

Military Review

THE PROFESSIONAL JOURNAL OF THE U.S. ARMY

JANUARY-FEBRUARY 2019

No "Ordinary Crimes"

Guilmartin, p14

Operational Lessons from Mosul

Arnold and Fiore, p56

Venezuela, a "Black Swan" Hotspot

Delgado, p93

Corruption and Corrosion in Latin America

Lynch, p115



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January-February 2019, Vol. 99, No. 1

Professional Bulletin 100-19-01/02

Authentication no.1834407

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Military Review (US ISSN 0026-4148) (USPS 123-830) is published bimonthly by the Department of the Army, Army University Press, Fort Leavenworth, KS 66027-1293. Periodical postage paid at Leavenworth, KS, and additional mailing offices.

Yearly paid subscriptions are for \$42 US/APO/FPO and \$58.80 for foreign addresses and are available through the U.S. Government Publishing Office at <https://bookstore.gpo.gov/products/military-review-professional-journal-unit-ed-states-army>.

POSTMASTER: Send address changes to *Military Review*, Army University Press, 290 Stimson Ave., Unit 1, Fort Leavenworth, KS 66027-1293.

The Secretary of the Army has determined that the publication of this periodical is necessary in the transaction of the public business as required by law of the department. Funds for printing this publication were approved by the Secretary of the Army in accordance with the provisions of Army Regulation 25-30.

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Cover photo: Masks representing corrupt politicians line the lawn outside the National Congress building 23 May 2017 in Brasília, Brazil. The country's Supreme Federal Court had opened investigations into President Michel Temer for allegedly obstructing justice, passive corruption, and being a member of a criminal organization. The move followed release of an audiotape that appeared to show him endorsing the payment of hush money to an imprisoned former ally in exchange for silence. (Photo by Eraldo Peres, Associated Press)

Next page: The 11th Armored Cavalry Regiment's (ACR) Horse Detachment conducts the ceremonial last charge 28 June 2018 as a farewell to Col. Joseph Clark, the outgoing commander, during the 11TH ACR's change of command ceremony on Fritz Field at Fort Irwin, California. (Photo by Staff Sgt. David Edge, U.S. Army)

2019 General William E. DePuy Special Topics Writing Competition

This year's theme: "What role do unofficial transnational and criminal organizations play in the global adversarial competition among nations occurring today? How specifically do China, Russia, Iran, North Korea, or other specifically named adversary employ unofficial transnational or criminal organizations in its strategic efforts to undermine the United States or its allies?"

Articles will be comparatively judged by a panel of senior Army leaders on how well they have clearly identified issues requiring solutions relevant to the Army in general, or to a significant portion of the Army; how effectively detailed and feasible the solutions to the identified problem are; and the level of writing excellence achieved. Writing must be logically developed and well organized, demonstrate professional-level grammar and usage, provide original insights, and be thoroughly researched as manifest in pertinent sources.

Contest closes 15 July 2019

- | | |
|-----------|---|
| 1st Place | \$1,000 and publication in <i>Military Review</i> |
| 2nd Place | \$750 and consideration for publication in <i>Military Review</i> |
| 3rd Place | \$500 and consideration for publication in <i>Military Review</i> |

For information on how to submit an entry, please visit
<https://www.armyupress.army.mil/DePuy-Writing-Competition/>.



6 Field Manual 3-0

Doctrine Addressing Today's Fight

Lt. Col. Sam Fishburne, U.S. Army
Maj. Joe Dumas, U.S. Army
Maj. Benjamin Stegmann, U.S. Army
Capt. Jim Burds, U.S. Army

Members of U.S. Army Combined Arms Center Commander's Initiative Group discuss the need for Army leaders to embrace and master the doctrine put forward in Field Manual 3-0, Operations, to rapidly align the Army culture with its latest doctrine.

14 No "Ordinary Crimes"

An Alternative Approach to Securing Global Hotspots and Dense Urban Areas

Col. Eugenia K. Guilmartin, PhD, U.S. Army

This article placed second in the 2018 DePuy writing contest. A senior military police officer proffers a compelling argument that crime has a greater impact on global instability than peer conventional threats.

27 Emerging U.S. Army Doctrine

Dislocated with Nuclear-Armed Adversaries and Limited War

Maj. Zachary L. Morris, U.S. Army

The author believes that limited warfare is much more likely in the future than large-scale combat operations (LSCO), as the threat posed by nuclear-armed adversaries decreases the likelihood of LSCO, and U.S. doctrine fails to consider the potential for the use of nuclear weapons.

34 Identity

Enabling Soldiers, Supporting the Mission

Matt McLaughlin

By making effective use of current tools—and in the future, artificial intelligence—identity activities will enable the joint force to deny the enemy anonymity, distinguish combatants from noncombatants, and take the fight to our opponents. The author describes how identity activities are a critical enabler to military operations.

47 Priorities of the Construction of the Armed Forces of the Republic of Uzbekistan in the Conditions of Development of Forms and Methods of Contemporary Armed Struggle

M. M. Ibragimov
Translated by Dr. Robert Baumann

The author provides a discussion of the doctrinal revisions and new priorities for the Armed Forces of the Republic of Uzbekistan as a result of the approval of the Defense Doctrine of the Republic of Uzbekistan in 2018.

56 Five Operational Lessons from the Battle for Mosul

Maj. Thomas D. Arnold, U.S. Army
Maj. Nicolas Fiore, U.S. Army

The battle for Mosul provides a blueprint for future large-scale combat operations in dense urban environments. The authors provide five observations from that battle that should guide the operational approach to the next urban fight.

72 Waging Wars Where War Feeds Itself

Col. Erik A. Claessen, Belgian Army

In this third place winner of the 2018 DePuy writing contest, the author opines that there is a new type of siege warfare that creates a situation wherein war feeds itself, turning the densely populated areas in Africa, Asia, and the Middle East into hot spots the Army is least prepared for.

81 Negotiation Education

An Institutional Approach

Maj. Tom Fox, U.S. Army
Maj. Zachary Griffiths, U.S. Army
Maj. Marcus Millen, U.S. Army
Maj. Nicholas Tallant, U.S. Army

Negotiation education and training at all levels can help Army officers solve complex problems that require cooperative solutions. The authors propose a more robust, progressive negotiation education that builds throughout an officer's professional military education.

93 Venezuela, a "Black Swan" Hot Spot

Is a Potential Operation in Venezuela Comparable to Operation Just Cause in Panama?

Jose L. Delgado

This is a 2018 DePuy writing contest honorable mention placing article. As Venezuela faces a historic socioeconomic disaster that may lead to a failed state in the Americas, the authors and considers the ramifications of a possible military intervention by combined regional powers to end the crisis. A senior member of the Department of Homeland Security discusses this possibility and compares the potential scenario to the 1989 U.S. intervention in Panama.

106 Visualizing the Synchronization of Space Systems in Operational Planning

Maj. Jerry V. Drew II, U.S. Army

Gaining and maintaining a relative advantage in a multi-domain environment will require the synchronization of tactical actions across all domains—including the actions of space systems—to achieve strategic ends. The author offers an explanation of space systems and provides a visualization tool that a staff might produce to achieve that synchronization.

115 Corruption and Corrosion in Latin America

Edward A. Lynch, PhD

A political scientist traces the history of corruption in Latin America, describes some of its more notorious recent examples, and analyzes the poisonous and corrosive effects of corruption on freedom and democracy in the region that are fostering an unstable regional and hemispheric security environment.

130 Russian General Staff Chief Valery Gerasimov's 2018 Presentation to the General Staff Academy

Thoughts on Future Military Conflict—March 2018

General of the Army Valery Gerasimov, Chief of the
General Staff of the Russian Federation Armed Forces
Translated by Dr. Harold Orenstein

A Russian affairs expert translates a speech by Russian General of the Army Valery Gerasimov, "The Influence of the Contemporary Nature of Armed Struggle on the Focus of the Construction and Development of the Armed Forces of the Russian Federation. Priority Tasks of Military Science in Safeguarding the Country's Defense."

REVIEW ESSAY

139 Facts and Fears

Hard Truths from a Life in Intelligence

Kevin Rousseau

The author critiques a book by former Director of National Intelligence James Clapper that summarizes the development of the U.S. intelligence community over the past fifty years, provides insights into the intelligence profession itself, and bluntly describes what the author considers the biggest current threat to our national security.

SPECIAL FEATURE

141 "No Mail, Low Morale"

The 6888th Central Postal Directory Battalion

Beth A. Warrington

The 6888th Central Postal Directory Battalion, an all-female, all-African American unit, provided mail delivery support to soldiers in Europe during World War II. The unit was recently commemorated with a monument on Fort Leavenworth, Kansas.

Suggested Themes and Topics

- Futures Command
- What nations consider themselves to be at war or in conflict with the United States? Nonstate actors? How are they conducting war, and what does this mean for the Army?
- What operational and logistical challenges are foreseen due to infrastructure limitations in potential foreign areas of operation and how can we mitigate them?
- What lessons did we learn during recent hurricane relief operations?
- What is the role of the military in protecting natural resources?
- What lessons have we learned from U.S. counterinsurgent military assistance in Africa?
- What are the security threats, concerns, and events resulting from illegal immigration into Europe?
- Saudi Arabia and Iran: How are cultural changes in both societies affecting the operational environment and potential for conflict between them?
- Iran: What should the U.S. military do to prepare for and promote normalization?
- Case study: How does Japan's effort to establish the "Greater East Asia Co-Prosperty Sphere" compare with current Chinese efforts to expand control over the South China Sea?
- Are changes demanded to the professional development models of the officer and NCO structure in the face of large-scale combat operations and increased readiness requirements?
- What is the correlation between multi-domain operations and large-scale combat operations? How should this impact the Army's training, readiness, and doctrine?
- What material solutions are required to fulfill the Army's unified land operations obligations in large-scale combat operations?
- What is needlessly duplicated in the Army (e.g., what should be done away with, how should the Army adjust, and how would it benefit)?
- What must be done to adjust junior leader development to a modern operational environment?
- What must we do to develop a more effective means of developing and maintaining institutional memory in order to deal with emerging challenges?
- What is the role for the Army in homeland security operations? What must the Army be prepared for?
- Case studies: How do we properly integrate emerging technology?
- What are the potential adverse impacts on military standards due to factors associated with poor integration of new cultures, ethnicities, or racial considerations and how can those impacts be mitigated?
- Case study: How is gender integration changing the Army and how it operates?
- Case study: How does tactical-level military governance during occupation following World War II and Operation Iraqi Freedom compare?
- After eighteen years of institutional/operational experience largely focused on counterinsurgency, how do we return to preparing for large-scale combat operations (LSCO)?
 - See/understand/seize fleeting opportunities?
 - Develop the situation in contact and chaos?
 - Offset "one-off" dependencies and contested domains?
 - Rapidly exploit positions of advantage?
 - Survive in hyperlethal engagements?
 - Continuously present multiple dilemmas to the enemy?
 - Decide and act at speed?
 - Fully realize mission command?

Soldiers from the 14th Field Artillery Regiment in partnership with the United Arab Emirates 79th Heavy Rocket Regiment conduct a seventy-two-hour joint exercise called Operation Golden Eagle 9 May 2018 in the Middle East to test their capabilities and limitations. (Photo courtesy of the U.S. Army)



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Field Manual 3-0

Doctrine Addressing Today's Fight

Lt. Col. Sam Fishburne, U.S. Army

Maj. Joe Dumas, U.S. Army

Maj. Benjamin Stegmann, U.S. Army

Capt. Jim Burds, U.S. Army



It is even better to act quickly and err than to hesitate until the time of action is past.

—Carl von Clausewitz

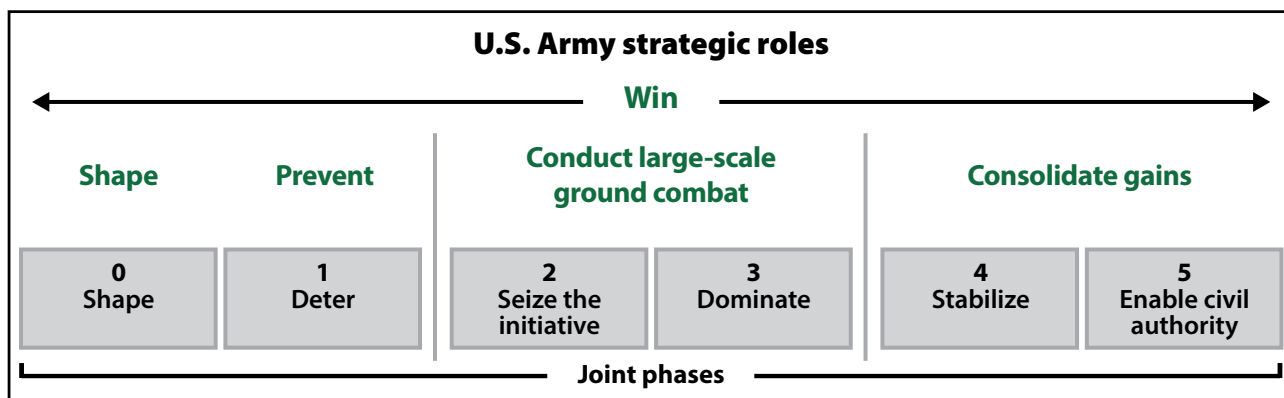
Published in October 2017, Field Manual (FM) 3-0, *Operations*, emphasizes the Army's four strategic roles as part of the joint force: shape the security environment, prevent conflict, prevail in large-scale combat operations, and consolidate gains to make temporary success permanent (see figure 1, page 8).¹ This is a significant departure from previous operational-level doctrine, which tended to focus on the tactical-level operations from the line of departure to a limit of advance with little discussion of linkages between strategic policy goals, operations, and the tactical tasks units conduct to achieve a desired end state across the conflict continuum. The new approach is necessary to account for an operational environment that is very different than those in Afghanistan and Iraq, an operational environment characterized by peer threats able to contest the joint force in all domains.

Because this is a significant emphasis change for Army forces, the Combined Arms Center is using mobile training teams to educate the force about the implications of FM 3-0. To integrate this new doctrine, the Command and General Staff College has placed renewed emphasis on division operations in the context of large-scale ground combat against peer threats to ensure that our field grade officers enter the force prepared for the most demanding environments that their units will face.

FM 3-0 is the large-unit tactical doctrine that we use to fight a peer or near-peer threat *today*. Mastering it requires significant time and effort. But has this transition in focus been executed deliberately enough? Are we too obsessed with more flashy future concepts and modernization efforts that divert attention away from doctrine, which already incorporates not only multi-domain conceptual thinking but also the priorities of the *National Security Strategy*?² This article addresses the sense of urgency and cultural transition required to incorporate FM 3-0 into the U.S. Army and to prepare to meet peer adversaries capable of placing our nation at risk. Our culture is not yet aligned with our latest



Engineers assigned to the 588th Brigade Engineer Battalion, 3rd Armored Brigade Combat Team, 4th Infantry Division, employ an M58 Mine Clearing Line Charge 9 July 2015 during a breaching training exercise at the Udairi Range Complex, Kuwait. (Photo by Spc. Gregory T. Summers, U.S. Army)



(Figure from Field Manual 3-0, Operations)

Figure 1. Army Strategic Roles and Their Relationships to Joint Phases

doctrine, intended to address training and experience gaps resulting from fifteen years of prioritizing counter-insurgency and stability operations.

FM 3-0 candidly states that the Army no longer enjoys superiority across all the warfighting functions. Peer threats, particularly Russia, China, North Korea, and Iran, can contest both the Army and the joint force across all domains.³ Depending upon the regional context, we may be at a disadvantage in some warfighting functions and may only have relative parity in others. While this article does not address all of these challenges, it highlights some areas where we may experience overmatch from a threat in order to generate thought. Friendly intelligence, surveillance, and reconnaissance, when faced with the contemporary integrated air defense capabilities of our adversaries, is one such area.

Comparing U.S. and Russian Use of Fires in Relationship to Maneuver

When comparing our ability to *find* the enemy against a near-peer threat such as Russia (or an increasingly capable China), significant friendly capability disadvantages immediately become apparent and must be offset. FM 3-0 defines reconnaissance as “a mission undertaken to obtain, by visual observation or other detection methods, information about the activities and resources of an enemy or adversary, or to secure data concerning the meteorological, hydrographic, or geographic characteristics of a particular area.”⁴ By this definition, we must look at every capability, across all domains, to understand the existing disparities in our ability to collect information against current threats.⁵

Russian integrated air defense systems (IADS) make sustained air superiority questionable, especially at the beginning of operations when geographical proximity to positioned Russian forces enables their deliberate emplacement. With our current systems, we will only be able to create temporary windows of superiority with great effort. The Russians employ IADS at every tactical level, from battalion to division, with a focus on finding and destroying U.S. fixed- and rotary-wing aircraft. They are also steadily working toward overmatch in the field of counterfire radar, fielding a variety of systems across the depths of their formations and with varying levels of capability. This might enable the Russian fires complex to “out attrite” our own counterfire capabilities, leaving them with the only systems on the battlefield.⁶

Nowhere does Russian overmatch become more apparent than in their unmanned aerial vehicles capabilities. Nicole Bier and Patrick Madden’s article in the *Red Diamond Threats Newsletter* highlights this threat masterfully. The U.S. Army currently fields three unmanned aircraft systems: the Raven, the Shadow, and the Gray Eagle. The Russians, however, are experimenting with over sixteen different unmanned aircraft systems across their formations from the tactical battalion- to division-size elements. Some of the systems fielded at the brigade level can operate between 200 km and 500 km forward of their units. By contrast, the Gray Eagle typically operates at the U.S. division level with an operational range at around 150 km.⁷ This threat is only magnified and compounded at the battalion level, where every asset currently fielded to Russian battalions outranges the Raven.

This overwhelming disparity in information collection at the tactical level has a direct impact on our ability to target the greatest threat on the modern battlefield—artillery. Russian fire capabilities provide an excellent case study in relative disadvantages that U.S. forces must overcome. Whereas the U.S. Army uses fires to enable maneuver, the Russian army depends upon its maneuver forces to enable fires. Additionally, the U.S. Army typically views itself as an offensive force, which offers the implied task that we understand how to deal with a prepared defense. FM 3-0 states, “The enemy typically attempts to slow and disrupt friendly forces with a combination of obstacles, prepared positions, and favorable terrain so that they can be destroyed with massed fires. ... Forward positioned enemy forces are heavily focused on providing observed fires for long range systems ...”⁸ With this in mind, the Russian force structure includes fire capabilities at every echelon from the tactical battalion to the corps equivalent level, providing a distinct advantage over U.S. formations. Not only do they have more tubes and rockets, but the Russian systems also outrange U.S. systems using standard munitions. The Russian 2S19M1 and G6 systems have a 34 km and a 30 km range, respectively, using standard artillery rounds, whereas the U.S. M109A6 has an approximately 24 km range with standard rounds. Basically, if U.S. maneuver units seek to destroy Russian artillery forces, they must move through an enormous kill zone while defeating and bypassing maneuver forces seeking

to fix them, all while subject to artillery overmatch in both range and number of systems.⁹

Shaping the Information Environment

Even as we must prepare for lethal threats during large-scale ground combat, we must also prepare for nonlethal threats below the threshold of such conflicts. The majority of operations that U.S. Army forces conduct are in this range of actions. Information warfare is a capability all our adversaries employ routinely during competition. Specifically, China and Russia continuously seek to shape the information environment in ways favorable to their national interests in order to achieve their objectives without starting a war. Take, for example, the simple Russian narrative that accompanied their Ukraine operations in 2014. “There are no Russian forces in Ukraine” was a message that simultaneously confused Western military and political leaders and perplexed the news media, delaying any meaningful decisions at the strategic level.¹⁰ Russian information warfare sows confusion and creates ambiguity, and this is accomplished all while maintaining enviable operational security at the strategic level.

Peer adversaries will not limit their information campaigns to the strategic level, however. FM 3-0 states that “information is a weapon against enemy command and control (C2), and it is a means to affect enemy morale.”¹¹ Again, nowhere is this better demonstrated than in Russia’s campaign in the Crimea. During multiple sieges of Ukrainian

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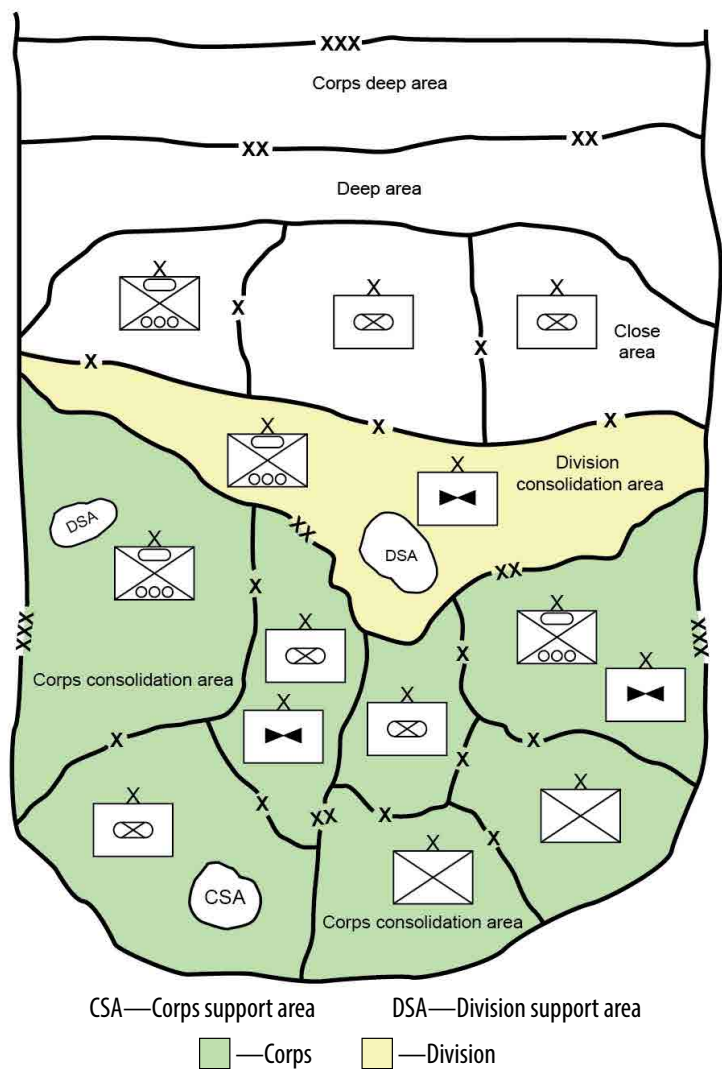
military installations, the Russian military reputedly targeted family members of Ukrainian soldiers with threatening phone calls and text messages.¹² This reportedly forced military members to divert attention from installation defense to the evacuation of their children, though admirably, many of the spouses chose to remain behind with their soldiers. Other examples such as Tokyo Rose and Axis Sally were propaganda campaigns in World War II that attempted to demoralize U.S. troops on the battlefield.¹³ All of these examples represent threats we must be mentally and morally prepared to face and counteract in the near future. And to do so, we need to be able to fight such narratives with effective messages of our own.

The Transition to AirLand Battle

The mind of the enemy and the will of his leaders is a target of far more importance than the bodies of his troops.

—Mao Tse-tung¹⁴

Today's Army senior leaders began their careers during the AirLand Battle era. They were influenced by those who fought in the Vietnam War and learned hard lessons in combat. These leaders clearly understood that their wartime experience in Southeast Asia



(Figure from Field Manual 3-0, Operations)

Figure 2. Consolidating Gains after Large-Scale Combat Operations

was only a portion of a greater threat.

In 1973, Chief of Staff of the Army Gen. Creighton Abrams directed then Maj. Gen. Donn Starry and Brig. Gen. Bob Baer to travel to Israel to capture lessons the Israel Defense Forces learned from the Yom Kippur War. Abrams believed that Israel's experience during the Yom Kippur War provided a lens through which to view the character of future battlefields the United States might face. This conflict, executed by Soviet client states, was a clear demonstration of Soviet doctrine and technological advances, especially the employment of antitank guided missiles and IADS. Abrams realized the need to doctrinally, culturally, and technologically transform the U.S. Army if it was to

effectively meet the dangers posed by the Soviet threat.

The U.S. Army embarked upon a nearly twenty-year journey focused on winning during large-scale ground combat operations against the Warsaw Pact. Doctrine training and modernization required iterative processes and significant professional discourse and dialogue. Army leaders at all echelons were heavily invested in improving the Army on multiple fronts. Gen. William DePuy, who was then the Training and Doctrine Command (TRADOC) commanding general, was greatly influenced by his own experiences in World War II and Vietnam, and felt that the inadequate doctrine, leadership, and

training needed to be corrected.¹⁵ “Active Defense” as an original component of the 1976 FM 100-5, *Operations*, would be revised in a span of ten years, and based on professional exchange and dialogue, the 1986 edition of FM 100-5 would result in the advent of “AirLand Battle.”¹⁶

In 1976, Starry, then V Corps commander and one of the architects of FM 100-5, set out to test the doctrinally defined construct, as he was not happy with what had been written (including his own contributions). As V Corps commander, he stimulated evaluation of the doctrine by executing staff rides and terrain walks where his corps’ leadership and subordinate units were expected to defend against the Soviet threat. Starry’s actions were just the beginning of a professional discussion to improve doctrine. Later, as TRADOC commanding general, he directed Brig. Gen. Don Morelli and a small team to expose various audiences to the contents of FM 100-5 in order to provide feedback on the operations doctrine, including those views of dissidence.¹⁷

Addressing the Global Operational Environment

History has a way of repeating itself. Lt. Gen. Michael D. Lundy, Combined Arms Center commanding general, directed the Combined Arms Doctrine Directorate to execute a similar mission across the Army amongst a variety of audiences to explain the most recent FM 3-0. These efforts have not yet yielded the type of spirited professional discourse about our capstone operations doctrine of the 1970s and 1980s.

The previous FM 3-0 was rescinded in 2011 and is no longer seen as particularly necessary for Army forces in the operational environment of the time. The Army, engrossed with operations in Afghanistan and Iraq, has evolved from a threat-based to a capabilities-based force. Assumptions about future conflicts include a low likelihood of large-scale ground combat and U.S. conventional force superiority against potential adversaries. Operations in the Middle East informed Army modernization efforts for almost a decade, and the Army became optimized for limited contingency operations as a result. Like previous generations, we allow warfighting to consume our ability to provide a holistic assessment of the Army’s contributions to the *National Security Strategy* and the joint force. Doctrine 2015 was heavily informed by recent operational experience but did not adequately address large-scale ground combat operations or the capability limitations

resulting from force structure changes (modularization) within the Army.

Changes to the global operating environment were not addressed until the publication of the *Army Operating Concept: Win in a Complex World (AOC)* in October 2014. The thirty-eighth Army chief of staff, Gen. Raymond Odierno, highlights this in his foreword to the AOC:

Conflicts in the future, like those in the past, will ultimately be resolved on land. Hence the concept recognizes that Army forces will be essential components of joint operations to create sustainable political outcomes while defeating enemies and adversaries who will challenge U.S. advantages in all domains: land, air, maritime, space, and cyberspace. To do this, innovation is critical, both for the operational and the institutional Army, and the AOC is a beginning point for the innovation we need to ensure that our Soldiers, leaders, and teams are prepared to win in a complex world.¹⁸

The AOC formally begins the process of addressing the conflict continuum and range of military operations that the Army should expect to support as part of the joint force. The AOC informs the realization that Army doctrine needs to change. In 2016, the Army chief of staff directed TRADOC to write a manual that provides the doctrinal basis for success against military adversaries whose capabilities were on par with ours.¹⁹ The release of FM 3-0 represents a yearlong effort to provide doctrine for large units that focus on large-scale ground combat operations against peer and near-peer threats (see figure 2, page 10).

Conclusion

You don’t have to make them see the light—just make them feel the heat.

—U.S. President Ronald Reagan²⁰

Waiting for large-scale ground combat is not the time to test doctrinal theories, rather we should reflect on lessons learned from previous generations of Army leaders. Kasserine Pass and Anzio are notable historic examples of where the U.S. Army did not perform to its full potential because of doctrinal and training shortcomings.²¹ Today’s strategic environment is just too dynamic not to be fully engaged in the language of our profession.

There is no better time than the present for professionals to read, analyze, and discuss the application of our current doctrine. Knowing our doctrine, discussing and debating it, as well as providing each other with the best practices in its application, is absolutely critical if we want to improve and refine how we fight.

As highlighted in the latest *National Security Strategy*, “we convinced ourselves that all wars would be fought and won quickly from stand-off distances and with minimal casualties.”²² The last seventeen years of continued limited contingency operations have created a patch-chart approach to deployment readiness. Rotational units have endured periods of sporadic tempo and intermittent lethality. Above all, our forces have not been truly tested in all domains and have generally operated under air and land dominance. Theater Provided Equipment and the Left behind Equipment programs have created an emotional detachment between soldiers and their equipment. Operational readiness assessments and the repetition required to adequately conduct force projection and reception have atrophied, impacting our ability to conduct operations to prevent conflict. *Army Sustainment* highlights how our expeditionary mindset going into the First Gulf War led to our ability to mass forces and achieve success. Even with this achievement, the Army sought ways for improvement:

Following Desert Shield and Desert Storm, the Army began to look for ways to fill gaps identified in its deployment performance. The roughly 150 days required to deploy five

divisions and 205 days to deploy the whole force were deemed too long. The Army was charged to look at the end-to-end deployment process, from infrastructure to strategic mobility resources, with the goal of significantly cutting deployment lead time.²³

Repetition and honest, continual assessment are essential to winning the force projection race required to achieve operational capability before our enemy. Our deployment readiness and projection abilities create conditions where quick transitions to large-scale combat operations are required. Generating this level of readiness and confidence is critical for future success on the battlefield.

We, as Army professionals, must learn, speak, and exercise doctrine grounded in *today's* fight. Doing this can only better serve the Army to answer the changing complexities of warfare. This will no doubt provide the direction for tomorrow's concepts and the Army beyond 2040. The rapid publication of FM 3-0 illustrates the present need for doctrine to serve as an engine of change for today's Army to successfully operate. Doctrine will drive the cultural change across our formations, as we stress the need for agility akin to the “fight tonight” mentality. Futures concepts and modernization continue to drive innovation across doctrine, organization, training, materiel, leadership and education, personnel, and facilities, but we cannot become fixated on such. Concepts and modernization efforts are only components of the Army “vehicle”; however, doctrine is and always will be the driver. ■

Notes

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5. This analysis focuses on the current Russian threat, acknowledging that China, Iran, and North Korea are all specifically

mentioned in the latest *National Security Strategy* as potential adversaries where large-scale ground combat operations are possible.

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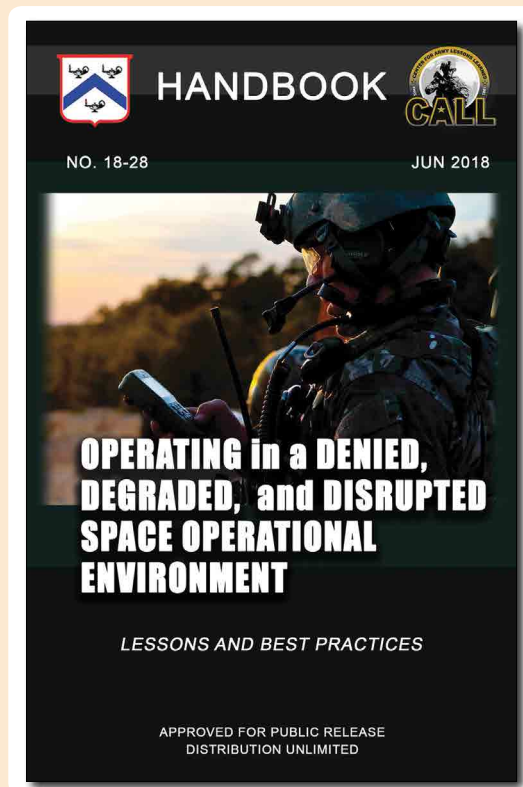
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Military Review

WE RECOMMEND



The space domain is a vital component of the emerging concept of multi-domain operations because the warfighter is reliant on the capabilities it provides to be successful in executing operations. Today's adversaries are aware of the U.S. military's use of space-enabled equipment and will try to disrupt those assets. This Center for Army Lessons Learned handbook, *Operating in a Denied, Degraded, and Disrupted Space Operational Environment: Lessons and Best Practices*, is a collaboratively produced effort providing the warfighter with techniques and strategies to successfully operate in a denied, degraded, and disrupted space operational environment. It provides information derived from lessons learned and best practices on how to effectively integrate space capabilities into mission planning, training, and mitigation strategies. To view this handbook, visit <https://usacac.army.mil/sites/default/files/publications/18-28.pdf>.

No "Ordinary Crimes"

An Alternative Approach to Securing Global Hotspots and Dense Urban Areas

Col. Eugenia K. Guilmartin, PhD, U.S. Army





A slum in the Jogeshwari-Goregaon East area 10 October 2014 in the suburbs of megacity Mumbai, India. (Photo by Maciej Dakowicz via Alamy)

The planet has rarely been so peaceful. Even with terrible fighting in such places as Congo, Syria, and Yemen, wars between and within countries are becoming less common and less deadly. But a dark menace looms. Some of the developing world's cities threaten to be engulfed by murder.

—*The Economist*

When the Sovereign Power ceaseth, Crime also ceaseth: for where there is no such Power, there is no protection to be had from the Law; and therefore every one may protect himself by his own power.

—Thomas Hobbes, *Leviathan*

Today, the U.S. Army is facing a complex and uncertain world. Its soldiers gained vast operational experience over the past fifteen years, but it is unclear where or when they will be asked to operate next. At the same time, the entire enterprise is under redesign—with every part of DOTMLPF-P (doctrine, organization, training, materiel, leadership and education, personnel, facilities, and policy) under close scrutiny. Against this background, Army leaders plan for the future by identifying the most likely and most dangerous threats and likely operating environments such as dense urban areas.¹ For those who ask, “Which of the world’s hot spots is the Army least prepared for?” the answer is in the question. We are not well prepared for *any* of the most likely threats today. We seek answers framed by *place*, diligently seeking hot spots, hostile states, and failed nations to the detriment of identifying global trends. While a serious study of peer threats is necessary—large-scale combat operations are the most deadly of all possible scenarios—our search for places and spaces creates a blind spot that leads us to miss the single most impactful instability for most of the world: crime. Boundaries, borders, and terrain features do not matter to criminals who exploit others for their own gain. Latin America illustrates a region suffering from our lack of attention. As *The Economist* noted in April 2018,

Latin America, which boasts just 8% of the world’s population, accounts for 38% of its criminal killing. The butcher’s bill in the region came to around 140,000 people last year, more than have been lost in wars around the world in almost all of the years this century.²

Though it is tempting to ignore the global effects of “ordinary crime” against residents of developing nations, as long as the Army focuses primarily on peer threats and state-sponsored actors, we will continue to face global insecurity with no solution.

Revisiting the Megacities Project

Megacities, those of ten million residents or more, came to the forefront with the publication of 2013’s *Out of the Mountains* by counterinsurgency scholar David Kilcullen.³ In a 2012 article, Kilcullen previewed his vision of a future operational environment that would be driven by three “megatrends”: (1) urbanization and mass migration to urban megacities, (2) littoralization (i.e., explosive growth of coastal cities with seaports), and (3) connectedness of populations through more accessible communications technology.⁴ Kilcullen was concerned about the developing areas of Asia, Latin America, and Africa.⁵ He cautioned,

These [United Nations] data show that coastal cities are about to be swamped by a human tide that will force them to absorb—in less than 40 years—almost the entire increase in population across the whole planet in all of recorded human history up to 1960. Furthermore, virtually all of this urbanization will happen in the world’s least developed areas, by definition the poorest equipped to handle it: a recipe for conflict, and crises in health, education, governance, food, energy, and water scarcity.⁶

Given the scope and scale of the above scenario, it was no surprise that Army strategists began to closely study dense urban areas. Unfortunately, subsequent discussions have been more about materiel solutions and physical terrain than people. The Chief of Staff of the Army’s Strategic Study Group tackled megacities in its 2014 report, “Megacities and the United States Army: Preparing for a Complex and Uncertain Future.”⁷ This project posed many relevant questions but was also largely terrain-centric.⁸

The new Field Manual (FM) 3-0, *Operations*, does little to advance our understanding of the impact of criminals on global security. This doctrine acknowledges that, “Enemies will employ conventional tactics, terror, criminal activity, and information warfare to further complicate operations.”⁹ However, FM 3-0 makes only seven mentions of crime, and all in the context of criminal

threats being a part of major combat.¹⁰ Contrast our current narratives with what we know about Latin America. This region is not a current hotspot, and yet its urbanization and crime are a global concern. *The Economist* points out that, as of 2000, over 75 percent of Latin America lives in urban areas—“roughly twice the proportion in Asia and Africa.”¹¹ The implications of urbanization are more instability, and Latin America serves as a cautionary tale for other regions:

That move from the countryside concentrated risk factors for lethal violence—inequality, unemployed young men, dislocated families, poor government services, easily available firearms—even as it also brought together the factors needed for economic growth. As other developing economies catch up with Latin America’s level of urbanisation, understanding the process’s links to criminality, and which forms of policing best sever them, is of international concern.¹²

Crawling through Crime Data

To understand the fears and basic security needs of ordinary people in the developing world, we need to work harder to understand crime in these communities. The International Crime Victimization Study (ICVS), supported by the United Nations Interregional Criminal Justice Research Institute, was a series of city-level standardized surveys administered in 2000 and conducted in Central and Eastern Europe, Africa, Latin America, and Asia. Over fifty-three thousand respondents were asked face-to-face in their native language about their experiences with crimes such as motor vehicle theft, assault, sexual assault, and robbery; their satisfaction with police; perceptions of safety in the community; reasons for reporting or not reporting crimes; and social, economic, and demographic information.¹³ The benefit of this survey was to capture crimes that would otherwise be missing from government records due to under- and unreported crimes, poor police recordkeeping, police or judicial corruption, shame, fear, or guilt. While the ICVS is not perfect, criminologist Irshad Altheimer states that the survey is “currently the most far-reaching and reliable source of comparable crime victimization data in different nations.”¹⁴

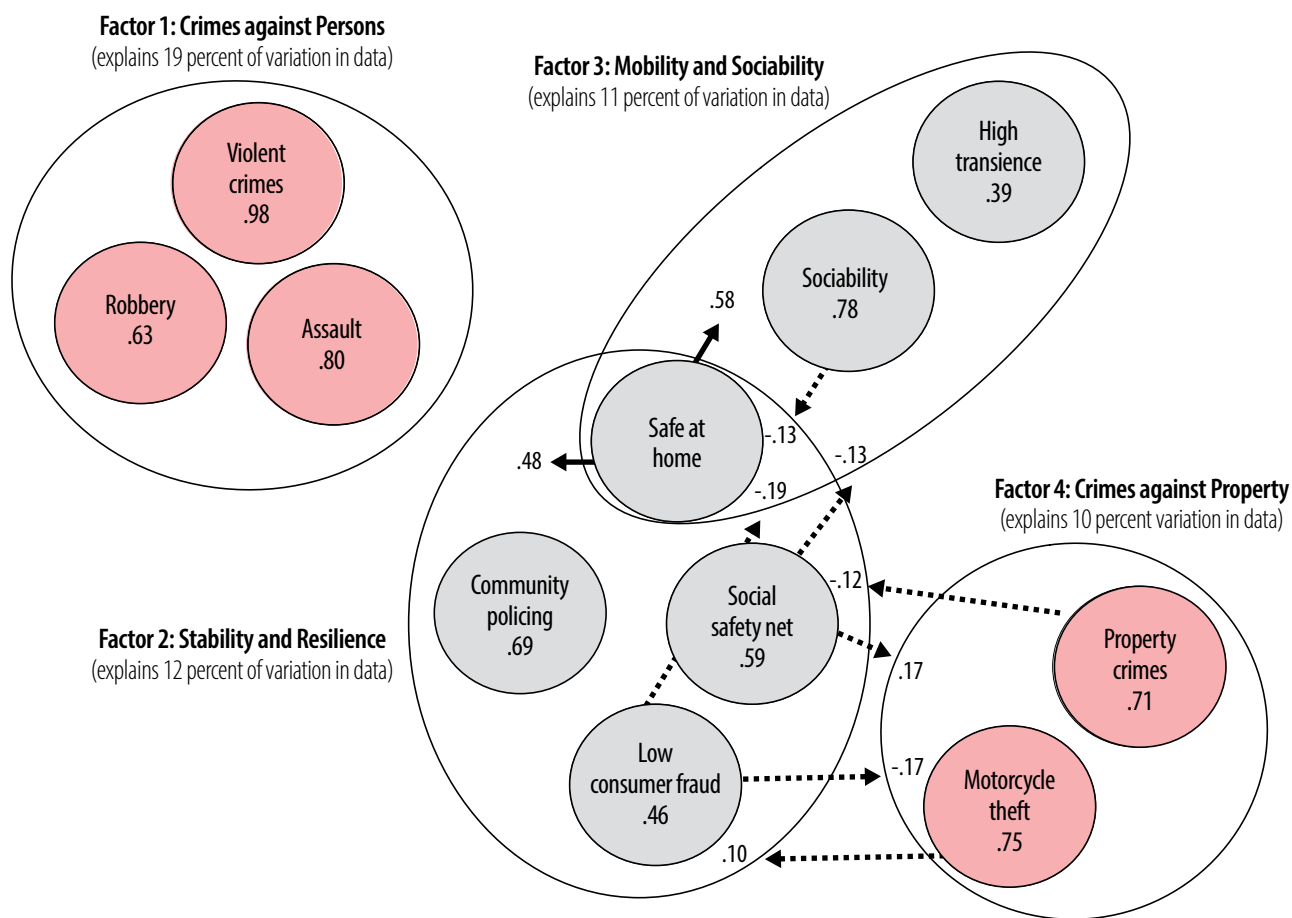
What can surveys tell us about instability across the globe? The 2000 ICVS city data includes whether

an individual was robbed in the past year and whether he or she was assaulted, and it provides an index of all violent crimes he or she experienced (to include robbery and sexual assault). The survey asked the number of times a person experienced motorcycle theft or other thefts. While theft may not appear at first to impact security, motorcycles are an important means of commerce and transportation in congested megacities and developing nations. The theft of a bike, tuk-tuk (auto rickshaw), or scooter would be a significant event for someone who depended on it for financial support. The ICVS asked how long someone lived in his or her community (an indicator of transience), how often he or she went out at night to a restaurant, club, or pub—an indicator of sociability—whether the person experienced consumer fraud, how helpful the person thought the police were (confidence in community policing), how well the person thought that members of the local community looked after one another (e.g., a social safety net), and how safe at home at night the person felt.

In order to better understand life in the developing world, I leveraged a statistical software package to analyze all these answers across fifty-three thousand people to see which cluster together in unique factors. Four major factors emerged and are depicted in figure 1 (on page 18).

Factor 1, “Crimes against Persons,” calls to mind the criminal threats, drug dealers, and petty criminals of Kilcullen’s research. The respondents’ personal experiences of victimization are highly related to this factor and include robbery, assault, and violent crimes. Factor 2, “Stability and Resilience,” shows strong relationships between survey

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(Figure by author. Source: International Crime Victimization Survey, 2000)

Figure 1. Factors of Crime and Life in the Developing World

answers about having a “social safety net,” “feeling safe at home at night,” “confidence in community policing,” and low “consumer fraud.” Factor 3, “Mobility and Sociability,” suggests the young, vibrant urban life in developing cities. Respondents with high scores on this factor also report high levels of “transience,” “sociability,” and “feeling safe at home at night.” Interestingly, reports of “feeling safe at home at night” are significant to both the Stability and Resilience factor and the Mobility and Sociability factor. This survey question, therefore, shows promise as a powerful predictor of the safety of a community. Factor 4, “Crimes against Property,” is significantly related to reports of total property crimes and motorcycle theft.

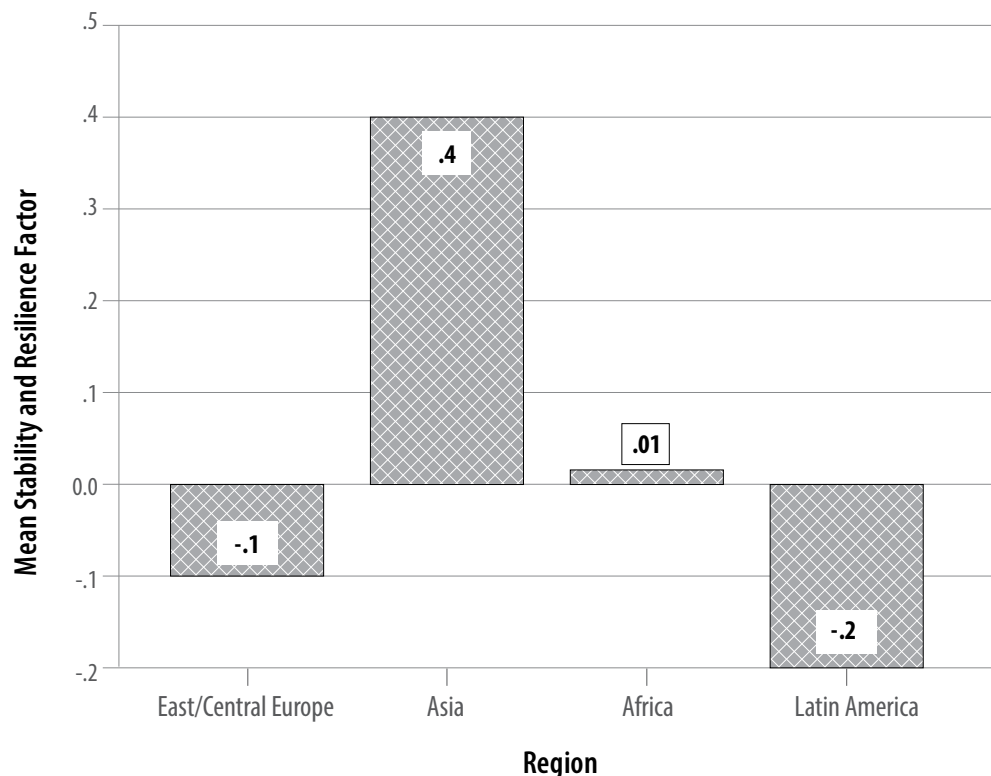
Overall, these four factors are intriguing. Different types of crimes cluster together in factor 1—representing crime and instability—but these bad experiences appear

largely *unrelated and separate* from the other feelings and perceptions of safety and security. Additionally, Crimes against Persons (i.e., violent crimes) are not strongly related to Crimes against Property, such as petty crimes/theft. The Mobility and Sociability factor encapsulates many of the characteristics we expect to see in one living in a dense urban area, and yet these people often report high confidence in being “safe at home at night”—which is not the conventional wisdom for developing nations. The Stability and Resilience factor depicts a cluster of different variables measuring the relationship between the citizen and society, such as expressing confidence or lack of confidence in the economy, community, and police. This factor is especially intriguing because it not only demonstrates a relationship between feeling safe and trusting other members of the community, but it also offers specific actionable solutions: improving policing and reducing fraud.

Exploring the data also suggests that our current regional focuses in Asia, Africa, and Europe may not be addressing areas of greatest need. Figure 2 shows the total scores of Stability and Resilience by region. Both Asia and Africa score average or above on this measure. Asian residents—even those in developing areas like Manila—score very high. What stands out is the low scores for those survey takers in Latin

alignment of forces construct, and the new security force assistance brigades. Are initiatives like these worthwhile, if resourced properly? This research suggests yes. An effective strategy develops ongoing relationships between U.S. units and multinational partners to increase familiarity with different cultures, foster trust, and increase mutual readiness. An effective strategy also maintains and extends what is referred to as “Phase 0”

(Shape) of operations to promote stability, shape the environment, deter adversaries, and provide a baseline knowledge of the life for ordinary citizens on the ground. Such shaping operations allow for a quicker escalation into combat if necessary (i.e., transition to “Phase 3,” Dominate).¹⁵ Army units are currently partnered with allies in Central and Latin America, Asia, the Middle East, Africa, across Europe, and elsewhere. To the extent that regional indicators better explain variation in our key factors of Stability and Resilience, regional alignments are smart. Each region is



(Figure by author. Source: International Crime Victimization Survey, 2000)

Figure 2. Average Stability and Resilience Factor by Region

America and Eastern/Central Europe. While this analysis is very preliminary, it shows how an examination of crime could inform strategy.

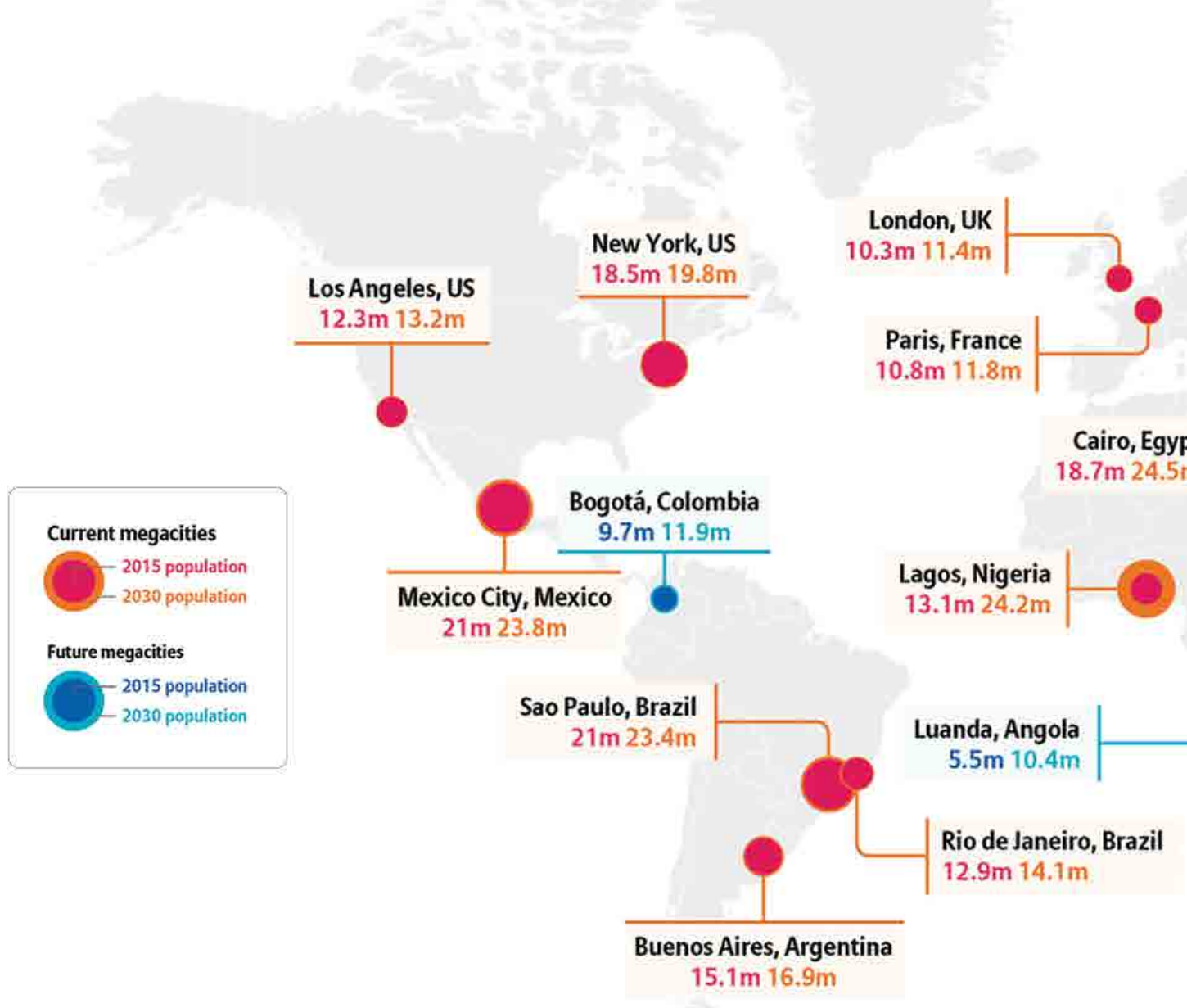
Resourcing and Readiness Recommendations

As the Army more closely considers the impact of crime and hybrid threats in the future, four preliminary recommendations stand out.

Increase regional expertise. Over the past fifteen years, the Army has rolled out varying initiatives to promote regional expertise, including embedded mentors, the Afghanistan-Pakistan Hands Program, the regional

different in our model, suggesting that the Army is wise to cover all, rather than focusing on one or two to the exclusion of any. Megacities, however, do not stand out as uniquely vulnerable, unstable, or at risk in my statistical analysis. Therefore, we should not be overly concerned if our partnerships take us to training areas in Cameroon instead of terrain walks in Rio de Janeiro.

Focus broadening assignments on the right industries. Another recommendation of the Army Megacities Project relates to institutional leader development, recommending “civil-military partnerships to facilitate training, testing, and experimentation in large U.S. cities.”¹⁶ While there is likely great value

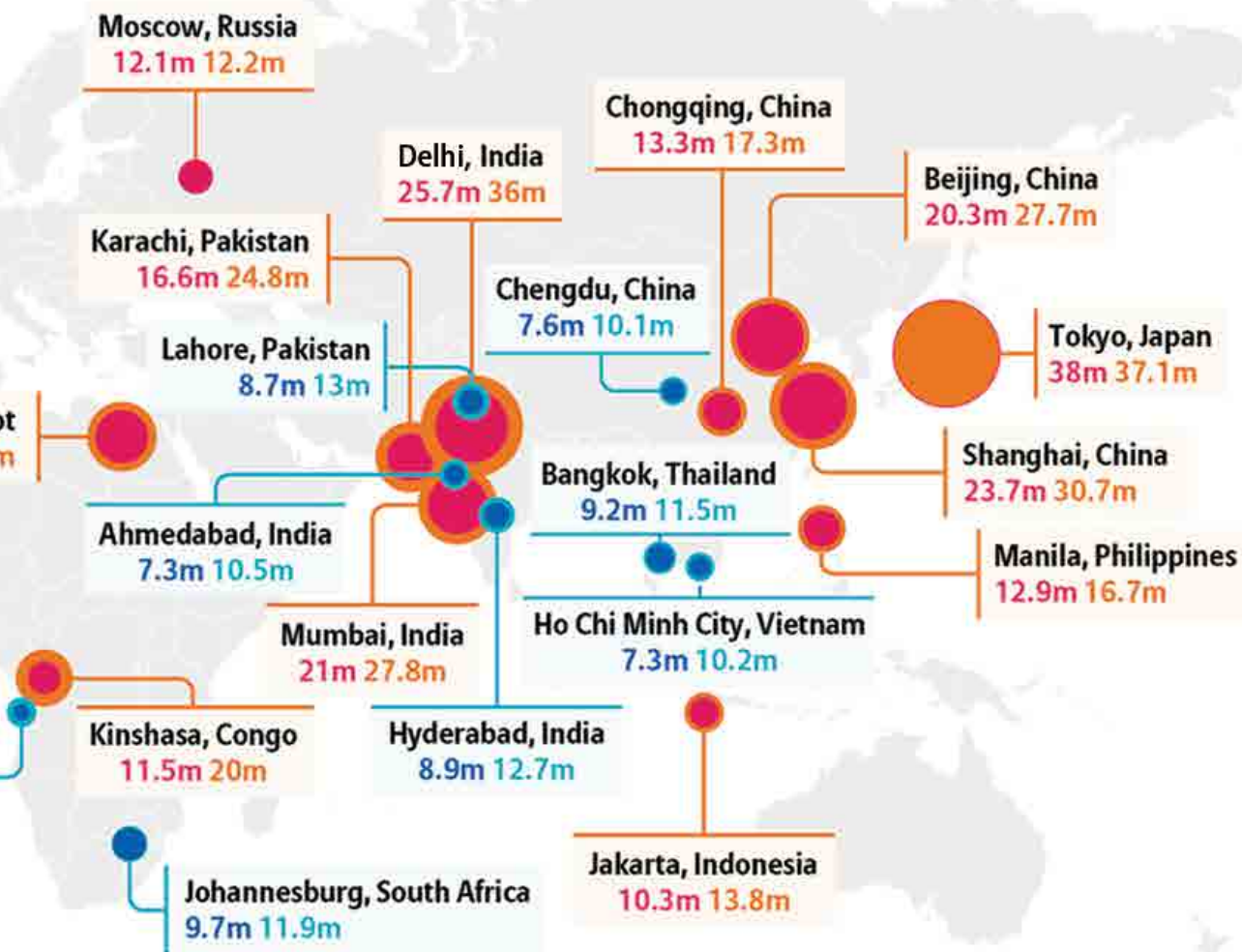


in spending a year as an interagency fellow with the Port Authority of New York or the Los Angeles Police Department, these do not address the bigger gap in our institutional knowledge—understanding individual political, social, and economic behavior, and understanding the precision behind predicting it. We would be better served, for example, to pursue a Training with Industry (TWI) program with a corporation such as Goya Foods, the iconic international food brand. Goya captured the attention of *Washington Post* business writer Lydia DePillis, who deemed it the quintessential “food company for all people new to America.”¹⁷ Goya operates under a direct store delivery business model to target each community with specific products aimed at the tastes and cultures of the consumer—whether

Caribbean, Asian, Salvadoran, or Filipino—instead of sending a standard inventory to every grocery store, as a bigger food company might do.¹⁸ While this model may limit the growth of Goya, it keeps its customers loyal and the company successful. The executive vice president in charge of distribution, Peter Unanue said,

To us, it's important to make the connection through a product that maybe we're not going to sell truckloads of, but we're going to have the product on the shelf so when a consumer goes in they say, “Wow, I can relate to Goya because it's authentic, this product makes me feel like I'm at home.”¹⁹

Understanding the Goya focus on microcommunities and its precision market research is the type of



(Figure used with permission from www.allianz.com. Source: World Urbanization Prospects, 2014 Revision)

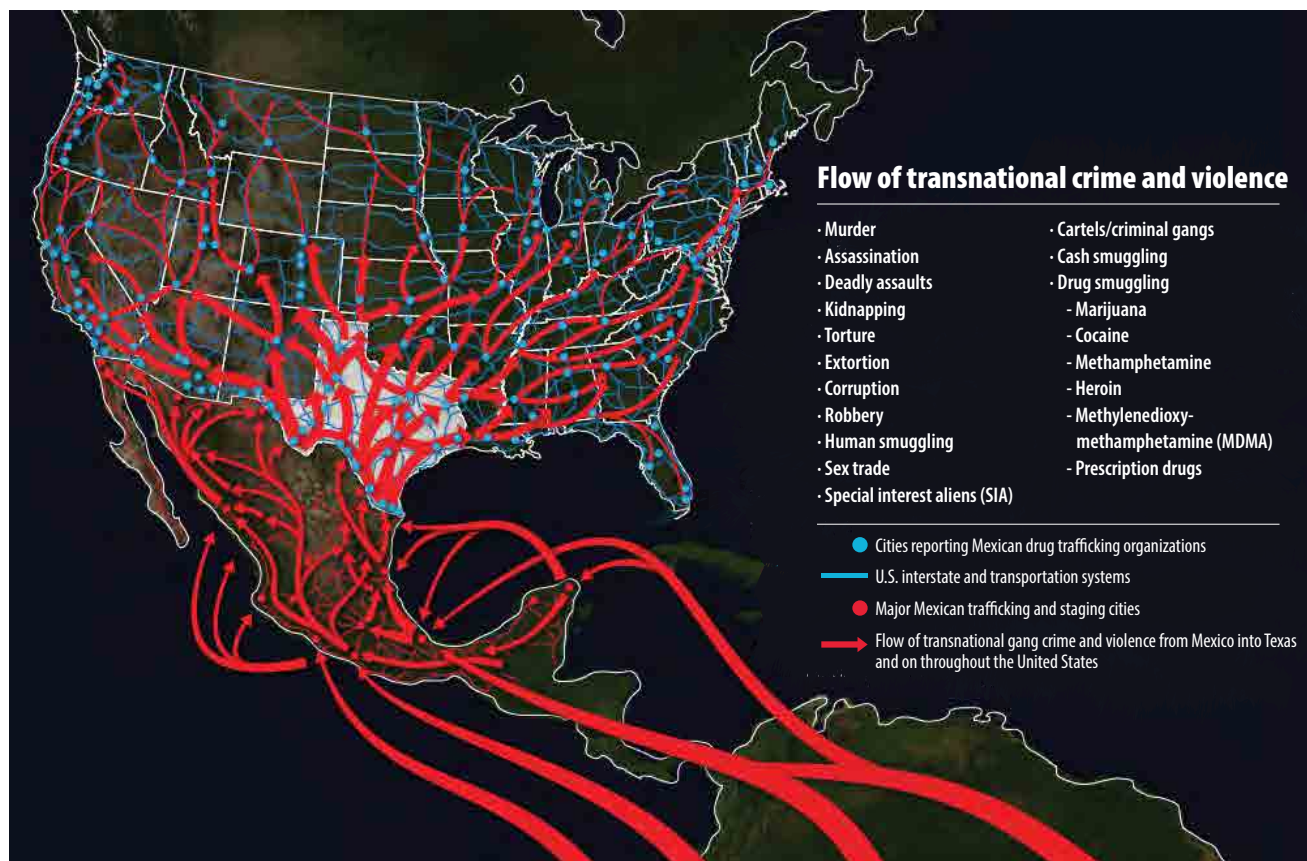
Select Current and Future Megacities 2015 to 2030

Though organized crime is not exclusively an urban phenomenon, the large masses of people who compete for jobs, services, and living spaces in the relatively congested environment of urban areas can quickly induce large-scale organized crime when the ability of governments to provide jobs and services becomes overwhelmed. Trending migration patterns suggest that, for the foreseeable future, already stressed urban areas will continue to be the preferred destination of millions of new migrants, complicating both the affected nation's ability to provide basic services as well as greatly increasing the potential for organized criminal activity. By 2030, some cities will have increased by almost a third of their current populations.

educational opportunity we should seek for any Army officer (and not just a logistician) who is involved in future initiatives, intelligence, plans, or strategy. TWI programs with Google, FedEx, and other major civilian partners provide great value to both the host organization and the Army. We should, however, not confuse their mission—profitable services and goods on a large scale—with our own, which is promoting security with limited resources and adaptive threats. Frankly, understanding the cultural pull of adobo sauce and *arroz con*

pollo (chicken with rice) may teach us almost as much as learning the intricacies of global *on-time delivery*.

Increase technical/academic skills. The Megacities Project asks, “What institutional paradigms need to change to prepare the Army to succeed in this emerging environment?”²⁰ The most important paradigm the Army can adopt is to fully dedicate itself to understanding and continually monitoring global trends to advance readiness. Today, we do not have sufficient capacity across the force to identify these trends and analyze



(Graphic from *Texas Border Security: A Strategic Military Assessment*, September 2011)

Flow of Transnational Crime and Violence

Though international crime has always been a feature of the world's economic and social system, the increased speed and volume of modern information systems and the ease by which persons and materiel can now move across borders using modern transportation have given rise to the emergence of powerful and wealthy criminal organizations that increasingly present existential threats to the sovereignty and viability of nation states themselves. In the Western Hemisphere, several Mexican states have become ungovernable as they essentially have been taken over by drug cartels; the government of El Salvador is fighting a war of survival against MS-13 (*Mara Salvatrucha*), a violent international criminal gang; and Venezuela has degenerated into a kleptocracy ruled by the deeply corrupt Venezuelan armed forces, which works in close cooperation with Colombian criminal cartels and Cuban intelligence agencies. As depicted above, the U.S. populace is increasingly a target of extensive criminal activities emanating from those and other countries in Latin America.

data. The Army has limited statisticians, economists, criminologists, political scientists, anthropologists, police intelligence experts, civil affairs/psychological operations personnel, intelligence personnel, and operations research/system analysts. Further, we have limited staff officers and noncommissioned officers to those familiar with basic data mining and research who are equipped to take the wealth of information that is available both in classified and open source arenas to better understand the world. Often, the Army contracts out such studies. When it does, we are not well equipped to gauge the quality of the work we receive. Understanding the

operating environment in great detail is a core competency that should not be outsourced.

Organize to combat criminal/hybrid threats.

Kilcullen recommends the United States make a conscious effort to close seams that hybrid threats exploit.²¹ He recommends organizing for the future with an agile and flexible structure to combat criminals, pirates, terrorists, and other threat networks:

Governments like the United States that draw sharp legislative distinctions between warfare and law enforcement, and between domestic and overseas authorities, cannot operate with

the same agility [as the threat]. Capabilities that combine policing, administration, and emergency services with sufficient military capability to deal with well-armed non-state adversaries—capabilities traditionally associated with constabulary, Gendarmerie, Carabinieri, or coast guards—are likely to be more effective against these hybrid threats than conventional armies or navies.²²

Kilcullen's force of the future blends highly trained policing and combat skills. A population-centric, stability-focused policing organization could positively influence the core of the Stability and Resilience Factor: a positive assessment of feeling safe at home at night, enabled by positive assessments of local police.

Where (Or Rather, What) Next?

International crime victimization data suggests that residents of megacities and urban areas in developing countries are no different in their reported violent crime victimization than those who live elsewhere and may have lower property crime and higher stability/resiliency.²³ The overall picture for these metropolises is not particularly bleak. Regional differences appear to matter more. The implication for the U.S. military is a need to continually monitor and understand regional and global trends. The ICVS of 2000 accurately foreshadowed the previously mentioned 2018 crime epidemic in Latin America. The question becomes, was anyone in the U.S. federal government following these criminal trends with an eye to global security?

The perception of feeling safe at home at night is critical. Those who have the highest perceptions of safety also more strongly agree with assessments of the helpfulness of the police. To prepare for threats of the future, the federal government should explore population-centric approaches such as police mentorship in

order to best achieve strategic objectives in addition to threat- and terrain-centric strategies. These theories and approaches are not new. Thomas Hobbes understood the disastrous impacts of crime, opportunism, and lawlessness on society, though he lived during a major war between global powers.²⁴ Today, *The Economist* points to a major blind spot:

Murder already outpaces war as a cause of death. And the world is continuing to urbanise. India and China have accommodated huge increases in urban population while keeping violent crime levels relatively low, in part thanks to economic growth. But other countries exhibit many of the risk factors seen in Latin America a generation ago: widespread displacement as a result of conflict, millions of leftover guns, a demographic bulge, little by way of safety nets and corrupt, ineffective police forces.²⁵

The U.S. Army is wise to holistically consider crime and its impacts on security as it keeps an eye on global and regional trends. After all, ordinary crime against ordinary people on other continents may not be as scary as peer competitors, but its insidious effects negatively impact global security nonetheless.

Data analysis and original research cited in this article appeared in an unpublished work prepared for the 2016 Midwest Political Science Association's annual meeting titled, "Nasty and Brutish or Stable and Social? Perceptions of Safety in Megacities." The author acknowledges the assistance of Bob Dixon and colleagues of the Chief of Staff of the Army's Strategic Studies Group, and U.S. and international partners who shared thoughts on policing and combat operations in rural and urban environments. The opinions and analysis in this article are the author's own and do not reflect any position of the Department of the Army or Department of Defense. ■

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15. Joint Publication 3-0, *Joint Operations* (Washington, DC: U.S. GPO, 2017), fig. V-7.

16. Strategic Studies Group, 22.

17. Lydia DePillis, "How Goya Brought Ethnic Food to White America," *Washington Post* (website), 23 August 2013, accessed 24 September 2018, <https://www.washingtonpost.com/news/wnk/wp/2013/08/23/how-goya-brought-ethnic-food-to-white-america/>.

18. Ibid.

19. Peter Unanue, quoted in DePillis.

20. Strategic Studies Group, "Megacities and the United States Army," 22.

21. Kilcullen, "The City as a System," 32.

22. Ibid.

23. Guilmartin, 2016.

24. Internet Encyclopedia of Philosophy, s.v. "Thomas Hobbes: Moral and Political Philosophy," accessed 24 September 2018, <https://www.iep.utm.edu/hobmoral/>.

25. "Shining Light on Latin America's Homicide Epidemic."



FUTURE WARFARE WRITING PROGRAM

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Military Review calls for short works of fiction for inclusion in the Army University Press Future Warfare Writing Program (FWWP) for 2019. The purpose of this program is to solicit serious contemplation of possible future scenarios through the medium of fiction in order to anticipate future security requirements. As a result, well-written works of fiction in short-story format with new and fresh insights into the character of possible future martial conflicts and domes-

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Military Review

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Foreign Military Studies Office

OEWATCH

FOREIGN NEWS & PERSPECTIVES OF THE OPERATIONAL ENVIRONMENT

OE [Operational Environment] Watch is an online informational product of the Foreign Military Studies Office (FMSO) at Fort Leavenworth, Kansas. The December 2018 edition of OE Watch provides fifty-six articles covering various security challenges from the perspective of more than thirty different countries and regions around the globe. Among many other items, this edition features short articles analyzing Russian perspectives on military training exercises and force-on-force events as well as insight into how the

Russian armed forces are renewing ties with Cuba and Libya. This edition also discusses the continuing development of the Chinese military and Chinese activity in Africa, and issues related to Latin America, especially with regard to the deepening relationship of Cuba and former Colombian Marxist insurgents with Venezuela. To view the December 2018 edition of OE Watch, please visit the FMSO website at <https://community.apan.org/wg/tradoc-g2/fmsom/oe-watch-past-issues/252911>.



A 15-kiloton nuclear artillery round is fired from a 280-mm cannon 25 May 1953 at the Nevada Proving Grounds. Hundreds of high-ranking Armed Forces officers and members of Congress were present to observe the test. In future large-scale combat operations against enemies who possess nuclear weapons, doctrine needs to stipulate detailed planning required to preclude enemies from employing such weapons effectively against friendly forces. (Photo courtesy of the National Nuclear Security Administration/Nevada Field Office)

Emerging U.S. Army Doctrine

Dislocated with Nuclear-Armed Adversaries and Limited War

Maj. Zachary L. Morris, U.S. Army

In October 2017, the U.S. Army released the new Field Manual (FM) 3-0, *Operations*, and other related doctrine for future conflicts.¹ Military doctrine is an important component of any national grand strategy means-ends chain, conceptually designed to achieve national objectives.² Doctrine focuses on the military means a state expects to employ and how it expects to employ them, and often centers on the preferred mode of fighting wars.³ Because military doctrine drives concepts about what military means are required and how to employ them, the doctrine must be integrated with the political grand strategy. Without coherent and integrated doctrine, the Army and other services are unlikely to be an effective means of achieving national military objectives.⁴ Ineffective military means either inhibit the options of political authorities, result in catastrophic failure, or increase costs and risks.⁵

FM 3-0 serves as the principle doctrine addressing tactics and procedures for conducting large-scale ground combat operations against peer and near-peer enemies, and supports many Army leaders' inherent preference toward conventional war and decisive battle.⁶ However, FM 3-0 fails to adequately address the problem that three of America's four potential peer or near-peer adversaries—Russia, China, and North Korea—possess nuclear weapons.⁷ In the past, nuclear weapons have typically limited war, as the alternative was to escalate to a nuclear exchange.⁸ Considering most American peer adversaries possess nuclear weapons, decisive victory will likely prove elusive in the future, and limited war and stability operations appear far more likely.

The U.S. Army and its allies should resist the urge to focus on large-scale military operations or, at a minimum, frame their approach to large-scale operations in a manner commensurate to the operational environment. The Army should also amend emerging doctrine to address the current gap related to nuclear weapons and include a discussion of operational approaches necessary for success against nuclear-armed adversaries. The Army is becoming too focused, doctrinally and conceptually, on large-scale war and requires more emphasis on smaller, limited conflicts. The figure (on page 29) depicts the U.S. Army's focus on conventional military operations in the conflict spectrum and its limited attention on other more likely and more dangerous

potential future conflicts. As the figure displays, it is arguable that the current FM 3-0 is only useful for a conflict against Iran since it is a potential large-scale threat without nuclear weapons.

Ivan Bloch foresaw many of the realities of World War I in *La Guerre Future*.⁹ He predicted that, because of technological advancements, war would become extraordinarily lethal and prevent armies from achieving decisive victory. He essentially argued that because of the current conditions, war—and by extension the military—was temporarily obsolete for resolving political disputes.¹⁰ Ignoring the more likely and dangerous potential future conflicts increases the risk that the Army will commit operational or strategic errors resulting in nuclear escalation, or, once again, make the service obsolete for resolving political disputes.

The Future Near-Peer Environment and Limited War

FM 3-0 is primarily focused on large-scale ground combat operations, conceptually centered on fighting Army Chief of Staff Gen. Mark Milley's 4+1 threats: Russia, China, North Korea, Iran, and violent extremist organizations. While FM 3-0 does many things exceptionally well—including developing the concepts of consolidating gains, shaping operational environments, and preventing conflicts—the three core chapters are dedicated to defeating peer and near-peer enemies during large-scale ground combat operations.¹¹ However, these chapters fail to take into account the reality that these combat operations will happen against nuclear-armed opponents and thus either remain extremely limited (i.e., not large-scale) or probably result in a nuclear exchange.

Wars between nuclear-armed powers have been, and will likely remain, extremely limited because of the risks nuclear escalation poses to both sides. Many scholars have discussed the limiting impact of nuclear weapons, and how any defeat that threatens core interests dramatically increases the risks of inadvertent escalation.¹² Each historical direct conflict between nuclear powers, such as the 1969 Sino-Soviet border conflict and 1999 Indo-Pakistan conflict, has remained limited in scope, time, forces employed, methods used, and desired objectives.¹³ Even though these conflicts remained extremely limited, serious escalation risks and concerns arose. Any attempts to achieve decisive

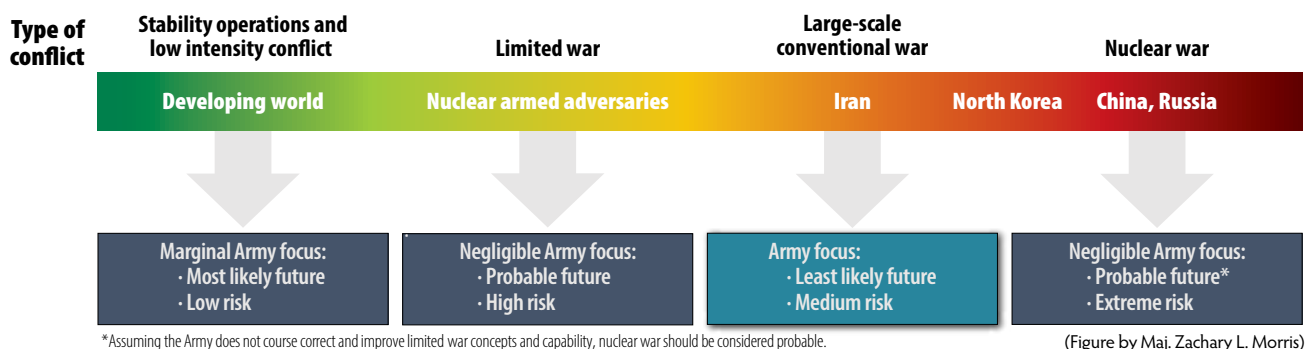


Figure. Potential Near-Future Conflict Spectrum and Army Focus

victory concerning vital interests for either opponent would almost certainly result in nuclear escalation.¹⁴

If the United States seeks a decisive victory, often by altering an adversary's government, there would be little reason for an adversary to avoid using nuclear weapons.¹⁵ China, Russia, and North Korea are all highly centralized states that view internal stability and control as a vital interest of the government. All three states also have historical narratives that see themselves as victims of aggression by foreign powers and are extremely sensitive to potential oppression. Even if the United States avoided regime change, these potential adversaries would probably view any type of decisive military defeat as an existential threat to their internal stability and control. Further, miscalculation and misunderstandings in a large-scale conflict are likely and could easily lead to accidental escalation.¹⁶ Thus, in a conventional war, escalation would be likely due to either miscalculation or a U.S. adversary removing restraints on nuclear use because of an existential crisis.¹⁷

A future conflict against a nuclear-armed adversary should be characterized by managing escalation and focusing on limited objectives and means; if not, the United States should expect, and prepare for, nuclear war. Escalation management implies fighting—at all levels of war—in a manner designed to prevent inadvertent escalation to the nuclear exchange threshold. This threshold is difficult to determine but would most likely be crossed by causing an existential threat for one side. Because Army doctrine emphasizes the use of overwhelming force to achieve decisive results, the United States could easily cause an adversary to cross the nuclear threshold. Rather, future war may require

returning to President Woodrow Wilson's conception of "peace without victory," because the threat of nuclear escalation makes it politically and strategically impractical to achieve a total victory.¹⁸

American peer and near-peer adversaries are likely to employ nuclear weapons in a large-scale conflict. These states are thinking about the use of nuclear weapons and how to operate in a difficult future environment. Russia, for example, has exercised nuclear concepts extensively. During Zapad 2009, Russia reportedly ended the exercise with a nuclear strike on Warsaw, Poland. Further, in October 2016, Russia conducted a massive exercise evacuating the government from Moscow after a simulated nuclear attack.¹⁹ These exercises reflect conceptual changes in Russia about the utility of nuclear weapons. A 2012 U.S. National Intelligence Council report recognized that American and Russian nuclear ambitions have evolved in opposite directions, and while America is reducing the role of nuclear weapons, "Russia is pursuing new concepts and capabilities for expanding the role of nuclear weapons in its security strategy."²⁰

While Russia clearly advocates the use of nuclear weapons in an existential crisis, leaders have also begun exploring the concept of escalate to deescalate. Russian doctrine explicitly states that nuclear weapons are useable in a conflict that threatens the existence of the Russian Federation.²¹ In a large-scale conflict, the use of nuclear weapons would likely become a viable option because conflict against overwhelming U.S. force would threaten the Russian Federation's survival. In 2009, the commander of the Strategic Missile Troops, Lt. Gen. Andrey Shvaychenko said, "In a conventional war,

[nuclear weapons] ensure that the opponent is forced to cease hostilities, on advantageous conditions for Russia, by means of single or multiple preventive strikes against the aggressors' most important facilities."²² Unless conflict with Russia remains extremely limited, it appears likely Russia would escalate to nuclear use.

While China has a no first use policy for nuclear weapons, many experts have begun debating if China *would* employ nuclear escalation in a conventional war with the United States.²³ Caitlin Talmadge, an assistant professor of political science and international affairs at the George Washington University, argued that nuclear escalation is plausible but not inevitable. She argues the danger comes primarily from China's concern about broader U.S. intentions once war has begun—such as regime change or decisive victory that threatens vital Chinese interests—rather than the threat a U.S. conventional campaign would pose to China's nuclear arsenal.²⁴ These fears are well-founded, given U.S. history and military focus on decisive victory, as well as American predisposition to fight by disrupting an adversary's command-and-control functions. A major war between China and the United States—if fought the way the U.S. Army desires as reflected in FM 3-0—would likely result in conditions that could encourage China's use of nuclear weapons. Finally, North Korea, and its leader Kim Jong Un, have demonstrated even less restraint, more explosive rhetoric, and extensive nuclear testing; the United States should assume large-scale conflict against North Korea would result in a nuclear exchange.

FM 3-0 and Emerging Doctrinal Problems

FM 3-0 fails to adequately bridge the tactical and strategic levels of war because of the logical disconnect created by focusing on near-peer adversaries possessing nuclear weapons, without attempting to account for how to fight in a limited and highly constrained environment. While FM 3-0 mentions considering the risks of escalation in a few passages, the doctrine does not explain how the U.S. Army will, or should, operate in a limited war environment.²⁵ Beyond stating that escalation is a concern of the joint force commander, the doctrine provides little discussion or concept development for how nuclear escalation might affect operations. Much of the discussion related to nuclear

weapons focuses downward toward the tactical level of war and emphasizes the tactical measures necessary to manage consequences after use or to protect the force.²⁶ The doctrine essentially focuses on enabling operations rather than on creating a concept for realistic military action designed to achieve political and strategic objectives in a constrained environment. There is also no discussion about how operations may occur or may look after the exchange of nuclear weapons. Both tactical and strategic nuclear weapons are a vital and influential aspect of any war against a nuclear-armed adversary. Ignoring the probable realities created by these weapons does not improve the odds of avoiding their use. Rather, not understanding or not thinking about the effects of these systems on future operations degrades the value and utility of FM 3-0 and inhibits the potential future effectiveness of U.S. Army combat operations.

Rather than develop potential tactics, techniques, and procedures that could limit or control escalation in a future war, the new doctrine espouses many escalatory tactics. The doctrine advocates the traditional aspects of modern American war such as attacking a host of potentially dual-use capabilities, including command-and-control functions, integrated air defense systems, and integrated fire commands.²⁷ Attacking these systems, especially if they reside within the borders of the nuclear-armed state, would be escalatory, as these are considered a precursor to disarming a first strike or enabling a decisive victory—increasing a “use it or lose it” mentality in the target state.²⁸ FM 3-0 also encourages directly targeting nuclear weapons, facilities, and delivery capabilities.²⁹ Explicit targeting of nuclear capabilities would almost certainly escalate conflict and significantly threaten to achieve strategic objectives. The doctrine also espouses many concepts that are indirectly escalatory, such as deep and rapid advances, and exploitation operations, which could threaten conflict stability.³⁰ Rapid advances and exploitation could be escalatory depending on the context. Deep penetration into an adversary's territory, which threatens vital interests such as political stability or the loss of significant ground forces, could cause an adversary to consider using nuclear weapons to stabilize the situation. These concepts reflect the Army's fixation on the tactical and operational levels of war rather than appreciating

the probable challenges and limitations that will occur at the strategic and political level.

Instead of the large-scale conflicts that U.S. doctrine addresses, future peer and near-peer conflict will have significantly different characteristics. These conflicts will be severely restricted in size, scope, and location, and they will probably be fought by proxy or in locations distant from either states' home borders. Warfare in a nuclear-constrained environment may exhibit some characteristics of high-intensity warfare but with severely limited ends, ways, and means. These conflicts could involve combat between highly capable forces operating under stringent political and strategic limitations such as forces restricted from exploiting maneuver opportunities, destroying an enemy force, or achieving a decisive victory. Additionally, these conflicts could involve proxy wars or limited conflicts distant from significant national interests to reduce the threat of miscalculation or escalation. Limited conflict in these conditions could resemble prolonged siege warfare designed to slowly exhaust the enemy nation, conceptually resembling Russia's efforts in Ukraine. In fact, Russia's conflict in Ukraine is probably a better picture of future war than most other conflicts. It depicts combat between lethal adversaries that cannot achieve decisive military victory for strategic and political reasons. Because of these limitations, strategy and operations will probably require indirect methods to exhaust the enemy's will to resist.

These wars might resemble the stalemate in Korea between 1952 and 1953, not because the United States is incapable of breaking the deadlock but because military success is politically and strategically inadvisable. Limited conflicts will require much greater synergy between the political, strategic, operational, and tactical levels of war than previous conflicts to achieve objectives and prevent accidental escalation to nuclear conflict. Further, this environment would likely require utilizing an indirect approach to achieve marginal objectives, deter adversaries, or simply deny adversaries' objectives using strategies of exhaustion or attrition. The United States has struggled in the past in these types of conflict due to the historical American power advantage and desire for decisive victory, and the new doctrine does little to help prepare the U.S. Army for a limited war future.

Conclusion

The United States should alter emerging doctrine to focus on limited war concepts and address the current flaws necessary for success against nuclear-armed adversaries. As three of the four potential American peer or near-peer adversaries already possess nuclear weapons, war will become increasingly constrained due to escalatory risks. Strategic and political constraints created by potential nuclear escalation makes decisive victory, and large-scale combat, unlikely. FM 3-0 does not adequately address these risks or challenges and fails to bridge the tactical and strategic levels of war. The emerging doctrine's focus on peer adversaries without properly addressing the impact of nuclear weapons on war sets the military up for strategic failure and could force adversaries to escalate the conflict. Further, the new doctrine demonstrates flaws due to its inherently escalatory tactics and methods of war. Rather than large-scale conflict, a future war between peers will require focusing on limited war and managing escalation. Without this limited and controlled approach, current adversaries are incentivized with the threat to use nuclear weapons.

If the U.S. Army cannot develop concepts and operational methods for the limited warfare environment of the future, then the service risks losing its utility to resolve many political conflicts. Without realistic potential solutions, U.S. political leaders should avoid employing the Army unless the interest in question is so vital that a nuclear exchange is an acceptable risk. Without limited tools, the United States should expect nuclear war, not large-scale ground operations. The problem FM 3-0 depicts is that Army doctrine

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continues to advocate the use of overwhelming force and decisive victory as the primary and, arguably, the only way to achieve success for the Army against a peer or near-peer adversary once war erupts. Unless nuclear capabilities are nullified, nuclear

weapons serve as a deterrent to war but also prevent decisive victory. ■

The opinions expressed here are the author's and do not represent the U.S. Army or the Department of Defense.

Notes

1. Field Manual (FM) 3-0, *Operations* (Washington, DC: U.S. Government Publishing Office [GPO], 2017); Army Doctrine Publication (ADP) 3-0, *Operations* (Washington, DC: U.S. GPO, 2017), 1. Operations bridge tactics and military strategy and are defined as "a sequence of tactical actions with a common purpose or unifying theme."

2. Barry R. Posen, *The Sources of Military Doctrine: France, Britain, and Germany between the World Wars* (Ithaca, NY: Cornell University Press, 1984), 13.

3. Ibid., 13–14; ADP 1-01, *Doctrine Primer* (Washington, DC: U.S. GPO, 2014), 1-2. The U.S. Army defines doctrine "as fundamental principles, with supporting tactics, techniques, procedures, and terms and symbols, used for the conduct of operations and which the operating force, and elements of the institutional Army that directly support operations, guide their actions in support of national objectives. It is authoritative but requires judgment in application."

4. Posen, *The Sources of Military Doctrine*, 25.

5. Ibid.

6. FM 3-0, *Operations*, foreword; Lawrence Freedman, *Strategy: A History* (Oxford, UK: Oxford University Press, 2013), 240; Hew Strachan, *The Direction of War: Contemporary Strategy in Historical Perspective* (Cambridge, UK: Cambridge University Press, 2013), 40, 49, and 62.

7. Nick Routley, "How Many Nuclear Weapons Each Country in the World Has," Business Insider, 14 August 2017, accessed 31 August 2018, <http://www.businessinsider.com/how-many-nuclear-weapons-each-country-in-the-world-has-2017-8>.

8. Numerous authors argue that nuclear weapons limit and constrain war and that in a conflict between nuclear powers, escalation is a significant risk. Several prominent sources include: Thomas C. Schelling, *Arms and Influence* (New Haven, CT: Yale University Press, 2008), 20; Matthew Kroenig, *Exporting the Bomb: Technology Transfer and the Spread of Nuclear Weapons* (Ithaca, NY: Cornell University Press, 2010), 18; Scott D. Sagan and Kenneth N. Waltz, *The Spread of Nuclear Weapons: An Enduring Debate*, 3rd ed. (New York: W. W. Norton, 2013), 9; Barry R. Posen, *Inadvertent Escalation: Conventional War and Nuclear Risks* (Ithaca, NY: Cornell University Press, 1991).

9. Michael Howard, *War in European History* (New York: Oxford University Press, 2009), 105.

10. Ibid.

11. FM 3-0, *Operations*, foreword.

12. Schelling, *Arms and Influence*, 20; Kroenig, *Exporting the Bomb*, 18, 20, 180, and 185; Sagan and Waltz, *The Spread of Nuclear Weapons*, 9 and 15; Posen, *Inadvertent Escalation*.

13. Kroenig, *Exporting the Bomb*, 25 and 124.

14. Sagan and Waltz, *The Spread of Nuclear Weapons*, 6.

15. Ibid.

16. Posen, *Inadvertent Escalation*.

17. Ibid., 20. Posen discusses the fog of war and how it can impact the risk of escalation by making it harder for civilians to control military operations and creating conditions of heightened fear. Schelling, *Arms and Influence*, 92–125. Schelling discusses the manipulation of risk and the inherent danger of miscalculation extensively, and also highlights how opposing nations may increase risk and ambiguity to try and achieve success while simultaneously increasing the risk of escalation.

18. Gideon Rose, *How Wars End: Why We Always Fight the Last Battle* (New York: Simon and Schuster Paperbacks, 2010), 19.

19. Matt Payton, "Russia Launches Massive Nuclear War Training Exercise with '40 Million People,'" *Independent* (website), 5 October 2016, accessed 31 August 2018, <http://www.independent.co.uk/news/world/europe/russia-nuclear-weapon-training-attack-radiation-moscow-vladimir-putin-a7345461.html>.

20. National Intelligence Council, *Global Trends 2030: Alternative Worlds* (Washington, DC: National Intelligence Council, December 2012), 69, accessed 31 August 2018, https://www.dni.gov/files/documents/GlobalTrends_2030.pdf.

21. Embassy of the Russian Federation in the United Kingdom and Northern Ireland, "Military Doctrine of the Russian Federation," press release no. 2976, 29 June 2015, sec. III, para. 27, accessed 31 August 2018, <http://rusemb.org.uk/press/2029>; also discussed in Olga Oliker, *Russia's Nuclear Doctrine: What We Know, What We Don't, and What That Means* (Washington, DC: Center for Strategic and International Studies, 2016), 3.

22. Mark B. Schneider, "Escalate to De-escalate," *Proceedings* 143, no. 1,368 (August 2017), accessed 31 August 2018, <https://www.usni.org/magazines/proceedings/2017-02/escalate-de-escalate>.

23. Caitlin Talmadge, "Would China Go Nuclear?: Assessing the Risk of Chinese Nuclear Escalation in a Conventional War with the United States," *International Security* 41, no. 4 (Spring 2017): 50.

24. Ibid., 51.

25. FM 3-0, *Operations*, 4-1, 4-18, 4-21, 5-3, and 7-3. The references to escalation on these pages constitute the extent of guidance provided for managing nuclear escalation.

26. Ibid., 5-3 and 5-7.

27. Ibid., 7-8, 7-45–7-46.

28. Posen, *Inadvertent Escalation*, 65–67. Posen discusses the conclusions and analysis of a possible air interdiction and suppression of enemy air defenses campaign against the Soviet Union.

29. FM 3-0, *Operations*, 2-51, 7-8, and 7-45.

30. Ibid., 7-46.



Saratoga Campaign

13 June to 8 November 1777

The Combat Studies Institute is pleased to announce publication of the *Staff Ride Handbook for the Saratoga Campaign, 13 June to 8 November 1777*, a detailed treatment of a significant series of events during the early phase of the American Revolutionary War. This handbook details the significance of various locations on Lake Champlain, along the Mohawk River, and across the border in Vermont, and concludes with the final, decisive actions along the banks of the Hudson River. This handbook enables a detailed campaign study, highlighting the importance of logistics and terrain, as well as a shorter, more focused study of the individual Saratoga battles themselves. The handbook also highlights

the importance of incorporating capabilities from across the total force, from regulars to militia, as well as the vital importance of skilled leadership, command relationships, and the principle of unity of command in order to achieve victory on the battlefield. The Saratoga Campaign was the turning point of the American Revolution and served as a model for revolutionaries in later eras detailing how to defeat hegemonic imperial powers, thus remaining a highly relevant case study for future practitioners of modern warfare. To view this publication, please visit <https://www.armyupress.army.mil/Portals/7/educational-services/staff-rides/Staff-Ride-Handbook-Saratoga-Campaign.pdf>.



Spc. Jordan Purgat (right), assigned to the 1st Battalion, 187th Infantry Regiment, fingerprints an Afghan villager 7 May 2013 during Operation Shamshir VI in Khoti Kheyl, Zormat District, Afghanistan. (Photo by Spc. Chenee' Brooks, U.S. Army)

Identity

Enabling Soldiers, Supporting the Mission

Matt McLaughlin

An enemy must be classified strategically (Is it conventional, terrorist, insurgent, or hybrid?) and identified tactically (Is the subject a combatant or noncombatant?). This may seem simple at first glance; however, unconventional warfare with asymmetric enemies makes such determinations difficult for today's joint force. Without such considerations, no staff can devise a coherent military operation, and troops in the field might not be able to differentiate between threats and harmless civilians.

Unconventional forces conceal themselves and their affiliations to improve freedom of maneuver, organize command and control, and create lethal effects. These capabilities are amplified by increasingly inexpensive and commonplace technologies such as encrypted wireless communications and small unmanned aircraft. The net effect is to obscure the

identities of those acting against U.S. interests and confuse our response.

Identity activities, as articulated in Joint Doctrine Note (JDN) 2-16, *Identity Activities*, are aimed at

mitigating this gray area for U.S. forces.¹ By uniting tools such as site exploitation, forensics, and biometrics with information systems, intelligence analysis, and training—and, in the future, artificial intelligence—identity activities enable the joint force to deny the

enemy anonymity, distinguish combatants from non-combatants, and take the fight to our opponents.

The Problem of Anonymity

U.S. interests today are confronted by a myriad of state and nonstate threats, but most share a common thread—the difficulty of identification and attribution. Terrorists hide their true intentions and affiliations, and



An Afghan Local Police (ALP) officer looks into a biometric eye scanner 18 December 2011 while being processed into the force by members of the Afghan Ministry of Interior in Gizab District, Uruzgan Province, Afghanistan. The ALP is a defensive, community-oriented force that works to bring security and stability to rural areas of Afghanistan. (Photo by Petty Officer 2nd Class David Brandenburg, U.S. Navy)

then attack city centers without warning. Insurgents pick up weapons, conduct violent operations against their governments, and discard the weapons to melt back into their native population. And, in hybrid wars, the soldiers of a hostile state leave their uniforms behind to foment unrest against the governments of rival states. In each case, the perpetrators rely on anonymity—in contravention of the Geneva Conventions—for their success.

As described above, being identified would render the terrorist, the insurgent, and the hybrid soldier operationally ineffective, but the reasons why vary, as shown in table 1 (on page 37). It is worth considering the differences in the nature of these threats before discussing how identity activities can best combat them.

As defined in Training Circular 7-100, *Hybrid Threat*, a terrorist is “an individual who commits an act or acts of violence or threatens violence in pursuit of political, religious, or ideological objectives.”² Insurgents engage in “organized use of subversion and violence ... to overthrow or force change of a governing authority.”³ In either case, they can most likely be classified as unlawful enemy combatants, “persons not entitled to combat immunity, who engage in acts against the United States or its coalition partners in violation of the laws and customs of war during an armed conflict.”⁴ A hybrid threat may make use of these unconventional constructs in conjunction with regular military or paramilitary forces.

“Terrorist” is a broad term; he or she may be a lone individual with idiosyncratic motives or a member of a more organized cell-based group such as al-Qaida. In either case, the terrorist’s immediate objective is

not to control territory or establish any specific authority but simply to stage an effective attack with primarily psychological effects on the targeted population (apart from the immediate carnage). This means a terrorist requires anonymity to strike without warning. He or she must be able to cross borders without being flagged and needs time to plan and

gather supplies free of interference from authorities. But once the attack (usually lethal to the assailant) is complete, anonymity is no longer necessary; the very opposite may be the case, as attackers often want their biographies, grievances, and affiliations broadcast to the world in a final act of self-justification.

A quick word on domestic terrorists: terrorist attacks by those who plan and launch them within their country of origin (e.g., the Oklahoma City bomber) are most likely to be a law enforcement matter with no military involvement. As a result, domestic terrorism is beyond this article’s scope; hence, the “international” modifier in table 1. However, foreign travel for terrorist training squarely puts even a domestic terrorist in the “international” camp for this analysis. Since they must cross international borders, they assume the character of international terrorists by visiting terrorist sites abroad and may encounter military forces and engage in activity clearly linking them to hostile groups.

Insurgents have more concrete objectives than most terrorists—they aim to undermine the legitimacy of existing authority in a given territory and replace it with their own. As such, insurgents must plan for the future and maintain their apparatus and organization. Consequently, *insurgents require anonymity to preserve their force* as well as to achieve tactical surprise. A particular terrorist threat may be over with the conclusion of a suicide attack; insurgencies, however, endure beyond any one incident. Its leaders, who may not be directly involved in tactical actions, must remain alive and free to provide both operational continuity and a propaganda stream; but, unless a third country is hosting them, they can only do this if hidden. Likewise, leaders without followers lack much power to influence events; so those foot soldiers of the insurgency must also remain anonymous if they are to avoid preemptive arrest by security forces.

Hybrid soldiers differ from terrorist groups and insurgencies in one key respect—they are answerable to a foreign government. This means *the principle purpose of anonymity is to provide a foreign government with deniability* of its people’s actions. In this case, while hybrid soldiers’ anonymity is used to enable their operations as terrorists and insurgents do, the bigger impact is to enable an aggressor state to avoid culpability for belligerent activities. The ability or inability to attribute actions to state actors has immense diplomatic and geostrategic implications.

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Table 1. Variations of Anonymous Combatants

	Area of operation	Motivation	Density	Coordination	Principle value of anonymity
International terrorist	Foreign target, with cross-border travel	Various; individual or broad-based	As few as one individual	None; loose	Strike without warning
Insurgent	Home country	Inspire popular antigovernment movement	Cells, small to large	Cell-to-cell; leaders exist	Preserve own force
Hybrid soldier	Foreign country	Policy of home government	Depends on mission; likely a large group	Answerable to home government	Deniability for home government

(Table by author)

Providing Insight through Identity Activities

When operations require determining or verifying identity for any reason, identity activities will play a role in the solution. However, this one term encompasses a wide range of tools and doctrine.

According to JDN 2-16, identity activities are “a collection of functions and actions that appropriately recognize and differentiate one entity from another to support decision making.”⁵ They may accurately deconflict, link, or consolidate identities; detect shared characteristics of a group; characterize identities to assess levels of threat or trust; or develop or manage identity information. The Identity Activities Operational Cycle (figure on page 38) demonstrates how various aspects of identity activities support decision-making.⁶

Joint Publication (JP) 3-0, *Joint Operations*, firmly places identity within the operational functions of intelligence and protection. In its discussion of intelligence, JP 3-0 states,

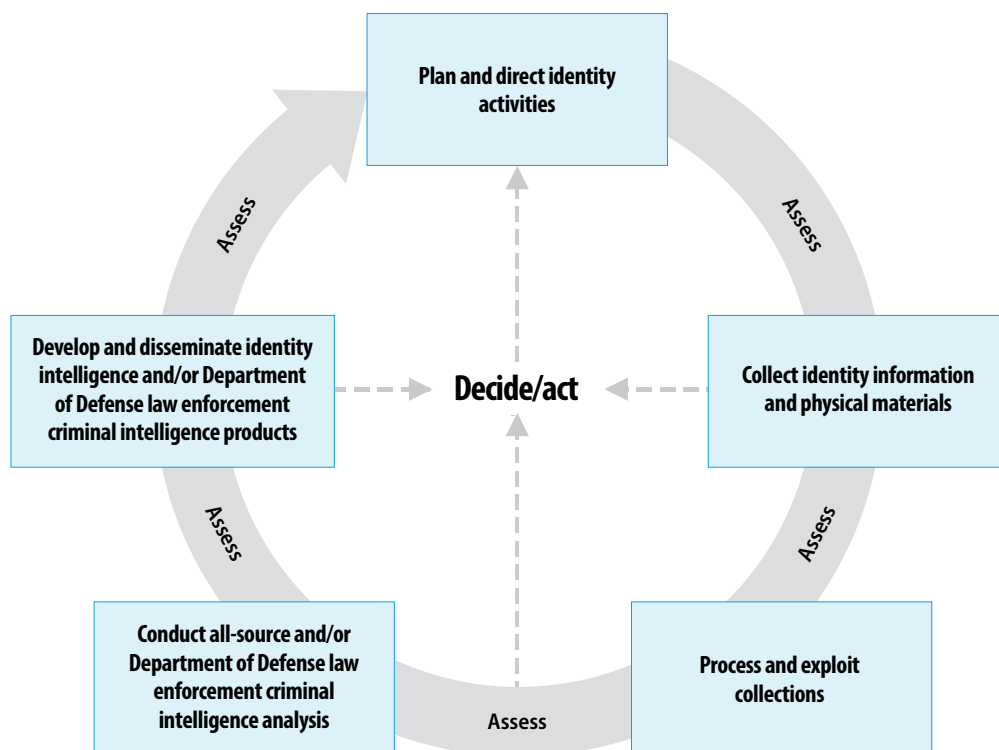
By first identifying the relevant actors and learning as much as possible about them and their interrelationships, the [joint force commander] can develop an approach that will facilitate decision making and behavior

(active or passive) among relevant actors that is consistent with the desired end state of the operation. Sociocultural analysis and identity intelligence (I2) activities enable a better understanding of the relevant actors.⁷

Additionally, “identity collection activities” are specified as one of fifteen protection tasks.⁸

In both roles, understanding identity is ultimately a decision-support tool. Since decisions must be made in all phases of conflict and across the range of military operations, identity is applicable anywhere. In security cooperation missions, for example, identity tools may help the host nation maintain the rule of law by identifying criminals. Those same tools may help to identify insurgents or unmarked troops during hostilities. And, during stability operations, identity activities can help to establish proper governance by countering fraud and insider threats.

Identity activities began demonstrating their operational value with counter-improvised explosive device missions in Iraq and Afghanistan in the mid-2000s. Forensic exploitation of improvised explosive device (IED) debris and biometric identification of individuals enabled coalition forces to “attack the network” of IED builders and emplacements.⁹ The infrastructure established for this mission gradually found other



(Figure from JDN 2-16, *Identity Activities*, 3 August 2016; identity activities are not a single tool or procedure, but a collection of various tasks and decisions points all concerning individuals' identities)

Figure. Identity Activities Operational Cycle

roles such as screening the population for known and suspected terrorists and preventing them from joining police and military forces.

Thanks to sharing between biometric databases of the Department of Defense (DOD) and its interagency and international partners, identity information on nefarious persons encountered since 2004 remains available for border security and law enforcement needs long after hostilities have concluded. At the very least, those whose biometrics connect them to past belligerent activity may be subject to extra questioning; in the most serious cases, they may be denied entry to a country or even arrested. Whatever the outcome, their histories would have gone unnoticed without biometric enrollments and data sharing.

Varied Applications

The 2015 *National Military Strategy* lists twelve joint force missions, several of which can be seen playing out in the world today, and all of which can be supported in some way by identity activities.¹⁰ For example, biometrics

and other identity assurance tools can help to secure the nuclear deterrent just as well as they support a counter-insurgency campaign. However, the following discussion will focus on field operations and individuals whom soldiers, sailors, airmen, and marines may encounter. Real-world scenarios are included, along with missions defined in the *National Military Strategy*, as depicted in table 2 (on page 39).

Countering the Islamic State. The fight against the so-called Islamic State (IS) is a two-pronged effort: first, an international coalition

rolling back its past territorial gains in Iraq and Syria; and, second, containing its terror threat to other distant states. IS is resisting the coalition as somewhat of a hybrid force; it has (or had) to defend territory, something terror groups do not typically do, but it uses terrorist tactics such as suicide bombs and nonuniformed combatants. Identity activities assist in identifying IS fighters hiding among the population, as if they were insurgents. But most pertinent to this discussion is the effort to contain its fleeing members. As IS is dismantled in Syria and Iraq, its surviving members disperse to their countries of origin or other countries. These individuals must be identified, tracked, and apprehended during their travels to prevent further atrocities at their hands. Some will be assessed as simple thrill seekers or foot soldiers and permitted to go; others will turn out to be senior leaders or directly connected by forensics to grisly acts warranting prosecution. Identity activities are *the* critical capability enabling post-IS cleanup.

Afghanistan. Although a long-standing example familiar to many readers, it is worth noting the relevance

Table 2. Identity in Practice

	U.S. missions (<i>National Military Strategy</i>, 2015)	Threat type	Immediate enemy objective	How identity thwarts enemy
Islamic State (actual terror; border-line hybrid)	<ul style="list-style-type: none"> • Combat terrorism • Respond to crisis and conduct limited contingency operations 	Conventional ground attacks mixed with urban infiltration; decentralized global terror	Aim to govern a set territory from which to spread and inspire terror abroad	Prevent terrorist's international travel; attack terror network; identify known combatants among population
Afghanistan (actual insurgent)	<ul style="list-style-type: none"> • Conduct stability and counterinsurgency operations • Conduct military engagement and security cooperation 	Insider threat; localized terror campaign	Govern limited territory; weaken the state	Attack terror network; detect insider threat; identify known combatants among population
Ukraine (actual hybrid, notional role for identity)	<ul style="list-style-type: none"> • Deny an adversary's objectives • Conduct military engagement and security cooperation 	Foreign fighters foment unrest; conventional battle mixed with subversion	Destabilize rival government at minimal cost	Attribute belligerent activities to foreign government; identify foreign interlopers
South China Sea (notional hybrid)	<ul style="list-style-type: none"> • Provide a global, stabilizing presence • Deny an adversary's objectives 	Unacknowledged maritime militia denying free access to sea	Secure maritime territorial claims	Identify legitimate maritime traffic; attribute belligerent activities to foreign government

(Table by author)

of identity activities to ongoing counterinsurgency operations against the Taliban and other groups in Afghanistan. As an insurgency, the Taliban is focused on controlling territory and undermining government authority. Identifying anonymous combatants sprinkled throughout the population is key to breaking up its networks. It is also valuable in preventing insider threats. Sadly, insider attacks continue, but they likely would be far worse without the vetting and screening capabilities identity activities have brought to the table.

Ukraine. Russian hybrid operations in Ukraine are well known, if not well understood, in America. This is largely because Russia has been able to maintain a veil of deniability for its role in Ukraine's "internal" conflict. Individual anonymity certainly plays a tactical role, as exemplified in 2014 when unidentified

troops took over various government buildings and a lack of attribution prevented Ukrainian forces from forcefully evicting the occupiers—though they were very likely Russian.¹¹ Ukraine implicitly acknowledged the potential impact of anonymous hybrid threats—and the difficulty of identifying them—by closing its border to all Russian males ages sixteen to sixty amid heightened tensions in November 2018.¹²

But more than that, anonymity allows the aggressor nation to avoid culpability. Overt invasions invite overt responses, such as in Operations Desert Shield and Desert Storm. Covert action, though, allows other risk-averse states to plausibly overlook it. Nevertheless, attribution is possible. For example, despite the supposedly internal nature of Ukraine's conflict, open-source reporting has continually identified

funerals for Russian troops killed there.¹³ If journalists can achieve this by simply monitoring social media, then a full-fledged, state-backed, identity-activities capability offers great potential to counter an aggressor state's narrative.¹⁴

South China Sea.

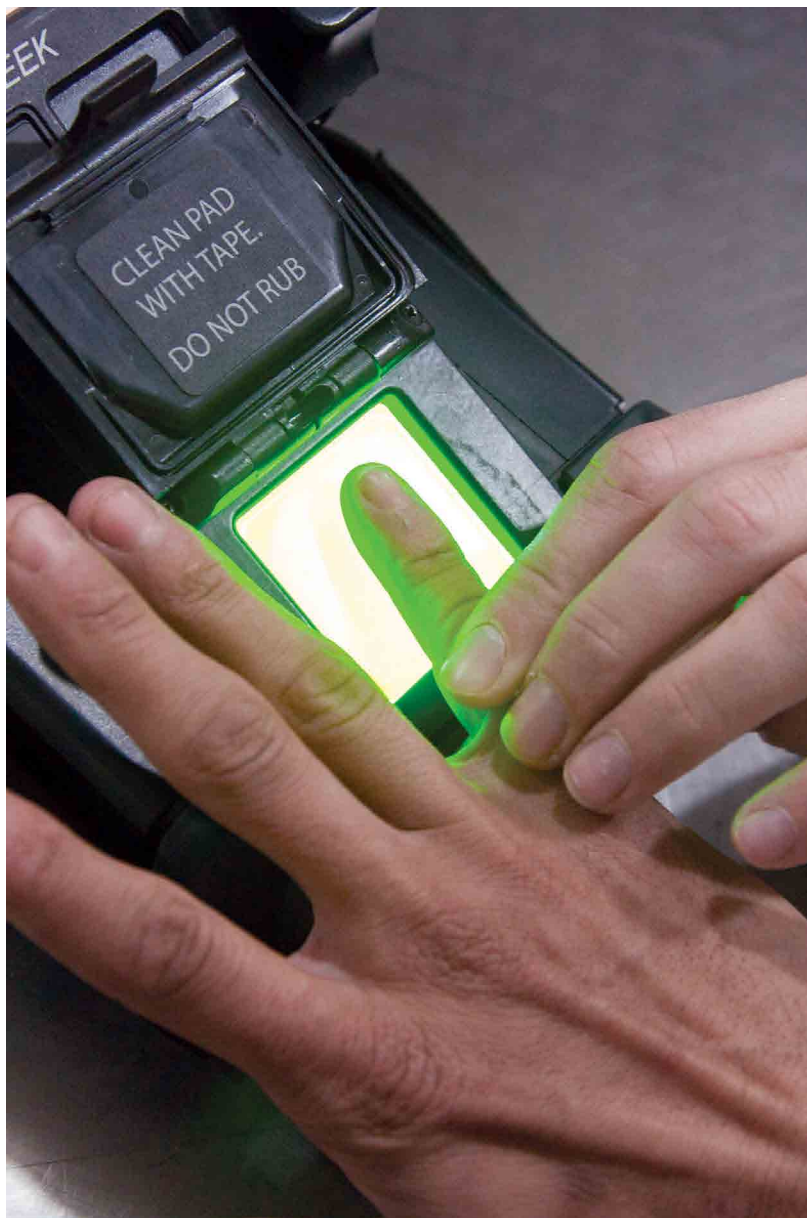
Through various diplomatic and military means, the People's Republic of China is building a footprint in the South China Sea.

Actions such as arming artificial islands and declaring an air defense identification zone have attracted great attention over the years.¹⁵

Less noticed, if no less significant, is the use of "maritime militia" forces to enforce Chinese claims to fishing grounds and islands within other countries' exclusive economic zones (some of these countries dispute claims among themselves, but all

agree the areas are not Chinese). Ostensibly fishing boats, these blue-hulled vessels perform little fishing but reliably appear in contested locations.¹⁶ They are

the lynchpin of a Chinese hybrid strategy of asserting dominance in Southeast Asian waters. Owners, captains, and crews can be tracked—often using public records—and this information can help determine the true nature of a vessel's duties.



An Iraqi security forces soldier has his fingerprints scanned 10 January 2017 during pre-training screening at Besmaya Range Complex, Iraq. Besmaya is one of four Combined Joint Task Force–Operation Inherent Resolve locations dedicated to building partner capacity where Spanish and Portuguese soldiers enhance Iraqi security force readiness through training. (Photo by Sgt. Joshua Wooten, U.S. Army)

Identity Activities' Current State

Today, most work on identity activities is done behind the scenes by organizations like the Defense Forensics and Biometrics Agency and the National Ground Intelligence Center. Ultimately, their work depends on data gathered by soldiers in the field and their interservice and interagency counterparts, which enables and enhances their decision-making.

At the level of the individual service member, most will recognize handheld biometric equipment (and, to an extent, forensic exploitation equipment) as the front line of identity activities. For more than a decade, it is through these portable biometric devices that soldiers have

been enrolling faces, fingerprints, and irises of millions of individuals and recording contextual information to build the DOD's authoritative biometric repository. And

through watch lists loaded onto the devices themselves, these records have permitted soldiers to identify wanted individuals within minutes or seconds of enrollment.

Today, most training on this equipment is provided either during predeployment training cycles or after having already arrived in theater. It is not repeated throughout a typical soldier's or unit's life cycle but is attached to mission needs. Training includes the currently fielded systems: the Biometrics Automated Toolset-Army (BAT-A), a laptop with peripherals; and the Secure Electronic Enrollment Kit (SEEK II), a self-contained handheld device.

Some soldiers, notably military police and combat engineers at the Maneuver Support Center of Excellence, receive more specialized training in the forensic exploitation of sensitive sites or for postblast analysis. The Army is currently developing a standardized forensics kit. Other services also bring forensics to the field—notably, Marine Corps law enforcement detachments have been providing an organic exploitation capability ashore and afloat since 2014.¹⁷

No field-level system for identity intelligence exists, unless one counts the watch lists loaded onto SEEK II devices as an identity intelligence tool. Instead, the analytical and decision support work associated with identity activities takes place on the back end, with responses provided to the “customer” who requires it. If an individual is not on a device's watch list of several tens of thousands of identities, a request can be sent to check against the entire DOD biometric database. Responses vary according to circumstances such as priority and communications infrastructure. Special operations forces reliably get responses in minutes; others may take longer due to more indirect data pathways or getting queued behind higher priority requests.

At the operational level, the combatant commands each have a small identity staff in either the J2 (intelligence) or J3 (operations) directorates. However it is configured, the J2 and J3 closely coordinate on planning for identity activities, which function as a fusion of intelligence and operations. Operations generate the data that feeds intelligence, and intelligence helps drive further operations, in a virtuous circle.

Current State: Common Scenarios

With the current configuration described above, identity activities have enabled successes by both the

DOD and its interagency partners over the years. The following common scenarios demonstrate how identity activities can be used successfully.

Counter-IED. Material recovered from post-blast analysis or from a bomb-making site is provided to a forensic exploitation facility. Technicians recover fingerprints from the material and compare them with records in the DOD's authoritative biometric database. If the owner of the fingerprints is known, that individual can be watch listed and detained for questioning if encountered. If the fingerprints belong to an unknown individual, then that individual will be identified if biometrically enrolled in the future.

Counterinsurgency. A computer recovered from an illicit command post is forensically exploited. Its hardware contains the fingerprints of its owners and exploitation of the data reveals photos of cell members. This permits biometric identification of these individuals later on should they attempt to gain access to coalition facilities or be encountered by coalition troops.

Fraud prevention. A host-nation troop commander attempts to collect pay for several nonexistent “ghost” soldiers allegedly in his unit. However, biometric enrollment is required before allotting pay to any individual. The lack of unique biometrics from nonexistent soldiers permits disbursing officials to spot the attempted fraud, prevent wrongful payments, and implicate the dishonest commander.

Insider threat mitigation. An individual applies for a job as a laborer at a forward operating base. However, his biometric enrollment matches to database records demonstrating links to a radical group. He is evaluated as a counterintelligence threat and permitted no further access.

Border protection. Fingerprints discovered on an IED are uploaded to the DOD's biometric database but never matched to an identity. Years later, an unknown individual attempts to enter the United States at the southern border. When his biometrics are checked and he matches the old IED record, it causes him to be detained for further questioning and adjudication, rather than continuing into the country.

Support to law enforcement. An individual arrested for drug trafficking by an allied coast guard is biometrically enrolled. Through international biometric data sharing, he is matched to U.S. records showing a prior history of affiliation with terror and

criminal groups, helping host-nation law enforcement build a case against him.

Vignette

The largest single biometric “hit,” as measured by a number of connected incidents, remains a 2011 case from Iraq. Special operations forces encountered an individual 21 July 2011 whose fingerprints were familiar to examiners the instant their images arrived. His prints matched 121 separate latent prints that had been identified over the prior fourteen months, totaling a record thirty-five separate IED cases. U.S. forces detained the individual and removed him from the fight through quick-acting computer algorithms, professional biometric examiners, and global datalinks.¹⁸

Future State: Aspirations

Identity activities have proven their worth time and time again. With continuous improvement to technology and processes, future warfighters will derive even more value from them. But whatever form identity activities may take in the future, the DOD should ensure that the following conditions are met.

Training. Future soldiers will need to be trained and equipped to conduct identity activities in a wide variety of scenarios. Rather than thinking of it as a particular system warranting a specific career field, it is better to consider identity activities like a rifle—a tool the infantry may use the most but with which everyone must be familiar.

It is for this reason a military occupational specialty (MOS) for identity activities, forensics, and biometrics may be unintentionally restrictive. An MOS would have to fall within a career field such as the infantry, military intelligence, military police, signal corps, or something else altogether—but if its practitioners were stovepiped within a single community, the availability of the skill set to others is open to question. This may either create duplication, as other communities find they need to develop the same capabilities among their own soldiers, or lack of interest, as other communities ignore the potential of identity activities because it’s too hard to access.

A preferred structure for training would be a single course open to any soldier to diffuse awareness of identity activities across the Army. A single schoolhouse would have to be responsible for it (e.g., the U.S. Army Military Police School), but this would not mean that

community is the sole custodian of the requisite knowledge. Graduates could earn a qualification and service record entry but need not carry a new MOS. This baseline course could be followed by periodic refreshers, online or otherwise, taking advantage of the latest curriculum changes validated by the relevant Training and Doctrine Command (TRADOC) authorities, such as the TRADOC Capability Manager for Terrestrial and Identity (TCM-TI). This would be most important for units preparing to deploy.

Equipment and networks. Soldiers in the field should have the very best gear available for ease of enrollment, matching, and decision support. First, a simple handheld electronic tool is necessary for conducting biometric enrollment of fingerprints, faces, and irises in the field. With an additional forensic exploitation kit that fits in a cargo pocket, that same device should be able to capture latent fingerprints as well. Second, a device that passively captures face or iris information—perhaps a camera attached to a soldier’s eye protection—should be able to identify individuals within its field of view and alert the soldier to potential persons of interest.

These mobile devices would interface with the DOD’s authoritative biometric database via common data transmission tools and networks such as the Army’s next tactical radio and WIN-T network. This would enable real-time searching and matching against full inter-agency databases, going beyond devices’ preloaded watch lists. Stable communications using whatever nodes are available would also be key. Current bottlenecks in identification workflows are less due to database capabilities than communications pathway capacity.

When planning acquisition strategy, it is worth recalling two opposing phenomena: First, mobile devices’ rapid obsolescence due to fast-changing industry capabilities and standards; and, second, the global defense community’s need to purchase large quantities of rugged and interoperable equipment able to interface with global data networks over a very long term.¹⁹ The U.S. government must enter with the assumption that it is *not* the leader in information technology, and whatever purchases it makes will be obsolete by industry standards before they are actually fielded. Thus, the government must be prepared to sustain a singular system with minimal industry support, perhaps in partnership with other allies. Alternatively, it can establish an open



architecture in which a wide variety of devices, servers, and applications procured through decentralized processes are usable as long as they conform to platform-agnostic standards.

Staff planning integration. Identity activities can offer powerful benefits if integrated into operational planning, but staffs must first understand how and why. This can begin with training at the highest echelons on the importance of collections and the analysis it enables. Once identity activities are incorporated into the commander's intent, lower echelons should have the means to incorporate them into their operations, ideally becoming part of a standard operating procedure. There is no single natural champion for identity activities at the staff level, as evidenced today by their managers at the combatant commander level being in either the J2 or J3, depending on commander or staff preference. In a new construct, it would be reasonable to make the J3 responsible for collections, the J6 (command, control, communications, computers/cyber) for routing, and J2 for analysis and reporting, with a single staff assistant (an identity operations officer, or some similar title) coordinating their actions.

Richard A. Swearengen, a latent fingerprint examiner assigned to the U.S. Army Criminal Investigation Division, Joint Expeditionary Forensic Facility 6, uses a monitor 4 May 2010 to compare a latent fingerprint (left) and a recorded finger print (right) at Kandahar Air Base, Afghanistan. (Photo by Tech. Sgt. Michele A. Desrochers, U.S. Air Force)

Such institutionalization would also require the gradual editing of numerous Army and joint publications such as those governing operations orders. Specifying a paragraph or annex in a standard operations order format for identity activities (via Field Manual 6-0, *Commander and Staff Organization and Operations*, and other references) would be of immense value in encouraging soldiers to consider the role of identity in their pending operations.²⁰

Future State: Artificial Intelligence

As an essentially cognitive process, identity activities provide numerous points at which future iterations of artificial intelligence (AI) and machine learning will play a role. Collecting, processing, and analyzing identity information all require separating relevant data from noise



and looking for patterns and trends in what remains. AI and machine learning will increase the speed and precision of these processes—and in some cases, are already doing so. AI offers great promise in support of obtaining biometric enrollments in challenging conditions, identifying matches with imperfect data, placing identity in context using data analytics, and countering adversaries' attempts to evade or confuse the system.

At the point of collection, AI can assist in creating usable files even with suboptimal data. Military operations often occur in “nonconstrained” environments; that is, the lighting is erratic, cameras are wobbly, background noise is deafening, and prevailing conditions are otherwise not conducive to capturing quality data, whether it be facial images, iris scans, voice recordings, or latent fingerprints. Humans can identify acquaintances in these circumstances but legacy biometric systems may not. AI can alleviate this, even to the point of identifying faces beneath masks, sunglasses, and other “occlusions.”²¹ Already,

A Spanish trainer takes a photo of an Iraqi security forces (ISF) soldier 10 January 2017 prior to the start of his training course at Besmaya Range Complex, Iraq. The screening process is part of the initial phase for all ISF personnel enrolled in courses throughout Iraq. (Photo by Sgt. Joshua Wooten, U.S. Army)

laboratory tests have demonstrated algorithms capable of correctly identifying faces obscured by scarves and hats up to 77 percent of the time.²² The concept could extend to enhancement of images with poor lighting, angles, or other factors.

This potentially shifts the burden of creating a usable file from enrollment hardware to intelligent software. For example, one way to obtain facial images at long range would be to use advanced cameras systems with sensitive optics. An alternate method is to employ inexpensive consumer-grade cameras but enhance the images they produce by applying AI to create usable files. Either way, the user obtains the same result, but

the latter solution may be simpler to deploy and use in an operational environment.

Once an enrollment is collected, AI can increase the speed and precision of matching that enrollment to past data to establish identity. Both new enrollments and old records may contain only partial data or other suboptimal traits (such as the faces behind scarves mentioned above). In such circumstances today, human examiners analyze the enrollment images to make match/no-match verifications when existing algorithms are unable to, which are only a small percentage of cases, but a significant commitment of time and manpower nonetheless. Properly “trained” AI, though, will enhance algorithms’ accuracy, reliability, and efficiency, further reducing the need for humans in the loop. Algorithms trained through machine learning and a large, complex data set of diverse individuals’ characteristics will be powerful tools.

Above the level of matching enrollments and building galleries, AI will be important to achieving holistic understandings of individual identities. Identity information is a series of data streams, such as biometric, biographic, and reputational, as defined in JDN 2-16.²³ Ideally, all these streams flow into a data “lake.” AI will provide the means of finding useful information in the lake of disparate data, in the form of patterns, trends, and associations that human analysts and legacy technologies may have never identified on their own. More than a financial record here or biometric identifier there, this is where “identity” will truly be found.

At all stages of identity activities, AI will contend with an ever-present threat: other AI. Doctored imagery—even in video—is increasingly prevalent and convincing.²⁴ To use a well-known but harmless example, movie producers digitally removed Henry Cavill’s moustache during reshoots of 2017’s *Justice League*, with lackluster results. In response, an internet user with essentially zero budget used a “deepfake” algorithm on a desktop computer to improve on the studio’s work.²⁵ With the diffusion of technology to create fakes in the biometric and other realms, the day may come soon that only AI can differentiate between genuine data and forgeries—between real identities and false ones. Identity activities will continue to be a vital capability, but it will also be a contested operational environment.

Conclusion

Born in combat and maturing as both an operational capability and in the DOD’s business enterprise, identity activities present an enduring enabler to military operations and internal functions. It reduces fraud and increases accountability, both in civil affairs and everyday business. Most importantly to soldiers in the field, it permits them to better separate friend from foe in any circumstance. Technology and procedures will only improve in coming years, and the Army and the DOD must be prepared to capitalize to deny the enemy anonymity. ■

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Group of soldiers from Army of the Republic of Vietnam in September 1968 with Sgt. 1st Class Norman A. Doney, 5th Special Forces Group Airborne, 1st Special Forces in Vietnam. (Photo courtesy of the U.S. Army Heritage and Education Center)



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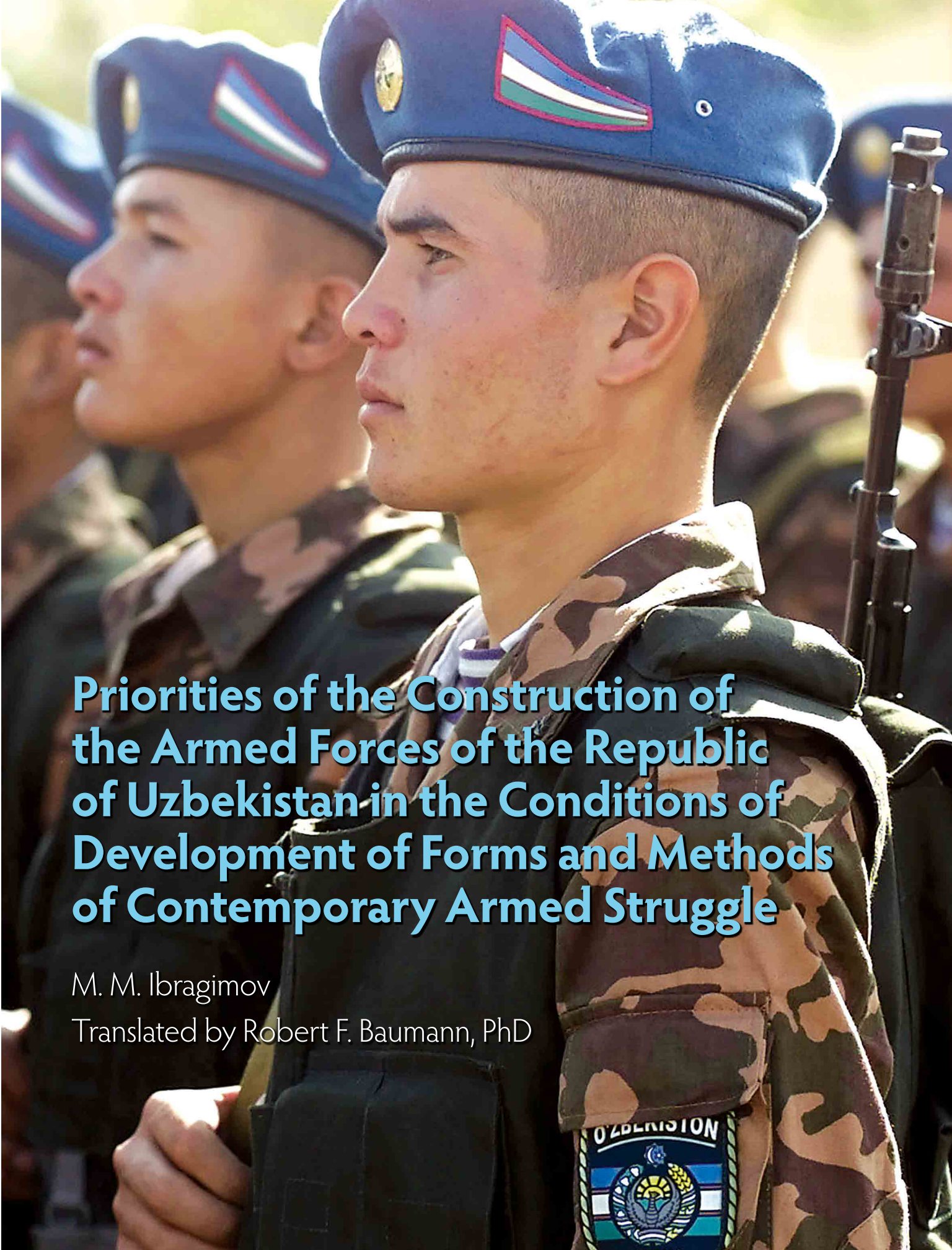
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A photograph of several Uzbek military soldiers in formation. They are wearing blue berets with the Uzbek flag emblem and camouflage uniforms. The soldier in the foreground is looking to the left. A rifle is visible on the right side of the frame.

Priorities of the Construction of the Armed Forces of the Republic of Uzbekistan in the Conditions of Development of Forms and Methods of Contemporary Armed Struggle

M. M. Ibragimov

Translated by Robert F. Baumann, PhD

At the end of 2016, Shavkat M. Mirziyoyev was elected president of the Republic of Uzbekistan by the overwhelming majority of the voters. From his first days in office, President Mirziyoyev began to implement profound reforms in all areas of state development, including in the armed forces. The Republic of Uzbekistan had not upgraded and updated the legal framework for the functioning of its armed forces since 2000. Therefore, one of the first priorities for improving the national army was to update the defense doctrine of the Republic of Uzbekistan. This article discusses the current doctrinal revisions and other new priorities identified by the leadership of the Republic of Uzbekistan for the further development of the armed forces.

Within the spectrum of measures vital to the preparation for national defense, the development of the military and the overall organization of the armed forces occupy the most important place. Military development is an integral part of overall state development and constitutes the practical implementation of the state's military policy. This policy is a crucial subordinate element in the tasks necessary to ensure the security of the country, strengthening its defenses, and preventing aggression.

As the enlargement of the spatial scope, the intensity, and destructive consequences of wars have progressed, the quantity of forces, means, and material assets applied to them have also increased. Also, the continuous military development required as an integral part of the advance preparation by the state to repel aggression has become more complex. In modern conditions, the defense establishment has become a complex system of various interrelated activities, the employment and integration of which require enormous financial and material costs involving almost all state and economic structures, the private sector of the economy, and indeed the entire population of the country.

The construction of the armed forces is ongoing constantly, intensifying during periods of increased risk to national security, especially with the emergence of a military threat, and, of course, continuing during war. The urgency of this problem for Uzbekistan is due to the fact that at the present time the armed forces of the majority of the states of the world, including the leading powers, are taking measures to fundamentally transform the organizational structure of their armed forces, modernize their technological bases and equipment, and elevate their combat capabilities.

A deep understanding of modern views, trends, and decisions in the field of military development and construction of armed forces is an indispensable condition for successful operations by Uzbek commanders in the field. In the context of continuing globalization and the transformation of the entire system of international relations, the military and political situation in the world is increasingly characterized by an expansion of the spectrum of challenges and threats to international and regional security: the intensification of the geopolitical tensions, and the growing predominance of coercive approaches to resolving conflicts and crisis situations. This has led internationally to lowering the threshold for the use of force, including employment of weapons of mass destruction, militarized solutions of disputes, the spread of international terrorism and extremism, and the rise of information and cyberattacks against states.

With increasing frequency, generally recognized principles and norms of international law are subjected to free interpretation and selective application.¹ Analysis of modern military conflicts testifies to the pattern of the unraveling of traditional norms associated with the initiation and conduct of wars. Interstate conflicts have arisen in circumstances in which countries have been attacked by significantly more economically advanced states that chose to exercise their military strength within their zones of national or security interests.

And, although all modern armed conflicts differ from each other in terms of their individual context and the composition of the participating states and duration of combat, at the same time these conflicts share common features that exhibit discernible regularities or patterns. To meet the challenges of the modern threat environment, Uzbekistan has undertaken a wide variety of initiatives aimed at upgrading and updating its armed forces.

Previous page: Uzbekistan soldiers pass in review 13 September 2000 during the Central Asian Peacekeeping Battalion (CENTRASBAT) 2000 opening ceremonies in Kazakhstan. CENTRASBAT 2000 was a multinational peacekeeping and humanitarian relief exercise sponsored by U.S. Central Command. Exercise participants included approximately three hundred U.S. troops along with soldiers from Uzbekistan, Kyrgyzstan, United Kingdom, Turkey, Russia, Georgia, Azerbaijan, and Mongolia. (Photo by Tech. Sgt. Jim Varhegyi, U.S. Air Force)



Uzbek Defense Doctrine Frames the Military and Sociopolitical Challenges

The defense doctrine of the Republic of Uzbekistan, approved in law by the Republic of Uzbekistan on 9 January 2018, describes the main characteristics of modern military conflicts:

- preparatory informational and psychological propaganda campaigns aimed at establishing political justification for engaging in conflict and shaping international public opinion on the need to use military force to resolve an outstanding dispute;
- active use, along with military force, of nonmilitary measures (political, economic, information-psychological, and others);
- the use of high-precision weapons, electronic warfare means, unmanned aerial vehicles and robotic systems, network automated control systems; the ability to pinpoint targets on the entire territory of the opposing side; high mobility and employment of self-sufficient groupings of forces;
- active participation of special operations forces, illegal armed formations, private military

companies, and other hired personnel using sabotage and terrorist methods of fighting; broad involvement and high vulnerability of the local population; and

President of the Republic of Uzbekistan and Supreme Commander-in-Chief of the Armed Forces Shavkat M. Mirziyoyev inspects a military unit in the South-West Special District 20 January 2018 during a visit to the Surkhandarya region of Uzbekistan. (Photo courtesy of the Press Service of the President of the Republic of Uzbekistan)

- deliberate disabling (disruption of functioning) of important state infrastructure, the destruction of which can trigger large-scale emergency situations, including transborder crises; and a high probability of the rapid transformation of one form of military conflict into another.²

To effectively deal with emerging threats, the construction of the armed forces should be carried out taking into account the characteristics and structure of society as well as the political, economic, scientific and technical, and military capabilities of the country.



In addition, it must consider the main characteristics of modern military conflicts.

Like any complex, multifaceted process that encompasses almost all aspects of public life, the construction of the armed forces is connected to the solution of a multitude of problems arising from the day-to-day activities of state and higher levels of military command. In accordance with these scientific assumptions, the construction of the armed forces is a process of implementing interrelated activities for their creation, continuous development, and training to fulfill the assigned tasks.

Uzbek Initiatives Aimed at Dealing with Potential Threats

The Republic of Uzbekistan during 2017–2018 managed to achieve a concrete overhaul of its strategic approach for the renewal of the country's armed forces. First, the qualitatively updated defense doctrine of Uzbekistan prioritized protecting the sovereignty and independence of the Motherland based on the principle of a flexible and open foreign policy, with particular emphasis on the development of friendly and

An Uzbek team member participates in the Scout Trail obstacle course 3 August 2017 at the Novosibirsk Higher Military Command School in the Novosibirsk region of Russia. The course was part of the Army Scout Masters competition, held during Russia's annual International Army Games. (Photo by Rostislav Netisov, Sputnik via Associated Press)

constructive relations with our neighbors. For the first time, the full content of our doctrine has been openly published so as to ensure the transparency of the defense policy of the Republic of Uzbekistan. The doctrine defines the principal approaches of Uzbekistan's defense policy, as well as the tasks and criteria for the use of the armed forces. It further outlines promising directions for the further construction and development of the national military establishment.

On 14 January 2017, Mirziyoyev extended enthusiastic congratulations to the defenders of the Motherland on the occasion of the twenty-fifth anniversary of the formation of the armed forces. In the process, he noted that he placed a high priority on the improvement of the official regulations in the national security sphere for the purpose of strengthening the nation's army:

Most of the [existing] documents in this area do not meet the realities of today. We objectively need to build a clear state system of strategic planning for ensuring national security. Central to this purpose should be regular updating as necessary of the National Security Concept, which should establish the principle of flexibility and openness of Uzbekistan's foreign policy, and prioritize developing constructive relations with our closest neighbors. At the same time, a firm commitment is needed to preserve the sovereignty and independence of the country, and the cultural and civilizational identity of our people.³

Second, taking into account the provisions of the defense doctrine and the geostrategic location of our country, the structures and tasks of the military districts have been radically revised. In particular, the structure of all units and commands of the Ministry of Defense of the Republic of Uzbekistan have been completely revised and updated.⁴ This work directly followed the president's pronouncement in early 2017 on the organizational development of the armed forces. In particular, he noted,

It is necessary to clarify the structure and tasks of each military district, paying special attention to its purpose, the specifics of the use of troops, as well as the specifics of operational areas. Considerable attention and concentration of resources also requires the task of strengthening the potential of our "air shield"—the Air Defense Forces and the Air Force. It is necessary in a short time to improve their organizational structure and management system, as well as to implement a series of measures to equip them with the latest technology and weapons.⁵

Subsequently, the military has carried out a complex series of organizational measures, which facilitated the revision of regulations and organizational structures that had formerly impeded units from fully engaging in combat training. These measures should enable the military to strengthen the professional skills of our personnel and increase readiness to fulfill the tasks required for the defense of the country. In this context, the president paid special attention to the physical and psychological resilience of those in military service.

As the recent armed conflicts in different regions of the world have demonstrated, the most serious losses resulting from hostilities among personnel are frequently associated with severe psychological stress and pressure, the consequences of which cannot be easily overcome even in peacetime. As he specified,

Heads of defense-related ministries and departments should develop fundamentally new guidelines for the organization of physical and psychological training of servicemen of all categories, with special emphasis on their applications for those experiencing combat. Servicemen should have strong health, be tough, and be able to withstand arduous physical and psychological stress.⁶

Third, the first important step in the formation of the national defense-industrial complex was the formation of the State Committee for the Defense Industry, which united all the country's key enterprises.⁷ The formation of a full-fledged defense sector of the economy in the short term will allow Uzbekistan not only to provide the national army with modern weapons and equipment but also to create additional jobs and contribute to the diversification of the country's economy.

At the beginning of last year, the president, in his directions to the armed forces, stressed,

Unfortunately, this challenge is not being addressed at the pace at which we should expect. In this regard, as a priority, we must implement the Comprehensive Program for 2017–2021, which provides specific provisions and targeted financing for the purchase of new military products,

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in addition to repair and modernization of existing equipment.⁸

In this context, he noted that in the long term, along with increasing the efficiency of the repair enterprises of the Ministry of Defense, as well as the Chirchik Aviation Repair Plant and the state enterprise of the Vostok NGO, we should concentrate on creating a scientific and production base, service centers, and joint ventures. Furthermore, he directed the planning of localization of production of certain types of military products at the country's leading enterprises.

In reality, the Republic of Uzbekistan has great potential and great opportunities for developing a defense-industrial complex. In particular, district administrative heads have the opportunity to organize in the regions production of uniforms and other specialized clothing, not to mention military goods such as various tools or dry rations. Additionally, other enterprises may be established for the production of dual-use products. In early 2018, in connection with the implementation of these opportunities, the president issued a decree conferring on provincial leaders the corresponding additional powers required to fulfill this objective.

Fourth, work on revitalizing and enhancing the role of local government bodies in strengthening the country's defense capability was introduced on an unprecedented scale. On the basis of the principle, "The National Army is our pride and honor," military administrative sectors have been created in the regions for carrying out a unified state policy in the field of defense education, ensuring the unity of the army and the people.⁹ The creation in December 2017 of military-administrative sectors in each region of the country, as well as in the Republic of Karakalpakstan and the city of Tashkent, has as its primary task the inculcation of military-patriotic spirit in our youth, as well as among the population of the country as a whole. The presence of high morale, devotion to duty, love for the Motherland, and responsibility for its fate constitute a vital moral component of defense that directly affects military capability, the security of the country, and that of its citizens.

This important, complex task was set forth by the president in January 2017:

Patriotism is the moral basis of the viability of any state and acts as an important mobilizing resource for the all-round development

of society. That is why we must take concrete steps to create lasting immunity of our citizens against the negative impact of ideas alien to our traditions and to strengthen the sense of responsibility for the fate of the Fatherland. A reliable support in this difficult work can be the young people who have gone through the army school of courage, perseverance and faithful service to the Motherland. In this regard, the management and defense departments should maintain continuous communication with them. It is important to expand the powers of these structures in this work and cooperate with local authorities.¹⁰

In this context, it should be noted that under the personal direction of the president there is improvement in the system of training professional military personnel at all levels. The first step in 2017 was the creation of a completely new academy of the armed forces which, incorporating the glorious military traditions of the Tashkent Higher Combined Arms Command School and the accumulated experience of the existing academy, as well as leading scientific and educational institutions of the country, has truly assumed the central position in Uzbekistan's unified system of military education. And now, the academy is making maximum efforts to become a leading center of contemporary military science.

The deep, and it should be noted, personal study by the president of the problems of the military training system revealed many years of problems, the elimination of which necessitated a series of coordinated efforts. Among these is the creation of a system of generational transition and programmatic mentoring in order to create not only the latest classrooms and facilities in the armed forces academy and other educational institutions but also to provide the cadets and officer-students with the most advanced, innovative knowledge and skills.

One particularly important means is through the preparation of instructors both abroad and in higher military educational institutions within the Republic of Uzbekistan. "Preparing our military personnel on a professional basis on the best means of supplying the army with modern weapons and equipment is one of the key tasks," the president noted.¹¹

Fifth, the effectiveness of social protection measures for servicemen, members of their families, and veterans



has increased. In 2017, twenty-eight residential buildings were commissioned in the regions of the country. Five hundred twenty-two servicemen were provided with modern, spacious, and bright apartments. In March-April 2018, another 720 families managed a new housewarming. This work will continue on an ongoing basis, with approximately 1,500 families of servicemen provided new housing each year.

The importance of this task, as well as the personal attention it has been accorded by the president, is evident in a statement from early 2018:

The construction of houses planned for 2018 should begin today, as this year one hundred multi-story houses are to be constructed across all regions for the benefit of military families. And I do not intend to listen to any excuses about this.¹²

Thus, the strategic approach developed for the renewed armed forces of the Republic of Uzbekistan has a deliberate and planned character. Any trip of the president to the regions of the republic (carried out more than once a month) will include unscheduled

An Uzbek team participates in the final stage of the Safe Route competition 6 August 2017 at the firing range of the Tyumen Higher Military Engineering Command School in Tyumen, Russia. The competition was part of the 2017 International Army Games hosted annually by Russia's Defense Ministry. (Photo by Sergei Bobylev, TASS via Alamy Live News)

visits to military units and formations, and seek immediate resolution of problems.

It should be noted that the reform of the national army is envisaged in the elaborated Strategy for Development Activities of the Republic of Uzbekistan in 2017–2021.¹³ In the near future, the president has prioritized tasks for the construction of the armed forces of the Republic of Uzbekistan as follows.

The first priority is the activation and enhancement of the role of civil society and state authorities on the ground, which will entail the active and personal participation of government leaders at all levels. They will be involved in a variety of matters, including the day-to-day operations of troops, improvement of the

infrastructure of military compounds, the development of military-patriotic education programs for youth, as well as cultivation of a deeper sense of pride, loyalty, and patriotism among servicemen who must be ready to defend the Motherland at any moment. Infrastructure improvements will embrace everything from new paved road networks and modern buildings to extension of fiber-optic cables to all military compounds and cutting-edge simulations and training packages. The head of the country paid special attention to strengthening work on perpetuating the memory of the heroes of modern history of Uzbekistan, including the provision of comprehensive care and support to their families and friends.

Second is an increase in the capabilities of the armed forces of the Republic of Uzbekistan in order to effectively fulfill the tasks before them. These include improving the units assigned to each military district, enhancing their combat readiness and effectiveness, and automating and optimizing the command and control systems necessary for the conduct of military operations.

Third is the need to review the regulatory framework for the planning and use of the armed forces in connection with the revision of conceptual documents to ensure

the security of the country and the improvement of organizational and staff structures.

Fourth is the requirement to further improve the system of combat and operational training of troops to raise and enhance the effectiveness and impact of exercises and training. As noted by the president,

They should be conducted with the maximum number of units and involve extensive coordination and cooperation. This will allow us to assess the capabilities of command and control networks, the actions of each serviceman—from the soldier to the commander—and the appropriateness and sufficiency of the tactics used to accomplish combat missions.¹⁴

Troops stand in formation during a visit by Supreme Commander-in-Chief of the Armed Forces Shavkat M. Mirziyoyev 17 February 2018 in the Kogon district of Uzbekistan. Mirziyoyev was visiting to familiarize himself with the Uzbek soldiers and officers, and to observe their living conditions. (Photo courtesy of the Press Service of the President of the Republic of Uzbekistan)



The fifth priority is maintaining a central focus on the systematic analysis of the real needs of troops, increasing their level of capability with the latest weaponry and other systems. In the words of the president, "In this regard, the Ministry of Defense, through the State Committee for Defense Industry, must fully implement during the period from 2018 to 2021 a comprehensive modernization program to provide troops with up-to-date weapons and other essential military equipment."¹⁵

Sixth is the further development of the social security system for servicemen. As Mirziyoyev observed, "From this point of view, it is urgent to adopt a set of measures to improve the system of social support and services within the armed forces through the year 2020."¹⁶ Expanded privileges for long-serving volunteer personnel (*kontraktniki*) of all ranks will certainly elevate the prestige of the military and stimulate recruitment. And, elevated pay scales are just the beginning. Notable improvements include access to recreational and rehabilitation facilities. Further, discussions are currently underway to enable personnel to travel to neighboring central Asian states for vacations, something almost unthinkable previously. Lake Issyk-Kul in the Tian Shan Mountains of Kyrgyzstan has surfaced as a possible destination pending an official agreement. Credit privileges for automobile purchases and housing subsidies are also on the way. Perhaps most significant will be new educational opportunities such as the reservation of spaces in institutions of higher education across Uzbekistan for children of military families.

In light of these programmed improvements, I would like to note that according to the assessment conducted by Global Firepower, Uzbekistan in 2018 ranked thirty-ninth out of one hundred thirty-six countries considered on the list of the world's most capable armies with a Power Index rating 0.7185. Thus, according to the strength of the armed forces, the Republic of Uzbekistan became the most capable in Central Asia. Among the Commonwealth of Independent States countries, Uzbekistan ranks third, behind only Russia (second place overall) and Ukraine (twenty-ninth place overall). This rating is calculated on the basis of about fifty factors: the number of persons fit for military service, the size of the mobilizable reserve, the amount of state expenditures for the military, the capabilities of the specific arms and branches of the armed forces, and many other criteria.¹⁷

The specific features of a particular state tend to shape the characteristics of their armed forces. Not the least role in this is played by the geopolitical situation in the world and the region, as well as important trends in the development of the domestic policy of the state. Surveys indicate that ninety percent of the citizens of the Republic of Uzbekistan currently support the efforts of their president. In addition, the active and sincere enthusiasm of all personnel of the armed forces to participate in the renewal of the national army gives reason to be confident of the quality and timely implementation of the goals outlined in this article. ■

Notes

1. "About the Defensive Doctrine of the Republic of Uzbekistan," Law of the Republic of Uzbekistan ZRU-458, CIS [Commonwealth of Independent States] Legislation, 9 January 2018, accessed 7 November 2018, <https://cis-legislation.com/document.fwx?rgn=102814> (license required).

2. Ibid.

3. Shavkat Mirziyoyev, "Festive Greeting of the President of the Republic of Uzbekistan to the Defenders of Homeland," The Permanent Mission of the Republic of Uzbekistan to the United Nations, 17 January 2017, accessed 7 November 2018, <https://www.un.int/uzbekistan/fr/news/festive-greeting-president-republic-uzbekistan-defenders-homeland>.

4. "Speech of the President of the Republic of Uzbekistan Sh. Mirziyoyev on January 10, 2018 at the meeting of the Security Council of the Republic of Uzbekistan in an expanded format," *Narodnoe Slovo* 6, 11 January 2018.

5. Mirziyoyev, "Festive Greeting."

6. "Speech of the President."

7. Ibid.

8. Mirziyoyev, "Festive Greeting."

9. "Speech of the President."

10. Mirziyoyev, "Festive Greeting."

11. "Speech of the President."

12. Ibid.

13. "Uzbekistan's Development Strategy for 2017-2021 Has Been Adopted Following Public Consultation," *Tashkent Times* (website), 8 February 2017, accessed 7 November 2018, tashkenttimes.uz/national/541-uzbekistan-s-development-strategy-for-2017-2021-has-been-adopted-following.

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16. Ibid.

17. "Uzbekistan Military Strength," Global Firepower, accessed 6 December 2018, https://www.globalfirepower.com/country-military-strength-detail.asp?country_id=uzbekistan.



Five Operational Lessons from the Battle for Mosul

Maj. Thomas D. Arnold, U.S. Army

Maj. Nicolas Fiore, U.S. Army



Members of the Iraqi Federal Police carry suicide belts of the type that were used by Islamic State militants 9 July 2017 in the Old City of Mosul, Iraq. (Photo by Alaa Al-Marjani, Reuters)

Future large-scale combat operations in urban areas will be similar to the operation to liberate Mosul from the Islamic State. Four key aspects of the battle foreshadow the most likely future of urban warfare for the U.S. Army: *corps-sized formations* conducting *multi-domain operations* as a *coalition force* in *dense urban environments* (DUEs).¹

Five Key Observations Regarding Urban Warfare in Mosul

In conjunction with the four key aspects noted above, analysis of the battle for Mosul further reveals five observations that should guide the operational approach to the next urban fight: (1) it is impossible to isolate a modern city, (2) difficulty increases with depth and duration, (3) attackers lose the initiative once they enter the city, (4) dense urban terrain enhances sustainment, and (5) operational reach is proportional to population support.

The Battle for Mosul was the first large-scale combat operation (LSCO) with U.S. participation since the 2003 invasion of Iraq.² The coalition's objective was to recapture the city from the Islamic State (IS) as part of a joint, interagency, intergovernmental, and multinational (JIIM) campaign to restore Iraqi sovereignty, degrade IS military capability, and ultimately defeat IS as a proto-state.³ Although IS was not a U.S.-peer competitor, it ingeniously exploited Mosul to contest coalition capabilities in multiple domains.⁴ For astute observers, the battle for Mosul portends future urban combat operations against peer-adversaries: a corps-level multinational coalition conducting large-scale multi-domain operations in contested DUEs.⁵

Large-Scale Combat Operations in Dense Urban Environments

The U.S. Army updated Field Manual (FM) 3-0, *Operations*, in 2017 to provide a doctrinal foundation for LSCO against a modern peer adversary.⁶ In *Operations*, the Army envisions a continuum of shaping, combat, and consolidation activities occurring simultaneously across an area of operations. Departing from the brigade-centric operations of the past decade, the Army will require division and corps headquarters to conduct more tactical action in close combat operations.⁷ Although U.S. soldiers did not conduct close combat in Mosul, the U.S. Army did participate in LSCO by supporting the continuum of activities described in FM 3-0 for a coalition corps of

more than one hundred thousand soldiers.⁸ Echelons above brigade synchronizing large-scale operations in contested DUEs will become a hallmark of future operations—even irregular campaigns such as stability and counterinsurgency operations. Figure 1 (on page 59) depicts how dense urban terrain and the characteristics of its associated population come together to form DUEs.

Urban terrain is both universal and unique in warfare. Historically, societies, cities, and warfare evolved together.⁹ The means of warfare are typically drawn from urban areas, and campaigns usually focus on urban objectives as the adversary's traditional seat of power and authority. Coupling global urbanization with historical realities, U.S. doctrine envisions military operations in cities as an “inevitable norm.”¹⁰

Every type of terrain has its favorable and unfavorable characteristics, but a city is the only severely restricted terrain with the population and infrastructure to both sustain and shield a large army.¹¹ Current doctrine focuses on population centers greater than one hundred thousand inhabitants because they are typically more dense and complex than villages or towns.¹² Joint Publication (JP) 3-06, *Urban Operations*, characterizes urban environments using an *urban triad* of three parts: the terrain, the population, and the supporting infrastructure.¹³ Large cities are unique because they contain all three components of the urban triad in sufficient concentration to require one or more divisions to control. A town may have thousands of people and hundreds of concrete structures packed along narrow roads, but small urban areas are easily overrun or isolated and have only small surpluses or stocks to sustain military operations. Simply put, size matters. Some urban areas are just not rich or large enough to be attractive military objectives. As Mosul illustrates, cities can serve as both the ends and the means for a military strategy while the operational ways in DUEs remain offensive, defensive, and stability operations. This article describes how Mosul's liberation foreshadows future LSCO because Mosul's size is more representative of global urban centers than the handful of megacities that grab popular attention.¹⁴

Five Operational Lessons from Mosul

While the duration and intensity of the Battle for Mosul surprised many observers, coalition commanders realized from the beginning that this battle would

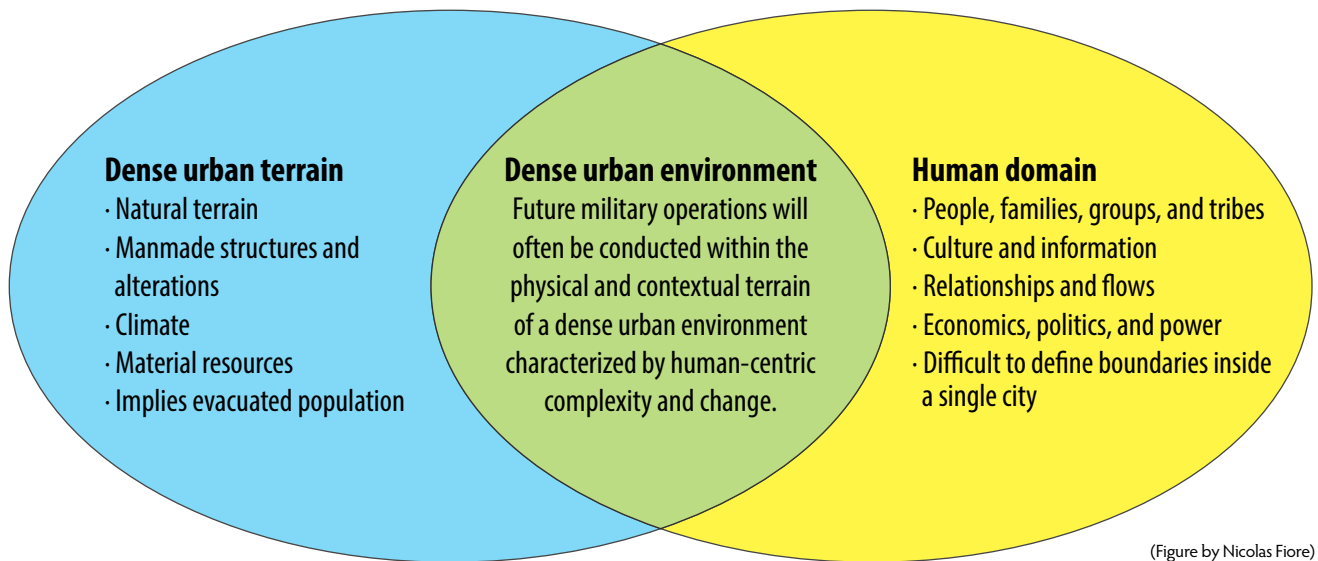


Figure 1. Dense Urban Environment

be different from recent urban operations—especially compared to IS’s rapid capture of the city in 2014.¹⁵ The study of Mosul’s liberation holds significant value to military planners because it confirms that the complex interplay between space, force, and time is best managed through operational art. Several intuitive operational lessons leap out from media accounts of the battle. First, Mosul demonstrates that DUEs can be advantageous to either the attacker, the defender, or both, depending on who recognizes and best exploits the city through their operational approach and tactics.¹⁶ Second, the battle illustrates that even subpeer threats can exploit DUEs to contest America’s advanced capabilities, prolonging conflicts and increasing costs.¹⁷ Finally, Mosul lays bare the fact that LSCO remains the decisive way of seizing a DUE from a determined defender, even when elements of a “by-with-through” strategy generate the means.¹⁸

Moving beyond media reports, a serious study of the battle reveals five counterintuitive or surprising operational lessons that should shape and inform future LSCO in DUEs:

- It is impossible to isolate a modern city.
- Difficulty increases with depth and duration.
- Attackers lose the initiative once they enter the city.
- Dense urban terrain enhances sustainment.
- Operational reach is proportional to population support.

The remainder of this article discusses these lessons and ways commanders can incorporate them into future campaign designs. Each subsection begins with a description of the phenomenon as observed in Mosul. Next, historical observations are provided to support the argument. Finally, the article recommends ways that commanders may apply the concept when planning future LSCO in DUEs.

Lesson 1: It is impossible to isolate a modern city. *Scale, mobility, and the ubiquitous cyber domain preclude tactical isolation.* U.S. doctrine considers the isolation of an urban objective essential for offensive operations and simultaneously catastrophic in the

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defense.¹⁹ However, Mosul and other long-duration sieges challenge these assumptions.²⁰ Historical examples of LSCO in DUEs often involved the tactical isolation of the defender's city, but the difficulty of isolating cities increased as they grew larger and warfare incorporated additional domains.²¹ In contemporary DUEs, infrastructure naturally increases internal mobility and offers numerous external routes that could exceed a besieger's capacity to control all avenues of approach. Additionally, ubiquitous communications technology and media coverage make isolation equally daunting—if not impossible. Even though a modern military can jam all communications, how would the United States strategically prevent journalism or word-of-mouth information sharing?²² As the scale and complexity of a city increases, the difficulty of isolating it in all domains

increases exponentially in the same way a sphere's surface area increases relative to its radius.

One hundred thousand soldiers encircled—but did not isolate—IS in Mosul. Coalition forces took only six weeks to envelop Mosul and interdict IS access to the Mosul-Tal Afar road, but surrounding Mosul with one hundred thousand soldiers did not operationally isolate the city's defenders or civilians because the coalition could not isolate IS physically or psychologically from the outside world.²³ IS maintained its lines of communication (LOC) to Tal Afar for the first four months of the campaign, despite a desert road being ideal for ground and air interdiction. Mosul's 200 sq km area is surrounded by a 50 km perimeter punctuated by ten major roads. Spread across open terrain, the coalition would have needed eight infantry brigades just to establish an inner cordon, but controlling access to Mosul's DUE was even more difficult.



IS's preparation of Mosul's DUE made controlling Mosul's perimeter even more complex. Buildings and rubble limited observation and cross-country movement and created irregular lines of contact.²⁴ Additionally, subterranean routes enabled IS counterattacks, which made the physical isolation of even uncontested sectors difficult.²⁵ Finally, civilians trapped in IS-controlled areas made psychological isolation impossible because information accompanied aid and smuggled supplies.

Similar conditions in World War II prevented LSCO attackers from isolating large cities. Siege, blockade, and relief therefrom have been tenets of warfare throughout history. In modern LSCO, siege and blockades are less successful at the operational level of war as ground combat has integrated other joint and government efforts. In World War II, the Soviet army

sustained their forces in Stalingrad for three months using riverine operations; later, the German army used a meager air bridge to sustain trapped forces in the same city for almost as long. Both sides exploited key factors of Stalingrad's DUE—wharves, airstrips, and warehouses—to mitigate the absence of a traditional ground-based LOC and used the city's hardened structures to protect combat power from the attacker's superior firepower.

In 1994, Russian mechanized divisions chose not to isolate Grozny, a 130 sq km city of three hundred thousand people. Russian columns successfully penetrated the city but failed to decisively destroy the defending Chechen fighters due to the difficulty of employing mechanized weapons systems across the DUE and failing to plan for the depth and duration of the Chechen defense.²⁶ Conversely, the Chechen



Soldiers deployed in support of Combined Joint Task Force—Operation Inherent Resolve, assigned to 2nd Battalion, 325th Airborne Infantry Regiment, 2nd Brigade Combat Team, 82nd Airborne Division, use a rooftop as an observation post 7 March 2017 in Mosul, Iraq. (Photo by Staff Sgt. Alex Manne, U.S. Army)

commander incorporated Grozny's DUE into his operational plan to defend in three lines, avoid the effects of concentrated Russian firepower, shape media coverage, and exfiltrate forces for follow-on operations.²⁷

Have realistic expectations for encirclement missions in DUEs. When designing an operational approach for LSCO in DUEs, commanders should consider whether isolation of a DUE is required or feasible. Encircling a large city will consume a large amount of combat power; recent urban battles demonstrate that complete isolation requires a unified JIIM effort and is harder than ever to achieve. If the enemy is the objective, then allowing the defender a LOC from their city gives the attacker the option to fight field battles near the LOC instead of inside the DUE. If the city is the objective, isolation could increase the defender's density as the attack progresses. As each assault becomes more difficult, tactical commanders will demand more fires to reduce or destroy strongpoints regardless of collateral damage.

For defensive LSCO in DUEs, commanders should prevent or delay encirclement for as long as possible. During this part of the operation, the wider the defender's perimeter is, the greater the opportunities for infiltration, raids, and counterattacks become. Commanders may be able to accept tactical and even operational encirclement if they are confident that they have enough depth to resist until relieved. Defending forces who plan for encirclement can stock critical supplies, prepare the terrain, and use infiltration to smuggle supplies, personnel, and information to prolong the defense.

Lesson 2: On the offensive, difficulty increases with duration and depth. *The opening phase is always the attacker's easiest phase.* As a campaign advances, progress becomes more difficult for the attacker. This phenomenon is historically attributed to the lengthening of an attacker's LOC compared to the shortening of the defender's, and to the recent phenomenon that targeting becomes more difficult as the number of actionable target sets reduces over time. In LSCO, this phenomenon is magnified by the nature of DUEs, which gets progressively more formidable as fighting proceeds from skirmishes short of the city to fighting within suburban areas and concludes with continuous combat inside the city's core. In the opening phases of LSCO in DUEs, it often appears that the attacker's rapid progress will continue, tempting the attacker to commit reserves early in order to

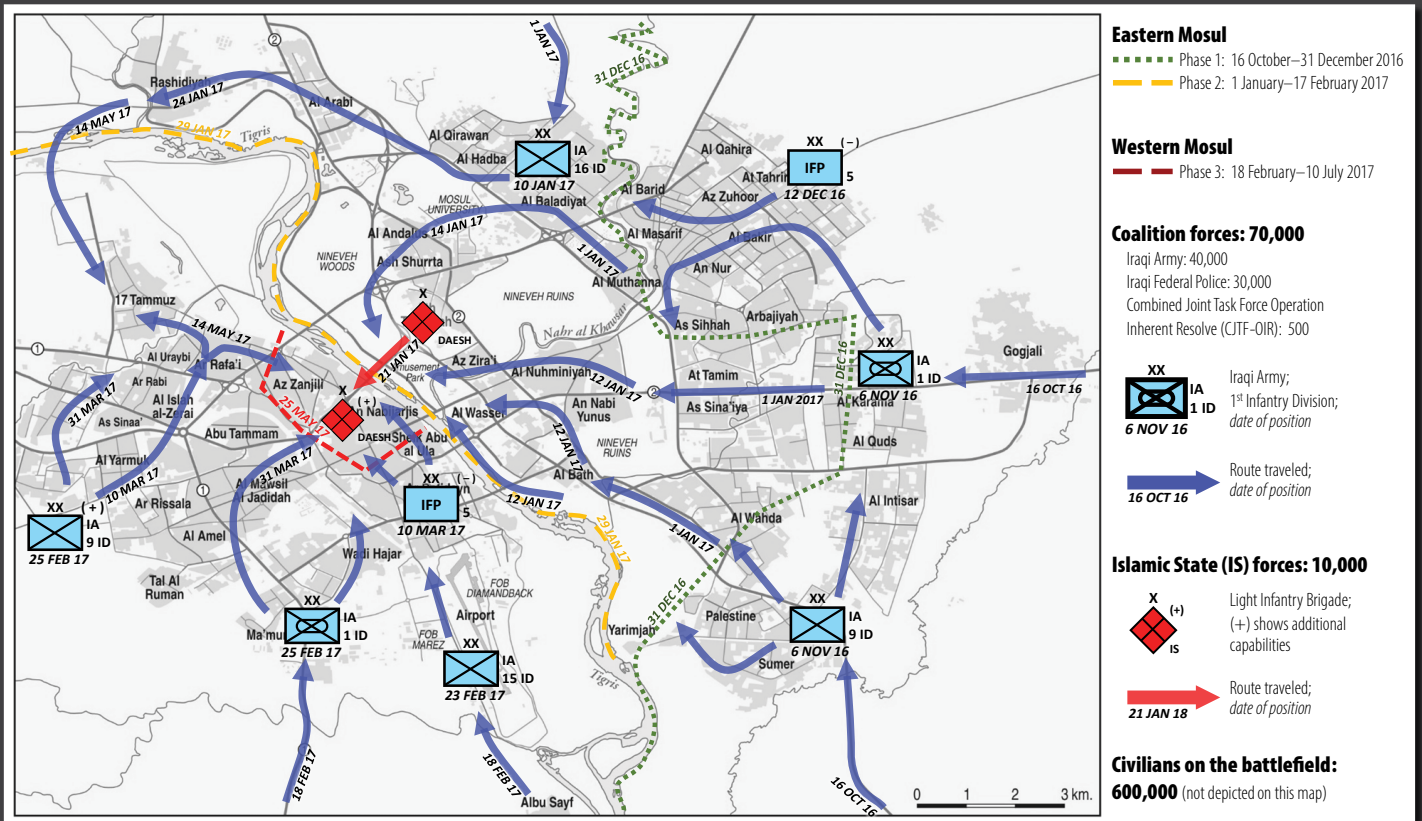
accelerate progress and decisively defeat the defender. In practice, as the attacker's tempo increases, the marginal gain from each assault decreases over time and proximity to the city's core.

Both IS and the coalition selected Mosul's Old City as the decisive point. Both IS and the coalition considered the al-Nuri Mosque, an 850-year-old national treasure in the heart of Mosul's Old City, to be the city's geographical and psychological center and therefore the operational objective.²⁸ From this perspective, IS's operational approach used Mosul's DUE to attrit coalition forces and husbanded its own military capability for the decisive battle in Mosul's Old City. In contrast, the coalition was continuously frustrated by the difficulty of seizing East Mosul's peripheral neighborhoods and key infrastructure to set conditions for the decisive attack to seize the city's core. Coalition measures of progress and predictions of victory were consistently inaccurate because tactical operations tended to decelerate as the DUE's density increased, IS adapted their tactics, and combat power was diverted to consolidate gains.

The Battle for Mosul began on 16 October 2016 with an expectation that the fighting would take three months.²⁹ This and subsequent time-specific forecasts proved optimistic. On 3 November 2016, a coalition spokesman said that the offensive was "ahead of schedule," but by early December, the battle was an operational stalemate in Eastern Mosul.³⁰ The coalition conducted an operational pause to regenerate combat power before pressing the attack and liberating eastern Mosul on 24 January 2017.³¹ After approximately five more months of increasingly intense combat, the coalition declared victory on 9 July 2017 from the site of the destroyed al-Nuri Mosque. Despite the declaration, fighting in isolated pockets—predicted to last three days—continued for another two weeks.³²

At the beginning of the battle, coalition ground forces were 40 km from the al-Nuri Mosque. Within a week, the coalition halved that distance to 20 km. After two more weeks, distance reduced to 10 km with the trend continuing in a negative logarithmic curve. Figure 2 (on page 65) shows the distance from the al-Nuri Mosque to the coalition front line of troops over time. As the coalition fought deeper into Mosul, the rate of gains decelerated from kilometers per day at the outset to single-digit meters per day by the end of

Battle for Mosul



(Original map used with permission from the Institute for the Study of War, 2012; modified by Nicolas Fiore)

Phase I

Iraqi army 1st and 9th Divisions entered the outskirts of eastern Mosul in early November 2016. The Iraqi 15th and 16th Divisions followed a few days later, with the 15th attacking from the south and the 16th from the north. By the end of the month, the Iraqi military assessed it had taken control of nineteen neighborhoods, nearly 30 percent of Mosul east of the Tigris River.

The attack continued into December. On 12 December, three Iraqi Federal Police brigades joined three special operations forces “Golden Division” counterterrorism brigades attacking in the east of the city. Pro-government forces conducted an operational pause at the end of the month to refit, repair, and rearm. Iraqi Prime Minister Haider al-Abadi stated that Iraqi forces were in control of over a third of Mosul.

Phase II

In late December, Iraqi forces continued their advance from three directions into eastern Mosul. The Islamic State (IS) fought back aggressively, cutting off a strategic road linking Mosul and Baghdad and shelled Shirqat after attacking a military barracks near Baiji to seize weapons. Iraqi forces regained control of the road, and on 12 January 2017, Iraq announced it was in control of about 85 percent of east Mosul.

On 21 January, CJTF–OIR announced they had targeted a flotilla of ninety boats and three barges being used by IS to escape across the

Tigris River, and on 24 January, al-Abadi announced the “full liberation” of eastern Mosul.

On 13 February, IS forces launched an unsuccessful attack near Tal Afar (west of Mosul) to regain a line of communication between western Mosul and Raqqa, Syria.

Phase III

On 19 February, al-Abadi announced the commencement of the next phase of the operation that would capture western Mosul. On the 23rd, Iraqi forces attacked to seize the Mosul airport, and on the 24th, they entered western Mosul for the first time. Iraqi forces continued to advance, and on the 28th, the Iraqi 15th Division was preparing to storm Tal Afar to the west of Mosul.

Fighting intensified in March, with Iraqi forces making slow advances and IS fiercely counterattacking. By 11 March, Iraqi forces had reached the “Old City” center of Mosul, but the battle there continued through March and April, and into May. On 16 May, Brig. Gen. Yahya Rasool of Joint Operations Command stated during a press conference that government forces controlled 89.5 percent of western Mosul and had killed 16,467 IS members since the start of operation.

Iraqi forces continued to make deliberate progress through June and into July. On 10 July, al-Abadi declared victory, although isolated clashes continued for the next few months.

the operation.³³ Figure 2 also shows coalition casualties over time; it is noteworthy that 75 percent of the 8,200 coalition casualties were incurred during the intense Phase 3 fighting in West Mosul's Old City.³⁴

Rapid geographic progress in the opening attack often leads to false confidence. Planning during the German siege of Stalingrad suffered from the same phenomenon. Rapid progress in the first two weeks of the attack penetrated the Soviet suburban perimeter and threatened to destroy two corps. German progress eventually slowed as the battle compressed Soviet defenders into the city's ever-thicker DUE, which eventually robbed the Germans of the initiative.³⁵ Three months from the beginning, the tables were turned and the Germans were themselves surrounded.³⁶

U.S. Marines fighting to liberate Seoul in 1950 had a similar experience. It took the Marines two days to reach the edge of Seoul, one hundred miles from Incheon. The next day, the Marines crossed the Han River and advanced four more miles, but as the terrain grew hillier and enemy resistance increased, the pace slowed to one mile per day for four days. Although the Marines successfully captured the city, they did not accomplish their secondary objective of trapping all North Korean units south of Seoul because planners did not account for the increase in difficulty as operations advanced.³⁷

Allocate the greatest share of resources for the most difficult phases of the operation. In Mosul, the coalition's best divisions sustained heavy casualties at the beginning of the operation and required several operational pauses to integrate replacements and deploy additional units before the attack could resume.³⁸ Commanders must consider the depth and expected duration, and then ensure that fresh forces will be available for the decisive fighting at the end of the battle. This can be accomplished by rotating units away from the front, by generating a fresh unit in time for the final assault, or by preserving combat power by holding elite units in the reserve. The last option may seem counterintuitive, but it would allow the commander to develop the situation, then commit the reserve later when the enemy is weaker. If the defender's perimeter is still broad and thin, the attacker could penetrate the DUE's core and destroy the defender's interior lines before the deepest defenses can be established. Defending commanders should maintain a dedicated counterattack or spoiling attack force, then quickly replace it with general defense forces who will absorb the attacker's return blow.

Lesson 3: Attackers lose the initiative as soon as they enter the city. *"Storm or siege" is the attacker's last free choice.* Historically, the attacking commander has the operational initiative for the preponderance of a LSCO campaign. The strategic decision to initiate hostilities is usually associated with the ability to commit forces superior to the defending military. If defeated in the field, the defender may retreat to a large city to use its DUE to preserve force, extend operational reach, and gain the tactical initiative.³⁹ Often the attacker may not bypass the city due to its strategic or operational value, and must choose to assault or besiege the city. Once the attacker invests a city, the siege continues until it culminates in a successful assault or the siege is defeated. Attackers can choose to mass their full capability anywhere on the defender's perimeter, but once the attacking forces are inside the DUE, their commitment is typically irrevocable. This "storm or siege" decision is difficult but unconstrained—the defender must wait, unable to influence that decision.

IS maintained the initiative in Mosul by controlling the fight's tempo and conditions. In May 2015, IS defeated the first coalition operation to liberate Mosul with a spoiling attack that seized Ramadi. Over the next eighteen months, the coalition defeated IS's ability to conduct offensive operations and began the campaign to invest the Mosul metropolitan area. In October 2016, the Iraqi prime minister announced the operation to liberate Mosul. IS's operational response was a contiguous area defense-in-depth with tactical spoiling attacks and counterattacks to disrupt the coalition during tactical transitions.⁴⁰

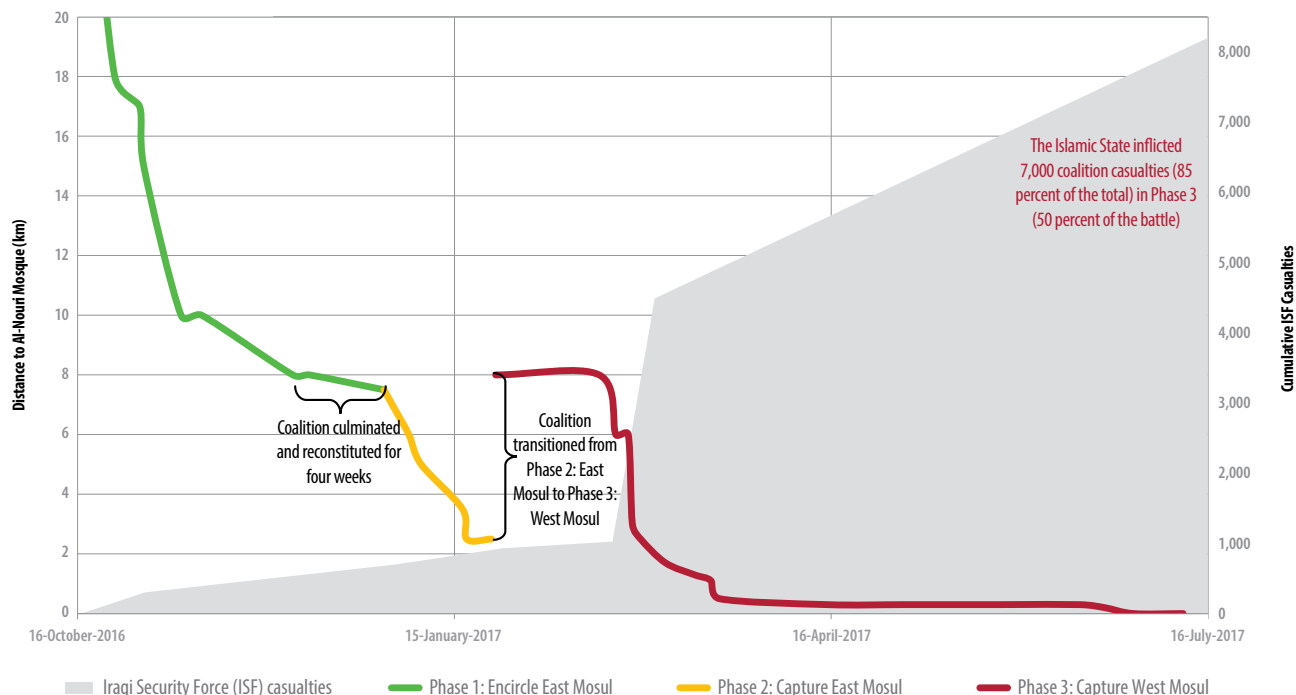
The coalition was able to bring overwhelming combat power to every assault, but inside Mosul, the friction of attacking through prepared terrain and IS's dynamic defense nullified many of the coalition's warfighting advantages. IS integrated obstacles and employed novel combinations of military hardware and civilian equipment to contest coalition land operations from multiple domains. IS retained the operational initiative by varying resistance by sector to control the tempo of the battle, massing fires to culminate specific coalition units, and adapting sustainment basing as the operation progressed.⁴¹

The scale of the operation and IS's use of Mosul's DUE made it difficult for the coalition to influence IS's operational decisions, despite coalition air supremacy, continuous strikes, and daily attritional gains. By December, the coalition culminated, and IS decided not

to retrograde from Mosul. Instead, they allowed the encirclement of ten thousand personnel with a new goal to attrit so many Iraqi soldiers that the coalition would lose its will to continue the campaign.

During the operational pause, the coalition consolidated gains, prepared to resume the offensive, and then successfully seized eastern Mosul. IS prevented the coalition from projecting force across the Tigris River, which forced the coalition to repeat the operational approach in western Mosul. The coalition did not com-

LSCO in a DUE can culminate an army. In 1942, German Army Group B seized Stalingrad but at the cost of its operational armored capability, without which it was unable to counterattack or break out from Soviet Operation Uranus.⁴⁴ The campaign also took too long. By the time Stalingrad was seized, the operational planning assumptions were no longer valid, the entire front's summer offensive was desynchronized, and the Germans never regained the operational initiative against the Soviet Union.



(Figure by Nicolas Fiore. Offensive territory gains declined exponentially but casualty rates increased as the battle progressed toward Mosul's core, even with two operational pauses to consolidate.)

Figure 2. Distance to al-Nuri Mosque in Mosul's Old City from the Nearest Iraqi Security Force Unit Over Time (with ISF Casualties)

pletely regain the initiative until March when it defeated IS's ability to use the Tal Afar road and constricted the remaining five thousand defenders to the 10 sq km perimeter of Mosul's Old City.⁴²

DUE combat has defeated many excellent field armies. Sun Tzu advised commanders to avoid besieging and attacking walled cities because LSCO in DUEs risks the attacker's army.⁴³ Besides high casualties, prolonged sieges degrade readiness, erode operational reach, and surrender the initiative. Even successful

The 1994 Russian operation in Grozny suffered from many intrinsic factors, but Russian forces would probably have performed better outside of Grozny's DUE. Superior fires, mobility, and sustainment capabilities might have helped Russia retain the initiative in a field campaign. Instead, the decision to storm Grozny in four columns was the last time Russia enjoyed the freedom of maneuver against an inferior force constrained to the city's core. Chechen separatists retained the operational initiative for two

weeks until fresh Russian forces arrived to employ a new fires-centric operational approach that secured Grozny but destroyed much of the city and attrited Russia's military capability and political will necessary for follow-on operations.⁴⁵

Attackers can retain the initiative by synchronizing operations to seize essential objectives. The Israel Defense Forces (IDF) used a methodical but semicontiguous approach in their 1982 campaign to destroy the Palestinian Liberation Front in Beirut, Lebanon. Israel's operational approach in Beirut consisted of a contiguous siege line to beleaguer Palestine Liberation Organization (PLO) forces for seven weeks, supplemented with daily strikes and limited-objective ground penetrations to maintain the operational initiative.⁴⁶ The air, artillery, and ground raids destroyed enemy concentrations, prevented the PLO from counterattacking successfully, and continuously attrited PLO capability at low risk to the IDF.⁴⁷ Scope and time were critical elements of the Israeli operational approach. The IDF had permissive rules of engagement and sufficient time to develop each tactical strike and raid, and the Israeli army intentionally kept the siege frontage broad in order to spread PLO defensive forces across a wide array of tactical objectives.

Maintain the initiative to avoid general combat along a linear front. At the tactical level of war, DUEs can equalize combat capabilities as two forces fight in close proximity, with limited line of sight, in a hardened area dense with civilian presence. There is a tendency in LSCO in a DUE for combat to settle into an impasse along a linear front, especially if strategic objectives limit the time available to prepare for the operation. Linear contiguous fronts may seem unavoidable in DUEs as attackers maneuver to encircle and sever exterior lines of communication, while defenders establish positions to secure interior lines. Attackers and defenders can, however, maintain the operational initiative by controlling the tempo of combat, using reserves and strikes to desynchronize and defeat the enemy's offensive capability, and prioritizing the destruction of enemy concentrations more than control of terrain. Commanders should design their approach to mitigate DUEs' tactically equalizing effect.

Lesson 4: Dense urban terrain enhances sustainment. *Cities both complement and supplement military sustainment.* There is a myth that urban terrain favors the defender—that logic does not apply to any other type

of terrain and should not be accepted about DUEs.⁴⁸ Terrain can favor any operational approach that is crafted to take advantage of its natural and potential characteristics. Uniquely, DUEs are the only severely restricted terrain that offers complements and substitutes to enhance sustainment.⁴⁹ Compared to other types of severely restricted terrain (e.g., jungles, mountains, and swamps), DUEs have numerous features that can offer both sides operational advantage: roads, concealment, and reservoirs of civilian manpower. This section will discuss incorporating DUE into LSCO operational design separate from incorporating the population into LSCO because even a depopulated city, such as Stalingrad, can offer military advantage.

Mosul's DUE supported both IS and coalition operations. IS's operational approach used Mosul's DUE to create a near unassailable defense-in-depth.⁵⁰ In no other terrain could IS have equipped, sheltered, and supplied as large and capable a force against coalition attack so effectively and for so long. In Mosul, IS's sustainment operations used complementary assets such as hospitals, warehouses, roads, and civilian vehicles to augment their militia-like capabilities. The scale of Mosul's DUE supplemented IS's ability to resupply the defenders from their support zone in Syria and Tal Afar until Mosul was finally encircled. Even then, IS paid and coerced civilians to harvest the city for all classes of supply to sustain a robust defense for four more months.⁵¹ This effort yielded unexpected substitutes such as locally-crafted unmanned aircraft systems (UASs) and vehicle-borne improvised explosive devices (IEDs) to replace traditional intelligence and fires capabilities.⁵² Finally, the extended duration gave IS fighters time to develop and improve tactics for their employment.

As fighting in eastern Mosul intensified, the coalition also adapted their sustainment to the DUE's organic advantages. IS's lack of long-range artillery allowed the coalition to compress their tactical sustainment systems into newly consolidated neighborhoods. Soldiers occupied buildings instead of tents, and sustainment infrastructure moved into the city and was distributed to smaller and more numerous tactical support areas only a few blocks from the front lines. Combat power was allocated to restoring essential services in newly liberated neighborhoods, while hospitals served as a substitute for external refugee camps.⁵³ Civilian bulldozers were commandeered to fill essential mobility and protection gaps, and even



used as a substitute for mechanized infantry support in combat.⁵⁴ These sustainment complements and substitutes are not organically available in any other terrain and would have required slow and expensive procurement to create the same tactically enabling results.

Defenders tend to exploit LSCO in DUEs sustainment opportunities best. IS, like most defending forces in history, had time to prepare for and tailor sustainment practices for Mosul's DUE. Defenders are able to benefit from DUEs over a longer period of time before combat degrades sustainment opportunities. Mosul, Beirut, and Grozny fit the pattern for LSCO in a DUE where defenders employ intact terrain to sustain a delay operation, causing attackers to employ massed firepower in an attempt to attrit the defenders, increase tempo, and regain the initiative. As a result, attackers usually seize damaged terrain that is less valuable to their operational efforts than it was to its previous defenders. IS's ability to manufacture weapons under LSCO siege was innovative but not novel, some Russian factories in Stalingrad operated until the day the Germans captured them. The Germans, however, did not—or could not—use the same infrastructure when they were later besieged. Defenders

Iraqi Counter Terrorism Service surgeon Lt. Col. Hayder al-Sudani treats a girl at a processing station for internally displaced people 3 March 2017 near Mosul, Iraq. (Photo by Staff Sgt. Alex Manne, U.S. Army)

usually have an internal mobility advantage in DUEs due to road infrastructure, but attackers do not gain an equal advantage as they seize terrain because the fighting often degrades the trafficability of captured roads.

Integrate DUEs sustainment assets into the operational approach. All terrain confers military advantages and disadvantages, but DUEs are unique in their ability to sustain combat power. In their 1982 operation in Beirut, the Israeli army appreciated this fact and carefully avoided combat in areas that could offer military value later in the operation. Commanders should assess the value of a city's key terrain and general urban infrastructure to both the attacker and the defender, looking to use or deny complements and substitutes over the scope of the operation. Sustainers should also anticipate that DUEs tend to disaggregate forces more than other terrain and may require a different distribution plan.

Lesson 5: Operational reach is proportional to population support. *Local people can concretely assist, or hinder, the employment of combat power.* At the strategic level, joint doctrine primarily envisions civil-military interaction in the information and cognitive environments to influence the popular attitudes that shape a society's collective action in support of one combatant or the other.⁵⁵ The Battle of Mosul and other historical LSCO in DUE campaigns suggest that, at the operational level, both attackers and defenders should employ resources in the physical environment to mobilize individuals and groups to achieve operational objectives. Population support is the Maoist concept that the people's aggregate actions—related to but not entirely dependent on their attitudes—can enhance or degrade warfighting and operational reach.⁵⁶ In a DUE, tens of thousands of people who can support or interfere with operations live in extreme proximity and therefore have consistent opportunities to do so. The aggregate of a DUE objective's population support can decisively enable or frustrate a combatant's ability to achieve operational objectives.

IS used Mosul's civilians to extend its operational reach—both in duration and distance. In 2014, IS seized Mosul and large portions of Iraq using a small military force enabled by population support. Sympathetic

individuals, Baath-affiliated groups, and captured government facilities provided information, sustainment, and even combat power to allow the IS attack to seize and then consolidate gains further and faster than anyone anticipated.⁵⁷ During the two years IS occupied Mosul, it invested significant resources and manpower to control the population's attitudes, beliefs, and actions through a combination of intimidation and incentives because IS would need population support to sustain its defense of Mosul.

When the coalition attacked in strength, IS's regular military force consisted almost entirely of light infantry maneuver and short-range fires capabilities. All other warfighting functions were performed by civilians—local and foreign—contributing population support within Mosul's DUE.⁵⁸ Mission command was facilitated by civilian couriers who provided assured communications. Intelligence came from

The United Kingdom Bridge Training Team advises and assists Iraqi security forces 20 March 2018 in construction of an Acrow Poseidon bridge over the Tigris River in Mosul, Iraq. This effort is part of Combined Joint Task Force–Operation Inherent Resolve, the global coalition to defeat the Islamic State in Iraq and Syria. (Photo by Pfc. Anthony Zendejas IV, U.S. Army)



civilian human and open-source intelligence analysis. Civilians dug communications tunnels and trenches, drove bulldozers to build berms, and served as mobile protection platforms to deter coalition strikes. Civilian households distributed all classes of supply to small units and provided medical support, and civilian labor manufactured weapons including precision UAS-IEDs, vehicle-borne IEDs, and suicide vest IEDs from commercial off-the-shelf components.

Exit interviews with refugees indicate that much of this population support may have been involuntary, yet their physical contribution to IS's war effort was critical to the duration and effectiveness of IS's operational reach.⁵⁹ IS harnessed the hundreds of thousands of civilians in Mosul's economic footprint to produce and distribute supplies with minimal manpower, providing an extremely favorable tooth-to-tail ratio that allowed them to project more combat power further than a similar conventionally organized and sustained force. On the opposite side, the same civilian population did comparatively little to enhance coalition operations. Once liberated by the legitimate government, civilians escaped to safety and the coalition expended resources and combat power to secure and sustain the civilians: soldiers distributed supplies, provided medical care, and constructed shelters, adding to a net reduction in coalition operational reach.

In LSCO in DUEs, the population usually provides more support to the defender. Historically, DUE defenders extract physical support from urban populations, while the task of rebuilding the city and restoring its society falls to the attacker. Unless the attacker has full surprise, defenders usually have time to integrate civilian manpower into an operational approach that demands social cohesion to "defend our homes." Defenders often coerce population support through a combination of appeals to a common identity, incentives, and threats of violence. The defender also benefits from a siege's effect on the city's economy: with external commerce interrupted, the lack of competing economic activity suppresses the price of labor to, or even below, subsistence levels. Irregular militaries go to great lengths to maintain control of this captive labor market because they rely on civilian population support to provide combat forces with additional capabilities and operational reach.⁶⁰ In contrast, professional militaries avoid incorporating population support into their

offensive or defensive operational approach because they are usually sustained organically from national support and prefer to evacuate the population in order to use fires with reduced risk of civilian casualties.

Invest resources to mobilize and extract concrete support from the population. Joint doctrine stipulates that one of the fundamentals of urban operations is to "persuade municipal governments, groups, and population segments to cooperate with joint force operations."⁶¹ LSCO in DUEs are usually of long-enough duration that commanders should invest resources and establish an expert JIIM team to convert potential population support into improved operational reach.⁶² In a friendly country—perhaps, the defense of a NATO partner—an operational approach could contract civilian labor, recruit local volunteers as human intelligence sources along LOCs to enhance rear area security, and augment humanitarian assistance for displaced people. Active population participation may prove decisive by improving cohesion, legitimacy, and the likelihood of sustaining the defense long enough for strategic relief. Militaries that choose not to incorporate population support into their operational design leave locals idle and risk their adversary discovering a way to harness the latent population support.

Conclusion: Militarize the DUE in the Operational Approach

The coalition defeated IS's tenacious defense and liberated Mosul by integrating violent Iraqi ground maneuver with advanced U.S. capabilities within Mosul's militarized DUE.⁶³ The 2017 Mosul Study acknowledged the benefit that Mosul's DUE offered to the coalition, saying that "U.S. soldiers and Iraqi soldiers did not merely endure close urban combat but also adapted not only their tactics, techniques, and procedures, but also technology [to defeat IS]."⁶⁴ The *Army Operating Concept* anticipates LSCO against near-peer threats in cities characterized by dense urban terrain.⁶⁵ In order to seize or defend a DUE objective without culminating, commanders must militarize the terrain to identify and assimilate its unique opportunities into their operational design and tactics. Historically, the most innovative uses of DUEs are uniquely tailored to a specific city and rely heavily on support from the city's existing infrastructure and population to generate complementary and supplementary capabilities. Instead of

adjusting operational approaches to a city, commanders should incorporate elements of that city into their operational approach with the goal of retaining the initiative and extending operational reach while preserving combat power late into the decisive phase of the

battle. Commanders can tailor the degree of isolation required, fight for select objectives to control the tempo and location of ground combat, and avoid the high attrition and material cost that historically characterize LSCO in DUEs. ■

Notes

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2. Field Manual (FM) 3-0, *Operations* (Washington, DC: U.S. Government Publishing Office [GPO], October 2017), para. 2-62. Large-scale combat operations are those that utilize echelons above brigade as actual warfighting formations and not just as headquarters.
3. Combined Joint Task Force–Operation Inherent Resolve (CJTF–OIR), "The Campaign," CJTF–OIR (website), accessed 9 October 2018, <http://www.inherentresolve.mil/campaign/>.
4. Gary Volesky and Roger Noble, "Theater Land Operations: Relevant Observations and Lessons from the Combined Joint Land Force Experience in Iraq," *Military Review* Online Exclusive, 22 June 2017, accessed 9 October 2018, <http://www.armyupress.army.mil/Journals/Military-Review/Online-Exclusive/2017-Online-Exclusive-Articles/Theater-Land-Operations/>.
5. The map was constructed from open source coalition announcements that cited units, locations, and dates. The U.S. Army Campaign History: CJTF–OIR estimated the Islamic State (IS) strength in Mosul at 3,000 to 5,000 fighters (light infantrymen) inside Mosul and 1,000 to 2,500 in perimeter areas; but to keep strength estimates in line with historical convention, our estimate of 10,000 total IS personnel also includes the combat support and service support personnel that gave IS an equivalent strength of two light infantry brigades. The CJTF–OIR History estimates a coalition campaign strength of 94,000, including allied militia, which we have rounded to 100,000 to account for casualty replacements. The map depicts the estimated 70,000 Iraqi Security Forces soldiers who fought inside Mosul. See Kogon, "The Coalition Military Campaign," 15–16.
6. Mike Lundy and Rich Creed, "The Return of U.S. Army Field Manual 3-0, *Operations*," *Military Review* 97, no. 6 (November–December 2017): 14–20.
7. FM 3-0, *Operations*, ix–xii.
8. Tim Lister, Mohammed Tawfeeq, and Angela Dewan, "Iraqi Forces Fight IS on Mosul Streets," CNN, 4 November 2016, accessed 9 October 2018, <http://www.cnn.com/2016/11/03/middleeast/mosul-offensive-iraq-troops-in/>.
9. Roger J. Spiller, "On Urban Operations and the Urban Environment," in *Sharp Corners: Urban Operations at Century's End* (Fort Leavenworth, KS: U.S. Army Command and General Staff College Press, 2001), 1–37.
10. Army Techniques Publication (ATP) 3-06, *Urban Operations* (Washington, DC: U.S. GPO, December 2017), 1-1.
11. Joint Publication (JP) 3-06, *Joint Urban Operations* (Washington, DC: U.S. Government Printing Office, November 2013), I-6.
12. Ibid, I-2.
13. Ibid.
14. There are forty-six megacities on Earth today. There are approximately one thousand "middleweight" cities of populations between five hundred thousand and 9.9 million people. Historically and statistically speaking, military operations are more likely to occur in urban areas smaller than megacities. For an expanded discussion, see Hedges, "An Analytic Framework for Operations."
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17. Stephen J. Townsend, "Multi-Domain Operations in Megacities" (presentation, Association of the United States Army 2017 LANPAC Symposium & Exposition, Honolulu, 23 May 2018).
18. Volesky and Noble, "Theater Land Operations."
19. ATP 3-06, *Urban Operations*, 4-58, 5-36.
20. Townsend, "Multi-Domain Operations in Megacities."
21. Thucydides, *The Landmark Thucydides: A Comprehensive Guide to the Peloponnesian War*, ed. Robert B. Strassler (New York: Free Press, 2008), 98–104. Sparta's futile attempts to isolate Athens during the first year of the Peloponnesian War are a good example.
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23. "Mosul Battle: Iraq Militias 'Cut off IS Access to City,'" BBC News, 23 November 2016, accessed 9 October 2018, <http://www.bbc.com/news/world-middle-east-38079602>.
24. Richard E. Simpkin, *Race to the Swift: Thoughts on Twenty-First Century Warfare* (Washington, DC: Brassey's Defence, 1985). Dense urban environment is not universally severely restrictive terrain; urban areas increase mobility along certain avenues but severely restrict movement in all other directions. Simpkin would have called this going against the grain of the terrain.

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44. Hart, *History of the Second World War*, 263.
45. DiMarco, *Concrete Hell*, 151–68.
46. Avi Shlaim, *The Iron Wall: Israel and the Arab World* (New York: W. W. Norton, 1999), 410.
47. Gott, *Breaking the Mold*, 65.
48. JP 3-06, *Joint Urban Operations*, I-7.
49. Standard professional economics terminology. Briefly, a complementary good is something that, when combined with an existing asset, increases value of both the original asset and its newly acquired complement. In warfighting terms, this is something that increases the effectiveness of an existing military asset (tanks without fuel are expensive bunkers). A substitute good is a replacement that is as effective as the original. We prefer to use the least valuable substitute that can still accomplish the mission, such as unmanned aircraft systems (UAS) instead of aircraft for close air support; furthermore, we prefer to use artillery to free UAS platforms for reconnaissance.
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51. *Ibid.*, 38–40.
52. *Ibid.*, 32.
53. *Ibid.*, 40.
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Waging Wars Where War Feeds Itself

Col. Erik A. Claessen, Belgian Army



Members of Egypt's leading opposition group, the April 6 Youth Movement, light flares and shout anti-Muslim Brotherhood slogans 6 April 2013 during a rally in front of the prosecutor general's office in Cairo. Thousands of activists took to the streets to mark the fifth anniversary of the founding of the group and to push a long list of demands on then President Mohamed Morsi, including the formation of a more inclusive government, amid a worsening economy. (Photo by Amr Nabil, Associated Press)

In 2011, Robert Gates concisely answered the question, “Which of the world’s hot spots is the Army least prepared for?” In his opinion, “Any future defense secretary who advises the president to again send a big American land army into Asia or into the Middle East or Africa should ‘have his head examined,’ as General MacArthur so delicately put it.”¹ He furthermore stated that “the Army also must confront the reality that the most plausible, high-end scenarios for the U.S. military are primarily naval and air engagements.”²

Seven years have passed during which dramatic sociopolitical evolutions have swept through the regions Gates mentioned in his speech. This allows us to subject his observations to a reality check.

Regarding the nature of contemporary American military interventions, he has been spot on. These operations were primarily naval and air engagements, as shown by operations in Libya, Syria, and Iraq. They were also very effective and produced quick results at almost zero casualties. The only problem is that they did not achieve the results that the U.S. government desired. After Mu’ammār Gaddhafi’s death, Libya descended into a civil war that spilled over to Mali. In eastern Syria and northern Iraq, the decision not to deploy U.S. Army forces in large numbers allowed Kurdish factions to act as proxies. The political and diplomatic recognition they derived from their successes on the ground greatly irritated Turkey, a key NATO ally. In western Syria, Iranian Pasdaran (Islamic Revolutionary Guard Corps) and Lebanese Hezbollah fighters roam at will in support of Bashar al-Assad’s regime under the protection of Russian fighter jets. Of course, this does not necessarily mean that the presence of Army forces on the ground would have led to a more successful conflict termination.

The question is, “What is significant about the regions

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Robert Gates mentioned in his speech?” The answer lies in the fact that in large swaths of Asia, the Middle East, and Africa, wars feed themselves.

Crumbling Natural States

Most countries that constitute these regions

are not stable democracies but crumbling natural states. As Douglass North stated,

The logic of the natural state follows from its method for coping with the problem of violence. Individuals and groups with access to violence form a dominant coalition, granting one another special privileges. These privileges—including limited access to organizations, valuable activities, and assets—create rents. By limiting access to these privileges, members of the dominating coalition create credible incentives to cooperate rather than fight among themselves.³

Put simply, the regime of a natural state is blatantly corrupt. However, this simplification hides the subtle mechanisms that stabilize this type of social order. Contrary to a competitive open market economy, the primary objective of a rentier economy is not to maximize wealth but to stabilize the state. Commerce takes the shape of a juxtaposition of rent-generating monopolies that the regime grants to or withholds from individuals at its discretion. To enforce limitations on access to economic resources and opportunities, the regime fields “specialists in violence.”⁴ The rents benefit a wealthy elite, who make up approximately 20 percent of the population, while the remaining 80 percent survive at subsistence level. Subsidies that keep the price of vital necessities low guarantee the acquiescence of this vast underprivileged majority.

Natural states emerge organically out of a more primitive social order based on tribes or warlords and do not need a constitution.⁵ A person’s power and influence depends on his or her loyalty to the regime. Democracies and open access economies do need constitutions, because their development hinges on citizenship, the concept that everyone is equal under the law. As North stated, “The move from the natural state to an open access order is therefore a move from the world of privileges and personal exchange to one of rights and impersonal exchange.”⁶ Decades of stability operations show that this move is not easy to make or to impose.

The events we now describe as the Arab Spring point to a crisis of the natural state. Mass demonstrations in Tunisia, Libya, Egypt, Yemen, and Syria shook the foundations of the political regimes ruling these natural states. However, the outcome of these events was not the eruption of democracy many expected but rather a descent into a more primitive tribal order.



The main cause of the crisis is that natural states are not adept at creating wealth. Their economic growth is much lower than the demographic expansion of their population and the increased cost of political oppression. Because elites enjoy privileged access to economic sectors, they have no incentive to stay ahead of competitors. The resulting inefficiencies stifle economic growth. Moreover, the subsidies used to keep the price of vital necessities (e.g., food) within reach of the vast majority that live at subsistence level, eradicate employment in labor-intensive sectors like agriculture and small retail. The result is massive unemployment and migration from rural to urban areas. In turn, this increases the cost of keeping the masses at the subsistence level. While rural populations rely heavily on land to survive, urban dwellers depend on expensive services like sewage, running water, electricity, and trash collection. Because the quality of these services leaves much to be desired, the most entrepreneurial youth leave the country. The resulting diaspora provides the remaining population with social reformist ideas and remittances, leading to the emergence of resistance organizations. Consequently, the specialists in violence, in which the regime's power depends on, are increasingly

Afghan dealers exchange currency at a money market 11 November 2012 in Kandahar Province, Afghanistan. Such money markets frequently employ *hawala*, a traditional system of money transfer used extensively in the Middle East and Africa, to move large amounts of money without transferring them either physically or via wire transfer through a formal institution such as a bank. Under the system, an agent receives money from a customer at one location, who then—for a small fee—instructs an agent at a different location to pay that amount to a designated recipient of funds at a different location. Since the system is relatively informal, consummated by a handshake, it is difficult to monitor. As a result, it is often used by terrorists or other nefarious agents to transfer funds globally. (Photo by Ahmad Nadeem, Reuters)

overstretched. Urban mass demonstrations are much harder to suppress than rural unrest.⁷

From Rentier Economy to Siege Economy

These evolutions are not new. The civil war that ravaged Algeria during the 1990s had similar causes. In the end, the regime prevailed because the rebels reached utter exhaustion. Based on sieges, a self-sustaining combination of fighting and commerce is the new, emerging development. The profitable character of modern siege warfare precludes the exhaustion of belligerents and



perpetuates the conflict. Put otherwise, the war feeds itself. This also changes the notions of “victory” and “defeat” as respectively being the successful and disastrous conclusion of war. In a war that feeds itself, victory means prospering during the war; and although the destruction of a belligerent still equals defeat for them, it does not end the war. As long as the war exists as a profitable business model, other belligerents will replace those destroyed. In this situation, the main problem of conflict termination is the opposition by spoilers. Spoilers are “leaders and parties who believe that the emerging peace threatens their power, world view, and interests and who use violence to undermine attempts to achieve it.”⁸ Their actions protract conflicts and inflate force requirements. The Army is least prepared for campaigns and operations in regions where wars feed themselves because it is near impossible to maintain the permanence necessary “to conduct operations that make enduring the often temporary effects of other kinds of operations.”⁹

To prepare for operations in such hot spots, the Army must develop a strategy that invalidates the besiegers’ business model while requiring only a limited military

A man pours crude oil into a tank inside a make-shift refinery 13 January 2015 in the Aleppo countryside of Syria. From the outset of its early territorial expansion over parts of Syria and Iraq, the Islamic State (IS) funded itself largely by extracting and refining oil from fields it had seized and either selling it locally or exporting it over the Turkish border for international sale. The oil sale proceeds were used to support its military actions as well as its efforts to administer the territory it was trying to incorporate into its new caliphate. As a result, both Russian and U.S. forces made attacking IS oil refineries and convoys, as well as its financial offices, a high priority in order to undercut IS’s ability to sustain itself financially. (Photo by Nour Kelze, Reuters)

deployment. To substantiate this thesis, it is necessary to analyze the conceptual logic of modern sieges.

Throughout history, the military objective of sieges has been to force the besieged city into surrender. By contrast, present-day sieges aim at squeezing all forms of wealth out of the beleaguered area. Modern besiegers operate a set of checkpoints that constrain the transport of goods into and out of this territory. To motivate the fighters who guard the checkpoints, they allow them to extract bribes from people who want to cross. Because the fighters benefit personally, they defend their posts against

any form of attack and do not desert them. As such, the whole operation is low risk, costs next to nothing, and requires very little command and control.

Furthermore, the besieger creates profits by “licensing” smugglers. In Syria, for instance, “Businessmen can buy contracts from the highest levels of the regime in order to have an effective monopoly over the supply of a certain good into the besieged area.”¹⁰ These smugglers bring vital, but cheap, products like fuel and food into the area and move expensive goods—like cars or electrical appliances—out of the area. One would expect the proceeds from the siege economy to be limited, but this is not the case in Syria. Besieged residents are “able to pay for these goods as a result of money transfers from relatives or connections living outside the besieged area.”¹¹ In Yemen, residents use similar systems:

Although the banking system has been severely damaged by the war, overland trade is facilitated by existing and new *hawala* money-transfer networks ... Businessmen involved in overland trade collect earnings and currency from expatriate Yemenis who hope to send money home.¹²

Modern money transfer systems allow the flow of funds to all corners of the world, even those under assault.

Paradoxically, the defenders of the confined area also benefit from the siege. Smugglers need security to prevent the looting of contraband they bring into the area. Defenders provide this in exchange for payment. Some defenders find niches in the smuggling business themselves by digging tunnels. Others divert international humanitarian aid. One resident of the Ghouta area concisely illustrated the changed character of siege warfare by stating,

There is no siege, this is a lie. How can there be a siege when the head of Islam Army [Jaish al-Islam] can go in and out of Ghouta several times this year and appear in Turkey and Saudi Arabia ... There are arrangements in place to suck the best out of this area, allowing certain actors to benefit, while civilians suffer.¹³

In the end, the focus of the conflict evolved from military to economic objectives.

The siege economy creates new elites and dynamics. Contrary to a rentier economy, managers do not gain positions of influence based on regime affiliation. In a siege economy, managers need real skill (or shrewdness) in

their trade. Likewise, faced with the threat of starvation, the trapped residents do everything they can to increase their productivity. In a functioning natural state, food is subsidized and therefore unprofitable to cultivate. During a siege, residents use every square foot of arable land and transform rooftops into vegetable gardens.¹⁴ Sieges unleash the creativity of all the actors involved. To invalidate the siege warfare’s business model, the Army needs to find a way to leverage this unleashed creativity and self-organization with only a limited military presence.

Breaking the Siege

The best way to limit military presence is to decline responsibility for wide area security in a conflict area. Although wide area security once figured prominently in Army doctrine, recent conflicts have shown that it is impossible to provide in vast, densely populated areas.¹⁵ This reality dawned on Gates at the start of his tenure, when he had to make a decision he later called one of the most difficult in his career: the extension of “Army combat tours from 12 to 15 months, including for units that had spent less than a year at home.”¹⁶ The strong demographic growth in Africa and the Middle East will only exacerbate this situation. The proliferation of sieges shows that land warfare is no longer about wide area security but controlling flows, corridors, and gateways. In an urbanized world, “territorial rule becomes a tactical option rather than a strategic necessity.”¹⁷ This does not mean that the Army has to revert to sieges itself. On the contrary, the Army needs to develop the ability to break sieges by imposing open access.

Urbanization and global trade have changed the sociopolitical geography. The concept of imposed open access takes these changes into account. Deborah Cowen argues, “New boundaries of belonging are drawn around spaces of circulation. These ‘pipelines’ of flows are not only displacing the borders of national territoriality but also recasting the geographies of law and violence.”¹⁸ A sense of belonging can be stronger in an urban neighborhood than its surrounding rural areas. The reason is that the circulation of people, information, goods, and funds between a mega urban neighborhood and the rest of the world is more important than the circulation between that neighborhood and the surrounding countryside.¹⁹

By laying siege, modern hostile forces restrict travel while cutting and simultaneously exploiting the physical link and informational and financial ties between

communities, their diasporas, and the global economy. Conversely, imposed open access encourages travel and restores the physical link between neighborhoods and the global economy while simultaneously leveraging a sense of belonging between communities and their diasporas.

Military control of gateways is crucial to the success of imposed open access. The gateway can be a seaport, an airport, a multimodal transport node, or a combination of these three elements. Its two main characteristics are first: (1) the high level of security in the area where logistic activities take place and (2) the massive volume of undisrupted throughput that it can handle between the urbanized conflict area and the global economy. Military control of gateways sets the material conditions for achieving the main objective: imposed open access.

The primary purpose of imposed open access is to lower and maintain contention at a level that local police forces can handle. In megacities, it is impossible to attain this objective by military power. It is, however, easily achievable by administrative effectiveness, or—put differently—by urban policies that make people happy. The way to achieve this objective is to reward emerging initiatives to restart or improve the provisioning of urban essential services. The source of these initiatives matters less than its speed and effectiveness in generating popular support. Initiatives that fail to generate popular support, or worse, require military protection during their development, are not worth pursuing. Worthwhile initiatives typically aim at essential urban services, social security, health care, education, and upward social mobility based on merit and hedonism.

They are best developed by people who are familiar with the local culture and language: the urban dwellers, returning refugees, and members of the diaspora. There are but three tasks that have to remain within the exclusive purview of the military: (1) the protection of the gateway, (2) the standoff targeting of checkpoints that hinder freedom of movement, and (3) the periodical dislocation of spoilers.²⁰ The reasons are simple. First, because megacities are too large to draw subsistence from the surrounding countryside, any disruption from its connection to the global economy represents a vital threat. Second, to allow the flow of goods through the gateway, it is necessary to ensure freedom of movement between the gateway and the city. Third, because

imposed open access hinges on leveraging creativity, which is unleashed by the urge to survive, the militarily superior actor has to enforce a mechanism that allows the creative to benefit from their talents. This implies the periodic dislocation of spoilers who attempt to turn this creativity into an easy source of rents.

The military requirement to perform these tasks is much lower than those for counterinsurgency or nation building because the gateway is the only area where land forces establish a permanent presence. The protection of the gateway involves providing security and averting any type of disruption to the flow of goods running through it. These goods make it possible to reward administrative effectiveness. Lavish funding and the steady inflow of vital necessities, building materials, machines, tools, and other products will allow fast reconstruction in urban conflict areas, where self-organization leads to administrative effectiveness. Reconstruction will provide jobs, visible progress, and hope for a better future. Neighborhoods where spoilers are active will fare much worse. Starved from funds and cut from the flow of goods, living conditions will remain miserable. This will encourage people to vote with their feet (i.e., move from poorly to well-administered neighborhoods). The resulting depopulation of the former neighborhoods will isolate spoilers from their recruiting and support base.

Dislocating spoilers is an intelligence-driven effort of the military to defeat hostile armed organizations without establishing a permanent military presence in the contested area. Such an operation takes the shape of a bold incursion, where spoilers are active with the objective to take out ringleaders and destroy critical infrastructure like weapon caches and arms production facilities, followed by a swift withdrawal back into the gateway. By definition, this effort is indecisive because defeated spoilers will reemerge in communities where contention levels remain high. Therefore, it is necessary to repeat this type of operation every time the spoilers reach a level of military effectiveness that allows them to disrupt reconstruction in urban conflict areas where contention levels are low.

The civilian requirements for imposed open access consist of an urban administration-in-exile, recruited from refugees and members of the diaspora. An administration-in-exile is necessary because the restoration of administrative effectiveness requires the

presence of many culturally aware, administratively capable, and willing people to stay indefinitely, or for years on end, in the area affected by the conflict.

Preparation

The military capabilities for imposed open access do not differ much from what is already available. For the military control of the gateway, they consist of perimeter security; access control; and counter-rocket, -artillery, and -mortar capabilities. For the targeting of checkpoints, they consist of standoff precision engagement capabilities. For the periodical dislocation of spoilers, they consist of heavy armor and combat engineering capabilities.

However, the Army should divert resources to develop the administration-in-exile, the main civilian capability for imposed open access. In close cooperation with interagency partners, the Army should recruit a sufficient number of refugees to create a robust deployable urban administrative capability. To that end, the recruited need to receive training concerning the organization of public works, provision of essential services, policing, health care management, and other administrative skills. Preferably, they would receive training as a group with people from the same city of origin. As soon as the military conditions for imposed open access are met, they can return and leverage initiatives of postconflict urban self-organization.²¹

Conclusion

Rapid demographic growth and urbanization have led to a crisis of the political system that used to stabilize many countries in Africa, Asia, and the Middle East. However, the first signs of its demise—known to us as the Arab Spring—have not led to democratization but a new type of siege warfare that is profitable to all belligerents involved and creates a situation wherein war feeds itself. This evolution turns the densely populated regions into the hot spots the Army is least prepared for.

To win such conflicts, the Army has to be able to break the siege. In close cooperation with interagency partners, the Army should divert resources to recruit refugees and members of the diaspora from megacities that are of strategic importance in countries ravaged by conflict. Training in the field of urban administration can transform the recruited into an urban administration-in-exile. By taking military control of gateways that link besieged megacities to the global economy, land forces set conditions for the administration-in-exile to return and leverage local initiatives of urban self-organization. By rewarding urban administrative effectiveness with funding, expertise, and materials for reconstruction, land forces and the returning administration-in-exile can thus trace a path toward peace by making it more profitable than war. ■

Notes

1. Robert M. Gates, "Secretary of Defense Speech" (speech, U.S. Military Academy, West Point, NY, 25 February 2011), accessed 18 October 2018, <http://archive.defense.gov/Speeches/Speech.aspx?SpeechID=1539>.

2. Ibid.

3. Douglass C. North, John Joseph Wallis, and Barry R. Weingast, "Violence and the Rise of Open-Access Orders," *Journal of Democracy* 20, no. 1 (January 2009): 55–68.

4. Ibid.

5. Douglass C. North, John Joseph Wallis, and Barry R. Weingast, "The Natural State: The Political-Economy of Non-Development," UCLA International Institute, March 2005, accessed 18 October 2018, <http://international.ucla.edu/media/files/PERG.North.pdf>.

6. Ibid.

7. Contrary to rural unrest, urban mass demonstrations can have the effect of a "run on the power bank." See Talcott Parsons, *Sociological Theory and Modern Society* (New York: Free Press, 1967), chap. 9. "Coercion is like the reserves of a bank. So long as the demands on it are limited, the reserves can be meted out effectively. When there is a run on the bank, however, the reserves are quickly overwhelmed."

8. Stephen John Stedman, "Spoiler Problems in Peace Processes," in *International Conflict Resolution after the Cold War*, ed. Paul C. Stern and Daniel Druckman (Washington, DC: The National Academies Press, 2000), 178.

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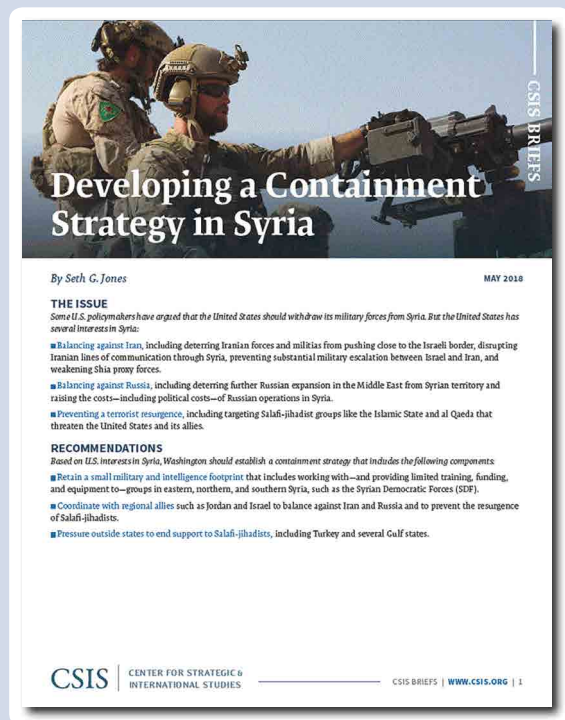
10. Will Todman, "Sieges in Syria: Profiteering from Misery," Middle East Institute [MEI] Policy Focus 2016-14 (Washington, DC: MEI, 14 June 2016), accessed 19 October 2018, http://www.mei.edu/sites/default/files/publications/PF14_Todman_sieges_web_0.pdf.

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13. Resident of Douma, quoted in Rim Turkmani et al., *Countering the Logic of the War Economy in Syria: Evidence from Three Local Areas* (London: London School of Economics and Political Science, 30 July 2015), 36–37, accessed 19 October 2018, <http://www.securityintransition.org/wp-content/uploads/2015/08/Countering-war-economy-Syria2.pdf>.

WE RECOMMEND



In the face of war weariness and frustration resulting from U.S. involvement in almost two decades of conflict in the Middle East, a distinguished scholar argues for active U.S. engagement and participation in Syrian stabilization and rebuilding operations. In doing so, the author addresses two essential questions: What are U.S. interests in Syria? What should a U.S. strategy consist of moving forward? The online version of the article provides several interactive maps that readers concerned with learning more details of the issues surrounding Syria may find very useful. To view this article, visit https://csis-prod.s3.amazonaws.com/s3fs-public/publication/1805117_Jones_Containment_Strategy_Syria.pdf.

14. Kerina Tull, *Agriculture in Syria* (Leeds, UK: University of Leeds Nuffield Centre for International Health and Development, 26 June 2017) accessed 19 October 2018, <https://gssd.mit.edu/search-gssd/site/agriculture-syria-61425-fri-10-13-2017-1436>.

15. Army Doctrine Publication 3-0, *Unified Land Operations* (Washington, DC: U.S. Government Printing Office, 2011 [obsolete]), 6. "Offensive, defensive, and stability operations each requires a combination of combined arms maneuver and wide area security; neither core competency is adequate in isolation."

16. Gates, "Secretary of Defense Speech."

17. Deborah Cowen, *The Deadly Life of Logistics: Mapping Violence in Global Trade* (Minneapolis: University of Minnesota Press, 2014), 51.

18. Ibid., 4.

19. Proximity used to facilitate the relationship between a city and its surrounding countryside. Since the advent of telecommunication and containerized sea transport, this no longer holds true. It is now easier for someone living in an African megacity to communicate with a family member who emigrated to Europe than to talk with an uncle who still lives in the village the family originates from. And it is cheaper for locals to buy a shirt shipped in from an Asian sweatshop than to buy one that is produced by local tailors, even though the cotton it is made of may be grown on African fields.

20. Because besiegers set up their checkpoints outside the urban area they control, they are vulnerable to standoff attacks.

21. International Organization for Migration, "Over 600,000 Displaced Syrians Returned Home in First 7 Months of 2017," press release, 11 July 2017, accessed 18 October 2018, <http://www.iom.int/news/over-600000-displaced-syrians-returned-home-first-7-months-2017>. Refugees are more willing to return than many people think. In 2017, for instance, more than six hundred thousand displaced Syrians returned home.

Negotiation Education

An Institutional Approach

Maj. Tom Fox, U.S. Army

Maj. Zachary Griffiths, U.S. Army

Maj. Marcus Millen, U.S. Army

Maj. Nicholas Tallant, U.S. Army



You sensed the tremendous potential for the upcoming exercise. Your infantry brigade's request for rotary wing support would have enhanced readiness for both your brigade and the aviation brigade. Yet, your fellow operations officer and you talked past each other and could not agree. All he or she kept repeating were concerns about cost and limited flight hours. Couldn't they understand the implications for the brigade's readiness? As you reflect on the encounter, you have a nagging feeling that you could have done more before the meeting to position your unit for a better outcome.

Cooperation should have been easy, especially given the operation's strategic significance. The ambassadors had already agreed. As the plans officer, you simply needed to finalize the manning requirements and mission parameters of this combined joint task force (CJTF) with the other NATO plans officers. Instead, squabbling ensued. Why couldn't those countries play on the same team with the details? On the long flight home, you feel like a few representatives from other countries had such strong positions. It almost seemed like they believed themselves better off without this CJTF. You had taken all the engagements classes the Army offered, but you still felt ill-equipped.

When U.S. Army leaders think “negotiation,” they reflexively think “key leader engagement.” Such engagements typically consist of cross-cultural interactions between tactical military leaders and civilians during stability operations. This reflex has diminished the effectiveness of the Army’s institutional negotiation training. Neither of the vignettes above involve engagements in Iraq or Afghanistan—the theaters where the concept of key leader engagements took hold—yet both provide examples of negotiation. Neither of the officers are tactical, company-grade leaders. The officers in both scenarios could have benefited to a great degree from

well-executed, foundational negotiation instruction as part of their professional military education (PME).

The initial surge in interest surrounding negotiation within the Army arose from the counterinsurgency and stability operations of the mid-2000s. Deployed military leaders cited continual difficulties during their interactions with local civilians, and operations suffered as a result. The institutional Army, academia, and the private sector responded to bridge the capability gap. The numerous articles published in the late 2000s and early 2010s, some of which we will cite throughout this article, attest to this.¹ We also lived these very challenges. However, the solutions in these works address a narrowly defined problem: the interpersonal challenges faced by tactical military leaders engaging civilian nationals in a cross-cultural setting.

More challenging to overcome is the perception that negotiation and military actions are mutually exclusive. Military operations, whether a forcible entry or combined exercises, can shape negotiations away from the table. Further, even if the United States undertakes a forcible entry operation, it may better position itself at the negotiating table in a subsequent round. Or, an action in one area of operations may help strengthen a “no-deal” alternative in another. This relationship is foundational to theories of international relations and to the conduct of foreign policy.² Most importantly, both our adversaries and allies understand this interplay whether we acknowledge it or not.

We advocate rethinking the problem and broadening the scope. Leader engagement shortcomings were a symptom of a more fundamental problem: the inability to solve complex problems, especially ones that may require cooperative solutions. Similar calls for enhanced adaptability, critical thinking, creative thinking, and problem solving echo this assessment.³ Further, U.S. Army doctrine has recently incorporated an updated set of tools, notably design thinking through the Army design methodology (ADM), to deal with complexity.⁴ To broaden the scope, the revised approach must also include two important aspects that the current approach neglects: “away from the table” moves and international negotiation.

Negotiation education is a solution to address this underlying problem at all leadership levels. Many professional graduate degrees—business, law, and

Previous page: Lt. Col. Kelvin Swint, commander of 2nd Battalion, 5th Cavalry Regiment, 1st Armored Brigade Combat Team, 1st Cavalry Division, negotiates details of future combined training exercises with European partners 26 July 2018 during a bilateral training conference in support of Atlantic Resolve, Novo Selo Training Area, Bulgaria. (Photo by Sgt. Jamar Marcel Pugh, U.S. Army National Guard)

public policy, for example—mandate in-depth negotiation training in their core curriculum. Yet, fewer than thirty-four Army field grade officers in any cohort year group—less than 1 percent—will receive such training by the time they serve a twenty-year career.⁵ Instructors do their best with the time allotted, but the majority of Army field grade officers may receive three to four hours of minimal exposure.

Regrettably, this binary approach—trained or untrained—has hindered the acquisition of a skill set highly applicable to addressing current national security challenges.

In this article, we will review the negotiation theory and propose a more robust negotiation progression that builds throughout an officer's PME core curriculum. The U.S. Army's negotiation training is rooted in Army

Doctrine Reference Publication (ADRP) 6-22, *Army Leadership*.⁶ However, that text provides limited guidance for *how* the Army should structure a negotiation education program. The current program is not well nested within the rest of the Army's leadership development paradigm.

To address this oversight, we recommend a four-level progression from joint problem solving to international negotiation as officers advance from the Basic Officer Leaders Course to the War College. We aim these recommendations at the proponent for Army leadership and education, the Combined Arms Center. While our findings focus on Army officers,

the recommendations are generalizable to uniformed and civilian leaders across services.

A Case for Negotiation in Education

For the past several years, negotiation has resided in the realm of "training," although it should return to the realm of "education." *The Army University–Army Learning Strategy* (ALS) correctly differentiated the

Table 1. Negotiation Expanded Definition: Word Associations in Army Leadership

		Negotiation		
		Problem solving	Critical thinking	Creative thinking
Leader attributes	Character		✓	
	Presence			
	Intellect	✓	✓	✓
Leader competencies	Leads	✓		
	Develops	✓	✓	
	Achieves		✓	✓
Leadership in practice	Tools for adaptability	✓	✓	✓

(Table by Nick Tallant)

two. Training prepares for "known tasks"; whereas, education strengthens the "intellectual ability to solve problems never before encountered."⁷

When viewed narrowly through the lens of leader engagements, negotiation training addressed a critical shortcoming for stability operations. However, this approach neglected the promising application of discussion in solving complex problems far beyond the tactical level. The "negotiation analysis" discipline uses critical and creative thinking to practically approach such problems. This aligns rather well with the intent of education.

Negotiation addresses the spectrum of Army leader attributes and competencies. ADRP 6-22 codified

expectations for leaders, and the War College's *Strategic Leadership Primer* further echoed the importance of negotiation as a leader competency.⁸ At its fullest potential, negotiation education fosters the problem solving, critical thinking, creative thinking, and adaptability valued in Army leaders. Table 1 (page 83) demonstrates the applicability of the negotiation discipline.⁹ Rethinking negotiation education thus supports the ALS's "learning leaders" line of effort.¹⁰

Theoretical Roots of the Current Model

The U.S. Army's leadership doctrine provides an initial foundation for negotiation education. The academic basis for the four key negotiation terms is found in doctrine:

- Joint problem solving approach
- Principled negotiation
- Interest-based negotiation
- Alternatives to negotiated agreement¹¹

The emphasis in doctrine should match the educational emphasis.

The joint problem solving approach. Scholars and practitioners describe negotiation as a "joint problem solving approach." This characterization is widely used in academic literature and is specified in Army doctrine on negotiation.¹²

The term "problem solving" emphasizes the upside of negotiation. An outcome can, in fact, be mutually beneficial to all parties, known as "creating value." Negotiation offers options and payoffs not available to noncooperative decision-makers. Parties can communicate and share information to varying degrees throughout the process, offering opportunities for creativity in generating alternatives. Many call this view of negotiation "win-win," emphasizing the joint gains possible.¹³ The foundational text for Army negotiation and much of the professional sector—Fisher, Ury, and Patton's *Getting to Yes*—describes this "win-win" approach.¹⁴

Alternatively, the view of negotiation as "win-lose" emphasizes the fixed nature of certain aspects. At some stage, one party's value implies less for another party. This behavior is known as "claiming value." Select aspects of a negotiation may be distributive in nature, which characterizes the practice of bargaining. Thus, the tension between creating and claiming value

has been called the "Negotiator's Dilemma."¹⁵ Actions to claim value may undermine efforts to create value.

At a higher level, academics place negotiation—specifically the field of "negotiation analysis"—along the spectrum of decision-making approaches. This spectrum extends from "decision analysis" (individual decision-making) to "game theory" (interactive and noncooperative decisions) to "negotiations analysis" (joint, interactive, and cooperative decisions).¹⁶ Game theoretic actions enable parties to communicate, but their decisions remain their own. Only negotiation enables parties to coalesce around a joint decision that an individual party could not achieve on its own. Military strategists and senior Army leaders move routinely between the fields, consciously or otherwise. Thus, the distinction is worth highlighting.

Principled and interest-based negotiation. The concept of "principled negotiation" addresses the tension between creating and claiming value. This approach was originally described in *Getting to Yes*, perhaps the most widely cited and read book on the topic of negotiation since its 1981 release.¹⁷ We use this text as the basis for reviewing the academic literature given its accessibility and foundational status within the field. Scholars have further developed and adapted aspects of Fisher and Ury's original approach; yet, they acknowledge its key position within the field. Similar to joint problem solving, principled negotiation is also specified in Army doctrine references regarding negotiation.¹⁸

The term "principled negotiation" does not deal with moral principles but rather describes the trade-off many feel between a "soft" or "hard" approach to a negotiation. The authors emphasize the false choice of these fictitious approaches. They instead prescribe a four-part approach: people, interests, options, and criteria.

Their first prescription, "separate the *people* from the problem," has dominated much of the Army's approach to negotiation to date. Notably, Fisher, Ury, and Patton, in their 2011 edition, include Fisher and Shapiro's five "core concerns" (autonomy, appreciation, affiliation, role, and status) and Stone, Patton, and Heen's work on identity and human factors.¹⁹ Inattention to interests highlighted in these works drives negative emotions that surface during negotiation. The bulk of the Army's institutional instruction cites these three works collectively.²⁰

Much of the literature cited in other Department of Defense (DOD) negotiation instruction addresses varying elements of this interpersonal aspect, such as the role

of emotion or culture during a negotiation.²¹ Academia has contributed volumes to address the impact of negotiators themselves. Scholars David Lax and Jim Sebenius further enshrined the everyday approach to negotiation in their 1986 book *The Manager as Negotiator*.²²

Academic research on persuasion and influence further supports face-to-face interactions with the exploration of useful techniques.²³ Army doctrine includes specific reference to the practice of each as they relate to negotiation.²⁴

While Army leaders may use such interpersonal prescriptions routinely as part of one-on-one interactions, we believe this focus most applicable to situations faced by direct leaders (as defined in ADRP 6-22), such as a platoon leader. Organizational and strategic leaders may find themselves involved in complex, multiparty negotiations where these prescriptions remain important but have limited utility.

Fisher and Ury's second point, "focus on *interests*, not positions," is equally prominent in Army doctrine. Negotiating specific positions leads to inefficient *positional bargaining*. Academic literature and Army doctrine encourage negotiators to explore the underlying interests motivating a particular position.²⁵ Understanding *why* a party advocates a position may unlock creative options for the negotiator to satisfy the interest of both parties. This concept is foundational for "interest-based negotiation" as opposed to positional negotiation or positional bargaining.

The third prescription, "invent *options* for mutual gain" emphasizes the joint problem solving or "win-win" approach to negotiation. Assumptions of negotiation as a "fixed pie" leads to value-claiming tactics. However, creativity and collaboration allow for value creation to occur in which each party is better off than at the outset. The Joint Operation Planning Process (JOPP), ADM, and military decision-making

process frameworks are well suited for generating alternatives and stimulating creative thinking.

Alternatives to negotiated agreement. Evaluation of mutual-gain options requires an understanding of the "alternatives to negotiated agreement." Fisher and Ury pioneered the term "best alternative to a negotiated agreement" (BATNA) as the point from which to compare a negotiation's outcome. Other scholars prefer nonjargon variants, such as "no-deal option" or "walk-away option."²⁶ Army doctrine also incorporates this specific concept.²⁷ Closely linked to this concept is power at the negotiating table. For military practitioners, decision-making tools such as prespecified evaluation criteria assist in evaluating negotiated options against a no-deal option. Similarly, scholars discuss protecting—or not inadvertently weakening—one's BATNA.²⁸ Military doctrinal concepts of centers of gravity, critical capabilities, and critical vulnerabilities mirror the BATNA idea.²⁹

Lastly, the final point, "insist on using objective criteria," addresses how to resolve tensions that lead to positional bargaining. The authors suggest "fair standards" or "fair procedures" to reconcile these. Scholars have delved into both concepts in great depth. Scholar Howard Raiffa exhaustively examined competing fairness standards and their interplay in a negotiation.³⁰ Other academics have studied concerns of "procedural justice" in conflict resolution. Cumulatively, these objective criteria support the legitimacy of a final agreement as well as the negotiation itself.

Taken together, the principled negotiation method introduced in *Getting to Yes* provided the earliest synthesis of

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negotiation scholarship and became the foundation for scholarship to date. Introduced by Bruce Patton, the “seven elements” framework (interests, legitimacy, relationships, alternatives, options, commitments, communication) drew upon concepts introduced by Fisher and Ury.³¹ Current Army institutional instruction and doctrine incorporate this method into their established products.³²

Away from the table. While many conceive of negotiations as activities “at the table,” the moves “away from the table” can have an equal bearing on the outcome at the table. Scholars Lax and Sebenius introduced this “three-dimensional” approach (tactics, deal design, setup) in their 2006 book *3-D Negotiation*.³³ They broadly classify activities at the table as “tactics” and those away from the table as “setups.” This distinction was unique to scholarship in the field.

Actions—or “moves”—away from the table can “change the game.” Further, Lax and Sebenius deepened the understanding of negotiating parties and their interests at the table as well as “barriers” to agreement. By dealing only with the given parties and interests, negotiators may be disadvantaged from the outset. Taking deliberate

In an example of an “away from the table” activity, Gen. Curtis M. Scaparrotti, supreme allied commander Europe, engages Air Chief Marshal Sir Stuart Peach, chairman of the NATO Military Committee, during the third session of the North Atlantic Council 12 July 2018 at the Brussels Summit in NATO headquarters, Brussels. Scaparrotti attended the summit to provide military guidance to the North Atlantic Council and to meet with military and political leadership from throughout the Alliance. (Photo by Tech. Sgt. Cody H. Ramirez, U.S. Air Force/NATO)

action away from the table to include a full (and advantageous) set of parties and interests could change the game. This concept is currently *not* included in either the Army or other DOD doctrine on the topic.

Applying this approach to negotiation in institutional instruction would add powerful tools for practitioners: sequencing, issue linkage or separation, and coalition building or breaking.³⁴ Organizational and strategic leaders need these tools during negotiations. The Army’s negotiation education should rapidly incorporate these concepts.

Complex, multiround, multiparty negotiations require thoughtful tools and a framework to complement the tactics at the negotiating table. The ADM and JOPP

offer highly applicable methods for understanding the full set of parties and interests. Taking deliberate, strategic actions to improve a negotiating outcome also nests well with the military's operational concepts of "lines of operation" and "lines of effort."³⁵ Lax and Sebenius's inclusion of backward mapping speaks to the natural similarities.³⁶ Army leaders would quickly absorb the intuition of the "away from the table" approach.

International negotiation. The characteristics of international negotiation, such as diplomatic and peace negotiations, differ from other forms. Negotiation

leaders could internalize new insights from their history, international relations, or interagency instruction. Numerous opportunities also arise to incorporate the approach into planning exercises, specifically concerning the range of military operations. Cases studies, such as the resolution of the Bosnian War with the 1995 Dayton Accords, would allow opportunities to exercise critical and creative thinking. Many other creative options exist to realize the ALS's goal for education—expand the "intellectual ability to solve problems never before encountered."⁴⁰

Table 2. Professional Military Education and Negotiation Instruction

Professional military education level	Army school	Leadership level	Negotiation theory	Recommended hours of training and education
Primary I	Basic Officer Leaders Course	Direct	Joint problem-solving approach	Twelve
Primary II	Captains Career Course	Direct/organizational	Interest-based negotiation	Twelve
Intermediate	Command and General Staff College	Organizational/strategic	Away from the table	Twenty
Senior	War College	Organizational/strategic	International negotiations	Twelve

(Table by Nick Tallant)

literature supports a wide array of business and legal interactions, but the subfield of international negotiation is distinct. The field can be closely linked with the "conflict resolution" discipline. Scholar Victor Kremenyuk compiled an authoritative review of the international negotiations field.³⁷ Contributions from academics, such as Bill Zartman's "hurting stalemate" and "ripeness," have exposed the link between negotiation and military operations.³⁸

While this specialty has been and remains the domain of diplomats, understanding the field can provide great insight for organizational and strategic Army leaders. The negotiation concepts described above and contained in Army doctrine still remain foundational. However, the practical link between international negotiation and deterrence or coercive diplomacy demonstrates the importance of the domain to military leaders and diplomats alike.³⁹

Incorporating international negotiation in PME would unlock powerful interdisciplinary applications. Armed with foundational negotiation theory, Army

Implementing the Negotiation Progression

In the previous section, we identified four negotiation theories applicable to military negotiation. In the developmental framework proposed below, these approaches toward negotiation build on each other as an officer's responsibility increases. In total, this progression offers over forty hours of instructor contact time, which is on par with negotiation instruction offered by elite institutions.⁴¹ With each officer grounded in negotiation theory, more senior officers could shape conditions to ensure success by subordinates as they negotiate within the Army or externally. For each level in an officer's PME (see table 2), we highlight the key concept to be taught, propose key developmental experiences, and identify significant texts.⁴²

Basic Officer Leaders Course (Primary PME). As junior leaders in the Army, lieutenants plan and execute training and operations within their units and with multinational partners when deployed.

Introducing joint problem solving to lieutenants will encourage them to approach planning and execution with a “win-win” mindset necessary to build consensus. Between 2013 and 2015, the Infantry Basic Officer Leaders Course (IBOLC) trained new infantry lieutenants on joint problem solving using the aforementioned *Getting to Yes*.⁴³ However, IBOLC dropped negotiation when it removed stability operations from the program of instruction.

Dropping negotiation from IBOLC was a mistake. In his 2007 Strategic Studies Institute monograph, Capt. David Tressler interviewed fourteen officers and found that a “disproportionate number of lower-level leaders” conducted negotiations.⁴⁴ The officers explained their poor negotiations performances in Iraq with statements like “I wasn’t somebody who was experienced in [negotiation]. I’m a soldier.”⁴⁵ Low-level leaders cannot rely on positional authority to force change but must act within the bureaucracy to accomplish objectives on behalf of their commanders. Articles in branch magazines reiterate this point: low-level leaders were caught off-guard by the need to negotiate in their roles as platoon leaders and redoubled their efforts to improve their skills outside of formal Army training.⁴⁶

We recommend that BOLC teach joint problem solving to new lieutenants to equip them with the skills and mindset necessary to succeed as leaders in their formations and during contingency operations. To that end, we suggest the addition of the following events to BOLC with a total contact time of twelve hours:

- an overview of negotiation theory, including distributive and joint problem-solving methods, with an introduction to cross-cultural considerations based on *Getting to Yes* or Graphical Training Aid (GTA) 21-03-12;
- a practical exercise focused on battalion-level range training with enablers; and
- a case study of tactical-level negotiation with multinational partners or civilians in a deployed environment, tailored by branch.

Captains Career Course (Primary PME). In both garrison and combat environments, company commanders and staff officers often negotiate without guidance from higher commanders due to “geographical dispersion, changing tactical and strategic situations, and volatile environments.”⁴⁷ Building on their initial training from BOLC, officers at the Captains

Career Course (CCC) should learn how to integrate assessments of counterparty interests into their intra-Army negotiations and when deployed. Interest-based negotiation dovetails with the emphasis at CCC on mission analysis and course of action development. During mission analysis, officers develop a robust understanding of battlefield actors and plans for influencing them. While captains cannot negotiate with an enemy tank battalion, they should understand how outputs from the military decision-making process could include assessments of the local civilians or military forces’ interests for planned negotiations.

We recommend that CCC prepare new captains for their roles by teaching them to assess the interests of key stakeholders before negotiating. To that end, we suggest the following additions to CCC with a total contact time of twelve hours:

- a review of distributive and joint problem-solving negotiation theory;
- instruction on assessing interests with and without cross-cultural considerations drawing from *Getting to Yes*, GTA 21-03-12, and *The Manager as Negotiator*;
- a practical exercise focused on understanding interests before negotiating; and
- a case study where students can assess interests and develop a negotiation strategy for a real-world negotiation.

Command and General Staff College (Intermediate PME). The Command and General Staff College (CGSC) aims to produce majors who are capable of shaping the joint operating environment. To support that goal, we propose CGSC refine its current negotiation curriculum to focus on “away from the table” moves. Building on joint problem solving and interest-based negotiation strategies recommended for more junior officers, this approach challenges officers to design campaigns to shape broader negotiations. Whereas lieutenants and captains are taught how to conduct negotiations, field grade officers must shape the security environment so conditions are set for subordinate negotiators. This approach is well-supported by students’ instruction on JOPP and ADM.

Setting conditions for negotiations requires a deep understanding of the operational environment and the levers that influence stakeholders. Whether bringing a militia leader to the table on a wide area security operation, pulling together a multinational task force for



combined arms maneuver, or wrangling enablers for a brigade-level combined arms exercise, field-grade leaders have sufficient perspective and influence to shape conditions and preferences before agreeing to terms. We recommend new majors prepare by reinforcing previous negotiation training and add the following events, while emphasizing “away from the table” moves, over twenty hours:

- a review of distributive, joint problem solving, and interest-based negotiation theory;
- instruction on interest assessment and plan development based on *3-D Negotiation*;
- a practical exercise where students design a series of “away from the table” moves that influence the set-up of a cross-cultural negotiation;
- a case study where students assess the “away from the table” moves in a historical military campaign supporting a negotiation, such as the 1995 Dayton Accords;
- preparation of officers to negotiate within the DOD (both Army interdepartmental and joint), U.S. interagency, intergovernmental, and multinational environment; and
- training to assess negotiation concepts during JOPP exercises, especially within staff negotiations.

Gen. Chiya (*second from right*), commander of the Syrian Democratic Forces in Syria’s Middle Euphrates River Valley (MERV), discusses the elimination of Islamic State combatants in the MERV 11 July 2018 during a meeting with U.S. Army Lt. Gen. Paul E. Funk (*left*), commander of the Combined Joint Task Force—Operation Inherent Resolve and U.S. Army Maj. Gen. James B. Jarrard (*right*), commander of Special Operations Joint Task Force—Operation Inherent Resolve in Syria. The authors recommend educating Army leaders on negotiation with multinational partners at all levels of their professional military education. (Photo by Sgt. Brigitte Morgan, U.S. Army)

War College (Senior PME). The concept of military force as one tool in an international negotiation aligns with the War College’s goal of developing strategic leaders for the Army, the joint force, and the Nation. In his 2016 Strategic Studies Institute Letort Paper, Professor Thomas Galvin argued the Army’s senior leaders could no longer view problems in isolation but must negotiate routinely to break deadlock.⁴⁸ In addition to the types of negotiations that senior officers’ studied earlier in PME, they would benefit from a deeper understanding of the role of force in international negotiation.

With greater interagency and intergovernmental responsibilities, the War College graduates negotiate constantly with partners to achieve national objectives.

The Joint Advanced Warfighting School's *Operational Art and Campaigning Primer* describes heads of military organizations negotiating agreements with other government agencies and even nongovernmental organizations.⁴⁹ The same text describes negotiated conflict resolutions as springing from two sources: military success and military potential.⁵⁰ Deep understanding of the role of these forces in diplomacy is critical for senior military leaders entrusted to use force to set conditions for successful diplomacy.

We recommend the War College prepare the Army's senior leaders to better employ military force in support of national objectives by adding the following events to reinforce previous negotiation training and ground them in international negotiations theory over twelve hours:

- a review of previous instruction on negotiation;
- instruction on the theories of international negotiation and conflict resolution from *International Negotiation: Analysis, Approaches, Issues*;
- a practical exercise where students negotiate a memorandum of agreement between a multinational task force and the Department of State or plan military operations to support a negotiation;
- preparation of officers to negotiate within the joint, interagency, intergovernmental, and multinational (including Army interdepartmental) environment; and
- integration of international negotiations concepts into case studies and exercises throughout the War College.

Conclusion

Negotiating *never* precludes military actions. The two are inextricably linked and work in tandem. Should hard work at the table fail, we exercise military alternatives to deter or coerce. Yet, we do so only to get back to the table in a stronger negotiating position for the next round. Carl von Clausewitz's oft-quoted "politics by other means" only holds if we remain mindful of where the "other means" are headed.

In this article, we described a developmental framework for Army officers based upon our review of the field of negotiation analysis. The first section examined the current approach, emphasizing joint problem solving—the foundational concept—and interest-based negotiation. The second section proposed a revised approach that included two additional competencies: "away from the table" moves and international negotiation. The third section outlined the framework with learning objectives, key exercises, and the basic texts.

Negotiation education is a prudent investment for the Army. If implemented, the recommended negotiation progression will enable leaders to more efficiently and effectively devise "win-win" solutions within the Army and with key partners. "Away from the table" moves planned by field grade officers will shape the conditions for successfully negotiating everything from the structure of an Army training exercise to multinational staff responsibilities. Simultaneously, senior leaders will direct military force toward a negotiated diplomatic solution, whether in this round or the next.

The Army's current approach to negotiations is fragmented and discontinuous. Negotiation training could be improved without significant training opportunity costs by harmonizing the Army's existing programs. Specialty units like the Judge Advocate General and Acquisitions Corps also train negotiators but focus only on niche applications. Cadets at West Point take four hours in their third-year leadership course but then are not exposed to negotiations again until they take a similar four hours as CGSC students. The Special Warfare Center and School trains students on cross-cultural negotiations but neglects interests as a consideration. These programs all train negotiations in the Army. Yet, they do not regularly communicate with one another, share best practices, or research unique considerations for military negotiation. Future research should study how the Army, other services, and other government agencies train in negotiations and offer suggestions for how the Army could best manage this program. ■

Notes

1. One notable example is Jeff Weiss, Aram Donigian, and Jonathan Hughes, "Extreme Negotiations," *Harvard Business Review* (November 2010), accessed 19 October 2018, <https://hbr.org/2010/11/extreme-negotiations>. Weiss cofounded the West Point Negotiation

Project and contributed extensively to the existing negotiation language in Army doctrine.

2. William Zartman, "Negotiation Pedagogy: International Relations," *International Negotiation* 15 (2010): 229–46.

3. Brian J. Reed, "Leader Development, Learning Agility, and the Army Profession," *Journal of Military Learning* 1, no. 1 (April 2017): 92–113.
4. Army Doctrine Reference Publication (ADRP) 5-0, *The Operations Process* (Washington, DC: U.S. Government Printing Office, May 2012), chap. 2.
5. The Command and General Staff College's negotiation elective seats thirty-four students per year. This is the only in-depth negotiation elective offered in the first twenty years of a typical officer's career.
6. ADRP 6-22, *Army Leadership* (Washington, DC: U.S. Government Printing Office, 2012).
7. *The Army University–Army Learning Strategy* (Fort Leavenworth, KS: Army University, 2017), 10, accessed 19 October 2018, [http://armyu.army.mil/sites/default/files/documents/Army_Learning_Strategy_24_July_2017_\(Signed\).pdf](http://armyu.army.mil/sites/default/files/documents/Army_Learning_Strategy_24_July_2017_(Signed).pdf).
8. Stephen Gerras, ed., *Strategic Leadership Primer*, 3rd ed. (Carlisle Barracks, PA: U.S. Army War College, 2010), 33.
9. Based upon word associations in ADRP 6-22, *Army Leadership*. The table includes all variants of the stated word.
10. *The Army University–Army Learning Strategy*, 18.
11. ADRP 6-22, *Army Leadership*. Specific references for each term follow: joint problem-solving approach (para. 10-11), principled negotiation (para. 6-64), alternatives to a negotiated agreement (para. 6-64), and interest-based negotiation (para. 6-64 by derivative).
12. *Ibid.*, para. 10-11.
13. James K. Sebenius, "Negotiation Analysis: A Characterization and Review," *Management Science* 1 (1992): 28.
14. Roger Fisher, William L. Ury, and Bruce Patton, *Getting to Yes: Negotiating Agreement Without Giving In*, 3rd ed. (New York: Penguin Books, 2011). The original edition was published in 1981 by Fisher and Ury. The later addition of Patton to the 2011 edition emphasized the inclusion of his work on the topic.
15. David A. Lax and James K. Sebenius, *The Manager as Negotiator: Bargaining for Cooperation and Competitive Gain* (New York: The Free Press, 1986).
16. Howard Raiffa, *Negotiation Analysis: The Science and Art of Collaborative Decision Making* (Cambridge, MA: Belknap Press of Harvard University Press, 2002). The spectrum is best described by Raiffa, a pioneer in the field, in his work from which the section is paraphrased. He has made continual contributions to all the disciplines since the early 1950s. His cited work builds upon his earlier book, *The Art and Science of Negotiation* (Cambridge, MA: Belknap Press of Harvard University Press, 1982).
17. Fisher, Ury, and Patton, *Getting to Yes*, xxvii.
18. ADRP 6-22, *Army Leadership*, para. 6-64.
19. Roger Fisher and Daniel Shapiro, *Beyond Reason: Using Emotions As You Negotiate* (New York: Penguin, 2006); Douglas Stone, Bruce Patton, and Sheila Heen, *Difficult Conversations: How to Discuss What Matters Most* (New York: Penguin, 1999). The 2nd edition was published in 2010.
20. Jonathan Beasley, "Harnessing the Power of Emotions in Negotiation for Army Leaders" (unpublished lesson plan, Fort Leavenworth, KS, 2016).
21. Stefan Eisen, *Practical Guide to Negotiating in the Military*, 2nd ed. (Maxwell Air Force Base, AL: U.S. Air Force Negotiation Center of Excellence, 2011), <http://culture.af.mil/NCE/PDF/praguide2011.pdf>.
22. Lax and Sebenius, *The Manager as Negotiator*.
23. Robert B. Cialdini, *Influence: The Psychology of Persuasion* (New York: Collins, 2009). The textbook version, *Influence: Science and Practice* (Boston: Allyn & Bacon, 2008), is in its 5th edition; Jay A. Conger, *Winning 'Em Over: A New Model for Management in the Age of Persuasion* (New York: Simon & Schuster, 1998) is widely cited.
24. ADRP 6-22, *Army Leadership*, para. 1-19 and para. 10-12. The former refers to "influencing," and the latter refers to "persuasion."
25. *Ibid.*
26. David A. Lax and James K. Sebenius, *3-D Negotiation: Powerful Tools to Change the Game in Your Most Important Deals* (Boston: Harvard Business School Press, 2006), 27 and 87.
27. ADRP 6-22, *Army Leadership*, para. 6-64.
28. Lax and Sebenius, *3-D Negotiation*, 87.
29. Joint Publication (JP) 5-0, *Joint Operation Planning* (Washington, DC: U.S. Government Printing Office, 2012), chap. 3, accessed 19 October 2018, <http://www.dtic.mil/docs/citations/ADA562213>.
30. Raiffa, *The Art and Science of Negotiation*.
31. Bruce Patton, "Negotiation," in *The Handbook of Dispute Resolution*, ed. Michael L. Moffitt and Robert C. Bordone (San Francisco: Jossey-Bass, 2005).
32. Beasley, "Harnessing the Power of Emotions in Negotiation for Army Leaders," 1; see also Graphical Training Aid 21-03-12, *Negotiations* (Fort Benning, GA: Publications Support Division, 2012), 31, accessed 19 October 2018, http://www.benning.army.mil/library/content/GTA%2021-03-12%20Negotiations_12jun12_1300hrs.pdf.
33. Lax and Sebenius, *3-D Negotiation*. The section following this note paraphrases key concepts from this work.
34. James Sebenius, "Negotiation Analysis: From Games to Inferences to Decisions to Deals," *Negotiation Journal* 25, no. 4 (October 2009): 462.
35. JP 5-0, *Joint Operation Planning*, chap. 3.
36. Lax and Sebenius, *3-D Negotiation*, 234.
37. Victor A. Kremenjuk, ed., *International Negotiation: Analysis, Approaches, Issues*, 2nd ed. (San Francisco: Jossey-Bass, 2002). The first edition debuted in 1991.
38. William Zartman, *Ripe for Resolution: Conflict and Intervention in Africa* (New York: Oxford University Press, 1985).
39. Paul Gordon Lauren, *Force and Statecraft: Diplomatic Challenges of Our Time*, 5th ed. (Oxford, UK: Oxford University Press, 2014). The first edition was published in 1983.
40. *The Army University–Army Learning Strategy*, 10.
41. All schools within the Program on Negotiation consortium (Harvard University, Massachusetts Institute of Technology, and Tufts University) offer foundational negotiation courses of approximately this length. This also equates to the approximate length of the negotiation electives offered at the Army War College and the Command and General Staff College.
42. ADRP 6-22, *Army Leadership*, para 2-24. The levels approximate to the level of military schooling.
43. Paul Cheval, email interview with Zachary Griffiths, 15 August 2017.
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Venezuela, A “Black Swan” Hot Spot

Is a Potential Operation in Venezuela Comparable to Operation Just Cause in Panama?

Jose L. Delgado



A superpower whipped ... 10 percent of the police force of a Third World nation. You are supposed to be able to do that. It was done well, and I credit those who did it. But it is important that we draw the right lessons from it.

—Anonymous U.S. Marine commenting
on Operation Just Cause

A black swan is a metaphor for a theory that aims to describe unexpected events of large magnitude and consequence and their dominant role in history. Such events, considered extreme outliers, collectively have played disproportionately larger roles than regular occurrences.¹ Recently, I was tasked with reviewing worldwide flash points with potential implications for the United States. During that review, and much to my surprise, a country that kept appearing as a potential outlier (i.e., a black swan) on the list was Venezuela. Although the prospects for a potential U.S. intervention were universally considered low, it was clear from a review of the available information that any intervention (large or small) could easily have broad implications from a regional or hemispheric standpoint.

Venezuela's crisis—a historic disaster for what used to be one of Latin America's wealthiest nations—could be an epilogue to the socialist experiment initiated by President Hugo Chávez.² Chávez, a former military officer who launched an ill-fated coup in 1992, was elected president of Venezuela in 1998 on a populist platform that railed against the country's elites for widespread corruption; he pledged to use Venezuela's vast oil wealth to reduce poverty and inequality.³ During his presidency, which lasted until his death in 2013, Chávez expropriated millions of acres of land and nationalized hundreds of private businesses and foreign-owned assets, including oil projects run by ExxonMobil and ConocoPhillips.⁴

Chávez used the nation's vast oil wealth to temporarily lift millions out of poverty, but he presided over a

system of cronyism and corruption that has potentially enfeebled the country for a generation.⁵ As a result, the country has been teetering on the verge of a major political and national catastrophe since his death. The economy has shrunk by more than 30 percent since the collapse of oil prices in 2014, the government has defaulted on its external debt, the exchange and price controls have destroyed the productive sector, the oil industry is collapsing, and the purchasing power of Venezuelans has been completely wrecked by rampant hyperinflation.⁶

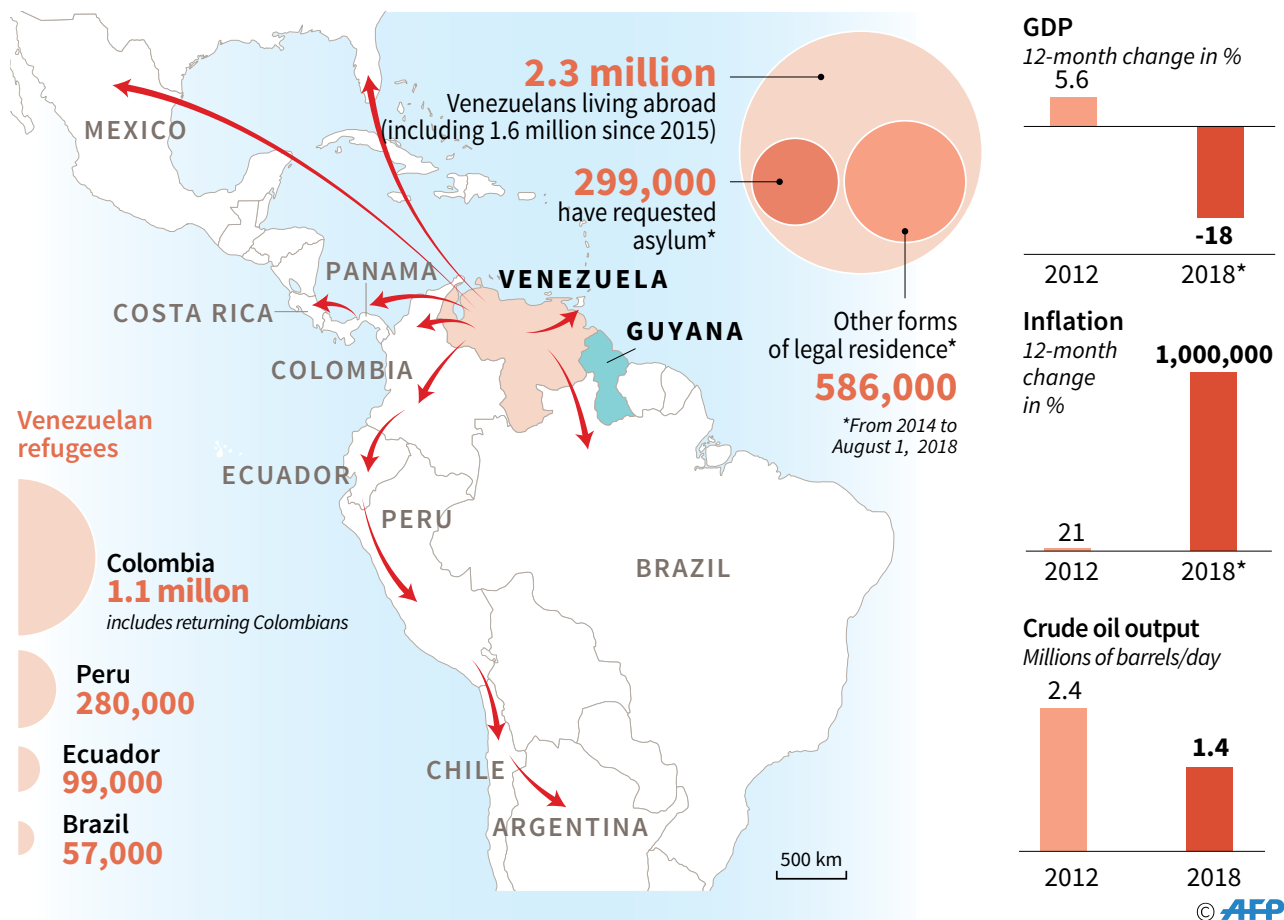
Shortages of food, medicine, and jobs instigated massive street riots and the departure of droves of citizens to neighboring countries.⁷ United Nations statistics from April 2018 documented the exodus of more than 600,000 Venezuelans to Colombia, over 119,000 to Chile, over 39,000 to Ecuador, and 35,000 to Brazil (see figure 1, page 95).⁸ The Brookings Institution recently reported that as many as four million Venezuelans—close to 10 percent of the estimated population—have left the country as a result of the economic crisis.⁹ Unsurprisingly, the United Nations High Commissioner for Refugees issued a guidance note on the outflow of Venezuelans as the situation showed signs of worsening in early 2018.¹⁰

A group of scholars and diplomats have even opined that eventually the country will implode in either a military coup d'état or a regionally led military action aimed to establish stability for the country and the region. On a similar theme, Harvard economics professor Ricardo Hausmann recently published an article calling for a military intervention by the United States and other countries as the only way to end Venezuela's humanitarian crisis.¹¹ If any of the aforementioned scenarios were to materialize, the question that this article ultimately attempts to address is, "Are U.S. military forces ready for these types of operations, and, if not, what should they consider to improve their readiness?"

Venezuelan Black Swan

Caracas is under increasing economic pressure at home as hyperinflation accelerates. The United States and its allies continue to implement sanctions by banning money lending to Venezuela's government or its state oil company, Petróleos de Venezuela S.A., and by passing sanctions against President Nicolás Maduro and his top officials.¹² As oil revenues have continued

Previous page: A U.S. M-113 armored personnel carrier finds shelter in a laundromat December 1989 during Operation Just Cause in Panama City. Heavy (armored) forces provided firepower, protection, and mobility during combat and were critical to the success of the operation in Panama's urban terrain. (Photo courtesy of the Maxwell Thurman Photograph Collection at the U.S. Army Center Of Military History)



(Map by Agence France-Presse. Source: UNHCR/ION/USAID/UN DESA/IMP [*forecast]/OPEC)

Figure 1. Venezuelan Migration Routes

to fall, the economic unrest continues unabated. One result is that Venezuela has ostensibly been considering a military incursion into Guyana. An unconfirmed report in the Brazilian paper *O Antagonista* claimed Brazil's intelligence services had learned about Venezuela considering a military incursion into Guyana for the purposes of claiming oil-rich territory.¹³

Although it could effectively be argued that Venezuela is far from ready to undertake a foray of this nature, the massive stretch of Guyana's territory, known as the Essequibo region, has been in contention since 2015 and could theoretically provide the Venezuelan administration a sorely needed distraction from their domestic woes. Maduro, faced with an internal uprising among impoverished and oppressed citizens, issued a presidential decree in June 2015 purporting to claim sovereignty over the entire sixty-five thousand square miles of Essequibo,

which accounts for the overwhelming majority of Guyana's landmass (see figure 2, page 97). Also included in the area claimed by Maduro is the vast stretch of ocean where energy giant ExxonMobil, under contract with Guyanese authorities, announced the discovery of huge oil deposits in the deep seabed 120 miles (193 kilometers) off the coast of Guyana in September 2016.¹⁴ In his presidential decree, Maduro outlined a "defense" zone offshore that, if allowed to stand, would reportedly block Guyana's access to the Atlantic Ocean.¹⁵

Seizing even a small part of territory west of the Essequibo River—the Venezuelan objective, as reported by *O Antagonista*—would likely trigger heavier U.S. sanctions or direct intervention from the United States or its regional allies like Colombia and Brazil.

However, the gains could outweigh the risks if the situation becomes grimmer within Venezuela.

Stratfor, a private-sector geopolitical analysis organization, believes that a Venezuelan incursion into Guyana could potentially provide some leverage for Venezuela's ongoing dialogue with the United States by forcing a situation where the Venezuelan government could exchange occupied land for sanctions relief.¹⁶ Additionally, Venezuela's government could potentially use the incursion into Guyana to pump up nationalism among Venezuelans by directing attention outside its borders and gaining time to offset the organized domestic unrest before it becomes more widespread.¹⁷

Push for Military Action

Foreign military force as a potential solution to "save" Venezuela has been a topic of discussion since Chávez took power in 1999. Calls for military intervention were also given a boost by U.S. President Donald Trump's statement in August 2017, which stated that the United States was considering a military option in Venezuela. Despite the White House statement, many countries in the region—Brazil, Colombia, Peru, Chile, Mexico, and Ecuador—vehemently rejected the use

of military power in September 2017.¹⁸

Since then, the exodus from Venezuela into the surrounding countries has created a humanitarian situation that may have softened the hard stances against intervention within the region. A border crossing in southern Colombia saw the number of Venezuelans traveling or migrating to Ecuador surge from 32,000 in 2016 to 231,000 in 2017.¹⁹

An International Organization for Migration report found more than

629,000 Venezuelans living in nine major South American cities in 2017—up from just 85,000 in 2015; but Colombia has borne the brunt of the movement.²⁰ During the latter half of 2017, the number of Venezuelans living there jumped 62 percent—some 50,000 have already arrived during 2018.²¹

Military Scenario Is Starkly Different from Operation Just Cause (Panama)

If the black swan scenario, as outlined above, materializes and there is Venezuelan military action against Guyana, the United States would ostensibly have a range of options to pressure Venezuela and may choose to implement much heavier economic sanctions. However, it is increasingly likely that it will eventually have to contemplate military action, an action previously considered by many as unpalatable since a wider conflict with the Venezuelan armed forces would be difficult to sustain for the United States as it faces other foreign policy crises across the world.²²

Although many parallels have been drawn between the situation in Venezuela in 2018 and Operation Just Cause (OJC), the U.S. military intervention in Panama during 1989, the situations are vastly different. As background, OJC was launched by the United States in December 1989 for four major reasons:

- *To safeguard the lives of U.S. citizens in Panama.* Then U.S. President George H. W. Bush claimed that Gen. Manuel Noriega, the de facto ruler of Panama (1983–1989), had threatened the lives of the approximately thirty-five thousand U.S. citizens living there. There had been numerous clashes between U.S. and Panamanian forces; one U.S. marine had been killed a few days earlier, and several incidents of harassment of U.S. citizens had taken place.²³
- *To defend democracy and human rights in Panama.* After Guillermo Endara was elected president of Panama, defeating Noriega's preferred man, Noriega supporters attacked Endara's motorcade and beat him. In response, Noriega declared the election null and took over Panama as a dictatorship. The Panamanian people reacted to this usurpation of presidential authority by calling for Noriega to step down.²⁴

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- *To combat drug trafficking.* Panama had become a center for drug money laundering and a transit point for drug trafficking to the United States and Europe.²⁵
- *To protect the integrity of the Torrijos–Carter Treaties.* Members of Congress and others in the U.S. political establishment claimed that Noriega threatened the neutrality of the Panama Canal and that the United States had the right under the treaties to intervene militarily to protect the Panama canal.²⁶

The U.S. invasion resulted in the removal of Noriega and installment in his place of President-elect Endara; the Panamanian Defense Force was also dissolved.²⁷

Though there are superficial similarities between the two situations, there are stark differences. For example, Noriega's Panama had only fifteen thousand troops—of which, only 3,500 were soldiers.²⁸ The United States had well-established military bases all around the capital and employed a force of over twenty-six thousand men and women of the U.S. Armed Forces during the operation. Also, Panama had fewer than three million people at the time and had a legitimately elected president ready to assume the reins of power after Noriega was removed.²⁹

In stark contrast, Venezuela has 115,000 troops, in addition to tanks and fighter jets. It also has thirty million people, about 20 percent of whom still support the Maduro government. These supporters have an ideology—anti-imperialist socialism—that serves to unify their efforts in coordinated responses



(Map courtesy of Knusser and Kordas via Wikimedia Commons)

Figure 2. Venezuela-Guyana Border Region and Territory Claimed by Venezuela

to security challenges and explains Maduro's political resilience to outside pressures.³⁰ Venezuelan leaders have also been preparing for asymmetrical warfare for more than a decade. And, there is no chance that countries in the region would participate in an effort to topple Maduro; Brazil has already stated as much.³¹



Additionally, the Venezuelan military and its geography, doctrine, and capabilities are largely unfamiliar to U.S. forces—with the notable exception of U.S. Southern Command—which would prospectively be tasked with this mission. If U.S. forces launch an operation into the heavily built-up areas in Caracas, or some of its other outlying areas, aside from having to deal with Venezuela's conventional forces, they will likely face stiff, armed resistance from irregular forces and opposition in multiple forms from crowds sympathetic to Maduro and his political ideology, including armed uprisings as well as passive popular resistance. Finally, moving the significant amount of U.S. or coalition forces (if we are able to secure coalition assistance) without prepositioned forces or logistics will also have a significant effect on the logistics, timing, and execution of the operation.

Preparation for This Environment

Although U.S. forces have matured significantly since OJC, their actions in Bosnia, Iraq, Bangladesh, Rwanda, and Haiti provide glimpses into some of the operational challenges that will likely surface during a conflict with Venezuela. The U.S. military can (and should) draw practical lessons from these operations; their application in this scenario will almost assuredly improve their performance during any potential operation in or against Venezuela. Considerations that could help military forces incorporate some of the lessons learned from previous U.S. incursions include the topics outlined in the following subsections.

Joint/coalition operations. Efforts to employ and coordinate joint or coalition operations have to take into consideration service-specific needs. Additionally, although multinational forces can bring additional capabilities and capacity to forcible entry, deployment, and redeployment operations, they will always require careful attention to integration.³² At a minimum, any operation that optimizes joint and multinational forces will require careful consideration of equipment

interoperability, rehearsals, and liaison teams to facilitate integration.³³ Attention also needs to be given to the proper use of special operations forces to ensure that they are properly employed and not overtasked.

Equipment. The hybrid nature (urban, jungle, maritime) of the environment in Venezuela will almost certainly challenge an expeditionary force tasked with military operations. Although great technological advancements have been made since OJC, these technological improvements have not been applied by U.S. forces in the urban and jungle environments prevalent in either Venezuela or Guyana. Moreover, the sharing of this technology in a multinational force environment will likely challenge interoperability and foreign disclosure guidance under which U.S. forces currently operate.

Urban warfare. In a December 2017 Modern War Institute article, Maj. John Spencer states:

There are no urban warfare units in the U.S. Army—not a single unit designed, organized, or equipped specifically for the challenges of operating in cities. There are no research centers dedicated solely to the study of military operations in cities. There are no schools or training sites where Army units can experience, experiment, or train for the challenges of operating in places like Mosul, Aleppo, or Raqqa, where we have seen U.S. and Iraqi forces engaged in high-intensity combat.³⁴

Spencer makes a compelling point about U.S. Army training in urban warfare and offers a cautionary bit of advice for any operation in Venezuela, which, by necessity, will require extensive expertise in urban warfare with very specific guidance regarding the minimum use of force, indirect fire, and aerial bombing. Particularly since the preservation of infrastructure and public utilities will be key to follow-on stabilization operations.

Stability operations. Despite the challenges outlined previously, it is a near certainty that American forces would quickly prevail initially in a military encounter with Venezuela. Having said that, an upfront and comprehensive approach to stability operations by military forces would be required to provide the requisite security and control needed to stabilize the operational area and build a foundation for transitioning to civilian control, and a quick return to normal operation for the host nation.

Previous page: Venezuelans look for food in the trash 8 June 2018 in Ocumare de la Costa, Aragua, Venezuela. According to the Venezuelan revolutionary government, the critical situation in that country is "because of the economic war of the U.S. to Venezuela." (Photo by Eugenio Opitz via Alamy Stock Photo)

All tasks must be performed with a focus toward maintaining the delicate balance between long-term success and short-term gains.³⁵ For the forces on the ground, this may mean planning and executing operations within an environment of political ambiguity. As a result, the potentially slow development process of government reconstruction and stabilization policy may frustrate flexible military plans that adapt to the lethal dynamics of combat operations.³⁶ Therefore, in this type of environment, integrating the planning efforts of all the agencies and organizations involved in a stability operation is essential to long-term peace and a relatively quick return to normalcy, similar to what was achieved in OJC.

Interagency approach. In the type of environment described in this article, military forces should not operate independently but as a part of a larger joint, interagency, and frequently multinational effort. Military leaders are responsible for planning, integrating, and executing their operations within this larger effort where integration often involves efforts to exercise, inform, and influence activities with joint, interagency, and multinational partners, as well as efforts to conform military capabilities and plans to larger objectives that are often aligned with strategic and national-level goals.³⁷ By

expanding their understanding of potential operational environments through broad education, training, personal study, and collaboration with interagency partners, military leaders will be able to execute operations that set the stage for the quick recovery from combat environments.³⁸ Federal and civilian agencies must not only be involved early in the planning process, but they must also develop the capacities and procedures to offer constructive and timely contributions before, during, and after kinetic operations. Effective integration will require creating shared understanding and purpose through collaboration with all the elements of the friendly force.³⁹

Conclusion

As previously stated, black swan events usually have large and dominant roles in history. Although

Guyana Defence Force (GDF) soldiers participate in the final attack during Exercise Ironweed in August 2017 at the Colonel John Clarke Military School (CJCMS) at Tacama, Guyana. The exercise is designed to provide an overall assessment of GDF units during simulated combat operations in various types of terrain. (Photo courtesy of the Guyana Defense Force)





a military confrontation with Venezuela is widely considered an extreme outlier in the spectrum of potential military conflicts for the United States, such an operation would have a disproportionately large impact on the nature of the United States' regional influence within the hemisphere. In this context, the question of whether the U.S. military is prepared for such a black swan event gains particular relevance. How the United States and its potential coalition partners execute an operation of this nature while dealing with the sensitivity and the resultant chaos will reverberate for years.

A conflict characterized by urban combat, a complex civilian presence, and the resultant humanitarian demands would require careful planning, training, and execution. Although the United States could easily overpower the smaller Venezuelan combatant forces, the tactics, techniques, and procedures that U.S. combatant units employed in other battlefield scenarios and environments may fall flat in Venezuela and unnecessarily prolong combatant and stabilization operations. Without exceedingly meticulous planning, intervention

Adm. Remigio Ceballos, Venezuela's chief of staff of the Armed Forces Strategic Operational Command, speaks during a press conference 25 August 2017 at Fort Tiuna, Caracas. Ceballos provided details of military drills that were being prepared in response to President Donald Trump's warning of possible military action following a U.S. government announcement of new economic sanctions against Venezuela. (Photo by Ricardo Mazalan, Associated Press)

in Venezuela might quickly develop into an insurgency campaign that could drag on for decades. Therefore, training, doctrine, and equipment would have to be adjusted to accommodate the challenging environment outlined in this article. Fortunately, the experiences gained by the U.S. military since Operation Just Cause can provide valuable lessons for this and other contingency operations and complex military scenarios in bringing them to success. ■

The views expressed are those of the author and do not necessarily reflect the official position of the U.S. Army, the Department of Defense, or the Department of Homeland Security.

Notes

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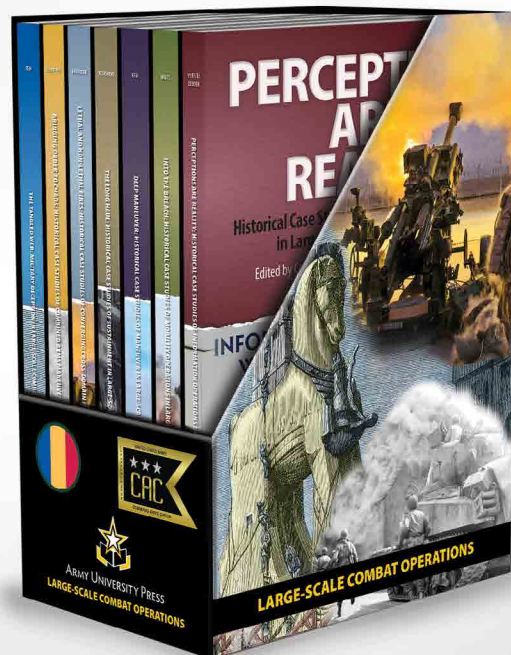
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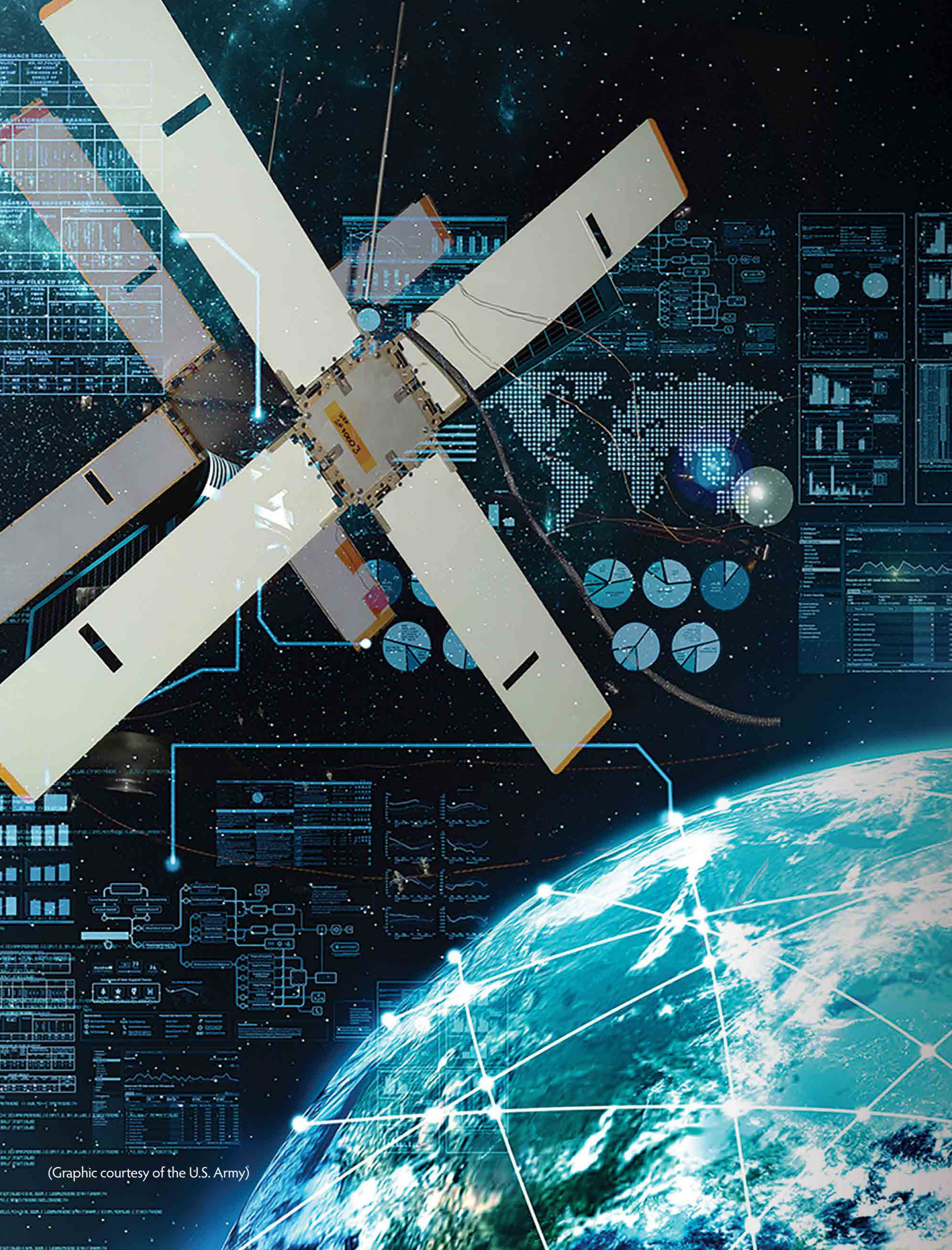
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- China’s program to steal U.S. and Western technology; how it can be stopped
- The method and purpose of Chinese cyberattacks against the United States and its allies
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(Graphic courtesy of the U.S. Army)



Visualizing the Synchronization of Space Systems in Operational Planning

Maj. Jerry V. Drew II, U.S. Army

When a war is decided upon, it becomes necessary to prepare, not an entire plan of operations—which is always impossible—but a system of operations in reference to a prescribed aim; to provide a base, as well as all the material means necessary to guarantee the success of the enterprise.

—Baron Antoine-Henri De Jomini, *The Art of War*

More than ever, space systems are essential to U.S. military operations. Satellites, ground stations, end-user equipment, and the network architectures that connect them enable a distinctly American way of conducting global operations. While the United States has long enjoyed a relative advantage within the space domain, the capabilities of adversaries to deny, degrade, disrupt, or destroy U.S. space assets have significantly expanded in the past two decades. Antisatellite systems, jammers, cyber action, and nuclear threats place U.S. space systems in jeopardy and require serious consideration in operational planning. Because the United States will likely not enjoy uninhibited access to its space systems in future conflicts, military forces must be able to anticipate and visualize how friendly, enemy, and neutral space systems will affect the operational environment. Gaining and maintaining a relative advantage in such an environment will require the synchronization of tactical actions across all domains—including the actions of space systems—to achieve strategic ends.

In their multiple forms, space systems are available means that operational planners may choose to employ in a variety of ways. To begin achieving synchronization of space systems along with tactical actions in other domains, the joint force must share a baseline understanding

of space systems and their potential roles as well as how to visualize their employment in conceptual planning. Toward that end, this article offers a practical explanation of space systems and provides a visualization tool as an example of a conceptual working product that a staff might produce to begin synchronizing space systems activity with activity in the other domains.

Defining Space Systems

From his military experiences during the Napoleonic Wars, Baron Antoine-Henri De Jomini understood warfare as an interaction of complementary functions that comprised a system of operations.¹ In his view, a successful commander understood both how to create a system and how to employ it effectively. While today's complex operating environment and the vast array of available means inhibit a commander from understanding the entire system of operations in detail, a conceptual understanding of the components of the system remains necessary. As a subset of the entire system of operations, space systems require special consideration because they come in multiple forms and perform a variety of functions—some of which may be unfamiliar to large portions of the force.

While joint doctrine offers a definition of space systems (more on that subject shortly), multiple definitions of a system exist within the body of systems theory. One broadly useful definition of a system is a “representation of an entity as a complex whole open to feedback from its environment.”² What distinguishes a system from the environment with which it interacts depends on where one defines the system's boundary, and considerable leeway exists for the individual observing the system to define it according to his or her own needs. In the discussion of military space operations, a satellite provides a ready example of a system that consists of multiple subcomponents. One may view each of the satellite's subcomponents—the guidance and control subsystem, for example—as a system in itself. Oppositely, multiple satellites constitute a system of satellites or a constellation, and in cases where multiple constellations interact with each other, one may consider the larger grouping a system.³

An advantage of systems theory is that it allows for simplifying assumptions, but it also requires the practitioner to be cognizant of those assumptions.⁴ In the context of military space systems, specific definitions

of the system become particularly important, and the operational planner must deliberately acknowledge them, revisiting the simplifying assumptions as the situation develops. To continue along with the theme of satellites, a system definition that considers only the satellites of a constellation may have utility, but such a model lacks fidelity. Constellations depend upon ground stations, radio frequencies, and a multitude of personnel to complete their missions. In joint doctrine, “space systems consist of three related segments: ground, link, and space,” and it is in this sense—broad enough for operational application but not so expansive as to become unwieldy—that the idea of space systems becomes particularly useful to the operational planner.⁵

Importantly, this definition of space systems precludes the use of domain-specific models for three reasons. First, the satellites themselves reside in outer space, but control stations and uplink/downlink sites exist on land, sea, and in the air. Second, the network architectures that make the satellites useful take advantage of the electromagnetic spectrum and depend upon data routing and processing by a variety of hardware and software components—elements of the cyber domain. Finally, systems like jammers, missiles, and even nuclear weapons may operate from, through, or in the other domains. In general, then, discussions of the space domain imply the cross-domain nature of space systems. Planners, therefore, must be aware of the interconnectedness of space systems, even if there are practical limits to how holistically one can define such systems.

Enabling Means

For planning purposes, one may divide the general category of space systems into two different categories of means: enabling means and hostile means.⁶ Hostile means are those that threaten other space systems, and like enabling means, they require consideration of how both friendly and enemy forces may employ them. This article focuses on the enabling means, which, unlike hostile means, do not cause damaging effects to enemy space systems but include the various uses of friendly space systems in support of multi-domain military operations. Enabling means include defensive space control (DSC) and the missions of environmental monitoring (EM); missile warning (MW); intelligence, surveillance, and reconnaissance

(ISR); satellite communications (SATCOM); and position, navigation, and timing (PNT).⁷

The integration of enabling means has served as a major goal of the joint force for nearly four decades, and much Army professional writing, particularly since the beginning of the Global War on Terrorism, explored how the force could integrate space-based capabilities into the warfighting functions. In the contemporary force, intelligence staffs routinely incorporate space-based products into their repertoire, space operations officers model the effects of terrain and enemy activity on PNT accuracy, MW systems enjoy well-established dissemination architectures, and SATCOM—both military and civilian—enable global communications and serve as a conduit for cyber operations. While such tactical integration is indispensable to modern military operations, operational art demands a more conceptual view of how to synchronize space capabilities in relation to those in other domains. Not only will such a conceptual view allow for a more thorough plan, but it will also aid in the generation of tactical options.

A Visualization Tool

To situate enabling space systems within the framework of operational art requires a consideration of how an operational planner may synchronize them in time, physical space, and purpose with operations in other domains. The systems approach is particularly important to this method because, while it is unlikely that the operational planner will manipulate the orbits of the satellites themselves, considerations of ground station emplacement, radio frequency distribution, and potential enemy action all bear on the operational problem.

The figure (on page 110) is based on a synchronization and visualization tool developed during the early stages of a recent exercise at the Command and General Staff College's School of Advanced Military Studies (SAMS).⁸ It is primarily a planning tool, intended to aid an operational planning team in its conceptual approach to the operational problem. This version speaks directly to a corps-level operation and the space capabilities that will likely be available to enable it. The specifics of the graphic may change for combatant command or theater-level operations that have more assets available or more authority to request and employ assets, but the general format remains practical. It is not a tool for precise synchronization

but for achieving shared understanding among the staff before beginning detailed synchronization later in the planning process. As such, the graphic provides a way to visualize space enabling operations in time and physical space—in this case, along with a ground assault—but one might easily adapt it to include operations in any or all domains.

In this iteration, the visualization tool consists of fourteen rows, but the number of rows may increase or decrease depending on the needs of the particular mission. Generally, the top half of the chart depicts traditional elements considered during mission analysis, including terrain, weather, and anticipated friendly and enemy dispositions. Rows 9–12 depict the missions of the enabling space systems under consideration. In practice, planners update such a chart (typically as a whiteboard product) throughout the planning process and may create and destroy multiple versions as the situation changes. Circumstances may require more or less detail, but the process of managing the tension between the conceptual and the detailed drives development of the plan. The visualization for this plan picks up at the beginning of the ground offensive (G-Day) and carries forward until G+5.

Visualization of Traditional Elements

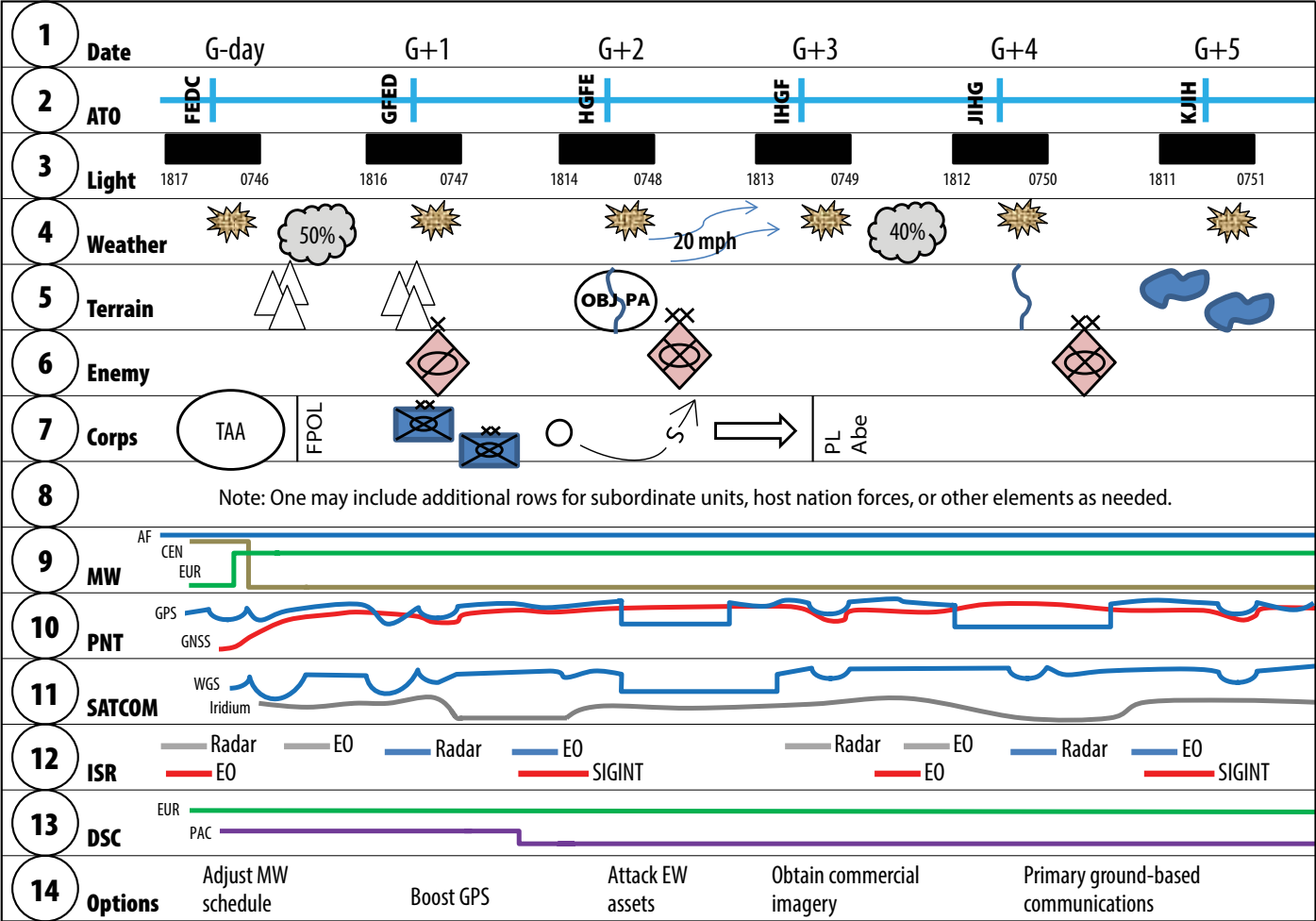
Rows 1–8 provide traditional elements to consider during mission planning to include a time reference, phases of the air tasking order cycle by day, light and weather data, and enemy and friendly situations.

Row 1. Row 1 shows the primary time reference based on G-Day.

Row 2. Row 2 shows the air tasking order (ATO) cycle in its relation to G-Day. On G-Day, the combined force is executing ATO "C" while the other lettered ATOs are in various stages of planning and preparation that will lead to their future execution.

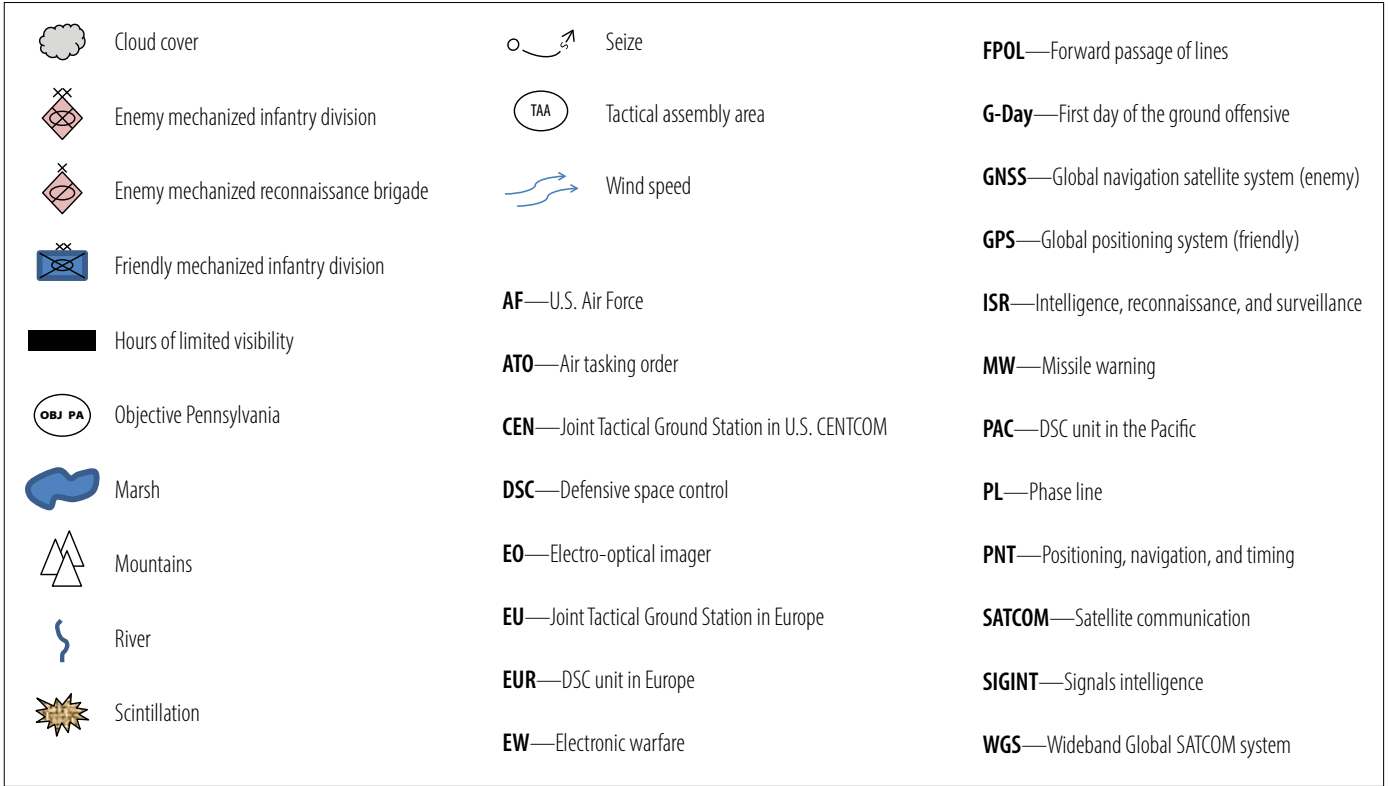
Row 3. Row 3 depicts light data with sunrise and sunset

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(Figure by author)

Figure. A Visualization Tool



times. The black bars represent hours of limited visibility with sunrise and sunset times at the ends of the bars.

Row 4. Row 4 depicts terrestrial weather including cloud cover and anticipated wind speeds; it is the first row that incorporates a space-specific element. It shows expected scintillation (electrical charging of particles in the ionosphere) windows that may degrade satellite communications and GPS signals. While scintillation typically occurs at night at latitudes from twenty degrees north or south of the equator (think Central Africa and the Indo-Pacific region), actual instances of the phenomenon are not predictable.⁹ Furthermore, the intensities of those instances and the effects on communications are not predictable. Therefore, a consideration of scintillation, like the consideration of terrestrial weather, serves as a planning factor when building flexibility into the operation.

Row 5. Row 5 depicts the terrain as it affects the timing of the operation from a friendly perspective. The terrain depicted in the visualization tool corresponds to significant terrain determined from a map analysis and includes mountains, rivers, and marshes. Although not shown in the figure, row 5 may also include man-made terrain features like bridges and urban areas. Maps naturally provide more precise means for detailed planning, but even the conceptual graphic should include the initial distance analysis between significant terrain features or objectives. At this stage in the planning effort, the visualization shows that the ground unit expects to reach mountains on G-Day and again on G+1 before reaching the main river crossing complex (Objective Pennsylvania, or OBJ PA) on G+2. Another river crossing operation follows on G+4 with marshes slowing ground maneuver on G+5.

Row 6. Row 6 depicts the templated enemy in its temporal and spatial relationships. Intelligence suggests an enemy reconnaissance unit will occupy the disruption zone in the mountains during the hours of darkness on G+1. The main enemy force, which is defending at the river crossing complex, will be in position no later than G+2 with organic electronic warfare (including satellite and GPS jamming equipment) and an operational reserve within reinforcing distance. A second enemy division defends near the marshes beyond the second river crossing.

Row 7. Row 7 depicts the predicted dispositions of friendly units. On G-Day, the corps is in the tactical assembly area with special operations forces beginning their operations. The main body conducts a forward passage

of lines with host nation forces as it leaves the TAA, and two infantry divisions encounter the enemy force in the disruption zone. They anticipate seizing OBJ PA on G+2.

Row 8. As Row 8 suggests, a more complete infographic could contain additional rows for individual maneuver units, host nation forces, logistic efforts, and more. In keeping with the focus of space systems and operational art, the additional rows provide an example of how one might visualize space enabling means.

Visualization of Space Enabling Means

Rows 9–12 depict the MW, PNT, SATCOM, and space-based ISR missions, and row 13 depicts the defensive space control mission.

Row 9. Row 9 depicts three different lines, each representative of the mission status of a unit engaged in satellite-based MW. The blue line shows the U.S.-based Air Force unit that is continuously on mission, the brown line shows the Army's joint tactical ground station in U.S. Central Command (JTAGS-CEN), and the green line shows the JTAGS unit in Europe (JTAGS-EUR). In this scenario, all three are capable of providing MW to the task force through robust communications architectures. The rise of the "EUR" line followed by the drop of the "CEN" line on G-Day indicates that JTAGS-CEN is scheduled to go off mission just after JTAGS-EUR comes onto mission. Given the high probability of enemy missile activity early in the campaign, the operational planner may request JTAGS-CEN to defer its scheduled maintenance period and remain on mission. It may also be prudent to request JTAGS-EUR to come back onto mission earlier than anticipated.

Row 10. Row 10 depicts a conceptual flow of the accuracy of the GPS system (blue) and the enemy's global navigation satellite system (GNSS, red). In the course of its normal operations, the accuracy of GPS dips and rises as a result of the relative motions of the satellites. Terrain and enemy can also affect accuracy. On the GPS curve, accuracy dips for the ground elements on G-Day and G+1 when friendly forces are within the mountain range, again on G+2 as the enemy main effort employs its electronic warfare assets near the river crossing site, and a third time as friendly forces near the river crossing on G+4. While such anticipated dips may affect the ground maneuver, they also carry implications for the employment of precision-guided munitions and unmanned

aircraft systems. Smaller dips reflect the potential effects of atmospheric scintillation—depicted in row 3—during hours of darkness.¹⁰ By way of comparison, the enemy's GNSS curve drops slightly on G-Day as its forces travel into the mountains but is predicted to remain steady throughout the remainder of the operation.

With this visualization in hand, the staff may begin considering how to mitigate the effects of degraded GPS for friendly forces and how to enhance degradation to the enemy's satellite navigation system. As efforts transition to detailed planning, the staff space operations officer should begin determining, through computer modeling and simulation, when the dips in signal strength begin causing problems for PNT-dependent systems and what that means for the plan. A more detailed version of the visualization tool could include threshold lines to depict the anticipated effects of signal degradation on various capabilities.

Row 11. Conceptually, row 11 functions like row 10. In the consideration of SATCOM, one may include any number of constellations depending on those in use by the force. In this depiction, the blue line represents the availability of the Wideband Global SATCOM (WGS) system, a commonly used military satellite communication system. The gray line shows the availability of the Iridium system, a civilian space system that the U.S. military frequently uses. As with the GPS accuracy shown in row 10, the WGS availability in row 11 may dip slightly with scintillation, terrain, and enemy effects; these anticipated degradations require more detailed analysis as planning continues. For Iridium, the dips represent known gaps in coverage. Such forecasted gaps allow for anticipation of communications contingencies.

Row 12. Row 12 depicts space-based intelligence, reconnaissance, and surveillance platforms. As in the PNT row, row 10, blue denotes friendly while red denotes enemy. Importantly, as in row 11, gray denotes commercial systems that may be available to augment the intelligence collection of either belligerent. Such commercial imagery provides an opportunity to augment the intelligence collection of both belligerents. The short lines indicate windows of observation that the satellites have while they pass over the ground. The absence of a line indicates that the satellite is physically unable to observe the operation. The lengths of these windows vary depending on the satellite and its orbit. A typical imagery satellite may pass

from horizon to horizon in five to seven minutes with other members of its constellation (assuming it is part of a constellation) revisiting periodically. Signals intelligence (SIGINT) satellites may pass out of view in minutes or hours, depending on the orbital characteristics of the satellites. Geosynchronous SIGINT satellites can observe a given location continuously.

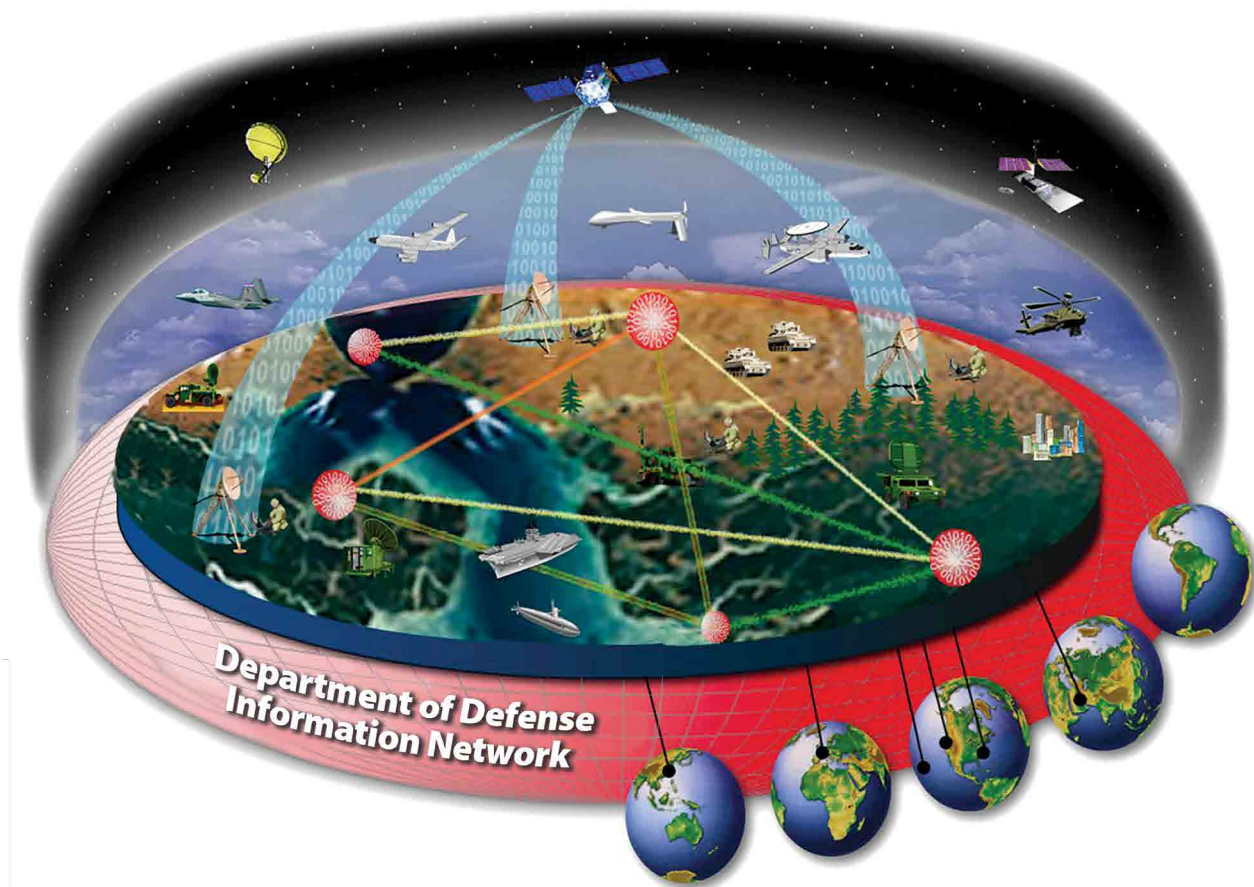
On G-Day, enemy electro-optical (EO) imagers are in position to photograph the corps assembly area. Commercial radar and commercial EO systems may also be collecting over friendly forces during this time. Friendly radar imagery provides an option for gathering intelligence as the enemy moves into the mountain valley during the hours of darkness between G-Day and G+1 or in the event that cloud cover blocks the view of the EO satellites. Also on G+1, enemy spacecraft will be in a position to collect SIGINT, a prediction that may drive plans to implement communications discipline or military deception measures. Since the orbital patterns of satellites are predictable, this general pattern repeats periodically.

Row 13. Rows 10 and 11 highlighted some of the vulnerabilities considered in the employment of space systems. Protecting communications—both to and from the satellite—requires DSC missions to monitor SATCOM links to detect interference. As with the MW forces of row 9, row 13 depicts units in various geographic positions and their operational tempo.¹¹ The green line represents a DSC unit stationed in Europe (EUR). It operates at a steady state, and for the sake of the infographic, it is monitoring channels on one or more WGS satellites. Similarly, the DSC unit in the Pacific (PAC, purple) is on mission but scheduled to come off mission on G+2. The graphic depicts PAC's off-mission status to remind planners that the asset provides an option for additional support, if necessary.¹² As the timeline looks beyond G+5, this asset may again become active.

Row 14. Row 14 highlights options and potential decision points based on analysis of the information in the previous rows for commanders and staffs to consider during planning and wargaming.

Conclusion

While the employment of space systems for military purposes is not a new idea, the anticipated conflicts of the future will require a deeper appreciation of space systems in operational planning. The belligerents who more thoroughly understand space systems and how to



synchronize their capabilities with multi-domain forces will enjoy an asymmetric advantage over their opponent. While the topic of space system synchronization may expand to include any number of satellites, constellations, ground stations, and frequencies, the synchronization of the MW, PNT, SATCOM, ISR, and DSC missions remains a prime concern for the joint force and provides a convenient starting point for understanding, visualizing, and synchronizing space systems.

As a visualization and planning tool, an infographic like the one on page 110 provides the valuable service of allowing conceptual synchronization that encourages optionality and informs the subsequent employment of space systems. In this way, space operations become an integral part of the planning process and contribute to the development of all warfighting function concepts from an early stage. Throughout the execution of the operation, an updated visualization provides insight into how the space systems are contributing to current tactical action and furthering the force's progress toward its strategic objectives. Furthermore, as operational planning progresses from

Synchronization of space systems to support coordinated tactical actions in other domains requires a baseline understanding by the commander and his or her staff of space system potential roles and the ability to visualize their employment in conceptual planning. To overcome the challenges associated with this endeavor, tools must be developed such as the one proposed in this article to facilitate efficient synchronization of a vast array of complex systems operating across multiple domains. (Modified version of original figure courtesy of the Joint Task Force—Global Network Operations)

the conceptual to the detailed (and likely back again), the plan for the use of space systems—indeed for the systems of all domains—must proceed likewise.

In this respect, the graphic illustrates the multi-domain nature of modern conflict, the need to synchronize assets among the domains, and the expansion of the battlefield geometry that this synchronization entails. When the operational planner can visualize the array of friendly and enemy forces in time and physical space, vulnerabilities and opportunities become more readily apparent. Anticipating responses to both helps generate options and potential decision points for

commanders and staffs—row 14. In this way, the plan emerges early in the planning process, allowing commanders and staffs to leverage support relationships (including reach-back support) and request resources sooner rather than later.

Surely, the expanded consideration of space systems adds additional complexity to the operation, but to understand how the various domains and their myriad of means can work together to achieve strategic ends is the hallmark of operational art. As a practical matter, this is very difficult. It implies that commanders and staffs must work in multiple media and have at least a general knowledge of means in all domains. As joint doctrine asserts, the complex process of operational art is necessarily dependent

upon the knowledge of commanders and staffs of the means available, their understanding of tactics and doctrine, and their ability to imagine creative applications. Within this construct, multi-domain operational art also implies interservice coordination and shared mission understanding. Space systems are essential to such applications, and by virtue of their tendency to operate across domains, they perhaps force holistic consideration of operational art in a way that the traditional domains do not. Accordingly, contemporary commanders and staffs must consider the space domain as one of many in the employment of operational art with the tactical actions of space systems synchronized in time, multi-domain space, and purpose. ■

Notes

Epigraph. Antoine-Henri Jomini, *The Art of War*, trans. G. H. Mendell and W. P. Craighill (Philadelphia: J. B. Lippincott, 1862), 50 [punctuation edited].

1. Jomini, *The Art of War*.
2. Alex Ryan, "What is a Systems Approach?," *Arxiv preprint arXiv:0809.1698*, 10 September 2008, 28, accessed 25 October 2018, <https://pdfs.semanticscholar.org/dafc/dc5b54e42f874dbe30bdade398f5b181cb9f1.pdf>.
3. A system of satellites that use the GPS constellation to assist in determining their locations provide an example of such interaction.
4. Ryan, "What is a Systems Approach?," 31.
5. Joint Publication (JP) 3-14, *Space Operations* (Washington, DC: Government Publishing Office [GPO], 2018), I-2.
6. Ibid., II-1 to II-8; JP 3-14, *Space Operations* (Washington, DC: Government Printing Office, 2013 [obsolete]), II-4 to II-9. The terms "enabling" and "hostile" are not doctrinal, but I have picked those labels because I believe they convey the nature of the two categories. Prior to 2018, joint doctrine defined the space mission areas as space situational awareness, space force enhancement (intelligence, surveillance, and reconnaissance [ISR]; missile warning [MW], environmental monitoring [EM], and satellite communications [SATCOM]; and position, navigation, and timing [PNT]), space support (launch and on-orbit operations), and space control (both defensive and offensive). The 2018 version of JP 3-14 dropped the terms "space force enhancement" and "space support" but retained the same list of capabilities. I have chosen to include defensive space control (DSC) with enabling means while considering offensive space control

missions—whether through cyberattack, jamming, antisatellite missile, etc.—as a hostile means.

7. For more information, see 2018's JP 3-14, *Space Operations*. Prior to the 2018 version, joint doctrine characterized the EM, ISR, MW, SATCOM, and PNT missions as "space force enhancement missions."

8. I must acknowledge Dr. Bruce Stanley, associate professor at School of Advanced Military Studies, for instructing me on this method of visualization. I have adapted the concept to portray one way to visualize synchronization of some space systems.

9. Jeffrey Lanphear and Gabriel A. Medina, "Space Environment," in *AU-18: Space Primer* (Maxwell Air Force Base, AL: Air University Press, 2009), 125; Eric Niller, "Weird Space Bubbles May Have Caused U.S. Battle Deaths," *Seeker*, 26 September 2014, accessed 25 October 2018, <https://www.seeker.com/weird-space-bubbles-may-have-caused-us-battle-deaths-1769118964.html>. U.S. forces experienced signal degradation due to scintillation during the Persian Gulf War in Iraq and during Operation Anaconda in Afghanistan—both at latitudes of thirty degrees or more.

10. "Satellite Communications," National Oceanic and Atmospheric Administration Space Weather Prediction Center, accessed 25 October 2018, <http://www.swpc.noaa.gov/impacts/satellite-communications>.

11. While the units listed in the missile warning section are fielded units, the units listed in row 13 are entirely notional.

12. Doctrinally, DSC also includes measures to protect ground stations and on-orbit assets. While this article does not include those aspects of the DSC mission, they deserve consideration in their own right.



Demonstrators parade large inflatable dolls depicting Brazil's former President Luiz Inácio Lula da Silva in prison garb and then President Dilma Rousseff dressed as a thief with a presidential sash that reads "Impeachment" 13 March 2016 in São Paulo. Lula faced several corruption charges and was convicted and sentenced in January 2018 after Brazil's largest-ever graft probe decimated the political party he founded; Rousseff, his hand-picked successor, was impeached and ousted from office in August 2016. (Photo by Andre Penner, Associated Press)

Corruption and Corrosion in Latin America

Edward A. Lynch, PhD

In Brazil, the so-called Car Wash scandal is suspected of involving so much money that it has become the largest corruption scandal in the world. So far, it has led to the impeachment of President Dilma Rousseff, the investigation of four former presidents, stories of bribes and kickbacks costing billions

of dollars, accusations against fifty congressmen, and rumors that over one thousand politicians have accepted bribes from a single meat-packing company.¹ The country's politics have been skewed by the seemingly endless scandals involving purchased government favoritism of oil giant Petrobras and construction giant

Odebrecht. According to one study, corruption has cost Brazil between 1.4 percent and 2.3 percent of its gross domestic product annually.²

Elsewhere, eight former Mexican governors (in a country of thirty-one states) face charges for corruption. And, on 23 March 2018, Peruvian President Pedro Pablo Kuczynski resigned on the eve of an impeachment vote over his administration's corruption.³ Peruvian sociologist Hernando de Soto did a study in the 1980s that revealed opening a small business in Peru, with a determination to not pay any bribes, was impossible. Paying what the author determined to be three "essential" bribes, the process still took fourteen months. Performing the same task in Miami, a U.S. city not known for exceptional probity among government officials, took only a few hours.⁴

Transparency International rates the Latin American region as one of the world's worst for difficulties in dealing with government officials. (Chile and Uruguay are noteworthy exceptions. Both are in Transparency International's top fifty countries for doing business.) Even more than Latin America's swing to the left ten years ago, corruption threatens to bring economic insecurity to the region together with the increased social unrest such instability produces. While the link between corruption and arrested economic development is clear, corruption's corrosive effect on democracy is less obvious but far more insidious. In this article, I will trace the heritage of corruption in Latin America, describe some of its more notorious modern examples, and demonstrate the poisonous and corrosive effect of corruption on freedom and democracy in the region.

Latin America, for this article, is defined as the group of nations lying between the Rio Grande and Tierra del Fuego, including the Spanish-speaking nations of the Caribbean. The nations' experience with democracy has been, to put it mildly, mixed. Extreme political ideologies of either the right or the left have gained power at one time or another in virtually every nation in the region. Often these extreme ideologies have been inspired by the apparent success of such ideologies in Europe. Thus, during the rise of fascism in Italy, Germany, Spain, and Portugal in the 1920s and 1930s, imitators appeared in Latin America, such as Anastasio Somoza in Nicaragua, Juan Perón in Argentina, Getulio Vargas in Brazil, and Alfredo Stroessner in Paraguay.

Even the states that did not embrace an identifiable ideological position experienced length and sometimes

brutal military regimes that all but extinguished personal freedom. In many cases, these nonideological dictatorships survived the demise of European fascism (assisted in part by the continuation of the Franco regime in Spain and Salazar regime in Portugal). The durability of autocratic rule was often underwritten by the tacit (and sometimes explicit) support of key agencies of the U.S. government, whose foreign policy makers saw right-wing dictatorships as the most effective bulwark against communism. After the United States' most consequential failure in that regard, the victory of Fidel Castro in Cuba (over the U.S.-backed dictatorship of Fulgencio Batista) in 1959, right-wing threats to democracy were joined by left-wing subversion sponsored by Castro and by the Soviet Union. After a failed attempt to impose socialism in Chile that was followed by the rise of Gen. Augusto Pinochet, Castro saw his efforts to create like-minded regimes succeed in Nicaragua with the advent of the Sandinista regime in 1979. The combination of left- and right-wing pressure all but extinguished liberal democracy in Latin America. In 1980, Costa Rica, Venezuela, and Colombia stood alone as democratic regimes in the region.⁵

By the end of the 1980s, however, the prospects for democracy in Latin America looked better than they had in over a century. Every nation in the region, except Cuba, was either democratic or moving in that direction. Even in Sandinista Nicaragua and Pinochet's Chile, dictators would be decisively defeated by voters at the polls as the decade came to an end. Under President Ronald Reagan, the U.S. government abandoned its long-standing policy of supporting right-wing dictators.⁶ With the demise of the Soviet Union, the attractiveness of communism all but disappeared. The region left the tumultuous and often tragic twentieth century confident in the resiliency and permanence of its democratic institutions.

The last decade of the twentieth century also saw the seeming rejection of socialism throughout the region. As they had with European fascism and Cuban communism, Latin American leaders sought to imitate success. The rapid growth of the U.S. economy in the 1980s, plus the U.S.-backed insistence of international lending agencies such as the International Monetary Fund and the World Bank for free-market reforms, prompted many Latin American leaders to experiment with privatization, market exchange rates, lower taxes, and relaxed regulatory regimes. Starting with the 1994 North American Free Trade Agreement, free trade became a watchword in the region.

As we will see in more detail, however, these economic reforms brought more than just renewed confidence and resurgent opportunity; they brought a renewed threat to democracy in the form of corruption. The combination of large economic interests, large economic rewards, and a government monopoly on decision-making created temptations that were (and remain) too strong for many in the region to resist. The magnitude of the threat cannot be overestimated. Rooted in one of the more resilient elements of human nature—greed—corruption is not subject to the rise and fall of a particular ideology. The malignant effect of corruption on public confidence has proven to be a more dangerous threat to democracy than either fascism or communism.

The Colonial Legacy

In his pivotal essay, “A Summary View of British Rights in America,” Thomas Jefferson made the case that colonists owed little, if any, allegiance to the British government, since most of the original settlements in the thirteen colonies were the result of private enterprise and initiative. Indeed, colonists like the Pilgrims and the Puritans, far from acting on behalf of the British government, were doing their best to escape the British government. Thus, Jefferson believed, the government’s demands for loyalty and obedience were of highly questionable validity.⁷

The Spanish and Portuguese colonists harbored no such doubts about their respective governments’ right to rule over those who made the trip across the Atlantic. Virtually all voyages of exploration to what would become Latin America were government-sponsored projects, beginning with Christopher Columbus’s four voyages. All permanent Spanish and Portuguese settlements were also government sponsored. In most cases, the main purpose of these excursions to the New World was to find wealth, ideally in the form of gold or silver. Thus, from the very beginning, there was an intimate and seemingly unbreakable link between government action and wealth accumulation.

Even for those who were not, strictly speaking, government employees, a link with the government was absolutely necessary to get rich in the Americas. Legitimate trading could be done only by merchants holding a license from Spanish or Portuguese authorities. License holders received a legal monopoly on their enterprise, usually over a vast expanse of territory. For those

who chose landholding over trade, government grants were also crucial. So all-encompassing was the Spanish and Portuguese presumption of government power that land grants included the people already living on the land, who became virtual slaves to the government-favored landowners. For those in Europe hoping to enter this amazingly lucrative arrangement, bribes to Spanish and Portuguese officials became standard practice. Not surprisingly, the culture of bribery and extortion crossed the Atlantic with the colonists.⁸

At the time of independence in the 1820s, most Latin American republics inherited economies that were almost wholly export oriented and almost completely dominated by a small number of well-connected merchants. At the same time, in sharp contrast to the ex-British colonies to the north, Latin Americans also inherited highly centralized governments.⁹ In addition, the most populous ex-Spanish colonies, Argentina and Mexico, began their independent life with deep and bitter political divisions, which appeared to lesser degrees in other Spanish-American nations. (Brazil, having adopted a member of the Portuguese royal family as emperor, postponed the time when such divisions would emerge.)

This combination of circumstances produced a legacy that has plagued Latin American politics for two centuries. Because governments were (and are) highly centralized and almost completely in control of the most lucrative and certain economic enterprises, losing a contest for political power—whether it be an election, a coup attempt, or an intraparty struggle—meant financial as well as a political disaster for the losers. Put differently, the intimate

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link between political and economic power raised the stakes of politics beyond the point where a democratic political culture could survive. Such a culture requires, first and foremost, the willingness to accept defeat, with the confidence that defeat is temporary and will not result in personal ruin.¹⁰

Free-Market Reforms

To illustrate the pervasive impact of corruption in Latin America, it is instructive to examine the economic and political fortunes of South America's poorest country, Bolivia, and its richest country, Venezuela. Both saw reform processes of great promise ruined by corruption, with results that have been disastrous for the entire region.

Bolivia. Bolivia undertook radical economic reforms in the 1980s after cataclysmic five-digit inflation threatened the country with total economic collapse. The architect of these reforms was its five-time president, Victor Paz Estenssoro, and the nature of the reforms he enacted demonstrate the multiple opportunities for corruption in an unreformed Latin American economy.¹¹

The first step in Paz's New Economic Policy was a radical devaluation of the Bolivian currency coupled with what he called "a single, real rate of exchange."¹² At the same time, Paz allowed bank accounts to be opened with foreign currencies at interest rates determined by the market. Prior to this reform, in an arrangement typical of the opportunities for corruption in Latin America, there had been three different "official" exchange rates, depending on the ultimate purpose for which traders desired foreign currency. The rules for determining which transactions fell into which category were complex and often completely contradictory. Even a well-meaning bureaucrat would have had difficulty performing the task honestly. For businesses and private citizens, weeks-long delays to get an exchange rate were common. The temptation to expedite the process with a bribe, coupled with the typical bureaucrat's knowledge that almost any decision could be justified on the basis of the complex rules, made for a lucrative black market in foreign currency. In short, government action made corruption all but inevitable.

Paz made similar progress when dealing with taxes and tariffs—additional sources of corruption in Bolivia. When Paz took office, Bolivia had over six hundred different kinds of taxes, jumbled together in a tax code

so complex that evasion was easy.¹³ Shakedowns by tax collectors were also easy, providing a rich source of bribes from business owners that amounted to thinly veiled protection money. The hundreds of taxes were replaced by fewer than ten, the most significant of which were a 10 percent flat income tax and a 10 percent value-added tax.¹⁴ With every taxpayer playing by the same set of rules, the opportunities for demanding bribes were significantly reduced.

Bolivia's tariff code also underwent significant simplification. Hundreds of different tariff rules (with the accompanying necessity of bribes to have products placed into a more favorable category) were replaced by a single 20 percent tariff. The reform was not perfect, since Bolivia soon created a special category of imports called "capital goods," but it did address most of the root causes of corruption.

Paz's economic reforms brought significant short-term hardship for many Bolivians, but also resulted in significant economic improvement for the chronically impoverished country. When several of Paz's successors, including those from rival parties, declined to reverse the reforms, Bolivia seemed on the road to permanent improvement in the 1990s. Paz, however, did nothing to slow down the migration of political power to the central government in La Paz, Bolivia's capital. At the start of the twenty-first century, disputes over a gas pipeline and water supplies soon turned to widespread suspicion that private gas and water companies had used bribes to receive government permission to discriminate against Bolivia's large indigenous population.¹⁵ A series of high-level resignations (at one point, Bolivia had three presidents in a single day) led to the rise of Evo Morales, an indigenous leader who is also a radical leftist. His assumption of the presidency in 2006 marked the beginning of Latin America's "swing to the left." In short, corruption in Bolivia led to one of the region's most significant political movements in the past forty years.

Venezuela. The situation in Venezuela that led to the rise of Hugo Chávez, the continent's most prominent leftist, also can be directly connected to corruption. In the 1980s, Venezuela seemed the least likely of all Latin American nations to embrace radical socialism. As one of the world's largest oil producers, the country has more promise of prosperity than any other in the region. Moreover, Venezuela not only enjoyed a long democratic tradition, with only one significant break in its

“When the oil boom of the 1970s turned to the oil bust of the 1980s, the Venezuelan economy began a slide from which it has never recovered. More to the point, while the economy shrank, the opportunities for corruption exploded.”

democratic history in the twentieth century, but also had established a stable, two-party system. The center-left Democratic Action Party (AD) competed in free elections with the center-right Christian Democratic Party (COPEI), both of which were unvaryingly classified as “moderate” by U.S. analysts.¹⁶

Yet when the two oil shocks of the 1970s tripled the Venezuelan government’s oil income overnight, the seemingly inexhaustible cornucopia of oil money prompted both parties to promise more and more in their electoral campaigns. The impact of prospective oil wealth had a particularly malignant effect on the Christian Democrats, who abandoned their traditional stance of skepticism of government power in favor of using government power to reward Venezuelans for their votes. In the 1978 presidential campaign, for example, COPEI’s candidate promised to build one hundred thousand new houses every year during his five-year term.¹⁷ The COPEI candidate also promised increased government subsidies to reduce the cost of basic foodstuffs. The AD party, already friendly to the idea of a large-government role in the economy, matched COPEI promise for promise. Overlaying the grand promises of both parties was the lure of well-paying jobs in the oil sector, which was controlled by one of the monuments to corruption in Latin America, the state-run *Petróleos de Venezuela S.A.*

When the oil boom of the 1970s turned to the oil bust of the 1980s, the Venezuelan economy began a slide from which it has never recovered. More to the point, while the economy shrank, the opportunities for corruption exploded. With private sector jobs disappearing, jobs with *Petróleos de Venezuela S.A.* became more coveted. Bribes to ensure a job became common, accompanied by annual kickbacks to ensure continued employment. Government subsidies were reduced, prompting local officials to pay bribes to protect their people from the resulting economic pain. As the traditional parties repeatedly failed to address the ongoing crisis, Venezuelans turned to a former

president, Carlos Andres Pérez, to bring back the heady days of oil-based prosperity.

CAP, as Pérez was often called, proved unable to reverse global trends in the price of oil and soon turned to the International Monetary Fund for assistance. The global body’s investigations revealed staggering levels of corruption in CAP’s administration and both traditional parties. As a result, public confidence in AD and COPEI collapsed, prompting the emergence of new political leaders, the most effective being army officer Hugo Chávez.

More than any other single message to Venezuelans, it was Chávez’s railings against corruption that were most effective. He became a popular hero when he took part in an unsuccessful coup against CAP in 1992. After a short term in prison, Chávez became a dominant figure in Venezuelan politics. Campaigning for president in 1998, Chávez promised to save Venezuela from the chaos that it was experiencing under democracy. Chávez insisted that it was liberal democracy that permitted corruption, and it was that corruption that led to the governmental paralysis. To counter this vicious cycle, the new leftist president held rigged elections for a constituent assembly to write a new constitution. Of the assembly’s 131 members, 121 were Chávez supporters. When the assembly replaced the existing congress and began acting against judges, the president of Venezuela’s supreme court, Cecilia Sosa, resigned. As she left office, she declared that the court was “committing suicide rather than waiting to be killed.”¹⁸

Since 1998, Venezuela’s once continent-leading prosperity has descended into economic collapse, and its democracy has morphed into a virtual dictatorship, led by Chávez’s handpicked successor who is backed up by armed mobs who terrorize opposition figures.¹⁹ This tragic transformation of the region’s most promising nation had its nativity in Venezuelans’ disgust with the pervasive corruption of the two traditional parties. While Venezuela provides the most vivid illustration of the long-term effects of corruption, its corrosive effect on democracy and

Corruption in Latin America

Many Latin American countries have been plagued in recent times by corrupt officials at the highest levels of government. This illustration identifies twelve of the most egregious examples from ten Latin American countries.



President José Daniel Ortega Saavedra
Nicaragua

Ortega has served in his second term as president of Nicaragua since 2007. He was formerly the leader of the communist Sandinista National Liberation Front that overthrew the Nicaraguan government in 1979. Nicaragua is now experiencing a virtual civil war, largely stemming from widespread popular dissatisfaction attributed to Ortega's alleged nepotism and corruption. His repressive measures aimed at putting down political opposition have converted him into a de facto dictator who now rules Nicaragua through repressive measures allegedly including overt violence, censorship, arrest and torture of political opponents, and rule by decree. (Photo courtesy of the Presidential Office of the Republic of China)



Former President Enrique Peña Nieto
Mexico

Nieto served as president of Mexico from 2012 to 2018. His term as president was marked with claims of corruption, with allegations of media manipulation and reports of his wife accepting a luxury home from a government contractor. The disappearance of forty-three students from police custody in 2014 created domestic and international outcry and added to his domestic unpopularity. (Photo courtesy of the Office of the President of Mexico)



Former President Otto Pérez Molina
Guatemala

Pérez was president of Guatemala from 2012 to 2015, when he resigned in the face of a massive bribery scandal. Twenty-six other people, including former vice president Ingrid Roxana Baldetti Elias, were also charged. Pérez is being held in pretrial confinement. He has also been accused of multiple human rights abuses. (Photo by Michael Wuertenberg/World Economic Forum)



Former President Rafael Correa
Ecuador

Correa served as president of Ecuador from 2007 to 2017. Allegations of corruption by the former president include involvement in an attempted kidnapping of opposition lawmaker Fernando Balda. He now resides in Belgium, while Ecuador is seeking his extradition on the kidnapping claims. Additionally, Ecuadorian Vice President Jorge Glas, who served under Correa and current president Lenin Moreno, was sentenced to six years in prison in 2017 for his involvement in Brazil's Odebrecht construction company scandal. (Photo by Micaela Ayala V., The News Agency of Ecuador and South America)



Former President Raúl Modesto Castro Ruz
Cuba

Although he stepped down as president in 2018, Castro remains the head of the Communist Party and the armed forces of Cuba. Following the communist takeover of Cuba in 1959, Castro's brother, Fidel, issued a series of decrees directing the confiscation of private property and money. Subsequently, the one-party state form of government imposed by Fidel and carried on by Raul Castro have institutionalized government corruption in the form of nepotism, unaccountable state monopolies, illicit trafficking in drugs, and rampant cronyism. (Photo courtesy of the Presidency of the Mexican Republic)



Former President Pedro Pablo Kuczynski Godard
Peru

Kuczynski was president of Peru from 2016 to 2018. He resigned in March 2018 just prior to a vote on impeachment for permanent moral unfitness. Kuczynski faced corruption charges based on his association with Brazil's Odebrecht construction company, which is itself facing a huge corruption scandal. (Photo courtesy of the Ministry of Foreign Affairs of Peru)



Former President Cristina Elisabet Fernández de Kirchner
Argentina

Kirchner was president of Argentina from 2007 to 2015. On leaving office, Kirchner faced a host of charges in court including manipulating currencies for her own benefit, illicit association, rampant corruption within her administration, and personal obstruction of justice and high treason with regard to a case involving reputed Iranian bombing of a Jewish center in Buenos Aires. (Photo courtesy of the Office of the President of Argentina)



Former President Hugo Chávez
Venezuela

Chávez was elected president of Venezuela in 1998 and served until his death in 2013. He quickly took control of all branches of the government and the army. He replaced Venezuela's National Assembly and its supreme court, and then used them to rewrite its constitution to allow him to remain in power indefinitely, effectively changing Venezuela from a democracy to a dictatorship. (Photo by Roberto Stuckert Filho, Agência Brasil)



President Nicolás Maduro Moros
Venezuela

Maduro has been president of Venezuela since 2013. Under Maduro's presidency, large sectors of the economy have been nationalized and placed under the control of Maduro's cronies with the consequence that the economy of the state has collapsed, inflation is running at nearly 1 million percent, almost three million economic refugees have fled the country, the oil industry has deteriorated to the point that the country with the largest oil reserves in the world is now importing oil, drug cartels and criminal organizations affiliated with international crime and terrorism have gained control of the military and government administration, and Cuba has been allowed to seize control of Venezuela's internal security and intelligence system. Maduro has eliminated the democratically elected branches of government, packed the high court with cronies, and now rules virtually by decree. (Photo by Fabio Rodrigues Pozzebom, Agência Brasil)



Former President Luis Inácio Lula da Silva
Brazil

Lula served as president of Brazil from 2003 to 2011. He was convicted of corruption and money laundering and sentenced to twelve years in prison in January 2018. (Photo by Roberto Stuckert Filho, Agência Brasil)



Former President Verónica Michelle Bachelet Jeria
Chile

Bachelet served as the first female president of Chile from 2006 to 2010 and from 2014 to 2018. Her previous popularity plummeted in 2015 when it was revealed that her son, Sebastián Dávalos, and daughter-in-law, Natalia Compagnon, had allegedly used insider information to make over \$5 million on a real estate deal. In 2016, Compagnon was charged with tax fraud due to her involvement in the scandal. (Photo courtesy of the Government of Chile)



Former President Dilma Rousseff
Brazil

Rousseff was handpicked by Lula as his successor and served as the first female president of Brazil from 2011 to 2016. She was caught by a wiretap attempting to shield Lula from prosecution, and was subsequently charged with criminal administrative misconduct for her failure to act on corruption uncovered during the Operation Car Wash investigation and with disregard for the federal budget for funding programs without the required legislative approval. Rousseff was impeached and removed from office in 2016. (Photo by Roberto Stuckert Filho, Agência Brasil)

a free economy is visible in other Latin American nations as well. Despite the enormous differences between Bolivia and Venezuela, they ended up leading the shift to the left in Latin America at the start of the twenty-first century. The linking factor was a virulent reaction to corruption.

Tammany Hall. Given the far-reaching and largely negative effects of corruption in Latin America, and the strong reaction against them among ordinary

Honest graft, by contrast, consists of finding “opportunities” for personal enrichment that do not interfere with the workings of local government. As an example, Plunkitt describes making a small fortune on paving stones for a new road by manipulating an auction.²¹ He emphasizes, however, two elements of honest graft that are absolutely necessary for corruption to work. First, the corrupt official must be seen using his ill-gotten gains to benefit his constituents, usually in small ways. Second,



citizens, it may seem inexplicable that corruption is so pervasive in the region and popular explosions against it are not more common. Part of the explanation for this paradox can be found in a disreputable episode in U.S. political history. In this famous treatment of Tammany Hall politics, former New York senator George Washington Plunkitt began by insisting that there is a difference between “honest graft and dishonest graft.”²⁰ The latter, which would include outright bribery and theft of public funds, is to be shunned, not only because the practitioner is likely to go to jail but also because dishonest graft breeds a backlash from the population, threatening to upset the entire system.

Brazilian President Dilma Rousseff receives a picture of former Venezuelan President Hugo Chávez from President Nicolás Maduro during a press statement 9 May 2013 at the Palácio do Planalto in Brasília, Brazil. Rousseff was impeached and removed from office in 2016, while Maduro’s rule in Venezuela continues to be plagued by a plummeting economy, mass migration of its populace, and continual charges of corruption and criminality. (Photo by Valter Campanato, Agência Brasil)

and this is crucial to the discussion of corruption in Latin America, a system that allows Plunkitt to make money on paving stones cannot work if the new road is not actually built. Ordinary citizens, he insists, are perfectly willing to countenance a certain level of corruption,

provided that basic government functions are performed adequately. Indeed, many citizens can be convinced that a certain amount of corruption is absolutely necessary for the smooth implementation of public policy.

Consciously or not, some of the more notorious (and successful) exemplars of corruption in Latin America have taken the Tammany Hall politician's advice to heart. There is a close connection in some regional nations between corruption and populism, as the rise of Chávez shows.

Corruption and Free-Market Reform

For most of the history of Latin America, going back to colonial days, corruption's chief facilitator has been a high level of government control over the economy. In theory, therefore, reducing government control should reduce the opportunities for corruption. To be sure, there are elements of classic free-market reform that do rob government officials of the chance to make illicit income, such as streamlining and simplifying exchange rates, tariffs, and tax codes, as noted above in the Bolivian case.

But free-market reform has not, and cannot, eliminate corruption. First, any significant economic reform, whether free-market oriented or not, will bring a transition period during which rules are uncertain, financial relationships (legitimate and illegitimate) are disrupted, and investors are wary. The temptation to use corruption to "clarify" the rules, continue a relationship, or ensure a return on investment can become stronger during such a transition. The experience of the former Soviet Union is the best global example.

Second, unless great care is taken by the reformist government, the privatization of public enterprises can become a corruption bonanza. Any public enterprise that is likely to attract buyers is also going to attract those who desire an inside track to acquire the most desirable assets. As one expert put it, "The privatization of public enterprises, which involves political decisions over reallocating huge chunks of property, can be skewed by payments under the table. And as public services are contracted out to private providers, kick-backs can influence who receives favorable deals."²²

Yet the link between privatization and corruption is not automatic, and again, the experience of a European nation is instructive. Soon after replacing its communist government in 1989, the leaders of Czechoslovakia (soon to become leaders of the Czech Republic) announced a

plan to streamline privatization, significantly reduce the chances for corruption, and address the many claims of exiles whose property had been lost when the communists took over in 1948. Under the plan, Czechs received vouchers that they could use to purchase state property. In doing so, the Czech leadership made most Czechs into investors and prevented the rise of a nouveau-riche oligarchy. The vouchers were fully exchangeable for Czech currency and could be freely bought and sold, eliminating the need to bribe officials to turn the vouchers into cash.²³ Returning exiles with claims for stolen property also received vouchers, especially when the property in question had been owned by someone else for decades. The voucher system kept corruption in the post-Communist Czech Republic to a manageable level and should have provided a useful model for Latin America.

A second crucial variable in determining the prevalence of corruption was the type of government that undertook the reform. Governments with a genuine system of checks and balances serve as a check on corruption. By contrast, populist governments with either a low level of institutionalization or a leader determined to eliminate accountability, saw exponential growth in corruption levels. Put differently, where there was little or no accountability, there was much more corruption.²⁴

Populist leaders, such as Argentina's Carlos Menem, Brazil's Fernando Collor de Mello, and Peru's Alberto Fujimori, oversaw unprecedented levels of corruption that were tied to the purportedly free-market reforms they enacted. In all three cases, they also concentrated power, undermined existing checks and balances, and sedulously sought to expand their ability to act alone. At the same time, motivated either by personal ideology or external pressure, they enacted free-market reforms, albeit to different extents.

The link with corruption can be isolated in the combination of broad privatization with shallow institutional support. Fujimori, for example, undercut the Peruvian Congress and judicial system constantly, blaming them for Peru's troubles (which, given the strength and violence of the Shining Path terrorist group, among other problems, were catastrophic) and presenting himself as the one man who could save Peru from its own ineffective government.²⁵

Whatever justification Fujimori and his counterparts might have had for attacking the reputation of government officials, these attacks made it all but impossible to

rely on those same government officials to competently implement economic reforms, even supposing that the populist leaders were eager for their help. Thus, the process of privatization became an insiders' game with few players and even fewer referees.

Meanwhile, as neoliberal reform brought hardship to many Argentines, Brazilians, Peruvians, and others, populist leaders faced a real political danger. Accepted by the masses as saviors, and coming to power on the strength of unreasonable expectations and impossible promises, the inevitable pain of economic reform threatened to sweep the populists from power. Menem, Collor, and Fujimori all responded with targeted government spending, including outright bribes, to ensure the loyalty of aides and the appeasement of their loudest critics.²⁶ Populist leaders explicitly reject the strictures of checks and balances, insisting on their right to make their own rules as a way of striking back at the establishment, which, the leaders tell their countrymen, got the country into the mess it is in.

The downside of demonizing the establishment is that every modern leader needs bureaucracy to rule. Leaders also need close aides who know bureaucratic politics in order to oversee the thousands of officials who turn policy into reality. The populist leaders usually lack a preexisting political organization and thus have to turn to people without institutional loyalty to fulfill this task. Permitting corruption is a quick way to ensure that personal loyalty takes the place of institutional or party loyalty. Indeed, corruption can even be encouraged, since it ties the aides to the ruler's continuation in office, lest an eventual opposition regime launch a criminal investigation.

Since most populists come to power promising rapid economic development, leaders such as Menem, Collor, and Fujimori also need the support of business groups and investors. It is clear that graft is necessary to secure government contracts (e.g., to acquire government-protected monopolies) in order to provide leaders with an extra source of revenue, tie the businesspeople to the leader's continued tenure, and allow the leader to punish enemies, real or perceived (the additional income, by the way, may also fund television or radio advertising to boost the leader's popularity). On occasion, the nature of these illicit relationships is protected by violence. In Menem's Argentina, for example, a single businessman, Alfredo Yabrán, used his close ties to the president to garner huge profits from the privatization

of airports and post offices; an investigative reporter who exposed this corrupt relationship was murdered.²⁷

Even populist leaders who promise to attack the wealthy can make a fine profit in doing so. Collor used hyperinflation in Brazil as an excuse to get the country's Congress to freeze all bank accounts over about \$1,100. Business owners with bills and payrolls had to bribe officials just to get use of their own money. The main beneficiary was Collor's former campaign treasurer.

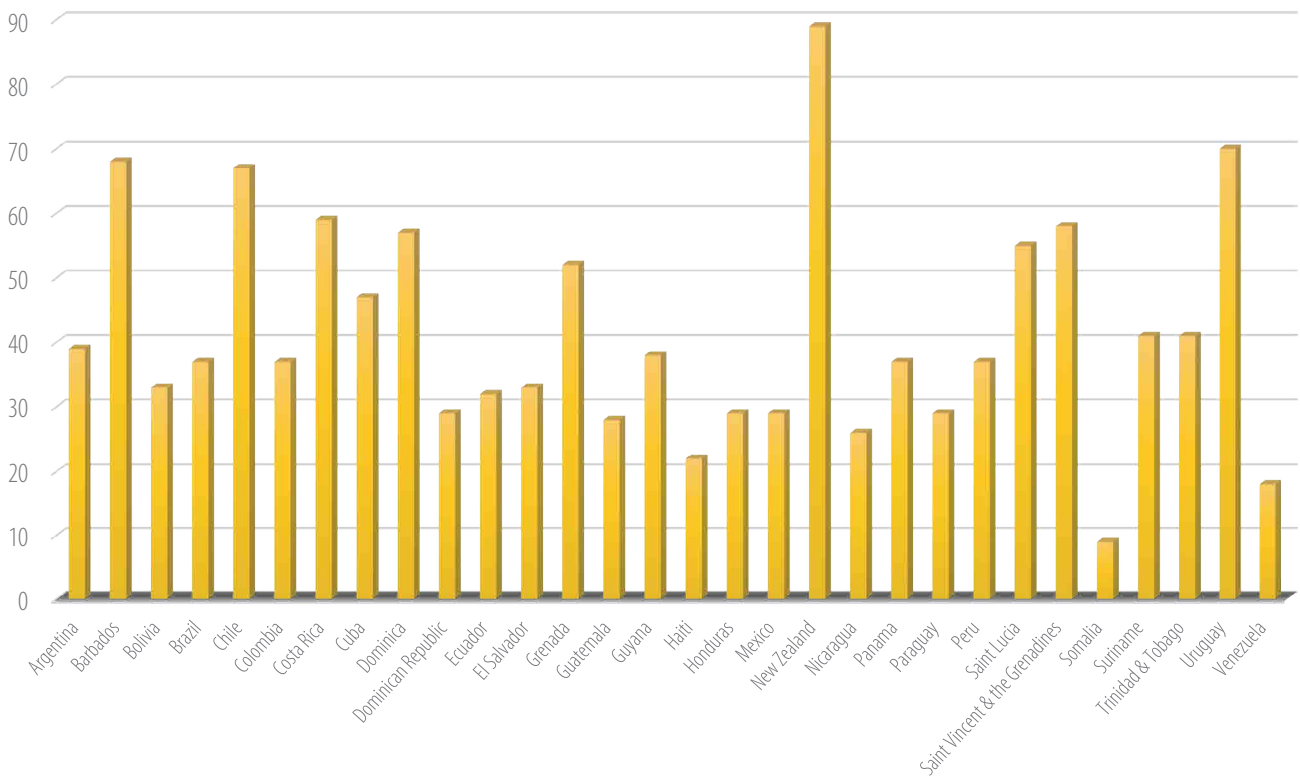
Perhaps the most notorious example of corruption under a populist leader is the case of Vladimir Montesinos, the Peruvian intelligence chief for Fujimori. According to documents published since Fujimori's flight from Peru in November 2000, Montesinos charged bribes to get into the privatization business, which is not unusual, but also redirected international relief funds intended to help Peru deal with natural disasters and accepted bribes from drug dealers in return for not interfering with their operations. A video of Montesinos shows him casually counting large piles of cash spread far and wide, even in those pre-YouTube days, which he made himself to ensure the silence of the businessmen involved.²⁸

Recent Examples

Two more recent examples of Latin American corruption involve the countries of Brazil and Peru.

Operation Car Wash. Without a doubt, the most notorious corruption scandal in recent Latin American history is the *Lava Jato* (Car Wash) scandal in Brazil. The investigation started in 2014 and was not directed at the highest levels of the Brazilian government. Rather, Operation Car Wash took its name from the small businesses that organized crime figures were using to launder their illicit profits.²⁹ Targeting small businesses and small-time criminals was typical of the half-hearted anticorruption efforts in Brazil, which tended toward protecting the wealthiest and most powerful while giving the impression of taking effective action against corruption.

However, Car Wash investigators eventually found out that some of the small-scale money launderers were working for a ranking official at Petrobras, Brazil's giant state-run oil company. The company, and Brazil, had just discovered one of the largest oil fields in the world, and that discovery launched a sense of "anything goes" among company executives and politicians, reminiscent of Venezuela's oil boom in the 1970s. With a seemingly



Data in bar chart comparing Latin American countries are from Transparency International, "Corruption Perceptions Index 2017." Scores range from 0 meaning highly corrupt to 100 indicating very clean. Two non-Latin American nations (New Zealand, with the best rating, and Somalia with the worst) have been included in the rankings for comparison. Transparency International, last updated 21 February 2018, accessed 27 November 2018, https://www.transparency.org/news/feature/corruption_perceptions_index_2017.

2017 Perceived Corruption by Country in Latin America

unbounded source of funds on the horizon, and with no competition, Petrobras directors started to deliberately overpay on contracts covering everything from office buildings to oil tankers. Contracting firms were persuaded to channel a small percentage of the extra funds to secret accounts, controlled by the directors doing the overpaying. The circle of corruption was completed when the directors used a portion of the funds from the secret accounts to pay off the politicians who appointed them to the Petrobras board to begin with.

There was a time when Petrobras and Brazil's political leadership engaged in a style of corruption that recalls the "honest graft" of Plunkitt. In 2002, the left-leaning Brazilian Workers' Party (PT) won the presidency with Luis Inácio Lula da Silva. PT promised more money for social programs, a focus on the poor, and, most important, an end to corruption. However, Lula lacked a congressional majority (which is not unusual, given Brazil's multiparty system). He and his aides turned to bribery to line up the support of smaller

parties and cobble the necessary majority to enact legislation. Like Plunkitt with the paving stones, Lula knew this illegal method of coalition-building could only work if there were visible results. His term actually saw Brazil make some impressive strides in alleviating poverty, protecting the environment, and increasing social spending.³⁰ By the time Car Wash was launched, however, these accomplishments were overshadowed by the perception of widespread corruption.

That perception was amply confirmed by the investigation. While Brazilians may not have been surprised by the extent of the system's rot, they were surprised at the sudden imposition of actual accountability on the accused, including the wealthy and well connected. Two seemingly technical changes in Brazilian criminal procedure had a huge impact on Car Wash's path. The first was the country's supreme court allowing "preventative detention"—in effect abolishing bail for corruption cases. Those accustomed to living in mansions found themselves in crowded cells with little food and no comfort.

Many offered cooperation in return for temporary release. The second reform was Brazil's first use of plea bargaining, which allowed prosecutors to offer shorter sentences or indictments for lesser offenses in return for information about those higher on the corruption food chain. This chain soon led to the upper reaches of Brazil's political and economic hierarchy.

These impressive results, however, brought some unintended negative consequences. First, Petrobras is the epitome of the phrase, "too big to fail." When prosecutors ordered the oil giant to suspend business with many of its contractors (including construction giant Odebrecht), projects were stopped. Massive layoffs caused the doubling of unemployment in Brazil in the space of two years.³¹ Second, the chief scapegoat in Car Wash was PT, the very party that had initiated the reforms that made the investigation and prosecutions possible. Brazilians' anger at PT culminated in calls for the impeachment of Rousseff, a protégé of Lula. She was ousted from the presidency in August 2016. However, the effort in Congress to impeach her was spearheaded by one of the country's most corrupt politicians, Michel Temer (whose personal ties to corruption are much clearer than Rousseff's), from the country's least public-spirited party, the Brazilian Democratic Movement.³² Temer quickly became the target of a second impeachment effort, this time while president. The scandal has created an almost existential crisis of confidence in Brazil, which not even the prestige of hosting the 2014 World Cup and the 2016 Summer Olympics can mitigate.

Peru's Corrosive Corruption. Recent events in Peru are, if anything, even more serious than the Car Wash scandal. While Brazilians involved in corruption were looking for personal enrichment, those in Peru took action to illustrate just how corrosive corruption could be to democratic processes. In 2016, Kuczynski was elected president of Peru, with promises to clean up the corruption that had become endemic in Peru since the presidency of Fujimori (1990–2000). Within a year of Kuczynski's inauguration, however, he was facing impeachment over charges that he had taken bribes from Odebrecht, a giant construction contractor that has been involved in other corruption scandals in Latin America.³³

While Kuczynski was able to fend off that first impeachment effort, his apparent success only plunged him into a new, and darker, scandal. Only days after the first impeachment effort failed, Kuczynski

pardoned Fujimori, who had been slated to stand trial for human rights violations. Peruvians quickly connected the dots between the pardon, which had been unexpected, and the fact that Kenji Fujimori, the former president's son, controlled enough votes in the Peruvian Congress to ensure that Kuczynski would survive the impeachment vote.³⁴

Even so, the connections were conjectural, and possibly survivable, until the release of videotapes showing Kuczynski's allies openly bargaining with congressmen over their pending votes on impeachment. Officials close to the president made offers of public works projects, with kickbacks and other favors, in return for staying loyal to Kuczynski. The content of the tapes moved the scandal from simple pocket lining to an overt attempt to use corruption to undermine the separation of powers, one of the foundations of a functioning democracy.

The scandal also illustrated another feature of corruption that threatens a healthy democracy: the closed, insular nature of elite politics in Peru. In the vote-buying scandal, Kuczynski was temporarily saved from impeachment by pardoning a former president in order to curry favor with that president's son, who controlled votes in congress. To be elected president in the first place, Kuczynski defeated the daughter of that same president; the brother and sister had become political enemies. To many Peruvians, the entire sordid matter seemed to be nothing more than an intense family squabble, the intricacies of which were impenetrable to anyone outside the elite circle. Such a belief leads to cynicism, which leads to nonparticipation by ordinary citizens, which can lead to the death of a democratic polity.³⁵

Common Denominators

While experts on corruption usually focus on the receivers of illicit funds (almost always government officials), it is also useful to see the phenomenon from the point of view of those paying the bribes or providing the kickbacks. Why do citizens involve themselves in such obviously and inevitably unequal relationships? The short answer is lack of alternatives. A private citizen, faced with a demand for a bribe, has only three choices: to take the demand to the proper law enforcement authorities, to seek a different way to accomplish the desired goal, or to pay the bribe. Successful corrupt officials close off the first two possibilities. They may

co-opt or undermine the police and the courts. Indeed, corrupt officials will use a variety of means to erode the separation of powers, usually through some combination of co-optation and suppression.

The desire for illicit funds invariably provides an incentive to concentrate power, to close off alternatives

existential threat? When does corruption become the tares to the wheat of good government?

Corruption can probably never be completely eliminated, but the systemic levels of corruption described above require systemic explanations. The factors that permit and encourage massive corruption follow.



to bribery or kickbacks. For example, a requirement for a government license to do business is one of the most common sources of bribery in Latin America. The more enterprises that require licensing, and the more steps in a business enterprise that require a license, the fewer alternatives for citizens and the more profit for government officials. Growth in corruption can thus go hand-in-hand with the growth of government regulation. At the same time, national governments are unlikely to tolerate competition even from their own subnational governments, so corruption also tends toward unitary governments with little or no devolution.

Conclusion

Why are some regions seemingly plagued by corruption more than others? What causes corruption to change from being an occasional nuisance to being an

A child holds a sign that reads “No más corrupción” (No more corruption) during a demonstration demanding the resignation of Guatemalan President Otto Pérez Molina 30 May 2015 in downtown Guatemala City. Thousands gathered in the main square of Guatemala’s capital to protest corruption after a wave of graft scandals prompted a cabinet shake up and the resignation of the vice president, Ingrid Roxana Baldetti Elías. (Photo by Jorge Dan Lopez, Reuters)

First, government power can be so extensive and pervasive enough that shifts in political leadership threaten the livelihoods of significant numbers of citizens who are not employed by the government. When seeing one’s party lose an election is not just a matter of disappointment, it is also a threat to a citizen’s job, home, or even freedom, making payments to government officials becomes a matter of survival.

Second, corruption thrives in an absence of checks and balances. When awarding government contracts—the hiring to government jobs, the provision of government largess, and even the prosecution of criminal activity are done with minimal intragovernment accountability—government officials may not even have to take the initiative to create an expectation of bribery.

Third, economic factors can contribute to a culture of corruption. Where there is a lack of job opportunities outside of government agencies or when private businesses are too closely tied to government agencies, keeping some sort of favoritism outside of hiring practices becomes practically impossible. Under such circumstances, both favored and unfavored population segments may see bribery as necessary, either to retain their favored status or to overcome their group's exclusion.

Fourth, and perhaps most important, corruption requires a gulf of understanding and connection between government officials and citizens. The former can demand bribes or kickbacks without a pang of conscience, while the latter all too quickly perceive that they have no choice but to buy into a corrupt system.

All four of these factors can be addressed by devolving power from central governments to substate units in a federal system such as that in the United States. Some state and local officials in the United States are guilty of corruption, to be sure, so it is important to note that this sort of constitutional change will not alter human nature, and thus will not eliminate corruption. It will, however, significantly reduce the incentives for corruption and erode the sense of impunity that allows corruption to metastasize.

First, on the most basic level, smaller governments mean smaller amounts of government money in the

hands of potentially corrupt officials. Risking illegal activity for \$1 million is less attractive than taking those same risks for \$10 million or \$100 million. Second, corruption thrives in the absence of alternatives. If a private business faces a choice between paying a bribe and leaving a country, its principals are more likely to pay. If departing the jurisdiction of a corrupt official only means moving to a different city in the same country, however, that official's leverage shrinks. Third, devolution makes local government officials less able to blame central government officials for the inefficiencies and inadequacies that usually accompany corruption. Local control creates an expectation of greater government effectiveness, meaning that corruption, if it exists, cannot be allowed to interfere with basic and necessary government functions.

At the same time, local officials have much greater difficulty maintaining the wall of separation between themselves and the people they govern than do central government officials. Local officials tend to be closer physically to the citizens they govern and thus have very little choice but to be closer to them psychologically. Neighbors can still cheat and bribe neighbors of course, but they cannot do so with the same expectation of anonymity. Federalism is no guarantee of virtue. It does, however, contain structures with built-in disincentives to malicious behavior. With these structures in place, federal systems are less likely to breed the sort of endemic cynicism that permits endemic corruption.

Having weathered the challenges of fascism and communism, Latin American democracy faces a new and even more dangerous threat. This newest threat can be addressed by embracing federalism, one of democracy's oldest solutions. ■

Notes

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3. Dan Collyns, "Peru President Pedro Pablo Kuczynski Resigns amid Corruption Scandal," *The Guardian* (website), 21 March 2018, accessed 27 November 2018, <https://www.theguardian.com/world/2018/mar/21/peru-president-pedro-pablo-kuczynski-resigns-amid-corruption-scandal>.

4. See Hernando de Soto, *The Other Path: The Economic Answer to Terrorism* (New York: Basic Books, 2002).

5. Experts differ on the categorization of Mexico before 2000. From the time of the Mexican Revolution to the victory of Vicente Fox and the National Action Party (PAN) that year, Mexican politics were dominated by a single party (the Institutional Revolutionary Party, or PRI). PRI leaders took forceful (usually nonviolent) steps to ensure the party's total domination of Mexican politics. Since Mexico's twentieth-century history did feature regular elections preceded by seemingly competitive campaigns,

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8. This mercantilist orientation of the economy was standard practice in North America as well and became one of the root causes of the American Revolution. In British America, however, there were more professions and businesses that did not require a license than in Latin America.

9. The American Founders, for the most part, were horrified by the possible link between government and economic power, and created the city of Washington to prevent New York or Philadelphia merchants from having easy access to government officials. By contrast, political and commercial centers remained united in the capital cities of most Latin American nations. The situation persists to this day.

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11. Arthur J. Mann and Manuel Pastor Jr., "Orthodox and Heterodox Stabilization Policies in Bolivia and Peru: 1985–1988," *Journal of Interamerican Studies and World Affairs* 31, no. 4 (Winter 1989): 163–92.

12. Latin America Regional Reports, *Weekly Report*, 16 August 1985, 2.

13. John Hewko, "Bolivia's Restructuring Deserves More Than a Pat on the Back," *Wall Street Journal*, 28 April 1989, A15.

14. See my chapter, "Bolivia and the New Economic Policy of Victor Paz Estenssoro: Implementation and Aftermath," in *Economic Development under Democratic Regimes*, ed. Lowell S. Gustafson (Westport, CT: Praeger, 1994), 105.

15. See Victor Mauricio Rodríguez, "La moral tributaria en América Latina y la corrupción como uno de sus determinantes" [The moral tributary in Latin America and corruption as one of its determinants], *Revista Mexicana de Ciencias Políticas y Sociales* 60, no. 224 (May–August 2015): 103–32. This is one of many examples where it took only the perception of corruption, before any actual corruption had been proved, to undermine the democratic regime that was the target of this perception.

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17. Edward A. Lynch, *Latin America's Christian Democratic Parties: A Political Economy* (New York: Praeger, 1993), 66.

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Lt. Gen. Alexander Lapin, commander of Russia's Central Military District (*left*); Valery Gerasimov, Russia's first deputy defense minister and chief of the general staff of the Russian armed forces (*second from left*); and other Shanghai Cooperation Organization leaders observe training during Peace Mission 2018 at Chebarkulsky Training Ground, Chelyabinsk Region, Russia. The three thousand-troop joint counterterrorism command-post exercise took place 22–29 August 2018 and included command-and-control units, and ground and air forces of Kazakhstan, Tajikistan, Kyrgyzstan, China, India, and Pakistan. Uzbekistan was represented by observers at the drills. (Photo courtesy of the Ministry of Defense of the Russian Federation)

Russian General Staff Chief Valery Gerasimov's 2018 Presentation to the General Staff Academy

Thoughts on Future Military Conflict—March 2018

General of the Army Valery Gerasimov, Chief of the General Staff
of the Russian Federation Armed Forces

Translated by Dr. Harold Orenstein

Foreword

Russian General Staff Chief Valery Gerasimov's March 2018 address to the Academy of Military Sciences was titled "The Influence of the Contemporary Nature of Armed Struggle on the Focus of the Construction and Development of the Armed Forces of the Russian Federation. Priority Tasks of Military Science in Safeguarding the Country's Defense." It contained several new or contentious issues, while adhering to the five basic elements that help describe how a Russian general staff officer frames his thought (trends, forecasting, strategy, forms [organizations], and methods [weapons and military art]), exceeding their use by twice as many from his 2017 presentation.

Regarding new and contentious issues, Gerasimov discussed his view of the probable forms of future war, which included subjecting economic targets and state control systems to priority destruction. Countering reconnaissance and navigation systems will play a special role as well. Air assault forces are being developed as the foundation for rapid reaction forces in Russia, he noted, and an automated interservice recce-strike system is being created. It will reduce the temporal parameters of a fire task decision cycle by two to two and a half times, while the precision of destruction capabilities will increase by one and a half to two times. Command and control organs, mentioned fourteen times in the speech, are being prepared to operate as "part of interservice groupings that are being created on strategic axes." The use of precision destruction means, such as hypersonic missiles, will shift strategic deterrence tasks from the nuclear to the non-nuclear force. Gerasimov uses the term "new-generation" warfare for the first time, although it is hard to confirm whether he is referring to foreign or domestic forces. Also, of special interest was the fact that he used the term "comprehensive destruction," a phrase not used in past addresses to the academy, four times.

Regarding thinking like a general staff officer, trends were used to describe changes in the content of military operations. Specifically noted were changes in the scale, intensity, and dynamism of operations using robots, precision-guided munitions, simultaneous and dispersed operations, and other factors. Forecasting, he noted, helps predict potential military-political situations that will decide what kind of armed forces Russia needs to develop. Strategy and strategic issues were mentioned often, to include the point (first noted in Gerasimov's 2013 speech) that each military conflict has distinguishing features and thus a logic all its

own. Other strategic topics included strategic resources, axes, and nuclear forces. Regarding forms and methods, priority tasks for military science include studying the forms of employing the armed forces (organizations were mentioned four times) and methods of conducting operations and combat in future conflicts (military art was mentioned four times). The contribution of weapons (mentioned seventeen times) needs to be reexamined because existing calculation methods do not fully consider the capabilities of precision weaponry or results of the effects of new destruction factors. Finally, Gerasimov stated near his conclusion that "the development of theoretical foundations for the comprehensive destruction of the enemy has advanced to the foreground." Future discussions of world leaders with President Vladimir Putin should include asking just what his general staff chief meant by that statement.¹

—Dr. Harold Orenstein

*Remarks by General of the Army Valery Gerasimov, "The Influence of the Contemporary Nature of Armed Struggle on the Focus of the Construction and Development of the Armed Forces of the Russian Federation. Priority Tasks of Military Science in Safeguarding the Country's Defense"*²

The aim of our meeting is not only to sum up the results of the Academy's work over the past year, but also to discuss a number of current issues of the country's military security and the state of military and scientific work.

The annual meeting of the Academy of Military Sciences is a platform on which there is an informal exchange of opinions among the representatives of organs of military command and control and military science, and specialists whose activities are associated with defense problems. In addition, interaction and continuity are provided among the various generations of military scholars and among generations of the defenders of the Fatherland.

For the most part, this is fostered by the scientific prestige of General of the Army Makhmut Akhmetovich Gareev, president of the Academy of Military Sciences, veteran of the Great Patriotic War, and author of valuable works on military history, problems of strategy, and problems of operational art.

A most important question to which military science should provide an answer is: What kind of armed forces are necessary so as to guarantee the safeguarding of Russia's military security and protect its national interests? The answer to this depends on the quality of forecasting possible variants in the development of the military-political situation in the world

First and foremost, one can see a trend of the disappearance of the line between states at peace and their shifting to a state of war. Let us take Syria. Before Russia entered the conflict on the government's side, for four years this country had, in fact, been conducting an undeclared war for the right to exist. When did this struggle turn from internal disorder into a military conflict? No

“Today, a determining influence on the development of the military-political situation in the world is the United States' striving to prevent losing its “global leadership” and to maintain a unipolar world by any means, including military.”

and of analyzing domestic and foreign experience of the employment of armed forces in military conflicts in recent years.

Today, a determining influence on the development of the military-political situation in the world is the United States' striving to prevent losing its “global leadership” and to maintain a unipolar world by any means, including military. This conflicts with the views of many states, including Russia, which does not accept dictatorship and is in favor of a just world order.

Because of this, interstate confrontation has intensified. As before, its basis is nonmilitary measures—political, economic, and information. Moreover, in addition to these spheres, it is gradually being disseminated in all aspects of activity of contemporary society—diplomatic, scientific, sports, and cultural; in fact, it has become total. It cannot be said that armed struggle has receded into the background.

Activities demonstrate that economic, political, diplomatic, and other nonmilitary measures on the part of the West, with respect to undesirable states, are intensified by the threat of employment of military force or its direct use. Here, the military force of the United States and its allies is often employed in contravention of generally accepted standards of international law or on the basis of distorted treatments of these standards for their own advantage, under the slogan of defending democracy. All this is inarguably influencing the nature of armed struggle.

state openly declared war against Syria, but all illegal military formations are being armed, financed, and controlled from abroad.

In addition, the make-up of participants in military conflicts is broadening. Together with regular forces, the internal protest potential of the population is being used, as are terrorist and extremist formations.

The content itself of military operations is changing. Their spatial scale is expanding, and the intensity and dynamism are increasing. The temporal parameters for preparing for and conducting operations are decreasing. There has been a shift from sequential and concentrated operations to continuous and dispersed operations conducted simultaneously in all spheres of confrontation and in remote theaters of military operations. The requirements for mobile forces have become tougher.

A shift is taking place toward the comprehensive destruction of the enemy based on integrating the efforts of all strike and fire resources into a uniform system. The role of radio-electronic warfare, information-technical effects, and information-psychological effects is expanding. The increase in the ratio of precision weapons ensures the precise and selective destruction of targets, including critically important ones, in real time.

In connection with the increase of effects capabilities against the enemy, the borders of theaters of military operations are substantially expanding. They encompass regions with targets of military and economic potential

located at a significant distance from zones where military operations are being directly conducted.

The scope of the employment of robotic strike resources with remote control has grown.

In the complex, rapidly changing situation, the ability to effectively command and control troops and forces is acquiring special importance. Combat command and control systems ensure the maximum automation of support and decision-making processes, weapons control, communication of orders, and delivery of information about their implementation.

Achievement of success in contemporary military operations is impossible without gaining superiority in the command and control of troops and forces.

The change in the nature of armed struggle is a continuous process. Its results, as a specific aspect of the development of military art, are distinctly reflected in the content of recent warfare. They are all substantively different from one another. And each time the last war was presented as a new-generation conflict.

Thus, from the point of view of military art, the war between the international coalition and Iraq in 1991, characterized by a sharp increase in the Air Force's contribution to the defeat of the Iraqi army, deep envelopments of defensive positions, and delivery of the main strike bypassing defensive lines, is of paramount importance. It included a prolonged non-contact phase and a powerful, short-duration phase of ground contact operations.

The war between NATO and Yugoslavia was proclaimed as a new-generation conflict, in which the goals were achieved without the active involvement of ground forces.

Today, individual military specialists are treating the military conflict in Syria as a prototype of "new-generation warfare." Its main feature is that the state enemies of Syria are conducting covert, insubstantial operations without being drawn into direct military conflict.

Inarguably, each military conflict has its own distinguishing features. The principal features of future conflicts will be the extensive employment of precision weapons and other types of new weapons, including robot technology. Economic targets and the enemy's system of state control will be subjected to priority destruction. In addition to traditional spheres of armed struggle, the information sphere and space will be dynamically involved. Countering

communications, reconnaissance, and navigation systems will play a special role.

These are only the outlines of probable future warfare. At the same time, the spectrum of possible conflicts is extremely broad, and the armed forces must be ready for any of them. Therefore, the statement by prominent Soviet military theorist Aleksandr Svechin is relevant: "It is unusually difficult to foresee ... the situation of war. For each war it is necessary to develop a special line of strategic behavior; each war presents a particular case that requires the establishment of its own special logic, and not the application of some template."

Taking into account the above-mentioned trends in the change in the nature of armed struggle, the development and training of the Armed Forces of the Russian Federation are being carried out.

The possibility of the emergence of armed conflicts simultaneously on various strategic axes has predetermined the creation of interservice force groupings in the make-up of military districts to

General of the Army

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Dr. Harold Orenstein,

taught at the U.S. Army Russian Institute in Garmisch, West Germany. During his career, he was a translator/editor/analyst with the Soviet Army Studies Office (now the Foreign Military Studies Office); a military-political affairs advisor for Central Europe at SHAPE; and a joint and multinational doctrine writer for the Combined Arms Doctrine Directorate at Fort Leavenworth. He has translated numerous articles for the *Journal of Slavic Military Studies*, and has also translated a two-volume collection on the history of Soviet operational art and several Soviet General Staff studies of Eastern Front operations. Orenstein is currently retired after serving thirty-one years as a Department of the Army civilian.

ensure the effective conduct of military operations in times of both peace and war. They are being improved by means of the balanced development of the Armed Forces' services and branches and by an increase in the level of their outfitting with contemporary weapons and military equipment.

special attention is being focused on the development of precision weapons. Groupings of long-range air-, sea-, and land-based cruise missile carriers have been created on each strategic axis, capable of providing deterrence in strategically important regions. The improvement of the structure of command and



The reinforcement of force groupings on strategic axes is envisioned by using reserves and air assault forces. Taking this into account, the air assault forces are being developed as the foundation of the rapid reaction forces. Tank subunits have been formed to increase their combat capabilities and ensure independence of operation in air assault formations. Radio-electronic warfare subunits and unmanned aerial vehicle (UAV) subunits are being created as part of all formations.

The geography of basing air and naval forces is also broadening. Here, special attention is being focused on the development of military infrastructure in the Arctic.

The experience of recent local wars, in particular, the operations on Syrian territory, has given a new impulse for improving the system of the comprehensive destruction of the enemy. To increase its effectiveness,

Russian Chief of the General Staff Gen. of the Army Valery Gerasimov speaks at Russia's Military Academy of the General Staff of the Armed Forces 24 March 2018 in Moscow. (Photo by RIA Federal News Agency)

control organs, creation of special information support subunits, and introduction of software complexes have made it possible to reduce the preparation time for the combat employment of long-range precision weapons by one and a half times.

Recce-strike and recce-fire profiles are being created with the aim of ensuring the efficiency and continuity of fire effects against the enemy. Reconnaissance-information and information-control systems are being integrated with weapons systems of services and

branches. Work is being done on the creation of an automated interservice recce-strike system. The result of this should be a reduction of the temporal parameters of the decision cycle for a fire task—from reconnaissance to target destruction—by two to two and a half times. That said, the precision of destruction will increase by one and a half to two times, and the capabilities for guiding precision weapons will broaden.

The development of a system for employing UAVs is contributing to an increase in the effectiveness of fire destruction. At present, the development of future multipurpose complexes is being completed. Their introduction will make it possible to accomplish not only reconnaissance, but also strike tasks where the employment of other resources would be difficult or less effective.

Taking into account the steady broadening of the scope of employment of different types of radio-electronic means, forces and means of struggle against them are being developed. Forces are being outfitted with equipment for radio-electronic warfare against aerospace resources, navigation systems, and digital radio communications systems. Resources for countering precision weapons are being improved. Ground, air, and naval components of radio-electronic warfare systems are being developed in a balanced way.

The broadening of the scale of use of UAVs and the difficulties in destroying them using existing air defense resources require the creation of an effective counteraction system. Future systems for countering the employment of UAVs, including those based on new physical principles, are being developed and have begun to appear in the forces. Some of the work is being conducted proactively by industrial enterprises, which has resulted in the need for scientific and research organizations to verify it in accordance with the requirements of the Ministry of Defense. This also applies to other models of weapons and military equipment that are being developed independently by defense-industrial complex enterprises.

Priority attention is being focused on the development of an armed forces command and control system. Contemporary resources are being developed for combat command, control, and communications integrated into a uniform information domain.

The system for modeling the armed forces has received new development. Structural subunits to support an increase in the efficiency of decision-making are being created from the district level to the regimental level.

The level of automation of the processes of collecting and analyzing information about the situation and for planning combat operations is increasing because of the introduction of a uniform system of command and control of troops and weapons at the tactical level, the development of which was completed in 2017. This year begins the delivery of complete sets of it to motorized rifle and tank formations and military units.

Outfitting mobile field command posts with new mobile automated systems increases mobility and the efficiency and stability of troop command and control when conducting combat operations.

A software and hardware array of the National Defense Management Center is being created to support the activities of command and control organs and federal organs of executive authority.

Requirements for troop training in the conduct of contemporary military operations are increasing.

In the training of command and control organs, special attention is being focused on the development of skills in commanders for rapid and completely justified actions. Skills for making nonstandard decisions are being developed.

Abilities to forecast the situation, decisively act, and preparedly take a justified risk are developing. The increase in the requirements for training commanders is conditioned by combat experience acquired in Syria. All troop commanders of military districts, combined arms armies, and Air Force and Air Defense armies, almost all division commanders and more than half of the combined arms brigade and regimental commanders, together with their staffs, have acquired combat experience there.

During operations meetings with Armed Forces leadership personnel, new approaches to training troops and conducting combat operations are being shared, problem issues of military art are being discussed, and ways of solving them are being worked out.

New forms of instruction are being introduced to increase the quality of training. For example, comprehensive tactical fire exercises and firing exercises have been introduced, where the mandatory element is working out problems of employing recce-fire and recce-strike profiles.

The readiness of command and control organs and troops to operate as part of interservice groupings that are being created on strategic axes is being reviewed at

annual strategic exercises. Strategic force regroupings are being worked on during them, taking into account the enlargement of the spatial scope of military operations. In addition, troop readiness for rapid employment is being assessed by conducting surprise reviews, which, in their content, correspond to full-fledged exercises. Their mandatory elements are operations (combat) planning, bringing troops and forces to a higher level of combat

underwater resources for the delivery of nuclear weapons, and other strategic resources for armed struggle that have no equivalent abroad.

On 1 March, the president of the Russian Federation reported measures being undertaken in this direction in a message to the Federal Assembly.

In the future, an increase in the capabilities of precision means of destruction, including hypersonic, will make it

“ The strategic nuclear forces are developing through the establishment of modern strategic missile systems with increased ability to overcome the enemy's missile defense and the creation of fundamentally new combat equipment... ”

readiness, their operational deployment, and accomplishment of combat training tasks.

A priority trend in the development of the army and navy is to ensure a high level of troop and force readiness to accomplish tasks as intended. Therefore, military formations characterized by a high level of training of personnel, with reliance on professionals (contract workers), are the basis of force groupings on strategic axes.

The increase in demand for personnel has led to a refinement of approaches to manning forces. At present, Ground Forces formations and military units, naval infantry, and Air Assault Forces are being manned according to the principle of two battalions of contract workers and one battalion of conscripts. This made it possible to have not only battalion tactical groups, but also, on the whole, formations and military units prepared for rapid employment.

Together with the development of general designation forces, the leading role of strategic nuclear and nonnuclear deterrence has been maintained. Today, the potential of strategic nuclear forces is maintained at a level that guarantees, under any conditions of the situation, that unacceptable damage will be done to an aggressor.

The strategic nuclear forces are developing through the establishment of modern strategic missile systems with increased ability to overcome the enemy's missile defense and the creation of fundamentally new combat equipment, including hypersonic, highly mobile

possible to shift the principal portion of strategic deterrence tasks from the nuclear to the nonnuclear forces.

Taking into account the improvement of resources for aerospace attack and the continuing dissemination of missile technologies in the world, the country's aerospace defense is developing. The capabilities of the system for warning about a missile attack are increasing. A radar field has been created along the country's perimeter, which ensures the reliable detection of ballistic missiles at all types of flight trajectories. Echeloned air defense and an increase in the range of detection and destruction of air targets has been provided in the system of destruction because it has been reequipped with new, highly effective anti-aircraft missile systems.

The system of mobilization deployment and mobilization training is improving. Decisions have been made on the creation of a state mobilization reserve, territorial forces, and an organization for preparing organs of authority at all levels to function in wartime. This approach makes it possible to use available state resources in the interests of the defense of the Russian Federation.

Under conditions of major transformations occurring in the armed forces, requirements are increasing for quality in the justification of decisions being made concerning their development, training, and employment. In this respect, the role of command and control organs in guiding scientific activities is increasing. First and foremost, this involves posing problem issues and current and future scientific tasks to science. And

further—the organization and control of the course of research. And ultimately—the introduction of results that have been obtained.

To give relevance to research that is being conducted, professors and instructors of military education institutions and specialists from the Ministry of Defense's

scientific research organizations are undergoing a mandatory internship in the command and control organs on Syrian territory, as well as in the leading central command and control organs. The role of the Armed Forces Military-Scientific Committee is increasing as the principal coordinator of research being conducted.

Military Review

WE RECOMMEND



SP Photo by RA Novak, Armchikhab, of the Russian Presidential Press Service
Russian President Vladimir Putin and General of the Army Valery Gerasimov, chief of the General Staff of the Russian Federation Armed Forces, observe military exercises 17 July 2013 near Balak Lake in Russia. The military maneuvers were the largest since Soviet times, involving about 160,000 troops and 5,000 tanks across Siberia and the far eastern region of Russia.

The Value of Science Is in the Foresight New Challenges Demand Rethinking the Forms and Methods of Carrying out Combat Operations

General of the Army Valery Gerasimov, Chief of the General Staff of the Russian Federation Armed Forces

MILITARY REVIEW January-February 2016

23



General of the Army Valery Gerasimov, Chief of Staff of the Russian Federation Armed Forces, congratulates servicemen and veterans during a speech 1 October 2016 on Russia's Ground Forces Day, noting their significant contribution to the protection of Russia's national interests. (Photo courtesy of Ministry of Defence of the Russian Federation)

Contemporary Warfare and Current Issues for the Defense of the Country

General of the Army Valery Gerasimov, Chief of the General Staff of the Russian Federation Armed Forces

Translated by Dr. Harold Orenstein; Foreword by Timothy Thomas

22

November-December 2017 MILITARY REVIEW

Two previously published *Military Review* articles also highlight the key priorities and points of guidance provided by Russian General Staff Chief Valery Gerasimov to the Russian military's scientific and doctrinal community. The text for these articles was translated from high profile speeches that were transcribed and published in the Russian military-oriented press. Reading these articles in succession provides a succinct but comprehensive view of modern warfare as articulated by one of Russia's premier military leaders. To view "The Value of Science Is in the Foresight: New Challenges Demand Rethinking

the Forms and Methods of Carrying out Combat Operations," January-February 2016 edition of *Military Review*, please visit https://www.armyupress.army.mil/Portals/7/military-review/Archives/English/MilitaryReview_20160228_art008.pdf. To view "Contemporary Warfare and Current Issues for the Defense of the Country," November-December 2017 edition of *Military Review*, please visit <https://www.armyupress.army.mil/Journals/Military-Review/English-Edition-Archives/November-December-2017/Contemporary-Warfare-and-Current-Issues-for-the-Defense-of-the-Country/>.

Today, scientifically justified recommendations on current issues of the employment and development of the armed forces are required of the General Staff. First and foremost, this involves increasing the authenticity of scenarios being developed and of long-range forecasts of the development of the military-political and strategic situation. Priority tasks for military science must be studying future trends of interstate confrontation, the forms of employment of the armed forces, and the methods of conducting operations and combat in future military conflicts. Elaboration of the issue of the content of combat operations at the operational and tactical levels is important.

An urgent task is searching for balance between military and nonmilitary defense measures and safeguarding the country's security.

Taking into account approaches that have been worked out, recommendations should be prepared for the building and development of the armed forces as a whole, as well as their functional and support components. Here, proposed measures must be justified from a position of both military and economic expediency.

It is necessary to stimulate the development of priority trends of weapons and military equipment development. Requirements presented for future weapons systems should be formed based on the necessity of the most effective counter to forecasted military threats. In addition, they should correspond to developing military-economic conditions and to the level of development of the domestic defense-industrial complex.

The entry into the forces of fundamentally new means of armed struggle, such as hypersonic, lasers, and a number of others, requires the conduct of systemic research on refining their role and place in

the system of armed struggle and on developing the foundations of their tactical employment.

It has become necessary to reexamine the contribution of various types of weapons to the destruction of the enemy. Existing calculation methods do not fully take into account the increasing precision capabilities of contemporary resources for armed struggle or results of the effects of new destructive factors. The development of theoretical foundations for the comprehensive destruction of the enemy has advanced to the foreground.

Existing training methods and educational literature should be reworked and updated, taking into consideration obtained experience and the contemporary level of development of military art.

One of the tasks of scientific organs is to analyze and generalize recent military conflicts, including Syria, and to develop practical recommendations based on this.

On the whole, for the successful accomplishment of tasks that have been set before the military-scientific community, military educational institutions must be able not only to simply generalize and analyze received information, but also to forecast events and variations of the development of a situation and to work on overcoming them.

To paraphrase well-known philosopher Immanuel Kant, one can say that military science must become like a servant who goes in front of her mistress with a torch and lights the way for her, and not one who walks behind her and carries the train of her dress.

In conclusion, I would like to wish everyone present here creative success and a fruitful and constructive collaboration. ■

Notes

1. Dr. Orenstein would like to thank Timothy Thomas for his assistance in pointing out some of the similarities and differences between Valery Gerasimov's 2017 and 2018 presentations.

2. "Vliianie sovremennogo kharaktera vooruzhennoi bor'by na napravlennost' stroitel'stva i razvitiia Vooruzhennykh Sil Rossiiskoi Federatsii. Prioritetnye zadachi voennoi nauki v obespechenii

oborony strany" [The Influence of the Contemporary Nature of Armed Struggle on the Focus on the Construction and Development of the Armed Forces of the Russian Federation. Priority Tasks of Military Science in Safeguarding the Country's Defense], *Vestnik Akademii voennykh nauk* [Bulletin of the Academy of Military Sciences], 62, no. 2 (2018): 16–22.

REVIEW ESSAY

Facts and Fears

Hard Truths from a Life in Intelligence

James R. Clapper,
Viking Press, New York, 2018, 432 pages

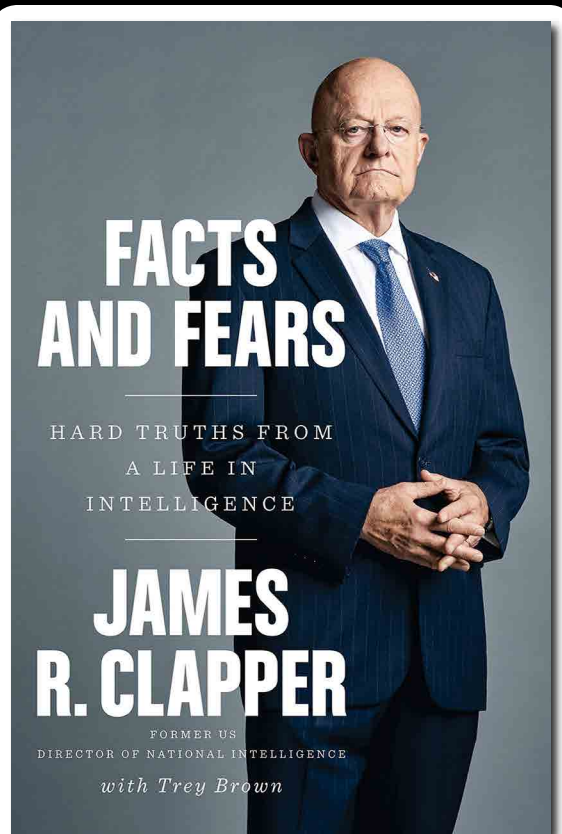
Kevin Rousseau

James Clapper says he never expected to write a book like *Facts and Fears: Hard Truths from a Life in Intelligence*. The publicity involved goes against all he believes about the intelligence business, where laboring unheralded is the norm. As he explains it, U.S. intelligence community (IC) service “means toiling in anonymity and not getting public recognition for achievements.”¹ He changed his mind for two reasons. First, Clapper wrote this book because his fifty plus years of experience gave him a front-row seat to the development of the IC, the history of which is itself a story worth telling. Second, and by far most importantly, Clapper wrote this book because of current threats he sees as effectively targeting the fundamental values underpinning the American political system. Now that he is a private citizen, Clapper considers it his duty to be as frank as he can about issues he finds deeply disturbing.

Clapper’s career as an intelligence officer in the U.S. Air Force and his service as a federal government official practically encompassed the entire IC. He worked in key intelligence and leadership positions at nearly every conceivable

level, which includes heading two intelligence agencies and culminating in serving as the director of national intelligence (DNI). Clapper simply explains that the objective of the IC is “to reduce uncertainty for decision makers as much as possible, whether they’re in the Oval Office, at the negotiating table, or on the battlefield.” Clapper has first-hand experience in all those venues, and his knack for storytelling and trove of personal anecdotes describe in an interesting way how far the IC has progressed since his career began in the early 1960s. Despite its various high points and low points over the past five decades, Clapper’s experiences illuminate how the IC has gradually improved its intelligence tradecraft, collaboration, and interagency cooperation.

Looking back, an obvious high point for the IC in Clapper’s experience was the 2011 Abbottabad raid against Osama bin Laden. Here, the long years spent working to build an effective IC that helps our national-level leadership make better informed decisions paid off. The low point was Edward Snowden and his betrayal of his colleagues and fellow citizens. The Snowden incident not only seriously damaged important national security interests, but it



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also revealed remaining weaknesses in IC collaboration and information sharing. Clapper is clearly frustrated, in the wake of the incident, by some of the conflicting demands placed upon the IC. As he puts it, the “public continued to send mixed messages about its desires regarding the balance between safety and security on one hand, and civil liberties and privacy on the other.”³ He frames the basic question as “to what extent are we as a society

willing to sacrifice personal liberties in the interests of common safety?”⁴ Clapper laments that this question “would assert itself with increasing frequency in the years after I took off the uniform, and I believe the U.S. public has yet to reach a clear and consistent consensus.”⁵

One of the most interesting events Clapper describes is his 2014 diplomatic mission to bring back two detained U.S. citizens from North Korea, an accomplishment he takes evident and well-deserved pride in. Another proud moment was his award-winning speech (written, as was this book, with his speechwriter Trey Brown) he delivered on “why black lives matter to U.S. intelligence.” This is just one of the many examples he cites of his sincere life-long commitment to diversity and his convincing argument that inclusion has significantly strengthened the IC.

Clapper’s greatest frustrations derive from his experiences with Congress. It is here that Clapper claims to have endured most of his struggles to keep intelligence from being exploited for political purposes. In all his dealings with politicians and decision-makers, Clapper explains that he

strove to “live by the first, fundamental, unwritten law of intelligence work: Speak straight, unbiased intelligence truth to power, and leave the business of policy making to the policy makers.”⁶ True to his apolitical code, Clapper also spares neither side of the aisle from his criticisms.

The most disturbing issue for Clapper emerges as he is preparing to end his tenure as DNI, and it continues to trouble him into retirement. With the benefit of hindsight, Clapper explains how the Russian troll army cut its teeth into Ukraine, sowing disunity and mistrust by effectively exploiting social media to spread disinformation and undermine Ukraine’s internal political stability. What bothers him deeply was intelligence he describes as showing Russia using these same skills to meddle in the U.S. presidential election. What troubled Clapper enough to compel him to write this book was his allegation that Russian influence operations against the United States continue unabated. Clapper leaves no doubt in his opinion, “The Russians are our primary existential threat.”⁷ He adds bluntly that Russia has “been at war with us in the information realm for some time, and the apathy displayed by many Americans toward this profound menace is very disturbing.”⁸ For Clapper, this is the hard truth that inspired this book, and he adds that “I believe we have to continue speaking truth to power, even—or especially—if the person in power doesn’t want to hear the truth we have to tell him.”⁹

Clapper’s stated intent is to “continue to speak ‘truth to power’—in this case to the American people.”¹⁰ He explains that his “hope is that this book will, in some measure, help people regain awareness.”¹¹ Whether you agree with him or not—and many will find some of his statements on the current administration controversial—this is a book worth reading from the perspective of the art of intelligence. It summarizes the development of the IC over the past fifty years, provides insights into the intelligence profession itself, and bluntly describes what a former senior IC leader and seasoned practitioner of intelligence considers the biggest current threat to our national security. ■

Notes

1. James R. Clapper, *Facts and Fears: Hard Truths from a Life in Intelligence* (New York: Viking Press), 232.

2. *Ibid.*, 48.

3. *Ibid.*, 82.

4. *Ibid.*

5. *Ibid.*

6. *Ibid.*, 127.

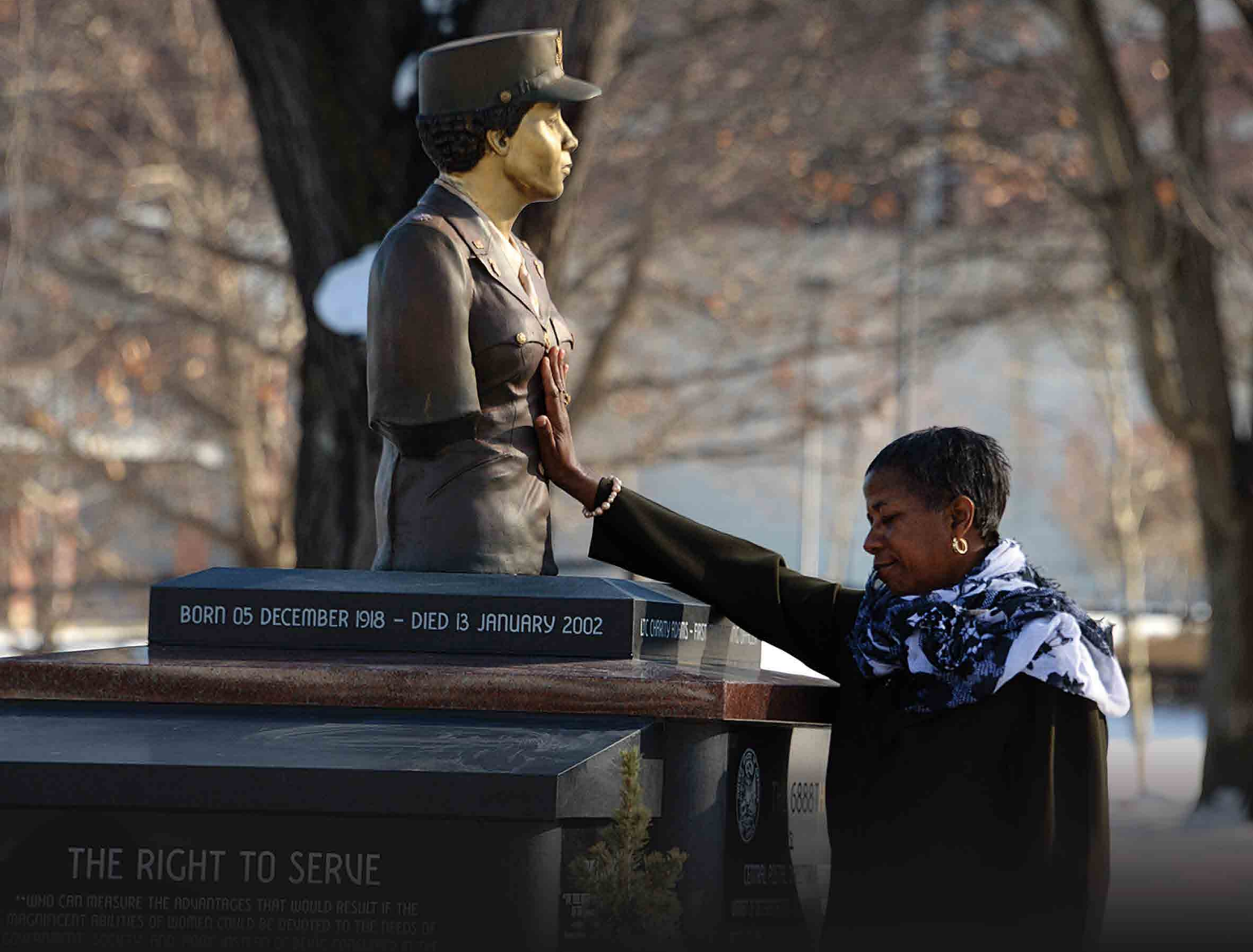
7. *Ibid.*, 400.

8. *Ibid.*

9. *Ibid.*, 364.

10. *Ibid.*, 400.

11. *Ibid.*



Retired Master Sgt. Elizabeth Helm-Frazier touches the bust made in the likeness of battalion commander Lt. Col. Charity Adams on the monument honoring the all-female, all-African American 6888th Central Postal Directory Battalion 29 November 2018 in the Buffalo Soldier Commemorative Area, Fort Leavenworth, Kansas. Helm-Frazier, of Maryland, said she knows how important mail is to service members, and she joined the project team to help get the monument funded so that future generations will know that women in uniform also helped guarantee freedom. (Photo by Prudence Siebert, *Fort Leavenworth Lamp*)

"No Mail, Low Morale"

The 6888th Central Postal Directory Battalion

Beth A. Warrington

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During World War II, sitting in aircraft hangars at Birmingham, England, were millions of undelivered pieces of mail and packages. Those U.S. service members in Europe took notice that no mail was being delivered and Army officials reported that a lack of reliable mail was hurting morale. It was predicted that it would take six months to clear the backlog in England, but who was up for the task?

In November 1944, African American women—824 enlisted and thirty-one officers—were recruited from the Women's Army Corps, the Army Service Forces, and the Army Air Forces to form the 6888th Central Postal Directory Battalion, or the "Six Triple Eight."¹ The first and only all-female African American battalion to be deployed overseas during World War II was organized into a Headquarters Company, for administrative and service

Battalion commander Maj. Charity Adams and executive officer Capt. Abbie Noel Campbell inspect the first soldiers of the 6888th Central Postal Directory Battalion to arrive in England 15 February 1945. (Photo courtesy of the National Archives)



support, and four postal directory companies—A, B, C, and D—commanded by either a captain or a first lieutenant. The battalion would be commanded by Maj. Charity Edna Adams Earley, the first African American woman to achieve the rank of lieutenant colonel in the U.S. Army.

Upon arriving in Birmingham after their initial training at Fort Oglethorpe, Georgia, the 6888th's mission seemed simple: clear the backlog of mail bags that filled hangars from floor

to ceiling. However, many of the letters and packages were addressed simply to "Junior," "Buster," or to soldiers who shared common names such as "Robert Smith." Also, the hangars themselves were poorly lit, unheated, and cold and damp, with rats making their homes in packages of stale cookies and cakes. The women wore long underwear and extra layers of clothing underneath their uniforms in order to stay warm. The lighting was poor due to the windows being blacked out to prevent



light from escaping and alerting enemy aircraft of their location during nighttime air raids. The late Staff Sgt. Millie L. Dunn Veasey stated that there were buzz bombs that came down. "You could see them, and then you didn't know where they were going to land," she said. "You had to go get into a shelter. Just drop everything, and just run."²

With World War II raging on, the soldiers of the 6888th were given six months to sort and deliver the mail—they did it in three months. The women divided into three eight-hour shifts and worked seven days a week to sort and redirect an average of sixty-five thousand pieces of mail per day, totaling nearly seven million pieces in Birmingham alone. The mail clerks used special locator cards that contained soldiers' names, unit numbers, and serial numbers to help ensure proper delivery; they also had the duty of returning mail addressed to those service members who had died.³ The women developed the motto "No mail, low morale," as they were providing the support

of linking service members with their loved ones back home.

Following their three months in Birmingham, the members of the 6888th were deployed to Rouen, France, to clear two to three years of backed up mail. And again, the women completed the task in just three months. While deployed to Paris, they faced new challenges: the theft of packages and items from packages to supply the populace.⁴

The battalion was transferred home and disbanded at Fort Dix, New Jersey, in 1946. There was no ceremony, no parades, no public appreciation, and no official

recognition for all their accomplishments.⁵

Though there have been exhibits and educational programs about the 6888th, public events honoring the women of the battalion have been few. One of the most prominent events was a ceremony by the Women in Military Service for America Memorial at Arlington National Cemetery. Veterans received certificates, letters of appreciation from the secretary of the Army and the Army chief of staff, lapel pins, and decals.⁶ The most recent



Members of the 6888th sorting mail. (Photo courtesy of the National Archives)



French civilians and soldiers from the 6888th sort mail in the spring of 1945. (Photo courtesy of the U.S. Army Womens Museum)



event to honor the 6888th was the 30 November 2018 dedication of a monument located at the Buffalo Soldier Commemorative Area on Fort Leavenworth, Kansas. Five surviving members of the battalion attended: Pvt. Maybelle Rutland Tanner Campbell, Pfc. Elizabeth Barker Johnson, Cpl. Lena Derriecott Bell King, Pvt. Anna Mae Wilson Robertson, and Pfc. Deloris Ruddock.

Carlton Philpot, Buffalo Soldier Monument Committee chair and project director, said that the goal of this monument is to “make it unique enough that no one will have to look for it when they come into the park.” With the names of five hundred battalion members and a 25-inch bronze bust of its leader, Lt. Col. Charity Adams Earley, the monument is truly unique. It joins monuments dedicated to Gen. Colin Powell, 2nd Lt. Henry Flipper, the 555th Parachute Infantry Division, the Buffalo Soldier, and others in the Circle of Firsts and the Walkway of Units at the Buffalo Soldier Commemorative Area. As Earley’s son, Stanley, said, “My mother was always enormously proud of the Six Triple Eight. This monument is a statement of the responsibility, determination, and honor, and it is a gift from the recent past addressed to the future.”

Kansas Sen. Jerry Moran said, “When we unveil this monument, what we are really saying is this: Thank you for your service. We respect you and we love you.” ■

Veterans who served during World War II with the 6888th, (left to right) Pvt. Anna Mae Wilson Robertson, Pfc. Elizabeth Barker Johnson, Pfc. Deloris Ruddock, Pvt. Maybelle Rutland Tanner Campbell, and Cpl. Lena Derriecott Bell King gather around the monument honoring the battalion 29 November 2018 the day before a ceremony dedicating the monument at the Buffalo Soldier Commemorative Area, Fort Leavenworth, Kansas. The women, all in their nineties, are five of seven known surviving members. (Photo by Prudence Siebert, Fort Leavenworth Lamp)

Notes

1. Kathleen Fargey, “6888th Central Postal Directory Battalion (Women’s Army Corps),” U.S. Army Center of Military History, 14 February 2014, accessed 10 December 2018, <https://history.army.mil/html/topics/afam/6888thPBn/index.html>.
2. Millie L. Dunn Veasey, “Women Veterans Project at the University of North Carolina at Greensboro,” interview by Hermann Trojanowski, 25 June 2000, Raleigh, North Carolina.
3. Kevin M. Hymel, “6888th Central Postal Directory Battalion,” *On Point* (Spring 2009): 22 and 24; Fargey, “6888th Central Postal Directory Battalion (Women’s Army Corps).”
4. Fargey, “6888th Central Postal Directory Battalion (Women’s Army Corps).”
5. *Ibid.*
6. *Ibid.*



AN ARMY UNIVERSITY PRESS PUBLICATION

<https://www.armyupress.army.mil>

PB-100-19-01/02

Headquarters, Department of the Army

PIN: 204397-000

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