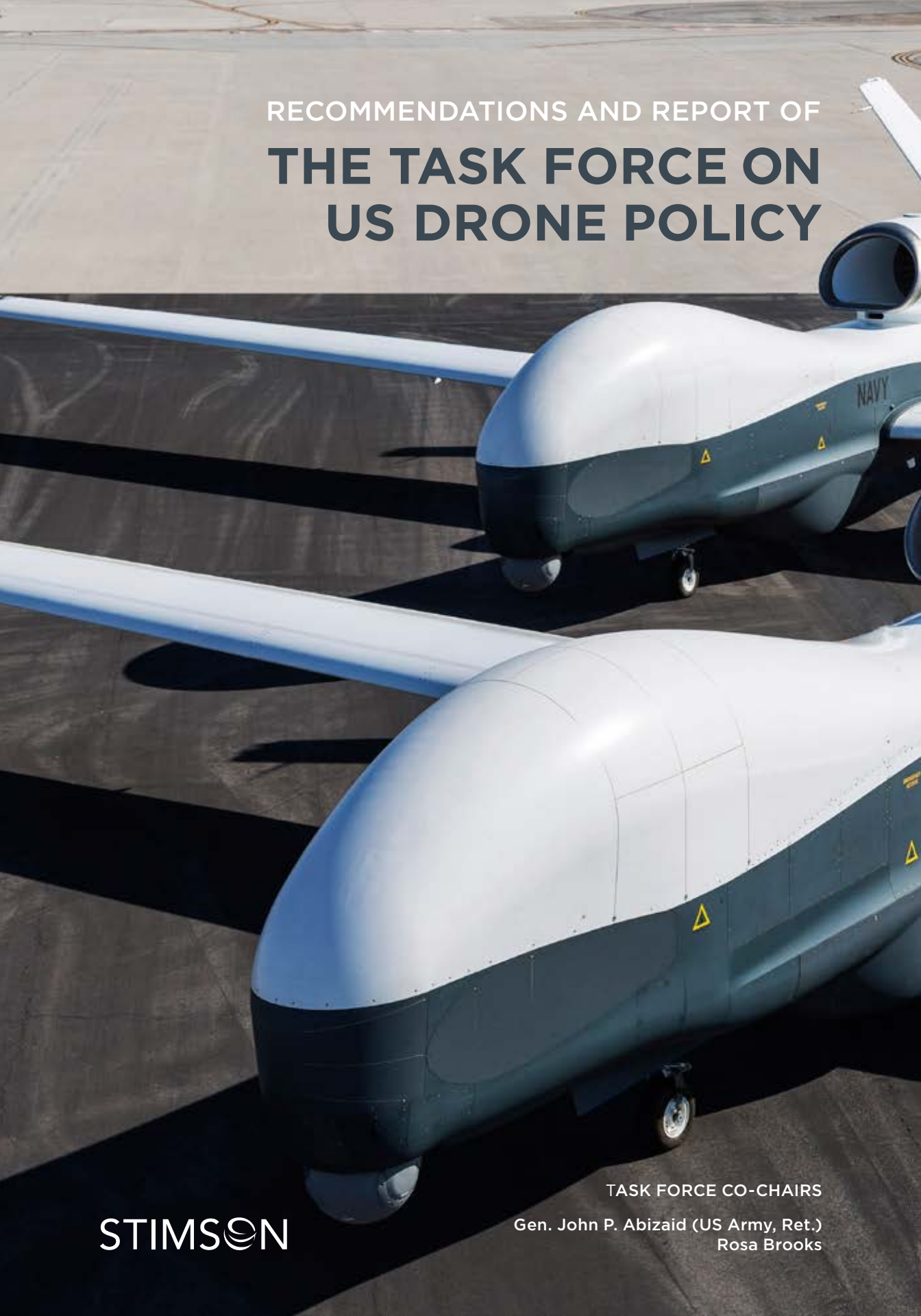

RECOMMENDATIONS AND REPORT OF

THE TASK FORCE ON US DRONE POLICY

TASK FORCE CO-CHAIRS

Gen. John P. Abizaid (US Army, Ret.)
Rosa Brooks

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JUNE 2014

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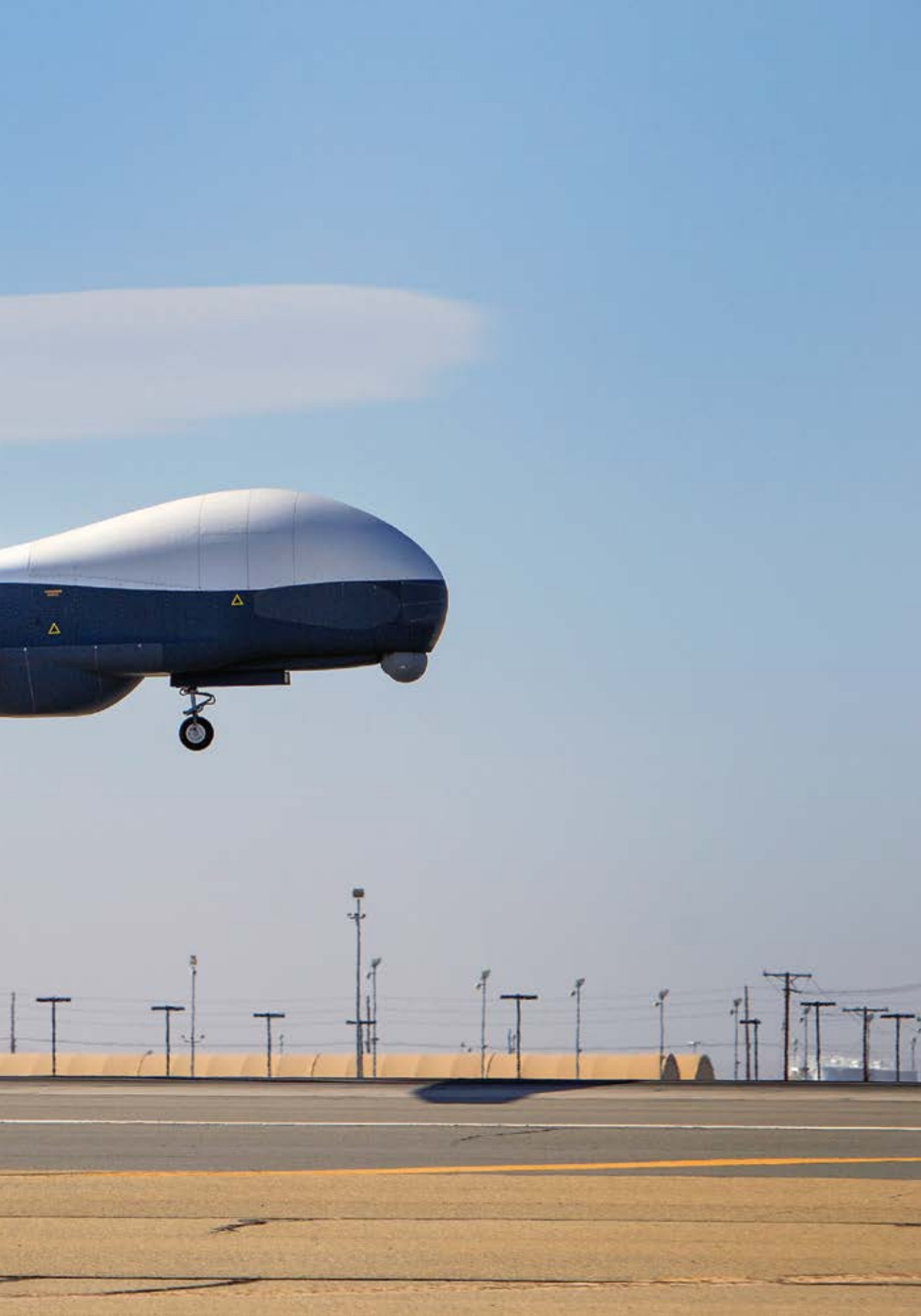


FOREWORD

Few recent national security developments have been as controversial as the increased US reliance on unmanned aerial vehicles (UAVs), more colloquially known as "drones." While UAVs have multiple peaceful and commercial applications, heated debates about the use of lethal UAV strikes away from traditional, territorially bounded battlefields have tended to crowd out a broader and more nuanced discussion of US UAV policy.

On May 23, 2013, President Barack Obama acknowledged these debates in a major speech at the National Defense University, promising to continue the difficult task of ensuring that the use of lethal UAVs is both strategically sound and consistent with long-standing US commitments to democracy, accountability and the rule of law. He pledged that his administration would "review proposals to extend oversight of lethal actions outside of war zones that go beyond our reporting to Congress," and noted, "the use of force must be seen as part of a larger discussion we need to have about a comprehensive counterterrorism strategy."[I]

In a speech at the US Military Academy (West Point) on May 28, 2014, he reinforced this commitment: "[A]s I said last year, in taking direct action, we must uphold standards that reflect our values. That means taking strikes only when we face a continuing, imminent threat, and only where … there is near certainty of no civilian casualties, for our actions should meet a simple test: we must not create more enemies than we take off the battlefield. I also believe we must be more transparent about both the basis of our counterterrorism actions and the manner in which they are carried out ... when we cannot explain our efforts clearly and publicly, we face terrorist propaganda and international suspicion, we erode legitimacy with our partners and our people and we reduce accountability in our own government."[II]

In an effort to respond to the president's call for constructive new approaches to thinking about UAVs, the Stimson Center created a distinguished 10-member task force on US Drone Policy. Task force members bring rich experience in the military, intelligence, foreign policy and legal communities, and over the past year, the task force has also solicited comments and ideas from dozens of other experts in the technology, human rights and business communities.

I. Obama, Barack. "Remarks by the President at the National Defense University." Remarks presented at the National Defense University, Fort McNair, Washington, D.C., May 2013. http://www.whitehouse.gov/the-press-office/2013/05/23/remarks-president-national-defense-university.

II. "Full transcript of President Obama's commencement address at West Point." The Washington Post, May 28, 2014. Accessed June 4, 2014. http://www.washingtonpost.com/politics/full-text-of-president-obamas-commencement-address-at-west-point/2014/05/28/cfbcdcaa-e670-11e3-afc6-a1dd9407abcf_story.html

This report represents a preliminary effort to offer analysis and recommendations that could help shape and guide US UAV policy going forward. It looks at the military and national security benefits of UAV technologies, analyzes our current approaches to UAV development and export, and seeks to contextualize the strategic questions relating to the use of lethal UAVs outside traditional battlefields. Ultimately, it offers eight detailed recommendations for overhauling UAV strategy; improving oversight, accountability and transparency; developing forward-looking international norms relating to the use of lethal force in nontraditional settings; and devising sound UAV export control and research and development policies.

UAV technologies are here to stay. Used foolishly, they can endanger our interests, diminish regional and global stability, and undermine our values. Used wisely, they can help advance our national security interests even as we foster a more robust international commitment to the rule of law.

We believe this report offers a useful framework for ensuring that we use these new technologies wisely, and we look forward to discussing our recommendations with the administration and the public.

John Abizaid

Rosa Brooks

June 2014

TASK FORCE MEMBERSHIP

The task force[III] consists of 10 senior-level participants from stakeholder constituencies including the US military community, the intelligence community, the legal community, academia and the private sector.

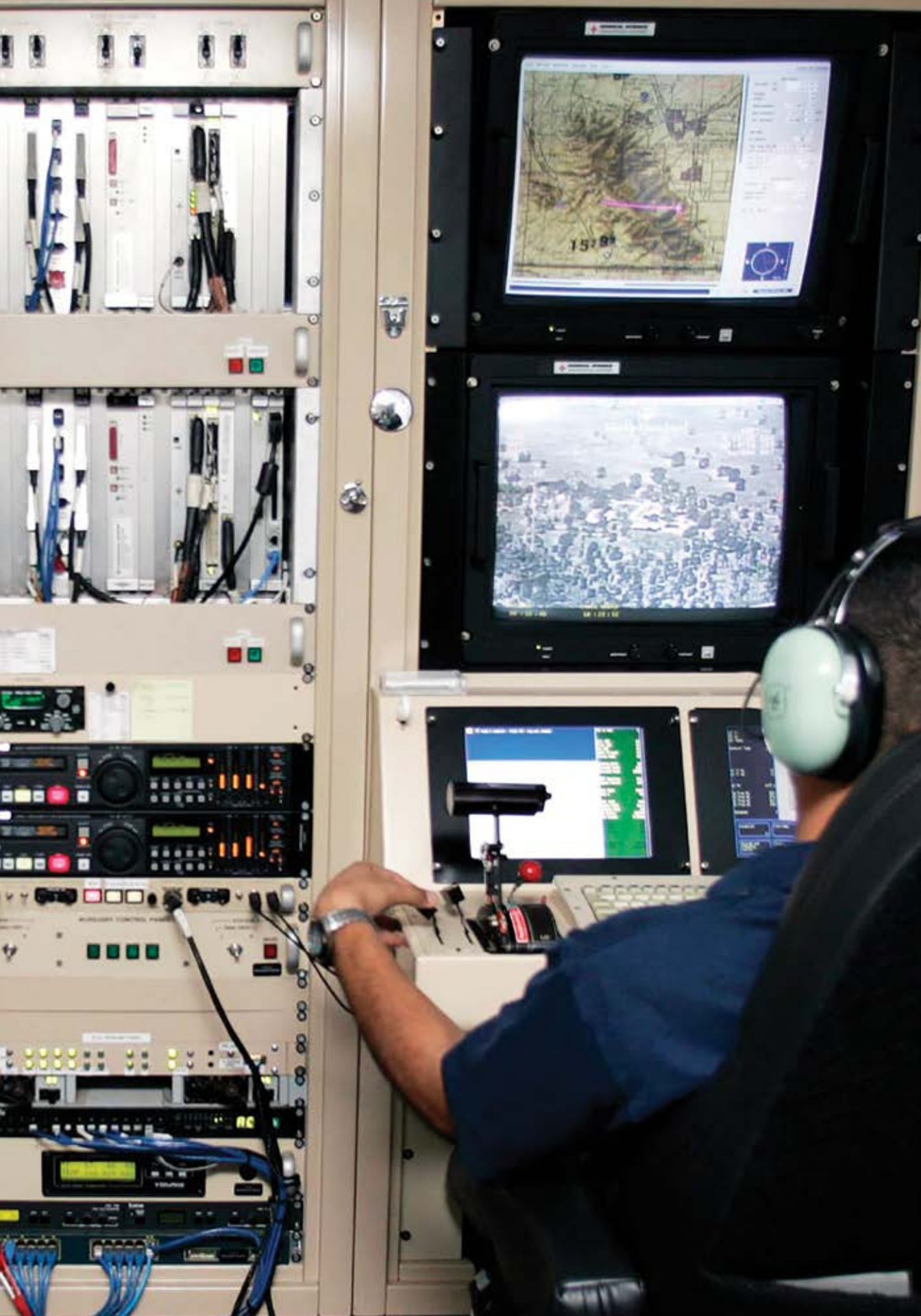
Task force co-chairs:

- **Gen. John Abizaid** (US Army, retired)**,** JPA Partners, LLC; former Commander, US Central Command.
- **Rosa Brooks,** Professor of Law, Georgetown University; Senior Fellow, New America Foundation; Contributing Editor, *Foreign Policy*; former Counselor to the Undersecretary of Defense for Policy.

Task force members:

- **Lt. Gen. David Barno** (US Army, retired)**,** Center for a New American Security; former head of Combined Forces Command-Afghanistan;
- **John B. Bellinger III**, Arnold & Porter LLP; former Senior Associate Counsel to the President and Legal Adviser to the National Security Council and Legal Adviser for the US Department of State;
- **Lincoln P. Bloomfield Jr.,** Stimson Board Chairman; former Assistant Secretary of State for Political Military Affairs;
- **Mary (Missy) Cummings,** Associate Professor, Mechanical Engineering & Materials Science, Duke University; former US Navy pilot;
- **Janine Davidson,** Senior Fellow for Defense Policy, Council on Foreign Relations; former Deputy Assistant Secretary of Defense for Plans; former Air Force pilot;
- **Peter Lichtenbaum,** Covington & Burling LLP; former Acting Under Secretary of Commerce for Industry and Security; former Assistant Secretary of Commerce for Export Administration;
- **Philip Mudd, President,** Director of Enterprise Risk, SouthernSun Asset Management; former Deputy Director of National Security, Federal Bureau of Investigation (FBI); former Deputy Director, Central Intelligence Agency (CIA) Counterterrorism Center;
- **Jeffrey Smith,** Arnold & Porter LLP; former General Counsel of the CIA; former General Counsel of the Senate Armed Services Committee; former Army Judge Advocate General (JAG) officer.

III. Affiliations are listed for identification purposes only; this report represents the views of task force members in their individual capacities.



A NOTE ON METHODOLOGY AND SCOPE

The task force met over a one-year period and was assisted by three expert working groups focused on different aspects of current UAV policy:

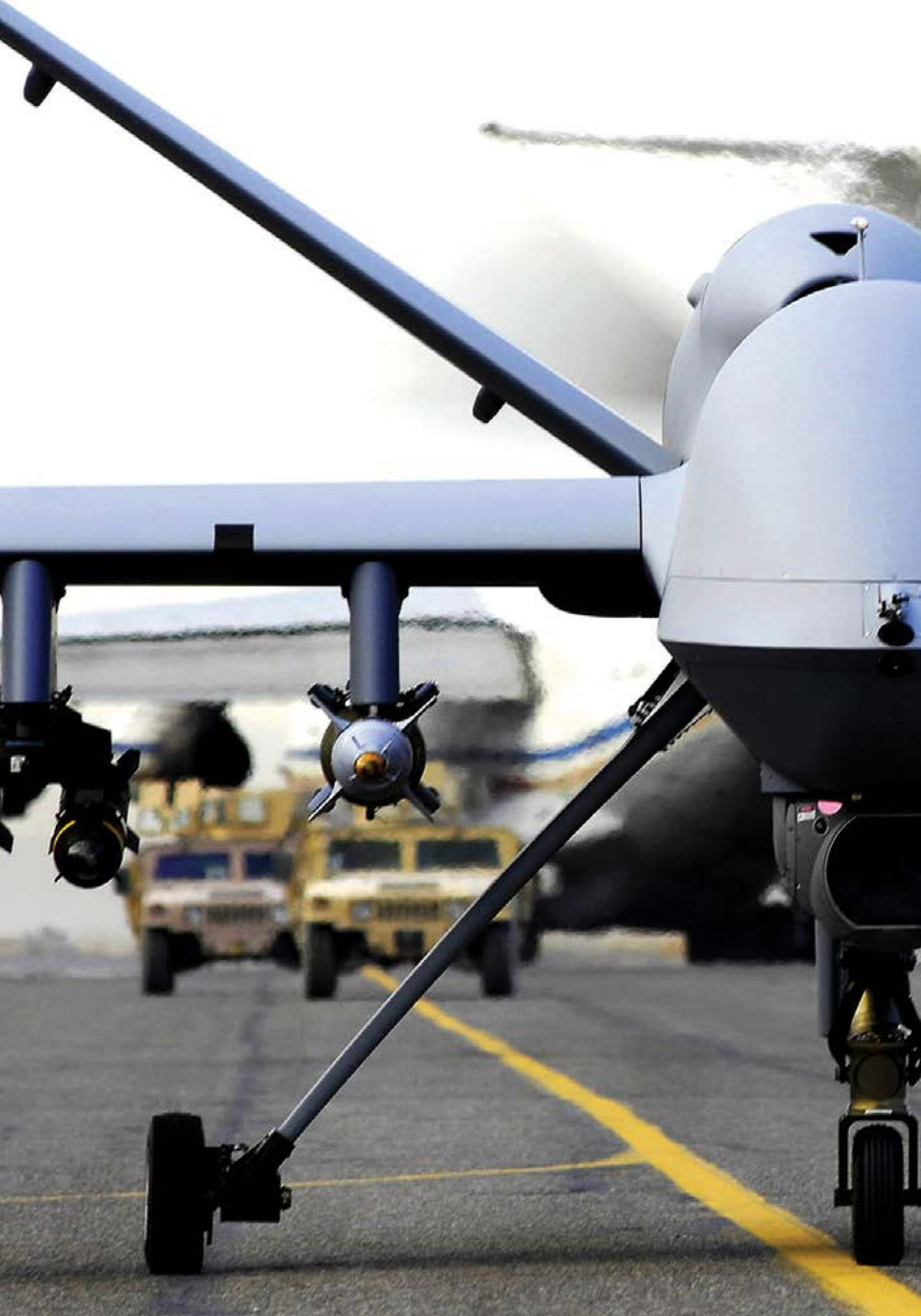
- Defense utility, national security and economics;
- Ethics and law; and
- Export controls and regulatory challenges.

The three working groups met periodically throughout the year, providing detailed background reports to the task force, including key data points, topics for consideration and potential recommendations.

The task force focused primarily on issues relating to the development and use of lethal UAVs by the United States. In order to keep this report brief, the task force chose *not* to focus extensively on the following issues:

- The use of UAVs in domestic airspace;
- Privacy concerns related to UAV use;
- The potential future use and development of autonomous, human-out-of-the-loop weapons systems (or "robots that are capable of selecting targets and delivering force without any human input or interaction.")[1]
- The precise scope of the 2001 Congressional Authorization to Use Military Force (AUMF), debates about revising the AUMF and debates about other domestic legal issues relating to the use of lethal force against persons believed to be agents of al-Qaida and its associated forces;
- The lethal targeting of US citizens;[2] and
- The numerous nonlethal commercial uses of UAV technologies.

The task force views these as important issues, but opted to defer them for a possible future report. This report instead focuses generally on key current and emerging issues relating to the development and use of lethal UAVs outside the United States for national security purposes. In particular, we focus extensively on the use of UAVs for targeted counterterrorism strikes, for the simple reason that this has generated significant attention, controversy and concern.



EXECUTIVE SUMMARY

INTRODUCTION

With their long loiter time, sophisticated sensors and extensive operational reach, unmanned aerial vehicles (UAVs) are an attractive option for a wide range of military and intelligence tasks, including intelligence and reconnaissance, disaster relief and humanitarian assistance, transportation, the provision of close air support to soldiers in combat, and strikes against targets in relatively distant or inaccessible locations. While the overseas use of UAVs for intelligence, reconnaissance, transport and close air support has been largely uncontroversial, the growing use of lethal UAVs for targeted counterterrorism strikes away from so-called "hot battlefields" has generated substantial attention and criticism.

US government officials argue that such strikes are both lawful and effective: as President Obama said in his May 2013 speech at the National Defense University, "Dozens of highly skilled al-Qaida commanders, trainers, bomb makers and operatives have been taken off the battlefield. Plots have been disrupted. … Simply put, these strikes have saved lives. Moreover, America's actions are legal. … [T]his is a just war — a war waged proportionally, in last resort, and in self-defense."[3]

Nevertheless, many commentators question the strategic value of US UAV strikes for counterterrorism purposes, arguing that the availability of lethal UAVs has fueled a "whack-a-mole" approach to counterterrorism, drawn attention from non-kinetic means of combating terrorist organizations, increased anti-American sentiment, eroded norms of sovereignty in ways ultimately likely to be detrimental to US interests, and created a slippery slope toward continual or widening conflict and instability. Others charge that UAV strikes cause excessive civilian casualties, or worry about the ethical and psychological impact of what they view as "remote-control killing."

Finally, many critics charge that the availability of lethal UAV technologies has tempted the United States to engage in a largely covert campaign of targeted killing, creating, in effect, a "secret war" governed by secret law. In particular, controversy has swirled around what critics view as the relative lack of transparency and accountability in US targeted killings, and the potential implications this has for domestic and international rule of law, especially if other states — including many not known for their human rights records — mimic US precedents.

TASK FORCE CONCLUSIONS

The Stimson Task Force on UAV Policy believes that UAVs should be neither glorified nor demonized. It is important to take a realistic view of UAVs, recognizing both their continuities with more traditional military technologies and the new tactics and policies they enable.

Most US military UAVs are not weaponized, and only a tiny fraction of US government UAV missions involve targeted UAV strikes outside of traditional, territorially defined battlefields such as those in Afghanistan, Iraq and Libya. Further, UAVs are not a US "super-weapon:" while their use has led to significant tactical successes, they are not strategic weapons, and they currently have substantial vulnerabilities as well as strengths. The United States does not have a monopoly on UAV technologies or an ability to predict all potential countermeasures; indeed, there is reason to fear the rapid and uncontrolled proliferation of UAV technologies developed in other states, along with the rapid evolution of technologies designed to counter UAVs.

While we do not believe that UAV strikes cause disproportionate civilian casualties or turn killing into a "video-game," we are concerned that the availability of lethal UAV technologies has enabled US policies that likely would not have been adopted in the absence of UAVs. In particular, UAVs have enabled the United States to engage in the cross-border use of lethal force against targeted individuals in an unprecedented and expanding way, raising significant strategic, legal and ethical questions.

Strategic Questions

We are concerned that the Obama administration's heavy reliance on targeted killings as a pillar of US counterterrorism strategy rests on questionable assumptions, and risks increasing instability and escalating conflicts. While tactical strikes may have helped keep the homeland free of major terrorist attacks, existing evidence indicates that both Sunni and Shia Islamic extremist groups have grown in scope, lethality and influence in the broader area of operations in the Middle East, Africa and South Asia. Furthermore, US targeted strikes also create new strategic risks. These include possible erosion of sovereignty norms, blowback and risks of a slippery slope into continual conflict.

Erosion of sovereignty norms: The US government takes the view that it has a legal right to use force in the territories of foreign sovereign states when those states are "unwilling or unable" to take what the United States considers appropriate action to eliminate what it sees as imminent threats. But inevitably, assessments of what constitutes an imminent threat to the United States and what would constitute appropriate action are somewhat subjective in nature; the United States may view the use of force as justified even when US allies and partners do not. The US use of force in sovereign nations whose consent is questionable or nonexistent may encourage other states to follow suit with their own military platforms or commercial entities.

Blowback: Civilian casualties, even if relatively few, can anger whole communities, increase anti-US sentiment and become a potent recruiting tool for terrorist organizations. Even strikes that kill only terrorist operatives can cause great resentment,

particularly in contexts in which terrorist recruiting efforts rely on tribal loyalties or on an economically desperate population. UAV strikes by the United States have also generated a backlash in states not directly affected by the strikes, in part due to the perception that such strikes cause excessive civilian deaths, and in part due to concerns about sovereignty, transparency, accountability and other human rights and rule of law issues.

Slippery Slope: The increasing use of lethal UAVs may create a slippery slope leading to continual or wider wars. The seemingly low-risk and low-cost missions enabled by UAV technologies may encourage the United States to fly such missions more often, pursuing targets with UAVs that would be deemed not worth pursuing if manned aircraft or special operation forces had to be put at risk. For similar reasons, however, adversarial states may be quicker to use force against American UAVs than against US manned aircraft or military personnel. UAVs also create an escalation risk insofar as they may lower the bar to enter a conflict, without increasing the likelihood of a satisfactory outcome.

The US use of lethal UAVs for targeted strikes outside of hot battlefields is likely to be imitated by other states. Such potential future increase in the use of lethal UAV strikes by foreign states may cause or increase instability, and further increase the risk of widening conflicts in regions around the globe.

Lack of Strategic Analysis: In recent years, US targeted strikes involving UAVs have gone from a relative rarity to a relatively common practice in Pakistan and Yemen. As the number of strikes increases, so, too, does the strategic risk. To the best of our knowledge, however, the US executive branch has yet to engage in a serious cost-benefit analysis of targeted UAV strikes as a routine counterterrorism tool.

There are numerous non-kinetic means of combatting terrorism; some of these — e.g., efforts to disrupt terrorist communications and finances — can easily be combined with targeted strikes, while others — e.g., efforts to build friendly relationships with local communities and inspire cooperation — may be less easily combined. A serious counterterrorism strategy needs to consider carefully, and constantly reassess, the balance between kinetic action and other counterterrorism tools, and the potential unintended consequences of increased reliance on lethal UAVs.

Legal and Ethical Issues

Transparency: The administration has disclosed details relating to only a handful of targeted strikes against American citizens: for the most part, the identities of those targeted and the basis for their targeting have not been disclosed. Details relating to incidents that may have involved civilian casualties also have not been disclosed. In formal court filings, the administration continues to state that it will neither confirm nor deny particular strikes, or even the existence of such strikes as a general matter.

We recognize that US officials frequently have compelling reasons to refrain from providing some of this information to the public, and we believe that US government deci-

sion-makers make targeting decisions in good faith and with genuine care. Nonetheless, we are concerned by the continuing lack of transparency relating to US targeted killings.

Law versus the Rule of Law: From a US government perspective, the United States is in an armed conflict with al-Qaida and its "associated forces." As an international law matter, the existence of an armed conflict triggers the applicability of the law of armed conflict, which permits the United States to target al-Qaida operatives as enemy combatants. By extension, members of organizations that fight alongside al-Qaida are also targetable as co-belligerents — and unlike ordinary domestic law or international human rights law, the law of armed conflict does not require the United States to provide "due process" to enemy combatants before targeting them. International law also recognizes that states have the right to use armed force outside their own borders when doing so is necessary to prevent an imminent attack, and US officials have therefore argued that targeted strikes against terror suspects are permitted both under the law of armed conflict and under the international law of self-defense.

These are plausible interpretations of the law, and we disagree with those critics who have declared that US targeted killings are "illegal." But changing technologies and events have made it increasingly difficult to apply the law of armed conflict and the international law relating to the use of force in a consistent and principled manner, leading to increasing divergence between "the law" and core rule of law principles that traditionally have animated US policy.

The rise of transnational non-state terrorist organizations confounds preexisting legal categories. In a conflict so sporadic and protean, the process of determining where and when the law of armed conflict applies, who should be considered a combatant and what count as "hostilities" is inevitably fraught with difficulty. While our military and intelligence communities have grown increasingly adept both at identifying and confirming the identities of al-Qaida affiliates and at precise and careful targeting, the criteria used to determine who might be considered targetable remain unknown to the public. Similarly, it is difficult to understand how the US government determines the "imminence" of unknown types of future attacks being planned by unknown individuals.

These enormous uncertainties are multiplied further when the United States relies on intelligence and other targeting information provided by a host nation government: how can we be sure we are not being drawn into a civil war or being used to target the domestic political enemies of the host state leadership?

The legal norms governing armed conflicts and the use of force look clear on paper, but the changing nature of modern conflicts and security threats has rendered them almost incoherent in practice. Basic categories such as "battlefield," "combatant" and "hostilities" no longer have clear or stable meaning. When this happens, the rule of law is threatened. The United States was founded upon rule of law principles, and historically has sought to ensure that its own actions, international law and the actions of foreign states are consistent with these principles. Today, however, despite the undoubted good faith of US decision-makers, it would be difficult to conclude that US targeted strikes are consistent with core rule of law norms.

International Precedents: From the perspective of many around the world, the United States currently appears to claim, in effect, the legal right to kill any person it determines is a member of al-Qaida or its associated forces, in any state on Earth, at any time, based on secret criteria and secret evidence, evaluated in a secret process by unknown and largely anonymous individuals — with no public disclosure of which organizations are considered "associated forces" (or how combatant status is determined or how the United States defines "participation in hostilities"), no means for anyone outside that secret process to raise questions about the criteria or validity of the evidence, and no means for anyone outside that process to identify or remedy mistakes or abuses. US practices set a dangerous precedent that may be seized upon by other states — not all of which are likely to behave as scrupulously as US officials.

Democratic Accountability: Increased US reliance on lethal UAVs in cross-border targeted strikes also poses challenges to democracy and the American system of checks and balances. While we understand the administration's reasons for considering additional transparency difficult, the effect of the lack of transparency is that the United States has been fighting what amounts to a covert, multi-year killing program. Without additional information, the citizenry cannot evaluate US targeted strikes.

Unmanned aerial vehicle strikes also raise questions about the continued efficacy of traditional congressional oversight mechanisms. The Obama administration continues to rely on the 2001 Authorization for Use of Military Force (AUMF) as the primary domestic legal basis for US targeted strikes outside of "hot" battlefields, but the administration's interpretation of the AUMF is extraordinarily broad — and even many former executive branch officials question whether Congress intended to authorize such an unbounded conflict when the AUMF was passed in 2001.

The covert or unacknowledged nature of most UAV targeted strikes also makes it difficult for Congress to perform its vital oversight functions. CIA UAV strikes constitute "covert action" under US law, which means that the CIA need not give prior notice of particular covert operations to any members of Congress except the so-called "Gang of Eight." After a covert action, the executive branch is required to notify the full intelligence committees, but not the full Congress.

By law, the US military is prohibited from engaging in covert action. It is important to emphasize, however, that the military is *not* prohibited from engaging in secret, unacknowledged activities that are intended to remain unacknowledged, as long as these activities constitute "traditional military activities" under US law.

From the perspective of laypersons, both the CIA and the military can thus engage in covert strikes in the colloquial sense of the term. But while covert action undertaken by the CIA requires a presidential finding and notification — even if after the fact — of the congressional intelligence committees, secret, unacknowledged strikes carried out by the US military need not be reported to the intelligence committees, as the military reports instead to the House and Senate Armed Services committees.

At best, this fragmented oversight system creates confusion and a danger that critical issues may slip through the cracks. This fragmented oversight system is particularly

problematic given that in practice, the military and CIA generally work together quite closely when planning and executing targeted UAV strikes: few strikes are "all military" or "all CIA." The differing CIA and military reporting requirements create a risk of executive branch "forum shopping," tempting the executive branch to place a given targeted strike under the direction and control of whichever entity is deemed to have the most accommodating committee members. Even when the appropriate congressional committees are fully briefed, the classified nature of targeted strikes, whether CIA or military, makes oversight a challenge.

Future Technological Developments

UAV technologies will continue to evolve rapidly. Looking into the near future, it seems likely that an increasing number of weapons will be adapted for use on UAV platforms such that any weapon developed for a manned aircraft will soon be launchable from an unmanned aircraft. UAVs will become more interoperable, and system software likely will evolve to integrate multiple UAVs across an entire "combat cloud." Autonomous UAV capabilities will also likely be developed.

These likely future technological developments have the potential to be used both for good and for ill, and the time to discuss their potential implications is now. Among other things, we will need to reevaluate existing UAV-related Federal Aviation Administration rules and export control rules; at the moment, US export control rules for UAVs do not appear well-suited to advancing US national security objectives.

SUMMARY OF RECOMMENDATIONS

In light of the foregoing concerns and conclusions, the task force makes the following recommendations:

1. Conduct a rigorous strategic review and cost-benefit analysis of the role of lethal UAVs in targeted counterterrorism strikes to evaluate the impact of past UAV strikes on terrorist organizations, affected communities, public opinion, litigation, defense policy and government cooperation with allies and partner nations.

2. Improve transparency in targeted UAV strikes: as a general principle, the United States should acknowledge the use of lethal force in foreign countries both to Congress and to the American public. While secrecy may be required before and during each strike, strikes generally should be acknowledged by the United States after the fact. The president should publicly release information on: the approximate number and general location of targeted UAV strikes; the number of individuals known to have been killed and their organizational affiliations; the number and identities of any civilians known to be killed, and the approximate number of strikes carried out by the military versus the CIA. The president should also order the preparation and public release of a detailed report explaining the legal basis under domestic and international law for the United States conducting targeted killings.

3. Transfer general responsibility for carrying out lethal UAV strikes from the CIA to the military. While rare exceptions may be warranted, as a general principle, the

military should be the entity responsible for the use of lethal force outside the United States, while the CIA should focus on intelligence collection and analysis.

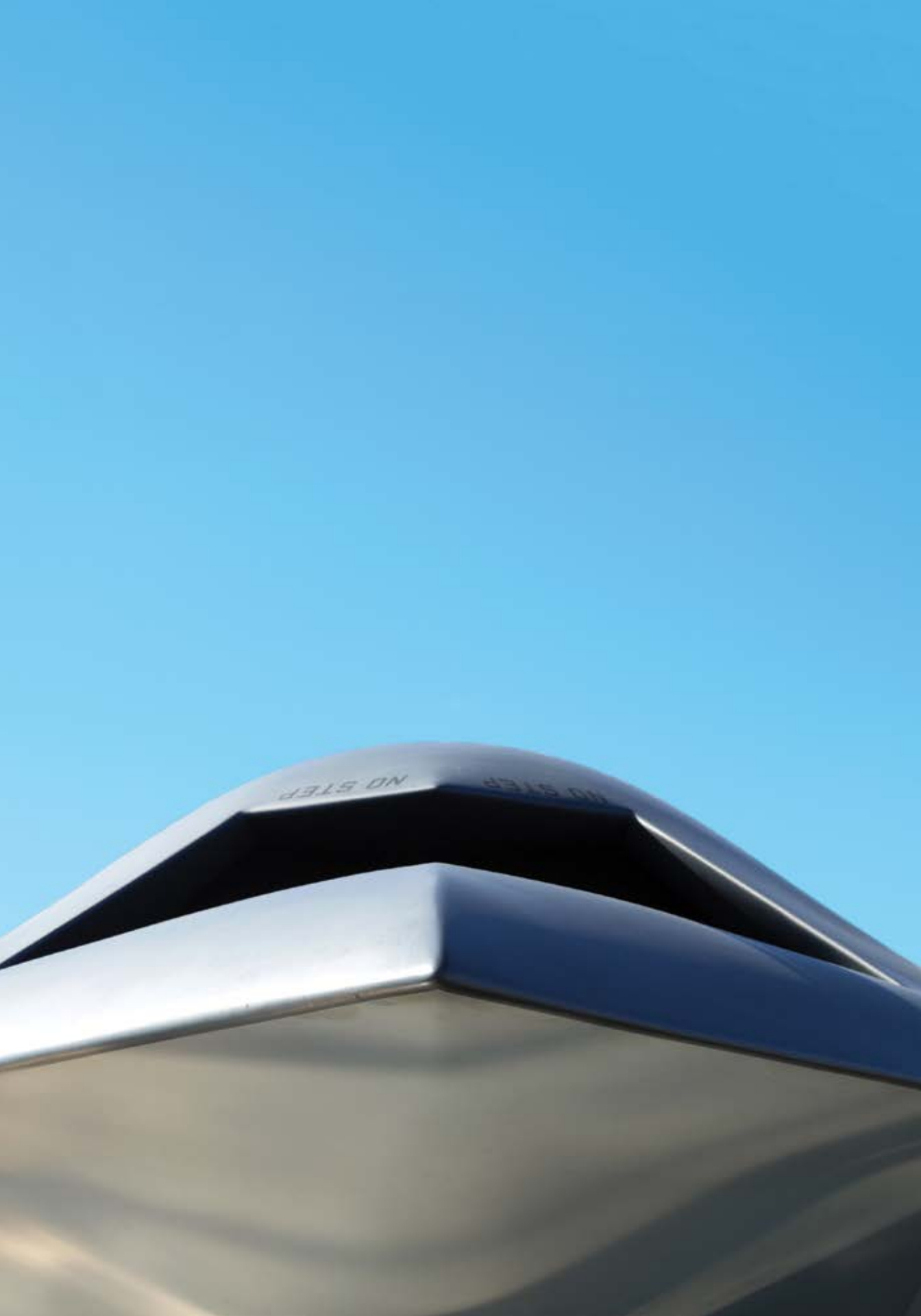
4. Develop more robust oversight and accountability mechanisms for targeted strikes outside of traditional battlefields. The president should, by executive order, create a nonpartisan, independent commission to review lethal UAV policy. Members of this independent commission should be selected with a view to ensuring credibility and diversity of background. The commission should not be directly involved in the pre-strike approval process, but should be tasked with reviewing the overall policy and approval process for the use of lethal UAV strikes (both military and CIA); unclassified versions of the commission's reports to the president and Congress should be released publicly.

5. Foster the development of appropriate international norms for the use of lethal force outside traditional battlefields. These norms should rest upon a joint commitment to ensuring that states have the ability to respond effectively to nontraditional threats from nontraditional actors and a commitment to ensuring that the use of lethal force remains consistent with core rule of law principles and respect for fundamental human rights. Rules and practices relating to the state use of lethal force should be transparent and clear; lethal force should not be used without adequate safeguards to prevent arbitrariness and protect against error and abuse; and impartial accountability mechanisms must be available to investigate credible allegations of error and abuse, and, if appropriate, provide remedies.

6. Assess UAV-related technological developments and likely future trends, and develop an interagency research and development strategy geared toward advancing US national security interests in a manner consistent with our values. This review should also flag any legal, ethical and strategic implications of emerging UAV-related technologies, including the possible future development of autonomous weapons systems, and lead to the development of a holistic interagency research, development and use strategy for UAVs.

7. Review and reform UAV-related export control rules and FAA rules, with a view to minimizing unnecessary regulatory burdens on the development of the US UAV industry, while still safeguarding our national security interests and ensuring responsible UAV development and use.

8. The FAA should accelerate its efforts to meet the requirements of the 2012 FAA Reauthorization Bill to ensure the safe integration of civil unmanned aircraft systems into the national airspace system by Sept. 30, 2015, as required by law, but also consider whether certain commercial UAVs can be operated safely in the national airspace prior to that date, and make exemptions as permitted as a stopgap measure toward the development of a comprehensive regulatory framework for both government and privately operated UAVs.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INTRODUCTION

INNOVATION AND ANXIETY

Throughout human history, the ability to project force across significant distances has been a sought-after military capability, and innovations in the creation and use of long-distance weapons have at times enabled major social and political shifts.

Perhaps for this reason, significant innovations in long-distance weapons have frequently been greeted with decidedly mixed feelings. In the Middle Ages, for instance, feudal elites feared that the crossbow — which could be used even by minimally trained peasants, and was capable of shooting armor-piercing bolts — would upend the chivalric social order, rendering irrelevant knightly martial skills and suits of armor.[4] Depicted in medieval illuminated manuscripts as a weapon of demons, the crossbow was banned by Pope Urban in 1096. It proved too temptingly useful a weapon to ignore, however; by 1139, the Second Lateran Council of Pope Innocent II "prohibit[ed] under anathema that murderous art of crossbowmen and archers, which is hateful to God"— but only when "employed against Christians and Catholics." [5] Eventually, crossbows were deemed acceptable for use in "just" wars. [6]

A few hundred years later, the advent of gunpowder weapons made both the crossbow and longbow obsolete. In 1435, Byzantine Constantinople fell to the heavy artillery of the Ottoman Sultan Mehmed II, stunning the Christian world. Although the West soon embraced gunpowder warfare, it was not without ambivalence: In *Henry VI, Part I*, Shakespeare's Hotspur recalls a courtier complaining of the "villainous salt-petre … digged/ Out of the bowels of the harmless Earth" to create "these vile guns." In 1605, Cervantes' Don Quixote denounced artillery as a "devilish invention," allowing "a base cowardly hand to take the life of the bravest gentleman," with bullets "coming nobody knows how or from whence."[7]

In our own era, the development of lethal unmanned aerial vehicles (UAVs) has generated similar consternation. Like the crossbow, the longbow, the cannon, the machine gun, the long-distance bomber and the cruise missile, UAVs — also referred to as "remotely piloted aircraft" (RPAs) or, more colloquially, as "drones" — are often viewed as a military "game-changer," offering soldiers and policymakers expanded tactical options against a broad array of targets.[8] And like other long-distance weapon innovations from times past, lethal UAVs have been both praised and vilified.

UAV ATTRIBUTES AND USES

UAVs share some distinct attributes, which have made them attractive for military and counterterrorist operations:[9]

- *Persistence:* UAVs have the ability to loiter over a specific area for extended periods of time, allowing them to capture and collect more information [10] and allowing the user to observe, evaluate and act quickly. [11]
- *Precision:* In military applications, UAVs' sensor technology can provide for more precise information collection that facilitates more accurate targeting as well as battlefield and non-battlefield surveillance.
- *Operational Reach:* Because of longer flying times, UAVs can be used to project force from afar in environments that may otherwise be inaccessible or too dangerous for manned operations.
- *Force protection:* UAVs allow the user to have a military presence in areas that otherwise would be impossible politically, capacity/resource prohibitive, too dangerous to risk being shot down, or topographically inhospitable.
- *Stealth:* While today's UAVs can be readily detected by sophisticated air defense systems, most UAVs are relatively small, quiet and capable of being flown at high enough altitudes to avoid detection by the individuals being surveilled or targeted.

UAVs have substantial value for a wide range of military and intelligence tasks. On the battlefield, both weaponized and nonweaponized UAVs can protect and aid soldiers in a variety of ways. They can be used for reconnaissance purposes, for instance, and UAVs also have the potential to assist in the detection of chemical, biological, radiological and nuclear weapons, as well as ordinary explosives.[12] Weaponized UAVs can be used to provide close air support to soldiers engaged in combat.[13]

UAVs also have enormous potential as transport vehicles: the Navy is exploring the use of UAVs to transport badly wounded casualties to field trauma units, while the Army is examining similar UAV applications for medical evacuation missions. Meanwhile, the Marine Corps has used two remotely piloted helicopters for cargo transport and resupply purposes, using external sling loads to deliver cargo in mountainous and hostile terrain. [14] The military is also exploring the viability of using UAVs as an over-the-horizon communication relay tool.[15]

Military UAVs are also employed for disaster relief and humanitarian assistance purposes: Air Force UAVs provided vital imagery after the 2010 earthquake in Haiti[16] and the typhoon that devastated the Philippines in November 2013,[17] and Air National Guard UAVs assisted firefighters combatting wildfires in California in August 2013.[18] [19]

Over the past decade, weaponized UAVs have also become a widely used tool for countering geographically diffuse terrorist networks. With their low profile and relative fuel efficiency — and without the constraints of pilot fatigue — a typical UAV can spend more "time on target" than manned aircraft, enabling better intelligence-gathering and greater targeting precision, and reducing the risk of civilian casualties in missile

strikes.[20] The use of UAVs also allows the United States to honor the preferences of partner nations that may be amenable to US missile strikes against targets in their territory, but unwilling to allow a sizeable US military presence on the ground. Better still, from a force protection perspective, lethal UAVs enable the United States to strike targets in dangerous and inaccessible areas with no short-term risk to US personnel.

Unmanned aerial vehicles have been used extensively in Afghanistan and Iraq, for intelligence, surveillance and reconnaissance (ISR) purposes, to carry out strikes and to provide close air support to ground troops. They have also become a weapon of choice for counterterrorism strikes in regions where US troops are not engaged in ground combat. Between 2004 and 2014, US UAV strikes in Pakistan are estimated to have killed approximately 2,000 to 4,000 people, while US strikes in Yemen are estimated to have killed several hundred people.[21] A small number of UAV strikes are believed to have occurred in Somalia, and there are also unconfirmed reports of US UAV strikes in a handful of other countries, including Mali and the Philippines.

CONTROVERSY AND CRITICISM

While the use of UAVs for ISR, transport and close air support has been largely uncontroversial, the growing use of lethal UAVs for targeted counterterrorism strikes away from so-called hot battlefields has generated substantial attention and criticism.[22]

US government officials argue that such strikes are both lawful and effective: as President Barack Obama said in a May 2013 speech, "the United States has taken lethal, targeted action against al-Qaida and its associated forces, including with remotely piloted aircraft commonly referred to as drones. … Dozens of highly skilled al-Qaida commanders, trainers, bomb makers and operatives have been taken off the battlefield. Plots have been disrupted. … Simply put, these strikes have saved lives. Moreover, America's actions are legal.… We are at war with an organization that right now would kill as many Americans as they could if we did not stop them first. So this is a just war — a war waged proportionally, in last resort, and in self-defense."

Nevertheless, some commentators question the strategic value of US UAV strikes for counterterrorism purposes, arguing that the availability of lethal UAVs has fueled a "whack-a-mole" approach to counterterrorism, drawn attention away from non-kinetic means of combating terrorist organizations, increased anti-American sentiment, eroded norms of sovereignty in ways ultimately likely to be detrimental to US interests, and created a slippery slope toward continual or widening conflict and instability. [23]

Others charge that UAV strikes cause excessive civilian casualties. The United Kingdom-based Bureau for Investigative Journalism estimates that US UAV strikes in Pakistan have killed between 416 and 951 civilians, for instance, including as many as 200 children, [24] and reports by human rights nongovernmental organizations (NGOs) have used similar estimates.[25]

Administration officials have questioned such figures, and in May 2013, President Obama stated that no UAV strikes are authorized outside of "hot battlefields" unless there is "near-certainty that no civilians will be killed or injured."[26] Nonetheless, sev-

eral recent and well-publicized incidents involving civilian casualties have continued to fuel criticism, and the administration's failure to provide its own casualty estimates or explain its methodology for determining civilian casualty numbers has done little to reduce such criticisms.[27]

Other critics worry about the ethical and psychological impact of what they view as "remote-control killing." Thus, Phillip Alston, the United Nations special rapporteur on extrajudicial, summary or arbitrary executions, and Hina Shamsi of the American Civil Liberties Union criticize what they see as "the PlayStation mentality"[28] created by UAV technologies: "Young military personnel raised on a diet of video games now kill real people remotely using joysticks. Far removed from the human consequences of their actions, how will this generation of fighters value the right to life?"[29]

Finally, many critics, from human rights NGOs to the New York Times editorial board,[30] worry that the availability of lethal UAV technologies has tempted the United States to engage in a largely covert campaign of targeted killing, creating, in effect, a "secret war" governed by secret law. These critics focus not on UAVs as such, but the degree to which UAV technologies have enabled the United States to use lethal force against individuals located outside of traditional, territorially defined battlefields (e.g., Afghanistan, Iraq or Libya).

In particular, controversy has swirled around what critics view as the relative lack of transparency and accountability in US targeted killings, and the potential implications this has for domestic and international rule of law, especially if other states — including many not known for their human rights records — mimic US precedents.

TASK FORCE CONCLUSIONS

This report represents the culmination of a year-long process of consultations and discussions with current and former government and military officials, academic researchers, NGO experts, legal experts and industry leaders. While the views we solicited varied widely, members of the Stimson Task Force came to a number of strong, shared conclusions.

We believe that UAVs should be neither glorified nor demonized. It is important to take a realistic view of UAVs, recognizing both their continuities with more traditional military technologies and the new tactics and policies they enable.

In general, we believe that the political and media discourse on UAVs has been characterized by a number of significant misconceptions. In the first part of this section, we attempt to dispel some common misconceptions about UAVs.

Specifically, we note that most US military UAVs are not weaponized, and only a tiny fraction of US government UAV missions involve targeted UAV strikes outside of traditional, territorially defined battlefields such as those in Afghanistan, Iraq and Libya. Further, UAVs are not US "super-weapons:" while their use has led to significant tactical successes, they are not "strategic" weapons, and they currently have substantial vulnerabilities as well as strengths. Contrary to popular belief, UAVs are not necessarily cheaper than manned aircraft, and the United States does not have a monopoly on UAV technologies or an ability to predict all potential countermeasures; indeed, there is reason to fear the rapid and uncontrolled proliferation of UAV technologies developed in other states, along with the rapid evolution of technologies designed to counter UAVs. Finally, we address the widespread but erroneous belief that UAV strikes are apt to cause disproportionate civilian casualties, together with the claim that UAVs "turn killing into a video game."

In the second part of this section, we note that while UAVs, as such, present few new moral or legal issues, the availability of lethal UAV technologies has enabled US policies that likely would not have been adopted in the absence of UAVs. In particular, UAVs have enabled the United States to engage in the cross-border use of lethal force against targeted individuals in an unprecedented and expanding way.

In our view, the expanding use of targeted killings outside of hot battlefields raises numerous concerns, some strategic and some legal and ethical. The second part of this section discusses those concerns.

DISPELLING MISCONCEPTIONS

Most UAVs are not weaponized, and only a tiny fraction of US UAV missions involve targeted UAV strikes outside of traditional battlefields.

Most US UAVs are unarmed: for instance, the US Department of Defense (DoD) currently operates more than 8,000 unmanned aerial vehicles,[31] which in 2010 made up 41 percent of all DoD aircraft, and less than 1 percent of these UAVs carry operational weapons at any given time (though a higher percentage of the vehicles are designed to carry weapons if needed).[32] To date, the majority of US UAV missions have been for intelligence, surveillance and reconnaissance purposes. [33] It is the remaining small fraction of UAV missions that includes targeted strikes of al-Qaida and associated forces, primarily conducted by the Central Intelligence Agency (CIA) and to a lesser extent by the military.[34] While such targeted UAV strikes have generated substantial and legitimate concerns, it is important not to equate UAV technologies solely with lethal counterterrorism strikes.

UAVs are not "super-weapons."

In most respects, UAVs are merely a variant of existing aerial weapons delivery platforms. They have some capabilities existing manned aircraft lack: as noted previously, they can spend far more time on target, with no risk to US personnel. But sophisticated manned military aircraft possess many capabilities that existing UAVs lack: UAVs are far more vulnerable than manned aircraft to being "hijacked" remotely by hostile forces with the requisite technologies, for instance, and they are currently also more vulnerable to air defenses.[35] All this may change as UAV technologies evolve: enhancements in UAV range, speed, stealth and autonomy will be crucial in ensuring that the next generation of UAVs can survive in contested areas with sophisticated anti-access and area-denial capabilities. UAV countermeasures will evolve alongside UAVs, however, and they will evolve in ways difficult to predict.

In sum, while UAVs already have become an extremely valuable military tool on traditional battlefields and beyond, they are not magic; they do not create "super-weapons" that can enable the United States to strike any person, anywhere on Earth, at any time. For now, the military utility of lethal UAVs is mostly limited to situations in which they are used, either with host nation acquiescence or in territories lacking sophisticated air defense systems, against relatively isolated terrorist targets.

UAVs are not inherently cheaper than manned aircraft.

Discussions of UAVs often assume that unmanned systems will always be less expensive to operate than their manned counterparts.[36] In addition, acquisition costs of a UAV platform tend to be lower than for manned platforms. Thus, the cost for replacing a downed UAV is likely to be less than replacing its manned equivalent.

But properly assessing the cost and cost-effectiveness of aircraft is complex, and many numerical comparisons are measuring apples and oranges. One major problem in assessing the cost of a UAV — or any aircraft, for that matter — is the fact that there is

more than one way to define the "cost" of owning and operating a military aircraft. Cost estimates might include not only the direct fuel consumption of an aircraft but also various types of maintenance and personnel costs; these maintenance and personnel costs could include only the costs of pilots, ground crews working on the plane, and the equipment those ground crews use.[37] A broader cost measure could also include the costs for operating the base at which those aircraft are located as well as broader infrastructure and training costs related to maintaining a fleet of aircraft.

Moreover, sometimes higher cost may simply reflect greater capability. For example, some UAVs carry more sensors than their manned counterparts, which might translate into higher costs for personnel needed to monitor and analyze data streams that do not exist on manned platforms, as well as the costs for the hardware and software that go into the sensor packages. Meanwhile, a manned F-16 fighter jet may have higher costs partially because it consumes fuel more quickly than an MQ-1Predator drone, but its far greater speed gives it air-to-air combat abilities that current UAVs lack.[38]

Measures of cost-effectiveness, thus, can vary significantly depending on which criteria of effectiveness are used.[39] All told, any cost estimate will be subject to questions about whether it is accurately capturing the relevant costs associated with an aircraft, and costs alone are not sufficient for assessing the cost-effectiveness of a platform. Depending on the mission, a seemingly more "expensive" aircraft may in fact be more cost-effective than a less expensive platform.[40]

The United States does not have a monopoly on UAV technologies.

At the moment, the United States has the world's largest and most sophisticated fleet of weaponized UAVs,[41] but it is likely that numerous other states — and perhaps nonstate actors — will expand their own lethal UAV fleets in the future.[42] More generally, although the global market for UAV systems is set to more than double over the next decade, increasing from $5.2 billion annually in 2013 to $11.6 billion in 2023,[43] the United States is not likely to remain the world leader in the development of innovative UAV technologies.[44] In fact, despite the enormous commercial potential of civilian UAVs,[45] civilian UAV development in the United States — especially among small- and medium-sized enterprises — is hampered both by somewhat clumsy export control rules and by Federal Aviation Administration (FAA) regulations. [46] Outside of the United States, UAVs increasingly are being developed for agriculture, weather tracking and infrastructure maintenance.

Current US export control regulations are unclear in their distinction between "unarmed military unmanned aerial vehicles" on the one hand and non-military or commercial UAVs on the other, with the former being subject to the stricter export controls. In reality, the distinction between UAV technologies developed for commercial and civilian purposes and military UAVs is far from sharp; many UAV technological developments have both military and nonmilitary applications. But this type of ambiguity in export control regulations creates uncertainty for UAV manufacturers regarding the conditions under which exports will be allowed, and makes it hard for them to assess the ultimate size of the international market that will be available to

different types of UAVs. Such market information factors heavily into manufacturers' decisions regarding the types and quantities of UAVs they will develop, produce and export. In the face of uncertainty, manufacturers tend to act conservatively to produce UAVs whose export control status is known — but this could chill innovation and dull the technological edge the United States enjoys in the UAV arena, with negative consequences both for the civilian sector and for the military.

Meanwhile, FAA regulations generally do not allow UAVs to operate in the "national airspace system" (NAS). In cases where UAVs are flown, the operators must have special permits that are often quite restrictive. Congress moved to allow UAVs to operate in domestic airspace with its passage of the FAA Modernization and Reform Act of 2012, which set a deadline of Sept. 30, 2015, to integrate UAVs into the national airspace system.[47]

The FAA's response to this legislation has been somewhat slow, however; the act required the FAA to produce a roadmap for the integration of UAVs within a year of its enactment, effectively setting a deadline of Feb. 14, 2013.[48] The roadmap, however, was not released until Nov. 7, 2013, missing the deadline by nearly nine months. These delays have costs: while US civilian UAV developers await greater government clarity on domestic UAV uses, civilian UAV markets abroad have rapidly expanded, [49] and other nations already have begun to address one of the most significant hurdles to integrating UAVs with civilian airspace: determining how UAV pilots will avoid in-air collisions without the lines of sight and situational awareness available to a pilot in the cockpit, including testing "sense-and-avoid" capabilities.[50]

The FAA is grappling with important and difficult issues. Yet should the FAA's months-long delays turn into years-long delays, the United States risks losing the initiative in the development of commercial UAV technology. The state that becomes the "first-mover" to fully integrate UAVs into their national airspace may, if given enough of a lead, become a center for the development and sale of UAVs, giving a competitive edge to its domestic manufacturers. If another state gains such an advantage, the United States would then be in a position of playing catch-up in terms of establishing its market for commercial UAVs, restoring American manufacturers' edge on the global market, and ensuring US military UAVs remain technologically more advanced than those of other nations.

Unless the United States can find ways to jump-start the broader civilian UAV development sector, foreign UAV buyers will turn increasingly to countries developing more advanced platforms, and the United States will gradually lose any ability to shape UAV use abroad. Many of the UAVs developed for foreign markets will be used solely for peaceful purposes, but we cannot assume that this will always be the case,[51] as many UAV technologies developed for commercial civilian purposes can be "weaponized."[52]

UAVs do not "cause" disproportionately high civilian casualties.

Lethal UAV strikes frequently have been criticized for their alleged tendency to cause excessive civilian casualties. This criticism has little basis in fact. Contrary to popular

belief, UAV technologies, in fact, enable greater precision in targeting than most other common means of warfare.

UAVs are a platform for tactical air-to-surface missiles, such as Hellfire II missiles, which themselves are very accurate munitions for tactical strikes, whether they are launched from manned or unmanned platforms. In contrast to manned aircraft, however, UAVs enable "persistent surveillance": they can spend hours, days, weeks or even months monitoring a potential target. Equipped with imaging technologies that enable operators, who may be thousands of miles away, to see details as fine as individual faces, modern UAV technologies allow their operators to distinguish between civilians and combatants far more effectively than most other weapons systems — including, most especially, manned aircraft.

No weapons system is perfect, and targeting decisions — whether for UAV strikes or for any other weapons delivery system — are only as good as the intelligence on which they are based. We do not doubt that some US UAV strikes have killed innocent civilians. Nonetheless, the empirical evidence suggests that the number of civilians killed is small compared to the civilian deaths typically associated with other weapons delivery systems (including manned aircraft). The frequency and number of civilian casualties resulting from US drone strikes also appear to have dropped sharply in recent years, as UAV technologies have improved and targeting rules have been tightened.[53]

UAVs do not turn killing into "a video-game."

There is also little reason to view UAVs as uniquely creating a "PlayStation mentality" about war. As noted earlier, there is nothing new about discomfort with innovations in long-distance weapons. UAVs permit killing from a safe distance — but so do cruise missiles and snipers' guns. And ironically, the men and women who remotely operate lethal UAVs have a far more "up close and personal" view of the damage they inflict than the pilots of manned aircraft, who speed past their targets in seconds from far above. In fact, some evidence suggests that UAV operators are particularly vulnerable to post-traumatic stress: they may watch their targets for weeks or even months, seeing them go about the routines of daily life, before one day watching on-screen as they are obliterated.[54]

CONCERNS

Evolution of Technology

As a threshold matter, it is important to note that lethal UAVs *as such* present few new legal or policy issues, and many of the most-frequently voiced criticisms of UAVs are actually criticisms of the policy decisions and legal questions relating to their current use. But the fact that UAVs *per se* present no new moral or legal issues does not mean that there is no reason to be concerned about UAV technologies and their use.

Since the dawn of mechanization, militaries have sought to replace people with more effective machines. The development of UAVs has continued this pattern.[55] Although technological progress can reduce costs, increase efficiency and create new capabilities, we should not become infatuated with new technological toys, or overconfident in the ability of new technologies to solve complex problems.[56] Most important, we must en-

sure that policy and strategy drive technological development, and that alluring new technologies do not drive policy instead.

As a nation, we need to think hard about the direction of future UAV-related research, development, export controls and legal norms. As noted previously, UAV-related technologies are evolving rapidly, and much of that evolution is driven by the civilian commercial sector and by foreign markets and foreign manufacturers. If we do not make thoughtful decisions now about the technologies we want and do not want to see developed and the rules that should govern their sale and use, UAV technologies will evolve without our guidance.

Likely Technological Advances

Looking into the near future, it seems likely that an increasing number of weapons will be adapted for use on UAV platforms such that any weapon developed for a manned aircraft will soon be launchable from an unmanned aircraft. UAVs will become more interoperable, and system software likely will evolve to integrate multiple UAVs across an entire "combat cloud." Although development in this area is still in its infancy — and problems persist including overloading the command and control link and lost data connections — we are likely to see continued advances in UAV interoperability.[57]

Advances in UAV interoperability will provide a variety of battlefield advantages, including improved situational awareness, transfer of surveillance data, coordination, navigation with respect to other aircraft, and even UAV self-organization for offensive capabilities. [58] UAV "swarms" — groups of UAVs that communicate and perform coordinated tasks[59] — increasingly will be used in a variety of missions, including providing more precise ISR.[60]

Another factor to consider is the probable future development of autonomous UAV capabilities. Autonomy could be a major enabler in anti-access and area-denial (A2/AD) zones, where remote-piloting and real-time links may be compromised.[61] Autonomy could grant UAVs the ability to continue with pre-programmed plans even if data connections are lost or communication links are compromised over A2/AD areas.[62] But increasing UAV autonomy also could accelerate the tempo of conflict, which could reduce decision-making time and result in increased human error.

Autonomy poses ethical and legal conundrums as well, [63] particularly if UAVs are developed that can make the decision — on their own — to fire a weapon without any human in the loop for approval.[64] For the time being, DoD policy states that no UAV will be allowed independently to launch any kind of weapon without human approval.[65] However, current DoD directives raise the possibility of permitting the use of such autonomous weapons in the future, with the approval of high-ranking military and civilian officials.

All these likely future technological developments have the potential to be used both for good and for ill, and the time to discuss their potential implications is now — not after they are in use.

Rethinking Export Controls

Among other things, we will need to reevaluate existing UAV-related export control rules. The purpose of UAV export control regimes is to prevent the harmful proliferation of UAV and missile technology, with a particular focus on limiting foreign access to UAV systems capable of delivering weapons of mass destruction (WMD), such as nuclear devices or biological and chemical weapons. At the same time, export control regulations should not unduly suppress exports or valuable technological innovations.

A well-planned export control regime can boost the military capability of allied nations, enhance interoperability of military systems among allies, preserve US influence over foreign nations' military UAV programs, and strengthen the domestic US defense industrial base economically and technologically. A poorly conceived control system will have the opposite effect, suppressing useful innovation, limiting interoperability with allies, reducing US influence over foreign UAV development and weakening the defense industrial base. At the moment, however, it is unclear whether US export control rules for UAVs appear well-suited to advancing US national security objectives. As noted earlier, the US export control regulations vaguely identify "military" UAVs as subject to the stricter controls administered by the US State Department.

Moreover, beyond the regulatory jurisdiction, there are also important questions regarding US licensing policy for UAVs. The United States currently applies a "strong presumption of denial" for all UAVs that can deliver a payload of at least 500 kilograms and that are able to fly more than 300 kilometers. This licensing policy conforms with US multilateral commitments for these UAVs, which are considered as "Category I" items under the Missile Technology Control Regime (MTCR) non-proliferation controls. The MTCR also covers "Category II" UAVs, i.e. complete UAV systems that do not fall under Category I and that have a range equal to or greater than 300 km, as well as certain other UAVs. The United States reviews Category II UAV licenses on a case-by-case basis.

The basic issue is whether US licensing policy is well tailored to US national security interests and other policy considerations. For instance, the presumption of denial for Category I UAVs maintained by the United States and its MTCR partners (and MTCR adherents such as Israel) might enable non-MTCR members to gain global market share, reducing US non-proliferation leverage and weakening the US defense industrial base. Yet the MTCR limits do not affect the US UAV industry's access to US Department of Defense procurement, which itself is a large fraction of the world market. Moreover, the global market may be more focused on smaller, less-capable UAVs, reducing the impact of the Category I presumption of denial.

Conversely, it is possible that US licensing policy should discourage the export of UAVs that have capabilities of concern other than the rather simplistic range and payload criteria in the MTCR. For example, a fleet of small UAVs (that would fall outside of Category I) could have a highly lethal and highly evasive "swarming" capability. Other characteristics that may present concerns would be: high rates of speed, robust surveillance payloads, low observable features and anti-aircraft countermeasures.

The task force is aware that the administration has been conducting and is nearing completion on a detailed review of UAV export controls. We welcome this review, which we hope will move the United States toward export control regulations and licensing policies that are well tailored to US national security and economic interests.

Targeted Strikes Outside of Traditional Battlefields

The availability of weaponized UAVs almost surely has led US decision-makers to adopt counterterrorism tactics that probably would have been deemed too risky or politically unacceptable had UAVs not been an option.

Specifically, if lethal UAVs were not an option, we doubt that the United States would have engaged in nearly as many targeted strikes against suspected terrorists in places such as Pakistan and Yemen.[66] In such contexts, airstrikes using manned aircraft would generally be viewed as creating an unacceptably high risk of civilian casualties.[67] Raids involving US forces on the ground — including special operations forces — would create a similar risk of unintended civilian casualties, and would also create a risk of significant US casualties. Finally, the relative invisibility of UAVs enables relative deniability, often a convenience to host nations that are unwilling to appear to have welcomed a US military presence inside their territory.

The existence of weaponized UAVs did not "cause" the United States to engage in targeted killings of terror suspects outside of traditional territorially bounded battlefields, but it seems reasonable to conclude that their existence *enabled* a significantly expanded US campaign of targeted cross-border strikes against suspected terrorists.[68] Analyst Sarah Krebs, a former Air Force acquisitions officer now on the Cornell University faculty, noted in April 2014 that "of the estimated 465 non-battlefield targeted killings undertaken by the United States since November 2002, approximately 98 percent were carried out by drones."[69] The number of US strikes appears to have peaked in 2010 in Pakistan and in 2012 in Yemen, but the United States shows no sign of ending the use of such strikes. In Yemen, UAV strikes in April 2014 killed an estimated 40 people.[70]

We believe that this campaign of targeted_killings raises numerous questions, some strategic, some legal and ethical.

Lethal UAVs, Targeted Strikes and Strategic Risk

Strategically, we are concerned that the administration's heavy reliance on targeted killings as a pillar of US counterterrorism strategy rests on questionable assumptions and risks increasing instability and escalating conflicts.

In certain circumstances, targeted strikes against particular individuals may have enormous strategic value. This is particularly likely to be true when the individuals in question possess and are likely to utilize unique knowledge and skills, whether those skills are technical or organizational in nature. At times, strikes against key terrorist operatives and agents might be critical to preventing an imminent attack; similarly, in some circumstances killing specified individuals may have a deterrent or demoralizing effect on other operatives or potential recruits.

But while tactical strikes may have helped keep the homeland free of major terrorist attacks, existing evidence indicates that both Sunni and Shia Islamic extremist groups have grown in scope, lethality and influence in the broader area of operations in the Middle East, Africa and South Asia. Prior to 9/11 such extremist groups operated in a generally confined geographic area near the Afghanistan/Pakistan border area. Today, such groups operate from Nigeria to Mali, to Libya, to the Sinai, to Syria, to Iraq, to Pakistan, Afghanistan and beyond, and there is no indication that a US strategy to destroy al-Qaida has curbed the rise of Sunni Islamic extremism, deterred the establishment of Shia Islamic extremist groups or advanced long-term US security interests.

The use of targeted UAV strikes to gain tactical advantage has led to some successes in various geographic areas of operations, but evidence about the scope, number, and lethality of terrorist attacks worldwide suggest that al-Qaida elements still have a broad reach and, potentially, a decades-long lifespan. These weapons will be part of that struggle, but they will not defeat the broader strategic threat. In fact, evidence suggests that the broader strategic struggle against terrorist entities is not succeeding.[71]

Furthermore, US targeted strikes also create new strategic risks. These include:

Possible Erosion of the Norm of Sovereignty

The growing use of UAVs outside of hot battlefields may erode the norm of state sovereignty in ways ultimately harmful to US interests. While the US use of manned aircraft or special operations raids would also raise sovereignty concerns if used for cross-border targeted killings, the relative greater frequency of US UAV strikes[72] increases the odds that a foreign state or elements within it will consider its sovereignty to have been infringed upon. [73]

Currently, US UAV strikes in Pakistan and Yemen appear to have been carried out with the actual or tacit consent of those states' governments,[74] but that consent appears somewhat ambiguous. In the case of Pakistan, for instance, both parliament and the courts[75] have declared US UAV strikes unlawful violations of Pakistan sovereignty, a sentiment that has been echoed by some executive branch representatives,[76] even as other Pakistani executive branch officials continue to offer intermittent cooperation with US strikes. In the case of Yemen, many Yemenis feel that the president, Abd Rabbuh Mansur Hadi, who approved US UAV strikes, does not represent the views of the population.

The US government takes the view that it has a legal right to use force in the territories of foreign sovereign states when those states are "unwilling or unable" to take what the United States considers appropriate action to eliminate what it sees as imminent threats. But inevitably, assessments of what constitutes an imminent threat to the United States and what would constitute appropriate action are somewhat subjective in nature; the United States may view the use of force as justified even when US allies and partners do not. The US use of force in sovereign nations whose consent is questionable or nonexistent may encourage other states to follow suit with their own military platforms or even commercial entities.[77]

Blowback

Civilian casualties, even if relatively few, can anger whole communities, increase anti-US sentiment and become a potent recruiting tool for terrorist organizations.[78] Even strikes that kill only terrorist operatives can cause great resentment, particularly in contexts in which terrorist recruiting efforts rely on tribal loyalties or on an economically desperate population.

Friends, family and fellow tribe members of those attacked or harmed in strikes may become hostile to the United States, and, over years, their hostility may cost the United States in terms of foreign cooperation, hostility to US travelers and foreign business and support for terrorism. UAV "hunter-killer" operations may also go against the larger counterterrorism and counterinsurgency strategy of attempting to gain support of local populations to deter them from supporting al-Qaida and associated forces.[79] Even where strikes kill only legitimate targets, the perceived insult to sovereignty — in places such as Pakistan and Yemen and among fellow tribe members of the dead — sparks bitterness, feelings of nationalism or other forms of identity politics violently hostile to US military operations or Americans.[80]

As retired Army Gen. Stanley McChrystal, former International Security Assistance Force (ISAF) commander in Afghanistan, has noted, "The resentment created by American use of unmanned strikes ... is much greater than the average American appreciates. They are hated on a visceral level, even by people who've never seen one or seen the effects of one." The unmanned strikes, McChrystal says, create a "perception of American arrogance that says, 'Well we can fly where we want, we can shoot where we want, because we can.' "[81]

UAV strikes by the United States have also generated a backlash in countries not directly affected by the strikes, in part due to the perception that such strikes cause excessive civilian deaths, and in part due to concerns about sovereignty, transparency, accountability and other human rights and rule of law issues. (These are discussed more fully below.) In February 2014, for instance, the European Parliament voted 534-49 for a resolution condemning US drone strikes, asserting that "thousands of civilians have reportedly been killed or seriously injured by drone strikes [but] these figures are difficult to estimate, owing to lack of transparency and obstacles to effective investigation."[82] The resolution went on to call for EU member states to "oppose and ban the practice of extrajudicial targeted killings [and] ensure that the member states, in conformity with their legal obligations, do not perpetrate unlawful targeted killings or facilitate such killings by other states."[83]

National officials, parliamentarians and thought leaders in numerous allied countries and at the United Nations have questioned or condemned US targeted strikes.[84] While US officials may take the view that such criticisms are based on erroneous information or an incorrect reading of the applicable law, the fact remains that when allies and partners do not support US policies, we pay a price. The price may be direct — allies may be unwilling to share intelligence data crucial to targeting, for instance, for fear of incurring legal liability in their own courts or for fear of domestic political consequences — or it may be indirect — anger at US targeted strikes may translate into lower levels of co-

operation with unrelated US diplomatic initiatives. Either way, the risk of international backlash against US strikes needs to be factored in as we evaluate the strategic value of targeted strikes.

Slippery Slope

The increasing use of lethal UAVs may create a slippery slope leading to continual or wider wars. The seemingly low-risk and low-cost missions enabled by UAV technologies may encourage the United States to fly such missions more often, pursuing targets with UAVs that would be deemed not worth pursuing if manned aircraft or special operations forces had to be put at risk. For similar reasons, however, adversarial states may be quicker to use force against American UAVs than against US manned aircraft or military personnel: shooting down an unmanned airframe may not carry the same implications, either in terms of other states' domestic politics or in terms of foreign relations, which might make other nations more willing to shoot down US UAVs, increasing the risk of tit-for-tat escalation.[85]

UAVs also create an escalation risk insofar as they may lower the bar to enter a conflict, without increasing the likelihood of a satisfactory outcome. For example, the terrorists that US UAVs tend to be used to hunt are often mostly motivated by localized conflicts occurring in states with fractured political orders. The use of UAVs to track and kill such individuals does not repair the political rifts that give rise to terrorist violence. If US targeted killing campaigns fail to eradicate all threats of extremism, this may create a perceived policy failure. This, in turn, may create domestic political pressures to continue or escalate the use of lethal force, leading US UAV hunter-killer missions to continue indefinitely.

The US use of lethal UAVs for targeted strikes outside of hot battlefields is likely to be imitated by other states as well. While the United States enjoys temporary dominance in its ability to deploy lethal UAVs effectively — which can be effective in part because of the United States' broader and more integrated ISR capabilities — other states are catching up, and may soon find themselves tempted to deploy lethal UAVs in similar fashion. Such potential future increase in the use of lethal UAV strikes by foreign states may cause or increase instability, and may increase further the risk of widening conflicts in regions around the globe.

In recent years, US targeted strikes involving UAVs have gone from a relative rarity to a relatively common practice in Pakistan and Yemen. As the number of strikes increases, so too does the strategic risk.

To the best of our knowledge, however, the US executive branch has yet to engage in a systematic cost-benefit analysis of targeted UAV strikes as a routine counterterrorism tool.[86] There are numerous non-kinetic means of combatting terrorism; some of these —e.g., efforts to disrupt terrorist communications and finances — can easily be combined with

targeted strikes, while others — e.g., efforts to build friendly relationships with local communities and inspire cooperation — may not be combined as easily.

A serious counterterrorism strategy needs to consider carefully, and reassess constantly, the balance between kinetic action and other counterterrorism tools, and the potential unintended consequences of increased reliance on lethal UAVs, including erosion of sovereignty norms, blowback and the possibility of prolonging or escalating conflict and instability. [87]

Legal and Ethical Issues Connected to Targeted Lethal UAV Strikes

Transparency

Media and NGO reports have documented numerous UAV strikes in Pakistan, Yemen, Somalia and elsewhere, and administration officials have discussed in broad outline the targeting process and the legal theory that underlies cross-border targeted killings. But the administration has disclosed details relating to only a handful of targeted strikes against American citizens: for the most part, the identities of those targeted and the basis for their targeting have not been disclosed.[88] Details relating to incidents that may have involved civilian casualties also have not been disclosed. In court filings, the administration continues to state that it will neither confirm nor deny particular strikes, or even the existence of such strikes as a general matter.

While administration officials have made an effort to address public concerns by more fully explaining the logic and legal theories behind targeted strikes,[89] it remains difficult to know precisely how frequently there are targeted killings by UAVs, who has been targeted, where the strikes occur, whether targeting decisions have been made appropriately, how many civilians have been killed, and so on.

We recognize that US officials frequently have compelling reasons to refrain from providing some of this information to the public. Disclosing the evidence that led to the targeting of a particular individual might expose intelligence capabilities that are effective only if secret; in some circumstances, disclosure might jeopardize the safety of human intelligence assets. Naming potential targets or targeted organizations creates a risk that those individuals or organizations will go "underground" even as they continue to plan terror attacks, making prevention of future attacks more difficult. Disclosing past strikes may also anger, and prevent future cooperation from, countries that have agreed to strikes only on condition that US activities in their territory remain secret.

We believe that US government decision-makers make targeting decisions in good faith and with genuine care. All of us on this task force have worked inside the executive branch and have great respect for the integrity and thoughtfulness of the individuals connected with targeted strike decisions, from the president down to the men and women piloting weaponized UAVs. Indeed, we are inclined to believe that the majority of those targeted by US UAV strikes are individuals who could be widely acknowledged as legitimate targets if the information relating to their targeting were made public. Nonetheless, we are concerned by the continuing lack of transparency relating to US targeted killings.

It is important to note that targeted strikes outside of "hot battlefields" are carried out both by the military and by the CIA.[90] While the United States has not formally acknowledged most such strikes by either agency,[91] far more is known publicly about the targeting procedures for military strikes than for CIA strikes.

The Department of Defense has a robust procedure for targeting, with outlined authorities and steps, and clear checks on individual targets. The authorization of a UAV strike by the military follows the traditional process in place for all weapons systems (be they MQ-9 Reaper drones or F-16 fighter jets). Regardless of whether particular strikes are acknowledged, the Pentagon has stated that UAV strikes, like strikes from manned aircraft, are subject to the military's pre-strike target development procedures and post-strike assessment.

The process of determining and executing a strike follows a specific set of steps to ensure fidelity in target selection, strike and post-strike review.[92] The first step, target development, involves four stages: target analysis, vetting, validation and nomination. By creating a cross-agency and cross-service vetting process, the target development procedure ensures that 1) the target achieves the objectives and goals dictated by the force commander, and 2) a targeted strike does not conflict with the goals or objectives of other services or agencies.

Following each strike, a post-strike review is carried out both at the tactical level (with input from the unit) and at the operational level — in order to determine whether the target was carried out in line with rules of engagement and how the strike's success or failure fits into the larger operational strategy. The chain of command within the military process is well defined, and helps ensure proper accountability. Ultimately, the commander has authority and accountability for the strike, but is assisted at all steps in the targeting process by judge advocate general lawyers (JAGs). JAGs provide legal advice on the proper rules of engagement, including those in connection with any mission changes during the operation.

Under Title 50 of the United States Code, CIA strikes and the process for determining targets are kept out of the public eye. As a result, it is difficult to discern whether the CIA follows similar rules and procedures when targeting. Press reports, based on leaks from administration officials, suggest that the CIA allows for more rapid and efficient targeting than the military — including an ability to react to imminent threats without the burden of multi-service and multi-agency oversight. But this more rapid process may run the risk of reducing needed internal checks and balances. While administration officials suggest there is an extensive review process for CIA strikes, it remains unclear who is involved in the process, which agencies and departments provide checks and oversights, how the chain of command works, and, in terms of accountability, who ultimately is responsible for the strikes.

Law Versus the Rule of Law

From a US government perspective, the United States is in an ongoing armed conflict with al-Qaida and its "associated forces."

As a domestic law matter, the use of lethal force against al-Qaida was authorized by the 2001 Authorization for the Use of Military Force (AUMF) passed by Congress a few days after the 9/11 attacks. The AUMF placed no geographic or temporal limitations on the use of force; it states only that the president may use "all necessary and appropriate force against those nations, organizations or persons he determines planned, authorized, committed or aided the terrorist attacks that occurred on Sept. 11, 2001."[93] The Obama administration has interpreted this broadly, arguing that the AUMF should be read to authorize the use of force against not only al-Qaida and the Taliban, but against any organizations or persons it views as "associated forces" of al-Qaida, even if those "associated" groups or individuals had no connection to the 9/11 attacks and pose no direct threat to the United States. On this apparent basis, the administration has justified targeted strikes against al-Shabab militants in Somalia, as well as assorted militants in Pakistan and Yemen.[94]

As an international law matter, the existence of an armed conflict between the United States and al-Qaida triggers the applicability of the law of armed conflict, which permits the United States to target al-Qaida operatives as enemy combatants. The law of armed conflict permits status-based targeting: that is, al-Qaida combatants are targetable because of who they are, not because of their activities. By extension, members of organizations that fight alongside al-Qaida are also targetable as co-belligerents. And unlike ordinary domestic law or international human rights law, the law of armed conflict does not require the United States to provide due process to enemy combatants before targeting them, and it does not require the United States to compensate enemy combatants or their families for injuries, deaths or property damage.

Beyond the law of armed conflict, international law also recognizes that states have the right to use armed force outside their own borders when doing so is necessary to prevent an imminent attack.[95] US officials therefore have argued that cross-border targeted strikes against terror suspects are permitted both under the law of armed conflict and under the international law of self-defense.

These are plausible interpretations of existing US and international law, and we disagree with those critics who have declared that US targeted killings are "illegal." But "legality" and "the rule of law" are not the same thing. Changing technologies and events have made it increasingly difficult to apply the law of armed conflict and the international law relating to the use of force in a consistent and principled manner, leading to divergence between "the law" and the core *rule of law* principles that traditionally have animated US policy.

The law of armed conflict and the international legal rules governing the use of force by states arose in an era far removed from our own. When the Geneva Conventions of 1949 were drafted, for instance, it was assumed that most conflicts would be between states with uniformed, hierarchically organized militaries, and that the temporal and geographic boundaries of armed conflicts would be clear.

The paradigmatic armed conflict was presumed to have a clear beginning (a declaration of war) and a clear end (the surrender of one party, or a peace treaty); it was also presumed the armed conflict to be confined geographically to specific, identifi-

able states and territories. What's more, the law of armed conflict presumes that it is a relatively straightforward matter to identify "combatants" and distinguish them from "civilians," who are not targetable unless they participate directly in hostilities. The assumption is that it is also a straightforward matter to define "direct participation in hostilities."

The notion of "imminent attack" at the heart of international law rules relating to the use of force in state self-defense was similarly construed narrowly: traditionally, "imminent" was understood to mean "instant, overwhelming, and leaving no choice of means, and no moment for deliberation."[96]

But the rise of transnational non-state terrorist organizations confounds these preexisting legal categories. The armed conflict with al-Qaida and its associated forces can, by definition, have no set geographical boundaries, because al-Qaida and its associates are not territorially based and move easily across state borders. The conflict also has no temporal boundaries — not simply because we do not know the precise date on which the conflict will end, but because there is no obvious means of determining the "end" of an armed conflict with an inchoate, non-hierarchical network.

In a conflict so sporadic and protean — a conflict with enemies who wear no uniforms, operate in secret and may not use traditional "weapons" — the process of determining where and when the law of armed conflict applies, who should be considered a combatant and what counts as "hostilities" inevitably is fraught with difficulty. While our military and intelligence communities have grown increasingly adept, both at identifying and confirming the identities of al-Qaida affiliates and at precise and careful targeting, the criteria used to determine who might be considered targetable remain unknown to the public.

As it becomes increasingly difficult to articulate a consistent or principled definition of "combatant" or "hostilities," it also becomes similarly difficult to determine the circumstances in which a civilian becomes targetable because he is "participating directly in hostilities." In addition, it is unclear what standards should be used for determining what organizations might constitute "associated forces" or "co-belligerents" that "fight alongside" al-Qaida.[97] Finally, it is difficult to understand how the US government determines the "imminence" of unknown types of future attacks being planned by unknown individuals.

Reliance on intelligence and other targeting information provided by a host nation government adds an extra layer of uncertainty. In such contexts — when it is already so difficult to articulate clear criteria for determining what law applies, and to whom — we face the additional challenge of ensuring that we are not being drawn into a civil war, or being used to target the domestic political enemies of the host state leadership.

While the legal norms governing armed conflicts and the use of force look clear on paper, the changing nature of modern conflicts and security threats has rendered them almost incoherent in practice. Basic categories such as "battlefield," "combatant" and "hostilities" no longer have a clear or stable meaning. And when this happens, the rule of law is threatened.[98]

A great deal of ink has been spilled in efforts to define "the rule of law." For present purposes, it is probably sufficient to use the definition adopted by the US Army:

> "Rule of law is a principle of governance in which all persons, institutions and entities, public and private, including the state itself, are accountable to laws that are publicly promulgated, equally enforced and independently adjudicated, and which are consistent with international human rights principles."[99]

The Army's *Rule of Law Handbook* adds that the rule of law further requires that

- Individuals are secure in their persons and property;
- The state is itself bound by law and does not act arbitrarily;
- The law can be readily determined and is stable enough to allow individuals to plan their affairs;
- Individuals have meaningful access to an effective and impartial legal system; and
- The state protects basic human rights and fundamental freedoms.[100]

The United States was founded upon rule of law principles,[101] and historically has sought to ensure that its own actions, international law and the actions of foreign states are consistent with these principles. Today, however, despite the undoubted good faith of US decision-makers, it would be difficult to conclude that US targeted strikes are consistent with core rule of law norms.

Consider US targeted strikes from the perspective of individuals in — for instance — Pakistan or Yemen. From the perspective of a Yemeni villager or a Pakistani living in the Federally Administered Tribal Areas (FATA), life is far from secure. Death can come from the sky at any moment, and the instability and incoherence of existing legal categories means that there is no way for an individual to be certain whether he is considered targetable by the United States. (Would attending a meeting or community gathering also attended by an al-Qaida member make him targetable? Would renting a building or selling a vehicle to a member of an "associated" force render him targetable? What counts as an "associated force?" Would accepting financial or medical aid from a terrorist group make him a target? Would extending hospitality to a relative who is affiliated with a terrorist group lead the United States to consider him a target?)

From the perspective of those living in regions that have been affected by US UAV strikes, this uncertainty makes planning impossible, and makes US strikes appear arbitrary. What's more, individuals in states such as Pakistan or Yemen have no ability to seek clarification of the law or their status from an effective or impartial legal system, no ability to argue that they have been mistakenly or inappropriately targeted or that the intelligence that led to their inclusion on a "kill list" was flawed or fabricated, and no ability to seek redress for injury. Their national laws and courts can offer no assistance in the face of foreign power, and far from protecting their fundamental rights and freedoms, their own states may in fact be deceiving them about their knowledge of and cooperation with US strikes. Meanwhile, geography and finances make it im-

possible to access US courts, and a variety of legal barriers — such as the state secrets privilege, the political question doctrine, and issues of standing, ripeness and mootness — in any case would prevent meaningful access to justice.[102]

International Precedents

As noted earlier, we believe that the US officials involved in targeted strike decisions are acting in good faith and with appropriate care. Nonetheless, we must consider how US targeted strikes appear to those outside the US executive branch — and particularly to those who live in other parts of the world.

From the perspective of many around the world, the United States currently appears to claim, in effect, the legal right to kill any person it determines is a member of al-Qaida or its associated forces, in any state on Earth, at any time, based on secret criteria and secret evidence, evaluated in a secret process by unknown and largely anonymous individuals — with no public disclosure of which organizations are considered "associated forces" (or how combatant status is determined, how the United States defines "participation in hostilities"), no means for anyone outside that secret process to raise questions about the criteria or validity of the evidence, and no means for anyone outside that process to identify or remedy mistakes or abuses. As we have noted, these rule of law concerns have led to significant international criticism of US targeted strikes.[103] But US practices also set a dangerous precedent that may be seized upon by other states — not all of which are likely to behave as scrupulously as US officials.[104] Imagine, for instance, if Russia began to use UAV strikes to kill individuals opposed to its annexation of Crimea and its growing influence in Eastern Ukraine. Even if the United States strongly believed those targeted by Russian were all nonviolent political activists lawfully expressing their opinions, Russia could easily take a page out of the United States' book and assert that the targeted individuals were members of anti-Russian terrorist groups with which Russia is in an armed conflict. Pressed for evidence, Russia could simply repeat the words used by US officials defending US targeted killings, asserting that it could not provide any evidence without disclosing sources and methods and creating a risk that terrorists would go underground. In such circumstances, how could the United States credibly condemn Russian targeted killings?

As noted earlier, US targeted strikes using lethal UAV technologies create strategic risks, including those associated with the erosion of norms of sovereignty and the possibility that other states will echo US arguments and engage in potentially destabilizing targeted strikes of their own. From the perspective of international rule of law and human rights, the same risks apply: is the United States inadvertently handing abusive foreign regimes a playbook for murdering those it considers politically inconvenient, under the guise of combating terrorism?

Democratic Accountability

Increased US reliance on lethal UAVs in cross-border targeted strikes also poses challenges to democracy and the American system of checks and balances. While we understand the administration's reasons for considering additional transparency difficult, the effect of the lack of transparency is that the United States has been fighting

what amounts to a covert, multi-year killing program. But without additional information about the locations and frequency of UAV targeted strikes; without information about the numbers and identities of those killed and injured; without information even about the budgetary implications of covert targeted strikes: how can the citizenry evaluate US targeted strikes?

UAV strikes also raise questions about the continued efficacy of traditional congressional oversight mechanisms. Because UAV strikes do not require placing US troops into combat situations — and because such strikes may be sporadic — the administration has asserted that it is not required to notify the full Congress of targeted strikes or seek congressional authorization. [105] At the moment, the Obama administration continues to rely on the 2001 Authorization for Use of Military Force as the primary domestic legal basis for US targeted strikes outside of "hot" battlefields. But as noted earlier, the administration's interpretation of the AUMF is extraordinarily broad, and even many former executive branch officials question whether Congress intended to authorize such an unbounded conflict when the AUMF was passed in 2001.[106]

The covert or unacknowledged nature of most UAV targeted strikes also makes it difficult for Congress to perform its vital oversight functions. CIA UAV strikes constitute "covert action" under US law, which defines "covert action" as any "activity or activities of the United States government to influence political, economic or military conditions abroad, where it is intended that the role of the United States government will not be apparent or acknowledged publicly."[107] The CIA requires a presidential "finding" to authorize covert action, and if such presidential authorization is received, the CIA need not give prior notice of particular covert operations to any members of Congress except the so-called "Gang of Eight." (the chairman and ranking members of the Senate and House Intelligence committees, the speaker and minority leader of the House and the majority and minority leaders of the Senate). After a covert action, the executive branch is required to notify the full intelligence committees, but not the full Congress.

Technically, the US military is not permitted to engage in "covert action" as defined by law. It is important to emphasize, however, that the military is not prohibited from engaging in secret, unacknowledged activities that are intended to remain unacknowledged, for US law states that "traditional military activities" do not constitute "covert action."[108]

While "traditional military activities" are not defined by law, the conference report accompanying the covert action statute commented, "It is the intent of the conferees that 'traditional military activities' include activities by military personnel under the direction and control of a United States military commander (whether or not the US sponsorship of such activities is apparent or later to be acknowledged) preceding and related to hostilities which are either anticipated (meaning approval has been given by the National Command Authorities for the activities and/or operational planning for hostilities) to involve US military forces, or where such hostilities involving United States military forces are ongoing, and, where the fact of the US role in the overall operation is apparent or to be acknowledged publicly."[109]

Since the United States regards itself as in an acknowledged armed conflict with al-Qaida and its associates, this means, in effect, that the military may, consistent with cur-

rent US law, carry out secret, unacknowledged strikes against those it believes to be members of al-Qaida and its "associated forces" without technically violating the legal prohibition on covert military activities.

From the perspective of laypersons, both the CIA and the military can thus engage in covert strikes in the colloquial sense of the term. But while covert action undertaken by the CIA requires a presidential finding and notification — even if after the fact — of the congressional intelligence committees, secret, unacknowledged strikes carried out by the US military need not be reported to the intelligence committees, as the military reports instead to the House and Senate Armed Services committees.

At best, this fragmented oversight system creates confusion and a danger that critical issues may slip through the cracks. As a recent Council on Foreign Relations brief notes, "Sometimes oversight is duplicated among the committees; at other times, there is confusion over who is mandated to oversee which operations." [110] This fragmented oversight system is particularly problematic given that, in practice, the military and CIA generally work together quite closely when planning and engaging in targeted UAV strikes: few strikes are "all military" or "all CIA." The differing CIA and military reporting requirements create a risk of executive branch "forum shopping," tempting the executive branch to place a given targeted strike under the direction and control of whichever entity is deemed to have the most accommodating committee members.[111]

Recent congressional efforts to address these issues have been unavailing. In February 2014, for instance, Sen. Carl Levin, chairman of the Senate Armed Services Committee (SASC), sought to hold a joint classified hearing with the Senate Intelligence Committee at which both CIA and military officials would appear simultaneously to discuss CIA and military UAV strikes. The White House refused to provide the SASC members with the security clearances needed to be briefed on CIA programs, however.[112]

Even leaving aside the division of oversight authority between the intelligence and armed services committees, it is unclear how effective existing oversight mechanisms are for either the CIA or the military. Critics of intelligence committee oversight note that committee members may receive only oral briefings on particularly sensitive "controlled access programs,"[113] making meaningful scrutiny impossible. Meanwhile, on the military side, until 2013 there was no statutory requirement that these committees be notified of all targeted strikes.

In 2013, Congress passed the Oversight of Sensitive Military Operations Act (OSMOA) as part of the National Defense Authorization Act.[114] OSMOA required the Pentagon to notify the House and Senate Armed Services committees following every military targeted strike outside of Afghanistan, and required DoD to develop a system to ensure compliance with this requirement. OSMOA also required DoD to report to the Armed Services committees within 60 days to provide "an explanation of the legal and policy considerations and approval processes used in determining whether an individual or group of individuals could be the target of a lethal operation or capture operation conducted by the Armed Forces of the United States."[115]

The Pentagon has not complied fully with OSMOA, however, and the chairman's mark-up for the National Defense Authorization Act for Fiscal Year 2015 contains language that, if enacted into law, would "prohibit the obligation or expenditure of 25 percent of the funds authorized to be appropriated by this act or otherwise available for fiscal year 2015 for the Office of the Assistant Secretary of Defense for Special Operations and Low Intensity Conflict until the congressional defense committees receive the procedures required by section 130f(b)(1) of Title 10, United States Code, and the report required by section 1043 of the National Defense Authorization for Fiscal Year 2014 (Public Law 113-66)."[116]

Even when the appropriate congressional committees are fully briefed, the classified nature of targeted strikes, whether CIA or military, makes oversight a challenge. Because the information involved is classified, members of Congress may have only limited ability to object in a meaningful way: they may be unable to share vital details with colleagues not on relevant committees, and they may lack the authority to share details or criticisms with constituents. But secret policies that have not been scrutinized are more likely to be ill-conceived,[117] and the congressional deference more or less forced by lack of information may become a habit that continues, even when more consequential uses of force are under consideration.[118]

RECOMMENDATIONS

On May 23, 2013, President Obama delivered a major speech at the National Defense University in which he acknowledged many of the same concerns addressed in this report. In his speech, he pledged to continue the difficult task of ensuring that the use of lethal UAVs is both strategically sound and consistent with long-standing US commitments to democracy, accountability and the rule of law.

This report represents a preliminary effort to respond to the president's call for constructive new approaches to thinking about UAVs. The foregoing analysis highlights the questions and concerns we view as most pressing. This section contains detailed recommendations for overhauling UAV strategy; improving oversight, accountability and transparency; developing forward-looking international norms relating to the use of lethal force in nontraditional settings; and devising sound UAV export control and research and development policies.

UAV technologies are here to stay. Used foolishly, they can endanger our interests, diminish regional and global stability and undermine our values. Used wisely, they can help advance our national security interests even as we foster a more robust international commitment to the rule of law.

We believe this report offers a useful framework for ensuring that the United States uses these new technologies wisely, and we look forward to discussing our recommendations with the administration and the public.

1. Conduct a strategic review of the role of lethal UAVs in targeted counterterrorism strikes.

The US government should conduct a thoroughgoing interagency strategic review of the use of UAVs in targeted counterterrorism strikes. At a minimum, the review should:

- Evaluate the impact of past UAV strikes on terrorist organizations, with regard to capabilities, threats currently posed, morale and recruiting.
- Evaluate the impact of such strikes on affected communities including attitudes toward their own governments, toward the United States, toward the West, toward al-Qaida's ideology and toward terrorist organizations.
- Evaluate the impact of such strikes on public opinion, litigation, defense policy and government cooperation in allies and partner nations.
- Evaluate rigorously the costs and benefits both of specific strikes and of kinetic versus non-kinetic means of combatting terrorism on a country-by-country, region-by-region basis.

- Lay out guidelines, consistent with broader US government counterterrorism strategy, for determination of when targeted strikes are appropriate, and for ongoing reassessment of the strikes' effects and value.

We urge the president to order such a review with a clear timeframe for completion and a commitment to provide the full Congress with a thorough report on the strategic review, as well as an unclassified report to the American public (see also recommendation 4, below).

If the president does not make such a commitment, we urge Congress to mandate such a review and reporting process.

This review and reporting process should supplement, not substitute for, an independent review as outlined in recommendation 4, below.

2. Improve transparency in targeted UAV strikes.

As a general principle, the United States should acknowledge the use of lethal force in foreign countries both to Congress and to the American public. While secrecy may be required before and during each strike, strikes should generally be acknowledged by the United States after the fact. We do not believe it is consistent with American values for the United States to carry on a broad, multi-year program of targeted strikes in which the United States has acknowledged only the deaths of four US citizens, despite clear evidence that several thousand others have also been killed.

- The United States should, as a matter of general policy, refrain from promising foreign governments that it will keep secret its own use of lethal force.
    - There may be occasional circumstances in which strikes must be covert and/or unacknowledged, but covert or unacknowledged strikes should be the rare exception, not the rule.
    - If circumstances require the covert/unattributed use of lethal force, strikes should be acknowledged as soon as possible after the circumstances requiring secrecy have passed.
        - The default rule should be prompt acknowledgment, absent extraordinarily compelling reasons for continued secrecy, and the burden should be on those advocating continued secrecy to demonstrate its necessity, taking into account the numerous costs of continued secrecy.
        - Decisions not to acknowledge the use of lethal force should be reviewed at least annually to ensure that the use of force does not remain classified out of habit rather than necessity.
- Regardless of whether any particular strike is acknowledged, the president should release to the public an unclassified version of the interagency report resulting from the strategic review and cost-benefit analysis as outlined in recommendation 1.

- The unclassified report should, to the fullest extent possible, release information on:
  - The approximate number and general location of targeted UAV strikes;
  - The number of individuals known to have been killed;
  - The organizational affiliations of those individuals;
  - The number and identities of any civilians known to be killed; and
  - The approximate number of strikes carried out by the military versus the CIA.

- The president should order the preparation and public release of a detailed report explaining the legal basis under domestic and international law for US conduct of targeted killings. The report should go beyond speeches by administration officials. Although the task force respects the need for the executive branch to protect internal legal advice, the United States should not conduct a long-term killing program based on secret rationales.

3. Transfer general responsibility for carrying out lethal UAV strikes from the CIA to the military.

- Parallel CIA and military UAV programs are, at best, duplicative and inefficient. At worst, the existence of parallel programs makes oversight more difficult and increases the risk of error and arbitrariness, since the CIA and military may have different standards for evaluating intelligence and identifying appropriate targets.
- The United States should have a single integrated system for carrying out lethal targeted strikes outside hot battlefields, perhaps utilizing a dedicated, military-led "fusion center" model to ensure that military operators have access to real-time intelligence information and support. The CIA should provide the military with intelligence and analysis to aid in targeting decisions, but UAV strikes themselves should take place under the command and control of the military.
- While rare exceptions may be warranted, as a general principle, the military should be the entity responsible for the use of lethal force outside the United States, while the CIA should focus on intelligence collection and analysis.

4. Develop more robust oversight and accountability mechanisms for targeted strikes outside of hot battlefields.

- While internal executive branch reviews and reports are important, public and international concerns about targeted strikes will not be alleviated fully through such mechanisms.
  - The task force recommends that the president, by executive order, create a nonpartisan independent commission to review lethal UAV policy.

The commission might be modeled after the Presidential Intelligence Advisory Board, the Robb-Silberman Commission on Iraq WMD, the Privacy and Civil Liberties Oversight Board, or similar commissions.

- Members of this independent commission should be selected with a view to ensuring credibility and diversity of background.
  - Members should be respected individuals with experience in the military community, the intelligence community, the diplomatic community, the legal community and the human rights community, along with regional experts and retired policymakers and legislators.
- The commission should not be directly involved in the pre-strike approval process. It should instead be tasked with:
  - Reviewing the overall policy and approval process for the use of lethal UAV strikes (both military and CIA) to ensure compliance with the law and with American values and our national commitment to upholding and promoting the rule of law;
  - Reviewing particular past lethal strikes and targeting decisions, selected at the commission's discretion, to assess their conformity with existing US law, policy and process, their effectiveness, any civilian deaths caused by the strike/s, and their impact on US interests in the region and globally;
  - Recommending policies and procedures for correcting any past mistakes and for developing safeguards against potential future mistakes or abuses;
  - Recommending a means of providing compensation or solatia (sympathy) payments, if appropriate, to the families of any civilians killed in drone strikes, and for damage to civilian property or injuries to civilians;
  - Making any other recommendations the commission views as appropriate to ensure that the US use of lethal UAVs complies both with US law and with our national commitment to upholding the rule of law and ensuring accountability and transparency in the use of lethal force abroad; and
  - Ensuring that targeted killings, whether carried out by UAV strikes or other instruments of lethal force, including force used during US Special Operations Forces (SOF) raids, are having a positive effect on US national security and not trading short-term gains for more negative longer-term strategic consequences. (That, in the presi-

dent's words, we do not "create more enemies than we take off the battlefield."[119])

- The commission should be designed to ensure maximum insulation from partisan or political pressures.
  - Commission members should receive all appropriate security clearances and should serve for set periods of time;
  - The commission should have the power to inspect government documents at its discretion and interview government officials;
  - The commission should have a staff and budget sufficient to enable it to carry out the foregoing duties.
- The Commission should report at least annually to the president and to the armed services and intelligence committees in Congress, making interim reports as the commission considers appropriate.
  - The president should have the right to review commission reports to Congress in advance, solely for the purpose of removing information related to intelligence sources and methods and other matters that are legitimately protected by executive privilege.
  - An unclassified version of the commission's annual report to the president and Congress should be released publicly.

5. Foster the development of appropriate international norms for the use of lethal force outside traditional battlefields.

- Technological, social and political changes will continue to give rise to new kinds of national security threats and new kinds of conflicts. While conflict between nation-states remains a frightening possibility, the United States and other countries increasingly will find themselves in conflicts with non-state actors, and these conflicts will often occupy the murky ground between crime and full-scale war in the traditional sense. At the moment, however, such conflicts do not fit easily into existing legal categories, making the use of lethal force in such conflicts controversial.
- Thus far, the United States has done little to explain its use of lethal UAV strikes to partners or allies, and has largely resisted calls from allies and international organizations to provide more information on UAV strikes or the legal views and policy approaches underlying them. This reticence needlessly damages America's reputation, and increases the danger that irresponsible states will seize on US actions as precedent for engaging in what the United States would view as unjustified strikes.

- The United States should take the lead in working with allies and partners to foster the development of clear international norms for the use of lethal force by states outside of traditional hot battlefields. Such norms are vital to ensuring that efforts to combat new threats do not have the unintended consequences of undermining the rule of law.
    - These norms should rest upon a joint commitment to ensuring that states have the ability to respond effectively to nontraditional threats from nontraditional actors and a commitment to ensuring that even in nontraditional conflicts, the use of lethal force is consistent with core rule of law principles and respect for fundamental human rights.
    - At a minimum, these norms should seek to ensure that rules and practices relating to the state use of lethal force are transparent and clear; that lethal force will not be used without adequate safeguards to prevent arbitrariness and protect against error and abuse; and that impartial accountability mechanisms are available to investigate credible allegations of error and abuse, and, if appropriate, provide remedies.
    - Ideally, these norms should also address sovereignty considerations and the scope of anticipatory self-defense in the context of evolving threats.

6. Assess UAV-related technological developments and likely future trends, and create an interagency research and development strategy geared toward advancing US national security interests in a manner consistent with US values.

- We urge the executive branch to undertake a thoroughgoing interagency review to evaluate technological developments and likely future evolution of UAVs with lethal capabilities.
- This review should also flag any legal, ethical and strategic implications of emerging UAV-related technologies, including the possible future development of autonomous weapons systems.
- This review and analysis should lead to the development of a holistic interagency research, development and use strategy for UAVs.

7. Review and reform UAV-related export control rules and FAA rules, with a view to minimizing unnecessary regulatory burdens on the development of the US UAV industry, while still safeguarding US national security interests and ensuring responsible UAV development and use.

- As more foreign nations obtain UAV manufacturing capability and as the military and civilian applications of UAVs multiply in number and evolve in sophistication, the US government should analyze carefully whether the current national and multilateral export control regime is well tailored to today's UAV proliferation threats and opportunities.

- The United States should develop a sophisticated UAV export control strategy that accounts for current national and international security risks and priorities; establishes UAV-specific non-proliferation objectives; and preserves the US interest in maintaining an adequate defense industrial base, a military technological edge in UAV systems, and influence over global UAV markets.

- The US government should premise changes to the US UAV export control regime, as well as US proposals at the international level, on a detailed study of current UAV industry conditions, UAV capabilities of concern, and the impact of current export control regulations on UAV exports and development.

    - The US government should gather information on the growth trends in UAV markets, with a particular focus on the commercial growth potential for Missile Technology Control Regime (MTCR) Category II UAVs.

    - The US government should study the availability of UAVs from foreign countries — both those countries that are party to and not party to the MTCR and the Wassenaar Arrangement — to help determine if controls on the export of US UAV systems are well tailored to today's international UAV market.

    - The US government should also inquire into the broader non-proliferation effect of the MTCR Category I presumption of denial. The US government should determine whether, in the long run, the presumption remains a useful non-proliferation tool or inadvertently fosters the growth of foreign UAV manufacturing capability by suppressing the participation of US industry in the global MTCR Category I UAV market.

    - The US government should evaluate and identify the characteristics of UAVs that pose particular security concerns beyond the traditional MTCR Category I 500 kg/300 km threshold (e.g., speed, radar cross-section, swarming capability, surveillance payload, low observable features, armor and anti-aircraft countermeasures).

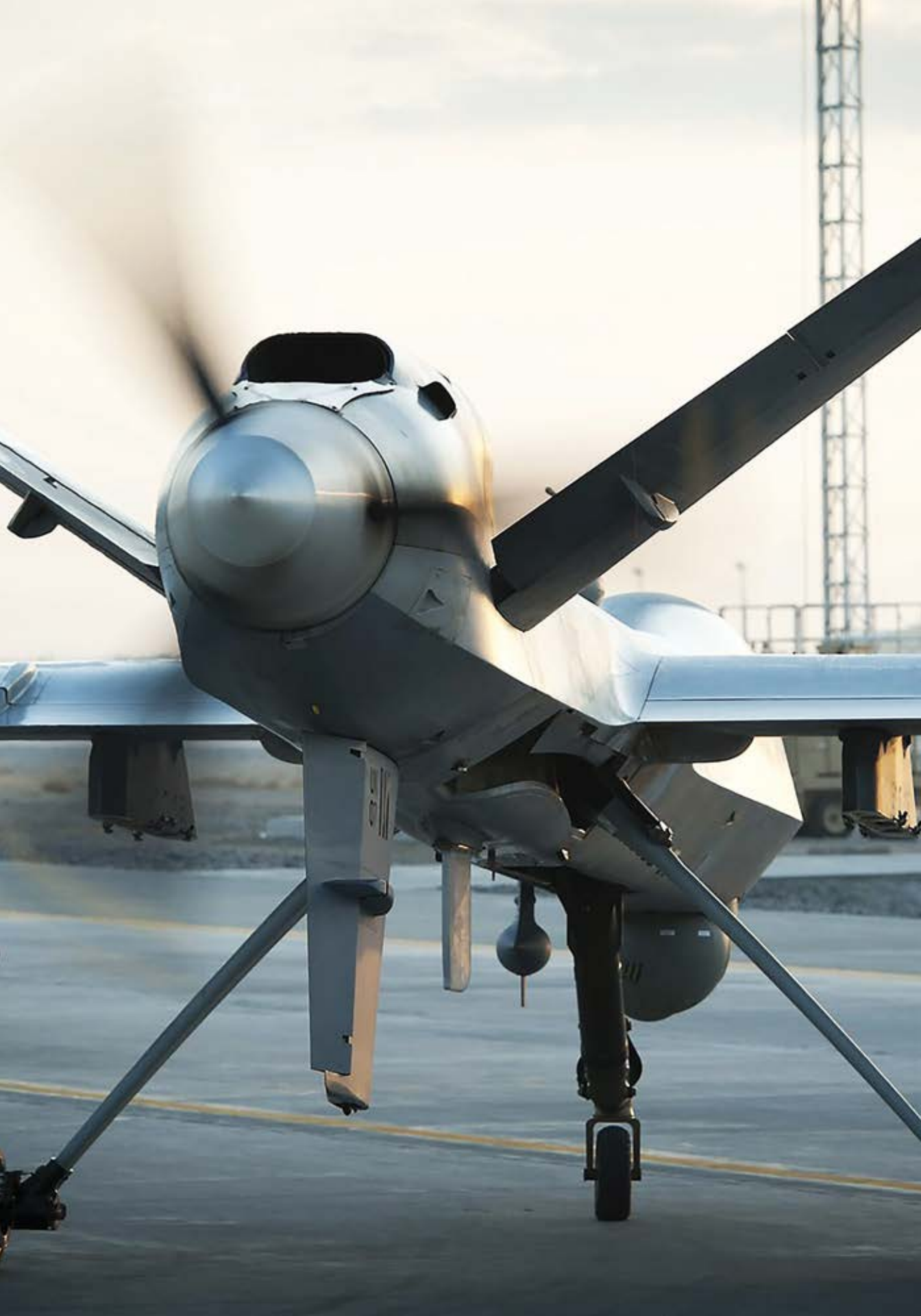
- The US government should propose any appropriate reforms to the multilateral export control regime as well as US law and policy in light of this analysis, and consistent with the broader strategic reviews recommended above. Such revised export control likely would make more granular distinctions between types of UAVs beyond the MTCR Category I and II rubric, such as the following:

        - Severe restrictions could be applied for armed UAVs meant for combat operations, given the security concerns with such UAVs and the lack of significant foreign availability;
        - While preserving the MTCR Category I presumption of denial, establish particular factors to consider in deciding whether to overcome the presumption. These could include the national security costs and benefits of the end-use, the UAV characteristics or system modifications, and the overall benefit to the US defense industrial base and to the nation's UAV technological edge from the transaction; and
        - Licensing guidance to place greater scrutiny on UAVs that exhibit certain capabilities of particular proliferation concern beyond the MTCR Category I and Category II characteristics.
    - The US government should consider rules that encourage the export of "UAV services" or other alternatives to the transfer of ownership and control of UAV systems to foreign buyers. In contexts where such alternatives are commercially feasible, this approach may yield many of the security benefits of greater US UAV exports, but without the attendant proliferation risks that come with the full transfer of controlled technology. In addition, in light of the adverse effects of ambiguity in export control rules, the US government should also strive to provide reasonable clarity in its regulations and policies so that UAV manufacturers are aware of the specific capabilities and characteristics that will result in stricter or more lenient export control. In particular, it would be consistent with the overall principles of the administration's Export Control Reform initiative to provide technical criteria that warrant treating UAVs as subject to the stricter controls of the State Department's International Traffic in Arms Regulations. For instance, current criteria might involve resolution capability of surveillance payload, low observable features, armor and anti-aircraft countermeasures; it would be important to review the criteria frequently to keep pace with rapid technological change in the UAV sector.[120]

8. Accelerate the FAA's efforts to meet the requirements of the 2012 FAA Reauthorization Bill.

- The FAA should take rapid steps to ensure the safe integration of civil unmanned aircraft systems into the national airspace system by Sept. 30, 2015, as required by law.

- Before the September 2015 deadline, the FAA proactively should consider whether certain commercial UAVs can be safely operated in the national airspace prior to that date, and make exemptions as permitted by Section 333 of the 2012 FAA Reauthorization Bill. However, exemptions should be seen only as a stopgap measure toward the development of a comprehensive regulatory framework for both government and privately operated UAVs.[121]



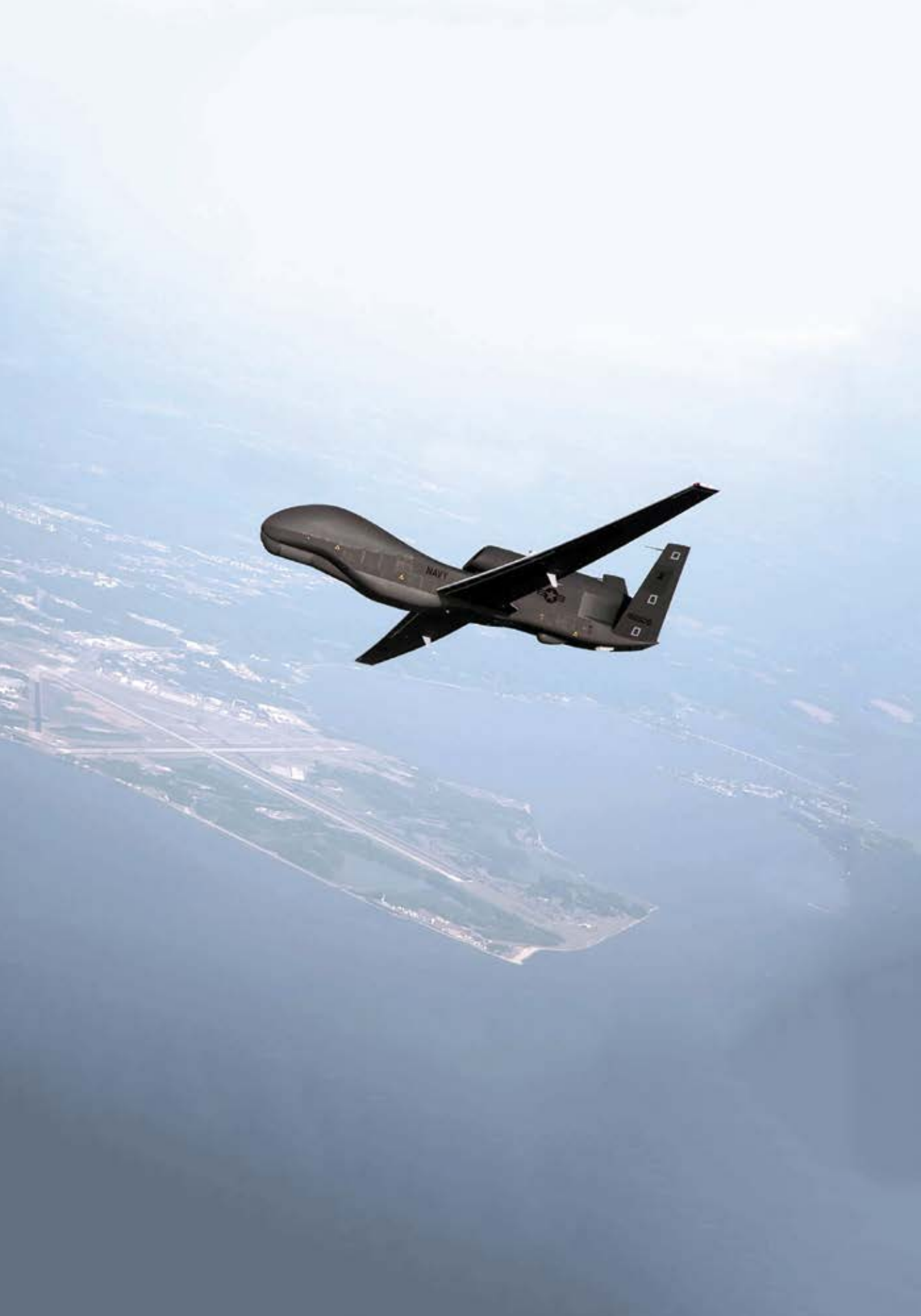
ACKNOWLEDGEMENTS

A task force on as complicated and divisive an issue as drones/UAVs is really only possible with the guidance and leadership of some of the most knowledgeable experts on the issue. It is with deep gratitude that I thank the task force members for their expertise, support, and commitment to craft a report that is both forward looking and pragmatic. I am confident that this report will serve as a useful and timely resource for the administration, Congress and for those interested in a productive dialogue on the humanitarian, legal, ethical, security and export control issues related to US drone policy. I would like to thank in particular the task force's co-chairs, John Abizaid and Rosa Brooks, who tirelessly have led this endeavor. Their belief in the need to address these issues in a productive and realistic way has sustained the project throughout the past year and led us to the practical, reasonable and useful recommendations presented in this report.

The task force could not have completed its work without the background information and important context provided by three working groups and colleagues from the defense industry, think tanks, the human rights community, Congress, the US military and the US government. Their expertise relating to technical aspects of this issue provided the framework for the task force report and the detail necessary to develop recommendations that are sensible and sustainable. This report draws heavily on many of the preliminary materials prepared by the working groups. The working group reports will be made available publicly on Stimson's website later this year. I would particularly like to thank staff from the United States Air Force and Air Force Reserves, who briefed the project staff on current and future uses of UAVs and provided technical advice throughout the project.

Stimson's President and CEO Ellen Laipson has been committed from the start to undertake the challenging task of bringing together a diverse group of experts to discuss and agree upon recommendations on a complex issue. Ellen's participation in the planning and execution of this project and providing unique and focused perspectives has contributed immensely to the effort. Managing Across Boundaries' Initiative Director Brian Finlay has been a steadfast supporter of this project and his convictions made our work possible. I have also had the privilege of working with a wonderful support staff, including Alex Georgieff, who has provided countless research hours, as well as Shannon Dick and a number of Stimson interns, all of whom have contributed editorial, research and logistical support necessary to complete a project of this magnitude. A special thanks also to Lita Ledesma for her creative design of the report.

Rachel Stohl, Project Director
June 2014


NAVY

TASK FORCE MEMBERS

Gen. John P. Abizaid (US Army, Ret.), Co-chair
Former Commander of US Central Command

John P. Abizaid is the Principal Partner of JPA Partners, LLC, a firm advising private business, government, and academic clients on national and international strategy, business, security, and military affairs since 2007. He serves as the Distinguished Chair (Emeritus) of the Combating Terrorism Center at the United States Military Academy at West Point. He was the first Annenberg Distinguished Visiting Fellow at the Hoover Institution, Stanford University. He has worked with the Preventative Defense Project at Stanford University and Harvard's Kennedy School of Government. He is a Director of the Council on Foreign Relations and a member of the International Institute for Strategic Studies. He led the Dover Inquiry Panel and co-chaired the 2014 National Defense Review, as well as leading several other national level assessment panels dealing with military issues. He currently serves as a Director of the George Olmsted Foundation, USAA, Virtu Financial and RPM International.

General Abizaid retired from the United States Army as a four-star General in May 2007, after 34 years of active service. A graduate of the United States Military Academy at West Point, he commanded units at every level, serving in the combat zones of Grenada, Lebanon, Kurdistan, Bosnia, Kosovo, Afghanistan and Iraq. Units under his command included the 1st Infantry Division, a brigade in the 82nd Airborne Division, and two Ranger companies. He studied at the University of Jordan in Amman, holds a master's degree in Middle Eastern Studies from Harvard University, and has deep expertise in regional as well as international strategy.

Rosa Brooks, Co-chair
Professor at the Georgetown University Law Center,
former Counselor to the Undersecretary of Defense for Policy

Rosa Brooks is a Senior Fellow at the New America Foundation's National Security Program. She writes a weekly column for Foreign Policy, where she serves as a contributing editor. Since 2007, she has also been a Professor of Law at Georgetown University, teaching courses on international law, national security and constitutional law. From 2009-2011, Brooks took a public service leave of absence from Georgetown, during which she served as Counselor to the Under Secretary of Defense for Policy. In July 2011, she received the Secretary of Defense Medal for Outstanding Public Service.

Brooks has worked in the past at the US Department of State, for Human Rights Watch, for the Open Society Foundation, as a weekly op-ed columnist for the Los Angeles Times, and as an associate professor at the University of Virginia School of

Law. Her writing has appeared in dozens of national and international publications, from the Washington Post and Politico Magazine to Slate and The Atlantic. She is the co-author of *Can Might Make Rights? The Rule of Law After Military Interventions*, (with Jane Stromseth and David Wippman; Cambridge University Press, 2006), and her next book, *By Other Means: How Everything Became War and the Military Became Everything*, will be published in 2015 by Simon and Schuster. Brooks received a JD from Yale University, an AB from Harvard University, and a master's degree from the University of Oxford, where she was a Marshall Scholar. She has two children, and is married to an active duty officer in the US Army's Special Forces.

Lt. Gen. David W. Barno (US Army, Ret.)

Senior Fellow and Co-Director of the Responsible Defense Program at the Center for a New American Security and former head of Combined Forces Command-Afghanistan

David Barno is a Senior Fellow and Co-Director of the Responsible Defense Program at the Center for a New American Security. A highly decorated military officer with over 30 years of service, he has served in a variety of command and staff positions in the United States and around the world, to include command at every level. He served many of his early years in special operations forces with Army Ranger battalions, including combat in both the Grenada and Panama invasions.

In 2003, he was selected to establish a new three-star operational headquarters in Afghanistan and take command of the 20,000 US and Coalition Forces in Operation Enduring Freedom. For 19 months in this position, he was responsible for the overall military leadership of this complex political-military mission, devising a highly innovative counterinsurgency strategy in close partnership with the US embassy and coalition allies.

His responsibilities included regional military efforts with neighboring nations and involved close coordination with the government of Afghanistan, the United Nations, NATO International Security Assistance Force, the US Department of State, the United States Agency for International Development and the senior military leaders of many surrounding nations and numerous allies.

From 2006-2010, General Barno served as the Director of the Near East South Asia Center for Strategic Studies at the National Defense University. Concurrently, he was the Chairman of the Advisory Committee on Operation Iraqi Freedom and Operation Enduring Freedom Veterans and Families from 2007-2009. He frequently serves as an expert consultant on counterinsurgency and irregular warfare, professional military education and the changing character of conflict, supporting a wide-range of government and other organizations. General Barno is widely published and has testified before Congress numerous times. He is also a member of the Council on Foreign Relations and the International Institute of Strategic Studies.

A 1976 graduate of the US Military Academy at West Point, General Barno also earned a master's degree in National Security Studies from Georgetown University. He is a gradu-

ate of the US Army Command and General Staff College, and the US Army War College. General Barno has received numerous awards for his military and public service.

John B. Bellinger III

Partner at Arnold & Porter LLP and former Senior Associate Counsel to the President and Legal Advisor to the National Security Council and Legal Adviser for the US Department of State

John B. Bellinger III is a partner in the international and national security practices of Arnold & Porter LLP in Washington, DC. He advises sovereign governments and US and foreign companies on a variety of international law and US national security law issues. He is also an Adjunct Senior Fellow in International and National Security Law at the Council on Foreign Relations.

Mr. Bellinger served as The Legal Adviser for the US Department of State under Secretary of State Condoleezza Rice from April 2005 to January 2009. He previously managed Secretary Rice's Senate confirmation and co-directed her State Department transition team. He received the Secretary of State's Distinguished Service Award in January 2009.

Mr. Bellinger served from February 2001 to January 2005 as Senior Associate Counsel to the President and Legal Adviser to the National Security Council at the White House, where he was Condoleezza Rice's principal lawyer when she was National Security Adviser. He previously served as Counsel for National Security Matters in the Criminal Division of the Justice Department during the Clinton administration (1997-2001), as Special Counsel to the Senate Select Committee on Intelligence (1996), and as Special Assistant to Director of Central Intelligence William Webster (1988-1991).

Mr. Bellinger received an AB from Princeton University's Woodrow Wilson School of Public and International Affairs in 1982, a JD from Harvard Law School in 1986 , and an MA in Foreign Affairs from the University of Virginia in 1991. Mr. Bellinger is a member of the Secretary of State's Advisory Committee on International Law and the Department of Defense Legal Policy Board; one of four US Members of the Permanent Court of Arbitration in The Hague; and a member of the US "National Group," which nominates judges to the International Court of Justice. He is also a member of the Council on Foreign Relations, the American Society of International Law, and the American Law Institute. Mr. Bellinger speaks regularly on US and foreign radio and television, has lectured at numerous US and foreign universities and law schools, and is the author of many articles and op-eds on international law issues. He is a senior contributor to the *Lawfare* blog.

Lincoln P. Bloomfield Jr.

Stimson Board Chairman, President of Palmer and Coates, and former Assistant Secretary of State for Political Military Affairs

Ambassador Lincoln P. Bloomfield, Jr. is founder and president of Palmer Coates; senior adviser at Akin Gump Strauss Hauer & Feld; operating partner at Pegasus Capital Advisors; senior adviser at ZeroBase Energy; and chairman of Bell Pottinger Communications USA. He was US special envoy for man-portable air defense systems threat reduction from 2008-2009 and assistant secretary of state for political-military

affairs from 2001-2005. Bloomfield previously served as: deputy assistant secretary of state for Near Eastern affairs (1992-1993); deputy assistant to the vice president for national security affairs (1991-1992); and principal deputy assistant secretary of defense for international security affairs (1988-1989), among other policy positions in the US Defense Department dating to 1981. He was also the president's special representative on the landmine issue and led the US government's international outreach on critical infrastructure protection, including cybersecurity.

Bloomfield is a graduate of Harvard College and the Fletcher School of Law and Diplomacy at Tufts University.

Mary (Missy) Cummings

Associate Professor, Mechanical Engineering & Materials Science at Duke University and former US Navy pilot

Mary (Missy) Cummings is currently the Director of the Humans and Autonomy Laboratory and an associate professor in the Department of Mechanical Engineering and Materials Science at Duke University. Formerly a naval officer and military pilot from 1988-1999, she was one of the Navy's first female fighter pilots. Before taking the position at Duke, Dr. Cummings was an associate professor in the Aeronautics & Astronautics Department at the Massachusetts Institute of Technology. Her previous teaching experience includes instructing for the US Navy at Pennsylvania State University and as an assistant professor for the Virginia Tech Engineering Fundamentals Division. Her research interests include human interaction with autonomous vehicle systems, modeling human interaction with complex systems, decision support design for time-pressured, uncertain systems, and the ethical and social impact of technology.

Dr. Cummings received a BS in mathematics from the United States Naval Academy in 1988, an MS in space systems engineering from the Naval Postgraduate School in 1994, and a PhD in systems engineering from the University of Virginia in 2004.

Janine Davidson

Senior Fellow for defense policy at the Council on Foreign Relations and former Deputy Assistant Secretary of Defense for Plans and Air Force Pilot

Dr. Janine Davidson is senior fellow for defense policy at the Council on Foreign Relations. Her areas of expertise include defense strategy and policy, military operations, national security and civil-military relations. Before joining CFR, Davidson was an assistant professor in the School of Public Policy at George Mason University where she taught courses on national security, civil-military relations, counterinsurgency and public policy. From 2009 to 2012, she served in the Obama administration as the deputy assistant secretary of defense for plans, where she oversaw the development of guidance for military campaign and contingency plans. She also led policy efforts for US global defense posture, including the military's rebalance to Asia, and international agreements related to US forces stationed overseas.

Previously, Dr. Davidson served as director for stability operations capabilities in the Office of the Assistant Secretary of Defense for Special Operations and Low Intensity

Conflict (2006–2008), where she founded and directed the Consortium for Complex Operations (2007–2008), an innovative interagency project to enhance education, training, coordination and performance in complex emergencies and interventions. As an associate at DFI International (2003–2004), Dr. Davidson researched reserve affairs and Air Force mobility operations and strategy. As a research and adjunct fellow at the Brookings Institution (2004; 2008) and as director of counterinsurgency studies at Hicks and Associates (2005–2006), she conducted research on counterinsurgency, peacekeeping and military adaptation and learning.

Dr. Davidson began her career in the United States Air Force, where she was an aircraft commander and senior pilot for the C-130 and the C-17 cargo aircraft. She flew combat support and humanitarian air mobility missions in Asia, Europe and the Middle East and was an instructor pilot at the US Air Force Academy.

She received her PhD and an MA degree in international studies from the University of South Carolina and a BS in architectural engineering from the University of Colorado at Boulder.

Peter Lichtenbaum

Covington & Burling and former Under Secretary of Commerce for Industry and Security and Assistant Secretary of Commerce for Export Administration

Mr. Lichtenbaum is a partner in the Washington, DC, Covington & Burling office and co-chair of the International Trade and Finance practice group. He has experience in a broad array of international regulatory compliance and trade matters, including export controls, economic sanctions, national security reviews of foreign investments, anti-corruption laws, market access and international trade disputes, and he has specialized experience in the aerospace, defense and homeland security industries.

Mr. Lichtenbaum served as Vice President for Regulatory Compliance and International Policy at BAE Systems, Inc., the US subsidiary of one of the world's largest defense contractors. In this role he was responsible for a broad array of regulatory compliance and policy issues, including in particular export controls. From October 2003 through February 2006, he served as the Assistant Secretary of Commerce for Export Administration at the US Department of Commerce, responsible for developing the Bureau of Industry and Security's (BIS) policies regarding controls on the export of dual-use items for national security, foreign policy, non-proliferation and other reasons. During his tenure at Commerce, Mr. Lichtenbaum also served for seven months as Acting Undersecretary of Commerce for Industry and Security, in which capacity he led BIS. His responsibilities included the development and enforcement of strategic trade controls, regulation of foreign acquisitions that affect US security, and oversight of the defense industrial base. In addition, he served for several months as Acting Deputy Under Secretary of Commerce for International Trade. In this role, he led the 2,500-employee International Trade Administration and participated in senior-level decisions regarding pending international trade policy issues such as free trade agreements.

He received an AB from Princeton University, an MPP from Harvard University's John F. Kennedy School of Government and a JD from Harvard Law School.

Phillip Mudd

President of the security consulting firm Mudd Management, former Deputy Director of National Security at the FBI and former Deputy Director, Counterterrorist Center at the Central Intelligence Agency

Philip Mudd joined the Central Intelligence Agency in 1985 as an analyst specializing in South Asia and then the Middle East. He began work in the CIA's Counterterrorist Center in 1992 and then served on the National Intelligence Council as the Deputy National Intelligence Officer for the Near East and South Asia (1995-98). After a tour as an executive assistant in the front office of the Agency's analytic arm, Mr. Mudd went on to manage Iraq analysis at the CIA (1999-2001).

Mr. Mudd began a policy assignment at the White House in early 2001, detailed from CIA to serve as the Director for Gulf Affairs on the White House National Security Council. He left after the Sept. 11 attacks for a short assignment as the CIA member of the small diplomatic team that helped piece together a new government for Afghanistan, and he returned to the CIA in early 2002 to become second-in-charge of counterterrorism analysis in the Counterterrorist Center. He was promoted to the position of Deputy Director of the Center in 2003 and served there until 2005. At the establishment of the Federal Bureau of Investigation's National Security Branch in 2005, FBI Director Robert Mueller appointed Mr. Mudd to serve as the Branch's first-ever deputy director. He later became the FBI's Senior Intelligence Adviser. Mr. Mudd resigned from government service in March 2010.

Currently, Mr. Mudd is the President of Mudd Management, a company specializing in security consulting, analytic training and public speaking about security issues. He is a senior fellow at the New America Foundation and The George Washington University's Homeland Security Policy Institute. He now serves as Senior Global Adviser to Oxford Analytica, a British-based firm specializing in advising multinational companies. He sits on the advisory board for the National Counterterrorism Center and for the Director of National Intelligence, and he serves on the Aspen Institute's Homeland Security Group. Mudd graduated from Villanova University and received a master's degree from the University of Virginia, both in English literature.

Jeffrey H. Smith

Senior Counsel at Arnold & Porter LLP, former General Counsel of the Central Intelligence Agency and former General Counsel of the Senate Armed Services Committee

Smith heads Arnold & Porter's national and homeland security practice, which regularly counsels both US and foreign companies on a wide range of national security issues. His practice includes advising major defense and aerospace companies and representing major media organizations and individuals with respect to First Amendment issues and unauthorized disclosures of classified information. He has frequently rep-

resented prominent individuals in congressional investigations and federal prosecutions. He also represents major universities on national security issues.

Smith is a former general counsel of the CIA and currently serves on the Department of Defense Legal Policy Advisory Board. He has also served as general counsel of the Senate Armed Services Committee and was Sen. Sam Nunn's designee to the Senate Select Committee on Intelligence and the Iran/Contra Committee. Prior to working for the Senate, he was the assistant legal adviser for law enforcement and intelligence at the State Department. Earlier, as an Army Judge Advocate General officer, he served as the Pentagon's lawyer for the Panama Canal negotiations.

In 1992 and 1993, Smith served as the chief of the Clinton transition team at the Department of Defense. He also chaired the Joint Security Commission established in 1993 by Secretary of Defense Les Aspin and CIA Director James Woolsey to examine the security procedures of the defense and intelligence communities and the companies that contract with them. In addition, he served on the congressionally mandated Commission on Roles and Missions of the Armed Services.

He has a BS in mechanical engineering from the United States Military Academy and a JD from the University of Michigan Law School.

Rachel Stohl, Project Director

Senior Associate, Managing Across Boundaries Initiative, Stimson Center

Rachel Stohl is a senior associate with Stimson's Managing Across Boundaries initiative. Her areas of expertise focus on issues relating to the international arms trade, including small arms and light weapons, as well as children and armed conflict.

Prior to joining Stimson she was an associate fellow at Chatham House, the Royal Institute of International Affairs, from 2009-2011. She was a senior analyst at the Center for Defense Information in Washington, DC from 1998-2009. Stohl has also been a consultant for many international organizations, including Oxfam, Project Ploughshares, SIPRI, the Small Arms Survey, and World Vision. She served as a Scoville Fellow at the British American Security Information Council in DC and worked at the United Nations Center for Disarmament Affairs in New York and at the Program for Arms Control, Disarmament, and Conversion in Monterey, CA. Stohl is an adjunct professor in the Security Studies Program at Georgetown University.

Stohl was the consultant to the UN ATT process from 2010-2013 and was previously the consultant to the UN Group of Governmental Experts (GGE) on the Arms Trade Treaty in 2008 and the UN Register for Conventional Arms in 2009.

Stohl is co-author of two books, *The International Arms Trade* (Polity Press, 2009) and *The Beginners Guide to the Small Arms Trade* (Oneworld Publishing, 2009). She has appeared in numerous documentaries, including "Making a Killing: Inside the International Arms Trade," available on the DVD of the feature film Lord of War.

Stohl holds an MA in international policy studies from the Monterey Institute of International Studies and an honors BA in political science and German from the University of Wisconsin-Madison.

Working Group Members

This report reflects the opinions and conclusions of the 10 members of the Stimson Task Force in their individual capacities. Nonetheless, task force discussions were enriched by the invaluable insights and context provided by members of the three working groups. They are listed below (affiliations are listed for identification purposes only). Each working group is preparing a more detailed report discussing the issues within its ambit; those separate reports will be published in fall 2014.

Kenneth Anderson
American University Washington College of Law

Joseph Benkert
The Cohen Group

Brittany Benowitz
American Bar Association

David Berteau
Center for Strategic and International Studies

Daniel Bethlehem
Barrister (UK)

Gary Brown
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Sarah Cleveland
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Ashley Deeks
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Duke University Law School

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David Fite
US Senate Committee on Foreign Relations

Benjamin Friedman
CATO Institute

Emerson Gardner
Avascent International

Alison Giffen
Stimson Center

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Stimson Center

Richard Speier

William Thomas
General Atomics

Mark Webber
Lockheed Martin

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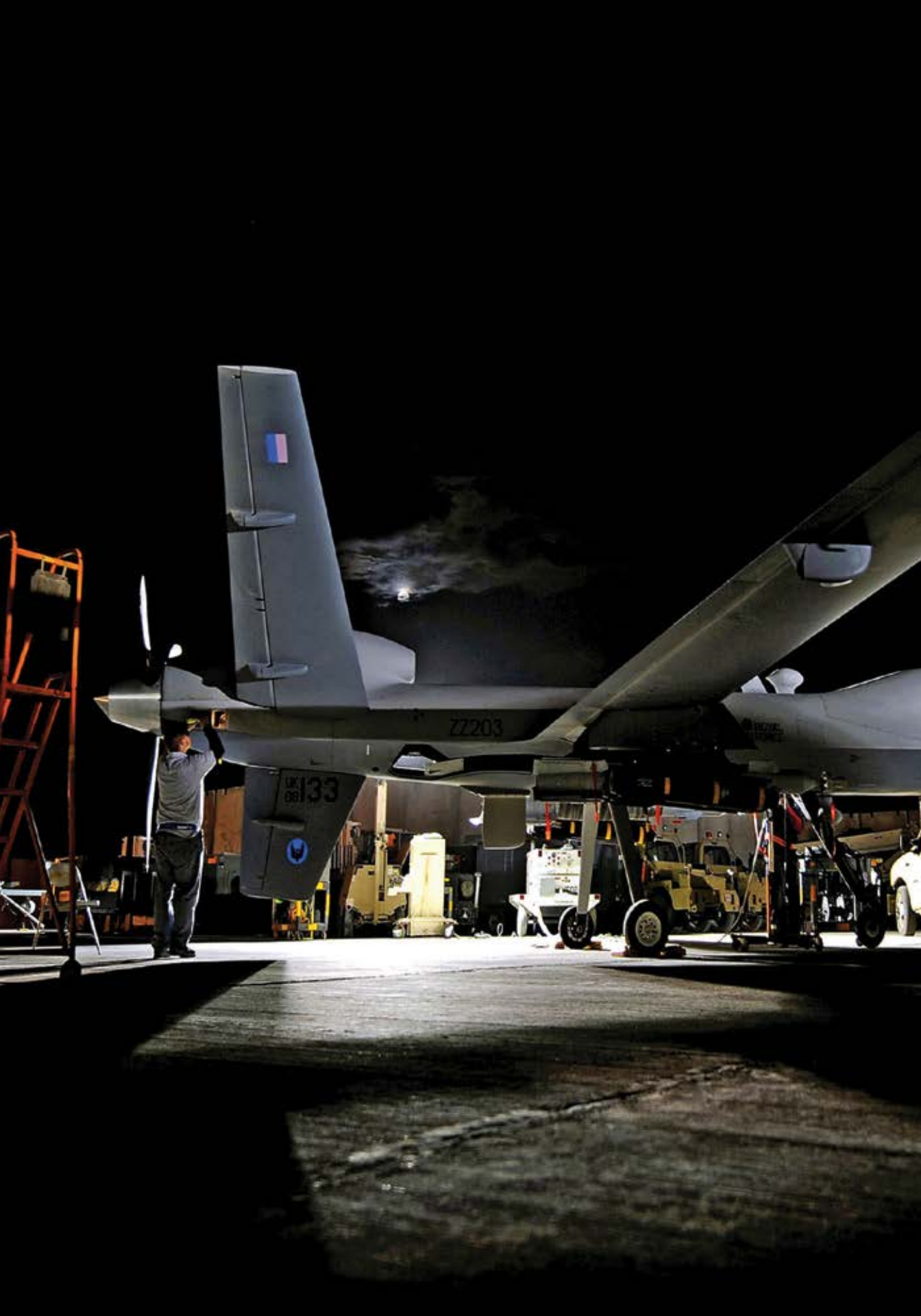
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ENDNOTES

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2. As far as we know, only four US citizens have been killed in US strikes. See: DeYoung, Karen, and Peter Finn. "U.S. acknowledges killing of four U.S. citizens in counterterrorism operations." The Washington Post, May 22, 2013. Accessed June 2, 2014. http://www.washingtonpost.com/world/national-security/us-acknowledges-killing-of-four-us-citizens-in-counterterrorism-operations/2013/05/22/7a21cf84-c31d-11e2-8c3b-0b5e9247e8ca_story.html.

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6. Nolan, Cathal J. *The Age of Wars of Religion, 1000-1650: An Encyclopedia of Global Warfare and Civilization*. Westport: Greenwood Press, 2006, 200. Accessed June 2, 2014. http://books.google.com/books?id=1h9zzSH-NmwC&lpg=PA200&ots=SJ8khQ7Mo7&dq=crossbow%20banned%20pope%20urban&pg=PA200#v=onepage&q=crossbow%20banned%20pope%20urban&f=false.

7. Fuller, J.F.C. *Armament & History: The Influence of Armament of History From the Dawn of Classical Warfare to the End of the Second World War.* New York: First Da Capo Press, 1998, 91-92.

8. Whoever first brings a technological innovation to the battlefield often enjoys a step function advantage over its foes as long as it monopolizes that technology. This advantage boosts the confidence of the innovator and affects conduct on and off the battlefield for the length of the monopoly. Consider the dominant position of the United States in the four-year period that ran from 1945, when it used the atomic bomb against Japan, until 1949, when the Soviet Union successfully tested its own atomic weapon. During this period, American diplomacy benefited from its nuclear monopoly. Like all warfare innovations, however, the monopoly was short-lived. The technology proliferated and within a short time several countries were operating at a new, more lethal level. Recently, the United States has enjoyed a localized monopoly in UAVs in the uncontested theaters of Iraq and Afghanistan, and even across Southwest Asia outside of the combat zones. This monopoly has provided the United States a similar step function capability increase in terms of persistence and operational reach of force.

9. Needless to say, many of the same attributes that make UAVs valuable for military purposes also render them valuable in domestic law enforcement, counter-drug operations and border protection; UAVs also have numerous other civilian and commercial applications, ranging from crop inspection to wilderness search and rescue operations. See: Bennett, Brian. "FBI has been using drones since 2006, watchdog agency says." Los Angeles Times, September 26, 2013. Accessed June 3, 2014. http://www.latimes.com/nation/nationnow/la-na-nn-fbi-using-drones-2006-20130926-story.html.

10. Consider the "Gorgon Stare," a persistent wide area surveillance system utilized by the MQ-9 Reaper,

provides video imaging of a large area of land, yet still providing useful on the ground detail (*Gorgon Stare: Persistent Wide Area Airborne Surveillance (WAAS) System.* Beavercreek, OH: Sierra Nevada Corporation. Accessed June 3, 2014. http://www.sncorp.com/pdfs/isr/gorgon_stare.pdf.) Furthermore, UAVs can also focus on a smaller area for a long period of time, providing ISR for upwards of 24-hours. ISR data is often integrated with other surveillance technology, including satellites, U-2 and RC-135s. See: US Department of Defense. Intelligence Science Board. Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics. *Integrating Sensor-Collected Intelligence.* By Defense Science Board and Intelligence Science Board Task Force. November 2008. Accessed June 2, 2014. http://www.fas.org/irp/agency/dod/dsb/sensors.pdf.

11. UAVs can significantly reduce the length of the command chain and shorten the kill chain (i.e., find, fix, track, target, engage) by improving the ability for the pilot to seek out the target and immediately fire—a process which for manned aviation takes two or more different aircraft and significant coordination. In general, UAV technologies have increased the ability of higher headquarters to make short-cycle decisions and impact the close-in fight literally by remote control. Simultaneously, lower echelon units now have greater access than ever to the same external information as higher headquarters and, aided by the use of locally controlled UAVs, are able to dominate greater battle space and better appreciate their own situation.

12. Johns Hopkins Applied Physics Laboratory. "APL Quick Response Created New Tool to Assess Nuclear Power Plant Crisis." News & Media. Last modified February 20, 2012. Accessed June 2, 2014. http://www.jhuapl.edu/newscenter/stories/st120220.asp.

13. In the past, warfighters on the ground under imminent threat would have to navigate a complicated command hierarchy to call for air support. The soldier on the ground would have to relay coordinates to a Forward Air Controller (FAC), who would then talk the pilot's eyes onto a target in an extremely hostile environment. These missions have always been very dangerous for the pilot, who has to fly low and avoid multiple threats, and also for people on the ground. It is a human-error rich environment, and even today, it is not uncommon for the wrong coordinates to be relayed, resulting in the deaths of friendlies or innocent civilians. To ease these difficulties, DARPA is currently investigating how to replace the FAC and the pilot by a weaponized UAV that will be commanded by the soldier on the ground with a smartphone. See: Defense Advanced Research Projects Agency (DARPA). "Persistent Close Air Support (PCAS)." Programs. Accessed June 2, 2014. http://www.darpa.mil/Our_Work/TTO/Programs/Persistent_Close_Air_Support_(PCAS).aspx.

14. Atherton, Kelsey D. "Are Autonomous Helicopters the Next 18-Wheelers?" Popular Science, May 14, 2013. Accessed June 2, 2014. http://www.popsci.com/technology/article/2013-05/kmax-and-drones-tomorrow.

15. US Naval Research Laboratory. "Networks and Communication Systems Branch." Accessed June 2, 2014. http://cs.itd.nrl.navy.mil/work/dragon_warrior/.

16. Hodge, Nathan. "U.S. Diverts Spy Drone from Afghanistan to Haiti." Wired, January 15, 2010. Accessed June, 2, 2014. http://www.wired.com/2010/01/pentagon-shares-earthquake-images-from-high-flying-spy-drone/.

17. Everstine, Brian. "Drones Play Role in Disaster Response." Air Force Times, November 26, 2013. Accessed June 2, 2014. http://www.airforcetimes.com/article/20131126/NEWS/311260021/Drones-play-role-disaster-response.

18. Danigelis, Alyssa. "Predator Drone Joins Yosemite Wildfire Fight." Discovery News, August 29, 2013. Accessed June 2, 2014. http://news.discovery.com/earth/weather-extreme-events/predator-drone-joins-yosemite-wildfire-fight-130829.htm.

19. UAVs also have enormous potential as a law enforcement tool. UAVs are already used by the US Drug Enforcement Agency and by US Customs and Border Patrol, but police and other state and local law enforcement officials may also find future uses for UAVs, including replacing snipers and chase cars, observing drug-dealing hot-spots and employment in hostage scenarios. See: Whitlock, Craig, and Craig Timberg. "Border-patrol drones being borrowed by other agencies more often than previously known." The Washington Post, January 14, 2014. Accessed June 3, 2014. http://www.washingtonpost.com/world/

national-security/border-patrol-drones-being-borrowed-by-other-agencies-more-often-than-previously-known/2014/01/14/5f987af0-7d49-11e3-9556-4a4bf7bcbd84_story.html.

20. UAVs' internal surveillance systems provide accurate and precise imagery and video for targeting. Combined with long loitering time, the employment of UAVs allow pilots to fire on the target when they are certain both of the target and that non-combatants are not present—improving the assurance of proportionality and discrimination.

21. With little information provided by the administration regarding collateral damage, various organizations have attempted to collate information from a variety of different sources in order to provide estimates of the number of casualties from each drone strike, and the possible status of each victim — militant, leader, or civilian. Three organizations lead this effort: The Bureau of Investigative Journalism (BIJ), The New America Foundation (NAF) and The Long War Journal (LWJ). While the three datasets do not vary drastically in their estimates of the total number of deaths and civilian casualties, they do vary in their classifications of those deaths — including in terminology used and in number of strikes listed. The terminology used by each organization to identify those killed in the strikes varies from "civilian," "possible civilian," "militant," "alleged militant" or "unknown." For example BIJ predominately uses the terms "alleged militants" to classify casualties when those killed are presumed to be affiliated with terrorist groups, whereas LWJ and NAF use "militant" without the qualifier. BIJ does not use the term militant directly because, [it] "do[es] not know who the majority of the dead are. However, field reports form journalists, government officials and militant sources often provide clear suggestions that they are allegedly militants." NAF uses the term militant "to describe all organized, named groups that bear arms and that are not part of Pakistani, Somali or Yemeni military, police, paramilitary or militia forces." NAF states that "if two or more news reports label the dead as 'militants,' while others call them 'people' or some other neutral term, we have labeled them as militants." They note the same two-source method for their classification of civilians as well. When the "majority of reports do not refer to the dead as 'civilians,' 'women' or 'children,' but one media outlet does," NAF then labels the casualties as "unknown." The LWJ, however, does not provide detailed information explaining its methodology of classifying those killed. See: *Data Comparison of Casualties from Pakistan UAV Strikes in 2011*. Washington DC: Stimson Center, October 2013. Accessed June 2, 2014. http://www.stimson.org/images/uploads/reporting_on_civilian_casualties_from_targeted_strikes_in_pakistan.pdf.

22. Throughout this report, we distinguish between the use of UAV strikes on "traditional" or "hot" battlefields and their use in places such as Pakistan, Yemen and Somalia. These are terms with no fixed legal meaning; rather, they are merely descriptive terms meant to acknowledge that the US of UAV strikes has not been particularly controversial when it is ancillary to large-scale, open, ongoing hostilities between US or allied ground forces and manned aerial vehicles, on the one hand, and enemy combatants, on the other. In Afghanistan and Iraq, the United States deployed scores of thousands of ground troops and flew a range of close air support and other aerial missions as part of Operation Enduring Freedom, and UAV strikes occurred in that context. In Libya, US ground forces did not participate in the conflict, but US manned aircraft and UAVs both operated openly to destroy Libyan government air defenses and other military targets during a period of large scale, overt ground combat between the Qaddafi regime and Libyan rebel groups. In contrast, the use of US UAV strikes in Yemen, Pakistan and elsewhere has been controversial precisely because the strikes have occurred in countries where there are no US ground troops or aerial forces openly engaged in large scale combat. Legally, there is a significant debate over whether the US can still be said, as a matter of international law, to be in an armed conflict with al-Qaida and/or its associated forces, and over whether that conflict, if it is a conflict, can be said to extend to states such as Yemen, Pakistan and Somalia. It is not our intent to take a position on that issue, but merely to note that whether or not there is a legal distinction that can or should be drawn between "traditional" or "hot" battlefields and situations such as Yemen and Pakistan, there is surely an intuitive and descriptive distinction recognized by most observers, including Administration representatives. E.g., in a 2011 speech at Harvard Law School, John Brennan declared that the use of lethal force by the United States was not "restricted solely to 'hot' battlefields like Afghanistan." See: Brennan, John O. "Strengthening our Security by Adhering to our Values and Laws." Remarks presented at Harvard Law School, Cambridge, MA, September 16, 2011. Accessed June 2, 2014. http://www.whitehouse.gov/the-press-office/2011/09/16/remarks-john-o-brennan-strengthening-our-security-adhering-our-values-an.

23. Stanley McChrystal: "What scares me about drone strikes is how they are perceived around the world. The resentment created by American use of unmanned strikes ... is much greater than the average American appreciates. They are hated on a visceral level, even by people who've never seen one or seen the effects of one." See: Alexander, David. "Retired General Cautions Against Overuse of "Hated" Drones." Reuters, January 7, 2013. Accessed June 2, 2014. http://www.reuters.com/article/2013/01/07/us-usa-afghanistan-mcchrystal-idUSBRE90608O20130107.

24. Whitlock, Craig. "Drone Strikes Killing More Civilians than U.S. Admits, Human Rights Groups Say." The Washington Post, October 22, 2013. Accessed June 2, 2014. http://www.washingtonpost.com/world/national-security/drone-strikes-killing-more-civilians-than-us-admits-human-rights-groups-say/2013/10/21/a99cbe78-3a81-11e3-b7ba-503fb5822c3e_story.html.

25. Sledge, Matt. "The Toll of 5 Years of Drone Strikes: 2,400 Dead." Huffington Post, January 23, 2014. Accessed June 2, 2014. http://www.huffingtonpost.com/2014/01/23/obama-drone-program-anniversary_n_4654825.html.

26. Obama, Barack. "Remarks by the President at the National Defense University." Remarks presented at the National Defense University, Fort McNair, Washington, DC, May 2013. Accessed June 2, 2014. http://www.whitehouse.gov/the-press-office/2013/05/23/remarks-president-national-defense-university.

27. Hauser, Christine. "The Aftermath of Drone Strikes on a Wedding Convoy in Yemen." The Lede, New York Times Blog, December 19, 2013. Accessed June 2, 2014. http://thelede.blogs.nytimes.com/2013/12/19/the-aftermath-of-drone-strikes-on-a-wedding-convoy-in-yemen/; Human Rights Watch. "US: Yemen Drone Strike May Violate Obama Policy." Last modified February 20, 2014. Accessed June 2, 2014. http://www.hrw.org/news/2014/02/19/us-yemen-drone-strike-may-violate-obama-policy; see also: Abbot, Sebastian, Asif Shahzad, and Josh Lederman. "Human Rights Watch and Amnesty International Criticize US Drone Program, Question its Legality." Fox News, October 22, 2013. Accessed June 2, 2014. http://www.foxnews.com/us/2013/10/22/human-rights-watch-and-amnesty-international-criticize-us-drone-program/.

28. "Because operators are based thousands of miles away from the battlefield, and undertake operations entirely through computer screens and remote audio-feed, there is a risk of developing a 'Playstation' mentality to killing." See: Human Rights Council. United Nations. *Report of the Special Rapporteur on extrajudicial summary or arbitrary executions, Philip Alston.* By Alston, Philip. May 28, 2010. Accessed June 2, 2014. http://www2.ohchr.org/english/bodies/hrcouncil/docs/14session/A.HRC.14.24.Add6.pdf.

29. Alston, Philip, and Hina Shamsi. "A Killer Above the Law?" The Guardian, February 8, 2010. Accessed June 2, 2014. http://www.guardian.co.uk/commentisfree/2010/feb/08/afghanistan-drones-defence-killing.

30. See, e.g., The Editorial Board. "The Deaths of Innocents." The New York Times, October 23, 2013. Accessed June 4, 2014. http://www.nytimes.com/2013/10/24/opinion/the-deaths-of-innocents.html; The Editorial Board. "The Lawyer Behind the Drone Policy." The New York Times, May 7, 2014. Accessed June 4, 2014. http://www.nytimes.com/2014/05/08/opinion/the-lawyer-behind-the-drone-policy.html; The Editorial Board. "The Trouble With Drones." The New York Times, April 7, 2013. Accessed June 4, 2014. http://www.nytimes.com/2013/04/08/opinion/the-trouble-with-drones.html; see also Singer, Peter. "Do Drones Undermine Democracy?" The New York Times, January 21, 2012. Accessed June 4, 2014. http://www.nytimes.com/2012/01/22/opinion/sunday/do-drones-undermine-democracy.html?pagewanted=all; Mayer, Jane. "The Predator War." The New Yorker, October 26, 2009. Accessed June 4, 2014. http://www.newyorker.com/reporting/2009/10/26/091026fa_fact_mayer; McKelvey, Tara. "Covering Obama's Secret War." Columbia Journalism Review, May 3, 2011. Accessed June 4, 2014. http://www.cjr.org/feature/covering_obamas_secret_war.php?page=all.

31. Church, Aaron. "RPA Strikes Still Rising." *Air Force Magazine* 96, no. 3 (March 2013): 21. Accessed June 2, 2014. http://www.airforcemag.com/MagazineArchive/Pages/2013/March%202013/0313world.aspx. In addition, a number of other US government agencies use UAVs for a variety of missions (Office of the Inspector General. Department of Homeland Security. *CBP's Use of Unmanned Aircraft Systems in the National Border Security*. May 2012. Accessed June 4, 2014. http://www.oig.dhs.gov/assets/

Mgmt/2012/OIG_12-85_May12.pdf.) However, lethal capability is not shared by all agencies and services: certain services, such as the USMC and US Navy, do not currently operate lethal UAVs. Their UAV fleets are focused on providing reconnaissance — "over the next hill" surveillance that is vital for their combat operations.

32. *Sustaining the US Lead in Unmanned Systems: Military and Homeland Considerations through 2025*. Washington, DC: Center for Strategic and International Studies (CSIS), 2014. Accessed June 2, 2014. http://csis.org/files/publication/140227_Brannen_UnmannedSystems_Web.pdf.

33. According to the 2014 US Air Force RPA Vector, "Today the primary mission of RPA is to conduct globally integrated ISR as an airborne ISR collection platform and to support ISR analysis and PED." See: US Air Force. *RPA Vector: Vision and Enabling Concepts 2013-2038*. February 17, 2014. Accessed June 4, 2014. http://www.defenseinnovationmarketplace.mil/resources/USAF-RPA_VectorVisionEnablingConcepts2013-2038_ForPublicRelease.pdf.

34. Drone strikes conducted by the CIA are carried out under Title 50 of the United States Code (covert operations) and the US government has never officially unclassified the CIA's involvement in drone strikes. The United States has only acknowledged the CIA "has an intelligence interest in this topic" and possesses information on legality of drone strikes and civilian casualties. American Civil Liberties Union, et al. v. Department of Justice, et al. 10-CV-00436 (August 9, 2013), 17. Accessed June 4, 2014. https://www.aclu.org/sites/default/files/assets/49-2._declaration_of_martha_m._lutz_-_chief_litigation_support_unit_cia_2013.08.09.pdf.

35. The Iranian capture of the RQ-170 is one example of UAV vulnerabilities. (Peterson, Scott. "Exclusive: Iran hijacked US drone, says Iranian engineer." Christian Science Monitor, December 15, 2011. Accessed June 4, 2014. http://www.csmonitor.com/World/Middle-East/2011/1215/Exclusive-Iran-hijacked-US-drone-says-Iranian-engineer-Video.) Similarly, a University of Texas professor demonstrated just how easy it was to spoof the GPS signal of a UAV and trick it into changing courses and destinations. See: Aerospace Engineering and Engineering Mechanics. "Todd Humphreys' Research Team Demonstrates First Successful GPS Spoofing of UAV." The University of Texas at Austin, 2012. Accessed June 2, 2014. http://www.ae.utexas.edu/news/features/todd-humphreys-research-team-demonstrates-first-successful-gps-spoofing-of-uav.

36. For example, according to Air Force data, the "ownership cost per flight hour" in 2012 was $3,679 for the MQ-1B Predator and $4,762 for the MQ-9A Reaper, and $49,089 for the RQ-4B, Global Hawk. In contrast, the reported equivalent cost was $22,512 for an F-16C and $36,343 for an F-15E. (Data provided by Air Force comptroller's office to Winslow Wheeler of the Project On Government Oversight, available at: Thompson, Mark. "Costly Flight Hours." Time, April 2, 2013. Accessed June 2, 2014. http://nation.time.com/2013/04/02/costly-flight-hours/.

37. Costs also vary depending on personnel and policy decisions: it costs the US Air Force $2,100/training hour for a fighter or bomber pilot to learn to fly a Predator, for instance, but it only costs $150/training hour for commissioned officers with no previous flight experience to learn to operate the Predator. See, for example: Unger, Eric J. *An Examination of the Relationship Between Usage and Operating-and-Support Costs of U.S. Air Force Aircraft*. Santa Monica: RAND, 2009, 12. Accessed June 2, 2014. http://www.rand.org/content/dam/rand/pubs/technical_reports/2009/RAND_TR594.pdf; US Air Force. *Operating Next-Generation Remotely Piloted Aircraft for Irregular Warfare*. April 2011. Accessed June 4, 2014. http://publicintelligence.net/usaf-drones-in-irregular-warfare/.

38. One way to address the question of relative cost is by comparing similar manned and unmanned aircraft. An appropriate comparison might be made between the MQ-1 and a manned MC-12W Liberty, a propeller-driven aircraft designed for intelligence, surveillance, and reconnaissance (ISR) missions. The Air Force's reported ownership cost per flight hour in 2012 for the MC-12W was $3,973 after several years of declining costs per flight hour. (Data provided by Air Force comptroller's office to Winslow Wheeler of the Project on Government Oversight. Thompson, Mark. "Costly Flight Hours." Time, April 2, 2013. Accessed June 3, 2014. http://nation.time.com/2013/04/02/costly-flight-hours/.) Yet while the MQ-1 and MC-12 have similar missions and similar costs using this measure, they still have significantly different capabilities. The MC-12, although more durable and capable in poor weather than UAVs, can

stay aloft for only 6 hours in comparison to an MQ-1's 24 hours. (Vanden Brook, Tom. "Newest Manned Spy plane scores points in war effort," USA Today, June 2, 2010. Accessed June 3, 2014. http://usatoday30.usatoday.com/news/military/2010-06-01-Liberty_N.htm.) The MC-12 puts several humans at risk, who are also subject to physiologic constraints such as fatigue and hunger.

39. In the case of intelligence, surveillance, and reconnaissance missions, for example, effectiveness might be measured by some combination of the aircraft's sortie rate, range, time on station, ability to operate in poor weather, the amount of data collected, the type of data collected, etc. Moreover, the measure of "effectiveness" may vary significantly from one ISR mission to another. A mission to get a picture of a particular distant target will not require the same capabilities as a mission to provide persistent overhead surveillance for a ground unit.

40. However, a recent acquisition announcement sheds light on the DoD's shift towards cost-consciousness, in that OSD and the Air Force, citing fiscal savings, recently announced that the U2 program will be cancelled, and Global Hawk UAVs will take their place. See: Everstine, Brian. "Why the Air Force Wants to Keep Global Hawks and Retire U-2s." Air Force Times, March 5, 2014. Accessed June 3, 2014. http://www.airforcetimes.com/article/20140305/NEWS04/303050029/Why-Air-Force-wants-keep-Global-Hawks-retire-U-2s0.

41. "Drones by Country: Who has all the UAVs?" The Guardian. Accessed June 2, 2014. http://www.theguardian.com/news/datablog/2012/aug/03/drone-stocks-by-country#data.

42. See: Bergen, Peter, and Jennifer Rowland. "Nine Facts about Armed Drones." CNN, May 13, 2014. Accessed June 2, 2014. http://www.cnn.com/2014/05/13/opinion/bergen-nine-facts-spread-of-armed-drones/index.html. There is debate about how fast lethal drones will proliferate, however. See: Kreps, Sarah. "The Foreign Policy Essay: Preventing the Proliferation of Armed Drones." Lawfare Blog, April 13, 2014. Accessed June 2, 2014. http://www.lawfareblog.com/2014/04/the-foreign-policy-essay-preventing-the-proliferation-of-armed-drones/.

43. According to a Teal Group study, the total UAV market is expected to grow from $5 billion in 2014 to $11.6 billion in 2023. This includes research and development and procurement both in the military and commercial sector (which Teal suggests will be considerably less than military, proportionally). *Teal Group Predicts Worldwide UAV Market Will Total $89 Billion in Its 2013 UAV Market Profile and Forecast*. Teal Group Corporation, June 17, 2013. Accessed March 4, 2014. http://tealgroup.com/index.php/about-teal-group-corporation/press-releases/94-2013-uav-press-release.

44. Israel, in particular, has long been an innovator in UAV technology and is a close rival of the United States as a manufacturer. Israel Aerospace Industries (IAI) fielded its first UAV in 1978, developed the first tactical UAV purchased by the US military, and has 49 users of its UAVs worldwide. (See Stockholm International Peace Research Institute (SIPRI). "Trade Registers" Arms Transfers. Last modified 2012. Accessed June 3, 2014. http://portal.sipri.org/publications/pages/transfer/trade-register;

Opall-Rome, Barbara. "Israel Tackles The Last Frontier." Defense News, June 5, 2013. Accessed June 4, 2014. http://mobile.defensenews.com/article/306030015.) Europe is also catching up in the development of UAVs; in November 2013, France, Germany, Greece, Italy, the Netherlands, Poland, and Spain formed a "drone club" aimed at developing a "European generation" of UAVs within 10 years. The European Defense Agency will be responsible for producing the initial list of military requirements for this effort. See Watson, Leon. "Europe Forms a 'Drone Club' to Develop Unmanned Aircraft to Rival the US and Israel's Military Technology." Daily Mail, November 19, 2013. Accessed June 2, 2014. http://www.dailymail.co.uk/sciencetech/article-2510180/Europe-forms-drone-club-develop-unmanned-aircraft-rival-US-Israels-military-technology.html?ico=sciencetech%5Emostread.

45. A recent study by a UAV trade association concluded that the total economic impact of allowing widespread commercial use of UAVs in American airspace would be about $82 billion between 2015 and 2025. See *The Economic Impact of Unmanned Aircraft Systems Integration in the United States*. Arlington: Association for Unmanned Vehicle Systems International (AUVSI), March 2013. Accessed June 2, 2014. http://www.auvsi.org/econreport.

46. Indeed, as DoD stated in the 2013 Unmanned Systems Integrated Roadmap: "DoD's total research, procurement, and sustainment costs are relatively small compared to the spending on manned platforms… The civil UAV market also shows great promise and the potential applications are virtually endless, if regulatory standards, certification, and operational procedures can be resolved for full integration into the National Airspace System. Greater computing power, combined with developments in miniaturization, sensors, and artificial intelligence, have and will continue to dramatically boost UAV capabilities... However, there is concern that if the US does not resolve export issues with respect to UAVs, this segment will suffer a fate similar to that of the US satellite industry, where a dominant position in the market was ceded to competitors because of unique US export controls." See: US Department of Defense (DoD). *Annual Industrial Capabilities Report to Congress*, 14. Accessed June 4, 2014. http://images.magnetmail.net/images/clients/AIA_/attach/FINAL2013AnnualReporttoCongress.pdf; Kreps, Sarah. "The Foreign Policy Essay: Preventing the Proliferation of Armed Drones." Lawfare Blog, April 13, 2014. Accessed June 3, 2014. http://www.lawfareblog.com/2014/04/the-foreign-policy-essay-preventing-the-proliferation-of-armed-drones/.

47. FAA Modernization and Reform Act of 2012. Public Law 112-95. 112th Cong., 2d sess. February 14, 2012. Accessed June 2, 2014. http://www.gpo.gov/fdsys/pkg/PLAW-112publ95/pdf/PLAW-112publ95.pdf.

48. Federal Aviation Administration (FAA). "Unmanned Aircraft Systems (UAS)." Accessed June 2, 2014. http://www.faa.gov/about/initiatives/uas/.

49. In the European Union, for instance, more than 400 small and medium-sized enterprises are developing UAVs for both civil and military uses, and the UK has already granted 130 licenses to private companies and government agencies to test UAVs in the national airspace. Schiebel, an Austrian company, has developed the Camcopter S-100 for civil application, such as oil-spill spill and contamination detection, as well as military applications, such as mine-detection. (Clark, Nicola. "Europe at Ease With Eyes in the Sky." New York Times, November 22, 2013. Accessed March 4, 2014. http://www.nytimes.com/2013/11/23/business/international/europe-at-ease-with-eyes-in-the-sky.html; *UAV Roundup 2013*. Aerospace America, 2013, 34. Accessed June 4, 2014. http://www.aerospaceamerica.org/Documents/AerospaceAmerica-PDFs-2013/July-August-2013/UAVRoundup2013t-AA-Jul-Aug2013.pdf.) Currently, Israel maintains the lead in global UAV systems exports, exporting over $4.6 billion in total from 2005 to 2012, according to the consulting firm Frost & Sullivan. The Israeli government has also provided private industry with licenses to develop intelligence, surveillance and reconnaissance UAVs for government use along its borders. (*Israel is Top Global Exporter of Unmanned Aerial Systems with a Continued Positive Outlook Ahead*. Mountain View, California: Frost and Sullivan, May 2013. Accessed March 10, 2014. http://www.frost.com/prod/servlet/press-release.pag?docid=278664709&_ga=1.263462793.461862218.1393608820) The United States gives permits to large aerospace companies to develop UAVs, but for the most part, small and medium-sized enterprises have been left out. Yet these smaller enterprises are also crucial for the development of UAV technologies — hardening the platforms for operation in contested areas, increasing autonomous capabilities, and improving big-data collection and processing. See: *Sustaining the US Lead in Unmanned Systems: Military and Homeland Considerations through 2025*. Washington: Center for Strategic and International Studies (CSIS), 2014. Accessed June 2, 2014. http://csis.org/files/publication/140227_Brannen_UnmannedSystems_Web.pdf.

50. Notably, the European Defense Agency and European Space Agency sponsored an April 2013 test of just such "sense-and-avoid" capabilities, using an Israeli-made UAVs and a Spanish military aircraft and supported by a consortium of Spanish, German, Dutch, Italian, and French companies. In addition, an Israeli UAV manufacturer, Elbit Systems, has received dozens of permits from the Israeli government to test and operate unmanned aircraft in Israeli airspace. Opall-Rome, Barbara. "International ISR: Israel Tackles The Last Frontier of UAV Technology," Defense News, June 3, 2013. Accessed June 2, 2014. http://www.defensenews.com/article/20130603/C4ISR01/306030015.

51. China has been pursuing advanced military unmanned aircraft, allegedly even using hacking attacks against defense contractors to steal American UAV technology. China has reportedly even tested a stealth combat UAV. (See Wong, Edward. "Hacking U.S. Secrets, China Pushes for Drones." New York Times, September 20, 2013. Accessed June 2, 2014. http://www.nytimes.com/2013/09/21/world/asia/hacking-us-secrets-china-pushes-for-drones.html. Iran has also claimed to have developed increasingly sophisticated

UAVs, although the truth of these claims is unclear. In November 2013, Iran announced its development of an unmanned aircraft with a range of 1,200 miles and the ability to remain airborne for 30 hours. See: BBC. "Iran Unveils New 'Biggest' Drone." BBC News, November 18, 2013. Accessed June 2, 2014. http://www.bbc.co.uk/news/world-middle-east-24993269.

52. This does not mean that every state and non-state actor with lethal UAVs will share the US' ability to engage in targeted strikes, of course: the ability to successful engage in targeted UAV strikes is derived from broader US intelligence-gathering and analysis capabilities as well as from UAV technologies as such. For most states and non-state actors, lethal UAVs will be a "blunt force" weapon, capable of creating destruction but not able to focus on individual targets to the same degree as US UAVs.

53. In Pakistan, the number of civilian casualties has decreased in relation to the number of strikes over time. In 2009, the year when the most strikes occurred in Pakistan, there was around 100 civilian casualties for 100 strikes. However, this proportion of casualties to strikes has decreased over time. In 2011, there were 52-62 civilian casualties for 75 strikes, in 2012 there were around 4-5 civilian casualties for 50 strikes, and in 2013 there were zero civilian casualties for 27 drone strikes. (The Bureau of Investigative Journalism. "Pakistan Drone Statistics Visualized." Get the data: Drone wars. Last modified July 2, 2012. Accessed June 2, 2014. http://www.thebureauinvestigates.com/2012/07/02/resources-and-graphs/.) However, we need to caveat this, because we are using data we have already said is flawed and there is no publicly available aggregates of the correlation between strikes/casualties.

54. Bumiller, Elisabeth. "Air Force Drone Operators Report High Levels of Stress." New York Times, December 18, 2011. Accessed June 2, 2014. http://www.nytimes.com/2011/12/19/world/asia/air-force-drone-operators-show-high-levels-of-stress.html.

55. See, e.g., Weigley, Russell F. *The American Way of War: A History of the United States Military Strategy and Policy*. Bloomington: Indiana University, 1973.

56. The US Air Force's uniquely strong link to a technology makes it, or at least its platforms, especially prone to this problem. (Cohen, Eliot. "The Mystique of U.S. Airpower." *Foreign Affairs* 73, no. 1 (January/February 1994): 109-123.) Covert actions have some similar attributes.

57. The US military is also looking towards interoperability between UAVs and manned aircraft through Manned-Unmanned System Teaming (MUM-T). There are a variety of advantages of MUM-T, including protecting manned aircraft by overwhelming enemy air defenses, or as some describe it, putting the hunting dog in front of the hunter. See *Sustaining the US Lead in Unmanned Systems: Military and Homeland Considerations through 2025*. Washington: Center for Strategic and International Studies (CSIS), 2014. Accessed June 2, 2014. http://csis.org/files/publication/140227_Brannen_UnmannedSystems_Web.pdf.

58. Congressional Research Service. Library of Congress. *U.S. Unmanned Aerial Systems*. By Gertler, Jeremiah. January 3, 2012. Accessed June 2, 2014. https://www.fas.org/sgp/crs/natsec/R42136.pdf.

59. Werner, Debra. "Drone Swarm: Networks of Small UAVs Offer Big Capabilities." Defense News, June 12, 2013. Accessed June 2, 2014. http://www.defensenews.com/article/20130612/C4ISR/306120029/Drone-Swarm-Networks-Small-UAVs-Offer-Big-Capabilities.

60. The Air Force estimates that the development of multi-aircraft control would decrease the number of total pilots needed by 56%. (US Department of Defense (DoD). US Air Force. *Air Force Unmanned Aerial System (UAS) Flight Plan 2009-2047*. By Deptula, Lt. General Dave. November 2010, 11. Accessed June 2, 2014. http://www.defense.gov/dodcmsshare/briefingslide/339/090723-D-6570C-001.pdf.

61. *Sustaining the US Lead in Unmanned Systems: Military and Homeland Considerations through 2025*. Washington: Center for Strategic and International Studies (CSIS), 2014. Accessed June 2, 2014. http://csis.org/files/publication/140227_Brannen_UnmannedSystems_Web.pdf.

62. Autonomy could have cost saving effects. Autonomy combined with multi-aircraft control would help reduce the needed amount of manpower. The Air Force concluded that if 50 percent of Combat Air Patrols (CAPs) were automated and the other 50 percent were part of the multi-aircraft control, manpower savings could be increased by 64 percent. Importantly, automation allows the UAV to perform some tasks more accurately than if a human were to perform that same task with a UAV. For example, in

July 2013, the Navy's X-47B successfully landed itself on an aircraft carrier. Notably, the UAV was able to sense when an error would occur, and could abort the mission. Autonomous capabilities will be used with increasing frequency including in the domains of on-board processing, exploitation and dissemination of sensor data, landing and takeoff, and sense and avoid, as well as in post-strike investigations. See: *Sustaining the US Lead in Unmanned Systems: Military and Homeland Considerations through 2025*, 5. Washington: Center for Strategic and International Studies (CSIS), 2014. Accessed June 2, 2014. http://csis.org/files/publication/140227_Brannen_UnmannedSystems_Web.pdf.

63. In February 2014, the Chatham House, a recognized world leader in defense policy analysis, held a conference on "Autonomous Military Technologies: Policy and Governance for Next Generation Defense Systems." The International Committee of the Red Cross held a similar conference in March 2014, and various human rights organizations and weighed in, opposing such systems. See: *Losing Humanity: The Case Against Killer Robots.* New York: Human Rights Watch, November 2012. Accessed June 2, 2014. http://www.hrw.org/reports/2012/11/19/losing-humanity-0.

64. While this may seem like the stuff of science fiction, the United States already fields technology that can automatically engage with incoming missiles. The US Navy MK-15 Phalanx is a radar-guided gun system, mounted on combatant ships that "automatically carries out functions usually performed by multiple systems — including search, detection, threat evaluation, tracking, engagement, and kill assessment." (Raytheon. "Phalanx Close-In Weapon System (CIWS)." Products and Capabilities. Accessed June 2, 2014. http://www.raytheon.com/capabilities/products/phalanx/.) Israel and China already employ a UAV, the Harpy, which can automatically hunt anti-aircraft systems, concealed missile launchers, or incoming UAVs. See: Defense Update. "Israel Unveils Loitering Anti-Missile Drone." Defense Update: Online Defense Magazine, 2009. Accessed June 3, 2014. http://defense-update.com/products/h/harop.html.

65. US Department of Defense (DoD). *Directive 3000.09: Autonomy in Weapon Systems.* November 2012. Accessed June 2, 2014. http://www.dtic.mil/whs/directives/corres/pdf/300009p.pdf.

66. It is impossible to say this with complete certainty, of course. Perhaps US political decision-makers would have decided that the threat posed by al-Qaida and its associates was grave enough to justify the same number of targeted strikes carried out by manned aircraft or by special operations forces, even with the higher risk of casualties.

67. Lewis, Michael. "Drones: Actually the Most Humane Form of Warfare Ever." Atlantic, August 21, 2013. Accessed June 4, 2014. http://www.theatlantic.com/international/archive/2013/08/drones-actually-the-most-humane-form-of-warfare-ever/278746/.

68. While the number of US drones strikes appears to have decreased in 2013, the use of drones in particular areas have seen sharp increases at particular intervals since 2004. See: The Long War Journal. "Charting the Data for US Airstrikes in Pakistan, 2004 — 2014." Last modified October 10, 2013. Accessed October 11, 2013. http://www.longwarjournal.org/pakistan-strikes.php.

69. Kreps, Sarah. "The Foreign Policy Essay: Preventing the Proliferation of Armed Drones." Lawfare Blog, April 13, 2014. Accessed June 2, 2014. http://www.lawfareblog.com/2014/04/the-foreign-policy-essay-preventing-the-proliferation-of-armed-drones/.

70. DeYoung, Karen, and Greg Miller. "U.S. curtails drone strikes in Pakistan as officials there seek peace talks with Taliban." The Washington Post, February 4, 2014. Accessed June 3, 2014. http://www.washingtonpost.com/world/national-security/us-curtails-drone-strikes-in-pakistan-as-officials-there-seek-peace-talks-with-taliban/2014/02/04/1d63f52a-8dd8-11e3-833c-33098f9e5267_story.html; Galey, Patrick, Jack Serle, and Alice K. Ross. "Drone strikes in Yemen." The Bureau of Investigative Journalism, April 22, 2014. Accessed June 2, 2014. http://www.thebureauinvestigates.com/2014/04/22/bloodiest-us-and-yemeni-attacks-in-two-years-kill-at-least-40-people/.

71. Jordan, Jenna. *Attacking the Leader, Missing the Mark: Why Terrorist Groups Survive Decapitation Strikes*. International Security 38, no. 4 (Spring 2014): 7-38. Accessed June 4, 2014. http://muse.jhu.edu/login?auth=0&type=summary&url=/journals/international_security/v038/38.4.jordan.pdf.

72. "Of the estimated 465 non-battlefield targeted killings undertaken by the United States since November

2002, approximately 98 percent were carried out by drones." See: Kreps, Sarah. "The Foreign Policy Essay: Preventing the Proliferation of Armed Drones." Lawfare Blog, April 13, 2014. Accessed June 2, 2014. http://www.lawfareblog.com/2014/04/the-foreign-policy-essay-preventing-the-proliferation-of-armed-drones/.

73. While non-lethal UAVs have come under less scrutiny than lethal UAVs, ISR UAVs could be used increasingly in non-permissive airspace, impinging on other country's sovereignty.

74. Somalia still has no national government capable of exercising control over all of Somalia's territory. According to reports, the African Union and Somali government only controls small portions of the country outside of Mogadishu, including of eastern Somalia and areas on the border of Ethiopia. Somaliland and Puntlab in the north have respectively declared independence or semi-autonomy, and major portions of the south remain in the hands of the Islamists. See: "Who are Somalia's al-Shabab?" BBC News, May 16, 2014. Accessed June 2, 2014. http://www.bbc.com/news/world-africa-15336689.

75. See, e.g., Mullen, Daniel. "Pakistan Court Declares US Drone Strikes Illegal." Jurist, May 9, 2013. Accessed June 2, 2014. http://jurist.org/paperchase/2013/05/pakistan-court-declares-drone-strikes-illegal-directs-foreign-ministry-to-introduce-resolution-in-un.php.

76. See, e.g., 2012 comments by Pakistani ambassador to the UN in Geneva, Zamir Akram, calling for an end to the "totally counterproductive attacks" by the US in Pakistan. See: Bowcott, Owen. "Drone Strikes Threaten 50 Years of International Law, Says UN Rapporteur." The Guardian, June 21, 2012. Accessed June 2, 2014. http://www.theguardian.com/world/2012/jun/21/drone-strikes-international-law-un; see also Nauman, Qasim. "Pakistan condemns U.S. drone strikes." Reuters, June 4, 2012. Accessed June 2, 2014. http://www.reuters.com/article/2012/06/04/us-pakistan-usa-drones-idUSBRE8530MS20120604.

77. Consider, for instance, the situation in Crimea and Eastern Ukraine: the United States recognizes the Ukrainian authorities in Kiev as the legitimate government in these regions, but Russia views Crimea as part of Russia, and Eastern Ukraine as arguably independent or autonomous with regard to Kiev. It is hardly a stretch to imagine Russia using lethal UAVs to carry out strikes against pro-Kiev forces in Crimea or Eastern Ukraine on the grounds that Kiev's consent is unnecessary and it is the Russians who are the sole arbiters of who can give consent and what constitutes a sovereignty violation. Indeed, in a variety of ways Russia is already exploiting ambiguities in the notion of sovereignty and consent partially created by US actions (e.g, to deploy Russian troops in disputed areas of Ukraine.)

78. See, e.g., "The political message [sent out by UAV strikes] emphasizes the disparity in power between the parties and reinforces popular support for the terrorists, who are seen as David fighting Goliath. Moreover, by resorting to military force rather than to law enforcement, targeted killings might strengthen the sense of legitimacy of terrorist operations, which are sometimes viewed as the only viable option for the weak to fight against a powerful empire." See: Blum, Gabriella, and Philip Heymann. *Laws, Outlaws and Terrorists*. Cambridge, MA: The MIT Press, 2010.

79. A 2012 Pew Research poll found that in every country, except India and the United States, a larger percentage of the population disapproved of United States UAV strikes than approved of them. See: *Global Opinion of Obama Slips, International Policies Faulted*. Washington, DC: Pew Research Center Global Attitudes Project, June 13, 2012. Accessed March 12, 2014. http://www.pewglobal.org/2012/06/13/global-opinion-of-obama-slips-international-policies-faulted/.

80. According to one 2012 poll, 74% of Pakistanis say they view the US as their "enemy." See: Byman, Daniel. "Why Drones Work: The Case for Washington's Weapon of Choice." *Foreign Affairs* (July/August 2013). Accessed June 2, 2014. http://www.foreignaffairs.com/articles/139453/daniel-byman/why-drones-work. Posen, Barry. "The Case for Restraint." *The American Interest* 3, no. 1 (November/December 2007); Pape, Robert. *Bombing to Win: Air Power and Coercion in War.* Ithaca, NY: Cornell University Press, 1995; see also Alexander, David. "Retired General Cautions Against Overuse of "Hated" Drones." Reuters, January 7, 2013. Accessed June 2, 2014. http://www.reuters.com/article/2013/01/07/us-usa-afghanistan-mcchrystal-idUSBRE90608O20130107.

81. Alexander, David. "Retired General Cautions Against Overuse of "Hated" Drones." Reuters, January 7, 2013. Accessed June 2, 2014. http://www.reuters.com/article/2013/01/07/us-usa-afghanistan-mcchrystal-idUSBRE90608O20130107.

82. European Parliament. *Joint Motion for a Resolution-On the Use of Armed Drones*. 2014. Accessed June 2, 2014. http://www.reprieve.org.uk/media/downloads/2014_01_27_PUB_European_Parliament_resolution_on_use_of_drones.pdf.

83. Ibid.

84. Christof Heyns, the UN special rapporteur on extrajudicial killings, summary or arbitrary executions, has asserted that US targeted strikes threaten the entire international legal system, for instance, and claims that some US strikes may constitute "war crimes." The UN Special Rapporteur on Terrorism and Human Rights has raised similar concerns. See: Bowcott, Owen. "Drone Strikes Threaten 50 Years of International Law, Says UN Rapporteur." Guardian, June 21, 2012. Accessed June 2, 2014. http://www.theguardian.com/world/2012/jun/21/drone-strikes-international-law-un.

85. As Sarah Kreps and Micah Zenko note, "Countries will not be deterred from launching drone attacks simply because an adversary has drones in its arsenal, too. If anything, the inherent advantages of drones — most of all, not placing pilots or ground forces at risk of being killed or captured — have lowered the threshold for the use of force." See: Kreps, Sarah, and Micah Zenko. "The Next Drone Wars: Preparing for Proliferation." *Foreign Affairs* (March/April 2014). Accessed June 2, 2014. http://www.foreignaffairs.com/articles/140746/sarah-kreps-and-micah-zenko/the-next-drone-wars.

86. Some external studies have sought to assess the value of UAV strikes. See, e.g, 2013 Army War College study finding that drone strikes in Pakistan had no apparent effect on levels of insurgent violence in Afghanistan, but that "strikes that kill militants in Pakistan are associated with increases in subsequent insurgent violence in the country. This fact could be creating a dynamic in which all insurgent organizations, even those that have few grievances against United States and the government of Pakistan or that engage in low levels of violence, feel threatened by the drones and seek support from other insurgent organizations that do have as their goal undermining the US position in the region." (Walsh, James Igoe. *The Effectiveness of Drone Strikes in Counterinsurgency and Counterterrorism Campaigns*. Carlisle, PA: US Army War College Strategic Studies Institute, September 2013. Accessed June 3, 2014. http://www.strategicstudiesinstitute.army.mil/pubs/display.cfm?pubID=1167.) Others, such as Daniel Byman, have argued for the effectiveness of such strikes. See, e.g., Byman, Daniel. "Why Drones Work." *Foreign Affairs* (July/August 2013). Accessed June 3, 2014. http://www.foreignaffairs.com/articles/139453/daniel-byman/why-drones-work; Johnston, Patrick B. and Anoop K. Sarbahi. "The Impact of U.S. Drone Strikes on Terrorism in Pakistan and Afghanistan." Patrick Johnston, February 11, 2014. Accessed June 3, 2014. http://patrickjohnston.info/materials/drones.pdf; also see generally Oliver, Christopher, "Are Drone Strikes Effective in Afghanistan and Pakistan? On the dynamics of violence between the United States and the Taliban." Journalist's Resource, February 12, 2013. Accessed June 3, 2014. http://journalistsresource.org/studies/international/foreign-policy/are-drone-strikes-effective-in-afghanistan-pakistan-violence-united-states-taliban#.

87. E.g., one issue that must be considered is whether UAV strikes have begin to have diminishing marginal returns. CNN's Correspondent and New America Foundation expert Peter Bergen notes that "The CIA drone campaign in Pakistan has killed 58 militant leaders... [and] Thirty-five militant leaders have also been killed in Yemen. Meanwhile, at least 339 civilians have been killed as well as at least 2,200 foot soldiers in militant groups in Pakistan and Yemen. At least 230 other people were reported killed…" Strikes that kill senior leaders may have greater benefits than strikes that kill lower-level "foot soldiers"; similarly, strikes that might be strategically justifiable at Time A may be less so at Time B. We do not believe there is a single answer to the question of whether US targeted strikes do more harm than good: we believe that targeted strikes can, in some circumstances, be strategically valuable, while in other circumstances they may do as much harm as good. We are concerned, however, that US decision-makers have focused mainly on the tactical value of UAV strikes, at a moment when their overall strategic value in Yemen and Pakistan may be dwindling (and when further strikes may even be counterproductive).

See: Bergen, Peter. "Drones Will Fill the Sky." CNN, May 13, 2014. Accessed June 4, 2014. http://www.cnn.com/2014/05/13/opinion/bergen-armed-drones-key-future-warfare/index.html?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+rss%2Fcnn_latest+%28RSS%3A+Most+Recent%29.

88. Of the approximately 400 strikes the US has launched outside of the battlefield, the administration

has only officially acknowledged four, all involving strikes against Americans. Obama, Barack. *Remarks by the President on National Security*. National Archives. May 21, 2009. Accessed June 2, 2014. http://www.whitehouse.gov/the-press-office/remarks-president-national-security-5-21-09.

89. Obama, Barack. *Remarks by the President on National Security*. Remarks Presented at National Archives, Washington, DC, May 21, 2009. Accessed June 2, 2014. Accessed June 2, 2014. http://www.whitehouse.gov/the-press-office/remarks-president-national-security-5-21-09; Obama, Barack. *Remarks by the President in Address to the Nation on the Way Forward in Afghanistan and Pakistan*. Remarks presented at the US Military Academy, West Point, NY, December 1, 2009. http://www.whitehouse.gov/the-press-office/remarks-president-address-nation-way-forward-afghanistan-and-pakistan; Koh, Harold. *The Obama Administration and International Law.* Remarks Presented at the Annual Meeting of the American Society of International Law, Washington, DC, March 25, 2010. Accessed June 3, 2014. http://www.state.gov/s/l/releases/remarks/139119.htm; Brennan, John. *Ensuring al-Qa'ida's Demise*. Remarks presented at the Paul H. Nitze School of Advanced International Studies, Washington, DC, June 29, 2011. Accessed June 3, 2014. http://www.whitehouse.gov/the-press-office/2011/06/29/remarks-john-o-brennan-assistant-president-homeland-security-and-counter; Brennan, John. *Strengthening our Security by Adhering to our Values and Laws*. Remarks presented at Harvard Law School, Cambridge, MA, September 16, 2011. Accessed June 3, 2014. http://www.whitehouse.gov/the-press-office/2011/09/16/remarks-john-o-brennan-strengthening-our-security-adhering-our-values-an; Johnson, Jeh. *National Security Law, Lawyers and Lawyering in the Obama Administration*. Remarks presented at Yale Law School, New Haven, CT, February 22, 2012. Accessed June 3, 2014. http://www.cfr.org/defense-and-security/jeh-johnsons-speech-national-security-law-lawyers-lawyering-obama-administration/p27448; Holder, Eric. *Attorney General Eric Holder Speaks at Northwestern University School of Law*. Remarks presented at Northwestern University School of Law, Chicago, IL, March 5, 2012. Accessed June 3, 2014. http://www.justice.gov/iso/opa/ag/speeches/2012/ag-speech-1203051.html; Brennan, John. *Ethics and Efficacy of the President's Counterterrorism Strategy*. Remarks presented at Woodrow Wilson International Center for Scholars, Princeton, NJ, April 30, 2012. Accessed June 3, 2014. http://www.lawfareblog.com/2012/04/brennanspeech/; Brennan, John. *U.S. Policy Toward Yemen*. Remarks presented at Council on Foreign Relations, Washington, DC, August 8, 2012. Accessed June 3, 2014. http://www.cfr.org/united-states/us-policy-toward-yemen/p28794; US Congress. Senate. *Open hearing on the nomination of John O. Brennan to be Director of the Central Intelligence Agency*. 113th Cong., 1st sess., February 7, 2014. Accessed June 3, 2014. http://www.intelligence.senate.gov/130207/transcript.pdf; Obama, Barack. *Remarks by the President at the National Defense University*. Remarks presented at the National Defense University, Washington, DC, May 23, 2013. Accessed June 3, 2014. http://www.whitehouse.gov/the-press-office/2013/05/23/remarks-president-national-defense-university.

90. See the section on Democratic Accountability beginning on page 37 of this report for a discussion of CIA versus DOD authorities and congressional oversight mechanisms.

91. With minor exceptions: see Savage, Charlie, and Peter Baker. "Obama, in a Shift, to Limit Targets of Drone Strikes." New York Times, May 22, 2013. Accessed June 3, 2014. http://www.nytimes.com/2013/05/23/us/us-acknowledges-killing-4-americans-in-drone-strikes.html.

92. United States Air Force. *Air Force Doctrine Document 2-1.9*. June 2006. Accessed June 4, 2014. http://www.fas.org/irp/doddir/usaf/afdd2-1.9.pdf.

93. The Authorization for Use for Military Force, passed by Congress shortly after the 9/11 attacks, allows the President of the United States to use "all necessary and appropriate force against those nations, organizations or persons he determines planned, authorized, committed or aided the terrorist attacks that occurred on Sept. 11, 2001. Discussion has been raised about whether the original confines are AUMF are appropriate to counter current threats — contributing to concerns of mission creep from the authorization. According to Robert Chesney, Jack Goldsmith, Matthew Waxman and Benjamin Wittes, "This situation — which one of us has described as the emergence of 'extra-AUMF' — threats poses a significant problem in so far as counterterrorism policy rests on the AUMF for its legal justification." See: *A Statutory Framework for Next-Generation Terrorist Threats*. Stanford: Hoover Institution, 2013. Accessed June 2, 2014. http://media.hoover.org/sites/default/files/documents/Statutory-Framework-for-Next-Generation-Terrorist-Threats.pdf; Authorization for Use of Military Force. Public Law 107–40. 107th Cong., 1s sess. September 18, 2011.

94. See generally Brooks, Rosa. "The Law of Armed Conflict, the Use of Military Force, and the 2001 Authorization for Use of Military Force." Statement for the record US Congress. Senate. *The Law of Armed Conflict, the Use of Military Force, and the 2001 Authorization for Use of Military Force*. 113th Cong., 1s sess. May 16, 2013. Accessed June 2, 2014. http://www.armed-services.senate.gov/imo/media/doc/Brooks_05-16-13.pdf; See, e.g, Chesney, Robert, Jack Goldsmith, Matthew C. Waxman, and Benjamin Wittes. *A Statutory Framework for Next-Generation Terrorist Threats*. Stanford: Hoover Institution, 2013. Accessed June 4, 2014. http://media.hoover.org/sites/default/files/documents/Statutory-Framework-for-Next-Generation-Terrorist-Threats.pdf; Miller, Greg, and Karen DeYoung. "Administration Debates Stretching 9/11 Law to Go After New al-Qaeda Offshoots." The Washington Post, March 6, 2013. Accessed June 2, 2014. http://www.washingtonpost.com/world/national-security/administration-debates-stretching-911-law-to-go-after-new-al-qaeda-offshoots/2013/03/06/fd2574a0-85e5-11e2-9d71-f0feafdd1394_print.html.

95. According to Ashley Deeks, professor of law at the University of Virginia: "More than a century of state practice suggests that it is lawful for State X, which has suffered an armed attack by an insurgent or terrorist group, to use force in State Y against that group if State Y is unwilling or unable to suppress the threat. Yet there has been virtually no discussion, either by states or scholars, of what that standard means. What factors must the United States consider when evaluating Pakistan's willingness or ability to suppress the threats to US (as well as NATO and Afghan) forces? Must the United States ask Pakistan to take measures itself before the United States lawfully may act? How much time must the United States give Pakistan to respond? What if Pakistan proposes to respond to the threat in a way that the United States believes may not be adequate?" See: Deeks, Ashley. "'Unwilling or Unable': Toward an Normative Framework for Extra-Territorial Self-Defense." Virginian Journal of International Law, August 19, 2011. Accessed June 2, 2014. http://papers.ssrn.com/sol3/Delivery.cfm/SSRN_ID2032747_code984441.pdf?abstractid=1971326&mirid=1.

96. See the Caroline Incident. Arend, Anthony Clark. "International Law and the Preemptive Use of Military Force." The Center for Strategic and International Studies (CSIS), 2003. Accessed June 2, 2014. http://www.cfr.org/content/publications/attachments/highlight/03spring_arend.pdf.

97. In general, US policy says that those with links to the terrorist attacks on 9/11 or a co-belligerent that has entered the fight alongside al-Qaeda are targetable. CIA Director John Brennan stated in 2013 that those in al-Qaeda and associated forces who play an operational effort and are overseeing activities are targetable. President Obama added in his speech at the National Defense University in May 2013 that the United States "only targets al-Qaeda and associated forces…who pose a continuing and imminent threat to the American people…[and] does not take strikes to punish individuals." See: Johnson, Jeh. *National Security Law, Lawyers and Lawyering in the Obama Administration*. Remarks presented at Yale Law School, New Haven, CT, February 22, 2012. Accessed June 3, 2014. http://www.cfr.org/defense-and-security/jeh-johnsons-speech-national-security-law-lawyers-lawyering-obama-administration/p27448; US Congress. Senate. *Open Hearing on the Nomination of John O. Brennan to be Director of the Central Intelligence Agency*. 113th Cong., 1st sess., February 7, 2013. 125; Obama, Barack. "Remarks by the President at the National Defense University." Address at the National Defense University, Washington, D.C., May 23, 2013, 4. Accessed November 15, 2013. http://www.whitehouse.gov/the-press-office/2013/05/23/remarks-president-national-defense-university.

98. As noted earlier in this report, the United States stands increasingly alone in its interpretation of international law on many of these issues. The US legal theories underlying targeted strikes outside "hot" battlefields have been questioned by most European states, several UN rapporteurs, and courts Pakistan and elsewhere. See: European Parliament. *Joint Motion for a Resolution-On the Use of Armed Drones*. 2014. Accessed June 2, 2014. http://www.reprieve.org.uk/media/downloads/2014_01_27_PUB_European_Parliament_resolution_on_use_of_drones.pdf.

99. US Army. *Field Manual (3-07): Stability Operations*. October 2008. Accessed June 2, 2014. http://usacac.army.mil/cac2/repository/FM307/FM3-07.pdf.

100. The Judge Advocate General's Legal Center and School. US Army. *Rule of Law Handbook: A Practitioner's Guide for Judge Advocates*. 2011. Accessed June 12, 2014. http://www.loc.gov/rr/frd/Military_Law/pdf/rule-of-law_2011.pdf.

101. Consider the Declaration of Independence's statement of "unalienable rights," and the list of grievances against George III.

102. Vladeck, Stephen I. *The New National Security Canon*. Washington, DC: American University, 2012. Accessed June 4, 2014. http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2133024.

103. European Parliament. *Joint Motion for a Resolution-On the Use of Armed Drones*. 2014. Accessed June 2, 2014. http://www.reprieve.org.uk/media/downloads/2014_01_27_PUB_European_Parliament_resolution_on_use_of_drones.pdf.

104. Concern has already been raised with China's potential use of lethal UAVs against an alleged drug kingpin in 2013. (See generally: Bergen, Peter, and Jennifer Rowland. "Nine Facts About Armed Drones." CNN, May 13, 2014. Accessed June 2, 2014. http://www.cnn.com/2014/05/13/opinion/bergen-nine-facts-spread-of-armed-drones/index.html.) More generally, we have seen numerous examples of US counterterrorism policies being cited as precedent by foreign regimes as excuses for repression. For example, Russia has justified continued repression of Chechens in the Caucasus as part of the larger "war on terror" begun by the United States after 9/11.

105. See, e.g., Admin claim that no congressional notification was required for Libya. See: Koh, Harold. "Authorization For Use of Military Force after Iraq and Afghanistan." Statement before US Congress. Senate. *Authorization for Use of Military Force after Iraq and Afghanistan*. 113th Cong., 2d sess., May 21, 2014. Accessed June 5, 2014. http://www.foreign.senate.gov/imo/media/doc/Koh_Testimony.pdf.

106. Chesney, Robert, Jack Goldsmith, Matthew C. Waxman, and Benjamin Wittes. *A Statutory Framework for Next-Generation Terrorist Threats*. Stanford: Hoover Institution, 2013. Accessed June 4, 2014. http://media.hoover.org/sites/default/files/documents/Statutory-Framework-for-Next-Generation-Terrorist-Threats.pdf; Miller, Greg, and Karen DeYoung. "Administration Debates Stretching 9/11 Law to Go After New al-Qaeda Offshoots." The Washington Post, March 6, 2013. Accessed June 3, 2014. http://www.washingtonpost.com/world/national-security/administration-debates-stretching-911-law-to-go-after-new-al-qaeda-offshoots/2013/03/06/fd2574a0-85e5-11e2-9d71-f0feafdd1394_print.html.

107. Presidential Approval and Reporting of Covert Actions. 50 United States Code §§ 3093.

108. See generally: Congressional Research Service. Library of Congress. *Covert Action: Legislative Background and Possible Policy Questions*. By Erwin, Marshal Curtis., April 10, 2013. Accessed June 3, 2014. https://www.fas.org/sgp/crs/intel/RL33715.pdf; Gross, Richard C. *Different Worlds: Unacknowledged Special Operations and Covert Action*. Carlisle, PA: US Army War College, 2009. Accessed June 3, 2014. http://www.fas.org/man/eprint/gross.pdf; Kibbe, Jennifer. Covert Action and the Pentagon. Intelligence and *National Security* 22, no. 1 (March 2007). Accessed June 4, 2014. http://www.tandfonline.com.proxy.library.georgetown.edu/doi/pdf/10.1080/02684520701200806 .) It should be noted that military doctrine sometimes refers, confusingly, to military "covert" operations; which are technically not permitted; as Richard Gross has noted such documents do not use the term "covert" in the legal sense but in the colloquial sense of referring to secret and unacknowledged action, where the intent is for the US role to remain secret and unacknowledged. See: Gross, Richard C. *Different Worlds: Unacknowledged Special Operations and Covert Action*. Carlisle, PA: US Army War College, 2009. Accessed June 3, 2014. http://www.fas.org/man/eprint/gross.pdf.

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120. At the same time, there are trade-offs involved, as greater transparency could provide foreign manufacturers a "road-map" regarding UAV systems that the United States will be unlikely to approve for export.

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RECOMMENDATIONS AND REPORT OF

THE TASK FORCE ON US DRONE POLICY

Few recent national security developments have been as controversial as the increased US reliance on unmanned aerial vehicles (UAVs), more colloquially known as "drones." While UAVs have multiple peaceful and commercial applications, heated debates about the use of lethal UAV strikes away from traditional, territorially bounded battlefields have tended to crowd out a broader and more nuanced discussion of US UAV policy. This report represents a preliminary effort to offer analysis and recommendations that could help shape and guide US UAV policy going forward. It looks at the military and national security benefits of UAV technologies, analyzes our current approaches to UAV development and export, and seeks to contextualize the strategic questions relating to the use of lethal UAVs outside traditional battlefields. Ultimately, it offers eight detailed recommendations for overhauling UAV strategy; improving oversight, accountability and transparency; developing forward-looking international norms relating to the use of lethal force in nontraditional settings; and devising sound UAV export control and research and development policies.

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