

**THE IMPLEMENTATION OF WILDLAND CERTIFICATION STANDARDS FOR  
STRUCTURAL FIREFIGHTERS IN CLARK COUNTY, WASHINGTON**

Strategic Management of Change

BY: Michael J. Ciraulo  
Clark County Fire District No. 11  
Battle Ground, Washington

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## ABSTRACT

This research project looked at wildland fire certifications and how to apply them to structural firefighters in Clark County, Washington. The problem was that there were no wildland certification standards for structural firefighters in Clark County. The purpose of this applied research paper was to implement wildland certification standards for all structural firefighters in Clark County.

This research employed both action and evaluative research (a) to identify what wildland certification standards currently exist, (b) to identify what certification levels are applicable to each level within the organization, (c) to identify what the requirements for each certification level are, and (d) to identify how these certification standards should be implemented. The principle procedures employed were a review of existing certification systems and a review of available literature. Several interviews were also conducted to gauge the willingness of management and labor to participate in this implementation.

The results of this project identified the NWCG Wildland Fire Qualification certification system as the system to be used for certifying personnel. A table was developed identifying all of the appropriate certification levels for each level within the organization, as well as the requirements for each level. Finally, a plan to implement the change within the organization utilizing the change management model, was identified.

The recommendations resulting from this research included (a) the adoption of certification standards for all identified personnel to be gradually implemented over a two-year period, (b) providing the training necessary to ensure all personnel are certified at the appropriate level within the organization, (c) adopting hiring standards that require wildland certification for

all identified positions, and (d) promoting the adoption of certification standards throughout the region and the state through various means.

**TABLE OF CONTENTS**

**ABSTRACT ..... 2**

**TABLE OF CONTENTS ..... 4**

**INTRODUCTION ..... 5**

**BACKGROUND AND SIGNIFICANCE ..... 6**

**LITERATURE REVIEW ..... 8**

**PROCEDURES ..... 11**

**RESULTS ..... 13**

**DISCUSSION ..... 16**

**RECOMMENDATIONS ..... 18**

**REFERENCES ..... 19**

**APPENDIX A (Applicable Certification Levels) ..... 22**

**APPENDIX B (Wildland Fire Qualification Subsystem Guide)..... 23**

## INTRODUCTION

The fire departments in Clark County have faced an increasing number of wildland fires both within the county and in other portions of the state. The agency responsible for the majority of wildland firefighting within the state has received severe budget cuts within the last decade forcing local agencies to assume an increasing amount of responsibility for fighting wildland fires. In the past the district has responded any available personnel regardless of their training level or experience in fighting wildland fires. This lack of firefighter training or experience together with the large number of fireground fatalities associated with wildfires is a disaster waiting to happen.

The problem is that there are no wildland certification standards for structural firefighters in Clark County. The purpose of this applied research paper is to implement wildland certification standards for all structural firefighters in Clark County. The action and evaluative research methods were employed to answer the following questions:

1. What wildland certification standards currently exist?
2. What certification levels are applicable to each level within the organization?
3. What are the requirements for each certification level?
4. How should these certification standards be implemented?

## **BACKGROUND AND SIGNIFICANCE**

In 1986, all of the fire departments in Clark County, Washington, adopted the National Interagency Incident Management System (NIIMS) Incident Command System (ICS) for use on all types of emergencies. Since then, all of the departments have been successful in using this system for managing every type of incident, from small medical incidents to large-scale wildland conflagration fires. In 1992, in the wake of the 1991 Spokane firestorm, the Washington State Legislature directed the creation of a Washington State Fire Services Resource Mobilization Plan (Washington State Military Department, 1995). Under this plan, a gradual implementation of wildland certification standards was adopted for all firefighters participating in state mobilizations involving wildland fires. Since the state had already adopted the NIIMS ICS, the decision to utilize the NIIMS National Wildfire Coordinating Group (NWCG) Wildland Fire Qualification System was instrumental in merging all of the training and management programs together.

Since 1992, the state has averaged seven wildfire mobilization fires per year. Concurrently, the fire departments in Clark County have participated in mobilization fires on an average of 4.3 times per year (Yager, 2000). The trend over the last five years has demonstrated an increasing use of structural based firefighters on wildland fires with a corresponding decrease in number of firefighters employed by the Washington State Department of Natural Resources (DNR), who traditionally provided wildland firefighting services (Yager, 2000). The future use of structural firefighters is almost assured due to forecasted budget cuts for the DNR (Luse, 1999). Thus structural fire departments will be forced to address wildland issues more frequently. As the DNR continues on a path of downsizing and budget-cutting, the resulting

organizational changes have eliminated some critical initial attack and extended attack resources and field level oversight by experienced personnel, diminishing the capacity to safely and effectively attack fires while they are small. At the same time, the DNR and other agencies expended a record-breaking amount of money suppressing large fires from 1994-1996 (TriData, 1996).

In the past it was acceptable to send structural firefighters to wildland incidents because they were used on a limited basis and primarily for structural protection. Currently however, structural firefighters are being used more frequently and in a variety of roles on wildland incidents (Malstead, 2000). By 2003 the state of Washington will require that fire districts and departments only send (NWCG) certified personnel to wildland incidents (Washington State Military Department, 1995).

In 1995, 78% of fireground firefighter deaths were at residential and wildland fires (TriData, 1998). Wildland interface fires account for the greatest fire losses in American history. The fire that overran Peshtigo, Wisconsin, and surrounding areas in 1871 remains the worst loss-of-life fire in the United States (Lyons, 1976). The Oakland/Berkeley Hills fire that began on October 20, 1991 remains the largest dollar loss fire in American history (Queen, 1991). These factors are forcing structural fire departments to look at training and certification standards for firefighters who may fight fires in the wildland.

While unionized firefighters have traditionally resisted attempts to enact certification standards for represented firefighters, the local bargaining group has been aggressively pursuing the adoption of certification standards for firefighters in Clark County (Shirley, 2000). This is due in part to safety issues, but also in part to overtime opportunities that are present for certified firefighters during state mobilization fires. Additionally, local volunteers are eagerly seeking

opportunities to obtain certifications to assist them in obtaining employment as full-time paid firefighters as well as providing opportunities for additional income (Heiter, 2000).

The implementation of wildland certification standards for structural firefighters dovetails perfectly with the change management model that is taught in the Strategic Management of Change course at the National Fire Academy. If not implemented in a systematic, organized method, this change may not come to fruition. Thus the use of a model for implementing change will greatly increase the chances of success. Ultimately the goal of these certification standards is to provide a more knowledgeable and safer work force.

Utilizing the third phase of the change management model, the tasks can be broken down as necessary to increase the chances of success for the implementation of certification standards for firefighters by creating an environment of shared vision and common direction, minimizing initial resistance to change through effective communications, creating a sense of urgency and pace for change, developing and implementing change enabling mechanisms, and finally implementing planned change methods and techniques (National Fire Academy, 1996).

## **LITERATURE REVIEW**

Numerous states have certification standards for firefighters. Most states that have certification standards for firefighters base the knowledge and skill level on structural firefighting aspects (Estepp, 1994). Leschak (1994) describes that in the state of Montana, the state offers certification at the level of firefighter 1 and 2. However, only a small portion of the certification testing is based on wildland knowledge. The state offers no other formal certification process for wildland firefighters. In the state of Oregon, the Department of Public



Safety Standards & Training (DPSST) coordinates certifications for firefighters and police officers. DPSST certifies wildland firefighters in Oregon based on NWCG standards but does not coordinate that certification with the NWCG or any other national agency (DPSST, 2000). It does however use some of the NWCG courses and task books to accomplish this certification (Gablicks, 1998). Hughes (1995) described the efforts of the state of Texas to adopt certification standards for firefighters. He identified that although they were successful in adopting four levels of certification, none applied to wildland firefighting.

The state of Washington has adopted the International Fire Service Accreditation Congress (IFSAAC) certification for firefighters. This certification also lacks any substantial linkage to wildland firefighting (K. Morse, personal communication, May 17, 2000). Although the state will mandate that all participants in mobilization fires must be NWCG certified after 2003, this does not apply to fires that are not state mobilizations.

In the United States today, nearly every fire department has adopted the Incident Command System for use on emergency scenes (Carlson, 1984). Originally developed as an answer to the problem of the large wildland fires that occurred in the 1970's, ICS has grown to become a management system that allows different agencies to work toward a common goal in an effective and efficient manner (Carlson, 1984). As a scene management tool, ICS is an all risk operating system that can be adapted to fit any type and size of incident, based on its particular needs (Mason, 1995).

The NWCG has been very successful at integrating state and federal efforts at the national level. The NWCG attempts to design and coordinate programs of its participating agencies to avoid wasteful duplication and provide a means of constructively working together towards a common goal. The current membership of NWCG includes two representatives from

the Forest Service, one each from the Fish and Wildlife Service, National Park Service, the Bureau of Indian Affairs, and the Bureau of Land Management; two state representatives, one representing Eastern states and the other western states (through the National Association of State Foresters); and a representative of the U.S. Fire Administration (NWCG, 1997).

Recognizing the importance of well-trained and experienced people to fill incident positions within ICS, the NWCG developed the concept of certification standards for all positions (Teie, 1994). These standards are listed in the Wildland Fire Qualification Subsystem Guide (Appendix B).

Each position within ICS is listed with the corresponding required training, suggested training, experience required to obtain certification, and fitness requirements for that level. Each person who is certified within this system is issued a red certification card that is to be carried at all times while on incidents. These cards are checked on a regular basis to ensure appropriate levels of certification for all positions while on incidents. An individual must perform in the position that he/she is certified for at least once during a three-year period to maintain certification (Eisner, 1995).

The author was unable to identify through his research any other agency, group, or organization (other than the NWCG) that offers a national wildland fire certification of any type that is recognized by any state or federal agency.

Clark County Fire District No. 11 has adopted a rank structure for its personnel that is similar to those of surrounding agencies and hierarchal in nature (W. Hansen, personal communication, August 22, 2000). The main operational position within the suppression side of the organization is the rank of firefighter. This is a single level position that encompasses all firefighters, to include volunteers, part-time paid, and full-time paid personnel. The company

officer position is staffed with full-time paid personnel at the rank of Captain. The district also employs two battalion chiefs, one assistant chief, and the fire chief. 78% of all the district's firefighters have obtained certification at the entry level of Firefighter Type 2. One captain is at the certification level of Strike Team Leader, one is a certified Single Resource Boss, and the third is rated as a Firefighter Type 1. One battalion chief is rated as a Division Supervisor and the other battalion chief is not certified at any level. The assistant chief is rated as a Strike Team Leader and the chief is rated as a Planning Section Chief (*CCFD No. 11 Organizational Structure*, 1999).

The DNR, which has adopted the NWCG certification system, requires certification levels for each position within the organization that participates in firefighting. All firefighters are required to be certified as a Firefighter Type 2. The rest of organization follows the Wildland Fire Qualification Subsystem Guide regardless of rank or position within the organization (Malstead, 2000).

The requirements for each certification level are listed in Wildland Fire Qualification Subsystem Guide (Appendix B).

## **PROCEDURES**

### **Methodology**

Research primarily involved an evaluation of existing certification systems within the state of Washington, in other states, and across the country. Additionally, several chief officers and union officials were interviewed in regards to this project and its potential impacts on the fire service in Clark County.

Action research was also used in that the information gathered was applied to develop the applicable certification levels and the requirements for certification. Additionally, the change management model was used as the basis for the implementation of the proposed addition of certification standards for firefighting personnel.

### **Assumptions and Limitations**

The procedures used to complete this research project were based on two assumptions. First, it is assumed that all authors included in the literature review performed objective and unbiased research in the preparation of their work. Second, it is assumed that the state of Washington does not intend to abandon its current state mobilization plan and that the DNR intends on the continued use of the NWCG certification system.

The limitations that affected this research project included time, changing priorities of district and union officials, and its limited scope and size. To be more effective, this concept should be addressed on a larger, regional basis.

### **Definition of Terms**

DNR: The Washington State Department of Natural Resources. This agency is responsible for all fires on unimproved lands within the state of Washington.

Incident Command System: An organized system of roles, responsibilities, and procedures used to manage incidents.

Mobilization: The process, under Washington state law, in which resources from across the state are utilized to assist local agencies when mutual aid is unable to control an emergency incident.

NIIMS: The National Interagency Incident Management System. This was a result of the FIRESCOPE Program in California. This system consists of procedures for controlling personnel, facilities, equipment, and communications.

NWCG: The National Wildfire Coordinating Group. A federally sponsored training, education, and research group that is under the direction of the United States Department of Agriculture.

## RESULTS

### **Answers to Research Questions**

#### **Research Question 1. What wildland certification standards currently exist?**

There is only one national certification system currently in use across the country, the NWCG National Fire Qualification Subsystem. The DNR has adopted this standard and has no plans to deviate from its usage in the future (Malstead, 2000). Thus to fully integrate wildland operations with structurally based fire departments, the only choice is the NWCG certification system. Additionally, since all organizations within Clark County and the State of Washington have adopted the ICS, the NWCG system would dovetail perfectly with the use of the ICS within the county and state.

#### **Research Question 2. What certification levels are applicable to each level within the organization?**

The applicable certification level for all firefighters is that of Firefighter Type 2. This would again align the district's forces with the DNR and would allow the district to send any and

all personnel on state mobilizations. The increased safety from having all firefighters at this level would justify the costs associated with training the remaining 22% of the firefighters who need this certification.

Since the district's paid firefighters serve in an informal leadership role, they should be certified at the Firefighter Type 1 level (Yager, 2000). All of the current paid firefighters are presently at this level, thus no additional cost would be borne by the district.

The captains should be qualified at the level of Single Resource Boss since that aligns with their day-to-day duties being in charge of a single company (Yager, 2000). Two of the captains currently hold this certification level or higher. The third captain only needs one more class to obtain this certification level.

The battalion chiefs should be rated at the Strike Team Leader level given their leadership responsibilities and experience (see Appendix A). However, it should be noted that one battalion chief is currently rated above that level as a Division Supervisor and one battalion chief has obtained no certification level within the NWCG certification system and has no desire to do so (A. Kostman, personal communication, July 7, 2000). By the final implementation date, the battalion chief with no certification will have retired and thus it is not necessary to address this issue.

Although the assistant chief and chief are both currently rated at high positions, the author felt it would be inappropriate to identify minimum levels of certification for these individuals due to the various requirements of these positions and since utilization of these positions would be solely at the discretion of the individuals (Mason, 2000).

Research Question 3. **What are the requirements for each certification level?**

Appendix B lists all the requirements for each certification level.

Research Question 4. **How should these certification standards be implemented?**

Utilizing the third phase of the change management model, a high likelihood of success is possible for the implementation of these certification standards. Task 3.1, creating an environment of shared vision and common direction, will be accomplished by communicating the proposed change in officers meetings, volunteer association meetings, and any other formal or informal gathering of district personnel. Another key point to ensure shared vision will be to line-up political sponsorship. In addition gaining the backing of leaders within the organization, both formal and informal, will assist in instilling a positive perspective to the proposed change. The governing body of the district has expressed its support for the change and has agreed informally to provide the associated funding to support the training, and experience opportunities that would be necessary to reach the listed certification levels.

The next step is task 3.2, minimizing initial resistance to change through effective communications. To instill a sense of control, the rationale and implications of the proposed change, together with how the change will be operationalized will be communicated. The timing and pace of implementation will also be communicated through a monthly newsletter that is currently in use by the training division.

Task 3.3 is creating a sense of urgency and pace for the change. A thorough explanation of the benefits for the district, as well as the benefits for individuals, can be used to create a desire for rapid change as well as obtaining buy off from individuals who may only be motivated by factors of self-interest. Due to the increased opportunity for overtime that the change will

offer unionized members, their support is anticipated. Volunteer members are expected to be fully supportive of this change due to financial rewards as well as the potential for resume building that would occur.

Offering the training necessary to obtain the appropriate certification levels would accomplish task 3.4, developing and implementing change-enabling mechanisms. Initial discussions with the chief and board members have led to a cautious optimism that the needed funding will be provided to implement the necessary training. The final step would be to implement the change beginning in fiscal year 2001 utilizing funds allocated in that budget year. It is anticipated that it would take a total of two years to fully implement and certify all personnel at the appropriate levels (National Fire Academy, 1996).

## **DISCUSSION**

The results of this research matched the expectations of the author. The alignment of the ICS and NWCG allows the agencies involved to implement these standards without changing the fundamental management system in use by the district. Following the lead of the DNR, local agencies can adopt these certification standards and provide increased firefighter safety and a superior level of service to the citizens of Clark County, as well as the citizens of the state of Washington. As expected, the NWCG wildland certification system was the only true option for the fire districts in Clark County. This corresponds perfectly with the adoption of ICS by both the state of Washington and the local fire departments. There does not appear to be any other viable option for agencies within the state that wish to adopt certification standards.

However, the state continues to slash budgets and often allows small fires to go unchecked for increasingly longer periods of time (Malstead, 2000). These actions suggest a



willingness by budget decision makers to eliminate agency resources needed for fighting numerous small fires and chance having to occasionally pay the price when a fire becomes large. It reinforces the assumption that local fire agencies will be called on an increasingly frequent basis to supply sorely needed resources.

The list of recommended certification levels (Appendix A), which represents a portion of the results of this research, would allow the fire departments in Clark County to ensure greater firefighter safety and ensure a better trained and more capable work force.

In discussions with local fire chiefs, there seemed to be a willingness to adopt the concept of certified wildland firefighters. There is a sense of frustration by the chiefs in regards to the increasing responsibility for fighting wildland fires across the state. However, they also stated that the revenue generated from these mobilizations was assisting with this burden and adding much needed money to already tight budgets. They did, however, express a concern for the funding of the training and experience. They felt that money may not be available for this and that the training division (of the County Fire Chiefs Association) should investigate the possibility of the members volunteering their time to participate in training sessions (J. Green, personal communication, July 2, 2000). This was an unexpected reaction due to the anticipated increase in revenue that having certified firefighters would bring to the fire district. The author's calculations show that the cost of training would be recuperated in less than one fire season.

Local union officials seem eager to adopt certification standards as long as the training is paid for and there is an increase in overtime availability. They also stated that they desire to increase the number of firefighters on duty at any one time and that this could assist them in their efforts (Shirley, 2000). This issue could serve as a platform for union officials to raise issues and

attempt to gain additional positions under the auspices of providing greater firefighter safety and accountability.

## RECOMMENDATIONS

**Recommendation 1.** The district should take Appendix “A” and formally adopt the given standards over a two-year period.

**Recommendation 2.** Once approved, the chief should direct the training division to formulate a plan for initial and ongoing training of these certification levels. This plan should be developed with costs in mind as it may take several years before ongoing continued training may occur.

**Recommendation 3.** If successful in full implementation, the district should modify its hiring standards to include the prerequisite of being wildland certified to be eligible for initial hiring or for promotion, thus decreasing the costs to the district.

**Recommendation 4.** If successful in full implementation, this plan should be taken to the Washington State Association of Fire Chiefs so that other counties and regions may incorporate a similar plan if desired.

## REFERENCES

- Carlson, Gene. (1984). *Incident Command System*. Stillwater, OK: Oklahoma State University.
- Clark County Fire District No. 11. (1999). *Organizational Structure*. Battle Ground, WA: Author.
- Eisner, Michael. (1995, August). *An analysis of the Washington State mobilization plan and the Chelan wildland fires of 1994*. (Executive Fire Officer Research Paper). Emmitsburg, MD: National Fire Academy.
- Estepp, James. (1994, June). The national professional qualifications system. *The Voice*, 28-29.
- Gablks, Erik. (1998). Oregon to Certify Wildland Interface Firefighters. Wildfire News and Notes [On-line]. Available: [www.firewise.org/pubs/wnn](http://www.firewise.org/pubs/wnn)
- Heiter, Matthew M. President. Clark County Volunteers Firefighters Association. Battle Ground, Washington. Written Comments, May 23, 2000.
- Hughes, Paul. (1995, Spring). IFSAC certification and the state of Texas. *Speaking of Fire*, 12-20.
- Leschak, Peter, M. (1994, December). Preplanning Wildland Interface: A Minnesota Approach. *Fire Engineering*, 58.
- Luse, David, E. (1999). *State bulletin to fire agencies*. Olympia, Washington: Washington State Department of Natural Resources.
- Lyons, P.R. (1976). *Fire in America!* Boston: National Fire Protection Association.

Malstead, Dave B. (2000). *Memo concerning use of structural firefighters on wildland incidents*. Castle Rock, Washington: Washington State Department of Natural Resources.

Mason, Dennis. (1995, December). *Implementing a Countywide Multi-Agency Incident Management Team*. (Executive Fire Officer Research Paper). Emmitsburg, MD: National Fire Academy.

Mason, Dennis. (2000). *Inter-departmental memo concerning the use of chief officers on mobilizations*. Battle Ground, Washington: Clark County Fire District No. 11.

National Fire Academy. (1996). *Strategic Management of Change* (NFA –SMOC-SM). Emmitsburg, MD: Author.

NWCG, (1997). Wildland/Urban Interface Fire Protection Program, *Developing a Cooperative Approach to Wildfire Protection*.

Queen, P.R. (1991, December). Conflagration in Oakland. *American Fire Journal*, 12-15.

Shirley, Timothy L. Union President IAFF Local 3784, Battle Ground, Washington. Written Comments, May 23, 2000.

Teie, William C. (1994). *Firefighters Handbook on Wildland Firefighting*. Rescue, CA: Deer Valley Press.

TriData Corporation. (1996). Wildland Firefighter Safety Awareness Study. Boise, ID: National Wildfire Coordinating Group.

TriData Corporation. (1998). Fire in the United States. (AHCPR Publication EMW-95-C-4717). Arlington, VA: Author.

Washington State Military Department. (1995). *Washington State Fire Services Resource Mobilization Procedures*. Tacoma, Washington: Major General Gregory P. Barlow.

Yager, Daniel A. (2000). *Inter-departmental memo concerning state mobilizations*.  
Battle Ground, Washington: Clark County Fire District No. 11.

*Appendices Not Included. Please visit the Learning Resource Center on the Web at <http://www.lrc.fema.gov/> to learn how to obtain this report in its entirety through Interlibrary Loan.*