International & National Security Law

Clearing the Air: The Real Reason Why Drones are the Weapon of Choice in Counterterrorism and Why That is a Good Thing for Civilians

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Note from the Editor:

This article is about the use of drones in counterterrorism operations. As always, the Federalist Society takes no position on particular legal or public policy initiatives. Any expressions of opinion are those of the authors. The Federalist Society seeks to further discussion about the issues surrounding drone warfare. To this end, we offer links below to different perspectives on the issue, and we invite responses from our audience. To join this debate, please email us at info@fed-soc.org.

- Editorial, Hina Shamso, Director of the ACLU's National Security Project, *Drones are unlawful and dangerous*, USA Today, June 6, 2012: http://usatoday30.usatoday.com/news/opinion/story/2012-06-12/drones-ACLU-Hina-Shamsi/55556482/1
- Anna Mulrine, *Drone Warfare: top 3 reasons it could be dangerous for US*, Christian Science Monitor, Oct. 2, 2012: http://www.csmonitor.com/USA/Military/2012/1002/Drone-warfare-top-3-reasons-it-could-be-dangerous-for-US/Copy-cat-attacks
- Spencer Ackerman, Benjamin H. Friedman, & Julian Sanchez, Cato Institute, The Implications of the Expanding U.S. Drone Program (July/August 2013): http://www.cato.org/policy-report/julyaugust-2013/implications-expanding-us-drone-program
- David Rittgers, *Both Left and Right are Wrong about Drones*, Wall St. J., Feb. 25, 2010: http://www.cato.org/publications/commentary/both-left-right-are-wrong-about-drones

Introduction

No weapon is more closely identified with the ongoing conflict with al Qaeda and its associated forces than the armed drone. Although the first armed drone strike occurred in Yemen in 2002,[1] drones were not used extensively outside of the reconnaissance role until the tail end of the Bush Administration. As cross-border attacks from Pakistan were becoming an increasing problem for U.S. forces in Afghanistan, the unique capabilities of armed drones became relevant. After demonstrating their value in the counterinsurgency in the Af/Pak region from 2008-2011 drones also took on a major role in the conflict with al Qaeda in the Arabian Peninsula (AQAP) and Ansar al-Sharia (AAS) in Yemen in 2010-2011. Although the frequency of strikes in both Pakistan and Yemen has decreased in the past year or so, drones remain active in both regions.

I. Why Are Drones Used?

The first answer that most people offer to this question is that drones have the advantage of keeping pilots out of harm's way. While this is undoubtedly a benefit of their use, it is a very minor one in the context of the conflicts with al Qaeda. No Coalition fixed-wing aircraft have been shot down in Afghanistan, so the risk reduction associated with using drones rather than manned aircraft is negligible. It is other factors that have contributed to the increased reliance on drones in the Af/Pak region in 2008-2009 and in Yemen since 2010.

The drones' distinctive capabilities that drove their use in Af/Pak were their loiter time, the size of their weapons, and the increased commander control of weapons employment decisions. The capability of drones such as the MQ-9 Reaper to fly unrefueled missions of over 20 hours allows the drone to loiter over an area of interest or a target for many hours at a time, providing continuous real-time coverage. A couple of drones can follow a potential target for days or even weeks at a time to create a "pattern of life" analysis that assists in determining whether the target is engaged in hostile activities. Such pattern of life analysis is critical to confirming intelligence that provides the basis for much of the targeting in counterinsurgencies operations. In comparison, it would take three or four manned aircraft, along with continuous dedicated airborne tanker support, to provide the same coverage.

A second reason why drones are ideal counterinsurgency tools is the size of the weapons they carry. The weapon most commonly used by drones is the Hellfire missile. Originally developed for use on helicopters, Hellfires weigh 100 pounds with a warhead of approximately 20 pounds. In contrast, the Maverick air-to-surface missile weighs 450-800 lbs (depending upon the variant) and carries a warhead of 125-300 lbs., and the smallest laser guided bomb in the U.S. inventory (the GBU-39) weighs 250 lbs. and carries a warhead of 50 lbs.[2] In the context of a counterinsurgency, where concerns about col-

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lateral damage and civilian casualties are in the front of every commander's mind, using a weapon that is ¼ to ½ the size of other standard ordnance is a great advantage.

The increased control over weapons employment decisions provided by drones is very appealing to commanders. Manned aircraft are typically flown by junior officers (primarily O-3's and O-4's)[3] who make weapons employment decisions based upon the law of armed conflict (LOAC) training they receive. Although commanders are able to emphasize aspects of the rules of engagement (ROE) in preflight briefings, the decision to actually employ weapons from manned aircraft is ultimately in the hands of one or two junior officers. While drones are also operated by junior officers (and in some cases enlisted personnel), these personnel typically have very restrictive weapons release authority.[4] In most cases drone operators may only employ their weapons with the approval of senior officers that have access to the same sensor feeds (optical and/or infrared) that they do. Before giving such approval, the senior officers are able to consult with others in the chain of command, as well as with legal and intelligence officers who can provide additional input as to the validity of the strike. These additional sets of eyes offering legal, intelligence, and senior command perspectives greatly improve the likelihood that weapons released by drones comply with both the laws of war and the ROE.[5]

Drones offer commanders the ability to control weapons employment in a counterinsurgency environment in a way that no other weapons system can. They also allow for greater legal and intelligence oversight while employing much smaller weapons thus reducing the likelihood of collateral damage. Finally, they do these things while providing almost unlimited real-time coverage of the target—which would be almost logistically impossible (and many times more expensive) if it were done by manned aircraft. These are the reasons why drones are being utilized in Pakistan and Yemen.

II. Civilian Casualties and Drones

There is very little debate that drones are legal weapons of war. The laws that govern them are the same as the laws governing manned aircraft.[6] But in spite of this broad acknowledgement of their legality, drones are frequently criticized for causing excessive civilian casualties by commentators, politicians, and human rights activists alike. In many cases these criticisms are accompanied by calls for their curtailment or outright prohibition,[7] particularly outside of "hot" battlefields.[8]

All armed conflicts cause civilian casualties, and most modern conflicts have memorable examples of civilian casualties that have been caused by all kinds of weapons systems. The 1991 Gulf War involved the Al-Firdos bunker airstrike that killed up to 400 civilians. The Kossovo campaign included airstrikes that hit the Chinese Embassy in Belgrade and struck a civilian train in the Grdelica gorge. Major civilian casualty incidents in the 2003 Iraq War included those caused by Marine ground troops in Haditha and military contractors in Nisoor Square. A cruise missile strike in 2009 killed approximately 35 civilians at al-Majalah in Yemen.[9] Like all these other weapons systems, drones have killed civilians. And like any weapons system there was a learning curve associated with their use. The evolution of drone targeting, and the reasons behind it, are described below.

A. Compound Strikes

Drones were first used to watch, and then strike, individual members of al Qaeda and their associated forces in Af/Pak and later in Yemen. These strikes, which targeted individual leaders, were termed "personality strikes." Although quite effective in degrading al Qaeda's leadership, personality strikes were often criticized for causing civilian casualties, with some justification. This was because a high percentage of personality strikes in the first few years of the drone program targeted leaders inside their compounds. One of the reasons for targeting compounds was that this tactic greatly increased the likelihood that the correct individual was being targeted while reducing the likelihood that members of the general civilian population would be harmed. At the same time, however, it also greatly increased the likelihood that members of the target's family and the families of his bodyguards and close associates would be harmed. Even with active surveillance it is extremely difficult to know precisely who is in a compound at any given time and whether family members and friends are in the same building or same room as a target.

B. Vehicle Strikes

When Gen. Stanley McChrystal took command of the International Security Assistance Force (ISAF) in Afghanistan in 2009 he emphasized the need to continue reducing civilian casualties as part of the counterinsurgency strategy. To aid in this process he assigned teams of civilian and military leaders to conduct a root cause analysis of every civilian casualty in theater and tasked them with developing protocols to eliminate such casualties.[10] As casualties among civilian family members and friends continued to occur during compound strikes, the military utilized these strikes less frequently in favor of targeting vehicles.

Although vehicle strikes create a greater risk of target misidentification, surveillance and pattern of life analysis can mitigate that risk substantially. The pattern life analysis allows drone operators to predict when a target vehicle is likely to be in a sufficiently remote area to greatly reduce the likelihood of civilian casualties. In most cases the only casualties other than the target would be the target's driver and others riding in the vehicle. Pattern of life analysis would also be used to confirm that the others in the vehicle were members or associates of al Qaeda, the Taliban, or associated forces. This switch to vehicle strikes is one of the reasons why civilian casualties have fallen precipitously in recent years.

C. Soda Straws

Another criticism leveled against the drone program was the claim that drones were being used to target rescuers. On several occasions in both Pakistan and Yemen, an initial drone strike was followed by a pause, during which people went to help those that had been killed or wounded by the strike. Shortly thereafter, another missile struck the area in which the rescuers had begun to gather. Based on these events several organizations concluded that the drones were targeting the rescuers.[11] A number of major news organizations repeated

this charge without doing any significant further investigation into its factual underpinnings.[12] As a result, the narrative that the United States "uses drones to target rescuers" is frequently repeated even though that assertion is factually incorrect.

In the same way that root cause analysis of civilian casualties resulted in a switch from compound strikes to vehicle strikes, it also determined the cause of these rescuer civilian casualties. The process and mechanics of a typical vehicle strike illustrate how these incidents happened.

After positively identifying the target, the final approval process begins. A proportionality analysis is conducted based upon the information available to the drone operators, their commanders, and the Judge Advocate General's (JAG's) assessing the strike. When approval is given the weapon is released. As the weapon nears its target the drone operator's field of view narrows to allow him or her to make a series of small aimpoint corrections (particularly necessary when targeting a moving vehicle). After the strike the close-up field of view is maintained to conduct a battle damage assessment: Was the target killed? One disadvantage of using a missile as small as a Hellfire is that unless it scores almost a direct hit, it may not kill the target. If operators assess that the first missile missed they would maintain the close-up field of view (often analogized to "looking through a soda straw") to fire a second missile at the target. Unfortunately, while the results of the first missile were being analyzed and the second missile was being fired, rescuers who were outside the drone's narrow field of view may begin approaching the vehicle. The flight time of the second missile can be sufficient for rescuers to get close enough to the vehicle to be harmed even if they did not enter the operator's narrow field of view. Once this phenomenon was understood, new procedures were developed to prevent it from recurring. These were then disseminated to the various commands involved in drone strikes in Yemen and Pakistan. In an organization the size of the United States Military, the process of identifying a problem, proposing and approving new operating procedures that address it, and communicating those procedures to the necessary commands is not instantaneous. As a result a number of these "soda straw" incidents occurred before this was corrected.[13]

D. Signature Strikes

Another controversial type of strike that was conducted with some frequency from 2007-2012 were so-called "signature strikes." Unlike the personality strikes that targeted specific individuals, signature strikes were conducted against groups whose specific identities were unknown. The groups were targeted based upon behavior that suggested they were members of al Qaeda, the Taliban, or associated forces.[14] Critics of such strikes claimed, with some justification, that certain strikes incorrectly targeted civilian gatherings such as tribal councils, causing significant civilian casualties on some occasions. Although the U.S. has not completely eliminated the use of signature strikes, they have greatly decreased in frequency in recent years.

In his speech at the National Defense University in May 2013, President Obama stated that future drone strikes would only be conducted if there was "near-certainty that no civilians would be killed or injured."[15] While there was also language in the speech that left some possibility for further signature strikes,[16] it seems that this policy, as long as it remains in place, will substantially limit the use of signature strikes.

E. Current Trends in Civilian Casualties

The intense focus on reducing civilian casualties has been particularly successful with drones. The best indication of this can be found by looking at the three organizations that have attempted to aggregate casualties caused by drones. The three organizations are the New America Foundation,[17] the *Long War Journal*,[18] and *The Bureau of Investigative Journalism* (TBIJ).[19] Of these three, the TBIJ site has generally reported the highest number of civilian casualties in both Yemen and Pakistan. While none of these sites can be completely accurate in assessing casualties in regions that are beyond the control of the central governments in Sana'a and Islamabad, even TBIJ estimates confirm that the civilian casualties caused by drones have plummeted over the last few years.

According to TBIJ, between January 2012 and November 2013 there were 74 drone strikes in Pakistan which TBIJ estimates to have killed a minimum of 336 people. Of these casualties TBIJ estimates that 13 were civilians. This would amount to a civilian casualty rate of less than 4%, meaning that ferwer than 1 in 25 casualties caused by drones over those 23 months were civilians.[20] This statistic is particularly extraordinary during a conflict in which the enemy routinely hides amongst the civilian population. When compared with civilian casualty rates in other conflicts such as the 1999 NATO air campaign in Kossovo, the 2006 Israeli conflict with Hezbollah, the 1999 Russian conflict with Chechen rebels, and the final stages of the conflict between Sri Lanka and the Liberation Tigers of Tamil Eelam, it becomes apparent how remarkably low this number is—in each of those conflicts, more civilians than combatants were killed.

Not only is the number of civilian casualties extremely low, the steep decline in such casualty estimates over the last two years is perhaps even more remarkable. Consistently using TBIJ's numbers over this period shows that civilian casualties caused by drones have dropped from civilians representing approximately 1 in 5 casualties caused by drones in 2008-2011 to them representing approximately 1 in 42 casualties in 2012-2013. The other casualty aggregation sites show similarly precipitous declines, although they did not assess as many civilian casualties during the 2008-2011 period.

Given how much the changes in targeting practices over the last couple of years have reduced the civilian casualties caused by drones, there is beginning to be a recognition that drones appear to be lowering civilian casualties to levels never before seen in history of warfare. As a result, some previous critics of drones have gone so far as to ask whether humanitarian considerations should *require* that drones be used for certain kinds of conflicts in the future.[21]

III. Drones Are Not Video Games

Another often repeated narrative about drones that is deeply flawed is the claim that drone operators regard their actions as little more than glorified video games. In his 2009

official report as UN Special Rapporteur on extrajudicial, summary, or arbitrary executions, Philip Alston incorrectly advanced this narrative by citing a risk that drone operators are "developing a 'Playstation' mentality to killing."[22]

Alston made this statement in spite of the fact that it has been a matter of public record since 2008 that drone operators suffer the same kind of post-traumatic stress disorder symptoms as combat forces in Iraq and Afghanistan.[23] This is not surprising when you consider what drone operators actually do: Far from "playing a video game," drone operators are asked to follow a target for days or even weeks to establish a pattern of life. As discussed above, this pattern of life is critical to supporting any targeting decision and confirming the intelligence that made the individual a potential target in the first place. This surveillance is not a nine-to-five job—it is continuous. This means that drone operators observe their targets for days or weeks doing normal human activities. They watch them having meals with friends, coming home to their wives and families, and playing with their children. If the surveillance also shows them meeting with bomb makers, transporting or planting IED's, conducting weapons training, or visiting known al Qaeda/Taliban strongholds for meetings with leaders of those groups, then the drone operators and analysts will examine the pattern of life analysis to determine the best opportunity to strike them. Then they will follow the target's vehicle into a remote area and kill that person whose habits and family they have come to know. After doing so, the operators zoom in to take a detailed look at the wreckage and the dismembered bodies to make sure they have killed their target. Far from depersonalizing warfare, drone operators know more about the people they are killing than almost any other warriors in history. Aside from Special Forces units and some ground troops that have been involved in close quarters combat, drone operators see their handiwork in as much graphic detail as any other combatants.[24]

Critics who repeatedly claim that there is a Playstation mentality problem associated with drones, as well as the scholars and news organizations that uncritically repeat such statements, do everyone involved in this debate a great disservice. Because this narrative reinforces other misconceptions about drones, it was easily disseminated and will be particularly difficult to dislodge from public perception. Hopefully, over time the facts on the ground will overcome these misconceptions and the change the level debate about drones.

Conclusion

Drones provide a set of unique capabilities that are particularly suited for use in low intensity counterinsurgencies. Their range and loiter time allow them to provide detailed, real-time analysis of events on the ground and intelligence services with much needed backup in hostile regions where human intelligence may be limited. The small and accurate weapons they employ reduce the likelihood of collateral damage. The real-time feeds drones produce allow commanders, lawyers, and intelligence officers alike to have immediate input into weapons employment decisions as situations unfold.

Like any weapons system, drones cause civilian casualties. Contrary to the widely accepted narrative that they cause extraordinarily high rates of civilian casualties and are operated by careless and irresponsible video game players, drones have always been fairly successful at preventing civilian casualties when compared with other weapons systems such as manned aircraft, ground troops, artillery or special forces. More recently, through the tireless work of analysts that took apart each instance of civilian casualties in Afghanistan and created protocols to prevent their recurrence, drones have become perhaps the most discriminating weapon of warfare that has ever been fielded. Their performance in Yemen and Pakistan over the past 18 months speaks for itself.

Endnotes

1 Dana Priest, *U.S. Citizen Among Those Killed in Yemen Predator Missile Strike*, Wash. Post, Nov. 8, 2002, *available at* http://tech.mit.edu/V122/N54/long4-54.54w.html.

2 *Compare* AGM-114 Hellfire pecifications, *available at* http://www.globalsecurity.org/military/systems/munitions/agm-114-specs.htm *with* AGM-65 Maverick specifications, *available at* http://www.af.mil/information/factsheets/factsheet.asp?id=72, *and with* GBU-39 specifications, *available at* http://www.globalsecurity.org/military/systems/munitions/sdb.htm (it should be noted that the GBU-39 was developed in 2006, largely for the purpose of collateral damage mitigation and that it was half the size of the laser guided bomb it replaced.

3 O-3's and O-4's are Captains and Majors in the Army, Air Force and Marines, and Lieutenants and Lieutenant Commanders in the Navy.

4 Drone operators are often authorized to employ weapons at their own discretion in situations where allied forces are under direct attack and their sensors can clearly identify the individuals firing upon the allied forces. Any other weapons release decision must be approved by more senior officers.

5 According to testimony before the Senate Armed Services Committee (http://www.lawfareblog.com/wp-content/uploads/2013/05/Taylor-Sheehan-Nagata-Gross_05-16-13.pdf) the level of senior oversight for drone strikes conducted outside Iraq and Afghanistan was even greater. Each strike not only required approval at the four-star level, but also had to be approved by the Secretary of Defense after consultation with the Joint Chiefs of Staff and other civilian leadership.

6 *See, e.g.*, *Rise of the Drones II: Examining the Legality of Unmanned Targeting*: *Hearing Before the Subcomm. on Nat'l Sec. & Foreign Affairs of the H. Comm. on Oversight & Gov't Reform*, 111th Cong. 32 (2010) [hereinafter *Drones II*] (prepared statement of William C. Banks) (describing how legal authority for use of drones in targeting can be found in existing law governing armed conflict but urging modernization of policy and law); *Rise of the Drones II* (statement of Michael W. Lewis, Professor of Law Ohio Northern University), *available at* http://oversight.house.gov/images/stories/Hearings/pdfs/LewisDrones.doc ("In circumstances where a strike by a helicopter or an F-16 would be legal, the use of a drone would be equally legitimate."); *Rise of the Drones: Unmanned Systems and the Future of War: Hearing Before the Subcomm. on Nat'l Sec. & Foreign Affairs of the H. Comm. on Oversight & Gov't Reform*, 111th Cong. 3 (2010) [hereinafter *Drones*] (written testimony of Kenneth Anderson, Professor of Law, Washington College of Law Am. Univ. and Member, Hoover Task Force on Nat'l Sec. & Law), *available at* http://oversight.house.gov/images/stories/Hearings/pdfs/20100323Anderson.pdf (noting that "use of drones . . . on traditional battlefields . . . . is functionally identical to the use of missile fired from a standoff fighter plane").

7 *See e.g.*, David Luban, *What Would Augustine Do? The President, Drones and Just War Theory*, Boston Review, June 6, 2012 *available at* http://www.bostonreview.net/BR37.3/david_luban_obama_drones_just_war_theory.php; *see also* Peter Finn, *A Future for Drones: Automated Killing*, Wash. Post, Sept. 10, 2011, *available at* http://www.washingtonpost.com/national/national-security/a-future-for-drones-automated-killing/2011/09/15/gIQAVy9mgK_story.html?wpisrc=emailtoafriend; *US Drone Strikes 'Raise Questions' – UN's Navi Pillay*, BBC News Asia, June 8, 2012; *available at* http://www.bbc.co.uk/news/world-asia-18363003; *Drones II* (statement of Mary Ellen O'Connell, Professor, University of Notre Dame), *available at* http://oversight.house.gov/images/stories/Hearings/pdfs/20100428OConnell.pdf) (arguing that unmanned drones

are "battlefield weapons," and as such should not be used outside of "combat zones"); Editorial, *A Closer Look at Drones,* LA Times, Sep. 25, 2011*, available at* http://articles.latimes.com/2011/sep/25/opinion/la-ed-drones-20110925; Sudarsan Raghavan, *In Yemen, US Airstrikes Breed Anger, and Sympathy for al Qaeda,* Wash. Post, May 29, 2011, *available at* http://www.washingtonpost.com/world/middle_east/in-yemen-us-airstrikes-breed-anger-and-sympathy-for-al-qaeda/2012/05/29/gJQAUmKI0U_story.html; Philip Alston, Report of the Special Rapporteur on Extrajudicial, Summary or Arbitrary Executions, UN Human Right Council Doc. HRC/14/24/Add. 6, May 28, 2010 p. 25, ¶85 [hereinafter Alston Report], *available at* http://www2.ohchr.org/english/bodies/hrcouncil/docs/14session/A.HRC.14.24.Add6.pdf; Murray Wardrop, *Unmanned Drones Could Be Banned, Says Senior Judge*, The Telegraph, July 6, 2009, http://www.telegraph.co.uk/news/uknews/defence/5755446/Unmanned-drones-could-be-banned-says-senior-judge.html (quoting Lord Bingham, a former Law Lord, who cited civilian casualties as a possible justification for banning the use of armed drones).

8 The term "hot battlefield" appears frequently in discussions of the geographical scope of IHL. It is generally taken to encompass the conflict in Iraq prior to the US withdrawal and the continuing conflict in Afghanistan. Most commentators would also probably consider Yemen in 2012-13 to constitute a "hot battlefield" based upon the internal conflict between the Yemeni government and the insurgency there. Whether the term is understood to be based upon the application of the *Tadic* factors that describe the conditions necessary for a NIAC to exist is not clear.

9 Richard Spencer, *US cluster bombs 'killed 35 women and children'*, The Telegraph, June 7, 2010, *available at* http://www.telegraph.co.uk/news/worldnews/middleeast/yemen/7806882/US-cluster-bombs-killed-35-women-and-children.html.

10 Interview with member of McChrystal's civilian casualty mitigation team.

11 *See* Chris Woods & Christina Lamb, *CIA tactics in Pakistan include targeting rescuers and funerals*, Bureau Investigative Journalism, Feb. 4, 2012, *available at* http://www.thebureauinvestigates.com/2012/02/04/obama-terror-drones-cia-tactics-in-pakistan-include-targeting-rescuers-and-funerals/.

12 *See e.g.*, Scott Shane, *U.S. said to Target Rescuers at Drone Strike Sites*, N.Y. Times, Feb. 5, 2012, *available at* http://www.nytimes.com/2012/02/06/world/asia/us-drone-strikes-are-said-to-target-rescuers.html?_r=0; Azmat Khan, *New Study Asserts Drones Strikes in Pakistan Target Rescuers, Funerals*, PBS Frontline: The Secret War, Feb. 6, 2012, *available at* http://www.pbs.org/wgbh/pages/frontline/afghanistan-pakistan/secret-war/new-study-asserts-drone-strikes-in-pakistan-target-rescuers-funerals/.

13 TBIJ reports that as many as 15 such incidents have occurred although it has only confirmed roughly ten of them. Some of these incidents were not vehicle strikes and may have involved strikes on training camps or other areas in which it was assessed that there were no civilians in the vicinity that might become rescuers.

14 Examples of such behavior might include a number of armed men boarding several vehicles and driving along a road to a border crossing point between Pakistan and Afghanistan frequented by al Qaeda and Taliban fighters. It might include a group of men engaged in group weapons training, particularly if this included heavier weapons.

15 *As Delivered: Obama's Speech on Terrorism*, Wall St. J., May 23, 2013, *available at* http://blogs.wsj.com/washwire/2013/05/23/prepared-text-obamas-speech-on-terrorism/.

16 *See* Andrew Rosenthal, *The 'Signature Strikes' Program*, N.Y. Times, May 29, 2013, *available at* http://takingnote.blogs.nytimes.com/2013/05/29/the-signature-strikes-program/.

17 *See About: Drone Wars*, New America Foundation, http://natsec.newamerica.net/about (last visited Jan. 29, 2014).

18 *See* Bill Roggio & Alexander Mayer, *Charting the data for US airstrikes in Pakistan, 2004-2014*, The Long War J., http://www.longwarjournal.org/pakistan-strikes.php (last visited Jan. 29, 2014).

19 *See* Covert Drone War, Bureau Investigative Journalism, http://www.thebureauinvestigates.com/category/projects/drones/ (last visited Jan. 29, 2014).

20 *See Drone wars: Pakistan drone statistics visualised*, Bureau Investigative Journalism, http://www.thebureauinvestigates.com/2012/07/02/resources-and-graphs/ (last visited Jan. 30, 2014).

21 *See* Scott Shane, *The Moral Case for Drones*, N.Y. Times, July 15, 2012, at SR4, *available at* http://www.nytimes.com/2012/07/15/sunday-review/the-moral-case-for-drones.html.

22 *See* Alston Report, *supra* note 7, at ¶84.

23 *See Remote-control warriors suffer war stress*, Associated Press, Aug. 7, 2008; *see also* Elisabeth Bumiller, *Air Force Drone Operators Report High Levels of Stress*, N.Y. Times, Dec, 19, 2011, at A8.

24 These observations are based on interviews with drone operators.