Final Audit Follow-Up

ALLAHASSEE OFFICE OF THE CITY AUDITOR

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As of October 31, 2016

Tallahassee-Leon County Consolidated Dispatch Agency and Related Motorola Contracts

(Report #1505 issued March 16, 2015)

Report #1703 December 20, 2016

Summary

This is the second and final follow-up on the Audit of the Tallahassee-Leon County Consolidated Dispatch Agency and Related Motorola Contracts, report #1505 issued 16. 2015. Twenty-five recommendations were made to address issues identified in the audit. As of October 31, 2016, for 20 (80%) of those overall recommendations, actions had been taken and/or are to be taken when applicable future events occur. Accordingly, purposes of our audit follow-up process, the underlying issues as pertaining to current systems and circumstances considered have been adequately addressed and resolved for those recommendations. For the remaining 5 (20%) overall recommendations, significant actions have been taken and are in progress to address the underlying issues. Based on the efforts for those five recommendations. responsibility to ensure the final actions are completed is turned over to management.

In audit report #1505, we noted the establishment of the Tallahassee-Leon County Consolidated Dispatch Agency (CDA) had improved the dispatching of emergency services; however, as a relatively new agency the CDA experienced several issues that at times adversely impacted the public and responding agencies' confidence in the new coordinated dispatch process. We noted risks,

which if realized, had the potential to continue to negatively impact CDA operations. Twenty-five overall recommendations were made in relation to those risks, with 21 related to activities at the CDA and four related to the Tallahassee Police Department (TPD) Records System.

In our prior follow-up engagement (report #1613), we reported that actions had been taken for 16 of the 25 overall audit recommendations such that the underlying issues were or should be resolved, and/or that additional actions could not be taken until applicable future events occur.

During this second and final follow-up engagement, we determined: (1) actions had been taken to address and resolve the underlying issues for four of the remaining nine overall recommendations, and (2) significant progress was being made in completing actions to address and resolve the other five overall recommendations. The nine overall recommendations and related actions taken included the following:

The owners (City of Tallahassee, Leon County, and Leon County Sheriff's Office) should continue to work with Motorola to remaining technical resolve and performance issues pertaining to Motorola Premier One CAD and Mobile System (CAD system). Several actions were in regard this to recommendation and included hiring of an experienced consultant (Gartner, Inc.) to

provide assess the system and recommended improvements, many of which have been made. Improvements and actions taken by management included: (1) executing an agreement with Motorola that provides significant financial penalties in the event defined system performance standards are not met, (2) obtaining a \$369,354 credit from Motorola for previous system performance issues, (3) hiring and assigning additional technical staff to the CDA, (4) enhancing system performance and reliability through upgrades replacement of equipment and hardware, and (5) performing assessments of the network supporting the CDA and CAD system. Additionally, improvements have been made to the triage software and process that interacts with the CAD system. Further, the emergency 911 phone system was strengthened through infrastructure enhancements. Based on the actions taken and improvements and enhancements made, this overall recommendation is considered successfully implemented. (One recommendation successfully implemented)

The City should monitor Motorola's efforts to resolve issues delaying implementation of the new Motorola Premier One Records System at TPD; seek financial restitution for adverse financial impacts incurred as a result of the delays; and consider legal actions for breach of contract if appropriate. The City elected to discontinue efforts to implement the new Motorola records system and has successfully negotiated a settlement with Motorola that provides the City additional equipment and services, valued at \$202,613, at no charge to the City. At the time of our follow-up engagement, the City was awaiting the execution of a change order with Motorola that formalizes agreed-upon terms. recommendations - significant actions taken to implement; responsibility to ensure final actions taken turned over to management)

- Complete remaining policies and procedures for the CDA. The CDA has completed 75 of the 89 (84%) planned policies and is working on completion of the remaining 14 policies. (One overall recommendation significant actions taken to implement; responsibility to ensure final actions taken turned over to management)
- Add all categories of law enforcement calls to the Quality Assurance (QA) process and evaluate dispatch and response times as part of the QA process. The QA process has been expanded to address all categories of law enforcement. (One recommendation successfully implemented)
- A centralized record keeping system should be implemented to track the certification status of CDA telecommunicators and appropriate documentation retained to demonstrate those certifications. A cloudbased system has been selected to track various required certifications and training received by staff. CDA staff is in the process of uploading staff certifications and training information into that system. (One overall recommendation - significant actions taken to implement: responsibility to ensure final actions taken turned over to management)
- The CAD system should be updated such that dispatchers are required to acknowledge the existence of a critical premise hazard before the related incident can be dispatched. The CAD system was upgraded in June 2016 such that call takers and dispatchers now are required to acknowledge the existence of critical premise hazards before they can process the associated incidents within the system.

 (One recommendation successfully implemented)
- Revise the Quality Assurance (QA) process to ensure premise hazards are properly opened and applicable detail information is

provided to responding units. The QA process has been enhanced to determine if critical premise hazard information is identified and conveyed by call takers to dispatchers dispatchers and by to responding units. (One overall recommendation successfully implemented)

While this report acknowledges management's success in addressing and implementing our initial audit recommendations, we did identify three areas during this follow-up where additional recommendations (auditor comments) were made. Specifically:

- 1. We recommend the CDA commence tracking future system performance issues as to their actual impact, and ensure any claims for service level credits (due to system performance issues) be prepared and submitted to Motorola in a timely manner.
- 2. We recommend additional enhancements be made to the CDA process for conducting quality assurance reviews of law enforcement calls.
- 3. In the event the triage application acquired for law enforcement is not implemented, we recommend CDA and responding agency management negotiate a reduction in associated licensing and maintenance costs with the vendor from whom the application was purchased.

We appreciate the cooperation and assistance provided by staff at the CDA, the City's Technology and Innovations Department, and applicable responding agencies (i.e., Tallahassee Police Department [TPD], Tallahassee Fire Department [TFD], Leon County EMS, and Leon County Sheriff's Office) during this follow-up audit.

Scope, Objectives, and Methodology

We conducted this audit follow-up in accordance the International Standards for Professional Practice of Internal Auditing and Generally Accepted Government Auditing Standards. Those standards require we plan and perform the audit follow-up to obtain sufficient and appropriate evidence to provide a reasonable basis for our findings and conclusions based on our follow-up audit objectives. We believe the evidence obtained provides a reasonable basis for our findings and conclusions based on our followup audit objectives.

Original Report #1505

The initial audit was conducted to address concerns regarding the performance of the CDA in receiving and processing emergency calls for fire, law enforcement, and medical services. Some of those concerns related to the performance of technology recently implemented to assist the CDA in providing services, and to the contracts executed for implementation of that technology. Other concerns related to the performance of CDA staff. An ancillary purpose of the audit was to determine the impact technology issues experienced at the CDA had on the City's project to implement a new Records System at TPD.

To address those concerns we established seven specific audit objectives: (1) Identify and evaluate the technology issues that have adversely impacted the CDA and identify actions taken to resolve those issues; (2) Determine the impact technology issues pertaining to the new Computer-Aided-Dispatch (CAD) system at the CDA had on the implementation of the new Records System at TPD; (3) Identify and evaluate the contracts with Motorola, Inc. to implement the new CAD system at the CDA and the new Records System at TPD; (4) Determine if payments for maintenance and support for the Motorola systems were various reasonable, and in accordance with governing contractual provisions; (5) Identify and evaluate

the policies and procedures, quality assurance and training processes, and staffing of the CDA; (6) Identify and evaluate the CDA process for informing responding (service) units of pertinent information regarding the locations (premises) to which the responding units have been dispatched; and (7) Determine the CDA "response times" relating to emergency calls processed by the CDA and compare those times to that of other jurisdictions.

Overall, we concluded the CDA provides area citizens with significantly enhanced dispatch operations compared to the previous separate dispatch operations that were performed independently by TPD and the Leon County Sheriff's Office. Notwithstanding the CDA's success, as a relatively new agency, we reported it has experienced several operational issues that have, at times, adversely impacted the public and responding agencies' confidence in the new coordinated dispatch process. Those issues were magnified due to the problems that occurred with some of the new technology implemented at the CDA. We found that actions have been taken to address those issues and that the CDA, under the guidance of a Director hired in February 2014, continued to advance in regard to technology, processes, policies, and procedures. Several areas were identified by our audit for which enhancements improvements and were recommended. Those areas pertained to CDA technology; implementation of the new TPD Records System; contract execution and management; maintenance payments; policies, processes, and staffing; premise hazards; and response time measurement.

Report #1703

This is our second and final follow-up on action plan steps identified in audit report #1505. The purpose of this follow-up is to report on the progress and status of efforts to address the recommendations made in the initial audit as of October 31, 2016. To determine the status of these efforts, we interviewed staff and reviewed relevant documentation.

Background

Prior to the creation of the Tallahassee-Leon County Consolidated Dispatch Agency in 2013, there were two separate public safety dispatch operations available to the citizens of Tallahassee and Leon County. The Leon County Sheriff's Office operated a dispatch center for law enforcement (Sheriff deputies) and emergency medical services. TPD operated a dispatch center for law enforcement (police officers) and fire services. In September 2006, for the purpose of providing citizens a more efficient and effective emergency response process, the City of Tallahassee, Leon County, and the Leon County Sheriff's Office entered into a Memorandum of Agreement for the eventual consolidation of public safety communications.

As a result, the CDA was created in April 2013 pursuant to a May 2012 inter-local agreement (agreement) executed by the City, County, and Sheriff's Office. The CDA operates under that initial agreement and subsequent agreements executed by the three entities. Under those agreements, the responsibilities of each entity were established. Those responsibilities included the following:

- Leon County (County) will provide support for the CDA's telephone system.
- The Leon County Sheriff's Office (Sheriff's Office) will provide support for the emergency 911 system.
- The City of Tallahassee (City) will provide support for the CDA's computer hardware and software for the Computer-Aided-Dispatch (CAD) system and related systems, to include installation, maintenance, training, and management.
- The City and the County will provide support for the Geographical Information System (GIS) used by the CDA.

The May 2012 agreement provided for the creation of a governing board and empowered the CDA Board to hire (and terminate) a Director, adopt a budget, and oversee the CDA. The CDA Board is comprised of the Sheriff, County Administrator,

and City Manager. The May 2012 agreement also created a Management Committee to make recommendations for the hiring of the CDA Director and to monitor and review overall operations of the CDA. The Management Committee is comprised of the TPD Police Chief, Tallahassee Fire Department (TFD) Fire Chief, County EMS Chief, and a Sheriff's appointee.

Funds to operate the CDA are appropriated by the City, County, and Sheriff's Office pursuant to the May 2012 agreement and a subsequent May 2013 agreement. Specifically, funding for operating costs other than the radio system are to be allocated between the City and Leon County (including the Sheriff's Office) based on the relative percentages of the County population that live inside and outside the City's corporate limits. Operating costs of the radio system are to be allocated among the respective entities based on the proportionate share of radios used by each of the entities.

The CDA's first Director was hired by the CDA Board and started work in February 2014; several months after the CDA began operations. Prior to the hiring of the Director, the CDA was managed by two interim co-Directors appointed by the CDA Board, one from the Leon County Sheriff's Office and one from TPD. (Note: The first CDA Director was subsequently replaced by a second Director effective May 28, 2016.) The CDA is continuously in operation, seven days a week and 24 hours a day, including holidays.

The primary benefit to the public under the CDA is that an emergency call for assistance is now received, processed, and dispatched to all appropriate responding agencies (TPD, TFD, Sheriff's Office, and EMS Agency) in a single coordinated process; as opposed to past practices in which emergency calls were often transferred (sometimes several times) between the separate dispatch agencies, with each dispatch agency sometimes dispatching responding units to the same incident in separate processes. Specific benefits resulting from the establishment of the CDA include:

- The first person answering an emergency call can provide assistance as there is no need to transfer the call to a different dispatch agency.
- There is a single "computer-aided-dispatch (CAD) system" that all responding agencies utilize instead of separate systems, resulting in a more coordinated and effective response effort through facilitated sharing of information and communications. The single CAD system also allows for more efficient technological support of the infrastructure necessary to operate a dispatch agency such as the emergency 911 system, geographical information systems (GIS), paging system (e.g., fire station alarms), and radio system.
- Locating all call takers and dispatchers for all responding agencies in a single room enhances the ability of staff and supervisors to coordinate the response process and increases the level of situational awareness.
- There is one set of radio channels that are utilized by all responding agencies thereby facilitating communications and helping ensure the "closest" available units respond to an incident.

Ultimately, these benefits facilitate shorter and more appropriate responses to emergency incidents.

As reported in the initial audit, during the elevenmonth period November 2013 through September 2014, CDA call takers answered 412,755 calls, of which 152,543 came in through the 911 phone system and 260,212 came in through the administrative phone system. Many calls through the administrative system represented instances where: (1) TPD or the Sheriff's Office called the CDA to request they dispatch a unit to respond to an incident reported directly to them instead of the CDA, (2) other agencies such as the Florida State University (FSU) or Florida Agricultural and University Mechanical (FAMU) departments called the CDA requesting a unit (from TPD for example) be dispatched for assistance, or (3) an alarm company called to request a unit be dispatched based on alarm going off at a residence or business or as a result of a medical bracelet/necklace going off. Other calls on

the administrative phone system were administrative in nature (individual requesting information only) and did not result in a responding unit being dispatched.

Previous Conditions and Current Status

In report #1505, we provided 25 overall recommendations. Twenty-one of those recommendations pertained to areas that need to be addressed at the CDA. Those areas pertained to technology; contract execution management; maintenance payments; CDA policies, processes, and staffing; premise hazards; and response time measurement. The other four recommendations related to the City's efforts to implement a new TPD Records System.

Audit Recommendations

In our initial follow-up report (#1613), we reported for 16 of the 25 recommendations that actions had been taken and/or were to be taken when applicable future events occur. Accordingly, for purposes of our audit follow-up process, the underlying issues as pertaining to the current systems and circumstances were considered to have been adequately addressed and resolved.

For the remaining nine overall recommendations, we reported in our initial follow-up report that actions had been taken and were in progress to address the underlying issues. As shown in Table 1 that follows, we determined during this second and final follow-up that management has successfully addressed four of those nine remaining recommendations, and has taken significant actions in addressing the other five recommendations.

Table 1
Audit Recommendations from Audit Report #1505
Current Status of Efforts to Address Those Recommendations as of October 31, 2016

A. Technology Issues

1. We recommend the owners (City of Tallahassee, Leon County, and Leon County Sheriff's Office) continue to work with Motorola to resolve remaining technical and performance issues pertaining to the Motorola Premier One CAD and Mobile System. In the event the significant issues are not resolved in the near future and/or additional significant system stability or functional issues occur or reoccur, we recommend the owners negotiate a fair and appropriate contract amendment providing for: (1) a deadline for resolution of remaining system performance issues; (2) restitution to the owners for any adverse financial impacts resulting from the system performance issues (e.g., cost of a system administrator position to manage the system after Motorola technical staff are no longer onsite); and (3) a remedy in the event the owners determine it is in the CDA's best interest to discard the Premier One CAD and Mobile System and acquire and install a replacement system, to include Motorola

Current Status as October 31, 2016

- Recommended actions have been taken. Several actions were taken to resolve the technical and performance issues. Those actions included the following:
 - As reported in our prior follow-up report (#1613), the owners hired an experienced consultant, Gartner, Inc. (Gartner), to provide an independent and objective assessment of the Motorola Premier One CAD and Mobile System (CAD system) implemented at the CDA. Upon completing its assessment, Gartner made several general and specific recommendations, some of which mirrored the general recommendations made in our initial audit report (#1505).
 - The owners are implementing the specific Gartner recommendations. Examples of recommendations implemented as reported in our prior follow-up report included:
 - The owners executed a five-year maintenance and support agreement

providing continued support of the Premier One CAD and Mobile System until such time a replacement system is in place and operational.

Additionally, if the outcome of those efforts are not successful and system instability issues continue, the owners should consider exercising their right to submit a claim to the applicable surety company invoking the provisions of the contractually required performance bond that guarantees Motorola's performance (i.e., to provide an acceptable system). Provisions of that bond provide for reimbursement to the owners if Motorola defaults on the contract.

with Motorola that provides significant financial penalties in the event defined system performance standards are not met.

- Additional technical staff were hired and assigned to the CDA.
- Significant CAD system upgrades were made. One example was the color coding of premise information and hazards to facilitate the ability of call takers and dispatchers to more quickly identify the more significant premises information.
- Examples of additional recommendations and improvements implemented at the CDA during the period covered by this follow-up report included the following:
 - The CDA has established a spreadsheet to track incidents associated with performance of the Motorola CAD system. Those incidents are categorized by severity level. For each incident the CDA provides a description, impact, cause, actions to address, current status, and length of system outage if any.
 - An existing network systems engineer within the City's Technology & Innovations (T&I) department was assigned to serve the network administrator role for the CDA and CAD system. (Consideration was initially given to creating and budgeting for a new network administrator position at the CDA, but a determination was made that assigning the network administrator role to an existing City T&I position was sufficient.)
 - Some of the existing equipment and hardware was replaced to enhance system capability and functionality (i.e., new servers were installed that allowed for creation of virtual servers,

which were necessary to enable certain system upgrades to function properly).

- A team comprised of City, County, and Sheriff's Office technology staff completed a vulnerability assessment of the infrastructure and equipment (including, but not limited to, the underlying computer network and phone systems) in place at the Public Safety Complex in which the CDA is physically housed. Improvements and enhancements were made, such as of additional installation fiber connections for redundancy in the event primary connections are cut or lost.
- As also reported in our prior follow-up report (#1613), because of the CAD system performance issues and problems identified in our initial audit report, the owners successfully negotiated a \$369,354 credit from Motorola towards the first year's maintenance fee under the five-year maintenance agreement noted above. That credit has subsequently been applied to the first year's maintenance fee of \$500,155, resulting in a net payment to Motorola of \$130,801.
- Remaining system performance issues relating to the triage software as described in our prior follow-up report have been resolved. Specifically:
 - CDA management and staff determined many of the instances where the triage application (ProQA) not properly launching or transferring data to the CAD system were attributable to user error. For example, when call takers tried to launch the application they sometimes repeatedly hit the launch key, which sometimes froze application. the Furthermore, in instances where a call taker had more than one ProOA incident open, the application would

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not function properly as it did not recognize which data to transfer into the CAD system. To address those user errors, call takers were provided additional training.

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- Maintenance of the call taker's workstation computers was enhanced to better ensure all systems (including the triage application) work appropriately.
- System upgrades were made such that a call taker can no longer have multiple incidents open in the triage application at the same time.
- A system log was created that allows a review of activity within the triage application to facilitate determinations of any subsequent performance issues.

The CDA reported that, since the last followup report, there have been no additional instances where the Motorola CAD system experienced temporary outages.

Furthermore, the CDA indicated there have been no additional outages in the 911 emergency phone system since the instance reported in our prior follow-up report. reported in that prior follow-up report, several corrective and remedial actions were taken to ensure emergency calls are received and answered by CDA call takers. Action completed during the period covered by this second follow-up engagement included the reconfiguration of the infrastructure path such that switches are no longer needed to allow the 911 phone system to connect to call taker work stations (i.e., direct connections were enabled thereby eliminating the risk of switch failures) and (2) traditional analog phones were installed at call taker work stations and configured such that 911 calls can be received through those phones in the event of an outage in the primary 911 emergency phone system.

Based on the actions taken and the successful performance levels reported by the CDA for the CAD and emergency 911 phone systems, this overall recommendation is considered successfully implemented.

Audit Comment #1: As noted above, the CDA established a spreadsheet to track incidents associated with performance of the Motorola CAD system. That spreadsheet reflects 112 incidents during the two-year period November 2014 through November 2016. Our review of the spreadsheet showed those 112 incidents were classified as to possible impact on system performance and not actual impact. Not classifying incidents by actual impact makes it difficult for management and staff to determine whether any financial penalties are applicable based on the service performance levels established in the maintenance Specifically, contract. contractually designated performance levels are not met, Motorola is required to provide credits against the monthly maintenance fees. Not classifying incidents as to actual impact on system performance makes it difficult for management and staff to determine if incidents represented performance issues for which credits should be provided (i.e., financial penalties should be applied).

In response to our inquiry, the CDA and assigned City T&I staff reviewed and classified the 112 incidents as to actual impact. That reclassification showed there has been one incident for which a financial penalty should have been applied. incident represented a temporary CAD system outage that occurred in October 2015 and lasted approximately 28 minutes. (This outage was reported in our prior follow-up report, #1613.) Because the incident represented a system outage that lasted in excess of 6 minutes, the CDA was entitled to a service credit of \$4,168. We found that no claim had been submitted for this credit as of the time of our current follow-up fieldwork in November 2016.

Terms of the service agreement provide that, to claim a service credit for an incident that shows required performance levels were not met in regard to the CAD system, the CDA must submit a claim to Motorola within 45 days of the end of the annual term date (i.e., the annual maintenance period which runs from November 1 through October 31 of the following year). As the incident noted in the prior paragraph occurred in October 2015, that provision means the claim should have been submitted to Motorola no later than December 15, 2015. As the claim still has not been submitted, the CDA is in jeopardy of not receiving the \$4,168 credit.

In response to our further inquiry into this matter, CDA and applicable City T&I staff acknowledged that a claim for a service credit should have been prepared and submitted to Motorola. They indicated the applicable staff (project manager) responsible for preparing the claim had focused on ensuring the underlying system issue that resulted in the incident was corrected by Motorola, and that upon his abrupt termination, management did not follow up to ensure that a claim was prepared and submitted.

To help ensure that CAD system performance is tracked in a manner to demonstrate whether required performance targets are met and whether financial penalties (service credits) are applicable, we recommend the CDA commence tracking incidents and issues as to their actual impact on system performance. Additionally, CDA management should, with the assistance of assigned City T&I staff, ensure that claims for applicable service level credits are submitted to Motorola in a timely manner as provided by contractual terms. We also recommend CDA management make appropriate efforts to obtain the \$4,168 service credit, notwithstanding the deadline for obtaining that credit has passed

- 2. In future circumstances where systems critical to the public's health, safety, and welfare are being acquired and implemented, we also
- ✓ As reported in prior follow-up report, recommendation addressed and underlying issues resolved, and/or actions to be taken

recommend the owners:

 Consider hiring a qualified third-party consultant to assist designated project staff oversee and administer the implementation and configuration of the system, to include assistance in the development and performance of adequate and appropriate testing of the system.

- Conduct enhanced determinations and risk analyses as to the systems (products) available and the proven performance ("track record") of those available systems; and use the information obtained in those determinations and analyses as part of the process in identifying and selecting the "best" system.
- Use a formal competitive selection process (e.g., RFP process) to identify and select the "best" system.

when applicable future events occur.

B. TPD Records System Delays

1. We recommend City management and project staff continue to monitor Motorola's efforts to resolve those issues delaying implementation and continue to work with Motorola to help facilitate installation and cutover to the new system.

- Recommended actions have been taken and are ongoing responsibility for ensuring completion of final action turned over to management. The City and Motorola have agreed on the terms to settle the financial consequences suffered by the City due to the unsuccessful efforts of Motorola to implement the Motorola Premier One Records System at TPD. Those terms provide:
 - Motorola will retain payments, totaling \$276,600, previously paid by the City for work to implement the system.
 - Motorola will not bill the City for other work completed by Motorola on the Premier One Records System project.
 - Motorola will upgrade the City's current records system (Motorola Infotrak System) at no charge to the City.
 - Motorola will replace the older servers used for the Infotrak System with the newer servers initially planned for the Premier One Records System, at no additional cost to the City.

• The City will retain other equipment (load balancers) intended for the Premier One Records System, at no additional cost to the City.

• Motorola will provide maintenance and support of the Infotrak System through August 31, 2018, at no additional cost to the City.

The services to be provided by Motorola pursuant to the agreed-upon-terms, at no additional cost to the City, are valued at \$202.613.

This agreement was reached in October 2016. At the end of our audit fieldwork, the City was in the process of requesting Motorola to present a contract change order, providing the terms of the agreement, to be executed by the City and Motorola. We recommend efforts to execute the appropriate change order be continued. Based on this reported status, responsibility to ensure the remaining action is complete is turned over to management.

- 2. The City should consider seeking financial restitution from Motorola for the adverse financial impacts incurred by TPD as a result of the delays.
- ♦ Recommended actions have been taken and are ongoing responsibility for ensuring completion of final action turned over to management. As noted in the status reported for action plan step B1, the City and Motorola have agreed on a settlement whereby Motorola will provide the City additional services at no cost to the City. Those services were valued at \$202,613. As also reported for action plan step B1, the City plans to execute a contract change order with Motorola that formalizes and binds both parties to the agreed upon terms. Based on this reported status, responsibility to ensure the remaining action is complete is turned over to management.
- 3. As a last resort, the City should consider legal actions for breach of contract in the event Motorola does not complete installation and achieve the City's final acceptance within a reasonable period.
- Recommended actions have been taken and are ongoing responsibility for ensuring completion of final action turned over to management. As noted in the status reported for action plan step B1, the City and Motorola have agreed on a settlement whereby Motorola will provide the City additional services at no cost to the City. Those services were valued

at \$202,613. As also reported for action plan step B1, the City plans to execute a contract change order with Motorola that formalizes and binds both parties to the agreed upon terms. Accordingly, legal action is likely not necessary. Based on this reported status, responsibility to ensure the remaining action is complete (i.e., executing the change order) is turned over to management.

C. Contract Payments, Compliance, and Adequacy

- 1. <u>CAD and Radio Systems</u>: We recommend for future projects involving systems that impact the public's safety:
 - Contractual terms be established that provide for a significant percentage (e.g., 20% to 30%) of the contract price to be withheld until the owners have accepted the system as completely installed and working properly and adequately (e.g., operating without significant performance issues).
 - Management ensure all applicable contractual terms and conditions are followed by the owners so as to protect the owners' (and public's) best interest (e.g., obtain or provide written consent or notice for specified actions as provided by contractual terms and conditions).
 - Contractual terms be established that provide the owners the ability to assess liquidated damages in amounts that provide a greater (i.e., in relation to the current Motorola contract) incentive for the contractor to ensure a properly performing system is timely installed and placed into operation.

As reported in prior follow-up report, recommendation addressed and underlying issues resolved, and/or actions to be taken when applicable future events occur.

- 2. <u>CAD and Radio Systems</u>: The owners should consider invoking the current liquidated damages provisions for Motorola's delays in completing an adequately performing system.
- ✓ As reported in prior follow-up report, recommendation addressed and underlying issues resolved, and/or actions to be taken when applicable future events occur.
- 3. <u>CAD and Radio Systems</u>: We recommend for future change orders:
 - Appropriate authorized representatives from each entity (City, County, and
- As reported in prior follow-up report, recommendation addressed and underlying issues resolved, and/or actions to be taken when applicable future events occur.

Sheriff's Office) should approve and execute each subsequent change order (if any) to the existing contract.

- For those change orders executed to date only by the City and Motorola, documented concurrence and approval should be obtained from the County and the Sheriff's Office as to the additional services and costs.
- In future projects with a nature and characteristics similar to the contract with Motorola (e.g., other entities partnering with the City), the appropriate authority for approving change orders within the City should be established. At a minimum, that approval authority should be the applicable department director, if not the City Manager or other appropriate member of the City's Executive Team.

4. <u>TPD Records Systems</u>: We recommend:

- Applicable City management ensure that contracts for future projects contain provisions:

 (1) requiring a surety/performance bond guaranteeing the contractor's performance and (2) the ability of the City to assess liquidated damages in the event the contractor does not complete the project in a timely manner.
- For future change orders, applicable City management ensure: (1) the purpose and justification for each change order is properly and adequately documented within the change order, (2) appropriate approvals are obtained from the City Attorney's Office, and (3) the appropriate authority (e.g., City Manager or his designee and department head) approves and executes the change orders.

As reported in prior follow-up report, recommendation addressed and underlying issues resolved, and/or actions to be taken when applicable future events occur.

D. Maintenance and Support Agreements

- 1. We recommend project managers assigned to manage and oversee projects similar to the one at the CDA ensure amounts billed by and paid
- ✓ As reported in prior follow-up report, recommendation addressed and underlying issues resolved, and/or actions to be taken

to contractors are in accordance with contractual provisions governing fees for services.

when applicable future events occur.

E. Policies and Procedures, Training, and Staffing

- 1. <u>Policies and Procedures</u>: We recommend efforts continue to complete, obtain CDA Board approval for, and place into operations all appropriate policies and procedures.
- Recommended actions have been taken and are ongoing - responsibility for ensuring completion of final action turned over to management. At the time of this second follow-up engagement, the CDA determined that 89 separate formal policies and procedures were needed for the CDA. (Several of the needed policies and procedures previously identified in our prior follow-up engagement were subsequently consolidated into other existing or planned policies and procedures; therefore, the total number of needed policies and procedures was reduced from 95 to 89). We found that 75 of those policies and procedures (84%) have now been completed, approved by the CDA Board, and issued. (One of those 75 was completed and issued during the period covered by the follow-up engagement.) Of the remaining 14 policies and procedures, 5 have been completed and are awaiting formal approval by the CDA Board before issuance. The other nine policies and procedures are planned or currently being drafted. Further. CDA management indicated additional policies and procedures will be developed and implemented (issued) as the need arises. We recommend CDA management ensure the remaining needed policies and procedures are properly completed, approved, and implemented. Based on this reported status, responsibility to ensure the remaining action is complete is turned over to management.
- 2. Quality Assurance: We recommend the CDA continue ongoing efforts to add all categories of law enforcement calls to the Quality Assurance (QA) process (i.e., after the new triage application is applied to law enforcement calls), add the dispatch function and response times to the QA process, and improve in areas where call takers and dispatchers are not meeting established goals
- Recommended actions have been taken and are ongoing. In our prior follow-up audit (report #1613), we reported: (1) management still planned to implement and apply the ProQA triage software application to all categories of law enforcement calls received by the CDA (i.e., thereby allowing the existing QA application to interface with that triage application and select those calls for formal

and performance expectations.

QA reviews); (2) management continued to review response times as part of a process separate from the formal QA function; and (3) the CDA had implemented a process to conduct OA reviews of radio dispatches for fire and medical calls where critical premise hazards were applicable. We also reported that, until the ProQA triage software application was implemented and applied to all categories of law enforcement calls (thereby allowing an interface with the QA application), the CDA established alternative plan to perform QA reviews of those calls. As reported, that alternative plan was scheduled to start in June 2016.

Our current follow-up showed that the CDA, as planned, did implement an alternative plan to conduct QA reviews of all categories of law enforcement calls and, for those calls involving critical premise hazards, the related dispatches. Under this alternative plan, the CDA OA section reviews all law enforcement calls that are categorized as "Priority Level 1 – Hot Calls," which represent those incidents requiring immediate dispatch (e.g., abductions, kidnapping, hostage situations, bomb threats, homicides, and assailants). All calls involving missing children also continue to be reviewed. For any law enforcement calls involving a critical premise hazard, the related dispatches are also being reviewed by the QA section. The CDA developed a standard form for QA staff to use when performing those reviews. The questions and areas covered by this alternative process cover the most essential aspects of law enforcement calls (i.e., description of incident, what went well, what problems were noted, and what corrective actions are needed). The OA review is not as detailed as that performed using the QA application for fire and medical Notwithstanding, CDA management calls. indicated the QA reviews of law enforcement adequate was and would accreditation standards. As this alternative plan has been placed into operation, and because there are now no plans to implement

the ProQA triage application for law enforcement calls (See <u>Auditor Comment #3 below</u>), we consider the recommended action to be complete and ongoing.

Auditor Comment #2: During our current follow-up review, we noted improvements and enhancements were needed to the alternative QA review approach implemented for law enforcement calls. Specifically:

- While all Priority Level 1 Hot Calls and missing children calls are being reviewed, the CDA should consider reviewing a representative sample of all other categories of law enforcement calls on an ongoing basis. Conducting reviews of those other categories should help identify improvements needed in regard to the related calls.
- While all dispatches associated with critical premise hazards are being reviewed, the CDA should consider reviewing a representative sample of all other categories of law enforcement dispatches on an ongoing basis. Conducting reviews of those other categories identify should help improvements needed in regard to the related dispatches.
- Currently, no summary records were being prepared to track the reviews completed for law enforcement calls and dispatches, or to capture and report the overall results of those reviews. CDA QA staff estimated approximately 80 such reviews had been conducted as of the end of October 2016. Without summary records and reports, CDA management cannot clearly ascertain what procedural or process changes may needed in regard to the law enforcement call taking and dispatch process.
- For two of three observed forms completed for recent QA reviews of law enforcement calls, we noted the QA staff reviewer did not complete all questions on

the forms. Completion of all questions is necessary to clearly demonstrate the QA staff reviewer properly completed the review.

In response to these recommendations, CDA management and QA staff indicated many of the above recommended enhancements were already being considered and planned for implementation prior to our follow-up work. We recommend CDA management ensure the above enhancements are made.

Auditor Comment #3: In regard to the formerly planned implementation and use of the ProOA law enforcement triage application, management of the CDA and applicable agencies (TPD, TFD, Sheriff's Office, EMS) made a determination that, at the current time, it was not in the best interest of the public and the responding agencies to implement that That determination was made application. based on concerns that using the law enforcement triage application would result in longer response times. Specifically, because of the additional questions included in the protocol provided by that application and the sequencing of those questions, it might take call takers longer to process calls and forward information to dispatchers, inherently increasing the time before responding units arrive to address the related incidents. Management cited another consolidated dispatch agency located in Wisconsin, which had implemented but then deactivated the same law enforcement application when it appeared the system resulted in increased response times. While we acknowledge this management determination and decision, more than \$200,000 has been expended to acquire and prepare for implementation of the application. Further, annual maintenance costs continue to be incurred for that application (as well as the triage applications implemented and being successfully used for fire and medical calls). Accordingly, at this point, we recommend CDA and applicable agency determine management what

alternative may be employed to make the purchased triage law enforcement application appropriate for use. In the event it is determined acceptable there is not an alternative, and applicable CDA management should negotiate with the applicable vendor to reduce future licensing and maintenance costs. Furthermore, because of the cost (excess of \$200,000) and staff time and effort put into the ProQA law enforcement triage application, we recommend in the future that systems considered for application at the CDA be more thoroughly analyzed and vetted by appropriate management and staff prior to acquisition.

- 3. Training and Required Certifications: We recommend documentation (e.g., copies of certifications and/or assertions from applicable certifying entities) be obtained to demonstrate the certification of all telecommunicators. Additionally, a centralized record keeping system should be established, implemented, and maintained to track the certification status of all CDA telecommunicators.
- Recommended actions have been taken and are ongoing - responsibility for ensuring completion of final action turned over to management. As noted in our prior follow-up report (#1613), the CDA purchased a cloudbased application (Intelex) to track and monitor the various certifications and training required of CDA telecommunicators. That application has the ability to email alerts when a telecommunicator's specific training needs are due. While CDA management initially planned to have all data uploaded and the application fully operational by the end of summer 2016, other priorities have delayed completion of that project. As of the date of this follow-up engagement in early November 2016, CDA staff estimated that approximately 50% of the most current certifications and training information have been uploaded into the application. Efforts are ongoing to upload the remaining data. We recommend that CDA management ensure the remaining information is uploaded and the system made operational. Based on this reported status, responsibility to ensure the remaining action is complete is turned over to management.
- 4. <u>Training and Required Certifications</u>: The CDA should complete plans to require all trainers that provide formal training to newly hired telecommunicators, including the 232-hour course required by State statute, to be
- As reported in prior follow-up report, recommendation addressed and underlying issues resolved, and/or actions to be taken when applicable future events occur.

certified through APCO in the training function. 5. Training and Required Certifications: CDA As reported in prior follow-up report, management should ensure telecommunicators recommendation addressed and underlying identified through our testing as not properly issues resolved, and/or actions to be taken certified obtain the required certifications. when applicable future events occur. As reported in prior follow-up report, 6. CDA Staffing: We recommend the CDA recommendation addressed and underlying continue ongoing efforts to attract and retain issues resolved, and/or actions to be taken trained telecommunicators. As part of those when applicable future events occur. efforts, the CDA should conduct exit interviews with terminating employees and take appropriate actions based on useful information obtained through those interviews. F. Premise Hazard As reported in prior follow-up report, 1. CAD system functionality should be enabled recommendation addressed and underlying to provide for an audible alert on the issues resolved, and/or actions to be taken dispatched responding unit's mobile device. when applicable future events occur. Recommended actions have been 2. The CAD system should be updated such that completed. As planned, the CDA completed dispatchers will be required to acknowledge an upgrade to the CAD system in summer the existence of a critical premise hazard (e.g., 2016. That upgrade included an enhancement officer safety) before the incident can be that now requires call takers and dispatchers to dispatched. acknowledge the existence of critical premise hazards before they can process the associated incidents within the CAD system. The critical premise hazards have been defined as the officer safety and hazardous materials hazards recorded in the CAD system. Those critical officer safety and hazardous materials premise hazards are color-coded red within the CAD system to facilitate the ability of call takers and dispatchers to recognize their existence. The premise hazards that contain non-critical information (i.e., anything other than officer safety or hazardous materials) do not have to be opened and acknowledged by call takers and dispatchers before the associated incidents can be processed further. Those non-critical premise hazards are now color coded orange within the CAD system. As reported in prior follow-up report, 3. As part of the planned upgrade of the CAD recommendation addressed and underlying system, premise hazards should be color issues resolved, and/or actions to be taken

	coded so as to distinguish the level of criticality.		when applicable future events occur.	
4.	Premise hazards that are no longer applicable or are outdated should be purged or updated.	✓	As reported in prior follow-up report, recommendation addressed and underlying issues resolved, and/or actions to be taken when applicable future events occur.	
5.	Formal written procedures addressing premise hazards should be completed as planned; and those procedures should be provided to call takers and dispatchers. Training on premise hazards should be enhanced.	•	As reported in prior follow-up report, recommendation addressed and underlying issues resolved, and/or actions to be taken when applicable future events occur.	
6.	The quality assurance process should be revised to incorporate reviews to ensure premise hazards are properly opened and applicable detail information provided to responding units.	✓	Recommended actions have been completed. As noted in the prior follow-up report (#1613), the Quality Assurance (QA) process was enhanced to review sampled Fire and EMS incidents to verify critical premise hazard information is being identified and conveyed by call takers to dispatchers and by dispatchers to responding units. During our current follow-up engagement, we determined that the QA process has been enhanced further to now ensure critical premise hazard information is identified, processed, and relayed in regard to all categories of law enforcement calls. Accordingly, this step is completed.	
7.	Owner staff should work with Motorola to extract historical data from the CAD system to allow for a meaningful analysis and determination as to whether critical premise hazards (e.g., officer safety) had been properly opened by call takers and dispatchers for the period September 2013 through December 2014 (i.e., representing the period the CDA commenced operations through the end of our initial audit fieldwork).	✓	As reported in prior follow-up report, recommendation addressed and underlying issues resolved, and/or actions to be taken when applicable future events occur.	
G.	Response Times	l .		
1.	We recommend the CDA consider enhancing the existing process for determining and analyzing response times to provide additional information on a regular ongoing basis (e.g., weekly and/or monthly) that would also be useful for management oversight purposes. Several potential useful enhancements include ongoing measurements of:	•	As reported in prior follow-up report, recommendation addressed and underlying issues resolved, and/or actions to be taken when applicable future events occur.	

- Average call answering times segmented by:
 - Day of week.
 - Time of day.
 - Shift.
- Average response times segmented into components such as those identified in this report, and further segmented by:
 - Day of week.
 - Month of year.
 - Time of day.
 - Shift.
 - Telecommunicator (call taker and dispatcher).
 - Incident type.
 - Responding agency.
- Stratification of response times (e.g., classifying response times into time intervals) and evaluation of specific calls that exceed predetermined benchmarks.

Such enhanced analyses should be used in determining and evaluating performance and in identifying areas where improvements should be made.

H. Equipment Record Keeping

- 1. We recommend the CDA ensure that adequate records are maintained on an ongoing basis for portable radios and related chargers.
- As reported in prior follow-up report, recommendation addressed and underlying issues resolved, and/or actions to be taken when applicable future events occur.

Table Legend:

- ✓ Recommendation addressed and underlying issues resolved, and/or actions to be taken when applicable future events occur.
- ♦ Recommended actions have been taken but not yet completed responsibility for ensuring completion of final actions turned over to management.

Conclusion

Table 1 within this report shows for 20 of the 25 initial audit recommendations that, as of October 31, 2016, actions have been completed and/or are to be taken when applicable future events occur. Accordingly, for purposes of our audit follow-up process, the underlying issues are considered to have been adequately addressed and resolved. For the remaining five initial audit recommendations, Table 1 shows that significant actions have been taken and are in progress to address the underlying issues. Accordingly, responsibility for following up to ensure the necessary final actions are completed is turned over to management.

We appreciate the cooperation and assistance provided by staff at the CDA, the City's Technology and Innovations Department, and applicable responding agencies (i.e., TPD, TFD, EMS, and the Leon County Sheriff's Office) during this follow-up audit.

Management's Response

CDA Director (CDA Issues):

The CDA would like to take this opportunity to thank the Office of the City Auditor's staff for their thorough review and reporting on the Final Follow-up Audit of the Tallahassee-Leon County Consolidated Dispatch Agency and Related Motorola Contracts. We are pleased that the audit recognizes the continuous improvement that our team made as we worked towards completion of the action items and recommendations contained in the original audit. We are confident that all action items and recommendations will be addressed by their respective follow-up date(s) and that the findings and recommendations contained in both the original and follow-up audits will assist our agency in reaching our goals of achieving International Accreditation and being recognized as an industry leader.

City Manager (TPD Records System Issues):

I am pleased to see that progress has been made toward addressing the remaining recommendations in regards to the TPD Records Project. Motorola was unable to deliver a working Records Management System, and the project was more than two years past the contracted completion date. As a result, staff has reached agreement with Motorola on settlement of this issue and is in the process of drafting terms of that agreement into a change order to be executed by both parties. This will serve as full settlement and closure of all matters in connection with the Motorola Records project. In addition, staff is in the process of developing a RFP to replace the existing Motorola Records system. I appreciate the work done by the City Auditor on this final follow-up audit of the CDA and Related Motorola Contracts.

Copies of this final audit follow-up #1703 or audit report #1505 may be obtained from the City Auditor's website (http://www.talgov.com/auditing/auditing-auditreports.aspx) or via request by telephone (850 / 891-8397), by FAX (850 / 891-0912), by mail or in person (Office of the City Auditor, 300 S. Adams Street, Mail Box A-22, Tallahassee, FL 32301-1731), or by e-mail (auditors@talgov.com).

Audit follow-up conducted by:

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