


City of Alexandria, Virginia

24  
11-28-06

MEMORANDUM

DATE: NOVEMBER 22, 2006  
TO: THE HONORABLE MAYOR AND MEMBERS OF CITY COUNCIL  
FROM: JAMES K. HARTMANN, CITY MANAGER   
SUBJECT: IMPLEMENTATION OF THE EFFICIENCY AND BEST PRACTICES  
STUDY OF THE ADMINISTRATIVE FUNCTIONS OF THE FIRE  
DEPARTMENT

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**ISSUE:** Implementation of the efficiency and best practices study of the administrative functions of the Fire Department.

**RECOMMENDATION:** That City Council receive this implementation plan of efficiency and best practices of the administrative functions of the Fire Department and schedule it for discussion at a future Council work session.

**DISCUSSION:** This is one of two reports undertaken and completed in response to Council's request to conduct efficiency and best practices studies of City departments. Contained in this implementation plan is a comprehensive review including findings and recommendations resulting from the study of the administrative functions of the Fire Department. The Fire Department volunteered to have its department studied. The consulting firm that conducted this study is Management Advisory Group, a firm with national experience in fire and emergency medical operations.

The purpose of the efficiency and best practices studies is to evaluate the efficiency and effectiveness of certain functions within City departments and how City practices relate to best industry practices. This will be accomplished through the use of an external consultant who will examine the departments' operational policies and procedures, organizational structure, span of control, lines of authority, staffing, workloads, budget, outputs, and department service levels. As we told Council at the November 4 retreat we are reviewing and improving the departments' workload and performance measures, and benchmarking the results to comparable jurisdictions and industry standards.

As part of this departmental review process and other management improvement efforts, I established a special advisory group. This group, which is composed of highly experienced individuals in the field of public and private sector management, has reviewed the draft and

provided me with feedback on the reports. The comments and suggestions from this group have been very valuable and they will continue to be used throughout this entire process.

The scope of the Fire study focused primarily on the administrative functions that support Fire and EMS operations. The study did not include: shift schedules, pay, staffing patterns, number of staff assigned per apparatus and per fire station or station location. Code Enforcement and Emergency Management also were not a part of the study, and they will be studied in the future, likely in calendar year 2008.

Other areas that were not covered in this study are either being studied separately or will be studied in the future. These include:

- Fire 911 Communications: This will be studied separately over the next eighteen months.
- Fire Fleet Management: This is currently being studied as part of a broader fleet management analysis. The report is scheduled to be delivered to council in mid 2007
- Assessment of Fire Department Facility and Resource Location, Deployment, and Suitability: A comprehensive facilities needs study is currently being conducted by the TriData Group. This study will evaluate the suitability of the locations of the Departments' existing Fire Stations and determine the need for any additional stations with special attention to the future needs in the Eisenhower Valley area. This study will be completed in early 2007.

It is important to note that the City has a very highly qualified, well trained and professional fire suppression and emergency medical services staff. Alexandria's residents, workers and visitors can be assured that they will be well protected while they are in the City.

**Implementation Plan (Attachment 1)**: This attachment contains all of the recommendations, their respective implementation status and fiscal impacts. Of the 35 recommendations made by the consultant, 29 will be implemented within the next year, four will need to be studied further, and two will not be implemented. Overall most of the suggestions were useful and provided information that can be considered in the future.

This study highlighted a number of management changes that could improve operations, particularly the development of a strategic plan for the Fire Department. Some of the recommendations in the study were already underway when the study began, and are now completed.

Of the 29 recommendations to be implemented, many are intended to build on the current strengths of the Fire Department. The consultant reported "The City of Alexandria Fire Department has an extensive number of strengths in a wide range of areas. Chief among these strengths is the dedicated workforce." To build on some of these strengths, the consultant made a number of recommendations within the administrative service area where the Department can improve. Chief among those recommendations are:

- Develop and maintain a Five Year Strategic Plan
- Pursue Fire Department accreditation
- Establish Well Defined Goals/Objectives and Performance Guidelines

I concur with these recommendations, and Chief Mesaris has begun to work to develop a Fire Department strategic plan, pursue accreditation and to implement the other recommendations which will be part of our performance and benchmark measuring effort.

The consultant made four recommendations that will need to be studied further to determine whether or not they should be implemented in the Fire Department. These four recommendations are:

- Establish a Support Services Division
- Reassign Special Operations to Fire Operations
- Reorganize the EMS Advanced Life Support (ALS) Field Internship Program
- Incorporate a maintenance records management system

Since there is not an immediate benefit or cost savings that will be realized by implementing the above four recommendations, we will study them further and report back to you with our recommendations.

Of the 35 recommendations made by the consultant, there are two that we have determined do not work for the Alexandria Fire Department.

**1. Consider pre-service Advanced Life Support (ALS) training and certification for EMS staff:** When we recruit and hire EMS staff we already consider whether or not the applicant has prior training in Advanced Life Support, and use this as a preferred qualification. However such training is not a pre-employment qualification, and it is not used as a disqualifier for hiring. For the last 30 years Alexandria has had a civilian EMS service; EMS employees are not required to be firefighters as they are in other jurisdictions. We have been very successful over the years in recruiting a very diverse EMS workforce. Because EMS jobs do not require the applicant to pass the more stringent firefighter physical, generally there are more qualified candidates who apply for these positions. We believe that requiring this ALS certification at hiring could severely limit the candidate pool in a region where there is high demand for ALS certification.

**Reorganize the current EMS recruit-training program:** If the above recommendation of requiring pre-service ALS certification was implemented, then the current EMS recruit-training program could be reorganized and shortened. However, since I do not recommend implementing the above recommendation, reorganizing the current EMS recruit-training program is not feasible since all recruits are required to attend the entire training curriculum to fulfill certification requirements.

**FISCAL IMPACT:** The costs of the recommendations are included in the attachment. The costs for personnel changes and equipment and for consultant services would be covered in the Fire Department budget.

**ATTACHMENTS:**

Attachment 1 – Fire Department Implementation Plan

Attachment 2 – Fire Department’s Response to the Study

Attachment 3 – Administrative Functions of the Fire Department and Best Practices Study

**STAFF:**

Gary Mesaris, Fire Chief

Michele Evans, Deputy City Manager

Mark Jinks, Deputy City Manager

Bruce Johnson, Director, Office of Management and Budget

Derek Argust, Organization Development Coordinator

**IMPLEMENTATION PLAN  
CITY OF ALEXANDRIA, VIRGINIA  
ADMINISTRATIVE FUNCTIONS OF THE FIRE DEPARTMENT AND BEST PRACTICES STUDY  
as of 11/22/06**

Attachment 1: Fire Department Implementation Plan

| Rec. # | Action Step  | Responsibility   | Estimated Implementation            | Priority | Cost   |
|--------|--|--|-------------------------------------|----------|--|
| 1      | Develop and maintain a Five Year Strategic Plan,   | Fire Chief   | July 1, 2007 and ongoing*           | High     | Staff time. No direct cost unless facilitated by outside consultant (\$65,000)                     |
| 2      | Provide strategic planning training for personnel,   | Fire Chief and Organizational Development Coordinator. | August 2007 and ongoing.            | High     | Staff time if done internally. Contract costs as budgeted (\$10,000)                               |
| 3      | Pursue Fire Department accreditation,  | Fire Chief; Assistant Chiefs                           | October 2007 – September 2009       | Medium   | Staff time and (\$6,000- \$7,500). Estimated \$57,260 if contracted.                               |
| 4      | Establish Well Defined Goals/Objectives and Performance Guidelines.                                  | Fire Chief and Strategic Planning Team                 | July 1, 2007                        | High     | No additional costs anticipated  |
| 5      | As part of the strategic planning process, establish local performance and response time guidelines. | Fire Chief and ultimately managers and supervisors     | July 1, 2007                        | Medium   | No additional costs anticipated  |
| 6      | Revise certain IT Reports.   | Assistant Chief of Fire Operations and IT staff        | July 1, 2007                        | Medium   | No costs   |
| 7      | Increase meetings at all levels to enhance communications  | Fire Chief and all managers and supervisors            | Ongoing                             | High     | No costs   |
| 8      | Provide enhanced management and supervisory training.  | Training   | January 2007 through December 2007. | Medium   | Free tuition. Some food costs at National Fire Academy. Lost staff time to cover shifts may occur. |
| 9      | Conduct performance reviews on time.   | Assistant Chiefs                                       | Ongoing.                            | High     | No costs anticipated   |

Attachment 1

**IMPLEMENTATION PLAN  
CITY OF ALEXANDRIA, VIRGINIA  
ADMINISTRATIVE FUNCTIONS OF THE FIRE DEPARTMENT AND BEST PRACTICES STUDY  
as of 11/22/06**

|    |   |  |              |        |   |
|----|---|--|--------------|--------|---|
| 10 | Provide orientation and review to personnel regarding communications SOP.                               | Battalion Chiefs   | Ongoing.     | Medium | No costs anticipated                                    |
| 11 | Continue communications strategies.   | Fire Chief; Assistant Chiefs; Battalion Chiefs   | Ongoing.     | High   | No costs anticipated                                    |
| 12 | Establish a definitive time frame for completion of the policies manual.                                | Fire Chief   | July 1, 2007 | Medium | No additional costs anticipated                         |
| 13 | Adhere to existing SOP's.   | All staff  | Ongoing.     | High   | No costs anticipated                                    |
| 14 | Establish a Support Services Division   | The Fire Department is in transition to an agency that has additional resources in the areas of administrative, IT, and emergency preparedness. Additionally, several measures and initiatives are underway to provide greater accountability and cohesiveness within the management team of the Department. The current assignment of responsibilities is in place to equitably share the workload and to ensure that functional tasks and responsibilities are accomplished. It would be appropriate to reconsider this recommendation in FY 2008, after certain key positions are filled and improved administrative practices are established. |              |        | No costs anticipated                                    |
| 15 | Upgrade the position of Administrative Services Battalion Chief to Assistant Chief of Support Services. | Fire Chief. HR Director for the City   | January 2007 | Medium | (\$5,076) in costs                                      |
| 16 | Implement several personnel management items.   | Administrative Battalion Chief   | April 2007   | Medium | No costs anticipated                                    |
| 17 | Enhance financial planning processes.   | Budget Officer   | Ongoing      | Medium | Costs for an electronic records management system (TBD) |
| 18 | Ensure that the supplies process is responsive.   | Administrative Battalion Chief   | Ongoing      | Medium | Potential (\$2,000) for software costs                  |

**IMPLEMENTATION PLAN  
CITY OF ALEXANDRIA, VIRGINIA  
ADMINISTRATIVE FUNCTIONS OF THE FIRE DEPARTMENT AND BEST PRACTICES STUDY  
as of 11/22/06**

|    |   |  |                           |        |  |
|----|---|--|---------------------------|--------|--|
| 19 | Encourage greater use of Department IT staff.   | Administrative Services Manager  | Ongoing                   | Medium | No costs anticipated                                       |
| 20 | Promote consistent application of "20th due" criteria by other participating jurisdictions. | Fire Chief and Assistant Chiefs  | Ongoing                   | Medium | No additional costs anticipated                            |
| 21 | Continue apparatus/equipment replacement program.   | Fire Chief   | Each annual budget cycle. | High   | Currently budgeted funds. No additional costs anticipated. |
| 22 | Ensure employee involvement in projects.  | Fire Chief, Assistant Chiefs, Battalion Chiefs; EMS Supervisors  | Ongoing                   | Medium | Staff time. Lost staff time may occur to cover shifts.     |
| 23 | Conduct Safety Inspections and Pre-Incident Planning.                                       | Operations Assistant Chief & Battalion Chiefs  | December 2006             | Medium | Staff time. No additional costs anticipated.               |
| 24 | Reassign Special Operations to Fire Operations  | Prior to the current arrangement, the Department's Special Operations functions (teams) lacked accountability, continuity, and consistency among shifts. This was largely due to the fact that each specialty was "managed" by a different supervisor who was assigned to shift, in effect only working 1/3 of the time and with only 1/3 of the personnel comprising the specialty team. Complaints were common relative to which team received the most management and fiscal support. The configuration was also problematic due to the need for consistent coordination of training, detail assignments, and special functions. The current arrangement places the responsibility of coordinating the specialty teams, and the accountability for appropriate and consistent resource utilization, under a single individual. On the incident scene, special operations teams operate the same as other response resources under the incident command system that provides operational control and accountability. |                           |        | No costs anticipated                                       |

21

**IMPLEMENTATION PLAN  
CITY OF ALEXANDRIA, VIRGINIA  
ADMINISTRATIVE FUNCTIONS OF THE FIRE DEPARTMENT AND BEST PRACTICES STUDY  
as of 11/22/06**

|    |  |   |                        |        |  |
|----|--|---|------------------------|--------|--|
| 25 | Identify training needs through the planning process.  | Fire Chief and Training managers  | July 2007 and ongoing. | High   | No added costs. Part of the strategic planning process.                    |
| 26 | Rewrite the job description for the EMS Assistant Chief position.                                      | Fire Chief, EMS Assistant Chief, and Personnel Director for the City  | January 2007           | Medium | No costs anticipated   |
| 27 | Create management-technology team to improve upon EMS reporting. EMS reporting system now implemented. | EMS Assistant Chief and Information Technology Coordinator  | Complete               | Low    | No costs anticipated   |
| 28 | Evaluate the two (2) EMS Supervisor model after one year of implementation.                            | Assistant City Manager, Fire Chief, and EMS Assistant Chief   | March 1, 2007          | Medium | Depends on the outcome of the model  |
| 29 | Consider requiring ALS training and certification as a prerequisite for employment                     | Pre-hire ALS training is already considered a preferred qualification but it is not used as a disqualifier for hiring. This is currently a sound practice that works well for the City. It is our contention that requiring this at hiring severely limits the candidate pool in a region where there is high demand for ALS certification. Continuation with current hiring practice is recommended. |                        |        | Potential savings of \$35,000 per recruit due to shorter preceptorship.    |
| 30 | Reorganize the current EMS recruit training program  | Reorganization of the nature that is recommended is predicated on the policy change suggested in Recommendation #29, which is not supported for the reasons stated above.   |                        |        | Savings a function of reorganization and extent of shortening of training. |



**IMPLEMENTATION PLAN  
CITY OF ALEXANDRIA, VIRGINIA  
ADMINISTRATIVE FUNCTIONS OF THE FIRE DEPARTMENT AND BEST PRACTICES STUDY  
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|    |   |  |   |        |  |
|----|---|--|---|--------|--|
| 31 | Reorganize the ALS Field Internship Program   | While continuous improvement of Department programs is always a goal, currently there doesn't seem to be any evidence to suggest that the ALS Field Internship Program, as it stands, is not functioning to produce the level of skills, knowledge and abilities that the Department's Operational Medical Director (OMD) requires. The program is revised and modified with each recruit school under the direction and oversight of the OMD. Since it is under the OMD's license that providers in the program function, it is he/she that the Department relies on to determine whether the current program is meeting expectations and to recommend or direct any necessary modifications. | June 2007                                 | Medium | Savings a function of reorganization and extent of shortening of training.   |
| 32 | Automate training records.  | Training Battalion Chief   | April 2007                                | Medium | Estimated cost of (\$500) for software.                                      |
| 33 | Incorporate maintenance records management system   | Maintenance records are currently automated on a City approved fleet tracking software program. Justification or need to change from the current system is not indicated at this time.   | Estimated cost of (\$1,500) for software. |        | Incorporate maintenance records management system                            |
| 34 | Upgrade facilities and maintenance equipment.   | EMS Assistant Chief  | Ongoing                                   | Medium | A function of facilities and capital planning determinations.                |
| 35 | Continue to incorporate apparatus and equipment maintenance management into the planning process. | EMS Assistant Chief  | Ongoing                                   | Medium | No added costs anticipated. Potential for savings through mistake avoidance. |

*City of Alexandria, Virginia*

MEMORANDUM

DATE: NOVEMBER 22, 2006  
TO: JAMES K. HARTMANN, CITY MANAGER  
FROM: GARY A. MESARIS, FIRE DEPARTMENT  
SUBJECT: FIRE DEPARTMENT RESPONSE TO EFFICIENCY AND BEST PRACTICES STUDY REPORT



The Alexandria Fire department is an outstanding public safety organization that provides exemplary service to the community. It was recently recognized as part of a community survey as an agency that commands high respect and satisfaction from those it serves. The organization is comprised of highly skilled and committed employees who, on a daily basis, dedicate themselves to serving the City of Alexandria community in a commendable manner.

Staff of the Fire Department has carefully reviewed the final report of the Efficiency and Best Practices Study of the Fire Department performed by Management Advisory Group, Inc. (MAG). Contained within the final report are 35 recommendations and below are the Fire Department responses to each of those recommendations. Additionally, enclosed is an implementation plan prepared by the Department for those recommendations.

**RECOMMENDATION #1: Develop and maintain a 5-year strategic plan  
Priority: High**

- Staff agrees with the recommendation. Facilitation in the form of an independent consultant with fire service experience is desirable. A Department planning group, representative of all facets of the Department, will be formed and provide employee involvement in the strategic planning process.

**RECOMMENDATION #2: Provide strategic planning training for personnel  
Priority: High**

- Staff agrees with the recommendation. Personnel involved in the strategic planning process would need training to be effective, meaningful contributors to the process and I would envision that occurring on the front end of the process once the planning group has been identified and empowered.

**RECOMMENDATION #3: Pursue fire department accreditation  
Priority: Medium**

- Staff agrees that Fire Department accreditation is a desirable goal; however, there is a cost involved, as well as a significant time and staff commitment that would be necessary. I feel the cost estimates provided are very conservative. Additionally, once achieved, most organizations have found it necessary to identify a full time position focused on maintenance of the accreditation. I see the development of a strategic plan as a higher priority and that task, once completed, would contribute significantly to the pursuit of accreditation.

**RECOMMENDATION #4: Establish well-defined goals/objectives and performance guidelines  
Priority: High**

- Staff agrees with the recommendation. Each division currently operates with division-specific goals and objectives approved by the Fire Chief. The strategic planning process should further define and refine those tools to the benefit of the Department.

**RECOMMENDATION #5: As part of the strategic planning process, establish local performance and response time guidelines  
Priority: Medium**

- Staff agrees with the recommendation. The Department currently has established response time goals that are used as part of a continuous improvement and service delivery evaluation process. The Department strives to reach the scene of emergency incidents within four minutes of dispatch, 90% of the time. In the past this goal has been referenced in the context of the National Fire Protection Association (NFPA) Standard 1710. Future strategic planning documents will establish specific local standards.

**RECOMMENDATION #6: Revise certain IT reports  
Priority: Medium**

- Staff agrees with the recommendation. Narrative material in the report refers to the current monthly report that includes a review of response and performance relative to referenced NFPA standards. The entire monthly reporting process is under review and with the Department's enhanced IT support, a more meaningful and relevant report is possible.

**RECOMMENDATION #7:            Increase meetings at all levels to enhance communications**  
**Priority: High**

- Staff agrees with the intent of this recommendation, which is to improve communications. Department methodology to accomplish this includes numerous meetings convened on a regular basis to facilitate the communication of information (it is uncertain if the consultant is fully aware of all of them). Additionally, there are other electronic means of communication that are used on a regular basis, including “For Publication,” the Fire Portal, and Department-wide and group-specific e-mail. Also, a Communications Advisory Committee has recently been constituted with representation from all facets of the Department, which will meet on a regular basis to present, discuss, and respond to concerns, issues, or questions from the Department.

**RECOMMENDATION #8:            Provide enhanced management and supervisory training**  
**Priority: Medium**

- Staff agrees with the recommendation. The City’s required training includes most of the skills development subject areas mentioned. There has been some lack of participation by employees (largely due to work schedules and residential location) that the Department is attempting to address. The Department Training Committee will be tasked with exploring ways to enhance this training over the next twelve months.

**RECOMMENDATION #9:            Conduct performance reviews on time**  
**Priority: High**

- Staff agrees with the recommendation and efforts are ongoing to meet this goal.

**RECOMMENDATION #10:            Provide orientation and review to personnel regarding communications SOP**  
**Priority: Medium**

- Staff agrees with the recommendation. Concerns noted will be addressed as part of the revision of Department SOP’s, including a clarified delineation of staff responsibilities. This will take place over the next six months.

**RECOMMENDATION #11: Continue communications strategies  
Priority: High**

- Staff agrees with the recommendation. Additionally, a Communications Advisory Committee has been constituted to improve communications. Senior management clearly recognizes the value of, and is committed to, work location visits and “managing by walking around.” Job responsibilities of Battalion Chiefs and Medic III’s include visits to work locations under their supervision on a daily basis.

**RECOMMENDATION #12: Establish a definitive time frame for completion  
of the policies manual  
Priority: Medium**

- Staff agrees with the recommendation. Additional staff has recently been identified and tasked with completing this project. A revised procedures manual should be completed, published, and distributed to work locations and employees in early 2007.

**RECOMMENDATION #13: Adhere to existing Standard Operating  
Procedures  
Priority: High**

- Staff agrees with the recommendation. Adherence to operating procedures is critical to the effectiveness of the Department. All employees are expected to comply with all operating procedures. There are no examples of any major breeches in compliance with standard operating procedures.

**RECOMMENDATION #14: Establish a Support Services Division**

- We will reconsider the merits of the recommendation in FY 2008, after key positions are filled and improved administrative processes are established. The Fire Department is in transition to an agency that has additional resources in the areas of administration, IT, and emergency preparedness. Additionally, several measures and initiatives are underway to provide greater accountability and cohesiveness within the management team of the Department. The current assignment of responsibilities is in place to equitably share the workload and to ensure that functional tasks and responsibilities are accomplished.

**RECOMMENDATION #15: Upgrade the position of Administrative Services Battalion Chief to Assistant Chief of Support Services**  
**Priority: Medium**

- Staff agrees with the recommendation. The documentation required has been developed and submitted for consideration by the Personnel Services Department and the City Manager.

**RECOMMENDATION #16: Implement several Personnel function items**  
**Priority: Medium**

- Staff agrees with the recommendation. The recommendation was substantially completed prior to receipt of the management report.

**RECOMMENDATION #17: Enhance financial planning and purchasing processes**  
**Priority: Medium**

- Staff agrees with the recommendation. The recommendation was implemented during our goal-setting session prior to completion of the management report.

**RECOMMENDATION #18: Ensure that the supplies process is responsive**  
**Priority: Medium**

- Staff agrees with the recommendation. This has been accomplished in part due to the change in personnel from uniformed to civilian Full Time Equivalents (FTE) dedicated to the supply and inventory control processes. Additional improvements are being explored or are underway, including the procurement and implementation of a bar-coding system to account better for equipment and supplies.

**RECOMMENDATION #19: Encourage greater use of Department IT staff**  
**Priority: Medium**

- Staff agrees with the recommendation. This has been accomplished with the restructuring of IT to bring all Department IT resources under one supervisor, the Department's IT Manager. By doing so, IT personnel resources are better and more efficiently utilized to satisfy Department requirements and to support each other. This also minimizes the reliance on City IT for Departmental issues and projects.

**RECOMMENDATION #20: Promote consistent application of “20<sup>th</sup> Due” criteria by other participating jurisdictions  
Priority: Medium**

- Staff agrees with the recommendation. The level of service provided by the NoVA jurisdictions to their respective jurisdictions under our Northern Virginia Mutual Aid Agreement is ultimately a determination made by each jurisdiction and the current issues are not adversely impacting service delivery to the City of Alexandria. The 20<sup>th</sup> due criteria includes the City of Alexandria, Arlington County, Fairfax County, City of Fairfax, and the Washington Airports Authority and provides that each will send its closest unit to an incident regardless of jurisdictional boundaries. This concern has been raised and continues to be discussed at the Northern Virginia regional level. The Fire Chiefs of Northern Virginia have tasked their regional Operations and IT groups with exploring the issue and attempting to identify methods that would improve our overall utilization of all NoVA fire and EMS resources.

**RECOMMENDATION #21: Continue apparatus/equipment replacement program  
Priority: High**

- Staff agrees with the recommendation; however, our current fiscal situation has already required some vehicle replacements to be deferred beyond programmed replacement dates. There was no impact on service delivery since the deferred vehicle replacements involved “light duty” vehicles (support vehicles, sedans, etc.) and not any of the emergency response vehicles. The Fire Department is also participating in a citywide fleet management study.

**RECOMMENDATION #22: Improve employee involvement in projects  
Priority: Medium**

- Staff agrees with the recommendation. Employees are currently solicited regularly for their participation in projects, committees, and other initiatives. Overtime limitations, shift schedules, and location of employee residences pose challenges to accomplishing this goal. We will continue our efforts to increase employee participation.

**RECOMMENDATION #23: Conduct Safety Inspections and Pre-Incident Planning  
Priority: Medium**

- Staff agrees with the recommendation. Development of the Department’s Site Safety Program is nearing completion with an anticipated implementation by early 2007. At that time fire suppression personnel will begin on-duty site safety inspections.

**RECOMMENDATION #24: Reassign Special Operations to Fire Operations**

This recommendation will be studied further. The recommended configuration is problematic due to the need for consistent coordination of training, detail assignments, and special functions. The current arrangement places the responsibility of coordinating the specialty teams, and the accountability for appropriate and consistent resource utilization, under a single individual. On the incident scene, special operations teams operate the same as other response resources under the incident command system that provides operational control and accountability.

**RECOMMENDATION #25: Identify training needs through the planning process**  
**Priority: High**

- Staff agrees with the recommendation. Training provides the foundation for the provision of critical fire and emergency medical services. While “overall training programs and facilities appear to be adequate,” it is imperative that these programs remain current and responsive to evolving technologies, protocols, and other service delivery challenges. Therefore, it is imperative that training considerations be given a high priority during any strategic planning process undertaken.

**RECOMMENDATION #26: Re-write the job description for the EMS Assistant Chief position**  
**Priority: Medium**

- Staff agrees with the recommendation. As currently written, senior EMS/ALS staff are not eligible to compete for the highest-level EMS position.

**RECOMMENDATION #27: Create a management-technology team to improve EMS reporting**  
**Priority: Low**

- Staff agrees with the recommendation, and this project has been completed. A new EMS reporting system was implemented June 1, 2006 and is fully operational at this time. This represents a major upgrade to the previous data system and also includes the transition to a new fire reporting system that is fully integrated.



**RECOMMENDATION #28: Evaluate the two Field EMS Supervisor model after one year of implementation  
Priority: Medium**

- Staff agrees with the recommendation. Staff will provide the City Manager with a detailed analysis of the current service delivery capability of the two-supervisor model vs. the previous one-supervisor model. All indications are that the current two-supervisor system, which was implemented in September 2005, is functioning well and that overall service delivery has been enhanced.

**RECOMMENDATION #29: Consider pre-service ALS training and certification**

- Staff disagrees with the recommendation. Pre-hire Advanced Life Support (ALS) training is already considered a preferred qualification but it is not used as a disqualifier for hiring. It is our contention that requiring this at hiring would have a severe adverse impact on diversity, and our success in hiring. The current process allows management to select the best candidates for employment keeping with the City's goal to also have diversity in the workforce. Continuation with our current hiring practice is recommended.

**RECOMMENDATION #30: Reorganize the current EMS recruit training program**

- Staff disagrees with the recommendation. Reorganization of the nature that is recommended is predicated on the policy change suggested in Recommendation #29, which is not supported.

**RECOMMENDATION #31: Reorganize the ALS Field Internship Program  
Priority: Low**

- Staff disagrees with the recommendation. While continuous improvement of Department programs is always a goal, currently there doesn't seem to be any evidence to suggest that the ALS Field Internship Program, as it stands, is not functioning to produce the level of skills, knowledge and abilities that the Department's Operational Medical Director (OMD) requires. The program is revised and modified with each recruit school under the direction and oversight of the OMD. Since it is under the OMD's license that providers in the program function, it is he/she that the Department relies on to determine whether the current program is meeting expectations and to recommend or direct any necessary modifications. This recommendation needs further study.

**RECOMMENDATION #32: Automate training records  
Priority: Medium**

- Staff agrees with the recommendation. The current data management/incident reporting system just implemented (see above) has a component that provides the capability to track training. FD IT and training staff will be tasked with researching the features and full capabilities of the system relative to tracking training data, and to make recommendations for any improvements or additions to implement this.

**RECOMMENDATION #33: Incorporate maintenance records management system  
Priority: Low**

- Staff agrees with the recommendation. Maintenance records are currently automated on a City approved fleet tracking software program. Justification or need to change from the current system is not indicated at this time.

**RECOMMENDATION #34: Upgrade facilities and maintenance equipment  
Priority: Medium**

- The Department currently has a well-equipped fleet maintenance facility staffed by highly skilled mechanics familiar with the specialized characteristics of emergency response vehicles. There is a need for a higher-capacity vehicle hydraulic lift to replace one that does not satisfy current needs. Procurement of that item is currently included in the City's Capital Improvement Program and is expected in early 2007.

**RECOMMENDATION #35: Continue to incorporate apparatus and equipment maintenance management into the planning process  
Priority: Medium**

- Staff agrees with the recommendation; recommended practice in place and ongoing.

The Fire Department is pleased to have been able to participate in the Efficiency and Best Practices Study to ensure that the Department is operating in a manner consistent with the goals and objectives of the City Manager and the Mayor and City Council. I look forward to the opportunity to discuss the recommendations and the Department's response with you.

**MAG**

*Management Advisory  
Group, Inc.*



**Administrative Functions of the Fire  
Department and Best Practices  
Study**

**Alexandria, Virginia**

**October 1, 2006**

**FINAL REPORT**

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# **Administrative Functions of the Fire Department and Best Practices Study**

## **Alexandria, Virginia Final Report**



**October 1, 2006**

*Management Advisory Group, Inc.*

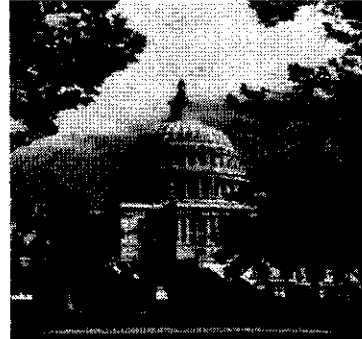
*Montclair, Virginia*

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## *Management Advisory Group, Inc.*

**15532 Yorktown Drive  
Montclair, Virginia 22025  
703.590.7250**



October 1, 2006

Mr. Derek Argust  
Organizational Development Coordinator  
City of Alexandria  
Suite 301 Banker's Square  
100 North Pitt Street  
Alexandria, Virginia 22314

Dear Mr. Argust:

Enclosed is a final report for the study of the Administrative Functions of the Fire Department and Best Practices Study, performed by Management Advisory Group.

This report reflects considerable technical input from management and staff. We are most appreciative of the time and effort of your office, the city management team, and all Fire Department staff. We have had excellent cooperation by the Fire Department.

Please feel free to contact me if there are any questions. We are grateful for this opportunity to serve the City of Alexandria.

Sincerely,

*Donald C. Long*

Donald C. Long, Ph.D.  
Executive Vice President  
Management Advisory Group, Inc.  
[don@maginc.org](mailto:don@maginc.org)

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# CITY OF ALEXANDRIA, VIRGINIA

## ADMINISTRATIVE FUNCTIONS OF THE FIRE DEPARTMENT AND BEST PRACTICES STUDY

### TABLE OF CONTENTS

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Forwarding Letter

Table of Contents

Section 1.0 – Executive Summary .....Page 1-1

Section 2.0 – Scope of Work.....Page 2-1

Section 3.0 – Comparable Agency Review.....Page 3-1

Section 4.0 – Findings and Recommendations.....Page 4-1

Section 5.0 – Implementation Plan Table .....Page 5-1

Appendices:

A: Approach and Methodology

B: Current Description of Services

**SECTION 1.0**

**EXECUTIVE SUMMARY**

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## **1.0 EXECUTIVE SUMMARY**

### **Overall Purpose of the Study**

Management Advisory Group (MAG) Inc. was requested to conduct this performance and efficiency study for the City of Alexandria Fire Department. The overall purpose has been to evaluate the efficiency and effectiveness of certain functions in the Fire Department. The study has included a focus on administrative functions supporting the operations of the Fire Department

### **Study Approach and Scope**

The study has been accomplished by examining the department's operational policies and procedures, organizational structure, span of control, lines of authority, staffing, workloads, budget, outputs, and department service levels. Extensive interviews at all levels of the Fire Department were completed, in both individual and group settings. This input complemented the documentation provided by the Department.

At the City's request, this study has not included a review of the Code Enforcement Division or Emergency Management. A concurrent consulting study by another firm is focusing on station locations and related issues. Therefore, this study has also not included any proposed changes to: shift schedules; firefighter, emergency medical services or fire communications staffing patterns; number of staff assigned per apparatus and per fire station; station locations, emergency management; or, discussion of salaries.



## **Study Objectives**

The scope of services for the performance and best practices study for the Fire Department has included:

- review and evaluation of administrative programs, functions, and services;
- examination of resources and workload distribution;
- review of service standards and performance measurements;
- comparison of services to other agencies;
- analysis of the department's optimal organizational structure,;
- projections of costs resulting from implementing recommendations; and,
- plans to execute recommendations to be incorporated into the next annual budgeting cycle.

## **Comparison to Other Agencies**

Data has been gathered from other agencies in the immediate Washington, D.C. area and the Atlantic seaboard region. This data will be helpful to decision makers as resource allocations are evaluated. The information portrays how the City of Alexandria compares to other local agencies in terms of budgets, personnel, apparatus and units, and a host of other measurable criteria.

## **Major Findings**

There are significant administrative service areas where the Department can achieve improvements. The study found that strategic planning, internal communications, policies and procedures, accountability of personnel, and

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organizational consistency are areas where improvements are possible. This is a Department that seeks to establish excellence at all levels. It has not always been able to achieve such a level because it has not been able to sustain clear direction. The lack of a strategic plan precludes the organization members from going in the same direction at all times. Further, the internal communications are such that employees receive conflicting messages regarding policies and practices. As a result, staff cannot sustain a high level of performance.

The City of Alexandria Fire Department has an extensive number of strengths in a wide range of areas. Chief among these strengths is the dedicated workforce. Employees clearly indicated their interest in the City and desire to maintain excellence in the workplace. One measure of effectiveness is the fire rating of three (3) provided by the Insurance Services Office (ISO). This is one indicator that demonstrates the City's willingness to support the Fire Department. The EMS function also deserves high marks for its high level of service and ability to maintain high standards. Members of an employee study committee and station personnel identified a wide range of strengths that exist within the department. Those are specified in Appendix B of the report. Previously implemented efficiencies include the "civilianization" of a Lieutenant position and a Firefighter position, the elimination of a half-time position in Administrative Services, establishment of a contract for janitorial services, and the deferral of light vehicle replacements.

## **Major Recommendations**

Recommendations (35 in the report) are broad and diverse within the scope of the study. A reorganization and new titling of the Administrative Services Division to Support Services Division will help in terms of organizing properly. Major functions are moved to create greater efficiency for interactions at the staff level.

A number of recommendations in the report focus on strategies to improve communications, ranging from informal station visits to the establishment of formal work groups to focus on serious internal issues.

Standard operating policies are at the heart of a paramilitary organization. Their clarity and adherence are critical to a highly efficient organization. In the Alexandria Fire Department, policies need substantial development and ultimate communication to staff. There is a current internal initiative to revise the policies and procedures, and it requires considerable management direction and staff input.

Even though a large number of administrative areas require additional and immediate attention, the services are provided at the street level. This is testimony to the dedication of Fire Department personnel to providing a safe environment for Alexandria citizens.

Of the 35 recommendations in the report, some should be assigned to an immediate time frame. Some of the recommendations should be assigned a higher priority. The following is a list of the recommendations, each with an assigned time and priority level.

**CATEGORY "A" IMMEDIATE ( 1 – 6 MONTHS ) – HIGHEST IMPORTANCE**

| <b>PRIORITY</b> | <b>REC. #</b> | <b>RECOMMENDATION</b>   |
|-----------------|---------------|---|
| 1               | 7             | Increase meetings at all levels to enhance communications         |
| 2               | 11            | Continue communications strategies                                |
| 3               | 1             | Develop and Maintain a Strategic Plan                             |
| 4               | 2             | Provide Strategic Planning training for personnel                 |
| 5               | 22            | Ensure employee involvement in projects                           |
| 6               | 35            | Continue to incorporate apparatus management into planning        |
| 7               | 4             | Establish Well defined Goals/Objectives                           |
| 8               | 5             | Establish local performance and response time guidelines          |
| 9               | 25            | Identify training needs through the planning process              |
| 10              | 13            | Adhere to existing SOP's  |
| 11              | 12            | Establish a definitive time frame for the policies manual         |
| 12              | 10            | Provide orientations regarding communications SOP                 |
| 13              | 21            | Continue apparatus/equipment replacement program                  |
| 14              | 23            | Conduct Safety Inspections and Pre-Incident Planning              |
| 15              | 20            | Promote consistent application of "20 <sup>th</sup> Due" criteria |
| 16              | 27            | Create a management-technology team for EMS reporting             |
| 17              | 19            | Encourage greater use of Department IT staff                      |
| 18              | 9             | Conduct performance reviews on time                               |
| 19              | 14            | Establish a Support Services Division                             |
| 20              | 15            | Upgrade Administrative Services Battalion Chief position          |
| 21              | 24            | Reassign Special Operations to Fire Operations                    |

**CATEGORY "B" SHORT TERM ( 7 – 12 MONTHS ) – HIGH IMPORTANCE**

| <b>PRIORITY</b> | <b>REC. #</b> | <b>RECOMMENDATION</b>                                |
|-----------------|---------------|--|
| 1               | 8             | Provide enhanced management and supervisory training |
| 2               | 16            | Implement several Personnel function items           |
| 3               | 17            | Enhance Financial Planning and Purchasing Processes  |
| 4               | 18            | Ensure that the supplies process is response         |
| 5               | 32            | Automate Training Records                            |
| 6               | 33            | Incorporate Maintenance Records Management System    |
| 7               | 6             | Revise certain IT Reports                            |
| 8               | 3             | Pursue Fire Department Accreditation                 |

**CATEGORY "C" INTERMEDIATE ( 1 – 3 YEARS ) – MODERATE IMPORTANCE**

| <b>PRIORITY</b> | <b>REC. #</b> | <b>RECOMMENDATION</b>  |
|-----------------|---------------|--|
| 1               | 26            | Rewrite the job description for EMS Assistant Chief position |
| 2               | 28            | Evaluate the two Field EMS Supervisor model after one year   |
| 3               | 29            | Consider Pre-Service ALS Training and Certification          |
| 4               | 31            | Reorganize the ALS Field Internship Program                  |
| 5               | 30            | Reorganize the current EMS Recruit Training Program          |

**CATEGORY "D" LONG TERM ( 3 – 5 YEARS ) DESIRABLE BUT LESS CRITICAL**

| <b>PRIORITY</b> | <b>REC. #</b> | <b>RECOMMENDATION</b>                        |
|-----------------|---------------|--|
| 1               | 34            | Upgrade Facilities and Maintenance Equipment |

Overall, the Alexandria Fire/EMS Department is doing an acceptable job as compared to other jurisdictions. The Department should be proud that the core services of Fire Suppression, Rescue and EMS appear to be provided in a professional manner. Fires are controlled, and a high level of advanced life support patient care is provided.

The employees at all levels appear to be dedicated and well meaning. However, there are many significant areas that could be improved upon. The Department needs clear direction, vision, and leadership. Areas for improvement include the need for a Strategic Plan, updated Standard Operating Procedures/Guidelines (SOP/SOGs), a reorganization of administrative and support functions, internal communications throughout the Department, employee involvement in projects, improved training programs, enhance automated records management, and improved safety programs including Site Safety Inspections and Pre-Incident Planning.

**SECTION 2.0**

**SCOPE OF WORK**

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## **2.0 SCOPE OF WORK**

### **2.1 Overall Purpose of the Study:**

Management Advisory Group (MAG) Inc. was requested to conduct this performance and best practices study. The overall purpose has been to evaluate the efficiency and effectiveness of certain functions in the Fire Department and to review performance benchmarks for ongoing evaluation and future service levels. This has been accomplished by examining the department's operational policies and procedures, organizational structure, span of control, lines of authority, staffing, workloads, budget, outputs, and department service levels. This study has involved reviewing and improving the department's workload and performance measure sets, and benchmarking of the results to comparative jurisdictions and industry standards.

Organizationally, the study has included a focus on selected areas of the Fire Department, including the divisions of:

- Suppression;
- Fire Administration;
- Emergency Medical Services; and,
- Fire Communications.

At the City's request, this study has **not** included a review of the Code Enforcement Division or Emergency Management. A concurrent consulting study by another firm is focusing on station locations and related issues. Therefore, this study has also **not** included any proposed changes to: shift schedules; firefighter, emergency medical services or fire communications staffing patterns; number of staff assigned per apparatus and per fire station; station locations, emergency management; or, discussion of salaries.



## **2.2 Study Objectives**

The scope of services for the performance audit and efficiency study for the Fire Department has included:

- review of service levels, workload, output, and staffing for administrative functions;
- evaluation of administrative programs and services offered in terms of necessity, efficiency, staffing, funding, and responsiveness to resident needs;
- examination of allocated personnel, equipment, and other resources to assess proper workload distribution;
- review of service standards and performance measurements;
- comparison to other local governments as benchmarks to compare service delivery systems, policies, and programs;
- analysis of the department's optimal organizational structure, including spans of control, lines of authority, and fiscal accountability;
- projections of immediate and long term savings in capital or operating costs resulting from implementing recommendations; and,
- plans to execute recommendations (including timelines and identification of responsible parties) to be incorporated into the next annual budgeting cycle.

**SECTION 3.0**

**COMPARABLE AGENCY REVIEW  
(BEST PRACTICES)**

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### **3.0 COMPARABLE AGENCY REVIEW**

#### **3.1 Purpose of Comparability Review**

The purpose of the analysis is to provide Alexandria officials with an additional perspective on the comparative efficiency of the Alexandria Fire Department with regard to allocated administrative and operational resources. Officials can compare its fire defenses and EMS services with similar municipalities of similar size and type, by using data which are readily available in sample communities. The intent is to provide Alexandria officials with an additional evaluation tool to support future decisions aimed at cost effective fire services. The analysis is intended to support the scope of the Performance and Best Practices Study of the Alexandria Fire Department and is intended to address only the agency's administration and management functions.

#### **3.2 Approach**

The approach of the analysis includes a survey of communities within the Washington, DC metropolitan area and the greater Atlantic Seaboard region. All cities surveyed are protected by municipal fire departments whose scope of services and programs are similar in nature to those protected by the Alexandria Fire Department. Data have been collected through a variety of sources including the U.S. Census Bureau, official city and fire department websites, reports from the International City/County Management Association, and direct emails and telephone interviews from city and fire department officials.

Results from the surveys were then placed in tables that allow for a review and comparison of data sets of cities in the survey to the city of Alexandria. Close attention is paid to data categories for each city to ensure the analysis compares "apples to apples" to the greatest extent possible.



### 3.3 Scope

Data sets are categorized into four broad subject areas for ease of review. Each category provides data that can be used by decision-makers in determining if the Alexandria Fire Department provides its services in the most efficient way as compared to similar communities.

#### General

- ✔ Population served
- ✔ Department Type (paid, combination, all volunteer)
- ✔ Area served/density
- ✔ Municipal Budget
- ✔ Fire Department budget
- ✔ Percent of municipal budget
- ✔ ISO Public Protection Rating (PPC)
- ✔ Number of fire stations
  - Average area served per station
  - Average population served per fire station
- ✔ Total number of personnel
  - Total Uniformed
  - Total non-uniformed

#### Firefighting Force

- ✔ Number of in-service engine companies
- ✔ Number of in-service truck/ladder companies
- ✔ Number of uniformed personnel assigned to non-operational/field duty

#### EMS Force (If provided by fire department)

- ✔ Number of in-service units
- ✔ EMS provided within the Department

#### Civilian Personnel

- ✔ Number of administrative personnel
- ✔ Number of support personnel
- ✔ Ratio of civilian personnel to uniformed

### 3.4 Survey Cities

Cities included in the survey consist of those with the populations generally similar to the City of Alexandria. Careful consideration was given to identifying cities for the survey that are similar not only in population, but also with regard to density, growth and physical characteristics, and economic status. Some cities are larger and some are smaller than the City of Alexandria. Of the 10 surveyed agencies, five (5) are larger, and five (5) are smaller than Alexandria in population. In such surveys, with sufficient data, the analysis balances out and minimizes the effect of size. As previously mentioned, cities surveyed were limited to those that lie within the Washington, DC metropolitan area and the greater Atlantic Seaboard Region. The list below identifies those cities participating in the survey:

| <u>DC Area:</u>      | <u>Population</u> |
|----------------------|-------------------|
| Alexandria, VA       | 137,600           |
| Arlington County, VA | 186,117           |
| Washington, DC       | 553,523           |
| <br><u>Regional:</u> |                   |
| Roanoke, VA          | 92,352            |
| Suffolk, VA          | 76,586            |
| Richmond, VA         | 192,494           |
| Newport News, VA     | 181,913           |
| Hampton, VA          | 145,951           |
| Fayetteville, NC     | 125,241           |
| Wilmington, NC       | 93,292            |
| Wilmington, DE       | 72,784            |

### 3.5 Data Review and Analysis

The following tables and discussion reviews the information generated from the survey of other agencies.



**Type of Fire Department**

Seven (7) out of the 10 cities surveyed (plus Alexandria) are protected by all-career fire departments. The remaining three (3) are served by a combination of a career force augmented by volunteer firefighters. In one case, career firefighters staff volunteer fire stations during week days when volunteers can not readily respond.

**Type of Fire Department Organization**

| Department           | Type of Force |
|----------------------|---------------|
| Alexandria, VA       | Career        |
| Arlington County, VA | Career        |
| Washington, DC       | Career        |
| Roanoke, VA          | Career        |
| Suffolk, VA          | Combination   |
| Richmond, VA         | Career        |
| Newport News, VA     | Combination   |
| Hampton, VA          | Combination   |
| Fayetteville, NC     | Career        |
| Wilmington, DE       | Career        |
| Wilmington, NC       | Career        |

The survey indicates that the Alexandria Fire Department is in line with most departments in the region that provide services to similar levels of population. The career fire service is not only common in the Washington, DC metropolitan area, but is also reflective of national surveys conducted annually by the International City/County Management Association (ICMA) which indicates that approximately 90 per cent of 88 municipalities surveyed are protected by full-time firefighters.

**Area and Density Served**

Area and density served by the fire departments in the survey varied greatly. This is in part due to the changing urban landscape of modern American cities in which suburban sprawl has occurred. Some of the cities, including Alexandria, are landlocked due to natural (Potomac River) and manmade (County line) boundaries. Some of the cities do not



have such boundaries and can expand considerably. Alexandria's growth will occur due to infill development, through increases in housing, office, and retail space activity. A substantial increase in office space is being added at this time within the city boundaries. Potomac Yard is one example of development within the city. Many municipalities have found that the infrastructure needed for services will either remain the same or may even become smaller as new technologies and concepts are increasingly incorporated into the detection and suppression of fires and related emergencies.

**Density of Population Served**

| <b>City</b>                   | <b>Population</b> | <b>Square Miles</b> | <b>Density</b> |
|-------------------------------|-------------------|---------------------|----------------|
| Alexandria, VA                | 137,600           | 15                  | 9,173          |
| Arlington County, VA          | 186,117           | 28.2                | 6,599          |
| Washington, DC                | 553,523           | 61                  | 9,074          |
| Roanoke, VA                   | 92,352            | 43                  | 2,147          |
| Suffolk, VA                   | 76,586            | 40                  | 1,914          |
| Richmond, VA                  | 192,494           | 60                  | 3,208          |
| Newport News, VA              | 181,913           | 68                  | 2,675          |
| Hampton, VA                   | 145,951           | 52                  | 2,806          |
| Fayetteville, NC              | 125,241           | 59                  | 2,122          |
| Wilmington, DE                | 72,784            | 11                  | 6,616          |
| Wilmington, NC                | 93,292            | 41                  | 2,275          |
| Respondent Average w/out D.C. | 129,637           | 44.68               | 3,374          |
| Respondent Average            | 172,025           | 46.32               | 3,944          |

As noted in the above table, Alexandria's population density is more than double the average density of the other communities surveyed. The City is highly urban in character, which impacts on the continuing demand for both fire and EMS services.

**Fire Department Expenditures**

City budgets were surveyed to provide some indication of typical costs appropriated for fire and EMS services. The use of the data in the table below is somewhat limited due



to the varying complexities of the delivery of fire and EMS and associated budgets. Services are not consistently provided in communities across the country, including those identified in the survey. Therefore, the review of the following data must take into consideration the fact that services provided are not exact and identical. They are sufficiently similar to allow for interesting observations.

**City and Fire Department Budgets**

| <b>City</b>          | <b>City Budget</b> | <b>FD Budget</b> | <b>FD Budget as Percent of City Budget</b> | <b>FD Cost Per Capita</b> |
|----------------------|--------------------|------------------|--|---------------------------|
| Alexandria, VA*      | 467,829,951        | 34,297,540*      | 7.3  | \$ 249                    |
| Alexandria, VA**     | 467,829,951        | 28,142,376**     | 6.0  | \$ 205                    |
| Arlington County, VA | 462,472,000        | 32,506,000       | 7.0  | \$ 175                    |
| Washington, DC       | 4,950,000,000      | 156,268,000      | 3.2  | \$ 282                    |
| Roanoke, VA          | 223,799,000        | 18,900,435       | 8.4  | \$ 205                    |
| Suffolk, VA          | 120,599,000        | 12,500,000       | 10.4                                       | \$ 163                    |
| Richmond, VA         | 555,806,000        | 33,000,000       | 5.9  | \$ 171                    |
| Newport News, VA     | 361,860,000        | 26,760,000       | 7.4  | \$ 147                    |
| Hampton, VA          | 374,359,325        | 14,361,690       | 3.8  | \$ 98                     |
| Fayetteville, NC     | 325,079,917        | 15,749,758       | 4.8  | \$ 125                    |
| Wilmington, DE       | 161,974,906        | 16,635,093       | 10.3                                       | \$ 228                    |
| Wilmington, NC       | 127,898,000        | 11,800,000       | 9.2  | \$ 126                    |
| Average w/out D.C.   | 363,908,515        | 33,497,498       | 7.3  | \$ 172                    |
| Average              | 780,825,923        | 19,856,331       | 6.95                                       | \$ 181                    |

\* Includes Code Enforcement function

\*\* Excludes Code Enforcement function





**Percent of City Budget.** The range of dollars spent on fire services relative to the municipal budgets for the surveyed communities is 3.2 percent to 10.4 percent. The (all funds) budget of the Alexandria Fire Department makes up approximately 7.3 percent of the city's total 2006 operating budget. This is slightly higher than the average of 6.95 percent for all cities. Suffolk, Virginia and Wilmington, Delaware reported spending the most for fire and EMS services, expending over 10 percent the city's total operating budget. Alexandria's 7.3 percent cost for fire services is relatively consistent with the average of other communities in the survey. The average budget size for fire services is approximately \$33 million for the surveyed agencies, compared with Alexandria's \$34 million. This "all funds" budget is expanded by the inclusion of Code Enforcement costs (\$6,155,164) for Fiscal Year 2006. If we *exclude* the cost for Code Enforcement, the cost for fire services in Alexandria is \$28,142,376, similar to the cost for Arlington County. This reduces the percentage of the city budget dedicated to fire services to six (6) percent.

**Per Capita Cost.** Per capita costs are figured by comparing the total fire department budget relative to the population served. Permanent populations consistent with the most recent U.S. Census data are used in the calculation. Daytime commuter populations are highly variable and are not used here. With a per capita cost of \$249, Alexandria has a higher than average per capita cost for fire services, relative to the average of the other agencies in the survey. Alexandria's per capita fire cost is nearly 50 percent higher than the average cost of \$172-\$181 per capita. It is interesting to note that Alexandria's per capita costs are less than nearby Washington, D.C. where fire and EMS services are \$282 per capita. The higher per capita costs are likely a function of the higher cost of housing, goods, and services in the Washington, D.C. area relative to other surveyed areas. *Excluding* the cost of Code Enforcement, the city's per capita cost is lowered to \$205.



### ISO Public Protection Classification

A review of Insurance Services Office (ISO) ratings was included in the survey. Seven (7) of the cities reported a Public Protection Classification (rating) of Class two (2). The ISO scale rates communities on a scale of one (1) through 10. A lower number represents greater adherence to the ISO criteria for fire services, and implies a better level of service. The ability of an organization to achieve and retain a relatively low rating reflects a commitment to the fire service.

#### ISO Public Protection Classification

| City                 | PPC |
|----------------------|-----|
| Alexandria, VA       | 3   |
| Arlington County, VA | 2   |
| Washington, DC       | 2   |
| Roanoke, VA          | 2   |
| Suffolk, VA          | 4   |
| Richmond, VA         | 2   |
| Newport News, VA     | 3   |
| Hampton, VA          | 2   |
| Fayetteville, NC     | 2   |
| Wilmington, DE       | n/a |
| Wilmington, NC       | 2   |
| Average              | 2.3 |

### Distribution of Resources

Resource distribution consists of fire stations and their assigned equipment. Knowing the area and population served by a fire station can be very helpful when determining optimum service levels. Using ISO and similar guidelines, a normal distribution of fire stations within urban areas is 4.5 square miles. This factor, however, must be weighed against natural and manmade barriers and political influences that often dictate the location of fire stations.

**Area Served Per Station.** The average area covered per station for the surveyed agencies is 3.74 square miles or approximately 20 percent less area than the generally



recognized area of 4.5 square miles. With eight (8) fire stations, the City of Alexandria serves an area of 1.9 square miles per station, which is 42 percent of the recommended coverage. A factor for the number and placement of stations has to be the extent of traffic and response time capability. A restructuring of fire stations consistent with nationally recognized guidelines or survey averages would lead to savings in overall costs for services.

**Population Served Per Station.** Knowing the population served is important to determining the level and kind of services to be provided within a municipality. Population service needs will drive call volume and will impact the number of fire and EMS units needed for a given fire station. Population level, both permanent and transient, can be used to help determine not only the number and kind of units, but the staffing needed for these services. In the survey of agencies, the average population served per fire station was 12,705. This is roughly 25 percent less than the 17,200 served by the Alexandria Fire Department. Clearly, one of the reasons for this variance is the population density of the northern Virginia area.

**Distribution of Resources**

| City                 | No. of Stations | Area Served Per Station* | Population Served Per Station |
|----------------------|-----------------|--------------------------|-------------------------------|
| Alexandria, VA       | 8               | 1.9                      | 17,200                        |
| Arlington County, VA | 10              | 2.8                      | 18,611                        |
| Washington, DC       | 34              | 1.8                      | 16,280                        |
| Roanoke, VA          | 13              | 3.3                      | 7,104                         |
| Suffolk, VA          | 9               | 4.4                      | 8,509                         |
| Richmond, VA         | 20              | 3                        | 9,624                         |
| Newport News, VA     | 10              | 6.8                      | 18,191                        |
| Hampton, VA          | 10              | 5.2                      | 14,595                        |
| Fayetteville, NC     | 13              | 4.5                      | 9,633                         |
| Wilmington, NC       | 11              | 3.7                      | 8,481                         |
| Average w/out D.C.   | 12              | 3.95                     | 12,308                        |
| Average              | 14              | 3.74                     | 12,705                        |

\* ISO guidelines allow for an optimum area of 4.5 square miles.



**Personnel**

Personnel include both uniformed and civilian staff. Volunteer or paid-call members were not included in the survey. The survey could not provide a precise review of personnel due to the various organization configurations used by fire departments. In some cases very few civilian personnel were used for functions within the fire department, whereas other organizations such as Alexandria rely heavily on non-uniformed personnel to provide support for fire department services. In some cases, civilian personnel were used for functions that are traditionally provided by uniformed staff such as fire prevention and communications.

**Fire Department Personnel**

| City                 | Total No. of Personnel | Uniformed | Uniformed per 1,000 population | Non-uniformed |
|----------------------|------------------------|-----------|--------------------------------|---------------|
| Alexandria, VA       | 235                    | 204       | 1.48                           | 31            |
| Arlington County, VA | 305                    | 291       | 1.56                           | 14            |
| Washington, DC       | 2,060                  | 1839      | 3.32                           | 221           |
| Roanoke, VA          | 272                    | 261       | 2.84                           | 11            |
| Suffolk, VA          | 304                    | 184       | 2.42                           | 120           |
| Richmond, VA         | 427                    | 414       | 2.16                           | 13            |
| Newport News, VA     | 374                    | 320       | 1.75                           | 54            |
| Hampton, VA          | 262                    | 249       | 1.70                           | 13            |
| Fayetteville, NC     | 250                    | 225       | 1.80                           | 25            |
| Wilmington, DE       | 176                    | 165       | 2.26                           | 11            |
| Wilmington, NC       | 205                    | 191       | 2.05                           | 14            |
| Average w/out D.C.   | 284                    | 255       | 2.01                           | 29            |
| Average              | 445                    | 414       | 2.13                           | 31            |

**Uniformed Personnel.** The cities surveyed showed an average of 2.13 firefighters per 1,000 population. This is in contrast with Alexandria's 1.48 per population. Excluding Washington D.C.'s high rate of 3.32, the average per 1,000 population becomes 2.0. As compared with the reporting cities, other than Washington, D.C., Alexandria's 1.46



uniformed personnel per 1,000 population is more in line with accepted levels of uniformed personnel throughout the region. Alexandria, with the exception of Washington, D.C. has the second highest number of non-uniformed personnel.

***Non-Uniformed Personnel.*** As mentioned earlier, there exists great disparity in the way non-uniformed personnel are used for support and other fire department functions. It appears that the use of civilian staff depends greatly on the mission of the fire department as well as political and cultural aspects of the department and the community it serves. No conclusive review could be made due to varying organizational models used by each city. It must be noted though, that civilian personnel are used in practically every city, with some departments using civilian personnel strictly for support services. Many departments are embracing the concept of civilian assignments traditionally given to uniformed forces, such as fire prevention and code enforcement.

### **Emergency Medical Services**

Most of the communities surveyed provide emergency medical services through the fire department, with the exception being the City of Fayetteville, North Carolina. The number of transport units in service per population varies widely, with an average of 18,333 population served per in-service unit as compared to Alexandria's 27,520 (the highest of the surveyed agencies). Call volume must be considered when determining the number of EMS units needed. Cities such as Alexandria located within highly urbanized areas often require a higher than average number of units.



**EMS Services**

| <b>City</b>          | <b>No. of EMS Units</b> | <b>Population Served Per Unit</b> |
|----------------------|-------------------------|-----------------------------------|
| Alexandria, VA       | 5                       | 27,520                            |
| Arlington County, VA | 7                       | 26,588                            |
| Washington, DC       | 34                      | 16,280                            |
| Roanoke, VA          | 7                       | 13,193                            |
| Suffolk, VA          | 6                       | 12,764                            |
| Richmond, VA         | 7                       | 27,499                            |
| Newport News, VA     | 11                      | 16,537                            |
| Hampton, VA          | 9                       | 16,216                            |
| Fayetteville, NC     | n/a                     | n/a                               |
| Wilmington, DE       | 5                       | 14,557                            |
| Wilmington, NC       | n/a                     | n/a                               |
| Average w/out D.C.   | 7.2                     | 18,590                            |
| Average              | 10.2                    | 18,333                            |

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## **SECTION 4.0**

### **FINDINGS AND RECOMMENDATIONS**

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## **4.0 FINDINGS & RECOMMENDATIONS**

This report identifies a substantial number of recommendations that focus on a wide range of issues.

### **4.1 Administration**

The Fire Chief is an experienced professional fire services chief officer. The Fire Department is fortunate to have a number of City authorized administrative staff positions to support the Department's administration, operations, programs and services.

#### **4.1.1 Planning and Direction of the Department**

##### **FINDINGS**

**Additional planning and direction is needed – both short and long-term.**

Employee interviews indicate a perceived need for more Department planning and direction on the part of the Fire Administration team. This is a view that was repeatedly stated during on-site interviews and focus group meetings. Employees indicated a strong interest in knowing where the Department is going.

**There is no strategic plan in place.**

There is no Strategic Plan for the Fire Department. A Strategic Plan is critical *to provide a vision, direction and a means to measure the performance of the Department in terms of its mission goals and objectives*. A vision and direction for the Department should be communicated to all employees of the Department.

By developing a strategic plan the Department can better serve the public while justifying its needs during the budgetary process. Ideally, the strategic plan should be an integral part of a city-wide process where all departments use an adopted planning model. This approach can allow for more consistent planning throughout all City departments. However, if no uniform process is available, the Department can choose



to use a planning model that is generally accepted in the public service sector and is referenced by the Commission on Fire Accreditation International as part of their accreditation program. Regardless of which approach is used, to gain the most from the strategic planning process, a culture must be developed within the Department that encourages all members to “think” strategically. Regardless of the planning process used, it should address the following questions:

- a. Where is the Department going? (Mission)
- b. How does the Department get there? (Strategies)
- c. What is the Department's blueprint for action? (Budget)
- d. How does the Department know if it is on track? (Assessment)

Experience by other fire departments has shown that strategic planning, if developed correctly, can go a long way towards improving the Department's performance. It is important to note that without strong commitment from within the Department, City administration and stakeholders, the strategic planning process will be limited in its effectiveness in providing direction over a longer period of time.

**Planning activities are divided among units.**

The Department does not have anyone assigned to general planning, nor does the Department have a Strategic Plan project assigned. Planning is done at the individual Division level with Fire Chief approval.

**RECOMMENDATIONS**

**RECOMMENDATION #1: Develop and Maintain a Strategic Plan.**

The Fire Department should develop a Five Year Strategic Plan as a top priority project, for presentation to and approval by the City Manager's Office. A Strategic Plan could include, but not be limited to:

- *Overview of the Department,*



- *Existing Mission Statement,*
- *Strategic Mission Statement,*
- *Strategic Intent,*
- *Internal and External Analysis to include;*
  - *Strengths,*
  - *Weaknesses,*
  - *Opportunities,*
  - *Threats,*
- *Key Result Areas (KRA) for action and improvement to include; Rationale Strategy, Objective, Timetable, and Cost Estimate,*
- *Policy Issues,*
- *Budget Impact.*

Key Result Areas could include items such as: Departmental Reorganization, Updating Policies & Procedures, Dispatch, Training, Fire Stations & Facilities, Apparatus & Equipment Replacement, Fire Operations, Emergency Medical Services, Specialized Teams, Staffing & Personnel Deployment, Technology, Fire Prevention & Life Safety, Emergency Management & Disaster Preparedness.

Assignments of responsibility for implementation of Key Result Areas should be made and managed by the Fire Chief. Regular periodic progress reports should be provided to the City Manager. Annual Plan updates and revisions should be made to maintain a current Strategic Plan. The Plan should be used to develop budget requests.

**RECOMMENDATION #2: Provide strategic planning training for personnel.**

Team Building and Strategic Planning training should be provided for Department personnel who will be participating in a Strategic Planning process. An efficient way to accomplish this is through a consulting agreement with a firm experienced in strategic planning, or this may be accomplished internally with assistance from the Organizational Development Coordinator.

The Strategic Planning process should be formalized and communicated to all members of the Fire Department. A Strategic Planning Stakeholders' Team should be used that includes all Chief Officers, all Captains, EMS Supervisors, representatives from the ranks of Lieutenant, Firefighter, Medic, Dispatcher, administrative support personnel, employee associations and outside stakeholders.

**RECOMMENDATION #3: Pursue Fire Department Accreditation**

The Department should pursue excellence through a fire & emergency services accreditation program sponsored by The Commission on Fire Accreditation International. The Fire Service Accreditation process was developed as a joint effort between the International City/County Management Association (ICMA) and the International Association of Fire Chiefs (IAFC). The process involves a detailed review and assessment of the "Core Competencies", including, but not limited to, organization, management, operations and services of the Fire Department. This effort requires staff time to accomplish, usually in excess of 1,000 hours over approximately two (2) years.

The accreditation process forces the strategic planning, current policies and procedures, sound management practices, and records management elements of a fire organization. Other benefits of the accreditation process include:

- Requires the Department to develop a strategic plan;
- Critical review of all organizational strengths and weaknesses;
- Develops methods for improvement;

- Helps identify areas of improvement of the City's ISO rating;
- Encourages quality improvement through ongoing self assessment;
- Helps develop a forum for communications of management and leadership;
- Encourages improved management of concurrent documents including the Department's strategic plan, capital improvement and current and projected budgets.

The initial fees for entering the accreditation program for the City of Alexandria is approximately \$6,000 to \$7,500, plus the assistance of a staff person assigned to this process. This would be a minor investment considering the potential savings the Department may incur due to the program's self assessment and peer review process.

Fire departments that participate in the accreditation and planning process often have staff dedicated at least part of the time to the accreditation/planning process. However, many agencies successfully manage such programs with in-house staff with the planning process being an integral part to a project team's duties. It is not uncommon for positions such as the newly created Administrative Services Division Chief to serve as the overseer of the planning effort with other members of the team serving as part of their normal duties. Also, it is not uncommon for other staff, both internal and external to the fire department to serve on an as-need basis. Contract personnel with specialized capabilities such as GIS programmers and data analysts should be considered, if not pooled from within existing City staff.

If however, the department wishes to pay for an outside planning facilitator and related services, the breakdown below could be referenced as a "ballpark" indicator for 12 weeks worth of work within a period of performance of one year:

|   |                    |                 |
|---|--------------------|-----------------|
| Planning Facilitator                    | @ \$50 x 480 hours | \$24,000        |
| Data Analyst                            | @ \$30 x 160 hours | \$ 4,800        |
| GIS Programmer                          | @ \$30 x 120 hours | \$ 3,600        |
| Program Assistant                       | @ \$20 x 480 hours | \$ 9,600        |
| Overhead                                | @ 20 percent       | \$ 6,160        |
| Misc./Supplies/Materials                |                    | \$ 1,600        |
| Accreditation fees and associated costs |                    | <u>\$ 7,500</u> |
|   |                    | \$57,260        |

#### **4.1.2 Goals, Objectives, and Performance Guidelines**

##### **FINDINGS**

##### **Current goals are broad and non-specific.**

A review of the FY 2006 Budget Document for the Fire Department shows broad and non-specific Goals/Objectives such as:

- To respond to all emergency incidents *in a timely fashion*;
- To provide *timely and efficient* responses to emergency medical incidents;
- To receive emergency calls for Fire/EMS assistance and to dispatch assistance *as soon as possible*.

##### **Current reported standards are not being routinely met.**

Data reported by the Fire Department indicates that the current standards were not met in fiscal year 2005. A target compliance of 90% of calls is established. The source of targets is from the National Fire Protection Association (NFPA). The following data were reported by the Department:

**Travel Times Only (4 Minute Standards)**

**EMS Incidents**

**All EMS Emergency Calls 4 Min BLS On Scene (1710 Standard)**

| Year            | All Emerg Incidents | From Units in Station | From Units in Station in 1st due areas |
|-----------------|---------------------|-----------------------|--|
| FY 2004         | 80.78%              | 85.38%                | 88.36%                                 |
| FY 2005         | 80.08%              | 84.57%                | 87.61%                                 |
| Partial FY 2006 | 77.69%              | 82.02%                | 84.30%                                 |

**Identified in CAD as ALS Calls**

|                 |        |        |        |
|-----------------|--------|--------|--------|
| FY 2004         | 81.18% | 85.24% | 88.32% |
| FY 2005         | 81.72% | 84.99% | 88.12% |
| Partial FY 2006 | 90.60% | 90.92% | 92.11% |

**EMS Emergency Calls 4 Min ALS On Scene (Alex Standard)**

| Year            | All Emerg Incidents | From Units in Station | From Units in Station in 1st due areas |
|-----------------|---------------------|-----------------------|--|
| FY 2004         | 69.42%              | 71.92%                | 79.84%                                 |
| FY 2005         | 67.63%              | 70.38%                | 77.57%                                 |
| Partial FY 2006 | 64.45%              | 66.10%                | 74.13%                                 |

**Identified in CAD as ALS Calls**

|                 |        |        |        |
|-----------------|--------|--------|--------|
| FY 2004         | 69.71% | 71.96% | 79.07% |
| FY 2005         | 68.14% | 69.81% | 78.26% |
| Partial FY 2006 | 69.59% | 70.38% | 78.57% |

**Travel Times and Turn out Times 5 Minute Standards**

**EMS Incidents**

**All EMS Emergency Calls 5 Min BLS On Scene (1710 Standard)**

| Year            | All Emerg Incidents | From Units in Station | From Units in Station in 1st due areas |
|-----------------|---------------------|-----------------------|--|
| FY 2004         | 76.16%              | 80.33%                | 83.65%                                 |
| FY 2005         | 75.49%              | 79.31%                | 82.65%                                 |
| Partial FY 2006 | 73.24%              | 75.21%                | 78.83%                                 |

**Identified in CAD as ALS Calls**

|                 |        |        |        |
|-----------------|--------|--------|--------|
| FY 2004         | 76.46% | 80.63% | 83.93% |
| FY 2005         | 77.43% | 80.71% | 83.87% |
| Partial FY 2006 | 87.19% | 86.78% | 87.77% |

**EMS Emergency Calls 5 Min ALS On Scene (Alex Standard)**

| Year            | All Emerg Incidents | From Units in Station | From Units in Station in 1st due areas |
|-----------------|---------------------|-----------------------|--|
| FY 2004         | 63.73%              | 65.94%                | 73.41%                                 |
| FY 2005         | 62.24%              | 64.75%                | 71.41%                                 |
| Partial FY 2006 | 59.37%              | 60.51%                | 67.83%                                 |

**Identified in CAD as ALS Calls**

|                 |        |        |        |
|-----------------|--------|--------|--------|
| FY 2004         | 63.75% | 65.92% | 72.79% |
| FY 2005         | 62.48% | 64.06% | 71.70% |
| Partial FY 2006 | 65.24% | 65.74% | 73.47% |

### Suppression Incidents

| Emergency Calls 4 Min On Scene (1710 Standard) |                     |                       |  |
|--|---------------------|-----------------------|--|
| Year   | All Emerg Incidents | From Units in Station | From Units in Station in 1st due areas |
| FY 2004  | 85.56%              | 88.18%                | 90.16%                                 |
| FY 2005  | 84.03%              | 86.58%                | 87.46%                                 |
| Partial FY 2006                                | 84.25%              | 84.64%                | 86.16%                                 |

#### Identified as Fire Calls

|                 |        |        |        |
|-----------------|--------|--------|--------|
| FY 2004         | 88.89% | 89.50% | 91.18% |
| FY 2005         | 89.97% | 91.16% | 92.90% |
| Partial FY 2006 | 90.87% | 91.81% | 92.00% |

### Suppression Incidents

| Emergency Calls 5 Min On Scene (1710 Standard) |                     |                       |  |
|--|---------------------|-----------------------|--|
| Year   | All Emerg Incidents | From Units in Station | From Units in Station in 1st due areas |
| FY 2004  | 81.55%              | 84.42%                | 86.29%                                 |
| FY 2005  | 79.45%              | 81.00%                | 82.58%                                 |
| Partial FY 2006                                | 79.37%              | 79.13%                | 81.11%                                 |

#### Identified as Fire Calls

|                 |        |        |        |
|-----------------|--------|--------|--------|
| FY 2004         | 86.11% | 87.00% | 88.24% |
| FY 2005         | 85.89% | 86.98% | 89.07% |
| Partial FY 2006 | 83.91% | 84.21% | 85.33% |



**Benchmarks or performance standards are not locally defined.**

There is a lack of well-defined benchmarks or performance standards to measure the performance, efficiency or effectiveness of the Department in providing its core services. Without benchmarks the Department will have great difficulty in determining whether it is providing an acceptable level of service to the citizens. Measuring these services, the Department will be able to more effectively justify the relocation or modification of current location of fire stations and associated fire and EMS units. A number of programs and best practices such as ISO criteria, CFAI's accreditation program and related National Fire Protection Association (NFPA) standards all call for well defined benchmarks for all fire department services and programs.

**RECOMMENDATIONS**

**RECOMMENDATION #4: Establish Well Defined Goals/Objectives and Performance Guidelines.**

The Department should develop well defined Goals/Objectives and Performance Standards/Guidelines covering its core services for City management approval. These should be included in a Strategic Plan.

Goals and Objectives should be developed for all divisions of the Department. This can and should be initiated at the division level by managers and supervisors; however, the goals and objectives should be coordinated and approved by the Fire Chief and the strategic planning team to assure consistency and due to potential budgetary impacts.

**RECOMMENDATION #5: As part of the strategic planning process, establish local performance and response time guidelines.**

Further, "Dispatch Time" guidelines should be established, published, and monitored. This time increment should be from the time the Fire/EMS Dispatch Center receives the call for service through call processing and notification of the responding

emergency units. "Response Time" should include all times from notification of the responding Fire Company or Medic Unit to arrival at the incident scene. This would include "Turn Out Time" and "Travel Time" to the scene.

The City of Alexandria should establish its own measurable local Response Time Performance Standards.

The following are examples only of possible performance standards for emergency response. Traditionally, fire departments reported their average response time from time of dispatch, which is simple travel time to the scene. A target goal of 85% or 90% of all emergency calls would be appropriate.

**Examples of performance measures for major functional areas could include:**

**Dispatch**

- The Fire/EMS Dispatch Center should process all emergency calls for service and dispatch the responding units within 1 minute (60 seconds) of receiving the call.

**Structure Fires**

- Arrive at the incident scene, within 5 minutes (300 seconds) of dispatch with a fire fighting apparatus staffed with at least 3 fire fighting personnel.
- Arrive at the incident scene, within 10 minutes (600 seconds) of dispatch with not less than 5 appropriately equipped fire fighting vehicles, staffed with not less than 3 fire fighting personnel each, and one Command Team including a Chief Officer and Aide.

**Emergency Medical Services (EMS)**

- Arrive at the incident scene, within 5 minutes (300 seconds) of dispatch with not less than 2 personnel trained and equipped to provide Basic Life Support (BLS) level patient care including the use of an Automated External Defibrillator (AED).
- Arrive at the incident scene, within 8 minutes (480 seconds) of dispatch with not less than 2 personnel trained and equipped to provide Advanced Life Support (ALS) patient care and transport to an appropriate medical facility.

**RECOMMENDATION #6: Revise certain IT Reports.**

Currently, a report entitled, "Alexandria Fire Department Monthly Report % of Calls Meeting Standards" is produced by IT Support. This Report shows National Fire Protection Association (NFPA) Standards 1221 (Dispatch), and 1710 (Organization/Operations/Deployment) as the standards for Dispatching and Fire/EMS response times. Unless the City adopts NFPA 1710 as its standards, 1710 should not be referenced in Standards Reporting. There exist over 300 NFPA codes and standards. By referring to or singling out only one of the standards may imply that the City should adhere to all of the 300 codes and standards. This could expose the City to a wide array of liability scenarios. NFPA 1710 has been hotly debated since it was adopted by NFPA in 2001.

The reports generated by the department should reflect the newly developed response guidelines as completed under Recommendation #5.

### **4.1.3 Personnel Management**

#### **FINDINGS**

There exist a lack of consistent communication and implementation of Department policies and procedures. The dominant view within the ranks was that accountability in performance is not sufficient. We are aware that employees do not always have all information regarding personnel matters and the reasons for management decisions. During interviews with Chief Officers and Company Officers, comments by employees indicated that the work at the street level always gets done. However, employees generally communicated their interest in full accountability for actions (or non-actions) to ensure organizational discipline. Absent clear standard operating procedures (SOP), there is a natural tendency in fire organizations to operate differently between shifts. Alexandria needs to focus some attention towards ensuring a common understanding of methods, processes, procedures, and consequences of behaviors, between shifts. Often, a greater level of communications can minimize accountability perceptions.

#### **RECOMMENDATIONS**

**RECOMMENDATION #7: Increase meetings at all levels to enhance communications.**

- The Fire Chief should continue weekly Command Staff Meetings that include all Chief Officers.
- The Fire Chief should have weekly (rather than monthly) General Staff Meetings that include the administrative support staff.
- The Fire Chief should conduct a Quarterly All Officers/Supervisors Meeting.
- Assistant Chiefs should have a daily meeting (Monday – Friday) with their on-duty shift Battalion Chiefs and/or EMS Supervisors.

- Shift Battalion Chiefs and EMS Supervisors should visit their Fire Companies and Medic Units every shift to improve communications and accountability.

By implementing the above meetings, greater oversight by senior management should result, thus minimizing incorrect information being distributed throughout the organization and maximizing the distribution of accurate information. An additional benefit from this recommendation includes greater consistency among shifts in terms of methods, personnel management, and accountability for actions (or non-actions).

**RECOMMENDATION #8: Provide enhanced management and supervisory training**

The Fire Department has established a continuing education program for managers, called the Leadership, Education, and Development (LEAD) Institute. Classes are scheduled on Wednesday mornings from September through April. Instructors include internal and external representatives. Classes include communications, discipline system, conflict management, teamwork, and time management, among other substantive areas. While this program demonstrates excellent foresight and reflects positive core values, staff and management interviews included comments that not all officers of the Department have the necessary skills to provide effective supervision of their assigned personnel. These skills include team building, problem/conflict resolution, discipline management, and performance evaluation methods and techniques.

**Additional, enhanced management and supervisory training should be provided. This should be done through a facilitated team building process for all Chief Officers, Company Officers, EMS Supervisors, Dispatch Supervisors and administrative support supervisors, by a highly skilled trainer from outside of the organization.**

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Courses at the National Fire Academy should also be considered as part of the overall training effort for the department. This training is tuition free and can be provided to all Chief Officers, EMS Supervisors, and other officers as determined by the Fire Chief (who must sign an application). This is a positive action for succession development. As with all off-site training, there does exist the potential of associated costs to the City in backfilling of certain positions while personnel attend classes.

Training in management concepts alone will not guarantee a more effective organization. These skills must be reinforced through the development of an organizational culture that embraces the concepts of good organizational management along with trust and support from senior officers.

**RECOMMENDATION #9: Conduct performance reviews on time.**

Not all personnel interviewed received appraisal of their annual performance on time. Annual Performance Evaluations should be completed in a timely manner, as a matter of routine, within the Fire Department. If performance evaluations are not completed in a timely manner, it not only affects the ability of personnel to receive compensation adjustments, but also impacts on their perception of a tightly managed organization. As a result, accountability and discipline suffers. Performance evaluations need to be done in a timely way. Further, as part of the performance evaluations being completed, performance objectives should be made specific to the Fire Department, rather than consideration only of city-wide goals and objectives.

**4.1.4 Organizational Communications**

**FINDINGS**

**Chief Chats have been successful.**

The Fire Chief has established occasional meetings with fire personnel to discuss and answer any questions related to fire department operations. These periodic Chief

Chats have been successful in communicating issues within the Department. However, greater exposure and expansion of communications is necessary within the Alexandria Fire Department.

**Interdepartmental Written Communication SOP, and Logs and 30 Day Books SOP.**

These are acceptably written SOPs. However, they do not appear to be complied with on a regular, routine basis, according to comments made during staff interviews.

**Inter-functional communications can be improved.**

There was no formal written communication from the Fire Chief to the members of the Department explaining the implementation of a second Field EMS Supervisor, on each shift, their duties and responsibilities, when the additional Supervisor was established.

In absence of a written communication from the Fire Chief regarding the implementation of the second field shift EMS Supervisor, each Assistant Chief gave directly conflicting information to their Battalion Chiefs and EMS Supervisors. This resulted in Battalion Chiefs ordering EMS Supervisors to work as a Paramedic on a Medic Unit prior to hiring overtime to staff the Medic Unit. This appears to have occurred several times. The EMS Assistant Chief had told the EMS Supervisors that they would not be required to staff a Medic Unit. This is an example of a miscommunication that needs to be avoided.

**RECOMMENDATIONS**

**RECOMMENDATION #10: Provide orientation and review to personnel regarding communications SOP.**

Supervisors should review the communications SOPs with members of their command. The SOPs should be complied with at all times. This is important to accomplish in order to achieve as much consistency as possible between shifts and between stations. Further, a complete and total common understanding of how

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communications are to transpire within an organization results in accurate, timely, and broadly accepted directions.

**RECOMMENDATION #11: Continue communications strategies.**

Chief Chats have proven to be successful and should continue. These meetings offer employees an opportunity to more fully understand organizational objectives policy interests, and procedural requirements. These should not be underestimated as a means of communication within the Department.

Further, the Fire Chief and Assistant Chiefs should visit the stations on a regular, routine basis to discuss issues and seek input from personnel. The greater the visibility and opportunity for clarification of concerns, the better. This is an action that is easy to accomplish, and should be a priority for this administration.

Battalion Chiefs should visit each station in their Battalion on a daily basis to ensure proper management of the station. This is an additional action step that should be part of each Battalion Chief's daily work plan. Each Field Battalion Chief has responsibility for four stations within the Battalion. This number of stations is not excessive and is clearly within the realm of responsibilities of this position.

**4.1.5 Policies and Procedures**

**FINDINGS**

**There is a positive effort to structure a new manual.**

The new Standard Operating Procedures Manual is a good start at revising the procedures of the Department.

**Policies are not current, comprehensive or complete.**

While departmental management indicates that a work project is underway to update policies, currently, all policies and procedures are not up to date, comprehensive,



or complete. As of November, 2005, there are procedural guidelines, currently called Directives, in the areas of EMS, training, and safety. However, there were no SOPs established in a formal SOP manual for these critical areas.

### **RECOMMENDATIONS**

#### **RECOMMENDATION #12: Establish a definitive time frame for completion of the policies manual.**

Revision of the SOP Manual should be a high priority. A realistic time line for completion should be established. This should ensure timely completion of this important project. We believe one year is a realistic time frame for completion.

Completing the revision of the SOP Manual should be a Key Results Area of a Strategic Plan.

An SOP Manual Revision Project Team should be created that includes participation from all ranks in the development and review of SOP recommendations for final action by the Command Staff and approval by the Fire Chief. A Project Manager should be assigned.

The SOP Manual should be available at all work stations and assignments. It could also be available electronically.

#### **RECOMMENDATION #13: Adhere to existing SOP's.**

SOPs must be complied with. Officers and Supervisors must ensure compliance by their subordinates in order to achieve a maximum level of performance and service.

## **4.2 Organization Structure**

### **FINDINGS**

#### **Five major divisions cover all major functions.**

Under the direction of the Office of the Fire Chief, the current organizational structure includes five major sub-divisions to manage the major operations, programs and services provided. The major sub-divisions are:

- Fire Emergency Services;
- Emergency Medical Services;
- Administrative Services;
- Emergency Management;
- Code Enforcement.

#### **Fire Maintenance is currently under EMS.**

The Fire Maintenance Shop is currently under the management and supervision of the EMS Division. The Maintenance Shop activities require management time and attention from the Assistant Chief of EMS that could be better focused on EMS issues. This is not a standard organizational alignment for this function. The larger and higher value apparatus operate within fire emergency services. Maintenance is a “cross-cutting” organizational function that typically benefits from independent oversight.

#### **Organizational functions improperly placed.**

There appear to be several organizational functions that would benefit from a change in the management and organizational structure. A change to more traditional reporting relationships would be beneficial to the department.

#### **New Administrative Services manager position should be helpful.**

At the time of our review the Department was in the process of recruiting for the new position over Administrative Services. The position will greatly increase the

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efficiency of the Department by bringing full-time focus to administrative services and programs, including long-range planning and the efficiency of the wide-range of administrative services.

**Safety Officer focus is not on safety, rather, on worker's comp and health.**

The incumbent indicated that job duties include handling work-related accidents, lost pagers, review of regulations for health and safety, vaccination programs, serving as compliance officer for Americans with Disabilities Act (ADA), coordination of Commercial Drivers License (CDL) certifications, vehicle accident and injury investigation, and infection control issues. The incumbent's time in the position is "consumed" by those injuries that are work-related. Handling work-related injuries requires "60% to 70%" of the position's time, according to the incumbent. The Safety Officer's time is primarily focused toward worker's compensation and employee health related issues instead of emergency incident safety officer duties. The Fire Battalion Chiefs indicate that they rarely see the Safety Officer at emergencies (a response to an incident is made "once every 2-3 months", according to the incumbent), which results in them functioning as the on-scene Incident Safety Officer as well as Incident Commander. The Department should explore the potential for establishing a coordinated policy with nearby agencies to ensure that an officer is available and assigned as Safety Officer at fire scenes. Management staff indicated that the Safety Officer currently reports to the EMS Assistant Chief. This is more of a "support function" that provides service to the entire organization instead of only one operational division. Consideration should be given to reassigning the Safety Officer to an administrative support office that serves the entire Department.

## **RECOMMENDATIONS**

### **RECOMMENDATION #14: Establish a Support Services Division.**

Administrative Services should be upgraded to a major division level equal to the Fire and EMS Divisions. It should be re-titled as the Support Services Division. This action will provide appropriate organizational status to a set of organized functions that are critical to the effective functioning of the department. The reorganization of functions into the Support Services Division is a recognized practice among fire departments nationally. These are standard functions and activities under the same command. Their unification under an Assistant chief position will enable the division to provide essential support services to the operating areas. Their purpose is to provide services directly to the operating units, in order that they may in turn be more effective in the direct delivery of services. This method of organizing is not only common practice; it is good practice.

Additional actions to implement this recommendation include:

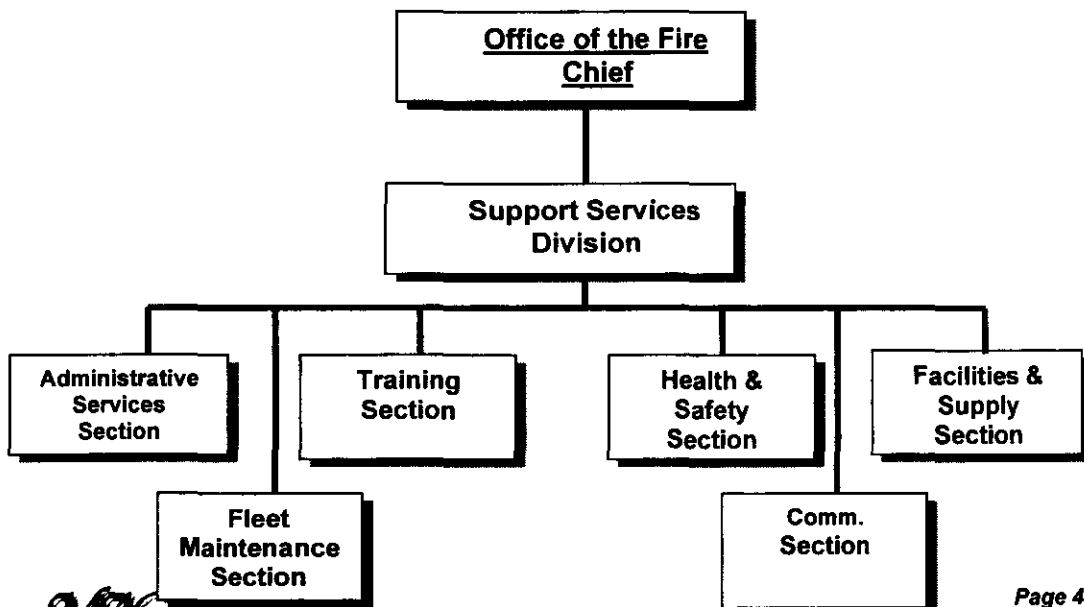
- The Safety and Health Officer and all employee health and workers compensation functions should be reassigned to the Support Services Division. The focus of this position would remain as supportive of the employee health and worker's compensation functions. The safety aspect of this position includes providing safety information to Battalion Chiefs, who should be designated as primary safety officers.
- Change the title of the Administrative Services Division Chief to Administrative Services Manager because it is not a Chief Officer position, nor is it a division head position. A more appropriate title is Administrative Services Manager, which is more reflective of the nature of the work and more consistent with the organization's nomenclature.

- The Maintenance Shop should be reassigned from reporting to the EMS Assistant Chief to the Support Services Division.
- Fire Training should be reassigned to the Support Services Division.
- Special Operations should be reassigned to the Fire Emergency Services Division.
- Include all Personnel and Payroll Functions in the Proposed Support Services Division.

The following managers and supervisors should report to the Assistant Chief of Support Services:

- Administrative Services Manager (re-titled from Administrative Services Division Chief);
- Chief Training Officer – Battalion Chief;
- Safety and Health Officer;
- Facilities and Supply Officer;
- Chief Mechanic;
- Communications Coordinator

The newly created division would provide support services for all other divisions within the Department. The division should include the following sections:



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### **Administrative Services Section**

This section would provide overall administration of the Department including long-range planning, personnel and payroll, budget and procurement, and personnel support, and information technology.

### **Training Section**

Much like the current training services, the training section would address all development and scheduling of all training for both EMS and fire suppression forces with new and refresher instruction in all aspects of services provided by the Department.

### **Facilities and Supply Section**

This section would be in charge of ensuring all Department facilities are maintained in proper order and ordering and dispensing of all supplies.

### **Fleet Maintenance Section**

Under the supervision of the Chief Mechanic and staff, this section would provide guidance and oversight into apparatus specifications and routine maintenance of all vehicles and equipment.

### **Communications Section**

The communications coordinator and staff would ensure all aspects of the Department's emergency communications center are addressed, and serve as the Department's liaison to neighboring dispatch centers regarding deployment of resources across jurisdictional boundaries.

### **Health and Safety Section**

The Safety Officer would focus on several aspects of health and safety, including worker's compensation, annual employee physicals, and the development of information regarding safety practices for provision to Battalion Chiefs and others in the organization through other forms of communication. Consideration should be given to continuation of

assigning a vehicle to this position because it would not be on-call for emergency response. This would result in some limited cost savings for the Department.

**RECOMMENDATION #15: Upgrade the position of Administrative Services Battalion Chief to Assistant Chief of Support Services.**

The Administrative Services Battalion Chief position should be upgraded to Assistant Chief of Support Services. This action will provide appropriate organizational status to the Division Director of this important set of administrative and support functions.

### **4.3 Personnel and Payroll**

#### **FINDINGS**

Staff assigned to this function oversees that all payroll records are maintained while also managing promotional test development and implementation. Staff positions include a Personnel Commander (Non-uniformed position), and support secretary. One additional support staff position previously assigned to this unit as a receptionist has been reassigned to the current Administrative Services Battalion Chief.

**Personnel services provided are diverse.**

Personnel services include the recruitment of qualified candidates, performance appraisal, and personnel development. This requires the unit to oversee all personnel issues including the contracting of promotional exam development and administration and personnel grievance processes.

**The payroll process is time consuming and complex.**

In conjunction with the budgetary process, the Department utilizes a payroll process to ensure that all aspects of payroll meet the criteria of the City's related policies. This includes accounting for the tracking of leave time including annual, sick

and related leaves. Payroll personnel utilize record systems that help expedite the tracking of all personnel functions and assignments for payroll records. However, it must be noted that in a limited number of cases, records must be revised due to minor oversights in records management. It appears, however, that payroll personnel are able to adjust records accordingly to ensure that proper payrolls are met per City requirements.

The unit manages the Department's payroll functions. The differences in work schedule of fire suppression and EMS personnel as well as the 40 hour workweek of support personnel creates challenges for this unit to track and manage the payroll in an effective way. However, payroll management is enhanced through the use of up to date payroll management software systems.

### **RECOMMENDATIONS**

#### **RECOMMENDATION #16: Implement several Personnel function items.**

Personnel staff has indicated a desire to track the work performed with regard to deadlines, accuracy, and responsiveness. Recommendations in this area include:

- Direct Personnel staff to serve as the point-of-contact and liaison for Fire Department employees with other City agencies, by receiving the problem or question, documenting the inquiry, and conducting the research for the employee. The performance standard should be to document all concerns and complete all actions within one week of notification.
- Cross-train staff members in the payroll process to help improve responsiveness and provide a double check to ensure accuracy and deadlines.



- File all personnel records on a weekly basis, in order to facilitate the access to employee information.
- Ensure that all divisions within the Fire Department are fully using the Telestaff system. This will provide payroll and record keeping consistency throughout the department

#### **4.4 Budget and Procurement**

Budget and procurement is provided through a two-person unit comprised of a Fiscal Officer and a supporting Administrative Technician. The unit serves as the Department's coordinator for all budget, procurement, and accounting functions. The Fiscal Officer is under direct supervision of the Administrative Services Battalion Chief.

#### **FINDINGS**

##### **A Standard Budget Process in an Increasingly Complex Environment.**

The Fire Department utilizes a budget process not much different than most other fire departments whereby a review of services and programs are evaluated for future expenditures and increased costs due to inflation. Department representatives indicated that the overall cost of providing these services is constantly on the rise in part due to greater complexity in providing its services, and due to increased broadening of the Fire Department mission, standards and practices as well as the systems used to carry out services. An example of this is the Department's role in preparing for and responding to emergencies beyond the day-to-day fire and EMS services, such as natural and manmade disasters including large-scale acts of terrorism. Other examples include increased complexities of recognized standards and guidelines that impact how services are provided, such as firefighter safety, EMS operations and performance, and the use of state of the art systems (computer hardware and software) which must constantly be updated. While addressing these increased complexities the Department utilizes a

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budget process that is reflective of the City's broader budgetary process. The process used incorporates a basic review of services and programs provided and a rational projection of costs for these services.

**A limited departmental budget function.**

The unit is challenged with the general oversight of the Department's budget. Currently, the budget preparatory process is somewhat limited with little or no link between stated Department goals and objectives. The City recently implemented a revised budget process in 2005. Budget management of a Department's services and programs should reflect sound budgeting and control, record keeping, reporting, and auditing. This should include the Department's periodic and regular review of budget reports.

**Records management software concerns**

Records management appears to be functional and networked well with the City's overall budget management system. However, there is a lack of acceptance of updated software systems causing members of the unit to back up current budget data on older programs, some of which are stored on personal computers outside of the secure confines of Department property. For the next year, staff should evaluate and implement an electronic system to track and store purchasing and payment records. The system needs to have the capability to track all outstanding purchase orders and to be able to supplement the performance accounting system. The new system should help in the production of more timely and accurate reports for the account managers.

**RECOMMENDATIONS**

**RECOMMENDATION #17: Enhance Financial Planning and Purchasing Processes.**

The Department's plan for budgeting should reflect sound planning and a commitment to stated goals and objectives. This unit should evaluate and implement an

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electronic system that tracks and stores purchasing and payment records. Staff should be able to provide a general timeline of budget and expenditure deadlines for all account managers at the start of each fiscal year. This will allow all to be better prepared for deadlines and able to start work on budget tasks in advance.

For the coming year, the following actions should be taken to improve service and work performance:

- adopt an electronic records management system;
- establish a timely, payment process to vendors;
- supply account managers with accurate and timely budget and expenditure reports;
- improve the accuracy of budgets and financial reports and adhere to deadlines.

The Budget Planning Process should include input from staff officers and other pertinent members of the Department. The annual budget, short-range procurement plans, and long-range budget plans should directly reflect the Department's plans and priorities.

#### **4.5 Facilities and Supply**

##### **FINDINGS**

##### **Several issues of concern...**

A Fire Lieutenant and Firefighter that report to the Administrative Services Battalion Chief staff the unit. The unit is responsible for coordinating with the City's General Services regarding the maintenance and upkeep of all fire stations and related equipment. In some cases, certain facilities are in need of repair. In addition, the unit oversees the procurement and distribution of supplies to the Department's eight (8) fire stations and support facilities. The Department plans to civilianize both positions in the near future.

Some of the challenges identified during interviews included: slow response of the unit to needs of individual fire station supply requests, high costs of heating and cooling systems, and a lack of overall planning. Some Fire Captains complained that they no longer have flexibility in making small purchases of supplies.

### **RECOMMENDATIONS**

#### **RECOMMENDATION #18: Ensure that the supplies process is responsive.**

Interviews indicated that the supply unit does not always provide its services in a timely manner. An example is when supply requests are not met within a reasonable timeframe. This could be due to a breakdown in communications between station officers and the supply unit management. The Department indicated that a grant was obtained for bar coding and inventory control.

To improve its services, the unit should create a process whereby requests for supplies are met in a timely manner. The use of applicable software systems may be used to enhance requests submittal, supply inventory and distribution. Several fire department-related software programs such as FireHouse and Fire Department Computerized Management Solutions (FDCMS) incorporate inventory applications as optional suites to their programs. For minimal costs of software upgrades, the Department can greatly improve the unit's services through enhanced flow of supplies to outlying fire stations, improve overall inventory and tracking of supplies, and provide an analysis of each station's use of supplies that could pinpoint overuse of certain supplies or deficiencies of facility equipment.

#### **4.6 Network Engineering and Information Technology Support**

### **FINDINGS**

A 5-person unit comprised of an IT Services Coordinator, Computer Specialist, CAD Analyst/Network Engineer, and two (2) IT Coordinators provide IT support. The

primary focus of the unit is to support the Department's mission through computer-based solutions. The consulting team conducted extensive interviews with management and staff at every level, at every station. Interviews lasted from one hour to several hours each. Interviews ranged from operations to administrative issues. From these very extensive and wide-ranging interviews, the consulting team concluded that there are several challenges to implementing a comprehensive information technology program.

These include:

- Minimum appreciation for the IT function at the mid management level.
- Overall resistance by personnel to the ongoing change in technology.
- Data and programs generated by the IT unit are often underutilized.
- Minimum quality control for department reporting of runs.
- Lack of unified chain of command for IT functions, resulting in resistance and difficulty in implementing IT changes.
- In certain cases Department personnel circumvent the IT unit's role by seeking assistance from the City's General IT staff.
- No quality control for National Fire Incident Reporting Service (NFIRS) and related incident reporting, resulting in inaccuracies in reporting.

## **RECOMMENDATIONS**

### **RECOMMENDATION #19: Encourage greater use of Department IT staff.**

Currently, Department IT staff is underutilized. In certain cases, IT staff reported that Department personnel circumvent the role of the Fire Department IT Support, and go directly to City IT support. All IT related work should be coordinated, and where appropriate, conducted by Fire Department IT support staff. This approach will result in more consistent coordination of work and reduce duplication of work effort (and thus time) in responding to problems by the two units.

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## **4.7 Communications and Dispatch**

### **FINDINGS**

#### **A secure working space is provided for dispatchers.**

The Fire/EMS Dispatch Center is in a secure working space at Fire Headquarters. Dispatchers are dedicated to dispatching Fire & EMS emergencies, and are not assigned other duties which may distract from their primary function.

#### **There is a delay in call processing due to lack of CAD integration.**

The multiple agencies that participate in the regional automatic aid system have separate Dispatch Centers and Computer Aided Dispatch (CAD) systems. The status of emergency units in other jurisdictions is not known by the Alexandria Fire/EMS Dispatch Center. This results in a delay in call processing time to get the Full Alarm Assignment dispatched and responding to an emergency.

#### **Delays are caused by the "20<sup>th</sup> Due" system.**

Since 1975, the fire departments in the Northern Virginia jurisdictions (NOVA) have operated under an automatic aid agreement. This includes the City of Alexandria, City of Fairfax, County of Arlington, County of Fairfax, Fort Belvoir, Metropolitan Washington Airport Authority and recently added the County of Loudoun. The automatic aid agreement allows for the closest units to be dispatched to an emergency regardless of jurisdictional boundaries, using computer-aided dispatch (CAD). The term "20th Due" refers to the station order built into the CAD system allowing for a 20 deep station order based on the closeness and type of apparatus, regardless of jurisdiction. The City of Alexandria follows this agreement when requesting aid into the City from surrounding jurisdictions. All of the jurisdictions utilize a delay factor for building this 20 deep station order based on the call processing time between the two or more communications

primary focus of the unit is to support the Department's mission through computer-based solutions. The consulting team conducted extensive interviews with management and staff at every level, at every station. Interviews lasted from one hour to several hours each. Interviews ranged from operations to administrative issues. From these very extensive and wide-ranging interviews, the consulting team concluded that there are several challenges to implementing a comprehensive information technology program.

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- Data and programs generated by the IT unit are often underutilized.
- Minimum quality control for department reporting of runs.
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## **RECOMMENDATIONS**

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centers for exchange of incident information. There is an ongoing evaluation and updating of this database by all jurisdictions; as new streets are added, apparatus is added or removed, and response needs change.

As a result of the multiple regional CAD systems not being integrated, and the use of the "20<sup>th</sup> Due" system, dispatchers are required to telephone the Dispatch Centers of other agencies to determine the availability status of emergency units for dispatch as recommended by the CAD system. This results in a 1 ½ to 2 minute call processing time and, thus, a 30 second to one (1) minute delay in responding to emergencies. A widely recognized guideline is that emergency calls should be processed and dispatched within 60 seconds, rather than the current 1 ½ to 2 minutes.

Department staff reported that participating agencies, with the exception of the Fairfax County Fire Department, have built into the calculation of closest resources to a given location a one and one-half minute call processing delay. The Fairfax County Fire Department did not build in a dispatch delay in calculating the response of their resources into other jurisdictions. This results in their units appearing to be closer to locations outside their jurisdiction than the actual closest emergency resources belonging to another jurisdiction. This has reportedly caused delayed responses into Alexandria when Alexandria fire companies are available for dispatch and closer to an emergency scene than the neighboring jurisdiction.

The multiple jurisdictions that participate in this automatic aid system must apply the agreed upon criteria in a consistent manner to ensure the integrity of the system and the dispatch of the closest emergency resources to an emergency incident.

## **RECOMMENDATIONS**

**RECOMMENDATION #20: Promote consistent application of "20<sup>th</sup> Due" criteria by other participating jurisdictions.**

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All participating automatic aid agencies should apply the “20<sup>th</sup> Due” criteria in the same manner to ensure that the closest unit is dispatched to emergencies. The department’s management team should elevate this issue at inter-agency meetings. Further, the City as a whole should promote consistent application of “20<sup>th</sup> Due” through appointed official relationships, both formal and informal. The integration of the regional CAD systems should be a high priority.

#### **4.8 Fire Operations (Administration)**

##### **FINDINGS**

##### **The Department has good apparatus and equipment.**

The Department appears to have good front line fire fighting and EMS apparatus and equipment. An apparatus and equipment replacement program is in place.

##### **There is a knowledgeable and dedicated employee base.**

The Firefighters and Medics are dedicated and knowledgeable employees. They provide a high level of services.

##### **A high level of attrition is anticipated.**

It was reported that within the next 2 years, there will be significant attrition that will negatively impact the experience level within the Department. The equivalent of an entire shift of personnel will leave the Department.

##### **Facilities and space are limited.**

There is a need for more space for personnel and apparatus. Some of the Department’s vehicles are parked outside because of lack of space within facilities.

##### **Field Site Safety Inspections and Pre-Incident Planning are not performed.**

Battalion Chiefs and Company Officers stated that the Fire Operations Division no longer requires fire companies to perform field site safety inspection and pre-planning for emergency incidents. These officers are concerned that this is a firefighter safety issue.

The Department management team indicates that the Department is preparing to initiate a Site Safety Survey Program.

**The location of Special Operations creates coordination issues.**

Currently, Special Operations is assigned to Administrative Services. Battalion Chiefs and Company Officers believe this creates coordination difficulties with Fire Operations Division personnel who staff and perform special operations emergency functions.

**RECOMMENDATIONS**

**RECOMMENDATION #21: Continue apparatus/equipment replacement program.**

The apparatus and equipment replacement program should be continued to ensure well performing front line fire and EMS apparatus. With the wear and tear on heavy fire apparatus, front line life expectancy should be 10 to 12 years, with 3 to 5 years in reserve status. This strategy should ensure an efficient fleet of front line and reserve fire apparatus.

**RECOMMENDATION #22: Ensure employee involvement in projects.**

To ensure a continued work force of dedicated and knowledgeable Firefighters and Medics, special attention must be given to improving morale, communications, accountability, training, and involving them in projects for the future direction of the Department. Overtime implications should be considered.

**RECOMMENDATION #23: Conduct Safety Inspections and Pre-Incident Planning**

The Fire Operations Division should re-establish fire company Site Safety Inspections and Pre-Incident Planning as a priority. The companies would remain in service during these periods of inspection and planning.

**RECOMMENDATION #24: Reassign Special Operations to Fire Operations.**

Special Operations should be reassigned to the Fire Operations Division to improve coordination of these emergency functions. The benefits of this recommendation would be better coordination with line officers.

**4.9 Training**

**FINDINGS**

Training is provided through the Division of Fire Emergency Services and the Division of Emergency Medical Services. The Division of Fire Emergency Services is responsible for the in-service training of all suppression personnel. Staffing for fire suppression training includes three (3) positions including a Training Officer/Battalion Chief, Assistant Training Officer, and one (1) office support position. EMS training is under the Division of Emergency Medical Services and consists of a training supervisor.

Overall training programs and facilities appear to be adequate for the department with ample space for classroom and outside drills. Some members of the training unit were of the opinion that an expansion and improvement of training facilities were needed to provide the required training of staff.

Some of the challenges identified included:

- Turnover of training officer and personnel results in inconsistency of training programs.
- There exists a difficulty in retaining personnel in Training due to the unit's work schedule, which is a regular 40 hour week, in contrast to the 56 hour schedule for Fire Suppression personnel and the 42 hour work schedule for EMS assigned personnel. Training personnel are not able to work shift overtime like shift personnel, must drive to work Monday through Friday

instead of every third day like shift personnel, and are not as able to work at an off-duty job in the same manner as shift personnel.

## **RECOMMENDATIONS**

### **RECOMMENDATION #25: Identify Training Needs Through the Planning Process**

Incorporate all training needs into the strategic planning process and in correlation to the process's goals and objectives. The process should identify tasks, activities, knowledge, skills and abilities for all of the Department's services and programs. The training program should be consistent with the Department's mission and organizational needs, and legal requirements.

#### **4.10 Emergency Medical Services (Administration)**

### **FINDINGS**

**The Assistant Chief of EMS is an experienced paramedic.**

It is a good practice to have an experienced paramedic overseeing the management of the EMS Division.

**Fire Maintenance is assigned to the EMS Assistant Chief.**

Overseeing the Fire Maintenance Shop diverts time away from EMS Operations and issues. The Fire Maintenance Shop should be reassigned so that the EMS Assistant Chief can focus on EMS management and supervision.

**EMS Training Coordinator is tasked with projects.**

The Assistant Chief uses the EMS Training Coordinator to assist with projects. While this provides some support for the Assistant Chief, it takes the EMS Training Coordinator away from EMS Training issues. This has an undesirable impact on the training programs and issues. Because the EMS Training Coordinator is not focusing full time on EMS training issues and programs, EMS training is not as effective as it could be.

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**A high level of patient care is provided.**

Alexandria's EMS has advanced medical skills, procedures, and medications. All Medic Units are staffed with at least one Advanced Life Support (ALS) level provider at either an Emergency Medical Technician (EMT) – Intermediate or Paramedic level, or one EMT – Basic level provider. The department's goal is to staff Medic Units with two ALS trained personnel. ***By Department policy, Intermediates have received additional training resulting in Intermediates and Paramedics being authorized to provide the same level of patient care.*** In most other systems, Paramedics are authorized to provide a higher level of care than an Intermediate. All Fire Companies provide EMT – Basic with Automated External Defibrillator (AED) level patient care services. The physician Medical Director has authorized the advanced level of care and provides necessary medical training, protocols, and quality assurance / improvement oversight.

**EMS patient care reporting can be improved.**

There are issues and problems with the current computer generated narrative on Patient Care Reports (PCR), ability to pull specific queries, and Medics completing the PCR, according to the Medical Director. This is an outdated, inflexible program in which there is inadequate space to prepare a comprehensive report. The Department has recognized the need for replacement of the system and plans to implement a new updated system.

**EMS Supervisors are not utilized efficiently.**

Neither member of a Medic Unit crew is designated as the team leader or supervisor. This results in the Field EMS Supervisor having to provide closer supervision of routine and emergency issues at the individual Medic Unit level ***in addition to broader multi-unit, system wide EMS supervisory issues and***

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**responsibilities.** The Field EMS Supervisors are also tasked with other administrative functions such as overtime staffing, payroll, inventory and stocking of supplies, quality assurance, hospital emergency department and nursing home liaison, special operations coordination, Heart Association and Cardiopulmonary Resuscitation (CPR) liaison, and other EMS projects.

**EMS Training understaffed.**

There is only one EMS Supervisor assigned to EMS Training as the Training Coordinator. This EMS Supervisor coordinates and provides EMS training for EMS and firefighter personnel. This position reports to the EMS Assistant Chief and coordinates with the Training Battalion Chief. The EMS Training Coordinator also assists the Assistant Chief with other projects. This is a Monday through Friday staff position. Currently, it is an 18 month rotational assignment with other EMS Supervisors. It was reported that it takes approximately 18 months to become proficient and that it should be a longer term assignment. Field personnel are also used as adjunct instructors.

**EMS Recruitment and Pre-service Training Requirements.**

There is no requirement for pre-service training as an EMT-Basic, ALS-Intermediate, or ALS-Paramedic. It was reported that there is little focused marketing effort to recruit targeted applicants, and that a recent recruit school started with 10 new hires and graduated only 6 persons. It was further reported that there were 180 applicants for the 10 positions. ***While requiring pre-service training and certification should result in significant cost savings, it could have a negative effect on the City's diversity goals.***

**EMS Recruit Training.**

Recruit Medic training is 10 weeks. Five to 6 weeks of the 10 weeks is EMT-Basic training for recruits without pre-service training as an EMT-Basic. If a recruit is a pre-

service trained ALS provider, they will spend 5 – 6 weeks reviewing ALS protocols. The remaining time involves local Department orientation, policies, procedures and operations.

### **ALS Primary Training, Intermediate and Paramedic**

#### **ALS Intermediate:**

After EMS Recruit Training, personnel who have not been pre-service trained to the ALS level receive Intermediate ALS training at the City's expense. Currently, Alexandria uses a community college based ALS training program. It was reported that Intermediate ALS Training takes approximately 18 months. In other states throughout the United States, EMS systems require only 35 – 55 additional hours of training over the EMT – Basic level.

#### **ALS Field Internship Training with Preceptor:**

Both pre-service trained ALS employees and those receiving ALS training after employment are required to work with a Preceptor for evaluation of skills and performance before being released to work as 1 of 2 Medics on an Ambulance. *This is in addition to the field internship / ride along period of primary Intermediate or Paramedic training prior to certification.* The period of this training may last from 5 months to 1 year.

An employee being evaluated by a Preceptor may be working as a 3<sup>rd</sup> person on an Ambulance, or depending on staffing availability, may be working as the 2<sup>nd</sup> person on an Ambulance with the Preceptor.

#### **Preceptor Program**

To be a Preceptor, an employee must be an ALS provider at either the Intermediate or Paramedic level for 2 years, and be recommended by their EMS Supervisor. Preceptors receive 8 hours of adult learning training.

### **Training Records.**

There is no software in place to track training records. Currently, the Training Officer tracks individual training records manually. There is an interest in automating this process to ensure accuracy and speed. This can be accomplished through a simple and straightforward database program such as Access. This program comes as part of Microsoft Office Suites, which includes Microsoft Word, Excel, Access, and Power Point. The cost ranges from \$149 to \$499, depending on whether it is a "home" or office based program.

### **RECOMMENDATIONS**

**Recommendation #26: Rewrite the job description for the EMS Assistant Chief position.**

Paramedic experience should be required for promotion to Assistant Chief for EMS. EMS Supervisors should be allowed to compete for EMS Assistant Chief.

**Recommendation #27: Create a management-technology team to improve upon EMS reporting.**

The EMS Assistant Chief and IT should work with the Medical Director to improve the Patient Care Report narratives, and EMS data. Fire Department management indicated that a recent contract was signed in reference to upgrading of EMS reporting, which is a positive action to ensure comprehensive and accurate reporting.

**Recommendation #28: Evaluate the two Field EMS Supervisor model after one year of implementation.**

Much effort and justification was involved in establishing the second Field EMS Supervisor position per shift, and the positions were only implemented in September 2005. After one full year of implementation of the current model of two EMS Supervisors per shift, the City should evaluate the efficiency and effectiveness of this staffing approach. The City may find that four possible outcomes exist: 1) reduce the number of



EMS Supervisors from 9 to 5, and thus achieve substantial cost savings; 2) make no changes due to a perfectly functioning system; 3) make minor modifications to the duties and responsibilities based on how the position has succeeded or failed during the first year of implementation, or, 4) reorganize the duties and functions of EMS Supervisors to more efficiently manage and serve the system

**Recommendation #29: Consider Pre-Service ALS Training and Certification.**

If the City seeks to save budget dollars, consideration should be given to requiring pre-service training and certification at the EMT – Intermediate or Paramedic level prior to employment. The goals of this recommendation are to save the monies related to the extremely lengthy training currently provided by the City of Alexandria, and to deploy personnel quicker as one (1) of two (2) Medics assigned to an Ambulance. By implementing this recommendation, the City would not be required to train new EMS employees at the EMT – Basic and Intermediate levels, nor would the City be required to reimburse for voluntary Paramedic training costs. The offsetting factor in this determination is that the goal of diversity in the organization may be impacted. If the City requires pre-service certification, otherwise qualified incumbents in protected classes may not be able to apply for such positions. This is a policy decision on the part of the City, in which diversity interests outweigh potential for cost savings.

**Recommendation #30: Reorganize the current EMS recruit training program.**

The current 10 week EMS Recruit Training Program could be reorganized. By requiring new employees to be pre-service trained and certified at either the EMT – Intermediate or Paramedic level, the 5 to 6 weeks of EMT – Basic training would not be required and that time could be put to more productive use including a review of local ALS protocols and working on a Medic Unit with a Preceptor. A few additional weeks of

Departmental orientation to policies and practices, operations and emergency vehicle driving should be included.

**Recommendation #31: Reorganize the ALS Field Internship Program.**

The current practice of requiring a certified EMT - Intermediate and Paramedic to serve an additional field internship under the supervision of a Preceptor for five (5) months to one (1) year is excessive and costly. The amount of time and progress made is based on the knowledge and skills of the employee and the speed with which they complete the program.

An ad hoc committee including the Fire Chief, EMS Assistant Chief, Medical Director, EMS Training Coordinator and representation from the City Manager's Office should review this program. The goal should be to significantly shorten the internship while maintaining a quality, structured evaluation of the new employee's skills. Reorganizing the Field Internship Preceptor Program could result in personnel and overtime cost savings depending on the degree of reorganization.

**Recommendation #32: Automate training records.**

Software should be acquired to document training records. This can be accomplished through a simple and straightforward database program such as Access. This program comes as part of Microsoft Office Suites, which includes Microsoft Word, Excel, Access, and Power Point. The cost ranges from \$149 to \$499, depending on whether it is a "home" or office based program.

**4.12 Apparatus and Equipment Maintenance**

**FINDINGS**

A four (4) person unit under the supervision of the Emergency Medical Services Division provides the maintenance and upkeep of fire apparatus, EMS units and small

equipment. Interviews disclosed a lack of opportunities to participate in Department planning which in turn fosters poor communications with other divisions.

The unit provides the following functions:

- The development of replacement programs and apparatus specifications.
- Inspection, testing, preventive maintenance of all apparatus and equipment.
- Management information system(s) in place that supports the apparatus maintenance programs and provides analysis of the programs.

Interviews revealed that maintenance record keeping is not consistent with other Department record management systems. Maintenance services could be enhanced through improved records management, maintenance scheduling and tracking of apparatus and equipment performance, which in turn can be used to determine what works best and at what costs, thus providing potential costs savings for the Department.

### **RECOMMENDATIONS**

#### **RECOMMENDATION #33: Incorporate Maintenance Records Management System**

Incorporate improved maintenance records management through the implementation of software programs and insure they interface with other Department record systems.

#### **RECOMMENDATION #34: Upgrade Facilities and Maintenance Equipment.**

Ensure that repair facilities meet the needs and are under the oversight of the Department.

#### **RECOMMENDATION #35: Continue to incorporate apparatus and equipment maintenance management into the planning process.**

Include the maintenance and repair needs of Department into the planning process. As with all other services and programs provided by the Department, the maintenance unit should be represented during any long-range planning processes. This

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will ensure the maintenance program, including the design and purchasing of apparatus, equipment and associated facilities, are reflective of the Department's mission and associated goals and objectives. Potential cost savings may be attained through the implementation of a performance-based approach to determining the design, upkeep and replacement of fire and EMS apparatus and equipment.

**Overall Departmental Observation:**

Overall, the Alexandria Fire/EMS Department is doing an acceptable job as compared to other jurisdictions. The Department should be proud that the core services of Fire Suppression, Rescue and EMS appear to be provided in a professional manner. Fires are controlled, and a high level of advanced life support patient care is provided.

The employees at all levels appear to be dedicated and well meaning. However, there are many significant areas that could be improved upon. The Department needs clear direction, vision, and leadership. Areas for improvement include the need for a Strategic Plan, updated Standard Operating Procedures/Guidelines (SOP/SOGs), a reorganization of administrative and support functions, internal communications throughout the Department, employee involvement in projects, improved training programs, enhance automated records management, and improved safety programs including Site Safety Inspections and Pre-Incident Planning.

**SECTION 5.0**

**IMPLEMENTATION PLAN TABLE**

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**5.0 IMPLEMENTATION PLAN**  
**CITY OF ALEXANDRIA, VIRGINIA**  
**IMPLEMENTATION TABLE FOR FIRE DEPARTMENT STUDY**

| Rec. # | Action Step  | Responsibility   | Estimated Completion          | Impact  | Projected Cost Implications   |
|--------|--|--|-------------------------------|---|---|
| 1      | Develop and maintain a Five Year Strategic Plan,   | Fire Chief   | December 2006                 | Improved direction for Departmental staff. Ongoing performance monitoring.                                | Staff time. No direct costs unless facilitated.                       |
| 2      | Provide strategic planning training for personnel,   | Fire Chief and Organizational Development Coordinator. | January 2007 and ongoing.     | Ability to implement strategic plan.  | Staff time if done internally. Contract costs as budgeted (\$10,000). |
| 3      | Pursue Fire Department accreditation,  | Fire Chief; Assistant Chiefs.                          | October 2006 – September 2008 | Improved documentation and management processes.  | Staff time and (\$6,000-\$7,500). Estimated \$57,260 if contracted.   |
| 4      | Establish Well Defined Goals/Objectives and Performance Guidelines.                                  | Fire Chief and Strategic Planning Team.                | December 2006                 | Clear staff direction and improved accountability.  | Staff time.   |
| 5      | As part of the strategic planning process, establish local performance and response time guidelines. | Fire Chief and ultimately managers and supervisors.    | December 2006                 | Clear set of performance measures for all major services.   | Staff time.   |
| 6      | Revise certain IT Reports.   | Assistant Chief of Fire Operations and IT staff.       | January 2007                  | Clear and locally developed performance guidelines and reports.   | No costs.   |
| 7      | Increase meetings at all levels to enhance communications.   | Fire Chief and all managers and supervisors            | October 2006 and ongoing.     | Accurate internal communications, better shift consistency, improved accountability at the station level. | No costs.   |

**CITY OF ALEXANDRIA, VIRGINIA  
IMPLEMENTATION TABLE FOR FIRE DEPARTMENT STUDY**

| <b>Rec. #</b> | <b>Action Step</b>  | <b>Responsibility</b>                                 | <b>Estimated Completion</b>          | <b>Impact</b>   | <b>Projected Cost Implications</b>   |
|---------------|---|---|--------------------------------------|---|--|
| 8             | Provide enhanced management and supervisory training.   | Assistant Chiefs.                                     | October 2006 through September 2007. | Improved personnel management; conflict avoidance; focused performance at all levels. | Free tuition. Some food costs at National Fire Academy. Lost staff time to cover shifts may occur. |
| 9             | Conduct performance reviews on time.  | Assistant Chiefs.                                     | Ongoing.                             | Improved accountability.  | No costs anticipated.  |
| 10            | Provide orientation and review to personnel regarding communications SOP.                               | Battalion Chiefs                                      | Ongoing.                             | Shift consistency.  | No costs anticipated.  |
| 11            | Continue communications strategies.   | Fire Chief;<br>Assistant Chiefs;<br>Battalion Chiefs. | Ongoing.                             | Accurate internal communications.   | No costs anticipated.  |
| 12            | Establish a definitive time frame for completion of the policies manual.                                | Fire Chief.   | January 2007                         | Improved accountability, performance expectations, chain of command.                  | Staff time.  |
| 13            | Adhere to existing SOP's.   | All staff.  | Ongoing.                             | Improved accountability, performance expectations, chain of command.                  | No costs anticipated.  |
| 14            | Establish a Support Services Division.  | Fire Chief.   | October 2006                         | Improved coordination of functions and responsibilities.                              | No costs anticipated.  |
| 15            | Upgrade the position of Administrative Services Battalion Chief to Assistant Chief of Support Services. | Fire Chief. HR Director for the City.                 | October 2006                         | Proper organizational status for Division Director.                                   | (\$5,076) in costs.  |
| 16            | Implement several personnel management items.   | Personnel Manager.                                    | April 2007                           | Accuracy in record keeping.   | No costs anticipated.  |

**CITY OF ALEXANDRIA, VIRGINIA  
IMPLEMENTATION TABLE FOR FIRE DEPARTMENT STUDY**

| <b>Rec. #</b> | <b>Action Step</b>  | <b>Responsibility</b>   | <b>Estimated Completion</b> | <b>Impact</b>   | <b>Projected Cost Implications</b>                         |
|---------------|---|---|-----------------------------|---|--|
| 17            | Enhance financial planning processes.   | Budget Officer  | Ongoing                     | Improved budget documentation, input, and outcomes.                                 | Costs for an electronic records management system (TBD).   |
| 18            | Ensure that the supplies process is responsive.   | Budget Officer  | Ongoing                     | Provision of needed supplies in a timely manner.                                    | Potential (\$2,000) for software costs.                    |
| 19            | Encourage greater use of Department IT staff.   | Administrative Services Manager                                 | Ongoing                     | Improved understanding and acceptance of information technology at the staff level. | No costs anticipated.                                      |
| 20            | Promote consistent application of "20 <sup>th</sup> due" criteria by other participating jurisdictions. | Fire Chief and Assistant Chiefs                                 | Ongoing                     | More efficient deployment of apparatus, vehicles, and staff.                        | Staff time.  |
| 21            | Continue apparatus/equipment replacement program.   | Fire Chief  | Each annual budget cycle.   | High performing apparatus and equipment.  | Currently budgeted funds. No additional costs anticipated. |
| 22            | Ensure employee involvement in projects.  | Fire Chief, Assistant Chiefs, Battalion Chiefs; EMS Supervisors | Ongoing                     | Staff support for initiatives.  | Staff time. Lost staff time to cover shifts may occur.     |
| 23            | Conduct Safety Inspections and Pre-Incident Planning.   | Battalion Chiefs  | October 2006 and ongoing.   | Firefighter safety.   | Staff time. No costs anticipated.                          |
| 24            | Reassign Special Operations to Fire Operations.   |   | October 2006                | Improved coordination of special operations and consistency with best practices.    | No costs anticipated.                                      |
| 25            | Identify training needs through the planning process.   | Fire Chief and Training managers.                               | January 2007 and ongoing.   | Training effort consistent with organizational goals and objectives.                | No added costs. Part of the strategic planning process.    |



**CITY OF ALEXANDRIA, VIRGINIA  
IMPLEMENTATION TABLE FOR FIRE DEPARTMENT STUDY**

| <b>Rec. #</b> | <b>Action Step</b>  | <b>Responsibility</b>  | <b>Estimated Completion</b>                              | <b>Impact</b>  | <b>Projected Cost Implications</b>  |
|---------------|---|--|--|--|---|
| 26            | Rewrite the job description for the EMS Assistant Chief position.           | Fire Chief and Human Resources Director for the City.        | October 2006   | Logical succession planning; career ladder for EMS staff; solidifies technical requirements. | No costs anticipated.   |
| 27            | Create management-technology team to improve upon EMS reporting.            | EMS Assistant Chief and Information Technology Coordinator.  | October 2006   | Better Patient Care Reports.   | No costs anticipated.   |
| 28            | Evaluate the two (2) EMS Supervisor model after one year of implementation. | Assistant City Manager, Fire Chief, and EMS Assistant Chief. | After one (1) year of dual EMS Supervisor implementation | Efficiency of resource allocation.   | Depends on outcome of evaluation of the model.                                    |
| 29            | Consider pre-service ALS training and certification.                        | Assistant City Manager, Fire Chief, and EMS Assistant Chief. | Immediately  | Efficiency of resource allocation.   | Potential savings of \$35,000 per recruit. If 6 recruits, then \$210,000 savings. |
| 30            | Reorganize the current EMS recruit training program.                        | EMS Assistant Chief  | Immediately  | Efficiency of resource allocation.   | Savings a function of reorganization and extent of shortening of training.        |
| 31            | Reorganize the ALS field internship program.                                | Ad hoc committee directed by EMS Assistant Chief.            | October 2006   | Efficiency of resource allocation.   | Savings a function of reorganization and extent of shortening of training.        |
| 32            | Automate training records.  | Assistant Chief over Support Services Division.              | December 2006  | Accuracy in record keeping.  | Estimated cost of (\$500) for software.   |
| 33            | Incorporate maintenance records management system.                          | Assistant Chief of Support Services.                         | December 2006  | Accuracy in record keeping.  | Estimated cost of (\$1,500) for software.   |

**CITY OF ALEXANDRIA, VIRGINIA  
IMPLEMENTATION TABLE FOR FIRE DEPARTMENT STUDY**

| <b>Rec. #</b> | <b>Action Step</b>  | <b>Responsibility</b>                           | <b>Estimated Completion</b> | <b>Impact</b>                                 | <b>Projected Cost Implications</b>   |
|---------------|---|---|-----------------------------|---|--|
| <b>34</b>     | Upgrade facilities and maintenance equipment.   | Assistant Chief over Support Services Division. | Ongoing                     | Staff safety and efficiency.                  | A function of facilities and capital planning determinations.                |
| <b>35</b>     | Continue to incorporate apparatus and equipment maintenance management into the planning process. | Assistant Chief over Support Services Division. | Ongoing                     | Potential cost savings through good planning. | No added costs anticipated. Potential for savings through mistake avoidance. |

**APPENDIX A:**

**APPROACH AND  
METHODOLOGY**

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## **APPENDIX A: APPROACH AND METHODOLOGY**

MAG's approach to performing this project reflects our understanding of the specifications in the RFP. The key elements of our methodology include:

- a clear understanding of the project background, goals and objectives, and the complex issues that were to be addressed;
- a work plan that is comprehensive, well-designed, practical, and which provides ample opportunity for stakeholder input; and
- sufficient resources and a commitment to complete the project successfully within the desired time frame and at a reasonable cost.

**Stakeholder Input.** Our approach included interviews with individuals within the City structure. We received quality information from City officials, Department management, and members of the Department.

**Practical Solutions.** Our ultimate goal is to provide the City with a management tool that can be used now and in the future that will serve as a "road map" for the future. Thus, our approach concentrated on developing recommendations that can be implemented.

**Project Coordination and Management.** A successful management review requires special efforts to ensure that all functions receive adequate levels of review; that team members do not duplicate each other's work; and that findings and recommendations are thoroughly coordinated. This was done through:

- the development and adherence to a project work plan;
- clearly assigned project team assignments in terms of work activities and work products;
- frequent project team debriefing meetings to share project findings and ideas; and
- frequent communication with the client to explore tentative findings.

**Proposed Work Plan**

For each task of the work plan, MAG identified the objectives to be achieved, the specific activities to be performed, and the project products to be delivered. Immediately following is our detailed work plan.

**PHASE I: INITIATE PROJECT**

**TASK 1.0: INITIATE PROJECT**

**Objectives:**

- Gain a *comprehensive understanding* of the project's background, goals, and expectations.
- Identify, in greater detail, *specific objectives* for the review, and assess how well the initial work plan would accomplish those objectives.
- Establish a *mutually agreed-upon* project work plan, time line, deliverables, and monitoring procedures that would lead to the successful accomplishment of all project objectives.
- Collect and review existing operational data, information, agreements, *relevant* policies and procedures, and any prior studies, audits, or reports.

**Activities:**

1.1 Met with City management, project management, key City staff and others to establish working relationships, make logistical arrangements, and determine communication lines.

1.2 Discussed the objectives of the project. Identified policy and issue concerns to be addressed during the review.

1.3 *Obtained pertinent reports and background materials* relevant to the review, such as:

- organization charts and current and historical staffing data;
- descriptions of staffing and deployment in meeting service demands at targeted service levels;
- location and description of stations, facilities, apparatus and equipment;
- personnel management issues;

- description of the current service delivery system, organization, and staffing levels;
- demographic and other data related to community growth;
- capital and operational budgets;
- call summary data.

1.4 Revised the original work plan and finalized the time lines for each project task with the Project's Manager.

Finalized the:

- data collection approach;
- interview plan and tentative schedule and interview guide; and
- interim milestones and deliverables.

**Deliverable:**

- Revised project work plan and time line as needed.

## PHASE II: OBTAIN STAKEHOLDER INPUT

### **TASK 2.0: CONDUCT LEADERSHIP INTERVIEWS**

**Objectives:**

- Identify expected service levels for services.
- Identify opinions of City management and other officials, including any Committee members, concerning the operations and performance of the Department.
- Identify issues and concerns of officials regarding fire and rescue services.
- Identify perceived gaps in existing service levels and new priorities in mission.
- Develop a list of perceived strengths and weaknesses of the Department with respect to organization, personnel, support from policy makers and the community, and resource availability.

**Activities:**

- 2.1 Worked with the Project Manager to finalize the interviewee list.
- 2.2 Drafted a comprehensive interview guide.

The logo for the Metropolitan Area Government (MAG) is located in the bottom left corner. It consists of the letters 'MAG' in a stylized, bold, black font with a white outline.

- 2.3 Established a final interview schedule that convenient to all parties.
- 2.4 Conducted interviews as scheduled.
- 2.5 Summarized and analyzed interview results.
- 2.6 Developed a summary report of interviews.

**Deliverable:**

- Feedback to the project manager on interviews regarding expressed views towards existing programs, service levels, and perceived strengths and weaknesses, and related issues.

**TASK 3.0: CAPTURE INPUT FROM THE FIRE DEPARTMENT**

**Objectives:**

- Identify concerns and satisfactions at the staff level.
- Identify ideas generated regarding Departmental issues.
- Identify strengths and weaknesses as perceived by Departmental' management and personnel.

**Activities:**

- 3.1 Developed interview questions for service providers. Included questions on operations, facilities, apparatus, and service level focused issues.
- 3.2 Conducted interviews of providers at the management and staff levels.
- 3.3 Captured critical data in reference to the key RFP issues, such as staffing, service levels, overtime management, and related personnel policies.
- 3.4 Reviewed facilities, equipment and apparatus, and community exposures and hazards.
- 3.5 Reviewed feedback obtained from these interviews.

**Deliverable:**

- Summary of interviews and issues raised.

**PHASE III: PREPARE ANALYSES AND DEVELOP  
CORE STRATEGIES**

**TASK 4.0: EVALUATE CURRENT TRENDS, SERVICES, ISSUES, AND  
COSTS**

**Objectives:**

- Develop a clear understanding of the organizational structures, operations, limitations, achievements, and opportunities for improvement of the Department.
- Identify service delivery trends in the City.

**Activities:**

4.1 Requested appropriate operational and financial information and cost data from Officials and Department management not already obtained in Task 1.0. Such information and data requested and reviewed will include but not be limited to:

- run data and call loads;
- station locations and response times;
- equipment and facilities;
- service level data and extent of cooperation between Divisions;
- operational costs and budget data;
- capital funding;
- revenue data; and
- other anticipated costs relevant to the analysis.

4.2 Evaluated financial implications in reference to operational issues.

4.3 Confirmed the current level of service being provided by the Department.

4.4 Assessed any problems associated with administrative operations.

4.5 Evaluated existing relationships and agreements.

4.6 Listed issues impacting on the current levels of service.

**Deliverable:**

- A report component that evaluates the services being provided.



**TASK 5.0: RECOMMEND AN APPROPRIATE APPROACH FOR SERVICES**

**Objectives:**

- Build on our understanding of the current structure, operations, limitations, achievements, and opportunities for improvement.
- Identify the most cost-effective and/or the most efficient use of available resources to produce the desired level of services.
- Build a series of recommendations focused on achieving an efficient and effective services delivery system.

**Activities:**

5.1 Based on input from officials and others, current trends and issues, and operational and financial data, identified recommendations for improvements to the organizational structure and administrative operations.

5.2 Determined if there are any opportunities where resources may be shared in order to provide services at a reduced level of cost or to improve services.

5.3 Recommended any alternative strategies that may be used to provide fire services.

**Deliverable:**

- A report component that addresses the RFP issues in consideration of current service needs, with a series of recommendations focusing on administrative operations.

**TASK 6.0: PREPARE A REPORT AND PLAN**

**Objective:**

- Prepare a plan that identifies the critical action steps to ultimately achieve the recommended structure and service levels for fire services.

**Activities:**

6.1 Built upon operational and supporting financial information to establish the most appropriate set of recommendations for the current and future delivery of services.

6.2 Identified fire and rescue services personnel needed to provide services in the long-term management and administrative structure.

6.3 Determined the most effective long-range strategy to deliver services.

6.4 Identified the changes in policies and administrative operations that will ensure that the City is able to provide fire services at the desired level.

**Deliverable:**

- A report component that recommends action steps needed, to include the specific action required, the assignment of responsibility, the timing of the action, and any financial costs associated with each action.

## PHASE IV: PREPARE FINAL REPORT

### **TASK 7.0: PREPARE AND PRESENT FINAL REPORT**

**Objectives:**

- Document the results of all previous tasks into a readable, comprehensive written report.
- Present, as requested, the results of the study to officials.

**Activities:**

7.1 Prepared a *draft* report on the results of all previous tasks. The report contains:

- executive summary of findings and recommendations;
- a statement of objectives, audit scope, and methodology;
- findings for the various tasks; and
- specific report recommendations to correct problem areas and to improve administrative operations;
- costs for any additional resource requirements or opportunities for savings;
- a plan and time frame for implementation.

7.2 Reviewed the draft report with the designated Project Manager and others.

7.3 Revised the draft report as needed.

7.4 Prepared and issued the Final Report.

7.5 Deliver the oral presentation to officials.

**Deliverables:**

- Draft Report
- Final Report
- Oral Presentation

**APPENDIX B:**

**CURRENT DESCRIPTION OF  
SERVICES**

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## **APPENDIX B: CURRENT DESCRIPTION OF SERVICES**

### **4.1 Organization Overview**

The Fire Department consists of several divisions, including Fire Suppression, EMS, Fire Communications, Training, Code Enforcement, Administrative Services, and the Office of the Chief. The number of positions in the various functional units includes:

**Total Department Employees – 308 (includes 68 in Code Enforcement; 5 in Emergency Management)**

#### **Fire Suppression - 141**

- Assistant Chief – 1
- Battalion Chiefs – 6
- Captains – 24
- Lieutenants – 19
- Firefighters - 91

#### **EMS - 57**

- Assistant Chief – 1
- EMS Supervisors – 8
- Medics – 48

#### **Fire Communications - 13**

- Coordinator – 1
- Supervisors – 4
- Communications Technicians - 8

#### **Training - 5**

- Battalion Chief – 1
- Lieutenant – 1
- EMS Supervisor – 1
- Firefighter - 1
- Secretary - 1

#### **Administrative Services - 13**

- Battalion Chief – 1
- Administrative Division Chief - 1
- Fiscal Officer – 1
- Administrative Technician – 1
- Personnel Commander – 1
- Personnel Clerk – 1
- Personnel Secretary – 1
- IT Director - 1
- IT Support Engineer – 1
- Network Engineer – 1
- Safety Officer (Captain) - 1
- Facility Manager – 1
- Supply Clerk - 1

**Fleet Management – 3 (includes Fleet Manager and 2 Mechanic positions)**

**Office of the Chief - 3**

Chief – 1  
Administrative Assistant – 1  
Public Information Officer – 1

**4.2 Fire Stations and Major Equipment:**

The Fire Department operates out of eight (8) fire stations, identified by station numbers 201 through 208. Major equipment assigned to the various stations includes:

**Station 201 (317 Prince Street):**

- **Engine 201:** 2004 Pierce Dash, 1000 gpm w/500 gwt.
- **Boat 201:** 30 ft. Metalcraft Marine Rescue Boat. Berthed at City Marina. Full complement of firefighting and water rescue equipment.

**Station 202 (213 East Windsor Avenue):**

- **Engine 202:** 2005 Pierce Dash, 1000 gpm w/750 gwt.
- **Haz Mat 202:** 2003 Crimson Gladiator w/ Command Area, 40 kw. PTO Generator.
- **Haz Mat Support Unit 252.**
- **Haz Mat Support Unit 202:** 2003 Ford F450 - Used for hauling crew vs. taking Engine. Unit carries variety of tools, absorbants, containers, library, etc.
- **Haz Mat Trailer:** 1994 16' Wells Cargo (used for booms, drums, etc.)
- **Haz Mat/WMD Trailers (2)** 20 ft. Carmate, 2002.
- **Medic 202:** 2001 Freightliner/Medic-Master.

**Station 203 (2801 Cameron Mills Road):**

- **Engine 203:** 2002 Pierce Dash. 1,250 gpm w/ 750 gwt
- **Tower 203:** 2004 American LaFrance Eagle w/110' Platform
- **EMS 232:** 2006 Chevy Tahoe.

**Station 204 (900 Second Street):**

- **Engine 204:**1999 Pierce Dash 2000 w/ full complement of Hurst Rescue Tools
- **Truck 204:**2002 American LaFrance 105' Rear Mount

- **Marine Operations Team Support Unit 204:** 1997 Suburban
- **Boat 204:** 13'9" Zodiac Mark IV Grand Raid w/ Johnson 30hp outboard & trailer-Full complement of water rescue equipment.
- **Boat B214:** 13'9" Zodiac Mark IV Grand Raid w/ Johnson 30hp outboard & trailer-Full complement of water rescue equipment.
- **Battalion 211:** East Battalion Chief. 2003 Chevy Suburban.
- **EMS 231 (EMS Supervisor):** 2003 Chevy Tahoe.

Station 205 (1210 Cameron Street):

- **Engine 205:** 2002 Pierce Dash. 1,250 gpm w/ 750 gwt
- **Medic 205:** 2000 Freightliner/Medic-Master
- **Aide 215 (Battalion Aide)** 2002 Ford Explorer.

Station 206 (4609 Seminary Road):

- **Engine 206:** 1998 Pierce 2000 Pumper. 1,250 gpm.
- **Rescue 206:** 2003 Crimson Gladiator.
- **Medic 206:** 2003 Freightliner/Medic Master
- **Reserve Medic Unit**
- **Battalion 212:** West Battalion. 2003 Chevy Suburban.
- **Technical Rescue Trailer:** (20 ft.) Wells Cargo 10,000 lb.

Station 207 (3301 Duke Street):

- **Engine 207:** 1999 Pierce Dash 2000 w/ full complement of Hurst Rescue Tools.
- **Light & Air 207:** 2005 M2 Freightliner.
- **Medic 207:** 2002 Freightliner/Medic Master.

Station 208 (175 North Paxton Street):

- **Engine 208:** 2004 Pierce Dash, 1,250 gpm w750 gwt
- **Truck 208:** 1995 Simon/LTI Tiller. Prepped to 100'. Enclosed tiller cab. T208 carries the Vertical Equipment and responds to technical rescue calls w/ ResQEng 206.
- **Medic 208:** 1998 Freightliner/Medic Master.

### **4.3 Overview of the Administrative Services Division:**

The primary purpose of the Fire Department Administrative Services Division is to provide technical and professional support for the other functional areas of the department. This support includes maintenance, fiscal management, payroll, information management, record keeping, reports, capital improvements, and various other staff and administrative functions. A Battalion Chief is currently in command of the division.

The **Facilities and Supply section** is responsible for obtaining cleaning supplies, uniforms, equipment, and tools for the eight fire stations in the City. They also obtain items for Training, Apparatus Maintenance, and Communications. Supplies are distributed by and accounted for in this area. Staff interacts with vendors and contractors to obtain needed repairs and upgrades to Fire Department facilities. The Facilities and Supply section is comprised of two operations staff, including a Lieutenant and a Firefighter. Historically, these positions have rotated to new field personnel every eighteen months. In the next few months, these jobs will be permanent civilian positions.

For the coming year, staff desires to track the work performed with regard to deadlines, accuracy, and responsiveness. Additionally, the following items are planned for accomplishment:

- A Bar Coding System is to be implemented within the year to improve inventory tracking;
- There is a goal to have supplies delivered to personnel within one week of receipt of request. A tracking system is now in place for all supply requests from Fire personnel. This is to be examined monthly for compliance. Station Commanders will be provided with monthly reports of supply usage;
- All stations will be inspected for health, safety, and code compliance.

For the coming year, the following goals have been established for the Facility and Supply section in order to improve customer service and work performance:

- improve inventory tracking;
- deliver supplies and uniforms to personnel in a timely manner;
- improve station maintenance;
- expand on the relationship with General Services;
- oversee the Capital Improvement Projects and station maintenance;
- oversee the renovation of Station 202;
- convert from sworn to civilian employees, and train appropriately.

The Fire/EMS Department's **Personnel Section** is responsible for recruitment activities and the development and administration of selection methods for firefighters and EMS personnel within the department. Staff also monitors recruitment and selection techniques for all non-public-safety positions. In addition, the section administers the payroll process for each division within the department, maintains personnel and related files, and handles the department's annual medical evaluation program.

Until this point, only anecdotal data has been collected on the performance and efficiency of the personnel division. In the next year, staff hopes to track the work performed with regard to deadlines, accuracy, and responsiveness. Personnel staff should serve as the point-of-contact and liaison for Fire Department employees with other City agencies. Rather than referring fire department staff directly to different City agencies to get personnel and payroll information, staff should receive the problem or question, document the inquiry, and conduct the research for the employee. This will better service the employees as an advocate and liaison and will also help build better working relationships with other City agencies. The performance standard should be to document all concerns and complete all actions within one week of notification. Staff members should be cross-trained in the payroll process as well. This will help improve responsiveness and provide a double check to ensure accuracy and deadlines. All personnel records should be filed on a weekly basis, in order to facilitate the access to employee information. By the end of the year, all divisions within the Fire Department



should be fully using the Telestaff system. This will provide payroll and record keeping consistency throughout the department.

For the coming year, the following goals have been established for the personnel division in order to improve customer service and work performance:

- improve the responsiveness to the problems and concerns raised by employees within the Fire Department;
- serve as the advocate and point-of-contact with the other City agencies;
- establish a more cohesive working relationship with other City agencies;
- improve the accuracy of payroll and adhere to deadlines;
- enhance personnel record keeping; and,
- implement Telestaff for all the Fire Department divisions.

The **Information Management section** provides technical support for the department's electronic communications systems. Incident and response data and statistics are compiled by this section. This section also supplies information to the public when they need a copy of a fire report or emergency medical service response report. The section is comprised of five people, including an Information Technology Director, an IT Support Engineer, and a Network Engineer. There has also been outside support from a contractor who specializes in the Telestaff program.

Current efforts are focused on developing and supporting current Information Technology initiatives. The Division's goals include:

- develop overall information technology structure and staffing;
- maintain existing system;
- implement new/upgrades to systems for Department;
- enhance customer service delivery; and,

- assess information management needs for the entire department, including suppression, EMS, Communications and Code Enforcement.

One of the goals of this section (and Personnel) is that Telestaff will be fully implemented for all divisions within the Department, a timetable for implementation will be developed, and all designated department personnel will be trained. Additionally, the new enhancements will be added and the interface between Tempus and payroll system will be supported.

New systems and upgrades need to be implemented for the department. The EMS Records Management System (RMS) is in the process of being replaced. The Suppression RMS needs to be replaced or needs to be integrated to interface with new EMS RMS. The CAD system needs to be upgraded to Windows™-based operating System. The accounting payment and receivables process needs to be evaluated and an electronic solution needs to be implemented. Further, a software system needs to be established to track equipment and service requests. Once implemented, requests should be logged and closed within 48 hours. These are all worthy goals and should be within reach of the section given its current staffing.

The **Finance section** is comprised of two employees: a Fiscal Officer and an Administrative Technician. This staff conducts the financial and accounting operations of the department, handles the budget, processes all the purchase orders, and maintains necessary documentation. Both staff members are required to work in accordance and cooperation with the Office of Management and Budget and the City's Finance Department.

For the next year, staff hopes to evaluate and implement an electronic system to track and store purchasing and payment records. The system needs to have the capability to track all outstanding purchase orders and to be able to supplement the

**MAG**

performance accounting system. The new system should help in the production of more timely and accurate reports for the account managers. Currently the account managers are given expenditures based on the encumbrances and expenditures processed by the City finance division. The expenditure forecasts and the monthly reports do not entirely provide an accurate picture to the account managers and do not incorporate outstanding purchase orders against an account. Staff further expects to provide a general timeline of budget and expenditure deadlines for all account managers at the start of each fiscal year. This will allow all to be better prepared for deadlines and able to start work on budget tasks in advance. Recommendations on these items are noted in section 6.0.

#### **4.4 Overview of Emergency Medical Services:**

The EMS division of the Fire Department provides 24-hour-a-day Advanced Life Support (paramedic level) care and transportation to the hospital.

The Department utilizes five (5) paramedic-staffed ambulances situated at five of the eight fire stations in the City. Forty-six (46) full-time paramedics staff these units, working 24-hour shifts. Supervision of these services falls under the Assistant Fire Chief for EMS Operations. Direct field supervision is provided by two paramedic field supervisors per shift (EMS Supervisor), whose tasks include supervising the units on shift, quality assurance, personnel evaluation, EMS staffing and personnel management, and responding to most serious incidents.

The Department responds to over 11,000 calls for EMS service annually, transporting approximately 7000 patients to local hospitals each year. A fire engine is typically dispatched from the closest fire station to provide basic care until the paramedic ambulance arrives.

All City firefighters are trained to at least the basic Emergency Medical Technician (EMT) level of training. Every fire engine and ladder truck in the City also carries an

automatic external defibrillator (AED) to treat victims of sudden cardiac arrest. Fire apparatus is also routinely dispatched to all motor vehicle accidents to assist in extricating victims from vehicles. The majority of patients are transported to the Alexandria Hospital; however, some patients are transported to surrounding hospitals for more advanced or specialized treatment and care if Alexandria is unable to accommodate them.

All Fire Department paramedics are required to maintain certifications that maintain their ability to perform state-of-the-art out-of-hospital care. Each paramedic is certified at the Virginia Emergency Medical Technician-Intermediate level at a minimum, and the majority are certified as a Nationally Registered Paramedic (NREMT-P). In addition, all paramedics are certified in American Heart Association Basic (BLS) and Advanced Cardiac Life Support (ACLS), Pediatric Life Support (PALS), Basic Trauma Life Support (BTLS), and Pediatric Basic Trauma Life Support (PBTLS). Continuing medical education is provided for all EMS providers through the Fire Department Training Academy. Most of this education is supervised by medical specialists, such as nurses and physicians, from nearby hospitals.

#### **4.5 Committee Input:**

At an initial committee meeting in October 2005, facilitated by MAG consultants, Department representatives were asked to identify both strengths and weaknesses in the department. The following list was generated in that initial meeting (no assessment is provided here of these listed items):

##### **Strengths noted by the Department Committee:**

- Shift schedules and scheduling;
- Vehicles and major equipment;
- Firefighter gear;
- Technology in the department;
- EMS protocols;

- Community service levels;
- Operational agreements for regional response;
- Adaptability to new threats and training to meet new needs;
- Staff commitment and stability;
- Street level response capability;
- Dedication to the services;
- Support from the governing body;
- Community contributions and service.

**Weaknesses or concerns noted by the Department Committee:**

- Infrastructure and facilities (old and inadequate buildings);
- Inadequate storage for apparatus;
- Distance of staff from Alexandria;
- Lack of real career ladder for EMS personnel;
- Varying shift schedules resulting in different reporting relationships;
- Administrative and communication skills for new managers;
- Communication of the “whys” of changes;
- Operational limitations of the fire burn building;
- Training coordination between fire and EMS services; and,
- Some internal lack of appreciation for cultural diversity.

**4.6 Staff Input:**

Staff was interviewed at all levels and at all stations in the department. Each meeting was wide ranging, within the scope of services for this study. Each individual or group was asked to identify strengths and weaknesses. The following summarizes the major points noted:

**Strengths noted during staff interviews:**

- Good Insurance Services Office rating (3);
- Mutual aid from neighboring jurisdictions;
- Employee dedication, knowledge, and training;
- Advanced EMS skills, procedures and medications;
- Stability with physician Medical Director position.
- All Fire Companies provide Emergency Medical Technician - Basic (EMT-B) with Automatic External Defibrillator (AED) level patient care services;
- Ambulances carry SCBA's on units;
- The Fire Department has a dedicated position for IT support;
- There are purchasing policies in place;
- Performance measures are included in the on-line budget;
- Capital budgeting in the Fire Department;
- All certified personnel receive an annual physical;
- The City is making a good faith effort to recruit diverse classes.

**Weaknesses noted during staff interviews:**

- Strategic planning;
- Budget management and staff input;
- Coverage in the Eisenhower Area;
- Age and size of fire stations;
- Internal communications and team building.
- Standard Operating Procedures (SOPs) and Directives;
- Training facilities;
- Site Safety Inspections & Pre-Incident Planning;
- Internal supply process;
- Automatic & Mutual Aid Program;
- Dispatch speakers at some Fire Stations; and,
- Software to track training records.

**4.7 ISO Rating:**

For nearly a century the Insurance Services Office (ISO) and its predecessor, the National Board of Fire Underwriters, has served as one of the primary evaluators of public fire defenses in cities and towns throughout the United States. Since 1915 their municipal rating process has served as the main tool for the insurance industry for the establishment of fire insurance rates for individual properties within a given community. As a result of these periodic onsite ratings, the level and kind of fire protection in our communities has been impacted greatly by the insurance industry's desire to establish rates while working with local authorities to improve overall effectiveness of municipal fire protection.

It is well beyond the scope of this project to conduct a comprehensive impact study of Alexandria's current ISO rating of Class 3. However, the following brief overview of ISO and its rating system is worthy of discussion as part of this project in order to ensure there is a clear understanding of the purpose and relationship between the city's rating and the performance of the Alexandria Fire Department.



**The Purpose of the ISO Rating.** The purpose of ISO rating process is to establish fire insurance rates in the community based on probable losses. The basic objective of the rating is to provide a tool for the insurance industry to measure quantitatively the major elements of a city's fire suppression system. Three basic elements of the system are considered as part of a rating review:

- Fire Department
- Municipal Water System
- 911 Communications & Dispatch

ISO applies criteria in its Fire Suppression Rating Schedule to measure the performance of each of the elements. The Schedule, or Grading Schedule as it is called, is used to measure the three elements in order to develop a rating number on a scale from 1 to 10, with 10 representing less than the minimum recognized protection. A city's rating number is used by the insurance industry to determine fire insurance premiums for both commercial and residential properties. Generally, property owners can expect to pay lower property insurance premiums when their city achieves an improved rating. ISO ratings can impact fire insurance premiums for all insured properties found within a city. For instance:

- A change from a Class 10 to a Class 9 could result in a 20 percent premium reduction.
- A change from Class 9 to a Class 5 through 8 could result in a 29 percent premium reduction for this range of classes.
- A further reduction to a Class 1 through 4 could result in a 5 percent reduction for this range of classes.

The above reductions may vary from state-to-state based on statewide underwriter's experience over a period of years. With regard to the City of Alexandria, there may be

little benefit in the way of fire department effectiveness, loss reduction, or reduced insurance premiums by further reducing the current rating of Class 3. Again, a more thorough and in-depth review of the city's fire defenses would be required to provide a precise cost benefit if improvements are made from a Class 3 to Class 2.

**What the ISO Rating Does Not Do.** For generations, fire chiefs and other municipal officials have used ISO's rating system to justify improvements in the abilities of their fire department to respond quickly to fires and other emergencies. In many cases city officials have used their rating as bragging rights and a seal of good fire protection. Though an excellent tool for its intended purpose, the list below attempts to describe more clearly the intended use of a rating system and clarify certain myths that accompany ISO and its rating system.

1. The Grading Schedule is not intended to serve as a comprehensive or strategic planning tool for municipal fire protection. However, in recent years there has been a growing partnership between ISO and the Fire and Emergency Services Accreditation Program. Today, as part of the accreditation process, a community can measure its performance of recommendations as identified within the Grading Schedule while meeting certain accreditation criteria.
2. ISO is not a regulatory agency. Insurance companies throughout the country support the organization through the subscription of the organization's various services. Reports of their surveys are provided to municipal officials as recommendations and are not in any way meant to be construed as requirements.
3. The Grading Schedule is a fire insurance rating tool and is not intended to analyze all aspects of a community's fire and emergency services. As an example, it does not address fire prevention and code enforcement, emergency medical services, technical rescue, or hazardous materials response. Many city officials and the general public at



large, however, do not realize this and assume that, as in Alexandria's case, a Class 3 rating measures all that the fire department provides through its various programs and services.

4. The rating of community only measures input but little if any in the way of output. In other words, the Grading Schedule is designed to determine if the fire defenses meet certain criteria under the broad elements listed earlier, but does not measure their actual performance in reducing losses. As an example, in order to receive or retain a lower rating, the Grading Schedule may call for a community to place into service an additional ladder truck with adequate personnel. However, the measurement of the ladder truck and crew's actual performance in its ability to reduce losses is not directly measured. This leads to the question, what really has been gained in adding these resources?

***Alexandria's Current Rating and Its Relationship to Fire Department Effectiveness.***

Currently the City of Alexandria holds a Class 3 rating. This should be considered an acceptable rating for a community of this size with the level and complexity of fire risks. Before any formal attempt is made by the city to further improve this rating, certain issues should be addressed with regard to the cost benefit, if any, that further improvement in the current rating would bring to the community including:

- What is the actual motivation to reduce the current rating? Is it driven for bragging rights or a desire to reduce insurance premiums while improving services?
- What is the cost benefit of a lower rating on the current level of service? Will the monetary investment (if any) in reducing the current rating measurably improve overall effectiveness and services of all services provided by the Alexandria Fire Department including those services not addressed under the ISO rating (e.g., emergency medical services)?