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Features

Japan's Security Strategy and Its Impact on U.S. National Security Interests

by Sung K. Hyong and David A. Anderson

Japan's broadening security strategy reveals the unease with which it views the evolving security order in the Indo-Pacific. Several grave threats to regional stability continue to define the region's changing security environment. The Democratic People's Republic of Korea's (DPRK) nuclear weapons program and China's maritime claims in the South China Sea relentlessly disrupt the region's equilibrium. The escalation of DPRK's missile launches over Japan as well as the robust and unpredictable responses of the South China Sea littoral states to China's territorial ambitions also contribute to the region's volatility. As Japan shifts to a more assertive security strategy through integrated diplomatic, informational, military, and economic (DIME) means, there are potentially far-reaching implications for the balance of power in the Indo-Pacific.

Japan's security developments have stoked concerns in China over its longstanding belief in its intended de facto containment through American, Japanese, and Indian "encirclement," a perceived humiliation and direct impediment to its great power ambitions.[1] South Korea, a key ally of the United States (U.S.) and Japan's nominal security partner, has also expressed reservations over Japan's intentions, accentuated by continuing friction over lasting historical issues.

The 2017 U.S. National Security Strategy (NSS) does list the "revisionist power of China" alongside other main challengers to U.S. interests such as Russia, Iran, DPRK, and transnational threat organizations as significant concerns to national security.[2] The NSS specifically highlights

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the gravity of China's revisionist potential, identifying its ambitions to "displace the United States in the Indo-Pacific region, expand the reaches of its state-driven economic model, and reorder the region in its favor."[3] As a result, the NSS calls on U.S. allies such as Japan "to modernize, acquire necessary capabilities, improve readiness, expand the size of their forces, and affirm the political will to win."[4]

The U.S. is also striving to develop a coherent and viable Indo-Pacific strategy, especially as it confronts the consequences of China's rapid ascension...

The U.S. is also striving to develop a coherent and viable Indo-Pacific strategy, especially as it confronts the consequences of China's rapid ascension as a regional and global power.[5] However, the U.S. is operating under financial constraints and remains distracted by events outside the Indo-Pacific. To maintain strategic relevance and manage the variable balance of power, the U.S. is encouraging and supporting Japan's efforts to become a more self-sufficient and active security partner.

Peace and regional stability in the Indo-Pacific are paramount to U.S. interests. However, Japan's transition to a more assertive and regionally engaged security posture may be in conflict with these very interests. This paper explores the potential dangers of misaligned strategy through DIME analysis in order to provide a holistic perspective of the impact of Japan's national security policies on U.S. strategic security interests and objectives in the Indo-Pacific region. The paper closes with recommendations for action.

In doing so, a three-phased analytical construct is employed. The first phase focuses on investigating Japan's policies and programs in support of its national security interests—within the DIME framework—in order to understand and describe Japan's whole-of-government approach. The analysis seeks to identify and delineate lines of effort based on the type of national power: diplomatic, informational, military, or economic. A line of effort to achieve a national objective may incorporate all four categories, and indeed, often do. However, the strategic weight of effort determines its placement within the four categories of DIME.

The second phase establishes the study's evaluation criteria analysis using the relevant diplomatic, informational, military, and economic objectives promulgated in the 2017 U.S. NSS. The third phase of the study evaluates the strategic interaction between Japan's security policies and U.S. security objectives within the DIME construct.

Phase 1: DIME Analysis (Japan)

Diplomatic

Japan has embarked on a wide range of vigorous diplomatic initiatives to counter China's influence and secure its own national interests and influence throughout the Indo-Pacific. Beginning with the "Arc of Freedom and Prosperity" in 2007 to the short-lived "Democratic Security Diamond" in 2012, Japan has now settled on the current concept of the "Free and Open Indo-Pacific Strategy." In this latest iteration, Japan's Prime Minister Shinzo Abe broadly expands and redefines the scope of Japanese diplomacy to augment the country's international reputation and foreign relations throughout the region.

First and foremost, Japan has steadfastly improved its diplomatic and security relations with the U.S., its ally and security sponsor. In a February 2017 visit to Washington, Abe quickly secured the newly elected President Donald Trump's official commitment to defend the Senkaku Islands under the terms of the Mutual Defense Treaty.[6]

In turn, Abe quickly reciprocated by

reaffirming Japan's support for the U.S.' position on the DPRK issue, avowing "we consistently support the stance of the United States: that 'all options are on the table'."[7] In an address to the UN General Assembly, Shinzo Abe emphatically declared, "We must make North Korea abandon all nuclear and ballistic missile programs in a complete, verifiable, and irreversible manner. What is needed to do that is not dialogue, but pressure."[8] Despite his reputation for nationalism and past revisionist sentiments, Abe has upheld and promoted the integrity and desirability of Japan's deep ties with the U.S.

While Japan has taken steps to become a more active and equitable alliance partner, it has also put substantial energy into hedging against the risk of U.S. abandonment. Abe's minilateral approach to local security cooperation underscores "Tokyo's ambition to strengthen the regional dimension of Japanese diplomacy."[9] He became the first Japanese leader to visit all ten Association of Southeast Asian Nations (ASEAN) members within his first year in office, a historic and symbolic demonstration of his commitment to the ASEAN community. Based on shared values and rules, Japan has actively worked to reinforce ASEAN and Asia-Pacific Economic Cooperation as the foundation of the Indo-Pacific's regional architecture.

Furthermore, Japan's diplomatic leadership of the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) is a marked departure from its past preference for narrowly-focused multilateral frameworks. Despite the U.S.'conspicuous absence, the CPTPP's current membership of Australia, Brunei, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore and Vietnam represents a nascent, perhaps even "hegemonic," diplomatic framework in the Indo-Pacific.[10] Still in development, Japanese leadership is becoming an increasingly reliable feature of the regional landscape.

Specifically, as part of Japan's "defense diplomacy," maritime security cooperation has become one of its most influential and desirable characteristics. To secure its sea lines of communication and defend regional freedom of the seas, Japan has strengthened its maritime relationships with key states such as Indonesia, Vietnam, and the Philippines.[11] Japan's military diplomacy efficiently reinforces strategic diplomatic imperatives such as freedom of navigation and maritime commerce. For example, the momentous and widely publicized 2017 deployment of Japan's helicopter destroyer, *JS Izumo* (DDH-183), in the South China Sea is emblematic of Japan's new defense diplomacy.[12]

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The vicissitude of the regional security order is emboldening Abe's concerted campaign to woo ASEAN from China's influence. To do so, he is using a proactive form of diplomacy, backed by hard military capabilities, naval presence, and maritime security capacity-building. Regarding the South China Sea disputes, Japan has diplomatically promoted the resolution of territorial and maritime disputes in accordance with legal international rulings. Especially through maritime security cooperation, Japan has refurbished its reputation as a capable provider of regional commons.

However, Abe has also been careful to avoid the coercive and inflammatory aspects of hard power diplomacy. Recognizing the danger of resurgent historical tension, Abe has cautiously and significantly dampened the negative connotations of Japan's military-based potential for influence. Nobel laureate and economist Professor Thomas Schelling notes that such influence is "based on the harm it can do; used

as a bargaining power, it is part of diplomacy—the uglier, more negative, less civilized part of diplomacy—nevertheless, diplomacy."[13] Despite China's accusations of Japanese jingoism, the littoral states in the South China Sea have been receptive to Japan's diplomatic overtures. As it sheds its "passive partner" persona to take on a more active one, Japan is not neglecting its hard power capabilities as part of a broader strategy to increase its diplomatic prestige and influence.[14] However, while it has long been a necessary component of Japan's external balancing against China, its hard power has not been assigned much more relevance or significance beyond that role.

...Japan's security ties with South Korea remain stalled over unresolved World War II (WWII) issues...

In addition, Abe has maintained Japan's steady bid for a permanent seat on the UN Security Council. In a speech before the UN General Assembly on September 29, 2015, Abe confidently reaffirmed Japan's determination to "transform the United Nations into a body appropriate for the 21st century, and then, as a permanent member of the Security Council, carry out its responsibilities in making still greater contributions towards world peace and prosperity."[15] Under the Abe administration, this determined propensity for greater global engagement is bearing fruit. The 2017 Soft Power 30 report ranks Japan's global soft power sixth, significantly outmatching China at 25th while the U.S. has fallen to third place.[16] Yoichi Funabashi, chairman of the Asia Pacific Initiative, notes in the report how Japan's main tool for exerting global influence has historically been soft power and further describes its modern three pillars of international relations: hard infrastructure assistance, capability building for maritime peace, and the rule of law.[17] Japan's diplomatic initiatives unfailingly incorporate at least one of these soft power elements, if not all. Its well-deserved reputation for soft power and economic assistance has helped endear the island power to most of its neighbors, especially in the South China Sea.

On the other hand, Japan's security ties with South Korea remain stalled over unresolved World War II (WWII) issues, namely due to lingering bitterness over the Imperial Japanese Army's enslavement of "comfort women" before and during the war.[18] South Korea's continual rebuff of Japan's apologies, despite the efforts of several Japanese administrations, prevents any serious progress in mending bilateral ties. In an October 2017 interview, U.S. Chairman of the Joint Chiefs of Staff General Joseph Dunford acknowledged the severe difficulties in the military-to-military relationship between the two ostensible security partners.[19]

The General Security of Military Information Agreement was signed in 2016 between South Korea and Japan, replacing the indirect Trilateral Information Sharing Arrangement framework. A long overdue and notable diplomatic achievement, it overhauled the antiquated military information exchange system. However, reflecting South Korea's evasion of a trilateral military alliance, the Moon administration has strictly limited the scope of General Security of Military Information Agreement to DPRK's nuclear and missile program.[20]

Conducting diplomatic hedging between China and the U.S., President Moon Jae-in has resisted U.S. pressure to develop the trilateral cooperation into a military alliance. To restore Sino-South Korean relations after China's economic retaliation over Terminal High Altitude Area Defense, South Korea assured China it will abstain from additional Terminal High Altitude Area Defense deployments, other U.S. missile defense systems, and a trilateral alliance with the U.S. and Japan.[21] Furthermore, President Moon pointedly cautioned Japan against using "any of

North Korea's nuclear activities as an excuse to pursue the path of development into a military power."[22] The two East Asian democracies share the threat of missile attacks from North Korea and other security concerns emanating from the northern half of the Korean peninsula. However, imperfect strategic alignment and South Korea's social obstinacy obstruct Abe's endeavors to deepen the cooperative relationship "for a new era with a future-oriented perspective."[23]

With the cautious exception of South Korea and China, Japan's relationships with other Indo-Pacific states, the U.S., and the European Union have appreciably improved in recent years. Taking a "panoramic view of the world map," Abe initiated Japan's first 2+2 (comprised of defense and foreign ministers) meetings with France and England.[24] In addition, Abe became the first Japanese prime minister to visit NATO, the preeminent security organization in Europe, in 2006. More recently, the Joint Political Declaration in April 2013 and the launch of the Individual Partnership and Cooperation Programme in 2014 both demonstrate a deepening Japan-NATO relationship.[25] Abe's strategic interest in strengthening ties with Europe can be further seen in his efforts to establish a Strategic Partnership Agreement with the European Union.[26]

At the same time, Abe has pursued closer diplomatic relations with Russia, especially in the context of balancing against China. He initiated Japan's first 2+2 meeting with Russia in November 2013 and more importantly, agreed upon a "framework for a comprehensive partnership on security affairs."[27] Despite Russia's annexation of Crimea and lackluster support for human rights, Japan forged ahead with the second 2+2 meeting on March 20, 2017.[28] In his first speech of 2018, Abe emphatically announced that "the relationship between Japan and Russia has the most potential of any bilateral relationship."[29] The bilaterial diplomatic initiatives, "Japan Year in Russia" and "Russia Year in Japan," further highlight improvements in security collaboration and cross-cultural ties.[30]

Although India has traditionally championed the foreign policy of non-alignment, Abe's appeal for greater Indian participation in regional affairs is striking a chord with Indian Prime Minister Narendra Modi and his desire for strategic autonomy. Underlying Abe's personal affinity with Modi, the Japanese prime minister's unfailing support for considerable foreign direct investment in India has further incentivized the two states' strong diplomatic ties. However, taking into account India's habitual avoidance of overt power politics and the danger of entrapment, Japan's diplomatic inducements carry geopolitical risk. After all, there is little doubt that Abe's active diplomacy is partly, if not mostly, directed at counterbalancing China and its gradual accumulation of power in the Indo-Pacific.[31] Moreover, views of China diverge between Japan and other regional actors such as Australia, and in some cases to a significant extent.[32] In light of Japan's increasingly assertive security policies, concerns of entanglement have injected caution and moderation into Japan's state-to-state interactions in the region. Acknowledging such trepidations, Abe sought to ease concerns by jointly announcing a "fresh start" with President Xi Jinping during the Asia-Pacific Economic Cooperation summit in November 2017.[33]

With the cautious exception of South Korea and China, Japan's relationships with other Indo-Pacific states, the U.S., and the European Union have appreciably improved in recent years.

Basing his diplomatic enterprises on shared values, protection of regional commons, and economic willingness, Abe has improved Japan's diplomatic profile in the region and around

the world. In his January 2018 speech to the Diet, Abe touted his visits to 76 countries and regions and over 600 summit meetings since his rise to the post of prime minister.[34] Under an unusually active and charismatic leader, Japan has emerged as a poised, well-traveled, and increasingly popular diplomatic power. Noting the "security environment surrounding Japan is the most severe in postwar history," Abe avows the strategic necessity for Japan to boldly engage with like-minded states to ensure the peace and prosperity of the Indo-Pacific.[35]

Through decades of peaceful behavior and an impressive record for economic aid and shared values, memories of Japan's wartime legacy have slowly faded…

Informational

Perhaps more than any other instrument of power, Japan's informational lines of effort have enabled its national strategy to gain regional power, mitigate strategic mistrust, and influence domestic and foreign discussion on its security policies. Through decades of peaceful behavior and an impressive record for economic aid and shared values, memories of Japan's wartime legacy have slowly faded throughout the Indo-Pacific. Especially among the littoral states of the South China Sea, the Abe administration has moved decisively to capitalize on this good will to push forth its security initiatives and exploratory drive for regional leadership. Acknowledging the rise of state-sponsored influence operations, led by China and Russia, Japan has elevated the importance of the information domain to "influence the social, political, economic, and military behavior of human beings . . . in the support of national security objectives."[36]

The foremost architect of Japan's security resurgence and perhaps the longest-serving post-war prime minister in November 2019, Abe has forced a critical reexamination of the country's traditional and outdated security policy. To that end, the Abe administration is leveraging the media and other information channels to advance its strategic agenda and develop mass influence domestically. Japan is successfully adapting its national strategy to take advantage of the possibilities inherent in the dynamic information spectrum. Extending his control over the fourth estate, a political appointee heads Japan's flagship public broadcaster, NHK.[37] He also enjoys the support of several leading national newspapers such as the conservative *Sankei Shimbun* and Japan's largest newspaper, *Yomiuri Shimbun*.[38]

Relatively unknown outside of Japan, the Nippon Kaigi organization has also been a dominant actor in Japan's domestic information domain. The largest right-wing organization in Japan, the Nippon Kaigi has not only developed an extensive conservative grassroots movement but also represent sixteen out of twenty ministers in Abe's Cabinet in the government.[39] Immensely influential and well-connected, it is an under-appreciated informational enabler for the Abe administration's strategic messaging. Despite international concerns over Japan's prospective return to revisionism and jingoism, such support has helped the Abe administration spur change in Japan's domestic anti-war identity, albeit slowly.

On the international front, Japan has made great strides in crafting a cohesive and unifying information campaign. Its values-based diplomacy, proactive economic outreach, and declarations of regional solidarity have made inroads among its neighbors, despite the lingering handicap of its historical legacy. By integrating consistent themes and messages within its initiatives, Japan has been able to parlay regional anxiety over China's rising influence and ambitions into concrete diplomatic gains.

Abe's long-held aspiration for a quadrilateral security dialogue, mentioned in the U.S.' 2017 NSS, continues to show potential for fulfillment as concerns over China mount in the region. Even in the limited role of a consultative mechanism, it creates more informational space for Japan and its partners to raise costs for China, constrain its behavior, and force it to externally adjust its strategic calculus. Under the umbrella of regional solidarity and hedging against uncertainty, Japan has built strategic channels with fellow democratic partners such as India and Australia. The revitalization of the "Quad" demonstrates the convergence of values and interests among its members, indicating informational alignment based on their unique yet overlapping concerns.[40] Through its promotion and implementation of confidence-building measures such as official dialogue, information sharing, and consultative frameworks, Japan is preserving conditions of stability and the status quo while gaining regional goodwill in the process.

Seeking to maintain the rules-based order and balance of power, Japan has consistently framed "the Japan-U.S. alliance as an international public good that guarantees not only the defense of Japan but also the defense of South Korea and the peace and stability of the Asia-Pacific region."[41] Even as the Abe administration seeks to elevate Japan's role in the region, it also upholds the integrity of the alliance and Japan's strategic alignment with U.S. national interests in the Indo-Pacific.

The U.S.' alliances with Japan and South Korea have remained at the forefront of a rapidly shifting relative-power configuration in the Indo-Pacific. However, they share a sense of compromised sovereignty, a pervasive mainstay of South Korean and Japanese cultural discontent with the U.S. More strategically complementary and willing to balance than the U.S.-South Korea alliance, the U.S.-Japan alliance embodies both stable and evolving asymmetries and a shift towards aspirations for a more values-based alliance partnership.[42] Figure 1 (see page 10) aptly captures Japan's overwhelming prioritization of its relationship with the U.S., in stark contrast to South Korea.

Of the regional countries affected by Japan's war actions, China and South Korea exhibit the greatest sensitivity to Japan's apparent efforts to normalize its security profile. South Korean policymakers are increasingly viewing China as a "stabilizing and influential player on the Korean Peninsula," primarily because Beijing prioritizes stability and behavioral change while Washington prioritizes confrontation, isolation, and coercion.[43] Despite Japan's apologies, mutual anti-Japanese sentiment due to Japan's brutal war legacy and respective territorial disputes have contributed to closer Sino-South Korean ties.[44] As a result, South Korea has not significantly upgraded its security infrastructure or "engaged in either external or internal balancing behavior against the rise of China."[45] This runs counter to Japan's more pessimistic view of a strategically unpredictable and ominous China and its balancing-focused actions. Despite the international community's initial hopes for China's gradual integration into the rules-based order, those expectations have started to fade. Endangering state sovereignty throughout the Indo-Pacific, China's pursuit of power politics and off-putting mercantilist economic approach puts regional stability at risk.

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However, rather than challenging China outright, Japan has cautiously yet firmly sought to constrain it instead. To promote regional stability and with due regard to Sino-Japanese economic interdependence, Japan has strenuously sought

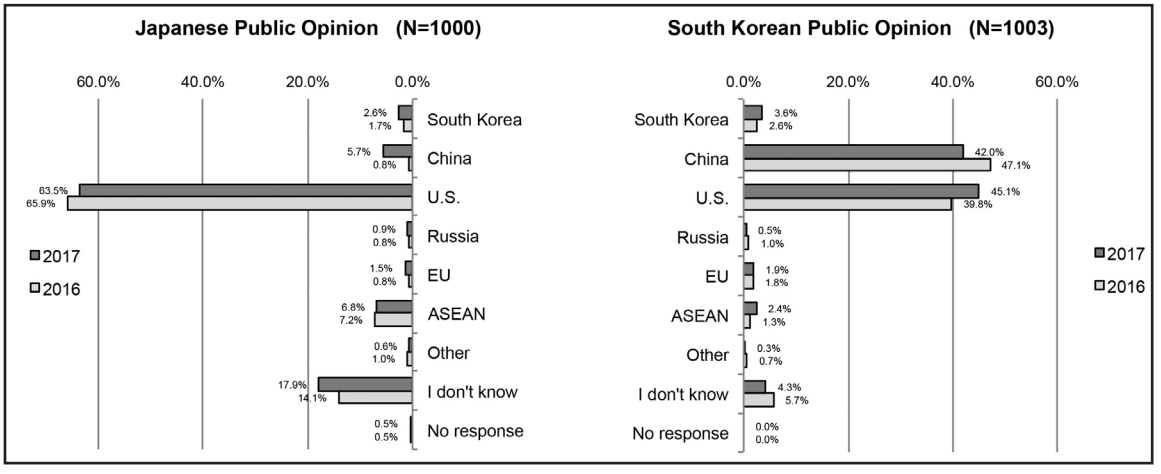

Figure 1: Opinion Poll – Countries I Think are Important to My Country's Future
Source: Genron NPO, "The 5th Japan-South Korea Public Opinion Poll," July 2017, 13, accessed February 10, 2018, http://www.genron-npo.net/en/archives/170721_en.pdf.

to avoid any misconstrued notions of its security objectives. To that end, Japan has meticulously refrained from any mention of a containment policy or expansionist intent. Even with the South China Sea littoral states and proposed security quadrilateral partners, Japan has rigorously managed its strategic messaging and informational campaigns to allay China's concerns over geostrategic issues such as containment and energy insecurity. While the Indo-Pacific countries recognize and respect the influence of the United States on the region's future peace and stability, they "also consider Sino-Japanese ties to be of critical importance for Asian stability in the short and long term."[46]

Japan's renewed focus on its at-risk national security interests, exemplified by its proactive approach to peace, signals a broad reorientation in political-economic thinking among Japanese policymakers. Perception of a deteriorating threat environment during his tenure has only solidified Abe's determination to challenge Japan's internal view of its traditional geopolitical role and force self-assessment and critical inquiry. The urgency of this change is compounded by the rapid rise of China and the ominous prospect of the United States as a mercurial Pacific power in retreat. In response, Japan continues to expand the appeal of shared values, regional solidarity, human security, and mutual economic prosperity within the Indo-Pacific.

By emphasizing these fundamental concepts, the linkages between Japan's economic policies and programs with strategic and diplomatic endeavors have become more explicitly recognized, defined, and endorsed. Furthermore, Japan's long-term commitment to human security and respected experience in health and education are two areas in which the country has contributed internationally.[47] These positive developments have eased concerns in the region that Japan's eagerness for more geopolitical responsibility may be a resurgence of Japan's Meiji Restoration in 1868, a development that led to Japanese imperialism in WWII.[48] Building upon these modest successes, Japan is productively demonstrating its proficient application of informational power as "an essential, perhaps indispensable, foundational component and enabler for the creation and exercise of all other forms of power.[49]

Military (Japan)

Despite a post-war constitution that continues to adhere staunchly to its pacifist principles, Japan incongruously has one of the most capable forces in the world. In its 2018 Military Strength Ranking of Asian-Pacific

powers, Global Firepower ranks Japan sixth while China and India rank third and fourth, respectively.[50] It has traditionally avoided the trappings of a normal military power, instead conducting military bandwagoning with the U.S. as the dominant Pacific power. During the Cold War era, Japan's Yoshida Doctrine emphasized Article 9 to reduce the risk of entrapment and resist U.S. pressure to contribute more as an ally.[51] By forgoing outright pursuit of military power, Japan was then able to accelerate its economic progress while still benefiting from the transfer of advanced military technology from the U.S.

However, due to an increasingly contested security order in the Indo-Pacific, the limitations of the Yoshida Doctrine and its hedging basis have become markedly evident to the Japanese political and military establishments. As they explored options to ensure national security, key trends such as the rise of regional piracy helped pave the way for Japan's increased yet still limited use of naval and maritime security assets. In the spring of 2000, Japan hosted the "Regional Conference on Combating Piracy and Armed Robbery against Ships," the world's first multilateral counter-piracy conference.[52] Japan's leadership role in regional counter-piracy activities, requiring it to project power in waters far from its shores, slowly altered regional perception and acceptance of the Japan Self-Defense Force's (JSDF) presence and activities.

The Abe administration was able to successfully reverse the trend of decline in defense spending and engineer considerable adjustments in national security policies, organization, and doctrine. The most symbolic yet controversial change was the July 2014 reinterpretation of Japan's constitution to permit collective self defense. Adapting to public resistance to constitutional revision, the Abe administration reconvened the Yanai Commission to analyze the current security environment and sanction the JSDF's ability to defend its allies and partners.[53] In 2015, the Abe administration passed security laws that permitted the JSDF to defend U.S. naval ships in international waters when those ships are protecting Japan, intercept ballistic missiles targeting the U.S. and U.S. Pacific bases, and defend and logistically support allied forces during peacekeeping operations.[54] The approval of collective self-defense has been called a watershed moment in Japan's "radical security trajectory."[55] Subject to key constraints such as the requirement for an identified risk to Japan's survival, collective self-defense is a positive yet restrained step towards military normalization.

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The National Defense Program Guidelines of FY2014 and beyond sets out Japan's approach to defense capability for the next decade. Recognizing the inherent island vulnerability and regional anti-access/area denial challenges, it categorically states the JSDF "will develop full amphibious capability."[56] China's controversial possession of Mischief Reef in the South China Sea is considered a key influence on Japan's defense planners.[57] In April 2018, the JSDF established the Amphibious Rapid Deployment Brigade. Similar to other countries' amphibious rapid response marine units, the Amphibious Rapid Deployment Brigade represents Japan's first activated marine unit since WWII and is implicitly geared towards the defense of islands contested by China.[58] The Amphibious Rapid Deployment Brigade also reflects the JSDF's revised strategic posture that prioritizes air and maritime threats from China rather than the Cold War-era focus on a Russian attack from the north.[59] In the face of China's irredentist efforts in the East China Sea, Japan's joint

dynamic defense force has made great strides in its amphibious capabilities within a broader expeditionary and naval context.

...Japan's historic 2018 defense budget of 5.19 trillion yen sets aside funding for long-range missile programs...

With respect to its most capable force, the Japan Maritime Self-Defense Force, the National Defense Program Guidelines increases the destroyer fleet from 48 to 54, including two additional Aegis Ballistic Missile Defense-equipped destroyers.[60] Due to high demand for ballistic missile defense capabilities, the Japan Maritime Self-Defense Force recently procured the U.S.-developed Cooperative Engagement Capability system to enhance interoperability against the threat of DPRK missiles.[61] The Japan Maritime Self-Defense Force took possession of its second *Izumo*-class helicopter destroyer, *JS Kaga*, in March 2017; the *Izumo*-class is a potent symbol of "Abe's push to give the military a bigger international role."[62] Japan's capable submarine fleet expands from 16 to 22 boats, augmented by the advanced Sōryū-class submarine platform.[63] Known for its quiet propulsion and iterative design, the Sōryū-class headlines Japan's status as the sixth largest submarine power in the world.[64] The Japan Maritime Self-Defense Force's consistent procurement of its indigenous P-1 platform, a highly capable maritime patrol aircraft, significantly improves Japan's intelligence, surveillance, and reconnaissance and anti-submarine warfare capabilities. Japan's emphasis on these capabilities reflects its understanding of its vulnerable sea lines of communication, especially after the success of U.S. submarines in WWII.

Additional expected acquisitions include 42 F-35A fifth generation fighters, C-2 transports with a 6,500-kilometer range, and advanced unmanned aerial vehicles for coastal patrols.[65]

Furthermore, Japan's historic 2018 defense budget of 5.19 trillion yen sets aside funding for long-range missile programs such as the Joint Strike Missile by Kongsberg Gruppen ASA of Norway and Lockheed Martin Corp.'s Long-Range Anti-Ship Missile.[66] In addition, 137 billion yen is earmarked for ballistic missile defense, bolstering Japan's layered structure of the land-based Aegis Ashore system, ship-based Aegis system, and ground-based PAC-3.[67] In December 2017, the Japanese Diet approved the purchase of additional Aegis Ashore systems to augment its existing ballistic missile defense infrastucture. The following month, the U.S. Department of State approved the possible sale of four Standard Missile-3 (SM-3) Block IIA missiles to Japan, valued at 133.3 million U.S. dollars (USD).[68] Focused on the DPRK threat, the SM-3 Block IIA missile was jointly developed by Japan and the U.S. as part of a bilateral effort to improve ballistic missile defense and interoperability. Figure 2 (see pag 13) delineates the gradual increase in Japan's defense-related expenditures up to the now-approved budget request for FY2018. The gradual uptick beginning with FY2012 coincides with the return of Shinzo Abe as Japan's prime minister.

Key security partners and regional powers have tacitly or publicly encouraged Japan's continued modernization and development of military power. For example, Australia's 2017 defense white paper affirmed its support for Japan's defense and strategic policy reforms as well as "Japan's efforts to improve its security capabilities and to play a more active role in the security of the region."[69] In 2015, India and the U.S. welcomed Japan as a permanent participant in the annual Malabar naval exercise, marking a "deepening regional awareness of the importance of offsetting China's strategic rise."[70] Professor Hughes highlights how "Japanese policymakers have for the first time in the post-

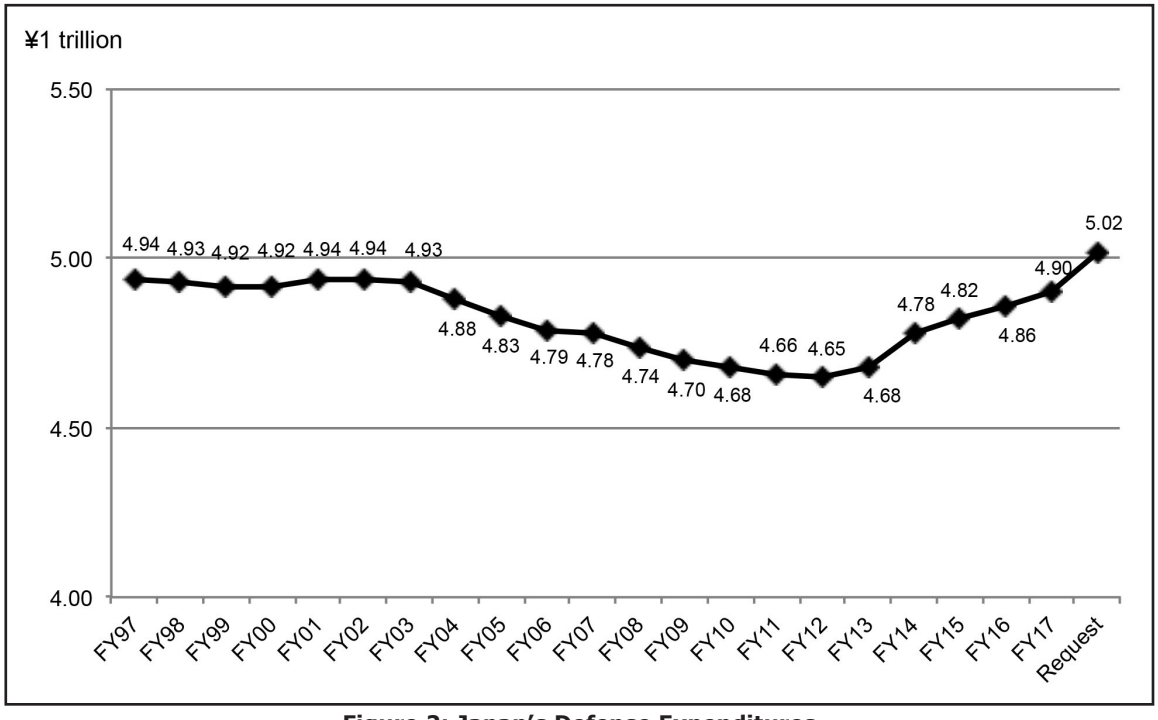

Figure 2: Japan's Defense Expenditures
Source: Ministry of Defense, "Defense Programs and Budget of Japan," August 2017, 3, accessed January 14, 2018, http://www.mod.go.jp/e/d_budget/pdf/291222.pdf.

war period begun to doubt seriously whether the USA possesses the necessary military power" to counter China and its anti-access/area denial, especially regarding territorial disputes and maintaining sea lines of communication.[71] As the military dynamics of the regional security environment slowly appear to invalidate the strategic post-war bargain between Japan and the U.S., Japan's insecurity is manifesting through its experimentation with active balancing.

However, driven by resentful realism, Japan's efforts may not restore equilibrium and stability in the region to accomodate China's rise, but instead become another source of unpredictability and instability.[72] China's recent flexing of naval power projection only exacerbates Japan's sense of unpreparedness in security policy. China's 2015 *Military Strategy* white paper stresses the "strategic requirement of offshore waters defense and open seas protection."[73] It notably adds the strategic function of "open seas protection" to the People's Liberation Army Navy's traditional "offshore waters defense" responsibilities.[74] On April 12, 2018, China held the largest naval parade in the country's history in the South China Sea, demonstrating its rapid transformation from a defensive brown-water force to a significant blue-water fleet.[75] As China aptly demonstrated, power projection and strategic depth in the Indo-Pacific remains predominantly founded on maritime control and sea spheres of influence. Critical of China's claims of peaceful aims, Sir Gerald Howarth, former undersecretary of state at the U.K. Ministry of Defense, warns that "what matters is not intentions, but capabilities because intentions can change overnight, capabilities cannot."[76]

Operating under the constitutional ban on offensive weaponry, the JSDF presents a moderate yet growing suite of capabilities well-suited for its specialized national requirements. However, despite a slow and steady rise in the defense budget under the Abe administration,

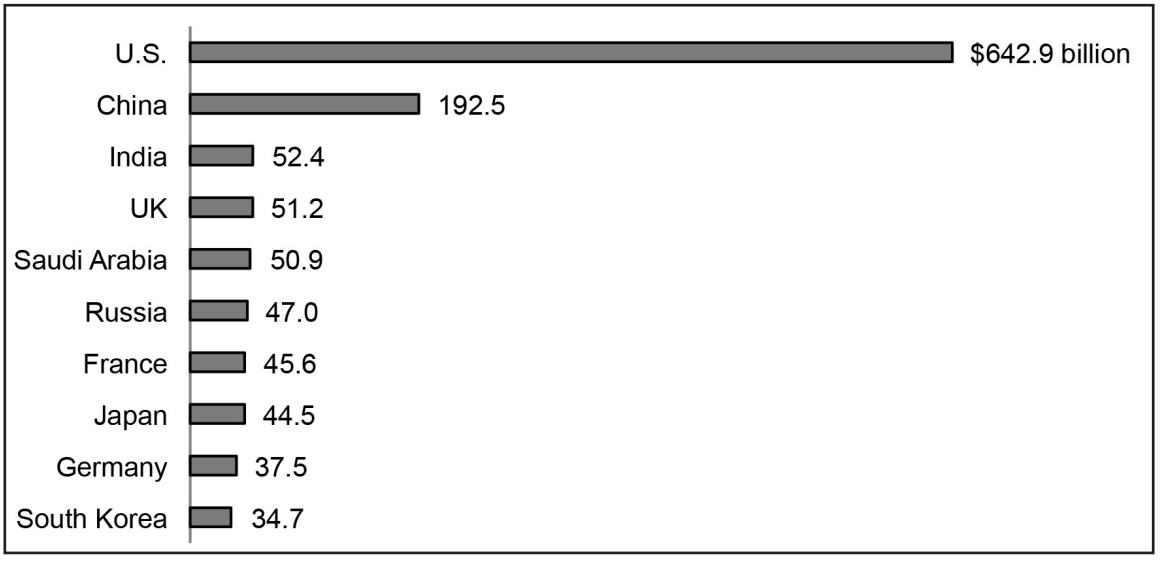

Figure 3: The World's Top 10 Defense Spenders (2017)
Source: IHS Markit, "Global Defence Spending to Hit Post-Cold War High in 2018, Jane's by IHS Markit Says," December 18, 2017, accessed February 4, 2018, http://news.ihsmarkit.com/press-release/aerospace-defense-security/global-defence-spending-hit-post-cold-war-high-2018-janes-i.

Japan has yet to demonstrate the significant increases in military research, expenditure, and capacity-building that would generally accompany an arms race with China. Figure 3 shows U.S. dominance in military spending, followed distantly by China while Japan trails behind with the eighth largest defense budget.

While arms races in the past have been mostly or completely dyadic in nature, the regional trend of rising military spending in the Indo-Pacific complicates traditional arms race modeling. The ongoing discussion on the potential conversion of the *Izumo*-class helicopter destroyer into a "true" aircraft carrier, a continual point of controversy in Japan's defense establishment, underscores Japan's interest in security through military means.[77] Such interest in the aircraft carrier, a platform not seen since Japan's defeat in 1945, within the Ministry of Defense reflects rising tension due to "China's maritime expansion and North Korea's missile and nuclear development."[78] Considered the "amalgamation of power projection at its foremost" the Carrier Strike Group is a dominant aspect of U.S. military presence in the region.[79] Therefore, other countries such as China, have viewed Japan's *Izumo*-class with suspicion, with some calling it an aircraft carrier-in-disguise and perhaps rightly so. Regardless of their classification, the number of aircraft carriers or equivalents and the number of Indo-Pacific countries operating them will likely expand over the next decade.[80]

Refraining from overt reliance on military power to achieve Japan's national security, the Abe administration is cautiously balancing military readiness against the perception of militarism. Abe's policy success in enabling partial use of collective self-defense and the JSDF's increasing capabilities, especially through amphibious and naval assets, demonstrate Japan's return to an increasingly normal military state. That is not to say the strategic bargain, semi-characterized by Japan's reliance on American hard power, is null. However, the fluid and multiplex security environment is necessitating Japan's reexamination of its own military potential. Driven not only by ballistic missile defense requirements due to North Korea and the implications of the burgeoning Sino-American military rivalry, Japan's own unwillingness to be militarily marginalized by

China is a key consideration. In its carefully considered employment of JSDF capabilities, Japan is incorporating a deeper appreciation for the role of its military potential into a smart power approach, "combining the tools of both hard and soft power."[81]

Economic (Japan)

Ever since the Yoshida Doctrine essentially traded military development for economic growth, Japan has emphasized the geoeconomic aspect of its national power. The benefits of this post-war trade-off is becoming only more apparent and pivotal as vibrant economic transformation in the region reshapes the regional distribution of power in the Indo-Pacific. The region comprising of Asia and the Pacific has seen its share of global Gross Domestic Product increase from 25 percent in 2000 to 33 percent in 2016.[82] Demonstrating the qualified success of Abenomics in Japan, the International Monetary Fund projects 1.2 percent Gross Dmestic Product in FY2018, continuing the Japanese economy's promising trend of above average growth over the past eight consecutive quarters.[83] The Bank of Japan concurred in its April 2018 report, stating "Japan's economy is likely to continue growing at a pace above its potential in FY2018."[84] Primarily predicated on the strength of its economic relationships and resources along with its diplomatic influence, the Lowy Institute's influential Asia Power Index ranks Japan third, behind only the U.S. and China.[85]

However, the continuation of Japan's economic power remains in some doubt, beset by a multitude of significant challenges. Key concerns arise from Japan's "widening primary deficit and very high government debt," as well as from the unsatisfying progress of Abenomics' third arrow, structural reforms.[86] A burdened social security system and lack of corporate governance reform are additional prohibitive considerations. Despite its longest growth stretch in decades, domestic factors such as a shrinking labor force will affect Japan's strategic ability to drawn on its economic power and influence through Official Development Assistance (ODA) and other means. At the very least, these significant limitations will force the Abe administration to adjust its strategic calculus in its geoeconomic efforts to shape and influence its regional security environment.

More so than any other Pacific power, including the U.S. and China, Japan wields greater influence than is expected from its resources.

More so than any other Pacific power, including the U.S. and China, Japan wields greater influence than is expected from its resources.[87] It has signed Economic Partnership Agreements with fourteen countries, including India and Australia, as well as a Comprehensive Economic Partnership Agreementwith ASEAN.[88] Furthermore, Japan continues to negotiate an Economic Partnership Agreementwith the European Union and a Free Trade Agreement with China and South Korea.[89] Although Japan was overtaken as the second largest economy by China in July 2010, Japan remains the most diverse and sophisticated economy in the world as of 2016.[90] As economic interaction and relations gain influence and emphasis in power politics, Japan has demonstrated a confident willingness to exercise regional leadership over economic activities and frameworks.

Alongside the U.S.-led World Bank, Japan uses the Asian Development Bank as the primary regional platform for wielding its economic influence. With 15.6 percent of shares each, Japan and the U.S. have controlled the institution's agenda and guided the Asian Development Bank towards "inclusive economic growth, environmental sustainability, and regional integration" for the past fifty years.[91]

Japan has unfailingly held the presidency of the regional development bank since its inception in 1966, reflecting Japan's virtual monopoly of the Asian Development Bank's management. Japan's persistent efforts to develop influence in the Asian Development Bank and other multilateral forums such as Asia-Pacific Economic Cooperation reflect the country's traditional pride in its long-held status as the Asian model of economic prosperity.

In response to emerging regional economic threats such as the Washington-backed Trans-Pacific Partnership (TPP) as well as contemporary ones like the Japan-dominated Asian Development Bank, China has formed the Asian Infrastructure Investment Bank and its own regional framework, the Regional Comprehensive Economic Partnership. This underscores how these varying forms of economic statecraft are nonetheless based on the same geoeconomic principle: "the desire to secure the rules of economic exchange in the region."[92]

The U.S.' withdrawal from TPP and its "America First" doctrine accelerated efforts by allies and trading partners in Asia to advance regional economic integration...

In fact, once the U.S. withdrew from the TPP in January 2017, it offered a unique opportunity for Japan to "step into a trade leadership role in the region."[93] The U.S.' withdrawal from TPP and its "America First" doctrine accelerated efforts by allies and trading partners in Asia to advance regional economic integration while it stands on the sidelines.[94] As a result, Abe has put forth Japan as the primary architect of TPP-11, the replacement to the original TPP framework. Otherwise known as the CPTPP and excluding the U.S., it represents 14 percent of global Gross Domestic Product compared to the Regional Comprehensive Economic Partnership's 24 percent.[95] Nevertheless, Japan has strategically positioned the CPTPP as a rules-based economic structure and attractive alternative to China's power-based frameworks, namely the Asian Infrastructure Investment Bank, Regional Comprehensive Economic Partnership, and its overarching economic-political initiative, the Belt and Road Initiative.

Ironically, it took Japan nearly three years to overcome domestic opposition and join the original TPP.[96] However, it is now the foremost champion of the CPTPP, occupying a unique position between the U.S. and China to influence Indo-Pacific geoeconomics. In addition, Japan and other CPTPP members have kept the door open for the U.S. to rejoin. Executive Director Deborah Elms at the Asian Trade Centre notes the TPP-11 countries chose to suspend the U.S.-championed provisions rather than cancel them.[97] Spearheaded by Japan, the CPTPP's regional willingness to work with the U.S. stresses the continued attraction and influence of the U.S.-led system of free markets and rules-based economic order.

The Abe administration has recognized that many of its ambitious national security initiatives ultimately rest on the success of the country's economy. While Abe continues to expand the capabilities and scope of Japan's military, he has demonstrated a sharpened regard for geoeconomics as a crucial element of Japan's overarching national security strategy. The prominent emergence and consequence of regional economic frameworks such as the CPTPP, Regional Comprehensive Economic Partnership, and Asian Infrastructure Investment Bank only underscore the relevance of geoeconomics in the Indo-Pacific region. By seeking to cement the Asian Development Bank's and CPTPP's higher standards as the economic templates for the Indo-Pacific, Japan is enhancing its regional reputation for the provision of public goods. In the wake of

retreating U.S. commitment, Japan's ability to navigate an increasingly complex regional geoeconomic landscape will be instrumental to maintaining the relevance of the CPTPP and Asian Development Bank against competing economic institutions and frameworks.

With infrastructure financing becoming progressively translated into geopolitical influence, Japan's prospective role and leadership in the Asian Development Bank, CPTPP, Asia-Pacific Economic Cooperation, and other economic organizations is vital to furthering its strategic objectives. Finance Minister Taro Aso reiterates Japan's commitment to quality infrastructure, noting that it is "critical to utilize infrastructure in an open, transparent and non-exclusive manner to enhance its connectivity."[98] Japan's export of infrastructure systems to major Asian countries has been described as a calculated attempt to counter China's regional influence through strengthened relationships.[99] In April 2018, the Second Public-Private Sector Roundtable Discussion on U.S.-Japan Cooperation on Third Country Infrastructure underscored their mutual geoeconomic understanding of linking infrastructure assistance to broader regional goals.[100] While Japan continues to gain goodwill through traditional humanitarian aid and infrastructure development projects, its focus on "capacity-building programs" has taken on newfound strategic importance.[101] In the influential realm of infrastructure assistance, the soft power context of Japan's infrastructure financing and governance compares favorably against the hard power nature of China's economic policies.

The issue of regional economic governance is a prominent feature of not only Asia's security environment but also the great power rivalry between the U.S. and China.[102] With its expertise and historical reliance on economic power for exercising regional influence, Japan occupies a distinctive role in the Indo-Pacific geoeconomic environment. Japan was conspicuously present during India's May 2017 announcement of the Asia-Africa Growth Corridor, a calculated attempt to counterbalance China's Belt and Road Initiative. Japan's involvement in this latest India-backed Asia-Africa Growth Corridor illustrates its strategic reservations regarding the Belt and Road Initiative as well as the appeal of its infrastructure expertise to India and regional partners.[103] As the region's leading proponent for non-military security, Japan has developed a well-deserved reputation for reliability and integrity as an economic partner and international creditor.

As the region's leading proponent for non-military security, Japan has developed a well-deserved reputation for reliability and integrity as an economic partner and international creditor.

Indeed, Japan's use of financial and development aid as a foreign policy tool has become an increasingly prominent and vital part of its national security strategy. Its 2016 Development Cooperation Charter champions the use of ODA as a principal means of bolstering Japan's national interests in the Indo-Pacific. More explicitly than ever before, "Japan has redefined its aid orientation to serve its geostrategic and national interests, largely due to the changes in the global geostrategic environment in the wake of China's rise."[104] Japan has positioned ODA as a key component of its "Proactive Contribution to Peace" strategy in order to achieve the "medium- to long-term national interests of Japan."[105]

Already ASEAN's single largest source of investment and its third-largest trading partner, Japan continues to expand the scale of its ODA and economic diplomacy in the region.[106] Commenting on the robust Japan-ASEAN relations in April 2017, Japan's Ambassador to Singapore Kenji Shinoda

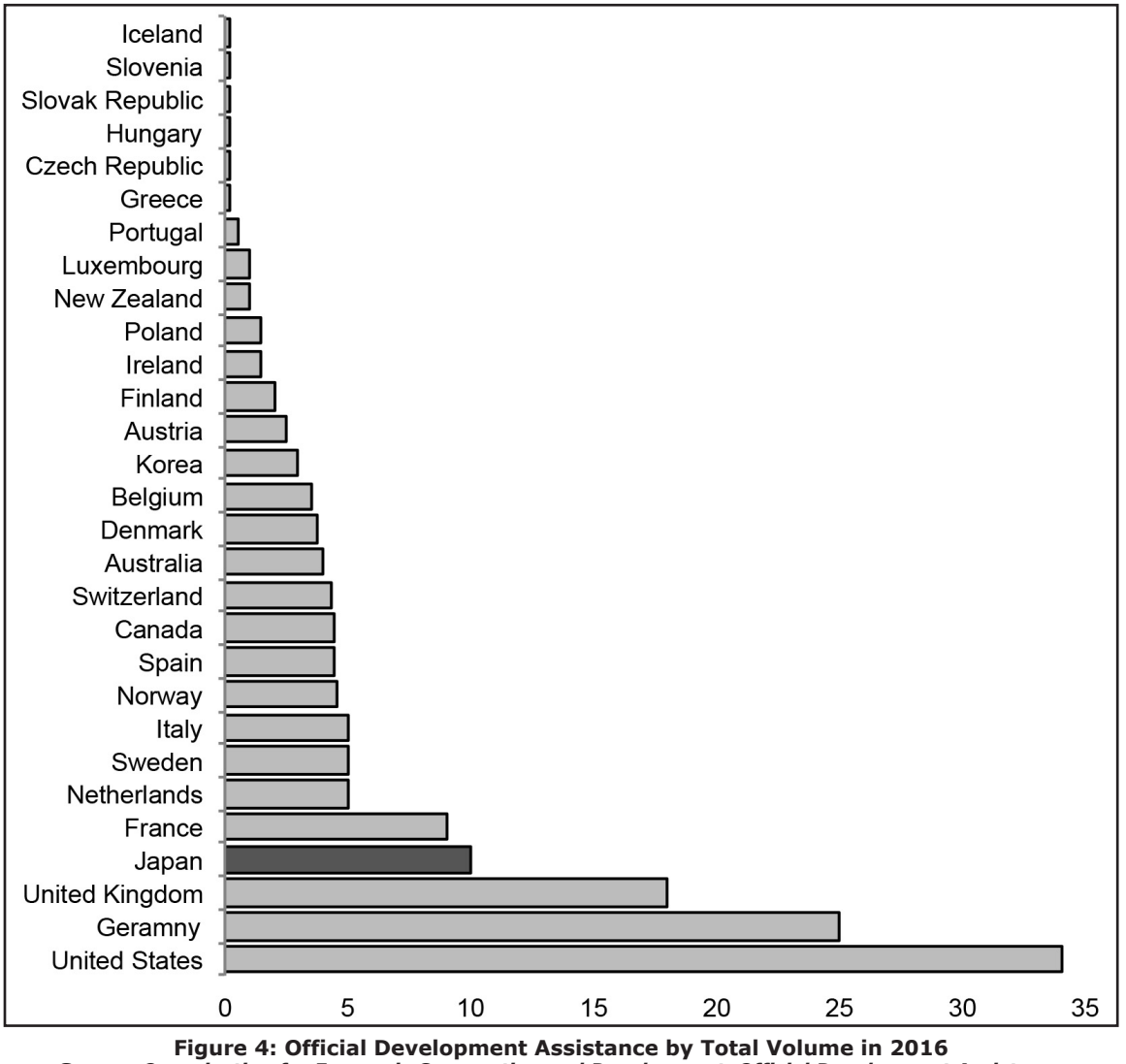

Figure 4: Official Development Assistance by Total Volume in 2016
Source: Organization for Economic Cooperation and Development, Official Development Assistance 2016, 2017, accessed February 4, 2018, http://www2.compareyourcountry.org/oda?cr=oecd&lg=en.

announced a 2 trillion yen ODA package for ASEAN community-building as well as deeper integration with ASEAN through a new 100 million USD Japan-ASEAN Integration Fund.[107] In charge of administering Japan's ODA, the Japan International Cooperation Agency wryly notes Japan "is not necessarily very good at bringing armed conflicts to an end."[108] Instead, Japan International Cooperation Agency President Dr. Kitaoka highlights Japan's unique approach to peacebuilding, pointing to the Tokyo International Conference on African Development meetings as representative of Japan's critical role in maintaining the system of international cooperation.[109] As a result, there has been rising appreciation within Japan for ODA's utility in improving the country's standing in the international community, and by extension, ensuring its peace and prosperity. The Abe administration has explored the deliberate and strategic use of ODA to achieve Japan's national security interests. Figure 4 shows Japan was the fourth largest contributor of development assistance in the world in 2016 with 10.37 billion USD in net ODA total volume.

Japan's use of ODA is primarily focused on

economic development, especially among the littoral states of the South China Sea and Strait of Malacca.[110] Its traditional basis lies in quality growth and human security, layered with a high level of economic governance and transparency. In line with its Development Cooperation Charter, Japan has maintained "the principle of avoiding any use of development cooperation for military purposes or for aggravation of international conflicts."[111] However, the Abe administration has reframed defense cooperation to ease restrictions on the ability for Japan to supply other nations with military equipment and engage in security and military capacity-building. Japan's 2017 donation of two TC-90 trainer airframes to Manila marked the "first instance of Japan transferring excess defense equipment to another country free of charge following ongoing changes in its domestic laws."[112] Japan's largesse to the Philippines, including the expedited procurement of multi-role response vessels, has in turn sparked requests from other ASEAN states.[113]

Despite the good will that comes with military donations and the 2014 relaxation on arms export restrictions, Japan's defense industry has yet to show equivalent progress. Japan has not inked any significant defense export deals despite its global stature as an export powerhouse, ranked fourth in global exports with 645 billion USD in 2016.[114] Japan's failed bid for Australia's 2014 submarine tender deal marked a "major setback for Abe's push to develop an arms export industry as part of a more muscular security agenda after decades of pacifism."[115] This may be attributable to Tokyo's inexperience and lack of solid marketing strategies, attractive costing, and negotiating skills."[116] To gain a toehold in the competitive international arms market and streamline its policies, the Abe administration established the Acquisition Technology and Logistics Agency inside the Minstry of Defense.[117] However, Japan, like many Indo-Pacific militaries, remains dependent on foreign suppliers such as the U.S. for imports of advanced weaponry and platforms.[118]

As an island nation in the Pacific, energy security is an inescapable geoeconomic aspect of Japan's national security. Geographically isolated and driven by persistent energy security concerns, Japan is keenly aware of the vulnerability of its sea lines of communication. Japan must import over 90 percent of its energy requirements, of which 80 percent of its oil and 20 percent of its natural gas comes from the Persian Gulf through the Strait of Hormuz.[119] A critical geoeconomic issue for China, the Malacca Dilemma certainly applies to Japan as well. Therefore, the pro-nuclear Abe administration faces a complex challenge: how to obtain energy security in the face of strong anti-nuclear sentiment among the public? Of Japan's 48 existing nuclear reactors, only four were in operation as of January 2017.[120]

Geographically isolated and driven by persistent energy security concerns, Japan is keenly aware of the vulnerability of its sea lines of communication.

Following the Fukushima disaster in March 2011, Japan has endeavored to diversify its energy supply and reduce its dependence on nuclear power.[121] Japan leads global liquefied natural gas demand, representing 83.3 metric tons and 32.3 percent by global market share in 2016.[122] In fact, Japan tops the world's five largest liquefied natural gas importers, all located in Asia and collectively representing roughly 70 percent of globally traded liquefied natural gas.[123] Japan notably received its first import of liquefied shale gas in January 2017 from the contiguous United States, a rising energy provider expected to be the world's top liquefied natural gas exporter by 2022.[124] Given its rising trade surplus with the U.S., 51.6 billion USD in 2011 to 62.6 billion USD in 2016, Japan's

interest in American liquefied natural gas also helps assuage U.S. geoeconomic concerns.[125]

Despite a long history of economic cooperation with the U.S., Japan warily prepares to blunt the Trump administration's preference for bilateral free trade agreements. In addition, "Japan's continued efforts to 'multilateralize' concerns about China's maritime ambitions" and increase its own energy security remain works-in-progress.[126] It is also still vulnerable to energy and resource manipulation, evidenced by China's 2010 halt on exports of rare earth minerals to Japan due to geopolitical tensions.[127] In this acutely sensitive and interdependent economic landscape, modern power politics is now increasingly defined and described by economic statecraft "as the foreign policy of choice for great powers."[128]

The recent NSS promulgated by the Trump administration in December 2017 underpins the evaluation criteria to be used in analyzing Japan's DIME findings.

Phase II: Evaluation Criteria (U.S. National Security Interests)

The recent NSS promulgated by the Trump administration in December 2017 underpins the evaluation criteria to be used in analyzing Japan's DIME findings. This strategic document puts forth an array of instructive and key objectives across the dimensions of national power. Consequently, the strategic guidance lends itself well to the provision of relevant metrics for this study's evaluation criteria.

The U.S.' 2017 NSS lays out a comprehensive strategy for reaching U.S. national objectives on an "America First" premise. It underscores a whole-of-government approach to securing its national interests, emphasizing relationships with regional partners and allies. It notes the return of great power politics, a geostrategic structural transformation that may presage the imminent shift from unipolarity to multipolarity, or to a multiplex order. In the Indo-Pacific region, this holds particular implications for Japan as the U.S.' most reliable and capable ally.

U.S. Diplomatic Objectives

Throughout the NSS, the diplomatic emphasis remains consistently on the importance of allies and partners to maintain and promote U.S. interests and "magnify American power."[129] Through U.S. leadership in multilateral political and security institutions, "diplomacy is indispensable to identify and implement solutions to conflicts in unstable regions of the world short of military involvement."[130] It specifically emphasizes quadrilateral cooperation with Japan, Australia, and India. It echoes Abe's ambitious call for a regional security infrastructure with the inherent capabilities to match China's potential and ensure security and prosperity in the Indo-Pacific. Among its descriptions of key U.S allies in the region, the NSS expressly notes the leadership role of Japan and the emerging global power stature of India.[131]

The NSS also emphasizes equitable burden-sharing, while simultaneously highlighting the need for allies and "the collective resources of like-minded nations and organizations to address shared problems."[132] This underpins the strategic recognition that "changes in a regional balance of power can have global consequences" and complicate the U.S.' ability to contain threats.[133] These threats expressly include DPRK's nuclear regime and China's geopolitical aspirations. To address them, the NSS reasserts the U.S.' stance on "complete, verifiable, and irreversible denuclearization on the Korean Peninsula" and the preservation of "the non-proliferation regime in Northeast Asia."[134] It also endorses U.S.' efforts to bolster the vulnerable sovereignties of South Asian states against China's "economic inducements and penalties, influence operations, and implied military threats."[135]

U.S. Informational Objectives

The NSS pointedly asserts the U.S. must "compete for positive relationships around the world," implicitly referencing strategic competitors such as Russia and China.[136] It positions American influence and values as a "positive alternative to political and religious despotism."[137] Despite carrying faint undertones of "American exceptionalism," the 2017 NSS and its fundamental America First principle also adds the proviso that the U.S. will abstain from imposing those values on others.[138] Furthermore, the NSS advances the concept of a contested information domain as an accelerant in political, military, and economic competitions. It further proclaims "states throughout the region are calling for sustained U.S. leadership in a collective response that upholds a regional order respectful of sovereignty and independence."[139] In order to do so, the U.S. must "create a network of states that advance our common interests and values."[140] To serve as the foundation of this rules-based system, the NSS underscores the necessity of fundamental individual liberties.[141]

U.S. Military Objectives

The NSS emphasizes the concept of peace through strength, delivered through two primary means: 1) A forward military presence capable of deterring and, if necessary, defeating any adversary; 2) Development of a strong defense network with our allies and partners.[142] The NSS also stresses the strategic significance of the nuclear deterrence extended to more than 30 allies and partners, thus assuring their security while reducing their need to possess their own nuclear capabilities.[143] Nested within the U.S. whole-of-government pursuit to prevent nuclear proliferation in East Asia, modernized nuclear deterrence remains the "foundation of U.S. strategy to preserve peace and stability by deterring aggression."[144]

The U.S. NSS requires allies to modernize, acquire necessary capabilities, improve readiness, expand the size of their forces, and affirm the political will to win.[145] This latest NSS consciously recognizes the vulnerabilities and gaps in the U.S.' global capabilities and security requirements. This strategic realization informs the NSS' consistent call on allies and partners to contribute and moreover, demonstrate the willingness to confront dangerous and mutual threats. At the same time, it stresses the need to enhance layered missile defense focused on North Korea and Iran while simultaneously upholding strategic stability and longstanding strategic relationships. Finally, the NSS notes expanded defense and security cooperation with India, labeled a Major Defense Partner of the United States.[146]

Despite carrying faint undertones of "American exceptionalism," the 2017 NSS and its fundamental America First principle also adds the proviso that the U.S. will abstain from imposing those values on others.

U.S. Economic Objectives

Based on the principles of economic fairness and reciprocity, the 2017 NSS carries forth the concept of competition to global geoeconomic statecraft. Reiterating its focus on allies and partners, the NSS highlights the economic aspect of free markets and meaningfully links it to protection from forces that would subvert their sovereignty."[147] In addition, the NSS notes prosperous states are also stronger security partners who are then able to share the burden of confronting common threats. The NSS puts forth the requirement to "compete and lead in multilateral organizations so that American interests and principles are protected."[148] It also reinforces the objective to "shape and reform international financial and trade institutions."[149] The goal of adopting "new trade and investment

U.S. National Security Objectives	Japan National Security Policies
Diplomatic	Supporting
Informational	Supporting
Military	Neutral-Supporting
Economic	Supporting

Table 1: Evaluation Criteria Table
Source: Created by Author.

agreements and modernizing existing ones" while "countering unfair trade practices" are complementary priority actions.[150]

The NSS highlights access to the geostrategic Indo-Pacific markets in order to expand U.S. trade and investment opportunities while increasing the market base for U.S. goods and services. It specifically underscores the potential of U.S. economic power and relationships to "bolster states threatened by competitors."[151]By upholding the rules of a fair and reciprocal economic order, the NSS argues it will not only "benefit all with equal levels of market access and opportunities for economic growth" but also enhance U.S. security.[152] In the NSS, economic ties are extolled not only for market access but also for their ability to advance common political and security interests through deepening relationships. It accentuates the role of geoeconomics in the U.S.' foreign policy and power politics engagement with other states, as well as its influence on U.S. national interests both at home and abroad.

Phase III: Evaluation Criteria Analysis

The evaluation criteria table displays the DIME interaction between Japan's security policies and U.S. objectives from a national security perspective. The level of symmetry between the U.S. and Japan across all instruments of national power will inform the overall degree of security integration in the Indo-Pacific. The three-tiered scale system in Table 1 demonstrates the strategic alignment between U.S.' national security objectives and Japan's national security policies. Categorized within the DIME framework, the scale runs along a continuum from Opposing (O) to Neutral (N) to Supporting (S). Based on each category of national power, the table notes the degree of agreement between Japan's policies and the U.S.' objectives. The desired outcome is "Supporting" in most, if not all, of the four categories while avoiding any "Opposing." Table 1 presents the following results:

According to the table, there are no opposing conditions in any of the categories of national power. This indicates there is minimal contradiction or conflict between Japan's security policies and the U.S.' security interests. However, a neutral to supporting state exists in the military category between the U.S. and Japan. It considers the U.S.' support for the Abe administration's drive to normalize military power as an instrument of national power and policy. It also notes Japan's moderate successes in military modernization through constitutional reinterpretation, policy and organizational updates, and achievement of key JSDF objectives. On the other hand, it recognizes the inhibitive impact of domestic opposition and the JSDF's burdened shift from the molasse of its traditional status quo. The "Neutral-Supporting" reflects the continual capability gap between the Abe administration's U.S.-supported ambitions for regional power normalization and its historical risk-averse role as a passive military alliance partner.

Conclusions

While maintaining the strength and necessity of its military alliance with the U.S., Japan is simultaneously establishing its preference for a more equitable, multilateral, and reliable security framework for the Indo-Pacific. Japan's firm pivot to its concept of "Proactive Contribution to Peace" indicates a restless perspective of the current outdated hub-and-spoke alliance structure. Confronting the realization of how untenable its security may become if left on its current course, Japan is striving to gain greater control over its own future. Japan's ambitious minilateral diplomacy, evolving national identity, progressive military modernization, and energetic economic outreach collectively frame its security strategy for the post-American Century threat environment. Its omnidirectional national security strategy acknowledges the historical, geoeconomic, and geopolitical conflicts of interests simmering within the Indo-Pacific and seeks a strategic approach to overcome those challenges.

Although the dynamic nature of the region's security environment poses difficulties for policy formulation and long-term strategic thinking, it also offers opportunities for Japan and the U.S. to jointly reshape the Indo-Pacific security landscape. Based on U.S. national security interests gleaned from its 2017 NSS, Japan's national security strategy is mutually beneficial for both allies.

Japan is leading a thorough and well-calibrated regional response to manage change in the regional balance of power. Therefore, these multilateral security evolutions bode well for a strengthened set of collective and cooperative regional security mechanisms in the Indo-Pacific.

Japan's security strategy is *not* detrimental to U.S. national security interests in the Indo-Pacific region. Rather, Japan's security policies are highly complementary with U.S. national security objectives. Despite some recognized shortfalls in the military domain of national power, Japan is strategically well-aligned with U.S. Indeed, Japan's unique constraints on its military potential contributes to its greater flexibility in adopting a regionally reassuring and moderated security approach. Its limitations are an integral aspect of its strategic smart power aspect, although that may frustrate any immediate U.S. hopes for a significantly increased JSDF presence in the Indo-Pacific.

It is important to recognize Japan as not only the U.S.' most critical ally in the Indo-Pacific but also a significant regional power in its own right. While this alliance structure has remained remarkably intact till now, Japan's strategic calculations are forcing it to revise its role in the alliance in light of rising threats.

The U.S. will increasingly rely on Japan to support its efforts to engage with and influence the Indo-Pacific region. The U.S.' delegation of responsibility and insistence on burden-sharing merges with the Abe administration's desire to manage, circumvent, or overcome its domestic limitations so that Japan can achieve greater control over its own geopolitical destiny.

Recommendations for Action

The U.S. must take action to shore up Japan's confidence in the U.S. security guarantee. Surrounded by nuclear threats such as China and DPRK, allies such as South Korea and Japan may increasingly view the development of nuclear weapons as a strategic imperative if they lose confidence in the U.S. security commitment. A sense of insecurity will raise the likelihood of the U.S.' gradual exclusion from the regional community, nationalist and militaristic security policies, and risky security-seeking behavior.

Second, the U.S. must become a foundational member of the Indo-Pacific "security diamond,"

otherwise known as the "security quadrilateral." Strategically, such a role would re-invigorate the perception as well as the reality of the U.S. as a Pacific power. It would also increase its influence and leverage over Japan's policies, as well as those of India and Australia.

Third, the U.S. must prioritize economic integration with the Indo-Pacific region. The U.S. is now excluded from the CPTPP as well as the Regional Comprehensive Economic Partnership, which will soon be the world's largest trade bloc in terms of population, making up 46 percent.[153] In order to maintain influence over the most significant economic region in the world, the U.S. must assure its inclusion in these economic frameworks. In its newfound leadership role within the CPTPP and with its acknowledged expertise in infrastructure development and capacity-building assistance, Japan has accumulated considerable credibility in the region. Alongside an influential and proactive Japan, the U.S. should use the CPTPP to reinforce "omnibus diplomatic, economic, and security regionalisms."[154]

Lastly, the U.S. must increase strategic emphasis on rapprochement between Japan and South Korea as a critical component of U.S. regional security strategy for the Indo-Pacific region. Despite the recent strategic tilt towards the security quadrilateral, the U.S. must not lose sight of South Korea's geopolitical significance and maintain its close relations with this critical security partner. Its geostrategic location on the Korean peninsula and proximity to China assigns the Asian middle power a unique significance. To reflect the dynamics of the evolving security environment, the U.S. should promote South Korea's adoption of Japan's minilateral approach. It facilitates burden-sharing and increased perceptions of equality among both parties through reduced dependence on the antiquated hub-and-spoke structure. In addition, it helps manage South Korea's economic vulnerability to Chinese pressure through deeper integration in economic and security frameworks founded on the rules-based system. ***IAJ***

NOTES

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Employing Maritime Security Response Teams as the Nation's Maritime Crisis Response Force

by Christjan C. Gaudio

The U.S. Coast Guard is recognized worldwide for our ability to perform diverse maritime missions over vast geographic areas. Our value to the Nation resides in our enduring commitment to protect those on the sea, to protect the United States from threats delivered by the sea, and to protect the sea itself. As a military, law enforcement, regulatory, and humanitarian Service, the Coast Guard relies upon an array of unique authorities and partnerships to enhance our capability and capacity throughout the maritime domain.[1]

— Admiral Paul F. Zukunft, Commandant
United States Coast Guard Western Hemisphere Strategy

The September 11, 2001, terrorist attacks highlighted a future operating environment the U.S. was unprepared for—one in which non-state actors hid among the legitimate populations of nation states and emerged to attack a target before fading back into the populace. This new environment required a different response by the government—one that presented a unified front, with close interagency coordination and the integration of law enforcement and Department of Defense (DoD) authorities and jurisdictions to adequately protect U.S. territory. With the creation of the cabinet-level Department of Homeland Security (DHS), the Coast Guard, specifically, saw an increase in missions related to law enforcement because its unique authority and jurisdiction allowed the department to extend U.S. borders out to 200 miles offshore and in some cases beyond. One issue with this expansion was that of control and response. How can the Coast Guard respond to known threats that far offshore in a timely manner and with the special capabilities needed to seize control of a ship with suspected threats aboard? The answer, in part, is the Maritime Security Response Team (MSRT) created in 2004 to meet the threats posed by this domain and to augment security for the three National Special Security Events scheduled that year.[2] From this initial operating capacity achieved in 2004, the MSRT grew into an assault force capable of operating alongside Naval

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Special Warfare and Special Forces in support of national tasking.[3]

The establishment of United States Northern Command (USNORTHCOM) in 2002 created a geographic combatant commander with responsibility for the homeland, Canada, Mexico, and the associated offshore areas. It did so without resourcing it similarly to other geographic combatant commands. The *Posse Comitatus* Act, along with additional policies governing the deployment of military forces within the U.S., hinders the allotting of forces to the USNORTHCOM Commander. The Coast Guard is uniquely positioned to fulfill some of the force allocation needs and capability gaps of USNORTHCOM. The MSRT can fulfill the role and responsibilities of a Maritime Crisis Response Force within USNORTHCOM and provide domestic law enforcement capabilities that DoD forces are restricted from having by Congress. Threats related to weapons of mass destruction and attacks on maritime commerce require a "unique response that combines the capabilities of both law enforcement agencies and a… special missions team."[4] Designating a Maritime Crisis Response Force for USNORTHCOM provides economy of force to the Nation by allocating a trained and equipped initial response to a known or perceived threat.

Figure 1 (see page 36) documents the term Combatant Commander Crisis Response Force within unclassified Army Doctrine and identifies the six existing teams. Each team aligns with a geographic combatant commander under his or her regionally-aligned Special Forces Group headquarters. USNORTHCOM is missing, as the restrictions of the *Posse Comitatus* Act prevent DoD forces operating domestically in a law enforcement capacity.

This article examines the requirement to designate the Coast Guard's MSRT as the Maritime Crisis Response Force for USNORTHCOM to provide a law enforcement response to domestic maritime incidents and give the National Command Authority options for multiple domestic threats while supporting special missions units.

Attacks within the last five years in Belgium, Denmark, and France potentially indicate that the current global trend of terrorist attacks will likely continue into the near future. Geographic combatant commanders have Army Special Forces Combatant Commander Crisis Response Forces identified to respond during periods of heightened tension to both known and suspected threats. USNORTHCOM is the lone exception. This geographic combatant commander should have a similar capability to respond to domestic incidents offshore and on land. The Department of Justice has responsibility for responding to domestic terrorist incidents on land through, among other resources, the Federal Bureau of Investigation's Hostage Rescue Team.[5] Based on current authorities and jurisdiction, the maritime response capability should reside within the Coast Guard and the DHS. The Coast Guard's MSRT is currently trained and capable of meeting the mission requirements and demands of a Maritime Crisis Response Force for USNORTHCOM. Officially designating the units as the Maritime Crisis Response Force for USNORTHCOM mirrors capabilities inherent in other geographic combatant commands and enables both USNORTHCOM and the DHS to meet their mandate of responding to domestic threats to the homeland as it relates to threats from the sea.

The Coast Guard's MSRT is currently trained and capable of meeting the mission requirements and demands of a Maritime Crisis Response Force…

The new operating environment in which the U.S. found itself following the attacks on September 11, 2001, facilitated changes within the federal government to meet the

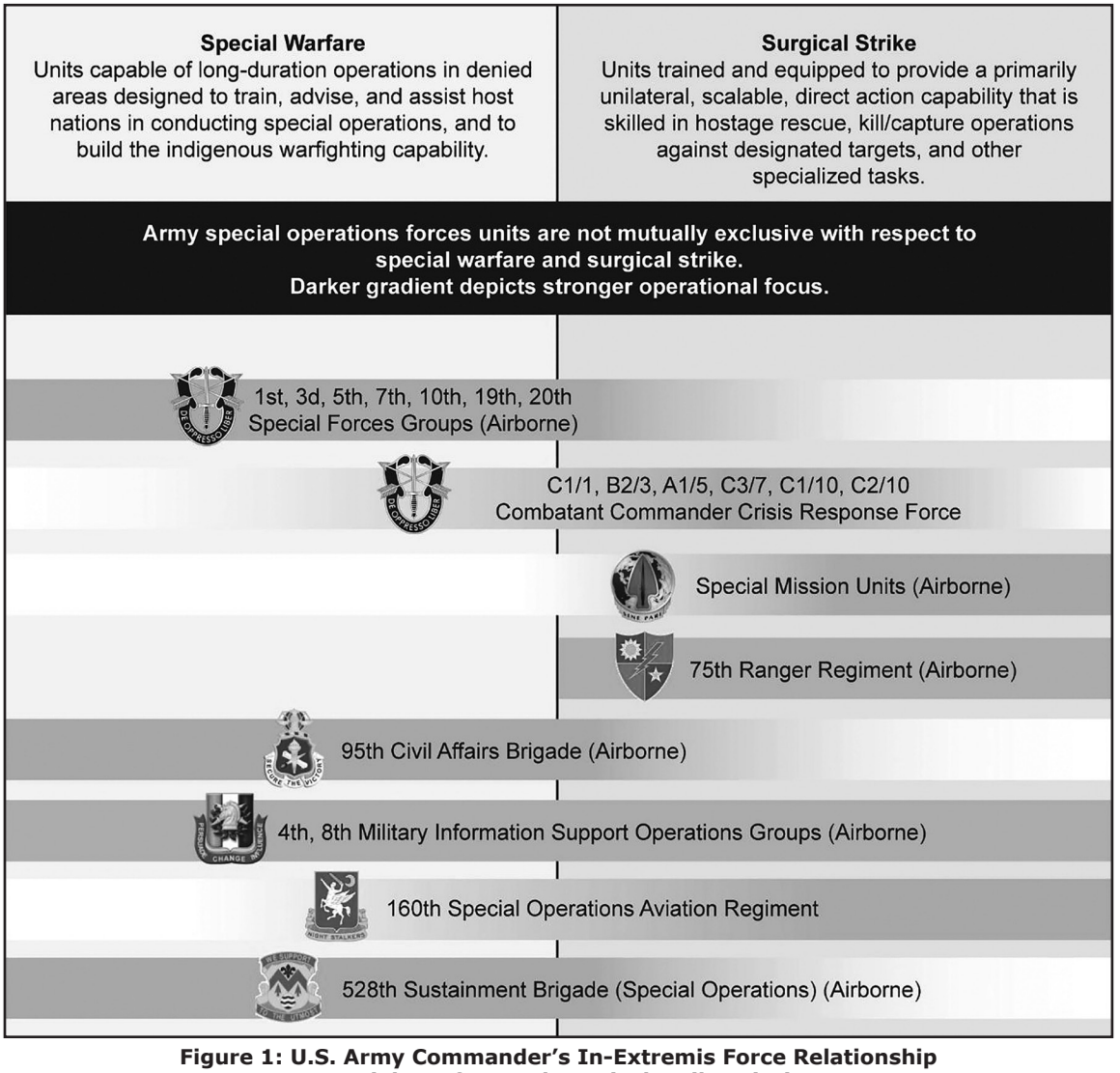

Figure 1: U.S. Army Commander's In-Extremis Force Relationship to Special Warfare and Surgical Strike Missions
Source: U.S. Department of the Army, Army Doctrine Publication 3-05, Special Operations, Government Printing Office, Washington, D.C., 2018, p. 19.

challenges posed by international terrorism. These changes led to the establishment of the DHS, the standing up of USNORTHCOM, and the development of the Coast Guard's MSRT. The concept development and experimentation of the MSRT by the Coast Guard led to the service's development of advanced interdiction capabilities that enabled the Coast Guard, through the MSRT, to project law enforcement power and authority seaward to seize control of a ship with suspected threats embarked aboard two hundred miles offshore.

According to *The National Strategy for Maritime Security*:

> The United States must build rapid-reaction forces to support first responders with capabilities to respond to WMD and other terrorist incidents that occur in the maritime domain. These response forces will blend the expertise and resources of the public and private sectors. They will be organized, trained, equipped, and exercised to operate in contaminated environments and manage the consequences of WMD incidents.

> Specifically, they will develop and deploy capabilities to detect and identify harmful chemical and biological agents, as well as conduct casualty extraction and mass decontamination in the maritime environment.[6]

This capabilities-based assessment forms the next logical step in the development of the Coast Guard's MSRT and USNORTHCOM. The opportunity to refine coordination and interoperability between domestic law enforcement and USNORTHCOM is one that should not be overlooked and cannot be overstated. U.S. domestic law enforcement is complicated. Overlapping jurisdictions, specialties, and interests create both a creative and collaborative environment. The U.S. does not have the same level of interoperability domestically as the DoD during operations overseas. Specifically, there is not a joint force system in place that aligns the different agencies within the DHS in the same manner as it does within the DoD. The exception is the Coast Guard, which follows DoD Joint Doctrine and is a member of the Joint Force while operating within the DHS. Both the DHS and USNORTHCOM work collaboratively with federal, state, and local law enforcement agencies to respond to domestic incidents. Transnational organized crime is a growing threat that is international in nature, thrives in ungoverned spaces, and has the capacity to overwhelm local law enforcement agencies.[7] One of the largest and most remote areas to police is the extensive offshore territorial, contiguous and exclusive economic zones. These areas constitute a well-used avenue of approach for trade, smuggling, and attack (see Figure 2, page 39). To meet these challenges a more coordinated effort is needed between USNORTHCOM and the DHS.

The future joint operating environment is contentious. Conflict is inevitable and is interwoven into the fabric of human history. "One cannot rule out the possibility that U.S. military forces will be engaged in persistent conflict over the next quarter century. In the next twenty-five years, there will continue to be those who will hijack and exploit Islam and other beliefs for their own extremist ends."[8] The nation's enemies work to identify existing frictions within the U.S. domestic defensive construct and exploit these seams to weaken the country internally, using its own processes against it.[9] U.S. forces will continue to work in an "environment where struggle predominates."[10] The world is only getting more complicated. Transnational organized crime and international terrorism will continue to threaten the U.S. as will the rise of near-peer adversaries.

The DoD cannot bear the burden for meeting these challenges alone. The organization must continue its focus external to the domestic U.S. and prepare itself to meet growing international near-peer threats. The *U.S. Army Operating Concept: Win in a Complex World 2020-2040* outlines the Department of the Army's, and by extension the DoD's, acknowledgement that wars in the future will comprise the full range of military operations, from near-peer conflict to stability operations.[11] It is an attempt to outline a way ahead that creates a land component capable of operating across the full spectrum of operations and do everything equally well. It can be taken as an indication of the DoD's recognition of the threats currently in place across the globe. Despite its title, the DoD is an offensively-motivated entity, whose job is to keep the fight away from the homeland and prosecute its missions worldwide, which poses an issue for USNORTHCOM which, as a DoD entity, is the only geographic combatant

...there is not a joint force system in place that aligns the different agencies within the DHS in the same manner as it does within the DoD.

command responsible for domestic territory and responding to threats in the homeland. Due to Congressional limits on DoD forces, USNORTHCOM is without operational assets capable of performing in a law enforcement capacity.

In addition to the threat posed by global competitors, transnational organized crime complicates the future of the U.S., as it furthers crime and instability domestically, regionally, and globally. Transnational organized crime is "deeply rooted in the preconditions for terrorism and insurgency and the thirst for power and wealth, as well as in the policies of nations that make it profitable."[12] It is a destabilizing influence that contributes to declining and failing states and challenges the Westphalian system of nations constricted by international laws and agreements.[13] Transnational organized crime keeps "states weak and incapable of effective partnership" while enabling the growth of large international organizations with the capital and capabilities inherent in nation states.[14] People, weapons, drugs, and contraband continue to be the largest moneymakers worldwide for transnational criminal organizations, earning them billions in profit while undermining domestic governance, economies, trade, transportation, and transactional systems.[15]

Even with the need to focus on near-peer and transnational organized threats, there remains the threat of domestic and international terrorism. Terrorists have "idealistic motives" and ideals do not die easily.[16] The *Joint Operating Environment 2008* anticipates the global war on terrorism extending into the 2030s due to the terrorist organization's embracing of the internet to recruit and train volunteers to continue the fight.[17] While Al Qaeda and the Islamic State are weakened, it is shortsighted to think that other organizations, with similar goals, will not fill the void, focused on supplanting the primacy of the U.S. These non-state actors are a continued threat that may potentially harness weapons of mass destruction to meet their organizational goals.[18]

The future joint operating environment holds significant threats to the welfare of the U.S. The Nation continues to meet and oppose these threats using all its instruments of national power. Improved coordination and the streamlining of the national effort may make the response to both international and domestic threats more efficient and effective. Domestically, USNORTHCOM needs more means to improve its interoperability with the DHS and contribute to the coordinated defense of the domestic homeland.

A Maritime Crisis Response Force provides USNORTHCOM with the ability to respond to threats to the homeland originating in the littorals. U.S. Army Special Forces are regionally aligned and provide crisis response forces to each geographic combatant command with the exception of USNORTHCOM.[19] The *Posse Comitatus* Act limits the missions that the DoD can support domestically.[20] As an organization, the DoD is focused on projecting power overseas in support of U.S. national interests, relying on domestic law enforcement agencies comprised of federal, state, and local municipalities to secure the homeland using each organization's law enforcement authorities. The issue is one of authority and jurisdiction, which Congress can change. It begs the question should an exception be made to the practice that enables the DoD to fill the requirement of a domestic-based and focused Maritime Commander's In-Extremis Force?[21]

Based on the *Joint Operating Environment 2008*, the joint force should be prepared to operate in both diverse and challenging future environments. As such, the DoD's responsibilities and focus should remain external to the U.S. It wields a proven military capable of projecting power anywhere in the globe to enforce or impose U.S. diplomatic will on an enemy. These forces should retain their overseas focus and mindset.

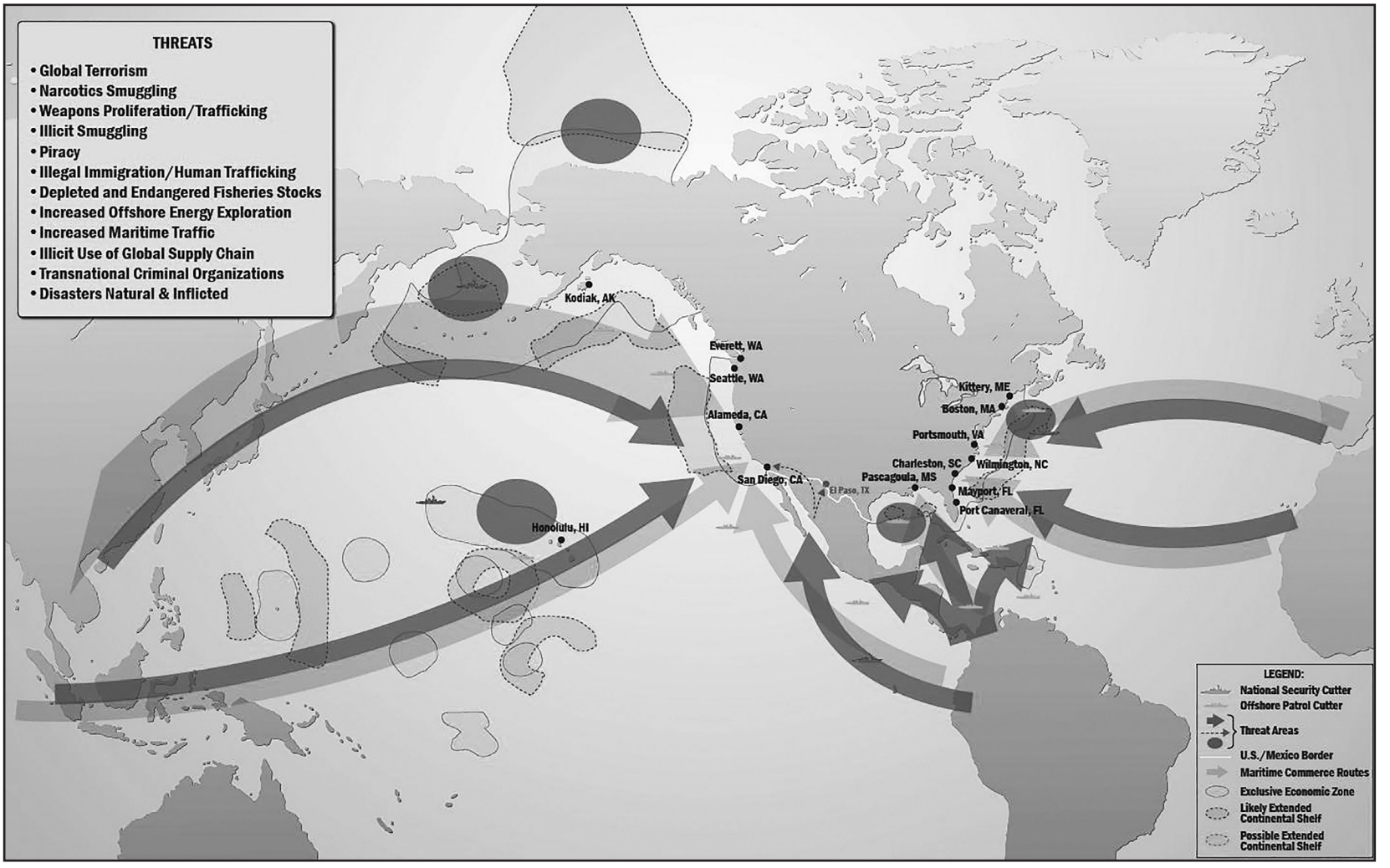

Figure 2: Threat Areas

Source: U.S. Coast Guard, Coast Guard Publication 3-0, Operations, Government Printing Office, Washington, D.C., 2012, p. 14.

Note: This image shows what the United States Coast Guard identifies as threat areas.

The defense and protection of U.S. citizens at home is traditionally the role of federal, state, and local law enforcement and first responders. There is a different culture and mindset needed to properly do this. Though it is not completely divergent from that needed to operate offensively, it was subtle enough for Congress to recognize and codify the difference with the passage of the *Posse Comitatus* Act in 1878.

USNORTHCOM's ability as a geographic combatant command to synchronize DoD support with domestic agencies is a strength. However, it is time to take the next logical step...

Much like an American football team has players that specialize in offense or defense, U.S. military and federal agencies should do likewise. The scramble to respond to the attacks of September 11, 2001, saw many federal agencies and services stepping on one another. While this has lessened over the past seventeen years, there continues to be a lot of overlap. The DoD has a role to play in securing the homeland. USNORTHCOM provides a link to training, logistics, and support that was crucial to the domestic responses to Hurricane's Katrina and Rita, as well as to domestic law enforcement missions related to national security special events, such as the Democratic and Republican National Conventions, Presidential Inaugurations, the World Series, and the Super Bowl.[22] USNORTHCOM's ability as a geographic combatant command to synchronize DoD support with domestic agencies is a strength. However, it is time to take the next logical step and provide that commander with units that can respond to the information and intelligence available to the DoD while operating domestically. Special Operations Command, like the rest of the DoD, should maintain its focus and span of control on the external threats to the U.S. The rise of a Chinese blue water navy, a nuclear North Korea, a growingly aggressive Iran, and continued international terrorism means that the DoD has plenty on its plate without having to pick up domestic mission sets.

In adopting the Crisis Response Force model that provides the geographic combatant commander with an enhanced response capability, USNORTHCOM is better prepared to meet known or perceived threats to the U.S. with a more appropriate span of control. That capability should follow a military model but have inherent authority and jurisdictions that enable it to operate domestically and bridge the existing gap between domestic law enforcement and military special operations forces.

Any discussion regarding an existing organization's capability must revolve around existing authorities and jurisdictions that enable domestic operations. In identifying an organization from which to produce this capability for USNORTHCOM, existing maritime capacities should be considered. As the only maritime-focused military service with existing law enforcement authorities, might the Coast Guard be the right service or agency to fill the need for a designated Maritime Crisis Response Force?

The United States Coast Guard has the law enforcement authorities to police the homeland and provide the maritime domain awareness necessary to deter, prevent, and respond to national threats in the littorals. In the era of globalized economies, the littorals have become a crucial part of a nation's sovereignty, with agents of the government having the requirement to ensure unrestricted and unimpeded commerce encompassing nearly 90 percent of world trade adjacent to a shoreline area where the majority of a nation's population resides.[23] The risk associated with attacks occurring in this littoral environment is speculative and estimates range in scale from doomsday-like prophecies to

minor interruptions in the global supply chain. USNORTHCOM's responsibility to synchronize a national response in this area currently competes with the DHS's responsibility to do the same.[24]

> The Coast Guard is a uniquely positioned resource in the coordinated fight against TOC [transnational organized crime] networks in the Western Hemisphere. Leveraging a broad array of authorities and capabilities across diverse maritime missions coupled with a persistent at sea presence, the Coast Guard is a versatile and critical resource in our Nation's larger battle against TOC networks. The Coast Guard also maintains unique capabilities and authorities to engage TOC networks in areas where they are not only unchallenged by other partners, but where they are also most vulnerable to disruption.[25]

Following a tested and proven model of Coast Guard Law Enforcement Detachments working for both the Coast Guard, an agency within the DHS, and the DoD, it is possible to create a pathway whereby USNORTHCOM's synchronization skills work collaboratively with Coast Guard assets to provide a comprehensive defense of the nation.[26]

The *Quadrennial Homeland Security Review* outlined the continuing concern with weapons of mass destruction and focused specifically on nuclear terrorism which "would cause severe loss of life, illness, and injury; present challenges to our economy and our free and open society; and damage the national psyche."[27] The current responsibility to respond to these incidents resides with the National Command Authority, and there is not an organization designated to bridge the local police response and more capable special missions units. USNORTHCOM needs a dedicated capability to tie local law enforcement response into the larger, national-level response. It needs a force capable of providing a short-notice, on-scene assessment of the situation in a maritime environment, capable of securing the scene for the arrival of additional assets, while fulfilling the role of an immediate response in periods of extremis.

The Coast Guard holds unique authorities and jurisdictions that make it the ideal service to provide a maritime crisis response force to USNORTHCOM. The Coast Guard can project power in territorial waters, the contiguous zone, and the exclusive economic zone outwards of two hundred nautical miles from the shore of the U.S. In some cases, such as when conducting counter-narcotics operations, the Coast Guard can assert jurisdiction even farther, making it a unique military service that can establish jurisdiction on the high seas and act in a law enforcement capacity worldwide.[28] Title 14, United States Code, Section 89, states that "the Coast Guard may make inquiries, examinations, inspections, searches, seizures, and arrests upon the high sea and waters over which the United States has jurisdiction, for the prevention, detection, and suppression of violations of laws of the United States."[29] This robust authority gives the Coast Guard the status of a law enforcement agency in addition to its role as a military service and establishes jurisdiction over vessels entering and exiting the homeland. It gives the Service broad authorities to use in defense of the U.S. maritime littorals. In patrolling the world maritime commons, it is the only military service with the capacity and capability to operate side by side with law enforcement agencies domestically.

The Coast Guard holds unique authorities and jurisdictions that make it the ideal service to provide a maritime crisis response force to USNORTHCOM.

In addition to the authority and jurisdiction, a Maritime Combatant Command Crisis

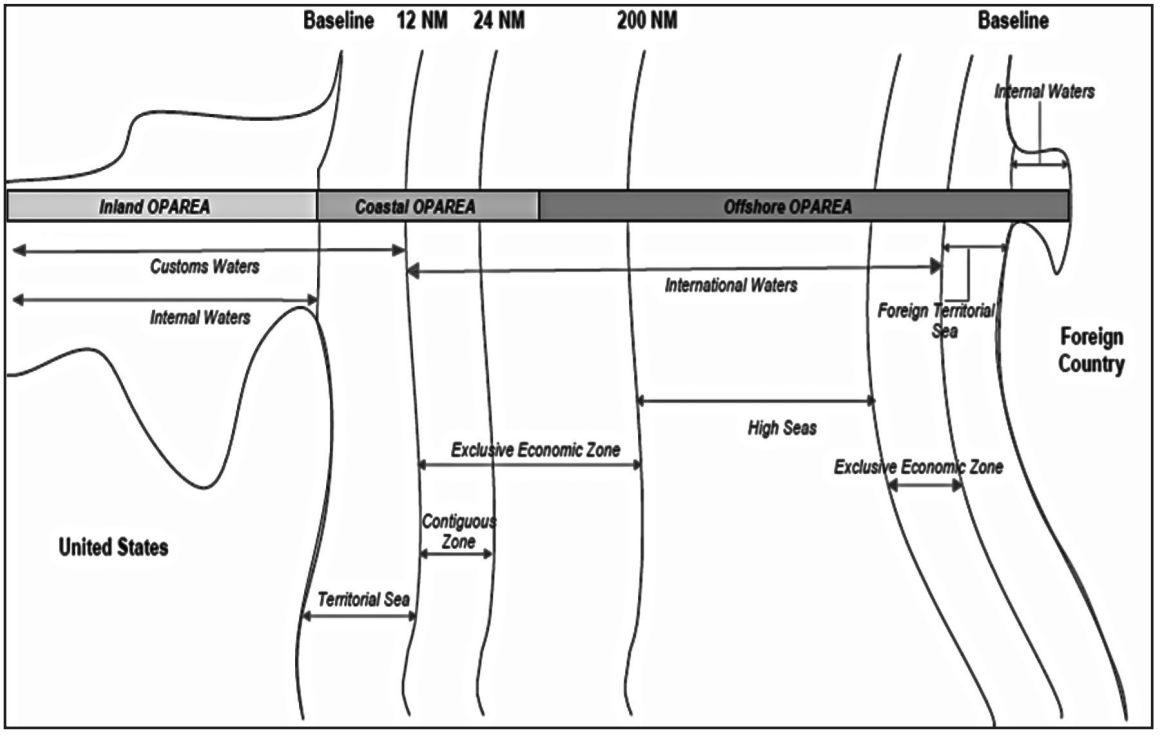

Figure 3: Maritime Jurisdictional Zones
Source: U.S. Coast Guard, Coast Guard Publication 3, Operations, Government Printing Office, Washington, D.C., 2012, p. 10.

Response Force must be certified, on-call, trained, staffed, and equipped to deploy and respond in response to identified or perceived homeland security threats.[30] "For protection and deterrence to be successful, maritime security forces must be visible, well-trained, well-equipped, mobile, adaptive, and capable of generating effective presence quickly, randomly, and unpredictably."[31] The Coast Guard is an existing and known entity within the federal government that can provide the capabilities necessary to fulfill a role as USNORTHCOM's Maritime Crisis Response Force. Municipal, state, and federal law enforcement teams "train to handle limited situations with a relatively low threat level."[32] The Coast Guard, as a military service, has the capability to field well-trained military units capable of operating in a law enforcement capacity and able to employ the transportation, manpower, and assets inherent to the federal government.

The Coast Guard is poised and focused on operations in the Western Hemisphere.[33] Its efforts complement the DoD's offensive operations with homeland-oriented defensive ones. The Coast Guard is positioned and capable now to work collaboratively with USNORTHCOM and bring its unique law enforcement authorities to the fight by providing necessary protections to the U.S. The Coast Guard is the correct agency to provide USNORTHCOM with the ability to "identify and interdict unlawful acquisition and movement of chemical, biological, radiological, and nuclear precursors and materials; and (detect), locate, and prevent the hostile use of chemical, biological, radiological, and nuclear materials and weapons" in the maritime domain and in doing so meet its charter to protect and serve the nation.[34]

The Coast Guard holds unique authorities that can enable a domestically focused Maritime Crisis Response Force. Inherent in the Coast

Guard's MSRT is a capability that could fulfill the role. Should the MSRT be the Maritime Crisis Response Force for USNORTHCOM?

The threats posed by transnational criminal organizations and terrorists are not anticipated to dissipate. It is the normal environment in which the Nation must carry on in the post 9/11 world. A comprehensive defense that begins two hundred miles offshore is possible with implementation of interoperability practices between the DHS and USNORTHCOM. One way to do this is to designate a DHS asset as USNORTHCOM's Maritime Crisis Response Force. The Coast Guard's MSRTs are uniquely qualified, equipped, and trained to provide domestic law enforcement capability to the USNORTHCOM Commander and provide the geographic combatant command with response options during high-risk, domestic incidents.

The Coast Guard is both a military service and a federal law enforcement agency. It combines the discipline and focus of a military tradition with domestic law enforcement authorities and has historically bridged the gap between domestic law enforcement and the U.S. military. Department of Defense Directive 5100.01, *Functions of the Department of Defense and Its Major Components*, acknowledges that the Coast Guard is "a unique Military Service" that "shall develop concepts, doctrine, tactics, techniques, and procedures and organize, train, equip, and provide forces to…conduct maritime homeland security and counterterrorism operations."[35] The service's Tactical Law Enforcement Teams deploy Law Enforcement Detachments in support of combating transnational organized crime missions along the Caribbean and Eastern Pacific drug trafficking corridors. When deployed, these small teams operate under the United States Southern Command geographic combatant commander and transfer their tactical control to the Coast Guard when operating in a law enforcement capacity. Domestically this model could work for USNORTHCOM, whereby the MSRT functions in the capacity of a Maritime Crisis Response Force and responds to domestic threats as an agent of both the Coast Guard and USNORTHCOM.

The MSRT is uniquely suited to fulfilling the role of a domestic Maritime Crisis Response Force. The unit "is a ready assault force whose members are trained in maritime security, law enforcement boarding procedures, force protection and environmental hazard response within a tactical law enforcement operation."[36] USNORTHCOM's leveraging of these abilities increases the security of the Nation by providing a response capability to the geographic combatant commander, who, in turn, forms a close working relationship with the Coast Guard's operational commanders and intelligence programs and through them a closer relationship to the DHS. Over its 227 years, the Coast Guard has accrued many law enforcement authorities, only some of which are currently leveraged. Its ability to operate in domestic littorals, develop information on shipments moving through the exclusive economic zone, contiguous zone, and territorial seas and to project law enforcement authority throughout provides a capability that is not mirrored within the DoD.[37]

The Coast Guard's MSRTs are uniquely qualified, equipped, and trained to provide domestic law enforcement capability to the USNORTHCOM Commander…

With the development of MSRT Chesapeake in 2004, the Coast Guard enhanced its traditional role by developing a unit trained for advanced interdiction missions.[38] This unit trained rigorously to meet the demands of this specific mission set and aligned with the Coast Guard's obligation to "provide forces to [geographic combatant commanders] to perform activities for which those forces are uniquely suited."[39] The

MSRT as an adaptive force package is comprised of members from the direct action section, the precision marksman observer team, and the chemical, biological, radiological, nuclear, high yield explosive team with small boat delivery teams.[40] In the case of domestic threats related to maritime infrastructure and weapons of mass destruction, the geographic combatant command is USNORTHCOM. The Coast Guard's law enforcement authorities give the MSRT the unique capabilities that differentiates it from similar DoD special operations forces. "The MSRT, appropriately called a ready assault force, conducts maritime threat response unilaterally or as part of an interagency adaptive force package. The teams are capable of interdicting, boarding, and verifying threats, and when required, engaging in offensive operations against a hostile threat."[41] The ability to operate domestically within the constraints imposed by Congress in the *Posse Comitatus* Act make it an ideal force to "identify, deter, mitigate, and counter threats to maritime commerce."[42]

The Coast Guard's martial history and military traditions enable it to integrate closely with USNORTHCOM in a way that civilian law enforcement agencies cannot.

The Coast Guard's martial history and military traditions enable it to integrate closely with USNORTHCOM in a way that civilian law enforcement agencies cannot. Following the 9/11 attacks, the Coast Guard received additional authorities as the Federal Maritime Security Coordinator, which increased the role of Captains of the Port, making the Coast Guard "responsible for coordinating all maritime security planning and operations in the nation's ports and waterways, including efforts to prevent terrorist attacks and to respond as necessary to mitigate the consequences of an attack, should one occur."[43] By designating the Coast Guard's MSRT as the USNORTHCOM Maritime Crisis Response Force, the interoperability between the DHS (the department responsible for the Coast Guard) and USNORTHCOM increases, and the interdependent nodes between USNORTHCOM's synchronization responsibilities and domestic law enforcement agencies is strengthened. These efficiencies streamline the national response to a domestic threat providing better protections to the American people.

> The nexus between criminal and terrorist networks is significant and evolving, and the threat to our nation's security demands that we collectively explore regional whole-of-government approaches and determine the potential . . . roles for countering and diminishing these violent destabilizing networks.[44] – Rear Admiral Kerry Metz

A complementary, domestic-focused force is needed to provide the USNORTHCOM Commander with response options. The solution exists and can be implicated through the drafting and implementation of policy between the Coast Guard and USNORTHCOM. Maritime Security Response Teams exist and are suitable for the mission sets expected of a domestically-focused Maritime Crisis Response Force.[45] Designating them as USNORTHCOM's Maritime Crisis Response Force puts the units on parity with other geographic combatant commander's crisis response forces and provides USNORTHCOM and its component Special Operations Command North a specialized team capable of conducting domestic maritime operations offshore.[46]

The Coast Guard is a service that is thoroughly trained and motivated to respond to short notice threats in the U.S. Its members operate intuitively, arriving on scene, assessing the situation, and then acting in accordance with the commander's knowledge and experience.

This cultural experience, combined with the service's unique law enforcement authorities, make Coast Guard forces ideal force multipliers to the USNORTHCOM Commander.

Designating the MSRT as USNORTHCOM's Maritime Crisis Response Force formalizes relationships and practices that the public believes already exists. As currently structured, the DoD is not able to fulfill the mission sets required of a domestic-focused crisis response force for the maritime environments covered by USNORTHCOM without a change in laws and legal authorities associated with the *Posse Comitatus* Act.[47] To operated domestically in a law enforcement capacity requires Congressional legislation to give specific units the statutory authorities necessary to operate within U.S. borders. The Coast Guard's MSRTs are currently trained, equipped, and on call to serve in the capacity of a Maritime Crisis Response Force. They require no change in statutory authority and only lack a formal designation and endorsement of that capacity as well as a defined way in which they may be called upon in time of need. The Coast Guard's law enforcement authorities make it the ideal choice to operate in the nation's littorals and provides a law enforcement and military capacity to USNORTHCOM and the DHS. This choice enhances the fight against transnational organized crime, while freeing up DoD special operations forces to operate offensively against terrorism and transnational organized crime overseas. Taken collectively and collaboratively, the DHS and the DoD complement one another, just as the offensive and defensive players complement a football team. Formally designating USNORTHCOM's Maritime Crisis Response Force improves the nation's response to maritime incidents, which enhances national resiliency against external threats and more efficiently protects the American people. ***IAJ***

NOTES

1 U.S. Coast Guard, *United States Coast Guard Western Hemisphere Strategy*, Government Printing Office, Washington, D.C., 2014, p. 5.

2 Matthew Jones, "Coast Guard Shows Off for Homeland Security Secretary," *Virginia Pilot*, July 14, 2009, pp. 1–2, <https://pilotonline.com/news/military/coast-guard-shows-off-for-homeland-security-secretary/article_7b8f091d-cd75-589a-9a6b-690b315d096e.html>, accessed on February 23, 2018. In 2004 the G8 Summit, Republican National Convention, and Democratic National Convention all met in cities near water and exposed to waterborne threats.

3 Lieutenant David Allan Adams Jr., "Coast Guard Is More Than Cutters," *Naval Institute Proceedings*, August 2017, p. 23.

4 Adams, p. 24.

5 James B. Comey, "Statement Before the House Judiciary Committee: Oversight of the Federal Bureau of Investigation," Federal Bureau of Investigation, June 2014, <https://www.fbi.gov/news/testimony/oversight-of-the-federal-bureau-of-investigation-6>, accessed on April 15, 2018.

6 Office of the President of the United States, *National Strategy for Maritime Security*, Washington, D.C., p. 24.

7 William Presson, "Enhancing Security-Projecting Civil Authority into America's Uncontrolled Spaces," Master's thesis, U.S. Army Command and General Staff College, Fort Leavenworth, KS, 2012, p. 27.

8 U.S. Joint Forces Command, *The Joint Operating Environment*, *The Joint Force in a Contested and Disordered World*, July 14, 2016, p. 3.

9 The concept of friction is one specifically relating to the theories of Clausewitz and can be found in chapter seven of *On War*. Carl von Clausewitz, *On War*, translated and edited by Michael Howard and Peter Paret, Princeton University Press, Princeton, NJ, 1976, p. 121.

10 U.S. Joint Forces Command, p. 5.

11 U.S. Department of the Army, Training and Doctrine Command Pamphlet 525-3-1, *The U.S. Army Operating Concept: Win in a Complex World 2020-2040*, October 31, 2014.

12 William Mendel and Peter McCabe, *SOF Role in Combating Transnational Organized Crime*, Joint Special Operations University Press, MacDill Air Force Base, FL, 2016, p. 2.

13 Ibid., p. 14.

14 Ibid., p. 175.

15 Russell D. Howard and Colleen Traughber, *The Nexus of Extremism and Trafficking: Scourge of the World or So Much Hype?* Joint Special Operations University Press, MacDill Air Force Base, FL, 2013, p. 1.

16 Ibid., p. 2.

17 U.S. Joint Forces Command, p. 36.

18 Ibid., p. 37.

19 Reference Figure 1 and U.S. Department of the Army, Field Manual 3-05, *Army Special Operations*, Government Printing Office, Washington, D.C., 2014, pp. 4–6.

20 U.S. Coast Guard Academy, *Maritime Law Enforcement: Cases and Materials*, 3rd ed., McGraw-Hill Primus Custom Publishing, Boston, MA, 2001, p. 125–126. Perhaps looking at an "either or" model is incorrect; rather, should MSRTs be added to the Combatant Commander Crisis Response Force and special mission units inventory to enable USNORTHCOM to respond to threats within the littorals and simultaneously strike multiple suspect vessels in response to perceived threats to the nation?

22 This observation has been made by the author, who was present as a Coast Guard responder in New Orleans for Hurricanes Katrina and Rita and is supported by Jetta DiscoSmall, "MSRT: Coast Guard's Specialized Force to be Reckoned With," Defense Visual Information Distribution Service, April 21, 2014, p. 2, <https://www.dvidshub.net /news/printable/126886>, accessed on February 23, 2018.

23 U.S. Department of the Navy, *A Cooperative Strategy for 21st Century Seapower,* p. vi.

24 The same can be said for both the littorals as well as on land. NORTHCOM's and DHS's charters currently make the organizations competitors. A way needs to be developed to synchronize an interoperable and mutually supporting response in the littorals.

25 U.S. Coast Guard, *United States Coast Guard Western Hemisphere Strategy*, p. 31.

26 The effectiveness of this model is the opinion of the author who had to shift tactical control between DoD entities and DHS entities to act in a law enforcement capacity during combating transnational organized crime patrols in the Caribbean Sea and Eastern Pacific Oceans.

27 U.S. Department of Homeland Security, *The 2014 Quadrennial Homeland Security Review*, p. 62.

28 Refer to Figure 3 for a visual aid regarding Coast Guard authority and jurisdiction.

29 U.S. Coast Guard Academy, *Maritime Law Enforcement*, p. 16.

30 Matthew D. Bartels, "U.S. Northern Command Counterterrorism Response Force Requirement," Master's thesis, U.S. Army Command and General Staff College, 2016, pp. 46–48.

31 Office of the President of the United States, *National Strategy for Maritime Security*, p. 22.

32 Christopher Whitcomb, *Cold Zero: Inside the FBI Hostage Rescue Team*, Little Brown and Company, Boston, MA, 2001, p. 163.

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47 Howard and Traughber.

Lessons for
Cyber Policymakers

by James Torrence

> ***Critical infrastructure keeps our food fresh, our houses warm, our trade flowing, and our citizens productive and safe. The vulnerability of U.S. critical infrastructure to cyber, physical, and electromagnetic attacks means that adversaries could disrupt military command and control, banking and financial operations, the electrical grid, and means of communication.***
>
> ***—2017 U.S. National Security Strategy***

Cyberspace is the newest domain of warfare.[1] In cyberspace, the attacker has the advantage over the defender.[2] Cyberspace is unique because it "offers state and non-state actors the ability to wage campaigns against American political, economic, and security interests" without requiring a physical presence.[3] In the 2006 U.S. National Security Strategy, the word "cyber" was mentioned one time in parentheses.[4] By 2017, the U.S. National Security Strategy states that: "America's response to the challenges and opportunities of the cyber era will determine our future prosperity and security."[5] This rapid rise of cyber means policymakers have had little time to develop cybersecurity strategies. To develop an effective foundation for the creation of a cybersecurity strategy, cyber policymakers must learn from Cold War deterrence theory and application. The Cold War dealt with a new type of warfare, rapidly evolving technology, and an environment dominated by the offense, which mirrors the current challenges in cyberspace. Analysis of Cold War deterrence theory identifies specific principles of deterrence and strategy cyber policymakers can apply to cyber defense.

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Defining and Categorizing Cyber Deterrence

Cold War deterrence theorists such as Schaub, Quackenbush, Morgenthau, Huth, and Russet assert that deterrence necessitates a threat on the part of the defender.[6] The problem with a threat-based deterrence theory in cyberspace is that success requires the defender to communicate the threat to all potential attackers, which is not possible. Smoke, George, Brodie, Nye, and Kahn all contend that deterrence does not necessitate a threat, but the defender must still dissuade the potential attacker from initiating action through some form of communication.[7] Furthermore, Smoke, George, Payne, and Freedman argue that effective deterrence requires state-specific communication strategies that take into account unique aspects of each potential attacker.[8] Communication of threats, or cost to potential attackers, is not possible in the current cyber operating environment, which creates the first of two dilemmas for cyber policymakers.

The first cyber deterrence dilemma facing U.S. cyber policymakers is, How can the U.S. deter cyberattacks on infrastructure critical to its national security from the range of potential attackers in cyberspace without being able to communicate the threat or cost to potential attackers? The answer is general strongpoint cyber deterrence. General strongpoint cyber deterrence is the implementation of cyber-specific defensive measures that deny state and nonstate actors with limited resources the ability to attack infrastructure critical to national security without requiring any communication from the defender. Kennan argued that strongpoint defense "allowed the United States to choose the most favorable terrain upon which to confront the Soviet Union."[9] Nye further argued that "by chewing up an attacker's resources and time, a potential target disrupts the cost-benefit model that creates an incentive for attack."[10] General strongpoint cyber deterrence takes lessons from Kennan and Nye because it involves a focused defense on critical infrastructure that creates a high cost for the attacker, forcing him to expend more resources than anticipated. General strongpoint cyber deterrence also forces the attacker to move on to an easier target that is favorable digital terrain for the U.S. No deterrent can stop all attacks, but general strongpoint cyber deterrence can limit the pool of potential attackers to state actors with enough resources for a prolonged cyberattack. With the pool of potential initiators limited, the state-specific communication strategies championed by Smoke, George, Freedman, and Payne can be used by cyber policymakers for further deterrence against resourced state actors looking to harm critical infrastructure.[11]

Communication of threats, or cost to potential attackers, is not possible in the current cyber operating environment...

The second cyber deterrence dilemma facing U.S. cyber policymakers is, How can the U.S. further deter state actors who have the resources to circumvent defenses erected for general cyber deterrence from attacking infrastructure critical to national security? The answer is specific cyber strongpoint deterrence. Unlike general cyber strongpoint deterrence, specific cyber strongpoint deterrence strategies must account for communication with potential initiators, potential attacker rationality, the limits of attribution, and the regional and political contexts in which an attack may occur.[12] The definition of specific cyber strongpoint deterrence, which borrows heavily from Keith Payne, is the focused application of elements of national power against a specific actor accounting for: 1) the potential object of his friction; 2) his motivation and goals (expected gain from attacking); 3) his level of determination; 4) his likelihood of attacking; 5) how he makes decisions; 6) the

regional political and security context in which the attack will occur; and 7) the likelihood of attribution if he attacks.[13] Unique, state-focused strongpoint cyber deterrence can be effective in communicating the costs of potential attacks to a finite number of actors. Furthermore, using the right mix of elements of national power against potential attackers can prolong the length of time a cyberattack takes, which increases the chance of attribution. Concentrating defensive efforts against specific actors also increases the chance of diverting potential initiators away from attacking infrastructure critical to national security.

Cyber policymakers must implement general and specific strongpoint cyber deterrence to effectively defend critical infrastructure from cyberattacks.

Cyber policymakers must implement general and specific strongpoint cyber deterrence to effectively defend critical infrastructure from cyberattacks. Data is the critical infrastructure in cyberspace, which means cyber policymakers must account for the protection of data to create effective general cyber deterrence policies that can enable specific cyber strongpoint deterrence. Encryption, decentralization, and concealment are three principles that require application to data critical to national security for effective general cyber strongpoint deterrence.

Encryption

Herman Kahn recognized that shelter is an important component of protecting infrastructure critical to national security.[14] Kahn argued that "shelter tends to be a good deal more stable than quick reaction alone as a defense" and that "the number of ways in which it can fail seem relatively low."[15] Finally, shelter is part of a broader defense strategy for strategic nuclear forces (SNF) that also includes mobility, concealment, and dispersion. By itself, shelter is not a complete deterrent, but when combined with mobility, concealment, and dispersion, it creates uncertainty for the enemy regarding the location and disposition of SNF. Shelter for nuclear forces parallels encryption in cyberspace where data critical to national security requires protection and hardening from direct enemy attacks. Encryption means "to cipher or encode," which helps protect data from brute-force enemy attacks.[16] Encryption must be used to protect Supervisory and Control Data Acquisition (SCADA) systems that are currently vulnerable and often unprotected.

Cybersecurity researchers Thomas Marsden, Nour Moustafa, Elena Sitnikova, and Gideon Creech highlight that "research into the security of SCADA systems has grown in recent years, as the potential damage to critical infrastructure including gas, electricity, water, traffic and railway, and/or loss of life and subsequent risk to state security have been realized."[17] Though the risks of attacks to SCADA systems have been identified, most studies have unveiled that security is an afterthought at best in SCADA systems.[18] Supervisory control systems are vulnerable because they were built on an assumption that "SCADA infrastructure is a closed control ecosystem of sufficiently complex technologies to provide some security through trust and obscurity."[19] Supervisory control systems, like the internet, do not operate in a closed system and are thus vulnerable to cyberattacks from malicious actors. Not only are legacy SCADA systems (e.g., power grids) vulnerable to attack, but future supervisory control systems involving transmitting data through lasers are also neglecting cybersecurity during research and development.

At the Sixteenth International Conference on Accelerator and Large Experimental Control Systems, a team of sixteen scientists and cybersecurity experts, led by Leonce Mekinda, presented a paper in which they argued that

cybersecurity aspects are often not thoroughly addressed in the design of light source SCADA systems currently built on "vulnerable" off-the-shelf software.[20] The most high-profile, light-source, supervisory control system is the European X-Ray Free Electron Laser contained in a 1.4 billion-euro facility that produces 15 TB of data each beam.[21] The European X-Ray Free Electron Laser represents the future of SCADA systems, and there should be special care regarding its security.[22] The thread that connects legacy and future supervisory control systems is the lack of effective encryption. If malicious actors can remotely access U.S. SCADA infrastructure, then the threat of a cyberattack against infrastructure to national security will remain high. If encryption can be implemented that forces actors to devote more time and resources to access the data in cyber systems in the form of a general deterrent, then it affords the U.S. more time to implement specific cyber strongpoint deterrence.

In a 2004 report conducted by the Congressional Research Service, Dana Shea made it clear that:

> Encrypting the information transmitted between remote units and their controllers would inhibit inclusion of false information to and from industrial control systems. Current encryption technology may not be compatible due to the time required to process the encrypted data and the level of technology built into control system components. Industrial control systems have stringent timing requirements and tend to be built out of less computationally robust components, which complicate the use of current encryption technologies. While a prototype encryption method for industrial control systems has been developed, it is still in the validation process and is only recently being evaluated for implementation in industry. Further research into encryption techniques for these processes could provide efficient, market-driven technology for securing industrial control systems information.[23]

Policymakers must learn from Shea's suggestions of investing in the research of encryption techniques to secure SCADA systems.[24] Shea recognized that the injection of false information into SCADA systems could be a major problem, and that current encryption technologies might not be able to control the flow of information in SCADA systems.[25] Shea's suggestions in 2004 are just as relevant in 2019 where SCADA systems are susceptible to enemy attacks because of ineffective encryption.[26] Encryption is not a single solution to protecting SCADA systems, but it should be the first step in a general strongpoint cyber deterrence to create a cost that is beyond the resources of nonstate actors and even some state actors. Policymakers cannot forget the importance of encryption when developing policy for infrastructure critical to national cybersecurity because data in SCADA systems requires protection.[27] After protecting data with encryption, policymakers must understand, as Kahn cautions, that shelter is weakest when the enemy can overwhelm it with an attack that is "larger than the shelters were built for."[28] Encryption, like shelter, can also be overwhelmed by overpowering enemy resources in the form of a brute-force attack, which means it must not be located in a single place for the enemy to concentrate its resources.[29]

Policymakers cannot forget the importance of encryption when developing policy for infrastructure critical to national cybersecurity...

Decentralization

Herman Kahn argued that: "One way to prevent the attacker from mounting too large

an attack is to disperse shelters to many distinct target points. This forces downward the number of missiles the enemy can shoot at each point."[30] Lawrence Freedman argued that "mobility and concealment" would "discourage an arms race."[31] The 1958 report, *National Policy Implications of Atomic Parity*, also said: The numbers of missiles will avail the enemy nothing, if he does not know the location of the target. We in effect take an initiative which he can overcome only by maintaining hour-to-hour fire-comb surveillance of all our land areas and vast oceans [for SNF]."[32] The principles of mobility directly applies to SCADA systems in cyberspace where "today's centralized information infrastructure is not resistant (to faults or cyber-attacks), extensible or scalable to accommodate the emerging power grid requirements."[33] In particular, the U.S. power grid is deployed with a largely, centralized information infrastructure, with the Energy Management System acting as the main control center.[34] Cyber policymakers must understand how decentralization applies to cybersecurity strategy to protect infrastructure critical to national security from malicious enemy attacks.

Cyber policymakers must understand how decentralization applies to cybersecurity strategy to protect infrastructure critical to national security from malicious enemy attacks.

Network decentralization describes the use of distributed systems and the externalization of software system components.[35] Decentralized networks are the foundation of the cloud which "describes a network-based computer system, which can be used for organizational and technological integration into decentralized information systems, based on cloud computing technology."[36] Florian Kelbert, a research engineer that specializes in information security and privacy, and software engineer Alexander Pretschner argue that "due to the ever-increasing value of data, the continuous protection of sensitive data throughout its entire lifetime has drawn much attention" and that a "decentralized infrastructure overcomes many problems omnipresent in a centralized approach."[37]Kelbert and Pretschner also argue that decentralized networks are superior to the current centralized structure because "deploying all components locally and by replicating data to different locations, there is no single point of failure and no need for a central component to be always available for all clients."[38] Furthermore, Kelbert and Pretschner contend that while a solution to data security "could naively be implemented in a centralized fashion, such a solution imposes drawbacks such as being a single point of failure, and "a centralized solution is also expected to impose significant performance and network communication overhead."[39] Decentralization of data that controls and resides within infrastructure critical to national security must be a tenet of any cybersecurity deterrence strategy to add an additional layer of complexity to encrypted data and create uncertainty for the attacker.

Young-Jin Kim, Marina Thottan, Vladimir Kolesinkov, and Wonsuck Lee, a group of experts ranging from electrical engineering to cryptography, argue that an "important differentiator for the next generation power grid is the massive amounts of measurement data that will be made available at distributed locations that can and must be leveraged optimally to operate the power grid."[40] The arguments of Kim, Thottan, Kolesinkov, Lee, Kelbert, and Pretschner are the cyber equivalent to arguments for decentralization made by Brodie, Kahn, Freedman, and the Naval Warfare Group.[41] Cybersecurity policymakers must incorporate decentralization into their general and specific deterrence strategies because it creates uncertainty as to the location of data

that is critical to national security. When the defender can ensure that data critical to national security is never centralized and constantly moving, the attacker never has the opportunity to mass his offensive capabilities against one particular location. Decentralized data also makes encryption even more important because it adds a layer of security that increases the cost for the attacker. Not only do attackers need to find the location(s) of data critical to national security, they must also defeat the defender's encryption at each location that contains portions of the data. Cyber policymakers that understand the necessity of data centralization can shape an environment that is advantageous for the defender. Cyber policymakers must also understand how to augment the effects of encryption and decentralization by concealing the whereabouts and type of encryption of data critical to national security.

Concealment

Bernard Brodie, Herman Kahn, Martin Van Creveld and Lawrence Freedman championed concealment for SNF.[42] Brodie argued that concealed SNF (along with sheltered and dispersed) made it more likely that SNF would survive a first strike and less likely that the attacker would surprise the defender.[43] Kahn thought that concealment by "continuous mobility or reasonably frequent changes of position" challenged the enemy's intelligence and created confusion and force them to expend resources creating a larger attacking force.[44] Van Creveld highlighted multiple courses of action considered by the U.S. for concealment of SNF to include subterranean tunnels with tracks, missiles dug thousands of feet deep and launched from underground after surviving an attack, and platforms that would "crawl over the bottom of the lakes."[45] Freedman thought concealment (and mobility) discouraged an arms race because "numbers of missiles will avail the enemy nothing, if he does not know the location of his target."[46] Analysis of concealment by Brodie, Kahn, Van Creveld, and Freedman directly applies to cyberspace because "infrastructure that causes the greatest concern in the cyber war literature, industrial control systems, can also be protected by deception."[47]

Even with a general cyber deterrent in place, one must assume an adversary will breach border controls and establish footholds within the defender's network...

Even with a general cyber deterrent in place, one must assume an adversary will breach border controls and establish footholds within the defender's network, so studying and engaging the adversary on the defender's turf will influence any future moves.[48] Dr. Kristin E. Heckman, lead scientist at The MITRE Corporation in McLean, VA, and a team of MITRE scientists argued that a key component in an environment in which an attacker will enter the defender's network even with the most elaborate security measures is "cyber denial and deception."[49] Furthermore, Heckman and her team said:

> The goal of D&D [denial and deception] is to influence another to behave in a way that gives the deceiver an advantage, creating a causal relationship between psychological state and physical behavior. Denial actively prevents the target from perceiving information and stimuli; deception provides misleading information and stimuli to actively create and reinforce the target's perceptions, cognitions, and beliefs. Both methods generate a mistaken certainty in the target's mind about what I s and is not real, making the target erroneously confident and ready to act.[50]

Heckman and the scientists at MITRE made it clear that adding a layer of deception

in the form of concealing information for which the attacker is searching adds another layer of complexity to deterrence by denial.[51] Political scientists Erik Gartzke and Jon R. Lindsay further discuss deception in the cyber domain and claim:

> Deception is logically different from denial even though they are often combined. Pure defense is the act of physically confronting attackers so that they cannot cause harm to the assets that are being defended. Deception, by contrast, conceals assets and pitfalls from the enemy."[52]

Gartzke and Lindsay further argue that "cyberspace heightens the effectiveness of deception" and "an adversary that wanted to complain about defensive deception would also have first to revel its identity."[53]

Cyber deception can augment general strongpoint cyber deterrence by further concealing information even if an attacker makes it through a cyber defense.

In an experiment involving cyber deception, Gartzke and Lindsay found "in one real-time red-team versus blue-team cyber war game experiment, a honeypot[54]system failed to deny red-team hackers access to the command and control mission system, but decoys and disinformation did succeed in preventing the adversary from obtaining sensitive data."[55] Heckman and scientists from MITRE also found that "traditional denial and deception techniques were effective in denying the adversary access to real information on the real command and control mission system, and instead provided the adversary with access to false information on a fake command and control mission system."[56]

Gartzke, Lindsay, Heckman, and MITRE scientists make it clear that deception will have a major impact on a defender's ability to deter in cyberspace.[57] Jeffrey Pawlick, U.S. Army Research Laboratory, Edward Colbert, U.S. Army Research Laboratory, and Quanyan Zhu, New York University Tandon School of Engineering, further researched cyber deception and developed a taxonomy that defined six types of deception, "perturbation, moving target defense, obfuscation, mixing, honey-x, and attacker-engagement."[58] Pawlick, Colbert, and Zhu's analysis does not argue that any one type of deception is the best in cyberspace, but rather break methods of concealing information through deception down into different categories.[59] Cyber deception can augment general strongpoint cyber deterrence by further concealing information even if an attacker makes it through a cyber defense. Concealment of information can drive up the cost, time, and complexity for the attacker; create more time for the defender to attribute an attack; and filter out more potential attackers. Cyber policymakers must understand how to incorporate concealment in conjunction with encryption and decentralization into a general strongpoint cyber deterrent to create a layered approach that limits the number of potential attackers and affords the U.S. an opportunity to implement a specific strongpoint cyber deterrence against a manageable number of initiators.

Conclusion

Cybersecurity deterrence requires a forward-thinking approach and not a reliance on specific solutions. Analysis of Cold War deterrence theory results in the following lessons from which cybersecurity policymakers must learn and incorporate to develop a forward-thinking approach to defending critical infrastructure in cyberspace:

1. The initial layer of cyber deterrence must be focused on denying potential attackers because it is not possible to communicate with all potential initiators.

2. Threat-based deterrence is not possible in cyberspace unless the range of potential attackers is greatly reduced.

3. Cyber deterrence must be focused on strongpoints because a perimeter defense will be costly for the defender, and not effective against potential initiators. Strongpoints in cyberspace are infrastructure critical to national security.

4. Critical infrastructure in cyberspace should be encrypted, decentralized, and concealed to increase the cost for the attacker, buy time for the defender, and increase the chance of attribution of the attacker.

5. Resources must be allocated to researching emerging and future capabilities to create innovation opportunities for long-term cyber defense.

6. A technology-focused general strongpoint cyber deterrent creates the opportunity for an actor-specific specific strongpoint cyber deterrence strategy that leverages the elements of national power beyond just cyber defense technology.

7. Specific strongpoint cyber deterrence that leverages the elements of national power and actor-specific considerations can be used following the employment of a general strongpoint cyber deterrent to target a limited number of potential initiators with the resources to target U.S. infrastructure critical to national security.

The long-term approach to cyber defense must use a framework with the lessons identified from Cold War deterrence theory and implementation. A framework is a set of adaptable principles that can be applied to evolving problem-sets. Cybersecurity is an evolving problem-set that must have adaptable policymakers capable of simultaneously addressing current and long-term threats through the implementation of general and specific strongpoint cyber deterrence. General and strongpoint cyber deterrence that leverages the lessons identified during the Cold War and applies them to cyberspace will have a foundation on which to build iterative cyber defenses that continually incorporate new technology to address evolving threats. ***IAJ***

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Lifting the Interagency Fog of Information:

Blockchain Information-Sharing and Radical Inclusion

by Jaymes "Yuri" Hines and Mark A. Williams

The fog of information can drive out knowledge.

–Daniel J .Boorstin

In "Radical Inclusion," General Martin Dempsey and Ori Brafman offer current and aspiring leaders extraordinary insights into getting the best possible information for decision making as well as how to rely on trust and participation to forge strong teams."

–Robert M. Gates

Eureka!

The authors of this piece began an adventure into information-sharing. It was a eureka moment of "hey, let's talk about the challenges to information-sharing and use West Africa as a vehicle to explore information-sharing and its associated challenges." The task seemed daunting, a struggle to form ideas about employing blockchain technology to facilitate interagency information-sharing.

The emergence of two seemingly-independent ideas formed into a cogent awareness of the necessity of combining blockchain technology with sweeping information-leadership concepts put forth in the book *Radical Inclusion* by General (retired) Martin Dempsey and Ori Brafman. Blockchain technology holds the potential to assure total access to information, while simultaneously enhancing information security. A brief review of literature demonstrates that governments and agencies are investigating the use of blockchain technology as a solution to the myriad of information

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dilemmas. And sweeping information-leadership concepts were the subject of a recent symposium hosted by the U.S. Army's Command and General Staff Officer's Course that discussed the conceptual foundations of the book, including the rise of the digital echo, the dissention of fact and narrative, and the subsequent impact on effective leadership. While *Radical Inclusion* discussed the role of leadership in a new information environment, the concepts are easily applied to radical solutions to information-sharing in the interagency and multinational context. To this end, this article combines the concepts of the digital echo and radical inclusion to leverage blockchain technologies as the interagency information-sharing standard of the future.

This article is organized to provide the reader with a proof of concept grounded in a historical precedent that highlights the failures and successes of an interagency information-sharing operation. The vehicle for incorporating these elements into a discussion of an interagency information-sharing case study is driven by a case study on the 2013 Ebola Virus Disease outbreak and crisis in West Africa. In that noble pursuit, this article explores the multifaceted challenges with interagency information-sharing, contextualized within the U.S.'s response to the outbreak. This article provides insight into the exigent barriers, risks, and opportunities of information-sharing across agencies, organizations, governments, and nongovernmental organizations. In doing so, illuminating and addressing existing challenges to information-sharing sets the stage for advancing blockchain technology as a mechanism for total and secure information-sharing across agencies. While blockchain technology provides an apparatus for total and secure information-sharing, it only represents one cog within the total system of information-sharing. To address this issue holistically, one must also address institutional information-sharing policies, as well as consider the human aspect of sharing and trusting information. The strategic and operational intersections of these elements lead to an operational approach that evaluates and operationalizes each component. This approach incorporates three distinct lines of effort: the technical system, the institutional system, and the human system.

Before discussing these lines of effort, as well as the barriers and risks to such efforts, this article provides an interagency information-sharing scene setter, the 2013 West Africa Ebola outbreak and subsequent interagency and multinational responses. Equal in the significance of the political, human, and economic impacts of the outbreak and response are the implications toward the existing challenges of information-sharing, challenges often characterized as contributing to the "fog of information."

The fog of information... is a metaphor describing a lack of data that obscures situational awareness and inhibits decision-making.

The Fog of Information

The fog of information is rapidly becoming a truism of information-sharing. It is a metaphor describing a lack of data that obscures situational awareness and inhibits decision-making. In some form or fashion, as a reader, you have been either a contributor to or on the receiving end of the fog of information. Personifying the phrase, one can imagine trying to make decisions with partial data, no data, or an overload of data. According to Daniel Boorstin, "the fog of information can drive out knowledge." The reality is that the fog exists as a blinder to information awareness—the awareness and synthesis of information. The fog of information affects the strategic, operational, and tactical levels of planning. It can be created by environmental conditions, operational limitations, and may often be self-

induced. In all cases, the result remains constant, the fog of information is a limitation in the total and secure access to, dissemination of, and reception of information. It is a malignant outcome of ineffective information-sharing mechanisms, processes, and policies. The fog of information is persistent; it has existed in multiple interagency antecedents and was highlighted in the assessment of the interagency response to the 2013 West Africa Ebola crisis response.

The Fog of Information Settles: The Interagency Response to the Ebola Crisis and Lessons Learned

The 2013 outbreak of the Ebola virus devastated the West Africa region ending in more than 28,600 confirmed cases and 11,325 deaths in multiple countries.[1] The U.S. response to the humanitarian crisis involved U.S. agencies in coordination with nongovernmental organizations. The Obama administration described the U.S. response as a "whole of government approach."[2] The U.S. committed specialists from multiple departments and agencies, including the Departments of State, Defense (DoD) (through Africa Command [AFRICOM]), and Health and Human Services (HHS); the Centers for Disease Control and Prevention (CDC); National Institutes of Health (NIH); and U.S. Agency for International Development (USAID).[3] Moreover, the scale of the response was global, equal in its significance to the threat of non-containment. The United Nations (UN), African Union (AU), World Health Organization (WHO), foreign governments, and other partners contributed resources. In total, the Ebola response included multiple stakeholders, and the unity of effort spanned international organizations, companies, bilateral donors, regional organizations, national governments, nongovernmental organizations, local communities, and individuals.[4]

The failure of sharing information, for whatever reason, may result in the failure of operationalizing the strategy.

The U.S. strategy to combating the Ebola crisis centered on four key goals: 1) controlling the epidemic at its source in West Africa, 2) mitigating second-order impacts, including blunting the economic, social, and political tolls in the region, 3) engaging and coordinating with a broader global audience, and 4) fortifying global health security infrastructure in the region and beyond.[5] True to form, the U.S. committed over 175 million dollars within the year. However, any effective strategy tailored to an end state must conceptualize and disseminate information that describes the operating environment, designates the various environmental and mission variables, and, ultimately, shares information across networks to the involved agencies and departments. In this regard, the strategy typifies the whole of government approach. Such an approach is characterized as an interagency approach. The failure of sharing information, for whatever reason, may result in the failure of operationalizing the strategy.

Following the initial Ebola crisis response in 2013 and 2014, the U.S. government came together with other nations to launch the Global Health Security Agenda (GHSA) as a multiyear effort to increase global health security and response capacities and capabilities. A cornerstone to this effort is the commitment toward build information systems that increase the ability of the international community to respond to future humanitarian crises. Multiple studies stemming from this effort considered the lessons learned with respect to coordinating international responses to such crises, strengthening health systems, and improving related tools and procedures. Inherent within that effort is reframing how the interagency and international communities adapt and adopt

these lessons. Drawing on the Ebola outbreak experience, this article briefly synthesizes two such studies to build a conceptual framework for an operational approach. Furthermore, a review of the literature regarding information-sharing within the Ebola response substantiates a call for action for addressing systemic challenges of interagency information-sharing.

The U.K.-based Save the Children Organization study "Ebola: Lessons Learned" illuminates shortfalls to the existing information systems in the West African regions of Liberia, Sierra Leone, and Guinea. The study found that these countries lacked basic functioning information systems, which led to a diminished ability to access and analyze data and information critical to planners, responders, and decisionmakers.[6]Accordingly, a lack of a distributed information system that provided total and secure access to information and data prevented the efficacy of the interagency and multinational response. Of the health information systems available within the West Africa region, most were stove-piped, disconnected, and fragmented below the national level.[7] While this study presents the failures of information-sharing within the larger context of failing health systems, the implications for interagency information-sharing are easy to draw. Fundamentally, as a regional health system within Liberia, Sierra Leone, and Guinea, the access to and sharing of information was detrimental to the recovery efforts. As the world responded (including the U.S. interagency system), the efforts to share information would struggle due to the diminished information-sharing systems within the West Africa Region. A 2013 USAID study, "Fighting Ebola with Information: Learning from Data and Information Flows in the West Africa Ebola Response," further discusses the international community's response and provides additional lessons learned.

The USAID study focuses specifically on the multifaceted response and the role of data and digital technologies. This study makes multiple characterizations regarding information-sharing. The study addressed three primary questions:

1. What contributed to the "fog of information" that characterized so much of the early stages of the Ebola outbreak response?

2. What can be learned from the use of data, information, and digital technologies during the Ebola outbreak response? How and where were they used effectively?

3. What should be done to improve the use of data, information, and digital technologies in the emergency contexts to support long-term recovery and to build resilience against future shocks?[8]

Of the health information systems available within the West Africa region, most were stove-piped, disconnected, and fragmented below the national level.

In answering these questions, the USAID study distills the factors that form the fog of information into three sub-systems within the context of the larger information-sharing system employed during the Ebola crisis response. The study characterized the fog of information as "the lack of timely, accurate, and accessible data, which clouded situational awareness, impeded effective decision-making, and stymied the response."[9] Regarding questions two and three, the summation of the study's findings is best represented in the following quote: "Information was critical to the fight against Ebola. Both for responders [and agencies], who needed detailed and timely data about the disease's spread, and for communities, who needed access to *trusted* and *truthful* information with which they could protect themselves and their loved ones."[10] Further, the study advances that strengthening

the technical, institutional, and human systems within the larger context of information-sharing systems requires the ability to rapidly gather, transmit, analyze, use, and share data.[11]

The USAID report presents eight recommendations for reforming the information-sharing system utilized by the interagency response to the Ebola crisis:

1. Recognize and identify information as a valuable commodity for preparedness, response, and resilience.

2. Invest in the infrastructure required for digital connectivity, as elements of preparedness, response, and resilience.

3. Invest in workforce and institutional capacity and in the enabling and regulatory environments to enable and capture the full value of real-time or near real-time information flows.

4. Advance harmonized data standards and interoperability guidelines and practice to enable data systems to "speak to" one another.

5. Coordinate investments in digital health programs to avoid duplication and fragmentation.

6. Build capacity to design and deliver digitally-supported programs in a way that adheres to best practice, such as that embodied in the Principles for Digital Development.

7. Leverage the lowered barriers of access to communications to more regularly engage nontraditional actors, such as citizens, frontline workers, and remote responders, in health and aid programming design, delivery, and evaluation.

8. Use real-time or near-real time data and information flows to incorporate feedback and insights from localized data collection to adapt and improve programming and to create the opportunity to devolve decision-making to the point of data collection.[12]

The study concludes that strengthened data and information flow presents an opportunity to reform interagency processes and programs such as health and humanitarian aid. It acknowledges that this transformation will require a vision for change and a plan for implementation.[13]

The U.S. Blockchain Forum

The 2017 U.S. Forum on Blockchain Technology was a consortium of agencies advocating for and advancing concepts of blockchain information-sharing. Specifically, the interagency forum met to "learn about advances in Blockchain technology, discuss use cases and set an agenda for working together to evaluate and implement it among our diverse missions."[14] this forum represents a call for action regarding reform, vision for change, and implementing a plan for action. Sixty agencies and departments from the U.S. government (including USAID, DoD, and State) met to discuss case and concept proposals for the inculcation of blockchain technology for the interagency information-sharing process.[15]

The Ebola response studies highlight significant challenges currently existing within the interagency information-sharing system. The USAID study broke down the West Africa interagency information-sharing system into three distinct subsystems. The subsystems include technical, institutional, and human systems, and each contains its respective challenges and barriers toward total and secure information-sharing. However, each system also provides a foundation for opportunities of holistic information-sharing improvements. Transformative change within these systems requires leadership, vision, and a plan of action. The U.S. Forum on Blockchain Technology set

a vision and plan of action in place to leverage blockchain technology among agencies and departments within the government. This article presents a step-forward in that direction by operationalizing the three sub-systems of information (technical, institutional, and human) into three lines of effort to transform the current model of interagency information-sharing.[16] It articulates these lines of effort against the backdrop of the interagency and multinational response to the 2013 Ebola outbreak and crisis response.

Collectively, combining a distributed information-sharing system, employed through a blockchain architecture leverages timely, tailored, and effective information-sharing that promotes synchronized cooperation between interagency and multinational efforts. The first line of effort, the technical system, proposes blockchain technology as an enhanced security and validation tool, as well as a forum for open and total information-sharing among stakeholders. The second line of effort, the institutional system, advances both collaborative and inclusive approaches to interagency information-sharing. However, certain statutes and policy must be introduced or reformed to maximize the utility of such an approach. As such, employing blockchain technology will require a holistic reinvigoration of information-sharing capabilities and reform of interagency information-sharing policies. The third line of effort, the human system, incorporates concepts of radical inclusion and addresses the question, "How do we create an inclusive approach that frames truth in terms of context and narrative?" This line of effort seeks to establish a framework that provides for enhanced mutual trust among information stakeholders.

Technical System

For the first time in human history, people anywhere can trust each other and transact within large peer-to-peer networks without centralized management.[17] Trust is established not by centralized institutions but by protocols, cryptography, and computer code.[18]

The application of these modalities of digital information-sharing greatly strengthens the capacity for cooperation and collaboration between organizations and individuals within peer networks. The implication being that global networks of collaboration without centralized formal institutions will increase the instantaneous and assured access to trusted digital information. This unprecedented, yet increasingly relevant mass collaboration data-exchange is a singular characteristic within the age of globalization, as a response to twenty-first century challenges.

Blockchain is a complex technological, economic, and social phenomenon calling into question commonly-accepted parameters of value, trust, and exchange.

Blockchain is a complex technological, economic, and social phenomenon calling into question commonly-accepted parameters of value, trust, and exchange. The technology creates a trust machine that enables transparency and collaboration, two stalwarts of the rapid transformation of the culture within the information-sharing community. As mentioned, the structure is neither centralized nor decentralized but a distributed network.

The strength of the blockchain information system is the distributed user interface. Such a system allows for a community approach to ensuring trust, reliability, and validity of information flow. This way no one partner could "cheat the system" by editing records because everyone using the system would be watching. Systems like this are on the horizon, and the software that powers them is called a blockchain. Blockchains store information across a network of designated computers. Making them not

just decentralized but distributed. This means no central nation or user owns the system, yet everyone can use it or help run it. This is important because it means it is difficult for any one person to take down the network or corrupt it. The blockchain uses a form of math called cryptography to ensure that records cannot be counterfeited or changed by anyone else. Blockchains that manage and verify online data could enable us to launch networks that are entirely run by algorithms helping us protect online identities. In this manner, information and intelligence is factual, accurate, and secure, verified by anyone within the system.

The blockchain uses a form of math called cryptography to ensure that records cannot be counterfeited or changed by anyone else.

The setup process is critical to effectively implement the technological advances of blockchain. First, identify the stakeholders of an event, operation, crisis, and pandemic. These stakeholders may include AFRICOM, the European Union, the UN, the US, and any one or all nation-states within the African Region. It may include two or more stakeholders for cooperation, collaboration, and the sharing or exchanging of information.

Second, identify the event the stakeholders will be participating in. Blockchain allows the actors in an armed conflict or any scenario to have the situation broken down into a network of separate conflicts and/or bilateral relationships among the parties. Each of these relations can then be qualified. These events may include counterterrorism; a military operation; natural disaster response, such as earthquakes, hurricanes, volcanoes etc.; and pandemics, such as the Ebola response case study discussed in this article. Because blockchain technology is so robust and advanced, there can be several events within the forum, and several different stakeholders will have access capability to the events deemed necessary.

Third, there must be a trust protocol criterion established that allows the different stakeholders to access the technology and share information. Creating an application criterion to gain access ensures that the correct stakeholders have access to the correct forums, scenarios, or information. The trust protocol also ensures protection of the established network, and that only interested parties have access. Stakeholders will then have access to the system through an encrypted gate that also prevents unwanted cyberattacks or attempts to attack the architecture; however, due to the technology, this is virtually impossible.

Finally, inside of the architecture, stakeholders will have access to streams of information based on the event accessed. These streams have input capabilities to both read and compose information. What makes blockchain successful is the validation process for a transaction. The technology incorporates a validation process, similar to the already existing transaction confirmation process, which allows all users to validate shared information or pieces of information based on their own information gathering efforts. The information statement once validated, continues to gain or show strength based on the number of confirmations it receives from the interested parties. Since a financial transaction must be validated in several (sometimes up to seven) different locations in order to cement the transaction in the ledger, sharing information can be done similarly. Except, the validation happens when the different users validate that piece of information giving it strength. A shared portion of information with seven validations may appear stronger than a shared portion of information with only two validations. This will address trust and make the users feel at ease with the use of this intelligence/information because it has essentially been confirmed by several entities.

It is common knowledge that information suffers from an inconsistency; it is only valuable when shared with those who need or can benefit from it. However, the more it is shared, the more it risks being compromised. On this platform, these information-sharing relationships are embedded in a larger bilateral relationship, which might involve alliances, military cooperation, and economic cooperation. This platform could mitigate some of the consequences in the event of a crisis and presents the partners the opportunity and ability to share relevant information quickly and safely.

If you cannot trust your partners to treat the information you share in some secure fashion, then there is a major cost for the sharing or the sending state. Information is a commodity, and states share out of mutual interest or to extract things such as foreign aid and security assurances. The providers of information cannot be sure that the receivers will adequately protect what they receive, and the receivers cannot be sure of the veracity of the information provided. This process should not seem like spontaneous sharing, which could be very troubling to other countries because that it is so unpredictable.

Institutional System

The success of a multinational operation hinges on timely and accurate information-sharing. The development of a culture of trust, rooted in an effective information-sharing environment, ensures that all parties within the information-sharing environment can weigh the best available intelligence when developing a course of action. Agencies and stakeholders should begin developing information products with a multinational focus from the beginning of an operation. Using guidance from appropriate regulatory and reference documents and coordinating with a foreign disclosure officer can empower multinational partners to utilize the information and drive operations.

The advocacy of this line of effort acknowledges the existence of and necessary reform to information-sharing barriers such as policy and status. For example, the use of classification, whether U.S. classifications or alliance, such as NATO, classifications impose restrictions on information-sharing, dissemination, and fusion of information products. Too often, however, partners fail to share information because they lack an understanding of classification requirements, caveats, and/or over-classification. As a way forward, blockchain technologies may foster the development of new information-sharing standards, break-down the asymmetric relationships, and, ultimately, create an international regime of information-sharing and a global forum for collaboration between trusted partners. In either case, the adjudication of and reform of existing legacy policies must be a first step, as suggested in the U.S. Forum of Blockchain Technology. However, the implications of blockchain technology are not simply focused on interagency applications, considerations for multilateral information-sharing is also considered.

Too often, however, partners fail to share information because they lack an understanding of classification requirements, caveats, and/or over-classification.

"A multilateral agreement is an accord among three or more parties, agencies or national governments."[19]Accordingly, multilateral information can be similar to intelligence, but the writers have adopted the word information to avoid the additional pitfalls that the sharing of intelligence creates. However, this article employs a similar definition for information which is "the collection, protection, and analysis of both publicly available and secret information, with the goal of reducing decision

makers' uncertainty about a foreign policy problem or issue."[20] The Oxford Dictionary defines collaboration as "the action of working with someone to produce something." So multinational information-sharing for the purpose of this argument, is an accord among two or more agencies or national governments working together to collect, protect, and analyze information to reduce decision makers uncertainty about a foreign policy.

Radical inclusion is a prescription to conquer the fear of losing control...

Human System

The human system line of effort centers around a central construct: "How do we create an inclusive approach toward employing blockchain information-sharing that frames information-truth in terms of context and narrative?" Unequivocally, the center of gravity for this line of effort is people. Therefore, this line of effort seeks to establish common principles, imbedded in interagency leadership competencies that establish a framework of enhanced mutual trust among the people who are the information stakeholders. These stakeholders are organized into the leaders and followers who are involved in information-sharing processes. Collectively, the people involved in the interagency information-sharing process will require dynamic leadership that promotes unfettered and inclusive collaboration and cooperation.

In the book, *Radical Inclusion*, General (retired) Martin Dempsey and Ori Brafman describe the contemporary operating environment as a digital echo. The era of the digital echo results from the speed and ubiquitous dissemination of and access to information. It is a neutral force that informs, misinforms, educates, entertains, and inspires. In this manner, it is a leadership challenge and a leadership opportunity.[21] Furthermore, the combination of these aspects of information-sharing creates vulnerabilities toward the sharing of factual information and may erode the trust between leaders and followers, as well as the information stakeholders.[22]

To mitigate the challenges and exploit the opportunities within the era of the digital echo, information-sharing must incorporate the concept of radical inclusion. Radical inclusion is a prescription to conquer the fear of losing control in the fast-paced, complex, and highly-scrutinized environment that is pushing agencies and governments to rely on philosophies of exclusion. The information-sharing approach advocated for in this article will require a foundation of instinctual inclusion, whereby information and data sources are openly accepted and equally scrutinized. The human system will, in the intermediate, rely on the adage of "trust but verify." Humans will need to remain in the loop in the information-sharing systems. However, as the benefits of artificial intelligence continue to permeate information-sharing systems, the principles of trust, verification, and reliability may shorten the information-sharing timeline and further amplify the benefits of interagency blockchain information-sharing modalities.

As the U.S. incorporates blockchain technology, the assured access to and analysis of information will illuminate new challenges and opportunities. Interagency collaboration and cooperation will require more attention, more learning, more effort, and more inclusion.[23] Ultimately, blockchain technology provides for assured access to the diversity of real-time or near real-time information. In this manner, leaders and stakeholders may become increasingly exposed to raw data that competes to expose truth. The primacy of competing narratives will dominate the decisionmaker. A strength of block-chain technology is its inherent ability to control verified information.

Regardless, the decisionmaker must understand that a philosophy of inclusion—assessing multiple sources, as fringe as they may seem, will leverage a diversity of sources to build a picture of reality (sense-making) through factual information to create a common operating picture and permit organizations and governments to create a "winning narrative."[24]

The human system should be grounded within the leadership theories presented in *Radical Inclusion*. This article combines the concepts of the digital echo and radical inclusion as a human element. Their symbiotic relationship leverages blockchain technologies as the interagency information-sharing standard of the future. The human system will rely on the technical and institutional systems and vice versa. The transformative change to interagency information-sharing demands this inclusive approach. Inclusion, in this manner, not only supports the integrated lines of effort toward information-sharing, it also unlocks understanding and opportunity for leaders and information stake holders.[25]

The Fog Lifted: Operationalizing the Lines of Effort within the Ebola Crisis Response

As with any case study evaluating new concepts within a historical context, some imagination is required. Yet a case study of the 2013 interagency and multinational response provides a framework for applying the lines of effort as an operational approach.

The technical system.

The value proposition for integrating digital technologies lies in enabling a richer, more diverse, and rapid data and information exchange. The benefits to such an open exchange approach apply to interagency health and humanitarian programs, particularly in crisis response operations (such as the Ebola outbreak and ensuing response),[26] which includes the following:

1. Increased accountability, insights, and incentives.
2. An ability to create feedback loops through the sharing of contextualized data and information back to the point of origin.
3. An ability to validate information among stakeholders to ensure leaders can provide timely and accurate decisions.
4. The ability to implement continuous learning and adaptive programming, in which activities are modified and, ideally, regularly adapted in real-time or near real-time data and information.
5. The ability to make better-informed decisions at all levels.[27]

Ultimately the goal is to strengthen the use of digital data and information flows in emergency contexts to support long-term recovery and to build resilience against future shocks like the recent Ebola outbreak in West Africa.

...a blockchain system of information-sharing would have provided a common user platform for open and secure information exchange.

Within the context of the interagency and international response to the Ebola outbreak, a blockchain system of information-sharing would have provided a common user platform for open and secure information exchange. Agencies and organizations such as AFRICOM, UN, EU, USAID, AU, and WHO would comprise the user interface. The distributed information network would rely on the common architecture of assured information flow. The "gated access" node comprised of the trust protocol and access barrier exists as a single point of entry barrier. The benefit of this approach creates a single-

entry barrier rather than the multiple entry and access barriers currently present on the multitude of information systems. The information flow targeted to health and humanitarian responses include data acquisition, storage, and retrieval systems for the Ebola virus allowing for improved accuracy of individualized patient data and disease trajectories. At the community and individual levels, agencies enjoy instantaneous prognostic and diagnostic determinations for patients experiencing symptoms.

The distributed network technology allows for the immediate and redundant validation of information.

The distributed network technology allows for the immediate and redundant validation of information. Picture a spreadsheet that can be duplicated several or even a thousand times across a network. Again, because no centralized version exists, it cannot be hacked, which also creates transparence as well as being incorruptible. It is transparent because it is embedded within the network, but available to users who have gained access. The validation creates trust and strengthens the information shared. For example, during the Ebola crisis, organizations would not have the same confirmation of the known number of cases during the outbreak, which created trust issues with the local population. With the validation process of blockchain technology, a piece of information gains strength each time another partner or shared-stakeholder confirms that piece of information. An organization confirming 21 cases of Ebola in a region could be confirmed when another organization confirms those cases. If the additional organization claimed 27 cases, the first 21 confirmed cases gains strength with a potential of 6 more cases in that region waiting to be confirmed. This concept holds true with any type of information shared, making the validation portion of the blockchain technology very relevant.

The Institutional System

This line of effort focuses on two key components: 1) appropriate classification of information, and 2) analysis of what national and agency systems are in place to handle information and data, measured against the commonality and accessibility of such systems. The Ebola response was a multinational effort, spearheaded by various interagency, governmental, and nongovernmental organizations. Therefore, the information-sharing network must exist within a multinational and interagency context. Here again, the appropriate policy definition of information-sharing should be, "an accord among two or more agencies or national governments working together to collect, protect, and analyze information to reduce decisionmakers' uncertainty about a foreign policy." Operationalizing this definition into policy and statute promotes appropriate classification of information, as well as the employment of a blockchain network tailored to the governments and agencies responding to the outbreak. While this article does not advocate for a specific example, the common principle of information-sharing should be grounded in the philosophy of assured access. Any successful future operation demands such an institutional approach.

The Human System

The wedding of the concepts between blockchain and radical inclusion seemed only natural to the authors. Presenting an argument that advocates for this symbiotic relationship seemed challenging at first. The third line of effort toward implementing the distributed information-sharing system known as blockchain sharing involves the human system. The concepts within this line of effort, as applied to the Ebola response case study combine the unique attributes of radical inclusion. Specifically, the

concepts of information-leadership. Perhaps the most effective way to present this line of effort is through a traditional hypothesis: "If the interagency approach toward information sharing merges blockchain technology and legislation that takes advantage of this technology; the human system must also undergo a radical alteration."[28]At first, this hypothesis seemed amorphous; however, the conclusions from the USAID study provide a pseudo-empirical basis for advancing this argument. The concepts of the human system are integrated into a proposal for operationalizing this line of effort within the context of the interagency response to the Ebola crisis.

Of the eight recommendations proposed by the USAID's Fighting Ebola with Information study and the 79 potential use cases presented from the U.S. Federal Blockchain Forum, the human system line of effort capitalizes on several of these recommendations and proposals. Leaders and information stakeholders within an assured-access, blockchain-enabled, information-sharing environment must understand the digital echo and apply inclusive leadership processes and competencies. The USAID approach leverages the lowered barriers of access to communications to more regularly engage nontraditional actors, such as citizens, frontline workers, and remote responders, in health and aid programming design, delivery, and evaluation.[29]Additionally, employing this human system line of effort maximizes information-sharing as a valuable commodity for disaster and crisis response and resilience. The U.S. Federal Blockchain Forum's potential use cases closely align with the human system approach. Inclusive information-sharing approaches promote security with documentation and data sharing, authentication, and validation of government data; enable coordination and cooperation between federal governments; and ensure security and audit ability when moving information across blockchain systems.[30]

Risks[31]

The increasing ubiquity of blockchain technology is calling into consideration its potential across domains and government sectors. However, the advances in employing blockchain within information-sharing systems present significant risks. Yet, these risks are not entirely new, nor is the prerequisite requirement of trust. Recall the human system adage, "Trust but verify." No matter the relationship, nations rely on a combination of trust among users and built-in institutions that verify information.

...the advances in employing blockchain within information-sharing systems present significant risks. Yet, these risks are not entirely new, nor is the prerequisite requirement of trust.

Governments, departments, and agencies may be cautious about sharing sensitive information for several reasons, whether to protect their own interests or because they are wary about disclosing sources and methods. Also, there is inherent risk that other countries may try to figure out the sources and methods that the sharing country used—reverse engineering of information. There is also worry about the reliability of foreign information, especially if another country has a limited way to independently assess the truthfulness of the shared information. An information-sharing country may have poor collection protocols or "shade" the information to influence local or international policy.

Both preventing the sharing of information (especially when the information can assist partners or sovereign nations from risky situations) and spontaneously disclosing sensitive information can break the bonds of trust among partners, as either of these scenarios may be seen as a betrayal of an information-

sharing agreement. However, partners may also feel the need to view the situation in the context of furthering other interests.

Conclusions

Perhaps Deputy Secretary of State John J. Sullivan said it best in his 2017 opening remarks at the U.S. Federal Blockchain Forum when he stated, "Blockchain technology is not a panacea; it's not the answer to every problem. But we're certainly hopeful that the State Department and the federal government can leverage this technology to make us more efficient and better able to serve the American People."[32] Operationalizing the recommended lines of approach will not only incorporate advanced technologies, such as blockchain information-sharing systems, it will also reform and introduce appropriate policy and statutes that leverage the assured access to and dissemination of real-time credible information-sharing. Ultimately, this operational approach depends on the human system. Comprised of leaders and followers as well as information stakeholders, this approach requires a foundation of radical inclusion leadership competencies that permeate and promote inclusive sharing, security, and utilization of interagency information-sharing. Interagency and multinational information-sharing relies on mutual trust to accomplish objectives and achieve end states. Ultimately, the goal of this information-sharing approach influences the decisionmakers' and stakeholders' ability to assess the environment with the potential of achieving these objectives. Within West Africa, the multinational and interagency efforts that have traditionally struggled under the strain of traditional information-sharing models require a reinvigorated approach to information-sharing—a step forward we have taken together, the next step is up to you. ***IAJ***

NOTES

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7 Ibid.

8 Fast and Waugaman, p. 9.

9 Ibid., p. 120. "Fog of information" is a variation of the term "fog of war," first attributed to the

Prussian military strategist Carl von Clausewitz. The phrase incorporates many elements including the difficulties of decision-making amid conflict when full situational awareness is often absent.

10 Ibid., p. 7.

11 Ibid.

12 Ibid., p. 119.

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23 Ibid., p. 171.

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25 Ibid., p. 167.

26 Fast and Waugaman, p. 9.

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28 2017 U.S. Federal Blockchain Forum, July 18, 2017, <https://emerging.digital.gov /blockchain-forum/>, accessed on January 5, 2019. This interagency forum, hosted at the General Services Administration, was for executives across the federal government to learn about advances in Blockchain

technology, discuss use cases, and set an agenda for working together to evaluate and implement it among our diverse missions. Use cases represent initial ideas and moonshots as well as program in development. Potential Use Case Observation 35 states: "Improve Local Level Community Engagement, Access to resources, and oversight. Also to learn how legislation needs to change to take full advantage of this technology. Lastly, to assess the potential/feasibility cryptocurrency has to address the under banked. Improve Local Level Community Engagement, Access to resources, and oversight. Also to learn how legislation needs to change to take full advantage of this technology. Lastly, to assess the potential/ feasibility cryptocurrency has to address the under banked." This article employs that observation in terms of reviewing and posing reform of policy as related to blockchain information sharing processes and systems.

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Interagency Approaches to Prevent the Reoccurrence of Conflict in Sierra Leone

by Phillip J. Schenks, Mary C. Avriette and Jonathan M. Holliday

Countries which experience one civil war are more likely to experience another. Recurrent civil wars impair economic investment and divert government funds from governance to security. The result of conflict-related resource destruction, impaired economic development, and weakened governance is a remarkably high rate of recidivism. In fact, nearly half of all countries relapse into civil war, a cycle of destruction and misery referred to as the "conflict trap."[1] History shows some countries have emerged from war and experience economic recovery: Great Britain, France, Russia, Germany, and Rwanda are examples. That said, Sierra Leone emerged from civil wars nearly 20 years ago but is still struggling to recover fully. The 2014 Ebola epidemic was an additional blow to the country.

Sierra Leone suffered 11 years of civil war (1991–2002) followed by the 2014 Ebola epidemic. During those years, the country and the international community witnessed terrible atrocities. Tens of thousands of people were killed or died from indirect effects of the violence: disease, hunger and starvation. The infrastructure – electricity, hospitals, bridges, roads, schools, towns, villages, and government buildings – were either destroyed or went without repairs and maintenance until they

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collapsed. Sierra Leone possesses substantial mineral, agricultural and marine resources, but it has been struggling with economic recovery after the civil war, and particularly since the Ebola crisis.

Countries with weak economies are prone to crisis and are attractive to violent extremist organizations.

Sierra Leone's youth are suffering the worst. The median age is 19 with about 60% of the population under the age of 25. Of the youth, nearly 60% are unemployed.[2] Both youth unemployment and the "youth bulge" are strongly correlated with an increased incidence of violent conflict, particularly insurgency.[3] Sierra Leone has three markers of increased susceptibility to civil war: demography, legacy of prior conflict, and poor economic development. Since nothing can be done to change the legacy of the past, nor the demography of the present, setting the conditions for a successful and stable Sierra Leone pivots on enhancing its economic development.

Should the country slip back into war, the result will be more catastrophic than the past.[4] Additionally, violent extremist groups can take advantage of such situations where the government is weakened, to take up safe haven in ungoverned spaces. Al Qaeda in the Islamic Maghreb has already made strategic attempts to capitalize on the vulnerabilities existing in Sierra Leone.[5] Moreover, with weak institutions the reoccurrence of epidemic diseases like Ebola Virus Disease is more likely, and as the recent past demonstrates, it can then quickly spread in the region and across the world. Based on the premise that the continued security of Sierra Leone is critical to the safety of the region and the world, this article seeks to recommend specific interagency approaches to economic development to prevent Sierra Leone from relapsing into violence. We ask the question: How do we increase economic development, using an interagency approach, in Sierra Leone to prevent conflict from reoccurring?

Economic Development

The importance of strong and sustained economic growth cannot be over-emphasized. The economy of a nation is the driver and sustainer of all sectors – security, agricultural, health, education, and it is a key instrument of national power. Countries with weak economies are prone to crisis and are attractive to violent extremist organizations. The link between poverty, economic variables, and intrastate conflict is amongst the most robust findings in the literature of conflict studies.[6]

Even in a field known for dissent, there is broad consensus amongst political scientists regarding the economic characteristics predicting future conflict. While successful so far avoiding relapse back into civil war, Sierra Leone still has much to accomplish to reduce its risk factors for civil war, namely economic development.

Sierra Leone, immediately after the civil war saw low productivity and exports, with high imports due to the loss of economic production capacity. During the war, most of the infrastructure (electricity, roads, industrial bases, government administrative offices) were destroyed during the fighting. The able-bodied working population, nearly 2.6 million persons, displaced as they fled towns and villages which held most of the farms, mining sites and factories.[7] As the fighting reached the capitol city, where these workers had fled, most of the educated working class fled yet further, to other countries. As a result, most business were vacated, vandalized, or relocated to other countries; especially foreign-owned business. The result to the country's economy was disastrous.

At the end of the war, life restarted from

the ashes. However, most people and business never returned to their town and villages. The government did not have the funds to immediately rebuild critical infrastructure. In the same vein, dislocated citizens did not have seed money to begin or restart their own businesses. Millions of dollars in foreign aid from donor countries, non-governmental organizations, and loans from international organizations helped to kick start the rebuilding of infrastructure, increase productivity, and spur economic growth. With foreign aid and Foreign Direct Investment, especially in mining, productivity and exports started to increase, but the growth was challenged by corruption and mismanagement, smuggling and exploitation, and the 2014 Ebola epidemic.

One of the material legacies from the civil war is the lack of electricity. The majority of Sierra Leoneans are still without power: only five percent of the population have access to electricity.[8] Despite a lack of electricity, Sierra Leone has impressive economic growth and a high industrial production growth rate; however real production remains low. The GDP growth rate for 2017 was 6%, unchanged from the previous year.[9] While this GDP growth rate is quite good, the stagnation is concerning. Even small decreases in GDP can be worrisome and predispose a country to increased risk of violent conflict.

Lower personal income, as measured by GDP per capita, is also correlated with an increased incidence of violent conflict; this finding is arguably the most robust finding in all literature studying causes of violent conflict.[10] Sierra Leone ranks a woeful 211 of 228 worldwide in GDP per capita.[11] While Sierra Leone is fortunate in its GDP growth rate in 2016 and 2017, its stagnating economic growth and the economic fallout of the Ebola outbreak are both risk factors correlated with increased instability. Economic development support to Sierra Leone should be prioritized in order to support continued economic growth and stability.

Despite the apparent positive GDP growth of the economy, inflation negates the positive effects. Inflation in Sierra Leone reached 16.9% in 2017, up 5% from the previous year.[12] Inflation of this magnitude *de facto* eliminates the encouraging GDP growth rate cited above, and likely reduces its beneficial effects on stability. Economic development is critical to raise GDP per capita, continue strong GDP growth, and thereby reduce Sierra Leone's risk for civil war recrudescence. One way to increase economic activity is to enhance the productivity of the fishing sector. Such a method requires an interagency approach.

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Securing the Fishing Sector

Interagency cooperation can work to stabilize Sierra Leone's economic development of off-shore fisheries. Sierra Leone loses $29 million per year due to illegal fishery poaching.[13] Most of these costs are borne by the civilian population who rely on fisheries for their livelihood and sustenance. The 2013 Millennium Development goals identified economic development as critical to meeting developmental benchmarks. Due to the setbacks of the 2014 Ebola outbreak, and continued losses from maritime poaching, Sierra Leone is at higher risk than ever to miss these development goals. A true interagency approach is necessary to integrate civilian, military, and international partners to help address illegal maritime activity. If Sierra Leone is successful at securing its coast from illegal activity, it stands to regain millions in economic activity, and thereby enhance its long-term stability.

The poaching of fish is a significant issue for both the Sierra Leonean government and

its citizens, many of whom do not receive adequate nutrition. "Nearly half the population does not have enough to eat, and fish make up most of what little protein people get. But the country's once-plentiful shoals …have lured a flotilla of unscrupulous foreign trawlers. Most of the trawlers fly Chinese flags …and [are] pushing Sierra Leone's fisheries to the brink of collapse."[14] Sierra Leone is not alone in its reliance on fishing; the Organisation for Economic Co-operation and Development estimates that worldwide, $1.5 trillion is comes from ocean-stock, and accounts for 17 per cent of global animal protein consumption (and much more in developing countries).[15] The World Bank estimates that worldwide approximately $80 billion is lost each year due to illicit fishing.

Regional cooperation between civilian and military organizations is necessary to secure the transnational nature of fisheries.

In fact, during the most recent meeting between President Bio and the U.S. Ambassador to Sierra Leone, President Bio emphasized the need for a signed National Maritime Strategy to support secure, sustainable, and profitable seas. The United States, in collaboration with the United Nations Development Programme, recently funded a series of events aimed at completing the Sierra Leone National Maritime Strategy, a National Maritime Policy, and a Framework for a Whole-of-Government Approach to Maritime Security, all of which are currently awaiting final governmental approval.[16] International support to addressing Sierra Leonean policy gaps was crucial to ensuring a policy framework existed to comprehensively address future maritime strategy.

International civilian institutions can also aid in the endeavor to restore the past damage done to Sierra Leone's fisheries through technical expertise and direct aid. The World Bank funded the West Africa Regional Fisheries Program (WARF-P) in 2010. This program assisted Sierra Leone in developing policy that established a 6-mile exclusion zone from shore restricted to community fishing vessels. WARF-P is part of a greater $3.7 billion World Bank Group program designed to promote strong governance of marine and coastal resources and the supporting of sustainable aquaculture, which has been credited with a moderate increase in fish stocks as of 2014.[17]

Military resources are also helpful in assisting Sierra Leone to secure its natural fishery resources to ensure economic stability. Patrol and interdiction of seafaring vessels is an inherently interagency activity: military vessels with military personnel patrol the area, while civilian authorities aboard retain interdiction and arrest authorities. Exercises to enhance the interoperability of these agencies ensures the seamless orchestration of complex operations. United States Africa Command (USAFRICOM) runs an exercise program, African Maritime Law Enforcement Partnership, or AMLEP. Under this program, Sierra Leonean civilian authority boarding teams and military personnel exercise annually with a U.S. Coast Guard team onboard a Coast Guard or Navy vessel patrolling in the nation's territorial waters.[18] This program supports the transfer of best practices and professionalization of these operations. They also buttress and improve routine patrols by Republic of Sierra Leone Armed Forces Maritime Wing (RSLAFMW) with civilian Joint Maritime Committee (JMC) authorities.

Regional cooperation between civilian and military organizations is necessary to secure the transnational nature of fisheries. With funding and strategic support, Gulf of Guinea countries have banded together to form the Multinational Maritime Coordination Center. This effort ensures adequate training and interoperability of partner nations in patrolling Gulf of Guinea

waters; the partnership prevents duplication of efforts and represents a comprehensive approach to establishing maritime security throughout the region.[19] Understandably, communication and coordination are difficult obstacles with so many countries and agencies involved; and, the Multinational Maritime Coordination Center summits are instrumental to overcoming this challenge.

Regional military cooperation exercises support interoperability of Gulf of Guinea states. The annual Obangame Exercise brings the U.S. 6th Fleet together with a large multinational coalition. 2018's exercise included 31 nations, including all Gulf of Guinea nations. Together, these militaries exchanged best practices to ensure deterrence of narco-traffickers, protection of fisheries trade, and prevention of piracy.[20] These efforts allow for regional trade to continue unhampered, prevent illicit poaching of fishery resources, and thus enhance the region's overall economic stability.

Ongoing Challenges

Additional military resources are necessary for the success of the RSLAFMW. The current capability of the maritime wing is 70 nautical miles from shore.[21] However, the economic exclusion zone, Sierra Leone's sovereign waters, extends 200 nautical miles from baseline. Deeper water capability is necessary to successfully interdict illicit fishing in such a large area. Foreign military sales or foreign military financing of sea-faring vessels or unmanned aerial vehicles with range beyond the current capabilities represents an opportunity to extend U.S. influence and access to this region, while improving the capability of the RSLAFMW to secure its fisheries.

Lack of electricity is a vital interest to providing security of maritime resources; sonar, communication systems, and surveillance all require reliable electricity. Fortunately, the World Bank recently approved a one-time allocation of $100,000 to support the operation center of the JMC with internet connectivity and electricity.[22] One time investments are appreciated and necessary, but do not address ongoing operational costs. The JMC will be fully operational only once the Ministry of Finance appropriates operating funds and releases them to the JMC. Technical assistance teams can assist the Ministry of Finance in the smooth operation of this routine governance function. Agencies such as the United Kingdom's National School of Government International, operating out of the Stabilisation Unit, can provide small, expeditionary expert teams to develop governance capacity using a practitioner-to-practitioner model.[23] The U.K. has historically invested heavily in Sierra Leone, and this represents yet another opportunity for success between the partners. Additionally, support from the U.K. Stabilisation Unit may be warranted to ensure that JMC and Multinational Maritime Coordination Center regulations and tactics, techniques, and procedures mesh with international law and best practices.

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Conclusions

Sierra Leone has three markers of increased susceptibility to return to civil war: demography, legacy of prior conflict, and poor economic development. Little can be done to change the legacy of the past, nor the demography of the present; setting the conditions for a successful and stable Sierra Leone pivots on enhancing its economic development. One crucial part of economic development strategy in Sierra Leone includes an interagency approach to the fishery sector.

Much is being done across DOTMLPF-P to support Sierra Leone's economic development through securing its natural resources off-shore. The military Exercise Obangame Express, facilitates analysis of RSLAFMW doctrinal gaps and organizational needs in a multilateral environment, emphasizing the interoperability of all militaries present. Training and leadership are developed during bilateral exercises, such as USAFRICOM's African Maritime Law Enforcement Partnership, and are crucial to the coordination and sharing of best practices amongst interagency stakeholders.

None of the existing international, interagency efforts address personnel aspects of Sierra Leone's maritime anti-poaching operations.

The maritime policy improvements under President Bio should be applauded. International civilian agency technical support, like the World Bank's West Africa Regional Fisheries Program (WARF-P) has made great strides in assisting the fisheries of Sierra Leone to recover from devastation by poaching through policy development and technical support. Similarly, the recent collaboration between the U.S. and the United Nations Development Programme, assisted in addressing national policy gaps by completing the Sierra Leonean National Maritime Strategy, National Maritime Policy, and Framework for a Whole-of-Government Approach to Maritime Security. These policy documents, once granted final approval, will provide a comprehensive national approach to conserving Sierra Leone's vital natural resource.

However, additional work remains on materiel, facilities, policy, and personnel. Sierra Leone needs additional materiel to fully secure its economic exclusion zone. Unmanned aerial vehicles with range to 200 nautical miles would be more effective at identifying illegal trawling than the current capability of 70 nautical miles. Similarly, ships of similar range are necessary to convey Sierra Leonean civil authorities and military personnel to conduct vessel boarding, search and seizure operations, and arrest violators of Sierra Leonean law. Once these new technologies are acquired, Sierra Leonean forces will need additional training in their successful operation and maintenance.

The Joint Maritime Committee operation center needs a reliable electricity source and secure funding to ensure its continuous operations. The one-time grant from the World Bank will address a small part of this problem. However, it does not address the long-term success of the operations center, a lynchpin in centralized coordination and mission control across the interagency enterprise. Technical support from the U.K. National School of Government International, or a similar institution, is needed to develop governance capacity within the Sierra Leonean Ministry of Finance, ensuring the continuous funding of this vital operations mission control center. The U.K. National School of Government International may also provide governance support through reviewing the new Sierra Leonean maritime policy documents for compatibility with international law and conventions.

None of the existing international, interagency efforts address personnel aspects of Sierra Leone's maritime anti-poaching operations. Personnel who represent "the long arm of the law" hundreds of miles away from shore are susceptible to ethical quandaries of human rights and corruption. A comprehensive analysis of recruitment and training of RSLAFMW personnel should be conducted as part of the next AMLEP or integrated into Exercise Obangame 2019. In a country of 60% youth unemployment and average age of 19, finding applicants is not a challenge; quality control is. The evaluation should determine the best way to successfully recruit and train strong

RSLAFMW officers and JMC civil authorities with superior ethics and integrity, in combination with the tactical and technical expertise to conduct complex vessel boarding, search and seizure operations. Additional consideration should be paid to instituting anti-corruption disciplinary procedures to ensure the lasting integrity of the force through selective retention.

Failure to support Sierra Leone raises the likelihood of many misfortunes: its return to conflict, susceptibility to violent extremist organizations such as Al Qaeda in the Islamic Maghreb, and new disease outbreaks. All too recently, the world has witnessed the outcomes of letting such destructive forces range unchecked. Preventing such transnational threats is an international community imperative. ***IAJ***

NOTES

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Assessing the Impact of American and Chinese Economic Competition in Sub-Saharan Africa

by James Jacobs and Kevin Boldt

In 2015, *Scientific American* published an article which showcased how the continent of Africa is often sized on Mercator maps, in a similar fashion, to the island of Greenland, even though Africa is 14 times larger than Greenland.[1] In fact, the African continent is big enough to hold the continental United States, China, India, and much of Europe. Much like Africa has been underrepresented in many maps, the continent has been underappreciated for much of world history. Many early encounters between African civilizations and other civilizations took place on the periphery of the continent, especially in the north.

For China and the United States, their exposure to Sub-Saharan Africa (SSA) prior to the 20th century was quite limited. Nevertheless, the People's Republic of China has rarely missed an opportunity to highlight its centuries-old, albeit brief, connections to Africa when discussing foreign policy.[2] During the first half of the 15th century, the Chinese Ming Voyages, led by Admiral Zheng He, included at least three visits to the eastern coast of Africa.[3] However, a long period of isolationism followed the Ming Dynasty's century of global exploration.[4] China did not rediscover its sense of adventure until late in the 20th century after the communists expelled the nationalists and then took power. As a younger nation, the United States' first main exposure to SSA took place in the first half of the 19th century with the expeditions of the American Colonization Society, which intended to resettle free African-Americans and emancipated slaves to West Africa. In 1820, the first free African-Americans set sail for West Africa from the United States and established Liberia.[5] From that time on, the United States maintained a pseudo-protectorate role for Liberia.

However, the limited U.S. role for Liberia would pale in comparison to how European powers

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divided and conquered Africa during the decades of colonialism. In 1884, the Berlin Conference brought together 14 nations, predominantly European powers. This conference officially marked the beginning of the "Scramble for Africa."[6] During this scramble, European nations staked claims to almost the entire continent and mainly focused on extracting resources.[7] To put it lightly, European colonialism in Africa has had a lasting impact. In particular, the legacy of 10,000 polities turning into 40 European colonies and the use of local elites to rule on behalf of European powers remains relevant to the geopolitics of the continent today.

World War II (WWII) marked the beginning of the end of European colonialism in Africa. However, foreign intervention in Africa did not end with the fall of colonialism. After WWII, the Cold War dominated relationships in Africa as young nations attempted to rise from the ashes of colonialism. Throughout the Cold War, both the United States and Union of Soviet Socialist Republics (USSR) supported various regimes in Africa and flooded the region with arms and other assistance. While this ideological and geopolitical stand-off benefited many of the ruling elites, most SSA nations did not see long-term economic growth.

...today, Africa is experiencing rising tensions between the U.S. and the People's Republic of China.

While the Cold War melted away after the fall of the USSR, today, Africa is experiencing rising tensions between the U.S. and the People's Republic of China. While much of the tension between the world's two largest economies has, to date, focused on the East China Sea, Africa is fast becoming a proving ground for determining the balance of power in the 21st century. In some ways, the posturing by the U.S. and the People's Republic of China over Africa is reminiscent of the geopolitical dynamics of the U.S. and USSR during the Cold War. Today, both the U.S. and the People's Republic of China are attempting to redraw the economic landscape of Sub-Saharan Africa.

The current U.S. *National Security Strategy* highlights that across Africa "states are eager for investments and financing to develop their infrastructure and propel growth," and then goes on to highlight that "the United States and its partners have opportunities to work with countries to help them realize their potential as prosperous and sovereign states that are accountable to their people."[8] According to the Brookings Institute, China pursues four broad interests in Africa: 1) Political support for its One-China policy; 2) Access to natural resources; 3) Protecting its diaspora and investments abroad; and 4) Ideological alignment.[9] China has predominantly used the economic instrument of national power to pursue its objectives in Africa. Today, since 2009, China is the largest trading partner with Africa.[10] While increasing its ties with Africa, China has also received some criticism for how it is potentially exploiting the natural resources from the continent at the expense of the local population.[11] However, to simply reject Chinese activities in Africa as evil misses the point. The Chinese will continue to be involved in Africa for decades to come. The *National Security Strategy* charges that the United States "must prepare for this type of competition" and "raise our competitive game to meet that challenge, to protect American interests, and to advance our values."[12] Focused on economic and financial activities, this article conducts a comparison of the impact of U.S. and Chinese policies on SSA. By conducting a quick review of history, looking at the U.S. and Chinese approaches, and applying evaluation criteria to measure their effectiveness, the authors will answer the question "How does U.S. and Chinese competition impact Sub-Saharan Africa's economic development?

History of U.S. Involvement

In 1777, the Morocco became one of the first countries to seek diplomatic relations with the United States in the midst of the American Revolution.[13] As a young nation, the U.S. foreign policy for the region focused on North Africa. For example, one of President Jefferson's first foreign policy challenges was dealing with the Barbary pirates off of the coast of present-day Libya.[14] The United States did not become involved with SSA until the presidency of James Madison. President Madison secured the initial funding for the American Colonization Society.[15] U.S. engagement with SSA became more direct once the first ship with free African-American settlers and several American Colonization Society members set sail across the Atlantic Ocean for West Africa. Over the course of several decades, more than 13,000 African-American settlers arrived to Liberia.[16] In 1847, Liberia declared independence from the American Colonization Society in order to establish a sovereign state and create its own laws governing commerce.[17]

While European powers pursued their "Scramble for Africa", the main U.S. connection remained its relationship to Liberia, which retained a pseudo-protectorate status and received some economic assistance, especially from the 1870s and onwards.[18] The World Wars caused an increase in activity in Africa. Liberia's decision during World War I to remain allied with the U.S. and to declare war on Germany, up until then a major trading partner, led to a German U-boat shelling Monrovia, Liberia's capital city.[19] Liberia's financial dependence on external assistance became a vulnerability which the United States exploited in the aftermath of World War I. In the 1920s, the Firestone Tire and Rubber Company negotiated a 99-year lease for a rubber plantation in Liberia, which tied Liberia's highs and lows for the remainder of the 20th century to fluctuating commodity prices.[20] WWII brought renewed American attention to Africa and resulted in a major Allied offensive in North Africa. President Franklin Delano Roosevelt became the first serving U.S. President to visit SSA during a visit to Liberia in 1943.[21]

In the post-WWII era, the rising Cold War tensions with the USSR led the U.S. to give more emphasis to Africa.

As European powers pulled or pushed away from Africa in the aftermath of WWII, the U.S. and USSR competed for ascendancy.[22] In the post-WWII era, the rising Cold War tensions with the USSR led the U.S. to give more emphasis to Africa. In 1958, the U.S. Department of State established the African Bureau.[23] This was also around the same time that countries such as Ghana were declaring independence from the European colonial powers. Furthermore, during this timeframe, the U.S. began to use soft power to extend its influence in Africa. President John F. Kennedy established the Peace Corps to provide technical assistance and other support to the developing world. In 1961, the first Peace Corps volunteers arrived to Ghana and Tanzania.[24] In 1974, the world stage arrived to Kinshasa, Zaire (now called the Democratic Republic of the Congo) for a heavyweight boxing match between Muhammad Ali and George Foreman.[25] While the United States did pursue constructive policies such as Peace Corps and other development initiatives in Africa, the Cold War's ideological battle and associated geopolitics still dominated the continent for most of the second half of the 20th century. The proxy wars in Angola and Mozambique provide examples of the Cold War's impact on the continent.[26] Scars and a lot of armaments from the Cold War remain present today in many parts of SSA.

After the fall of the USSR, the U.S. needed to

determine how to lead in a unipolar world. Africa provided unlikely case studies for the U.S. to figure out its new international role.[27] The deaths of 18 U.S. service members in October 1993 in Somalia served as a shocking wake-up call for the American public and highlighted that good intentions were not enough for implementing foreign policy. Within six months of the failed mission, portrayed in the Hollywood film *Black Hawk Down*, the U.S. withdrew its military forces from Somalia.[28] While Africa took a backseat for the U.S. military after Somalia, the U.S. government continued to provide financial assistance, support global health initiatives, and promote democratic values as part of the Clinton Administration's "doctrine of enlargement."[29] However, Osama bin Laden's bombings of the U.S. Embassies in Tanzania and Kenya in April 1998 demonstrated the danger and complexity of the operational environment.[30]

While Africa took a backseat for the U.S. military after Somalia, the U.S. government continued to provide financial assistance...

The beginning of the 21st century elevated the U.S. interests in SSA. In 2000, President George W. Bush signed the African Growth and Opportunity Act (AGOA) into law. This act, with subsequent revisions over the years, has provided incentives for African countries to liberalize their economies and to increase trade with the U.S.[31] From a security perspective, the 9/11 terrorist attacks of 2001 raised the importance of national security and demonstrated how violent extremist organizations could take advantage of weak or failed states. Additionally, President Bush pushed for a sizeable increase in global health spending. Significant aid increases since 2001 reflect, in part, changing perceptions of Africa's importance to U.S. national interests and security.[32] Three U.S. presidential administrations have maintained quite consistent policies towards SSA.[33] However, the Trump Administration has yet to indicate if it will follow suit or disrupt those norms.

History of Chinese Involvement

China's engagement with SSA dates back to Ming Dynasty (1368-1644) when Admiral Zheng led expeditions to East Africa. China's first interactions with Africa did not mature into significant, political relationships until the establishment of the People's Republic of China in 1949. Support from 26 African nations helped the People's Republic of China to secure the permanent seat on the United Nations (UN) Security Council from Taiwan in 1971.[34] While Chairman Mao Zedong initiated political and economic relationships with numerous African nations, it was not until the 21st century that the People's Republic of China started to forge deeper ties with SSA.

Since 2000, China's economy has grown rapidly, which has further increased the need for natural resources. One place that China has turned to quench its resource thirst is Africa. The Forum on China-Africa Cooperation, created in 2000, is an official forum between China and African states with the objective to strengthen Sino-African economic cooperation and trade relationships and to establish a new international order that will better reflect the needs and interests of China and Africa.[35] President Xi Jinping took over as president of China in March 2013. In a break of precedence, President Xi's first trip overseas was to Africa in 2014.[36] In 2015, President Xi participated in the second summit of the Forum on China-Africa Cooperation in South Africa where he pledged $60 billion in support of African development.[37] President Xi has also emphasized China's security interests in Africa. In addition to protecting its investment, China is concerned about protecting the Chinese people who live and work in Africa. According the *Wharton University of Pennsylvania's*, public policy forum approximately one million

Chinese workers, both private entrepreneurs and employees of state-run companies, were living in Africa in 2013.[38] China's establishment, in 2017, of its first overseas military base in Djibouti demonstrates China's increasing role in both SSA and global affairs.[39]

Methodology

We started this article by reviewing the history of U.S. and Chinese involvement in SSA. Next, we will use available literature to assess the current state of both U.S. and Chinese relationships with SSA. In order to answer the primary research question—"How does U.S. and Chinese competition impact Sub-Saharan Africa's economic development?"—we need to establish evaluation criteria to measure the impact of the U.S. and Chinese economic and financial initiatives. Evaluation criteria will be developed to enable the identification of the best available answer to the primary research question. Evaluation criteria are used for both military and civilian purposes because these criteria can help establish if actions are suitable to achieve the desired results and "determine if the course of action is the best course of action to accomplish the mission."[40]

We will apply the evaluation criteria to assess the impact of the U.S. and Chinese economic and financial initiatives. Once the evaluation criteria have been applied, we will aggregate the findings to answer the primary research question: "How does U.S. and Chinese competition impact Sub-Saharan Africa's economic development?" To comprehensively assess the impact of the U.S. and Chinese economic and financial initiatives on SSA, we use the Areas, Structures, Capabilities, Organizations, People, and Events (ASCOPE) framework. The ASCOPE framework is one of many tools that the military uses to understand the operational environment. While integrating multiple tools would help to foster a "system of systems approach," the scope of this project required the authors to follow a more focused approach. By using the ASCOPE framework, the authors will make the assessment, and provide justification, as to where the impact falls on the three-part scale: adequate (1 point), better (2 points), or best (3 point). The aggregation of the results will provide the determination of the measured degree of impact. The authors will then evaluate the criteria and provide justification as necessary. Ultimately, this work will lead to answering the primary research question: How does U.S. and Chinese competition impact Sub-Saharan Africa's economic development?

On the macro-level, the amount of resources, especially its young, growing population, offers great potential.

A Quick Summary of Sub-Saharan Africa

Sub-Saharan Africa offers two stories. On the macro-level, the amount of resources, especially its young, growing population, offers great potential. According to the World Bank, nine of the ten countries with the highest fertility rates are found in SSA.[41] However, SSA is not one entity, and, on the micro-level, its people, organizations, and markets do not march to the same beat. The economy is the foundation for increasing people's quality of life. It is the economy that provides the means to build new wells, clinics, schools, and necessary income for people to support their families. The weak and fragmented economies of SSA have resulted in many of the nations lagging behind.[42] A quick summary of the physical environment using ASCOPE provides background for understanding some of the dynamics of SSA. After providing this overview of key components, we will then look at what impact the U.S. and China have had on SSA since 2000. As previously noted in the respective history sections on each country, the years 2000-2001 marked key milestones in SSA engagement for both the U.S. and China.

Areas

Sub-Saharan Africa is a region has had some bright spots. From 2001-2010, six of the fastest growing economies in the world were in SSA and had economic growth at around a 5.0 percent annual growth rate.[43] After a slowdown in recent years, growth is returning to Africa, with regional projections of 3.1 percent growth in 2018 and 3.6 percent in 2019-2020.[44] This rapid economic growth—coupled with young demographics, wide uptake of technology (particularly cellphones and associated applications), and a growing middle class—has led to a new perspective on the potential of Africa.[45] While economic growth has rebounded, many of the region's economies are over-reliant on agriculture and have low levels of output. African markets have been especially grounded in the following two areas: agriculture and raw materials. These industries compose about 2 percent of all world trade.[46] This is a staggeringly low number considering the tremendous amount of natural resources of oil, diamonds, and gold paired with agricultural products such as coffee, tea, and cocoa. Additionally, agricultural practices lag behind industry trends in other parts of the world. African farmers generally work small plots of land without the assistance of modern farming practices and technology such as machinery, capital, and fertilizer. Developed states employ less than 10 percent of their labor forces in agriculture, while African agriculture often employs almost two-thirds of all workers while accounting for less than a quarter of the Gross Domestic Product (GDP).[47]

Out of the continents, Africa conducts the least amount of intracontinental trade.

Structures

Out of the continents, Africa conducts the least amount of intracontinental trade.[48] African leaders are working to tear down the barriers which hamper local and regional trade. In March 2018, 44 African nations signed the Continental Free Trade Agreement, which seeks to slash tariffs across the continent in order to create a "single continental market for goods and services."[49] Besides trade barriers, physical barriers impede products from getting to the market. Missing across much of SSA are the roads, rails, ports, airports, power grids, and information technology backbone needed to lift African economies.[50] The lack of infrastructure inhibits the growth of imports, exports, and regional business for one of Africa's biggest employers, agriculture. Dilapidated transportation increases the cost of goods and reduces the ability to bring products to the market. Poor networks also inhibit efficient distribution of inputs such as seed and fertilizer. Investment in centralized infrastructure would reduce the cost for consumers to purchase food as well as to increase the supply and encourage cross-border trade. Increasing efficiencies and leveraging export markets for surplus producers could liberate unproductive farmers to shift to higher order economic activities.

Capabilities

SSA has made solid progress in telecommunications coverage over the past 25 years, expanding at a fast pace across both low- and middle-income countries.[51] However, much work remains to be done. African countries need to increase access to electricity and invest in roads. Only 35 percent of the population has access to electricity, and SSA is the only region in the world where road density actually decreased in the last 20 years.[52] In order to catch up economically, SSA must engage in higher order economic activities such as manufacturing or focus on the service industries such as communications, transportation, education/research, and personal services. Recent reforms should increase the ease of doing business in

SSA. According to the World Bank, SSA nations account for five of the ten top improvers for *Doing Business* in 2013-2014. The region also accounts for the largest number of regulatory reforms (75 of the 230 worldwide in the past year) making it easier to do business.[53] More than 70 percent of SSA economies carried out at least one such reform. Primary economic activities such as agriculture and resource extraction are more susceptible to risk, shortages, and market prices while earning less from human input and capital than higher order activities.[54] Africa needs to focus on activities that have more added-value like manufactured goods and services that capture a higher profit and are less susceptible to international market fluctuations. However, establishing higher order economic activities requires capital. Largely due to lower commodity prices as well as traditionally-low tax collection (e.g. tax-to-GDP ratio), debt is steadily rising in many SSA countries.[55] The level of the total agreed amount of the International Monetary Fund's outstanding programs with SSA countries rose nearly fivefold between 2014 and 2017 from $1.8 billion to $7.2 billion.[56] Without fresh credit or reform to economic policies, many SSA countries could either have growth negatively impacted by this debt burden, or worse, be frozen out of the global financial system.

Organizations

In the years since independence, SSA countries have attempted to use regional integration as a means to industrialize. Many of these regional organizations built off of cross-border colonial arrangements such as the African Financial Community and Southern African Customs Union.[57] However, in recent years, African leaders have looked to wider economic and political integration beyond regional apparatuses. The Abuja Treaty, signed in 1991, provides the framework for the creation of an African Economic Community.[58] Furthermore, the evolution of the Organization for African Unity into the African Union "has significantly strengthened the movement towards the goal of Pan-African political and economic union."[59] However, economic integration still has a long way to go. As noted earlier, the Continental Free Trade Agreement could provide the next step toward economic integration in SSA. However, the SSA's two biggest economies, Nigeria and South Africa, have yet to sign onto this trade agreement.[60] Time will tell how significant of a role the Continental Free Trade Agreement will play in disrupting trade dynamics of SSA.

Africa's population is set to double by 2050 to almost a billion young people.

People

While many regions around the world are facing aging populations, SSA is expecting around a 70 percent rise in its share of its working-age population. Africa's population is set to double by 2050 to almost a billion young people. At the same time, SSA will have the youngest population by median age, at around 25 years old.[61]This demographic dividend could be a huge consideration on which the region can capitalize. However, major health and economic factors must be addressed to unleash SSA's economic potential.

Africans have better access to safe water than previous generations. In 1990, 51 percent of the population had access to safe water. In 2015, 77 percent had access.[62] While Africa has made good progress on health issues, the continent still bears the brunt of the world's global health challenges. According to a World Health Organization report, for every 10 percent increase in life expectancy at birth, there is a corresponding rise in economic growth of 0.4 percent per year.[63] Many SSA nations are grappling with some of the world's highest rates of malnutrition, infant mortality, and poor maternal and child health. The continent

is home to approximately 90 percent of global malaria deaths, two-thirds of all people living with HIV, and one-third of all tuberculosis cases.[64] A healthier population leads to a stronger economy. If SSA can collectively tackle some of these challenges, then the region will be better postured to achieve its potential.

Critical economic factors such as low employment growth rate, high youth unemployment rate, and high proportion of low-wage incomes also hinder SSA nations' abilities to cash in on the demographic dividend. A region with a rising working age population is an asset if its people are equipped with the right skills. However, SSA ranks the lowest of the world's regions on the human development index.[65] Some of the key components of this index include GDP Purchasing Power Parity to determine a standard of living, a social measure using the education index to include literacy rates, and a demographic dimension for health in the form of life expectancy.

Low literacy rates are one of the core components keeping many working-age Africans on the farm and limiting economic development.

Low literacy rates are one of the core components keeping many working-age Africans on the farm and limiting economic development. SSA's average literacy rate has improved from 53 percent in 1990 to 63 percent in 2015.[66] However, compared to the average world literacy rate of 86 percent, SSA's literacy rate is an appalling statistic. Literacy gives a person the basic ability to read and write and enables access to further education and employment opportunities. Literacy is directly correlated with earning potential, however the linkage between a country increasing their education input to achieve economic growth is debatable. "What is proven is that countries with a larger stock of stock of human capital or rate of human capital appreciation do experience faster economic growth"[67] The latest United Nations Educational, Scientific, and Cultural Organization Global Education Monitoring Report, based on current trends, predicts SSA will not achieve universal secondary school completion until after 2080.[68]

Events

Climate change will impact both the human and physical geographies of SSA. In particular, more frequent extreme heat events, increasing aridity, and changes in rainfall will reshape economies and ways of life.[69] Based on the dominance of agriculture for many economies, the effects of climate change will likely be even more pronounced.

The United States' Impact in Sub-Saharan Africa

While the U.S. leadership role has increased in recent decades, the economic significance of Africa for U.S. foreign policy remains limited. For example, in 1960, the whole African continent took only 4 percent of the U.S. exports and supplied only 3.7 percent of U.S. imports.[70] Over the subsequent decades, U.S. policy towards SSA has become distinct from policy to North Africa (which is now often clustered with the Middle East). Looking at 2016 data, the SSA exports to the U.S. accounted for 5.78 percent of the partner share, while imports to SSA from the U.S. accounted for 5.67 percent of partner share.[71] In 2017, the U.S. had $38.9 billion in total (exports plus imports) trade with SSA countries.[72] In recent years, the amount of imports from SSA has been lop-sided, resulting in an increased trade-deficit. The fluctuation in commodity prices and preferential treatment for imports from SSA enabled by AGOA are two of the reasons for this recent trend.[73]

The U.S. role in SSA is not limited to trade. For decades, the U.S. has led in global health initiatives. Additionally, through institutions

such as the International Monetary Fund and the World Bank, the U.S. has been able to extend its influence. Furthermore, the U.S. has flexibility in Africa, as it is not locked into major treaties or geopolitical alliances like in other parts of the world (e.g. Europe, East Asia, etc.). The following ASCOPE assessment summarizes the impact that the U.S. has had in SSA since 2000.

Areas

In 2017, U.S. total trade (exports plus imports) with SSA totaled $38.9 billion.[74] The top exports from the U.S. to SSA were machinery for digging/construction, aircraft, and motor vehicles. The top five SSA destinations for U.S. exports were South Africa, Nigeria, Angola, Ghana, and Ethiopia.[75] Currently, thirty-nine of the forty-nine countries in SSA are eligible for benefits under AGOA. Based on the extension signed into law by President Obama, AGOA is set to remain in effect until at least 2025.[76] Top imports from SSA to the U.S. were oil (mainly crude), diamonds/platinum, vehicles, and cocoa beans. The top five SSA sources of imports to U.S. were South Africa, Nigeria, Angola, Côte d'Ivoire (Ivory Coast), and Chad.[77] AGOA has especially helped agricultural products from SSA make it to the U.S. market. The value of agricultural exports headed to the U.S. increased from $59 million in 2001 to $261 million in 2014.[78] The main exports of agricultural products to the U.S. are cocoa paste/powder, citrus fruits, nuts, wine, unmanufactured tobacco, and vegetables.

Structures

U.S. trade with SSA nations is largely based on unilateral preferences as outlined in AGOA. The 2015 extension of AGOA empowers the President of the United States to "make an on-demand call for an assessment of a country's eligibility in addition to yearly reviews." AGOA has also had a positive impact on U.S. direct investment in SSA.[79] In 2017, U.S. direct investment in the region grew to $57.5 billion, the highest level ever. U.S.-run programs such as African Seeds for Hope and Millennium Challenge Corporation have helped to improve infrastructure in Africa.[80] The U.S. is currently immersed in a whole-of-government initiative to facilitate private-sector investment in electricity-generation capacity across the African continent. As noted earlier, many SSA governments have improved the investment climate in their respective countries through regulatory reforms. The U.S. Trade and Development Agency functions as the U.S. government's project preparation agency. This agency's goal in Africa is to create more bankable projects that are attractive to investors by increasing the due diligence on projects which reduces the risk.[81] The U.S. Trade and Development Agency is working to make investment opportunities more bankable, which would help to unleash more private capital to build the infrastructure in SSA.

The top exports from the U.S. to SSA [in 2017] were machinery for digging/construction, aircraft, and motor vehicles.

Capabilities

In recent years, the U.S. Agency for International Development (USAID) has operated 27 bilateral and regional missions in sub-Saharan Africa. These missions have provided bilateral assistance to 47 sub-Saharan African countries.[82] For example, total bilateral U.S. development assistance from USAID and the Department of State to SSA nearly quadrupled from roughly $1.94 billion in Fiscal Year 2002 to an estimated $7.08 billion in Fiscal Year 2012.[83] The U.S. government uses a three-pronged approach—diplomacy, development, and defense (3Ds)—to promote and protect U.S. national security interests abroad.[84] While the Department of State (diplomacy) and USAID (development) have been in SSA for decades, the Department of Defense's U.S. Africa Command

(AFRICOM) is the "new kid on the block" as it only stood up in 2008.[85] The country teams at the respective U.S. embassies in each SSA country remain the center for 3Ds collaboration, but the growing presence of AFRICOM in many SSA nations has started to shift the influence away from embassy staffs. Besides the shift in influence, AFRICOM provides dynamic distribution capabilities that previously did not exist. For example, over the past couple of years, AFRICOM developed the West Africa Logistics Network to facilitate distribution from a primary logistics hub to support 11 named operations across a 13-nation region in West and Central Africa.[86]

According to a poll by the Pew Research Center, nearly 80 percent of respondents in SSA have a positive view of the U.S.

Organizations

The U.S. has leveraged the following tools and initiatives to engage SSA: AGOA, the Millennium Challenge Corporation, the President's Emergency Plan for AIDS Relief, Power Africa, the Young African Leaders Initiative, and the Security Governance Initiative.[87] AGOA is the centerpiece of U.S.-African engagement on trade and investment and provides duty-free entry into the U.S. for almost all African products.[88] Indirectly, the U.S. has also worked through the World Bank, International Monetary Fund, UN, and the African Union to extend its influence. Though President Trump did meet with the chair of the African Union and 37 foreign ministers from the continent for two days in November 2017, the administration's policies for SSA remain unclear.[89]

People

The U.S. has traditionally used small numbers of Americans in limited capacities to assist in development projects in Africa. One noteworthy example is the Peace Corps. U.S. leadership on global health initiatives has established goodwill between the American people and with the populations of many SSA nations. Health experts predict that investing in global health will likely save the lives of millions of children and adults over the next 20 years.[90] According to a poll by the Pew Research Center, nearly 80 percent of respondents in SSA have a positive view of the U.S.[91]

Events

The U.S. has been quick to respond to natural disasters. For example, in response to the Horn of Africa drought and subsequent famine in the summer of 2011, U.S. emergency food aid programs provided $740 million to Ethiopia, Kenya, Somalia, South Sudan, and Sudan.[92]

China's Impact in Sub-Saharan Africa

The People's Republic of China's relationship with SSA stretches back for decades. However, China's resource-intensive economic growth has spurred its increased interest in resource-rich SSA. Sino-African trade has especially deepened since 2000. As the Chinese economy grows, so does its trade and direct investment with SSA. In 2002, the total trade between Africa and China was below $10 billion, with China exporting to Africa and China importing from Africa roughly equal. In 2014, the trade spiked to over $200 billion.[93] Africa imports machinery, transportation, communication equipment, and manufactured goods from China which totals 14-21 percent of the continent's total imports.[94]

China also maintains an unparalleled ability to provide low-cost financing and cheap labor for infrastructure projects. From 2000-2015, the Chinese Government, banks, and contractors (often the lines are blurred between these entities) extended $94.4 billion worth of

loans to African governments and state-owned enterprises, with Angola receiving the most at $19.2 billion in cumulative loans. In 2000 the loans disbursed were below $1 billion, peaked in 2013 at $17 billion, and then settled at $12 billion in 2015. In 2015, the top recipients were Uganda, Kenya, and Senegal.[95] The following ASCOPE assessment summarizes the impact that China has had in SSA since 2000.

Areas

Chinese state-owned enterprises have primarily focused on natural resource extraction in SSA. China consumes 15-16 percent of SSA's exports. The following products are exports particularly in high demand: mineral fuel, lubricant, iron ore, and other metal products.[96] While China has largely focused on natural resource extraction, China does have other business interests. China's diversified portfolio consists of energy, mining, telecommunications, as well as large-scale construction projects such as roads, railways, ports, airports, hospitals, schools, and stadiums. Small and medium-sized Chinese firms are less focused on natural resource extraction. The two primary investment areas are the service sectors and manufacturing, which to date have received positive reception from local African economies.

Structures

Africa is known for its infrastructure deficiencies. Over $30 billion of external financing is received in Africa to finance infrastructure development. Slowing domestic economic conditions and global slowdown provoked China to export its surplus industrial capacity in line with its "going global" strategy.[97] China makes up one-sixth of this global investment. Traditional finance from multilateral development banks has been focused on basic human-necessities such as water supply and sanitation and private donors are bridging the telecommunications gap. On the other hand, China is focusing its one-sixth investment in the niche role of transportation and power. Infrastructure investment in Africa fits into President Xi Jinping's developmental framework of "one road, one belt" which is a cross-continental economic belt and maritime road to promote cooperation and interconnectivity from Eurasia to Africa and emphasizes regional connectivity through ports and infrastructure projects.[98] Increasing its rapport with SSA governments, China has experienced a rise in contracts (especially for large-scale construction projects) in Africa. For example, gross annual revenues from Chinese construction company projects in Africa have risen in 2000 from levels under $2 billion to over $50 billion in 2016.[99] In a bid to demonstrate China's wholistic approach to Africa, senior Chinese officials now claim that China's investment in African energy sector only makes up 20 percent of China's total investment in Africa.[100]

Chinese state-owned enterprises have primarily focused on natural resource extraction in SSA.

Capabilities

In recent years, China has sponsored the following set of major development initiatives: the One Belt One Road Initiative in 2013, the New Development Bank in 2014, and the Asian Infrastructure Bank in 2015. These initiatives both complement and rival the activities of traditional donor institutions in developing countries—such as the International Monetary Fund and the World Bank—particularly regarding infrastructure finance.[101] China has attempted to position itself as an alternative source for loans and other economic assistance through its claim of "no (political) strings attached."[102] Chinese Overseas Direct Investment in Africa is largely composed of loans provided by the Export-Import Bank of China and China Development Bank. China provides one-sixth of the $30 billion in total, annual infrastructure

investment in Africa.[103] China's investments fill an international gap. Chinese investment dollars are indifferent to the governance environment and are relatively high in resource rich regions with poor governance, such as Democratic Republic of the Congo, Angola, and Sudan, which Western money traditionally avoids. While China has traditionally used diplomatic and economic power to promote its interests in Africa, the People's Republic of China's announcement of establishing its first overseas military base in 2017 highlighted how China is trying to expand its capabilities.[104] If U.S. AFRICOM is the "new kid on the block", then the Chinese military is the "newest kid on the block." The Chinese Foreign Ministry justified the decision by explaining how the opening of the military base would enable China to "better perform the international obligations of the UN escort missions in the Gulf of Aden and Somali waters as well as humanitarian relief, help with Djibouti's socio-economic development, and allow China to make greater contributions to the peace and stability of Africa and beyond."[105]

A rift has risen in Africa as Chinese companies have provided highly skilled labor at a lower cost which crowds out local African workers.

Organizations

Since 2000, China has mainly used the Forum on China-Africa Cooperation to strengthen its relationships and multilateral cooperation with the 51 African nations. Bilateral relationships are still the name of the game for how China engages SSA nations with China's diplomatic interest being the most important factor for determining aid recipients.[106] According to some researchers' predictive model, if African countries voted with China an extra 10 percent of the time, they would get, on average, an 86 percent bump in official aid.[107] China has also supported other African political bodies such as the African Union. In 2013, China provided $1 million in assistance to the African Union to support its mediation and coordination efforts in the Mali conflict.[108]

People

A rift has risen in Africa as Chinese companies have provided highly skilled labor at a lower cost which crowds out local African workers. The highly competitive Chinese companies have been presented with a trade-off, either conducting quick and cheap construction versus facilitating long-term development of the local African construction industries[109]. Chinese workers in Africa peaked at around one million workers in 2013. The following five countries account for approximately 65 percent of all Chinese workers in Africa: Algeria, Angola, Ethiopia, Nigeria, and Kenya.[110] Opinion surveys show that a majority of African countries favorably view China's influence and contributions to the continent's development. According to a 2016 Afrobarometer poll, 63 percent of Africans view China's economic and political influence as positive.[111] Some Africans think China can relate to Africa's struggles more than Europe and the U.S. can since China has recently overcome large-scale poverty. Demonstrating this sentiment, Senegalese President Abdoulaye Wade provided the following assessment: "China, which has fought its own battles to modernise, has a much greater sense of the personal urgency of development in Africa than many western nations."[112] The number of Chinese workers in Africa is disproportionate to the amount of financing. The workers bring skills and entrepreneurship, but in large quantities, they also compete for a scare amount of job opportunities. If not managed properly, the contentious issue of employee sourcing could disrupt the common rapport that China has with many SSA nations.

Events

China has not been as robust with humanitarian assistance in SSA as the U.S. However, its spending has increased, sporadically, in the last decade. For example, China's humanitarian assistance increased "to nearly $90 million in 2011, when it drove $68.5 million to the East Africa food insecurity crisis."[113] Provided in context, though, Chinese spending was only about a tenth of what the U.S. provided for the same food crisis in the Horn of Africa. After that crisis, China's humanitarian assistance in SSA dropped for several years before rising to $50 million in 2014, when China helped respond to the Ebola crisis with about $47 million.[114] Again, though, this level of spending was miniscule compared to the $2 billion plus that the U.S. provided.[115]

Evaluation of Impact

This article is focused on answering the primary research question: "How does U.S. and Chinese competition impact Sub-Saharan Africa's economic development? To comprehensively assess the impact of the U.S. and Chinese economic and financial initiatives on SSA, the authors use the ASCOPE framework, make the assessment, and provide justification as to where the impact falls on the three-part scale: adequate (1 point), better (2 points), or best (3 point). The aggregation of the results will provide the determination of the measured degree of impact. The following table shows the authors' assessment of the impact of the U.S. and Chinese economic and financial initiatives on SSA.
The following key takeaways correspond with each of the components of the ASCOPE framework.

Areas

Both the U.S. and China have focused on commodity markets in SSA. However, especially thanks to AGOA, the U.S. also expanded its influence into other markets and sparked SSA export opportunities. One area that has not received much attention is agriculture. Trade barriers continue to hinder agriculture as well as other industries. According to one study, complete elimination of tariffs on agriculture exports from SSA would increase exports over $105 million compared to what it would otherwise be in 2025, with large gains in areas such as sugar and fish exports.[116] Furthermore, establishing reciprocal trade agreements, especially if both China and the U.S. are on board, could spark market dynamics across the continent.

Structures

Antiquated trade agreements and a historic focus mainly on regional integration has hindered SSA countries from increasing their competitive advantages and achieve economies of scale. Going forward, a U.S.-Africa trade relationship based solely on unilateral preferences no longer provides a sufficient basis for building more robust trade relations. Progress in expanding trade in manufactured goods, services, and digital trade more broadly is needed.[117] Furthermore, closing the infrastructure quantity and quality gap relative to the best performers in the world could increase growth of GDP per capita by 2.6 percent per year.[118] The largest potential growth benefits would come from closing the gap in electricity-generating capacity, an area on which the U.S. is already focused.

Capabilities

The U.S. and China have largely conducted development projects and provided other assistance in SSA separately, with little to no coordination. The People's Republic of China does not publicly release the amount of money that it spends on foreign aid. Nevertheless, researchers have attempted to compare the efforts of the world's two large economies in Africa. According to AidData, a research lab at

	U.S.	China
Areas (bazaars, shops, markets)	**2**	**2**
Structures (banks, markets, storage facilities)	**2**	**3**
Capabilities (access to banks, ability to withstand natural disasters)	**2**	**2**
Organizations (banks, large land holders, big businesses)	**2**	**3**
People (bankers, landholders, merchants)	**3**	**2**
Events Economic –(drought, harvest, business open/close)	**2**	**1**
Aggregate	**13**	**13**
Benchmark Scoring **Adequate = 1, Better = 2, and Best = 3**		

Figure 1: Evaluating U.S. and Chinese Approaches in Africa
Source: Modified by authors using information from the Marine Training Command.

William & Mary, China committed $350 billion to foreign aid between 2000 and 2014, running close to the U.S. total of $394.6 billion.[119] The assumption is that the uncoordinated efforts of foreign assistance by the U.S. and China has created inefficiencies which have resulted in the benefit of the ruling elite at the expense of the general populations of SSA.

Organizations

Public-private partnerships in Sub-Saharan Africa remain a very small market, with projects concentrated in only a few countries, namely, South Africa, Nigeria, Kenya, and Uganda.[120] Electricity has proven to be the bright spot for public-private partnership. This model, as seen in Power Africa, should be applied to other industries.

People

Currently, people in SSA generally have favorable opinions of both the U.S. and China. However, China's bigger focus on resource extraction and less consistent effort on humanitarian assistance have caused some tension with segments of the local populations in SSA. As a result, the U.S. is more trusted in Africa than China, whose vast investments have at times sparked comparisons with colonial exploitation.[121] China's greater focus on extracting natural resources raises the risk of China being viewed as a neo-colonialist.

Events

Changes in the climate will be more harsh and frequent in the coming years. Both the U.S. and China have been reactive in what aid they provide. Very little assistance is allocated toward disaster prevention and preparedness.[122] The U.S. and China could contribute more resources and expertise toward these areas to achieve a reduction in loss of life and the need for large international responses to disasters.[123]

Conclusion

Since 2000, the U.S. and China have marched to separate drum beats in their engagement strategies for SSA. While both the U.S. and China have national interests in SSA, their interests are more subdued than other parts of the world (e.g. East China Sea). Promoting economic growth in SSA benefits both the U.S. and China and also helps to stabilize the region. Going forward, shared interests in SSA provide the opportunity for collaboration between the U.S. and China.

The first step to increasing collaboration is to meet. To date, China and the U.S. have maintained separate, semi-regular forums with SSA leaders. Outside of UN events, the U.S. and China have not met together with SSA leaders. In the next year, the U.S. and China should, together, convene a summit with SSA nations. Such a meeting will provide the U.S. and China to work together or at least align efforts.

One important area in which the U.S. and China need to align efforts is with improving infrastructure in SSA. To foster sustainable economic growth, infrastructure is critical. SSA needs infrastructure "hardware" such as power, transport, and telecommunications, while also building the "software" of integration (e.g. investment capital, efficient customs administration, reasonable control over corruption, and secure property rights).[124] This is an opportunity for the U.S. and China to work in unison to achieve economic development in Africa with each country specializing in hardware or software development, though the efforts will not be mutually exclusive. The cost to produce energy, build transportation networks, and provide internet is among the highest in the world. The lack of infrastructure makes sustainable economic growth difficult and prohibits international access to markets.[125] While infrastructure alone will not solve SSA's challenges, infrastructure can provide a foundation on which to develop other initiatives which promote political stability and fuel economic growth.

Another important issue that SSA needs to tackle to close the infrastructure gap is improving the investment climate. SSA nations have made the biggest gains in the world to improve the business environment. However, many of these gains are reversible, and so concerted effort must be maintained to safeguard these reforms. Indirectly, a potential threat to the business environment is the rising debt burdens that many SSA nations are facing. One recommendation for providing better transparency is to publish foreign debt loads and associated sovereign debt burdens.[126]

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While infrastructure projects take time and cost a lot of money, a more dynamic recommendation is to improve access to mobile phones in SSA. Africa has been able to skip landline phones in many areas and go right to mobile phone adoption. Leveraging the proliferation of mobile phones in SSA could have profound impacts in two major areas: banking and agriculture. First, Kenya provides a case study of the power of mobile banking. Through mobile banking, Kenya increased the share of Kenyans with access to financial accounts from 42 percent in 2011 to 75 percent in 2014.[127] One study found that, in rural Kenyan households that adopted the country's popular mobile-money system, incomes increased by 5-30 percent.[128] Instead of waiting for the roads and bridges to be built so that citizens can drive to the bank in the town center, mobile banking facilitates financial inclusion today. Mobile phones also offer promise for improving the antiquated farming practices found in many parts of SSA. Senegal offers one example of

how mobile phones could help to implement reforms. Small farmers there used smartphones to receive weather updates, market reports, even new seed technologies. This integration of mobile phone technology helped to raise profits for those farmers.[129] The U.S. can provide tax incentives and grants to promote technology investments in SSA.

However, the solutions cannot just be focused on infrastructure and technology. Ultimately, a human element is important to any strategy. As noted, China's predominant use of its own labor force for construction projects and extracting natural resources has raised tensions with the local populace in many parts of SSA. Going forward, China must balance the short-term benefits of using its own Chinese workers with the long-term benefits of developing the skills of African workers. China should work with African governments to encourage Chinese firms to hire and train African workers and to limit the flow of labor to amounts designated by African countries.[130] Private firms recognize the changing labor supply and rates in China. The Chinese working population is peaking. As the labor supply tightens it results in average wage increases. Potentially lower wages in Africa represent an opportunity to move the manufacturing value chain from China to Africa. Africa will become the world's primary source of net labor force growth, therefore with a long-term vision in mind, Africa has the human capacity to be the next manufacturing hub. In addition to a large labor pool, China benefits by moving their manufacturing value chains to the lower-wage location as AGOA enables goods to be imported to the U.S. duty-free.

The U.S. and China have found success in some of their individual efforts. However, by identifying common ground for key initiatives in SSA, the two countries can align shared interests and have a greater impact on the economic and financial development of the region. ***IAJ***

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Lessons on Collaboration from Recent Conflicts:

The Whole-of-Nation and Whole-of-Government Approaches in Action

by Brett Doyle

Attempts to bring peace and stability in conflict plagued areas have dominated the foreign policy of the United States. In the era of globalization, however, the U.S. is only a single player in an increasingly complex "maze" of organizations addressing stability problems.[1] The problems of coordination and cooperation have only intensified as the number of organizations engaged in stabilization increases. Though collaboration does not guarantee success, insufficient collaboration can ensure failure, as was seen in numerous reviews of U.S. activities. Hundreds of millions, if not billions, of dollars in reconstruction assistance have been described as having been wasted, in part due to lack of coordination. Further still, collaboration failures have doubtless impeded the promotion peace and stability.

The coordination and direction of U.S. stabilization efforts, which can be loosely described as political and economic support to reduce violence and promote stability, is complicated by the legal division of authority over U.S. civilian and military organizations. This has led to situations with uncertain authority or responsibility for areas of activity, as well as areas of overlapping authorities.[2] Beyond U.S. organizations – though all generally supportive of peace and stability – the wide range of organizations operating in conflict zones can have a spectrum of overlapping and diverging interests. This can include the diverging interests of a multiplicity of donor states, limited mandates for international organizations or non-governmental organizations (NGOs), or differences of opinion between local and national elements of the host national government itself. Organizations, particularly humanitarian ones, can even be suspicious of U.S. intentions or averse to cooperating with military forces in general.[3]

Further complicating coordination, many activities are conducted through third party organizations. Donor states, including U.S. civilian agencies, predominantly do not design and

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implement programs and projects directly. Rather, they direct policy implementation and work through "implementing partners," funded through grants and contracts. These partners can number in the dozens for any given functional area. Other organizations, such as the United Nations and its agencies, can both act as implementers for other organizations or fund their own implementing partners.

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The need to improve collaboration and avoid failures has led to the embracing of "Whole-of-Government" and "Whole-of-Nation" approaches[4] to appropriately martial the collective resources and capabilities of organizations across the U.S. government and host nation.

- A Whole-of-Government approach in this context refers the U.S. military and civilian agencies working across boundaries to achieve shared goals and an integrated government response.

- A Whole-of-Nation (or sometimes also called a "comprehensive approach") widens this aperture to include all organizations operating in a conflict area to support peace and stability, to reach common goals, though typically not so far as to achieve an integrated response.

Collaboration Research

To discover more about the challenges of collaboration, I conducted research on the how it occurred between organizations in a number of conflicts in which the U.S. was attempting to promote stability.[5] This included Iraq and Afghanistan, as well as collaboration in the conflicted afflicted region of Mindanao in the Philippines and the efforts to promote stability in South Sudan. These cases were intended to cover the spectrum of military engagement, with heavy military presence in the cases of Iraq and Afghanistan, and a virtually non-existent military presence in the later locations. The research examined U.S. civilian and military collaboration in political and economic support activities[6] but also further examined U.S. collaboration with the full range of actors, including host nation governments, international organizations and NGOs. The periods of each case study spanned several years of activity, to help understand longer term trends.

In the research, the Iraq and Afghanistan cases were narrowed to focus on two subject areas, those of U.S. efforts at the provincial level, and the U.S. efforts in the area of rule of law support. The provincial level often included combined U.S. civilian and military Provincial Reconstruction Teams (PRTs),[7] sometimes with additional district or locality oriented teams, local governments and civil society groups, and sometimes other international partners. The rule of law cases covered the "courts, cops, and corrections" focused activities in the two countries. The South Sudan and Mindanao cases covered the entire effort in those countries.

The research involved generally characterizing collaboration between major groups of organizations, such as between the U.S. civilian and military, between the U.S. and host nation, or with NGOs, etc. This effort included a thorough review of primary source documents and the conduct of 14 interviews of U.S. and international practitioners in the case study countries to support the document research. The most prominent findings of this research as they relate to U.S. efforts in applying a Whole-of-Government and Whole-of-Nation approach are presented here. Additional details about the research and finds can be found in my dissertation research, *Beyond Ad Hoc*.[8]

Stabilization as a Collaboration Network

U.S. stabilization efforts involve a wide spectrum of civil improvement projects in areas ranging from rule of law (e.g. "courts, cops, and corrections"), economic development, and supporting national and local governance. In many cases, these efforts concern issues and actors that would not be unfamiliar to city managers or other state and local officials in the U.S. or any other country. Thus, stabilization activities can be seen as an "expeditionary" application of governance and public policy, in a context of a foreign country and amidst violent conflict.

Moreover, as noted by Whole-of-Government and Whole-of-Nation approaches, success requires working with a wide range of organizations, not the least of which is the host nation, but also local civil society organizations and other international states or organizations. This implies an inherently collaborative and networked approach and can be viewed as working within a network of friendly or even neutral partners. For decades, public administration and affairs scholars have been studying the implementation of public policy objectives through networks of participating organizations based upon cooperation, partnership, and collaboration, rather than through a hierarchal structure. With this in mind, my research was conducted using these approaches to examining collaboration.

However, not all collaborative networks are equal. A useful means of distinguishing is by means of interaction.[9] The levels of interaction included:

- Informational networks, in which participants come together exclusively to exchange agency information and any actions taken are purely voluntary;
- Developmental networks, in which information exchange is combined with education and member services that increase capacity to implement solutions;
- Synchronization[10] networks, in which participants share information, build capacities, sequence activities, pool resources, and develop new implementation options; and
- Joint Action networks, in which participants adopt collective courses of action and combine resources.

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The type of interaction among network participants has implications for the types of support and engagement required from individual organizations. As the level of interaction increases, more sophisticated, resource intensive, and often more formal means of managing the network are required. For example, in Joint Action networks where integrated decisions are made, formal deliberative means of reaching agreement are almost always the rule and a greater degree of coherence of participant goals is required.

Moving along this continuum depends on a number of factors. A logic model of collaboration between organizations divides the process into two general categories that can be generally summed up as the "will" and the capacity to collaborate.[11] The former involves a number of issues such as incentive or perceived "pay off" to collaborate, interdependence between actors, trust levels, and shared understanding

of problems and possible solutions. Capacity for collaboration involves resources and the authority to employ them for this purpose. This could include managerial discretion (or lack thereof), how to share resources, or regulatory or administrative limitations. In relation to the levels of interaction, in general terms, while all collaboration requires a will, higher levels of collaborative interaction require increasing capacity.

Findings from the Case Studies

After a review of the type of interactions seen in the Iraq and Afghanistan provincial and rule of law collaborative networks, and in the South Sudan and Mindanao collaborative networks, the level of collaborative interaction across the cases was best characterized as being at the Developmental level in general or at Synchronization network levels for the U.S. military and civilian interactions.

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With the exception of one particularly contentious relationship, the various collaborative interactions seen in these cases were all operating at a Developmental level or higher. This would include the interactions between the U.S. and NGO, U.S. and host nation, U.S. and other donor states, and U.S. and UN. This was evidenced common participation in conferences to share best practices and build common capacity, often for a functional area such as agriculture, rule of law, or a local region. Further, there was a strong culture of sharing transport space and emergency support among organizations. However, broad collaboration across organizations was more limited when it involved accepting risk to individual projects or missions. One way to look at this was that while the sharing of extra space on vehicles was common, the actual lending of transport assets to a partner was rare, if not unheard of. This affected collaboration on project activities past a Developmental level, as organizations were typically unable or reluctant to make changes to their project goals or redirect resources away from them to support other organizations, even for potentially mutually beneficial efforts.

The U.S. civilian and military relationships, aside from the thorniest of relationships, operated at a Synchronization level, at least by the end of the case study periods. This was seen in terms of mutually understood areas of activity, shared strategic goals and objectives, and by at least staying out of each other's way (i.e. "deconflicted"), if not actually routinely complimentary project activities, by the end of the cases. There was a general trend of slowly improved, but by far not perfected, patterns of collaborative interaction in all of the cases.

However there was a clear, but frustrated, desire for a Joint Action network level of collaboration between the U.S. civilians and military (particularly by the latter). While there were certainly examples of Joint Action between the U.S. civilian and military organizations and with other partners in the cases, these were generally isolated and/or not sustained. Where U.S. civilian and military collaboration seemed to break down was at the highest level of activity of shared decision making, particularly regarding those decisions that involved directing such resources, particularly project funding. Lack of civilian access to responsive funding sources, lack of civilian personnel and capacity, and an absence of accountability and incentive systems worked against coordination and consistently constrained Joint Action level collaboration. Funding sources proved to be a barrier for collaboration, even when the motives (trust, shared goals, leadership intent) were present.[12]

An example of a frustrated attempt to

establish a Joint Action level network can be seen in the case of the Deputies Committee, under the Coordinating Director for Rule of Law and Law Enforcement (CDROLLE), who was the civilian head of rule of law activities in Afghanistan. The intent of the Deputies Committee was to vet programs, share information on activities, and function as a coordinating body, with the committee chair having the final say on spending.[13] However, many participants tried to side-step it, and integrated collaboration was never achieved. Moreover, often U.S. civilian agency agendas and funding were controlled largely from Washington rather than Kabul, and as a result, civilian agencies often remained beholden to their respective funding sources.[14] The CDROLLE did not have any legal authority to force compliance from participating organizations.[15] As a result, it was an informational and consultative body, despite the intention for it to be an integrated decision making one. Despite falling short of enabling Joint Action, the CDROLLE and Deputies Committee did foster collaboration at lower levels of interaction.[16] For example, in at least once case, the CDROLLE helped identify duplication of rule of law activities between the Department of State's Bureau of International Narcotics and Law Enforcement Affairs and the U.S. Agency for International Development (USAID), which was then addressed.[17]

Insecurity Drives Collaboration Volatility and Instability

The review of collaboration in conflict environments begs the question of why consistent, high level collaboration seemed so difficult to attain. In examining the cases, it became clear that there was an interrelation between the hostile security environments and tour rotations. The poor security was a driver of short tour durations and staffing instability, which substantially undermined collaboration and sustainability.

Staff turnover was seen as a challenging issue that spanned all cases. Due to hostile and austere working environments, personnel – particularly international personnel – typically only resided in a country for a year or less. Host nation counterparts, though not bound to the frequent rotations that U.S. and international personnel maintained, still could often leave positions, either from threats or acts of violence or through normal turnover, such as after elections.[18] For example, many Iraqi government positions were based on political patronage and personal power, which could shift from one group to another resulting in wholesale replacements of staff.[19] In South Sudan, officials were also noted as changing frequently, particularly at the local levels. Changes in personnel could coincide with scheduled U.S. rotations, exacerbating negative results for an area.

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An example of how this dynamic could result in collaboration volatility can be seen in the civil-military relationship of three Marine and Army unit rotations in Anbar, circa 2008-2009. The first Marine Regional Command was seen as strongly supporting the civilian activity. However, the second Marine Regional Command was seen as "old school" and didn't understand the civilian role. It took two to three months (of their six month tours) to cement a working relationship between the civilians and military. The following Army military command had studied civilian activities and as such was strongly supportive with little needed "spin up" time.[20]

As seen, staff instability necessitated adjustments if not re-establishment of collaborative patterns. Adjustments between collaborating organizations were likely to have impacts that organizations across the network

would in turn need to adjust to. This created a ripple effect, as organizations generally faced staffing disruptions in a compressed amount of time.[21] Simultaneously, security needs created challenges and delays to relationship development and knowledge management, both of which were substantially affected by tour rotations. These factors made it more difficult for organizations to adjust to the changes fostered by staff instability.

Further still, the hostile environment created volatility in coordination and strategy, as changes in violence levels and political crises forced rapid priority changes, adding to the challenges above. In many cases, hostile environments greatly affected strategic priorities. Spikes in violence could rapidly undermine plans and derail efforts at stabilization. This instability was particularly detrimental to senior level or "top-down" efforts to improve collaboration across organizations, as it affected the whole of the network activities and highest-level priorities of collaboration. In a network context, this caused a cascading effect of organizations needing to rapidly re-prioritize, then to adapt to all of the other participating organizations' reprioritizations.

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One early example captured the potentially extreme changes that could be driven by security concerns: "What a rapid change in just five days, from preparing to launch a broad new array of programs aimed at operating government, improving communication and public input, to living hunkered down in a military base, contemplating evacuation."[22]

In another example from South Sudan, in response to the 2014 crisis, the European Union and United Nations Development Programme rapidly changed their strategies to reflect the new environment and needs, establishing new priorities and redirecting resources.[23] This vicious circle of insecurity and staff volatility was doubtless a driver of many of the collaboration challenges seen in the cases, and a striking instability of collaboration was seen across the cases.

Fragility of Progress

The instability of the collaborative networks likely frustrated the development of network mechanisms that could have provided for greater stability. Frequent tour rotations likely limited the ability of managers to identify the necessary developments as well as to make and solidify the agreements necessary to support greater collaboration. This is most clearly evidenced in the cases in the study where agreements to support collaboration between organizations were made and then collapsed due to staff turnover. In some cases, organizational agreements were developed, abandoned, and then reestablished.

Leadership instability was particularly detrimental to collaboration. This was seen frequently in U.S. military unit rotations, where incoming military leaders made fundamental changes to their predecessors' policies and priorities.[24] Projects could be stopped for weeks or months as the new commander decided priorities and the military familiarized itself with the area.[25] This could go so far as effectively ignoring the previous unit's work and effectively starting over or even reversing progress.[26] Multiple changes in leadership could also lead to instability in vision and direction, and lead to less focused and inefficient efforts.

One example of this was seen in the CDROLLE in Afghanistan. An initial civilian-military agreement was reached on the roles and responsibilities of the CDROLLE, which included U.S. civilian primacy on rule of law activities. However, the following generation of

military leadership did not accept the agreement, and the highly integrated level of collaboration envisioned in the initial agreement was not sustained.[27]

A further example of this build and collapse pattern was seen in the Afghanistan Commander's Emergency Response Program (CERP) fund. This was a military funding source for reconstruction and stabilization projects. To ensure close coordination, in spring 2005, the military leadership temporarily withdrew the authority of PRT commanders to allocate CERP funds. Instead, they were required to coordinate funding proposals with civilians and then send them for high headquarters approval. Civilian organizations made complementary efforts during this time, such as placing representatives at military headquarters to further facilitate coordination. This requirement, however, was withdrawn in several months, with military leadership satisfied that expectation for military coordination with civilians had been firmly established. However, the coordination did not turn out to be sustainable without it, and over time, it diminished.[28] To re-address this issue, the civilian and military leadership in 2007 developed a new Fragmentary Order that directed the military to both consult with civilian representatives on CERP projects and to learn from their development expertise. The Fragmentary Order was also intended to ensure that CERP activities took into account local development plans in Afghanistan, which were developed with civilian involvement.[29] Though the military initially complained that this slowed down operations, in time it came to appreciate the value of the process.[30]

This dynamic has serious implications for collaboration in stabilization efforts when taken together with the assertion that greater levels of collaboration require greater and more formal network management features. Organizational changes can take well over a year or two to see through, including negotiations between organizations and waiting to impact budget cycles.[31] More complex changes or policy changes can take three years or more. However, the rapid turnover, particularly of leadership, provides "break points" well inside the timelines for organizational changes. At a minimum, these break points require reaffirming agreements and support for collaboration mechanisms among partners, or they can lead to the effective dissolution of collaboration agreements entirely. As a result, the inherent staffing instability in conflict situations has profoundly negative impacts for establishing the mechanisms necessary to support sustainable high-level collaboration.

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Limits of Common Responses

Across the cases, frustration with collaboration engendered a number of efforts and approaches to improve collaboration among partners. However, as seen by the limits to collaboration previously outlined, these approaches were not completely successful. Notable among these are the efforts of co-location of staff, frequently of U.S. civilian and military staff, and joint planning. Their benefits and limits are discussed below.

Limits of Co-Location

Co-location was the establishment of entire offices or teams of personnel from different organizations in the same areas. Examples of co-location civilian and military personnel co-located at various levels of the military structure in the field in Iraq and Afghanistan. Further, in Mindanao, U.S. leaders determined, in part

for collaboration purposes as well as legal and practical ones,[32] that U.S. military forces would be co-located with Philippine units on Philippine installations. Co-location was seen as contributing to coordination and problem solving.[33] In this process, daily in-person interaction was seen as building up relationships and credibility or trust. Through improved information sharing and relationships,[34] a common understanding of issues could be developed which allowed for development of coordinated solutions and activities.[35]

While most examples of co-located results were positive, co-location sometimes generated more conflict than coordination.

An example in Al Asad, Iraq provides an example of co-location in practice. The harsh living conditions were cited as fostering mutual bonding and working relationships across both military and civilian lines. In particular, a lack of plumbing in living quarters was cited as a bonding factor. This was contrasted to other locations, where civilians may have had amenities, such as indoor plumbing, which military personnel did not.[36] These differences could lead to tension that damaged the civilian and military working relationships. To avoid these, many civilian teams self-imposed restrictions on their privileges. At Al Asad, there was an effort to observe military protocols in general. The PRT leadership directed that although civilians were not necessarily subject to the same restrictions as military staff, they too would not be allowed to drink alcohol when their Army and Marine counterparts could not. The direction was also given to respect personal communication black outs in the case of military casualties, which were implemented for a number of hours (12) to ensure that families received formal notifications.[37] These efforts were cited as helping to foster cohesion between military and civilians at Al Asad, if only through removing potential causes of resentment on the part of the military.

Co-location greatly reduced the transaction costs of information sharing and relationship building. This could be particularly important in hostile environments where challenges to travel and communications could greatly limit contact, even when only short distances were involved. However, much benefit of co-location still hinged on personal relationships and credibility. While most examples of co-located results were positive, co-location sometimes generated more conflict than coordination.[38] Even though co-location reduced barriers to in-person interaction that helped foster the will to collaborate, it alone was not sufficient to guarantee high levels of collaborative interaction.[39]

Limits of Joint Planning

Across the cases, there were many U.S. efforts to promote high levels of U.S. civilian and military collaboration through increased planning. However, joint planning could not itself fully enable the desired Joint Action network level of collaborative interaction. In reviewing the challenges in achieving Joint Action network levels of collaboration, funding sources proved to be a barrier for collaboration, even when the will to collaborate was present.[40] In many cases, organizations on the ground did not have the authority to align funds to other priorities.

The inability to directly control funding resources to support inter-organizational plans was particularly challenging among U.S. civilian organizations. Collaboration was constrained by budgetary funding cycles, including the time delay in obtaining funding through various mechanisms.[41] As a result, when opportunities to coordinate national projects with the military emerged, USAID officers were unable to move quickly enough to do so.[42] Cases of more successful U.S. civilian

and military collaboration were largely a result of the organization with the more flexible funding source, e.g. the U.S. military and its CERP funding, deciding to support U.S. civilian objectives and apply resources for them.

The dynamic of civilian inability to quickly direct resources was seen in an Afghanistan Provincial example. Although the main source of civilian funding in Afghanistan at the provincial level and below was from USAID, the vast majority of USAID spending decisions were made in Kabul. Any changes to USAID contracts, which were typically established for multiple years, could require time consuming contract modifications with implementing partners, or even notifications to Congress. Once the work plan was established, implementing partners were seldom responsive to the individual provincial needs outside of the established plan.[43]

This is not to say that planning efforts were not useful for fostering collaboration. These efforts did seem to produce an effect in that, as stated above, a Synchronization level of collaborative interaction was often achieved between U.S. civilian and military organizations. This included sharing information, building capacities, sequencing activities, pooling resources, and developing implementation options. However, planning without all participants' direct control over resources was insufficient to achieve an integrated level of collaboration. The failures of the plans to produce these results appeared to have resulted in frustration with the collaboration process.[44]

Moreover, the review of cases suggests that Joint Action network level collaboration, or full integration, was not necessary for overall success. This is evidenced by the relative success of the stabilization effort in Mindanao. In that case study, complementary Synchronization levels of collaborative interaction between the U.S. military and civilians, and with strong host nation partnerships, supported positive stabilization results as seen in the acceptance of a peace agreement between major combatant groups and the government. Thus, Synchronized levels of collaborative interaction, though not necessarily fully integrated Joint Action levels of interaction, may be sufficient.

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Other Barriers

Other barriers were also identified in the research. These include challenges and costs of accountability and oversight of projects and barriers to sharing information with partners. Each had substantial impacts on the collaboration efforts examined in the cases.

Accountability and Oversight

In most non-hostile development or collaborative governance environments, a certain level of accountability and oversight for programmatic activities is assumed. However, the hostile security situation meant staff could not always travel to projects for site visits or to verify information coming from implementing partners. U.S. site-visits could even turn the project into a target. For example, in Fallujah, the insurgency affected that district team's[45] ability to monitor the progress of its projects: "…if Americans started showing up at a project it highlights (that) this guy is working with Americans, and (he) becomes a higher target…." As a result, in-person observation could be abandoned in favor of phone or email oversight, third-party local partners could become relied upon, or oversight could just not be conducted. In some instances, there were some areas that were so insecure that even local national personnel would not go there.[46] This led to a number of

program challenges and outright failures.

While the costs of additional physical security that hostile stabilization environments necessitated were frequently well-stated, the increased costs to accountability and oversight were not as visible. While there is a general sense that accountability and oversight were limited, there was no accounting for the increased transportation costs, security costs, or project risks that barriers to accountability and oversight created. In an insecure and weak civil society/media environment, which is typical of conflict afflicted areas, resource providers will have a greater burden in this area. These hidden or unarticulated accountability and oversight costs were not widely recognized when contemplating or planning for collaboration in conflict zones.

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Information Sharing Challenges

Another potentially significant barrier to collaboration in conflict zones were restrictions to information sharing that resulted from the hostile environment. Given the hostile nature of the environment, concerns or restrictions on information are justified. In the cases, resistance to sharing information could be significant. This was in part due to concerns that releasing it could pose security risks as well as over how the information may be used by others.

However, information must still be shared to enable collaboration. Information sharing is a key building block to collaboration, and is the starting point for establishing relationships, setting common priorities, and progressing to the further steps necessary for higher levels of collaborative interaction. Further, in a collaborative context, the availability and rate at which information can be accessed has implications for the overall efficiency of a collaborative network. Sharing information is key for many aspects of collaboration, such forming mutual understanding of organizational capacities and sharing understanding of problems. Impeding the sharing of information among partners can slow or undermine the collaborative process.

Information sharing restrictions often led to administrative hurdles to sharing information with partners. While such hassles for information sharing were seen as manageable in the cases described here, it is likely that there were still negative impacts that resulted. For example, there was anecdotal evidence that humanitarian NGOs self-selected away from partnering with security conscious U.S. government organizations, at least in part due to the limited information exchange and associated barriers. Furthermore, in a low trust environment, managers with the discretion to do so may decide to withhold information from partners they are not confident in. Alternately, they may simply not feel empowered to share, rather than actively withholding information. Moreover, security restrictions on sharing information can easily be leveraged to avoid information flow or can have a chilling effect on benign information sharing.

Success Mechanisms

While a number of barriers were identified in the research, so too were a number of promising or potential success mechanisms. These were either observed in the cases studied or strongly suggested by analysis of them.

Leadership and Management Approaches

For leaders or managers, a key implication of ensuring instability is that fostering collaboration is an enduring management responsibility. Leaders often play a key signaling role in fostering collaboration with partners. Commonly, this is an implied role for leaders or managers. However, in collaborative environments,

establishing and demonstrating collaborative relationships with all partners should be a clear responsibility for leaders.

Managers and leaders should also build strategies to develop trust among partners who do not already have strong cultures of collaboration. This would involve understanding limits to trust among organizations, including rivalries, conflicts, resentments, competing priorities, etc. Further, maintaining and reestablishing relationships is an ongoing effort in stabilization activities. This is almost certain to transcend individual "relationship holders" as staff transitions. Thus, efforts should be made to preserve relationships across rotations.[47]

Managers should understand and recognize the degrees of collaboration that may be sought. This includes identifying how much collaboration is possible across sets of organizations, due to divergent goals or inflexibility of resources. To enable this, managers should identify central players without whom progress cannot be achieved, as well as understand these central player's positions on collaboration. Managers should also understand limits to collaboration that may result from inflexibilities or incompatibilities in funding sources.

Combined Reporting to Leadership

In the case studies, regular joint or combined presentations to senior leadership was found to be at least as successful as integrated planning. For example, in the Iraq and Afghanistan cases, there were examples of combined civilian and military briefings to senior leadership. Such presentations could be to either a civilian or military senior leader or even both at once. This process seemed to serve as a reliable forcing function to establish collaborative relationships, often helping to foster a Synchronization level of interaction.

This practice of senior level review required fewer resources than integrated planning and seemed to produce similar collaboration results. Thus, as a less resource-intensive but still effective means to support collaboration across organizations, joint or combined reporting for senior leadership should be considered. This review should ideally be concurrently or conducted jointly by all organizational leaders, and it should take place at as high of a level as feasible.

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Shared Funding

Shared funding mechanisms, i.e., pooled civilian and military funds, or funds which require both U.S. civilian and military approach, should be explored as a means to facilitate (or even necessitate) Synchronized and Integrated collaboration between U.S. civilians and military. An example of one such "dual-key" fund is the Department of State-managed Global Security Contingency Fund, which is funded primarily by the Defense Department with State Department contributions. In theory, such shared funds would resolve the inflexibility issues by being codirected. Further, through co-direction, they would require some measure of agreement on priorities.

An early example of high-level U.S. civilian and military collaboration was achieved through this approach. In the 2004 to 2006 timeframe, the Jalalabad PRT in Afghanistan had initiated a weekly project nomination process, at which everyone on the PRT could vote on the nomination of projects for CERP funds. The civilian members of the PRT became to be seen as the "PRT Executive Team," with substantial purview and authority in their area of expertise. Formal final decision-making authority still resided with the military commander, though with consideration of civilian inputs.[48] The process was eventually expanded so that the

PRT and military could vet projects with the local provincial coordination council and so that USAID could align local programs with national programs in Kabul.

The Jalalabad PRT system was subsequently adopted by other PRTs in Afghanistan as a "board of directors" approach, with State, USAID, and the military commander, and potentially other leaders and key staff developing plans together.[49] A similar approach was known as a "Command Group model" where each agency was a co-equal partner. This model allowed the PRT to develop and implement one comprehensive provincial stability strategy, while also coordinating his or her agency's larger mission in the area.[50]

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Project Oversight to Support Continuity

Frequently during leadership transitions programs were added, dropped, or changed as new leaders changed priorities. This led to inefficiencies, program failure, and collaboration challenges with partners, who were often caught unaware by the changes. While cost of a project was typically a threshold for higher levels of review and oversight, duration or continuity of projects was not. To promote collaboration, greater oversight should be considered projects that may endure or that may be subject to changes after their initial sponsors depart. Measures to monitor and even moderate project changes should be considered as leaders, or in the case of the military, units change.

For example, the U.S. military's existing formal transition process could be extended to include a process to re-affirm, modify, or cease projects as leaders and military units transition. Such a process could include justifications, as well as analysis of impacts to partners. Another approach could be to require an agreement with a receiving caretaker organization to "adopt" and manage projects that are intended to endure after a transition. Examples of this occurred in the cases studies in some cases as military units withdrew and ensured projects were adopted by remaining civilian teams.

Dual or Multi-Tracked Approvals

There were numerous examples of leadership changes resulting in the dissolution of or need to reestablish organizational agreements, some of which are described above. This degraded network efficiency and provided barriers to further collaboration. As a result, special attention should be paid to shared priorities and any agreements that articulate them. For example, shared priorities between organizations should be re-affirmed, or changed as needed, as a matter of course during leadership transitions. Ways this could be done would include a process of establishing and refreshing agreements, such as memorandums of understanding, or through strategic planning. An example of the latter was seen in the common planning at the provincial levels conducted between U.S. civilians and military organizations in Iraq. In this process, common priorities and a shared understanding were re-established between the civilian teams and military units as the latter rotated in.

At a minimum, established shared priorities should be tracked by higher headquarters, with notifications of their approval, dissolution, or other changes. Higher headquarters may even want to establish a justification or review processes for their abrogation in order to support collaboration success. Further, as a best practice to ensure the continuation of joint agreements, agreements should be affirmed by both or all parties at level higher than the agreeing parties, and promulgated through all parties' organizational systems.

Security Forces Enabling Access and Oversight

Across the cases, one of the strengths of security forces was a field presence in areas that might have been too dangerous for civilian organizations. This was particularly so for the U.S. military and its pronounced presences in Iraq and Afghanistan[51] and for UN peacekeeping efforts in South Sudan.[52] The U.S. military also often helped provide or facilitate oversight for areas it had better access to.[53] Non-military partner organizations were aware of this and frequently enlisted assistance of armed security forces in oversight activities. However, this was conducted on an informal, ad hoc basis. To facilitate greater network efficiency, this potential role for security forces or other organizations operating with greater access in a stabilization environment should be considered and, where possible, leveraged to support accountability and oversight for those organizations with less access. Formal agreements could be established between organizations to enable this. In the U.S. context, this role could be added to the plans for U.S. or other partner military organizations.[54]

Enabling Information Sharing

To support collaboration, appropriate information sharing should be encouraged or even required. This could be enabled in several ways. These include requirements for implementing partners to report information to appropriate lead countries or secretariats. It could also be promoted through shared planning processes, such as information management annexes in national development strategies or in joint plans, such as U.S. Joint Campaign Plans.

Risks to staff or activities should be taken into account regarding what information to protect. However, information that possesses no or minimal risk and is useful to other organizations should be shared widely. To avoid unnecessary barriers to information sharing, restrictions to sharing with partners should, as a best practice, be disseminated with guidance identifying what information is actually sharable and how partners may access it.

From the research in the cases, information commonly sought out by organizations included:

- Common risks or threats, such as explosive remnants of war;
- Organizations acting in the physical or functional areas;
- Roles and responsibilities of participants;
- How resources could be leveraged;
- What the host nation needs are, particularly locally; and
- What can local partners sustain.

In addition to what information needs to be shared or protected, how it actually can be shared with partners should be considered.

In addition to what information needs to be shared or protected, how it actually can be shared with partners should be considered. For example, information stored on U.S. secured computer networks frequently had to be manually shared (i.e. downloaded to physical media and transported by hand) with non-U.S. partners. In other cases, databases were not well used or were not sustained after their initial start-up project ended. Ideally, how information can be shared in a trusted manner will be planned for well before organizations begin operations in a collaborative environment.

Shaping Funding to Enable Integrated Collaboration

U.S. conflict-oriented funds, such as any future CERP-like funds, should be designed to mitigate resource inflexibilities that inhibit

or prevent integrated collaboration. This could include being responsive to country and/or sub-national planning and priorities. Conflict funds could also be designed to enable integrated action through bridging gaps in conventional funding areas. This could include bridging time delays that prohibit integrated collaboration, such as when funds are subject to different timetables due to their respective allocation processes. Or they could be authorized for functional areas not normally covered by other funds, such as development of local partner capacities or covering "seems and gaps". Enabling integrated activity among partners, through providing a capacity to collaborate, should be an expressed purpose of such funds.

If these conflict oriented funds are effectively replacing an existing non-conflict fund then they should be as consistent with U.S. civilian and/or international best practices as is practical to promote collaboration and transferability. An example of this was the use of CERP "where civilians are not operating" as seen in Iraq and Afghanistan. This consistency of practice should include both the activities themselves and the oversight and evaluation of the funds. Additionally, such funds would foster collaboration through being dual-keyed or pooled funds.

Both the level of collaboration desired and the authority to direct resources should be a consideration for planning efforts.

Consider Who has Direct Control of Resources in Planning

Both the level of collaboration desired and the authority to direct resources should be a consideration for planning efforts. Once that is determined, the planning should include the organizations and appropriate levels to achieve the desired impact, in both terms of shared approaches and priorities, and direction of resources. For example, in the U.S. civilian and military context, this would likely involve integrated planning both at the country level and in Washington, D.C. This in turn could involve the development of working groups, planning bodies, and secretariats in D.C. headquarters level to integrate with planning activities undertaken in the host nation. In a sub-national context, this could include involving area implementation partners that directly manage resources in planning bodies. For example, in a future PRT-like construct, it may be useful to consider mandating liaisons or embedding local implementing partner staff onto teams in order to establish direct lines of communication and joint planning with implementing organizations.[55]

Conclusion

Through the frameworks of collaborative governance theory, my research examined many of the limits and challenges – as well as successes – of collaboration in U.S. stabilization efforts. Understanding both of these can enable greater success and avoid failures. However, for the findings of this research to have practical impact, they must be translated into knowledge and resources for managers and organizations, such as through inclusion into training and doctrine. In this way, research findings may improve collaboration effectiveness and efficiency and, ideally, succeed in mitigating conflict and bringing stability to violence-afflicted peoples in the world.

The research and review also illustrated a need to better understand management and leadership when engaging with networks in Whole-of-Nation and Whole-of-Government contexts. Collaborative governance researchers have found that management success in these networks involves a different mix of skills, approaches, and techniques than in hierarchical environments. A better understanding of how and when to apply collaborative network

management approaches when engaging with networks the Whole-of-Nation and Whole-of-Government approaches would better enable success. Moreover, a stronger conceptual understanding of how to understand and assess collaborative networks, such as the typology and basic logic model presented here, can help leaders better succeed within them. Collaboration and cooperation is not one single thing, and such conceptual understanding would offer a more nuanced understanding of how collaboration occurs and to what degree it may occur and with which partners.

In this vein, one major theme of my research findings was that true integration of operations is not feasible without control of resources, particularly funding. However, another key observation was that integration is not necessarily required for success. None of the patterns of organizational collaboration reached a consistent and sustained Joint Action, or integration level of interaction. However, many of them made significant progress, particularly in Mindanao which saw a substantial reduction in violence in the region by the end of the case period. If any conclusion about the relationship collaboration and stabilization success could be drawn from the research, it was that reaching high Developmental or Synchronization level of collaboration with a host nation is possibly more important than a Joint Action level of U.S. civilian and military collaboration. Moreover, the "integration" mindset itself could be counterproductive, as it could lead to frustration and to potentially unproductive efforts to increase levels of U.S. civilian and military collaboration interaction.

The challenges of collaboration in complex environments and the need to engage networks in the Whole-of-Nation and Whole-of-Government approaches, and thus manage and lead through collaborative networks, show no sign of diminishing. While the U.S. civilian and military collaboration challenges in Iraq and Afghanistan garnered much of the attention, my research demonstrates that these issues are not unique to U.S. civilian and military environment. Even without large military presences, the U.S., along with the international community, will need to collaborate successfully to meet the world's challenges. While collaboration itself cannot deliver stabilization success, lack of collaboration can ensure failures. Ideally the lessons drawn from this research can be used to inform U.S. Whole-of-Government and Whole-of-Nation efforts in a wide range of conflict or complex environments going forward. ***IAJ***

NOTES

1 United States Institute of Peace, *Guiding Principles for Stabilization and Reconstruction*, 2009, https://www.usip.org/sites/default/files/guiding_principles_full.pdf.

2 Further, coordination challenges existed within the U.S. civilian and military organizations themselves. U.S. civilian agencies often have shared responsibilities to their respective leaders in Washington, D.C. headquarters, not just to the country's Ambassador. Robert B. Oakley and Michael Casey, Jr., "The Country Team: Restricting America's First Line of Engagement," *Strategic Forum*, No. 227, September 2007, p. 1-12, http://www.au.af.mil/au/awc/awcgate/ndu/sf227.pdf.

Even within the U.S. military some units, such as Special Operations Forces, can locally act independently of conventional military units. This can lead to multiple military units acting in an area without a unified chain of command; without sufficient coordination, these units can even undermine one another's progress. Cases of U.S. Special Forces unit activities conflicting with general forces activities are well documented. It is even addressed as a priority in U.S. Army Field Manual 3-24, *Insurgencies and Countering Insurgencies*, May 2014, p. 6-5 to 6-6.

3 Ryan P. Burke, "Same Objectives; Different Perspectives: Assessing the Civil-Military Culture Gap in Humanitarian Assistance/Disaster Response," *Peace Keeping and Stability Operations Institute Journal*, Vol. 4, No. 3, May 2014, pp. 16-25.

4 A Whole-of-Government approach in this context refers the U.S. military and civilian agencies working across boundaries to achieve shared goals and an integrated government response. A Whole-of-Nation, or sometimes a comprehensive, approach widens this aperture to include all organizations operating in a conflict area to support peace and stability and to reach common goals, though typically not so far as to achieve an integrated response.

5 See *Beyond Ad Hoc: The Role of Inter-Organizational Collaboration in U.S. Stabilization Efforts* by Brett C. Doyle, George Mason University, 2016.

6 The research did not include combat-oriented collaboration, such as military-to-military engagements to build partner combat capabilities.

7 PRTs were U.S. provincial level combined military and civilian teams focused on reconstruction and stabilization that were active both in Iraq and Afghanistan, though with notable differences. Iraq PRTs were civilian led and predominately civilian staffed, while Afghanistan PRTs were predominately military led and had a majority of military staff. There were also a number of international partner led and staffed PRTs in both countries, though they were more prevalent in Afghanistan.

8 "Beyond Ad Hoc" is also scheduled for publication as part of the Simons Center's *InterAgency Study* series in March 2019.

9 Robert Agranoff, *Leveraging Networks: A Guide for Public Managers Working across Organizations*, The IBM Endowment for the Business of Government, 2003, http://www.businessofgovernment.org/sites/default/files/LeveragingNetworks.pdf.

10 In the original theory, "Synchronization" networks are termed "Outreach" networks, and "Joint Action" networks are termed "Action" networks.

11 Kirk Emerson, Tina Nabatchi, and Stephen Balogh, "An Integrative Framework for Collaborative Governance," *Journal of Public Administration Research and Theory,* Vol. 22, No. 1, 2012, pp. 1-29, doi:10.1093/jopart/mur011.

12 Ibid.

13 Personal Interview, Afghanistan Rule of Law, 11 November 2013.

14 Mark R. Hagerott, Thomas J. Umberg, and Joseph A. Jackson, "A Patchwork Strategy of Consensus Establishing Rule of Law in Afghanistan," *Joint Forces Quarterly*, Vol. 59, 2010, http://www.ndu.edu/press/lib/images/jfq-59/JFQ59_143-146_Hagerott-Umberg-Jackson.pdf.

15 Personal Interview, Afghanistan Rule of Law, 11 November 2013.

16 Special Inspector General for Afghanistan Reconstruction, *Support for Afghanistan's Justice Sector: State Department Programs Need Better Management and Stronger Oversight*, Publication No. 14-26, January 2014, https://www.sigar.mil/pdf/audits/SIGAR_14-26-AR.pdf.

17 Ibid.

18 Personal Interview, Iraq Rule of Law, 27 April 2014; Jerry Meyerle, Megan Katt, and Jim Gavrilis, *Counterinsurgency on the Ground in Afghanistan: How Different Units Adapted to Local Conditions*, CNA, November 2010, http://www.dtic.mil/dtic/tr/fulltext/u2/a533649.pdf.

19 U.S. Department of State and the Broadcasting Board of Governors Office of Inspector General, *Inspection of Rule-of-Law Programs, Embassy Baghdad*, Publication No. ISP-IQO-06-01, October 2005, http://oig.state.gov/documents/organization/103473.pdf.

20 Personal Interview, Iraq Provincial, 17 September 2013.

21 Eugene Bardach, *Getting Agencies to Work Together* (Washington, D.C.: Brookings Institution Press,

1998).

22 L Cravens, "The Spark of Rebellion: Hunkering Down," *War on the Rocks*, April 9, 2014, warontherocks.com/2014/04/the-spark-of-rebellion-hunkering-down.

23 European Union, *Fact Sheet: The EU and South Sudan*. , December 2014, http://eeas.europa.eu/statements-eeas/2014/141215_05_en.htm; United Nations Development Programme, *South Sudan Annual Report 2013*, http://www.ss.undp.org/content/dam/southsudan/library/Reports/AnnualReports/UNDP%20South%20Sudan%20Annual%20Report%202013.pdf

24 Robert E. Kemp, "Provincial Reconstruction Teams in Eastern Afghanistan: Utility as a Strategic Counterinsurgency Tool," *Military Review*. September/October 2011, http://usacac.army.mil/CAC2/MilitaryReview/Archives/English/MilitaryReview_20111031_art007.pdf; John K. Naland, *Lessons from Embedded Provincial Reconstruction Teams in Iraq*, United States Institute of Peace, October 2011, http://www.usip.org/publications/lessons-embedded-provincial-reconstruction-teams-in-iraq.

25 Special Inspector General for Iraq Reconstruction, Lessons Learned on the Department of Defense's Commander's Emergency Response Program in Iraq, Publication No. 13-005, 24 January 2013, https://info.publicintelligence.net/SIGIR-IraqCERP.pdf

26 Personal Interview, Iraq Rule of Law, 24 September 2013; Personal Interview, Afghanistan Provincial, 23 January 2014.

27 Personal Interview, Afghanistan Rule of Law, 11 November 2013.

28 United States Agency for International Development, *Provincial Reconstruction Teams in Afghanistan: An Interagency Assessment*, June 2006, http://pdf.usaid.gov/pdf_docs/Pnadg252.pdf.

29 Andrea Strimling Yodsampa, *No One in Charge: A New Theory of Coordination and an Analysis of US Civil-Military Coordination in Afghanistan 2001–2009*, UMNI No. 3465447, April 2011.

30 Ibid.

31 Bardach.

32 This included needing to comply with the Philippine Constitution and several U.S./Philippine bilateral agreements. Fran Beaudette, "JSOTF-P Uses Whole-Of-Nation Approach to Bring Stability to the Philippines," *Special Warfare Magazine*, July/September 2012, http://www.soc.mil/swcs/swmag/archive/SW2503/SW2503BringStabilityToThePhilippines.html.

33 Yodsampa.

34 Close association between civilians and the military sharing the same difficult living conditions and hostile environment frequently resulted in PRT members expressing admiration for their military counterparts. Said one, "Being embedded, we were living and working like the military, which gave me a new appreciation for the work they do and the lives they lead." It was also even suggested that both the shared difficult living and working conditions faced in Iraq helped contribute to eventual cohesion between the civilian and military overall. Shawn Dorman, "Iraq PRTs: Pins on a Map," *Foreign Service Journal*, Vol. 84, No. 3, March 2007, p. 28.

35 Meyerle, et al.; Yodsampa.

36 Civilians may have had, due to chance or design, better living quarters than military personnel of comparable rank and operated with different benefits. For example, U.S. civilian staff received about two months of leave annual compared to two weeks typical for a military tour. However, the leave and hardship pay benefits for U.S. civilians were actually consistent with United Nations standards (though not military standards) for service in conflict zones.

37 United States Institute of Peace, Interview 67, *Oral Histories: Iraq Provincial Reconstruction Teams (2008-2009)*, December 9, 2008, http://www.usip.org/publications/oral-histories-iraq-provincial-reconstruction-teams-2008-2009.

38 Yodsampa.

39 Ibid.

40 Emerson, et al.

41 United States Agency for International Development.

42 This excerpt summarizes the dilemma this presented for U.S. PRT staff in accessing USAID funding: "We'd have a dialogue, led by a governor, regarding prioritizing their needs. For example, they would say, 'We need schools, so kids won't go to *madrasas* in Pakistan.' …When we'd go to USAID, they'd say, 'That's not part of the national strategy for Afghanistan. We'll do that in two years.' They were all about central government capacity. We'd say, 'We're bleeding here. We need a school here now, not in two years.' So, we'd do it with CERP money…It was very frustrating." Yodsampa, pp. 205-206.

43 Jocelyn Fritsch, *Understanding U.S. Civil-Military Cooperation in the U.S. Provincial Reconstruction Teams (PRTs) in Afghanistan*, September 2012, http://conservancy.umn.edu/handle/11299/142308.

44 Further, there is at least some evidence that in complex environments, planning in general is of limited utility, in that comprehensive rational planning is less useful in preventing error in complex environments in which stabilization networks function. More successful collaboration and partnering could involve correct mirroring or alignment of planning, resource direction, and implementation linkages between U.S. civilians and military. Bardach.

45 Embedded PRT, or ePRT.

46 J. Anita, *Working Under the Gun: Examining How U.S. Led Provincial Reconstruction Teams in Iraq are Evaluated*, unpublished manuscript, 2009, pp. 13-14.

47 For further information on maintaining continuity in conflict situations, see Brett Doyle, "Reconstruction and Stabilization Continuity of Operation: Insights from Iraq Provincial Reconstruction Teams," *Peace Keeping and Stability Operations Institute Perspectives*, 2012.

48 Yodsampa.

49 Fritsch.

50 Michelle Parker, *The Role of the Department of Defense in Provincial Reconstruction Teams,* No. CT-290, RAND, September 2007, https://www.rand.org/content/dam/rand/pubs/testimonies/2007/RAND_CT290.pdf.

51 U.S. Army Center for Law and Military Operations, *Rule Of Law Handbook: A Practitioner's Guide For Judge Advocates*, 2011, http://www.loc.gov/rr/frd/Military_Law/pdf/rule-of-law_2011.pdf.

52 United Nations Security Council, *Report of the Secretary-General on South Sudan*, Publication No. S/2014/709, September 30, 2014, http://www.un.org/en/sc/documents/sgreports/2014.shtml.

53 Personal Interview, Afghanistan Provincial, 23 January 2014; Carter Malkasian, and Gerald Meyerle, *Provincial Reconstruction Teams: How Do We Know They Work*, U.S. Army War College, March 2009, http://www.strategicstudiesinstitute.army.mil/pubs/display.cfm?pubID=911.

54 This role could also be added to the chartering authorizations of UN security forces. However, in the former case, due care should be taken to not jeopardize the humanitarian or peacekeeping role of the UN security force due to the often perceived political nature of stabilization interventions.

55 However, as simple as this idea may be, its implementation may not be feasible given standard organizational practices requiring interaction at a peer to peer basis (e.g. D.C. to D.C. level or HQ to HQ level, donor to donor, and field to field levels) across organizational boundaries. Yet, the basic principal of including those organizations with direct control of the resources in joint or shared planning processes should be kept in mind and applied when possible.

Worth Noting

Ambassador Reddick visits Fort Leavenworth

Retired Ambassador Eunice Reddick visited Fort Leavenworth in December, serving as the DACOR visiting professor of diplomacy for the U.S. Army Command and General Staff College (CGSC) Class of 2019. Reddick, who served as the U.S. Ambassador to Niger from 2014 to 2017, visited Fort Leavenworth Dec. 2-6, 2018.

During her visit to the area, Ambassador Reddick visited with the students and faculty at CGSC's School of Advanced Military Studies (SAMS), where she learned about the SAMS program and participating in a seminar on civil-military relations. Reddick also sat on an interagency panel with representatives from the Department of State, U.S. Agency for International Development, Central Intelligence Agency, and Federal Bureau of Investigation.

On the afternoon of Dec. 4, Ambassador Reddick participated in a "Lunch & Learn" at the University of Saint Mary (USM) in Leavenworth, Kan. At USM, Reddick met with students and faculty, speaking on "Africa at a Crossroads." She discussed the continent's unprecedented growth and advancement, as well as lingering threats, such as political instability and terrorism. Reddick also informed students on the wide variety of careers available in the foreign service, and encouraged the faculty on how to prepare students for such careers.

Later in the evening, Reddick attended a "Plato's Cave" dinner with CGSC students and faculty. The topic at hand was "Tomorrow's Leader: Military Genius or Artificial Intelligence," and the discussion was facilitated by Bud Meador and Major Dana Gingrich.

Ambassador Reddick spent Dec. 5 at the University of Kansas (KU) in Lawrence, Kan. While at KU, Reddick attended a class on the French-speaking world outside of France, where she spoke about colonialism, slavery, imperialism, and U.S. involvement in the Congo, Haiti, and Vietnam. While at KU, Reddick visited with the KU School of Languages, Literature & Culture, where she spoke about her career and career opportunities in the foreign service. Reddick also participated in a lunch discussion on Country Team dynamics.

Ambassador Reddick later traveled to Park University in Parkville, Mo., where she participated in a round table discussion on "China's Strategy in Africa and Asia: Why It Matters to the U.S."

On the last day of her visit, Ambassador Reddick visited with students and faculty at Leavenworth High School (LHS) in Leavenworth, Kan. At LHS, Reddick met with AP Government students, where she spoke to them about career opportunities in the foreign service, her experience as an Ambassador, and foreign policy development.

Ambassador Reddick will return to the area in the spring for her final visit as the DACOR Visiting Professor of Diplomacy for academic year 2019.

The DACOR Visiting Professor of Diplomacy Program is conducted in partnership with the Diplomatic and Consular Officers, Retired, Inc. (DACOR) organization located in Washington D.C., and the U.S. Army Command and General Staff College Foundation. Several times a year retired senior officials, usually Ambassadors with extensive diplomatic experience, come to Fort Leavenworth to interact with the U.S. Army Command and General Staff College students and

faculty to provide a Department of State and Chief of Mission perspective to the curriculum. During their visit they also interact with area universities and civic organizations discussing policy, regional, and political expertise, as well as speaking about careers in the Foreign Service.

The DACOR Visiting Professor of Diplomacy Program for academic year 2019 has been made possible with support from the University of Saint Mary and Park University.

- Simons Center

Government climate change report released

The U.S. Global Change Research Program published their Fourth National Climate Assessment in November. The report was released the day after Thanksgiving, and its findings run counter to the Trump Administration's public statements on the subject of climate change.

According to the report, "Climate change threatens the health and well-being of the American people by causing increasing extreme weather, changes to air quality, the spread of new diseases by insects and pests, and changes to the availability of food and water." The report also states that "Human health and safety, our quality of life, and the rate of economic growth in communities across the U.S. are increasingly vulnerable to the impacts of climate change."

The U.S. Global Change Research Program is a multi-agency federal program mandated by Congress to coordinate federal research and investments in understanding the forces shaping the global environment, both human and natural, and their impacts on society.

- U.S. Global Change Research Program

CASA presents at IA Brown-Bag

Civilian Aide to the Secretary of the Army (CASA) Michael D. Hockley led a discussion on the CASA program in the 5th Interagency Brown-Bag lecture of the 2019 academic year on Dec. 12, in the Arnold Conference Room of the Lewis and Clark Center, home of the U.S. Army Command and General Staff College.

During his presentation Hockley provided information on the history of the CASA program and outlined how The Honorable (Dr.) Mark T. Esper, Secretary of the Army, uses his Civilian Aides across the country to keep the public informed, advise him on regional issues, and to tell the Army's story to the civilian populace in the various CASA regions around the country.

Hockley is a law partner with Spencer Fane, LLP, in Kansas City. His practice concentrates on litigation, environmental law, and renewable energy. He serves in leadership roles in a variety of civic, professional, and business organizations to include founding trustee and chair of the Command and General Staff College Foundation; past chair, United Way of Greater Kansas City Board of Trustees; treasurer, board of regents, American College of Environmental Lawyers; and member, board of directors, Armed Forces Bank NA. He was named amongst the Best Lawyers in America as Kansas City Environmental Lawyer of the Year in 2012, 2016, and 2018, and received the Ben Craig Distinguished Service Award from the Overland Park Rotary Club in 2014.

Hockley graduated from the United States Military Academy in 1973 and the University of Nebraska College Of Law in 1980. He served for 28 combined years as an active duty and reserve Army officer. He was sworn in as the Civilian Aide to the Secretary of the Army for Kansas (East) in April 16, 2018.

The InterAgency Brown-Bag Lecture Series is co-hosted by the CGSC Foundation's Simons Center with the U.S. Army Command and General Staff School (CGSS). The lecture series is an

extracurricular, interagency topic-focused series that is intended to help enrich the CGSS curriculum. The CGSC Foundation and the Simons Center have received support for all brown-bag lectures in academic year 2019 from First Command Financial Services in Leavenworth, Kansas.

- Simons Center

Vietnam Lecture focuses on 1968 presidential election impact

The 12th lecture in the Vietnam War Commemoration Lecture Series was conducted Nov. 27 at 6:30 p.m. in the Stove Factory Ballroom in downtown Leavenworth, Kansas (417 S. 2nd Street). A reception sponsored by the CGSC Foundation began at 6 p.m.

In this most recent lecture, Col. Pat Proctor, Ph.D., discussed the 1968 presidential election and its impact on the Vietnam War in the midst of one of the most tumultuous years in U.S. political history. In his presentation, Proctor discussed the domestic issues surrounding the debate on the nation's participation in the Vietnam War, fractures in the Democratic Party, race politics and the generational divide and how all they converged to reshape the nation's political landscape for the remainder of the Cold War.

Colonel Proctor is an active duty U.S. Army officer with more than 26 years of service and is a veteran of the conflicts both in Iraq and Afghanistan. He served with the small group of soldiers, scholars and diplomats working under General David Petraeus and Ambassador Ryan Crocker that created the strategy for the war in Iraq that came to be known as the Iraq "Surge."

Proctor has written extensively on current affairs, military history, and military simulation topics with numerous articles in multiple publications. His book titles include: Blameless? The 1990s and the U.S. Army's Role in Creating the Forever-Wars in Afghanistan and Iraq, Containment and Credibility: The Ideology and Deceptions that Plunged America into the Vietnam War, and Task Force Patriot and the End of Combat Operations in Iraq.

Col. Proctor earned his bachelor's degree in mechanical engineering from Purdue University. He also holds three master's degrees – one from the U.S. Army War College, one from the School of Advanced Military Studies (SAMS) and one from the U.S. Army Command and General Staff College. He also earned a doctorate in history from Kansas State University. Col. Proctor currently serves as a chief of operations group at the Mission Command Training Program (MCTP) at Fort Leavenworth, training the U.S. Army's functional and multi-functional brigades.

American involvement in Vietnam lasted 20 years and spanned three decades – from Nov. 1, 1955 to May 15, 1975. Nine million Americans, approximately 7.2 million living today, served during that period. The nation has embarked on a commemoration of the war on its 50th anniversary to recognize those that served and to help the public learn about the war and the lessons it provides. The Vietnam War Commemoration Lecture Series is conducted in support of that commemoration. This lecture series is presented by CGSC's Department of Military History, U.S. Army Garrison Fort Leavenworth and supported by the CGSC Foundation and the Henry Leavenworth Chapter of AUSA. The CGSC Foundation has received additional support for the Vietnam lectures in academic year 2019 from First Command in Leavenworth, Kansas.

- Simons Center

Cyberwar, deterrence, and 'unpeace' subject of IA brown-bag

University of Kansas Professor of Law, Dr. Michael Hoeflich led a discussion on deterrence and international law in the cyber domain at the U.S. Army Command and General Staff College on Nov. 14. Dr. Hoeflich's presentation was part of the InterAgency Brown-Bag Lecture Series for academic year 2019.

Hoeflich began his presentation with a brief summary of the cold war, contrasting the threat of nuclear war to current threats faced in the cyber domain. With the rise of non-state and individual bad actors, said Hoeflich, the threat of mutually assured destruction is no longer a deterrent. Instead, there exists a state of "unpeace." The U.S. is not at war. The threat actors are not easily identifiable and can not be countered by kinetic weapons, but the threat is always there.

Hoeflich went on to review two recent cyber strategies produced by the White House and the Department of Defense. The strategies provide an updated definition of deterrence and outlines the military's jurisdiction in the cyber domain. However, according to Hoeflich, the strategies focus too heavily on threats from Russia and China, ignoring other state actors (e.g. North Korea and Iran) and non-state actors. The new cyber strategies also fail to clearly define who is responsible for defending entities and institutions outside the defense industrial base from cyber threats.

Dr. Michael H. Hoeflich is the John H. & John M. Kane Distinguished Professor of Law at the University of Kansas and director of the new master's degree program in Homeland Security Law & Policy at the University of Kansas. He is an expert on cyber law, policy and the integration of the private and public sector. Dr. Hoeflich holds a juris doctor degree from Yale Law School and a Ph.D. from Cambridge University. He has taught at the University of Illinois, Syracuse University, and the University of Kansas and served as dean of the law schools at Syracuse and Kansas. Among his academic interests, ethics has played an important role for nearly four decades. Dr. Hoeflich has published numerous books and articles on the subject.

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- Simons Center

Chiefs of Defense Conference focuses on countering violent extremism

Representatives from 83 nations participated in the third annual Counter Violent Extremist Organizations Chiefs of Defense Conference hosted by chairman of the Joint Chiefs of Staff Marine Corps General Joe Dunford. The event, held in October, included U.S. combatant commanders and commanders of counterterrorism operations from around the world.

At the conference, Dunford spoke of the need to focus on the underlying conditions that lead to radicalization, saying that a whole-of-government approach is required. Economic development, education, healthcare, and infrastructure are essential to maintaining societies and countering extremism

- Department of Defense

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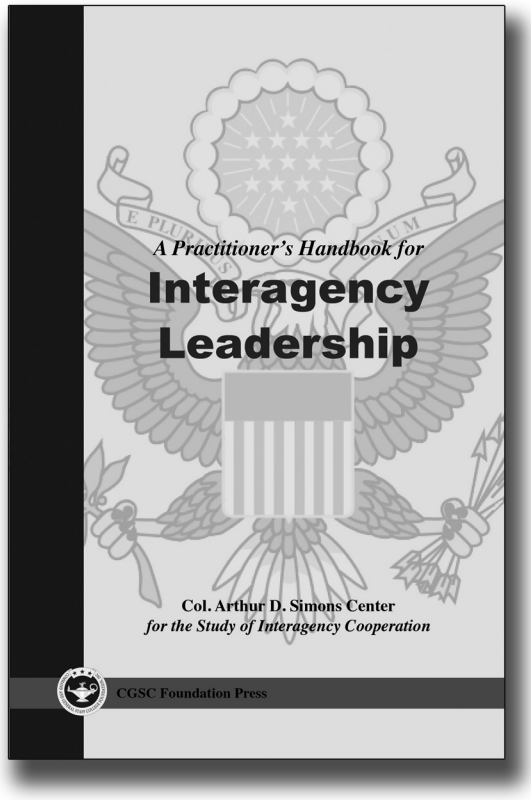
The Simons Center for Interagency Cooperation and the Command and General Staff College Foundation are pleased to bring this publication to the professional discourse. This practitioner's handbook for leading in the JIIM is a useful reference that provides information to better understand why and how the environment is different than what you know in your agency.



You don't lead by hitting people over the head – that's assault, not leadership.

— Dwight D. Eisenhower

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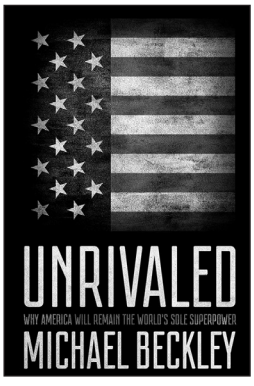
Book Review



Unrivaled: Why America Will Remain the World's Sole Superpower

Michael Beckley

Cornell University Press: Ithaca, New York, 2018, 231 pp.

Reviewed by Dr. David A. Anderson
Professor, U.S. Army Command and General Staff College

Author Michael Beckley is a Fellow in the International Security Program at Harvard Kennedy School's Belfer Center for Science and International Affairs and he is an Assistant Professor of Political Science at Tufts University. In *Unrivaled*, Beckley addresses how and why the U.S. will remain the world only super power for the foreseeable future. The author immediately grabs your attention by stating that in spite of the U.S.' relative mediocrity among developed nations regarding state power influencers such as education, government efficiency, and public/private sector infrastructure, the U.S. is home to six-hundred of the top two-thousand businesses in the world. It represents twenty-five percent of world Gross Domestic Product (GDP), forty percent of global military spending, and houses fifty of the top one-hundred universities in the world. Therefore, the U.S. must have underlying strengths that are not readily apparent that gives it sole super power status.

In support of his thesis and to validate his model, Beckley systematically builds an argument rooted in international relations state power theory, a hybrid quantitative state power model he designed, and comparative historical cases analysis. The premise of his analytical approach lies in his belief that the commonly used aggregation of population, GDP, and defense expenditures to derive a state's power overestimates the true power of a state. It overlooks critical factors that have associated costs that erode a state's actual power. It does not account for the costs of such things as policing/governing the state, economic production efficiency, social welfare costs, state security costs, innovation, debt, education, and natural resources, etc. Beckley captures these costs in his created power formula, GDP X GDP per/capita, which generates a figure that more accurately discloses a nation's real state power. In other words, his is a power measurement that measures a state's resource use relative to outcomes.

Before ultimately conducting a comparative state power analysis between the U.S. and China—the focus throughout the remainder of the book (China being the only plausible threat to U.S. primacy today)—Beckley tests his model against the power outcomes of multiple historical power

rivalries that have taken place during the past two-hundred years. They include Britain/China 1839-1911, Japan/China 1874-1945, Germany/Russia 1891-1917, and U.S./Soviet Union 1946-1992. The Britain/China and Japan/China cases demonstrate how China, with the world's largest population, GDP, and military is challenged by economic inefficiencies, social welfare issues, and domestic/border security issues and can be defeated by countries that are by all accounts smaller. The Germany/Russia example identifies similar characteristics of the two previous case studies but also highlights the importance of economic efficiencies and military technological innovation that were critical factors in Germany's favor that led to Russia's overwhelming defeat during World War I. Finally, the U.S./Soviet Union illustration exemplifies the appearance of power over substance. The Soviet Union appeared to be a powerful peer rival of the U.S., but was discovered to be a paper tiger that eventually crumbled under the weight of its economic inefficiencies, social welfare failings, geography and collective security cost challenges. With his model now validated through extensive case study examination the author turns his model toward a comparative assessment of China's power relative to U.S. power. What follows are some of the most significant illustrations of his findings.

Beckley's model identifies China's economy as overrated. Its GDP appears as a false indicator of its wealth projection since the Chinese government has a history of providing false economic figures that inflate the economic reality on the ground. With a population one-quarter the size of China's, the U.S. represents twenty-five percent of global GDP, the largest share by any one nation. China is losing businesses and Foreign Direct Investment (FDI), has a large debt burden in both the public and private sector, and environmental pollution problems resulting from poor regulation of industry. China's debt burden is notably greater than the U.S. and the U.S. attracts far more FDI to foster economic growth. Most of China's economic growth is in the form of labor expansion and capital growth, not in the more meaningful form of productivity growth. China's new product innovation is one-third of that of the U.S. and its research and development spending is only one-quarter of the U.S. Seventy-six percent of China's working age population has not graduated high school. Only ten percent of China's workforce is college educated whereas forty-four percent of the U.S. workforce is. China's educational system is woeful when compared to the U.S. in developing advanced worker skill sets that directly enhance the economy. China has only seven universities rated in the top 200 around the world and only two in the top one-hundred. The U.S. has fifty of the top one-hundred universities. China faces a forty million worker skills gap by 2030. The U.S. is richer in natural resources such as oil, natural gas, and coal, has more infrastructure, capital, and institutional capacity, a better demographic age distribution, a more favorable immigration pattern, and a more robust educational system/approach to meet its economic needs. Communist capitalism is inescapably proving to be inferior to democratic/liberalist capitalism.

China faces severe state capacity issues from a welfare and security viewpoint. China has poorer health habits and spends one-third as much on health care than does the U.S. Beckley finds this issue alone problematic since by 2055 China will have 410 million people 65 years of age and older. China faces notably more civil unrest than the U.S., thirty percent of China's income is spent on feeding the populous, an economically unhealthy figure for an economy. It also runs a 2.5 trillion dollar social security deficit—a deficit far greater than the U.S. China's national defense is five to ten times less capable than the U.S. and is inferior in all regards. China is also surrounded by enemies and spends a disproportional part of its budget on personnel and homeland security compared to the U.S. with its friendly borders. Fifteen percent of China's defense budget goes toward supporting

border defense troops, alone.

Concerning international diplomacy, institutions, and alliances, the U.S. remains the overall global leader with negligible international counter balance efforts facing it. The U.S. operates in a relatively globally permissive environment. However, the U.S. and China are both members of the United Nations Security Council—a powerful geopolitical and often counterbalancing position among United Nations member states. The U.S. is a leader among the top international financial institutions e.g., The World Bank, the International Monetary Fund, the World Trade Organization (WTO), numerous regional development banks, and the second largest multilateral trade arrangement, the North America Free Trade Agreement. As a leader and founding member of the WTO, and as a nation in good economic/diplomatic standing among the global community, the U.S. wins some eighty percent of the fair trade complaints it wages to the WTO and forty percent of the cases brought against it. China wins only forty-one percent of the fair trade complaints it brings forward and only twenty-three percent of those waged against it. The U.S. is also the leader of the largest political/military alliance in the world, the North Atlantic Treaty Organization. U.S. alliances collectively represent twenty-five percent of the world's population and seventy-five percent of global GDP while China maintains many fragile bilateral/multilateral arrangements with primarily regional partners, and in many cases, just as an observing member. The one exception is the Asian Infrastructure and Investment Bank which it created and leads consisting of eighty member countries from around the world.

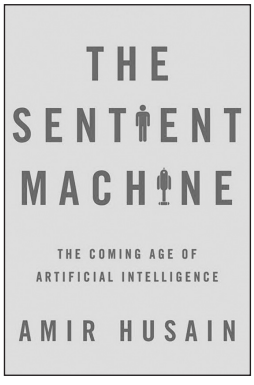
Beckley closes with his perspective on a unipolar world led by the U.S., along with some recommendations for U.S. policy going forward. He believes unipolarity leads to a lower probability of a great power war but it increases the possibility of asymmetric conflict. It can also lead to a continuous over extension of the U.S. government budget by way of economic diplomacy and military power projection in an effort to secure a global environment to its liking. It may also weaken U.S. national unity and the liberalist world order it leads. The U.S. could eventually end up turning on itself over foreign and domestic policy, pitting political party against political party and special interest groups against each other. This may lead to an underlying dysfunction of government and loss of unipolar power. Finally, a global power without global interests could lead to global chaos.

In order to maintain its global power status, Beckley recommends that the U.S. deemphasize the use of the military instrument of power and stress the use of diplomacy to secure its interests. The U.S. should not be worried about securing such things as Middle East oil. After all, no one country can seize control of it. He believes it necessary to double the funding for foreign aid, peacekeeping efforts, and diplomacy. Furthermore, the U.S. should open its doors wider to skilled labor immigration and make its domestic political fundraising apparatus more transparent to ensure the interests of the few are not prioritized over the interests of the majority.

Unrivaled is a skillfully crafted and superbly researched body of work, with over nine-hundred endnotes. The author unquestionably wages a compelling argument for U.S. primacy going forward. The book is full of insightful and intriguing facts and figures that are as interesting on their own merit as they are collectively convincing in support of the author's thesis. It is a plethora of critical analysis of state power indicators, rivaled by few think tank organizations, let alone individual authors.

The sole criticism of the book is in Beckley's recommendations. They do little justice to his investigative analysis, adding modestly to advancing this very important topic. That being said, whether you agree with the author's state power formula, assessment, and/or recommendations, you are thoroughly impressed with the meticulous rigor and thought-provoking effort put forward on

the subject of state power. The book is a treasure trove of information for academics and scholars to debate and advance. Practitioners, scholars, and students of international relations, strategic studies, economics, political science, state diplomacy, government policy, and military professionals will find this book a most interesting read and well worthy of their time. ***IAJ***



The Sentient Machine: The Coming Age of Artificial Intelligence

Amir Husain

Scribner: New York, New York, 2017, 214 pp.

Reviewed by Chaplain (Maj.) Marlon W. Brown
U.S. Army, Fort Leavenworth, Kansas

In a time in which technology both excites and frightens, *The Sentient Machine* is a useful primer for anyone seeking a thorough explanation of the current and future applications of artificial intelligence (AI) technologies. Amir Husain approaches the topic as a true believer in AI's dominant future. As a computer scientist, technologist, and inventor holding two dozen patents, Husain speaks from practical experience and personal passion. He convinces that AI is progress that we must embrace.

The work is organized in three major parts. The first is an effort to clearly define the technology of artificial intelligence for a lay reader. Knowing the term is thrown around exhaustively and often carelessly, Husain helps the reader clearly define the technology and differentiate between artificial narrow intelligence, like Apple's Siri, and artificial generalized intelligence, a coming technology that combines intention and self-awareness. He follows with coverage of current and impending applications of AI in such diverse fields as healthcare, finance, and—importantly—warfare. The final part concludes the work with a focus on philosophical considerations surrounding the future birth of sentient machines. The book clearly proclaims that AI is both already here and quickly approaching.

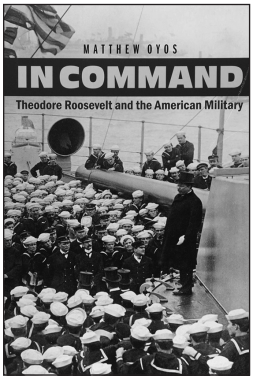
Husain packs his book with significant insights for anyone interested in AI's impact on national security. Information about AI's importance in everything from physical security to cyber security dominates the middle part of the book. An entire chapter is dedicated to "Warfare and AI" in which the author celebrates a future war when "human decision-making is almost entirely absent from the observe-orient-decide-act loop." He exhorts the military minded reader to embrace AI instead of ignoring it. Husain believes the U.S. must develop, work with, and trust the technology, recognizing that adversaries will forever exploit it for their interests even if we do not.

While technical subjects can often be daunting for casual readers, Husain tones down the technicalities for the benefit of a popular audience. He illustrates many of his points with welcome references to pop-culture, ancient myth, and world religion. Illustrations from the world of *Star Trek*

may be predictable, but they are still effective. The author doesn't limit himself to the sci-fi stalwart but also happily expounds upon other pop cultural representations, like Mary Shelly's *Frankenstein,* and more recent fare, like the film *Her*.

On several occasions, ancient myth and sacred texts are referenced to connect the reader to commonly held ideas about human existence and creation. Such philosophical issues are on grand display in the final part as he attempts to persuade the reader that we should separate our sense of human purpose from our economic productivity and evolve to the fundamental purpose of gaining knowledge. It is in this final part that the author lacks credible expertise. Husain demonstrates excellence when theorizing about the future but falls flat when channeling the philosopher or theologian. It is hard not to cringe when, in the final sentence before the epilogue, he proclaims, "Let there be AI . . ."

Ultimately, Husain provides an honest effort at fully educating readers on an important subject. In a culture widely impacted by the idea of an AI caused dystopian future, a la *The Terminator*, it is no wonder that many are genuinely uneasy, if not fearful, of both narrow AI and a future sentient machine. Husain admits the pervasive concern held by many, to include some of the technological elite. He counters with a hopeful approach to the subject that is both comforting and persuasive. ***IAJ***



In Command: Theodore Roosevelt and the American Military

Matthew Oyos

Potomac Books: University of Nebraska Press, 2018, 456 pp.

Reviewed by Col. Todd Schmidt
Military Research Fellow, Arthur D. Simons Center for Interagency Cooperation, Fort Leavenworth, Kansas

Biographies of presidents and studies on presidential leadership abound. Few catch the attention and imagination of the public or academia. Dr. Matthew Oyos, Professor of History at Radford University, has captured the attention of both audiences, providing a focused investigation and biography of President Theodore Roosevelt (T.R.) that not only treads new ground, but reveals a noteworthy genesis of change in American culture and civil-military relations that military professionals would be advised to read.

Oyos takes a research agenda that began at The Ohio State University with a 1993 two-volume doctoral dissertation chaired by renowned military historian Dr. Allan Millet and develops it into an immensely interesting and enlightening study that is justifiably recommended reading for today's generation of military officers. Oyos, a military historian by trade, focuses his research on examining the interplay of war and society and how war influences the course of human history. With this

volume, *In Command*, Oyos explores the influence of war on one of the U.S.' most consequential presidents and his subsequent influence on American society and the American way of war at the beginning of the 20th Century.

The temporal scope of the book focuses on 1897-1909 - T.R.'s time as Assistant Secretary of the Navy through his presidency. Historical context for the development of T.R.'s world view is given in the early chapters, describing him as a Janus-like figure, a Roman god "with one face looking forward and the other looking back." He is found, by the author, to be romantic figure with conflicting dualities. He is, at once, a progressive, pushing for reform, modernization and innovation, and a conservative, embodying and working to preserve traditional values and "'frontier virtues' of courage, honor, duty, and physical endurance."

The author seamlessly weaves his work with the histories of previous scholars, such as Dalton (1976) and Brands (1997), but magnifies his historical lens on T.R.'s approach to military affairs and his firm belief that military power "represented the vitality of American foreign policy…the vigor of the American people". This realist approach to international relations and foreign affairs by T.R. is put into action, practice and policy over the course of his public service. Oyos credits T.R. with expanding and reorganizing the U.S. Navy, promoting the development of submarines and submarine warfare, expanding international basing rights, advocating for administrative reform and active involvement in battleship design. Roosevelt saw in the Navy "the fighting edge of an expansionist foreign policy."

Oyos writes that although T.R. served as Assistant Secretary of the Navy and publicly declared his great admiration for the Navy, in practice and at heart, he was an U.S. Army Soldier. He was a combat veteran, heavily influenced by his formative military experiences as a "Rough Rider" with the 1st U.S. Volunteer Cavalry Regiment in the Spanish-American War in 1898. Above all traits in a Soldier, T.R. valued character. Military commanders and the nature of military command required aggressive, inspiring, and just men of courage, duty, and honor.

Chapters Four and Five stand out to this reviewer as exceptional. In these chapters, Oyos explores civil-military relations during the president's "accidental" administration, following the assassination of President William McKinley. Elevated to the presidency, T.R. prods the creation of the general staff, overhauls and expands military officer professional development and education, inserts himself into military personnel and promotion matters, and encourages the development of army aviation research and development. The friction he creates with his military elites is palpable. The outcomes of his agenda and policies, however, were instrumental in preparing the U.S. for involvement and victory in The Great War and the genesis for an evolution in American militarism and culture of war.

The book draws the reader in and flows beautifully, regardless of novice or expert. Readers will rediscover the history related to our 26th President. Along the way, they will discover new aspects of his leadership as it relates to the military as an institution, new influences he had on the course of U.S. history and international relations, and previously unknown facets of the civilian-military relationship he held with the U.S. military and military elites. In the end, the reader will agree with the author that T.R. is "one of the most important commanders in chief in American history." ***IAJ***

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