

Ten Thousand Feet and Ten Thousand Miles

Reconciling Our Air Force Culture to Remotely Piloted Aircraft and the New Nature of Aerial Combat

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We have just won a war with a lot of heroes flying around in planes. The next war may be fought by airplanes with no men in them at all. . . . Take everything you've learned about aviation in war, throw it out the window, and let's go to work on tomorrow's aviation.

—Gen Henry “Hap” Arnold, US Army Air Forces, 1945

Introduction: One Story, Two Complexions

Heavy fire from a DShK .50-caliber machine gun pins down a team of Navy SEALs.¹ Outnumbered and outgunned, the team has one lifeline—the aircraft on the other end of their joint terminal attack controller's radio. The aircraft lies well outside the range of any of the insurgents' weapons, but that thought doesn't cross the mind of the pilot as he focuses solely on his comrades, who do not enjoy the same luxury. Lightning quick, a GBU-12 puts the DShK out of commission.² Two minutes later, missiles from the striker make short work of a group of insurgents trying to flank the team. No longer pinned, the SEALs return fire, and the adversary falls back. Once the dust settles, the friendlies make their way back to the exfiltration site.³ When the tale is told, the actions of the aircrew made the difference between life and death for the brave members of this special operations force.

By far the most important part of this story is the knowledge that the good guys came home safe. Still, we could tell this same story with the

crew of either an F-15E Strike Eagle or an MQ-9 Reaper remotely piloted aircraft (RPA) as the protagonists. In the former case, our institutions would likely herald the crew's heroism with decorations, yet in the latter case, the same institutions would remind the crew that their efforts do not even qualify as "combat time." The urgent needs of combat led to the explosive growth of RPAs, but the people who meet those needs hear that they are not in combat. This contradiction deserves a response.

Because institutional recognition conveys powerful messages about relative valuation, this distinction bears further exploration. The military awards combat medals for combat, but in each new conflict, technology and tactics change our definitions—front lines expand along with the reach of new weapons. This fact certainly applies to current conflicts, initiated by enemies who struck the first blow when they attacked us in our homeland by way of globalized transportation and communications links—connections that now allow our warriors to participate in direct combat from the homeland. Hence, our definitions bear reexamination in the light of this war's globally decentralized battlefield.

Answering the Conventional Wisdom: Combat Risk

We begin with the counterargument that RPA operators aren't in combat because they do not put their lives at risk. At the root of this idea is the concept of "combat risk"—lives at stake in the face of enemy fire qualifies that particular activity as combat. Two major reasons make this notion deeply problematic: (1) we don't differentiate between gradations of technologically mitigated risk in other platforms, and (2) in the case of RPAs, it is simply untrue.

On the first count, what is the differential risk between 10,000 feet and 10,000 miles in current conflicts? When a manned aircraft with two spare engines scrapes the top of a combat zone, well outside the range of any realistic threat, why do we consider that scenario "combat" yet deem a Predator firing a Hellfire in anger "combat support"? Diving to the heart of the issue, we must conclude that technological advances which

reduce combat risk should not lessen the reality of combat. Apologists for the status quo often decry defenses that leverage technology as cowardly, yet those perspectives typically find themselves overrun by individuals able to embrace the changes that technology has wrought. (The examples of firearms in Japan, medieval crossbows, and submarines in World War I all speak to entrenched orders who invoke honor to defend themselves against technological advances.)

Recalling one particularly vociferous (and inebriated) F-22 pilot, who emphatically asserted that “fighting a war via video teleconference isn’t very honorable,” we might say the same for firing a missile beyond visual range from a fighter cloaked with stealth technology. It would be hard to imagine that the same individual would feel compelled to activate his radar transponder upon contact with the enemy, just to restore honor to his kill by mitigating his technological defenses. The decentralized control system of the Predator fits no less well in the category of technological defenses. In other platforms, countermeasures and countertactics do not invalidate the reality of combat, even as they mitigate its risks—to do so introduces a deeply perverse and backward-looking incentive.

As to the second count, I do not believe that RPA operators are in less danger than their manned counterparts. In fact, I assert that it may well be the other way around. Recall that the individuals killed in the terrorist attack of 11 September 2001 on the Pentagon received the Purple Heart, a combat medal. This war is global, and our enemies have global reach as well. If we found ourselves in our enemies’ position, would we spend the time and attract attention attempting to purchase a high-profile missile when a terror attack on RPA operators in the continental United States would produce better results? God forbid that scenario comes to pass, but I argue strongly that the differential risk of being an RPA operator in this war is at least that of an in-theater pilot. How does a terror attack on the way to work differ from ground fire on initial climb-out? In both instances, someone comes under enemy fire en route to the target area.

Moreover, the act of employing kinetics in anger brings with it a degree of personal risk. For one, operators are always subject to time-constrained judgments in accordance with the special instructions.⁴ Firing a weapon outside those rules can land them in jail. Beyond this instance, a well-weaponed “danger close” shot can end with a friendly casualty—the risk we accept with danger close.⁵ The legality of the shot, however, will not diminish its reality for the operator who took the shot; he or she will have to live with the consequences nonetheless. Along the same lines, an operator who shoots in accordance with rules pertaining to collateral damage has to live with the images of the impact. It is hard to imagine a true combat-support sortie with these sorts of sequelae.

Toward a Deeper Understanding: Combat Responsibility

Combat responsibility offers a more reliable measure than combat risk. The former defines combat in terms of two elements: (1) unlimited liability, including life and death, and (2) adversarial intent, precluding a win-win potential outcome (as in a natural disaster). The extent to which these elements are invoked is the extent to which an activity qualifies as combat. An individual holds combat responsibility if his or her choices may directly result in the saving of friendly lives or the taking of enemy lives. In other words, if individuals immediately cue, fire, or guide weapons or if they are directly entrusted with the lives of Soldiers, Sailors, Airmen, or Marines going into harm’s way, then they are in combat.⁶

Historically, combat risk and combat responsibility generally overlap. Before the advent of long-range missiles and data links, combat risk was typically a prerequisite to employing weapons against an adversary. During times of great technological asymmetries, though, these definitions would diverge. A heavily armored samurai is effectively invulnerable to all foreseeable threats, save another samurai. An archer with a longbow remains almost immune to direct combat because of his ranged weapons unless his lines break. A submariner in the early years of World War I has more to fear from the ocean than

from enemy weapons. When technological asymmetries drive these definitions apart, combat responsibility better captures the whole of combat; moreover, combat responsibility includes combat risk.⁷

What would a recognition model geared toward combat responsibility look like in our current air war? For manned aircraft, anytime aviators fly in a combat zone, they assume combat responsibility for themselves and their crew or element. Whenever pilots release a weapon in anger (including a cruise missile from outside the combat zone), they assume combat responsibility for that weapon's effects. This scenario closely resembles the current policy but with a more expansive rationale—we measure people by their duty to their comrades in harm's way as well as the risk to themselves.

RPA's demand a bit more interpretation. As opposed to a manned aircraft, associated with combat defined geographically for the most part, the RPA requires a causal lens. That is, what individuals do on the sortie defines whether or not they are in combat. Interestingly, people may realize they're going to be in combat only partway through the sortie. A sortie qualifies as combat if it includes both elements of combat responsibility: (1) lives directly on the line (2) against an enemy in wartime. A sortie that does not meet this definition may satisfy a more relaxed one for combat support: second- or third-order actions that enable direct actions against the enemy. As a rule of thumb, someone in a position to make choices that directly affect the outcome is in combat. A person who puts someone else in that position provides combat support.

For example, we may consider sensor scans on a building or a major supply route combat support—actions against an enemy when lives are not directly on the line. This type of critically important mission can often have second- and third-order effects that save lives and strike targets. But at that moment, the person is not in a position to make decisions that translate into life or death. Contrastingly, consider a similar sensor scan that finds a team emplacing improvised explosive devices. When crew members spin up their missiles with a legal attack clearance, they are in combat. A steady stare on a building becomes

combat when a friendly strike force arrives to raid that building because the crew takes on combat responsibility for friendly forces on the screen. Target development and route scans typically remain combat support. Kinetic strikes, support of direct action, and armed escort generally become combat.⁸

Therefore, in accordance with current guidance, a set sum of combat sorties would justify an Air Medal with the concurrence of the combat chain of command. Similarly, a sum of combat-support sorties justifies an Aerial Achievement Medal. For single-mission medals, causality is the prime consideration. To consider crew members for a single-mission Air Medal or a Distinguished Flying Cross, their actions must have been the deciding factor between life and death. If good guys would have died but for the actions of Lieutenant Smith, then the lieutenant is the causal factor in their survival. Similarly, if high-value target number four is about to enter a civilian area and Airman Jones's superior skill allows a minimum-range shot while that individual remains targetable, then the Airman is the causal factor in the target's demise. If Smith and Jones meet this requirement, we should consider their achievements on par with equivalent actions taken by the manned platform.

Conclusion: Combat Effects Trump Platform Prestige

At the heart of this discussion lies the sacredness of combat. Awards and decorations are among the highest avenues of formal recognition available to the military. The relative preference of awards sends a message that echoes very loudly indeed, telling a story of what the service considers valuable and worthy of respect. A dangerous temptation exists to use awards to highlight a platform or a capability—the toxicity of this practice cannot be overstated. By doing so, we tell people that what they are (and what they fly) matters more than what they do; we tell them that prestige trumps valor. Consequently, we reinforce the caste structure and continue to generate self-fulfilling prophecies about relative performance. By starting with the fight and working backwards, we send a much better message: that we value someone's

contribution to the fight. The difference that person makes is more important than the aircraft that he or she flies.

Primarily, this argument addresses cognitive consistency, which becomes all the more important, given the prodigious new cadre of RPA-only aviators. When we have a great number of brand-new lieutenants and Airmen manning our current RPAs, we must help them make the mental leap from their ground control station into a combat zone they've never seen, especially when every normal cultural cue tells them they're in peacetime New Mexico. The consequences of not doing so are frightening. When every other asset in the stack and on the ground is in a combat mind-set, the prospect of a bubble of peacetime floating around the battlespace should be terrifying.

In a way, by telling these young warriors that they are flying combat support, we confirm their brains' natural conclusion that they're sitting stateside rather than in US Central Command's area of responsibility (CENTCOM AOR). If we tell them they're not in combat, who are they to disagree? By treating combat rather than prestige as sacred, we eliminate this contradiction and help these future leaders reconcile themselves to this new type of combat. In a nascent tradition of the maturing Predator and Reaper communities, plaques over the entryways of combat spaces proclaim, "You are now entering the CENTCOM AOR." Our RPA crew members truly believe this fighting creed. We ask only that the institution affirm its veracity.

As a parting shot, the Air Force has always survived and thrived as a service by pioneering and innovating.⁹ Though grounded in timeless truths of military thought, our niche is forging new ways of war, pushing the technological frontier to transform the way our nation fights wars. And we have done so very well—pushing from air to space and into cyberspace, changing in response to revisions in the nature of warfare that we ourselves have wrought. As General Arnold predicted long ago, we now fight in the air using a global fly-by-wire system whose control cables reach across space and cyberspace. But the initiative and innovation that continually stretch the envelope cannot abide

entrenched privilege. Such privilege is rooted in the present implications of the past's distribution of power and cannot stomach change, lest that distribution be reshuffled. It becomes the inertia that anchors us to the past. For a service that relies on innovation for survival, privilege is poison. Our definitions and distributions of power should support the Air Force of the current and the next fight, not the last one. On that note, the Department of Defense's *Unmanned Systems Integrated Roadmap* predicts a force made up almost entirely of RPAs by the middle of this century.¹⁰ On the current trajectory, the only Air Medals will be the ones in history books. ✪

Notes

1. The *Degtarayova-Shpagina Krupnokaliberniyy* [Degtarayov-Shpagin heavy caliber] is a Soviet-era heavy machine gun common worldwide. "Degtyarev (DShK-38 and Model 38/46) 12.7 mm Heavy Machine Gun (Russian Federation), Machine Guns," Jane's Information Group, accessed 23 February 2012, <http://articles.janes.com/articles/Janes-Infantry-Weapons/Degtyarev-DShK-38-and-Model-38-46-12-7-mm-heavy-machine-gun-Russian-Federation.html>.

2. The GBU-12 is a 500-pound laser-guided bomb common to US tactical aircraft. "GBU-10, GBU-12, GBU-16 Paveway II (United States), Bombs—Precision and Guided Munitions," Jane's Information Group, accessed 23 February 2012, <http://articles.janes.com/articles/Janes-Air-Launched-Weapons/GBU-10-GBU-12-GBU-16-Paveway-II-United-States.html>.

3. The term *exfiltration site* refers to the landing zone from which a special operations force departs the battlespace after completing its mission.

4. Special instructions are a set of overarching orders from the coalition force air component commander that govern the employment of airpower in a combat theater.

5. The term *danger close* denotes fires employed in close proximity to friendly ground forces when the ground force deems that the danger from the enemy exceeds that from the munitions employed. Formally, it refers to ordnance delivery inside the 0.1 percent probability of incapacitation distance. Joint Publication 3-09.3, *Close Air Support*, 8 July 2009, V-20, https://jdeis.js.mil/jdeis/new_pubs/jp3_09_3.pdf.

6. To keep our terms clean, we use *directly* and *immediately* to refer to a participant only one causal step away from the outcome. This useful distinction differentiates between combat and combat support. Combat-support actions are critically important in shaping outcomes although their impact is not as causally direct as that of participants in the point of attack or defense.

7. Historically, as symmetry is eventually restored, these definitions converge once again. As an academic exercise, imagine dueling fleets of Chinese and American remotely piloted combat aerial vehicles searching for each other's ground stations. In this circumstance, a seat in a manned aircraft might be a much more comfortable place.

8. Logistically, crews would indicate whether or not they performed raid support or kinetics at the completion of their sortie—information retroactively input into the flight paperwork. This procedure resembles an accounting process for KC-135s, whereby the combat status of receiver aircraft retroactively dictates whether the mission was combat or combat support.

9. “Our Air Force owes its existence to visionaries who sought innovative ways to do things—instead of going through an enemy’s line, let’s go over it. Now is the time to boldly embrace the enterprising spirit that Airmen have long demonstrated by harnessing the latest technology and developing novel ways of accomplishing the nation’s missions.” Gen Edward A. Rice Jr, “Building toward the Future,” *Air and Space Power Journal* 26, no. 1 (January–February 2012): 6, <http://www.airpower.maxwell.af.mil/digital/pdf/issues/jan-feb/Jan-Feb-2012.pdf>.

10. Department of Defense, *Unmanned Systems Integrated Roadmap, FY2011–2036* (Washington, DC: Department of Defense, Office of the Secretary of Defense, [2009]), <http://www.fas.org/irp/program/collect/usroadmap2011.pdf>.



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