

**THE INCIDENT COMMAND SYSTEM  
AND THE SAN FRANCISCO FIRE DEPARTMENT:**

**MANDATING EMERGENCY MANAGEMENT  
IN A TRADITIONAL FIRE DEPARTMENT**

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## **ABSTRACT**

The problem is the San Francisco Fire Department (SFFD) does not mandate use of the Incident Command System (ICS) of its chief officers to employ at multiple-alarm incidents. Absent this system, safety of personnel; coordination of incident activities; establishing clear lines of authority and communication; maximizing the effectiveness of resources; maintaining unity of command; and operating a manageable span of control are jeopardized. The purpose of this research project was to create a mandatory requirement that all chief officers must adhere to when responding to multiple-alarm incidents. This project was conducted using the action research method.

The following research questions were posed: 1) What state mandates exist relevant to the application of ICS at multiple-alarm incidents? 2) What ICS training is available within the SFFD? 3) What opinions do chief officers have regarding mandatory ICS training?

A survey of current chief officers was conducted to determine their opinion concerning the need to apply ICS during the course and scope of their emergency response. The survey was then tabulated and the results expressed as a percentage. Survey results posted an undisputed preference among chief officers for mandatory ICS training.

A proposal was created and submitted to the SFFD fire chief that addresses the application of ICS at multiple-alarm incidents, and mandating training thereof through the department's Standard Operating Procedures (SOPs).

The recommendations from this research included a) incorporating the proposal to the department's existing training calendar; b) providing the tools (e.g., text books,

manuals, simulation exercises, etc.) necessary to supplement actual hands-on training; c) constantly offering post-multiple-alarm incident analysis debriefing; and d) conducting further research on the impact of ICS application to firefighter safety and emergency incident management.

## TABLE OF CONTENTS

	<b>PAGE</b>
Abstract.....	2
Table of Contents.....	4
Introduction.....	5
Background and Significance .....	6
Literature Review.....	10
Procedures.....	18
Results.....	20
Discussion.....	22
Recommendations.....	23
References.....	25
Appendix A Survey Cover Letter .....	27
Appendix B Survey Questionnaire.....	28
Appendix C Survey Results .....	29
Appendix D SFFD Standard Operating Procedures for Incident Command System.....	31
Appendix E Proposal to Chief of Department .....	34

## **INTRODUCTION**

In the early 1970s, Southern California experienced a series of major wildland fires that required the involvement of a vast number of resources and the participation of local, county, state, and federal jurisdictions and agencies. In attempting to manage the complex incidents, a number of problems was identified. Such problems included ineffective communications, lack of a common command structure, lack of accountability, and the inability to coordinate available resources.

The agencies involved formed Fire Resources of Southern California Organized for Potential Emergencies (FIRESCOPE) in order to identify solutions to these problems. FIRESCOPE developed the first generation of ICS. Although ICS was designed to address wildland fires, it has evolved into an all-risk management system (California Office of Emergency Services, 1994).

ICS is a management system based on management principles emphasizing the safety of personnel, coordination of incident activities, clear lines of authority and communication, maximizing the effectiveness of resources, unity of command, and a manageable span of control.

The problem is the SFFD does not mandate use of ICS by its chief officers to employ at multiple-alarm incidents. The purpose of this research project was to develop a mandatory requirement that identifies the department's future actions with respect to training and application of ICS.

This research project will use the action method of research to develop a mandate that outlines the type of ICS training to be provided to chief officers. The mandate will also provide standards for use of ICS. The following research questions were posed:

- 1) What state mandates exist relevant to the application of ICS at multiple-alarm incidents?
- 2) What ICS training is available within the SFFD?
- 3) What opinions do chief officers have regarding mandatory ICS training?

### **BACKGROUND AND SIGNIFICANCE**

Chief officers of the SFFD haphazardly employ ICS at best, and fail to employ it at worst, at multiple-alarm incidents. Such inconsistency in the application of a proven method of emergency incident management has jeopardized the safety of firefighters and other emergency responders on the fire ground.

Both the neglect and failure of applying ICS result in chaos and confusion at multiple-alarm incidents. Part of the reason for this neglect and failure rests on the continued traditions of the 135 year-old department, traditions that include conventional ways of fighting fires via hand lines and axes with little or no emphasis on management, organization, accountability, or safety.

Despite the understanding that ICS is a proven application across the country, most chief officers of the SFFD purposefully choose not to apply it at multiple-alarm incidents. Although ICS is taught (albeit briefly) to every probationary firefighter at the SFFD Fire College and it is an integral part of the department's Neighborhood Emergency Response Training (NERT), it is not a system that is widely used in the department.

In spite of (and perhaps because of) such non-application of ICS within the department, ICS training is minimally offered by the SFFD. In fact, ICS is taught for a precious ten minutes during the department's Officer Training Program, a program

designed for senior firefighters who serve as acting lieutenants just prior to retiring. Departmental ICS training for senior level chief officers (e.g., assistant chiefs and battalion chiefs, including those captains who serve as acting battalion chiefs) however, is not offered, much less mandated. Consequently, chief officers must exercise their own volition to obtain ICS training, and have done so through the California Office of the State Fire Marshal, which offers a myriad of ICS courses at a variety of levels.

Whether chief officers are reluctant to apply ICS lest they apply it incorrectly or they just are not familiar with ICS in order to apply it, are factors to explore. The lack of an ICS training program is ironic given that ICS was warranted during the October 21, 1991 Oakland Hills (CA) fire, one of this Nation's most costly fires and the worst California fire involving loss of life (25 people were killed) and property (approximately 3,000 homes were destroyed) since the Great San Francisco Earthquake and Fire of 1906. This fire was the largest mutual aid effort ever undertaken in the State of California. Oakland rests just 21 minutes from San Francisco and relied heavily on the mutual aid assistance of the SFFD during this crisis.

Another irony is that the SFFD offers reimbursement of costs incurred by members who enroll and successfully pass ICS courses. The key difference between encouragement and mandates, however, is that although the department may deem such class expenditures reimbursable, such courses are still not required of chief officers.

Nonetheless, the department highly recommends ICS training as part of becoming a chief officer. For example, the *SFFD Career Track* manual specifically states that ICS 200 is one of a series of "Recommended Experiences," yet the department offers no training to effect this recommended qualification.

In the year 2001-2002, the SFFD responded to approximately 110,000 emergency incidents (San Francisco Gov., 2002). Furthermore, San Francisco ranks second only to New York in density, which is the average population per square mile, at 15,500 people (Census Gov., 1999). The city has a resident population of 801,377 (San Francisco Gov., 2002), a working population of 1.2 million as a result of commuting workers traveling into San Francisco (Metropolitan Transportation Commission, 1990), and approximately 16 million visitors per year (San Francisco Convention and Visitors Bureau, 1995).

The mission of the SFFD (San Francisco Gov., 2002) is to “protect the lives and property of the people of San Francisco from fires, natural disasters, and hazardous materials incidents; to save lives by providing emergency medical services; to prevent fires through prevention and education programs; and to provide a work environment that is free of harassment and discrimination.”

In the past year alone (2003), there were 24 multiple-alarm incidents in San Francisco. And within these multiple-alarm incidents, there was a total of 13 firefighter injuries. The number of multiple-alarm incidents, coupled with the number of firefighter injuries, warrants application of an emergency management system whereby risks have been proven to be mitigated. Indeed, some of the reported injuries may not necessarily correlate with the lack of ICS application during multiple-alarm incidents (i.e., injuries prompted by pre-existing medical conditions).

However, without having violated the Health Insurance Portability and Accountability Act, injuries reported during these multiple-alarm incidents were examined, and subsequently determined that most injuries (e.g., cardiac, muscle strain,

etc.) were caused by stress-induced actions, actions not uncommonly demanded of personnel on the fire ground.

Within the 24 multiple-alarm incidents that year, ICS was applied at a precious two. Moreover, radio transcripts of the tactical channel used during these incidents reveal that ICS was applied during these two multiple-alarm incidents because a chief officer, who is intimately familiar with ICS, was the Incident Commander at the same two incidents.

Furthermore, the fact that other San Francisco agencies (e.g., Police, Red Cross, Public Works, Parking and Traffic, etc.) receive ICS training (with an emphasis on Unified Command) within their respective agencies is additional justification for mandating ICS training within the SFFD (California Office of Emergency Services, 1998).

Exacerbating the problem of the lack of ICS training within the SFFD is the fact that the department's requirement for the submission of "Post Fire Analysis Reports" of all chief officers is performed sporadically, if at all. These reports are intended to assist in determining and documenting the actions and strategies and tactics employed at every multiple-alarm incident. Failure to submit such reports eradicates any opportunity for the department to identify whether ICS was ever applied, much less applied correctly. This eradication of useful and invaluable post-fire information may ultimately lead to department liability in the form of firefighter injury and or death.

This applied research project was conducted as a course requirement for the Emergency Analysis of Fire Service Operations in Emergency Management (EAFSOEM) course at the National Fire Academy (NFA). The research project relates to

the course content in the NFA's Executive Fire Officer Program (EFOP) in a number of ways. The research project attempts to identify some of the conditions or factors that are relevant to managing multiple-alarm incidents, as presented in the EAFSOEM *Student Manual* (NFA, 2001 c, p 3-44) Unit 3: Incident Command System.

The research project also relates to the specific issue of training within a fire department, similar to the training exercises that consisted of segments of the course curriculum. Most importantly, the project relates to and supports one of the four United States Fire Administration operational objectives, to "reduce the loss of life from fire of firefighters." The project's findings, if successfully incorporated, may promote this goal within the SFFD.

## **LITERATURE REVIEW**

The success and acceptance of ICS on a national level have led to the inclusion of ICS application in a number of regulations and standards. The primary reason for this inclusion is the ability of jurisdictions and agencies to adopt and utilize ICS in their need for one common emergency management system capable of dealing with all types of emergencies and suitable for use when multiple jurisdictions or agencies are involved.

Research Question 1:

What state mandates exist relevant to the application of ICS at multiple-alarm incidents?

SARA

As a result of the 1986 Superfund Amendments and Reauthorization Act (SARA), the Occupational Safety and Health Administration (OSHA) implemented regulations

that require departments in states that have adopted OSHA standards to use ICS at all hazardous materials incidents (San Francisco Fire Department, 1996).

## OSHA

For those departments in states that do not require following OSHA standards, the Environmental Protection Agency (EPA) adopted regulations that impose the same requirements in non-OSHA states. The EPA regulation states that "the incident command system shall be established by those employers ('employers' includes fire departments) for incidents that will be under their control, and shall be interfaced with other organizations or agencies who may respond to such an incident (San Francisco Fire Department, 1996, p 2)."

## NFPA

The National Fire Protection Agency (NFPA) Standard 1500 "Fire Department Occupational Health and Safety Program" states that all departments shall establish written procedures for ICS, and that all departmental members shall be trained in and familiar with the system. It fixes responsibility for firefighter safety at all supervisory levels at an incident and requires a method of tracking and accounting for personnel. It places a strong emphasis on scene safety and the role of the incident safety officer.

Moreover, the NFPA Standard 1561 "Fire Department Emergency Management Systems" provides broad guidelines for what should be included in any emergency management system (San Francisco Fire Department, 1996).

## SEMS

The aforementioned October 21, 1991 Oakland Hills (CA) fire prompted a new law requiring major changes to the way California responded to disasters. The resulting

Standardized Emergency Management System (SEMS) regulations were developed to help ensure that the people and agencies responding to disasters have an organized and standard approach to the situation.

The SEMS regulations apply to local governments, special districts, and all state agencies. Organizations called upon to supply resources such as fire fighting resources, shelter, transportation, medical and mental health assistance, and or water must abide by the regulations. In fact, in order to be eligible for reimbursement of personnel costs associated with disaster response, local governments and special districts must follow the regulation (California Office of Emergency Services, 1995).

Research Question 2:

What ICS training is available within the SFFD?

The SFFD offers a ten-minute briefing on ICS during Company Officer Training, which as mentioned earlier, is primarily administered to senior firefighters who serve in an acting lieutenant capacity just prior to retirement. This group of new “officers” consists of senior members of the department, who fill vacant lieutenant’s roles to assist with staffing. Because of the absence of a lieutenant’s examination in the past ten years, the department has implemented this seniority-based system. And in the event a senior firefighter serves in this role for one year, that firefighter would be eligible to retire on a lieutenant’s pension.

Consequently, firefighters, without having enrolled in fire science courses or other educational and or training courses throughout their careers, are eligible to serve in an officer’s role based solely on seniority. Because the department views this transition as a

potential liability concern, it has offered this four-hour Company Officer Training to review operations, strategies and tactics, administration, and ICS.

As to chief officers, however, no such training is offered, much less mandated. In fact, the only available resources for information on ICS that the department offers are in the form of the following three department manuals: *ICS*, *Career Track Guidebook*, *SOP*, none of which are required reading.

### *ICS*

Although not officially a part of the department's SOPs, the department nonetheless declares the purpose of its ICS manual to be to "establish standard operating practices, as authorized by the Chief of Department and implemented by the Division of Training (San Francisco Fire Department, 1996, p. 1)."

It further states that the purpose of the manual is to provide members with the "necessary information to fulfill the duties of their positions, and to provide a standard text whereby company officers can enforce drill procedures, align company drills to those of the standards adopted by the Division of Training, and maintain a high degree of proficiency (San Francisco Fire Department, 1996, p. 1)."

### *Career Track Guidebook*

Under the "Position Description" section for both assistant chiefs and battalion chiefs, the department's *Career Track Guidebook* mentions nothing concerning ICS. The closest description that the manual comes to requiring ICS training of these chief officers is the sentence, "at the scene of an emergency incident, the chief directs the fire extinguishing, search and rescue, ventilation, salvage and overhaul, and other specialized emergency activities of fire department companies, and gives direction to non-fire

department units that are assisting at the scene (San Francisco Fire Department, 1997, p. 29).”

Although the *Career Track Guidebook* includes “Recommended Experiences (San Francisco Fire Department, 1997, p. 29),” such as Fire Officer Certification and Chief Officer Certification, both of which require enrolling and successfully completing a myriad of ICS courses, such courses are merely recommended and not mandated.

Moreover, none of the ICS courses listed as prerequisites for obtaining either the Fire Officer Certification or the Chief Officer Certification are offered by the SFFD. Rather, such courses are offered either by outside agencies or the California Office of the State Fire Marshal.

#### *SOP*

The department’s *SOP* manual reflects no SOPs concerning ICS (San Francisco Fire Department, 1995).

#### Research Question 3:

What opinions do chief officers have regarding mandatory ICS training?

According to the SFFD *Safety Investigative Report* addressing the April 15, 1999 9<sup>th</sup> Avenue fire, which accelerated into a fourth alarm and resulted in 15 firefighter injuries, recommendations to improve operations included ICS training. Specifically, the report stated that “simulator and or tabletop exercises should be used to strengthen chief, company officer, and chief aide level performance in the use of ICS. ICS must be used at every working incident. Incident Command boards must be used at all working incidents in order to track resources to support the use of ICS (San Francisco Fire Department, 1999, p. 10)

The department's *Major Incident Report* concerning the same multiple-alarm incident further recommended that "emphasis of training should be placed on standardized tactics and strategies and the use of ICS (San Francisco Fire Department, 1999, p. 8)."

An example of the ramifications of a lack of ICS application may be exemplified in the September 11, 2001 terrorist attacks on the World Trade Center. Some experts contend that tighter coordination between the New York City fire (FDNY) and police departments could have saved lives that day. But Police Commissioner Ray Kelly and, to a lesser extent, Fire Commissioner Nicholas Scoppetta, have resisted a new command structure.

James Burns, the New York State Fire Administrator, has since called on both departments to follow ICS. According to Burns, such a system could have laid out in broad terms how to assign vital roles, such as logistics and planning, to specific units and personnel at the Twin Towers. Application of ICS also could have established a unified chain of command with one official or agency in charge ("States Top," 2002).

City-commissioned reports have discovered that poor coordination between fire and police officials prevented firefighters from receiving vital information about the structural integrity of the weakening Twin Towers. In one example, Management Consultant, McKinsey and Company (McKinsey and Company, 2001), determined that police learned that a man in the South Tower informed a 911 operator at 9:37 a.m. that floors beneath him were collapsing. However, this information was never relayed to firefighters prior to the Tower's collapse 22 minutes later ("States Top," 2002).

The report highlighted important areas for improvement so that fire departments might be better prepared for large-scale emergencies in the future.

Gordon Graham (2000), an attorney and legal advisor for the fire service, also agrees on the importance of training. He states that “fire department civil liability can be eliminated if departments encounter incidents, do the job right, and take the time during and after the fact to be able to prove that they did the job right.”

Graham (2000) further states that “the ability to encounter incidents and do the job right comes from knowledge. Knowledge comes from experience and training. If one does not have the experience, all one has to rely on is one’s training. And if training is haphazard, then the likelihood of doing the job right is substantially diminished.”

On the issue of ICS as part of Unified Command, Graham (2000) warns that “if one has not experienced the task before, or has not experienced it on a regular basis, the likelihood of doing the job right is reduced appreciably. One must focus on the high risk, low frequency events, particularly those without discretionary time. These are the ones that cause us grief.”

Graham (2000) further warns that “the key to doing the job right is having a ton of experience. Absent experience, one needs incident solid, realistic, ongoing, verifiable training or SROVT. Personnel cannot follow policy if they do not know the policy. And personnel cannot know policy unless they regularly review it and are tested for knowledge on a regular basis.”

Risk management is a “developed discipline (Moore, 1985, p. 7).” Risk management is rapidly developing due to the erosion of official immunity doctrines and the rising tide of litigation. The insurance industry is partly to blame. However, much of

the blame must be assigned to governmental bodies themselves where loss prevention programs are inadequate or non-existent.

Beginning in 1978, with the United States Supreme Court decision in *Mondell v. Department of Social Services of the State of New York*, municipal and public official civil rights liability has “grown at an explosive rate (Moore, 1985, p. 77).”

A survey was conducted of SFFD chief officers in addressing this research question. Alreck and Settle (1995) define a survey as “a research technique where information requirements are specified; a population is identified; a sample selected and systematically questioned; the results analyzed and generalized to the population; and reported to meet the informational needs (Alreck and Settle, 1995, p. 456).” Gillham (2002) states, “Good research cannot be built on poorly collected data (Gillham, 2002, p. 1).”

Surveys are utilized in order to generate information that will be incorporated to influence a group, improve a product or service, or to understand behavior (Alreck and Settle, 1995). This research project focused on a survey that utilized employee perception and whether the employee felt that a particular type of training was warranted. Collection methods and survey development procedures are analyzed in order to ensure that data is collected and read.

## Summary

The various means of providing ICS training for chief officers, as discussed in the 9<sup>th</sup> Avenue fire and the Twin Towers tragedy, as well as the regulations set forth by SARA, OSHA, EPA, and NFPA were used to develop training mandates for ICS within

the SFFD. Respondents to the survey were asked to opine on such mandatory ICS training.

The discussion generated by the events surrounding the Twin Towers concerning the extent to which ICS training may have made a difference in preventing the loss of firefighter lives raised the question of whether or not ICS is indeed integral to issues such as firefighter safety. A question was included in the survey to determine if this was a significant concern to current chief officers.

## **PROCEDURES**

### *Definition of Terms*

Chief Officers – SFFD members possessing the rank of battalion chief, assistant chief, assistant deputy chief, deputy chief, and chief of department. For the purposes of this research project, the terminology “chief officers” is in reference to officers possessing the rank of assistant chief and battalion chief.

Employ – to make use of; use.

Multiple-Alarm Incident – an alarm greater than the initial first alarm response, which consists of the following responding units: 3 engines, 2 ladder trucks, 2 battalion chiefs, 1 assistant chief, 1 medic unit, 1 paramedic captain, and 1 heavy rescue squad.

Mandate - an authoritative order and or command.

Officer – SFFD member whose rank is that of lieutenant or above.

Division of Training – one of eight divisions within the SFFD responsible for training members in the area of fire suppression, emergency medical services, Equal Employment Opportunity, and other areas of concern in the fire service.

### *Assumptions and Limitations*

Limitations on this research project included the requirement to complete the project within the six months time period allowed by the NFA Applied Research Project Guidelines. Time and cost constraints prohibited the selection of a larger population group, specifically, a larger pool of chief officers from other fire departments. Time and cost constraints also limited the amount of time available for interviews with various chief officers within the department.

It is assumed that when emphasizing the need for ICS training within the SFFD, that firefighter safety is the primary objective in incorporating such an integral emergency management system.

### *Research Methodology*

Research Question 1.

What state mandates exist relevant to the application of ICS at multiple-alarm incidents?

A visit was made to the San Francisco (CA) Office of Emergency Services (OES), as well as the California State Costal Region OES in Oakland (CA) in order to view materials on ICS. Although there was a small library of current and recent plans and ICS/SEMS materials at the San Francisco OES, there was a substantial library of materials at the Oakland State Costal Region OES.

Materials were researched, viewed, and siphoned for relevance to local, state, and federal mandates on ICS. The librarian at the California State Costal Region OES in Oakland (CA) was laid off due to the state's budget crisis, which resulted in much of the research conducted solely on the author's own.

## Research Question 2.

What ICS training is available within the SFFD?

A survey was distributed to every assistant chief and battalion chief within the SFFD. A copy of the survey is provided in Appendix A.

Because the survey resulted in information indicating that no ICS training was offered to chief officers within the SFFD, and instead that such courses were offered by the California Office of the State Fire Marshal, a list of ICS courses was obtained online from the state's web site (Office of the State Fire Marshal, 2004).

## Research Question 3.

What opinions do chief officers have regarding mandatory ICS training?

A survey was distributed to every assistant chief and battalion chief within the SFFD. A copy of the survey is provided in Appendix A.

Due to the small size of the population groups of assistant chiefs and battalion chiefs, a one hundred percent return of survey was required for valid statistical significance. Each of the survey population members was contacted and requested to complete and return the survey anonymously.

Anonymity was required of survey respondents in order to ensure an open and honest response without fears of retaliation by department officials. If any such fears were present, the anonymity of respondents dispelled those fears. Each of the respondents was advised that the completed survey results would be provided to them upon completion of the project. The results of the survey are provided in Appendix B.

## **RESULTS**

The results of the research project produced a survey cover letter (Appendix A), survey questionnaire (Appendix B), survey results (Appendix C), proposal to the chief of department (Appendix D), and a proposal cover letter (Appendix E) in determining the benefits of mandating an emergency management system in a traditional fire department.

#### Answers to Research Questions

##### Research Question 1.

What state mandates exist relevant to the application of ICS at multiple-alarm incidents?

In addition to the regulations set forth by SARA, OSHA, and NFPA, SEMS is intended to standardized response to emergencies involving multiple jurisdictions or agencies. SEMS is meant to be flexible and adaptable to the needs of all emergency responders in the state of California. SEMS requires emergency response agencies to use basic principles and components of emergency management, including ICS, multiple-agency or inter-agency coordination, the operational area concept, and established mutual aid system.

##### Research Question 2.

What ICS training is available within the SFFD?

The survey measured chief officers' perception of ICS training currently provided (or not provided) by the SFFD. The survey revealed that the bulk of ICS training must be obtained through outside sources of education, which includes the California Office of the State Fire Marshal.

As a result, a SOP on implementing and mandating ICS has been proposed to the chief of department. The proposal letter and related SOP are reflected in the appendixes.

Research Question 3.

What opinions do chief officers have regarding mandatory ICS training?

The survey exposed that chief officers, for the most part, welcome and are willing to embrace, mandatory ICS training. Recognizing the need for such training, a majority of chief officers agreed that ICS training should be mandated by the SFFD. Appendix A reflects the survey questionnaire, while Appendix B reveals its results.

### **DISCUSSION**

The SOP, which represents the results of this research project, addresses both current and future actions to be taken relating to mandating ICS training for all SFFD chief officers. The SOP is broad enough to ensure that the training needs of department members are met. The SOP is intended to make certain that standards are applied according to regulations at the federal, state, and local levels.

Overall, chief officers opined that mandatory ICS training within the SFFD is warranted. They also clearly indicated that incorporating ICS as part of the department's SOPs is also desirable. Although only half of all survey respondents was in agreement that ICS training should be a prerequisite to promoting to the chief officer ranks, a majority of them were in agreement about the importance and value of ICS training, as a whole.

In the survey results, all chief officers indicated that the only ICS class they recall being enrolled in was one that was offered immediately subsequent to the 1991 Oakland Hills (CA) fire. Graham (2000) states that such "subsequent remedial measures" are measures that are taken which, if taken previously, would have made the event less likely to occur.

Although evidence of such subsequent measures is not admissible to prove that the party (in this case, the department) who took the measures was negligent or engaged in conduct in connection with the event, it is clear that but for an event such as the Oakland Hills fire, most of the responding chief officers probably would not have felt compelled to enroll in an ICS course.

The survey did not ask chief officers to indicate the degree to which application of ICS would have made a difference at multiple-alarm incidents. While the survey indicates that many respondents preferred ICS training, it did not address the commitment of members to actually attend training if training were offered but not mandated by the department.

Departments should ensure that in the event ICS training is offered, that it becomes mandatory for all chief officers. The potential for risk liability as identified by Graham (2000), as well as the potential for loss as suggested by the McKinsey Report (McKinsey and Company, 2001), should be addressed by any department that anticipates multiple-alarm incidents on a regular basis. SOPs should clearly indicate that policies and procedures are in order to apply ICS at all multiple-alarm incidents, and that failure to follow SOPs will not be acceptable. SOPs should also be accompanied by actual mandatory training, allowing chief officers to apply that which they have learned in classrooms.

## **RECCOMENDATIONS**

The recommendations from this research included a) incorporating the proposal to the department's training calendar; b) providing the necessary text books, manuals, simulation exercises, etc. to supplement actual hands-on training; c) providing post-

incident analysis debriefing; and d) conducting further research in the impact of ICS application to firefighter safety and emergency incident management.

The SFFD should adopt the SOP on ICS as part of its *SOP* manual and use it as a training template as shown in Appendix D. The SFFD should also include as part of its training, a component encouraging chief officers to further their training in ICS above and beyond that which is offered by the department. Training should emphasize that the goal is to ensure that safety of personnel; coordination of incident activities; establishing clear lines of authority and communication; maximizing the effectiveness of resources; maintaining unity of command; and operating a manageable span of control are accomplished, the most important of which is safety of personnel.

The department should distribute the results of the survey, as well as the proposed SOP, and encourage discussions held at the Division of Training. Support from personnel should be sought for implementation of the policy, and any issues raised at that time should be addressed.

Finally, the department should investigate avenues of approach to ICS training with regard to simulation exercises, table-top exercises, battalion drills, etc. The department should also immediately move to provide photocopies of its *ICS* manual and once approved, the *SOP* manual incorporating ICS.

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**Appendix A**  
**Survey Cover Letter**

You have been selected to complete a survey regarding the Incident Command System (ICS) training and whether such training is beneficial for chief officers within the San Francisco Fire Department.

This survey is part of an Applied Research Project I am required to submit for the Executive Analysis of Fire Service Operations in Emergency Management course offered at the National Fire Academy in Emmitsburg, Maryland.

Please take five minutes to complete the questions below. Your assistance is greatly appreciated.

Should you have any questions, or if you would like a photocopy of the final draft, please do not hesitate to contact me at 558-3403 or via email at [njuratovac22@yahoo.com](mailto:njuratovac22@yahoo.com).  
Thank you.

Lt. Nicol P. Juratovac  
Chief's Office

**Appendix B**  
**Survey Questionnaire**

1. Rank:
2. Total years with SFFD:
3. Years as a Chief Officer:
4. How would you rate your “working knowledge” of ICS?  
Excellent      Good      Fair      None
5. How often do you apply ICS as a chief at multiple-alarm incidents?  
Every Time      Often      Sometimes      Never
6. Number of ICS courses taken:
7. Course name(s):
8. Course offered by: e.g., SFFD, State Fire Marshal, National Fire Academy, etc.
9. Year of last ICS course taken:
10. Did you find the ICS course beneficial in your role as a chief officer? Circle one:  
Greatly      Somewhat      No      Not Sure
11. Do you believe that ICS training should be a prerequisite to becoming a Assistant Chief and or Battalion Chief in the SFFD? Circle one:  
Definitely      Somewhat      No      Not Sure

Thank you for completing the survey. You can be rest assured that your assistance in completing the survey has helped in this research project.

## Appendix C Survey Results

Total Respondents: 21 Chief Officers

Rank: 14 Battalion Chiefs and 7 Assistant Chiefs

Total years with SFFD:      Average of all chief officer respondents: 26 years  
Average of Assistant Chief respondents: 29.5 years  
Average of Battalion Chief respondents: 21 years

Years as a Chief Officer:      Average of all chief officer respondents: 9 years  
Average of Assistant Chief respondents: 3 years  
Average of Battalion Chief respondents: 5 years

How would you rate your “working knowledge” of ICS?

Excellent	Good	Fair	None
2%	20%	78%	0%

How often do you apply ICS as a chief at multi-alarm incidents?

Every Time	Often	Sometimes	Never
1%	42%	57%	

Number of ICS courses taken: Average number: 1 per chief officer

Course name(s):      I-100 (2 Hours) Introduction to ICS: (Module 1) ICS orientation.

I-200 (6 Hours) Basic ICS: (Module 2) Principles and Features of ICS; (Module 3) Organizational Overview; (Module 4) Incident Facilities; (Module 5) Incident Resources; (Module 6) Common Responsibilities.

I-300 (27 Hours) Immediate ICS: (Module 7) Organization and Staffing; (Module 8) Organizing for Incidents or Events; (Module 9) Incident Resources Management; (Module 10) Air Operations; (Module 11) Incident and Event Planning.

I-400 (22 Hours) Advanced ICS: (Module 12) Command and General Staff; (Module 13) Unified Command; (Module 14) Major Incident Management; (Module 15) Area Command.

I-401 (4 Hours) Multi-Agency Coordination (Module 16).

I-402 (2 Hours) ICS for Executives (Module 17).

Course offered by: California Office of the State Fire Marshal.

Year of last ICS course taken: Average year: 1992 (mostly after October 21, 1991 Oakland Hills (CA) fire.

Did you find the ICS course beneficial in your role as a chief officer? Circle one:

Greatly	Somewhat	No	Not Sure
11%	78%	3%	8%

Do you believe that ICS training should be a prerequisite to becoming a Battalion Chief and or Assistant Chief in the SFFD? Circle one:

Definitely	Somewhat	No	Not Sure
6%	43%	21%	30%

## **Appendix D**

### **SFFD Standard Operating Procedures for Incident Command System**

SFFD Standard Operating Procedures

Reference: SFFD Incident Command System Manual

Date Reviewed: January 4, 2004

TITLE: Incident Command System Procedures

#### **I. RESPONSIBILITIES OF COMMAND**

The Incident Commander (IC) is responsible for the completion of tactical priorities. Tactical priorities include the following:

- Remove endangered occupants and treat the injured.
- Stabilize the incident and provide for life safety.
- Conserve property.
- Provide for the safety, accountability, and welfare of personnel. This priority will be ongoing throughout the incident.

#### **II. FUNCTIONS OF COMMAND**

- Assume and announce command and establish an effective operating position. This is called the Command Post (CP).
- Rapidly evaluate the situation. This is called “size up.”
- Initiate, maintain, and control the communication process.
- Identify the overall strategy, develop an incident action plan (IAP), and assign companies and personnel consistent with plans and SOPs.
- Develop an effective IC organization.
- Provide tactical objectives.
- Review, evaluate, and revise (as needed) the IAP.
- Provide for the continuity, transfer, and termination of command.

#### **III. ESTABLISHING COMMAND**

- The first unit or member on the scene must initiate whatever parts of ICS that are needed to effectively manage the incident scene.
- A single company incident (e.g., trash fires, single patient EMS incident, etc.) may only warrant that a unit acknowledge its arrival on the scene.
- For incidents that require the commitment of multiple units, the first unit or member on the scene must establish and announce “command,” and develop an ICS appropriate for the incident.
- The first arriving unit or member activates ICS and provides an initial report via radio. This report shall include the following:
  - Unit designation.

Brief description of incident situation (e.g., building size, occupancy, multiple-vehicle accident, etc.).  
Obvious conditions (e.g., working fire, hazardous materials spill, multiple patients, etc.).  
Brief description of action taken.  
Declaration of strategy.  
Obvious safety concerns.  
Assumption, identification, and location of CP.  
Request or release of resources as required.

#### IV. PASSING COMMAND

In certain situations, it may be advantageous for a first arriving company officer to pass command to the next company on the scene. This may be effected when the initial commitment of the first arriving unit requires a full crew to initiate an immediate attack and or rescue, and another company is on scene.

#### V. TRANSFER OF COMMAND

Command is transferred to improve the quality of the command organization. The following outlines this transfer:

- The first fire department member arriving on the scene will automatically assume command.
- The first arriving company officer will assume command after the transfer of command.
- The first arriving chief officer should assume command of the incident following transfer of command procedures.
- The second arriving chief officer should report to the CP for assignment.
- Later arriving higher ranking chief officers may choose to assume command or adviser positions.
- Assumption of command is discretionary for assistant chiefs and the chief of department.

The actual transfer of command will be regulated by the following procedures:

- The officer assuming command will communicate with the person being relieved by radio or face to face, with the latter method the preferred method.
- The person being relieved will brief the officer assuming command indicating at least the following:

Incident conditions  
IAP  
Progress towards completion of tactical objectives  
Safety considerations

Deployment and assignment of operating companies and personnel  
Appraisal of need for additional resources

- The person being relieved of command should review the tactical worksheet with the officer assuming command.

## VI. GENERAL CONSIDERATIONS

The response and arrival of additional ranking officers on the incident scene strengthens the overall command function. As the incident escalates, the IC should use his/her subordinate officers, accordingly.

The IC has the overall responsibility for managing the incident. The IC has complete authority and responsibility for the incident. If a higher ranking officer wishes to effect a change in the management of an incident, he/she must first be on the scene of the incident prior to proceeding to utilize the transfer of command procedures.

Any member can effect a change in the incident management in the event of an extreme situation, with regard to safety, by notifying command and initiating corrective action.

**Appendix E**  
**Proposal to Chief of Department**

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FROM: JURATOVAC, Nicol P., H20 Lieutenant, Engine 14, Tour B2,  
JU0801

TO: Chief of Department

DATE: January 4, 2004

SUBJECT: Inclusion of the Incident Command System in Fire Department  
Standard Operating Procedures; Request for

REFERENCE: National Fire Academy's Executive Fire Officer Program Applied  
Research Project

ENCLOSURE: Standard Operating Procedures for the Incident Command System

CC.: Division of Training

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1. I respectfully request to that the attached Standard Operating Procedures (SOPs) for the Incident Command System is included in the department's existing SOP Manual.
2. The reason for this request is to ensure safety of personnel; coordination of incident activities; establishing clear lines of authority and communication; maximizing the effectiveness of resources; maintaining unity of command; and operating a manageable span of control.
3. Although the proposed SOP is a product of my applied research paper for the National Fire Academy's Executive Fire Officer Program (Executive Analysis of Fire Service Operations in Emergency Management course), it will be a valuable tool nonetheless to the department's existing SOP Manual, which currently does not possess SOPs on ICS.
4. Please do not hesitate to contact me should you have any questions or concerns. Thank you for your consideration to this matter.