

## The Strategy of Drone Warfare

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## **The Strategy of Drone Warfare**

### **Abstract**

There is a budding controversy with the combat use of Remotely Piloted Aircraft (RPA). Also known as Unmanned Aerial Vehicles (UAV), there is a growing literature critiquing the use of RPAs, often using the pejorative term “drone.” RPAs seem to get the blame for a variety of complaints about policy and employment that have little to do with the airframe or its processes. While all of the military functions of an RPA can and are done by manned aircraft, the RPAs must endure additional scrutiny. The decision to employ RPAs requires additional considerations at both the strategic and operational levels of war. This article explores the strategic issues that govern the decisions to employ RPAs in combat. The decision to employ RPAs involves a variety of strategic and operational concerns involving legal issues, technological constraints, operational efficiency, and an interdependency upon information operations.

## Introduction

On October 7, 2001, an MQ-1 lazily flew circles over Eastern Afghanistan, monitoring Taliban leader Mullah Omar's compound. As people emerged from the compound, the MQ-1 followed a convoy of suspected senior Taliban leaders to a meeting place in Kandahar. Concerns over collateral damage led to a botched attack that left a few guards dead but failed to bag any leaders. In 2009, the U.S. Navy used a Scan Eagle to assist in the movie-famous rescue of Captain Phillips off of the coast of Somalia. A few years later, the United States provided short-range Ravens to provide the African Union Mission in Somalia (AMISOM) a tactical advantage, helping contribute to al-Shabaab's roll-back over the past three years. In 2013, French *Harfangs* and American MQ-1s provided Intelligence, Surveillance, Reconnaissance (ISR) support to the French *Opération Serval* in Mali. The capability to pinpoint enemy positions and track al-Qaida (of the Maghreb) movements provided the French a tremendous operational advantage.

The above examples provide a snapshot of the versatility and efficacy of remotely piloted aircraft (RPA). At the operational level of war, assigning an aircraft to a specific mission is a process known as aircraft allocation. Allocation aligns the available resources against targets. Regardless of the desired effect (destroy, jam, or collect), the allocation process is essentially the same. While all aircraft are a part of this process, RPAs are held to a different standard than all of the other aircraft in the inventory. *The additional scrutiny that RPAs receive during the missions has turned an operational process into a strategic decision.* To the layman, the differentiation of a strategic versus an operational decision is a minor semantic squabble. To the warfighter, this bureaucratic reality represents a major paradigm shift for military decision makers and the planners that work for them.

This paradigm shift to a strategic focus requires military decision makers to consider four key factors that influence decision on how and whether to employ RPAs for an operation: public perception, political risk, legal considerations, and military strategy. This study will analyze how each of these factors shapes the military decision making process for RPA employment. Finally, this study concludes with some observations on how these factors shape the military decision making process for limited military interventions, the approval process for the authorization of a military strikes, and future force structure planning.

## Public Perception

Although popularly known as drones, the military refers to them as Remotely Piloted Aircraft (RPA) or Unmanned Aerial Vehicles (UAV). In military parlance, the term "drone" is used for remotely controlled aircraft designed for target

practice use.<sup>1</sup> The RPA term is a slightly superior description than UAV. Unmanned could incorrectly imply that the system has no man-in-the-loop and thus that this is some type of autonomous robotic killing machine. Plus, the “piloted” aspect highlights that the aircraft is not that of a hobbyist. Though it is not a foregone conclusion that the term RPA will fully replace its competitors, this article will use the term RPA to describe the entire military community of remotely controlled combat aircraft.

Despite the military’s attempts to reimage this technology by changing the nomenclature to RPAs, the name change is unlikely to change public perception in the near term. Therefore, the military planner must assume that a certain segment of the public, both domestic and international, will continue to perceive this technology as killer robots. The planner must also consider that the public is largely unaware of variations between RPA aircraft. The planner should assume that the public will perceive all RPAs as lethal regardless of the actual weapons capability of the platform under consideration for employment.

While RPAs are clearly not robots, there is justification for the media’s close association of RPAs with killing individual terrorists. This is logical since RPAs are the optimum platform for conducting counter-terrorism missions. Advancements in technology, improved capabilities for target discrimination, and limited risk of collateral damage made RPAs the weapon of choice for targeting High Value Individuals (HVI). Since 2004, RPAs conducted approximately 400 strikes between Pakistan and Yemen.<sup>2</sup> While the number of strikes per year is on a downward trend, this is more likely caused by a diminishing target set than by a perceived decreased utility in the RPA. The perception of RPAs as terrorist killers is also driven by the highly publicized, though supposedly sensitive, CIA operations over Pakistan. Since the CIA lacks fighters and bombers, the RPA is their primary weapon of choice for a counter-terror target.

The military planner must also consider the perception of collateral damage. Because RPAs are the optimum choice for targeting terrorists who are often found in close proximity to civilians, there is a perception that RPAs are a collateral damage hazard. There are several classic anti-drone stories that are used to point out the technological evils of RPAs. One incident was the accidental killing of two-dozen Pakistani soldiers. On patrol in the Federally Administered Tribal Areas of Pakistan (FATA), the Pakistanis were misidentified as extremist militants. Another example involved an RPA surveillance mission along the Iraq-Turkey border. The RPA sensor operator noted the suspicious activity of a group

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<sup>1</sup> The military’s first drone for target practice was developed in the 1930s by the Naval Research Lab.

<sup>2</sup> “Drone Wars Pakistan: Analysis,” *New American Foundation*, October 30, 2014, available at <http://natsec.newamerica.net/drones/pakistan/analysis>.

transiting from Iraq into Turkey. While the operator did not identify the group, the Turkish Air Force attacked, assuming that they were PKK militants infiltrating into Turkey. After the strike, it turned out that the group was not militants, but low-level criminals smuggling gasoline. Both of these anecdotes demonstrate the prospect of RPA strikes turning into collateral damage disasters.

While collateral damage does occur, the reality is that technology has made RPAs the premium platform for both optimum target discrimination and minimum risk of collateral damage. Dynamic targeting is an inherently complex process used against time-sensitive targets. By definition, dynamic targeting means that there is a compressed timeline to locate and prosecute the target. Arguably, ground forces have superior target discrimination capabilities. However, ground forces have much less ability to respond to compressed timelines and typically involve significantly more risk for the force involved. While the relatively slow speed of RPAs can often be an operational hindrance, it provides a significant advantage to target discrimination relative to fast-moving jet fighters.

In the case of fighters, target discrimination is often the judgment of a single individual. Ironically, most “unmanned” aircraft require a significant amount of manpower: a pilot, a sensor operator, and one or more sensor analysts. The sensor analyst is an intelligence expert with insights into cultural nuances and access to collaborating (or refuting) intelligence sources. Additionally, the decision to employ weapons is generally not delegated to any of these individuals. While this individual may have primary responsibility for target discrimination, the authority directing target engagement is a third party monitoring a live video feed. Target engagement authority often resides at the Air Operations Center (AOC), Brigade Tactical Operations Center (TOC) or the Joint Special Air Operations Center (JSAOC). In some tactical situations, forward ground forces can monitor the live video via a remotely operated video-enhanced receiver (ROVER) or similar device. Despite this oversight, the friction of war still leads to errors that can result in friendly fire or civilian collateral damage.

While armed RPAs also have significantly less risk of collateral damage, this does not necessarily mean that they do not cause collateral damage. But, when RPAs do cause collateral damage, it is likely to be less damage than alternative weapons platforms. The Hellfire missile carried by various RPAs is a smaller warhead than many alternative air-to-ground munitions. It contains a mere twenty pound explosive charge, tiny in comparison to the USAF’s other most commonly used air-to-ground missile, the AGM-65 Maverick, which houses a 126 pound warhead. Even so, the military planner should assume the continued public perception that the RPA is a collateral damage hazard.

The concept that one can mathematically compare the collateral damage caused by RPAs versus other strike aircraft is something of a chimera. Many RPA strikes occur in remote areas in which it is not practical to have a ground team to confirm the identity of the target post-strike. In some cases, al-Qaida or one of its affiliates does have forces on the ground in proximity to the strike site. It is not unusual for terrorist organizations to “stage” the site before journalists show up. “Staging” can vary from removing weapons to planting previously dead women and children. Surprisingly, when these photos hit the media, the United States tends to remain mute. The desire to protect intelligence sources often outweighs the desire to show proof that the target was indeed affiliated with extremist groups. In military circles, stories abound about Taliban efforts to avoid airstrikes. One anecdotal story involved the simulation of a funeral procession. But, instead of bodies, the coffins were loaded with weapons. Of course, there are cases in which RPAs have inadvertently killed civilians. Al-Qaida and other terrorist group propaganda encourage the false assumption that RPAs are somehow omnipotent. Because of these efforts, the death of civilians appears to the local population to be some sort of evil conspiracy to kill the innocent. Unfortunately, the efficacy of measuring the attitudes of the local population is problematic. Outsider access to the population is limited, leading to extrapolations and data of questionable reliability.<sup>3</sup>

One of the major challenges of conducting RPA strikes in countries such as Pakistan, Yemen, and Somalia is an inability to obtain information dominance over the terrorist enemy. If al-Qaida can convince the local citizens that RPAs are robots, the United States’ lack of access to the local information networks makes it extremely difficult to counter the adversary’s narrative. Accidental civilian casualties plays into the adversary’s propaganda narrative that the United States views civilian deaths as “acceptable losses” to ensure the death of a terrorist and that the United States is not taking appropriate precautions to ensure that the “robots” do not kill civilians.<sup>4</sup> In Iraq and Afghanistan, ground forces could conduct in-person apologies and provide monetary indemnification in an attempt to mitigate the potential backlash caused from collateral damage. But, in countries in which the United States lacks a physical presence and media injects, al-Qaida is able to gain the upper hand with propaganda, convincing the locals

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<sup>3</sup> C. Christine Fair, Karl Kaltenthaler, and William Miller, “The Drone War: Public Opposition to American Drone Strikes in Pakistan,” *Political Science Quarterly* 129:1 (Spring 2014): 1-33.

<sup>4</sup> While rules of engagement vary across military operations, it is plausible that the importance of the target (i.e., terrorist group leader or senior military commander) might outweigh the potential collateral damage on the decision to strike.

that America is an “immoral bully” that carries out “indiscriminate violence against Muslims.”<sup>5</sup>

This creates something of a catch 22 for military decision makers for employing RPAs in a counter-terrorism role in remote locations. One of the great advantages of the RPA is a reduction in physical presence and, therefore, risk to forces. But, the reduced physical presence results in a comparative disadvantage in the information campaign. Potentially, this could result in a net gain in militants. In order to be a net loss for the terrorist organization, the target needs to be more valuable than the theoretical new recruits. Based upon this calculus, these types of RPA strikes should only be conducted upon extremely valuable targets. Of course, this model can be manipulated based upon the subjective assessment of the value of the target and the assumptions made about the number of recruits that terrorists gain from an airstrike. Even so, having a model framework will assist in strike decisions for short-notice dynamic targeting situations.

## Political Risk

The political risk associated with the employment of RPAs is a double-edged sword. Compared to manned aircraft, the RPA reduces the domestic political risk for involvement in a conflict because of the limited ramifications of a crash. For the casualty-averse public, there is no risk to the operator. For the cost-conscious Congress, there is no need for a massive and expensive rescue and recovery operation over areas where personnel recovery is difficult. From a strategic communications perspective, there is no risk of a humiliating “Blackhawk Down scenario” which will force the United States to reconsider its intervention policy. From an operational perspective, less political risk equates to additional flexibility. For example, during NATO’s Operation Unified Protector in Libya, RPAs were the primary ISR aircraft that were allowed to go “feet dry” over Libya due to the potential risk to aircraft from Libyan air defenses.

Arguably, the reduced political risk could encourage the United States and other countries with RPAs to consider military options more often than in the past.<sup>6</sup> Additionally, the negligible risk to military personnel will reduce Pentagon opposition to RPA-only military interventions. Whether or not this reduced political risk is a good thing largely depends upon an individual’s perspective on the role of the military, under what conditions the military should be used, and the efficiency and effectiveness of the military to conduct certain missions.

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<sup>5</sup> Audrey Kurth Cronin, “Why Drones Fail,” *Foreign Affairs* (July/August 2013), available at: <http://www.foreignaffairs.com/articles/139454/audrey-kurth-cronin/why-drones-fail>.

<sup>6</sup> Daniel Byman, “Why Drones Work,” *Foreign Affairs* (July/August 2013), available at: <http://www.foreignaffairs.com/articles/139453/daniel-byman/why-drones-work>.

Beyond risk to the pilot, RPAs also represent reduced political risk to partner countries. The requirement for deployed personnel, equipment, supporting logistics, and ramp space for an RPA is significantly less than that of its fighter or manned ISR counterpart. This means that deployments to austere locations such as the Sahel Desert (just south of the Sahara) or a remote island in the Philippines are comparatively lower profile and less of a burden on the local infrastructure. Additionally, while not stealthy, RPAs are considerably less obvious than the majority of manned ISR aircraft such as the P-3, RC-135, MC-12, and U-28. In sum, this can equate to a higher probability of approval by the host government and less resistance from the local U.S. Ambassador who is the de facto responsible agent for the security of Americans in country. While a concern over local infrastructure may seem petty, even small deployments can quickly overwhelm a small economy.

Finally, RPAs have less political risk because they are cheaper to replace than their fighter or ISR counterparts. However, cost comparisons of military aircraft are extremely tricky. The Pilatus PC-12, the civilian version of the U-28, costs about the same as an MQ-1. But, this fails to account for the equipment upgrades that the U-28 has over the PC-12. Plus, the U-28's loiter time pales in comparison with the MQ-1, making a per-airframe cost comparison somewhat misleading. An MQ-9 costs about the same as an F-16 and about half as much as an F-15. Unfortunately, this cost comparison lost meaning when the production lines were halted for the F-15 and F-16. An M-9 costs about one tenth of an F-22. But, the roles of the two aircraft differ so significantly that the comparison no longer makes sense. Plus, there is no manned aircraft equivalent to the smaller RPAs such as the Raven and the Scan Eagle.

RPAs are also perceived as having lower operating costs. This may be accurate for a cost per flight hour comparison. However, these comparisons fail to account for variations in on-station time and the support costs for logistics, manpower, and communications. While the support costs for a small RPA such as a Raven are very low, the manpower and communication requirements for a large RPA such as an MQ-9 are significant. Conversely, manned aircraft with less range and loiter time could spend a significant amount of flight time simply transiting to and from the target, limiting its on-station usefulness. While political risk is a major concern for the military planner, critics of U.S. foreign policy tend to downplay risk and focus upon the legality of RPA strikes.

## Legal Considerations

Legal factors that shape the strategic decision to employ RPAs primarily focus on lethality and sovereignty. A variety of authors present an anti-RPA bias because they are opposed to the targeting of individual non-state actors outside of conflict



zones.<sup>7</sup> This opposition is rooted in a legal debate about the use of lethal force against non-state actors.<sup>8</sup> The disagreement centers around whether or not a country can be at war with a loosely defined organization (vice a formally recognized country). While this is an important intellectual debate on just war theory, it is only tangentially related to RPAs. Because RPAs are the primary tool for targeting non-state actors, political opposition to targeting non-state actors transitions into opposition to the use of RPAs. However, this seems to incorrectly assume that halting the use of RPAs will translate into a stop to targeting non-state actors. A variety of weapons platforms can be used to target non-state actors. In fact, just war theory is platform agnostic. If it is just to kill someone with a B-52, then it is equally just to kill that person with an MQ-9. Of course, the opposite is also true: killing with an RPA does not enjoy some type of legal loophole that discourages killing by some other type of military platform.

From a military perspective, the legal framework for lethal action against non-state actors is based upon the Authorized Use of Military Force (AUMF).<sup>9</sup> Under the AUMF, the decision making process about whether or not an individual can legally be killed is independent from the platform used to deliver the killing blow. Throughout the Global War on Terror, a wide variety of ground-based and air-based methods were used to kill or capture terrorists. Of course, air-centric methods tend to lack a capture component. Even so, air methods are not limited to RPAs. F-16s, F-15Es, F-18s, and B-52s have delivered ordnance upon key terrorists. There is little ethical justification to argue that killing someone with a fighter jet is morally different than killing someone with a Remotely Piloted Aircraft.<sup>10</sup>

Closely related to the issue of lethality is the issue of sovereignty. Normally, the use of lethal force upon another sovereign country's territory without its permission is considered an act of war under international law. Certainly, not all legally defined acts of war actually lead to war; however, they can be the cause of prickly international incidents and unwanted tensions between otherwise friendly countries. Considering the media and public perception of RPAs, the decision to request RPA over-flight (either armed or unarmed) of another

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<sup>7</sup> Turse, Nick and Tom Engelhardt, *Terminator Planet* (San Bernadino: Dispatch Books, 2012).

<sup>8</sup> Steven Groves, "Drone Strikes: The Legality of U.S. Targeting Terrorists Abroad," *Heritage Foundation Backgrounder on Terrorism*, April 10, 2013, available at: [http://www.heritage.org/research/reports/2013/04/drone-strikes-the-legality-of-us-targeting-terrorists-abroad#\\_ftnref22](http://www.heritage.org/research/reports/2013/04/drone-strikes-the-legality-of-us-targeting-terrorists-abroad#_ftnref22); Mary Ellen O'Connell, "Unlawful Killing with Combat Drones: A Case Study of Pakistan, 2004–2009," *Notre Dame Legal Studies Research Paper* 09-43 (July 2010), available at: [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1501144](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1501144).

<sup>9</sup> Authorization for Use of Military Force, Public Law 107–40, September 14, 2001.

<sup>10</sup> Strawser, Bradley Jay (ed.), *Killing by Remote Control* (Oxford: Oxford University Press, 2013), 7-17.

country is not a task considered lightly. While sovereignty was never a serious concern for RPA operations over Afghanistan, an ongoing war zone, sovereignty is a major concern for operations conducted in Pakistan, Yemen, Mali, and since the United States departure in 2011, Iraq.

The approving sovereign country has a variety of approval options. It may choose to grant approval publicly or privately. In the case of a private or secret approval, it is possible that many of the country's government workers are not aware of the unconfirmed official approval. The sovereign country has the option to require permission be requested for each individual strike or can grant blanket permission for all strikes. In the case of a private approval, the sovereign could follow a "don't ask, don't tell" policy. In such a case, the striking country does not ask for specific permissions, does not acknowledge the strikes publicly, and the targeted country can publicly express outrage at the violation of its sovereignty. Of course, the private approval route has some negative secondary effects that play into the propaganda of the enemy organization under attack because it exacerbates the perception that the strikes are illegal. Since private approval is difficult for third parties to disprove, reliance upon private approval reinforces an ambiguous international precedent. The mere potential of private approval provides the RPA with plausible deniability and limits a country's liability for perceived or actual violations of sovereignty.

Even the non-lethal employment of RPAs requires legal considerations. Current legal interpretations of the U.S. Conventional Arms Transfer Process, the Arms Export Control Act, the International Traffic in Arms Regulations, and the Missile Technology Control Regime restrict the ability of the U.S. military to sell or give RPAs to its allies. In those rare cases where such security cooperation is allowed, legal considerations often prevent those RPAs from being armed. For example, during military operations in Afghanistan and Libya, NATO contributed United States produced RPAs. The quality and skill level was similar to that of the U.S. operated RPAs. The unarmed NATO RPAs were valuable ISR platforms. But, the lack of weapons hindered the overall operational flexibility of the air campaign. For both lethal and non-lethal employment, as innovation continues to out-pace regulation, RPAs will continue to receive additional public and political scrutiny as a stopgap measure to fill the perceived void of ambiguous law.

## **Military Strategy**

At the operational level of war, the employment of RPAs is a microcosm of strategic decisions on how to best run an air campaign. The choice of aircraft apportionment is often a choice of priorities between providing close air support

(CAS) and targeting adversary leadership. Apportionment involves an alignment of aircraft capabilities with desired effects or targets.

Aircraft capabilities vary greatly across the RPA community. The major platforms in the RPA community include (from big to small, long range to short range): Group 5—RQ-4 Global Hawk, MQ-9 Reaper; Group 4—MQ-1 Predator; Group 3—RQ-7 Shadow; Group 2—Scan Eagle; and Group 1—RQ-11 Raven. Despite public perception, most RPAs cannot employ lethal force. Only the MQ-1 and MQ-9 have the coveted (or dreaded depending upon your perspective) dual ISR-strike role. The MQ-1 can carry two AGM-114 Hellfire air-to-ground missiles. The MQ-9 can carry two 500-pound bombs and four Hellfire missiles.<sup>11</sup> This gives the MQ-9 the equivalent firepower of an F-16 against small targets such as vehicles and troops. However, the MQ-9 is at a comparative disadvantage when targeting large targets or hardened facilities. While lethal force is limited to only a few platforms, all of the RPAs have an ISR function. The majority has a Full Motion Video (FMV) capability. The oddity in the community is the RQ-4 that is more of a U-2 style snap and shoot imagery aircraft. In fact, there is no stick or yoke for the Global Hawk. It is flown by mouse clicks and keyboard instructions, which severely reduces its flexibility, as airborne re-tasking is slow and laborious.

Unfortunately, the group classification system mentioned about is inadequate for operational planning. The groups are based upon weight, operating altitude, and airspeed. While this classification is somewhat useful for differentiating Federal Aviation Administration rules and airspace restrictions, the Group classification has limited utility for operational planning. To make it more complicated, services use their own classification systems. The U.S. Air Force tiers are essentially based upon altitude (low, medium, high) with a special tier for low observable RPA. Conversely, the U.S. Army tier system is based upon range. However, none of these classification systems are useful to the military planner since they omit key factors such as sortie duration, payload options (intelligence or weapons capabilities), and plug and play variations. This could potentially lead to confusion or misunderstanding of asset capability when requesting an RPA, assigning it to a mission, or understanding platform readiness.

RPA support to CAS places emphasis on winning today's battles and minimizing friendly casualties by supporting troops in contact. This concept fits the classic airpower arguments of J.C. Slessor and Robert Pape.<sup>12</sup> In this role, the RPA can act as both a CAS platform and as a Forward Air Controller-Airborne (FAC-A).

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<sup>11</sup> Typically either the laser guided GBU-12 or the GPS-assisted GBU-38 Joint Direct Attach Munition.

<sup>12</sup> Slessor, J.C., *Air Power and Armies* (London: Oxford University Press, 1936); Pape, Robert, *Bombing to Win: Air Power and Coercion in War* (Cornell: Cornell University Press, 1996).

On the other end of the airpower spectrum is John Warden's argument that airpower should focus on the enemy leadership with the goal of winning the campaign via decapitation, vice tactical battles in support of ground troops.<sup>13</sup> Of course, military operations attempt to find a balance between these two extremes, typically apportioning aircraft between strategic leadership (or other central rings of Warden's Theory, including lines of communication and infrastructure) and tactical targets closer to the front lines of battle, by a weight-of-effort percentage. However, this choice becomes especially problematic for those operations in which RPAs are in short supply.

Surprisingly, the majority of military operations are conducted with RPAs in short supply. During the heyday of the wars in Iraq and Afghanistan, the military relied heavily upon Overseas Contingency Operations (OCO) Funds to ramp up additional wartime capabilities that far exceeded its annual budget. This allowed the military to temporarily fund additional ISR aircraft including RPAs. Sustainment (primarily operations and maintenance costs) of the additional RPAs was entirely dependent upon continuation of the OCO funds in future budgets. Starting in 2001, the USAF cannibalized its test and training equipment and crews in order to maximize the availability to RPAs for combat operations. This reduced training capability equated to additional strain on existing crews. The USAF began to unwind this decade-long knot in 2011 despite the insatiable appetites of the Combatant Commanders for this valuable asset. As the U.S. government budget got tighter, DOD re-planned its force structure based upon a future with no OCO funds. The easy solution was to off-ramp anything that was not in the original (non-OCO funded) budget, which caused the RPA community to take a significant hit.

Prospects for the immediate future of RPAs look dim as "the Air Force is signaling a strategic choice, consistent with its budget, to sacrifice 'lower-end' capabilities like Predators and Reapers for stealthy aircraft able to operate in contested air environments against sophisticated air-defense threats."<sup>14</sup> Arguably, the decision is reminiscent of the post-Vietnam military backlash against all things counterinsurgency, and a refocus on potential existential threats to the United States. The Air Staff perceives its future force structure under tightening budgets as a dichotomous decision: either prepare for the most likely, but least direct threat to the United States (e.g. small wars and counterinsurgencies) or prepare for the less likely, but most dangerous scenario. The choice was to focus on the most dangerous: win an air war against a peer competitor with advanced air defenses and a robust air force. Since RPA survivability is suspect in such an environment, reducing RPAs was a logical step.

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<sup>13</sup> John A. Warden III, "The Enemy as a System," *Airpower Journal* (Spring 1995): 40-55.

<sup>14</sup> Paul Scharre, "Is the U.S. Air Force Set for a 'Crash Landing?'," *The National Interest*, September 11, 2014.

To determine which military operations get the shrinking pool of RPAs, the Joint Staff runs a decision-making process known as Global Force Management Allocation Process (GFMAP). The decision is often a myriad of apparently dichotomous choices: specific near-term threats versus long-term ambiguous threats, counter-terrorism (CT) versus counterinsurgency (COIN), and the global war on terror versus other operational missions. This decision can be portrayed in terms of protecting American soldiers under fire today, versus hunting terrorists like al-Qaida (and more recently, ISIS) in remote parts of the world that present a long-term, non-specific threat to the United States. Special Operations Command's (SOCOM) role as the leader of the war against terrorists naturally puts them in competition with conventional missions owned by the regional Combatant Commanders.

From an RPA perspective, the CT versus COIN debate is a mirror image of the Warden versus Pape debate for air campaign planning. While the COIN mission must find a balance between Warden and Pape, the CT mission has the luxury of ignoring Pape altogether and focusing on enemy commanders. George Mason University Professor Audrey Kurth Cronin argues that drones are a strategic failure, in part, due to a misunderstanding of the nuanced difference between CT and COIN. A deep reading of Cronin indicates she is arguing that al Qaida should be handled as a COIN problem, not a CT problem, because decapitation is not working; emphasis should be placed on countering individual recruitment, not targeting senior leadership. This is a bold, though not unique, argument. Still, the crux of the problem is that RPAs cannot conduct COIN without friendly ground forces in the vicinity of the enemy. In those cases where the United States is unwilling to commit ground forces or unable to find a willing third party, CT will remain the de facto strategy.

Of course, Remotely Piloted Aircraft are not the perfect choice for every mission. RPAs have a number of drawbacks that must be considered before selecting them for employment. There are a variety of missions for which the RPA may not be the best choice. When an RPA is beyond line-of-sight from a ground controller, it is possible to lose control of the aircraft. Similarly, many RPAs have more restrictive weather limitations than their manned counterparts. While these factors are often considered acceptable risk for most operations, high stakes missions may need to consider a back-up plan.

It is interesting to note that while military strategy is the primary component driving the typical asset allocation process, it is only one component of many that goes into the decision-making process to employ Remotely Piloted Aircraft. Arguably, for RPAs military strategy is probably the least important factor compared to public perception, political risk, and legal considerations. Of course,

a good military strategist will consider all of these factors when requesting an RPA asset for a particular operation or mission.

## Conclusion

The employment of RPAs requires a paradigm shift for the military decision making process. Military strategy and operational art is an important factor in determining if and how to employ RPAs. Yet, the military decision maker and planners must view RPA employment from a strategic perspective. Military planners can take advantage of the legal ambiguities of RPAs to improve plausible deniability and limit potential liability. However, RPA employment comes with a strategic communications challenge since it feeds the adversary narrative that RPA actions are illegal and immoral. While RPAs present less political risk and potential collateral damage than alternative platforms, planners should consider that the public would continue to perceive RPA strikes as prone to causing civilian deaths. In the near term, these factors suggest an increased likelihood of RPA-only military interventions for operations that are on the “fringe” of U.S. national security interests. But these factors also present a major obstacle to future procurement of additional RPAs. The additional public and political scrutiny puts RPAs at a comparative disadvantage to other advanced aircraft such as the F-35.