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## The Drone Dilemma

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In the years following the September 11th terrorist attacks, the US has come to rely heavily on the use of unmanned aerial vehicles (UAVs), or what are commonly referred to as “drones.” Deploying UAVs offers advantages to the US government for gathering intelligence, as well as for the elimination of high profile targets. However, targeted killings carried out by UAVs have sparked humanitarian and ethical debates due to civilian casualties and other collateral damage. This paper will explore the advantages and disadvantages of deploying UAVs. It will also argue that although UAVs contribute to the reduction of terrorism, the US is setting a dangerous precedent with its liberal use of a weapon that sometimes targets non-combatants or individuals erroneously labeled as terrorists.

Deploying UAVs in overseas operations is not unique to a post-9/11 world, but the evolution of drone usage is a prime example of technology that has changed the face of modern warfare. While soldiers practicing conventional warfare have to face each other on the battlefield and subject themselves to the possibility of injury or death, today’s advancement in UAV technology allows an operator from a base in Nevada to remotely bomb targets in Pakistan.<sup>1</sup> The absence of physical risk for the UAV operator is an advantage for the US, but this is not its major selling point. The UAV successfully combines Intelligence, Surveillance, and Reconnaissance (ISR) efforts with targeted killing abilities in what Dr. Katharine Kindervater, a fellow at Dartmouth College, refers to as “lethal surveillance.”<sup>2</sup> The practice of lethal surveillance has seen the US undertake an array of missions that showcase the successes of the UAV’s versatility. To list some examples: a Navy-controlled UAV assisted in the rescue of Captain Phillips off the coast of Somalia; UAVs were used to combat and ultimately push back al-Shabaab in Somalia; and both American and French UAVs provided ISR to the French *Opération Serval* in Mali.<sup>3</sup>

The versatility of the UAV has made it an ideal tool for both the US military and the Central Intelligence Agency (CIA). While controversy surrounds both, the CIA’s UAV operations have suffered the brunt of most criticisms.<sup>4</sup> Although the CIA program existed during the George W. Bush administration, it grew more expansive under President Barack Obama; in 2009, more CIA-led UAV attacks occurred in Pakistan than in all of the Bush years combined.<sup>5</sup> The frequency of usage is not the point of contention for critics, however. The CIA kept its

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<sup>1</sup> Ed Pilkington, "Life as a Drone Operator: 'Ever Step on Ants and Never Give It Another Thought?'" *The Guardian*, November 19, 2015, <https://www.theguardian.com/world/2015/nov/18/life-as-a-drone-pilot-creech-air-force-base-nevada>.

<sup>2</sup> Katherine Hall Kindervater, "The Emergence Of Lethal Surveillance: Watching And Killing In The History Of Drone Technology," *Security Dialogue* 47, no. 3 (2016): 224.

<sup>3</sup> Mike Fowler, "The Strategy of Drone Warfare," *Journal of Strategic Security* 7, no. 4 (2014): 108.

<sup>4</sup> Hillel Ofek, "The Tortured Logic of Obama's Drone War," *The New Atlantis* 27 (2010): 36.

<sup>5</sup> *Ibid.*, 36.

operations secret and withheld numerous civilian casualties from the public. The secrecy surrounding the CIA's operations and its incursion of numerous civilian casualties have resulted in a public outcry.

Operations conducted by the CIA were outside declared war zones, and as such, the Obama administration kept its UAV program under the veil of secrecy, refusing to acknowledge it publicly for years.<sup>6</sup> The Obama administration came under heavy fire when reports of strike missions resulting in non-combatant deaths flooded the foray of watchdog publications.<sup>7</sup> In an effort to quell critics and promote transparency, the White House released information claiming "that airstrikes it has conducted outside conventional war zones like Afghanistan have killed 64 to 116 civilian bystanders and about 2,500 members of terrorist groups."<sup>8</sup> However, human rights groups like the American Civil Liberties Union were not satisfied with the data. They claimed that the government failed to release information specifying the date and location of UAV strikes, so that the government data could be compared with independent accounts.<sup>9</sup> Indeed, independent accounts of civilian casualties see a significantly larger toll than the government's claim of 64 to 116. Some watchdog groups have estimated that the civilian death toll could be as high as 800.<sup>10</sup> However, due to the lack of specificity within the government's data, it is difficult to determine the actual number of civilian casualties. Watchdog groups like the Bureau of Investigative Journalism, which indicates that the casualty totals are higher than the government's report claims, are subject to inaccuracies due to the secrecy of the information as well as the occasional danger of verifying reports.<sup>11</sup>

In further efforts to dampen public criticism of UAV strikes under Obama's tenure, national security officials and intelligence analysts shared their insights with *The Washington Post* on the process by which targets are selected for strikes. According to the article, the Obama administration developed a targeting list dubbed the "disposition matrix."<sup>12</sup> The matrix takes data accrued by the CIA, the Joint Special Operations Command, and the National Counterterrorism Center to compile a database consisting of information on terrorists such as biographies, locations, known associates, and affiliated organizations.<sup>13</sup> According to Jutta Weber, professor at the University of Paderborn, these data are then "searched and clustered to produce patterns of

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<sup>6</sup> Spencer Ackerman, "Obama Claims US Drones Strikes Have Killed up to 116 Civilians," *The Guardian*, July 1, 2016, <https://www.theguardian.com/us-news/2016/jul/01/obama-drones-strikes-civilian-deaths>.

<sup>7</sup> Ibid.

<sup>8</sup> Charlie Savage and Scott Shane, "U.S. Reveals Death Toll From Airstrikes Outside War Zones," *The New York Times*, July 1, 2016, <http://www.nytimes.com/2016/07/02/world/us-reveals-death-toll-from-airstrikes-outside-of-war-zones.html>.

<sup>9</sup> Ibid.

<sup>10</sup> Ackerman, "Obama Claims."

<sup>11</sup> Ibid.

<sup>12</sup> Greg Miller, "Plan for Hunting Terrorists Signals U.S. Intends to Keep Adding Names to Kill Lists," *The Washington Post*, October 23, 2012, [https://www.washingtonpost.com/world/national-security/plan-for-hunting-terrorists-signals-us-intends-to-keep-adding-names-to-kill-lists/2012/10/23/4789b2ae-18b3-11e2-a55c-39408f6e6a4b\\_story.html](https://www.washingtonpost.com/world/national-security/plan-for-hunting-terrorists-signals-us-intends-to-keep-adding-names-to-kill-lists/2012/10/23/4789b2ae-18b3-11e2-a55c-39408f6e6a4b_story.html).

<sup>13</sup> Ibid.

correlations between [them] and thus to discover knowledge in databases.”<sup>14</sup> Based off the patterns and correlations found within the matrix, profilers utilizing the data hope to predict the future behavior of targets.<sup>15</sup>

Data are also being collected from digital devices and social media outlets such as Facebook and Twitter. Information gathered from cell phone lists, laptop images, thumb drives, and various social media accounts is entered into the “Terrorist Identities Datamart Environment” (TIDE).<sup>16</sup> By amassing these various data points and processing them through the matrix, the government hopes to better predict the future actions of suspects as well as name any and all persons associated with each suspect. However, processing this data can lead to errors. The government uses controversial metadata analysis and cell phone tracking technologies to identify targets. Once a target has been selected based on the location of his or her cell phone, a strike can be ordered by the CIA or military without confirming the target’s identity with operatives or informants on the ground.<sup>17</sup> Lack of confirmation could lead to unintended deaths, either because the automated process of selecting a target via the matrix pulled the name of a no risk or low risk person, or because the cell phone had switched hands.

It is possible that persons posing zero risk to US security have been added to watchlists, and possibly kill lists. For example, Al Jazeera journalist Ahmad Muaffaq Zaidan was erroneously placed on a watchlist. His job as a journalist has taken him to places like Pakistan, where he has interviewed and written articles about al Qaeda and the Taliban.<sup>18</sup> The way the data mining system is designed, simply being in contact with persons already on a watchlist is reason enough to be also be added to the list. This is an inefficient way to single out persons of interest or potential targets. It could lead to civilian fatalities. Such inaccurate methods of highlighting targets are a waste of government resources and needs to be improved.

Despite the access to data from social media and digital devices, there exists a vital lapse in the government’s data collection process. The site of a high profile target following a UAV strike is seldom searched. There is no denying that it is most preferable to bring in a target alive so that he or she may be interrogated.<sup>19</sup> By killing a target via UAV strike, it not only removes the possibility of interrogating the target, but it also minimizes the data collected within the vicinity of the target. After targets have been slated for termination via UAV strike, there are seldom ever troops or agents on the ground to collect vital pieces of information or evidence from a target’s house.<sup>20</sup> Data collection is at the heart of the UAV targeting program, but strike

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<sup>14</sup> Jutta Weber, "Keep Adding: On Kill Lists, Drone Warfare And The Politics Of Databases," *Environment And Planning D: Society And Space* 34, no. 1 (2016): 109

<sup>15</sup> *Ibid.*, 109.

<sup>16</sup> Jeremy Scahill and Ryan Devereaux, "Blacklisted," *The Intercept*, July 23, 2014, <https://theintercept.com/2014/07/23/blacklisted>.

<sup>17</sup> Weber, "Keep Adding," 112.

<sup>18</sup> *Ibid.*, 113.

<sup>19</sup> Ofek, "Tortured Logic," 37.

<sup>20</sup> Cora Currier and Peter Maas, "Firing Blind," *The Intercept*, October 15, 2015, <https://theintercept.com/drone-papers/firing-blind>.

missions can minimize the amount of intelligence gathered. Without intelligence, targets cannot be selected, and without targets, new intelligence cannot be acquired. The process can therefore be flawed and counterproductive.

Beyond what the government has voluntarily divulged regarding the disposition matrix, information leaked to *The Intercept*, a national security news website, details the National Counterterrorism Center's definition of terrorism which agency? According to *The Intercept* article "Blacklisted":

[The] definition of "terrorist" activity includes actions that fall far short of bombing or hijacking. In addition to expected crimes, such as assassination or hostage-taking, the guidelines also define destruction of government property and damaging computers used by financial institutions as activities meriting placement on a list. They also define as terrorism any act that is "dangerous" to property and intended to influence government policy through intimidation.<sup>21</sup>

The definition for "terrorist" is too broad, and when taken in conjunction with the disposition matrix, it raises some pressing concerns. "Reasonable suspicion" is the minimum necessity for someone to be placed on a watchlist.<sup>22</sup> As a result, many targets entered into the system may not even pose devastating risks to US national security. The ambiguity in labeling someone a "terrorist" can be problematic. For example, one condition for being placed on a kill list is to be a member of an "organized armed group."<sup>23</sup> This definition could be applied not only to armed insurgents, but also to an American family that owns guns or to "a group of tribal elders in Waziristan who traditionally carry weapons as a sign of their status."<sup>24</sup> As the matrix continues to bank more people who are deemed "terrorists" even without concrete facts or evidence, the government will find itself wasting resources on low threat targets while perhaps unwittingly allowing serious threats to slip under the radar.<sup>25</sup>

It is possible to argue that the disposition matrix is designed to guard against targeting persons at low or no risk because it is not a fully automated process. After all, the process of selecting a target for a lethal UAV operation involves the president's direct input. During his presidency, Obama had elected to personally review and greenlight lethal UAV operations by reviewing a dossier that members in the administration have likened to a "baseball card."<sup>26</sup> The president was given a biography of each potential target and a "baseball card," which included a portrait of the person along with the threat that he or she poses.<sup>27</sup> On average, the president took about 58 days to sign off on a target and the US forces will have 60 days to carry out a strike.<sup>28</sup>

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<sup>21</sup> Scahill and Devereaux, "Blacklisted."

<sup>22</sup> Ibid.

<sup>23</sup> Weber, "Keep Adding," 110.

<sup>24</sup> Ibid., 110.

<sup>25</sup> Scahill and Devereaux, "Blacklisted."

<sup>26</sup> Weber, "Keep Adding," 109.

<sup>27</sup> Jeremy Scahill, "The Assassination Complex," *The Intercept*, October 15, 2015, <https://theintercept.com/drone-papers/the-assassination-complex>.

<sup>28</sup> Ibid.

It may seem reassuring that the government is meticulously combing through a diverse array of data points to compile a list of terrorist suspects for watch and kill lists. However, these efforts have often failed. Take the case of Umar Farouk AbdulMutallab, otherwise known as the “underwear bomber.” In 2009, AbdulMutallab attempted to smuggle and detonate a bomb hidden in his underwear onto a plane. While he ultimately failed in his plan due to technical difficulties, the case of AbdulMutallab is notable for two reasons: AbdulMutallab’s father warned authorities at the US embassy in Nigeria that his son was planning an attack<sup>29</sup> and AbdulMutallab was listed in TIDE.<sup>30</sup> With both a physical witness providing factual information and a listing in the TIDE database, this is a clear failure of the US government to prevent a serious threat.

President Obama responded to these criticisms by acknowledging a “systemic failure” and promised “corrective efforts” in conjunction with ordering “agency heads to establish internal accountability reviews.”<sup>31</sup> This did not make the system foolproof. In a 2012 report by the US Government Accountability Office (GAO), it was noted that “no entity is assessing whether watchlist-related screening or vetting is achieving intended results from a policy perspective, or if adjustments to agency programs or the watchlisting guidance are needed.”<sup>32</sup> In other words, the accountability Obama promised in 2010 had not materialized and no one was verifying the threat of persons being added to government watchlists.

Escalating pressures from human rights and watchdog groups appalled by the government’s broad-sweeping documentation of people classified as “terrorists” and the civilian casualties wrought by the secretive CIA UAV operations resulted in the Obama administration curtailing its reliance on the CIA in targeting killing missions. In 2016, the US began shifting responsibility for lethal counterterrorism operations to the Pentagon.<sup>33</sup> This action, in conjunction with the White House releasing its data on casualties, was an effort by the Obama administration to both increase transparency as well as address criticisms that the CIA has become a “paramilitary organization” in the years following 9/11.<sup>34</sup>

The transition from the CIA to Pentagon neither decreased the deployment of drones, nor reduced non-combatant targeting. Former US air force UAV operators like staff sergeant Brandon Bryant have made public their stories about firing Hellfire missiles on targets. From an

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<sup>29</sup> “Underwear Bomber Abdulmutallab Sentenced to Life,” *BBC News*, February 16, 2012, <http://www.bbc.com/news/world-us-canada-17065130>.

<sup>30</sup> Scahill and Devereaux, “Blacklisted.”

<sup>31</sup> White House, “Remarks by the President on Strengthening Intelligence and Aviation Security,” Office of the Press Secretary, January 7, 2010, <https://www.whitehouse.gov/the-press-office/remarks-president-strengthening-intelligence-and-aviation-security>.

<sup>32</sup> U.S. Congress, U.S. Government Accountability Office, *Terrorist Watchlist: Routinely Assessing Impacts of Agency Actions since the December 25, 2009, Attempted Attack Could Help Inform Future Efforts*, March 31, 2012, <http://www.gao.gov/products/GAO-12-476>.

<sup>33</sup> Greg Miller, “Why CIA Drone Strikes Have Plummeted,” *The Washington Post*, June 16, 2016, [https://www.washingtonpost.com/world/national-security/cia-drone-strikes-plummet-as-white-house-shifts-authority-to-pentagon/2016/06/16/e0b28e90-335f-11e6-8ff7-7b6c1998b7a0\\_story.html](https://www.washingtonpost.com/world/national-security/cia-drone-strikes-plummet-as-white-house-shifts-authority-to-pentagon/2016/06/16/e0b28e90-335f-11e6-8ff7-7b6c1998b7a0_story.html).

<sup>34</sup> *Ibid.*

air force base in Las Vegas, Bryant was ordered to fire on a group of men and their camel because they were suspected of carrying explosives for use on US troops.<sup>35</sup> Upon close inspection, however, there were no signs of weapons on the men or camel, and after Bryant fired the Hellfire missile, there was no secondary explosion to indicate the detonation of the alleged explosives carried by the men.<sup>36</sup> On another mission, Bryant was asked to kill three individuals on the grounds that they were “reinforcements coming to join anti-US Taliban forces.”<sup>37</sup> However, upon scrutinizing their movements, Bryant deduced that their actions indicated they were “terrified” and “unlikely to be trained fighters.”<sup>38</sup> He killed them anyway because he was ordered to do so. This poses the question: are targets who present themselves to be untrained and frightened deserving of death by Hellfire missiles? Data from these operations to prove that Bryant successfully prevented explosives from harming Americans or prevented reinforcements from joining anti-US Taliban forces are not available to the public. Whether or not this is an example of low risk individuals being targeted by the disposition matrix is uncertain, but combined evidence from the account of operators like Bryant, leaked documents by whistleblowers, and allegations from watchdog groups all suggest fatal miscalculations have been made.

Some of the rhetoric coming from inside Bryant’s base is also cause for concern. Labeling children as “fun-sized terrorists” and referring to the act of killing targets as “pulling the weeds before they overrun the lawn” could be indicative of a dangerous attitude towards civilian casualties.<sup>39</sup> Perhaps it is an indication that some members at the base viewed the killing of children or civilians as preventative measures. What is even more worrisome is the desperation with which the air force is seeking operators. When he failed a student that demonstrated a disturbing eagerness for bombing civilians, Bryant was reprimanded on the grounds that the air force did not employ enough operators to have the luxury of turning away interested applicants.<sup>40</sup> If Bryant’s allegations are true, combining dubious language with desperate hires will only increase future civilian casualties.

Taken in conjunction with the accounts from former UAV operators, a wealth of documents given by a whistleblower to *The Intercept* illustrate the failures of UAV precision attacks. In what was known as Operation Haymaker, a comprehensive campaign in Afghanistan was led by the US government to pinpoint and eliminate al Qaeda operatives.<sup>41</sup> However, Operation Haymaker failed because “the vast majority of those killed in airstrikes were not the direct targets.”<sup>42</sup> According to the military’s analysis of the operation, approximately 9 out of 10

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<sup>35</sup> Pilkington, “Life as a Drone Operator.”

<sup>36</sup> Ibid.

<sup>37</sup> Ibid.

<sup>38</sup> Ibid.

<sup>39</sup> Ibid.

<sup>40</sup> Ibid.

<sup>41</sup> Ryan Devereaux, “Manhunting in the Hindu Kush,” *The Intercept*, October 5, 2015, <https://theintercept.com/drone-papers/manhunting-in-the-hindu-kush>.

<sup>42</sup> Ibid.

people who died in airstrikes were not intended targets.<sup>43</sup> Casualties are labeled as “enemies killed in action” and it is commonplace to classify the dead as enemies until they are proven otherwise.<sup>44</sup> As was mentioned previously, there are instances where operatives are not on the ground to collect data after a successful strike operation. Not only does this limit the government’s ability to collect data on the target, but it also prevents the proper identification of unintended casualties.

The collateral damage when using UAVs to promote US national security weigh heavily on the public conscience. Yet warfare, conventional or not, always comes with the potential for injuring or killing civilians. Human rights groups will criticize the loss of civilian life while governments and militaries may deflect such criticisms with adages such as “the ends justify the means.” Sacrificing the few for the many could be used as justification for the continuation of the US’s lethal surveillance activities so long as the US is able to successfully meet its core objectives.

The main purpose for lethal UAV operations is to target terrorists and their strongholds in the Middle East, and subsequently reduce terrorist attacks.<sup>45</sup> So has the US been successful in weakening terrorists via the use of its UAVs? According to an empirical study on Pakistan’s Federally Administered Tribal Areas (FATA) by Ummad Mazhar, the data suggest UAV strikes “have significant negative effect on the size of terrorism.”<sup>46</sup> Mazhar’s study offers several key insights. First, terrorist attacks are approximately 8 times larger in terms of causing damage than UAV strikes, and they occur much more frequently.<sup>47</sup> This is important because it can be used as justification for the idea that the lives of the many outweigh the lives of the few, especially if those few are high profile terrorists who are plotting deadly attacks. Additionally, more civilians are explicitly targeted and killed by terrorists’ attacks than by UAV strikes.<sup>48</sup> Ultimately, the study concludes that UAV strikes do have a significant negative effect on terrorism.<sup>49</sup> This is confirmed in another study by the RAND Corporation. The study’s empirical analysis also shows a significant negative correlation between UAV strikes and terrorist activities within the FATA area.<sup>50</sup> The takeaway here is that the UAV program is successful in fulfilling its main purpose.

In the two studies by Mazhar and RAND, it is clear that UAVs carry out their purpose and decrease terrorist activity by an empirically significant degree. However, the efficacy of this program is not reflected in public opinion. The US’s UAV program is almost universally

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<sup>43</sup> Ibid.

<sup>44</sup> Ibid.

<sup>45</sup> Ummad Mazhar, "Do Remotely Piloted Aerial Vehicles Make Terrorism More Costly For Terrorists?" *International Journal Of Conflict Management* 27, no. 4 (2016): 471.

<sup>46</sup> Ibid.

<sup>47</sup> Ibid., 475

<sup>48</sup> Ibid.

<sup>49</sup> Ibid., 482

<sup>50</sup> Patrick B. Johnston and Anoop K. Sarbahi, "The Impact Of US Drone Strikes On Terrorism In Pakistan," *International Studies Quarterly* 60, no. 2 (2016): 215.

opposed in Pakistan, and “Pakistan’s Thirteenth National Assembly (2008-13) even declared unanimously that the program violated Pakistani sovereignty.”<sup>51</sup> If the program is successfully protecting Pakistanis from terrorist attacks, which cause far more collateral damage than targeted UAV strikes, why is the public opinion of it unfavorable? To answer this question, it is first necessary to trace where Pakistanis receive their information regarding UAVs. In a series of empirical studies conducted by associate professor C. Christine Fair of Georgetown University, Fair first identified the differences between the formation of public opinion in developed countries versus developing countries. According to Fair, “poor, developing countries do not have the same environments for the supply and demand for political communication that rich, developed countries do.”<sup>52</sup> For the Pakistanis to formulate an opinion about UAVs, they first require access to engaging reports absent of misinformation campaigns and state-controlled propaganda. Studies have shown that people in developing countries are typically apathetic to political communication, and political apathy is usually a product of one’s education and socio-economic status.<sup>53</sup> Pakistanis who are not in politically stimulating atmosphere therefore rely on the opinions of elites “to parse political issues that they do not fully understand.”<sup>54</sup> According to Fair, elites include: “a famous television or radio commentator; an editorial writer in a paper; a political figure; or a teacher at a local secondary school.”<sup>55</sup> The views of such people are subsequently taken as expert views. Aside from listening to elites, people also formulate political opinions by speaking to trusted friends, neighbors, and family.<sup>56</sup> Indeed, Fair’s study indicates that an overwhelming 87% of participants within her survey received formulated their political opinions via word of mouth.<sup>57</sup> Television contributed 65.2%, traditional gatherings 41.1%, and religious leaders 39.3%.<sup>58</sup>

In a second study, Fair confirms that most Pakistanis are exposed only to negative information regarding US UAV operations.<sup>59</sup> This negative information is disseminated by Urdu-language media and then spread by word-of-mouth.<sup>60</sup> Further, negative views on UAV operations also coincide with negative views about the US itself. As Fair states, “The more negative the respondent was about the United States in general, the more likely he or she was to oppose drone strikes.”<sup>61</sup> The US has taken these negative views into consideration and has adjusted its UAV operations by utilizing more precise targeting systems and reducing the frequency of UAV

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<sup>51</sup> C. Christine Fair, Karl Kaltenthaler, and William Miller, "Pakistani Political Communication And Public Opinion On US Drone Attacks," *Journal Of Strategic Studies* 38 no. 6 (2015): 853.

<sup>52</sup> *Ibid.*, 858.

<sup>53</sup> *Ibid.*, 858-859.

<sup>54</sup> *Ibid.*, 859.

<sup>55</sup> *Ibid.*, 860-861.

<sup>56</sup> *Ibid.*, 861-862.

<sup>57</sup> *Ibid.*, 865.

<sup>58</sup> *Ibid.*, 866.

<sup>59</sup> C. Christine Fair, Karl Kaltenthaler, and William J. Miller, "Pakistani Opposition To American Drone Strikes," *Political Science Quarterly* 131, no. 2 (2016): 418.

<sup>60</sup> *Ibid.*, 418.

<sup>61</sup> *Ibid.*, 418.

strikes.<sup>62</sup> It has even coordinated with the Pakistani government and sold unarmed ISR UAVs so as to facilitate a cooperative UAV effort in the fight against terrorists. If the US is to continue its UAV operations in Pakistan, it knows that it must win over the hearts of the Pakistani people with more than just empirical evidence proving reduction in terrorist activity.

While the study uses Pakistan's views to represent those of a developing country, it's important to note that the US and European Union also generally hold a negative view on UAV strikes. In developed countries, information is not exclusively influenced by the views of the elites or word-of-mouth gossip. Rather, opinions are shaped predominantly by "law-based arguments about sovereignty and protecting civilians."<sup>63</sup> Regardless of the efficacy of the UAV strikes on terrorist targets, Western public opinion of drone usage hinges on the rhetoric of non-governmental organizations (NGOs) and international organizations.<sup>64</sup> NGOs like Amnesty International have raised concerns "that targeted killings by US drones occurring outside the conditions of armed conflict violate the prohibition of arbitrary deprivation of life and may constitute extrajudicial executions."<sup>65</sup> Claims like these negatively affect the public's opinion on UAV operations in developed countries as people ponder the broader impact of the continued use of these weapons in shaping the political, legal, and ethical future of the international community.

Taking everything into consideration, the current risks posed by lethal UAV strikes put the world in a precarious situation. The US is setting a precedent of asymmetrical warfare that could result in catastrophic consequences in the future. As more states continue to research and advance their UAV technology, it is only a matter of time before these weapons will be used to unleash targeted killings against the US and its allies as either an act of war or as an act of defense against "terrorists." Even if enemy states do not intend to conduct lethal surveillance against the US, there exists the possibility of non-state actors hijacking this technology. Without fear of consequences or condemnation by the international community, terrorists could unleash mass havoc on a world ill-equipped with preventative measures. When benign drones appeared at Gatwick airport,<sup>66</sup> they caused panic and chaos even though no physical damage occurred. A repeat of the incident with an armed drone or a drone that stealthily rams into a jet turbine would have catastrophic consequences. Why should other countries stay their hand from harming civilians if the US—the pioneering architect of UAV warfare—will not do the same? It is not possible at this stage to remove drone technology from use, but the US could change tactics and use UAVs strictly for ISR missions. Perhaps they could go a step further and repurpose their combat UAVs to drop food and medical supplies to troubled areas that cannot be reached by conventional

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<sup>62</sup> Ibid., 419.

<sup>63</sup> Sarah E. Kreps and Geoffrey P. R. Wallace, "International Law, Military Effectiveness, And Public Support For Drone Strikes," *Journal Of Peace Research* 53, no. 6 (2016): 839.

<sup>64</sup> Ibid., 839.

<sup>65</sup> Ibid., 831.

<sup>66</sup> "Gatwick Police 'Not Prepared for Two Drones,'" *BBC News*, July 9, 2019, <https://www.bbc.com/news/uk-england-sussex-48929442>.

means.<sup>67</sup> There are other ways to conduct counterterrorism operations outside of drone deployment, and the US can reallocate funding from its lethal UAV projects to researching methods of suppressing terrorist activity that will not result in numerous unintended casualties.

In sum, the non-combatant deaths incurred via the use of lethal UAV operations are cause for concern. When assessing the efficacy of neutralizing targets by UAV strikes, it is important to understand how those individuals are chosen. The US's use of a complicated network of databases via the disposition matrix has left room for a notable margin of error. Because the term "terrorist" is broad, many people who possess no risk or low risk of threat have been added to the database, which in turn taxes the government's resources. High threat targets like Umar Farouk AbdulMutallab have slipped through the system, and although President Obama promised more accountability and improvements in the system, a report by the GAO made it clear that such shortcomings were not successfully addressed by the government. When targets are selected, UAV strikes have the potential to terminate civilians and kill anyone (terrorist or not) surrounding the intended target. Collateral damage caused by secretive UAV strikes outside of war zones have earned the ire of human rights groups and government watchdogs, as well as people who live in states besieged by UAV operations.

Despite negative public opinion, empirical data demonstrate a significant negative correlation between UAV strikes and terrorist attacks. Taking all of these aspects under consideration, it is best for the US to reinstate its policy of transparency and reevaluate its usage of drones. Even a single civilian casualty is one too many, and terrorists are better taken alive so that they may be interrogated. UAVs are great tools for ISR and they should continue to be used for those purposes. Continued deployment of UAVs outside of war zones should be suspended until greater improvements are made to targeting systems and terrorist classification. If the US continues liberally using UAVs while disregarding the civilian consequences, it invites revenge drone attacks by enemy states, terrorists, and hackers. The US is at the forefront of deploying UAVs and it should endeavor to set a strong precedent for exemplary targeting, transparency, and accountability.

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<sup>67</sup> Austin Choi-Fitzpatrick, "Drones For Good: Technological Innovations, Social Movements, And The State," *Journal Of International Affairs* 68, no. 1 (2014): 24