



City of Little Rock Police Department Communications Center

APCO Consulting Services Report

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**Submitted to:
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By

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Executive Summary

In an effort to provide the community with the finest level of public safety communications services, The City of Little Rock, AR contracted with the Association of Public Safety Communications Officials (APCO) Consulting Services (ACS) to have APCO team members review and assess the City's Public Safety Answering Point (PSAP). The team was tasked with focusing on twelve specific areas that consisted of **Organization, Governance, Funding, Operations, Customer Service, Policies & Procedures, Staffing Analysis, Standards Compliance, Planning, Recruitment and Hiring, Training, and Facilities.**

APCO International is pleased to present the results of the Operational Audit and Review of the Little Rock Communications Center.

APCO Team Members

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Christina Dravis, Manager, Tompkins County (NY) Communications Center
Bill Hobgood, Project Manager, City of Richmond (VA) IT Public Safety Team

Acknowledgements

APCO International would like to thank the following organizations and personnel for their contribution to this report:

Little Rock Communications Center Managers, Supervisors, and Employees
Little Rock Information Technology
Little Rock Fire Department
Little Rock Human Resources
Little Rock Police Department
Little Rock City Manager's Office
Metropolitan Emergency Medical Services of Little Rock (MEMS)

Introduction

The subject PSAP receives, processes and dispatches calls for service for the City of Little Rock Police and Fire Departments. The Little Rock Police Department Communications Center herein referred to as the "Communications Center" or "LRCC", also has a 3-1-1 component in their operation. The Center management is

under the direction of the Little Rock Police Department, and has been since August 1998. The APCO Consulting Services team, herein referred to as the “review team”, consisted of three members with a notable amount of PSAP operational and technical experience.

The review team met with the agency manager on the evening of Sunday, July 26th to gather logistical information and to tour the city. The review team arrived at the center the following morning, July 27th, and began observing communications operations and interviewing key officials at the agency.

On Tuesday, July 28th the review team again spent the day interviewing key officials, supervisors, and staff on the Communications Center floor. Members of the team interviewed key Information Technology staff. The team met with officials from the City of Little Rock Human Resources Department in an effort to gather background and current information on all aspects of the recruitment, screening, hiring, and retention process associated with LRCC. A review of the Computer Aided Dispatch (CAD) system and training program took place during this time.

On Wednesday, July 29th the review team completed the information gathering process. The review team lead, Mrs. Crystal McDuffie, concluded the audit and review with a meeting which included the LRCC Manager, the Assistant Fire Chief, the Assistant Police Chief, the LRCC Administrator, and the IT Director, and discussed preliminary observations, reviewed the scope of work, and outlined the process by which the draft and final report would be processed and presented.

Program Goal

APCO Consulting Services builds on APCO International's commitment to member services. The focus of a review is on providing findings and recommendations for key officials with regard to a specific, pre-defined scope of work.

As peers in the public safety and public service realms, experienced public safety communications officials and APCO members who have successfully managed PSAPs are selected to perform reviews. The skill sets of the reviewers are matched with the jurisdiction’s needs and the scope of work desired.

Peer-to-Peer Review

The reviewers for this project were selected from a wide range of public safety professionals to have the particular skill set and experience level that matched the objectives of this review as articulated by jurisdictional leadership. APCO

representatives and the City met by phone and email to identify the specific components where the review should be focused.

APCO Consulting Services provides a "peer-to-peer" review leading to initial findings and recommendations. APCO International recognizes a more formal and possibly a longer term relationship between a jurisdiction and a provider of public safety communications related consulting services may be an appropriate option for the agency as it moves forward after considering the findings and recommendations made in this report.

Consequently, APCO reviews are structured to assist agencies to arrive at a point at which additional professional consultancy services might be engaged to begin the implementation of some or all of the recommendations made herein. The insights provided are designed to assist jurisdictions during the discussion and decision process and will be of assistance if drafting requests for proposals if deemed appropriate and will also provide insights for obtaining, if the agency believes needed, professional consultant services focusing on the jurisdiction's specific identified needs.

Review Process

The reviewers used a number of different processes in an attempt to solicit robust feedback on the issues and the challenges facing the LRCC. Understanding the reality of the current situation for the stakeholders involved, what each feels would provide the best level of service, what resources are available, what goals are a priority, and how willing each is to participate in a longer term solution is essential in order for accurate and useful recommendations to be made. In addition, reviewers must clearly understand the issues that are of concern to stakeholders.

Documentation Review

The first step taken by the reviewers was to gather data and information in order to review as much documentation as possible prior to arrival on site. Reviewing various documents prior to the onsite visit allowed the reviewers to develop an understanding of LRCC's staffing and its level of service delivery. A review of documentation also allowed the reviewers to develop a better understanding of existing conditions. A list of documents provided is noted in Appendix A.

Although some documentation and raw data was provided, the data was not granular enough to allow the reviewers to determine the amount of phone and radio traffic handled by each shift, nor was it possible to accurately evaluate the LRCC's workload using only this data.

In–Person Interviews

A second level of information and data gathering conducted by the reviewers was in-person interviews of jurisdictional leaders, customer agency employees, LRCC staff members and other stakeholders. The interviews allowed the reviewers to understand, on an individual level, concerns about the LRCC’s level of service; what each person felt the challenges were, what solutions for each challenge he or she might be aware of, what support they would provide to the LRCC, and what resources they could provide to help the LRCC meet the needs of the public and its users.

LRCC Tour and Observation

The reviewers spent several hours touring LRCC. During this time, informal interviews with city public-safety staff members were conducted in addition to observing operations and the PSAP’s use of current technology. The time spent in LRCC was focused on understanding the perspective of line personnel with regard to the LRCC’s strengths and weaknesses. Other areas of focus included observing how the operators and dispatchers apply operational procedures using available technologies.

Stakeholder Meetings

In addition to meetings with LRCC’s personnel, the reviewers met with Police and Fire department managers, supervisors and line staff members.

The last on-site action of the reviewers was a meeting with LRCC management, Police & Fire Command staff, and the IT Director, where the preliminary findings were discussed and where the review team lead provided a brief general list of major recommendations, and the planned timeline for the completion of the final report. It should be noted that the review team was treated extremely well, and all of the individuals from the City of Little Rock Fire, Police, LRCC, Information Technology and the Human Resources Departments, were helpful, candid and cooperative.

Report Organization

This report is organized into three sections. The first section presents an overview of the interviews and information gathered. The second section identifies the findings that resulted from a combination of the document review and onsite interviews. The third section addresses the recommendations of the APCO Review Team based on the findings.

Organization Overview

The highest civilian position in the Center is Communications Center Manager, and this position has direct supervision of the Communications Center Administrator (operations), Communications Systems Specialist (CAD, radio, phones), Customer Service Supervisor (3-1-1) and Secretary. The Communications Center Administrator oversees the Communications Shift Supervisors and Emergency Communications (EC) Training Supervisor. The Customer Service Supervisor oversees Communications Call Takers assigned to the 3-1-1 section, while the Communications Shift Supervisors oversee Communications Call Takers in the 9-1-1 section, as well as all Communications Dispatchers. The EC Training Supervisor has direct oversight over three EC Trainers when they are assigned to Training.

A new Communications Call Taker has ample promotional opportunities. After completing Call Taker training, an employee may promote to Communications Dispatcher. Beyond that, employees have opportunities to promote to a supervisory or training position and, ultimately, a managerial position within the Center.

There is currently no career development program within the center, although the training unit plans on providing Supervisors with additional leadership training. Both the police and fire departments provide training to their agency's new supervisors and both departments stated they would be willing to include Communications Center supervisors in future offerings.

At the time of the site visit, none of the job descriptions indicated who supervises the Communications Systems Specialist. This was addressed after the visit and now ensures a clear chain of command and reporting structure.

Dispatch Operational Review

Overview of Day-to-Day Operations

The ACS Team interviewed management and supervisory staff to obtain an overview of day-to-day operations including the Chief of Police, the Assistant Chief of Police, the Fire Chief, the Fire Administration, the Executive Bureau, Communications Manager, Communications Administrator, shift supervisors, and the 3-1-1 Supervisor in individual and group sessions.

The LRCC has 56 authorized call taker / dispatcher positions. Of those, 14 are currently vacant. There are 7 Shift Supervisor positions authorized with one current vacancy and one additional vacancy due to retirement of the training supervisor. LRCC staff has worked a considerable amount of overtime during the past 12-18 months.

The LRCC serves a population of 193,000 in approximately 120 square miles. Service agencies include the Little Rock Police Department with 574 authorized sworn positions and the Little Rock Fire Department with over 400 positions and 21 stations.

The lack of staff appears to be affecting the ability of LRCC to provide comprehensive training, answer all calls in a timely manner and provide the required support to field personnel from the dispatch perspective.

Some of the individuals interviewed appeared to be content working under the police department, while others felt as though the LRCC staff were being treated with indifference by the police department. Other individuals interviewed felt that the communications center operated much better when it was part of a separate department.

The Chief of Police, who was formerly the Assistant Chief of Police for Louisville Kentucky, indicated the need to identify deficiencies, define the culture, research available technology and create a road map for the future. The Chief stated he has concerns about the customer service being provided by the LRCC and said that complaints about the LRCC appear to be legitimate. He mentioned that Louisville had an independent department for communications. He noted several issues within the LRCC which included stress, equipment issues, lack of training, missing certifications, and what appears to be a reluctance to hold staff accountable; e.g. an employee who had been late 16 times had only one “file” turned in by the employee’s supervisor. The Chief indicated that he had a good relationship with the Communications Center Manager. .

Members of the Police Executive Command indicated that dispatch does “ok” overall but also indicated that they believe LRCC needs to get past the “ok”. In their opinion, LRCC supervisors take too long to answer the telephone and supervision overall is an area where there is an opportunity for improvement. They also indicated that some of the LRCC dispatch staff are argumentative and seem to have a “don’t care” attitude. As an example of some issues revealed during the interview process, it was reported to the review team that there are two types of bank alarm systems in use in Little Rock, ProNet and 3si. Both systems are monitored by dispatch. An alarm from the ProNet system is dispatched as a “signal 200”. Responding officers switch to a special frequency and use equipment in their vehicle to track the movement of money. An alarm from the 3Si system is dispatched as a “signal 300”. Responding officers depend on the radio dispatcher to keep them advised of the current location of the GPS money pack according to the 3Si screen. The discussion for this situation focused on a perceived lack of proper dispatch procedures for these alarm types. During a number of special events requiring a dedicated radio talk-group and dispatcher, there was no dispatcher available, which may be due to improper staffing

levels and / or staffing shortages.

A contributing factor to the personnel shortage may be the fact that dispatch salaries were reported to be lower than those of other area agencies. As with any profession, qualified personnel tend to gravitate to better paying jobs. As a result, the lower pay may well contribute to higher vacancy levels. All Executive Command personnel interviewed agreed that the LRCC should not be losing dispatchers to other agencies.

At one time there was a telephone-reporting unit (TRU) consisting of civilian employees to take crime reports via telephone. The TRU did not appear to be effective and was disbanded. The responsibility of taking crime reports from citizens has since been assigned to the LRCC. When officers on light duty are available, they staff a console position in the LRCC, which is used solely to take reports via telephone. The 3-1-1 staff is also tasked with taking reports. When neither of these resources is available, a 9-1-1 call-taker must take the report via telephone. When this occurs, the call-taker is no longer available to answer incoming 9-1-1 telephone calls. One interviewee stated that the dispatch staff was not properly trained to take reports over the telephone and was concerned about this role being part of the Telecommunicator responsibilities.

Dispatch appears to have reached the point where they can no longer “do more with less”. Critical information is not being relayed to the officers in the field and this is considered an officer-safety issue. Both Fire and Police administrative staff made suggestions that placing sworn officers and firefighters in dispatch would help the dispatch staff make decisions. This seems to indicate to the review team a lack of confidence on the part of police and fire personnel regarding decisions being made by LRCC.

The fire department emphasized on-going complaints about fire units calling on the fire ground radio talk groups and frequently not getting an answer. Relations with the upper LRCC management were said to be “strained”. The Fire Chief suggested hiring dedicated dispatchers for fire dispatch operations. Other concerns include the fire dispatcher waiting too long to rebroadcast an assignment, unnecessary talk over the radio by both dispatch and fire personnel, no assignment of dedicated dispatchers to monitor frequencies for large emergencies, too much background noise in dispatch, and there was concern expressed by the Fire Department that there is an underlying attitude that the dispatch staff work for the police department, not the fire department. There was also concern expressed that fire dispatches are not being processed in a timely manner and fire, overall, is not receiving the same level of service as police.

Operational Support Technology

The ACS Team interviewed the Director of Information Technology (IT) for the City of Little Rock, the Programming Services Division Manager, and an IT Project Manager. The IT department supports fourteen agencies, however 70% of the IT workload is attributable to public safety technology needs. The IT department currently has an authorized strength of 35. The department has five vacancies including two programmer vacancies and two network engineer vacancies.

The IT Project Manager is the liaison between LRCC and Northrup Grumman, the CAD vendor. Whereas the Communications Systems Specialist provides tier one support for any technology issues that arise within the LRCC, the IT Project Manager interacts with the Communications Systems Specialist regularly and provides tier two support. A programmer backs up the IT Project Manager. If the vendor must be contacted, the liaison handles the request.

There is one domain but separate Virtual Local Area Networks (VLAN). The IT department worked with Northrup Grumman in January 2015 to replace the UNIX servers that support the CAD operation. The new UNIX servers operate in a Virtual Machine (VM) environment. The City provided \$3.5 million to replicate data between the primary and backup sites achieved over a 10GB fiber ring. There are four servers in each cluster. The database is Oracle 11g.

Digital Subscriber Lines (DSL) are in use currently to connect 48 remotes to the core router and provides roughly 512K – 1MB bandwidth. At the time that this review was conducted, a Request for Proposals (RFP) had just closed that will potentially facilitate the network connectivity to 48 Little Rock sites and provide 50MB download and 10MB upload speeds.

The IT Department participates as a stakeholder in new monthly meetings that were organized beginning in 2015. These meetings are intended to bring the public safety stakeholders to the table each month to discuss outstanding operational, technology, and policy matters. Unfortunately, of five meetings scheduled, all but two were cancelled for various reasons.

CAD Functionality

The CAD system used by the LRCC is an Altaris CAD provided by Planning Research Corporation (PRC) Public Sector. Northrup Grumman purchased PRC in 2003. The CAD system is 19 years old. The IT staff interviewed reported that an upgrade of the CAD to Northrup Grumman's Command Point product line has been discussed. Other LRCC staff interviewed mentioned the age of the CAD system, the lack of some functionality, and commented, "that they believed the CAD system was outdated and had not kept up with technology. The Communications Systems Specialist reported

that there is some information that cannot be obtained from the CAD system via a “canned” report. The IT department commented that not everyone understands what data is available in the CAD system. This could be symptomatic of a lack of training on CAD, a lack of features in the CAD system, lack of communication between the IT department and LRCC or a combination of all of the above.

Staff interviews revealed that the wrong response plans are present in the CAD. The ACS Team received multiple complaints that the CAD is missing streets or does not include the entire street range along some streets. LRCC staff reported that “something” seems to happen periodically that causes some newly entered streets and/or new address ranges to be dropped from the CAD system. According to LRCC Management, a wrong dispatch recommendation may happen when the street center lines, which are based upon GIS data, are not correct.

In CY2014, Little Rock ordinance #20,883 authorized the expenditure of \$482,020.00 for an upgrade to the CAD server hardware, the Oracle database, and the operating system. While all of these upgrades were completed, no new CAD functionality was added which did not provide any net benefit to LRCC dispatch services.

The ACS Team observed dispatch operations from multiple vantage points: call-taking, police dispatch, and fire dispatch. Multiple dispatch staff members were interviewed, representative of all three shifts.

A representative from the Metropolitan EMS of Little Rock (MEMS) was interviewed concerning the state of EMS in Little Rock and the relationship with the LRCC. The MEMS serves nine PSAPs and covers 2200 square miles. The relationship with the LRCC was described as good. No MEMS representative participates in the monthly stakeholder meetings nor is there a need at this time. By contrast, some dispatch staff complained about MEMS although the comments were generalized and not specific.

There is potentially room for some technological improvements with regard to the process used to request EMS services by the LRCC. Citizens who dial 9-1-1 to request EMS services are questioned by the LRCC call-taker concerning the location and nature of the request. The caller is then transferred to the MEMS communications and due to the lack of ability to transfer information directly to MEMS, the caller is often asked some of the same questions again. This can be understandably frustrating for the citizens. MEMS uses a Zoll CAD system and the MEMS dispatch staff provide Emergency Medical Dispatch (EMD) instructions to the caller when appropriate. The MEMS currently uses the EMD cards from Priority Dispatch but is in the process of implementing Priority Dispatch’s Paramount EMD software that will be integrated with the Zoll CAD. There may be an opportunity to explore

technological options for transferring of information, and if not at least consideration of streamlining the process of this type of transfer.

The number of alarm events handled by the LRCC is staggering. The majority of these alarm events are called in by alarm monitoring central stations. On average between 17% and 18% of all dispatches are alarm calls. Burglar alarms and residential alarms consistently fall into the top three incident types.

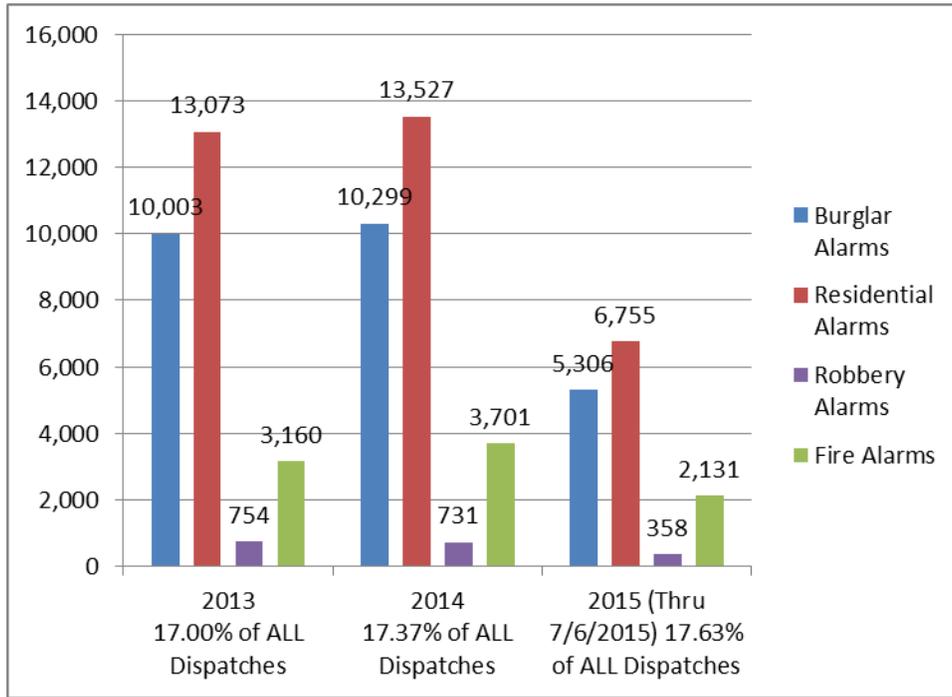


Figure 1 - LRCC Alarm Dispatched by alarm type 2013, 2014, and 2015 (thru 7/6/2015)

Mapping System

The maps are ESRI-based. ESRI (Environmental Systems Research Institute) is a recognized leader in the mapping world. However, the map data is only as good as the data entry. In some cases, the centerlines are not mapped correctly. The City often makes changes to streets, creating a backlog for LRCC staff assigned to maintain the addressing system in CAD. The Communications Systems Specialist collaborates with a Little Rock Public Works Graphics Information Specialist and the Public Works Projects and Addressing Specialist, who is responsible for addressing for the City of Little Rock. This includes addresses for new streets.

A different Public Works employee, listed on Little Rock’s website as the GIS contact, manages the GIS. When public safety GIS matters are raised, there was concern expressed by LRCC staff that the individual in this role “is not as diligent as he should be.” When critical public safety GIS issues evolve, such as a missing new street in the GIS, the turnaround time was estimated to be one week.

Recording Devices & Programs

A combination of tools is in use for recording and playback purposes. The Vesta telephone system includes a playback method. The LRCC also has a Nice recorder system and the clients use Nice Inform for retrieval purposes.

Telephone System Functionality

The older Microdata 9-1-1 telephone equipment was replaced with an AirBus Vesta 9-1-1 system in February 2015. The existing Nortel telephone sets are in the process of being replaced with Cisco telephones. There are 16 seven-digit telephone numbers including one number published as the non-emergency number for the public to call, one number published as the TRU, one number for alarm companies to call to report fire alarms, two lines for the fire department to contact the fire dispatch console, and the remaining lines in a hunt group with the main non-emergency line.

9-1-1 Systems Wire Line and Wireless Technologies

There are seven 9-1-1 wire line incoming trunks and ten 9-1-1 wireless incoming trunks. Based on the 9-1-1 call volumes reported, this should be an adequate number of trunks for 9-1-1 services.

Planned Notification Processes for Equipment Outages that are operated 24/7

Radio-related equipment outages are reported directly to the City's contractor, Grace Communications. LRCC staff will sometimes notify the Communications Systems Specialist for issues with a single telephone answering position or a single individual having an issue with the telephone workstation/application. The Communications Systems Specialist will provide guidance to the Communications Supervisor concerning escalation to AT&T. In the event of a system-wide telephone outage, the supervisor will likely contact the regional 800 number for AT&T directly. CAD matters are initially brought to the attention of the Communications Systems Specialist who provides tier one support and will decide if a matter should be escalated to the IT Project Manager who is the liaison between communications and Northrup Grumman. When the Communications Systems Specialist is on vacation, the IT Project Manager handles tier one support.

Mobile Radio Usage, CAD Usage

The ACS Team observed the communications operation from a radio usage and CAD usage standpoint. The IT department has been very progressive concerning the building up of the infrastructure and has an excellent plan to continue the infrastructure build-out.

Quality Assurance Program / Procedures

The LRCC currently does not have a quality assurance / quality improvement program in place. Supervisors attempt to quality check by monitoring real time calls

during their shifts, but they are not able to do this on a regular basis due to call volume and staffing levels.

Telephone Etiquette / Call Processing

Telephone etiquette appears to be consistent and effective. However, call answer times do not fall within national standards. The ACS team observed extended call answer times while in the center. Some answer times exceeded one minute. The ACS Team spent time with all shifts of the LRCC and observed quality call answering techniques and etiquette. However, in CY 2014, LRCC staff took 9,536 phone calls which involved taking and completing a police report over the phone. This is not a function regularly found in 9-1-1 Centers. Recently, officers on light-duty have been filling in but it is only temporary. Requiring the call takers to take police reports results in long answering times for other emergency calls and/or placing callers on hold to answer incoming calls.

To put this in perspective, interviews with LRCC staff indicate that a police report takes an average of approximately twenty minutes to complete., 9,536 reports at twenty minutes each, would require 3178 hours to complete. Based on the national average work year of 2080 hours, this equates to a workload equivalent of 1.5 additional personnel. Perhaps even more telling, and relevant to the issue of prolonged call answering times, if an average 9-1-1 call lasts approximately five minutes, an additional 38,144 calls could be taken if staff were not tasked with taking non-emergency reports.

It is apparent the to the review team that taking phone reports has an impact on call answering times within the LRCC.

Staffing Review

Schedules

The review team found that operators and dispatchers are working a substantial amount of overtime. Data provided by the City of Little Rock Human Resources indicates that for FY14-15, 17,054 hours of overtime have been paid for LRCC staff. This is likely due in large part to a lack of staffing during periods when activity is the highest.

Policy and Procedures

The ACS Team reviewed current policy and procedure manuals provided to LRCC employees. Terminology usage and codes were also reviewed for consistency. Review of the manuals indicates they are up to date and current. Separate manuals are in place for the Little Rock Police Department and the LRCC. Employees are required to be familiar with both.

Salary Plan

The salary plan in place for LRCC appears to be adhered to in a consistent manner. LRCC management has made it a priority to obtain raises for LRCC staff on a periodic basis, as annual evaluations do not result in a salary increase. Salary increases result in the bottom tier of the salary plan being moved up; therefore, most of the LRCC staff are at the minimum of the salary range for their position.

Current hiring practices

There are extreme challenges when large agencies hire. The City's current process includes outside software/services and metrics to determine the suitability of a candidate. A general consensus among the staff is that recruitment efforts have improved due to the actions of HR and the LRCC leadership. This said, recruiting, hiring, and retention of quality personnel is an ongoing process, and the ACS Team encourages the City to consider the recommendations and best practices contained in the *APCO Effective Practices Guide*.

Testing and interview process

The City of Little Rock has a comprehensive hiring process for call takers. As noted in other sections, the LRCC hires call takers as the entry level position to the center. Dispatchers are promoted from within. Once hired, call takers may be assigned to either the 9-1-1 or the 3-1-1 side of operations and the hiring salary is the same.

The pre-employment process consists of a preliminary background investigation, testing via commercially supplied testing software, completion of a comprehensive background investigation booklet and a structured interview. The ACS team reviewed documents related to the hiring process, including statistics indicating where applicants are removed from the process as well as a review of the structured interview questions.

Once an applicant passes all of the above criteria, the LRCC Communications Manager then interviews the potential candidates.

As an example, data from the September 2014 hiring process indicated that 348 applications were received, 152 applicants scheduled and participated in the pre-employment testing, 57 applicants proceeded to the structured interview, with 37 being referred to the hiring department and 12 were hired.

It was noted that the passing score for commercially supplied pre-employment testing software at LRCC was established between 60% and 68%. This percentage is below passing scores in comparable PSAPs. Passing scores in other PSAPs are normally cut off in the 80% range. For example, a similarly sized North Carolina agency's commercially supplied pre-employment testing software passing score is 88%. This may explain the high rate of unsuccessful candidates during initial training.

The commercially supplied pre-employment testing software used at LRCC contains a built-in Test Creation Wizard that helps employers choose the

most appropriate tests to use during testing for the job as it is performed at their agency. The custom tests you create can be automatically administered and scored by the commercially supplied pre-employment testing software program¹

Funding and Cost Share Alternatives Review

For the purpose of analysis of current funding and cost sharing practices, the ACS Team gathered information from the Communications Manager and the police department's Administrative Services Manager concerning budget and capital expenditure practices.

Communications Budget

The budget for the LRCC is part of the overall budget for the Little Rock Police Department but maintained in a separate account (105260). The Communications Manager collects and assembles budget requests on behalf of the LRCC and submits the budget requests to the Assistant Chief of Police. All approved requests subsequently flow through the police chain of command. The police department's Administrative Services Manager coordinates the incorporation of the LRCC budget into the budget for the police department. The budget is then presented to the City leadership for consideration. The Administrative Services Manager oversees the approved budget through the procurement process through the payment of invoices for services and deliverables.

City-Provided Services

City agencies are responsible for budgeting for some city-provided and non-city-provided services including telephone, utilities (electricity, gas, and water), fleet, building maintenance; land maintenance, diesel, gasoline, postage and maintenance contracts. Neither the Information Technology nor the Human Resources departments charge for services provided to the LRCC. The Public Works department does not charge the LRCC for any GIS services provided.

3-1-1 City Departments Cost Sharing

The budget for 3-1-1 staffing and operational support is included in the LRCC budget. There is no separate line item or breakout for 3-1-1 services. There are no

¹http://www.google.com/url?sa=t&rct=j&q=&esrc=s&frm=1&source=web&cd=1&ved=oCCEQFjAA&url=http%3A%2F%2Fwww.critical911.com%2Fintro.pps&ei=vFONVdGOLMfvoATei7rwAg&usg=AFQjCNFA3VWRk2kuED2WgdeeR8FzqKv4Bg&sig2=ulm88KWAeC7if_oZqycuHA

chargebacks or reimbursement procedures to recoup operating expenses associated with the 3-1-1 operation.

Capital Expenditure Planning Process

The Communications Manager collects requests from LRCC staff and reviews each request. All requests approved at this level are fully documented, assembled, and forwarded to the Communications Manager's supervisor, the Assistant Chief of Police. All requests ultimately flow through the police department's chain of command. Requests approved by the Chief of Police are packaged and submitted to the City leadership for consideration. The police department's Administrative Services Manager coordinates and monitors the capital expenditure process from submission of new requests through payment of invoices resulting from work for approved projects.

Operations Review

The National Emergency Number Association (NENA) has set a standard for answering 9-1-1 calls within 10 seconds, 90% of the time during the PSAP's busiest hour of each day.² This generally accepted association standard is used as a benchmark to assess public safety communication's center emergency call answering time. It does not delve into call processing and dispatching times. Dispatch times will vary between law enforcement, fire and EMS, depending on the type of call for service.

Section 7.4.1 of NFPA 1221, 2013 version states that: *Ninety-five percent of alarms received on emergency lines shall be answered within 15 seconds, and 99 percent of alarms shall be answered within 40 seconds.*³ LRCC was not able to supply data to measure against this benchmark. Investigation will be necessary to determine if the current phone system is able to provide the necessary data.

The ACS Team reviewed call statistics spanning several years for LRCC. According to the reports, the average percentage of calls answered within ten seconds by the LRCC ranges from 73% to 76%.

Additionally, LRCC's abandoned call rate averages 15%. Interviews with City Officials indicate the primary complaint from citizens is that they either experience long ring times or no answer when calling 9-1-1 for service. The ACS Team confirmed this during on-site observation.

² http://c.ygcdn.com/sites/nena.site-ym.com/resource/collection/ABEAA8F5-82F4-4531-AE4A-OAC5B2774E72/NENA_56-005_9-1-1_Call_Answering_Standard.pdf

³ <http://www.nfpa.org/codes-and-standards/document-information-pages?mode=code&code=1221&tab=committee>

Training Program Review

The ACS Team interviewed the Training Supervisor and training staff, as well as new and veteran employees within the LRCC. This division oversees both initial call taker and dispatcher training, as well as continuing education and maintenance of training records.

Newly hired call takers attend an eight-week classroom-training academy before being released to the center for on the job training. The first week of the academy is dedicated to APCO Public Safety Telecommunicator 1 Certification. The remaining weeks are spent covering specific general orders, policies, codes and terminology, as well as CAD simulation training. Tests are given throughout the academy, and a passing score of 70% must be achieved. Prior to release for OJT, call takers must also pass a final, cumulative exam with a score of 70% or better.

The ACS Team interviewed CTO's as well as new and veteran workers regarding the training program. All indicated a need for added scenario training to prepare call takers for call handling during OJT training.

Training records for LRCC staff were reviewed and appear to be complete and thorough.

Arkansas HB1741, now Act 640 provides recommendations for training of 9-1-1 Center personnel, however these are not mandated by the state. The only mandatory training is Arkansas Criminal Information Center (ACIC) certification program.

Several staff members involved in providing on the job training for newly hired call takers are not certified, nor have they received training in how to be a Communications Training Officer. Liability associated with training is considerable and is why many agencies around the Country utilize only trained and certified CTO's.

LRCC Supervisors indicate very little training for their position. As with CTO, there is a significant amount of liability associated with supervision in a 9-1-1 center. Continuing education and training is minimal at best. LRCC staff indicates there is little opportunity for continuing education.

Governance Review

The LRCC Communications Manager reports to a police department administrator. The ACS Team interviewed numerous stakeholders and found that there is room for improvement in the communication between stakeholders and LRCC management.

A committee was formed recently to bring together representatives from multiple customer agencies in an effort to improve communication however this group has only met twice with at least one meeting being cancelled. All stakeholders agree that

these meetings are crucial to creating more successful communications between customer agencies and the LRCC.

Planning & Facilities Review

Backup 9-1-1 and 3-1-1 Center Plan

The ACS Team was provided a copy of a presentation entitled “City of Little Rock’s 9-1-1 / 3-1-1 Disaster Recovery Back Site”. The presentation was created in May 2014. It identified three options relating to the 9-1-1/3-1-1 operation. The plan also discussed the need for a disaster recovery backup site. Each option articulated the associated costs that would be required as a capital outlay and then annual operating costs. The three options include:

- Option #1 – Split 3-1-1 off from 9-1-1 (Only provides 3-1-1 functionality)
This option proposes to relocate the primary 3-1-1 operations to the Willie L. Hinton Resource Center or the Fire Training facility. Under this option, these facilities would not function as a backup 9-1-1 site nor are costs included for a backup 3-1-1 site. Neither site is tornado proof. The Hinton Resource Center also has basement water issues. This facility does not have space for a communications tower to take advantage of the Arkansas Wireless Information Network (AWIN), required for public safety communications. The total cost of option #1 is a one-time capital outlay of \$2,466,955 and operating costs of \$54,320 annually.
- Option #2 – Backup site for 9-1-1 only
This option proposes the establishment of a backup site for 9-1-1 only at the Fire Training facility. The room will need to be constructed inside the training facility. According to the presentation, the Fire Chief indicated that there is no more useable space in the training facility. The Fire Chief did indicate a nearby parcel owned by the City of Little Rock that could be used for new construction. The capital outlay for construction of a room within the fire training facility is \$4,603,890 and operating costs of \$306,320 annually. The fire training facility has a generator in place. However, should new construction take place on the parcel owned by the City of Little Rock, the cost of a generator at \$750,000 would be required as an addition to the capital budget.
- Option #3 – The 3-1-1 center that is transformed into a 9-1-1 center during a disaster
This option proposes to establish the primary 3-1-1 operation at the fire training facility in an area that would become the backup 9-1-1 site. Depending on the type of emergency or disaster, 3-1-1 may be deemed optional. This option includes costs for replication of the hardware, a communications tower, radio dispatch console positions, an IP-based recorder system, a telephone switch for 3-1-1, workstation computers for 3-1-1 and 9-1-1 staff, extension of the 9-1-1 trunks by AT&T, an Uninterrupted Power Supply (UPS), console furniture, a fire

suppression system, and miscellaneous (connections, cabling, and electrical). The fire training facility has a generator in place. The total cost for this option is a one-time capital outlay of \$4,724,106 and annual operating costs of \$315,320 annually.

To date, the City of Little Rock has not accepted any of the three proposed options outlined above. At this point in time, there is a DR site located at the fire training facility. A member of the ACS Team accompanied the Director of Information Technology and toured the fire training facility located at 7000 Murray St, Little Rock, Arkansas.

One of the \$3.5 million funded initiatives of the IT department is to replicate all of the City's servers at the fire training facility. The work that has been done toward the creation of a true Disaster Recovery (DR) site is impressive. The servers that support the 9-1-1 Computer-Aided Dispatch (CAD) system sustain data replication between the primary 9-1-1 operation and the DR site in such a way that the data between the two sites is in sync within 30 seconds. The 10-gigabyte fiber ring that connects the primary data center with the disaster recovery site is ideal for this purpose. Dedicated servers support the CAD system and are not shared with any other agency.



Figure 2 – Server racks at the disaster recovery site inside the fire training facility

The rest of the server room is currently vacant but plans include the establishment of office cubicles for IT staff should they need to relocate to the DR site.



Figure 3 - Remainder of Server Room

The fire training facility includes a classroom housing 16 computer workstations. This classroom is used by the fire department and was mentioned for potential use by a Human Resources representative to conduct Communications Call Taker applicant testing. Furthermore, the workstations can be used for continuity of city operations from the DR site.

An area described as the potential back-up 9-1-1 center that could also be used actively for 3-1-1 was reviewed. Compared to the other areas viewed, this room was small. The primary 9-1-1 operation recently replaced the call-taker and dispatch consoles. As shown in the pictures below, some of the older dispatch consoles have been relocated to the DR site. Telephones have been set up to receive voice 9-1-1 calls without Automatic Location Information (ALI) but have not been tested. Work remains in-progress in this area and the transfer of 9-1-1 calls to the telephones set up at the DR site has been promised within 45 days of review.





Figure 4 - Potential site for 3-1-1 and Backup 9-1-1 Center

Future Facility Housing Communications Center Options

The Little Rock 2012 – 2021 Capital Project Fund mentions an upcoming project to tear down and reconstruct the police headquarters facility beginning in CY2016. Whereas the reconstruction of this facility has no bearing on the DR site, it may factor into consideration of a new location for the primary 9-1-1 communications center and the IT department.

Equipment Compliance to Standards and Redundancy

The equipment in use on the operations floor was reviewed and compared to applicable standards. Redundancy was also considered and is discussed throughout this section.

Dispatch Operational Findings

Day-to-Day Operations

Additional responsibilities have been placed on the LRCC staff with regard to taking police reports by phone. It is not common practice to require 9-1-1 staff to take police reports via telephone. For every report that a 9-1-1 call-taker receives via telephone, this means one less 9-1-1 call-taker for twenty minutes, the average time to take a report, according to Little Rock sources. Report taking by police officers on light duty was working well when observed by the ACS Team but they do not need to be co-located with the 9-1-1 and 3-1-1 staff. The 3-1-1 call-takers also took reports via telephone although the 3-1-1 staffing levels, four 3-1-1 call-takers and one 3-1-1 supervisor, could easily become saturated handling 3-1-1 calls based on the 3-1-1 call volumes identified and have little time to assist with the report-taking process. (*See recommendation #1*)

The fire-ground dispatchers assist with the answering of 9-1-1 calls. This is one possible reason the fire units do not receive timely answers when trying to reach a fire-ground dispatcher. *(See recommendation #2)*

The ACS Team observed the two-hour rotation of dispatchers. This did seem to be noisy and disruptive. If the sole purpose of this rotation is for training purposes, it would be less disruptive to have staff assigned to each working position for the entire eight-hour shift. *(See recommendation #3)*

As dispatchers need breaks away from the console, often the fire dispatch and fire ground channel are cross-patched creating a greater workload for a single dispatcher. *(See recommendation #4)*

In the LRCC, there are call-takers and call-takers/dispatchers. A “call-taker only” is not permitted to dispatch. Even though the “dispatchers” fall into one category, there may be dispatchers who are excellent on the police dispatch console but do not fare so well on the fire dispatch position because of fire terminology and other reasons. While all dispatchers in the LRCC should be cross-trained to work all dispatch positions, there will be situations such as working fires that will require a more seasoned dispatcher with excellent fire dispatch experience to take over for the fire TAC dispatcher that may not be as seasoned in the fire dispatch operation. *(See recommendation #5)*

Although it may be of some value to have a fire commanding officer or liaison come to dispatch to assist with the decision-making during large fires, day-to-day operations should not require this level of authority within the center. The daily decision-making process is the responsibility of the LRCC Communications Supervisor. *(See recommendation #6)*

There is one talk-group and one dispatch console to handle the dispatch of all police calls-for-service and to process officer activities citywide. There are two police service console positions each staffed by a dispatcher. There is also one spare console position that is staffed during special events such as Riverfest, marathons, and other events that draw large crowds to Little Rock. When the main dispatch talk-group is engaged with a situation that does not permit other calls to be dispatched, police units will switch to one of the service channels. One dispatcher is responsible for entirely too many officers. During peak periods, the police dispatcher could be responsible for 60 – 80 officers. When observed by the ACS Team, the dispatcher, a seasoned individual and well qualified to work this console position, was inundated with radio traffic and several calls-for-service were awaiting dispatch to police units. Aside from the main police talk-group being saturated with radio traffic, Officers that need to conduct a traffic stop or encounter situations that must be called in via radio quickly must take priority. Because of the radio traffic saturation, a delay in the dispatch of calls-for-service and was observed. *(See recommendation #7)*

Dispatch staff commented that police officers often do not advise when a crime scene has been secured so that fire and EMS can come on scene. This results in potential delays in EMS being able to attend to a critical injured person such as shooting, stabbing, or assault victim. (*See recommendation #8*)

The majority of dispatches handled by the LRCC are related to police activity however; the ACS Team witnessed satisfactory service delivery by the fire dispatch staff. The majority of the issues identified by the fire department can be rectified with improvements to technology, processes improvements, increased staffing, and expanded training as staffing permits including placement of dispatch staff in an abbreviated fire academy and riding along with fire companies.

Operational Support Technology

The City of Little Rock is fortunate to have an IT Director who understands public safety and is committed to placing a high priority on providing a solution for public safety technology requirements. Like any IT department, there are competing priorities for IT services.

There appears to be a communications breakdown between the IT Director and the Communications Center Manager. IT indicated that the LRCC does not communicate to IT concerning needs in communications. By contrast, the Communications Center Manager indicated that the IT department is too quick to provide a solution without consulting with the Communications Center Manager first and gathering requirements. One example cited was recently when the IT Director and Communications Center Manager were riding together to the backup site and the IT Director indicated that he had installed telephones for 9-1-1 call answering at the backup site. The Communications Center Manager said that this was the first indication she had received that this work had been done.

Another example of a missed opportunity to communicate occurred when the IT department made a decision to terminate the operation of the mainframe due to economic reasons. During interviews with LRCC staff, references were made to the recent “loss of functionality”, “loss of the system”, and “IT took something down” a few months earlier. It became apparent that this “loss” was the decommissioning of the IBM mainframe. When the mainframe was decommissioned, certain statistics generated by the Communications Center Specialist were no longer available for the CompStat report and the Communications Center Manager had to report out that the data was not available, “but IT was working on the matter”.

The monthly planned meetings with IT and the public safety executive stakeholders are an excellent method of discussing communications operational and technology

issues. These meetings should continue to be held and attended by all executive stakeholders. Whereas sometimes emergencies arise that may necessitate a cancellation, this should be the exception rather than the rule. (*See recommendation # 9*)

There is no formalized process for enabling the LRCC to request a project and the subsequent steps in the development life cycle process including sign-off of requirements, functional specifications, and testing. Communication between IT and Communications Center Management is somewhat lacking regarding specific projects and status reports. (*See recommendation #10*)

There is no formalized Change Control process to notify affected stakeholders of a system change that will impact their operation. The study of IT processes and procedures was outside the scope and some or all of these suggestions may exist, but there is clearly a need to fix the communications breakdown. (*See recommendation #11*)

CAD Functionality

Based on the comments collected from multiple sources, coupled with the observations made by the ACS Team, the CAD system is lacking a number of functions that could provide an easier workflow and enable a more efficient dispatch operation. The current CAD application has exceeded the end of its useful life. (*See recommendation #12*)

While a complete inventory of the CAD functions was outside the scope of this study, the ACS Team was able to identify a number of deficiencies worth mentioning in an effort to improve the efficiency of the dispatch operation:

There are a large number of alarm dispatches within the LRCC. Efficiently processing alarms calls, and providing some relief on the call-taker side of the operation, is an area in which a solution is available. (*See recommendation #13*)

During CAD downtime, there is no fire “run book” accessible to assist the fire radio dispatcher with identifying the proper response complement for any incident. The LRCC fire dispatcher was unable to produce this resource when asked for it by the Review team. LRCC management indicates that the run books are available at the fire console, but stated that LR Fire Department does not keep them up to date. Instead, the dispatch is dependent on how well the fire dispatcher knows the City. This is problematic especially when new communications dispatchers are hired from out-of-town. (*See recommendation #14*)

There is no “gate code” list available to dispatch staff in the event of CAD downtime. Similar to the need for a run card listing, a gate code list should be periodically refreshed for the dispatch console positions. *(See recommendation #15)*

When preparing to dispatch a fire response, the process of selecting each of the appropriate fire stations for alerting purposes is manual and slows down the dispatch process. Several of the fire company officers and fire command staff interviewed reported that almost on a daily basis, the fire dispatcher alerts one or more incorrect stations by mistake. The fire staff also indicated that the “All Call” feature that alerts all stations is activated by mistake daily. As long as this process remains a manual process, delays of up to 30 seconds in the firefighters being alerted will continue, depending on the qualifications of the fire dispatcher. *(See recommendation #16)*

The LRCC dispatchers were not able to see the location of public safety resources even though commanders in the field could do so using an application called Streetwise. This is an officer-safety issue as the LRCC should be able to see the location of any public safety resource on a map. The IT Director indicated that he could provide this capability for the communications staff and it was understood that this would be addressed immediately beginning with consultation with the Communications Center Manager. LRFD previously had an application that would allow LRCC to view the fire units. In early 2015, LRCC management requested access to their replacement system but was advised that there were “security concerns”. LRCC Operators do have access to a program called “LRPD GIS” that can show units and / or incidents on a map or in table format for law enforcement units. *(See recommendation #17)*

The current CAD is incapable of providing recommendations to the dispatch staff based on the closest units to the event. There is no integration with the AVL coordinates of public safety vehicles and resources are dispatched based on static beats and districts for both police and fire. *(See recommendation #18)*

Status changes are initiated from field units by using a status head connected to the radio system. It was reported that this system frequently goes down. When it is operational, the fire radio dispatcher and the fire units regularly use voice transmissions over the radio to confirm a status change. *(See recommendation #19)*

During the call-taking process, when a known valid Little Rock address is entered but is missing from the address file, an override process is used to “force” the address into acceptance. This override process requires the call-takers to be knowledgeable about the City and add the proper agency. Not all dispatch staff have first-hand knowledge about the City, especially if they are newly hired from a geographic region set apart from Little Rock. Although there may be numerous

reasons the override function is used, the ACS team observed it being used often to correct addressing issues. This indicates the presence of addressing issues. *(See recommendation #20)*

Many CAD systems will initiate a query to the local warrant file when a call-for-service is generated to determine if anyone at the address is a wanted person. *(See recommendation #21)*

Many CAD systems provide access to the local wanted person files and to the state gateway into National Crime Information Center (NCIC) and Division of Motor Vehicles (DMV) from any CAD console position. The CAD should be capable of allowing any CAD console position to access the Court Connect and Arkansas Crime Information Center (ACIC) systems. The CAD should also be capable of enabling a single wanted person query to spawn to the Court Connect and ACIC systems without the need to make two queries manually. The current CAD is not capable of these functions. *(See recommendation #22)*

A modern day CAD system should be capable of automatically generating queries to DMV based on a traffic stop or request for a vehicle registration. Subsequently, the CAD should be capable of examining the registration response from DMV and initiating automatic queries requesting driver's license information for each registered owner. As each driver's license response is received by the CAD, the CAD should be capable of initiating automatic wanted person queries to the Court Connect and ACIC systems. *(See recommendation #23)*

The lack of an interface between the LRCC CAD system and the Zoll CAD used by MEMS is slowing down the call-taking process. *(See recommendation #24)*

Mapping System

There are grave concerns about the maintenance of the current CAD with regard to the missing streets or missing block ranges. The ACS Team was made aware of multiple incidents that have occurred relating to operator error coupled with addressing issues. Future similar incidents are likely to occur again if this issue is not resolved quickly.

Following the data entry by the Communications Systems Specialist of new streets, edits to block ranges, and edits to business names, data periodically "disappears" from the system. The root cause of some of this data disappearing from the CAD system, as witnessed by many of the dispatch staff, has been identified. It seems that during the process of pushing a new geo-file from public works to the Altaris CAD system, the system will remove any new entries that do not match what is maintained by public works in the City GIS. There is no override mechanism available and the missing data must then be re-entered by the Communications

Systems Specialist. Unfortunately, it will be dropped again during the next geo file push if the City's GIS has not been updated accordingly. *(See recommendation #25)*

The Communications Systems Specialist is heavily tasked and often overwhelmed by work assignments. At one point, the Communications Systems Specialist worked with two other individuals who left City service. Those two positions were later abolished. Effectively, the Communications System Specialist has taken on the work of what was formerly assigned to three persons. *(See recommendation #26)*

Recording Devices & Programs

The LRCC is utilizing some of the latest state-of-the art recording technology available. However, Police department investigators do not have access to the NICE system to assist them in conducting their investigations. *(See recommendation #27)*

Telephone System Functionality

The inventory provided by the LRCC seems to be a manageable and a reasonable number of non-emergency telephone numbers.

The main police dispatch console did not have access to a telephone. All other radio dispatch positions had a telephone for outgoing calls. *(See recommendation #28)*

9-1-1 Systems Wire Line and Wireless Technologies

The number of incoming 9-1-1 trunks appears to be adequate. However, more analysis is required to verify this information and to ensure provisioned trunks continue to match incoming call volumes. *(See recommendation #29)*

Planned Notification Processes for Equipment Outages that are operated 24/7

The Communications Systems Specialist is often the first contact for issues with the 9-1-1 telephone system and the CAD system. The Communications Systems Specialist is often called unnecessarily for minor troubleshooting issues. *(See recommendations #30)*

Existing Telephone System and Mechanisms to Evaluate Service Delivery

Since the current Vesta 9-1-1 telephone system was recently implemented in February 2015, the full extent of the Aurora reporting tool capabilities may still be a learning curve for the Communications Systems Specialist who is clearly inundated with work. The ACS team was provided reports from the former Microdata telephone system and from the new Vesta Aurora application. The data generated from these reports was articulated in the "review" section. However, one of the team's requests for data from the Vesta system had to be researched to determine if the request could be fulfilled.

The full extent of the reporting capabilities using the Aurora reporting tool is not yet understood. *(See recommendation #31)*

Existing Telephone System and Future Telephone System Needs

The Vesta system is working well at Little Rock per general consensus. A small number of communications staff indicated that they could not transfer a caller to a number that had to be entered manually. However, other staff indicated that this feature is working and is likely a training issue. *(See recommendation #32)*

The Vesta 9-1-1 telephone system is a state-of-the-art system and operating at the manufacturer's latest recommended version. The Vesta system should be able to accommodate Next Generation 9-1-1 protocols. No changes to this system are recommended.

The replacement of the Nortel system for 3-1-1 and administrative lines with the Cisco system is a positive step.

Staffing Findings

The current hiring process for the City of Little Rock appears sufficient in concept. However, as with any program related to personnel there is always an opportunity for ongoing improvements and updates. *(See recommendation #33)*

A consistent finding throughout the review process was that often citizens do not receive an answer when dialing 9-1-1 and ultimately hang-up. This appears to be caused by a combination of factors. The LRCC is critically understaffed. It is also noted that due to the hiring process of hiring only call takers and accepting volunteers for dispatchers causes staffing issues specific to the dispatch function. LRCC staff is working a considerable amount of overtime to cover staffing gaps. As a result, operations and quality of service have suffered. Additionally, the practice of hiring call takers only, then accepting volunteers to be trained in the dispatch operation results in understaffing of dispatch-trained personnel. Management indicated hiring is done in this manner due to the probationary period being only six months, and that they could not fully train personnel to take calls and dispatch in that amount of time. *(See recommendation #34)*

Call takers and 3-1-1 operators are hired from the same pool of applicants using the same hiring criteria and the most customer friendly call takers are assigned to the 3-1-1 function. It appears that the skill set for 3-1-1 versus 9-1-1 is different and this could be creating issues with quality services. *(See recommendation #35)*

Interviews with various LRCC staff indicate a very low morale in the center. Various reasons were cited and ranged from inability to obtain time off to a feeling of favoritism in place in the center. In order to retain quality staff, it is important to

evaluate the level of employee satisfaction and address the concerns raised. (*See recommendation #36*)

Salaries for positions in the LRCC may be below average for the area, as this was a concern from both management and staff. Also of concern is that staff always remains at the bottom of the pay range for their position. (*See recommendation #37*)

Funding & Cost Share Alternative Findings

Communications Budget

Generally, all operating budget requests submitted by the LRCC Manager have been approved. The 2015 budget for the Communications Center is \$4,088,843, including \$3,862,468 (94.5%) for salaries and benefits, and \$226,375 (5.5%) for operating expenses. The 2014 budget for the Communications Center was \$4,111,575, including \$3,878,130 (94.3%) for salaries and benefits, and \$233,445 (5.7%) for operating expenses. The 2013 budget for the Communications Center was \$3,621,646, including \$3,385,300 (93.5%) for salaries and benefits, and \$236,346 (6.5%).

There is an outside 9-1-1 funding source to support 9-1-1 equipment and salaries. These funds come from Pulaski County who collects the landline 9-1-1 taxes and AETSB/9-1-1 Board who collects wireless 9-1-1 taxes. The City of Little Rock receives deposits quarterly. For 2013, the revenue amount was \$1,346,610 and \$1,264,798 was expended. For 2014, the revenue and expended amount was \$1,306,869. Of the special revenues collected from 9-1-1 fees, the Little Rock operating revenue was reimbursed \$562,500 in 2013, \$750,000 in 2014, and \$750,000 in 2015. (*See recommendation #38*)

City-Provided Services

It is understood that all City agencies follow standardized City policies and procedures concerning budgeting for some city-provided and non-city-provided services. Each agency is responsible for budgeting and paying vendors directly for these services. Since all City agencies follow this process, the ACS Team has no specific recommendation concerning any changes that would be appropriate to the LRCC.

3-1-1 City Departments Cost Sharing

The LRCC budget is inclusive of salaries for 3-1-1 staff as well as 9-1-1 staff and no budget distinction between 3-1-1 & 9-1-1 was available. LRCC sources reported that

88% of all requests handled by the 3-1-1 call-takers were public works-related requests. These sources also indicated that the LRCC is not reimbursed by any other agency for 3-1-1 services nor are the operating costs shared with any other agency. *(See recommendation #39)*

The 3-1-1 program being fully incorporated into the LRCC appears to be presenting issues for both. As it currently stands, not only is the LRCC responsible for providing 3-1-1 support to multiple City departments, there is no chargeback program in place requiring each supported agency to reimburse the LRCC pro-rated based on the number of transactions handled for that agency. *(See recommendation #40)*

Capital Expenditure Planning Process

Past capital expenditures have netted \$9,000,000 in 2013 to upgrade the radio system. In fiscal years 2014 & 2015, \$2,599,999 was provided for 9-1-1/3-1-1 system upgrades. The majority of the capital expenditure projects were approved and funded with the exception of the new CAD and backup 9-1-1 center projects, which were described as “too costly”.

The city’s capital budget process was described as too lengthy. However the ACS Team has found capital budget processes in most municipalities are five-year plans.

Training Findings

Initial training consists of eight weeks of training as a Call Taker, and includes the 40-hour APCO Public Safety Telecommunicator (PST) 1 course, orientation, and ride-alongs (8 hours with the fire department and 16 hours with the police department). After eight weeks, trainees must pass a final exam before being assigned to a Communications Training Officer (CTO). The initial training program appears to be well structured, however improvements can be made in scenario based training and there is a lack of certified CTO staff.

In addition to the three EC trainers, only four other employees are certified as CTOs. Of these four employees, two have given notice that they no longer wish to remain CTOs as the incentive is minimal, at 30 minutes of pay for four hours of training. *(See recommendation #41)*

There is no requirement for Call Takers to become Dispatchers. Employees wanting to become Dispatchers submit a request and, if approved, are assigned to sit with another Dispatcher for on-the-job training. There is no additional classroom training for Dispatchers. Employees may train as Police Dispatchers, Fire Dispatchers, or

both, although there is no incentive to become cross-trained on fire and police. *(See recommendation #42)*

Beyond initial training, continuing education is sporadic and inconsistent. With four positions assigned to the training unit, the center is well positioned to have a robust training program for its personnel once the center overcomes its staffing issue. The three EC Trainers are regularly assigned to help staff the center. For this reason, they are not frequently able to create training content. The Police Department has a Power DMS platform in place, which provides a monthly 10-minute video for all employees. The police and fire departments have invited center personnel to attend their trainings but the offer usually is made with little notice. The police department has regular Active Shooter drills at schools but does not include the center. *(See recommendation #43)*

There is currently no standardized training for Communications Center Supervisors; all training is on-the-job. Both the police and fire departments require their supervisors to attend training and both agencies are open to including the center's supervisors in future trainings. *(See recommendation #44)*

All personnel assigned to the Training Unit are certified through APCO as Communications Training Officers (CTOs), as well as being agency instructors to teach APCO's Public Safety Telecommunicator (PST) 1 and CTO. These individuals are tasked with initial training courses and when they are teaching courses they are not available to work as CTO's on the floor. As a result, there are not enough certified CTO's available to conduct on the job training for new hires and non certified individuals are performing in this role. This presents both training continuity and liability issues for LRCC and the City. *(See recommendation #45)*

The initial eight-week Call Taker training is thorough and well documented; however, the amount of phone call scenarios could be increased to allow trainees to have more familiarity with difficult callers prior to working with a CTO. The training manual also needs to be updated because it's from 2002 with new information added. *(See recommendation #46)*

There is no standardized training for radio dispatching or an annual training plan for Communications Center personnel. A training manual section exists for both fire and police dispatch, the training is limited to OJT. *(See recommendation #47)*

Governance Findings

The designated group of stakeholders invited to the monthly meeting with the LRCC all agrees that these meetings are imperative to improve communications.

During interviews with stakeholders, the need for better communication between the LRCC and customer agencies was clearly identified. *(See recommendation #48)*

Planning & Facilities Findings

Backup 9-1-1 and 3-1-1 Center Plan

The IT department has done an excellent job in establishing a DR site with data replication for continuity of all City automated services including the CAD system for 9-1-1. However, the City of Little Rock did not fund any of the proposed options articulated in the Disaster Recovery Backup Site presentation. According to sources interviewed about this issue, the City Leadership decided that the options were too costly. The IT department was instructed to move forward with the DR site in the best manner possible but the work is being done in a piecemeal fashion with regard to the establishment of a backup 9-1-1 center. The room currently identified to support a 9-1-1 backup site is too small. The DR site should be designed to replicate a fully staffed and fully functional 9-1-1 operation that can operate from the DR site for days, weeks, or even months should there be a loss of the primary 9-1-1 facility on Markham St. This will require an adequate number of call-taking and dispatch consoles to support a full complement of communications staff. Any lesser capabilities, such as too few call-taker and/or dispatch console positions may reintroduce many of the problems being experienced today in the primary emergency communications center. *(See recommendation #49)*

Future Facility Housing Communications Center Options

The possibility of the loss of the primary emergency communications center building on Markham Street is a major concern. This facility also houses the IT department on the lower level. It is commendable that IT and the LRCC share a facility and hopefully will continue to share a facility in the future. Aside from the threat of a tornado damaging the building, which is not hardened, the existing facility on Markham St has a major vulnerability due to the proximity of the building to the adjoining intersection. The present building is very close to the intersection of Markham and State Streets. There are no barriers to stop a vehicle from crashing into the building either from the State St side or the Markham St side. An impact from a large vehicle from either street could be devastating to the LRCC operation and to the IT department on the bottom level. *(See recommendation #50)*



Figure 5 - View of Little Rock Emergency Communications Center from Markham and State streets.

In view of the impending reconstruction of the police headquarters facility, it may make sense to allocate adequate space for the emergency communications center and the IT department in the new facility assuming that the new facility will be “hardened” against tornados and terrorist attacks. (See recommendation #51)

Equipment Compliance to Standards and Redundancy

The Vesta 9-1-1 telephone system was installed in February 2015 and appears to comply with the NENA i3 specification⁴. The system is based on open architecture and includes a migration path to Next Generation 9-1-1. The system overall includes redundancy and is capable of supporting connectivity to ESInets (Emergency Services IP Networks).

The Nortel telephone system used for 3-1-1 and intra-office business lines is currently being replaced with Cisco switches and telephones, also the latest state-of-the-art.

Recommendations

Dispatch Operation: Overview of Day-to-Day Operations

1. The taking of crime reports via telephone by 9-1-1 call-takers should be suspended immediately. Some form of a Telephone Reporting Unit should be resurrected but without using communications staff assigned to answer 9-1-1

⁴See https://c.ymcdn.com/sites/www.nena.org/resource/resmgr/Standards/o8-003_Detailed_Functional_a.pdf
https://c.ymcdn.com/sites/www.nena.org/resource/resmgr/Standards/NENA_o8-751.1_i3_Requirement.pdf

calls. Consider adding the ability for citizens to file a report on-line via the Little Rock Police Department's web portal.

2. Fire dispatchers assigned to the fire ground talk-groups should not be responsible for answering 9-1-1 calls while there is fire radio activity on those talk-groups.
3. Assign dispatch staff to a specific position for an eight-hour tour of duty. Decide on a rotation cycle that is for a single day or for a workweek. The only exception to this may be the main police dispatch console position, which may require a relief person more often due to the shear workload of this dispatch position.
4. Assign a relief dispatcher to each shift. This individual should be qualified on both fire and police dispatch and can man the primary or tactical channels for either when an individual needs to take a break. This will require adequate staffing in the center but is critical to ensure timely and efficient management of dispatch traffic.
5. Training in the areas of fire and police dispatch should be equal. All personnel who are qualified as dispatchers need to be trained, and capable, of handling either discipline equally well. All dispatchers should be trained in fire and police terminology as well as Incident Command System (ICS) operations and terminology.
6. Increase training for dispatchers in the areas of police and fire operations to ensure a better understanding of the needs of field personnel. This training can be a cooperative effort between LRCC and the police and fire departments. Daily decision making should remain the function of the on-duty LRCC Communications Supervisor when needed.
7. Establish a second dispatch console position to provide some relief for the existing primary police dispatch console position. Assign one dispatch position to the busiest division and the other position dedicated to the other two divisions. In the long term, once staffing is increased, dedicate a dispatch console position for each division. A single service channel console should suffice once technology recommendations are implemented. Provide a telephone set to all radio console dispatch position to facilitate outgoing emergency calls when necessary.
8. Officers need to advise dispatch when a scene is secure so that emergency medical services can come on scene to attend to the critically injured.

Operational Support Technology

9. The executive public safety and IT stakeholders are encouraged to continue with the planned monthly meetings. The stakeholders should attempt to avoid cancellations of these meetings whenever possible.
10. IT should develop a formalized method to initiate a project upon customer request if one doesn't exist and have the customer score the requested project

according to accepted initiation gate methodology. If the project moves forward, large projects should include the typical project management deliverables, sign-offs by the customer, and a budget (if applicable). IT and the LRCC command staff should meet regularly with documented project status reports in hand to discuss the current project status of outstanding work so that there is no misunderstanding.

11. IT should develop a formalized Change Control notification process to notify stakeholders when planned events or unplanned outages will affect any of the public safety applications. .

CAD Functionality

12. The City of Little Rock should update the existing CAD to a modern system compatible with next generation 9-1-1 technologies and capable of providing the missing functionality identified by LRCC staff and customer agencies. When considering how to select a new CAD system a number of resources exist for LRCC to base an RFP and decision making on. These resources include the list of all CAD functions in the APCO American National Standard (ANS) **Multi-Functional Multi-Discipline Computer Aided Dispatch (CAD) Minimum Functional Requirements⁵ - APCO ANS 1.110.1-2015**. In addition, LRCC may want to consider hiring a consultant with the specific task of performing a needs assessment, identifying requirements, and assisting with the creation of an RFP for the new system.
13. The IT Department should initiate an inquiry to Northrup Grumman to determine the cost of implementing the same ASAP interface for the LRCC that is in use at the Houston Emergency Center in concert with Houston's Altaris CAD system. It is highly recommended that the LRCC take advantage of this interface, which is capable of automating the receipt of the majority of the alarm calls reported by alarm monitoring companies. Include the requirement for an updated or replacement CAD system that adheres to the **APCO/CSAA ANS 2.101.2-2014 Alarm Monitoring Company to Public Safety Answering Point (PSAP) Computer-Aided Dispatch (CAD) Automated Secure Alarm Protocol (ASAP)⁶**.
14. Produce a hard copy or soft copy of a fire run card listing and place it at the fire dispatch position. The document should be updated regularly when there is new data that could become crucial during a CAD outage.
15. Produce a hard copy of soft copy of a gate code listing and place it as the radio dispatch positions. The document should be updated regularly when there is new data that could become crucial during a CAD outage.
16. Determine if an interface is available for the existing CAD system to communicate with the fire station alerting control console. Implementation of an

⁶ See <https://www.apcointl.org/doc/911-resources/apco-standards/527-alarm-monitoring-company-to-psap-cad-automated-secure-alarm-protocol-asap/file.html>

automated interface could reduce the time required to dispatch fire assignments and minimize mistakes in the alerting process. The City of Little Rock will need to evaluate the cost effectiveness of this interface against the expected remaining life expectancy of the current CAD.

17. Provide Streetwise access to the communications staff to enable the visual retrieval of the current location of public safety resources, as requested by LRCC Management in early 2015. Provide training to all LRCC staff concerning how to determine the location of a field resource.
18. Update or replace the current CAD system and include integration of AVL data to enable the automated recommendation of the closest units. The current CAD is not capable of providing this type of recommendation. The recommend service should also track the status of units who clear from another call and provide a revised real-time recommendation to the dispatcher if the unit that just cleared is closer than other units. The service should also be capable of recommending that a resource be pre-empted to respond to a higher priority call.
19. Require that any updated or replacement CAD system includes an integrated application capable of initiating status changes and acknowledge those changes via either a mobile CAD client or some other machine based client.
20. Priority must be placed in ensuring that all missing addresses and address ranges are added to the system as-soon-as-possible. This will lessen the likelihood that an address will need to be “forced” in.
21. The IT department should analyze the Court Connect system to determine if wanted person queries can be achieved using a street address as the criteria. If so, an interface between the updated or replacement CAD system should be included to automatically initiate a query to the Court Connect warrant system when each new call-for-service is entered into the CAD. Positive responses should be brought to the radio dispatcher’s attention as well as the responding officers’ attention.
22. Enable Court Connect and ACIC access from all CAD console positions using the CAD interface to these systems as the gateway. Require that the updated or replacement CAD system initiate wanted person queries to both the Court Connect and ACIC systems based on a single dispatcher and officer query if enough query criteria exists to meet the minimum required fields.
23. Require that the updated or replacement CAD include a feature to auto-generate additional driver’s license queries upon examination of a vehicle registration response from DMV. The CAD should then be able to auto-generate wanted person queries to the Court Connect and ACIC systems based on the criteria provided with the driver’s license responses about the registered owners.
24. Open a discussion with the Director of MEMS Communications to consider the feasibility of establishing an interface between the any new LRCC CAD and the Zoll CAD used by MEMS. Any such interface should provide bi-directional updates to each CAD when there is a multi-disciplined response; i.e. police and/or fire, and EMS.

Mapping System

25. Public Works staff responsible for maintaining the GIS data for the City of Little Rock must place top priority on updating the GIS for missing streets, street changes, and street number range changes. Responses to public safety incidents will continue to be vulnerable to mistaken or delayed dispatches without accurate data.
26. The City should consider hiring a dedicated GIS coordinator. This individual would work with both the Communications Systems Specialist and public works to resolve all addressing issues. The GIS coordinator should be cross-trained as a backup for the Communications Systems Specialist

Recording Devices & Programs

27. Consider providing access to the Nice recorder system to police investigators to enable them to conduct their own investigations and research. Such access must be user name and password specific and only information related to a specific investigation should be accessible. This is configurable by the system administrator.

Telephone System Functionality

28. Re-install a telephone set at the main police dispatch console to enable the police dispatcher to place outgoing telephone calls when emergency situations warrant and no other 9-1-1 staff person is available to place the call.

9-1-1 Systems Wire Line and Wireless Technologies

29. Have AT&T perform an analysis annually during peak tourist season to assess the percentage of busy signals generated when citizens dial 9-1-1. Add 9-1-1 trunks as necessary.

Planned Notification Processes for Equipment Outages that are operated 24/7

30. Create decision tree flowcharts for communications supervisory staff to follow when problems are encountered with the radio system, the 9-1-1 telephone system, and the CAD system. The flowchart should be easy to follow and provide guidance to the supervisor when an on-call person should be notified or when it is ok to defer notification when only a single position is out-of-service and staff can use another console position instead.

Existing Telephone System and Mechanisms to Evaluate Service Delivery

31. Determine all of the Aurora reporting capabilities. This can be done via collaboration with AT&T staff or a training course. While the Communications Systems Specialist has received this training, it is recommended that other key LRCC staff, and all supervisory staff be cross-

trained on the Aurora reporting tool and be able to relieve the Communications Systems Specialist of some of the canned-report responsibility. LRCC staff indicated that subsequent to the site visit, LRCC Trainers and Supervisory staff have been trained.

Existing Telephone System and Future Telephone System Needs

32. Now that the current telephone system has been operational since February, have each supervisor reach out their assigned staff to determine what questions are outstanding or features perceived not to be working correctly surrounding the use and operation of the Vesta 9-1-1 telephone system. Have the Training Supervisor or AT&T create and conduct a refresher training class for all communications center staff based on the feedback collected.

Staffing

33. Work with the City of Little Rock Human Resources to streamline the hiring process for efficiency. Evaluate the testing and selection criteria to ensure minimum qualifications are met for new hires.
34. LRCC needs to be fully staffed. This is a multi-phased process and recommendation. First, the agency needs to actively recruit new personnel. Second, during this recruitment process take advantage of the opportunity to work with HR to streamline and improve both the recruiting and hiring processes. Third, seek approval to extend the probationary period for telecommunicators to 12-18 months. Fourth, cross-train all newly hired personnel in both the call taking and in dispatch functions.
35. Consider separate hiring processes and training for 9-1-1 and 3-1-1.
36. Identify areas of employee concern and low morale and take appropriate action. One possible tool for use by LRCC would be the APCO RETAINS program. The University of Denver Research Institute developed the tools in the APCO RETAINS tool kit for APCO International. The APCO Project RETAINS Committee directed a national study of staffing and retention issues in a random sample of public safety communications centers in 2004. A second study was conducted in 2009 to find out if staffing and retention issues were different in large centers (using the CALEA definition, a large center has 76 or more employees). The tools are research-based and designed specifically for public safety communications center managers. Detailed information about this program can be found at: <https://www.apcointl.org/resources/staffing-and-retention/retains.html>.
37. Examine salaries for similarly sized agencies and job functions in the geographic region to determine if salaries for LRCC staff are below the average and adjust as needed to: (a) increase the salaries across the board to bring pay into parity or exceed the pay at other localities in the region, (b) address the matter about dispatch staff remaining in the bottom tier of the pay scale.

Budget & Cost Share Alternatives

38. It is unlikely that the outside 9-1-1 revenues can be increased. Therefore, the City of Little Rock would need to increase the operating budget appropriately based on the findings and recommendations in this report to mitigate any negative impact on the LRCC.
39. Identify the budget amount for a 3-1-1 only operation.
40. There are two possible approaches to correct the issues identified. One option would be to, move the responsibility for 3-1-1 to another agency, and increase that agency's budget accordingly as the owner of 3-1-1. The second option would be to retain the 3-1-1 services within the LRCC operation and increase the LRCC budget in accordance with the established cost for operating the 3-1-1 services. Funding should then be sought from all agencies that utilize 3-1-1 services, and routed to the LRCC.

Training

41. Explore and implement incentives for CTO's in order to retain and motivate training personnel.
42. Train personnel to become fully functioning call takers and dispatchers. Require that any dispatcher be fully trained and qualified in both the Fire and Police dispatch disciplines. Implement the previous recommendation to extend initial probationary period from 6 months to 12-18 months to facilitate this training.
43. Create and implement a complete continuing education program for telecommunicators.
44. Create and implement a training program for all new supervisors. Include both an initial and ongoing training process in this program.
45. Ensure that all personnel tasked with training become certified to the minimum training standards for CTO's.
46. Incorporate additional scenario based training into the initial training academy and update the current training manual to include current and relevant information related to LRCC operations.
47. Develop and implement structured training for the position of dispatcher. This should incorporate both a structured academic portion and utilization of an updated OJT training manual section for both fire and police dispatch.

Governance

48. Schedule and ensure meetings of applicable stakeholders on at least a monthly basis.

Backup 9-1-1 and 3-1-1 Center Plan

49. The City should reconsider the presentation listing the three options in having a 9-1-1 backup site. It is critical that there be a backup facility capable of

supporting a fully staffed and fully functional 9-1-1 operation that is a replica of the Markham St operation.

50. The City should examine the feasibility of adding protective barriers on the State Street and the Markham Street sides of the emergency communications facility.
51. The City should examine the feasibility of including the primary emergency communications center and the IT department in the reconstructed police headquarters facility. The facility should be hardened for protection against tornados, terrorist attacks, and other disastrous events.

Conclusion:

The review team found an openness and willingness of individuals in the various public safety departments of the city to provide information and insight. While the team found an acknowledgement that change is necessary, they also found an eagerness to move forward. Overall, the City finds itself in a good position. The appointed city administration has demonstrated a desire to support new technology and operational improvements and the staff of the LRCC generally appears to look forward to future changes. Change is not easy, and many times not warmly embraced, but change is necessary in order for the LRCC to provide the level of competent, professional, and timely service the citizens of the City of Little Rock have reason to expect.

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Appendix A – Documents Provided by Stakeholders for Review

- Statistics
 - Little Rock CompStat reports
 - 11/25/2014 – 12/15/2015
 - 04/14/2015 – 05/04/2015
 - 06/16/2015 – 07/06/2015
 - Abandoned call info 2010-2015
 - Alarm calls
 - 2013
 - 2014
 - 2015
- Performance feedback planning session worksheets
 - Communications administrator
 - Manager
 - Call-taker
 - Communications systems specialist
 - Communications trainer
 - Secretary
 - Shift supervisor
 - Training supervisor
- Human Resources documents
 - Little Rock 06/29/2015 posting and applicant information
 - Little Rock 08/21/2012 posting and applicant information
 - Little Rock 09/30/2014 posting and applicant information
 - Little Rock 10/14/2013 posting and applicant information
 - Little Rock call-taker hiring process
 - Little Rock communications background form
 - Little Rock Criticall validation full
 - Little Rock Criticall validation

- Little Rock exit interview information
- Little Rock final interview questions
- Little Rock structured interview evaluator training
- Little Rock structured interview info
- Little Rock structured interview validation
- PD90 overtime 2014-2015
- Hiring and compensation
 - 2015 Comp workbook effective date updated May 2015
 - Memo requesting additional staff 03/21/2012
 - Call taker salaries 10/08/2013
 - Customer service sup description w/salary
 - Communications job descriptions with salary
 - Shift differential
 - Vacant supervisor request
 - Salary city comparison 2013
 - Training supervisor evaluation
- Policies
 - General orders: 100s, 200s, 300s, 400s, 5700s (communications)
 - Rules and regulations
- Job Descriptions
 - Secretary
 - Call-taker
 - Shift supervisor
 - Trainer supervisor
 - Communications dispatcher
 - Communications center administrator
- Budget
 - 2013
 - 2014
 - 2015
- Communications center organization

Appendix B – Other Documents, Studies and Standards Consulted

APCO RETAINS

APCO's project RETAINS (**R**esponsive **E**fforts **T**o **A**ddress **I**ntegral **N**eeds in **S**taffing) is an industry accepted instrument which was developed specifically for the purpose of understanding staffing and retention issues in public safety communications centers. This tool was utilized to formulate recommendations for this review as it related to the PSAP's staffing level.

APCO ProCHRT

In 2009 the APCO Executive Board established the Professional Communications Human Resources Taskforce (ProCHRT) to research the various human resources issues that impact emergency communications centers in the United States. Items such as basic training requirements, implementation of EMD, proper shift work alignment and requirements for full retirement benefits are some of the issues the task force has studied. The ProCHRT report⁷ published in August 2011 is the aggregate result of two years of in-depth research, interviews and surveys designed to identify the key human resource issues that adversely affect our Telecommunicator workforce.

APCO Standards

As an American National Standards Institute (ANSI)⁸ Accredited Standards Developer (ASD), APCO International is dedicated to ensuring that public safety communications has a role in the development of standards that affect the emergency communications industry. It is imperative that policy and procedure manuals, training manuals, as well as standard operating guidelines meet or exceed existing National Standards. The following APCO National Standards should be taken into consideration when a PSAP reviews its operational practices and/or is considering a consolidation:

Core Competencies and Minimum Training Standards for Public Safety Communications Manager/Director- APCO ANS 1.106.2-2014⁹

⁷ See http://www.apcointl.org/new/commcenter911/downloads/ProCHRT_2ndEdition.pdf

⁸ See <http://www.ansi.org>

⁹ See <http://apcointl.org/standards/apco-standards-for-download.html>

This standard outlines the core competencies that define the basic functions, duties, responsibilities, knowledge, abilities and expertise attributable to individuals who manage public safety communication functions.

Minimum Training Standards for the Public Safety Communications Training Officer - APCO ANS 3.101.2-2013¹⁰

The focus of the Minimum Training Standards for the Public Safety Communications Training Officer (hereinafter "CTO") is to provide training necessary to foster levels of consistency for training officers providing on-the-job training to active 9-1-1 operators and Telecommunicators, as well as to promote the leadership role of the CTO in a public safety communications center.

Minimum Training Standards for Public Safety Telecommunicators - APCO ANS 3.103.1-2010¹¹⁻

The standard identifies minimum training requirements for public safety call takers, fire service dispatchers, law enforcement dispatchers, and emergency medical services (EMS) dispatchers. It is one of many public safety communications training standards developed as a result of APCO's Project 33 initiated in 1995.

Core Competencies and Minimum Training Standards for Public Safety Communications Training Coordinators - APCO ANS 3.104.1-2012¹²

This standard identifies the core competencies and minimum training requirements for Public Safety Communications Training Coordinators. This position is typically tasked with the planning, development, coordination, implementation, and administration of training within a public safety communication center. This document seeks to define the knowledge, skills, and duties of the individual responsible for the training program as well as the agency's responsibilities for providing training to individuals in this critical function.

PSAP Service Capability Criteria Rating Scale APCO ANS APCO/NENA 1.102.2.2010¹³

This standard is intended to assist Public Safety Answering Points (PSAP) Managers and their governing authorities to identify their current level of service capability. An assessment tool is provided to objectively assess capabilities of the

¹⁰ See <http://apcointl.org/standards/apco-standards-for-download.html>

¹¹ See <http://apcointl.org/standards/apco-standards-for-download.html>

¹² See <http://apcointl.org/standards/apco-standards-for-download.html>

¹³ See <http://apcointl.org/standards/apco-standards-for-download.html>

PSAP against models representing the best level of preparedness, survivability, and sustainability amidst a wide range of natural and manmade events.

Standard for the Establishment of a Quality Assurance and Quality Improvement Program for Public Safety Answering Points APCO/NENA ANS 1.107.1.2015¹⁴

This standard defines the recommended minimum components of a Quality Assurance/Quality Improvement (QA/QI) program within a public safety communications center. It recommends effective procedures for implementing the components of the QA/QI program to evaluate the performance of public safety communications personnel

APCO Agency Training Program Certification Requirements¹⁵

This certification standard identifies minimum requirements for a quality training program for all disciplines of public safety communications. It defines what processes need to be in place for appropriate training, documentation, and necessary policy and procedures that should be in place for a high quality, defensible training program.

Multi-Functional Multi-Discipline Computer Aided Dispatch (CAD) Minimum Function Requirements APCO ANS 1.110.1-2015

The Multi-Functional Multi-Discipline Computer Aided Dispatch (CAD) Minimum Functional Requirements standard identifies the minimum functional requirements that a CAD system shall include, broken down by public safety discipline. Also identified are the optional functional requirements that a CAD system should include.

NFPA Standards

The National Fire Protection Association (NFPA) published NFPA Standard 1061¹⁶ on Professional Qualifications for Public Safety Telecommunicator. This standard was prepared by the Technical Committee on Public Safety Telecommunicator Professional Qualifications and released by the Technical Correlating Committee on Professional Qualifications. The standard identifies the minimum job performance requirements for public safety Telecommunicators. Additionally, the reviewer consulted NFPA Standard 1221¹⁷ which addresses the capabilities of personnel assigned to communications centers; systems

¹⁴<https://www.apcointl.org/doc/911-resources/apco-standards/600-11071-2015-quality-assurance/file.html>

¹⁵ See <http://www.p33.apcointl.org>

¹⁶ See <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=1061>

¹⁷ See <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=1221>

interoperability; and requirements of building location and construction to meet requirements.

APCO CCDN Checklist

The Consolidated Center Director's Network (CCDN) is a group of communications center (PSAP) directors who have collaborated to provide their peers with a network of directors experienced in PSAP consolidation. The CCDN has developed a survey report and checklist for those contemplating the consolidation of one or more Public Safety Answering Points. The documents are available from APCO on request.

Appendix C – APCO Institute Training Programs

APCO Institute

The APCO Institute is the only not-for-profit educational institute that serves the unique needs of the public safety communications industry. The APCO Institute offers training and certification in a number of areas associated with public safety communications, such as train-the-trainer programs and in-house training, for Communications Directors, Supervisors, Telecommunicators and Trainers. The Institute is overseen, managed and operated by industry experts with years of experience. Through their direct membership involvement, APCO is able to stay current with industry issues, needs and standards. Because our members all actively work in their respective communications agencies each day, their real life experience, needs and concerns drive the activity of the APCO Institute. There are also a number of other, commercially available programs as well which offer similarly robust programs.¹⁸

Initial training for Public Safety Telecommunicators, as well as continuing education, is exceedingly important as it provides essential services to the public in an ever-expanding and rapidly changing public safety environment. Public Safety Communications Centers must provide the best training possible. Many centers have developed their own basic training materials and processes while many others receive training from the APCO Institute or other commercial programs. The APCO Project 33 Agency Training Program Certification is a formal mechanism for public safety agencies to certify their training programs as meeting APCO's American National Standards.

Building and implementing a successful agency training program requires many resources and a good deal of dedication. Submitting for certification demonstrates the agency's commitment to training and to meeting national standards. Receiving certification for a training program is a major accomplishment for the agency, its staff and the community it serves.

The Institute curriculum is varied and can provide either training on-line so your employees can take the courses at any time, or in a classroom setting. Curriculums are continually updated to meet today's needs, public safety communication trends and provide flexibility for incorporation of local protocols and policies.

¹⁸ See <http://www.apco911.org/institute/index.htm>

CALEA Public Safety Communications Accreditation Manager

Recognizing the success of the accreditation process is dependent upon the skills of the accreditation manager, this online course was developed specifically for the CALEA Public Safety Communications Accreditation Manager. Choose a course number to learn more.

Communications Center Supervisor, 4th Edition

The APCO Institute Communications Center Supervisor course is designed for prospective, new or experienced communications supervisors who want to enhance their supervisory skills and knowledge. Choose a course number to learn more. Students should be experienced in Communications Center operations, have a working knowledge of communications policies and procedures and be either in or under consideration for a supervisory position. Students must bring their agency's policies and procedures manual to class for reference.

Communications Center Supervisor Instructor, 4th Edition

APCO Institute's Communications Training Officer (CTO) Instructor Course certifies experienced Telecommunicators to train and evaluate new trainees in a one-on-one training situation. APCO Institute's CTO Program has been successfully implemented in hundreds of agencies nationwide. The materials are easier to teach and available for your agency instructors. The Communications Training Officer (CTO) Instructor Course teaches the best CTOs to teach others. Upon successful completion, the CTO Instructor will be able to train CTOs with APCO Institute materials. CTO Instructors will also be able to help build and maintain the CTO system. In the classroom, the CTO Instructor will explore the important elements of effective CTO programs, and will learn to incorporate these elements into an agency's CTO program.

Crisis Negotiations for Telecommunicators

Crisis situations differ from the daily emergencies that today's public safety Telecommunicators handle. Hostage situations, barricaded subject incidents and suicidal callers, among others, require an advanced level of training for the Telecommunicator to handle them successfully. Choose a course number to learn more. Students should have successfully completed a formal basic Telecommunicator training program.

Customer Service in Today's Public Safety Communications

Providing satisfactory customer service in the high energy, often high stress field of public safety communications, is paramount to successful performance in this profession, both for the individual Telecommunicator as well as the agency they represent. This course addresses all aspects of customer service and how it impacts our industry.

Communications Training Officer, 5th Edition

The Communications Training Officer (CTO) course focuses on the essential elements of a one-on-one training program. Topics include the roles and responsibilities of a trainer, adult learning styles, documentation, and counseling techniques. Students receive a CD with sample forms and a demonstration of APCO Institute's expectations. Choose a course number to learn more.

Communications Training Officer, 5th Edition Instructor

APCO Institute's Communications Training Officer Course certifies experienced Telecommunicators to train and evaluate new trainees in a one-on-one training situation. APCO Institute's CTO Program has been successfully implemented in hundreds of agencies nationwide. Now in its Fourth Edition, the materials are easier to teach and available for your agency instructors.

Disaster Operations and the Communications Center

This course serves to educate the public safety Telecommunicator on a wide range of man-made and natural disasters, their effects on the community and its infrastructure and the response and recovery needs of each. Prerequisites: Students must have successfully completed a formal basic Telecommunicator training program.

Public Safety Communications Staffing and Employee Retention

Designed to provide guidance and information to Communications Center employees at every level, this course provides over 300 tips, guidelines and effective practices on subjects ranging from creating effective shift schedules to candidate recruitment and from maintaining staff to employee recognition.

Active Shooter Incidents for Public Safety Communications

Active shooter incidents and their response pose several unique concerns for all facets of public safety including public safety communications. There are a multitude of issues that make responding to an active shooter incident more difficult than other armed subject calls or violent in-progress incidents. Choose a

course number to learn more. Students should have successfully completed a formal basic Telecommunicator training program.

Comprehensive Quality

A Comprehensive Quality Program cannot be created overnight. A program must be thought out and prior planning efforts put into the system utilizing the methods of measurement and the analysis of results achieved. A successful Quality Program will require a systematic approach. This course will provide the necessary insight so that the proper tools and methodologies can be employed to make the Quality Program a vital and useful part of your organization.

Topics include:

- Quality
- Quality Planning and Methodologies
- Standards and Liability in Quality Programs
- Building a Performance Evaluation Program
- Feedback and Coaching
- Surveys and Analysis

Class lecture is supplemented by practical exercises that help students apply the lessons to their own agency. Students not only learn about a Quality Program, but also learn how to implement the program within their agency.

Fire Service Communications, 2nd Edition

APCO Institute's Fire Service Communications, 1st Edition course raises the bar for in-service fire communications training. This dynamic course covers the terms, techniques and protocols required for excellence in fire service call taking and dispatch. Choose a course number to learn more. Students should have already completed basic Telecommunicator training.

Fire Service Communications, 2nd Edition Instructor

This course combines enhanced instructional techniques training with specific training on how to conduct the Fire Service Communications, 1st Edition student course. Successful completion of this course enables your agency instructors to instruct the Fire Service Communications, 1st Edition student course in-house or regionally, allowing for significant reduction in your in-service training. Prerequisite: Successful completion of current version of fire Service Communications student course.

Public Safety Communications Staffing & Employee Retention

In 2009, the Next Generation of APCO Project RETAINS announced research proved turnover rates for emergency communications centers in the US were at 19%. That was an increase of 3% since 2005 and still reflected a higher turnover

rate than the teaching and nursing industries - both highly publicized staffing crises.

Public Safety Telecommunicator 1, 6th Edition

Meets and exceeds the APCO Project 33 Revised Minimum Training Standards for Public Safety Telecommunicators (2004). APCO Project 33 training standards are widely recognized as the national industry standard for basic Telecommunicator training.

Public Safety Telecommunicator 1, 6th Edition, Instructor

This course combines enhanced instructional techniques training with specific training on how to conduct the PST1, 6th Edition student course. Successful completion of this course enables your agency instructors to instruct the PST1, 6th Edition student course in-house or regionally, allowing for significant reduction.

Law Enforcement Communications 1st Edition

APCO Institute's Law Enforcement Communications 1st Edition course raises the bar for in-service law enforcement communications training! This dynamic course covers the terms, techniques and protocols required for excellence in law enforcement call taking and dispatch.

Law Enforcement Communications Instructor 1st Edition

This course combines enhanced instructional techniques training with specific training on how to conduct the LEC 1st Edition student course. Successful completion of this course enables your agency instructors to instruct the LEC 1st Edition student course in-house or regionally, allowing for significant reduction in your new-hire and in-service training and travel costs.

Appendix D – List of Abbreviations

ACS	APCO Consulting Services
ACD	Automatic Call Distributor
ACIC	Arkansas Crime Information Center
AETSB	Arkansas Emergency Telephone Services Board
ALI	Automatic Location Identification
ANI	Automatic Number Identification
ANS	American National Standard
ANSI	American National Standards Institute
APCO	Association of Public Safety Communications Officials
APCO ACS	APCO Consulting Service
APCO CCDN	APCO Consolidated Center Director's Network
ASAP	Automated Secure Alarm Protocol
ASD	Accredited Standards Developer
AWIN	Arkansas Wireless Information Network
CAD	Computer Aided Dispatch
CALEA	Commission on Accreditation for Law Enforcement Agencies
CDE	Continuing Dispatch Education
CPE	Call Processing Equipment
CPR	Cardiopulmonary Resuscitation
CTO	Communications Training Officer
DMV	Division of Motor Vehicles
DOR	Daily Observation Report
DR	Disaster Recovery
DSL	Digital Subscriber Line
EMD	Emergency Medical Dispatch
EMS	Emergency Medical Service
ESRI	Environmental Systems Research Institute
GB	Gigabyte
GIS	Geographic Information System
HR	Human Resources
IAED	International Academies of Emergency Dispatch
IP	Internet Protocol
IT	Information Technology
LEC	Law Enforcement Communications
LRCC	Little Rock Communications Center
LRFD	Little Rock Fire Department
LRPD	Little Rock Police Department
MB	Megabyte
MDT	Mobile Data Terminal
MEMS	Metropolitan Emergency Medical Services of Little Rock
NCIC	National Crime Information Center

NENA	National Emergency Number Association
NFPA	National Fire Protection Association
NG 911	Next Generation 9-1-1
OJT	On the Job Training
PMDT	Police Mobile Data Terminal
PRC	Planning Research Corporation
ProCHRT	Professional Communications Human Resources Taskforce
PROJECT 33	APCO Agency Training Program Certification
PSAP	Public Safety Answering Point
PST	Public Safety Telecommunicator
QA	Quality Assurance
QA/QI	Quality Assurance Quality Improvement
QAE	Quality Assurance Evaluators
RETAINS	Responsive Efforts to Assure Integral Needs in Staffing
RFP	Request for Proposals
RMS	Records Management System
TRU	Telephone Reporting Unit
UPS	Uninterruptible Power Supply
VLAN	Virtual Local Area Network
VM	Virtual Machine