

Running Head: THE PROOF IS IN PERFORMANCE

The Proof is in Performance: Evaluating if the Blue Card Incident Command System Improves

Performance of Fire Agencies in Clark County Washington

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CERTIFICATION STATEMENT

I hereby certify that this paper constitutes my own product, that where the language of others is set forth, quotation marks so indicate and that appropriate credit is given where I have used the language, ideas, expressions, and writings of another.

Signed: \_\_\_\_\_

## Abstract

Many fire service agencies struggle with the fact that there is no standardized incident commander training and certification system for the majority of routine, daily responses. Although the National Incident Management System (NIMS) is a national standard, it applies to larger incidents. Clark County Washington has struggled with trying to identify one system that would work on all incidents and for all agencies. The problem is that agencies have received training in multiple incident command models, which has led to non-standardized performance between emergency responders. The purpose of this research is to evaluate if the Blue Card Incident Management System improves performance within Clark County, Washington. Both descriptive and evaluative research methodologies were utilized in order to answer the following research questions. The questions were: (a) What incident management systems has Clark County Washington used in the past? (b) What are the training and certification components of the Blue Card Incident Command System? (c) How do fire service personnel perform prior to the Blue Card Incident Command System training and certification? (d) How do fire service personnel perform after the Blue Card Incident Command System training and certification?

The procedures used in the research included analyzing information and practices from five fire agencies in Clark County, Washington and a literature review. In addition, surveys were distributed to the agencies to gather further information. Finally, a test group of fire service personnel were chosen that had not been exposed to the Blue Card Incident Command System. They were evaluated pre- and post-certification.

Findings of the research indicate that there is need for a certification program for the departments studied and all are moving toward the Blue Card Incident Command System. It also identified

that performance improved after fire personnel completed training and certification in the Blue Card Incident Command System.

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## Introduction

Multiple fire departments and fire districts service Clark County, Washington. In the past these service providers functioned independently. Over time the boundaries have become more blurred due to rapid growth in the county. As a group, the County Operations Chiefs have tried different incident command systems; however, the training, presentation and level of certification of these programs have been inconsistent. The inconsistent approach of the previous programs has led to communication errors and reduced operational performance on the fire ground. With a desire to improve fire ground performance, the Operations Chief from the City of Vancouver, Washington Fire Department introduced the Blue Card Incident Commander Training Program to the Clark County Operations Chiefs.

Due to the fact that the Vancouver Fire Department is the largest agency and is surrounded by the other fire agencies in Clark County, the County Operations Chiefs needed to evaluate the Blue Card Program in order to ensure consistency in county operations. The Blue Card Incident Command Training Program was developed by retired Phoenix Fire Chief Alan Brunacini and is based entirely on his *Fire Command* (Brunacini, 2002) and *Command Safety* (Brunacini & Brunacini, 2004) textbooks. The program is designed to manage local, NIMS Type 4 and 5 incidents. These two incident types account for more than 99 percent of a department's incident activity. Until the advent of Blue Card, there has not been a curriculum or standard for the Incident Commander to manage a local Type 4 and 5 Hazard Zone (Blue Card Overview, n.d.). It was for these incidents Clark County as a whole sought consistency and improvement.

The Blue Card Incident Command Training Program is an investment for a department. Clark County has invested in and adopted other programs in the past only to find out they did not

achieve the desired results. This practice has created apprehension. The problem is Clark County, Washington has received training in multiple incident command models, which has led to non-standardized performance between emergency responders. The purpose of this research is to evaluate if the Blue Card Incident Command Training System improves standard performance within Clark County, Washington.

A descriptive research methodology was utilized in order to answer the first two research questions: (a) What incident management systems has Clark County Washington used in the past? (b) What are the training and certification components of the Blue Card Incident Command System? An evaluative research methodology was utilized in order to answer the last two research questions: (c) How do fire service personnel perform prior to Blue Card Incident Command System training and certification? (d) How do fire service personnel perform after Blue Card Incident Command System training and certification?

### **Background and Significance**

Clark County is located in the southwest corner of Washington State across the Columbia River from Portland, OR. It is included in the Portland-Vancouver-Hillsboro OR-WA Metropolitan Statistical Data. It was the first county to be established in Washington State in 1845. The county is named after William Clark, from the Lewis and Clark Expedition. Today, the county covers 656 square miles with a population of approximately 451,008. It is a mixed-use area containing commercial, residential and rural areas.

The county is serviced by several fire agencies: Vancouver Fire Department (VFD), Clark County Fire District 6 (CCFD6), Clark County Fire and Rescue (CCFR), Camas-Washougal Fire Department, Clark County Fire District 3 (CCFD3), Clark County Fire District

10 (CCFD10) and Clark County Fire District 13 (CCFD13). CCFDs 10 and 13 were excluded from this research because of operational differences and call volume.

Vancouver Fire Department (VFD) is the largest of the fire agencies in Clark County. Originally formed in 1866, due to community needs it has grown into the professional fire department it is today servicing the City of Vancouver. The department covers 90 square miles with a population of 250,000. It provides both fire and emergency medical services (EMS) along with other specialty responses. The daily staffing is 40 personnel, which staffs 2 battalion chiefs, 10 engines, 2 trucks, and cross staffs a heavy rescue and hazardous materials response unit. Vancouver Fire Department responds to 57.5% of the emergency responses within Clark County.

Clark County Fire District 6 (CCFD6) borders the Vancouver Fire Department to the north. CCFD6 was formed in 1954 to provide fire protection to the Hazel Dell, Lakeshore, Salmon Creek, Mount Vista, and Fairgrounds areas. Initially an all-volunteer fire district, it has grown through the years in response to increasing calls for service. Since 1954 the district has grown from rural farmland and sparse residential to densely populated residential, commercial and light industrial. The daily staffing is 12 personnel, which staffs 4 engines or 3 engines and a squad and a battalion chief. CCFD6 responds to 14.5% of the emergency responses within Clark County.

Clark County Fire and Rescue (CCFR) covers the cities of Battle Ground, La Center, Ridgefield, Woodland and Clark County Fire District 2. Recently, there was a measure on the ballot to form a Regional Fire Authority. This would have incorporated Woodland and Clark County Fire District 2. That measure did not pass; however, CCFR still provides the same service to those areas under contract. The department covers 160 square miles with a population of 53,200. They average 4,500 calls per year and are staffed with full-time, part-time, residents

and volunteer personnel. The coverage area includes residential, business, industrial, marine, railroad and rural areas. Currently, CCFR responds to 10.4% of emergency responses in Clark County.

Camas-Washougal Fire Department was formed in 1923 in response to a major fire that destroyed much of downtown Camas. Today, they are a professional fire department that provides both fire and EMS response. The department covers 20 square miles with a population of 30,000 for fire response and 80 square miles with a population of 65,000 for EMS response. They are the only fire agency in Clark County that provides ambulance service. Call volume is approximately 5,000 per year. There are three staffed stations and all stations have at least one paramedic unit. The Camas-Washougal Fire Department responds to 9.7% of emergency responses in Clark County.

Clark County Fire District 3 (CCFD3) was formed in 1947 and today is a professional fire department that covers rural Clark County. The district states it is an all-risk response agency, meaning to the best of its ability it will respond to any emergency related situation. They provide this response out of four stations. Two of the stations are staffed and the other two are primarily volunteer stations. The district covers 80 square miles and serves a population of 20,000. CCFD3 responds to 4.1% of emergency responses in Clark County. Twelve members from CCFD3 were chosen as the test group for a portion of this research.

All emergency response agencies in Clark County are dispatched through Clark Regional Emergency Services Agency (CRESA). In recent years, the county has moved to automatic vehicle location (AVL) and computer aided dispatch (CAD) to facilitate the management of emergency response. This move has essentially erased boundaries between response agencies in the county, especially for structure fire responses. For these responses the closest compliment of

apparatus are dispatched. This makes the need for standardized performance across emergency responders even more paramount.

The primary goal of the Executive Analysis of Fire Service Operations in Emergency Management course is to prepare senior officers for the administration functions necessary to manage the operational component of a fire and rescue department effectively (United States Fire Administration [USFA], 2002, p 1-8). This applied research project meets the goals outlined by the course and utilizes the key characteristics of effective organizations to standardize performance between emergency response agencies within Clark County, Washington.

The USFA outlines five strategic goals. This research directly relates to three of the five goals outlined. The USFA's goals of "reduce risk at the local level through prevention and mitigation," "improve local planning and preparedness," and "improve the fire and emergency services' professional status" (USFA, 2002) are all addressed by researching the problem that Clark County, Washington has received training in multiple incident command models, which has led to non-standardized performance between emergency responders.

### **Literature Review**

The purpose of this literature review is to gather and review available information, opinions, and research results pertinent to incident command and control. A comprehensive review of information on standards, publications and journal articles was used to answer the research questions. The review then examines different incident command systems that have been used in Clark County, including its training and certification requirements.

Incident command and control is not limited to the fire service. In the broadest sense, command and control applies to any system comprising multiple interacting elements, from

societies to sports teams to any living organism (Department of the Navy, 2006, Chapter 1). Command and control is essential to survival and success in any cooperative enterprise. It is a fundamental requirement for growth, survival and success for any system. Done well, command and control adds strength. Done poorly, it invites disaster. Command and control helps commanders make the most of what they have—people, information, material, and, often most important of all, time (Department of the Navy, 2006, Chapter 1).

The basis for all command and control is the authority vested in a commander over subordinates. The typical understanding of effective command and control is that someone “in command” should also be “in control” (Department of the Navy, 2006, p. 4). This commander is referred to as the incident commander. He or she is the person responsible for all aspects of an emergency response, including quickly developing the incident objectives, managing all incident operations and application of resources, as well as responsibility for all persons involved (Wikipedia, n.d.). The incident commander is not above the system he or she is working in, but is an integral part of it.

An incident is defined as a “usually violent or disruptive occurrence, especially one that precipitates a larger crisis; or an occurrence that interrupts normal procedure or functioning; a mishap” (Houghton Mifflin Company, 2012). This definition pertains to any incident that an incident commander will have to work in whether the commander is military, law enforcement, fire agencies—structure or wild land—or any other discipline that manages incidents. These incident commanders must make decisions under stress.

In mid-1980 the United States Army commissioned Klein Associates to conduct a study to improve the understanding of how battleground commanders make decisions under stress (Gasaway, 2010). They wanted to see how commanders performed in their natural

environment—the battleground. Since this proved too dangerous, they identified fire ground commanders as another decision-making domain that would have an environment similar to the battleground. Klein’s group quickly realized that fire ground commanders did not use the Traditional Decision Making Process. They identified a new model for decision-making, Recognition-Prime Decision-Making. In order for this decision making process to be effective, the incident commander had to possess four things:

1. Possess strong situational awareness by really paying attention to what is happening around them;
2. Have tacit knowledge, which means you know it, but you can’t explain how you know it;
3. Be able to conduct mental simulations for future events; they have to predict the future so that the decision made at this time will prepare personnel for future events; and
4. Must be confident in their decision-making (Gasaway, 2010).

Recognition Prime Decision-Making is the ability to quickly identify a problem, find a solution, and implement that solution based on past experiences. Nationwide, the fire service has gone through many changes. There has been a reduction in fires, the introduction of lightweight construction and synthetic materials has changed fire service operations, and officer candidates now have numerous state certifications and degrees and are being promoted at a younger age (Rufer, 2011). Due to these changes, there is a trend that incident commanders have less experience to be able to apply Recognition Prime Decision-Making. Through the Fire Fighter Fatality Investigation and Prevention Program, the National Institute of Occupational Safety and Health (NIOSH) conducts investigations of fire fighter line-of-duty deaths to formulate recommendations for preventing future deaths and injuries. This program does not seek to determine fault or blame on fire departments or individual firefighters, but to learn from these

tragic events and prevent future similar events (CDC, n.d.). NIOSH states that sudden cardiac death is the number one cause of firefighter fatalities, representing approximately 45% of all line-of-duty deaths. However, the other 55% are due to other causes. NIOSH makes recommendations through the NIOSH Fire Fighter Fatality Investigation and Prevention Program. The top 10 recommendations by category groups to prevent firefighter fatalities are: (a) medical screening, (b) fitness and wellness, (c) standard operating procedures, (d) communications, (e) incident command, (f) motor vehicle, (g) personal protective equipment, (h) strategies and tactics, (i) rapid intervention teams, and (j) staffing. Two of the recommendation categories are related to medical conditions and eight categories are related to trauma (Ridenour et al., n.d., p. ix). Specifically, standard operating procedures, communications, incident command, strategy and tactics, rapid intervention teams, and staffing can all be addressed through effective incident command.

There are five root causes identified in firefighter line-of-duty deaths. They are (a) lack of effective policies and procedures, (b) lack of leadership, (c) lack of preparedness, (d) lack of appropriate decision-making, and (e) lack of personal responsibility (Siarnicki, 2013, p. 3). There are ways to address these five root causes. Lack of effective policies and procedures is reduced when a department has a clear set of policies and procedures that underscore safety. For leadership to exist, department leaders must develop a clear set of policies and procedures for all aspects of the department's operations, adhere to those policies, and set appropriate examples. If a department offers all necessary training and department members participate in it and certify in a timely manner, the department will have addressed its preparedness. Department members who consciously refuse to follow standard procedures and policies compromise the service firefighters provide and lack appropriate decision-making. This prevents firefighters from doing

their job effectively and these members need to be addressed. Finally, if all members have the expectation to take care of themselves, physically and mentally, they will not lack personal responsibility (Siarnicki, 2013).

It is important to look at firefighter fatalities in order to understand the importance of effective incident command. There are two primary incident command systems that Clark County has used. The first is the National Incident Management System (NIMS). NIMS is a systematic, proactive approach to guide departments and agencies at all levels of government, nongovernmental organizations, and the private sector to work together seamlessly and manage incidents involving all threats and hazards—regardless of cause, size, location, or complexity—in order to reduce loss of life, property and harm to the environment (Federal Emergency Management Agency [FEMA], 2015, para. 2).

The National Commission on Terrorists Attacks Upon the United States (the “9/11 Commission”) highlights the importance of Incident Command Systems (ICS). The Commission’s report recommended national adoption of ICS to enhance command, control, and communications capabilities (FEMA, 2015, p. 2). NIMS was developed by the Secretary of Homeland Security at the request of the President. It was the first standardized approach to incident management and response and was released in 2004 (Guzzi, n.d.).

However, the concept of ICS was developed over 30 years ago, following the aftermath of a devastating wildfire in California. From that fire, the California Department of Forestry and Fire Protection; the Governor’s Office of Emergency Services; the Los Angeles, Ventura, and Santa Barbara County Fire Departments; and the Los Angeles City Fire Department joined with the U.S. Forest Service to develop the system. This system became known as FIRESCOPE (Firefighting RESources of California Organized for Potential Emergencies). FIRESCOPE ICS

is primarily a command and control system delineating job responsibilities and organizational structure for the purpose of managing day-to-day operations for all types of emergency incidents (FEMA, 2015, p. 2). Although originally developed for use on wild land fires, FIREScope ICS was quickly recognized as a system that could help emergency responders respond to a wide range of situations (FEMA, 2015, p. 3). With a few procedural modifications to FIREScope ICS, the NIMS ICS became adaptable to an all-hazards environment.

Adoption of the NIMS ICS is a requirement in order for agencies to receive federal preparedness funds, including grants, contracts, and other activities under the Homeland Security Presidential Directive-5 (Guzzi, n.d.). Adoption of the ICS alone does not constitute NIMS compliance. Compliance also includes completing the training courses, a plain language requirement, the inventorying and typing of resources, and more. NIMS implementation within an organization should be coordinated with local and state management agencies.

The NIMS Training Program lays out a conceptual framework that maintains a systematic process for the development of training courses and personnel qualifications (FEMA, 2011a, p. 3). The framework facilitates the systematic development of these courses and qualifications by translating functional capabilities (defined in NIMS) into positions, core competencies, training, and personnel qualifications. The NIMS Training Program sets a sequence of goals, objectives, and action items (FEMA, 2011a, p. 3). The minimum requirements for most responders are ICS 100, 200 and 700. All three of these courses are offered on-line at no cost and take three hours to complete. You can find them through the United States Fire Administration's website (USFA, n.d.). ICS 100 is Introduction to the Incident Command System, ICS 200 is ICS for Single Resource and Initial Action Incidents, and

ICS 700 is National Incident Management System (NIMS) Introduction. These classes provide the training necessary to manage Type IV and Type V incidents.

More advanced training is provided with through ICS 300, 400, and 800. ICS 300 is Intermediate ICS for Expanding Incidents. This is an 18-hour class that is instructor led. ICS 400 is Advanced ICS. This is a 14-hour class and is instructor led. ICS 800 is the National Response Framework (NRF), an Introduction. This is a 3-hour class and is offered on-line. These classes provide the training necessary to manage all incidents up to a Type II.

In order to be qualified to manage Type I incidents, students must participate in Position Specific Training. These courses are designed to provide State and local-level emergency responders with a robust understanding of the duties, responsibilities, and capabilities of Command and General Staff members. Exercises, simulations, discussions, and a final exam enable participants to process and apply their new knowledge (FEMA, 2011b, p. 1). Overall, NIMS shows it is very useful in structuring response efforts for large-scale incidents, but only in later operational periods, when a certain amount of order has been restored. NIMS failure point, however, is that it offers limited help to those first-arriving responders who must deal with the initial chaos inherent at the onset of every scene (Renaud, 2012, p. 1).

The second incident command system that has been used in Clark County is ITAC—Integrated Tactical Accountability (Emery, 2011a). Battalion Chief Mark Emery, with Woodinville Fire and Life Safety District in King County Washington, co-developed the ITAC System. He is a fourth generation fire service professional and author of *The Ten Commandments of Intelligent and Safe Fireground Operations* and *The Fire Station Pyramid of Success*, and has been a regular contributor to *Firehouse* and *FireRescue* magazines. He is also the developer of the Command Competency Pyramid of Success. Emery has delivered strategic-

level training for numerous fire departments throughout North America, including Phoenix, Toronto, Anchorage, and Las Vegas, as well as at FDIC, Firehouse World, Firehouse Expo, and at State and Provincial conferences (Emery, n.d.).

The four basic components of safe and timely fireground management addressed by the ITAC System are incident command, tactical accountability, action planning, and communications. The program utilizes competency based training to cover size-up, decision making, reading smoke, fire dynamics, and building construction. From there, the student should gain an understanding of strategy and tactics, skills needed to develop the Incident Action Plan (IAP) and team accountability (Oregon Fire Instructors Association [OFIA], n.d., para. 1).

The difference between NIMS and ITAC is that ITAC provides a process for the implementation of NIMS ICS. NIMS may provide a familiar framework for managing an incident, but it fails to provide implementation guidance (Emery, 2011a, p. 69). According to Gordon Graham, attorney and risk-management guru, NIMS was designed for “discretionary time” incidents, discretionary meaning you have time to schedule a planning meeting for the next operational period (Emery, 2011a, p. 69). Emery states that ITAC provides a structured and systematic process for the implementation of NIMS ICS and NFPA 1561 (Standard on Emergency Services Incident Management System and Command Safety) during non-discretionary time incidents (Emery, 2011a, p. 70).

There are three parts that are highlighted in the ITAC system. Part 1 is Introducing a Freelance Prevention System That Works. This part focuses on personnel accountability with tactical accountability. In personnel accountability, the team leaders are responsible for their teams. The expectation of that responsibility is that the leaders know the conditions they are working in, manage the team’s air to ensure a safe exit, monitor the radio and identify alternate

egress. Tactical accountability is monitored by the incident commander or the division or group supervisors: they need to know who, what and where. To summarize part 1, commanders or supervisors maintain tactical accountability, while team leaders maintain personnel accountability (Emery, 2011a, p. 72).

ITAC Part 2 is Implementing and Maintaining a Freelance-Prevention System. It describes how to achieve and maintain tactical accountability through out the incident. Part 2 focuses on the “strategic thread” which is established through nametags and passports. The overall incident is managed with “operational congruity.” This is achieved by first, knowing what the problems are; second, knowing what the operational mode is; and third, selecting the appropriate tactical and support objectives that will solve each problem within the margins of the operational mode, also known as the incident action plan (IAP; Emery, 2011b, p. 80). Each of these connections will only work if command has a command level focus; supervisors maintain a strategic level focus and team leaders or company officers have a tactical level focus.

Finally ITAC Part 3 is Why We Can’t Let Anybody “Fall Through the Cracks.” It focuses on how to reduce freelancing so accountability is maintained. There are two command caveats in this section: never assign something to do without someplace to do it, and never send somebody someplace without something to do when they get there. By assigning an objective, an access location and a work location, tactical accountability will be achieved by the who-what-where nature of the assignment (Emery, 2011c, p. 92). NIMS ICS considers a division geographic and a group functional. This does not cover the who-what-where nature of the assignment.

Incident Management Made Simple, the IMS Alliance website (IMS, n.d.), offers numerous products to assist with incident management using the ITAC system. These products

include accountability boards and accessories and some training materials. Training for ITAC is available through clinics that students have to locate and register for. There is also a CD-ROM set you can purchase from the website that is a Passport Accountability System and Incident Management Board Training Video.

The adoption of NIMS ICS caused fire agencies to reconstruct command systems nationwide. Some, such as Bill Manning, editor for Fire Engineering Magazine, feel this is absurd. In response to this, Chief Alan Brunacini, father of the Fireground Command System, has proposed a “blue card” system to “credential” their firefighters who regularly practice their art within a “non-federally approved” urban type incident management system (Manning, 2003, p. 10). While there are structural-firefighting certifications at the state level, no nationwide system exists to certify or standardize incident-commander training. NIMS is suitable for large-scale disasters, but isn’t easily applicable to routine daily responses (Wilmoth, 2012, para. 2). Blue Card is designed to apply to local incidents and disasters. “If you have a Type-1 event, you would use the Blue Card,” Brunacini said. “NIMS and Blue Card compliment each other. I call this baby NIMS because Blue Card is something you can use everyday. NIMS is so large scale, most wonder, ‘What am I going to do with it?’” (Wilmoth, 2012, para. 7).

Brunacini describes fire responses as a “compressed, sequential, simultaneous, decentralized events with a beginning, middle, and an end.” He goes on to say, “We needed a fast, agile, simple, tight command system to evaluate standard conditions and apply standard actions to achieve a standard outcome. It is known that a firefighter’s survivability in a hazardous atmosphere is based on effective size-up and proper management of their air supply (Sells, 2009, p. 23).

Pat Dale, Operations Chief for the Olympia (WA) Fire Department notes that no programs focus on the certification of incident commanders like Blue Card. He goes on to say that incident command training is becoming more important because officers are younger and less experienced, especially in smaller departments, and they don't see a lot of structure fires. Incident command training emphasis should be on structural fires because that is where the risk is (Sendelbach, 2009, p. 2). According to Dale, Olympia's newly promoted officers like the program because in the past programs provided broad information, but Blue Card is standardized (Wilmoth, 2012, p. 40).

The Blue Card Command Training Certification Program is a state of the art training and certification system that teaches Company and Command Officers how to standardize local incident operations across their organizations. The training is based entirely on retired Fire Chief Alan Brunacini's *Fire Command* and *Command Safety* textbooks. The Hazard Zone Incident Command Standard professional qualifications are a direct reflection of the IC checklists in the *Fire Command* textbook. This standard was finalized in 2009 and was adopted by the International Fire Service Accreditation Congress (IFSAC) Alternative Standards Council (Blue card overview, n.d., p. 2).

The training and certification program is designed to manage local, NIMS Type 4 and 5 incidents. These two incidents types account for more than 99% of a department's incident activity (Blue card overview, n.d., para. 1). The Incident Command Certification Program is designed to instruct, train and certify officers who perform as the incident commander on Type 4 and Type 5 incidents (Blue card overview, n.d., p. 2). The program develops the personal skills of officers needed to manage incident operations and standardizes incident operations across the

entire department. This standardization can also occur across mutual aid boundaries (Blue card overview, n.d., p. 3).

There are three main components of the Blue Card Program, the on-line program, the three-day certification lab, and the five-day Train-the-Trainer Program. The on-line training is convenient because students can access it anywhere with an Internet connection and it is self-paced. The on-line program standardizes the material and keeps a record of students' progress. The Fire Command curriculum package serves as the basis for the on-line program. It is a 40-hour course that teaches the cognitive portion of the Blue Card program. The material that is presented is interactive which moves the student beyond theory and into practical application. It is reinforced with short video clips from subject matter experts (Blue card overview, n.d., p. 3).

Once a student has successfully completed the on-line portion of the program, he or she can participate in the 3-day Certification Simulation Lab phase. The evaluation portion includes: Standard 8 Functions of Command, Regional Standard Operating Procedures, Tactical Operations Templates for 5 local occupancy types, and high fidelity structure fire simulations. Simulation training in the fire service is not a new concept, but having a curriculum with simulation training is new. The simulations in conjunction with a standard curriculum provide the student with valuable hands on training and experience for high risk, low frequency events. Each student must serve as the incident commander in the fast attack position and the strategic command position for each of the 5 building types to become certified. The 3-day Certification Lab is typically delivered at a Command Training Center (Blue card overview, n.d., p. 5).

The final component of the Blue Card Program is Train-the-Trainer. The objective of this portion is to allow individual departments or regions to manage the certification and evaluation portion of the program themselves. Students who desire to become instructors can

attend this portion once they have successfully completed the on-line program. The class is five days for eight hours each day. Students receive detailed instruction and lessons plans on the five basic types of occupancies/building types, tactical and command level operations and mayday operations. This portion of the program offers relevant resources that will assist agencies to in implementing a comprehensive local command-training program. Once students have successfully completed the Train-the-Trainer Program, they will be provided with an instructors package that includes: (a) 20 multi-position, tactical simulations instructor guide and PowerPoint; (b) the 8 Functions of Command instructor guide and PowerPoint; (c) Communication Overview instructor guide and PowerPoint; (d) 5 tactical templates with instructor guide and PowerPoint; (e) several other program related PowerPoints; (f) the Fire Command DVD video series (9 DVDs); the (g) Critical Fire Ground Factor DVD series (3 DVDs), and (h) the Managing the Mayday DVD series (4 DVDs; Blue card overview, n.d., p. 6). Due to the fact that the program provides all of these instructor resources, agencies do not have to produce their own material and the material is standardized.

A standardized Incident Command Program needs to be applicable and attainable for all agencies in Clark County to be successful, especially since mutual aid response is commonplace with AVL and CAD. The literature review helped direct the research and provided a better understanding of the pros and cons of previously implemented Incident Command systems. This review first looked at incident command in a broad sense and the importance of effective incident command. From there, it was narrowed down to specific incident command systems within Clark County. It also identified the Blue Card Incident Command Program methodologies and training components. These results influenced the structure of interviews, questionnaires and evaluations designed to gather information to answer the research questions.

## Procedures

This applied research project focused on answering four research questions: (a) What incident management systems has Clark County Washington used in the past? (b) What are the training and certification components of the Blue Card Incident Command System? (c) How do fire service personnel perform prior to Blue Card Incident Command System training and certification? (d) How do fire service personnel perform after Blue Card Incident Command System training and certification?

Both descriptive and evaluative research methodologies were used to determine if the Blue Card Incident Management System improves performance within Clark County, Washington. It had three components. The first involved a comprehensive literature review of incident command theories and ideologies, text, articles and reports related to incident command. It also looked at incident command programs that have been utilized in Clark County, and explored the basis, training and goals of the Blue Card Incident Command System. This information was used to answer questions 1 and 2. The second involved soliciting feedback from departments in Clark County through a survey and interviews. This component also answered questions 1 and 2. The final component was performing a pre-Blue Card Incident Command Training and post-Blue Card Incident Command Training evaluation with 12 members from Clark County Fire District 3. This evaluation facilitated the answer to questions 3 and 4.

Research began with attendance at Executive Analysis of Fire Service Operations in Emergency Management at the National Fire Academy in the fall of 2014. Through work in the classroom, the problem was identified that agencies in Clark County have received training in multiple incident command models, which has led to non-standardized performance between

emergency responders. This evolved into a literature review at the Learning Resource Center (LRC) at the National Fire Academy in Emmitsburg, Maryland. The LRC provided several resources including magazine articles, fire service and FEMA handbooks, NIOSH reports and previous Executive Fire Officer Applied Research Projects. Additional research was conducted using the researcher's personal library and other fire service agencies. Electronic research was conducted on the Internet using Explorer, Google, and Safari search engines. The search terms included: (a) incident command, (b) firefighter line of duty death causes, (c) NIOSH, (d) NIMS ICS, (e) ITAC, and (f) Blue Card Incident Command.

The literature review helped form the basis for feedback from the departments involved in Clark County. A survey, utilizing the Survey Monkey website, was designed to help solicit feedback from those agencies. Five surveys were sent out to the Training officers of Vancouver Fire Department, Clark County Fire District 6, Clark County Fire and Rescue, Camas-Washougal Fire Department,, and Clark County Fire District 3. The survey consisted of ten questions. The questions focused on demographics of the departments, previous command systems, and current practices and training in the Blue Card Incident Command System. Only three of those solicited for feedback responded using the survey. The three surveys returned were saved and results were accessed from the website. The feedback instruments are located in Appendix A. One training officer was contacted by phone and gave his responses via phone interview. The fifth training officer did not respond to the request.

The final component was a pre- and post-evaluation of fire service personnel. Clark County Fire District 3 was identified as the evaluation group. CCFD3 is in Clark County and had the desire to move toward implementing the Blue Card System. However, it had not yet moved in that direction and none of the personnel had received training or exposure to Blue

Card. Their lack of exposure to the system made them a viable test group. Contact was made with John Brunacini to inquire about the feasibility and validity of performing this evaluation. Brunacini supported the project and provided guidance for the evaluation process.

Brunacini provided pre- and post-evaluation criteria based on the concepts of Blue Card. These criteria included simulations and the corresponding evaluation tools. The pre- and post-evaluations were identical. These evaluations are located in Appendix B. Prior to participants being registered for the on-line program, they completed the pre-evaluation on incident command skills. Training administrators with the Blue Card Program provided CCFD3 with 12 subscriptions to the Blue Card on-line program at no cost to the district. The cost per subscription is \$395.00. Battalion Chief Scott Sorenson, who also serves as the Training Chief, identified participants for the study. Participants were set on a face-paced schedule to complete the on-line training. Participants were then registered to begin the on-line portion in late November 2014. The first Command Training Center (CTC) was scheduled in February of 2015. That allowed approximately 3 months to complete 40 hours of on-line instruction. All participants completed the on-line training as scheduled and participated in the CTC.

The researcher completed the Blue Card Train-the-Trainer in August 2014. In September of 2014, Clark County Fire District 6 sent its training officer to Blue Card Train-the-Trainer. These instructors, both Captains with Clark County Fire District 6, served as instructors for all three CTCs and certified the 12 evaluation participants from CCFD3. Seven additional personnel from CCFD3 not involved in the evaluation were also certified in Blue Card Incident Command during this time. In addition, CCFD6 also provided the equipment for the CTCs. There were three CTCs scheduled in order to ensure that all participants would be certified and these CTCs were provided at no cost to CCFD3.

The CTCs took place February 23-24, March 9-10, and March 30-31, 2015. Normally, CTCs are scheduled for three days. Due to the rapid pace of the certification process for this evaluation, the participants were provided with some of the materials and videos to review on their own prior to the class. This allowed the CTCs to be condensed into two days. After each CTC, the participants were given the post-evaluation and scored. The pre- and post-evaluation results were compared to measure improvement. All 12 members of CCFD3 who participated in the study successfully completed the program and now are all certified in Blue Card Incident Command. The additional seven participants not involved in the study also successfully completed the training and are certified in Blue Card Incident Command.

A limitation to the research occurred within the feedback instrument. The survey was distributed to five training officers in Clark County. Only three of the five responded using the survey instrument. The two who did not respond were contacted via phone and asked the same questions as the survey. One provided a phone interview and one did not. Another limitation to the survey was that it was limited to ten questions. This was done purposefully so as not to overwhelm the participants. However, more questions would have yielded a more comprehensive assessment. Finally, there is the assumption that the participants of the study had no exposure to the Blue Card Incident Command System prior to the evaluation.

## **Results**

The purpose of this research was to evaluate if the Blue Card Incident Management System improves performance within Clark County, Washington. This section will report the results of the data collected for the study.

**Research Question 1: What incident management systems has Clark County Washington used in the past?**

The survey and phone interview with the Training Officers provided the basis for the answer to this first question. All Training Officers answered that the two primary incident management systems used in the past in Clark County were NIMS ICS and ITAC. All departments were moving toward implementing the Blue Card Incident Command System. The movement toward this incident command system is driven by the Operations Chiefs of Clark County.

The literature review expanded upon this question. It was utilized to identify the importance of effective incident command. An effective incident commander is a necessity on the fire scene in order to ensure safety, decrease firefighter line-of-duty deaths, and ensure effective operations. For an incident commander to be effective, he or she has to be knowledgeable and have the ability to make decisions. Most officers rely on their experience; however, experience is decreasing so they need to rely on sound training and standard operating procedures. A comprehensive incident command system with pertinent and achievable training will produce effective incident command.

The literature review was also utilized to identify the components and training of each system. It identified the negative and positive characteristics of the two identified incident command systems. There are areas in which these two incident management systems do not address the needs of fire agencies in Clark County. This caused the movement toward identifying a system that would address these needs.

Due to the fact that adoption of the NIMS ICS is a requirement in order for agencies to receive federal preparedness funds, including grants, contracts, and other activities under the Homeland Security Presidential Directive-5, the majority of fire agencies nationwide have adopted NIMS. The benefit of NIMS is that it is a national standard and outlines a framework

for fire agencies to follow. It also provides a guideline for training that is easy to follow and access. The majority of training is offered on-line and is has no associated registration cost. Where NIMS falls short, is that it is focused on major disasters. Although it is presented as expandable, meaning it can go from small to large incidents, its usefulness is more evident in structuring response efforts for large-scale incidents in later operational periods. NIMS applicability is limited in the initial stages of a common fire scene. It does not apply well to the daily operations of fire agencies.

The second incident command system utilized in Clark County is ITAC. ITAC provides a structured and systematic process for the implementation of NIMS ICS. It focuses on incident command, tactical accountability, action planning and communications. ITAC focuses on the daily operations of fire agencies and addresses those incidents. The system recognizes that NIMS ICS is applicable to larger incidents where there is more time to develop a plan. The IMS Alliance website (IMS, n.d.) provides numerous adjuncts an agency can purchase to facilitate with incident accountability.

The drawback with ITAC lies in the training. Fire agencies have to seek out the training and send personnel to training sessions. A fire agency could have a training session at its department, but at a cost to the department. Also, ITAC provides informational articles on its website, but unless presented in one format, that information is left for interpretation by individuals. Utilizing this type of training model, agencies could not ensure that all personnel would receive the same training.

**Research Question 2: What are the training and certification components of the Blue Card Incident Command System?**

The literature review provided information to answer this question. The Blue Card Incident Command System is designed to apply to local incidents and disasters. The training consists of a forty-hour on-line self-study program. It is a student-paced program. All students registered for the on-line program receive the same training. The training consists of instruction from subject matter experts followed by simulations that pertain to the subject. The subject is then reinforced with another session from the subject matter experts. Registration for the on-line program is \$395.00 per student.

The program is based on the eight functions of command as outlined in retired Fire Chief Alan Brunacini's *Fire Command* and Alan and Nick Brunacini's *Command Safety* textbooks. The on-line portion consists of nine sections, the first is the introduction and the following eight are each based on each function of command. The eight functions of command are: (a) Assume Management and Staging; (b) Assume, Confirm, and Position Command; (c) Size-up; (d) Strategy and Incident Action Plan; (e) Communications; (f) Organization; (g) Review and Revise, and (h) Continue, Support, and Terminate Command. Students have to successfully complete the on-line portion to move on to certification.

Once a student has successfully completed the on-line training, certification for Blue Card is accomplished by successfully completing a Command Training Center (CTC). The CTC is a three-day certification lab in which students are evaluated and tested on the Blue Card Incident Command System. The evaluation portion covers the eight functions of command, regional standard operating procedures, and tactical operations templates using the five occupancy types with high fidelity structure fire simulations. Students must successfully perform as the incident commander in both the fast attack and strategic command positions. This

means they have to perform in ten scenarios to become certified. Typically the certification lab occurs over three days; however, it can be adjusted to meet individual agency needs.

If an agency wants to provide its own CTC, it needs to send personnel through the Train-the-Trainer Program. This program takes place over five, eight-hour days. Participants involved in this portion of the training are given detailed lesson plans and instruction on the five basic occupancy types, tactical level operations, command team operations and mayday operations. The cost of the Train the Trainer Program is \$4500.00 per student.

After a student has completed the Train-the-Trainer Program, he or she is given an instructor's package with all the resources needed to facilitate a Command Training Center for the student's local agency. All of these resources are loaded onto a 32-gig iPad that each participant receives. Along with those resources, trainers are given access to an Instructor's Support Site on the Blue Card website (Blue Card overview, n.d.). Access to these resources is good for one year after Train-the-Trainer Certification. After that time, the trainer has the option to continue to subscribe. For an agency that has multiple trainers, the annual renewal rate is \$2,000.00 for the first instructor, \$500.00 for the next two instructors and \$100.00 for any remaining instructors. These trainers have the ability to continue to train, certify and manage personnel in Blue Card Incident Command Training.

### **Research Question 3: How do fire service personnel perform prior to the Blue Card Incident Command System training and certification?**

The pre-evaluation study was used to address this question. The study was developed with assistance from John Brunacini with the purpose of evaluating fire service personnel performance prior to training in the Blue Card Incident Command system. Participants involved in the Pre-Evaluation study were 12 members from CCFD3. The ranks included firefighter,

firefighter/paramedic, Captain, Battalion Chief and Operations Chief. Prior to this evaluation CCFD3 had not had any training in the Blue Card Incident Command System. Participants were given a series of fire simulations and asked to perform tasks. They were scored on whether or not those tasks were performed.

There were four areas of performance that were evaluated: the initial radio report, the follow-up report, assigning units, and a roof report. The initial radio report was evaluated using ten simulations. There were two simulations each covering the five basic building types. The five basic building types evaluated were residential, apartments, strip malls, commercial and big box. Students were scored on the same areas that are practiced using the Blue Card Incident Command System.

The Initial Radio Report section considered the areas that should be addressed when fire apparatus arrive on scene: (a) building area/description; (b) problem description; (c) initial incident action plan using the task, location and objective (TLO) model; (d) declare a strategy; (e) resource determination; and (f) command. For this portion there was a total of 12 points that a participant could receive. The Follow-up Report evaluated results of the 360, any changes to the incident action plan, and identifying an accountability location. There was a total of 7 points possible for this section. These two sections were combined to score the first portion of the pre-evaluation. That means for the Initial Radio Report and Follow-up Report a participant could score a total of 19 points. The lowest score was a 3 and the highest was a 10. The majority of participants scored a 6.

For this section, a pattern was discovered in the areas where points were missed. First, the Initial Incident Action Plan was not verbalized. Units on scene and subsequent arriving units were not given direction using the Task, Location Objective (TLO) model. Second, none of the

participants declared a strategy. They did not announce whether they were operating in the offensive or defensive mode. Furthermore, for the majority of simulations resource determination was not addressed. When resource determination was addressed, it was only if the participant wanted a greater alarm for the simulation. Finally, the majority of students assumed the command function, but none of them named command.

The next section of the Pre-Evaluation scored the participants performance at Assigning Units. The Blue Card Incident Management System teaches students to assign units based on the TLO model. Students could receive a total of five points in this area if they verbalized the task to be performed, the location where, objective to achieve, identify the water supply, and designate the unit with a hand line deployment. Although all those points were possible, not all those areas needed to be addressed for every simulation. Out of 5 points possible, the lowest score was a 0 and the highest score was a 4. The average score was a 2. When assigning units, the participants utilized the TLO model. However, several points were missed because they did not address water supply or designate the unit with hand line deployment.

The last section evaluated students giving a roof report. For this section there were a total of 7 points possible. Students were evaluated on identifying the type of roof, condition of the roof either stable or unstable, fire and smoke conditions and the location, location of any firewalls, identifying heavy roof loads, reporting conditions in the attic, and recognizing if the basic blueprint of the building was unusual. For some of the scenarios the conditions of the attic were unknown. Also, if no firewalls were evident and / or the basic blueprint of the building wasn't unusual, students did not address them. Therefore, the lower scores are explicable. For this section of the pre-evaluation, the lowest score was a 1 and the highest score was a 3. The average score was a 2. The results from the pre-evaluation indicated that there was room for

improvement of performance in the areas evaluated. The results of the pre-evaluation were compared to the results of the post-evaluation.

**Research Question 4: How do fire service personnel perform after the Blue Card Incident Command System training and certification?**

The post-evaluation study was used to answer this research question. The evaluation was the same evaluation given for the pre-evaluation and developed with John Brunacini with the purpose of evaluating fire service personnel performance after completing training in the Blue Card Incident Command System. The post-evaluation was administered after participants had successfully completed the forty-hour on-line training for the Blue Card Incident Command System. The same 12 members from CCFD3 were used for this evaluation. Participants were given a series of fire simulations and asked to perform tasks. They were scored on whether or not those tasks were performed.

Again, there were four areas of performance that were evaluated; the initial radio report, the follow-up report, assigning units and a roof report. The initial radio report was evaluated using ten simulations. There were two simulations each covering the five basic building types. The five basic building types evaluated were residential, apartments, strip malls, commercial and big box. Students were scored on the same areas that are practiced using the Blue Card Incident Command System.

The Initial Radio Report section considered the areas that should be addressed when fire apparatus arrive on scene. They were: (a) building area/description, (b) problem description, (c) initial incident action plan, (d) declare a strategy, (e) resource determination, and (f) command. For this portion there was a total of 12 points that a participant could receive. The Follow-up Report evaluated results of the 360, any changes to the incident action plan and identifying an

accountability location. There was a total of seven points possible for this section. These two sections were combined to score the first portion of the Post-Evaluation. That means for the Initial Radio Report and Follow-up Report a participant could score a total of 19 points. The lowest score in this section for the Post-Evaluation was an 11, and the highest was an 18. Students improved from the Pre-Evaluation.

The points missed in the first section of the Post-Evaluation were primarily in the Follow-Up Report section. Students did not address the point criteria if it hadn't changed from their Initial Radio Report or didn't exist in the simulation. This included number of stories in the rear, problem if different, any immediate life safety, other hazards, and any changes to the IAP. In the Post-Evaluation, all students verbalized the IAP and assigned units on scene and subsequent units were given direction using the TLO model. Second, all of the participants declared a strategy, either offensive or defensive. Also, resource determination was addressed even if the simulation did not require a greater alarm. Finally, all the participants assumed and named command. There was marked improvement in this section post Blue Card Incident Command Training.

The next section of the Post-Evaluation scored participants on the ability to assign units. Participants again had to assign two units using the TLO model. Students could receive a total of five points in this area if they verbalized the task to be performed, the location where, objective to achieve, identify the water supply, and designate the unit with a hand line deployment. Although all those points were possible, not all those areas needed to be addressed for every simulation. Out of 5 points possible the lowest was a 3 and the highest was a 5. The average score was a 4. One reason the average was brought down was one of the units to be assigned was Ladder 1, therefore water supply did not need to be addressed for that unit. Also, the units

may have been assigned a task that did not require a hand line. There was marked improvement in this area after Blue Card Incident Command Training. The average went from a 2 to 4, with multiple scores of 5.

The final portion of the Post-Evaluation was the Roof Report. Students were evaluated on identifying the type of roof, condition of the roof either stable or unstable, fire and smoke conditions and the location, location of any firewalls, identifying heavy roof loads, reporting conditions in the attic, and recognizing if the basic blueprint of the building is unusual. The total possible points achievable on the Roof Report were 7. For the post-evaluation the lowest score was a 2 and the highest was a 4. There was only minimal improvement from the pre-evaluation. Reasons for this are that for some of the scenarios the conditions of the attic were unknown. Also, if no firewalls were evident and / or the basic blueprint of the building wasn't unusual, students did not address them. These were the same reasons points were missed in the pre-evaluation.

Overall, performance improved from the Pre-Evaluation to the Post-Evaluation. This reinforced the purpose of the research and demonstrated that training in the Blue Card Incident Management System improved the performance of the evaluation participants.

### **Discussion**

The problem that drove this research was that agencies in Clark County have received training in multiple incident command models that have led to non-standardized performance between emergency responders. The problem was identified as county fire agencies began to respond together more due to AVL and CAD dispatching. Other programs had been utilized through out the county, but did address all of the essentials of the fire agencies involved. Previous incident command models were strong in some areas and weak in others. The county

needed a comprehensive incident command system with a training component that was attainable and could be utilized by all the agencies in the county. There was also a need for an incident command system to be adaptable due to all differences between the agencies including size, response models, call type and resources.

The Blue Card Incident Command System was introduced to Clark County through the Operations Chief of the Vancouver Fire Department, Vancouver Washington. The concept was presented to the county through the Clark County Operations Chiefs monthly meetings. There was apprehension to look at a new system. One training officer reinforced that apprehension when asked, “From an operational standpoint, what would you say overall about the Blue Card Incident Management System and Training Program?” His reply was, “Overall it is a good training program; however, it is expensive and there is a certain level of uncertainty as to its longevity—how long agencies will use it before transitioning to another program.” This respondent also answered that his department is still in transition, but starting to see improvement.

Although there is some apprehension, there is strong support for transitioning to the Blue Card Incident Management Program. Three of the training officers had strong support for the system when asked the same question. One stated it was the “First time in 30+ years of fire service career that the entire area I’ve worked in has used a consistent IMS. With this consistency, our department has become focused much more on specific tactics for fire ground factors.” Another went on to say, “Consistency across all the shifts and stations has improved communication and the ability to work within SOPS and with other jurisdictions.” Finally, another stated, “It was the first time our officers have sat down together and trained on the same concepts, tactics and communication.” All three of these respondents also stated that the Blue

Card Incident Management System has greatly improved incident management for their departments.

According to the survey and phone interviews, fire agencies in Clark County began training in the Blue Card Incident Command Management System in January of 2014. Since then over 90 fire service personnel have been successfully trained in Clark County. In addition to that there are several fire service personnel from different agencies that have attended Train-the-Trainer and are certified instructors. The City of Vancouver Fire Department, Clark County Fire District 6, and the Camas – Washougal Fire Department has working Command Training Centers. The majority of Blue Card Incident Command Management trained personnel in the county have attended one of these two Command Training Centers. The majority of Train-the-Trainers attended that portion of the training in Phoenix, Arizona.

The evaluation process of this research provided evidence that training in the Blue Card Incident Management System improved performance. Soliciting a fire service agency within Clark County that had not been exposed to the Blue Card Incident Management System validated the results. CCFD3 was chosen as the test group. CCFD3 is the smallest of the five agencies looked at in Clark County. By utilizing it as a test group and providing both the on-line training and the CTC at no registration costs, budget was not a constraint to providing the Blue Card Incident Management Training to its personnel. Also, its personnel completed the training and certification more rapidly than most agencies due to research time constraints and availability.

This is the first incident command system implementation in Clark County that has had a research component attached to it to measure performance. NIMS ICS was a mandated system that didn't effortlessly apply to all types of incidents within the county. Since the majority of incidents are Type IV and V, it is difficult to apply NIMS ICS. It was designed for and applies

well to larger scale incidents. These types of incidents are not common in the county served. Due to the fact that NIMS ICS is mandated, it assumed that agencies would continue to use NIMS ICS on large incidents and complement it with Blue Card for the smaller, more common incidents.

In recent years, the Clark County Operations Chiefs adopted ITAC. It was implemented without a structured training system, a comprehensive plan for execution, and validating research from county agencies. There was not buy-in from all the agencies in Clark County. The reasons for the lack of buy-in were not explored, however, without buy-in the system would not be optimal. For the reason that the adoption of ITAC in the county was recent, some departments were apprehensive to make another change. Proposal of the Blue Card Incident Management System at the county level meant that agencies would have to invest time and money.

The external feedback instrument and interviews were useful to receive feedback on how the Blue Card Incident Command Management System was discovered, implemented and performing for agencies in Clark County. After evaluating the information, all the agencies in Clark County had similar responses. Overall, incident management was improving. Also agencies were continuing to train and move forward with the system. The evaluations proved beneficial because they provided sound evidence that training in the Blue Card Incident Management System improved performance. Using these research instruments gave agencies in Clark County information that supports change in current incident command practices towards the Blue Card Incident Management System.

### **Recommendations**

Based on the applied research project, the following recommendations have been formulated to support fire agencies in Clark County with standardizing performance and training

in one incident command model, specifically the Blue Card Command Management System.

1. Develop a countywide CTC with a cadre of instructors. Currently not all fire agencies in Clark County have a Blue Card Incident Management System Instructor and not all have CTC capabilities. Fire agencies in the county should consolidate efforts by creating a centrally located CTC. Instructors for the CTC would not have to be agency specific. Eventually, this type of CTC could train other fire service personnel outside of Clark County and recoup finances for the CTC. The average cost for a student to attend a CTC is \$350.00. In addition, this type of CTC could ultimately become a Train-the-Trainer center.
2. Each agency should have at least one Blue Card Incident Command System Instructor. This would enable an agency to maintain records and keep certifications present for personnel. It also would make the agencies responsible for maintaining their Instructor certification. By maintaining their certification, Instructors will be provided the most up-to-date information and simulations for the system.
3. Train external stakeholders on the Blue Card Incident Management System to further enhance performance. The largest external stakeholder that would benefit from this training is Clark Regional Emergency Services Agency (CRESA). CRESA provides 9-1-1 dispatch, technology services, and emergency management to fire agencies in Clark County. It is important that they understand the incident management system fire agencies are using. Other stakeholders that should be trained on an awareness level are law enforcement, public works, fire marshals, and any other agencies that will interact with fire agencies on incidents.

4. Periodically re-evaluate the effectiveness of the program and performance improvement. Any time a new system is invested in, it should be evaluated to assure that it is working and meeting expectations. This system should be no different. Evaluations should be set a specific time intervals and reviewed by the Clark County Operations Chiefs. If performance or expectations were not being met, this process would outline what adjustments need to be made.
5. Clark County Operations Chiefs need to make a public commitment to the system. This would alleviate apprehension from agencies and assure that this is a system that they are going to invest time in and money for into the future. This assurance would provide more buy-in from all personnel and in turn ensure the systems success.

Future readers looking to implement the Blue Card Incident Command System for their fire agencies should seek information from literature and subject matter experts to understand the importance of effective incident command. Once that importance is realized, it is easier to commit to investing in an incident command system. In addition, Alan, Nick and John Brunacini should be looked to in order to gather information on the Blue Card Incident Command System. A good resource is the Blue Card website (Blue Card overview, n.d.), which outlines all the components of the system. When evaluating this system, it is beneficial to compare and contrast it with other incident command systems. Equally important is to evaluate the effectiveness of the Blue Card Incident Command System. Evaluation should also include input from affected personnel. They should be part of the decision-making process when looking to implement systems for their use. Researching, evaluating, and implementing the information from all of these

available sources will ensure success with implementing the Blue Card Incident Command System to improve performance.

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# Appendix A

## Survey Feedback

Information for Clark County Blue Card Research

SurveyMonkey

**Q1 How many suppression personnel are employed at your department? Please include firefighters, firefighter/paramedics, officers, and battalion chiefs.**

Answered: 3 Skipped: 0

| # | Responses  | Date               |
|---|--|--------------------|
| 1 | 55   | 6/16/2015 10:16 AM |
| 2 | 3 BC's, 9 line Captains, 1 Captain/Training Officer, 18 FF/PM, 15 FF/IV Tech | 5/11/2015 7:09 PM  |
| 3 | 54   | 5/11/2015 7:03 PM  |

**Q2 How many of those suppression personnel have been trained in the Blue Card Incident Management System? (Training means that they have completed the Command Training Center and are certified in the Blue Card Incident Management System)**

Answered: 3 Skipped: 0

| # | Responses            | Date               |
|---|----------------------|--------------------|
| 1 | 16                   | 6/16/2015 10:16 AM |
| 2 | 3 BC's, 10 Captains. | 5/11/2015 7:09 PM  |
| 3 | 2                    | 5/11/2015 7:03 PM  |

**Q3 When did your department first start training in the Blue Card Incident Management System? (For this question consider "start training" as the initial sign up for the on-line program)**

Answered: 3 Skipped: 0

| # | Responses     | Date               |
|---|---------------|--------------------|
| 1 | May 2014      | 6/16/2015 10:16 AM |
| 2 | April of 2014 | 5/11/2015 7:09 PM  |
| 3 | 10/1/14       | 5/11/2015 7:03 PM  |

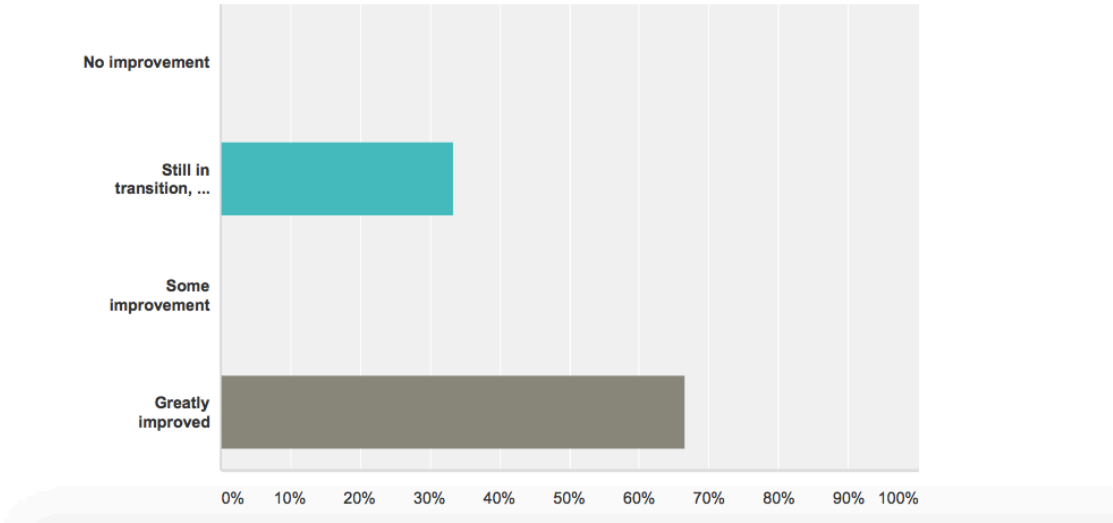
**Q4 How did your department learn about Blue Incident Management?**

Answered: 3 Skipped: 0

| # | Responses   | Date               |
|---|---|--------------------|
| 1 | Neighboring departments                                 | 6/16/2015 10:16 AM |
| 2 | Websites, trade magazines, and neighboring departments. | 5/11/2015 7:09 PM  |
| 3 | County OPS Chiefs                                       | 5/11/2015 7:03 PM  |

**Q5 How would you rank improvement for incident management utilizing the Blue Card Incident Management System?**

Answered: 3 Skipped: 0

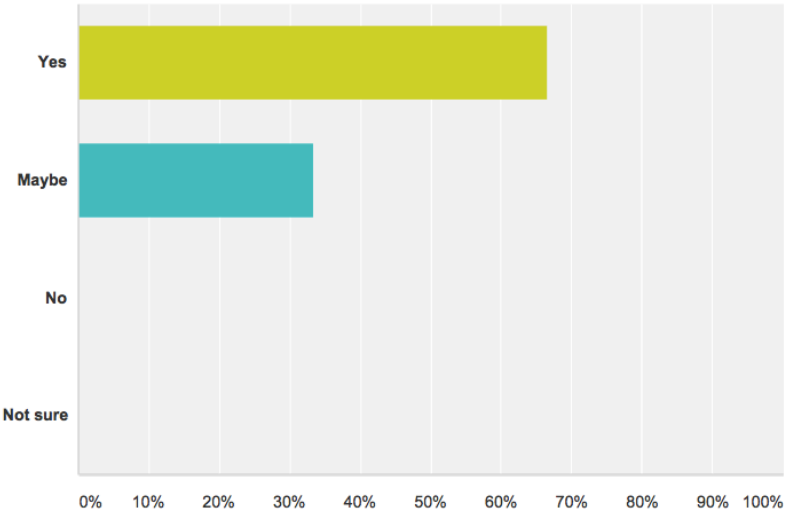


| Answer Choices                                       | Responses |
|--|-----------|
| No improvement                                       | 0.00% 0   |
| Still in transition, but starting to see improvement | 33.33% 1  |
| Some improvement                                     | 0.00% 0   |
| Greatly improved                                     | 66.67% 2  |
| <b>Total Respondents: 3</b>                          |           |

| # | Other (please specify)  | Date |
|---|-------------------------|------|
|   | There are no responses. |      |

**Q6 Will your department continue to train personnel in the Blue Card Incident Management System?**

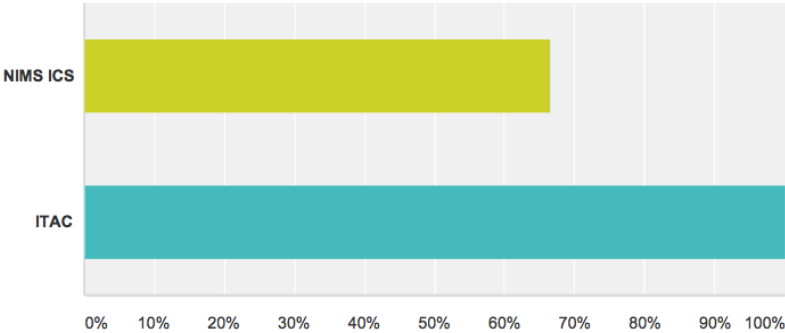
Answered: 3 Skipped: 0



| Answer Choices              | Responses |
|-----------------------------|-----------|
| Yes                         | 66.67% 2  |
| Maybe                       | 33.33% 1  |
| No                          | 0.00% 0   |
| Not sure                    | 0.00% 0   |
| <b>Total Respondents: 3</b> |           |

### Q7 What Incident Management System did you utilize prior to the Blue Card Incident Management System?

Answered: 3 Skipped: 0

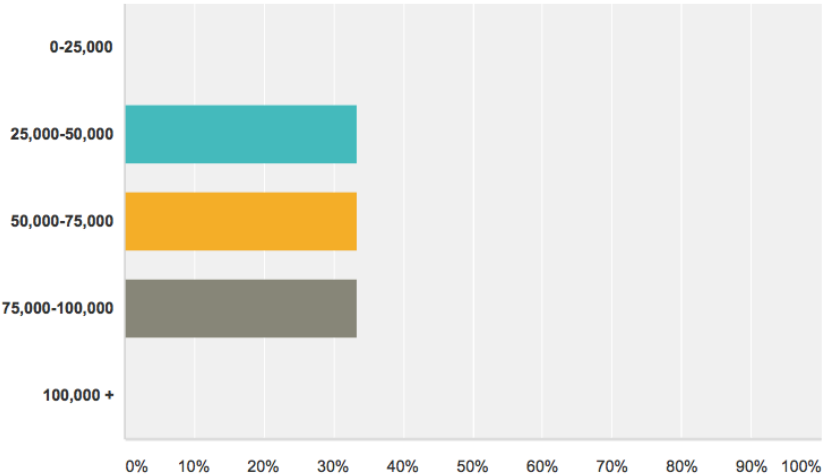


| Answer Choices              | Responses |
|-----------------------------|-----------|
| NIMS ICS                    | 66.67% 2  |
| ITAC                        | 100.00% 3 |
| <b>Total Respondents: 3</b> |           |

| # | Other (please specify)  | Date |
|---|-------------------------|------|
|   | There are no responses. |      |

### Q8 What is the population served by your department?

Answered: 3 Skipped: 0



| Answer Choices              | Responses |
|-----------------------------|-----------|
| 0-25,000                    | 0.00% 0   |
| 25,000-50,000               | 33.33% 1  |
| 50,000-75,000               | 33.33% 1  |
| 75,000-100,000              | 33.33% 1  |
| 100,000 +                   | 0.00% 0   |
| <b>Total Respondents: 3</b> |           |

| # | Other (please specify)  | Date |
|---|-------------------------|------|
|   | There are no responses. |      |

**Q9 How many square miles does your department cover?**

Answered: 3 Skipped: 0

| # | Responses       | Date               |
|---|-----------------|--------------------|
| 1 | 66              | 6/16/2015 10:16 AM |
| 2 | 21 square miles | 5/11/2015 7:09 PM  |
| 3 | 160             | 5/11/2015 7:03 PM  |

**Q10 From an operational standpoint, what would you say about the overall Blue Card Incident Management System and Training Program.**

Answered: 3 Skipped: 0

| # | Responses  | Date               |
|---|--|--------------------|
| 1 | It was the first time our officer's have sat down and trained on the same concepts, tactics and communication.   | 6/16/2015 10:16 AM |
| 2 | First time in 30+ years of fire service career, the entire area I've worked has used a consistent IMS. With this consistency, our department has become focused much more on specific tactics for fire ground factors. | 5/11/2015 7:09 PM  |
| 3 | Overall its a good training program. However it is expensive and there is a certain level of uncertainty as to its longevity (how long agencies in the county will use it before transitioning to another program.     | 5/11/2015 7:03 PM  |

**Phone Interview Responses:**

1. How many suppression personnel are employed at your department? Please include firefighters, firefighter/paramedics, officers and battalion chiefs.

a. Answer: 175

2. How many of those suppression personnel have been trained in the Blue Card Incident Management System? (Training means they have completed the Command Training Center and are certified in the Blue Card Training System)

a. Answer: 60+

3. When did your department first start training in the Blue Card Incident Command System? (For this question consider “start training” for the initial sign in to the on-line program)

a. Answer: January 2014

4. How did your department learn about Blue Card Incident Management?

a. Answer: On-line

5. How would you rank improvement for incident management using the Blue Card Incident Management Training System?

a. Answer: Greatly improved

6. Will your department continue to train personnel in the Blue Card Incident Management System?

a. Answer: Yes

7. What incident management system did you utilize prior to the Blue Card Incident Management System?

a. Answer: ITAC and NIMS ICS

8. What is the population served by your department?
  - a. Answer: 250,000
9. How many square miles does your department cover?
  - a. Answer: 90
10. From an operational standpoint, what would you say about the overall Blue Card Incident Management System and Training Program?
  - a. Answer: It has provided us with consistency across all stations and shifts. It also has improved communications and increased the ability to work within and apply application to our SOP's.

**Appendix B**

**Clark County Fire District 3  
Pre-Evaluation Study**

**STUDENT:** \_\_\_\_\_

**DATE:** \_\_\_\_\_

**INITIAL RADIO REPORT:**

| <b>Building Area/Description</b> | <b>SIM 1</b> | <b>SIM 2</b> | <b>SIM 3</b> | <b>SIM 4</b> | <b>SIM 5</b> |
|----------------------------------|--------------|--------------|--------------|--------------|--------------|
| SIZE                             |              |              |              |              |              |
| HEIGHT                           |              |              |              |              |              |
| OCCUPANCY TYPE                   |              |              |              |              |              |

| <b>Problem Description</b> | <b>SIM 1</b> | <b>SIM 2</b> | <b>SIM 3</b> | <b>SIM 4</b> | <b>SIM 5</b> |
|----------------------------|--------------|--------------|--------------|--------------|--------------|
| SMOKE/FIRE CONDITIONS      |              |              |              |              |              |
| LOCATION – FLOOR           |              |              |              |              |              |
| LOCATION - SIDE            |              |              |              |              |              |

| <b>Initial I.A.P.</b> | <b>SIM 1</b> | <b>SIM 2</b> | <b>SIM 3</b> | <b>SIM 4</b> | <b>SIM 5</b> |
|-----------------------|--------------|--------------|--------------|--------------|--------------|
| TASK(S)               |              |              |              |              |              |
| LOCATION              |              |              |              |              |              |
| OBJECTIVE             |              |              |              |              |              |

| <b>Declare Strategy</b> | <b>SIM 1</b> | <b>SIM 2</b> | <b>SIM 3</b> | <b>SIM 4</b> | <b>SIM 5</b> |
|-------------------------|--------------|--------------|--------------|--------------|--------------|
| OFFENSIVE               |              |              |              |              |              |
| DEFENSIVE               |              |              |              |              |              |

| <b>Resource Determination</b> | <b>SIM 1</b> | <b>SIM 2</b> | <b>SIM 3</b> | <b>SIM 4</b> | <b>SIM 5</b> |
|-------------------------------|--------------|--------------|--------------|--------------|--------------|
|                               |              |              |              |              |              |

| <b>Command</b> | <b>SIM 1</b> | <b>SIM 2</b> | <b>SIM 3</b> | <b>SIM 4</b> | <b>SIM 5</b> |
|----------------|--------------|--------------|--------------|--------------|--------------|
| ASSUME         |              |              |              |              |              |
| NAME           |              |              |              |              |              |

**FOLLOW-UP REPORT**

| <b>Results of the 360</b> | <b>SIM 1</b> | <b>SIM 2</b> | <b>SIM 3</b> | <b>SIM 4</b> | <b>SIM 5</b> |
|---------------------------|--------------|--------------|--------------|--------------|--------------|
| # OF STORIES IN REAR      |              |              |              |              |              |
| BASEMENT/TYPE             |              |              |              |              |              |
| PROBLEM IF DIFFERENT      |              |              |              |              |              |
| ANY IMMEDIATE LIFE SAFETY |              |              |              |              |              |
| OTHER HAZARDS             |              |              |              |              |              |
| ANY CHANGES TO THE IAP    |              |              |              |              |              |
| ACCOUNTABILITY LOCATION   |              |              |              |              |              |

| <b>Building Area/Description</b> | <b>SIM 6</b> | <b>SIM 7</b> | <b>SIM 8</b> | <b>SIM 9</b> | <b>SIM 10</b> |
|----------------------------------|--------------|--------------|--------------|--------------|---------------|
| SIZE                             |              |              |              |              |               |
| HEIGHT                           |              |              |              |              |               |
| OCCUPANCY TYPE                   |              |              |              |              |               |

| <b>Problem Description</b> | <b>SIM 6</b> | <b>SIM 7</b> | <b>SIM 8</b> | <b>SIM 9</b> | <b>SIM 10</b> |
|----------------------------|--------------|--------------|--------------|--------------|---------------|
| SMOKE/FIRE CONDITIONS      |              |              |              |              |               |
| LOCATION – FLOOR           |              |              |              |              |               |
| LOCATION - SIDE            |              |              |              |              |               |

| <b>Initial I.A.P.</b> | <b>SIM 6</b> | <b>SIM 7</b> | <b>SIM 8</b> | <b>SIM 9</b> | <b>SIM 10</b> |
|-----------------------|--------------|--------------|--------------|--------------|---------------|
| TASK(S)               |              |              |              |              |               |
| LOCATION              |              |              |              |              |               |
| OBJECTIVE             |              |              |              |              |               |

| <b>Declare Strategy</b> | <b>SIM 6</b> | <b>SIM 7</b> | <b>SIM 8</b> | <b>SIM 9</b> | <b>SIM 10</b> |
|-------------------------|--------------|--------------|--------------|--------------|---------------|
| OFFENSIVE               |              |              |              |              |               |
| DEFENSIVE               |              |              |              |              |               |

| <b>Resource Determination</b> | <b>SIM 6</b> | <b>SIM 7</b> | <b>SIM 8</b> | <b>SIM 9</b> | <b>SIM 10</b> |
|-------------------------------|--------------|--------------|--------------|--------------|---------------|
|                               |              |              |              |              |               |

| <b>Command</b> | <b>SIM 6</b> | <b>SIM 7</b> | <b>SIM 8</b> | <b>SIM 9</b> | <b>SIM 10</b> |
|----------------|--------------|--------------|--------------|--------------|---------------|
| ASSUME NAME    |              |              |              |              |               |

**FOLLOW-UP REPORT**

| <b>Results of the 360</b> | <b>SIM 6</b> | <b>SIM 7</b> | <b>SIM 8</b> | <b>SIM 9</b> | <b>SIM 10</b> |
|---------------------------|--------------|--------------|--------------|--------------|---------------|
| # OF STORIES IN REAR      |              |              |              |              |               |
| BASEMENT/TYPE             |              |              |              |              |               |
| PROBLEM IF DIFFERENT      |              |              |              |              |               |
| ANY IMMEDIATE LIFE SAFETY |              |              |              |              |               |
| OTHER HAZARDS             |              |              |              |              |               |
| ANY CHANGES TO THE IAP    |              |              |              |              |               |
| ACCOUNTABILITY LOCATION   |              |              |              |              |               |

| <b>TOTAL POINTS</b>                              | <b>SIM 1</b> | <b>SIM 2</b> | <b>SIM 3</b> | <b>SIM 4</b> | <b>SIM 5</b> |
|--|--------------|--------------|--------------|--------------|--------------|
| <b>INITIAL RADIO REPORT AND FOLLOW-UP REPORT</b> |              |              |              |              |              |
| Point A  |              |              |              |              |              |

| TOTAL POINTS | SIM 6 | SIM 7 | SIM 8 | SIM 9 | SIM 10 |
|--------------|-------|-------|-------|-------|--------|
|--------------|-------|-------|-------|-------|--------|

**INITIAL RADIO REPORT AND FOLLOW-UP REPORT**

|         |  |
|---------|--|
| Point A |  |
|---------|--|

**ASSIGNING UNITS**

| Ladder 1 | SIM 1 | SIM 2 | SIM 3 | SIM 4 | SIM 5 |
|----------|-------|-------|-------|-------|-------|
|----------|-------|-------|-------|-------|-------|

|   |  |  |  |  |  |
|---|--|--|--|--|--|
| TASK  |  |  |  |  |  |
| LOCATION  |  |  |  |  |  |
| OBJECTIVE   |  |  |  |  |  |
| WATER SUPPLY ADDRESSED (IF APPLICABLE)                      |  |  |  |  |  |
| DESIGNATE THE UNIT WITH HANDLINE DEPLOYMENT (IF APPLICABLE) |  |  |  |  |  |

**ASSIGNING UNITS**

| Engine 1 | SIM 1 | SIM 2 | SIM 3 | SIM 4 | SIM 5 |
|----------|-------|-------|-------|-------|-------|
|----------|-------|-------|-------|-------|-------|

|   |  |  |  |  |  |
|---|--|--|--|--|--|
| TASK  |  |  |  |  |  |
| LOCATION  |  |  |  |  |  |
| OBJECTIVE   |  |  |  |  |  |
| WATER SUPPLY ADDRESSED (IF APPLICABLE)                      |  |  |  |  |  |
| DESIGNATE THE UNIT WITH HANDLINE DEPLOYMENT (IF APPLICABLE) |  |  |  |  |  |

| TOTAL POINTS | SIM 1 | SIM 2 | SIM 3 | SIM 4 | SIM 5 |
|--------------|-------|-------|-------|-------|-------|
|--------------|-------|-------|-------|-------|-------|

**ASSIGNING UNITS**

|          |  |
|----------|--|
| LADDER 1 |  |
| ENGINE 1 |  |
| Point C  |  |
| Point D  |  |
| Point E  |  |

**ROOF REPORTS**

|  | SIM 1 | SIM 2 | SIM 3 |
|--|-------|-------|-------|
|--|-------|-------|-------|

|  |  |
|--|--|
| CONDITION OF ROOF (STABLE OR UNSTABLE) |  |
| FIRE OR SMOKE CONDITIONS               |  |

|  |  |
|--|--|
| (LOCATION)   |  |
| <b>LOCATION OF ANY FIRE WALLS</b><br>(IF PRESENT)      |  |
| <b>HEAVY ROOF LOADS</b><br>(IF PRESENT)                |  |
| <b>CONDITIONS OF THE ATTIC</b><br>(IF KNOWN)           |  |
| <b>BASIC BLUEPRINT OF THE BUILDING</b><br>(IF UNUSUAL) |  |

| <b>TOTAL POINTS</b> | <b>SIM 1</b> | <b>SIM 2</b> | <b>SIM 3</b> |
|---------------------|--------------|--------------|--------------|
|---------------------|--------------|--------------|--------------|

| <b>ROOF REPORTS</b> |
|---------------------|
|                     |

### Clark County Fire District 3 Post-Evaluation Study

STUDENT: \_\_\_\_\_

DATE: \_\_\_\_\_

#### INITIAL RADIO REPORT:

| Building Area/Description | SIM 1 | SIM 2 | SIM 3 | SIM 4 | SIM 5 |
|---------------------------|-------|-------|-------|-------|-------|
| SIZE                      |       |       |       |       |       |
| HEIGHT                    |       |       |       |       |       |
| OCCUPANCY TYPE            |       |       |       |       |       |

| Problem Description   | SIM 1 | SIM 2 | SIM 3 | SIM 4 | SIM 5 |
|-----------------------|-------|-------|-------|-------|-------|
| SMOKE/FIRE CONDITIONS |       |       |       |       |       |
| LOCATION – FLOOR      |       |       |       |       |       |
| LOCATION - SIDE       |       |       |       |       |       |

| Initial I.A.P. | SIM 1 | SIM 2 | SIM 3 | SIM 4 | SIM 5 |
|----------------|-------|-------|-------|-------|-------|
| TASK(S)        |       |       |       |       |       |
| LOCATION       |       |       |       |       |       |
| OBJECTIVE      |       |       |       |       |       |

| Declare Strategy | SIM 1 | SIM 2 | SIM 3 | SIM 4 | SIM 5 |
|------------------|-------|-------|-------|-------|-------|
| OFFENSIVE        |       |       |       |       |       |
| DEFENSIVE        |       |       |       |       |       |

| Resource Determination | SIM 1 | SIM 2 | SIM 3 | SIM 4 | SIM 5 |
|------------------------|-------|-------|-------|-------|-------|
|                        |       |       |       |       |       |

| Command | SIM 1 | SIM 2 | SIM 3 | SIM 4 | SIM 5 |
|---------|-------|-------|-------|-------|-------|
| ASSUME  |       |       |       |       |       |
| NAME    |       |       |       |       |       |

#### FOLLOW-UP REPORT

| Results of the 360        | SIM 1 | SIM 2 | SIM 3 | SIM 4 | SIM 5 |
|---------------------------|-------|-------|-------|-------|-------|
| # OF STORIES IN REAR      |       |       |       |       |       |
| BASEMENT/TYPE             |       |       |       |       |       |
| PROBLEM IF DIFFERENT      |       |       |       |       |       |
| ANY IMMEDIATE LIFE SAFETY |       |       |       |       |       |
| OTHER HAZARDS             |       |       |       |       |       |
| ANY CHANGES TO THE IAP    |       |       |       |       |       |
| ACCOUNTABILITY LOCATION   |       |       |       |       |       |

| <b>Building Area/Description</b> | <b>SIM 6</b> | <b>SIM 7</b> | <b>SIM 8</b> | <b>SIM 9</b> | <b>SIM 10</b> |
|----------------------------------|--------------|--------------|--------------|--------------|---------------|
| SIZE                             |              |              |              |              |               |
| HEIGHT                           |              |              |              |              |               |
| OCCUPANCY TYPE                   |              |              |              |              |               |

| <b>Problem Description</b> | <b>SIM 6</b> | <b>SIM 7</b> | <b>SIM 8</b> | <b>SIM 9</b> | <b>SIM 10</b> |
|----------------------------|--------------|--------------|--------------|--------------|---------------|
| SMOKE/FIRE CONDITIONS      |              |              |              |              |               |
| LOCATION – FLOOR           |              |              |              |              |               |
| LOCATION - SIDE            |              |              |              |              |               |

| <b>Initial I.A.P.</b> | <b>SIM 6</b> | <b>SIM 7</b> | <b>SIM 8</b> | <b>SIM 9</b> | <b>SIM 10</b> |
|-----------------------|--------------|--------------|--------------|--------------|---------------|
| TASK(S)               |              |              |              |              |               |
| LOCATION              |              |              |              |              |               |
| OBJECTIVE             |              |              |              |              |               |

| <b>Declare Strategy</b> | <b>SIM 6</b> | <b>SIM 7</b> | <b>SIM 8</b> | <b>SIM 9</b> | <b>SIM 10</b> |
|-------------------------|--------------|--------------|--------------|--------------|---------------|
| OFFENSIVE               |              |              |              |              |               |
| DEFENSIVE               |              |              |              |              |               |

| <b>Resource Determination</b> | <b>SIM 6</b> | <b>SIM 7</b> | <b>SIM 8</b> | <b>SIM 9</b> | <b>SIM 10</b> |
|-------------------------------|--------------|--------------|--------------|--------------|---------------|
|                               |              |              |              |              |               |

| <b>Command</b> | <b>SIM 6</b> | <b>SIM 7</b> | <b>SIM 8</b> | <b>SIM 9</b> | <b>SIM 10</b> |
|----------------|--------------|--------------|--------------|--------------|---------------|
| ASSUME NAME    |              |              |              |              |               |

**FOLLOW-UP REPORT**

| <b>Results of the 360</b> | <b>SIM 6</b> | <b>SIM 7</b> | <b>SIM 8</b> | <b>SIM 9</b> | <b>SIM 10</b> |
|---------------------------|--------------|--------------|--------------|--------------|---------------|
| # OF STORIES IN REAR      |              |              |              |              |               |
| BASEMENT/TYPE             |              |              |              |              |               |
| PROBLEM IF DIFFERENT      |              |              |              |              |               |
| ANY IMMEDIATE LIFE SAFETY |              |              |              |              |               |
| OTHER HAZARDS             |              |              |              |              |               |
| ANY CHANGES TO THE IAP    |              |              |              |              |               |
| ACCOUNTABILITY LOCATION   |              |              |              |              |               |

| <b>TOTAL POINTS</b>                              | <b>SIM 1</b> | <b>SIM 2</b> | <b>SIM 3</b> | <b>SIM 4</b> | <b>SIM 5</b> |
|--|--------------|--------------|--------------|--------------|--------------|
| <b>INITIAL RADIO REPORT AND FOLLOW-UP REPORT</b> |              |              |              |              |              |
| Point A  |              |              |              |              |              |

**TOTAL POINTS**                      **SIM 6**                      **SIM 7**                      **SIM 8**                      **SIM 9**                      **SIM 10**  
**INITIAL RADIO REPORT**  
**AND FOLLOW-UP REPORT**

|         |  |  |  |  |  |
|---------|--|--|--|--|--|
| Point A |  |  |  |  |  |
|---------|--|--|--|--|--|

**ASSIGNING UNITS**

**Ladder 1**                                      **SIM 1**                      **SIM 2**                      **SIM 3**                      **SIM 4**                      **SIM 5**

|   |  |  |  |  |  |
|---|--|--|--|--|--|
| TASK  |  |  |  |  |  |
| LOCATION  |  |  |  |  |  |
| OBJECTIVE   |  |  |  |  |  |
| WATER SUPPLY ADDRESSED<br>(IF APPLICABLE)                         |  |  |  |  |  |
| DESIGNATE THE UNIT WITH<br>HANDLINE DEPLOYMENT<br>(IF APPLICABLE) |  |  |  |  |  |

**ASSIGNING UNITS**

**Engine 1**                                      **SIM 1**                      **SIM 2**                      **SIM 3**                      **SIM 4**                      **SIM 5**

|   |  |  |  |  |  |
|---|--|--|--|--|--|
| TASK  |  |  |  |  |  |
| LOCATION  |  |  |  |  |  |
| OBJECTIVE   |  |  |  |  |  |
| WATER SUPPLY ADDRESSED<br>(IF APPLICABLE)                         |  |  |  |  |  |
| DESIGNATE THE UNIT WITH<br>HANDLINE DEPLOYMENT<br>(IF APPLICABLE) |  |  |  |  |  |

**TOTAL POINTS**                      **SIM 1**                      **SIM 2**                      **SIM 3**                      **SIM 4**                      **SIM 5**  
**ASSIGNING UNITS**

|          |    |    |    |    |   |
|----------|----|----|----|----|---|
| LADDER 1 | —  |    |    |    |   |
| ENGINE 1 | 87 | —  |    |    |   |
| Point C  | 64 | 56 | —  |    |   |
| Point D  | 37 | 32 | 91 | —  |   |
| Point E  | 93 | 35 | 54 | 43 | — |

**ROOF REPORTS**

**SIM 1**                                      **SIM 2**                                      **SIM 3**

|  |  |  |  |
|--|--|--|--|
| <b>CONDITION OF ROOF</b><br>(STABLE OR UNSTABLE) |  |  |  |
| <b>FIRE OR SMOKE CONDITIONS</b>                  |  |  |  |

|  |  |
|--|--|
| (LOCATION)   |  |
| <b>LOCATION OF ANY FIRE WALLS</b><br>(IF PRESENT)      |  |
| <b>HEAVY ROOF LOADS</b><br>(IF PRESENT)                |  |
| <b>CONDITIONS OF THE ATTIC</b><br>(IF KNOWN)           |  |
| <b>BASIC BLUEPRINT OF THE BUILDING</b><br>(IF UNUSUAL) |  |

| <b>TOTAL POINTS</b> | <b>SIM 1</b> | <b>SIM 2</b> | <b>SIM 3</b> |
|---------------------|--------------|--------------|--------------|
|---------------------|--------------|--------------|--------------|

| <b>ROOF REPORTS</b> |
|---------------------|
|                     |

## **Pre and Post Evaluation Scoring System**

### **Initial Radio Report (IRR)**

#### **Building/area description**

Size – 1 point

Height – 1 point

Occupancy Type – 1 point

#### **Describe the problem**

Smoke/Fire Conditions – 1 point

Location – 2 points

#### **Initial I.A.P.**

Task(s) – 1 point

Location – 1 point

Objective(s) – 1 point

#### **Declaration of the Strategy – 1 point**

Offensive or

Defensive

#### **Resource Determination – 1 point**

#### **Assume/Name Command – 1 point**

### **Follow-Up Report**

#### **Result of the 360 (only score if they apply)**

Number of Stories in rear – 1 point

Basement / Type – 1 point

Problem – if different – 2 points

Any immediate Life Safety? – 1 point

Other hazards – 1 point

#### **Any Changes to IAP? – 1 point**

#### **Accountability Location – 1 point**

Alpha

Bravo

Charlie

Delta

**Assigning Units**

Task(s) – 1 point

Location – 1 point

Objective(s) – 1 point

Water supply addressed (if applicable) – 1 point

Designate the Unit with a handline deployment (if applicable) – 1 point

**Roof Reports**

Type of Roof (peaked, flat, etc.) – 1 point

Condition of Roof (stable, unstable) – 1 point

Fire or Smoke conditions (location) – 1 point

Location of any Firewalls – 1 point

Heavy Roof Loads (if present) – 1 point

Conditions in the Attic (if known) – 1 point

Basic Blueprint of Building if unusual – 1 point