

# **Encouraging Risk and Embracing Uncertainty, The Need to Change U.S. Army Culture**

**A Monograph  
by  
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14. ABSTRACT The history of unmanned aircraft from its origins before World War I through to the present has shown that unmanned aircraft in the past had not met with much success. Those that did meet with success were highly specialized and unable to accomplish a range of missions that would recommend large-scale integration into the United States military. Based on recent developments and operational successes, uninhabited combat aerial vehicles have finally reached the point where they will fulfill their promise across the spectrum of conflict. The Air Force is developing doctrine, weapons, and airframes that will yield a wealth of capability for the joint force commander by 2015. The United States military must be ready for the future-operating environment predicted by the Central Intelligence Agency and the Joint Staff. In order to do this, the Joint Staff has enumerated five required capabilities if joint forces in the near future: rapid global projection; forcible entry into a joint operations area; immediate and synchronized employment of scaleable joint forces tailored to conduct simultaneously a broad range of joint military operations utilizing unified action; sustainment for extended periods in an austere environment or under anti-access or area denial conditions; and continuous joint C4ISR employment and knowledge generation fusion. Additionally, given the world environment, the author has added two capabilities which will be of great benefit to the joint combatant commander: the ability to employ a weapons system in diplomatically sensitive situations and the capability to execute a portion of the theater missile defense mission. This makes a list of seven capabilities which are the criteria that define whether the uninhabited combat aerial vehicle will be of utility to the joint combatant commander. The uninhabited combat aerial vehicle will be capable of all of those missions by 2015. The author concludes that not only will uninhabited combat aerial vehicles be of utility, but they will be highly sought after. Because of this predicted increase in interest in and dependence on UCAVs, the United States military must be ready to employ these UCAVs properly by: first, educating joint force commanders and planners about their increasing capabilities and inherent limitations and, second, ensuring their integration into the common operational picture systems and tactical data links of the near future.					
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Change U.S. Army Culture

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## **Abstract**

Encouraging Risk and Embracing Uncertainty, The Need to Change U.S. Army Culture by Major Robert T. Ault, US Army, 60 pages.

This monograph examines the culture of risk and uncertainty tolerance within the US Army officer culture. The author defines culture as the collective experiences, training and education among officers. The central research question is does the US Army develop leaders to make risk decisions in an environment of uncertainty? The methodology includes an analysis of three historical case studies of risk and uncertainty across the spectrum of conflict. The examples involve Operation Allied Force in Kosovo as a peace support operation, Operation Enduring Freedom in Afghanistan as a small-scale contingency operation and the 1973 Arab-Israeli War as a major combat operation. A model for risk tolerance is developed that relates the amount of uncertainty to risk in each case and for Army officer culture as a whole. The tolerance to risk changes with the amount of uncertainty the culture is able to control.

Control of risk and uncertainty may in fact run counter to the very nature of conflict and war yet the US Army officer culture appears to be increasingly based on controlling through technology large amounts of uncertainty and hence risk. This control can only come through a centralization of decision-making and standardization, almost mechanization of subordinates and their actions. This tendency toward centralized risk “management” is actually engrained via the way the officer corps trains its leaders.

Training in the Army serves to reinforce the one right solution and centralized control of uncertainty. Training center rotations serve as formative events in the lives of officers. The desire to train for uncertainty and risk tolerance appears to be lacking when one views the majority of the lessons learned that focus on prescriptive solutions. The tendency to develop information hungry leaders and headquarters can create an imbalance to developing subordinate leader’s judgment. An officer training system that remains focused on training for uncertainty would allow an officer education system (OES) to educate for judgment rather than conduct more training.

The OES trains officers to stay on task rather than educating them to exercise sound judgment and make risk decisions amid conditions of uncertainty. This is evident in the “one right solution” or process over product approach to “education” typical of the OES. There is a trend to train to task rather than educate for judgment and trust. Educating for judgment must not only be instituted downward but also upward as well with superiors learning risk tolerance of subordinates. This trust and confidence in subordinates can only be achieved through an OES that educates for judgment, trains for uncertainty and experiences the success of doing so.

This monograph recommends a shift in cultural mindset through a refined education process rather than implementing changes to training scenarios and curriculums. The US Army officer culture must begin to accept the need to educate, train and then form the experiences that support a judgment based risk tolerant culture.

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## Introduction

“If in the accounts given us by historians...we find that wars and battles appear to follow a definite plan laid down beforehand, the only deduction we can make...is that these accounts are not true.”

Tolstoy, *War and Peace*

The United States Army officer culture attempts to control uncertainty and risk through a process of management rather than understanding. This is actually a response to a culture that tends toward risk aversion and uncertainty intolerance. This attempt at control of uncertainty and risk is contrary to conditions of combat that can never be truly managed or controlled. As Clausewitz says of war: “No other human activity is so continuously or universally bound up with chance”<sup>1</sup>. Any attempt to remove uncertainty and risk not only courts folly, but is also dangerous as well because it gives a false impression of control; control over friendly forces, the environment and the enemy. In reality this type of control does not exist. This monograph attempts to show the need for developing leaders who can accept a certain amount of uncertainty and risk on the modern battlefield and still retain critical thinking skills to make risk decisions without one hundred percent situational awareness. This is by no means an attempt to argue against planning and technological innovations that aid the commander in building situational awareness. Nor is this an attack against training skills necessary for leaders to achieve tactical and technological competence and confidence. Rather the ideas presented here attempt to sway the debate in favor of accepting the constant of

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<sup>1</sup> Clausewitz Carl Von, *On War*. ed and trans by Michael Howard and Peter Peret. (New York: Alfred A. Knopf, 1993), 85.

uncertainty and risk on the battlefield and the need to educate and train leaders to operate within it rather than struggle to control it.



# Chapter 1

The new generation of officers, with the exception of the Marine Corps, has proven far more attracted by technological, mechanistic solutions to the complex problems raised by war. In fact a considerable number of senior officers have been arguing that advances in computer technology and communication systems will allow the U.S. military to see and destroy everything in the wide expanses of the battlefield. Others have gone so far as to suggest that these advances will eliminate friction by allowing commanders absolute knowledge about what the enemy is doing...<sup>2</sup>

The culture of any army's leadership greatly determines how that army thinks about war, uncertainty and risk. Every officer corps has its own distinct cultural subsets within it. The character of these subcultures builds synergistically toward the complete mosaic of the term "army culture". One of these cultural subsets is risk and uncertainty tolerance within the officer corps. This powerful part of army officer culture determines if and then to what extent risk and uncertainty will be tolerated. This monograph attempts to provide an introspective look into the cultural tendencies to deal with risk and uncertainty within one of the most powerful armies in the world.

For this monograph army culture is defined as the collective education, training and experiences that make up the mindset of active duty army leaders and subordinates. The subject of culture is important because it either entraps or empowers those that live and work within it. *Army Field Manual 22-100 Leadership* speaks to culture in the following terms:

Culture refers to the environment of the Army as an institution and of major elements or communities within it. Strategic leaders maintain the Army's institutional culture. Climate refers to the environment of units and organizations. All organizational and direct leaders establish their organization's climate, whether purposefully or unwittingly.<sup>3</sup>

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<sup>2</sup> Lehman John F. and Sicherman, Harvey, *America the Vulnerable*, (Philadelphia: Foreign Policy Research Institute, 2001), 145.

<sup>3</sup> FM 22-100, 3-52.

Culture is a longer lasting, more complex set of shared expectations than climate. While climate is how people feel about their organization right now, culture consists of the shared attitudes, values, goals, and practices that characterize the larger institution. It's deeply rooted in long-held beliefs, customs, and practices.<sup>4</sup>

Strategic leaders inspire great effort. To mold morale and motivate the entire Army, strategic leaders cultivate a challenging, supportive, and respectful environment for soldiers and DA civilians to operate in. An institution with a history has a mature, well-established culture—a shared set of values and assumptions that members hold about it.<sup>5</sup>

It is within the context of army culture that decisions about risk are made.

Army risk tolerance culture sets the conditions for soldiers and leaders to decide, adapt and act. In a very real way this professional culture determines what types of decisions both leaders and subordinates make. It is within the shared elements of education, training and experience that Army risk mitigation culture is forged and personalized.

How much uncertainty is considered acceptable among the current risk tolerance culture in the United States Army? How does the Army develop its soldiers and leaders to make risk decisions in an uncertain environment? These questions can best be answered by an analysis of the theoretical, historical and practical application of the Army's risk tolerance culture. Many writers, both military and civilian, have attempted to address the issue of risk tolerance and mitigation. Generally these attempts fall into one of three categories: risk and complexity theorists, historical case studies and professional military journal publications. This last category attempts to bridge the gap between the theorists and the historians with practical application.

From the theoretical aspect, the Joint Pub 1-02, The DOD Dictionary of Military and Associated Terms defines Risk, as; "probability and severity of loss linked to

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<sup>4</sup> Ibid., 3-58.

<sup>5</sup> FM 22-100 7-73.

hazards.”<sup>6</sup> The document further goes on to define risk management as; “a process by which decision-makers reduce or offset risk. Also called RM.” Overall it can be said that the job of the commander is to seek control of his forces in order to sequence and synchronize them into the battle to achieve the desired effects. Synchronization of forces demands knowledge of the situation prior to commitment in order to insure massed effects against the target(s). Whenever a commander fails to achieve total control of his forces and total control of the situation he is accepting risk.

Closely related to the concept of risk is the concept of uncertainty. The Joint Publications merely define the term as: “an uncertain environment; an operational environment in which host government forces, whether opposed to or receptive to operations that a unit intends to conduct, do not have totally effective control of the territory and population in the intended area of operations.”<sup>7</sup>

Clearly these definitions are not enough to develop a healthy and realistic risk taking culture. Because of its desire to synchronize the battlefield the US Army appears to approach risk and uncertainty with too much emphasis on control and making the uncertain certain rather than embracing uncertainty and accepting risk. Scholars have noted that as a culture army officers do not appear to be as risk prone as their civilian counterparts.<sup>8</sup> Why is this? The answers to this question may prove troubling.

## **How Did We Get Here?**

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<sup>6</sup> Joint Pub 1-02, “The DOD Dictionary of Military and Associated Terms” p 396.

<sup>7</sup> Ibid., 335.

<sup>8</sup> YoxJ.E. MSC US Army, “Risk Preference Among US Army Officers” (CGSC Thesis, 1976), 53.

Military culture is steeped in attempts to minimize the uncertainty of the battlefield. In The American Civil War the Union and Confederate armies used the telegraph as an element of command and control. The 19<sup>th</sup> Century German General Staff acting as the eyes of the commander employed a “Directed Telescope” to critical areas of the battlefield. This was another effort to facilitate the commander’s situational understanding. Speaking of the German General Staff author and military theorist Van Crevald noted; “Observing events at first hand and with a practiced eye, they took action where action was called for; went on reconnaissance missions, not infrequently at the risk of their own lives carried important messages; and served as telescopes for their commanders.”<sup>9</sup> The telephone in WWI joined this list of controlling technology. Hand held radios and microcomputer technology continue to add to the commander’s cybernetic reach across his forces on the battlefield. The evolution in control of one’s forces comes from a long history stretching well beyond the recent past.

Uncertainty on the battlefield means commanders and armies must assume risk: risk of misinterpreting the military problem, risk of one’s own troops not performing to standard and ultimately the risk of failure by not accomplishing the mission. This risk is thrust upon the commander because of his inability to see and influence the battlespace. The telegraph, the “directed telescope, the radio and computer all represent (among other things) tools to control uncertainty and create certainty for the commander. In creating certainty, it is thought risk can be reduced or “managed”. Control through technology and process gave rise to increased situational awareness, thus the culture of control was born out of a desire to create certainty by providing information.

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<sup>9</sup> Crevald Martin Van, *Command in War*, (New York: Cambridge University Press, 1990), 142.

Corresponding with an apparent increasing ability to control, military commanders have attempted to know as much about the situation as possible. In other words commanders, by their very nature, attempt to minimize uncertainty. Reconnaissance offers such an attempt to lift the veil of the unknown and allow the commander to see the “true” battlefield situation. The airplane represented another such leap toward this ability of the commander to literally rise above the battlefield and see beyond the current fight. Intelligence represents a systemic attempt to divine the enemy’s capabilities and intentions. This evolution is evident in UAVs, satellites, and other data link technology from the tactical “shooter” downrange to the operational and even strategic commander and staff. Clearly control of a situation has at its heart control over uncertainty. This control of uncertainty demands clarity of the situation and clarity is expressed in terms of useful information about the situation, and this leads to the quest for information. The central question becomes: does the US Army culture, educate and train its leaders and soldiers to deal with risk in a way that accepts uncertainty and educates for wise risk taking rather than stifling initiative?

Three layers of risk tolerance exist in the culture of the US Army; they are the supervisory layer, the direct leader layer, and the soldier layer. These three layers tolerate risk differently. The supervisory layer deals with risk in the most conservative manner because theirs is the realm of conservative decision-making. The direct leader is charged with accountability to make things happen and yet protect the soldiers under his command/charge. The soldier layer is characterized by responsibility to act and accomplish the mission.

The environment of risk decision-making can be thought of as a sphere filled with smoke. The smoke represents uncertainty. For arguments sake the center of the sphere is clearest because it contains the least amount of haze. The decision maker is located here at a position of perceived clarity. Towards the edges of the sphere the smoke grows denser. Hence the environment becomes less certain because less information can be gathered. The level of uncertainty is inversely proportional to risk tolerance. As one moves farther from the center of the sphere (or what appears to be certain) and toward the edges (or what cannot be communicated back to a higher headquarters as certainty) the less tolerance for risk exists.

## **Risk Tolerance Model**

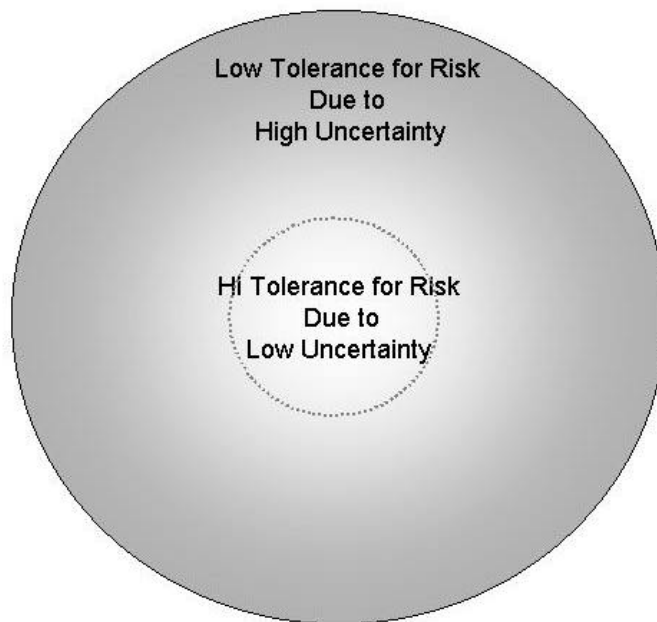


Figure 1

The process of moving from the certain into the uncertain causes a commander and staff to move along a risk gradient that changes his tolerance to risk. Eventually, uncertainty rises to such a level that risks are not tolerated at all because of the inability to predict or control the outcome of subordinate's decisions or actions. This can be considered analogous to not going to a football game because you can't predict who will win.

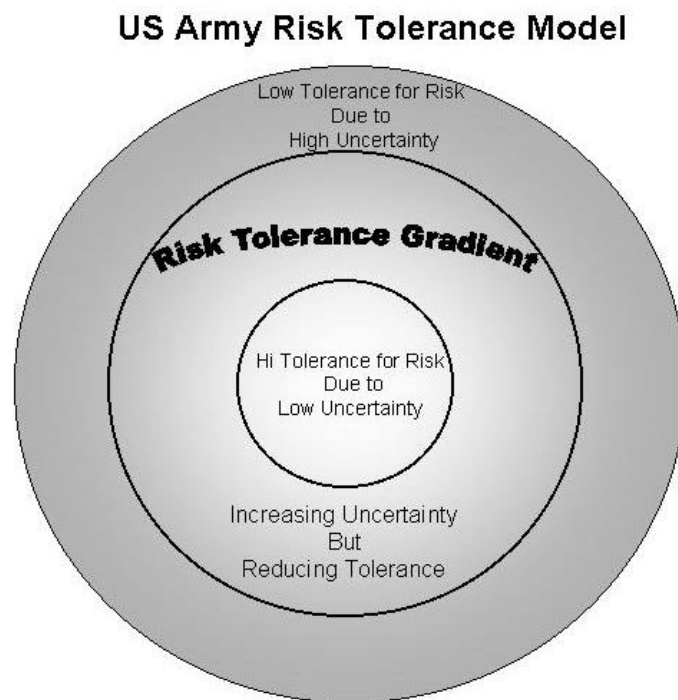


Figure 2

From an organizational perspective, Army culture reacts to uncertainty and risk one of two ways. The first alternative is attempting to drag the uncertain into the light of the certain. This is followed by analysis, upon which a decision is then reached and

transmitted back out to the subordinate for action. This may be an effective approach when time is not an issue and the situation is relatively static. However this linear approach does not necessarily work well in a complex adaptative environment because complexity makes such isolated decisions irrelevant. This approach to uncertainty represents an attempt to control circumstances and impose a static solution on the environment. This may not be the most effective method of dealing with uncertainty because it does not take into account the second and third order effects of the solution. Yet, this may be the most dominant approach to risk and uncertainty within the US Army culture.

The second alternative is to tolerate the risk and uncertainty associated with warfare and combat by empowering and trusting the subordinate to act as well as training higher levels of command. This approach offers a less certain solution to the troubling issue of how to deal with risk and uncertainty. To embrace this mindset means moving away from a rigid predetermined solution/outcome of a problem. It is not enough to produce subordinates that can act amid uncertainty. What is required is a shift toward a cultural mindset that is comfortable with uncertainty when making risk decisions. Some may argue that risks are accessed differently at each level of war from tactical to strategic. This is a fair hypothesis. However what remains constant throughout the levels of war are the requirements of leadership and the process leaders go through when placed in command.

Risk tolerance is a personal decision; personal to each commander no matter the level they serve. There does not appear to be evidence that suggests leaders increase their tolerance to risk as they mature. If anything they tend toward less risk and uncertainty



tolerance. This means the risk tolerance culture of the US Army looks like a pyramid, with the most risk and uncertainty being accepted or taken at the junior levels and diminishing as one is promoted up through the ranks. The impact of a tightened risk and uncertainty band at the top of army culture is that it feeds back into the process that produces future leaders. Zero risk and uncertainty tolerance is displayed by the senior levels and thus affirmed by the lower levels.

## **Chapter 2: Historical Case Studies**

“History too, can be pressed into the service of familiarizing the young officer with the unknown...One does not mean here the history of myth...”<sup>10</sup>  
John Keegan

Historical case studies allow an analysis of how army risk tolerance culture deals with uncertainty and risk. Three case studies will be used to assess the risk tolerance culture of Army leadership: 1999 Operation Allied Force in Kosovo, 2001 Operation Enduring Freedom in Afghanistan and the 1973 Arab-Israeli War. These three case studies are important because they represent the spectrum of operations expressed in the contemporary operating environment. They range from a peace support operation (PSO) in Kosovo to a small-scale contingency (SSC) operation in Afghanistan to a major combat operation (MCO). The varying conditions of each operation will allow a look at how tolerant the army culture was to uncertainty and accepting risk.

The MCO example of the 1973 Arab-Israeli War, while not necessarily representative of American army culture, presents an example of a modern major conflict in which national survival was perceived to be at stake. The resulting situation of being surprised and outnumbered forced the Israelis to take risks and deal with uncertainty.

### **Kosovo and Task Force Hawk 1999**

The nature of peacekeeping operations lends itself to a false perception of “control” due to a perceived delicate linkage between the tactical and political arenas. The delayed deployment of Task Force Hawk represented a low risk tolerance decision that could not bring the uncertain into the center of the risk sphere in time to be effective. General

(retired) Clark's decision to employ the AH-64 attack helicopter equipped Task Force Hawk and the Joint Chiefs of Staff (JCS) refusal to grant his request clearly shows a lack of willingness to risk US casualties.<sup>11</sup> The true issue of low risk tolerance can be seen in the resultant employment of the task force. General Clark proposed to use the AH-64's in an effort to destroy fielded forces of the Serbian military. The attack helicopter operations would be conducted in support of the air campaign. Even though the 1<sup>st</sup> Armored Division demonstrated its ability to perform this same type of mission during a recent Warfighter exercise the Joint Chiefs denied the request.<sup>12</sup> Overwhelming concern with the risk to Task Force Hawk forced the seemingly safe and certain decision to delay their deployment and move it to Albania out of Kosovo proper.

Operational level commanders tried to centralize risk taking due to the uncertain nature of the environment. This becomes most apparent in US Army force protection measures. "Force protection is the first priority of all forces,"<sup>13</sup> stated the US Army Europe's Operations orders on force protection issued in 1997. Leaders at several levels communicated to their subordinates' statements like "nothing we do here is worth getting anyone hurt."<sup>14</sup> This excessive focus on force protection evolved out of the uncertain peace support environment. A perceived immediate linkage between US tactical actions and US political objectives may have generated much of the operational uneasiness with the uncertainty associated with the mission in Kosovo. However, since uncertainty was so pervasive the level of risk tolerance was greatly reduced or constricted into a tightly

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<sup>10</sup> Keegan John *The Face of Battle*, (New York: Viking Penguin Inc Press, 1992), 22.

<sup>11</sup> Nardulli Bruce R, Perry Walter L, Pirnie Bruce, Gordon, John IV, McGinn, John G, *Disjointed War: Military Operations in Kosovo, 1999*. (Santa Monica California: RAND Corporation, 2002), 59.

<sup>12</sup> Ibid., 58.

<sup>13</sup> Cangiglia, Richard R. LTC US Army. "US and British Approaches to Force Protection", *Military Review* (July August 2001): 7.

controlled circle of apparent certainty. Risk mitigation doctrine was a result primarily of safety concerns rather than operational freedom for subordinates.

The operational situation was such that an earlier “riskier” deployment of TF Hawk would have been more effective in terms of contributing combat capability to the Kosovo Campaign. However concerns over force protection and the impact of introducing “ground troops” into the campaign was not considered worth the risk. The argument can be made that fielded forces were being destroyed by the air campaign. However, according to a RAND study this destruction of fielded forces occurred after the debate over the deployment of Task Force Hawk. It is possible the task force could have made a difference. The key consideration is that in the Kosovo Theater of Operations one Apache battalion was essentially considered a strategic asset. My elevating what was basically a ground asset such as the task force to such a high level the JCS could shepherd the perceived commitment of ground forces. After taking the political pulse the senior operational and strategic leaders could decide to commit Task Force Eagle. Thus the decision to commit the tactical army aviation task force could be seen as a safe choice. This notion of a “safe choice” in the operational environment is a dangerous misnomer as evidenced by the refusal of both NATO and the American Joint Chiefs of Staff to employ ground troops. This is evidence of a tightening circle of perceived certainty and an increasing risk gradient. Operations of the US Army in Kosovo 1999 clearly show the results of a military culture that is focused on minimizing uncertainty and controlling risk-taking actions.

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<sup>14</sup> Ibid., 7.

The model for Risk taking in conditions of uncertainty for the deployment and employment of Task Force Hawk from an operational point of view would be similar to figure below.

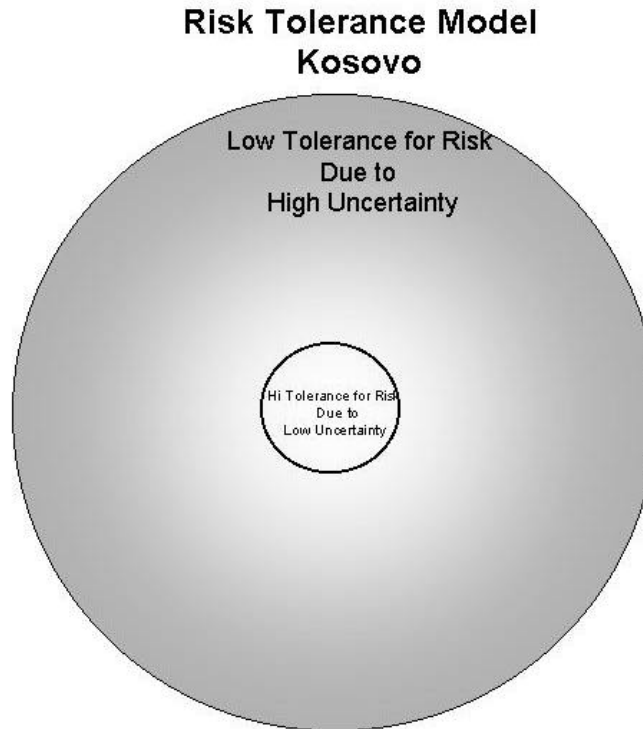


Figure 3

Operationally, decisions about risk were dealt with by attempting to drag the uncertain and unknown into the light of the known (over-centralization at the operational level). The impact of a non-risk tolerant plan on the three layer, of risk (supervisory, direct leader, and soldier layers) is that initiative is stifled and the decision making cycle slows down. Fundamentally this type of decision-making is flawed because the conditions change when viewed by a centralized decision maker apart from the context of uncertainty.

The US Army as well as US Joint doctrine for risk mitigation revolves around managing risk rather than mitigating it. As a result, operational level risk is “controlled” in much the same way as accidental risk is “managed.” Risk management occurred by limiting the available decisions lower commanders had to make, in effect greatly constraining their ability to exercise judgment. In this uncertain environment the subordinate’s primary mission becomes to stay on task and not deviate from the vision the higher headquarters is attempting to create. Deviance from the expected or planned is not welcome because it creates uncertainty and thus incurs risk.

### **Operation Enduring Freedom: Afghanistan 2002**

Operation Enduring Freedom in Afghanistan offers a look into Army risk tolerance culture during a small-scale contingency (SSC) operation. These situations by definition are to some degree unforeseen and rife with uncertainty. The SSC more so than any other military scenario is the most difficult to centrally control due to the many unknowns. This condition of high uncertainty remains until enough control has been established through information and troops on the ground. At some point a SSC transitions into something else. This evolution may result in an MCO or a PSO but the state of a contingency is transient. During the early stages of an SSC operation army leaders must be extremely flexible and risk tolerant until certainty is built up and risk sufficiently reduced to a level of cultural acceptability that will allow a more stable situation.

The central question in regard to risk tolerance is “Does Army culture deal with risk and uncertainty differently when conducting SSC’s?” One may argue that Army culture does not change. Just like the quality of troops or equipment an SSC by

definition is a “come as you are” affair. There does not appear to be a separate Army culture for contingency operations. Risk and uncertainty tolerance remains an extension of prior training, education and experiences.

Does tolerance to risk and uncertainty change in the contingency environment as opposed to the PSO examined earlier? Compared to a PSO the SSC may represent a more dynamic situation. In the PSO it is the case of knowing what needs to be done and grappling with the delicate methods of accomplishing the mission. The SSC may represent the greatest challenge to framing the problem, not necessarily in producing the capability to act, but in determining the acceptable level of risk to failure tolerance. It should be noted however that this tolerance when viewed over time will shift as the operation transitions to a more stable form. Over time risk and uncertainty tolerance tend to decrease, as the situation becomes more of a PSO or increase as the situation devolves into a major combat operation. The major challenge of a SSC is the short lead-time to train and educate for the crisis.

It can be argued that no contingency operation ever allows for adequate training beforehand because each contingency is different. This may be true, however tolerance of risk and uncertainty are a part of planning at the operational level because execution lies in well-established tactics techniques and procedures. In essence the soldiers already understand individual movement techniques and how to close with and destroy the enemy. The task is already trained, only the conditions change in an SSC. Therefore assessing and establishing the conditions is the main task of operational planners.

The assumption of risk in planning an SSC is not the same as in a PSO. There is greater urgency; the operation is in response to a previous action (Hurricanes, invasions

or terrorist attacks). In Operation Enduring Freedom there were clear combatants in the Taliban and Al Queda. The operational objective was the elimination of Taliban and Al Queda bases in Afghanistan.<sup>15</sup>

Risk was assumed in the decentralization of authority and action pushed down to much more junior leaders, smaller organizations and in some cases individuals and aircrews such as the Special Forces Teams that went in 12 days after the bombing campaign began.<sup>16</sup>

Per Joint Publication 5.0: “Operational maneuver usually takes large forces from a base of operations to an area where they are in position to achieve operational objectives.” Risk in operational maneuver can be observed in the plan to fight US forces on the ground in Afghanistan. The Secretary of Defense (SECDEF) saw two major reasons not to commit large numbers of ground troops: 1) possible anti-American backlash and 2) the logistical challenges of entry and sustainment of large numbers of ground forces.<sup>17</sup> According to Frontline, CENTCOM began planning for the employment of ground forces but was constrained by the SECDEF’s guidance based on two primary concerns above. This would seem to indicate a risk aversion among the higher level strategic and operational leadership however, this must be balanced with the rather risky early employment of special forces teams to link up and lead local Afghan leaders and militias against the Taliban. The importance of the mission to overthrow the Taliban in order to get at Al Queda was no doubt of utmost importance considering the recent events of Al Queda’s attacks on the United States. Overthrow of the Taliban and establishment

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<sup>15</sup> Geibel Adam, “Operation Anaconda, Shah-I-Khot Valley Afghanistan”, *Military Review* (May-June 2002), 1.

<sup>16</sup> “Campaign Against Terror”, *Frontline*, Public Broadcasting Network Special 2002.

<sup>17</sup> [www.pbs.org/wgbh/pages/frontline/shows/campaign/assess/ohanlon.html](http://www.pbs.org/wgbh/pages/frontline/shows/campaign/assess/ohanlon.html)



of order in Afghanistan can be considered one of the campaign objectives. The cost of not eliminating the Taliban would be an unacceptable overt forced entry operation that would allow Al Queda time to react to US efforts. Given the unclassified intelligence of the Afghan resistance fighters the operational plan appeared to be willing to accept much risk and uncertainty as to whether or not the US Special Forces teams would be able to accomplish their missions. The initial employment of Special Forces Teams appears to represent both leadership and planning at an operational level that is willing to underwrite risk and uncertainty in order to defeat the Taliban and destroy Al Queda and yet not unite warring tribes against outside invasion in the form of large numbers of US ground troops. This tolerance of risk and uncertainty may not be mirrored in conventional US Army forces.

Allied and US air strikes were the primary method of employing operational fires. At first glance the lack of willingness to place Army artillery on the ground in Afghanistan may be taken as a lack of tolerance to risk of the assets. However a deeper examination reveals an attempt to minimize the numbers of ground troops and at the same time minimize the danger of civilian casualties.<sup>18</sup> Risk tolerance in this context must be measured against the initial chosen effect of supporting an internal overthrow of the Taliban by the various Afghan tribes and not a US led invasion as in Panama 1989.

The lack of risk tolerance can be seen in the arena of operational protection, once conventional forces began to occupy the area of operations. At times the operational tolerance to casualties appears to be rather high based on the aviators and soldiers killed since the beginning of the campaign. However conventional army forces were kept out of the area of operations at a price of not stopping fleeing Al Queda and Taliban fighters

as they attempted to escape Afghanistan.<sup>19</sup> Despite known intelligence of reconstituting Taliban and Al Qaeda forces US commanders have turned down plans to attack because of a lack of risk tolerance.<sup>20</sup> In effect this lack of risk tolerance led to the escape of unknown numbers of enemy forces across the border into neighboring countries.

Any contingency operation is not a static operation. As an SSC, Operation Enduring Freedom represents a changing perception of risk tolerance and mitigation. At the operational level initially leaders and planners make assumptions that incur risk. In the case of Enduring Freedom the main risk was in placing the overthrow of the Taliban in the hands of the various resistance movements (albeit actively supported by US special forces and precision air strikes). However to say that SSC's represent a full embrace of uncertainty and whole scale risk tolerance is inaccurate. The risk of mission failure while assumed by both the Afghan warlords and Special Operations forces was not incurred by the conventional US military. Rather SSC's represent (at least in the initial stages) an acceptance of operational uncertainty in planning because of known and relied upon tactical ability (our ability to kill the enemy).

The ring of acceptable risk tolerance in an SSC appears more jagged as risk tolerance is selected based on objectives and phases of the operation. Enemy opposition, often forces risks at the tactical level that the operational level could not have foreseen. This impacts the operational level as the effects of the risk ripple through the chain of command. Contingency operations represent a transition from the unknown and uncertain into something less tolerant of risk and uncertainty. In the best of cases SSC's

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<sup>18</sup> [www.pbs.org/wgbh/pages/frontline/shows/campaign/assess/ohanlon.html](http://www.pbs.org/wgbh/pages/frontline/shows/campaign/assess/ohanlon.html) February 2003.

<sup>19</sup> Ibid.

<sup>20</sup> Rowan Scarborough, "Fear of Casualties Hampers Hunt for Taliban", *The Washington Times*, (December, 2001).

become PSO's. The worst case is an SSC devolving into a MCO. As the contingency evolves through the course of operations so too does the level of risk and acceptable uncertainty that the chain of command will tolerate.



Figure 4

### **1973 Arab Israeli War**

The 1973 Arab-Israeli War represents a major combat operation from the perspective that national survival was at stake for the Israelis. The unexpected nature of the Egyptian assault against the Suez Canal and the Syrian attack on the Golan Heights immediately thrust Israel into a major war against two separate enemies. The major combat operation (especially when it appears defeat is a real possibility) represents a situation where the

risk of uncertainty and failure may be outweighed by the cost of defeat. The Israeli view of war was never predicated on control over the uncertain; rather the Israeli Defense Force (IDF) developed its leaders and soldiers to exercise initiative and work through uncertainty<sup>21</sup>.

The Israeli Defense Force was designed around operating in conditions of uncertainty and risk.

The IDF is basically a decentralized military. The heavy involvement in operational missions virtually necessitates the downward delegation of command authority. When an officer deploys his unit on a mission, he knows not only that he is in charge, but that he is free to make command decisions as necessary for mission completion, relatively free of the chain of command above him. The extensive freedom of action enjoyed by on-site commanders derives from the Israeli belief that on the battlefield things seldom go exactly as planned, nor do they appear the same as they do in maps or aerial surveillance photographs. Therefore any senior commander who is not on location cannot make better command decisions than the on-site commander regardless of the rank involved.<sup>22</sup>

This bottom up view of warfare by the IDF demands that its leadership culture both train subordinates to accept uncertainty and make risk decisions amid this uncertainty. The second aspect of risk tolerance is that leadership culture must develop tolerance to subordinates decisions, actions and even failures. Simply to say the IDF developed a risk taking leadership climate is not enough. One must understand the Israeli reference for fighting their enemies. The IDF did not attempt to centralize and hence control subordinates in order to impose some artificial sense of order on the battlefield. The IDF appears to admit confusion and chaos are an inseparable part of combat. Rather than develop technology to control, the IDF's answer was to empower and tolerate. This

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<sup>21</sup> Herzog Chiam, *The Arab-Israeli Wars*. (New York: Vintage Books, 1984), 373.

<sup>22</sup> Gal Reuven, *A Portrait of the Israeli Soldier*, (New York: Greenwood Press, 1986), 130.

theoretical approach to war appeared to serve Israel well during the MCO that was the 1973 war.

The IDF did not possess the technology or desire to attempt to remove uncertainty and the need for risk tolerance from the battlefield. The 1973 Egyptian offensive was enough of a surprise that Israel was forced to respond rather than attempt to control events. Surprised by the sudden offensives Israel found itself desperately fighting to retain the Golan Heights against heavy Syrian opposition. The Israeli Air Force was taking heavy losses from Syrian missile attacks and the Egyptian Army pushed past the Bar-Lev-Line deep into the Sinai. In several days the Syrians were in a position to threaten Israel's major population areas. The situation was so desperate that "Defense Minister Moshe Dayan asked Prime Minister Golda Meir for permission to activate Israel's nuclear force",<sup>23</sup>

There are several examples of the IDF's tolerance of risk and uncertainty. One such example is General Sharon's crossing of the Suez Canal and follow-on deep penetration conducted as an operational counter attack. While not planned at the higher levels of the IDF nor even planned in intricate detail the IDF leadership supported the operational maneuver. A second example of risk tolerance and decentralization of action cited by Reuven Gal is the commander (Lieutenant Ardinet) of the Quay fortification along the Bar-Lev-Line that held out against all odds and slowed the advance of Egyptian Forces. Gal states "Ardinet was never directed in his many radio communications with his higher headquarters either surrender or fight to the last man. This decision was left to

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<sup>23</sup> Katz Samuel, *Israeli Defense Forces Since 1973*, (London: Osprey Publishing, 1986), 4.

him alone to make.”<sup>24</sup> These examples illustrate not only the ability of subordinates to act amid uncertainty but also of the uncertainty and risk tolerance of the higher leaders.

Decisions in an MCO such as the Yom Kippur War demonstrate that training for uncertainty and risk is necessary if army culture is to continue to learn and adapt. It must be remembered the IDF is not the American Army. There are significant cultural and ideological differences. If the IDF had been able to employ the current command and control technology of the US Army would they have fought differently is a valid question. The fundamental to the IDF's philosophy of combat was uncertainty and risk, these elements could not be removed. In order to fight through this the IDF culture embraces risk and uncertainty by decentralizing to the commander on the scene. The risk tolerance gradient for the Israeli's was not very steep. In most cases whether a risk was acceptable or not was determined by a local commander not by his higher headquarters. The IDF demonstrated an ability to tolerate risk and uncertainty without having to produce information for clarity in order to make a decision.

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<sup>24</sup> Gal Reuven, *A Portrait of the Israeli Soldier*, 129.

## **Risk Tolerance Model 1973 Arab-Israeli War**

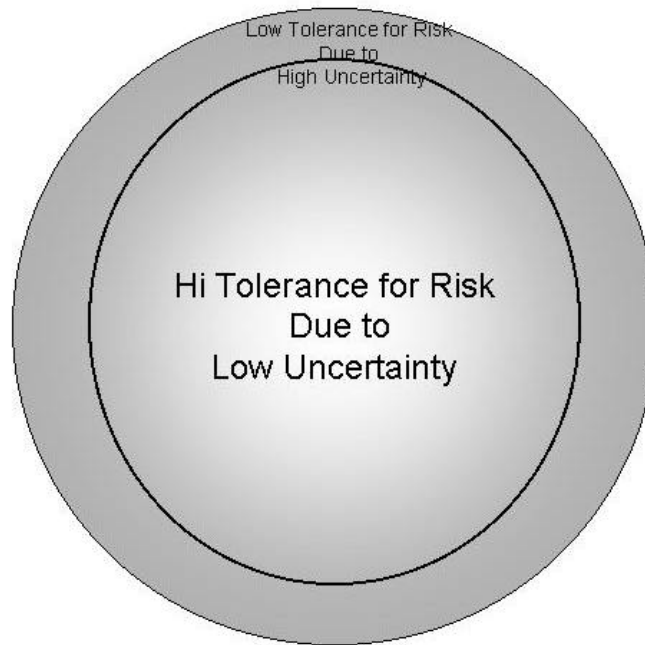


Figure 5

The focus appears to be to train subordinates to act with the Israeli freedom of maneuver and uncertainty tolerance in order to act quickly, which in turn produces tempo and adaptability. Certainty is then developed through action on the ground against the enemy. The central question remains; does the US Army develop leaders to act in these circumstances amid confusion, uncertainty and risk?

## Chapter 3: Leader Development

In large-scale strategy we can use our troops to confuse the enemy on the field. Observing the enemy's spirit, we can make him think, "Here? There? Like That? Like this? Slow? Fast? " Victory is certain when the enemy is caught up in a rhythm which confuses his spirit.

In single combat, we can confuse the enemy by attacking with varied techniques when the chance arises. Feint a thrust or cut, or make the enemy think you are going to close with him, and when he is confused you can easily win. This is the essence of fighting and you must research it deeply.

Miyamoto Musashi<sup>25</sup>

Leader development is critical in developing the next generation of officers to make risk decisions in an environment of uncertainty. This long-term process of changing army culture consists of education, training and collective experiences where officers are encouraged to take risk amid uncertain circumstances. The Army's three pillars of leader development are institutional training, operational assignments and self-development. The Officer Education System or OES is the US Army's framework upon which the rest of officer culture is built. The OES takes pre-commissioned cadets through their years as a company grade officer into the field grades as well as preparation for command positions. An analysis of the OES with an eye toward educating risk tolerance and teaching about uncertainty will allow an evaluation of how well Army culture educates its officers to make risk decisions in an uncertain environment.

Per DA Pam 600-3: The goal of the OES is to produce a broad-based corps of leaders who possess the necessary values, attributes, skills and actions to perform their duties and serve the nation. These leaders must know how the Army runs, and must

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<sup>25</sup> Musashi Miyamoto, *A Book of Five Rings*, trans by Victor Harris, (New York: The Overlook Press, 1974), 79.



demonstrate confidence, integrity, critical judgment and responsibility while operating in an environment of complexity, ambiguity and rapid change.<sup>26</sup>

## **Education**

Webster's Dictionary defines education as "the process of teaching, knowledge thus developed formal schooling". Department of the Army Pamphlet 600-3 Commissioned Officer Development and Career Management says this of education "The officer education system permits officers to build upon achievements and experience and progress to a higher level of learning".<sup>27</sup> Clearly education connotes knowledge and wisdom and represents a long-term investment of the Army in individuals and their ability to critically think and make solve problems beyond those they have trained for. This begs the next question, what is training? Again a reference to Webster defines training as "To instruct so as to make proficient". This presents the difference between education for wisdom and training for task. A judoist may be trained to execute a certain set of throws however it is education and the subsequent knowledge of his art that allows him to respond to his opponents' dynamic and uncooperative actions in order to throw his opponent. Training is a relatively high payoff action. Marksmen can be given training; the effects measured, and then pronounced, "trained". Education on the other hand is more troublesome. A student may be exposed to great thinkers and educators and yet the results of the relatively long-term education investment may not be able to be measured at all. By focusing on training rather than education the officer education system may represent something other than a framework for thinking about how to think. It is this

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<sup>26</sup> Department of the Army Pamphlet 600-3 *Commissioned Officer Development and Career Management* (1998), 4.

ability to think through uncertainty and make sound decisions that develops the skills necessary to make risk decisions amid an environment of uncertainty.

The OES may be oriented on training officers and not educating them. Training and Doctrine Command (TRADOC) regulation 350-10 is the regulation governing institutional training and educational policies. A review of the OES common core contained in this regulation shows a distinct emphasis on skills rather than educational processes. The curriculum states as one of its objectives to produce officers that “can operate in an environment of complexity, ambiguity and rapid change.”<sup>28</sup> However a further examination of the OES by school curriculum shows that the emphasis is on teaching control and not on developing risk taking skills and operating in environments of uncertainty.

From the time a cadet enters the Army pre-commissioning program he/she is subjected to structured problems with relatively narrow parameters for success. Unfortunately this trend is not confined to pre-commissioning programs. The desire to train to tasks rather than educate for life in order to produce critical thinkers appears at the Captain’s Career Course (CCC) as well as at field grade institutions such as the Command and General Staff College (CGSC), The School of Advanced Military Studies (SAMS), the School of Command Preparation (SCP) and the Army War College. A common core competency review of the OES clearly shows the same clear weighting toward training to task and away from education for judgment and critical reasoning. For example: a review of the pre-commissioning thru field grade competency maps does not even mention developing the necessary skills or mental thought processes to operate

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<sup>27</sup> Ibid., 6.

<sup>28</sup> TRADOC Regulation 350-10, 3-1.

within an environment of risk and uncertainty. Rather a review of the curriculum produces a sense of training adaptative behavior only so far that it can produce a standardized officer, one that can adapt in order to reduce uncertainty rather than operate within it.

At the field grade or intermediate level education (ILE) officers are again trained and directed toward a “one right answer”. This “one right answer” approach can be seen in the lack of training that emphasizes ambiguous situations requiring risk taking situations without a “right answer”; situations where officers cannot win. Instead the OES falls back into teaching skills in order to produce predictability, because predictability is the single most important factor in a bureaucratic or mechanistic institution such as the Army. In an environment that relies on technology to provide complete situational awareness through technology the commander and his headquarters become the most “aware” on the battlefield. The subordinate’s job becomes to support his boss’s situational awareness. The effect of an education system that trains officers from a knowledge based over-controlling culture is a remarkably low tolerance to risk and uncertainty.

Per DA PAM 600-3, the focus of the Basic Officer Course is to train lieutenants to lead a platoon, maintain order and control, and advise his commander. These tasks focus on equipping the new officer with a specific skill set designed to solve specific problems. Education is not the stated objective of the course and perhaps rightly so. Many will argue that a newly commissioned officer must learn his job that is to develop tactical and technical competence above all else. However, three years later the

lieutenant, now newly promoted to captain attends the Captain's Career Course and finds his training continues with little to no education.

The Captain's Career Course (CCC), per DA Pam 600-3 "reinforces prior education and works to develop such skills as establish and maintain a disciplined command climate, execute the unit's assigned missions, administer Uniform Code of Military Justice".<sup>29</sup> These and the other listed tasks represent a clear focus on training to task rather than truly educating for life and critical reasoning. This emphasis on training over education may be understandable because company grade officers need a solid base of skills in order to be successful and bring mission accomplishment to their units. However the field grade education process looks very similar.

The educational objectives for the Command and General Staff College are to "provide intermediate level professional military education and leader development training"<sup>30</sup>. This is the first attempt in the OES to formally present education to the officer. The question becomes what kind of education does the CGSC experience provide?

Tactics instruction, simulation exercises and other training events are structured such that the one "right answer" will produce success. For example, during Prairie Warrior, the capstone division level simulation exercise, opposing force soldiers and leaders are routinely "reigned in" in order to facilitate the prescribed training objectives for the students. While this is not necessarily harmful it can become so when realism gives way to prescribed training.

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<sup>29</sup> Department of the Army Pamphlet 600-3, 4.

<sup>30</sup> Ibid., 5.

Another case in point is the emphasis placed on process over product. This is evident in the CCC as well as in CGSC. Students are encouraged to follow the military decision-making process even if events and the enemy demand another alternative or a hybrid of MDMP to solve the problem. The SCP is careful not to make potential battalion and brigade commanders “losers” by being defeated by the JANUS enemy. No instructor would think of putting his students into a situation without a set of clear tasks, conditions and standards. The emphasis is on expected, choreographed standards that produce standard results. The School of Advanced Military Studies (SAMS) may be the exception but it is not designed to address the Army-wide lack of critical reasoning education. Throughout the career of the officer, education is continually sacrificed for training even at the highest levels of the Army OES.

The Senior Service Colleges (SSC) such as the Army War College, the National War College and the Industrial College of the Armed Forces, according to DA-PAM 600-3 assume a larger focus and attempt to educate students in strategic planning and perspectives. At first glance this might seem to be an educational experience to teach critical reasoning and judgment. In reality the schools fair no better than company grade officer education. By design the SSCs are the first attempt at education in the OES. The SSCs represents his/her first institutional exposure to a “how to think” experience. By time in service this educational experience occurs not so much to educate as to confirm and solidify his or her past experiences as an officer. Instead of educating for critical thinking and judgment, the SSC merely introduces grand training or another training experience with a broader and higher focus. In essence it occurs too late to have an

impact on the officer. The institutional education experience from pre-commissioning to SSC does not come early enough in an officer's career in order to educate for judgment.

The syllabi of the pre-commissioning, company grade and field grade officer education system does not build upon critical thinking skills that are taught to officers in order to deal with a vague and uncertain situation in which all alternatives are bad. Such a situation would encourage the officer to take risk and step out on his educated judgment. The current OES does not deliberately place officers in such training conditions of uncertainty and develop the intuitive ability to take risk and make decisions amid uncertainty. Such training in risk and uncertainty would subsequently develop a tolerance for risk in subordinates. However, the OES is the product of a knowledge-based culture. This culture places a great emphasis on making the uncertain certain through systems and process. The ability to make the complex seem simple is cherished over the ability to operate in uncertainty and take rational risks. A caveat is necessary here. Clearly a system that develops, indoctrinates, educates and trains officers is a system in tension between the two poles of education versus training. It is not the intent to swing the pendulum toward any particular pole. That would be over simplistic and not much practical use. This issue becomes the right amount of training to education and where it is necessary in order to produce the best officer.

## **Training**

Training is developed from an educational base plate. Training for risk and uncertainty tolerance within US Army officer culture is best observed at the Combat Training Centers (CTCs). These microcosms of warfare allow an examination of decision-making in complex adaptive conditions. It is generally understood that units

conducting a rotation at the National Training Center (NTC) should be beyond the crawl and walk stage of training. With a real and thinking opposing force the training centers become laboratories in which to train adaptive behavior and study the collective experiences of unit level leadership culture. During the tough realistic scenarios, soldiers and leaders should be forced to make decisions amid uncertainty. Training for risk and uncertainty tolerance should be able to be observed during a rotation to the combat training centers.

A central question to the examination of risk and uncertainty tolerance at the training centers is, how do commanders and staffs make decisions when they are faced with uncertainty? The trends and lessons learned from the Combat Training Centers are obviously directed toward the tactical level of operations. However the results of merely training officers to perform processes can also be clearly observed. A review of the trends from both the National Training Center (NTC) and the Joint Training Center (JRTC) shows staffs grappling with a seemingly cumbersome military decision making process vainly attempting to produce a standardized product in an attempt to minimize uncertainty for the commander. A review of the trends from both NTC and JRTC tend to focus on prescriptive recommendations that support a systemic approach to war fighting (such as MDMP or Battle Command). These systems attempt to remove uncertainty and thus minimize risk. This creates the illusion in the minds of the leaders that certainty is the rule and uncertainty the enemy. One question about the validity of making observations of the so-called “dirt” CTCs is: does risk and uncertainty aversion at the tactical level translate to the operational level of leadership?

The Combat Training Centers serve as a series of formative events for leaders and soldiers. For the most part tomorrow's operational planners and leaders solidified their views on how to manage risk, and whether or not to embrace uncertainty on the ground at Fort Irwin, Fort Polk and Hofenfels. They experienced such concepts as the military decision-making process and battle command in action. These officers executed plans in an effort to defeat a thinking, breathing opposing force (OPFOR). From the beginning of the exercise the rotational unit seems to focus on gaining situational awareness; not in an effort to make better decisions, but in the hopes of affirming the plan to fight the enemy. This can be seen as the rotational unit attempts to "synchronize" the battlefield by attempting to control all its parts. Synchronization is a top down process that demands all the subordinates perform on task and to standard with no deviation. The fight becomes one of gaining information, not necessarily destroying the enemy. This is not the fault of the leaders. A culture that cherishes control and certainty is not satisfied until it attains complete situational awareness. Contrast this data based approach with the OPFOR (conceding the home court advantage) who gains only enough information to make a decision and even focuses on producing erroneous information for the rotational unit through the use of deception operations.

In effect this imbalance between an information hungry rotational unit and an enemy focused opposing force creates an asymmetry that forces the rotational unit into a never ending loop of seek information, analyze the information only to find out it lacks information. This is characteristic of a centralized military organization that attempts to control uncertainty rather than accept it as part of the battlefield. The common and most often heard complaint of OCs at the CTCs is that units fight the plan rather than fight the



enemy. This takes on an interesting dynamic if the product or result is not as important as the process.

The lessons junior leaders take away from a rotation from the training centers focuses on building systems that produce predictable results for the commander. The value of critical thinking and taking necessary risks while working through uncertainty is lost amid the after action reviews that attempt to teach the lessons of stay on task and in step with the commander. The CTCs serves as one vehicle in creating the shared experiences of officers in their development toward risk and uncertainty on the battlefield.

## **Experiences**

The collective shared experiences of the military risk tolerance culture are best observed through the Army Training and Leadership Development surveys and questionnaires. According to Snider and Watkins in *The Future of the Army Profession* Junior officers feel they are not given the leeway to experiment and fail. In essence there is zero tolerance for failure. Does this type of environment foster risk taking and acceptance of uncertainty? The answer is probably not. Again Watkins and Snyder “Trust problems in today’s Army are partly the effect of a hyper-competitive career environment in a smaller force with more limited promotion and command selection opportunities. This helps to create a zero-defects mentality and the need to appear, if not perfect, at least “mistake-less” to one’s superior officers.”<sup>31</sup> The 2001 Army Training and Leader Development Panel Report concludes that micromanagement is part of Army

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<sup>31</sup> Snider Don M. and Watkins Gayle L. *The Future of the Army Profession*, (Massachusetts: McGraw-Hill Custom Publishing, 2002), 52.

culture due to a perceived zero defects environment. Does this aspect of Army culture promote and mentor for risk taking and uncertainty acceptance and what does the contemporary operating environment suggest about these characteristics?

The November 22<sup>nd</sup> 2002 issue of the Washington Post ran an article about the changing role of US forces in Afghanistan<sup>32</sup>. The epiphany among US commanders and planners was that in order to bring stability to the theater they would have to move out from their fortified bases and patrol with US forces on the ground, truly a risky and uncertain option. The inability to accept the risk inherent in transitioning from combat to peace support operations is due in part to a relatively large amount of uncertainty. Even with the lessons learned from Kosovo in 1999 US forces risk returning to the myth of risk free, total situational awareness and hence no causality operations. Technological improvements since Kosovo have led many military thinkers and writers to caution against the false belief in total situational awareness.

Retired US Marine Corps General Anthony Zinni in a speech to the Institute for Strategic Studies at the National Defense University noted military culture must come to grips with its ethos. In essence military culture stood poised on the brink of choosing a technocratic culture in favor of a warrior culture.<sup>33</sup> A culture that embraces technological solutions in an effort to control the environment, thus removing risk, takes a significant step toward developing a technocratic culture. This is further reinforced when that same culture educates, trains and thus produces the experiences that affirm control and certainty are reasonable conditions of the battlefield. A culture that trains for

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<sup>32</sup> Graham Bradley, "Pentagon Plans a Redirection in Afghanistan", (*Washington Post*, November 20, 2002).

<sup>33</sup> Anthony Zinni, "A Military for the 21<sup>st</sup> Century: Lessons from the Recent Past". Institute for Strategic Studies at the National Defense University, July 2001.

predictability and “the one right answer” or “process over solution” further places Army leadership culture on the slippery slope of embracing the technological solution over education and training for critical thinking amid uncertainty and risk tolerance both up and down the chain of command. This technocratic approach to uncertainty aversion is seen in the military decision making process.

Colonel Christopher Paparone in his article in *Military Review* writes that military decision makers must enhance their intuition through education, and current and planned operations.<sup>34</sup> Additionally, he calls for an expansion of the military decision making process beyond simply the analytical and encompass a multidimensional approach. Paparone’s thinking represents a cultural shift from a machine based “stay on task” systems based analysis of the battlefield to one that recognized the complexity and uncertainty of the battlefield.

Battle command in a complex adaptative system means embracing risk and uncertainty. Even with advanced systems that attempt to remove the fog of war uncertainty will still exist. In such a complex system as the modern battlefield the character of officers and their ability to make risk decisions amid an adaptative environment becomes more paramount than any attempt to remove uncertainty. Battle command becomes more about guiding conditions and results and less about controlling the environment and those that operate within it.

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<sup>34</sup> Paparone Christopher, “US Decisionmaking: Past, Present and Future”, *Military Review* (July August 2001), [www.cgsc.army.mil/milrev/english/JulAug01/pap.asp](http://www.cgsc.army.mil/milrev/english/JulAug01/pap.asp)

## Chapter 4: Implications and Recommendations for Changing Army Risk Tolerance Culture

“An obsession with control leads to all kinds of behaviors...One is aversion to risk, which means a reluctance to consider truly creative ideas and truly quantum changes, both of whose effects are unpredictable and so beyond formal planning.”<sup>35</sup>

Henry Mintzberg

The question of whether or not operational commanders are willing to take risk must be grounded in accomplishment of the mission. To take risk for the sake of taking risk is clearly unsound and foolish. Risk is weighed against the importance of the mission to the campaign objectives versus the cost of achieving the mission and the probability of success. Factors such as uncertainty, casualties, failure, careerism, micro-management and a lack of imagination all affect how a commander and staff assess risk and the value of taking it. At some point planners and commanders must make assumptions about facts they do not know and in doing so they accept risk. The subordinate units assume this risk tolerance all the way down the chain of command. Conversely, subordinates identify risks and either attempts to manage them or push them up the chain of command for mitigation or acceptance (tolerance). At the operational level risk assessment must involve how risks are assumed and mitigated up and down the chain of command.

A model for the view of the Army culture and risk tolerance is that Army culture is based on the ability to control risk and uncertainty. Current Army culture attempts to “punch through” uncertainty in order to get at the operational problem. This type of

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<sup>35</sup> Mintzberg Henry, *The Rise and Fall of Strategic Planning*. (New York: Free Press, 1994), 203.

layered approach views technology as enhancing Army culture. Technology is somehow able to separate uncertainty as if it was not part of the problem. Currently Army culture is defined by how much risk it is willing to take, meaning that solutions to problems must come within a narrow span of acceptable options to solve the problem. This can be an extremely cumbersome process especially where time is at a premium and the enemy has a vote in the outcome.

### Current View of Army Risk Culture and Decision Making

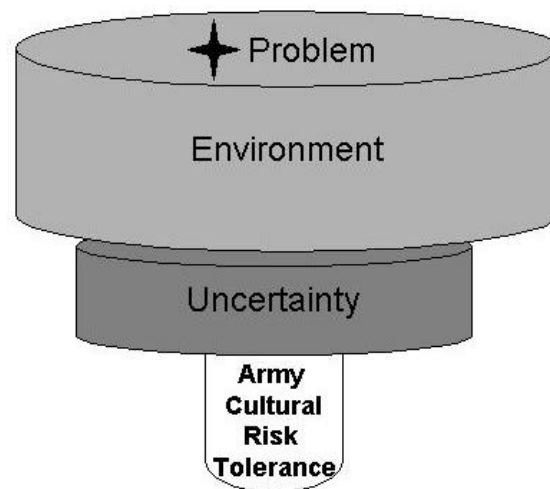


Figure 6

#### Operation Enduring Freedom in Afghanistan as a Small Scale Contingency

Operation represents something different. The environment of the SSC is one of great uncertainty and evolving risk awareness. The concept of a risk tolerance ring (discussed earlier) for Operation Enduring Freedom in Afghanistan is actually not a ring but another

shape that has disproportionate protrusions into the uncertain. This shape represents instances where great risks are taken while others are not. SSCs possess areas of low risk tolerance when the problem must be studied under the artificial light of certainty. These differences arise not only from the reason for the operation (the terrorists attacks of 9/11) but also because of the nature of the geography and context of the campaign.

These are important lessons for the US Army as it transforms. Technology and systems will not replace the man in the loop. The ability to work through uncertainty and competently assess and deal with risk cannot be instantly produced. These qualities are as much in demand in subordinates as well as superiors. The ability to train, trust and tolerate is the key to effectively operating in uncertainty. The Army must not forget the essential characteristic of judgment among its leaders and culture as it transforms its weapons and equipment. The Army officer culture must take care and not delude itself into thinking the uncontrollable can be controlled or the uncertain made certain.

In a proposed nonlinear view of risk and uncertainty, Army culture defines the amount of risk that is necessary in order to achieve the desired effect. The problem and uncertainty are seen as occupying the same intellectual space, and as such no one really has the “perfect” view of the problem. The realization that multiple problems and hence multiple solutions exist means that tactical solutions or risks must often be tolerated by operational and strategic level headquarters.

## Nonlinear View of Army Risk Culture Decision Making that Embraces Uncertainty

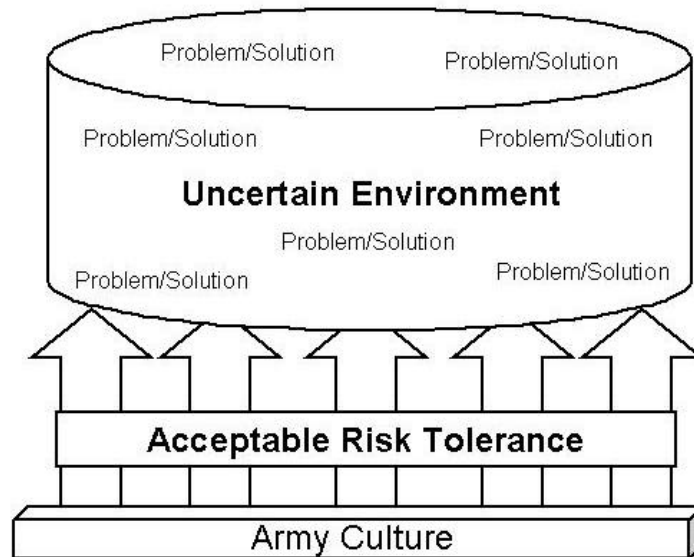


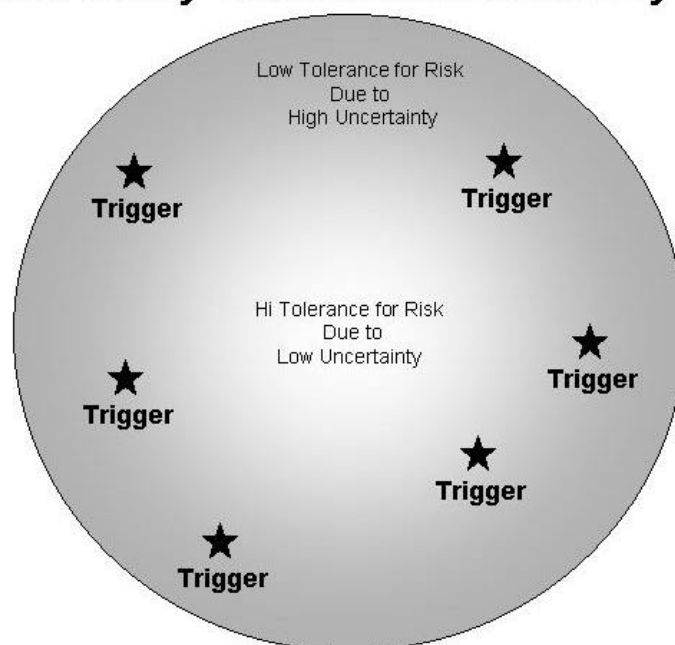
Figure 7

Because of the general lack of ability to tolerate uncertainty and risk, Army risk tolerance culture seeks control over the uncertain in an effort to reduce uncertainty and therefore risk. Attempting to remove uncertainty and risk from the battlefield is a serious mistake because it attempts to deny the very nature of conflict and combat. In the risky realm of conflict attempting to exercise over-centralized control slows down the decision making process for soldiers and leaders on the ground that must make instantaneous decisions based on the commander's intent. Unfortunately Army risk tolerance culture tends to be overly conservative and risk averse and in most cases unable to cope with uncertainty. Risk taking is not encouraged, rather safe and sure decision makers are rewarded for their actions over risk takers who fail.

The contemporary operating environment demands leaders and soldiers that can analyze a situation and make time sensitive decisions that may have strategic implications as well as human or material consequences. The Army needs to evolve its current leader training programs to educate and train the next generation of soldiers and leaders to take initiative under vague and uncertain conditions not simply pass the uncertainty up the chain of command (or allow it to be pulled up the chain of command). This evolution in Army culture must be one that encourages risk taking and maximum initiative by subordinates that are both comfortable operating in the realm of uncertainty and indeed trusted to do so.



## Evolved Army Risk and Uncertainty Culture



**Training, Education and Experience are the Keys to Making Risk  
Decisions Amid Uncertainty**

Figure 8

### Where do we go from here?

If culture is the amalgamation of shared training education and experiences then in order to change US Army culture these three key areas must be addressed. It must be kept in mind that changing army culture to embrace uncertainty and risk is not as simple as changing the CGSC curriculum or adding a risk tolerance block to the officer evaluation report. True change is embodied in leaders and individuals and their mindsets.

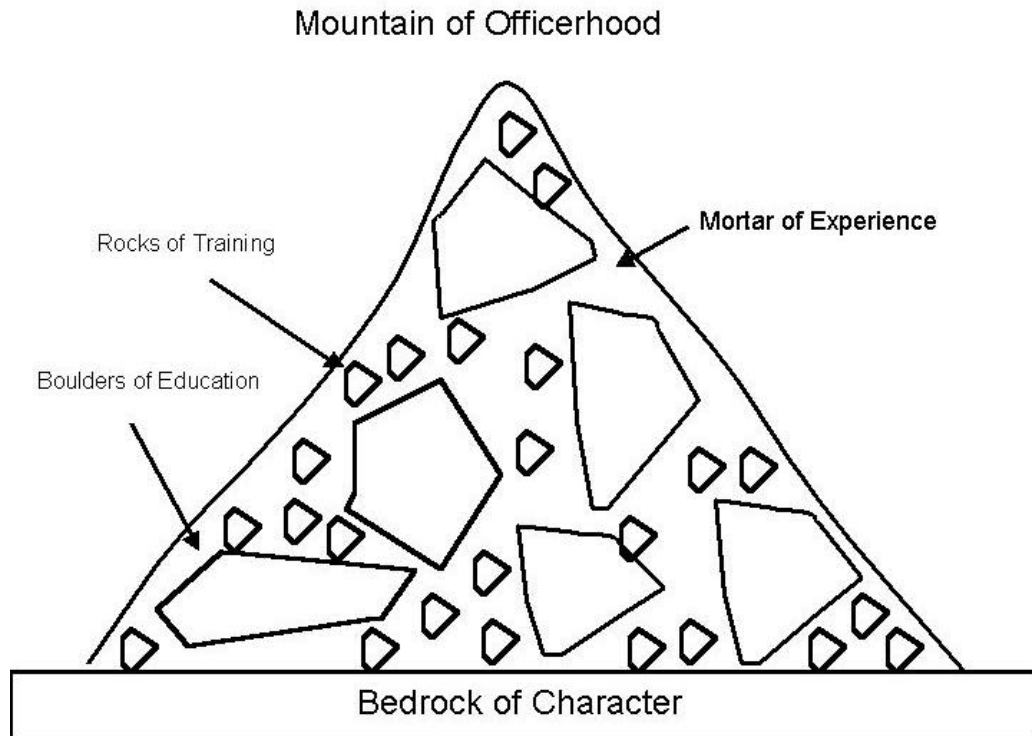


Figure 9

Acceptance of uncertainty and risk must begin with an officer's initial indoctrination to Army culture. Change comes through diversity, not homogeneity. In order to change, the Army must embrace individuals that do not fit neatly within a narrowly defined band of acceptance and then allow them multiple paths to senior command and staff positions. Cadets may be recruited for their diversity and creativity as much as for their potential soldier skills. The process of creating an officer may grow to producing leaders with the eye to capitalizing on their differences. The key is to create a self disciplined officer that can be part of a team yet still retain the creative, critical reasoning skills to act on his own. Assuming tactical competence this is not as far a stretch as one might initially think. The Special Forces arena accepts more variance in thinking and methods among

its officers because it is concerned with the product over the process. There is a band of excellence that is between a micromanaging and over controlling risk adverse culture and one composed of freethinking and individually acting members. In terms of officer education product must be the focus not the process.

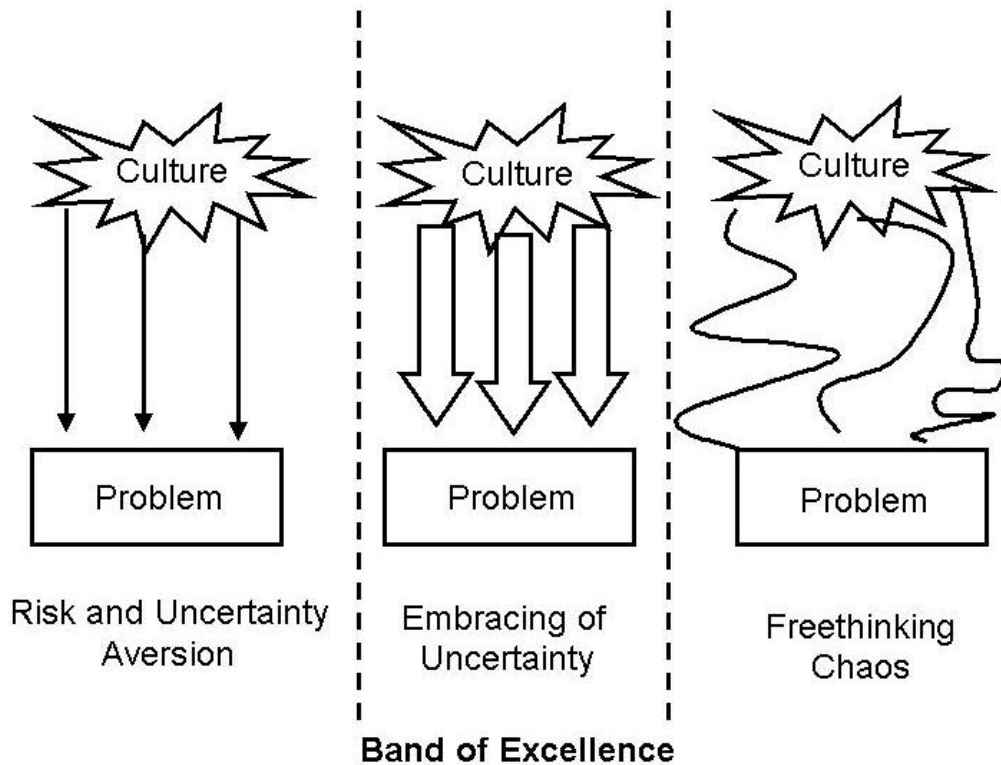


Figure 10

A revised officer education system should concentrate on producing critical thinkers that are tactically and technically competent rather than officers that fit into an existing army culture. This may prove to be a relatively scary endeavor because it implies being willing to loose or grow the current army culture into something that doesn't currently exist. A new army culture may mean tolerance of leaders that fail or are outspoken and truly candid. Candor and loyalty may be thought of as two sides of the same coin. This

new culture must not be afraid of itself or the officers it produces. A truly loyal officer will be expected to exercise candor without it being mistaken for disloyalty. In fact in an uncertainty tolerant culture this candor is a key ingredient in maintaining an adaptative and trusting relationship between superior and subordinate.

True change must come from a shift in the institutional mindset of the Army. The doctrine, training, leadership, organization, material, soldiers (DTLOMPF) format offers a framework to inject changes to the Army culture.

In most cases the processes may not need to be modified so much as the mindset. Truly adaptative Army doctrine may look much like it does today except that a leader may be trained how to depart from it when necessary. This is not a new concept. Doctrine would come to be viewed as a baseline for how the army functions. It would provide a framework not a prescription for solving problems. This adjustment to current thinking would manifest itself in training.

Collective training must move away from narrowly defined objectives and allow subordinates to train on skills and attributes such as initiative, independent action, intuition and critical reasoning. This means building into training the time to fail because officers both junior and senior will most likely fail at different points. Over time leaders will come to view failure in training due to initiative and risk tolerance as a training event in itself. After an initial period of time training events will change and “planned reset time” will not need to be included. Training events would become just that “training”. These events would embrace and train leaders and their units under conditions that closely represent the characteristics of an uncertain environment that involves risk taking and uncertainty tolerance.

This monograph does not advocate training leaders and soldiers to fail, nor does it advocate tolerance of incompetent officers. Ideally the future army leadership would be focused on mentorship and teaching younger generations how to think and how to act in uncertainty and make risk decisions amid this uncertainty. At the heart, the evolving Army would be built around competence, judgment and trust. This is time intensive and would shift the army focus from systems and technology to people and education. In the process of learning critical reasoning and judgment people will fail. The fundamental change in culture is in an acceptance of this failure in striving to develop leaders that are comfortable exercising judgment amid uncertainty.

By changing the pillars of accession, education, training and experience the equation of army culture will be changed. These changes represent an attempt to inject and maintain diversity. Training would focus on developing judgment and developing intuition while operating in uncertainty and risk. These elements of officer culture would receive as much attention as tactical and technical competence. The OES should serve as a process of broadening and truly educating officers for judgment amid uncertainty, not just training to task. Modifying experiences would be achieved through adjustments in the promotion system that encouraged diverse career paths to the senior levels of the Army. Officers would be allowed to remain in positions long enough to go beyond simply just learning the basics of command or staff work. These changes in the pillars of Army officer culture would eventually produce change in the types of leaders and ultimately, however incrementally, a more risk tolerance culture.

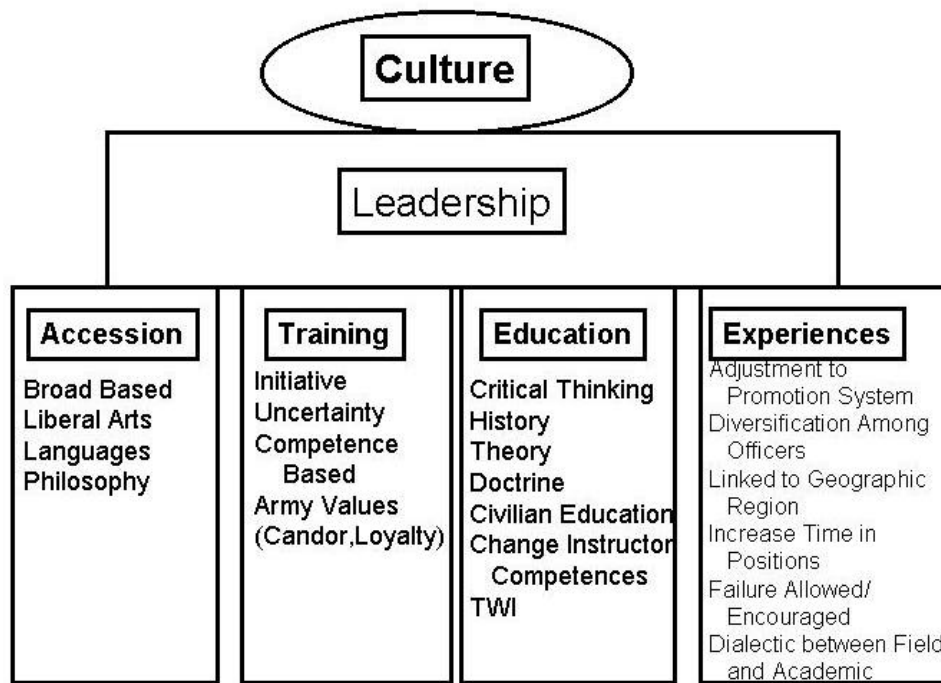


Figure 11

The remaining elements of DTLOMPF, organization, material, soldiers, personnel and facilities do not necessarily need to be actively changed so much as they will reflect the cultural and mindset changes of a leadership culture that is comfortable with uncertainty and risk. In the end the Army may find itself shifting the focus from seeking solutions via the development of new technologies that attempt to eliminate uncertainty to investing in training and education to better prepare soldiers and officers to operate within it. When the intellectual mindset changes supported by seemingly small organization changes Army leadership culture will begin to grow.

## Conclusion

You will come to a place where the streets are not marked. Some windows are lighted but mostly they're dark. A place you could sprain both your elbow and chin! Do you dare to stay out? Do you dare to go in? How much can you lose? How much can you win? An IF you go in, should you turn left or right...or right-and-three-quarters? Or, maybe, not quite? Or go around back and sneak in from behind? Simple it's not, I'm afraid you will find, for a mind-maker-upper to make up his mind.

Dr. Seuss

Risk tolerance in Army officer culture may be measured by the amount of centralization or conversely decentralization the culture allows. An apparent risk that is taken only after uncertainty is "managed out" of the equation by the higher levels of command is not really a risk. This is the act of over-centralization. The current transformation of the US Army should represent an evolution in not only technology but more importantly mindset. In the future force the commander may have the ability to truly see his subordinates and see what they are seeing as well. Coupled with the deluge of information about the enemy, the commander may be enticed into believing he has situational dominance over not only the enemy, but also his subordinates. The pull will then be to maneuver subordinates like inanimate chess pieces on the game board of the battlefield. At first this may appear to be a viable course of action because it works (to some degree). However this over-centralization of decisions and risk taking will come at the cost of initiative and empowerment. If the trends in Army officer risk tolerance and uncertainty culture are continued the next generation of officers may be brought up in a culture where obedience is equated to loyalty and fighting the plan is more important than fighting the enemy. The truth is that technology may in fact enable the ability of a commander to gain some situational awareness at specific points and times. However it is the ability of subordinates to operate in uncertainty and make sound risk decisions that

yields the most leverage on the battlefield. The inherent uncertainty and confusion in battle cannot be “controlled” or “managed” out of warfare or conflict. In fact uncertainty and risk are the essence of warfighting.

Army culture must be able to adapt to the environment it will face in the contemporary geo-political landscape. Risk and uncertainty will remain well into the foreseeable future. The three case studies presented in this monograph show three different approaches in dealing with risk and uncertainty. Kosovo as a Peace Support Operation represents a tightly controlled environment in which the solution to mitigate risk was an over-centralization of decisions. This represented an attempt to clarify the uncertain prior to taking action. Operation Enduring Freedom as a contingency operation represents a transitional state in which risk and uncertainty are begrudgingly accepted until control can be established and the situation moved into a more controllable form. The 1973 Arab-Israeli War represents a third type of risk making model: the Major Combat Operation (MCO). Under these conditions much is at stake, decisions must be made quickly and there is no time for over-control. This environment lends itself to decentralization command and control, moreover it is crucial and over-centralization fatal. In the MCO major risks are accepted at the tactical levels up through the operational levels and uncertainty exists throughout the chain of command. The MCO fought for national survival represents a greater tolerance of risk thrust upon the commander and his subordinates regardless of the commander’s wishes for control and clarity.

Risk and uncertainty tolerance are very personal decisions for each commander at every level of command from lieutenant to general. The compilation of education,



training and experiences form the basis of US Army risk and uncertainty tolerance. The acceptance of risk and uncertainty must begin upon entry into the service and be actively fostered, educated and trained in order to change the current over-controlling culture into one that is more people based. Educating for judgment is the leverage point in developing leaders that are prepared to make risk decisions amid and uncertain environment. Complexity and risk are non-negotiable components of warfare technology and systems may help to reduce fog, friction and risk but they will never eliminate it. In fact a top down synchronized system such as the US Army may be in danger of creating will only be as adaptative and responsive as the headquarters that is receiving all the information. This serves to create a mechanistic approach to warfare at the expense of its non-systemic components. The officers of today, just as those of the past and well into the future, will be called upon to make split second decisions regarding risk and uncertainty. Sometimes these actions will have second and third order effects that will ripple up to the strategic and even political levels. The US Army has two choices in regards to risk and uncertainty; adapt or attempt to control. In effect it may be as stark as sticking a finger in the dyke of confusion or learning to swim.

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