

# Defense Secretary Robert Gates' War for 60-Minute Evacuation Response

by

Colonel Cory N. Costello  
United States Army



United States Army War College  
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by

Colonel Cory N. Costello  
United States Army

Colonel David M. Fee  
Academic Operations  
Project Adviser

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U.S. Army War College  
CARLISLE BARRACKS, PENNSYLVANIA 17013



## Abstract

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Strategic leaders and planners can take advantage of the U.S. military capability—its means—to establish an expeditionary medical system with sixty-minute evacuation response times to pick up wounded at the point of injury. This strategic research project (SRP) argues that our federal government must mandate the sixty-minute standard as national security policy. Furthermore, to export this professionalism, our senior leaders must encourage our allies and partners to adopt our same standard. The policy must be a requirement for this nation's participation in coalitions or alliances. The range of U.S. military gains attending Secretary Gates' initiative are a useful case study to highlight the challenges and potential strategic benefits that can result from this achievement.



## **Defense Secretary Robert Gates' War for 60-Minute Evacuation Response**

The Roman poet Horace claimed it is sweet and honorable to die for one's country. "Dolce et decorum est pro patria mori."<sup>1</sup> During the War on Terrorism, prompt and effective medical attention to our wounded military personnel have made it less and less likely for them to die for our country. Only the gravest "un-survivable" wounds now require the ultimate sacrifice. Only when the tactical situation is so intense that evacuation of the wounded cannot be accomplished are our medical specialists unable to save survivable wounded Soldiers. We are indeed witnessing a paradigm shift in military operations: All potentially survivable wounded personnel can survive.<sup>2</sup> Researchers have reported that in the pre-hospital setting from 2001 to 2010, the 75<sup>th</sup> Ranger Regiment achieved the goal of saving the lives of 100% of Soldiers with survivable wounds.<sup>3</sup> The rest of the military can do the same. This achievement requires more than technological advances in medicine. It represents a culture change that has begun to penetrate our military services. This culture includes awareness of urgent rescue, mastery of soldier medical skills, disciplined use of protective gear, and committed leadership at the highest levels. In this culture, there had better be justifiable explanations for tardy arrival of ambulances. One can attribute a single key strategic leader decision that brought us to the precipice of this achievement: Secretary Gates' January 2009 decision to make one hour the standard for evacuation time. The cascade of events to support his initiative affirmed the strategic paradigm of balanced ends, ways, and means.<sup>4</sup>

Strategic leaders and planners can take advantage of the U.S. military capability—its means—to establish an expeditionary medical system with sixty-minute evacuation response times to pick up wounded at the point of injury.<sup>5</sup> This strategic

research project (SRP) argues that our federal government must mandate the sixty-minute standard as national security policy. Furthermore, to export this professionalism, our senior leaders must encourage our allies and partners to adopt our same standard. The policy must be a requirement for this nation's participation in coalitions or alliances. The range of U.S. military gains attending Secretary Gates' initiative are a useful case study to highlight the challenges and potential strategic benefits that can result from this achievement.

This SRP offers a case study of Secretary of Defense Robert Gates' sixty-minute evacuation directive. Its analysis proceeds in accord with the "Strategic Formulation Model"(SFM) advocated by the U.S. Army War College.<sup>6</sup> This analysis progresses in a sequence of the Model's six steps.<sup>7</sup> First, it explores the national purpose of the policy. Next, it explains how the policy serves our national interests.<sup>8</sup> Following that, it shows how the policy supports the nation's grand strategy and fulfills its strategic vision. It then explains how the 60-minute policy aligns with current broader policies.<sup>9</sup> In the fifth step, it balances the tensions among the ends, ways, and means of the sixty-minute policy.<sup>10</sup> Finally, it assesses the outcomes of the implementation of the policy, noting any need to modify it to assure its future success.<sup>11</sup>

The 60-minute policy is a Department of Defense (DoD) policy with strategic impacts beyond Secretary Gates' initial directive. It can also be considered national policy, because the "National Security Staff in the White House [conducted] micromanagement of military matters" during Gates' service.<sup>12</sup> This case study describes this strategic leader's personal perspective, the seldom-noted isolated issues

that he perceived, the history of 60-minute response times, the SFM analysis of its implementation, the pushback, and the outcomes.

This SRP provides an original study of Gates' decision. A search of current published literature reveals no analysis of Secretary Gates' 60-minute directive from a national strategic perspective. Several clinical and military medical articles discuss its clinical results, tactical aspects, and certain challenges in gaining strategic support to maintain or develop capabilities to execute the directive.<sup>13</sup> However, there has been no study of the 60-minute policy formulation as of its strategic impacts.

Before attempting to solve a problem, strategic leaders often pause to do some critical thinking. One aspect of critical thinking that provides a deeper understanding for the evacuation of wounded is perspective. The past experiences of strategic leaders contribute to the perspectives they bring to situations. Frequently, a strategic leader must consider other points of view in order to address a given problem critically. "Empathy is not a characteristic of soft leaders, rather it is a characteristic of smart, thoughtful, reflective leaders."<sup>14</sup> Secretary Gates came from the analytical background of an intelligence officer who rose to the highest office in the Central Intelligence Agency. It is fascinating to consider what experiences formed his perspective about the rescue of wounded Soldiers. Such a perspective enables the leader to realize that our medical interventions can at times save the most seriously wounded.

Gates experienced such a formative event, and it blazed into his leadership style and provided a useful perspective as well. In 1995, medical student Lieutenant Cory Costello observed a similar event. An NYPD detective had been shot. In response, NYPD police cars in a coordinated fashion blocked intersections clearing the entire

avenue for the ambulance to proceed rapidly to the emergency room. No one knew what would become of the detective, but the NYPD knew they were engaged in an intense and protracted struggle to keep their city safe. So they were constantly at risk in the line of duty. Every police officer did what he or she could to afford the detective the best chance of survival. A quick unimpeded ambulance ride to the emergency room was their gift to the detective that day. This response was part of NYPD culture. Senior leaders' experiences inform their decisions; in the case of casualties, they can motivate the leader.

At some point early in his career, Gates observed a situation and gained a perspective on security personnel performing the mission of rescuing those of their own who had been wounded. Gates hints in his memoir about the two ends of a spectrum of leaders' responses to casualties. Gates contrasted himself with General George Marshall, who in World War II wrote to his wife that "I cannot afford the luxury of sentiment, mine must be cold logic. Sentiment is for others."<sup>15</sup> Perhaps cold logic can blind a leader to potential opportunities. Feeling the burden of casualties motivates the leader to reflect upon the event, to explore the circumstances of the noble sacrifice. Asking the question about whether the ultimate sacrifice was required can impel leaders to monitor the efforts to save the wounded, to consider ways to avert their ultimate sacrifice and enhance their chances to survive. The leader must feel the finality of the sacrifice to begin to understand the obligation to avoid it. Who was the first wounded detective in Secretary Gates' career? Just as important, when did Gates take the time to exercise the moral courage to ask why the detective survived? Or if the detective died, to ask if

the detective could have been saved? Gates addresses these perplexing questions. In contrast to General Marshall, "Icy detachment was never an option for me."<sup>16</sup>

In 2006 after deployments to Iraq and Afghanistan, as the Brigade's chief medical officer I, Major Cory Costello, noted a difference in evacuation times—as did the leadership of the U.S Army Institute of Surgical Research (USAISR). On my return, I joined the USAISR to assist in training their researchers in the techniques and procedure to collect evacuation times of our wounded Soldiers in current operations. We were able to add valuable information to an already growing data bank of Joint Trauma System medical records. This data contributed to analysis of patients' time of evacuation as it related to other information provided by medical records, such as injury severity scores.<sup>17</sup> This research project is now known as the "Tactical Evacuation Project."<sup>18</sup> For two years, the researchers collected time data on previous and current evacuations times. In 2008 Secretary Gates had access to the initial data collected. The researchers continue to collect past and present data to this day.

So what experiences formed Secretary Gates' perspective and when? He provides insight in his memoir. He had a deep and increasing emotional connection to the troops he led. He recalls that "the condolence letters, and attending the funerals at Arlington were all taking a growing emotional toll on me."<sup>19</sup> He was aware of this growing paternalistic burden; in fact, he admits that "this loss of objectivity" was the reason he decided he needed to resign: "I realized I was beginning to regard protecting them—avoiding their sacrifice—as my highest priority."<sup>20</sup> This is where I will disagree with the honorable Gates: he was the right leader; we needed him to stay longer and protect more. Perhaps during Secretary Gates' service as an intelligence officer or

shortly after becoming Secretary of Defense he had seen cases where the techniques of Tactical Combat Casualty Care (TCCC) and rapid evacuation saved the lives of military personnel. If he did not know of TCCC earlier, in May 2009 during a visit with surgeons in Afghanistan, he assuredly learned about its success after it had been combined with his 60-minute directive. The surgeons informed him they “could save the life of a Soldier or Marine who had lost both legs; now they did so routinely.”<sup>21</sup>

Knowledge of TCCC’s capability enables a leader to understand that a tourniquet or two will save a blast amputated Soldier from death. However, certain injuries require rapid surgical facility intervention. Such as internal bleeding that the medic cannot staunch nor resuscitate requires rapid evacuation before the wounded warrior bleeds too much. Gates took the time to acknowledge the obvious connection: for certain wounds, time makes the difference between survival and the ultimate sacrifice.

A precondition for the success of Secretary Gates’ directive was the development of Tactical Combat Casualty Care (TCCC). It is a collection of techniques formulated by the Special Operations community. The individual credited with TCCC’s development was a former Navy Seal, Doctor Frank Butler. In 1996 he and a group of colleagues published the original TCCC article.<sup>22</sup> The group continues to publish updates. The techniques have been adopted in their entirety throughout the military medical community. One of the TCCC co-authors, Doctor Hagmann, developed a hands-on course, called the Bushmaster Course, for military medical students at the Uniformed Services University of Health Sciences. As the War on Terrorism began, I brought Doctor Hagmann and his instructors to the Brigade to train the medics and physician assistants in the hands-on course. TCCC techniques enable medics to realize they can

save their buddies' lives when previously they did not believe they could. It is most exhilarating to see the frozen astonished faces and dropped jaws of the medics and their infantry commanders when they begin to understand this paradigm shift. We can now save someone who appears gravely wounded with both legs missing. These techniques work. Trained medics now enter combat with the confidence and competence to attend to the worst wounds. This paradigm shift has occurred during the careers of our current generation of medical personnel. Part of the training makes very clear that there simply are some wounds inside the chest, abdomen, pelvis, neck and head that simply cannot be stopped from bleeding with apparatus in first-aid kits. In such circumstances, our medics learn that only the hot lights and cold steel of an operating room can stop such bleeding. They must evacuate the internally bleeding personnel quickly. So medics use refined techniques to render care under fire to treat all survivable wounds—but the ones they could not confidently treat were those with serious internal bleeding. Gates explored the problem and expanded his own personal knowledge by asking the right questions: “As I addressed the matter, I learned.”<sup>23</sup> His interest increased as he learned about “added delay when every minute counted.”<sup>24</sup> He began to appreciate the life-and-death implications of urgency. In his memoirs Gates did not specifically express an understanding of quickly getting to surgical interventions to stop internal bleeding. But he did understand the importance of medical assistance to troops' morale and expectations.<sup>25</sup> After their critical thinking and collecting relevant data, strategic leaders rely on an analytic framework to solve a problem.

The operative framework for this SRP is the Army War College Strategy Formulation Model (SFM). In its first step, it considers the national purpose of Gates'

60-minute policy in the context of the nation's values.<sup>26</sup> Consider the President's emphasis on the importance of our values in the National Security Strategy: "Our values are our source of strength and security, and our ability to promote our values abroad is directly tied to our willingness to abide by them at home."<sup>27</sup> In this declaration the President explains how we must practice our values in taking care of each other in order to be credible when we encourage other nations to adopt our values. Consider how these values relate to the rescue of our nation's and our allies' wounded from the battlefield. President Obama directly addresses our nation's commitment to the military: "Above all, we will take care of our people."<sup>28</sup> He also cites the nation's humanitarian values: "We will continue to speak out clearly for human rights and human dignity."<sup>29</sup> A deeper understanding of the President's commitment to our wounded troops is revealed in the friendship he has developed with Sergeant First Class Cory Remsburg.<sup>30</sup> President Obama has six times visited his friend Cory Remsburg. The most recent visit was to Remsburg's home in Phoenix, Arizona. The President gave the Sergeant White House brewed beer and joined the family in the backyard for a picnic. The President then stated our country's obligations to our wounded warriors. As a Nation we must be "focused in making sure that every single one of our men and women in uniform, that they're getting what they've earned and what they deserve."<sup>31</sup> Here the President demonstrates our value of human life and the right to life. Similarly, Gates declared "my priorities were clear: to continue taking care of the troops."<sup>32</sup> Gates was aligned with our President's commitment to the nation's values. Wounded Soldiers have the right to receive our best efforts, a right to a better chance of survival. Every Soldier prepares in

his or her own way for the prospect of giving their lives in the line of duty. But they also expect every effort will be made to save them when they fall wounded.

Identifying the *specific* national security interest in the 60-minute policy requires some inferences and interpretation. The title of the policy describes the requirement as a way to achieve the strategic goal of keeping a wounded warrior alive. So the way to this strategic end is clearly identified. Additionally, the 60-minute policy was directed by Secretary Gates, so it became DoD policy. And this policy was rooted in national values and interests; they also aligned with the values and interests of other governmental agencies and our allies. The policy set the standard for U.S. forces deployed in combat in Iraq and Afghanistan. Subsequently, allied forces deployed with the U.S. also came to benefit from the same standard. The entire Joint Interagency Intergovernmental Multinational (JIIM) environment likewise benefited. So the specific national security interest in the 60-minute policy expanded to cover the protection of the nation's resources, our means, our precious national security personnel. At the same time, it served to build cohesion with our allies and partners. As the President observed, "our ability to promote our values abroad is directly tied to our willingness to abide by them." In this case the specific interest is the preservation of wounded Soldiers' lives. Secretary Gates said it was about "morale and expectations." But, more broadly, the interest is in the preservation of life for our service members, agencies, allies, and partners.

A National Security *interest* can be assigned to one of three levels to indicate the "intensity of the interest": *vital, important, or peripheral*.<sup>33</sup> To make this judgment of intensity, one must take into account the history of previous war casualties and their

impact on our nation's welfare. In this case it is reasonable to assert that the goal of preserving our Soldiers' lives is a vital national interest. However, a more scrupulous consideration would be to determine at what number of casualties does the interest become vital, and what factors contribute to this assessment. At the height of the Iraq conflict, November 2004, a research team set out to understand the significance of the casualty numbers and related factors.

Christopher Gelpi and colleagues published an article that reviewed multiple studies about the U.S. popular support for military operations since Vietnam. They concluded that multiple factors contribute to the public's support.<sup>34</sup> They found that the public's tolerance for casualties varied in accord with the kind of missions our military was engaged in. These study results provide insight on achievement of the ends in balancing ends, ways, and means of specific missions. The public perceives humanitarian missions as the nation's offer of help to improve the human condition for a suffering population. It has little tolerance for deaths of service members in such operations. In contrast, a mission "using force to coerce an adversary engaged in aggressive action against the United States or its allies" enjoys a much greater public toleration of casualties.<sup>35</sup> Furthermore, missions intended to cause "internal political change" can expect low toleration for casualties, a "fragile" support.<sup>36</sup> In "Success Matters: Casualty Sensitivity and the War in Iraq," researchers specifically analyzed public opinion during Operation Iraqi Freedom (OIF) by measuring survey data.<sup>37</sup> Respondents who "expected success" and were less concerned about the "rightness or wrongness of war" would tolerate an estimated 1,500 killed in action.<sup>38</sup> For respondents who anticipated "not likely success" and regarded OIF as a "wrong war," only 20%

would tolerate any casualties.<sup>39</sup> Comparatively, those indicating “very likely success” and “right war” had a 90% probability of tolerating casualties.<sup>40</sup> Such findings can provide predictability to strategic decision-makers about how the public is sensitive to both the casualty rate and the justification for military engagement. For most conflicts, the number of 1,500 casualties is a high threshold to consider of public tolerance for any military conflict. However, this high threshold of tolerance is attained only when the public is convinced the conflict is “very likely to succeed” and is a “right war.”<sup>41</sup> These interpretations and correlations have become more complicated since a 2006 surge strategy succeeded in Iraq, but our withdrawal afterwards set conditions for a new threat to emerge. Thus the public looks back in critical retrospect, believing that their support was likely misplaced. So it will be very difficult to convince the public that the likelihood of "success" for a follow-on mission will be very high when they were mistaken last time. All of this survey evidence supports a policy that reduces casualties in follow-on missions unlikely to be considered by the public as the "right war."<sup>42</sup> Under such conditions the much greater-than-expected casualty numbers threaten the strategic ends. Again, Gates focused on the seldom noted risk: “If I were a soldier who had just been shot or blown up, I would want to see that medevac helicopter as soon as possible.”<sup>43</sup> The people pondering domestic support for our Soldiers would expect the same.

A unique situation developed early in the War on Terrorism; Soldiers deployed multiple times to both Iraq and Afghanistan observed it. The two operations took place simultaneously, but one had an evacuation time that averaged less than an hour and the other did not. One can imagine the tensions between the supported and supporting

military leadership in Afghanistan when a wounded Soldier died before getting to a surgical team, especially when the wounded had to wait longer than an hour to be evacuated. One cannot be certain in any particular case if a quicker response would have made a difference. However, it would not be unreasonable to claim that the wounded Soldier would have had a better chance of survival. Secretary Gates noted this difference and began to ask questions. In his memoir, he reports that “I had heard of a considerable disparity in the time required for medical evacuation.”<sup>44</sup>

President Obama continues in his 2015 National Security Strategy (NSS) to offer further insight into his support for the advances we made during the War on Terrorism. Then Secretary Gates aligns brilliantly with the NSS as he shares his broad strategic vision to improve the trauma system. He takes justifiable pride in the achievement of historically high survival rates for our wounded. The President’s Grand Strategy reflects his strategic vision, and Secretary Gates’ 60-minute policy aligns with this vision. Their actions constitute the second and third steps of the SFM.<sup>45</sup> The evacuation system represents the lynchpin for bringing wounded from their point of injury on the battlefield to the medical and technological interventions provided by a surgical team in an operating room. “We will safeguard our science and technology base to keep our edge in the capabilities needed to prevail against an adversary.”<sup>46</sup> So President Obama does not stop at demanding that we maintain our current capability; he encourages us to further improve for the future. “Scientific discovery and technological innovation empower American leadership with a competitive edge that secures our military advantage, propels our economy, and improves the human condition.”<sup>47</sup> Implications of

trauma system improvements and the 60-minute evacuation time requirement from the Defense Department's leader represent an innovation that will be maintained.

But consider where the 60-minutes policy came from. Secretary Gates did not arbitrarily choose sixty-minutes. A brief historical perspective gives clarity to the origin of the policy. The man considered the father of U.S. trauma systems coined the term "Golden Hour" over four decades ago. Dr. R. Adams Crowley noted in an interview that "There is a golden hour between life and death. If you are critically injured you have less than 60 minutes to survive. You might not die right then; it may be three days or two weeks later – but something has happened in your body that is irreparable."<sup>48</sup> An irreparable injury requires the intervention of a trauma team to afford a patient the best chance of survival. Dr. Crowley further advocated for the use of military helicopters to rush civilian trauma patients to trauma centers. Accordingly, in 1969 the first medevac rescue was performed in Baltimore, Maryland.<sup>49</sup> Fourteen years later in 1983 Dr. Donald D. Trunkey published data further supporting the "Golden Hour" trauma systems.<sup>50</sup> So sixty minutes became a standard in 1969 as a planning factor for trauma care; and the rotary wing evacuation emerged as the strategic instrument or means to achieve that goal. The Iraq area of operations had sufficient aviation resources to support a one-hour response time. So the "Golden Hour" standard had influenced Iraq operations. Mary Rone, a medevac pilot in Iraq in 2007 expressed her motivation to get her aircraft to the wounded fast: "If a Soldier survives the attack after the first couple of minutes, as long as they're transported to a facility within that hour, their chances of survival are over 95 percent."<sup>51</sup> However, the operations in Iraq and Afghanistan originated differently. The Iraq operation employed a larger force structure that included

robust aviation assets. But when Gates reviewed Afghanistan operations in 2008, he encountered a NATO mission which he would later discover did not have enough aviation or medical resources to meet the 60-minute standard.<sup>52</sup> This standard did not exist in Afghanistan prior to 2009 because, as Gates puts it, the Joint Staff “did not see the need to take action.”<sup>53</sup> Forty years after Doctor Crowley’s declaration about 60-minute standard, Secretary Gates directed it as our military’s standard.

Before directing action, astute strategic leaders pause to frame and understand the problem. Strategic leaders can learn a great deal about war from the Napoleonic era theorist Carl Von Clausewitz about "framing the strategic or operational problem to be addressed."<sup>54</sup> Clausewitz provides insight into strategic planning challenges by explaining the value of thinking and reflecting. Clausewitz rightly claimed that "in a tactical situation one is able to see at least half the problem with the naked eye, whereas in strategy everything has to be guessed at and presumed."<sup>55</sup> The initial fact that Secretary Gates could see with his naked eye was the evacuation times. The Iraq standard was one hour and Afghanistan’s was two hours. Surely he was dismayed at this enormous difference. How could a double standard be accepted in the same military conducting operations in two different places at the same time? Had this critical issue escaped the attention of DoD’s Secretary and Staff?

Gates began learning more about the problem. "I learned that the non-U.S. NATO medevac helicopters didn't fly in low illumination—dusk or dark—or in bad weather or into unsecured landing zones."<sup>56</sup> So first he learned that our NATO partners had aircraft capabilities that were not equivalent to U.S. aircraft. Addressing this situation required a sensitive approach; coalitions depend on strong diplomatic

relations. So there are times when we must combine our capabilities in creative ways. For example, we place U.S. and other NATO aircraft in the same location to allow the U.S. aircraft to respond to situations that exceed NATO partners' capabilities. Eventually, NATO partner aircraft developed capabilities to support those missions, such as the German NH90 and the Swedish UH60M helicopters.<sup>57</sup> As Gates notes in his memoirs, those required capabilities in evacuation missions addressed "situations in which medevac would be needed most."<sup>58</sup>

Gates continued to learn about the problem. For example, "when U.S. Air Force helicopters in Afghanistan were needed for medevac, the request had to be approved by a senior commander, which caused added delay."<sup>59</sup> Here Secretary Gates expressed his concern about senior level control over an evacuation aircraft. This meant a commanding general had to approve a rescue flight—a delay! When few aircraft are available, the commander may want to consider which wounded should be evacuated first. Perhaps Secretary Gates adopted the perspective of the wounded Soldier as he addressed these issues: "Being called the 'Soldiers' Secretary' because I cared so much about them was the highest compliment imaginable."<sup>60</sup> Gates was willing to accept risks to take care of the troops, such as the risk of launching the evacuation aircraft without the commanding general's assessment of the mission. He did not want to risk the wounded Soldiers' lives. This could be a minimal risk in many circumstances. But what about the next time, or the next one thousand times? War College Professor James F. Holcomb describes the final strategy formulation step of risk assessment succinctly: "Policy and strategy, properly arrived at, demand a continuous and thorough assessment and reassessment of risk throughout the total

process."<sup>61</sup> Thus, the issue of how casualties impact risk to our nation's strategy must be viewed differently than in previous conflicts, especially when conflicts are protracted beyond a decade. Over time, when wounded warriors perish from their wounds when they had the chance to survive, their untimely fatalities erode domestic support for the operations. Gates has learned enough; he decides to implement the new policy.

In November 2008 Secretary Gates instructed the Chairman of the Joint Chiefs to use "concerted effort to get the medevac standard in Afghanistan down to one hour."<sup>62</sup> The Joint Staff analyzed the medevac support plan that they took part in designing; they neither understood nor agreed with Secretary Gates. "To my surprise, Mike Mullen, the Joint Staff, and both civilian and military medical bureaucrats pushed back hard that this capability was not needed."<sup>63</sup> Perhaps they sought to avoid the costs of adding medical and aviation resources to the Afghanistan operations. This new requirement competed with other contingency missions; perhaps it required activating Reserve units. Gates understood their objections: "Given that the survivability rate of the wounded exceeded 95 percent and that Iraq and Afghanistan shared similar medevac death rates of 4 to 5 percent, they saw no need to take measures to speed up medevac in Afghanistan."<sup>64</sup> Consider the Pentagon's perspective and the group-think in that counter recommendation from the Joint Staff. Consider the difference in numbers of lives that a few percentage points represent in a prolonged conflict. Gates knew very well what mattered. And it was not statistics: "This medevac problem is about troops' expectations and morale, and by God, we were going to fix it."<sup>65</sup>

At this point Secretary Gates demonstrated a very admirable strategic leadership competency: "emotional intelligence."<sup>66</sup> Several tensions and frustrations in the

strategic decision-making left him “seething” inside.<sup>67</sup> This one “really pissed me off.” However, Secretary Gates kept his negative emotions to himself. As Daniel Goleman points out, “Negative emotion—especially chronic anger, anxiety, or a sense of futility—powerfully disrupt work, hijacking attention from the task at hand.”<sup>68</sup> But Gates persisted professionally. He had the resources and the authority to commit those resources. The solution followed. Another strategic leader sums it up in a relevant quote. COMISAF Commanding General, Stanley McChrystal was most candid about his initial assessment of Afghanistan in 2009: “Failure to provide adequate resources also risks a longer conflict, greater casualties, higher overall costs, and ultimately, a critical loss of political support. Any of these risks, in turn, are likely to result in mission failure.”<sup>69</sup> In this brilliant assessment, General McChrystal framed the conflict in a long war perspective, greater than ten years. He knew the domestic support was waning. He also recognized that political leaders had little appetite to commit more precious resources to the war in Afghanistan. Reflecting this sentiment of the time, the President declared in December 2009, “I do not want to keep going to Walter Reed for another eight years.”<sup>70</sup> When General McChrystal and Secretary Gates requested forty thousand more troops, the President listened to the opinions of his cabinet and realized that insufficient resources could lead to strategic failure.<sup>71</sup> He had heard McChrystal’s compelling military advice that more troops results in less casualties. Even with more visits to Walter Reed, there could be fewer casualties to attend to. Strategic leaders attempt to ward off catastrophic events or a series of near-catastrophic events that produce an overwhelming number of casualties; medical evacuations provide some means to avert such disasters. In other words, consider the strategic impact on

domestic support of a Soldier being killed in action as opposed to one wounded and saved by the medics.

Next the SFM address the process of formulating strategy. Professor Henry Yarger describes this portion of strategy theory: "Strategy is about *how* (way or concept) leadership will use the *power* (means or resources) available to the state to exercise control over sets of circumstances and geographic locations to achieve *objectives* (ends) that support state interests."<sup>72</sup> Yarger further explains Professor Art Lykke's analogy of the balancing legs of a three-legged stool.<sup>73</sup> The three legs represent ends, ways, and means. Strategic art enables strategists to balance the stool on the three legs while considering the risk entailed when a leg is shortened.<sup>74</sup> So the SFM requires further consideration of strategic ends, ways, means, and risk.

Further consideration of the ways and means by which we take care of our casualties requires looking at the events at the lowest level. Responses to casualties initially occur at the tactical level. Medical advances during Operation Iraqi Freedom and Operation Enduring Freedom boast a case fatality rate which is the lowest in history.<sup>75</sup> This means that all the unified action of training, equipping, command and control, evacuations, and medical facilities have created an overall battlefield environment where the measure of lethality, case fatality rate, is less than 9%.<sup>76</sup> By comparison, the case fatality rate for World War II was 19%.<sup>77</sup> These technological medical advances, although impressive and imperative to improved survival, are a characteristic of warfare for this era; they do not alter the timeless nature of warfare.<sup>78</sup> However, these advances are certainly relevant in Clausewitz's trinitarian analysis of war. He showed that the war effort consisted of the people's passion, the military's

exposure to chance (or risk) of combat, and the government's policies.<sup>79</sup> In this scheme, casualty consequences span tactical to strategic environments. Secretary Gates understood this relationship, indicated in his disappointment on how the Joint Staff pushed back on his policy. "The bureaucrats had crunched the numbers and that was that." So Secretary Gates, as a determined strategic leader directed the change required to overcome the bureaucratic resistance. He thereby assured that his government would fulfill its wartime obligation to the people and to the military.

The domestic strategic environmental forces that can impact strategy formulation include Congress, the media, and interest groups.<sup>80</sup> The U.S. public, media, and political elite pay close attention to the casualties suffered during combat operations.<sup>81</sup> Coverage and commentary include marking number milestones such as the 1000-lives-paid mark. Additionally, when sensationally catastrophic numbers of casualties occur in a single attack, the media will cover the event for days. Such coverage gives the public and political elite pause to reflect on the conflict and reconsider or reaffirm their will to continue support for the effort or oppose the mission altogether. This adds a complex compounding effect to responses to casualty numbers. The casualty numbers impact more than the simple measure of means lost to the National Security personnel system. The numbers are compounded by the fact that the interested shareholders in the strategy, such as media, Congress, and citizens, will scrutinize conduct of the mission. This scrutiny then contributes to the risk of failure and in the ends not being justified, which can result in the loss of means. Gates understood he needed to "avoid their sacrifice" and protect our means.<sup>82</sup>

The relationship of popular support and mission measured in the U.S. public surveys logically follows Clausewitz by strategic theory of the trinity. Thomas Waldman, author of “War, Clausewitz and the Trinity” professed, “domestic political conditions constitute powerful forces on war. Their impact is particularly apparent in relation to the wars conducted by modern liberal democratic states.”<sup>83</sup> Gates recognized the domestic factors pressuring leaders in our nation’s capital as well as the capitols of our coalition partners; he acknowledged the potential for the people’s support to become one of the strategic leaderships’ greatest challenges. Leading a coalition to maintain cohesion in the face of an adversary’s efforts to erode the domestic will can provide mitigation for dwindling support, but convincing the public of a “very likely success” and choosing the “right war” would be most beneficial. Thus, planning efforts and energy must be applied to show progress and capitalize on mission successes. Waldman further argues that of Clausewitz’s trinitarian relationships oblige strategic leaders to explain ‘the necessity of intervention, justifying mounting casualties and resisting pressure for precipitate exit plans.’<sup>84</sup> Such a burden for strategic leaders has been theoretically sound, with or without the survey research. Gates more than noted the burden, he appropriately felt the “emotional toll.” He understood the domestic environment. All he needed was a mother’s plea: “For God’s sake bring them back alive.”<sup>85</sup> He admits that the “plea drove me,” but that overwhelming burden eventually impelled him to resign.<sup>86</sup> How can a strategic leader balance the ends, ways, and means and risks to mission in the context of eroding domestic perception of a not so “right war?” Our nation’s casualty burden thus becomes ever more significant. Gates clearly realized this. He recalled General

Sherman's admonition that "every attempt to make war easy and safe will result in humiliation and disaster." But this did not deter him from trying.<sup>87</sup>

Because we have achieved our current successes in casualty care, we now know that our ends of saving the potentially survivable are quite achievable, especially when we win the tactical fight. A multitude of factors contribute to low casualties and low case fatality rates. A prominent factor is an overmatch in force. An intuitive and historically supported predictor of survival on the battlefield is simply to be on the winning side. Such a factor remains a paramount in our historic effort to sustain incredibly well-trained and resourced forces. However, warnings of impacts from funding sequestrations have cast doubt on our nation's on-going superiority. Indeed our own *Quarterly Defense Review* has admitted thus: "Our military would be unbalanced and eventually too small to meet the needs of our strategy fully, leading to greater risk of longer wars with potentially higher casualties for the United States and for our allies and partners in the event of a conflict."<sup>88</sup> With less force structure, there will also be increased risk—and less overmatch capability. Gates understood this tension, so he struggled to "achieve greater balance between preparing for future" and supporting the current fights.<sup>89</sup>

We cannot underestimate the strategic advantage of forces overmatch. Our highly trained forces contribute to low casualties. They do so through training and readiness to use their equipment. Therefore, strategic planning must take into account the level of readiness in forces during risky periods of recovery. Retired General Abizaid and colleagues from the U.S. Institute of Peace acknowledged this in their assessment of the Quadrennial Defense Review: "If a major crisis were to take place

before the readiness is restored, the cost will be more casualties and more difficulty achieving key military objectives.”<sup>90</sup> From a medical perspective, our better trained, equipped, and ready forces provide a decisive advantage to win. They also provide a protective factor for casualty survival.

Our strategic leaders and planners can now take advantage of the U.S. military capability or means to establish an expeditionary medical system with 60-minute evacuation response times to pick up wounded at the point of injury.<sup>91</sup> The impact and reputation of this system are exemplified in the quote of a U.S. Marine wounded in Afghanistan: “I’m okay. I knew you’d come.”<sup>92</sup> However, a State Department planner opined that: “We cannot replicate that (air evacuation).”<sup>93</sup> The whole Joint plan “includes time sensitive en route care as part of the overarching joint medical capability for health service support.”<sup>94</sup> Coalition and interagency partners that have participated with us in recent operations have seen our Joint medical system execute its mission. Just as the medical system was reassuring to the Marine, it is reassuring to all of our partners. Such a capability has the potential to incline coalition members to contribute when they can believe that the U.S. military medical resources mitigate the risks to their troops. After a visit to Afghanistan, Gates declared, “those doctors are very special people and the medevac crews are unsung heroes.”<sup>95</sup> Gates told the troops he visited in 2011 about his original intent “to provide the ‘golden hour’ here in Afghanistan.”<sup>96</sup> Gates continued in his Soldier’s Secretary manner: “We hope we don’t need it for any of you, but I want it to be there if it is needed.”<sup>97</sup>

For all its successes, the expeditionary medical system has limitations. It requires a basing network for the evacuation aircraft and it cannot be quickly

established. It further requires a hub airfield with an expeditionary hospital where strategic fixed wing aircraft can land and take stabilized wounded back home. It requires well-trained evacuation coordination cells at Command and Control locations to synchronize rescue efforts. Furthermore, it relies on the strategic evacuation fixed wing aircraft that can reliably pick up wounded so that the bed capacities of the medical facilities can be made ready to receive new casualties. The vast majority of the measured results for this expeditionary medical system were measured during stability operations. Therefore, when considering future operations that include the expeditionary medical system, planners must take into account the new and different environments. Different results in case fatality rates can be expected under different circumstances, such as initial entry offensive operations. Thus, additional resources and bed capacity adjustments will be required based on casualty estimates. Furthermore, the mitigation the system provides will be more critical under circumstances when the popular support is more sensitive to casualties.

This review of casualties' strategic impact on popular and political support provides clarity for strategic decision makers. Certainly popular support for a mission logically depends on the public's perceived likelihood of success and the justification for entering the conflict. Each factor requires consideration during strategic planning; each presents a potential risk to erode support and threaten mission success. Through Joint efforts and unified action, the U.S. military has developed a more advanced and capable medical system based on rapid evacuation and a continuum of critical care. However, that system has functioned in conditions of stability operations and unimpeded fixed-wing strategic evacuation before theater bed capacity has been

surpassed. The challenge and opportunity in planning for further contingencies reside in the limited contributions other agencies and partners can contribute. This is because the capacity and expertise to provide rotary-wing evacuation and to provide the surgical support teams lies predominantly within the U.S. military services. However, planners must ensure that these resources are in place at the outset of operations when casualties are anticipated. Then sufficient capacity mitigates the strategic impact casualties have on popular support. Gates perceived there was an unacceptable risk in failure to provide this medical support.

Certainly, there were already measures and systems in place to save lives in Afghanistan but Secretary Gates wanted more. And he had the resources for providing more. But what was then on the ground in Afghanistan was not enough to achieve his desired 60-minute standard. So additional resources were required.

The additional means: "The interim solution was to immediately add ten helicopters and three forward surgical hospitals."<sup>98</sup> It did not stop there. "By late spring, another fifteen helicopters and three more hospitals had been added."<sup>99</sup> But then, there was by Gates' description a total of 25 helicopters and six forward surgical hospitals. All of these added to the medical system assets already in place.

Preserving capability or the ways and means, is the next consideration for strategic leaders when it comes to medevac. The Army is required to train and sustain 934 flight medics to their counterpart to civilian life flight paramedics (EMT-P).<sup>100</sup> This is not yet fully achieved, and estimates of 60% of paramedics trained by the end of 2015 will require continued investment. Paramedics require considerably more training than flight medics received at the beginning of the war, which was 15 weeks (EMT-B). Now

flight paramedics receive 45 weeks of training (EMT-P). This represents an area Secretary Gates would call a “balance between preparing for the future” and the current fights.<sup>101</sup> The answer to how we maintain and exercise the means we achieved becomes apparent when we consider the origins of the “Golden Hour” history. We should integrate our means or capabilities into our homeland contingencies and build relationships with relevant homeland institutions. The pre-deployment training of surgical teams in Miami trauma centers should continue. The medevac crews can integrate into domestic trauma systems. Across all service components the Secretary of Defense would have the capability to respond to disasters with 934 life flight paramedics. Rehearsing this capability with civilian authorities will make them more comfortable and confident to face disasters. Like the Marine, they will say, “I’m okay. I knew you’d come.”<sup>102</sup>

Preparing for the future requires that first we maintain what we achieved and consider how to improve on things, such as achieving an increased response range. The best part about the Joint Theater Trauma System (JTTS) is the way it combined personnel and equipment we already had in the inventory to create an innovation. It combines troops’ protective measures, Tactical Combat Casualty Care (TCCC), aircrafts and their crews, surgical teams, flight medics, and a 60-minute response policy. Improvements in one component of the means can generate compounding effects. A faster aircraft will result in a larger response area. An aircraft with a larger crew compartment can carry more equipment and more medical professionals. For example, consider the future 2025 fielding of the Improved Turbine Engine Program (ITEP) for the HH-60 evacuation helicopters. Commander of the U.S. Army Aviation

Center of Excellence, Major General Lundy boasts that “with greater range, speed, and payload, the golden hour will be a much bigger geographic ring.”<sup>103</sup>

Secretary Gates astutely measured the results: "In January 2009, 76 percent of medevac missions took longer than an hour; by July, that was down to 18 percent."<sup>104</sup> In six months he put in place the means to achieve the desired impact on "expectations and morale." He visited the troops in Afghanistan to see for himself and hear from the troops. "The surgeons there told me that prior to the additional medevac assets, they often could not save the life of a Soldier or Marine who had lost both legs; now they did so routinely."<sup>105</sup>

So was the Joint Staff wrong about survival rates? Published data shows a statistically significant improvement for wounded survival when rates prior to Gates' directive are compared to rates after his directive.<sup>106</sup> Not every single evacuation time for wounded has yet been collected and analyzed, but the 4,027 records completed as of February 2013 provide enough data to draw conclusions. Prior to 15 June 2009 the median evacuation time was 90 minutes; 86.8 percent of the wounded survived; and 8.8 percent were killed in action (KIA); and 4.4 percent died of wounds (DOW). After June 2009 the median evacuation time was 42 minutes; 90.5 percent survived and 6.7 percent KIA, and 2.8 percent DOW.<sup>107</sup> This indicates a nearly 4% improvement in survival between the two groups. So there was more to benefit from the directive than troops' "expectations and morale." Satisfied with the assistance he provided to the medics and surgeons in Afghanistan, Secretary Gates noted in his memoirs, "we had just needed another little war inside the Pentagon to give them the tools to do their jobs most effectively."<sup>108</sup> Monitoring of the results of the Joint Trauma System continues.

Added modifications include, among other things, more aircraft crews augmented with critical care professionals, more administering of blood transfusions on the medevac aircraft, and new tourniquet devices to control bleeding in the axilla or groin.

Nonetheless, leaders must continue to assure that the sum of all measures taken to protect troops and respond to casualties influences the overall results of casualty statistics. For example, during the same time period a new vehicle with increased protection was mass fielded. The Mine Resistant Ambush Protected vehicle (MRAP) contributed to improved survival. It is statistically difficult to isolate the impact of a given factor in situations where multiple contributing factors are in play.

So there remains room for future improvements. By studying autopsy results, the Joint Trauma System and the U.S. Army Institute of Surgical research determined that during the course of the War on Terrorism an astonishing 25% of the service members who perished had potentially survivable wounds.<sup>109</sup> In other words, if all the Tactical Combat Casualty Care techniques, and evacuations, and surgical care were done perfectly, these 25% killed perhaps had better chances at survival.<sup>110</sup> However, many of that 25% had more than one survivable wound, making it difficult to determine the overall potential to survive in retrospect. A medevac pilot, Michael Pouncey, boldly estimates—on the high end—that we could have saved 1,558 lives.<sup>111</sup> Dr. Russ Kotwal researched one particular unit in which every service member has been trained in Tactical Combat Casualty Care and claimed no potentially survivable deaths amongst their ranks.<sup>112</sup> These units were in the 75<sup>th</sup> Ranger Regiment. To validate this impressive claim, its records were analyzed closely: Only one case remains under scrutiny as a potentially survivable Ranger who had made it to the medical facility, and

perhaps more will be scrutinized in the future.<sup>113</sup> Nonetheless, these findings have led the Tactical Combat Casualty Care Committee to reemphasize their pre-war recommendation that all service members be trained in the Tactical Combat Casualty Care techniques, just as the Rangers are. We cannot forget that the conditions under which combat casualties are cared for are not always the perfect conditions in which the potentially survivable can easily be saved. The fog and friction of combat introduce factors that impede efforts to render aid and that delay evacuations. Autopsies do not take fog and friction into account. Wounds are inflicted in combat, and rescue operations as a medical case are rendered in a combat zone. When scrutinizing the figure of 25% potentially survivable, one must always consider the advantages of retrospect, because we know more now than we did when we entered the War on Terrorism. This is why Gates focused his efforts on what could be, more than what was in the past.

Secretary Gates achieved historical battlefield survival conditions for our nation. However, what he demanded had a medical, aviation, and basing resources cost that will be constantly scrutinized and under pressure for reduction because it takes considerable strategic reflection to understand the full impact of these measures over time and in gaining domestic support for military operations. But this case study, using the SFM analysis, proves our federal government must mandate the sixty-minute standard as national security policy. Furthermore, it demonstrates how maintaining and continuing to improve our expeditionary medical capabilities is the desired strategic course. Our nation's service members and our domestic support will expect nothing less in the future.

## Endnotes

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