve procedures for managing and reviewing use-of-force incidents.	2
MCSO's body-worn camera policy aligns with applicable law and industry standards.	4
MCSO is improving procedures for managing body-worn camera videos, ensuring compliance with policy, and tracking related equipment.	5
MCSO will revise its off-duty employment policy to define procedures and improve oversight.	8
MCSO will strengthen controls over the computer aided dispatch system and Evidence.com (web-based system used to manage body-worn camera videos).	10

Background

The Maricopa County Sheriff's Office (MCSO) provides law enforcement services to the general public within County patrol districts, including lakes, County parks, and contracted cities. A component of this service is the Patrol Bureau, with a fiscal year (FY) 2017 expenditure budget of \$26 million, and over 360 sworn officers. The Patrol Bureau's primary purposes are to: provide 24-hour, preventative enforcement coverage; a prompt response to protect the general public from criminal activity; and, respond to public safety emergencies.

MCSO off-duty employment is secondary employment, in which an employee (typically a sworn officer), receives compensation for working in an enforcement, non-enforcement, or security capacity.

Objectives

To determine that:

- MCSO's allocation of patrol resources is consistent with demand and County strategic goals.
- MCSO Patrol Bureau manages use-of-force in accordance with policy and industry standards.
- MCSO manages body-worn cameras in accordance with policy.
- MCSO manages off-duty employment in accordance with policy and key industry standards.

MCSO has implemented key general and application information technology (IT) controls over the Computer Aided Dispatch and Evidence.com information systems.

Scope

Our testing included operational reviews of MCSO Patrol activities, including: (1) resource allocation, (2) use-of-force incidents, (3) body-worn cameras, (4) off-duty employment, and (5) related IT functions.

The audit period was determined by the audit test performed. In general, our work covered activities from July 2014 through August 2016.

To achieve our objectives, we reviewed state statutes, state regulations, national standards, and County policies and procedures. We interviewed MCSO personnel; toured facilities; examined records, reports, and processes; and performed appropriate test work.

Audit Results

Issue #1: Patrol Resource Allocation – Demand for Services

Observation: It is MCSO’s policy to ensure that patrol coverage is sufficient to enforce the law and preserve the peace in the communities that it serves. However, we found that MCSO does not have formal procedures to measure demand for these services and align resources accordingly. Routine measurement of patrol service demand is limited to call response times for priority-one (most urgent) calls. While critical, these calls account for less than 4% of all patrol-related incidents, and may not accurately reflect service demands and patrol coverage performance.

Conclusion #1A: Procedures to determine demand for services, and to align resources with demand, need to be developed.	
Recommendations	MCSO Action Plan
1A-1 Design and implement formal procedures to determine patrol coverage needs. Include methodologies to appropriately allocate resources.	Concur – in progress Currently researching industry best practices and methodologies. Target Date: 11/30/2017
1A-2 Ensure the Computer Aided Dispatch system is capable of capturing and providing data that will be included in metrics designed to measure patrol coverage needs.	Concur – in progress Once coverage and resource allocation metrics are identified in 1A-1, CAD functionality will be evaluated to identify gaps and plans developed to address data/system deficiencies. Target Date: 2/28/2018

Issue #2: Calls-for-Service – Response Documentation

Observation: State statute requires that MCSO respond to all calls-for-service that originate within its jurisdiction. During the review period of 7/1/2014 through 8/31/2016, MCSO dispatched 240,751 calls-for-service. To manage and track patrol activity, including responding to calls-for-service, MCSO has implemented a computer aided dispatch (CAD) system. CAD logs serve as the response record if a call-for-service does not require an incident report or other type of report. We found that the arrival time field within the CAD dispatch logs was blank for over 35,000 (15%) dispatched service calls. Through interviews with dispatch personnel and by reviewing dispatch system notes for 40 of these calls, we concluded that all 40 calls had received a response by a MCSO patrol deputy or were transferred to another local emergency agency. However, the notations were not consistently and clearly documented.

Conclusion #2A: MCSO Patrol is responding to calls for service as required by statute.	
Recommendation	MCSO Action Plan
None	N/A
Conclusion #2B: MCSO's system for recording call responses needs improvement to accurately reflect call arrival, transfer, and response details.	
Recommendation	MCSO Action Plan
2B-1 Develop a process for ensuring that arrival times are recorded accurately in the system, or that reasons for variances are noted.	Concur – in progress Will reinforce policy and perform quarterly reviews by the Communications Director. Target Date: 7/1/2017

Issue #3: Use-of-Force Review and Management

Observation: MCSO's use-of-force policy aligns with applicable state statutes, industry standards, and relevant case law. However, MCSO does not ensure employees have received required weapons training. In addition, use-of-force incidents are not consistently documented and reviewed in accordance with policy. We examined 40 of 245 patrol related use-of-force incident reports from 7/1/2014 through 6/30/2016. We found six incidents where weapons (one firearm and five Tasers) were used, despite the deputies' lapsed certifications. Furthermore, 17 incidents were missing one or more pieces of required information, and 6 were not fully reviewed by management and the Use-of-Force Review Committee, as required.

To identify use-of-force trends and concerns, MCSO has implemented an early intervention and detection system that provides alerts if any employee is involved in two or more use-of-force incidents within a 12-month period. We found that 12 of 40 use-of-force incidents were not accurately reflected in the early intervention system due to data entry and report routing errors.

Conclusion #3A: MCSO's use-of-force policy aligns with applicable law and industry standards.	
Recommendation	MCSO Action Plan
None	N/A

Conclusion #3B: Monitoring of employee’s weapon certifications and related training needs improvement.	
Recommendation	MCSO Action Plan
3B-1 Establish procedures to ensure personnel only use equipment and weapons that they are certified to use. Consider incorporating this control into one of the supervisor inspection checklists, and making the Taser recertification training a mandatory course within the learning management system for employees who carry a Taser.	Concur – in progress MCSO is in the early stages of identifying an appropriate inventory management system. In addition, the learning management system is expected to be implemented in May 2017. We expect to comply with the recommendation through exception reporting. Target Date: 10/31/2017
Conclusion #3C: Procedures for documenting and routing use-of-force incidents through the chain of command need to be improved.	
Recommendations	Action Plan
3C-1 Develop and document procedures for completing, submitting, and reviewing use-of-force reports, including: (1) identifying required fields, (2) reviewing turnaround times, and (3) defining reporting requirements when multiple officers and/or incidents are involved.	Concur – in progress. (1): Use-of-force reporting guidelines will be developed for data entry fields that are used to populate the Early Intervention System (EIS). (2) and (3): Will require re-write of Use of Force policy. Target Date: 12/31/2017

Recommendations	Action Plan
<p>3C-2 Incorporate use-of-force reporting, including how to document the narrative sections, into the sworn supervisor training curriculum.</p>	<p>Concur – will implement with modifications</p> <p>This issue will be addressed through Blue team (EIS) training. EIS is MCSO’s capturing mechanism for use-of-force events, which will begin in July 2017 and end sometime in late September. The EIS lesson plan will dive extensively into supervisory responsibilities to include weekly reviews of subordinate entries (which includes use-of-force), conducting reviews of EIS records within 14 days of a transfer, conducting two reviews each month of the EIS profiles.</p> <p>The policy on weekly reviews states the following, “Review weekly subordinates’ Blue Team entries to ensure proper action was taken, return deficient entries to subordinates for corrections, and route the approved incidents through the chain of command to the Early Intervention Unit (EIU)”.</p> <p>Target Date: 12/31/2017</p>
<p>3C-3 Develop and document a process to identify outstanding use-of-force incidents that have not been routed appropriately, and/or have not been reviewed within established turnaround times (see 3C-1).</p>	<p>Concur – in process</p> <p>MCSO is currently researching a way to automate use-of-force reporting, which should provide additional alerting functionality for use-of-force incidents within the Early Intervention System.</p> <p>Target Date: 12/31/2017</p>

Issue #4: Body-Worn Cameras – Policy Evaluation

Observation: Since 2015, MCSO has deployed approximately 600 body-worn cameras agency-wide. We compared MCSO’s policy for managing its cameras with Department of Justice (DOJ) body-worn camera implementation guidelines. We found that MCSO has incorporated the majority of the DOJ recommendations in its policy. However, MCSO does not have documented policies and procedures for:

- Releasing video (including for presentation in court)
- Monitoring and evaluating the body-worn camera program
- Providing ongoing body-worn camera training

While the DOJ guidance recommends supervisory review and does not differentiate between traffic and non-traffic (e.g., calls-for-service) incidents, MCSO has chosen not to require supervisory review of non-traffic related video footage. However, for the test period, approximately 88% of patrol-related incidents that required a body-worn camera video were associated with non-traffic related incidents. MCSO reports that the decision to focus on traffic-related incidents is based on requirements from a federal court order.

Conclusion #4A: MCSO's body-worn camera policies and procedures mostly align with DOJ guidance.	
Recommendation	MCSO Action Plan
None	N/A
Conclusion #4B: To fully align with DOJ guidance, a few additions should be incorporated into MCSO's body-worn camera policy and procedures.	
Recommendations	MCSO Action Plan
4B-1 Develop a plan to regularly monitor the body-worn camera program, including an analysis of video file data.	Management accepts the risk identified by the audit.
4B-2 Consider incorporating the remaining recommendations from the DOJ body-worn camera implementation guide into MCSO policies and procedures, including establishing supervisory review requirements for non-traffic related videos.	Partially Complete – Follow-up not required at this time due to ongoing oversight by a court-appointed monitor. The Department of Justice has reviewed and approved MCSO's body worn camera policy published 1/17/2017.

Issue #5: Body-Worn Cameras – Data Management and Policy Compliance

Observation: To assess compliance with MCSO's Body-Worn Camera Policy, we selected 40 patrol incidents, occurring from 6/1/2016 through 8/31/2016 that required a video. We reviewed the video footage, and any associated data for each incident, in Evidence.com, the web-based system used to manage the video files. We found the video, and video quality, were adequate to understand the situation being filmed. Within the videos reviewed, we did not observe any policy violations or training issues. However, we were unable to locate videos for 9 (23%) of the 40 incidents we sampled. This issue may have been caused by a deputy not taking a video during an incident, or by a video not receiving an incident number due to an upload error. In a broader

analysis of approximately 71,000 videos uploaded during our test period, we found that 3,875 (5%) body camera videos were not uploaded in the timeframes required by policy.

We also found that out of approximately 246,000 body-worn camera videos taken between 9/1/2015 through 12/27/2016, over 14,000 (6%) were uploaded into Evidence.com without being assigned (matched) to a computer aided dispatch incident, a radio call type, and a category. An unmatched video is difficult to locate during records requests, and may not always include accurate record disposal dates. Some unmatched videos may be appropriate, since scenarios such as car inspections and training videos are sometimes captured, and should not be matched to an incident. MCSO has not established a process to determine which of these videos should be matched to an incident. This and other issues, such as camera mounting and recording issues, were identified by MCSO during its 2015 pilot program, but have yet to be fully addressed.

Conclusion #5A: The process used to match videos to an incident in Evidence.com needs to be strengthened.	
Recommendation	MCSO Action Plan
5A-1 Develop a process to ensure all videos stored in Evidence.com are matched to the correct incident, radio call type, and/or category.	Concur – in process MCSO is currently re-evaluating the Evidence.com system and procedure for accurate matching of videos in addition to identifying a process for removal of video not related to law enforcement actions (i.e. vehicle inspections, accidental activation, etc.). The long-term plan for video management will require additional staff. Target Date: 12/31/2017
Conclusion #5B: MCSO has not reviewed and fully addressed issues identified during the body-worn camera pilot program.	
Recommendations	MCSO Action Plan
5B-1 Review feedback received from the body-worn camera pilot program and develop a plan to address the issues identified.	Partially Complete – Follow-up not required at this time due to ongoing oversight by a court-appointed monitor.
5B-2 Evaluate the adequacy of the current equipment to meet MCSO's needs of uninterrupted recording.	Management accepts the risks identified.

Conclusion #5C: Procedures need to be established to ensure that videos are uploaded within policy timeframes.	
Recommendation	MCSO Action Plan
5C-1 Establish procedures to ensure videos are uploaded in accordance with timeframes established by MCSO policy.	<p>Concur – in progress</p> <p>MCSO will reinforce the existing policy as well as revise the policy to identify appropriate exceptions for alternate locations (e.g., home docking stations).</p> <p>Target Date: 12/31/2017</p>

Issue #6: Body-Worn Cameras – Equipment Tracking and Management

Observation: The MCSO Patrol function uses over 500 body-worn cameras and related equipment with a value of approximately \$715,000. The cameras and equipment are manually tracked using Microsoft Excel. We conducted an inventory of the cameras, spare kits, batteries, and docking stations assigned to the seven patrol districts. We located the following:

- 495 of 509 (97%) cameras
- 483 of 509 (95%) batteries
- 102 of 104 (98%) docking stations

Of the 14 missing cameras, 9 were unavailable for verification because the owners were out of the office (vacation or other leave time). MCSO was unable to provide the location of the five remaining cameras, and has not established a consistent process to manage and track unassigned cameras and related equipment. Although required by policy, many patrol districts do not maintain a tracking log for this purpose.

Conclusion #6A: MCSO's equipment records were accurate enough for us to locate most of the inventory.	
Recommendation	MCSO Action Plan
None	N/A

Conclusion #6B: The method MCSO uses to track equipment needs improvement.	
Recommendations	MCSO Action Plan
6B-1 Verify the location of the cameras and docking stations that were not located during the audit.	Concur – in process MCSO is in the early stages of identifying an appropriate inventory management system. The location and status of the missing cameras and docking stations will be documented. Target Date: 10/31/2017
6B-2 Consider using an asset management application to track body-worn cameras and related equipment.	Concur – in process MCSO is in the early stages of identifying an appropriate inventory management system. Target Date: 10/31/2017
6B-3 Develop and implement a process to consistently track unassigned equipment within patrol districts.	Concur – in process MCSO is in the early stages of identifying an appropriate inventory management system. Target Date: 10/31/2017

Issue #7: Off-Duty Employment – Program Management

Observation: We reviewed two MCSO documents that formally recommended changes to how off-duty employment is managed. In 2011, MCSO notified personnel that the ongoing practice of MCSO employees owning companies that employ off-duty MCSO sworn officers was a conflict of interest, as determined by MCSO’s legal counsel. We confirmed that this practice is still occurring, and MCSO has not initiated changes to address this issue.

Furthermore, in 2015, MCSO’s Bureau of Internal Oversight (BIO) conducted an inspection of off-duty employment and found that less than 7% of off-duty work permits reviewed complied with policy. Findings included: (1) work permits are incomplete or missing; (2) employees are not notifying dispatch; and (3) employees are exceeding their weekly work hour limits. As a result, BIO made several recommendations.

Through interviews with MCSO management and reviews of MCSO’s policy, we determined that BIO’s recommendations have not been implemented. By not responding to these recommendations, MCSO has allowed conflicts of interest and other policy violations and deficiencies to continue.

We also reviewed MCSO’s off-duty policy and procedures, and compared them to industry standards¹ and select benchmark agencies.² We identified the following control gaps that may hinder MCSO’s ability to accurately track and equitably manage off-duty employment:

- MCSO allows division commanders the discretion to sanction (sometimes verbally) off-duty work situations where a conflict of interest exists.
- MCSO has not established formal payment procedures for off-duty employment.

Conclusion #7A: Management of the off-duty employment needs improvement.	
Recommendation	MCSO Action Plan
7A-1 Develop an action plan that addresses the issues found during BIO’s 2015 off-duty employment investigation.	Concur – in progress MCSO will be drafting a new policy for off-duty employment. Target Date: 12/31/2017
Conclusion #7B: Policies and procedures for off-duty employment need stronger controls.	
Recommendations	MCSO Action Plan
7B-1 Revise the off-duty policy to alleviate the conflict of interest issue identified in the 2011 Briefing Board.	Concur – in progress MCSO will be drafting a new policy for off-duty employment. Target Date: 12/31/2017
7B-2 Implement procedures for off-duty employment approval based on equitable and neutral guidelines. Consider requirements to document approvals and justifications (if applicable).	Concur – in progress MCSO will be drafting a new policy for off-duty employment. Target Date: 12/31/2017
7B-3 Develop procedures for managing off-duty payments.	Concur – in progress MCSO will be drafting a new policy for off-duty employment. Target Date: 12/31/2017

¹ International Association of Chiefs of Police Policy Center – Secondary Employment Concepts and Issue Paper.

² Benchmark agencies were the cities of Phoenix, Mesa, and Chandler.

Issue #8: Information Technology – Password Configuration

Observation: We found that Evidence.com, the web-based system used to manage the video files, is configured in accordance with MCSO password policies. However, Computer Aid Dispatch (CAD) application password settings and Windows Active Directory account lockout settings are not configured according to MCSO policy. The CAD system does not have any configured password requirements for user accounts and the Windows Active Directory system does not have account lockout settings. Strong password standards minimize the likelihood of unauthorized access to the network and applications.

Conclusion #8A: Password settings for CAD and Windows Active Directory need strengthening.	
Recommendation	MCSO Action Plan
8A-1 Configure password and account lockout settings for CAD application accounts and Windows Active Directory to meet Criminal Justice Information System (CJIS) Security Policy requirements.	Concur – in progress Target Date: 6/30/2017

Issue #9: Information Technology – User Account Administration

Observation: MCSO does not have formally documented policies and procedures for CAD or Evidence.com user account administration, as recommended by Criminal Justice Information System (CJIS) standards. We evaluated user account administration controls for the MCSO Active Directory, CAD, and Evidence.com systems. We found that MCSO:

- Appropriately restricts administrative access to each of the noted systems.
- Does not consistently maintain approval documentation for user access.
- Does not consistently update user access for the CAD and Evidence.com systems after user termination, reassignment, or retirement.
- Does not conduct periodic user access reviews.

Conclusion #9A: Procedures for CAD or Evidence.com user account administration need improvement.	
Recommendations	MCSO Action Plan
9A-1 Develop and document a user access administration process for servers and applications.	Concur – in progress Target Date: 9/30/2017
9A-2 Restrict access to privileged accounts at the application, operating system/server, and database levels based on principles of least privilege.	Concur – in progress Target Date: 9/30/2017
9A-3 Establish formal procedures to grant user access to the application, operating system, and/or database reflecting business need and appropriate management approvals.	Concur – in progress Target Date: 9/30/2017
9A-4 Establish procedures to promptly remove system access upon employee termination or job change.	Concur – in progress Target Date: 9/30/2017

Issue #10: Information Technology – System Backups

Observation: In order to maintain system and data availability during an outage, the National Institute of Standards and Technology recommends system backups be run automatically at appropriate intervals. We found that MCSO periodically backs up CAD application data. However, data backup restoration tests were not consistently performed. In some cases, the restoration tests were failing without further investigation.

Conclusion #10A: Data backup processes need improvement.	
Recommendation	MCSO Action Plan
10A-1 Reinforce the importance of completing successful backups and restoration tests on a pre-determined frequency, to ensure backups are available in the event of a failure or outage.	Concur – in progress Target Date: 5/31/2017

Issue #11: Information Technology – Service Organization Monitoring

Observation: Industry standards recommend that organizations monitor and evaluate Service Organization Control (SOC) reports of information technology (IT) vendors that perform integral IT operations. A review of a SOC report would alert MCSO if there were any control weaknesses (e.g., cybersecurity threats, data storage concerns, and system access vulnerabilities) present in a contractor’s operating environment. We determined that, despite outsourcing key system operations (including the storage of body-worn camera videos to Evidence.com), MCSO does not have a formal process for obtaining and evaluating corresponding SOC reports.

Conclusion #11A: Procedures are not in place to obtain, monitor, and evaluate SOC reports for relevant systems.	
Recommendation	MCSO Action Plan
11A-1 Implement procedures for obtaining and evaluating relevant SOC reports for MCSO applications.	Concur – in progress Target Date: 5/31/2017

Issue #12: Information Technology – Operations Environment

Observation: MCSO CAD and Evidence.com procedures for automated jobs and data transmissions align with the National Institute of Standards and Technology and Control Objectives for Information and Related Technology (COBIT) standards. Additionally, CAD is configured to send a notification to system administrators in the event of a system failure.

Conclusion #12A: Automated CAD job processes are configured to run successfully in accordance with a predetermined schedule.	
Recommendation	MCSO Action Plan
None	N/A
Conclusion #12B: Data transferred between CAD and Evidence.com appear to be transmitted completely and accurately.	
Recommendation	MCSO Action Plan
None	N/A

Standards

This audit was approved by the Board of Supervisors and was conducted in conformance with International Standards for the Professional Practice of Internal Auditing. The specific areas reviewed were selected through a formal risk assessment process.

Auditors

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This report is intended primarily for the information and use of the County Board of Supervisors, County leadership, and other County stakeholders. However, this report is a public record and its distribution is not limited.

We have reviewed this information with management from the Maricopa County Sheriff's Office. The Action Plan was approved by Ben Henry, Chief Deputy, on April 6, 2017.

If you have any questions about this report, please contact Toni Sage, Internal Audit Manager, at 602-372-1004.