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# Weapons of War: the Procurement and Stockpile of Mine-Resistant, Ambush-Protected Vehicles



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Introduction

This paper will focus on the procurement and storage process implemented by the Department of Defense and various branches of the United States armed forces through an analysis of the mine-resistant ambush-protected (MRAP) vehicle. The use of the MRAP vehicles, deployed in the combat field for only five years, is an example not only of the immense spending power of the military, but of the common practice of “spending first and questioning after.” As a result, equipment worth billions of dollars no longer has use and millions more have been spent maintaining these weapons as they sit in various facilities around the United States and

in the Middle East. The procurement process of weaponry in the United States military system is complicated, multi-faceted, and hard to track, and the MRAP procurement was no exception. The entire process was plagued by bureaucratic ineptitude and hesitation, which left the lives of soldiers at risk and revealed problems in the Department of Defense’s procurement system. The mine-resistant ambush-protected vehicle is more than an armored vehicle; it is an exemplary instance of organizational interests changing the way war is waged, the ability of the United States government to spend billions, and the state of the American military fifteen years after the invasion of Iraq. This paper will seek to understand the details that prompted the creation of the MRAP vehicle, the bureaucratic process that led to their production, and the aftermath of their influence on the combat theater.

Operation Iraqi Freedom

The occupation of Iraq began in 2003 after the United States Congress approved the

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Iraq Resolution, which granted full war-powers to President George W. Bush.<sup>1</sup> It was rapidly realized that fighting insurgents was different than fighting a whole country. The military came to understand that the metrics of war-waging had changed, and the conceptualization of what this war would become shifted rapidly. This was reflected through the increased use of non-conventional weapons such as improvised explosive devices, or IEDs. The use of improvised explosive devices, prompted the United States military to seriously reconsider its choices of troop protection in the midst of the war.

The technological advancement that occurred as a result of this reconsideration led to a rapid uptick in weapons production during the occupation of Iraq and Afghanistan. This is most aptly summarized through the changes in weapons and tactical strategies. This shift prompted changes in both the American forces as well as the insurgent forces in Iraq as the “[adoption of] asymmetrical means (weapons) and methods (tactics)” prompted a type of combat that involved “avoiding enemy strengths, leveraging one’s advantages, and exploiting enemy weaknesses and vulnerabilities.”<sup>2</sup> This new strategy prompted a new kind of response from the enemy; this method was meant to “[stun] the enemy into purely reactive mode.”<sup>3</sup> The assumption was that the United States military would dominate any battles waged in Iraq, as well as already-occupied Afghanistan, due to its advanced weapons technology. However, what this strategy failed to assume are the efforts an enemy will extend to wage their own war.<sup>4</sup> As a result of the invasion under the aforementioned circumstances, the use of improvised

explosive devices (IEDs) increased at a rapid rate. By 2005, “about half of all American combat casualties in Iraq” were caused by IED explosions.<sup>5</sup> IEDs are extremely destructive and deadly weapons, and were considered relatively new threats that appeared on the battlefield throughout the occupied territories in the Middle East. At the height of the war, IED explosions were impossible to predict and thus impossible to prevent. Researchers at the Congressional Research Service and members of the United States military suspected that the material used to construct IEDs was from an Al Qaeda stockpile of weapons, a stockpile that was already large and growing by the day as a result of corruption within the Iraqi government.<sup>6</sup> It was quickly realized that upon explosion, IEDs could “kill soldiers inside a 22-ton Bradley Fighting Vehicle”, a testimony to their immense power.<sup>7</sup> The Bradley vehicle, along with the HMMWV (colloquially known as the Humvee), was a central element of troop transportation and protection. Colonel Steven Lyons of the United States Army noted that “during the height of the insurgency in Iraq we were losing US soldiers and civilians daily to IEDs.”<sup>8</sup> The triggers in these bombs are untraceable and were often detonated from afar through cell phones or other devices in the streets outside and around military bases. Numerous United States soldiers were dying or sustaining catastrophic injuries from IEDs largely due to the lack of protection provided by the vehicles used to transport troops. Deaths as a result of IED detonation during regular maneuvers or transportation outside of American military bases outnumbered deaths from traditional combat.<sup>9</sup> It was not until

11 Dan Collins, “Congress Says Yes To Iraq Resolution,” CBS News, November, 18, 2018, <https://www.cbsnews.com/news/congress-says-yes-to-iraq-resolution/>.

22 Michael N. Schmitt, “The Principle of Distinction and Weapon Systems on the Contemporary Battlefield,” *Connections: The Quarterly Journal* 7, no. 1 (2008): 48.

3 Ibid.

4 Ibid.

5 Clay Wilson, “Improvised Explosive Devices in Iraq: Effects and Countermeasures,” Library Of Congress Washington DC Congressional Research Service, 2005.

6 Ibid.

7 Ibid.

8 Steven Lyons, e-mail response to author, November 19, 2018.

9 Ibid.

2005 that the Marine Corps decided to take its first step towards proper troop protection.

#### The Creation and Procurement of the MRAP Vehicle

This troop protection came in the form of the mine-resistant ambush-protected, or MRAP, vehicles. The key purpose of these vehicles was to “provide soldiers with highly survivable multimission platforms capable of mitigating improvised explosive devices, rocket-propelled grenades, explosively formed perpetrators, underbody mines, and small arms fire threats.”<sup>10</sup> The mine-resistant ambush-protected vehicle (MRAP) was developed to protect troops while they were traveling, given that most of the harm that occurred outside of the battlefield came as a result of IED detonation. There are three classifications of MRAPs, each one holding between six to ten personnel at a time. The Category II MRAP, which was utilized for convoy escort and transportation and was designed for rough terrain like the terrain that would be found in non-urban areas of Iraq and Afghanistan, was the most widely used model.<sup>11</sup> The Category III MRAP was used for route clearing and bomb disposal, and while the Category I was intended for use in urban areas, the Category II MRAP was understood to be the safest option for troop transportation.

The MRAP vehicle features numerous advancements, classifying itself far above the average troop-carrying vehicle. The central feature that makes the vehicle so effective is the V-shaped hull. This hull deflects blasts that occur on the “underbelly”, or directly underneath the vehicle.<sup>12</sup> The

vehicle itself weighs about twenty four tons fully-armed without its add-on armor, meaning at its base it weighs 48,000 pounds, and holds an engine of about 375 horsepower.<sup>13</sup> In video recordings of MRAP vehicles coming under IED detonation, it is clear that the armored vehicle is strong. A YouTube channel which provides combat footage to the public, FUNKER530, features a video of an MRAP holding United States Marines rolling over an IED and the explosion that followed. The video is shot from the dashboard camera, and it is clear that the MRAP is thrown in the air before rolling over twice and coming to a stop on its right side. The Marines clearly call out the rollover and clamor to regain their senses. However, not one piece of the MRAP is blown off, and all troops inside survive.<sup>14</sup> This video represents just one of many occurrences when an MRAP rolls over or drives near an IED. Upon detonation, the MRAP vehicle’s V-shaped hull directs the blast to stay underneath the vehicle by controlling the force of energy. This protects the troops by preventing the destruction of the vehicle as well as ensuring the troops inside are not ejected. It is estimated that the implementation of MRAP vehicles into combat zones led to the reduction of IED casualties by eighty percent.<sup>15</sup> The casualty rate of troops when carried in an MRAP vehicle was only six percent in 2009 compared to the twenty two percent casualty rate when troops are carried in HMMWVs the years previous.<sup>16</sup> The Pentagon issued an estimate that by 2011, about 40,000 lives were saved.<sup>17</sup>

There was a significant gap in the MRAP

10 U.S. Army Acquisition Support Center, “Mine Resistant Ambush Protected Vehicles (MRAP),” 2018.

11 U.S. Department of Defense, Inspector General, Marine Corps Implementation of the Urgent Needs Process for Mine Resistant Ambush Protected Vehicles, 2008, Arlington, Virginia.

12 U.S. Department of Defense, Donna Miles of the American Forces Press Service, MRAP Production Facility Demonstrates Industry’s Commitment, 2008.

13 U.S. Army Acquisition Support Center, “Mine Resistant Ambush Protected Vehicles (MRAP),” 2018.

14 FUNKER530, “IED Explosion Flips MRAP in Afghanistan - Failed Attack,” YouTube, January 20, 2012, <https://www.youtube.com/watch?v=ml27LRyFqR4>.

15 Report given at NPS Acquisition Research Symposium, Acquisition of Mine-Resistant Ambush-Protected (MRAP) Vehicles: A Case Study, University of Maryland, 2010.

16 Ibid.

17 Alex Rogers, “The MRAP: Brilliant Buy or Billions Wasted?,” TIME, October 2, 2012, <http://nation.time.com/2012/10/02/the-mrap-brilliant-buy-or-billions-wasted/>.

acquisition timeline between the recognition of IEDs as a significant threat to the actual implementation of the vehicles. As early as 2004, top Pentagon officials were being confronted by members of the Armed Forces over deficient troop protection and bureaucratic inadequacies. Then-Defense Secretary Donald Rumsfeld himself was on the receiving end of questions from American troops during a visit to Kuwait who claimed that “they were being sent into combat with insufficient protection and aging equipment.”<sup>18</sup> At the time, the Pentagon was making efforts to add additional armor to HMMWVs but were citing wide equipment shortages as a central problem in making these efforts a reality.<sup>19</sup>

The first formal appeal for a new type of vehicle came in February 2005 from officials within the Marine Corps. The Marine Corps articulated this need as a request for “armored tactical vehicles” meant for “increased troop protection...in hazardous fire areas.”<sup>20</sup> Whatever was created needed to be able to withstand IED explosions, heavy artillery fire, and small-weapons fire without jeopardizing the troops that were traveling inside the vehicle. At this point, the MRAP vehicle had not yet been articulated for United States use. The need for a mine-resistant vehicle quickly became the Department of Defense’s “highest priority acquisition” and the search began for a contractor to fulfill the request.<sup>21</sup> There was initial pushback from members within the Pentagon who did not want to spend more money on new

technology when it was assumed that the old technology, such as the HMMWV and Bradley Fighting Vehicle, was adequate.<sup>22</sup> This was reflected through statements from top leadership, including Defense Secretary Rumsfeld who famously stated that “you go to war with the army you have, not the army you might want or wish to have a later time.”<sup>23</sup> While Rumsfeld faced enormous controversy for his statement, it emulated the truth of the matter: Pentagon officials saw the conflict in Iraq as something to be solved quickly and with little added expense if possible. The conflict was quickly turning into a full-blown war, a notion that Pentagon leaders hesitated to accept.

**Bureaucratic Issues in the Procurement Process**  
A total of twenty one months passed between the first request, the award of a contract, and the beginning of production. During this time, two more requests for an armored vehicle were sent from the Marine Corps to the Department of Defense.<sup>24</sup> Production did not begin until November 2006, and 144 MRAPs were built and sent to troops by defense contractors. There are numerous reasons for this delay, most of them bureaucratic, but the most accurate explanation is the wish of the Department of Defense to continue using the M-114 up-armored HMMWV, the armored vehicle already deployed in Iraq and Afghanistan. Upon initial report by the commandant of the Marine Corps regarding IED fatalities, the Department of Defense reaffirmed

18 Eric Schmitt, “Iraq-Bound Troops Confront Rumsfeld Over Lack of Armor,” *New York Times*, December 8, 2004, <https://www.nytimes.com/2004/12/08/international/middleeast/iraqbound-troops-confront-rumsfeld-over-lack-of.html>.

19 Ibid.

20 U.S. Government Accountability Office, *Defense Acquisitions: Rapid Acquisition of MRAP Vehicles*, 2009, GAO-10-155T, Washington D.C., 2.

21 Ibid.

22 Sharon Weiner, “Organizational Interests versus Battlefield Needs: the U.S. Military and Mine-Resistant Ambush-Protected Vehicles in Iraq,” *Polity* 42, no. 4 (2010): 464.

23 Eric Schmitt, “Iraq-Bound Troops Confront Rumsfeld Over Lack of Armor,” *New York Times*, December 8, 2004, <https://www.nytimes.com/2004/12/08/international/middleeast/iraqbound-troops-confront-rumsfeld-over-lack-of.html>.

24 Weiner, “Organizational Interests versus Battlefield Needs: the U.S. Military and Mine-Resistant Ambush-Protected Vehicles in Iraq.”

its stance that the HMMWV was the most reliable vehicle for the Marines to use.<sup>25</sup> As a result, the production of MRAP-type vehicles was halted in August 2005.<sup>26</sup> However, this stance directly countered the advice of the Marine Corps Urgent Universal Needs Statement (UUNS) process, who issued an advisement (after the initial request) that Marine Corps troops be outfitted with an MRAP-type vehicle.<sup>27</sup> Another request was made in July 2006 for 1,000 MRAP-type vehicles, this time by a joint effort of the Army, the Marine Corps, and the Navy under the submission of a Joint Universal Operational Needs Statement (JUONS). These branches created and submitted a joint proposal request. Production by Force Protection Industries began in November 2006.<sup>28</sup>

The vehicle that is known as the mine-resistant ambush-protected vehicle was still far from being fully produced for the American combat theater. Instead, Marines were equipped with MRAP-type vehicles, which were most often HMMWVs with additional “off-the-shelf” armor like the vehicles that Secretary Rumsfeld referenced during his Kuwait visit.<sup>29</sup> Marines in the Middle East began to use makeshift HMMWVs with additional armor that provided a large margin of protection from detonated IEDs. Casualties due to rollover or ejection from the vehicle were commonplace. As of May 2007, there were only three hundred and fifty MRAPs in the area

compared to the nearly 200,000 troops stationed in Iraq.<sup>30</sup> This delay in production and procurement of MRAPs led Defense Secretary Robert Gates to issue the project an “acquisition priority” status.<sup>31</sup>

#### Production and Distribution

Manufacturers in the United States took notice of these new developments in armoring vehicles, and many of these companies began vying for contracts to fulfill the request of the Marines. These companies were not the only units taking notice of this development; the Army, whose soldiers made up over half of the total approximately 140,000 troops,<sup>32</sup> wanted protection vehicles as well. The Army placed a request for MRAPs shortly after it was clear that production would be beginning to ramp up shortly. Once again, the process hit a series of bureaucratic challenges. By the time the Army requested a number of vehicles, MRAPs were being produced and sent to Iraq and Afghanistan in record numbers.<sup>33</sup> Secretary of Defense Robert Gates, as quoted in a Congressional Research Service report, claimed that at time of deployment, the Department of Defense was not ensuring “that the supply line was full” or maintaining its usual standards for troop supply.<sup>34</sup> This meant that the first MRAPs went out incomplete, or were operating below the intended standard of use. Secretary Gates later emphasized that he believed the ensuing mechanical problems were

25 U.S. Department of Defense, Inspector General, Marine Corps Implementation of the Urgent Needs Process for Mine Resistant Ambush Protected Vehicles.

26 U.S. Government Accountability Office, Defense Acquisitions: Rapid Acquisition of MRAP Vehicles, 2.

27 U.S. Department of Defense, Inspector General, Marine Corps Implementation of the Urgent Needs Process for Mine Resistant Ambush Protected Vehicles.

28 Report given at NPS Acquisition Research Symposium, Acquisition of Mine-Resistant Ambush-Protected (MRAP) Vehicles: A Case Study, 2010, University of Maryland.

29 U.S. Department of Defense, Inspector General, Marine Corps Implementation of the Urgent Needs Process for Mine Resistant Ambush Protected Vehicles (Arlington, Virginia, 2008).

30 Weiner, “Organizational Interests versus Battlefield Needs: the U.S. Military and Mine-Resistant Ambush-Protected Vehicles in Iraq.”

31 Ibid.

32 Mike Mount, “Navy to Increase Numbers in Iraq,” CNN, February 7, 2006, <http://www.cnn.com/2006/US/02/07/iraq.navy/>

33 Andrew Feickert, Congressional Research Service, Mine-Resistant Ambush-Protected (MRAP) Vehicles: Background and Issues for Congress, 2012, CRS Report No. RS22707, Washington, D.C.

34 Ibid.

a result of the rapid nature of the MRAPs acquisition.<sup>35</sup>

This rapid and unorthodox acquisition process was further complicated as multiple manufacturers attempted to complete the same project. Ten manufacturers responded to the original request for proposal submitted by the Marine Corps. Out of those ten, nine contractors were awarded indefinite delivery/indefinite quantity contracts, colloquially known as “IDIQ contracts.”<sup>36</sup> The specificity of these contracts required each company to create two different MRAP models for deployment, which allowed for the Department of Defense to operate thirty six new vehicles in the combat theater as well as canvas the models for accuracy and aptitude.<sup>37</sup> However, the deaths by IEDs in Iraq and Afghanistan continued despite the advancements in armor-ing vehicles. The Department of Defense worked quickly to fulfill the requests, bypassing many of the standard procedural steps taken during the acquisition process.

As a result of the disregard for the usual process, the amount of “significant operational issues”,and the large quantity of vehicles that were not tested at all was in higher quantity than a standard military technology acquisition.<sup>38</sup> The vehicles were being tested as they were shipping out to troops overseas, which led to numerous technological problems arising while they were being operated in the combat zones. Multiple versions of the MRAP were failing

for various reasons, most of them technological.<sup>39</sup> In one such instance, an Alpha model produced by the Oshkosh corporation failed to survive a series of explosive tests,<sup>40</sup> leading the Marine Corps to ask that no more Oshkosh vehicles be sent. In a report given by the Government Accountability Office, it was noted that this “testing strategy [provided] little time for needed modifications.”<sup>41</sup> Due to the Pentagon’s initial hesitation and the resulting mass casualties as the bureaucracy dragged its feet, the panic to issue a vehicle that could saves lives was palpable. This was in no way due to lack of funding. By 2007 the amount of allocated funds distributed for MRAP production and research totaled \$5.58 billion for the fiscal years of 2006 and 2007,<sup>42</sup> and this total increased after the Army and Marine Corps made an additional request for updated MRAP vehicles that could operate at a higher standard in the changing combat theater. By fiscal year 2009, \$26.8 billion in “wartime supplements and reprogramming” funds had been allocated for the MRAP project since the creation of the project.<sup>43</sup> This produced about 16,000 MRAP vehicles, which met the quota as requested by both the Marine Corps and the Army. It should be noted that this funding only covered a portion of the MRAP vehicle project at this time; millions more were needed to transport these vehicles, which were extremely heavy.<sup>44</sup> As of 2008, the Department of Defense did not have any sort of contingency plan, or the allocated funding, for maintaining

35 Ibid.

36 Report given at NPS Acquisition Research Symposium. Acquisition of Mine-Resistant Ambush-Protected Vehicles.

37 Ibid.

38 U.S. Government Accountability Office, Defense Acquisitions: Rapid Acquisition of MRAP Vehicles, 10.

39 Defense Industry Daily Staff, “MRAP: Another One Bites the Dust?,” Defense Industry Daily, August 5, 2007, <https://www.defenseindustrydaily.com/mrap-another-one-bites-the-dust-03574/>

40 Ibid.

41 U.S. Government Accountability Office, Rapid Acquisition of Mine Resistant Ambush Protected Vehicles, 10.

42 Feickert, Mine-Resistant Ambush-Protected (MRAP) Vehicles: Background and Issues for Congress.

43 Report given at NPS Acquisition Research Symposium. Acquisition of Mine-Resistant Ambush-Protected Vehicles.

44 Ibid.



MRAP vehicles past a two-year window.<sup>45</sup>

#### Divestment and Plans for the Future

As soon as it seemed the Army and Marines had garnered a reasonable number of MRAP vehicles to meet their needs, the war began to reach a stalemate of sorts. Near the end of 2008, President George W. Bush signed the U.S.-Iraq Status of Forces Agreement which dictated that United States troops would be withdrawn from Iraq completely as of December 31, 2011.<sup>46</sup> This included all soldiers, contractors, and other government entities. Procedures for removing troops from Iraq began immediately, beginning with larger cities and townships.<sup>47</sup> This move was well-received by most of the Army and Marine Corps commands. After all, many officials and troops alike acknowledged that there had been little success in the Middle East, despite the advancements in technology and war-fighting strategies. A pressing question emerged among the discussions of troop withdrawal: what was to be done with the MRAPs?

The first phase was to decrease the use of the MRAP significantly.<sup>48</sup> Colonel Mark Barbosa, chief of the Focused Logistics Division of the Army, called the program a great success, but MRAP vehicles were no longer the primary focus of the Department of Defense.<sup>49</sup> The vehicle was in line to be replaced by a lighter, faster vehicle known as the Joint Light Tactical Vehicle (JLTV). The JLTV is of the same

purpose as the MRAP but has capabilities regarding “off-road mobility and system reliability” that the MRAP vehicle did not possess.<sup>50</sup> As of 2012, there was a plan to acquire “as many as 50,000 JLTVs by 2035”<sup>51</sup> and for the MRAP to serve as an interim vehicle until the JLTVs became fully functional and ready for the combat theater.

As previously mentioned, MRAP vehicles are very heavy. This proved to be an issue during initial transport. It became understood that the airplanes which were used to transfer military equipment between countries, could only take a few MRAPs at a time.<sup>52</sup> They were able to be lifted by three types of planes: the U.S. Air Force’s C-17, the C-5, and Russia’s AN-124.<sup>53</sup> At the time of troop extraction, the MRAP made up seven percent (7%) of the vehicle inventory in the armed forces<sup>54</sup> at a total of 21,000 MRAPs deployed between Iraq and Afghanistan. Of these 21,000 MRAPs, sixty percent (60%) were to be destined for stockpiles or storage, thirty percent (30%) would remain in active use with units, and the other ten percent (10%) would be shipped to the United States for training on military bases.<sup>55</sup> Of that sixty percent in storage, nearly half were divested or sold. The immense weight and technicalities of MRAP vehicles made them costly to ship, and the destruction of MRAPs became commonplace. The sale of MRAP parts was impossible due to their specific functions, and as a result, these vehicles

45 U.S. Government Accountability Office, *Rapid Acquisition of Mine Resistant Ambush Protected Vehicles*, 10.

46 State Department, *Agreement Between the United States of America and the Republic of Iraq On the Withdrawal of United States Forces from Iraq and the Organization of Their Activities during Their Temporary Presence in Iraq*, 2008.

47 *Ibid.*

48 Kris Osborn, “Army refining long-term MRAP plan,” U.S. Army Website, May 24, 2012, [https://www.army.mil/article/80504/army\\_refining\\_long\\_term\\_mrap\\_plan](https://www.army.mil/article/80504/army_refining_long_term_mrap_plan).

49 *Ibid.*

50 *Ibid.*

51 *Ibid.*

52 Thomas Varela, interview with author, 24 November 2018.

53 Report given at NPS Acquisition Research Symposium. *Acquisition of Mine-Resistant Ambush-Protected Vehicles*.

54 Tamir Eshel, “Where are the MRAP Going?,” *Defense Update: Defense Innovation Review*, June 4, 2012, [https://defense-update.com/20120604\\_where-are-the-mrap-going.html](https://defense-update.com/20120604_where-are-the-mrap-going.html).

55 Osborn, “Army Redefining Long-Term MRAP Plan.”

were destroyed. Due to the rapidly changing nature of its original manufacturing and acquisition, many MRAP vehicles differed in parts and thus, the parts were not interchangeable between entire fleets of MRAP vehicles. The only pieces that could be used were the shredded remains of metal produced when MRAPs were destroyed in Afghanistan and Iraq.<sup>56</sup> It became common practice to shred equipment that was left behind, and often the material was sold for “pennies per pound” to the Afghan military.<sup>57</sup> It takes twelve hours to destroy an MRAP vehicle completely, and requires a complicated system of equipment to burn the metal.<sup>58</sup>

#### Storage of the MRAP Vehicle

Two years after the issue of storing discarded MRAPs arose, the number of MRAP vehicles destroyed rose to 7,456.<sup>59</sup> This left 8,585 MRAPs as of 2014 to be stored in warehouses across the country.<sup>60</sup> According to General Jim Conway of the Marine Corps, the best option for the MRAP was to “wrap them in shrink wrap and put them in asphalt somewhere” to be used in later operations.<sup>61</sup> IEDs remain a persistent threat to troops remaining in Iraq and Afghanistan, especially troops based in central cities in Afghanistan. The Pentagon stands by their claim that the IED “will remain a persistent

threat for decades to come”, and that total destruction of the MRAP vehicle would be a mistake.<sup>62</sup> As a result, the Pentagon will spend \$1.7 billion in overseas contingency operations funds to modernize the remaining MRAP vehicles.<sup>63</sup> This is only a percentage of the total money spent to maintain weapons and equipment in the Middle East; in total, an estimated \$7 billion has been allocated to destroy weapons that are either too costly to ship back to the United States or out of commission completely.<sup>64</sup> As far as the remaining intact MRAPs are concerned, service charges to reset the vehicles hovers around \$150,000.<sup>65</sup> The cost to transport each individual MRAP to the United States is about \$300,000.<sup>66</sup> With 8,585 MRAPs remaining, the total cost of transporting the stockpile is about \$2.6 billion.<sup>67</sup> This enormous cost is the reason the military has opted to leave the MRAP, and other vehicles such as the Cougar, in Afghanistan.<sup>68</sup> There are numerous complications that make transporting an MRAP vehicle by sea nearly impossible, and as previously mentioned, only three types of airplanes can transport the vehicles by air.<sup>69</sup> Furthermore, once the MRAPs are shipped, the cost of repairing the gear is about \$9 billion.<sup>70</sup>

Officials within the military have been keen to keep

56 Natalya Anfilofyeva, “Majority of U.S. MRAPs To Be Scrapped or Stored,” Center for Strategic and Budgetary Assessment, January 5, 2014, <https://csbaonline.org/about/news/majority-of-us-mraps-to-be-scrapped-or-stored>.

57 Ernesto Londoño, “Scrapping equipment key to Afghan drawdown,” The Washington Post, June 19, 2013, [https://www.washingtonpost.com/world/asia\\_pacific/scrapping-equipment-key-to-afghan-drawdown/2013/06/19/9d435258-d83f-11e2-b418-9dfa095e125d\\_story.html?utm\\_term=.8d946e70750e](https://www.washingtonpost.com/world/asia_pacific/scrapping-equipment-key-to-afghan-drawdown/2013/06/19/9d435258-d83f-11e2-b418-9dfa095e125d_story.html?utm_term=.8d946e70750e).

58 Ibid.

59 Anfilofyeva, “Majority of U.S. MRAPs To Be Scrapped or Stored.”

60 Ibid.

61 Rogers, “The MRAP: Brilliant Buy or Billions Wasted?”

62 Ibid.

63 Anfilofyeva, “Majority of U.S. MRAPs To Be Scrapped or Stored.”

64 Londoño, “Scrapping equipment key to Afghan drawdown.”

65 Anfilofyeva, “Majority of U.S. MRAPs To Be Scrapped or Stored.”

66 Ibid.

67 Eshel, “Where are the MRAP Going?”

68 Anfilofyeva, “Majority of U.S. MRAPs To Be Scrapped or Stored.”

69 Report given at NPS Acquisition Research Symposium. Acquisition of Mine-Resistant Ambush-Protected.

70 Londoño, “Scrapping equipment key to Afghan drawdown.”

these operations underwraps, given that “the endeavor might appear wasteful.”<sup>71</sup> There have been questions of donating the equipment, but this notion has revealed itself to be complicated. When the United States withdrew from Iraq, the infrastructure in Iraq was stronger than the infrastructure in Afghanistan. Thus, the Iraqi forces were able to absorb the donated military equipment with little issue due to their ability to access oil and manufacturing.<sup>72</sup> In Afghanistan, the infrastructure that would have handled the absolvment of these weapons is obsolete.

### Conclusion

The mine-resistant ambush-protected vehicle remains one of the great examples of the rapid acquisition process in the United States military. Its procurement revealed that the bureaucracies of the Department of Defense and the Pentagon were not built for such processes. The limitations of the system got in the way of the needs of the Marine Corps and the Army. It took multiple requests from each branch individually, as well as a joint service request, to begin the procurement process. The rapid weapons acquisition process found a form of standardization through the acquisition of the MRAP, largely as a result of the bureaucratic mistakes and challenges. This is representative of a larger issue within the United States military. The military and its related bureaucracies are a clear example of a hierarchical structure that exists to maintain structures and legacies that may not have a purpose in the modern era of warmaking.

The delay in processing the multiple requests made by two branches of the Armed Services followed by the immense amount of money spent on untested equipment established a complicated procurement process for the MRAP vehicle as well as a further precedent as the conflict continued. The MRAP vehicle represented a solution to IED explosions, a weapon that was causing daily casualties in the Middle East. The solution happened to be a very expensive product with multiple specific uses and no adaptable qualities. As the official occupation

ended and the military was left with thousands of multi-ton single-use vehicles and no prospective future use for them, it became clear that the procurement process of a potentially useful weapon had failed to meet all of the challenges posed by a new type of warfare. While the procurement of the mine-resistant ambush-protected vehicle reflects a shift in the organizational structure of the acquisition method, the surplus of vehicles reflects another realism: that the military is far from fully managing its size, needs, and the conflicts it becomes involved in. Thousands of MRAP vehicles sit in the deserts of Kuwait. Thousands more are in storage. While the Armed Forces of the United States has demonstrated again and again that America has maintained its technological superiority, it has demonstrated an additional phenomenon: the United States military, in an effort to maintain supremacy, has engaged with a limitless amount of resources to create weapons that are not timeless. This technological superiority is defined by the ability of the United States to continually create more advanced weapons. The procurement of the MRAP leads to one final question to consider: in all of this advancement, what is left behind?

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<sup>71</sup> Ibid.

<sup>72</sup> Ibid.