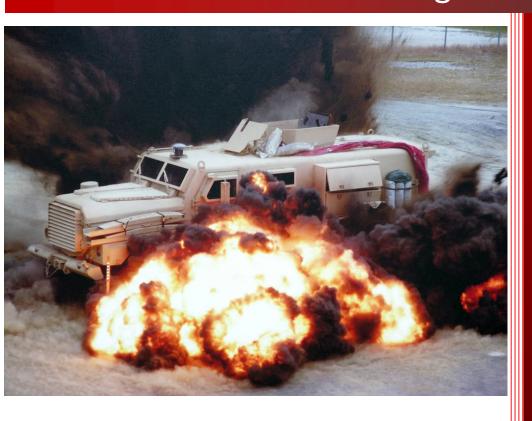
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# (U) Alternative Motivations for IED Use in Afghanistan



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(U) Photo: An explosive device is detonated beneath a Cougar (MRAP). Source: Photobucket. http://media.photobucket.com/image/explosion% 20afghanistan/z0rr0101/CougarExplosion.jpg

# (U) Alternative Motivations for IED Use in Afghanistan

# (U) Key Points

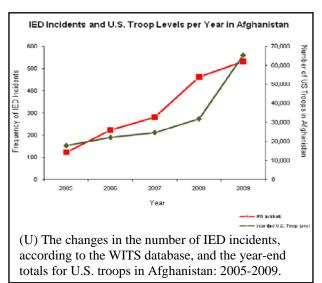
- (U//FOUO) Human behavior does not occur "in a bubble;" secondary and tertiary motivations can co-exist for the use of improvised explosive devices (IEDs) in Afghanistan.
- (U//FOUO) Possible alternative *Motivating Operations* (MOs) for IED use in Afghanistan include hunger, quality of life, economic development, and opium production.
- (U//FOUO) If the food security prediction for Afghanistan is correct, the likelihood of IED attacks directed at supply vehicles is likely to increase, especially throughout the mid-section of the country, as well as in the northern province of Badakhshan.
- (U//FOUO) The perpetrators of approximately 58 percent of the IED attacks in Afghanistan are unknown, according to the *Worldwide Incident Tracking System* (WITS) database.
- (U//FOUO) Gross inconsistencies exist in the available open source accountings of IED incidents in Afghanistan. The WITS data are a low estimate of actual figures.

# (U) Summary

(U//FOUO) IED use remains the single most deadly threat in Afghanistan. As the number of U.S. and the International Security Assistance Force – Afghanistan (ISAF-Afghanistan) ground forces continues to grow to meet the surging threat, the probability of troops coming into contact with IEDs will be greater than ever. In order to influence the deployment of IEDs, it is necessary to understand the motivations driving that behavior. The obvious motivation for placing an IED is to inflict harm upon others. However, human behavior does not occur "in a bubble." Secondary and tertiary motivations can co-exist for the use of IEDs, as well as alternative motivations. The purpose of this paper is to provide an analysis of potential ancillary motivations for IED use in Afghanistan, to the extent possible based on available open source data. The circumstances linked to hunger, quality of life, economic development, and opium production in Afghanistan create conditions that serve as potential MOs for IED use.

(U//FOUO) The level of detail possible for assessments of behavioral motivations is contingent upon the quality of the available data related to the IED strikes. Inconsistencies exist in the available open source accountings of IED incidents in Afghanistan. The WITS data serves as an appropriate choice from which to base an open source analysis, due to its transparent methodology and broad use in the Intelligence Community (IC). However, WITS provides a low estimate of actual figures when compared to some of the other tallies of IED incidents. Also, the perpetrators are unknown in almost 58 percent of Afghanistan's IED attacks listed in WITS. Pinpointing the location and perpetrators of IED strikes in Afghanistan will provide for clearer analysis and understanding of the alternative motivations behind IED use.

# (U) IED Incidents in Afghanistan: Defining the Challenge



(U//FOUO) Open source news coverage has well documented the prevalent use of IEDs by militant groups in Afghanistan, with the international media reporting widely on the topic. Analysis of the National Counterterrorism Center's WITS data for Afghanistan shows a clear upward trend in IED use over the recent years, and, with 2009 already surpassing each of the previous four years in the number of incidents recorded, it is set to be the most active year to date. As U.S. troop levels continue to grow to meet the surging threat, the probability of U.S. forces coming into contact with IEDs will be greater than ever. 2

(U//FOUO) Countering the IED threat requires a two-fold approach: defense against the IEDs that are in place, and preventing future IED emplacement. In order to influence the emplacing of IEDs it is necessary to understand the behavior, as well as the motivations driving that behavior. At the most basic level, analysis of behavior, as well as any analyses of the motivations behind behavior, requires that three fundamental questions be answered: (1) who engaged in the behavior, (2) where did it occur, and (3) what happened after the behavior. These data provide a basic foundation for more thorough analyses into the motivations for any behavior. In addition, as the level of detail provided by the answers to these questions increases, the degree of precision provided by the resulting assessments will also improve.

(U//FOUO) The WITS database provides a low estimate of IED incidents, rather than an authoritative accounting. WITS lists 533<sup>i</sup> IED incidents across Afghanistan in 2009.<sup>3</sup> This figure is inconsistent with other tallies. For 2009 in Afghanistan, the Associated Press (AP) newswire reported 407 IED incidents<sup>ii</sup> in April, the Army Times reported 736 in June, and the New York Post and the AP reported 860 and 106 in September, respectively.<sup>4 5 6 7</sup> Furthermore, HMS, Ltd.'s TRITON report for the region details 96 IED incidents in Afghanistan from 1 October 2009 to 31 October 2009, over 67 percent more than the WITS tally for the same time period.<sup>8 9</sup> Variations in the accounting of IEDs may be due to differences in the operational definitions and methodologies used while tallying the incidents, availability of raw data to the analysts recording the incidents, or differences in the sources of raw data used to generate the tallies. Given that a level of uncertainty exists in the accuracy of the available data sets, the WITS data, with its published methodology and conservative figures, are an appropriate choice from which to base this open source analysis.

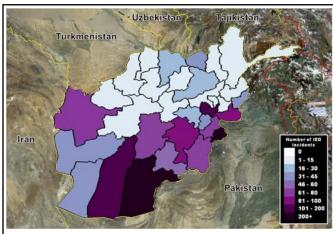
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<sup>&</sup>lt;sup>i</sup> As of 28 October 2009.

ii According to Joint Task Force Paladin

# (U) Locality of IED Attacks

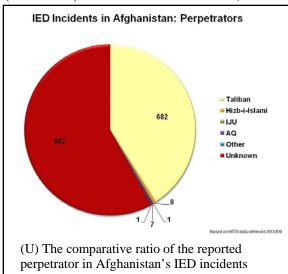
(U//FOUO) IED use is not limited to an isolated portion of Afghanistan. Even though the heaviest concentrations of attacks come in the southern and eastern parts of the country, the WITS database includes IED incidents from every province in Afghanistan. Appendix A illustrates the changes in the distribution of IEDs across Afghanistan's provinces over the years since 2005. Where an IED attack occurs can be as important to understanding the motivations for an attack as understanding who is responsible for the attack. Regional differences can contribute to differing conditions in which IED-related behaviors occur.



(U) Distribution of IED incidents reported in WITS across Afghanistan's provinces.

# (U) Perpetrators of IED Attacks

(U//FOUO) As of late October 2009, the WITS database lists 6,051 incidents in Afghanistan,



dating back to 2002. Of these incidents, 2,704 include the use of an explosive device (e.g. landmines, rockets, IEDs, grenades) in the description and 1,652 specifically mention the use of an IED. The WITS database lists the perpetrator in the majority of the IED incidents in Afghanistan as "unknown." Of those that do list a group as the perpetrator, the Taliban is most frequently the culprit. Other groups reportedly engaging in IED attacks are Hizb-i-Islami, Islamic Jihad Union (IJU), al-Qaeda (AQ), and al-Fatah (included in the "Other" category by WITS). With approximately 58 percent of the perpetrators unidentified, further detail would allow for a more comprehensive analysis.

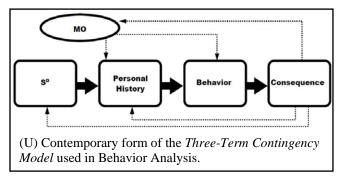
# (U) Motivations for IED Attacks

(U//FOUO) The obvious motivation for employing an IED is to inflict harm upon others. However, human behavior, including the use of IEDs, does not occur in a bubble. Secondary and tertiary motivations can co-exist for the planting of IEDs, as well as alternative motivations. For example, anecdotal reports have stated:

An IED was found on a road near a village in Afghanistan. It was rendered safe and the American forces went to the village to find out who was responsible. They found out that the IED was emplaced, at least in part, to attract attention to the village in the hope that some reconstruction projects would come their way.

The purpose of this paper is to provide an analysis of potential ancillary motivations for IED use in Afghanistan, such as the one described above.

(U//FOUO) At the most elementary level of assessment, behavior serves one of two purposes: to acquire/avoid losing something desirable or to escape/avoid something that is undesirable. While this approach still applies in Afghanistan, the complexities and nuances of the situations in the field may be lost in a simplistic model. A more sophisticated approach used in the field of Behavior Analysis expands upon the



fundamentals, believing motivation ultimately results from the product of the interaction of behavioral consequences, personal history, and the MO. The *Three-Term Contingency Model* is the contemporary method for illustrating the interrelationship of these factors. <sup>11</sup> The MO, sometimes referred to as an *Establishing Operation* (EO), is the force that puts human behavior in motion. <sup>12</sup> *Motivating Operations* increase or decrease the potential reinforcing or punishing effects of the outcomes related to engaging in behavior. <sup>13</sup>

(U//FOUO) To better understand an MO, imagine two people are asked to engage in the exact same task. In exchange for their efforts each will receive a pint of water. *Person A* abstained from drinking anything for the past 24 hours and *Person B* just finished drinking a quart of water. Even though the outcome for the task is the same for both, the water-deprived man, *Person A*, will find greater value in the outcome and will be more likely to engage in the behavior. In this example, the deprivation/satiation of water is the MO. The MO does not change the physical properties of the water that is delivered contingent upon completing the task; MOs only change the perceived value of the consequence. In the anecdotal report from Afghanistan previously presented, the lack of adequate infrastructure (i.e. roads) serves as the MO for setting the IED; receiving funding and technical support serves as the consequence for setting the IED.

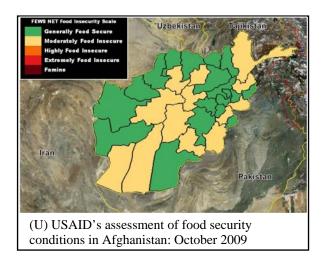
# (U) Poor Infrastructure in Afghanistan as a MO

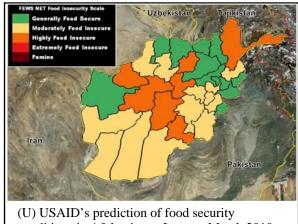
(U//FOUO) Individuals emplacing IEDs along roads that serve as the primary routes for delivering their own goods to market may sound counterintuitive. However, from a behavioral perspective, the function is no different than a landlord who burns down his own low-income tenement housing so that he can build high-priced condos. Decades of conflict, poor municipal management, and limited resources left Afghanistan's outdated infrastructure in shambles. Organizations, such as United States Agency for International Development (USAID), are working to improve humanitarian conditions by rebuilding Afghan infrastructure. As of 2006,

USAID construction efforts included 2,302 miles (3,706 km) of roads, 387 miles (623 km) of irrigation canals and pipelines, and 1,260 wells. In addition, other USAID projects include the building or refurbishing of numerous schools, clinics, government and community centers, communication and electrical distribution networks, market centers, industrial parks, and commercial distribution facilities. Development projects by USAID and similar organizations provide considerably improved conditions for those living in areas of great need. The difficult conditions in areas not receiving support, or receiving minimal levels of support, can serve as a powerful MO, setting the stage for a variety of behaviors that includes IED use. If use of an IED by villagers were successful in attracting sufficient attention, and ultimately the assistance of aid groups such as USAID, it would not only increase the probability of engaging in future IED attacks in order to attract assistance, but it could also serve as model which others could imitate. Future analysis investigating possible correlations between infrastructure improvements and IED strikes would aid in developing further assessments of causational factors.

# (U) Hunger in Afghanistan as a MO

(U//FOUO) Food is a fundamental need universal to all humans. The deprivation of food is a powerful MO, and has influenced human behavior throughout time. The quest for, and securing of food has been a major factor in conflicts across the globe and throughout history. The current war in Afghanistan is no different. According to the Famine Early Warning Systems Network (FEWS NET), a program within the USAID, the Afghan population faces a deteriorating situation in terms of food security. USAID's current assessment, as of October 2009, and its prediction of the food security situation are shown below in terms of the FEWS NET food insecurity scale (Appendix B). 15 Multiple factors contribute to food insecurity in Afghanistan, including, but not limited to, inclement weather, the amount of available land suitable for agriculture, the percentage of Afghanistan's farmland used for growing food, the lack of sufficient infrastructure, unemployment and displacement of individuals, and disruptions to commerce and daily life due to armed conflict. <sup>16</sup> Aid organizations, such as USAID, are attempting to assist the Afghan people to ward off a humanitarian crisis. However, the poor infrastructure and security issues in Afghanistan make distribution of assistance throughout the whole country difficult, especially in the southern provinces. If the FEWS NET prediction is correct, the likelihood of IED attacks on supply vehicles (humanitarian, military, or commercial) carrying food is likely to increase, especially throughout the mid-section of the country, as well as Badakhshan province in the north.





conditions in Afghanistan: January-March 2010

(U//FOUO) Anecdotal reports describe incidents in which assailants used IEDs to target caravans carrying humanitarian relief supplies, including food. The attackers then stole the food, and distributed it themselves. This in itself suggests three possible behavioral functions tied to the same MO. The first is to acquire food to eliminate or decrease hunger. This function is powerful, in that it can result in some of the most desperate and extreme behavioral topographies<sup>iii</sup>. The second is to make a profit by selling the food to those in need. Given that perpetrators stole the food, they could even sell at below-market-values and still turn a profit. Overlap may exist between this and the third function: garnering attention. The distribution of food to those in need, especially if done independent of a profit motive, would result in attention/support from a population. To state this from a public relations perspective, a group may steal food in order to distribute it as charity in their own name, so that they may win hearts and minds of the people. In effect, gaining the support of the people is the motivation, or at least part of the motivation, behind USAIDs relief actions. The specific purposes to which the IEDrelated behaviors serve will greatly depend on the individuals or groups engaging in the attacks.

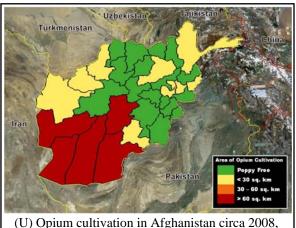
# (U) Poverty in Afghanistan as a MO

(U//FOUO) Fulfillment of the need for food, as well as the other basic needs (e.g. shelter, clothing, etc) often is tied to money and the ability to make a living. In a 9 November 2009 UPI article, a "senior officer with Task Force Leatherneck" suggested not all IEDs in Helmand province are set by committed militants fighting the Western forces. The unnamed officer explained Taliban leaders are paying locals \$20-\$50 USD for each IED they set. <sup>17</sup> The average income in Afghanistan is \$345 USD per year, placing the Afghan people behind nations such as Rwanda, Gambia, and Myanmar (aka Burma). <sup>18</sup> The added income generated by placing a few IEDs could make a significant difference in a family's quality of life.

iii Behavioral topography, sometimes also referred to as response topography, is the set of physical properties associated with the overt expression of a behavior or class or behaviors. These properties included, but are not limited to, the sequence, vector(s), form, and location relative to the rest of the body for the components of a behavior.

# (U) Opium Production in Afghanistan as a MO

(U//FOUO) Afghanistan is the source of 90 percent of the opium on the global market. <sup>19</sup> The United Nations Office on Drugs and Crime (UNODC) reports that opium cultivation in Afghanistan for 2008 covered over 1500 square kilometers, or roughly half the area of Maryland. <sup>20</sup> This adds up to significant portion of nation's total agricultural acreage, as Afghanistan as a whole is smaller than Texas. <sup>21</sup> The UNODC reports the highest concentration of poppy farming is in the southern provinces, with more than 60 square kilometers being used for opium cultivation in each of the provinces of Farah, Nimroz, Helmand, Uruzgan, and



(U) Opium cultivation in Afghanistan circa 2008, according to the UNODC.

Kandahar.<sup>22</sup> To put this in perspective, 60 square kilometers is approximately the size of Manhattan.<sup>23</sup> Afghanistan's poppy harvest resulted in the production of nearly 17 million pounds (7,700 metric tons) of opium in 2008.<sup>24</sup> Helmand province alone, which is slightly smaller than the state of West Virginia, produces more opium than any single nation in the world.<sup>25</sup> <sup>26</sup>

(U//FOUO) Opium accounted for over 60 percent of the nation's gross domestic product (GDP) in 2004, and, as of 2008, still equaled over one-third of Afghanistan's GDP. With opium serving as Afghanistan's single most lucrative industry, a possible alternative motivation for IED use in a portion of incidents is as a defensive measure rather than an offensive capability. More specifically, it is possible that some of the IEDs planted in Afghanistan, especially in the southern provinces of Helmand and Kandahar, are intended to protect the poppy fields and opium production facilities. There is growing open source data to support this hypothesis. According to Brig. Gen. John Nicholson, the deputy commander of NATO forces in southern Afghanistan, "...we often come across a compound that has opium and IED materials side by side, and opium and explosive materials and weapons." 28

(U//FOUO) U.S. commanders describe Afghanistan's IEDs, in general, as being more primitive than those found in Iraq.<sup>29</sup> Previous OSINT analysis shows an overlap in the chemistry of the opium refinement process and the development of homemade explosives (HME) in Afghanistan.<sup>30</sup> A chemist with the ability to refine opium would have sufficient skills to develop HME. Insurgents, narco-trafficers, or even farmers defending their livelihood could then use IEDs built from locally-produced HME.

(U//FOUO) It is difficult to differentiate the motives behind IEDs in or near sites related to opium production. The Taliban's primary foothold in Afghanistan is in the same southern provinces that account for the bulk of the opium production. The Taliban also raises capital by providing protection to poppy farmers, as well as processing opium. Experts estimate the Taliban's activities related to the opium industry generate over \$300 million a year. <sup>31</sup> Determining whether IEDs are placed around poppy fields in order to protect crops and other

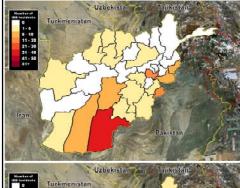
assets, or whether they are placed there because that is where U.S. and ISAF-Afghanistan forces will be patrolling becomes an almost academic debate. A critical factor in determining the motive for IED use in these cases is determining who placed the IED. The MOs influencing the average poppy farmer's behavior will most likely be very different than of the average Taliban militant.

# (U) Conclusion

(U//FOUO) In the long term, the best strategy for controlling the number of IED attacks in Afghanistan is to influence the number of IEDs being emplaced in the region. An understanding of the motivations behind the use of IEDs is necessary in order to achieve this goal. While the obvious motivation for emplacing an IED is to inflict harm upon others, secondary and tertiary motivations can coexist for the use of IEDs, as well as alternative motivations. Determination of the specific motivations driving IED use will vary based on a number of factors, not the least of which is 'who' is emplacing the device. The environmental variables impacting the perpetrator will be very telling of the motivations driving their behavior, and will provide an outline for the most effective strategy to influence their future behavior. Based on the available OSINT data, the circumstances linked to hunger, quality of life, economic development, and opium production in Afghanistan each create conditions that serve as potential MOs for IED use. Furthermore, if the food security prediction for Afghanistan generated by USAID's FEWS NET is correct, the likelihood of IED attacks directed at vehicles carrying food supplies is likely to increase, especially throughout the mid-section of the country, as well as in the northern province of Badakhshan. However, pinpointing the location and perpetrators of IED strikes in Afghanistan will provide for clearer analysis and understanding of the alternative motivations behind IED use.

# Appendix A

# (U) Distribution of IED Incidents per Year in Afghanistan: 2005 - 2009



# 2005

Number of IED incidents in each of Afghanistan's provinces during 2005, according to the WITS database. A total of 122 incidents were recorded for the year.



# 2006

Number of IED incidents in each of Afghanistan's provinces during 2006, according to the WITS database. A total of 223 incidents were recorded for the year.



# 2007

Number of IED incidents in each of Afghanistan's provinces during 2007, according to the WITS database. A total of 280 incidents were recorded for the year.



## 2008

Number of IED incidents in each of Afghanistan's provinces during 2008, according to the WITS database. A total of 461 incidents were recorded for the year.



#### 2009

Number of IED incidents in each of Afghanistan's provinces so far during 2009, according to the WITS database. A total of 533 incidents were recorded for the year-to-date, as of 28 October 2009.

# $\label{eq:Appendix B} \textbf{Appendix B}$ (U) Overview of the FEWS NET Food Insecurity Severity Scale $^{32}$

	Generally Food Secure	Moderately Food Insecure	Highly Food Insecure	Extremely Food Insecure	Famine
Summary	Nearly all households have adequate access to sufficient food to maintain an active and healthy life, without depending on humanitarian assistance. This means that there is adequate food available; that households have adequate resources to obtain sufficient food; and that they are healthy enough to receive the nutritional value of the food.	Some or all households are barely able to meet their basic food requirements on their own. To meet their requirements, they are relying on humanitarian assistance and/or coping strategies that begin to erode their asset base.	Some or all households face shortfalls in meeting their basic food requirements. Negative household response strategies are prominent, including reduction in the quantity and/or quality of meals, and/or increased depletion or liquidation of assets. Rates of acute malnutrition are above normal.	Some or all households face a severe shortfall in their basic food requirements. Reduced food intake is widespread, resulting in significantly increased rates of acute malnutrition and gradual destitution.	Destitution and starvation become prominent, and populations face high mortality risk, due to an extreme lack of access to food and other basic needs.
Acute malnutrition (weight/height < - 2 z-scores)	· 3%	› 3% but ‹ 10% ; usual range, stable	10-15%; vusual, increasing	› 15%; > usual, increasing	> 30%
Disease	n/a	n/a	Epidemic outbreak; increasing	Pandemic outbreak	Pandemic outbreak
Food access/ availability	Usually adequate, stable (2,100 kcal pppd)	Borderline adequate, unstable (2,100 kcal pppd)	Lack of entitlement (2,100 kcal pppd), meeting minimum needs through asset stripping	Severe entitlement gap, unable to meet minimum needs	Extreme entitlement gap; much below 2,100 kcal pppd
Water access/ availability	Usally adequate, stable (> 15 ltrs pppd)	Borderline adequate, unstable (> 15 ltrs pppd)	7.5-15 ltrs pppd; meeting minimum needs through asset stripping	7.5 Itrs pppd (human usage only)	4 ltrs pppd
Civil security	Prevailing and structural peace	Unstable, disruptive tension	Limited spread, low-intensity conflict	Widespread, high- intensity conflict	Widespread, high- intensity conflict

pppd = per person per day

# (U) Endnotes

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<sup>&</sup>lt;sup>1</sup> National Counterterrorism Center, "Afghanistan," Worldwide Incidents Tracking System, retrieved 28 October 2009.

<sup>&</sup>lt;sup>2</sup> Hannah Fairfield, Kevin Quealy, & Archie Tse, "Troop Levels in Afghanistan Since 2001," *New York Times*, 01 October 2009. http://www.nytimes.com/interactive/2009/10/01/world/middleeast/afghanistan-policy.html

<sup>&</sup>lt;sup>3</sup> National Counterterrorism Center, "Afghanistan"

<sup>&</sup>lt;sup>4</sup> Jason Straziuso, "US Predicts 50 Percent Spike in Afghan IEDs," *The Associated Press*, 15 May 2009. http://abcnews.go.com/International/wirestory?id=7598296&page=1

<sup>&</sup>lt;sup>5</sup> Matthew Cox, "IED incidents up dramatically in Afghanistan," *Army Times Publishing Company*, 18 July 2009. http://www.armytimes.com/news/2009/07/army\_IED\_brief\_071609w/

<sup>&</sup>lt;sup>6</sup> Sharon Weinberger, The battle against IEDs," *New York Post*, 25 October 2009. http://www.nypost.com/p/news/opinion/opedcolumnists/the\_battle\_against\_ieds\_E0BvLUIQR1N10aTKoCJ1UJ

<sup>&</sup>lt;sup>7</sup> Rahim Faiez & Amir Shah, "Afghan police: 7 dead in attack on UN in Kabul," *The Associated Press*, 28 October 2009. http://www.forbes.com/feeds/ap/2009/10/28/general-industrials-as-afghanistan\_7053180.html

<sup>&</sup>lt;sup>8</sup> OT/RI, "TRITON Afghanistan and Pakistan Report for Incidents during October 2009," *HMS Ltd*, 17 November 2009.

<sup>&</sup>lt;sup>9</sup> National Counterterrorism Center, "Afghanistan: 10/1/2009-10/31/2009," Worldwide Incidents Tracking System, retrieved 19 November 2009.

<sup>&</sup>lt;sup>10</sup> National Counterterrorism Center, "Afghanistan"

<sup>&</sup>lt;sup>11</sup> Marco D. Tomasi, "Human Performance in an Advanced Security System Environment" (Ph.D. Dissertation, Florida State University, 2007), 90.

<sup>&</sup>lt;sup>12</sup> S. Laraway, S. Snycerski, J. Michael, & A. Poling, "Motivating operations and terms to describe them: Some further refinements," *Journal of Applied Behavior Analysis* 36 (2003): 407-414.

<sup>&</sup>lt;sup>13</sup> Jack Michael, "Distinguishing discriminative and motivational functions of stimuli," *Journal of the Experimental Analysis of Behavior* 37 (1982): 149-155.

<sup>&</sup>lt;sup>14</sup> "Afghanistan: Infrastructure," USAID, January 2006. http://pdf.usaid.gov/pdf docs/Pdacg278.pdf

<sup>&</sup>lt;sup>15</sup> FEWS NET, "Afghanistan Food Security Update," *USAID*, October 2009. http://fews.net/docs/Publications/Afghanistan\_FSU\_October\_2009\_final.pdf

<sup>&</sup>lt;sup>16</sup> Ibid.

<sup>&</sup>lt;sup>17</sup> Richard Tomkins, IEDs are Main Threat in Southern Helmand, *United Press International*, 09 November 2009. http://www.upi.com/Top\_News/Special/2009/11/09/IEDs-are-main-threat-in-southern-Helmand/UPI-82141257802102/

<sup>&</sup>lt;sup>18</sup> United Nations Department of Economic and Social Affairs, "Indicators on income and economic activity," *United Nations Statistics Division*, June 2009. http://unstats.un.org/unsd/demographic/products/socind/inc-eco.htm

 $<sup>^{19}</sup>$  Dexter Filkins, "Poppies a Target in Fight Against Taliban,"  $\it New York Times, 28$  April 2009. http://www.nytimes.com/2009/04/29/world/asia/29afghan.html

<sup>&</sup>lt;sup>20</sup> "Afghanistan Opium Survey 2008," United Nations Office on Drugs and Crime, August 2008.

<sup>&</sup>lt;sup>21</sup> Central Intelligence Agency, "South Asia: Afghanistan," *CIA World Factbook*, 28 October 2009. https://www.cia.gov/library/publications/the-world-factbook/geos/af.html

<sup>&</sup>lt;sup>22</sup> "Afghanistan Opium Survey 2008"

<sup>&</sup>lt;sup>23</sup> "Manhattan Info – History," *Office of Manhattan Borough President Scott M. Stringer*, 2006. http://www.mbpo.org/free\_details.asp?id=75

<sup>&</sup>lt;sup>24</sup> "Afghanistan Opium Survey 2008"

<sup>&</sup>lt;sup>25</sup> Golnar Motevalli and Peter Graff, "FACTBOX-Facts about Afghanistan's Helmand province," *Reuters*, 18 July 2009. http://www.reuters.com/article/latestCrisis/idUSSP506492

<sup>&</sup>lt;sup>26</sup> "Afghanistan Opium Survey 2008"

<sup>&</sup>lt;sup>27</sup> Ibid.

<sup>&</sup>lt;sup>28</sup> Dexter Filkins

<sup>&</sup>lt;sup>29</sup> Nathan Hodge, "Fighting Afghanistan's Dumbed-Down — and Deadly — Bombs," *Danger Room*, 27 October 2009. http://www.wired.com/dangerroom/2009/10/fighting-afghanistans-dumbed-down-and-deadly-bombs/

 $<sup>^{30}</sup>$  Eric R. Parks, The Convergence of Chemical Precursors for Opium Refinement and Homemade Explosives (HME) in Afghanistan, JIEDDO J2 GIRC (06012009-002).

<sup>&</sup>lt;sup>31</sup> Dexter Filkins

<sup>&</sup>lt;sup>32</sup> FEWS NET, "FEWS NET Food Insecurity Severity Scale," *USAID*. Retrieved 09 October 2009 from http://www.fews.net/ml/en/info/pages/scale.aspx.