

AIR COMMAND AND STAFF COLLEGE

DISTANCE LEARNING

AIR UNIVERSITY

NUCLEAR DETERRENCE: MOTIVATE TO RECRUIT AND RETAIN—STRENGTHEN
THE FORCE, STRENGTHEN THE PERCEPTION

by

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ABSTRACT

This research paper will apply the problem/solution framework to conduct a qualitative analysis of a collection of studies and provide a recommendation to resolve the ongoing lack of recruitment and retention within the Air Force's Nuclear Enterprise. The research begins with a background of the Nuclear Enterprise and a thorough explanation of the issue. The research paper then examines theories and studies within the realm of psychology, specifically focusing on workplace motivation and culture. This is followed by the use of monetary and other-than-monetary rewards within the workplace to analyze the impacts on recruitment and retention. Furthermore, it explores mishaps that have occurred in the enterprise over the years and the current attempts to resolve the Air Force's inability to ensure recruitment and retention of Nuclear Enterprise personnel. The research concludes other-than-monetary rewards would motivate individuals to join and remain within the Nuclear Enterprise when used as a supplementary reward, provided the member's lower-level monetary needs are met first. The conclusion is followed by recommendations that could be useful for boosting workplace culture, subsequently leading to stronger recruitment and retention statistics, and ultimately a stronger perception of U.S. nuclear capabilities.

INTRODUCTION

Overview of the Study

For years, the United States Air Force (USAF) has struggled with retaining Airmen and has seen “serious erosion of nuclear mission readiness, resources, a vigilant nuclear culture, and expertise within the USAF Nuclear Enterprise.”¹ A solution to resolving these issues has been a question of great focus for over a decade. Although each year a strategic plan is drafted in an attempt to strengthen the Nuclear Enterprise, issues involving recruiting and retaining an adequate number of knowledgeable personnel remains. As many government officials have stated, the individuals responsible for carrying out the mission are the most important asset; yet, year after year, the problem remains unanswered.

The Nature of the Problem

Secretary of Defense Ash Carter called nuclear deterrence the bedrock of security and assured: “the confidence that [the Nuclear Enterprise is] ready to respond is what stops potential adversaries from using nuclear weapons against the United States or our allies in the first place.”² The individuals who work within the realm of the Nuclear Enterprise are responsible for the command and control of many weapons systems and must have the knowledge and capabilities to perform their duties flawlessly when called upon. The belief they can do so is the core of the enterprise’s effectiveness. The individuals who make up the enterprise are the heart of America’s undeniable nuclear deterrence. As the bedrock of security, it is no surprise how critical a mission all those who work within the enterprise have. However, the problem is that even knowing the importance, the Air Force continues to have issues in recruiting and sustaining manning for America’s nuclear deterrence.

Since 1993, when much of the focus shifted from nuclear deterrence to fighting wars in foreign territory, the Nuclear Enterprise has suffered from budget cuts, a decrease in manning, a lack of leadership attention and insufficient amounts of upgrades involving weapons technology.³ In recent years, the neglect toward the enterprise has shown to be damaging to deterrence. Therefore, the government has provided funding to focus on nuclear modernization by updating weapons systems to improve reliability and resiliency, hoping the efforts would increase recruitment and retention amongst Nuclear Enterprise troops, military and civilian alike. Department of Defense Office of Inspector General (DoD OIG) reports determined that, although the skill set needed to perform many duties within the Nuclear Enterprise require a higher level of education, the organizational size and locations do not allow for higher schedule salaries. Unfortunately, this, coupled with the austere locations offered for such positions, the emphasis placed on perfect scores for career progression, unimpeachable attention to detail, and the reality of extreme accountability throughout every exercise and day-to-day operations have plagued recruitment and retention efforts.⁴ The DoD OIG recommends the “pool of talent needs sufficient incentives to take on critical functions in some of the austere locations.”⁵ Lack of incentives, combined with a misguided focus, culminated in a number of real-world nuclear mission mishaps.

Some of the mishaps which captured attention and ignited changes throughout the enterprise include: a mislabeling of intercontinental ballistic missile (ICBM) parts which were subsequently delivered to Taiwan in 2006; mistakenly flying with unauthorized loaded nuclear weapons in 2007; inspection failures due to old, worn out parts with no schematics to fix or replace; and even the Missileer cheating scandal in 2014 due to poor leadership stressing anything less than a 100% on tests would be unacceptable and hinder chances of promotion.

Since the end of the Cold War, the Nuclear Enterprise has endured a profound culture change, involving the fading of one once focused on prestige and honor to another plagued with the fear of making even the slightest mistake. While the Air Force has been implementing plans and making strides toward resuscitation of the original culture, it is crucial to explore and understand the psychology behind what motivates individuals to enter and then stay with a particular company or organization for the long-term.

Purpose of the Study

The purpose of this research is to examine the matters which contribute to the overall problem of recruitment and retention within the Nuclear Enterprise in an effort to find a solution to attract individuals to the career field and then keep them dedicated year after year.

The “United States Air Force is responsible for: two-thirds of the nation’s nuclear Triad, including more than 400 Intercontinental Ballistic Missiles (ICBMs), and 66 nuclear-capable bombers; approximately 75% of the nation’s nuclear command, control, and communications (NC3) systems, and a force of dual-capable aircraft (DCA)—fighter aircraft capable of carrying nuclear weapons.”⁶ Ensuring the security and effectiveness of these weapons systems, approximately 30,000 Airmen and civilians stand ready.⁷ Without these individuals, the assurance of the nuclear mission would collapse. Henceforth, the purpose of this research is to explore the implementation of non-monetary competitive retention plans in an effort to recruit and retain members of the Nuclear Enterprise.

Attrition can be a detriment to any organization. The specific attrition issue within the Nuclear Enterprise should be a topic of significant focus. While little research has been conducted directly relating to those of the Nuclear Enterprise, many researchers continue to research the motivation behind retention. This research is critical. During a hearing involving the

Committee on Armed Services, Subcommittee on Strategic Forces, Dr. Miriam John, a member of the Defense Science Board, stated, “The linchpin of [nuclear deterrence], of course, is the demonstrated skills of the talented, knowledgeable, committed, and valued people who are part of this enterprise.”⁸ With this realization, there is no question of the importance of understanding techniques and strategies for effectively motivating Airmen to become and remain members of the Nuclear Enterprise.

As President Reagan once said, “We know only too well that war comes not when the forces of freedom are strong, but when they are weak. It is then that tyrants are tempted.”⁹ It is up to the men and women of America to remain at the ready position behind the weapons. It is those with the profound knowledge and skills which are the deterrent and it is the Government’s responsibility to provide those individuals with the incentives and motivation to hold the line.

Research Argument

A competitive retention plan, consisting of increased opportunity to earn other-than-monetary bonuses for members of the nuclear enterprise based on skills and periodic stratification will bolster recruitment and retention because individuals will perceive the nuclear enterprise path as more attractive based on its competitive nature and unique opportunity for bonuses. A Global Merger & Acquisition Retention Study found that “79% of [businesses] using retention plans retained at least 80% of targeted employees for the full desired retention period.”¹⁰ Critics state recruitment and retention success require more than just an increase in pay and monetary bonuses. Workplace culture and leadership must also have a role.¹¹ Fortunately, this research will explore the belief that through using other-than-monetary bonuses, members will have an opportunity to be recognized and identified by leadership as critical

contributors to the enterprise, therefore increasing retention of top performers and subsequently increasing morale and positive workplace culture.

Research Question

For over 71 years, the “American people [have depended] on the United States Air Force to deliver secure and reliable nuclear deterrence capabilities.”¹² Following multiple mishaps, the USAF found it pertinent to evaluate the Nuclear Enterprise and develop a strategic plan to reinvigorate the force in 2008. As a result, research indicated atrophy of skillset, focus, motivation and culture amongst Nuclear Enterprise personnel.¹³ For over a decade now, experts have been in pursuit of discovering new methods to assist in increasing knowledge-base and morale to strengthen the force once again. Therefore, the research question for this study is: How can the Air Force better motivate the members of the Nuclear Enterprise to bolster recruitment and retention while ultimately strengthening nuclear deterrence?

The Anticipated Significance of the Study

The perception of the strength and ultimate abilities of the United States (U.S.) Nuclear Enterprise is significant to the U.S. stance as a world power. Fear of U.S. abilities, to include nuclear, plays a major role in keeping U.S. enemies at a distance. Without knowledgeable personnel to operate the weapons systems and flawlessly perform their responsibilities when called upon, the mission would fail long before it ever presumably started. Much of the respect the U.S. receives is a product of fear and the certainty of knowing, if pressured, the U.S. will protect its soil – no matter the cost. However, confirmation of a shortage of personnel could render the U.S. weak in the eyes of its enemies and allies. The U.S. would hence become vulnerable to many adversarial challenges if ever the rival felt they had the opportunity to capitalize on the weakness and win the upper-hand. With this in mind, it is no wonder bolstering

recruitment efforts and minimizing personnel loss has been at the center of discussion for such a lengthy amount of time.

Research Methodology

This research paper will apply the problem/solution framework to conduct a qualitative analysis of a collection of studies and provide a recommendation to resolve the ongoing lack of recruitment and retention within the Air Force's Nuclear Enterprise. This research begins with a background of the Nuclear Enterprise and a thorough explanation of the issue. The research paper then examines theories and studies within the realm of psychology, specifically focusing on workplace motivation and culture. This is followed by the use of monetary and other-than-monetary rewards within the workplace to analyze the impacts on recruitment and retention. Furthermore, it explores mishaps which have occurred in the enterprise over the years and the current attempts to resolve the Air Force's inability to ensure recruitment and retention of Nuclear Enterprise personnel. This research will aid in determining if a competitive retention plan, involving a periodic stratification of personnel and an increase of opportunities for members to receive other-than-cash rewards will motivate individuals to join and remain within the Nuclear Enterprise.

Thesis

If a competitive retention plan, consisting of increased opportunity to earn other-than-monetary bonuses is offered to the nuclear enterprise, then the Air Force would increase recruitment and retention of its members. It is believed non-monetary incentives will be more likely to boost interest and sustainment within career fields of the Nuclear Enterprise. The theory is that offering other-than-monetary rewards will increase performance and ensure retention of stellar performers.

LITERATURE REVIEW

Mishaps Spark Concern

The 2008 Air Force Nuclear Task Force states the decline of the Nuclear Enterprise arose following the conclusion of the Cold War when resources were limited, and less emphasis was placed on nuclear deterrent capabilities.¹⁴ This neglect continued throughout the Global War on Terrorism (GWOT) as well as Operations Enduring Freedom (OEF) and Operation Iraqi Freedom (OIF). It was not until “critical, nuclear-related ICBM parts, labeled as helicopter batteries, were mistakenly sent to Taiwan”¹⁵ in 2006 and “a B-52 crew mistakenly flew six nuclear weapons from Minot AFB, North Dakota to Barksdale AFB, Louisiana”¹⁶ in 2007 that the focus shifted and the Department of Defense began to notice the attrition endured by the enterprise. By 2008, the Air Force implemented the *Reinvigorating the USAF Nuclear Enterprise* strategic plan with the intent to bring forth, once again, a Nuclear Enterprise that was a: “Credible strategic deterrence, with an unwavering commitment to nuclear deterrence as its cornerstone [and], is foundational to the security of our nation, allies, and friends.”¹⁷ The Air Force Nuclear Task Force stated, “the hallmarks of our performance standards when it comes to the nuclear deterrence mission are precision and reliability. A culture of compliance, clear organizational structures, and active governance processes are the principal pillars to help us achieve sustained excellence in this most vital mission area.”¹⁸ However, during the process of rebuilding the culture of compliance, morale and retention further diminished through breeding a culture of expected perfection. More assessments were completed, and more funding was allocated toward bolstering nuclear personnel.

At the end of 2009, Honorable Michael B. Donley, Secretary of the Air Force and General Norton A. Schwartz, Chief of Staff, United States Air Force, delivered the Fiscal Year

2010 Air Force Posture Statement highlighting an increase of 2,500 nuclear personnel. Along with recruiting more personnel, the posture statement addressed the development and care of Airmen and their families. There is mention of using funds to “rebuild the nuclear infrastructure by fortifying operations [and] developing people,”¹⁹ but in exactly what manner is unclear.

Workplace Culture

“Culture is a product of the social environment and includes a shared sense of values, norms, ideas, symbols, and meanings.”²⁰ Unfortunately, the culture of the Nuclear Enterprise has become known for excessive inspections, extreme performance standards, and boring day-to-day work. Culture can be described as “a powerful element that shapes your work enjoyment, your work relationships, and your work processes. But, culture is something that you cannot actually see, except through its physical manifestations in your workplace.”²¹ The perceived culture of the Nuclear Enterprise, as described above, can without a doubt have a negative effect on recruitment. Individuals assess workplace culture before ever becoming or attempting to become a part of it.

Darke & Associates, LLC, an experienced leadership development consulting firm based in Minneapolis, Minnesota, states leadership is “perhaps the single largest factor affecting organizational culture.”²² Leadership has a massive impact on the team stemming all the way from the decisions they make, to the praise they give, and the rules they enforce. Leadership does not only influence the present, but it will also impact the future. Much of leadership is learned. The leaders of today must provide good examples for the leaders of tomorrow by building their knowledge base, confidence, and resiliency.

The second factor listed involves the individuals who comprise an organization. Darke & Associates claim the individuals of the group affect each other immensely. Their attitudes are

infectious. Culture is very much derived from employees as they interact with each other. They voice their thoughts and share their visions, concerns, and aspirations. In the case of the Nuclear Enterprise, this is a considerable determining factor of whether the enterprise is seen in a positive or negative light.

Third, Darke & Associates express the work environment, to include the location of where one works, affects work quality and employee morale. Unfortunately, the necessity for members of the Nuclear Enterprise to travel to austere locations has a negative effect on workplace culture. In many cases, remote locations make things that are normally simple, very difficult. For instance, shopping for necessities, finding reliable childcare, and even having access to decent cellular or internet services becomes increasingly problematic.

Finally, Darke & Associates labels “the work you do, your clients/customers, and the human approach”²³ as factors four, five, and six, respectively. In relation to the enterprise, the “work you do” involves the desire Nuclear Enterprise members have to do their job because they truly believe in the reasons why they are responsible for a particular mission. This goes hand-in-hand with the enterprise’s customers – it is also imperative members of the Nuclear Enterprise be able to understand who/what they are protecting and why they are protecting it. This is why understanding of the Nuclear Enterprise heritage is so critical. Lastly, “a human approach,” according to Darke & Associates, refers to the employee’s need to feel respected and appreciated as a human; not simply just as an object the organization requires the use of to complete a task.

Reinvigorating the Nuclear Enterprise

Seven to eight years following the mishaps discussed earlier, in 2014, the Missileer cheating scandal materialized. The cheating scandal revolved around Missileers who felt compelled to cheat on their tests caused by undue stress placed on them by supervisors to score

above the required 90 percent. Anything less than a 100 percent was considered unsatisfactory and members assumed earning only the passing score would affect their chances of promotion. This unrealistic expectation caused morale to dwindle. In light of the situation, numerous studies and focus groups were implemented to begin changing the method in which personnel tested, trained, equipped and operated. Relieving this pressure was a giant step toward increased morale.

Personnel Reliability Program Re-Emphasized and Improved

This event brought to life the 2014 Nuclear Enterprise Review which sparked significant changes for the Nuclear Enterprise. Although initially established during the Cold War, amid the scandal, the Personnel Reliability Program (PRP) (a program meant to assure personnel within the Nuclear Enterprise were fit to fight by requiring Airmen to report any life-changing events to leadership) was identified as a cause for a greater perception of micromanagement throughout the career field. Henceforth, the program was re-emphasized and improved. The goal going into 2014 was to make the program less of an administrative burden by highlighting “PRP is a commander’s program and eliminating the need for supplemental PRP guidance below the headquarters Air Force level.”²⁴

Force Improvement Program

In late 2014, the Air Force implemented the Nuclear Force Improvement Program (FIP) and awarded a budget of \$160 million to reduce the burdens of micromanagement on Airmen. Lieutenant General Stephen W. Wilson, Commander, Air Force Global Strike Command deemed the FIP program a “bottom-up, grassroots approach [that] gives a voice to Airmen who likely didn’t have one before.”²⁵ More responsibilities were handed over to lower-level supervisors, such as crew commanders, providing a sense of empowerment and subsequently reduced fear amongst the Nuclear Enterprise. The new regime felt there was still need for perfection in some

areas of the Nuclear Enterprise, however, training environments were no longer an area lumped into that mindset. Unfortunately, Missileers were not the only individuals within the Nuclear Enterprise suffering from the pressures of the job.

Giving a voice to the Airmen also enlightened leaders of a manning shortage amongst Security Forces (SF) Defenders who assisted the nuclear mission. Due to the shortage, Security Forces Airmen were forced to work longer/more frequent shifts. Along with working long shifts, it is not uncommon for Defenders to carry out their duties in areas that experience extremely low temperatures. The FIP authorized hundreds of billets and even provided funding for the Defenders to obtain more and newer adequate gear to withstand frigid environments. Suitable cold weather gear and more comfortable helmets were issued to help increase morale. Hopes for an even bigger boost in morale came with additional pay.

“Perhaps the most motivating [implementation], though, is the additional incentive and special assignment pay—between \$75 and \$300 a month—for enlisted and selected officers serving in 11 nuclear career fields, including SF and [M]issileers.”²⁶ The amount depends on the total alerts an individual pulls beyond the required seven. “The additional pay [was] meant to ‘incentivize [A]irmen to volunteer for and perform duties in a particular career field, location, and/or special assignment where the scope of responsibility and required skills exceed those of other [A]irmen in the same career field and rank,’ said Brig. Gen. Brian T. Kelly, director of force management policy.”²⁷

It was also in 2014 that the Air Force created a four-star billet for the commander of Air Force Global Strike Command (AFGSC) to intensify the perception of just how valuable the nuclear mission was to the United States. Then, Secretary of Defense, Chuck Hagel, stated, “We must restore the prestige that attracted the brightest minds of the Cold War era, so our most

talented young men and women see the nuclear pathway as promising and valued... Cultural change must permeate down through the individual with every [A]irman in our nuclear enterprise - knowing how much we value them and their service.”²⁸ In line with this effort, the Air Force created a new medal: the Nuclear Deterrence Operations Service Medal – to recognize critical contributors.

Efforts to bring solutions to the problems identified in the 2014 Nuclear Enterprise Review continued throughout 2015. In July of 2016, the U.S. Government Accountability Office (GAO) provided an analysis of the established processes for rectifying the shortfalls. The GAO office mentioned the Air Force was implementing the plans as directed. However, it could take an upwards of 15 years to see the full results of the changes; but, that is not to say there were not already small wins indicating progress.

The Year of the Family

In 2017, the Air Force Global Strike Command dedicated the year to its Airmen and named the year 2017 “The Year of the Family.” 2017 was the year AFGSC would hone in on five areas of interest intimately involving and affecting the everyday lives of nuclear personnel: live, learn, play, pray and receive care.²⁹ In regards to the first area of interest, involving ‘living,’ AFGSC promised to fix housing dilemmas that plagued those who were required to report to austere locations for duty. ‘Learn’ encompassed exploring the thought of charter schools for the member and their dependents. ‘Play’ involved providing and revamping fitness, entertainment, and youth centers, especially those in remote locations, to provide the Nuclear Enterprise personnel and their families locations that promoted relaxation and re-charging. AFGSC also vowed to increase their focus on spiritual health and the ‘pray’ realm to encourage spiritual well-being. Finally, ‘care’ included making services such as childcare more accessible.

Through the use of surveys and communicating with members in the field, the FIP discovered providing individuals with more professional development opportunities would provide them with more than just education and training to promote them in their field of duty. It would also provide them with an opportunity to distance themselves from the remote locations they were required to work – break the monotony. They also found requiring leadership to pull alert duties assisted in keeping leadership keen on how to perform duties in an operational setting, kept them abreast of everyday issues, lessened the workload, and improved morale. Even small additions to include “new amenities such as shelves, workout equipment, microwave ovens, and refrigerators...in the underground capsules where crews sit alert”³⁰ proved helpful in improving esprit de corps.

According to Colonel Stacy Jo Huser, Commander, 91st Operations Group, Minot Air Force Base, North Dakota, before the fiscal year 2017, only a handful of officers would remain classified as a 13N. There were not enough assignment billets to keep officers within the career field for more than three to four years; therefore, most officers would be forced to cross-train. Only a few high performers would be selected to fulfill staff positions. As of the fiscal year 2017, new accessions will remain 13N’s for their entire careers.³¹

The Desire for Improvement Remains

Now, a decade since the inception of the reinvigoration effort began revolutionizing the Nuclear Enterprise, enterprise personnel remains the focus. On April 11, 2018, General Robin Rand, Commander, Air Force Global Strike Command delivered a statement on behalf of the United States Air Force regarding the Fiscal Year 2019 Posture for Department of Defense Nuclear Forces. General Rand summed up his statement by delivering his priorities: “Mission,

Airmen, and Families”³² with an emphasis on professional development and greater opportunities no matter the individual’s rank and a renewed focus on the quality of life.³³

While the past decade has brought forth improvement for the Nuclear Enterprise, recruitment and retention remain problematic. Hence, the question remains: How can the Air Force better motivate the members of the Nuclear Enterprise to bolster recruitment and retention while ultimately strengthening nuclear deterrence? Due to an inadequate amount of research completed specifically within the Department of Defense, to further explore this topic with the intent to understand the motivations of persons in the workplace, it is pertinent to explore the research accomplished in other realms such as corporations and smaller control groups.

RECRUITMENT AND RETENTION MOTIVATION

Push/Pull Theory

The Nuclear Enterprise is essentially no different from any other large organization in the sense of recruiting and retaining personnel. Although the enterprise does not have a Human Resources (HR) department, the Air Force Personnel Center (AFPC) and Nuclear Enterprise leadership combined are responsible for similar duties. “The purpose of [an] HR Manager is to select the eligible employees for an organization and also to retain that talented workforce for a long time.”³⁴ In this case, it is the responsibility of AFPC to place an individual into the Nuclear Enterprise, and then it is up to the Nuclear Enterprise, as the organization, to give the members reasons to remain a part of the career field. Many psychologists have studied motivations for recruitment and retention, and there are many theories. This paper will hone in on the push and pull factors within the Nuclear Enterprise.

Push Factors (Controlled Factors): Push factors are aspects that push the employee towards the exit door. In the literature, it is also called controlled factors because these factors are internal and can be controlled by organizations.

Various push factors derived from the literature are less salary, poor working environment, conflict among employees, unsecured job, less fringe benefits, etc.³⁵ Pull Factors (Uncontrolled Factors): Pull factors are those reasons which attract the employee to a new place of work. In some papers, pull factors are named as uncontrolled factors because it is out of the control of organizations. Various pull factors derived from [the] literature are high salary, career advancement, job security, good location of [the] company, better culture, more freedom, [the] reputation of [the] organization, more benefits, etc.³⁶

Exploring the duty requirements of Nuclear Enterprise personnel helps to reveal the push/pull factors members of the enterprise consider. At first glance, some of the identifiable push factors include the Airmen's pay and the remote locations in which they are required to travel. These two push factors are significant!

Many Airmen within the enterprise are offered the same salary as those who are not required to endure the same amount of stress, long work hours, and isolation as they do. As mentioned earlier, these Airmen know the importance of performance perfection and the ultimate price which could be paid if they fail to do their job correctly. Furthermore, due to the remoteness of their work locations, Airmen are expected to work significantly longer periods of time before being relieved, and unfortunately, members spend much of this time away from their families and civilization.

Lastly, with limited career advancement and promotion opportunities, members may feel obligated to switch career fields to increase the probability of career advancement in the future. Factors encouraging individuals of the Nuclear Enterprise to flee to a new workplace of choice may be for the increased opportunity to obtain experience in a more applicable trade or skill for later in life. With an inadequate amount of jobs outside of the military requiring the skills the members of the enterprise gain, members of this career field may foresee a less promising future in the civilian sector following retirement from the military. These members may also visualize

themselves in a career with a more lenient culture, less focused on perfection; a position where they do not have to live in constant fear of making a mistake.

Pull factors attracting individuals toward the nuclear career field and later encouraging retention include the deep heritage of the Nuclear Enterprise established by many generations who have protected the perception of America as the world's most capable and ready nuclear power. The members understand their importance regarding deterrence. Another pull factor for members of the enterprise consists of one which is true for most military members – job security and pay, coupled with benefits. However, in some cases, these pull factors fall short of outweighing the push factors.

Motivational Factors of Recruitment and Retention

Emanoil Mascalu and Florian Ciocan explain that leaders of the twenty-first century must focus on motivating their employees to attract and retain talented people. They argue the leader must go beyond monetary motivation and delve into personal motivational factors to include “values, personal development, improvement of the working environment, autonomy, learning opportunities, etc.”³⁷ The use of appropriate motivational factors are not dependent on a collective group, but are instead dependent upon each individual. Hence, various methods of motivating individuals are of the utmost importance. It is important for leadership to focus on individuals not as a group while motivating, but instead take the time to understand each individual and then choose from one of a number of motivational methods to use for that individual specifically. While a solution for recruiting and retaining nuclear enterprise personnel may not be all-encompassing, the research provided by Mascalu and Ciocan will be valuable for providing recommendations which appease a greater portion of the personnel. To further

investigate the reason why individuals are motivated to stay in a particular job, it is important to understand the psychology behind the decision-making process.

Workplace Culture

A recent study consisting of a sample of 235 individuals who answered a 24-question survey concluded “organizational culture is an important element which highly influences the employee commitment, job satisfaction, and retention.”³⁸ “Employee’s behavior towards their work and organization are affected by organization policy and culture. Organizations should have a flexible culture and top management should use decentralized techniques of management so that employees at a low level have [the] authority and power to make decisions regarding any problem they face.”³⁹

Another recent article review completed regarding workplace culture stated while organizational culture is affected from the top down, individuals within the organization can also have an impact from the bottom up. To do so, however, this requires leadership to make lower-level employees aware of the impact their attitudes and actions can have on their peers, and therefore their organization as a whole. According to the article review, there are three types of leaders who drive positive culture: congruent leaders, resonant leaders, and authentic leaders.⁴⁰

“Congruent leadership occurs without the person being aware that they are being followed, but due to their values and beliefs others choose to follow, as their attitude to life is admirable.”⁴¹ Resonant leaders “are fully aware of their own emotions and how to control themselves, and through trust and knowing their colleagues, can help them control their emotions too.”⁴² Authentic leaders are individuals who are genuine and truly care for others.⁴³ Utilizing these three types of leadership will create a positive workplace culture. The article emphasizes it does not matter if this positive culture is created from the top down or bottom up. Regardless, it

is contagious and will encourage individuals to embrace the values and beliefs which are expected of each team member.⁴⁴

Purpose and Certainty

Willis Towers Watson, a leading global advisory company, released research as recent as June 2018 claiming employees of today prefer to work for a company that provides purpose and certainty. According to Willis Towers Watson, “The connection is quite straightforward: Companies that are purpose-driven and offer their employees a sense of certainty in the current environment are at an advantage over those that do not. Companies that emphasize the value of individual purpose demonstrate that well-being, psychological safety, and personalization not only matter, but also lead to improved engagement. And this all is happening in a time when culture and “healthy company policies” are top of mind...”⁴⁵ Furthermore, Willis Towers Watson’s review of The Conference Board’s “2018 Global Leadership Forecast,” revealed there was a “42% performance differential between purpose-driven companies and the market.”⁴⁶ The younger generation of today’s workforce is constantly seeking to fulfill their purpose; nevertheless, while doing so, they also want a sense of security.

A sense of security is derived from having a sense of certainty. “According to Willis Towers Watson data (see Figure 1), the top driver for attraction for U.S. new hires is a base salary, indicating workers continue to seek stability over more risky forms of pay (e.g., bonuses, equity). Second, comes the combination of health and retirement benefits, indicating a desire for greater security in managing health-care costs and conditions as well as financial fitness. [The] third is job security.”⁴⁷ Additionally, the figure reveals that although in the top five attractions, the opportunity for career advancement and paid vacation time fall at the bottom of the list.

Rank	Employee View 	Employer View 
1	Base pay/salary	Organization's mission, vision and values
2	Health and wellbeing + retirement	Challenging work
3	Job security	Opportunities for career advancement
4	Opportunities for career advancement	Reputation of the organization as a great place to work
5	Vacation/Paid time off	Ability to have a real impact on the organization's performance

Figure 1: Willis Towers Watson - Comparing Top Drivers of Attraction for US Jobs⁴⁸

UNDERSTANDING MOTIVATION

Maslow's Hierarchy of Needs

Maslow's Hierarchy of Needs, originating in 1943, has been the gold standard in terms of motivation throughout the years. Maslow theorized everyone has five stages of needs that must be met. Maslow originally theorized each need must first be fulfilled before moving on to the next, in order, from the bottom of the pyramid, working to the top, as depicted in Figure 2 below.

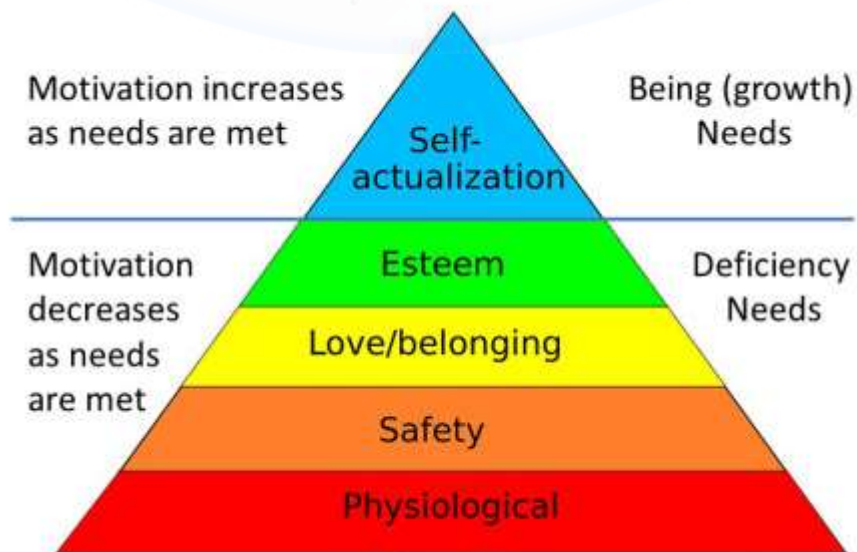


Figure 2. Maslow's Hierarchy of Needs (1943)⁴⁹

The following are the five stages of the hierarchy as described by SimplyPsychology.org:

1. **Physiological needs** - these are biological requirements for human survival, e.g., air, food, drink, shelter, clothing, warmth, sex, sleep.

If these needs are not satisfied, the human body cannot function optimally. Maslow considered physiological needs the most important as all the other needs become secondary until these needs are met.

2. **Safety needs** - protection from elements, security, order, law, stability, freedom from fear.

3. **Love and belongingness needs** - after physiological and safety needs have been fulfilled, the third level of human needs is social and involves feelings of belongingness. The need for interpersonal relationships motivates behavior

Examples include friendship, intimacy, trust, and acceptance, receiving and giving affection and love. Affiliating, being part of a group (family, friends, work).

4. **Esteem needs** - which Maslow classified into two categories: (i) esteem for oneself (dignity, achievement, mastery, independence) and (ii) the desire for reputation or respect from others (e.g., status, prestige).

Maslow indicated that the need for respect or reputation is most important for children and adolescents and precedes real self-esteem or dignity.

5. **Self-actualization needs** - realizing personal potential, self-fulfillment, seeking personal growth and peak experiences. A desire “to become everything one is capable of becoming” (Maslow, 1987, p. 64).⁵⁰

In 1987, Maslow changed his theory, clarifying that satisfying the needs can be more fluid, and the previous stage does not necessarily have to be met 100 percent before an individual begins seeking satisfaction in another.⁵¹

Vroom’s Theory of Expectancy

“Expectancy Theory as proposed by Victor Vroom is one of the process theories of motivation. It looks at the cognitive processes that affect the motivation of people working in organizations.”⁵² Expectancy Theory is based on three factors: expectancy, instrumentality, and valence. Figure 3 depicts the relationship between the three.



Figure 3. Vroom's Expectancy Theory Model⁵³

Expectancy, instrumentality, and valence build upon each other to create motivation. Expectancy deals with the individual's belief that the effort they expend will result in success and the harder they work, the better they will perform. The better they perform, the greater the probability they will receive a reward for their efforts. However, valence is the factor that is the biggest stronghold for an individual's motivation! Valence is the individual's personal view of the reward. The question revolving around the perfect choice for the type of incentive used is: Are the individuals motivated to achieve the success needed to receive that reward? If not, the pillar collapses and motivation ceases to exist. This theory does not state what one's motivation is *extrinsically*, rather, it illustrates how one is motivated *intrinsically*.

Intrinsic vs. Extrinsic Motivation

The definition of intrinsic and extrinsic motivation has been explored and utilized by management for many decades. Every person has personal intrinsic and extrinsic motivations leading them to accomplish every single task. With this being a major catalyst for why individuals do things, it is extremely significant to understand the difference between the two terms and for management to use this knowledge to their advantage. Intrinsic motivation is described as the individual having "the desire to perform a specific task because its results are in accordance with [their] belief system or fulfill a desire and therefore importance is attached to it."⁵⁴ Extrinsic motivation, on the other hand, is motivation derived from an outside source. Many times, intrinsic motivation is intangible including rewards that come from within such as a

sense of pride and honor, the desire for social status, etc. However, extrinsic motivation is tangible and may include rewards such as monetary bonuses and non-monetary bonuses, like time off or vacations, etc.

Signaling Theory

“Signaling theory is useful for describing behavior when two parties (individuals or organizations) have access to different information. Typically, one party, the sender, must choose whether and how to communicate (or signal) that information, and the other party, the receiver, must choose how to interpret the signal.”⁵⁵ It is important to investigate the use of awards as signals within the workplace.

Awards transmit signals that transform the content and interpretation of information emitted by actors. In a signaling framework ... the signaler (a single manager, committee, or community) transmits a signal by offering awards instead of money for certain types of outstanding performance. The selected award recipient (a person or group) also emits specific signals by accepting and displaying or disregarding and rejecting the award. The value to the recipient usually exceeds the costs that the giver incurs. This asymmetry in costs and benefits is a great advantage of awards over other signals, such as wage increases. The symbolic exchange between the award giver and recipient moreover emits signals relating to the non-recipients of awards (other employees), and to the outside signaling environment (potential future employees, employers, and others).⁵⁶

If leadership is to use signaling theory successfully, they must develop their understanding of each member belonging to their group as an individual; not as a collective. They must be well-versed in what motivates their members and what does not. Without this knowledge, signals will not be appropriately relayed and will be rendered ineffective.

COMPENSATION/INCENTIVES

Monetary vs. Other-than-Monetary

A rewards report published in March 2016, revealed the top five rewards received in 2015 by “highly engaged employees were: a cash bonus (30%), a regular verbal thank you from a manager (24%), a meal or night out on the organization (23%), a voucher to spend (18%), and training to help at work (17%).”⁵⁷ Though a cash bonus was the most distributed reward, it does not necessarily mean it was the best choice for providing motivation. The report goes on to state that women were more motivated by a simple “thank you” from their leadership, while men were more motivated by money. The author also pointed out that when management gives a cash bonus, the motivation of the reward most likely fades in a matter of days because the recipient normally spends the money on everyday needs, such as paying off bills, rather than on something the individual actually wants or would find happiness in receiving.

Principal-Agent Problem

Principal-agent problem “focuses on the separation of ownership and control and hence on the importance of incentive contracts to help to align the interests of shareholders and managers.”⁵⁸ The agent can be thought of as the individual responsible for completing work on behalf of the principal who is recognized as the individual putting faith in the agent to be successful. However, a problem arises when the incentives put in place by the principal do not match the preferences of that of the agent. The purpose of the incentives put in place by the principal is to align the interests of the agent with those held in high regard by the principal.

Additionally, results of studies concluded if the incentive plan is too complicated, the plan will not motivate the individual. Touching on Vroom’s theory of expectancy (1964), the research found that performance and reward programs provided a “line of sight” for the

employees. They were able to draw a direct connection from their performance to the reward. They were also able to “keep score” and therefore, see how they were performing relative to their peers.⁵⁹ With this information in mind, it will be important to recommend an incentive plan which is not overly complicated and too complex to psychologically motivate the enterprise.

Awards

Jana Gallus, “an economics and management scholar with a Ph.D. in economics,”⁶⁰ and Bruno Frey, “an unorthodox political economist,”⁶¹ researched awards as signals and categorized awards into two groups: confirmatory awards and discretionary awards. Confirmatory awards consist of a criterion and are normally “bestowed at regular intervals.”⁶² These are awards that signal the recipient’s qualities to coworkers, as well as individuals who are potential future employees; however, this award leaves little opportunity for the manager to express their signals, explicitly, due to the criteria for earning the award eliminating leadership discretion.⁶³

Discretionary awards are reserved for immeasurable activities that are performed outside of an individual’s normal duties and are normally reactionary type awards.⁶⁴ These awards are given at the discretion of leadership and give leadership an opportunity to signal their priorities to their subordinates. This type of award also leaves more room for false signals than confirmatory awards. For instance, if an individual receives an award whom coworkers know is undeserving, the signal could have an adverse effect. “When an award goes to an employee known to be disloyal or to be pursuing incompatible activities, the prestige of the giver and the award is hampered. The award bestowed then sends a counterproductive signal.”⁶⁵

Gallus and Frey caution awards cannot replace money where money is currently used as an incentive.⁶⁶ In this case, awards may only complement the money. They also concluded most organizations tend to utilize confirmatory awards while neglecting the use of discretionary

awards. They state this is a fundamental mistake. Confirmatory awards only reaffirm behaviors that are already in place and are known expectations of employees. Such expectations are reinforced through basic salary. Therefore, neglecting the opportunity to use their own discretion to award individuals, managers forego the option to reinforce less observed positive behaviors, as well as signal their own preferred beliefs, qualities, and intents. “Willis Towers Watson’s research validates this supposition, showing that companies demonstrating best practices relative to the talent experience are three times as likely to report employees are highly engaged.”⁶⁷

Reward Preference

A study conducted in 2014, consisting of 81 employees analyzed which type of reward was preferred and kept personnel most engaged and satisfied day to day. A field survey was distributed requesting employees, between the ages of 25 and 45, rank the rewards offered in order of preference, from one to eight – one being the most preferred and eight being the least preferred. Table 1 below reveals employees were most satisfied with “opportunities for career growth and development” while they were least satisfied with being rewarded with “pay.”

Variables	Ranking
Opportunities for Career Growth and Development	1
Job Security	2
Challenging and Interesting Task	3
Promotion	4
Empowerment and Autonomy	5
Appreciation and Recognition	6
Fringe Benefits	7
Pay	8

Table 1: Reward Preferences⁶⁸

The analysis also found that pay became less of a motivator as the age of the employee increased. Career growth and development was also found to be a major factor for increasing motivation as employees' experience levels increased. Ultimately, the study revealed the desire for tangible rewards decreased as age, income level, and experience increased.⁶⁹

Case Studies

Many companies use other-than-monetary awards to keep their employees motivated and hence incentivize those individuals to remain part of the team year after year. For example, an Australian Health Management Group, who employs approximately 450 staff, utilizes reward systems to increase retention. Rewards are given at intervals after the employee has been with the company for certain lengths of time. "Different levels of rewards are offered for five, ten, fifteen, and 25 years of service."⁷⁰

Another company creates a more relaxed environment by rewarding their personnel with movie nights, dinner nights and yearly functions where employees can use the reward with their families or invite their families to the work events. Retail outlet *Holy Sheet!* states "it is not uncommon for the afterglow and huge morale boost created by a successful Christmas party to last for months after the event."⁷¹ *Holy Sheet!* realizes the long hours contributed to the company by their employees. Therefore, leadership attempts to show their appreciation by creating environments that give employees an opportunity to interact more frequently with their loved ones. This consideration and thoughtfulness for the employee's desires demonstrates the company's willingness to care for their members and recognize their individualistic needs.

Possibly more closely related to the lifestyle of the Nuclear Enterprise, a travel group which consists of employees who do not get to spend much time at home, has created a home away from home setting for their employees. "Staff are rewarded with monthly 'buzz nights'

where they can exchange ideas and information, annual conferences, and Open Days featuring guest speakers.”⁷² The monthly gathering provides members with an opportunity to voice their opinions, concerns, and a forum to come together to discuss ideas for the betterment of the company, subsequently, giving them a sense of importance and buy-in.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Literature reviews completed for this research revealed strengthening the Nuclear Enterprise *could* be achieved through the use of other-than-monetary bonuses *if* the correct reward is offered to the correct individual. Unfortunately, there is no guarantee because providing motivation for recruitment and retention is not a task that can be completed via one method. Recruitment and retention in any organization rely on an agglomeration of factors. Any time humans are involved as the focus or common denominator, one should expect there will more than likely be various solutions to an issue – especially when there is a need to take perceptions and preferences into account. Differing values amongst individuals are inherent due to exposure to diverse cultures, environments, and experiences. For this reason, everyone has acquired separate personalities, as well as, wants, needs, and desires.

Once an individual’s most important needs are met, it is likely they will seek to satisfy desires that are not necessarily money related. But, if the individual is struggling to pay their bills, feed their family, cover childcare expenses, etc., it is probable that money would be a key motivator. By the same token, if the individual has issues caring for these baseline needs, they will most likely lose their sense of security and certainty within their job causing them to become disgruntled and less motivated and engaged. Therefore, once an individual feels secure monetarily, other-than-monetary bonuses and awards will achieve better results.

Research reveals “even awards that do not offer material benefits can be highly valued.”⁷³ While effective, and most times more cost beneficial to the organization, more research must be done to determine if other-than-monetary awards are more impactful than monetary awards on average. The research does suggest, however, that other-than-monetary awards seem to be better received by females. Furthermore, studies argue that other-than-monetary awards provide a longer lasting impression than monetary bonuses because many times monetary awards are spent on essentials or effects that do not provoke joy for the individual.

Each individual could be motivated by something different, either tangible or intangible, depending on their specific situation at that precise moment. The types of rewards desired are extremely subjective. However, regardless of whether or not the type of compensation that would best motivate the recipient is known, research shows job satisfaction is a *must* for recruitment and retention. Furthermore, the above research outlines some factors which absolutely contribute to overall job satisfaction. Satisfaction within a job is also known to lead to improved organizational culture, and subsequently, increased recruitment probability. Enhanced organizational culture can be achieved in a variety of ways, to include the use of other-than-monetary bonuses.

Literature suggests organizational culture is the key to recruitment and retention. Figure 4, on the following page, is an comprehensive roadmap to success for evaluation and improvement. Establishing a culture that provides a sense of purpose and security for members of the organization is critical. Once these goals are met, leaders can apply the idea of the Principal-Agent Problem to begin identifying what types of rewards motivate each individual. Finally, as soon as a reward is decided on, it is vital that the potential recipient understands how they may be selected to receive the reward, as well as its significance to them personally.

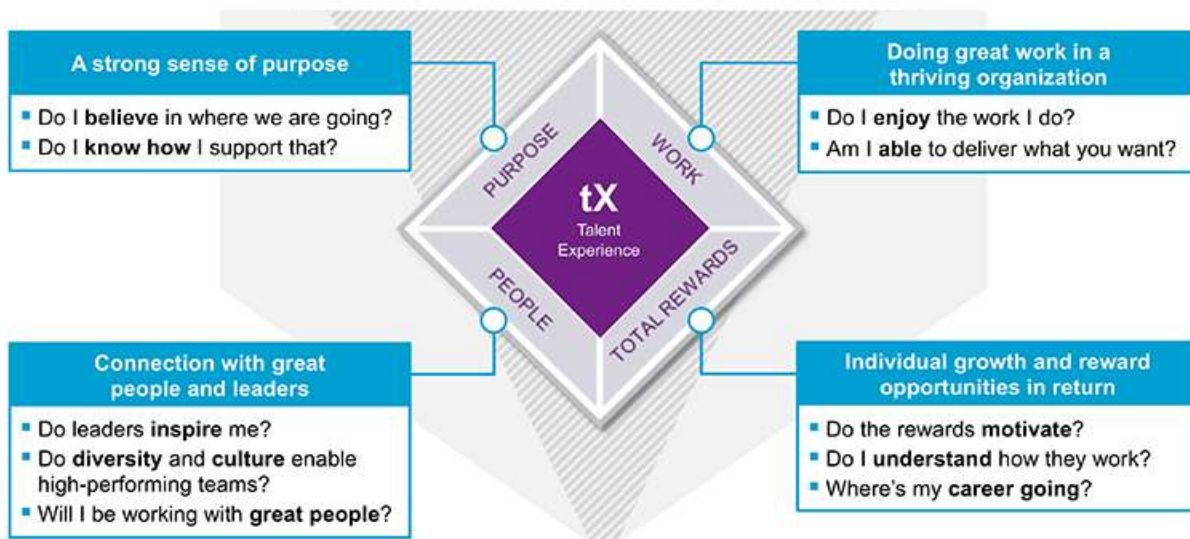


Figure 4: Willis Towers Watson - People, Purpose, Work, & Rewards

Recommendations

Currently, the Air Force Nuclear Enterprise is up against a plethora of complications; many derived from the inherent nature of the task: continue to uphold the *perception* that the U.S. possesses an unmatched, “ready-now” nuclear capability. Issues which lead to less than satisfactory recruitment and retention include, but are not limited to: 1) a narrow, outdated skillset which offers little applicability to the civilian sector; 2) a poor return on investment perceived by personnel (i.e., rank determines pay, yet individuals are subject to remote locations away from family, long hours on alert, and limited, if any, use of training for real-world operations, etc.); 3) little opportunity for career advancement; and 4) the perception of unrealistic job pressures in search for perfection. Although the Air Force has made many improvements over the last several years, much more insight could be gained if the Air Force contracted with a company who specializes in organizational culture improvement – doing so would allow research solutions to address Nuclear Enterprise issues specifically.

While using a contractor to explore specific avenues for improving workplace culture, it would also behoove the enterprise to simultaneously create a competitive other-than-monetary rewards system based on longevity and performance. With so many required drills and exercises to maintain nuclear superiority, an argument could be made for the need to make these exercises more fun and relaxing. One way to do this is to build upon the already existing biennial Global Strike Challenge. This challenge is hosted by the Air Force Global Strike Command to give members of the Nuclear Enterprise an opportunity to compete against each other to test their skills and proficiency. To more effectively motivate the enterprise, AFGSC could use a predetermined award to incentivize members throughout the year to continue building upon their skillsets and to stay current in training. The opportunity to compete in this challenge should be extremely selective and reserved for only those who leadership stratifies as the most promising individuals and who are hand-picked due to their exceptional performance.

With “opportunity and career growth” being named as a top motivator, it is possible an award advertising an attractive location, where the winners will be sent to attend prestigious training, would further incentivize members to increase their efforts to secure a participant slot for the challenge. Securing a position for the challenge would be their only avenue for competing and possibly winning the ultimate prize. AFGSC also holds an innovation and technology symposium. Perhaps the placing first in the challenge could secure the winning members an all-expenses-paid trip to the symposium. However, it is highly suggested that AFGSC holds the symposium at a very desirable location to make striving for the win even more appealing.

Additionally, it is recommended the Air Force invest in an advertising campaign to bolster the public’s knowledge and perception of the enterprise’s heritage and current state. But of course, this would have to be conducted without inducing fear and questioning by adversaries

and allies alike. Unfortunately, many people are aware of the publicized nuclear mishaps in recent years, probably most notably the cheating scandal, and have since drawn their own conclusions regarding the Nuclear Enterprise as a whole. Due to this limited scope, it is possible many potential applicants, and qualified individuals, have opted for other career fields in lieu of joining an enterprise challenged by problems and impractical expectations. The mistakes of the past have since been rectified, and Americans should be made aware of all the improvements made to date. Marketing is key to reversing the negative perceptions.

Furthermore, it is recommended that the Air Force begin working top down to provide Nuclear Enterprise leadership with more supplementary education to acquire the necessary skills to engage with and encourage their personnel to make suitable decisions. Encouraging and supporting members as they take the lead in making decisions would assist in reducing the fear of failure caused by the current organizational culture of the Nuclear Enterprise. Once members are educated and excited about their purpose, confidence will improve. Through careful mentorship and development, it is possible to reestablish a healthy workplace culture.

Finally, it is recommended that leadership more frequently utilize other-than-monetary discretionary awards to promote outside-the-box actions. Doing so will inspire team members to strive to work harder and become less fearful of bringing forth their ideas. Personnel who receive these awards will feel appreciated and enthusiastic to continue building upon the reinforced behavior. Doing so will also form a closer bond between the recipient and their leadership.

Summation

The above recommendations provide options for the Nuclear Enterprise to incentivize its members via multiple other-than-monetary competitive retention plans. Even so, these examples are not all-encompassing and are unlikely to be attractive motivators for every single individual

of the enterprise. More research will need to be conducted to expound upon these suggestions. As previously stated, the more award types available for awarding personnel, the better the chance leadership will have to correctly signal their desires to their subordinates, hence improving motivation and increasing performance. As personnel begin to understand their heritage, realize the immense impact they have on national security, and recognize the unique opportunities offered by their specific career field, the more excited they will be to become and remain a member of the Nuclear Enterprise. Subsequently, the pride they feel for their organization will radiate far and wide, leading to increased recruitment and retention; all-the-while bolstering the perception that the U.S. remains capable of firing nuclear weapons anywhere and at any moment.

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