

AIR UNIVERSITY

TOWARDS A FAIL-SAFE AIR FORCE CULTURE

Creating a Resilient Future While Avoiding Past Mistakes

by

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Biography

Lt Col Todd Ericson entered military service in 1987 as an Air Force Academy cadet. He graduated in 1991 with a Bachelor's of Science degree in Aeronautical Engineering and holds a Master's of Science in Aerospace Engineering from the University of Maryland, College Park.

He is an experimental test & Command Pilot with more than 7,700 hours experience in over 75 types, serving as an Evaluator Pilot in the C-21A, F-16 and classified aircraft. His experience includes 230 hours of combat and more than 75 hours combat support time.

Lt Col Ericson has served as Commander of the 416th FLTS and Chief of Safety. Significant awards include the Empire Test Pilots School McKenna and Hawker Hunter Trophies, the ATC Commander's Trophy and 7 Air Medals.

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Towards a Fail-Safe Culture

Commander of the 1st Fighter Wing, Colonel Steve Goldfein, summed up his responsibility stating, “In the end, commanders do only two things – provide vision and set the environment. Almost everything you do for the organization falls into one of these categories.”¹ Unfortunately, it is often in the wake of incidents, tragedies or failures that shortcomings in either or both are exposed.

Air Force Chief of Staff General Ronald R. Fogleman inherited a series of such incidents when he took command. In response, he issued an August 1995 video tape on the topic of “Air Force Standards and Accountability” following additional administrative actions he directed against officers involved in the 14 April 1994 shootdown of two US Army helicopters.² In the immediate aftermath of this incident only one officer, the Airborne Warning and Control System (AWACS) commander Captain Jim Wang, was court-martialed for the death of 26 friendly personnel.³ Others involved, to include the F-15 pilots who actually shot down the helicopters, received non-judicial punishments which were initially intended to remain outside of their permanent service records. In defending the additional punishments he levied, Fogleman argued the lack of initial accountability was an unacceptable failure of leadership.⁴ Significantly, this all transpired only a few months after Colonel William E. Pellerin’s court martial in the notorious 24 June 1994 crash of a B-52 at Fairchild AFB – a crash resulting from the actions of a rogue subordinate pilot, Lt Col Arthur Holland, and the lack of accountability exhibited by his senior officers.⁵

The inadvertent transportation of nuclear cruise missile warheads on a B-52 from Minot AFB and the shipping of non-nuclear intercontinental ballistic missile components to Taiwan are analogous contemporary events. Dr. Schlesinger’s 2008 report to the Secretary of Defense

documented atrophy in the Air Force's nuclear enterprise as a primary cause for these failures. The report highlighted "a serious erosion of focus, expertise, mission readiness, resources and discipline in the nuclear weapons enterprise within the Air Force."⁶ The Secretary of the Air Force Michael Wynne and Air Force Chief of Staff General T. Michael Moseley both resigned in the wake of these incidents, and on October 24th 2008 the new Secretary of the Air Force Michael Donley and Air Force Chief of Staff General Norton Schwartz issued their "Strategic Plan to Reinvigorate the Air Force Nuclear Enterprise."⁷ Notably, the strategic plan identified the establishment of a "zero-defect" culture as a primary attribute for a successful Air Force nuclear enterprise, stating "there is no tolerance of complacency or shortcuts as we rebuild a "zero-defect" culture."⁸

Each of these incidents represents a catastrophic institutional failure – failures which must be prevented. Ceding the impossibility of omnipresence, Col Goldfein correctly observes that choice of vision and cultural development are leadership's fundamental tools in building a successful organization. The cultural options available to espouse span a continuum from a ruthless Zero-Defects method to a gentler Tolerance-Based style. While a Zero-Defect approach can garner short-term success, the ensuing culture of fear and reprisal are not conducive to sustained excellence. Conversely, a tolerant approach may achieve short-term morale benefits, but the resulting lack of discipline arising out of a culture of ambivalence dampens long-term productivity. Ultimately, long-term high performance is possible through a Fail-Safe culture which paradoxically embraces failure in building a resilient enterprise. Modern research on High Reliability Organizations (HRO), coupled with contemporary leadership theory, provide a framework to expose the shortcomings of both the Zero-Defect and Tolerance-Based approaches, assess current culture and then define the cultural characteristics required to implement a mindful

approach to ensuring the Air Force can achieve its mission by maximizing our ability to “fly, fight and win ... in air, space and cyberspace.”⁹

Tolerance-Based Culture

A Tolerance-Based culture fundamentally embraces a Kantian belief in the inherent goodness of man and concludes that with proper guidance people will “do the right thing.” In this culture, empowerment of individuals and their ability to improve the system is primal while discipline and external accountability are relegated to lesser roles. Its ideal is the attainment of a self-policing workforce – one that corrects problems before they have the opportunity to amplify. The Air Force embraced such a system in the late 1980’s through the mid 1990’s, under the Quality Air Force (QAF) banner. QAF borrowed heavily from the Total Quality Management (TQM) work of Dr. W.E. Deming and asserted that TQM’s successful transformation of business practices could also transform the Air Force. Air Force Systems Command’s 1989 implementation brief defined the QAF ideal as: “A leadership philosophy, organizational structure and working environment that fosters and nourishes a personal accountability and responsibility for quality and a quest for continuous improvement in products, services and processes.”¹⁰ The proposal was seductive as Deming’s Plan, Do, Check, Act (PDCA) cycle that transformed post-WWII Japanese industry paralleled Colonel John Boyd’s famous Observe, Orient, Decide, Act (OODA) loop for military operations. Deeper analysis, however, reveals a fundamental difference. The subtle replacement of “Decide” with “Check” initiated a cultural shift away from leadership decisions to one where measurement of processes and metrics informed the proper course of action.

QAF transformed Air Force Regulations into softer Instructions and replaced harsh Inspections with gentler Quality Air Force Assessments (QAFA). Graham Rinehart summarized

the impact to the force as “Airmen saw TQM as an abdication of leadership, especially when it combined with empowerment--another fine concept that became badly mangled and unrecognizable in the end.”¹¹ The sentiment was echoed by General John Jumper in a 2001 speech to the Senior NCO Academy three months prior to his selection as Air Force Chief of Staff. He bluntly stated, “But we went through a period in the decade of the 90s where the AF lost some of its character as an institution. We once had a quality Air Force that was ruined by a concept known as Quality Air Force.”¹² General Jumper continued, advocating that “‘Quality’ was used as a substitute for leadership. It let words and slogans guide our behavior. Words like ‘empowerment,’ ‘break down barriers.’ We stopped mentoring our people. We lost touch with the fine art of chewing ass. An example of this is the Blackhawk shootdown. We screwed up with those F-15 pilots. The essential nature of our business is to gain and maintain air superiority by shooting down bad guys. When you visually ID an aircraft and shoot it down, and it’s one of ours, you have failed in your primary mission. It’s worse than a doctor taking out the wrong lung. Something should have been done.”¹³ Justice had not been served.

Similarly, the Air Force also acknowledged its mistake in transforming regulations. The subsequent addition of the phrase, “**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY,**” on the cover of each AFI was designed to ensure personnel understood implementation was not optional. By the mid 1990’s QAF had fallen out of vogue, never obtaining the sweeping cultural change envisioned. Its legacy, however, survives in both the Officer Performance Reporting (OPR) system¹⁴ and under the auspices of the Air Force Smart Operations for the 21st Century (AFSO21) program.

AFSO21 strives to eliminate many of QAF’s deficiencies while simultaneously reinforcing its strengths. According to Air Force Material Command Instruction (AFMCI) 90-

104, “AFSO21 represents an Air Force model for Continuous Process Improvement (CPI) that uses various methodologies depending on the needs of the situation or problem under review.”¹⁵ The program has two stated goals: 1) “To fundamentally change the culture of the Air Force (AF) so that all Airmen understand their individual role in improving their daily processes and eliminating wasted efforts that add no value to mission accomplishment,”¹⁶ and 2) “To instill a mindset of continuous process improvement and problem solving across the USAF workforce.”¹⁷ Compliance with this AFMCI is mandatory.

Zero-Defects Culture

Contrast this cultural shift towards the middle following QAF with the Nuclear Enterprise’s renewed focus on a Zero-Defects culture. The Air Force’s history with Strategic Air Command (SAC) serves as an effective model for the implications of this policy. Despite corporate memories growing fonder over time, under General Curtiss LeMay SAC embodied a ruthless culture of discipline. Folklore recounts the standard response to a failing inspection was General LeMay immediately flying to the unfortunate base with a replacement wing commander prior to the out-brief. Regardless of tale’s truth, its existence is illustrative of SAC’s culture. A security forces Airman assigned to SAC in the late 1980’s stated during an interview that his primary job (and that of his supervisor’s) was to pass inspections at all costs – outcome focus in response to ruthless discipline following past failures.¹⁸ Unfortunately, the long-term impact of approach pressured honorable men to sacrifice their integrity in support of a Zero-Defects façade. Compelling testament is that the Airman, today a Lt Col, remains too shamed by his actions to allow citing of specific details or his name.¹⁹

Objectively, how did SAC really compare to today’s denigrated nuclear culture? According to the Department of Defense’s “Narrative Summaries of Accidents Involving U.S.

Nuclear Weapons: 1950-1980” thirty-two accidents involving nuclear weapons occurred during this time period resulting in the loss of at least 42 nuclear weapons or portions thereof.²⁰ Most alarming is that six weapons were never recovered and that only four of these accidents (less than 10%) did not involve US Air Force aircraft, missiles or assets.²¹ One of the most egregious of these accidents occurred on 22 May 1957 when a B-36 crew unintentionally dropped a nuclear weapon while on approach to Kirtland AFB, NM. The weapon’s high explosives detonated upon impact, leaving only a single safety procedure to prevent nuclear detonation.²² While the lack of comparison data make it impossible to conclude what role a Zero-Defects culture played in these accidents, the data aptly demonstrate the inability of SAC’s Zero-Defects culture to prevent such accidents. Fortunately, comparative studies from the business world provide such data-driven analysis of cultural impacts on long-term organizational performance.

Jim Collins’ recent survey of companies in the book *Good to Great* is one such study. His team found a very strong correlation between those corporations which significantly outperformed their competitors in the long-term and a “Culture of Discipline.” He observed of the high-performing entities “...they’re not ruthless cultures, they’re rigorous cultures. And the distinction is crucial. To be ruthless means hacking and cutting, especially in difficult times, or wanton firing people without any thoughtful consideration. To be rigorous, not ruthless, means that the best people need not worry about their positions and can concentrate fully on their work.”²³ Conversely, he also discovered “... a pattern we found in *every* unsustained comparison: a spectacular rise under a tyrannical disciplinarian, followed by an equally spectacular decline when the disciplinarian stepped away, leaving behind no enduring culture of discipline, or when the disciplinarian himself became undisciplined and strayed...”²⁴ In other words, tyrannical discipline under a Zero-Defects philosophy produces short-term results.

United States Defense Secretary William Perry recognized this in 1996 when he criticized a zero-defects culture by remarking that “demanding such a rigid standard produces timid leaders afraid to make tough decisions in crisis, unwilling to take the risks necessary for success in military operations. This zero-defects mindset creates conditions that will lead inevitably to failure.”²⁵ Weick and Sutcliff, authors of the book *Managing the Unexpected*, agree. They researched companies in fields similar to the nuclear enterprise and the Air Force in general - companies where the cost of failure is severe and where consistent, long-term, highly-reliable operations are essential. Despite these consequences, Weick and Sutcliff found that HRO’s *embraced rather than suppressed failures*. They observed “HROs encourage reporting of errors, they elaborate experiences of a near miss for what can be learned, and they are wary of the potential liabilities of success, including complacency, the temptation to reduce margins of safety, and the drift into automatic processing.”²⁶ Instead of perpetuating the mindset that failure cannot occur, HROs not only accept that failures will occur but also structure themselves to prevent these failures from becoming catastrophic.

The long-term, sustained excellence demanded by the nuclear enterprise and the Air Force in general requires a shift to a new Fail-Safe approach that instills a culture of rigorous, not ruthless, discipline. This is a culture that recognizes the strengths and shortcomings resident in both Zero-Defects and Tolerance-Based approaches. Ironically, its template already exists and even thrives inside well-established Air Force organizations today.

Fail-Safe Culture

The concept of a Fail-Safe culture is straight forward. It begins with simply defining that which ultimately must be prevented. As with an aircraft, the designer’s ultimate goal is to ensure that his plane is capable of accomplishing its mission without loss of life or equipment.

Analogous to an organization, mission constraints define the physical characteristics of the aircraft. Fighters differ from transports as the former require speed and maneuverability while the latter values range and payload. From a global perspective, the designer's task is to create a system of complex mechanical and electronic systems which must operate in concert. Conceding that failure of components in each of these systems is inevitable during the aircraft's service life, the designer must ensure that such a failure won't result in a catastrophic crash. The resulting aircraft must be resilient, not perfect. And although all types are designed from within the same set of physical boundaries, mission requirements dictate that one size does not fit all.

Design resiliency is achieved by two means – the first proactive and the second reactive. The first seeks to improve the reliability of individual components and thus minimize the probability a failure ever occurs. Unfortunately, 100% reliability is not possible in parts conceived, designed, built, maintained and operated by humans. Therefore, components are either inspected or replaced well prior to predicted failure, operational limitations are imposed or procedural prohibitions are established. Secondly, reactive measures in the form of backups and redundancies are designed into a system on the assumption that the proactive measures are either insufficient or not all-encompassing. These measures are the designer's hedge against the unknown. Thus both proactive and reactive methodologies work as an effective offense and defense against the ultimate catastrophic event. Aerospace engineers tout this as a Fail-Safe design approach.

Importantly, the Fail-Safe process does not stop at the initial design. Once in service, data from actual component failures, inspection results and accidents reports are fed back into the system. These data are incorporated as improvements in subsequent models, modifications to existing aircraft or as changes to operations and maintenance manuals. A parallel process focuses

on the operators and the two merge in our safety organizations. The Air Force Safety system, guided by the precept of privilege or non-attribution, effectively reduced non-combat Class A accident rates (per 100,000 flying hours) from 44.22 in 1947 to only 0.80 in 2009.²⁷ While impressive, the 62 years of data also demonstrate the Air Force's inability to achieve a Zero-Defect flying program.

In a Fail-Safe framework tolerance to each failure is defined by mission differences. An F-16, for example, was generally designed with sufficient backups to only allow it to safely return to base after a failure – a conscious trade of mission capability rates for mission performance. A C-17's mission, by comparison, demands backups that allow full mission capability in the event of a single failure. Likewise, the lack of a pilot alternatively increases an Unmanned Aerial Vehicle (UAV) designer's tolerance to failure (including crashes) as evidenced by lifetime Class A mishap rates (per 100,000 flying hours) over three times greater than equivalent manned aircraft – 10.05 versus 2.89.²⁸ While all of these designs are Fail-Safe, their missions dictate different measures of merit in determining the appropriate design trade-offs. The same is true of Air Force conventional, nuclear, space and cyberspace missions.

Building a “Fail-Safe” Culture

How does this apply to the Air Force? First it is essential to define what must not be allowed to occur – catastrophic failures. At the Air Force level catastrophic failures represent anything which threatens the mission to “fly, fight and win ... in air, space and cyberspace” or its vision of “Global Vigilance, Reach and Power”. Catastrophic cultural failure occurs when the Air Force's core values of “Integrity first, Service before self and Excellence in all we do” are compromised. Similarly, as a designer prioritizes aircraft traits based on mission, each Command must define additional catastrophic failures based on its unique circumstances. For example, a

top-level list for Global Strike Command (GSC) must include avoiding an accidental detonation of a nuclear device; Air Force Space Command must prevent total disruption of satellite communications and navigation services; Cyber Command must prevent an enemy from crippling our networks. A Fail-Safe approach asserts that while failure at lower levels is undesirable, these lesser failures must be embraced instead of feared since they are the greatest source of information about how to ultimately prevent the catastrophic failures. Potential failures are next ranked from most to least catastrophic with responsibility for each of the areas being placed squarely on the shoulders of a specific individual with commensurate authority. If responsibility and authority are diffused it is not possible to justly hold people accountable for either preventing catastrophic failures or in the event they occur.

The Air Force Safety process often uses the “Swiss Cheese” model to evaluate accidents. The image of holes in the protective cheese layers (proactive and reactive measures) lining up in such a way as to allow an accident is extremely instructive. Conceptually, these protective layers represent expectations.²⁹ Continuing the aircraft design analogy, an expectation that fly-by-wire controls will prevent an aircraft stall relies on an expectation the angle of attack system will provide the correct information. When either expectation doesn’t hold true, it is normally due to another failed expectation – such as the failure of a sensor. This is not to say that HROs aren’t concerned about each of the individual failures. They are, and certainly strive to minimize the number and size of holes in each slice of cheese. More importantly, however, a HRO’s focus is on “the process of the slices lining up as each moment where one hole aligns with another represents a failed expectation. And each failed expectation is also an opportunity to stop the progression toward a brutal audit.”³⁰

Generally, it is both daily operations and the inspection process which provide ongoing insight into the process of the holes lining up. Failures represent the opportunity for an in-depth analysis, but only if an organization embraces them and values a thorough and critically honest root-cause investigation. The logical conclusion of a Zero-Defect culture is that any failure during operations or an inspection, no matter how small, is unacceptable. Acceptance of this vision within GSC is evidenced by the recent firings of nuclear enterprise leadership at a rate far in excess of their conventional Air Force counterparts.³¹ Conversely, a Tolerance-Based culture's lack of just accountability downplays the seriousness of failures and often discards valuable lessons.

Behavioral research across various fields supports the axiom that "Perceptions are Reality."³² Dr. Kasulis and Dr. Lush conclude from their study of business-customer relations that "In other words, perceptions are reality for the consumer regardless of objective reality."³³ Sillanpää concludes from her research on effective, long-term corporate strategies that "For effective stakeholder inclusion, perceptions *are* reality. A misunderstanding is no less damaging to a relationship regardless of whether the company or the stakeholder is to blame."³⁴ In forming the desired culture we must therefore be cognizant of the perception portrayed by actions and work to align those perceptions with reality. As leaders, these perceptions are initially set by our words and are ultimately confirmed or denied by our actions. These actions fall into one of two broad categories: Rewards and Punishment.

Rewards and Punishment in a Fail-Safe Culture

Experience bears out the timeless axiom, "You'll catch more flies with honey than vinegar." Positive rewards induce the desired behavior while punishment deters undesirable actions by setting boundaries on acceptable behavior. Recall that Collins found a very strong

correlation between those companies which significantly out-performed their competitors and a rigorous “Culture of Discipline.”³⁵ Instilling such a culture of rigorous, not ruthless, discipline is at the heart of a Fail-Safe organization.

How? After defining the enterprises’ catastrophic failures, the next step is a continual assessment of the organization’s Proactive and Reactive design in support of these objectives. This is not a complete overhaul of existing procedures, regulations or hardware, but is conversely a mindful analysis of the existing design with an eye towards evolutionary improvements. The essential input to this feedback process is information. And that information is inexorably linked to the organization’s culture through its people.

Weick and Sutcliffe observed HROs exhibit what they term a “Learning Culture” – one that adapts to changing demands and ensures that people feel free and willing to discuss errors. This culture also represents “‘an atmosphere of trust in which people are encouraged, even rewarded, for providing essential safety-related information – but in which they are clear about where the line must be drawn between acceptable and unacceptable behavior.’ That line is critical because it separates unacceptable behavior that deserves disciplinary action from acceptable behavior for which punishment is not appropriate and the potential for learning is considerable.”³⁶ Similarly, Professor Marc de Laval describes this desired culture as “an abandonment of the easy language of blame in favour of a commitment to understand and learn. It calls for significant leadership.”³⁷ Although detailing how the Air Force cultivates these characteristics in a Fail-Safe culture is beyond the scope of this article, it already possesses at least three organizational benchmarks as templates: the Flight Safety process, the Flight Test community’s test safety methodology and the Fighter Community’s brief/fly/debrief cycle. All

exhibit high standards of discipline but also are extremely rigorous in learning from small mistakes as a means to prevent future catastrophes.

Exemplifying this rigor, the 416th Flight Test Squadron selected a team that highlighted a potential problem as the 1st Quarter 2010 Test Team of the Quarter. They were selected not because they met an efficiency standard measured by the normal metrics of cost, schedule or performance as their actions both increased cost and further delayed a critical program already behind schedule. Why was such behavior appreciated? Because, despite cost and schedule pressures, they had the courage to make the right choice and the long-term positive impact on unit culture far outweighed the short-term losses. The award was a tangible demonstration of the unit's emphasis on safety, proving that leadership embraced their rhetoric – actions speaking far louder than words.

Conversely, discipline serves the essential purpose of setting boundaries on actions in a manner analogous to how our pain response to a hot pan both minimizes the short-term burn and teaches us to avoid subsequent ones. Pain is therefore an essential tool our body uses to prevent a bad situation from becoming dire. Likewise, punishment and consequences for actions are essential tools in defining acceptable limits of behavior inside an organization. Colonel William E. Pellerin was court martialed in the Fairchild B-52 crash because he, and others in leadership roles, failed to properly discipline Lt Col Holland. Although Lt Col Holland blatantly violated Air Force standards on multiple occasions prior to 24 June 1994, his leadership chose to ignore these “lesser” breaches of standards. Unfortunately, they and three other dead crewmembers of Czar 87, couldn't ignore the catastrophic failure their lack of discipline enabled.

Beyond failure avoidance, implementation of consistent and fair discipline inside of well-established boundaries also bears the positive by-product of instituting a sense of comfort and

security within an organization. In a just organization, people have no fear of doing right and are comforted in the knowledge that doing the wrong will not be tolerated. They understand their boundaries.

Justice in a Fail-Safe Culture

Col Dave Goldfein, in his book *Sharing Success, Owning Failure* asserts it is the commander's responsibility to provide justice in discipline. When accomplished properly, he stresses, "Military discipline, handled with fairness, timeliness and compassion is always positive."³⁸ Our role as leaders is analogous to that of a parent as we strive to reinforce positive behaviors and work to effectively correct negative behaviors. World renowned parenting authors Gary and Anne Marie Ezzo³⁹, amplify Col Goldfein's perspective stating, "The punishment/consequences must fit the crime. Punishment sets a value on behavior. That is why over-punishing or under-punishing is dangerous; both send the wrong message."⁴⁰ In the Blackhawk shootdown, it is precisely a lack of justice which led to General Fogleman's and General Jumper's conclusions. The initial minimal punishment received by the F-15 pilots for wrongly identifying and then killing 26 innocent personnel set an extremely low value on their negligence. By re-affirming the standards and levying a just punishment for their actions, General Fogleman both re-calibrated Air Force boundaries on expected performance and set an appropriate value on such an action. Consider the recent message sent by GSC leadership when three missile crewmembers were discharged from the Air Force after self-reporting they inadvertently slept while in possession of outdated classified codes inside a secure facility.⁴¹ Is it reasonable to expect others will self-report future problems?

Institutional Justice is built upon a foundation of integrity, both personal and institutional. Major General Perry M. Smith dedicates an entire chapter of his book *Rules and Tools for*

Leaders to the subject. He insists that the first task a leader must accomplish upon taking over is vital – ensure that the organization’s standards of integrity are clearly stated and articulated.⁴² Once communicated, it is then essential for the leader to demonstrate justice through actions. Justice is clear and easy to accomplish when the problem is black and white. Unfortunately, most real-world situations a leader faces are varying shades of grey. In such circumstances competing views of justice vie for primacy in the leader’s mind. The ancient Jewish King Solomon’s famous judgment between two mothers claiming a single child as their own is a timeless example of the real-world wisdom required of today’s leaders.⁴³ The historical account also demonstrates the reward of true justice, noting that, “When all Israel heard the verdict they held the king in awe, because they saw that he had wisdom from God to administer justice.”⁴⁴ This is the power of justice in effecting positive cultural change – a 3,000 year old lesson relearned.

How do we practically administer such justice? Former Commander of Air Force Material Command General Gregory “Speedy” Martin provided a wise framework for such decisions during a personal interview. The General summed up his philosophy, stating “You need to look at a problem from Big to Small while ensuring you get the Black and White right.”⁴⁵ “Big to Small” requires deference to the long-term implications of a decision as opposed to short-term, local effects. “Black and White right” requires a leader to check the facts before rendering a decision. The following real-world example is illustrative of the point.

Jack was a hard-working employee and recognized expert in his field for almost 10 years. Jill was a highly-motivated, dedicated employee with just over a year’s experience. In a meeting, Jack’s frustration with Jill’s performance on an issue boiled over in a series of expletives – unacceptable behavior in a professional organization. Jill was rightly offended by Jack’s action and demanded restitution. Since Jack was a subcontract employee, the commander’s decision

was binary. Legal counsel informed him that he could either 1) fire Jack; or 2) do nothing. The contract afforded no other options. On a small scale he was justified with either course of action, but from a big-picture perspective that considered organizational culture and justice neither were acceptable options. Doing nothing would send the workforce a message that Jack's expertise was valued over proper workplace relationships. What about firing? The facts from a commander-directed investigation by an individual outside the organization revealed similar incidents dating back across the 10 years of Jack's employment. Taking time to understand the black and white revealed prior leadership's implicit toleration of Jack's behavior as no disciplinary action or documentation existed for the previous events. To fire him over this latest incident would be hypocritical as leadership failed to maintain and enforce standards over the previous 10 years. Of the two sanctioned options, firing Jack was both the most expedient and the safest. Unfortunately, it was also unjust. In the end the commander, cognizant of the big picture, risked his own position for justice by contacting the head of the subcontractor's company directly. He worked an unsanctioned arrangement where Jack publicly apologized to Jill and also attended a week of sensitivity training – a punishment that fit the crime. In the end, workplace standards of conduct were clearly articulated and enforced and future commanders have documented evidence of the event. Most importantly, Jill and the rest of the workplace perceived that justice was served.

Conclusion

As the Air Force matures as a service we must choose a culture for our continued long-term success. The Zero-Defect approach practiced by SAC during the service's infancy offers short-term success, but the resulting culture of fear and reprisal is not conducive to sustained excellence. Conversely, the tolerant approach of QAF adopted during our adolescence provides

short-term morale benefits, but its culture of ambivalence lacks the discipline required to achieve “Excellence in All We Do”. Ultimately, long-term, high performance is possible by adopting a Fail-Safe approach which paradoxically embraces failure through a mindful approach to building a resilient enterprise. This Fail-Safe culture occurs when leaders clearly articulate the boundaries of acceptable behavior and enforce them through just rewards and just discipline. It is from inside the security of these clearly-defined boundaries that our Fail-Safe culture will thrive.

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 - 10 Air Force Systems Command, "1989 AFSC Total Quality Managment Briefing."
 - 11 Graham W. Rinehart, "How the Air Force Embraced 'Partial Quality'."
 - 12 General John P. Jumper, "Speech to SNCO Academy."
 - 13 Ibid.
 - 14 Legacy in the OPR system manifests itself through a culture of inflated appraisals. Today, an average OPR reads with enough superlatives to justify the award of a medal for one's actions throughout the year. In this environment, the distinction between an average OPR and outstanding OPR is recognizable only to a discerning eye. In effect, it is what is not said that is fundamentally more important than what is written on the OPR. Such a system perpetuates a degree of cultural dishonesty when it both insulates leaders from making hard decisions about the relative performance of their subordinates and also allows them to communicate unpleasant feedback indirectly.
 - 15 AFMC/A8T, *AIR FORCE MATERIEL COMMAND INSTRUCTION 90-104*, para 1.1.
 - 16 Ibid., para 1.2.1.
 - 17 Ibid., para 1.2.2.
 - 18 Officer X, Interviewed by Lt Col Todd Ericson.
 - 19 Ibid.
 - 20 Department of Defense, *Narrative Summaries of Accidents Involving U.S. Nuclear Weapons: 1950-1980*, i-32.
 - 21 Ibid., i-32.
 - 22 Ibid., 8.

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- 23 Jim Collins, *Good to Great*, 52.
- 24 Ibid., 133.
- 25 William J. Perry interviewed by Linda D. Kozaryn.
- 26 Kathleen M. Sutcliffe and Karl E. Weick, *Managing the Unexpected*, 9.
- 27 US Air Force Safety Center, 2010. The 24 Sept 2008 publication of AFI 91-202 defines a Class A mishap as a mishap resulting in one or more of the following: 1) Direct mishap cost totaling \$1,000,000 or more; 2) A fatality or permanent total disability or 3) Destruction of a DoD aircraft NOTE: A destroyed UAV/UAS is not a Class A mishap unless the criteria in paragraphs **1.10.1.1.** or **1.10.1.2.** are met.
- 28 Ibid. RQ-1, RQ-4 and MQ-9 combined lifetime rate versus U-2, E-3, E-4 and E-8 combined lifetime rate. Initially, the higher UAV rates were of minimal concern to the USAF which viewed them as a “replaceable” asset. Increasingly, however, the USAF is more concerned with the high UAV mishap rates due to their increasing monetary cost and mission capability impacts. Some of the higher rate may be attributable to the newness of these systems, however, the root cause of the majority of these accidents is traceable to UAV design and testing standards lacking the redundancy and rigor of manned aircraft.
- 29 Kathleen M. Sutcliffe and Karl E. Weick, *Managing the Unexpected*, 52.
- 30 Ibid., 52
- 31 Although the Air Force does not publish official statistics on leaders fired for cause, open press reports of discrete events indicate commanders involved in the nuclear enterprise are relieved from command at a per-command billet rate at least an order of magnitude greater than the rest of the Air Force. Due to the lack of data, it is impossible to objectively quantify the validity of this claim, but in the most basic sense its objective reality is irrelevant.
- 32 Donald M. Taylor, Stephen C. Wright and Karen M. Ruggiero, "The Personal/Group Discrimination Discrepancy: Responses to Experimentally Induced Personal and Group Discrimination."; Jack J. Kasulis, PhD and Robert F. Lusch, PhD, "Validating the Retail Store Image Concept," Volume 9, Number 4; Maria Sillanpää, "The Body Shop Values Report - Towards Integrated Stakeholder Auditing," Volume 17, Number 13.
- 33 Jack J. Kasulis, PhD and Robert F. Lusch, PhD, "Validating the Retail Store Image Concept," Volume 9, Number 4, 420.
- 34 Maria Sillanpää, "The Body Shop Values Report - Towards Integrated Stakeholder Auditing," 1998, Volume 17, Number 13, 1451.
- 35 Jim Collins, *Good to Great*, 52.
- 36 Kathleen M. Sutcliffe and Karl E. Weick, *Managing the Unexpected*, 131.
- 37 Ibid., 135.
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- 38 Colonel David L. Goldfein, *Managing the Unexpected*, 74.
- 39 Authors of 22 books on parenting translated into 19 languages with over 8 million copies sold.
- 40 Gary Ezzo and Anne Marie Ezzo, *Growing Kids God's Way*, 146.
- 41 Michael Hoffman and Kent Miller, "Minot airmen fell asleep with classified nuke hardware."
- 42 Perry M. Smith, *Rules and Tools for Leaders*, 27.
- 43 Unknown, *Book of 1st Kings*, 1015 B.C., Ch 3, vs 16-28. Text of 1 Kings, Ch 3 vs 16-28, New International Version: A Wise Ruling 16 Now two prostitutes came to the king and stood before him. 17 One of them said, "Pardon me, my lord. This woman and I live in the same house, and I had a baby while she was there with me. 18 The third day after my child was born, this woman also had a baby. We were alone; there was no one in the house but the two of us. 19 "During the night this woman's son died because she lay on him. 20 So she got up in the middle of the night and took my son from my side while I your servant was asleep. She put him by her breast and put her dead son by my breast. 21 The next morning, I got up to nurse my son—and he was dead! But when I looked at him closely in the morning light, I saw that it wasn't the son I had borne." 22 The other woman said, "No! The living one is my son; the dead one is yours." But the first one insisted, "No! The dead one is yours; the living one is mine." And so they argued before the king. 23 The king said, "This one says, 'My son is alive and your son is dead,' while that one says, 'No! Your son is dead and mine is alive.'" 24 Then the king said, "Bring me a sword." So they brought a sword for the king. 25 He then gave an order: "Cut the living child in two and give half to one and half to the other." 26 The woman whose son was alive was deeply moved out of love for her son and said to the king, "Please, my lord, give her the living baby! Don't kill him!" But the other said, "Neither I nor you shall have him. Cut him in two!" 27 Then the king gave his ruling: "Give the living baby to the first woman. Do not kill him; she is his mother."
- 44 Ibid., Ch 3, vs 28.
- 45 General Gregory S. Martin, *Personal interview with General Martin*.