

FOSTER A CULTURE THAT EMBRACES
INNOVATION, FUELED BY AIRMEN

Yesterday at War with Tomorrow: Rebooting the Profession of Arms

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Today's American military largely identifies as a "Profession of Arms," reflecting its long evolution as the expert custodian of societally sanctioned violence and its members' adherence to recognized values of courage, skill, and sacrifice in service of the nation's security. From the founding of the American republic to the counterinsurgent campaigns of the last two decades, the force of arms has been the ultimate means by which national interests have been both defended and advanced. Members of the American military have repeatedly been called upon to conduct humanitarian operations, counterinsurgency, deterrence across the spectrum of armed conflict, and fight regional then global wars. Centuries of battles fought by American men and women under arms—sometimes horrendously destructive, sometimes barely known except by those involved—have helped create and advance peaceful conditions both foreign and domestic. This is a noble heritage, one justifiably and jealously guarded by military and civilians alike.

Yet the traditional face of human strife, both in its episodic violence and the relative clarity and geographic foundation of its means and outcomes, is changing. September 11th, 2001 marked one visible inflection point in that evolution. Since that searing event, America has seen a tide of commissions, studies, public laws, and

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public servants calling for or attempting to achieve greater “whole of government” approaches to national security. Despite these efforts, we have made mostly incremental progress in that regard, while potentially lethal competitions below the level of full-fledged war, and continue to grow exponentially in number and complexity. As we have tinkered around the edges of meaningful policy and organizational change, our language, the ways we describe and analyze challenges to our collective well-being, and our implicit understanding and interaction with all things military is becoming subtly but dangerously outdated.

In other words, war is very often not what it used to be. Ensuring future national security requires overcoming *instinct* and *inertia*: the instinct to think of war as primarily physical, discontinuous, and military; and the inertia of having very successfully waged it for the last century using people, weapons and organizations whose ethos dates back to the days before Thucydides. In the American psyche, there is also a powerful “over there” legacy that springs from two oceans and centuries of insulation from external attack, shaping unspoken assumptions that military service mostly means duty in distant places, and involving risk of life and potential taking of life with weapons, however sophisticated or basic. Because war has been intimately linked with life and death, and loss in war with disaster for the losing party, we also unfailingly connect martial valor with national security value.

This is understandable: the most powerfully motivating aspects of human conflict, at both

individual and societal levels, still involve primordial physical acts to hurt and kill one another. As political scientist Harold Lasswell observed and Samuel Huntington amplified, the Profession of Arms has historically been about the “management of violence.” From its rank insignia to unit flags to uniforms to standards of discipline, the American profession of arms reflects these traditions and values in its structure and ways of interacting. For the most part, it also justifiably reflects the realities of physical combat in preparing and employing lethal force on behalf of the society it serves. Yet as threats have diversified, the modern military is increasingly stretched well beyond a core competence centered on violence. Emerging tools, skills, considerations, and arenas for non-physical, indirectly deadly conflict have not replaced lethality,

Emerging tools, skills, considerations, and arenas for non-physical, indirectly deadly conflict have not replaced lethality, tragedy, and heroism in the annals of history; they have simply added another complex layer. The actions of combatants and all of the battlefields on which they might fight were once entirely within the common human experience. That time has passed and it will not return.

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Globalized geopolitical and economic interconnections are closely coupled with the parallel relentless march of technology. Together, these factors are fundamentally altering the character of conflict and its most obvious manifestation, war. In a world where conflict is less often about attack or defense of territory, the presence or absence of physical valor may not scale to affect the fate of nations as it has throughout history. Global interconnection means a front line is no longer simply a line on a map, but *anywhere* in today's near-infinite web of terrestrial, extra-terrestrial, and virtual interactions where one party can damage the interests of another. Studying an adversary's vulnerabilities is nothing new, but the international consensus on use of that knowledge is uneven at best, and the number of ways to inflict meaningful damage—to infrastructure, individuals, or to societal trust—have multiplied. Attacks affecting an entire society are no longer strictly the purview of powerful states either, since individuals and groups can conceivably leverage physical and virtual interconnections for purposes both good and ill, creating damage to people and nations that used to require what we would recognize as organized, large scale military action.

Thus, conflict today *must also* be understood to include things rarely called war. These are the real harms that can be invited by, inflicted through, or suffered by, the complex physical and virtual connections between societies. Yet we are actually living in the sum of ancient and modern worlds, where attacks can be as horrific as a beheading, as instantly destructive as a thermonuclear blast, or as subtle as insertion of lines of malignant code in essential warfighting or national infrastructure systems. The former attacks demand, and would be likely to receive, immediate response. For the latter, the members and organizations who compose the Profession of Arms may lack the mission, tools or awareness to repel them until after substantial

damage is inevitable in the fabric of the society they are charged to defend. Thus for 21st century militaries, the range of actions required to succeed in managing those future conflicts is an “and,” not an “or” conundrum. Massed physical forces are not going away but they are no longer the clear harbinger of very real lethal intent; enemies can harm each other from half a planet away, using remotely operated vehicles or electronic attacks that combine great physical separation with unprecedented intimacy and immediacy. A thought experiment considering a century's worth of military operations may help to underscore the complexity of future national security problems.

In the 1940s, tens of thousands of Allied aircraft attacked Axis targets in order to destroy transportation and other infrastructure. Over a period of years, tens of thousands of airmen perished, along with greater numbers of combatants and non-combatants in the places that were targeted. The success of the effort was uneven and the cost, in lives and suffering, immense. No nation wished to repeat such horrors or to suffer air attack of any kind. Thus, in the 1950s and 1960s, when a nuclear-armed Soviet Union threatened North America with long-range bombers, the United States and Canada allied to create NORAD (North American Aerospace Defense), a bi-national military structure to provide long-range detection of attacking aircraft and air defense of their territory. NORAD built a vast radar network, deployed more than a thousand air defense fighters and hundreds of surface-to-air missiles, and later developed the ability to detect ballistic missiles as they came into the Soviet arsenal. While imperfect even when fielded, this classical military response to a tangible challenge sufficed to defend territory and population for its time. In short, a physical threat emerged, a military response ensued, and a national security objective was achieved.

If we now consider the 2040s and assume industry will then be successfully fielding a North American network of autonomous, mostly electrically powered vehicles, the dynamics of ensuring that transportation network remains capable of carrying the commerce required to sustain life and enable prosperity are entirely different. Intellectual property rights and commercial incentives will largely determine the design of the autonomous vehicles and supporting systems of the future. It is unclear who has either responsibility or authority to ensure their resiliency against cyber-attacks on electrical power or the software and sensors of the vehicles themselves. Economic disincentives will make it less likely they will be designed with backup means of operation, and future generations will not naturally develop the skills to navigate or control vehicles. It's even less clear who will organize the collective understanding, national will or mechanisms to design this intricate future transportation infrastructure for resilience against adversary attack—or to decide if its potential costs outweigh its advantages. It is, however, crystal clear that we cannot again solve the problem with an after-the-fact, uniformed military defense based on lines on a map. Defending something as critical as the North American transportation network fifty years ago was nearly exclusively a military function; defending it fifty years hence may be barely a military function.

Contemporary journalism provides an example of the gaps in public understanding of the modern conflict environment and the fabric of technological society—a dramatic firefight on the other side of the globe that makes national news should actually be far less concerning to the average American than a silent attack in orbit affecting Global Positioning Systems (GPS) or communications capabilities. We increasingly rely on sophisticated space infrastructure to underpin electrical power, fuel transmission

through pipelines, banking systems, “just in time” delivery systems, airlines, trains, government and corporate information systems, individual ability to communicate and access information, and countless other commonplace services. Certainly, today’s military and civilian satellite operators are focused on robustness and resiliency; they have successfully provided a growing panoply of useful services for decades. Yet without bullets or bombs, potential adversaries continue to demonstrate the desire and willingness to jam, disrupt or destroy the information channels and content of modern life. China’s 2007 destructive anti-satellite test, the recurring, large-scale hacking and exfiltration of sensitive personal data and intellectual property, and the United Kingdom’s defense secretary Gavin Williams’ statement a year ago that Russia had been “researching” Britain’s critical infrastructure, “trying to spot vulnerabilities,” are some examples of non-traditional battlefields and effects that should concern us. Analogous examples involving other nations, groups, and actors abound. Many will seek the ability to threaten and destroy parts of our complex, networked societal infrastructure. Against these challenges, the oceans that protected America for centuries have been shrinking rapidly, and they are finally mostly irrelevant. At a national level, we need to finally accept that uncomfortable truth, understand its implication when juxtaposed with centuries of military and civil tradition, law, and policy and work to master the new reality. Absent intense, sustained, thoughtful and collaborative effort that truly involves the almost-mythical whole-of-society, we are unlikely to continue to succeed in competitions that matter. The drumbeat of increasingly complex conflict in intangible realms is real.

Because the ancient lexicon of discord—words like *war*, *arms*, *force*, *military*, *violence*, *death*, *battlefield*, and many others—has retained all of its resonance

while losing some of its relevance, it is becoming dangerously incomplete and perhaps misleading in describing modern military professionals or the kinds of battles we need them to fight. Today's battlefield can be a hilltop in Syria, the phone in a citizen's hand, or the airless vacuum of a geosynchronous orbit 22,236 miles above Earth's equator. Citizens of George Washington's era would recognize the uniformed combatants who bear arms in Syria, and would call it a battlefield; they would likely strain to understand how those who provide weather, position, timing, and intelligence from space are either military or could be involved in consequential conflict. Words matter.

The Profession of Arms, if it is to remain a profession, will need to take interpersonal and intra-community respect and inclusion to new levels, leveraging past progress in integrating race, gender, and ethnicity to realize teamwork that respects and values principled, constructive contributions regardless of how closely they mirror traditional warrior externalities.

Equally, our natural respect for the strong men and women who have gone into harm's way on our behalf now threatens to stand between us and a clear understanding of what we *need* them to do. We have associated their courage with willingness to risk life, and we always will; but we also increasingly need them to have the *moral* courage to foresee immensely complex technical, political, and social challenges, work in and across diverse teams to prepare the human and material capability to meet those challenges; and to have the

indomitable will to win, when conflict comes, that propels them to out-think and out-maneuver adversaries in domains far from common understanding. Different kinds of future warriors may well look different, prepare differently, think differently, and form bonds of shared experience very differently—yet their value to the nation will *depend* on their ability to work *together*. The Profession of Arms, if it is to remain a profession, will need to take interpersonal and intra-community respect and inclusion to new levels, leveraging past progress in integrating race, gender, and ethnicity to realize teamwork that respects and values principled, constructive contributions regardless of how closely they mirror traditional warrior externalities.

Thus, even as we grapple with the nature of future conflict, we must rethink the essence of the American Profession of Arms, the ways we relate to those who defend us, and perhaps America's very organization to maintain its national security. The timeless values its members profess—honor, courage, loyalty, commitment, integrity, service, duty, excellence—have not and must not change. Yet because military functions have already stretched to include vital roles that do not involve arms in any

real sense of the word, the way many of them show up in practice must change if we wish to prevail against modern adversaries and attacks. In parallel, so must our society's understanding of who stands between us and those who would harm us. Potential adversaries see today's lines of professional political oversight, resourcing, professional jurisdiction, organizational ethos, and legal authority for military and non-military national security organizations not as traditional markers of organizational power or control, but as

seams in our national security architecture they can exploit.

Americans today face a defining challenge in re-imagining the future American military profession and broader conception for national security, in large part because military and non-military organizations increasingly share responsibilities that blur the clarity of traditional American constructs for protection of American territory, society, and economic infrastructure. As the tangibility and immediacy of conflicts, and the magnitude of their impacts on national security bear increasingly less clear relation to one another, so our organization and lexicon have adapted less rapidly than reality. War is changing: What we do not describe accurately, we cannot fight competently.

We still and will always need professionals to manage violence expertly, using force ethically to kill in combat when called upon. In recent decades, we have demanded our military professionals take on less obvious, but still potentially lethal, competition on land, sea, air, in space, and in the cyber domain. Yet it will not be enough to merely continue adding brushstrokes of better weapons and tactics to the ancient and aging canvas of military conflict. Rather, we must summon the will to think beyond war, boots, and bombs to understand and respond to the fundamentals of future consequential contests—small or large, visible or invisible—that will find us, whether or not we choose to find them.

Perhaps it's time to define and move our warriors—and our views of their purpose—beyond the “management of violence” to the “mastery of lethal competition.” The difference matters.

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