

Wildland Fire Management: Uniform crew t-shirts within
Bureau of Land Management Fire and Aviation Management programs

By: Jeffrey L. Fedrizzi

Oregon-Washington State Office of Fire and Aviation
Management

U.S. Bureau of Land Management, Portland, Oregon

Uniform crew t-shirts within Bureau of Land Management Fire and Aviation Management programs

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, or writings of another.

Signed: _____

Uniform crew t-shirts within Bureau of Land Management Fire and Aviation Management programs

Abstract

Uniforms help create an identity, pride in appearance, and an esprit de corps essential to an effective organization. Wearing a uniform affects individual behavior including self-discipline, integrity, and organizational ownership.

This applied research project's problem statement is Bureau of Land Management (BLM) policy neither provides for nor funds the purchase of fire crew uniform t-shirts. The purpose of this research is to determine whether or not agency-provided uniform fire crew t-shirts are necessary and, if so, what type would be most appropriate to recommend for a policy change within the BLM. The evaluative method of research was used for the following research questions:

1. What is the importance of uniforms within the fire service?
2. What are firefighters' preferred materials for fire crew uniform t-shirts within the interagency fire service community?
3. What is BLM manual policy for general staff and law enforcement uniforms?
4. What are the National Fire Protection Association (NFPA) and BLM standards for fire crew uniform t-shirts?

Literature review revealed clothing's evolution and its importance within historic empires, militaries, modern corporations, and the fire service. Clothing served royalties' need to indicate authority evolving into uniforms becoming a distinctive pattern and style which provoked a set of expectations for behavior and skills for both the wearer and the audience.

A survey of fire service officers, plus interviews of wildland fire and law enforcement leaders and uniform experts collected knowledge, policies, and appropriate materials evaluate uniform crew t-shirts. Results indicated a majority of firefighters believe uniform t-shirts are a critical factor with the public's and their own perception and confidence in their abilities,

Uniform crew t-shirts within Bureau of Land Management Fire and Aviation Management programs

trustworthiness, and professionalism while performing work. BLM should seek approval of firefighter uniform crew t-shirt either within BLM's Uniform Manual 1103 and/or as safety clothing under the Occupational Safety and Health Act of 1970.

Table of Contents

Table of Contents 5

Background and Significance 8

Literature Review..... 12

Procedures..... 27

Results..... 31

Discussion..... 46

Recommendations..... 51

Reference List..... 54

Appendix A..... 57

Appendix B..... 58

Appendix C..... 59

Uniform crew t-shirts within Bureau of Land Management Fire and Aviation Management programs

Introduction

In Colorado on July 6, 1994 the South Canyon wildfire killed 14 wildland firefighters in one of the worst tragedies within the fire service history. Subsequently, an interagency team was formed to investigate the fatalities and contributing factors. This watershed fire and its Serious Accident Investigation report's findings sparked a Federal Wildland Fire Policy and Program Review in 1995, signed by both Secretaries of Agriculture and the Interior. This review directed federal wildland fire agencies to establish fire management qualifications standards to increase professionalism and improve firefighter safety in wildfire management programs (National Interagency Fire Center, 2008). The Federal Fire and Aviation Leadership Council eventually developed a guide known as the Interagency Fire Program Management Qualification Standards and Guide (IFPM) in January 2000. Currently, IFPM is accepted by all federal agencies with wildland fire management responsibilities as well as the Office of Personnel Management.

IFPM's effort to increase professionalism and improve firefighter safety in wildfire management programs IFPM identified three components:

1. Minimum Qualifications Standards
2. Employee Development Training
3. Position Specific Competencies

Professionalism has many components in addition to the three identified through IFPM; others are how the fire service is viewed by the community being served, as well as how fire service members view themselves. Our image plays a major role in our pursuit to gain community and organizational support for our fire service.

Most stakeholders' experiences with the fire service will not be through receiving services during an emergency. As such, gaining credibility with local, state, and federal elected

Uniform crew t-shirts within Bureau of Land Management Fire and Aviation Management programs

and appointed officials is an ongoing challenge. Therefore, fire service leaders must create and engage in a variety of activities and programs geared toward developing a professional corps of firefighters. The stakeholders judge the firefighters by their image. That image becomes their personality and character in the public's mind (Cochran, 2005). By wearing the appropriate attire a person can convince others that he or she has the special qualities, expected behavior, and skills the clothing signifies. The choice of a uniform is designed to impress and instill confidence within customers, and it signifies mindfulness, discipline, and self-restraint—the quintessential fire service professional. Uniforms give us pride, identity, indicate a critical community function, and connect us to important department and fire service traditions. Showing up to a fire incident wearing a professional uniform produces a different effect than showing up with a variety of uniform parts, or worse, no uniform shirt but the t-shirt at the top of the pile that day—a lot of times we act and perform how we look (Brunacini, 1996).

Looking the part is important, as was also suggested by a Defense Department publication, “The Armed Forces Officer 1965,” which was distributed to all branches of the military. It advised that as far as being a leader is concerned, “It is good to look the part, not only because of the effect on others, but because for the effort made to look it, one may in time come to be it” (Rubinstein, 2001, p. 74).

Professional looking uniforms in the fire service are a common an image as are clean and organized fire trucks which portray professionalism. However the problem is that BLM policy neither provides for nor funds the purchase of fire crew uniform t-shirts, not even a basic t-shirt uniform to wear with required Nomex fire pants, which too can be of different colors and styles.

Utilizing the evaluative research method, the purpose of this research is to determine whether or not agency-provided uniform fire crew t-shirts are necessary and, if so, what type

Uniform crew t-shirts within Bureau of Land Management Fire and Aviation Management programs

would be most appropriate to recommend for a policy change within the BLM, supported by the results of this research.

Utilizing the evaluative research method, the following research questions will be answered:

1. What is the importance of uniforms within the fire service?
2. What are firefighters' preferred materials for fire crew uniform t-shirts within the interagency fire service community?
3. What is BLM manual policy for general staff and law enforcement uniforms?
4. What are the National Fire Protection Association (NFPA) and BLM standards for fire crew uniform t-shirts?

In summary, the intent of the research is to identify whether uniforms help create a more professional field of firefighters within the fire service, and if they do, develop and recommend a strategy which allows for and funds uniform crew t-shirts for BLM firefighters.

Background and Significance

In 1946 the U.S. Department of Interior's BLM was established with the multi-use mission to sustain the health, diversity, and productivity of the public lands for the use and enjoyment of present and future generations. The BLM, as the largest federal landowner in the United States with over 253 million surface and 700 million subsurface acres, has responsibilities for wildland fire which is defined as "any non-structure fire that occurs in the wildland" (Guidance for Implementation, 2009, p. 17). Although the BLM manages wildland fire in 40 states, the 11 western states (including Alaska), make up the majority of wildland fire management activities that occur each year.

Uniform crew t-shirts within Bureau of Land Management Fire and Aviation Management programs

The BLM's Fire and Aviation Directorate (FAD) is based in Boise at the National Interagency Fire Center. The FAD is the national BLM office responsible for the oversight of wildland fire and aviation management of 11 western and one eastern state offices and their corresponding District Offices to ensure a safe, cost-effective, and efficient fire and aviation management program. District Offices are responsible for the daily on-the-ground fire management and aviation operations, often partnering with other local, state, or federal firefighters to maximize rapid initial attack of wildfires.

Interagency fire suppression, fire aviation operations, and safety continue to be the core of the overall fire program and must be conducted according to interagency standards. Professionalism is but one of these standards exhibited by fire professionals, both internally and externally.

One of BLM Fire Leadership Team's (FLT) five strategic goals is to embrace the concept of high reliability organizing (HRO)—one that can operate in inherently high-risk environments, at high operating tempos, confront unexpected events and conditions, and still achieve operational objectives while keeping human error and accidents to acceptable levels. To help achieve this goal, BLM must recruit, develop, and retain highly trained and professional firefighters.

BLM is continually striving to become an HRO. Embracing HRO principles, this ARP argues against the agency's lack of a single-uniform policy and recommends that the agency adopt such a policy. In doing so, the ARP highlights many HRO issues: (a) BLM firefighters' lack of a uniform shirt (reluctance to simplify), (b) focusing on the need to have a highly trained and professional fire suppression corps (sensitivity to operations), (c) researching the entire fire

Uniform crew t-shirts within Bureau of Land Management Fire and Aviation Management programs

service perspective on uniforms, and (d) drafting new policy to attain approval for BLM firefighters to acquire and wear uniform t-shirts (deference to expertise).

Staffing to achieve BLM's fire suppression operations in 2013 mandates 1,040 permanent full-time employees, 959 career-seasonal employees (employees who are only guaranteed six months of work per calendar year), and 1,173 temporary employees (G. Beebe, personal communication, January 9, 2013). With these 3,172 fire employees and no uniform policy, there are almost an infinite number of combinations of uniforms that could arise—again, there is nothing preventing a firefighter from wearing any t-shirt, e.g., Nike, Baltimore Ravens' Super Bowl Champions, Hard Rock Café, Lady Gaga, or the popular Bastard Noise (heavy metal) band to work any day. Showing up to a grade school and providing a fire prevention presentation clad in an inappropriate t-shirt for an audience of six-year olds, or showing up to a wildland urban interface fire where a homeowner is being asked to leave his house and entrust it to the Engine Captain wearing a Moe, Larry, and Curly t-shirt—even if acting professionally in both examples above—is not garnering the support a firefighter and the fire service needs or deserves.

Fire service organizations, particularly structural departments, which have supporting policy that dictates what should be worn and supporting funding to acquire the appropriate uniforms, in the same scenario as above, would most likely immediately garner trust, confidence, and respect just through their uniforms. This lack of professional image due to lack of a basic BLM firefighter uniform policy, specifically uniform t-shirt policy, is the catalyst of this ARP, as it is critical, as a leader, to think systemically and politically in order to influence and transform the BLM fire service culture. This leadership need sets the stage for this ARP for the Executive Leadership course of the National Fire Academy's (NFA) Executive Fire Officer Program (EFOP). The results of this research are applications of the (a) Thinking Systematically, (b)

Uniform crew t-shirts within Bureau of Land Management Fire and Aviation Management programs

Politics and Public Policy, (c) Influence and Persuasion, (d) Exercising Leadership Practicum, and (e) Being in Transition Units within that course. This ARP also meets the following goals:

- United States Fire Administration's Goal 3: Improve the fire and emergency services' capability for response to and recovery from all hazards.
 - Objectives 3.2: Advocate a culture of health, fitness, and behavior that enhances emergency responder safety and survival.
- United States Fire Administration's Goal 4: Improve the fire and emergency services' professional status.
 - Objective 4.1: Enhance the professionalism of the nation's fire and emergency services leaders (United States Fire Administration, 2010, p. 13).
- BLM's FLT's Fire and Aviation Strategic Plan's Leadership Principle: Leadership at all levels is essential for effective wildland fire management; therefore, we provide and promote active leadership and set the standards for all firefighting agencies.
- BLM's FLT's Fire and Aviation Strategic Plan's Leadership Performance Principle: Peak performance ensures the success of BLM's fire management program; therefore, we are timely and deliberate in our decision making and accountable for our actions.
- BLM's FLT's Fire and Aviation Strategic Plan's Leadership Quality Principle: The fire management program provides a highly effective and efficient workforce; therefore, we develop and implement quality standards and ensure that all resources meet the established standards.
- BLM's FLT's Fire and Aviation Strategic Plan's Goal 1: Diverse, highly effective, and motivated workforce.

Uniform crew t-shirts within Bureau of Land Management Fire and Aviation Management programs

- Objective 1: Increase the number and quality of applicants
- Objective 3: Improve the effectiveness of our workforce
- BLM's FLT's Fire and Aviation Strategic Plan's Goal 2: A safe, efficient, and effective firefighting organization.
 - Critical Success Factors: A highly motivated, well trained workforce is in place (BLM FLT Strategic Plan, 2009, p. 3).

If the BLM is to continue to be the federal leader in wildland fire and aviation management and a premier natural resource management agency, it must support its own policies—IFPM—through a systematic approach to clothe the highly qualified, educated, and competent professional firefighter in a basic, affordable, and safe uniform t-shirt, in order that the community and the BLM firefighter can share confidence and trust during their encounters, whether a grade school prevention presentation or when life and property are at imminent risk.

Literature Review

The BLM does not have a firefighter uniform policy regardless of whether it is adequate or not. To understand the history of uniforms and frame why the lack of policy by the BLM has evolved in to a contemporary issue, one must understand the epistemology of clothing significance and the evolution and importance of uniforms throughout history, including the history within the fire service.

Western European history books include numerous depictions of people in carvings, sculpture, paintings, mosaics, stained glass windows, and drawings in books. Prior to the nineteenth century, the majority of the people represented in this art were figures of political power, religious authority, or both. The clothing in these portrayals has been so closely connected with underlying precepts that the clothing itself is seen as embodying them

Uniform crew t-shirts within Bureau of Land Management Fire and Aviation Management programs

(Rubinstein, 2001), e.g., a priest's smock immediately conjures the idea of peace, power, and trust, whereas a king's clothing is synonymous with power and nobility. "Dress is therefore the most immense modification experienced by man in society, it weighs on his entire existence, it dominates opinions, it determines them, and it reigns" (Mansel, 2005, p. viii).

Literally, the word uniform derives from the words "una" (one) and "forma" (form). Its general meaning is clothing in a particular fabric and with a particular design, color, and insignia, defined in regulations and/or by tradition for all members of one and the same organizational unit. Uniforms defined and presented the wearer's status in the world's organizations, masking one's status in the social hierarchy.

In the early Middle Ages, law was the province of the kings' courts and clerics, and justice was administered by feudal lords, noblemen, and others enjoying the kings' confidence. As cities, states, and nations developed, the information necessary for the performance of judicial, military, and police tasks became specialized, requiring unique learning. Specialized clothing naturally followed, both for the rulers as a political instrument, and for the workers as a means to transform one's behavior (Rubinstein, 2001). Craik agrees that uniforms are a specialized form of clothing that is used "to demonstrate the authority of individuals or groups and to transform this authority into the power of government" (Craik, 2005, p. 5). They emerged as a means of centralizing authority, identifying hierarchy, and claiming expertise over a specific body of knowledge (Rubinstein, 2001).

Dress is usually characterized by (a) being task-oriented or instrumental, (b) having one primary meaning, and (c) being generally recognized as a sign by those who wear it. Formal code or policies, promulgated by those in authority—and many times influenced by tradition—mandates the wearing of the specific components of dress in a particular pattern to signify

Uniform crew t-shirts within Bureau of Land Management Fire and Aviation Management programs

specific social positions with their distinct rights and responsibilities, e.g., military, law enforcement or fire department uniforms. People wearing this clothing provoke a set of expectations for behavior in both the wearer and the audience. By wearing the appropriate attire a person can convince others that he or she has the special qualities and skills the clothing signifies.

Another way to approach this idea is that the donning of a uniform has a psychological effect on the wearer. Uniforms shape who we are and how we perform our duties. Uniforms are all about control of the inner and social self. They convey mutual recognition and identification, status, and elicit internalized responses to authority.

Nobility recognized this across all regions of the earth as displayed by their preoccupation with dress and appearances within their respective eras and kingdoms (Rubinstein, 2001), from the Pharaohs ($\approx 3100-1$ BC), to the French Louis XVI (1754-1793) and Napoleon Bonaparte (1769-1821), to the King of Prussia (1701-1772) and King George III (1738-1820) and eventually George Washington (1732-1799) and Thomas Jefferson (1743-1826). These rulers held the general belief that people behave in a manner that reflects their appearance. Simply stated, “You become what you look like. If you look like an unskilled laborer, you may act as such and you will be treated as such. Your behavior is influenced by how you and others perceive you” (Calfee, 2005, p.1).

The followers of these leaders generally wore great liveries, now better known as uniforms. As might be expected, their clothing and accessories came to be seen as a physical manifestation of the ideas, the institutions, and the power held by these people. In a given society at a given time, therefore, the clothing worn by individuals in authority has automatically provided information about their position and power in society (Rubinstein, 2001).

Uniform crew t-shirts within Bureau of Land Management Fire and Aviation Management programs

By the eighteenth century however, these liveries had acquired an aura of subordination. They were given to servants by their master, in the colors of the master's coat of arms: hence red and gold for the liveries of the King or Queen of England, still visible today on royal footmen (Mansel, 2005). From another segment of society, in Prussia before 1804, civil servants wanted uniforms because, especially in districts where they were unknown, uniforms would help them perform their functions. For many, their uniform became their dearest possession (Mansel, 2005).

The period of radical social and political upheaval that occurred in France in the late 18th century influenced dress. When faced with the trauma of the French revolution and the execution of nobles, Europe closed ranks with monarchs. In their formal dress nobles were happy to proclaim their loyalty to the monarch and subordination in his service, rather than individual wealth and rank. For their part, monarchs appreciated the sight of their men wearing uniforms advertising rank in their service (Mansel, 2005).

As uniforms, often called “the King's coat,” became *de rigueur* across Europe, they helped spread law and order, government authority and deference, and increased soldiers' sense of belonging to a separate world from civilian society (Mansel, 2005, p. 28). Another factor in popularizing uniforms was practical—officials' desire to facilitate the performance of their duties. In the eyes of the public, uniforms proclaiming “official” inspired greater respect and obedience. Established by those in authority, uniforms are required attire that have only one meaning and indicate expected behavior (Rubinstein, 2001).

Roach and Eicher (1965) distinguish three types of occupational uniform: (a) those that are functionally mandatory which are necessary to perform their occupational role, e.g. firefighters and football players; (b) functionally utilitarian which are normative and convenient,

Uniform crew t-shirts within Bureau of Land Management Fire and Aviation Management programs

e.g. those in service trades and professions including chefs, maids, mechanics, and nurses; and finally, (c) functionally symbolic which enable easy identification, e.g. baseball players, police, air stewards, and clergy (Craik, 2005).

In a dated but important study, Bickman (1974) explored the influence of different kinds of outfits on ordinary people's behavior. In one experiment he found that a person was twice as likely to return "lost" money to someone who was well dressed than to a poorly dressed person. He also investigated whether "uniformed persons acting outside their accustomed roles, still have greater power than non-uniformed persons" (Bickman, 1974, p. 50). Dressing volunteers in one of three uniforms-sports jacket and tie, milkman and guard (dressed like a policeman) he set up three situations and found that people were more likely to obey the guard and equally likely to ignore the civilian and the milkman. In other words, the uniforms were being read in terms of occupational type and status. While the milkman was a specialist, his role carried no authority (Craik, 2005).

We hold widely shared assumptions about what is appropriate from different kinds of uniforms. This holds true, for example, with airlines, a global industry with a range of uniforms reflecting local norms, values, customs, and the proper gear expected for the job (Craik, 2005). A person's attire can indicate either conformity or resistance to socially defined expectations for behavior (Rubinstein, 2001).

The use of uniforms is found everywhere today. Schoolchildren often wear uniforms distinguishing them from pupils of other schools, as well as ensuring equality; Boy Scouts proudly don military-like uniforms with insignia indicating membership and rank; primary school, college, and professional athletic teams associate the tradition of their school and mascot with the present through constant and evolving iterations of uniforms. Bus drivers, sportsmen,

Uniform crew t-shirts within Bureau of Land Management Fire and Aviation Management programs

and parcel delivery personnel of private companies all wear clothes identifying them as belonging to a particular group, service, firm, or profession, and may wear plain uniforms or ones of a distinctive design. By its lack of variation and diversity, the uniform promotes a sameness of appearance and brings homogeneity to an otherwise heterogeneous group of people (Pfanner, 2004).

This is the case in the successful movement of middle-class women into the full-time labor force in the twentieth century. The 1970s women's movement and the civil-rights act made it possible for women to wear police and firefighter uniforms. This clothing indicated that they had the right—in the past held exclusively by men—to intervene in public incidents and assert their authority (Rubinstein, 2001). An experiment that supports this success showed that people were twice as likely to obey the guard as the civilian, even obeying ludicrous requests. Yet when Bickman (1974) asked people to evaluate whether uniforms would affect their behavior, they denied it, indicating that our conscious perceptions of uniforms in the abstract differs from our internalized unconscious and the taken-for-granted (unremarkable) behavioral responses to uniforms of authority (Craik, 2005). There are, then, very powerful reasons why rulers in unstable regimes, private security companies, administrators in roles of authority, and parking inspectors choose to adopt a distinctive uniform that is indicative of their job (Craik, 2005). The type of uniform is crucial in public perceptions of the skill, trustworthiness, and status of the worker.

To summarize about uniforms in the general sense, designation of membership in a group and certification of legitimacy is certainly achieved by uniformed individuals. The uniform shows that the individual has mastered certain essential skills and values. By wearing a uniform, an individual displays adherence to a group and its standards. The uniform embodies the

Uniform crew t-shirts within Bureau of Land Management Fire and Aviation Management programs

attributes of the group and affects wearer's behavior. Through the uniform, the individual signifies that all other allegiances will be suppressed (Rubinstein, 2001).

Military uniforms have a long and proud tradition, not only in the world, but very much so in the United States. Uniforms have been adopted by the world's military for many reasons: to inculcate discipline, courage and esprit de corps; to distinguish soldiers from civilians; to impress spectators; to shape bodies for combat; to inspire fear in the enemy; and, as innumerable recruiting posters show, to attract young men to enlist. As one French sergeant in the Gardes francaises wrote, uniforms made young men envious. By 1720, in most armies, military uniforms had become at once standardized and obligatory (Mansel, 2005).

The average citizen would most likely cite military uniforms if asked to relate their most familiar uniform reference point. The military has a proud tradition of uniforms dating back to reliefs, monuments, statues, and commemorative plaques of the Sumerian and Assyrian civilizations; these portraits reflect these civilizations' military uniforms and the battle formation of warriors conveying an image of solidity (Rubinstein, 2001).

One of the first forms of identification was the use of protective devices consisting of wooden or leather shields and occasional head or body armor made of skins. These were the first signs of specific items being used to single out those who took part in fighting. Early evidence has been recorded of military formations and uniforms more than five thousand years ago, and in ancient history uniformed soldiers were found in particular in militarized civilizations. Among ancient warriors one of the most important considerations in warfare was already to maintain the solidarity of the fighting group. Techniques of warfare and details of weaponry enabled the members of a group to determine at a glance to which group a person or item belonged (Pfanner, 2004).

Uniform crew t-shirts within Bureau of Land Management Fire and Aviation Management programs

This historic perspective shows that the wearing of military uniforms had other objectives, and even today, has mainly different functions than those attributed to it by the requirements of international humanitarian law, namely to ensure the clear distinction between civilians and the military. Developments in military equipment in the sixteenth and seventeenth centuries led to the disappearance of heavy armor and the helmet. At the same time, the wearing of a military uniform had become a major element of identification. When large standing armies began to be established after the Peace of Westphalia in 1648, the need for distinctive attire on the battlefield spread throughout all European armies (Pfanner, 2004).

At the end of the seventeenth century, the concept of military uniform was largely accepted in all European armies. During the Napoleonic Wars, military uniforms evolved further and fashion and glamour became the rule. The soldier was showier and less comfortable than ever before or since. Some special troops, such as the Hussars of Polish origin, distinguished themselves by the elegance of their uniforms (Pfanner, 2004).

Uniform function cycled back to the intent of mostly identification during the 18th and 19th centuries. Any school kid in America knows the British wore red. The French and Russians often wore blue or white. There was also an element of pride and flash in the uniforms, as Dukes and Counts often paid to maintain their own regiments and wanted them to look sharp. They tried to use colors that stood out well in the fog of battle and were easily distinguished from the enemy (Miller, 2012).

A uniform reflects order and discipline, and calls for subordination by displaying a variety of insignia, including badges that indicate rank and emphasize the hierarchical structure of armies. It also calls for respect and fear and symbolizes strength and power: it includes features designed to make its wearer appear broader or taller, and thus to enhance the soldiers'

Uniform crew t-shirts within Bureau of Land Management Fire and Aviation Management programs

stature in the eyes of comrades, civilians and the enemy. Finally, it helps to create an identity of pride in appearance and an esprit de corps essential to an effective military force, and is thereby conducive to self-discipline and the bonding process. A vital ingredient of a military's strength and effectiveness is the pride that soldiers bring to their service through a conservative military image (Pfanner, 2004).

Specifically in the U.S. Coast Guard (USCG), uniforms are a symbol of their unique heritage as an armed service and reflect the pride they share as Coast Guardsmen. Their uniform's common configuration is core to maintaining a professional military appearance both individually and as a military organization. It is first and foremost a Coast Guardsman's responsibility to always look sharp and obey uniform standards. Uniform appearance is a leadership priority within the USCG, specifically ensuring personnel wear uniforms with consistency, professionalism, and pride.

However, over the years, USCG uniform regulations have expanded the number of uniform options, which in some cases has caused confusion and inconsistency (Miller, 2012). Inconsistency in uniform policy has created a cultural trend that has led to unit and individual modification and substitution of uniform items, some unauthorized. Under the USCG's Commandant's guiding principle of honoring their profession, recently the uniform board undertook an effort to tighten up uniform standards and to explore ways to promote consistency in uniform regulations (U.S Coast Guard, 2013).

In summary of militaries' embracement of uniforms, for thousands of years uniforms have been a key component of militaries' principles and values. Uniforms brought consistency, standardization, self-discipline, integrity, and professionalism to military members under the

Uniform crew t-shirts within Bureau of Land Management Fire and Aviation Management programs

banner of esprit de corps. By wearing a uniform, individuals display devotion to troupe and values. The uniform embodies the attributes of the group and affects wearer's behavior.

As stated above, individuals who wear a sharp uniform have ownership and pride, more readily identify themselves with the organization they work for, and ultimately feel like they are truly part of the team. They are also more interested in the company's profile and how the company is regarded by the public at large. This leads to higher job satisfaction and lower employee turnover (Craik, 2005).

Such is the case with the Oregon based tire and auto service company of Les Schwab. To those who know and reflect upon what Les Schwab Tire Company employees represent, they would easily and immediately state the following descriptive words: (a) clean, white uniform shirts (even though the profession conjures thoughts of grease and grime), (b) professionalism, (c) customer-service based, (d) pride, (e) ownership, and (f) loyalty (both employees and customers). Due to these employee-based values, customers "come back to this store, and Les Schwab Tire Company knows it. The founder of our company, Les Schwab, established our grooming policy a number of years ago," explained Larry Smith, director of human resources at Les Schwab. "He felt it was the image our customers liked to be greeted with" (Joner, 2001, para. 2). Tire and auto service customers find credibility in the clean-cut appearance.

But what's in it for Les Schwab employees? "The dress code is also about fairness to our employees. We want them to feel good about themselves, while they are in the workplace," said Smith. "Most individuals feel better when dealing with the public if they themselves feel comfortable about how they look" (Joner, 2001, para. 3). This statement supports many of the tenets identified in the above literature, specifically pride and ownership values from uniform use.

Uniform crew t-shirts within Bureau of Land Management Fire and Aviation Management programs

Other successful consumer companies have always viewed their employees as an extension of their brand name, and have dressed them accordingly. Employees at Southwest Airlines, for example, wear a polo shirt and sneakers to convey the company's no-frills, discount culture. The sales people at the teenage clothing chain Abercrombie & Fitch wear baggy pants and tight-fitting shirts to project the image of sex appeal and youth.

“This is much more business casual” than working class, said Mr. Herman, who in the 1980's introduced shorts to the uniform of Federal Express employees and the first cotton shirt at McDonald's, which had long been wedded to 100 percent polyester tops (Barbaro, 2006, para. 12). Time will tell if Walmart is risking some future success from loyal customers by changing its recognized uniform of the smock and vest—long emblems of the working class—and evolving to khaki pants and polo shirts. Walmart is leaving behind a uniform that linked it, at least in the popular imagination, to its largest customer base (Barbaro, 2006). Uniforms have become an expected and successful component of organizations' success based upon both their customers and employees' ownership, trust, and loyalty—this is no different in the fire service.

Next, let's talk about the culture of the fire service. While this may run contrary to some current management theories, the fire service remains a paramilitary organization. As stated earlier, military organizations tend to rely on uniforms for three things: identity, functionality, and esprit de corps (Rubinstein, 2001). In work that involves emergency conditions and in situations that require quick response, such as military and police work and fire and marine services, the uniform is necessary and made clearly visible (Coleman, 2011). Additionally, uniforms reflect the history and tradition of the fire service. Fire service uniforms project a positive, competent, confident, and professional appearance in a quick visual message or image, which can benefit a fire department in several ways (Calfee, 2005). First, a fire department's

Uniform crew t-shirts within Bureau of Land Management Fire and Aviation Management programs

image is its personality and character as perceived by its stakeholders. Stakeholders include citizens, elected and appointed officials, law enforcement agencies, other fire departments, and our own fire personnel, and they all have an opinion of the fire department. Creating a positive image in the minds of these stakeholders should be a high priority for all fire service members, and it is the responsibility of fire service leadership to ensure everyone works together to maintain, build upon, and portray this image.

Secondly, our image plays a major role in our pursuit to gain community and national support for fire service strategic plans and subsequent funding. As mentioned previously, most stakeholders' experiences with the fire department will not be through receiving services during an emergency. As such, gaining credibility with local, state, and federal elected and appointed officials is an ongoing challenge. Therefore, fire service leaders must create and engage in a variety of activities and programs geared toward interacting with the public. We've all heard the phrase, "You never get a second chance to make a first impression." For every fire department, it's crucial to make a positive first impression so the stakeholders will understand the great value of the service we provide (Cochran, 2005).

This impression is created and maintained by the direct and indirect reaction and feeling the customers develop in response to the appearance, performance, and behavior of our members. Simply, we create a human customer reaction in response to how our human firefighters look and what we are doing. Every part of our system is firefighter driven and directed. This includes how we look to the customers—as individuals and as an organization. Individual firefighter appearance creates an important first impression that becomes the unspoken introduction and beginning for the event. The firefighter in control of that customer impression becomes, in effect, our department image maker.

Uniform crew t-shirts within Bureau of Land Management Fire and Aviation Management programs

This creates the very practical reality that the really high impact of our customer contact system is the human part, with our firefighters directly in control of the customer service delivery experience. It also shows that fire department leaders have no real capability (and hopefully no inclination) to guard the customers from the firefighters. The general objective of the positive image plan is to create the consistent long-term identity and feeling within the community that we are professional, under control, functionally focused, serious, trustworthy, effective, and friendly (Brunacini, 1996).

Specifically within the BLM, the only current policy allowing for and supporting any type of fire uniform falls under the BLM's Fire and Aviation Honor Guard. The BLM Fire and Aviation Honor Guard represents the highest ideals of honor, dignity, professionalism, and respect in serving the agency, the fire community, and the families, friends, and co-workers of those who have lost their lives in the line of duty (U.S. Department of Interior, 2012). The Honor Guard is a team of uniformed employees who display honor and appreciation for those men and women who give so much to the fire management mission.

The Honor Guard is one way to pay tribute to those who die in the line of duty and recognize their loved ones, friends, and coworkers. This team attends funeral, memorial services, and other special events in honor of the BLM and its partner agency employees (U.S. Department of Interior, 2005). The Honor Guard's Creed states how the program members are elite, professional, respectful, revere the uniform physically fit, proud, and honored:

Handpicked to serve as a member of the Bureau of Land Management Honor Guard, my standards of conduct and level of professionalism must be above reproach, for I represent all others in my service.

Uniform crew t-shirts within Bureau of Land Management Fire and Aviation Management programs

Others earned the right for me to wear the ceremonial uniform. I will honor their memory by wearing it properly and proudly.

Never will I allow my performance to be dictated by the type of ceremony, severity of the temperature, or size of the crowd. I will remain superbly conditioned to perfect all movement throughout every drill and ceremony.

Obligated by my oath I am constantly driven to excel by a deep devotion to duty and a strong sense of dedication.

Representing every member, past and present, of the BLM, I vow to stand sharp, crisp, and motionless, for I am a ceremonial guardsman (U.S. Department of Interior, 2005).

Due to the ceremonial nature and mission of the Honor Guard, specific uniforms must be utilized. Authorization to procure all uniform components is bestowed upon all members upon joining the Guard (U.S. Department of Interior, 2012).

Firefighting is a dangerous occupation that relies heavily on the effectiveness of protective clothing. Firefighters wear components of personal protective equipment (PPE) to provide protection against multiple hazards, most notably thermal injury (Smith et al., 2013). This type of protective clothing must protect the wearer and resist heat, flame, rough surfaces, and sharp objects. Thus a department's uniform policy should be based on these criteria: What image does the department want to convey to the community? Is the uniform comfortable, easily maintained and readily available? Does it help protect the firefighter (Coleman, 2011)?

Regardless of the differences, there's only one nationally recognized standard for the production of those uniforms—NFPA 1975: Standard on Station/Work Uniforms for Fire and Emergency Services, which covers requirements for the design, performance, testing, and

Uniform crew t-shirts within Bureau of Land Management Fire and Aviation Management programs

certification of station/work uniforms. NFPA 1975 requires that garment be made from thermally stable materials, as well as optional flame-resistant materials. Thermally stable materials are those that will not contribute to burn injury, i.e., no rapid deterioration, melting, shrinking or adherence to skin, causing a more severe burn injury (Varner, 2008). NFPA 1975 attempts to eliminate dangerous fabrics and establish a degree of protection for work uniforms (Calfee, 2005).

While our uniforms reflect the individual and diverse history, tradition, style, and approach of each department, today understated appearance is probably better than overstated. A non-military/non-police-appearing uniform may create a more positive and friendly reception and may be actually safer in the violent, uncertain environment our troops currently experience. Well-marked, distinctive t-shirts, golf shirts, and sweatshirts create a relaxed, professional look and feeling, and clearly identify us as firefighters, not police officers, airline pilots, or Italian marching band leaders. Such uniforms send more of a message that we are ready for action (like an athlete) rather than to control (like a police officer). Uniform crew t-shirts lend themselves to our department name on the back, so that every member becomes a mobile department billboard. "T-shirt management" is popular with our members based on being practical, comfortable, and sensible (Brunacini, 1996), while adding another layer of protective clothing when using appropriate material.

History has shown the importance of uniforms in different world regions, associated cultures, and professional arenas for thousands of years. Uniforms were used by royalty to indicate status, by militaries for functionality, and to develop and show esprit de corps, and by modern day corporations to either relate with their customers or to try to indicate professionalism and trust. The literature overwhelmingly indicated that behavior is influenced self-perception

Uniform crew t-shirts within Bureau of Land Management Fire and Aviation Management programs

and others' perception of you. Additionally, a well-groomed and neat appearance by all individuals is fundamental to a team and contributes to building the esprit de corps (Pfanner, 2004). Individuals who wear a sharp uniform have ownership and pride, therefore more readily identify themselves with the organization they work for and ultimately feel like they are truly part of the team. They are also more interested in the company's profile and how the company is regarded by the public at large. This leads to higher job satisfaction and lower employee turnover. Finally, while firefighters must don an occupational uniform—those that are functionally *mandatory* to perform their occupational role—a fire-resistant uniform crew t-shirt will not only achieve an esprit de corps within firefighting units, but also provide another layer of thermal protection.

Procedures

This ARP used the evaluative research method to systematically collect, analyze, and determine whether or not to develop BLM fire uniform policy. First, a thorough review of professional literature was conducted on the theory and history of clothing and the evolution of uniforms around the world, including the United States, and then the purpose and use of military uniforms, followed by a short review of corporate uniforms, and finally fire service uniform theory and practice.

The primary source for literature was the National Fire Academy's (NFA) Learning Resource Center (LRC), visited both in person in March 2013, and on-line between March and May 2013. In addition, an extensive literature review of the Internet was conducted during these same months. Using industry and fire service books, publications, and periodicals, literature subjects searched were world-wide dress codes, uniforms, noble clothing, and liveries.

Uniform crew t-shirts within Bureau of Land Management Fire and Aviation Management programs

One exception was the literature reviewed on BLM Honor Guard Uniform policy, which originated from the BLM intranet system. For the ARP the author used the pertinent and applicable research material that was primarily published within the last five years.

The research data was developed through two different methods: (a) three personal interviews with expert knowledge of research questions three and four, and (b) one survey instrument via SurveyMonkey (2013) for research questions one and two to an interagency fire service audience.

The first personal interview was with Shirley Campbell, BLM National Operations Center, who is BLM's National Uniform Program Manager. The interview was conducted via telephone on October 29, 2013. The National Operations Center is located in Denver, Colorado. Ms. Campbell was chosen, as her position is responsible by BLM policy, for: (a) initiating and developing BLM uniform program policy standards and procedures; (b) developing item specifications; (c) organizing National Uniform Committee meetings; (d) administering the national uniform contract(s) as the Contracting Officer's Representative; and (e) coordinating with program offices, BLM State representatives, and Field Offices to achieve management goals. Her position, work experience, education, and knowledge qualify her as a subject matter expert for research question number three.

The interview lasted approximately 45 minutes addressing research question number three: What is BLM manual policy for general staff and law enforcement uniforms? Appendix A documents the interview questions.

Jason Caffey, BLM's National Chief Ranger, Office of Law Enforcement and Security, was the next interview, and he oversees the uniform program for the Office of Law Enforcement and Security. As the BLM's National Chief Ranger, he is responsible for managing, planning,

Uniform crew t-shirts within Bureau of Land Management Fire and Aviation Management programs

developing, evaluating, implementing, and directing all matters pertaining to the Office of Law Enforcement and Security, which includes the Bureau's programs of investigations, law enforcement, security, resource protection operations, drug enforcement, ranger activities, and unauthorized use.

Mr. Caffey's education, current and past positions, position responsibilities, and work experience qualify him as a subject matter expert for research question number three. Mr. Caffey was interviewed via telephone on November 1, 2013 for approximately 30 minutes on research question number three. Appendix B documents the interview questions presented to him.

Howard Hedrick, BLM's Deputy Assistant Director, Fire and Aviation, was interviewed due to his collateral duties as the National Uniform Committee Chairperson. As the BLM's Deputy Assistant Director, Fire and Aviation, he is responsible for developing policies and standards for firefighting safety, training, prevention, suppression, and use of wildland fires on Bureau lands.

Mr. Hedrick was interviewed via telephone on November 4, 2013 for approximately 15 minutes on research questions number three and four.

The National Uniform Committee is represented by the Chairperson of the Committee, who then reports to BLM's Assistant Director, Business and Fiscal Resources, located in Denver, Colorado. The Committee is the principal vehicle for addressing uniform policy, standards, and guidelines. As such, the Committee: (a) represents the needs and concerns of management, employees, and volunteers; (b) recommends uniform components, including additions and deletions; (c) develops specifications for components; participates in selecting and reviewing national uniform contractor(s); (d) develops policy guidelines and recommendations; and (e)

Uniform crew t-shirts within Bureau of Land Management Fire and Aviation Management programs

monitors BLM Uniform Program implementation. Mr. Hedrick's education, current and past positions, position responsibilities, and work experience qualify him as a subject matter expert for research question number three and four. Appendix A documents the interview questions presented to him.

Finally, an on-line SurveyMonkey instrument was developed in October, 2013 (see Appendix C) based on the author's professional experience in both the survey software and training in survey design. This system surveyed a core of fire service professionals to gather data from research questions one and two, respectively: What is the importance of uniforms within the fire service, and what are firefighters' preferred materials for fire crew uniform t-shirts within the interagency fire service community? Survey questions were developed from experiential based knowledge, and input from fire service, uniform experts, and research peers.

The survey sample size was selected from guidance found in the work from Krejcie and Morgan (1970), "Determining sample size for research activities." BLM lands are public lands; therefore, no one lives on BLM lands; however, across the west BLM is the predominant land owner adjacent to private lands, so the population size used for this survey was 100,000 or greater which requires a minimum of a 384 sample size. The survey was sent on October 18, 2013 and solicited objective data, as well as professional opinions developed from respondents' fire service experience with uniforms, their importance, and their preference of material.

A cover letter was provided to all potential survey respondents which provided the survey's intent and a purpose statement. The letter also gave directions for completing the on-line survey, the need for the information, and requested their participation. The survey was anonymous to encourage honest and thoughtful comments and as much participation as possible.

Uniform crew t-shirts within Bureau of Land Management Fire and Aviation Management programs

The survey instrument was distributed for two weeks to 376 professional fire fighters with a range of breadth and depth of experience in the fire service. Additionally, it was requested all recipients assist in sending the survey throughout their department to help ensure the minimum sample size of 384 would be met. The respective survey link was sent via the BLM Google email system. Four hundred and ninety-three fire professionals participated in the survey, which was a 124% response rate, based upon the surveys actually completed.

The limitations of the research procedures include subjectivity of the fire professionals surveyed, the survey completion percentage, the understanding of survey development by the author, and the understanding of the survey by the recipients. This type of survey instrument does allow the responses to be partially subjective, based upon the respondent's professional opinion and work experiences. It is also assumed that all recipients understood and were able to answer all questions. Additionally, the author is not an expert with survey development and could have made errors in question formulation through either ineffective and/or biased questions. It is expected that individuals interviewed for questions one and four would respond objectively based upon their professional knowledge, yet some of the information provided was based upon personal experiences, thus could be considered subjective.

Lastly, research information may not have been considered or discovered, or it may have been overlooked during the research process. The resultant ARP was developed from the known and best literature found and research data presented during both the literature review and research process, respectively.

Results

To address the purpose of this ARP four questions need to be answered.

Uniform crew t-shirts within Bureau of Land Management Fire and Aviation Management programs

Research Question 1. What is the importance of uniforms within the fire service? This research question was answered through a series of questions embedded in a survey instrument sent to 376 firefighters with 493 responding. There was high interest in this issue, as reflected by the overwhelming survey response rate of 124%, compared to previous response rates of 51%, 36%, and 34% to the author's previous ARPs.

The first question within this series was answered by 53% percent of respondents stating that they had a department uniform policy for crew t-shirts, with many follow-up comments stating that in their respective situations, an "unwritten rule" requires wearing a uniform crew t-shirt, purchased by the individual. Another trend was that "it is hard to enforce an unwritten rule," especially when many firefighters have a hard time affording the cost of enough t-shirts for daily wear. The last common theme from the follow-up comments on this first question was that policy either has been suspended because of the violation with agency procurement policy when t-shirts were purchased, or that policy lacks to enable the purchase uniform crew t-shirts.

The second part of research question one asked, "What is the importance that a common uniform (lettered crew t-shirt and Nomex pants) be worn by all station and crew members to the public, as taxpayers, in their perception of value gained for tax dollars spent? An overwhelming response of 89% stated that it was either important, very important, or extremely important that a common uniform be worn by all station and crew member for the public's perception of value gained for tax dollars spent (Chart 1).

Three questions within the series asked the respondents what impact a uniform had on the public's confidence in a firefighter's ability, trustworthiness, and as a well-trained professional. Again, an overwhelming response of over 87% responded that uniforms are important, very important, or extremely important to the first two questions. However, even this high percentage

Uniform crew t-shirts within Bureau of Land Management Fire and Aviation Management programs

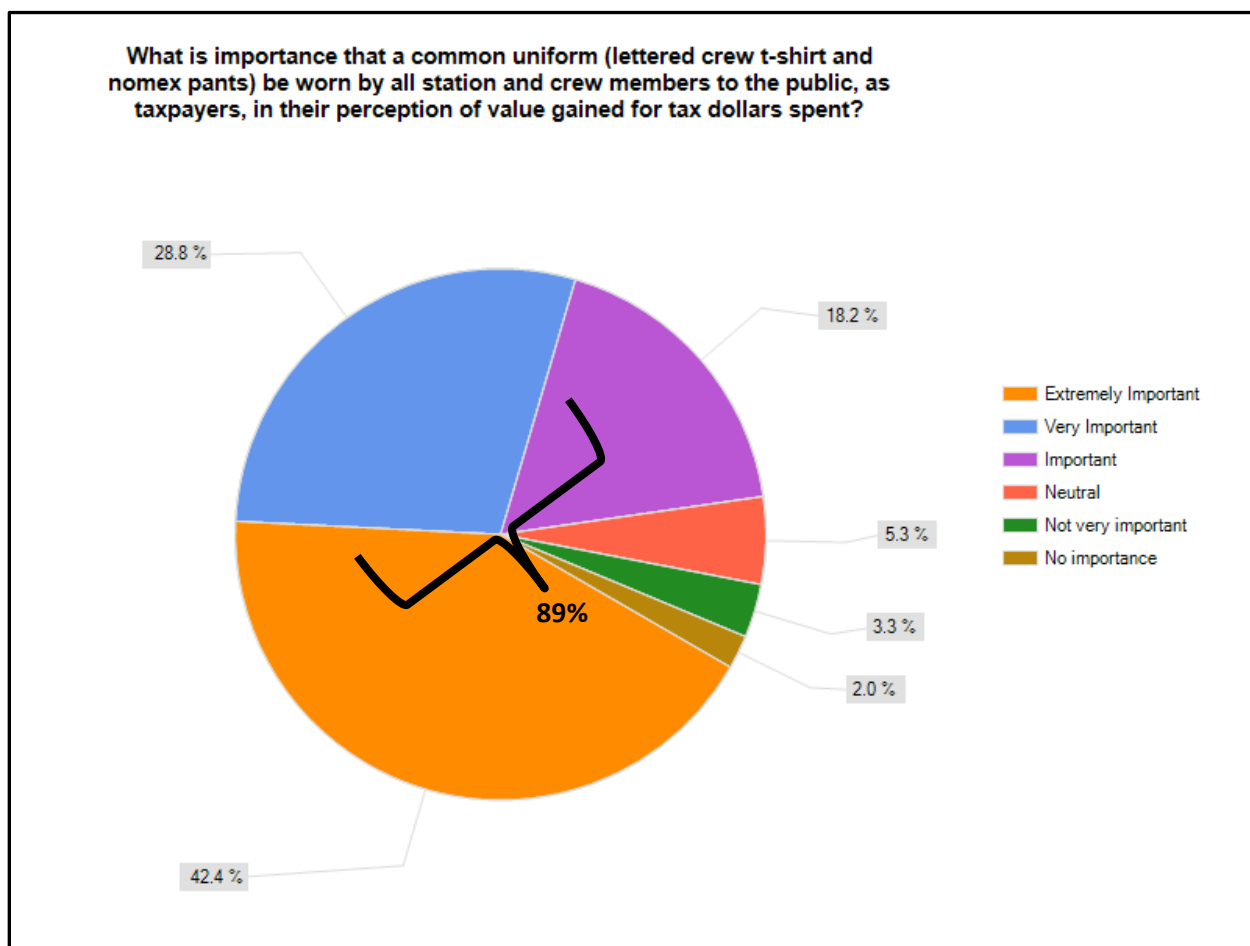


Chart 1. Survey respondents on the importance that a common uniform (lettered crew t-shirt and Nomex pants) be worn by all station and crew members to the public, as taxpayers, in their perception of value gained for tax dollars spent.

was exceeded when 91% of the respondents stated that uniforms are important, very important, or extremely important to the public's perception of firefighters as well-trained professionals. There is an obvious trend from the survey respondents' view that uniforms are a critical factor with public's perception and confidence in firefighters' abilities, trustworthiness, and professionalism while performing work.

The next two questions within this series explored the respondents' perception of themselves while wearing uniforms. Eighty-six percent of firefighters believe wearing uniforms is important, very important, or extremely important in their views of themselves as

Uniform crew t-shirts within Bureau of Land Management Fire and Aviation Management programs

professionals, whereas only 52% perceive wearing uniforms affects their confidence in their ability as a firefighter. Since training and a person's knowledge of their capabilities is more tangible, it would be expected that there would be less perception which is more of a moral, psychological, or aesthetic quality.

Next the survey question angles toward team cohesion, camaraderie, and safety.

Firefighters responded with a large majority of 88% that a uniform develops team cohesiveness and camaraderie, and as a result enhances safety (Chart 2). This is a very important finding, especially in the world of fire management, that a simple uniform crew t-shirt can have such a large impact on safety as a result of firefighters believing that the whole is more than the sum of the parts.

The next question was only asked of federal wildland firefighters based upon a 2005 mandate called the Interagency Fire Program Management Standards and Guide (IFPM). The intent of IFPM, which is still in existence today, is to increase professionalism and to improve firefighter safety in fire management programs. Thus, in response to the question if wearing a uniform contributes to this intent; a surprising and overwhelming majority of 86% of federal wildland firefighters responded that they believe it does (Chart 3).

This corresponds to two of the earlier questions about perception of professional firefighters when 91% of the survey respondents replied that uniforms affect the public's perception of firefighters as well-trained professionals, coupled with 86% of firefighters believe wearing uniforms is important, very important, or extremely important in their views of themselves as professionals—very critical information discovered within this research.

Uniform crew t-shirts within Bureau of Land Management Fire and Aviation Management programs

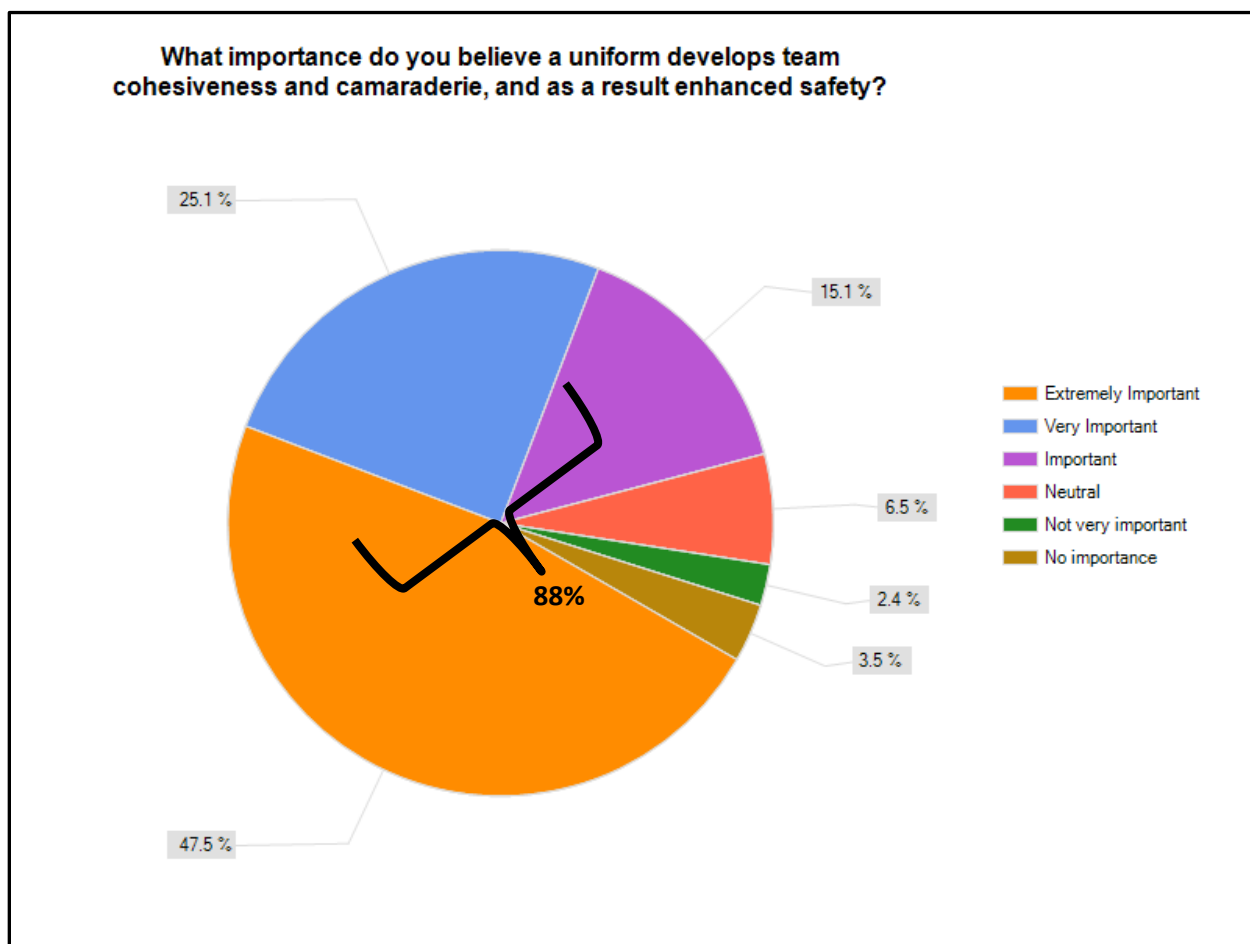


Chart 2. Survey respondents' on the importance they believe a uniform develops towards team cohesiveness and camaraderie, and as a result enhanced safety.

Several additional comments received on this question reinforced the importance of uniforms of supporting IFPM; these included “It says you earned the right to wear it through extensive training and know the knowledge,” followed by “Look sharp, be sharp,” and finally, “Uniforms increase team cohesion and pride, and promote a more professional attitude and mindset.”

The survey next ventures into the arena of administration of uniforms, specifically does your agency policy allow for and provide funding for your firefighters to purchase uniform crew

Uniform crew t-shirts within Bureau of Land Management Fire and Aviation Management programs

t-shirts? Results were interesting with 81% responding that their agency does not provide funding for t-shirts. One would expect a much higher percentage of agencies providing funding

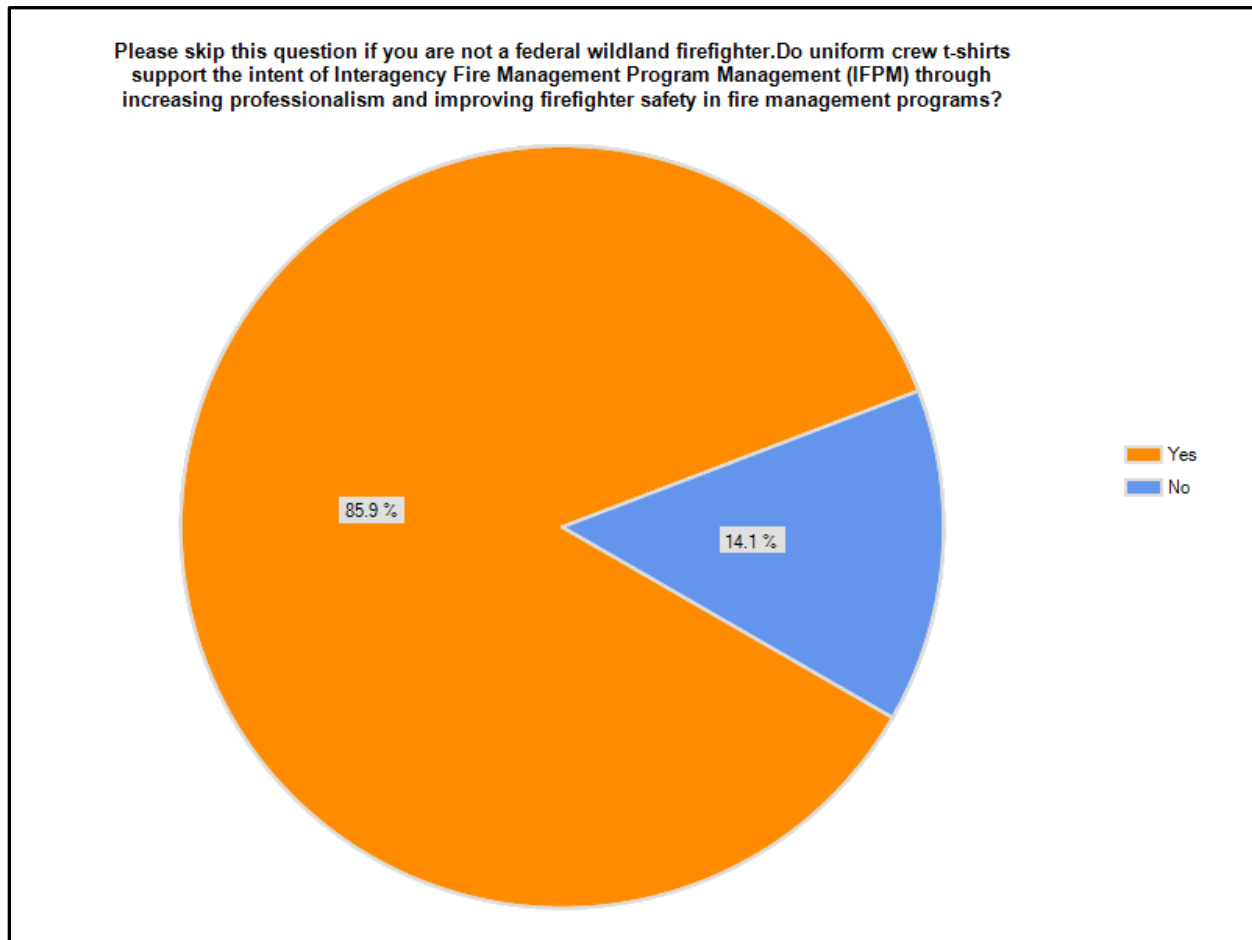


Chart 3. Survey respondents on whether uniform crew t-shirts support the intent of Interagency Fire Management Program Management (IFPM) through increasing professionalism and improving firefighter safety in fire management programs.

for uniform crew t-shirts; however, with 82% of respondents stating they are federal wildland firefighters, this 81% response rate is an expected percentage due to the author's knowledge of other federal agencies' strict uniform policies. This is immediately supported by the next question on procurement methods to purchase uniform crew t-shirts when it was discovered that 81% of respondents stated they are required to use their own personal funds (Chart 4).

Uniform crew t-shirts within Bureau of Land Management Fire and Aviation Management programs

A related question revealed that 67% of the respondents needed \$100 or less annually for purchase of crew t-shirts, compared to the next highest percentage, 26%, who needed \$150 per annum. This is supported anecdotally by the author that nearly all firefighters on the line are

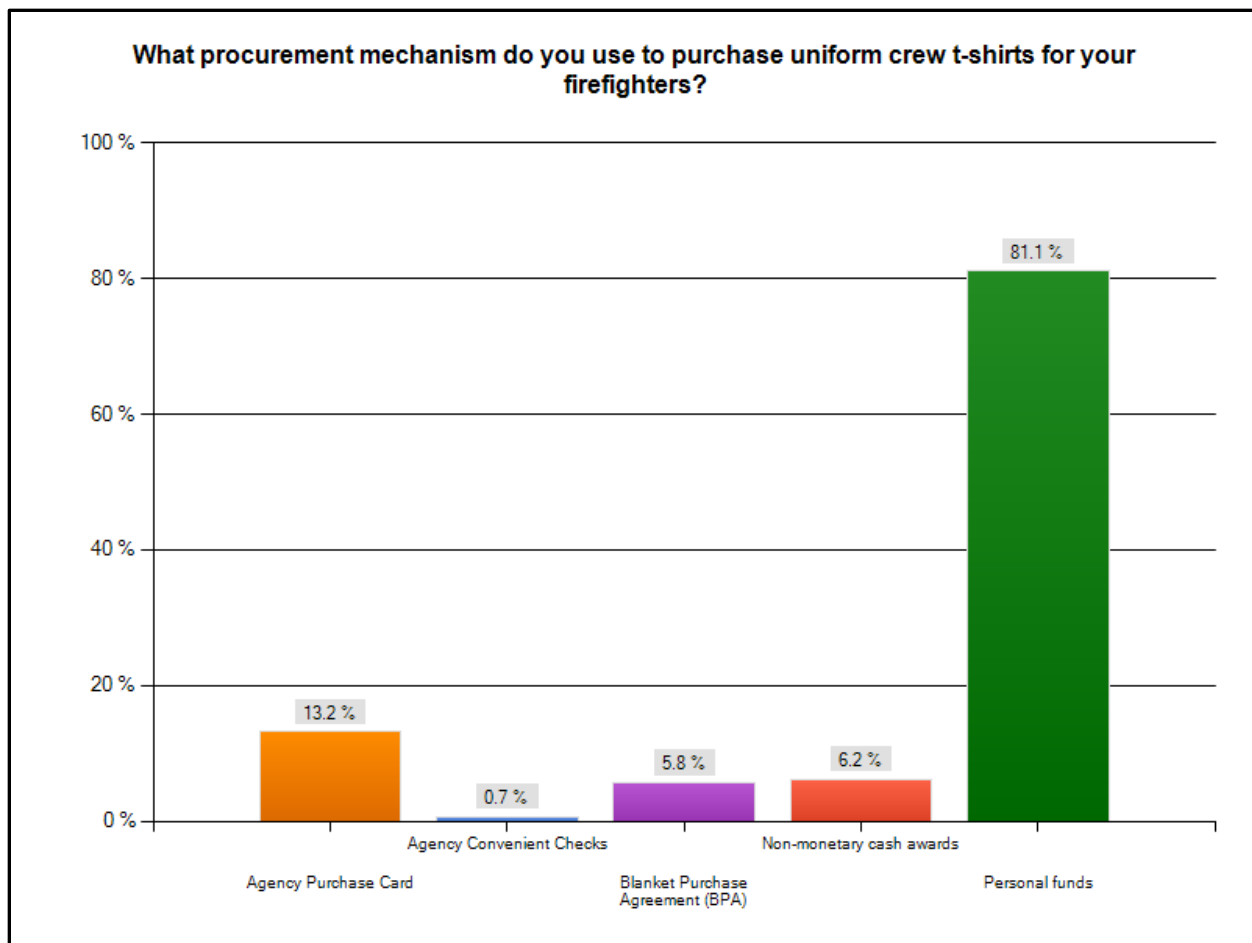


Chart 4. Survey respondents on procurement mechanisms used to purchase uniform crew t-shirts. wearing some “uniform” crew t-shirt, whether that is purchased by their agency or through their personal funds.

Concluding research question one, uniforms achieve enough of a sense of professionalism, camaraderie, and confidence within the firefighters, that they willing to and do expend their own personal funds for uniforms.

Uniform crew t-shirts within Bureau of Land Management Fire and Aviation Management programs

Research question 2. What are firefighters' preferred materials for fire crew uniform t-shirts within the interagency fire service community?

The first avenue to answer this question was to research agencies' compliance with uniform standards, specifically NFPA 1975. Thirty-four percent of the survey respondents stated that their uniform crew t-shirt did not meet NFPA 1975; this was outweighed by 55% stating they didn't know. Reflecting on the nearly 82% of respondents stating they are federal wildland firefighters, the unknown 55% would be expected as federal wildland agencies don't subscribe to any NFPA standards.

A follow-up question asked the remaining 11% of respondents whose uniform crew t-shirt didn't meet NFPA 1975 if they knew why their uniform crew t-shirt did not, only three respondents provided objective data and stated (a) "Does not display rank, title or other professional status," (b) "All natural fabric, but not fire resistant," and lastly, (c) "Does not meet the testing requirements nor is labeled stating that it does."

However, other respondents provided their perspective of some potential pitfalls with achieving NFPA compliance. One firefighter stated that "NFPA compliance can ensure all firefighters are protected similarly. Although this is true, some standards may cause an excess of safety equipment/material which can sometimes lead to heat related illnesses in the wildland environment." A similar response offered that "cotton is fine, but will burn and scald when wet under Nomex fire shirt." Others took a more holistic position of concern with NFPA to include "one size does not fit all and that is what the NFPA tries to set up," while still another had fire operations concerns in that NFPA compliance in several areas (i.e., response personnel requirements for specific types of incidents) are generally not achievable for small agencies such as ours due to budget/personnel availability." Lastly, and a great transition to the next question,

Uniform crew t-shirts within Bureau of Land Management Fire and Aviation Management programs

a firefighter reflected that “NFPA requirements are obtuse and oppressive. Very slow to respond to (and approve) new gear and/or materials.” Based upon the results data, it is to be concluded that over one-half of agencies don’t meet NFPA requirements and didn’t state this was of concern; therefore meeting NFPA standards may not be a top priority within the pending recommendation’s section of this ARP.

The survey instrument next examined what material firefighters were wearing for uniform crew t-shirts with 91% reporting cotton, less than 1% using an aramid blend, less than 1% using a wool blend, followed by less than 1% using Nomex. The balance of the respondents, 8%, did not specify what type of material their uniform crew t-shirts were. Interesting and somewhat unexpected, nearly 88% responded that cotton was their preferred material for uniform crew t-shirts per the next question. The reason this is unexpected is that cotton is the most affordable thus likely the reason it is the most abundant; one could surmise that a more expensive product would have been the preferred material. Seven percent stated Nomex would be their preferred material, followed by 4% stating aramid would be their preferred material, and rounding out the responses were wool, fire resistant Modacrylic, and Drifire (brand name) each reflecting less than .5% of the total respondents.

A complementary question asked the firefighters of any new material on the horizon they were aware of resulted in the following list of material and/or brand name t-shirts:

- Carbon infused cotton
- Fire Resistant Operational Gear
- Armor Style wicking shirts
- Tecasafe® Plus
- Innegra S®
- Vectran®
- Nomex Dry-Fit
- Polartec® Power Dry ® FR
- Merino Wool

Uniform crew t-shirts within Bureau of Land Management Fire and Aviation Management programs

- Defender M®
- Massif®

These endorsements need to be researched for plausibility and this action is identified in the recommendations section.

Concluding the survey instrument was the request, if applicable, please provide any benefits or challenges of your agency's uniform crew t-shirt/station uniform policy. Agencies cannot enforce a uniform policy if the agency doesn't provide funds, coupled with the fact that seasonal (three-six month) firefighters have a hard time affording uniform crew t-shirts—40% of survey respondents endorsed this view. This equates to a funding issue, or lack thereof, for agencies. Next, 24% responded generally that their agencies lacked a policy for uniform crew t-shirts, followed by 12% stating that their agency's uniform color or logo was not something they supported, whether that was color, material, style, or logo. These negative comments outweighed the two categories of positive comments towards agencies' uniform policy, which were captured by the 13%, which agreed that "our crews look like a well-trained, professional organization when wearing matching shirts and pants, as well as a uniform ball cap." Closing out the positive remarks and the last comments from the survey instrument were 11% offering that their agencies' policy increased crew cohesion. One typical comment is succinct, yet powerful: "Crew shirts are part of crew cohesion, which is part of safety, team work and pride."

The conclusion to this second research question is that an overwhelming percentage (88%) of firefighters stated their preferred material for crew t-shirts was cotton; however, with a very thorough list of "new" materials offered, it is necessary (and motivating) to investigate all of these to find a balance between comfort, protection, style, hygiene, and durability.

Research question 3. What is BLM manual policy for general staff and law enforcement uniforms?

Uniform crew t-shirts within Bureau of Land Management Fire and Aviation Management programs

Personal interviews and research within the BLM 1103-Uniforms Manual were used to answer this third research question. Ms. Shirley Campbell, BLM National Operations Center, National Uniform Program Manager; Mr. Jason Caffey, BLM's National Chief Ranger, Office of Law Enforcement and Security; and lastly, Mr. Howard Hedrick, BLM Deputy Assistant Director, Fire and Aviation Director and current Chairperson of BLM's National Uniform Committee were interviewed to answer this third question.

Mr. Hedrick's interview framed the authority and responsibilities of the BLM Uniform Manual. He stated BLM's authority to use appropriated funds for uniform allowances is Title 5 U.S.C. 5901 – 5902, and the responsibility for ultimately managing the uniform program, recommending policy, and developing standards and procedures lies with the Director of the BLM. Mr. Hedrick specified the standards and procedures are captured in the BLM Uniforms Manual 1103, which transmits the mandatory uniform requirements and sets forth policies, procedures, and responsibilities for the Uniform Program. These include procedures for financial accountability and cost effectiveness, policies and procedures for wearing and procuring the official uniform, uniform classifications and components, payment of uniform allowances, and a procurement system that ensures quality uniform component items.

The BLM Uniforms Manual 1103 states the objectives of the BLM Uniform Program are to: (a) ensure easy recognition of BLM employees by providing a uniform identity and appropriate professional image; (b) provide functional and durable uniforms appropriate for the diversity of assigned duties, tasks, and area climates; (c) enhance employee authority and identification when representing the BLM in such activities as assisting the public, performing law enforcement duties, and collecting fees; and (d) enhance employee pride in the organization. Mr. Hedrick stated BLM firefighters are not required by position, as indicated in the Manual, to

Uniform crew t-shirts within Bureau of Land Management Fire and Aviation Management programs

wear any uniform component. Managers and supervisors have discretion to authorize “other” employees to wear the uniform, thus firefighters, upon approval, can wear uniforms in accordance with BLM Manual 1103 specifications.

The actual administration of the BLM Uniforms Program is the BLM National Uniform Committee, stated Mr. Hedrick, who is currently serving as the Chairperson of that committee. He indicated that his position has the following responsibilities: (a) initiating and developing program policy standards and procedures; (b) recommending and developing uniform component specifications; (c) administering the national uniform contract(s); and (d) coordinating with program offices, state representatives, and local units to achieve management needs. The Committee consists of a chairperson, the National Uniform Program Manager, and up to eight additional members and advisors.

Ms. Campbell’s interview provided more specifics on the administration of the uniform program as well as on exemptions to the uniform program. She indicated that the BLM State Directors and Associate State Directors are responsible for nominating employees to serve on the National Uniform Committee as well as administering the Uniform Program and ensuring compliance with the BLM's uniform standards for their state/area.

Next, Ms. Campbell stated the official BLM uniform consists only of the components listed in Appendix 1 of the Uniform Manual 1103, with the exception of law enforcement components. Asked if BLM Fire and Aviation Management had ever tried to get an exception, and if so, why it was not supported, Ms. Campbell stated she has been in her position for 15 years and was not aware of any effort BLM Fire and Aviation has made to get an exception. Appendix 1 of the Uniform Manual 1103 does list a 100% ivory cotton crew neck short-shirt with left front pocket and embroidered BLM emblem as an approved uniform component.

Uniform crew t-shirts within Bureau of Land Management Fire and Aviation Management programs

Differentiating between uniform exceptions (Law Enforcement uniform components) and exemptions, Ms. Campbell stated BLM Line Officers may grant uniform wear exemptions for individual, medical, or safety reasons, for example, to reduce the time it takes to appropriately dress for a firefighting situation, firefighters may wish to wear the uniform shirt with the non-uniform Nomex pants.

Information was obtained on the BLM Law Enforcement uniform exception from Mr. Caffey's interview. He stated that BLM's Law Enforcement General Order 19 provides for law enforcement's designated uniforms and 24 authorized components, none of which are a uniform t-shirt. He stated that one of his position duties was to maintain and update the law enforcement uniforms exceptions that are specified in the BLM Law Enforcement General Order 19. Mr. Caffey's interview also provided specifics on safety and specialty items, such as fire/flame retardant/resistant clothing, stating that they are not part of the BLM Uniform Program and, thus, uniform allowance may not be used for purchasing these items. According to Mr. Caffey, government funds may be used to purchase such safety and specialty items as long as the items are approved by the supervisor/safety manager. However, when purchased with BLM funds, safety and specialty items are government property. The details of this were discovered in the BLM Uniform Manual 1103 which stated the requirement for these items must be consistent with conditions specified in Title 5 U.S.C. 7903 (Special Clothing for Hazardous Situations) and/or the Occupational Safety and Health Act of 1970. The Manual continues by stating Title 5 U.S.C. 7903's three requirements in order for an item to be authorized: (a) the item must be "special" and not part of the ordinary and usual furnishings an employee may reasonably be expected to provide for himself; (b) the item must be for the benefit of the government, that is, essential to the safe and successful accomplishment of the work, and not

Uniform crew t-shirts within Bureau of Land Management Fire and Aviation Management programs

solely for the protection of the employee; and (c) the employee must be engaged in hazardous duties.

In conclusion, it was discovered that: (a) new uniform components can be proposed to the BLM Uniform Committee, and BLM Fire and Aviation has never submitted a uniform t-shirt as a component; (b) the BLM Law Enforcement uniforms are exceptions to the general BLM Uniform Manual 1103 due to Law Enforcement's efforts to submit exceptions in the past; (c) exemptions are allowed within the BLM Uniform Manual 1103 such as firefighters wanting to wear the uniform shirt with the non-uniform Nomex pants, if approved by Manager; (d) firefighters can wear the BLM uniform, if approved by supervisor; (e) BLM does produce a white 100% cotton t-shirt; and, (f) safety and specialty clothing items can be approved if the criteria of 5 U.S.C. 7903 (Special Clothing for Hazardous Situations) are met.

Research question 4. What are the National Fire Protection Association (NFPA) and BLM standards for fire crew uniform t-shirts?

Extensive evaluation was conducted on the 2009 NFPA 1975 Standard on Station/Work Uniforms for Emergency Services, as well as the 2013 Interagency Standards for Fire and Fire Aviation Operations, Wildland Fire Field Attire. The purpose of NFPA 1975 is to provide emergency services personnel with station/work uniforms that will not contribute to burn injury severity. NFPA contains eight chapters on work uniforms that specify requirements for the design, performance, testing, and certification of non-primary protective station/work uniforms and the individual garments comprising station/work uniforms. NFPA does provide the disclaimer that this standard does not address all of the safety concerns associated with the use of compliant station/work uniform garments for fire service personnel. NFPA states that it is

Uniform crew t-shirts within Bureau of Land Management Fire and Aviation Management programs

ultimately the responsibility of the subscribing organizations to determine if these standards are applicable prior to implementation.

Specifically, NFPA 1975 establishes minimum requirements for thermally stable textiles that will not rapidly deteriorate, melt, shrink, or adhere to the wearer's skin, causing more severe burn injuries, based upon series of tests and ultimately, standards of certification. NFPA 1975 requires that garments be made from thermally stable materials, as well as optional flame-resistant materials. Thermally stable materials are those that will not contribute to burn injury.

NFPA 1975 does not specifically list certain material that it certifies; rather it lists the process that all material seeking consideration must undergo and meet before qualifying for certification. NFPA 1975 does provide caution on using emblems or patches with thick adhesive backings, often not tested for heat or flame resistance, on work uniforms, stating this adhesive could melt and contribute to burn injury. Next, NFPA 1975 also suggests caution on performance fitness clothing not made from thermally stable materials. These materials are acknowledged as offering features including, but not limited to, moisture management and antibacterial control, but these materials are typically not thermally stable and are made from fibers with relatively low melting points. These types of performance fitness clothing should also not be worn as undergarments beneath the station/work uniform.

Mirroring these results, BLM's 2013 Interagency Standards for Fire and Fire Aviation Operations (better known in wildland fire and aviation management as the "Red Book") provides similar standards, minus the testing and certification standards. Chapter 7 of the Red Book, under the Wildland Fire Field Attire section, does not specifically state any standards for uniform crew t-shirts but states that polyester, polypropylene, and nylon materials are not to be worn by firefighters, as most synthetic fibers melt when exposed to flame or extreme radiant heat.

Uniform crew t-shirts within Bureau of Land Management Fire and Aviation Management programs

However, this Red Book section does provide that firefighters should wear only undergarments made of 100 percent or the highest possible content of natural fibers, aramid, or other flame-resistant materials. The Red Book concludes within the section labeled Personal Protective Equipment that any modification to personal protective equipment that reduces its protection capability, such as iron-on logos, is an unacceptable practice and will not be allowed on wildfires. Finally, this section provides a list of required PPE, but no undergarment shirt, such as a t-shirt, is required.

Both NFPA 1975 and the Red Book agree that synthetic fiber materials that are not flame resistant are not to be worn by firefighters. Additionally, both standards conclude that 100% natural fibers, aramid, or other similar flame-resistant clothing are the only acceptable material, with NFPA 1975 establishing a certification and labeling process.

Discussion

Uniforms are an important —and expected by the public—component of the fire service, to include wildland fire and aviation management, as they bring consistency, standardization, self-discipline, integrity, ownership, professionalism, and lastly, an esprit de corps which is essential to any effective organization. Furthermore, uniforms have been an important component of most civilizations from powerful rulers to the workforces from historic regimes to modern contemporary organizations.

This section of this ARP will first discuss the relationship between the results and reference material, as well as include organizational implications. For thousands of years uniforms have been a key component of organizations, particularly militaries' principles and values. Uniforms brought consistency, standardization, self-discipline, integrity, and professionalism to military members under the banner of esprit de corps. By wearing a uniform,

Uniform crew t-shirts within Bureau of Land Management Fire and Aviation Management programs

individuals display devotion to organization and its values. The uniform embodies the attributes of the group and affects wearer's behavior. Uniforms help create an identity of pride in appearance and essential to an effective military force (Pfanner, 2004).

Roach and Eicher (1965) detailed that formal policies, established by authority figures, mandate the wearing of functional occupational uniforms. As well as indicating their occupational role, e.g., military, law enforcement or fire department uniforms, these uniforms signify specific social positions with their distinct rights and responsibilities. Brunacini (1996) states that wearing functional occupational uniforms promotes expected behavior in both the wearer and the audience. By wearing the appropriate attire a person can convince others that he or she has the special qualities and skills the clothing signifies. Simply stated, "You become what you look like. If you look like an unskilled laborer, you may act as such and you will be treated as such. Your behavior is influenced by how you and others perceive you" (Calfee, 2005, p.1). In the eyes of the public, uniforms proclaiming "official" inspired greater respect, obedience, and expected behavior (Rubinstein, 2001). The uniform is crucial in public perceptions of the skill, trustworthiness, and status of the worker (Craik, 2005).

Results from the survey paralleled these authors' findings, as the average response to the questions for research question 1 revealed that over 80% of respondents believe uniforms influence the public's perception of firefighters' trustworthiness, confidence in abilities, and as well trained professionals; this was in concert with firefighters' own perception of their confidence in themselves, as well as the importance uniforms play in the development of team cohesion and camaraderie. Furthermore, the literature showed that fire service uniforms project a positive, competent, confident, and professional appearance in a quick visual message or image, which can benefit a fire department in several ways (Calfee, 2005).

Uniform crew t-shirts within Bureau of Land Management Fire and Aviation Management programs

“The Armed Forces Officer 1965” advised that as far as being a leader is concerned, “it is good to look the part, not only because of the effect on others, but because for the effort made to look it, one may in time come to be it” (Rubinstein, 2001, p. 82). A strong—and the most surprising—finding from the survey supported the Armed Forces Officer literature’s view that uniforms increase professionalism (and subsequent improvement of firefighter safety)—86% of federal wildland firefighters responded that uniforms do in fact support the intent of IFPM, the guiding doctrine of federal wildland fire professional and leadership development. This result is a critical discovery and an easy building block in the federal wildland agencies’ continual pursuit of HRO and professionalism. This data meets Brunacini’s “positive image plan’s” general objective of creating a consistent long-term identity and feeling within the community that firefighters are professional, under control, functionally focused, serious, trustworthy, effective, and friendly (Brunacini, 1996). This relationship between the research finding and the literature review is extremely strong and will set the foundation of recommendations in this ARP’s next section.

Next, "t-shirt management" is popular with firefighters, based on t-shirts being practical, comfortable, and sensible (Brunacini, 1996), while adding another layer of thermal protective clothing when using appropriate material. Firefighters wear components of PPE to provide protection against multiple hazards, most notably thermal injury. This type of protective clothing must protect the wearer and resist heat, flame, rough surfaces, and sharp objects (Smith et al., 2013). The survey data made it very apparent that respondents recognized this need for added thermal protection as well as style—not apparent in general service uniforms currently—so identifying a t-shirt that meets both elements will be critical. Coupling these two criteria with the need for moisture management and bacterial control would produce an extremely valued and

Uniform crew t-shirts within Bureau of Land Management Fire and Aviation Management programs

coveted uniform t-shirt, but can BLM as an agency afford such a potentially high-priced uniform based upon current sequestration and federal declining budgets. To effectively make this change, BLM leadership must set priorities. This ARP makes a great case for uniform t-shirts to be at the top of that list. Additionally, Brunacini (1996) makes the same case that an agency's uniform policy should be based on three criteria: (a) what image does the department want to convey to the community; (b) is the uniform comfortable, easily maintained, and readily available; and (c) does it help protect the firefighter? Alan Brunacini, former Fire Chief for Phoenix Fire Department, is one of the most highly respected figures in the fire service and his impact is widespread. He has written several fire service books on customer service where uniforms and their importance was highlighted topic. If one accepts Brunacini's highly respected views, this ARP's finding that 64% of fire agencies do not have a uniform policy or supporting policy sets the course for the need for BLM to establish an effective firefighter uniform policy.

Another correlation and follow-up discussion between the literature and the research is that performance fitness undergarments have become increasingly popular among firefighters. Most of this clothing is not constructed of thermally stable materials and should not be worn while on duty. Although these materials offer features such as moisture management and bacterial control, they are typically not thermally stable and are made from fibers with relatively low melting points, which can melt and contribute to a burn injury (Varner, 2008). NFPA 1975 also cautions against performance fitness clothing. These types of performance fitness clothing should not be worn as undergarments beneath the station/work uniform—this is critical information to communicate to firefighters, as this type of clothing, while stylish, is not appropriate for firefighting. With survey respondents offering 11 materials and/or brand name

Uniform crew t-shirts within Bureau of Land Management Fire and Aviation Management programs

flame resistant clothing, it is paramount BLM investigate each and every one of these valuable recommendations to not only find an acceptable and affordable material, but also one that could have some of the attributes of fitness clothing. NFPA definitely captures all these criteria within its framework guidance, yet BLM may find that adopting NFPA 1975 wholly may be too restrictive. Thus, BLM must recognize that by embracing HRO as a strategic organization goal, it must invest staff, time, and funding to successfully navigate these sometimes conflicting denominators to discover the most practical firefighter uniform crew t-shirt available on the market.

Although high in initial cost for the BLM, these aramid and Nomex fabrics have a very long wear life, and the purchase may well be more cost-effective investment in the long run. The goal would be to wear compliant crew t-shirt uniforms (under protective Nomex long-sleeve shirts) to increase thermal resistance, to provide higher levels of protection to the wearer, and to improve moisture and antibacterial control management while meeting the comfort and style needs of the firefighters—thus, a BLM policy will need to ensure currency and flexibility.

Maintaining credibility with local, state, and federal elected and appointed officials is an ongoing challenge. For every fire department, it's crucial to make a positive first impression, so that the stakeholders will understand the great value of the service we provide (Cochran, 2005). This could not be overstated for the BLM due to the regulatory—and thus controversial—nature of our agency—not so much with firefighting, but with natural resource management and its regulatory impacts on ranching, energy development, and timber management. Consequently, BLM is constantly on guard from the public while also often being litigated on its decisions, as well as always trying to be proactive and preemptive with communication and public input on public land management decisions. Maybe nowhere is it more important to public perception

Uniform crew t-shirts within Bureau of Land Management Fire and Aviation Management programs

than that the BLM Fire and Aviation Directorate convey a trustworthy, professional, highly-trained, and safe image. BLM Fire and Aviation Management is always in the public eye whether driving down a road, conducting prevention programs at elementary schools or county fairs, or showing up to a fire that is threatening someone's property, whether that be a home or a stand of timber. BLM needs to recognize this opportunity to put its best foot, or in this case, best uniform forward to convey to the public that we really are an efficient, professional, and trustworthy federal agency, while meeting the needs the firefighters as well.

Recommendations

Upon review of the literature, personal interviews, and the survey instrument data, the following recommendations were developed to address the problem and purpose of this ARP. The problem identified was verified throughout this paper, as well as the purpose, in that BLM policy neither provides for nor funds the purchase of fire crew uniform t-shirts. Therefore, the following recommendations must be communicated and implemented to ensure BLM establishes a firefighter uniform crew t-shirt policy that provides for thermal protection, comfort, style, and professional—as perceived by both the public and the uniformed firefighters:

- The author of this ARP must brief the BLM national FLT on this paper's findings at the 2013 BLM fall post season meeting.
- Upon completion of the initial briefing of this ARP to the FLT and pending their acceptance, the FLT next must develop a tasking paper to the BLM National Fire Operations Group (FOG) for them to identify a standardized uniform crew t-shirt that meets all BLM states' needs and approval. There are vast geographical and climatic differences in BLM lands, e.g., from Arizona's Chihuahuan Desert that straddles the

Uniform crew t-shirts within Bureau of Land Management Fire and Aviation Management programs

U.S.-Mexico border, to extreme Great Basin climate to Colorado's Rocky Mountains, to Alaska's Central Yukon region.

- The BLM FOG would task a standing committee to identify a firefighter uniform crew t-shirt that addresses the following criteria: (a) flame resistant/thermal protection, (b) comfort, (c) moisture management, (d) antibacterial control, (e) accepted style/design, (f) compliance with current BLM Red Book policy, (g) if NFPA 1975 is applicable—or what sections are applicable—to wildland firefighting uniform crew t-shirts, and lastly (h) funding mechanisms and implications. These efforts would include wear trials, involvement of field level firefighters, and contacting manufacturers of the 11 recommended materials identified in the Results Section of this ARP.
- The FOG could contract with either or both of the: (a) Missoula Technology and Development Center (MTDC) which is a U.S. Forest Service-wide technical center with a nationwide program that encompasses any federal and state agencies, universities, private firms, and research groups equipment needs; or (b) the U.S. Forest Service's San Dimas Technology and Development Center (SDTDC) whose mission is to serve emerging technological requirements of the Forest Service and its cooperators.
- Upon receipt of a recommended uniform crew t-shirt, elevate a written proposal to the BLM National Uniform Committee and National Uniform Coordinator for exception and to amend the BLM Uniform Manual 1103 to allow state and field units to purchase uniform t-shirts for employees.
- Paralleling this effort, propose the recommended uniform crew t-shirt to the National FAD for approval as a safety/specialty clothing item per 5 U.S.C. 7903 (Special Clothing for Hazardous Situations).

Uniform crew t-shirts within Bureau of Land Management Fire and Aviation Management programs

- FLT should determine which avenue—uniform crew t-shirts as a uniform component, as safety clothing, or both—is the most efficient, effective, and appropriate to pursue and finalize.

Uniform crew t-shirts within Bureau of Land Management Fire and Aviation Management programs

Reference List

- Barbaro, M. (2006). If Preppies Took Over Wal-Mart. *The New York Times*. Retrieved from http://www.nytimes.com/2006/10/03/business/03uniform.html?scp=1&sq=If+preppies+took+over+wal-mart&st=nyt&_r=0
- Bickman, L. (1974). The social power of a uniform. *Journal of Applied Social Psychology*, 47-61.
- Brunacini, A. (1996). *Essentials of Fire Department Customer Service*. Oklahoma State University: Fire Protection Publications.
- Calfee, M. (2005). Dress Blues. *Fire Chief*. Retrieved from: http://firechief.com/management/firefighting_dress_blues
- Cochran, K. (2005). Image is everything. *FireRescue Magazine*, pp. 120.
- Coleman, R. (2005). *Chief's Clipboard 20 Years of Ronny Coleman*. Sudbury, MA: Jones and Bartlett Publishers.
- Craik, J. (2005). *Uniforms Exposed, From Conformity to Transgression*. New York: Berger Oxford.
- Eicher, J. and Roach, M. (1965). *Dress, Adornment, and the Social Order*. New York: Wiley.
- Joner, C. (2001). Dress to impress-clients, coworkers and yourself. *Daily Journal of Commerce*. Retrieved from: <http://djcoregon.com/news/2001/08/31/dress-to-impress-clients-coworkers-and-yourself/#ixzz2NqaIp1On>
- Krejcie, R. & Morgan, D. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*. Retrieved from website: <http://opa.uprrp.edu/InvInsDocs/KrejcieandMorgan.pdf>
- Mansel, P. (2005). *Dressed to Rule*. New Haven and London: Yale University Press.

Uniform crew t-shirts within Bureau of Land Management Fire and Aviation Management programs

Miller, C. (2012, September). From Powdered Wigs to Camouflage: The Ever-Changing Style

of the U.S. Army. *The Atlantic*. Retrieved from:

<http://www.theatlantic.com/national/archive/2012/09/from-powdered-wigs-to-camouflage-the-ever-changing-style-of-the-us-army/262024/>

National Fire Protection Association. (2009). NFPA 1975-6 Standard on Station/Work Uniforms for Emergency Services. 1975, 6-22.

National Interagency Fire Center, Bureau of Land Management. (2008). *Interagency Fire*

Program Management Qualifications Standards and Guide. Retrieved from

<http://www.ifpm.nifc.gov/standard/electronicver/introduction.pdf>

Pfanner, T. (2004). Military uniforms and the law of war. *International Review of the Red Cross*.

86(853), 94-124.

Rubinstein, R. (2001). *Dress Codes*. Boulder, Colorado: Westview Press.

Smith, D., Hailer, J., Hultquist, E., Lefferts, W., & Fehling, P. (2013, January). The Station

Uniform Shirt. *Firehouse*. 1(1), 74.

U.S. Coast Guard, Auxiliary Human Resources Directorate. (2013). Honoring Our Profession-

Uniform Guidance And Results Of Uniform Board No. 44. Retrieved from:

http://www.uscg.mil/announcements/alcoast/291-11_alcoast.txt

U.S. Department of Interior. (2009). *Guidance for Implementation of Federal Wildland Fire*

Management Policy. Retrieved from <http://www.nifc.gov/policies.htm>

U.S. Department of Interior, Bureau of Land Management. (2005). Fire and Aviation Honor

Guard Standard Operating Procedures.

Uniform crew t-shirts within Bureau of Land Management Fire and Aviation Management programs

U.S. Department of Interior, Bureau of Land Management. (2012). *1103- BLM Honor Guard*

Mission Statement. Retrieved from:

http://www.blm.gov/nifc/st/en/prog/fire/honor_guard/mission.html

U.S. Department of Interior, Bureau of Land Management, Fire and Aviation Directorate.

(2009). *Fire Leadership Team's Strategic Plan*.

U.S. Department of the Interior, Bureau of Land Management. (2013). *Interagency Standards for*

Fire and Fire Aviation Operations. Retrieved from:

http://www.nifc.gov/policies/pol_intgncy_guides.html

U.S. Fire Administration, Federal Emergency Management Agency. (2010). *America's Fire and*

Emergency Services Leader, Strategic Plan. Retrieved from

http://www.usfa.fema.gov/downloads/pdf/strategic_plan.pdf

Varner, B. (2008, January). Clothes make the firefighter safe. *FireRescue Magazine*. 7(3), 58.

Uniform crew t-shirts within Bureau of Land Management Fire and Aviation Management programs

Appendix A.

Shirley Campbell, BLM National Operations Center, National Uniform Program Manager, telephone interview questions from October 29, 2013, and Howard Hedrick, BLM National Fire and Aviation Directorate, National Uniform Committee Chairperson, telephone interview questions from November 4, 2013.

- The official BLM uniform consists only of the components listed in Appendix 1, with the exception of law enforcement components. Law enforcement uniforms are specified in the BLM Law Enforcement General Orders. Has fire management ever tried to get an exception? If so, why was it not supported?
- Special garments may, with supervisory approval, be used in combination with uniform components. For example, to reduce the time it takes to appropriately dress for a firefighting situation, firefighters may wish to wear the uniform shirt with the non-uniform Nomex pants. Do these garments have to be approved as official uniforms components?
- Where are the fire and aviation General Orders located? What do they state?
- Can you please explain the Special Clothing for Hazardous Occupations and/or the Occupational Safety and Health Act of 1970?
- Does BLM policy provide for any firefighter uniform component?
- Field Offices or organizational units, e.g., fire or aviation units may request a unit-specific baseball cap. What is this process?
- How do current firefighters and fire crews provide for uniform crew t-shirts?
- How would policy be changed within the BLM Uniform Manual?

Uniform crew t-shirts within Bureau of Land Management Fire and Aviation Management programs

Appendix B.

Jason Caffey, BLM's National Chief Ranger, Office of Law Enforcement and Security, telephone interview questions from November 1, 2013.

- The official BLM uniform consists only of the components listed in Appendix 1, with the exception of law enforcement components. Law enforcement uniforms are specified in the BLM Law Enforcement General Orders. Has fire management ever tried to get an exception? If so, why was it not supported?
- Special garments may, with supervisory approval, be used in combination with uniform components. For example, to reduce the time it takes to appropriately dress for a firefighting situation, firefighters may wish to wear the uniform shirt with the non-uniform Nomex pants. Do these garments have to be approved as official uniforms components?
- Where are the fire and aviation General Orders located? What do they state?
- Can you please explain the Special Clothing for Hazardous Occupations and/or the Occupational Safety and Health Act of 1970?
- Field Offices or organizational units, e.g., fire or aviation units may request a unit-specific baseball cap. What is this process?
- How would policy be changed within the BLM Uniform Manual?

Uniform crew t-shirts within Bureau of Land Management Fire and Aviation Management programs

Appendix C.

Survey for uniform crew t-shirts within Bureau of Land Management Fire and Aviation Management programs (SurveyMonkey), sent on October 22, 2013.

1. What is the importance of uniforms within the fire service?

- Does your program have a policy for uniform crew t-shirts?
 - If yes, could you please provide a short summary of type, material, how many/per annual allowance?
- What is importance of a uniform (lettered crew t-shirt and Nomex pants) to the public, as taxpayers, in their perception of value gained for tax dollars spent?
 - Extremely Important
 - Very Important
 - Important
 - Neutral
 - Not very important
 - Doesn't matter
- What is importance that a uniform (lettered crew t-shirt and Nomex pants) be worn by all crew members to the public, as taxpayers, in their perception of value gained for tax dollars spent?
 - Extremely Important
 - Very Important
 - Important
 - Neutral
 - Not very important

Uniform crew t-shirts within Bureau of Land Management Fire and Aviation Management programs

- Doesn't matter
- What impact do you think the everyday uniform (lettered crew t-shirt and Nomex pants) has on the public's confidence your ability as a firefighter?
 - Extremely Important
 - Very Important
 - Important
 - Neutral
 - Not very important
 - Doesn't matter
- What importance do you think the everyday uniform (lettered crew t-shirt and Nomex pants) has on the public's perception of firefighters' trustworthiness?
 - Extremely Important
 - Very Important
 - Important
 - Neutral
 - Not very important
 - Doesn't matter
- What importance do you believe the everyday uniform (lettered crew t-shirt and Nomex pants) has on the public's perception of firefighters as well-trained professionals?
 - Extremely Important
 - Very Important
 - Important
 - Neutral

Uniform crew t-shirts within Bureau of Land Management Fire and Aviation Management programs

- Not very important
- Doesn't matter
- What is the importance of your everyday uniform (lettered crew t-shirt and Nomex pants) in your perception of yourself as a professional?
 - Extremely Important
 - Very Important
 - Important
 - Neutral
 - Not very important
 - Doesn't matter
- What importance does the uniform (lettered crew t-shirt and Nomex pants) have on your confidence in your ability to do your job as a firefighter?
 - Extremely Important
 - Very Important
 - Important
 - Neutral
 - Not very important
 - Doesn't matter
- What is importance for a firefighter's uniform (lettered crew t-shirt and Nomex pants) to be chosen for professional appearance, as compared to comfort?
 - Extremely Important
 - Very Important
 - Important

Uniform crew t-shirts within Bureau of Land Management Fire and Aviation Management programs

- Neutral
- Not very important
- Doesn't matter
- What importance do you believe a uniform develops team cohesiveness, camaraderie, and as a result enhanced safety?
 - Extremely Important
 - Very Important
 - Important
 - Neutral
 - Not very important
 - Doesn't matter
- What importance do you believe uniforms affect your pride in ownership and as result the way you treat taxpayer funded equipment?
 - Extremely Important
 - Very Important
 - Important
 - Neutral
 - Not very important
 - Doesn't matter

2. What are firefighters' preferred materials for fire crew uniform t-shirts within the interagency fire service community?

- What is the importance of uniforms, specifically if a uniform crew t-shirt was approved and funded/provided by your federal agency, support Interagency Fire Management

Uniform crew t-shirts within Bureau of Land Management Fire and Aviation Management programs

Program Management (IFPM) and its intent of increasing professionalism and improving firefighter safety in fire management programs?

- Extremely Important
- Very Important
- Important
- Neutral
- Not very important
- Doesn't matter
- Why?
- Does policy allow for government purchase of uniform crew t-shirts?
 - If so, do you know which authority or avenue you purchase uniform t-shirts for your crew?
- What mechanism do you use to purchase uniform crew t-shirts?
 - Government Purchase Card
 - Government Convenient Checks
 - Blanket Purchase Agreement (BPA)
 - Personal funds
- How much funding for crew t-shirts would be an adequate level for one firefighter?
 - \$100 or less
 - \$100-\$150
 - \$150-\$200
 - \$200-\$300

Uniform crew t-shirts within Bureau of Land Management Fire and Aviation Management programs

- Does your program meet NFPA 1975 Standard for fire crew uniform t-shirts for firefighters?
- What are your current crews wearing for uniform crew t-shirts?
- What is the preferred material for station/uniform crew t-shirts?
 - Aramid?
 - Cotton?
 - Nomex?
 - Other(s)?
- What would you recommend?
- Any new advanced material you are aware on the horizon?
- Please provide benefits or challenges you have experienced with NFPA compliance?
- Please provide any benefits or challenges of your agency's uniform crew t-shirt/station uniform policy.