

PROPOSAL

COOPERATIVE SERVICES FEASIBILITY STUDY

Bonita Springs, Estero, and San Carlos Park
Fire Protection and Rescue Service Districts



May 30, 2008



SYSTEM PLANNING CORPORATION

TriData Division



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**Bonita Springs, Estero, and San Carlos Park
Fire Protection and Rescue Service Districts**

Submitted to:

Iris Roman, Administrative Director
Bonita Springs Fire Control and Rescue District
27701 Bonita Grande Drive
Bonita Springs, FL 34135
(239) 949-6226

Submitted by:

Philip Schaenman, President
TriData Division, System Planning Corporation
1000 Wilson Boulevard, 30th Floor
Arlington, Virginia 22209
(703) 351-8300

May 30, 2008



May 27, 2008

Iris Roman, Administrative Director
Bonita Springs Fire Control and Rescue District
27701 Bonita Grande Drive
Bonita Springs, FL 34135

Dear Ms. Roman:

TriData, a division of System Planning Corporation (SPC), is pleased to submit our proposal in response to your RFP "Cooperative Services Feasibility Study." In our 26 years, we have performed over 165 studies involving fire, EMS, and homeland security.

TriData and our professionals have extensive experience conducting merger, consolidation, and cooperative agreement studies within the United States and Canada. Our studies have lead to merger or cooperative agreements between as many as eight separate fire departments, in places like North Shore, WI and Ottawa, Canada. Other locations have included Sullivan County, NY; South Milwaukee, WI; and Volusia County, FL.

We are very familiar with Florida, having performed studies in many different counties and cities, including multiple studies for Orange County, Jacksonville, and Daytona Beach. During the past year, we performed studies in Orange County, Indian Creek Village, and Deerfield Beach. These experiences have made us aware of the changes in property tax laws and the challenges presented to fire districts.

Our proposed project team includes several experienced chief fire officers who have extensive fire and EMS backgrounds. Our proposed project manager, Dr. Harold Cohen, has over 30 years of experience in fire and EMS and has managed several sensitive studies for TriData. Senior consultant Chief Michael Ertz was a fire chief in Florida for over 20 years, served as a city manager, and was President of the Florida Fire Chiefs Association. Senior Consultant John F. O'Neill served as a fire chief for a metro-sized fire department and was a key official in the merger of a private fire department into a public service setting. TriData also has access to 15 staff members and over 40 consultants whose expertise includes fire operations, prevention, EMS, law, architecture, wildland-urban interface, and other specialty areas.

TriData is ready to help Bonita Springs, Estero, and San Carlos Park Fire Protection and Rescue Service Districts determine its course for future fire and rescue services to its citizens. We are ready to use our experience in research, data analysis, developing consensus between governments and working with constituent groups to reach desired goals.

As the president of TriData, I am authorized to negotiate and contractually bind TriData into any agreement with Bonita Springs, Estero, and San Carlos Park Fire Protection and Rescue Service Districts. Our proposal is valid for 180 days and TriData is willing to work within the districts' time and budget requirements. If you need clarification on any of the information provided in our proposal, please contact Dr. Harold Cohen, Senior Analyst and proposed project manager for this effort, or myself. Dr. Cohen and I can be reached at (703) 351-8300, or hcohen@sysplan.com and pschaenman@sysplan.com, respectively.

Sincerely,

A handwritten signature in cursive script that reads "Philip Schaenman".

Philip Schaenman
President, TriData Division

State of Florida

Department of State


I certify from the records of this office that SYSTEM PLANNING CORPORATION is a corporation organized under the laws of Delaware, authorized to transact business in the State of Florida, qualified on December 6, 2006.

The document number of this corporation is F06000007558.

I further certify that said corporation has paid all fees due this office through December 31, 2008, that its most recent annual report was filed on January 22, 2008, and its status is active.

I further certify that said corporation has not filed a Certificate of Withdrawal.

Given under my hand and the Great Seal of Florida, at Tallahassee, the Capital, this the Twenty Seventh day of May, 2008



Secretary of State



Authentication ID: 200130290022-052708-F06000007558

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I. QUALIFICATIONS

TriData has been at the forefront of conducting fire and emergency service studies for state, regional, and local fire agencies across the United States and Canada. We have undertaken consolidation studies and individual fire department evaluations for many departments similar in size to Bonita Springs, Estero, and San Carlos Park Fire Protection and Rescue Service Districts. Our methodology is based on over 26 years of working successfully with local governments across the nation. We are noted for our technical excellence and we provide decision-makers with sound data and a more detailed analysis than other firms.

Corporate Experience

Building a strategic plan requires collecting and analyzing relevant data and involving the stakeholders in the study process. TriData's success on past projects is a direct result of our experience in both areas. Since 2000, we have completed consulting projects for many Florida communities, including Orange County, Indian Creek Village, Palm Beach County, Volusia County, Daytona Beach, Deerfield Beach, Jacksonville, Osceola County, Miramar, Broward County, and West Palm Beach. We are expert in making use of the best available data, and we have much experience working with various stakeholder groups on politically sensitive projects. Our fire and EMS department management reviews and comprehensive studies have included examinations of management and organization, staffing, equipment, apparatus, facilities, station locations, fire prevention and public education, emergency dispatch and communications, budget and funding mechanisms, resource allocation and priorities, and emergency medical services.

The majority of TriData's projects have had program and service performance analyses as a focus. Projects are specifically tailored to the needs of the particular client. While most fire department studies look comprehensively at the issues, Bonita Springs, Estero, and San Carlos Park especially are trying to determine what cooperative agreements, including merger, are possible to improve efficiency or level of services. While starting with the issues specified in the RFP, we further refine the issues to be addressed early in the project. After an initial round of meetings with the three departments during our first site visit., we would 'triage' the issues jointly with project management to determine which need the most attention, and which less, so that the study itself is efficient, and uses its resources for the most important questions. Also, the ultimate success of a strategic planning study often comes from the input and buy-in of stakeholders early in the project—not just at the end. We work from the start to make sure that the key stakeholders participate in the framing of the study plan.

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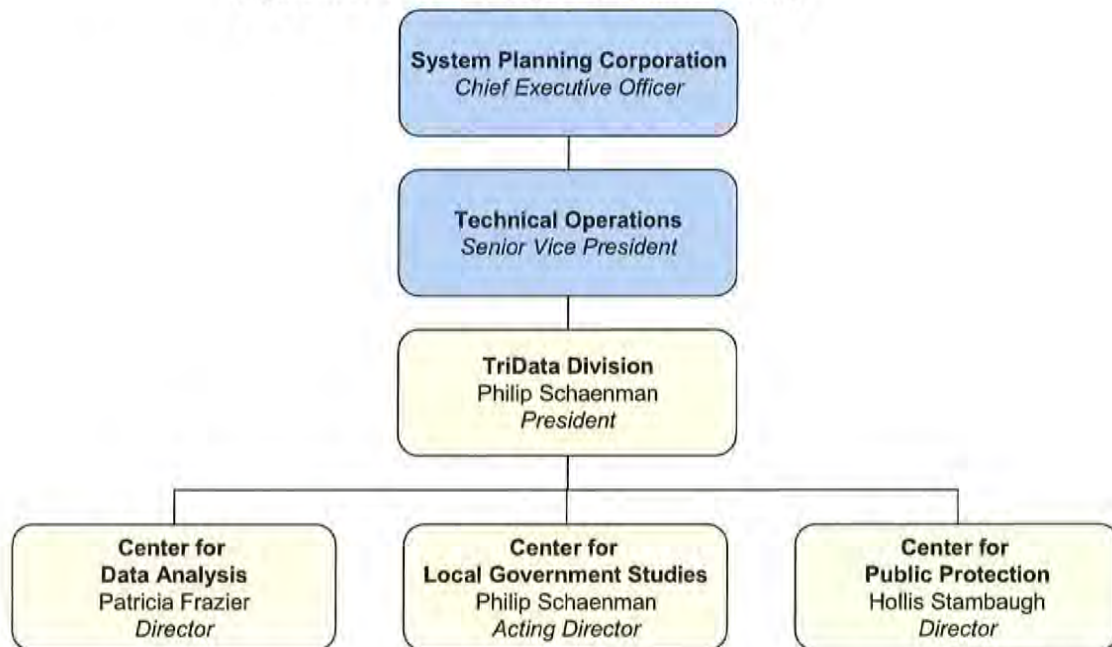
We have experienced professionals on our team who have worked together on similar projects, which makes the process more efficient. Our team includes fire chiefs and analysts with experience developing strategic plans, mergers and consolidations, analyzing data and statistics, performing risk analyses, researching and developing public safety technologies, and conducting field investigations of major fire, EMS, and hazardous materials incidents.

About TriData

TriData is a division of System Planning Corporation (SPC), which is a corporation organized and existing under the laws of the State of Delaware. SPC was established in 1970 and TriData was later established in 1981 initially as a subsidiary of SPC and later as a division. TriData is wholly-owned by SPC. TriData has done business under this name since it began operating. We celebrated our 26th anniversary in November 2007.

Organizational Structure – TriData’s parent company, SPC, is a 200-employee defense and national security contractor that specializes in high-level systems engineering and national security studies. TriData reports to SPC’s Senior Vice President for Technical Operations. TriData has access to SPC’s technical staff, computer facilities, graphics and design department, project accounting systems, telecommunications, and other resources. TriData’s organization is shown below. The study for Bonita Springs, Estero, and San Carlos Park will be undertaken by our Center for Local Government Studies (Figure 1).

Figure 1:SPC/TriData Organizational Hierarchy



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Organizational Makeup – TriData has a staff of 17 highly qualified employees and the services of 40 expert consultants around the nation. For this project we propose three full-time staff and three senior consultants. Our organizational approach reduces overhead and allows us to use high caliber, nationally known personnel on our projects. TriData’s staff includes former fire service officials, leaders in the public management field, fire data analysts, and technical and research specialists.

Location of Offices – TriData will provide work under this contract from our offices located at 1000 Wilson Boulevard, 30th Floor, Arlington, VA 22209. TriData can access Florida quickly from two Washington, DC area airports. TriData does not have any branches or affiliated offices in the area of Collier and Lee Counties.

Insurance Coverage – TriData agrees to comply with the insurance requirements stated in section C, Firm Qualifications, item 10 of the RFP’s Proposal Requirements. If selected, TriData will provide evidence of insurance, including a certificate of insurance and endorsement naming Bonita Springs Fire Control and Rescue District, Estero Fire District, and San Carlos Park Fire Protection and Rescue Service District as additional insured. This will include proof of General Commercial Liability, Automobile Liability, Professional Liability, and Worker’s Compensation. Such insurance shall be in force on the date of execution of the contract and shall remain continuously in force for the duration of the contract.

Disciplinary Actions or Lawsuits – SPC, including TriData, has not been involved in any disciplinary actions or lawsuits during the last three years. Also, there are no pending disciplinary actions or lawsuits currently filed against SPC or SPC’s TriData Division.

Workload – TriData strives to balance its workload to devote our efforts to the current client. We average 10-12 studies per year, depending on size and scope. Up to 3 or 4 of these studies typically are comprehensive, with others being on specific issues or for small communities. We have adequate staff and consultants to handle multiple studies, and to fill in if anyone takes ill.

Communications Between the Study Team and the Project Teams

In every study, communications between the TriData team and project teams is paramount. We suggest that you select an overall project manager and a project manager for each fire district. Based on the pre-meeting, we understand that Ms. Roman and each district fire chief plan to fulfill these roles. Throughout the study, TriData team members will engage in discussions with the project and district project managers, on at least a weekly basis.

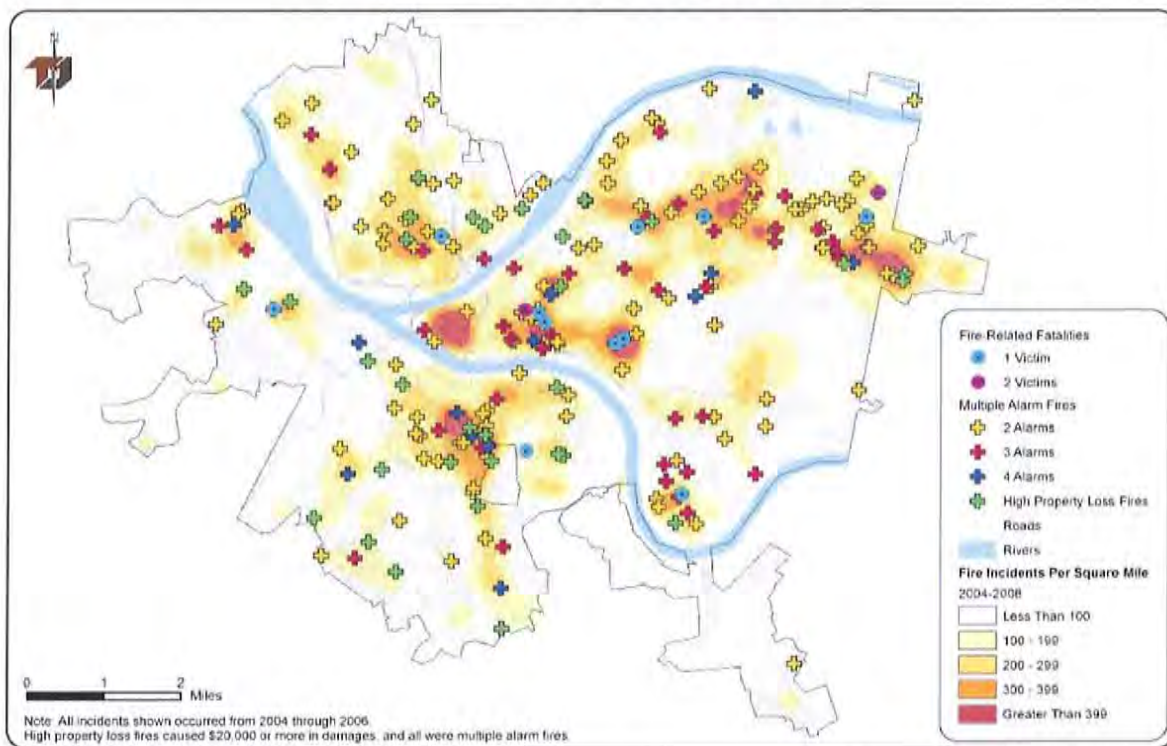
TriData’s proposed project manager, Dr. Harold Cohen, will be responsible for all aspects of project oversight. He will be available to the project team leaders at any time. Should

Dr. Cohen be unavailable, TriData's President Philip Schaeenman will be available to assist, and will provide oversight. .

Geographic Information System Analysis

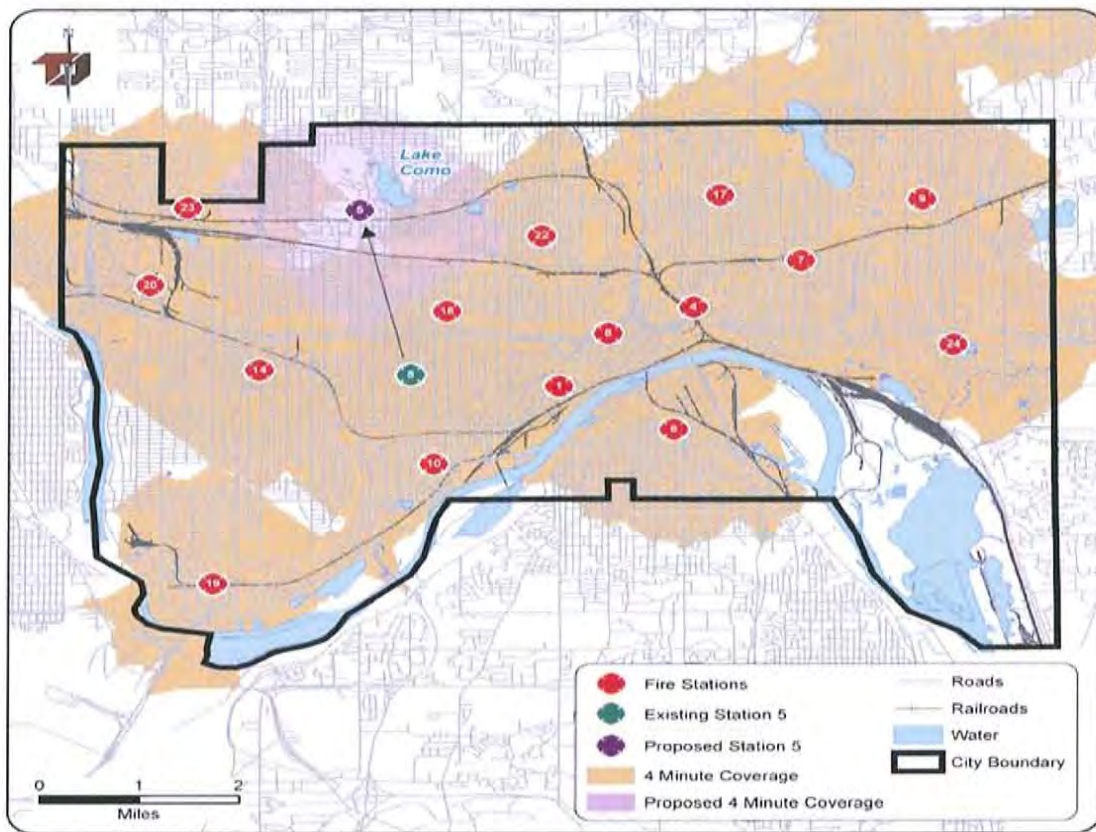
We use geographic information systems (GIS) to analyze demand by various sectors of the city and the response time for different call types. Calls for service are not equal in their importance, and we use GIS to understand where the most severe calls are occurring. Figure 2 is an example of how GIS can be used to present this data.

Figure 2: Pittsburgh, PA – Fire Incident Density, Fatalities, and Multiple Alarm Fires (2004–2006)



We also use GIS to analyze potential gaps in coverage. Figure 3 illustrates an analysis of response time coverage gaps and overlaps in Saint Paul, MN. We recommended a station relocation to correct the deficiency, rather than just adding a station. Each city's circumstance has to be considered in detail. The GIS graphics not only assist in doing the analysis, but also in presenting the information to city management, elected officials, and the citizens in an understandable manner.

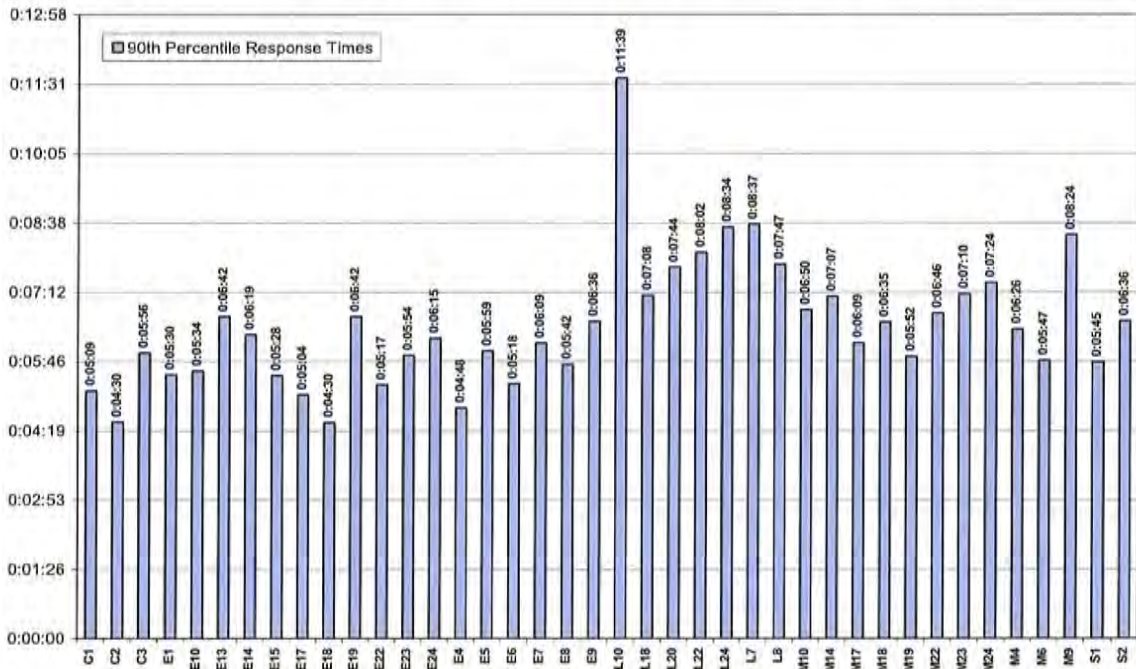
Figure 3: Saint Paul, MN – Proposed 4-Minute Response Reach for Relocation of Station 5 to the Lake Como Area



Response Time Analysis

Using actual CAD data we analyze the 90th percentile response times for each unit. We also use CAD data to analyze the actual travel speeds for each unit since they vary depending on the street network and population density in various sections of the city. Following is an output of the response time analysis (by unit) for Saint Paul, MN. Some stations far exceed desired response times, but then one must ask for how many incidents of what type, and at what cost to correct.

Figure 4: Saint Paul, MN – 90th Percentile Response Times by Unit (2005)

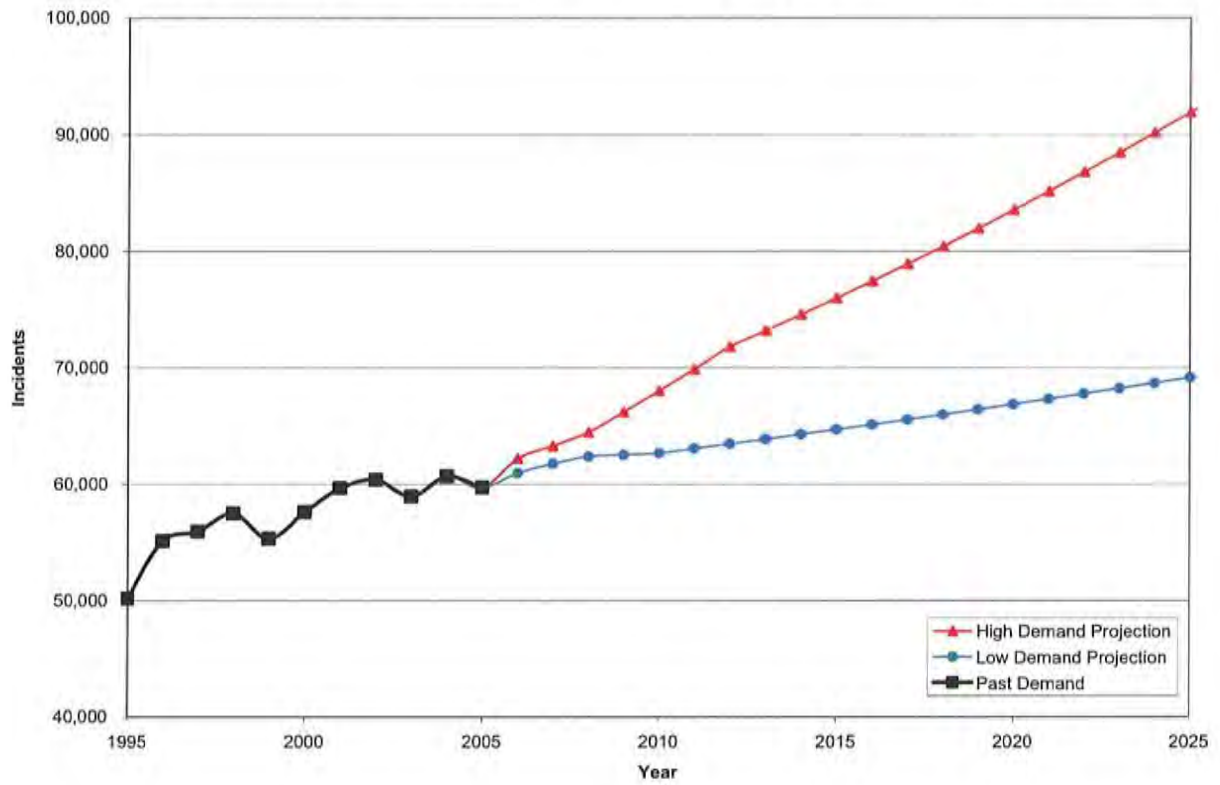


Population Growth and Demand Projections

Our recommendations for alternative deployment options such as fire station locations and staffing considers both demand and response time. For the demand analysis we use multiple years of data to project future demand. We do this for the city as a whole, and for individual units and stations. We consider the projected growth or decline in populations, and the trend in calls per capita. Because of the uncertainties, especially in the latter, we consider an envelope of projections and the implications if the high vs. low projection comes to pass. The future demand per capita can be affected by prevention programs. Figure 5 is an example of an incident demand projection using historic data.

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Figure 5: Portland, OR – Total Incidents (1995–2005) and Forecasts (2006–2025)



II. SIMILAR PAST EXPERIENCE

TriData's experience includes many acquisition, consolidation, and merger studies that have resulted in organizational change. Some studies have recommended forming of new organizations or absorbing smaller organizations in larger one. Others have helped our clients decide not to seek change.

Some examples:

North Shore Communities, WI: Multijurisdictional Fire Service Study for the North Shore Fire – This study examined whether some or all of the seven communities comprising the North Shore area should consolidate, contract with the City of Milwaukee, or remain on their own. All fire service functions were considered. We determined the best possible administrative, organizational, and financial approach for them to take, after determining it would be highly beneficial to the citizens. This has been a model of a successful consolidation. The community had demonstrable better service with the same budgets.

Issues of governance of the resulting entity and cost allocation among the seven jurisdictions were major considerations in this study. Analyses were conducted to show the costs per capita in the seven communities versus what the cost would be under alternative consolidations. The different levels of service provided were also described for the alternative consolidations in terms of response times, size of fire department response feasible for different risks, improvement in prevention and support services.

Deerfield Beach, FL: Assessment of Fire-Rescue Management and Organization – TriData provided a comprehensive assessment of the delivery of EMS and fire service in the City of Deerfield Beach with a focus on resource deployment; dispatch center; and organization of the city's Fire/Rescue and Building Inspection Services Department. At issue were questions of the optimal staffing levels for EMS and fire units given a constrained budget, service provision to a newly annexed area, and how to contend with a growing elderly population. TriData recommended that the city's Fire/Rescue and Building Inspection Services Department not merge with the Broward County Sheriffs Department.

Monticello, NY – TriData recommended consolidation of fire departments in Sullivan County.

Southeast Weld and Hudson Fire Protection Districts, CO: Analysis and Comparison of the Southeast Weld and Hudson Fire Protection Districts – This project was funded by Peter Webb Public Relations, Inc. (Webb PR), of Centennial, Colorado. The

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purpose of this project was to evaluate the emergency services capabilities provided by two separate fire protection districts serving an undeveloped area (at the time of the study) and assess their capabilities to protect the newly developed property. TriData's analysis was used by the developer to recommend to the county the best method to provide emergency services to the newly developed property.

TriData determined the best possible method to provide fire and EMS services to a community situated in both districts, and consolidation was considered as an option.

South Shore [Milwaukee], WI: Multijurisdictional Fire Service Study for City of Cudahy and City of South Milwaukee – This study considered whether two (originally three) fire departments on the South Shore of Milwaukee should consolidate or remain independent to provide the highest level of service to the citizens. Ultimately, TriData recommended the complete consolidation of the Cudahy and South Milwaukee Fire Departments.

The study specifically addressed the following areas: whether staffing and equipment levels met current needs, short- and long-term staffing/equipment options, and specific issues related to consolidation (e.g., inspections, equipment, collective bargaining agreements, effects on paramedic service, funding, administration, etc.).

Volusia County, FL: Comprehensive System Assessment for VCOG, Inc. – TriData provided recommendations to the Volusia County Council of Governments, including full or functional consolidation, to improve service provision in the county. TriData conducted a comprehensive assessment of the fire-rescue and two-tier emergency medical services provided in Volusia County to identify areas for increased efficiency, effectiveness, and cost-savings. The study included an overview of services provided by the 12 municipal fire departments, the county service, and a close look at the services provided by EVAC, the private not-for-profit corporation providing second-tier EMS response and transport.

The purpose of the study was to identify areas where efficiencies could be gained or duplication of services reduced or eliminated. Potential funding sources were identified, as was the cost to fire departments of delivering first-tier medical response.

A main component of the study was to develop options to consider for the delivery of fire and emergency medical services in Volusia County, including estimated costs, benefits, weaknesses, and funding options. Four models were developed and presented as options to the Council of Governments.

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Ottawa, Ontario, Canada: Comprehensive Study of the New City of Ottawa Fire Department – In 2001, 11 jurisdictions in the Ottawa-Carleton Region amalgamated to form the new city of Ottawa. As part of the process, the nine fire departments that provided emergency services in the area were combined to create the new Ottawa Fire Department. Of those departments, four were all-volunteer, three were all-career, and two were combination.

To support the amalgamation process, TriData assessed the services provided by the newly created fire department and recommended how best to structure the fire department administratively and operationally to carry out its mission at the time of consolidation and into the future. This included a comprehensive analysis of station locations, staffing, and deployment scenarios for the new department. The amalgamated department desired a cohesive emergency response agency, with career and volunteer personnel, so not to compromise future service delivery.

East Lansing-Meridian Township, MI: East Lansing-Meridian Township Fire and Emergency Services Consolidation Assessment – TriData evaluated the current and future fire-protection needs of the communities of East Lansing and Meridian, and assessed the feasibility and cost-effectiveness of various options to consolidate the two departments. This study was different from most consolidation studies in that it required assessing the fire protection needs and desires of a third community that had no fire department—the Michigan State University campus. Among the issues addressed in the feasibility study were the adequacy of staffing levels, provisions for EMS, and solutions for the unique target hazards posed by the presence of a university (e.g., high-rise dormitories, off-campus student housing and fraternities, laboratories and the presence of chemicals, etc.).

III. SCOPE OF WORK

The scope of work represents how TriData will complete each phase of the study. We also describe how we intend to

Phase I – Project Initiation

One of TriData's strengths is our ability to quickly get "on board" with our clients and get to work. After all contracts are signed, we conduct a project kickoff teleconference to introduce our team and finalize any outstanding issues. Within 10 days, we conduct a *Triage of Issues visit*, where our project manager and key team members conduct a 4-5 day visit to meet with key officials, government and community leaders.

Objective 1: Development of a Project Action Plan – During the project kickoff teleconference, we finalize the intended tasks, timetables, mutual expectations, resource needs, and any outstanding issues that may interfere with successfully completing the study. We will also review our travel plans to prepare for the triage of issues visit. Planning allows us and our client time to prepare for the visit in order to maximize the value of our time. We also solidify working relationships, with emphasis on identifying the overall project manager and a project manager for each fire district.

The action plan includes a list of officials that we wish to meet with during the initial or subsequent visits. Since the project involves three separate fire districts and a need for consensus meetings, the efficient use of time will be essential to completing the project on time and within budget.

Objective 2: Review of Background Information – Many of our recommendations are based on quantitative and qualitative data collected from the client. CAD, mapping and other quantitative data should be provided in electronic format. During the kickoff teleconference we will clarify any questions concerning where the background information should come from and whom it should be directed to.

Our intent is to have all background information in our possession prior to the triage of issues visit. If necessary, the triage visit can finalize any remaining documentation issues. A proposed list of documents and data is provided in the work plan.

Objective 3: Stakeholder Input – Stakeholder input is arguably the most important part of the project. Since three fire districts are being asked to consider sharing resources, they must convince their stakeholders that their citizens achieve maximum benefits from any change. Each

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district must be able to appreciate a gain-gain outcome. Each district will define their stakeholders, with public participation being an important aspect at each level.

Stakeholder input will occur in three phases:

- **Initial** – During the triage of issues visit we will communicate with the internal and external stakeholders of each fire district. This includes fire commissioners, department leadership, union leadership and other community groups that hold a key interest. We will be guided by the district project directors on which stakeholders we should meet with during the action plan development process.
- **Consensus Building**– During Phase II of the project, TriData will continue to meet with key stakeholders from all districts in an effort to gain additional knowledge and move closer to consensus. Our review of the situation revealed considerable consensus between districts. It appears that our role will be to help resolve any lingering issues and to determine the most effective way to proceed.¹

During consensus development, we will shift our emphasis to communications between internal and external stakeholders of each district. These efforts are critical because reaching consensus allows each district to benefit from the strengths and experience of the other. Since financial issues are a priority, we have found that the willingness to reach consensus allows for more creativity in service development and cost effectiveness.

- **Opportunities** – After we analyze the data, we will meet with key stakeholders to discuss the opportunities for each fire district. Our team will present our initial impressions and ask for feedback. Follow-up with key stakeholders is essential in keeping with the project philosophy of consensus building and community participation.

For each input phase, we will use a combination of personal interviews, focus groups, data collection or consensus summits. Specific methods will be selected after consultation with the project director and district project leaders. We successfully used these methods for our analysis of the New Jersey State EMS System. We were able to garner a lot of information from many parts of the New Jersey EMS community, and recommend actions that benefited the system at large.²

¹Kinsey, Jr., P. H., Lindsey, J., and Natale, I. (2008). *Merger and consolidation white paper for Bonita Springs, Estero, and San Carlos Park Fire Districts*. Published on January 15, 2008.

²SPC/TriData. (2007). *An analysis of the New Jersey State EMS System*. Arlington, VA: SPC/TriData.

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Before proceeding, we will assure that the action plan is approved by the project manager. The action plan should be completed during the *Triage of Issues* visit.

Phase II – Emergency Services Agency Evaluation

Prior to determining if consolidation, cooperative agreements, or other recommendations should be made, we should determine the status of each organization. Many of the challenges faced by individual districts can be mitigated by the resources and talent of the other.

TriData intends to create a Five Year Facilities and Operations Plan that will serve as a guide for merger opportunities or simply to assist individual fire districts. The three deliverables will be presented to the districts and the project manager prior to Phase III of the study.

Objective 1: Organization Overview – Each plan will include an overview of the district fire and rescue services with specific attention given to organization and management, fire/rescue/EMS operations, finances, training, prevention, public information and education, and information services. We will include a risk and demand analysis to forecast trends over the next five years. Also included will be an evaluation of information technology with emphasis on future hardware and software needs.

The organizational overviews will allow TriData the opportunity to compare each district and determine current best practices and needs. Completing this objective sets the stage for our team to conduct the research and analysis needed to complete the additional objectives during this phase.

Objective 2: Staffing – During the study, we will address staffing in two ways. In this section, staffing will be addressed as it pertains to each fire district. We will also address staffing issues pertaining to cooperative or merged organizations. Staffing areas include administration, operations, and support services. Where appropriate, TriData will provide a formal staffing model that we have used in other evaluations. We will also discuss the use of uniformed and non-uniformed personnel by each district.

TriData understands that staffing choices are numerous but often guided by community needs, finances, professional standards, and labor/management agreements. As stated in the proposal, any staffing recommendations will not include the elimination of positions. By evaluating staffing levels of current and future organizations, we can determine if each district is currently meeting federal, state, and local standards and how merger or consolidation will affect these staffing levels. Project team members have extensive experience evaluating and creating staffing models that will assure appropriate staffing and financial reasonableness.

The staffing evaluation and recommendations will be part of each five year district plan.

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Objective 3: Capital Assets and Capital Improvement Program – To accomplish this objective, TriData will assess each district's facilities, and apparatus/vehicles to determine current and future needs. We have developed sophisticated yet understandable methods that will allow us to provide a realistic assessment of these services. Our evaluation will also identify possible efficiencies that are often realized during mergers and consolidations. For example, stations that are old, in disrepair and have outdated plumbing and HVAC units are often not worth repairing. We can also identify how unneeded facilities could be used to support governmental operations.

Another major assessment area concerns the traffic patterns, road conditions, and projected growth and trends. TriData includes this as part of our Risk and Demand chapter and is supported by our data and map analysis technologies that are explained within the Qualifications section. Our analysis will lead to determining if stations need to be relocated. TriData also considers alternatives to traditional fire stations including EMS-only stations, stations within business structures, and how to place stations that do not detract from community décor.

The efficiency of apparatus/vehicle purchasing and maintenance is often recognized as a significant expense to fire districts. Replacement schedules, rotations, repairs, and routine maintenance costs can be affected by proper planning and use of resources. Even if full merger is not recommended, merged maintenance programs are often beneficial.

Each Five-Year Plan will contain a capital assessment and capital improvement report. We will include an assessment of the current situation, possibilities for cooperative efforts without district merger and the benefits of merger.

Objective 4: Delivery System – One of TriData's strengths is our ability to assess and design delivery systems that are service efficient and cost effective. We have successfully provided fire districts, cities, and towns with methods that decrease response times without the need for additional hiring or overtime (See Appendix). We will assess each fire district's current delivery methods and provide alternatives for possible future situations.

A critical starting point for any delivery system assessment is the 911 access and dispatch point. We review how calls are dispatched, fluency between the primary and support agencies, alerting and response systems and any medical priority dispatch system used. We often find that serious system flaws begin at dispatch and failure to mitigate these flaws renders many system recommendations useless.

We will perform a comprehensive assessment of response times including pre and post arrival results. Included is an examination of the weight of response to determine whether the depth of response meets professional standards, is excessive, or is incomplete. Also studied are

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non-emergency response and whether safer, more economical response policies would benefit the districts. Our analysis takes an all-hazards approach that measures emergency and non-emergency response capabilities for fire suppression, EMS, special operations and community-wide catastrophes. Since EMS transport is provided by an outside agency, we will examine for system efficiencies and determine if the current delivery model is best for the area.

Analysis of support services is an important consideration whether for improvement or consolidation purposes. We will assess the productivity for fire prevention, training, information services within each department and determine how cooperative or merger could affect them.

Regionalization of services is a popular theme within modern emergency services. Specialty areas including heavy rescue, hazardous materials, below grade rescue, high angle rescue and similar functions can be costly and resource consuming. These low-volume, highly publicized emergencies have led to the creation of many specialty teams who are only activated a few times each year. We will assess specialty teams within each department and determine if a regional approach may be more efficient.

TriData's will examine each variable and produce a five-year plan for each fire district. We will also add a comparison chart to compare our findings between fire districts. A comparison chart will hasten transition from Phase II to Phase III and let us facilitate communications between jurisdictions and move towards consensus as to the future.

Phase III – Future Opportunities for Cooperative Efforts

Phase III will address the possibilities for future cooperative efforts from do-nothing to full consolidation or anywhere in between. The palpable mood of the fire districts signal that at a minimum, some level of cooperative effort will be recommended.

Objective 1: General Partnering Strategies – If we are correct in surmising the existing level of cooperation, a consensus approach will best determine appropriate actions. TriData will moderate/facilitate work sessions between representatives from each fire district to determine the appropriate levels of cooperative actions. Specifically, each district should appoint three senior-level representatives to participate in four specific meetings to discuss issues. The representatives could be fire commissioners, chief officers or a combination selected by the district.

Each participant will participate in four meetings, each lasting ~ 4 – 8 hours that will review the information discovered in the individual five-year plans, emphasizing what types of cooperative efforts would yield the greatest gains for each district. The meetings will include:

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- **Administration and Management** – Organization and structure, finances, taxing issues, basic legal issues, and external political issues.
- **Emergency Operations** – Fire Suppression, Emergency Medical Services, Dispatch and Special Operations
- **Prevention and Investigative Services** – Fire Prevention, Fire Investigation, Public Education, Public Information, and Information Services.
- **Support Services** – Building Services, Maintenance, Training, and other functions

The work sessions will be intense and quickly cover a lot of ground. Participants should be well-versed on the issues, have the authority to represent the fire district and be willing to commit the necessary time to the work group. TriData's moderator/facilitators include the project manager and senior consultants, each of whom have considerable subject matter expertise, chief officer experience and experience in governmental management.

At the conclusion of Phase III, TriData will be ready to present findings and recommendations to each fire district, leading to the formulation of the final report. We will continue our goal of consensus-based decision making to complement the cooperative spirit of the districts.

Objective 2: Critical Issues – We will identify critical issues that are common to the three districts and those that are distinct to specific districts. Regardless of the outcome, each fire district's five year plan will contain a report on critical issues. Critical issues for the cooperative effort will be provided as follows:

- **Consensus/Achievable** – The fire districts have reached consensus on the issue and implementation is achievable with little effort. Examples may include: new organization, joint SOGs, etc.
- **Consensus/Questionable** – The fire districts have reached consensus on the issue but external issues may confound successful implementation. Examples may include: tax collection, financial limitations, political ramifications, etc.
- **No Consensus/Achievable** – The fire districts have yet to reach consensus on the issue but a positive outcome is likely achievable if consensus can be reached. Examples may include: Selection methods for the fire chief, placement of units, etc.
- **No Consensus/Questionable** – The fire districts have yet to reach consensus on the issues. Also, consensus is unlikely or external influences will make implementation problematic.

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We will prioritize Critical issues and identify specific needs. We will also identify possible serious challenges, including the need for legislation, legal impediments or serious public dissention. TriData will also identify possible solutions to critical issues where no consensus or questionable outcome is present.

Objective 3: Options for Shared Fire Protection Services – There are many possibilities for cooperative effort between districts. These possibilities range from total consolidation to simple purchasing agreements. We will provide a financial accounting for each major option based on the current situation.

Another important element of shared services options includes a plan on how to get there. It is unlikely that three fire districts can simply “throw a switch” to make things happen. We will provide option for incremental progress leading to an end result.

Objective 4: Fiscal Analysis – TriData will perform a current financial analysis for each fire district and a projected consolidated budget based on our recommendations. We will also provide recommendations for prudent financial management for each fire district and for as combined fire and rescue service. Our report will be of sufficient detail to include cost savings and liabilities forecasted for each merger option.

We are aware that new property tax laws are challenging local governments to find alternative methods to creating revenue and better management of daily operations. Since these new tax laws were emerging, we have assisted Florida jurisdictions including Orange County, Jacksonville, Indian Creek Village, and Deerfield Beach plan to solve these challenges. Our team includes professionals with budgeting and city management experience in Florida to understand the difference in budget practice requirements for special taxing districts. TriData will also be able to determine the need for changes in laws, ordinances, or resolutions necessary to achieve financial benefit.

If needed, TriData and its parent company, SPC, have the financial and legal talent needed to succeed at very complex financial projects. We also have access to several consulting firms around the country who have extensive municipal government finance experience.

Objective 5: Financial Outcome of Merger Opportunities – The expected financial outcomes for each option determined in Objective 4 will be clearly delineated within this section. Charts and tables will allow stakeholders to easily grasp the financial benefits and challenges and be able to explain them to constituents.

Phase IV – Findings and Recommendations for Actions

Objective 1: Findings – To reach consensus and to make sound decisions, the fire districts will need to choose from several options. We will present several evidence-based options based on a Strengths, Weaknesses, Opportunities, and Threats (SWOT) evaluation.

Objective 2: Preferred Options – The best option or options will be discussed in details in a manner indicating readiness to proceed. We will also identify any significant external issues that may hamper implementation.

Objective 3: Policy Action – TriData will identify the specific actions needed to be taken by elected officials, fire districts or regulatory agencies in order to implement the preferred option(s).

Objective 4: Timelines – Timelines for completing each phase and objective will be agreed upon between the designated fire district project manager and TriData's project manager. A proposed timeline is included below the Technical Approach section.

Objective 5: Process Issues – Process issues are described above. After completion of all assessment, research and consensus meetings, a draft report will be submitted to the project manager and each fire district. Within 30 days of receipt, each district will provide written feedback to the project director. Feedback will be forwarded to the TriData project manager in one package. Providing feedback in one submission allows us to make quick modifications without exceeding our budget.

In order to assure that all stakeholders have input into our recommendations, TriData will conduct the following meetings:

- Two meetings with the district project teams, one before the final draft is submitted and one after the draft is revised.
- One joint meeting with the district fire boards after the draft is revised, but before the final is submitted.
- Three public workshops, one for each fire district, to be held before the final is submitted.

Limiting travel costs is essential to keeping our price reasonable. We will work with the districts to hold multi-district meetings on consecutive days. We will meet with any group necessary to make the project succeed. Any meetings held in addition to those specified will be done for a price agreed to by the project managers.

Phase V – Presentation of Final Project Report

TriData will submit the final report in paper and digital format. Forty bound copies of the paper report will be submitted. Our project manager will present a final report to a joint special meeting of the fire districts. The presentation will include a review of the nature, findings and recommendations of the report. The multi-media presentation will include maps, graphs, charts and other supportive visuals. The presentation will conclude with a question and answer session.

IV. PROPOSED STUDY TASKS

TriData is known for its ability to organize complex assignments into workable and measurable tasks. Our technical approach includes the major tasks for the project and references the objectives within each Phase of the scope of work. Also included are the team members responsible for completing these tasks.

Task 1:	Kickoff Conference Call
Personnel:	Cohen, O'Neill and Stienstra

Our approach begins with a kickoff teleconference to confirm the contract's objectives and goals, validate the program plan, finalize a timeline (including milestones and deliverable target dates), review the expectations to validate stakeholder understanding and concurrence, and review background information requirements. We will also plan the tight schedule of meetings for the visit to each fire district. The kickoff meeting should be conducted within 10 working days after contract award (or after October 1, 2008) and will include the TriData project manager, TriData team members, and others, as selected by the fire districts.

Task 2:	Collection and Review of Background Materials
Personnel:	Team

To the extent available, we would like to obtain the data listed below at the beginning of the study, but certainly in advance of our first "triage of issues" visit. We understand that some of the following may not be available or may take time to gather, but the sooner we receive the data, the sooner we can familiarize ourselves with the specifics of the fire districts, their service delivery, and the setting they operates in. The districts might begin to gather this data now, since any consultant hired should want relevant portions of the same data in advance, if possible.

- Organization charts
- Map of each fire station in each district
- Personnel deployment (number of uniformed career, volunteer, and civilian personnel in each unit)
- City planning data on planned annexations (if any), trends in population, demographics, and business growth
- Past annual reports (last 5 years if available)
- Latest ISO rating reports, with deficiency analysis, if any
- Most recent budget with any attendant information
- Capital improvement and apparatus replacement programs

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- Fire, EMS, hazmat, rescue, and other emergency incident trend data for the past 10 years
- Response time profiles for fire and EMS calls by district, geographic area and by fire unit. (Ideally, second-in response times as well as first in would be provided, though rarely available).
- Fire apparatus complement by district and station, including front-line and reserve engines, ladders, and other units
- Current standard operating procedures (SOPs) and administrative orders
- Current collective bargaining agreements
- Best description of major risks by geographical area, including the approximate numbers of sprinklered and unsprinklered high-rises. Major risks include: multi-family dwellings, major industry, major public assemblies, universities and colleges, hospitals, transportation centers, major hazmat locations, special hazards, etc.
- Expected major capital improvements that would present new risks or affect existing risks or travel times

Data that will be needed for the response time and analysis:

- 1 year or more of CAD data exportable to an Access or Excel Format.
- CAD data, to include incident number, date, address, call type, time received, time dispatched, units dispatched, en route times, arrival times, clear times, whether call was transported to hospital or not.
- NFIRS data, to include call type, building type, whether the building contained sprinklers, fire origin, fire containment, fire loss, injuries/deaths, etc.

Gathering the data serves as “homework” for our review before the first series of meetings with fire district and community officials. Some of this data will be collected during the course of the study if not readily available at the start.

Task 3: Triage Meetings and Stakeholder Input
Personnel: Cohen, Ertz and O’Neill

After reviewing the background information provided, we will make a three- or four-day site visit. The visit will include a series of intensive meetings by a three person team, including the project manager. We will, meet with each fire district’s officials, including the fire chief, union, heads of major fire divisions, and others deemed appropriate to discuss information collected and ramifications of any proposed changes to current operations (e.g., budget officer, financial officer, director of planning). We believe it is important to meet with community representative’s right from the start to clarify misconceptions, solicit input on major issues, and open channels of communication. It might also be prudent to meet with other local fire departments to discuss mutual aid options and other types of integration.

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During our triage visit, will dedicate at least one day to one and one-half days to each fire district. We will visit all stations and hold informal discussions with some of the firefighters and officers. We will go on any calls that might be useful to view operations first hand. We will tour the service areas to better understand the geography, risks present, and the road system. We also spend time with the community finance departments and budget analysts in the fire districts to better understand the composition of the budget and its constraints, and with the community's Planning Departments to understand estimates of population growth. Since Florida fire taxing districts are non-traditional in structure, we will modify our approach as needed.

Following these initial meetings and field observations we meet again at the end of this first on-site visit with **each district's** designated project contact to triage the issues and reset priorities as necessary to make sure that the key issues will receive adequate attention. The scope of work, how information will flow between our project team and **the fire district** project contacts, and how the overall project will proceed are also discussed. The output of this step is the revised work plan.

Task 4:	Agency Evaluations
Personnel:	Team

TriData will perform assess the status of each district fire department to determine strengths and weaknesses. The assessment will lead to writing the Five Year Facilities and Operations plan for each district. The agency assessments will be comprehensive and cover administration and management, Fire and EMS Operations, Fire Prevention, and Support Services. The assessment and reports will satisfy the requirements for Phase II of the scope of work.

Another part of Step 4 is an evaluation of staffing for each district. TriData will provide a staffing factor chart for each district in order to determine if staffing levels are appropriate to meet NFPA 1710, ISO, and other guidelines. A major part of the district study is an analysis of capital assets and capital improvement programs, including facilities and apparatus/vehicles. TriData uses a matrix that allows us to quickly but carefully assess these factors. Included will be a visit to each fire station and fire facility in each fire district. The final part of the agency evaluation is a review of the delivery system. We will assess emergency service and support function delivery by visiting district facilities and speaking with officers and personnel who can provide information.

Much of Step 4 will be accomplished during the *triage of issues* visit. The GIS and mapping components will be performed at TriData's Arlington, VA facility, where we have access to ARC 9.2 GIS software and the latest version of the SPSS statistical software.

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The results of the agency evaluation will be reported in a Five-Year Facilities and Operations Plan that will be prepared for each district.

Task 5:	Consensus Meetings
Personnel:	Cohen, Stienstra and Dyar

A key to successful cooperative ventures is the ability for each of the incumbents to achieve consensus. It appears that the fire districts are close to that point, but may need to *seal the deal* on a few issues. During this step, TriData's team will conduct four multi-district team meetings, using representatives from each district, to determine the critical issues, how far along the consensus process is and what is still needed. TriData personnel will function as moderator/facilitators allowing the districts to reach consensus. Each meeting will cover a specific topic including: Administration and Management, Emergency Operations, Fire Prevention, and Support Services.

During the consensus meetings, TriData will collect data leading to a summary report from each meeting. The data collected will be used as a basis for the multi-district fire board meetings to be held during a later step. A data analysis will be included in the final report.

TriData is experienced in analyzing qualitative data collected from meeting forums. Our New Jersey State EMS Study analyzed data from 13 different focus groups to determine priorities and levels of consensus. We used this analysis as a basis for recommending statewide changes in New Jersey.

Task 6:	Fiscal Analysis
Personnel:	Schaenman, Cohen, Ertz, and Stienstra

A critical component of inter-governmental cooperative agreements includes the financial benefits and liabilities of these agreements. In many cases, governments achieve great financial benefit from cooperative agreements, however, this is not universal. Poorly planned and executed cooperative agreements often serve one organization at the expense of another. Our analysis will insure that detailed budget information from each district are used determine the projected merged budgets. We will identify the possible financial gains and liabilities that merger will present. In some cases, start-up costs may mask the benefits of merger. By identifying long and short-term fiscal benefits, we can identify when a merged district will likely show positive fiscal impact. We recently showed this to Orange County, FL, where we determined that the department and county would benefit from providing EMS transport. We determined that after a year of transition, significant gains will quickly follow.

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It is critical that we determine what revenue a combined district may produce. In addition, TriData will determine how a combined fire district or alternative plan can be used to satisfy state and local public finance laws. If necessary, we will identify what additional legislation may be needed. All of the information in Step 5 will be presented in the final report.

Task 7: Presentation of Findings and Recommendations for Actions
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Personnel: Schaenman, Cohen and Stienstra

Included in our final report will be specific section listing our major findings, including options and their feasibility. In the final report we will discuss our preferred option in detail including what we determined, how the option should be implemented, any policy actions needed, timelines, and additional processes we feel are necessary. For example, TriData will identify and recommend action on consensus issues still needing clarification.

With each recommendation, we will propose a timeline to set a course for making things happen. TriData is also available to assist the districts with implementation at a cost that can be agreed upon by both parties.

Task 8: Draft Final Report
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Personnel: Team

Prior to submitting the draft final report, the TriData team will meet with each district's project team members. We will present the preliminary findings determined in Step 6 and discuss any obvious concerns.

TriData will then submit a draft final report for review by each fire district and identified stakeholder. Within 30 days of receiving the draft, a combined list of concerns and corrections will be forwarded to the TriData project manager. A combined report helps with project organization and lowers costs. Our budget provides for one review of the draft final report and additional reviews can only be performed for a mutually agreeable price.

During the review process, TriData and the districts will determine a date for another meeting with the fire districts. By this time, any changes will be included and we will be ready to finalize the report. TriData will also conduct three public workshops, one for each fire district, where the public can voice opinions or ask questions of the district project teams or the TriData team. These meetings will last approximately 3 hours and be held at a mutually agreeable site.

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Our understanding is that the fire districts will assume the costs of securing meeting sites. We will also plan for one meeting with the “elected bodies” of each district.³

If further action is needed prior to the final step, we make a mutually agreeable action plan. Minor changes that can be easily made will be done without the need for a plan.

Task 9: Final Report and Presentation
Personnel: Schaenman, Cohen, Jacobson and Stienstra

TriData will submit 40 quality, bound copies and an electronic copy of the final report. The report will include detailed finding from each study phase, a copy of each individual district five-year facilities plan, a combined facilities and operations plan, available options, a detailed description of our recommended options and other supporting documentation as described.

Within 30 days of sending the final report, we will make a multi-media, graphical presentation of our findings to a joint special meeting of the fire district boards. The presentation will include a question and answer session.

³ TriData and the fire district project manager will clarify the exact definition of this and how it will be accomplished.

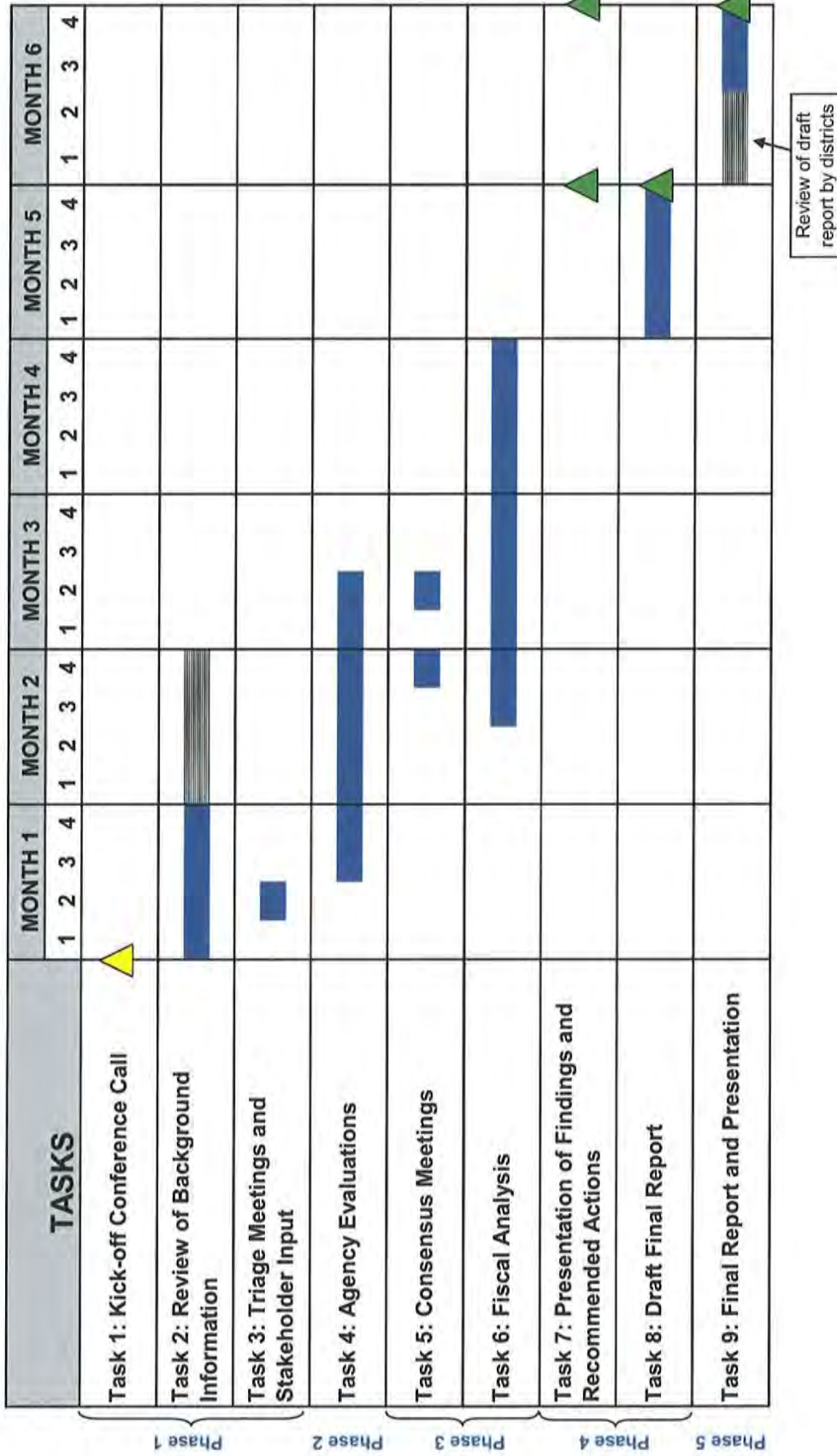
V. TIMELINE

The proposed timeline for the study is shown on the following page. Based on TriData's experience with similar studies, we recommend a six-month timeline (starting from the date of a fully-executed contract), including two weeks at the end for the districts to review the draft final report and two weeks for TriData to make the necessary revisions and submit the final report. If information on a particular task is needed earlier in the project, we are often able to accommodate the request given ample notice.

Important assumptions for staying on schedule for this effort are that the CAD data will be available in digital tabular format in a timely manner, the GIS data will be available in shapefile (or compatible) format, the review and comment period on the draft report will be coordinated by the overall project manager with the review comments sent to TriData in one consolidated document, and there will be one round of comments (unless there are errors in the revised final report). Additional rounds of review will be undertaken at cost.

At the pre-bid meeting, no timeline was clarified for the project, except that work would not begin until October 1, 2008. A proposed project timeline is included below.

Figure 6: Tentative Project Timeline



VI. PROJECT STAFF

The following TriData staff and consultants will make up the project team.

Philip Schaenman, Corporate Oversight – Mr. Schaenman is the President and founder of TriData. Mr. Schaenman is considered an expert on data analysis, performance measurement, and fire prevention. He has been in the consulting business for over 27 years and has directed or provided oversight to over 100 fire department studies, including several consolidation studies. He has worked extensively with the fire service in Florida on evaluations and research. He also does extensive research on best practices in the fire services of other nations, including Canada, Great Britain, Japan, and Australia.

Mr. Schaenman's also served as the Associate United States Fire Administrator and was a charter member of the U.S Senior Executive Service. Mr. Schaenman holds advanced engineering degrees from Stanford University and Columbia University. He is nationally and internationally known to the fire community for leading studies and research on first responder and fire prevention issues. He has testified before Congress and is frequently cited in media.

Dr. Harold Cohen, Project Manager – Dr. Cohen has managed many TriData fire department studies, including some of high political sensitivity. He has extensive experience in various facets of the fire service, including EMS, fire suppression operations, fire department communication operations, administration and management, and training. This includes 30 years of fire service experience, 22 of which were with a large metro fire department where he reached the rank of division chief. Dr. Cohen earned a PhD in Health Services and is board certified in healthcare management. He is a graduate of the National Fire Academy Executive Fire Officer Program and is a national Chief Fire Officer Designate. In 2002, Dr. Cohen was selected by IAFC/NFPA as a Fellow to the Harvard University, JFK School of Government State and Local Government Executive Program. He is also an instructor for the National Fire Academy's Executive Fire Officer Program.

Dr. Cohen has served as project manager or deputy project manager for TriData studies for New Jersey State EMS, Orange County, FL EMS Transportation, Cincinnati, OH, Pittsburgh, PA, Norfolk, VA, Oklahoma City, OK, Portland, OR and others.

Lorrie Jacobson, Senior GIS and Database Manager – Ms. Jacobson is TriData's senior GIS analyst and database manager with over 10 years of experience in emergency services. She brings expertise in the areas of GIS and Mapping and has worked on several TriData studies. Ms. Jacobson has a Master of Public Health Degree with a concentration in

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Public Policy and is a certified firefighter and EMT-B. She also has extensive emergency management experience and is a Homeland Security Exercise Controller and Evaluator.

Lauren Stienstra, Research Analyst – Ms. Stienstra will provide administrative assistance for the project. She is pursuing a Master's degree in engineering management with an emphasis on crisis, emergency, and risk management. Ms. Stienstra is also a certified Emergency Medical Technician-Basic (EMT-B) and Intermediate (EMT-I) and has taught EMT classes in Washington, DC and California. Her experiences include being a career and volunteer EMS provider.

Jeff Dyar, Senior Consultant – Mr. Dyar has over 35 years of experience in varied levels of federal, state, and local EMS. He is currently a Fire Commissioner in Colorado and serves as a consultant and instructor throughout the country. For 12 years, Mr. Dyar served as the chair for the National Fire Academy EMS Program, creating a full curriculum of EMS courses for the fire service. He has also served as a chief fire officer, paramedic instructor, and a provider for various departments. Mr. Dyar is a graduate of the National Fire Academy Executive Fire Officer Program and was the first recipient of the IAFC's James O. Page EMS Leadership Award.

Michael Ertz, Senior Consultant – Chief Ertz is a senior consultant with TriData who has over 35 years of fire service experience, with most of these years in Florida. He served as fire chief for the City of Port Orange, FL for over 20 years. Chief Ertz also served as interim city manager for Port Orange and continues to consult with them today. His consulting experience includes work for De Bary, Deltona, and Orange City, FL. Chief Ertz experience with the fire service, emergency management, local government and consulting will be an asset to finding the right answers for the community. Experience in Florida will be especially beneficial as he is aware of how local government and fire districts work.

Chief Ertz has a B.S. Degree in Organizational Management from Warner Southern College in Lake Wales, FL, and is a graduate of the National Fire Academy Executive Fire Officer Program. He was a past President of the Florida Fire Chiefs Association.

John O'Neill, Senior Consultant – Chief O'Neill has over 35 years of fire service experience that includes fire suppression, fire prevention, fire investigation and as liaison to state legislative bodies. He served as fire chief for one of the largest metro-sized organizations in the country. During his tenure, he was actively involved in the consolidation of the Bethlehem Steel Fire Department/Sparrows Point into a large municipal department.

Chief O'Neill has a B.S. in Fire Service Administration with a concentration in labor/management relations. He also serves as a community association leader in Florida.

VII. PRICING

TriData's firm, fixed price for the study is \$120,486, which includes travel, accommodations and shipping costs. We can offer the quoted price based on the following assumptions:

Deliverables

There are five project deliverables including: (a) One Five Year Operations and Facilities Plan for each Fire District, (b) One Draft Final Report, and (c) One Final Report and Presentation. The price of additional deliverables will be negotiated by the TriData and overall project managers.

Reviews

There will be one review of the draft final report. The review from each district will be merged into one document and sent to TriData. The price of additional reviews will be negotiated by the TriData and overall project manager.

Meetings

The proposal includes budgeting for the following meetings:

- Four-day triage of issues meeting (1)
- Consensus Meetings (4)
- Pre-Draft Meeting (1)
- Post-Draft Meeting (1)
- Public Workshops (3)
- Final Presentation (1)

We are flexible and pleased to add additional meetings with the same hourly rates and travel.

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LABOR

Name	Description	Hours	Price
SCHAENMAN, PHILIP	CORPORATE OVERSIGHT	16.0	
COHEN, DR. HAROLD	PROJECT MANAGER	397.5	
STIENSTRA, LAUREN	RESEARCH ANALYST	156.5	
JACOBSON, LORRIE	SENIOR GIS/DATABASE MANAGER	120.0	
DYAR, JEFF	SENIOR CONSULTANT	56.0	
ERTZ, MICHAEL	SENIOR CONSULTANT	118.0	
O'NEILL, JOHN	SENIOR CONSULTANT	113.5	
ARGABRIGHT, MARIA	PROJECT SUPPORT	263.0	
Total Labor		1240.5	\$107,384

\$86.57 per hour

TRAVEL

Description	Price
SPC/Consultant Travel	\$11,470
Total Travel	\$11,470

OTHER DIRECT CHARGES

Description	Price
Copying, reproduction, shipping, miscellaneous	\$1,632
Total Other Direct Charges	\$1,632

Total Cost	\$120,486
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VIII. REFERENCES

TriData has served clients in the public and private settings throughout Florida.

Public Clients

1. **Orange County, FL**
James Fitzgerald, Deputy Chief
Orange County Department of Fire and
Rescue
201 South Rosalind Avenue, 5th Floor
Orlando, FL 32802-1383
(407) 836-9000
2. **Deerfield Beach, FL**
Ada Graham-Johnson, City Manager
City of Deerfield Beach
150 2nd NE Avenue
Deerfield Beach, FL 33442
(954) 480-4263
3. **Indian Creek Village, FL**
Sam Kissinger, Village Manager
Indian Creek Village
9080 Bay Drive
Indian Creek Village, FL 33154
(305) 865-4121
4. **Jacksonville Fire Department**
Lorin Mock, Director of Emergency
Operations
515 N. Julia Street
Jacksonville, FL 32202
(904) 598-5206

Chief Mock is the former Chief of
Operations and study director.

5. **Palm Beach County, FL**
Chief Herman Brice
Palm Beach County Fire Department
50 South Military Trail, Suite 101
West Palm Beach, FL 33415
(561) 616-7001

Private Clients

1. **University of North Florida**
Al Roop
University of North Florida
Training & Services Institute, Inc.
Institute of Police Technology and
Management
12000 Alumni Drive
Jacksonville, FL 32224
(904) 620-4784
2. **VCOG, Inc.**
Roy M. Schleicher, Executive Director
1190 Pelican Bay Drive
Daytona Beach, FL 32119-1381
(904) 322-5160

We have undertaken research and consulting for many other private sector organizations, many with national scope but not specifically based in Florida. These include the International Association of Fire Chiefs, The Urban Institute (Washington, DC), American Home Appliance Manufacturers, American Gas Association, American Petroleum Institute, American Hotel and Motel Association, and others.

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Comprehensive Client List

Following is a comprehensive client list of studies TriData has completed from 2002–present.

JOB. NO.	NAME OF LOCAL GOVERNMENT ENTITY	PROJECT NAME, CONTACT, ADDRESS, PHONE	YEAR OF STUDY
EE20	Anne Arundel County, MD	<i>Fire Services Deployment Study</i> , Erik Robey, Assistant Chief Administrative Officer, Office of the County Executive, Heritage Office Complex, 2666 Riva Road, Annapolis, MD 21403, (410) 222-1821, erobey@aacounty.org	Current
EE19	Stamford, CT	<i>Strategic Fire Study</i> , William S. Callion, Jr., Director, Office of Public Safety, Health & Welfare, City of Stamford, Stamford Government Center, 888 Washington Boulevard, Stamford, Ct 06904, (203) 977-5919, (203) 977-5845 fax, wcallion@ci.stamford.ct.us	Current
EE18	Tredyffrin & Easttown Township, PA	<i>Consultant Study of Fire and Ambulance Needs</i> , John Farrell, Assistant to the Manager, Tredyffrin Township, 1100 DuPortail Road, Benwyn, PA 19312, (610) 408-3602, jfarrell@tredyffrin.org	Current
EE11	Horry County, SC	<i>Fire/Rescue Department Efficiency Study and Financial Audit</i> , Assistant Chief Jerry Casteel, Horry County Fire Rescue, 2560 North Main Street, Suite 1, Conway, SC 29526, (843) 915-5190	Current
EE07	Frederick County, MD (Pop. 221,000)	<i>Comprehensive Review and Master Plan for Frederick County Fire and Rescue Services</i> , Barry Stanton, Assistant County Manager 12 East Church Street, Frederick, MD, 21701, (301) 600-1478	2007
EE08	Dayton, OH	<i>Fire Station Location, Deployment and Operational Study</i> , Larry Collins, Fire Chief, Dayton Fire Department, 300 N. Main Street, Dayton, OH 45402 (937) 333-4501, larry.collins@cityofdayton.org	2007
ED99	Pittsburgh, PA (Pop. 325,337)	<i>Comprehensive Management Study of the Pittsburgh Bureau of Fire</i> , Pittsburgh Intergovernmental Cooperation Authority, 425 6th Avenue, Reed Smith Bldg, Room 126, Pittsburgh, PA, 15219-1809, Mr. Henry Sciortino, Executive Director, (610) 889-0132	2007
ED97	State of New Jersey (Pop. 8,717,925)	<i>Consulting Service for Fire, EMS System, State of New Jersey</i> , 33 West State Street, Floor 8, Trenton, NJ 08625-0230, Jonathan Wallace, (609) 341-2976	2007
ED96	Orange County, FL (Pop. 1,023,023)	<i>EMS Transport Study</i> , Orange County, Florida, 400 East South Street, PO Box 1393, Orlando, FL 32802, Nancy Woodger	2007
ED95	Saint Paul, MN (Pop. 280,404)	<i>Consulting Services: Code Enforcement</i> . City of St. Paul, 25 W. 4 th Street, Room 500, St Paul, MN 55102, Angela Nalenzy, (651) 266-6515	2006
ED94	Ocean City, NJ (Pop. 15,378)	<i>Assessment of the Fire-Rescue Dept for Ocean City, NJ</i> , Ocean NJ, 550 Asbury Avenue, Ocean City, NJ 08226, (609) 525-9356	2006
ED93	Isle of Wight County, VA (Pop. 33,417)	<i>Isle of White Emergency Services Facilities Master Plan and Response Time Study</i> . P O Box 80 Isle of Wight, VA 23397. Richard Childress (757) 365-6308	2006

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JOB. NO.	NAME OF LOCAL GOVERNMENT ENTITY	PROJECT NAME, CONTACT, ADDRESS, PHONE	YEAR OF STUDY
ED92	Pike Township, IN (Pop. 71,465)	<i>Evaluation of Fire and EMS Service, Pike Township, Marion County, Indiana, 5665 Lafayette Road, Suite C, Indianapolis, IN 462254, Lula Patton</i>	2006
ED91	East Greenbush, NY (Pop. 15,560)	<i>Risk Assessment Seminar, East Greenbush Fire District #3, 68 Phillips Road, Rensselaer, NY 12144, Nancy Condit (518) 479-2049</i>	2006
ED90	Muskego, WI (Pop. 21,397)	<i>Development of a Master Plan for Provision of Fire/Rescue Service, City of Muskego, W182 S8200 Racine Avenue, PO Box 749, Muskego, WI 53150-0749, Jennifer Sheffer</i>	2006
ED89	St. Paul, MN (Pop. 280,404)	<i>Management & Operations Study of St. Paul Fire & Safety Services Dept., City of St Paul, Human Resources, 25 W. 4th Street, Room 500, Saint Paul, MN 55102, Angela Nalezny, (651) 266-6515</i>	2006
ED85	Rockbridge County, VA (Pop. 21,242)	<i>Analysis of Fire Rescue Emergency Services for Rockbridge County, VA, Rockbridge County Administrative Offices, 150 South Main Street, Lexington, VA 24450, D.G. Austin</i>	2006
ED84	Dept of Homeland Security	<i>Investigation & Analysis of Major Fire Incidents Program-Option Yr 1, Dept of Homeland Security/FEMA, Bldg E. 1685 South Seton Avenue, Emmitsburg, MD 21727, Ken Kuntz (301) 447-1271</i>	2006
ED83	Norfolk, VA (Pop. 241,727)	<i>Master Plan for Norfolk Fire-Rescue, City of Norfolk, City Hall Building, Norfolk, VA 23510, Regina V.K. Williams</i>	2006
ED80	Deerfield Beach, FL (Pop. 65,694)	<i>Assessment of fire-rescue management and organization of the Deerfield Beach Fire-Rescue Department. Ada Graham-Johnson, City Manager, City of Deerfield, 150 NE 2nd Avenue, Deerfield Beach, FL 33441 (954) 480-4263</i>	2006
ED79	Arlington, TX (Pop. 355,007)	<i>Comprehensive Management Study Of The Arlington Fire Department, Karen VanWinkle, Project Coordinator, City of Arlington, TX, M/S 01-0333, P.O. Box 90231, Arlington, TX 76004-3231, (817) 459-6112</i>	2006
ED78	Jacksonville, FL (Pop. 773,781)	<i>Analysis of Population Growth and Demand, Fire Station Locations, and the Fire Prevention Division of the Jacksonville Fire and Rescue Department, Chief Richard Barrett, Jacksonville Fire Department, 515 N. Julia Street, Jacksonville, Florida 32202</i>	2006
ED77	Upper Providence, PA (Pop. 10,509)	<i>Fire and EMS Study, Donald Steitler, Fire Marshal, Township of Upper Providence, 1286 Black Rock Road, P.O. Box 406, Oaks, PA 19456-0406</i>	2006
ED73	Oklahoma City, OK (Pop. 523,303)	<i>Oklahoma City Fire Department Fire Station Location Study, Lance Musgrave, Business Manager, Oklahoma City Fire Department, 820 N.W. 5th Street, Oklahoma City, OK 73106, (405) 297-3314</i>	2006
ED71	Roanoke, VA (Pop. 92,863)	<i>Fire-EMS Department Station Location, Staffing and Operational Effectiveness Study, Acting Chief David Hoback, Roanoke Fire-EMS, 541 Luck Avenue, Suite 120, Roanoke, VA 24016, (540) 853-1207</i>	2006

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JOB. NO.	NAME OF LOCAL GOVERNMENT ENTITY	PROJECT NAME, CONTACT, ADDRESS, PHONE	YEAR OF STUDY
ED67	Portland, OR (Pop. 538,544)	Portland Fire and Rescue Service Delivery System Study, Mr. David Sprando, Fire Chief City of Portland, Bureau of Fire, Rescue and Emergency Services, 55 SW Ash Street, Portland, OR 97204	2006
ED66	City of London, Canada	Master Plan for Fire Services of The Corporation of the City of London's Fire Department, Tom Johnson, Steering Committee Chairman, City of London 300 Dufferin Ave., 11th Floor PO Box 5035 London, ON N6A 4L9 (519) 639-8091 x4917; (519) 639-8091 cell; tjohnson@london.ca	2006
ED63	Alexandria, VA (Pop. 128,923)	Assessment of Fire Department Facility and Resource Location Deployment, and Suitability, Chief Gary Mesaris, City of Alexandria Fire Department, 900 Second Street, Alexandria, VA 22314, (703) 838-4007	2006
ED60	Trenton, NJ (Pop. 85,314)	Review and Analysis of the Trenton, New Jersey, Dispatch and Communications Center, Jane Feigenbaum, Business Administrator, City of Trenton, City Hall, Dept. of Administration, 319 E. State Street, Trenton, NJ 08608, (609) 989-3105	2006
ED59	Toledo, OH (Pop. 308,973)	Litigation Work Product, Analysis of Toledo Fire And Rescue Staffing, Deployment, and Operations, James Burkhardt, Esq., City of Toledo, Department of Law, One Government Center, Suite 2250, Toledo, OH 43604, (419) 245-1020	2006
ED58	Aurora, IL (Pop. 162,184)	Station Location Study For The City of Aurora, Illinois, Chief Tim Oelker, Aurora Fire Department, 75 N. Broadway, Aurora, IL 60506, (630) 897-7821	2005
ED57	Louisville, KY (Pop. 248,762)	Louisville Fire Department Capital Facility and Equipment Study. Bob Cromus, Director, Metro Purchasing Department, Room 306, 531 Court Place, Louisville, KY 40202-3309	2005
ED55	Elgin, IL (Pop. 97,117)	Station Location Study. Sean Stegall, Assistant City Manager, City Manager's Office, 150 Dexter Ct., Elgin, IL 60120-5590 (847) 931-5590 Main, (847) 931-5610 Fax	2005
ED53	Cincinnati, OH (Pop. 331,285)	Cincinnati Fire Department Comprehensive Review. Chris Corbett-Assistant Chief (513) 352-2361, and Robert Wright-Fire Chief (513) 352-6220, 430 Central Avenue, Cincinnati, OH 45202-1947	2005
ED52	Lee County, NC (Pop. 49,162)	Fire Department Staffing and Resource Deployment Study. Jim Groves, Director, Lee County Emergency Management, 225 E. Weatherspoon St., P.O. Box 1154, Sanford, NC 27331 (919) 775-8278	2005
ED48	Trenton, NJ (Pop. 85,402)	Assessment of Fire Management Staffing and Command Structure.. Dennis Keenan, Director, City of Trenton Fire Department, 244 Perry St., Trenton, NJ 08618 (609) 969-4038	2005
ED45	Middleton, WI (Pop. 16,189)	A Review of the Middleton, WI Fire District, Michael Clark, AIA, Project Manager, Bray Associates Architects, Inc., 1468 North Highpoint Rd., Suite 100, Middleton, WI 53562 (608) 831-5775	2005

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JOB. NO.	NAME OF LOCAL GOVERNMENT ENTITY	PROJECT NAME, CONTACT, ADDRESS, PHONE	YEAR OF STUDY
ED43	Roxbury Township, NJ (Pop. 28,883)	<i>Technical Analysis of Fire/EMS Response Times</i> . Christopher Rath, Township Manager, Township of Roxbury, 1715 Route 46, Ledgewood, NJ 07852, (973) 448-2006 Main (973) 448-6778	2004
ED42	Orange County, CA (Pop. 2,987,591)	<i>Risk Analysis Consulting Services</i> . Robert Laporte, Orange County Fire Authority, Purchasing Department, One Fire Authority Road, Irvine, CA 92619 (714) 573-6441	2005
ED41	Branchburg Township, NJ (Pop. 14, 848)	<i>Assessment of Fire and EMS Services</i> . Gregory Bonin, Township Administrator, 1077 Route 202, North, Branchburg, NJ 08876	2005
ED39	Corpus Christi, TX (Pop. 279,208)	<i>Comprehensive Review of the Corpus Christi Fire Department</i> . Deputy Chief Richard Hooks Corpus Christi Fire Department, 2406 Leopard Street, Suite 301, Corpus Christi, TX 78408 361-880-3931, 361-215-7663 Cell phone, rh@cctexas.com	2005
ED38	Salt Lake City, UT (Pop. 181, 743)	<i>Fire Department Management and Performance Audit</i> . C.J. Lawrence, Deputy Chief of Support Services, Salt Lake City Fire Department, 315 East 200 South, 7 th Floor, Salt Lake City, UT 84111 (801) 799-4203 Main, (801) 799-3038 Fax	2005
ED37	Rome/Floyd County, GA (Pop. 93,368)	<i>Fire Services Delivery and Manpower/Equipment Utilization Study</i> . Chief Bobbie McKenzie, 617 W First Street, Rome, Georgia 30161, (706) 236-4500.	2004
ED34	Indianola, IA (Pop. 12,998)	<i>Executive Review of the Indianola Fire Department</i> , Mark H. Allen, Project Architect, Shive-Hattery, Inc., 1601 48 th Street, Suite 200, West Des Moines, IA 50266-6748	2004
ED32	Long Beach, CA (Pop. 461,522)	<i>City of Long Beach, California Fire Services Review</i> ; Tom Modica, Special Assistant to the City Manager, Office of the City Manager, 333 W. Ocean Boulevard, 13th Floor, Long Beach, CA 90802, (562) 570-5091	2004
ED25	Waterbury, CT (Pop. 107,271)	<i>Organizational Effectiveness and Efficiency Study of the Waterbury Fire Department for the Waterbury Financial Planning and Assistance Board</i> , Robert Dakers, Emergency Administrative and Financial Mgr. Waterbury Financial Planning and Assistance Board, Office of Policy and Management/Intergovernmental Policy Division, 450 Capitol Avenue, MS#54-MFS, Hartford, CT 06106-1308, (860) 418-6243	2004
ED24	Tacoma, WA (Pop. 196,300)	<i>Comprehensive Review of the Tacoma Fire Department Facilities and Units</i> , Barbara Young, Project Manager, Tacoma Fire Department, 901 Fawcett Avenue, Tacoma, WA, 98402-5699, (253) 591-5176.	2004
ED22	Prince George's Co., MD (Pop. 816,791)	<i>Prince Georges County Fire Department, Organization and Management Study and Staffing and Resources Review</i> ; Ronald D Blackwell, Fire Chief, Prince George's County, MD, 9201 Basil Court, Suite 452, Largo, MD 20774, (301) 883-5200	2004

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JOB. NO.	NAME OF LOCAL GOVERNMENT ENTITY	PROJECT NAME, CONTACT, ADDRESS, PHONE	YEAR OF STUDY
ED21	Coconino, AZ (Pop. 125,420)	<i>Integrated Emergency Operations Plan</i> , Steve Peru, Clerk Board of Supervisors, Coconino County, AZ, 219 E. Cherry Avenue, Second Floor, Flagstaff, AZ 86001 (928) 779-6712	2004
ED20	Nevada, State of (Pop. 1,711,263)	<i>State Fire Program Review</i> , Kimberlee Tarter, Services Purchasing, Nevada Division of Forestry, 755 N. Roop Street, No. 211, Carson City, NV 89701 (775) 684-8676	2004
ED19	Sonoma, CA (Pop. 9,128)	<i>Evaluation of the Financial Stability of the Sonoma Valley FireMed Ambulance System and the Feasibility of Maintaining A Fire Based Delivery System</i> . Mike Cahill, Fire Chief, City of Sonoma Fire Department, 630 Second Street West, Sonoma, CA 95476 (707)996-2102	2003
ED18	Carlisle, PA (Pop. 17,970)	<i>Efficiency and Effectiveness Assessment and Implementation Plan</i> . Fredrick M. Bean, Borough Manager, 53 West South Street, Carlisle, PA 17013 (717) 249-4422	2003
ED17	Waukesha, WI (Pop. 64,825)	<i>Fire Station Location and Resource Deployment Study</i> . Fire Chief Allen LaConte, Project Manager, City of Waukesha Fire Department, 130 West Saint Paul Ave., Waukesha, WI. 53188. (262) 524-3668	2003
ED12	Osceola County, FL (Pop. 172,493)	<i>Emergency Services/fire Rescue Study</i> . Rey A. Palma, Procurement Services Director, One Courthouse Square, Suite 1200, Kissimmee, FL 34741. (407) 343-3125, Fax: (407) 343-3130	2003
ED11	Brunswick, ME (Pop. 37,000)	<i>Fire Station Location Analysis</i> . Donald H. Gerrish, Town Manager, Town of Brunswick 28 Federal Street, Brunswick, ME 04011. (207) 725-6659. Clark Labbe, Deputy Chief, (207) 725-5541	2003
ED03	Seattle, WA (Pop. 563,374 – City) (Pop. 3,275,847 – Greater Area)	<i>Emergency Management</i> . Brian Mills, Deputy Chief, Seattle Fire Department, 301 Second Avenue S. Seattle, WA 98104. (206) 386-1464	2003
ED10	Wake County, NC (Pop. 694,702)	<i>Station Location & Staffing Study</i> . Raymond L. Echevarria, Fire Marshal, Department of Public Safety-Fire/Rescue Division, 331 South McDowell Street, PO Box 550, Raleigh, NC 27602. (919) 856-6349. Public Safety Director, (919) 856-5560	2002
ED07	Lynnwood, WA (Pop. 33,000)	<i>Fire Management Study</i> . Nancy Locke, Purchasing & Contracts Div. Mgr., 6204 215 th Street, Southwest, Mount Lake Terrace, WA 98043. (425) 670-6602, Fax (425) 778-5632	2002
ED05	Wichita, KA (Pop. 344,284)	<i>Fire Apparatus Selection Process Evaluation</i> . Jay Newton, Department of Finance, City Hall, 12 th Floor, 455 North Main Street, Wichita KA 67202. (316) 268-4238	2002
EC97	Scotia, NY (Pop. 8,000)	<i>Impact of the Glenville Energy Park Project on the Scotia Fire Department</i> . Mayor Michael McLaughlin, 4 North Ten Broeck Street, Scotia, NY 12302. (518) 374-1071.	2002
EC92	Nashville / Davidson County (Pop. 569,000)	<i>Facilities Assessment of the Nashville Fire Department</i> . Chief Stephen Halford, Metro Fire Department, 500 2 nd Avenue North, Nashville, TN 37201. (615) 880-2638	2002

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JOB. NO.	NAME OF LOCAL GOVERNMENT ENTITY	PROJECT NAME, CONTACT, ADDRESS, PHONE	YEAR OF STUDY
EC91	Pasco, WA (Pop. 26,000)	<i>Analysis of the Response Policies and Procedures.</i> Chief Gregory Garcia, Pasco Fire Department, 525 N. 3rd Ave., Pasco, WA 99301. (509) 545-3426	2002
EC90	Irving, TX (Pop. 185,200)	<i>Comprehensive Review of Irving Fire Department.</i> Gilbert Perales, Assistant City Manager, City of Irving, 825 W. Irving Boulevard, Irving, Texas 75060. (972) 721-2521	2002
EC89	Fort Worth, TX (Pop. 491,000)	<i>Analysis of the Fort Worth Fire Department.</i> Paul Sweitzer, Assistant to the City Manager. City Manager's Office 1000 Throckmorton Street, Fort Worth, TX 76102. Telephone: (817) 871-8507 fax: (817) 871-6134.	2002
EC87	Village of Germantown, WI (Pop. 18,000)	<i>Comprehensive Study of The Village of Germantown Fire Department.</i> Paul Brandenburg, Village Administrator, N112 W17001 Mequon Road, P.O. Box 337, Germantown, WI 53022. (262) 250-4750 Fax: (262) 253-8255	2002

APPENDIX: RESUMES

Philip Schaenman

Dr. Harold Cohen

Lorrie Jacobson

Jeff Dyar

Michael Ertz

John O'Neill

PHILIP SCHAENMAN, MIFireE

Education:

- Professional Degree of Electrical Engineer, Columbia University, 1963.
- M.S., Electrical Engineering, Stanford University, 1962.
- B.S., Electrical Engineering, Columbia University, 1961.
- B.S., Engineering and Liberal Arts, Queens College, 1961, magna cum laude.

Honors:

- Phi Beta Kappa, Tau Beta Phi, and Eta Kappa Nu.

Professional Experience:

1981-Present **System Planning Corporation, TriData Division, Arlington, Virginia, President and Founder**

Mr. Schaenman founded TriData to undertake studies and research in local, state, and federal government management of public safety functions, especially fire, EMS, and emergency management. TriData is now known nationally and internationally for its research and consulting.

Schaenman has personally undertaken a wide range of research in fire prevention, wildland firefighting, international concepts in fire protection, and metrics for public safety. He is widely published on fire and EMS issues and gives talks on TriData's research and management studies nationally and internationally. Major fire department and EMS studies directed by Schaenman include Chicago, IL; Houston, TX; Colorado Springs, CO; Washington, D.C.; Seattle, WA; Portland, OR; Nashville, TN; Omaha, NB; Des Moines, IA; Wake County, NC; Orange County, FL.; and Fort Worth, TX.

He led landmark studies of wildland firefighter safety and cost containment of fire suppression for the Forest Service and Department of Agriculture. He has led studies of various aspects of the Navy's fire and emergency services program worldwide: he has repeatedly broken new ground in how to analyze complex public safety issues quantitatively, and how to display results to busy managers.

Among his other contributions are performance measurement methods for public safety and transportation services; fire department management and planning studies; design and implementation of national public fire education and EMS-related campaigns; managing major fire and emergency investigations for the United States Fire Administration and states. For the Governor of Virginia he led a study in 2005 on anthrax incidents in Northern Virginia and was staff director for the Virginia Tech Shooting Review Panel. He has consulted for the fire problem of many industries, including the tobacco, petrochemical, electrical, hotel, home appliance, plastics, wood products, cigarette lighter, smoke detector, and door industries.

His particular emphasis in public service management studies is to develop ways to analyze and display hard data in support of planning and decisions. TriData's growth is a reflection of his ability to manage numbers of complex projects effectively and simultaneously, and to build a first-rate staff and select cadre of technical consultants, and to maintain the highest standards of quality control over client costs and deliverables.

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Schaenman is frequently quoted in the news media on fire and everyday issues including NPR radio, the NBC Today Show, the New York Times, Washington Post, Chicago Tribune, LA Times, and World Book Encyclopedia. He has given testimony to Congress on many occasions.

1976-1981 **United States Fire Administration**, Washington, DC, Director, Analysis and Evaluation Division (1976), Senior Executive Service Level IV; Associate Administrator for the National Fire Data Center (1976-1981)

Mr. Schaenman directed the national system for fire data collection, analysis, and dissemination, major fires investigation, firefighter safety, and the development of new technologies for fire protection, including their transfer to state and local government and to private industry. He managed the growth of the first National Fire Incident Reporting System in the United States from 6 states to 40 states (9,000 local fire departments) with a compatible hierarchy of data systems. He developed an overall system design based on the criterion of compatibility with local and state agency participants, produced data collection and quality control manuals and training programs, and directed the development of a series of large, complex computer programs to implement the system. In addition, Mr. Schaenman was responsible for the federal hardware system approach for collecting and analyzing the data, and determining how to divide the work between in-house staff and contractors.

Mr. Schaenman was responsible for the U.S. Fire Administration's major fires investigations program, which resulted in the reports on the events and management of such major emergencies as the Beverly Hills Supper Club fire and the MGM Hotel fire. This program affected fire codes and other national programs to enhance fire protection in hotels, nursing homes, and other high-risk occupancies.

Mr. Schaenman supervised breakthrough developments in residential sprinkler technology, firefighter safety programs and protective outfits, and code administration.

He also developed and taught the Data Collection and Analysis section of the Executive Development course for fire chiefs at the National Fire Academy, served as a federal spokesman on the fire problem, appeared on numerous TV and radio programs, and represented the U.S. internationally on fire data and fire technology.

1972-1976 **The Urban Institute**, Washington, DC, Senior Research Associate

Mr. Schaenman was project manager for studies on measuring performance of several state and local government services, including fire, crime control, and transportation. He headed several project teams that focused on improving information for managing police crime control. He examined and improved the use of Uniform Crime Report data in local police department (e.g., Nashville, Tennessee, St. Petersburg, Florida, Arlington County, Virginia, Washington, D.C.) and worked with them to improve the usefulness of those data with supplemental data and additional analyses. Mr. Schaenman held seminars for local police officials on improving their management information systems and worked with the IACP on developing and disseminating the results of these projects. He also was project manager for studies of ways to measure impacts of land development and co-authored several books in these areas.

1963-1972 **Bellcomm, Inc.** (a systems engineering subsidiary of AT&T), Washington, DC, Member of Technical Staff (1963-1966); Supervisor (1966-1972)

From 1969-1972, Mr. Schaenman helped spearhead the conversion of this company from space program engineering support to corporate management science. He supervised

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groups involved in defining corporate-level information needs, developing analytical bases for corporate policy decisions, and developing quality of service measures. He directed the development of a computer model to optimize corporate depreciation policy, which was credited with saving AT&T a billion dollars in new capital.

From 1966 to 1969, Mr. Schaenman supervised computer technology studies for the manned space flight program. He analyzed potential uses of spaceborne computers on advanced manned missions. He developed automated procedures for detecting solar flares using pattern recognition (now artificial intelligence) techniques, in-flight automated checkout schemes for spacecraft systems, and ways to use cockpit instrumentation for in-flight training on long missions. He also served on the NASA panel, formulating criteria for spacecraft computers and he developed forecasts of aerospace computer technology.

From 1963-1966, he was involved in a variety of studies in which he estimated data flow from advanced satellites, applied Monte Carlo simulations to space vehicle countdowns, conceived of computerized displays for monitoring countdown status, studied launch window constraints for Apollo missions, and analyzed problems with fuel gauge instrumentation in the Saturn launch vehicle.

1962 **The Rand Corporation**, Santa Monica, California, Consultant

Mr. Schaenman analyzed Minuteman missile bases for communications vulnerability to missile attack. He also participated in an Air Force strategic weapons budget planning exercise and wargame (SAFE).

1961 **Hughes Research Laboratories**, Malibu, California, Member of the Technical Staff (summer)

Mr. Schaenman performed a mathematical analysis for an experiment to determine thermal properties of freely supported ultra-thin films for aerospace instrumentation.

1960 **Bell Telephone Laboratories**, Whippany, New Jersey, Technical Aide (summer)

Mr. Schaenman performed traffic analysis for the worldwide communications network used in Project Mercury. He discovered and corrected a significant problem in the communications analysis that had been used.

Professional Memberships:

- The Institution of Fire Engineers, 2001–Present
- International Association of Fire Chiefs, 1997–Present
- National Fire Protection Association, Fire Reporting Committee, 1982–Present
- IEEE, ACM, 1963–Present
- Northern Virginia Community College, Advisory Committee Member, 1996–2000
- National Association of State Fire Marshals, Advocacy Member, 1991–2000
- U.S. – Japan Natural Resources Panel on Fire Research and Safety, 1980–1986

Selected Bibliography:

“Visiting High Risk Households and Other Best Practices In Home Fire Safety from the United Kingdom,” *Fire Chief*. not yet published. (co-author)

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"Best Practices In Community Fire Safety from Norway and Sweden" *Fire Chief*. not yet published. (co-author)

"Actual Savings," *Fire Chief*. March 2008

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"First Class," *Fire Chief*. March 2006.

How Effective Are Your Community Services?, Procedures for Performance Measurement, 3rd edition, The Urban Institute and International City Management Association. 2006. (co-author)

"Assessing Anthrax Detection Methods." Testimony before the Subcommittee on National Security, Emerging Threats, and International Relations, Committee on Government Reform, U.S. House of Representatives. April 5, 2005.

"Wildland Firefighter Safety." Testimony before the Senate Committee on Energy and Natural Resources; Subcommittee on Public Lands and Forests. Washington, DC. November 14, 2001.

Wildland Firefighter Safety Awareness Study, Phases I, II and III: Identifying the Organizational Culture, Leadership, Human Factors and Other Issues Impacting Firefighter Safety, Department of Agriculture Forest Service, Department of the Interior, Bureau of Land Management, National Park Service, Bureau of Indian Affairs and Fish and Wildlife Service. 1998. (co-author)

Recruitment and Retention in the Volunteer Fire Service: Problems and Solutions, Federal Emergency Management Agency, National Volunteer Fire Council, and United States Fire Administration. December 1998. (co-author)

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The Community-Based Fire Safety Program, TriData Corporation and Rossomando Associates. 1994. (co-author)

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National Survey of Chimney Fires Year 2, 1988-1989, The Wood Heating Alliance. June 1989.

"The Facts About Fire Prevention in the Lodging Industry," *Fire Journal*. January/February 1989. (co-author)

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"From Tokyo to Down Under (Part I): International Approaches to Fire Prevention," *Fire Chief*, December 1984. (co-author)

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Police Productivity Measurement: Initial Approaches and Practical Problems, Proceedings of the Criminal Justice Symposium Focusing on Police Productivity, National Commission on Productivity, Washington, DC. July 1974.

Productivity Measures for Fire Protection Services, RANN 2, Realizing Knowledge As A Resource, Proceedings of the Second Symposium on Research Applied to National Needs, Volume V, Improving Government Responsiveness to Public Needs, National Science Foundation. (co-author)

Measuring Fire Protection Productivity in Local Government - Some Initial Thoughts, National Fire Protection Association. 1974. (co-author)

Measuring Police Effectiveness in Crime Control, National Science Foundation, The Urban Institute. August 1974.

Cooperative Services Feasibility Study

Measuring the Effectiveness of Local Transportation Services Provided by Local Government, National Science Foundation, The Urban Institute. August 1974.

State-Required Impact Evaluation of Land Development: An Initial Look at Current Practices and the Key Issues, Working Paper #201-11, The Urban Institute. July 1974. (co-author)

Proposed Public Safety Effectiveness and Productivity Measurements for the City of St. Petersburg, Florida, St. Petersburg-ICMA and The Urban Institute. 1973. (included chapters on fire and transportation data)

"Performance Measurement in Local Government," Selected Papers from North American Conference on Labor Statistics, Miami Beach, Florida, U.S. Department of Labor, Bureau of Labor Statistics and Florida Department of Commerce. June 18-21, 1973.

The Challenge of Productivity Diversity: Improving Local Government Productivity Measurement and Evaluation, Part III: Measuring Crime Control Productivity, National Commission on Productivity. June 1972. (co-author)

"Functional Requirements for the Spaceborne Computer System of a mid-70s Space Station," presented at American Astronautical Society meeting on Space Technology and Earth Problems, Las Cruces, New Mexico. October 1969. (co-author)

"Role of Spaceborne Computers on Advanced Manned Missions," Proceedings of Fourth Space Congress, Cocoa Beach, Florida. April 1967. (co-author)

"Functional Requirements of Spaceborne Computers on Advanced Manned Missions," Spaceborne Multiprocessing Seminar, NASA Electronics Research Center, Cambridge, Massachusetts. October 1966. (co-author)

DR. HAROLD COHEN

Summary of Experience:

Dr. Cohen has extensive experience in various facets of the fire service, including EMS, fire suppression operations, fire department communication operations, administration and management, and training. This includes 27 years of fire service experience, 22 of which were with a large metro fire department where he reached the rank of division chief. Dr. Cohen earned a PhD in Health Services and is board certified in healthcare management. He is a graduate of the National Fire Academy Executive Fire Officer Program and is a national Chief Fire Officer Designate. In 2002, Mr. Cohen was selected by IAFC/NFPA as a Fellow to the Harvard University, JFK School of Government State and Local Government Executive Program.

Education:

- Doctor of Philosophy, Health Services, Walden University, Minneapolis, MN, 2000
- Master of Science, Emergency Health Services Administration and Management, University of Maryland, Baltimore County, Maryland, 1989
- Bachelor of Science, Social Sciences, Towson State University, Towson, Maryland, 1980
- Certificate, Senior Management of State and Local Government, Harvard University, JFK School of Government, 2002

Professional Experience:

2005-Present **System Planning Corporation, TriData Division**, Arlington, Virginia, Senior Analyst and Trainer

Dr. Cohen evaluates and recommends action plans for fire, EMS, and homeland security programs in state and local governments. This includes extensive use of quantitative and qualitative measures, including GIS and other analytical tools. Dr. Cohen develops and conducts training programs in fire protection, emergency management, and homeland security and manages studies and training programs. He also manages EMS and fire consulting projects.

2001-2005 **Baltimore County Fire Department**, Baltimore, Maryland, Division Chief of Emergency Operations

Dr. Cohen provided leadership, management, and oversight of EMS, fire suppression, hazmat operations, fire prevention, and public fire education for the Eastern Division. This included being the primary battalion commander for one shift and supervising the battalion chiefs on three other shifts. This included 9 career and 11 volunteer stations. Dr. Cohen's duties included administrative, human resources, incident command, emergency operations, oversight of EMS quality management, and public relations. He provided oversight for the move of our Fire-Rescue Academy and Station 57 into a new and combined building. Dr. Cohen was responsible for overseeing conversion to a paperless daily data ledger that was completed in January 2002.

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Dr. Cohen oversaw the following projects:

- Address/Hydrant Verification and Mapping-Precursor to GIS.
- Updating of CAD system.
- NFRIS 5.0 software purchase and program implementation.
- Marine Operations
- Alcohol/Drug Abuse Control Program

He also served as a member of the department Fair Practices Committee.

1999-2001 **Baltimore County Fire Department**, Baltimore, Maryland, Battalion Chief, Emergency Operations

Dr. Cohen provided leadership, management, and oversight of EMS, fire suppression, hazmat operations, fire prevention, and public fire education for the Western Battalion. This included 8 career and 12 volunteer stations. His duties included administrative, human resources, incident command, emergency operations, oversight of EMS quality management, and public relations. He continued to chair both the Achievement Awards and Rules/SOP Committees. Dr. Cohen was senior advisor to the information systems team.

1998-1999 **Baltimore County Fire Department**, Baltimore, Maryland, Battalion Chief, Chief of Logistical Services

Dr. Cohen provided oversight and leadership for department Logistical Services. This included the Fire Maintenance Division and the Supply Division. He also served as Chair of the Department Achievement Awards Committee.

Dr. Cohen substituted as deputy fire chief for Special Services, including oversight of Investigative Services, Fire-Rescue Academy, and Safety Services to the above duties.

He also served as a field battalion chief on an as needed basis. This included operational and administrative command of fire suppression, EMS, rescue, and emergency and non-emergency services within a designated area.

1998 **Baltimore County Fire Department**, Baltimore, Maryland, Battalion Chief, Chief Information Officer

Dr. Cohen provided oversight for all internal information activities including: department LAN/WAN, database management, computerization of EMS medical reporting, national uniform fire incident reporting, records automation, and computer systems. He was also responsible for oversight of fire dispatch, medical priority dispatch, and capital projects.

1995-1998 **Baltimore County Fire Department**, Baltimore, Maryland, Battalion Chief, Emergency Medical Services (Chief Paramedic and Division Commander)

- EMS Shift Commander (Captain)
- EMS District Lieutenant
- EMS Instructor (Director of EMS Education)
- Paramedic

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EMS system of 42 transport units (41 ALS, 1 BLS, 8 supervisory personnel and up to 10 paramedic engines on at all times). 520 ALS providers, 2000 + BLS providers. 80,000 annual requests for emergency service.

- 1981-1982 **Frederick County ALS Planning Committee**, Frederick County, Maryland, ALS Program Coordinator
- 1981 **Baltimore City Fire Department**, Baltimore, Maryland, Paramedic
- 1987-1993 **Maryland Institute for Emergency Medical Services Systems**, Baltimore, Maryland, Communications Operator (part time)

Teaching Experience:

- National Fire Academy, EMS Division and Executive Fire Officer Program
- Advanced Leadership Issues in EMS (2 week residency program)
- Management of Emergency Medical Services (2 week residency program)
- EMS Special Operations (2 week residency program)
- Executive Development (2 week Executive Fire Officer Seminar)
- Executive Leadership (2 week Executive Fire Officer Seminar)
- Strategic Management of Change (2 week Executive Fire Officer Seminar)
- Organizational Theory in Practice (2 week Management Science Seminar)
- Leading Community Risk Reduction (2 week Executive Fire Officer Seminar)
- Advanced Safety Officer Management (6 day Safety Management Program)
- Managing Strategies for Success (6 day Management Sciences Program).
- Managing and Leading Change (2 day Executive Seminar)
- Managing in a Changing Environment (2 day Management Seminar)
- Influencing (2 day Executive Seminar)
- Shaping the Future (2 day Management Seminar)
- Incident Command Systems for Emergency Medical Services (2 day seminar)
- Emergency Response to Terrorism: Considerations for Command Personnel (2 day seminar)
- Executive Fire Officer Program Applied Research Projects, Contract Grader, 2000-Present
- Served on the writing team for the updated Advanced Leadership Issues in EMS Program co-instructor for first pilot August 23-Sept 2, 1999.
- University of Baltimore – Adjunct Professor, School of Public Affairs, 2002-Present. Teach Principle of Healthcare Management I and II for the Healthcare Management program.

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- American College of Pre-Hospital Medicine Professor of EMS Management and Sociology (1994-2004). Taught one upper division management course, one lower division management course, one research/statistics course and one introductory sociology course. Also served as principle course designer for a new research course (MTH 401) and a graduate biomedical ethics course.
- Andrew Jackson University – Adjunct Professor of EMS and Research, (2004-Present), successor to ACPM.
- University of Baltimore - Visiting Professor in the School of Public Affairs, Undergraduate Health Management Program
- Field Instructor- University of Maryland, Maryland Fire and Rescue Institute.
- State Licensed/Certified Instructor - EMT-B and Advanced Life Support
- Certified/Provider and previous Instructor in many BLS and ALS Disciplines (BCLS, ACLS, BTLS, PALS).
- Certified under NFPA Standards as: Firefighter II, Fire Officer IV, Instructor IV, Investigator I, Public Fire Educator I, and Fire Inspector I.
- Speaker at many National, State and Local EMS Conferences including JEMS (EMS Today), EMS Expo, FDIC, and others.

Professional Associations:

- Baltimore County Chief Fire Officer Association, President, 2001-2005
- Children and Adults with Attention Deficit Disorder, Baltimore Chapter, Board of Directors (Professional Advisory Board), 2000-Present
- Maryland Governor's Advisory Council on Attention Deficit/Hyperactivity Disorder, Member, 2000-2003
- Maryland Association of Healthcare Executives, Board of Directors, 2000-2002
- American College of Healthcare Executives, Regent Advisory Council Member, Maryland Regent, 2000-2002
- MergiNet, Columnist, 2000-2002
- Maryland EMS Protocol Task Force, Member, 1998-2001
- Prehospital Care Research Forum, Member (Abstract Committee Chairman), 1997-2000
- Maryland EMS Quality Leadership Council, Member, 1996-1999
- Maryland EMS Jurisdictional Advisory Council, Vice-Chairperson, 1997-1998
- Regional/Jurisdictional Quality Improvement Committee of the Maryland EMS QLC, Chairperson, 1996-1998
- Maryland Region III EMS Council, Government Representative, 1995-1998
- American College of Healthcare Executives, Fellow

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- CFAI Accreditation Program, Chief Fire Officer Designate (Re-designated 2006)
- National Association of EMS Physicians, Professional Member
- National Association of EMS Educators, Member
- National Association of EMS Managers, Member

Publications:

SPC/TriData. (2008). A Review of the Pittsburgh Bureau of Emergency Medical Services. Arlington, VA: SPC/TriData

SPC/TriData. (2008). I-35W Bridge Collapse and Response – Minneapolis, MN. USFA-TR-166/August 2007. Emmitsburg, MD: United States Fire Administration

SPC/TriData. (2007). EMS Transport Study for Orange County, Florida. Arlington, VA: SPC/TriData

SPC/TriData. (2007). The State of New Jersey EMS System Review, DHSS, OEMS. Arlington, VA: SPC/TriData

Virginia Tech Review Panel. (2007). Mass Shootings at Virginia Tech: Report of the Review Panel. Arlington, VA: SPC/TriData

SPC/TriData. (2007). Master Plan Consulting Services for Norfolk, VA Fire and Paramedical Services. Arlington, VA: SPC/TriData

SPC/TriData. (2007). A Review of the Mizpah Hotel Fire. Produced for the US Fire Administration. In press. Arlington, VA: SPC/TriData

SPC/TriData. (2007). Management Review of the Saint Paul, MN Department of Fire and Safety Services. Arlington, VA: SPC/TriData

SPC/TriData. (2006). Oklahoma City, OK Fire Station Location Study. Arlington, VA: SPC/TriData.

SPC/TriData (2006). Fire-EMS Department Station Location, Staffing and Operational Effectiveness Study for the Roanoke, VA Fire and EMS Department. Arlington, VA: SPC/TriData

SPC/TriData. (2006). Staffing, Accountability and Station Location Study for the Alexandria, VA Fire Department. Arlington, VA: SPC/TriData.

SPC/TriData: (2006). Comprehensive Study of the Portland, OR Fire and Rescue Department. Arlington, VA: SPC/TriData.

SPC/TriData. (2005). Comprehensive review of the Cincinnati, OH Fire Department. Arlington, VA: SPC/TriData Corporation.

SPC/TriData. (2005). Fire department management and performance audit: Salt Lake City, UT Fire Department. Arlington, VA: SPC/TriData Corporation.

SPC/TriData. (2005). “Anthrax” incidents in the national capital region: State and local government after action review. Arlington, VA: SPC/TriData Corporation.

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Cohen, H.C., (2001). Injury rates between EMT/firefighters and civilians employed by a municipal government. Poster session presented at the National Association of EMS Physicians 2001 Scientific Research Assembly, Sanibel Island, FL, January 18, 2001.

Cohen, H. C. (2000). A gender-based assessment of AD/HD characteristics among men and women emergency medical services providers. Poster session presented at the CH.A.D.D. 2000 International Conference, Chicago, IL, November 2000.

Cohen, H. C. (2000). Attention Deficit/Hyperactivity Disorder Characteristics Among EMTs and Firefighters. Doctoral Dissertation, Walden University, Dissertation Abstracts International, # 9968775.

Cohen, H. C. & Bailer, B. (1999). Lazy, Crazy or Stupid? Fire Chief, 43(8), 74-76.

Cohen, H. C. & Larmon, B. (1999). Inter-rater reliability of two separate groups of evaluators rating EMS abstracts. Presented at the 1999 Prehospital Care Research Forum Exhibition, Denver, CO, March 1999.

Cohen, H.C. (1999). Developing a standard for computer competencies among chief fire officers. Emmitsburg, MD: National Emergency Training Center, Executive Fire Officer Program.

Simon, M. K. & Cohen, H. C. (1998). Analytical approaches to community fire and EMS planning. Emmitsburg, MD: Federal Emergency Management Agency, National Fire Academy.

Cohen, H. C. (1997). Is there a higher prevalence of attention deficit/ hyperactivity disorder among EMS and fire service personnel? Emmitsburg, MD: National Emergency Training Center, Executive Fire Officer Program.

Spicer, R. L, et al. (1997). Emergency medical services officer, vols. 1-3. College Park, MD: Maryland Fire and Rescue Institute.

Developmental Editor, Boesker, G. Et. al. (1996). The sixty-second EMT, 2nd ed. St. Louis, MO. Mosby.

Cohen, H.C.and Casani J.A.P.(1992). A comparison of two end-tidal CO2 devices on patients in cardiopulmonary arrest. Poster presentation at 1992 National Association of EMS Physicians Annual Meeting. Pittsburgh, PA: June, 1992.

Cohen H.C. (1991). An assessment of emt-p medications used by baltimore county fire department ems supervisor/emt-ps. Prehosp Disas Med.5(1), 19-24.

Goldfarb B. and Cohen H.C.(1991). True colors; Measuring end tidal CO2. JEMS.15,(6), 68-73.

Crooks, J.E., Murphy, D.J.and Cohen, H.C. (1991). Implementing a disaster plan. Fire-Rescue News.

Cohen, H.C.(1990) Transcutaneous pacing. Prehospital and Disaster Medicine. 4,(2), 123.

Served as the prehospital representative for a National Institute of Health (NIH) Grant Proposal. This is a joint project between the University of Maryland Shock-Trauma Center and MIEMSS that is seeking a multi-million dollar grant to study the effects of different IV fluids in prehospital trauma resuscitation (2000-2001).

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Community Activities:

- Pikesville Volunteer Fire Company – Member, 1980-Present
- Bradley University – Member, Parent Advisory Board, 2005 to 2006
- Boy Scout Troop 456 – Volunteer, merit badge counselor in first aid, fire safety, emergency preparedness, and public health, 2001-2002
- Cub Scout Pack 65 – Volunteer Adult, 2000-2001
- Project Children – Host Family, 1999, 2001
- Catonsville Senior High School – PTA member and volunteer adult chaperon for steel drum band, 2002-2005
- Children and Adults with Attention Deficit/Hyperactivity Disorder – Baltimore Metro Chapter, Professional Board Member 2002- Present

Lorrie A. Jacobson

Summary of Experience:

- Ten years of experience in emergency management, emergency medical services, and public health.
- Lead for all GIS-related integration into emergency management projects.
- Active certified Firefighter/Emergency Medical Technician in Virginia.
- In-depth experience with community medicine clinical research programs including enrollment, follow-up, analysis and reporting.

Education:

- Geographic Information Systems Professional Certificate, Concentration in Mapping for Public Safety and Homeland Security, George Mason University, Manassas, Virginia, October 2007
- Master of Public Health, Concentration in Health Policy, The George Washington University, August 2004
- Bachelor of Arts, Major in Russian Language and Culture Minor in Applied Economics, University of Rochester, Rochester, May 2001

Professional Experience

2007–Present **TriData, a Division of System Planning Corporation**, Arlington, VA, Senior GIS/Research Analyst

2005–2007 **Dewberry, Fairfax, Virginia**, Emergency Management Specialist

- Responsible for the integration of GIS into all emergency management consulting services.
- Task manager for the Hazard Identification and Risk Assessment section of several Hazard Mitigation plans including collecting data, organizing and sorting, analysis, and reporting of findings to the client and stakeholders.
- Task manager for a National Incident Management System report developing and executing quantitative and qualitative analysis of several data sources.
- Responsible for support to several contracts including training, exercises, plan development, and other consulting services.
- Project Manager and Task Manager on several training exercises including functional exercises, tabletop exercises and training sessions.

2004–2005 **L-3 Communications/Titan Corporation**, Reston, Virginia, Emergency Management Analyst

- Executed high-level analysis and research for development and implementation of national preparedness policies and operations associated with the National Incident Management System (NIMS).

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- Provided support for all-hazards emergency management policy and operations for the former NIMS Integration Center (NIC) and the Metropolitan Medical Response System (MMRS).
- Served as the project lead for the NIC Resource Management Initiative responsible for achieving project milestones as set by the client and reporting status on a regular basis.
- Reviewed city and regional MMRS emergency management plans for completeness and accuracy and propose revisions.
- Developed client presentations and briefings for the Department of Homeland Security.

2003–2004 **PSComm, LLC**, Rockville, Maryland, Intern

- Responsible for attending and reporting on Senate and House hearings related to Homeland Security Issues.
- Conducted extensive searches for applicable grant funding opportunities for homeland security clients and provided reports.
- Communicated with clients and assessed their needs.
- Completed an independent project on 3-1-1 system applicability from research and experiences acquired throughout the period of the internship.

2001–2003 **Smoking Research Program, University of Rochester Department of Community and Preventive Medicine**, Rochester, New York, Technical Associate/Research Assistant

- Active member of a multi-disciplinary research team studying and implementing smoking cessation interventions.
- Visited primary medicine and pediatric physician offices and groups to monitor recruitment progress, protocols, and answer questions.
- Conducted follow-up phone calls to monitor and track participant progress.
- Created program materials, tracked smoking trends, and presented progress reports regularly to superiors.

2000–2001 **University of Rochester, Department of Emergency Medicine**, Rochester, New York, Patient Enroller

- Screened and interviewed emergency room patients to determine eligibility for current research studies.
- Collaborated with physicians and other healthcare providers to obtain consent and enroll patients into several clinical trials.
- Tracked patients and status and provided reports to lead trial physicians.
- Updated protocols and eligibility criteria for other members of the enrollment team as necessary.

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Volunteer Experience:

2006–Present **Sterling Volunteer Rescue Squad**, Sterling, Virginia, Firefighter/EMT

- Currently a released member in the attendant in charge and driver positions.
- Member of a night crew volunteering approximately 60 hours per month as part of an ambulance, medic, and squad truck crew.
- Participate in regular training and additional duty on both fire and rescue apparatus.

2001–2003 **Greece Volunteer Ambulance**, Rochester, New York, EMT

1998–2001 **Brighton Volunteer Ambulance**, Rochester, New York, EMT

- Served as a dispatcher for a volunteer agency.
- Provide care for patients within protocol, document procedures, and communicate with medical personnel.
- Served on the membership committee and provided new membership recommendations to the Board of Director's.

1997–2001 **University of Rochester Medical Emergency Response Team (MERT)**, Rochester, New York, Assistant Director of Operations, EMT

- Served as a crew chief (lead medic) responsible for overall patient care, documentation, and coordination among team members.
- Assisted in the development of policies and procedures for the organization.
- Responsible for general supervisions of an approximate sixty-person membership.

Certifications/Skills:

- Active U.S. Government Secret security clearance
- Homeland Security Exercise and Evaluation Program (HSEEP) Trainer
- Firefighter I/II
- Emergency Medical Technician – Basic
- Arc GIS 9.2 and 9.1
- Microsoft Access, Excel, Word, PowerPoint
- Basic statistical software package (STATA)

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LAUREN STIENSTRA

Summary of Experience:

Ms. Stienstra is a dedicated and solution-oriented professional with experience in many facets of Emergency Medical Services (EMS). She has practical experience as an Emergency Medical Technician-Basic (EMT-B) and demonstrates leadership in the field through her career as an EMT-B Educator. She has experience with public administration and emergency management with specialized knowledge of ICS, disaster preparedness planning, and emergency medical services.

Education:

In Progress 2008: M.S., Engineering Management with a focus in Crisis, Emergency and Risk Management, The George Washington University

B.S., Physiological Science with a Minor in the History of Science and Medicine, University of California, Los Angeles 2007

Experience:

2006–Present **System Planning Corporation, TriData Division**, Arlington, VA, Analysis Intern, Center for Local and Government Studies

Ms. Stienstra analyzes data to improve efficacy of Emergency Medical Services (EMS) systems. She also assists in making recommendations to local and county governments about their Fire and Emergency Response Systems.

2007–Present **The George Washington University**, Washington D.C., Emergency Health Sciences Instructor

Ms. Stienstra conducts lectures informing students of the academic information and concepts necessary to become an Emergency Medical Technician. She designs medical simulations and exercises and evaluates students for competency.

2005–2007 **UCLA David Geffen School of Medicine**, Los Angeles, CA, Senior Clinical Instructor for the Emergency Medical Technician Program

Ms. Stienstra developed curriculum to instruct students on the tactical skills necessary for becoming emergency medical technicians. She instructed more than 4400 students annually in various programs, proctored exams to these students and assisted in the training of junior staff members.

2006–2007 **UCLA Medical Center/Various Ambulance Services**, Los Angeles, CA, Emergency Medical Technician (EMT-1, Expanded Scope)

Ms. Stienstra administered emergency medical care in both the 9-1-1 and Inter-Facility settings. She performed “Lead EDT” duties, including the management of the daily EDT staff.

2006 **Los Angeles County Office of Emergency Management**, Los Angeles, CA, C-BEEP Summer Intern, Assistant to the Public Information Officer

She designed disaster preparedness materials to be circulated in the 88 incorporated cities of Los Angeles County. She also assisted in securing finances by writing grant proposals and letters of appreciation, as well as preparing a

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Sponsor Recognition Program and Luncheon. She increased circulation of disaster preparedness materials by promoting the Emergency Survival Program to new organizations and foundations.

Activities and Community Service:

November 2007–Present: The International Medical Corps, Emergency Response Unit: Volunteer Intern

March 2006 –04/06 Mexican Medical Missions, Surgical Assistant and Medical Outreach Participant (Palenque, MX)

February 2006–June 2007: UCLA Fellowship for International Service and Health: Member

April 2004 to April 2005: UCLA Student Welfare Commission: Publicity

Chair for CPR Committee

Professional Affiliations:

The National Registry of Emergency Medical Technicians

The National Collegiate EMS Foundation

The National Society for Professional Engineers

The American Society of Safety Engineers

JEFF DYAR

Experience

2003–Present **The Far View Group, LLC**, Bayfield Colorado, Consultant

Provide management and leadership consulting to emergency service organizations. Provide curriculum development, instructional services, and facilitation services to emergency management and emergency service organizations.

1999–2003 **National Fire Academy, U.S. Fire Administration, Executive Programs**, Emmitsburg, MD, Acting Branch Chief

Manages Executive educational programs at the National Fire Academy. Serves as the supervisor for professional staff responsible for the development and delivery of the Executive Fire Officer, Incident Management, Executive Planning, Management Science, Emergency Medical Services, Health and Safety and Fire Prevention program areas. Acts as a member of the NFA Senior staff, responsible for directing the overall mission of the Academy.

1992–2003 **National Fire Academy, U.S. Fire Administration**, Emmitsburg, MD, Emergency Medical Services Program Chairman

Manages National Fire Academy (NFA) EMS Management, Firefighter Health and Safety Curriculum, and Executive Fire Officer curriculum as it relates to the Nation's Fire Service. Serves as the NFA content expert for curriculum development, course delivery and as a National resource for information for the above named management areas. Is responsible for determining future needs for Fire Service National management curriculum by using consensus-building techniques with fire service constituents. Represents the U.S. Fire Administration (USFA) on training issues for EMS to Federal, State and local groups, to include: public speaking requests, mediation of local disputes, publishing, and serving at special request on boards and panels of regulatory and standards making groups.

1994–2003 **Federal Emergency Management Agency**, Washington, DC, Federal Coordinating Officer (FCO), Operations Chief – Emergency Support Team

Senior federal official responsible for coordinating federal emergency response efforts in support of man-made and natural disasters. Chief of Operations for the Emergency Support Team, the prime management element for the Federal Response Plan encompassing 26 Federal Agencies including urban search and rescue, federal medical response, firefighting and hazardous materials missions in response to federal disasters.

1997–1998 **National Fire Academy, U.S. Fire Administration**, Emmitsburg, MD, Team Leader for Counter-Terrorism

Directed efforts for the National Fire Academy in all subjects concerning counter-terrorism including training, response policy, strategy and tactics. Coordinated with Congress, FBI, Dept. of Justice, ATF, National Security Agency and the White House on counter-terrorism issues for the fire service.

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1987–1992 **Pre-Hospital Education and Training, Creighton University Medical School,** Omaha, NE, Director

Managed overall operations of Advanced Life Support and Basic Life Support Training and Education Program. Management of personnel, finances, training programs and contracts with outside clients. Guided staff through strategic planning processes that resulted in mission statements and goals. Proposed and developed a Bachelors Degree in EMS to be offered through the Paramedic course (instituted 6/93). Served on local and State Boards for regulatory and standards making processes. Consulted State EMS executives and Legislators on EMS related issues. Held a Creighton University Faculty status during this time and provided primary Paramedic Instruction 20 hours/week. Supported outside instructional contracts with Omaha Fire Division and Millard Fire Protection District. Senior manager of emergency response elements for City of Omaha for disaster response activities.

1985–1991 **Lincoln Scuba (Big Mac Scuba) & High Angle Rescue Products,** Lincoln and Lake McConaughy, NE, Owner

Owner and Manager of retail facility for watersports and high angle (Rope Rescue) products and training. Supplied public safety, industrial and public needs for SCUBA, water rescue, high angle rescue equipment and training. Consulted public safety agencies on water rescue and high angle rescue team concepts and team formation. Contracted with public and private entities to provide professional diving services.

1985–1989 **Keystone-Lemoyne Fire Department,** Lake McConaughy, NE, Chief of Operations, Dive Rescue Team Leader

Established Dive Rescue Team, High Angle Rescue Team to include: training the Team as Certified SCUBA divers, High Angle Rope Rescue Techniques and use of inflatable rescue watercraft. Chief of Operation and Suppression.

1979–1985 **Poudre Fire Authority,** Ft Collins, CO, Firefighter, Paramedic, Driver/operator, Company Officer, Battalion Chief

Performed duties of Firefighter III (National Certification) and Paramedic, Certified by Department as Driver./ operator for all vehicles including: Pumper, Aerial, Snorkel, Light & Heavy Squads, Command Vehicles and Hazardous Materials Response Vehicles. Initiated first Hazardous Material training and response capabilities for Department (1981). Department Dive Team member (County Dive Rescue Team). Primary EMS training and record keeping duties. Trained for Commercial fire inspection duties and served as a shift fire inspector. Served as Company Officer that was responsible for fire company EMS and Fire suppression activities. Intermittent duty as Battalion Chief (shift commander). Liaison between Fire Department and ALS Hospital EMS.

1976–1984 **Poudre Valley Hospital,** Ft Collins, CO, Chief Paramedic

ALS Paramedic staff duties for Hospital based ambulance service. Duties included supervisory, Paramedical, emergency department staffing and interagency liaison. Special skills required due to 2200 mile response area with 2

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person crews, for extrication, high angle rescue and advanced written treatment protocols. Proposed use of an emergency response committee to review on scene disputes between EMS, Fire and Police, using consensus-building techniques.

1987 Paramedic, Denver General Hospital, Paramedic Division; Denver, CO
ALS Staff Paramedic for City and County of Denver. Duties included supervisory, Paramedical, emergency department staffing, Relief Field Supervisor and group leader.

Medic

1974–1976 U.S. Army, Medical Corp; U.S., Europe
Medical Corpsman, Combat Medic 91B20. Trained as field medic, hospital emergency technician, aeromedical medic and aid station supervisor. Served in U.S, and Europe.

Emergency Medical Technician

1972–1974 Reed Ambulance Co.; Denver, Co
EMT ambulance driver/technician, supervisor. Duties included operation of ambulance, staffing 2-person crew, shift supervisor.

Emergency Medical Technician

1971–1973 Platte Valley Ambulance Corps; Brighton, CO
EMT for volunteer ambulance corps. Duties included staffing of ambulances for community response

MICHAEL ERTZ

EDUCATION

B.A., Organizational Management, Warner Southern College, Lake Wales, FL, 1994

A.A., Liberal Arts, Daytona Beach Community College, Daytona Beach, FL, 1992

Executive Fire Officer Graduate, National Fire Academy, Emmitsburg, MD, 1987

A.A.S., Fire Science Management, Northern Virginia Community College, Annandale, VA, 1976

PROFESSIONAL EXPERIENCE

2004–Present City of Orange City, FL, Consultant

Projects performed include an analysis of the Orange City Fire Department to include a complete review of their infrastructure, staffing, organization, capital equipment and service delivery alternatives. Additionally, provided a report on fire service alternatives establishing an independent fire district for the Cities of DeBary, Deltona and Orange City.

1983–2003 Port Orange, FL, Fire Chief

Direct activities of the City's Department of Fire and Rescue, with a budget of \$5.5 million and 64 fulltime personnel. The Department provides fire suppression, prevention and advanced life support services for an area covering 30 square miles, including a contractual area in the unincorporated County, out of 4 stations. Was the City's fire representative in establishing a multi-city joint dispatch center, leading to the implementation of a closest unit/first response system. As Fire Chief and Emergency Management Coordinator, I developed the City's first Comprehensive Disaster & Emergency Management Plan, with subsequent revisions and updates; implemented the first official fire prevention code, instituted a comprehensive public education and community relations program that goes beyond traditional fire education; produced a comprehensive fire flow water supply ordinance; served as manager for all fire department capital projects, including the location study and construction for three new stations; established an in-service fire inspection program; and designed and implemented an array of user fees for all the services provided by the Fire Marshal's Office. In the area of emergency medical services, I have directed the diversification of services offered to include flu and pneumonia vaccines to the public; Hepatitis B and tetanus vaccines, as well as TB testing are available to City employees. Another program, Elder Links, enables the Department to find assistance for the elderly, who can no longer care for themselves. Organized a Community Emergency Response Team (CERT) Program.

1997 Interim Assistant City Manager

Served as the City Manager in the absence of the Manager, with oversight of a \$51 million combination budget and 310 full time employees. Primary

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responsibilities focused on special projects, reports and investigations. Specific tasks included Project Manager for City Hall renovations; in-depth reports on employee flex times; civilianizing the supervision of the City's emergency dispatch communication center. Also, successfully spearheaded the City's efforts on a major annexation initiative and testified before the Governor's Local Government II Study Commission.

1982–1983 Bureau of Fire Standards and Training, Division of the State Fire Marshal, Ocala, FL, Fire College Instructor

As an instructor, I was involved directly in the research, development and implementation of specialized training programs for members of the firefighting and rescue community. Initiated, developed and taught the following pilot programs; Pump Operator's Certification, Hazardous Materials II, and Company Officer's Inspector Course. Served as a consultant on fire suppression systems, fire prevention programs, and fire apparatus and equipment.

1973–1982 Captain, Prince William County Fire and Rescue Services, Prince William County, Virginia. (Dates shown include promotional progress to Captain).

- August 1980 to January 1982: Captain – assigned as station captain
- September 1979 to August 1980: Lieutenant assigned to Operations Chief
- April 1979 to September 1979: Lieutenant assigned to Training to develop formalized training standards.
- May 1977 to April 1979: Lieutenant - assigned to engine company
- October 1976 to May 1977 : Sergeant – assigned company officer on truck company
- October 1973 to October 1976: Firefighter

CERTIFICATIONS

Certificate of Compliance – Minimum Standards for Firefighters (Florida requirement)

Certified State Fire Officer

The following certifications were previously held and have since expired

Fire Officer Teaching Certificate

Fire Prevention Inspector's Teaching Certificate

Certified Municipal Fire Inspector

MEMBERSHIPS (as served prior to retirement)

Daytona Beach Community College – Adjunct Instructor

Daytona Beach Community College – Fire Science Advisory Board. (stint as chairperson)

Volusia County Fire Chiefs Association – Past President

Florida Fire Chiefs Association – Past President

Florida Fire Chiefs Association – Joint Council of Fire Services

International Association of Fire Chiefs – Professional Development Committee

JOHN O'NEILL

Education:

B.S., Fire Service Administration, Secondary Concentration: Labor Relations, University of Maryland, Summa Cum Laude, 1986

A.A., Fire Protection Technology, Catonsville Community College, Summa Cum Laude, 1976.

National Fire Academy Courses:

Executive Development III, 1988

Fire Service Leadership/Communications, 1984

Professional Qualifications:

Fire Officer VI

Fire Prevention Officer II

Fire Inspector II

Public Fire Safety Educator II

Hazardous Material Level I

Instructor I

Fire Service Background:

Appointed to the Baltimore County Fire Department March 4, 1972. Through a process of promotional testing rose through the ranks to the position of Deputy Chief, promoted in August, 1985. Up to this time my experience and training had primarily been in suppression. After the promotion to Deputy Chief my career moved into administrative duties responsible for Investigative Services, Fire Prevention, Plans and Review, Arson and Public Education. In 1993 my duties again returned to field operations and administrative services. I was appointed to the position of Fire Chief in 1997 and retired in June, 2000. I had the opportunity to work in all major areas of a combination fire department including detailed responsibilities with a volunteer contingent of 2500 members and 1200 career personnel. I also had the opportunity to work with all levels of county and state government serving on numerous committees to further the public safety aspect of the Fire Service.

Since Retirement:

I have been elected to the master association for our community for (4) years, serving as a Director, Secretary and the Vice President. Our community has about 2000 homes, a Marina, golf course, restaurant, bank and other amenities. My major responsibility was the security committee which deals with all aspects of security within our gated community. Part of this job included negotiation of contracts with security companies, selecting and purchasing security items. Also as a member of the Board of Directors, who oversee all operations within our community, I had dealings with major developers in the "turn over" process, county officials for turning roads over to private community use, meetings with attorneys to describe in legal terms our obligations and duties. I was involved with almost every aspect of operations within our gates from budgets to landscaping. I also served as Chairman of the Security Committee for (2) years after I left the Board of Directors.